calpeda®

catalogue

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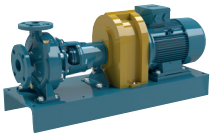
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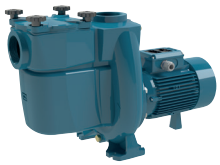
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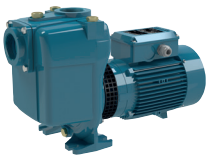
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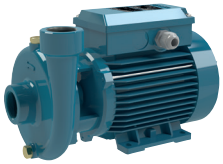
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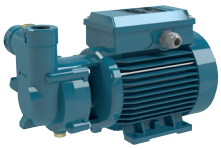


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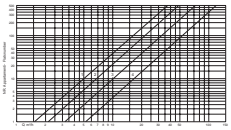
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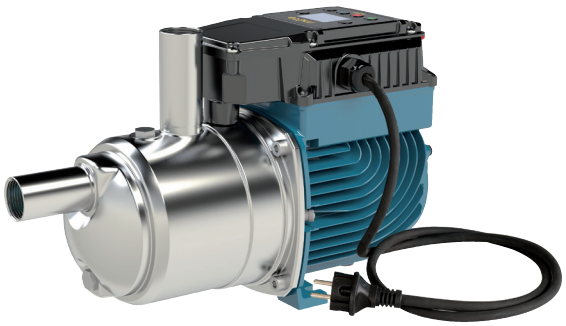


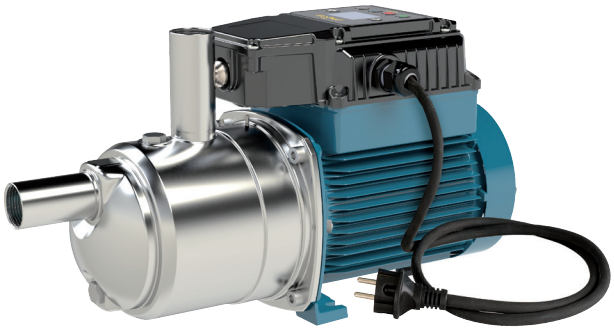
Technical appendix Page 682



MÈTA

calpeda®









EASY TO INSTALL
Plug And play solution

ECONOMIC SAVING
High efficiency asynchronous motor
Up to 450Wh less energy consumption compared to a standard solution

EASY TO USE
Equipped with a programmable software and, thanks to the analogic pressure sensor, the product allows to set the restart pressure.

Variable speed pressure boosting system with integrated control

MÈTA

calpeda®

Construction

Self-priming booster set with built in frequency converter.
MÈTA is a plug and play solution, the pump is equipped with an integrated pressure transducer, an integrated check valve and a built-in pressure vessel.
The Vsd controls the start and stop of the pump and allows to keep a constant pressure.

Boosting sets with 2 pumps
Suction and delivery manifolds in stainless steel AISI 304.
Connections for the installation of one G 1" connection pressure vessel

Applications

For water supply systems.
For domestic use, for garden use and irrigation.

Features

- integrated frequency converter
- built-in pressure vessel
- high efficiency asynchronous motor
- motor power control
- programmable re-start pressure
- no hydraulic losses due to the measuring devices
- voltage and current control
- monitoring of maximum starting current

Protections

- dry-run protection
- detects the presence of air in the pump casing
- overload control and overheating motor control
- pump blockage
- power supply control
- starts per hour control
- detects small leakages in the system

Operating conditions

Liquid temperature: 0 °C to +35 °C.
Ambient temperature up to 40° C.
Maximum permissible pressure in the pump casing: 8 bar.
Continuous duty.

Motor

2-pole induction motor.
Nominal speed 4500 rpm (5800 rpm per MÈTA SMALL)
- Motor: variable speed
Frequency: 50-60 Hz
Single-phase 220-240V~50Hz/220V~60Hz, with thermal protector.
Cable: H07RN8-F, 3G1,5 mm2, length 1,5 m, with plug
CEI-UNEL 47166.
Insulation class F.
Protection IP X4.
Constructed in accordance with EN 60034-1, EN 60335-1, EN 60335-2-41.

Materials

Components	Material
Pump casing	Cr-Ni steel 1.4301 EN 10088 (AISI 304)
Casing cover	Cr-Ni steel 1.4301 EN 10088 (AISI 304)
Pump shaft	Cr-Ni steel 1.4305 EN 10088 (AISI 303)
Suction casing	PPO-GF20 (Noryl)
Stage casing	PPO-GF20 (Noryl) (Cr-Ni steel AISI 304 for MÈTA SMALL)
Impeller	Cr-Ni steel 1.4301 EN 10088 (AISI 304)
Tank membrane	Butyl
Tank cover	POM - POLYACETAL
Membrane cap	POM - POLYACETAL
Non-return valve	POM - POLYACETAL
Plug	Cr-Ni steel 1.4305 EN 10088 (AISI 303)
Mechanical seal	Carbon - Ceramic - NBR

MÈTA

Performance

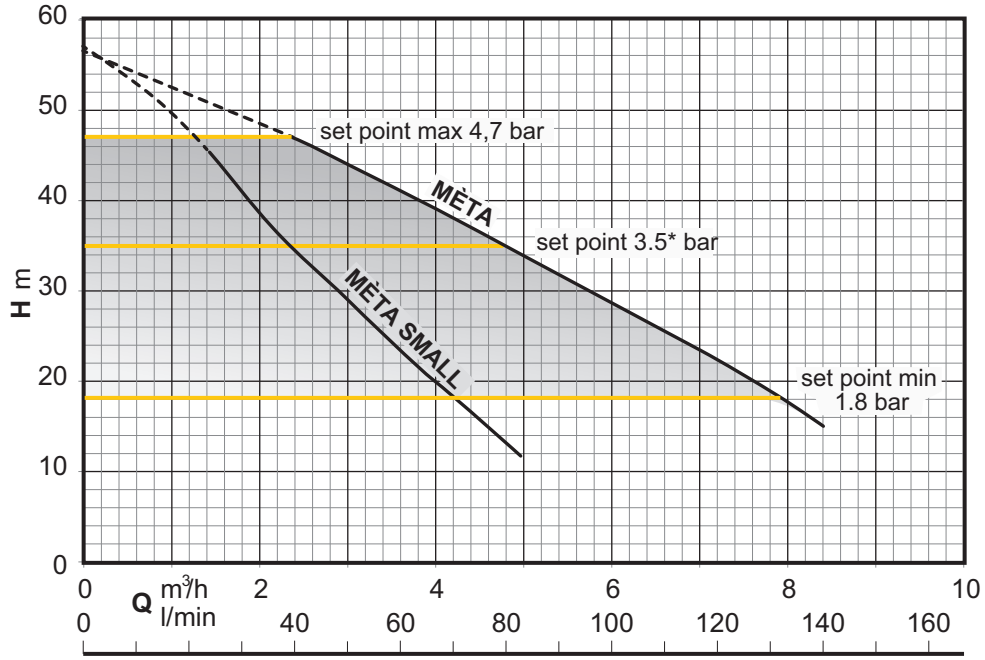
Single-phase

			Q = Flow											
			m³/h	0	1	2	3	4	5	6	6,5	7	8	8,4
Model	230V	P1	l/min		16,6	33,3	50	66,6	83,3	100	108	117	133	140
	A	kW	H (m) = Total head											
MÈTA SMALL	2,8	0,65		55	50	37,3	28,5	20,5	11,3	-	-	-	-	-
MÈTA	5,9	1,35		55	-	48	43,5	38,7	33,8	28,6	26	23,4	18,2	15

P1: Maximum power input.
H: Total head in m

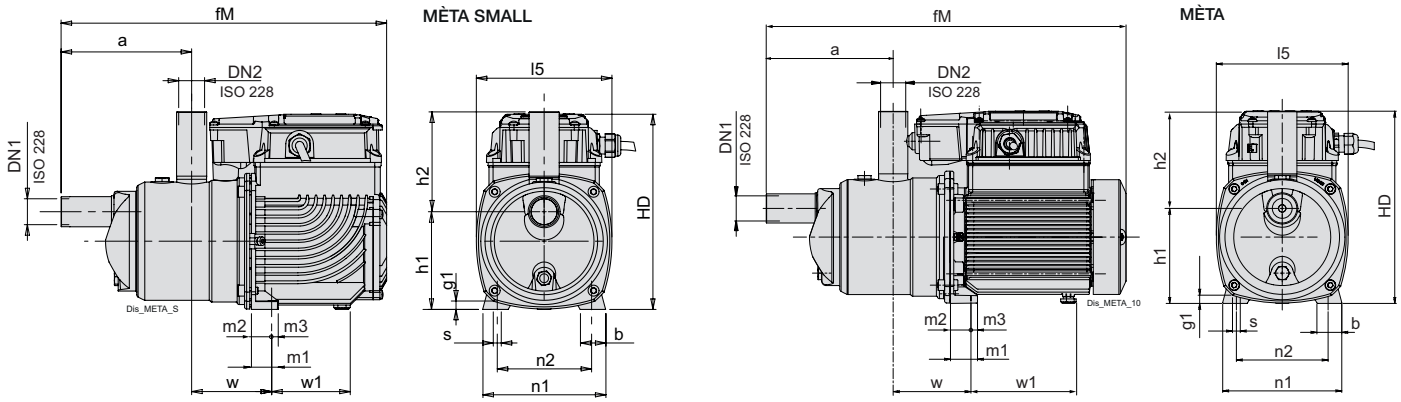
Test results with clean cold water, without gas content.
A safety margin of + 0.5 m is recommended for the NPSH value.
Tolerances according to UNI EN ISO 9906:2012

Characteristic curves



* Factory settings

Dimensions and weights



TYPE			mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l5	m1	m2	m3	n1	n2	s	w	w1	Weight
MÈTA SMALL	G 1	G 1	155	30	387	10	116	119	235	161	33	25	8	146	112.5	9	95	93	9.8
MÈTA	G 1	G 1	155	30	440	10	116	119	235	161	33	25	8	146	112.5	9	95	119	12.7

Weight with cable length: 1,5 m

MÈTA

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Performance

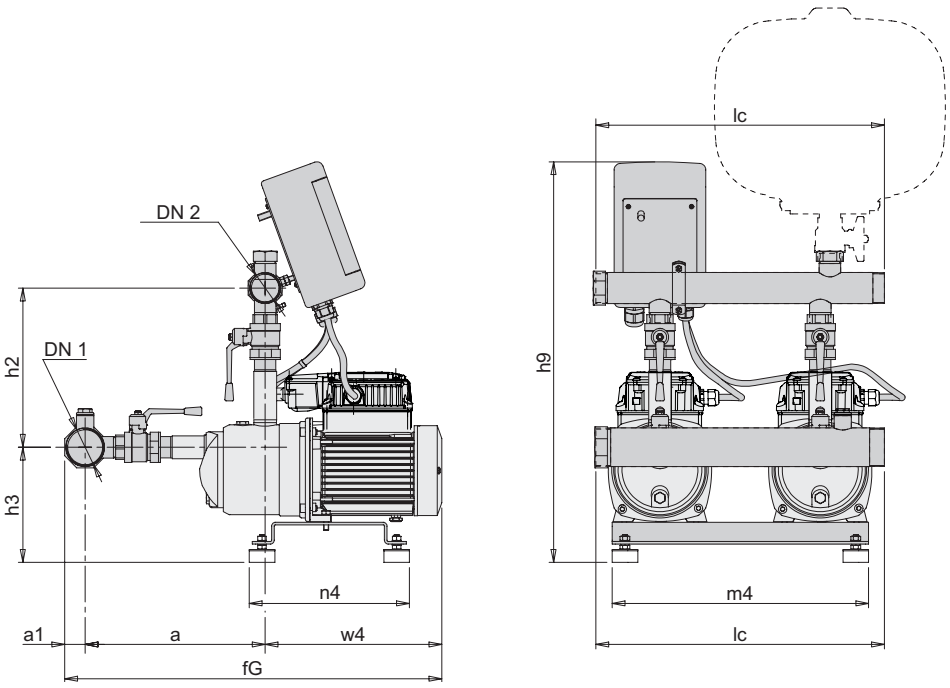
Single-phase

			Q = Flow										
			m³/h	0	2	4	6	8	10	12	13	14	16	16,8
Model	230V	P1	l/min		33,3	66,6	100	133	167	200	217	233	267	280
	A	kW	H (m) = Total head											
BSM2V 2 MÈTA SMALL	2 X 2,8	2 X 0.65		0	50	37,3	28,5	20,5	11,3	-	-	-	-	-
BSM2V 2 MÈTA	2 X 5,9	2 X 1.35		55	-	48	43,5	38,7	33,8	28,6	26	23,4	18,2	15

P1: Maximum power input.
H: Total head in m

Test results with clean cold water, without gas content.
Tolerances according to UNI EN ISO 9906:2012

Dimensions and weights

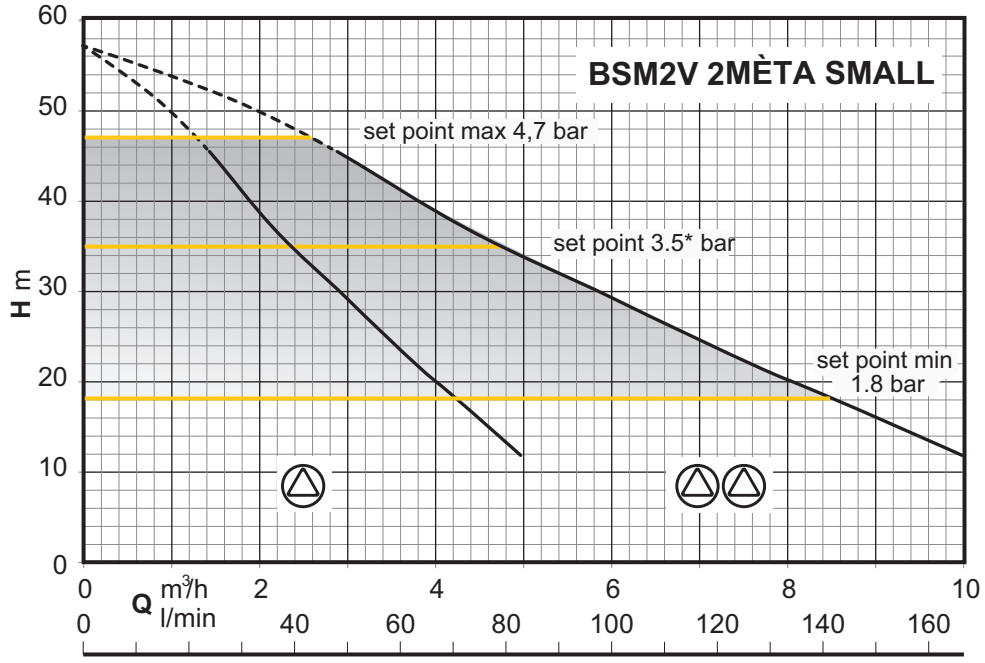


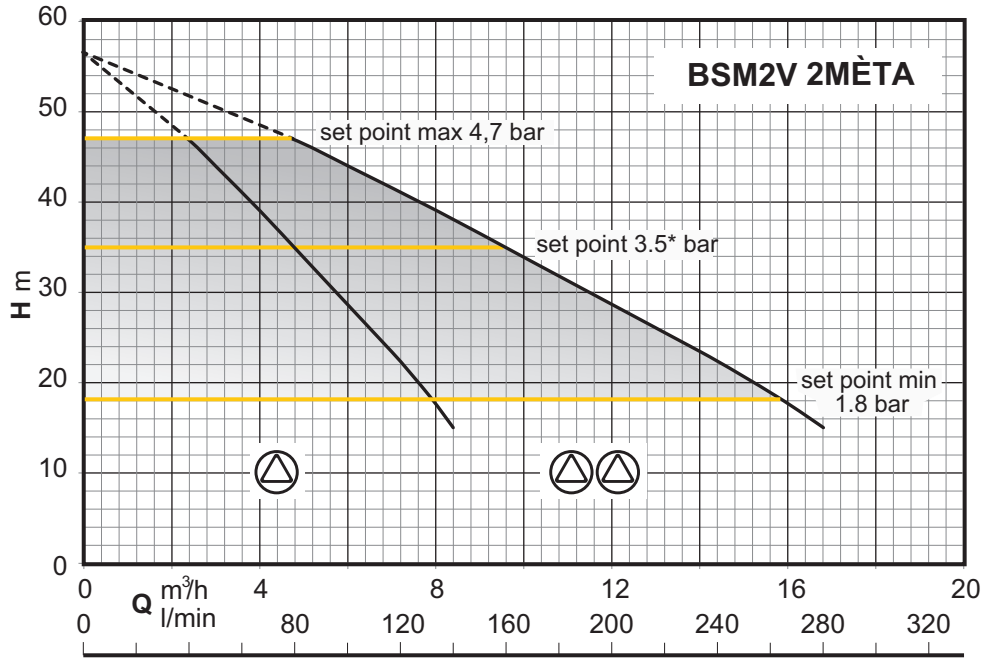
TYPE			mm										kg
	DN1	DN2	a	a1	fG	h2	h3	h9	lc	m4	n4	w4	Weight
BSM2V 2 MÈTA SMALL	G 2	G 1 1/2	291	32	555	248	179	625	450	400	250	285	31.7
BSM2V 2 MÈTA	G 2	G 1 1/2	291	32	608	248	179	625	450	400	250	285	37.2

MÈTA

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Characteristic curves





* Factory settings

MÈTA

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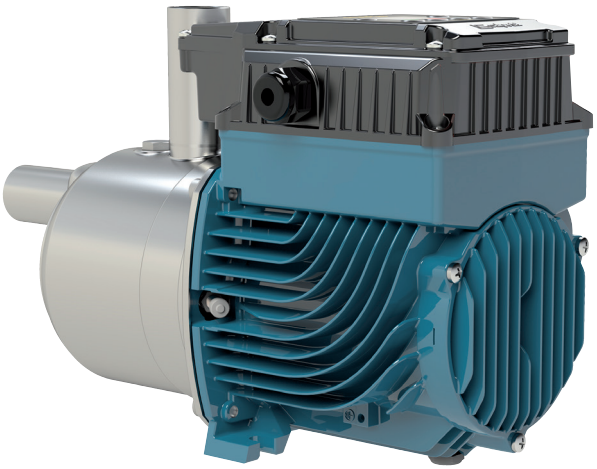
Control Panel



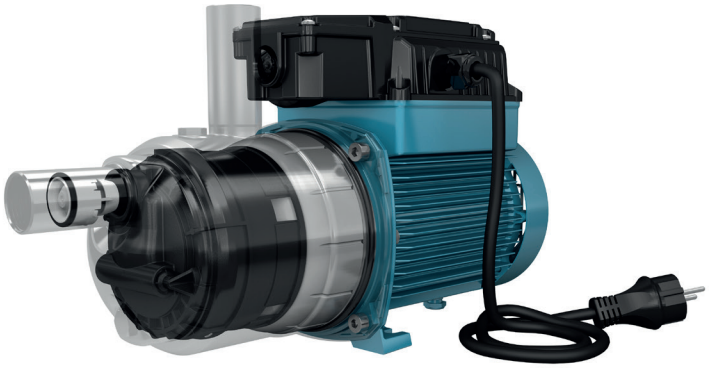
They allow to visualize:
- Initial screen (rUn, OFF, StB, Err)
- Motor Operating Frequency
- Delivery pressure measured by the transducer
- Supply current input
- Supply electrical power input
- Supply voltage

mètə small

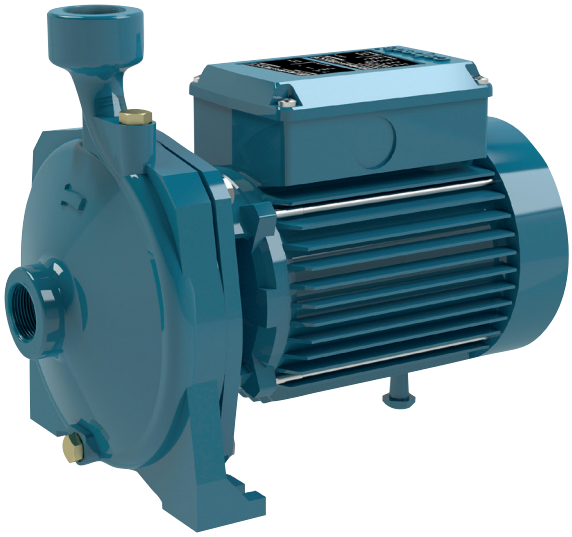
new design without cooling fan

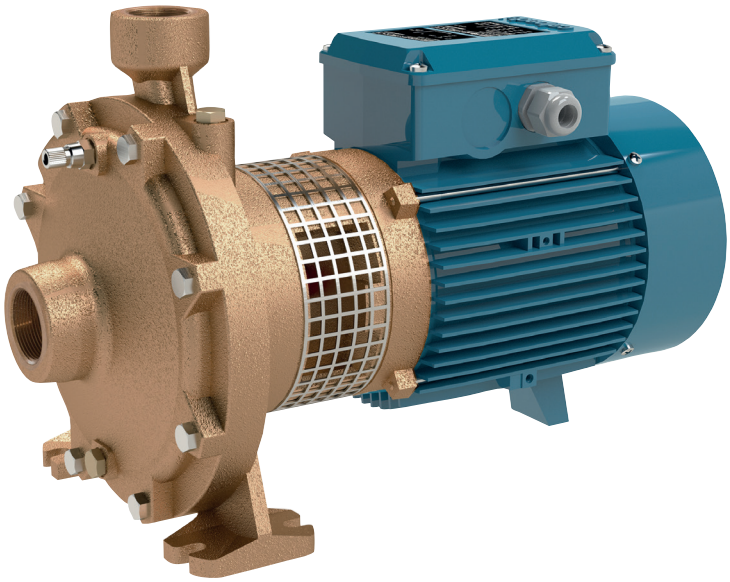


think outside the box

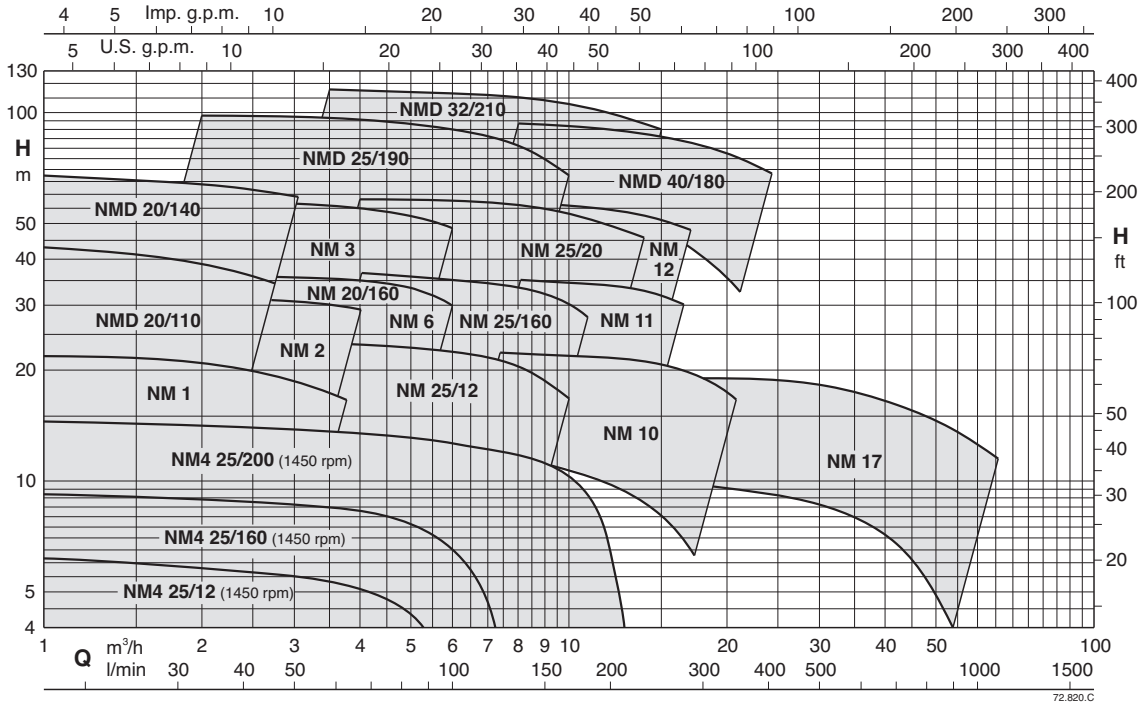


NM, NMD





Coverage chart n ≈ 2900 rpm



Close coupled centrifugal pumps with screwed connections

NM, NMD

Construction

Close-coupled, centrifugal pumps; electric motor with extended shaft directly connected to the pump.
NM, NM4: single-impeller
NMD: with two back-to-back impellers (with axial thrust balancing).

Rated speed of rotation (50 Hz):
NM, NMD ≈ 2900 rpm.
NM4 ≈ 1450 rpm.

Connections: threaded ports ISO 228/1 (BS 2779).
NM, NMD: version with pump casing and lantern bracket in cast iron.
BNM, BNMD: version with pump casing and lantern bracket in bronze.
The pumps are supplied fully painted.

Applications

For clean liquids without abrasives, which are non-aggressive for the pump materials (solids content up to 0.2%).
For water supply.
For heating, air-conditioning, cooling and circulation plants.
For civil and industrial applications.
For irrigation.

Operating conditions

Liquid temperature from -10 °C to +90 °C.
Ambient temperature up to 40° C.
Total suction lift up to 7 m.
Maximum permissible working pressure up to 10 bar (16 bar for pumps NMD 25/190; NMD 32/210; NMD 40/180).
Continuous duty (S3 60% for single-phase pump to 1,5-1,8 kW).

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
NM, NMD: three-phase 230/400 V ± 10% up to 3 kW;
400/690 V ± 10% from 4 to 9,2 kW;
NMM, NMDM: single-phase 230 V ± 10%, with thermal protector.

4-pole induction motor, 50 Hz (n ≈ 1450 rpm).
NM4: three-phase 230/400 V ± 10%.

Insulation class F.
Protection IP54
Motor suitable for operation with frequency converter from 0,37 kW for NM4 and from 1,1 kW for NM,NMD.
IE2 efficiency class for single-phase motors up to 1,1 kW.
IE3 efficiency class for three-phase motors (IE2 up to 0,65 kW).
Constructed in accordance with EN 60034-1, EN 60034-30-1, EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
IP protection: IP55
Special mechanical seal
Higher or lower liquid or ambient temperatures.
Motor suitable for operation with frequency converter up to 0,33 kW for NM4 and up to 0,75 kW for NM,NMD.

Designation

Example: BNMD(4)M 20/140A/B
B = Bronze version (without Cast Iron version indication)
NM = Series
D = Double impeller
4 = 4-pole version (without indication, 2-pole version)
M = Singlephase version (no indication: threephase)
20 = Delivery port diameter in mm
140 = Nominal impeller diameter
A = Impeller size
/B = It refers to a revision

The electropumps NM, B-NM series comply with the European Regulation no. 547/2012.

Materials

Components	NM, NMD, NM4	BNM, BNMD
Pump casing	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Lantern bracket	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Impeller	Brass CW617N EN 12167	Brass CW617N EN 12167
Impeller NM17	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Shaft	Steel 1.4104 EN 10088 (AISI 430F)	Steel 1.4401 EN 10088 (AISI 316)
	Steel 1.4305 EN 10088 (AISI 303) da 1,1 - 1,5 - 2,2 kW	Steel 1.4401 EN 10088 (AISI 316)
Shaft NM 6	Steel 1.4104 EN 10088 (AISI 430F)	-
Mechanical seal	Carbon - Ceramic - NBR	Carbon - Ceramic - NBR

NM, NMD

Coverage chart n ≈ 2900 rpm

Three-phase

Model	230V	400V	P2		Q = Flow m³/h	0	1	1,2	1,5	1,89	2,4	3	3,6	4,2	4,8	5,4	6	6,6	7,5	8,4
					l/min		16,6	20	25	31,5	40	50	60	70	80	90	100	110	125	140
	A		kW	HP	H (m) = Total head															
NM 1/A	2,4	1,4	0,37	0,5		22,7	22	21,6	21,3	20,9	20,3	19,4	18,1	16,3	-	-	-	-	-	-
NM 2/B/A	3	1,7	0,55	0,75		26,5	27	26,5	26	25,5	25	24	23	22	20	-	-	-	-	-
NM 2/S/A	3	1,7	0,55	0,75		33	31	30,5	30	29	27,5	25,5	23,5	20	16	-	-	-	-	-
NM 2/A/B	3,7	2,2	0,75	1		33,8	33,5	33	32,5	32	31,5	30,5	29,5	28,5	27	26	24	-	-	-
NM 3/C/A	4,6	2,7	1,1	1,5		38	-	37,5	37,5	37	36,5	36	35	34	32	30,5	28,5	-	-	-
NM 3/B/A	7,5	4,3	1,5	2		48	-	47	47	46,5	46	45,5	45	44	43	41,5	40	37,5	33	26
NM 3/A/B	9,2	5,3	2,2	3		56,8	-	56	55,5	55,5	55	54,5	53,5	52,5	51,5	50	48	46	42	36
NM 6/B	3,8	2,2	0,75	1		31,8	-	-	-	30,5	30	29,5	28,5	27,5	26,5	25,5	24	22	18	-
NM 6/A	4,6	2,7	1,1	1,5		36	-	-	-	35,5	35,2	34,7	34	33	32	30,5	29	27	23,5	19

Single-phase

Model	230V	P2		P1	Q = Flow m³/h	0	1	1,2	1,5	1,89	2,4	3	3,6	4,2	4,8	5,4	6	6,6	7,5	8,4
					l/min		16,6	20	25	31,5	40	50	60	70	80	90	100	110	125	140
	A	kW	HP	kW	H (m) = Total head															
NMM 1/A	3	0,37	0,5	0,57		22,7	22	21,6	21,3	20,9	20,3	19,4	18,1	16,3	-	-	-	-	-	-
NMM 2/B/A	4,5	0,55	0,75	0,78		26,5	27	26,5	26	25,5	25	24	23	22	20	-	-	-	-	-
NMM 2/S/A	4,5	0,55	0,75	0,78		33	31	30,5	30	29	27,5	25,5	23,5	20	16	-	-	-	-	-
NMM 2/A/A	5,7	0,75	1	1,01		33,8	33,5	33	32,5	32	31,5	30,5	29,5	28,5	27	26	24	-	-	-
NMM 3/C	7,4	1,1	1,5	1,44		38	-	37,5	37,5	37	36,5	36	35	34	32	-	-	-	-	-
NMM 3/B	9,2	1,5	2	2		42,5	-	42	42	41,5	41	40,5	40	39	37	35	32	-	-	-
NMM 3/A/A	11,2	1,8	2,5	2,5		48,8	-	47,5	47,5	47	46,5	46	45,5	44,5	43,5	42	40,5	38	33,5	26,5
NMM 6/B	5,7	0,75	1	1,01		31,8	-	-	-	30,5	30	29,5	28,5	27,5	26,5	25,5	24	22	18	-
NMM 6/A	7	1,1	1,5	1,44		36	-	-	-	35,5	35,2	34,7	34	33	32	30,5	29	27	23,5	19

Three-phase

	Model	230V	400V	P2		Q = Flow m³/h	0	1	1,2	1,5	1,89	2,4	3	3,6	4,2	4,8	5,4	6	6,6
						l/min		16,6	20	25	31,5	40	50	60	70	80	90	100	110
		A		kW	HP	H (m) = Total head													
BNMD	NMD 20/110B/A	2,3	1,3	0,45	0,6		35,5	33	32	31	29	26,5	23	18	-	-	-	-	-
BNMD	NMD 20/110Z/A	3	1,7	0,55	0,75		39,5	37	36	35	33	30,5	27,5	23	18	-	-	-	-
BNMD	NMD 20/110A/B	3,7	2,2	0,75	1		45,6	43	42	40,5	39	36,5	33	29	25	-	-	-	-
BNMD	NMD 20/140B/A	4,6	2,7	1,1	1,5		54	53	52,5	52	51	50	48	46	43,5	40	-	-	-
BNMD	NMD 20/140A/A	7,5	4,3	1,5	2		68	67	66,5	66	64,5	63	61,5	59	57	53,5	50	46	-
BNM	NM 20/160BE	4	2,3	0,75	1		31,6	-	-	-	30,5	30	29,5	28,5	27,5	26,5	25,5	24	22
BNM	NM 20/160A/A	4,6	2,7	1,1	1,5		37	-	-	-	36	35,5	35	34,5	33,5	32	30,5	29	27

Single-phase

	Model	230V	P2		P1	Q = Flow m³/h	0	1	1,2	1,5	1,89	2,4	3	3,6	4,2	4,8	5,4	6	6,6
						l/min		16,6	20	25	31,5	40	50	60	70	80	90	100	110
		A	kW	HP	kW	H (m) = Total head													
BNMDM	NMDM 20/110B/A	3,6	0,45	0,6	0,67		35,5	33	32	31	29	26,5	23	18	-	-	-	-	-
BNMDM	NMDM 20/110Z/A	4,5	0,55	0,75	0,78		39,5	37	36	35	33	30,5	27,5	23	18	-	-	-	-
BNMDM	NMDM 20/110A/A	5,7	0,75	1	1,01		45,5	43	42	40,5	39	36,5	33	29	25	-	-	-	-
BNMDM	NMDM 20/140BE	7,4	1,1	1,5	1,44		52,5	52	51,5	51	50	48,5	47	45	-	-	-	-	-
BNMDM	NMDM 20/140AE	9,2	1,5	2	2		58	57,5	57	56,5	55,5	54	51,5	49	46	43	40	36	-
BNMM	NMM 20/160B	5,8	0,75	1	1,01		31,6	-	-	-	30,5	30	29,5	28,5	27,5	26,5	25,5	24	22
BNMM	NMM 20/160A	7,4	1,1	1,5	1,44		37	-	-	-	36	35,5	35	34,5	33,5	32	30,5	29	27

NM, NMD

Performance n ≈ 1450 rpm

Three-phase

						Q = Flow																		
						m³/h	0	1	1,2	1,5	1,89	2,4	3	3,6	4,2	4,8	5,4	6	6,6	7,5	8,4	9,6	10,8	12	13,2
Model		230V	400V	P2		l/min		16,6	20	25	31,5	40	50	60	70	80	90	100	110	125	140	160	180	200	220
		A		kW	HP	H (m) = Total head																		
BNM4	NM4 25/12A/A	1,3	0,75	0,25	0,34		6,1	6,1	6	6	5,9	5,8	5,5	5,2	4,8	4,4	3,9	3,3	-	-	-	-	-	-	-
BNM4	NM4 25/160B/A	1,65	0,95	0,37	0,5		7,8	7,7	7,6	7,6	7,5	7,5	7,2	6,9	6,6	6,1	5,5	4,6	3,6	-	-	-	-	-	-
BNM4	NM4 25/160A/A	1,65	0,95	0,37	0,5		9,4	9,2	9,1	9,1	9	9	8,7	8,5	8,2	7,8	7,2	6,5	5,6	3,7	-	-	-	-	-
BNM4	NM4 25/200C/B	1,65	0,95	0,37	0,5		11,7	11,5	11,4	11,4	11,3	11,2	11,1	10,9	10,7	10,5	10,2	9,8	9,4	8,6	7,7	6	3,6	-	-
BNM4	NM4 25/200B/B	2,6	1,5	0,55	0,75		13,2	13,2	13,2	13,2	13,1	13,1	13	12,9	12,7	12,5	12,3	11,9	11,5	11	10,3	8,9	6,9	4	-
BNM4	NM4 25/200A/C	3,3	1,9	0,75	1		14,5	14,5	14,5	14,5	14,5	14,5	14,4	14,3	14,2	14	13,8	13,5	13,2	12,7	12,1	11	9,2	6,7	2,9

Coverage chart n ≈ 2900 rpm

Three-phase

							Q = Flow															
							m³/h	0	2,4	3	3,6	4,8	6	6,6	7,5	8,4	9,6	10,8	12	13,2	15	16,8	18
Model		230V	400V	690V	P2		l/min		40	50	60	80	100	110	125	140	160	180	200	220	250	280	300
		A			kW	HP	H (m) = Total head															
BNM	NM 25/12B/A	2,8	1,6	-	0,55	0,75		20,2	19,3	19,3	19,2	18,6	17,9	17,4	16,6	15,7	14,1	12,2	10	-	-	-	-
BNM	NM 25/12A/B	3,5	2	-	0,75	1		23,8	23,5	23,4	23,3	22,9	22,1	21,7	20,9	20	18,7	17,1	15,2	-	-	-	-
BNM	NM 25/160B/A	4,6	2,7	-	1,1	1,5		31,9	-	31	30,7	30	28,5	28	27	26	23	-	-	-	-	-	-
BNM	NM 25/160A/A	7,5	4,3	-	1,5	2		37	-	36,5	36,2	35,5	34,5	34	33,5	32,5	31	28,5	26	-	-	-	-
BNM	NM 25/20B/C	9,6	5,5	-	2,2	3		43,4	-	42,2	41,9	41,4	40,7	40,2	39,7	39	37,9	36,7	35,2	33,4	-	-	-
BNM	NM 25/20A/B	11,5	6,6	-	3	4		50,5	-	49,9	49,8	49,4	48,9	48,5	48,1	47,5	46,6	45,6	44,4	43	40,8	37,9	-
BNM	NM 25/20S/C	-	9,6	5,5	4	5,5		57,9	-	57,4	57,3	57	56,8	56,5	56,2	55,8	55,1	54,3	53,2	52	49,9	47,2	44,9
BNMD	NMD 25/190C/B	9,2	5,3	-	2,2	3		66	62	60,5	59	55,5	51	48,5	44	38	-	-	-	-	-	-	-
BNMD	NMD 25/190B/A	11,5	6,6	-	3	4		77	76	75	74	70	66	64	60	54	46	-	-	-	-	-	-
BNMD	NMD 25/190A/B	-	9,6	5,5	4	5,5		101	98	97	96	93,5	90	88	84	79	70	-	-	-	-	-	-

Single-phase

						Q = Flow											
						m³/h	0	2,4	3	3,6	4,8	6	6,6	7,5	8,4	9,6	10,8	12
Model		230V	P2		P1	l/min		40	50	60	80	100	110	125	140	160	180	200
		A	kW	HP	kW	H (m) = Total head												
BNMM	NMM 25/12B/A	4,5	0,55	0,75	0,78		20,2	19,3	19,3	19,2	18,6	17,9	17,4	16,6	15,7	14,1	12,2	10
BNMM	NMM 25/12A/A	5,7	0,75	1	1,01		23,8	23,5	23,4	23,3	22,9	22,1	21,7	20,9	20	18,7	17,1	15,2
BNMM	NMM 25/160B	7,4	1,1	1,5	1,44		31,9	-	31	30,7	30	28,5	28	27	26	23	-	-
BNMM	NMM 25/160A	9,2	1,5	2	2		37	-	36,5	36,2	35,5	34,5	34	33,5	32,5	31	28,5	26

Three-phase

						Q = Flow													
						m³/h	0	6,6	7,5	8,4	9,6	10,8	12	13,2	15	16,8	18,9	21	24
Model	230V	400V	690V	P2		l/min		110	125	140	160	180	200	220	250	280	315	350	400
	A			kW	HP	H (m) = Total head													
NM 10/F	4	2,3	-	0,55	0,75		13,2	12,5	12,5	12	11,5	11	10	9	7,5	-	-	-	-
NM 10/D	4	2,3	-	0,75	1		18,8	18	18	17,5	17	16,5	16	15,5	14	-	-	-	-
NM 10/A/A	4,6	2,7	-	1,1	1,5		23,5	23	23	22,5	22	21,5	21	20,5	19	-	-	-	-
NM 10/S/A	7,5	4,3	-	1,5	2		24	23,5	23,5	23	22,5	22	21,5	21	20,5	19	18,5	16,5	13
NM 11/B/A	7,5	4,3	-	1,5	2		30	29,5	29,5	29	28,5	27,5	27	26	25	22,5	-	-	-
NM 11/A/B	9,2	5,3	-	2,2	3		36	35,5	35,5	35	34,5	34	33,5	33	32	30	-	-	-
NM 12/D/B	9,2	5,3	-	2,2	3		41	38	37,5	37	36	35	33,5	32	-	-	-	-	-
NM 12/C/A	11,5	6,6	-	3	4		46,4	45	44,5	44	43,5	42,5	41	40	38	36	-	-	-
NM 12/A/B	-	9,6	5,5	4	5,5		56,8	57,5	57	56	55,5	55	54,5	53,5	51,5	49	-	-	-

NM, NMD

Coverage chart n ≈ 2900 rpm

Single-phase

Model	230V	P2		P1	Q = Flow m³/h	0	6,6	7,5	8,4	9,6	10,8	12	13,2	15	16,8	18,9	21	24
					l/min		110	125	140	160	180	200	220	250	280	315	350	400
	A	kW	HP	kW	H (m) = Total head													
NMM 10/F	4,5	0,55	0,75	0,78		13,2	12,5	12,5	12	11,5	11	10	9	7,5	-	-	-	-
NMM 10/D	5,8	0,75	1	1,01		18,8	18	18	17,5	17	16,5	16	15,5	14	-	-	-	-
NMM 10/A	7,4	1,1	1,5	1,44		23,5	23	23	22,5	22	21,5	21	20,5	19	-	-	-	-
NMM 10/S	9,2	1,5	2	2		24	23,5	23,5	23	22,5	22	21,5	21	20,5	19	18,5	16,5	13
NMM 11/B	9,2	1,5	2	2		27	26,5	25,5	25	24	23	22,5	21,5	19,5	17,5	-	-	-
NMM 11/A	11,2	1,8	2,5	2,5		30,2	30,2	30,1	29,8	29,4	28,8	28,1	27,4	26	24,5	-	-	-

Three-phase

Model		400V	690V	P2		Q = Flow m³/h	0	5,4	6	6,6	7,5	8,4	9,6	10,8	12	13,2	15	16,8	18,9	21	24
						l/min		90	100	110	125	140	160	180	200	220	250	280	315	350	400
		A		kW	HP	H (m) = Total head															
BNMD	NMD 32/210D/B	9,6	5,5	4	5,5		79	71	69	67,5	65	62,5	58	53	46	37	-	-	-	-	-
BNMD	NMD 32/210C/A	10,8	6,2	5,5	7,5		88	84	83	82	81	79	76	73	69	64	54	-	-	-	-
BNMD	NMD 32/210B/A	14,3	8,3	7,5	10		109	104	103	102	100	98	95	92	88	84	76	-	-	-	-
BNMD	NMD 32/210A/B	18,5	10,7	9,2	12,5		119	114	113	112	110	108	105	103	99	96	90	-	-	-	-
BNMD	NMD 40/180D/B	9,6	5,5	4	5,5		62	-	-	-	60	59,5	57	56	53	51,5	48	44	39	34	25
BNMD	NMD 40/180C/A	10,8	6,2	5,5	7,5		71	-	-	-	69	68	67	66	64,5	63	60	57	53	48	40
BNMD	NMD 40/180B/A	14,3	8,3	7,5	10		87	-	-	-	87	86	85	84	82,5	81	78	75	71	66	59
BNMD	NMD 40/180A/B	18,5	10,7	9,2	12,5		94	-	-	-	94	93	92	91	89,5	88	85	82	78	74	67

Three-phase

Model		230V	400V	P2		Q = Flow m³/h	0	21	24	27	30	33	37,8	42	48	54	60	66
						l/min		350	400	450	500	550	630	700	800	900	1000	1100
		A		kW	HP	H (m) = Total head												
BNM	NM 17/H/A	4,6	2,7	1,1	1,5		10	9,5	9,2	9	8,6	8,2	7,5	6,7	5,5	3,5	-	-
BNM	NM 17/G/A	7,5	4,3	1,5	2		13	12	11,7	11,5	11,2	11	10,3	9,7	8,5	7	4	-
BNM	NM 17/F/B	9,2	5,3	2,2	3		16,1	-	16	16	15,5	15	14,5	14	13	11,5	10	8
BNM	NM 17/D/A	11,5	6,6	3	4		18,4	-	-	18	18	17,5	17	16,5	15,5	14	13	11,5

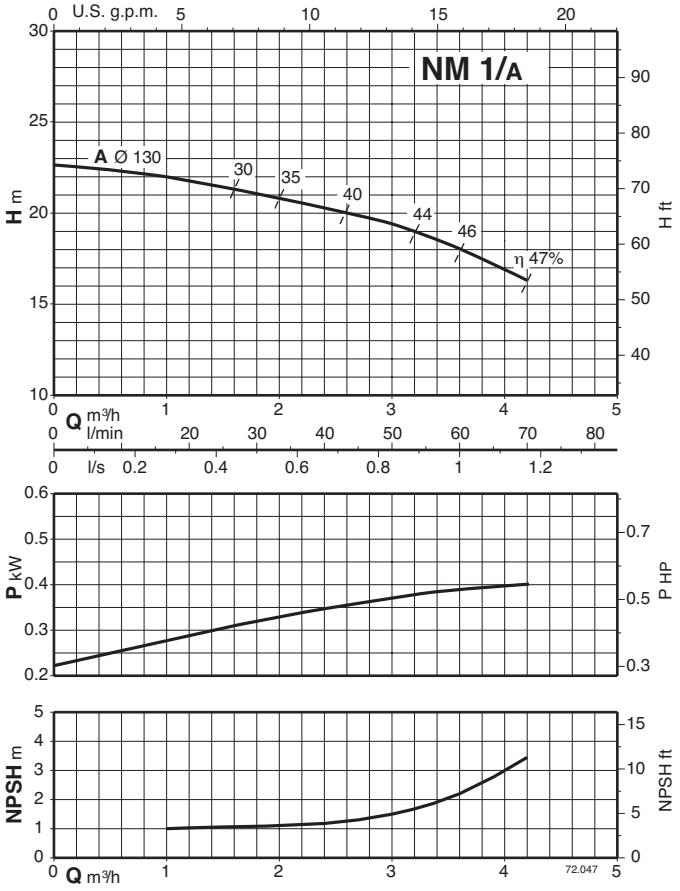
Single-phase

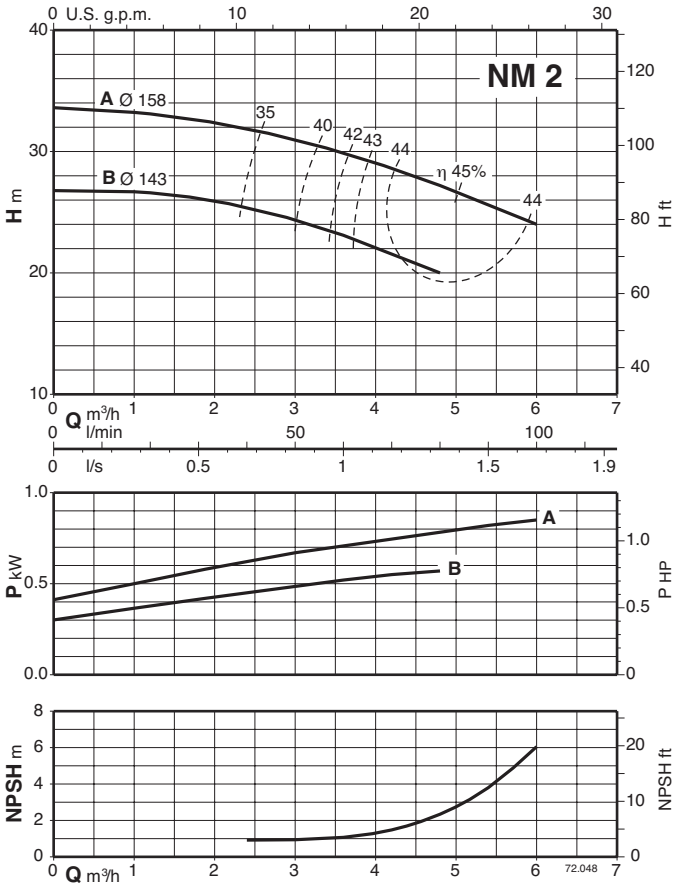
Model		230V	P2		P1	Q = Flow m³/h	0	21	24	27	30	33	37,8	42	48	54	60
						l/min		350	400	450	500	550	630	700	800	900	1000
		A	kW	HP	kW	H (m) = Total head											
BNMM	NMM 17/H	7,4	1,1	1,5	1,44		10	9,5	9,2	9	8,6	8,2	7,5	6,7	5,5	3,5	-
BNMM	NMM 17/G	9,2	1,5	2	2		13	12	11,7	11,5	11,2	11	10,3	9,7	8,5	7	4

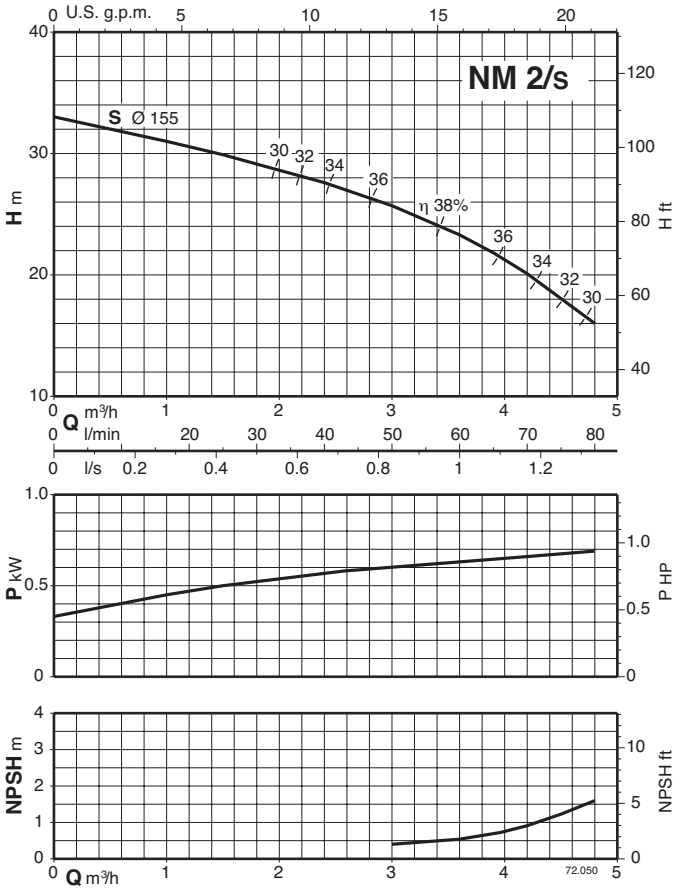
P1: Maximum power input.
P2: Rated motor power output.
H: Total head in m

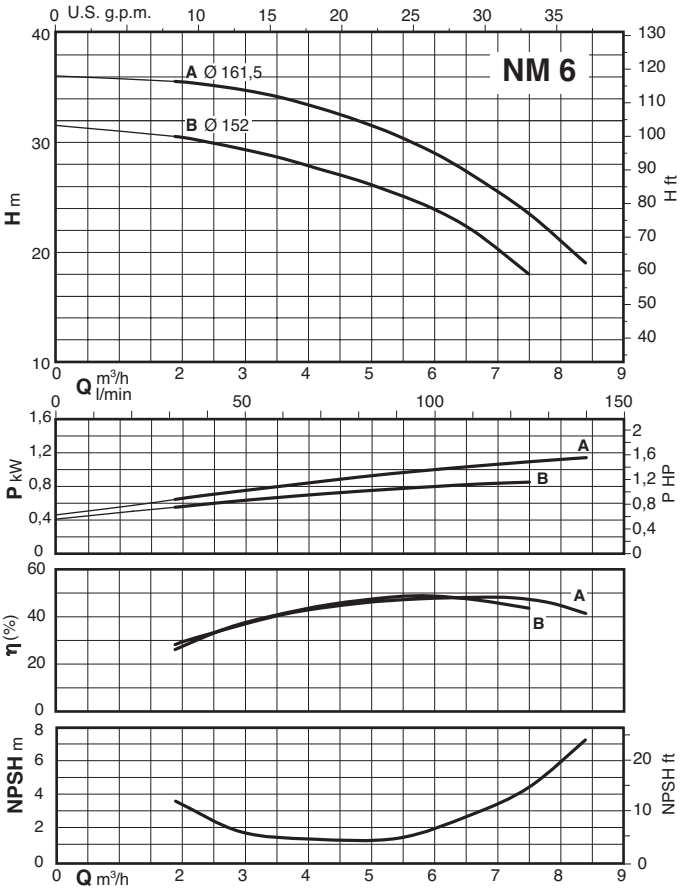
NM, NMD

Characteristic curves n ≈ 2900 rpm



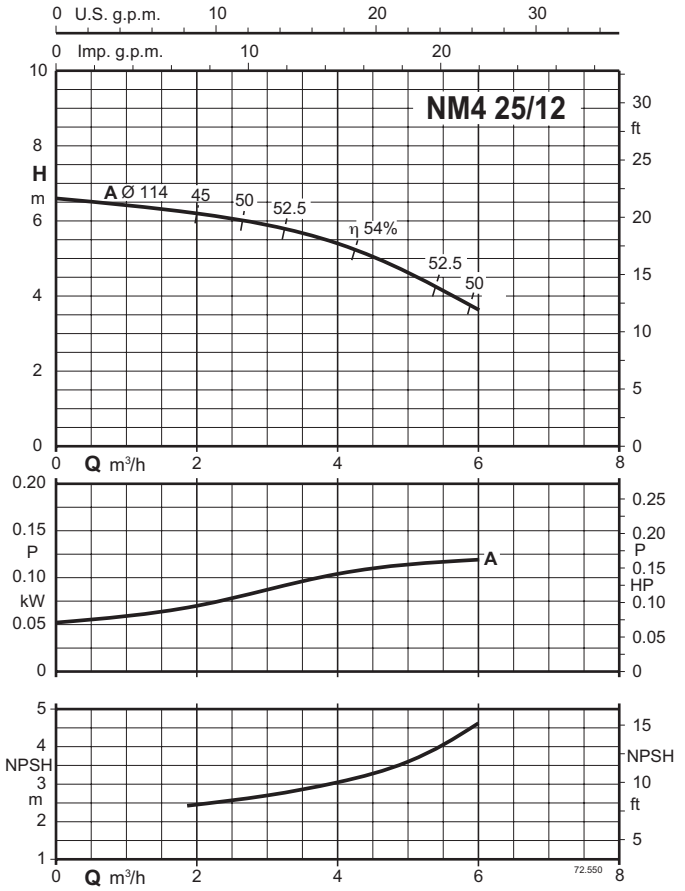


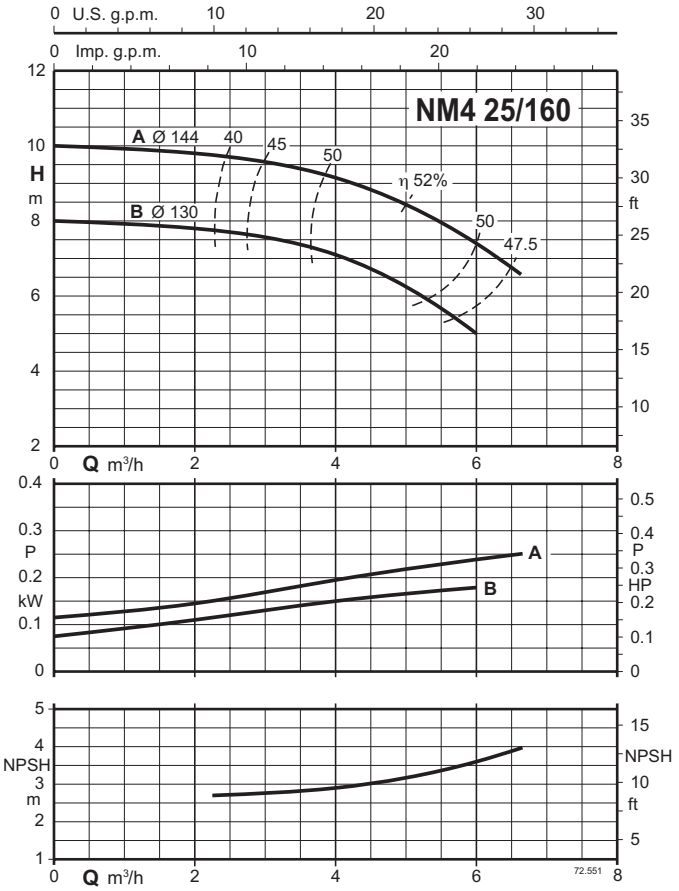


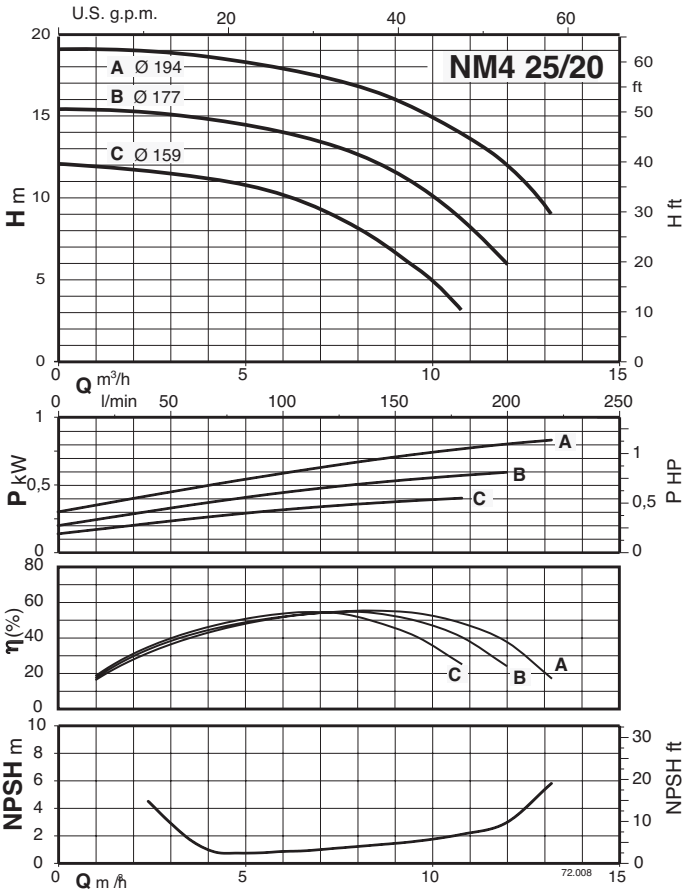


NM, NMD

Characteristic curves n ≈ 1450 rpm

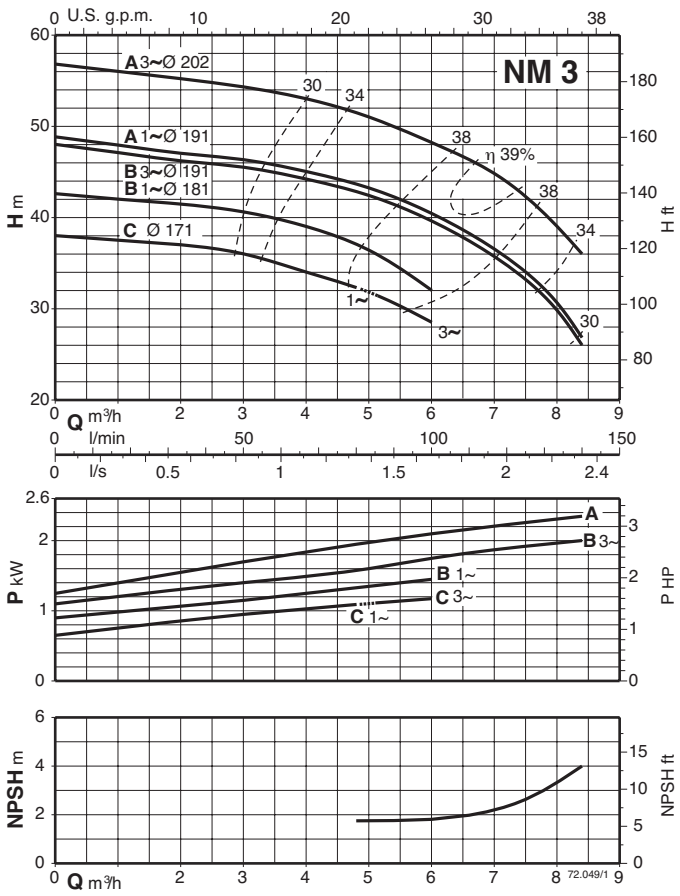


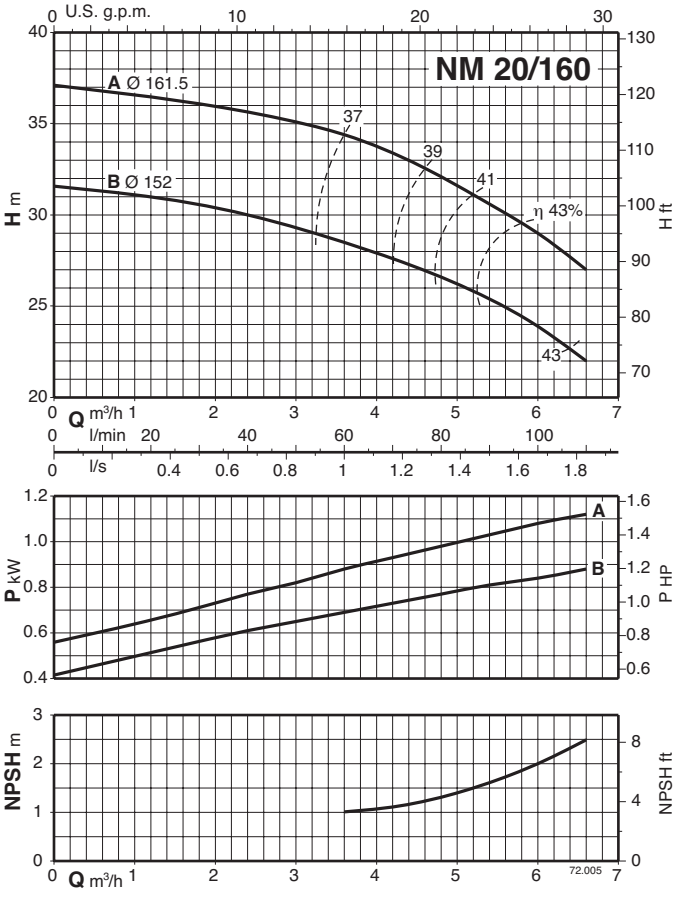


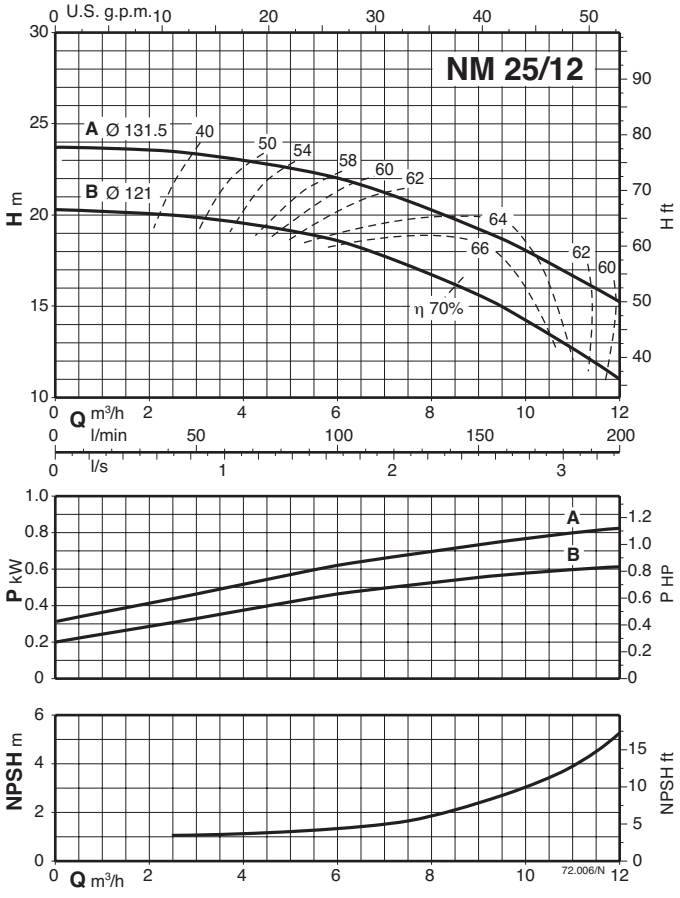


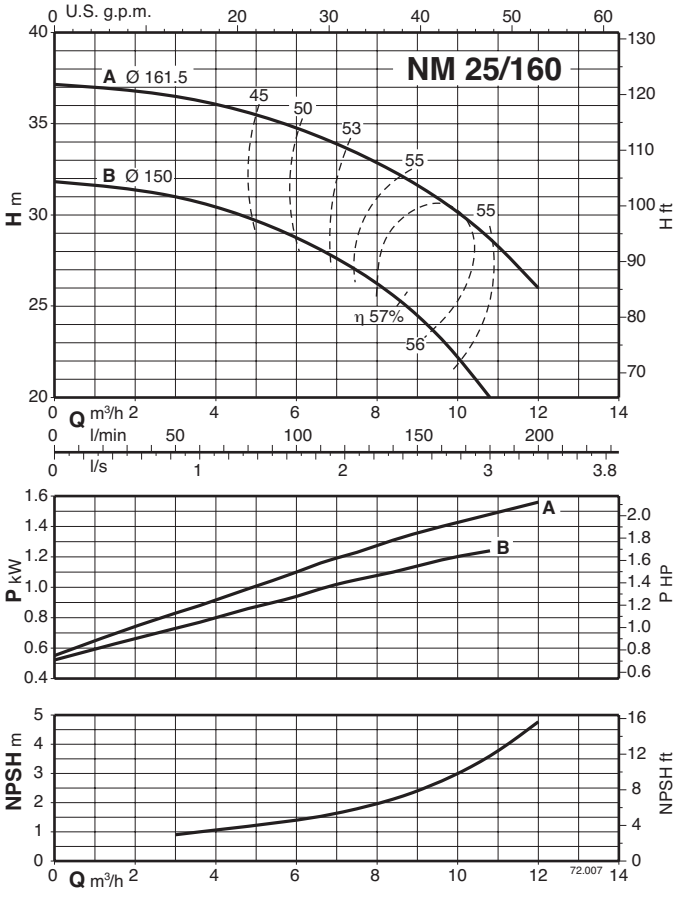
NM, NMD

Characteristic curves n ≈ 2900 rpm



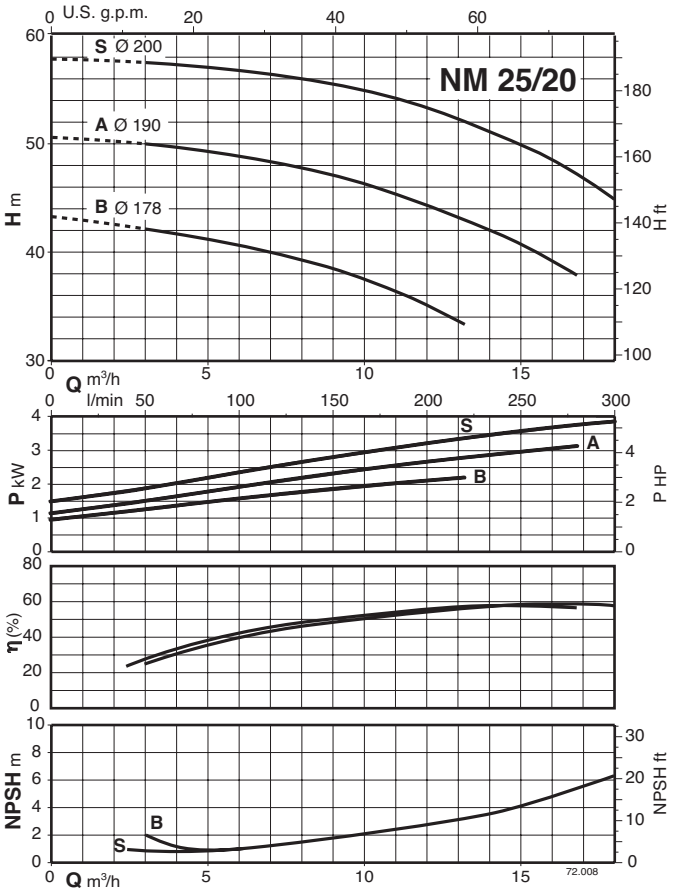


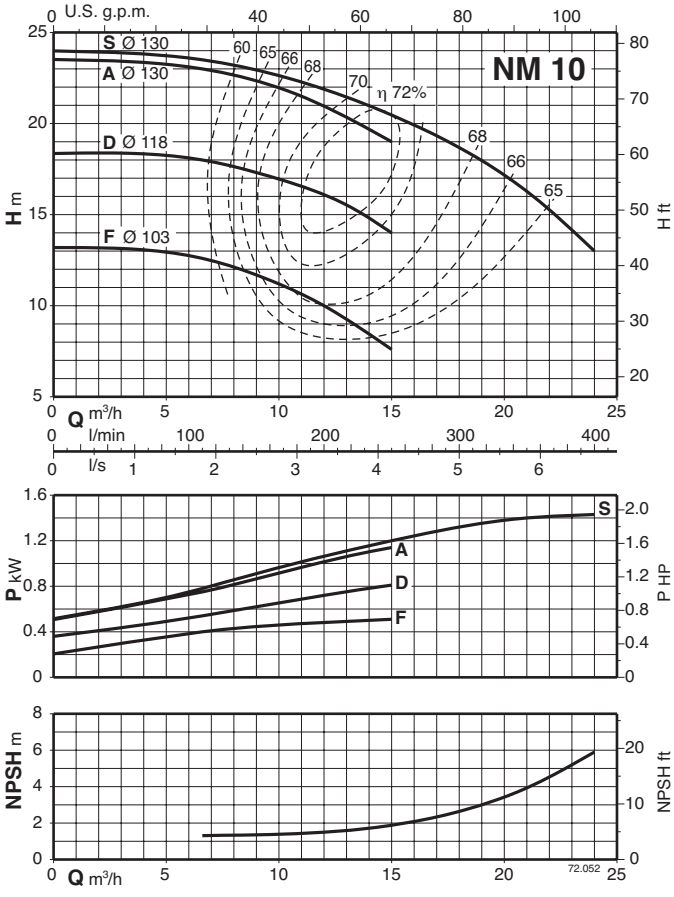


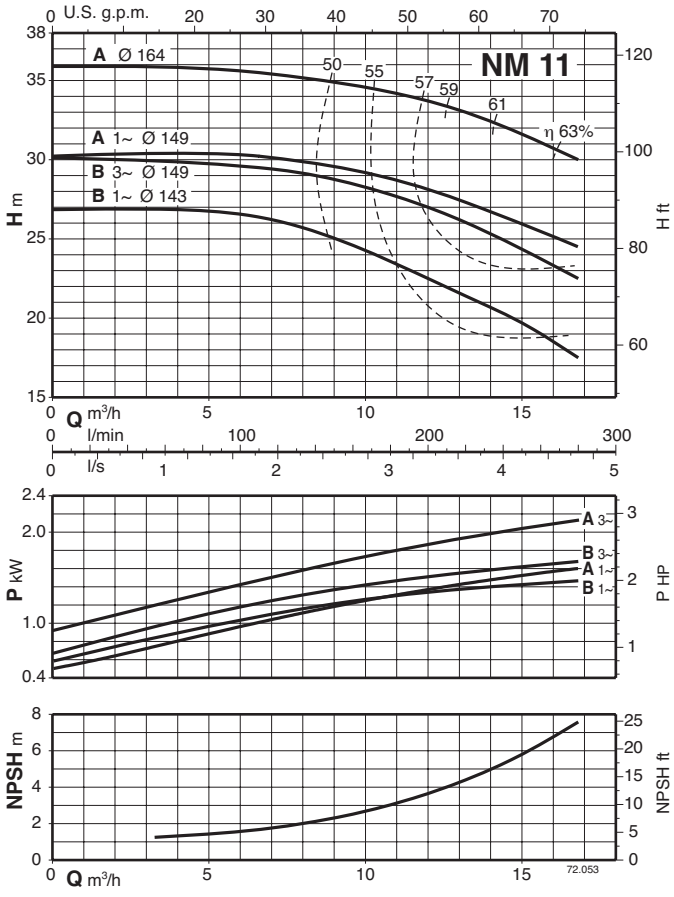


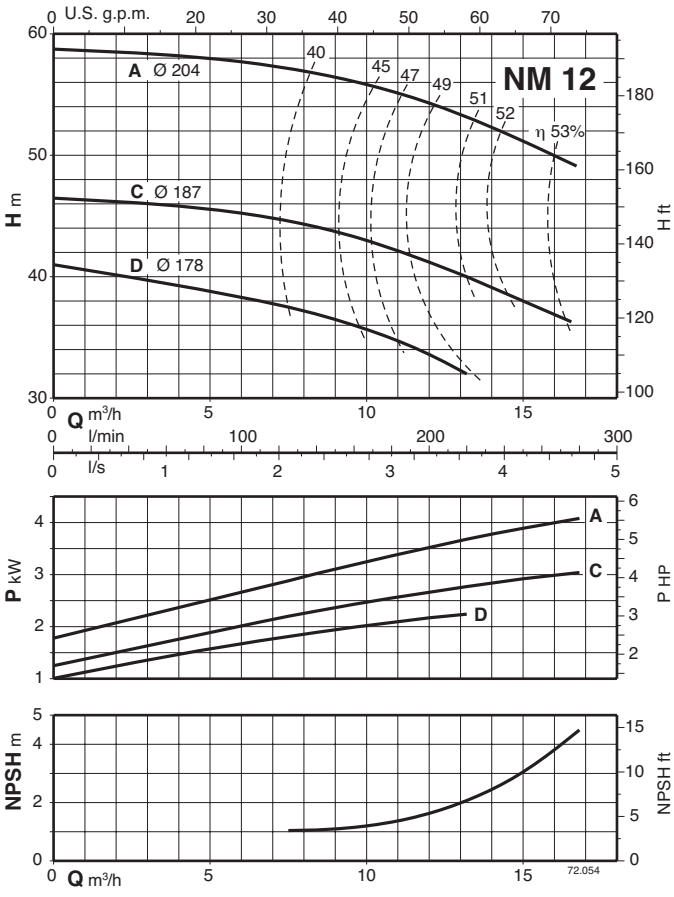
NM, NMD

Characteristic curves n ≈ 2900 rpm



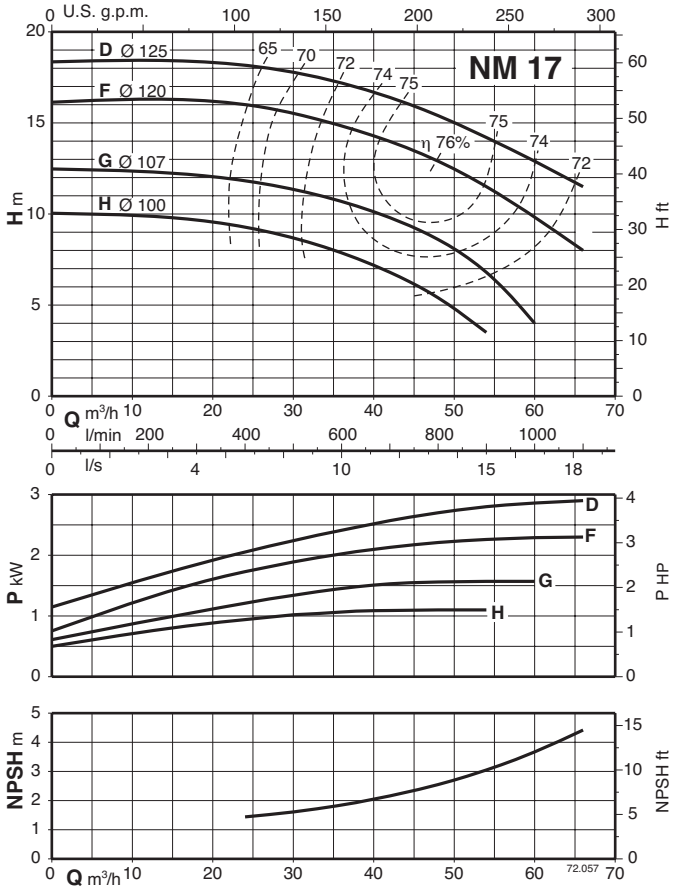


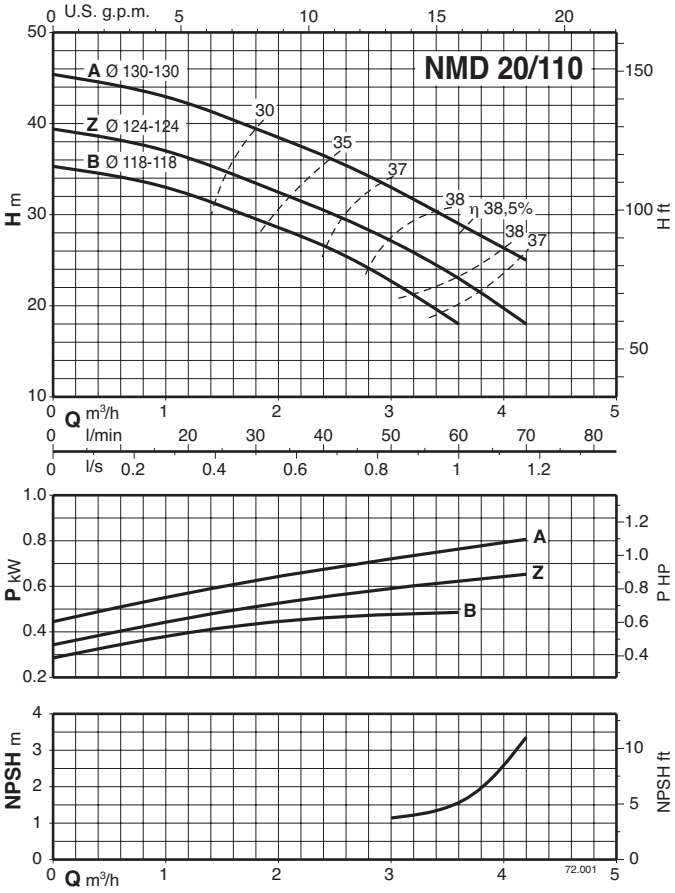


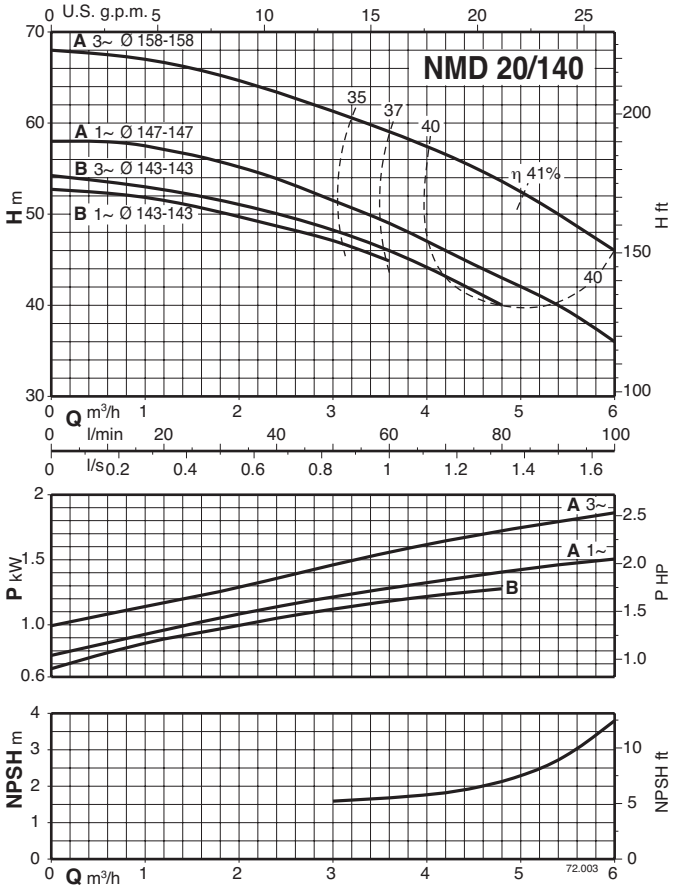


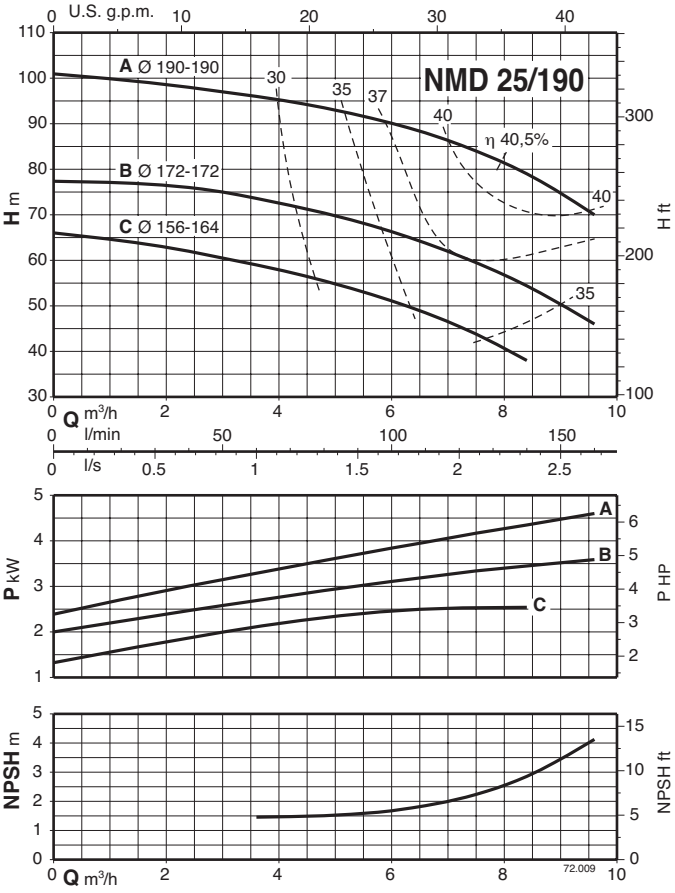
NM, NMD

Characteristic curves n ≈ 2900 rpm



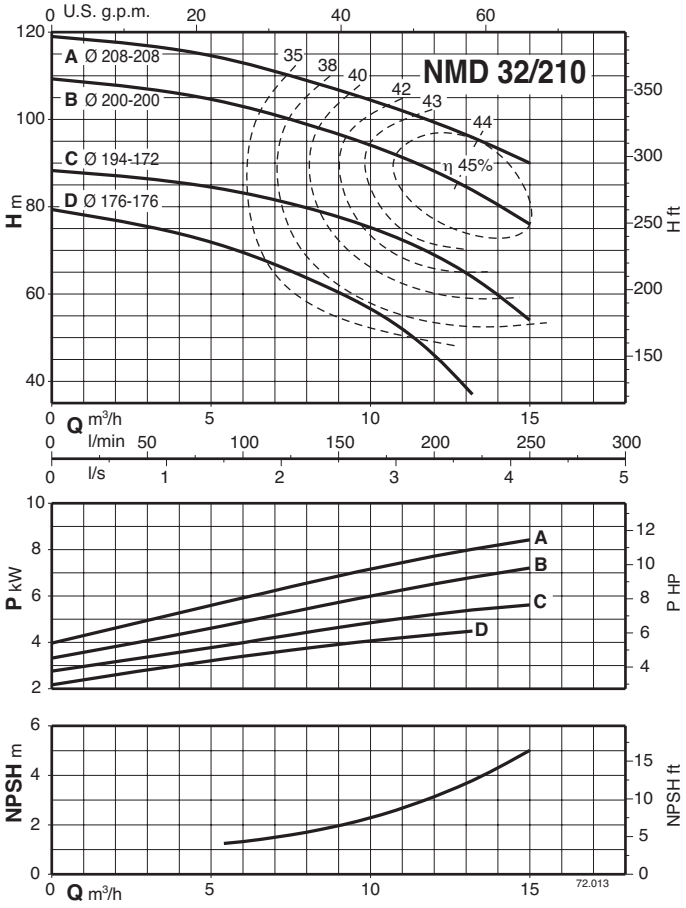


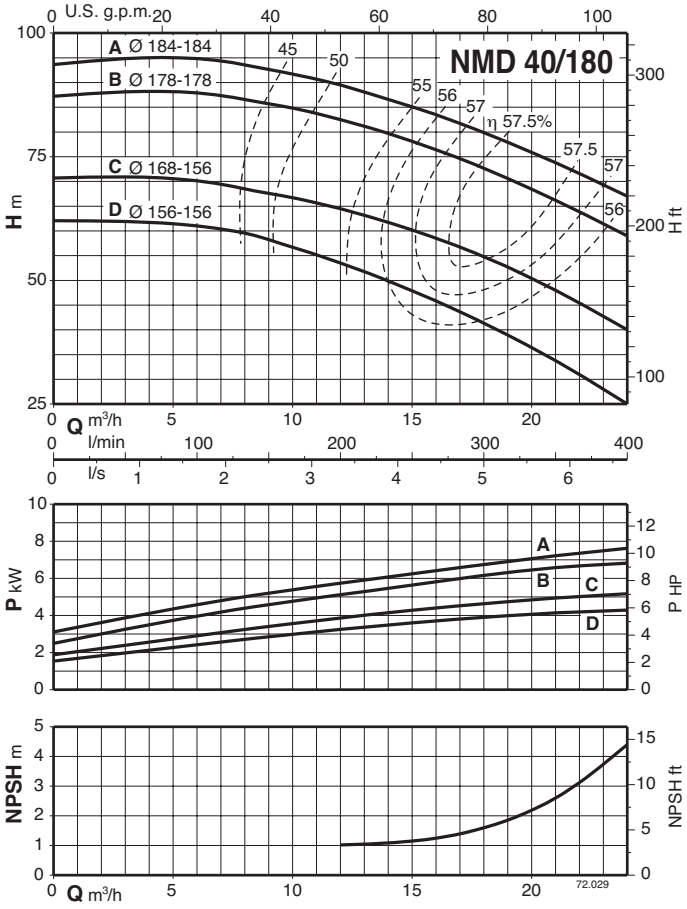




NM, NMD

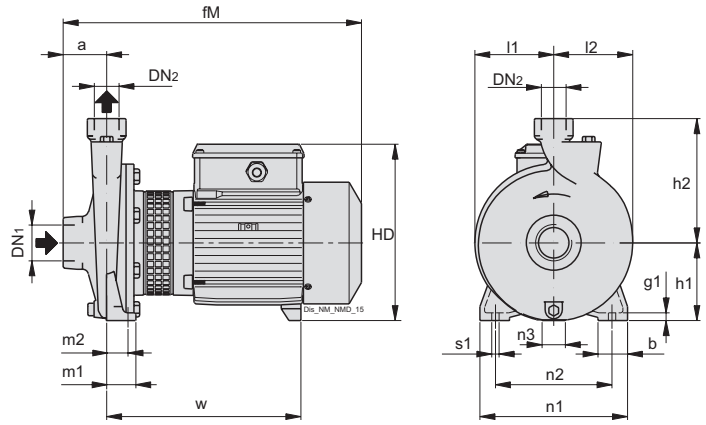
Characteristic curves n ≈ 2900 rpm





NM, NMD

Dimensions and weights

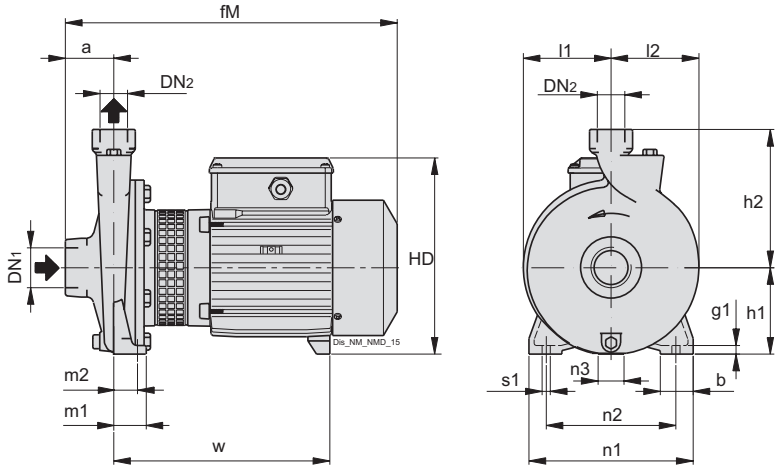


Three-phase

TYPE	ISO 228		mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	n3	s1	w	Weight
NM 1/A	G 1"	G 1"	40	35	261	10	80	132	179	76	81	40	32	170	140	20	9.5	174	8.8
NM 2/B/A	G 1"	G 1"	45	35	309	10	95	150	208	87	90	40	32	190	160	19.5	9.5	202	12.7
NM 2/S/A	G 1"	G 1"	45	35	309	10	95	150	208	87	90	40	32	190	160	19.5	9.5	202	13.2
NM 2/A/B	G 1"	G 1"	45	35	309	10	95	150	208	87	90	40	32	190	160	19.5	9.5	202	15.1
NM 6/B	G 1 1/4"	G 1"	53	38	349	11	100	150	213	92	96	37.5	27.5	190	150	19.5	9.5	234	17
NM 6/A	G 1 1/4"	G 1"	53	38	349	11	100	150	213	92	96	37.5	27.5	190	150	19.5	9.5	234	19
NM 3/C/A	G 1"	G 1"	50	45	377	12	112	180	242	111	114	55	43	245	205	31	11.5	247	23.3
NM 3/B/A	G 1"	G 1"	50	45	377	12	112	180	242	111	114	55	43	245	205	31	11.5	247	25
NM 3/A/B	G 1"	G 1"	50	45	417	12	112	180	242	111	114	55	43	245	205	31	11.5	287	28.2
NM 10/F	G 2"	G 1 1/4"	63	50	391	12	100	150	230	91	97	50	35	190	140	29	14	247	18.2
NM 10/D	G 2"	G 1 1/4"	63	50	391	12	100	150	230	91	97	50	35	190	140	29	14	247	18.2
NM 10/A/A	G 2"	G 1 1/4"	63	50	391	12	100	150	230	91	97	50	35	190	140	29	14	247	20.7
NM 10/S/A	G 2"	G 1 1/4"	63	50	391	12	100	150	230	91	97	50	35	190	140	29	14	247	21.9
NM 11/B/A	G 2"	G 1 1/4"	70	50	403	14	112	170	242	103	110	50	35	210	160	31	14	253	24.9
NM 11/A/B	G 2"	G 1 1/4"	70	50	443	14	112	170	242	103	110	50	35	210	160	31	14	293	28.8
NM 12/D/B	G 2"	G 1 1/4"	70	50	443	14	132	190	262	120	126	50	35	240	190	35	14	295	31.5
NM 12/C/A	G 2"	G 1 1/4"	70	50	469	14	132	190	272	120	126	50	35	240	190	32	14	294	38
NM 12/A/B	G 2"	G 1 1/4"	70	50	469	14	132	190	272	120	126	50	35	240	190	32	14	294	42.6
NM 17/H/A	G 2 1/2"	G 2 1/2"	80	50	423	14	112	160	242	96	112	50	35	210	160	31	14	263	22.8
NM 17/G/A	G 2 1/2"	G 2 1/2"	80	50	423	14	112	160	242	96	112	50	35	210	160	31	14	263	24.3
NM 17/F/B	G 2 1/2"	G 2 1/2"	80	50	463	14	112	160	242	96	112	50	35	210	160	31	14	303	27.7
NM 17/D/A	G 2 1/2"	G 2 1/2"	80	50	479	14	112	160	252	96	112	50	35	210	160	20	14	292	33.7
NM 20/160B	G 1 1/4"	G 3/4"	53	38	380	11	100	150	230	93	96	37.5	27.5	190	150	29	9.5	246	18.4
NM 20/160A/A	G 1 1/4"	G 3/4"	53	38	380	11	100	150	230	93	96	37.5	27.5	190	150	29	9.5	246	20.8
NM 25/12B/A	G 1 1/2"	G 1"	56	38	313	11	90	140	203	85	88	37.5	27.5	170	130	20	9.5	195	12.5
NM 25/12A/B	G 1 1/2"	G 1"	56	38	313	11	90	140	203	85	88	37.5	27.5	170	130	20	9.5	195	14.6
NM 25/160B/A	G 1 1/2"	G 1"	56	38	383	11	100	160	230	102	102	37.5	27.5	190	150	29	9.5	246	20.7
NM 25/160A/A	G 1 1/2"	G 1"	56	38	383	11	100	160	230	102	102	37.5	27.5	190	150	29	9.5	246	22.5
NM 25/20B/C	G 1 1/2"	G 1"	63	45	433	10	125	180	255	126	126	45	32.5	245	200	34	11.5	291	29.6
NM 25/20A/B	G 1 1/2"	G 1"	63	45	459	10	125	180	265	126	126	45	32.5	245	200	31	11.5	291	35.9
NM 25/20S/C	G 1 1/2"	G 1"	63	45	459	10	125	180	265	126	126	45	32.5	245	200	31	11.5	291	40.6
BNM 17/H/A	G 2 1/2"	G 2 1/2"	80	50	423	14	112	160	242	96	112	50	35	210	160	31	14	263	25.5
BNM 17/G/A	G 2 1/2"	G 2 1/2"	80	50	423	14	112	160	242	96	112	50	35	210	160	31	14	263	27
BNM 17/F/B	G 2 1/2"	G 2 1/2"	80	50	463	14	112	160	242	96	112	50	35	210	160	31	14	303	30.4
BNM 17/D/A	G 2 1/2"	G 2 1/2"	80	50	479	14	112	160	252	96	112	50	35	210	160	20	14	292	37.5
BNM 20/160B	G 1 1/4"	G 3/4"	53	38	420	11	100	150	230	93	96	37.5	27.5	190	150	29	9.5	286	20.1
BNM 20/160A/A	G 1 1/4"	G 3/4"	53	38	420	11	100	150	230	93	96	37.5	27.5	190	150	29	9.5	286	22.2
BNM 25/12B/A	G 1 1/2"	G 1"	56	38	313	11	90	140	203	85	88	37.5	27.5	170	130	20	9.5	195	13.7
BNM 25/12A/B	G 1 1/2"	G 1"	56	38	313	11	90	140	203	85	88	37.5	27.5	170	130	20	9.5	195	15.7
BNM 25/160B/A	G 1 1/2"	G 1"	56	38	423	11	100	160	230	102	102	37.5	27.5	190	150	29	9.5	286	22.6
BNM 25/160A/A	G 1 1/2"	G 1"	56	38	423	11	100	160	230	102	102	37.5	27.5	190	150	29	9.5	286	24.2
BNM 25/200B/C	G 1 1/2"	G 1"	63	45	445	10	125	180	255	126	126	45	32.5	245	200	34	11.5	303	33.4
BNM 25/200A/B	G 1 1/2"	G 1"	63	45	460	10	125	180	265	126	126	45	32.5	245	200	31	11.5	292	39.9
BNM 25/200S/C	G 1 1/2"	G 1"	63	45	460	10	125	180	265	126	126	45	32.5	245	200	31	11.5	292	43.9

NM, NMD

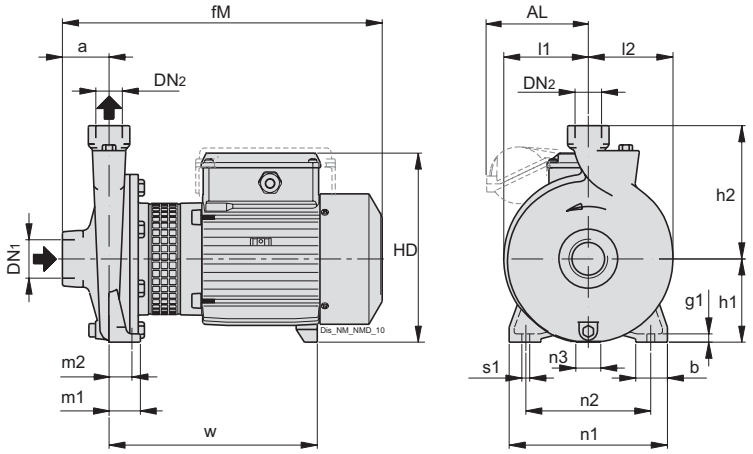
Dimensions and weights



TYPE	ISO 228		mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	n3	s1	w	Weight
NM4 25/12A/A	G 1 1/2"	G 1"	56	38	313	11	90	140	203	85	88	37.5	27.5	170	130	20	9.5	195	12.2
NM4 25/160B/A	G 1 1/2"	G 1"	56	38	383	11	100	160	230	102	102	37.5	27.5	190	150	29	9.5	246	18.7
NM4 25/160A/A	G 1 1/2"	G 1"	56	38	383	11	100	160	230	102	102	37.5	27.5	190	150	29	9.5	246	18.8
NM4 25/200C/B	G 1 1/2"	G 1"	63	45	390	10	125	180	255	126	126	45	32.5	245	200	34	11.5	248	22.7
NM4 25/200B/B	G 1 1/2"	G 1"	63	45	390	10	125	180	255	126	126	45	32.5	245	200	34	11.5	248	24.4
NM4 25/200A/C	G 1 1/2"	G 1"	63	45	430	10	125	180	255	126	126	45	32.5	245	200	34	11.5	288	29.7
BNM4 25/160B/A	G 1 1/2	G 1	56	38	383	11	100	160	230	102	102	37.5	27.5	190	150	29	9.5	286	19.9
BNM4 25/160A/A	G 1 1/2	G 1	56	38	383	11	100	160	230	102	102	37.5	27.5	190	150	29	9.5	286	19.9
BNM4 25/200C/B	G 1 1/2	G 1	63	45	365	10	125	180	255	126	126	45	32.5	245	200	34	11.5	263	26.3
BNM4 25/200B/B	G 1 1/2	G 1	63	45	365	10	125	180	255	126	126	45	32.5	245	200	34	11.5	263	-
BNM4 25/200A/C	G 1 1/2"	G 1"	63	45	405	10	125	180	254	126	126	45	32.5	245	200	34	11.5	263	32.6

NM, NMD

Dimensions and weights

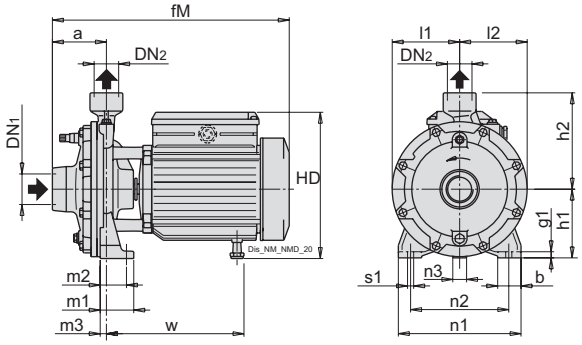


Single-phase

TYPE	ISO 228		mm																	kg
	DN1	DN2	a	AL	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	n3	s1	w	Weight
NMM 1/A	G 1"	G 1"	40	-	35	261	10	80	132	179	76	81	40	32	170	140	20	9.5	174	8.5
NMM 2/B/A	G 1"	G 1"	45	-	35	309	10	95	150	208	87	90	40	32	190	160	19.5	9.5	202	13.8
NMM 2/S/A	G 1"	G 1"	45	-	35	309	10	95	150	208	87	90	40	32	190	160	19.5	9.5	202	14.5
NMM 2/A/A	G 1"	G 1"	45	-	35	309	10	95	150	208	87	90	40	32	190	160	19.5	9.5	202	15.1
NMM 6/B	G 1 1/4"	G 1"	53	-	38	349	11	100	150	213	92	96	37.5	27.5	190	150	19.5	9.5	234	17.1
NMM 6/A	G 1 1/4"	G 1"	53	-	38	349	11	100	150	213	92	96	37.5	27.5	190	150	19.5	9.5	234	19.2
NMM 3/C	G 1"	G 1"	50	-	45	377	12	112	180	242	111	114	55	43	245	205	31	11.5	247	23.2
NMM 3/B	G 1"	G 1"	50	-	45	377	12	112	180	242	111	114	55	43	245	205	31	11.5	247	25.2
NMM 3/A/A	G 1"	G 1"	50	131	45	417	12	112	180	247	111	114	55	43	245	205	31	11.5	287	28.6
NMM 10/F	G 2"	G 1 1/4"	63	-	50	391	12	100	150	230	91	97	50	35	190	140	29	14	247	19.2
NMM 10/D	G 2"	G 1 1/4"	63	-	50	391	12	100	150	230	91	97	50	35	190	140	29	14	247	20.5
NMM 10/A	G 2"	G 1 1/4"	63	-	50	391	12	100	150	230	91	97	50	35	190	140	29	14	247	22.2
NMM 10/S	G 2"	G 1 1/4"	63	-	50	391	12	100	150	230	91	97	50	35	190	140	29	14	247	22.2
NMM 11/B	G 2"	G 1 1/4"	70	-	50	403	14	112	170	242	103	110	50	35	210	160	31	14	253	25
NMM 11/A	G 2"	G 1 1/4"	70	131	50	443	14	112	170	247	103	110	50	35	210	160	31	14	293	28.5
NMM 17/H	G 2 1/2"	G 2 1/2"	80	-	50	423	14	112	160	242	96	112	50	35	210	160	31	14	263	23.7
NMM 17/G	G 2 1/2"	G 2 1/2"	80	-	50	423	14	112	160	242	96	112	50	35	210	160	31	14	263	23.7
NMM 20/160B	G 1 1/4"	G 3/4"	53	-	38	380	11	100	150	230	93	96	37.5	27.5	190	150	29	9.5	246	20.8
NMM 20/160A	G 1 1/4"	G 3/4"	53	-	38	380	11	100	150	230	93	96	37.5	27.5	190	150	29	9.5	246	22.5
NMM 25/12B/A	G 1 1/2"	G 1"	56	-	38	313	11	90	140	203	85	88	37.5	27.5	170	130	20	9.5	195	13.5
NMM 25/12A/A	G 1 1/2"	G 1"	56	-	38	313	11	90	140	203	85	88	37.5	27.5	170	130	20	9.5	195	14.7
NMM 25/160B	G 1 1/2"	G 1"	56	-	38	383	11	100	160	230	102	102	37.5	27.5	190	150	29	9.5	246	21.2
NMM 25/160A	G 1 1/2"	G 1"	56	-	38	383	11	100	160	230	102	102	37.5	27.5	190	150	29	9.5	246	23
BNMM 20/160B	G 1 1/4"	G 3/4"	53	-	38	420	11	100	150	230	93	96	37.5	27.5	190	150	29	9.5	286	-
BNMM 20/160A	G 1 1/4"	G 3/4"	53	-	38	420	11	100	150	230	93	96	37.5	27.5	190	150	29	9.5	286	23.9
BNMM 25/12B/A	G 1 1/2"	G 1"	56	-	38	313	11	90	140	203	85	88	37.5	27.5	170	130	20	9.5	195	13.7
BNMM 25/12A/A	G 1 1/2"	G 1"	56	-	38	313	11	90	140	203	85	88	37.5	27.5	170	130	20	9.5	195	15.7
BNMM 25/160B	G 1 1/2"	G 1"	56	-	38	423	11	100	160	230	102	102	37.5	27.5	190	150	29	9.5	286	24.3
BNMM 25/160A	G 1 1/2"	G 1"	56	-	38	423	11	100	160	230	102	102	37.5	27.5	190	150	29	9.5	286	24.3
BNMM 17/H	G 2 1/2"	G 2 1/2"	80	-	50	423	14	112	160	242	96	112	50	35	210	160	31	14	263	26.5
BNMM 17/G	G 2 1/2"	G 2 1/2"	80	-	50	423	14	112	160	242	96	112	50	35	210	160	31	14	263	26.5

NM, NMD

Dimensions and weights

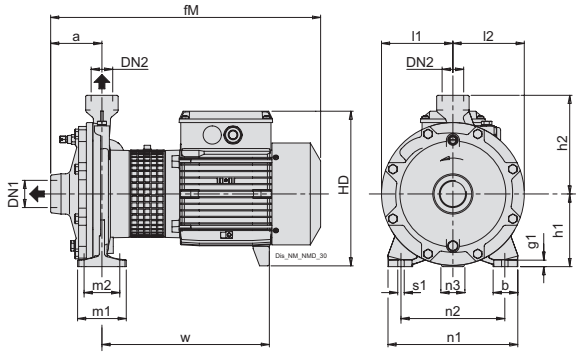


Three-phase

TYPE	ISO 228		mm																	kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	m3	n1	n2	n3	s1	w	Weight
NMD 20/110B/A	G 1 1/4"	G 1"	74	38	325	10	95	132	206	93	93	46	36	8.5	170	130	19.5	9.5	189	12.2
NMD 20/110Z/A	G 1 1/4"	G 1"	74	38	325	10	95	132	206	93	93	46	36	8.5	170	130	19.5	9.5	189	13.4
NMD 20/110A/B	G 1 1/4"	G 1"	74	38	325	10	95	132	206	93	93	46	36	8.5	170	130	19.5	9.5	189	15.5
BNMD 20/110B/A	G 1 1/4"	G 1"	74	38	325	10	95	132	206	93	93	46	36	8.5	170	130	19.5	9.5	189	13.6
BNMD 20/110Z/A	G 1 1/4"	G 1"	74	38	325	10	95	132	206	93	93	46	36	8.5	170	130	19.5	9.5	189	14
BNMD 20/110A/B	G 1 1/4"	G 1"	74	38	325	10	95	132	206	93	93	46	36	8.5	170	130	19.5	9.5	189	16.5

Single-phase

TYPE	ISO 228		mm																	kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	m3	n1	n2	n3	s1	w	Weight
NMDM 20/110B/A	G 1 1/4"	G 1"	74	38	325	10	95	132	206	93	93	46	36	8.5	170	130	19.5	9.5	189	13.2
NMDM 20/110Z/A	G 1 1/4"	G 1"	74	38	325	10	95	132	206	93	93	46	36	8.5	170	130	19.5	9.5	189	14.5
NMDM 20/110A/A	G 1 1/4"	G 1"	74	38	325	10	95	132	206	93	93	46	36	8.5	170	130	19.5	9.5	189	15.5
BNMDM 20/110B/A	G 1 1/4"	G 1"	74	38	325	10	95	132	206	93	93	46	36	8.5	170	130	19.5	9.5	189	14.3
BNMDM 20/110Z/A	G 1 1/4"	G 1"	74	38	325	10	95	132	206	93	93	46	36	8.5	170	130	19.5	9.5	189	-
BNMDM 20/110A/A	G 1 1/4"	G 1"	74	38	325	10	95	132	206	93	93	46	36	8.5	170	130	19.5	9.5	189	16.4



Three-phase

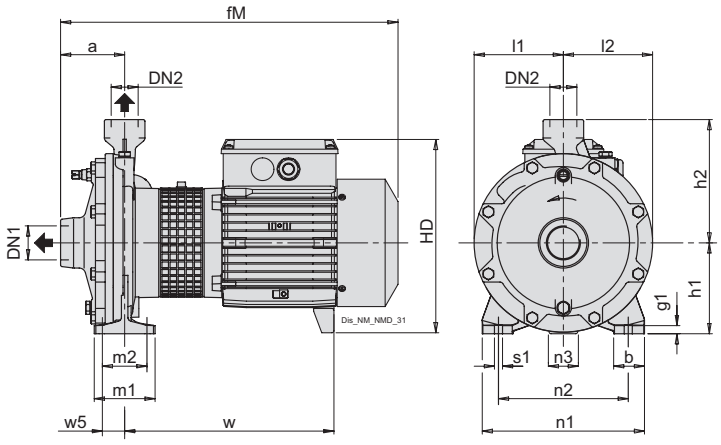
TYPE	ISO 228		mm																	kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	n3	s1	w	Weight
NMD 20/140B/A	G 1 1/4"	G 1"	79	38	416	10	112	150	242	110	110	75	55	200	160	31	9.5	257	23.5
NMD 20/140A/A	G 1 1/4"	G 1"	79	38	416	10	112	150	242	110	110	75	55	200	160	31	9.5	257	25.2
BNMD 20/140B/A	G 1 1/4"	G 1"	79	38	416	10	112	150	242	110	110	75	55	200	160	31	9.5	257	26.5
BNMD 20/140A/A	G 1 1/4"	G 1"	79	38	416	10	112	150	242	110	110	75	55	200	160	31	9.5	257	22.9

Single-phase

TYPE	ISO 228		mm																	kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	n3	s1	w	Weight
NMDM 20/140BE	G 1 1/4"	G 1"	79	38	416	10	112	150	242	110	110	75	55	200	160	31	9.5	257	23.6
NMDM 20/140AE	G 1 1/4"	G 1"	79	38	416	10	112	150	242	110	110	75	55	200	160	31	9.5	257	25.7
BNMDM 20/140BE	G 1 1/4"	G 1"	79	38	416	10	112	150	242	110	110	75	55	200	160	31	9.5	257	27.5
BNMDM 20/140AE	G 1 1/4"	G 1"	79	38	416	10	112	150	242	110	110	75	55	200	160	31	9.5	257	28.2

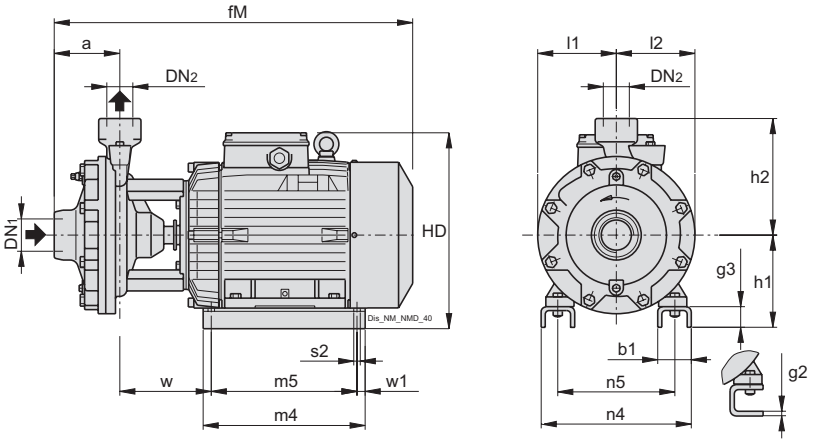
NM, NMD

Dimensions and weights



Three-phase

TYPE			mm																	kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	n3	s1	w	w5	Weight
NMD 25/190C/B	G 1 1/2"	G 1"	97	50	490	12	140	180	270	133	133	100	70	250	190	36	14	316	35	41.2
NMD 25/190B/A	G 1 1/2"	G 1"	97	50	505	12	140	180	280	133	133	100	70	250	190	34	14	304	35	48.3
NMD 25/190A/B	G 1 1/2"	G 1"	97	50	505	12	140	180	280	133	133	100	70	250	190	34	14	304	35	52.4
BNMD 25/190C/B	G 1 1/2"	G 1"	97	50	490	12	140	180	270	133	133	100	70	250	190	36	14	316	35	45
BNMD 25/190B/A	G 1 1/2"	G 1"	97	50	505	12	140	180	280	133	133	100	70	250	190	34	14	304	35	53.9
BNMD 25/190A/B	G 1 1/2"	G 1"	97	50	505	12	140	180	280	133	133	100	70	250	190	34	14	304	35	56.2
NMD 40/180D/B	G 2"	G 1 1/2"	121	50	535	12	150	215	290	145	145	100	70	265	212	35	14	310	41	59.3
NMD 40/180C/A	G 2"	G 1 1/2"	121	50	587	12	150	215	317	145	145	100	70	265	212	32	14	341	41	71.4
NMD 40/180B/A	G 2"	G 1 1/2"	121	50	587	12	150	215	317	145	145	100	70	265	212	32	14	341	41	75.2
NMD 40/180A/B	G 2"	G 1 1/2"	121	50	632	12	150	215	340	145	145	100	70	265	212	29	14	366	41	96.5



Three-phase

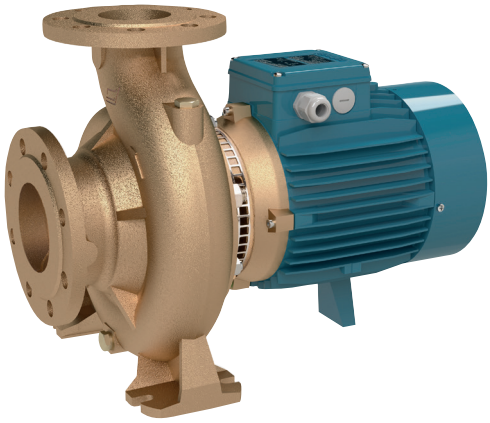
TYPE	ISO 228		mm																	kg
	DN1	DN2	a	b1	fM	g2	g3	h1	h2	HD	l1	l2	m4	m5	n4	n5	s2	w	w1	Weight
NMD 32/210D/B	G 2"	G 1 1/4"	110	54	530	6	-	155	215	295	150	150	205	175	180	140	10	140	15	60.7
NMD 32/210C/A	G 2"	G 1 1/4"	110	68	583	-	38	150	215	312	150	150	280	250	258	190	12	139	15	71
NMD 32/210B/A	G 2"	G 1 1/4"	110	68	583	-	38	150	215	312	150	150	280	250	258	190	12	139	15	70
NMD 32/210A/B	G 2"	G 1 1/4"	110	70	627	-	38	170	215	360	150	150	298	268	286	216	12	152	15	97.5
BNMD 32/210D/B	G 2"	G 1 1/4"	110	54	530	6	-	155	215	295	150	150	205	175	180	140	10	140	15	64.8
BNMD 32/210C/A	G 2"	G 1 1/4"	110	68	583	-	38	150	215	312	150	150	280	250	258	190	12	139	15	77.2
BNMD 32/210B/A	G 2"	G 1 1/4"	110	68	583	-	38	150	215	312	150	150	280	250	258	190	12	139	15	81.5
BNMD 32/210A/B	G 2"	G 1 1/4"	110	70	627	-	38	170	215	360	150	150	298	268	286	216	12	152	15	103.1
BNMD 40/180D/B	G 2"	G 1 1/2"	121	54	535	6	-	155	215	295	145	145	205	175	180	140	10	134	15	66.8
BNMD 40/180C/A	G 2"	G 1 1/2"	121	68	588	-	38	150	215	312	145	145	280	250	258	190	12	133	15	-
BNMD 40/180B/A	G 2"	G 1 1/2"	121	68	588	-	38	150	215	312	145	145	280	250	258	190	12	133	15	82.6
BNMD 40/180A/B	G 2"	G 1 1/2"	121	70	632	-	38	170	215	360	145	145	298	268	286	216	12	146	15	-

NM, NMS

NM, NM4 (close-coupled cast iron version)



BNM, BNM4 (close-coupled bronze version)



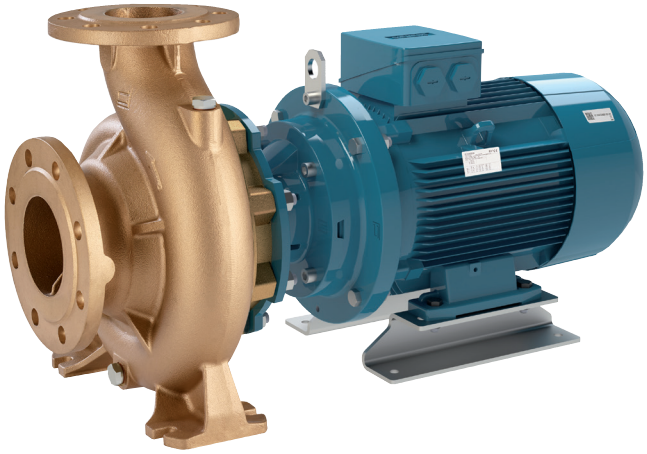
NM EI, NM4 EI (close-coupled with I-MAT version)



NMS, NMS4 (Stub-shaft cast iron version)



BNMS, BNMS4 (Stub-shaft bronze version)



Close coupled centrifugal pumps with flanged connections

NM, NMS

Construction

NM, NM4 Close-coupled centrifugal pumps; electric motor with extended shaft directly connected to the pump up to 22 kW (15 kW for NM4).

NMS, NMS4 Close-coupled centrifugal pumps, new bracket construction for standard motors (stub-shaft construction) with integrated thrust bearing.

Rated speed of rotation (50 Hz):
NM, NMS ≈ 2900 rpm.
NM4, NMS4 ≈ 1450 rpm.

Pump casing with axial suction and radial delivery on top, main dimensions and performance according to EN 733 with additional sizes for completion. (NMS4 80/400).
NM(S), NM(S)4: version with pump casing and lantern bracket in cast iron.
BNM(S), BNM(S)4: version with pump casing and lantern bracket/casing cover in bronze.
The pumps are supplied fully painted.
Version with frequency converter (on request)

Connections: Flanges PN 10-16, EN 1092-2 (PN 10 for DN 200)

Counter-flanges (on request)

Sizes	Flanges
from NM, NM4 32/.. to NM, NM4 50/..	Screwed flanges EN 1092-1, PN 16
from NM, NM4 65/.. to NMS4 150/..	Flanges for welding EN 1092-1, PN 10-16 (PN 10 for DN 200)

Applications

For clean liquids without abrasives, which are non-aggressive for the pump materials (solids content up to 0.2%).
For water supply.
For heating, air-conditioning, cooling and circulation plants.
For civil and industrial applications.
For irrigation.

Operating conditions

Liquid temperature from -10 °C to +90 °C.
Ambient temperature up to 40° C.
Total suction lift up to 7 m.
Maximum permissible working pressure up to 16 bar (10 bar for NM 32/12; NM,NM4 32/16,20; NM,NM4 40/25; NM,NM4 50/20,25; NM4 65/31; NM,NM4 100/25; NM4 100/315,400; NM4 125/250 and bronze version).
Continuous duty.

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).

NM, NMS: three-phase 230/400 V ± 10% up to 3 kW;
400/690 V ± 10% from 4 to 75 kW.

4-pole induction motor, 50 Hz (n ≈ 1450 rpm).

NM4, NMS4: three-phase 230/400 V ± 10% up to 3 kW;
400/690 V ± 10%, from 4 to 90 kW;

Insulation class F.
Protection IP 54 (IP 55 for NMS, NMS4).
Motor suitable for operation with frequency converter.
Three-phase motors with efficiency class IE2 up to 0.65 kW, IE3 from 0.75 to 55 kW, IE4 from 75 kW.
Constructed in accordance with: EN 60034-1; EN 60034-30-1.

Special features on request

Other voltages.
Impeller in chrome-nickel stainless steel for: 32/12, 40/12-16, 50/12-16
Frequency 60 Hz (as per 60 Hz data sheet).
Protection IP 55.
Special mechanical seal
IE4 efficiency class for three-phase motors
Single-phase motor (NMM) up to 1,8 kW.
Higher or lower liquid or ambient temperatures.

Designation

Example: BNM(S) EI 32/16A/B
B = Bronze version (without Cast Iron version indication)
NM = Series
S = Series Version Stub-Shaft
EI = With frequency converter I-MAT
32 = Delivery port diameter in mm
16 = Nominal impeller diameter
A = Impeller size
/B = It refers to a revision

The electropumps comply with the European Regulation no. 547/2012.

Materials

Components	**NM, NM4, NMS, NMS4**	**BNM, BNM4, BNMS, BNMS4**
Pump casing	Cast iron GJL 250 EN 1561 for PN 10 Cast iron GJS 400-15 EN 1563 for PN 16	Bronze CC480K EN 1982
Lantern bracket NM	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Casing cover for NMS(4)	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Lantern bracket NMS(4)	Cast iron GJL 200 EN 1561	Cast iron GJL 200 EN 1561
Impeller	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
	Cast iron GJL 250 EN 1561 For ..80/315,400; 100/315,400; 125/315,400; 150/315,400	
	Brass CW617N EN 12167 For .. 32/12-16-20, .. NM 40/20	Brass CW617N EN 12167 For .. 32/12-16-20, .. NM 40/20
Shaft	Chrome-nickel steel 1.4305 EN 10088 (AISI 303)	Steel 1.4401 EN 10088 (AISI 316)
	Steel 1.4104 EN 10088 (AISI 430F) from 3kW to 75kW	Steel 1.4401 EN 10088 (AISI 316)
	Steel 1.4462 EN 10088 (AISI 2205) for NMS4150/400S	Steel 1.4462 EN 10088 (AISI 2205) for BNMS4150/400S
Mechanical seal	Carbon - Ceramic - NBR	Carbon - Ceramic - NBR
Counter-flanges	Steel 1.0044 EN 10025-2 (Fe 430B)	Steel 1.0044 EN 10025-2 (Fe 430B)

NM, NMS

EI: Pumps with frequency converter

The NM(4) EI pumps are available with power from 0,37 kW up to 37 kW, the pumps are equipped with I-MAT installed on board.
Which allows to realize a variable-speed system extremely compact and efficient, ideal in applications of water supply and in the distribution of hot and cold water.
The pump is equipped with transducers suitable for operation and is already programmed at the factory.

Features

- Energy saving
- Compact design
- Easy to use
- Programmable to suit the system requirements
- Reliability



Construction

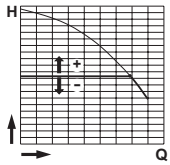
The system comprises of:
- Pump
- Induction motor
- I-MAT Frequency converter
- Motor adapter for the motor mounting of the frequency converter
- Connection cable between frequency converter and induction motor
- Single pressure transducer for 2 poles and differential transducer for 4 poles

Main features

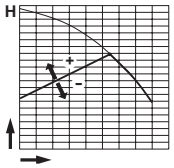
Rated motor power output from 0,37 kW to 37 kW.
Control range from 1750 to 2900 rpm (2-pole)
Control range 870÷1750 1/min (4-pole)
Protection against dry running
Protection against operations with closed valve ports
Protection against system leakages
Protection against overcurrent in the motor
Protection agains overvoltage and undervoltage of the power supply
Protection against current unbalances between phases

Operating modes

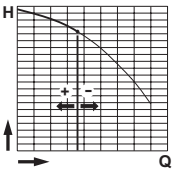
Constant pressure mode
with pressure transducer
In this mode, the system maintains the preset pressure when the flow required by the installation changes.



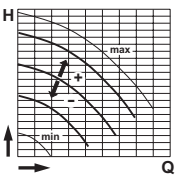
Proportional pressure mode
with pressure transducer
In this mode the system changes the working pressure according to the required flow rate.



Constant flow mode
with flow meter
In this mode the system maintains a constant flow rate value in a point of the installation according to the required pressure.



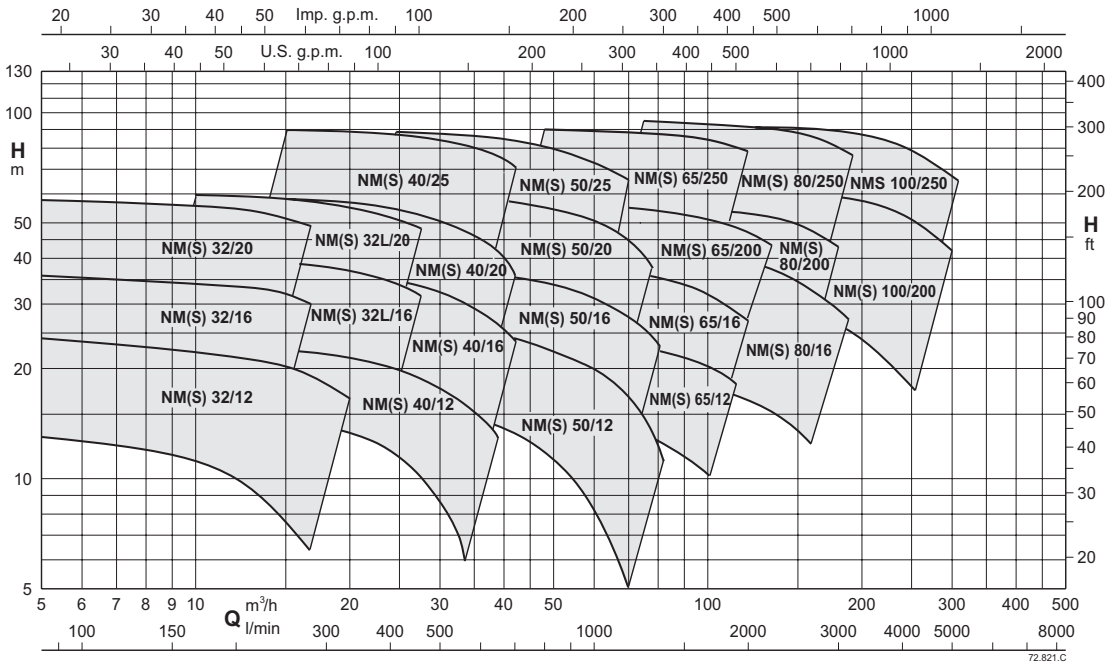
Fixed speed mode
with setting of the speed preferential rotation.
In this mode, by changing the working frequency, you may choose any operational curve included within the working range.



Constant temperature mode
with temperature transducer
In this mode the system keeps the temperature constant inside a system by changing the speed of the pump.

NM

Coverage chart n ≈ 2900 rpm



Coverage chart n ≈ 2900 rpm

Three-phase

							Q = Flow												
							m³/h	0	6,6	7,5	8,4	9,6	10,8	12	13,2	15	16,8	18,9	21	24
Model		230V	400V	690V	P2		l/min		110	125	140	160	180	200	220	250	280	315	350	400
		A			kW	HP	H (m) = Total head													
BNM	NM 32/12F	4	2,3	-	0,55	0,75		13,2	12,5	12,5	12	11,5	11	10	9	7,5	-	-	-	-
BNM	NM 32/12D	4	2,3	-	0,75	1		18,4	18	17,8	17,5	17,1	16,6	16	15,3	14,1	-	-	-	-
BNM	NM 32/12A/A	4,6	2,7	-	1,1	1,5		23,5	23	22,8	22,5	22,1	21,6	21,1	20,4	19,3	-	-	-	-
BNM	NM 32/12S/A	7,5	4,3	-	1,5	2		24	23,6	23,2	22,8	22,4	22	21,6	21,1	20,4	19,5	18,1	16,4	13,1
BNM	NM 32/16B/A	7,5	4,3	-	1,5	2		30	29,5	29,5	29	28,5	27,5	27	26	25	22,5	-	-	-
BNM	NM 32/16A/B	9,2	5,3	-	2,2	3		36	35,5	35,2	34,9	34,5	34,1	33,6	33	31,8	30,1	-	-	-
BNM	NM 32/20D/B	9,2	5,3	-	2,2	3		41	37,5	36,7	35,9	35	34,1	33,1	32	-	-	-	-	-
BNM	NM 32/20C/A	11,5	6,6	-	3	4		46,4	44,5	44	43,5	42,8	42	41,2	40,2	38,3	35,9	-	-	-
BNM	NM 32/20A/B	-	9,6	5,5	4	5,5		58,6	57	56,5	56	55,3	54,5	53,6	52,6	50,9	48,9	-	-	-

Three-phase

							Q = Flow												
							m³/h	0	9,6	10,8	12	13,2	15	16,8	18,9	21	24	27	29	32
Model		230V	400V	690V	P2		l/min		160	180	200	220	250	280	315	350	400	450	483	533
		A			kW	HP	H (m) = Total head													
BNM	NM 32L/16C	9,2	5,3	-	2,2	3		25	25,1	24,9	24,7	24,4	23,8	23	21,8	20,3	17,3	13,4	-	-
BNM	NM 32L/16B	11,5	6,6	-	3	4		30	30,4	30,3	30,2	30	29,6	29	28,1	26,8	24,2	20,8	17,9	-
BNM	NM 32L/16A	-	9,6	5,5	4	5,5		38	39,9	39,9	39,8	39,6	39,3	38,8	37,9	36,8	34,7	31,9	29,7	25,6
BNM	NM 32L/20C	-	9,6	5,5	4	5,5		43	42,1	41,9	41,5	41,1	40,1	38,9	37	34,5	29,8	23,8	-	-
BNM	NM 32L/20B	-	10,8	6,2	5,5	7,5		52	51,7	51,6	51,4	51,2	50,7	50	48,7	46,9	43,2	37,9	33,4	-
BNM	NM 32L/20A	-	14,3	8,3	7,5	10		59	59,4	59,5	59,5	59,5	59,3	58,8	57,9	56,4	53,3	48,8	44,9	37,5

P2: Rated motor power output.
H: Total head in m
Tolerances according to UNI EN ISO 9906:2012

NM

Coverage chart n ≈ 2900 rpm

Three-phase

							Q = Flow													
							m³/h	0	15	16,8	18,9	21	24	27	30	33	37,8	39	42	45	48
Model		230V	400V	690V	P2		l/min		250	280	315	350	400	450	500	550	630	650	700	750	800
		A			kW	HP	H (m) = Total head														
BNM	NM 40/12F/B	4,6	2,7	-	1,1	1,5		14	14	13,5	12,9	12,1	11	9,6	7,9	6	-	-	-	-	-
BNM	NM 40/12C/B	7,5	4,3	-	1,5	2		17	17,5	17,1	16,6	15,9	14,9	13,6	12,1	10,4	7,4	6,6	-	-	-
BNM	NM 40/12A/C	9,2	5,3	-	2,2	3		21,8	22	21,8	21,5	21	20,1	19,1	17,9	16,4	13,9	13,2	11,4	-	-
BNM	NM 40/16C/C	9,2	5,3	-	2,2	3		23	23	22,7	22,1	21,4	20	18,4	16,6	14,5	11	10	-	-	-
BNM	NM 40/16B/B	11,5	6,6	-	3	4		28	29	28,6	28,1	27,5	26,4	25,1	23,5	21,6	18	16,9	14,1	-	-
BNM	NM 40/16A/C	-	9,6	5,5	4	5,5		36	37	36,7	36,4	35,8	34,9	33,7	32,2	30,4	27	26	23,3	20,3	16,9
BNM	NM 40/20D/B	-	9,6	5,5	4	5,5		42	39	38,1	37	35,6	33,3	30,5	26,9	22,7	14	-	-	-	-
BNM	NM 40/20C/B	-	9,6	5,5	4	5,5		43,5	41,5	40,6	39,4	38,1	36	33,5	-	-	-	-	-	-	-
BNM	NM 40/20B/A	-	10,8	6,2	5,5	7,5		51	50	49,3	48,4	47,4	45,8	43,7	41	37,7	30,5	-	-	-	-
BNM	NM 40/20AR/A	-	10,8	6,2	5,5	7,5		55	55	54,7	53,9	52,9	51,1	49	-	-	-	-	-	-	-
BNM	NM 40/20A/A	-	14,3	8,3	7,5	10		57,5	57,5	57	56,3	55,5	54,3	52,7	50,7	48	42,2	40,4	35,2	-	-
BNM	NM 40/25C/C	-	18,5	10,7	9,2	12,5		62	61	60,9	60,6	59,9	58,4	56,2	53,3	49,6	42	39,7	33,4	-	-
BNM	NM 40/25B/C	-	21,5	12,4	11	15		70	69,5	69,3	68,9	68,4	67,3	65,7	63,4	60,3	53,4	51,2	44,9	-	-
BNM	NM 40/25A/C	-	27,3	15,8	15	20		90	90	89,8	89,5	89,1	88,3	87,1	85,3	82,9	77,5	75,7	70,7	-	-

Three-phase

							Q = Flow														
							m³/h	0	24	27	30	33	37,8	42	48	54	60	66	69	72	75	78	81
Model		230V	400V	690V	P2		l/min		400	450	500	550	630	700	800	900	1000	1100	1150	1200	1250	1300	1350
		A			kW	HP	H (m) = Total head																
BNM	NM 50/12F/C	9,2	5,3	-	2,2	3		16,5	-	-	15,5	15,1	14,2	13,3	11,8	10,1	8,1	5,9	-	-	-	-	-
BNM	NM 50/12D/B	11,5	6,6	-	3	4		20,5	-	-	20	19,5	18,7	17,8	16,4	14,7	12,8	10,5	9,2	7,9	-	-	-
BNM	NM 50/12A/C	-	9,6	5,5	4	5,5		24,5	-	-	24	23,8	23,2	22,5	21,1	19,4	17,4	15,1	13,9	12,7	11,4	10	-
BNM	NM 50/12S/C	-	9,6	5,5	4	5,5		27	-	-	26,5	26,1	25,4	24,7	23,4	21,9	20	17,9	16,7	15,5	14,1	12,7	11,1
BNM	NM 50/16B/B	-	10,8	6,2	5,5	7,5		30,5	-	-	31	30,3	29,2	28	26,2	24,1	21,7	18,8	17,2	15,5	13,6	11,6	9,5
BNM	NM 50/16A/B	-	14,3	8,3	7,5	10		38	-	-	38,5	38,2	37,4	36,4	34,7	32,5	29,9	27,1	25,5	24	22,3	20,7	19
BNM	NM 50/20B/C	-	18,5	10,7	9,2	12,5		48	48	47,7	47,3	46,8	45,7	44,6	42,6	40	36,7	32,9	30,6	28,2	25,6	22,8	-
BNM	NM 50/20A/C	-	21,5	12,4	11	15		54	55	54,9	54,6	54,2	53,3	52,3	50,3	47,9	44,9	41,4	39,4	37,2	35	32,5	-
BNM	NM 50/20S/C	-	27,3	15,8	15	20		58	60	59,8	59,6	59,2	58,4	57,5	55,8	53,5	50,6	47	45	42,7	40,2	37,5	-
BNM	NM 50/25C/C	-	21,5	12,4	11	15		55,5	55	54,5	53,9	53,1	51,4	49,5	46	41,4	35,6	28,5	24,5	-	-	-	-
BNM	NM 50/25B/C	-	27,3	15,8	15	20		68	69	68,6	68	67,3	65,8	64,2	61,1	57,1	52,3	46,4	43,1	-	-	-	-
BNM	NM 50/25A/D	-	34	19,6	18,5	25		80	80,5	80,3	80	79,5	78,4	77,1	74,6	71,3	67	61,6	58,5	-	-	-	-
BNM	NM 50/25S	-	41	23,7	22	30		88	88,5	88,5	88	87	86	84	81,5	78,5	75	71	68,5	-	-	-	-

P2: Rated motor power output.
H: Total head in m
Tolerances according to UNI EN ISO 9906:2012

NM

Coverage chart n ≈ 2900 rpm

Three-phase

						Q = Flow													
						m³/h	0	37,8	42	48	54	60	66	75	84	96	108	120	132	141
Model		400V	690V	P2		l/min		630	700	800	900	1000	1100	1250	1400	1600	1800	2000	2200	2350
		A		kW	HP	H (m) = Total head													
BNM	NM 65/12E/C	9,6	5,5	4	5,5		16,5	16,5	16,4	16,2	15,9	15,5	15,1	14,3	13,2	11,4	9,2	-	-	-
BNM	NM 65/12C/B	10,8	6,2	5,5	7,5		20,5	21,1	21	20,8	20,6	20,3	19,9	19,1	18,2	16,5	14,4	11,8	-	-
BNM	NM 65/12A/B	14,3	8,3	7,5	10		25,5	25,9	25,8	25,6	25,4	25,1	24,8	24,1	23,3	21,9	20	17,6	-	-
BNM	NM 65/16D/B	14,3	8,3	7,5	10		24	-	-	24,3	24,1	23,9	23,6	23,1	22,3	20,8	18,8	16,3	-	-
BNM	NM 65/16C/C	18,5	10,7	9,2	12,5		26,5	-	-	28,1	28	27,8	27,6	27,1	26,3	24,9	23,1	20,7	17,7	-
BNM	NM 65/16B/C	21,5	12,4	11	15		31,8	-	-	32,6	32,5	32,3	32	31,5	30,8	29,5	27,9	25,7	23	-
BNM	NM 65/16AR	27,3	15,8	15	20		35,5	-	-	36,4	36,3	36,2	35,9	35,5	34,8	33,7	32,1	30	27,5	-
BNM	NM 65/16A/C	27,3	15,8	15	20		39	-	-	40,5	40,4	40,2	40	39,5	38,8	37,6	36,1	34,1	31,7	-
BNM	NM 65/20C/C	27,3	15,8	15	20		41	-	-	44	43,8	43,5	43,1	42,3	41,2	39,4	37,1	34,4	31,4	28,8
-	NM 65/20B/D	34	19,6	18,5	25		47	-	-	50,5	50,4	50,2	49,9	49,2	48,3	46,8	44,8	42,5	39,8	37,5
-	NM 65/20A/A	41	23,7	22	30		54	-	-	57	57	56,9	56,6	56,1	55,4	54	52,3	50,1	47,6	45,4
BNM	NM 65/25C/A	41	23,7	22	30		56	-	-	61	60,8	60,4	59,8	58,7	57,2	54,6	51,3	47,5	43	-
BNMS	NMS 65/250B/B	-	-	30	40		68	-	-	73,5	73,7	73,7	73,5	72,8	71,6	69,4	66,6	63,1	59	-
BNMS	NMS 65/250A/B	-	-	37	50		80	-	-	86,5	86,7	86,8	86,7	86,1	85,2	83,5	81,1	78,1	74,5	-

Three-phase

						Q = Flow														
						m³/h	0	75	84	96	108	120	132	150	168	180	192	210	240	270	300
Model		400V	690V	P2		l/min		1250	1400	1600	1800	2000	2200	2500	2800	3000	3200	3500	4000	4500	5000
		A		kW	HP	H (m) = Total head														
BNM	NM 80/16E/B	14,3	8,3	7,5	10		24	21,5	20,9	19,9	18,7	17,4	15,9	13,4	10,6	-	-	-	-	-	-
BNM	NM 80/16D/C	18,5	10,7	9,2	12,5		26	25,2	24,5	23,5	22,4	21,1	19,6	17,2	14,4	-	-	-	-	-	-
BNM	NM 80/16C/C	22,4	12,9	11	15		28	28,7	28,2	27,4	26,4	25,2	23,8	21,3	18,5	16,4	-	-	-	-	-
BNM	NM 80/16B/C	27,3	15,8	15	20		35	34,8	34,4	33,8	33	32,1	30,9	28,9	26,4	24,5	22,4	-	-	-	-
BNM	NM 80/16A/D	34	19,6	18,5	25		40	39,9	39,5	39	38,3	37,4	36,4	34,5	32,2	30,3	28,1	-	-	-	-
-	NM 80/20B/A	41	23,7	22	30		42	44,4	43,9	43,2	42,4	41,5	40,5	38,6	36,4	34,6	32,5	-	-	-	-
BNMS	NMS 80/200A/B	-	-	30	40		54,4	56,6	56,3	55,8	55,2	54,4	53,5	51,7	49,4	47,7	45,6	-	-	-	-
-	NM 80/25E	41	23,7	22	30		52	51	50	48,4	46,6	44,5	42,1	37,9	32,9	29,1	-	-	-	-	-
BNMS	NMS 80/250D/A	-	-	30	40		65	65	63,9	62,4	60,8	58,9	56,9	53,2	48,7	45,2	41,2	-	-	-	-
BNMS	NMS 80/250C/A	-	-	37	50		74	73,5	72,9	71,9	70,6	68,9	66,9	63,3	58,8	55,4	51,6	-	-	-	-
BNMS	NMS 80/250B/A	-	-	45	60		84	84	83,5	82,6	81,4	79,9	78,1	74,7	70,4	66,9	63,1	-	-	-	-
BNMS	NMS 80/250A/A	-	-	55	75		95	95	94,3	93,4	92,5	91,5	90,2	87,5	83,8	80,5	76,5	-	-	-	-
-	NM 100/20E/A	34	19,6	18,5	25		30	-	-	-	30	29,5	29	28,1	26,9	26	25	23,1	19	-	-
-	NM 100/20D	41	23,7	22	30		36	-	-	-	36	35,5	35	34,1	32,9	32	30,9	28,9	24,7	18,9	-
BNMS	NMS 100/200C/A	-	-	30	40		45,5	-	-	-	45	44,6	44,2	43,4	42,4	41,6	40,5	38,7	34,6	29,1	21,9
BNMS	NMS 100/200B/A	-	-	37	50		54,2	-	-	-	54	53,6	53,2	52,4	51,4	50,6	49,6	47,8	43,9	38,7	31,9
BNMS	NMS 100/200A/A	-	-	45	60		62	-	-	-	61,5	61,1	60,8	60,1	59,3	58,6	57,8	56,4	53	48,3	41,9
BNMS	NMS 100/250B/A	-	-	55	75		74	-	-	-	73,5	73	72,4	71,2	69,8	68,7	67,4	65,2	60,8	55,3	48,6
BNMS	NMS 100/250A/A	-	-	75	100		92	-	-	-	91	90,6	90,2	89,5	88,6	87,8	86,9	85,1	81	75,1	66,9

P2: Rated motor power output.
H: Total head in m
Tolerances according to UNI EN ISO 9906:2012

NM

Coverage chart n ≈ 2900 rpm

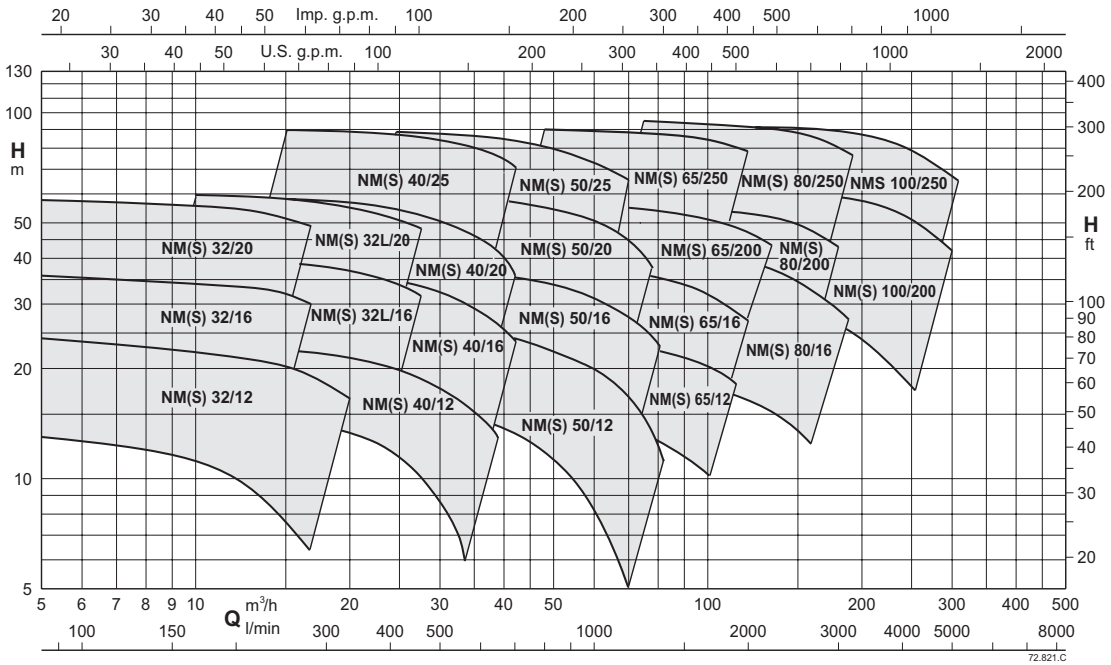
Rated current

Motor	IE3			IE4		
P2	400V	690V		400V	690V	
kW	A	A	Ia/In	A	A	Ia/In
0.55	2.3	-	4.8	2.3	-	4.8
0.75	2.3	-	6.1	2.3	-	6.1
1.1	2.7	-	5.5	2.7	-	5.5
1.5	4.3	-	6.1	4.3	-	6.1
2.2	5.3	-	8.4	5.3	-	8.4
3	6.6	-	8.2	6.6	-	8.2
4	9.6	5.5	8.9	7.3	4.2	7.5
5.5	10.8	6.2	9.1	10.8	6.2	9.1
7.5	14.3	8.3	9.1	13.4	7.8	7.5
9.2	18.5	10.7	8.2	18.5	10.7	8.2
11	21.5	12.4	8.5	21.5	12.4	8.5
15	27.3	15.8	9.5	27.3	15.8	9.5
18.5	34	19.6	9.5	34	19.6	9.5
22	41	23.7	9.5	38	22	9.5
30	53	30.5	8.6	51.5	29.9	9
37	65	37.5	7.1	63.3	36.7	9
45	78	45	6.9	76.8	44.5	9
55	95	55	6.7	93.6	54.3	9
75	128	74	6.8	127.2	73.7	8.5

A*: Calpeda motor Standard
Ia/In D.O.L. starting current / Nominal current

NMS

Coverage chart n ≈ 2900 rpm



Coverage chart n ≈ 2900 rpm

Three-phase

				Q = Flow														
				m³/h	0	6,6	7,5	8,4	9,6	10,8	12	13,2	15	16,8	18,9	21	24	27
Model		P2		l/min		110	125	140	160	180	200	220	250	280	315	350	400	450
		kW	HP	H (m) = Total head														
BNMS	NMS 32/125D	0,75	1		18,4	18	17,8	17,5	17,1	-	-	-	-	-	-	-	-	-
BNMS	NMS 32/125D-S	1,1	1,5		18,4	18	17,8	17,5	17,1	16,6	16	15,3	14,1	12,7	10,8	8,6	-	-
BNMS	NMS 32/125A	1,1	1,5		24,3	23	22,8	22,5	22,1	21,6	21,1	20,4	-	-	-	-	-	-
BNMS	NMS 32/125A-S	1,5	2		24,3	23	22,8	22,5	22,1	21,6	21,1	20,4	19,3	18	16,2	13,9	10	-
BNMS	NMS 32/125S	1,5	2		25	23,6	23,2	22,8	22,4	22	21,6	21,1	20,4	19,5	18,1	16,4	13,1	-
BNMS	NMS 32/160B	1,5	2		29,3	29,5	29,3	29	28,4	27,8	27	26,1	24,5	-	-	-	-	-
BNMS	NMS 32/160B-S	2,2	3		31,8	29,5	29,3	29	28,4	27,8	27	26,1	24,5	22,7	20,2	17,3	12,5	-
BNMS	NMS 32/160A	2,2	3		36	35,5	35,2	34,9	34,5	34,1	33,6	33	31,8	30,1	-	-	-	-
BNMS	NMS 32/160A-S	3	4		36	35,5	35,2	34,9	34,5	34,1	33,6	33	31,8	30,1	28	25,3	20,8	15
BNMS	NMS 32/200D	2,2	3		41	37,5	36,7	35,9	35	34,1	-	-	-	-	-	-	-	-
BNMS	NMS 32/200D-S	3	4		41	37,5	36,7	35,9	35	34,1	33,1	32	29,9	26,9	22,1	-	-	-
BNMS	NMS 32/200C	3	4		46,1	44,5	44	43,5	42,8	42	41,2	40,2	38,3	35,9	32,1	-	-	-
BNMS	NMS 32/200A	4	5,5		58,7	57	56,5	56	55,3	54,5	53,6	52,6	50,9	-	-	-	-	-
BNMS	NMS 32/200A-S	5,5	7,5		58,7	57	56,5	56	55,3	54,5	53,6	52,6	50,9	48,9	46,1	-	-	-

Three-phase

				Q = Flow														
				m³/h	0	9,6	10,8	12	13,2	15	16,8	18,9	21	24	27	29	32	
Model		P2		l/min		160	180	200	220	250	280	315	350	400	450	483	533	
		kW	HP	H (m) = Total head														
BNMS	NMS 32L/160C	2,2	3		25,7	25,1	24,9	24,7	24,4	23,8	23	21,8	20,3	17,3	13,4	-	-	
BNMS	NMS 32L/160B	3	4		30,4	30,4	30,3	30,2	30	29,6	29	28,1	26,8	24,2	20,8	17,9	-	
BNMS	NMS 32L/160A	4	5,5		38,5	39,9	39,9	39,8	39,6	39,3	38,8	37,9	36,8	34,7	31,9	29,7	25,6	
BNMS	NMS 32L/200C	4	5,5		41,3	42,1	41,9	41,5	41,1	40,1	38,9	37	34,5	29,8	23,8	-	-	
BNMS	NMS 32L/200B	5,5	7,5		53	51,7	51,6	51,4	51,2	50,7	50	48,7	46,9	43,2	37,9	33,4	-	
BNMS	NMS 32L/200A	7,5	10		57,7	59,4	59,5	59,5	59,5	59,3	58,8	57,9	56,4	53,3	48,8	44,9	37,5	

P2: Rated motor power output.
H: Total head in m
Tolerances according to UNI EN ISO 9906:2012

NMS

Coverage chart n ≈ 2900 rpm

Three-phase

				Q = Flow														
				m³/h	0	15	16,8	18,9	21	24	27	30	33	37,8	39	42	45	48
Model		P2		l/min		250	280	315	350	400	450	500	550	630	650	700	750	800
		kW	HP	H (m) = Total head														
BNMS	NMS 40/125F	1,1	1,5		14	14	13,5	12,9	12,1	11	9,6	7,9	6	-	-	-	-	-
BNMS	NMS 40/125C	1,5	2		17	17,5	17,1	16,6	15,9	14,9	13,6	12,1	10,4	7,4	6,6	-	-	-
BNMS	NMS 40/125A	2,2	3		21,8	22	21,8	21,5	21	20,1	19,1	17,9	16,4	13,9	13,2	11,4	-	-
BNMS	NMS 40/160C	2,2	3		23	23	22,7	22,1	21,4	20	18,4	16,6	14,5	11	10	-	-	-
BNMS	NMS 40/160B	3	4		29,9	29	28,6	28,1	27,5	26,4	25,1	23,5	21,6	18	16,9	14,1	-	-
BNMS	NMS 40/160A	4	5,5		36	37	36,7	36,4	35,8	34,9	33,7	32,2	30,4	27	-	-	-	-
BNMS	NMS 40/160A-S	5,5	7,5		36	37	36,7	36,4	35,8	34,9	33,7	32,2	30,4	27	26	23,3	20,3	16,9
BNMS	NMS 40/200D	4	5,5		41	39	38,1	37	35,6	33,3	30,5	-	-	-	-	-	-	-
BNMS	NMS 40/200D-S	5,5	7,5		41	39	38,1	37	35,6	33,3	30,5	26,9	22,7	14	-	-	-	-
BNMS	NMS 40/200C	4	5,5		43	41,5	40,6	39,4	38,1	-	-	-	-	-	-	-	-	-
BNMS	NMS 40/200C-S	5,5	7,5		43	41,5	40,6	39,4	38,1	36	33,5	-	-	-	-	-	-	-
BNMS	NMS 40/200B	5,5	7,5		50,5	50	49,3	48,4	47,4	45,8	43,7	41	37,7	-	-	-	-	-
BNMS	NMS 40/200B-S	7,5	10		50,5	50	49,3	48,4	47,4	45,8	43,7	41	37,7	30,5	-	-	-	-
BNMS	NMS 40/200AR	5,5	7,5		55	55	54,7	53,9	52,9	51,1	-	-	-	-	-	-	-	-
BNMS	NMS 40/200AR-S	7,5	10		55	55	54,7	53,9	52,9	51,1	49	-	-	-	-	-	-	-
BNMS	NMS 40/200A	7,5	10		57,5	57,5	57	56,3	55,5	54,3	52,7	50,7	48	42,2	40,4	35,2	-	-
BNMS	NMS 40/250C	11	15		62	61	60,9	60,6	59,9	58,4	56,2	53,3	49,6	42	39,7	33,4	-	-
BNMS	NMS 40/250B	11	15		70	69,5	69,3	68,9	68,4	67,3	65,7	63,4	60,3	53,4	51,2	44,9	-	-
BNMS	NMS 40/250A	15	20		90	90	89,8	89,5	89,1	88,3	87,1	85,3	82,9	77,5	75,7	70,7	-	-

Three-phase

				Q = Flow															
				m³/h	0	24	27	30	33	37,8	42	48	54	60	66	69	72	75	78	81
Model		P2		l/min		400	450	500	550	630	700	800	900	1000	1100	1150	1200	1250	1300	1350
		kW	HP	H (m) = Total head															
BNMS	NMS 50/125F	2,2	3		16,5	-	-	15,5	15,1	14,2	13,3	11,8	10,1	8,1	5,9	-	-	-	-	-
BNMS	NMS 50/125D	3	4		20,5	-	-	20	19,5	18,7	17,8	16,4	14,7	12,8	10,5	9,2	7,9	-	-	-
BNMS	NMS 50/125A	4	5,5		24,1	-	-	24	23,8	23,2	22,5	21,1	19,4	17,4	15,1	13,9	12,7	11,4	10	-
BNMS	NMS 50/125S	4	5,5		27,6	-	-	26,5	26,1	25,4	24,7	23,4	21,9	-	-	-	-	-	-	-
BNMS	NMS 50/125S-S	5,5	7,5		27,6	-	-	26,5	26,1	25,4	24,7	23,4	21,9	20	17,9	16,7	15,5	14,1	12,7	11,1
BNMS	NMS 50/160B	5,5	7,5		30,5	-	-	31	30,3	29,2	28	26,2	24,1	21,7	18,8	17,2	15,5	13,6	11,6	9,5
BNMS	NMS 50/160A	7,5	10		38	-	-	38,5	38,2	37,4	36,4	34,7	32,5	29,9	27,1	25,5	24	22,3	20,7	19
BNMS	NMS 50/200B	11	15		48,4	48	47,7	47,3	46,8	45,7	44,6	42,6	40	36,7	32,9	30,6	28,2	25,6	22,8	-
BNMS	NMS 50/200A	11	15		54	55	54,9	54,6	54,2	53,3	52,3	50,3	47,9	44,9	41,4	39,4	37,2	35	32,5	-
BNMS	NMS 50/200S	15	20		59	60	59,8	59,6	59,2	58,4	57,5	55,8	53,5	50,6	47	45	42,7	40,2	37,5	-
BNMS	NMS 50/250C	11	15		55,1	55	54,5	53,9	53,1	51,4	49,5	46	41,4	35,6	28,5	24,5	-	-	-	-
BNMS	NMS 50/250B	15	20		69	69	68,6	68	67,3	65,8	64,2	61,1	57,1	52,3	46,4	43,1	-	-	-	-
BNMS	NMS 50/250A	18,5	25		80	80,5	80,3	80	79,5	78,4	77,1	74,6	71,3	67	61,6	58,5	-	-	-	-

P2: Rated motor power output.
H: Total head in m
Tolerances according to UNI EN ISO 9906:2012

NMS

Coverage chart n ≈ 2900 rpm

Three-phase

				Q = Flow														
				m³/h	0	37,8	42	48	54	60	66	75	84	96	108	120	132	141
Model		P2		l/min		630	700	800	900	1000	1100	1250	1400	1600	1800	2000	2200	2350
		kW	HP	H (m) = Total head														
BNMS	NMS 65/125E	4	5,5		16,2	16,5	16,4	16,2	15,9	15,5	15,1	14,3	13,2	11,4	9,2	-	-	-
BNMS	NMS 65/125C	5,5	7,5		20,8	21,1	21	20,8	20,6	20,3	19,9	19,1	18,2	16,5	14,4	11,8	-	-
BNMS	NMS 65/125A	7,5	10		26	25,9	25,8	25,6	25,4	25,1	24,8	24,1	23,3	21,9	20	17,6	-	-
BNMS	NMS 65/160D	7,5	10		24	-	-	24,3	24,1	23,9	23,6	23,1	22,3	20,8	18,8	16,3	-	-
BNMS	NMS 65/160C	11	15		27,8	-	-	28,1	28	27,8	27,6	27,1	26,3	24,9	23,1	20,7	17,7	-
BNMS	NMS 65/160B	11	15		31,8	-	-	32,6	32,5	32,3	32	31,5	30,8	29,5	27,9	25,7	23	-
BNMS	NMS 65/160AR	15	20		35,8	-	-	36,4	36,3	36,2	35,9	35,5	34,8	33,7	32,1	30	27,5	-
BNMS	NMS 65/160A	15	20		38,8	-	-	40,5	40,4	40,2	40	39,5	38,8	37,6	36,1	34,1	31,7	-
BNMS	NMS 65/200C	15	20		41	-	-	44	43,8	43,5	43,1	42,3	41,2	39,4	37,1	34,4	31,4	28,8
BNMS	NMS 65/200B	18,5	25		47	-	-	50,5	50,4	50,2	49,9	49,2	48,3	46,8	44,8	42,5	39,8	37,5
BNMS	NMS 65/200A	22	30		54	-	-	57	57	56,9	56,6	56,1	55,4	54	52,3	50,1	47,6	45,4
BNMS	NMS 65/250C	22	30		56	-	-	61	60,8	60,4	59,8	58,7	57,2	54,6	51,3	47,5	43	-
BNMS	NMS 65/250B/B	30	40		68	-	-	73,5	73,7	73,7	73,5	72,8	71,6	69,4	66,6	63,1	59	-
BNMS	NMS 65/250A/B	37	50		80	-	-	86,5	86,7	86,8	86,7	86,1	85,2	83,5	81,1	78,1	74,5	-

Three-phase

				Q = Flow														
				m³/h	0	75	84	96	108	120	132	150	168	180	192	210	240	270	300
Model		P2		l/min		1250	1400	1600	1800	2000	2200	2500	2800	3000	3200	3500	4000	4500	5000
		kW	HP	H (m) = Total head														
BNMS	NMS 80/160E	7,5	10		23	21,5	20,9	19,9	18,7	17,4	15,9	13,4	10,6	-	-	-	-	-	-
BNMS	NMS 80/160D	11	15		26	25,2	24,5	23,5	22,4	21,1	19,6	17,2	14,4	-	-	-	-	-	-
BNMS	NMS 80/160C	11	15		29	28,7	28,2	27,4	26,4	25,2	23,8	21,3	18,5	16,4	-	-	-	-	-
BNMS	NMS 80/160B	15	20		35	34,8	34,4	33,8	33	32,1	30,9	28,9	26,4	24,5	22,4	-	-	-	-
BNMS	NMS 80/160A	18,5	25		40	39,9	39,5	39	38,3	37,4	36,4	34,5	32,2	30,3	28,1	-	-	-	-
BNMS	NMS 80/200B/B	22	30		42	44,4	43,9	43,2	42,4	41,5	40,5	38,6	36,4	34,6	32,5	-	-	-	-
BNMS	NMS 80/200A/B	30	40		54,4	56,6	56,3	55,8	55,2	54,4	53,5	51,7	49,4	47,7	45,6	-	-	-	-
BNMS	NMS 80/250E	22	30		52	51	50	48,4	46,6	44,5	42,1	37,9	32,9	29,1	-	-	-	-	-
BNMS	NMS 80/250D/A	30	40		65	65	63,9	62,4	60,8	58,9	56,9	53,2	48,7	45,2	41,2	-	-	-	-
BNMS	NMS 80/250C/A	37	50		74	73,5	72,9	71,9	70,6	68,9	66,9	63,3	58,8	55,4	51,6	-	-	-	-
BNMS	NMS 80/250B/A	45	60		84	84	83,5	82,6	81,4	79,9	78,1	74,7	70,4	66,9	63,1	-	-	-	-
BNMS	NMS 80/250A/A	55	75		95	95	94,3	93,4	92,5	91,5	90,2	87,5	83,8	80,5	76,5	-	-	-	-
BNMS	NMS 100/200E	18,5	25		30	-	-	-	30	29,5	29	28,1	26,9	26	25	23,1	19	-	-
BNMS	NMS 100/200D/A	22	30		36	-	-	-	36	35,5	35	34,1	32,9	32	30,9	28,9	24,7	18,9	-
BNMS	NMS 100/200C/A	30	40		45,5	-	-	-	45	44,6	44,2	43,4	42,4	41,6	40,5	38,7	34,6	29,1	21,9
BNMS	NMS 100/200B/A	37	50		54,2	-	-	-	54	53,6	53,2	52,4	51,4	50,6	49,6	47,8	43,9	38,7	31,9
BNMS	NMS 100/200A/A	45	60		62	-	-	-	61,5	61,1	60,8	60,1	59,3	58,6	57,8	56,4	53	48,3	41,9
BNMS	NMS 100/250B/A	55	75		74	-	-	-	73,5	73	72,4	71,2	69,8	68,7	67,4	65,2	60,8	55,3	48,6
BNMS	NMS 100/250A/A	75	100		92	-	-	-	91	90,6	90,2	89,5	88,6	87,8	86,9	85,1	81	75,1	66,9

P2: Rated motor power output.
H: Total head in m
Tolerances according to UNI EN ISO 9906:2012

NMS

Coverage chart n ≈ 2900 rpm

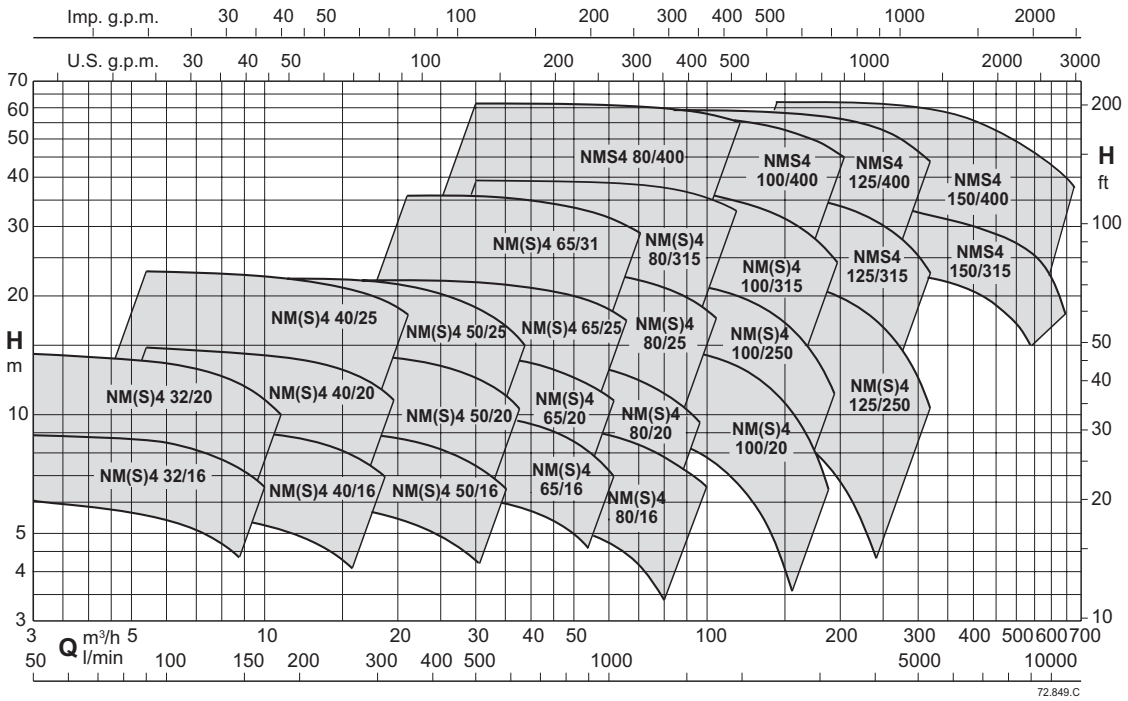
Rated current

Motor	IE3			IE4		
P2	400V	690V		400V	690V	
kW	A	A	Ia/In	A	A	Ia/In
0.55	2.3	-	4.8	2.3	-	4.8
0.75	2.3	-	6.1	2.3	-	6.1
1.1	2.7	-	5.5	2.7	-	5.5
1.5	4.3	-	6.1	4.3	-	6.1
2.2	5.3	-	8.4	5.3	-	8.4
3	6.6	-	8.2	6.6	-	8.2
4	9.6	5.5	8.9	7.3	4.2	7.5
5.5	10.8	6.2	9.1	10.8	6.2	9.1
7.5	14.3	8.3	9.1	13.4	7.8	7.5
9.2	18.5	10.7	8.2	18.5	10.7	8.2
11	21.5	12.4	8.5	21.5	12.4	8.5
15	27.3	15.8	9.5	27.3	15.8	9.5
18.5	34	19.6	9.5	34	19.6	9.5
22	41	23.7	9.5	38	22	9.5
30	53	30.5	8.6	51.5	29.9	9
37	65	37.5	7.1	63.3	36.7	9
45	78	45	6.9	76.8	44.5	9
55	95	55	6.7	93.6	54.3	9
75	128	74	6.8	127.2	73.7	8.5

A*: Calpeda motor Standard
Ia/In D.O.L. starting current / Nominal current

NM4

Coverage chart n ≈ 1450 rpm



Performance n ≈ 1450 rpm

Three-phase

						Q = Flow													
						m³/h	0	2,4	3	3,6	4,2	4,8	5,4	6	7,5	8,4	9,6	10,8	12	13,2
Model		230V	400V	P2		l/min		40	50	60	70	80	90	100	125	140	160	180	200	220
		A		kW	HP	H (m) = Total head													
BNM4	NM4 32/16B/A	1,65	0,95	0,37	0,5		7,6	7,6	7,5	7,4	-	7,2	7,1	6,9	6,3	5,9	5,2	4,2	-	-
BNM4	NM4 32/16A/A	1,65	0,95	0,37	0,5		9	9	8,9	8,9	-	8,7	8,6	8,5	7,9	7,5	6,8	6	5,1	-
BNM4	NM4 32/20B/A	2,6	1,5	0,55	0,75		12,5	12,5	12,4	12,4	12,2	12	11,8	11,5	10,6	9,9	8,9	7,7	6,2	4,7
BNM4	NM4 32/20A/B	3,3	1,9	0,75	1		14,2	14,3	14,2	14,2	14,1	13,9	13,7	13,5	12,8	12,2	11,3	10,3	9	7,4

Three-phase

						Q = Flow														
						m³/h	0	5,4	6	7,5	8,4	9,6	10,8	12	13,2	15	16,8	18,9	21	24	27	30
Model		230V	400V	P2		l/min		90	100	125	140	160	180	200	220	250	280	315	350	400	450	500
		A		kW	HP	H (m) = Total head														
BNM4	NM4 40/16C/B	1,65	0,95	0,37	0,5		5,9	6,1	6	5,9	5,8	5,6	5,4	5,2	5	4,5	3,9	3,1	2,3	-	-	-
BNM4	NM4 40/16B/B	2,6	1,5	0,55	0,75		7,3	7,6	7,6	7,6	7,6	7,3	7,1	6,9	6,6	6,3	5,7	5	4	2,7	-	-
BNM4	NM4 40/16A/C	3,3	1,9	0,75	1		9,3	9,6	9,6	9,6	9,4	9,3	9,1	9	8,8	8,4	7,9	7,2	6,4	5,1	3,5	-
BNM4	NM4 40/20B/B	5	2,9	1,1	1,5		13	13	12,9	12,7	12,6	12,4	12,2	12	11,5	10,8	10	8,6	7	-	-	-
BNM4	NM4 40/20A/B	5	2,9	1,1	1,5		14,8	14,8	14,7	14,5	14,4	14,2	14	13,8	13,6	13	12,2	11,3	10	-	-	-
BNM4	NM4 40/25C/C	6	3,5	1,5	2		17,4	17,4	17,3	17,2	17	16,8	16,6	16,3	16	15,1	13,8	12,1	10,4	7,2	2,8	-
BNM4	NM4 40/25B/C	8,6	5	2,2	3		21,3	21,4	21,5	21,3	21,2	21	20,9	20,8	20,5	20	19,5	18,3	16,4	13,3	10	5
BNM4	NM4 40/25A/B	11,1	6,4	3	4		22,8	22,9	22,8	22,9	22,8	22,5	22,5	22,2	22	21,8	21,4	20,4	18,9	16	12,6	8

P2: Rated motor power output.
H: Total head in m
Tolerances according to UNI EN ISO 9906:2012

NM4

Performance n ≈ 1450 rpm

Three-phase

							Q = Flow															
							m³/h	0	10,8	12	13,2	15	16,8	18,9	21	24	27	30	33	37,8	42	48
Model		230V	400V	690V	P2		l/min		180	200	220	250	280	315	350	400	450	500	550	630	700	800
		A			kW	HP	H (m) = Total head															
BNM4	NM4 50/16B/C	5	2,9	-	1,1	1,5		8	8,2	8,2	8,2	8,1	8	7,8	7,6	7,2	6,7	6,2	5,5	4,4	3,3	-
BNM4	NM4 50/16A/C	5	2,9	-	1,1	1,5		9,5	9,6	9,6	9,6	9,5	9,5	9,3	9,1	8,8	8,3	7,8	7,2	6,1	4,9	3,1
BNM4	NM4 50/20C/C	5	2,9	-	1,1	1,5		11,3	11,8	11,8	11,7	11,7	11,5	11,3	10,9	10,4	9,8	9	8,1	6,3	4,7	-
BNM4	NM4 50/20B/C	6	3,5	-	1,5	2		13	13,4	13,4	13,4	13,3	13,1	12,9	12,6	12,1	11,5	10,8	9,9	8,2	6,4	3,7
BNM4	NM4 50/20A/C	8,6	5	-	2,2	3		14,5	14,9	14,9	14,9	14,9	14,8	14,6	14,4	14	13,4	12,8	12	10,4	8,6	6
BNM4	NM4 50/25D/B	8,6	5	-	2,2	3		14,4	14,5	14,4	14,3	14	13,7	13,4	13	12,2	11,2	9,7	8,1	5,4	2,3	-
BNM4	NM4 50/25C/C	8,6	5	-	2,2	3		17,2	17,8	17,8	17,7	17,5	17,2	16,8	16,4	15,7	14,9	13,8	12,4	9,7	6,8	-
BNM4	NM4 50/25B/B	11,1	6,4	-	3	4		20,4	20,7	20,7	20,7	20,6	20,4	20	19,5	18,9	18,2	17,1	15,9	13,2	10,6	5,8
BNM4	NM4 50/25A/B	-	8,3	4,8	4	5,5		22,3	22,7	22,7	22,6	22,5	22,4	22,1	21,6	21	20,2	19,4	18,3	16,4	13,6	9

Three-phase

							Q = Flow															
							m³/h	0	21	24	27	30	33	37,8	42	48	54	60	66	75	84	96
Model		230V	400V	690V	P2		l/min		350	400	450	500	550	630	700	800	900	1000	1100	1250	1400	1600
		A			kW	HP	H (m) = Total head															
BNM4	NM4 65/16C/C	5	2,9	-	1,1	1,5		6	6,1	6,1	6	6	5,9	5,8	5,6	5,3	4,8	4,2	-	-	-	-
BNM4	NM4 65/16B/C	5	2,9	-	1,1	1,5		7,1	7,2	7,1	7,1	7	7	6,8	6,6	6,3	5,8	5,2	4,5	-	-	-
BNM4	NM4 65/16A/C	6	3,5	-	1,5	2		8,6	8,8	8,8	8,7	8,7	8,6	8,5	8,3	8	7,6	7,1	6,4	5,2	-	-
BNM4	NM4 65/16S/A	8,6	5	-	2,2	3		9,9	10,2	10,2	10,1	10,1	10	9,9	9,7	9,4	9,1	8,6	8	7	5,7	-
BNM4	NM4 65/20B/C	8,6	5	-	2,2	3		11,1	11,7	11,7	11,6	11,6	11,5	11,3	11	10,6	10,1	9,5	8,7	7,4	5,8	3,3
BNM4	NM4 65/20A/B	11,1	6,4	-	3	4		13,5	14,2	14,2	14,2	14,1	14,1	13,9	13,7	13,4	13	12,5	11,8	10,7	9,3	7
BNM4	NM4 65/25B/B	-	8,3	4,8	4	5,5		16,5	17,9	18	18	18	18	17,8	17,5	17	16,3	15,4	14,4	12,5	10,4	7
BNM4	NM4 65/25A/C	-	12,5	7,2	5,5	7,5		21	22,2	22,3	22,4	22,4	22,4	22,2	22	21,6	21	20,2	19,3	17,6	15,7	12,6
BNM4	NM4 65/31C/B	-	12,5	7,2	5,5	7,5		26	25,8	25,7	25,5	25,3	25	24,4	23,8	22,8	21,5	20	18,2	15	11	-
BNM4	NM4 65/31B/B	-	16	9,2	7,5	10		31	31	31	30,9	30,8	30,6	30,2	29,7	28,8	27,8	26,5	25	22,2	18,6	-
BNM4	NM4 65/31A/B	-	20,5	11,8	9,2	12,5		36	35,9	35,9	35,8	35,7	35,5	35,1	34,6	33,8	32,8	31,6	30,2	27,8	25	-

Three-phase

							Q = Flow																				
							m³/h	0	30	33	37,8	42	48	54	60	66	75	84	96	108	120	132	150	168	180
Model		230V	400V	690V	P2		l/min		500	550	630	700	800	900	1000	1100	1250	1400	1600	1800	2000	2200	2500	2800	3000
		A			kW	HP	H (m) = Total head																				
-	NM4 80/16C/C	5	2,9	-	1,1	1,5		6,6	6,1	6,1	5,9	5,8	5,5	5,2	4,9	4,6	4	3,3	-	-	-	-	-	-	-
-	NM4 80/16B/C	6	3,5	-	1,5	2		8,1	7,8	7,7	7,6	7,5	7,3	7	6,8	6,4	5,9	5,2	4,1	-	-	-	-	-	-	-
-	NM4 80/16A/C	8,6	5	-	2,2	3		10,1	10	10	9,9	9,8	9,7	9,5	9,3	9	8,5	8	7	5,9	-	-	-	-	-	-
BNM4	NM4 80/20C/C	8,6	5	-	2,2	3		8,6	9	9	8,9	8,8	8,7	8,5	8,2	7,9	7,4	6,8	5,7	4,3	2,7	-	-	-	-	-
BNM4	NM4 80/20B/B	11,1	6,4	-	3	4		11,3	11,7	11,7	11,7	11,6	11,5	11,3	11,1	10,8	10,3	9,7	8,7	7,4	5,9	4,1	-	-	-	-
BNM4	NM4 80/20A/B	-	8,3	4,8	4	5,5		13,7	14,2	14,2	14,1	14	13,9	13,7	13,5	13,2	12,7	12,1	11,1	9,9	8,5	6,9	-	-	-	-
BNM4	NM4 80/25C/A	-	8,3	4,8	4	5,5		17	16,9	16,8	16,7	16,6	16,3	15,9	15,4	14,8	13,9	12,7	11,1	9,3	7,2	-	-	-	-	-
-	NM4 80/25B/B	-	12,5	7,2	5,5	7,5		20,8	20,7	20,7	20,6	20,5	20,3	20	19,6	19,1	18,2	17,1	15,4	13,5	11,4	9	-	-	-	-
-	NM4 80/25A/B	-	16	9,2	7,5	10		23,8	23,7	23,7	23,6	23,5	23,3	23	22,7	22,2	21,5	20,5	19	17,2	15,1	12,7	-	-	-	-
BNM4	NM4 80/31C/B	-	20,5	11,8	9,2	12,5		24,3	25,7	25,8	25,8	25,8	25,8	25,6	25,4	25,1	24,4	23,6	22,2	20,4	18,3	15,9	-	-	-	-
-	NM4 80/31B	-	22,5	13	11	15		28,5	30,3	30,5	30,6	30,7	30,7	30,7	30,5	30,2	29,6	28,8	27,5	25,9	24,1	22	-	-	-	-
-	NM4 80/31A	-	29	16,7	15	20		34,5	36,3	36,4	36,5	36,5	36,6	36,5	36,3	36,1	35,7	35	33,9	32,5	30,9	28,9	25,4	-	-	-
BNMS4	NMS4 80/315S	-	-	-	18,5	25		38	39,1	39,2	39,3	39,4	39,5	39,4	39,3	39,2	38,7	38,1	37,1	35,7	34,1	32,1	28,3	22,5	-	-
BNMS4	NMS4 80/400C/B	-	-	-	18,5	25		42	42,8	42,8	42,9	42,9	42,7	42,5	42,2	41,8	40,9	39,8	37,9	35,4	32,5	29	-	-	-	-
BNMS4	NMS4 80/400B/B	-	-	-	22	30		47	48,2	48,2	48,2	48,2	48,1	47,9	47,7	47,3	46,6	45,7	44,1	42,1	39,5	36,3	30,5	-	-	-
BNMS4	NMS4 80/400A/B	-	-	-	30	40		60	61,4	61,5	61,5	61,6	61,5	61,5	61,3	61,1	60,7	60,1	59	57,6	55,8	53,6	49,5	-	-	-
BNMS4	NMS4 80/400S	-	-	-	37	50		60	61,4	61,5	61,5	61,6	61,6	61,5	61,3	61,1	60,7	60,1	59	57,6	55,8	53,7	49,5	43,9	39,2	

P2: Rated motor power output.
H: Total head in m
Tolerances according to UNI EN ISO 9906:2012

NM4

Performance n ≈ 1450 rpm

Three-phase

							Q = Flow															
						m³/h	0	48	54	60	66	75	84	96	108	120	132	150	168	180	192	210
Model		230V	400V	690V	P2	l/min		800	900	1000	1100	1250	1400	1600	1800	2000	2200	2500	2800	3000	3200	3500
		A			kW	HP	H (m) = Total head															
BNM4	NM4 100/20C/A	11,1	6,4	-	3	4		9,4	9,4	9,3	9,2	9,1	8,8	8,5	8	7,3	6,5	5,6	4	-	-	-	-
BNM4	NM4 100/20B/A	-	8,3	4,8	4	5,5		12	12	11,9	11,8	11,7	11,5	11,2	10,7	10,1	9,3	8,4	6,7	4,5	-	-	-
BNM4	NM4 100/20A/C	-	12,5	7,2	5,5	7,5		15,1	15,2	15,2	15,1	15,1	14,9	14,7	14,3	13,7	13,1	12,2	10,8	8,9	7,5	6	-
-	NM4 100/25B/B	-	16	9,2	7,5	10		19,3	19,5	19,5	19,4	19,3	19,1	18,7	18,2	17,5	16,6	15,6	13,8	11,7	10,1	8,4	5,5
-	NM4 100/25A/B	-	20,5	11,8	9,2	12,5		22,1	22,3	22,3	22,2	22,1	21,9	21,7	21,2	20,5	19,8	18,8	17,1	15	13,4	11,7	8,9
-	NM4 100/31C	-	22,5	13	11	15		27	26,9	26,8	26,7	26,5	26,2	25,7	24,9	23,9	22,7	21,3	18,8	15,9	13,7	11,3	-
-	NM4 100/31B	-	29	16,7	15	20		31,5	31,5	31,5	31,5	31,4	31,2	30,8	30,2	29,3	28,2	26,9	24,6	21,9	19,8	17,6	14
BNMS4	NMS4 100/315A/A	-	-	-	18,5	25		36,8	36,8	36,9	36,9	36,9	36,7	36,4	35,9	35,2	34,4	33,3	31,4	29,1	27,3	25,4	22,1
BNMS4	NMS4 100/400C/A	-	-	-	22	30		41,5	41,3	41,2	41,2	41	40,8	40,4	39,8	38,9	37,8	36,5	34,1	31,1	28,7	26	-
BNMS4	NMS4 100/400B/A	-	-	-	30	40		50	50,2	50,1	50,1	49,9	49,7	49,4	48,8	48	47,1	46	43,9	41,4	39,4	37,2	33,4
BNMS4	NMS4 100/400A/A	-	-	-	37	50		58	58,2	58,1	58,1	58	57,8	57,6	57	56,4	55,5	54,6	52,8	50,6	48,9	47,1	44

Three-phase

							Q = Flow															
						m³/h	0	84	96	108	120	132	150	168	180	192	210	240	270	300	330
Model		400V	690V	P2		l/min		1400	1600	1800	2000	2200	2500	2800	3000	3200	3500	4000	4500	5000	5500
		A		kW	HP	H (m) = Total head															
-	NM4 125/25E/B	12,5	7,2	5,5	7,5		11	11	10,8	10,5	10,1	9,7	9,1	8,3	7,8	7,2	6,2	4,4	-	-	-
-	NM4 125/25D/B	16	9,2	7,5	10		14	14	13,9	13,7	13,4	13	12,4	11,6	11	10,4	9,4	7,4	5,1	-	-
-	NM4 125/25C/B	20,5	11,8	9,2	12,5		16,7	16,7	16,6	16,5	16,2	15,9	15,4	14,6	14,1	13,5	12,4	10,5	8,2	5,8	-
-	NM4 125/25B	22,5	13	11	15		19,1	19,3	19,2	19,1	18,9	18,7	18,2	17,5	16,9	16,3	15,3	13,3	10,9	8,2	-
-	NM4 125/25A	29	16,7	15	20		22,8	22,7	22,7	22,6	22,4	22,2	21,8	21,2	20,7	20,2	19,3	17,4	15,1	12,4	9,3
BNMS4	NMS4 125/315C/A	-	-	18,5	25		28	27,9	27,9	27,7	27,5	27,2	26,5	25,6	24,9	24,1	22,8	20,1	17	13,5	9,5
BNMS4	NMS4 125/315B/A	-	-	22	30		31,9	31,8	31,7	31,6	31,4	31,1	30,5	29,8	29,2	28,5	27,3	24,9	22	18,4	14,3
BNMS4	NMS4 125/315A/A	-	-	30	40		36,4	36,8	36,8	36,7	36,6	36,4	35,9	35,2	34,7	34,2	33,2	31	28,4	25,3	21,6
BNMS4	NMS4 125/400C/A	-	-	37	50		45,5	45,3	45,5	45,5	45,3	45,1	44,4	43,5	42,7	41,8	40,2	37	33,1	28,6	23,4
BNMS4	NMS4 125/400B/A	-	-	45	60		51,8	51,4	51,3	51,2	51,1	50,9	50,4	49,7	49	48,2	46,8	44	40,5	36	31,5
BNMS4	NMS4 125/400A/A	-	-	55	75		59,2	59,2	59,1	59,1	58,9	58,7	58,3	57,7	57,2	56,6	55,6	53,4	50,5	46,8	42,3

Three-phase

				Q = Flow																		
				m³/h	0	132	150	168	180	192	210	240	270	300	330	360	390	420	450	480	540	600	660
Model		P2		l/min		2200	2500	2800	3000	3200	3500	4000	4500	5000	5500	6000	6500	7000	7500	8000	9000	10000	11000
		kW	HP	H (m) = Total head																		
BNMS4	NMS4 150/315D/B	18,5	25		22,4	23,1	22,8	22,5	22,2	21,9	21,3	20,3	19,1	17,8	16,4	15	13,5	11,9	10,2	-	-	-	-
BNMS4	NMS4 150/315C/B	22	30		25,9	26,7	26,4	26,1	25,8	25,4	24,9	23,8	22,5	21	19,5	17,9	16,2	14,5	12,7	10,8	-	-	-
BNMS4	NMS4 150/315B/B	30	40		24	25,3	25,2	25,1	25	24,9	24,7	24,3	23,8	23,2	22,4	21,6	20,8	19,8	18,7	17,6	15,1	-	-
BNMS4	NMS4 150/315A/B	37	50		28	29,5	29,5	29,5	29,5	29,4	29,3	29	28,6	28,1	27,5	26,7	25,9	24,9	23,8	22,6	19,9	16,7	-
BNMS4	NMS4 150/315S	45	60		33,5	34,9	34,9	34,9	34,9	34,8	34,7	34,5	34,1	33,6	33	32,2	31,4	30,4	29,4	28,2	25,5	22,3	18,7
BNMS4	NMS4 150/400B/B	55	75		39	42,2	42,3	42,3	42,2	42,2	42	41,6	41	40,3	39,5	38,6	37,5	36,4	35	33,5	29,8	25,4	-
BNMS4	NMS4 150/400A/B	75	100		50	52,5	52,6	52,6	52,6	52,5	52,4	52,2	51,8	51,3	50,6	49,6	48,5	47,2	45,8	44,2	40,6	36,7	32,2
BNMS4	NMS4 150/400S	90	120		58,6	60,8	60,9	61	61	61	61	60,7	60,3	59,6	58,8	57,7	56,4	54,9	53,2	51,4	47,3	42,7	37,6

P2: Rated motor power output.
H: Total head in m
Tolerances according to UNI EN ISO 9906:2012

NM4

Performance n ≈ 1450 rpm

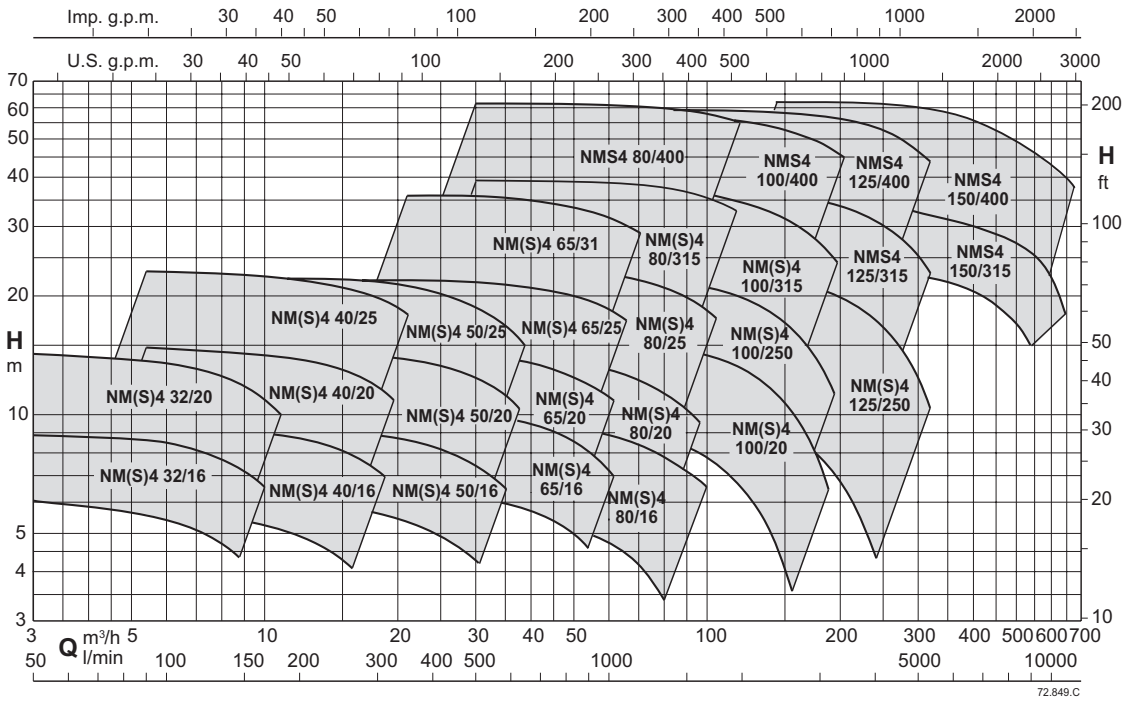
Rated current

Motor	IE3			IE4		
P2	400V	690V		400V	690V	
kW	A	A	Ia/In	A	A	Ia/In
0.37	0.95	-	4.2	-	-	-
0.55	1.5	-	4.8	-	-	-
0.75	1.9	-	7.2	1.7	-	7.3
1.1	2.9	-	6.6	2.4	-	7.5
1.5	3.5	-	8.3	3.2	-	7.6
2.2	5	-	8.6	4.6	-	7.5
3	6.4	-	5.8	6.1	-	7.4
4	8.3	4.8	7.2	8.1	4.7	7.6
5.5	12.5	7.2	7.2	10.9	6.3	7.5
7.5	16	9.2	7.1	14.6	8.5	7.7
9.2	20.5	11.8	7.4	-	-	-
11	22.5	13	9.6	20.5	11.9	9.5
15	29	16.7	9.1	27.4	15.9	9.5
18.5	35	20.5	7.2	33.3	19.3	9.5
22	41	24	6.8	39.5	22.9	9.5
30	55	32	7.3	53.7	31.1	9
37	66	38.5	6.4	66	38.3	9
45	80	46.5	6.4	80.1	46.4	9
55	96	56	6.8	96.5	55.9	9
75	133	77	6.9	129.6	75.1	8.5
90	-	-	-	153.6	89	8.5

A*: Calpeda motor Standard
Ia/In D.O.L. starting current / Nominal current

NMS4

Coverage chart n ≈ 1450 rpm



Performance n ≈ 1450 rpm

Three-phase

				Q = Flow														
				m³/h	0	2,4	3	3,6	4,2	4,8	5,4	6	7,5	8,4	9,6	10,8	12	13,2
Model		P2		l/min		40	50	60	70	80	90	100	125	140	160	180	200	220
		kW	HP	H (m) = Total head														
BNMS4	NMS4 32/200A	0,75	1		14,2	14,3	14,2	14,2	14,1	13,9	13,7	13,5	12,8	12,2	11,3	10,3	9	7,4

Three-phase

				Q = Flow															
				m³/h	0	5,4	6	7,5	8,4	9,6	10,8	12	13,2	15	16,8	18,9	21	24	27	30
Model		P2		l/min		90	100	125	140	160	180	200	220	250	280	315	350	400	450	500
		kW	HP	H (m) = Total head															
BNMS4	NMS4 40/160A	0,75	1		9,4	9,6	9,6	9,6	9,4	9,3	9,1	9	8,8	8,4	7,9	7,2	6,4	5,1	3,5	-
BNMS4	NMS4 40/200B	1,1	1,5		13	13	12,9	12,7	12,6	12,4	12,2	12	11,5	10,8	10	8,6	7	-	-	-
BNMS4	NMS4 40/200A	1,1	1,5		14,9	14,8	14,7	14,5	14,4	14,2	14	13,8	13,6	13	12,2	11,3	10	-	-	-
BNMS4	NMS4 40/250C	1,5	2		17,2	17,4	17,3	17,2	17	16,8	16,6	16,3	16	15,1	13,8	12,1	10,4	7,2	2,8	-
BNMS4	NMS4 40/250B	2,2	3		21,4	21,4	21,5	21,3	21,2	21	20,9	20,8	20,5	20	19,5	18,3	16,4	13,3	10	5
BNMS4	NMS4 40/250A	3	4		22,8	22,9	22,8	22,9	22,8	22,5	22,5	22,2	22	21,8	21,4	20,4	18,9	16	12,6	8

P2: Rated motor power output.
H: Total head in m
Tolerances according to UNI EN ISO 9906:2012

NMS4

Performance n ≈ 1450 rpm

Three-phase

				Q = Flow														
				m³/h	0	10,8	12	13,2	15	16,8	18,9	21	24	27	30	33	37,8	42	48
Model		P2		l/min		180	200	220	250	280	315	350	400	450	500	550	630	700	800
		kW	HP	H (m) = Total head															
BNMS4	NMS4 50/160B	1,1	1,5		8	8,2	8,2	8,2	8,1	8	7,8	7,6	7,2	6,7	6,2	5,5	4,4	3,3	-
BNMS4	NMS4 50/160A	1,1	1,5		9,5	9,6	9,6	9,6	9,5	9,5	9,3	9,1	8,8	8,3	7,8	7,2	6,1	4,9	3,1
BNMS4	NMS4 50/200C	1,1	1,5		11,3	11,8	11,8	11,7	11,7	11,5	11,3	10,9	10,4	9,8	9	8,1	6,3	4,7	-
BNMS4	NMS4 50/200B	1,5	2		13	13,4	13,4	13,4	13,3	13,1	12,9	12,6	12,1	11,5	10,8	9,9	8,2	6,4	3,7
BNMS4	NMS4 50/200A	2,2	3		14,4	14,9	14,9	14,9	14,9	14,8	14,6	14,4	14	13,4	12,8	12	10,4	8,6	6
BNMS4	NMS4 50/250C	2,2	3		17,2	17,8	17,8	17,7	17,5	17,2	16,8	16,4	15,7	14,9	13,8	12,4	9,7	6,8	-
BNMS4	NMS4 50/250D	2,2	3		14,5	14,5	14,4	14,3	14	13,7	13,4	13	12,2	11,2	9,7	8,1	5,4	2,3	-
BNMS4	NMS4 50/250B	3	4		20,2	20,7	20,7	20,7	20,6	20,4	20	19,5	18,9	18,2	17,1	15,9	13,2	10,6	5,8
BNMS4	NMS4 50/250A	4	5,5		24,2	22,7	22,7	22,6	22,5	22,4	22,1	21,6	21	20,2	19,4	18,3	16,4	13,6	9

Three-phase

				Q = Flow															
				m³/h	0	21	24	27	30	33	37,8	42	48	54	60	66	75	84	96
Model		P2		l/min		350	400	450	500	550	630	700	800	900	1000	1100	1250	1400	1600
		kW	HP	H (m) = Total head															
BNMS4	NMS4 65/160C	1,1	1,5		6,4	6,1	6,1	6	6	5,9	5,8	5,6	5,3	4,8	4,2	-	-	-	-
BNMS4	NMS4 65/160B	1,1	1,5		7,4	7,2	7,1	7,1	7	7	6,8	6,6	6,3	5,8	5,2	4,5	-	-	-
BNMS4	NMS4 65/160A	1,5	2		8,8	8,8	8,8	8,7	8,7	8,6	8,5	8,3	8	7,6	7,1	6,4	5,2	-	-
BNMS4	NMS4 65/160S	2,2	3		9,9	10,2	10,2	10,1	10,1	10	9,9	9,7	9,4	9,1	8,6	8	7	5,7	-
BNMS4	NMS4 65/200B	2,2	3		11,1	11,7	11,7	11,6	11,6	11,5	11,3	11	10,6	10,1	9,5	8,7	7,4	5,8	3,3
BNMS4	NMS4 65/200A	3	4		13,8	14,2	14,2	14,2	14,1	14,1	13,9	13,7	13,4	13	12,5	11,8	10,7	9,3	7
BNMS4	NMS4 65/250B	4	5,5		16,5	17,9	18	18	18	18	17,8	17,5	17	16,3	15,4	14,4	12,5	10,4	7
BNMS4	NMS4 65/250A	5,5	7,5		21	22,2	22,3	22,4	22,4	22,4	22,2	22	21,6	21	20,2	19,3	17,6	15,7	12,6
BNMS4	NMS4 65/315C	5,5	7,5		26	25,8	25,7	25,5	25,3	25	24,4	23,8	22,8	21,5	20	18,2	15	11	-
BNMS4	NMS4 65/315B	7,5	10		31	31	31	30,9	30,8	30,6	30,2	29,7	28,8	27,8	26,5	25	22,2	18,6	-
BNMS4	NMS4 65/315A	11	15		36	35,9	35,9	35,8	35,7	35,5	35,1	34,6	33,8	32,8	31,6	30,2	27,8	25	-

Three-phase

				Q = Flow																		
				m³/h	0	30	33	37,8	42	48	54	60	66	75	84	96	108	120	132	150	168	180
Model		P2		l/min		500	550	630	700	800	900	1000	1100	1250	1400	1600	1800	2000	2200	2500	2800	3000
		kW	HP	H (m) = Total head																		
BNMS4	NMS4 80/160C	1,1	1,5		6,5	6,1	6,1	5,9	5,8	5,5	5,2	4,9	4,6	4	3,3	-	-	-	-	-	-	-
BNMS4	NMS4 80/160B	1,5	2		8,2	7,8	7,7	7,6	7,5	7,3	7	6,8	6,4	5,9	5,2	4,1	-	-	-	-	-	-	-
BNMS4	NMS4 80/160A	2,2	3		10,1	10	10	9,9	9,8	9,7	9,5	9,3	9	8,5	8	7	5,9	-	-	-	-	-	-
BNMS4	NMS4 80/200C	2,2	3		8,7	9	9	8,9	8,8	8,7	8,5	8,2	7,9	7,4	6,8	5,7	4,3	2,7	-	-	-	-	-
BNMS4	NMS4 80/200B	3	4		11,2	11,7	11,7	11,7	11,6	11,5	11,3	11,1	10,8	10,3	9,7	8,7	7,4	5,9	-	-	-	-	-
BNMS4	NMS4 80/200A	4	5,5		13,8	14,2	14,2	14,1	14	13,9	13,7	13,5	13,2	12,7	12,1	11,1	9,9	8,5	6,9	-	-	-	-
BNMS4	NMS4 80/250C	4	5,5		17	16,9	16,8	16,7	16,6	16,3	15,9	15,4	14,8	13,9	12,7	11,1	9,3	7,2	-	-	-	-	-
BNMS4	NMS4 80/250B	5,5	7,5		20,8	20,7	20,7	20,6	20,5	20,3	20	19,6	19,1	18,2	17,1	15,4	13,5	11,4	9	-	-	-	-
BNMS4	NMS4 80/250A	7,5	10		23,8	23,7	23,7	23,6	23,5	23,3	23	22,7	22,2	21,5	20,5	19	17,2	15,1	12,7	-	-	-	-
BNMS4	NMS4 80/315C	11	15		24,2	25,7	25,8	25,8	25,8	25,8	25,6	25,4	25,1	24,4	23,6	22,2	20,4	18,3	15,9	-	-	-	-
BNMS4	NMS4 80/315B/A	11	15		28,3	30,3	30,5	30,6	30,7	30,7	30,7	30,5	30,2	29,6	28,8	27,5	25,9	24,1	22	-	-	-	-
BNMS4	NMS4 80/315A	15	20		34,8	36,3	36,4	36,5	36,5	36,6	36,5	36,3	36,1	35,7	35	33,9	32,5	30,9	28,9	25,4	-	-	-
BNMS4	NMS4 80/315S	18,5	25		38	39,1	39,2	39,3	39,4	39,5	39,4	39,3	39,2	38,7	38,1	37,1	35,7	34,1	32,1	28,3	22,5	-	-
BNMS4	NMS4 80/400C/B	18,5	25		42	42,8	42,8	42,9	42,9	42,7	42,5	42,2	41,8	40,9	39,8	37,9	35,4	32,5	29	-	-	-	-
BNMS4	NMS4 80/400B/B	22	30		47	48,2	48,2	48,2	48,2	48,1	47,9	47,7	47,3	46,6	45,7	44,1	42,1	39,5	36,3	30,5	-	-	-
BNMS4	NMS4 80/400A/B	30	40		60	61,4	61,5	61,5	61,6	61,5	61,5	61,3	61,1	60,7	60,1	59	57,6	55,8	53,6	49,5	-	-	-
BNMS4	NMS4 80/400S	37	50		60	61,4	61,5	61,5	61,6	61,6	61,5	61,3	61,1	60,7	60,1	59	57,6	55,8	53,7	49,5	43,9	39,2

P2: Rated motor power output.
H: Total head in m
Tolerances according to UNI EN ISO 9906:2012

NMS4

Performance n ≈ 1450 rpm

Three-phase

				Q = Flow															
				m³/h	0	48	54	60	66	75	84	96	108	120	132	150	168	180	192	210
Model		P2		l/min		800	900	1000	1100	1250	1400	1600	1800	2000	2200	2500	2800	3000	3200	3500
		kW	HP	H (m) = Total head																
BNMS4	NMS4 100/200C	3	4		9,3	9,4	9,3	9,2	9,1	8,8	8,5	8	7,3	6,5	5,6	4	-	-	-	-
BNMS4	NMS4 100/200B	4	5,5		12	12	11,9	11,8	11,7	11,5	11,2	10,7	10,1	9,3	8,4	6,7	4,5	-	-	-
BNMS4	NMS4 100/200A	5,5	7,5		15,1	15,2	15,2	15,1	15,1	14,9	14,7	14,3	13,7	13,1	12,2	10,8	8,9	7,5	6	-
BNMS4	NMS4 100/250B	7,5	10		19,3	19,5	19,5	19,4	19,3	19,1	18,7	18,2	17,5	16,6	15,6	13,8	11,7	10,1	8,4	5,5
BNMS4	NMS4 100/250A/A	11	15		22,1	22,3	22,3	22,2	22,1	21,9	21,7	21,2	20,5	19,8	18,8	17,1	15	13,4	11,7	8,9
BNMS4	NMS4 100/315C/A	11	15		26,8	26,9	26,8	26,7	26,5	26,2	25,7	24,9	23,9	22,7	21,3	18,8	15,9	13,7	11,3	-
BNMS4	NMS4 100/315B/A	15	20		31,8	31,5	31,5	31,5	31,4	31,2	30,8	30,2	29,3	28,2	26,9	24,6	21,9	19,8	17,6	14
BNMS4	NMS4 100/315A/A	18,5	25		36,8	36,8	36,9	36,9	36,9	36,7	36,4	35,9	35,2	34,4	33,3	31,4	29,1	27,3	25,4	22,1
BNMS4	NMS4 100/400C/A	22	30		41,5	41,3	41,2	41,2	41	40,8	40,4	39,8	38,9	37,8	36,5	34,1	31,1	28,7	26	-
BNMS4	NMS4 100/400B/A	30	40		50	50,2	50,1	50,1	49,9	49,7	49,4	48,8	48	47,1	46	43,9	41,4	39,4	37,2	33,4
BNMS4	NMS4 100/400A/A	37	50		58	58,2	58,1	58,1	58	57,8	57,6	57	56,4	55,5	54,6	52,8	50,6	48,9	47,1	44

Three-phase

				Q = Flow															
				m³/h	0	84	96	108	120	132	150	168	180	192	210	240	270	300	330
Model		P2		l/min		1400	1600	1800	2000	2200	2500	2800	3000	3200	3500	4000	4500	5000	5500
		kW	HP	H (m) = Total head															
BNMS4	NMS4 125/250E	5,5	7,5		11	11	10,8	10,5	10,1	9,7	9,1	8,3	7,8	7,2	6,2	4,4	-	-	-
BNMS4	NMS4 125/250D	7,5	10		14	14	13,9	13,7	13,4	13	12,4	11,6	11	10,4	9,4	7,4	5,1	-	-
BNMS4	NMS4 125/250C/A	11	15		16,8	16,7	16,6	16,5	16,2	15,9	15,4	14,6	14,1	13,5	12,4	10,5	8,2	5,8	-
BNMS4	NMS4 125/250B/A	11	15		19,1	19,3	19,2	19,1	18,9	18,7	18,2	17,5	16,9	16,3	15,3	13,3	10,9	8,2	-
BNMS4	NMS4 125/250A/A	15	20		22,8	22,7	22,7	22,6	22,4	22,2	21,8	21,2	20,7	20,2	19,3	17,4	15,1	12,4	9,3
BNMS4	NMS4 125/315C/A	18,5	25		28	27,9	27,9	27,7	27,5	27,2	26,5	25,6	24,9	24,1	22,8	20,1	17	13,5	9,5
BNMS4	NMS4 125/315B/A	22	30		31,9	31,8	31,7	31,6	31,4	31,1	30,5	29,8	29,2	28,5	27,3	24,9	22	18,4	14,3
BNMS4	NMS4 125/315A/A	30	40		36,4	36,8	36,8	36,7	36,6	36,4	35,9	35,2	34,7	34,2	33,2	31	28,4	25,3	21,6
BNMS4	NMS4 125/400C/A	37	50		45,5	45,3	45,5	45,5	45,3	45,1	44,4	43,5	42,7	41,8	40,2	37	33,1	28,6	23,4
BNMS4	NMS4 125/400B/A	45	60		51,8	51,4	51,3	51,2	51,1	50,9	50,4	49,7	49	48,2	46,8	44	40,5	36	31,5
BNMS4	NMS4 125/400A/A	55	75		59,2	59,2	59,1	59,1	58,9	58,7	58,3	57,7	57,2	56,6	55,6	53,4	50,5	46,8	42,3

Three-phase

				Q = Flow																		
				m³/h	0	132	150	168	180	192	210	240	270	300	330	360	390	420	450	480	540	600	660
Model		P2		l/min		2200	2500	2800	3000	3200	3500	4000	4500	5000	5500	6000	6500	7000	7500	8000	9000	10000	11000
		kW	HP	H (m) = Total head																		
BNMS4	NMS4 150/315D/B	18,5	25		22,4	23,1	22,8	22,5	22,2	21,9	21,3	20,3	19,1	17,8	16,4	15	13,5	11,9	10,2	-	-	-	-
BNMS4	NMS4 150/315C/B	22	30		25,9	26,7	26,4	26,1	25,8	25,4	24,9	23,8	22,5	21	19,5	17,9	16,2	14,5	12,7	10,8	-	-	-
BNMS4	NMS4 150/315B/B	30	40		24	25,3	25,2	25,1	25	24,9	24,7	24,3	23,8	23,2	22,4	21,6	20,8	19,8	18,7	17,6	15,1	-	-
BNMS4	NMS4 150/315A/B	37	50		28	29,5	29,5	29,5	29,5	29,4	29,3	29	28,6	28,1	27,5	26,7	25,9	24,9	23,8	22,6	19,9	16,7	-
BNMS4	NMS4 150/315S	45	60		33,5	34,9	34,9	34,9	34,9	34,8	34,7	34,5	34,1	33,6	33	32,2	31,4	30,4	29,4	28,2	25,5	22,3	18,7
BNMS4	NMS4 150/400B/B	55	75		39	42,2	42,3	42,3	42,2	42,2	42	41,6	41	40,3	39,5	38,6	37,5	36,4	35	33,5	29,8	25,4	-
BNMS4	NMS4 150/400A/B	75	100		50	52,5	52,6	52,6	52,6	52,5	52,4	52,2	51,8	51,3	50,6	49,6	48,5	47,2	45,8	44,2	40,6	36,7	32,2
BNMS4	NMS4 150/400S	90	120		58,6	60,8	60,9	61	61	61	61	60,7	60,3	59,6	58,8	57,7	56,4	54,9	53,2	51,4	47,3	42,7	37,6

P2: Rated motor power output.
H: Total head in m
Tolerances according to UNI EN ISO 9906:2012

NMS4

Performance n ≈ 1450 rpm

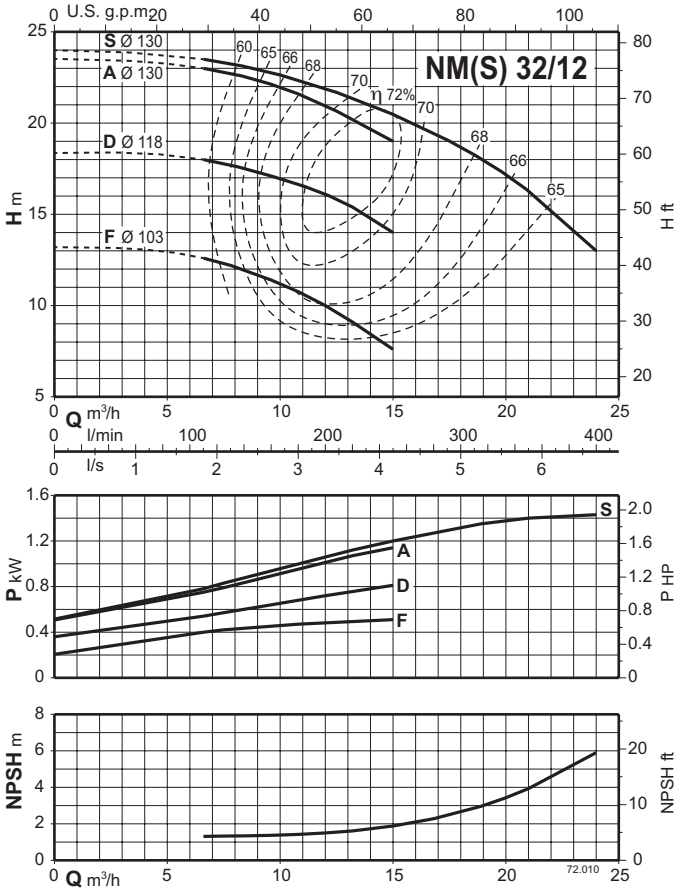
Rated current

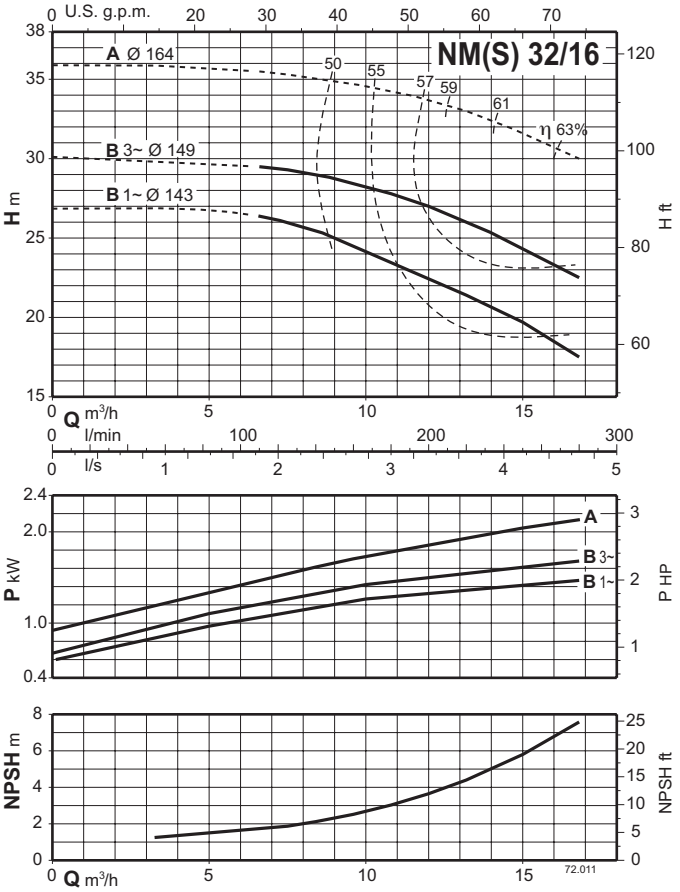
Motor	IE3			IE4		
P2	400V	690V		400V	690V	
kW	A	A	Ia/In	A	A	Ia/In
0.37	0.95	-	4.2	-	-	-
0.55	1.5	-	4.8	-	-	-
0.75	1.9	-	7.2	1.7	-	7.3
1.1	2.9	-	6.6	2.4	-	7.5
1.5	3.5	-	8.3	3.2	-	7.6
2.2	5	-	8.6	4.6	-	7.5
3	6.4	-	5.8	6.1	-	7.4
4	8.3	4.8	7.2	8.1	4.7	7.6
5.5	12.5	7.2	7.2	10.9	6.3	7.5
7.5	16	9.2	7.1	14.6	8.5	7.7
9.2	20.5	11.8	7.4	-	-	-
11	22.5	13	9.6	20.5	11.9	9.5
15	29	16.7	9.1	27.4	15.9	9.5
18.5	35	20.5	7.2	33.3	19.3	9.5
22	41	24	6.8	39.5	22.9	9.5
30	55	32	7.3	53.7	31.1	9
37	66	38.5	6.4	66	38.3	9
45	80	46.5	6.4	80.1	46.4	9
55	96	56	6.8	96.5	55.9	9
75	133	77	6.9	129.6	75.1	8.5
90	-	-	-	153.6	89	8.5

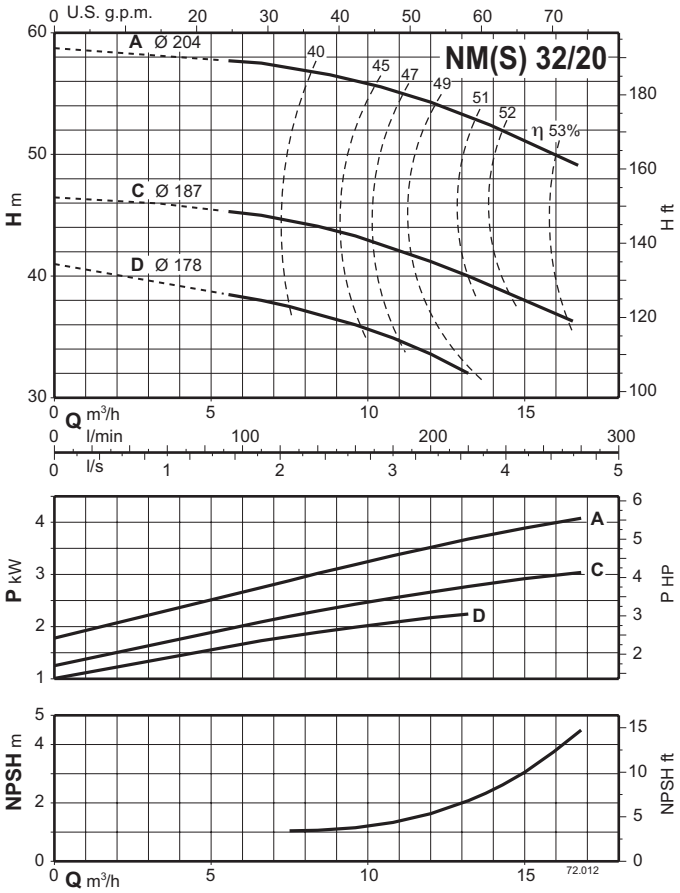
A*: Calpeda motor Standard
Ia/In D.O.L. starting current / Nominal current

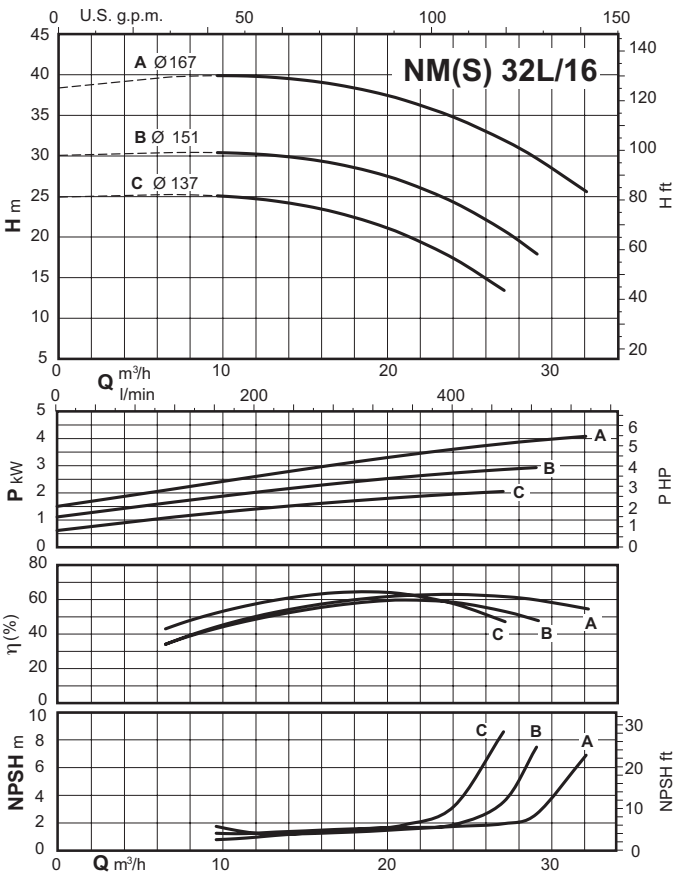
NM, NMS

Characteristic curves n ≈ 2900 rpm



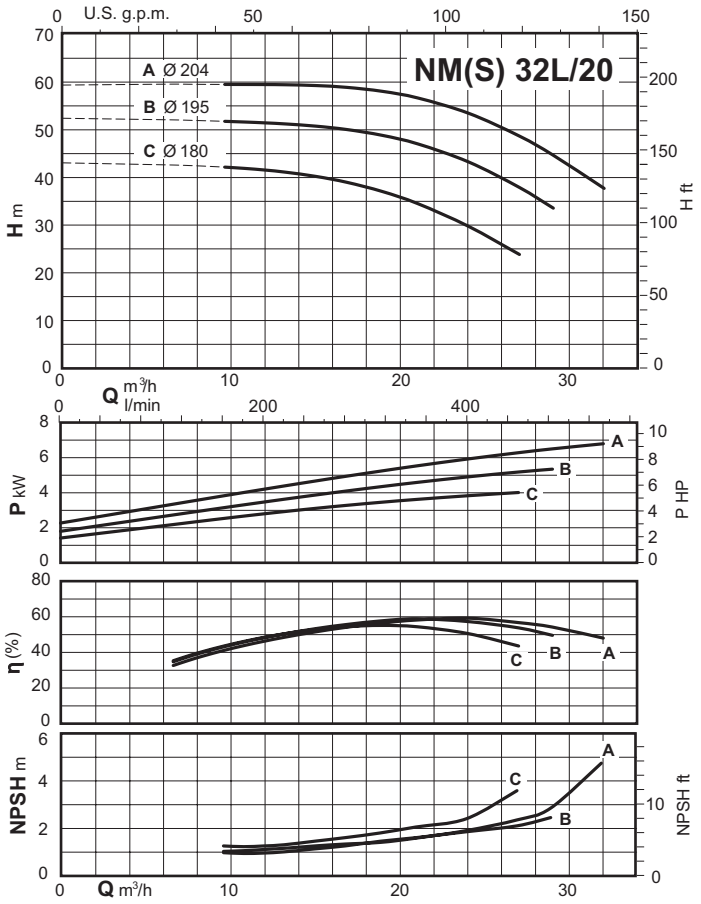


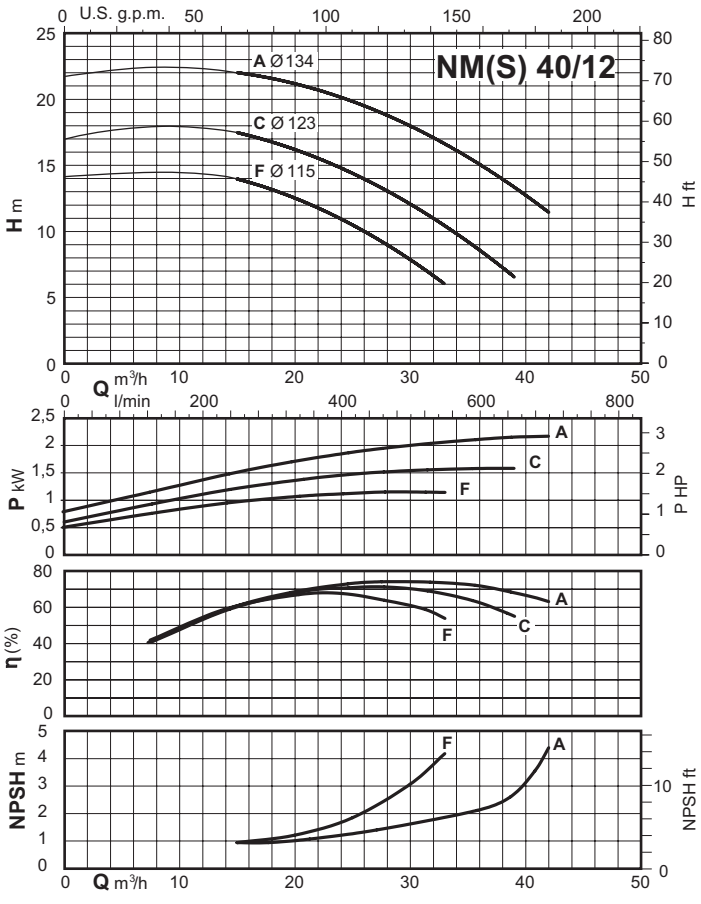


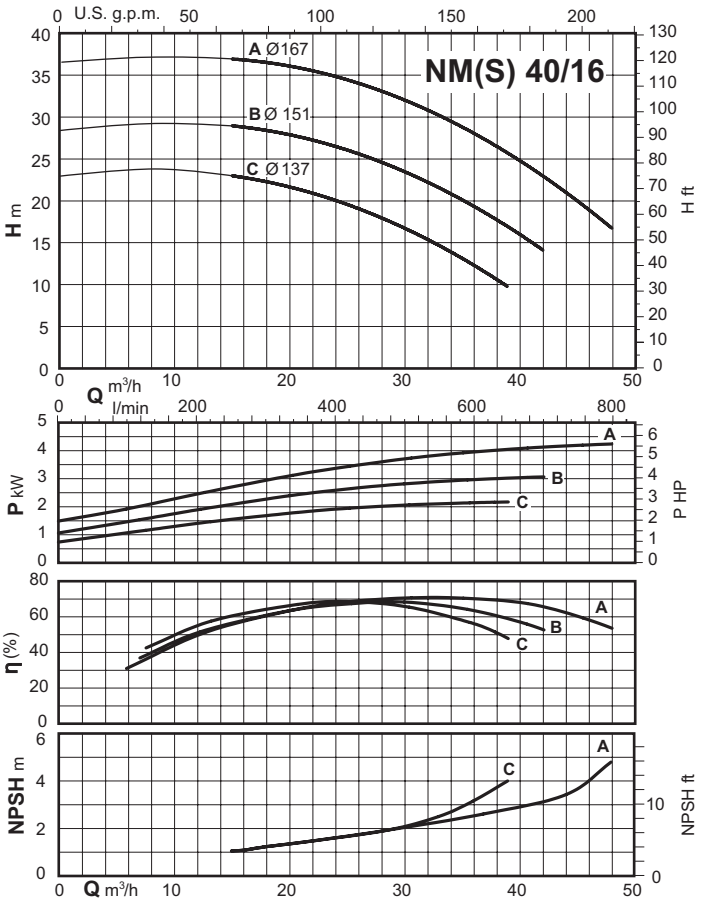


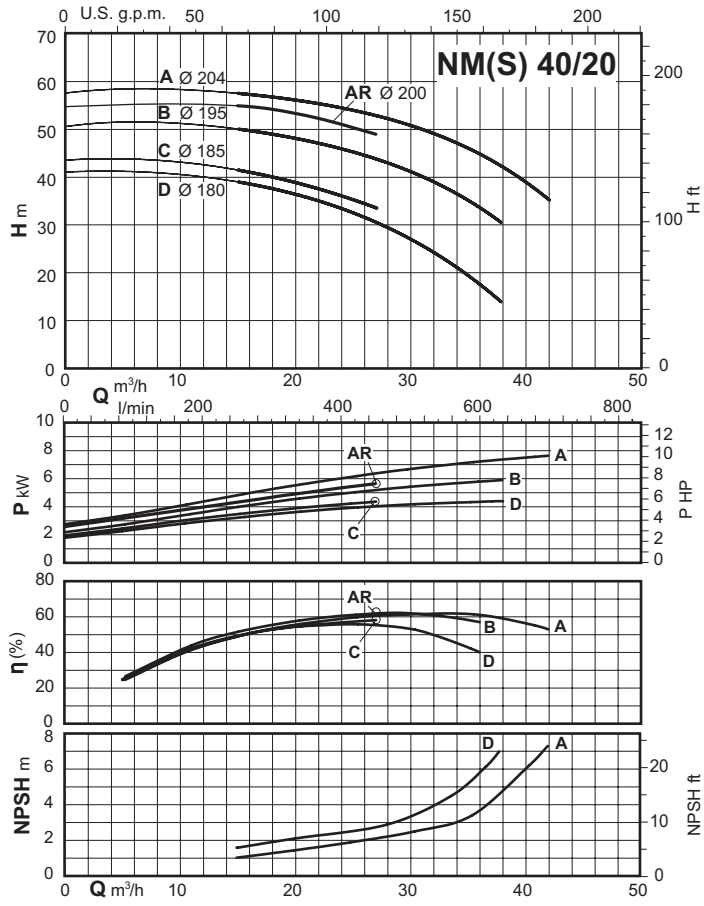
NM, NMS

Characteristic curves n ≈ 2900 rpm



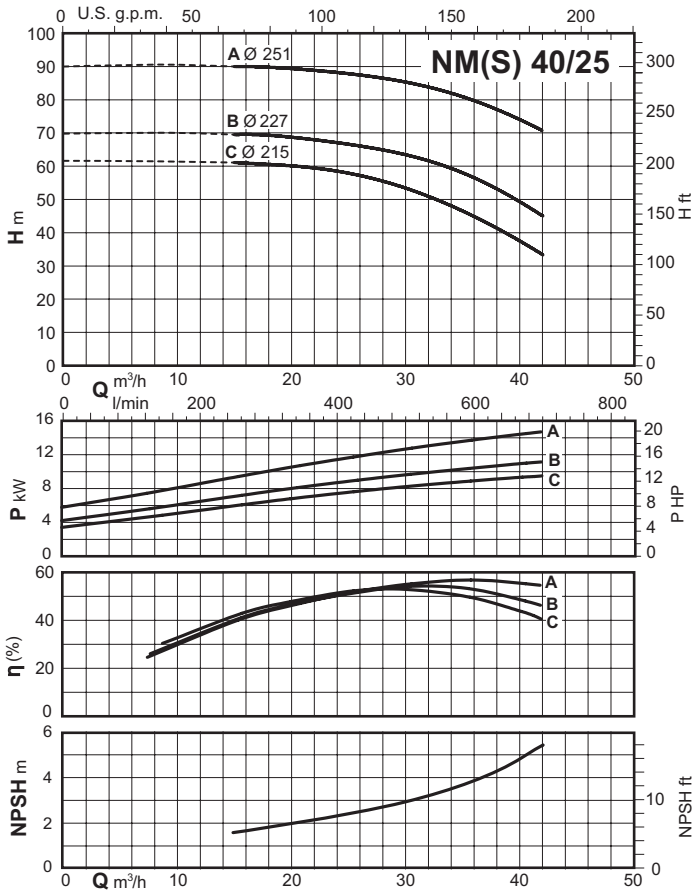


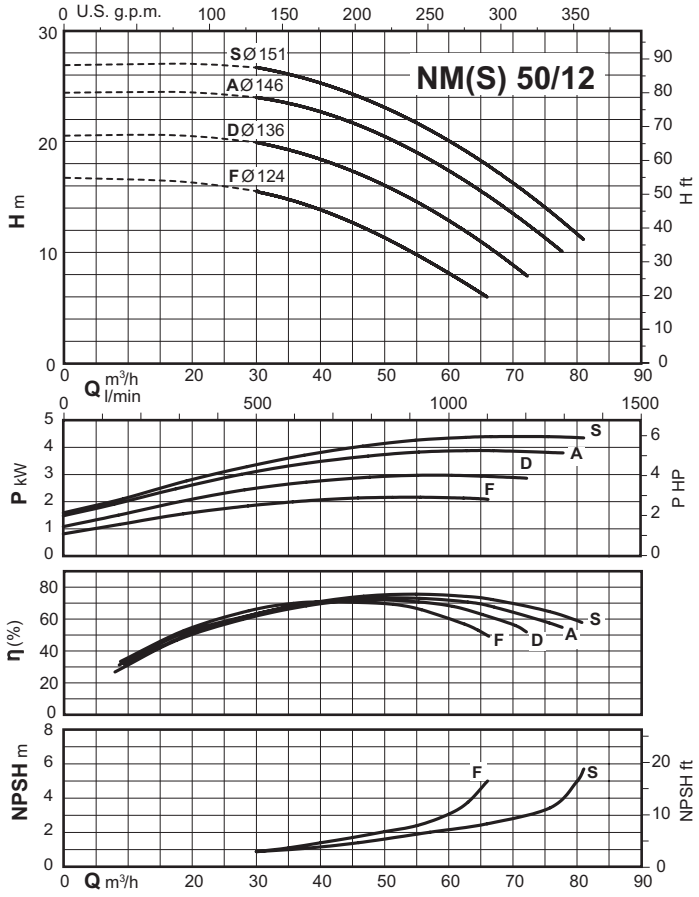


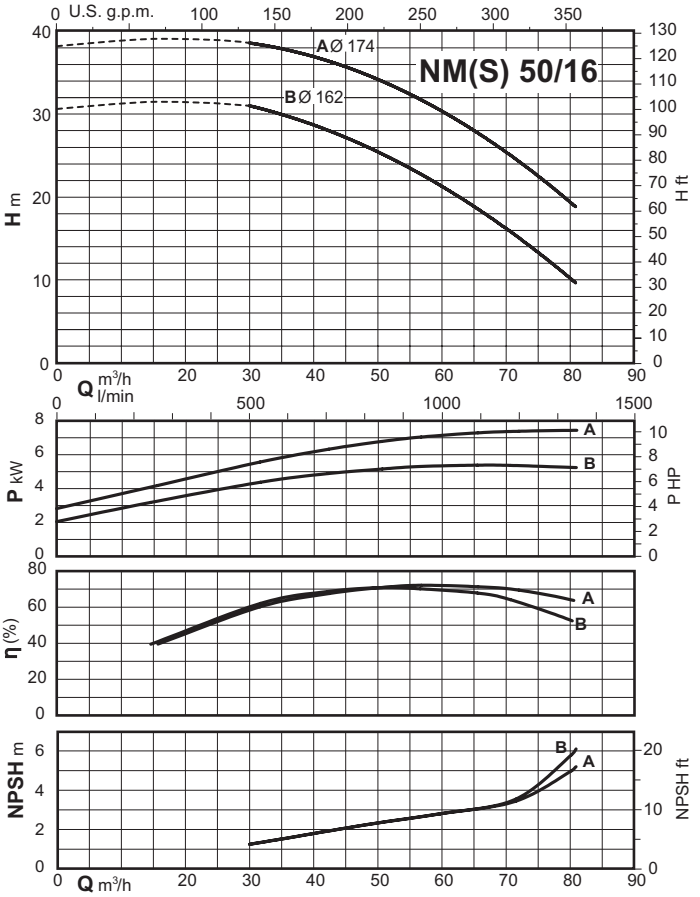


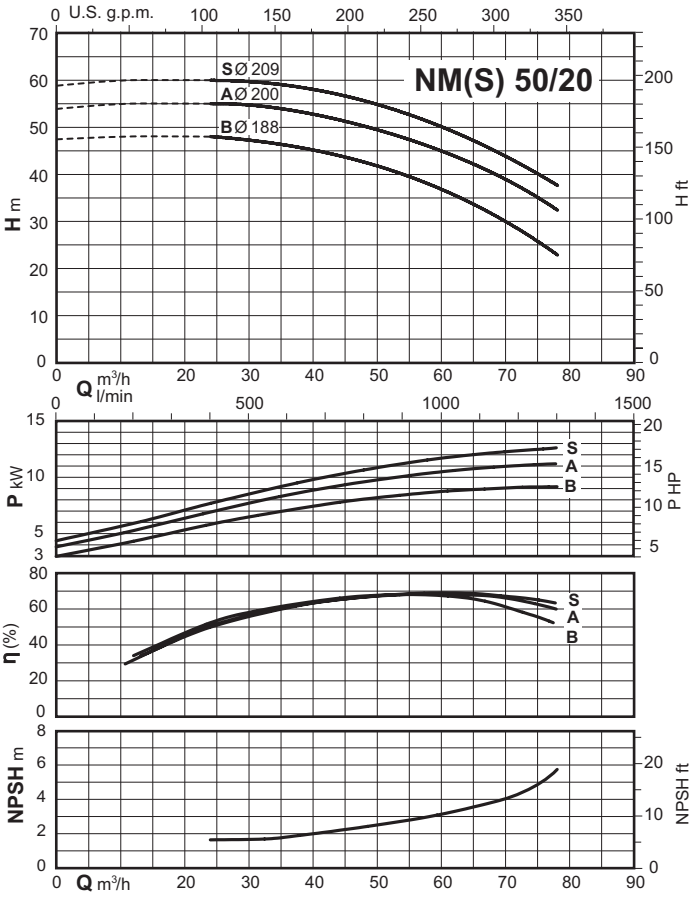
NM, NMS

Characteristic curves n ≈ 2900 rpm



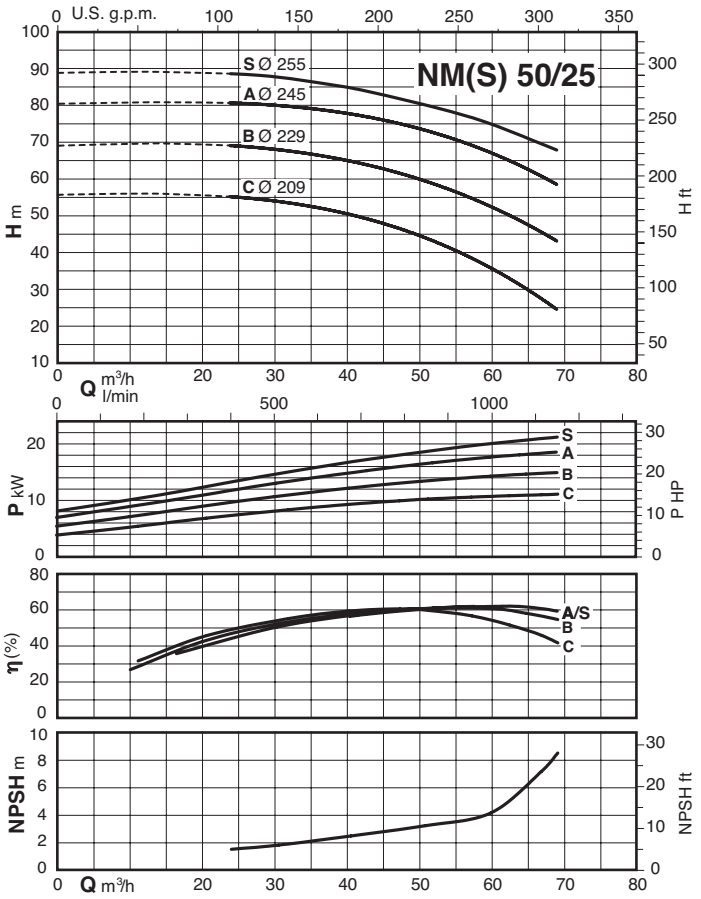


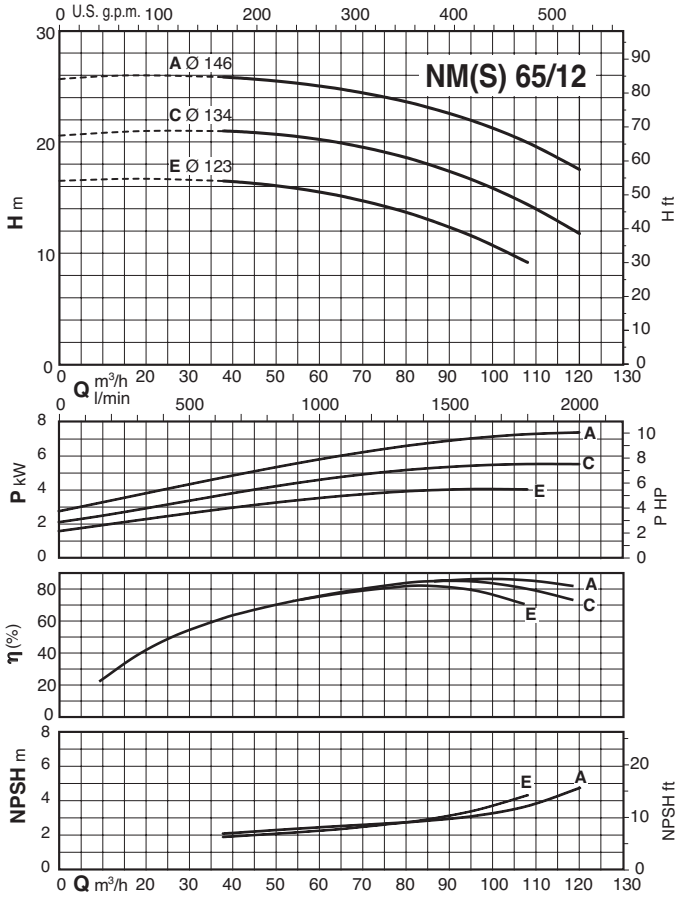


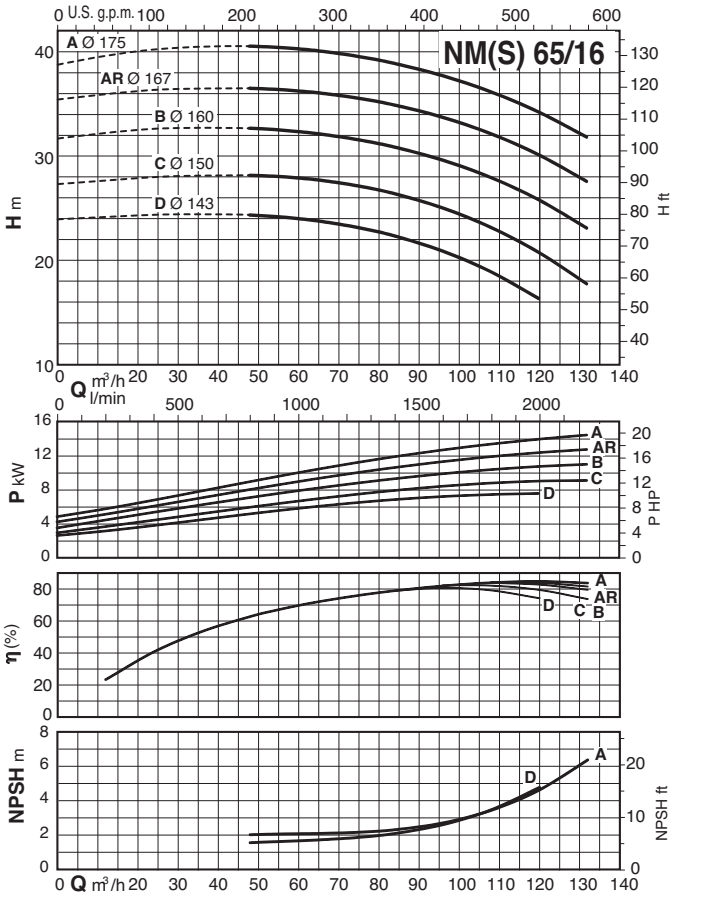


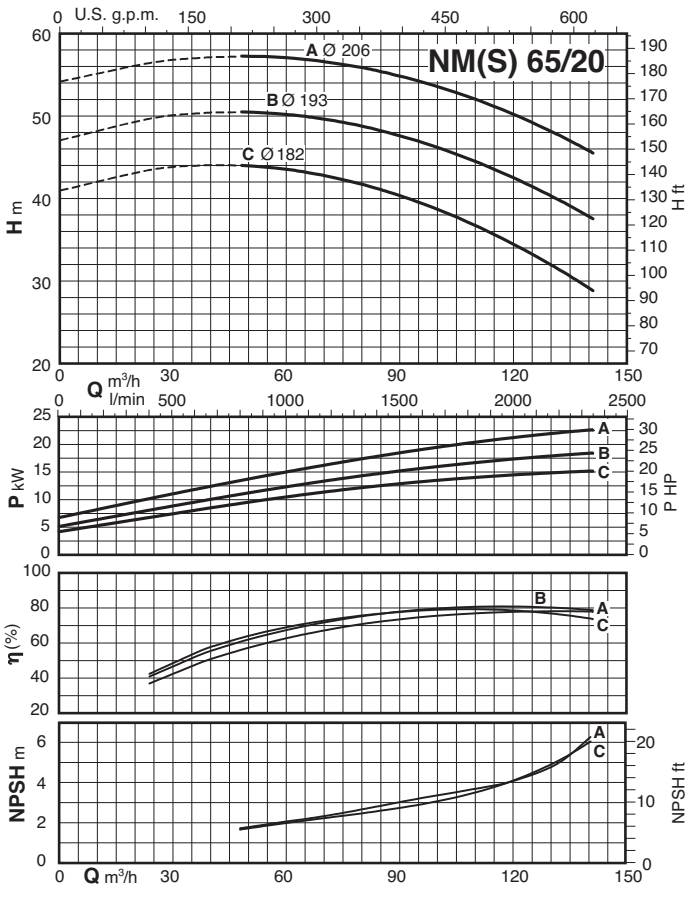
NM, NMS

Characteristic curves n ≈ 2900 rpm



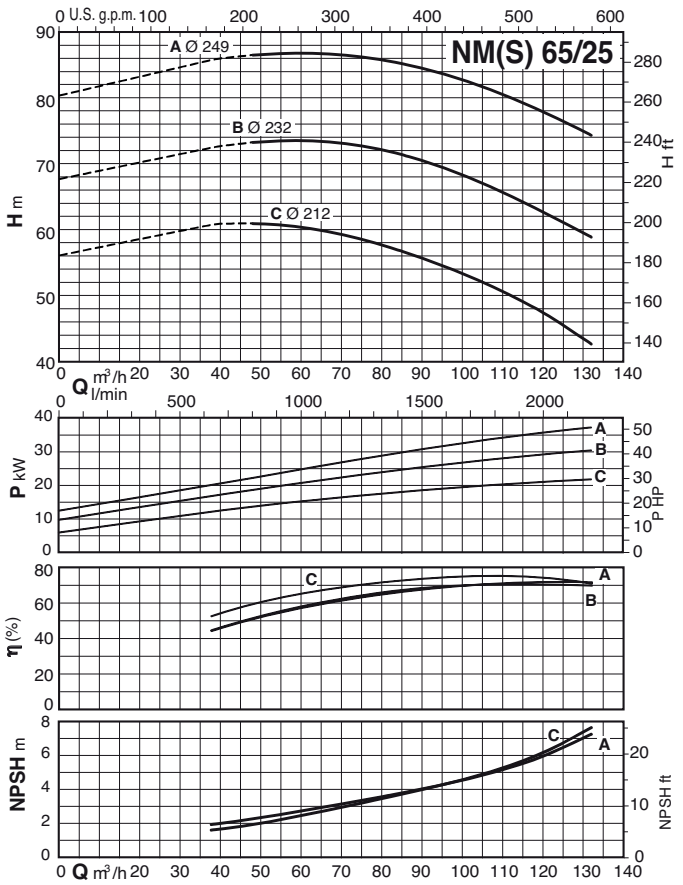


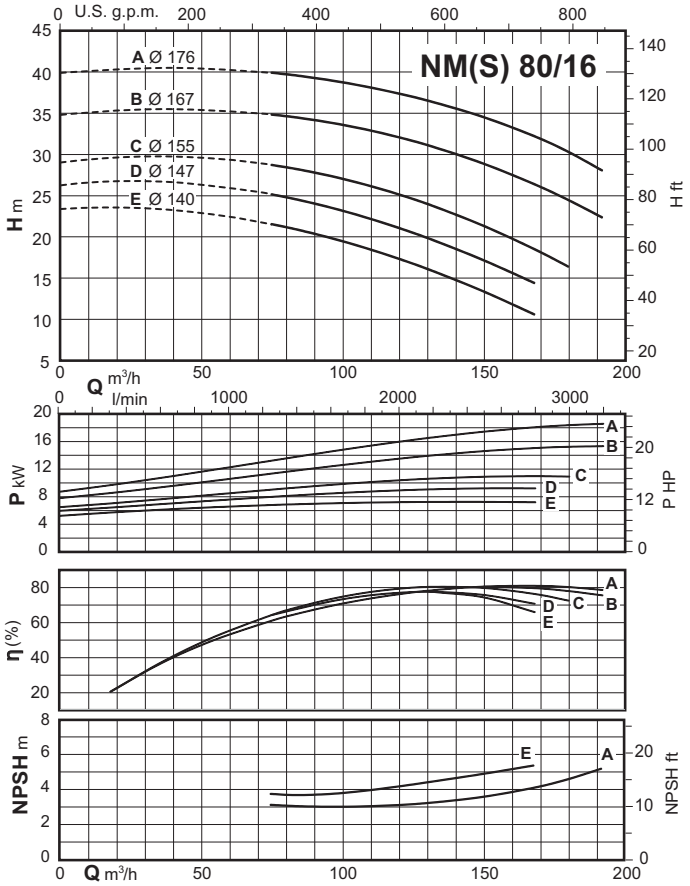


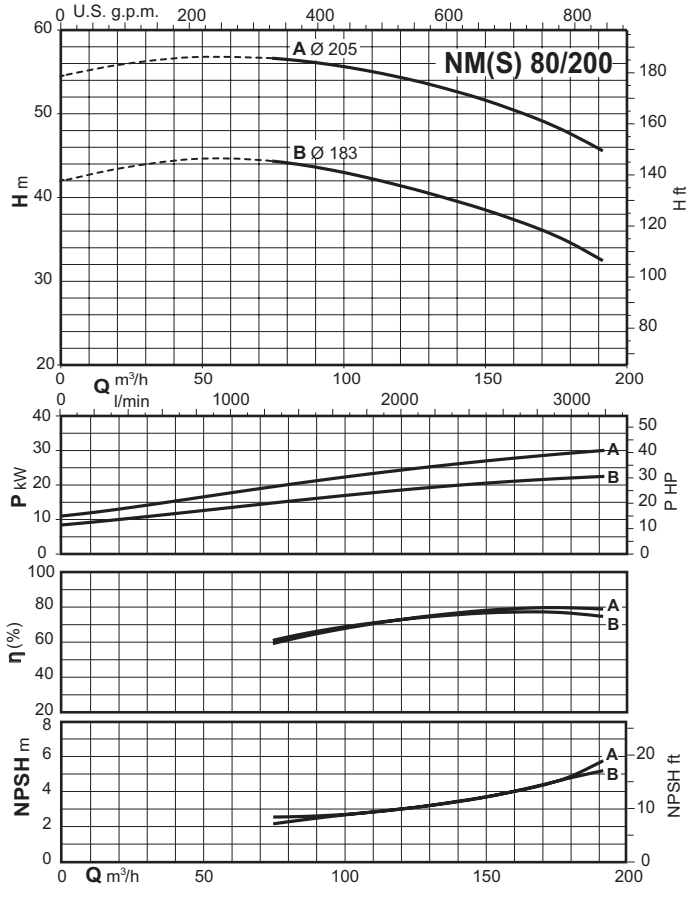


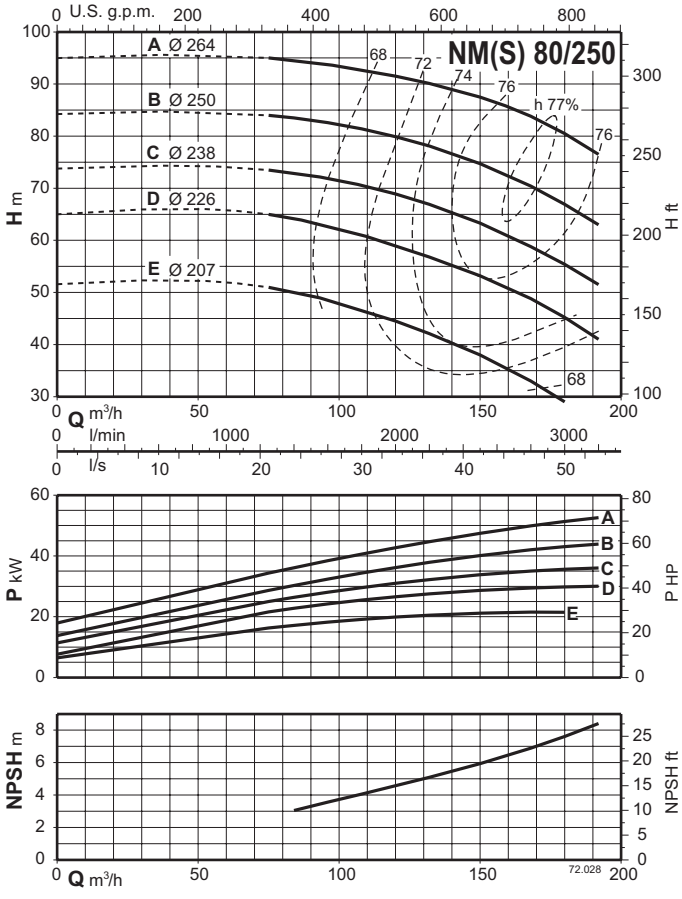
NM, NMS

Characteristic curves n ≈ 2900 rpm



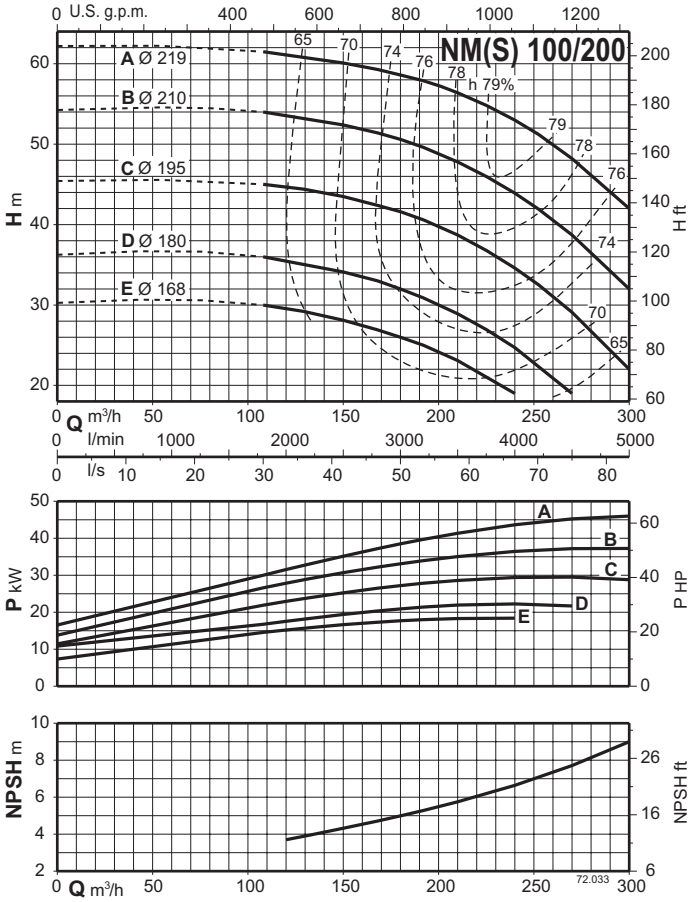


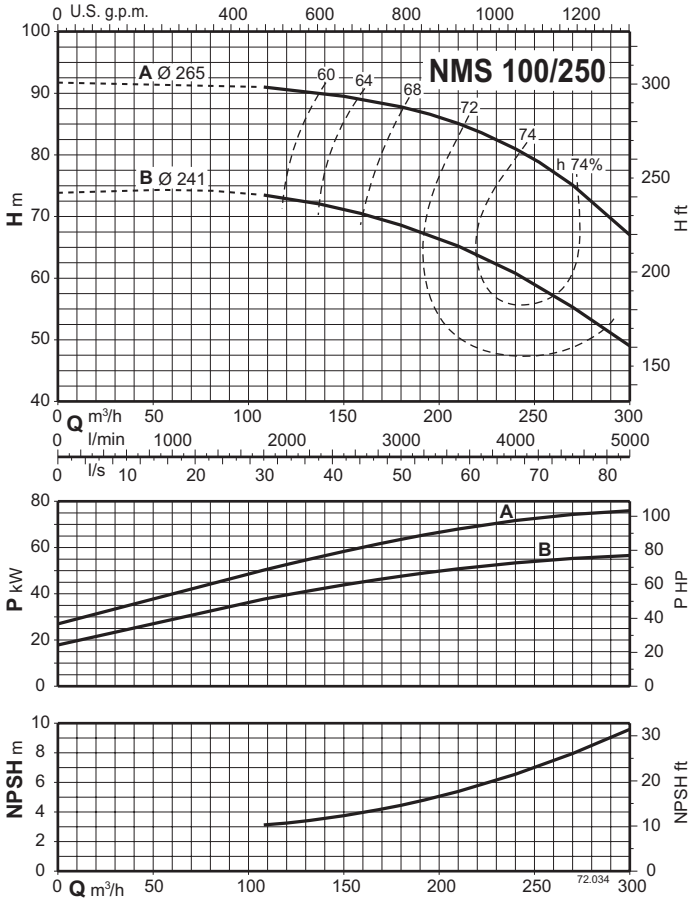




NM, NMS

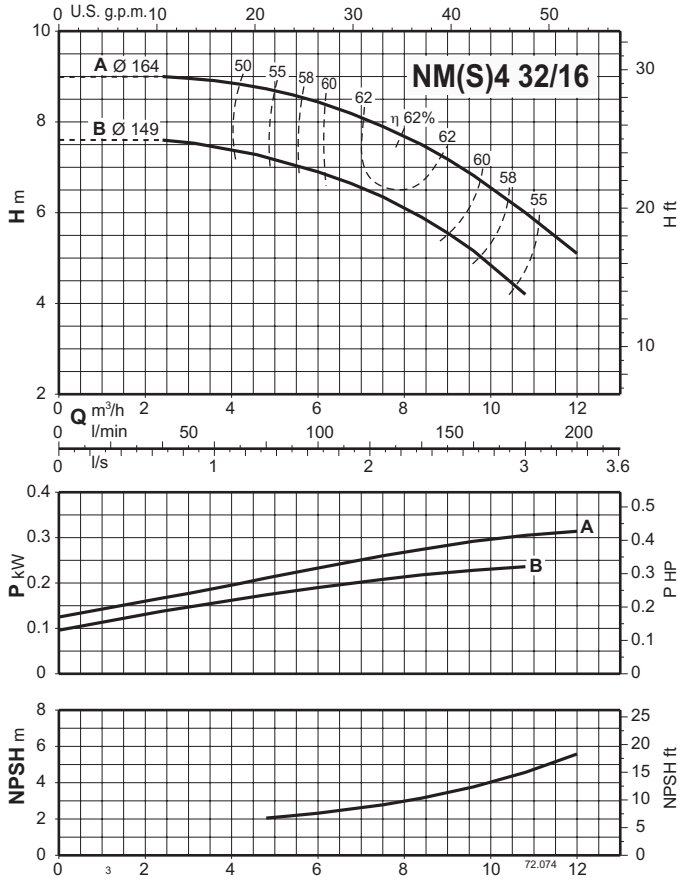
Characteristic curves n ≈ 2900 rpm

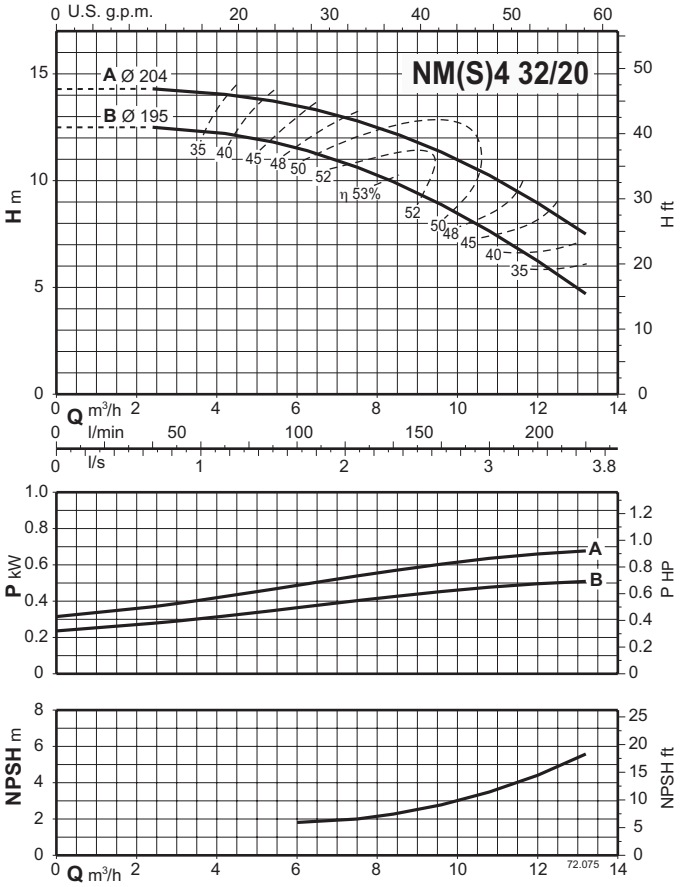


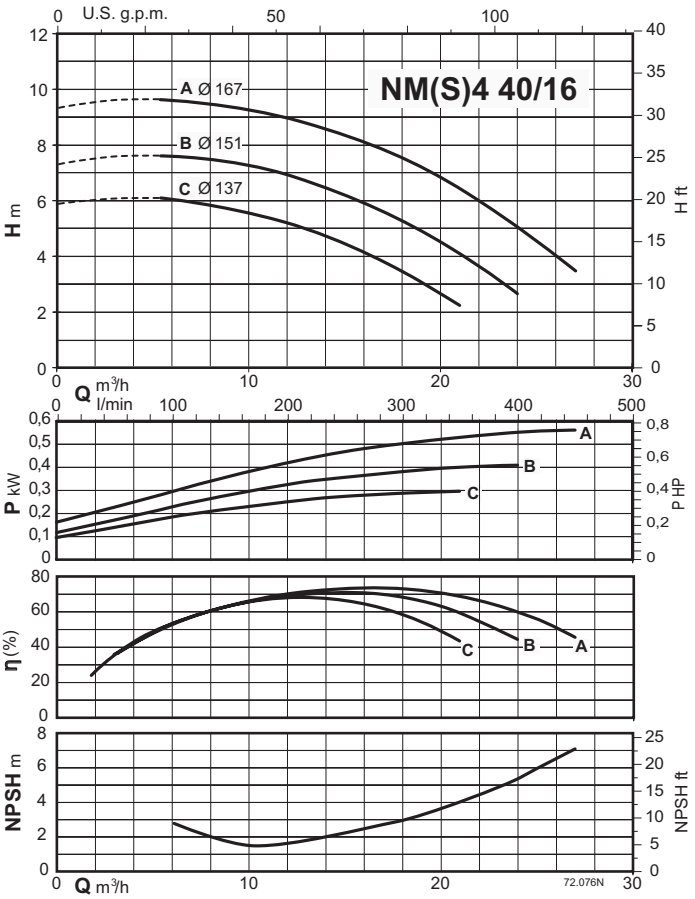


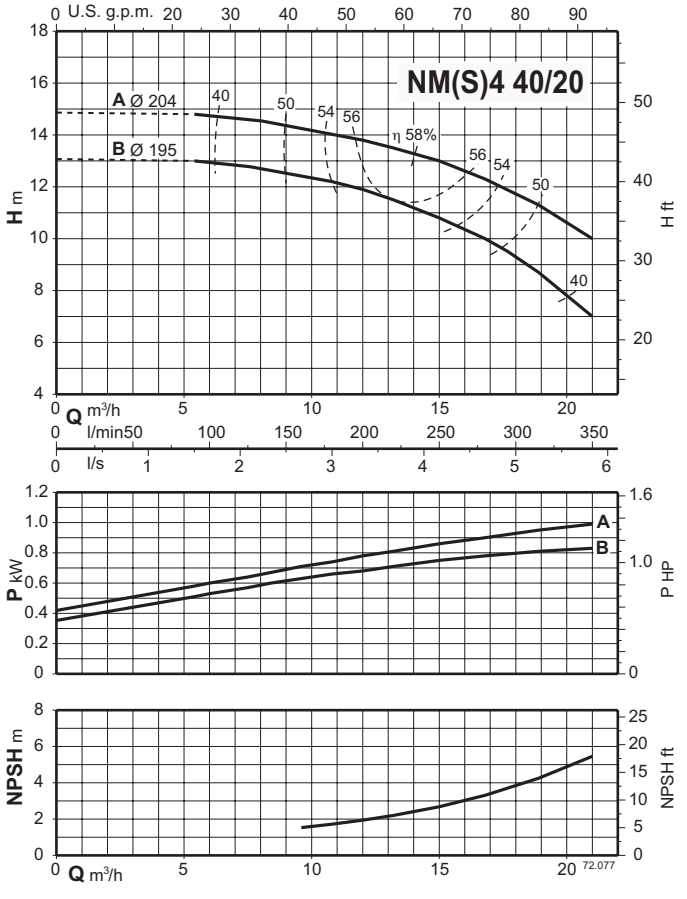
NM4, NMS4

Characteristic curves n ≈ 1450 rpm



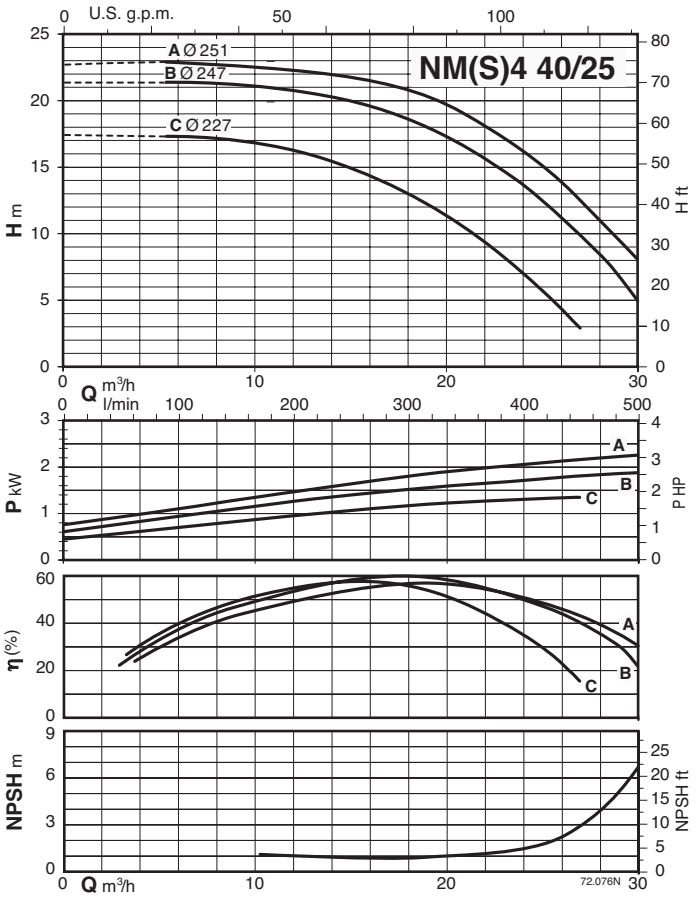


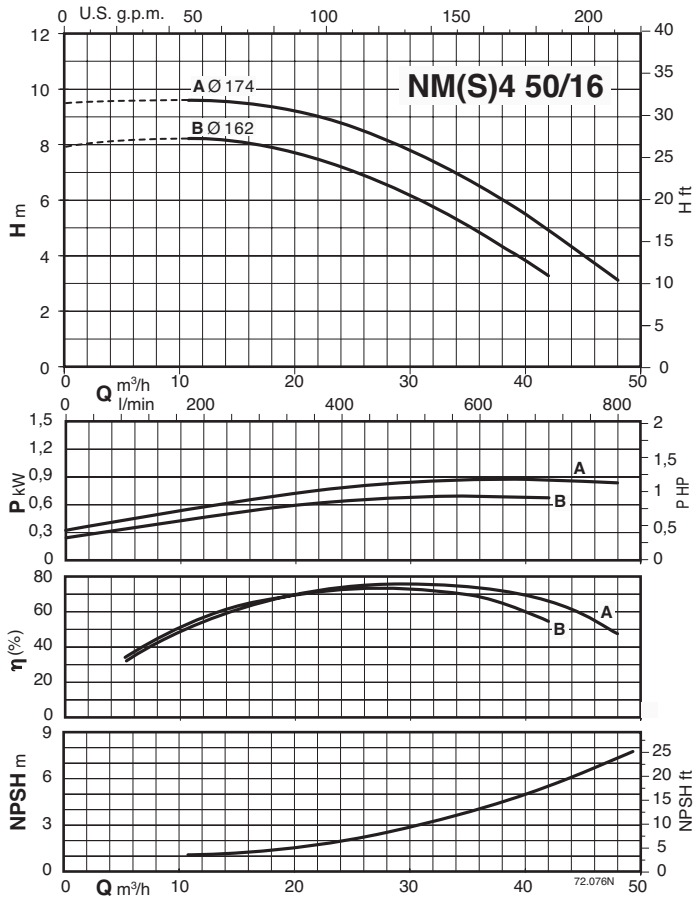


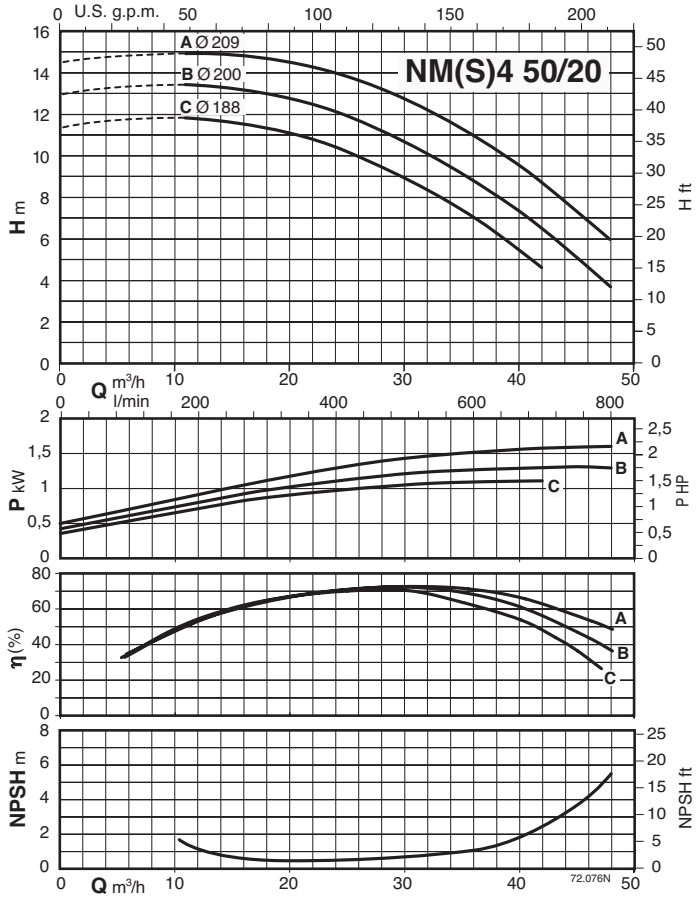


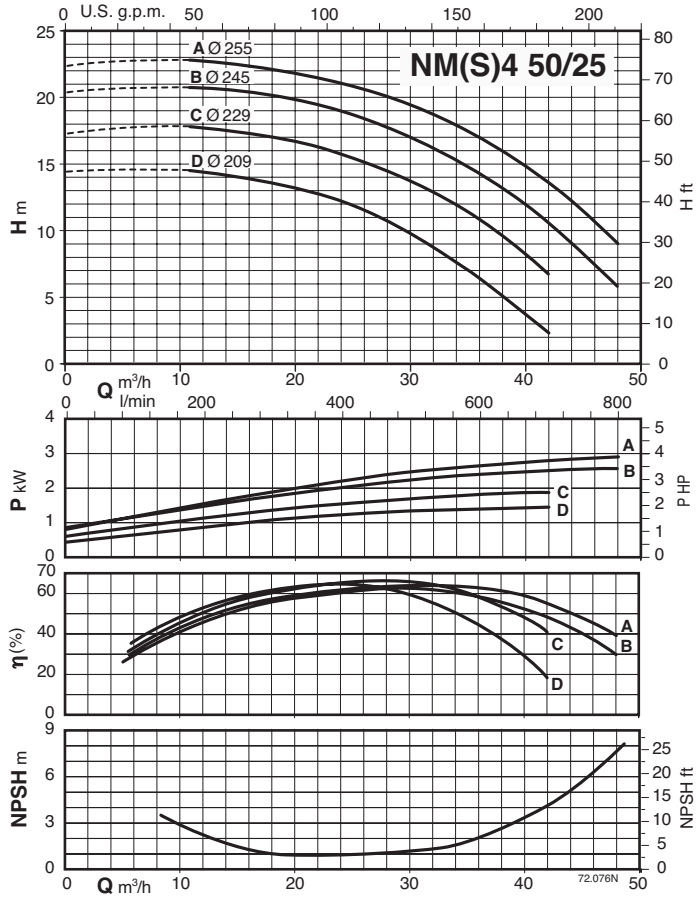
NM4, NMS4

Characteristic curves n ≈ 1450 rpm



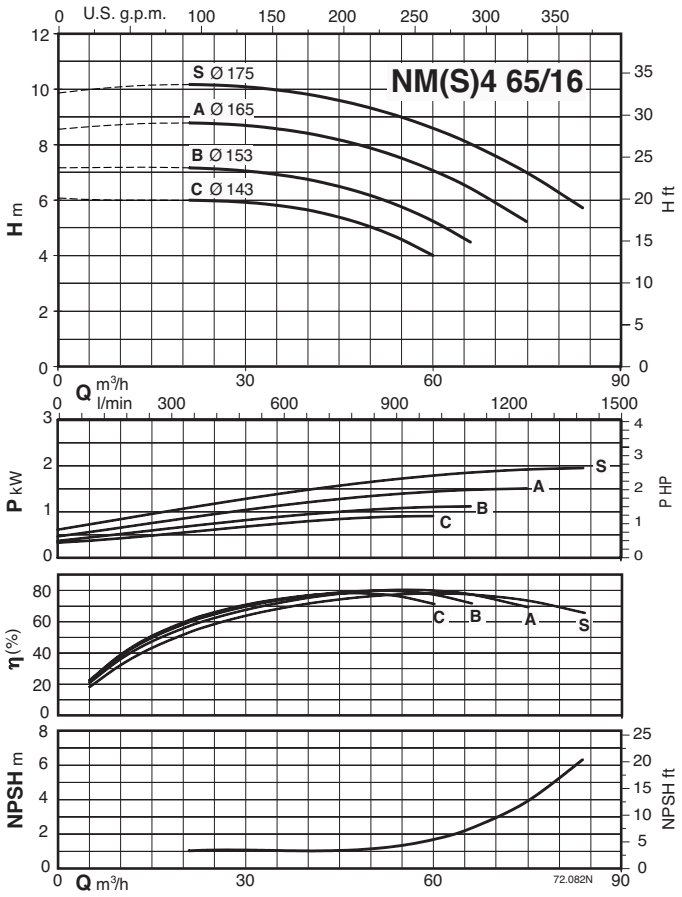


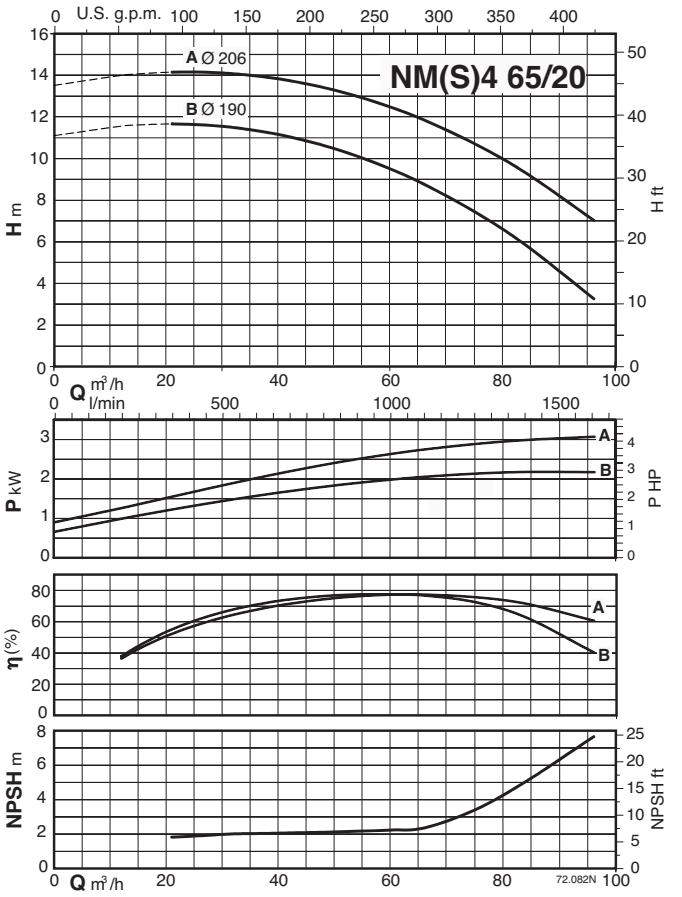


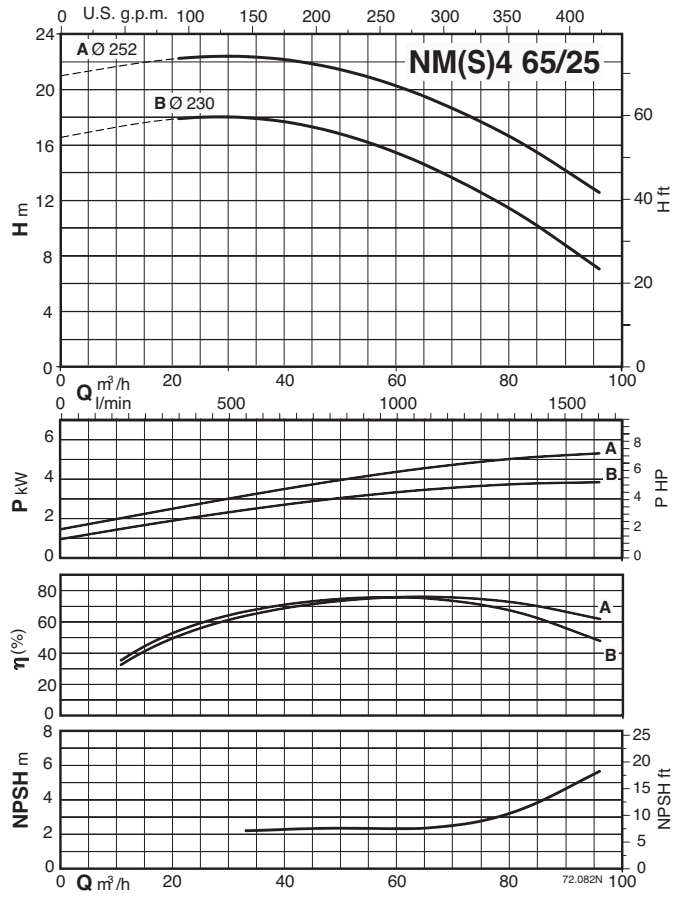


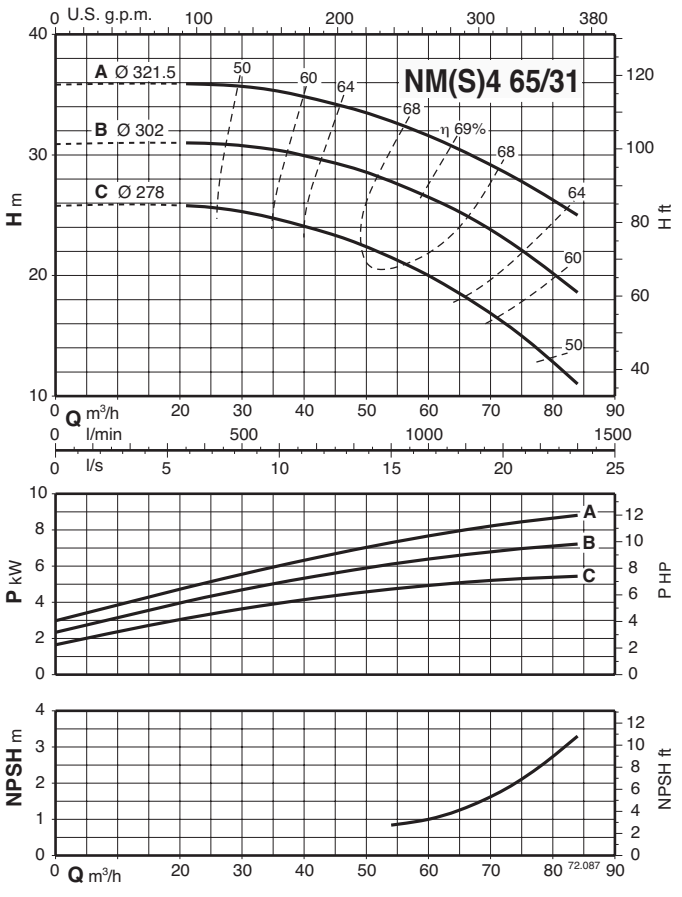
NM4, NMS4

Characteristic curves n ≈ 1450 rpm



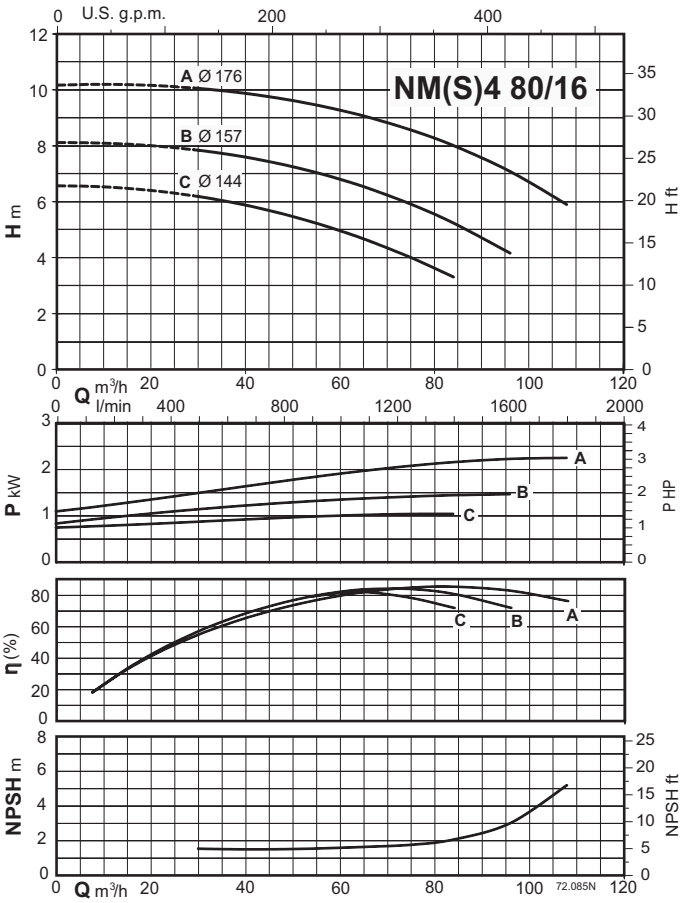


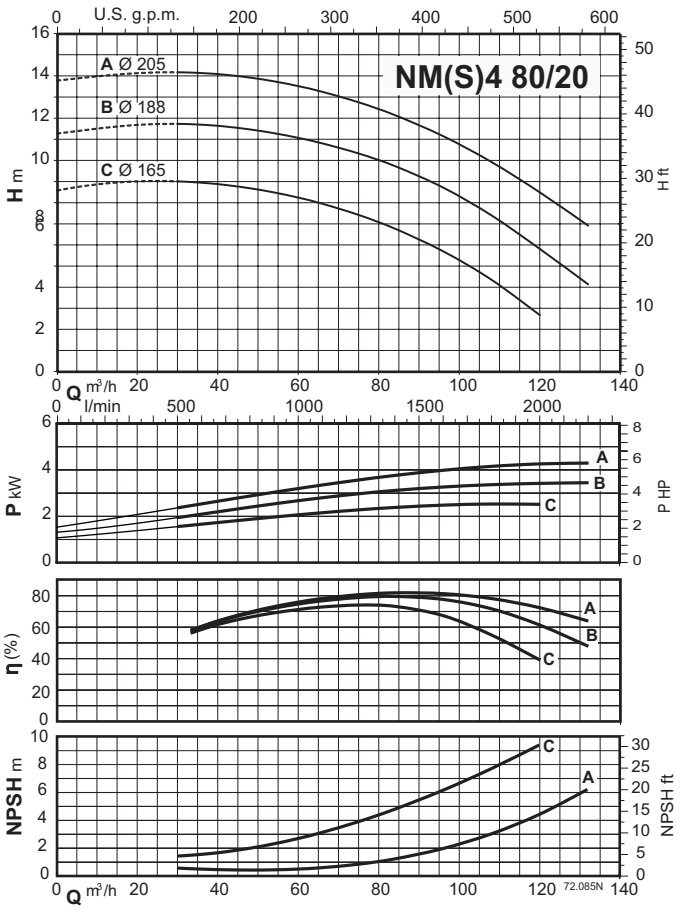


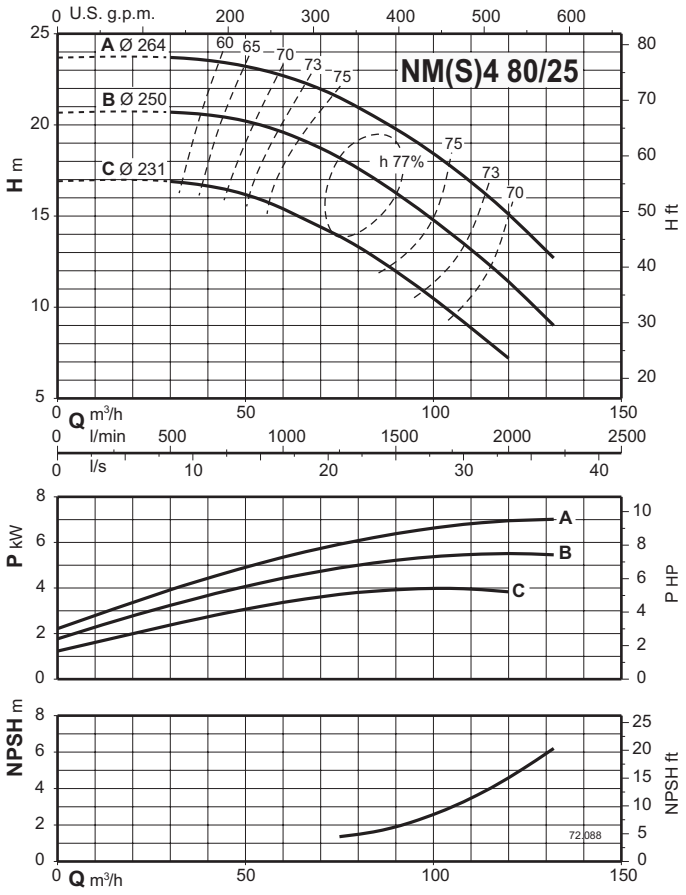


NM4, NMS4

Characteristic curves n ≈ 1450 rpm

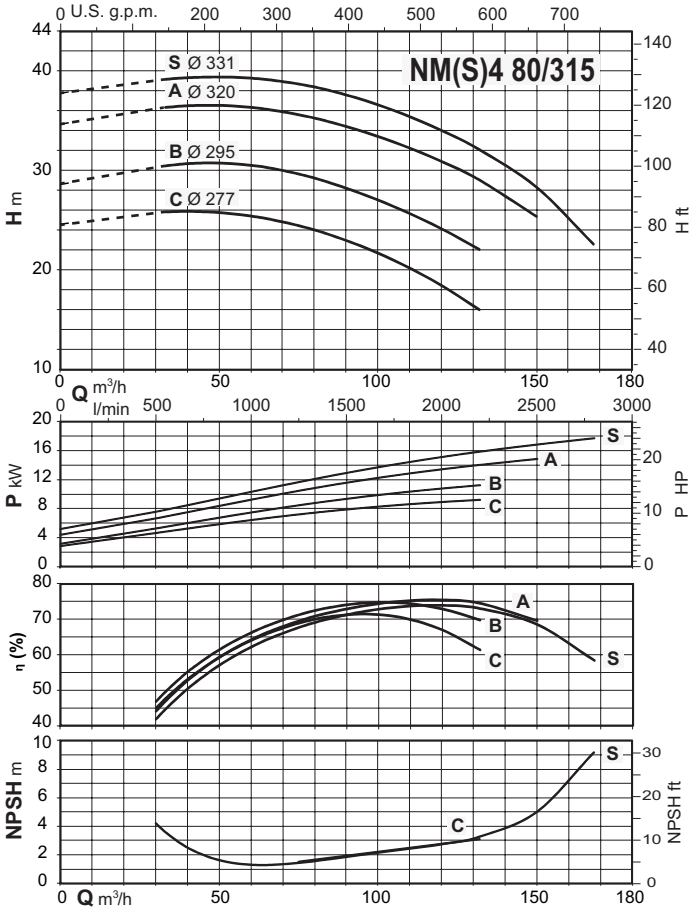


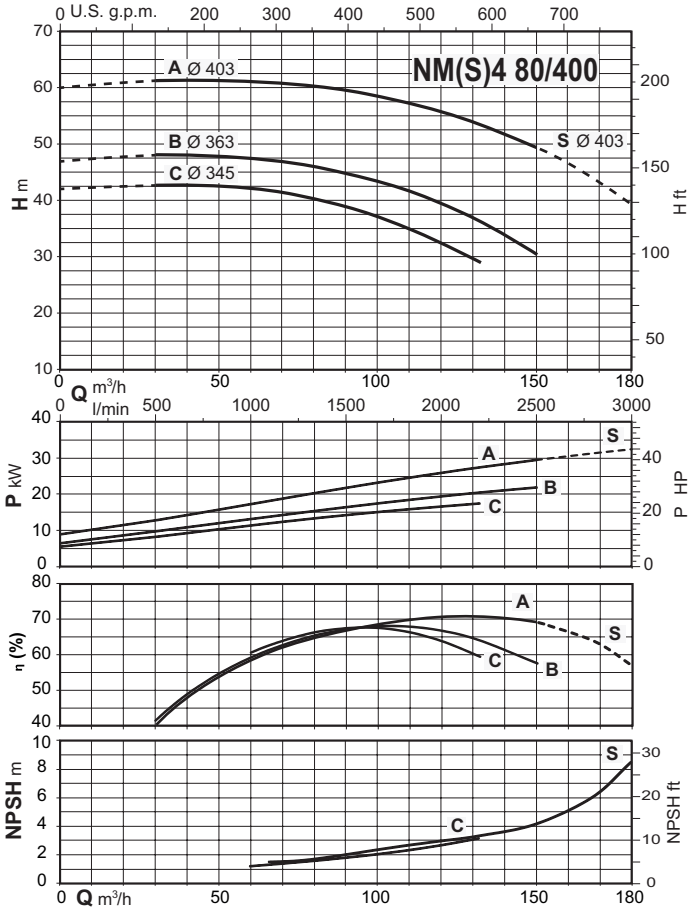




NM4, NMS4

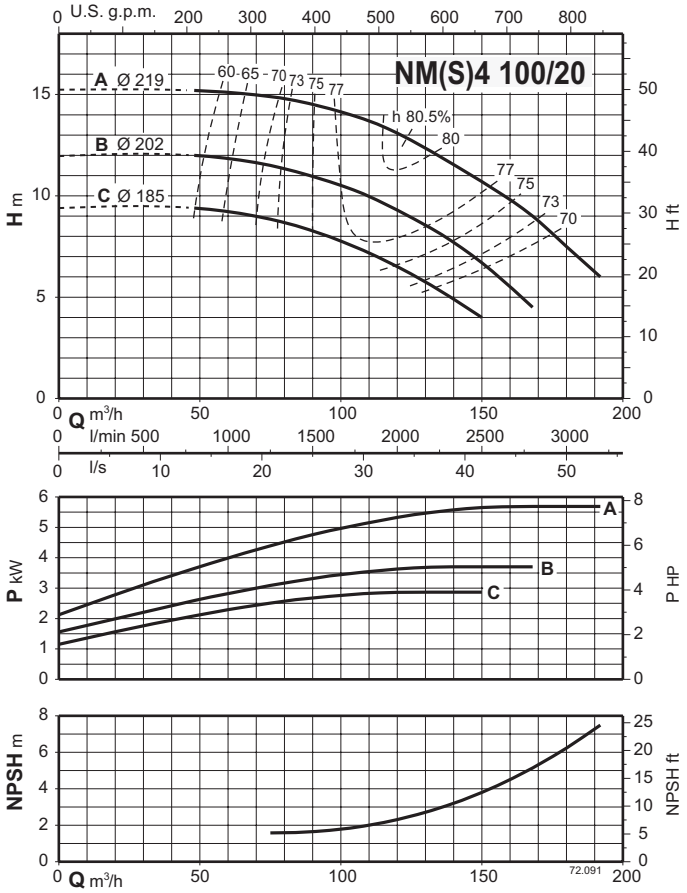
Characteristic curves n ≈ 1450 rpm

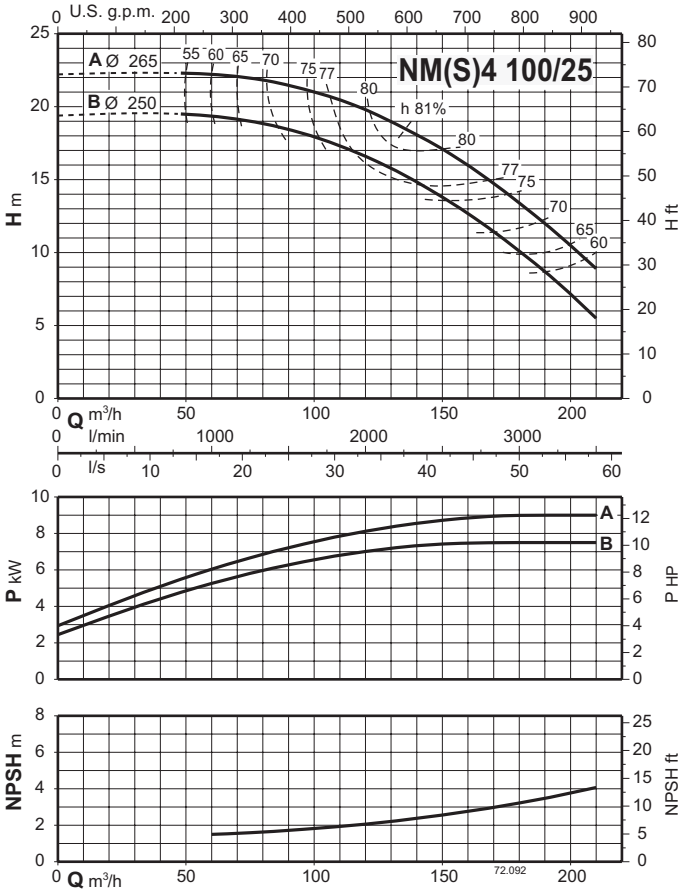


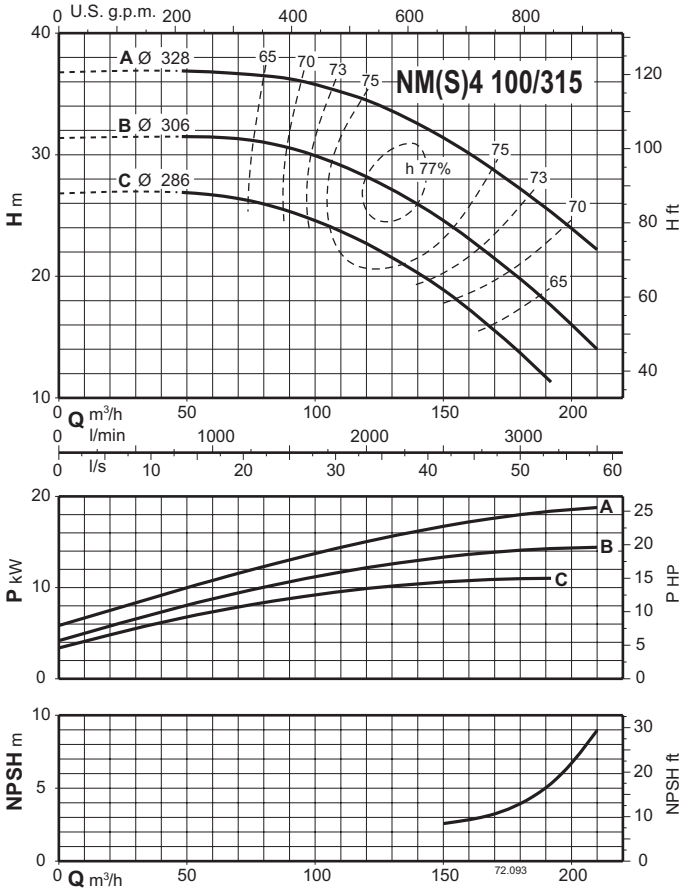


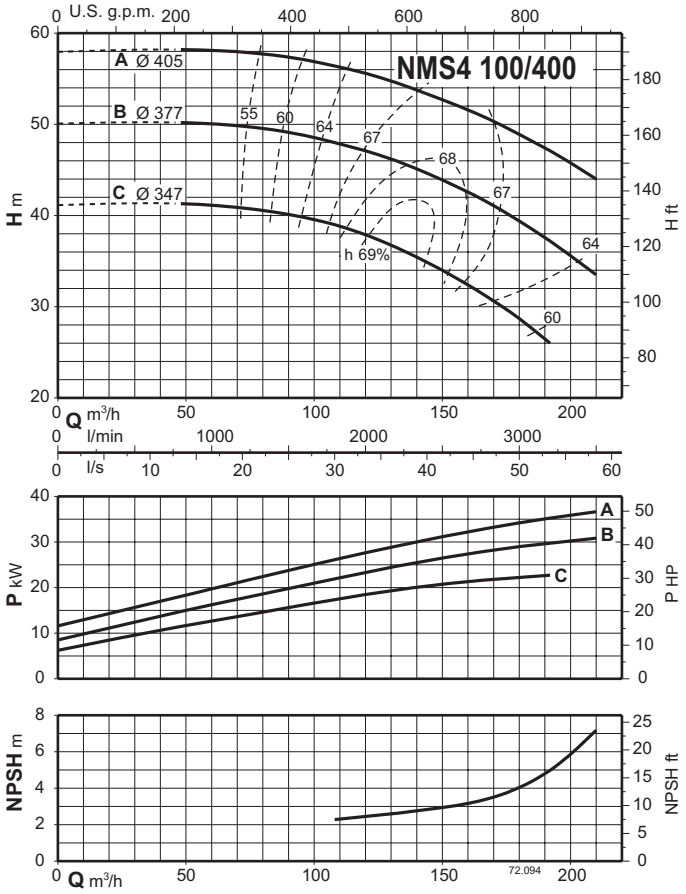
NM4, NMS4

Characteristic curves n ≈ 1450 rpm



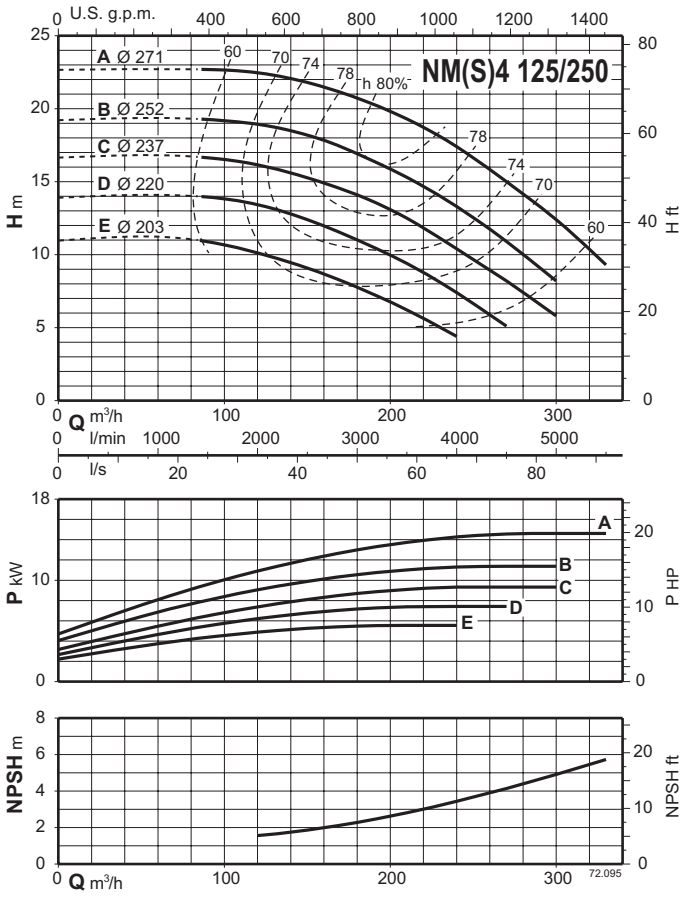


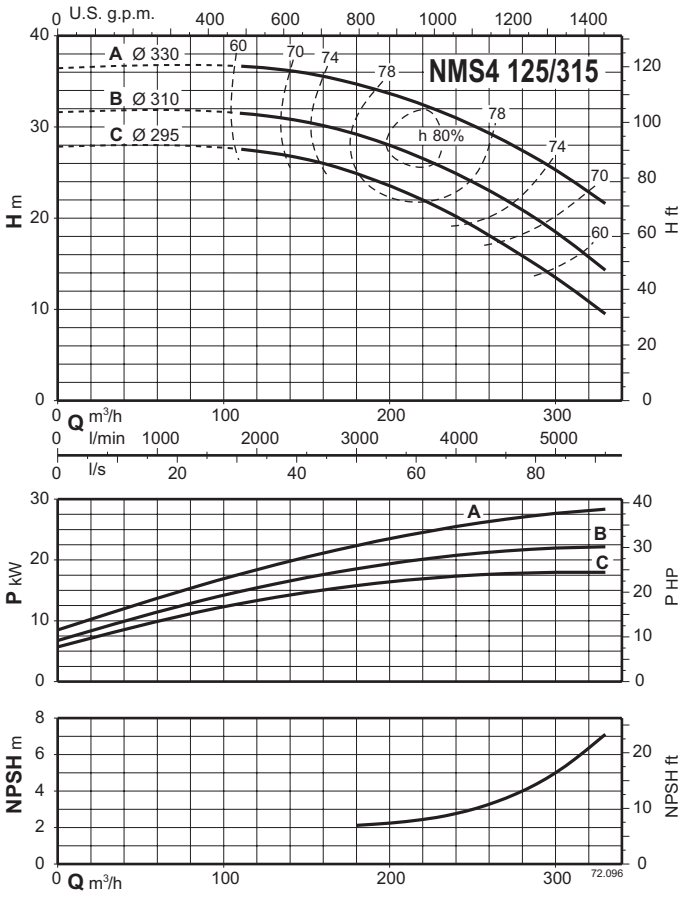


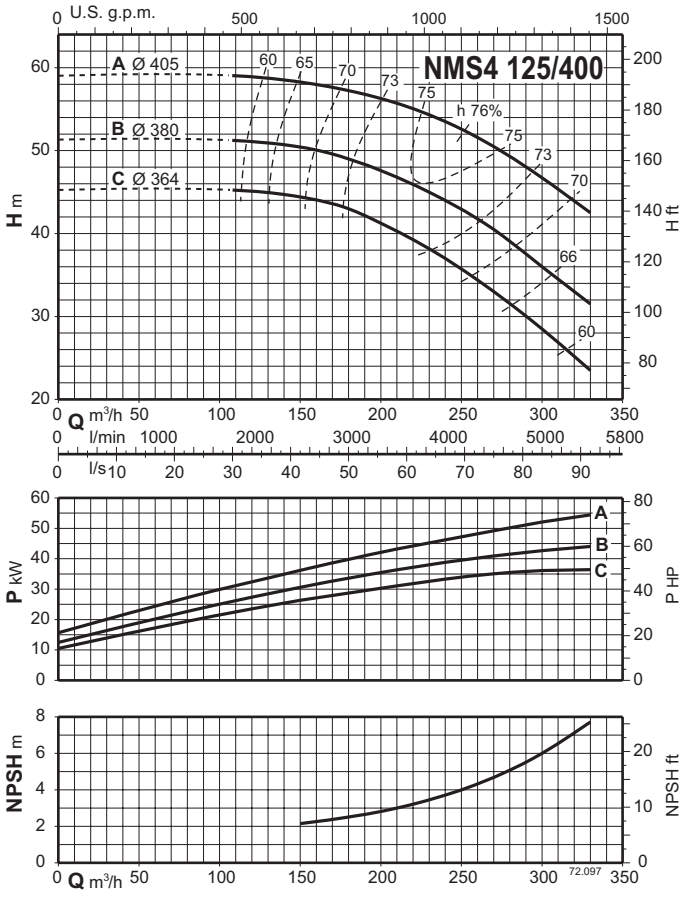


NM4, NMS4

Characteristic curves n ≈ 1450 rpm

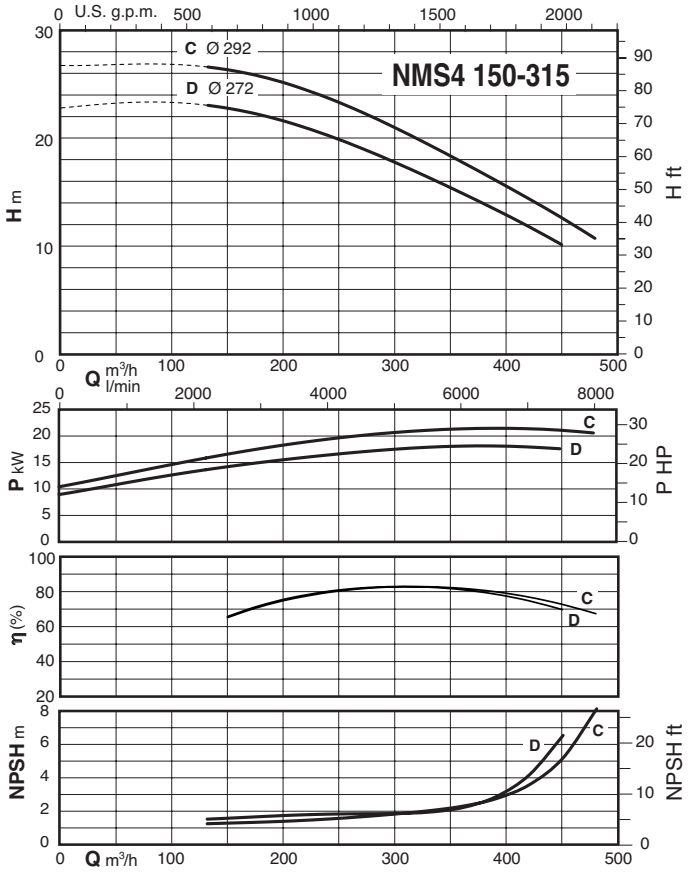


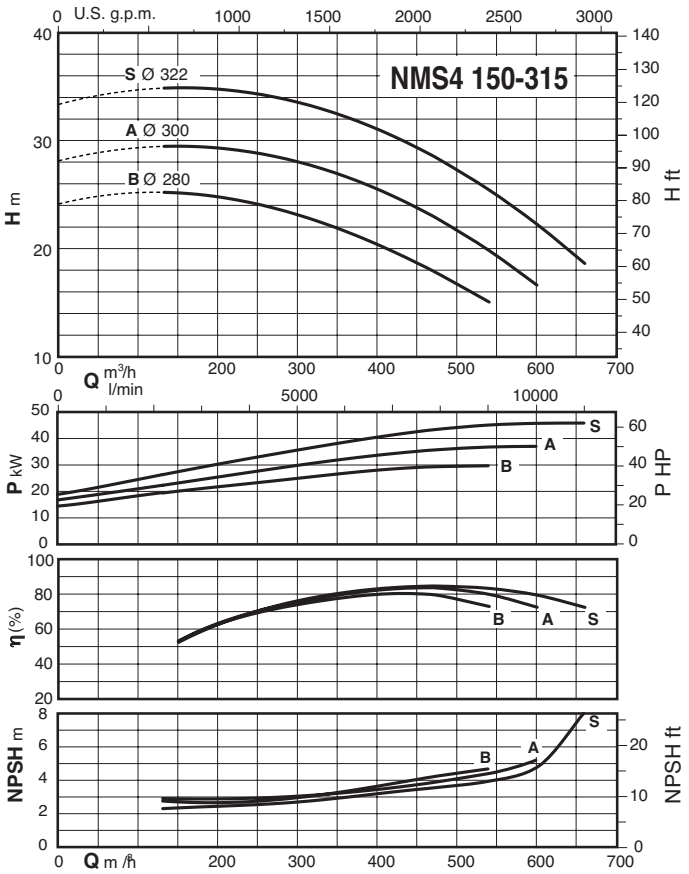


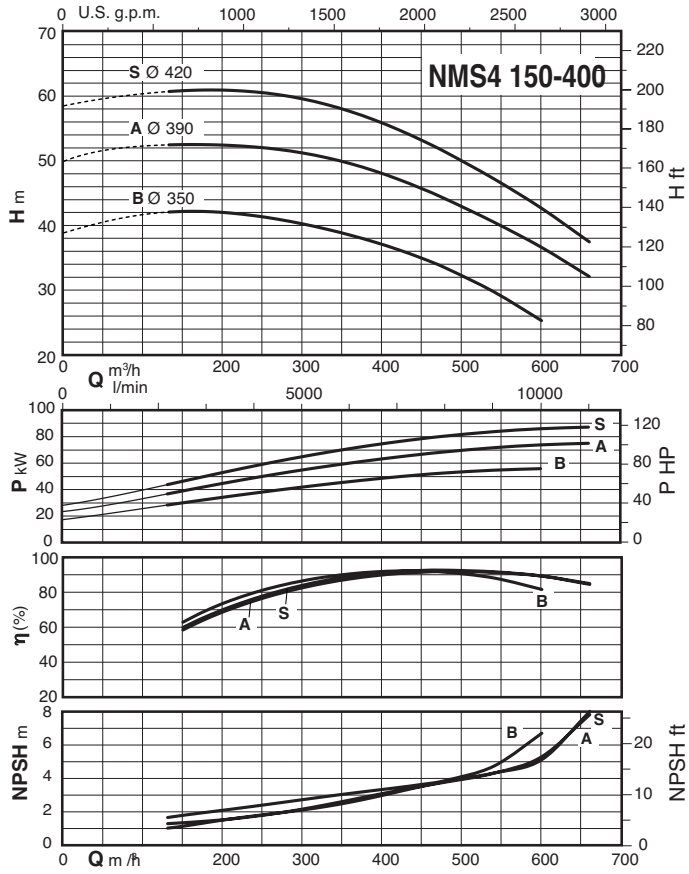


NM4, NMS4

Characteristic curves n ≈ 1450 rpm

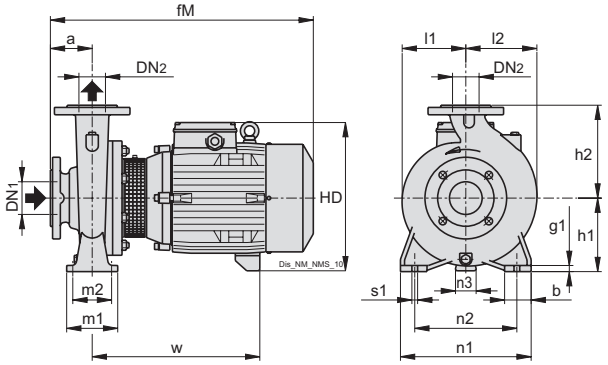




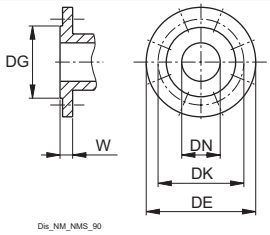


NM, NMS

Dimensions and weights



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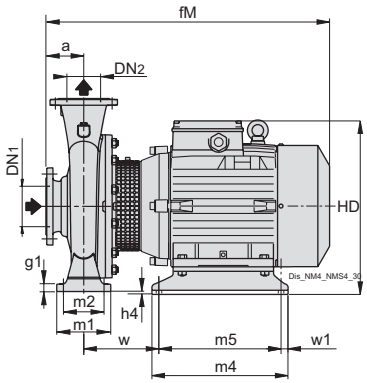
mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

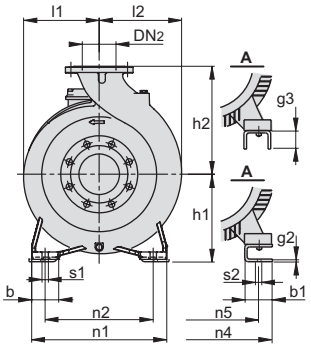
Three-phase

TYPE			mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	n3	s1	w	Weight
NM 32/12F	50	32	80	50	408	12	112	140	242	93	98	100	70	190	140	31	14	248	23.5
NM 32/12D	50	32	80	50	408	12	112	140	242	93	98	100	70	190	140	31	14	248	23.5
NM 32/12A/A	50	32	80	50	408	12	112	140	242	93	98	100	70	190	140	31	14	248	26.2
NM 32/12S/A	50	32	80	50	408	12	112	140	242	93	98	100	70	190	140	31	14	248	27.2
NM 32/16B/A	50	32	80	50	413	12	132	160	262	119	119	100	70	240	190	35	14	255	33.2
NM 32/16A/B	50	32	80	50	453	12	132	160	262	119	119	100	70	240	190	35	14	295	36.7
NM 32/20D/B	50	32	80	50	453	12	160	180	290	140	140	100	70	240	190	40	14	297	41
NM 32/20C/A	50	32	80	50	479	12	160	180	300	140	140	100	70	240	190	37	14	297	48.8
NM 32/20A/B	50	32	80	50	479	12	160	180	300	140	140	100	70	240	190	37	14	297	51.2
NM 32L/20C	50	32	80	50	479	12	160	180	300	142	142	100	70	240	190	37	14	297	50.6
NM 32L/20B	50	32	80	50	539	12	160	180	327	142	142	100	70	240	190	34	14	335	63.6
NM 32L/20A	50	32	80	50	539	12	160	180	327	142	142	100	70	240	190	34	14	335	68.3
NM 32L/16C	50	32	80	50	453	10	132	160	262	121	121	100	70	240	190	35	14	295	35.2
NM 32L/16B	50	32	80	50	479	10	132	160	272	121	121	100	70	240	190	32	14	294	41.9
NM 32L/16A	50	32	80	50	479	10	132	160	272	121	121	100	70	240	190	32	14	294	45.4
NM 40/12F/B	65	40	80	50	413	12	112	140	242	100	112	100	70	210	160	31	14	253	27.6
NM 40/12C/B	65	40	80	50	413	12	112	140	242	100	112	100	70	210	160	31	14	253	29.4
NM 40/12A/C	65	40	80	50	453	12	112	140	242	100	112	100	70	210	160	31	14	293	32.2
NM 40/16C/C	65	40	80	50	453	10	132	160	262	120	122	100	70	240	190	35	14	295	36.5
NM 40/16B/B	65	40	80	50	479	10	132	160	272	120	122	100	70	240	190	32	14	294	43.3
NM 40/16A/C	65	40	80	50	479	10	132	160	272	120	122	100	70	240	190	32	14	294	46.7
NM 40/20D/B	65	40	100	50	499	12	160	180	300	141	141	100	70	265	212	37	14	297	53
NM 40/20C/B	65	40	100	50	499	12	160	180	300	141	141	100	70	265	212	37	14	297	53.4
NM 40/20B/A	65	40	100	50	559	12	160	180	327	141	141	100	70	265	212	34	14	335	66
NM 40/20AR/A	65	40	100	50	559	12	160	180	327	141	141	100	70	265	212	34	14	335	65.7
NM 40/20A/A	65	40	100	50	559	12	160	180	327	141	141	100	70	265	212	34	14	335	70.6
NM 40/25C/C	65	40	100	65	639	15	180	225	370	177	177	125	95	320	250	35	14	397	107.8
NM 40/25B/C	65	40	100	65	639	15	180	225	370	177	177	125	95	320	250	35	14	397	115.3
NM 40/25A/C	65	40	100	65	714	15	180	225	370	177	177	125	95	320	250	35	14	472	135
NM 50/12F/C	65	50	100	50	473	10	132	160	262	122	137	100	70	240	190	35	14	295	37.2
NM 50/12D/B	65	50	100	50	499	10	132	160	272	122	137	100	70	240	190	32	14	294	44.8
NM 50/12A/C	65	50	100	50	499	10	132	160	272	122	137	100	70	240	190	32	14	294	48.2
NM 50/12S/C	65	50	100	50	499	10	132	160	272	122	137	100	70	240	190	32	14	294	48.3
NM 50/16B/B	65	50	100	50	559	12	160	180	327	125	140	100	70	265	212	34	14	335	64.2
NM 50/16A/B	65	50	100	50	559	12	160	180	327	125	140	100	70	265	212	34	14	335	68.8
NM 50/20B/C	65	50	100	50	639	14	160	200	350	142	152	100	70	265	212	31	14	395	99.6
NM 50/20A/C	65	50	100	50	639	14	160	200	350	142	152	100	70	265	212	31	14	395	106.9
NM 50/20S/C	65	50	100	50	714	14	160	200	350	142	152	100	70	265	212	31	14	470	131
NM 50/25C/C	65	50	100	65	644	15	180	225	370	177	177	125	95	320	250	35	14	402	120
NM 50/25B/C	65	50	100	65	719	15	180	225	370	177	177	125	95	320	250	35	14	477	145.3
NM 65/12E/C	80	65	100	65	504	12	160	180	300	130	154	125	95	280	212	37	14	302	52
NM 65/12C/B	80	65	100	65	564	12	160	180	327	130	154	125	95	280	212	34	14	340	65.5
NM 65/12A/B	80	65	100	65	564	12	160	180	327	130	154	125	95	280	212	34	14	340	71.1
NM 65/16D/B	80	65	100	65	559	12	160	200	327	140	161	125	95	280	212	34	14	335	70.5
NM 65/16C/C	80	65	100	65	639	12	160	200	350	140	161	125	95	280	212	31	14	395	93
NM 65/16B/C	80	65	100	65	639	12	160	200	350	140	161	125	95	280	212	31	14	395	101.5
NM 65/16AR	80	65	100	65	714	12	160	200	350	140	161	125	95	280	212	31	14	470	120.2
NM 65/16A/C	80	65	100	65	714	12	160	200	350	140	161	125	95	280	212	31	14	470	124.5
NM 65/20C/C	80	65	100	65	714	12	180	225	370	159	179	125	95	320	250	35	14	472	130.9
NM 80/16E/B	100	80	125	65	584	12	180	225	347	152	181	125	95	320	250	37	14	337	78.5
NM 80/16D/C	100	80	125	65	669	12	180	225	370	152	181	125	95	320	250	35	14	402	101
NM 80/16C/C	100	80	125	65	669	12	180	225	370	152	181	125	95	320	250	35	14	402	109.8
NM 80/16B/C	100	80	125	65	744	12	180	225	370	152	181	125	95	320	250	35	14	477	132.5

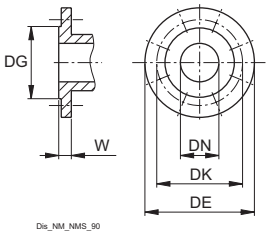
NM, NMS

Dimensions and weights





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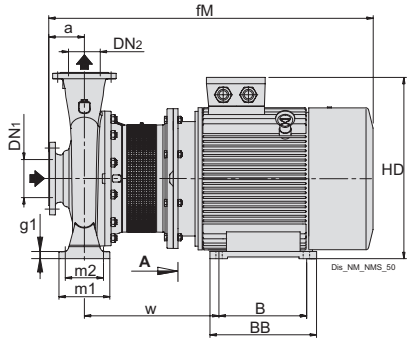
mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

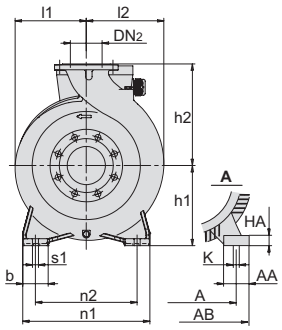
Three-phase

TYPE			mm																								kg
	DN1	DN2	a	b	b1	fM	g1	g3	h1	h2	h4	HD	l1	l2	m1	m2	m4	m5	n1	n2	n4	n5	s1	s2	w	w1	Weight
NM 50/25A/D	65	50	100	65	80	765	15	20	180	225	-	388	177	177	125	95	394	354	320	250	334	254	14	15	185	20	168.2
NM 50/25S	65	50	100	65	80	765	15	20	180	225	-	388	177	177	125	95	394	354	320	250	334	254	14	15	185	20	175.7
NM 65/20B/D	80	65	100	65	80	765	12	20	180	225	-	388	159	179	125	95	394	354	320	250	334	254	14	15	185	20	163
NM 65/20A/A	80	65	100	65	80	765	12	20	180	225	-	388	159	179	125	95	394	354	320	250	334	254	14	15	185	20	168.9
NM 65/25C/A	80	65	100	80	90	765	15	42	200	250	2	408	178	195	160	120	400	360	360	280	344	254	18	14	182	20	187.4
NM 80/16A/D	100	80	125	65	80	790	12	20	180	225	-	388	152	181	125	95	394	354	320	250	334	254	14	15	185	20	157.9
NM 80/20B/A	100	80	125	65	90	790	15	42	180	250	22	388	170	194	125	95	400	360	345	280	344	254	14	14	182	20	178
NM 80/25E	100	80	125	80	90	790	20	42	200	280	2	408	191	211	160	120	400	360	400	315	344	254	18	14	182	20	190.2
NM 100/20E/A	125	100	125	80	60	790	15	40	200	280	-	408	179	211	160	120	394	354	360	280	314	254	18	15	185	20	174.8
NM 100/20D	125	100	125	80	60	790	15	40	200	280	-	408	179	211	160	120	394	354	360	280	314	254	18	15	185	20	182.6

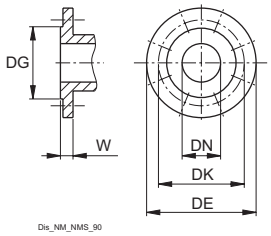
NM, NMS

Dimensions and weights with IE3 motor



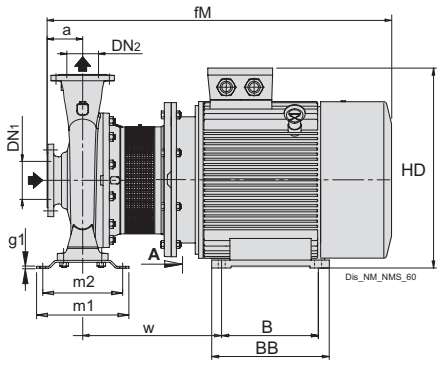


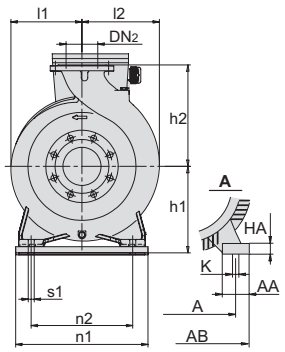
Flanges EN 1092-2 PN 10-16



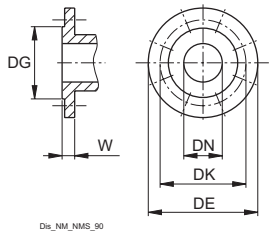
mm						
DN	DG	DK	DE	Holes N°	Holes ø	W
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

TYPE			mm																					kg
	DN1	DN2	a	A	AA	AB	b	B	BB	fM	g1	h1	h2	HA	HD	K	l1	l2	m1	m2	n1	n2	s1	w	Weight
NMS 65/200A	80	65	100	279	70	350	65	241	312	955	12	180	225	22	450	15	159	179	125	95	320	250	14	394	-
NMS 65/250B/B	80	65	100	318	70	390	80	305	370	1006	15	200	250	25	500	19	178	195	160	120	360	280	18	406	-
NMS 65/250A/B	80	65	100	318	70	390	80	305	370	1006	15	200	250	25	500	19	178	195	160	120	360	280	18	406	-
NMS 80/200B/B	100	80	125	279	70	350	65	241	312	980	15	180	250	22	450	15	170	194	125	95	345	280	14	394	-
NMS 80/250D/A	100	80	125	318	70	390	80	305	370	1031	20	200	280	25	500	19	191	211	160	120	400	315	18	406	-
NMS 80/250C/A	100	80	125	318	70	390	80	305	370	1031	20	200	280	25	500	19	191	211	160	120	400	315	18	406	-
NMS 100/200C/A	125	100	125	318	70	390	80	305	370	1031	15	200	280	25	500	19	179	211	160	120	360	280	18	406	308
NMS 100/200B/A	125	100	125	318	70	390	80	305	370	1031	15	200	280	25	500	19	179	211	160	120	360	280	18	406	-





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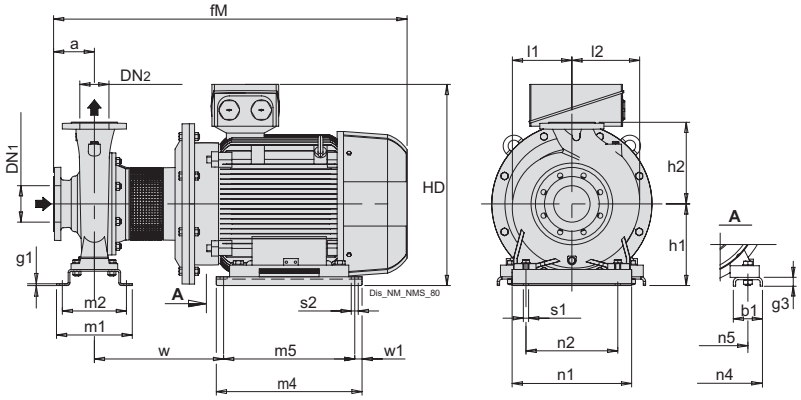


mm						
DN	DG	DK	DE	Holes N°	Holes ø	W
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

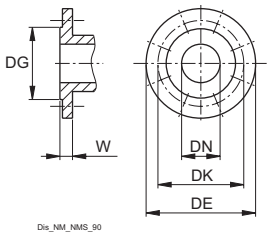
TYPE			mm																				
	DN1	DN2	a	A	AA	AB	B	BB	fM	g1	h1	h2	HA	HD	K	l1	l2	m1	m2	n1	n2	s1	w
NMS 80/200A/B	100	80	125	318	70	390	305	370	1031	6	200	250	25	500	19	170	194	227	191	350	280	14	406
NMS 80/250B/A	100	80	125	356	75	431	311	395	1089	6	225	280	28	555	19	191	211	298	258	410	315	18	445
NMS 100/200A/A	125	100	125	356	75	431	311	395	1089	6	225	280	28	555	19	179	211	298	258	410	315	18	445
NMS 100/250A/A	125	100	140	457	85	545	368	485	1276	6	280	280	38	670	24	205	233	260	220	410	315	18	516

NM, NMS

Dimensions and weights with IE3 motor

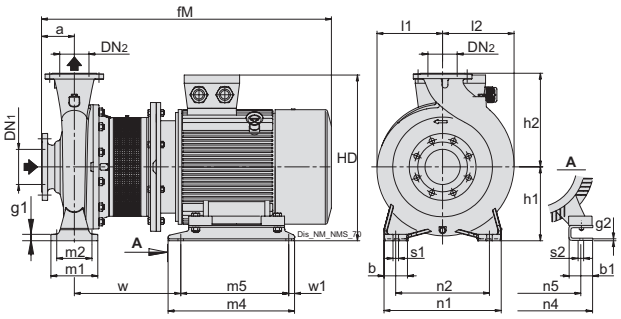


Flanges EN 1092-2 PN 10-16

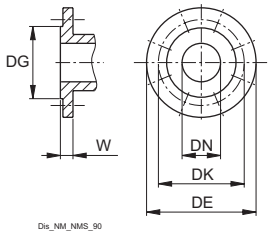


mm						
DN	DG	DK	DE	Holes N°	Holes ø	W
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

TYPE			mm																					
	DN1	DN2	a	b1	fM	g1	g3	h1	h2	HD	l1	l2	m1	m2	m4	m5	n1	n2	n4	n5	s1	s2	w	w1
NMS 80/250A/A	100	80	125	100	1321	6	30	280	280	642	191	211	260	220	570	520	410	315	506	406	18	24	408	25
NMS 100/250B/A	125	100	140	100	1336	6	30	280	280	642	205	233	260	220	570	520	410	315	506	406	18	24	408	25



Flanges EN 1092-2 PN 10-16

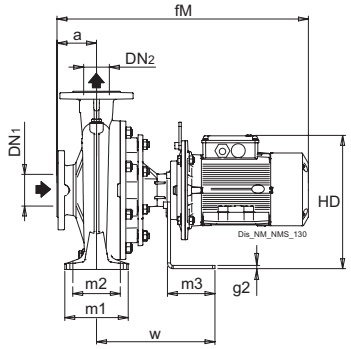


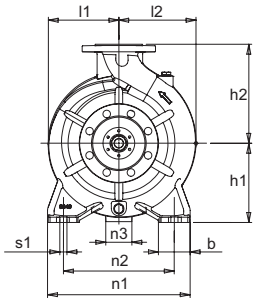
mm						
DN	DG	DK	DE	Holes N°	Holes ø	W
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

TYPE			mm																					
	DN1	DN2	a	b	b1	fM	g1	g3	h1	h2	HD	l1	l2	m1	m2	m4	m5	n1	n2	n4	n5	s1	s2	w	w1
NMS 65/250C	80	65	100	80	70	955	15	20	200	250	470	178	195	160	120	440	400	360	280	349	279	18	15	333	20
NMS 80/250E	100	80	125	80	70	980	20	20	200	280	470	191	211	160	120	440	400	400	315	349	279	18	15	333	20
NMS 100/200D/A	125	100	125	80	70	980	15	20	200	280	470	179	211	160	120	440	400	360	280	349	279	18	15	333	20

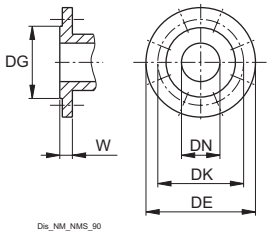
NM, NMS

Dimensions and weights with IE4 motor





Flanges EN 1092-2 PN 10-16

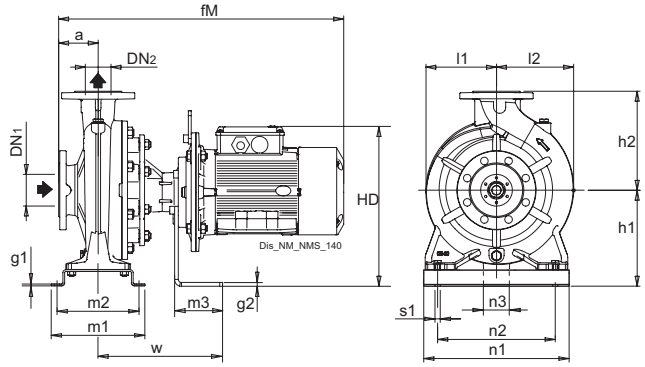


mm						
DN	DG	DK	DE	Holes N°	Holes ø	W
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

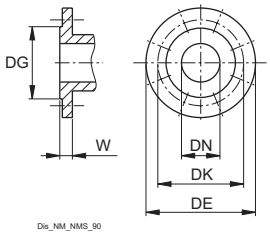
TYPE			mm																	
	DN1	DN2	a	b	fM	g1	g2	h1	h2	HD	l1	l2	m1	m2	m3	n1	n2	n3	s1	w
NMS 32/125D	50	32	80	50	536	12	8	112	140	241	93	98	100	70	120	190	140	65	14	274
NMS 32/125D-S	50	32	80	50	536	12	8	112	140	241	93	98	100	70	120	190	140	65	14	274
NMS 32/125A	50	32	80	50	536	12	8	112	140	241	93	98	100	70	120	190	140	65	14	274
NMS 32/125S	50	32	80	50	576	12	8	112	140	241	93	98	100	70	120	190	140	65	14	274
NMS 32/125A-S	50	32	80	50	576	12	8	112	140	241	93	98	100	70	120	190	140	65	14	274
NMS 32/160B	50	32	80	50	576	12	8	132	160	261	119	119	100	70	120	240	190	65	14	274
NMS 32/160B-S	50	32	80	50	576	12	8	132	160	261	119	119	100	70	120	240	190	65	14	274
NMS 32/160A	50	32	80	50	576	12	8	132	160	261	119	119	100	70	120	240	190	65	14	274
NMS 32/160A-S	50	32	80	50	590	12	8	132	160	270	119	119	100	70	120	240	190	65	14	274
NMS 32/200D	50	32	80	50	576	12	8	160	180	289	140	140	100	70	120	240	190	65	14	274
NMS 32/200D-S	50	32	80	50	590	12	8	160	180	298	140	140	100	70	120	240	190	65	14	274
NMS 32/200C	50	32	80	50	590	12	8	160	180	298	140	140	100	70	120	240	190	65	14	274
NMS 32/200A	50	32	80	50	617	12	8	160	180	334	140	140	100	70	120	240	190	65	14	274
NMS 32/200A-S	50	32	80	50	646	12	8	160	180	320	140	140	100	70	250	240	190	130	14	407
NMS 32L/160C	50	32	80	50	576	10	8	132	160	261	121	121	100	70	120	240	190	65	14	274
NMS 32L/160B	50	32	80	50	590	10	8	132	160	270	121	121	100	70	120	240	190	65	14	274
NMS 32L/160A	50	32	80	50	617	10	8	132	160	306	121	121	100	70	120	240	190	65	14	274
NMS 32L/200C	50	32	80	50	617	12	8	160	180	334	142	142	100	70	120	240	190	65	14	274
NMS 32L/200B	50	32	80	50	646	12	8	160	180	320	142	142	100	70	250	240	190	130	14	407
NMS 32L/200A	50	32	80	50	763	12	8	160	180	352	142	142	100	70	250	240	190	130	14	407
NMS 40/125F	65	40	80	50	536	12	8	112	140	241	100	112	100	70	120	210	160	65	14	274
NMS 40/125C	65	40	80	50	576	12	8	112	140	241	100	112	100	70	120	210	160	65	14	274
NMS 40/125A	65	40	80	50	576	12	8	112	140	241	100	112	100	70	120	210	160	65	14	274
NMS 40/160C	65	40	80	50	576	10	8	132	160	261	120	122	100	70	120	240	190	65	14	274
NMS 40/160B	65	40	80	50	590	10	8	132	160	270	120	122	100	70	120	240	190	65	14	274
NMS 40/160A	65	40	80	50	617	10	8	132	160	306	120	122	100	70	120	240	190	65	14	274
NMS 40/200D	65	40	100	50	637	12	8	160	180	334	141	141	100	70	120	265	212	65	14	274
NMS 40/200C	65	40	100	50	637	12	8	160	180	334	141	141	100	70	120	265	212	65	14	274
NMS 40/200D-S	65	40	100	50	666	12	8	160	180	320	141	141	100	70	250	265	212	130	14	407
NMS 40/200C-S	65	40	100	50	666	12	8	160	180	320	141	141	100	70	250	265	212	130	14	407
NMS 40/200B	65	40	100	50	666	12	8	160	180	320	141	141	100	70	250	265	212	130	14	407
NMS 40/200AR	65	40	100	50	666	12	8	160	180	320	141	141	100	70	250	265	212	130	14	407
NMS 40/200B-S	65	40	100	50	783	12	8	160	180	352	141	141	100	70	250	265	212	130	14	407
NMS 40/200AR-S	65	40	100	50	783	12	8	160	180	352	141	141	100	70	250	265	212	130	14	407
NMS 40/200A	65	40	100	50	783	12	8	160	180	352	141	141	100	70	250	265	212	130	14	407
NMS 50/125F	65	50	100	50	596	10	8	132	160	261	122	137	100	70	120	240	190	65	14	274
NMS 50/125D	65	50	100	50	610	10	8	132	160	270	122	137	100	70	120	240	190	65	14	274
NMS 50/125A	65	50	100	50	637	10	8	132	160	306	122	137	100	70	120	240	190	65	14	274
NMS 50/125S	65	50	100	50	637	10	8	132	160	306	122	137	100	70	120	240	190	65	14	274
NMS 50/160B	65	50	100	50	666	12	8	160	180	320	125	140	100	70	250	265	212	130	14	407
NMS 50/160A	65	50	100	50	783	12	8	160	180	352	125	140	100	70	250	265	212	130	14	407
NMS 65/125E	80	65	100	65	637	12	8	160	180	334	130	154	125	95	120	280	212	65	14	274
NMS 65/125C	80	65	100	65	666	12	8	160	180	320	130	154	125	95	250	280	212	130	14	407
NMS 65/125A	80	65	100	65	783	12	8	160	180	352	130	154	125	95	250	280	212	130	14	407
NMS 65/160D	80	65	100	65	783	12	8	160	200	352	140	161	125	95	250	280	212	130	14	407
NMS 80/160E	100	80	125	65	808	12	8	180	225	372	152	181	125	95	250	320	250	130	14	407

NM, NMS

Dimensions and weights with IE4 motor

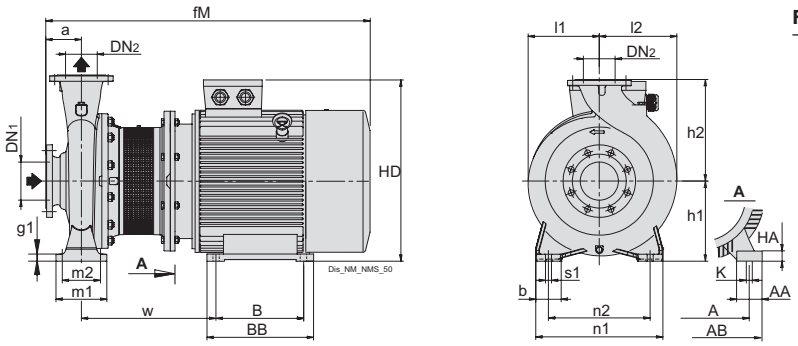


Flanges EN 1092-2 PN 10-16

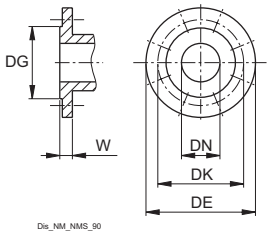


DN	mm DG	DK	DE	Holes N°	Holes ø	W
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

TYPE			mm																
	DN1	DN2	a	fM	g1	g2	h1	h2	HD	l1	l2	m1	m2	m3	n1	n2	n3	s1	w
NMS 40/160A-S	65	40	80	646	4	8	180	160	340	120	122	190	190	250	250	190	130	14	407
NMS 50/125S-S	65	50	100	666	4	8	180	160	340	122	137	190	190	250	250	190	130	14	407

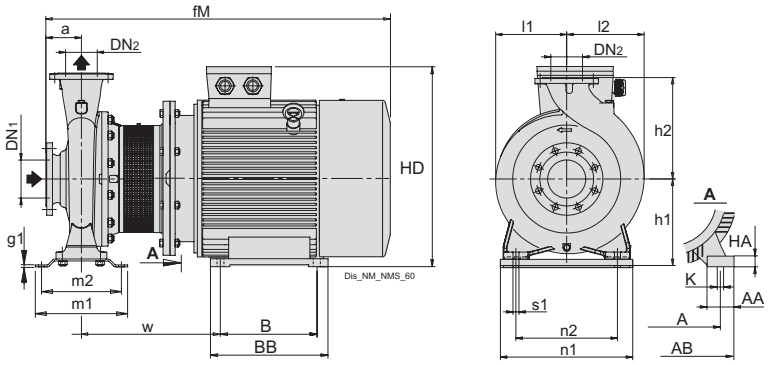


Flanges EN 1092-2 PN 10-16

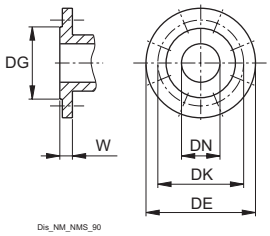


DN	mm DG	DK	DE	Holes N°	Holes ø	W
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

TYPE			mm																				kg
	DN1	DN2	a	A	AA	AB	b	B	BB	fM	g1	h1	h2	HA	HD	K	l1	l2	m1	m2	n1	n2	s1	w	Weight
NMS 65/200A	80	65	100	279	70	350	65	241	315	915	12	180	225	22	450	15	159	179	125	95	320	250	14	394	-
NMS 65/250B/B	80	65	100	318	70	388	80	305	370	1001	15	200	250	25	500	19	178	195	160	120	360	280	18	406	-
NMS 65/250A/B	80	65	100	318	70	388	80	305	370	1001	15	200	250	25	500	19	178	195	160	120	360	280	18	406	-
NMS 80/200B/B	100	80	125	279	70	350	65	241	315	940	15	180	250	22	450	15	170	194	125	95	345	280	14	394	-
NMS 80/250D/A	100	80	125	318	70	388	80	305	370	1026	20	200	280	25	500	19	191	211	160	120	400	315	18	406	-
NMS 80/250C/A	100	80	125	318	70	388	80	305	370	1026	20	200	280	25	500	19	191	211	160	120	400	315	18	406	329.5
NMS 100/200C/A	125	100	125	318	70	388	80	305	370	1026	15	200	280	25	500	19	179	211	160	120	360	280	18	406	-
NMS 100/200B/A	125	100	125	318	70	388	80	305	370	1026	15	200	280	25	500	19	179	211	160	120	360	280	18	406	-



Flanges EN 1092-2 PN 10-16

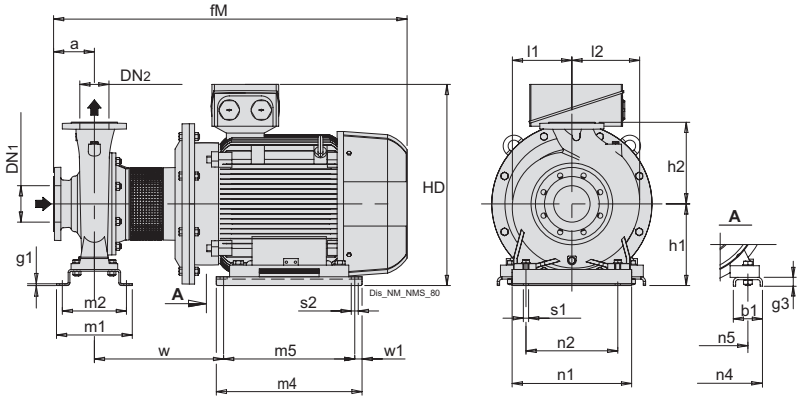


DN	mm DG	DK	DE	Holes N°	Holes ø	W
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

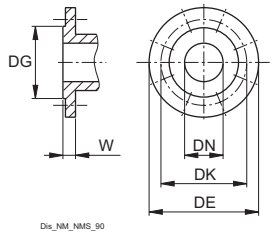
TYPE			mm																			
	DN1	DN2	a	A	AA	AB	B	BB	fM	g1	h1	h2	HA	HD	K	l1	l2	m1	m2	n1	n2	s1	w
NMS 80/200A/B	100	80	125	318	70	388	305	370	1026	6	200	250	25	500	19	170	194	227	191	350	280	14	406
NMS 80/250B/A	100	80	125	356	75	431	311	395	1125	6	225	280	28	548	19	191	211	298	258	410	315	18	445
NMS 100/200A/A	125	100	125	356	75	431	311	395	1125	6	225	280	28	548	19	179	211	298	258	410	315	18	445
NMS 100/250A/A	125	100	140	457	85	545	368	490	1264	6	280	280	35	669	24	205	233	260	220	410	315	18	516

NM, NMS

Dimensions and weights with IE4 motor

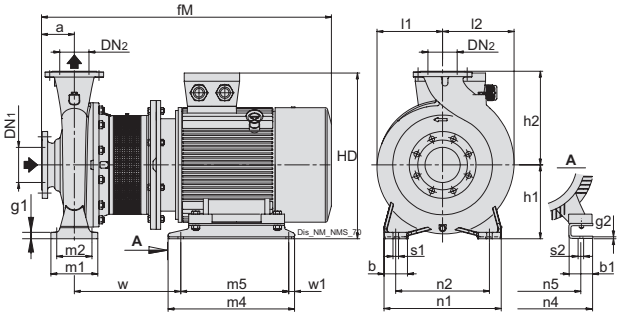


Flanges EN 1092-2 PN 10-16

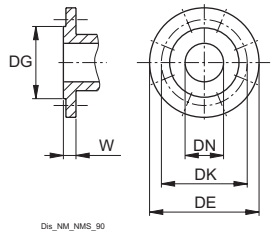


mm						
DN	DG	DK	DE	Holes N°	Holes ø	W
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

TYPE			mm																					
	DN1	DN2	a	b1	fM	g1	g3	h1	h2	HD	l1	l2	m1	m2	m4	m5	n1	n2	n4	n5	s1	s2	w	w1
NMS 50/200B	65	50	100	80	829	4	20	180	200	433	142	152	245	212	394	354	290	215	334	254	14	15	314	20
NMS 50/200A	65	50	100	80	829	4	20	180	200	433	142	152	245	212	394	354	290	215	334	254	14	15	314	20
NMS 50/200S	65	50	100	80	829	4	20	180	200	433	142	152	245	212	394	354	290	215	334	254	14	15	314	20
NMS 65/160C	80	65	100	80	829	4	20	180	200	433	140	161	245	212	394	354	290	215	334	254	14	15	314	20
NMS 65/160B	80	65	100	80	829	4	20	180	200	433	140	161	245	212	394	354	290	215	334	254	14	15	314	20
NMS 65/160AR	80	65	100	80	829	4	20	180	200	433	140	161	245	212	394	354	290	215	334	254	14	15	314	20
NMS 65/160A	80	65	100	80	829	4	20	180	200	433	140	161	245	212	394	354	290	215	334	254	14	15	314	20
NMS 80/250A/A	100	80	125	100	1187	6	30	280	280	642	191	211	260	220	570	520	410	315	506	406	18	24	408	25
NMS 100/250B/A	125	100	140	100	1202	6	30	280	280	642	205	233	260	220	570	520	410	315	506	406	18	24	408	25



Flanges EN 1092-2 PN 10-16

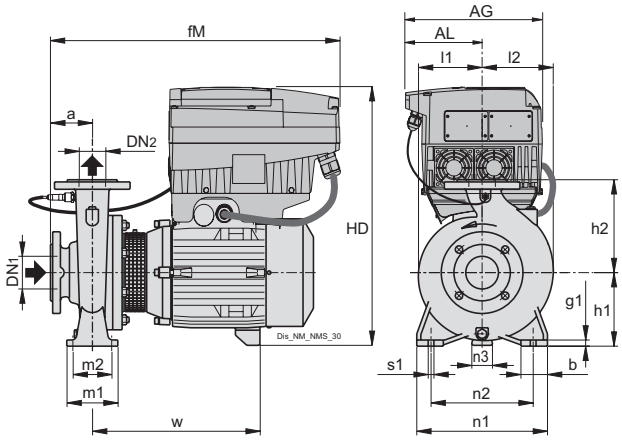


mm						
DN	DG	DK	DE	Holes N°	Holes ø	W
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

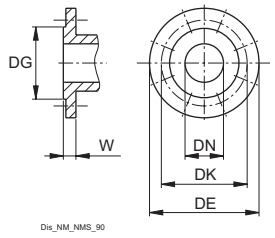
TYPE			mm																					
	DN1	DN2	a	b	b1	fM	g1	g3	h1	h2	HD	l1	l2	m1	m2	m4	m5	n1	n2	n4	n5	s1	s2	w	w1
NMS 40/250C	65	40	100	65	80	829	15	20	180	225	433	177	177	125	95	394	354	320	250	334	254	14	15	314	20
NMS 40/250B	65	40	100	65	80	829	15	20	180	225	433	177	177	125	95	394	354	320	250	334	254	14	15	314	20
NMS 40/250A	65	40	100	65	80	829	15	20	180	225	433	177	177	125	95	394	354	320	250	334	254	14	15	314	20
NMS 50/250C	65	50	100	65	80	829	15	20	180	225	433	177	177	125	95	394	354	320	250	334	254	14	15	314	20
NMS 50/250B	65	50	100	65	80	829	15	20	180	225	433	177	177	125	95	394	354	320	250	334	254	14	15	314	20
NMS 50/250A	65	50	100	65	80	873	15	20	180	225	433	177	177	125	95	394	354	320	250	334	254	14	15	314	20
NMS 65/200C	80	65	100	65	80	829	12	20	180	225	433	159	179	125	95	394	354	320	250	334	254	14	15	314	20
NMS 65/200B	80	65	100	65	80	873	12	20	180	225	433	159	179	125	95	394	354	320	250	334	254	14	15	314	20
NMS 65/250C	80	65	100	80	70	915	15	20	200	250	470	178	195	160	120	440	400	360	280	349	279	18	15	333	20
NMS 80/160D	100	80	125	65	80	854	12	20	180	225	433	152	181	125	95	394	354	320	250	334	254	14	15	314	20
NMS 80/160C	100	80	125	65	80	854	12	20	180	225	433	152	181	125	95	394	354	320	250	334	254	14	15	314	20
NMS 80/160B	100	80	125	65	80	854	12	20	180	225	433	152	181	125	95	394	354	320	250	334	254	14	15	314	20
NMS 80/160A	100	80	125	65	80	898	12	20	180	225	433	152	181	125	95	394	354	320	250	334	254	14	15	314	20
NMS 80/250E	100	80	125	80	70	940	20	20	200	280	470	191	211	160	120	440	400	400	315	349	279	18	15	333	20
NMS 100/200E	125	100	125	80	60	923	15	40	200	280	453	179	211	160	120	394	354	360	280	314	254	18	15	339	20
NMS 100/200D/A	125	100	125	80	70	940	15	20	200	280	470	179	211	160	120	440	400	360	280	349	279	18	15	333	20

NM, NMS

Dimensions and weights



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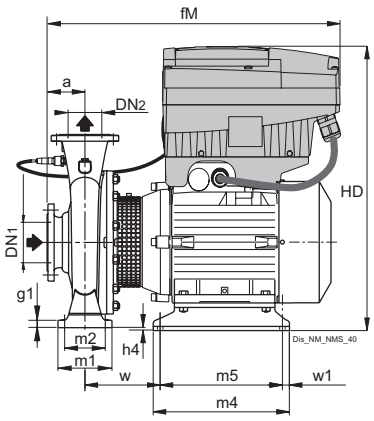


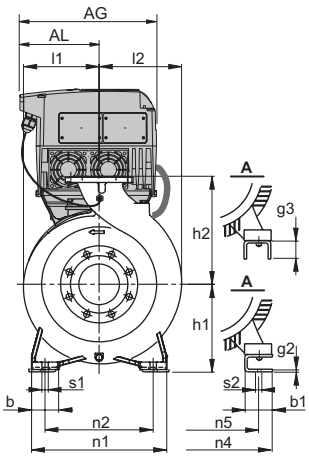
mm						
DN	DG	DK	DE	Holes N°	Holes ø	W
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

TYPE			mm																		kg
	DN1	DN2	a	AG	AL	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	n3	s1	w	Weight
NM EI 32/12FE	50	32	80	190	105	50	408	12	112	140	397	93	98	100	70	190	140	31	14	248	30.2
NM EI 32/12DE	50	32	80	190	105	50	408	12	112	140	397	93	98	100	70	190	140	31	14	248	-
NM EI 32/12A/A	50	32	80	190	105	50	408	12	112	140	397	93	98	100	70	190	140	31	14	248	32.7
NM EI 32/12S/A	50	32	80	190	105	50	408	12	112	140	397	93	98	100	70	190	140	31	14	248	33.8
NM EI 32/16B/A	50	32	80	190	105	50	413	12	132	160	417	119	119	100	70	240	190	35	14	255	-
NM EI 32/16A/B	50	32	80	210	118	50	453	12	132	160	417	119	119	100	70	240	190	35	14	295	-
NM EI 32/20D/B	50	32	80	210	118	50	453	12	160	180	445	140	140	100	70	240	190	40	14	297	-
NM EI 32/20C/A	50	32	80	210	118	50	479	12	160	180	455	140	140	100	70	240	190	37	14	297	55.2
NM EI 32/20A/B	50	32	80	210	118	50	479	12	160	180	455	140	140	100	70	240	190	37	14	297	58.7
NM EI 32L/16C	50	32	80	210	118	50	453	10	132	160	417	121	121	100	70	240	190	35	14	295	43
NM EI 32L/16B	50	32	80	210	118	50	479	10	132	160	427	121	121	100	70	240	190	32	14	294	51.2
NM EI 32L/16A	50	32	80	210	118	50	479	10	132	160	427	121	121	100	70	240	190	32	14	294	54.3
NM EI 32L/20C	50	32	80	210	118	50	479	12	160	180	455	142	142	100	70	240	190	37	14	297	57.9
NM EI 32L/20B	50	32	80	210	118	50	539	12	160	180	484	142	142	100	70	240	190	34	14	335	-
NM EI 32L/20A	50	32	80	281	154	50	539	12	160	180	526	142	142	100	70	240	190	34	14	335	-
NM EI 40/12F/B	65	40	80	190	105	50	413	12	112	140	397	100	112	100	70	210	160	31	14	253	34.8
NM EI 40/12C/B	65	40	80	190	105	50	413	12	112	140	397	100	112	100	70	210	160	31	14	253	36.5
NM EI 40/12A/C	65	40	80	210	118	50	453	12	112	140	397	100	112	100	70	210	160	31	14	293	40
NM EI 40/16C/C	65	40	80	210	118	50	453	10	132	160	417	120	122	100	70	240	190	35	14	295	-
NM EI 40/16B/B	65	40	80	210	118	50	479	10	132	160	427	120	122	100	70	240	190	32	14	294	52
NM EI 40/16A/C	65	40	80	210	118	50	479	10	132	160	427	120	122	100	70	240	190	32	14	294	55.5
NM EI 40/20D/B	65	40	100	210	118	50	499	12	160	180	455	141	141	100	70	265	212	37	14	297	-
NM EI 40/20C/B	65	40	100	210	118	50	499	12	160	180	455	141	141	100	70	265	212	37	14	297	-
NM EI 40/20B/A	65	40	100	210	118	50	559	12	160	180	484	141	141	100	70	265	212	34	14	335	74.5
NM EI 40/20AR/A	65	40	100	210	118	50	559	12	160	180	484	141	141	100	70	265	212	34	14	335	73.1
NM EI 40/20A/A	65	40	100	281	154	50	559	12	160	180	526	141	141	100	70	265	212	34	14	335	86
NM EI 40/25C/C	65	40	100	281	154	65	639	15	180	225	569	177	177	125	95	320	250	35	14	397	123
NM EI 40/25B/C	65	40	100	281	154	65	639	15	180	225	569	177	177	125	95	320	250	35	14	397	131
NM EI 40/25A/C	65	40	100	350	190	65	714	15	180	225	649	177	177	125	95	320	250	35	14	472	-
NM EI 50/12F/C	65	50	100	210	118	50	473	10	132	160	417	122	137	100	70	240	190	35	14	295	45.5
NM EI 50/12D/B	65	50	100	210	118	50	499	10	132	160	427	122	137	100	70	240	190	32	14	294	52.6
NM EI 50/12A/C	65	50	100	210	118	50	499	10	132	160	427	122	137	100	70	240	190	32	14	294	-
NM EI 50/12S/C	65	50	100	210	118	50	499	10	132	160	427	122	137	100	70	240	190	32	14	294	56.1
NM EI 50/16B/B	65	50	100	210	118	50	559	12	160	180	484	125	140	100	70	265	212	34	14	335	73
NM EI 50/16A/B	65	50	100	281	154	50	559	12	160	180	526	125	140	100	70	265	212	34	14	335	85.5
NM EI 50/20B/C	65	50	100	281	154	50	639	14	160	200	549	142	152	100	70	265	212	31	14	395	115
NM EI 50/20A/C	65	50	100	281	154	50	639	14	160	200	549	142	152	100	70	265	212	31	14	395	123
NM EI 50/20S/C	65	50	100	350	190	50	714	14	160	200	629	142	152	100	70	265	212	31	14	470	163.2
NM EI 50/25C/C	65	50	100	281	154	65	644	15	180	225	569	177	177	125	95	320	250	35	14	402	135.1
NM EI 50/25B/C	65	50	100	350	190	65	719	15	180	225	649	177	177	125	95	320	250	35	14	477	175.5
NM EI 65/12E/C	80	65	100	210	118	65	504	12	160	180	455	130	154	125	95	280	212	37	14	302	59
NM EI 65/12C/B	80	65	100	210	118	65	564	12	160	180	484	130	154	125	95	280	212	34	14	340	-
NM EI 65/12A/B	80	65	100	281	154	65	564	12	160	180	526	130	154	125	95	280	212	34	14	340	-
NM EI 65/16D/B	80	65	100	281	154	65	559	12	160	200	526	140	161	125	95	280	212	34	14	335	87
NM EI 65/16C/C	80	65	100	281	154	65	639	12	160	200	549	140	161	125	95	280	212	31	14	395	108.8
NM EI 65/16B/C	80	65	100	281	154	65	639	12	160	200	549	140	161	125	95	280	212	31	14	395	135
NM EI 65/16AR	80	65	100	350	190	65	714	12	160	200	629	140	161	125	95	280	212	31	14	470	-
NM EI 65/16A/C	80	65	100	350	190	65	714	12	160	200	629	140	161	125	95	280	212	31	14	470	156.8
NM EI 65/20C/C	80	65	100	350	190	65	714	12	180	225	649	159	179	125	95	320	250	35	14	472	168.5
NM EI 80/16E/B	100	80	125	281	154	65	584	12	180	225	546	152	181	125	95	320	250	37	14	337	-
NM EI 80/16D/C	100	80	125	281	154	65	669	12	180	225	569	152	181	125	95	320	250	35	14	402	-
NM EI 80/16C/C	100	80	125	281	154	65	669	12	180	225	569	152	181	125	95	320	250	35	14	402	124.6
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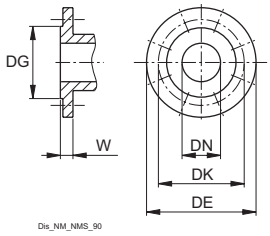
NM, NMS

Dimensions and weights





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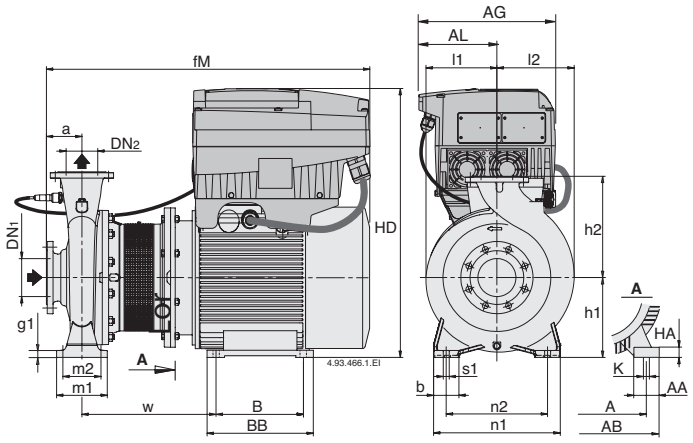


mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

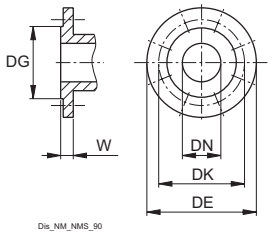
TYPE			mm																										kg
	DN1	DN2	a	AG	AL	b	b1	fM	g1	g3	h1	h2	h4	HD	l1	l2	m1	m2	m4	m5	n1	n2	n4	n5	s1	s2	w	w1	Weight
NM EI 50/25A/D	65	50	100	350	190	65	80	765	15	20	180	225	-	674	177	177	125	95	394	354	320	250	334	254	14	15	185	20	205
NM EI 50/25S	65	50	100	350	190	65	80	765	15	20	180	225	-	674	177	177	125	95	394	354	320	250	334	254	14	15	185	20	-
NM EI 65/20B/D	80	65	100	350	190	65	80	765	12	20	180	225	-	674	159	179	125	95	394	354	320	250	334	254	14	15	185	20	204
NM EI 65/20A/A	80	65	100	350	190	65	80	765	12	20	180	225	-	674	159	179	125	95	394	354	320	250	334	254	14	15	185	20	206.5
NM EI 65/25C/A	80	65	100	350	190	80	90	765	15	42	200	250	2	694	178	195	160	120	400	360	360	280	344	254	18	14	182	20	230
NM EI 80/16A/D	100	80	125	350	190	65	80	790	12	20	180	225	-	674	152	181	125	95	394	354	320	250	334	254	14	15	185	20	-
NM EI 80/20B/A	100	80	125	350	190	65	90	790	15	42	180	250	22	674	170	194	125	95	400	360	345	280	344	254	14	14	182	20	-
NM EI 80/25E	100	80	125	350	190	80	90	790	20	42	200	280	2	694	191	211	160	120	400	360	400	315	344	254	18	14	182	20	-
NM EI 100/20E/A	125	100	125	350	190	80	60	790	15	40	200	280	-	694	179	211	160	120	394	354	360	280	314	254	18	15	185	20	213.5
NM EI 100/20D	125	100	125	350	190	80	60	790	15	40	200	280	-	694	179	211	160	120	394	354	360	280	314	254	18	15	185	20	-

NM, NMS

Dimensions and weights

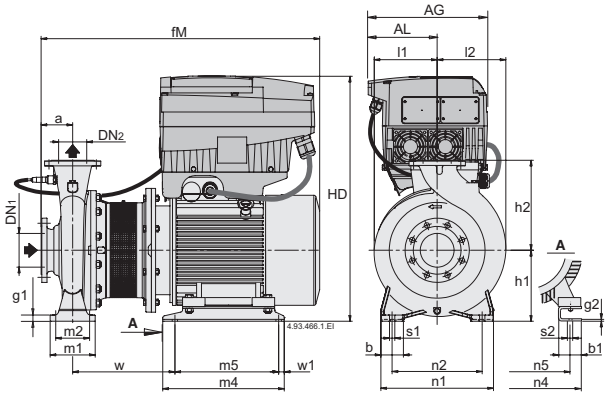


Flanges EN 1092-2 PN 10-16

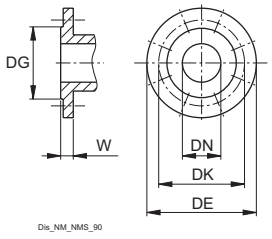


mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

TYPE			mm																							kg
	DN1	DN2	a	A	AA	AB	AG	AL	b	B	BB	fM	g1	h1	h2	HA	HD	K	l1	l2	m1	m2	n1	n2	s1	w	Weight
NMS EI 65/250A/B	80	65	100	318	70	390	350	190	80	305	355	1009	15	200	250	25	783	18.5	178	195	160	120	360	280	18	406	-
NMS EI 80/200A/A	100	80	125	279	65	339	350	190	65	279	328	986	15	180	250	20	719	14.5	170	194	125	95	345	280	14	394	-
NMS EI 80/250C/A	100	80	125	318	70	390	350	190	80	305	355	1034	20	200	280	25	783	18.5	191	211	160	120	400	315	18	406	-
NMS EI 100/200B/A	125	100	125	318	70	390	350	190	80	305	355	1034	15	200	280	25	783	18.5	179	211	160	120	360	280	18	406	330.5



Flanges EN 1092-2 PN 10-16

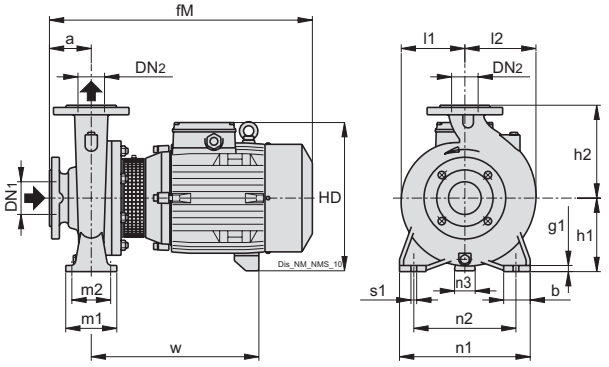


mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

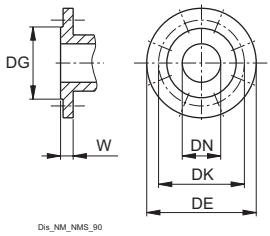
TYPE			mm																								kg
	DN1	DN2	a	AG	AL	b	b1	fM	g1	g2	h1	h2	HD	l1	l2	m1	m2	m4	m5	n1	n2	n4	n5	s1	s2	w	w1	Weight
NMS EI 65/250B/A	80	65	100	350	190	80	70	961	15	20	200	250	739	178	195	160	120	440	400	360	280	349	279	18	14.5	394	20	-
NMS EI 80/250D	100	80	125	350	190	80	70	986	20	20	200	280	739	191	211	160	120	440	400	400	315	349	279	18	14.5	394	20	283.5
NMS EI 100/200C	125	100	125	350	190	80	70	986	15	20	200	280	739	179	211	160	120	440	400	360	280	349	279	18	14.5	394	20	-

NM, NMS

Dimensions and weights



Flanges EN 1092-2 PN 10-16



mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

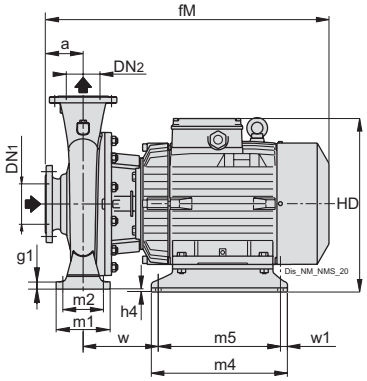
TYPE			mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	n3	s1	w	Weight
BNM 32/12F	50	32	80	50	408	12	112	140	242	93	98	100	70	190	140	31	14	248	25.9
BNM 32/12D	50	32	80	50	408	12	112	140	242	93	98	100	70	190	140	31	14	248	26.1
BNM 32/12A/A	50	32	80	50	408	12	112	140	242	93	98	100	70	190	140	31	14	248	28.2
BNM 32/12S/A	50	32	80	50	408	12	112	140	242	93	98	100	70	190	140	31	14	248	29.2
BNM 32/16B/A	50	32	80	50	413	12	132	160	262	119	119	100	70	240	190	35	14	255	39.2
BNM 32/16A/B	50	32	80	50	453	12	132	160	262	119	119	100	70	240	190	35	14	295	41.6
BNM 32/20D/B	50	32	80	50	453	12	160	180	290	140	140	100	70	240	190	40	14	297	44.7
BNM 32/20C/A	50	32	80	50	479	12	160	180	300	140	140	100	70	240	190	37	14	297	56.5
BNM 32/20A/B	50	32	80	50	479	12	160	180	300	140	140	100	70	240	190	37	14	297	56.5
BNM 32L/20C	50	32	80	50	479	12	160	180	300	142	142	100	70	240	190	37	14	297	-
BNM 32L/200B	50	32	80	50	594	12	160	180	327	142	142	100	70	240	190	34	14	390	-
BNM 32L/200A	50	32	80	50	594	12	160	180	327	142	142	100	70	240	190	34	14	390	76.6
BNM 32L/16C	50	32	80	50	453	10	132	160	262	121	121	100	70	240	190	35	14	295	39.2
BNM 32L/16B	50	32	80	50	479	10	132	160	272	121	121	100	70	240	190	32	14	294	46.2
BNM 32L/16A	50	32	80	50	479	10	132	160	272	121	121	100	70	240	190	32	14	294	49.7
BNM 40/12F/A	65	40	80	50	413	12	112	140	242	100	112	100	70	210	160	31	14	253	31.2
BNM 40/12C/A	65	40	80	50	413	12	112	140	242	100	112	100	70	210	160	31	14	253	32.5
BNM 40/12A/B	65	40	80	50	453	12	112	140	242	100	112	100	70	210	160	31	14	293	32.6
BNM 40/16C/B	65	40	80	50	453	10	132	160	262	120	122	100	70	240	190	35	14	295	43
BNM 40/16B/A	65	40	80	50	479	10	132	160	272	120	122	100	70	240	190	32	14	294	50.2
BNM 40/16A/B	65	40	80	50	479	10	132	160	272	120	122	100	70	240	190	32	14	294	53.4
BNM 40/20D/B	65	40	100	50	499	12	160	180	300	141	141	100	70	265	212	37	14	297	59.6
BNM 40/20C/B	65	40	100	50	499	12	160	180	300	141	141	100	70	265	212	37	14	297	60.2
BNM 40/200B/A	65	40	100	50	614	12	160	180	327	141	141	100	70	265	212	34	14	390	75.6
BNM 40/200AR/A	65	40	100	50	614	12	160	180	327	141	141	100	70	265	212	34	14	390	-
BNM 40/200A/A	65	40	100	50	614	12	160	180	327	141	141	100	70	265	212	34	14	390	80.6
BNM 50/12F/B	65	50	100	50	473	10	132	160	262	122	137	100	70	240	190	35	14	295	42.9
BNM 50/12D/A	65	50	100	50	499	10	132	160	272	122	137	100	70	240	190	32	14	294	50.6
BNM 50/12A/B	65	50	100	50	499	10	132	160	272	122	137	100	70	240	190	32	14	294	53.3
BNM 50/12S/B	65	50	100	50	499	10	132	160	272	122	137	100	70	240	190	32	14	294	53.8
BNM 50/160B/B	65	50	100	50	614	12	160	180	327	125	140	100	70	265	212	34	14	390	73.7
BNM 50/160A/B	65	50	100	50	614	12	160	180	327	125	140	100	70	265	212	34	14	390	79.6
BNM 65/12E/A	80	65	100	65	504	12	160	180	300	130	154	125	95	280	212	37	14	302	57.6
BNM 65/125C/B	80	65	100	65	619	12	160	180	327	130	154	125	95	280	212	34	14	395	74.9
BNM 65/125A/B	80	65	100	65	619	12	160	180	327	130	154	125	95	280	212	34	14	395	80.3
BNM 65/160D/B	80	65	100	65	614	12	160	200	327	140	161	125	95	280	212	34	14	390	81.6
BNM 65/160C/C	80	65	100	65	659	12	160	200	350	140	161	125	95	280	212	31	14	415	102
BNM 80/160E/B	100	80	125	65	639	12	180	225	347	152	181	125	95	320	250	37	14	392	-
BNM 80/160D/C	100	80	125	65	684	12	180	225	370	152	181	125	95	320	250	35	14	417	109.2

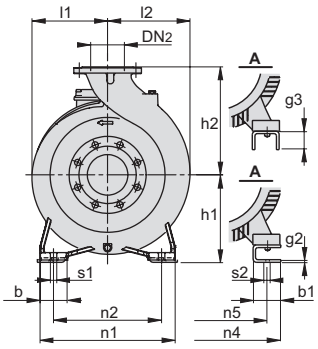
TYPE			mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	n3	s1	w	Weight
BNMM 32/12S	50	32	80	50	408	12	112	140	242	93	98	100	70	190	140	31	14	248	-
BNMM 32/12F	50	32	80	50	408	12	112	140	242	93	98	100	70	190	140	31	14	248	26.8
BNMM 32/12D	50	32	80	50	408	12	112	140	242	93	98	100	70	190	140	31	14	248	-
BNMM 32/12A	50	32	80	50	408	12	112	140	242	93	98	100	70	190	140	31	14	248	29.6

Version without coupling guard
BNM 40/200A/A-AR/A-B/A
BNM 50/160A/B-B/B
BNM 65/125A/B-C/B
BNM 65/160 D/B-C/C
BNM 80/160E/B-D/C

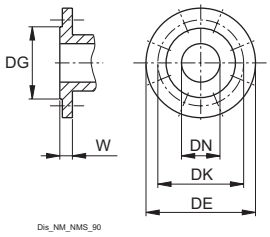
NM, NMS

Dimensions and weights





Flanges EN 1092-2 PN 10-16

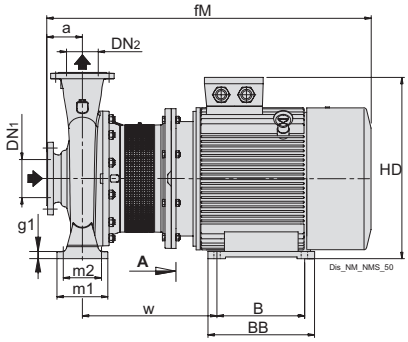


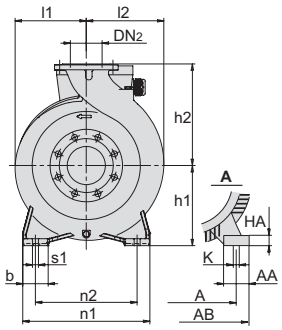
mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

TYPE			mm																								kg
	DN1	DN2	a	b	b1	fM	g1	g2	g3	h1	h2	h4	HD	l1	l2	m1	m2	m4	m5	n1	n2	n4	n5	s1	s2	w	w1	Weight
BNM 4025/C/C	65	40	100	65	69	634	15	6	-	180	225	12	370	177	177	125	95	298	258	320	250	266	216	14	12	174	20	-
BNM 4025/B/C	65	40	100	65	69	634	15	6	-	180	225	12	370	177	177	125	95	298	258	320	250	266	216	14	12	174	20	129
BNM 4025/A/C	65	40	100	65	69	709	15	6	-	180	225	12	370	177	177	125	95	298	258	320	250	266	216	14	12	174	20	-
BNM 50/200B/C	65	50	100	50	69	694	14	6	-	160	200	32	350	142	152	100	70	298	258	265	212	266	216	14	12	234	20	124.9
BNM 50/200A/C	65	50	100	50	69	694	14	6	-	160	200	32	350	142	152	100	70	298	258	265	212	266	216	14	12	234	20	132.8
BNM 50/200S/C	65	50	100	50	69	769	14	6	-	160	200	32	350	142	152	100	70	298	258	265	212	266	216	14	12	234	20	151.3
BNM 5025/C/C	65	50	100	65	69	634	15	6	-	180	225	12	370	177	177	125	95	298	258	320	250	266	216	14	12	174	20	133.9
BNM 5025/B/C	65	50	100	65	69	709	15	6	-	180	225	12	370	177	177	125	95	298	258	320	250	266	216	14	12	174	20	-
BNM 50/25A	65	50	100	65	80	765	15	-	20	180	225	-	388	177	177	125	95	394	354	320	250	334	254	14	15	185	20	-
BNM 50/25S	65	50	100	65	80	765	15	-	20	180	225	-	388	177	177	125	95	394	354	320	250	334	254	14	15	185	20	189.8
BNM 65/160B/C	80	65	100	65	69	694	12	6	-	160	200	32	350	140	161	125	95	298	258	280	212	266	216	14	12	234	20	129.2
BNM 65/160AR	80	65	100	65	69	769	12	6	-	160	200	32	350	140	161	125	95	298	258	280	212	266	216	14	12	234	20	-
BNM 65/160A/C	80	65	100	65	69	769	12	6	-	160	200	32	350	140	161	125	95	298	258	280	212	266	216	14	12	234	20	-
BNM 65/200C/C	80	65	100	65	69	774	12	6	-	180	225	12	370	159	179	125	95	298	258	320	250	266	216	14	12	239	20	156.6
BNM 65/250C/B	80	65	100	80	90	828	15	-	42	200	250	2	408	178	195	160	120	400	360	360	280	344	254	18	14	245	20	-
BNM 80/160C/C	100	80	125	65	69	724	12	6	-	180	225	12	370	152	181	125	95	298	258	320	250	266	216	14	12	239	20	138.6
BNM 80/160B/C	100	80	125	65	69	799	12	6	-	180	225	12	370	152	181	125	95	298	258	320	250	266	216	14	12	239	20	157.4
BNM 80/16A	100	80	125	65	80	790	12	-	20	180	225	-	388	152	181	125	95	394	354	320	250	334	254	14	15	185	20	169

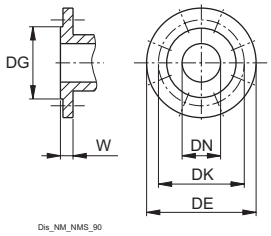
NM, NMS

Dimensions and weights with IE3 motor



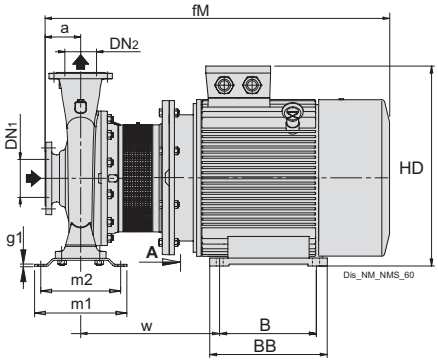


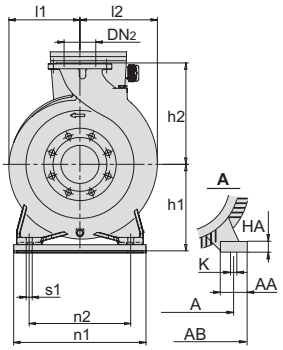
Flanges EN 1092-2 PN 10-16



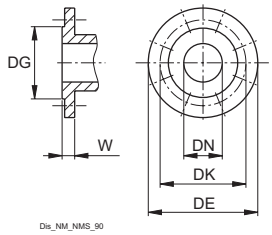
mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

TYPE			mm																				
	DN1	DN2	a	A	AA	AB	b	B	BB	fM	g1	h1	h2	HA	HD	K	l1	l2	m1	m2	n1	n2	s1	w
BNMS 65/200A	80	65	100	279	70	350	65	241	312	955	12	180	225	22	450	15	159	179	125	95	320	250	14	394
BNMS 65/250A/B	80	65	100	318	70	390	80	305	370	1006	15	200	250	25	500	19	178	195	160	120	360	280	18	406
BNMS 65/250B/B	80	65	100	318	70	390	80	305	370	1006	15	200	250	25	500	19	178	195	160	120	360	280	18	406
BNMS 80/200B/B	100	80	125	279	70	350	65	241	312	980	15	180	250	22	450	15	170	194	125	95	345	280	14	394
BNMS 80/250C/A	100	80	125	318	70	390	80	305	370	1031	20	200	280	25	500	19	191	211	160	120	400	315	18	406
BNMS 80/250D/A	100	80	125	318	70	390	80	305	370	1031	20	200	280	25	500	19	191	211	160	120	400	315	18	406
BNMS 100/200B/A	125	100	125	318	70	390	80	305	370	1031	15	200	280	25	500	19	179	211	160	120	360	280	18	406
BNMS 100/200C/A	125	100	125	318	70	390	80	305	370	1031	15	200	280	25	500	19	179	211	160	120	360	280	18	406





Flanges EN 1092-2 PN 10-16

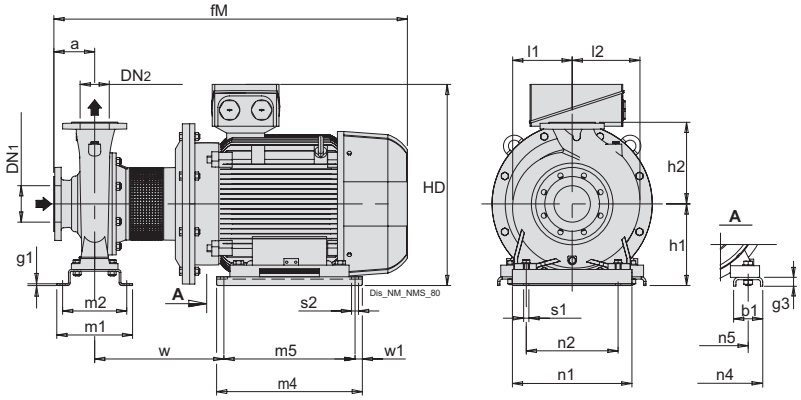


mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

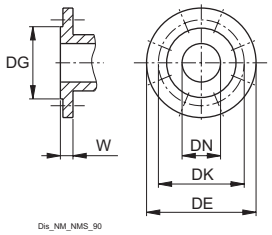
TYPE			mm																				
	DN1	DN2	a	A	AA	AB	B	BB	fM	g1	h1	h2	HA	HD	K	l1	l2	m1	m2	n1	n2	s1	w
BNMS 80/200A/B	100	80	125	318	70	390	305	370	1031	6	200	250	25	500	19	170	194	227	191	350	280	14	406
BNMS 80/250B/A	100	80	125	356	75	431	311	395	1089	6	225	280	28	555	19	191	211	298	258	410	315	18	445
BNMS 100/200A/A	125	100	125	356	75	431	311	395	1089	6	225	280	28	555	19	179	211	298	258	410	315	18	445
BNMS 100/250A/A	125	100	140	457	85	545	368	485	1276	6	280	280	38	670	24	205	233	260	220	410	315	18	516

NM, NMS

Dimensions and weights with IE3 motor

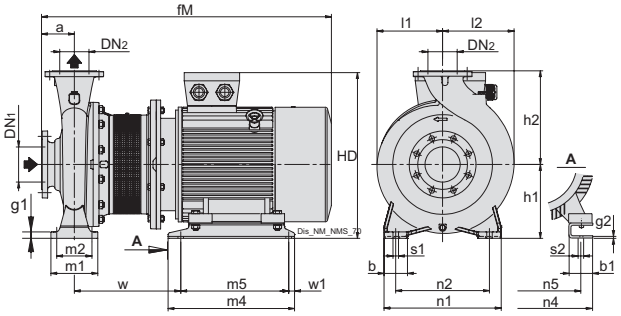


Flanges EN 1092-2 PN 10-16

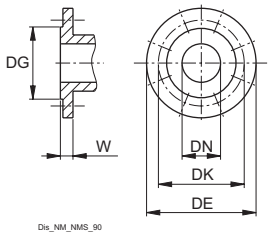


DN	mm DG	DK	DE	Holes N°	Holes ø	W
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

TYPE			mm																					kg
	DN1	DN2	a	fM	g1	g3	h1	h2	HD	l1	l2	m1	m2	m4	m5	n1	n2	n4	n5	s1	s2	w	w1	Weight
BNMS 80/250A/A	100	80	125	1321	6	30	280	280	642	191	211	260	220	570	520	410	315	506	406	18	24	408	25	524
BNMS 100/250B/A	125	100	140	1336	6	30	280	280	642	205	233	260	220	570	520	410	315	506	406	18	24	408	25	-



Flanges EN 1092-2 PN 10-16

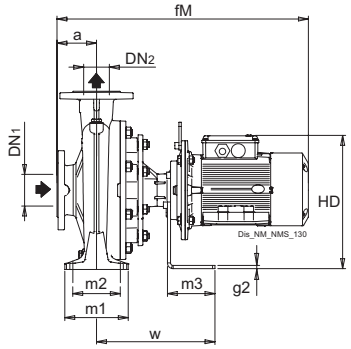


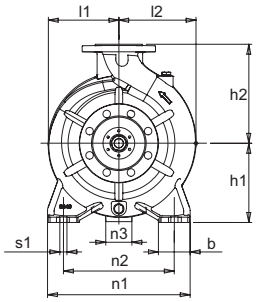
DN	mm DG	DK	DE	Holes N°	Holes ø	W
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

TYPE			mm																					
	DN1	DN2	a	b	b1	fM	g1	g3	h1	h2	HD	l1	l2	m1	m2	m4	m5	n1	n2	n4	n5	s1	s2	w	w1
BNMS 65/250C	80	65	100	80	70	955	15	20	200	250	470	178	195	160	120	440	400	360	280	349	279	18	15	333	20
BNMS 80/250E	100	80	125	80	70	980	20	20	200	280	470	191	211	160	120	440	400	400	315	349	279	18	15	333	20
BNMS 100/200D/A	125	100	125	80	70	980	15	20	200	280	470	179	211	160	120	440	400	360	280	349	279	18	15	333	20

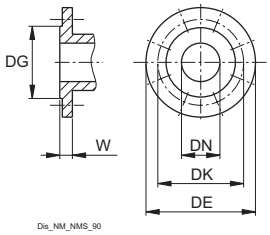
NM, NMS

Dimensions and weights with IE4 motor





Flanges EN 1092-2 PN 10-16

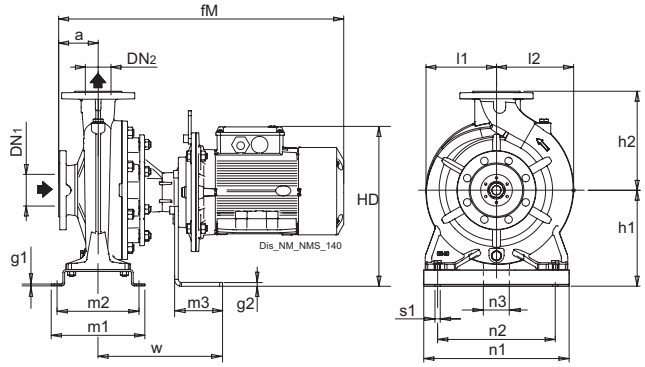


mm						
DN	DG	DK	DE	Holes N°	Holes ø	W
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

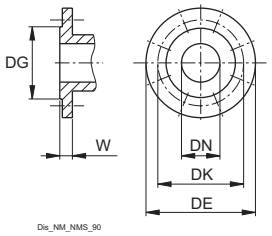
TYPE			mm																	
	DN1	DN2	a	b	fM	g1	g2	h1	h2	HD	l1	l2	m1	m2	m3	n1	n2	n3	s1	w
BNMS 32/125D	50	32	80	50	536	12	8	112	140	241	93	98	100	70	120	190	140	65	14	274
BNMS 32/125D-S	50	32	80	50	536	12	8	112	140	241	93	98	100	70	120	190	140	65	14	274
BNMS 32/125A	50	32	80	50	536	12	8	112	140	241	93	98	100	70	120	190	140	65	14	274
BNMS 32/125S	50	32	80	50	576	12	8	112	140	241	93	98	100	70	120	190	140	65	14	274
BNMS 32/125A-S	50	32	80	50	576	12	8	112	140	241	93	98	100	70	120	190	140	65	14	274
BNMS 32/160B	50	32	80	50	576	12	8	132	160	261	119	119	100	70	120	240	190	65	14	274
BNMS 32/160B-S	50	32	80	50	576	12	8	132	160	261	119	119	100	70	120	240	190	65	14	274
BNMS 32/160A	50	32	80	50	576	12	8	132	160	261	119	119	100	70	120	240	190	65	14	274
BNMS 32/160A-S	50	32	80	50	590	12	8	132	160	270	119	119	100	70	120	240	190	65	14	274
BNMS 32/200D	50	32	80	50	576	12	8	160	180	289	140	140	100	70	120	240	190	65	14	274
BNMS 32/200D-S	50	32	80	50	590	12	8	160	180	298	140	140	100	70	120	240	190	65	14	274
BNMS 32/200C	50	32	80	50	590	12	8	160	180	298	140	140	100	70	120	240	190	65	14	274
BNMS 32/200A	50	32	80	50	617	12	8	160	180	334	140	140	100	70	120	240	190	65	14	274
BNMS 32/200A-S	50	32	80	50	646	12	8	160	180	320	140	140	100	70	250	240	190	130	14	407
BNMS 32L/160C	50	32	80	50	576	10	8	132	160	261	121	121	100	70	120	240	190	65	14	274
BNMS 32L/160B	50	32	80	50	590	10	8	132	160	270	121	121	100	70	120	240	190	65	14	274
BNMS 32L/160A	50	32	80	50	617	10	8	132	160	306	121	121	100	70	120	240	190	65	14	274
BNMS 32L/200C	50	32	80	50	617	12	8	160	180	334	142	142	100	70	120	240	190	65	14	274
BNMS 32L/200B	50	32	80	50	646	12	8	160	180	320	142	142	100	70	250	240	190	130	14	407
BNMS 32L/200A	50	32	80	50	763	12	8	160	180	352	142	142	100	70	250	240	190	130	14	407
BNMS 40/125F	65	40	80	50	536	12	8	112	140	241	100	112	100	70	120	210	160	65	14	274
BNMS 40/125C	65	40	80	50	576	12	8	112	140	241	100	112	100	70	120	210	160	65	14	274
BNMS 40/125A	65	40	80	50	576	12	8	112	140	241	100	112	100	70	120	210	160	65	14	274
BNMS 40/160C	65	40	80	50	576	10	8	132	160	261	120	122	100	70	120	240	190	65	14	274
BNMS 40/160B	65	40	80	50	590	10	8	132	160	270	120	122	100	70	120	240	190	65	14	274
BNMS 40/160A	65	40	80	50	617	10	8	132	160	306	120	122	100	70	120	240	190	65	14	274
BNMS 40/200D	65	40	100	50	637	12	8	160	180	334	141	141	100	70	120	265	212	65	14	274
BNMS 40/200C	65	40	100	50	637	12	8	160	180	334	141	141	100	70	120	265	212	65	14	274
BNMS 40/200D-S	65	40	100	50	666	12	8	160	180	320	141	141	100	70	250	265	212	130	14	407
BNMS 40/200C-S	65	40	100	50	666	12	8	160	180	320	141	141	100	70	250	265	212	130	14	407
BNMS 40/200B	65	40	100	50	666	12	8	160	180	320	141	141	100	70	250	265	212	130	14	407
BNMS 40/200AR	65	40	100	50	666	12	8	160	180	320	141	141	100	70	250	265	212	130	14	407
BNMS 40/200B-S	65	40	100	50	783	12	8	160	180	352	141	141	100	70	250	265	212	130	14	407
BNMS 40/200AR-S	65	40	100	50	783	12	8	160	180	352	141	141	100	70	250	265	212	130	14	407
BNMS 40/200A	65	40	100	50	783	12	8	160	180	352	141	141	100	70	250	265	212	130	14	407
BNMS 50/125F	65	50	100	50	596	10	8	132	160	261	122	137	100	70	120	240	190	65	14	274
BNMS 50/125D	65	50	100	50	610	10	8	132	160	270	122	137	100	70	120	240	190	65	14	274
BNMS 50/125A	65	50	100	50	637	10	8	132	160	306	122	137	100	70	120	240	190	65	14	274
BNMS 50/125S	65	50	100	50	637	10	8	132	160	306	122	137	100	70	120	240	190	65	14	274
BNMS 50/160B	65	50	100	50	666	12	8	160	180	320	125	140	100	70	250	265	212	130	14	407
BNMS 50/160A	65	50	100	50	783	12	8	160	180	352	125	140	100	70	250	265	212	130	14	407
BNMS 65/125E	80	65	100	65	637	12	8	160	180	334	130	154	125	95	120	280	212	65	14	274
BNMS 65/125C	80	65	100	65	666	12	8	160	180	320	130	154	125	95	250	280	212	130	14	407
BNMS 65/125A	80	65	100	65	783	12	8	160	180	352	130	154	125	95	250	280	212	130	14	407
BNMS 65/160D	80	65	100	65	783	12	8	160	200	352	140	161	125	95	250	280	212	130	14	407
BNMS 80/160E	100	80	125	65	808	12	8	180	225	372	152	181	125	95	250	320	250	130	14	407

NM, NMS

Dimensions and weights with IE4 motor

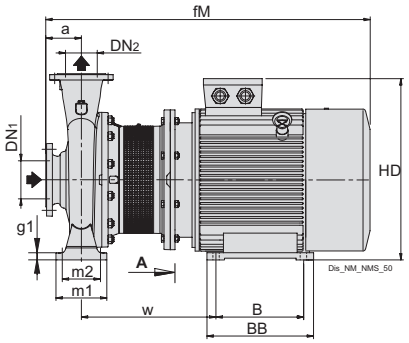


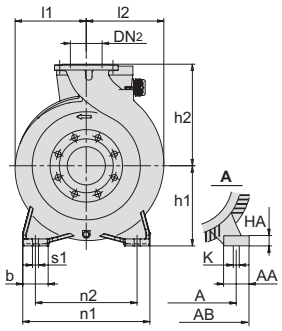
Flanges EN 1092-2 PN 10-16



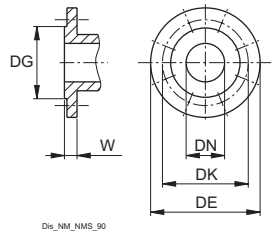
mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

TYPE			mm																
	DN1	DN2	a	fM	g1	g2	h1	h2	HD	l1	l2	m1	m2	m3	n1	n2	n3	s1	w
BNMS 40/160A-S	65	40	80	646	4	8	180	160	340	120	122	190	190	250	250	190	130	14	407
BNMS 50/125S-S	65	50	100	666	4	8	180	160	340	122	137	190	190	250	250	190	130	14	407



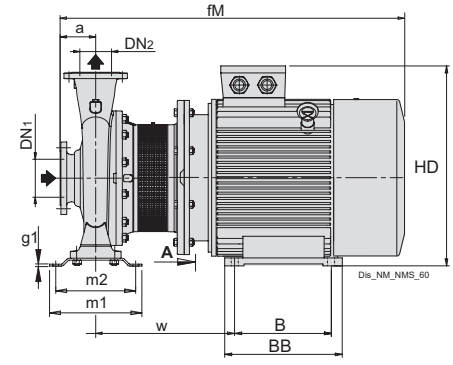


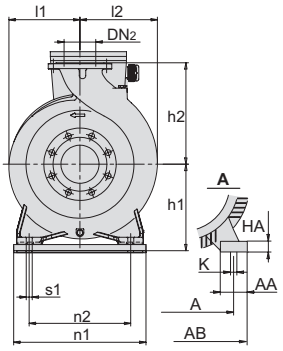
Flanges EN 1092-2 PN 10-16



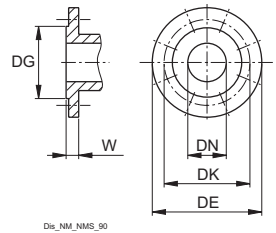
mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

TYPE			mm																				
	DN1	DN2	a	A	AA	AB	b	B	BB	fM	g1	h1	h2	HA	HD	K	l1	l2	m1	m2	n1	n2	s1	w
BNMS 65/200A	80	65	100	279	70	350	65	241	315	915	12	180	225	22	450	15	159	179	125	95	320	250	14	394
BNMS 65/250B/B	80	65	100	318	70	388	80	305	370	1001	15	200	250	25	500	19	178	195	160	120	360	280	18	406
BNMS 65/250A/B	80	65	100	318	70	388	80	305	370	1001	15	200	250	25	500	19	178	195	160	120	360	280	18	406
BNMS 80/200B/B	100	80	125	279	70	350	65	241	315	940	15	180	250	22	450	15	170	194	125	95	345	280	14	394
BNMS 80/250D/A	100	80	125	318	70	388	80	305	370	1026	20	200	280	25	500	19	191	211	160	120	400	315	18	406
BNMS 80/250C/A	100	80	125	318	70	388	80	305	370	1026	20	200	280	25	500	19	191	211	160	120	400	315	18	406
BNMS 100/200C/A	125	100	125	318	70	388	80	305	370	1026	15	200	280	25	500	19	179	211	160	120	360	280	18	406
BNMS 100/200B/A	125	100	125	318	70	388	80	305	370	1026	15	200	280	25	500	19	179	211	160	120	360	280	18	406





Flanges EN 1092-2 PN 10-16

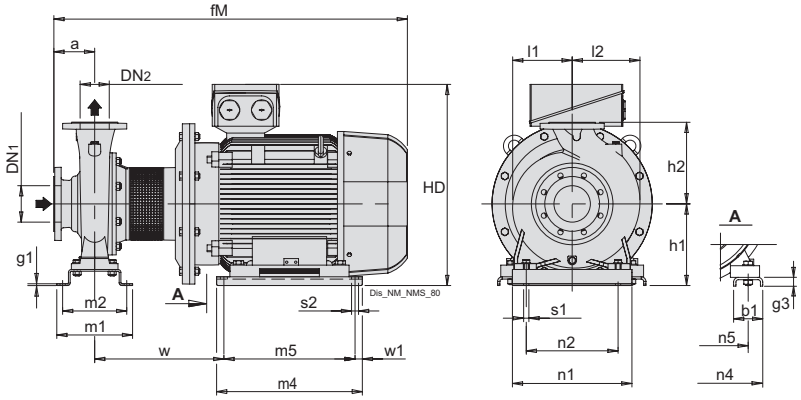


mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

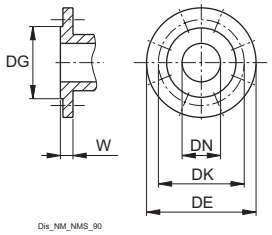
TYPE			mm																				
	DN1	DN2	a	A	AA	AB	B	BB	fM	g1	h1	h2	HA	HD	K	l1	l2	m1	m2	n1	n2	s1	w
BNMS 80/200A/B	100	80	125	318	70	388	305	370	1026	6	200	250	25	500	19	170	194	227	191	350	280	14	406
BNMS 80/250B/A	100	80	125	356	75	431	311	395	1125	6	225	280	28	548	19	191	211	298	258	410	315	18	445
BNMS 100/200A/A	125	100	125	356	75	431	311	395	1125	6	225	280	28	548	19	179	211	298	258	410	315	18	445
BNMS 100/250A/A	125	100	140	457	85	545	368	490	1264	6	280	280	35	669	24	205	233	260	220	410	315	18	516

NM, NMS

Dimensions and weights with IE4 motor

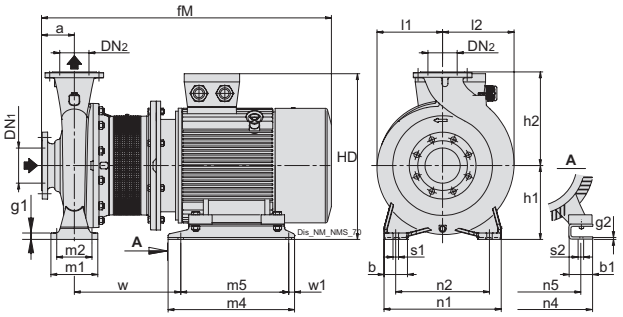


Flanges EN 1092-2 PN 10-16

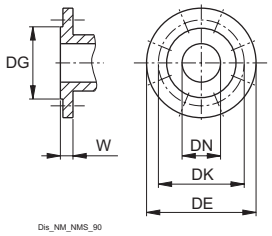


mm						
DN	DG	DK	DE	Holes N°	Holes ø	W
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

TYPE			mm																					
	DN1	DN2	a	b1	fM	g1	g3	h1	h2	HD	l1	l2	m1	m2	m4	m5	n1	n2	n4	n5	s1	s2	w	w1
BNMS 50/200B	65	50	100	80	829	4	20	180	200	433	142	152	245	212	394	354	290	215	334	254	14	15	314	20
BNMS 50/200A	65	50	100	80	829	4	20	180	200	433	142	152	245	212	394	354	290	215	334	254	14	15	314	20
BNMS 50/200S	65	50	100	80	829	4	20	180	200	433	142	152	245	212	394	354	290	215	334	254	14	15	314	20
BNMS 65/160C	80	65	100	80	829	4	20	180	200	433	140	161	245	212	394	354	290	215	334	254	14	15	314	20
BNMS 65/160B	80	65	100	80	829	4	20	180	200	433	140	161	245	212	394	354	290	215	334	254	14	15	314	20
BNMS 65/160AR	80	65	100	80	829	4	20	180	200	433	140	161	245	212	394	354	290	215	334	254	14	15	314	20
BNMS 65/160A	80	65	100	80	829	4	20	180	200	433	140	161	245	212	394	354	290	215	334	254	14	15	314	20
BNMS 80/250A/A	100	80	125	100	1187	6	30	280	280	642	191	211	260	220	570	520	410	315	506	406	18	24	408	25
BNMS 100/250B/A	125	100	140	100	1202	6	30	280	280	642	205	233	260	220	570	520	410	315	506	406	18	24	408	25



Flanges EN 1092-2 PN 10-16

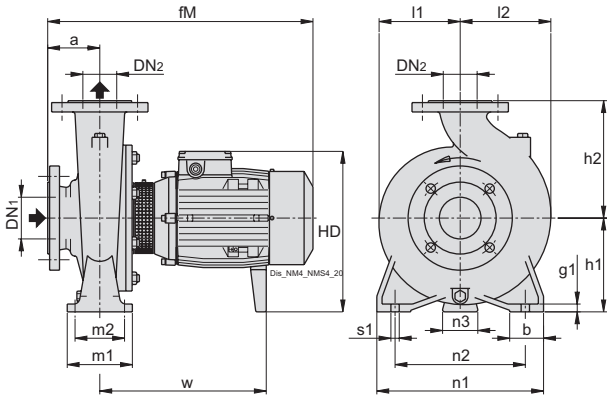


mm						
DN	DG	DK	DE	Holes N°	Holes ø	W
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

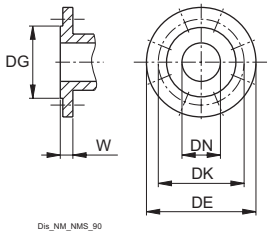
TYPE			mm																					
	DN1	DN2	a	b	b1	fM	g1	g3	h1	h2	HD	l1	l2	m1	m2	m4	m5	n1	n2	n4	n5	s1	s2	w	w1
BNMS 40/250C	65	40	100	65	80	829	15	20	180	225	433	177	177	125	95	394	354	320	250	334	254	14	15	314	20
BNMS 40/250B	65	40	100	65	80	829	15	20	180	225	433	177	177	125	95	394	354	320	250	334	254	14	15	314	20
BNMS 40/250A	65	40	100	65	80	829	15	20	180	225	433	177	177	125	95	394	354	320	250	334	254	14	15	314	20
BNMS 50/250C	65	50	100	65	80	829	15	20	180	225	433	177	177	125	95	394	354	320	250	334	254	14	15	314	20
BNMS 50/250B	65	50	100	65	80	829	15	20	180	225	433	177	177	125	95	394	354	320	250	334	254	14	15	314	20
BNMS 50/250A	65	50	100	65	80	873	15	20	180	225	433	177	177	125	95	394	354	320	250	334	254	14	15	314	20
BNMS 65/200C	80	65	100	65	80	829	12	20	180	225	433	159	179	125	95	394	354	320	250	334	254	14	15	314	20
BNMS 65/200B	80	65	100	65	80	873	12	20	180	225	433	159	179	125	95	394	354	320	250	334	254	14	15	314	20
BNMS 65/250C	80	65	100	80	70	915	15	20	200	250	470	178	195	160	120	440	400	360	280	349	279	18	15	333	20
BNMS 80/160D	100	80	125	65	80	854	12	20	180	225	433	152	181	125	95	394	354	320	250	334	254	14	15	314	20
BNMS 80/160C	100	80	125	65	80	854	12	20	180	225	433	152	181	125	95	394	354	320	250	334	254	14	15	314	20
BNMS 80/160B	100	80	125	65	80	854	12	20	180	225	433	152	181	125	95	394	354	320	250	334	254	14	15	314	20
BNMS 80/160A	100	80	125	65	80	898	12	20	180	225	433	152	181	125	95	394	354	320	250	334	254	14	15	314	20
BNMS 80/250E	100	80	125	80	70	940	20	20	200	280	470	191	211	160	120	440	400	400	315	349	279	18	15	333	20
BNMS 100/200E	125	100	125	80	60	923	15	40	200	280	453	179	211	160	120	394	354	360	280	314	254	18	15	339	20
BNMS 100/200D/A	125	100	125	80	70	940	15	20	200	280	470	179	211	160	120	440	400	360	280	349	279	18	15	333	20

NM4, NMS4

Dimensions and weights



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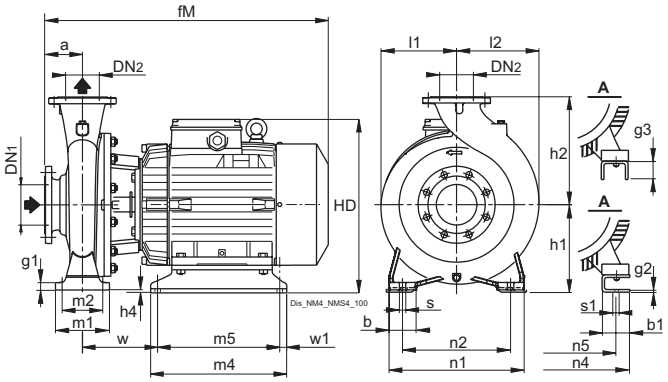


mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

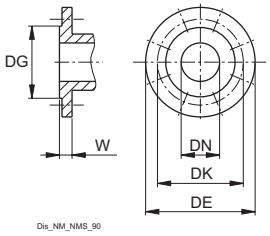
TYPE			mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	n3	s1	w	Weight
NM4 32/20B/A	50	32	80	50	413	12	160	180	290	140	140	100	70	240	190	40	14	257	36.2
NM4 32/20A/B	50	32	80	50	453	12	160	180	290	140	140	100	70	240	190	40	14	297	41
NM4 32/16B/A	50	32	80	50	413	12	132	160	262	119	119	100	70	240	190	35	14	255	29.8
NM4 32/16A/A	50	32	80	50	413	12	132	160	262	119	119	100	70	240	190	35	14	255	29.7
NM4 40/25C/C	65	40	100	65	499	15	180	225	320	177	177	125	95	320	250	41	14	299	66.7
NM4 40/25B/C	65	40	100	65	559	15	180	225	347	177	177	125	95	320	250	37	14	337	79
NM4 40/25A/B	65	40	100	65	559	15	180	225	347	177	177	125	95	320	250	37	14	337	78.7
NM4 40/20B/B	65	40	100	50	499	12	160	180	300	141	141	100	70	265	212	37	14	297	49.6
NM4 40/20A/B	65	40	100	50	499	12	160	180	300	141	141	100	70	265	212	37	14	297	49.6
NM4 40/16C/B	65	40	80	50	413	10	132	160	262	120	122	100	70	240	190	35	14	255	29.9
NM4 40/16B/B	65	40	80	50	413	10	132	160	262	120	122	100	70	240	190	35	14	255	31.6
NM4 40/16A/C	65	40	80	50	453	10	132	160	262	120	122	100	70	240	190	35	14	295	38.2
NM4 50/16B/C	65	50	100	50	499	12	160	180	300	125	140	100	70	265	212	37	14	297	42.5
NM4 50/16A/C	65	50	100	50	499	12	160	180	300	125	140	100	70	265	212	37	14	297	42.5
NM4 50/20C/C	65	50	100	50	509	14	160	200	300	142	152	100	70	265	212	37	14	307	53.1
NM4 50/20B/C	65	50	100	50	509	14	160	200	300	142	152	100	70	265	212	37	14	307	56.4
NM4 50/20A/C	65	50	100	50	559	14	160	200	327	142	152	100	70	265	212	34	14	335	66.2
NM4 50/25D/B	65	50	100	65	559	15	180	225	347	177	177	125	95	320	250	37	14	337	79.8
NM4 50/25C/C	65	50	100	65	559	15	180	225	347	177	177	125	95	320	250	37	14	337	80.5
NM4 50/25B/B	65	50	100	65	559	15	180	225	347	177	177	125	95	320	250	37	14	337	81
NM4 50/25A/B	65	50	100	65	559	15	180	225	347	177	177	125	95	320	250	37	14	337	88.4
NM4 65/16C/C	80	65	100	65	499	12	160	200	300	140	161	125	95	280	212	37	14	297	48.7
NM4 65/16B/C	80	65	100	65	499	12	160	200	300	140	161	125	95	280	212	37	14	297	49.3
NM4 65/16A/C	80	65	100	65	499	12	160	200	300	140	161	125	95	280	212	37	14	297	52.4
NM4 65/16S/A	80	65	100	65	559	12	160	200	327	140	161	125	95	280	212	34	14	335	63.4
NM4 65/20B/C	80	65	100	65	559	12	180	225	347	159	179	125	95	320	250	37	14	337	69.6
NM4 65/20A/B	80	65	100	65	559	12	180	225	347	159	179	125	95	320	250	37	14	337	70.3
NM4 65/25B/B	80	65	100	80	574	15	200	250	367	178	195	160	120	360	280	41	18	354	98.1
NM4 65/25A/C	80	65	100	80	644	15	200	250	390	178	195	160	120	360	280	38	18	403	115.5
NM4 65/31C/B	80	65	125	80	669	20	225	280	415	223	223	160	120	400	315	43	18	406	155.5
NM4 65/31B/B	80	65	125	80	669	20	225	280	415	223	223	160	120	400	315	43	18	406	164.3
NM4 65/31A/B	80	65	125	80	744	20	225	280	415	223	223	160	120	400	315	43	18	481	168
NM4 80/16C/C	100	80	125	65	524	12	180	225	320	152	181	125	95	320	250	41	14	299	55.6
NM4 80/16B/C	100	80	125	65	524	12	180	225	320	152	181	125	95	320	250	41	14	299	59.6
NM4 80/16A/C	100	80	125	65	584	12	180	225	347	152	181	125	95	320	250	37	14	337	70.5
NM4 80/20C/C	100	80	125	65	594	15	180	250	347	170	194	125	95	345	280	37	14	347	77.4
NM4 80/20B/B	100	80	125	65	594	15	180	250	347	170	194	125	95	345	280	37	14	347	77.3
NM4 80/20A/B	100	80	125	65	594	15	180	250	347	170	194	125	95	345	280	37	14	347	85.5
NM4 80/25C/A	100	80	125	80	599	20	200	280	367	191	211	160	120	400	315	41	18	354	103.9
NM4 80/25B/B	100	80	125	80	669	20	200	280	390	191	211	160	120	400	315	38	18	403	120
NM4 80/25A/B	100	80	125	80	669	20	200	280	390	191	211	160	120	400	315	38	18	403	130.6
NM4 80/31C/B	100	80	125	80	744	17	250	315	440	222	234	160	120	400	315	47	18	483	171.1
NM4 100/20C/A	125	100	125	80	594	15	200	280	367	179	211	160	120	360	280	41	18	349	85
NM4 100/20B/A	125	100	125	80	594	15	200	280	367	179	211	160	120	360	280	41	18	349	92.9
NM4 100/20A/C	125	100	125	80	669	15	200	280	390	179	211	160	120	360	280	38	18	403	109
NM4 100/25B/B	125	100	140	80	684	20	225	280	415	205	233	160	120	400	315	43	18	406	141.4
NM4 100/25A/B	125	100	140	80	759	20	225	280	415	205	233	160	120	400	315	43	18	481	152.9
NM4 125/25E/B	150	125	140	80	684	20	250	355	440	236	268	160	120	400	315	47	18	408	149.5
NM4 125/25D/B	150	125	140	80	684	20	250	355	440	236	268	160	120	400	315	47	18	408	159.8
NM4 125/25C/B	150	125	140	80	759	20	250	355	440	236	268	160	120	400	315	47	18	483	171.2

NM4, NMS4

Dimensions and weights



Flanges EN 1092-2 PN 10-16

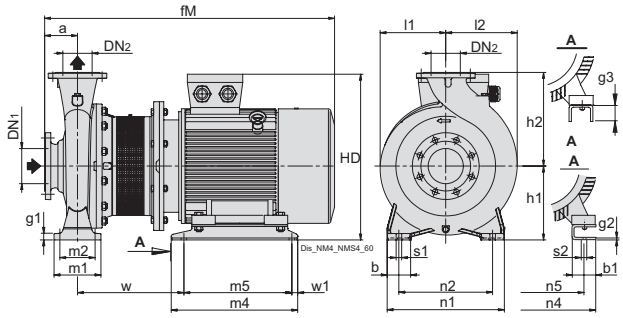


mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

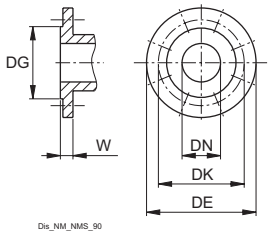
TYPE			mm																								kg
	DN1	DN2	a	b	b1	fM	g1	g2	h1	h2	h4	HD	l1	l2	m1	m2	m4	m5	n1	n2	n4	n5	s1	s2	w	w1	Weight
NM4 80/31B	100	80	125	80	74	790	20	6	250	315	10	458	222	234	160	120	435	395	400	315	314	254	18	14	147	20	212
NM4 80/31A	100	80	125	80	74	790	20	6	250	315	10	458	222	234	160	120	435	395	400	315	314	254	18	14	147	20	226
NM4 100/31C	125	100	140	80	74	805	20	6	250	315	10	458	229	251	160	120	435	395	400	315	314	254	18	14	147	20	221.1
NM4 100/31B	125	100	140	80	74	805	20	6	250	315	10	458	229	251	160	120	435	395	400	315	314	254	18	14	147	20	235.2
NM4 125/25B	150	125	140	80	74	805	20	6	250	355	10	458	236	268	160	120	435	395	400	315	314	254	18	14	147	20	210.5
NM4 125/25A	150	125	140	80	74	805	20	6	250	355	10	458	236	268	160	120	435	395	400	315	314	254	18	14	147	20	223.2

NM4, NMS4

Dimensions and weights with IE3 motor



Flanges EN 1092-2 PN 10-16 (DN 200 PN 10)

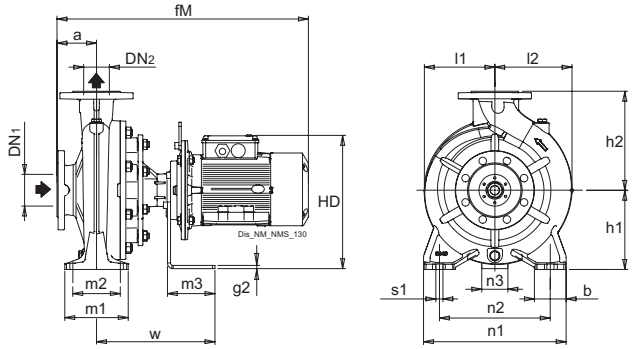


mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24
150	211	240	285	8	23	26
200	266	295	340	8*	23	30
250	319	355	405	12	28	26

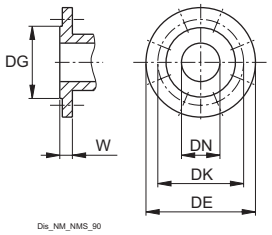
TYPE			mm																							kg
	DN1	DN2	a	b	b1	fM	g1	g2	g3	h1	h2	HD	l1	l2	m1	m2	m4	m5	n1	n2	n4	n5	s1	s2	w	w1	Weight
NMS4 65/315A	80	65	125	80	85	885	20	-	65	225	280	475	223	223	160	120	394	354	400	315	339	254	18	14	343	20	-
NMS4 80/315S	100	80	125	80	70	992	20	6	-	250	315	520	222	234	160	120	432	382	400	315	349	279	18	15	312	25	-
NMS4 80/315A	100	80	125	80	60	932	20	6	-	250	315	500	222	234	160	120	480	440	400	315	314	254	18	15	281	20	-
NMS4 80/315B/A	100	80	125	80	60	885	20	6	-	250	315	500	222	234	160	120	480	440	400	315	314	254	18	15	281	20	-
NMS4 80/315C	100	80	125	80	60	885	20	6	-	250	315	500	222	234	160	120	480	440	400	315	314	254	18	15	281	20	-
NMS4 80/400S	125	80	125	80	103	1123	15	-	55	280	355	610	267	269	160	120	540	490	435	355	459	356	18	19	379	25	-
NMS4 80/400A/B	125	80	125	80	83	1048	15	6	-	280	355	580	267	269	160	120	540	455	435	355	401	318	18	19	334	25	-
NMS4 80/400B/B	125	80	125	80	70	1030	15	6	-	280	355	566	267	269	160	120	520	435	435	355	349	279	18	15	318	25	-
NMS4 80/400C/B	125	80	125	80	70	997	15	6	-	280	355	550	267	269	160	120	520	435	435	355	349	279	18	15	318	25	-
NMS4 100/250A/A	125	100	140	80	85	888	20	-	65	225	280	475	205	233	160	120	394	354	400	315	339	254	18	14	331	20	-
NMS4 100/315A/A	125	100	140	80	70	1007	20	6	-	250	315	520	229	251	160	120	432	382	400	315	349	279	18	15	312	25	-
NMS4 100/315B/A	125	100	140	80	60	947	20	6	-	250	315	500	229	251	160	120	480	440	400	315	314	254	18	15	281	20	-
NMS4 100/315C/A	125	100	140	80	60	900	20	6	-	250	315	500	229	251	160	120	480	440	400	315	314	254	18	15	281	20	-
NMS4 100/400A/A	125	100	140	100	103	1143	27	-	55	280	355	610	268	280	200	150	540	490	500	400	459	356	22	19	384	25	504
NMS4 100/400B/A	125	100	140	100	83	1063	27	6	-	280	355	580	268	280	200	150	540	455	500	400	401	318	22	19	334	25	-
NMS4 100/400C/A	125	100	140	100	70	1045	27	6	-	280	355	566	268	280	200	150	520	435	500	400	349	279	22	15	318	25	-
NMS4 125/250A/A	150	125	140	80	60	935	20	6	-	250	355	500	236	268	160	120	480	440	400	315	314	254	18	15	269	20	-
NMS4 125/250B/A	150	125	140	80	60	888	20	6	-	250	355	500	236	268	160	120	480	440	400	315	314	254	18	15	269	20	-
NMS4 125/250C/A	150	125	140	80	60	888	20	6	-	250	355	500	236	268	160	120	480	440	400	315	314	254	18	15	269	20	-
NMS4 125/315A/A	150	125	140	100	83	1063	27	6	-	280	355	580	249	278	200	150	540	455	500	400	401	318	22	19	334	25	-
NMS4 125/315B/A	150	125	140	100	70	1045	27	6	-	280	355	566	249	278	200	150	520	435	500	400	349	279	22	15	318	25	-
NMS4 125/315C/A	150	125	140	100	70	1012	27	6	-	280	355	550	249	278	200	150	520	435	500	400	349	279	22	15	318	25	-
NMS4 125/400A/A	150	125	140	100	100	1360	27	-	65	315	400	677	280	305	200	150	580	530	500	400	506	406	22	24	427	25	-
NMS4 125/400B/A	150	125	140	100	103	1128	27	8	-	315	400	645	280	305	200	150	540	461	500	400	459	356	22	19	409	25	-
NMS4 125/400C/A	150	125	140	100	103	1143	27	8	-	315	400	645	280	305	200	150	540	461	500	400	459	356	22	19	409	25	-
NMS4 150/315S	200	150	160	100	103	1148	27	-	55	280	400	610	256	307	200	150	540	490	550	450	459	356	22	19	384	25	-
NMS4 150/315A/B	200	150	160	100	103	1163	27	-	55	280	400	610	256	307	200	150	540	490	550	450	459	356	22	19	384	25	-
NMS4 150/315B/B	200	150	160	100	83	1083	27	6	-	280	400	580	256	307	200	150	540	455	550	450	401	318	22	19	334	25	-
NMS4 150/315C/B	200	150	160	100	70	1065	27	6	-	280	400	566	256	307	200	150	520	435	550	450	349	279	22	15	318	25	-
NMS4 150/315D/B	200	150	160	100	70	1032	27	6	-	280	400	550	256	307	200	150	520	435	550	450	349	279	22	15	318	25	-
NMS4 150/400S	200	150	160	100	100	1470	27	-	35	315	450	700	295	328	200	150	690	600	550	450	557	457	22	24	449	45	-
NMS4 150/400A/B	200	150	160	100	100	1420	27	-	35	315	450	705	295	328	200	150	690	600	550	450	557	457	22	24	449	45	-
NMS4 150/400B/B	200	150	160	100	100	1380	27	-	65	315	450	677	295	328	200	150	580	530	550	450	506	406	22	24	427	25	-

NM4, NMS4

Dimensions and weights with IE4 motor



Flanges EN 1092-2 PN 10-16

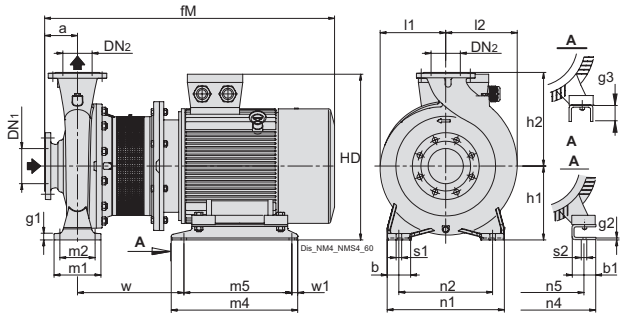


mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

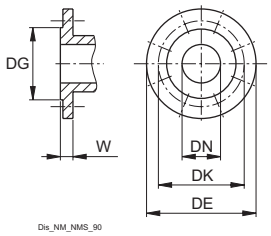
TYPE			mm																	
	DN1	DN2	a	b	fM	g1	g2	h1	h2	HD	l1	l2	m1	m2	m3	n1	n2	n3	s1	w
NMS4 32/200A	50	32	80	50	639	12	8	160	180	295	140	140	100	70	120	240	190	65	14	274
NMS4 40/160A	65	40	80	50	639	10	8	132	160	267	120	122	100	70	120	240	190	65	14	274
NMS4 40/200B	65	40	100	50	655	12	8	160	180	303	141	141	100	70	120	265	212	65	14	274
NMS4 40/200A	65	40	100	50	655	12	8	160	180	303	141	141	100	70	120	265	212	65	14	274
NMS4 40/250C	65	40	100	65	715	15	8	180	225	323	177	177	125	95	120	320	250	65	14	274
NMS4 40/250B	65	40	100	65	711	15	8	180	225	336	177	177	125	95	120	320	250	65	14	274
NMS4 40/250A	65	40	100	65	711	15	8	180	225	336	177	177	125	95	120	320	250	65	14	274
NMS4 50/160B	65	50	100	50	655	12	8	160	180	303	125	140	100	70	120	265	212	65	14	274
NMS4 50/160A	65	50	100	50	655	12	8	160	180	303	125	140	100	70	120	265	212	65	14	274
NMS4 50/200C	65	50	100	50	655	14	8	160	200	303	142	152	100	70	120	265	212	65	14	274
NMS4 50/200B	65	50	100	50	715	14	8	160	200	303	142	152	100	70	120	265	212	65	14	274
NMS4 50/200A	65	50	100	50	711	14	8	160	200	316	142	152	100	70	120	265	212	65	14	274
NMS4 50/250D	65	50	100	65	711	15	8	180	225	336	177	177	125	95	120	320	250	65	14	274
NMS4 50/250C	65	50	100	65	711	15	8	180	225	336	177	177	125	95	120	320	250	65	14	274
NMS4 50/250B	65	50	100	65	711	15	8	180	225	336	177	177	125	95	120	320	250	65	14	274
NMS4 50/250A	65	50	100	65	637	15	8	180	225	354	177	177	125	95	120	320	250	65	14	274
NMS4 65/160C	80	65	100	65	655	12	8	160	200	303	140	161	125	95	120	280	212	65	14	274
NMS4 65/160B	80	65	100	65	655	12	8	160	200	303	140	161	125	95	120	280	212	65	14	274
NMS4 65/160A	80	65	100	65	715	12	8	160	200	303	140	161	125	95	120	280	212	65	14	274
NMS4 65/160S	80	65	100	65	711	12	8	160	200	316	140	161	125	95	120	280	212	65	14	274
NMS4 65/200B	80	65	100	65	711	12	8	180	225	336	159	179	125	95	120	320	250	65	14	274
NMS4 65/200A	80	65	100	65	711	12	8	180	225	336	159	179	125	95	120	320	250	65	14	274
NMS4 65/250B	80	65	100	80	662	15	8	200	250	374	178	195	160	120	120	360	280	65	18	299
NMS4 80/160C	100	80	125	65	680	12	8	180	225	323	152	181	125	95	120	320	250	65	14	274
NMS4 80/160B	100	80	125	65	740	12	8	180	225	323	152	181	125	95	120	320	250	65	14	274
NMS4 80/160A	100	80	125	65	736	12	8	180	225	336	152	181	125	95	120	320	250	65	14	274
NMS4 80/200C	100	80	125	65	761	15	8	180	250	336	170	194	125	95	120	345	280	65	14	299
NMS4 80/200B	100	80	125	65	761	15	8	180	250	336	170	194	125	95	120	345	280	65	14	299
NMS4 80/200A	100	80	125	65	687	15	8	180	250	354	170	194	125	95	120	345	280	65	14	299
NMS4 80/250C	100	80	125	80	687	20	8	200	280	374	191	211	160	120	120	400	315	65	18	299
NMS4 100/200C	125	100	125	80	761	15	8	200	280	356	179	211	160	120	120	360	280	65	18	299
NMS4 100/200B	125	100	125	80	687	15	8	200	280	374	179	211	160	120	120	360	280	65	18	299

NM4, NMS4

Dimensions and weights with IE4 motor



Flanges EN 1092-2 PN 10-16 (DN 200 PN 10)

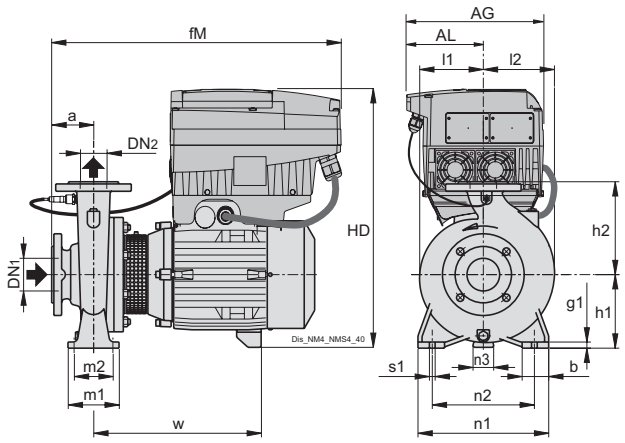


mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24
150	211	240	285	8	23	26
200	266	295	340	8*	23	30
250	319	355	405	12	28	26

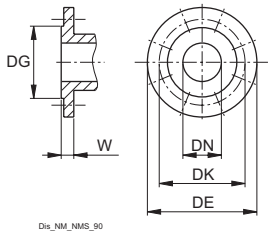
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NMS4 65/250A	80	65	100	80	69	708	15	6	-	200	250	392	178	195	160	120	298	258	360	280	285	216	18	12	281	20
NMS4 65/315B	80	65	125	80	69	770	20	6	-	225	280	419	223	223	160	120	298	258	400	315	285	216	18	12	300	20
NMS4 65/315C	80	65	125	80	69	733	20	6	-	225	280	417	223	223	160	120	298	258	400	315	285	216	18	12	281	20
NMS4 80/250A	100	80	125	80	69	770	20	6	-	200	280	394	191	211	160	120	298	258	400	315	285	216	18	12	300	20
NMS4 80/250B	100	80	125	80	69	733	20	6	-	200	280	392	191	211	160	120	298	258	400	315	285	216	18	12	281	20
NMS4 100/200A	125	100	125	80	69	733	15	6	-	200	280	392	179	211	160	120	298	258	360	280	285	216	18	12	281	20
NMS4 100/250B	125	100	140	80	69	785	20	6	-	225	280	419	205	233	160	120	298	258	400	315	285	216	18	12	300	20
NMS4 125/250D	150	125	140	80	69	785	20	6	-	250	355	419	236	268	160	120	298	258	400	315	285	216	18	12	300	20
NMS4 125/250E	150	125	140	80	69	748	20	6	-	250	355	417	236	268	160	120	298	258	400	315	285	216	18	12	281	20
NMS4 65/315A	80	65	125	80	85	883	20	-	65	225	280	478	223	223	160	120	394	354	400	315	339	254	18	14	343	20
NMS4 80/315S	100	80	125	80	70	952	20	6	-	250	315	520	222	234	160	120	432	382	400	315	349	279	18	15	312	25
NMS4 80/315A	100	80	125	80	60	927	20	6	-	250	315	503	222	234	160	120	480	440	400	315	314	254	18	15	281	20
NMS4 80/315B/A	100	80	125	80	60	883	20	6	-	250	315	503	222	234	160	120	480	440	400	315	314	254	18	15	281	20
NMS4 80/315C	100	80	125	80	60	883	20	6	-	250	315	503	222	234	160	120	480	440	400	315	314	254	18	15	281	20
NMS4 80/400S	125	80	125	80	103	1119	15	-	55	280	355	603	267	269	160	120	540	490	435	355	459	356	18	19	379	25
NMS4 80/400A/B	125	80	125	80	83	1043	15	6	-	280	355	580	267	269	160	120	540	455	435	355	401	318	18	19	334	25
NMS4 80/400B/B	125	80	125	80	70	1015	15	6	-	280	355	551	267	269	160	120	520	435	435	355	349	279	18	15	318	25
NMS4 80/400C/B	125	80	125	80	70	957	15	6	-	280	355	550	267	269	160	120	520	435	435	355	349	279	18	15	318	25
NMS4 100/250A/A	125	100	140	80	85	886	20	-	65	225	280	478	205	233	160	120	394	354	400	315	339	254	18	14	331	20
NMS4 100/315A/A	125	100	140	80	70	967	20	6	-	250	315	520	229	251	160	120	432	382	400	315	349	279	18	15	312	25
NMS4 100/315B/A	125	100	140	80	60	942	20	6	-	250	315	503	229	251	160	120	480	440	400	315	314	254	18	15	281	20
NMS4 100/315C/A	125	100	140	80	60	898	20	6	-	250	315	503	229	251	160	120	480	440	400	315	314	254	18	15	281	20
NMS4 100/400A/A	125	100	140	100	103	1139	27	-	55	280	355	603	268	280	200	150	540	490	500	400	459	356	22	19	384	25
NMS4 100/400B/A	125	100	140	100	83	1058	27	6	-	280	355	580	268	280	200	150	540	455	500	400	401	318	22	19	334	25
NMS4 100/400C/A	125	100	140	100	70	1030	27	6	-	280	355	551	268	280	200	150	520	435	500	400	349	279	22	15	318	25
NMS4 125/250A/A	150	125	140	80	60	930	20	6	-	250	355	503	236	268	160	120	480	440	400	315	314	254	18	15	269	20
NMS4 125/250B/A	150	125	140	80	60	886	20	6	-	250	355	503	236	268	160	120	480	440	400	315	314	254	18	15	269	20
NMS4 125/250C/A	150	125	140	80	60	886	20	6	-	250	355	503	236	268	160	120	480	440	400	315	314	254	18	15	269	20
NMS4 125/315A/A	150	125	140	100	83	1058	27	6	-	280	355	580	249	278	200	150	540	455	500	400	401	318	22	19	334	25
NMS4 125/315B/A	150	125	140	100	70	1030	27	6	-	280	355	551	249	278	200	150	520	435	500	400	349	279	22	15	318	25
NMS4 125/315C/A	150	125	140	100	70	972	27	6	-	280	355	550	249	278	200	150	520	435	500	400	349	279	22	15	318	25
NMS4 125/400A/A	150	125	140	100	100	1226	27	-	65	315	400	677	280	305	200	150	580	530	500	400	506	406	22	24	427	25
NMS4 125/400B/A	150	125	140	100	103	1194	27	8	-	315	400	638	280	305	200	150	540	461	500	400	459	356	22	19	409	25
NMS4 125/400C/A	150	125	140	100	103	1139	27	8	-	315	400	638	280	305	200	150	540	461	500	400	459	356	22	19	409	25
NMS4 150/315S	200	150	160	100	103	1214	27	-	55	280	400	603	256	307	200	150	540	490	550	450	459	356	22	19	384	25
NMS4 150/315A/B	200	150	160	100	103	1159	27	-	55	280	400	603	256	307	200	150	540	490	550	450	459	356	22	19	384	25
NMS4 150/315B/B	200	150	160	100	83	1078	27	6	-	280	400	580	256	307	200	150	540	455	550	450	401	318	22	19	334	25
NMS4 150/315C/B	200	150	160	100	70	1050	27	6	-	280	400	551	256	307	200	150	520	435	550	450	349	279	22	15	318	25
NMS4 150/315D/B	200	150	160	100	70	992	27	6	-	280	400	550	256	307	200	150	520	435	550	450	349	279	22	15	318	25
NMS4 150/400S	200	150	160	100	100	1438	27	-	35	315	450	704	295	328	200	150	690	600	550	450	557	457	22	24	449	45
NMS4 150/400A/B	200	150	160	100	100	1383	27	-	35	315	450	704	295	328	200	150	690	600	550	450	557	457	22	24	449	45
NMS4 150/400B/B	200	150	160	100	100	1246	27	-	65	315	450	677	295	328	200	150	580	530	550	450	506	406	22	24	427	25

NM4, NMS4

Dimensions and weights



Flanges EN 1092-2 PN 10-16

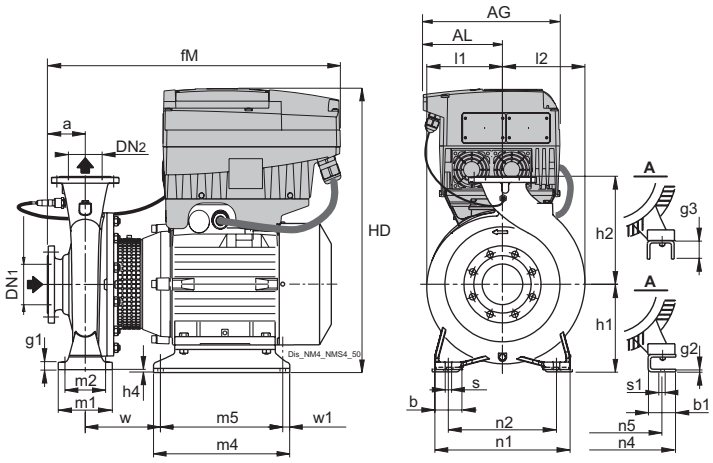


mm							
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24
150	211	240	285	8	23	26

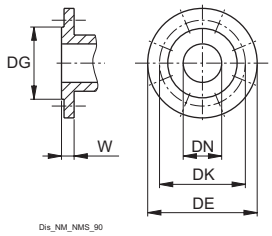
TYPE			mm																		kg
	DN1	DN2	a	AG	AL	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	n3	s1	w	Weight
NM4 EI 32/16BE	50	32	80	190	105	50	440	12	132	160	260	120	120	100	70	240	190	47	14	255	-
NM4 EI 32/16AE	50	32	80	190	105	50	440	12	132	160	260	120	120	100	70	240	190	47	14	255	-
NM4 EI 32/20BE	50	32	80	190	105	50	440	12	160	180	288	140	140	100	70	240	190	62	14	255	-
NM4 EI 32/20A/B	50	32	80	190	105	50	453	12	160	180	445	140	140	100	70	240	190	40	14	297	47.9
NM4 EI 40/16C/B	65	40	80	190	105	50	413	10	132	160	417	120	122	100	70	240	190	35	14	255	-
NM4 EI 40/16B/B	65	40	80	190	105	50	413	10	132	160	417	120	122	100	70	240	190	35	14	255	-
NM4 EI 40/16A/C	65	40	80	190	105	50	453	10	132	160	417	120	122	100	70	240	190	35	14	295	43.8
NM4 EI 40/20B/B	65	40	100	190	105	50	499	12	160	180	455	141	141	100	70	265	212	37	14	297	55.5
NM4 EI 40/20A/B	65	40	100	190	105	50	499	12	160	180	455	141	141	100	70	265	212	37	14	297	-
NM4 EI 40/25C/C	65	40	100	190	105	65	499	15	180	225	475	177	177	125	95	320	250	41	14	299	-
NM4 EI 40/25B/C	65	40	100	210	118	65	559	15	180	225	504	177	177	125	95	320	250	37	14	337	-
NM4 EI 40/25A/B	65	40	100	210	118	65	559	15	180	225	504	177	177	125	95	320	250	37	14	337	-
NM4 EI 50/16B/C	65	50	100	190	105	50	499	12	160	180	455	125	140	100	70	265	212	37	14	297	-
NM4 EI 50/16A/C	65	50	100	190	105	50	499	12	160	180	455	125	140	100	70	265	212	37	14	297	52.4
NM4 EI 50/20C/C	65	50	100	190	105	50	509	14	160	200	455	142	152	100	70	265	212	37	14	307	59
NM4 EI 50/20B/C	65	50	100	190	105	50	509	14	160	200	455	142	152	100	70	265	212	37	14	307	-
NM4 EI 50/20A/C	65	50	100	210	118	50	559	14	160	200	484	142	152	100	70	265	212	34	14	335	-
NM4 EI 50/25D/B	65	50	100	210	118	65	559	15	180	225	504	177	177	125	95	320	250	37	14	337	-
NM4 EI 50/25C/C	65	50	100	210	118	65	559	15	180	225	504	177	177	125	95	320	250	37	14	337	-
NM4 EI 50/25B/B	65	50	100	210	118	65	559	15	180	225	504	177	177	125	95	320	250	37	14	337	-
NM4 EI 50/25A/B	65	50	100	210	118	65	559	15	180	225	504	177	177	125	95	320	250	37	14	337	-
NM4 EI 65/16C/C	80	65	100	190	105	65	499	12	160	200	455	140	161	125	95	280	212	37	14	297	54.6
NM4 EI 65/16B/C	80	65	100	190	105	65	499	12	160	200	455	140	161	125	95	280	212	37	14	297	-
NM4 EI 65/16A/C	80	65	100	190	105	65	499	12	160	200	455	140	161	125	95	280	212	37	14	297	57.9
NM4 EI 65/16S/A	80	65	100	210	118	65	559	12	160	200	484	140	161	125	95	280	212	34	14	335	-
NM4 EI 65/20B/C	80	65	100	210	118	65	559	12	180	225	504	159	179	125	95	320	250	37	14	337	-
NM4 EI 65/20A/B	80	65	100	210	118	65	559	12	180	225	504	159	179	125	95	320	250	37	14	337	-
NM4 EI 65/25B/B	80	65	100	210	118	80	574	15	200	250	524	178	195	160	120	360	280	41	18	354	-
NM4 EI 65/25A/C	80	65	100	281	154	80	644	15	200	250	589	178	195	160	120	360	280	38	18	403	-
NM4 EI 65/31C/B	80	65	125	281	154	80	669	20	225	280	614	223	223	160	120	400	315	43	18	406	-
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NM4 EI 65/31A/B	80	65	125	281	154	80	744	20	225	280	614	223	223	160	120	400	315	43	18	481	-
NM4 EI 80/16C/C	100	80	125	190	105	65	524	12	180	225	475	152	181	125	95	320	250	41	14	299	-
NM4 EI 80/16B/C	100	80	125	190	105	65	524	12	180	225	475	152	181	125	95	320	250	41	14	299	65
NM4 EI 80/16A/C	100	80	125	210	118	65	584	12	180	225	504	152	181	125	95	320	250	37	14	337	-
NM4 EI 80/20C/C	100	80	125	210	118	65	594	15	180	250	504	170	194	125	95	345	280	37	14	347	-
NM4 EI 80/20B/B	100	80	125	210	118	65	594	15	180	250	504	170	194	125	95	345	280	37	14	347	86.5
NM4 EI 80/20A/B	100	80	125	210	118	65	594	15	180	250	504	170	194	125	95	345	280	37	14	347	-
NM4 EI 80/25C/A	100	80	125	210	118	80	599	20	200	280	524	191	211	160	120	400	315	41	18	354	111.5
NM4 EI 80/25B/B	100	80	125	281	154	80	669	20	200	280	589	191	211	160	120	400	315	38	18	403	136.6
NM4 EI 80/25A/B	100	80	125	281	154	80	669	20	200	280	589	191	211	160	120	400	315	38	18	403	145.5
NM4 EI 80/31C/B	100	80	125	281	154	80	744	20	250	315	639	222	234	160	120	400	315	47	18	483	-
NM4 EI 100/20C/A	125	100	125	210	118	80	594	15	200	280	524	179	211	160	120	360	280	41	18	349	-
NM4 EI 100/20B/A	125	100	125	210	118	80	594	15	200	280	524	179	211	160	120	360	280	41	18	349	-
NM4 EI 100/20A/C	125	100	125	281	154	80	669	15	200	280	589	179	211	160	120	360	280	38	18	403	-
NM4 EI 100/25B/B	125	100	140	281	154	80	684	20	225	280	614	205	233	160	120	400	315	43	18	406	-
NM4 EI 100/25A/B	125	100	140	281	154	80	759	20	225	280	614	205	233	160	120	400	315	43	18	481	166.3
NM4 EI 125/25E/B	150	125	140	281	154	80	684	20	250	355	639	236	268	160	120	400	315	47	18	408	-
NM4 EI 125/25D/B	150	125	140	281	154	80	684	20	250	355	639	236	268	160	120	400	315	47	18	408	-
NM4 EI 125/25C/B	150	125	140	281	154	80	759	20	250	355	639	236	268	160	120	400	315	47	18	483	-

NM4, NMS4

Dimensions and weights



Flanges EN 1092-2 PN 10-16

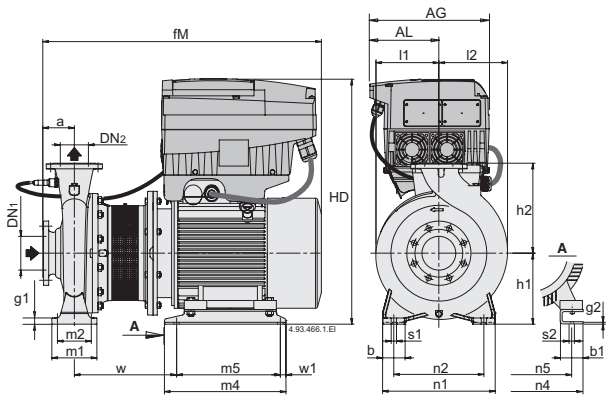


mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24
150	211	240	285	8	23	26

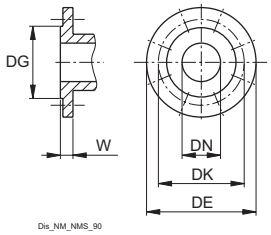
TYPE			mm																							
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NM4 EI 80/31B	100	80	125	281	153.5	80	74	790	6	250	315	10	657	222	234	160	120	435	395	400	315	254	18	14	323	20
NM4 EI 80/31A	100	80	125	350	190	80	74	790	6	250	315	10	738	222	234	160	120	435	395	400	315	254	18	14	323	20
NM4 EI 100/31C	125	100	140	281	153.5	80	74	805	6	250	315	10	657	229	251	160	120	435	395	400	315	254	18	14	323	20
NM4 EI 100/31B	125	100	140	350	190	80	74	805	6	250	315	10	738	229	251	160	120	435	395	400	315	254	18	14	323	20
NM4 EI 125/25B	150	125	140	281	153.5	80	74	805	6	250	355	10	657	236	268	160	120	435	395	400	315	254	18	14	323	20
NM4 EI 125/25A	150	125	140	350	190	80	74	805	6	250	355	10	738	236	268	160	120	435	395	400	315	254	18	14	323	20

NM4, NMS4

Dimensions and weights



Flanges EN 1092-2 PN 10-16 (DN 200 PN 10)

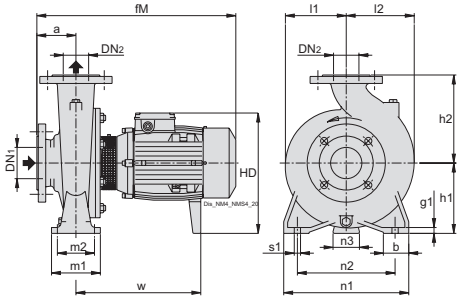


mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24
150	211	240	285	8	23	26
200	266	295	340	8*	23	30
250	319	355	405	12	28	26

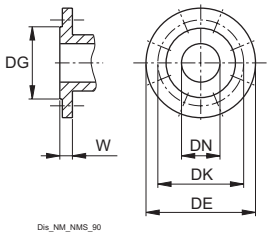
TYPE			mm																								kg
	DN1	DN2	a	AG	AL	b	b1	fM	g1	g2	h1	h2	HD	l1	l2	m1	m2	m4	m5	n1	n2	n4	n5	s1	s2	w	w1	Weight
NMS4 EI 80/315S	100	80	125	350	190	80	70	999	17	6	250	315	789	222	234	160	120	432	382	400	315	338	279	18	15	312	25	-
NMS4 EI 80/400C/B	100	80	125	350	190	80	70	1004	15	6	280	355	819	267	269	160	120	520	435	435	355	338	279	18	15	318	25	-
NMS4 EI 80/400B/B	100	80	125	350	190	80	70	1004	15	6	280	355	819	267	269	160	120	520	435	435	355	338	279	18	15	318	25	-
NMS4 EI 80/400A/B	100	80	125	350	190	80	83	1051	15	6	280	355	863	267	269	160	120	540	455	435	355	388	318	18	19	334	25	-
NMS4 EI 100/315A/A	125	100	140	350	190	80	70	1014	20	6	250	315	789	229	251	160	120	432	382	400	315	338	279	18	15	312	25	-
NMS4 EI 100/400C/A	125	100	140	350	190	100	70	1019	27	6	280	355	819	268	280	200	150	520	435	500	400	338	279	22	15	318	25	-
NMS4 EI 100/400B/A	125	100	140	350	190	100	83	1066	27	6	280	355	863	268	280	200	150	540	455	500	400	388	318	22	19	334	25	445
NMS4 EI 125/315C/A	150	125	140	350	190	100	70	1019	27	6	280	355	819	249	278	200	150	520	435	500	400	338	279	22	15	318	25	-
NMS4 EI 125/315B/A	150	125	140	350	190	100	70	1019	27	6	280	355	819	249	278	200	150	520	435	500	400	338	279	22	15	318	25	-
NMS4 EI 125/315A/A	150	125	140	350	190	100	83	1066	27	6	280	355	863	249	278	200	150	540	455	500	400	388	318	22	19	334	25	-
NMS4 EI 150/315B/B	200	150	160	350	190	100	83	1086	27	6	280	400	863	104	119	200	150	540	455	550	450	388	318	22	19	334	25	-

NM4, NMS4

Dimensions and weights

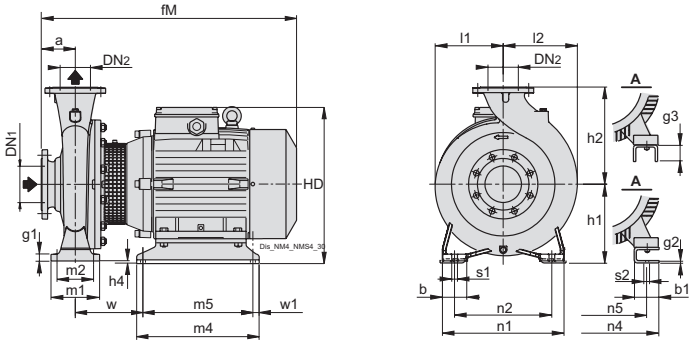


Flanges EN 1092-2 PN 10-16

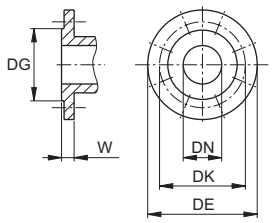


mm						
DN	DG	DK	DE	Holes N°	Holes ø	W
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

TYPE			mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	n3	s1	w	Weight
BNM4 32/16B/A	50	32	80	50	413	12	132	160	261	119	119	100	70	240	190	35	14	255	33.4
BNM4 32/16A/A	50	32	80	50	413	12	132	160	261	119	119	100	70	240	190	35	14	255	33.5
BNM4 32/20B/A	50	32	80	50	413	12	160	180	289	140	140	100	70	240	190	40	14	257	39.5
BNM4 32/20A/B	50	32	80	50	453	12	160	180	289	140	140	100	70	240	190	40	14	297	45.2
BNM4 40/16C/A	65	40	80	50	413	10	132	160	261	120	122	100	70	240	190	35	14	255	35
BNM4 40/16B/A	65	40	80	50	413	10	132	160	261	120	122	100	70	240	190	35	14	255	36.8
BNM4 40/16A/B	65	40	80	50	453	10	132	160	261	120	122	100	70	240	190	35	14	295	42.8
BNM4 40/20B/B	65	40	100	50	499	12	160	180	299	141	141	100	70	265	212	37	14	297	54.6
BNM4 40/20A/B	65	40	100	50	499	12	160	180	299	141	141	100	70	265	212	37	14	297	55.1
BNM4 50/16B/B	65	50	100	50	499	12	160	180	299	125	140	100	70	265	212	37	14	297	52.7
BNM4 50/16A/B	65	50	100	50	499	12	160	180	299	125	140	100	70	265	212	37	14	297	53
BNM4 50/20C/C	65	50	100	50	509	14	160	200	299	142	152	100	70	265	212	37	14	307	59.6
BNM4 50/20B/C	65	50	100	50	509	14	160	200	299	142	152	100	70	265	212	37	14	307	-
BNM4 50/20A/C	65	50	100	50	528	14	160	200	321	142	152	100	70	265	212	34	14	276	73.6
BNM4 65/16C/C	80	65	100	65	499	12	160	200	299	140	161	125	95	280	212	37	14	297	-
BNM4 65/16B/C	80	65	100	65	499	12	160	200	299	140	161	125	95	280	212	37	14	297	54.9
BNM4 65/16A/C	80	65	100	65	499	12	160	200	299	140	161	125	95	280	212	37	14	297	58.4
BNM4 65/16S/A	80	65	100	65	528	12	160	200	321	140	161	125	95	280	212	34	14	276	69.8
BNM4 65/20B/A	80	65	100	65	528	12	180	225	341	159	179	125	95	320	250	37	14	278	77.5
BNM4 65/20A/A	80	65	100	65	528	12	180	225	341	159	179	125	95	320	250	37	14	278	77.9
BNM4 65/25B/B	80	65	100	80	543	15	200	250	361	178	195	160	120	360	280	41	18	295	110.4
BNM4 65/25A/C	80	65	100	80	644	15	200	250	387	178	195	160	120	360	280	36	18	403	-
BNM4 65/31C/B	80	65	125	80	669	20	225	280	412	223	223	160	120	400	315	41	18	405	170.2
BNM4 65/31B/B	80	65	125	80	669	20	225	280	412	223	223	160	120	400	315	41	18	405	-
BNM4 65/31A/B	80	65	125	80	719	20	225	280	412	223	223	160	120	400	315	41	18	465	-
BNM4 80/20C/A	100	80	125	65	563	18	180	250	341	170	194	125	95	345	280	37	14	288	-
BNM4 80/20B/A	100	80	125	65	563	18	180	250	341	170	194	125	95	345	280	37	14	288	88
BNM4 80/20A/A	100	80	125	65	563	18	180	250	341	170	194	125	95	345	280	37	14	288	-
BNM4 80/25C/A	100	80	125	80	568	20	200	280	361	191	211	160	120	400	315	41	18	295	114.7
BNM4 80/31C/B	100	80	125	80	744	17	250	315	437	222	234	160	120	400	315	46	18	482	-
BNM4 100/20C/A	125	100	125	80	563	15	200	280	361	179	211	160	120	360	280	41	18	290	96.6
BNM4 100/20B/A	125	100	125	80	563	15	200	280	361	179	211	160	120	360	280	41	18	290	103
BNM4 100/20A/C	125	100	125	80	669	15	200	280	387	179	211	160	120	360	280	36	18	403	123



Flanges EN 1092-2 PN 10-16

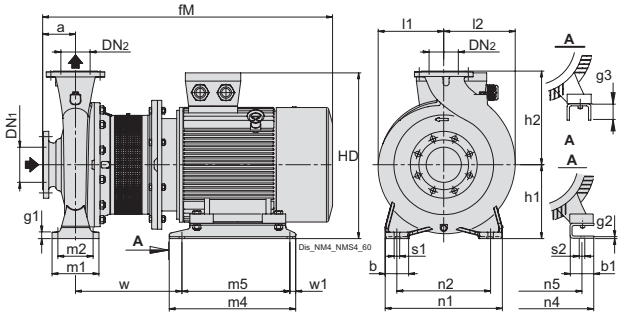


mm						
DN	DG	DK	DE	Holes N°	Holes ø	W
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

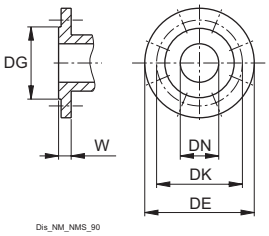
TYPE			mm																				kg
	DN1	DN2	a	b	b1	fM	g2	h1	h2	h4	HD	l1	l2	m1	m2	m4	m5	n1	n2	n5	s1	s2	w	w1	Weight
BNM4 4025/C/C	65	40	100	65	54	495	6	190	225	10	329	177	177	125	95	205	175	320	250	140	14	10	115	15	-
BNM4 4025/B/C	65	40	100	65	60	513	6	190	225	10	351	177	177	125	95	280	250	320	250	190	14	12	80	15	92.2
BNM4 4025/A/B	65	40	100	65	60	513	6	190	225	10	351	177	177	125	95	280	250	320	250	190	14	12	80	15	91.6
BNM4 5025/D/B	65	50	100	65	60	513	6	190	225	10	351	171	171	125	95	280	250	320	250	190	14	12	80	15	-
BNM4 5025/C/C	65	50	100	65	60	513	6	190	225	10	351	171	171	125	95	280	250	320	250	190	14	12	80	15	96.9
BNM4 5025/B/B	65	50	100	65	60	513	6	190	225	10	351	171	171	125	95	280	250	320	250	190	14	12	80	15	95.7
BNM4 5025/A/B	65	50	100	65	60	513	6	190	225	10	351	171	171	125	95	280	250	320	250	190	14	12	80	15	104

NM4, NMS4

Dimensions and weights with IE3 motor



Flanges EN 1092-2 PN 10-16 (DN 200 PN 10)

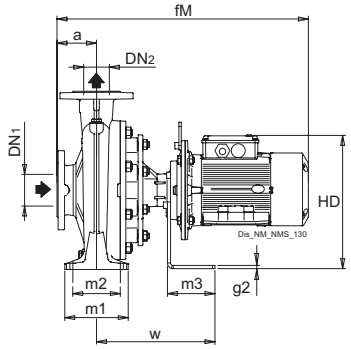


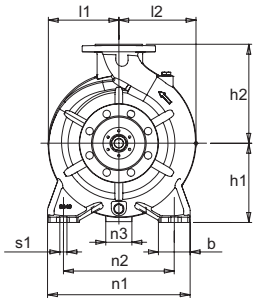
mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24
150	211	240	285	8	23	26
200	266	295	340	8*	23	30
250	319	355	405	12	28	26

TYPE			mm																							
	DN1	DN2	a	b	b1	fM	g1	g2	g3	h1	h2	HD	l1	l2	m1	m2	m4	m5	n1	n2	n4	n5	s1	s2	w	w1
BNMS4 65/315A	80	65	125	80	85	885	20	-	65	225	280	475	223	223	160	120	394	354	400	315	339	254	18	14	343	20
BNMS4 80/315A	100	80	125	80	60	932	20	6	-	250	315	500	222	234	160	120	480	440	400	315	314	254	18	15	281	20
BNMS4 80/400A/B	125	80	125	80	83	1048	15	6	-	280	355	580	267	269	160	120	540	455	435	355	401	318	18	19	334	25
BNMS4 100/250A/A	125	100	140	80	85	888	20	-	65	225	280	475	205	233	160	120	394	354	400	315	339	254	18	14	331	20
BNMS4 100/315A/A	125	100	140	80	70	1007	20	6	-	250	315	520	229	251	160	120	432	382	400	315	349	279	18	15	312	25
BNMS4 100/400A/A	125	100	140	100	103	1143	27	-	55	280	355	610	268	280	200	150	540	490	500	400	459	356	22	19	384	25
BNMS4 125/250A/A	150	125	140	80	60	935	20	6	-	250	355	500	236	268	160	120	480	440	400	315	314	254	18	15	269	20
BNMS4 125/315A/A	150	125	140	100	83	1063	27	6	-	280	355	580	249	278	200	150	540	455	500	400	401	318	22	19	334	25
BNMS4 125/400A/A	150	125	140	100	100	1360	27	-	65	315	400	677	280	305	200	150	580	530	500	400	506	406	22	24	427	25
BNMS4 150/315A/B	200	150	160	100	103	1163	27	-	55	280	400	610	256	307	200	150	540	490	550	450	459	356	22	19	384	25
BNMS4 150/400A/B	200	150	160	100	100	1420	27	-	35	315	450	705	295	328	200	150	690	600	550	450	557	457	22	24	449	45
BNMS4 80/315B/A	100	80	125	80	60	885	20	6	-	250	315	500	222	234	160	120	480	440	400	315	314	254	18	15	281	20
BNMS4 80/400B/B	125	80	125	80	70	1030	15	6	-	280	355	566	267	269	160	120	520	435	435	355	349	279	18	15	318	25
BNMS4 100/315B/A	125	100	140	80	60	947	20	6	-	250	315	500	229	251	160	120	480	440	400	315	314	254	18	15	281	20
BNMS4 100/400B/A	125	100	140	100	83	1063	27	6	-	280	355	580	268	280	200	150	540	455	500	400	401	318	22	19	334	25
BNMS4 125/250B/A	150	125	140	80	60	888	20	6	-	250	355	500	236	268	160	120	480	440	400	315	314	254	18	15	269	20
BNMS4 125/315B/A	150	125	140	100	70	1045	27	6	-	280	355	566	249	278	200	150	520	435	500	400	349	279	22	15	318	25
BNMS4 125/400B/A	150	125	140	100	103	1128	27	8	-	315	400	645	280	305	200	150	540	461	500	400	459	356	22	19	409	25
BNMS4 150/315B/B	200	150	160	100	83	1083	27	6	-	280	400	580	256	307	200	150	540	455	550	450	401	318	22	19	334	25
BNMS4 150/400B/B	200	150	160	100	100	1380	27	-	65	315	450	677	295	328	200	150	580	530	550	450	506	406	22	24	427	25
BNMS4 80/315C	100	80	125	80	60	885	20	6	-	250	315	500	222	234	160	120	480	440	400	315	314	254	18	15	281	20
BNMS4 80/400C/B	125	80	125	80	70	997	15	6	-	280	355	550	267	269	160	120	520	435	435	355	349	279	18	15	318	25
BNMS4 100/315C/A	125	100	140	80	60	900	20	6	-	250	315	500	229	251	160	120	480	440	400	315	314	254	18	15	281	20
BNMS4 100/400C/A	125	100	140	100	70	1045	27	6	-	280	355	566	268	280	200	150	520	435	500	400	349	279	22	15	318	25
BNMS4 125/250C/A	150	125	140	80	60	888	20	6	-	250	355	500	236	268	160	120	480	440	400	315	314	254	18	15	269	20
BNMS4 125/315C/A	150	125	140	100	70	1012	27	6	-	280	355	550	249	278	200	150	520	435	500	400	349	279	22	15	318	25
BNMS4 125/400C/A	150	125	140	100	103	1143	27	8	-	315	400	645	280	305	200	150	540	461	500	400	459	356	22	19	409	25
BNMS4 150/315C/B	200	150	160	100	70	1065	27	6	-	280	400	566	256	307	200	150	520	435	550	450	349	279	22	15	318	25
BNMS4 150/315D/B	200	150	160	100	70	1032	27	6	-	280	400	550	256	307	200	150	520	435	550	450	349	279	22	15	318	25
BNMS4 80/315S	100	80	125	80	70	992	20	6	-	250	315	520	222	234	160	120	432	382	400	315	349	279	18	15	312	25
BNMS4 80/400S	125	80	125	80	103	1123	15	-	55	280	355	610	267	269	160	120	540	490	435	355	459	356	18	19	379	25
BNMS4 150/315S	200	150	160	100	103	1148	27	-	55	280	400	610	256	307	200	150	540	490	550	450	459	356	22	19	384	25
BNMS4 150/400S	200	150	160	100	100	1470	27	-	35	315	450	700	295	328	200	150	690	600	550	450	557	457	22	24	449	45

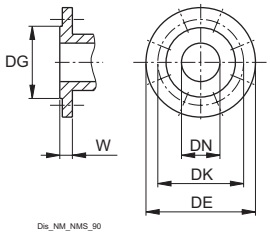
NM4, NMS4

Dimensions and weights with IE4 motor





Flanges EN 1092-2 PN 10-16

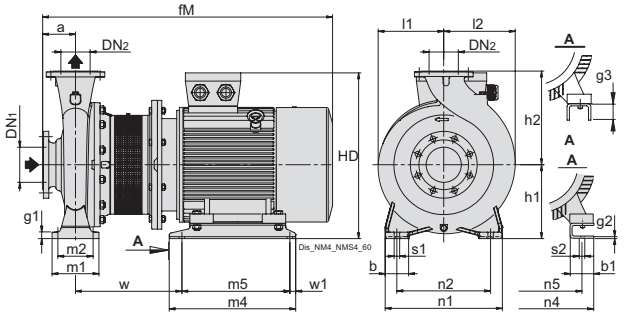


mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24

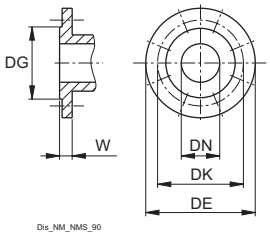
TYPE			mm																	
	DN1	DN2	a	b	fM	g1	g2	h1	h2	HD	l1	l2	m1	m2	m3	n1	n2	n3	s1	w
BNMS4 32/200A	50	32	80	50	639	12	8	160	180	295	140	140	100	70	120	240	190	65	14	274
BNMS4 40/160A	65	40	80	50	639	10	8	132	160	267	120	122	100	70	120	240	190	65	14	274
BNMS4 40/200B	65	40	100	50	655	12	8	160	180	303	141	141	100	70	120	265	212	65	14	274
BNMS4 40/200A	65	40	100	50	655	12	8	160	180	303	141	141	100	70	120	265	212	65	14	274
BNMS4 40/250C	65	40	100	65	715	15	8	180	225	323	177	177	125	95	120	320	250	65	14	274
BNMS4 40/250B	65	40	100	65	711	15	8	180	225	336	177	177	125	95	120	320	250	65	14	274
BNMS4 40/250A	65	40	100	65	711	15	8	180	225	336	177	177	125	95	120	320	250	65	14	274
BNMS4 50/160B	65	50	100	50	655	12	8	160	180	303	125	140	100	70	120	265	212	65	14	274
BNMS4 50/160A	65	50	100	50	655	12	8	160	180	303	125	140	100	70	120	265	212	65	14	274
BNMS4 50/200C	65	50	100	50	655	14	8	160	200	303	142	152	100	70	120	265	212	65	14	274
BNMS4 50/200B	65	50	100	50	715	14	8	160	200	303	142	152	100	70	120	265	212	65	14	274
BNMS4 50/200A	65	50	100	50	711	14	8	160	200	316	142	152	100	70	120	265	212	65	14	274
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BNMS4 50/250C	65	50	100	65	711	15	8	180	225	336	177	177	125	95	120	320	250	65	14	274
BNMS4 50/250B	65	50	100	65	711	15	8	180	225	336	177	177	125	95	120	320	250	65	14	274
BNMS4 50/250A	65	50	100	65	637	15	8	180	225	354	177	177	125	95	120	320	250	65	14	274
BNMS4 65/160C	80	65	100	65	655	12	8	160	200	303	140	161	125	95	120	280	212	65	14	274
BNMS4 65/160B	80	65	100	65	655	12	8	160	200	303	140	161	125	95	120	280	212	65	14	274
BNMS4 65/160A	80	65	100	65	715	12	8	160	200	303	140	161	125	95	120	280	212	65	14	274
BNMS4 65/160S	80	65	100	65	711	12	8	160	200	316	140	161	125	95	120	280	212	65	14	274
BNMS4 65/200B	80	65	100	65	711	12	8	180	225	336	159	179	125	95	120	320	250	65	14	274
BNMS4 65/200A	80	65	100	65	711	12	8	180	225	336	159	179	125	95	120	320	250	65	14	274
BNMS4 65/250B	80	65	100	80	662	15	8	200	250	374	178	195	160	120	120	360	280	65	18	299
BNMS4 80/160C	100	80	125	65	680	12	8	180	225	323	152	181	125	95	120	320	250	65	14	274
BNMS4 80/160B	100	80	125	65	740	12	8	180	225	323	152	181	125	95	120	320	250	65	14	274
BNMS4 80/160A	100	80	125	65	736	12	8	180	225	336	152	181	125	95	120	320	250	65	14	274
BNMS4 80/200C	100	80	125	65	761	15	8	180	250	336	170	194	125	95	120	345	280	65	14	299
BNMS4 80/200B	100	80	125	65	761	15	8	180	250	336	170	194	125	95	120	345	280	65	14	299
BNMS4 80/200A	100	80	125	65	687	15	8	180	250	354	170	194	125	95	120	345	280	65	14	299
BNMS4 80/250C	100	80	125	80	687	20	8	200	280	374	191	211	160	120	120	400	315	65	18	299
BNMS4 100/200C	125	100	125	80	761	15	8	200	280	356	179	211	160	120	120	360	280	65	18	299
BNMS4 100/200B	125	100	125	80	687	15	8	200	280	374	179	211	160	120	120	360	280	65	18	299

NM4, NMS4

Dimensions and weights with IE4 motor



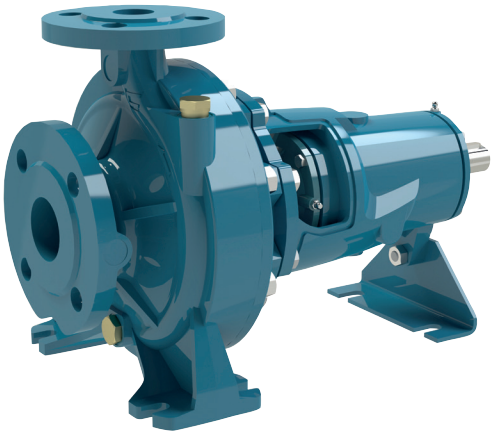
Flanges EN 1092-2 PN 10-16 (DN 200 PN 10)

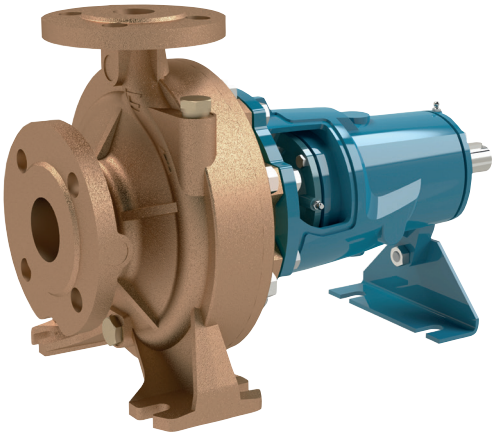


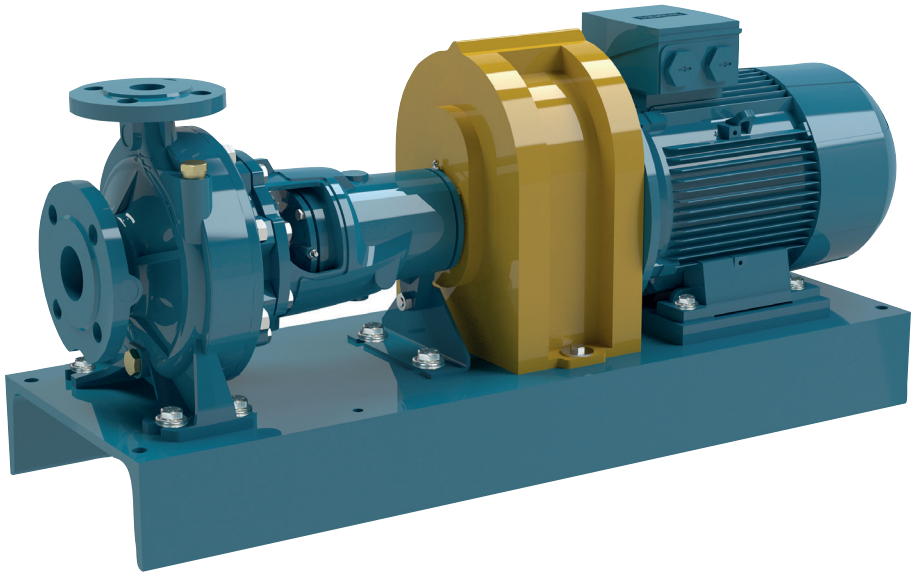
mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24
150	211	240	285	8	23	26
200	266	295	340	8*	23	30
250	319	355	405	12	28	26

TYPE			mm																						
	DN1	DN2	a	b	b1	fM	g1	g2	g3	h1	h2	HD	l1	l2	m1	m2	m4	m5	n1	n2	n4	n5	s1	s2	w	w1
BNMS4 65/250A	80	65	100	80	69	708	15	6	-	200	250	392	178	195	160	120	298	258	360	280	285	216	18	12	281	20
BNMS4 65/315C	80	65	125	80	69	733	20	6	-	225	280	417	223	223	160	120	298	258	400	315	285	216	18	12	281	20
BNMS4 65/315B	80	65	125	80	69	770	20	6	-	225	280	419	223	223	160	120	298	258	400	315	285	216	18	12	300	20
BNMS4 65/315A	80	65	125	80	85	883	20	-	65	225	280	478	223	223	160	120	394	354	400	315	339	254	18	14	343	20
BNMS4 80/250B	100	80	125	80	69	733	20	6	-	200	280	392	191	211	160	120	298	258	400	315	285	216	18	12	281	20
BNMS4 80/250A	100	80	125	80	69	770	20	6	-	200	280	394	191	211	160	120	298	258	400	315	285	216	18	12	300	20
BNMS4 80/315C	100	80	125	80	60	883	20	6	-	250	315	503	222	234	160	120	480	440	400	315	314	254	18	15	281	20
BNMS4 80/315B/A	100	80	125	80	60	883	20	6	-	250	315	503	222	234	160	120	480	440	400	315	314	254	18	15	281	20
BNMS4 80/315A	100	80	125	80	60	927	20	6	-	250	315	503	222	234	160	120	480	440	400	315	314	254	18	15	281	20
BNMS4 80/315S	100	80	125	80	70	952	20	6	-	250	315	520	222	234	160	120	432	382	400	315	349	279	18	15	312	25
BNMS4 80/400C/B	125	80	125	80	70	957	15	6	-	280	355	550	267	269	160	120	520	435	435	355	349	279	18	15	318	25
BNMS4 80/400B/B	125	80	125	80	70	1015	15	6	-	280	355	551	267	269	160	120	520	435	435	355	349	279	18	15	318	25
BNMS4 80/400A/B	125	80	125	80	83	1043	15	6	-	280	355	580	267	269	160	120	540	455	435	355	401	318	18	19	334	25
BNMS4 80/400S	125	80	125	80	103	1119	15	-	55	280	355	603	267	269	160	120	540	490	435	355	459	356	18	19	379	25
BNMS4 100/200A	125	100	125	80	69	733	15	6	-	200	280	392	179	211	160	120	298	258	360	280	285	216	18	12	281	20
BNMS4 100/250B	125	100	140	80	69	785	20	6	-	225	280	419	205	233	160	120	298	258	400	315	285	216	18	12	300	20
BNMS4 100/250A/A	125	100	140	80	85	886	20	-	65	225	280	478	205	233	160	120	394	354	400	315	339	254	18	14	331	20
BNMS4 100/315C/A	125	100	140	80	60	898	20	6	-	250	315	503	229	251	160	120	480	440	400	315	314	254	18	15	281	20
BNMS4 100/315B/A	125	100	140	80	60	942	20	6	-	250	315	503	229	251	160	120	480	440	400	315	314	254	18	15	281	20
BNMS4 100/315A/A	125	100	140	80	70	967	20	6	-	250	315	520	229	251	160	120	432	382	400	315	349	279	18	15	312	25
BNMS4 100/400C/A	125	100	140	100	70	1030	27	6	-	280	355	551	268	280	200	150	520	435	500	400	349	279	22	15	318	25
BNMS4 100/400B/A	125	100	140	100	83	1058	27	6	-	280	355	580	268	280	200	150	540	455	500	400	401	318	22	19	334	25
BNMS4 100/400A/A	125	100	140	100	103	1139	27	-	55	280	355	603	268	280	200	150	540	490	500	400	459	356	22	19	384	25
BNMS4 125/250E	150	125	140	80	69	748	20	6	-	250	355	417	236	268	160	120	298	258	400	315	285	216	18	12	281	20
BNMS4 125/250D	150	125	140	80	69	785	20	6	-	250	355	419	236	268	160	120	298	258	400	315	285	216	18	12	300	20
BNMS4 125/250C/A	150	125	140	80	60	886	20	6	-	250	355	503	236	268	160	120	480	440	400	315	314	254	18	15	269	20
BNMS4 125/250B/A	150	125	140	80	60	886	20	6	-	250	355	503	236	268	160	120	480	440	400	315	314	254	18	15	269	20
BNMS4 125/250A/A	150	125	140	80	60	930	20	6	-	250	355	503	236	268	160	120	480	440	400	315	314	254	18	15	269	20
BNMS4 125/315C/A	150	125	140	100	70	972	27	6	-	280	355	550	249	278	200	150	520	435	500	400	349	279	22	15	318	25
BNMS4 125/315B/A	150	125	140	100	70	1030	27	6	-	280	355	551	249	278	200	150	520	435	500	400	349	279	22	15	318	25
BNMS4 125/315A/A	150	125	140	100	83	1058	27	6	-	280	355	580	249	278	200	150	540	455	500	400	401	318	22	19	334	25
BNMS4 125/400C/A	150	125	140	100	103	1139	27	8	-	315	400	638	280	305	200	150	540	461	500	400	459	356	22	19	409	25
BNMS4 125/400B/A	150	125	140	100	103	1194	27	8	-	315	400	638	280	305	200	150	540	461	500	400	459	356	22	19	409	25
BNMS4 125/400A/A	150	125	140	100	100	1226	27	-	65	315	400	677	280	305	200	150	580	530	500	400	506	406	22	24	427	25
BNMS4 150/315D/B	200	150	160	100	70	992	27	6	-	280	400	550	256	307	200	150	520	435	550	450	349	279	22	15	318	25
BNMS4 150/315C/B	200	150	160	100	70	1050	27	6	-	280	400	551	256	307	200	150	520	435	550	450	349	279	22	15	318	25
BNMS4 150/315B/B	200	150	160	100	83	1078	27	6	-	280	400	580	256	307	200	150	540	455	550	450	401	318	22	19	334	25
BNMS4 150/315A/B	200	150	160	100	103	1159	27	-	55	280	400	603	256	307	200	150	540	490	550	450	459	356	22	19	384	25
BNMS4 150/315S	200	150	160	100	103	1214	27	-	55	280	400	603	256	307	200	150	540	490	550	450	459	356	22	19	384	25
BNMS4 150/400B/B	200	150	160	100	100	1246	27	-	65	315	450	677	295	328	200	150	580	530	550	450	506	406	22	24	427	25
BNMS4 150/400A/B	200	150	160	100	100	1383	27	-	35	315	450	704	295	328	200	150	690	600	550	450	557	457	22	24	449	45
BNMS4 150/400S	200	150	160	100	100	1438	27	-	35	315	450	704	295	328	200	150	690	600	550	450	557	457	22	24	449	45

N







End-suction centrifugal pumps EN 733

N

Construction

Single-stage end-suction centrifugal pumps, with bearing bracket.
Pump casing with axial suction and radial delivery on top, main dimensions and performance according to EN 733 with additional sizes for completion. (N4 80/400.., N4 200/400..).
Back Pull-Out construction, for simple and quick dismantling and reassembly.
The pumps are supplied fully painted.
Rated speed of rotation (50 Hz):

N ≈ 2900 rpm.
N4 ≈ 1450 rpm.

Connections: Connections: PN 10-16 flanges EN 1092-2 (PN 10 for DN 200).

Counter-flanges (on request)

Sizes	Flanges
from N,N4 32-160 to N,N 450-250	Screwed flanges PN 16 EN 1092-1
from N,N4 65-125 to N4 150-400	Flanges for welding PN 10-16 EN 1092-1 (PN 10 for DN 200)
for N4 200-400	Flanges for welding PN 16 EN 1092-1

Shaft sealing
– Standardized mechanical seal in accordance with ISO 3069.
– Stuffing box seal (on request).

Applications

For clean liquids without abrasives, which are non-aggressive for the pump materials (solids content up to 0.2%).
For water supply.
For heating, air-conditioning, cooling and circulation plants.
For civil and industrial applications and for agriculture.
For fire fighting applications.
For irrigation.

Operating conditions

Liquid temperature from -10 °C to +90 °C.
Ambient temperature up to 40° C.
Total suction lift up to 7 m.
Maximum permissible working pressure up to 16 bar (10 bar per N,N4 32-12,16,20; N,N4 40-25; N,N4 50-20,25, N4 65-31, N,N4 100-250,315,400, N4 125-250,400, N4 150-400 and bronze version).
Maximum permissible rotation speed: see table on page

Pump-Motor unit

N,N4 pump connected to a standard electric motor in B3 construction form (EN 60072-1), by means of a baseplate, driven by a flexible coupling and with coupling protection.
Three-phase 400 V , 50 Hz
IE3 efficiency class for three-phase motors (IE2 up to 0,65 kW).
IP protection: IP55
Motor suitable for operation with frequency converter.

Special features on request

Special mechanical seal
Chrome-nickel steel AISI 316 pump-shaft.
Higher or lower liquid or ambient temperatures.
Other motor protection.
Motor for other voltage.
Frequency 60 Hz (as per 60 Hz data sheet).

Designation

Example: BN4 50-250B/A
B = Bronze version (without cast iron version indication)
N = Series
4 4-pole version (without indication, 2-pole version)
50 = Delivery port diameter in mm
250 = Nominal diameter of impeller
B = Impeller size
/A = indicates the version

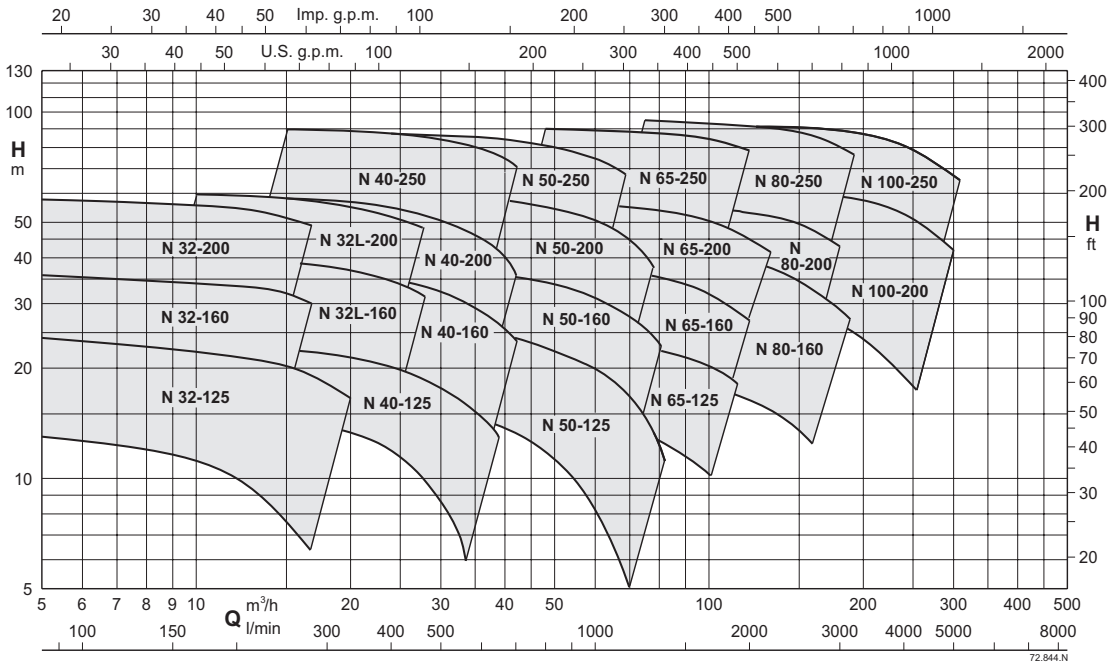
The electropumps comply with the European Regulation no. 547/2012.

Materials

Components	**N, N4 Mechanical seal**	**N, N4 Packed gland**	**B-N, B-N4 Mechanical seal**
Pump casing	Cast iron GJL 250 EN 1561 for PN 10 Cast iron GJS 400-15 EN 1563 for PN 16	Cast iron GJL 250 EN 1561 for PN 10 Cast iron GJS 400-15 EN 1563 for PN 16	Bronze CC480K EN 1982
Casing cover	Cast iron GJL 200 EN 1561	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Impeller	Cast iron GJL 200 EN 1561	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
	Cast iron GJL 250 EN 1561 for N,N4 80-315,400; 100-315,400; 125-315,400; 150-315,400; 200-400		Bronze B148 C95800 for N4 200-400
	Brass CW617N EN 12165 for 32-125, 32-160, 32-200, 40-200		
Shaft	Steel 1.4104 EN 10088 (AISI 430F)	Steel 1.1191 EN 10083-2 (C45E)	Steel 1.4401 EN 10088 (AISI 316)
	Steel (AISI 2205) for N4 150-400S, N4 200-400		
Shaft sleeve	-	Bronze CC480K EN 1982 with chromate surface	-
Mechanical seal	Carbon - Ceramic - NBR	-	Carbon - Ceramic - NBR
Counter-flanges	Steel 1.0044 EN 10025-2 (Fe 430B)		

N

Coverage chart n ≈ 2900 rpm



Coverage chart n ≈ 2900 rpm

Three-phase

				Q = Flow																
				m³/h	0	6,6	7,5	8,4	9,6	10,8	12	13,2	15	16,8	18,9	21	24	27	29	32
Model		P2		l/min		110	125	140	160	180	200	220	250	280	315	350	400	450	483	533
		kW	HP	H (m) = Total head																
BN	N 32-125F/A	0,55	0,75		13,3	12,5	12,3	12	11,6	11,1	10,4	9,5	8	6	-	-	-	-	-	-
BN	N 32-125D/A	0,75	1		18,4	18	17,8	17,5	17,1	-	-	-	-	-	-	-	-	-	-	-
BN	N 32-125D-S/A	1,1	1,5		18,4	18	17,8	17,5	17,1	16,6	16	15,3	14,1	12,7	10,8	8,6	-	-	-	-
BN	N 32-125A/A	1,1	1,5		24,3	23	22,8	22,5	22,1	21,6	21,1	20,4	-	-	-	-	-	-	-	-
BN	N 32-125A-S/A	1,5	2		24,3	23	22,8	22,5	22,1	21,6	21,1	20,4	19,3	18	16,2	13,9	10	-	-	-
BN	N 32-125S/A	1,5	2		25	23,6	23,2	22,8	22,4	22	21,6	21,1	20,4	19,5	18,1	16,4	13,1	-	-	-
BN	N 32-160B/A	1,5	2		29,3	29,5	29,3	29	28,4	27,8	27	26,1	24,5	-	-	-	-	-	-	-
BN	N 32-160B-S/A	2,2	3		29,3	29,5	29,3	29	28,4	27,8	27	26,1	24,5	22,7	20,2	17,3	12,5	-	-	-
BN	N 32-160A/A	2,2	3		36	35,5	35,2	34,9	34,5	34,1	33,6	33	31,8	30,1	-	-	-	-	-	-
BN	N 32-160A-S/A	3	4		36	35,5	35,3	35,1	34,6	34,2	33,6	32,9	31,6	30,1	28	25,3	20,8	15	-	-
BN	N 32-200D/A	2,2	3		41	37,5	36,7	35,9	35	34,1	-	-	-	-	-	-	-	-	-	-
BN	N 32-200D-S/A	3	4		41	37,5	36,7	35,9	35	34,1	33,1	32	29,9	26,9	22,1	-	-	-	-	-
BN	N 32-200C/A	3	4		46,1	44,5	44	43,5	42,8	42	41,2	40,2	38,3	35,9	32,1	-	-	-	-	-
BN	N 32-200A/A	4	5,5		58,7	57	56,5	56	55,3	54,5	53,6	52,6	50,9	-	-	-	-	-	-	-
BN	N 32-200A-S/A	5,5	7,5		58,7	57	56,5	56	55,3	54,5	53,6	52,6	50,9	48,9	46,1	-	-	-	-	-
BN	N 32L-160C	2,2	3		25,7	-	-	-	25,1	24,9	24,7	24,4	23,8	23	21,8	20,3	17,3	13,4	-	-
BN	N 32L-160B	3	4		30,4	-	-	-	30,4	30,3	30,2	30	29,6	29	28,1	26,8	24,2	20,8	17,9	-
BN	N 32L-160A	4	5,5		38,5	-	-	-	39,9	39,9	39,8	39,6	39,3	38,8	37,9	36,8	34,7	31,9	29,7	25,6
BN	N 32L-200C	4	5,5		41,3	-	-	-	42,1	41,9	41,5	41,1	40,1	38,9	37	34,5	29,8	23,8	-	-
BN	N 32L-200B	5,5	7,5		53	-	-	-	51,7	51,6	51,4	51,2	50,7	50	48,7	46,9	43,2	37,9	33,4	-
BN	N 32L-200A	7,5	10		57,7	-	-	-	59,4	59,5	59,5	59,5	59,3	58,8	57,9	56,4	53,3	48,8	44,9	37,5

P2: Rated motor power output.
H: Total head in m
Tolerances according to UNI EN ISO 9906:2012

N

Coverage chart n ≈ 2900 rpm

Three-phase

				Q = Flow														
				m³/h	0	15	16,8	18,9	21	24	27	30	33	37,8	39	42	45	48
Model		P2		l/min		250	280	315	350	400	450	500	550	630	650	700	750	800
		kW	HP	H (m) = Total head														
BN	N 40-125F/A	1,1	1,5		14	14	13,5	12,9	12,1	11	9,6	7,9	6	-	-	-	-	-
BN	N 40-125C/A	1,5	2		17	17,5	17,1	16,6	15,9	14,9	13,6	12,1	10,4	7,4	6,6	-	-	-
BN	N 40-125A/A	2,2	3		21,8	22	21,8	21,5	21	20,1	19,1	17,9	16,4	13,9	13,2	11,4	-	-
BN	N 40-160C/A	2,2	3		23	23	22,7	22,1	21,4	20	18,4	16,6	14,5	11	10	-	-	-
BN	N 40-160B/A	3	4		29,9	29	28,6	28,1	27,5	26,4	25,1	23,5	21,6	18	16,9	14,1	-	-
BN	N 40-160A/A	4	5,5		36	37	36,7	36,4	35,8	34,9	33,7	32,2	30,4	27	-	-	-	-
BN	N 40-160A-S/A	5,5	7,5		36	37	36,7	36,4	35,8	34,9	33,7	32,2	30,4	27	26	23,3	20,3	16,9
BN	N 40-200D/A	4	5,5		41	39	38,1	37	35,6	33,3	30,5	-	-	-	-	-	-	-
BN	N 40-200C/A	4	5,5		43	41,5	40,6	39,4	38,1	-	-	-	-	-	-	-	-	-
BN	N 40-200C-S/A	5,5	7,5		43	41,5	40,6	39,4	38,1	36	33,5	-	-	-	-	-	-	-
BN	N 40-200D-S/A	5,5	7,5		41	39	38,1	37	35,6	33,3	30,5	26,9	22,7	14	-	-	-	-
BN	N 40-200B/A	5,5	7,5		50,5	50	49,3	48,4	47,4	45,8	43,7	41	37,7	-	-	-	-	-
BN	N 40-200B-S/A	7,5	10		50,5	50	49,3	48,4	47,4	45,8	43,7	41	37,7	30,5	-	-	-	-
BN	N 40-200AR/A	5,5	7,5		55	55	54,7	53,9	52,9	51,1	-	-	-	-	-	-	-	-
BN	N 40-200AR-S/A	7,5	10		55	55	54,7	53,9	52,9	51,1	49	-	-	-	-	-	-	-
BN	N 40-200A/A	7,5	10		57,5	57,5	57	56,3	55,5	54,3	52,7	50,7	48	42,2	40,4	35,2	-	-
BN	N 40-250C/A	11	15		62	61	60,9	60,6	59,9	58,4	56,2	53,3	49,6	42	39,7	33,4	-	-
BN	N 40-250B/A	11	15		70	69,5	69,3	68,9	68,4	67,3	65,7	63,4	60,3	53,4	51,2	44,9	-	-
BN	N 40-250A/A	15	20		90	90	89,8	89,5	89,1	88,3	87,1	85,3	82,9	77,5	75,7	70,7	-	-

Three-phase

				Q = Flow															
				m³/h	0	24	27	30	33	37,8	42	48	54	60	66	69	72	75	78	81
Model		P2		l/min		400	450	500	550	630	700	800	900	1000	1100	1150	1200	1250	1300	1350
		kW	HP	H (m) = Total head															
BN	N 50-125F/A	2,2	3		16,5	-	-	15,5	15,1	14,2	13,3	11,8	10,1	8,1	5,9	-	-	-	-	-
BN	N 50-125D/A	3	4		20,5	-	-	20	19,5	18,7	17,8	16,4	14,7	12,8	10,5	9,2	7,9	-	-	-
BN	N 50-125A/A	4	5,5		24,1	-	-	24	23,8	23,2	22,5	21,1	19,4	17,4	15,1	13,9	12,7	11,4	10	-
BN	N 50-125S/A	4	5,5		27,6	-	-	26,5	26,1	25,4	24,7	23,4	21,9	-	-	-	-	-	-	-
BN	N 50-125S-S/A	5,5	7,5		27,6	-	-	26,5	26,1	25,4	24,7	23,4	21,9	20	17,9	16,7	15,5	14,1	12,7	11,1
BN	N 50-160B/A	5,5	7,5		30,5	-	-	31	30,3	29,2	28	26,2	24,1	21,7	18,8	17,2	15,5	13,6	11,6	9,5
BN	N 50-160A/A	7,5	10		38	-	-	38,5	38,2	37,4	36,4	34,7	32,5	29,9	27,1	25,5	24	22,3	20,7	19
BN	N 50-200B/A	11	15		48,4	48	47,7	47,3	46,8	45,7	44,6	42,6	40	36,7	32,9	30,6	28,2	25,6	22,8	-
BN	N 50-200A/A	11	15		54	55	54,9	54,6	54,2	53,3	52,3	50,3	47,9	44,9	41,4	39,4	37,2	35	32,5	-
BN	N 50-200S/A	15	20		59	60	59,8	59,6	59,2	58,4	57,5	55,8	53,5	50,6	47	45	42,7	40,2	37,5	-
BN	N 50-250C/A	11	15		55,1	55	54,5	53,9	53,1	51,4	49,5	46	41,4	35,6	28,5	24,5	-	-	-	-
BN	N 50-250B/A	15	20		69	69	68,6	68	67,3	65,8	64,2	61,1	57,1	52,3	46,4	43,1	-	-	-	-
BN	N 50-250A/A	18,5	25		80	80,5	80,3	80	79,5	78,4	77,1	74,6	71,3	67	61,6	58,5	-	-	-	-
BN	N 50-250S/A	22	30		89	88,5	88,2	87,8	87,1	85,8	84,3	81,6	78,5	74,9	70,8	68,7	-	-	-	-

P2: Rated motor power output.
H: Total head in m
Tolerances according to UNI EN ISO 9906:2012

N

Coverage chart n ≈ 2900 rpm

Three-phase

				Q = Flow														
				m³/h	0	37,8	42	48	54	60	66	75	84	96	108	120	132	141
Model		P2		l/min		630	700	800	900	1000	1100	1250	1400	1600	1800	2000	2200	2350
		kW	HP	H (m) = Total head														
BN	N 65-125E/B	4	5,5		16,2	16,5	16,4	16,2	15,9	15,5	15,1	14,3	13,2	11,4	9,2	-	-	-
BN	N 65-125C/B	5,5	7,5		20,8	21,1	21	20,8	20,6	20,3	19,9	19,1	18,2	16,5	14,4	11,8	-	-
BN	N 65-125A/B	7,5	10		26	25,9	25,8	25,6	25,4	25,1	24,8	24,1	23,3	21,9	20	17,6	-	-
BN	N 65-160D/B	7,5	10		24	-	-	24,3	24,1	23,9	23,6	23,1	22,3	20,8	18,8	16,3	-	-
BN	N 65-160C/B	11	15		27,8	-	-	28,1	28	27,8	27,6	27,1	26,3	24,9	23,1	20,7	17,7	-
BN	N 65-160B/B	11	15		31,8	-	-	32,6	32,5	32,3	32	31,5	30,8	29,5	27,9	25,7	23	-
BN	N 65-160A/B	15	20		38,8	-	-	40,5	40,4	40,2	40	39,5	38,8	37,6	36,1	34,1	31,7	-
BN	N 65-160AR	15	20		35,8	-	-	36,4	36,3	36,2	35,9	35,5	34,8	33,7	32,1	30	27,5	-
BN	N 65-200C/B	15	20		41	-	-	44	43,8	43,5	43,1	42,3	41,2	39,4	37,1	34,4	31,4	28,8
BN	N 65-200B/B	18,5	25		47	-	-	50,5	50,4	50,2	49,9	49,2	48,3	46,8	44,8	42,5	39,8	37,5
BN	N 65-200A/B	22	30		54	-	-	57	57	56,9	56,6	56,1	55,4	54	52,3	50,1	47,6	45,4
BN	N 65-250C/B	22	30		56	-	-	61	60,8	60,4	59,8	58,7	57,2	54,6	51,3	47,5	43	-
BN	N 65-250B/B	30	40		68	-	-	73,5	73,7	73,7	73,5	72,8	71,6	69,4	66,6	63,1	59	-
BN	N 65-250A/B	37	50		80	-	-	86,5	86,7	86,8	86,7	86,1	85,2	83,5	81,1	78,1	74,5	-

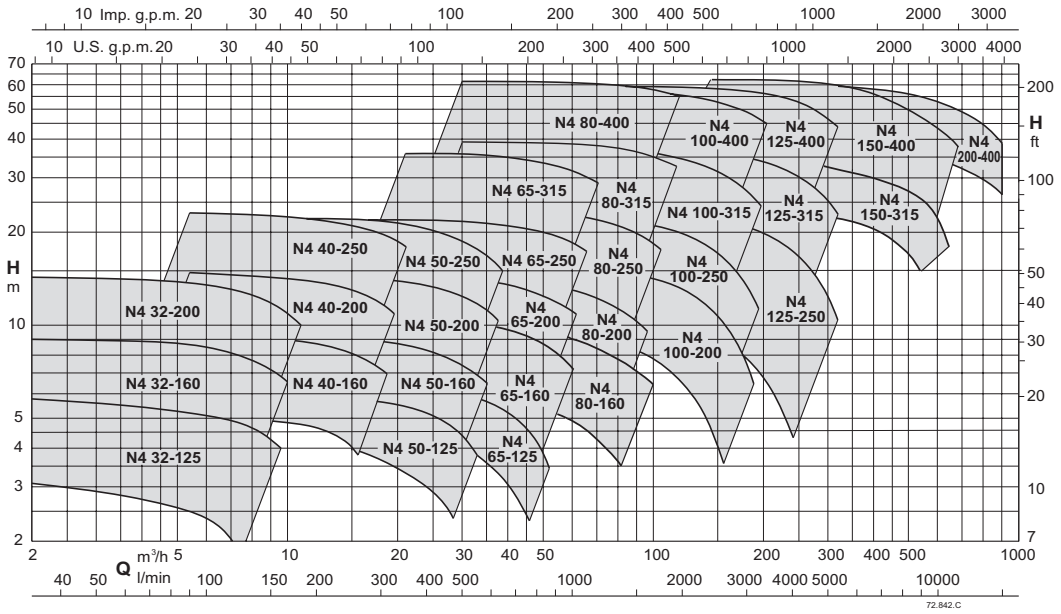
Three-phase

				Q = Flow														
				m³/h	0	75	84	96	108	120	132	150	168	180	192	210	240	270	300
Model		P2		l/min		1250	1400	1600	1800	2000	2200	2500	2800	3000	3200	3500	4000	4500	5000
		kW	HP	H (m) = Total head														
BN	N 80-160E/B	7,5	10		23	21,5	20,9	19,9	18,7	17,4	15,9	13,4	10,6	-	-	-	-	-	-
BN	N 80-160D/B	11	15		26	25,2	24,5	23,5	22,4	21,1	19,6	17,2	14,4	-	-	-	-	-	-
BN	N 80-160C/B	11	15		29	28,7	28,2	27,4	26,4	25,2	23,8	21,3	18,5	16,4	-	-	-	-	-
BN	N 80-160B/B	15	20		35	34,8	34,4	33,8	33	32,1	30,9	28,9	26,4	24,5	22,4	-	-	-	-
BN	N 80-160A/B	18,5	25		40	39,9	39,5	39	38,3	37,4	36,4	34,5	32,2	30,3	28,1	-	-	-	-
BN	N 80-200B/B	22	30		42	44,4	43,9	43,2	42,4	41,5	40,5	38,6	36,4	34,6	32,5	-	-	-	-
BN	N 80-200A/B	30	40		54,2	56,6	56,3	55,8	55,2	54,4	53,5	51,7	49,4	47,7	45,6	-	-	-	-
BN	N 80-250E/A	22	30		52	51	50	48,4	46,6	44,5	42,1	37,9	32,9	29,1	-	-	-	-	-
BN	N 80-250D/A	30	40		65	65	63,9	62,4	60,8	58,9	56,9	53,2	48,7	45,2	41,2	-	-	-	-
BN	N 80-250C/A	37	50		74	73,5	72,9	71,9	70,6	68,9	66,9	63,3	58,8	55,4	51,6	-	-	-	-
BN	N 80-250B/A	45	60		84	84	83,5	82,6	81,4	79,9	78,1	74,7	70,4	66,9	63,1	-	-	-	-
BN	N 80-250A/A	55	75		95	95	94,3	93,4	92,5	91,5	90,2	87,5	83,8	80,5	76,5	-	-	-	-
BN	N 100-200E/A	18,5	25		30	-	-	-	30	29,5	29	28,1	26,9	26	25	23,1	19	-	-
BN	N 100-200D/A	22	30		36	-	-	-	36	35,5	35	34,1	32,9	32	30,9	28,9	24,7	18,9	-
BN	N 100-200C/A	30	40		45,8	-	-	-	45	44,6	44,2	43,4	42,4	41,6	40,5	38,7	34,6	29,1	21,9
BN	N 100-200B/A	37	50		54	-	-	-	54	53,6	53,2	52,4	51,4	50,6	49,6	47,8	43,9	38,7	31,9
BN	N 100-200A/A	45	60		62	-	-	-	61,5	61,1	60,8	60,1	59,3	58,6	57,8	56,4	53	48,3	41,9
BN	N 100-250B/A	55	75		73	-	-	-	73,5	73	72,4	71,2	69,8	68,7	67,4	65,2	60,8	55,3	48,6
BN	N 100-250A/A	75	100		90,8	-	-	-	91	90,6	90,2	89,5	88,6	87,8	86,9	85,1	81	75,1	66,9

P2: Rated motor power output.
H: Total head in m
Tolerances according to UNI EN ISO 9906:2012

N

Coverage chart n ≈ 1450 rpm



Performance n ≈ 1450 rpm

Three-phase

				Q = Flow														
				m³/h	0	2,4	3	3,6	4,2	4,8	5,4	6	6,6	7,5	8,4	9,6	10,8	12	13,2
Model		P2		l/min		40	50	60	70	80	90	100	110	125	140	160	180	200	220
		kW	HP	H (m) = Total head															
BN4	N4 32-125F/A	0,25	0,34		3,3	3,6	3,6	3,6	3,5	3,4	3,2	3	2,8	2,4	1,9	1,1	-	-	-
BN4	N4 32-125D/A	0,25	0,34		4,5	4,7	4,7	4,7	4,7	4,6	4,6	4,5	4,3	4,1	3,8	3,3	2,6	-	-
BN4	N4 32-125A/A	0,25	0,34		5,5	5,7	5,7	5,7	5,7	5,7	5,7	5,6	5,5	5,4	5,2	4,8	4,3	-	-
BN4	N4 32-160B/A	0,37	0,5		7,6	7,6	7,5	7,4	7,3	7,2	7,1	6,9	6,7	6,3	5,9	5,2	4,2	-	-
BN4	N4 32-160A/A	0,37	0,5		9	9	9	8,9	8,8	8,7	8,6	8,4	8,3	7,9	7,5	6,8	6	5,1	-
BN4	N4 32-200B/A	0,55	0,75		12,2	12,5	12,4	12,4	12,2	12	11,8	11,5	11,2	10,6	9,9	8,9	7,7	6,2	4,7
BN4	N4 32-200A/A	0,75	1		14,2	14,3	14,2	14,2	14,1	13,9	13,7	13,5	13,3	12,8	12,2	11,3	10,3	9	7,4

Three-phase

				Q = Flow																
				m³/h	0	5,4	6	6,6	7,5	8,4	9,6	10,8	12	13,2	15	16,8	18,9	21	24	27	30
Model		P2		l/min		90	100	110	125	140	160	180	200	220	250	280	315	350	400	450	500
		kW	HP	H (m) = Total head																
BN4	N4 40-160C/A	0,37	0,5		5,9	6,1	6	6	5,9	5,8	5,6	5,4	5,2	4,9	4,5	3,9	3,2	2,3	-	-	-
BN4	N4 40-160B/A	0,55	0,75		7,1	7,6	7,6	7,6	7,5	7,5	7,3	7,2	6,9	6,7	6,2	5,7	4,9	4,1	2,7	-	-
BN4	N4 40-160A/A	0,75	1		9,4	9,6	9,6	9,6	9,5	9,4	9,3	9,2	9	8,8	8,4	7,9	7,2	6,4	5,1	3,5	-
BN4	N4 40-200B/A	1,1	1,5		13	13	12,9	12,9	12,7	12,6	12,4	12,2	11,9	11,5	10,8	10	8,7	7	-	-	-
BN4	N4 40-200A/A	1,1	1,5		14,9	14,8	14,7	14,6	14,5	14,4	14,2	14	13,8	13,5	13	12,3	11,3	10	-	-	-
BN4	N4 40-250C/A	1,5	2		17,2	17,4	17,3	17,3	17,2	17,1	16,9	16,6	16,2	15,8	14,9	13,9	12,3	10,4	7,1	2,8	-
BN4	N4 40-250B/A	2,2	3		21,4	21,4	21,4	21,4	21,3	21,3	21,2	21	20,8	20,5	20	19,2	18,1	16,5	13,7	9,9	5
BN4	N4 40-250A/A	3	4		22,8	22,9	22,9	22,8	22,8	22,7	22,6	22,5	22,4	22,2	21,7	21,2	20,2	18,9	16,3	12,7	7,9

P2: Rated motor power output.
H: Total head in m
Tolerances according to UNI EN ISO 9906:2012

N

Performance n ≈ 1450 rpm

Three-phase

				Q = Flow															
				m³/h	0	10,8	12	13,2	15	16,8	18,9	21	24	27	30	33	37,8	42	48
Model		P2		l/min		180	200	220	250	280	315	350	400	450	500	550	630	700	800
		kW	HP	H (m) = Total head															
BN4	N4 50-125F/A	0,37	0,5		4,5	4,5	4,5	4,4	4,3	4,1	3,8	3,5	2,9	2,2	1,4	0,5	-	-	-
BN4	N4 50-125D/A	0,55	0,75		5,4	5,5	5,5	5,5	5,4	5,2	5,1	4,8	4,4	3,8	3,2	2,5	-	-	-
BN4	N4 50-125A/A	0,75	1		6,3	6,4	6,4	6,4	6,3	6,2	6,1	5,9	5,6	5,2	4,6	4	2,9	-	-
BN4	N4 50-125S/A	0,75	1		6,7	6,8	6,8	6,8	6,8	6,7	6,6	6,4	6,2	5,8	5,3	4,8	3,8	-	-
BN4	N4 50-160B/A	1,1	1,5		8	8,2	8,2	8,2	8,1	8	7,8	7,6	7,2	6,7	6,2	5,5	4,4	3,3	-
BN4	N4 50-160A/A	1,1	1,5		9,5	9,6	9,6	9,6	9,5	9,5	9,3	9,1	8,8	8,3	7,8	7,2	6,1	4,9	3,1
BN4	N4 50-200C/A	1,1	1,5		11,3	11,8	11,8	11,7	11,7	11,5	11,3	11	10,4	9,8	9	8,1	6,4	4,7	-
BN4	N4 50-200B/A	1,5	2		13	13,4	13,4	13,4	13,3	13,1	12,9	12,6	12,1	11,5	10,7	9,9	8,2	6,5	3,7
BN4	N4 50-200A/A	2,2	3		14,4	14,9	14,9	14,9	14,9	14,8	14,6	14,4	14	13,4	12,8	11,9	10,4	8,7	6
BN4	N4 50-250C/A	2,2	3		17,2	17,8	17,7	17,6	17,4	17,2	16,9	16,5	15,7	14,8	13,7	12,4	9,7	6,8	-
BN4	N4 50-250D	2,2	3		14,5	14,5	14,4	14,3	14,1	13,8	13,4	12,9	12,1	11	9,8	8,3	5,4	2,3	-
BN4	N4 50-250B/A	3	4		20,2	20,7	20,7	20,6	20,5	20,3	20	19,7	19	18,1	17,1	15,8	13,3	10,6	5,8
BN4	N4 50-250A/A	4	5,5		24,2	22,7	22,7	22,6	22,4	22,2	22	21,7	21,1	20,4	19,5	18,4	16,1	13,6	9,1

Three-phase

				Q = Flow															
				m³/h	0	21	24	27	30	33	37,8	42	48	54	60	66	75	84	96
Model		P2		l/min		350	400	450	500	550	630	700	800	900	1000	1100	1250	1400	1600
		kW	HP	H (m) = Total head															
BN4	N4 65-125E/B	0,75	1		4,2	4,1	4,1	4	3,9	3,8	3,6	3,3	2,9	2,3	-	-	-	-	-
BN4	N4 65-125C/B	0,75	1		5,2	5,3	5,2	5,2	5,1	5	4,8	4,6	4,1	3,6	3	-	-	-	-
BN4	N4 65-125A/B	1,1	1,5		6,5	6,5	6,4	6,4	6,3	6,2	6	5,8	5,5	5	4,4	-	-	-	-
BN4	N4 65-160C/B	1,1	1,5		6,4	6,1	6,1	6	6	5,9	5,8	5,6	5,3	4,8	4,2	-	-	-	-
BN4	N4 65-160B/B	1,1	1,5		7,4	7,2	7,1	7,1	7	7	6,8	6,6	6,3	5,8	5,2	4,5	-	-	-
BN4	N4 65-160A/B	1,5	2		8,8	8,8	8,8	8,7	8,7	8,6	8,5	8,3	8	7,6	7,1	6,4	5,2	-	-
BN4	N4 65-160S	2,2	3		9,9	10,2	10,2	10,1	10,1	10	9,9	9,7	9,4	9,1	8,6	8	7	5,7	-
BN4	N4 65-200B/B	2,2	3		11,1	11,7	11,7	11,6	11,6	11,5	11,3	11	10,6	10,1	9,5	8,7	7,4	5,8	3,3
BN4	N4 65-200A/B	3	4		13,8	14,2	14,2	14,2	14,1	14,1	13,9	13,7	13,4	13	12,5	11,8	10,7	9,3	7
BN4	N4 65-250B/B	4	5,5		16,5	17,9	18	18	18	18	17,8	17,5	17	16,3	15,4	14,4	12,5	10,4	7
BN4	N4 65-250A/B	5,5	7,5		21	22,2	22,3	22,4	22,4	22,4	22,2	22	21,6	21	20,2	19,3	17,6	15,7	12,6
BN4	N4 65-315C/A	5,5	7,5		26	25,8	25,7	25,5	25,3	25	24,4	23,8	22,8	21,5	20	18,2	15	11	-
BN4	N4 65-315B/A	7,5	10		31	31	31	30,9	30,8	30,6	30,2	29,7	28,8	27,8	26,5	25	22,2	18,6	-
BN4	N4 65-315A/A	11	15		36	35,9	35,9	35,8	35,7	35,5	35,1	34,6	33,8	32,8	31,6	30,2	27,8	25	-

Three-phase

				Q = Flow																		
				m³/h	0	30	33	37,8	42	48	54	60	66	75	84	96	108	120	132	150	168	180
Model		P2		l/min		500	550	630	700	800	900	1000	1100	1250	1400	1600	1800	2000	2200	2500	2800	3000
		kW	HP	H (m) = Total head																		
BN4	N4 80-160C/B	1,1	1,5		6,5	6,1	6	5,9	5,8	5,5	5,2	4,9	4,6	4	3,3	-	-	-	-	-	-	-
BN4	N4 80-160B/B	1,5	2		8,2	7,8	7,7	7,6	7,5	7,3	7	6,8	6,4	5,9	5,2	4,1	-	-	-	-	-	-
BN4	N4 80-160A/B	2,2	3		10,1	10	10	9,9	9,8	9,7	9,5	9,3	9	8,5	8	7	5,9	-	-	-	-	-
BN4	N4 80-200C/B	2,2	3		8,7	9	9	8,9	8,8	8,7	8,5	8,2	7,9	7,4	6,8	5,7	4,3	2,7	-	-	-	-
BN4	N4 80-200B/B	3	4		11,2	11,7	11,7	11,7	11,6	11,5	11,3	11,1	10,8	10,3	9,7	8,7	7,4	5,9	4,1	-	-	-
BN4	N4 80-200A/B	4	5,5		13,8	14,2	14,2	14,1	14	13,9	13,7	13,5	13,2	12,7	12,1	11,1	9,9	8,5	6,9	-	-	-
BN4	N4 80-250C/A	4	5,5		17	16,9	16,8	16,7	16,6	16,3	15,9	15,4	14,8	13,9	12,8	11,1	9,2	7,2	-	-	-	-
BN4	N4 80-250B/A	5,5	7,5		20,8	20,7	20,7	20,6	20,5	20,3	20	19,6	19,1	18,2	17,1	15,4	13,5	11,4	9	-	-	-
BN4	N4 80-250A/A	7,5	10		23,8	23,7	23,7	23,6	23,5	23,3	23	22,7	22,2	21,5	20,5	19	17,2	15,1	12,7	-	-	-
BN4	N4 80-315C/B	11	15		24,2	25,7	25,8	25,8	25,8	25,8	25,6	25,4	25,1	24,4	23,6	22,2	20,4	18,3	15,9	-	-	-
BN4	N4 80-315B/B	11	15		28,3	30,3	30,4	30,6	30,7	30,7	30,7	30,5	30,2	29,6	28,8	27,5	25,9	24,1	22	-	-	-
BN4	N4 80-315A/B	15	20		34,8	36,3	36,4	36,5	36,5	36,6	36,5	36,3	36,1	35,7	35	33,9	32,5	30,9	28,9	25,4	-	-
BN4	N4 80-315S	18,5	25		38	39,2	39,2	39,3	39,3	39,4	39,3	39,2	39,1	38,7	38,2	37,2	35,9	34,2	32,1	28	22,8	-
BN4	N4 80-400C/B	18,5	25		42	42,8	42,8	42,9	42,9	42,7	42,5	42,2	41,8	40,9	39,8	37,9	35,4	32,5	29	-	-	-
BN4	N4 80-400B/B	22	30		45,8	48,2	48,2	48,2	48,2	48,1	47,9	47,7	47,3	46,6	45,7	44,1	42,1	39,5	36,3	30,5	-	-
BN4	N4 80-400A/B	30	40		60	61,4	61,5	61,5	61,6	61,5	61,5	61,3	61,1	60,7	60,1	59	57,6	55,8	53,6	49,5	-	-
BN4	N4 80-400S	37	50		60	61,5	61,5	61,5	61,5	61,5	61,4	61,3	61,1	60,7	60,1	59,1	57,7	55,9	53,7	49,3	43,8	39,3

N

Performance n ≈ 1450 rpm

Three-phase

				Q = Flow																
				m³/h	0	48	54	60	66	75	84	96	108	120	132	150	168	180	192	210
Model		P2		l/min		800	900	1000	1100	1250	1400	1600	1800	2000	2200	2500	2800	3000	3200	3500
		kW	HP	H (m) = Total head																
BN4	N4 100-200C/A	3	4		9,3	9,4	9,3	9,2	9,1	8,8	8,5	8	7,3	6,5	5,6	4	-	-	-	-
BN4	N4 100-200B/A	4	5,5		12	12	11,9	11,8	11,7	11,5	11,2	10,7	10,1	9,3	8,4	6,7	4,5	-	-	-
BN4	N4 100-200A/A	5,5	7,5		15,1	15,2	15,2	15,1	15,1	14,9	14,7	14,3	13,7	13,1	12,2	10,8	8,9	7,5	6	-
BN4	N4 100-250B/A	7,5	10		19,3	19,5	19,5	19,4	19,3	19,1	18,7	18,2	17,5	16,6	15,6	13,8	11,7	10,1	8,4	5,5
BN4	N4 100-250A/A	11	15		22,1	22,3	22,3	22,2	22,1	22	21,7	21,2	20,5	19,7	18,8	17,1	15	13,5	11,7	8,9
BN4	N4 100-315C/A	11	15		26,8	26,9	26,8	26,7	26,5	26,2	25,7	24,9	23,9	22,7	21,3	18,8	15,9	13,7	11,3	-
BN4	N4 100-315B/A	15	20		31,8	31,5	31,5	31,5	31,4	31,2	30,8	30,2	29,3	28,2	26,9	24,6	21,9	19,8	17,6	14
BN4	N4 100-315A/A	18,5	25		36,4	36,8	36,9	36,9	36,9	36,7	36,4	35,9	35,2	34,4	33,3	31,4	29,1	27,3	25,4	22,1
BN4	N4 100-400C/A	22	30		41,8	41,3	41,2	41,2	41	40,8	40,4	39,8	38,9	37,8	36,5	34,1	31,1	28,7	26	-
BN4	N4 100-400B/A	30	40		50	50,2	50,1	50,1	49,9	49,7	49,4	48,8	48	47,1	46	43,9	41,4	39,4	37,2	33,4
BN4	N4 100-400A/A	37	50		58	58,2	58,1	58,1	58	57,8	57,6	57	56,4	55,5	54,6	52,8	50,6	48,9	47,1	44

Three-phase

				Q = Flow																
				m³/h	0	84	96	108	120	132	150	168	180	192	210	240	270	300	330
Model		P2		l/min		1400	1600	1800	2000	2200	2500	2800	3000	3200	3500	4000	4500	5000	5500
		kW	HP	H (m) = Total head															
BN4	N4 125-250E/A	5,5	7,5		11	11	10,8	10,5	10,1	9,7	9,1	8,3	7,8	7,2	6,2	4,4	-	-	-
BN4	N4 125-250D/A	7,5	10		14	14	13,9	13,7	13,4	13	12,4	11,6	11	10,4	9,4	7,4	5,1	-	-
BN4	N4 125-250C/A	11	15		16,8	16,7	16,6	16,5	16,2	15,9	15,4	14,6	14,1	13,5	12,4	10,5	8,2	5,8	-
BN4	N4 125-250B/A	11	15		19,1	19,3	19,2	19,1	18,9	18,7	18,2	17,5	16,9	16,3	15,3	13,3	10,9	8,2	-
BN4	N4 125-250A/A	15	20		22,8	22,7	22,7	22,6	22,4	22,2	21,8	21,2	20,7	20,2	19,3	17,4	15,1	12,4	9,3
BN4	N4 125-315C/A	18,5	25		28	27,9	27,9	27,7	27,5	27,2	26,5	25,6	24,9	24,1	22,8	20,1	17	13,5	9,5
BN4	N4 125-315B/A	22	30		31,8	31,8	31,7	31,6	31,4	31,1	30,5	29,8	29,2	28,5	27,3	24,9	22	18,4	14,3
BN4	N4 125-315A/A	30	40		36,2	36,8	36,8	36,7	36,6	36,4	35,9	35,3	34,8	34,2	33,1	31	28,4	25,3	21,6
BN4	N4 125-400C/A	37	50		45,1	45,3	45,5	45,5	45,3	45,1	44,4	43,5	42,7	41,8	40,2	37	33,1	28,6	23,4
BN4	N4 125-400B/A	45	60		51,8	51,4	51,4	51,4	51,2	51	50,4	49,6	48,9	48,1	46,8	44	40,5	36,3	31,4
BN4	N4 125-400A/A	55	75		59	59,2	59,1	59,1	58,9	58,7	58,3	57,7	57,2	56,6	55,6	53,4	50,5	46,8	42,3

Three-phase

				Q = Flow																			
				m³/h	0	132	150	168	180	192	210	240	270	300	330	360	390	420	450	480	540	600	660
Model		P2		l/min		2200	2500	2800	3000	3200	3500	4000	4500	5000	5500	6000	6500	7000	7500	8000	9000	10000	11000
		kW	HP	H (m) = Total head																			
BN4	N4 150-315D/B	18,5	25		22,9	23,1	22,8	22,5	22,2	21,9	21,3	20,3	19,1	17,8	16,4	15	13,5	11,9	10,2	-	-	-	-
BN4	N4 150-315C/B	22	30		26,9	26,7	26,4	26,1	25,8	25,4	24,9	23,8	22,5	21	19,5	17,9	16,2	14,5	12,7	10,8	-	-	-
BN4	N4 150-315B/B	30	40		24	25,3	25,2	25,1	25	24,9	24,7	24,3	23,8	23,2	22,4	21,6	20,8	19,8	18,7	17,6	15,1	-	-
BN4	N4 150-315A/B	37	50		28	29,5	29,5	29,5	29,5	29,4	29,3	29	28,6	28,1	27,5	26,7	25,9	24,9	23,8	22,6	19,9	16,7	-
BN4	N4 150-315S	45	60		33,8	34,9	34,9	34,9	34,9	34,8	34,7	34,5	34,1	33,6	33	32,2	31,4	30,4	29,4	28,2	25,5	22,3	18,7
BN4	N4 150-400B/B	55	75		39	42,2	42,3	42,3	42,2	42,2	42	41,6	41	40,3	39,5	38,6	37,5	36,4	35	33,5	29,8	25,4	-
BN4	N4 150-400A/B	75	100		50	52,5	52,6	52,6	52,6	52,5	52,4	52,2	51,8	51,3	50,6	49,6	48,5	47,2	45,8	44,2	40,6	36,7	32,2
BN4	N4 150-400S	90	120		58,1	60,8	60,9	61	61	61	61	60,7	60,3	59,6	58,8	57,7	56,4	54,9	53,2	51,4	47,3	42,7	37,6

Three-phase

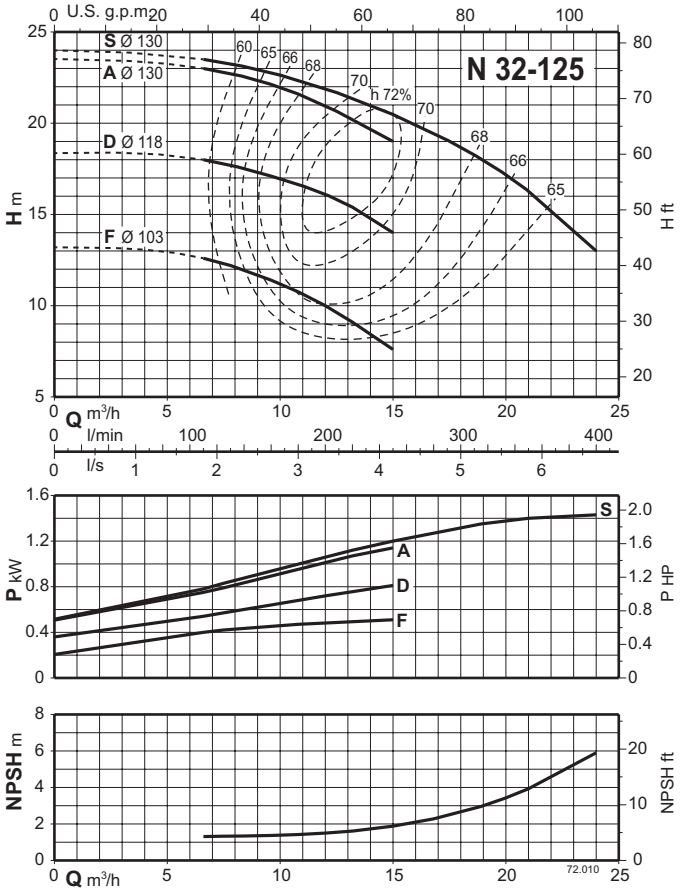
				Q = Flow																			
				m³/h	0	180	192	210	240	270	300	330	360	390	420	450	480	540	600	660	720	810	900
Model		P2		l/min		3000	3200	3500	4000	4500	5000	5500	6000	6500	7000	7500	8000	9000	10000	11000	12000	13500	15000
		kW	HP	H (m) = Total head																			
N4 200-400C		90	120		45,8	47,8	47,8	47,8	47,6	47,5	47,2	46,8	46,4	46	45,5	44,9	44,3	42,8	41,1	39,1	36,7	32,3	27
N4 200-400B		110	150		51,9	53,7	53,7	53,7	53,7	53,5	53,3	53	52,7	52,3	51,8	51,3	50,7	49,2	47,4	45,4	43,1	39,1	34,3
N4 200-400A		132	180		57	58,9	58,9	58,9	58,9	58,7	58,6	58,4	58,1	57,8	57,3	56,8	56,2	54,6	52,6	50,4	47,9	43,7	38,8

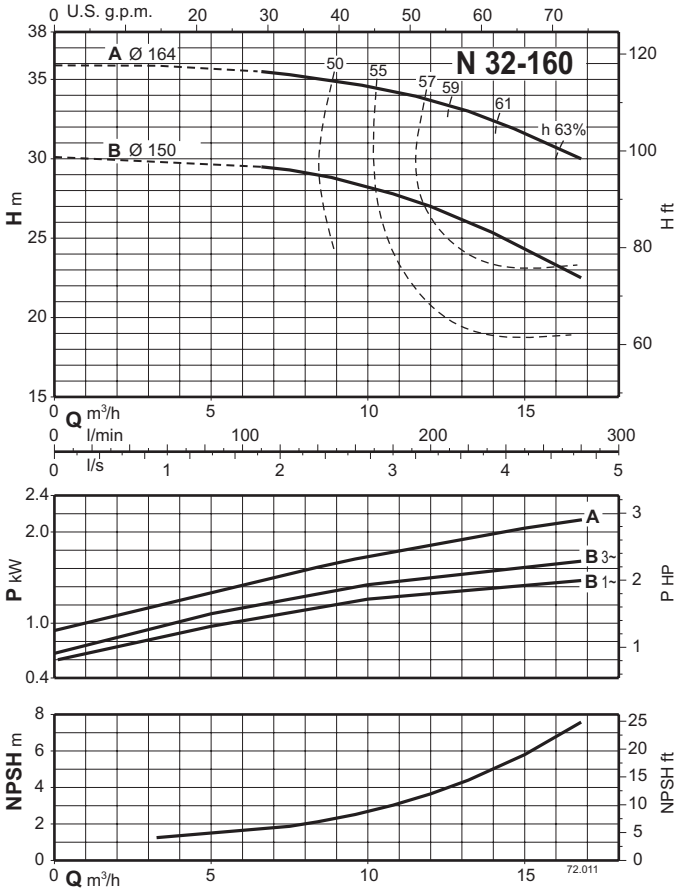
P2: Rated motor power output.
H: Total head in m
Tolerances according to UNI EN ISO 9906:2012
* Maximum suction lift 1-2 m.

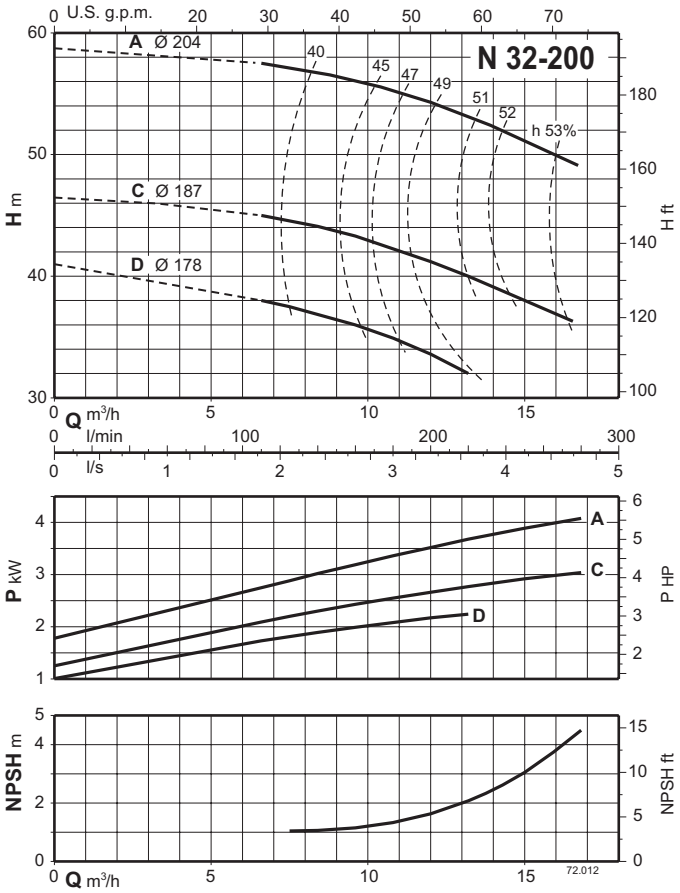
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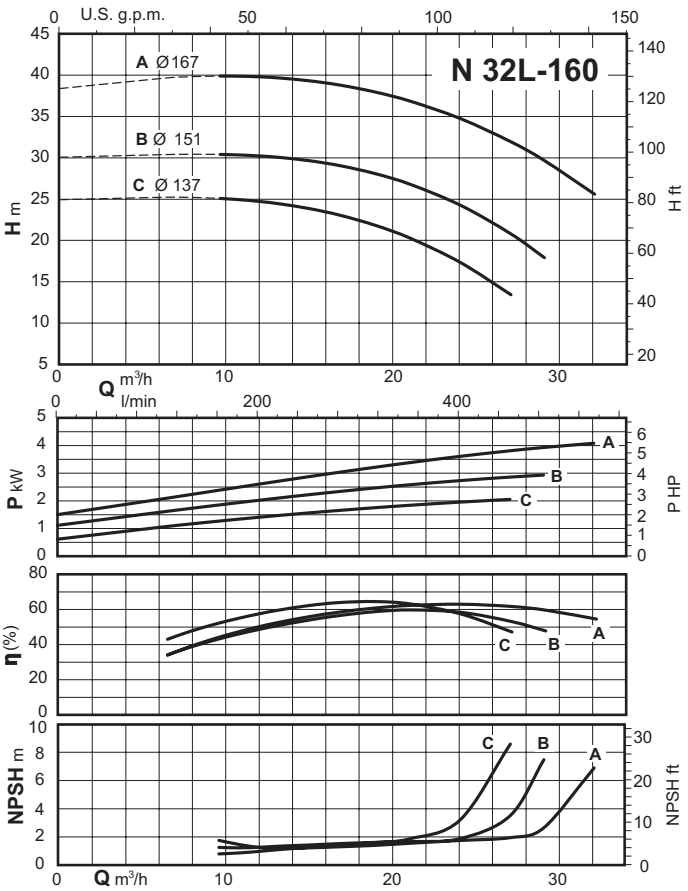
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Characteristic curves n ≈ 2900 rpm





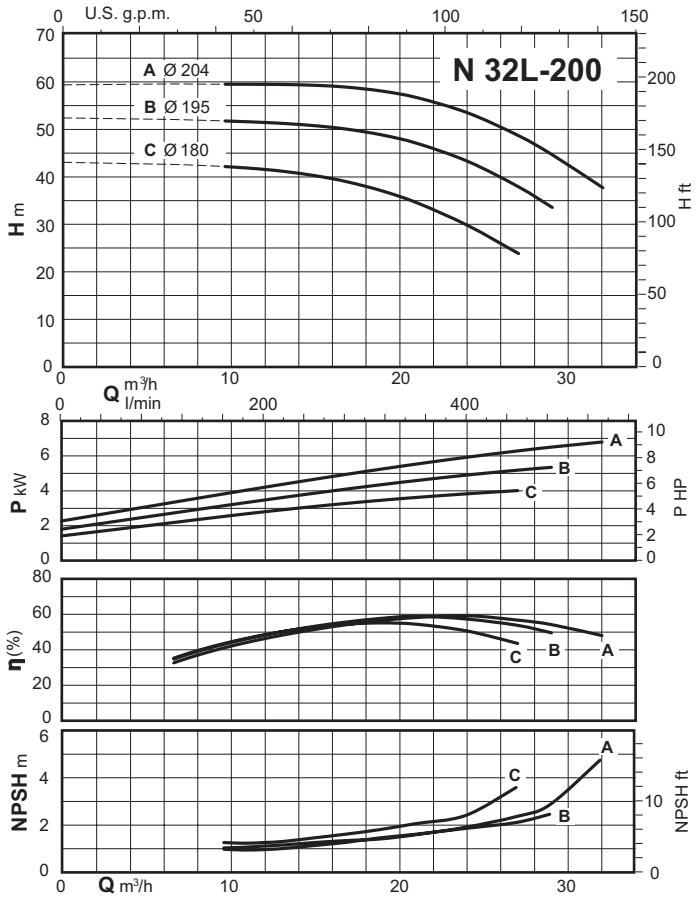


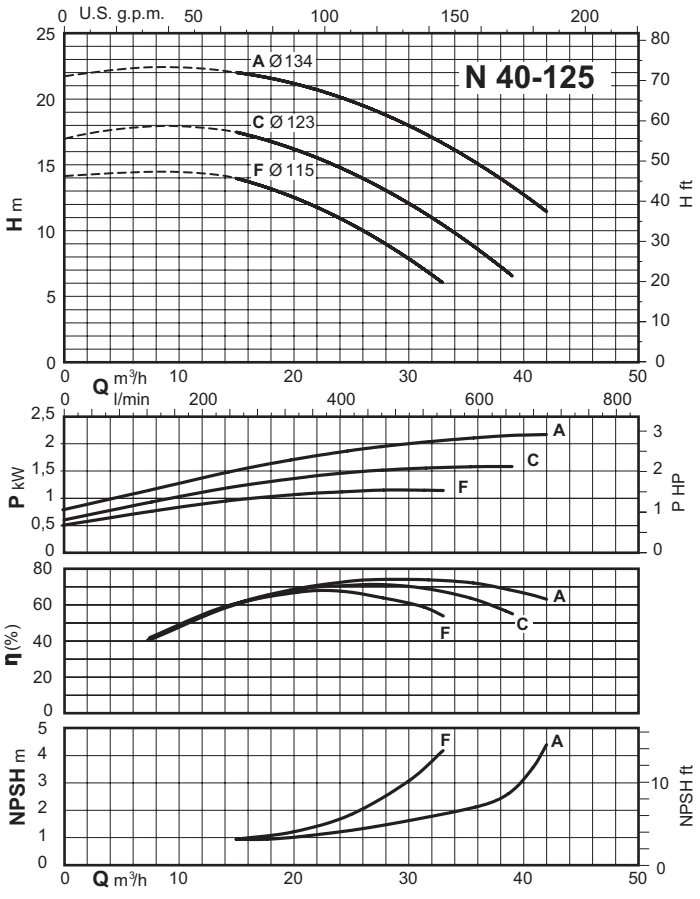


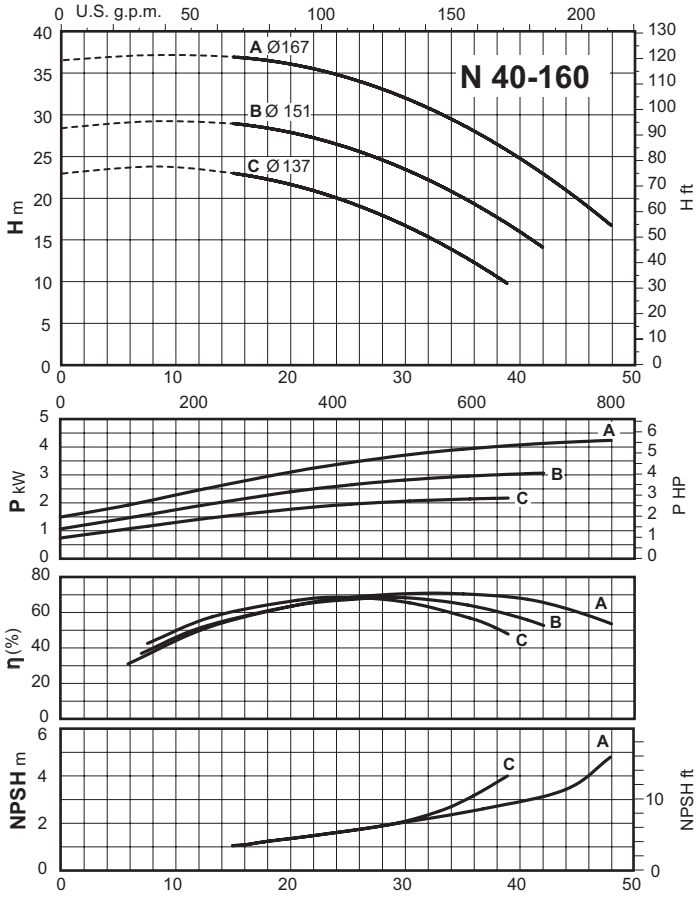
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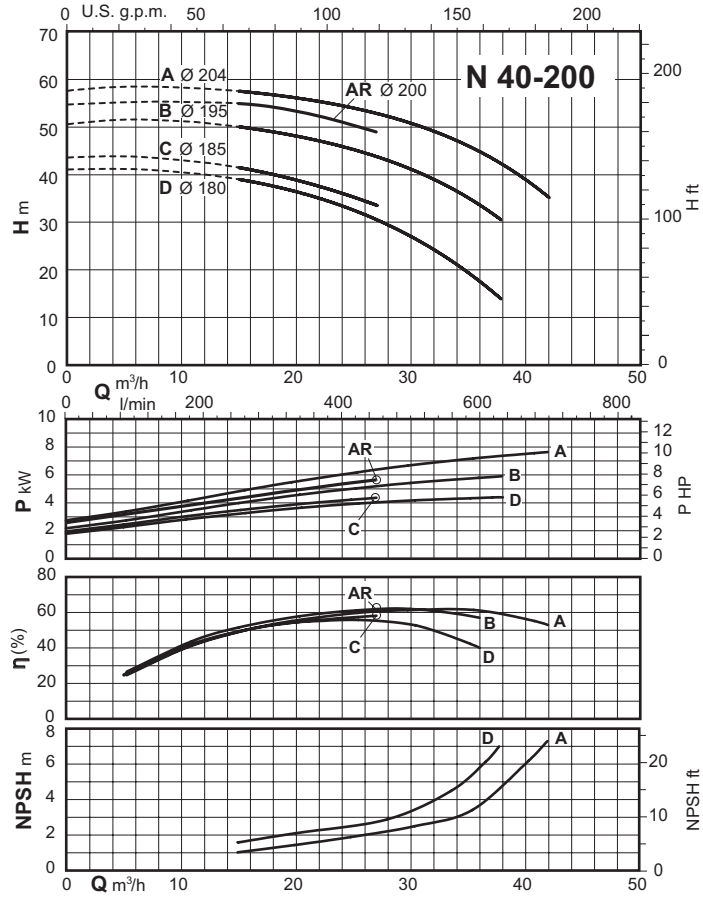
calpeda®

Characteristic curves n ≈ 2900 rpm

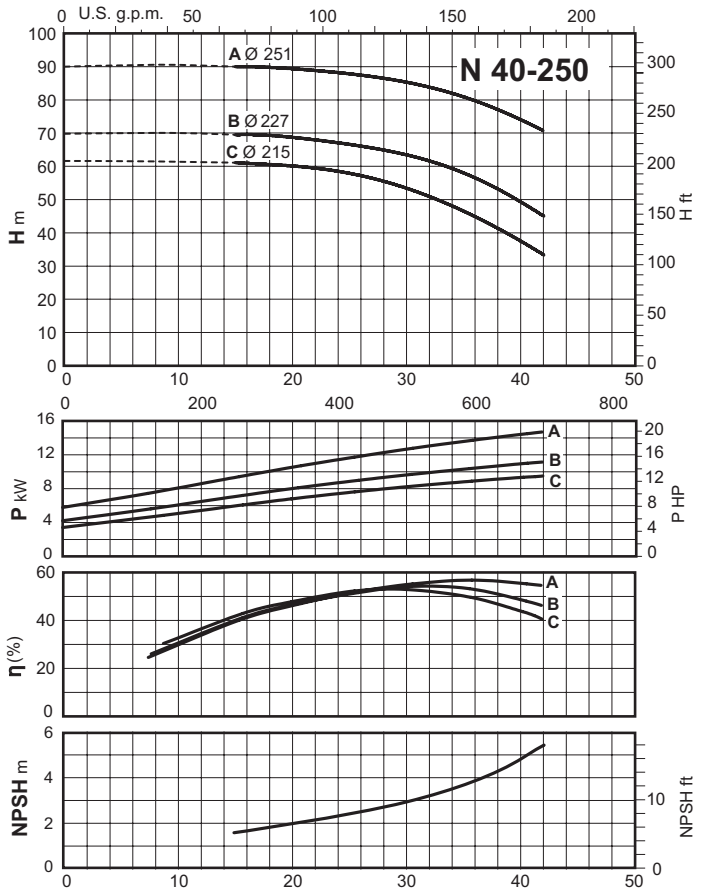


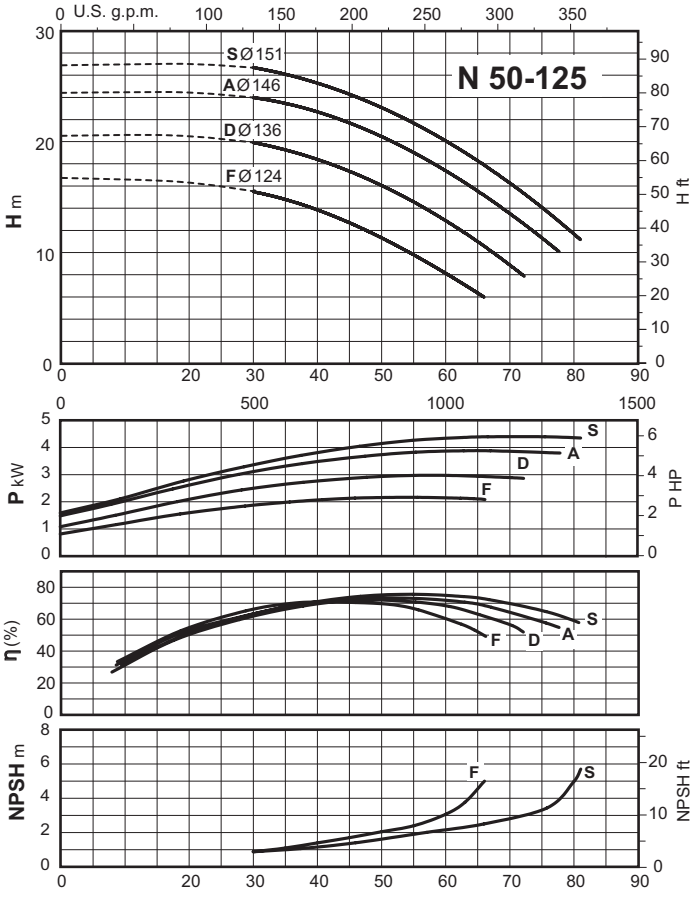


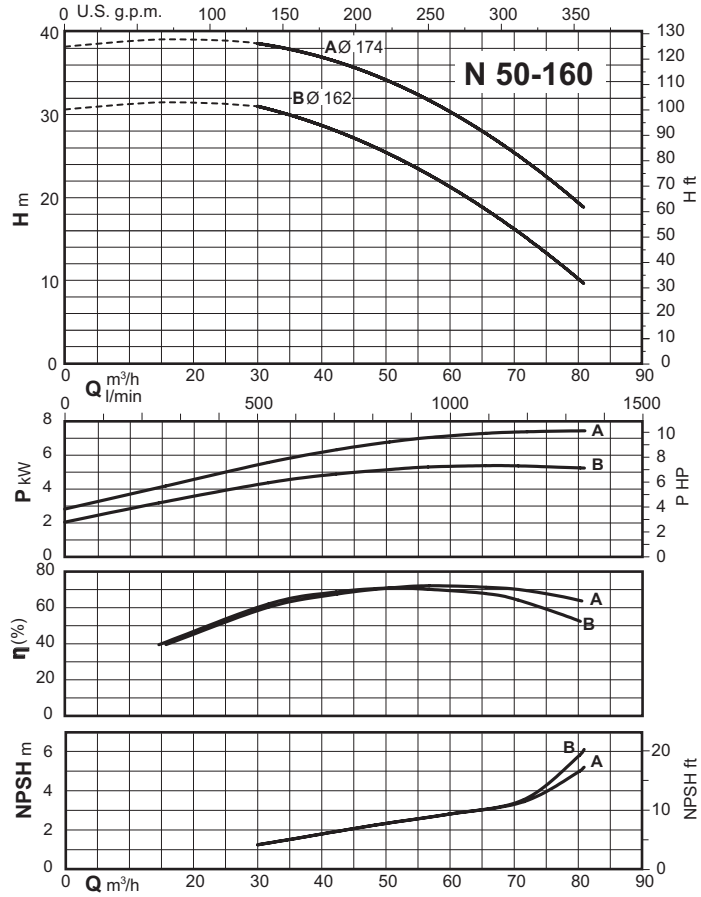


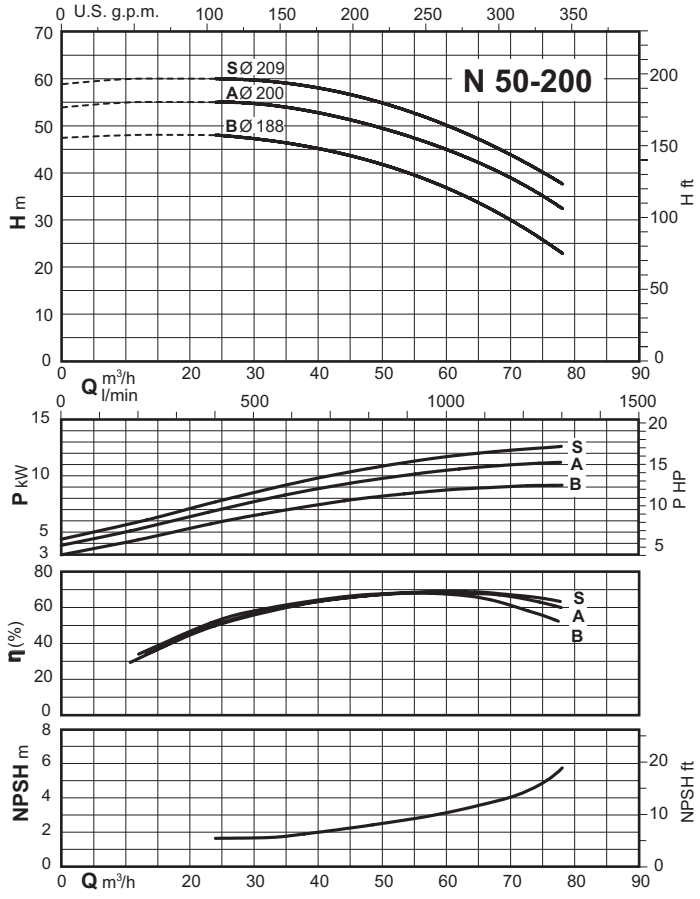


Characteristic curves n ≈ 2900 rpm





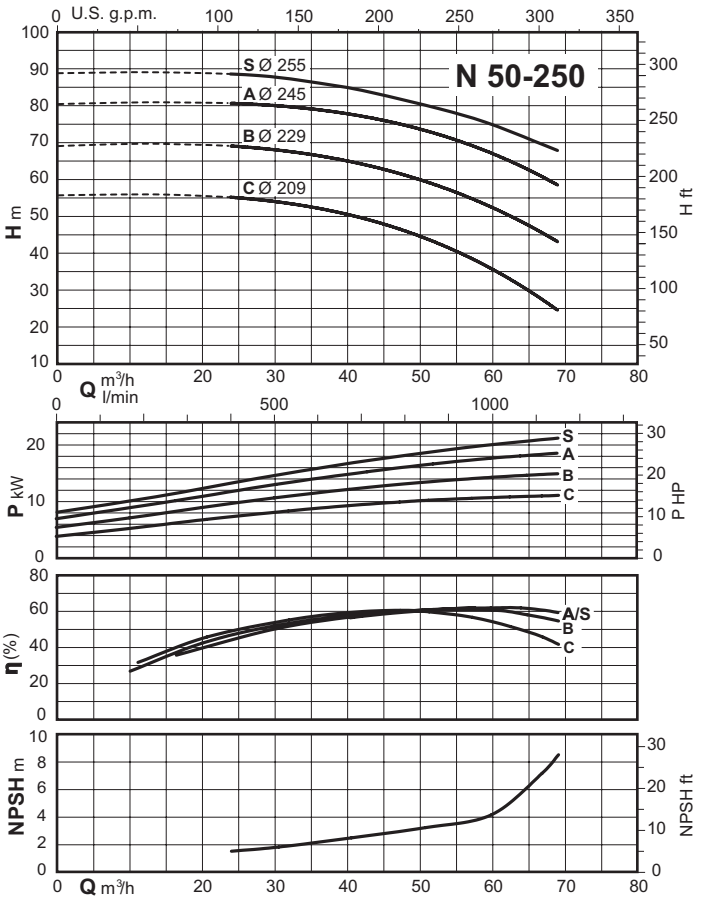


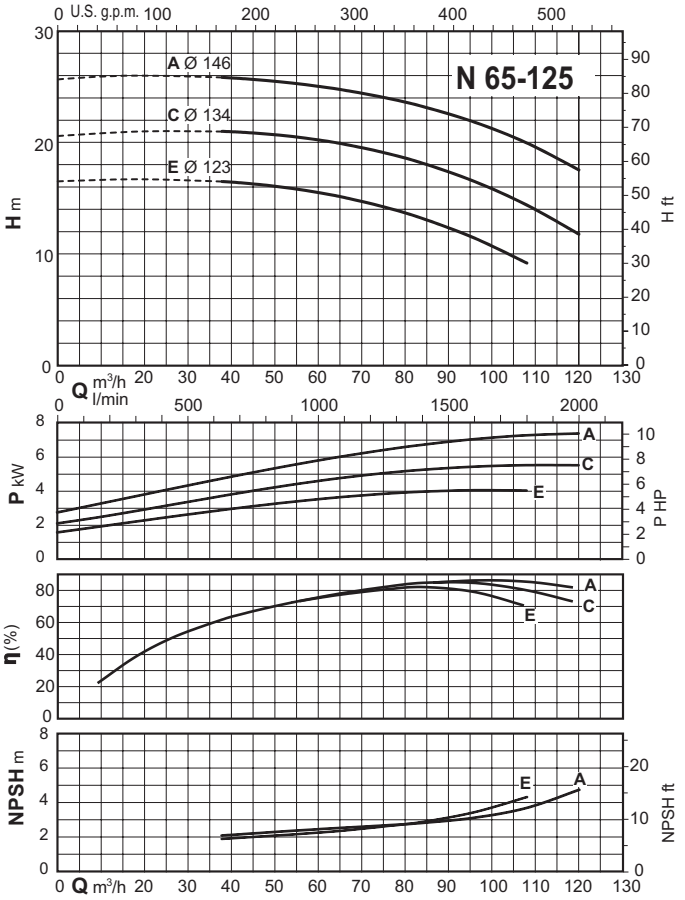


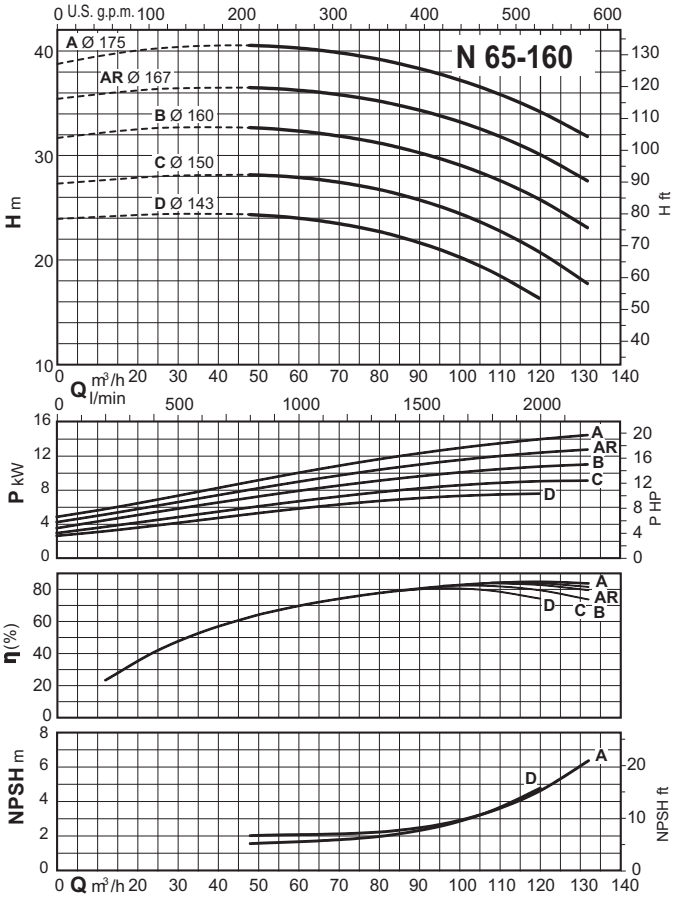
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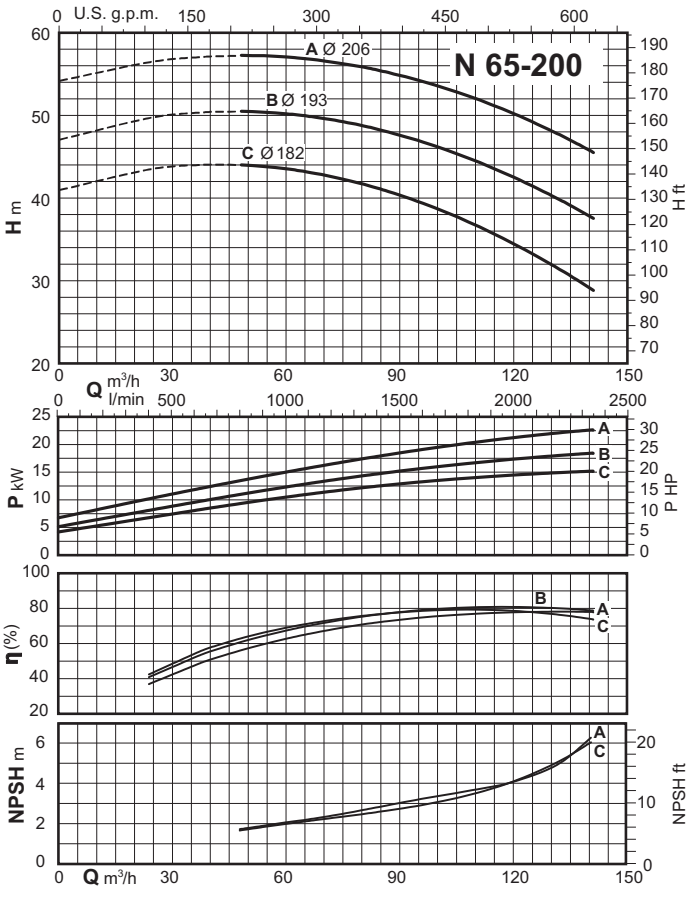
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Characteristic curves n ≈ 2900 rpm

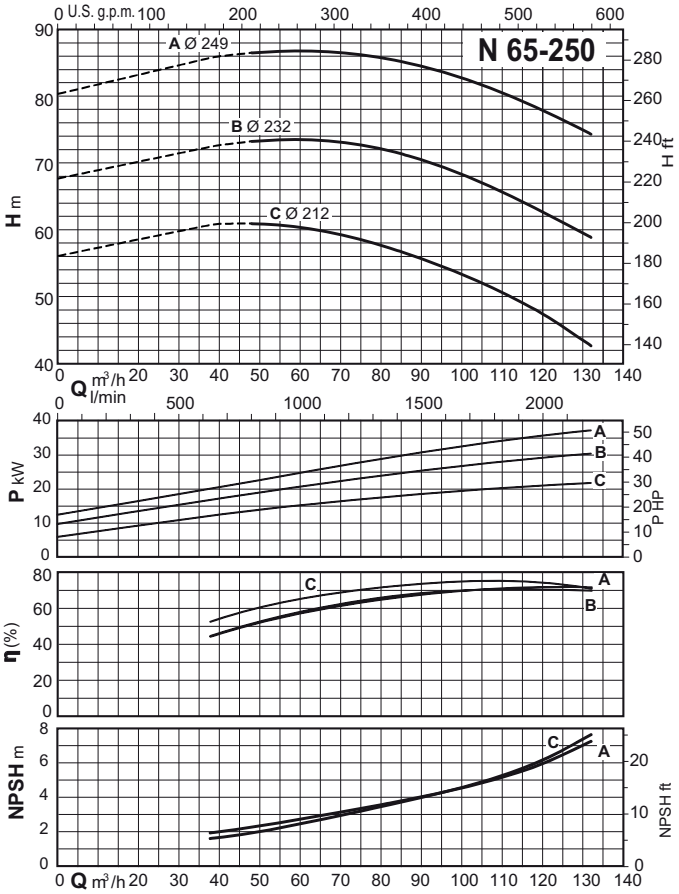


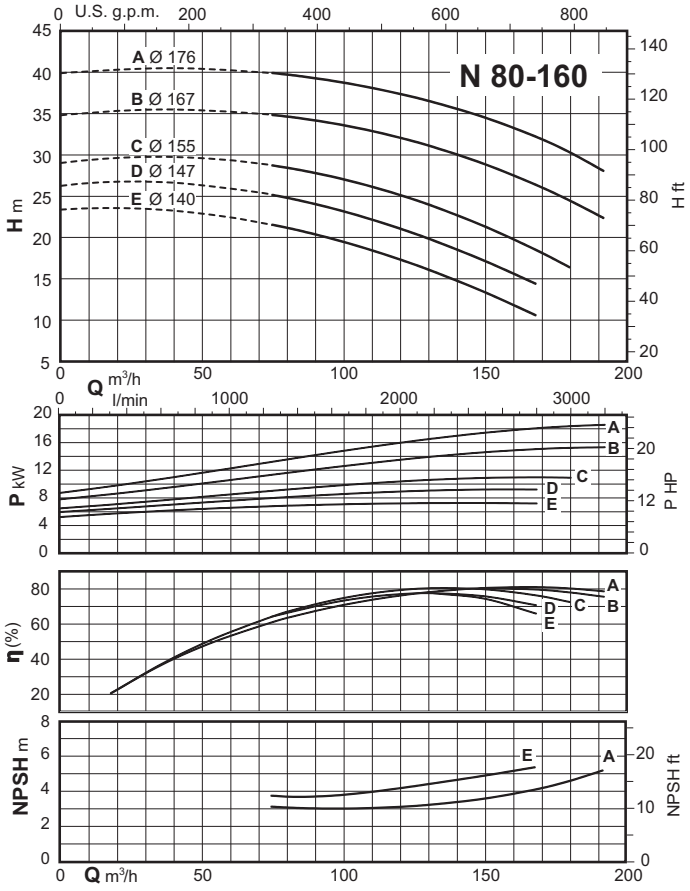


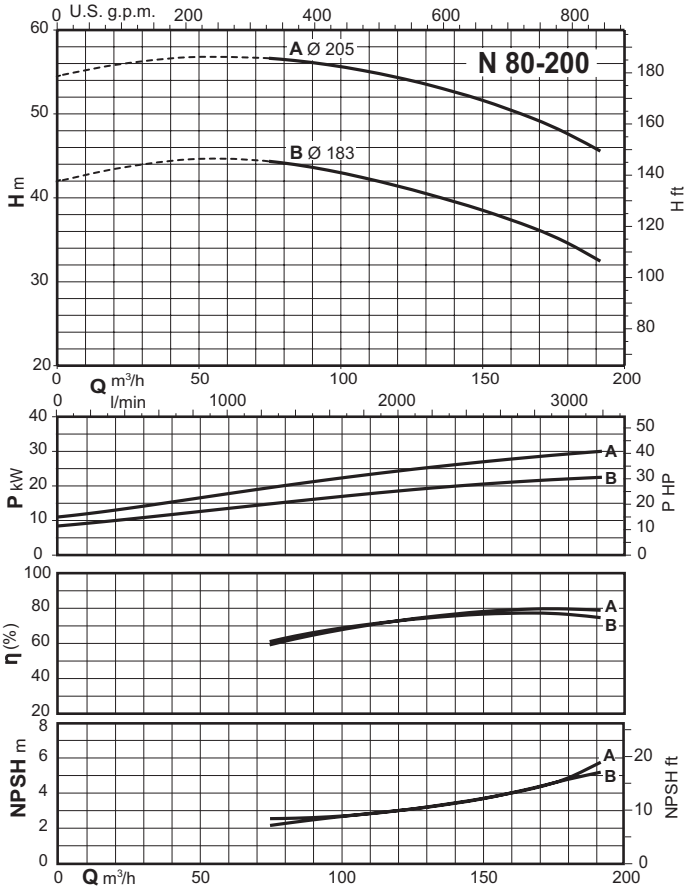


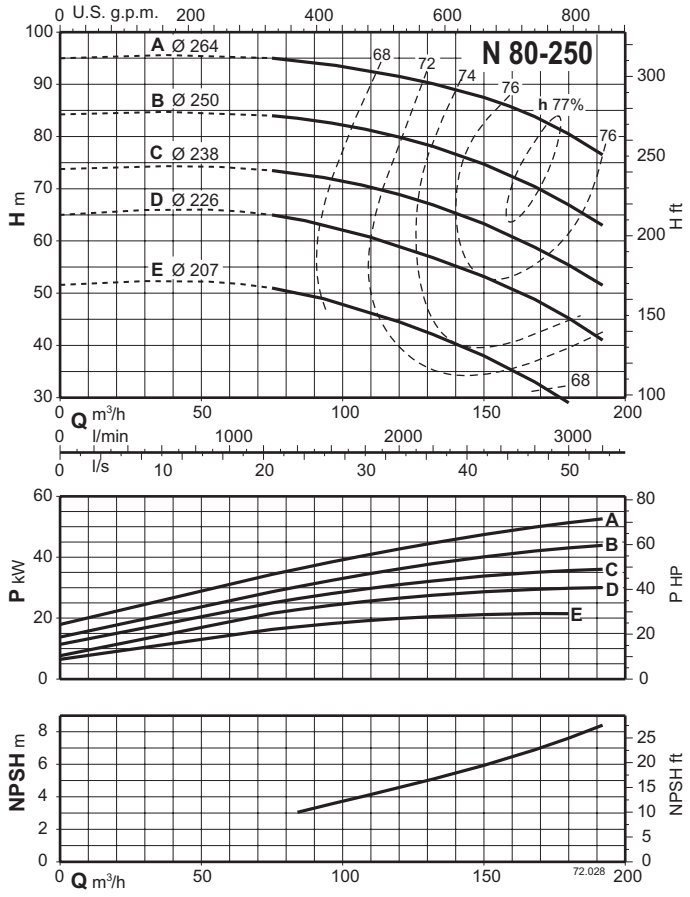


Characteristic curves n ≈ 2900 rpm



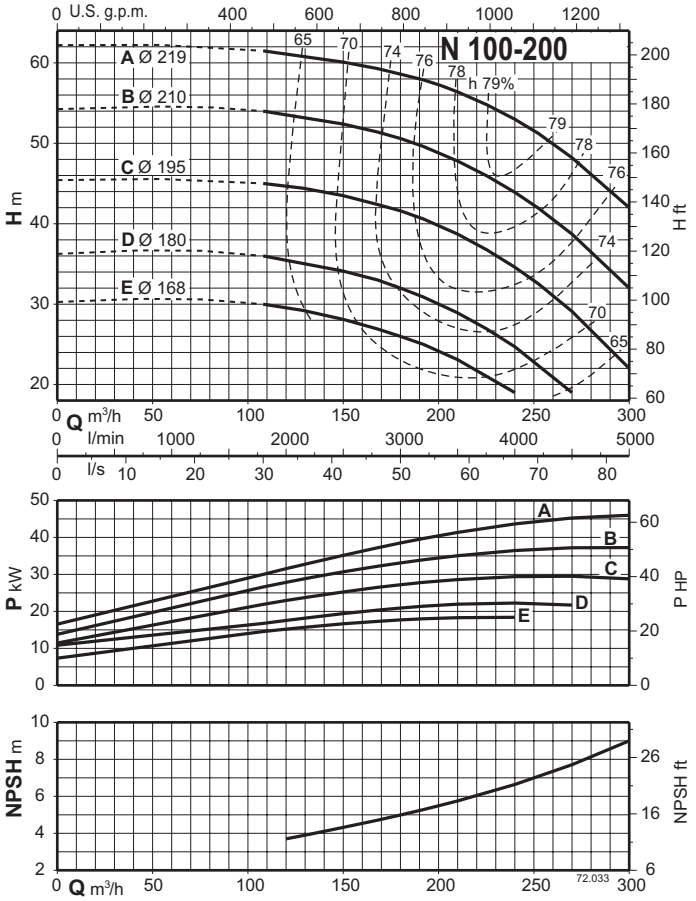


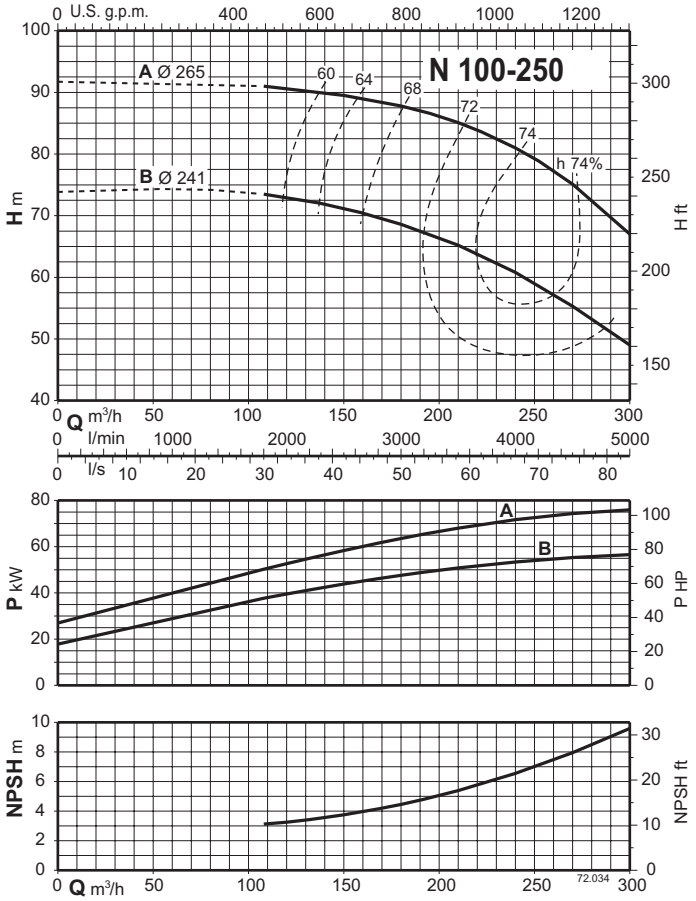




N

Characteristic curves n ≈ 2900 rpm

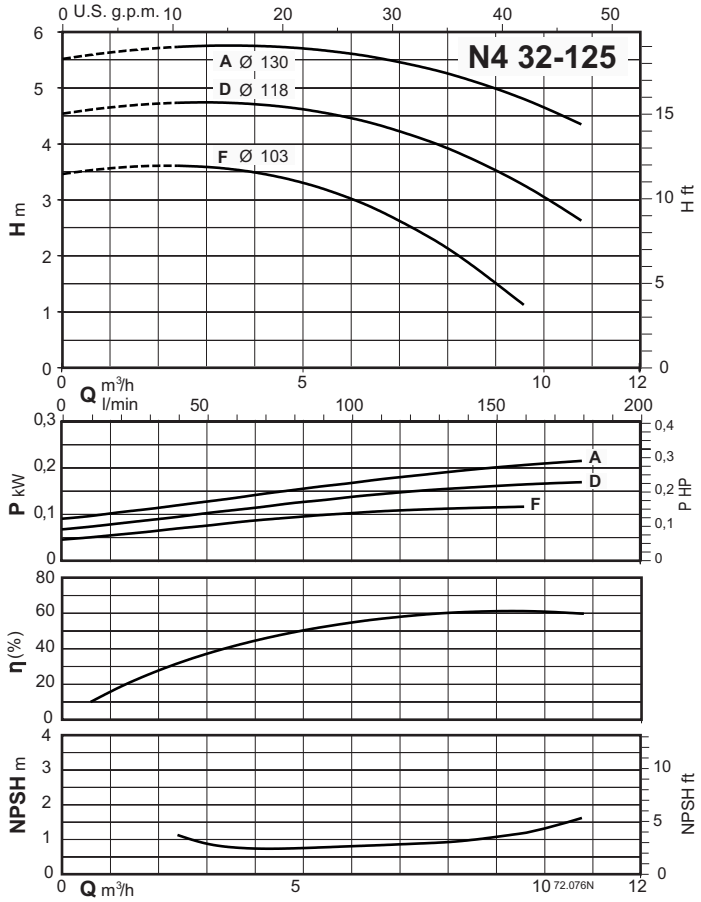


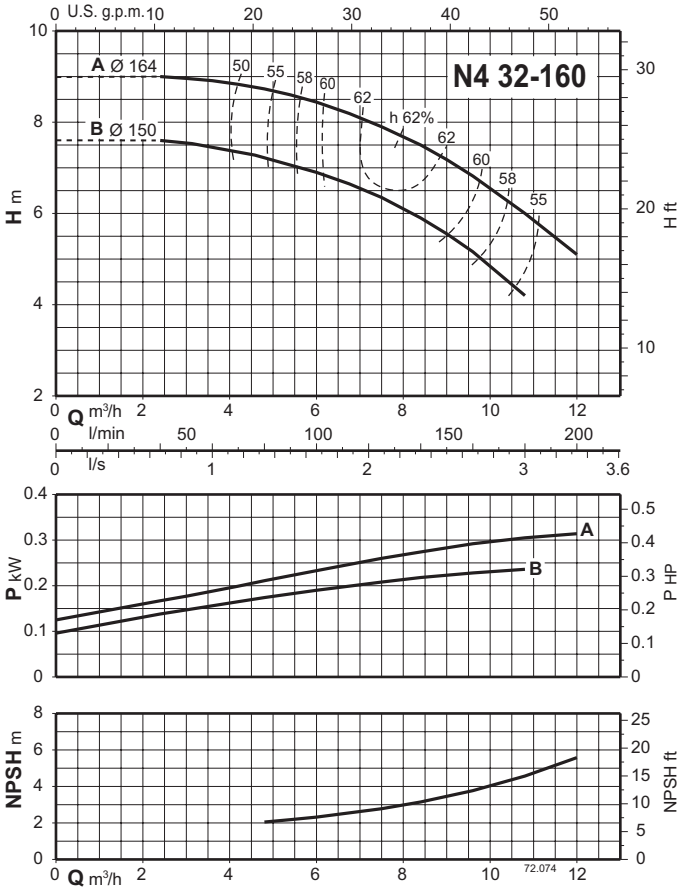


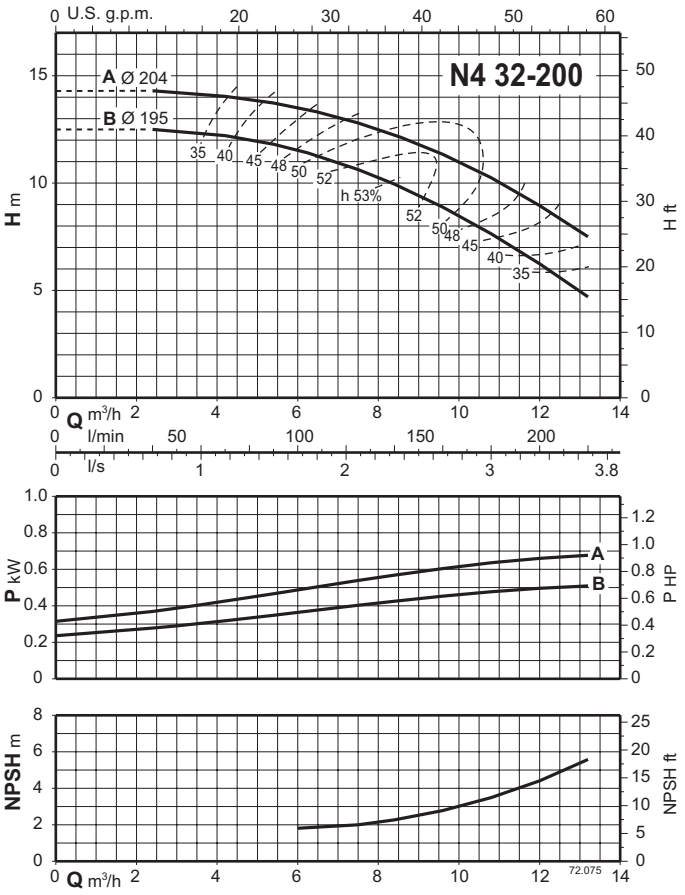
N

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Characteristic curves n ≈ 1450 rpm

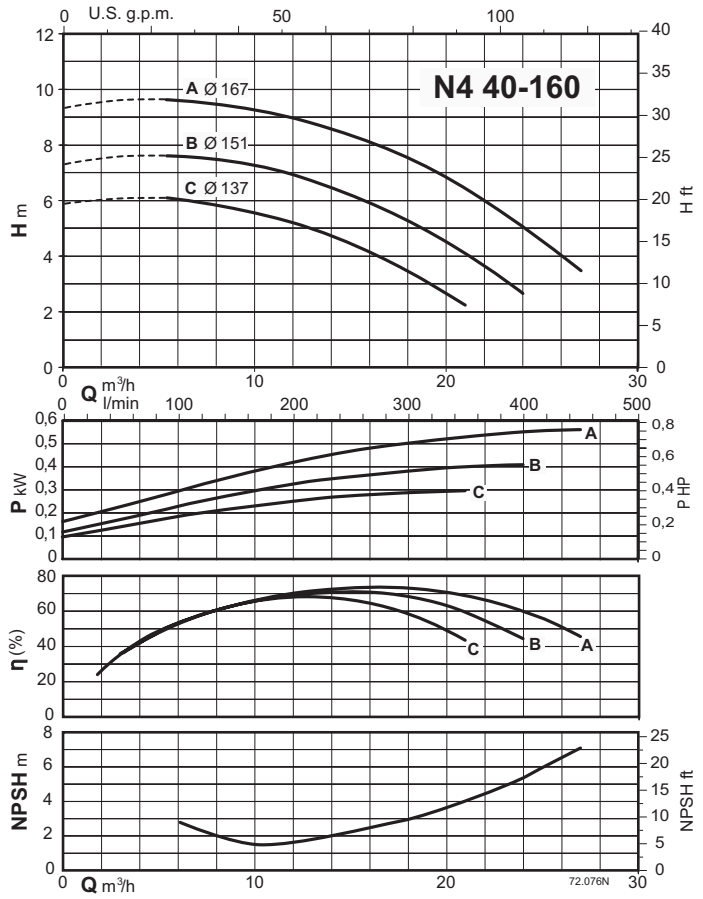


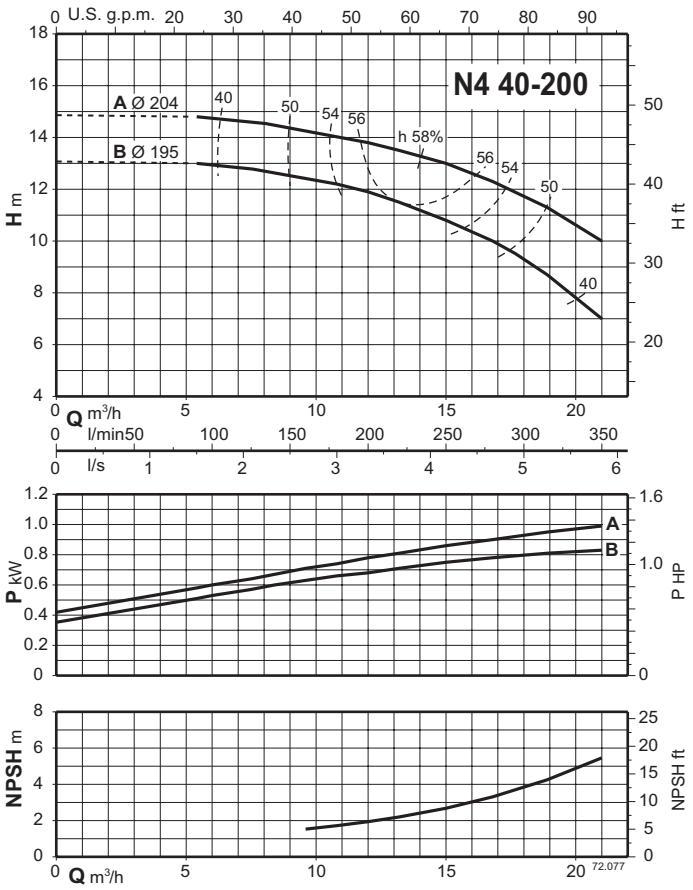


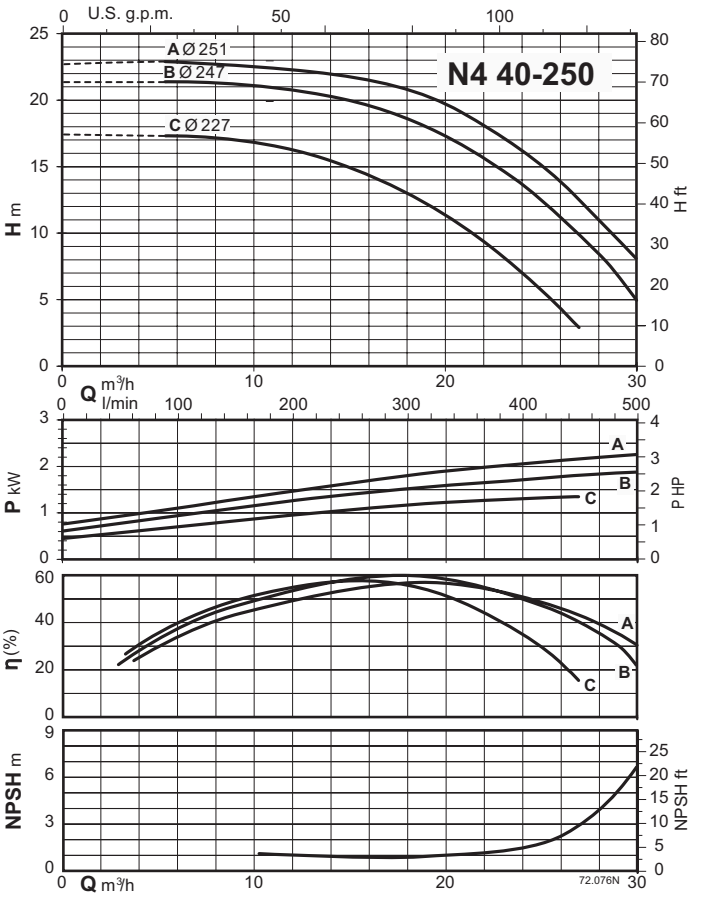


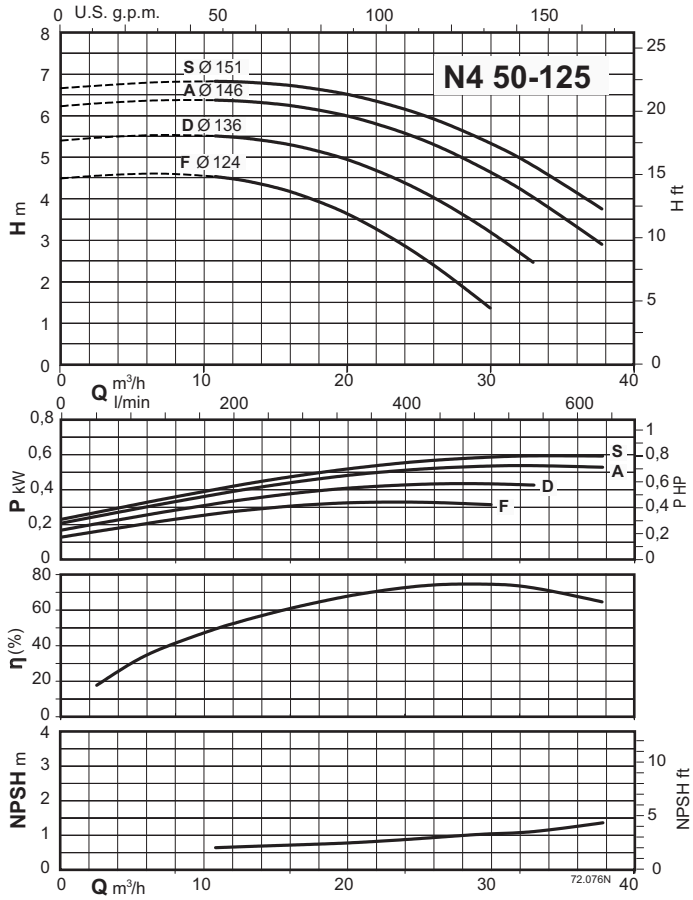
N

Characteristic curves n ≈ 1450 rpm





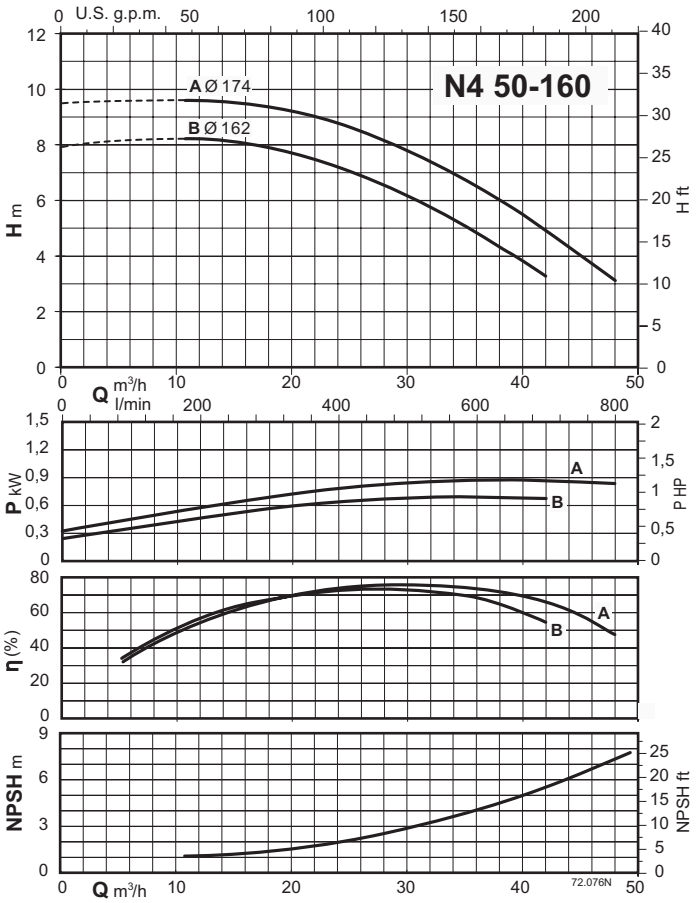


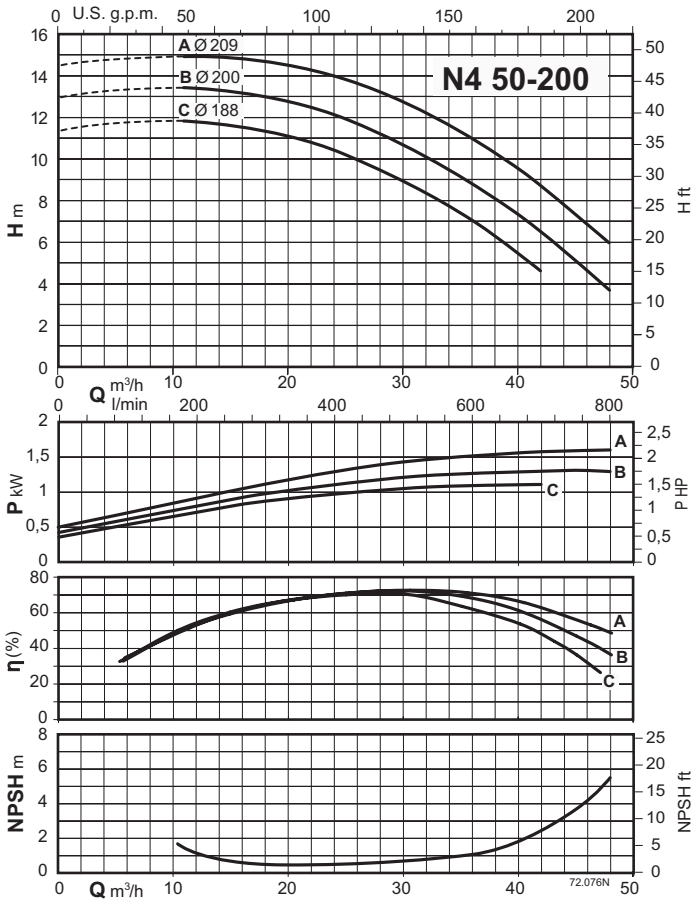


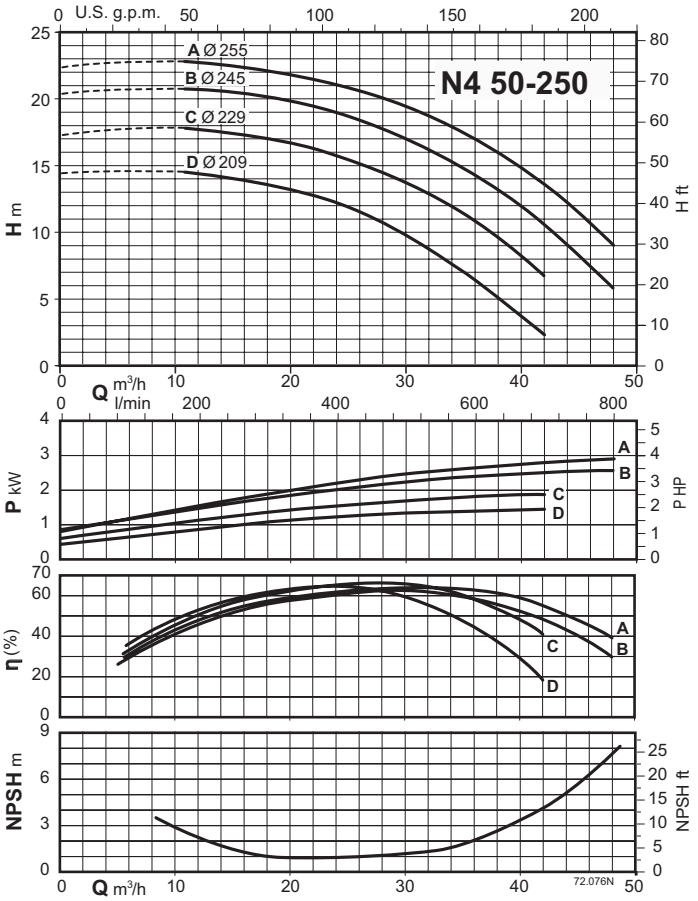
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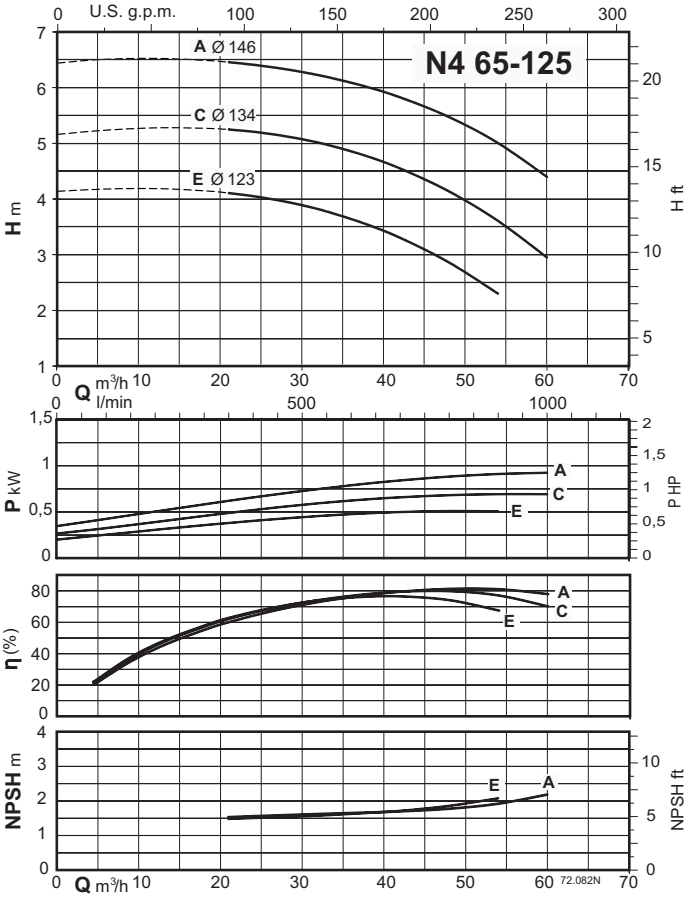
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Characteristic curves n ≈ 1450 rpm



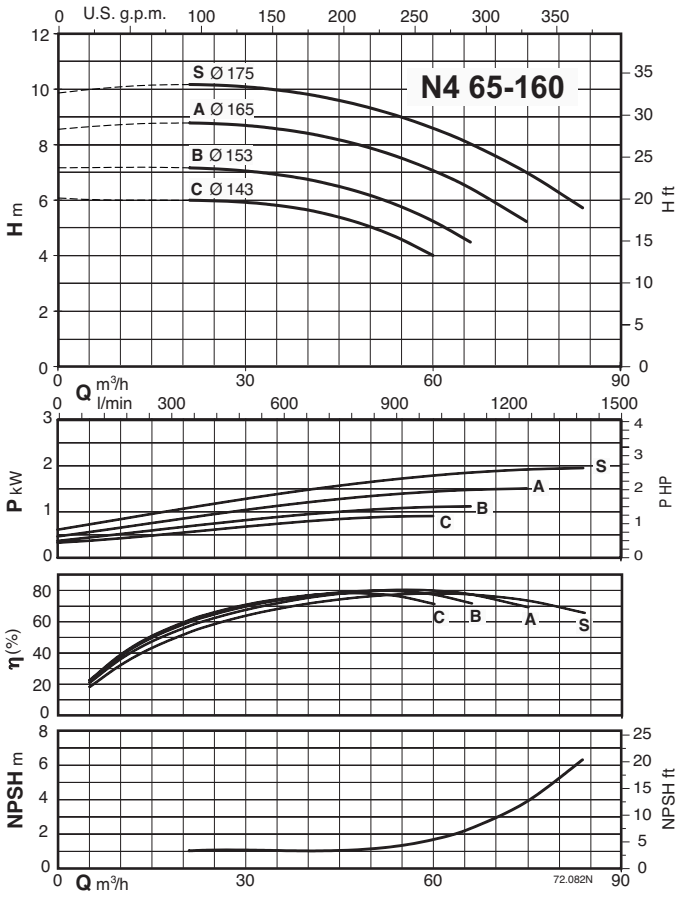


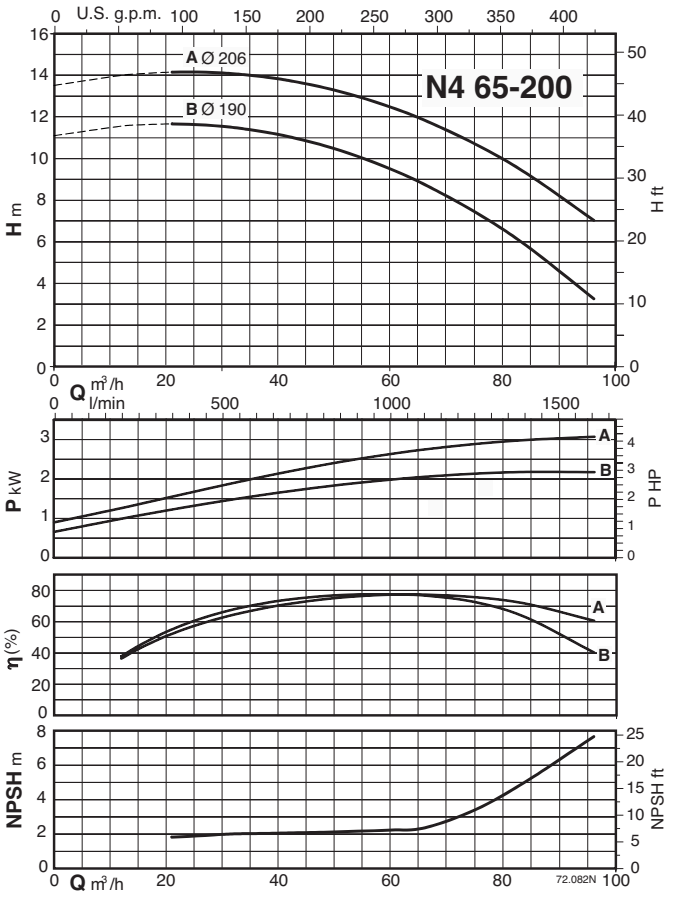


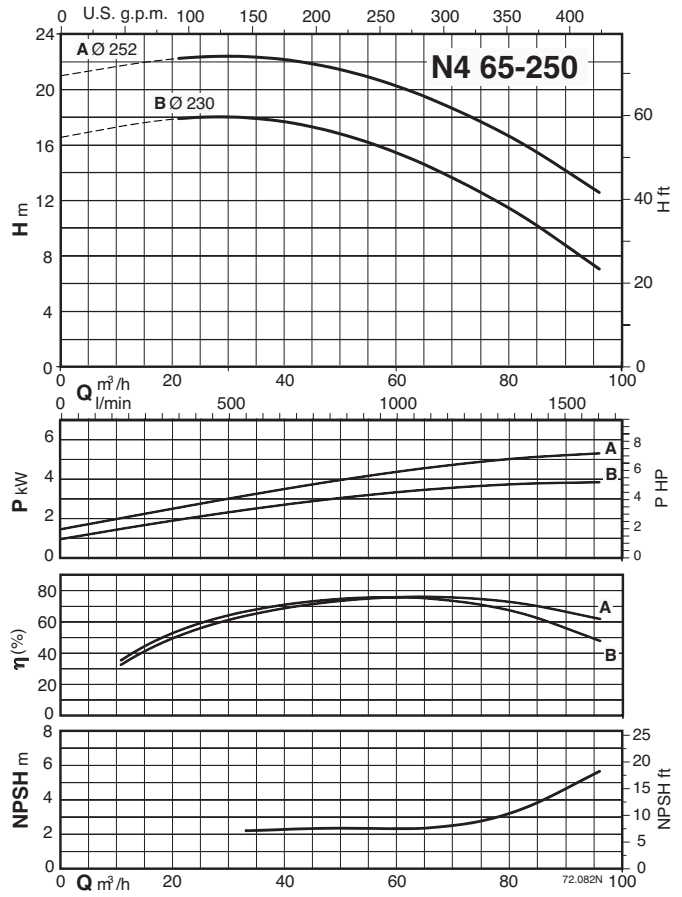


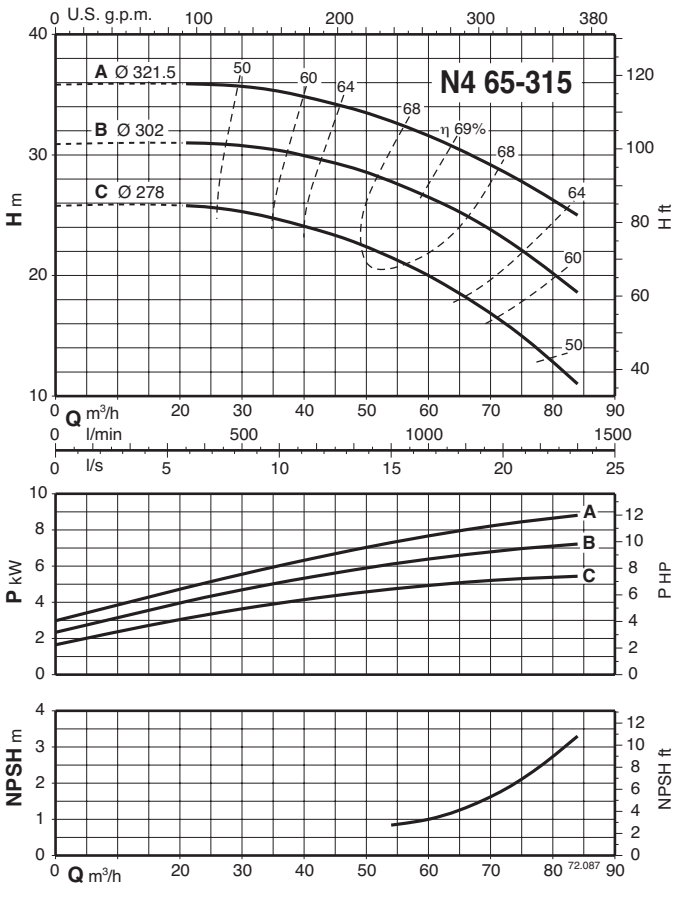
N

Characteristic curves n ≈ 1450 rpm



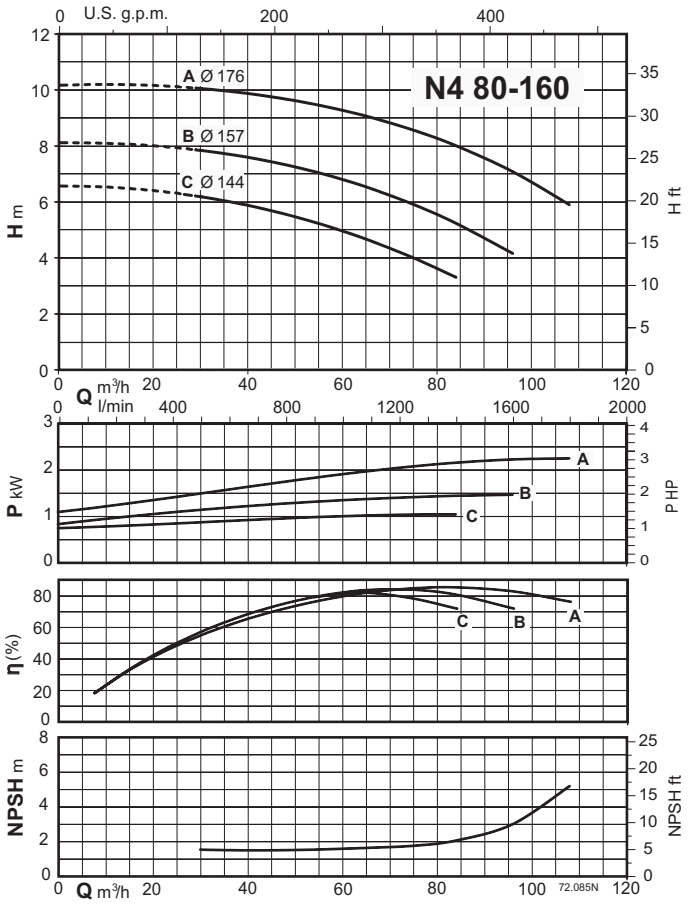


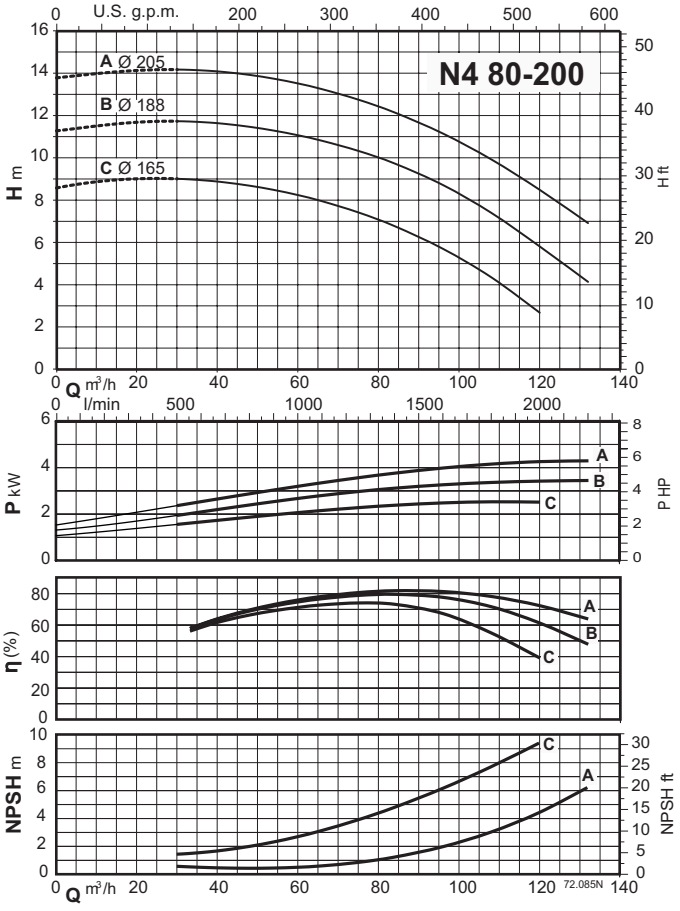


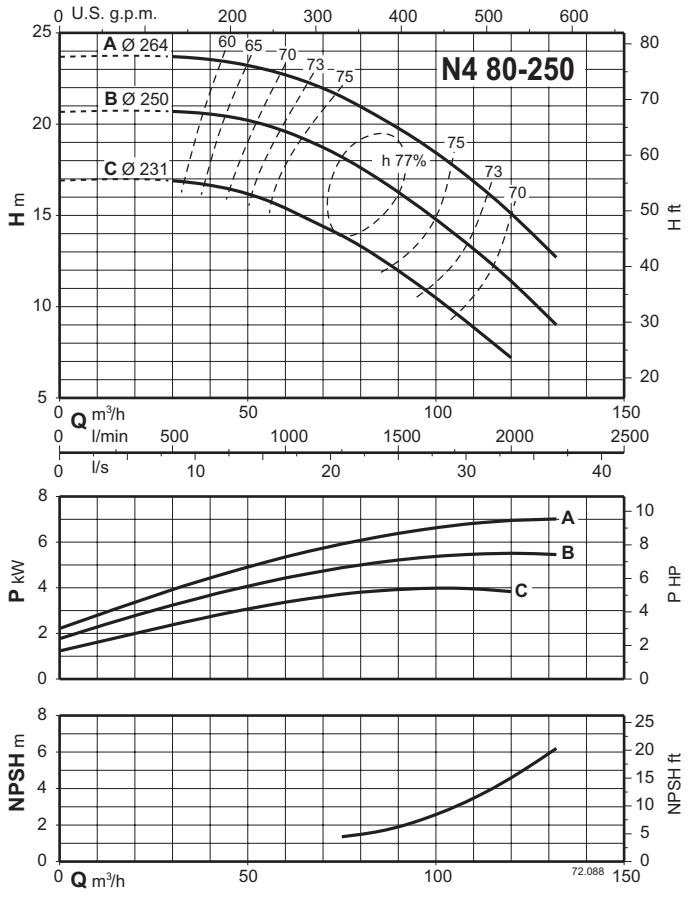


N

Characteristic curves n ≈ 1450 rpm

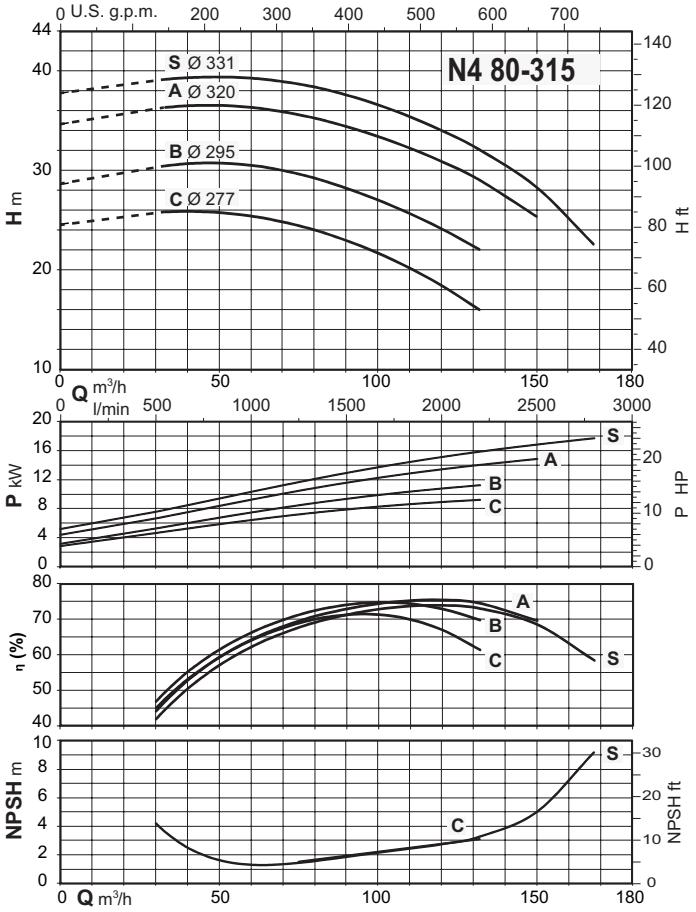


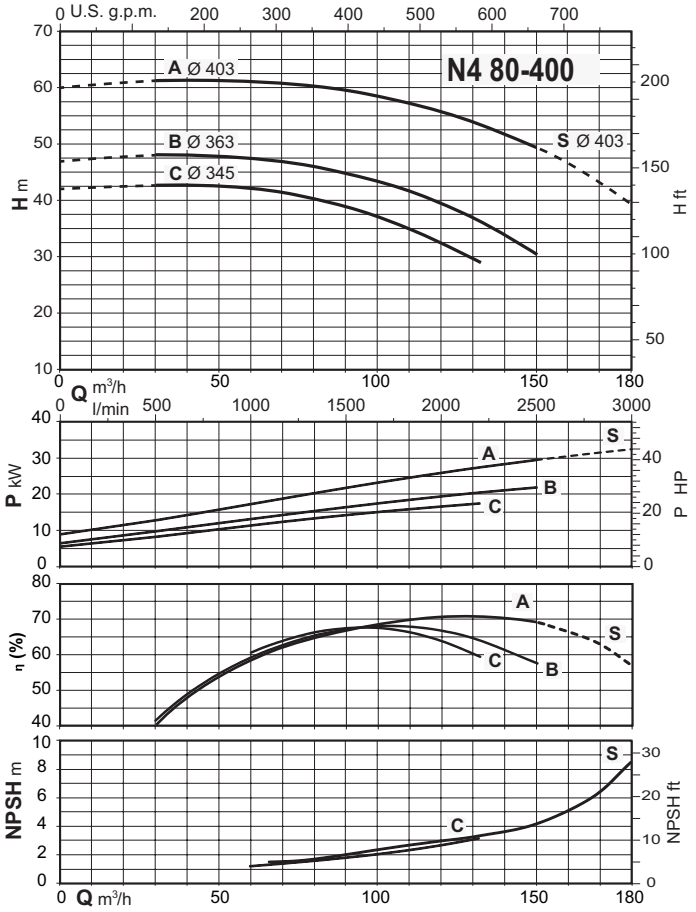




N

Characteristic curves n ≈ 1450 rpm

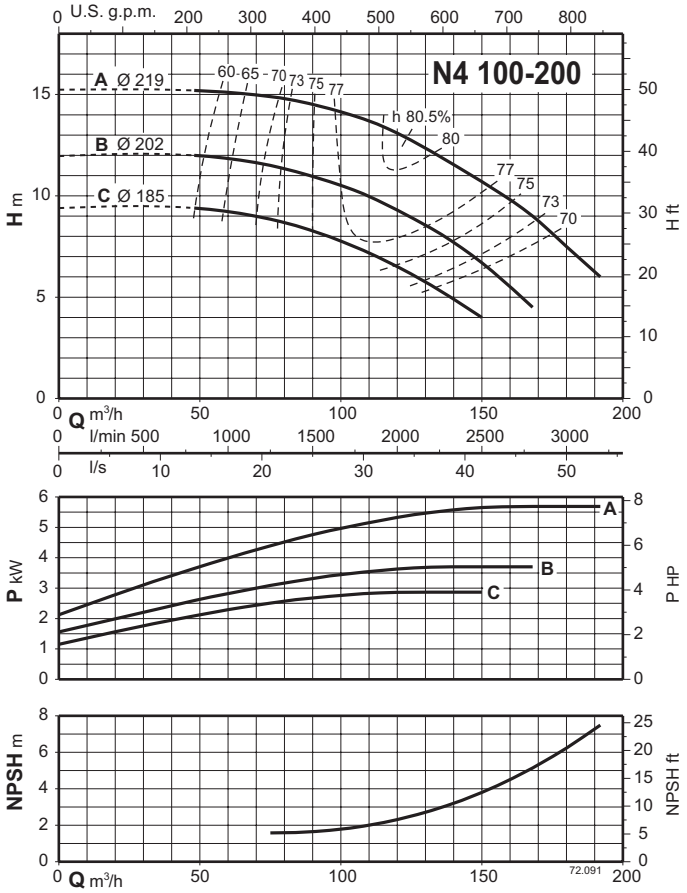


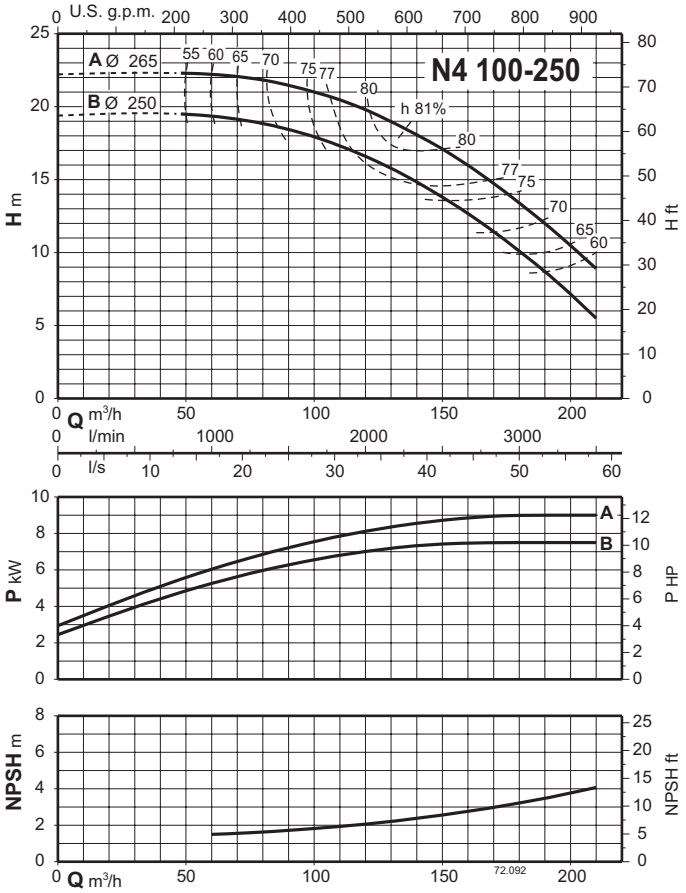


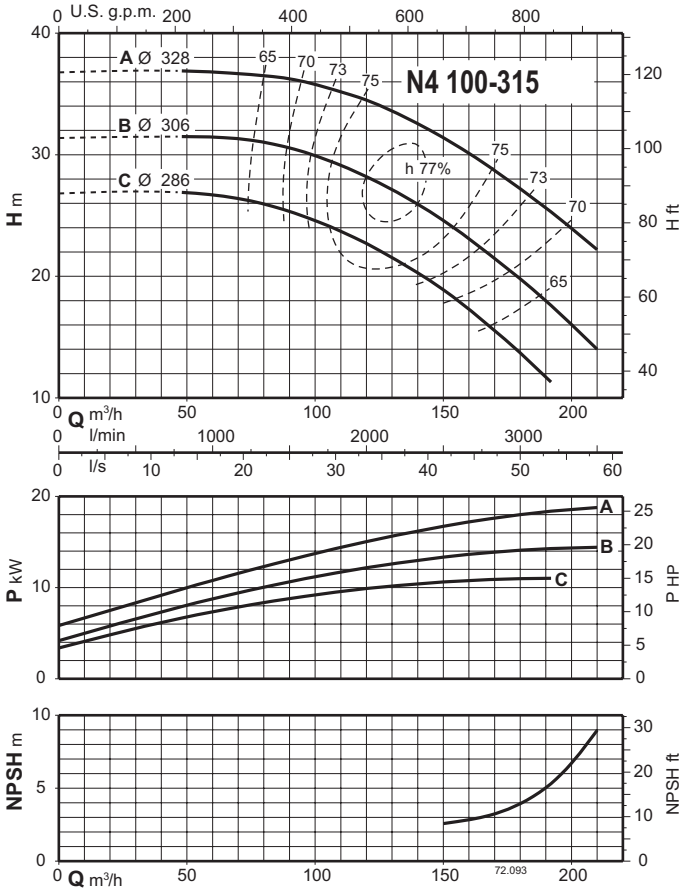
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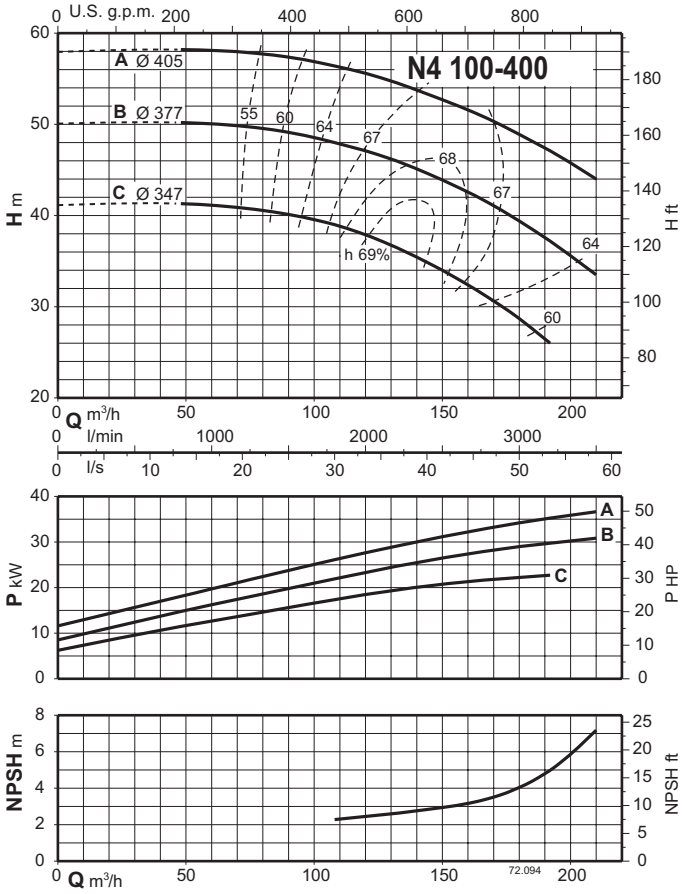
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Characteristic curves n ≈ 1450 rpm





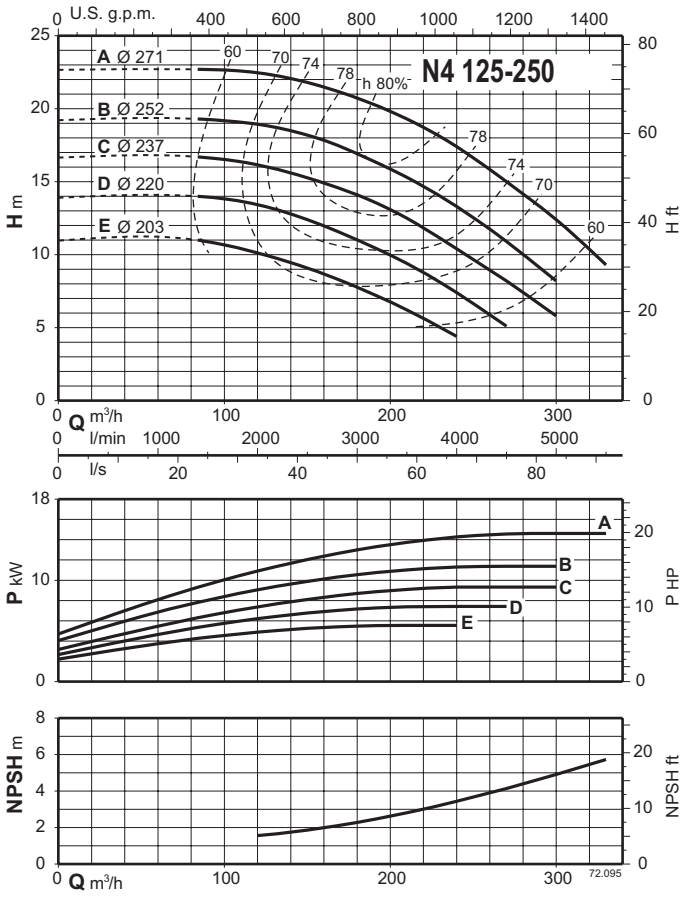


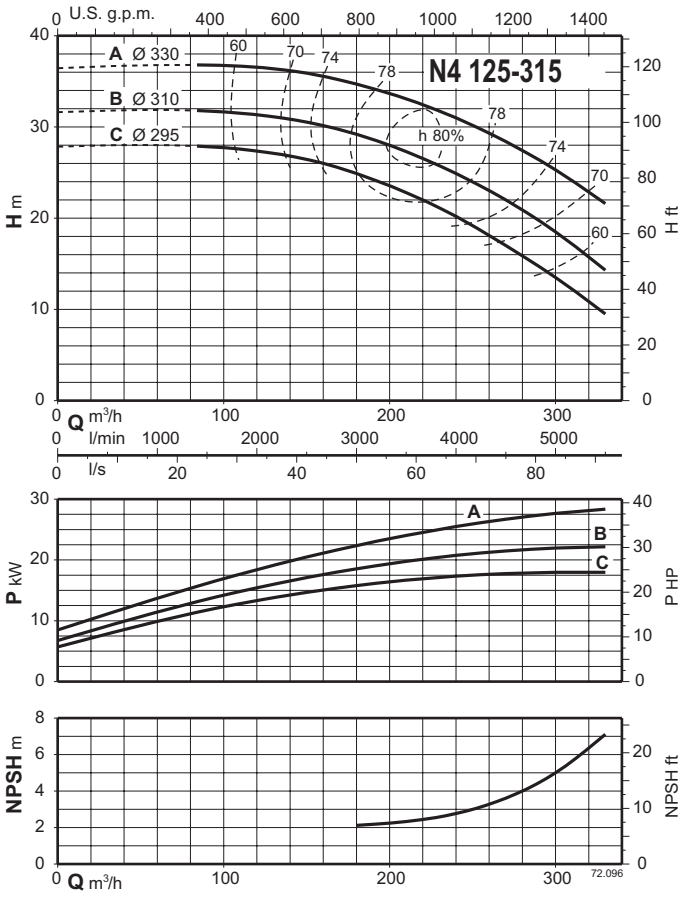


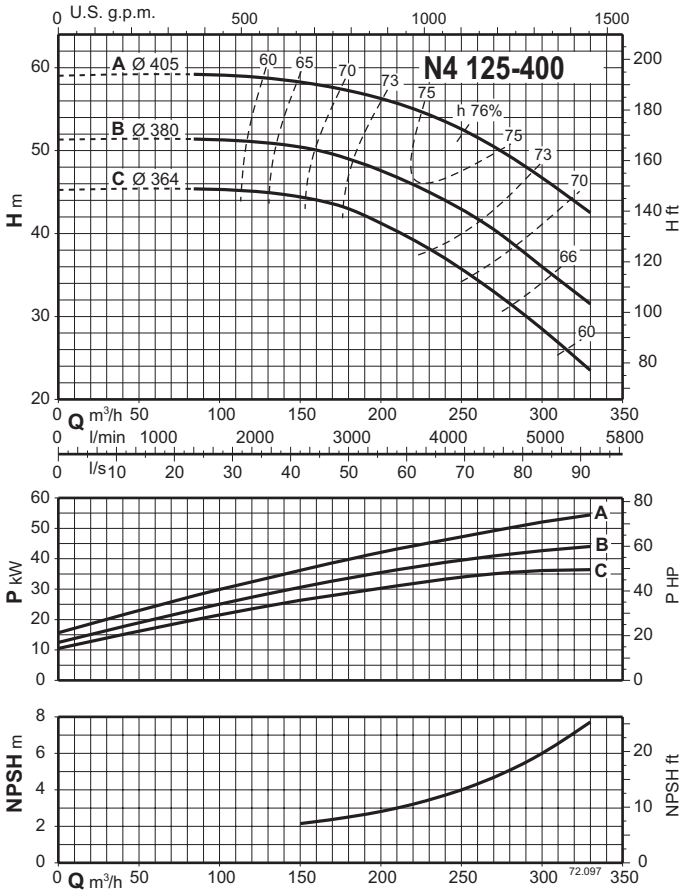
N

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Characteristic curves n ≈ 1450 rpm

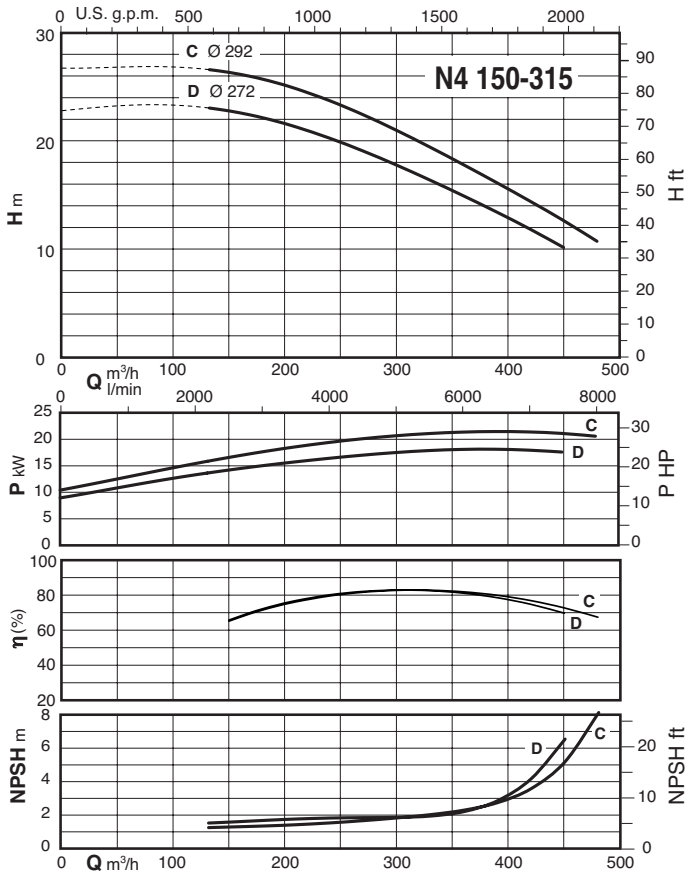


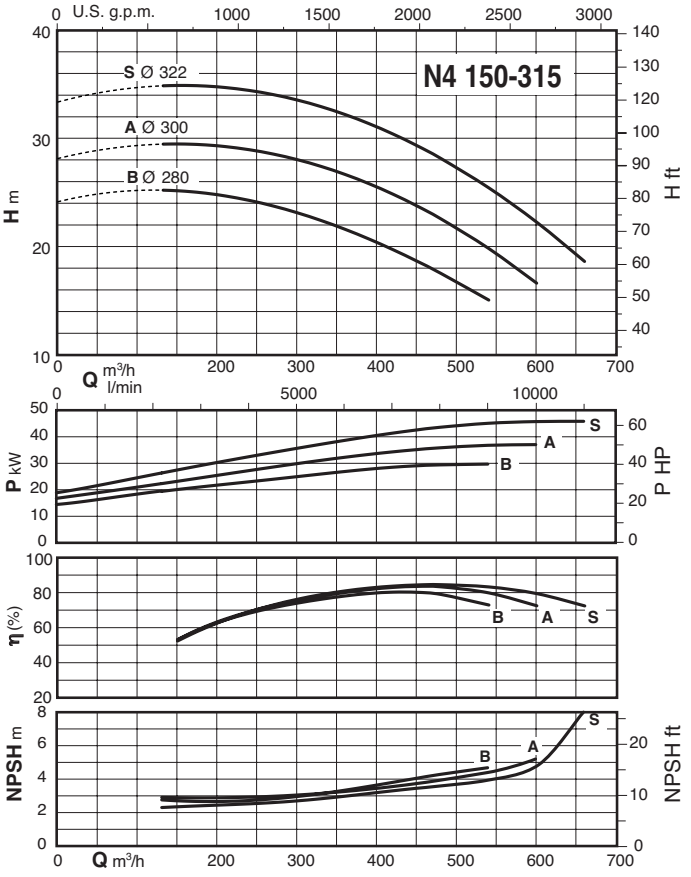


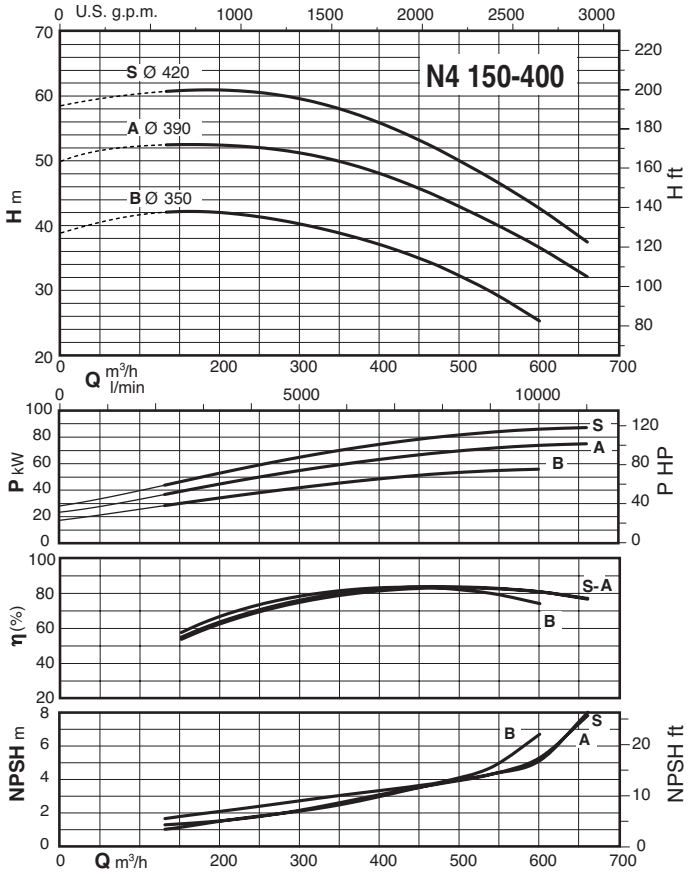


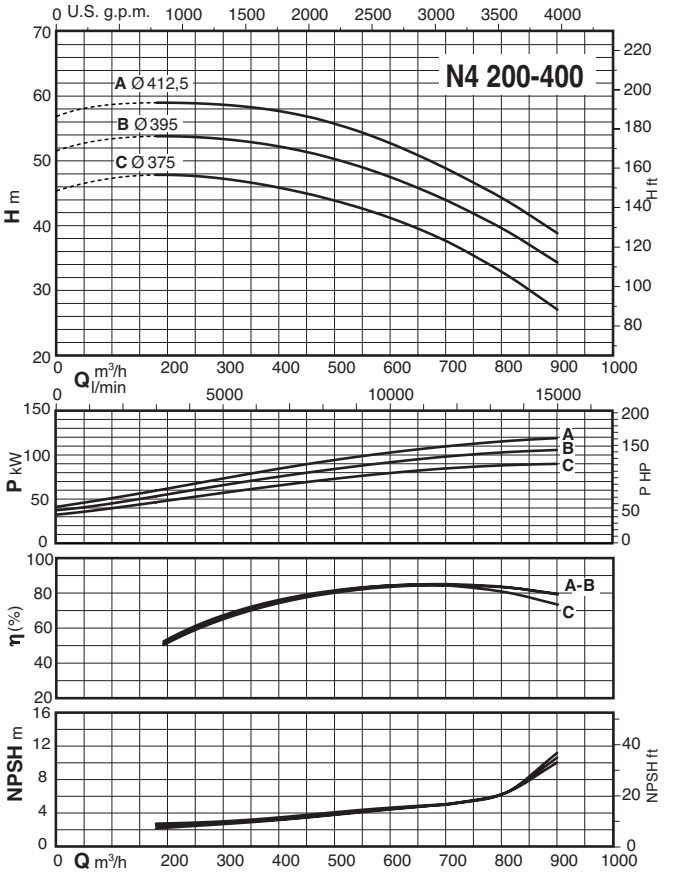
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Characteristic curves n ≈ 1450 rpm









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Interchangeability of parts

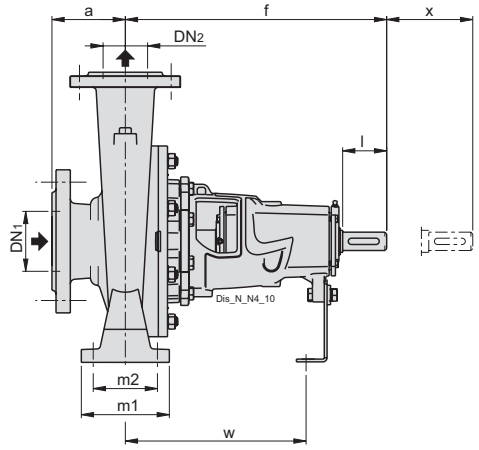
Pump type	Bearing housing				Pump shaft							Ball bearings						Shaft sealing			
	1	2	3	4	I	II	III	IV	V	VI	VII	6207 Z 6306 Z	6207 Z 3306 Z	6309 Z 3309 Z	6311 Z 3311 Z	NU 311 7311 x2	NU 213 7313 x2	ø 32	ø 40	ø 50	ø 60
N,N4 32-125	•				•							•						•			
N,N4 32-160	•					•						•						•			
N,N4 32-200	•					•						•						•			
N 40-125	•					•						•						•			
N,N4 40-160	•					•						•						•			
N,N4 40-200C	•					•						•						•			
N,N4 40-200A-AR-B	•						•						•					•			
N,N4 40-250	•						•						•					•			
N,N4 50-125	•					•						•						•			
N,N4 50-160	•						•						•					•			
N,N4 50-200	•						•						•					•			
N,N4 50-250	•						•						•					•			
N,N4 65-125E	•					•						•						•			
N,N4 65-125A-C	•						•						•					•			
N,N4 65-160	•						•						•					•			
N,N4 65-200	•						•						•					•			
N,N4 65-250		•						•						•					•		
N,N4 80-160		•						•						•					•		
N,N4 80-200	•						•						•					•			
N,N4 80-250		•						•						•					•		
N,N4 100-200		•						•						•					•		
N,N4 100-250		•						•						•					•		
N4 65-315			•						•						•					•	
N4 80-315		•						•						•					•		
N4 80-400		•						•						•					•		
N4 100-315		•						•						•					•		
N4 100-400			•						•						•					•	
N4 125-250		•						•						•					•		
N4 125-315			•						•						•					•	
N4 125-400			•						•						•					•	
N4 150-315			•						•						•					•	
N4 150-400			•						•						•					•	
N4 150-400S			•							•						•				•	
N4 200-400				•							•						•				•

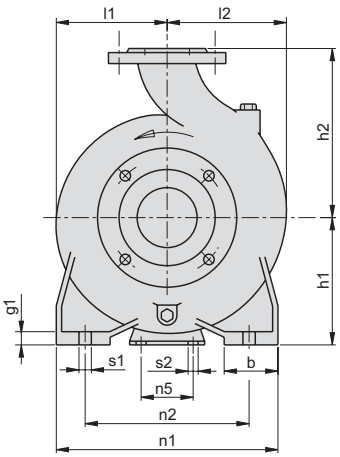
Maximum permissible rotation speed

3600 rpm			3000 rpm			1800 rpm		
32-125	32-160	32-200						
40-125	40-160	40-200			40-250			
50-125	50-160	50-200			50-250			
65-125	65-160			65-200	65-250		65-315	
		80-200	80-160		80-250		80-315	80-400
		100-200			100-250		100-315	100-400
						125-250	125-315	125-400
							150-315	150-400
								200-400

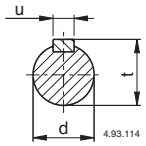
N

Dimensions and weights





Shaft extension ISO 775

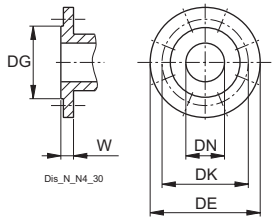


Parallel key UNI 6604

mm			
d	l	u	t
26 j6	50	8	27
32 k6	80	10	35
42 k6	110	12	45
55 k6	110	16	59

Flanges EN 1092-2

PN 10-16 (DN 200 PN 10)



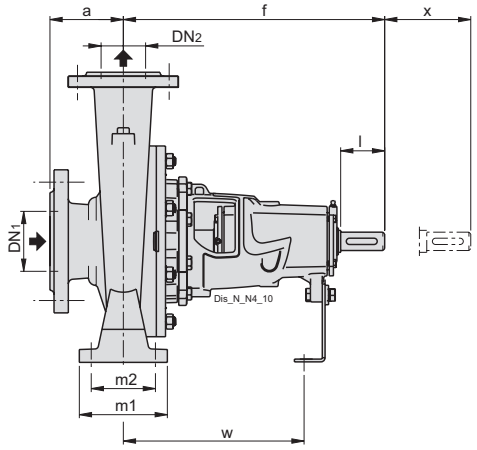
mm						
DN	DG	DK	DE	Holes		W
				N°	ø	
32	76	100	140	4	19	18
40	84	110	150	4	19	18
50	99	125	165	4	19	20
65	118	145	185	4	19	20
80	132	160	200	8	19	22
100	156	180	220	8	19	24
125	184	210	250	8	19	24
150	211	240	285	8	23	26
200	266	295	340	8*	23	30
250	319	355	405	12	28	26

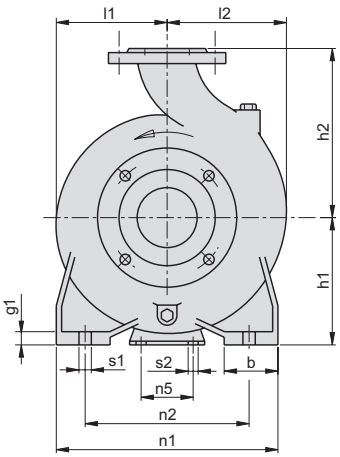
* * 12 for N4 200-400

TYPE	Motor		mm																			Kg
	kW	HP	DN1	DN2	a	b	d	h1	h2	f	n1	n2	n5	l1	l2	m1	m2	s1	s2	w	x	Weight
N 32-125F/A	0,55	0,75	50	32	80	50	24	112	140	360	190	140	110	93	97	100	70	14	14	260	100	26
N 32-125D/A	0,75	1	50	32	80	50	24	112	140	360	190	140	110	93	97	100	70	14	14	260	100	-
N 32-125D-S/A	1,1	1,5	50	32	80	50	24	112	140	360	190	140	110	93	97	100	70	14	14	260	100	-
N 32-125A/A	1,1	1,5	50	32	80	50	24	112	140	360	190	140	110	93	97	100	70	14	14	260	100	25.9
N 32-125A-S/A	1,5	2	50	32	80	50	24	112	140	360	190	140	110	93	97	100	70	14	14	260	100	-
N 32-125S/A	1,5	2	50	32	80	50	24	112	140	360	190	140	110	93	97	100	70	14	14	260	100	26.3
N 32-160B/A	1,5	2	50	32	80	50	24	132	160	360	240	190	110	120	120	100	70	14	14	260	100	-
N 32-160B-S/A	2,2	3	50	32	80	50	24	132	160	360	240	190	110	120	120	100	70	14	14	260	100	-
N 32-160A/A	2,2	3	50	32	80	50	24	132	160	360	240	190	110	120	120	100	70	14	14	260	100	33.3
N 32-160A-S/A	3	4	50	32	80	50	24	132	160	360	240	190	110	120	120	100	70	14	14	260	100	-
N 32-200D/A	2,2	3	50	32	80	50	24	160	180	360	240	190	110	140	140	100	70	14	14	260	100	37.3
N 32-200D-S/A	3	4	50	32	80	50	24	160	180	360	240	190	110	140	140	100	70	14	14	260	100	-
N 32-200C/A	3	4	50	32	80	50	24	160	180	360	240	190	110	140	140	100	70	14	14	260	100	-
N 32-200A/A	4	5,5	50	32	80	50	24	160	180	360	240	190	110	140	140	100	70	14	14	260	100	37.6
N 32-200A-S/A	5,5	7,5	50	32	80	50	24	160	180	360	240	190	110	140	140	100	70	14	14	260	100	-
N 32L-160C	2,2	3	50	32	80	50	24	132	160	360	240	190	110	120	120	100	70	14	14	260	100	30
N 32L-160B	3	4	50	32	80	50	24	132	160	360	240	190	110	120	120	100	70	14	14	260	100	31.5
N 32L-160A	4	5,5	50	32	80	50	24	132	160	360	240	190	110	120	120	100	70	14	14	260	100	31.9
N 32L-200C	4	5,5	50	32	80	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	37
N 32L-200B	5,5	7,5	50	32	80	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	37.4
N 32L-200A	7,5	10	50	32	80	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	37.5
N 40-125F/A	1,1	1,5	65	40	80	50	24	112	140	360	210	160	110	100	113	100	70	14	14	260	100	-
N 40-125C/A	1,5	2	65	40	80	50	24	112	140	360	210	160	110	100	113	100	70	14	14	260	100	-
N 40-125A/A	2,2	3	65	40	80	50	24	112	140	360	210	160	110	100	113	100	70	14	14	260	100	28.2
N 40-160C/A	2,2	3	65	40	80	50	24	132	160	360	240	190	110	119	119	100	70	14	14	260	100	32.9
N 40-160B/A	3	4	65	40	80	50	24	132	160	360	240	190	110	119	119	100	70	14	14	260	100	33.1
N 40-160A/A	4	5,5	65	40	80	50	24	132	160	360	240	190	110	119	119	100	70	14	14	260	100	33.4
N 40-160A-S/A	5,5	7,5	65	40	80	50	24	132	160	360	240	190	110	119	119	100	70	14	14	260	100	-
N 40-200D/A	4	5,5	65	40	100	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	-
N 40-200C/A	4	5,5	65	40	100	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	39
N 40-200C-S/A	5,5	7,5	65	40	100	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	-
N 40-200D-S/A	5,5	7,5	65	40	100	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	-
N 40-200B/A	5,5	7,5	65	40	100	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	39.3
N 40-200B-S/A	7,5	10	65	40	100	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	-
N 40-200AR/A	5,5	7,5	65	40	100	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	-
N 40-200AR-S/A	7,5	10	65	40	100	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	-
N 40-200A/A	7,5	10	65	40	100	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	39.7
N 40-250C/A	11	15	65	40	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100	53.8
N 40-250B/A	11	15	65	40	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100	54.5
N 40-250A/A	15	20	65	40	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100	55

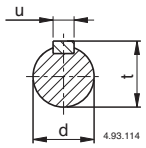
N

Dimensions and weights





Shaft extension ISO 775



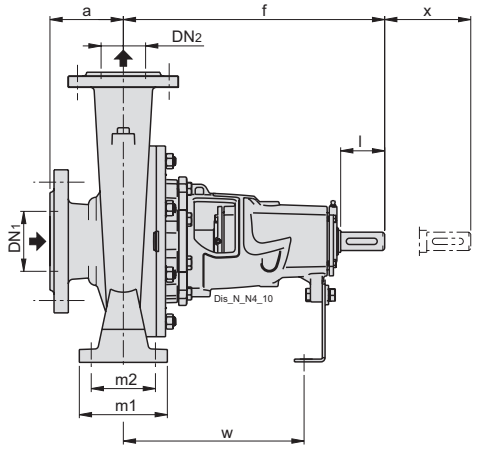
Parallel key UNI 6604

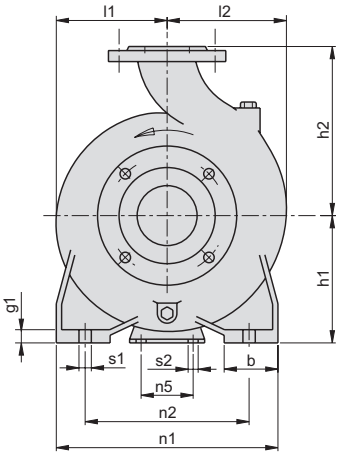
mm			
d	l	u	t
26 j6	50	8	27
32 k6	80	10	35
42 k6	110	12	45
55 k6	110	16	59

TYPE	Motor		mm																		Kg
	kW	HP	DN1	DN2	a	b	d	h1	h2	f	n1	n2	n5	l1	l2	m1	m2	s1	s2	w	x	Weight
N 50-125F/A	2,2	3	65	50	100	50	24	132	160	360	240	190	110	121	137	100	70	14	14	260	100	-
N 50-125D/A	3	4	65	50	100	50	24	132	160	360	240	190	110	121	137	100	70	14	14	260	100	35.4
N 50-125A/A	4	5,5	65	50	100	50	24	132	160	360	240	190	110	121	137	100	70	14	14	260	100	35.5
N 50-125S/A	4	5,5	65	50	100	50	24	132	160	360	240	190	110	121	137	100	70	14	14	260	100	-
N 50-125S-S/A	5,5	7,5	65	50	100	50	24	132	160	360	240	190	110	121	137	100	70	14	14	260	100	-
N 50-160B/A	5,5	7,5	65	50	100	50	24	160	180	360	265	212	110	127	141	100	70	14	14	260	100	-
N 50-160A/A	7,5	10	65	50	100	50	24	160	180	360	265	212	110	127	141	100	70	14	14	260	100	37.8
N 50-200B/A	11	15	65	50	100	50	24	160	200	360	265	212	110	140	153	100	70	14	14	260	100	44.1
N 50-200A/A	11	15	65	50	100	50	24	160	200	360	265	212	110	140	153	100	70	14	14	260	100	44.6
N 50-200S/A	15	20	65	50	100	50	24	160	200	360	265	212	110	140	153	100	70	14	14	260	100	44.5
N 50-250C/A	11	15	65	50	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100	56
N 50-250B/A	15	20	65	50	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100	56.3
N 50-250A/A	18,5	25	65	50	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100	56.8
N 50-250S/A	22	30	65	50	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100	57.4
N 65-125E/B	4	5,5	80	65	100	65	24	160	180	360	280	212	110	134	155	125	95	14	14	260	100	37.2
N 65-125C/B	5,5	7,5	80	65	100	65	24	160	180	360	280	212	110	134	155	125	95	14	14	260	100	38
N 65-125A/B	7,5	10	80	65	100	65	24	160	180	360	280	212	110	134	155	125	95	14	14	260	100	38.4
N 65-160D/B	7,5	10	80	65	100	65	24	160	200	360	280	212	110	150	172	125	95	14	14	260	100	-
N 65-160C/B	11	15	80	65	100	65	24	160	200	360	280	212	110	150	172	125	95	14	14	260	100	-
N 65-160B/B	11	15	80	65	100	65	24	160	200	360	280	212	110	150	172	125	95	14	14	260	100	39.7
N 65-160A/B	15	20	80	65	100	65	24	160	200	360	280	212	110	150	172	125	95	14	14	260	100	40.2
N 65-160AR	15	20	80	65	100	65	24	160	200	360	280	212	110	150	172	125	95	14	14	260	100	40.4
N 65-200C/B	15	20	80	65	100	65	24	180	225	360	320	250	110	155	175	125	95	14	14	260	140	-
N 65-200B/B	18,5	25	80	65	100	65	24	180	225	360	320	250	110	155	175	125	95	14	14	260	140	48.4
N 65-200A/B	22	30	80	65	100	65	24	180	225	360	320	250	110	155	175	125	95	14	14	260	140	48.4
N 65-250C/B	22	30	80	65	100	80	24	200	250	470	360	280	110	175	190	160	120	18	14	340	140	87.8
N 65-250B/B	30	40	80	65	100	80	24	200	250	470	360	280	110	175	190	160	120	18	14	340	140	88.3
N 80-160E/B	7,5	10	100	80	125	65	24	180	225	360	320	250	110	165	193	125	95	14	14	260	140	46.5
N 80-160D/B	11	15	100	80	125	65	24	180	225	360	320	250	110	165	193	125	95	14	14	260	140	-
N 80-160C/B	11	15	100	80	125	65	24	180	225	360	320	250	110	165	193	125	95	14	14	260	140	47.1
N 80-160B/B	15	20	100	80	125	65	24	180	225	360	320	250	110	165	193	125	95	14	14	260	140	-
N 80-160A/B	18,5	25	100	80	125	65	24	180	225	360	320	250	110	165	193	125	95	14	14	260	140	47.9
N 80-200B/B	22	30	100	80	125	65	32	180	250	470	345	280	110	170	194	125	95	14	14	340	140	76.6
N 80-200A/B	30	40	100	80	125	65	32	180	250	470	345	280	110	170	194	125	95	14	14	340	140	77.4
N 80-250E/A	22	30	100	80	125	80	32	200	280	470	400	315	110	191	210	160	120	18	14	340	140	93.2
N 80-250D/A	30	40	100	80	125	80	32	200	280	470	400	315	110	191	210	160	120	18	14	340	140	93.3
N 80-250C/A	37	50	100	80	125	80	32	200	280	470	400	315	110	191	210	160	120	18	14	340	140	93.9
N 80-250B/A	45	60	100	80	125	80	32	200	280	470	400	315	110	191	210	160	120	18	14	340	140	-
N 80-250A/A	55	75	100	80	125	80	32	200	280	470	400	315	110	191	210	160	120	18	14	340	140	94.6
N 100-200E/A	18,5	25	125	100	125	80	32	200	280	470	360	280	110	180	212	160	120	18	14	340	140	-
N 100-200D/A	22	30	125	100	125	80	32	200	280	470	360	280	110	180	212	160	120	18	14	340	140	-
N 100-200C/A	30	40	125	100	125	80	32	200	280	470	360	280	110	180	212	160	120	18	14	340	140	84.3
N 100-200B/A	37	50	125	100	125	80	32	200	280	470	360	280	110	180	212	160	120	18	14	340	140	84.1
N 100-200A/A	45	60	125	100	125	80	32	200	280	470	360	280	110	180	212	160	120	18	14	340	140	85.3
N 100-250B/A	55	75	125	100	140	80	32	225	280	470	400	315	110	205	233	160	120	18	14	340	140	104.6
N 100-250A/A	75	100	125	100	140	80	32	225	280	470	400	315	110	205	233	160	120	18	14	340	140	105.8

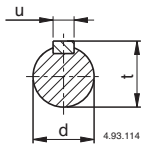
N

Dimensions and weights





Shaft extension ISO 775



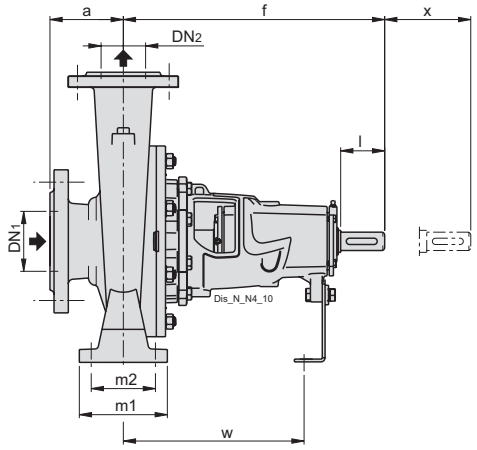
Parallel key UNI 6604

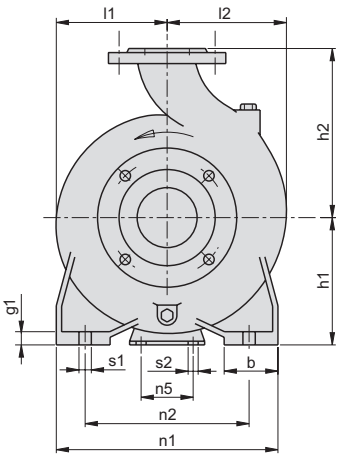
mm			
d	l	u	t
26 j6	50	8	27
32 k6	80	10	35
42 k6	110	12	45
55 k6	110	16	59

TYPE	Motor		mm																			Kg
	kW	HP	DN1	DN2	a	b	d	h1	h2	f	n1	n2	n5	l1	l2	m1	m2	s1	s2	w	x	Weight
N4 32-125F/A	0,25	0,34	50	32	80	50	24	112	140	360	190	140	110	93	97	100	70	14	14	260	100	-
N4 32-125D/A	0,25	0,34	50	32	80	50	24	112	140	360	190	140	110	93	97	100	70	14	14	260	100	-
N4 32-125A/A	0,25	0,34	50	32	80	50	24	112	140	360	190	140	110	93	97	100	70	14	14	260	100	26.3
N4 32-160B/A	0,37	0,5	50	32	80	50	24	132	160	360	240	190	110	120	120	100	70	14	14	260	100	-
N4 32-160A/A	0,37	0,5	50	32	80	50	24	132	160	360	240	190	110	120	120	100	70	14	14	260	100	-
N4 32-200B/A	0,55	0,75	50	32	80	50	24	160	180	360	240	190	110	140	140	100	70	14	14	260	100	-
N4 32-200A/A	0,75	1	50	32	80	50	24	160	180	360	240	190	110	140	140	100	70	14	14	260	100	-
N4 40-160C/A	0,37	0,5	65	40	80	50	24	132	160	360	240	190	110	119	119	100	70	14	14	260	100	-
N4 40-160B/A	0,55	0,75	65	40	80	50	24	132	160	360	240	190	110	119	119	100	70	14	14	260	100	-
N4 40-160A/A	0,75	1	65	40	80	50	24	132	160	360	240	190	110	119	119	100	70	14	14	260	100	-
N4 40-200B/A	1,1	1,5	65	40	100	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	-
N4 40-200A/A	1,1	1,5	65	40	100	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	-
N4 40-250C/A	1,5	2	65	40	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100	-
N4 40-250B/A	2,2	3	65	40	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100	-
N4 40-250A/A	3	4	65	40	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100	-
N4 50-125F/A	0,37	0,5	65	50	100	50	24	132	160	360	240	190	110	121	137	100	70	14	14	260	100	-
N4 50-125D/A	0,55	0,75	65	50	100	50	24	132	160	360	240	190	110	121	137	100	70	14	14	260	100	-
N4 50-125A/A	0,75	1	65	50	100	50	24	132	160	360	240	190	110	121	137	100	70	14	14	260	100	-
N4 50-125S/A	0,75	1	65	50	100	50	24	132	160	360	240	190	110	121	137	100	70	14	14	260	100	-
N4 50-160B/A	1,1	1,5	65	50	100	50	24	160	180	360	265	212	110	127	141	100	70	14	14	260	100	-
N4 50-160A/A	1,1	1,5	65	50	100	50	24	160	180	360	265	212	110	127	141	100	70	14	14	260	100	38
N4 50-200C/A	1,1	1,5	65	50	100	50	24	160	200	360	265	212	110	140	153	100	70	14	14	260	100	44.3
N4 50-200B/A	1,5	2	65	50	100	50	24	160	200	360	265	212	110	140	153	100	70	14	14	260	100	44.4
N4 50-200A/A	2,2	3	65	50	100	50	24	160	200	360	265	212	110	140	153	100	70	14	14	260	100	44.4
N4 50-250C/A	2,2	3	65	50	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100	-
N4 50-250D	2,2	3	65	50	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100	-
N4 50-250B/A	3	4	65	50	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100	-
N4 50-250A/A	4	5,5	65	50	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100	-
N4 65-125E/B	0,75	1	80	65	100	65	24	160	180	360	280	212	110	134	155	125	95	14	14	260	100	-
N4 65-125C/B	0,75	1	80	65	100	65	24	160	180	360	280	212	110	134	155	125	95	14	14	260	100	-
N4 65-125A/B	1,1	1,5	80	65	100	65	24	160	180	360	280	212	110	134	155	125	95	14	14	260	100	-
N4 65-160C/B	1,1	1,5	80	65	100	65	24	160	200	360	280	212	110	150	172	125	95	14	14	260	100	-
N4 65-160B/B	1,1	1,5	80	65	100	65	24	160	200	360	280	212	110	150	172	125	95	14	14	260	100	-
N4 65-160A/B	1,5	2	80	65	100	65	24	160	200	360	280	212	110	150	172	125	95	14	14	260	100	-
N4 65-160S	2,2	3	80	65	100	65	24	160	200	360	280	212	110	150	172	125	95	14	14	260	100	-
N4 65-200B/B	2,2	3	80	65	100	65	24	180	225	360	320	250	110	155	175	125	95	14	14	260	140	-
N4 65-200A/B	3	4	80	65	100	65	24	180	225	360	320	250	110	155	175	125	95	14	14	260	140	48.3
N4 65-250B/B	4	5,5	80	65	100	80	24	200	250	470	360	280	110	175	190	160	120	18	14	340	140	-
N4 65-250A/B	5,5	7,5	80	65	100	80	24	200	250	470	360	280	110	175	190	160	120	18	14	340	140	-
N4 65-315C/A	5,5	7,5	80	65	125	80	32	225	280	470	400	315	110	220	220	160	120	18	14	340	140	-
N4 65-315B/A	7,5	10	80	65	125	80	32	225	280	470	400	315	110	220	220	160	120	18	14	340	140	127.3
N4 65-315A/A	11	15	80	65	125	80	32	225	280	470	400	315	110	220	220	160	120	18	14	340	140	128.1

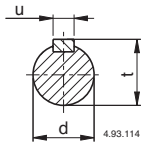
N

Dimensions and weights





Shaft extension ISO 775



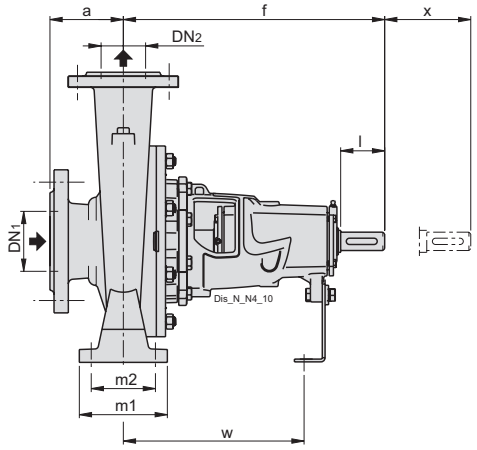
Parallel key UNI 6604

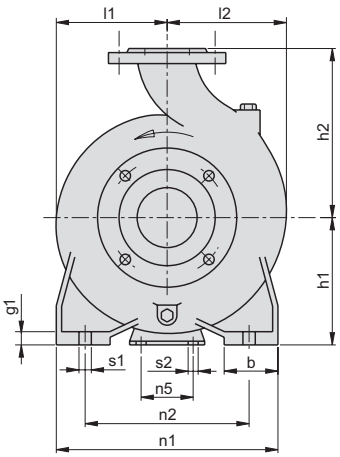
mm			
d	l	u	t
26 j6	50	8	27
32 k6	80	10	35
42 k6	110	12	45
55 k6	110	16	59

TYPE	Motor		mm																		Kg
	kW	HP	DN1	DN2	a	b	d	h1	h2	f	n1	n2	n5	l1	l2	m1	m2	s1	s2	w	x	Weight
N4 80-160C/B	1,1	1,5	100	80	125	65	24	180	225	360	320	250	110	165	193	125	95	14	14	260	140	-
N4 80-160B/B	1,5	2	100	80	125	65	24	180	225	360	320	250	110	165	193	125	95	14	14	260	140	-
N4 80-160A/B	2,2	3	100	80	125	65	24	180	225	360	320	250	110	165	193	125	95	14	14	260	140	-
N4 80-200C/B	2,2	3	100	80	125	65	32	180	250	470	345	280	110	170	194	125	95	14	14	340	140	-
N4 80-200B/B	3	4	100	80	125	65	32	180	250	470	345	280	110	170	194	125	95	14	14	340	140	-
N4 80-200A/B	4	5,5	100	80	125	65	32	180	250	470	345	280	110	170	194	125	95	14	14	340	140	77.4
N4 80-250C/A	4	5,5	100	80	125	80	32	200	280	470	400	315	110	191	210	160	120	18	14	340	140	-
N4 80-250B/A	5,5	7,5	100	80	125	80	32	200	280	470	400	315	110	191	210	160	120	18	14	340	140	-
N4 80-250A/A	7,5	10	100	80	125	80	32	200	280	470	400	315	110	191	210	160	120	18	14	340	140	95
N4 80-315C/B	11	15	100	80	125	80	32	250	315	470	400	315	110	220	232	160	120	18	14	340	140	-
N4 80-315B/B	11	15	100	80	125	80	32	250	315	470	400	315	110	220	232	160	120	18	14	340	140	127.5
N4 80-315A/B	15	20	100	80	125	80	32	250	315	470	400	315	110	220	232	160	120	18	14	340	140	127.8
N4 80-315S	18,5	25	100	80	125	80	32	250	315	470	400	315	110	220	232	160	120	18	14	340	140	128.5
N4 80-400C/B	18,5	25	125	80	125	80	42	280	355	530	435	355	110	268	268	160	120	18	14	370	140	-
N4 80-400B/B	22	30	125	80	125	80	42	280	355	530	435	355	110	268	268	160	120	18	14	370	140	-
N4 80-400A/B	30	40	125	80	125	80	42	280	355	530	435	355	110	268	268	160	120	18	14	370	140	-
N4 80-400S	37	50	125	80	125	80	42	280	355	530	435	355	110	268	268	160	120	18	14	370	140	-
N4 100-200C/A	3	4	125	100	125	80	32	200	280	470	360	280	110	180	212	160	120	18	14	340	140	83.8
N4 100-200B/A	4	5,5	125	100	125	80	32	200	280	470	360	280	110	180	212	160	120	18	14	340	140	84.8
N4 100-200A/A	5,5	7,5	125	100	125	80	32	200	280	470	360	280	110	180	212	160	120	18	14	340	140	85.3
N4 100-250B/A	7,5	10	125	100	140	80	32	225	280	470	400	315	110	205	233	160	120	18	14	340	140	104.9
N4 100-250A/A	11	15	125	100	140	80	32	225	280	470	400	315	110	205	233	160	120	18	14	340	140	105.6
N4 100-315C/A	11	15	125	100	140	80	32	250	315	470	400	315	110	230	250	160	120	18	14	340	140	-
N4 100-315B/A	15	20	125	100	140	80	32	250	315	470	400	315	110	230	250	160	120	18	14	340	140	139
N4 100-315A/A	18,5	25	125	100	140	80	32	250	315	470	400	315	110	230	250	160	120	18	14	340	140	139.5
N4 100-400C/A	22	30	125	100	140	100	42	280	355	530	500	400	110	268	280	200	150	22	14	370	140	-
N4 100-400B/A	30	40	125	100	140	100	42	280	355	530	500	400	110	268	280	200	150	22	14	370	140	202
N4 100-400A/A	37	50	125	100	140	100	42	280	355	530	500	400	110	268	280	200	150	22	14	370	140	204.3
N4 125-250E/A	5,5	7,5	150	125	140	80	32	250	355	470	400	315	110	235	268	160	120	18	14	340	140	-
N4 125-250D/A	7,5	10	150	125	140	80	32	250	355	470	400	315	110	235	268	160	120	18	14	340	140	-
N4 125-250C/A	11	15	150	125	140	80	32	250	355	470	400	315	110	235	268	160	120	18	14	340	140	-
N4 125-250B/A	11	15	150	125	140	80	32	250	355	470	400	315	110	235	268	160	120	18	14	340	140	123.8
N4 125-250A/A	15	20	150	125	140	80	32	250	355	470	400	315	110	235	268	160	120	18	14	340	140	125
N4 125-315C/A	18,5	25	150	125	140	100	42	280	355	530	500	400	110	247	278	200	150	22	14	370	140	-
N4 125-315B/A	22	30	150	125	140	100	42	280	355	530	500	400	110	247	278	200	150	22	14	370	140	-
N4 125-315A/A	30	40	150	125	140	100	42	280	355	530	500	400	110	247	278	200	150	22	14	370	140	182.6
N4 125-400C/A	37	50	150	125	140	100	42	315	400	530	500	400	110	280	305	200	150	22	14	370	140	-
N4 125-400B/A	45	60	150	125	140	100	42	315	400	530	500	400	110	280	305	200	150	22	14	370	140	224.6
N4 125-400A/A	55	75	150	125	140	100	42	315	400	530	500	400	110	280	305	200	150	22	14	370	140	225.4
N4 150-315D/B	18,5	25	200	150	160	100	42	280	400	530	550	450	110	256	307	200	150	22	14	370	140	-
N4 150-315C/B	22	30	200	150	160	100	42	280	400	530	550	450	110	256	307	200	150	22	14	370	140	201.4
N4 150-315B/B	30	40	200	150	160	100	42	280	400	530	550	450	110	256	307	200	150	22	14	370	140	-
N4 150-315A/B	37	50	200	150	160	100	42	280	400	530	550	450	110	256	307	200	150	22	14	370	140	-
N4 150-315S	45	60	200	150	160	100	42	280	400	530	550	450	110	256	307	200	150	22	14	370	140	211
N4 150-400B/B	55	75	200	150	160	100	42	315	450	530	550	450	110	295	328	200	150	22	14	370	140	250
N4 150-400A/B	75	100	200	150	160	100	42	315	450	530	550	450	110	295	328	200	150	22	14	370	140	257
N4 150-400S	90	120	200	150	160	100	42	315	450	530	550	450	110	295	328	200	150	22	14	370	140	259
N4 200-400C	90	120	250	200	180	125	55	355	500	630	630	500	110	322	370	250	190	27	14	462.5	200	-
N4 200-400B	110	150	250	200	180	125	55	355	500	630	630	500	110	322	370	250	190	27	14	462.5	200	-
N4 200-400A	132	180	250	200	180	125	55	355	500	630	630	500	110	322	370	250	190	27	14	462.5	200	353

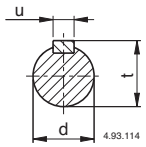
N

Dimensions and weights





Shaft extension ISO 775



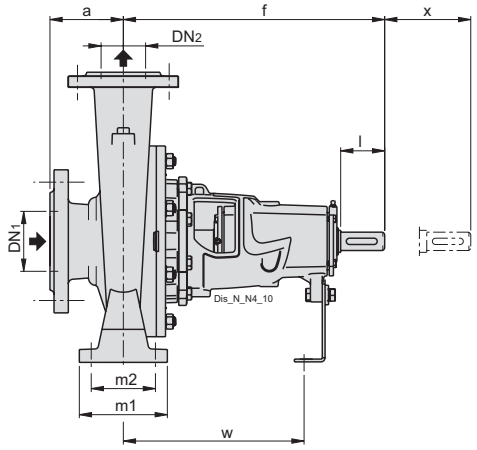
Parallel key UNI 6604

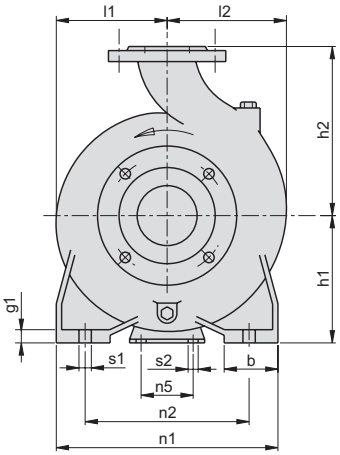
mm			
d	l	u	t
26 j6	50	8	27
32 k6	80	10	35
42 k6	110	12	45
55 k6	110	16	59

TYPE	Motor		mm																		Kg
	kW	HP	DN1	DN2	a	b	d	h1	h2	f	n1	n2	n5	l1	l2	m1	m2	s1	s2	w	x	Weight
BN 32-125F/A	0,55	0,75	50	32	80	50	24	112	140	360	190	140	110	93	97	100	70	14	14	260	100	-
BN 32-125D/A	0,75	1	50	32	80	50	24	112	140	360	190	140	110	93	97	100	70	14	14	260	100	-
BN 32-125D-S/A	1,1	1,5	50	32	80	50	24	112	140	360	190	140	110	93	97	100	70	14	14	260	100	-
BN 32-125A/A	1,1	1,5	50	32	80	50	24	112	140	360	190	140	110	93	97	100	70	14	14	260	100	-
BN 32-125A-S/A	1,5	2	50	32	80	50	24	112	140	360	190	140	110	93	97	100	70	14	14	260	100	-
BN 32-125S/A	1,5	2	50	32	80	50	24	112	140	360	190	140	110	93	97	100	70	14	14	260	100	-
BN 32-160B/A	1,5	2	50	32	80	50	24	132	160	360	240	190	110	120	120	100	70	14	14	260	100	-
BN 32-160B-S/A	2,2	3	50	32	80	50	24	132	160	360	240	190	110	120	120	100	70	14	14	260	100	-
BN 32-160A/A	2,2	3	50	32	80	50	24	132	160	360	240	190	110	120	120	100	70	14	14	260	100	-
BN 32-160A-S/A	3	4	50	32	80	50	24	132	160	360	240	190	110	120	120	100	70	14	14	260	100	-
BN 32-200D/A	2,2	3	50	32	80	50	24	160	180	360	240	190	110	140	140	100	70	14	14	260	100	-
BN 32-200D-S/A	3	4	50	32	80	50	24	160	180	360	240	190	110	140	140	100	70	14	14	260	100	-
BN 32-200C/A	3	4	50	32	80	50	24	160	180	360	240	190	110	140	140	100	70	14	14	260	100	-
BN 32-200A/A	4	5,5	50	32	80	50	24	160	180	360	240	190	110	140	140	100	70	14	14	260	100	-
BN 32-200A-S/A	5,5	7,5	50	32	80	50	24	160	180	360	240	190	110	140	140	100	70	14	14	260	100	-
BN 32L-160C	2,2	3	50	32	80	50	24	132	160	360	240	190	110	120	120	100	70	14	14	260	100	-
BN 32L-160B	3	4	50	32	80	50	24	132	160	360	240	190	110	120	120	100	70	14	14	260	100	-
BN 32L-160A	4	5,5	50	32	80	50	24	132	160	360	240	190	110	120	120	100	70	14	14	260	100	-
BN 32L-200C	4	5,5	50	32	80	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	-
BN 32L-200B	5,5	7,5	50	32	80	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	-
BN 32L-200A	7,5	10	50	32	80	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	-
BN 40-125F/A	1,1	1,5	65	40	80	50	24	112	140	360	210	160	110	100	113	100	70	14	14	260	100	-
BN 40-125C/A	1,5	2	65	40	80	50	24	112	140	360	210	160	110	100	113	100	70	14	14	260	100	-
BN 40-125A/A	2,2	3	65	40	80	50	24	112	140	360	210	160	110	100	113	100	70	14	14	260	100	-
BN 40-160C/A	2,2	3	65	40	80	50	24	132	160	360	240	190	110	119	119	100	70	14	14	260	100	-
BN 40-160B/A	3	4	65	40	80	50	24	132	160	360	240	190	110	119	119	100	70	14	14	260	100	-
BN 40-160A/A	4	5,5	65	40	80	50	24	132	160	360	240	190	110	119	119	100	70	14	14	260	100	-
BN 40-160A-S/A	5,5	7,5	65	40	80	50	24	132	160	360	240	190	110	119	119	100	70	14	14	260	100	-
BN 40-200C/A	4	5,5	65	40	100	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	-
BN 40-200C-S/A	5,5	7,5	65	40	100	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	-
BN 40-200D/A	4	5,5	65	40	100	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	-
BN 40-200D-S/A	5,5	7,5	65	40	100	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	-
BN 40-200B/A	5,5	7,5	65	40	100	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	-
BN 40-200B-S/A	7,5	10	65	40	100	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	-
BN 40-200AR/A	5,5	7,5	65	40	100	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	-
BN 40-200AR-S/A	7,5	10	65	40	100	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	-
BN 40-200A/A	7,5	10	65	40	100	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100	-
BN 40-250C/A	11	15	65	40	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100	-
BN 40-250B/A	11	15	65	40	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100	-
BN 40-250A/A	15	20	65	40	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100	-
BN 50-125F/A	2,2	3	65	50	100	50	24	132	160	360	240	190	110	121	137	100	70	14	14	260	100	-
BN 50-125D/A	3	4	65	50	100	50	24	132	160	360	240	190	110	121	137	100	70	14	14	260	100	-
BN 50-125A/A	4	5,5	65	50	100	50	24	132	160	360	240	190	110	121	137	100	70	14	14	260	100	-
BN 50-160B/A	5,5	7,5	65	50	100	50	24	160	180	360	265	212	110	127	141	100	70	14	14	260	100	-
BN 50-125S/A	4	5,5	65	50	100	50	24	132	160	360	240	190	110	121	137	100	70	14	14	260	100	-
BN 50-125S-S/A	5,5	7,5	65	50	100	50	24	132	160	360	240	190	110	121	137	100	70	14	14	260	100	-
BN 50-160A/A	7,5	10	65	50	100	50	24	160	180	360	265	212	110	127	141	100	70	14	14	260	100	-
BN 50-200B/A	11	15	65	50	100	50	24	160	200	360	265	212	110	140	153	100	70	14	14	260	100	-
BN 50-200A/A	11	15	65	50	100	50	24	160	200	360	265	212	110	140	153	100	70	14	14	260	100	-
BN 50-200S/A	15	20	65	50	100	50	24	160	200	360	265	212	110	140	153	100	70	14	14	260	100	52.5
BN 50-250C/A	11	15	65	50	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100	-
BN 50-250B/A	15	20	65	50	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100	-
BN 50-250A/A	18,5	25	65	50	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100	-
BN 50-250S/A	22	30	65	50	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100	-

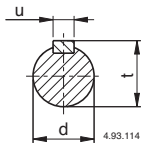
N

Dimensions and weights





Shaft extension ISO 775



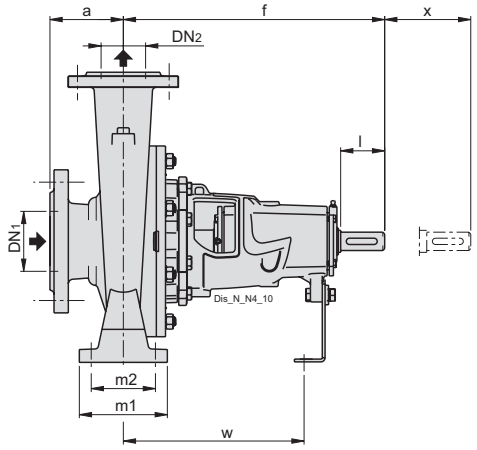
Parallel key UNI 6604

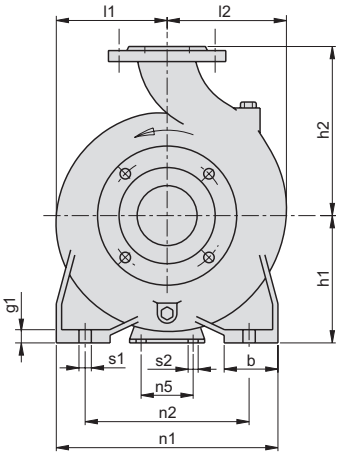
mm			
d	l	u	t
26 j6	50	8	27
32 k6	80	10	35
42 k6	110	12	45
55 k6	110	16	59

TYPE	Motor		mm																		
	kW	HP	DN1	DN2	a	b	d	h1	h2	f	n1	n2	n5	l1	l2	m1	m2	s1	s2	w	x
BN 65-125E/B	4	5,5	80	65	100	65	24	160	180	360	280	212	110	134	155	125	95	14	14	260	100
BN 65-125C/B	5,5	7,5	80	65	100	65	24	160	180	360	280	212	110	134	155	125	95	14	14	260	100
BN 65-125A/B	7,5	10	80	65	100	65	24	160	180	360	280	212	110	134	155	125	95	14	14	260	100
BN 65-160D/B	7,5	10	80	65	100	65	24	160	200	360	280	212	110	150	172	125	95	14	14	260	100
BN 65-160C/B	11	15	80	65	100	65	24	160	200	360	280	212	110	150	172	125	95	14	14	260	100
BN 65-160B/B	11	15	80	65	100	65	24	160	200	360	280	212	110	150	172	125	95	14	14	260	100
BN 65-160A/B	15	20	80	65	100	65	24	160	200	360	280	212	110	150	172	125	95	14	14	260	100
BN 65-160AR	15	20	80	65	100	65	24	160	200	360	280	212	110	150	172	125	95	14	14	260	100
BN 65-200C/B	15	20	80	65	100	65	24	180	225	360	320	250	110	155	175	125	95	14	14	260	140
BN 65-200B/B	18,5	25	80	65	100	65	24	180	225	360	320	250	110	155	175	125	95	14	14	260	140
BN 65-200A/B	22	30	80	65	100	65	24	180	225	360	320	250	110	155	175	125	95	14	14	260	140
BN 65-250C/B	22	30	80	65	100	80	24	200	250	470	360	280	110	175	190	160	120	18	14	340	140
BN 65-250B/B	30	40	80	65	100	80	24	200	250	470	360	280	110	175	190	160	120	18	14	340	140
BN 65-250A/B	37	50	80	65	100	80	24	200	250	470	360	280	110	175	190	160	120	18	14	340	140
BN 80-160E/B	7,5	10	100	80	125	65	24	180	225	360	320	250	110	165	193	125	95	14	14	260	140
BN 80-160D/B	11	15	100	80	125	65	24	180	225	360	320	250	110	165	193	125	95	14	14	260	140
BN 80-160C/B	11	15	100	80	125	65	24	180	225	360	320	250	110	165	193	125	95	14	14	260	140
BN 80-160B/B	15	20	100	80	125	65	24	180	225	360	320	250	110	165	193	125	95	14	14	260	140
BN 80-160A/B	18,5	25	100	80	125	65	24	180	225	360	320	250	110	165	193	125	95	14	14	260	140
BN 80-200B/B	22	30	100	80	125	65	32	180	250	470	345	280	110	170	194	125	95	14	14	340	140
BN 80-200A/B	30	40	100	80	125	65	32	180	250	470	345	280	110	170	194	125	95	14	14	340	140
BN 80-250E/A	22	30	100	80	125	80	32	200	280	470	400	315	110	191	210	160	120	18	14	340	140
BN 80-250D/A	30	40	100	80	125	80	32	200	280	470	400	315	110	191	210	160	120	18	14	340	140
BN 80-250C/A	37	50	100	80	125	80	32	200	280	470	400	315	110	191	210	160	120	18	14	340	140
BN 80-250B/A	45	60	100	80	125	80	32	200	280	470	400	315	110	191	210	160	120	18	14	340	140
BN 80-250A/A	55	75	100	80	125	80	32	200	280	470	400	315	110	191	210	160	120	18	14	340	140
BN 100-200E/A	18,5	25	125	100	125	80	32	200	280	470	360	280	110	180	212	160	120	18	14	340	140
BN 100-200D/A	22	30	125	100	125	80	32	200	280	470	360	280	110	180	212	160	120	18	14	340	140
BN 100-200C/A	30	40	125	100	125	80	32	200	280	470	360	280	110	180	212	160	120	18	14	340	140
BN 100-200B/A	37	50	125	100	125	80	32	200	280	470	360	280	110	180	212	160	120	18	14	340	140
BN 100-200A/A	45	60	125	100	125	80	32	200	280	470	360	280	110	180	212	160	120	18	14	340	140
BN 100-250B/A	55	75	125	100	140	80	32	225	280	470	400	315	110	205	233	160	120	18	14	340	140
BN 100-250A/A	75	100	125	100	140	80	32	225	280	470	400	315	110	205	233	160	120	18	14	340	140

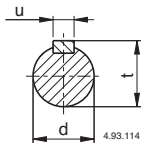
N

Dimensions and weights





Shaft extension ISO 775



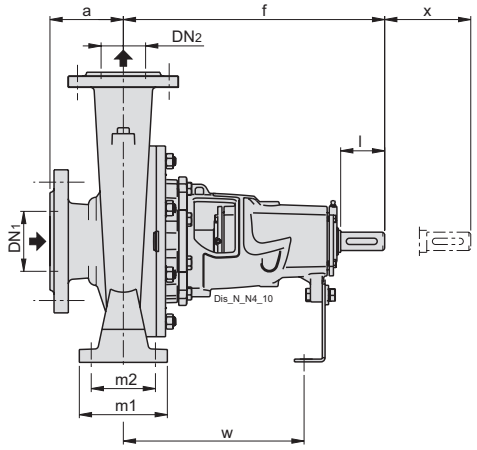
Parallel key UNI 6604

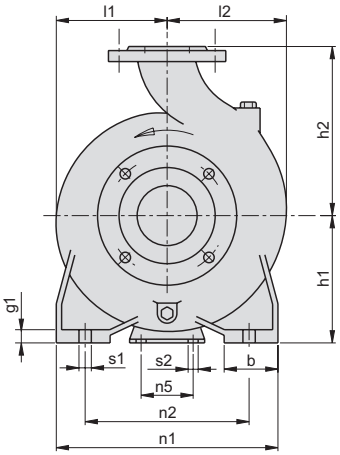
mm			
d	l	u	t
26 j6	50	8	27
32 k6	80	10	35
42 k6	110	12	45
55 k6	110	16	59

TYPE	Motor		mm																		
	kW	HP	DN1	DN2	a	b	d	h1	h2	f	n1	n2	n5	l1	l2	m1	m2	s1	s2	w	x
BN4 32-125F/A	0,25	0,34	50	32	80	50	24	112	140	360	190	140	110	93	97	100	70	14	14	260	100
BN4 32-125D/A	0,25	0,34	50	32	80	50	24	112	140	360	190	140	110	93	97	100	70	14	14	260	100
BN4 32-125A/A	0,25	0,34	50	32	80	50	24	112	140	360	190	140	110	93	97	100	70	14	14	260	100
BN4 32-160B/A	0,37	0,5	50	32	80	50	24	132	160	360	240	190	110	120	120	100	70	14	14	260	100
BN4 32-160A/A	0,37	0,5	50	32	80	50	24	132	160	360	240	190	110	120	120	100	70	14	14	260	100
BN4 32-200B/A	0,55	0,75	50	32	80	50	24	160	180	360	240	190	110	140	140	100	70	14	14	260	100
BN4 32-200A/A	0,75	1	50	32	80	50	24	160	180	360	240	190	110	140	140	100	70	14	14	260	100
BN4 40-160C/A	0,37	0,5	65	40	80	50	24	132	160	360	240	190	110	119	119	100	70	14	14	260	100
BN4 40-160B/A	0,55	0,75	65	40	80	50	24	132	160	360	240	190	110	119	119	100	70	14	14	260	100
BN4 40-160A/A	0,75	1	65	40	80	50	24	132	160	360	240	190	110	119	119	100	70	14	14	260	100
BN4 40-200B/A	1,1	1,5	65	40	100	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100
BN4 40-200A/A	1,1	1,5	65	40	100	50	24	160	180	360	265	212	110	140	140	100	70	14	14	260	100
BN4 40-250C/A	1,5	2	65	40	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100
BN4 40-250B/A	2,2	3	65	40	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100
BN4 40-250A/A	3	4	65	40	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100
BN4 50-125F/A	0,37	0,5	65	50	100	50	24	132	160	360	240	190	110	121	137	100	70	14	14	260	100
BN4 50-125D/A	0,55	0,75	65	50	100	50	24	132	160	360	240	190	110	121	137	100	70	14	14	260	100
BN4 50-125A/A	0,75	1	65	50	100	50	24	132	160	360	240	190	110	121	137	100	70	14	14	260	100
BN4 50-125S/A	0,75	1	65	50	100	50	24	132	160	360	240	190	110	121	137	100	70	14	14	260	100
BN4 50-160B/A	1,1	1,5	65	50	100	50	24	160	180	360	265	212	110	127	141	100	70	14	14	260	100
BN4 50-160A/A	1,1	1,5	65	50	100	50	24	160	180	360	265	212	110	127	141	100	70	14	14	260	100
BN4 50-200C/A	1,1	1,5	65	50	100	50	24	160	200	360	265	212	110	140	153	100	70	14	14	260	100
BN4 50-200B/A	1,5	2	65	50	100	50	24	160	200	360	265	212	110	140	153	100	70	14	14	260	100
BN4 50-200A/A	2,2	3	65	50	100	50	24	160	200	360	265	212	110	140	153	100	70	14	14	260	100
BN4 50-250C/A	2,2	3	65	50	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100
BN4 50-250D	2,2	3	65	50	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100
BN4 50-250B/A	3	4	65	50	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100
BN4 50-250A/A	4	5,5	65	50	100	65	24	180	225	360	320	250	110	175	175	125	95	14	14	260	100
BN4 65-125E/B	0,75	1	80	65	100	65	24	160	180	360	280	212	110	134	155	125	95	14	14	260	100
BN4 65-125C/B	0,75	1	80	65	100	65	24	160	180	360	280	212	110	134	155	125	95	14	14	260	100
BN4 65-125A/B	1,1	1,5	80	65	100	65	24	160	180	360	280	212	110	134	155	125	95	14	14	260	100
BN4 65-160C/B	1,1	1,5	80	65	100	65	24	160	200	360	280	212	110	150	172	125	95	14	14	260	100
BN4 65-160B/B	1,1	1,5	80	65	100	65	24	160	200	360	280	212	110	150	172	125	95	14	14	260	100
BN4 65-160A/B	1,5	2	80	65	100	65	24	160	200	360	280	212	110	150	172	125	95	14	14	260	100
BN4 65-160S	2,2	3	80	65	100	65	24	160	200	360	280	212	110	150	172	125	95	14	14	260	100
BN4 65-200B/B	2,2	3	80	65	100	65	24	180	225	360	320	250	110	155	175	125	95	14	14	260	140
BN4 65-200A/B	3	4	80	65	100	65	24	180	225	360	320	250	110	155	175	125	95	14	14	260	140
BN4 65-250B/B	4	5,5	80	65	100	80	24	200	250	470	360	280	110	175	190	160	120	18	14	340	140
BN4 65-250A/B	5,5	7,5	80	65	100	80	24	200	250	470	360	280	110	175	190	160	120	18	14	340	140
BN4 65-315C/A	5,5	7,5	80	65	125	80	32	225	280	470	400	315	110	220	220	160	120	18	14	340	140
BN4 65-315B/A	7,5	10	80	65	125	80	32	225	280	470	400	315	110	220	220	160	120	18	14	340	140
BN4 65-315A/A	11	15	80	65	125	80	32	225	280	470	400	315	110	220	220	160	120	18	14	340	140

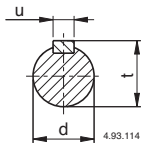
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Dimensions and weights





Shaft extension ISO 775



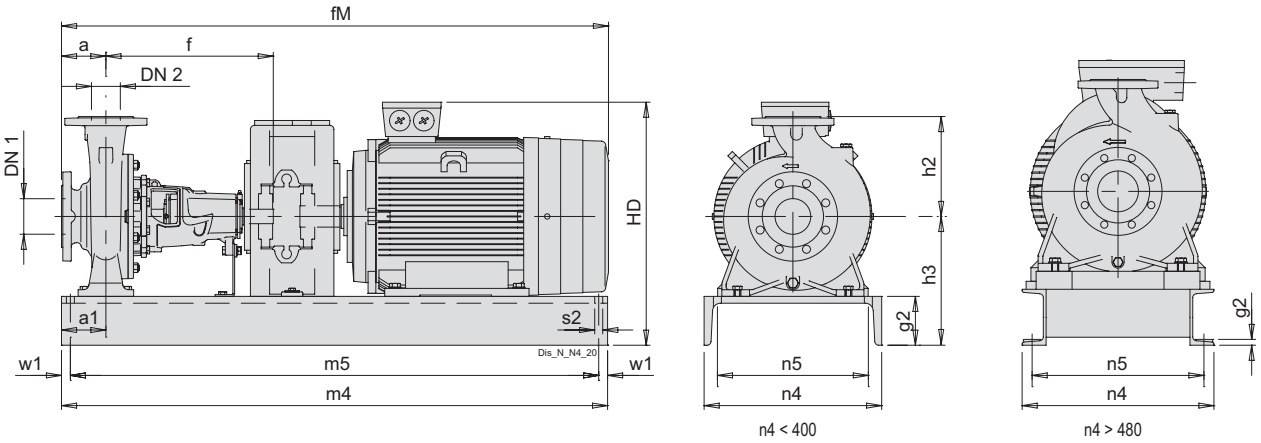
Parallel key UNI 6604

mm			
d	l	u	t
26 j6	50	8	27
32 k6	80	10	35
42 k6	110	12	45
55 k6	110	16	59

TYPE	Motor		mm																		
	kW	HP	DN1	DN2	a	b	d	h1	h2	f	n1	n2	n5	l1	l2	m1	m2	s1	s2	w	x
BN4 80-160C/B	1,1	1,5	100	80	125	65	24	180	225	360	320	250	110	165	193	125	95	14	14	260	140
BN4 80-160B/B	1,5	2	100	80	125	65	24	180	225	360	320	250	110	165	193	125	95	14	14	260	140
BN4 80-160A/B	2,2	3	100	80	125	65	24	180	225	360	320	250	110	165	193	125	95	14	14	260	140
BN4 80-200C/B	2,2	3	100	80	125	65	32	180	250	470	345	280	110	170	194	125	95	14	14	340	140
BN4 80-200B/B	3	4	100	80	125	65	32	180	250	470	345	280	110	170	194	125	95	14	14	340	140
BN4 80-200A/B	4	5,5	100	80	125	65	32	180	250	470	345	280	110	170	194	125	95	14	14	340	140
BN4 80-250C/A	4	5,5	100	80	125	80	32	200	280	470	400	315	110	191	210	160	120	18	14	340	140
BN4 80-250B/A	5,5	7,5	100	80	125	80	32	200	280	470	400	315	110	191	210	160	120	18	14	340	140
BN4 80-250A/A	7,5	10	100	80	125	80	32	200	280	470	400	315	110	191	210	160	120	18	14	340	140
BN4 80-315C/B	11	15	100	80	125	80	32	250	315	470	400	315	110	220	232	160	120	18	14	340	140
BN4 80-315B/B	11	15	100	80	125	80	32	250	315	470	400	315	110	220	232	160	120	18	14	340	140
BN4 80-315A/B	15	20	100	80	125	80	32	250	315	470	400	315	110	220	232	160	120	18	14	340	140
BN4 80-315S	18,5	25	100	80	125	80	32	250	315	470	400	315	110	220	232	160	120	18	14	340	140
BN4 80-400C/B	18,5	25	125	80	125	80	42	280	355	530	435	355	110	268	268	160	120	18	14	370	140
BN4 80-400B/B	22	30	125	80	125	80	42	280	355	530	435	355	110	268	268	160	120	18	14	370	140
BN4 80-400A/B	30	40	125	80	125	80	42	280	355	530	435	355	110	268	268	160	120	18	14	370	140
BN4 80-400S	37	50	125	80	125	80	42	280	355	530	435	355	110	268	268	160	120	18	14	370	140
BN4 100-200C/A	3	4	125	100	125	80	32	200	280	470	360	280	110	180	212	160	120	18	14	340	140
BN4 100-200B/A	4	5,5	125	100	125	80	32	200	280	470	360	280	110	180	212	160	120	18	14	340	140
BN4 100-200A/A	5,5	7,5	125	100	125	80	32	200	280	470	360	280	110	180	212	160	120	18	14	340	140
BN4 100-250B/A	7,5	10	125	100	140	80	32	225	280	470	400	315	110	205	233	160	120	18	14	340	140
BN4 100-250A/A	11	15	125	100	140	80	32	225	280	470	400	315	110	205	233	160	120	18	14	340	140
BN4 100-315C/A	11	15	125	100	140	80	32	250	315	470	400	315	110	230	250	160	120	18	14	340	140
BN4 100-315B/A	15	20	125	100	140	80	32	250	315	470	400	315	110	230	250	160	120	18	14	340	140
BN4 100-315A/A	18,5	25	125	100	140	80	32	250	315	470	400	315	110	230	250	160	120	18	14	340	140
BN4 100-400C/A	22	30	125	100	140	100	42	280	355	530	500	400	110	268	280	200	150	22	14	370	140
BN4 100-400B/A	30	40	125	100	140	100	42	280	355	530	500	400	110	268	280	200	150	22	14	370	140
BN4 100-400A/A	37	50	125	100	140	100	42	280	355	530	500	400	110	268	280	200	150	22	14	370	140
BN4 125-250E/A	5,5	7,5	150	125	140	80	32	250	355	470	400	315	110	235	268	160	120	18	14	340	140
BN4 125-250D/A	7,5	10	150	125	140	80	32	250	355	470	400	315	110	235	268	160	120	18	14	340	140
BN4 125-250C/A	11	15	150	125	140	80	32	250	355	470	400	315	110	235	268	160	120	18	14	340	140
BN4 125-250B/A	11	15	150	125	140	80	32	250	355	470	400	315	110	235	268	160	120	18	14	340	140
BN4 125-250A/A	15	20	150	125	140	80	32	250	355	470	400	315	110	235	268	160	120	18	14	340	140
BN4 125-315C/A	18,5	25	150	125	140	100	42	280	355	530	500	400	110	247	278	200	150	22	14	370	140
BN4 125-315B/A	22	30	150	125	140	100	42	280	355	530	500	400	110	247	278	200	150	22	14	370	140
BN4 125-315A/A	30	40	150	125	140	100	42	280	355	530	500	400	110	247	278	200	150	22	14	370	140
BN4 125-400C/A	37	50	150	125	140	100	42	315	400	530	500	400	110	280	305	200	150	22	14	370	140
BN4 125-400B/A	45	60	150	125	140	100	42	315	400	530	500	400	110	280	305	200	150	22	14	370	140
BN4 125-400A/A	55	75	150	125	140	100	42	315	400	530	500	400	110	280	305	200	150	22	14	370	140
BN4 150-315D/B	18,5	25	200	150	160	100	42	280	400	530	550	450	110	260	298	200	150	22	14	370	140
BN4 150-315C/B	22	30	200	150	160	100	42	280	400	530	550	450	110	260	298	200	150	22	14	370	140
BN4 150-315B/B	30	40	200	150	160	100	42	280	400	530	550	450	110	260	298	200	150	22	14	370	140
BN4 150-315A/B	37	50	200	150	160	100	42	280	400	530	550	450	110	260	298	200	150	22	14	370	140
BN4 150-315S	45	60	200	150	160	100	42	280	400	530	550	450	110	260	298	200	150	22	14	370	140
BN4 150-400B/B	55	75	200	150	160	100	42	315	450	530	550	450	110	295	328	200	150	22	14	370	140
BN4 150-400A/B	75	100	200	150	160	100	42	315	450	530	550	450	110	295	328	200	150	22	14	370	140
BN4 150-400S	90	120	200	150	160	100	42	315	450	530	550	450	110	295	328	200	150	22	14	370	140

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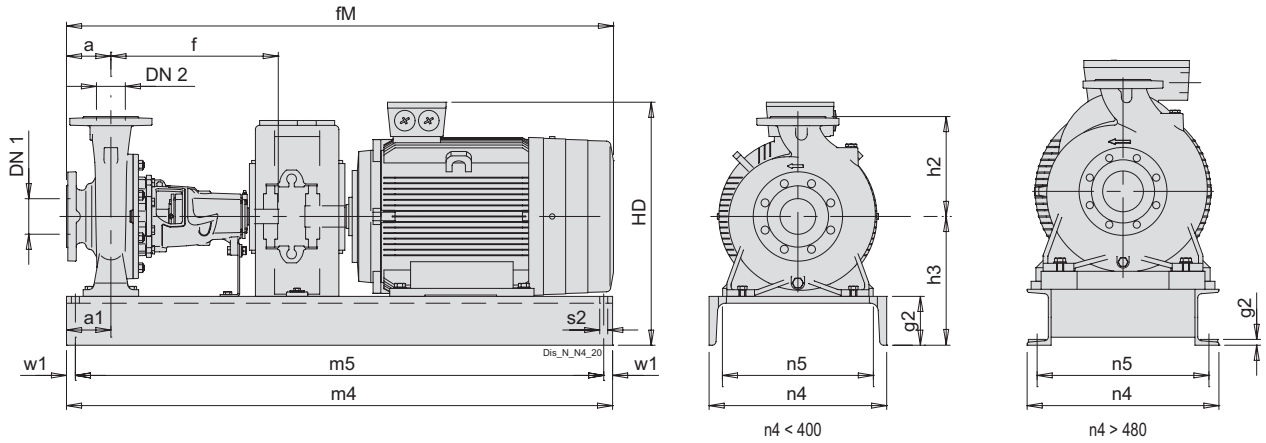
Dimensions and weights



TYPE	Motor	mm																Kg
	kW	DN1	DN2	a	a1	f	fM	g2	h2	h3	HD	m4	m5	n4	n5	s1	w1	Weight
N 32-125F/A G	0,55	50	32	80	90	360	718	85	140	197	308	780	750	240	180	14	15	-
N 32-125D/A G	0,75	50	32	80	90	360	770	85	140	197	319	780	750	240	180	14	15	-
N 32-125D-S/A G	1,1	50	32	80	90	360	770	85	140	197	319	780	750	240	180	14	15	-
N 32-125A/A G	1,1	50	32	80	90	360	770	85	140	197	319	780	750	240	180	14	15	-
N 32-125A-S/A G	1,5	50	32	80	90	360	825	85	140	197	323	780	750	240	180	14	15	-
N 32-125S/A G	1,5	50	32	80	90	360	825	85	140	197	323	780	750	240	180	14	15	-
N 32-160B/A G	1,5	50	32	80	90	360	825	85	160	217	343	780	750	240	180	14	15	-
N 32-160B-S/A G	2,2	50	32	80	90	360	865	85	160	217	343	780	750	240	180	14	15	-
N 32-160A/A G	2,2	50	32	80	90	360	865	85	160	217	343	780	750	240	180	14	15	325
N 32-160A-S/A G	3	50	32	80	90	360	920	100	160	232	398	880	850	300	240	14	15	-
N 32-200D/A G	2,2	50	32	80	90	360	865	85	180	245	371	780	750	240	180	14	15	-
N 32-200D-S/A G	3	50	32	80	90	360	920	100	180	260	426	880	850	300	240	14	15	-
N 32-200C/A G	3	50	32	80	90	360	920	100	180	260	426	880	850	300	240	14	15	-
N 32-200A/A G	4	50	32	80	90	360	903	100	180	260	437	880	850	300	240	14	15	-
N 32-200A-S/A G	5,5	50	32	80	100	360	954	100	180	260	462	1020	990	350	290	14	15	-
N 32L-160C G	2,2	50	32	80	90	360	865	85	160	217	343	780	750	240	180	14	15	-
N 32L-160B G	3	50	32	80	90	360	920	100	160	232	398	880	850	300	240	14	15	-
N 32L-160A G	4	50	32	80	90	360	903	100	160	232	409	880	850	300	240	14	15	110
N 32L-200C G	4	50	32	80	90	360	903	100	180	260	437	880	850	300	240	14	15	-
N 32L-200B G	5,5	50	32	80	90	360	953	100	180	260	462	1020	990	350	290	14	15	-
N 32L-200A G	7,5	50	32	80	90	360	953	100	180	260	462	1020	990	350	290	14	15	-
N 40-125F/A G	1,1	65	40	80	90	360	770	85	140	197	319	780	750	240	180	14	15	-
N 40-125C/A G	1,5	65	40	80	90	360	825	85	140	197	323	780	750	240	180	14	15	-
N 40-125A/A G	2,2	65	40	80	90	360	865	85	140	197	323	780	750	240	180	14	15	-
N 40-160C/A G	2,2	65	40	80	90	360	865	85	160	217	343	780	750	240	180	14	15	-
N 40-160B/A G	3	65	40	80	90	360	920	100	160	232	398	880	850	300	240	14	15	-
N 40-160A/A G	4	65	40	80	90	360	903	100	160	232	409	880	850	300	240	14	15	-
N 40-160A-S/A G	5,5	65	40	80	90	360	953	100	160	260	434	1020	990	350	290	14	15	-
N 40-200D/A G	4	65	40	100	100	360	923	100	180	260	437	880	850	300	240	14	15	-
N 40-200D-S/A G	5,5	65	40	100	100	360	973	100	180	260	462	1020	990	350	290	14	15	-
N 40-200C/A G	4	65	40	100	100	360	923	100	180	260	437	880	850	300	240	14	15	-
N 40-200C-S/A G	5,5	65	40	100	100	360	973	100	180	260	462	1020	990	350	290	14	15	-
N 40-200B/A G	5,5	65	40	100	100	360	973	100	180	260	462	1020	990	350	290	14	15	-
N 40-200B-S/A G	7,5	65	40	100	100	360	973	100	180	260	462	1020	990	350	290	14	15	-
N 40-200AR/A G	5,5	65	40	100	100	360	973	100	180	260	462	1020	990	350	290	14	15	-
N 40-200AR-S/A G	7,5	65	40	100	100	360	973	100	180	260	462	1020	990	350	290	14	15	-
N 40-200A/A G	7,5	65	40	100	100	360	973	100	180	260	462	1020	990	350	290	14	15	-
N 40-250C/A G	11	65	40	100	100	360	1082	100	225	280	517	1020	990	350	290	14	15	-
N 40-250B/A G	11	65	40	100	100	360	1082	100	225	280	517	1020	990	350	290	14	15	-
N 40-250A/A G	15	65	40	100	100	360	1082	100	225	280	517	1020	990	350	290	14	15	-
N 50-125F/A G	2,2	65	50	100	90	360	885	85	160	217	343	780	750	240	180	14	15	-
N 50-125D/A G	3	65	50	100	90	360	940	100	160	232	398	880	850	300	240	14	15	-
N 50-125A/A G	4	65	50	100	90	360	923	100	160	232	409	880	850	300	240	14	15	-
N 50-125S/A G	4	65	50	100	90	360	923	100	160	232	409	880	850	300	240	14	15	-
N 50-125S-S/A G	5,5	65	50	100	90	360	973	100	160	232	434	1020	990	350	290	14	15	-
N 50-160B/A G	5,5	65	50	100	100	360	973	100	180	260	462	1020	990	350	290	14	15	-
N 50-160A/A G	7,5	65	50	100	100	360	973	100	180	260	462	1020	990	350	290	14	15	-
N 50-200B/A G	11	65	50	100	100	360	1082	100	200	260	497	1020	990	350	290	14	15	-
N 50-200A/A G	11	65	50	100	100	360	1082	100	200	260	497	1020	990	350	290	14	15	214
N 50-200S/A G	15	65	50	100	100	360	1082	100	200	260	497	1020	990	350	290	14	15	-
N 50-250C/A G	11	65	50	100	100	360	1082	100	225	280	517	1020	990	350	290	14	15	-
N 50-250B/A G	15	65	50	100	100	360	1082	100	225	280	517	1020	990	350	290	14	15	-
N 50-250A/A G	18,5	65	50	100	100	360	1142	100	225	280	517	1020	990	350	290	14	15	-
N 50-250S/A G	22	65	50	100	100	360	1218	100	225	280	566	1140	1110	350	290	14	15	-

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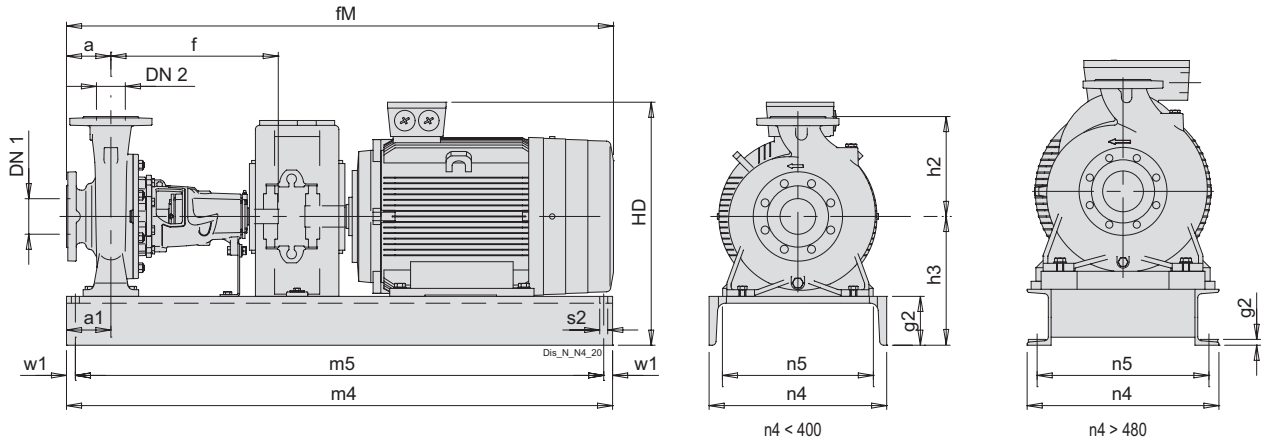
Dimensions and weights



TYPE	Motor	mm																Kg
	kW	DN1	DN2	a	a1	f	fM	g2	h2	h3	HD	m4	m5	n4	n5	s1	w1	Weight
N 65-125E/B G	4	80	65	100	100	360	923	100	180	260	437	880	850	300	240	14	15	-
N 65-125C/B G	5,5	80	65	100	100	360	973	100	180	260	462	1020	990	350	290	14	15	-
N 65-125A/B G	7,5	80	65	100	100	360	973	100	180	260	462	1020	990	350	290	14	15	-
N 65-160D/B G	7,5	80	65	100	100	360	973	100	200	260	462	1020	990	350	290	14	15	-
N 65-160C/B G	11	80	65	100	100	360	1112	100	200	260	497	1020	990	350	290	14	15	-
N 65-160B/B G	11	80	65	100	100	360	1112	100	200	260	497	1020	990	350	290	14	15	-
N 65-160A/B G	15	80	65	100	100	360	1082	100	200	260	497	1020	990	350	290	14	15	220
N 65-160AR G	15	80	65	100	100	360	1082	100	200	260	497	1020	990	350	290	14	15	-
N 65-200C/B G	15	80	65	100	100	360	1082	100	225	280	517	1020	990	350	290	14	15	-
N 65-200B/B G	18,5	80	65	100	100	360	1142	100	225	280	517	1020	990	350	290	14	15	-
N 65-200A/B G	22	80	65	100	100	360	1218	100	225	280	566	1140	1110	350	290	14	15	-
N 65-250C/B G	22	80	65	100	130	470	1328	110	250	310	596	1360	1320	400	340	18	20	-
N 65-250B/B G	30	80	65	100	130	470	1348	110	250	310	625	1360	1320	400	340	18	20	-
N 65-250A/B G	37	80	65	100	130	470	1348	110	250	310	625	1360	1320	400	340	18	20	-
N 80-160E/B G	7,5	100	80	125	100	360	998	100	225	280	482	1020	990	350	290	14	15	-
N 80-160D/B G	11	100	80	125	100	360	1107	100	225	280	517	1020	990	350	290	14	15	-
N 80-160C/B G	11	100	80	125	100	360	1107	100	225	280	517	1020	990	350	290	14	15	-
N 80-160B/B G	15	100	80	125	100	360	1107	100	225	280	517	1020	990	350	290	14	15	-
N 80-160A/B G	18,5	100	80	125	100	360	1167	100	225	280	517	1020	990	350	290	14	15	-
N 80-200B/B G	22	100	80	125	100	470	1353	110	250	290	576	1230	1190	400	340	18	20	-
N 80-200A/B G	30	100	80	125	130	470	1373	110	250	310	625	1360	1320	400	340	18	20	-
N 80-250E/A G	22	100	80	125	130	470	1353	110	280	310	596	1360	1320	400	340	18	20	-
N 80-250D/A G	30	100	80	125	130	470	1373	110	280	310	625	1360	1320	400	340	18	20	-
N 80-250C/A G	37	100	80	125	130	470	1373	110	280	310	625	1360	1320	400	340	18	20	-
N 80-250B/A G	45	100	80	125	95	470	1470	16	280	385	723	1250	840	480	430	24	205	-
N 80-250A/A G	55	100	80	125	95	470	1509	16	280	415	825	1250	840	480	430	24	205	-
N 100-200E/A G	18,5	125	100	125	130	470	1263	110	280	310	547	1230	1190	400	340	18	20	-
N 100-200D/A G	22	125	100	125	130	470	1353	110	280	310	596	1360	1320	400	340	18	20	-
N 100-200C/A G	30	125	100	125	130	470	1373	110	280	310	625	1360	1320	400	340	18	20	-
N 100-200B/A G	37	125	100	125	130	470	1373	110	280	310	625	1360	1320	400	340	18	20	-
N 100-200A/A G	45	125	100	125	95	470	1470	16	280	385	723	1250	840	480	430	24	205	-
N 100-250B/A G	55	125	100	140	95	470	1524	16	280	415	825	1250	840	480	430	24	205	-
N 100-250A/A G	75	125	100	140	95	470	1597	17.5	280	505	938	1400	940	510	450	24	230	-

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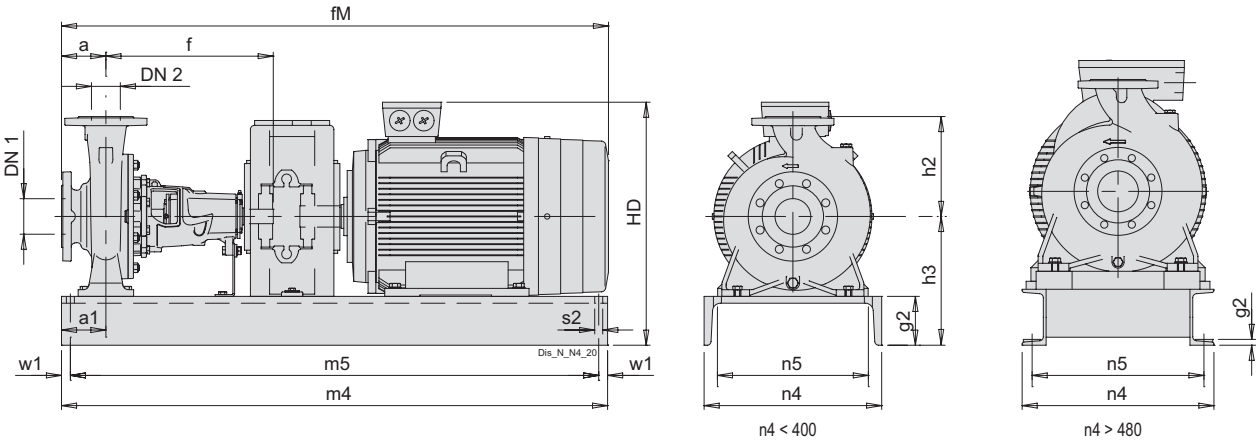
Dimensions and weights



TYPE	Motor	mm															
	kW	DN1	DN2	a	a1	f	fM	g2	h2	h3	HD	m4	m5	n4	n5	s1	w1
N4 32-125F/A G	0,25	50	32	80	90	360	718	85	140	197	308	780	750	240	180	14	15
N4 32-125D/A G	0,25	50	32	80	90	360	718	85	140	197	308	780	750	240	180	14	15
N4 32-125A/A G	0,25	50	32	80	90	360	718	85	140	197	308	780	750	240	180	14	15
N4 32-160B/A G	0,37	50	32	80	90	360	718	85	160	217	328	780	750	240	180	14	15
N4 32-160A/A G	0,37	50	32	80	90	360	718	85	160	217	328	780	750	240	180	14	15
N4 32-200B/A G	0,55	50	32	80	90	360	770	85	180	245	367	780	750	240	180	14	15
N4 32-200A/A G	0,75	50	32	80	90	360	770	85	180	245	367	780	750	240	180	14	15
N4 40-160C/A G	0,37	65	40	80	90	360	718	85	160	217	328	780	750	240	180	14	15
N4 40-160B/A G	0,55	65	40	80	90	360	770	85	160	217	339	780	750	240	180	14	15
N4 40-160A/A G	0,75	65	40	80	90	360	770	85	160	217	339	780	750	240	180	14	15
N4 40-200B/A G	1,1	65	40	100	100	360	845	100	180	260	386	880	850	300	240	14	15
N4 40-200A/A G	1,1	65	40	100	100	360	845	100	180	260	386	880	850	300	240	14	15
N4 40-250C/A G	1,5	65	40	100	100	360	885	100	225	280	406	880	850	350	290	14	15
N4 40-250B/A G	2,2	65	40	100	100	360	929	100	225	280	446	880	850	350	290	14	15
N4 40-250A/A G	3	65	40	100	100	360	929	100	225	280	446	880	850	350	290	14	15
N4 50-125F/A G	0,37	65	50	100	90	360	738	85	160	217	328	780	750	240	180	14	15
N4 50-125D/A G	0,55	65	50	100	90	360	790	85	160	217	339	780	750	240	180	14	15
N4 50-125A/A G	0,75	65	50	100	90	360	790	85	160	217	339	780	750	240	180	14	15
N4 50-125S/A G	0,75	65	50	100	90	360	790	85	160	217	339	780	750	240	180	14	15
N4 50-160B/A G	1,1	65	50	100	100	360	845	100	180	260	386	880	850	300	240	14	15
N4 50-160A/A G	1,1	65	50	100	100	360	845	100	180	260	386	880	850	300	240	14	15
N4 50-200C/A G	1,1	65	50	100	100	360	845	100	200	260	386	880	850	300	240	14	15
N4 50-200B/A G	1,5	65	50	100	100	360	885	100	200	260	386	880	850	300	240	14	15
N4 50-200A/A G	2,2	65	50	100	100	360	929	100	200	260	426	880	850	300	240	14	15
N4 50-250D G	2,2	65	50	100	100	360	929	100	225	280	446	880	850	350	290	14	15
N4 50-250C/A G	2,2	65	50	100	100	360	929	100	225	280	446	880	850	350	290	14	15
N4 50-250B/A G	3	65	50	100	100	360	929	100	225	280	446	880	850	350	290	14	15
N4 50-250A/A G	4	65	50	100	100	360	912	100	225	280	457	880	850	350	290	14	15
N4 65-125E/B G	0,75	80	65	100	100	360	790	100	180	260	382	880	850	300	240	14	15
N4 65-125C/B G	0,75	80	65	100	100	360	790	100	180	260	382	880	850	300	240	14	15
N4 65-125A/B G	1,1	80	65	100	100	360	845	100	180	260	386	880	850	300	240	14	15
N4 65-160C/B G	1,1	80	65	100	100	360	845	100	200	260	386	880	850	300	240	14	15
N4 65-160B/B G	1,1	80	65	100	100	360	845	100	200	260	386	880	850	300	240	14	15
N4 65-160A/B G	1,5	80	65	100	100	360	885	100	200	260	386	880	850	300	240	14	15
N4 65-160S G	2,2	80	65	100	100	360	929	100	200	260	426	880	850	350	290	14	15
N4 65-200B/B G	2,2	80	65	100	100	360	929	100	225	280	446	880	850	350	290	14	15
N4 65-200A/B G	3	80	65	100	100	360	929	100	225	280	446	880	850	350	290	14	15
N4 65-250B/B G	4	80	65	100	130	470	1022	110	250	310	487	1030	990	400	340	18	20
N4 65-250A/B G	5,5	80	65	100	130	470	1123	110	250	310	512	1030	990	400	340	18	20
N4 65-315C/A G	5,5	80	65	125	130	470	1148	110	280	335	537	1030	990	400	340	18	20
N4 65-315B/A G	7,5	80	65	125	130	470	1148	110	280	335	537	1030	990	400	340	18	20
N4 65-315A/A G	11	80	65	125	130	470	1237	110	280	335	572	1230	1190	400	340	18	20

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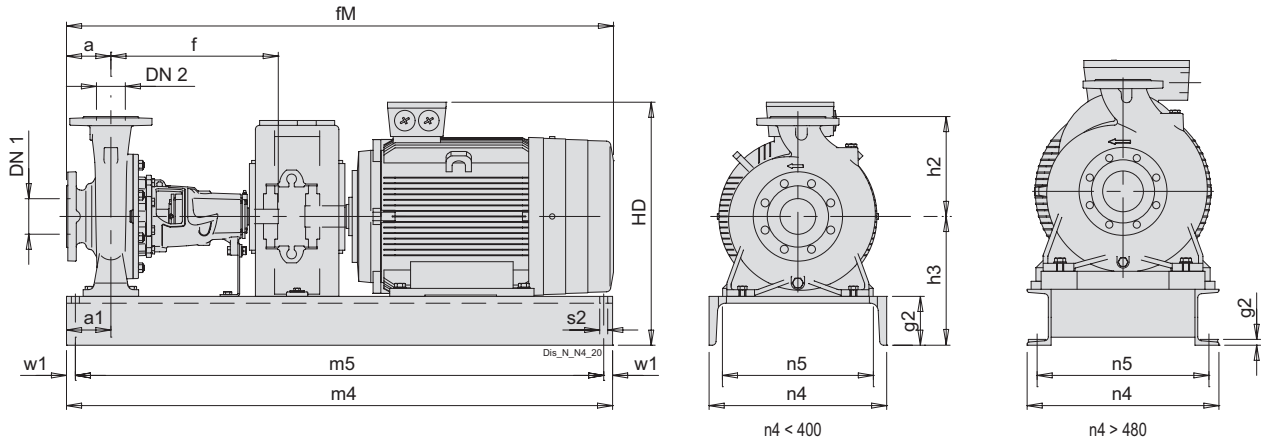
Dimensions and weights



TYPE	Motor	mm															
	kW	DN1	DN2	a	a1	f	fM	g2	h2	h3	HD	m4	m5	n4	n5	s1	w1
N4 80-160C/B G	1,1	100	80	125	100	360	870	100	225	280	406	880	850	350	290	14	15
N4 80-160B/B G	1,5	100	80	125	100	360	910	100	225	280	406	880	850	350	290	14	15
N4 80-160A/B G	2,2	100	80	125	100	360	954	100	225	280	446	880	850	350	290	14	15
N4 80-200C/B G	2,2	100	80	125	100	470	1064	100	250	280	446	1020	990	350	290	14	15
N4 80-200B/B G	3	100	80	125	100	470	1064	100	250	280	446	1020	990	350	290	14	15
N4 80-200A/B G	4	100	80	125	100	470	1047	100	250	280	457	1020	990	350	290	14	15
N4 80-250C/A G	4	100	80	125	130	470	1047	110	280	310	487	1030	990	400	340	18	20
N4 80-250B/A G	5,5	100	80	125	130	470	1148	110	280	310	512	1030	990	400	340	18	20
N4 80-250A/A G	7,5	100	80	125	130	470	1148	110	280	310	512	1030	990	400	340	18	20
N4 80-315C/B G	11	100	80	125	130	470	1237	110	315	360	597	1230	1190	400	340	18	20
N4 80-315B/B G	11	100	80	125	130	470	1237	110	315	360	597	1230	1190	400	340	18	20
N4 80-315A/B G	15	100	80	125	130	470	1297	110	315	360	597	1230	1190	400	340	18	20
N4 80-315S G	18,5	100	80	125	130	470	1301	110	315	360	646	1360	1320	400	340	18	20
N4 80-400C/B G	18,5	125	80	125	115	530	1361	16	355	445	731	1250	840	480	430	24	205
N4 80-400B/B G	22	125	80	125	115	530	1391	16	355	445	760	1250	840	480	430	24	205
N4 80-400A/B G	30	125	80	125	115	530	1439	16	355	445	760	1250	840	480	430	24	205
N4 80-400S G	37	125	80	125	115	530	1481	16	355	445	783	1250	840	480	430	24	205
N4 100-200C/A G	3	125	100	125	130	470	1064	110	280	310	476	1030	990	400	340	18	20
N4 100-200B/A G	4	125	100	125	130	470	1047	110	280	310	487	1030	990	400	340	18	20
N4 100-200A/A G	5,5	125	100	125	130	470	1148	110	280	310	512	1030	990	400	340	18	20
N4 100-250B/A G	7,5	125	100	140	130	470	1163	110	280	335	537	1030	990	400	340	18	20
N4 100-250A/A G	11	125	100	140	130	470	1252	110	280	335	572	1230	1190	400	340	18	20
N4 100-315C/A G	11	125	100	140	130	470	1252	110	315	360	597	1230	1190	400	340	18	20
N4 100-315B/A G	15	125	100	140	130	470	1312	110	315	360	597	1230	1190	400	340	18	20
N4 100-315A/A G	18,5	125	100	140	130	470	1316	110	315	360	646	1360	1320	400	340	18	20
N4 100-400C/A G	22	125	100	140	115	530	1406	16	355	445	760	1250	840	480	430	24	205
N4 100-400B/A G	30	125	100	140	115	530	1454	16	355	445	760	1250	840	480	430	24	205
N4 100-400A/A G	37	125	100	140	115	530	1496	16	355	445	783	1250	840	480	430	24	205
N4 125-250E/A G	5,5	150	125	140	130	470	1163	110	355	360	562	1030	990	400	340	18	20
N4 125-250D/A G	7,5	150	125	140	130	470	1163	110	355	360	562	1030	990	400	340	18	20
N4 125-250C/A G	11	150	125	140	130	470	1252	110	355	360	597	1230	1190	400	340	18	20
N4 125-250B/A G	11	150	125	140	130	470	1252	110	355	360	597	1230	1190	400	340	18	20
N4 125-250A/A G	15	150	125	140	130	470	1312	110	355	360	597	1230	1190	400	340	18	20
N4 125-315C/A G	18,5	150	125	140	115	530	1376	16	355	445	731	1250	840	480	430	24	205
N4 125-315B/A G	22	150	125	140	115	530	1406	16	355	445	760	1250	840	480	430	24	205
N4 125-315A/A G	30	150	125	140	115	530	1454	16	355	445	760	1250	840	480	430	24	205
N4 125-400C/A G	37	150	125	140	115	530	1496	16	400	480	818	1250	840	480	430	24	205
N4 125-400B/A G	45	150	125	140	115	530	1556	16	400	480	818	1250	840	480	430	24	205
N4 125-400A/A G	55	150	125	140	115	530	1595	17.5	400	540	950	1400	940	510	450	24	230
N4 150-315D/B G	18,5	200	150	160	115	530	1396	16	400	445	731	1250	840	480	430	24	205
N4 150-315C/B G	22	200	150	160	115	530	1426	16	400	445	760	1250	840	480	430	24	205
N4 150-315B/B G	30	200	150	160	115	530	1474	16	400	445	760	1250	840	480	430	24	205
N4 150-315A/B G	37	200	150	160	115	530	1516	16	400	445	783	1250	840	480	430	24	205
N4 150-315S G	45	200	150	160	115	530	1576	16	400	445	783	1250	840	480	430	24	205
N4 150-400B/B G	55	200	150	160	115	530	1615	17.5	450	540	950	1400	940	510	450	24	230
N4 150-400A/B G	75	200	150	160	115	530	1688	17.5	450	540	973	1400	940	510	450	24	230
N4 150-400S G	90	200	150	160	115	530	1798	17.5	450	540	973	1400	940	510	450	24	230
N4 200-400C G	90	250	200	180	150	630	1886	17	500	580	970	1800	1340	690	630	24	230
N4 200-400B G	110	250	200	180	150	630	2141	17	500	580	1110	1800	1340	690	630	24	230
N4 200-400A G	132	250	200	180	150	630	2141	17	500	580	1110	1800	1340	690	630	24	230

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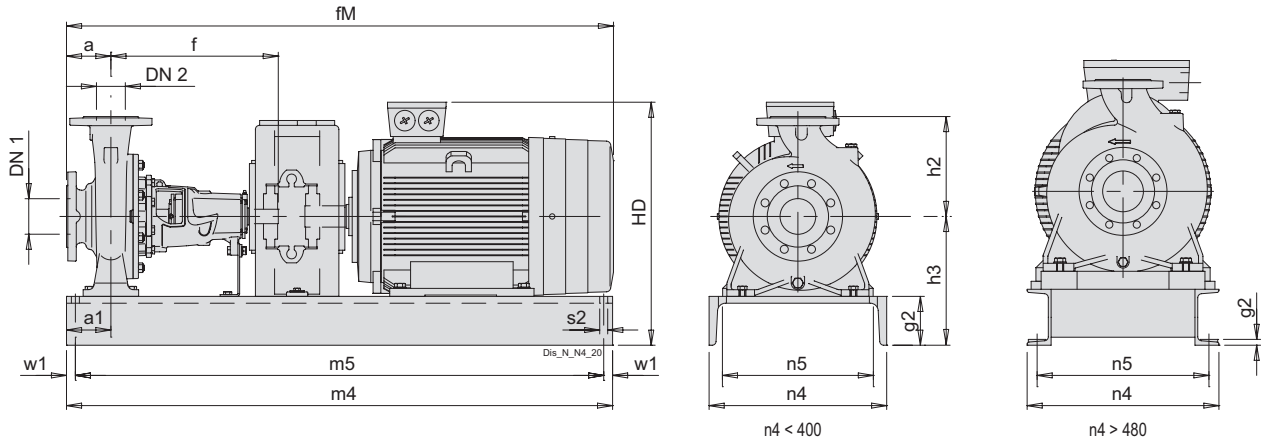
Dimensions and weights



TYPE	Motor	mm															
	kW	DN1	DN2	a	a1	f	fM	g2	h2	h3	HD	m4	m5	n4	n5	s1	w1
BN 32-125F/A G	0,55	50	32	80	90	360	718	85	140	197	308	780	750	240	180	14	15
BN 32-125D/A G	0,75	50	32	80	90	360	770	85	140	197	319	780	750	240	180	14	15
BN 32-125D-S/A G	1,1	50	32	80	90	360	770	85	140	197	319	780	750	240	180	14	15
BN 32-125A/A G	1,1	50	32	80	90	360	770	85	140	197	319	780	750	240	180	14	15
BN 32-125A-S/A G	1,5	50	32	80	90	360	825	85	140	197	323	780	750	240	180	14	15
BN 32-125S/A G	1,5	50	32	80	90	360	825	85	140	197	323	780	750	240	180	14	15
BN 32-160B/A G	1,5	50	32	80	90	360	825	85	160	217	343	780	750	240	180	14	15
BN 32-160B-S/A G	2,2	50	32	80	90	360	865	85	160	217	343	780	750	240	180	14	15
BN 32-160A/A G	2,2	50	32	80	90	360	865	85	160	217	343	780	750	240	180	14	15
BN 32-160A-S/A G	3	50	32	80	90	360	920	100	160	232	398	880	850	300	240	14	15
BN 32-200D/A G	2,2	50	32	80	90	360	865	85	180	245	371	780	750	240	180	14	15
BN 32-200D-S/A G	3	50	32	80	90	360	920	100	180	260	426	880	850	300	240	14	15
BN 32-200C/A G	3	50	32	80	90	360	920	100	180	260	426	880	850	300	240	14	15
BN 32-200A/A G	4	50	32	80	90	360	903	100	180	260	437	880	850	300	240	14	15
BN 32-200A-S/A G	5,5	50	32	80	100	360	954	100	180	260	462	1020	990	350	290	14	15
BN 32L-160C G	2,2	50	32	80	90	360	865	85	160	217	343	780	750	240	180	14	15
BN 32L-160B G	3	50	32	80	90	360	920	100	160	232	398	880	850	300	240	14	15
BN 32L-160A G	4	50	32	80	90	360	903	100	160	232	409	880	850	300	240	14	15
BN 32L-200C G	4	50	32	80	90	360	903	100	180	260	437	880	850	300	240	14	15
BN 32L-200B G	5,5	50	32	80	90	360	953	100	180	260	462	1020	990	350	290	14	15
BN 32L-200A G	7,5	50	32	80	90	360	953	100	180	260	462	1020	990	350	290	14	15
BN 40-125F/A G	1,1	65	40	80	90	360	770	85	140	197	319	780	750	240	180	14	15
BN 40-125C/A G	1,5	65	40	80	90	360	825	85	140	197	323	780	750	240	180	14	15
BN 40-125A/A G	2,2	65	40	80	90	360	865	85	140	197	323	780	750	240	180	14	15
BN 40-160C/A G	2,2	65	40	80	90	360	865	85	160	217	343	780	750	240	180	14	15
BN 40-160B/A G	3	65	40	80	90	360	920	100	160	232	398	880	850	300	240	14	15
BN 40-160A/A G	4	65	40	80	90	360	903	100	160	232	409	880	850	300	240	14	15
BN 40-160A-S/A G	5,5	65	40	80	90	360	953	100	160	260	434	1020	990	350	290	14	15
BN 40-200D/A G	4	65	40	100	100	360	923	100	180	260	437	880	850	300	240	14	15
BN 40-200D-S/A G	5,5	65	40	100	100	360	973	100	180	260	462	1020	990	350	290	14	15
BN 40-200C/A G	4	65	40	100	100	360	923	100	180	260	437	880	850	300	240	14	15
BN 40-200C-S/A G	5,5	65	40	100	100	360	973	100	180	260	462	1020	990	350	290	14	15
BN 40-200B/A G	5,5	65	40	100	100	360	973	100	180	260	462	1020	990	350	290	14	15
BN 40-200B-S/A G	7,5	65	40	100	100	360	973	100	180	260	462	1020	990	350	290	14	15
BN 40-200AR/A G	5,5	65	40	100	100	360	973	100	180	260	462	1020	990	350	290	14	15
BN 40-200AR-S/A G	7,5	65	40	100	100	360	973	100	180	260	462	1020	990	350	290	14	15
BN 40-200A/A G	7,5	65	40	100	100	360	973	100	180	260	462	1020	990	350	290	14	15
BN 40-250C/A G	11	65	40	100	100	360	1082	100	225	280	517	1020	990	350	290	14	15
BN 40-250B/A G	11	65	40	100	100	360	1082	100	225	280	517	1020	990	350	290	14	15
BN 40-250A/A G	15	65	40	100	100	360	1082	100	225	280	517	1020	990	350	290	14	15

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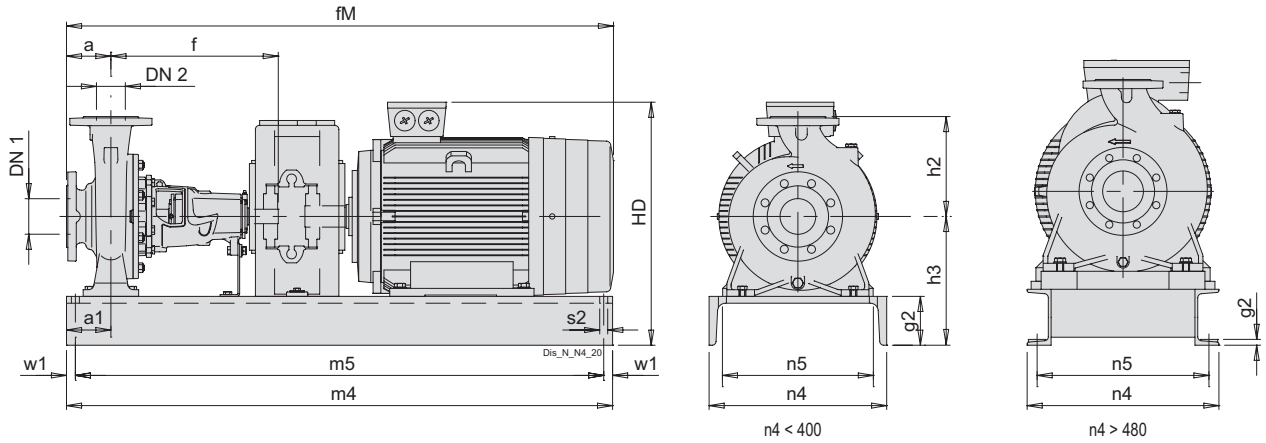
Dimensions and weights



TYPE	Motor	mm															
	kW	DN1	DN2	a	a1	f	fM	g2	h2	h3	HD	m4	m5	n4	n5	s1	w1
BN 50-125F/A G	2,2	65	50	100	90	360	885	85	160	217	343	780	750	240	180	14	15
BN 50-125D/A G	3	65	50	100	90	360	940	100	160	232	398	880	850	300	240	14	15
BN 50-125A/A G	4	65	50	100	90	360	923	100	160	232	409	880	850	300	240	14	15
BN 50-125S/A G	4	65	50	100	90	360	923	100	160	232	409	880	850	300	240	14	15
BN 50-125S-S/A G	5,5	65	50	100	90	360	973	100	160	232	434	1020	990	350	290	14	15
BN 50-160B/A G	5,5	65	50	100	100	360	973	100	180	260	462	1020	990	350	290	14	15
BN 50-160A/A G	7,5	65	50	100	100	360	973	100	180	260	462	1020	990	350	290	14	15
BN 50-200B/A G	11	65	50	100	100	360	1082	100	200	260	497	1020	990	350	290	14	15
BN 50-200A/A G	11	65	50	100	100	360	1082	100	200	260	497	1020	990	350	290	14	15
BN 50-200S/A G	15	65	50	100	100	360	1082	100	200	260	497	1020	990	350	290	14	15
BN 50-250C/A G	11	65	50	100	100	360	1082	100	225	280	517	1020	990	350	290	14	15
BN 50-250B/A G	15	65	50	100	100	360	1082	100	225	280	517	1020	990	350	290	14	15
BN 50-250A/A G	18,5	65	50	100	100	360	1142	100	225	280	517	1020	990	350	290	14	15
BN 50-250S/A G	22	65	50	100	100	360	1218	100	225	280	566	1140	1110	350	290	14	15
BN 65-125E/B G	4	80	65	100	100	360	923	100	180	260	437	880	850	300	240	14	15
BN 65-125C/B G	5,5	80	65	100	100	360	973	100	180	260	462	1020	990	350	290	14	15
BN 65-125A/B G	7,5	80	65	100	100	360	973	100	180	260	462	1020	990	350	290	14	15
BN 65-160D/B G	7,5	80	65	100	100	360	973	100	200	260	462	1020	990	350	290	14	15
BN 65-160C/B G	11	80	65	100	100	360	1112	100	200	260	497	1020	990	350	290	14	15
BN 65-160B/B G	11	80	65	100	100	360	1112	100	200	260	497	1020	990	350	290	14	15
BN 65-160A/B G	15	80	65	100	100	360	1082	100	200	260	497	1020	990	350	290	14	15
BN 65-160AR G	15	80	65	100	100	360	1082	100	200	260	497	1020	990	350	290	14	15
BN 65-200C/B G	15	80	65	100	100	360	1082	100	225	280	517	1020	990	350	290	14	15
BN 65-200B/B G	18,5	80	65	100	100	360	1142	100	225	280	517	1020	990	350	290	14	15
BN 65-200A/B G	22	80	65	100	100	360	1218	100	225	280	566	1140	1110	350	290	14	15
BN 65-250C/B G	22	80	65	100	130	470	1328	110	250	310	596	1360	1320	400	340	18	20
BN 65-250B/B G	30	80	65	100	130	470	1348	110	250	310	625	1360	1320	400	340	18	20
BN 65-250A/B G	37	80	65	100	130	470	1348	110	250	310	625	1360	1320	400	340	18	20
BN 80-160E/B G	7,5	100	80	125	100	360	998	100	225	280	482	1020	990	350	290	14	15
BN 80-160D/B G	11	100	80	125	100	360	1107	100	225	280	517	1020	990	350	290	14	15
BN 80-160C/B G	11	100	80	125	100	360	1107	100	225	280	517	1020	990	350	290	14	15
BN 80-160B/B G	15	100	80	125	100	360	1107	100	225	280	517	1020	990	350	290	14	15
BN 80-160A/B G	18,5	100	80	125	100	360	1167	100	225	280	517	1020	990	350	290	14	15
BN 80-200B/B G	22	100	80	125	100	470	1353	110	250	290	576	1230	1190	400	340	18	20
BN 80-200A/B G	30	100	80	125	130	470	1373	110	250	310	625	1360	1320	400	340	18	20
BN 80-250E/A G	22	100	80	125	130	470	1353	110	280	310	596	1360	1320	400	340	18	20
BN 80-250D/A G	30	100	80	125	130	470	1373	110	280	310	625	1360	1320	400	340	18	20
BN 80-250C/A G	37	100	80	125	130	470	1373	110	280	310	625	1360	1320	400	340	18	20
BN 80-250B/A G	45	100	80	125	95	470	1470	16	280	385	723	1250	840	480	430	24	205
BN 80-250A/A G	55	100	80	125	95	470	1509	16	280	415	825	1250	840	480	430	24	205
BN 100-200E/A G	18,5	125	100	125	130	470	1263	110	280	310	547	1230	1190	400	340	18	20
BN 100-200D/A G	22	125	100	125	130	470	1353	110	280	310	596	1360	1320	400	340	18	20
BN 100-200C/A G	30	125	100	125	130	470	1373	110	280	310	625	1360	1320	400	340	18	20
BN 100-200B/A G	37	125	100	125	130	470	1373	110	280	310	625	1360	1320	400	340	18	20
BN 100-200A/A G	45	125	100	125	95	470	1470	16	280	385	723	1250	840	480	430	24	205
BN 100-250B/A G	55	125	100	140	95	470	1524	16	280	415	825	1250	840	480	430	24	205
BN 100-250A/A G	75	125	100	140	95	470	1597	17.5	280	505	938	1400	940	510	450	24	230

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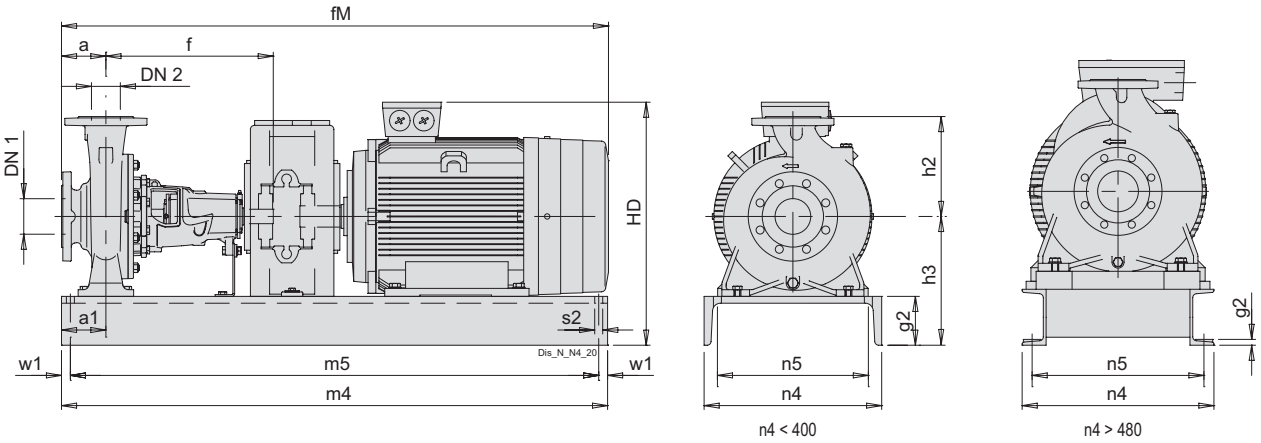
Dimensions and weights



TYPE	Motor	mm															
	kW	DN1	DN2	a	a1	f	fM	g2	h2	h3	HD	m4	m5	n4	n5	s1	w1
BN4 32-125F/A G	0,25	50	32	80	90	360	718	85	140	197	308	780	750	240	180	14	15
BN4 32-125D/A G	0,25	50	32	80	90	360	718	85	140	197	308	780	750	240	180	14	15
BN4 32-125A/A G	0,25	50	32	80	90	360	718	85	140	197	308	780	750	240	180	14	15
BN4 32-160B/A G	0,37	50	32	80	90	360	718	85	160	217	328	780	750	240	180	14	15
BN4 32-160A/A G	0,37	50	32	80	90	360	718	85	160	217	328	780	750	240	180	14	15
BN4 32-200B/A G	0,55	50	32	80	90	360	770	85	180	245	367	780	750	240	180	14	15
BN4 32-200A/A G	0,75	50	32	80	90	360	770	85	180	245	367	780	750	240	180	14	15
BN4 40-160C/A G	0,37	65	40	80	90	360	718	85	160	217	328	780	750	240	180	14	15
BN4 40-160B/A G	0,55	65	40	80	90	360	770	85	160	217	339	780	750	240	180	14	15
BN4 40-160A/A G	0,75	65	40	80	90	360	770	85	160	217	339	780	750	240	180	14	15
BN4 40-200B/A G	1,1	65	40	100	100	360	845	100	180	260	386	880	850	300	240	14	15
BN4 40-200A/A G	1,1	65	40	100	100	360	845	100	180	260	386	880	850	300	240	14	15
BN4 40-250C/A G	1,5	65	40	100	100	360	885	100	225	280	406	880	850	350	290	14	15
BN4 40-250B/A G	2,2	65	40	100	100	360	929	100	225	280	446	880	850	350	290	14	15
BN4 40-250A/A G	3	65	40	100	100	360	929	100	225	280	446	880	850	350	290	14	15
BN4 50-125F/A G	0,37	65	50	100	90	360	738	85	160	217	328	780	750	240	180	14	15
BN4 50-125D/A G	0,55	65	50	100	90	360	790	85	160	217	339	780	750	240	180	14	15
BN4 50-125A/A G	0,75	65	50	100	90	360	790	85	160	217	339	780	750	240	180	14	15
BN4 50-125S/A G	0,75	65	50	100	90	360	790	85	160	217	339	780	750	240	180	14	15
BN4 50-160B/A G	1,1	65	50	100	100	360	845	100	180	260	386	880	850	300	240	14	15
BN4 50-160A/A G	1,1	65	50	100	100	360	845	100	180	260	386	880	850	300	240	14	15
BN4 50-200C/A G	1,1	65	50	100	100	360	845	100	200	260	386	880	850	300	240	14	15
BN4 50-200B/A G	1,5	65	50	100	100	360	885	100	200	260	386	880	850	300	240	14	15
BN4 50-200A/A G	2,2	65	50	100	100	360	929	100	200	260	426	880	850	300	240	14	15
BN4 50-250D G	2,2	65	50	100	100	360	929	100	225	280	446	880	850	350	290	14	15
BN4 50-250C/A G	2,2	65	50	100	100	360	929	100	225	280	446	880	850	350	290	14	15
BN4 50-250B/A G	3	65	50	100	100	360	929	100	225	280	446	880	850	350	290	14	15
BN4 50-250A/A G	4	65	50	100	100	360	912	100	225	280	457	880	850	350	290	14	15
BN4 65-125E/B G	0,75	80	65	100	100	360	790	100	180	260	382	880	850	300	240	14	15
BN4 65-125C/B G	0,75	80	65	100	100	360	790	100	180	260	382	880	850	300	240	14	15
BN4 65-125A/B G	1,1	80	65	100	100	360	845	100	180	260	386	880	850	300	240	14	15
BN4 65-160C/B G	1,1	80	65	100	100	360	845	100	200	260	386	880	850	300	240	14	15
BN4 65-160B/B G	1,1	80	65	100	100	360	845	100	200	260	386	880	850	300	240	14	15
BN4 65-160A/B G	1,5	80	65	100	100	360	885	100	200	260	386	880	850	300	240	14	15
BN4 65-160S G	2,2	80	65	100	100	360	929	100	200	260	426	880	850	350	290	14	15
BN4 65-200B/B G	2,2	80	65	100	100	360	929	100	225	280	446	880	850	350	290	14	15
BN4 65-200A/B G	3	80	65	100	100	360	929	100	225	280	446	880	850	350	290	14	15
BN4 65-250B/B G	4	80	65	100	130	470	1022	110	250	310	487	1030	990	400	340	18	20
BN4 65-250A/B G	5,5	80	65	100	130	470	1123	110	250	310	512	1030	990	400	340	18	20
BN4 65-315C/A G	5,5	80	65	125	130	470	1148	110	280	335	537	1030	990	400	340	18	20
BN4 65-315B/A G	7,5	80	65	125	130	470	1148	110	280	335	537	1030	990	400	340	18	20
BN4 65-315A/A G	11	80	65	125	130	470	1237	110	280	335	572	1230	1190	400	340	18	20

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Dimensions and weights



TYPE	Motor	mm															
	kW	DN1	DN2	a	a1	f	fM	g2	h2	h3	HD	m4	m5	n4	n5	s1	w1
BN4 80-160C/B G	1,1	100	80	125	100	360	870	100	225	280	406	880	850	350	290	14	15
BN4 80-160B/B G	1,5	100	80	125	100	360	910	100	225	280	406	880	850	350	290	14	15
BN4 80-160A/B G	2,2	100	80	125	100	360	954	100	225	280	446	880	850	350	290	14	15
BN4 80-200C/B G	2,2	100	80	125	100	470	1064	100	250	280	446	1020	990	350	290	14	15
BN4 80-200B/B G	3	100	80	125	100	470	1064	100	250	280	446	1020	990	350	290	14	15
BN4 80-200A/B G	4	100	80	125	100	470	1047	100	250	280	457	1020	990	350	290	14	15
BN4 80-250C/A G	4	100	80	125	130	470	1047	110	280	310	487	1030	990	400	340	18	20
BN4 80-250B/A G	5,5	100	80	125	130	470	1148	110	280	310	512	1030	990	400	340	18	20
BN4 80-250A/A G	7,5	100	80	125	130	470	1148	110	280	310	512	1030	990	400	340	18	20
BN4 80-315C/B G	11	100	80	125	130	470	1237	110	315	360	597	1230	1190	400	340	18	20
BN4 80-315B/B G	11	100	80	125	130	470	1237	110	315	360	597	1230	1190	400	340	18	20
BN4 80-315A/B G	15	100	80	125	130	470	1297	110	315	360	597	1230	1190	400	340	18	20
BN4 80-315S G	18,5	100	80	125	130	470	1301	110	315	360	646	1360	1320	400	340	18	20
BN4 80-400C/B G	18,5	125	80	125	115	530	1361	16	355	445	731	1250	840	480	430	24	205
BN4 80-400B/B G	22	125	80	125	115	530	1391	16	355	445	760	1250	840	480	430	24	205
BN4 80-400A/B G	30	125	80	125	115	530	1439	16	355	445	760	1250	840	480	430	24	205
BN4 80-400S G	37	125	80	125	115	530	1481	16	355	445	783	1250	840	480	430	24	205
BN4 100-200C/A G	3	125	100	125	130	470	1064	110	280	310	476	1030	990	400	340	18	20
BN4 100-200B/A G	4	125	100	125	130	470	1047	110	280	310	487	1030	990	400	340	18	20
BN4 100-200A/A G	5,5	125	100	125	130	470	1148	110	280	310	512	1030	990	400	340	18	20
BN4 100-250B/A G	7,5	125	100	140	130	470	1163	110	280	335	537	1030	990	400	340	18	20
BN4 100-250A/A G	11	125	100	140	130	470	1252	110	280	335	572	1230	1190	400	340	18	20
BN4 100-315C/A G	11	125	100	140	130	470	1252	110	315	360	597	1230	1190	400	340	18	20
BN4 100-315B/A G	15	125	100	140	130	470	1312	110	315	360	597	1230	1190	400	340	18	20
BN4 100-315A/A G	18,5	125	100	140	130	470	1316	110	315	360	646	1360	1320	400	340	18	20
BN4 100-400C/A G	22	125	100	140	115	530	1406	16	355	445	760	1250	840	480	430	24	205
BN4 100-400B/A G	30	125	100	140	115	530	1454	16	355	445	760	1250	840	480	430	24	205
BN4 100-400A/A G	37	125	100	140	115	530	1496	16	355	445	783	1250	840	480	430	24	205
BN4 125-250E/A G	5,5	150	125	140	130	470	1163	110	355	360	562	1030	990	400	340	18	20
BN4 125-250D/A G	7,5	150	125	140	130	470	1163	110	355	360	562	1030	990	400	340	18	20
BN4 125-250C/A G	11	150	125	140	130	470	1252	110	355	360	597	1230	1190	400	340	18	20
BN4 125-250B/A G	11	150	125	140	130	470	1252	110	355	360	597	1230	1190	400	340	18	20
BN4 125-250A/A G	15	150	125	140	130	470	1312	110	355	360	597	1230	1190	400	340	18	20
BN4 125-315C/A G	18,5	150	125	140	115	530	1376	16	355	445	731	1250	840	480	430	24	205
BN4 125-315B/A G	22	150	125	140	115	530	1406	16	355	445	760	1250	840	480	430	24	205
BN4 125-315A/A G	30	150	125	140	115	530	1454	16	355	445	760	1250	840	480	430	24	205
BN4 125-400C/A G	37	150	125	140	115	530	1496	16	400	480	818	1250	840	480	430	24	205
BN4 125-400B/A G	45	150	125	140	115	530	1556	16	400	480	818	1250	840	480	430	24	205
BN4 125-400A/A G	55	150	125	140	115	530	1595	17.5	400	540	950	1400	940	510	450	24	230
BN4 150-315D/B G	18,5	200	150	160	115	530	1396	16	400	445	731	1250	840	480	430	24	205
BN4 150-315C/B G	22	200	150	160	115	530	1426	16	400	445	760	1250	840	480	430	24	205
BN4 150-315B/B G	30	200	150	160	115	530	1474	16	400	445	760	1250	840	480	430	24	205
BN4 150-315A/B G	37	200	150	160	115	530	1516	16	400	445	783	1250	840	480	430	24	205
BN4 150-315S G	45	200	150	160	115	530	1576	16	400	445	783	1250	840	480	430	24	205
BN4 150-400B/B G	55	200	150	160	115	530	1615	17.5	450	540	950	1400	940	510	450	24	230
BN4 150-400A/B G	75	200	150	160	115	530	1688	17.5	450	540	973	1400	940	510	450	24	230
BN4 150-400S G	90	200	150	160	115	530	1798	17.5	450	540	973	1400	940	510	450	24	230

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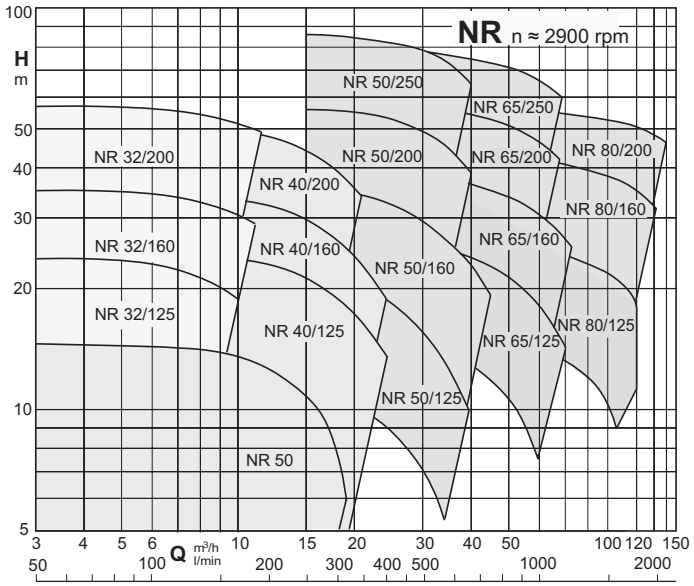


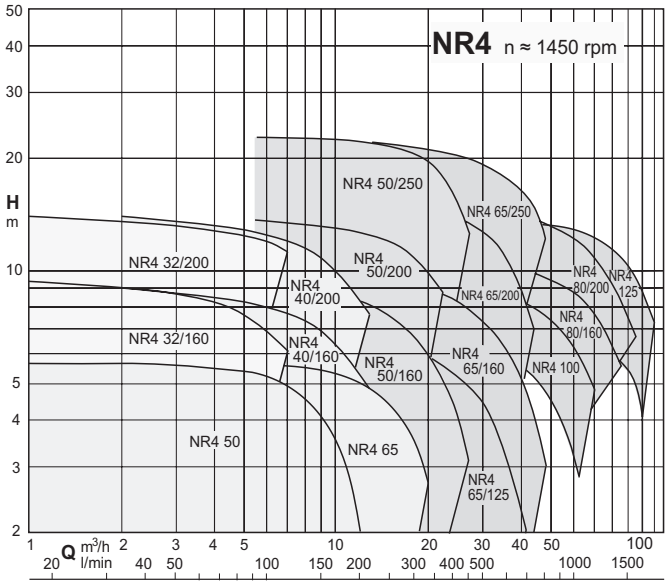


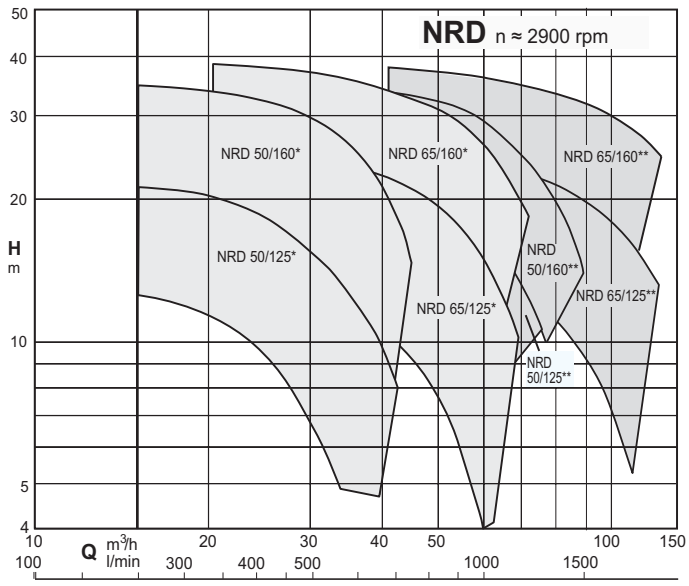
In-line pumps

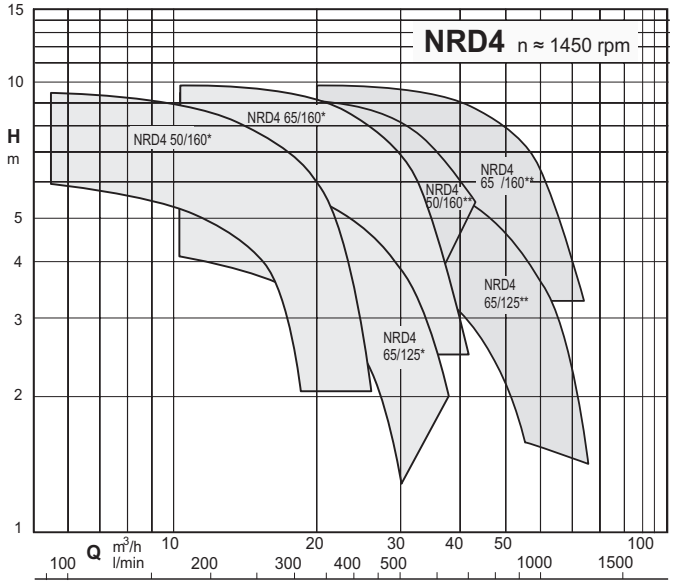
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Coverage chart









* Single operation
** Parallel operation

NR

Construction

Close-coupled, single-impeller, centrifugal pumps; electricmotor with extended shaft directly connected to the pump.

NR, NR4 series: Single head electropumps.
NRD, NRD4: Twin head pump with built-in automatic switching valve. The two head can operate singularly or in parallel.
Pump casing with suction and delivery connections with the same diameter and on the same axis (in-line).

Connections: Flanges according to PN 10, EN 1092-2.

Counter-flanges on request.

Sizes	Flanges
NR,NR4 32,40,50,65,80 NRD, NRD4 50,65	Screwed flanges EN 1092-1, PN 16
NR 80 NR4 100, NR4 125	Flanges for welding EN 1092-1, PN 10 EN 1092-1, PN 10-16

Version with frequency converter (on request)

Applications

For clean liquids without abrasives, which are non-aggressive for the pump materials (solids content up to 0.2%).
For heating, air-conditioning, cooling and circulation plants.
For civil and industrial applications.
When low noise operation is required (n ≈ 1450 rpm).

Operating conditions

Liquid temperature from -10 °C to +90 °C.
Ambient temperature up to 40° C.
Total suction lift up to 7 m.
Maximum permissible working pressure up to 10 bar.
Continuous duty (S3 60% for single-phase pump to 1,5 kW).

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
NR(D): three-phase 230/400 V ± 10% up to 3 kW;
400/690 V ± 10% from 4 to 18,5 kW.
NRM:single-phase 230 V ± 10%.

4-pole induction motor, 50 Hz (n ≈ 1450 rpm).
NR4: three-phase 230/400 V ± 10% up to 3 kW;
400/690 V ± 10% for 4 kW.

Insulation class F.
Protection IP 54.
Motor suitable for operation with frequency converter from 0,37 kW for NR4 and from 1,1 kW for NR(D).
IE2 efficiency class for single-phase motors up to 1,1 kW.
IE3 efficiency class for three-phase motors (IE2 up to 0,65 kW).
Constructed in accordance with: EN 60034-1; EN 60034-30-1.
EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Impeller in chrome-nickel stainless steel (except NR(4) 32... NR4 100 and NR4 125)
Frequency 60 Hz (as per 60 Hz data sheet).
Protection IP 55.
Special mechanical seal
Higher or lower liquid or ambient temperatures.
Motor suitable for operation with frequency converter up to 0,33 kW for NR(D)4 and up to 0,75 kW for NR(D).

Designation

Example: NR(D)(4) EI 50/125A/A
NR = Series
4 = 4-pole version (without indication, 2-pole version)
D = Twin head
EI = With frequency converter I-MAT
50 = Delivery port diameter in mm
125 = Nominal impeller diameter
A = Impeller diameter
/A = It refers to a revision

The electropumps comply with the European Regulation no. 547/2012.

Materials

Components	**Materials**
Pump casing	Cast iron GJL 200 EN 1561
Lantern bracket	Cast iron GJL 200 EN 1561
Impeller	Cast iron GJL 200 EN 1561 (Brass CW617N EN 12165 for NR-NR4 32..., 40..., 50/200)
Shaft	Chrome-nickel steel 1.4305 EN 10088 (AISI 303)
	Steel 1.4104 EN 10088 (AISI 430F) from 3 kW to 18.5 kW
Valve	Chrome-nickel steel AISI 304 - NBR
Mechanical seal	Carbon - Ceramic - NBR
Counter-flanges	Steel 1.0044 EN 10025-2 (Fe 430B)

NR

EI: Pumps with frequency converter

The NR(D) EI, NR4 EI, pumps are available with power from 0,25 kW up to 18,5 kW, the pumps are equipped with I-MAT installed on board.
Which allows to realize a variable-speed system extremely compact and efficient, ideal in applications of water supply and in the distribution of hot and cold water.
The pump is equipped with transducers suitable for operation and is already programmed at the factory.

Features

- Energy saving
- Compact design
- Easy to use
- Programmable to suit the system requirements
- Reliability



Construction

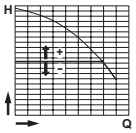
The system comprises of:
Pump
Induction motor (2 for NRD, NRD4)
I-MAT Frequency converter (2 for NRD, NRD4)
Motor adapter for the motor mounting of the frequency converter (2 for NRD, NRD4)
Connection cable between frequency converter and induction motor
Single pressure transducer for 2 poles and differential transducer for 4 poles.
- Communication cable for cascade mode for NRD, NRD4
- 2 Cascade mode expansion board for NRD, NRD4

Main features

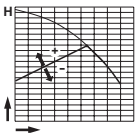
Rated motor power output from 0,25 kW to 18,5 kW
Control range from 1750 to 2900 rpm (2-pole)
Control range from 870 to 1450 rpm (4-pole)
Protection against dry running
Protection against operations with closed valve ports
Protection against system leakages
Protection against overcurrent in the motor
Protection agains overvoltage and undervoltage of the power supply
Protection against current unbalances between phases

Operating modes

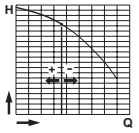
Constant pressure mode
with pressure transducer
In this mode, the system maintains the preset pressure when the flow required by the installation changes.



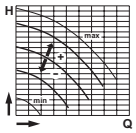
Proportional pressure mode
with pressure transducer
In this mode the system changes the working pressure according to the required flow rate.



Constant flow mode
with flow meter
In this mode the system maintains a constant flow rate value in a point of the installation according to the required pressure.



Fixed speed mode
with setting of the speed preferential rotation.
In this mode, by changing the working frequency, you may choose any operational curve included within the working range.



Constant temperature mode
with temperature transducer
In this mode the system keeps the temperature constant inside a system by changing the speed of the pump.

NR

Coverage chart n ≈ 2900 rpm

Three-phase

Model	230V	400V	P2		Q = Flow												
					m³/h	0	6	6,6	7,5	8,4	9,6	10,8	12	13,2	15	16,8	18,9
					l/min		100	110	125	140	160	180	200	220	250	280	315
	A		kW	HP	H (m) = Total head												
NR 50D/A	2,3	1,3	0,45	0,6		11,6	11	10,8	10,5	10,2	9,5	8,5	7	6	-	-	-
NR 50C/B	3,7	2,2	0,75	1		16,2	16	15,9	15,8	15,7	15,3	14,6	14	13	11	9	5,5

Single-phase

Model	230V	P2		P1	Q = Flow												
					m³/h	0	6	6,6	7,5	8,4	9,6	10,8	12	13,2	15	16,8	18,9
					l/min		100	110	125	140	160	180	200	220	250	280	315
	A	kW	HP	kW	H (m) = Total head												
NRM 50D/A	3,6	0,45	0,6	0,67		11,6	11	10,8	10,5	10,2	9,5	8,5	7	6	-	-	-
NRM 50C/A	5,7	0,75	1	0		16,2	16	15,9	15,8	15,7	15,3	14,6	14	13	11	9	5,5

Three-phase

Model	230V	400V	690V	P2		Q = Flow														
						m³/h	0	2,4	3	3,6	4,8	6	6,6	7,5	8,4	9,6	10,8	12	13,2	15	16,8
						l/min		40	50	60	80	100	110	125	140	160	180	200	220	250	280
	A			kW	HP	H (m) = Total head															
NR 32/125B	3	1,7	-	0,55	0,75		18,3	18,4	18,3	18,1	17,5	16,7	16,3	15,7	15	-	-	-	-	-	-
NR 32/125A	3,7	2,2	-	0,75	1		23,3	23,3	23,2	23,1	22,6	21,9	21,5	20,8	20,1	19,1	-	-	-	-	-
NR 32/160B/A	4,6	2,7	-	1,1	1,5		28,1	27,9	27,6	27,3	26,5	25,6	25,1	24,3	23,4	21,9	20	-	-	-	-
NR 32/160A/A	7,5	4,3	-	1,5	2		36,8	36,3	36,1	35,7	35	34,3	33,8	33,2	32,4	31,2	29,7	-	-	-	-
NR 32/200B/A	9,2	5,3	-	2,2	3		42,5	-	41,6	41,3	40,6	39,8	39,3	38,5	37,7	36,5	35,1	33,4	-	-	-
NR 32/200A	11,5	6,6	-	3	4		51,2	-	49,7	49,5	48,9	48,2	47,9	47,2	46,5	45,4	44,2	42,8	41,2	37,9	-
NR 32/200S/A	-	9,6	5,5	4	5,5		58	-	57,4	57,2	56,7	56,1	55,8	55,1	54,4	53,3	52	50,5	48,8	45,9	42,6

Single-phase

Model	230V	P2		P1	Q = Flow											
					m³/h	0	2,4	3	3,6	4,8	6	6,6	7,5	8,4	9,6	10,8
					l/min		40	50	60	80	100	110	125	140	160	180
	A	kW	HP	kW	H (m) = Total head											
NRM 32/125B	4,2	0,55	0,75	0		18,3	18,4	18,3	18,1	17,5	16,7	16,3	15,7	15	-	-
NRM 32/125A	5,4	0,75	1	0		23,3	23,3	23,2	23,1	22,6	21,9	21,5	20,8	20,1	19,1	-
NRM 32/160B	7,4	1,1	1,5	1,6		38,2	27,9	27,6	27,3	26,5	25,6	25,1	24,3	23,4	21,9	20
NRM 32/160A	9,2	1,5	2	2		36,8	36,3	36,1	35,7	35	34,3	33,8	33,2	32,4	31,2	29,7

Three-phase

Model	230V	400V	690V	P2		Q = Flow													
						m³/h	0	6,6	7,5	8,4	9,6	10,8	12	13,2	15	16,8	18,9	21	24
						l/min		110	125	140	160	180	200	220	250	280	315	350	400
	A			kW	HP	H (m) = Total head													
NR 40/125C	4	2,3	-	0,75	1		15,5	15,7	15,5	15,3	14,8	14,3	13,6	12,9	11,6	10,2	8,1	5,8	-
NR 40/125B/A	4,6	2,7	-	1,1	1,5		19,5	19,8	19,6	19,4	19	18,5	18	17,5	16,5	15,2	13,6	11,6	8,5
NR 40/125A/A	7,5	4,3	-	1,5	2		23,3	23,7	23,7	23,6	23,4	23,1	22,8	22,4	21,7	20,6	19,1	17,3	14,2
NR 40/160B/A	7,5	4,3	-	1,5	2		26,1	25,7	25,4	25,1	24,6	24	23,3	22,6	21,4	19,7	17,3	14,4	9,9
NR 40/160A/A	9,2	5,3	-	2,2	3		33,6	32,9	32,6	32,3	31,8	31,3	30,6	29,9	28,7	27,2	25,2	23,1	19,4
NR 40/200B	11,5	6,6	-	3	4		41,9	40,2	39,7	39,2	38,5	37,6	36,7	35,7	33,8	31	26,9	22	-
NR 40/200A/A	-	9,6	5,5	4	5,5		52,4	49,6	49,1	48,5	47,6	46,7	45,7	44,7	43	41,2	38,6	34,8	-

Single-phase

Model	230V	P2		P1	Q = Flow												
					m³/h	0	6,6	7,5	8,4	9,6	10,8	12	13,2	15	16,8	18,9	21	24
					l/min		110	125	140	160	180	200	220	250	280	315	350	400
	A	kW	HP	kW	H (m) = Total head												
NRM 40/125C	5,8	0,75	1	1,01		15,5	15,7	15,5	15,3	14,8	14,3	13,6	12,9	11,6	10,2	8,1	5,8	-
NRM 40/125B	7,4	1,1	1,5	1,44		19,5	19,8	19,6	19,4	19	18,5	18	17,5	16,5	15,2	13,6	11,6	8,5
NRM 40/125A	9,2	1,5	2	2		23,3	23,7	23,7	23,6	23,4	23,1	22,8	22,4	21,7	20,6	19,1	17,3	14,2
NRM 40/160B	9,2	1,5	2	2		26,1	25,7	25,4	25,1	24,6	24	23,3	22,6	21,4	19,7	17,3	14,4	9,9

NR

Coverage chart n ≈ 2900 rpm

Three-phase

Model	230V	400V	690V	P2		Q = Flow m³/h	0	15	16,8	18,9	21	24	27	30	33	37,8	39	42	45
						l/min		250	280	315	350	400	450	500	550	630	650	700	750
	A			kW	HP	H (m) = Total head													
NR 50/125F/A	4,6	2,7	-	1,1	1,5		14,9	13,8	13,4	12,8	12,1	11	9,9	8,4	6,9	-	-	-	-
NR 50/125C/A	7,5	4,3	-	1,5	2		17,7	17,4	17	16,5	16	15	13,9	12,6	11,3	9	8,3	-	-
NR 50/125A/B	9,2	5,3	-	2,2	3		22,2	21,7	21,4	21	20,6	19,8	18,8	17,5	16,3	14,1	13,5	12	-
NR 50/160C/B	9,2	5,3	-	2,2	3		23,1	21,9	21,4	20,6	19,9	18,6	17,3	15,6	13,8	10,8	10	-	-
NR 50/160B/A	11,5	6,6	-	3	4		28,6	27,9	27,4	26,7	26	24,6	23,1	21,3	19,7	16,6	15,7	13,6	-
NR 50/160A/B	-	9,6	5,5	4	5,5		36,6	35,5	35,1	34,5	33,7	32,7	31,2	29,4	27,5	24,3	23,4	21,3	19,1
NR 50/200D/B	-	9,6	5,5	4	5,5		41,8	37,8	36,8	35,7	34,5	32,4	30,1	27,6	24,9	-	-	-	-
NR 50/200B/A	-	10,8	6,2	5,5	7,5		50,9	48,5	47,7	46,8	45,7	43,9	41,7	39,2	36,5	-	-	-	-
NR 50/200A/A	-	14,3	8,3	7,5	10		56,7	54,9	54,3	53,4	52,4	50,7	48,9	46,5	44,1	39,7	38,8	-	-
NR 50/250C/B	-	18,5	10,7	9,2	12,5		61,2	58,8	58	57,3	56,5	55	53,2	51,1	48,9	44,8	43,1	39,4	-
NR 50/250B/A	-	21,5	12,4	11	15		69,4	67	66,4	65,5	64,8	63,2	61,5	59,6	57,7	53,8	52,6	50	-
NR 50/250A/B	-	27,3	15,8	15	20		87	84,6	84,1	83,2	82,3	80,7	78,8	76,9	74,3	69,8	68,4	65,2	-

Single-phase

Model	230V	P2		P1		Q = Flow m³/h	0	15	16,8	18,9	21	24	27	30	33	37,8	39
						l/min		250	280	315	350	400	450	500	550	630	650
	A	kW	HP	kW		H (m) = Total head											
NRM 50/125F	7,4	1,1	1,5	1,6		14,9	13,8	13,4	12,8	12,1	11	9,9	8,4	6,9	-	-	
NRM 50/125C	9,2	1,5	2	2		17,7	17,4	17	16,5	16	15	13,9	12,6	11,3	9	8,3	

Three-phase

Model	230V	400V	690V	P2		Q = Flow m³/h	0	21	24	27	30	33	37,8	42	48	54	60	66	69	72
						l/min		350	400	450	500	550	630	700	800	900	1000	1100	1150	1200
	A			kW	HP	H (m) = Total head														
NR 65/125F/B	9,2	5,3	-	2,2	3		16,5	16	15,7	15,3	14,8	14,3	13,5	12,5	11,1	9,5	7,3	5,3	-	-
NR 65/125D/A	11,5	6,6	-	3	4		21,1	20,2	19,9	19,6	19,2	18,7	17,9	16,9	15,2	13,3	11,3	9,1	-	-
NR 65/125A/B	-	9,6	5,5	4	5,5		25	24,4	24,1	23,8	23,4	23	22,2	21,4	19,8	18	15,9	13,7	12,4	-
NR 65/125S/B	-	9,6	5,5	4	5,5		27,2	26,3	26	25,7	25,4	25	24,3	23,6	22,1	20,3	18,3	16,1	14,7	-
NR 65/160B/A	-	10,8	6,2	5,5	7,5		31,9	32	31,7	31,4	30,9	30,4	29,5	28,6	26,8	24,8	22,2	19,7	18,3	16,7
NR 65/160A/A	-	14,3	8,3	7,5	10		39	39,3	39	38,7	38,3	37,9	36,9	36,1	34,7	32,9	30,6	28,1	26,7	25,3
NR 65/200B/B	-	18,5	10,7	9,2	12,5		47,1	46,7	45,9	45,1	44,4	43,6	42	40,5	37,9	35,3	32,4	28,3	-	-
NR 65/200A/A	-	21,5	12,4	11	15		54,2	53,3	52,8	52,3	51,5	50,7	49,2	47,5	45,1	41,9	38,1	34,5	-	-
NR 65/200S/B	-	27,3	15,8	15	20		60,4	60,5	60,2	59,6	59	58	56,3	54,5	52,2	49,5	46,5	42,7	-	-
NR 65/250C/A	-	21,5	12,4	11	15		54,6	54,8	54,2	53,5	52,8	52	50,5	48,9	46,3	43,5	40,6	37,3	-	-
NR 65/250B/B	-	27,3	15,8	15	20		67,1	67,2	66,7	66	65,1	64,3	62,8	61,3	58,6	55,8	52,9	49,7	-	-
NR 65/250A/C	-	34	19,6	18,5	25		78,5	78,5	77,8	77,3	76,7	76	74,8	73,6	71,1	68,4	65,5	62,2	-	-

Three-phase

Model	400V	690V	P2		Q = Flow m³/h	0	37,8	42	48	54	60	66	75	84	96	108	120	132	141
					l/min		630	700	800	900	1000	1100	1250	1400	1600	1800	2000	2200	2350
	A		kW	HP	H (m) = Total head														
NR 80/125E	9,6	5,5	4	5,5		18,9	16,8	16,5	16,1	15,7	15,3	14,8	14	13,1	11,5	9,2	-	-	-
NR 80/125C	10,8	6,2	5,5	7,5		21,6	20,5	20,3	20	19,7	19,3	18,9	18,3	17,4	15,9	13,9	11	-	-
NR 80/125A	14,3	8,3	7,5	10		27	25,8	25,7	25,5	25,3	25	24,8	24,2	23,4	22,1	20,2	17,7	-	-
NR 80/160D	14,3	8,3	7,5	10		25,2	-	-	24,8	24,5	24,1	23,8	23,3	22,6	21,3	19,1	16,1	-	-
NR 80/160C	18,5	10,7	9,2	12,5		28,1	-	-	28,2	28,1	27,9	27,7	27,3	26,6	25,3	23,2	20,5	17	-
NR 80/160B	21,5	12,4	11	15		32,4	-	-	32,8	32,7	32,5	32,2	31,8	31,1	29,9	28	25,5	22,4	-
NR 80/160AR	27,3	15,8	15	20		36,2	-	-	36,7	36,5	36,3	36	35,7	35,3	34,5	32,9	30,5	27,8	-
NR 80/160A	27,3	15,8	15	20		40,3	-	-	41,4	41,2	40,9	40,7	40,3	39,9	39,1	37,8	35,7	33,1	-
NR 80/200C	27,3	15,8	15	20		41,1	-	-	42,8	42,7	42,5	42,2	41,5	40,5	38,7	36,4	33,7	30,7	28,2
NR 80/200B	34	19,6	18,5	25		47,6	-	-	48,9	48,8	48,6	48,3	47,7	46,8	45,1	43	40,5	37,6	35,2
NR 80/200A	41	23,7	22	30		55,2	-	-	56,7	56,7	56,6	56,5	56,1	55,5	54,3	52,6	50,4	47,7	45,4

P1: Maximum power input.
P2: Rated motor power output.
Tolerances according to UNI EN ISO 9906:2012

NR

Performance n ≈ 1450 rpm

Three-phase

Model	230V	400V	P2		Q = Flow											
					m³/h	0	2	4	6	8	10	12	14	16	18	20
					l/min		33,3	66,6	100	133	167	200	233	267	300	333
	A		kW	HP	H (m) = Total head											
NR4 50C/A	1,3	0,75	0,25	0,34		3,9	3,9	3,8	3,3	2,5	-	-	-	-	-	-
NR4 50B/A	1,3	0,75	0,25	0,34		4,7	4,7	4,6	4,3	3,5	2,3	-	-	-	-	-
NR4 50A/A	1,3	0,75	0,25	0,34		5,6	5,6	5,5	5,2	4,5	3,5	2	-	-	-	-
NR4 65C/A	1,3	0,75	0,25	0,34		3,8	-	-	3,8	3,7	3,5	3,1	2,6	1,9	-	-
NR4 65B/A	2,1	1,2	0,33	0,45		4,7	-	-	4,7	4,6	4,5	4,2	3,8	3,2	2,5	-
NR4 65A/A	2,1	1,2	0,33	0,45		5,6	-	-	5,6	5,5	5,3	5	4,6	4,1	3,5	2,7

Single-phase

Model	230V	P2		P1	Q = Flow									
					m³/h	0	2	4	6	8	10	12	14	16
					l/min		33,3	66,6	100	133	167	200	233	267
	A	kW	HP	kW	H (m) = Total head									
NR4M 50C/A	2,1	0,25	0,34	0,27		3,9	3,9	3,8	3,3	2,5	-	-	-	-
NR4M 50B/A	2,1	0,25	0,34	0,29		4,7	4,7	4,6	4,3	3,5	2,3	-	-	-
NR4M 50A/A	2,1	0,25	0,34	0,33		5,6	5,6	5,5	5,2	4,5	3,5	2	-	-
NR4M 65C/A	2,1	0,25	0,34	0,31		3,8	-	-	3,8	3,7	3,5	3,1	2,6	1,9

Three-phase

Model	230V	400V	P2		Q = Flow															
					0	1	1,2	1,5	1,89	2,4	3	3,6	4,2	4,8	5,4	6	6,6	7,5	8,4	9,6
						16,6	20	25	31,5	40	50	60	70	80	90	100	110	125	140	160
	A		kW	HP	H (m) = Total head															
NR4 32/160B/A	1,65	0,95	0,37	0,5	8,1	7,9	7,9	7,7	7,6	7,4	7,2	6,9	6,6	6,1	5,6	4,4	-	-	-	-
NR4 32/160A/A	1,65	0,95	0,37	0,5	9,2	9,3	9,3	9,2	9,1	9	8,8	8,6	8,3	8	7,6	7,2	6,6	5,6	-	-
NR4 32/200C/A	1,65	0,95	0,37	0,5	11,5	11,3	11,3	11,2	11,1	10,9	10,7	10,5	10,2	9,9	9,5	9,1	8,5	7,4	5,7	-
NR4 32/200B/A	2,6	1,5	0,55	0,75	13,2	13,2	13,2	13,1	13	12,9	12,8	12,6	12,4	12,1	11,8	11,4	10,9	10	9,1	7,5
NR4 32/200A/A	3,3	1,9	0,75	1	14,6	14,5	14,5	14,4	14,3	14,2	14,1	13,9	13,8	13,5	13,2	12,8	12,3	11,4	10,5	9,1

Three-phase

Model	230V	400V	P2		Q = Flow															
					m³/h	0	2,4	3	3,6	4,8	5,4	6	7,5	8,4	9,6	10,8	12	13,2	15	
					l/min		40	50	60	80	90	100	125	140	160	180	200	220	250	
	A		kW	HP	H (m) = Total head															
NR4 40/160B/A	1,65	0,95	0,37	0,5		7,3	7,3	7,2	7,1	6,9	6,8	6,6	6,1	5,8	5,2	4,4	3,5	2,5	-	
NR4 40/160A/A	1,65	0,95	0,37	0,5		9,1	9	9	9	8,8	8,7	8,6	8,1	7,8	7,2	6,5	5,7	4,8	3,3	
NR4 40/200B/A	2,6	1,5	0,55	0,75		12,9	12,5	12,4	12,2	11,9	11,7	11,4	10,7	10,2	9,1	7,7	6,2	4,4	-	
NR4 40/200A/A	3,3	1,9	0,75	1		14,7	14,3	14,2	14,1	13,9	13,7	13,5	12,9	12,4	11,6	10,5	9,2	7,7	4,9	

Three-phase

Model	230V	400V	P2		Q = Flow																
					m³/h	0	5,4	6	7,5	8,4	9,6	10,8	12	13,2	15	16,8	18,9	21	24	27	30
					l/min		90	100	125	140	160	180	200	220	250	280	315	350	400	450	500
	A		kW	HP	H (m) = Total head																
NR4 50/160C/A	1,65	0,95	0,37	0,5		5,9	5,9	5,8	5,7	5,6	5,4	5,2	5	4,7	4,2	3,7	3,1	2,3	-	-	-
NR4 50/160B/A	2,6	1,5	0,55	0,75		7,3	7,4	7,4	7,2	7,1	6,9	6,7	6,4	6,2	5,7	5,2	4,5	3,8	2,5	-	-
NR4 50/160A/B	3,3	1,9	0,75	1		9,2	9,2	9,2	9,1	9	8,9	8,7	8,4	8,2	7,6	7,1	6,4	5,6	4,4	3,1	-
NR4 50/200B/B	5	2,9	1,1	1,5		12,8	12,6	12,5	12,3	12,1	11,9	11,5	11,2	10,7	10	9,2	8,2	7,1	5,2	-	-
NR4 50/200A/B	5	2,9	1,1	1,5		14,3	14,1	14	13,9	13,7	13,5	13,2	12,8	12,4	11,7	11	10	8,8	7,3	-	-
NR4 50/250C/B	6	3,5	1,5	2		17,1	17	16,9	16,6	16,4	16,1	15,9	15,6	15,2	14,6	13,9	12,8	11,3	8,5	5,3	-
NR4 50/250B/B	8,6	5	2,2	3		21	20,9	20,8	20,5	20,3	20	19,7	19,4	19	18,4	17,8	16,8	15,6	13,8	11,7	8,5
NR4 50/250A/A	11,1	6,4	3	4		22	21,9	21,9	21,8	21,6	21,4	21,1	20,9	20,5	19,9	19,2	18,3	17,2	15,3	13,4	11

P1: Maximum power input.
P2: Rated motor power output.
Tolerances according to UNI EN ISO 9906:2012

NR

Performance n ≈ 1450 rpm

Three-phase

Model	230V	400V	690V	P2		Q = Flow m³/h	0	10,8	12	13,2	15	16,8	18,9	21	24	27	30	33	42	48
						l/min		180	200	220	250	280	315	350	400	450	500	550	700	800
	A			kW	HP	H (m) = Total head														
NR4 65/125F/A	1,65	0,95	-	0,37	0,5		4,1	3,9	3,8	3,8	3,6	3,5	3,3	3	2,6	2,1	1,6	1	-	-
NR4 65/125D/A	2,6	1,5	-	0,55	0,75		5,3	5	5	4,9	4,8	4,7	4,5	4,3	3,9	3,4	2,9	2,4	-	-
NR4 65/125A/B	3,3	1,9	-	0,75	1		6,3	6,2	6,1	6	5,9	5,8	5,7	5,5	5,1	4,6	4,1	3,5	1,5	-
NR4 65/125S/B	3,3	1,9	-	0,75	1		6,8	6,6	6,6	6,5	6,4	6,3	6,1	5,9	5,6	5,1	4,6	4,1	2,1	-
NR4 65/160B/B	5	2,9	-	1,1	1,5		8,2	8,2	8,2	8,1	8	7,9	7,7	7,5	7,1	6,6	6	5,4	3,2	-
NR4 65/160A/B	5	2,9	-	1,1	1,5		9,7	9,6	9,5	9,5	9,4	9,2	9	8,8	8,5	8	7,4	6,8	4,7	3
NR4 65/200C/B	5	2,9	-	1,1	1,5		11,4	11,3	11,2	11,1	10,8	10,6	10,3	9,9	9,4	8,7	7,9	7	3,4	-
NR4 65/200B/B	6	3,5	-	1,5	2		13,3	13,1	13	12,9	12,7	12,4	12,1	11,8	11,2	10,5	9,7	8,9	5,4	-
NR4 65/200A/B	8,6	5	-	2,2	3		14,5	14,6	14,5	14,4	14,2	13,9	13,6	13,2	12,7	12	11,3	10,5	7,2	-
NR4 65/250D/B	8,6	5	-	2,2	3		13,7	13,9	13,8	13,8	13,6	13,4	13,1	12,8	12,3	11,6	10,9	10,1	7,2	-
NR4 65/250C/B	8,6	5	-	2,2	3		17,1	17,3	17,2	17,2	16,9	16,7	16,3	16	15,4	14,7	13,9	13	10	-
NR4 65/250B/A	11,1	6,4	-	3	4		19,9	20,1	20	20	19,8	19,6	19,3	19	18,4	17,7	16,9	16,1	13,2	10,8
NR4 65/250A/A	-	8,3	4,8	4	5,5		21,4	21,6	21,5	21,4	21,3	21,1	20,8	20,5	19,9	19,2	18,4	17,6	14,7	12,2

Three-phase

Model	230V	400V	P2		Q = Flow m³/h	0	21	24	27	33	37,8	42	48	54	60	66	75	84	96
					l/min		350	400	450	550	630	700	800	900	1000	1100	1250	1400	1600
	A		kW	HP	H (m) = Total head														
NR4 80/160C	5	2,9	1,1	1,5		6,7	6,3	6,2	6,1	6	5,8	5,7	5,4	4,8	4,1	-	-	-	-
NR4 80/160B	5	2,9	1,1	1,5		7,4	7,2	7,2	7,1	7	6,8	6,7	6,4	6	5,2	4,4	-	-	-
NR4 80/160A	6	3,5	1,5	2		8,8	8,7	8,7	8,7	8,6	8,5	8,4	8,1	7,7	7,1	6,4	5,2	-	-
NR4 80/160S	8,6	5	2,2	3		10,2	10,2	10,2	10,2	10,1	10	9,9	9,6	9,3	8,8	8,2	7	5,7	-
NR4 80/200B	8,6	5	2,2	3		11,4	11,7	11,7	11,7	11,6	11,4	11,3	10,9	10,4	9,8	9	7,8	6,3	3,8
NR4 80/200A	11,1	6,4	3	4		13,9	14,2	14,1	14,1	14	13,9	13,7	13,4	13	12,4	11,7	10,4	9	6,7

Three-phase

Model	230V	400V	690V	P2		Q = Flow m³/h	0	20	25	30	35	40	50	60	70	80	90	100	110
						l/min		333	417	500	583	667	833	1000	1167	1333	1500	1667	1833
	A			kW	HP	H (m) = Total head													
NR4 100C/B	5	2,9	-	1,1	1,5		6,6	6,6	6,4	6,3	6	5,6	4,6	3,3	-	-	-	-	-
NR4 100B/B	5	2,9	-	1,1	1,5		7,5	7,5	7,4	7,2	7	6,6	5,6	4,4	-	-	-	-	-
NR4 100A/B	6	3,5	-	1,5	2		9	9	8,9	8,8	8,6	8,3	7,4	6,2	4,8	-	-	-	-
NR4 125C/B	8,6	5	-	2,2	3		10,2	-	-	10,2	10,1	10	9,6	9	8,2	7,1	5,7	4	-
NR4 125B/A	11,1	6,4	-	3	4		12	-	-	12	11,9	11,8	11,6	11	10,4	9,4	8,2	6,7	5,1
NR4 125A/A	-	8,3	4,8	4	5,5		13,6	-	-	13,6	13,5	13,4	13,2	12,9	12,3	11,4	10,3	8,8	7,2

P1: Maximum power input.
P2: Rated motor power output.
Tolerances according to UNI EN ISO 9906:2012

NR

Coverage chart n ≈ 2900 rpm

Single operation

Three-phase

Model	230V	400V	690V	P2		Q = Flow m³/h	0	15	16,8	18,9	21	24	27	30	33	37,8	39	42	45
						l/min		250	280	315	350	400	450	500	550	630	650	700	750
	A			kW	HP	H (m) = Total head													
NRD 50/125F	4,6	2,7	-	1,1	1,5		13,7	13,2	12,7	12	11,2	9,9	8,5	6,8	4,8	-	-	-	-
NRD 50/125C	7,5	4,3	-	1,5	2		17,8	17,8	17,4	16,8	16	14,8	13,3	11,7	9,9	6,8	5,9	-	-
NRD 50/125A	9,2	5,3	-	2,2	3		20,8	21,2	20,9	20,5	19,9	18,7	17,4	15,8	14,1	11,1	10,4	8,3	-
NRD 50/160C	9,2	5,3	-	2,2	3		23,4	22,9	22,4	21,7	20,9	19,4	17,7	15,7	13,4	9,1	7,8	-	-
NRD 50/160B	11,5	6,6	-	3	4		25,6	25	24,6	24	23,3	22	20,4	18,5	16,2	11,9	10,7	7,5	-
NRD 50/160A	-	9,6	5,5	4	5,5		34	34,6	34,3	33,8	33,2	32	30,5	28,7	26,7	22,8	21,7	18,8	15,6

Three-phase

Model	230V	400V	690V	P2		Q = Flow m³/h	0	21	24	27	30	33	37,8	42	48	54	60	66	69	72
						l/min		350	400	450	500	550	630	700	800	900	1000	1100	1150	1200
	A			kW	HP	H (m) = Total head														
NRD 65/125F	9,2	5,3	-	2,2	3		16,2	14,9	14,4	13,8	13,2	12,5	11,3	10,1	8,2	6,1	3,9	-	-	-
NRD 65/125D	11,5	6,6	-	3	4		20,4	19,1	18,6	18,1	17,5	16,9	15,7	14,4	12,4	10	7,2	4,3	-	-
NRD 65/125A	-	9,6	5,5	4	5,5		25,3	25	24,7	24,3	23,8	23,2	22,1	21	19,1	16,9	14,3	11,5	9,9	-
NRD 65/160B	-	10,8	6,2	5,5	7,5		30,7	31,3	31,1	30,8	30,4	29,9	28,6	27,2	24,7	21,7	18,2	14,5	12,5	10,4
NRD 65/160A	-	14,3	8,3	7,5	10		37,5	37,7	37,6	37,4	37,1	36,6	35,6	34,4	32,1	29,3	26	22,5	20,6	18,5

Parallel operation
For parallel operation see curve diagram

P1: Maximum power input.
P2: Rated motor power output.
Tolerances according to UNI EN ISO 9906:2012

Performance n ≈ 1450 rpm

Single operation

Three-phase

Model	230V	400V	P2		Q = Flow m³/h	0	5,4	6	7,5	8,4	9,6	10,8	12	13,2	15	16,8	18,9	21	24	27
					l/min		90	100	125	140	160	180	200	220	250	280	315	350	400	450
	A		kW	HP	H (m) = Total head															
NRD4 50/160C	1,65	0,95	0,37	0,5		5,9	5,9	5,8	5,7	5,5	5,3	5,1	4,8	4,5	3,9	3,1	2,1	-	-	-
NRD4 50/160B	2,6	1,5	0,55	0,75		7,3	7,5	7,5	7,4	7,3	7,1	6,8	6,6	6,3	5,7	5,1	4,1	3	1,3	-
NRD4 50/160A	3,3	1,9	0,75	1		9,3	9,5	9,5	9,4	9,3	9,2	9,1	8,9	8,6	8,1	7,6	6,8	5,8	4,1	2,1

Three-phase

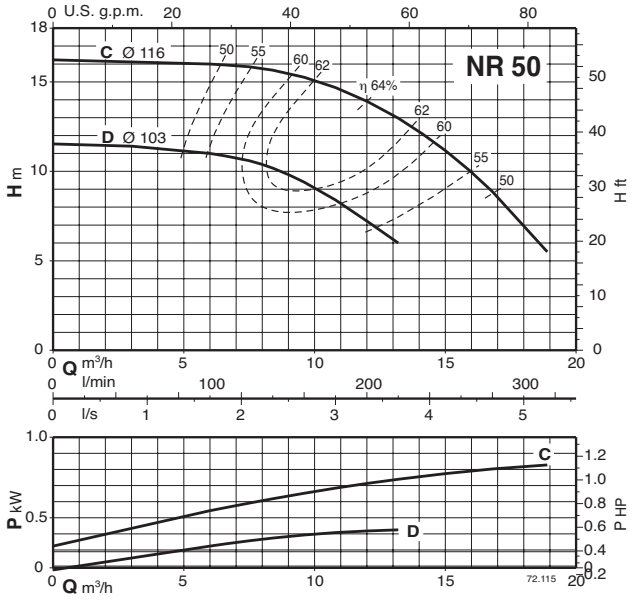
Model	230V	400V	P2		Q = Flow m³/h	0	10,8	12	13,2	15	16,8	18,9	21	24	27	30	33	37,8	42
					l/min		180	200	220	250	280	315	350	400	450	500	550	630	700
	A		kW	HP	H (m) = Total head														
NRD4 65/125F	1,65	0,95	0,37	0,5		4,3	4,1	4	3,9	3,7	3,5	3,3	3	2,5	2	1,3	-	-	-
NRD4 65/125D	2,6	1,5	0,55	0,75		5,4	5,2	5,1	5	4,9	4,7	4,4	4,1	3,6	3,1	2,5	1,7	-	-
NRD4 65/125A	3,3	1,9	0,75	1		6,5	6,4	6,3	6,3	6,1	6	5,8	5,5	5	4,4	3,8	3,1	2	-
NRD4 65/160B	5	2,9	1,1	1,5		8,1	8,2	8,2	8,1	8	7,9	7,6	7,3	6,7	6	5,1	4,1	2,5	-
NRD4 65/160A	5	2,9	1,1	1,5		9,8	9,8	9,8	9,7	9,6	9,4	9,2	8,9	8,3	7,7	6,9	6	4,3	2,6

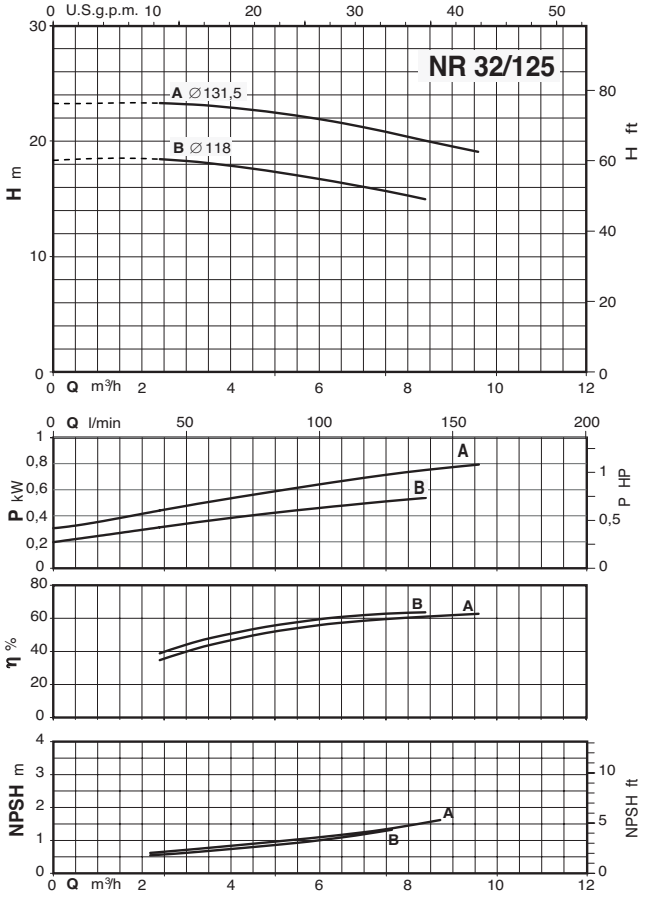
Parallel operation
For parallel operation see curve diagram

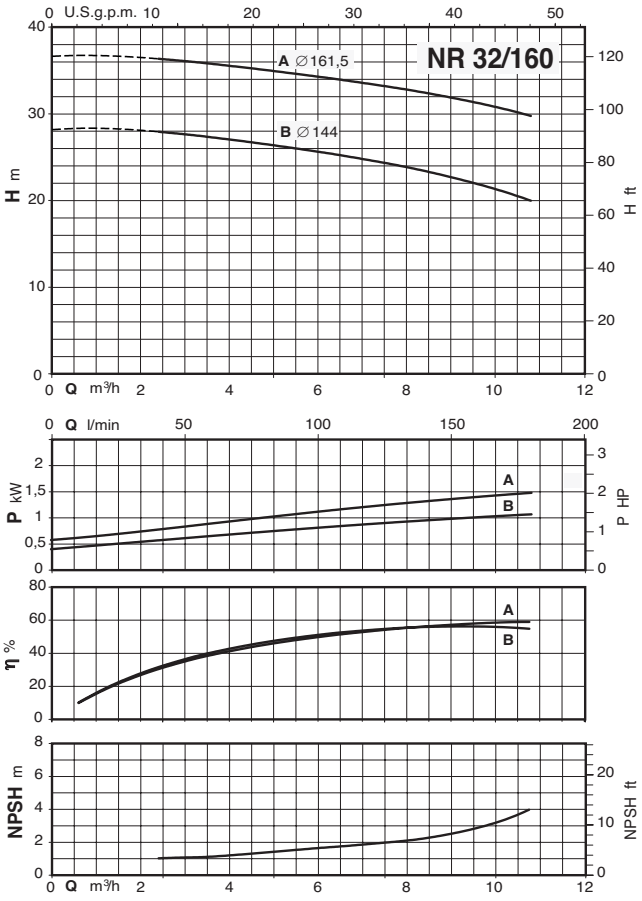
P1: Maximum power input.
P2: Rated motor power output.
Tolerances according to UNI EN ISO 9906:2012

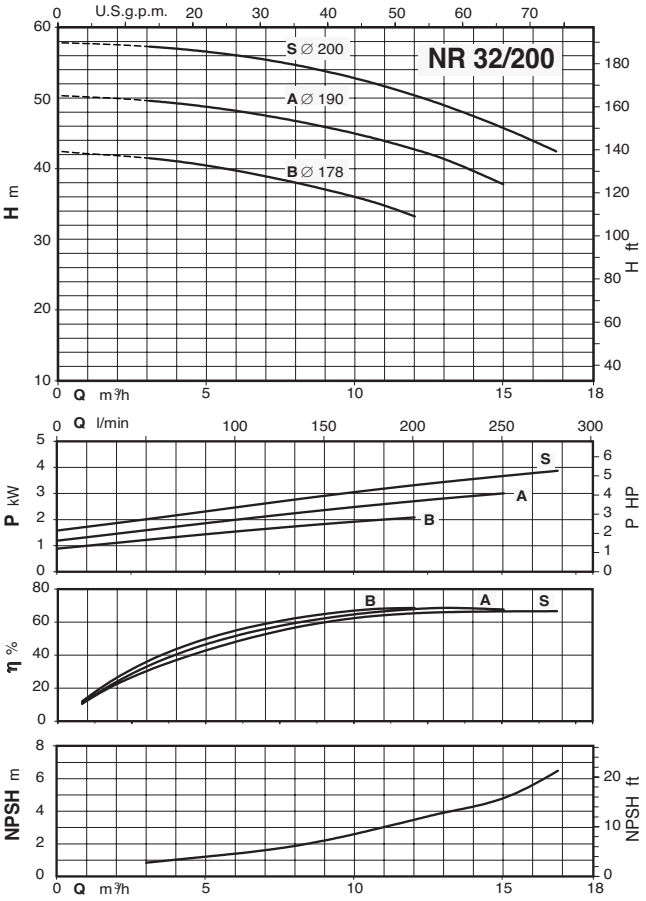
NR

Coverage chart n ≈ 2900 rpm



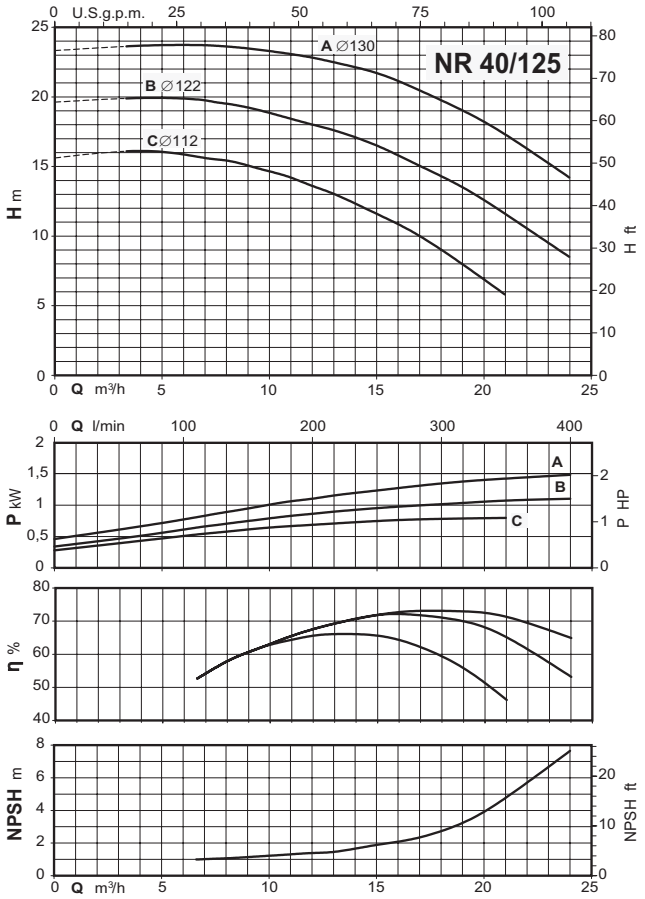


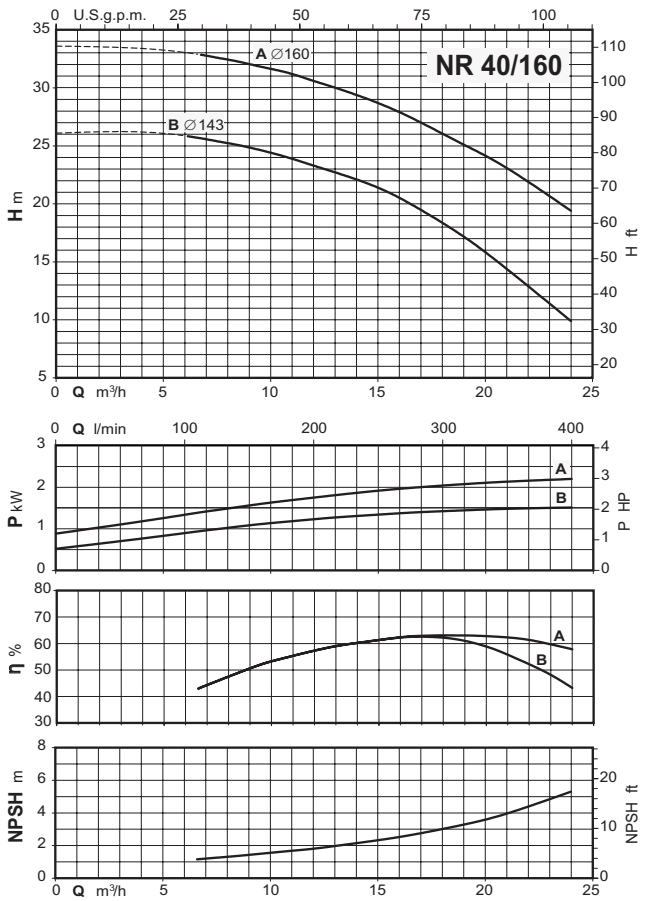


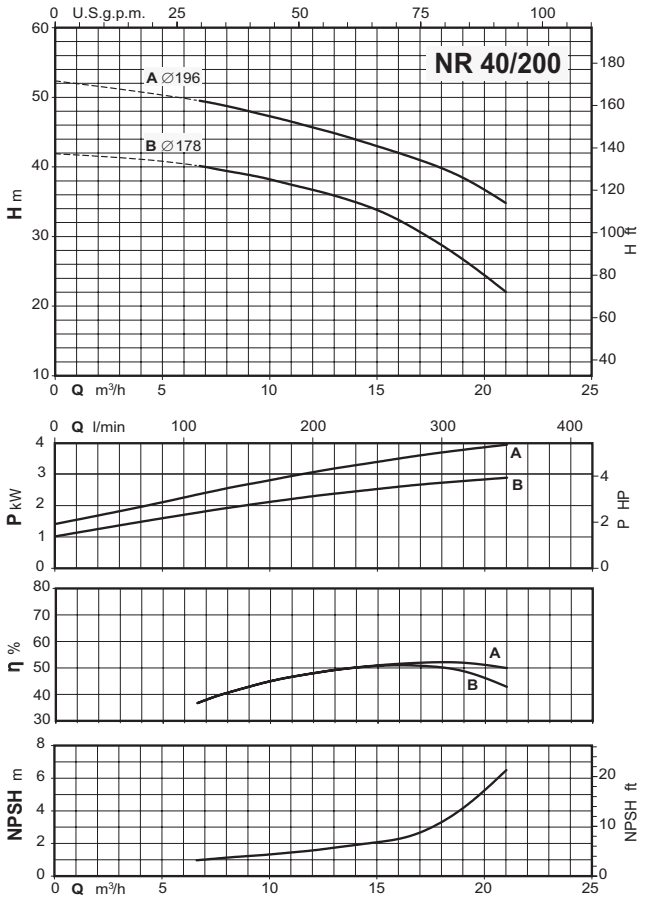


NR

Coverage chart n ≈ 2900 rpm

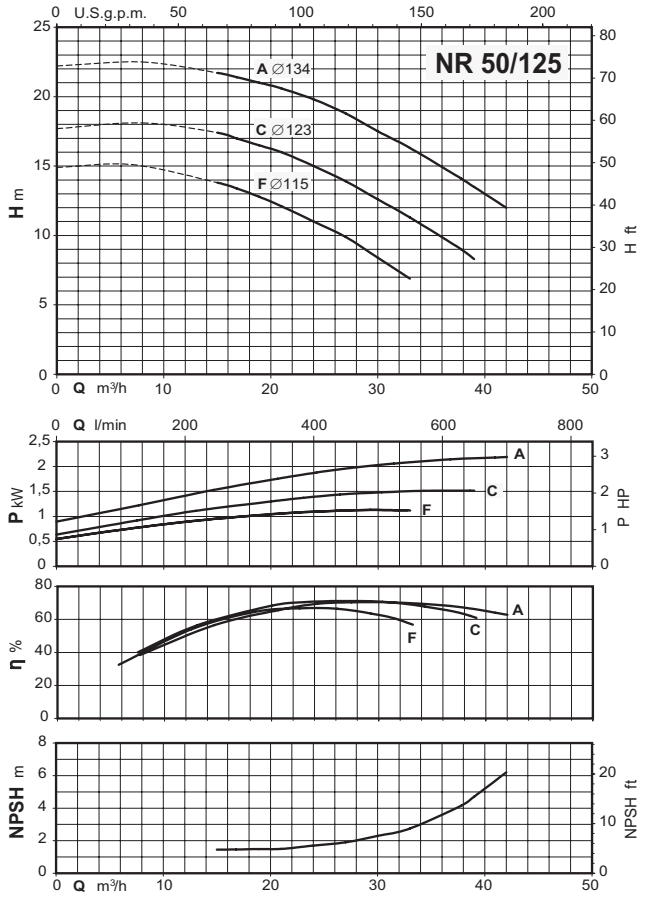


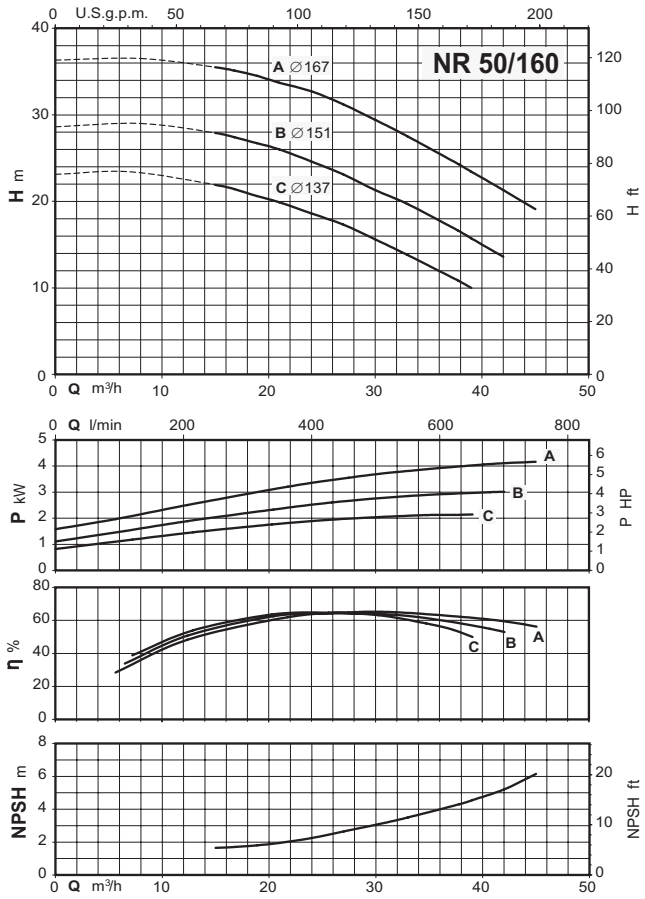


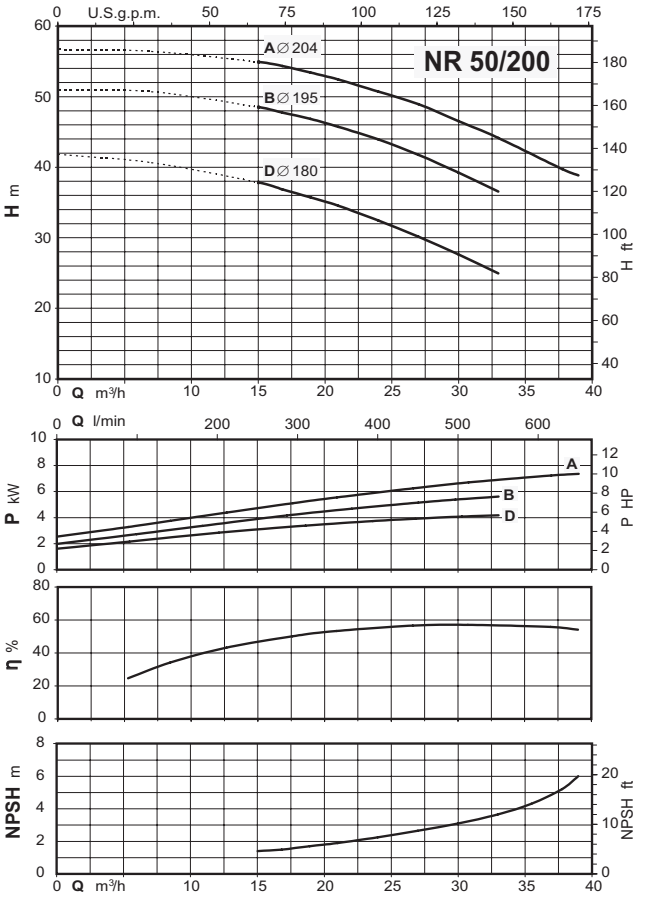


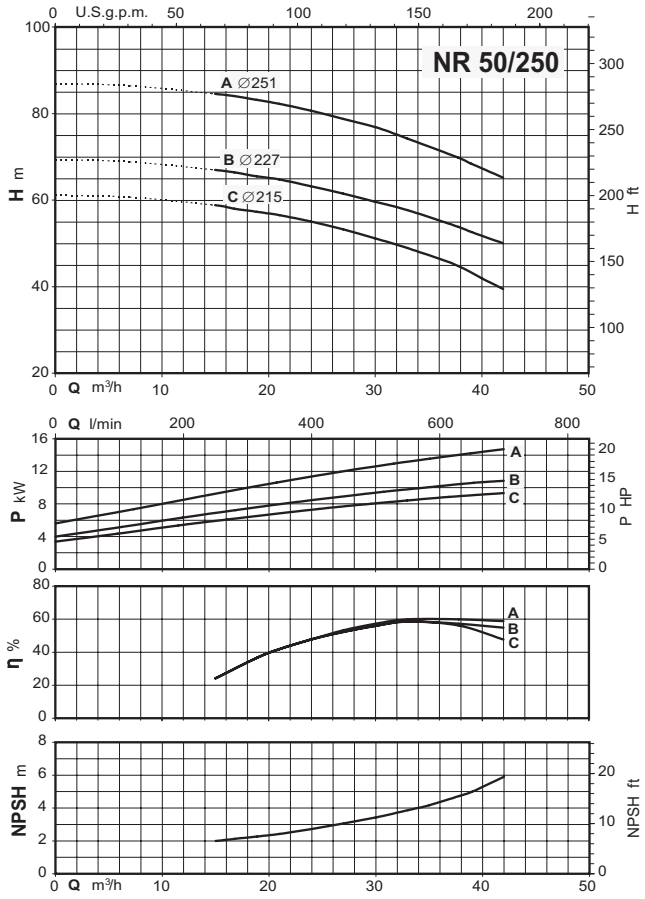
NR

Coverage chart n ≈ 2900 rpm



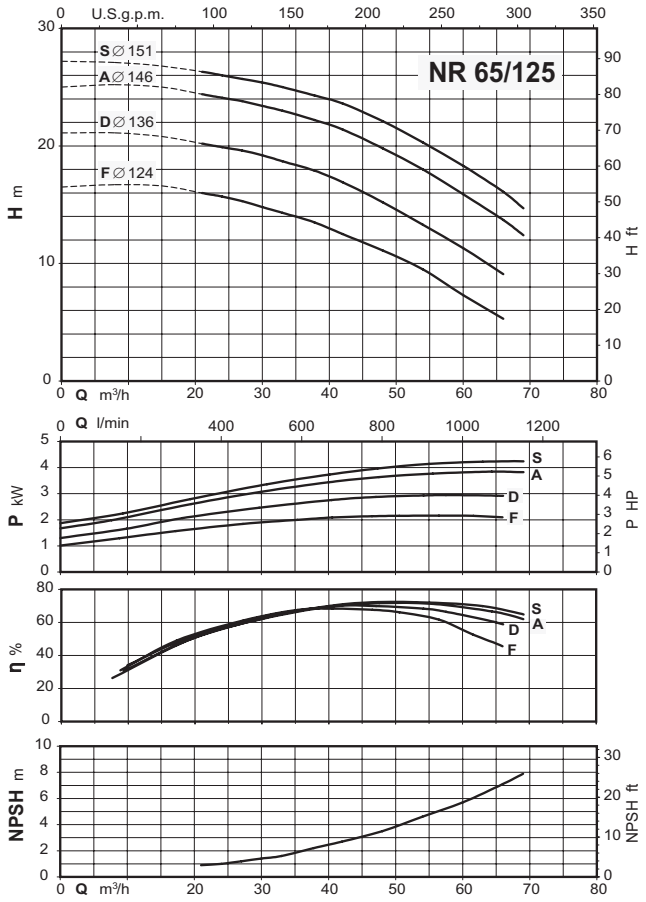


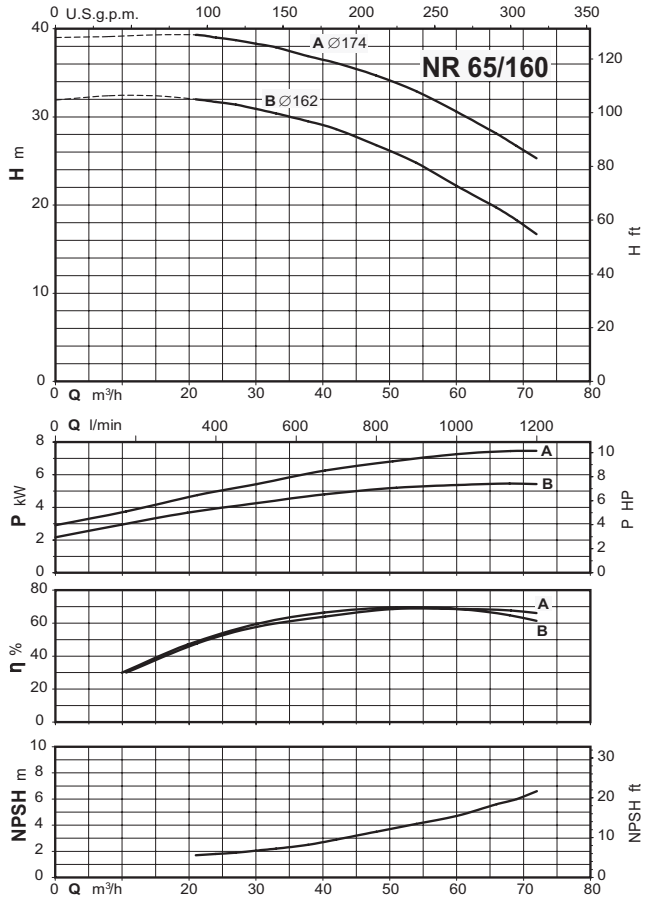


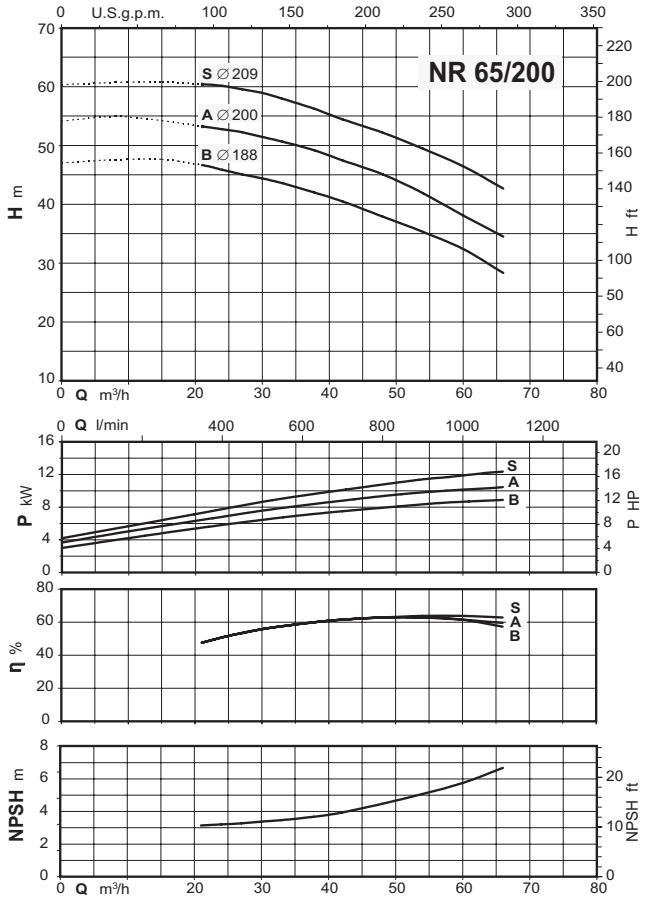


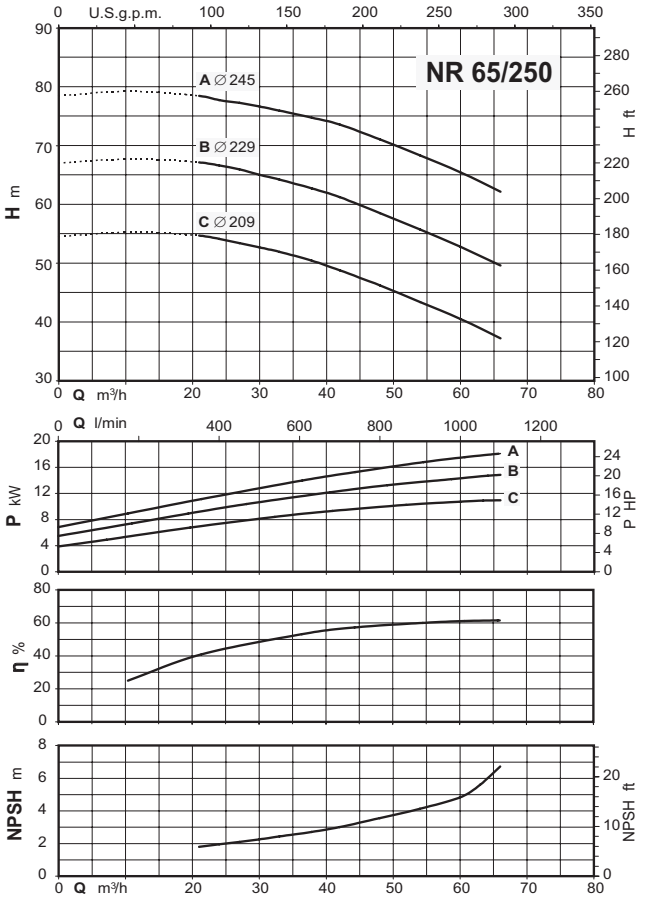
NR

Coverage chart n ≈ 2900 rpm



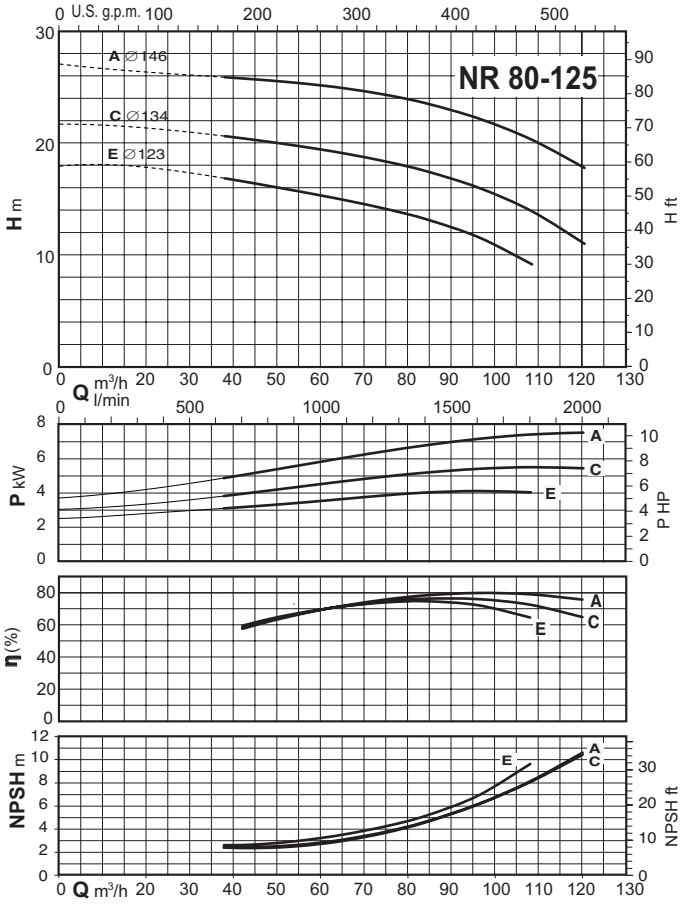


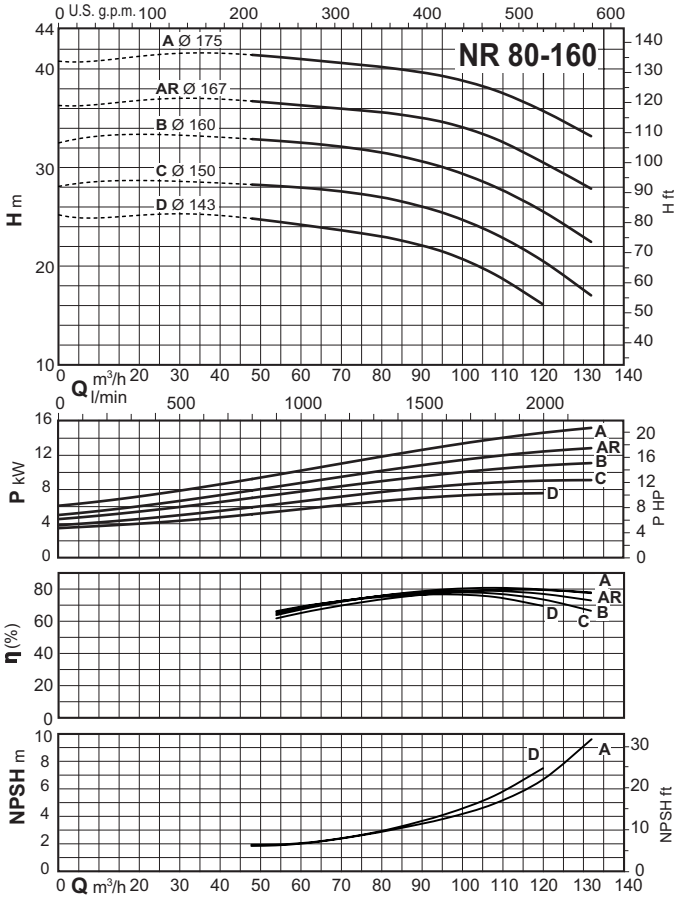


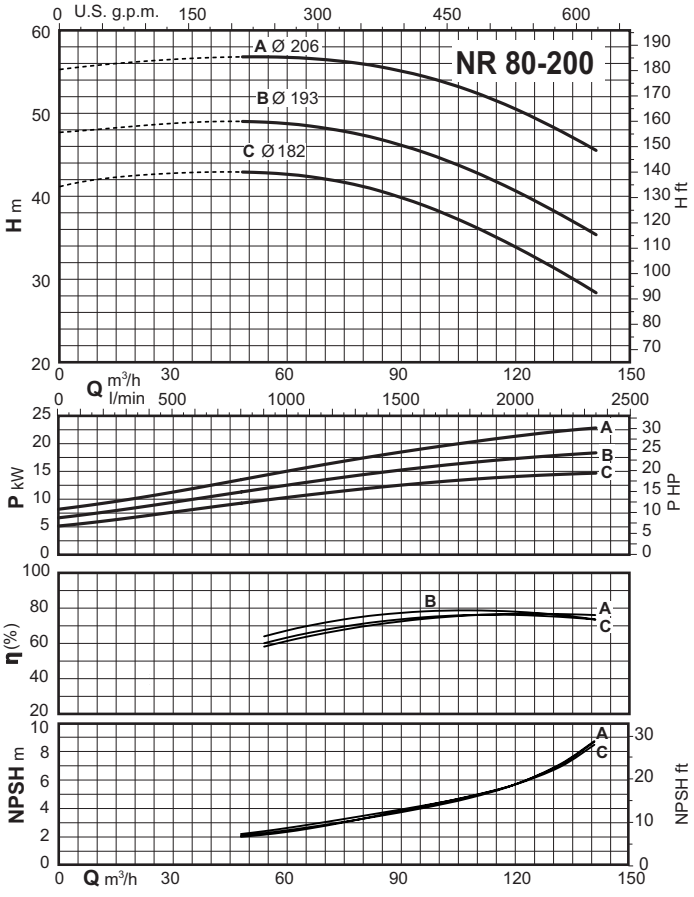


NR

Coverage chart n ≈ 2900 rpm

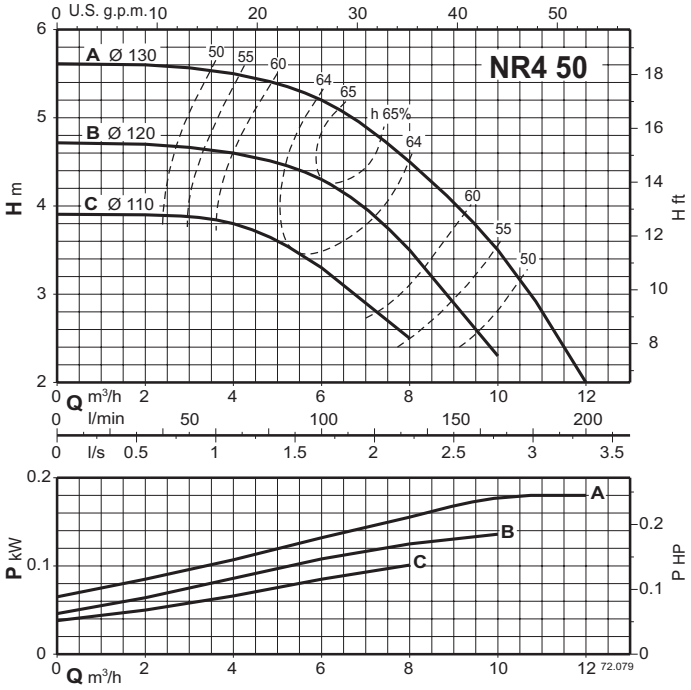


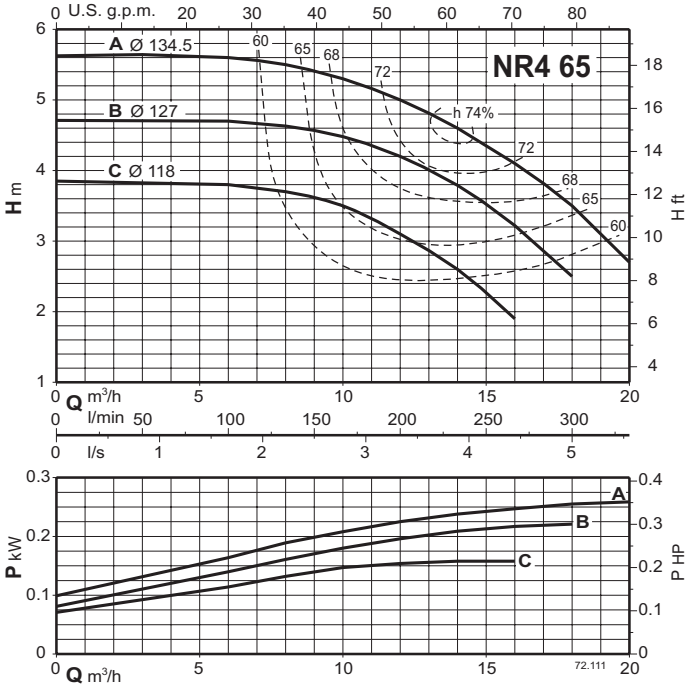




NR

Coverage chart n ≈ 1450 rpm

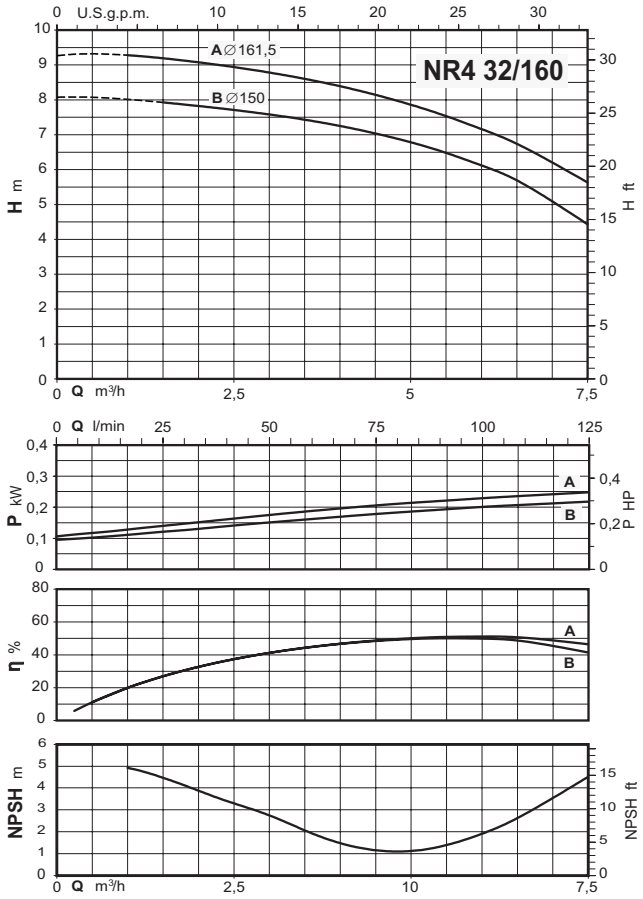


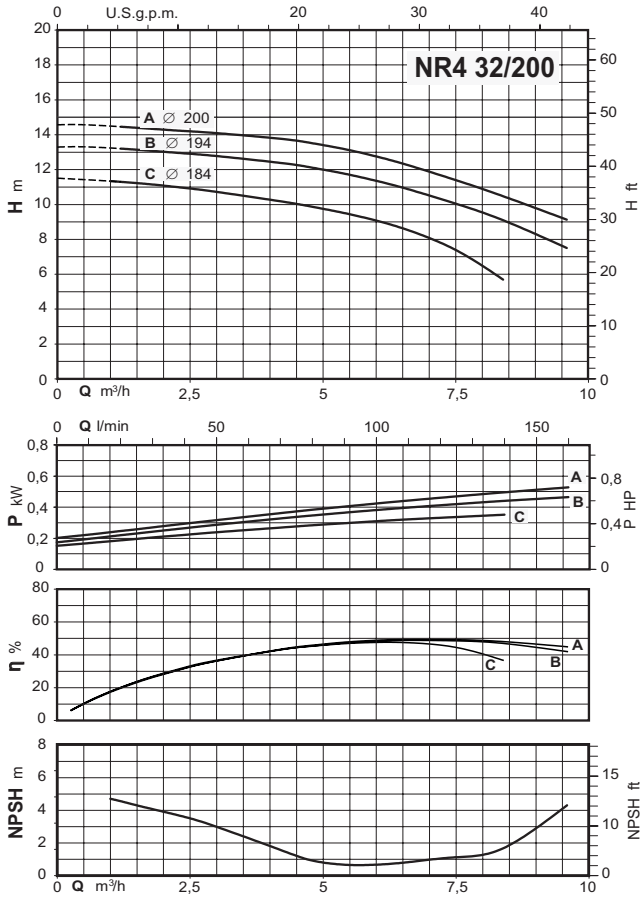


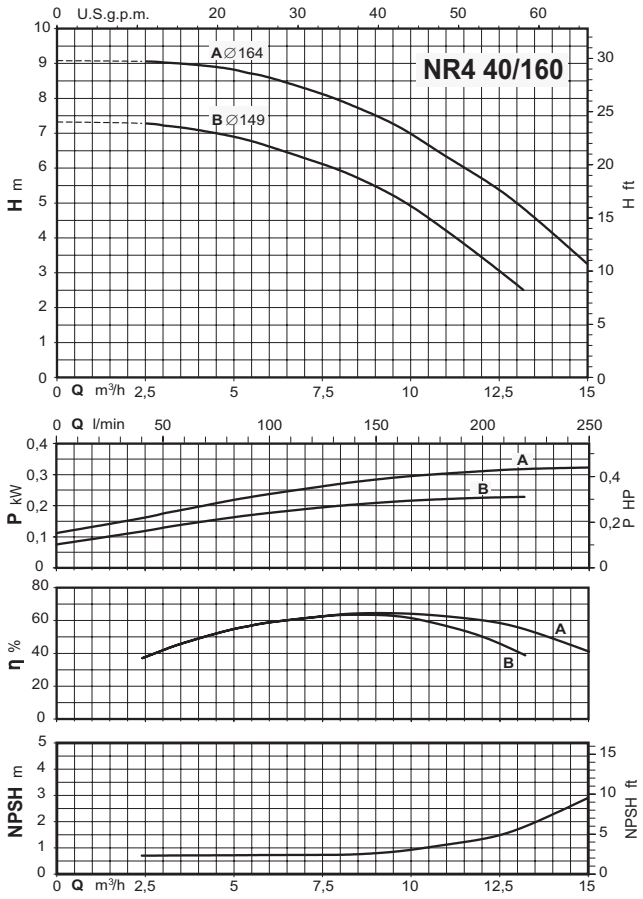
NR

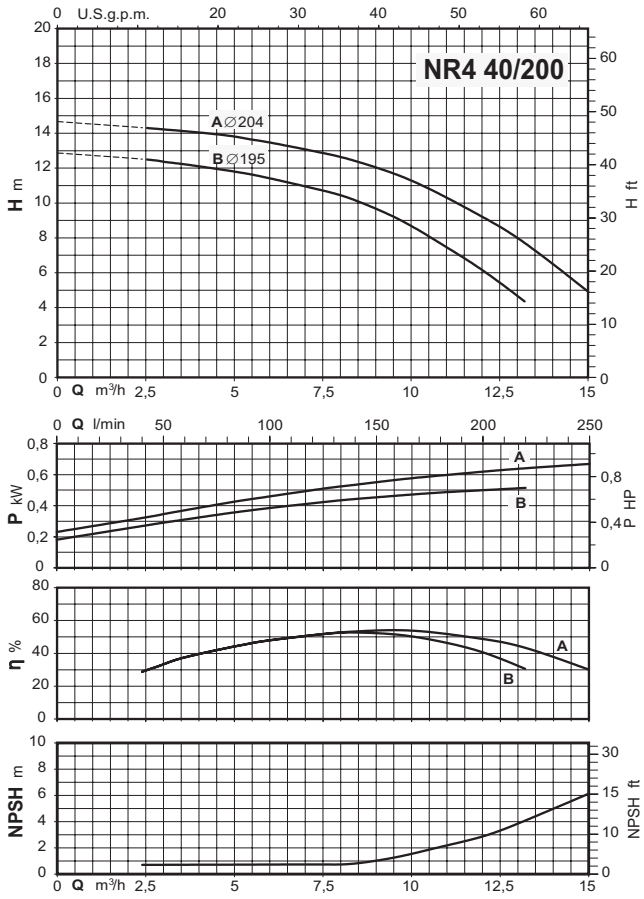
calpeda®

Coverage chart n ≈ 1450 rpm





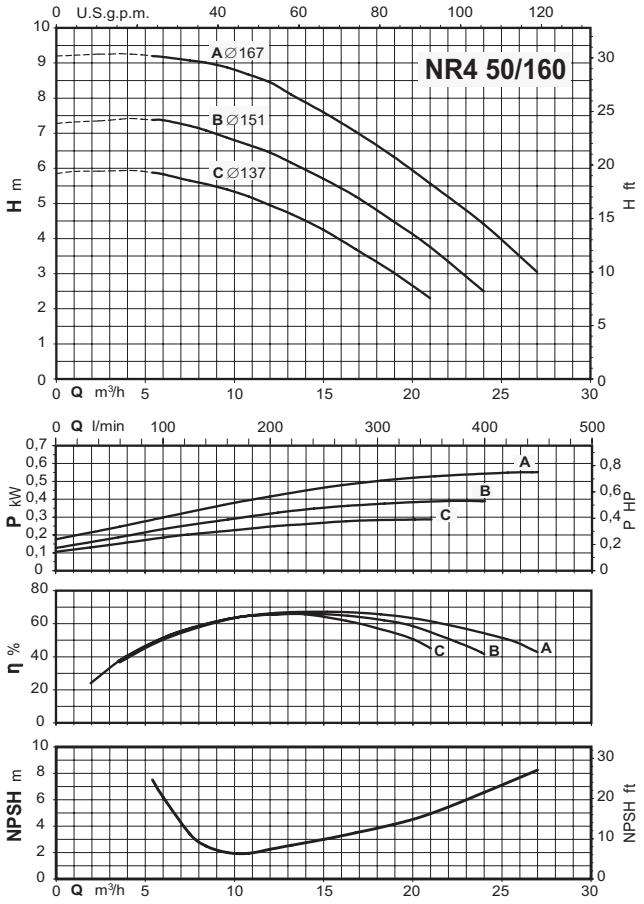


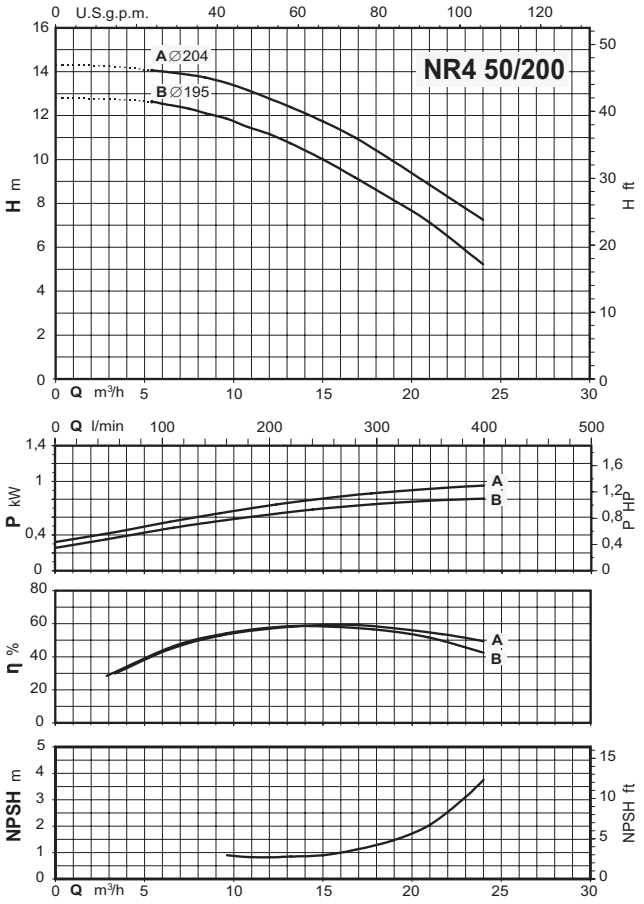


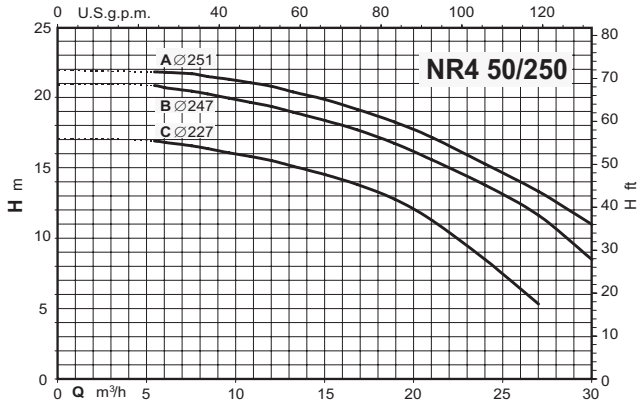
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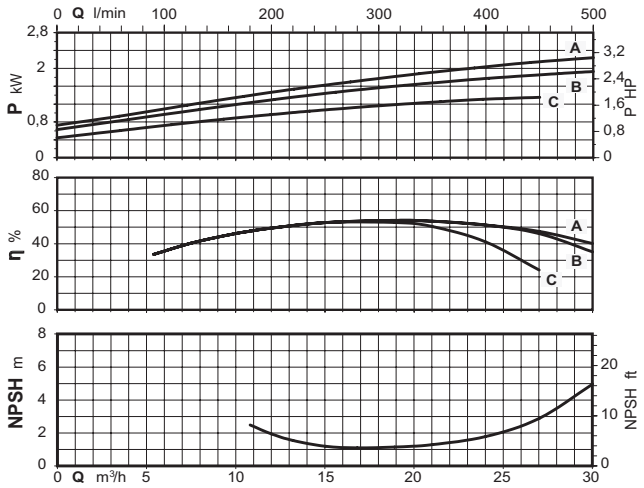
calpeda®

Coverage chart n ≈ 1450 rpm



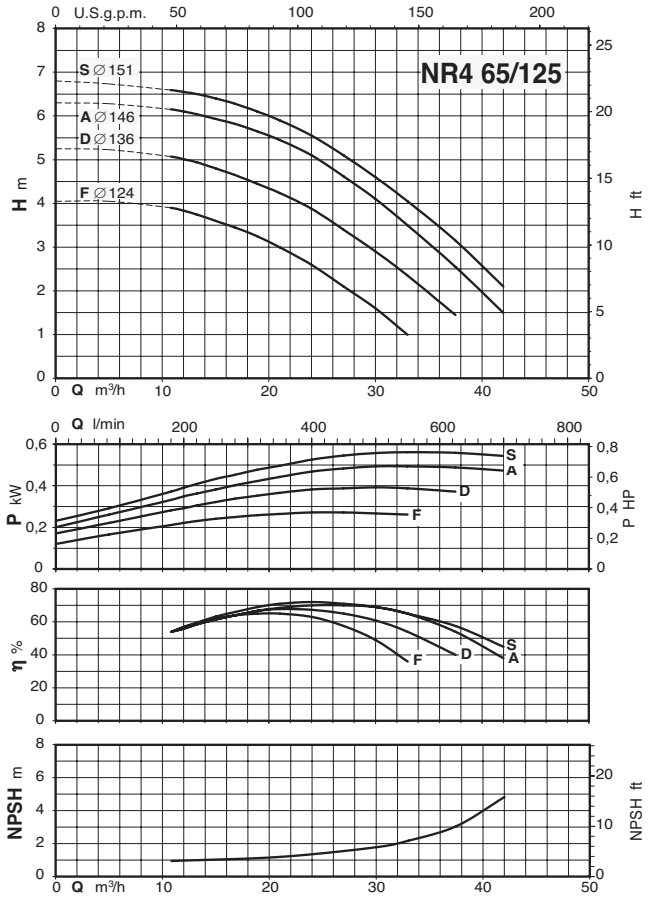


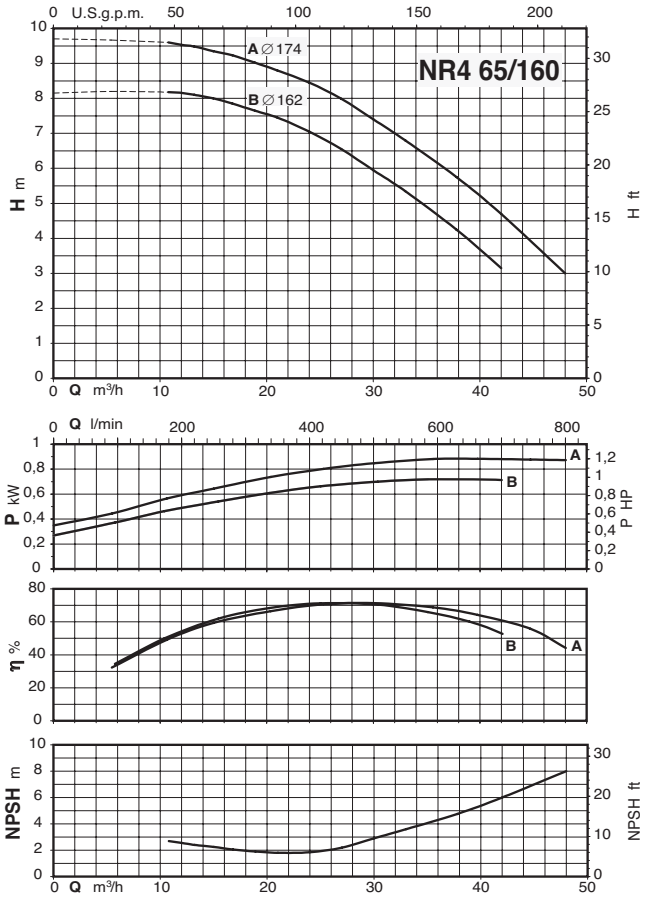


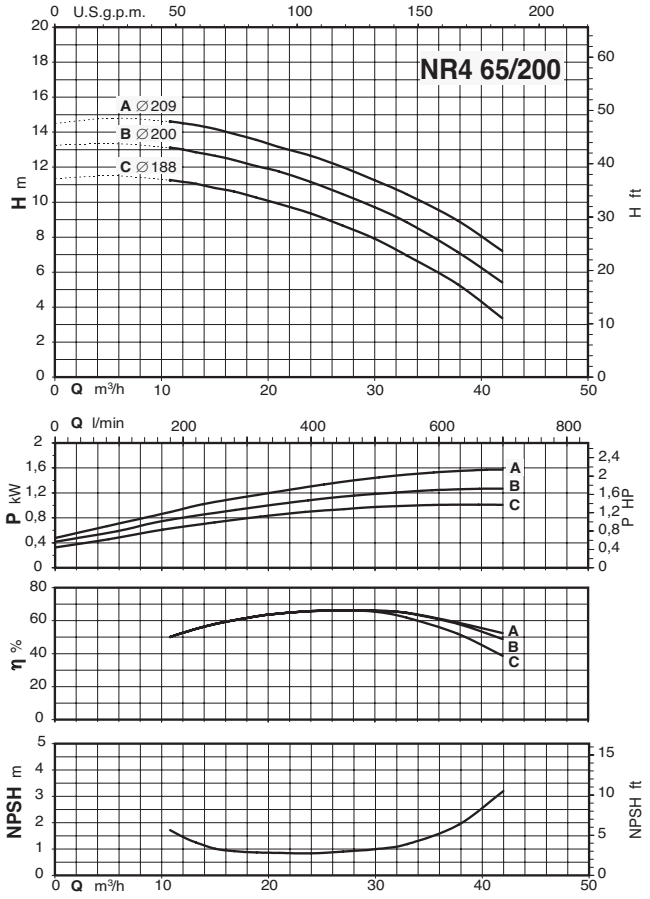


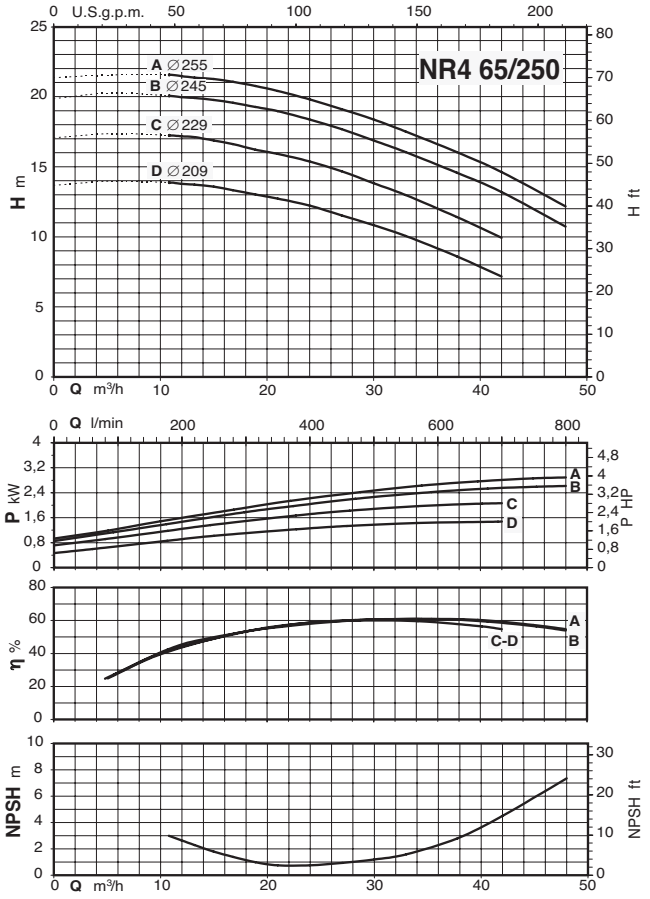
NR

Coverage chart n ≈ 1450 rpm



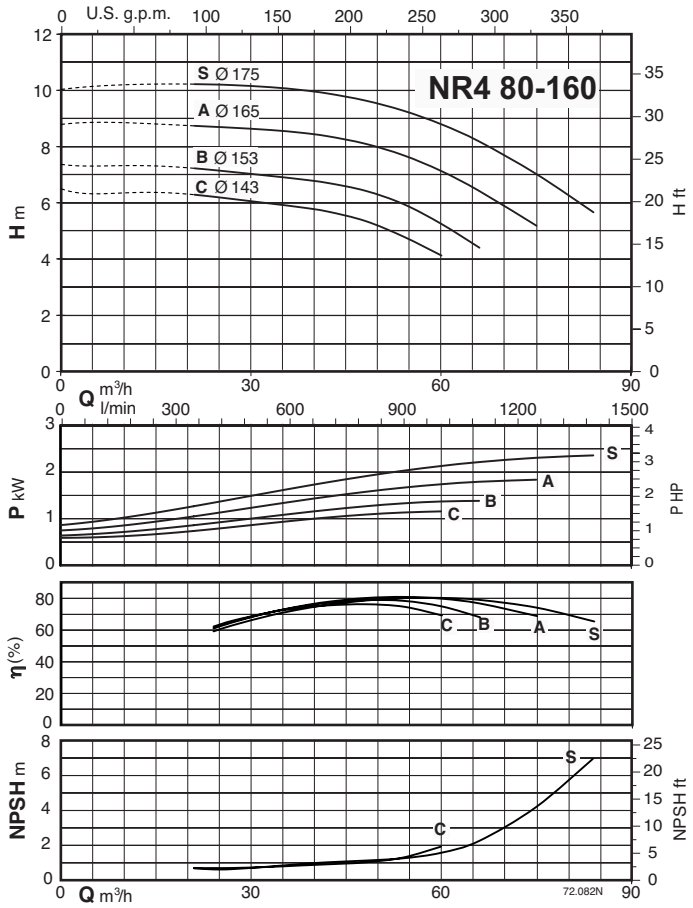


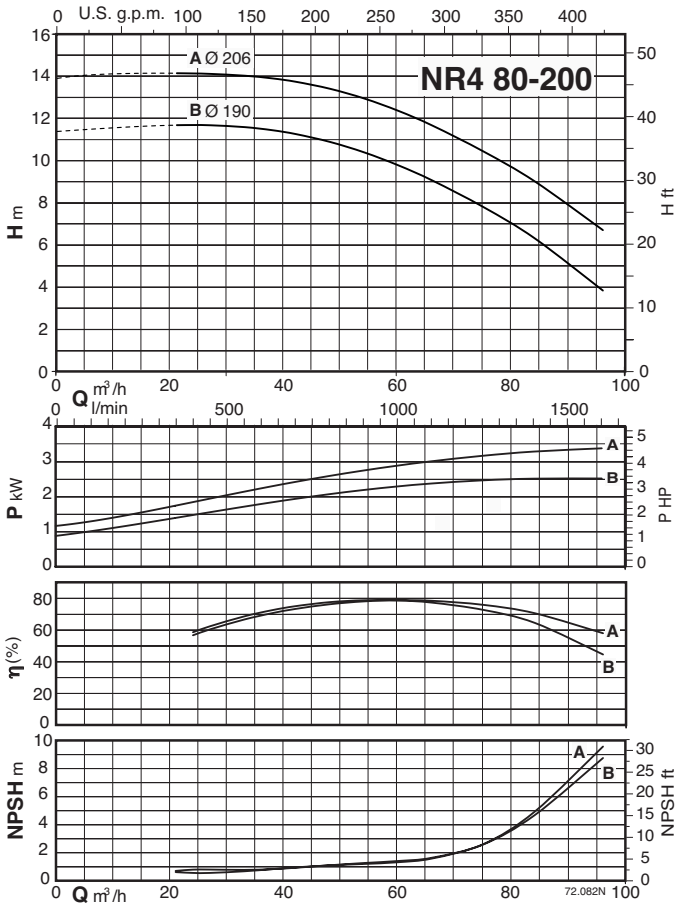


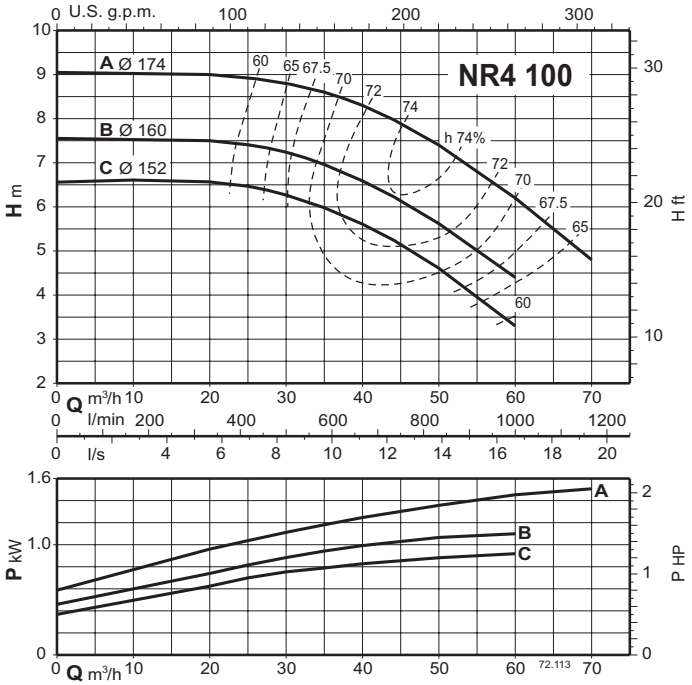


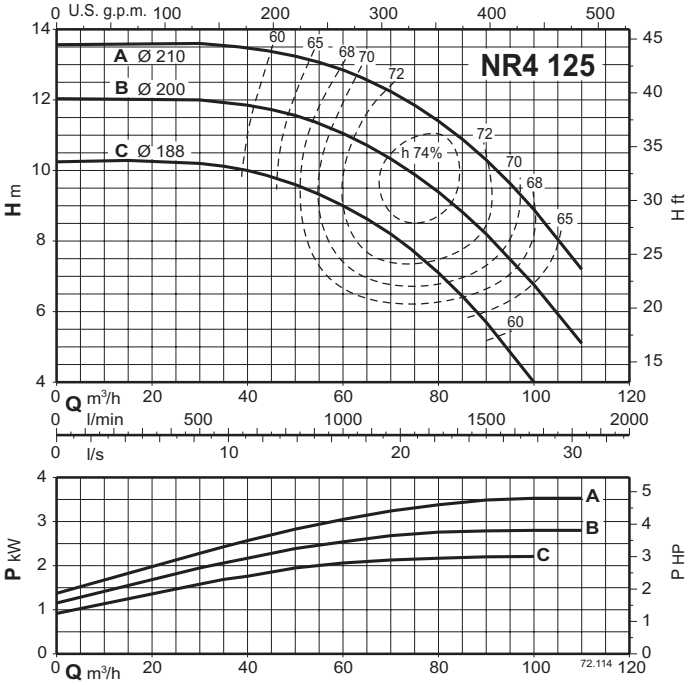
NR

Coverage chart n ≈ 1450 rpm



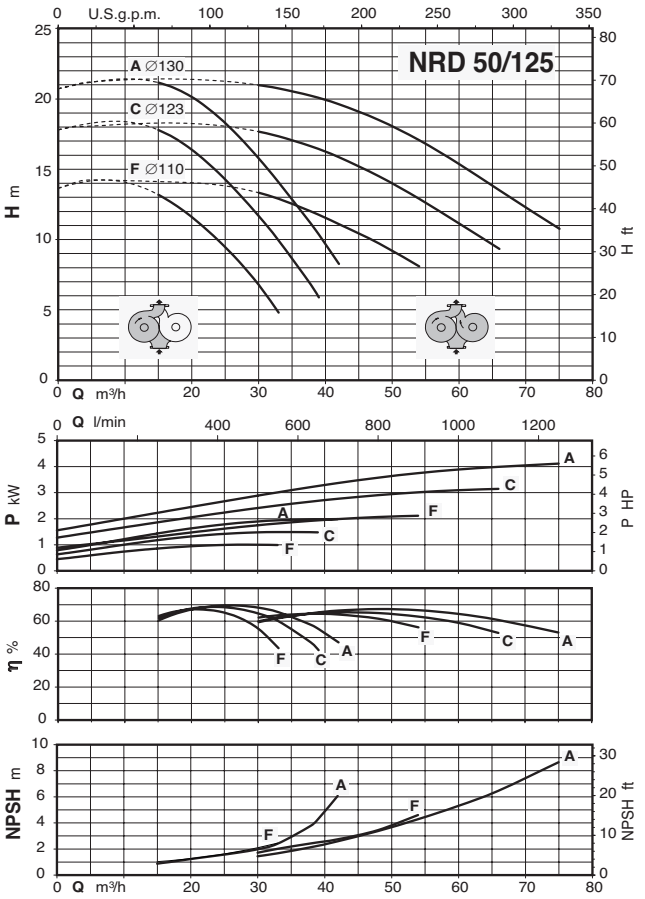


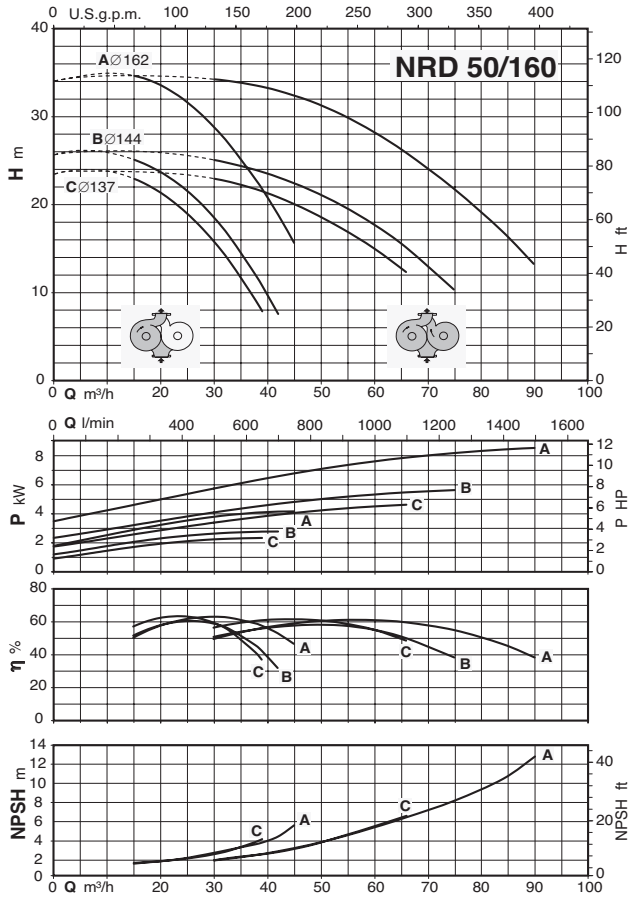


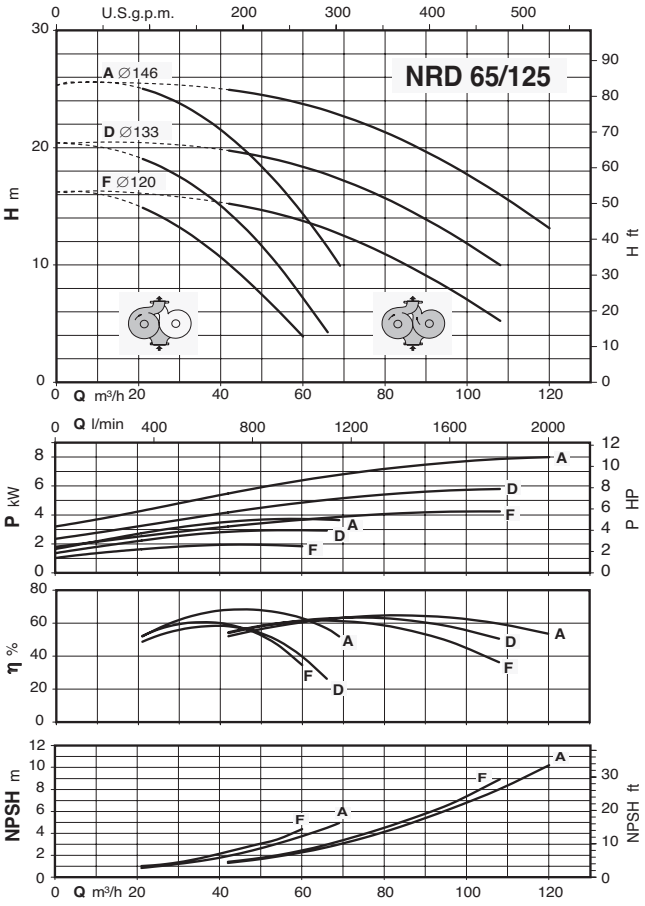


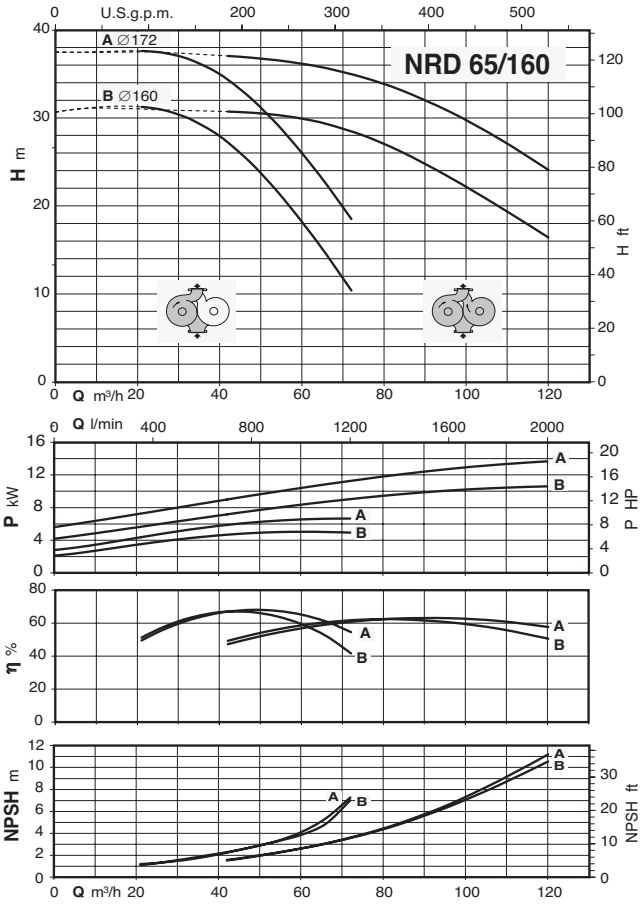
NR

Coverage chart n ≈ 2900 rpm



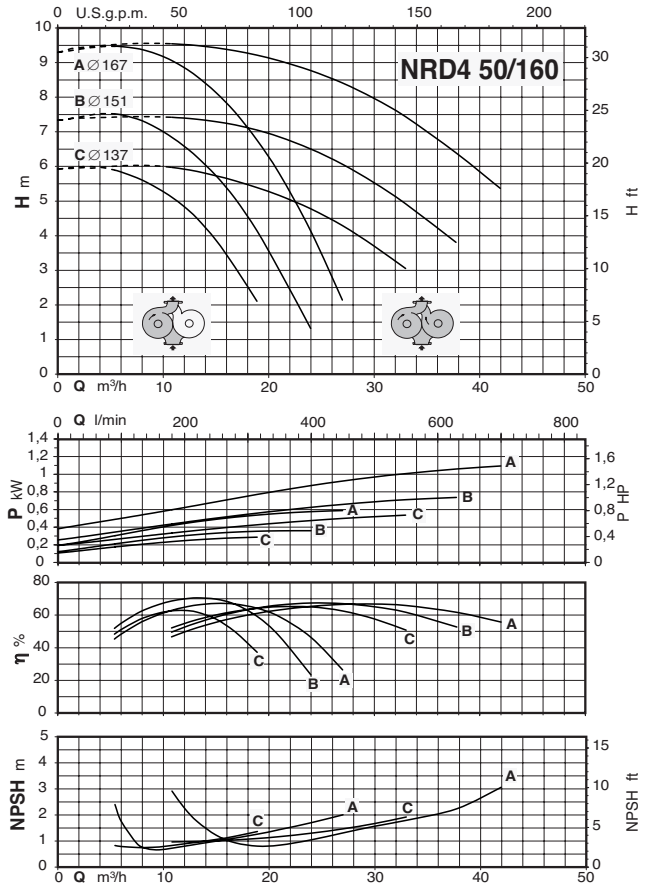


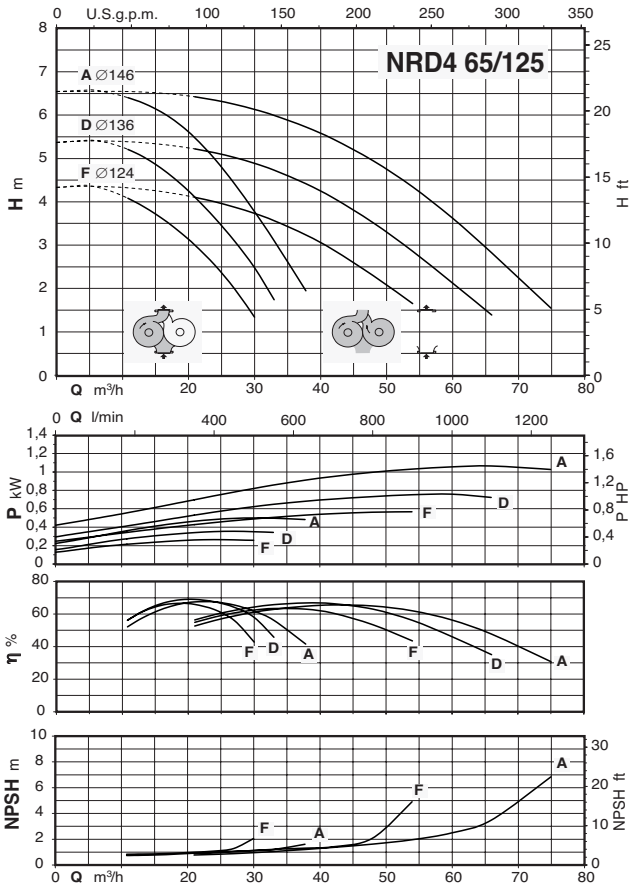


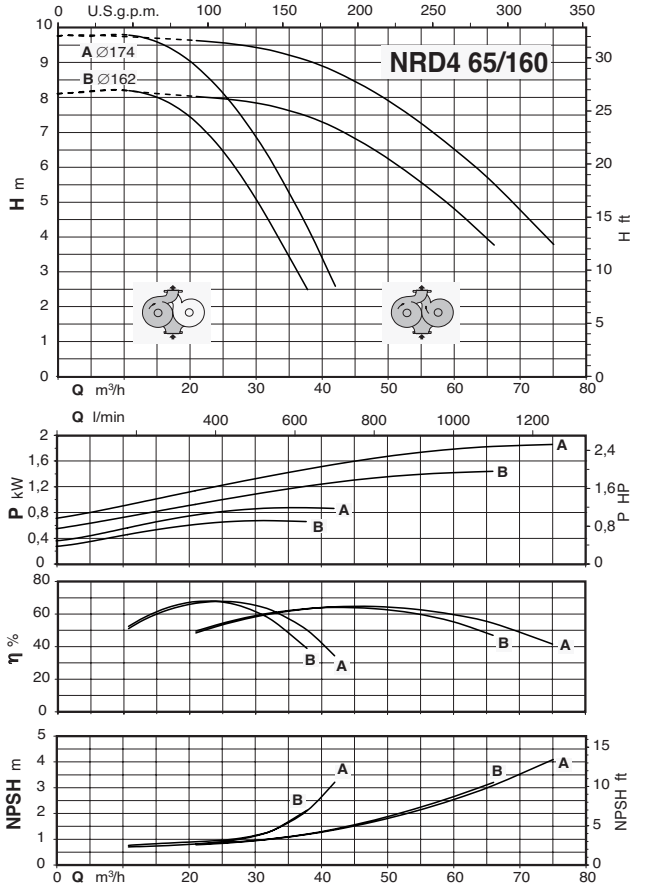


NR

Coverage chart n ≈ 1450 rpm

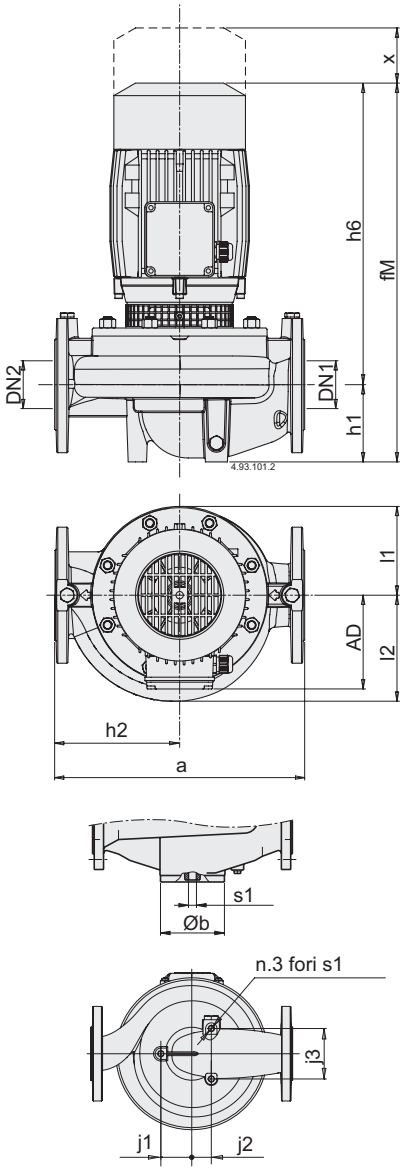






NR

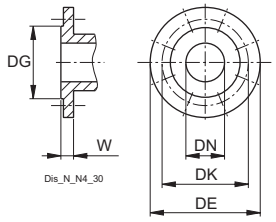
Dimensions and weights



TYPE			mm														kg
	DN1	DN2	a	AD	b	fM	h1	h2	h6	j1	j2	j3	l1	l2	s1	x	Peso
NR 50D/A	50	50	320	111	98	363.5	90	160	273.5	-	-	-	93	100	M16	70	20.8
NR 50C/B	50	50	320	111	98	363.5	90	160	273.5	-	-	-	93	100	M16	70	23.8
NR 32/125B	32	32	260	111	-	351	80	130	271	49.5	31.5	70.5	86	88	M10	60	18.9
NR 32/125A	32	32	260	111	-	351	80	130	271	49.5	31.5	70.5	86	88	M10	60	19
NR 32/160B/A	32	32	340	130	-	421	80	170	341	50	40	76	102	102	M10	60	26.1
NR 32/160A/A	32	32	340	130	-	421	80	170	341	50	40	76	102	102	M10	60	27.8
NR 32/200B/A	32	32	440	130	-	469	85	220	384	60	44	84	126	126	M10	60	36.7
NR 32/200A	32	32	440	140	-	495	85	220	410	60	44	84	126	126	M10	60	44
NR 32/200S/A	32	32	440	140	-	495	85	220	410	60	44	84	126	126	M10	60	46.7
NR 40/125C	40	40	320	130	-	423	81	160	342	49	31	80	93	98	M10	70	25.7
NR 40/125B/A	40	40	320	130	-	423	81	160	342	49	31	80	93	98	M10	70	27.3
NR 40/125A/A	40	40	320	130	-	423	81	160	342	49	31	80	93	98	M10	70	28.6
NR 40/160B/A	40	40	320	130	-	430	81	160	349	49	31	80	119	119	M10	75	35.6
NR 40/160A/A	40	40	320	130	-	470	81	160	389	49	31	80	119	119	M10	75	39.1
NR 40/200B	40	40	440	140	-	496	81	220	415	62	40	95	140	140	M10	75	53.4
NR 40/200A/A	40	40	440	140	-	496	81	220	415	62	40	95	140	140	M10	75	56.6
NR 50/125F/A	50	50	340	130	-	437	90	170	347	45	40	79	96	115	M10	75	30.4
NR 50/125C/A	50	50	340	130	-	437	90	170	347	45	40	79	96	115	M10	75	31.9
NR 50/125A/B	50	50	340	130	-	477	90	170	387	45	40	79	96	115	M10	75	35.3
NR 50/160C/B	50	50	340	130	-	480	90	170	390	45	40	79	120	128	M10	75	38.4
NR 50/160B/A	50	50	340	140	-	506	90	170	416	45	40	79	120	128	M10	75	47
NR 50/160A/B	50	50	340	140	-	506	90	170	416	45	40	79	120	128	M10	75	50.4
NR 50/200D/B	50	50	440	140	-	515	100	220	415	45	40	79	140	140	M10	80	57.3
NR 50/200B/A	50	50	440	167	-	576	100	220	476	45	40	79	140	140	M10	80	69.8
NR 50/200A/A	50	50	440	167	-	576	100	220	476	45	40	79	140	140	M10	80	74.9
NR 50/250C/B	50	50	440	190	-	656	100	220	556	45	40	79	175	175	M10	85	112
NR 50/250B/A	50	50	440	190	-	656	100	220	556	45	40	79	175	175	M10	85	119.5
NR 50/250A/B	50	50	440	190	-	731	100	220	631	45	40	79	175	175	M10	85	139.4
NR 65/125F/B	65	65	340	130	-	494	105	170	389	60	50	110	121	145	M10	95	43.7
NR 65/125D/A	65	65	340	140	-	519	105	170	414	60	50	110	121	145	M10	95	52.1
NR 65/125A/B	65	65	340	140	-	519	105	170	414	60	50	110	121	145	M10	95	55
NR 65/125S/B	65	65	340	140	-	519	105	170	414	60	50	110	121	145	M10	95	55.3
NR 65/160B/A	65	65	340	167	-	584	105	170	479	60	50	110	121	142	M10	95	68.5
NR 65/160A/A	65	65	340	167	-	584	105	170	479	60	50	110	121	142	M10	95	73.8
NR 65/200B/B	65	65	475	190	-	665	105	237.5	560	60	50	110	140	153	M10	90	109.2
NR 65/200A/A	65	65	475	190	-	665	105	237.5	560	60	50	110	140	153	M10	90	117.4
NR 65/200S/B	65	65	475	190	-	740	105	237.5	635	60	50	110	140	153	M10	90	136.7
NR 65/250C/A	65	65	475	190	-	670	105	237.5	565	60	50	110	175	175	M10	90	-
NR 65/250B/B	65	65	475	190	-	745	105	237.5	640	60	50	110	175	175	M10	90	152.8
NR 65/250A/C	65	65	475	208	-	791	105	237.5	686	60	50	110	175	175	M10	90	172.6
NR 80/125E	80	80	440	140	-	533	105	220	428	85	42.5	147.2	129	152	M10	105	60.5
NR 80/125C	80	80	440	167	-	595	105	220	490	85	42.5	147.2	129	152	M10	105	74.6
NR 80/125A	80	80	440	167	-	595	105	220	490	85	42.5	147.2	129	152	M10	105	79.6
NR 80/160D	80	80	440	167	-	604.5	120	220	484.5	85	42.5	147.2	138	159	M10	105	-
NR 80/160C	80	80	440	190	-	684	120	220	564	85	42.5	147.2	138	159	M10	105	-
NR 80/160B	80	80	440	190	-	684	120	220	564	85	42.5	147.2	138	159	M10	105	-
NR 80/160A	80	80	440	190	-	759	120	220	639	85	42.5	147.2	138	159	M10	105	-
NR 80/160AR	80	80	440	190	-	759	120	220	639	85	42.5	147.2	138	159	M10	105	-
NR 80/200C	80	80	500	190	-	792	150	250	642	85	42.5	147.2	156	177	M10	110	-
NR 80/200B	80	80	500	208	-	843	150	250	693	85	42.5	147.2	156	177	M10	110	-
NR 80/200A	80	80	500	208	-	843	150	250	693	85	42.5	147.2	156	177	M10	110	-

TYPE			mm														kg
	DN1	DN2	a	AD	b	fM	h1	h2	h6	j1	j2	j3	l1	l2	s1	x	Peso
NRM 50D/A	50	50	320	111	98	363.5	90	160	273.5	-	-	-	93	100	M16	70	22
NRM 50C/A	50	50	320	111	98	363.5	90	160	273.5	-	-	-	93	100	M16	70	24.5
NRM 32/125B	32	32	260	111	-	351	80	130	271	49.5	31.5	70.5	86	88	M10	60	17.8
NRM 32/125A	32	32	260	111	-	351	80	130	271	49.5	31.5	70.5	86	88	M10	60	-
NRM 32/160B	32	32	340	130	-	421	80	170	341	50	40	76	102	102	M10	60	29.8
NRM 32/160A	32	32	340	130	-	421	80	170	341	50	40	76	102	102	M10	60	29.8
NRM 40/125C	40	40	320	130	-	423	81	160	342	49	31	80	93	98	M10	70	-
NRM 40/125B	40	40	320	130	-	423	81	160	342	49	31	80	93	98	M10	70	-
NRM 40/125A	40	40	320	130	-	423	81	160	342	49	31	80	93	98	M10	70	29
NRM 40/160B	40	40	320	130	-	430	81	160	349	49	31	80	119	119	M10	75	-
NRM 50/125F	50	50	340	130	-	437	90	170	347	45	40	79	96	115	M10	75	-
NRM 50/125C	50	50	340	130	-	437	90	170	347	45	40	79	96	115	M10	75	32.4

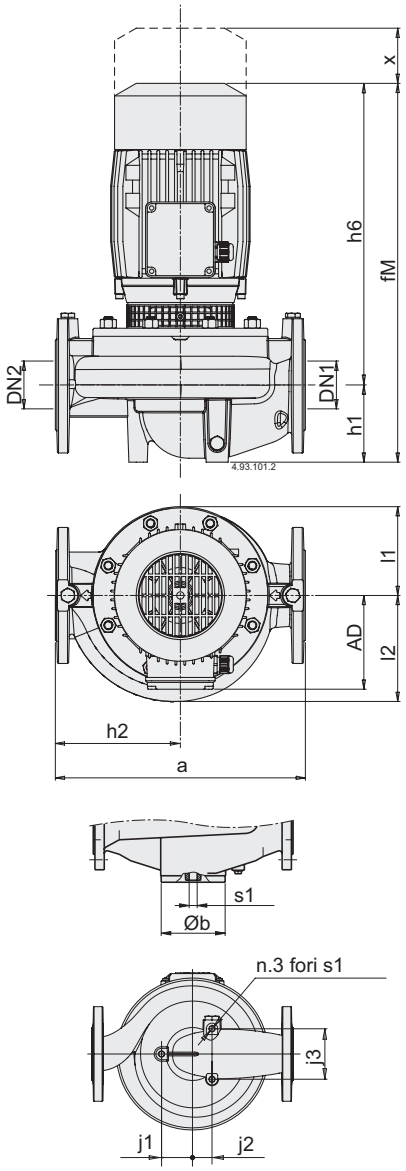
Flanges EN 1092-2



mm							
DN	PN	DG	DK	DE	Holes		W
					N°	ø	
32	10-16	76	100	140	4	19	18
40	10-16	84	110	150	4	19	18
50	10-16	99	125	165	4	19	20
65	10-16	118	145	185	4	19	20
80	10-16	132	160	200	8	19	22
100	10-16	156	180	220	8	19	24
125	10-16	184	210	250	8	19	24

NR

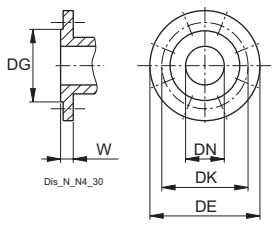
Dimensions and weights



TYPE			mm														kg
	DN1	DN2	a	AD	b	fM	h1	h2	h6	j1	j2	j3	l1	l2	s1	x	Weight
NR4 50C/A	50	50	320	111	98	363.5	90	160	273.5	-	-	-	93	100	M16	70	22
NR4 50B/A	50	50	320	111	98	363.5	90	160	273.5	-	-	-	93	100	M16	70	22
NR4 50A/A	50	50	320	111	98	363.5	90	160	273.5	-	-	-	93	100	M16	70	22.8
NR4 65C/A	65	65	360	111	118	373.5	100	180	273.5	-	-	-	102	114	M16	70	25
NR4 65B/A	65	65	360	111	118	373.5	100	180	273.5	-	-	-	102	114	M16	70	26.6
NR4 65A/A	65	65	360	111	118	373.5	100	180	273.5	-	-	-	102	114	M16	70	26.9
NR4 100C/B	100	100	500	140	162	548	150	250	398	-	-	-	153	173	M16	105	66.6
NR4 100B/B	100	100	500	140	162	548	150	250	398	-	-	-	153	173	M16	105	67
NR4 100A/B	100	100	500	140	162	548	150	250	398	-	-	-	153	173	M16	105	70.5
NR4 125C/B	125	125	600	167	194	640	170	300	470	-	-	-	172	195	M16	120	100.8
NR4 125B/A	125	125	600	167	194	640	170	300	470	-	-	-	172	195	M16	120	100
NR4 125A/A	125	125	600	167	194	640	170	300	470	-	-	-	172	195	M16	120	108
NR4 32/160B/A	32	32	340	130	-	421	80	170	341	50	40	76	102	102	M10	60	24.1
NR4 32/160A/A	32	32	340	130	-	421	80	170	341	50	40	76	102	102	M10	60	24.1
NR4 32/200C/A	32	32	440	130	-	426	85	220	341	60	44	84	126	126	M10	60	29.7
NR4 32/200B/A	32	32	440	130	-	426	85	220	341	60	44	84	126	126	M10	60	31.5
NR4 32/200A/A	32	32	440	130	-	466	85	220	381	60	44	84	126	126	M10	60	36.8
NR4 40/160B/A	40	40	320	130	-	430	81	160	349	49	31	80	119	119	M10	75	30.5
NR4 40/160A/A	40	40	320	130	-	430	81	160	349	49	31	80	119	119	M10	75	31.2
NR4 40/200B/A	40	40	440	130	-	430	81	220	349	62	40	95	140	140	M10	75	40.3
NR4 40/200A/A	40	40	440	130	-	470	81	220	389	62	40	95	140	140	M10	75	46.2
NR4 50/160C	50	50	340	128	-	440	90	-	350	45	40	79	120	128	M10	75	32.3
NR4 50/160B	50	50	340	128	-	440	90	-	350	45	40	79	120	128	M10	75	33.8
NR4 50/160A/B	50	50	340	130	-	480	90	170	390	45	40	79	120	128	M10	75	40.8
NR4 50/200B/B	50	50	440	140	-	515	100	220	415	45	40	79	140	140	M10	80	52.8
NR4 50/200A/B	50	50	440	140	-	515	100	220	415	45	40	79	140	140	M10	80	53.6
NR4 50/250C/B	50	50	440	140	-	516	100	220	416	45	40	79	175	175	M10	85	70.3
NR4 50/250B/B	50	50	440	167	-	577	100	220	477	45	40	79	175	175	M10	85	82.3
NR4 50/250A/A	50	50	440	167	-	577	100	220	477	45	40	79	175	175	M10	85	-
NR4 65/125F/A	65	65	340	130	-	454	105	170	349	60	50	110	121	145	M10	95	38.2
NR4 65/125D/A	65	65	340	130	-	454	105	170	349	60	50	110	121	145	M10	95	40.5
NR4 65/125A/B	65	65	340	130	-	494	105	170	389	60	50	110	121	145	M10	95	44.4
NR4 65/125S/B	65	65	340	130	-	494	105	170	389	60	50	110	121	145	M10	95	44.5
NR4 65/160B/B	65	65	340	140	-	522	105	170	417	60	50	110	121	142	M10	95	50.9
NR4 65/160A/B	65	65	340	140	-	522	105	170	417	60	50	110	121	142	M10	95	51
NR4 65/200C/B	65	65	475	140	-	535	105	237.5	430	60	50	110	140	153	M10	90	61.3
NR4 65/200B/B	65	65	475	140	-	535	105	237.5	430	60	50	110	140	153	M10	90	63.5
NR4 65/200A/B	65	65	475	167	-	586	105	237.5	481	60	50	110	140	153	M10	90	75
NR4 65/250D/B	65	65	475	167	-	586	105	237.5	481	60	50	110	175	175	M10	90	-
NR4 65/250C/B	65	65	475	167	-	586	105	237.5	481	60	50	110	175	175	M10	90	0.1
NR4 65/250B/A	65	65	475	167	-	586	105	237.5	481	60	50	110	175	175	M10	90	87.2
NR4 65/250A/A	65	65	475	167	-	586	105	237.5	481	60	50	110	175	175	M10	90	94.4
NR4 80/160C	80	80	440	140	-	543	120	220	423	85	42.5	147.2	138	159	M10	105	-
NR4 80/160B	80	80	440	140	-	543	120	220	423	85	42.5	147.2	138	159	M10	105	-
NR4 80/160A	80	80	440	140	-	543	120	220	423	85	42.5	147.2	138	159	M10	105	-
NR4 80/160S	80	80	440	167	-	604.5	120	220	484.5	85	42.5	147.2	138	159	M10	105	-
NR4 80/200B	80	80	500	167	-	637.5	150	250	487.5	85	42.5	147.2	156	177	M10	110	-
NR4 80/200A	80	80	500	167	-	637.5	150	250	487.5	85	42.5	147.2	156	177	M10	110	-

TYPE			mm											kg
	DN1	DN2	a	AD	b	fM	h1	h2	h6	l1	l2	s1	x	Weight
NR4M 50C/A	50	50	320	111	98	363.5	90	160	273.5	93	100	M16	70	23.6
NR4M 50B/A	50	50	320	111	98	363.5	90	160	273.5	93	100	M16	70	24
NR4M 50A/A	50	50	320	111	98	363.5	90	160	273.5	93	100	M16	70	24.1
NR4M 65C/A	65	65	360	111	118	373.5	100	180	273.5	102	114	M16	70	27

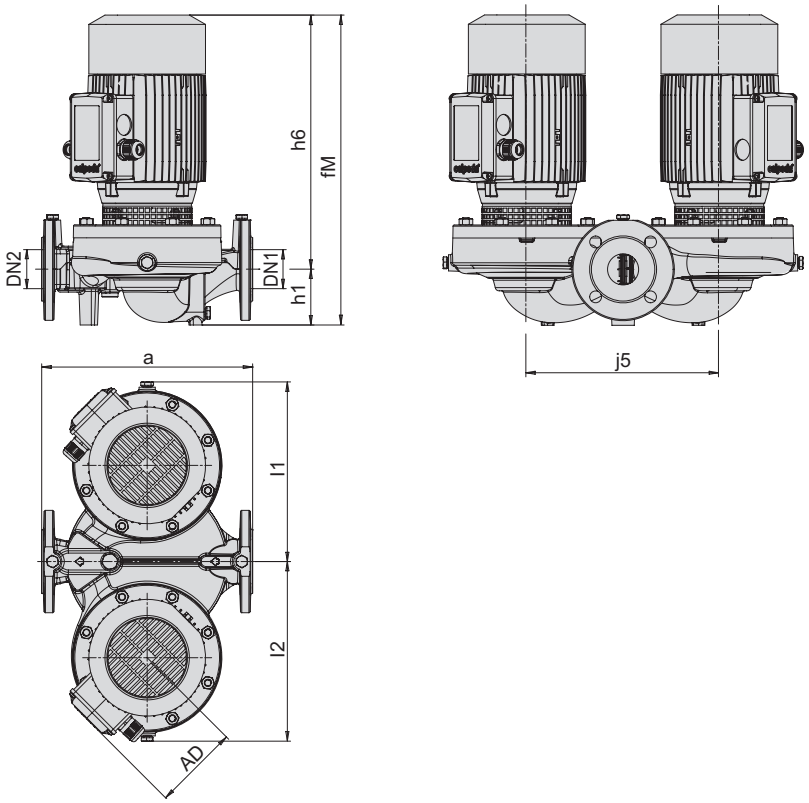
Flanges EN 1092-2



mm							
DN	PN	DG	DK	DE	Holes		W
					N°	ø	
32	10-16	76	100	140	4	19	18
40	10-16	84	110	150	4	19	18
50	10-16	99	125	165	4	19	20
65	10-16	118	145	185	4	19	20
80	10-16	132	160	200	8	19	22
100	10-16	156	180	220	8	19	24
125	10-16	184	210	250	8	19	24

NR

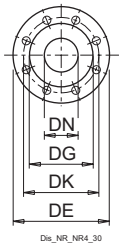
Dimensions and weights



TYPE			mm								kg
	DN1	DN2	a	AD	fM	h1	h6	j5	l1	l2	Weight
NRD 50/125F	50	50	340	130	433.5	90	343.5	310	278.5	278.5	62.7
NRD 50/125C	50	50	340	130	433.5	90	343.5	310	278.5	278.5	66.2
NRD 50/125A	50	50	340	130	473.5	90	383.5	310	278.5	278.5	72
NRD 50/160C	50	50	340	130	473.5	90	383.5	310	291.5	291.5	79
NRD 50/160B	50	50	340	139	499.5	90	409.5	310	291.5	291.5	91.8
NRD 50/160A	50	50	340	139	499.5	90	409.5	310	291.5	291.5	101.5
NRD 65/125F	65	65	340	128	488.5	105	383.5	310	303.5	303.5	86.8
NRD 65/125D	65	65	340	138	514.5	105	409.5	310	303.5	303.5	99.6
NRD 65/125A	65	65	340	138	514.5	105	409.5	310	303.5	303.5	106.2
NRD 65/160B	65	65	340	160	543.5	105	438.5	310	303.5	303.5	-
NRD 65/160A	65	65	340	160	543.5	105	438.5	310	303.5	303.5	147.5

TYPE			mm								kg
	DN1	DN2	a	AD	fM	h1	h6	j5	l1	l2	Weight
NRD4 50/160C	50	50	340	130	433.5	90	343.5	310	291.5	291.5	65.5
NRD4 50/160B	50	50	340	130	433.5	90	343.5	310	291.5	291.5	69.2
NRD4 50/160A	50	50	340	130	473.5	90	383.5	310	291.5	291.5	79.5
NRD4 65/125F	65	65	340	130	448.5	105	343.5	310	303.5	303.5	-
NRD4 65/125D	65	65	340	130	448.5	105	343.5	310	303.5	303.5	76.3
NRD4 65/125A	65	65	340	130	488.5	105	383.5	310	303.5	303.5	87.5
NRD4 65/160B	65	65	340	138	514.5	105	409.5	310	303.5	303.5	-
NRD4 65/160A	65	65	340	138	514.5	105	409.5	310	303.5	303.5	-

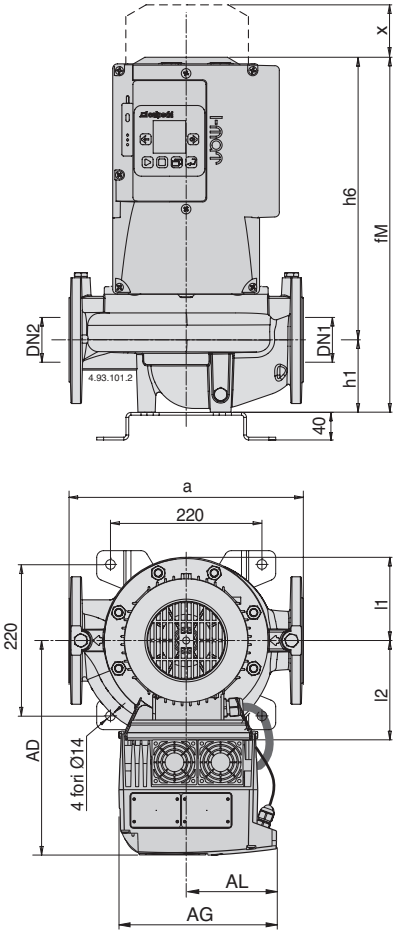
Flanges EN 1092-2



mm							
DN	PN	DG	DK	DE	Holes		W
					N°	ø	
32	10-16	76	100	140	4	19	18
40	10-16	84	110	150	4	19	18
50	10-16	99	125	165	4	19	20
65	10-16	118	145	185	4	19	20
80	10-16	132	160	200	8	19	22
100	10-16	156	180	220	8	19	24
125	10-16	184	210	250	8	19	24

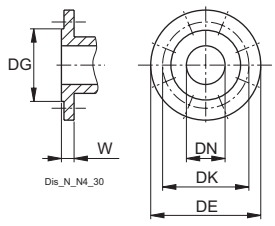
NR

Dimensions and weights



TYPE			mm											kg
	DN1	DN2	a	AD	AG	AL	fM	h1	h6	HD	l1	l2	x	Peso
NR EI 50D/A	50	50	320	111	190	105	363.5	90	273.5	266	93	100	70	29.3
NR EI 50C/B	50	50	320	111	190	105	363.5	90	273.5	266	93	100	70	32.3
NR EI 32/125B	32	32	260	111	190	105	351	80	271	266	86	88	60	24.8
NR EI 32/125A	32	32	260	111	190	105	351	80	271	266	86	88	60	-
NR EI 32/160B/A	32	32	340	130	190	105	421	80	341	285	102	102	60	35
NR EI 32/160A/A	32	32	340	130	190	105	421	80	341	285	102	102	60	36.2
NR EI 32/200B/A	32	32	440	130	210	117.5	469	85	384	285	126	126	60	-
NR EI 32/200A	32	32	440	140	210	117.5	495	85	410	295	126	126	60	-
NR EI 32/200S/A	32	32	440	140	210	117.5	495	85	410	295	126	126	60	-
NR EI 40/125C	40	40	320	130	190	105	423	81	342	285	93	98	70	34
NR EI 40/125B/A	40	40	320	130	190	105	423	81	342	285	93	98	70	36
NR EI 40/125A/A	40	40	320	130	190	105	423	81	342	285	93	98	70	37.4
NR EI 40/160B/A	40	40	320	130	190	105	430	81	349	285	119	119	75	42.4
NR EI 40/160A/A	40	40	320	130	210	117.5	470	81	389	285	119	119	75	47
NR EI 40/200B	40	40	440	140	210	117.5	496	81	415	295	140	140	75	64
NR EI 40/200A/A	40	40	440	140	210	117.5	496	81	415	295	140	140	75	66.7
NR EI 50/125F/A	50	50	340	130	190	105	437	90	347	285	96	115	75	39
NR EI 50/125C/A	50	50	340	130	190	105	437	90	347	285	96	115	75	40.3
NR EI 50/125A/B	50	50	340	130	210	117.5	477	90	387	285	96	115	75	47.5
NR EI 50/160C/B	50	50	340	130	210	117.5	480	90	390	285	120	128	75	49
NR EI 50/160B/A	50	50	340	140	210	117.5	506	90	416	295	120	128	75	55.2
NR EI 50/160A/B	50	50	340	140	210	117.5	506	90	416	295	120	128	75	58.8
NR EI 50/200D/B	50	50	440	140	210	117.5	515	100	415	295	140	140	80	-
NR EI 50/200B/A	50	50	440	167	210	117.5	576	100	476	324	140	140	80	-
NR EI 50/200A/A	50	50	440	167	281	153.5	576	100	476	366	140	140	80	-
NR EI 50/250C/B	50	50	440	190	281	153.5	656	100	556	389	175	175	85	-
NR EI 50/250B/A	50	50	440	190	281	153.5	656	100	556	389	175	175	85	-
NR EI 50/250A/B	50	50	440	190	350	190	731	100	631	469	175	175	85	-
NR EI 65/125F/B	65	65	340	130	210	117.5	494	105	389	285	121	145	95	53.9
NR EI 65/125D/A	65	65	340	140	210	117.5	519	105	414	295	121	145	95	60.8
NR EI 65/125A/B	65	65	340	140	210	117.5	519	105	414	295	121	145	95	64.3
NR EI 65/125S/B	65	65	340	140	210	117.5	519	105	414	295	121	145	95	63.8
NR EI 65/160B/A	65	65	340	167	210	117.5	584	105	479	324	121	142	95	-
NR EI 65/160A/A	65	65	340	167	281	153.5	584	105	479	366	121	142	95	90.3
NR EI 65/200B/B	65	65	475	190	281	153.5	665	105	560	389	140	153	90	125
NR EI 65/200A/A	65	65	475	190	281	153.5	665	105	560	389	140	153	90	-
NR EI 65/200S/B	65	65	475	190	350	190	740	105	635	469	140	153	90	-
NR EI 65/250C/A	65	65	475	190	281	153.5	670	105	565	389	175	175	90	-
NR EI 65/250B/B	65	65	475	190	350	190	745	105	640	469	175	175	90	-
NR EI 65/250A/C	65	65	475	208	350	190	791	105	686	488	175	175	90	-
NR EI 80/125E	80	80	440	140	210	117.5	533	105	428	295	129	152	105	-
NR EI 80/125C	80	80	440	167	210	117.5	595	105	490	324	129	152	105	84
NR EI 80/125A	80	80	440	167	281	153.5	595	105	490	366	129	152	105	-
NR EI 80/160D	80	80	440	167	281	153.5	604.5	120	484.5	366	138	159	105	-
NR EI 80/160C	80	80	440	190	281	153.5	684	120	564	389	138	159	105	-
NR EI 80/160B	80	80	440	190	281	153.5	684	120	564	389	138	159	105	-
NR EI 80/160A	80	80	440	190	350	190	759	120	639	469	138	159	105	-
NR EI 80/160AR	80	80	440	190	350	190	759	120	639	469	138	159	105	-
NR EI 80/200C	80	80	500	190	350	190	792	150	642	469	156	177	105	-
NR EI 80/200B	80	80	500	208	350	190	843	150	693	488	156	177	105	-
NR EI 80/200A	80	80	500	208	350	190	843	150	693	488	156	177	105	-

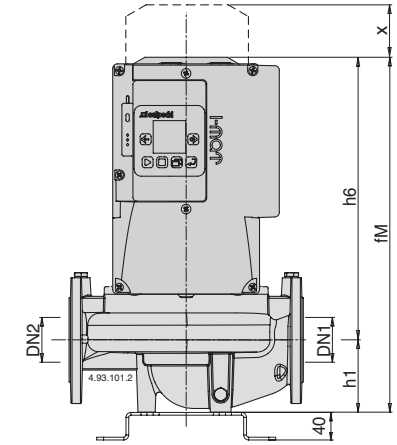
Flanges EN 1092-2

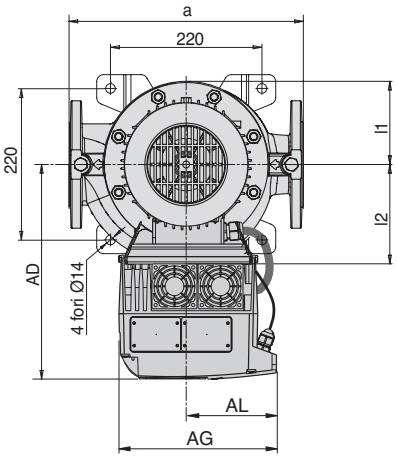


mm							
DN	PN	DG	DK	DE	Holes		W
					N°	ø	
32	10-16	76	100	140	4	19	18
40	10-16	84	110	150	4	19	18
50	10-16	99	125	165	4	19	20
65	10-16	118	145	185	4	19	20
80	10-16	132	160	200	8	19	22
100	10-16	156	180	220	8	19	24
125	10-16	184	210	250	8	19	24

NR

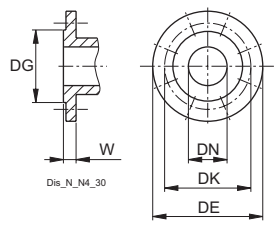
Dimensions and weights





TYPE			mm											kg
	DN1	DN2	a	AD	AG	AL	fM	h1	h6	HD	l1	l2	x	Peso
NR4 EI 50C/A	50	50	320	111	190	105	363.5	90	273.5	266	93	100	70	-
NR4 EI 50B/A	50	50	320	111	190	105	363.5	90	273.5	266	93	100	70	-
NR4 EI 50A/A	50	50	320	111	190	105	363.5	90	273.5	266	93	100	70	-
NR4 EI 65C/A	65	65	360	111	190	105	373.5	100	273.5	266	102	114	70	-
NR4 EI 65B/A	65	65	360	111	190	105	373.5	100	273.5	266	102	114	70	-
NR4 EI 65A/A	65	65	360	111	190	105	373.5	100	273.5	266	102	114	70	-
NR4 EI 100C/B	100	100	500	140	190	105	548	150	398	295	153	173	105	-
NR4 EI 100B/B	100	100	500	140	190	105	548	150	398	295	153	173	105	76
NR4 EI 100A/B	100	100	500	140	190	105	548	150	398	295	153	173	105	-
NR4 EI 125C/B	125	125	600	167	210	117.5	640	170	470	324	172	195	120	-
NR4 EI 125B/A	125	125	600	167	210	117.5	640	170	470	324	172	195	120	112
NR4 EI 125A/A	125	125	600	167	210	117.5	640	170	470	324	172	195	120	-
NR4 EI 32/160B/A	32	32	340	130	190	105	421	80	341	285	102	102	60	34.6
NR4 EI 32/160A/A	32	32	340	130	190	105	421	80	341	285	102	102	60	-
NR4 EI 32/200C/A	32	32	440	130	190	105	426	85	341	285	126	126	60	-
NR4 EI 32/200B/A	32	32	440	130	190	105	426	85	341	285	126	126	60	-
NR4 EI 32/200A/A	32	32	440	130	190	105	466	85	381	285	126	126	60	-
NR4 EI 40/160B/A	40	40	320	130	190	105	430	81	349	285	119	119	75	-
NR4 EI 40/160A/A	40	40	320	130	190	105	430	81	349	285	119	119	75	-
NR4 EI 40/200B/A	40	40	440	130	190	105	430	81	349	285	140	140	75	-
NR4 EI 40/200A/A	40	40	440	130	190	105	470	81	389	285	140	140	75	-
NR4 EI 50/160C/A	50	50	340	130	190	105	440	90	350	285	120	128	75	-
NR4 EI 50/160B/A	50	50	340	130	190	105	440	90	350	285	120	128	75	-
NR4 EI 50/160A/B	50	50	340	130	190	105	480	90	390	285	120	128	75	48.1
NR4 EI 50/200B/B	50	50	440	140	190	105	515	100	415	295	140	140	80	-
NR4 EI 50/200A/B	50	50	440	140	190	105	515	100	415	295	140	140	80	-
NR4 EI 50/250C/B	50	50	440	140	190	105	516	100	416	295	175	175	85	77.3
NR4 EI 50/250B/B	50	50	440	167	210	117.5	577	100	477	324	175	175	85	-
NR4 EI 50/250A/A	50	50	440	167	210	117.5	577	100	477	324	175	175	85	-
NR4 EI 65/125F/A	65	65	340	130	190	105	454	105	349	285	121	145	95	-
NR4 EI 65/125D/A	65	65	340	130	190	105	454	105	349	285	121	145	95	-
NR4 EI 65/125A/B	65	65	340	130	190	105	494	105	389	285	121	145	95	-
NR4 EI 65/125S/B	65	65	340	130	190	105	494	105	389	285	121	145	95	54
NR4 EI 65/160B/B	65	65	340	140	190	105	522	105	417	295	121	142	95	-
NR4 EI 65/160A/B	65	65	340	140	190	105	522	105	417	295	121	142	95	59
NR4 EI 65/200C/B	65	65	475	140	190	105	535	105	430	295	140	153	90	-
NR4 EI 65/200B/B	65	65	475	140	190	105	535	105	430	295	140	153	90	-
NR4 EI 65/200A/B	65	65	475	167	210	117.5	586	105	481	324	140	153	90	-
NR4 EI 65/250D/B	65	65	475	167	210	117.5	586	105	481	324	175	175	90	-
NR4 EI 65/250C/B	65	65	475	167	210	117.5	586	105	481	324	175	175	90	-
NR4 EI 65/250B/A	65	65	475	167	210	117.5	586	105	481	324	175	175	90	-
NR4 EI 65/250A/A	65	65	475	167	210	117.5	586	105	481	324	175	175	90	108
NR4 EI 80/160C	80	80	440	140	190	105	543	120	423	295	138	159	105	-
NR4 EI 80/160B	80	80	440	140	190	105	543	120	423	295	138	159	105	-
NR4 EI 80/160A	80	80	440	140	190	105	543	120	423	295	138	159	105	-
NR4 EI 80/160S	80	80	440	167	210	117.5	604.5	120	484.5	324	138	159	105	-
NR4 EI 80/200B	80	80	500	167	210	117.5	637.5	150	487.5	324	156	177	105	-
NR4 EI 80/200A	80	80	500	167	210	117.5	637.5	150	487.5	324	156	177	105	-

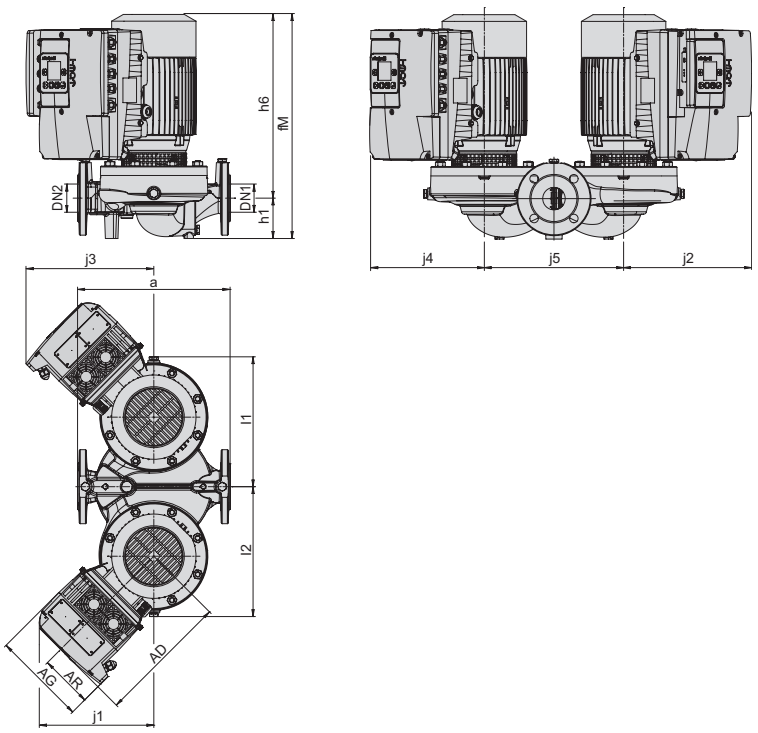
Flanges EN 1092-2



mm							
DN	PN	DG	DK	DE	Holes		W
					N°	ø	
32	10-16	76	100	140	4	19	18
40	10-16	84	110	150	4	19	18
50	10-16	99	125	165	4	19	20
65	10-16	118	145	185	4	19	20
80	10-16	132	160	200	8	19	22
100	10-16	156	180	220	8	19	24
125	10-16	184	210	250	8	19	24

NR

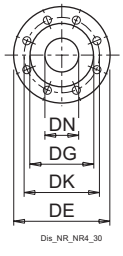
Dimensions and weights



TYPE			mm														kg
	DN1	DN2	a	AD	AG	AR	fM	h1	h6	j1	j2	j3	j4	j5	l1	l2	Weight
NRD EI 50/125F	50	50	340	284	190	105	433.5	90	343.5	243	269	269	243	310	278.5	278.5	78.6
NRD EI 50/125C	50	50	340	284	190	105	433.5	90	343.5	243	269	269	243	310	278.5	278.5	79.5
NRD EI 50/125A	50	50	340	284	210	118	473.5	90	383.5	249	277	277	249	310	278.5	278.5	90.8
NRD EI 50/160C	50	50	340	284	210	118	473.5	90	383.5	249	277	277	249	310	291.5	291.5	94.7
NRD EI 50/160B	50	50	340	293	210	118	499.5	90	409.5	256	283	283	256	310	291.5	291.5	108.5
NRD EI 50/160A	50	50	340	293	210	118	499.5	90	409.5	256	283	283	256	310	291.5	291.5	117
NRD EI 65/125F	65	65	340	284	210	118	488.5	105	383.5	249	277	277	249	310	303.5	303.5	102.3
NRD EI 65/125D	65	65	340	293	210	118	514.5	105	409.5	256	283	283	256	310	303.5	303.5	118.5
NRD EI 65/125A	65	65	340	293	210	118	514.5	105	409.5	256	283	283	256	310	303.5	303.5	122.6
NRD EI 65/160B	65	65	340	364	283	156	543.5	105	438.5	274	304	304	274	310	303.5	303.5	-
NRD EI 65/160A	65	65	340	364	283	156	543.5	105	438.5	331	358	358	331	310	303.5	303.5	-

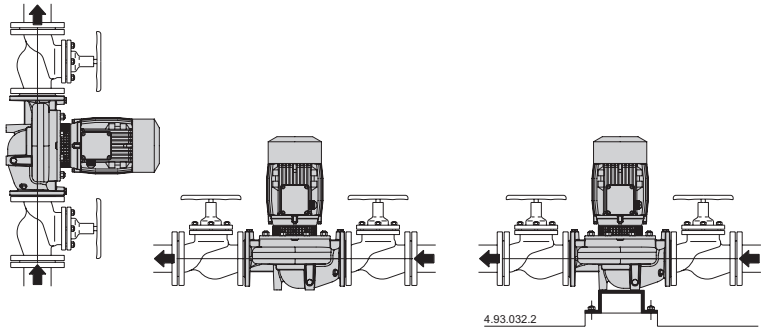
TYPE			mm													
	DN1	DN2	a	AD	AG	AR	fM	h1	h6	j1	j2	j3	j4	j5	l1	l2
NRD4 EI 50/160C	50	50	340	284	190	105	433.5	90	343.5	243	269	269	243	310	291.5	291.5
NRD4 EI 50/160B	50	50	340	284	190	105	433.5	90	343.5	243	269	269	243	310	291.5	291.5
NRD4 EI 50/160A	50	50	340	284	190	105	473.5	90	383.5	243	269	269	243	310	291.5	291.5
NRD4 EI 65/125F	65	65	340	284	190	105	448.5	105	343.5	243	269	269	243	310	303.5	303.5
NRD4 EI 65/125D	65	65	340	284	190	105	448.5	105	343.5	243	269	269	243	310	303.5	303.5
NRD4 EI 65/125A	65	65	340	284	190	105	488.5	105	383.5	243	269	269	243	310	303.5	303.5
NRD4 EI 65/160B	65	65	340	293	190	105	514.5	105	409.5	250	75	75	249	310	303.5	303.5
NRD4 EI 65/160A	65	65	340	293	190	105	514.5	105	409.5	250	75	75	249	310	303.5	303.5

Flanges EN 1092-2



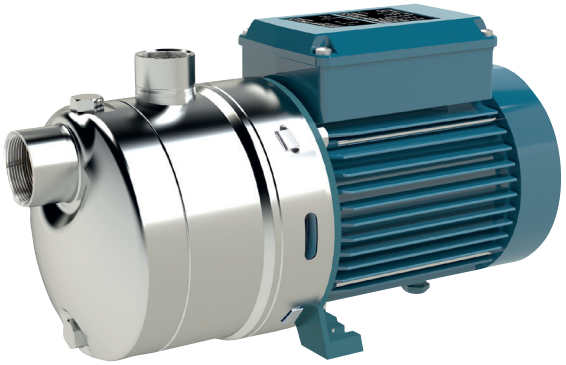
mm							
DN	PN	DG	DK	DE	Holes		W
					N°	ø	
32	10-16	76	100	140	4	19	18
40	10-16	84	110	150	4	19	18
50	10-16	99	125	165	4	19	20
65	10-16	118	145	185	4	19	20
80	10-16	132	160	200	8	19	22
100	10-16	156	180	220	8	19	24
125	10-16	184	210	250	8	19	24

Installation

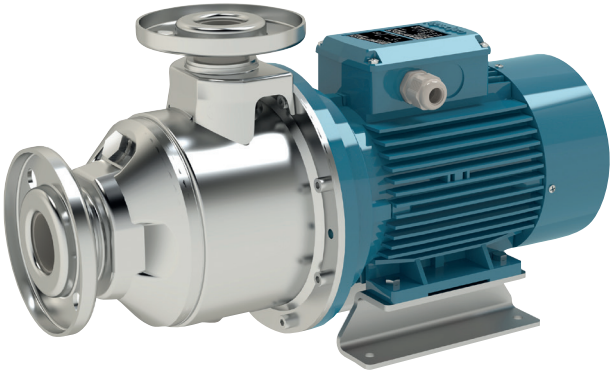


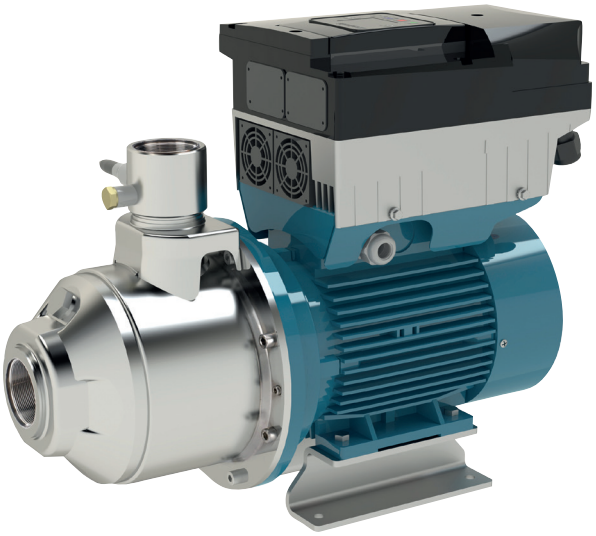
MXH

calpeda®







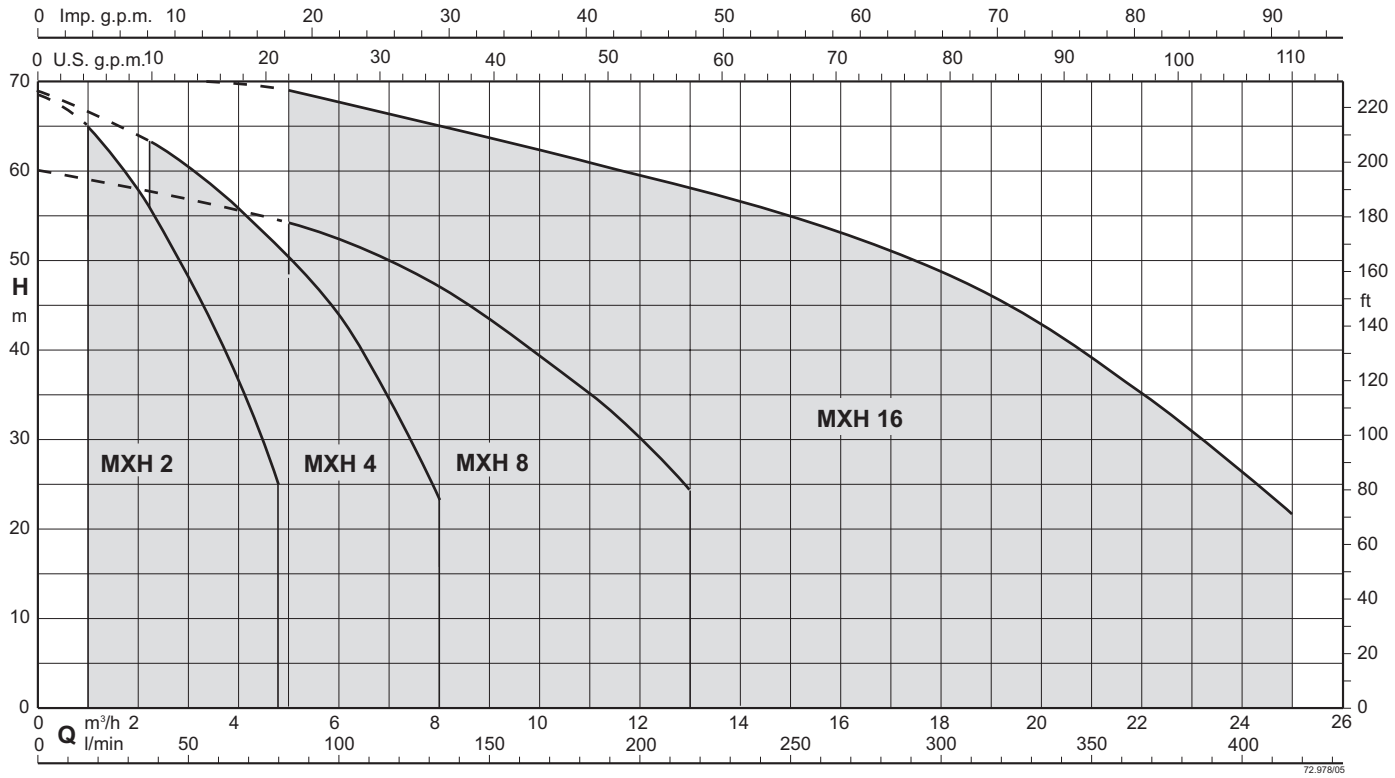


Horizontal multi-stage close coupled stainless steel pumps

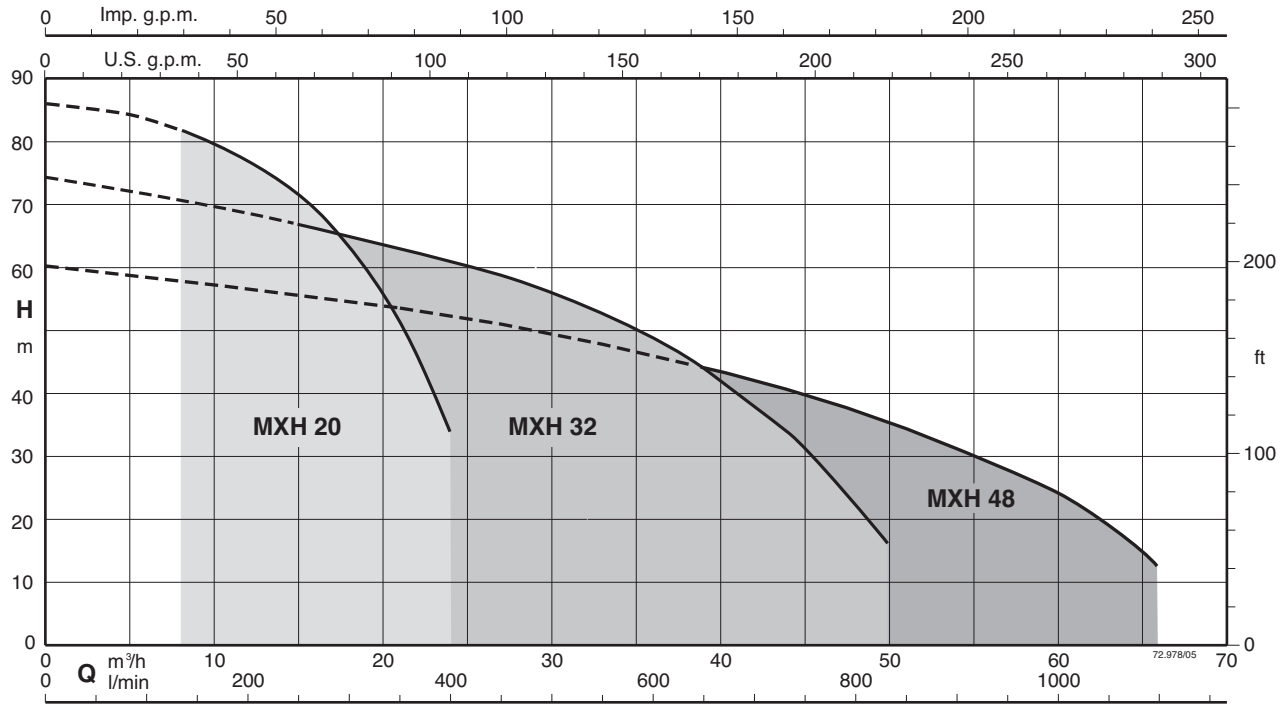
MXH

calpeda®

Coverage chart n ≈ 2900 rpm



Coverage chart n ≈ 2900 rpm



MXH

Construction

One-piece horizontal multi-stage pumps made of AISI 304 chrome-nickel stainless steel, AISI 316 steel for MXHL 2, 4, 8.
Compact and robust construction,with compact lantern bracket and motor with feet.
Single-piece barrel casing, with front suction port above pumps axis and radial delivery at top.
Version with frequency converter (on request)

Applications

For water supply systems.
For clean liquids, without abrasives, which are non-aggressive for stainless steel (with suitable seal materials, on request).
Universal pump, for domestic use, for civil and industrial applications, for garden use and irrigation.

Operating conditions

Liquid temperature: from -15°C to +110°C.
Ambient temperature up to 40° C.
Maximum permissible final pressure in the pump body: 8 bar, 10 bar for MXH 20, 32, 48.
Continuous duty (S3 60% for single-phase pump to 1,5-1,8 kW).

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
MXH: three-phase 230/400 V ± 10% up to 3 kW;
400/690 V ± 10%, from 3.7 to 7.5 kW;
MXHM single-phase single-phase 230 V ± 10%, with thermal protector.
Capacitor inside the terminal box.
Insulation class F.
Protection IP 54.
Motor suitable for operation with frequency converter from 1,1 kW.
IE2 efficiency class for single-phase motors up to 1,1 kW.
IE3 efficiency class for three-phase motors (IE2 up to 0,65 kW).
Constructed in accordance with EN 60034-1; EN 60034-30-1.
EN 60335-1, EN 60335-2-41.

Special features on request

Pumps with ports with Victaulic couplings (-V) for MXH versions 32, 40.
Pumps with flanged ports (-F) for MXH versions 20, 32, 40.
Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Protection IP 55.
Special mechanical seal
Pump casing seal rings in FPM.
Higher or lower liquid or ambient temperatures.
Motor suitable for operation with frequency converter up to 0,75 kW.

Designation

Example: MXH(L) (-V, -F) EI 206/B
MXH = Series
L = Version in 1.4401 EN 10088 (AISI 316) for MXH 2, 4, 8
(-V) = Version with Victaulic couplings for MXH 32, 40
(-F) = Version with flanged ports for MXH 20, 32, 40
EI = With frequency converter I-MAT
2 = Rated capacity in m3/h
06 = Number of impellers
/A = It refers to a revision

Materials

Components	MXH	MXHL
Pump casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Stage casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Wear ring	PPS	PPS
Impeller	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Casing cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Spacer sleeve	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Pump shaft	Steel 1.4305 EN 10088 (AISI 303) for MXH 2, 4, 8, 16	Stainless Steel 1.4404 EN 10088 (AISI 316L)
	Steel 1.4401 EN 10088 (AISI 316) for MXH 20, 32, 48	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Plug	Chrome-nickel steel 1.4305 EN 10088 (AISI 303)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Mechanical seal with seat according to ISO 3069	Ceramic alumina/Carbon/EPDM	Ceramic alumina/Carbon/EPDM

MXH

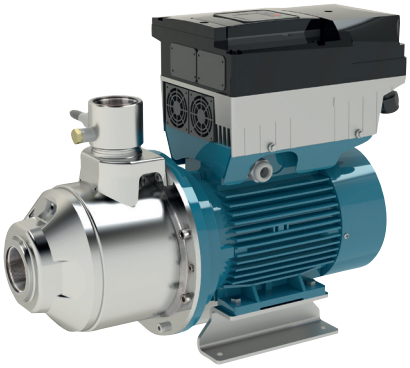
EI: Pumps with frequency converter

MXH EI pumps are available with powers from 0.55 kW to 7.5 kW and are equipped with on-board I-MAT inverters.
Which allows to realize a variable-speed system extremely compact and efficient, ideal in applications of water supply and in the distribution of hot and cold water.
The pump is equipped with transducers suitable for operation and is already programmed at the factory.

Features

- Energy saving
- Compact design
- Easy to use
- Programmable to suit the system requirements
- Reliability





Construction

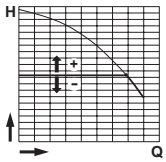
The system comprises of:
Pump
Induction motor
I-MAT Frequency converter
Motor adapter for the motor mounting of the frequency converter
Connection cable between frequency converter and induction motor
Transducers

Main features

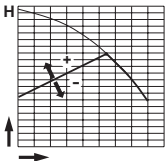
Motor nominal power from 0.55 kW to 7.5 kW.
Control range from 1750 to 2900 rpm (2-pole)
Protection against dry running
Protection against operations with closed valve ports
Protection against system leakages
Protection against overcurrent in the motor
Protection agains overvoltage and undervoltage of the power supply
Protection against current unbalances between phases

Operating modes

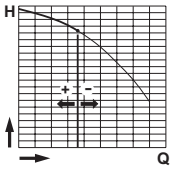
Constant pressure mode
with pressure transducer
In this mode, the system maintains the preset pressure when the flow required by the installation changes.



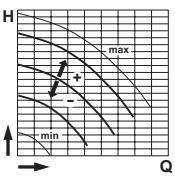
Proportional pressure mode
with pressure transducer
In this mode the system changes the working pressure according to the required flow rate.



Constant flow mode
with flow meter
In this mode the system maintains a constant flow rate value in a point of the installation according to the required pressure.



Fixed speed mode
with setting of the speed preferential rotation.
In this mode, by changing the working frequency, you may choose any operational curve included within the working range.



Constant temperature mode
with temperature transducer
In this mode the system keeps the temperature constant inside a system by changing the speed of the pump.

MXH

Coverage chart n ≈ 2900 rpm

Data also valid for MXHL (in AISI 316 stainless steel)

Three-phase

						Q = Flow										
						m³/h	0	1	1,5	2	2,5	3	3,5	4	4,25	4,8
Model		230V	400V	P2		l/min		16,6	25	33,3	41,6	50	58,3	66,6	70,8	80
		A		kW	HP	H (m) = Total head										
MXHL	MXH 202E	1,7	1	0,25	0,34		22	20	18,5	17	15,3	13,4	11,4	9,3	8,2	5,6
MXHL	MXH 203E	2,4	1,4	0,37	0,5		33	31	29	27	24,5	21,7	18,6	15,5	13,8	9
MXHL	MXH 204/A	2,8	1,6	0,55	0,75		45	42,5	40,4	37,5	34,5	30,8	26,7	22,4	20,1	14,8
MXHL	MXH 205/B	3,5	2	0,75	1		57	53,5	50,5	47,5	43,5	39	34	28,5	25,8	19
MXHL	MXH 206/C	4,6	2,7	1,1	1,5		68,5	65	61,5	58	53,5	48	43	36,5	33,5	25

Single-phase

						Q = Flow										
						m³/h	0	1	1,5	2	2,5	3	3,5	4	4,25	4,8
Model		230V	P2		P1	l/min		16,6	25	33,3	41,6	50	58,3	66,6	70,8	80
		A	kW	HP	kW	H (m) = Total head										
MXHLM	MXHM 202E	2,3	0,25	0,34	0,42		22	20	18,5	17	15,3	13,4	11,4	9,3	8,2	5,6
MXHLM	MXHM 203E	3	0,37	0,5	0,57		33	31	29	27	24,5	21,7	18,6	15,5	13,8	9
MXHLM	MXHM 204/A	4,2	0,55	0,75	0,9		45	42,5	40,4	37,5	34,5	30,8	26,7	22,4	20,1	14,8
MXHLM	MXHM 205/A	5,4	0,75	1	1,2		57	53,5	50,5	47,5	43,5	39	34	28,5	25,8	19
MXHLM	MXHM 206	7,4	1,1	1,5	1,5		68,5	65	61,5	58	53,5	48	43	36,5	33,5	25

Three-phase

						Q = Flow										
						m³/h	0	2,25	3	3,5	4	4,5	5	6	7	8
Model		230V	400V	P2		l/min		37,5	50	58,3	66,6	75	83,3	100	117	133
		A		kW	HP	H (m) = Total head										
MXHL	MXH 402E	2,4	1,4	0,37	0,5		22,5	20	19	18,5	17,5	16	15	12,5	9,5	6
MXHL	MXH 403/A	2,8	1,6	0,55	0,75		33	30	29	27,5	26	24,5	23	19,5	15	9,5
MXHL	MXH 404/B	3,5	2	0,75	1		44,5	40,5	38	36,5	35	33	31	26	20	12,5
MXHL	MXH 405/C	4,6	2,7	1,1	1,5		56,5	52	50	47,5	45,5	43	40	33,5	26	16,5
MXHL	MXH 406/A	6,2	3,6	1,5	2		68,5	63	60	58	56	53,5	51	44	35	23

Single-phase

						Q = Flow										
						m³/h	0	2,25	3	3,5	4	4,5	5	6	7	8
Model		230V	P2		P1	l/min		37,5	50	58,3	66,6	75	83,3	100	117	133
		A	kW	HP	kW	H (m) = Total head										
MXHLM	MXHM 402E	3	0,37	0,5	0,57		22,5	20	19	18,5	17,5	16	15	12,5	9,5	6
MXHLM	MXHM 403/A	4,2	0,55	0,75	0,9		33	30	29	27,5	26	24,5	23	19,5	15	9,5
MXHLM	MXHM 404/A	5,4	0,75	1	1,2		44,5	40,5	38	36,5	35	33	31	26	20	12,5
MXHLM	MXHM 405	7,4	1,1	1,5	1,5		56,5	52	50	47,5	45,5	43	40	33,5	26	16,5
MXHLM	MXHM 406	9,2	1,5	2	2		68,5	63	60	58	56	53,5	51	44	35	23

Three-phase

						Q = Flow										
						m³/h	0	5	6	7	8	9	10	11	12	13
Model		230V	400V	P2		l/min		83,3	100	117	133	150	167	183	200	217
		A		kW	HP	H (m) = Total head										
MXHL	MXH 802/B	3,5	2	0,75	1		22,5	20,5	20	19	18	16,5	15	13	11	8,5
MXHL	MXH 803/A	4,6	2,7	1,1	1,5		36	32	30,5	29	27,5	25,5	23	20	17	14
MXHL	MXH 804/A	6,2	3,6	1,5	2		48	42,5	41	39	37	34,5	32	28	24	19,5
MXHL	MXH 805/B	8,3	4,8	1,8	2,5		60	54	52	49,5	47	43,5	39,5	35	29,5	24

P1: Maximum power input.
P2: Rated motor power output.
Tolerances according to UNI EN ISO 9906:2012
A safety margin of + 0.5 m is recommended for the NPSH value.
Test results with clean cold water, without gas content.

MXH

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Coverage chart n ≈ 2900 rpm

Single-phase

						Q = Flow									
						m³/h	0	5	6	7	8	9	10	11	12	13
Model		230V	P2		P1	l/min		83,3	100	117	133	150	167	183	200	217
		A	kW	HP	kW		H (m) = Total head									
MXHLM	MXHM 802/A	5,4	0,75	1	1,2		22,5	20,5	20	19	18	16,5	15	13	11	8,5
MXHLM	MXHM 803	7,4	1,1	1,5	1,5		36	32	30,5	29	27,5	25,5	23	20	17	14
MXHLM	MXHM 804	9,2	1,5	2	2		48	42,5	41	39	37	34,5	32	28	24	19,5
MXHLM	MXHM 805/A	11,2	1,8	2,5	2,5		60	54	52	49,5	47	43,5	39,5	35	29,5	24

Three-phase

							Q = Flow									
						m³/h	0	5	8	11	14	16	18	20	22	25
Model	230V	400V	690V	P2		P1	l/min	83,3	133	183	233	267	300	333	367	417
	A			kW	HP	kW	H (m) = Total head									
MXH 1602/A	6,2	3,6	-	1,5	2	0		24	23	21,7	20,5	18,8	17,5	15,8	14	11,5	6,5
MXH 1603/B	8,3	4,8	-	1,8	2,5	0		36	34	31,8	29,5	26,8	24,8	22,4	19,2	15,3	8,8
MXH 1604/A	11,5	6,6	-	3	4	0		48	46,5	44,5	41,5	38	36	33	29	23	14
MXH 1605/B	-	9,6	5,5	3,7	5	0		60	57,5	55	51,5	48	45	42	37,5	31,5	19
MXH 1606/B	-	9,6	5,5	4	5,5	0		71	68	65	61	56	53	49	44	36	22

Three-phase

						Q = Flow									
						m³/h	0	8	10	12	14	16	18	20	22	24
Model	230V	400V	690V	P2		l/min		133	167	200	233	267	300	333	367	400
	A			kW	HP	H (m) = Total head										
MXH 2001/A	4,6	2,7	-	1,1	1,5		17,6	15,7	15,1	14,4	13,5	12,4	11,1	9,5	7,6	5,4
MXH 2002/A	8,3	4,8	-	1,8	2,5		35,1	31,4	30,3	29,1	27,5	25,6	23,4	20,6	17,4	13,6
MXH 2003	11,5	6,6	-	3	4		54	48,5	46,9	45,2	43,2	40,8	37,7	33,8	28,8	22,3
MXH 2004/A	-	9,6	5,5	4	5,5		71,5	64,5	62,5	60,5	57,5	54,5	50	45	38	29
MXH 2005	-	10,8	6,2	5,5	7,5		89	81,5	79	76	72,5	68	63	56,5	48,5	36

Three-phase

						Q = Flow										
						m³/h	0	15	21	24	27	30	33	36	39	44	50
Model	230V	400V	690V	P2		l/min		250	350	400	450	500	550	600	650	733	833
	A			kW	HP	H (m) = Total head											
MXH 3201/B	9,2	5,3	-	2,2	3		18,4	16,3	15,3	14,8	14	13	12	10,8	9,3	6	-
MXH 3202/B	-	9,6	5,5	4	5,5		37	33	31	30	28,5	27	25	23	20,5	15	7,5
MXH 3203/A	-	10,8	6,2	5,5	7,5		55,5	50	47	45,5	43	40,5	38	35	31	23	10
MXH 3204/A	-	14,3	8,3	7,5	10		74,5	67	63	61	59	56	53	49	44	34	16,5

Three-phase

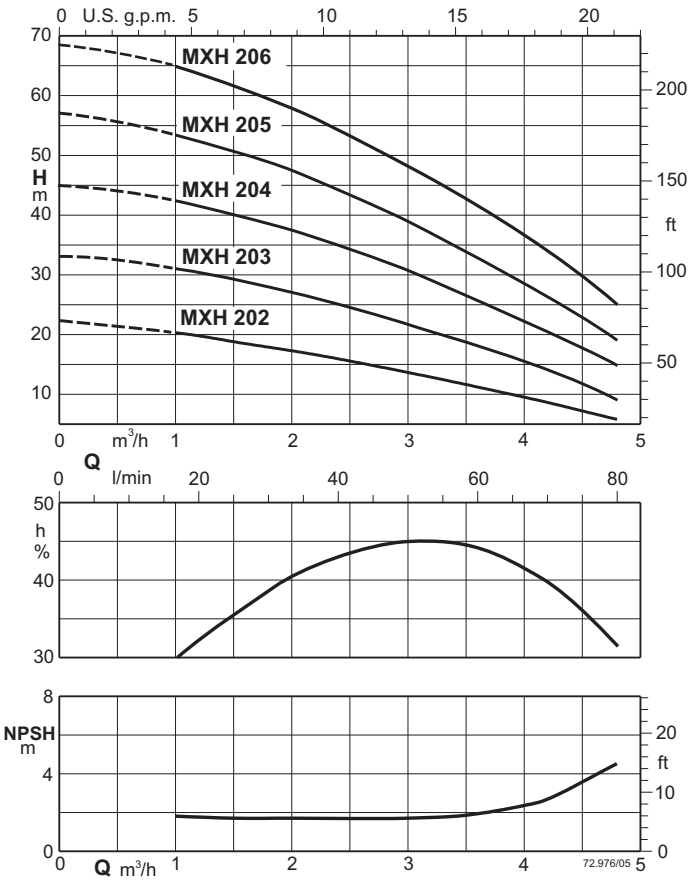
						Q = Flow										
						m³/h	0	21	27	33	39	45	48	51	54	60	66
Model	230V	400V	690V	P2		l/min		350	450	550	650	750	800	850	900	1000	1100
	A			kW	HP	H (m) = Total head											
MXH 4801/A	11,5	6,6	-	3	4		20	18	17	16	14,5	12,5	11,5	10,5	9,5	7	-
MXH 4802/A	-	10,8	6,2	5,5	7,5		41	35,3	33	30,5	27,5	24,5	22,5	21	19	14	7,5
MXH 4803/A	-	14,3	8,3	7,5	10		60,5	53	50	46	42,5	38	35	32,5	29	22,5	16

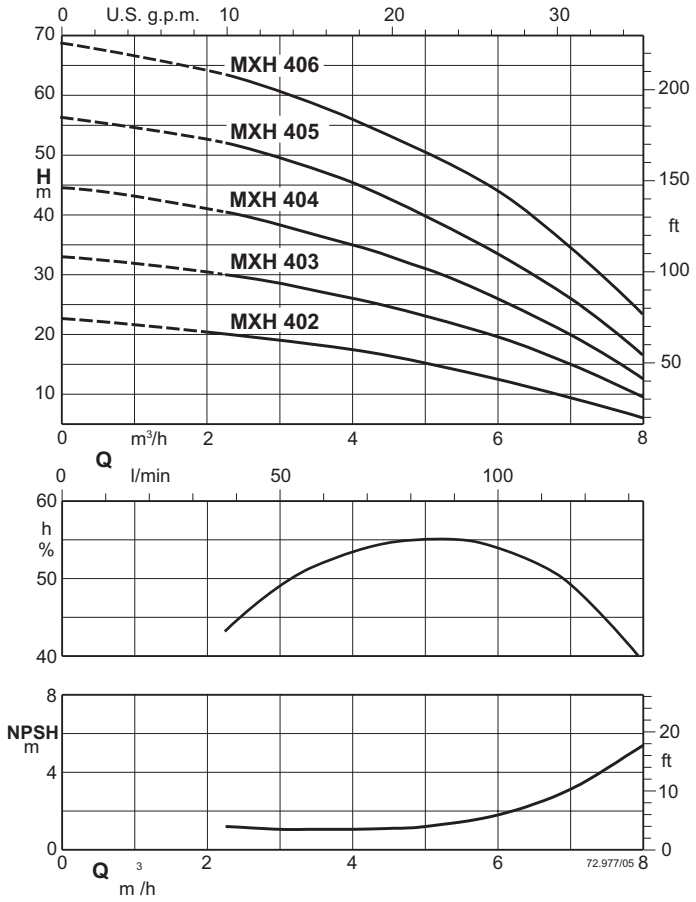
P1: Maximum power input.
P2: Rated motor power output.
Test results with clean cold water, without gas content.
Tolerances according to UNI EN ISO 9906:2012
A safety margin of + 0.5 m is recommended for the NPSH value.

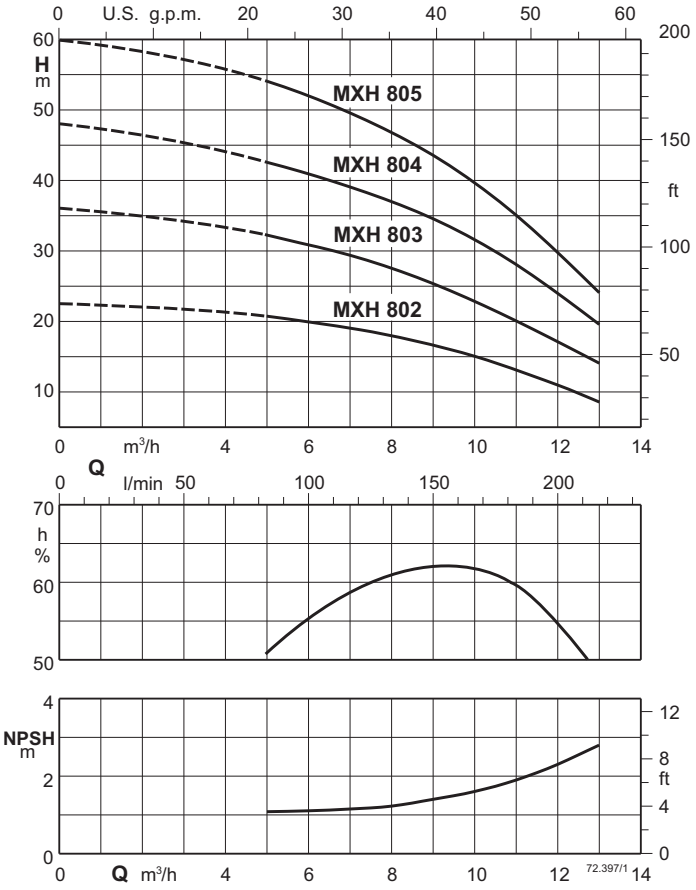
MXH

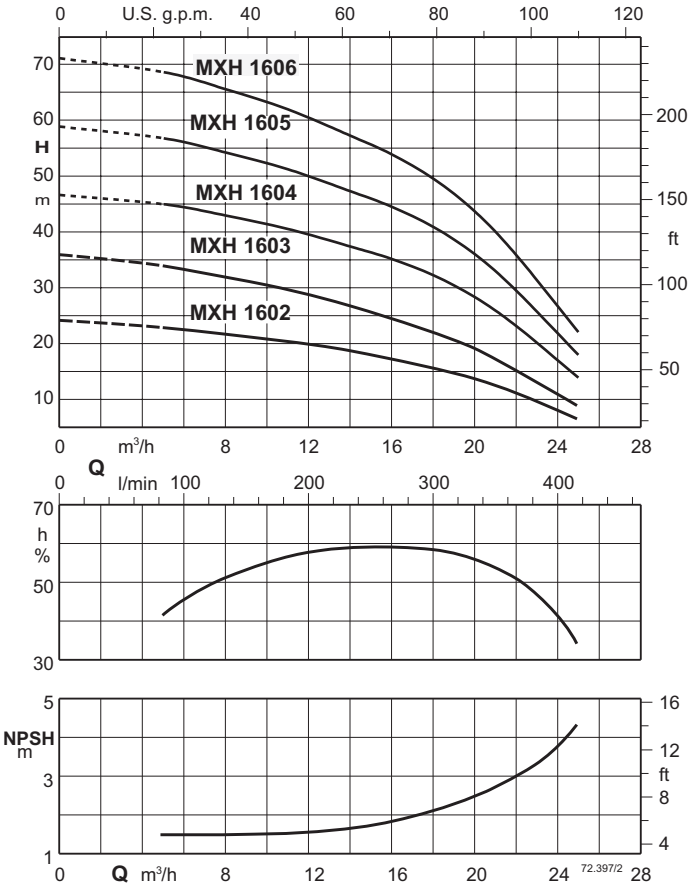
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Characteristic curves n ≈ 2900 rpm





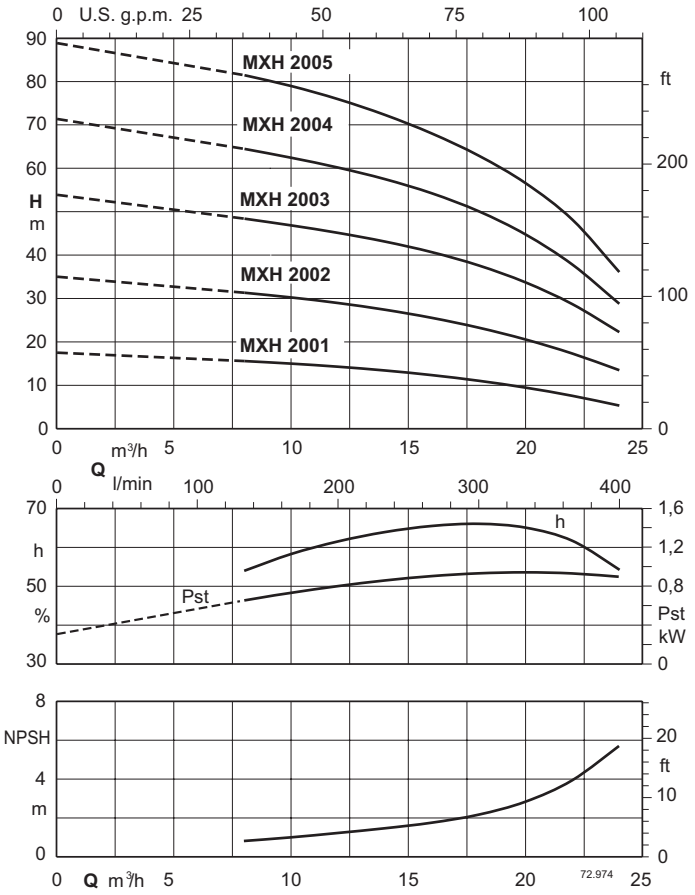


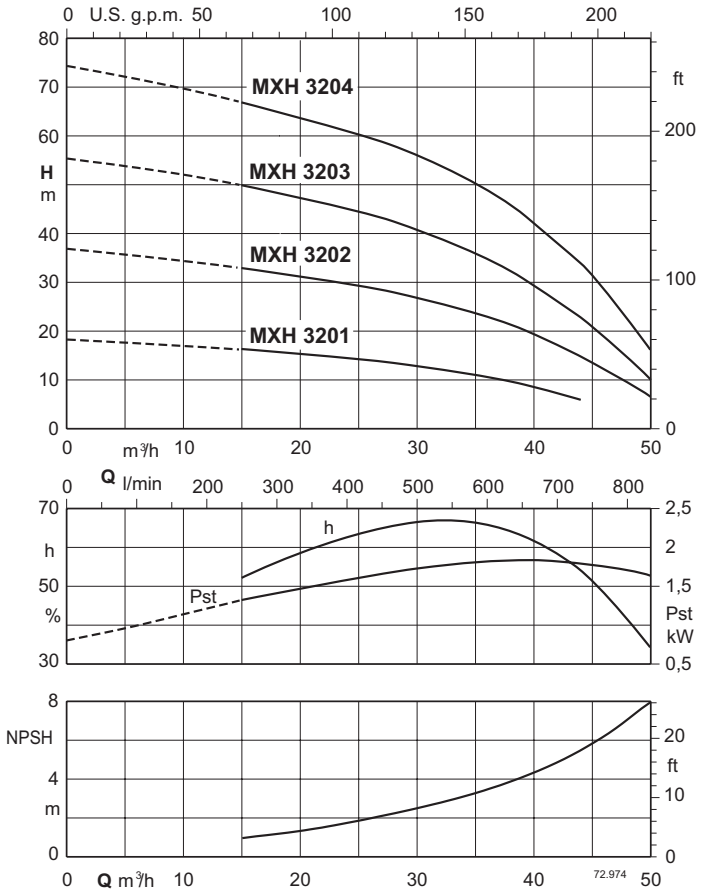


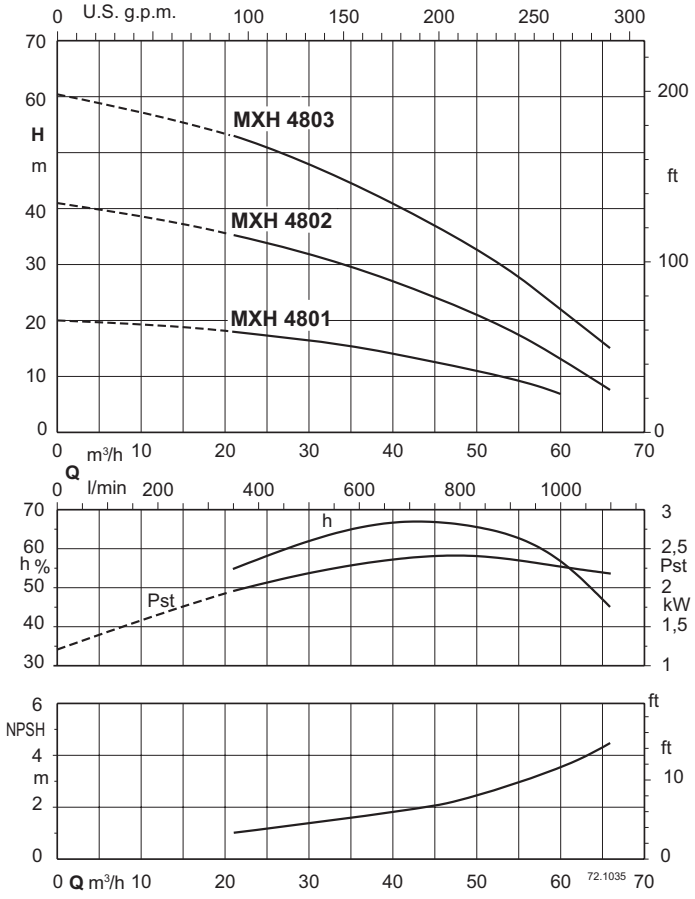
MXH

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Characteristic curves n ≈ 2900 rpm

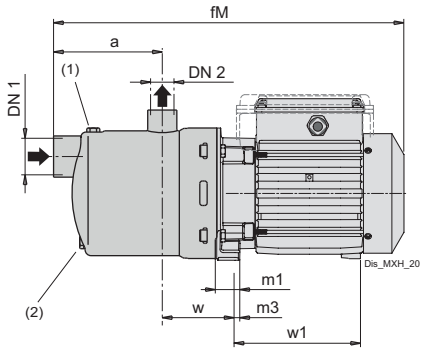


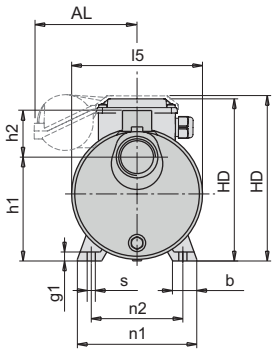




MXH

Dimensions and weights





TYPE			mm															kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l5	m1	m3	n1	n2	s	w	w1	Weight
MXH 202E	G 1 1/4	G 1	95	30	332	10	126	57	178	160	28	8	146	112	9.5	88	102	6.5
MXH 203E	G 1 1/4	G 1	95	30	332	10	126	57	178	160	28	8	146	112	9.5	88	102	7.5
MXH 204/A	G 1 1/4	G 1	119	30	382	10	126	57	192	160	28	8	146	112	9.5	88	113	10.3
MXH 205/B	G 1 1/4	G 1	143	30	406	10	126	57	192	160	28	8	146	112	9.5	88	113	12.8
MXH 206/C	G 1 1/4	G 1	167	30.5	501	10.5	127	57	212	160	29.5	10	146	112	9.5	88	154	16.9
MXH 402E	G 1 1/4	G 1	95	30	332	10	126	57	178	160	28	8	146	112	9.5	88	102	7.1
MXH 403/A	G 1 1/4	G 1	95	30	358	10	126	57	192	160	28	8	146	112	9.5	88	113	9.6
MXH 404/B	G 1 1/4	G 1	119	30	382	10	126	57	192	160	28	8	146	112	9.5	88	113	12.2
MXH 405/C	G 1 1/4	G 1	143	30.5	477	10.5	127	57	212	160	29.5	10	146	112	9.5	88	154	16.1
MXH 406/A	G 1 1/4	G 1	167	30.5	501	10.5	127	57	212	160	29.5	10	146	112	9.5	88	154	18.4
MXH 802/B	G 1 1/2	G 1	118	30	381	10	126	57	192	160	28	8	146	112	9.5	88	113	11.7
MXH 803/A	G 1 1/2	G 1	118	30.5	452	10.5	127	57	212	160	29.5	10	146	112	9.5	88	154	15.2
MXH 804/A	G 1 1/2	G 1	148	30.5	482	10.5	127	57	212	160	29.5	10	146	112	9.5	88	154	17.3
MXH 805/B	G 1 1/2	G 1	178	30.5	552	10.5	127	57	212	160	29.5	10	146	112	9.5	88	194	21.2
MXH 1602/A	G 2	G 1 1/2	130	30.5	477	10.5	117	70	212	160	29.5	10	146	112	9.5	101	154	16.8
MXH 1603/B	G 2	G 1 1/2	130	30.5	517	10.5	117	70	212	160	29.5	10	146	112	9.5	101	194	20.1
MXH 1604/A	G 2	G 1 1/2	168	38	614	10.5	132	70	237	161	43.5	15.5	146	112	9.5	113	216	31.7
MXH 1605/B	G 2	G 1 1/2	205	38	651	10.5	132	70	237	161	43.5	15.5	146	112	9.5	113	216	35.7
MXH 1606/B	G 2	G 1 1/2	243	38	689	10.5	132	70	237	161	43.5	15.5	146	112	9.5	113	216	36.8

TYPE			mm																kg
	DN1	DN2	a	AL	b	fM	g1	h1	h2	HD	l5	m1	m3	n1	n2	s	w	w1	Weight
MXHM 202E	G 1 1/4	G 1	95	-	30	332	10	126	57	178	160	28	8	146	112	9.5	88	102	6.5
MXHM 203E	G 1 1/4	G 1	95	-	30	332	10	126	57	178	160	28	8	146	112	9.5	88	102	7.4
MXHM 204/A	G 1 1/4	G 1	119	-	30	382	10	126	57	192	160	28	8	146	112	9.5	88	113	11.2
MXHM 205/A	G 1 1/4	G 1	143	-	30	406	10	126	57	192	160	28	8	146	112	9.5	88	113	12.8
MXHM 206	G 1 1/4	G 1	167	-	30.5	501	10.5	127	57	212	160	29.5	10	146	112	9.5	88	154	16.8
MXHM 402E	G 1 1/4	G 1	95	-	30	332	10	126	57	178	160	28	8	146	112	9.5	88	102	7.2
MXHM 403/A	G 1 1/4	G 1	95	-	30	358	10	126	57	192	160	28	8	146	112	9.5	88	113	10.7
MXHM 404/A	G 1 1/4	G 1	119	-	30	382	10	126	57	192	160	28	8	146	112	9.5	88	113	12.2
MXHM 405	G 1 1/4	G 1	143	-	30.5	477	10.5	127	57	212	160	29.5	10	146	112	9.5	88	154	16.2
MXHM 406	G 1 1/4	G 1	167	-	30.5	501	10.5	127	57	212	160	29.5	10	146	112	9.5	88	154	18.1
MXHM 802/A	G 1 1/2	G 1	118	-	30	381	10	126	57	192	160	28	8	146	112	9.5	88	113	11.9
MXHM 803	G 1 1/2	G 1	118	-	30.5	452	10.5	127	57	212	160	29.5	10	146	112	9.5	88	154	15.2
MXHM 804	G 1 1/2	G 1	148	-	30.5	482	10.5	127	57	212	160	29.5	10	146	112	9.5	88	154	17.6
MXHM 805/A	G 1 1/2	G 1	178	131	30.5	552	10.5	127	57	217	160	29.5	10	146	112	9.5	88	194	21.6

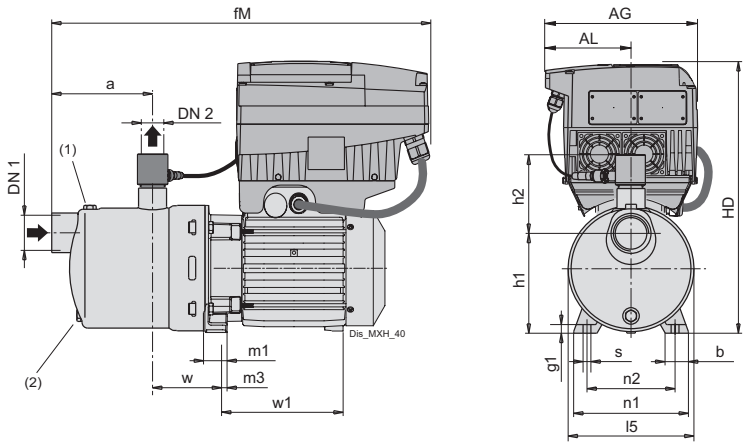
(1) Filling (2) Draining

MXH

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Dimensions and weights

Dimensions and weights also valid for MXHL (1.4401 EN 10088 (AISI 316))



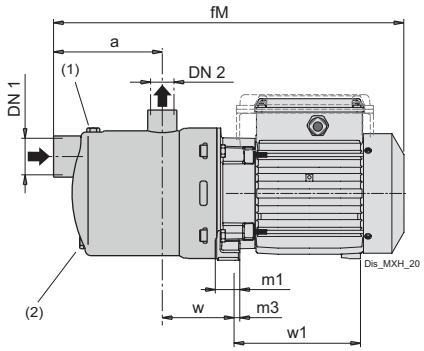
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	DN1	DN2	a	AG	AL	b	fM	g1	H	h1	h2	l5	m1	m3	n1	n2	s	w	w1	Weight
MXH EI 204/A	G 1 1/4	G 1	118	190	105	30	444	10	349	127	108	160	28	8	146	112	9	88	112	17.2
MXH EI 205/B	G 1 1/4	G 1	142	190	105	30	468	10	349	127	108	160	28	8	146	112	9	88	112	19.6
MXH EI 206/C	G 1 1/4	G 1	166	190	105	30.5	532	10.5	368	127	108	160	31	10	146	112	10	88	167	24.3
MXH EI 403/A	G 1 1/4	G 1	94	190	105	30	420	10	349	127	108	160	28	8	146	112	9	88	112	16.5
MXH EI 404/B	G 1 1/4	G 1	118	190	105	30	444	10	349	127	108	160	28	8	146	112	9	88	112	19.7
MXH EI 405/C	G 1 1/4	G 1	142	190	105	30.5	508	10.5	368	127	108	160	31	10	146	112	10	88	167	23.2
MXH EI 406/A	G 1 1/4	G 1	166	190	105	30.5	532	10.5	368	127	108	160	31	10	146	112	10	88	167	25.3
MXH EI 803/A	G 1 1/4	G 1	118	190	105	30.5	484	10.5	368	127	108	160	31	10	146	112	10	88	167	23
MXH EI 804/A	G 1 1/2	G 1	148	190	105	30.5	514	10.5	368	127	108	160	31	10	146	112	10	88	167	24.1
MXH EI 805/B	G 1 1/2	G 1	178	190	105	30.5	552	10.5	368	127	108	160	31	10	146	112	10	88	207	28.4
MXH EI 1603/B	G 2	G 1 1/2	128	190	105	30.5	516	10.5	368	117	122	160	31	10	146	112	10	101	207	27.5
MXH EI 1604/A	G 2	G 1 1/2	166	210	118	38	627	10.5	391	132	122	160	44	12	146	112	12	113	232	38.7
MXH EI 1605/B	G 2	G 1 1/2	203	210	118	38	665	10.5	391	132	122	160	44	12	146	112	12	113	232.01	42.8
MXH EI 1606/B	G 2	G 1 1/2	241	210	118	38	702	10.5	391	132	122	160	44	12	146	112	12	113	232	43.6

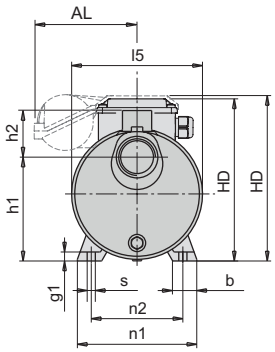
(1) Filling (2) Draining

MXH

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Dimensions and weights





TYPE			mm															kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l5	m1	m3	n1	n2	s	w	w1	Weight
MXHL 202E	G 1 1/4	G 1	95	30	332	10	126	57	178	160	28	8	146	112	9.5	88	102	6.6
MXHL 203E	G 1 1/4	G 1	95	30	332	10	126	57	178	160	28	8	146	112	9.5	88	102	7.5
MXHL 204/A	G 1 1/4	G 1	119	30	382	10	126	57	192	160	28	8	146	112	9.5	88	113	10.3
MXHL 205/B	G 1 1/4	G 1	143	30	406	10	126	57	192	160	28	8	146	112	9.5	88	113	12.9
MXHL 206/C	G 1 1/4	G 1	167	30.5	501	10.5	127	57	212	160	29.5	10	146	112	9.5	88	154	16.8
MXHL 402E	G 1 1/4	G 1	95	30	332	10	126	57	178	160	28	8	146	112	9.5	88	102	7.1
MXHL 403/A	G 1 1/4	G 1	95	30	358	10	126	57	192	160	28	8	146	112	9.5	88	113	9.6
MXHL 404/B	G 1 1/4	G 1	119	30	382	10	126	57	192	160	28	8	146	112	9.5	88	113	12.3
MXHL 405/C	G 1 1/4	G 1	143	30.5	477	10.5	127	57	212	160	29.5	10	146	112	9.5	88	154	16.1
MXHL 406/A	G 1 1/4	G 1	167	30.5	501	10.5	127	57	212	160	29.5	10	146	112	9.5	88	154	18.2
MXHL 802/B	G 1 1/2	G 1	118	30	381	10	126	57	192	160	28	8	146	112	9.5	88	113	11.7
MXHL 803/A	G 1 1/2	G 1	118	30.5	452	10.5	127	57	212	160	29.5	10	146	112	9.5	88	154	15.1
MXHL 804/A	G 1 1/2	G 1	148	30.5	482	10.5	127	57	212	160	29.5	10	146	112	9.5	88	154	17.3
MXHL 805/B	G 1 1/2	G 1	178	30.5	552	10.5	127	57	212	160	29.5	10	146	112	9.5	88	194	21.2

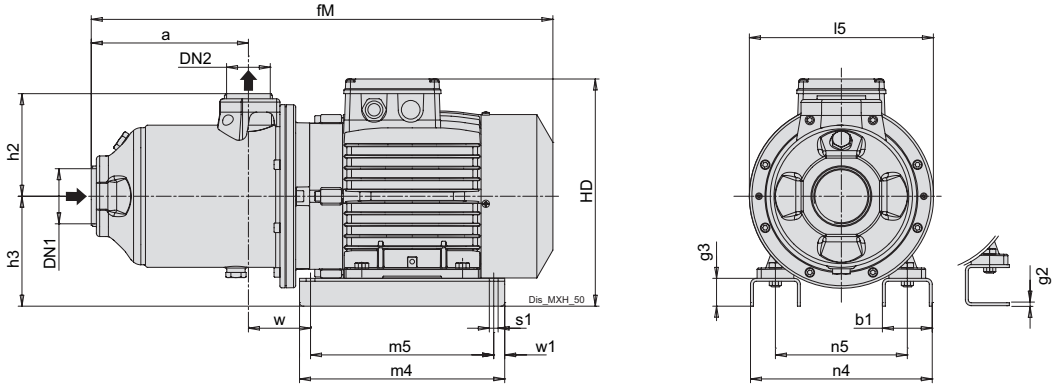
TYPE			mm																kg
	DN1	DN2	a	AL	b	fM	g1	h1	h2	HD	l5	m1	m3	n1	n2	s	w	w1	Weight
MXHLM 202E	G 1 1/4	G 1	95	-	30	332	10	126	57	178	160	28	8	146	112	9.5	88	102	6.6
MXHLM 203E	G 1 1/4	G 1	95	-	30	332	10	126	57	178	160	28	8	146	112	9.5	88	102	7.6
MXHLM 204/A	G 1 1/4	G 1	119	-	30	382	10	126	57	192	160	28	8	146	112	9.5	88	113	11.2
MXHLM 205/A	G 1 1/4	G 1	143	-	30	406	10	126	57	192	160	28	8	146	112	9.5	88	113	12.8
MXHLM 206	G 1 1/4	G 1	167	-	30.5	501	10.5	127	57	212	160	29.5	10	146	112	9.5	88	154	16.8
MXHLM 402E	G 1 1/4	G 1	95	-	30	332	10	126	57	178	160	28	8	146	112	9.5	88	102	7.2
MXHLM 403/A	G 1 1/4	G 1	95	-	30	358	10	126	57	192	160	28	8	146	112	9.5	88	113	10.7
MXHLM 404/A	G 1 1/4	G 1	119	-	30	382	10	126	57	192	160	28	8	146	112	9.5	88	113	12.2
MXHLM 405	G 1 1/4	G 1	143	-	30.5	477	10.5	127	57	212	160	29.5	10	146	112	9.5	88	154	16.1
MXHLM 406	G 1 1/4	G 1	167	-	30.5	501	10.5	127	57	212	160	29.5	10	146	112	9.5	88	154	18.5
MXHLM 802/A	G 1 1/2	G 1	118	-	30	381	10	126	57	192	160	28	8	146	112	9.5	88	113	11.9
MXHLM 803	G 1 1/2	G 1	118	-	30.5	452	10.5	127	57	212	160	29.5	10	146	112	9.5	88	154	15.2
MXHLM 804	G 1 1/2	G 1	148	-	30.5	482	10.5	127	57	212	160	29.5	10	146	112	9.5	88	154	17.6
MXHLM 805/A	G 1 1/2	G 1	178	131	30.5	552	10.5	127	57	217	160	29.5	10	146	112	9.5	88	194	21.6

(1) Filling (2) Draining

MXH

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Dimensions and weights

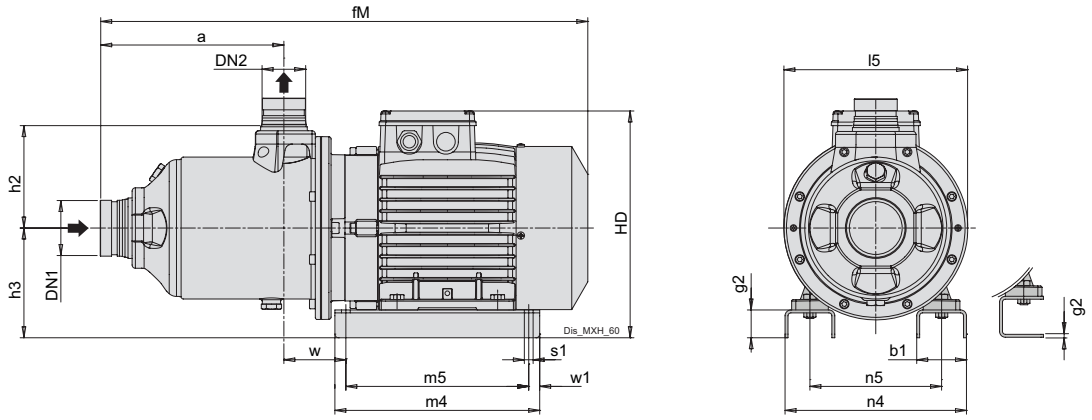


TYPE			mm															kg
	DN1	DN2	a	b1	fM	g2	g3	h1	h3	HD	l5	m4	m5	n4	n5	s1	w1	Weight
MXH 2001/A	G 2"	G 1 1/2"	127	54	467	6	-	150	150	280	250	205	175	165	125	10	15	24.7
MXH 2002/A	G 2"	G 1 1/2"	127	54	507	6	-	150	150	280	250	205	175	165	125	10	15	29.4
MXH 2003	G 2"	G 1 1/2"	146	54	540	6	-	150	150	290	250	205	175	180	140	10	15	36.5
MXH 2004/A	G 2"	G 1 1/2"	181	54	575	6	-	150	150	290	250	205	175	180	140	10	15	41.7
MXH 2005	G 2"	G 1 1/2"	215	68	662	-	38	150	150	317	250	280	250	258	190	12	15	55
MXH 3201/B	G 2 1/2"	G 2"	123	54	503	6	-	150	150	280	250	205	175	165	125	10	15	29.3
MXH 3202/B	G 2 1/2"	G 2"	123	54	517	6	-	150	150	290	250	205	175	180	140	10	15	37.8
MXH 3203/A	G 2 1/2"	G 2"	169	68	616	-	38	150	150	317	250	280	250	258	190	12	15	52.7
MXH 3204/A	G 2 1/2"	G 2"	215	68	662	-	38	150	150	317	250	280	250	258	190	12	15	58
MXH 4801/A	G 3"	G 2 1/2"	139	54	548	6	-	150	150	290	250	205	175	180	140	10	15	36.6
MXH 4802/A	G 3"	G 2 1/2"	139	68	601	-	38	150	150	317	250	280	250	258	190	12	15	52
MXH 4803/A	G 3"	G 2 1/2"	200	68	662	-	38	150	150	317	250	280	250	258	190	12	15	58.8

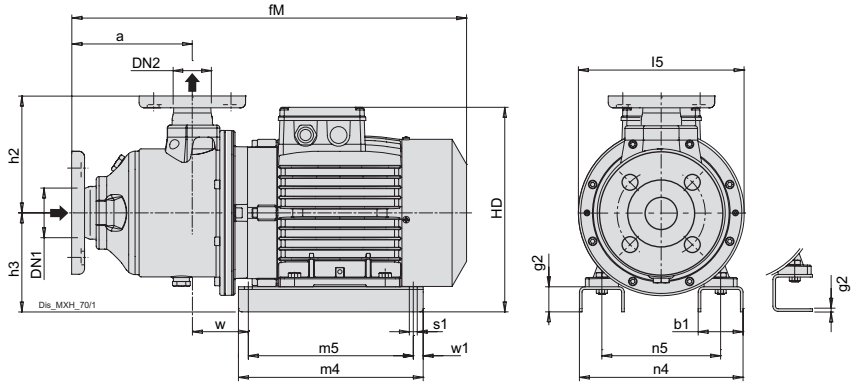
MXH

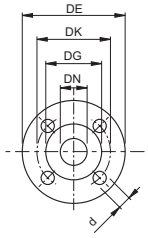
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Dimensions and weights



TYPE			mm																kg
	DN1	DN2	a	b1	fM	g2	h1	h2	h3	HD	l5	m4	m5	n4	n5	s1	w	w1	Weight
MXH-V 3201/B	76,1 (DN65)	60,3 (DN50)	160	54	540	6	150	177	150	280	250	205	175	165	125	10	95	15	30
MXH-V 3202/B	76,1 (DN65)	60,3 (DN50)	160	54	554	6	150	177	150	290	250	205	175	180	140	10	114	15	39.8
MXH-V 3203/A	76,1 (DN65)	60,3 (DN50)	191	68	622	38	150	177	150	312	250	280	250	258	190	12	97.5	15	-
MXH-V 3204/A	76,1 (DN65)	60,3 (DN50)	237	68	668	38	150	177	150	312	250	280	250	258	190	12	97.5	15	-
MXH-V 4801/A	88,9 (DN 80)	76,1 (DN65)	175	54	584	6	150	177	150	290	250	205	175	180	140	10	129	15	37.2
MXH-V 4802/A	88,9 (DN 80)	76,1 (DN65)	175	68	606	38	150	177	150	312	250	280	250	258	190	12	97.5	15	-
MXH-V 4803/A	88,9 (DN 80)	76,1 (DN65)	237	68	668	38	150	177	150	312	250	280	250	258	190	12	97.5	15	-





EN 1092-1 compatible flanges*

mm					
DN	DG	DK	DE	Holes	
				N°	ø
40	81	110	150	4	19
50	99	125	165	4	19
65	118	145	185	4	19
80	132	160	200	8	19

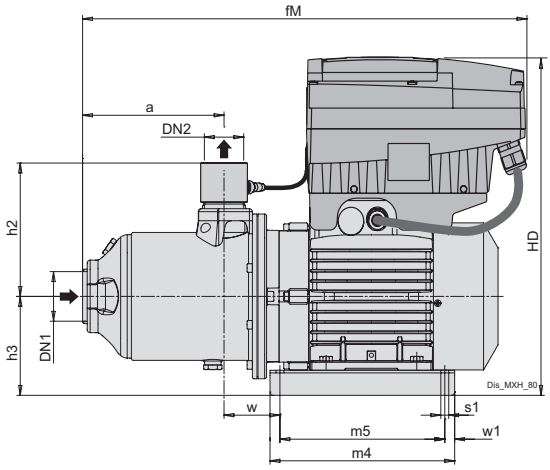
* ASME 150 lb (ex ANSI 150 lb)

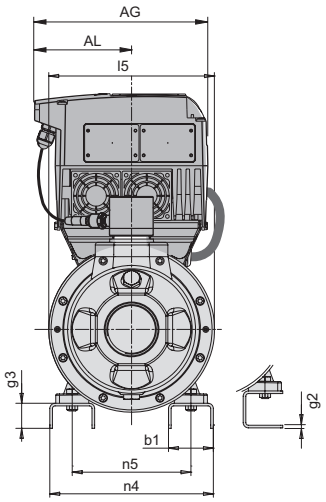
TYPE			mm															kg
	DN1	DN2	a	b1	fM	g2	g3	h1	h3	HD	l5	m4	m5	n4	n5	s1	w1	Weight
MXH-F 2001/A	50	40	161	54	501	6	-	150	150	280	250	205	175	165	125	10	15	26.3
MXH-F 2002/A	50	40	161	54	541	6	-	150	150	280	250	205	175	165	125	10	15	31.1
MXH-F 2003	50	40	181	54	575	6	-	150	150	290	250	205	175	180	140	10	15	38.5
MXH-F 2005	50	40	250	68	697	-	38	150	150	317	250	280	250	258	190	12	15	55.7
MXH-F 3201/B	65	50	151	54	531	6	-	150	150	280	250	205	175	165	125	10	15	31.5
MXH-F 3202/B	65	50	151	54	545	6	-	150	150	290	250	205	175	180	140	10	15	41.4
MXH-F 3203/A	65	50	197	68	644	-	38	150	150	317	250	280	250	258	190	12	15	52.3
MXH-F 3204/A	65	50	243	68	690	-	38	150	150	317	250	280	250	258	190	12	15	60.8
MXH-F 4801/A	80	65	156	54	565	6	-	150	150	290	250	205	175	180	140	10	15	39
MXH-F 4802/A	80	65	156	68	618	-	38	150	150	317	250	280	250	258	190	12	15	54.2
MXH-F 4803/A	80	65	218	68	680	-	38	150	150	317	250	280	250	258	190	12	15	-

MXH

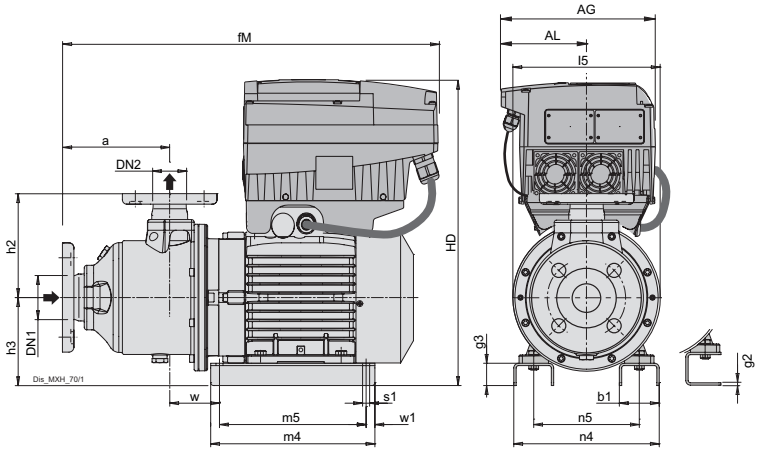
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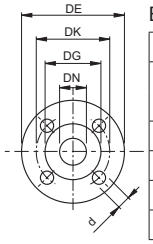
Dimensions and weights





TYPE			mm																kg
	DN1	DN2	a	AG	AL	b1	fM	g2	H	h2	h3	m4	m5	n4	n5	s1	w	w1	Weight
MXH EI 2001/A	G 2	G 1 ½	127	190	105	54	507	6	435	192.5	150	205	175	179	125	10	95	15	-
MXH EI 2002/A	G 2	G 1 1/2	127	210	117.5	54	536	6	435	192.5	150	205	175	179	125	10	95	15	-
MXH EI 2003	G 2	G 1 1/2	146	210	117.5	54	559	6	445	192.5	150	205	175	194	140	10	114	15	45
MXH EI 2004/A	G 2	G 1 1/2	181	210	117.5	54	594	6	445	192.5	150	205	175	194	140	10	114	15	-
MXH EI 2005	G 2	G 1 1/2	215	210	117.5	68	632	38	470	192.5	150	280	250	258	190	10	112.5	15	-
MXH EI 3201/B	G 2 1/2	G 2	123	210	117.5	54	533	6	435	197	150	205	175	179	125	10	95	15	-
MXH EI 3202/B	G 2 1/2	G 2	123	210	117.5	54	536	6	445	197	150	205	175	194	140	10	114	15	47
MXH EI 3203/A	G 2 1/2	G 2	154	210	117.5	68	586	38	470	197	150	280	250	258	190	10	127.5	15	-
MXH EI 3204/A	G 2 1/2	G 2	200	281	153.5	68	676	38	512	197	150	280	250	258	190	10	127.5	15	-
MXH EI 4801/A	G 3	G 2 1/2	139	210	117.5	54	567	6	445	202.5	150	205	175	194	140	10	129	15	44.4
MXH EI 4802/A	G 3	G 2 1/2	139	210	-	68	570	38	470	202.5	150	280	250	258	190	10	127.5	15	-
MXH EI 4803/A	G 3	G 2 1/2	200	281	153.5	68	676	38	512	202.5	150	280	250	258	190	10	127.5	15	-





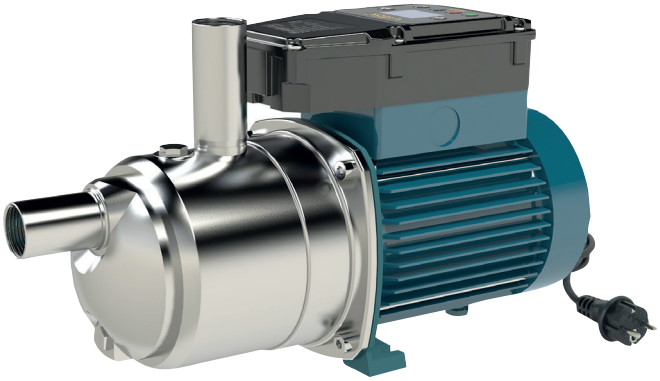
EN 1092-1 compatible flanges*

mm					
DN	DG	DK	DE	Holes	
				N°	ø
40	81	110	150	4	19
50	99	125	165	4	19
65	118	145	185	4	19
80	132	160	200	8	19

* ASME 150 lb (ex ANSI 150 lb)

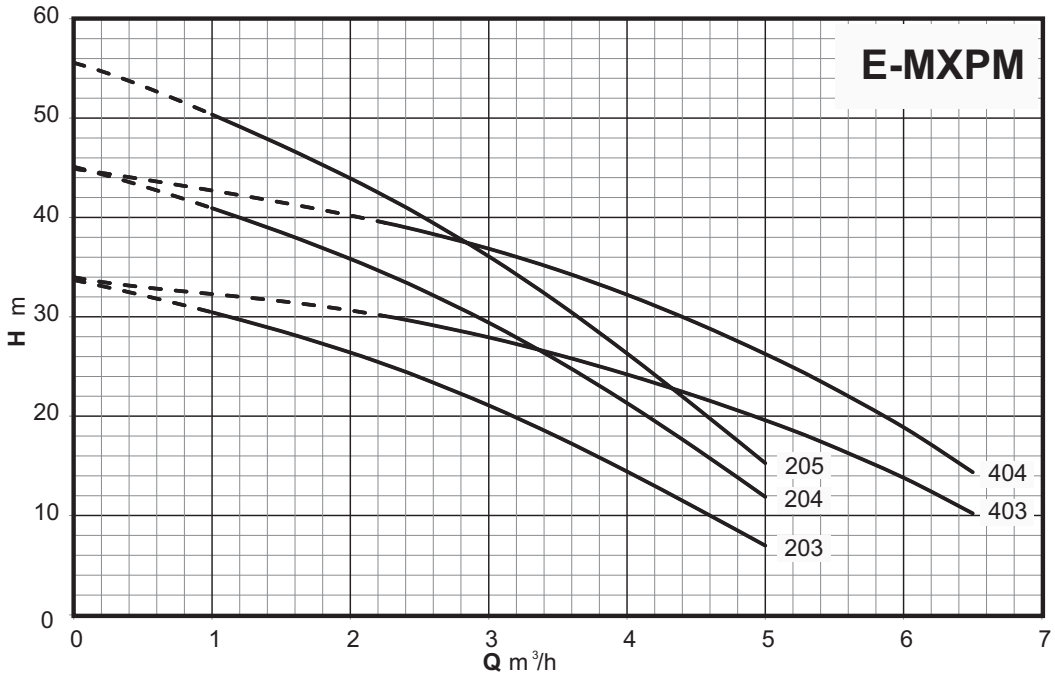
TYPE			mm																kg
	DN1	DN2	a	AG	AL	b1	fM	g2	H	h2	h3	m4	m5	n4	n5	s1	w	w1	Weight
MXH-F EI 2002/A	50	40	161	210	117.5	54	571	6	435	175	150	205	175	179	125	10	95	15	-
MXH-F EI 2003	50	40	181	210	117.5	54	594	6	445	175	150	205	175	194	140	10	114	15	-
MXH-F EI 2004/A	50	40	215	210	117.5	54	628	6	445	175	150	205	175	194	140	10	114	15	-
MXH-F EI 2005	50	40	250	210	117.5	68	666	38	470	175	150	280	250	258	190	10	112.5	15	-
MXH-F EI 3201/B	65	50	151	210	117.5	54	560	6	435	175	150	205	175	179	125	10	95	15	-
MXH-F EI 3202/B	65	50	151	210	117.5	54	564	6	445	175	150	205	175	194	140	10	114	15	47.5
MXH-F EI 3203/A	65	50	182	210	117.5	68	613	38	470	175	150	280	250	258	190	10	127.5	15	61.5
MXH-F EI 3204/A	65	50	228	281	153.5	68	703	38	512	175	150	280	250	258	190	10	127.5	15	-
MXH-F EI 4801/A	80	65	156	210	117.5	54	584	6	445	175	150	205	175	194	140	10	129	15	-
MXH-F EI 4802/A	80	65	156	210	117.5	68	588	38	470	175	150	280	250	258	190	10	127.5	15	-
MXH-F EI 4803/A	80	65	218	281	153.5	68	693	38	512	175	150	280	250	258	190	10	127.5	15	-

E-MXP





Characteristic curves n ≈ 2900 rpm



Variable speed pressure with integrated control

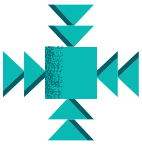
E-MXP



EASY TO INSTALL
Plug And play solution



ECONOMIC SAVING
High efficiency asynchronous motor 24 % less energy consumption compared to a standard pump



EASY TO USE
Equipped with a programmable software and, thanks to the analogic pressure sensor, the product allows to set the restart pressure. An ideal solution which allows to reduce or remove the need of a expansion tank

Construction

Easy to install, compact and plug and play pressurized system with integrated pressure transducer for automatic control of starting/stopping of the pump when utilization points are opened/closed with a integrated non-return valve into the pump suction.

Boosting sets with 2 pumps
Galvanised steel intake and delivery manifolds.
Connections for the installation of one G 1" connection pressure vessel

Applications

For water supply systems.
For domestic use, for garden use and irrigation.

Features

high efficiency asynchronous motor
- capacitor less stressed in voltage
- uniform and lower motor temperature
- motor power control
- programmable re-start pressure
- programmable stop pressure
- no hydraulic losses due to the measuring devices
- voltage and current control
- monitoring of maximum starting current

Protections

- dry-run protection
- overload control and overheating motor control
- pump blockage
- power supply control
- starts per hour control

Operating conditions

liquid temperature: 0 °C to +50 °C.
Ambient temperature up to 40° C.
Maximum permissible pressure in the pump casing: 8 bar.
Continuous duty.

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
Single-phase 230 V ± 10%, with thermal protector.
Capacitor inside the terminal box.
H07RN-F cable, 3G1.5 mm2, length 1.5 m, with CEI-UNEL 47166 plug.
IE2 efficiency class for single-phase motors.
Insulation class F.
Protection IP X4.
Constructed in accordance with EN 60034-1, EN 60335-1, EN 60335-2-41.

Materials

Components	Material
Pump casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Casing cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Pump shaft	Steel 1.4104 EN 10088 (AISI 430F)
Plug	Chrome-nickel steel 1.4305 EN 10088 (AISI 303)
Stage casing	PPO-GF20 (Noryl)
Impeller	PPO-GF20 (Noryl)
Mechanical seal	Carbon - Ceramic - NBR

E-MXP

Coverage chart n ≈ 2900 rpm

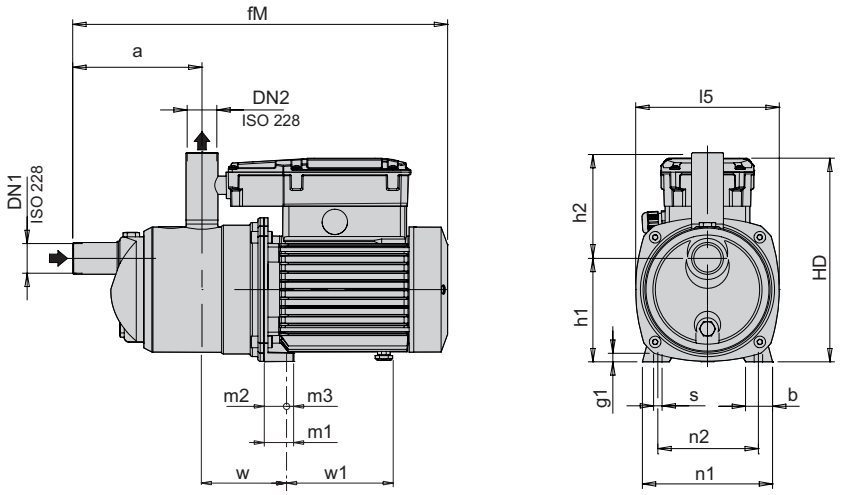
Single-phase

Model	230V	P2		P1	Q = Flow												
					m³/h	0	1	1,5	2	2,25	3	3,5	4	4,5	5	5,4	6	6,5
					l/min		16,6	25	33,3	37,5	50	58,3	66,6	75	83,3	90	100	108
	A	kW	HP	kW	H (m) = Total head													
E-MXPM 203-PCD	2,7	0,45	0,6	0,67		33,7	30,5	28,6	26,4	25,2	21,1	17,9	14,4	10,8	7	-	-	-
E-MXPM 204-PCD	3,8	0,55	0,75	0,78		45,1	40,9	38,5	35,8	34,4	29,4	25,6	21,3	16,7	11,9	-	-	-
E-MXPM 205-PCD	4,8	0,75	1	1,01		55,6	50,4	47,3	43,9	42,1	36,1	31,4	26,3	20,9	15,3	-	-	-
E-MXPM 403-PCD	3,8	0,55	0,75	0,78		34	-	-	-	30,1	27,9	26,2	24,2	22	19,6	17,5	13,8	10,2
E-MXPM 404-PCD	4,8	0,75	1	1,01		44,9	-	-	-	39,5	36,9	34,7	32,2	29,4	26,3	23,5	18,9	14,4

P1: Maximum power input.
P2: Rated motor power output.
H: Total head in m

Test results with clean cold water, without gas content.
A safety margin of + 0.5 m is recommended for the NPSH value.
Tolerances according to UNI EN ISO 9906:2012

Dimensions and weights



TYPE	ISO 228		mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l5	m1	m2	m3	n1	n2	s	w	w1	Weight
E-MXPM 203-PCD	G 1	G 1	145	30	420	10	116	119	228	161	33	25	8	146	112.5	9	95	109	9.5
E-MXPM 204-PCD	G 1	G 1	145	30	420	10	116	119	228	161	33	25	8	146	112.5	9	95	109	10.7
E-MXPM 205-PCD	G 1	G 1	145	30	420	10	116	119	228	161	33	25	8	146	112.5	9	95	109	11.5
E-MXPM 403-PCD	G 1	G 1	145	30	420	10	116	119	228	161	33	25	8	146	112.5	9	95	109	10.6
E-MXPM 404-PCD	G 1	G 1	145	30	420	10	116	119	228	161	33	25	8	146	112.5	9	95	109	11.5

E-MXP

Coverage chart n ≈ 2900 rpm

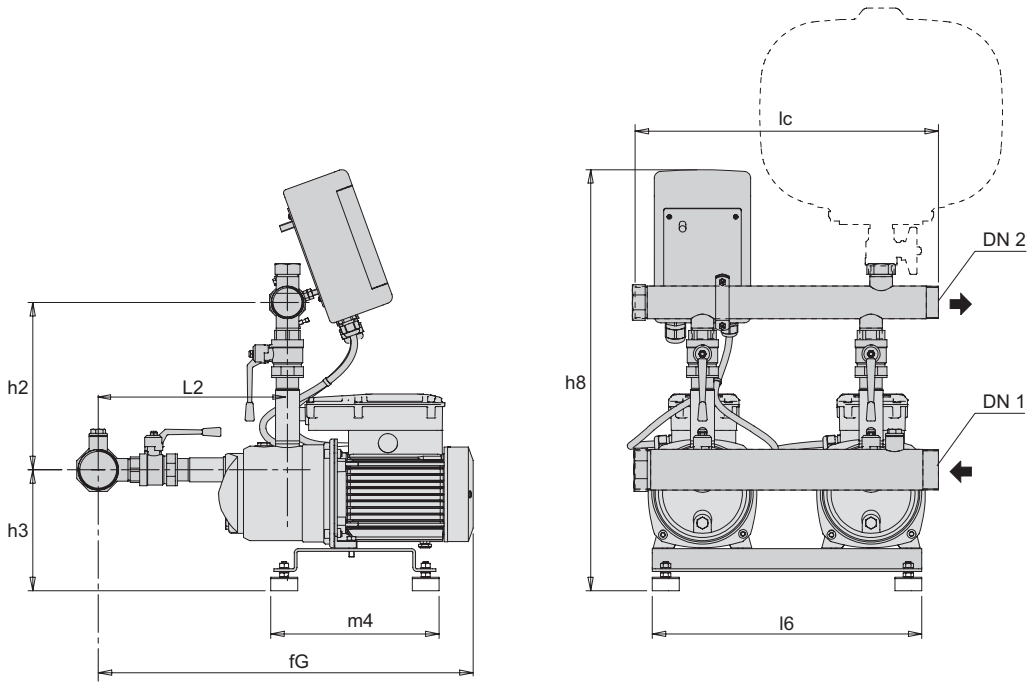
Single-phase

			Q = Flow												
			m³/h	0	2	3	4	4,5	6	7	8	9	10	10,8	12	13
Model	P2	P1	l/min		33,3	50	66,6	75	100	117	133	150	167	180	200	217
	kW	HP	H (m) = Total head													
BSM2F 2E MXPM 203-PCD	0.45 X2	0,56		33,7	30,5	28,6	26,4	25,2	21,1	17,9	14,4	10,8	7	-	-	-
BSM2F 2E MXPM 204-PCD	0.55 X2	0,7		45,1	40,9	38,5	35,8	34,4	29,4	25,6	21,3	16,7	11,9	-	-	-
BSM2F 2E MXPM 205-PCD	0.75 X2	0,89		55,6	50,4	47,3	43,9	42,1	36,1	31,4	26,3	20,9	15,3	-	-	-
BSM2F 2E MXPM 403-PCD	0.55 X2	0,75		34	-	-	-	30,1	27,9	26,2	24,2	22	19,6	17,5	13,8	10,2
BSM2F 2E MXPM 404-PCD	0.75 X2	1,05		44,9	-	-	-	39,5	36,9	34,7	32,2	29,4	26,3	23,5	18,9	14,4

P1: Maximum power input.
P2: Rated motor power output.
H: Total head in m

Test results with clean cold water, without gas content.
A safety margin of + 0.5 m is recommended for the NPSH value.
Tolerances according to UNI EN ISO 9906:2012

Dimensions and weights

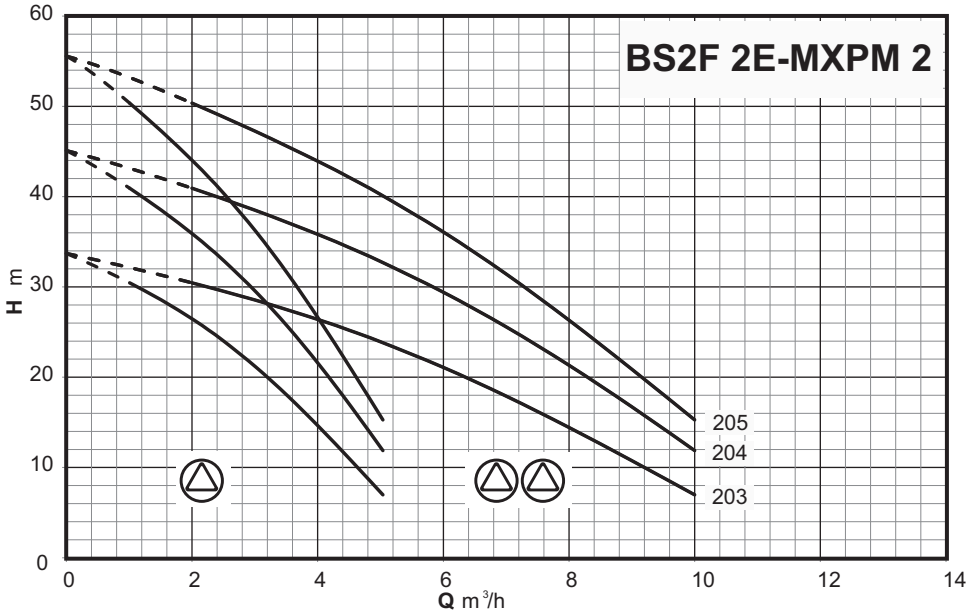


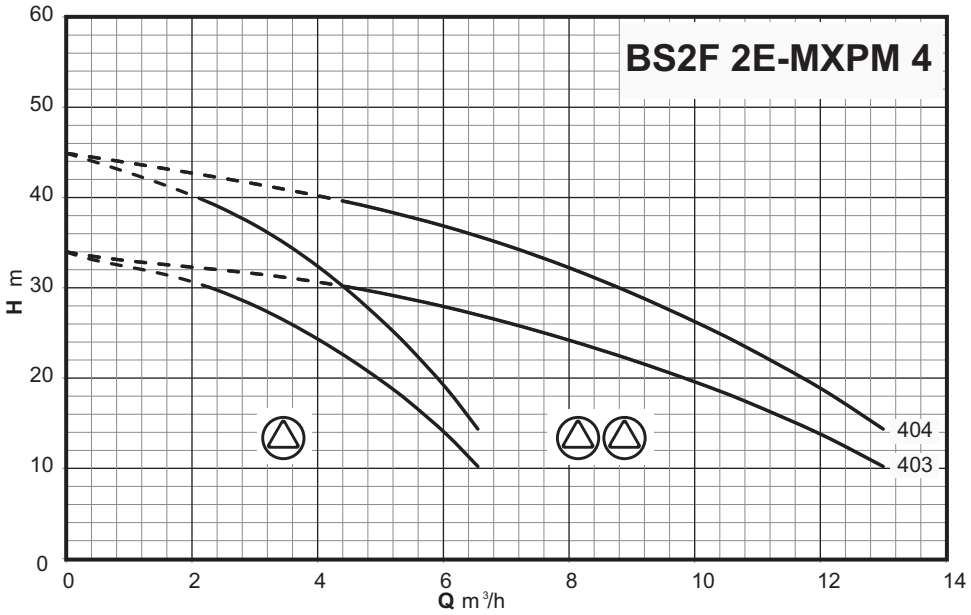
TYPE			mm								kg
	DN1	DN2	fG	h2	h3	h8	l2	l6	lc	m4	Weight
BSM2F2EMXPM203PCD	G 2	G 1 1/2	588	248	179	625	281	400	450	250	31.4
BSM2F2EMXPM204PCD	G 2	G 1 1/2	588	248	179	625	281	400	450	250	33.2
BSM2F2EMXPM205PCD	G 2	G 1 1/2	588	248	179	625	281	400	450	250	35.5
BSM2F2EMXPM403PCD	G 2	G 1 1/2	588	248	179	625	281	400	450	250	-
BSM2F2EMXPM404PCD	G 2	G 1 1/2	588	248	179	625	281	400	450	250	35.2

E-MXP

calpeda®

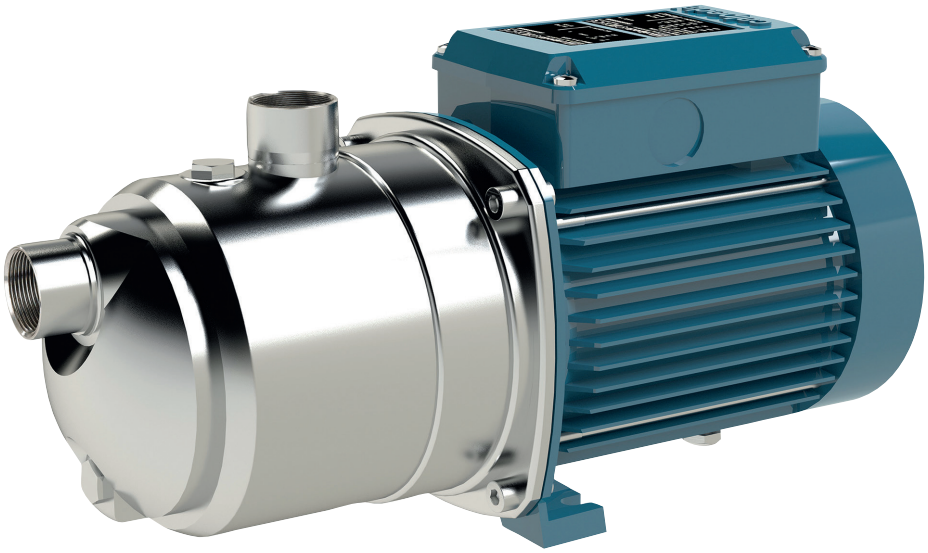
Coverage chart n ≈ 2900 rpm



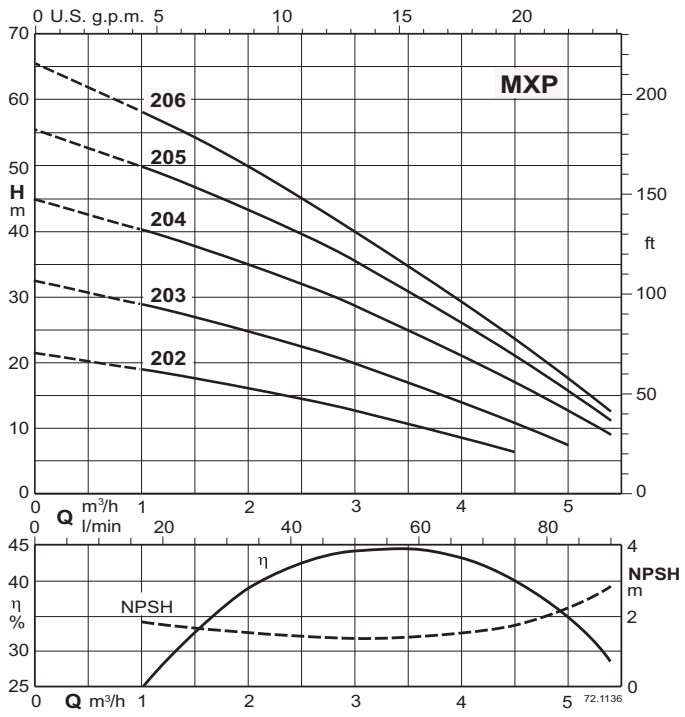


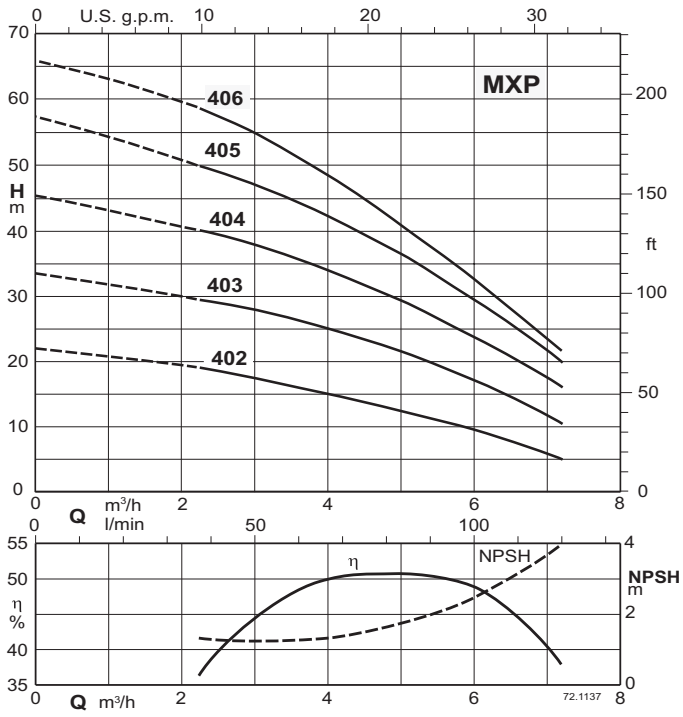
MXP

calpeda®



Characteristic curves n ≈ 2800 1/min





Horizontal multi-stage close coupled pumps

MXP

Construction

Horizontal Multi-Stage Close Coupled Pumps
One-piece chrome-nickel stainless steel pump body, open on one side (barrel casing), with front suction port above the pump axis and radial delivery port at the top.
Stages in Noryl.

Applications

For water supply systems.
For domestic use, for garden use and irrigation.

Operating conditions

Liquid temperature: 0 °C to +50 °C.
Ambient temperature up to 40° C.
Maximum permissible pressure in the pump casing: 8 bar.
Continuous duty.

Motor

2-pole induction motor, 50 Hz (n ≈ 2800 1/min).
MXP: three-phase 230/400 V ± 10%.
MXPM: single-phase 230 V ± 10%, with thermal protector.
Capacitor inside the terminal box.
Insulation class F.
Protection IP 54.
Motor set up for operation with 1.1 kW inverter.
IE2 efficiency class for single-phase motors.
IE3 efficiency class for three-phase motors (IE2 up to 0,65 kW).
Constructed in accordance with EN 60034-1; EN 60034-30-1.
EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Motor suitable for operation with frequency converter up to 0,75 kW.

Designation

Example: MXP 206/B
MXP = Series
2 = Rated capacity in m3/h
06 = Number of impellers
/A = It refers to a revision

Materials

Components	Material
Pump casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Casing cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Pump shaft	Steel 1.4104 EN 10088 (AISI 430F)
Plug	Chrome-nickel steel 1.4305 EN 10088 (AISI 303)
Stage casing	PPO-GF20 (Noryl)
Impeller	PPO-GF20 (Noryl)
Mechanical seal	Carbon - Ceramic - NBR

Performance n ≈ 2800 rpm

Three-phase

					Q = Flow											
					m³/h	0	1	1,5	2	2,5	3	3,5	4	4,5	5	5,4
Model	230V	400V	P2		l/min		16,6	25	33,3	41,6	50	58,3	66,6	75	83,3	90
	A		kW	HP	H (m) = Total head											
MXP 202	1,7	1	0,25	0,34		21,5	19	17,5	16	14,5	12,5	10,5	8,5	6,5	-	-
MXP 203	2,4	1,4	0,37	0,5		32,5	29	27	25	22,5	20	17	14	11	7,5	-
MXP 204/A	2,8	1,6	0,55	0,75		45	40	37,5	35	32	28,5	25	21,5	17	13	9
MXP 205/A	3,5	2	0,75	1		56	50	46,5	43,5	40	35,5	31	26,5	21	16	11
MXP 206	3,5	2	0,75	1		65,6	58,1	54,2	49,7	44,9	39,7	34,5	29	23,4	17,3	12,3

Single-phase

					Q = Flow											
					m³/h	0	1	1,5	2	2,5	3	3,5	4	4,5	5	5,4
Model	230V	P2		P1	l/min		16,6	25	33,3	41,6	50	58,3	66,6	75	83,3	90
	A	kW	HP	kW	H (m) = Total head											
MXPM 202	2,3	0,25	0,34	0,42		21,5	19	17,5	16	14,5	12,5	10,5	8,5	6,5	-	-
MXPM 203	3	0,37	0,5	0,57		32,5	29	27	25	22,5	20	17	14	11	7,5	-
MXPM 204/A	4,5	0,55	0,75	0,78		45	40	37,5	35	32	28,5	25	21,5	17	13	9
MXPM 205	5,7	0,75	1	1,01		56	50	46,5	43,5	40	35,5	31	26,5	21	16	11
MXPM 206	5,7	0,75	1	1,01		65,6	58,1	54,2	49,7	44,9	39,7	34,5	29	23,4	17,3	12,3

MXP

Three-phase

Model	230V	400V	P2		Q = Flow								
					m³/h	0	2,25	3	3,5	4	4,5	5	6	7,2
					l/min		37,5	50	58,3	66,6	75	83,3	100	120
	A		kW	HP	H (m) = Total head									
MXP 402	2,4	1,4	0,37	0,5		22	19	17,5	16,5	15	14	12,5	9,5	5
MXP 403/A	2,8	1,6	0,55	0,75		33,5	30	28	26,5	25	23	21,5	17	10
MXP 404/B	3,5	2	0,75	1		46	40	38	36,5	34	32	29,5	24	16
MXP 405	4,5	2,6	1,1	1,5		56	50	47	45	42	39,5	36	29,5	20
MXP 406	4,5	2,6	1,1	1,5		65,9	58,5	54,6	51,5	48,2	44,6	40,7	32,4	21,4

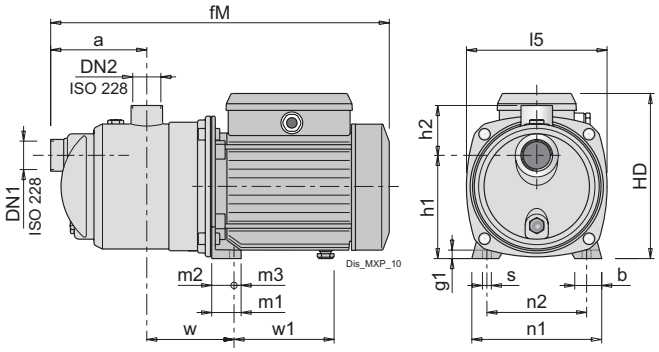
Single-phase

Model	230V	P2		P1	Q = Flow								
					m³/h	0	2,25	3	3,5	4	4,5	5	6	7,2
					l/min		37,5	50	58,3	66,6	75	83,3	100	120
	A	kW	HP	kW	H (m) = Total head									
MXPM 402	3	0,37	0,5	0,57		22	19	17,5	16,5	15	14	12,5	9,5	5
MXPM 403/A	4,5	0,55	0,75	0,78		33,5	30	28	26,5	25	23	21,5	17	10
MXPM 404/A	5,7	0,75	1	1,01		46	40	38	36,5	34	32	29,5	24	16
MXPM 405	7	1,1	1,5	1,44		56	50	47	45	42	39,5	36	29,5	20
MXPM 406	7,4	1,1	1,5	1,44		65,9	58,5	54,6	51,5	48,2	44,6	40,7	32,4	21,4

P1: Maximum power input.
P2: Rated motor power output.
Tolerances according to UNI EN ISO 9906:2012

A safety margin of + 0.5 m is recommended for the NPSH value.
For flow rates greater than 4 m³/h use a G1 1/4 suction pipe (DN 32).
Test results with clean cold water, without gas content.

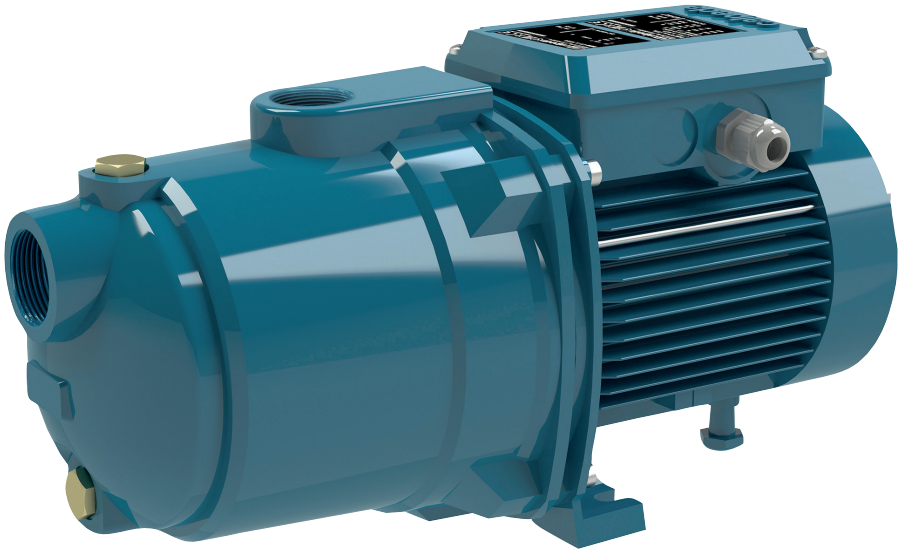
Dimensions and weights



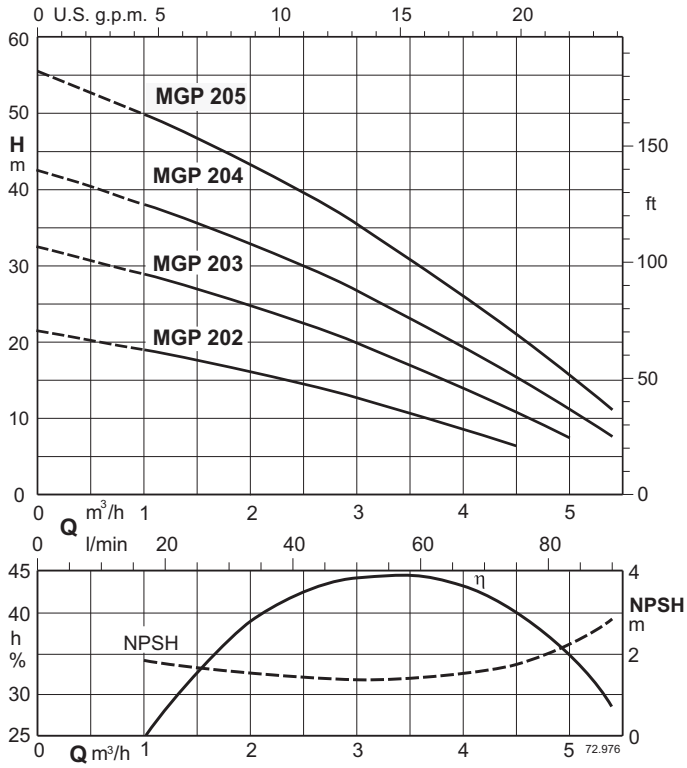
TYPE			mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l5	m1	m2	m3	n1	n2	s	w	w1	Weight
MXP 202	G 1	G 1	115	30	362	10	116	61	176	161	33	25	8	146	112	9	95	102	5.9
MXP 203	G 1	G 1	115	30	362	10	116	61	176	161	33	25	8	146	112	9	95	102	6.7
MXP 204/A	G 1	G 1	115	30	391	10	116	61	192	161	33	25	8	146	112	9	95	112	8.9
MXP 205/A	G 1	G 1	115	30	391	10	116	61	192	161	33	25	8	146	112	9	95	112	10.9
MXP 206	G 1¼	G 1	140	33	462	11	152	68	225	213.5	37.5	28	9.5	185	155	9.5	113	147	13.3
MXP 402	G 1	G 1	115	30	362	10	116	61	176	161	33	25	8	146	112	9	95	102	6.7
MXP 403/A	G 1	G 1	115	30	391	10	116	61	192	161	33	25	8	146	112	9	95	112	8.8
MXP 404/B	G 1	G 1	115	30	391	10	116	61	192	161	33	25	8	146	112	9	95	112	10.8
MXP 405	G 1	G 1	115	30	421	10	116	61	192	161	33	25	8	146	112	9	95	142	12.8
MXP 406	G 1¼	G 1	140	33	488.5	11	152	68	240	213.5	375	28	9.5	185	155	9.5	113	157.5	15.7

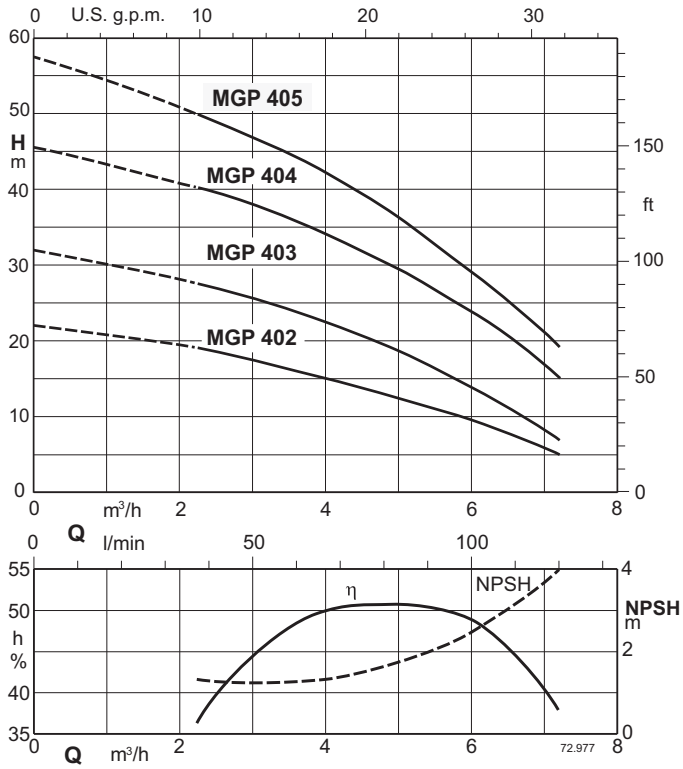
TYPE			mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l5	m1	m2	m3	n1	n2	s	w	w1	Weight
MXPM 202	G 1	G 1	115	30	362	10	116	61	176	161	33	25	8	146	112	9	95	102	6
MXPM 203	G 1	G 1	115	30	362	10	116	61	176	161	33	25	8	146	112	9	95	102	6.6
MXPM 204/A	G 1	G 1	115	30	391	10	116	61	192	161	33	25	8	146	112	9	95	112	9.9
MXPM 205	G 1	G 1	115	30	391	10	116	61	192	161	33	25	8	146	112	9	95	112	11.1
MXPM 206	G 1¼	G 1	140	33	462	11	152	68	225	213.5	37.5	28	9.5	185	155	9.5	113	147	12.8
MXPM 402	G 1	G 1	115	30	362	10	116	61	176	161	33	25	8	146	112	9	95	102	6.6
MXPM 403/A	G 1	G 1	115	30	391	10	116	61	192	161	33	25	8	146	112	9	95	112	9.8
MXPM 404/A	G 1	G 1	115	30	391	10	116	61	192	161	33	25	8	146	112	9	95	112	10
MXPM 405	G 1	G 1	115	30	421	10	116	61	192	161	33	25	8	146	112	9	95	142	12.8
MXPM 406	G 1¼	G 1	140	33	488.5	11	152	68	240	213.5	375	28	9.5	185	155	9.5	113	157.5	17.1

MGP



Performance n ≈ 2800 rpm





Horizontal multi-stage close coupled pumps

MGP

Construction

Horizontal Multi-Stage Close Coupled Pumps
Single-piece barrel casing in cast iron, with front suction port above pumps axis and radial delivery at top.
Stages in Noryl.

Applications

For water supply systems.
For domestic use, for garden use and irrigation.

Operating conditions

Liquid temperature: 0 °C to +50 °C.
Ambient temperature up to 40° C.
Maximum permissible pressure in the pump casing: 8 bar.
Continuous duty.

Motor

2-pole induction motor, 50 Hz (n ≈ 2800 1/min).
MGP: three-phase 230/400 V ± 10%.
MGPM: single-phase single-phase 230 V ± 10%, with thermal protector.
Capacitor inside the terminal box.
Insulation class F.
Protection IP 54.
Motor set up for operation with 1.1 kW inverter.
IE2 efficiency class for single-phase motors.
IE3 efficiency class for three-phase motors (IE2 up to 0,65 kW).
Constructed in accordance with EN 60034-1; EN 60034-30-1.
EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Motor suitable for operation with frequency converter up to 0,75 kW.

Designation

Example: MGP 206/B
MGP = Series
2 = Rated capacity in m3/h
06 = Number of impellers
/A = It refers to a revision

Materials

Components	Material
Pump casing	Cast iron GJL 200 EN 1561
Casing cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Shaft	Steel 1.4104 EN 10088 (AISI 430F)
Stage casing	PPO-GF20 (Noryl)
Impeller	PPO-GF20 (Noryl)
Mechanical seal	Carbon - Ceramic - NBR

Performance n ≈ 2800 rpm

Three-phase

					Q = Flow											
					m³/h	0	1	1,5	2	2,5	3	3,5	4	4,5	5	5,4
Model	230V	400V	P2		l/min		16,6	25	33,3	41,6	50	58,3	66,6	75	83,3	90
	A		kW	HP	H (m) = Total head											
MGP 202	1,7	1	0,25	0,34		21,5	19	17,5	16	14,5	12,5	10,5	8,5	6,5	-	-
MGP 203	2,4	1,4	0,37	0,5		32,5	29	27	25	22,5	20	17	14	11	7,5	-
MGP 204	2,8	1,6	0,45	0,6		43	38	35,5	32,7	29,7	26,5	23	19,2	15,2	11	7,5
MGP 205/A	3,5	2	0,75	1		56	50	46,5	43,5	40	35,5	31	26,5	21	16	11

Single-phase

					Q = Flow											
					m³/h	0	1	1,5	2	2,5	3	3,5	4	4,5	5	5,4
Model	230V	P2		P1	l/min		16,6	25	33,3	41,6	50	58,3	66,6	75	83,3	90
	A	kW	HP	kW	H (m) = Total head											
MGPM 202	2,3	0,25	0,34	0,42		21,5	19	17,5	16	14,5	12,5	10,5	8,5	6,5	-	-
MGPM 203	3	0,37	0,5	0,57		32,5	29	27	25	22,5	20	17	14	11	7,5	-
MGPM 204	3,5	0,45	0,6	0,67		43	38	35,5	32,7	29,7	26,5	23	19,2	15,2	11	7,5
MGPM 205	5,7	0,75	1	1,01		56	50	46,5	43,5	40	35,5	31	26,5	21	16	11

MGP

Three-phase

Model	230V	400V	P2		Q = Flow								
					m³/h	0	2,25	3	3,5	4	4,5	5	6	7,2
					l/min		37,5	50	58,3	66,6	75	83,3	100	120
	A		kW	HP	H (m) = Total head									
MGP 402	2,4	1,4	0,37	0,5		22	19	17,5	16,5	15	14	12,5	9,5	5
MGP 403/A	2,8	1,6	0,55	0,75		32	27,5	25,5	23,7	22	20	18	13,3	7
MGP 404/A	3,5	2	0,75	1		46	40	38	36,5	34	32	29,5	24	15
MGP 405	4,5	2,6	1,1	1,5		56	50	47	45	42,5	39,5	36	29	19

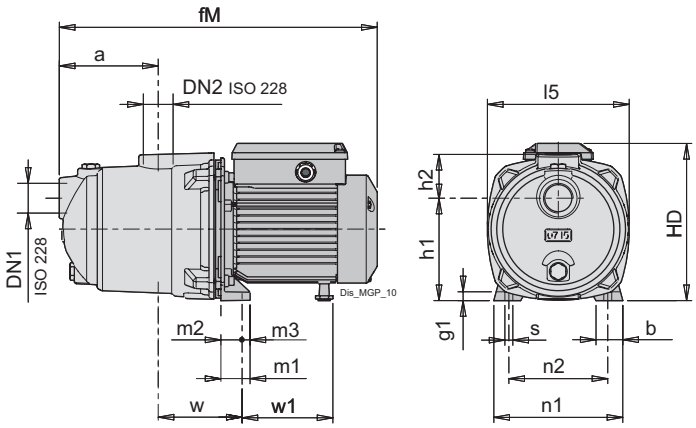
Single-phase

Model	230V	P2		P1	Q = Flow								
					m³/h	0	2,25	3	3,5	4	4,5	5	6	7,2
					l/min		37,5	50	58,3	66,6	75	83,3	100	120
	A	kW	HP	kW	H (m) = Total head									
MGPM 402	3	0,37	0,5	0,57		22	19	17,5	16,5	15	14	12,5	9,5	5
MGPM 403/A	4,5	0,55	0,75	0,78		32	27,5	25,5	23,7	22	20	18	13,3	7
MGPM 404	5,7	0,75	1	1,01		46	40	38	36,5	34	32	29,5	24	15
MGPM 405	7	1,1	1,5	1,44		56	50	47	45	42,5	39,5	36	29	19

P1: Maximum power input.
P2: Rated motor power output.
Tolerances according to UNI EN ISO 9906:2012

Test results with clean cold water, without gas content.
A safety margin of + 0.5 m is recommended for the NPSH value.
For flow rates greater than 4 m³/h use a G1 1/4 suction pipe (DN 32).

Dimensions and weights



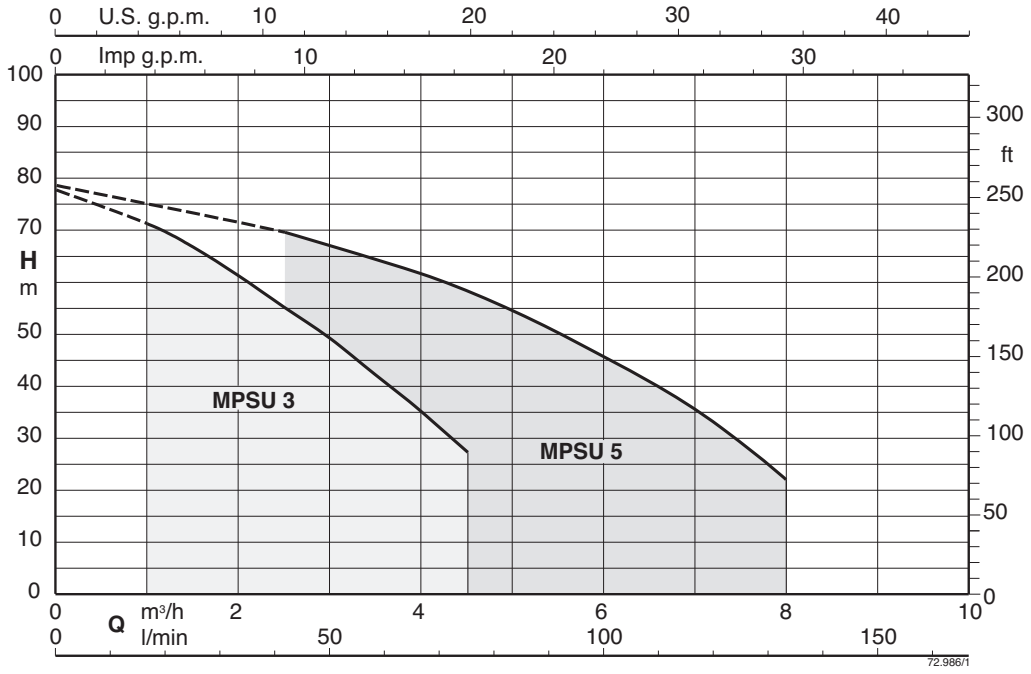
TYPE			mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l5	m1	m2	m3	n1	n2	s	w	w1	Weight
MGP 202	G 1	G 1	115	30	362	10	116	51	176	161	33	25	8	146	112	9	95	102	8.8
MGP 203	G 1	G 1	115	30	362	10	116	51	176	161	33	25	8	146	112	9	95	102	9.5
MGP 204	G 1	G 1	115	30	362	10	116	51	176	161	33	25	8	146	112	9	95	102	10.3
MGP 205/A	G 1	G 1	115	30	391	10	116	51	192	161	33	25	8	146	112	9	95	112	13.6
MGP 402	G 1	G 1	115	30	362	10	116	51	176	161	33	25	8	146	112	9	95	102	9.4
MGP 403/A	G 1	G 1	115	30	391	10	116	51	192	161	33	25	8	146	112	9	95	112	11.7
MGP 404/A	G 1	G 1	115	30	391	10	116	51	192	161	33	25	8	146	112	9	95	112	13.6
MGP 405	G 1	G 1	115	30	421	10	116	51	192	161	33	25	8	146	112	9	95	112	15.7

TYPE			mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l5	m1	m2	m3	n1	n2	s	w	w1	Weight
MGPM 202	G 1	G 1	115	30	362	10	116	51	176	161	33	25	8	146	112	9	95	102	8.9
MGPM 203	G 1	G 1	115	30	362	10	116	51	176	161	33	25	8	146	112	9	95	102	10.1
MGPM 204	G 1	G 1	115	30	362	10	116	51	176	161	33	25	8	146	112	9	95	102	10.4
MGPM 205	G 1	G 1	115	30	391	10	116	51	192	161	33	25	8	146	112	9	95	112	13.6
MGPM 402	G 1	G 1	115	30	362	10	116	51	176	161	33	25	8	146	112	9	95	102	9.4
MGPM 403/A	G 1	G 1	115	30	362	10	116	51	176	161	33	25	8	146	112	9	95	102	12.6
MGPM 404	G 1	G 1	115	30	391	10	116	51	192	161	33	25	8	146	112	9	95	112	13.6
MGPM 405	G 1	G 1	115	30	421	10	116	51	192	161	33	25	8	146	112	9	95	112	15.8

MPSU



Coverage chart n ≈ 2900 rpm



Vertical multi-stage close coupled pumps

MPSU

Construction

5” Vertical multi-stage close coupled submersible or surface pumps.
External jacket made of steel 1.4301 EN 10088 (AISI 304) and Noryl stages.
MPSUM: with built-in capacitor, accessible through the delivery casing.
Suction connection on the lower casing and delivery connection on the top casing.
Pumped water cooled motor with sliding between motor jacket and outer jacket.
Double mechanical shaft seal with interposed oil chamber.

Applications

For clean water without abrasives or additives aggressive for the materials of the pump.
For domestic, civil and industrial applications.
For installation in confined spaces without ventilation.
In environments where there is a risk of flooding, the pump can be fully submerged.
For plants subjected to water jets.
When low-noise operation is required.

Operating conditions

Water temperature up to 35 °C.
Maximum permissible pressure in the pump casing: 8 bar.
Continuous duty.

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
MPSU: three-phase
230 V ± 10%.
400 V ± 10%.
Cable: H07RN8-F, 5 m without plug.
MPSUM: single-phase
single-phase 230 V ± 10%, with thermal protector.
Incorporated capacitor.
Float switch MPSUM.. CG (on demand)
Cable: H07RN8-F, 5 m with CEI-UNEL 47166 plug.
Insulation class F.
Protection IP X8 (for continuous immersion).
Triple impregnation humidity-proof dry winding
Constructed in accordance with
EN 60034-1.
EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Cable length 15 m.
Motor suitable for operation with frequency converter.

Designation

Example MPSU 306
MPSU = Series
3 = Rated capacity in m3/h
06 = Number of impellers

Materials

Components	Material
delivery casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
External jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Base	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
motor jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Stage casing	PPO-GF20 (Noryl)
Impeller	PPO-GF20 (Noryl)
Shaft	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Capacitor cover	PPS Polymer (Grivory)
Oil chamber cover	PPS Polymer (Grivory)
Support ring preload	PPS Polymer (Grivory)
Preload ring stages	PPS Polymer (Grivory)
Mechanical seal: Upper	Steatite, carbon, NBR
Mechanical seal: Lower	Carbone, carburo di silicio, NBR
Seal lubrication oil	Oil for food/pharmaceutical machinery

MPSU

Coverage chart n ≈ 2900 rpm

Three-phase

				Q = Flow								
				m³/h	0	1	1,5	2	2,5	3	3,5	4	4,5
Model	400V	P2		l/min		16,66	25	33,33	41,66	50	58,33	66,66	75
	A	kW	HP	H (m) = Total head									
MPSU 304	1,6	0,55	0,75		44	41,5	39,5	36,5	33,5	29,5	25,5	21	16
MPSU 305	1,9	0,75	1		54	49,5	46,2	43	30,9	35	30	25	19
MPSU 306	2,2	0,9	1,2		66,5	60,5	57	53	48,5	43,5	38	32	26
MPSU 307	2,6	0,9	1,2		75	67,5	63	58	53	47	41	34,5	27

Single-phase

					Q = Flow								
					m³/h	0	1	1,5	2	2,5	3	3,5	4	4,5
Model	230V	P2		P1	l/min		16,6	25	33,3	41,6	50	58,3	66,6	75
	A	kW	HP	kW	H (m) = Total head									
MPSUM 304	4,1	0,55	0,75	0,9		44	41,5	39,5	36,5	33,5	29,5	25,5	21	16
MPSUM 305	5	0,75	1	1,1		54	49,5	46,2	43	30,9	35	30	25	19
MPSUM 306	6	0,9	1,2	1,3		66,5	60,5	57	53	48,5	43,5	38	32	26
MPSUM 307	6,6	0,9	1,2	1,5		75	67,5	63	58	53	47	41	34,5	27

Three-phase

				Q = Flow									
				m³/h	0	2,5	3	3,5	4	4,5	5	6	7	8
Model	400V	P2		l/min		41,66	50	58,33	66,66	75	83,33	100	116	133
	A	kW	HP	H (m) = Total head										
MPSU 504	2,2	0,9	1,2		45	39,5	37,8	35,8	33,5	31	28,5	23	16,5	9,5
MPSU 505	2,6	1,1	1,5		53	47,5	45,5	43,5	41	38,5	35,5	29,5	22	13,5
MPSU 506	2,8	1,1	1,5		66,5	58	55,6	53	50	46,3	42,5	34	24,5	14
MPSU 507	4	1,5	2		78,5	69,5	66,5	64	61,5	58	54,5	45,5	36	22

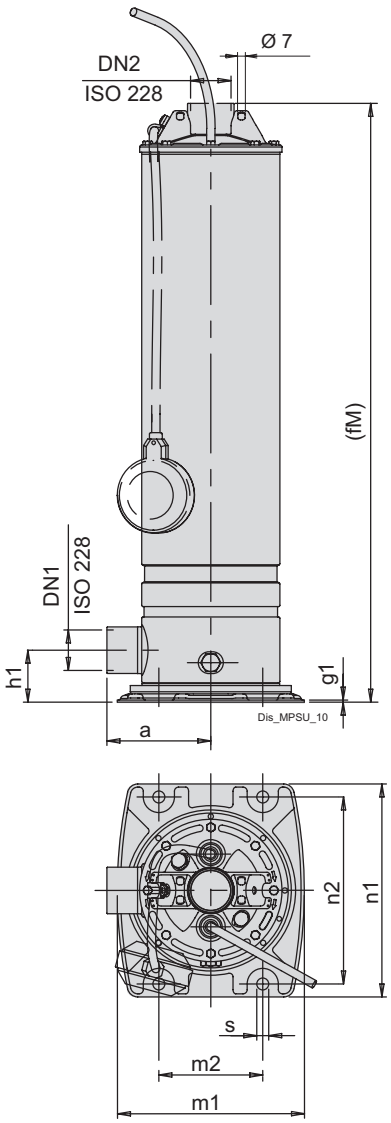
Single-phase

					Q = Flow									
					m³/h	0	2,5	3	3,5	4	4,5	5	6	7	8
Model	230V	P2		P1	l/min		41,6	50	58,3	66,6	75	83,3	100	117	133
	A	kW	HP	kW	H (m) = Total head										
MPSUM 504	6	0,9	1,2	1,2		45	39,5	37,8	35,8	33,5	31	28,5	23	16,5	9,5
MPSUM 505	7	1,1	1,5	1,5		53	47,5	45,5	43,5	41	38,5	35,5	29,5	22	13,5
MPSUM 506	8,3	1,1	1,5	1,7		66,5	58	55,6	53	50	46,3	42,5	34	24,5	14
MPSUM 507	12	1,5	2	2,2		78,5	69,5	66,5	64	61,5	58	54,5	45,5	36	22

P1: Maximum power input.
P2: Rated motor power output.
Tolerances according to UNI EN ISO 9906:2012
Test results with clean cold water, without gas content.

MPSU

Dimensions and weights



weights with cable length: 5 m

Pump	Cable H07RN8-F,		
	230V	230V	400V
	1 ~	3 ~	3 ~
MPSU 304 - MPSUM 304	3G1 mm2	4G1 mm2	4G1 mm2
MPSU 305 - MPSUM 305	3G1 mm2	4G1 mm2	4G1 mm2
MPSU 306 - MPSUM 306	3G1 mm2	4G1 mm2	4G1 mm2
MPSU 307 - MPSUM 307	3G1 mm2	4G1 mm2	4G1 mm2
MPSU 504 - MPSUM 504	3G1 mm2	4G1 mm2	4G1 mm2
MPSU 505 - MPSUM 505	3G1 mm2	4G1 mm2	4G1 mm2
MPSU 506 - MPSUM 506	3G1,5 mm2	4G1 mm2	4G1 mm2
MPSU 507 - MPSUM 507	3G2,5 mm2	4G1 mm2	4G1 mm2

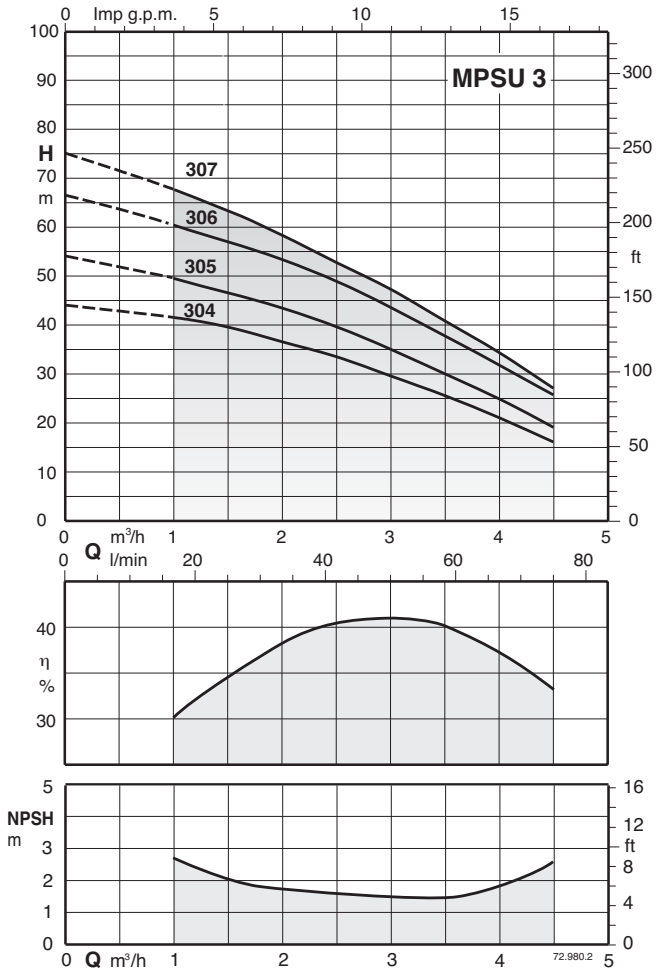
MPSUM ... CG: With float switch pump (on demand)

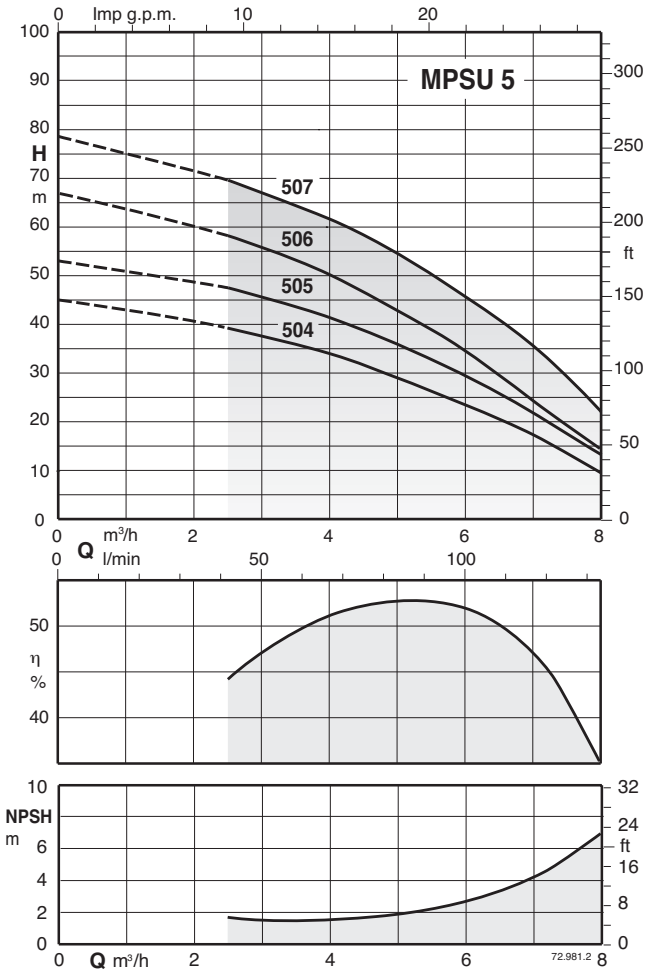
TYPE	ISO 228		mm									Kg
	DN1	DN2	a	fM	g1	h1	m1	m2	n1	n2	s1	Weight
MPSU 304	G 1 1/4	G 1 1/4	100	553	2	50	180	100	205	180	11.5	11.4
MPSU 305	G 1 1/4	G 1 1/4	100	602	2	50	180	100	205	180	11.5	11.9
MPSU 306	G 1 1/4	G 1 1/4	100	626	2	50	180	100	205	180	11.5	13
MPSU 307	G 1 1/4	G 1 1/4	100	650	2	50	180	100	205	180	11.5	13.2
MPSU 504	G 1 1/4	G 1 1/4	100	578	2	50	180	100	205	180	11.5	12.1
MPSU 505	G 1 1/4	G 1 1/4	100	602	2	50	180	100	205	180	11.5	12.8
MPSU 506	G 1 1/4	G 1 1/4	100	671	2	50	180	100	205	180	11.5	15
MPSU 507	G 1 1/4	G 1 1/4	100	720	2	50	180	100	205	180	11.5	16.8

TYPE	ISO 228		mm									Kg
	DN1	DN2	a	fM	g1	h1	m1	m2	n1	n2	s1	Weight
MPSUM 304	G 1 1/4	G 1 1/4	100	553	2	50	180	100	205	180	11.5	12.4
MPSUM 305	G 1 1/4	G 1 1/4	100	602	2	50	180	100	205	180	11.5	13.8
MPSUM 306	G 1 1/4	G 1 1/4	100	626	2	50	180	100	205	180	11.5	15.8
MPSUM 307	G 1 1/4	G 1 1/4	100	650	2	50	180	100	205	180	11.5	15
MPSUM 504	G 1 1/4	G 1 1/4	100	578	2	50	180	100	205	180	11.5	14.2
MPSUM 505	G 1 1/4	G 1 1/4	100	602	2	50	180	100	205	180	11.5	14.4
MPSUM 506	G 1 1/4	G 1 1/4	100	671	2	50	180	100	205	180	11.5	16.6
MPSUM 507	G 1 1/4	G 1 1/4	100	720	2	50	180	100	205	180	11.5	19.4

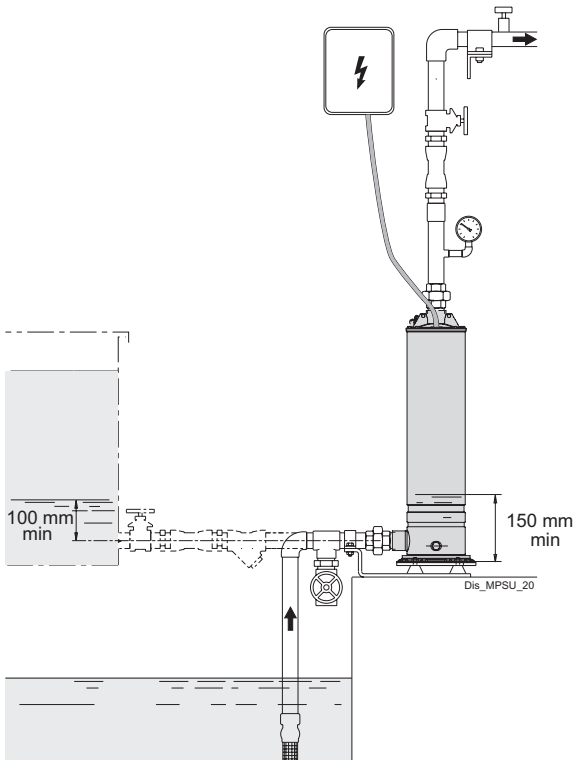
MPSU

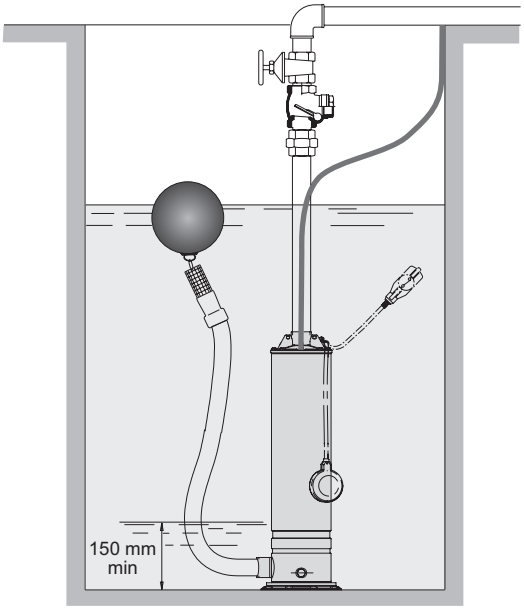
Characteristic curves n ≈ 2900 rpm





Examples of installations

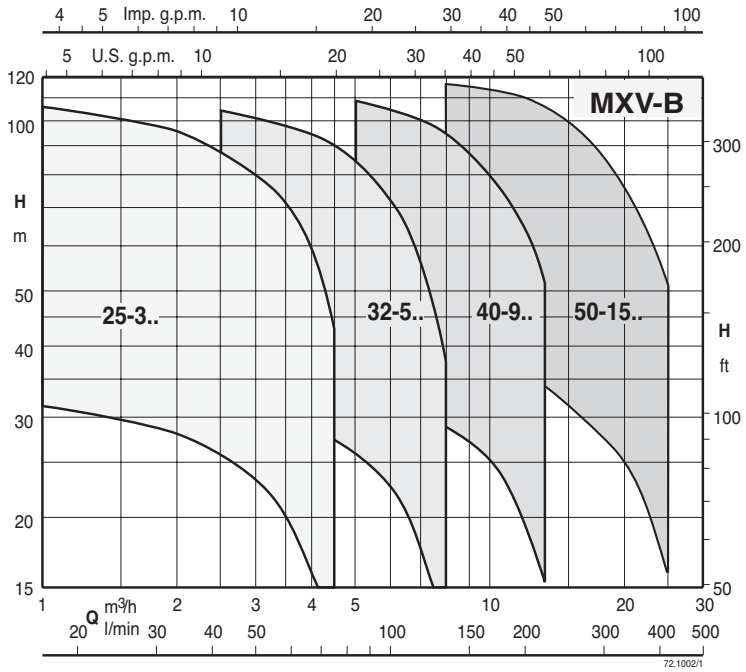




MXV-B



Coverage chart n ≈ 2900 rpm



Vertical multi-stage close coupled stainless steel pumps

MXV-B

Construction

Vertical multi-stage close coupled pumps with suction and delivery connections of the same diameter and arranged along the same axis (in-line).
All parts that come into contact with the liquid, are in chrome-nickel stainless steel.
Corrosion-resistant bearing sleeves lubricated by the pumped liquid.
Version with frequency converter (on request)

Applications

For water supply systems.
For clean non-explosive liquids, without solid, filamentary or abrasive matter and non-aggressive for stainless steel (with adaptation of sealing materials on request).
A universal pump for civil and industrial use, for pressureboosting systems, high-pressure washing plants, irrigation, agricultural uses and sport installations.

Operating conditions

Temperature of liquid: from -15 °C to +90 °C.
Ambient temperature up to 40° C.
Maximum permissible pressure in pump casing: 16 bar.
Continuous duty (S3 60% for single-phase pump to 1,5 kW).

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
MXV-B: three-phase 230/400 V ± 10% up to 3 kW;
400/690 V ± 10% from 3,7 to 7,5 kW.
MXV-BM: single-phase single-phase 230 V ± 10%, with thermal protector.
Insulation class F.
Protection IP 54.
Three-phase motor suitable for operation with frequency converter.
IE2 efficiency class for single-phase motors up to 1,1 kW.
IE3 efficiency class for three-phase motors.
Constructed in accordance with EN 60034-1, EN 60034-30-1.
EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
IP protection: IP55
Special mechanical seal
Pump casing seal rings in FPM.
Higher or lower liquid or ambient temperatures.

Designation

Example MXV-BM EI 25-305 O
MXV-B = Series
M = Single-phase motor (up to 1.5 kW)
EI = With frequency converter I-MAT
25 = DN ports in mm
3 = Rated capacity in m3/h
05 = Number of stages
O = Oval flanges

The electropumps comply with the European Regulation no. 547/2012.

Materials

Components	Material
External jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Suction casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Delivery casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Stage casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Impeller	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Lower cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Upper cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Spacer sleeve	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Shaft	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Plug	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Mechanical seal	Hard metal/Carbon/EPDM
Wear ring	PPS
O-ring	NBR
Oval Counterflanges	Steel 1.4301 EN 10088 (AISI 304) (galvanized steel for MXV-B 50)

MXV-B

EI: Pumps with frequency converter

The MXV-B EI pumps are available with power from 0,75 kW up to 7,5 kW, the pumps are equipped with I-MAT installed on board
Which allows to realize a variable-speed system extremely compact and efficient, ideal in applications of water supply and in the distribution of hot and cold water.
The pump is equipped with transducers suitable for operation and is already programmed at the factory.

Features

- Energy saving
- Compact design
- Easy to use
- Programmable to suit the system requirements
- Reliability



Construction

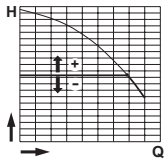
The system comprises of:
Pump
Induction motor
I-MAT Frequency converter
Motor adapter for the motor mounting of the frequency converter
Connection cable between frequency converter and induction motor
Transducers

Main features

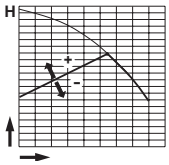
Rated motor power output from 0,75 kW to 7,5 kW
Control range from 1750 to 2900 rpm (2-pole)
Protection against dry running
Protection against operations with closed valve ports
Protection against system leakages
Protection against overcurrent in the motor
Protection agains overvoltage and undervoltage of the power supply
Protection against current unbalances between phases

Operating modes

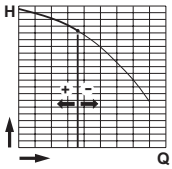
Constant pressure mode
with pressure transducer
In this mode, the system maintains the preset pressure when the flow required by the installation changes.



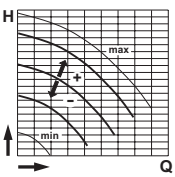
Proportional pressure mode
with pressure transducer
In this mode the system changes the working pressure according to the required flow rate.



Constant flow mode
with flow meter
In this mode the system maintains a constant flow rate value in a point of the installation according to the required pressure.



Fixed speed mode
with setting of the speed preferential rotation.
In this mode, by changing the working frequency, you may choose any operational curve included within the working range.



Constant temperature mode
with temperature transducer
In this mode the system keeps the temperature constant inside a system by changing the speed of the pump.

MXV-B

Coverage chart n ≈ 2900 rpm

Three-phase

						Q = Flow										
						m³/h	0	5	6	7	8	9	10	11	12	13
Model	230V	400V	690V	P2		l/min		83,3	100	117	133	150	167	183	200	217
	A			kW	HP	H (m) = Total head										
MXV-B 40-903 O	4,6	2,7	-	1,1	1,5		35,5	32,5	31,5	31	29,5	28	25,5	22,5	19,5	15,5
MXV-B 40-904 O	7,5	4,3	-	1,5	2		47	43	42	41	40	37	34	30	26	21
MXV-B 40-905 O	9,2	5,3	-	2,2	3		59	54	53	51	50	47	43	38	32	26
MXV-B 40-906 O	9,2	5,3	-	2,2	3		71	65	63	62	59	56	51	45	39	31
MXV-B 40-907 O	11,5	6,6	-	3	4		83	76	74	72	69	66	60	53	45	36
MXV-B 40-908 O	11,5	6,6	-	3	4		95	87	85	82	79	75	69	60	51	42
MXV-B 40-910 O	-	9,6	5,5	3,7	5		119	109	106	103	99	94	86	75	64	52

Single-phase

					Q = Flow										
					m³/h	0	5	6	7	8	9	10	11	12	13
Model	230V	P2		P1	l/min		83,3	100	117	133	150	167	183	200	217
	A	kW	HP	kW	H (m) = Total head										
MXV-BM 40-903 O	7,4	1,1	1,5	1,44		35,5	32,5	31,5	31	29,5	28	25,5	22,5	19,5	15,5
MXV-BM 40-904 O	9,2	1,5	2	2,3		47	43	42	41	40	37	34	30	26	21

Three-phase

						Q = Flow										
						m³/h	0	8	10	12	14	16	18	20	22	24
Model	230V	400V	690V	P2		l/min		133	167	200	233	267	300	333	367	400
	A			kW	HP	H (m) = Total head										
MXV-B 50-1502 O	7,4	4,3	-	1,5	2		27,9	24,6	23,8	22,7	21,4	19,8	17,8	15,4	12,7	9,5
MXV-B 50-1503 O	9,2	5,3	-	2,2	3		43,6	39,1	37,3	35,8	34,3	31,3	28,2	24,8	19,7	14
MXV-B 50-1504 O	11,4	6,6	-	3	4		58	52,4	50,5	48,5	46,5	43,7	39,8	35,3	28,9	21,1
MXV-B 50-1505 O	-	9,6	5,5	4	5,5		72,5	65,5	63	60,5	57,5	54,7	49,7	44,1	36,1	26,3
MXV-B 50-1506 O	-	10,8	6,2	5,5	7,5		85	78	75,5	72	68	63	57,5	50,5	42,5	33,5
MXV-B 50-1507 O	-	10,8	6,2	5,5	7,5		99	91,5	88	84	79,5	73,5	67	59	49,5	39
MXV-B 50-1508 O	-	10,8	6,2	5,5	7,5		115	105	101	97	92	86	78	69	58	45
MXV-B 50-1509 O	-	14,3	8,3	7,5	10		129	118	114	110	104	97	88	77	65	51
MXV-B 50-1510 O	-	14,3	8,3	7,5	10		141	130	126	121	114	105	95	83	69	54

Test results with clean cold water, without gas content.
A safety margin of + 0.5 m is recommended for the NPSH value.
Tolerances according to UNI EN ISO 9906:2012
Head and power values valid for liquids with density ρ = 1,0 kg/dm3 and kinematic viscosity v = max 20 mm2/sec. Total head in m
P1: Maximum power input.
P2: Rated motor power output.
Pst: Power with reference to one stage.

MXV-B

Coverage chart n ≈ 2900 rpm

Three-phase

Model	230V	400V	P2		Q = Flow									
					m³/h	0	1	1,5	2	2,5	3	3,5	4	4,5
					l/min		16,6	25	33,3	41,6	50	58,3	66,6	75
	A		kW	HP	H (m) = Total head									
MXV-B 25-303 O	4	2,3	0,75	1		34	32	30	28	26	23,5	20,5	17	12,5
MXV-B 25-304 O	4	2,3	0,75	1		44	42,5	40	37,5	34,5	31	27	22,5	17
MXV-B 25-305 O	4	2,3	0,75	1		56	53	50	47	43	39	34	28	21
MXV-B 25-306 O	4,6	2,7	1,1	1,5		68	63,5	60,5	56	51,5	46,5	40,5	34	25
MXV-B 25-307 O	4,6	2,7	1,1	1,5		79,5	74	70,5	65,5	60	54,5	47,5	39,5	30
MXV-B 25-308 O	7,5	4,3	1,5	2		91	85	80,5	75	69	62	54	45,5	34
MXV-B 25-310 O	7,5	4,3	1,5	2		114	106	101	94	86	78	68	57	42

Single-phase

Model	230V	P2		P1	Q = Flow									
					m³/h	0	1	1,5	2	2,5	3	3,5	4	4,5
					l/min		16,6	25	33,3	41,6	50	58,3	66,6	75
	A	kW	HP	kW	H (m) = Total head									
MXV-BM 25-303 O	5,8	0,75	1	1,01		34	32	30	28	26	23,5	20,5	17	12,5
MXV-BM 25-304 O	5,8	0,75	1	1,01		44	42,5	40	37,5	34,5	31	27	22,5	17
MXV-BM 25-305 O	5,8	0,75	1	1,01		56	53	50	47	43	39	34	28	21
MXV-BM 25-306 O	7,4	1,1	1,5	1,44		68	63,5	60,5	56	51,5	46,5	40,5	34	25
MXV-BM 25-307 O	7,4	1,1	1,5	1,44		79,5	74	70,5	65,5	60	54,5	47,5	39,5	30
MXV-BM 25-308 O	9,2	1,5	2	2		91	85	80,5	75	69	62	54	45,5	34
MXV-BM 25-310 O	9,2	1,5	2	2,3		114	106	101	94	86	78	68	57	42

Three-phase

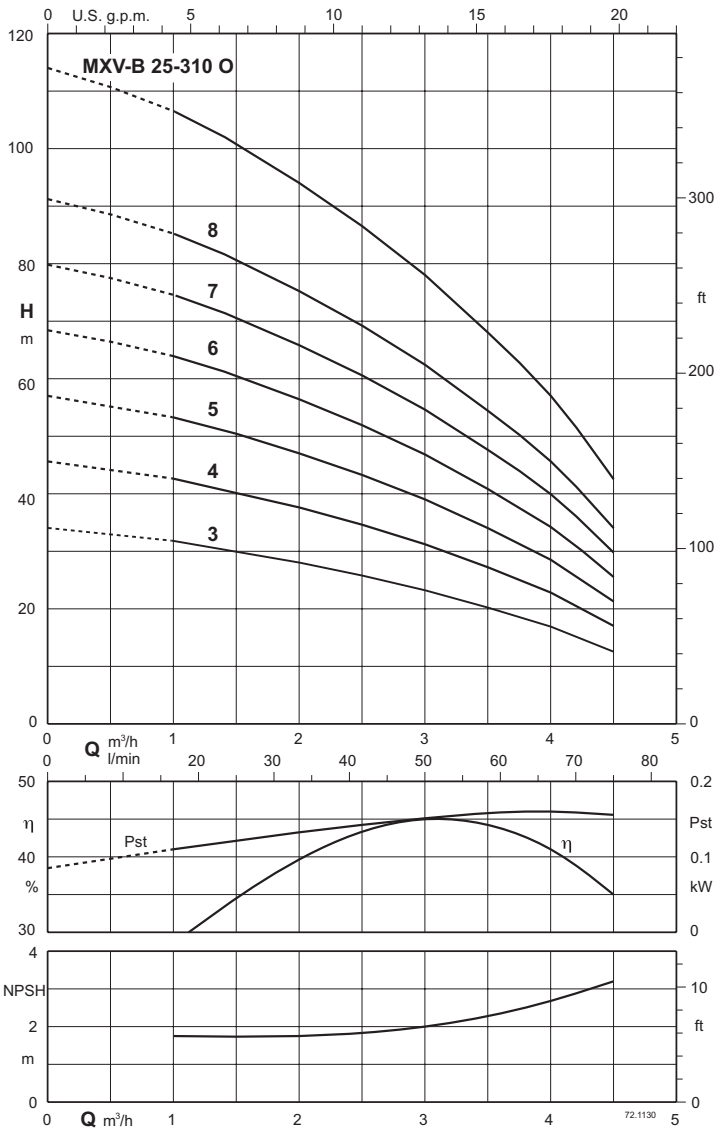
Model	230V	400V	P2		Q = Flow									
					m³/h	0	2,5	3	3,5	4	4,5	5	6	7	8
					l/min		41,6	50	58,3	66,6	75	83,3	100	117	133
	A		kW	HP	H (m) = Total head										
MXV-B 32-503 O	4	2,3	0,75	1		34	31	30,5	29	28	26,5	25	21	17	11,5
MXV-B 32-504 O	4,6	2,7	1,1	1,5		45	41,5	40	38,5	36,5	34,5	32,5	27,5	22	14,5
MXV-B 32-505 O	4,6	2,7	1,1	1,5		56	51,5	50	48	46	43,5	41	34,5	27,5	18,5
MXV-B 32-506 O	7,5	4,3	1,5	2		68	62	60	58	55,5	52,5	49,5	42	33,5	22,5
MXV-B 32-507 O	7,5	4,3	1,5	2		79,5	72,5	70,5	68	65	61,5	58	49	39	26,5
MXV-B 32-508 O	9,2	5,3	2,2	3		91	83	80,5	78	74	70	66	56	44,5	30
MXV-B 32-510 O	9,2	5,3	2,2	3		114	104	101	97,5	93	88	83	70	56	38

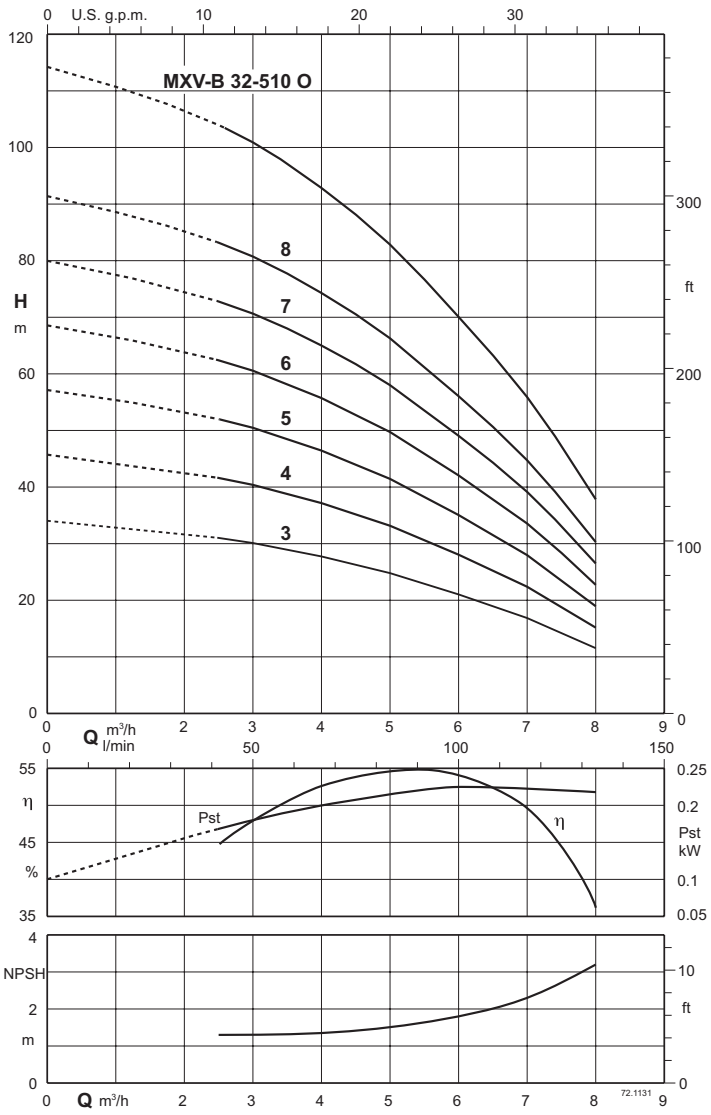
Single-phase

Model	230V	P2		P1	Q = Flow									
					m³/h	0	2,5	3	3,5	4	4,5	5	6	7	8
					l/min		41,6	50	58,3	66,6	75	83,3	100	117	133
	A	kW	HP	kW	H (m) = Total head										
MXV-BM 32-503 O	5,8	0,75	1	1,01		34	31	30,5	29	28	26,5	25	21	17	11,5
MXV-BM 32-504 O	7,4	1,1	1,5	1,44		45	41,5	40	38,5	36,5	34,5	32,5	27,5	22	14,5
MXV-BM 32-505 O	7,4	1,1	1,5	1,44		56	51,5	50	48	46	43,5	41	34,5	27,5	18,5
MXV-BM 32-506 O	9,2	1,5	2	2		68	62	60	58	55,5	52,5	49,5	42	33,5	22,5
MXV-BM 32-507 O	9,2	1,5	2	2,3		79,5	72,5	70,5	68	65	61,5	58	49	39	26,5

MXV-B

Characteristic curves n ≈ 2900 rpm

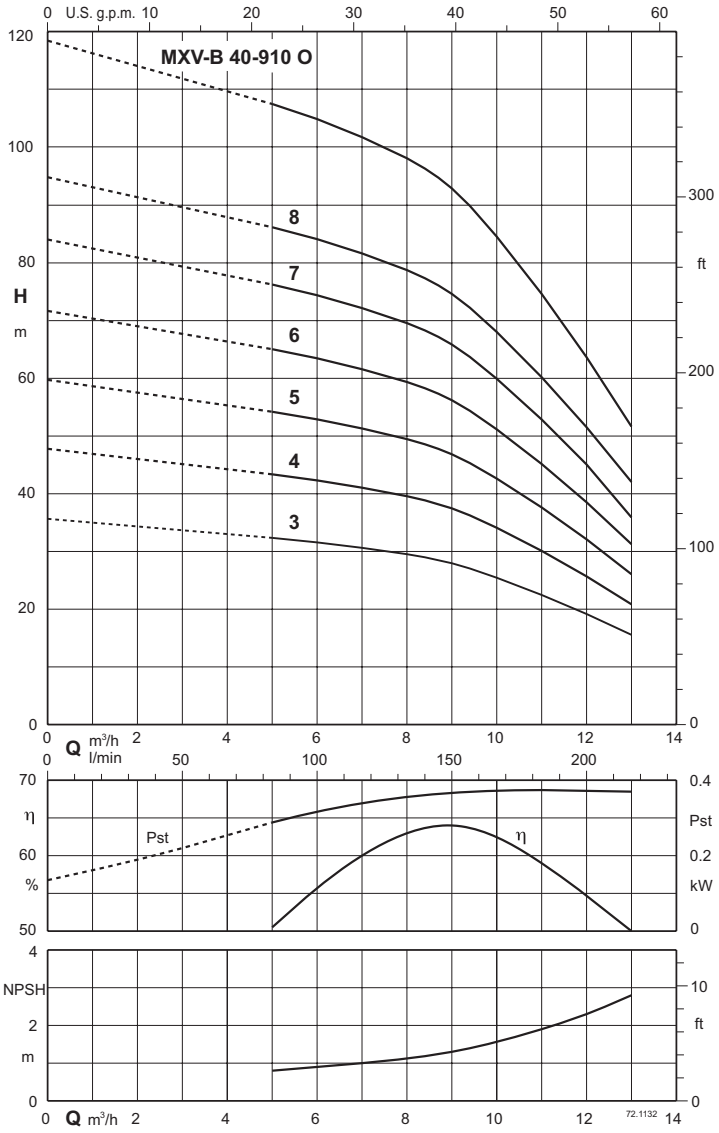


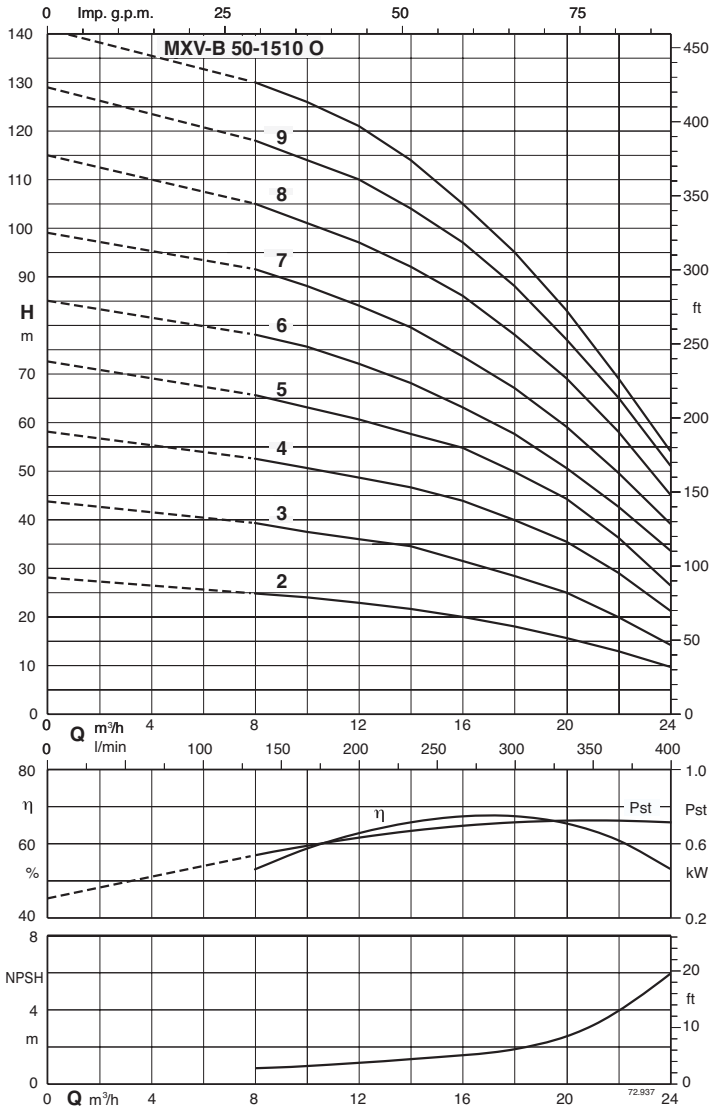


Test results with clean cold water, without gas content.
A safety margin of + 0.5 m is recommended for the NPSH value.
Tolerances in accordance with UNI EN ISO 9906:2012
Head and power values valid for liquids with density ρ = 1,0 kg/dm3 and kinematic viscosity v = max 20 mm2/sec.
Pst = Power with reference to one stage.
A* Calpeda motor currents

MXV-B

Characteristic curves n ≈ 2900 rpm

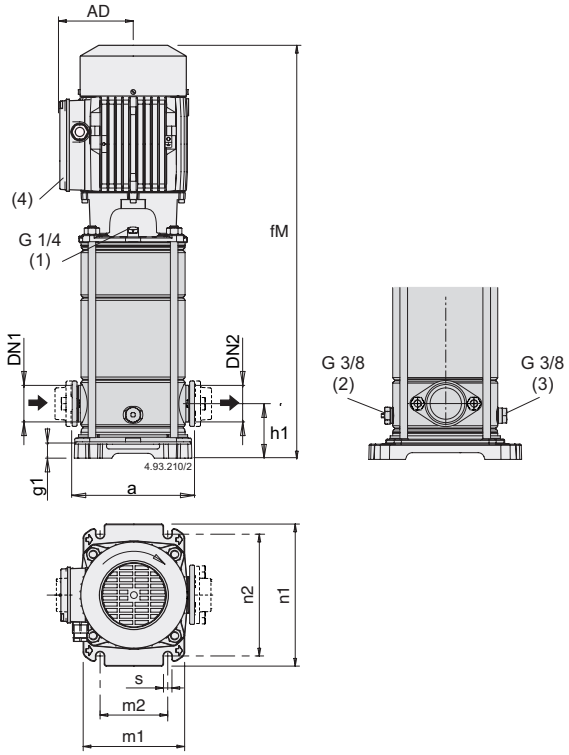




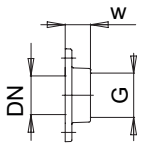
Test results with clean cold water, without gas content.
A safety margin of + 0.5 m is recommended for the NPSH value.
Tolerances in accordance with UNI EN ISO 9906:2012
Head and power values valid for liquids with density ρ = 1,0 kg/dm3 and kinematic viscosity v = max 20 mm2/sec.
Pst = Power with reference to one stage.
A* Calpeda motor currents

MXV-B

Dimensions and weights



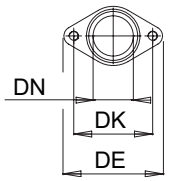
Oval Counterflanges PN 16



PN 16

DN	G	w	Fori N.	Fori Ø
25	1	23	2	12
32	1 1/4	23	2	12
40	1 1/2	26	2	15
50	2	34	2	15

Oval Flanges PN 16



PN 16

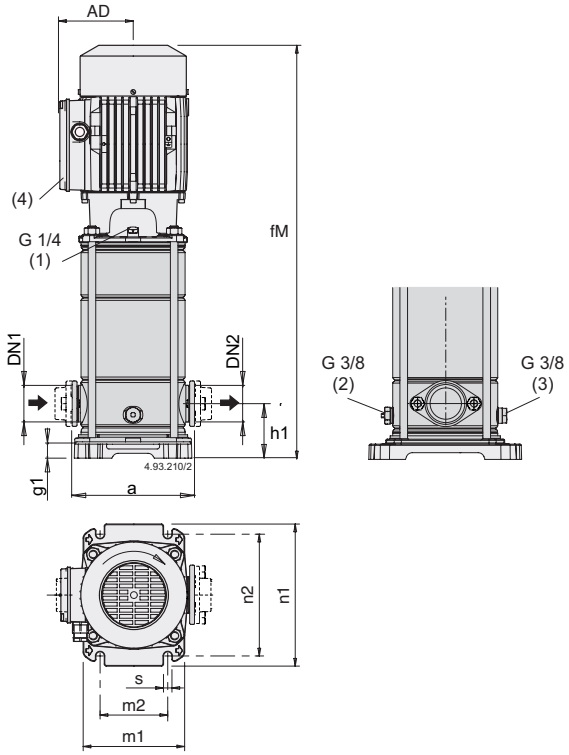
DN	DE	DK	Fori N.	Fori Ø
25	95	75	2	M10
32	95	75	2	M10
40	125	100	2	M12
50	125	100	2	M12

(1) Filling | (2) Air vent suction side | (3) Draining | (4) Standard position of terminal box

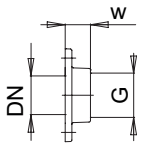
TYPE			mm										kg
	DN1	DN2	a	AD	fM	g1	h1	m1	m2	n1	n2	s	Weight
MXV-B 25-303 O	25	25	160	128	553	20	50	165	100	205	180	13	22.6
MXV-B 25-304 O	25	25	160	128	553	20	50	165	100	205	180	13	22.8
MXV-B 25-305 O	25	25	160	128	577	20	50	165	100	205	180	13	23.5
MXV-B 25-306 O	25	25	160	128	601	20	50	165	100	205	180	13	26.3
MXV-B 25-307 O	25	25	160	128	625	20	50	165	100	205	180	13	26.9
MXV-B 25-308 O	25	25	160	128	649	20	50	165	100	205	180	13	29
MXV-B 25-310 O	25	25	160	128	697	20	50	165	100	205	180	13	30
MXV-B 32-503 O	32	32	160	128	553	20	50	165	100	205	180	13	22.5
MXV-B 32-504 O	32	32	160	128	553	20	50	165	100	205	180	13	24.8
MXV-B 32-505 O	32	32	160	128	577	20	50	165	100	205	180	13	25.5
MXV-B 32-506 O	32	32	160	128	601	20	50	165	100	205	180	13	27.7
MXV-B 32-507 O	32	32	160	128	625	20	50	165	100	205	180	13	28
MXV-B 32-508 O	32	32	160	128	689	20	50	165	100	205	180	13	32
MXV-B 32-510 O	32	32	160	128	737	20	50	165	100	205	180	13	33.4
MXV-B 40-903 O	40	40	200	128	601	30.5	80	190	130	250	215	14	28.5
MXV-B 40-904 O	40	40	200	128	601	30.5	80	190	130	250	215	14	30.5
MXV-B 40-905 O	40	40	200	128	631	30.5	80	190	130	250	215	14	34.3
MXV-B 40-906 O	40	40	200	128	701	30.5	80	190	130	250	215	14	35.2
MXV-B 40-907 O	40	40	200	138	755	30.5	80	190	130	250	215	14	42.5
MXV-B 40-908 O	40	40	200	138	789	30.5	80	190	130	250	215	14	43.3
MXV-B 40-910 O	40	40	200	138	849	30.5	80	190	130	250	215	14	48.3
MXV-B 50-1502 O	50	50	200	128	598	25	90	196	130	250	215	13	-
MXV-B 50-1503 O	50	50	200	128	686	25	90	196	130	250	215	13	37.5
MXV-B 50-1504 O	50	50	200	138	762	25	90	196	130	250	215	13	46.4
MXV-B 50-1505 O	50	50	200	138	810	25	90	196	130	250	215	13	50.8
MXV-B 50-1506 O	50	50	200	160	886	25	90	196	130	250	215	13	64.5
MXV-B 50-1507 O	50	50	200	160	934	25	90	196	130	250	215	13	65
MXV-B 50-1508 O	50	50	200	160	982	25	90	196	130	250	215	13	67
MXV-B 50-1509 O	50	50	200	160	1030	25	90	196	130	250	215	13	74
MXV-B 50-1510 O	50	50	200	160	1079	25	90	196	130	250	215	13	-

MXV-B

Dimensions and weights



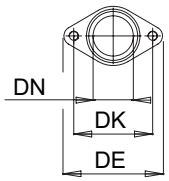
Oval Counterflanges PN 16



PN 16

DN	G	w	Fori N.	Fori Ø
25	1	23	2	12
32	1 1/4	23	2	12
40	1 1/2	26	2	15
50	2	34	2	15

Oval Flanges PN 16



PN 16

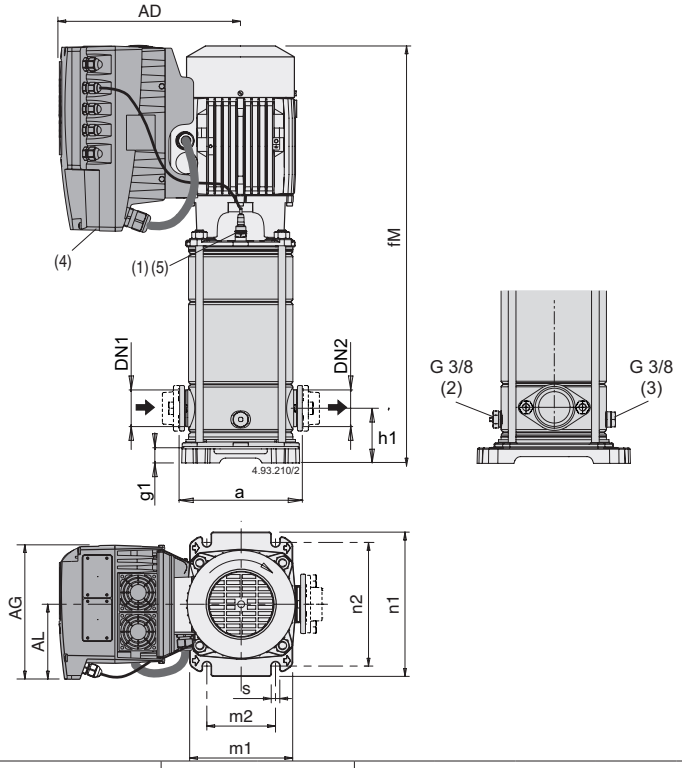
DN	DE	DK	Fori N.	Fori Ø
25	95	75	2	M10
32	95	75	2	M10
40	125	100	2	M12
50	125	100	2	M12

(1) Filling | (2) Air vent suction side | (3) Draining | (4) Standard position of terminal box

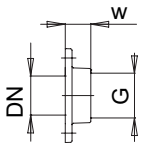
TYPE			mm										kg
	DN1	DN2	a	AD	fM	g1	h1	m1	m2	n1	n2	s	Weight
MXV-BM 25-303 O	25	25	160	128	553	20	50	165	100	205	180	13	24.1
MXV-BM 25-304 O	25	25	160	128	553	20	50	165	100	205	180	13	-
MXV-BM 25-305 O	25	25	160	128	577	20	50	165	100	205	180	13	25.2
MXV-BM 25-306 O	25	25	160	128	601	20	50	165	100	205	180	13	27.4
MXV-BM 25-307 O	25	25	160	128	625	20	50	165	100	205	180	13	27.4
MXV-BM 25-308 O	25	25	160	128	649	20	50	165	100	205	180	13	29
MXV-BM 25-310 O	25	25	160	128	697	20	50	165	100	205	180	13	29.8
MXV-BM 32-503 O	32	32	160	128	553	20	50	165	100	205	180	13	26.4
MXV-BM 32-504 O	32	32	160	128	553	20	50	165	100	205	180	13	-
MXV-BM 32-505 O	32	32	160	128	577	20	50	165	100	205	180	13	26.7
MXV-BM 32-506 O	32	32	160	128	601	20	50	165	100	205	180	13	27.6
MXV-BM 32-507 O	32	32	160	128	625	20	50	165	100	205	180	13	27.7
MXV-BM 40-903 O	40	40	200	128	601	30.5	80	190	130	250	215	14	28.9
MXV-BM 40-904 O	40	40	200	128	601	30.5	80	190	130	250	215	14	30.3

MXV-B

Dimensions and weights



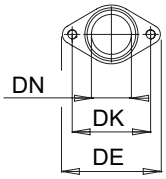
Oval Counterflanges PN 16



PN 16

DN	G	w	Fori N.	Fori Ø
25	1	23	2	12
32	1 1/4	23	2	12
40	1 1/2	26	2	15
50	2	34	2	15

Oval Flanges PN 16



PN 16

DN	DE	DK	Fori N.	Fori Ø
25	95	75	2	M10
32	95	75	2	M10
40	125	100	2	M12
50	125	100	2	M12

(1) Filling | (2) Air vent suction side | (3) Draining | (4) Standard position of I-MAT

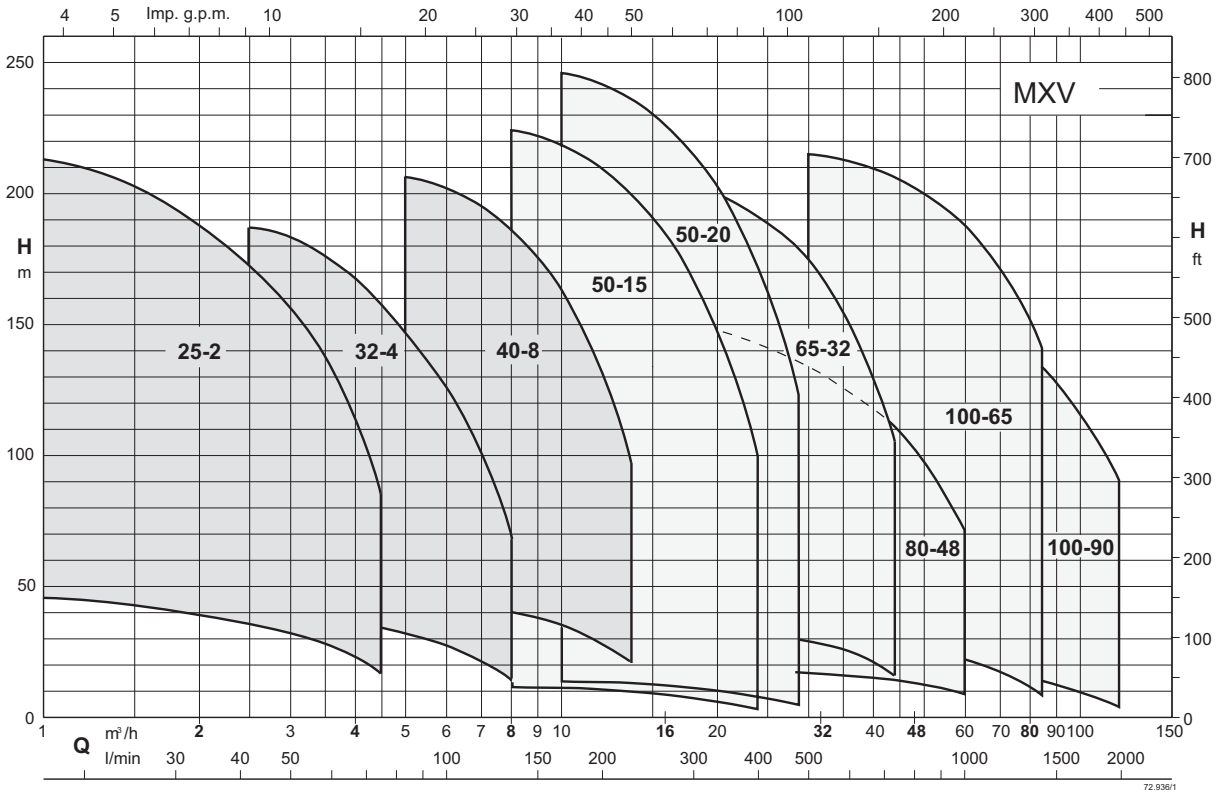
TYPE			mm												kg
	DN1	DN2	a	AD	AG	AL	fM	g1	h1	m1	m2	n1	n2	s	Weight
MXV-B EI 25-303 O	25	25	160	286	190	105	553	20	50	165	100	205	180	13	-
MXV-B EI 25-304 O	25	25	160	286	190	105	553	20	50	165	100	205	180	13	29.6
MXV-B EI 25-305 O	25	25	160	286	190	105	577	20	50	165	100	205	180	13	29.2
MXV-B EI 25-306 O	25	25	160	286	190	105	601	20	50	165	100	205	180	13	-
MXV-B EI 25-307 O	25	25	160	286	190	105	625	20	50	165	100	205	180	13	32.4
MXV-B EI 25-308 O	25	25	160	286	190	105	649	20	50	165	100	205	180	13	-
MXV-B EI 25-310 O	25	25	160	286	190	105	697	20	50	165	100	205	180	13	36.6
MXV-B EI 32-503 O	32	32	160	286	190	105	553	20	50	165	100	205	180	13	-
MXV-B EI 32-504 O	32	32	160	286	190	105	553	20	50	165	100	205	180	13	25.3
MXV-B EI 32-505 O	32	32	160	286	190	105	577	20	50	165	100	205	180	13	-
MXV-B EI 32-506 O	32	32	160	286	190	105	601	20	50	165	100	205	180	13	36
MXV-B EI 32-507 O	32	32	160	286	190	105	625	20	50	165	100	205	180	13	35.2
MXV-B EI 32-508 O	32	32	160	294	210	118	689	20	50	165	100	205	180	13	43
MXV-B EI 32-510 O	32	32	160	294	210	118	737	20	50	165	100	205	180	13	43.8
MXV-B EI 40-903 O	40	40	200	286	190	105	601	30.5	80	190	130	250	215	14	-
MXV-B EI 40-904 O	40	40	200	286	190	105	601	30.5	80	190	130	250	215	14	-
MXV-B EI 40-905 O	40	40	200	294	210	118	631	30.5	80	190	130	250	215	14	40.4
MXV-B EI 40-906 O	40	40	200	294	210	118	701	30.5	80	190	130	250	215	14	41
MXV-B EI 40-907 O	40	40	200	294	210	118	755	30.5	80	190	130	250	215	14	-
MXV-B EI 40-908 O	40	40	200	294	210	118	789	30.5	80	190	130	250	215	14	42.4
MXV-B EI 40-910 O	40	40	200	294	210	118	849	30.5	80	190	130	250	215	14	54.5
MXV-B EI 50-1502 O	50	50	200	286	190	105	598	25	90	196	130	250	215	13	-
MXV-B EI 50-1503 O	50	50	200	286	210	118	686	25	90	196	130	250	215	13	-
MXV-B EI 50-1504 O	50	50	200	294	210	118	762	25	90	196	130	250	215	13	-
MXV-B EI 50-1505 O	50	50	200	294	210	118	810	25	90	196	130	250	215	13	-
MXV-B EI 50-1506 O	50	50	200	321	210	118	886	25	90	196	130	250	215	13	-
MXV-B EI 50-1507 O	50	50	200	321	210	118	934	25	90	196	130	250	215	13	-
MXV-B EI 50-1508 O	50	50	200	321	210	118	982	25	90	196	130	250	215	13	-
MXV-B EI 50-1509 O	50	50	200	364	281	153	1030	25	90	196	130	250	215	13	-
MXV-B EI 50-1510 O	50	50	200	364	281	153	1079	25	90	196	130	250	215	13	-

MXV

calpeda®



Coverage chart n ≈ 2900 rpm



Vertical multi-stage in-line pumps stainless steel

MXV

Construction

Vertical multi-stage pumps with suction and delivery connections of the same diameter and arranged along the same axis (in-line).
Corrosion-resistant bearing sleeves lubricated by the pumped liquid.
Removal of the mechanical seal without dismantling the motor (for MXV 25-32-40-50,100 with motors exceeding 4 KW).
A pump with thrust bearing and sleeve coupling for use of any standard motor with IM V1 construction.
Version with frequency converter (on request)

Applications

For water supply systems.
For clean non-explosive liquids, without solid, filamentary or abrasive matter and non-aggressive for stainless steel (with adaptation of sealing materials on request).
A universal pump for civil and industrial use, for pressureboosting systems, high-pressure washing plants, irrigation, agricultural uses and sport installations.

Operating conditions

Temperature of liquid: from -15 °C to +110 °C.
Ambient temperature up to 40° C.
Maximum permissible pressure in pump casing: 25 bar, (16 bar for pumps with oval flanges).
Continuous duty.

Direction of rotation:
- time viewed from motor for MXV, MXVL 25,32,40,50,102
- anticlockwise as seen from the motor for MXV, MXVL 65,80

Motor

Standard-type: 2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
Motor suitable for operation with frequency converter.
Classification scheme IE3 for three-phase motors from 0,75 kW.
Construction IM V1.
Insulation class F.
IP protection: IP55
Three-phase with rated voltage: up to 3 kW 230/400 V;
from 4 kW 400/690 V.

The electropumps comply with the European Regulation no. 547/2012.

Variants (to be specified when ordering)
Pump with flanged ports
Pump with oval flange ports (O) (for MXV 25,32,40,50).
Pump without motor.
Pump with standard motor.

Other variants (on request)
O-rings FPM.
Other mechanical seal.
Pump with motor of Client's choice (if available).
Single-phase motor 230 V, up to 2.2 kW.
Pump with support feet for horizontal installation (H1 or H2).
Other voltages.
Frequency 60 Hz.

Designation

Example MXV L EI 25-305 O H1 *
MXV = Series
L = AISI 316L vesion (no code = AISI 304 vesion)
EI = With frequency converter I-MAT
25 = DN ports in mm
3 = Rated capacity in m3/h
05 = Number of stages
O = oval flange ports (only for MXV(L) 25,32,40,50)
H1 = with support feet for horizontal installation H, variant 1
* = with motor (or without motor) * with no further designation = with standard motor

MXV

calpeda®

MXV(L) 25, 32, 40, 50

MXV: Internal parts in contact with the liquid in chrome-nickel stainless steel AISI 304, with flanges, lantern bracket and base plate in cast iron.
MXVL: Internal parts in contact with the liquid in chrome-nickel stainless steel AISI 316, with flanges, lantern bracket and base plate in cast iron.

Components	Materials MXV	Materials MXVL
Flange (wetted part)	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
External jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Suction casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Delivery casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Stage casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Impeller	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Lower cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Upper cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Spacer sleeve	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Shaft	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Plug	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Bearing bushing / Bearing in stage body	Corrosion-resistant carbide / Ceramic	Corrosion-resistant carbide / Ceramic
Mechanical seal ISO 3069 - KU	Hard metal/Carbon/EPDM	Hard metal/Carbon/EPDM
Wear ring	PPS	PPS
O-ring	EPDM	EPDM
Oval Counterflanges	Stainless Steel AISI 304 (galvanized steel for MXV 50 O)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Counterflanges (on request)	Stainless Steel AISI 304 (Steel Fe 430B for MXV 50)	Stainless Steel 1.4404 EN 10088 (AISI 316L)

MXV(L) 65, 80, 100

MXV: Internal parts in contact with the liquid in chrome-nickel stainless steel AISI 304 with pump casing and upper cover in cast iron.
MXVL: Internal parts in contact with the liquid with pump casing and upper cover in chrome-nickel-molybdenum stainless steel AISI 316L.

Components	Materials MXV	Materials MXVL
Pump casing	Cast iron GJL 250 EN 1561	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Upper cover	Cast iron GJL 250 EN 1561	Stainless Steel 1.4404 EN 10088 (AISI 316L)
External jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Stage casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Impeller	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Spacer sleeve	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Shaft	Stainless Steel 1.4305 EN 10088 (AISI 303), (AISI 431 for MXV 100)	Stainless Steel 1.4404 EN 10088 (AISI 316L), (AISI 329 for MXVL 100
Plug	Stainless Steel 1.4404 EN 10088 (AISI 316L), (AISI 304 for MXVL 100	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Bearing sleeve	Corrosion-resistant, cemented carbide	Corrosion-resistant, cemented carbide
Bearing in stage casing	Ceramic alumina (Corrosion-resistant, cemented carbide for MXV 100)	Ceramic alumina (Corrosion-resistant, cemented carbide for MXV 100)
Mechanical seal ISO 3069 - KU	Hard metal/Carbon/EPDM	Hard metal/Carbon/EPDM
Wear ring	PTFE	PTFE
O-ring	EPDM	EPDM
Counterflanges (on request)	Steel 1.0044 EN 10025-2 (Fe 430B)	on request

MXV

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EI: Pumps with frequency converter

The MXV EI pumps are available with power from 0,75 kW up to 22 kW, the pumps are equipped with I-MAT installed on board.
Which allows to realize a variable-speed system extremely compact and efficient, ideal in applications of water supply and in the distribution of hot and cold water.
The pump is equipped with transducers suitable for operation and is already programmed at the factory.

Features

- Energy saving
- Compact design
- Easy to use
- Programmable to suit the system requirements
- Reliability



Construction

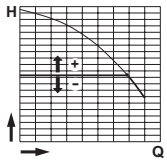
The system comprises of:
Pump
Induction motor
I-MAT Frequency converter
Motor adapter for the motor mounting of the frequency converter
Connection cable between frequency converter and induction motor
Transducers

Main features

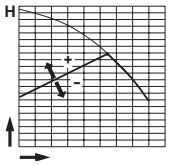
Rated motor power output from 0,75 kW to 22 kW
Control range from 1750 to 2900 rpm (2-pole)
Protection against dry running
Protection against operations with closed valve ports
Protection against system leakages
Protection against overcurrent in the motor
Protection agains overvoltage and undervoltage of the power supply
Protection against current unbalances between phases

Operating modes

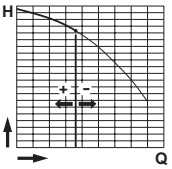
Constant pressure mode
with pressure transducer
In this mode, the system maintains the preset pressure when the flow required by the installation changes.



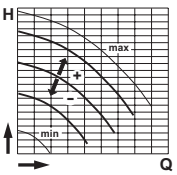
Proportional pressure mode
with pressure transducer
In this mode the system changes the working pressure according to the required flow rate.



Constant flow mode
with flow meter
In this mode the system maintains a constant flow rate value in a point of the installation according to the required pressure.



Fixed speed mode
with setting of the speed preferential rotation.
In this mode, by changing the working frequency, you may choose any operational curve included within the working range.

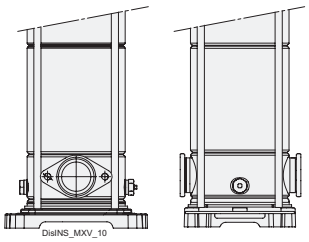


Constant temperature mode
with temperature transducer
In this mode the system keeps the temperature constant inside a system by changing the speed of the pump.

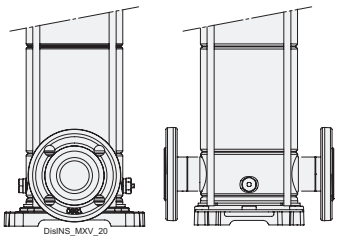
MXV

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Variants

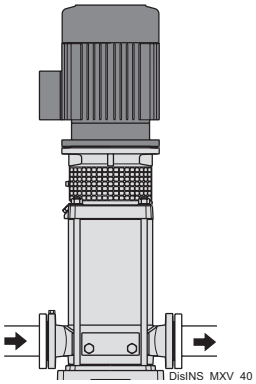


Oval flange
only for MXV 25,32,40,50.

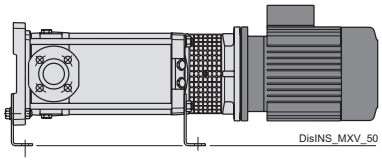


Counterflanges

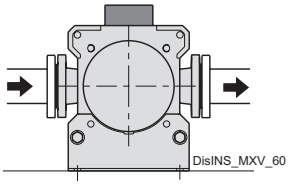
Installation



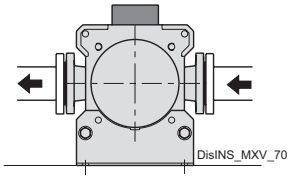
Vertical installation (Standard).



Horizontal installation.



Variant H1: suction on the left, delivery on the right.



Variant H2: suction on the right, delivery on the left.

Variable parts

Pump size MXV			Number of stages	Stage casings with bearing
25 - 304	32 - 504	40 - 904	4	1
25 - 305	32 - 505	40 - 905	5	1
25 - 306	32 - 506	40 - 906	6	1
25 - 307	32 - 507	40 - 907	7	1
25 - 308	32 - 508	40 - 908	8	1
25 - 310	32 - 510	40 - 910	10	1
		40 - 911	11	2
25 - 312	32 - 512		12	2
		40 - 913	13	2
25 -314	32 - 514		14	2
		40 - 915	15	2
25 - 316	32 - 516		16	2
25 - 318	32 - 518		18	2
		40 - 917	17	3
		40 - 919	19	3
25 - 320			20	3

Pump size MXV				Number of stages	Stage casings with bearing
50 - 1501	50 - 2001		80 - 4801	1	1
50 - 1502	50 - 2002	65 - 3202	80 - 4802	2	1
50 - 1503	50 - 2003	65 - 3203	80 - 4803	3	1
50 - 1504	50 - 2004	65 - 3204	80 - 4804	4	1
50 - 1505	50 - 2005	65 - 3205	80 - 4805	5	1
50 - 1506	50 - 2006	65 - 3206		6	1
50 - 1507	50 - 2007	65 - 3207		7	1
50 - 1508	50 - 2008			8	1
			80 - 4806	6	2
			80 - 4807	7	2
		65 - 3208	80 - 4808	8	2
50 - 1509	50 - 2009	65 - 3209		9	2
50 - 1510	50 - 2010	65 - 3210		10	2
50 - 1511	50 - 2011			11	2
50 - 1512	50 - 2012	65 - 3212		12	2
50 - 1513	50 - 2013			13	2
50 - 1514	50 - 2014			14	3
50 - 1515	50 - 2015			15	3
50 - 1516	50 - 2016			16	3
50 - 1517	50 - 2017			17	3

MXV

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Coverage chart n ≈ 2900 rpm

Data also valid for MXVL (1.4401 EN 10088 (AISI 316))

Three-phase

				Q = Flow										
				m³/h	0	21	27	33	39	45	48	51	54	60
Model		P2		l/min		350	450	550	650	750	800	850	900	1000
		kW	HP	H (m) = Total head										
MXVL	MXV 80-4801/D	4	5,5		20	18	17	16	15	13	12	10,7	9,5	7
MXVL	MXV 80-4802/C	5,5	7,5		40,5	36	34,5	32,5	29,5	26,5	24,5	22	20	15,5
MXVL	MXV 80-4803/C	7,5	10		61	54	51	48	44	40	37	34	31	24,5
MXVL	MXV 80-4804/D	11	15		81	72	69	65	60	55	51,5	48	44	35
MXVL	MXV 80-4805/D	15	20		101	90	86	81	75	68,5	64,5	60	55	44
MXVL	MXV 80-4806/D	15	20		121	108	103	97	90	82	77,5	72	66	53
MXVL	MXV 80-4807/E	18,5	25		142	126	120	113	105	96	90	84	77	61,5
MXVL	MXV 80-4808/D	22	30		162	144	137	129	120	109	103	96	88	70,5

Three-phase

				Q = Flow									
				m³/h	0	30	40	45	50	60	70	80	88
Model		P2		l/min		500	667	750	833	1000	1167	1333	1466
		kW	HP	H (m) = Total head									
MXVL	MXV 100-6501/A	5,5	7,5		30,2	24,8	23	22,3	21,7	20,3	18,3	15,4	12,2
MXVL	MXV 100-6502-2R/A	7,5	10		38,9	37,2	35,8	34,8	33,8	30,5	25,8	20,3	14,6
MXVL	MXV 100-6502/A	11	15		59,3	51,2	48	46,8	45,5	43,2	39,9	35,3	30,8
MXVL	MXV 100-6503-2R/A	15	20		67,3	63	60,6	59,1	57,6	53,4	47,2	39,5	31,4
MXVL	MXV 100-6503/B	18,5	25		89,6	77,6	72,8	70,9	69	65,7	60,7	53,9	47,2
MXVL	MXV 100-6504-2R/B	18,5	25		95,5	88,6	85,1	83,2	81,1	76	68,3	58,5	47,9
MXVL	MXV 100-6504/A	22	30		111,8	100,8	96,7	94,5	92,4	88,4	82,3	73,3	62,9
MXVL	MXV 100-6505-2R/A	30	40		125,3	116,2	111,8	109,5	107	101,1	92,1	80,4	68
MXVL	MXV 100-6505/A	30	40		142,4	129,2	124	121,5	119	114,1	106,9	96,3	84,6
MXVL	MXV 100-6506-2R/A	30	40		153,5	141,6	136,2	133,3	130,3	123,4	112,9	99	84,1
MXVL	MXV 100-6506/A	37	50		170,6	154,7	148,5	145,4	142,3	136,5	127,8	115	100,9
MXVL	MXV 100-6507-2R/A	37	50		181,7	167	160,6	157,2	153,6	145,7	133,7	117,7	100,3
MXVL	MXV 100-6507/A	45	60		199,5	181,1	173,8	170,3	166,7	160	149,9	135,1	118,9
MXVL	MXV 100-6508-2R/A	45	60		210,6	193,5	186	182,2	178,1	169,3	156	137,9	118,4
MXVL	MXV 100-6508/A	45	60		227,7	206,5	198,2	194,1	190,1	182,3	170,7	153,8	135,1

Three-phase

				Q = Flow									
				m³/h	0	45	50	60	70	80	88	100	110	115
Model		P2		l/min		750	833	1000	1167	1333	1466	1667	1833	1916
		kW	HP	H (m) = Total head										
MXVL	MXV 100-9001-1R/A	5,5	7,5		26,4	20,5	19,9	18,7	17,3	15,5	13,2	9,5	5,7	3,5
MXVL	MXV 100-9001/A	7,5	10		35,6	27	25,6	23,2	21,9	20,4	18,8	15,7	12,4	10,5
MXVL	MXV 100-9002-2R/A	11	15		49,6	42,4	41,3	39	36,6	33,2	29,4	22,7	15,7	11,7
MXVL	MXV 100-9002/A	15	20		69,2	56,6	54,5	50,5	47,3	44,3	41,6	36,3	30,5	27,3
MXVL	MXV 100-9003-2R/B	18,5	25		80,4	70,8	69,1	65,6	62,2	57,7	53	44,3	34,9	30,4
MXVL	MXV 100-9003/A	22	30		92,4	82,6	80,6	76,7	73,2	69,4	65,5	57,8	49,7	45,2
MXVL	MXV 100-9004-2R/A	30	40		113,1	100,6	98,2	93,5	89	83,5	77,5	66,5	54,6	48,5
MXVL	MXV 100-9004/A	30	40		125,6	113	110,4	105,2	100,6	95,7	90,7	80,8	70,2	64,4
MXVL	MXV 100-9005-2R/A	37	50		144,1	128,4	125,4	119,3	113,7	106,9	99,7	86,1	71,6	64,1
MXVL	MXV 100-9005/A	37	50		156,6	140,7	137,4	130,9	125,2	119,1	112,8	100,3	87,1	79,8
MXVL	MXV 100-9006-2R/A	45	60		175,9	157	153,4	146,1	139,3	131,4	122,9	107	89,8	80,8
MXVL	MXV 100-9006/A	45	60		188,4	169,5	165,6	157,8	150,9	143,6	136,2	121,3	105,5	96,7

Test results with clean cold water, without gas content.
A safety margin of + 0.5 m is recommended for the NPSH value.
Tolerances according to UNI EN ISO 9906:2012
Head and power values valid for liquids with density ρ = 1,0 kg/dm3 and kinematic viscosity v = max 20 mm2/sec. Total head in m
Pst: Power with reference to one stage.
A*: Calpeda motor currents

MXV

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Coverage chart n ≈ 2900 rpm

Data also valid for MXVL (1.4401 EN 10088 (AISI 316))

Three-phase

				Q = Flow												
				m³/h	0	8	10	12	14	16	18	20	22	24	26	28
Model		P2		l/min		133	167	200	233	267	300	333	367	400	433	466
		kW	HP	H (m) = Total head												
MXVL	MXV 50-1501	1,1	1,5		14	12	11,6	11	10,3	9,5	8,4	7	5,5	3,6	-	-
MXVL	MXV 50-1502	1,5	2		27,9	24,6	23,8	22,7	21,4	19,8	17,8	15,4	12,7	9,5	-	-
MXVL	MXV 50-1503/A	2,2	3		43,6	38,6	37,3	35,8	33,9	31,5	28,6	25,1	21	16,3	-	-
MXVL	MXV 50-1504	3	4		58	52	50,5	48,5	46	43	39,5	35	30	24	-	-
MXVL	MXV 50-1505	4	5,5		72,5	65	63	60,5	57,5	54	49,5	44	37,5	30	-	-
MXVL	MXV 50-1506	5,5	7,5		85	78	75,5	72	68	63	57,5	50,5	42,5	33,5	-	-
MXVL	MXV 50-1507	5,5	7,5		99	91,5	88	84	79,5	73,5	67	59	49,5	39	-	-
MXVL	MXV 50-1508/A	5,5	7,5		115	105	101	97	92	86	78	69	58	45	-	-
MXVL	MXV 50-1509	7,5	10		129	118	114	110	104	97	88	77	65	51	-	-
MXVL	MXV 50-1510	7,5	10		141	130	126	121	114	105	95	83	69	54	-	-
MXVL	MXV 50-1511	9,2	12,5		155	143	138	133	125	116	105	91	76	59	-	-
MXVL	MXV 50-1512	9,2	12,5		173	159	155	149	141	132	121	107	91	72	-	-
MXVL	MXV 50-1513	11	15		188	173	167	161	153	143	131	116	98	78	-	-
MXVL	MXV 50-1514	11	15		202	186	180	173	165	154	141	125	106	84	-	-
MXVL	MXV 50-1515	11	15		217	199	193	186	177	165	151	134	113	90	-	-
MXVL	MXV 50-1516	15	20		230	211	204	196	186	174	159	140	119	94	-	-
MXVL	MXV 50-1517	15	20		245	224	217	209	198	185	169	149	126	100	-	-
MXVL	MXV 50-2001	1,1	1,5		15,5	-	13	12,6	12,1	11,5	10,7	9,8	8,7	7,3	5,8	4
MXVL	MXV 50-2002	2,2	3		30,7	-	27	26,3	25,5	24,5	23,3	21,7	19,8	17,5	14,7	11,7
MXVL	MXV 50-2003	3	4		46,5	-	41,4	40,4	39,1	37,5	35,4	32,9	30	26,5	22,5	18
MXVL	MXV 50-2004	4	5,5		62,5	-	56	54,5	53	51	48,5	45,5	42	37,5	32	26
MXVL	MXV 50-2005	5,5	7,5		78	-	70	68	66	64	61	57	52,5	46,5	40	32,5
MXVL	MXV 50-2006	7,5	10		92	-	84	82	79,5	76,5	73	68,5	62,5	55,5	47	37,5
MXVL	MXV 50-2007	7,5	10		107	-	98	95,5	93	89,5	85	80	73	64,5	55	44
MXVL	MXV 50-2008	9,2	12,5		122	-	112	109	106	102	97	91	83	74	63	50
MXVL	MXV 50-2009	9,2	12,5		142	-	130	127	124	120	114	108	100	89	77	63
MXVL	MXV 50-2010	11	15		158	-	144	141	137	133	127	120	111	99	86	71
MXVL	MXV 50-2011	11	15		173	-	159	155	151	146	140	132	122	109	94	78
MXVL	MXV 50-2012	15	20		188	-	172	168	164	158	151	143	132	118	103	84
MXVL	MXV 50-2013	15	20		204	-	186	182	177	171	164	154	143	128	111	91
MXVL	MXV 50-2014	15	20		219	-	201	196	191	185	177	166	154	138	120	99
MXVL	MXV 50-2015	15	20		235	-	215	210	205	198	189	178	165	148	128	106
MXVL	MXV 50-2016	18,5	25		251	-	232	227	221	214	205	193	179	161	140	116
MXVL	MXV 50-2017	18,5	25		267	-	246	241	235	227	217	205	190	172	149	124

Three-phase

				Q = Flow										
				m³/h	0	15	21	24	27	30	33	36	39	44
Model		P2		l/min		250	350	400	450	500	550	600	650	733
		kW	HP	H (m) = Total head										
MXVL	MXV 65-3202/D	4	5,5		37	34	32	31	30	29	27	24,5	22	17
MXVL	MXV 65-3203/C	5,5	7,5		55,5	51	49	47,5	46	43,5	40,5	37	33,5	25,5
MXVL	MXV 65-3204/C	7,5	10		75	69	65,5	63,5	61	58,5	54,5	50	45	35
MXVL	MXV 65-3205/D	11	15		93,5	86	82	79,5	77	73	68	62,5	56,5	44
MXVL	MXV 65-3206/D	11	15		112	103	98,5	95,5	92	87	82	75	67,5	52,5
MXVL	MXV 65-3207/D	15	20		131	121	115	111	107	102	95,5	87,5	79	61,5
MXVL	MXV 65-3208/D	15	20		150	138	131	127	123	116	109	100	90	70
MXVL	MXV 65-3209/E	18,5	25		168	155	148	143	138	130	122	112	101	79
MXVL	MXV 65-3210/E	18,5	25		187	172	164	159	154	145	136	125	112	87,5
MXVL	MXV 65-3212/D	22	30		225	207	197	191	185	174	163	150	135	105

MXV

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Coverage chart n ≈ 2900 rpm

Three-phase

				Q = Flow									
				m³/h	0	1	1,5	2	2,5	3	3,5	4	4,5
Model		P2		l/min		16,6	25	33,3	41,6	50	58,3	66,6	75
		kW	HP	H (m) = Total head									
MXVL	MXV 25-304	0,75	1		44	42,5	40	37,5	34,5	31	27	22,5	17
MXVL	MXV 25-305	0,75	1		56	53	50	47	43	39	34	28	21
MXVL	MXV 25-306	1,1	1,5		68	63,5	60,5	56	51,5	46,5	40,5	34	25
MXVL	MXV 25-307	1,1	1,5		79,5	74	70,5	65,5	60	54,5	47,5	39,5	30
MXVL	MXV 25-308	1,5	2		74	85	80,5	75	69	62	54	45,5	34
MXVL	MXV 25-310	1,5	2		91	106	101	94	86	78	68	57	42
MXVL	MXV 25-312	2,2	3		136	127	121	112	103	93,5	81,5	68	51
MXVL	MXV 25-314	2,2	3		159	149	141	131	121	109	95	79,5	59
MXVL	MXV 25-316	3	4		182	170	161	150	138	124	108	91	68
MXVL	MXV 25-318	3	4		205	191	181	169	155	140	122	102	76
MXVL	MXV 25-320	3	4		228	213	202	188	173	156	136	114	85

Three-phase

				Q = Flow									
				m³/h	0	2,5	3	3,5	4	4,5	5	6	7	8
Model		P2		l/min		41,6	50	58,3	66,6	75	83,3	100	117	133
		kW	HP	H (m) = Total head										
MXVL	MXV 32-504	1,1	1,5		45	41,5	40	38,5	36,5	34,5	32,5	27,5	22	14,5
MXVL	MXV 32-505	1,1	1,5		56	51,5	50	48	46	43,5	41	34,5	27,5	18,5
MXVL	MXV 32-506	1,5	2		68	62	60	58	55,5	52,5	49,5	42	33,5	22,5
MXVL	MXV 32-507	1,5	2		79,5	72,5	70,5	68	65	61,5	58	49	39	26,5
MXVL	MXV 32-508	2,2	3		91	83	80,5	78	74	70	66	56	44,5	30
MXVL	MXV 32-510	2,2	3		114	104	101	97,5	93	88	83	70	56	38
MXVL	MXV 32-512	3	4		136	124	121	117	111	105	99,5	84	67	45,5
MXVL	MXV 32-514	3	4		159	145	141	136	130	123	116	98	78	53
MXVL	MXV 32-516	4	5,5		182	166	161	156	148	140	132	112	89,5	60,5
MXVL	MXV 32-518	4	5,5		205	187	181	175	167	158	149	126	100	68

Three-phase

				Q = Flow									
				m³/h	0	5	6	7	8	9	10	11	12	13
Model		P2		l/min		83,3	100	117	133	150	167	183	200	217
		kW	HP	H (m) = Total head										
MXVL	MXV 40-904	1,5	2		47	43	42	41	40	37	34	30	26	21
MXVL	MXV 40-905	2,2	3		59	54	53	51	50	47	43	38	32	26
MXVL	MXV 40-906	2,2	3		71	65	63	62	59	56	51	45	39	31
MXVL	MXV 40-907	3	4		83	76	74	72	69	66	60	53	45	36
MXVL	MXV 40-908	3	4		95	87	85	82	79	75	69	60	51	42
MXVL	MXV 40-910	4	5,5		119	109	106	103	99	94	86	75	64	52
MXVL	MXV 40-911	4	5,5		131	119	116	113	109	103	94	83	71	57
MXVL	MXV 40-913	5,5	7,5		155	141	138	134	129	122	111	98	84	68
MXVL	MXV 40-915	5,5	7,5		179	163	159	154	149	141	128	113	96	78
MXVL	MXV 40-917	7,5	10		202	184	180	175	168	159	145	128	109	89
MXVL	MXV 40-919	7,5	10		226	206	201	195	188	178	162	143	122	99

MXV

calpeda®

Rated current

Single-phase

Model	P2		230V	Weight
	kW	HP	A	kg
M80 V1-0.75M	0,75	1	5,8	12.4
M80 V1-1.1M	1,1	1,5	7,4	13.4
M90 V1-1.5M	1,5	2	9,2	15.3
M90 V1-1.8M	1,8	2,5	11,2	18.4
M90 V1-2.2T	2,2	3	14,5	20

Three-phase

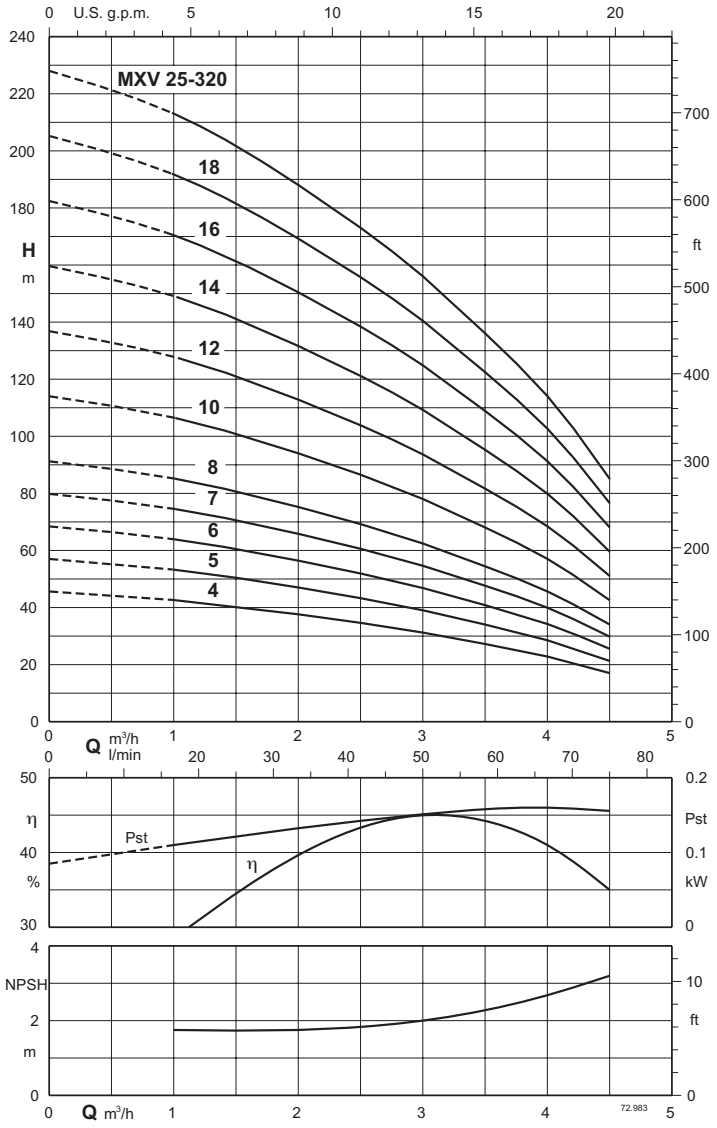
Model	P2		230V	400V	690V	Weight
	kW	HP	A			kg
M80 V1-0.75T	0,75	1	4	2,3	-	11.7
M80 V1-1.1T/A	1,1	1,5	4,6	2,7	-	13.5
M90 V1-1.5T/A	1,5	2	7,5	4,3	-	15
M90 V1-2.2T/A	2,2	3	9,2	5,3	-	18.1
M90 V1-2.2T	2,2	3	9,2	5,3	-	17.3
M100 V1-3T	3	4	11,5	6,6	-	24.7
M112 V1-4T/A	4	5,5	-	9,6	5,5	28.9
M132 V1-5.5T	5,5	7,5	-	10,8	6,2	42.3
M132 V1-7.5T	7,5	10	-	14,3	8,3	47.5
M160 V1-9.2T	9,2	12,5	-	18,5	10,7	71
M160 V1-11T/A	11	15	-	21,5	12,4	78.2
M160 V1-15T/A	15	20	-	27,3	15,8	97.2
M160 V1-18,5T/B	18,5	25	-	34	19,6	121.7
M180 V1-22T/A	22	30	-	41	23,7	128.1

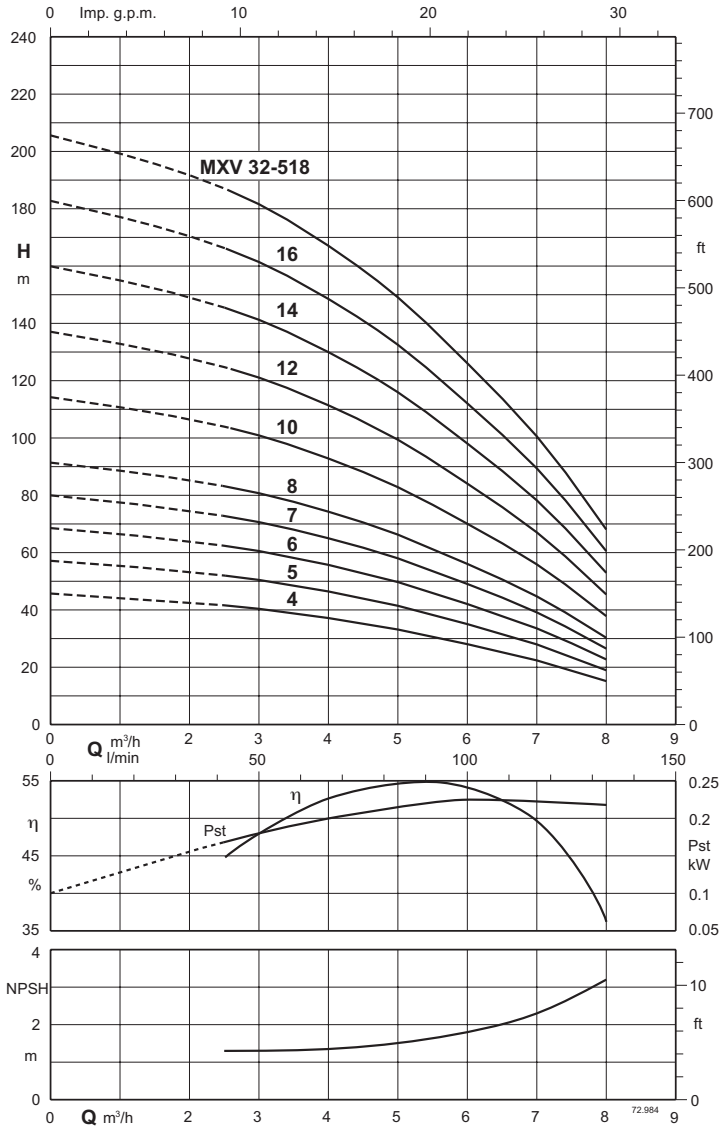
A*: Calpeda motor currents

MXV

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Characteristic curves n ≈ 2900 rpm



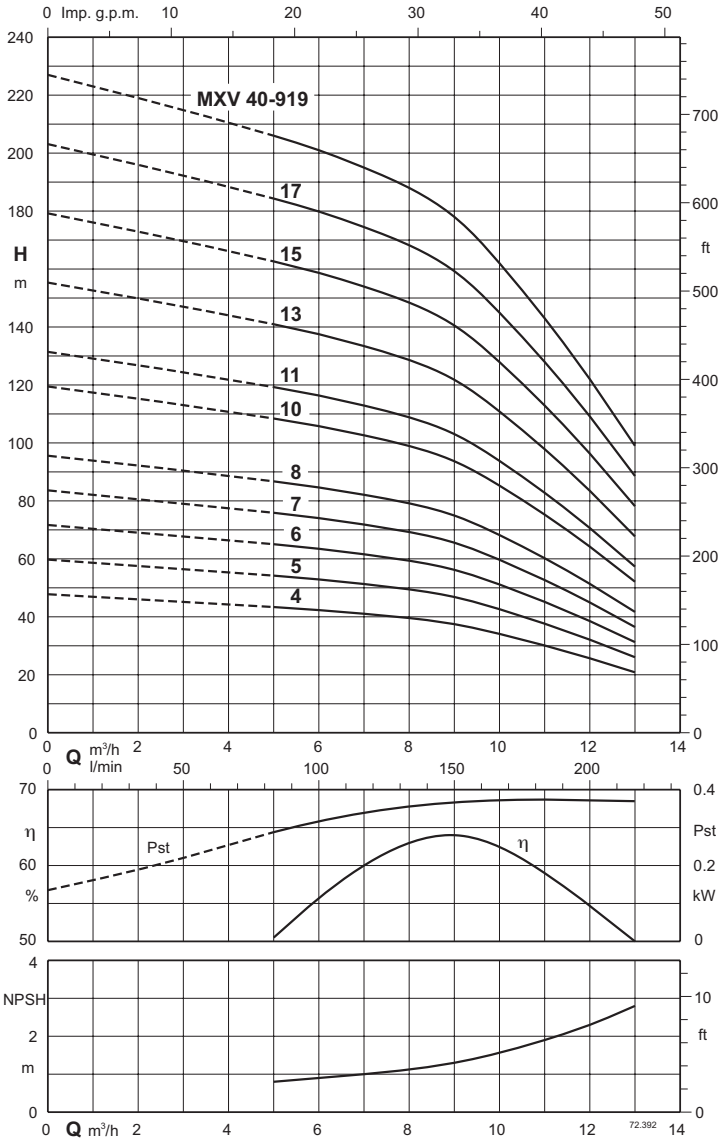


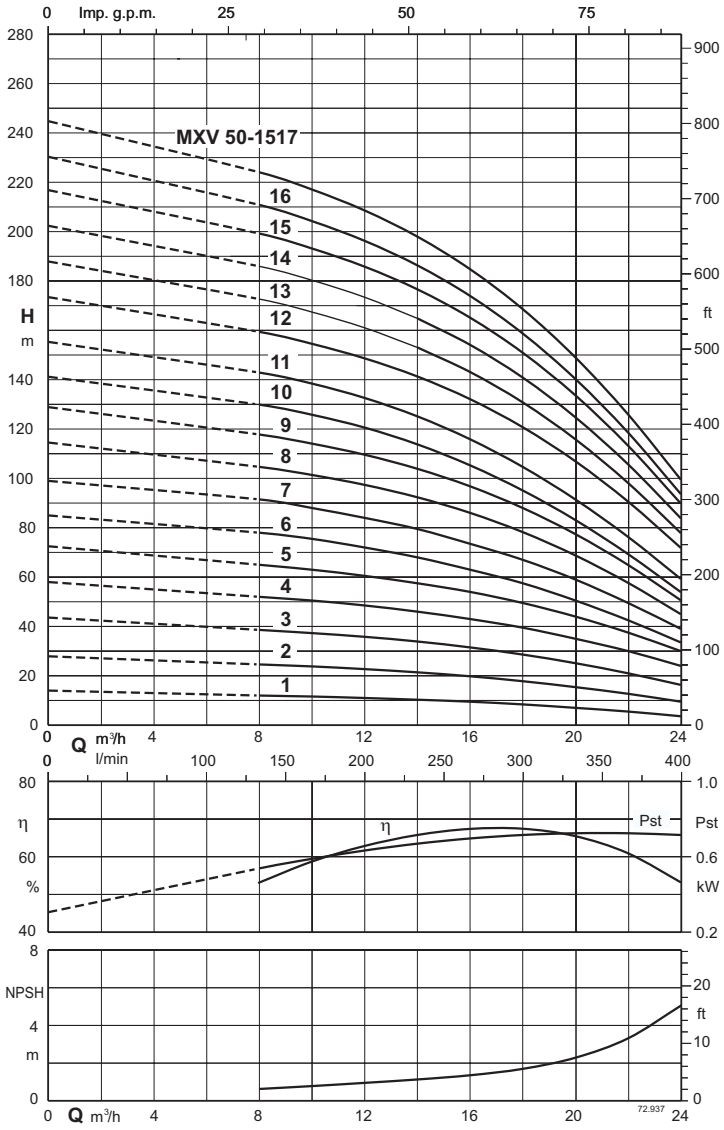
Test results with clean cold water, without gas content.
A safety margin of + 0.5 m is recommended for the NPSH value.
Tolerances in accordance with UNI EN ISO 9906:2012
Head and power values valid for liquids with density ρ = 1,0 kg/dm3 and kinematic viscosity v = max 20 mm2/sec.
Pst = Power with reference to one stage.
A* Calpeda motor currents

MXV

calpeda®

Characteristic curves n ≈ 2900 rpm



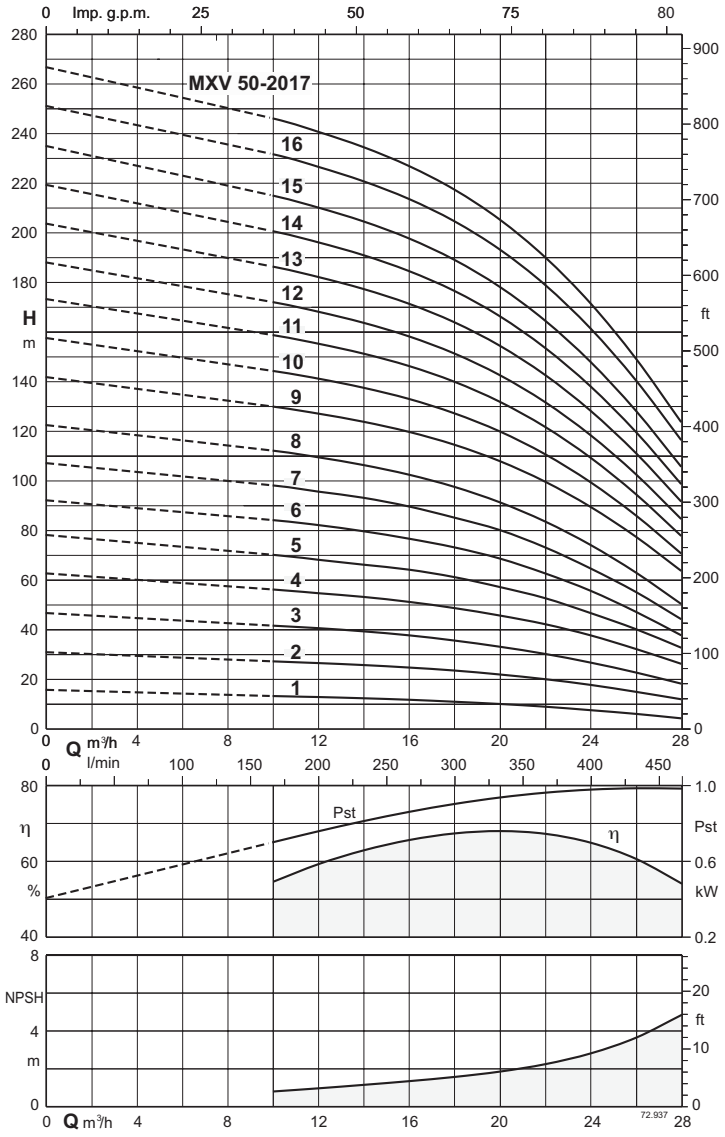


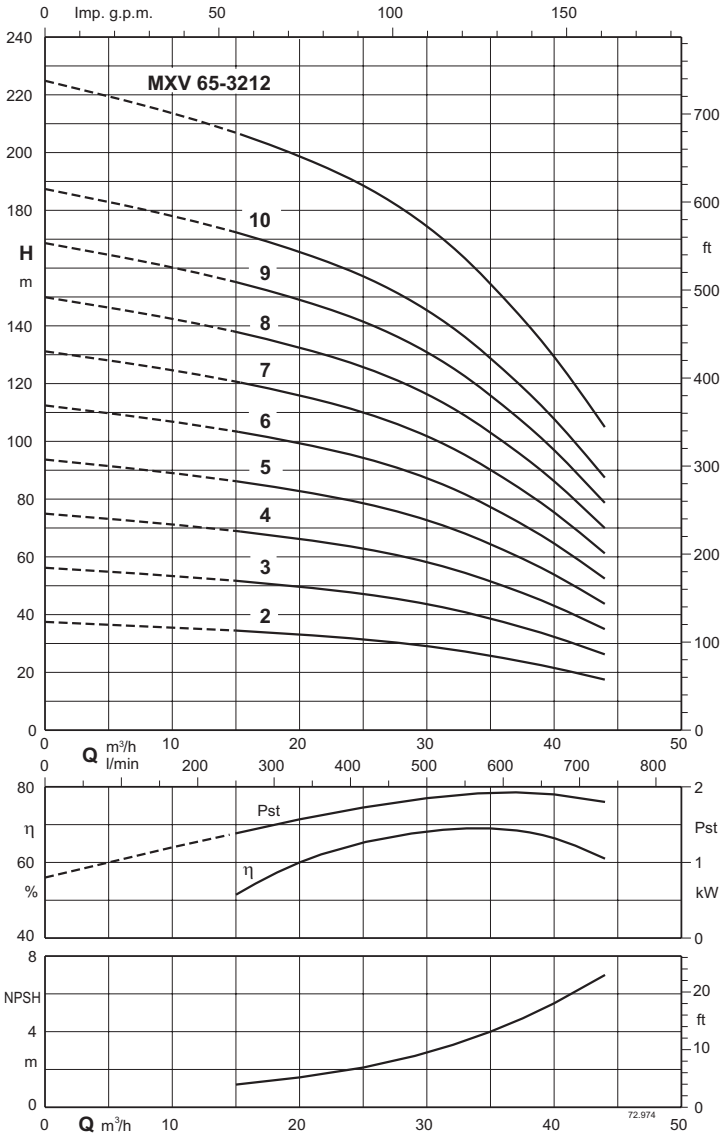
Test results with clean cold water, without gas content.
A safety margin of + 0.5 m is recommended for the NPSH value.
Tolerances in accordance with UNI EN ISO 9906:2012
Head and power values valid for liquids with density ρ = 1,0 kg/dm3 and kinematic viscosity v = max 20 mm2/sec.
Pst = Power with reference to one stage.
A* Calpeda motor currents

MXV

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Characteristic curves n ≈ 2900 rpm



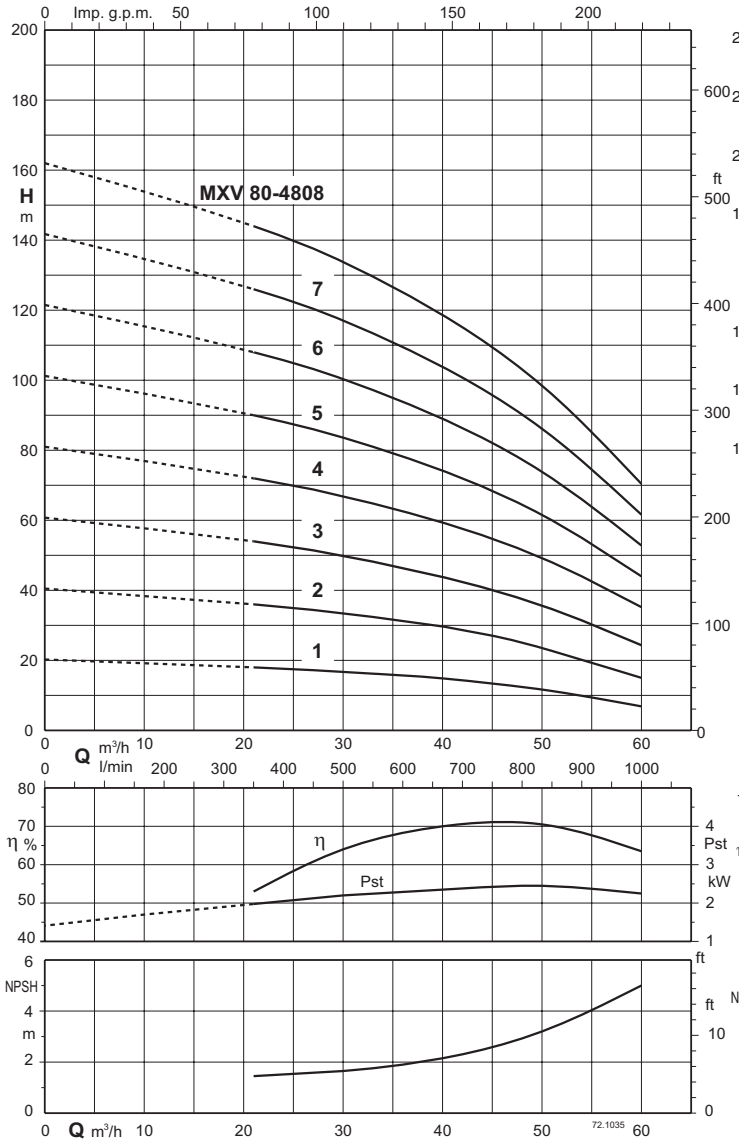


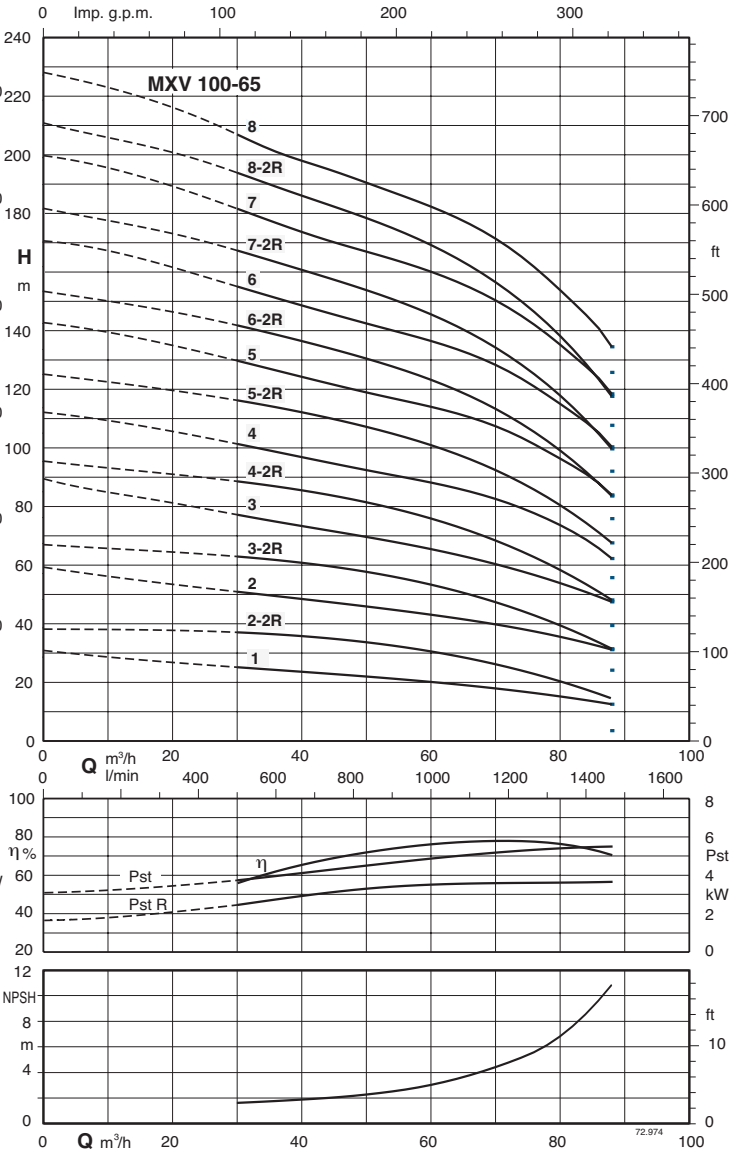
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Head and power values valid for liquids with density ρ = 1,0 kg/dm3 and kinematic viscosity v = max 20 mm2/sec.
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Characteristic curves n ≈ 2900 rpm



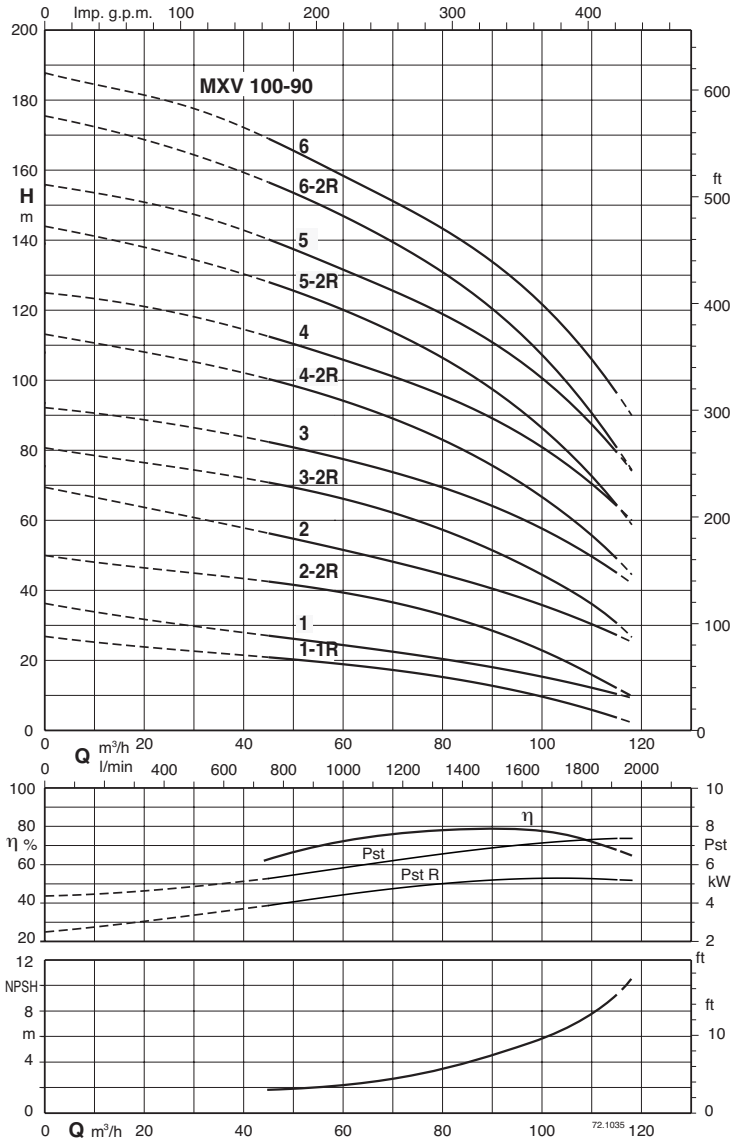


Test results with clean cold water, without gas content.
A safety margin of + 0.5 m is recommended for the NPSH value.
Tolerances in accordance with UNI EN ISO 9906:2012
Head and power values valid for liquids with density ρ = 1,0 kg/dm3 and kinematic viscosity v = max 20 mm2/sec.
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Characteristic curves n ≈ 2900 rpm

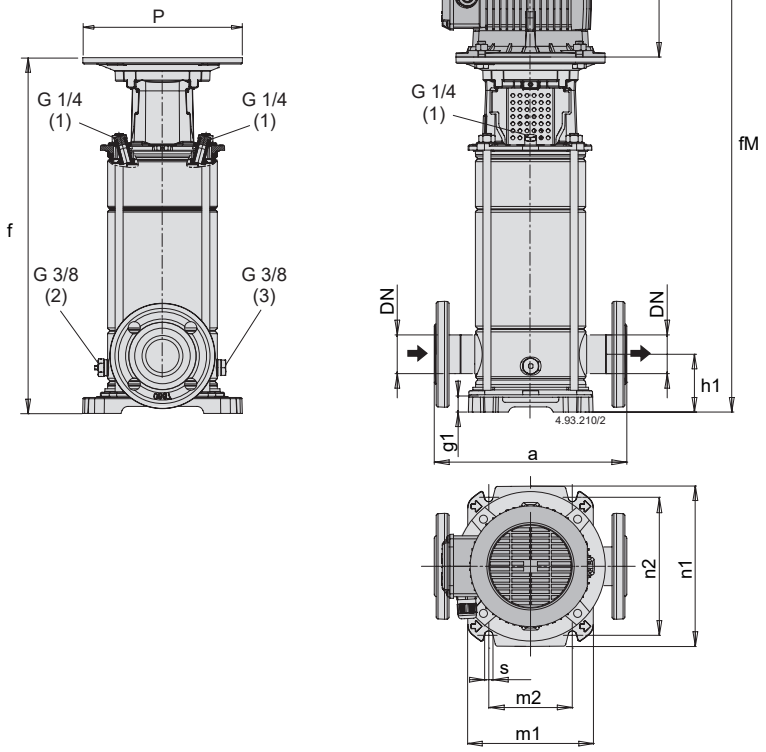


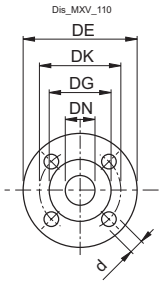
Test results with clean cold water, without gas content.
A safety margin of + 0.5 m is recommended for the NPSH value.
Tolerances in accordance with UNI EN ISO 9906:2012
Head and power values valid for liquids with density ρ = 1,0 kg/dm3 and kinematic viscosity v = max 20 mm2/sec.
Pst = Power with reference to one stage.
A* Calpeda motor currents

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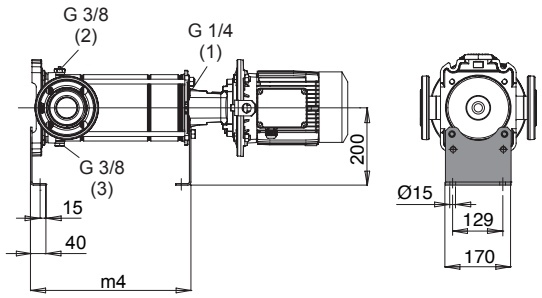
Dimensions and weights





Flanges EN 1092-2 PN 25 - 40

				Holes	
DN	DE	DK	DG	N	Ø
25	115	85	65	4	14
32	140	100	76	4	19
40	150	110	84	4	19



(1) Filling and air vent (2) Air vent suction side (3) Draining (4) Standard position of terminal box (for other positions rotate motor through 90° or 180°) (5) Net weight with standard motor

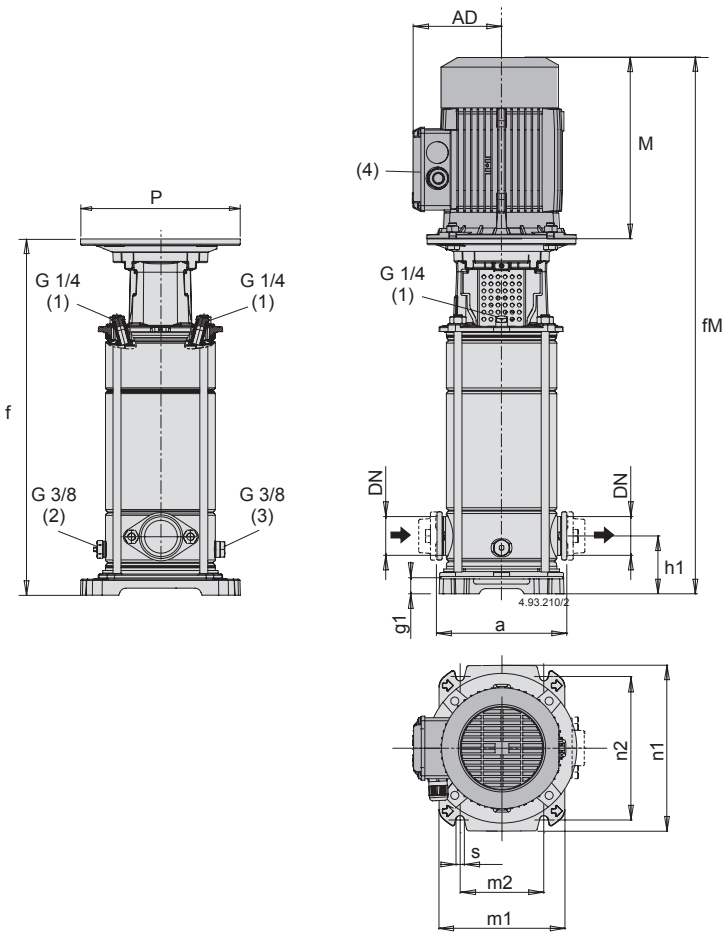
Data also valid for MXVL (1.4401 EN 10088 (AISI 316))

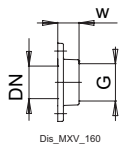
TYPE	Motor			mm																Kg
	kW	HP	tipo	DN1	DN2	M	fM	P	AD	a	h1	f	g1	n1	n2	m1	m2	m4	s	(5)
MXV 25-304	0,75	1	80	25	25	255	637.5	200	127.5	250	75	382.5	35.5	205	180	165	100	283	13	31
MXV 25-305	0,75	1	80	25	25	255	661.5	200	127.5	250	75	406.5	35.5	205	180	165	100	307	13	38
MXV 25-306	1,1	1,5	80	25	25	255	685.5	200	127.5	250	75	430.5	35.5	205	180	165	100	331	13	34.5
MXV 25-307	1,1	1,5	80	25	25	255	709.5	200	127.5	250	75	454.5	35.5	205	180	165	100	355	13	35.3
MXV 25-308	1,5	2	90	25	25	255	733.5	200	127.5	250	75	478.5	35.5	205	180	165	100	379	13	37.4
MXV 25-310	1,5	2	90	25	25	255	782	200	127.5	250	75	527	35.5	205	180	165	100	427.5	13	38.9
MXV 25-312	2,2	3	90	25	25	295	870.5	200	127.5	250	75	575.5	35.5	205	180	165	100	476	13	43.3
MXV 25-314	2,2	3	90	25	25	295	918.5	200	127.5	250	75	623.5	35.5	205	180	165	100	524	13	45.2
MXV 25-316	3	4	100	25	25	316	988	250	137.5	250	75	672	35.5	205	180	165	100	572.5	13	53.8
MXV 25-318	3	4	100	25	25	316	1036.5	250	137.5	250	75	720.5	35.5	205	180	165	100	621	13	55.3
MXV 25-320	3	4	100	25	25	316	1084.5	250	137.5	250	75	768.5	35.5	205	180	165	100	669	13	56.8
MXV 32-504	1,1	1,5	80	32	32	255	637.5	200	127.5	250	75	382.5	35.5	205	180	165	100	283	13	34.1
MXV 32-505	1,1	1,5	80	32	32	255	661.5	200	127.5	250	75	406.5	35.5	205	180	165	100	307	13	35.2
MXV 32-506	1,5	2	90	32	32	255	685.5	200	127.5	250	75	430.5	35.5	205	180	165	100	331	13	37.3
MXV 32-507	1,5	2	90	32	32	255	709.5	200	127.5	250	75	454.5	35.5	205	180	165	100	355	13	38
MXV 32-508	2,2	3	90	32	32	295	773.5	200	127.5	250	75	478.5	35.5	205	180	165	100	379	13	41.7
MXV 32-510	2,2	3	90	32	32	295	822	200	127.5	250	75	527	35.5	205	180	165	100	427.5	13	43.2
MXV 32-512	3	4	100	32	32	311	886.5	250	137.5	250	75	575.5	35.5	205	180	165	100	476	13	52.3
MXV 32-514	3	4	100	32	32	311	934.5	250	137.5	250	75	623.5	35.5	205	180	165	100	524	13	48.3
MXV 32-516	4	5,5	112	32	32	311	983	250	137.5	250	75	672	35.5	205	180	165	100	527.5	13	58.4
MXV 32-518	4	5,5	112	32	32	311	1031.5	250	137.5	250	75	720.5	35.5	205	180	165	100	621	13	60
MXV 40-904	1,5	2	90	40	40	255	666.5	200	127.5	280	80	411.5	30.5	250	215	190	130	312	14	38
MXV 40-905	2,2	3	90	40	40	295	736.5	200	127.5	280	80	441.5	30.5	250	215	190	130	342	14	42.3
MXV 40-906	2,2	3	90	40	40	295	766.5	200	127.5	280	80	471.5	30.5	250	215	190	130	372	14	43.2
MXV 40-907	3	4	100	40	40	311	812.5	250	137.5	280	80	501.5	30.5	250	215	190	130	402	14	52
MXV 40-908	3	4	100	40	40	311	843	250	137.5	280	80	532	30.5	250	215	190	130	432.5	14	52.3
MXV 40-910	4	5,5	112	40	40	311	903	250	137.5	280	80	592	30.5	250	215	190	130	492.5	14	57.2
MXV 40-911	4	5,5	112	40	40	311	373	250	137.5	280	80	62	30.5	250	215	190	130	522.5	14	58.6
MXV 40-913	5,5	7,5	132	40	40	339	1108.5	250	159.5	280	80	769.5	30.5	250	215	190	130	583.5	14	85.8
MXV 40-915	5,5	7,5	132	40	40	339	1169	300	159.5	280	80	830	30.5	250	215	190	130	644	14	88.5
MXV 40-917	7,5	10	132	40	40	339	1229	300	159.5	280	80	890	30.5	250	215	190	130	704	14	94.6
MXV 40-919	7,5	10	132	40	40	339	1289	300	159.5	280	80	950	30.5	250	215	190	130	764	14	96.3

MXV

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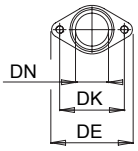
Dimensions and weights





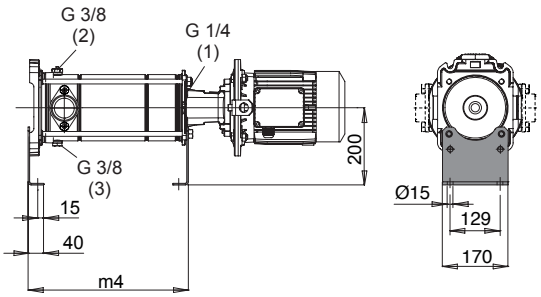
Oval Counterflanges PN 16

			Holes	
DN	G	w	N.	Ø
25	1	23	2	12
32	1 1/4	23	2	12
40	1 1/2	26	2	15



Oval Flanges PN 16

			Holes	
DN	DE	DK	N.	Ø
50	130	100	2	M12



(1) Filling and air vent (2) Air vent suction side (3) Draining (4) Standard position of terminal box (for other positions rotate motor through 90° or 180°) (5) Net weight with standard motor

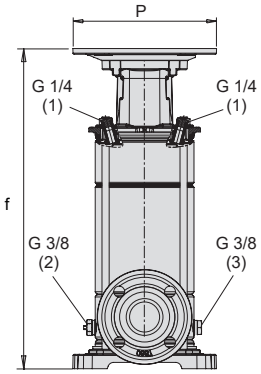
Data also valid for MXVL (1.4401 EN 10088 (AISI 316))

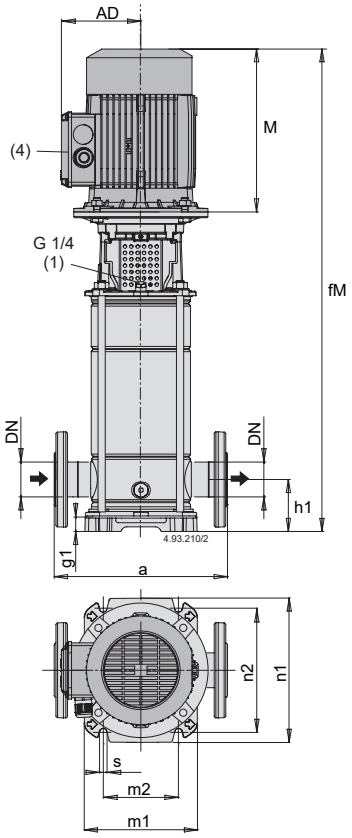
TYPE	Motor			mm																Kg
	kW	HP	tipo	DN1	DN2	M	fM	P	AD	a	h1	f	g1	n1	n2	m1	m2	m4	s	(5)
MXV 25-304 O	0,75	1	80	25	25	255	622	200	127.5	160	50	367	20	205	180	165	100	268	13	28.6
MXV 25-305 O	0,75	1	80	25	25	255	646	200	127.5	160	50	391	20	205	180	165	100	292	13	29.4
MXV 25-306 O	1,1	1,5	80	25	25	255	670	200	127.5	160	50	415	20	205	180	165	100	316	13	31.6
MXV 25-307 O	1,1	1,5	80	25	25	255	694	200	127.5	160	50	439	20	205	180	165	100	340	13	32.9
MXV 25-308 O	1,5	2	90	25	25	255	718	200	127.5	160	50	463	20	205	180	165	100	364	13	34.9
MXV 25-310 O	1,5	2	90	25	25	255	766.5	200	127.5	160	50	511.5	20	205	180	165	100	412.5	13	36.5
MXV 25-312 O	2,2	3	90	25	25	295	855	200	127.5	160	50	560	20	205	180	165	100	461	13	39
MXV 25-314 O	2,2	3	90	25	25	295	903	200	127.5	160	50	608	20	205	180	165	100	509	13	41.5
MXV 32-504 O	1,1	1,5	80	32	32	255	622	200	127.5	160	50	367	20	205	180	165	100	267.5	13	30
MXV 32-505 O	1,1	1,5	80	32	32	255	946	200	127.5	160	50	691	20	205	180	165	100	291.5	13	31.4
MXV 32-506 O	1,5	2	90	32	32	255	670	200	127.5	160	50	415	20	205	180	165	100	315.5	13	33.6
MXV 32-507 O	1,5	2	90	32	32	255	694	200	127.5	160	50	439	20	205	180	165	100	339.5	13	34.1
MXV 32-508 O	2,2	3	90	32	32	295	758	200	127.5	160	50	463	20	205	180	165	100	363.5	13	38.2
MXV 32-510 O	2,2	3	90	32	32	295	806.5	200	127.5	160	50	511.5	20	205	180	165	100	412	13	38.7
MXV 32-512 O	3	4	100	32	32	311	871	250	137.5	160	50	560	20	205	180	165	100	460.5	13	48.2
MXV 32-514 O	3	4	100	32	32	311	919	250	137.5	160	50	608	20	205	180	165	100	508.5	13	49.3
MXV 40-904 O	1,5	2	90	40	40	255	666.5	200	127.5	200	80	411.5	30.5	250	215	190	130	312	14	35
MXV 40-905 O	2,2	3	90	40	40	295	736.5	200	127.5	200	80	441.5	30.5	250	215	190	130	342	14	39.9
MXV 40-906 O	2,2	3	90	40	40	295	766.5	200	127.5	200	80	471.5	30.5	250	215	190	130	372	14	40
MXV 40-907 O	3	4	100	40	40	311	812.5	250	137.5	200	80	501.5	30.5	250	215	190	130	402	14	49.2
MXV 40-908 O	3	4	100	40	40	311	843	250	137.5	200	80	532	30.5	250	215	190	130	432.5	14	49.9
MXV 40-910 O	4	5,5	112	40	40	311	903	250	137.5	200	80	592	30.5	250	215	190	130	492.5	14	55.5
MXV 40-911 O	4	5,5	112	40	40	311	933	250	137.5	200	80	622	30.5	250	215	190	130	522.5	14	55.8
MXV 40-913 O	5,5	7,5	132	40	40	339	1108.5	300	159.5	200	80	769.5	30.5	250	215	190	130	583.5	14	88.7

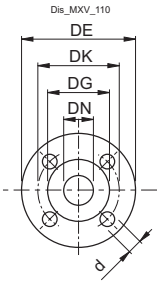
MXV

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Dimensions and weights

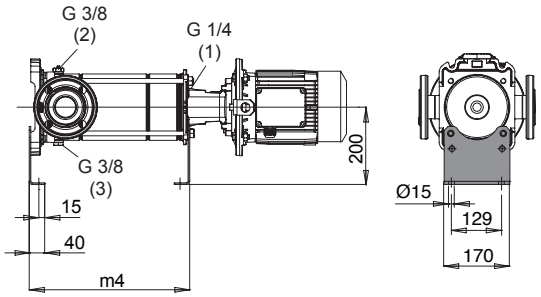






Flanges EN 1092-2 PN 25 - 40

				Holes	
DN	DE	DK	DG	N	Ø
50	165	125	99	4	19



(1) Filling and air vent (2) Air vent suction side (3) Draining (4) Standard position of terminal box (for other positions rotate motor through 90° or 180°) (5) Net weight with standard motor

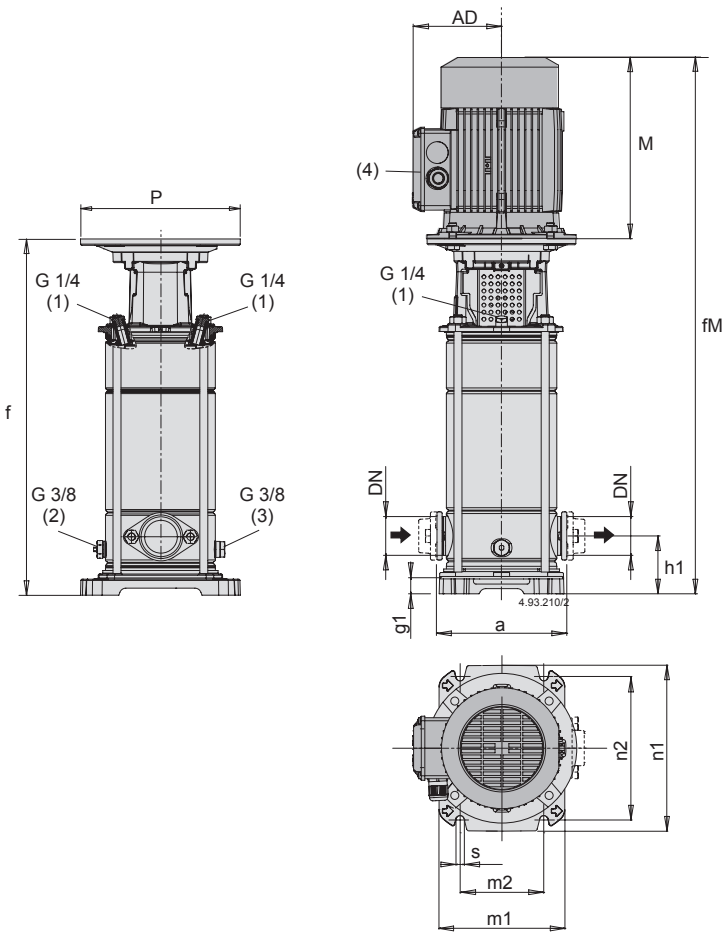
Data also valid for MXVL (1.4401 EN 10088 (AISI 316))

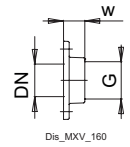
TYPE	Motor			mm																Kg
	kW	HP	tipo	DN1	DN2	M	fM	P	AD	a	h1	f	g1	n1	n2	m1	m2	m4	s	(5)
MXV 50-1501	1,1	1,5	80	50	50	255	693	200	127.5	300	90	438	25	250	215	196	130	349	13	41.5
MXV 50-1502	1,5	2	90	50	50	295	733	200	127.5	300	90	438	25	250	215	196	130	349	13	44.8
MXV 50-1503/A	2,2	3	90	50	50	295	781	200	127.5	300	90	486	25	250	215	196	130	397	13	54.5
MXV 50-1504	3	4	100	50	50	311	845	250	137.5	300	90	534	25	250	215	196	130	445	13	55.8
MXV 50-1505	4	5,5	112	50	50	311	893	250	137.5	300	90	582	25	250	215	196	130	493	13	61.1
MXV 50-1506	5,5	7,5	132	50	50	339	1032	300	159.5	300	90	693	25	250	215	196	130	541	13	86.5
MXV 50-1507	5,5	7,5	132	50	50	339	1080	300	159.5	300	90	741	25	250	215	196	130	589	13	88.4
MXV 50-1508/A	5,5	7,5	132	50	50	339	1128	300	159.5	300	90	789	25	250	215	196	130	637	13	89.3
MXV 50-1509	7,5	10	132	50	50	339	1176	300	159.5	300	90	837	25	250	215	196	130	685	13	96.5
MXV 50-1510	7,5	10	132	50	50	339	1224	300	159.5	300	90	885	25	250	215	196	130	733	13	99
MXV 50-1511	9,2	12,5	160	50	50	413	1376	350	186	300	90	963	25	250	215	196	130	781	13	131.5
MXV 50-1512	9,2	12,5	160	50	50	413	1424	350	186	300	90	1011	25	250	215	196	130	829	13	129.4
MXV 50-1513	11	15	160	50	50	459	1518	350	186	300	90	1059	25	250	215	196	130	877	13	138.5
MXV 50-1514	11	15	160	50	50	459	1566	350	186	300	90	1107	25	250	215	196	130	925	13	143.3
MXV 50-1515	11	15	160	50	50	459	1614	350	186	300	90	1155	25	250	215	196	130	973	13	146
MXV 50-1516	15	20	160	50	50	484	1687	350	186	300	90	1203	25	250	215	196	130	1021	13	165
MXV 50-1517	15	20	160	50	50	484	1735	350	186	300	90	1251	25	250	215	196	130	1069	13	167.7
MXV 50-2001	1,1	1,5	80	50	50	255	693	200	127.5	300	90	438	25	250	215	196	130	349	13	42.3
MXV 50-2002	2,2	3	90	50	50	295	733	200	127.5	300	90	438	25	250	215	196	130	349	13	46.3
MXV 50-2003	3	4	100	50	50	311	797	250	137.5	300	90	486	25	250	215	196	130	397	13	54.8
MXV 50-2004	4	5,5	112	50	50	311	832	250	137.5	300	90	521	25	250	215	196	130	445	13	49
MXV 50-2005	5,5	7,5	132	50	50	339	984	300	159.5	300	90	645	25	250	215	196	130	493	13	84.6
MXV 50-2006	7,5	10	132	50	50	339	1032	300	159.5	300	90	693	25	250	215	196	130	541	13	100
MXV 50-2007	7,5	10	132	50	50	339	1080	300	159.5	300	90	741	25	250	215	196	130	589	13	94.2
MXV 50-2008	9,2	12,5	160	50	50	413	1232	350	186	300	90	819	25	250	215	196	130	637	13	125
MXV 50-2009	9,2	12,5	160	50	50	413	1280	350	186	300	90	867	25	250	215	196	130	685	13	123.7
MXV 50-2010	11	15	160	50	50	459	1374	350	186	300	90	915	25	250	215	196	130	733	13	146
MXV 50-2011	11	15	160	50	50	459	1422	350	186	300	90	963	25	250	215	196	130	781	13	132.7
MXV 50-2012	15	20	160	50	50	484	1495	350	186	300	90	1011	25	250	215	196	130	829	13	-
MXV 50-2013	15	20	160	50	50	484	1543	350	186	300	90	1059	25	250	215	196	130	877	13	164.1
MXV 50-2014	15	20	160	50	50	484	1591	350	186	300	90	1107	25	250	215	196	130	925	13	160
MXV 50-2015	15	20	160	50	50	484	1639	350	186	300	90	1155	25	250	215	196	130	973	13	167
MXV 50-2016	18,5	25	160	50	50	484	1687	350	186	300	90	1203	25	250	215	196	130	1021	13	192
MXV 50-2017	18,5	25	160	50	50	484	1735	350	186	300	90	1251	25	250	215	196	130	1069	13	192.2

MXV

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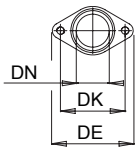
Dimensions and weights





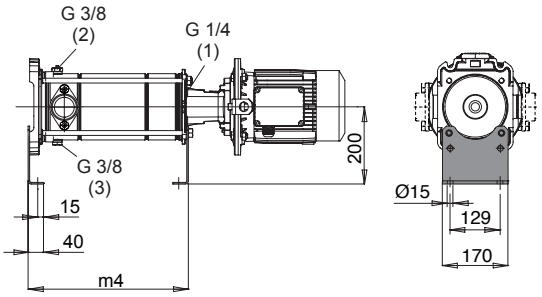
Oval Counterflanges PN 16

			Holes	
DN	G	w	N.	Ø
50	2	34	2	15



Oval Flanges PN 16

			Holes	
DN	DE	DK	N.	Ø
50	130	100	2	M12



(1) Filling and air vent (2) Air vent suction side (3) Draining (4) Standard position of terminal box (for other positions rotate motor through 90° or 180°) (5) Net weight with standard motor

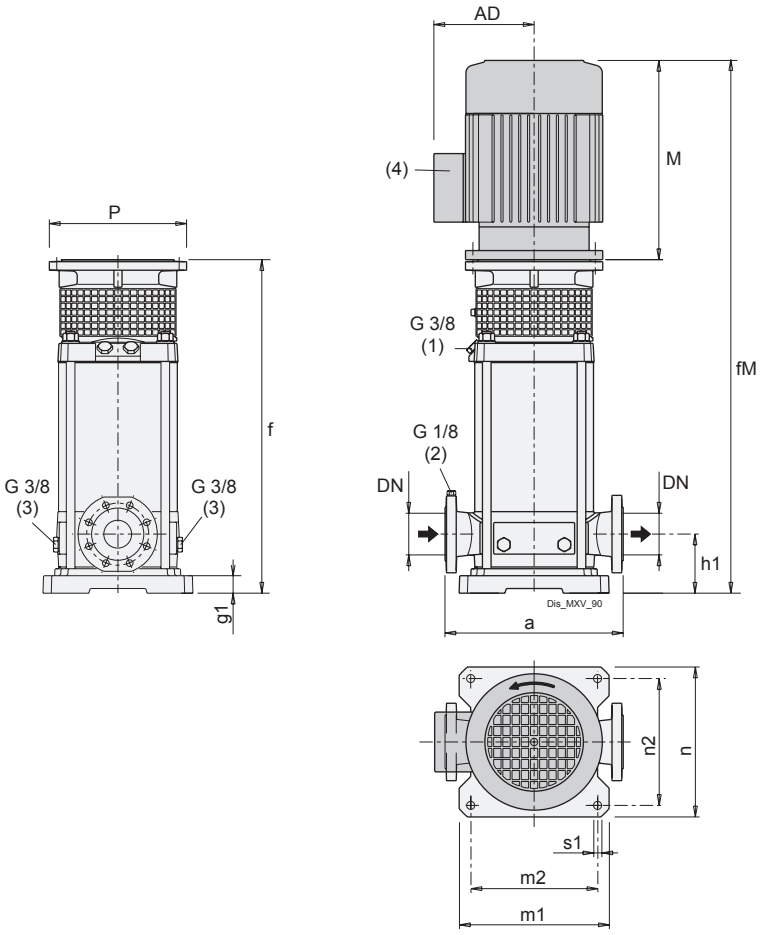
Data also valid for MXVL (1.4401 EN 10088 (AISI 316))

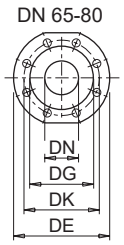
TYPE	Motor			mm																Kg
	kW	HP	tipo	DN1	DN2	M	fM	P	AD	a	h1	f	g1	n1	n2	m1	m2	m4	s	(5)
MXV 50-1501 O	1,1	1,5	80	50	50	255	693	200	127.5	200	90	438	25	250	215	196	130	349	13	-
MXV 50-1502 O	1,5	2	90	50	50	295	733	200	127.5	200	90	438	25	250	215	196	130	349	13	38.5
MXV 50-1503/A O	2,2	3	90	50	50	295	781	200	127.5	200	90	486	25	250	215	196	130	397	13	50.1
MXV 50-1504 O	3	4	100	50	50	311	845	250	137.5	200	90	534	25	250	215	196	130	445	13	52.7
MXV 50-1505 O	4	5,5	112	50	50	311	893	250	137.5	200	90	582	25	250	215	196	130	493	13	57.7
MXV 50-1506 O	5,5	7,5	132	50	50	339	1032	300	159.5	200	90	693	25	250	215	196	130	541	13	84
MXV 50-1507 O	5,5	7,5	132	50	50	339	1080	300	159.5	200	90	741	25	250	215	196	130	589	13	85.4
MXV 50-1508/A O	5,5	7,5	132	50	50	339	1128	300	159.5	200	90	789	25	250	215	196	130	637	13	87.3
MXV 50-1509 O	7,5	10	132	50	50	339	1176	300	159.5	200	90	837	25	250	215	196	130	685	13	95.8
MXV 50-1510 O	7,5	10	132	50	50	339	1224	300	159.5	200	90	885	25	250	215	196	130	733	13	96.4
MXV 50-2001 O	1,1	1,5	80	50	50	255	693	200	127.5	200	90	438	25	250	215	196	130	349	13	38
MXV 50-2002 O	2,2	3	90	50	50	295	733	200	127.5	200	90	438	25	250	215	196	130	349	13	-
MXV 50-2003 O	3	4	100	50	50	311	797	250	137.5	200	90	486	25	250	215	196	130	397	13	52.1
MXV 50-2004 O	4	5,5	112	50	50	311	832	250	137.5	200	90	521	25	250	215	196	130	445	13	55.2
MXV 50-2005 O	5,5	7,5	132	50	50	339	984	300	159.5	200	90	645	25	250	215	196	130	493	13	82.5
MXV 50-2006 O	7,5	10	132	50	50	339	1032	300	159.5	200	90	693	25	250	215	196	130	541	13	-
MXV 50-2007 O	7,5	10	132	50	50	339	1080	300	159.5	200	90	741	25	250	215	196	130	589	13	91
MXV 50-2008 O	9,2	12,5	160	50	50	413	1232	350	186	200	90	819	25	250	215	196	130	637	13	-
MXV 50-2009 O	9,2	12,5	160	50	50	413	1280	350	186	200	90	867	25	250	215	196	130	685	13	126.5
MXV 50-2010 O	11	15	160	50	50	459	1374	350	186	200	90	915	25	250	215	196	130	733	13	-

MXV

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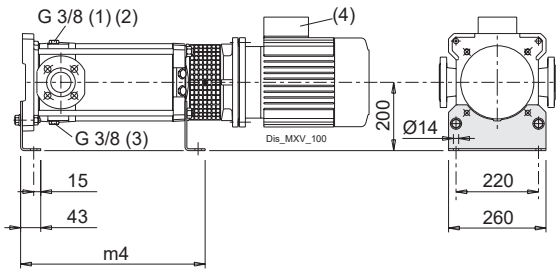
Dimensions and weights





Flanges EN 1092-2

				Holes	
DN	DE	DK	DG	N	Ø
65	185	145	118	8	19
80	200	160	132	8	19



(1) Filling and air vent (2) Air vent suction side (3) Draining (4) Standard position of terminal box (for other positions rotate motor through 90° or 180°) (5) Net weight with standard motor

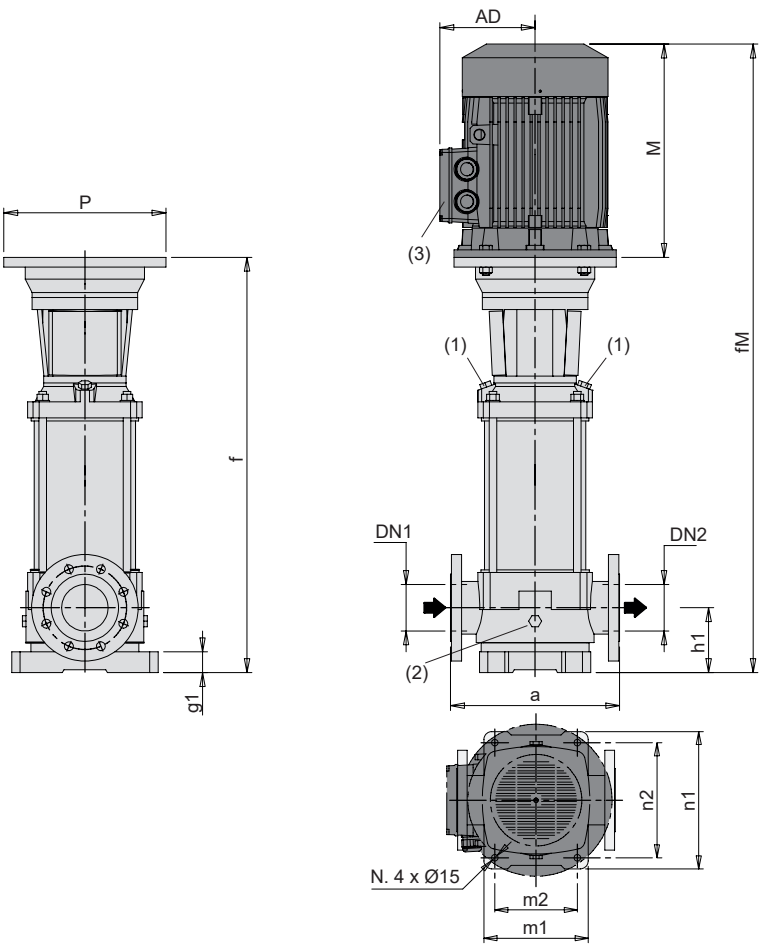
Data also valid for MXVL (1.4401 EN 10088 (AISI 316))

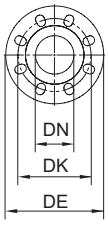
TYPE	Motor			mm																Kg
	kW	HP	tipo	DN1	DN2	M	fM	P	AD	a	h1	f	g1	n1	n2	m1	m2	m4	s	(5)
MXV 65-3202/D	4	5,5	112	65	65	311	718	250	137.5	320	105	407	35	260	220	260	220	334	14	72
MXV 65-3203/C	5,5	7,5	132	65	65	339	812	300	159.5	320	105	473	35	260	220	260	220	380	14	93
MXV 65-3204/C	7,5	10	132	65	65	339	858	300	159.5	320	105	519	35	260	220	260	220	426	14	100.7
MXV 65-3205/D	11	15	160	65	65	459	1054	350	186	320	105	595	35	260	220	260	220	472	14	140.5
MXV 65-3206/D	11	15	160	65	65	459	1100	350	186	320	105	641	35	260	220	260	220	518	14	144
MXV 65-3207/D	15	20	160	65	65	484	1171	350	186	320	105	687	35	260	220	260	220	564	14	164
MXV 65-3208/D	15	20	160	65	65	484	1217	350	186	320	105	733	35	260	220	260	220	610	14	165
MXV 65-3209/E	18,5	25	160	65	65	538	1290	350	206	320	105	779	35	260	220	260	220	656	14	192.7
MXV 65-3210/E	18,5	25	160	65	65	538	1363	350	206	320	105	825	35	260	220	260	220	702	14	194.7
MXV 65-3212/D	22	30	180	65	65	538	1455	350	206	320	105	917	35	260	220	260	220	794	14	204.8
MXV 80-4801/D	4	5,5	112	80	80	311	722	250	137.5	320	105	411	35	260	220	260	220	338	14	73.3
MXV 80-4802/C	5,5	7,5	132	80	80	339	805	300	159.5	320	105	466	35	260	220	260	220	373	14	93.8
MXV 80-4803/C	7,5	10	132	80	80	339	866	300	159.5	320	105	527	35	260	220	260	220	434	14	103.2
MXV 80-4804/D	11	15	160	80	80	459	1077	350	186	320	105	618	35	260	220	260	220	495	14	154
MXV 80-4805/D	15	20	160	80	80	484	1164	350	186	320	105	680	35	260	220	260	220	557	14	165.5
MXV 80-4806/D	15	20	160	80	80	484	1225	350	186	320	105	741	35	260	220	260	220	618	14	168
MXV 80-4807/E	18,5	25	160	80	80	538	1340	350	206	320	105	802	35	260	220	260	220	679	14	195
MXV 80-4808/D	22	30	180	80	80	538	1402	350	206	320	105	864	35	260	220	260	220	741	14	203.8

MXV

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Dimensions and weights





EN 1092-2 compatible flanges

				Holes	
DN	PN	DE	DK	N	Ø
100	16	230	180	8	19
100	25	225	190	8	23

(1) Filling and Discharge | (2) Discharge

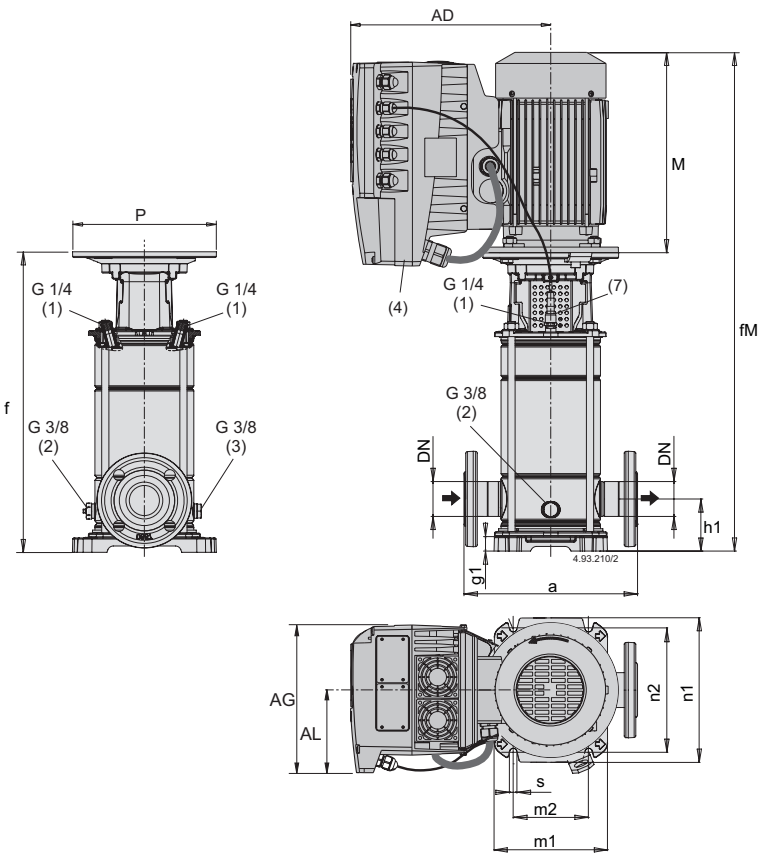
Data also valid for MXVL (1.4401 EN 10088 (AISI 316))

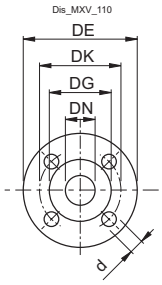
TYPE	Motor			mm													Kg
	kW	HP	tipo	DN1	DN2	M	fM	P	AD	a	h1	f	n1	n2	m1	m2	(5)
MXV 100-6501/A	5,5	7,5	132	100	100	339	1096	300	159.5	365	140	757	316	265	240	190	120.5
MXV 100-6502-2R/A	7,5	10	132	100	100	339	1188	300	159.5	365	140	849	316	265	240	190	133.8
MXV 100-6502/A	11	15	160	100	100	459	1308	350	186	365	140	849	316	265	240	190	177
MXV 100-6503-2R/A	15	20	160	100	100	484	1425	350	186	365	140	941	316	265	240	190	191.5
MXV 100-6503/B	18,5	25	160	100	100	538	1484	350	206	365	140	946	316	265	240	190	215
MXV 100-6504-2R/B	18,5	25	160	100	100	538	1576	350	206	365	140	1038	316	265	240	190	220.5
MXV 100-6504/A	22	30	180	100	100	538	1576	350	206	365	140	1038	316	265	240	190	227
MXV 100-6505-2R/A	30	40	200	100	100	636	1766	400	315	365	140	1130	316	265	240	190	290
MXV 100-6505/A	30	40	200	100	100	636	1766	400	315	365	140	1130	316	265	240	190	288.5
MXV 100-6506-2R/A	30	40	200	100	100	636	1859	400	315	365	140	1223	316	265	240	190	294.5
MXV 100-6506/A	37	50	200	100	100	636	1859	400	315	365	140	1223	316	265	240	190	-
MXV 100-6507-2R/A	37	50	200	100	100	636	1951	400	315	365	140	1315	316	265	240	190	364.5
MXV 100-6507/A	45	60	225	100	100	708	2023	450	338	365	140	1315	316	265	240	190	-
MXV 100-6508-2R/A	45	60	225	100	100	708	2115	450	338	365	140	1407	316	265	240	190	-
MXV 100-6508/A	45	60	225	100	100	708	2115	450	338	365	140	1407	316	265	240	190	-
MXV 100-9001-1R/A	5,5	7,5	132	100	100	339	1096	300	159.5	380	140	757	341	280	260	199	123
MXV 100-9001/A	7,5	10	132	100	100	339	1096	300	159.5	380	140	757	341	280	260	199	131
MXV 100-9002-2R/A	11	15	160	100	100	459	1308	350	186	380	140	849	341	280	260	199	178.5
MXV 100-9002/A	15	20	160	100	100	484	1338	350	186	380	140	854	341	280	260	199	193
MXV 100-9003-2R/B	18,5	25	160	100	100	538	1484	350	206	380	140	946	341	280	260	199	218
MXV 100-9003/A	22	30	180	100	100	538	1484	350	206	380	140	946	341	280	260	199	217.2
MXV 100-9004-2R/A	30	40	200	100	100	636	1674	400	315	380	140	1038	341	280	260	199	283.8
MXV 100-9004/A	30	40	200	100	100	636	1674	400	315	380	140	1038	341	280	260	199	253
MXV 100-9005-2R/A	37	50	200	100	100	636	1767	400	315	380	140	1131	341	280	260	199	-
MXV 100-9005/A	37	50	200	100	100	636	1767	400	315	380	140	1131	341	280	260	199	359
MXV 100-9006-2R/A	45	60	225	100	100	708	1931	450	338	380	140	1223	341	280	260	199	392
MXV 100-9006/A	45	60	225	100	100	708	1931	450	338	380	140	1223	341	280	260	199	378.6

MXV

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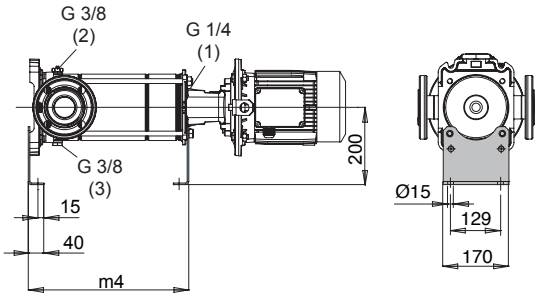
Dimensions and weights





Flanges EN 1092-2 PN 25 - 40

				Holes	
DN	DE	DK	DG	N	Ø
25	115	85	65	4	14
32	140	100	76	4	19
40	150	110	84	4	19



(1) Filling and air vent (2) Air vent suction side (3) Draining (4) Standard position of terminal box. (for other positions rotate motor through 90° or 180°) (5) MXV (H) : + 3 kg (6) With standard motor (7) Net weight

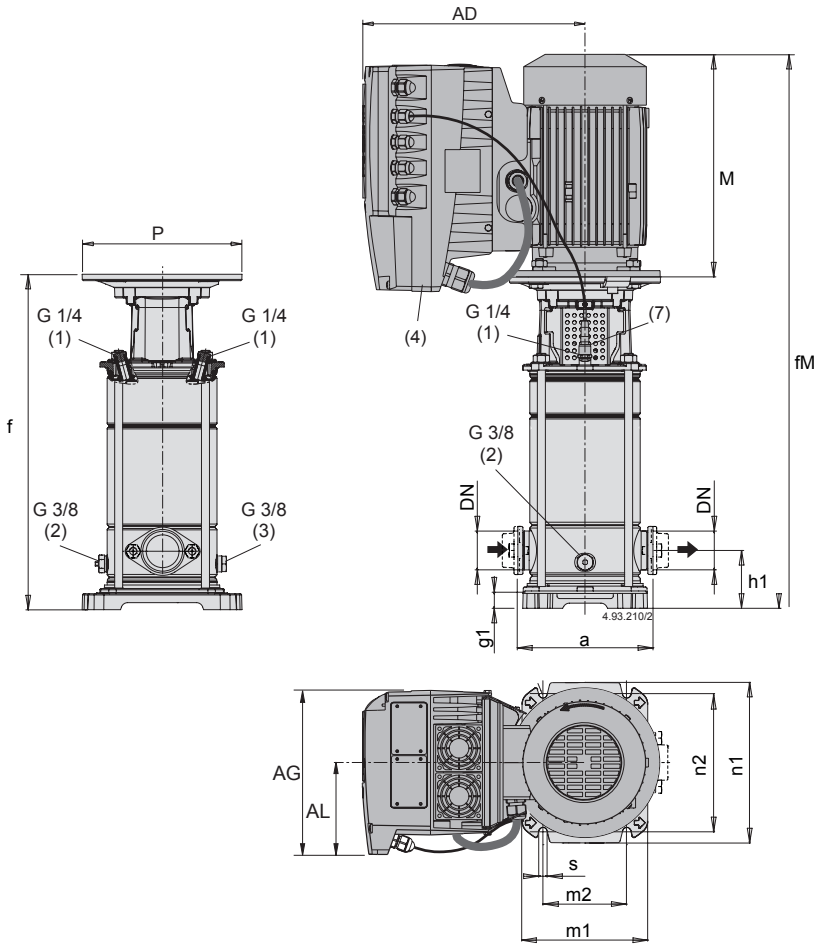
Data also valid for MXVL (1.4401 EN 10088 (AISI 316))

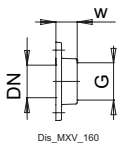
TYPE	Motor		mm																	Kg
	kW	HP	DN1	DN2	M	fM	P	AD	AG	AL	a	h1	f	g1	n1	n2	m1	m2	s	(5)
MXV EI 25-304	0,75	1	25	25	255	637.5	200	286	190	105	250	75	382.5	35.5	205	180	165	100	13	36.8
MXV EI 25-305	0,75	1	25	25	255	661.5	200	286	190	105	250	75	406.5	35.5	205	180	165	100	13	-
MXV EI 25-306	1,1	1,5	25	25	255	685.5	200	286	190	105	250	75	430.5	35.5	205	180	165	100	13	-
MXV EI 25-307	1,1	1,5	25	25	255	709.5	200	286	190	105	250	75	454.5	35.5	205	180	165	100	13	41.3
MXV EI 25-308	1,5	2	25	25	255	733.5	200	286	190	105	250	75	478.5	35.5	205	180	165	100	13	43.4
MXV EI 25-310	1,5	2	25	25	255	782	200	286	190	105	250	75	527	35.5	205	180	165	100	13	49
MXV EI 25-312	2,2	3	25	25	295	870.5	200	286	210	118	250	75	575.5	35.5	205	180	165	100	13	-
MXV EI 25-314	2,2	3	25	25	295	918.5	200	286	210	118	250	75	623.5	35.5	205	180	165	100	13	52.1
MXV EI 25-316	3	4	25	25	316	988	250	294	210	118	250	75	672	35.5	205	180	165	100	13	61.5
MXV EI 32-504	1,1	1,5	32	32	255	637.5	200	286	190	105	250	75	382.5	35.5	205	180	165	100	13	42.2
MXV EI 32-505	1,1	1,5	32	32	255	661.5	200	286	190	105	250	75	406.5	35.5	205	180	165	100	13	43
MXV EI 32-506	1,5	2	32	32	255	685.5	200	286	190	105	250	75	430.5	35.5	205	180	165	100	13	43.5
MXV EI 32-507	1,5	2	32	32	255	709.5	200	286	190	105	250	75	454.5	35.5	205	180	165	100	13	43.8
MXV EI 32-508	2,2	3	32	32	295	773.5	200	286	210	118	250	75	478.5	35.5	205	180	165	100	13	49
MXV EI 32-510	2,2	3	32	32	295	822	200	286	210	118	250	75	527	35.5	205	180	165	100	13	50.2
MXV EI 32-512	3	4	32	32	311	886.5	250	294	210	118	250	75	575.5	35.5	205	180	165	100	13	60
MXV EI 32-514	3	4	32	32	311	934.5	250	294	210	118	250	75	623.5	35.5	205	180	165	100	13	64.2
MXV EI 32-516	4	5,5	32	32	311	983	250	294	210	118	250	75	672	35.5	205	180	165	100	13	70
MXV EI 40-904	1,5	2	40	40	255	666.5	200	286	190	105	280	80	411.5	30.5	250	215	190	130	14	44.6
MXV EI 40-905	2,2	3	40	40	295	736.5	200	286	210	118	280	80	441.5	30.5	250	215	190	130	14	49.5
MXV EI 40-906	2,2	3	40	40	295	766.5	200	286	210	118	280	80	471.5	30.5	250	215	190	130	14	50.3
MXV EI 40-907	3	4	40	40	311	812.5	250	294	210	118	280	80	501.5	30.5	250	215	190	130	14	-
MXV EI 40-908	3	4	40	40	311	843	250	294	210	118	280	80	532	30.5	250	215	190	130	14	59.5
MXV EI 40-910	4	5,5	40	40	311	903	250	294	210	118	280	80	592	30.5	250	215	190	130	14	64
MXV EI 40-911	4	5,5	40	40	311	373	250	294	210	118	280	80	622	30.5	250	215	190	130	14	65.6
MXV EI 40-913	5,5	7,5	40	40	339	1108.5	250	321	210	118	280	80	769.5	30.5	250	215	190	130	14	-
MXV EI 40-915	5,5	7,5	40	40	339	1169	300	321	210	118	280	80	830	30.5	250	215	190	130	14	94.7

MXV

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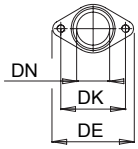
Dimensions and weights





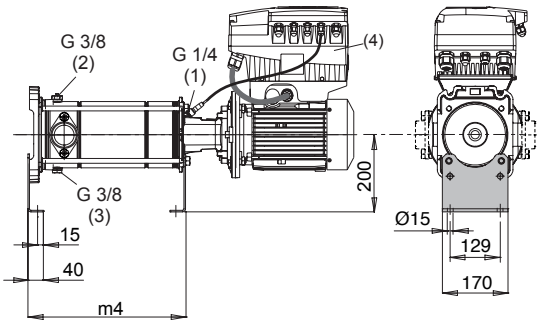
Oval Counterflanges PN 16

			Holes	
DN	G	w	N.	Ø
25	1	23	2	12
32	1 1/4	23	2	12
40	1 1/2	26	2	15



Oval Flanges PN 16

			Holes	
DN	DE	DK	N.	Ø
50	130	100	2	M12



(1) Filling and air vent (2) Air vent suction side (3) Draining (4) Standard position of terminal box. (for other positions rotate motor through 90° or 180°) (5) MXV (H) : + 3 kg (6) With standard motor (7) Net weight

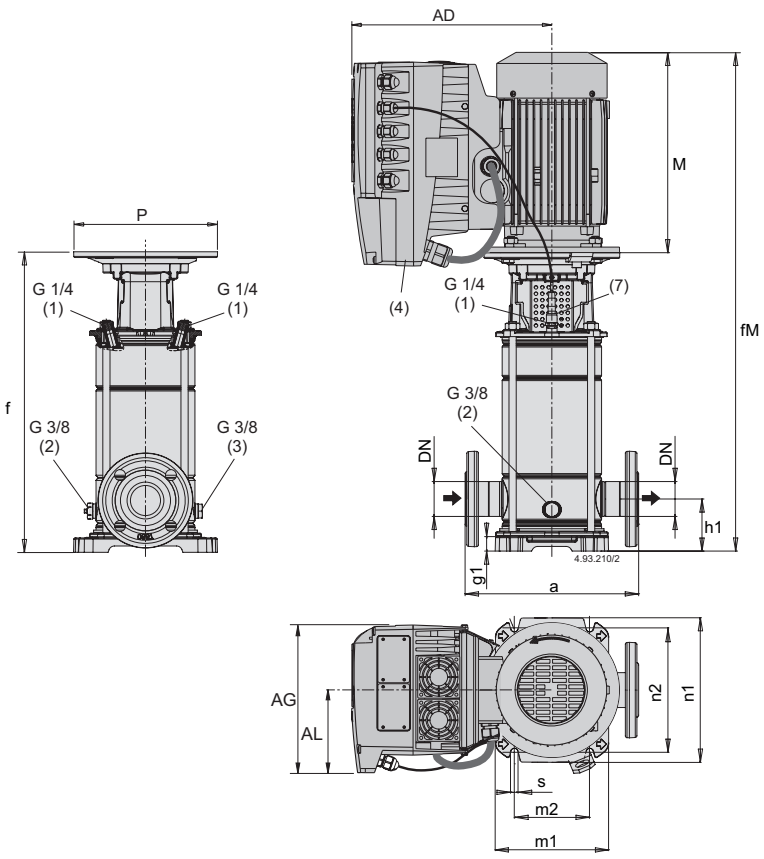
Data also valid for MXVL (1.4401 EN 10088 (AISI 316))

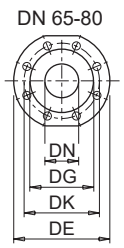
TYPE	Motor		mm																	Kg
	kW	HP	DN1	DN2	M	fM	P	AD	AG	AL	a	h1	f	g1	n1	n2	m1	m2	s	(5)
MXV EI 25-304 O	0,75	1	25	25	255	622	200	286	190	105	160	50	367	20	205	180	165	100	13	-
MXV EI 25-305 O	0,75	1	25	25	255	646	200	286	190	105	160	50	391	20	205	180	165	100	13	-
MXV EI 25-306 O	1,1	1,5	25	25	255	670	200	286	190	105	160	50	415	20	205	180	165	100	13	-
MXV EI 25-307 O	1,1	1,5	25	25	255	694	200	286	190	105	160	50	439	20	205	180	165	100	13	38.5
MXV EI 25-308 O	1,5	2	25	25	255	718	200	286	190	105	160	50	463	20	205	180	165	100	13	40.4
MXV EI 25-310 O	1,5	2	25	25	255	766.5	200	286	190	105	160	50	511.5	20	205	180	165	100	13	42.6
MXV EI 25-312 O	2,2	3	25	25	295	855	200	286	190	105	160	50	560	20	205	180	165	100	13	53
MXV EI 25-314 O	2,2	3	25	25	295	903	200	286	190	105	160	50	608	20	205	180	165	100	13	-
MXV EI 32-504 O	1,1	1,5	32	32	255	622	200	286	190	105	160	50	367	20	205	180	165	100	13	-
MXV EI 32-505 O	1,1	1,5	32	32	255	946	200	286	190	105	160	50	391	20	205	180	165	100	13	36.9
MXV EI 32-506 O	1,5	2	32	32	255	670	200	286	190	105	160	50	415	20	205	180	165	100	13	41
MXV EI 32-507 O	1,5	2	32	32	255	694	200	286	190	105	160	50	439	20	205	180	165	100	13	-
MXV EI 32-508 O	2,2	3	32	32	295	758	200	286	210	118	160	50	463	20	205	180	165	100	13	-
MXV EI 32-510 O	2,2	3	32	32	295	806.5	200	286	210	118	160	50	511.5	20	205	180	165	100	13	46.5
MXV EI 32-512 O	3	4	32	32	311	871	250	294	210	118	160	50	560	20	205	180	165	100	13	-
MXV EI 32-514 O	3	4	32	32	311	919	250	294	210	118	160	50	608	35.5	205	180	165	100	13	57
MXV EI 40-904 O	1,5	2	40	40	255	666.5	200	286	190	105	200	80	411.5	30.5	250	215	190	130	14	41.3
MXV EI 40-905 O	2,2	3	40	40	295	736.5	200	286	210	118	200	80	441.5	30.5	250	215	190	130	14	-
MXV EI 40-906 O	2,2	3	40	40	295	766.5	200	286	210	118	200	80	471.5	30.5	250	215	190	130	14	51
MXV EI 40-907 O	3	4	40	40	311	812.5	250	294	210	118	200	80	501.5	30.5	250	215	190	130	14	60.5
MXV EI 40-908 O	3	4	40	40	311	843	250	294	210	118	200	80	532	30.5	250	215	190	130	14	-
MXV EI 40-910 O	4	5,5	40	40	311	903	250	294	210	118	200	80	592	30.5	250	215	190	130	14	-
MXV EI 40-911 O	4	5,5	40	40	311	933	250	294	210	118	200	80	622	30.5	250	215	190	130	14	-
MXV EI 40-913 O	5,5	7,5	40	40	339	1108.5	300	321	210	118	200	80	769.5	30.5	250	215	190	130	14	-

MXV

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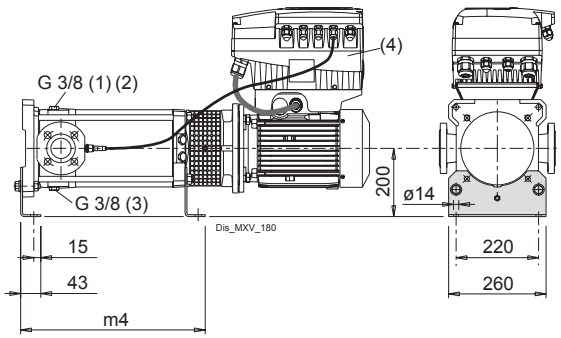
Dimensions and weights





Flanges EN 1092-2

				Holes	
DN	DE	DK	DG	N	Ø
65	185	145	118	8	19
80	200	160	132	8	19



(1) Filling and air vent (2) Air vent suction side (3) Draining (4) Standard position of terminal box. (for other positions rotate motor through 90° or 180°) (5) MXV (H) : + 3 kg (6) With standard motor (7) Net weight

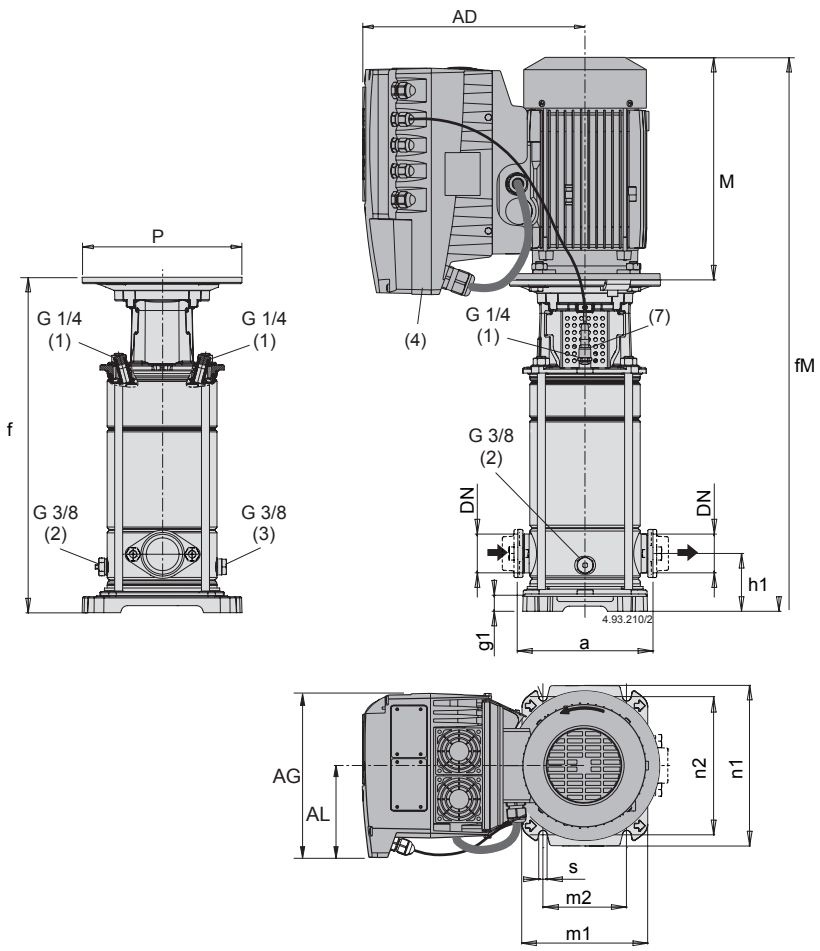
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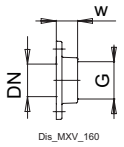
TYPE	Motor		mm																		Kg
	kW	HP	DN1	DN2	M	fM	P	AD	AG	AL	a	h1	f	g1	n1	n2	m1	m2	m4	s	(5)
MXV EI 50-1502	1,5	2	50	50	295	733	200	286	190	105	300	90	438	25	250	215	196	130	349	13	-
MXV EI 50-1503/A	2,2	3	50	50	295	781	200	286	210	118	300	90	486	25	250	215	196	130	397	13	-
MXV EI 50-1504	3	4	50	50	311	845	250	294	210	118	300	90	534	25	250	215	196	130	445	13	64.4
MXV EI 50-1505	4	5,5	50	50	311	893	250	294	210	118	300	90	582	25	250	215	196	130	493	13	68.5
MXV EI 50-1506	5,5	7,5	50	50	339	1032	300	321	210	118	300	90	693	25	250	215	196	130	541	13	94.8
MXV EI 50-1507	5,5	7,5	50	50	339	1080	300	321	210	118	300	90	741	25	250	215	196	130	589	13	96.8
MXV EI 50-1508/A	5,5	7,5	50	50	339	1128	300	321	210	118	300	90	789	25	250	215	196	130	637	13	98.3
MXV EI 50-1509	7,5	10	50	50	339	1176	300	368	281	153	300	90	837	25	250	215	196	130	685	13	112.7
MXV EI 50-1510	7,5	10	50	50	339	1224	300	368	281	153	300	90	885	25	250	215	196	130	733	13	114.5
MXV EI 50-1511	9,2	12,5	50	50	413	1376	350	393	281	153	300	90	963	25	250	215	196	130	781	13	150.3
MXV EI 50-1512	9,2	12,5	50	50	413	1424	350	393	281	153	300	90	1011	25	250	215	196	130	829	13	146.5
MXV EI 50-1513	11	15	50	50	459	1518	350	393	281	153	300	90	1059	25	250	215	196	130	877	13	-
MXV EI 50-1514	11	15	50	50	459	1566	350	393	281	153	300	90	1107	25	250	215	196	130	925	13	-
MXV EI 50-1515	11	15	50	50	459	1614	350	393	281	153	300	90	1155	25	250	215	196	130	973	13	158.5
MXV EI 50-1516	15	20	50	50	484	1687	350	471	350	190	300	90	1203	25	250	215	196	130	1021	13	-
MXV EI 50-1517	15	20	50	50	484	1735	350	471	350	190	300	90	1251	25	250	215	196	130	1069	13	218
MXV EI 50-2002	2,2	3	50	50	295	733	200	286	210	118	300	90	438	25	250	215	196	130	349	13	54.1
MXV EI 50-2003	3	4	50	50	311	797	250	294	210	118	300	90	486	25	250	215	196	130	397	13	62.2
MXV EI 50-2004	4	5,5	50	50	311	832	250	294	210	118	300	90	521	25	250	215	196	130	445	13	66.8
MXV EI 50-2005	5,5	7,5	50	50	339	984	300	321	210	118	300	90	645	25	250	215	196	130	493	13	93.4
MXV EI 50-2006	7,5	10	50	50	339	1032	300	368	281	153	300	90	693	25	250	215	196	130	541	13	108
MXV EI 50-2007	7,5	10	50	50	339	1080	300	368	281	153	300	90	741	25	250	215	196	130	589	13	109.3
MXV EI 50-2008	9,2	12,5	50	50	413	1232	350	393	281	153	300	90	819	25	250	215	196	130	601	13	140
MXV EI 50-2009	9,2	12,5	50	50	413	1280	350	393	281	153	300	90	867	25	250	215	196	130	685	13	142
MXV EI 50-2010	11	15	50	50	459	1374	350	393	281	153	300	90	915	25	250	215	196	130	733	13	-
MXV EI 50-2011	11	15	50	50	459	1422	350	393	281	153	300	90	963	25	250	215	196	130	781	13	153.4
MXV EI 50-2012	15	20	50	50	484	1495	350	471	350	190	300	90	1011	25	250	215	196	130	829	13	-
MXV EI 50-2013	15	20	50	50	484	1543	350	471	350	190	300	90	1059	25	250	215	196	130	877	13	-
MXV EI 50-2014	15	20	50	50	484	1591	350	471	350	190	300	90	1107	25	250	215	196	130	925	13	-
MXV EI 50-2015	15	20	50	50	484	1639	350	471	350	190	300	90	1155	25	250	215	196	130	973	13	-
MXV EI 50-2016	18,5	25	50	50	484	1687	350	491	350	190	300	90	1203	25	250	215	196	130	1021	13	-

MXV

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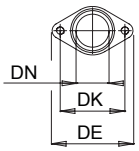
Dimensions and weights





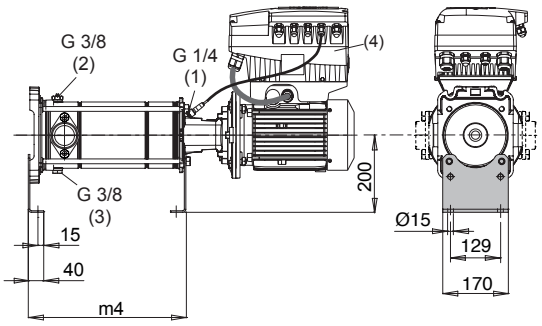
Oval Counterflanges PN 16

			Holes	
DN	G	w	N.	Ø
50	2	34	2	15



Oval Flanges PN 16

			Holes	
DN	DE	DK	N.	Ø
50	130	100	2	M12



(1) Filling and air vent (2) Air vent suction side (3) Draining (4) Standard position of terminal box. (for other positions rotate motor through 90° or 180°) (5) MXV (H) : + 3 kg (6) With standard motor (7) Net weight

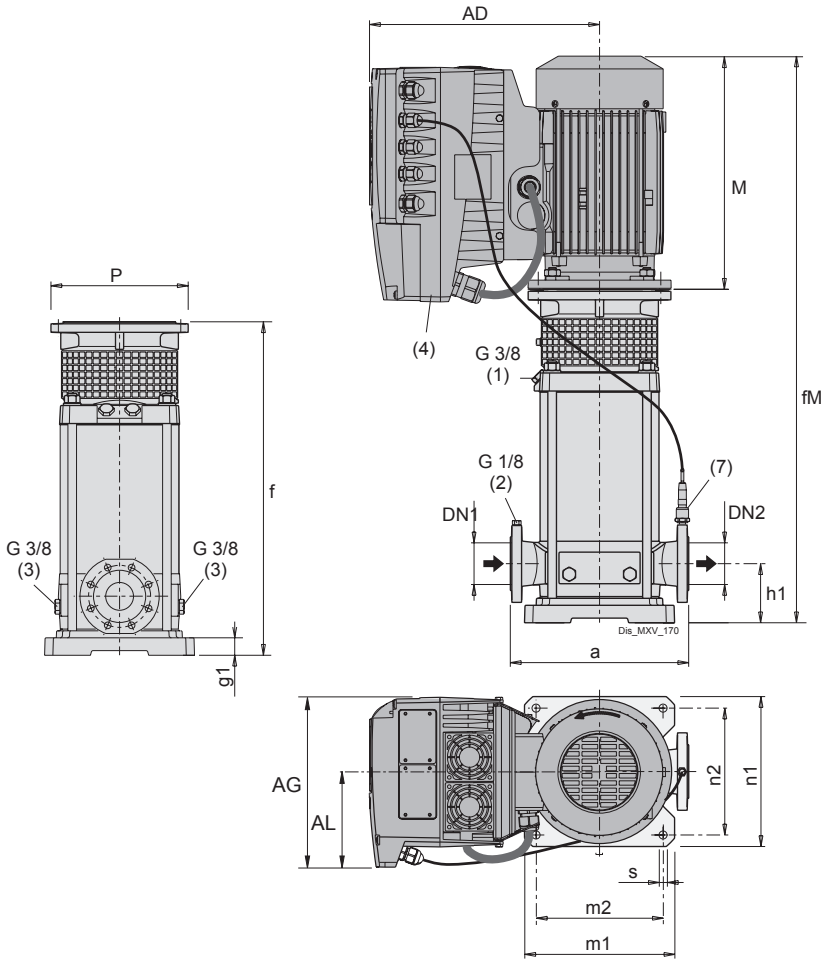
Data also valid for MXVL (1.4401 EN 10088 (AISI 316))

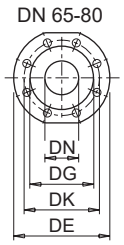
TYPE	Motor		mm																		Kg
	kW	HP	DN1	DN2	M	fM	P	AD	AG	AL	a	h1	f	g1	n1	n2	m1	m2	m4	s	(5)
MXV EI 50-1502 O	1,5	2	50	50	295	733	200	286	190	105	200	90	438	25	250	215	196	130	349	13	-
MXV EI 50-1503/A O	2,2	3	50	50	295	781	200	286	210	118	200	90	486	25	250	215	196	130	397	13	-
MXV EI 50-1504 O	3	4	50	50	311	845	250	294	210	118	200	90	534	25	250	215	196	130	445	13	-
MXV EI 50-1505 O	4	5,5	50	50	311	893	250	294	210	118	200	90	582	25	250	215	196	130	457	13	64.4
MXV EI 50-1506 O	5,5	7,5	50	50	339	1032	300	321	210	118	200	90	693	25	250	215	196	130	541	13	-
MXV EI 50-1507 O	5,5	7,5	50	50	339	1080	300	321	210	118	200	90	741	25	250	215	196	130	589	13	-
MXV EI 50-1508/A O	5,5	7,5	50	50	339	1128	300	321	210	118	200	90	789	25	250	215	196	130	637	13	-
MXV EI 50-1509 O	7,5	10	50	50	339	1176	300	368	281	153	200	90	837	25	250	215	196	130	685	13	-
MXV EI 50-1510 O	7,5	10	50	50	339	1224	300	368	281	153	200	90	885	25	250	215	196	130	733	13	-
MXV EI 50-2002 O	2,2	3	50	50	295	733	200	286	210	118	200	90	438	25	250	215	196	130	349	13	-
MXV EI 50-2003 O	3	4	50	50	311	797	250	294	210	118	200	90	486	25	250	215	196	130	397	13	-
MXV EI 50-2004 O	4	5,5	50	50	311	832	250	294	210	118	200	90	521	25	250	215	196	130	445	13	-
MXV EI 50-2005 O	5,5	7,5	50	50	339	984	300	321	210	118	200	90	645	25	250	215	196	130	493	13	-
MXV EI 50-2006 O	7,5	10	50	50	339	1032	300	368	281	153	200	90	693	25	250	215	196	130	541	13	-
MXV EI 50-2007 O	7,5	10	50	50	339	1080	300	368	281	153	200	90	741	25	250	215	196	130	589	13	-
MXV EI 50-2008 O	9,2	12,5	50	50	413	1232	350	393	281	153	200	90	819	25	250	215	196	130	637	13	-
MXV EI 50-2009 O	9,2	12,5	50	50	413	1280	350	393	281	153	200	90	867	25	250	215	196	130	685	13	-
MXV EI 50-2010 O	11	15	50	50	459	1374	350	393	281	153	200	90	915	25	250	215	196	130	733	13	-

MXV

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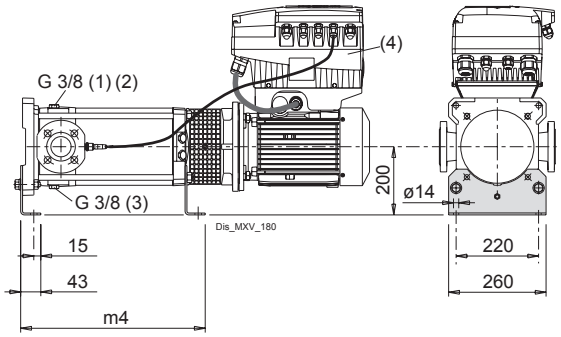
Dimensions and weights





Flanges EN 1092-2

				Holes	
DN	DE	DK	DG	N	Ø
65	185	145	118	8	19
80	200	160	132	8	19



(1) Filling and air vent (2) Air vent suction side (3) Draining (4) Standard position of terminal box. (for other positions rotate motor through 90° or 180°) (5) MXV (H) : + 3 kg (6) With standard motor (7) Net weight

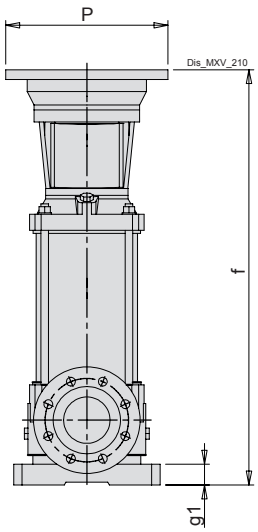
Data also valid for MXVL (1.4401 EN 10088 (AISI 316))

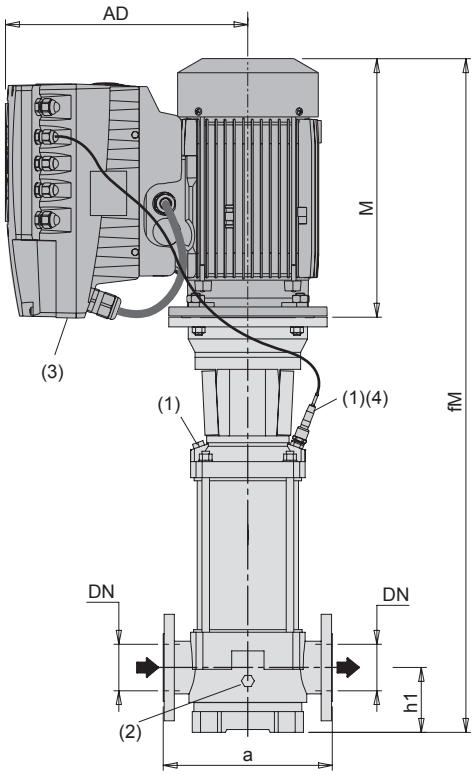
TYPE	Motor		mm																		Kg
	kW	HP	DN1	DN2	M	fM	P	AD	AG	AL	a	h1	f	g1	n1	n2	m1	m2	m4	s	(5)
MXV EI 65-3202/D	4	5,5	65	65	311	718	250	294	210	118	320	105	407	35	260	220	260	220	334	14	79.3
MXV EI 65-3203/C	5,5	7,5	65	65	339	812	300	321	210	118	320	105	473	35	260	220	260	220	380	14	100
MXV EI 65-3204/C	7,5	10	65	65	339	858	300	368	281	153	320	105	519	35	260	220	260	220	426	14	115
MXV EI 65-3205/D	11	15	65	65	459	1054	350	393	281	153	320	105	595	35	260	220	260	220	472	14	157
MXV EI 65-3206/D	11	15	65	65	459	1100	350	393	281	153	320	105	641	35	260	220	260	220	518	14	168
MXV EI 65-3207/D	15	20	65	65	484	1171	350	471	350	190	320	105	687	35	260	220	260	220	564	14	-
MXV EI 65-3208/D	15	20	65	65	484	1217	350	471	350	190	320	105	733	35	260	220	260	220	610	14	221.5
MXV EI 65-3209/E	18,5	25	65	65	538	1317	350	491	350	190	320	105	779	35	260	220	260	220	656	14	229
MXV EI 65-3210/E	18,5	25	65	65	538	1363	350	491	350	190	320	105	825	35	260	220	260	220	702	14	-
MXV EI 65-3212/D	22	30	65	65	538	1455	350	491	350	190	320	105	917	35	260	220	260	220	794	14	-
MXV EI 80-4802/C	5,5	7,5	80	80	339	805	300	321	210	118	320	105	466	35	260	220	260	220	373	14	101.8
MXV EI 80-4803/C	7,5	10	80	80	339	866	300	368	281	153	320	105	527	35	260	220	260	220	434	14	120
MXV EI 80-4804/D	11	15	80	80	459	1077	350	393	281	153	320	105	618	35	260	220	260	220	495	14	169
MXV EI 80-4805/D	15	20	80	80	484	1164	350	471	350	190	320	105	680	35	260	220	260	220	557	14	205
MXV EI 80-4806/D	15	20	80	80	484	1225	350	471	350	190	320	105	741	35	260	220	260	220	618	14	202
MXV EI 80-4807/E	18,5	25	80	80	538	1340	350	491	350	190	320	105	802	35	260	220	260	220	679	14	-
MXV EI 80-4808/D	22	30	80	80	538	1402	350	491	350	190	320	105	864	35	260	220	260	220	741	14	-

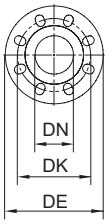
MXV

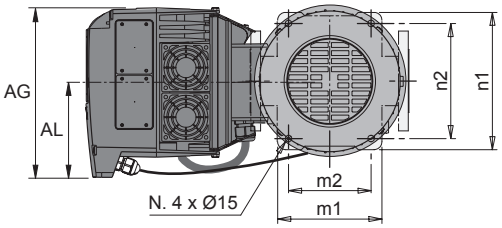
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Dimensions and weights









Flanges EN 1092-2

				Holes	
DN	PN	DE	DK	N	Ø
100	16	230	180	8	19
100	25	225	190	8	23

(1) Filling and Air vent | (2) Draining | (3) Standard position of I-MAT (for other positions rotate motor through 90° or 180°)

4 Net weight (5) transducer

Data also valid for MXVL (1.4401 EN 10088 (AISI 316))

TYPE	Motor		mm																	Kg
	kW	HP	DN1	DN2	M	fM	P	AD	AG	AL	a	h1	f	g1	n1	n2	m1	m2	s	(5)
MXVEI100-6501/A	5,5	7,5	100	100	339	1096	300	321	210	118	365	140	757	45	316	265	240	190	15	-
MXVEI100-6502-2R/A	7,5	10	100	100	339	1188	300	368	281	153	365	140	849	45	316	265	240	190	15	149
MXVEI100-6502/A	11	15	100	100	459	1308	350	393	281	153	365	140	849	45	316	265	240	190	15	-
MXVEI100-6503-2R/A	15	20	100	100	484	1425	350	471	350	190	365	140	941	45	316	265	240	190	15	-
MXVEI100-6503/B	18,5	25	100	100	538	1484	350	491	350	190	365	140	946	45	316	265	240	190	15	-
MXVEI100-6504-2R/B	18,5	25	100	100	538	1576	350	491	350	190	365	140	1038	45	316	265	240	190	15	260.5
MXVEI100-6504/A	22	30	100	100	538	1576	350	491	350	190	365	140	1038	45	316	265	240	190	15	264.3
MXVEI100-9001/A	7,5	10	100	100	339	1096	300	368	281	153	380	140	757	45	341	280	260	199	15	-
MXVEI100-9002-2R/A	11	15	100	100	459	1308	350	393	281	153	380	140	849	45	341	280	260	199	15	-
MXVEI100-9002/A	15	20	100	100	484	1338	350	471	350	190	380	140	854	45	341	280	260	199	15	-
MXVEI100-9003-2R/B	18,5	25	100	100	538	1484	350	491	350	190	380	140	946	45	341	280	260	199	15	-
MXVEI100-9003/A	22	30	100	100	538	1484	350	491	350	190	380	140	946	45	341	280	260	199	15	-

I-MPC



EASY TO INSTALL
Plug And play solution

ECONOMIC SAVING
High efficiency single-phase motor

EASY TO USE
Equipped with programmable logic, the product allows programming thanks to the simple and intuitive display.

Self-priming swimming pool pumps boosting system with integrated control

I-MPC

Construction

Self-priming swimming pool pumps with built-in strainer and motor insulated from pumped water.
The pump is made with high quality plastic materials, corrosion and sand erosion resistant.
With stainless steel diffuser.
Base-plate kit.

Applications

For water circulation in swimming pool filtration systems.
For clean or slightly dirty water with solids in suspension.

Operating conditions

Liquid temperature from 0 °C to +40 °C.
Ambient temperature up to 40° C.
Maximum permissible pressure in the pump casing 2,5 bar.
Continuous duty.

Motor

2-pole induction motor.
Nominal speed 3970 rpm
- Motor: variable speed
Frequency: 50-60 Hz
Single-phase 220-240V~50Hz/220V~60Hz, with thermal protector.
H07RN-F cable, 3G1.5 mm2, length 1.5 m, with CEI-UNEL 47166 plug.
Insulation class F.
Protection IP X4.
Constructed in accordance with EN 60034-1, EN 60335-1, EN 60335-2-41.

Features

- integrated frequency converter
- high efficiency asynchronous motor
- motor power control
- voltage and current control
- monitoring of maximum starting current

Protections

- dry-run protection
- detects the presence of air in the pump casing
- overload control and overheating motor control
- pump blockage
- power supply control
- starts per hour control
- detects small leakages in the system

Designation

Example: I-MPCM 31
I = Version with integrated frequency converter
MPC = Series
M = Singlephase version (no indication: threephase)
31 = Pump type

Materials

Components	Materials
Pump casing	Noryl PPO-GF30
Diffuser cover	Noryl PPO-GF30
Impeller	Noryl PPO-GF30
Strainer cover	Lexan
Strainer basket	Polypropylene
Diffuser funnel and wear-ring	Steel 1.4401 EN 10088 (AISI 316)
Mechanical seal	Carbon - Ceramic - FPM

Performance

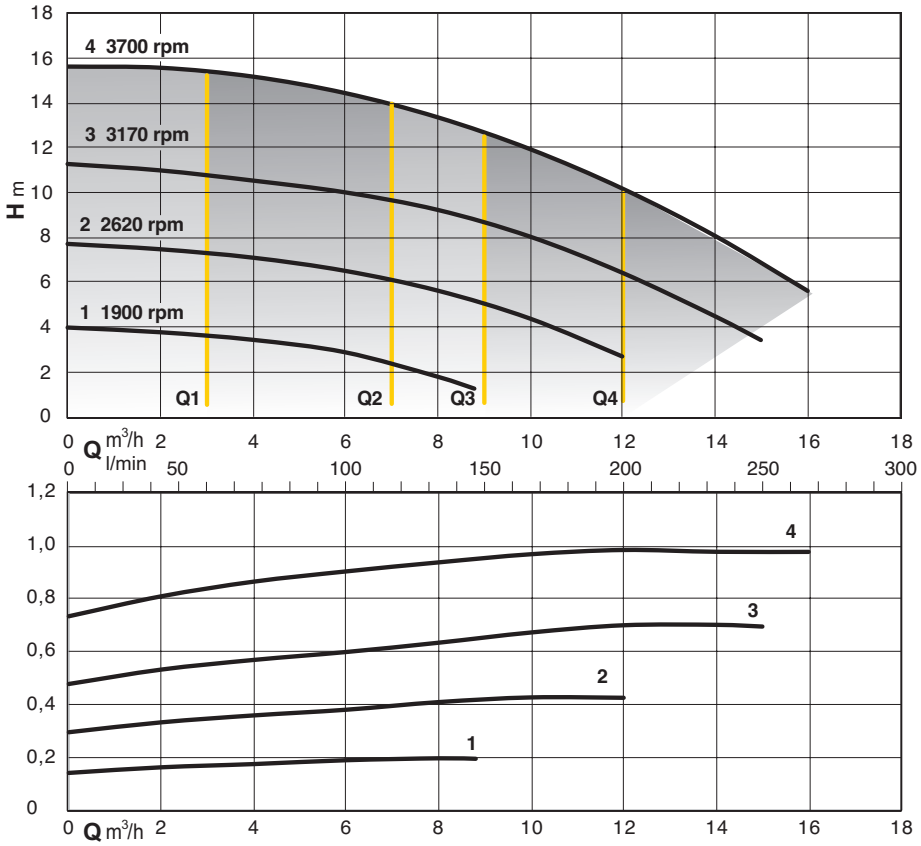
Single-phase

			Q = Flow									
			m³/h	0	2	4	6	8	10	12	14	16
Model	230V	P1	l/min		33,3	66,6	100	133	167	200	233	267
	A	kW	H (m) = Total head									
I-MPCM 31	4,6	1,05		15,6	15,6	15,2	14,4	13,4	11,9	10,2	8,1	5,6

P1: Maximum power input.
H: Total head in m
Tolerances according to UNI EN ISO 9906:2012

I-MPC

Characteristic curves



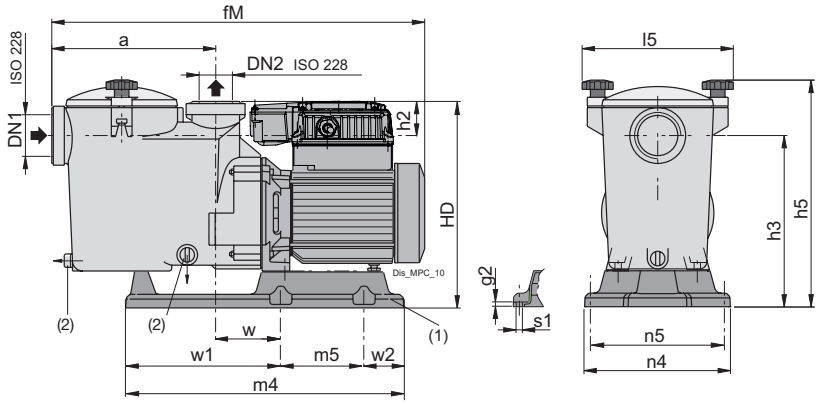
Constant flow mode

Q1 - Q2 - Q3 - Q4
In this mode, the system keeps the preset flow rate constant as the pressure required by the system varies.

Programmable Speed Mode

1 - 2 - 3 - 4
In this mode, by changing the working frequency, it is possible to choose one of the 4 utilization curves included within the working range.

Dimensions and weights



TYPE			mm																kg
	DN1	DN2	a	fM	g2	h2	h3	h5	HD	l5	m4	m5	n4	n5	s1	w	w1	w2	Weight
I-MPCM 31	G2	G1 1/2	235	546	7	50	243	323	293	215	410	123	215	197	9	100	128.5	158.5	12.7

I-MPC

Control Panel



They allow to visualize:
- Initial screen (rUn, OFF, StB, Err)
- Motor Operating Frequency
- Supply current input
- Supply electrical power input
- Supply voltage

Features

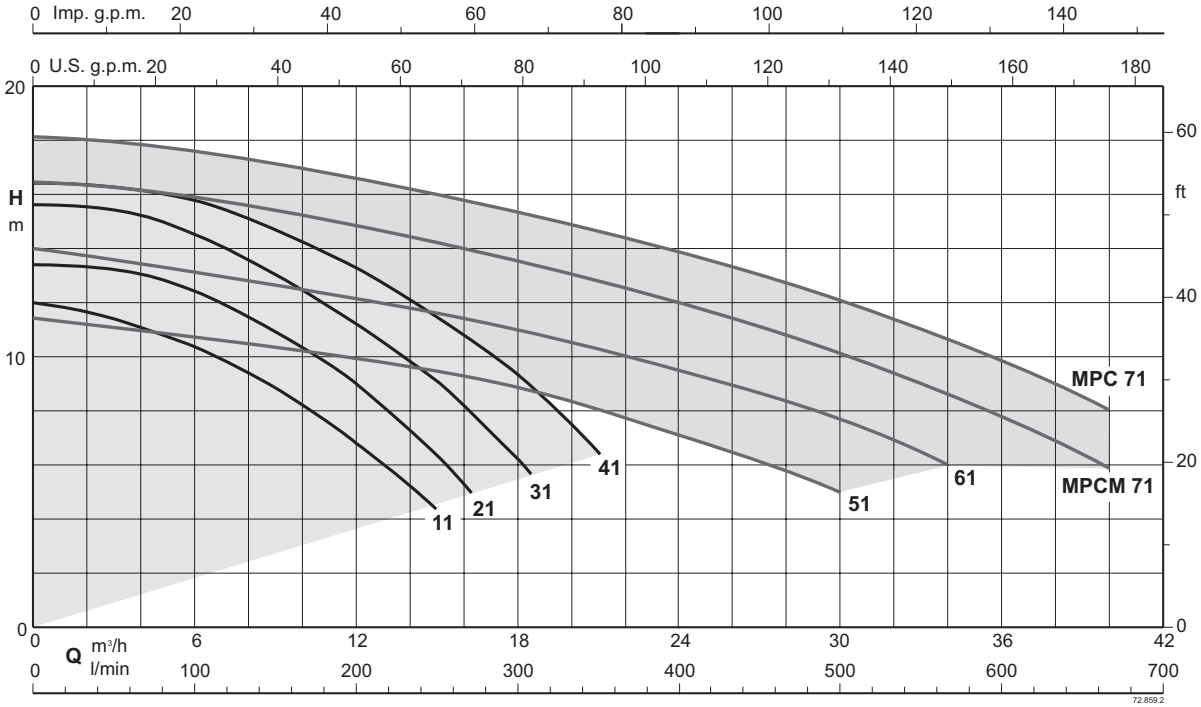
Strong transparent Lexan strainer cover
Strong Noryl pump casing
Large capacity strainer basket
Stainless steel AISI 316 wear-ring diffuser-funnel, for extra reliability
Diffuser with peripheral-longitudinal flow, for a quicker self-priming



MPC



Coverage chart n ≈ 2800 rpm



Self-priming swimming pool pumps with built-in strainer

MPC

Construction

Self-priming swimming pool pumps with built-in strainer and motor insulated from pumped water.
The pump is made with high quality plastic materials, corrosion and sand erosion resistant.
With stainless steel diffuser.
Base-plate kit.

Applications

For water circulation in swimming pool filtration systems.
For clean or slightly dirty water with solids in suspension.

Operating conditions

Water temperature up to 60 °C.
Ambient temperature up to 40° C.
Maximum permissible pressure in the pump casing 2,5 bar.
Continuous duty (S3 60% for single-phase pump to 1,5-1,8 kW).

Certification mark for MPCM

Motor

2-pole induction motor, 50 Hz (n ≈ 2800 1/min).
MPC: three-phase 230/400 V ± 10%,
MPCM: single-phase230 V ± 10%, with thermal protector. Capacitor inside the terminal box.
Insulation class F.
Protection IP X4.
IE2 efficiency class for single-phase motors up to 1,1 kW.
IE3 efficiency class for three-phase motors (IE2 up to 0,65 kW).
Constructed in accordance with EN 60034-1; EN 60034-30-1.
EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).

Designation

Example: MPCM 21/A
MPC = Series
M = Singlephase version (no indication: threephase)
21 = Pump type
/A = It refers to a revision

Materials

Components	Materials
Pump casing	Noryl PPO-GF30
Diffuser cover	Noryl PPO-GF30
Impeller	Noryl PPO-GF30
Strainer cover	Lexan
Strainer basket	Polypropylene
Diffuser funnel and wear-ring	Steel 1.4401 EN 10088 (AISI 316)
Mechanical seal	Carbon - Ceramic - FPM

MPC

Performance n ≈ 2800 rpm

Three-phase

					Q = Flow								
					m³/h	0	3	6	9	12	15	18	21
Model	230V	400V	P2		l/min		50	100	150	200	250	300	350
	A		kW	HP	H (m) = Total head								
MPC 11	2,8	1,6	0,37	0,5		11,9	11,4	10,3	8,9	6,8	4,2	-	-
MPC 21/A	3	1,7	0,55	0,75		13,4	13,3	12,4	10,9	9	6,3	-	-
MPC 31/B	3,7	2,2	0,75	1		15,6	15,5	14,5	13	11,2	9,1	6,2	-
MPC 41/A	4,6	2,7	1,1	1,5		16,4	16,2	15,8	14,7	13,3	11,4	9,3	6,4

Single-phase

					Q = Flow								
					m³/h	0	3	6	9	12	15	18	21
Model	230V	P2		P1	l/min		50	100	150	200	250	300	350
	A	kW	HP	kW	H (m) = Total head								
MPCM 11	3,3	0,37	0,5	0,57		11,9	11,4	10,3	8,9	6,8	4,2	-	-
MPCM 21/A	4,5	0,55	0,75	1		13,4	13,3	12,4	10,9	9	6,3	-	-
MPCM 31/A	5,4	0,75	1	1,2		15,6	15,5	14,5	13	11,2	9,1	6,2	-
MPCM 41	7	1,1	1,5	1,6		16,4	16,2	15,8	14,7	13,3	11,4	9,3	6,4

Three-phase

					Q = Flow											
					m³/h	0	3	9	15	18	21	24	27	30	34	40
Model	230V	400V	P2		l/min		50	150	250	300	350	400	450	500	567	667
	A		kW	HP	H (m) = Total head											
MPC 51/A	4,6	2,7	1,1	1,5		11,5	11	10,5	9,5	9	8	7	6	5	-	-
MPC 61/A	6,2	3,6	1,5	2		14	13,5	12,5	11,5	11	10,5	9,5	8,5	7,5	6	-
MPC 71/B	9,2	5,3	2,2	3		18,2	18	17	16	15,5	14,5	14	13	12	10,5	8

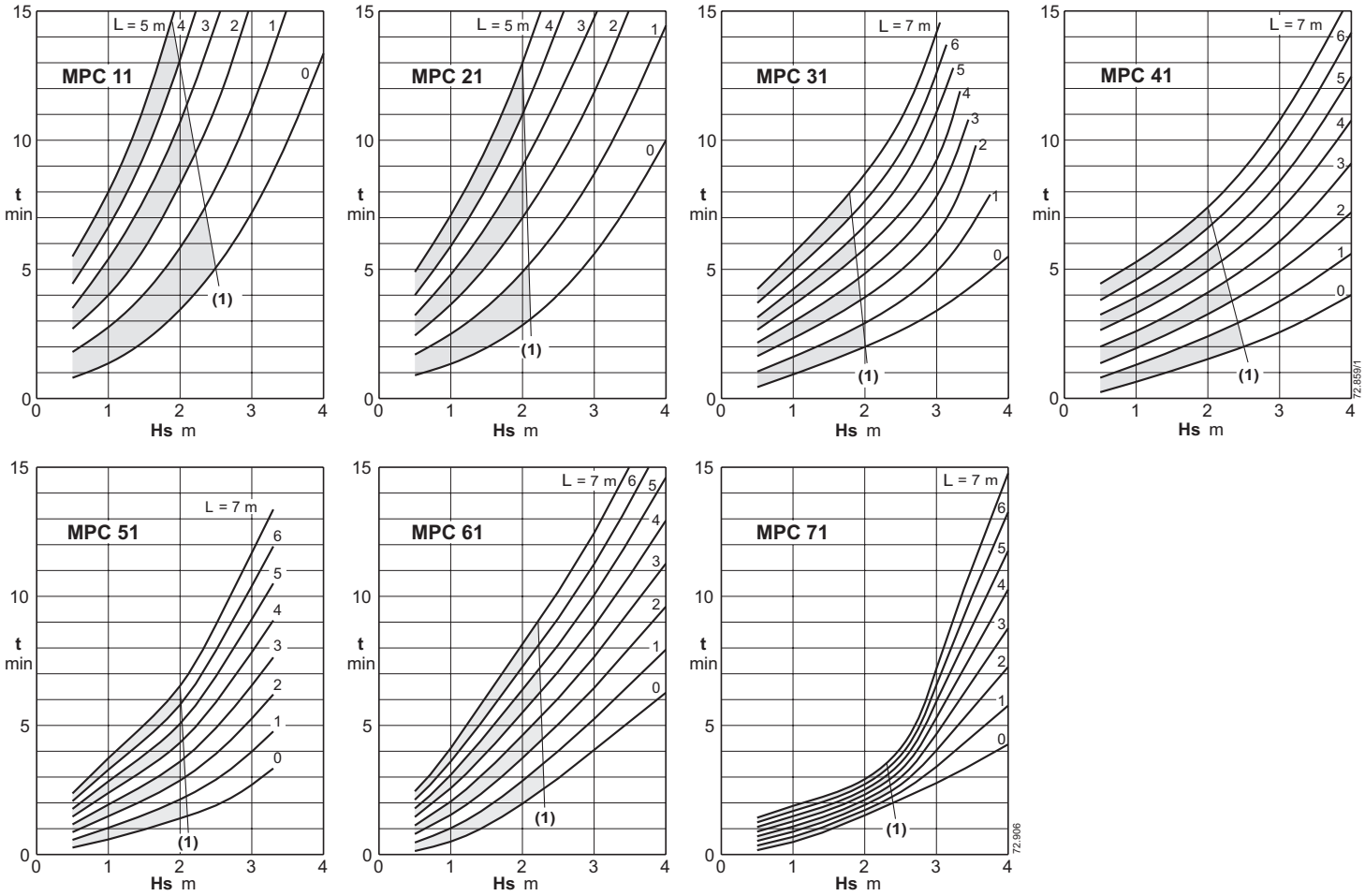
Single-phase

					Q = Flow											
					m³/h	0	3	9	15	18	21	24	27	30	34	40
Model	230V	P2		P1	l/min		50	150	250	300	350	400	450	500	567	667
	A	kW	HP	kW	H (m) = Total head											
MPCM 51	7	1,1	1,5	1,6		11,5	11	10,5	9,5	9	8	7	6	5	-	-
MPCM 61	9,2	1,5	2	2		14	13,5	12,5	11,5	11	10,5	9,5	8,5	7,5	6	-
MPCM 71/B	11,2	1,8	2,5	2,5		16,4	15,9	14,9	14	13,4	12,7	12,1	11,3	10,2	8,5	5,8

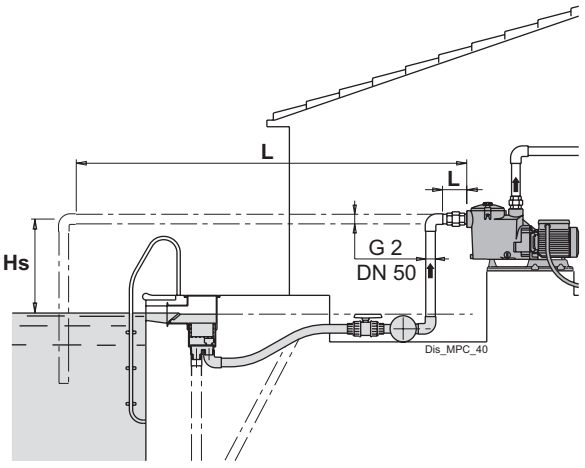
P1: Maximum power input.
P2: Rated motor power output.
H: Total head in m
Tolerances according to UNI EN ISO 9906:2012

MPC

Self-Priming Capability with the pump located above the water level

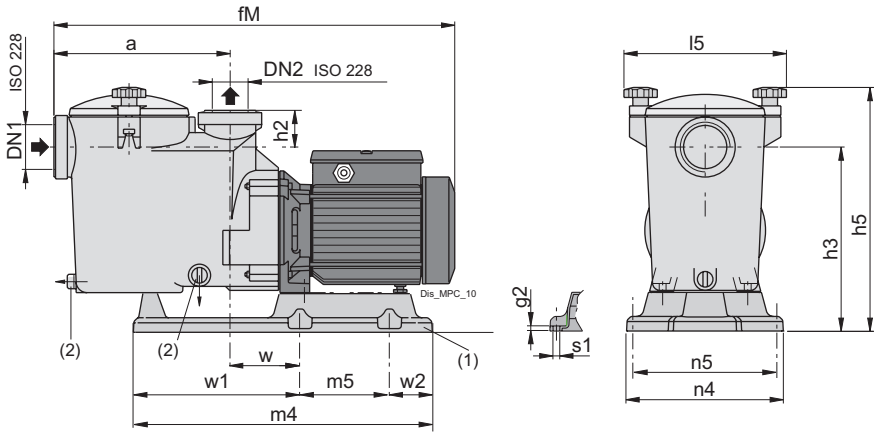


(1) Application limit for automatic self-repriming at each start-up, without check valve.
L (m) Horizontal length of suction pipe above the water level.
Hs (m) Suction lift.
t (min) Self-priming time.



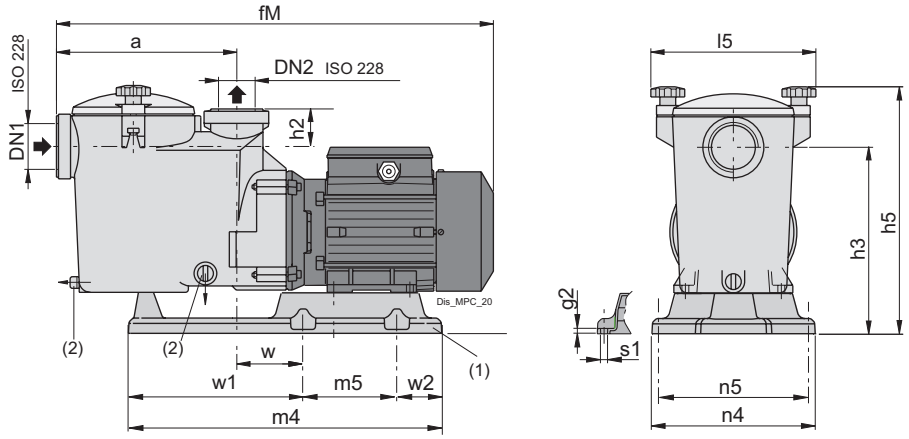
MPC

Dimensions and weights



TYPE	ISO 228		mm															kg
	DN1	DN2	a	fM	g2	h2	h3	h5	l5	m4	m5	n4	n5	s1	w	w1	w2	Weight
MPC 11	G2	G1 1/2	235	504	7	50	243	323	215	410	123	215	197	9	100	228.5	58.5	9.4
MPC 21/A	G2	G1 1/2	235	536	7	50	243	323	215	410	123	215	197	9	100	228.5	58.5	10.8
MPC 31/B	G2	G1 1/2	235	536	7	50	243	323	215	410	123	215	197	9	100	228.5	58.5	12.7

TYPE	ISO 228		mm															kg
	DN1	DN2	a	fM	g2	h2	h3	h5	l5	m4	m5	n4	n5	s1	w	w1	w2	Weight
MPCM 11	G2	G1 1/2	235	504	7	50	243	323	215	410	123	215	197	9	100	228.5	58.5	9.4
MPCM 21/A	G2	G1 1/2	235	536	7	50	243	323	215	410	123	215	197	9	100	228.5	58.5	11.7
MPCM 31/A	G2	G1 1/2	235	536	7	50	243	323	215	410	123	215	197	9	100	228.5	58.5	12.8



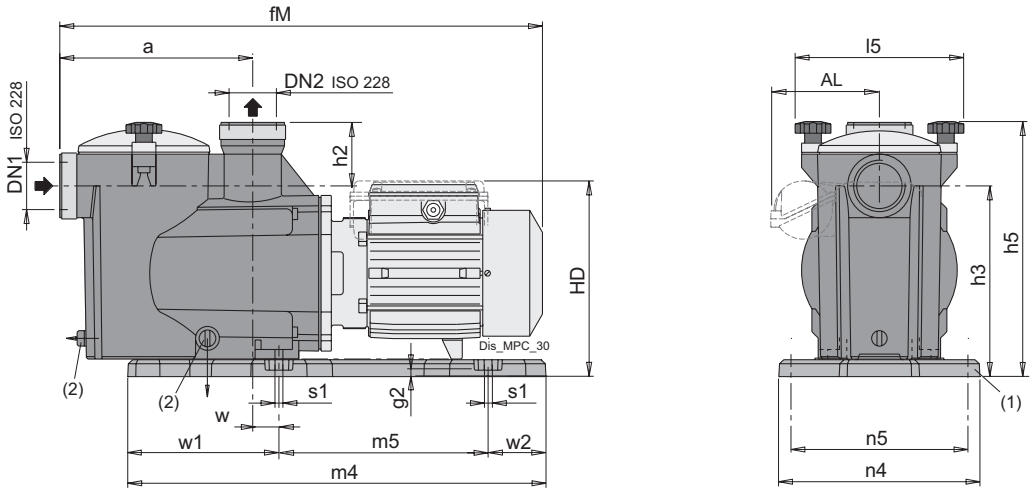
TYPE	ISO 228		mm															kg
	DN1	DN2	a	fM	g2	h2	h3	h5	l5	m4	m5	n4	n5	s1	w	w1	w2	Weight
MPC 41/A	G2	G1 1/2	235	584	7	50	243	323	215	410	123	215	197	9	100	228.5	58.5	17

TYPE	ISO 228		mm															kg
	DN1	DN2	a	fM	g2	h2	h3	h5	l5	m4	m5	n4	n5	s1	w	w1	w2	Weight
MPCM 41	G2	G1 1/2	235	584	7	50	243	323	215	410	123	215	197	9	100	228.5	58.5	17.1

(1): Pump support base kit
(2): Draining

MPC

Dimensions and weights

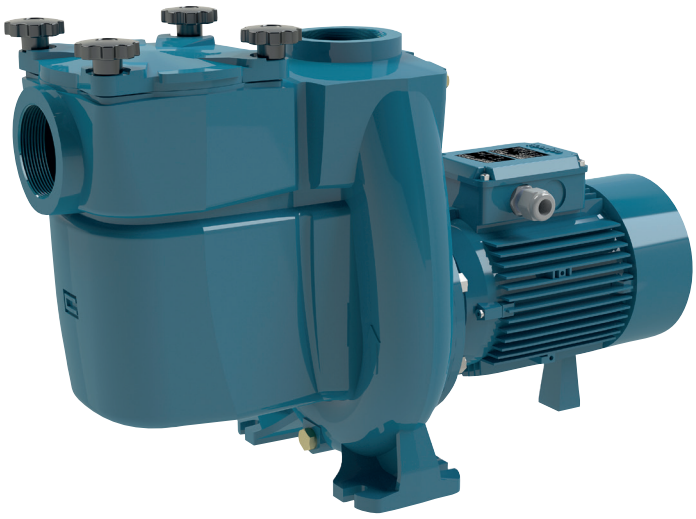


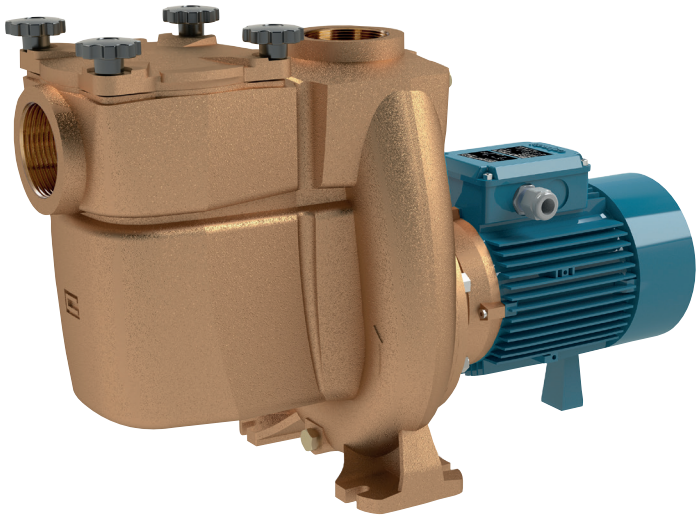
TYPE	ISO 228		mm																kg
	DN1	DN2	a	fM	g2	h2	h3	h5	HD	l5	m4	m5	n4	n5	s1	w	w1	w2	Weight
MPC 51/A	G2	G2	235	600	8	80	243	323	260	215	520	260	250	220	14	30	188	72	18.6
MPC 61/A	G2	G2	235	600	8	80	243	323	260	215	520	260	250	220	14	30	188	72	20
MPC 71/B	G2	G2	235	640	8	80	243	323	260	215	520	260	250	220	14	30	188	72	23.2

TYPE	ISO 228		mm																	kg
	DN1	DN2	a	AL	fM	g2	h2	h3	h5	HD	l5	m4	m5	n4	n5	s1	w	w1	w2	Weight
MPCM 51	G2	G2	235	-	600	8	80	243	323	260	215	520	260	250	220	14	30	188	72	18.8
MPCM 61	G2	G2	235	-	600	8	80	243	323	260	215	520	260	250	220	14	30	188	72	20.7
MPCM 71/B	G2	G2	235	131	640	8	80	243	323	260	215	520	260	250	220	14	30	188	72	23.7

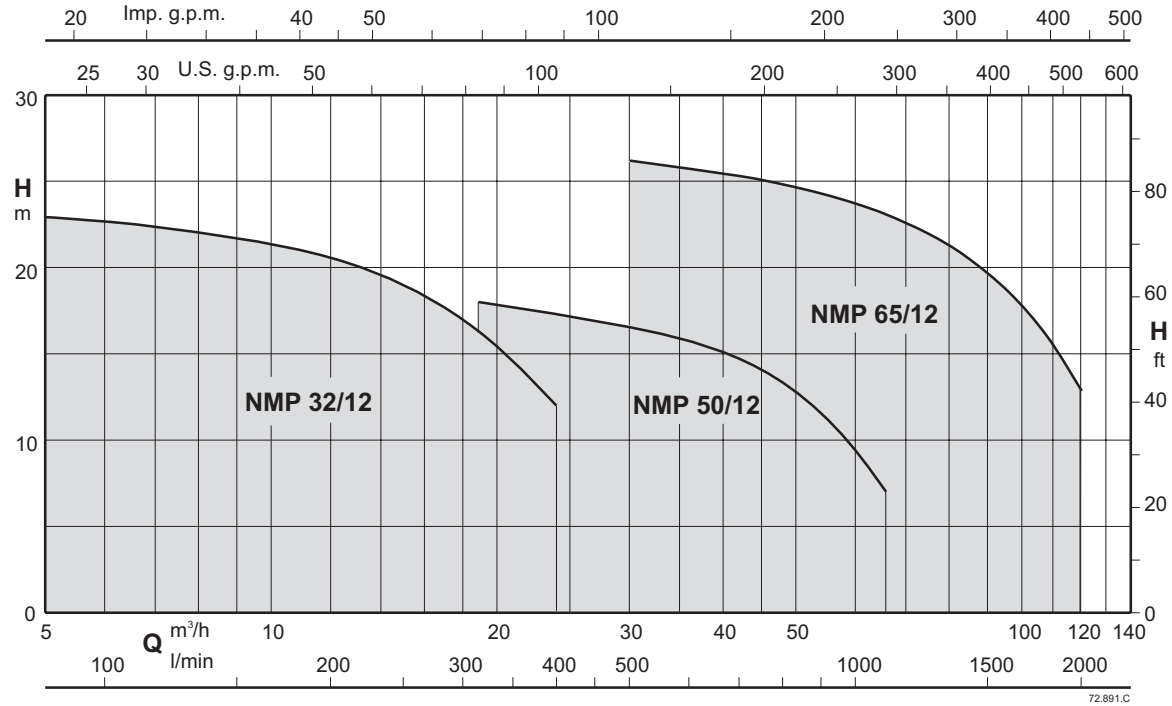
(1): Pump support base kit
(2): Draining

NMP





Coverage chart n ≈ 2900 rpm



Self-priming pumps with built-in strainer

NMP

Construction

Close-coupled self-priming centrifugal pumps with built-in strainer.
Inner basket with Ø 3 mm holes.
NMP: version with pump casing and lantern bracket in cast iron, with cataphoresis coating.
BNMP: version with pump casing and lantern bracket in bronze.
The pumps are supplied fully painted.

Applications

For water circulation in swimming pool filtration systems.
For clean or slightly dirty water with solids in suspension.

Operating conditions

Water temperature up to 60 °C.
Ambient temperature up to 40° C.
Total suction lift up to 7 m.
Maximum permissible working pressure up to 6 bar.
Continuous duty (S3 60% for single-phase pump to 1,5 kW).

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
NMP: three-phase 230/400 V ± 10%, fino a 3 kW
400/690 V ± 10%, da 4 a 7,5 kW;
NMPM: single-phase 230 V ± 10%, with thermal protector.
Insulation class F.
Protection IP X4.
IE2 efficiency class for single-phase motors up to 1,1 kW.
IE3 efficiency class for three-phase motors (IE2 up to 0,65 kW).
Constructed in accordance with EN 60034-1.
EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
IP protection: IP55
Special mechanical seal
Higher liquid or ambient temperatures.

Designation

Example: BNMPM 50/12G/A
NMP = Series
B = Bronze version (without Cast Iron version indication)
M = Singlephase version (no indication: threephase)
50 = Delivery port diameter in mm
12 = Nominal impeller diameter
G = Impeller diameter
/A = It refers to a revision

Materials

Components	NMP	BNMP
Pump casing	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Lantern bracket	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Impeller	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
	Brass with chrome-plated surface P-Cu Zn 40 Pb 2 UNI 5705 for NMP 32/12	Brass with chrome-plated surface P-Cu Zn 40 Pb 2 UNI 5705 for BNMP 32/12
Shaft	Chrome-nickel steel 1.4305 EN 10088 (AISI 303)	Steel 1.4401 EN 10088 (AISI 316)
Strainer cover	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Filter	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Mechanical seal	Carbon - Ceramic - FPM	Carbon - Ceramic - FPM

NMP

Coverage chart n ≈ 2900 rpm

Three-phase

						Q = Flow																			
						m³/h	0	6,6	9,6	10,8	12	13,2	15	18,9	21	24	30	42	48	54	60	66	75	84	96	108	120
Model		230V	400V	P2		l/min		110	160	180	200	220	250	315	350	400	500	700	800	900	1000	1100	1250	1400	1600	1800	2000
		A		kW	HP		H (m) = Total head																			
BNMP	NMP 32/12FE	4	2,3	0,55	0,75		13	13	12	11	10,5	10	9	-	-	-	-	-	-	-	-	-	-	-	-	-
BNMP	NMP 32/12DE	4	2,3	0,75	1		18	18	17	16	15,5	15	14	-	-	-	-	-	-	-	-	-	-	-	-	-
BNMP	NMP 32/12A/A	4,6	2,7	1,1	1,5		22,4	22	21	20,5	20	19,5	18,5	-	-	-	-	-	-	-	-	-	-	-	-	-
BNMP	NMP 32/12S/A	7,5	4,3	1,5	2		23	22,5	21,5	21	20,5	20	19	16	15	12	-	-	-	-	-	-	-	-	-	-	-
BNMP	NMP 50/12H/A	4,6	2,7	1,1	1,5		10,2	-	-	-	-	-	-	9	9	8,5	7,5	5,5	4,5	3	-	-	-	-	-	-	-
BNMP	NMP 50/12G/A	7,5	4,3	1,5	2		12,9	-	-	-	-	-	-	12	12	11,5	10,5	8	7	5	3,5	-	-	-	-	-	-
BNMP	NMP 50/12F/B	9,2	5,3	2,2	3		16,8	-	-	-	-	-	-	16	16	15,5	14,5	12	10,5	8,5	6,5	5	-	-	-	-	-
BNMP	NMP 50/12D/A	11,5	6,6	3	4		19	-	-	-	-	-	-	18	18	17,5	16,5	15	13	11,5	9,5	7	-	-	-	-	-
BNMP	NMP 65/12E	-	9,6	4	5,5		19,6	-	-	-	-	-	-	-	-	-	17,7	16,5	15,9	15,2	14,4	13,6	12,2	10,7	8,5	6,1	-
BNMP	NMP 65/12C	-	10,8	5,5	7,5		23,1	-	-	-	-	-	-	-	-	-	21,4	20,5	19,5	19,3	18,6	17,8	16,6	15,2	13,1	10,6	7,3
BNMP	NMP 65/12A	-	14,3	7,5	10		28,4	-	-	-	-	-	-	-	-	-	26,2	25,3	24,8	24,3	23,7	23,1	22	20,7	18,6	16	12,9

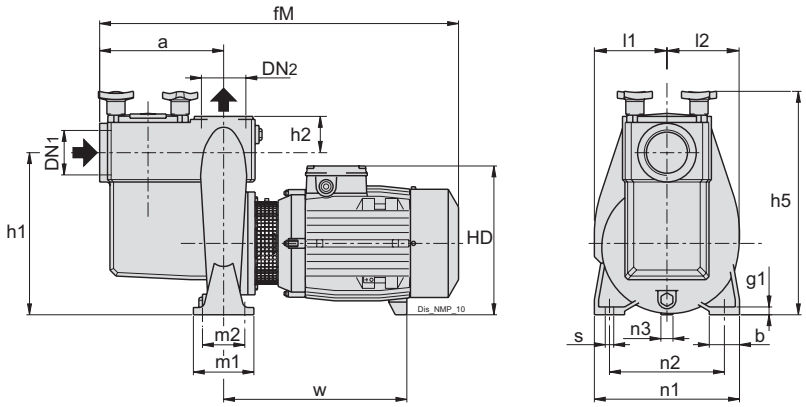
Single-phase

						Q = Flow														
						m³/h	0	6,6	9,6	10,8	12	13,2	15	18,9	21	24	30	42	48	54	60
Model		230V	P2		P1	l/min		110	160	180	200	220	250	315	350	400	500	700	800	900	1000
		A	kW	HP	kW		H (m) = Total head														
BNMPM	NMPM 32/12FE	4,5	0,55	0,75	0,78		13	12	11	10	9,5	9	8	-	-	-	-	-	-	-	-
BNMPM	NMPM 32/12DE	5,8	0,75	1	1,01		17,4	17	16	15	14,5	14	13	-	-	-	-	-	-	-	-
BNMPM	NMPM 32/12AE	7,4	1,1	1,5	1,44		22,1	21,5	20,5	19,5	19	18,5	17,5	-	-	-	-	-	-	-	-
BNMPM	NMPM 32/12SE	9,2	1,5	2	2		23	22,5	21,5	21	20,5	20	19	16	15	12	-	-	-	-	-
BNMPM	NMPM 50/12HE	7,4	1,1	1,5	1,44		10,2	-	-	-	-	-	-	9	9	8,5	7,5	5,5	4,5	3	-
BNMPM	NMPM 50/12GE	9,2	1,5	2	2		12,9	-	-	-	-	-	-	12	12	11,5	10,5	8	7	5	3,5

P1: Maximum power input.
P2: Rated motor power output.
H: Total head in m
Tolerances according to UNI EN ISO 9906:2012

NMP

Dimensions and weights



TYPE	ISO 228		mm																	kg
	DN1	DN2	a	b	fM	g1	h1	h2	h5	HD	l1	l2	m1	m2	n1	n2	n3	s	w	Weight
NMP 32/12FE	G2	G2	195	50	510	12	230	50	330	228	106	99	100	70	190	140	30	14	220	28.3
NMP 32/12DE	G2	G2	195	50	510	12	230	50	330	228	106	99	100	70	190	140	30	14	220	28.5
NMP 32/12A/A	G2	G2	195	50	510	12	230	50	330	228	106	99	100	70	190	140	30	14	220	32
NMP 32/12S/A	G2	G2	195	50	510	12	230	50	330	228	106	99	100	70	190	140	30	14	220	32
NMP 50/12H/A	G2 1/2	G2 1/2	205	50	540	12	262	60	370	240	120	117	100	70	240	190	37	14	234	35.8
NMP 50/12G/A	G2 1/2	G2 1/2	205	50	540	12	262	60	370	240	120	117	100	70	240	190	37	14	234	37.3
NMP 50/12F/B	G2 1/2	G2 1/2	205	50	580	12	262	60	370	240	120	117	100	70	240	190	37	14	274	40.8
NMP 50/12D/A	G2 1/2	G2 1/2	205	50	602	12	262	60	370	250	120	117	100	70	240	190	20	14	298	47.7
NMP 65/12E	G 3	G 3	320	65	724	15	360	80	480	298	157	159	125	95	280	212	60	14	303	73.9
NMP 65/12C	G 3	G 3	320	65	785	15	360	80	466	326	157	158	125	95	280	212	34	14	336	87.8
NMP 65/12A	G 3	G 3	320	65	785	15	360	80	466	326	157	158	125	95	280	212	34	14	336	92.2

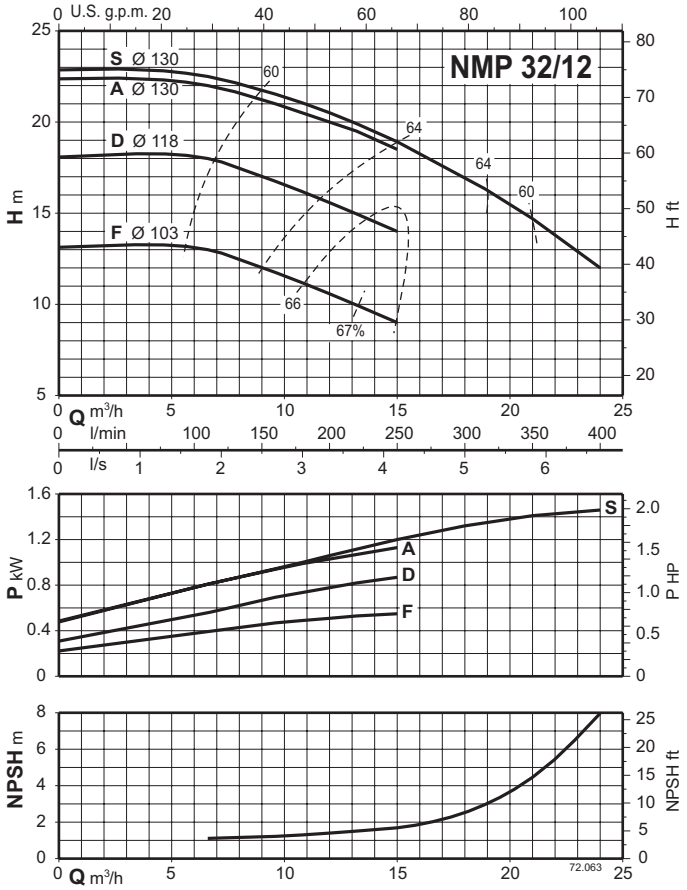
TYPE	ISO 228		mm																	kg
	DN1	DN2	a	b	fM	g1	h1	h2	h5	HD	l1	l2	m1	m2	n1	n2	n3	s	w	Weight
NMPM 32/12FE	G2	G2	195	50	510	12	230	50	330	228	106	99	100	70	190	140	30	14	220	29.7
NMPM 32/12DE	G2	G2	195	50	510	12	230	50	330	228	106	99	100	70	190	140	30	14	220	32
NMPM 32/12AE	G2	G2	195	50	510	12	230	50	330	228	106	99	100	70	190	140	30	14	220	-
NMPM 32/12SE	G2	G2	195	50	510	12	230	50	330	228	106	99	100	70	190	140	30	14	220	33.8
NMPM 50/12HE	G2 1/2	G2 1/2	205	50	540	12	262	60	370	240	120	117	100	70	240	190	37	14	234	-
NMPM 50/12GE	G2 1/2	G2 1/2	205	50	540	12	262	60	370	240	120	117	100	70	240	190	37	14	234	37.7

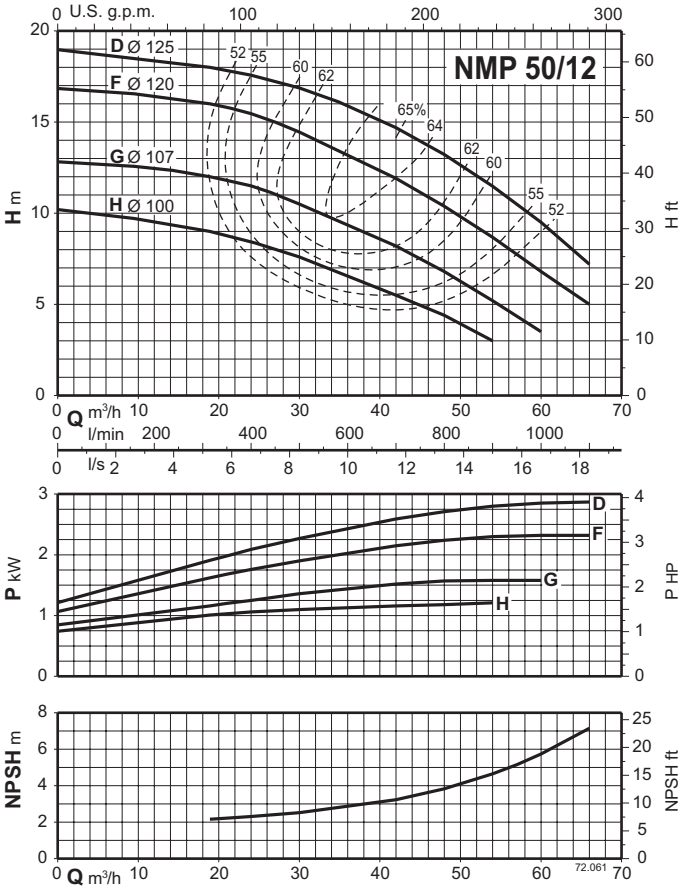
TYPE	ISO 228		mm																	kg
	DN1	DN2	a	b	fM	g1	h1	h2	h5	HD	l1	l2	m1	m2	n1	n2	n3	s	w	Weight
BNMP 32/12FE	G2	G2	195	50	510	12	230	50	330	228	106	99	100	70	190	140	30	14	220	32.6
BNMP 32/12DE	G2	G2	195	50	510	12	230	50	330	228	106	99	100	70	190	140	30	14	220	32.9
BNMP 32/12A/A	G2	G2	195	50	510	12	230	50	330	228	106	99	100	70	190	140	30	14	220	35.1
BNMP 32/12S/A	G2	G2	195	50	510	12	230	50	330	228	106	99	100	70	190	140	30	14	220	36.7
BNMP 50/12H/A	G2 1/2	G2 1/2	205	50	540	12	262	60	370	240	120	117	100	70	240	190	37	14	234	40.6
BNMP 50/12G/A	G2 1/2	G2 1/2	205	50	540	12	262	60	370	240	120	117	100	70	240	190	37	14	234	41.7
BNMP 50/12F/B	G2 1/2	G2 1/2	205	50	580	12	262	60	370	240	120	117	100	70	240	190	37	14	274	46.2
BNMP 50/12D/A	G2 1/2	G2 1/2	205	50	602	12	262	60	370	250	120	117	100	70	240	190	20	14	298	51.5
BNMP 65/12E	G 3	G 3	320	65	724	15	360	80	480	298	157	159	125	95	280	212	60	14	303	86.6
BNMP 65/12C	G 3	G 3	320	65	785	15	360	80	466	326	157	158	125	95	280	212	34	14	336	98.3
BNMP 65/12A	G 3	G 3	320	65	785	15	360	80	466	326	157	158	125	95	280	212	34	14	336	103.5

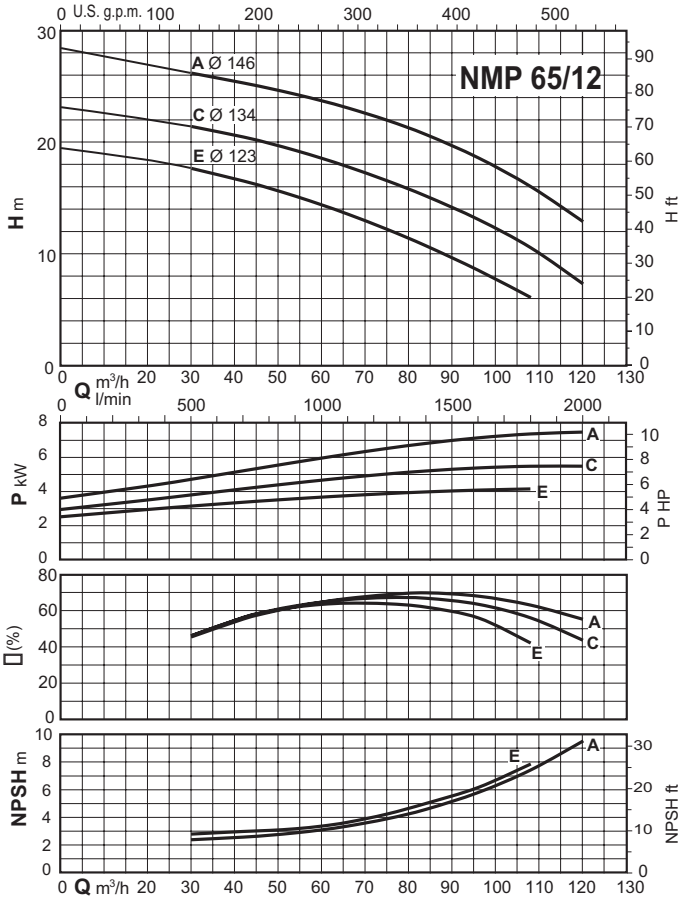
TYPE	ISO 228		mm																	kg
	DN1	DN2	a	b	fM	g1	h1	h2	h5	HD	l1	l2	m1	m2	n1	n2	n3	s	w	Weight
BNMPM 32/12FE	G2	G2	195	50	510	12	230	50	330	228	106	99	100	70	190	140	30	14	220	33.7
BNMPM 32/12DE	G2	G2	195	50	510	12	230	50	330	228	106	99	100	70	190	140	30	14	220	-
BNMPM 32/12AE	G2	G2	195	50	510	12	230	50	330	228	106	99	100	70	190	140	30	14	220	-
BNMPM 32/12SE	G2	G2	195	50	510	12	230	50	330	228	106	99	100	70	190	140	30	14	220	37
BNMPM 50/12HE	G2 1/2	G2 1/2	205	50	540	12	262	60	370	240	120	117	100	70	240	190	37	14	234	-
BNMPM 50/12GE	G2 1/2	G2 1/2	205	50	540	12	262	60	370	240	120	117	100	70	240	190	37	14	234	41.9

NMP

Characteristic curves n ≈ 2900 rpm







PF

Pre-filters in stainless steel



Pre-filters in polypropylene



Recommended pumps and pre-filters

Pre-filters	DN	flow *	Pumps
	mm	m3/h	
PFP 50	50	12	NM4 32/16, NM4 32/20
PFP 65	65	20	NM4 40/16, NM4 40/20, NM4 40/25
PFP 80	80	30	NM4 50/16, NM4 50/20, NM4 50/25
PFP 100 - PF 100	100	48	NM4 65/16, NM4 65/20, NM4 65/25, NM4 65/31
PFP 125 - PF 125	125	75	NM4 80/16, NM4 80/20, NM4 80/25, NM4 80/31
PFP 150 - PP 150	150	108	NM4 100/20, NM4 100/25, NM4 100/31
PFP 200	200	192	NM4 125/25

*** Flow rate with 1,7 m/s flow velocity**

Pre-filters

PF

Construction

PF type
Pre-filters with removable basket, constructed in stainless steel.
Ports with free annular flanges.
Clamp type closing with lever and double adjustment clamp.
Inner basket with Ø 6 mm holes.

PFP type
Pre-filters with removable basket, constructed in polypropylene.
Ports with free annular flanges.
Transparent closing lid
Easy-to-remove lid with 6 knobs.
Inner basket with Ø 5 mm holes.

Operating conditions

Max working pressure: 0,5 bar.
Liquid temperature up to: PFP 40°C (PF 50°C).
pH value: 6.5-8.

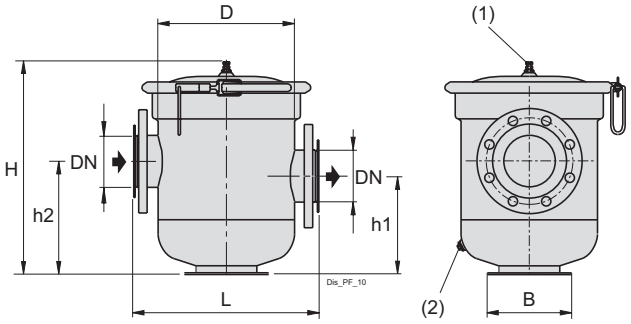
Applications

For water circulation pump in filtration plants in swimming pools.
To prevent foreign bodies from entering the pump and the plant.

Materials

Components		Materials
Pre-filter body Pre-filter cover	PF 100-304	Stainless steel AISI 304
	PF 125-304	
	PF 150-304	
	PF 100-316	Stainless steel AISI 316
	PF 125-316	
	PF 150-316	
Pre-filter body	PFP all	Polypropylene
Pre-filter cover	PFP all	Transparent polypropylene
Strainer basket	all	Stainless steel AISI 316

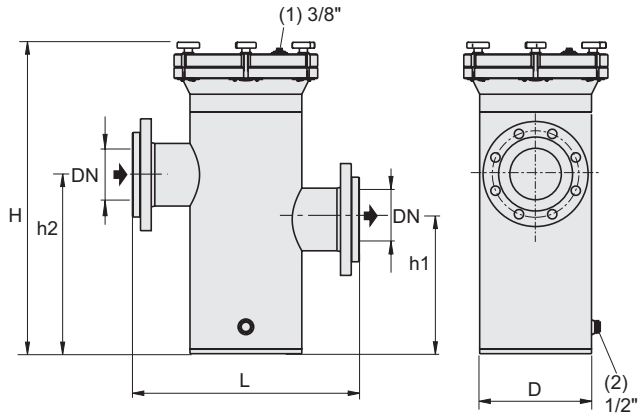
Dimensions and weights



1 Relief valve
2 Draining plug

Flanges UNI 1092-1 PN 10

Pump type	mm							
	DN	H	h1	h2	L	D	B	kg
PF 100	100	530	247	287	440	292	185	17,5
PF 125	125				440	292	185	17,7
PF 150	150	550	260	300	500	350	210	23,3

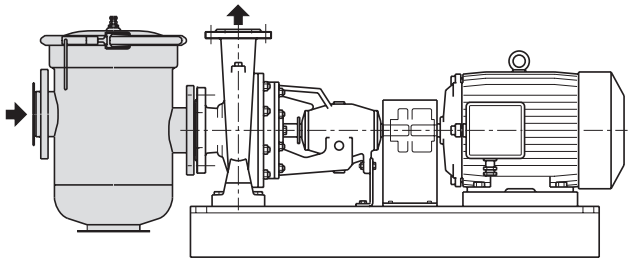


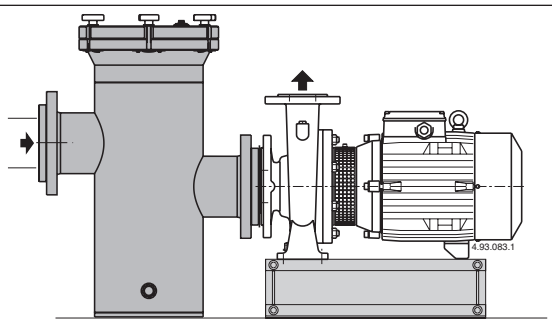
1 Relief valve
2 Draining plug

Flanges UNI 1092-1 PN 10

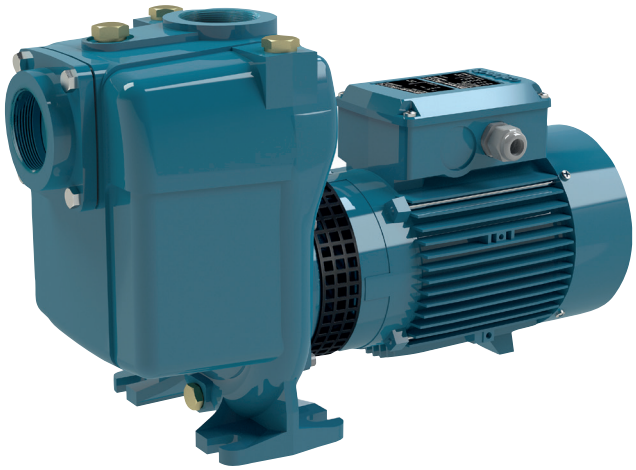
Pump type	mm						
	DN	H	h1	h2	L	D	kg
PFP 50	50	695	300	400	440	250	14
PFP 65	65	695	300	400	460	250	14,1
PFP 80	80	695	300	400	477	250	14,2
PFP 100	100	695	300	400	502	250	14,3
PFP 125	125	695	300	400	507	250	14,5
PFP 150	150	754	300	400	585	315	25
PFP 200	200	795	300	400	689	400	43

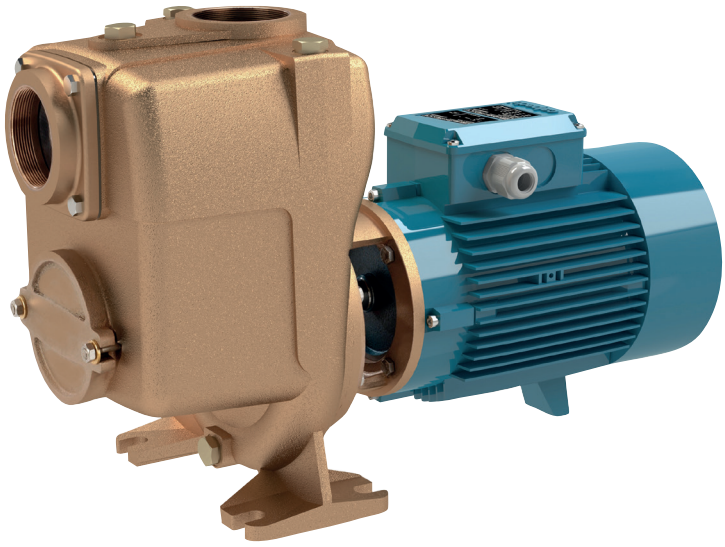
Examples of installations



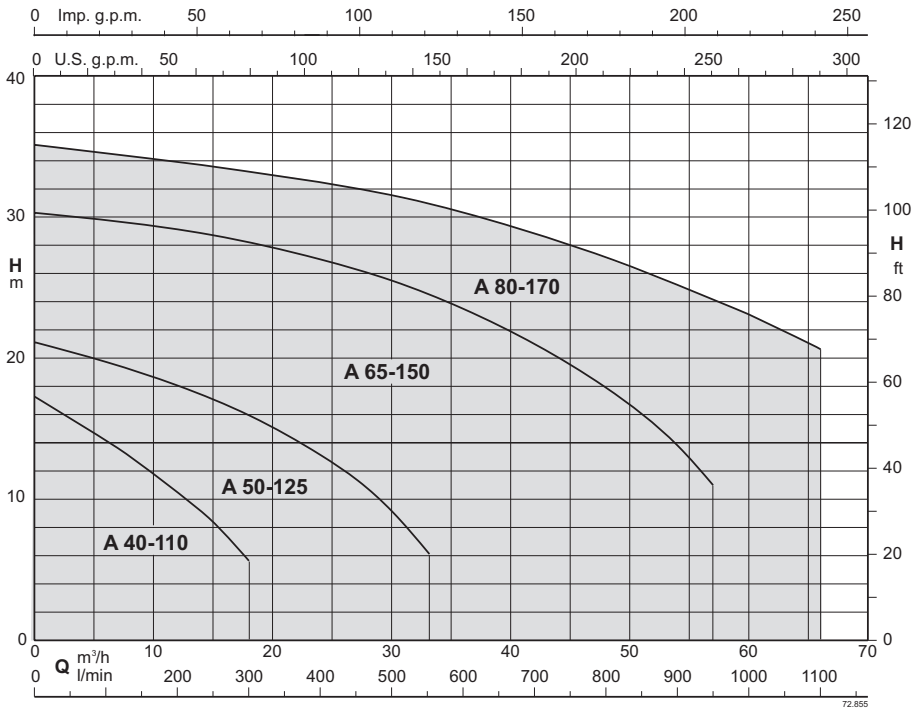


A





Coverage chart n ≈ 2900 rpm



Self-priming pumps with open impeller

A

Construction

Close-coupled centrifugal pumps with open impeller.
The built-in backflow preventer
avoids reverse siphoning when the pump is stopped and assures automatic re-priming at the next start.
The pump re-primes itself even if partially filled with liquid and with completely empty suction pipe.
A: version with pump casing and lantern bracket in cast iron.
B-A: version with pump casing and lantern bracket in bronze.
The pumps are supplied fully painted.

Applications

For clean or slightly dirty water, also with solids up to 10 mm grain size for A 40, A 50 and 15 mm for A 65, A 80.
For draining a basin or a sump.
For irrigation.
For civil and industrial applications.

Operating conditions

Liquid temperature from -10 °C to +90 °C.
Ambient temperature up to 40° C.
Maximum permissible working pressure up to 6 bar (10 bar for A 80-170).
Continuous duty (S3 60% for single-phase pump to 1,5 kW).

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
A: three-phase 230/400 V ± 10%, up to 3 kW.
400/690 V ± 10%, da 4 a 7,5 kW;
AM: single-phase 230 V ± 10%, with thermal protector.
Capacitor inside the terminal box.
Insulation class F.
Protection IP54
IE2 efficiency class for single-phase motors up to 1,1 kW.
Classification scheme IE3 for three-phase motors from 0,75 kW.
Constructed in accordance with EN 60034-1; EN 60034-30-1.
EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
IP protection: IP55
Special mechanical seal
Higher or lower liquid or ambient temperatures.
Construction with bearing bracket.

Designation

Example: BAM 40-/110B/A
B = Bronze version (without Cast Iron version indication)
A = Series
M = Singlephase version (no indication: threephase)
40 = Delivery port diameter in mm
110 = Nominal impeller diameter
B = Impeller diameter
/A = It refers to a revision

Materials

Components	A	BA
Pump casing	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
cylindrical suction	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Inspection cover (A65, A80)	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Lantern bracket	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Impeller	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Shaft	Chrome-nickel steel 1.4305 EN 10088 (AISI 303)	Steel 1.4401 EN 10088 (AISI 316)
	Steel 1.4104 EN 10088 (AISI 430F) for A 40-110, A 65-150A,B	Steel 1.4401 EN 10088 (AISI 316)
Mechanical seal	Carbon - Ceramic - FPM	Carbon - Ceramic - FPM

A

Coverage chart n ≈ 2900 rpm

Three-phase

						Q = Flow										
						m³/h	0	3,6	4,8	6	7,5	8,4	9,6	10,8	12	15	18
Model		230V	400V	P2		l/min		60	80	100	125	140	160	180	200	250	300
		A		kW	HP	H (m) = Total head											
BA	A 40-110B/A	2,8	1,6	0,55	0,75		14,4	12,9	12,4	11,8	11	10,4	9,8	9	8,3	6	3,4
BA	A 40-110A/B	3,7	2,2	0,75	1		17,2	15,4	14,9	14,2	13,3	12,9	12,1	11,3	10,5	8,4	5,6

Single-phase

						Q = Flow										
						m³/h	0	3,6	4,8	6	7,5	8,4	9,6	10,8	12	15	18
Model		230V	P2		P1	l/min		60	80	100	125	140	160	180	200	250	300
		A	kW	HP	kW	H (m) = Total head											
BAM	AM 40-110B/A	4,5	0,55	0,75	0,78		14,4	12,9	12,4	11,8	11	10,4	9,8	9	8,3	6	3,4
BAM	AM 40-110A/A	5,7	0,75	1	1,01		17,2	15,4	14,9	14,2	13,3	12,9	12,1	11,3	10,5	8,4	5,6

Three-phase

						Q = Flow										
						m³/h	0	6	9	12	15	18	21	24	27	30	33
Model		230V	400V	P2		l/min		100	150	200	250	300	350	400	450	500	550
		A		kW	HP	H (m) = Total head											
BA	A 50-125CE	4	2,3	0,75	1		13,7	12,8	12,2	11,3	10	8,5	7	5,3	3,3	-	-
BA	A 50-125B/A	4,6	2,7	1,1	1,5		16,5	15,5	14,9	14,2	12,9	11,6	10	8,3	6,2	4	-
BA	A 50-125A/A	7,5	4,3	1,5	2		20,5	19,5	19	18	17	15,5	14	12,5	10,5	8	5

Single-phase

						Q = Flow										
						m³/h	0	6	9	12	15	18	21	24	27	30	33
Model		230V	P2		P1	l/min		100	150	200	250	300	350	400	450	500	550
		A	kW	HP	kW	H (m) = Total head											
BAM	AM 50-125CE	5,8	0,75	1	1,01		13,7	12,8	12,2	11,3	10	8,5	7	5,3	3,3	-	-
BAM	AM 50-125BE	7,4	1,1	1,5	1,44		16,5	15,5	14,9	14,2	12,9	11,6	10	8,3	6,2	4	-
BAM	AM 50-125AE	9,2	1,5	2	2,1		20,5	19,5	19	18	17	15,5	14	12,5	10,5	8	5

Three-phase

							Q = Flow										
							m³/h	0	15	18	24	30	33	36	42	48	54	57
Model		230V	400V	690V	P2		l/min		250	300	400	500	550	600	700	800	900	950
		A			kW	HP	H (m) = Total head											
BA	A 65-150C/B	11,5	6,6	-	2,2	3		18,8	17,5	17	16	14	13	11,5	9	6,5	-	-
BA	A 65-150B/B	11,5	6,6	-	3	4		22,8	21,5	21	19,5	17,5	16,5	15,5	12,5	9,5	6,5	-
BA	A 65-150A/C	-	9,6	5,5	4	5,5		30,8	29	28	27	25,5	24,5	23,5	21	18	14	11

Three-phase

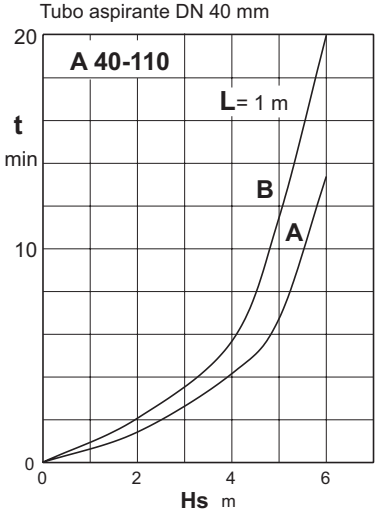
						Q = Flow										
						m³/h	0	15	18	21	24	30	36	45	54	60	66
Model		400V	690V	P2		l/min		250	300	350	400	500	600	750	900	1000	1100
		A		kW	HP	H (m) = Total head											
BA	A 80-170B/A	10,8	6,2	5,5	7,5		28	27,3	27,3	27	26,8	25,7	24,4	22,1	19	16,7	13,7
BA	A 80-170A/A	14,3	8,3	7,5	10		35	33,6	33,2	32,9	32,5	31,6	30,5	28,1	25,3	23,2	20,4

P1: Maximum power input.
P2: Rated motor power output.

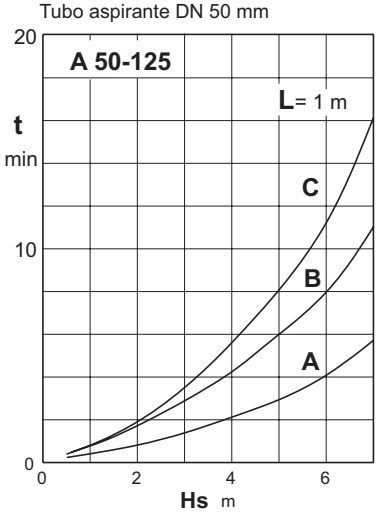
Tolerances according to UNI EN ISO 9906:2012

Self-Priming Capability with the pump located above the water level

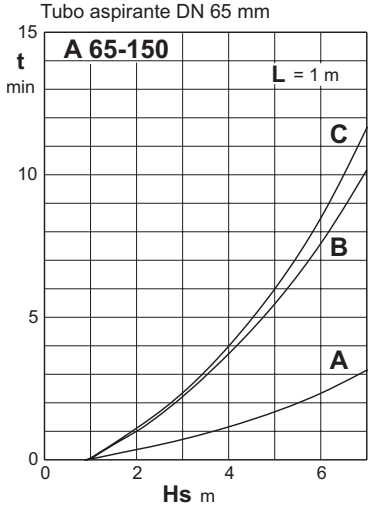
Tubo aspirante DN 40 mm



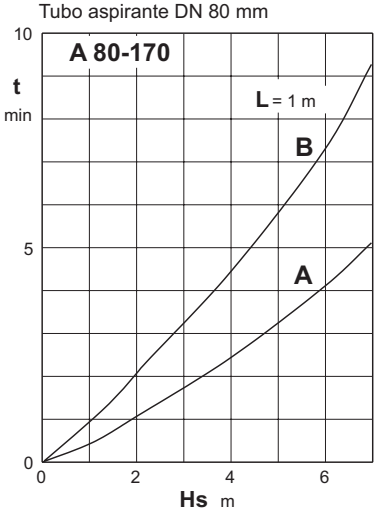
Tubo aspirante DN 50 mm



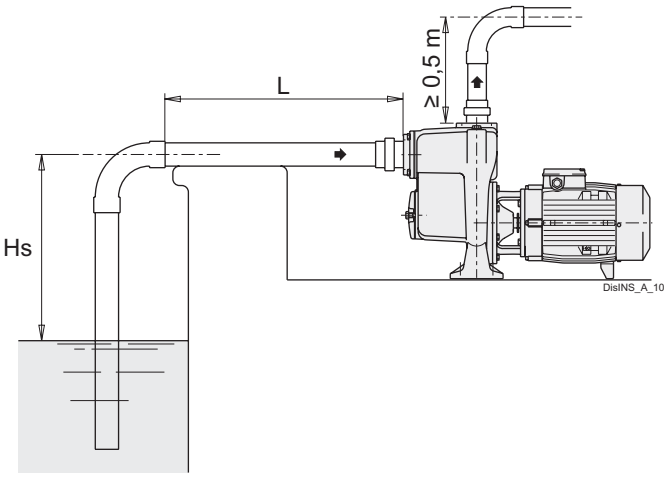
Tubo aspirante DN 65 mm



Tubo aspirante DN 80 mm

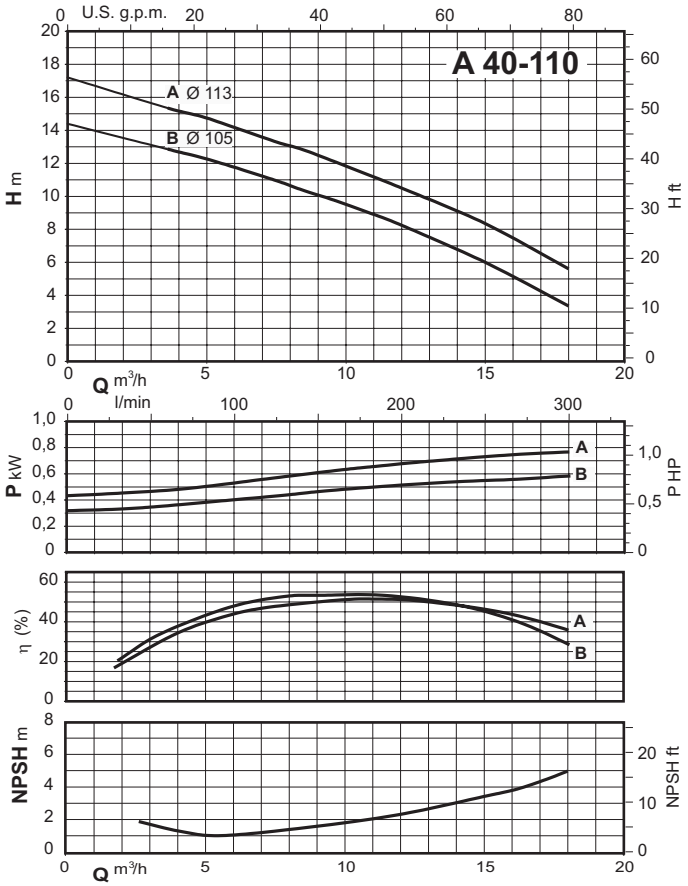


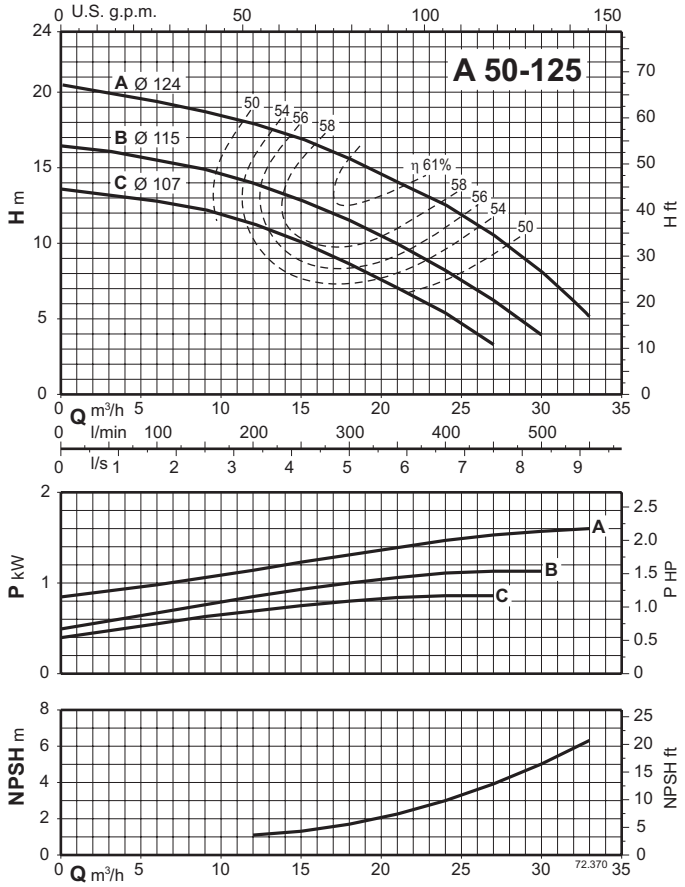
Hs (m) Suction lift.
L (m) Horizontal length of suction pipe above the water level.
t (min) Self-priming time.
Test results with cold water

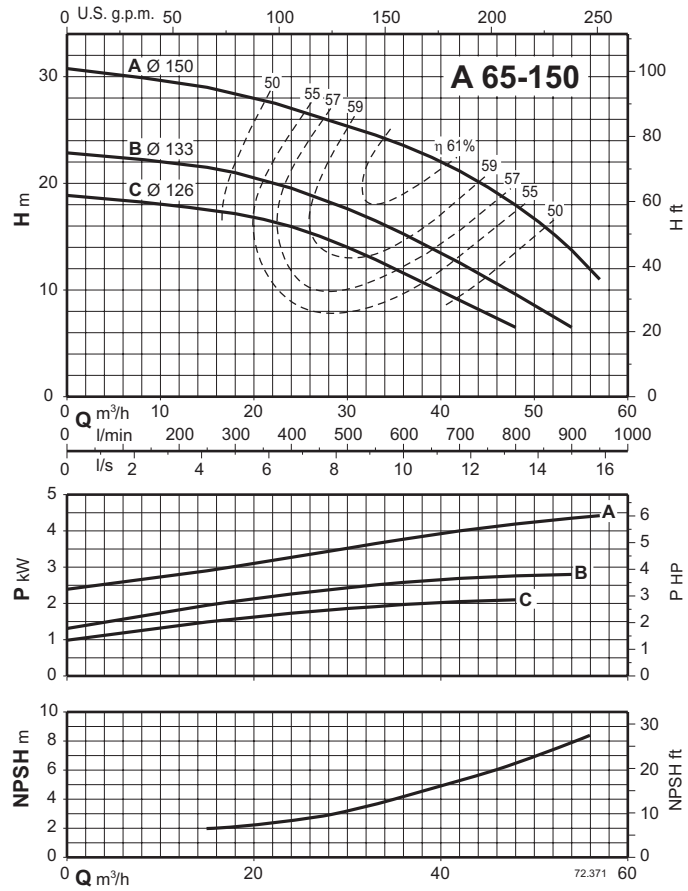


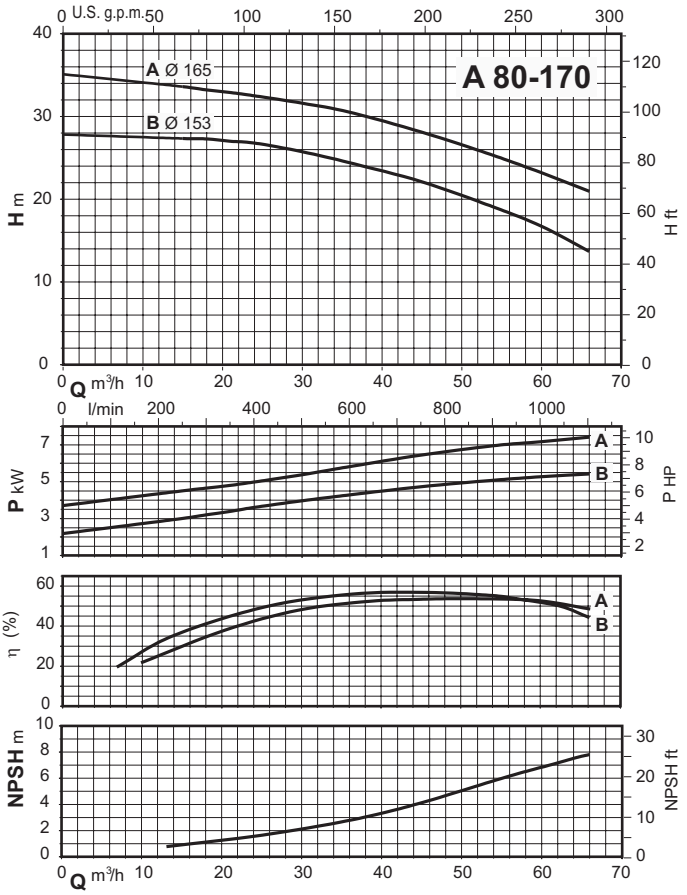
A

Characteristic curves n ≈ 2900 rpm



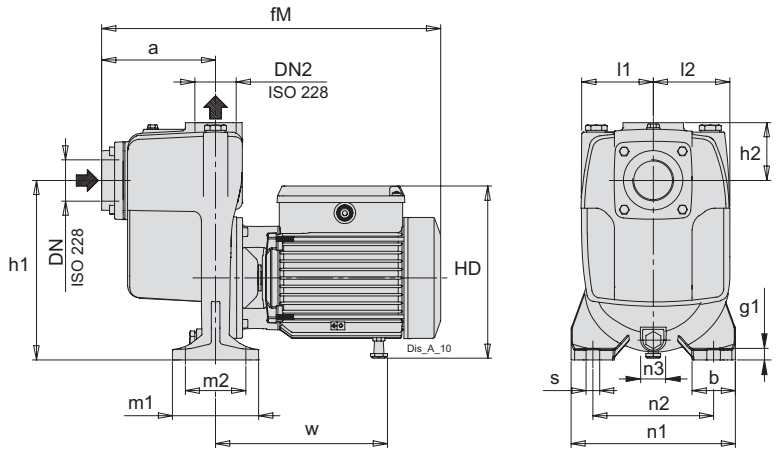






A

Dimensions and weights



TYPE	ISO 228		mm															kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	s	w	Weight
A 40-110B/A	G 1 1/2	G 1 1/2	132	50	393	12	208	67	206	83	89	100	70	190	140	16	199	19.5
A 40-110A/B	G 1 1/2	G 1 1/2	132	50	393	12	208	67	206	83	89	100	70	190	140	16	199	20.7

TYPE	ISO 228		mm															kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	s	w	Weight
AM 40-110B/A	G 1 1/2	G 1 1/2	132	50	393	12	208	67	206	83	89	100	70	190	140	16	199	19.9
AM 40-110A/A	G 1 1/2	G 1 1/2	132	50	393	12	208	67	206	83	89	100	70	190	140	16	199	20.9

TYPE	ISO 228		mm															kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	s	w	Weight
BA 40-110B/A	G 1 1/2	G 1 1/2	132	50	393	12	208	67	206	83	89	100	70	190	140	16	199	21.6
BA 40-110A/B	G 1 1/2	G 1 1/2	132	50	393	12	208	67	206	83	89	100	70	190	140	16	199	23.3

TYPE	ISO 228		mm															kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	s	w	Weight
BAM 40-110B/A	G 1 1/2	G 1 1/2	132	50	393	12	208	67	206	83	89	100	70	190	140	16	199	22.6
BAM 40-110A/A	G 1 1/2	G 1 1/2	132	50	393	12	208	67	206	83	89	100	70	190	140	16	199	23.6

TYPE	ISO 228		mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	n3	s	w	Weight
A 50-125CE	G 2	G 2	147	50	490	12	231	64	223	96	102	100	70	190	140	30	16	263	26.2
A 50-125B/A	G 2	G 2	147	50	490	12	231	64	223	96	102	100	70	190	140	30	16	263	28.3
A 50-125A/A	G 2	G 2	147	50	490	12	231	64	223	96	102	100	70	190	140	30	16	263	29.8

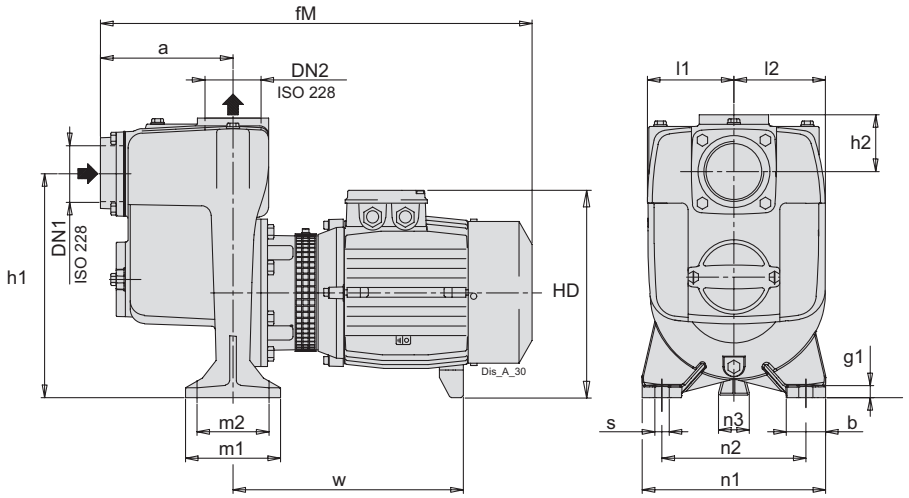
TYPE	ISO 228		mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	n3	s	w	Weight
AM 50-125CE	G 2	G 2	147	50	490	12	231	64	223	96	102	100	70	190	140	30	16	263	28.2
AM 50-125BE	G 2	G 2	147	50	490	12	231	64	223	96	102	100	70	190	140	30	16	263	29.9
AM 50-125AE	G 2	G 2	147	50	490	12	231	64	223	96	102	100	70	190	140	30	16	263	29.9

TYPE	ISO 228		mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	n3	s	w	Weight
BA 50-125CE	G 2	G 2	147	50	490	12	231	64	223	96	102	100	70	190	140	30	16	263	31.2
BA 50-125B/A	G 2	G 2	147	50	490	12	231	64	223	96	102	100	70	190	140	30	16	263	32.7
BA 50-125A/A	G 2	G 2	147	50	490	12	231	64	223	96	102	100	70	190	140	30	16	263	35

TYPE	ISO 228		mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	n3	s	w	Weight
BAM 50-125CE	G 2	G 2	147	50	490	12	231	64	223	96	102	100	70	190	140	30	16	263	32.3
BAM 50-125BE	G 2	G 2	147	50	490	12	231	64	223	96	102	100	70	190	140	30	16	263	33.5
BAM 50-125AE	G 2	G 2	147	50	490	12	231	64	223	96	102	100	70	190	140	30	16	263	37

A

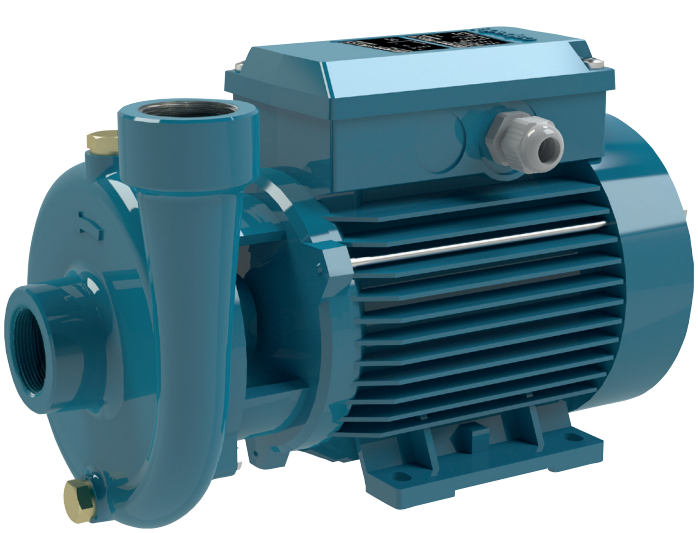
Dimensions and weights

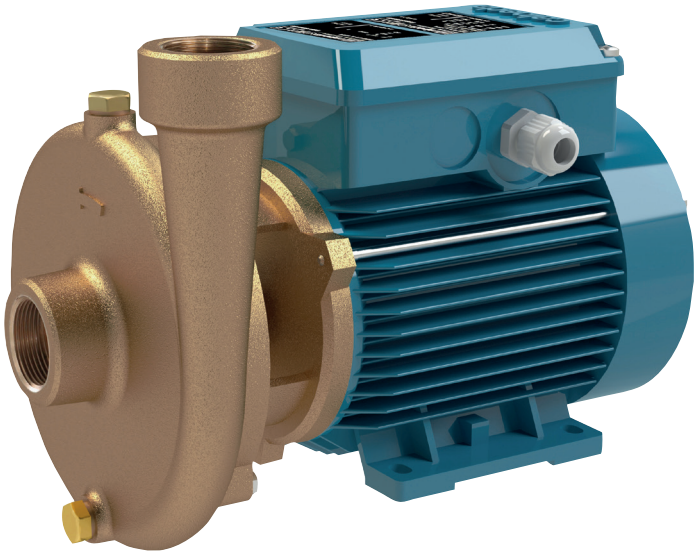


TYPE	ISO 228		mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	n3	s	w	Weight
A 65-150C/B	G 2 1/2	G 2 1/2	172	50	635	12	293	75	260	115	121	125	95	240	190	47	16	364	51.6
BA 65-150C/B	G 2 1/2	G 2 1/2	172	50	583	12	293	75	260	115	121	125	95	240	190	47	16	319	52.5
A 65-150B/B	G 2 1/2	G 2 1/2	172	50	595	12	293	75	270	115	121	125	95	240	190	47	16	324	52
BA 65-150B/A	G 2 1/2	G 2 1/2	172	50	595	12	293	75	270	115	121	125	95	240	190	47	16	324	58.6
A 65-150A/C	G 2 1/2	G 2 1/2	172	50	595	12	293	75	270	115	121	125	95	240	190	47	16	324	55.3
BA 65-150A/B	G 2 1/2	G 2 1/2	172	50	595	12	293	75	270	115	121	125	95	240	190	47	16	324	63.2

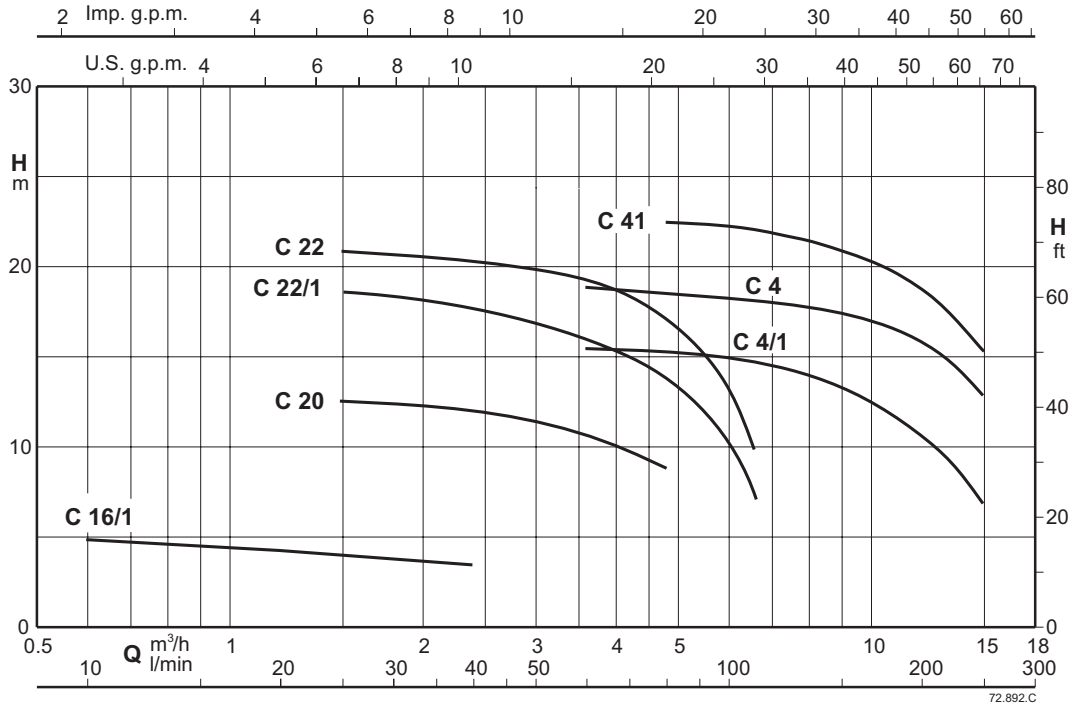
TYPE	ISO 228		mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l1	l2	m1	m2	n1	n2	n3	s	w	Weight
A 80-170B/A	G 3	G 3	202	60	694	16	342	85	327	132	140	145	110	280	220	49	18	366	80.5
BA 80-170B/A	G 3	G 3	202	60	694	16	342	85	327	132	140	145	110	280	220	49	18	366	89.9
A 80-170A/A	G 3	G 3	202	60	694	16	342	85	327	132	140	145	110	280	220	49	18	366	86.1
BA 80-170A/A	G 3	G 3	202	60	694	16	342	85	327	132	140	145	110	280	220	49	18	366	95.1

C





Coverage chart n ≈ 2900 rpm



Self-priming centrifugal pumps with open impeller

C

Construction

Close-coupled centrifugal pumps with open impeller.
Free-flow impeller (vortex or recessed impeller) for type C 16/1E.
C: version with pump casing and lantern bracket in cast iron.
BC: version with pump casing and lantern bracket in bronze.
The pumps are supplied fully painted.

Applications

For moderately dirty liquids or emulsions.
For industry and agriculture.

Operating conditions

Liquid temperature from -10 °C to +90 °C.
Ambient temperature up to 40° C.
Total suction lift up to 8 m.
Maximum permissible working pressure: 6 bar.
Maximum size of solids: 4 mm.
Continuous duty. (S3 60% for C(M) 22E-CM 22/1E).

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
C: three-phase 230/400 V ± 10%.
CM: single-phase 230 V ± 10%, with thermal protector.
Capacitor inside the terminal box.
Insulation class F.
Protection IP54
Motor suitable for operation with frequency converter from 1,1 kW.
Single-phase motors with efficiency class IE2 (except for CM 22E, CM 22/1E).
IE3 efficiency class for three-phase motors (IE2 up to 0,65 kW).
Constructed in accordance with EN 60034-1; EN 60034-30-1.
EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
IP protection: IP55
Special mechanical seal
Higher or lower liquid or ambient temperatures.
Motor suitable for operation with frequency converter up to 0,75 kW.
Design with support.

Designation

Example: B-CM 20/A
B = Bronze version (without Cast Iron version indication)
C = Series
M = Singlephase version (no indication: threephase)
/A = It refers to a revision

The electropumps comply with the European Regulation no. 547/2012.

Materials

Components	**C**	**BC**
Pump casing	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Lantern bracket	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Impeller	Brass CW617N EN 12167	Brass CW617N EN 12167
Shaft	Steel 1.4104 EN 10088 (AISI 430F)	Steel 1.4401 EN 10088 (AISI 316)
	AISI 303 Cr-Ni steel for C 41E	
Mechanical seal	Carbon - Ceramic - NBR	Carbon - Ceramic - NBR

C

Coverage chart n ≈ 2900 rpm

Three-phase

					Q = Flow																	
					m³/h	0	0,6	0,9	1,2	1,5	1,8	2,4	3	3,6	4,8	6	6,6	8,4	9,6	10,8	12	13,2	15
Model	230V	400V	P2		l/min		10	15	20	25	30	40	50	60	80	100	110	140	160	180	200	220	250
	A		kW	HP	H (m) = Total head																	
C 16/1E	1,7	1	0,15	0,2		5,58	5	4,7	4,4	4,2	4	3,6	-	-	-	-	-	-	-	-	-	-	-
C 20E	1,7	1	0,25	0,34		12,5	-	-	-	12,3	12,2	12	11,5	10,8	9	-	-	-	-	-	-	-	-
C 22/1/A	2,4	1,4	0,45	0,6		18,1	-	-	-	18	18	17,5	17	16	14	10	7,5	-	-	-	-	-	-
C 22E	3	1,7	0,55	0,75		20,5	-	-	-	20,5	20	20	19	18,5	16,5	14	12	-	-	-	-	-	-
C 4/1/A	3	1,7	0,55	0,75		15,8	-	-	-	-	-	-	-	15,6	15,4	15,2	15	14	13,1	12	10,8	9,5	7
C 4/B	3,7	2,2	0,75	1		17,5	-	-	-	-	-	-	-	17,7	17,9	17,9	17,8	17,4	16,9	16,2	15,3	14,2	11,9
C 41/A	4,6	2,7	1,1	1,5		22	-	-	-	-	-	-	-	-	22,4	22,3	22,2	21,5	21	20,5	19,5	18	15,5

Three-phase

					Q = Flow																	
					m³/h	0	0,6	0,9	1,2	1,5	1,8	2,4	3	3,6	4,8	6	6,6	8,4	9,6	10,8	12	13,2	15
Model	230V	400V	P2		l/min		10	15	20	25	30	40	50	60	80	100	110	140	160	180	200	220	250
	A		kW	HP	H (m) = Total head																	
BC 16/1E	1,7	1	0,15	0,2		5,58	5	4,7	4,4	4,2	4	3,6	-	-	-	-	-	-	-	-	-	-	-
BC 20/A	2,3	1,3	0,37	0,5		12,5	-	-	-	12,3	12,2	12	11,5	10,8	9	-	-	-	-	-	-	-	-
BC 22/1/A	2,3	1,3	0,45	0,6		18,1	-	-	-	18	18	17,5	17	16	14	10	7,5	-	-	-	-	-	-
BC 22/A	3	1,7	0,55	0,75		20,5	-	-	-	20,5	20	20	19	18,5	16,5	14	12	-	-	-	-	-	-
BC 41/1E	4	2,3	0,75	1		17,5	-	-	-	-	-	-	-	17,7	17,9	17,9	17,8	17,4	16,9	16,2	15,3	14,2	11,9
BC 41/A	4,6	2,7	1,1	1,5		22	-	-	-	-	-	-	-	-	22,4	22,3	22,2	21,5	21	20,5	19,5	18	15,5

Single-phase

					Q = Flow																	
					m³/h	0	0,6	0,9	1,2	1,5	1,8	2,4	3	3,6	4,8	6	6,6	8,4	9,6	10,8	12	13,2	15
Model	230V	P2		P1	l/min		10	15	20	25	30	40	50	60	80	100	110	140	160	180	200	220	250
	A	kW	HP	kW	H (m) = Total head																	
CM 16/1E	1,2	0,15	0,2	0,29		5,58	5	4,7	4,4	4,2	4	3,6	-	-	-	-	-	-	-	-	-	-	-
CM 20E	2,5	0,25	0,34	0,42		12,5	-	-	-	12,3	12,2	12	11,5	10,8	9	-	-	-	-	-	-	-	-
CM 22/1E	3	0,45	0,6	0,69		18,1	-	-	-	18	18	17,5	17	16	14	10	7,5	-	-	-	-	-	-
CM 22E	3,5	0,55	0,75	0,81		20,5	-	-	-	20,5	20	20	19	18,5	16,5	14	12	-	-	-	-	-	-
CM 4/1/A	4,5	0,55	0,75	0,78		15,8	-	-	-	-	-	-	-	15,6	15,4	15,2	15	14	13,1	12	10,8	9,5	7
CM 4/A	5,7	0,75	1	1,01		17,5	-	-	-	-	-	-	-	17,7	17,9	17,9	17,8	17,4	16,9	16,2	15,3	14,2	11,9
CM 41E	7,4	1,1	1,5	1,44		22	-	-	-	-	-	-	-	-	22,4	22,3	22,2	21,5	21	20,5	19,5	18	15,5

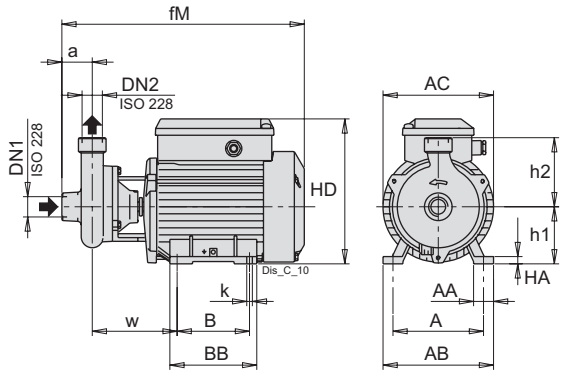
Single-phase

					Q = Flow																	
					m³/h	0	0,6	0,9	1,2	1,5	1,8	2,4	3	3,6	4,8	6	6,6	8,4	9,6	10,8	12	13,2	15
Model	230V	P2		P1	l/min		10	15	20	25	30	40	50	60	80	100	110	140	160	180	200	220	250
	A	kW	HP	kW	H (m) = Total head																	
BCM 16/1E	1,2	0,15	0,2	0,29		5,58	5	4,7	4,4	4,2	4	3,6	-	-	-	-	-	-	-	-	-	-	-
BCM 20/A	2,8	0,37	0,5	0,57		12,5	-	-	-	12,3	12,2	12	11,5	10,8	9	-	-	-	-	-	-	-	-
BCM 22/1/A	3,6	0,45	0,6	0,67		18,1	-	-	-	18	18	17,5	17	16	14	10	7,5	-	-	-	-	-	-
BCM 22/A	4,5	0,55	0,75	0,78		20,5	-	-	-	20,5	20	20	19	18,5	16,5	14	12	-	-	-	-	-	-
BCM 41/1E	5,8	0,75	1	1,01		17,5	-	-	-	-	-	-	-	17,7	17,9	17,9	17,8	17,4	16,9	16,2	15,3	14,2	11,9
BCM 41E	7,4	1,1	1,5	1,44		22	-	-	-	-	-	-	-	-	22,4	22,3	22,2	21,5	21	20,5	19,5	18	15,5

P1: Maximum power input.
P2: Rated motor power output.
H: Total head in m
ρ: Density 1000kg/m³
υ: Kinematic viscosity max 20 mm2/sec.
Tolerances according to UNI EN ISO 9906:2012

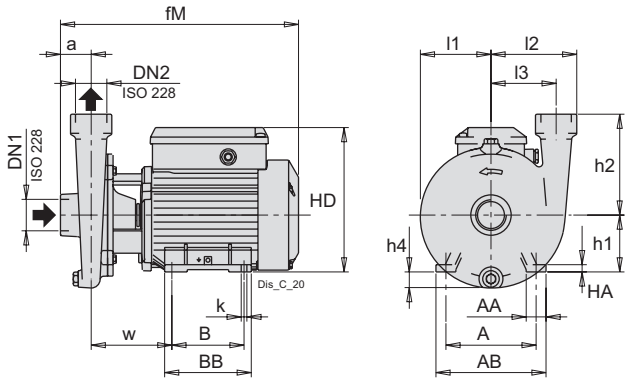
C

Dimensions and weights



TYPE	ISO 228		mm														kg
	DN1	DN2	a	A	AA	AB	AC	B	BB	fM	h1	h2	HA	HD	K	w	Weight
C 16/1E	G 1/2	G 1/2	33	100	22	122	122	80	96	266	63	75	8	160	7	93	5.2
CM 16/1E	G 1/2	G 1/2	33	100	22	122	122	80	96	266	63	75	8	160	7	93	5.2

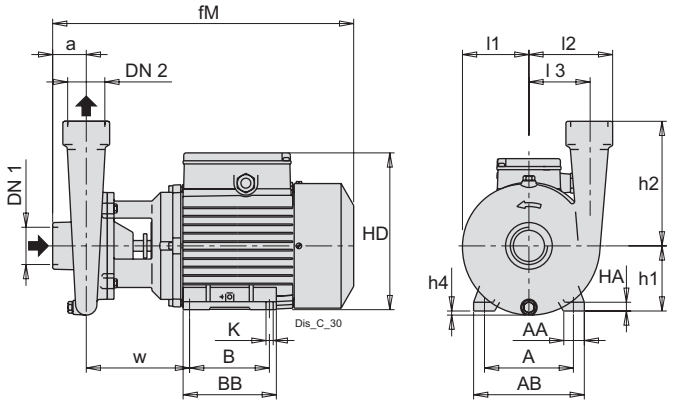
TYPE	ISO 228		mm														kg
	DN1	DN2	a	A	AA	AB	AC	B	BB	fM	h1	h2	HA	HD	K	w	Weight
BC 16/1E	G 1/2	G 1/2	33	100	22	122	122	80	96	266	63	75	8	160	7	93	5.4
BCM 16/1E	G 1/2	G 1/2	33	100	22	122	122	80	96	266	63	75	8	160	7	93	5.4



TYPE	ISO 228		mm																	kg
	DN1	DN2	a	A	AA	AB	B	BB	fM	h1	h2	h4	HA	HD	K	l1	l2	l5	w	Weight
C 20E	G 1	G 1	34	100	22	122	80	96	263	63	90	5	8	160	7	67	82	60	88	6.3
C 22/1/A	G 1	G 1	34	100	22	122	80	96	263	63	110	17	8	160	7	77	94	71	88	8.4
C 22E	G 1	G 1	34	100	22	122	80	96	263	63	110	17	8	160	7	77	94	71	88	8.3
CM 20E	G 1	G 1	34	100	22	122	80	96	263	63	90	5	8	160	7	67	82	60	88	6.4
CM 22/1E	G 1	G 1	34	100	22	122	80	96	263	63	110	17	8	160	7	77	94	71	88	7.7
CM 22E	G 1	G 1	34	100	22	122	80	96	263	63	110	17	8	160	7	77	94	71	88	8.3

C

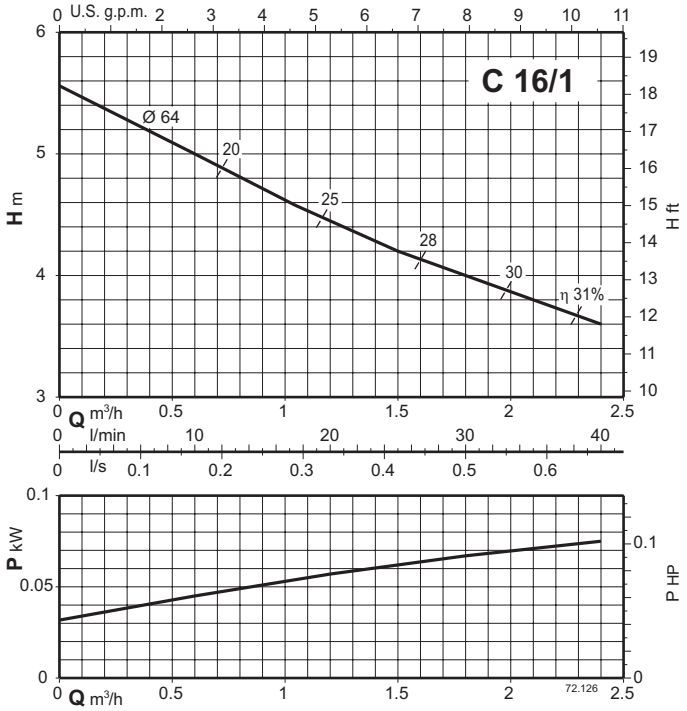
Dimensions and weights

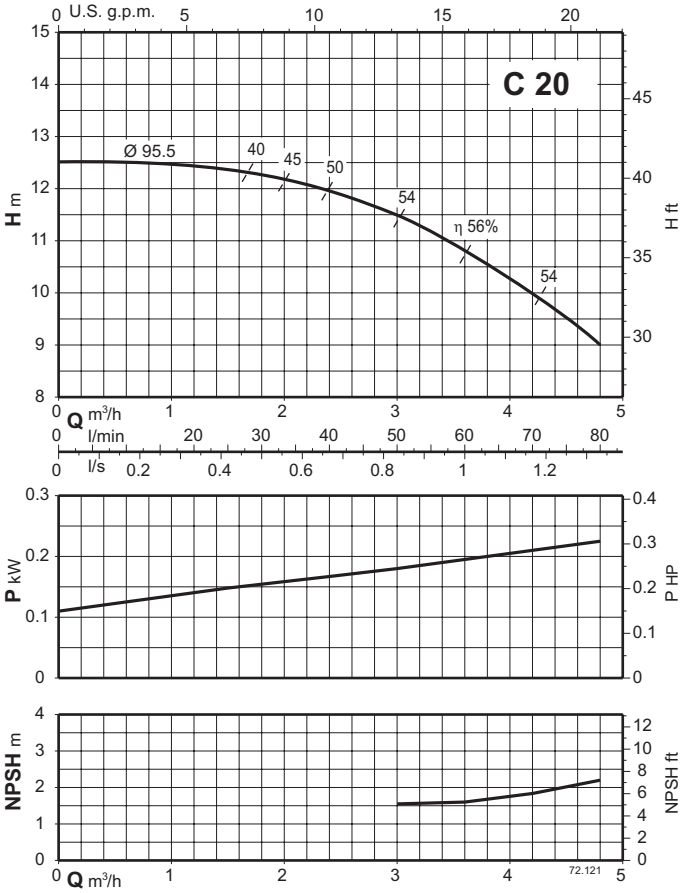


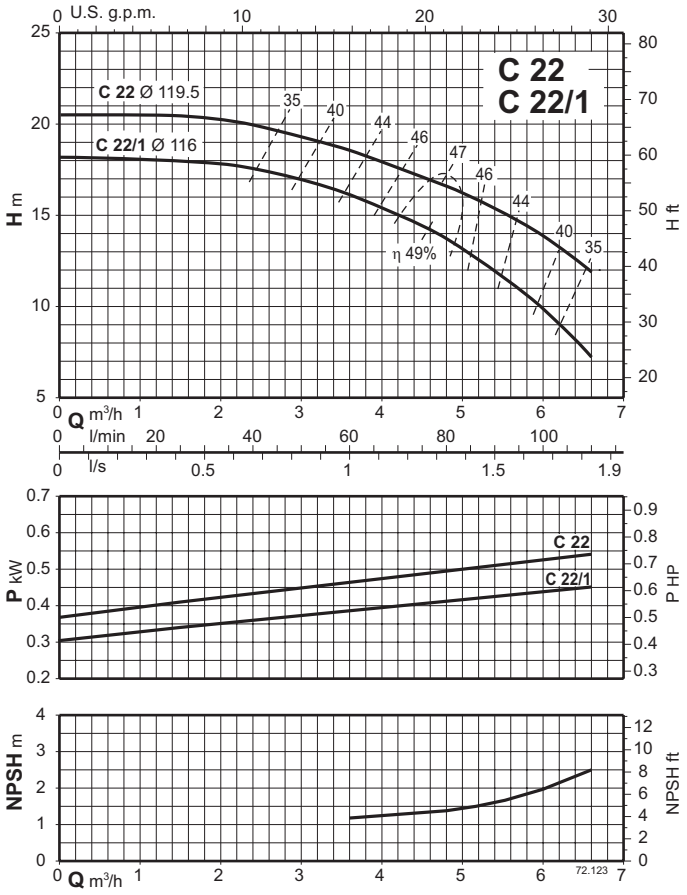
TYPE	ISO 228		mm																	kg
	DN1	DN2	a	A	AA	AB	B	BB	fM	h1	h2	h4	HA	HD	K	l1	l2	l5	w	Weight
C 4/1/A	G 1 1/2	G 1 1/2	43	112	22	134	90	106	304	71	160	18	10	182	7	85	108	78	100	10.8
C 4/B	G 1 1/2	G 1 1/2	43	112	22	134	90	106	304	71	160	18	10	182	7	85	108	78	100	13.1
C 41/A	G 1 1/2	G 1 1/2	43	125	30	134	90	106	380	80	160	9	10	208	9.5	85	108	78	132	17.2
CM 4/1/A	G 1 1/2	G 1 1/2	43	112	22	134	90	106	304	71	160	18	10	182	7	85	108	78	100	12
CM 4/A	G 1 1/2	G 1 1/2	43	112	22	134	90	106	304	71	160	18	10	182	7	85	108	78	100	13
CM 41E	G 1 1/2	G 1 1/2	43	125	30	134	90	106	380	80	160	9	10	208	9.5	85	108	78	132	18.5

TYPE	ISO 228		mm																	kg
	DN1	DN2	a	A	AA	AB	B	BB	fM	h1	h2	h4	HA	HD	K	l1	l2	l5	w	Weight
BC 20/A	G 1	G 1	35	112	22	134	90	106	303	71	90	-	10	182	7	70	84	60	105	9
BC 22/1/A	G 1	G 1	35	112	22	134	90	106	303	71	110	9	10	182	7	81	93	71	108	9.7
BC 22/A	G 1	G 1	35	112	22	134	90	106	303	71	110	9	10	182	7	81	93	71	108	10.6
BC 41/1E	G 1 1/2	G 1 1/2	43	125	30	134	100	125	380	80	160	9	10	208	9.5	85	108	78	132	16.7
BC 41/A	G 1 1/2	G 1 1/2	43	125	30	134	100	125	380	80	160	9	10	208	9.5	85	108	78	132	19
BCM 20/A	G 1	G 1	35	112	22	134	90	106	303	71	90	-	10	182	7	70	84	60	105	8.9
BCM 22/1/A	G 1	G 1	35	112	22	134	90	106	303	71	110	9	10	182	7	81	93	71	108	10.5
BCM 22/A	G 1	G 1	35	112	22	134	90	106	303	71	110	9	10	182	7	81	93	71	108	11.8
BCM 41/1E	G 1 1/2	G 1 1/2	43	125	30	134	100	125	380	80	160	9	10	208	9.5	85	108	78	132	18.6
BCM 41E	G 1 1/2	G 1 1/2	43	125	30	134	100	125	380	80	160	9	10	208	9.5	85	108	78	132	19.2

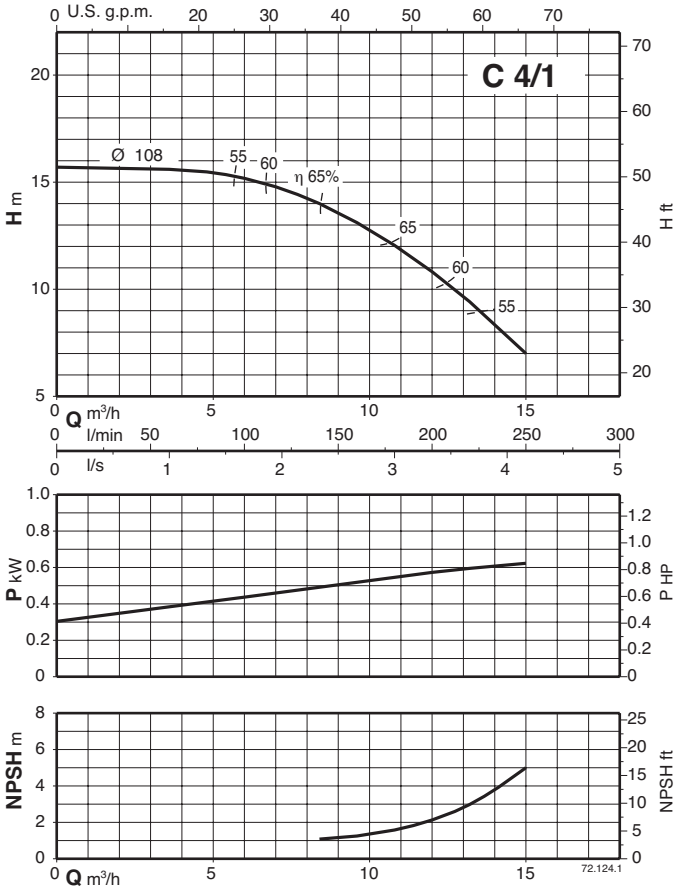
Characteristic curves n ≈ 2900 rpm

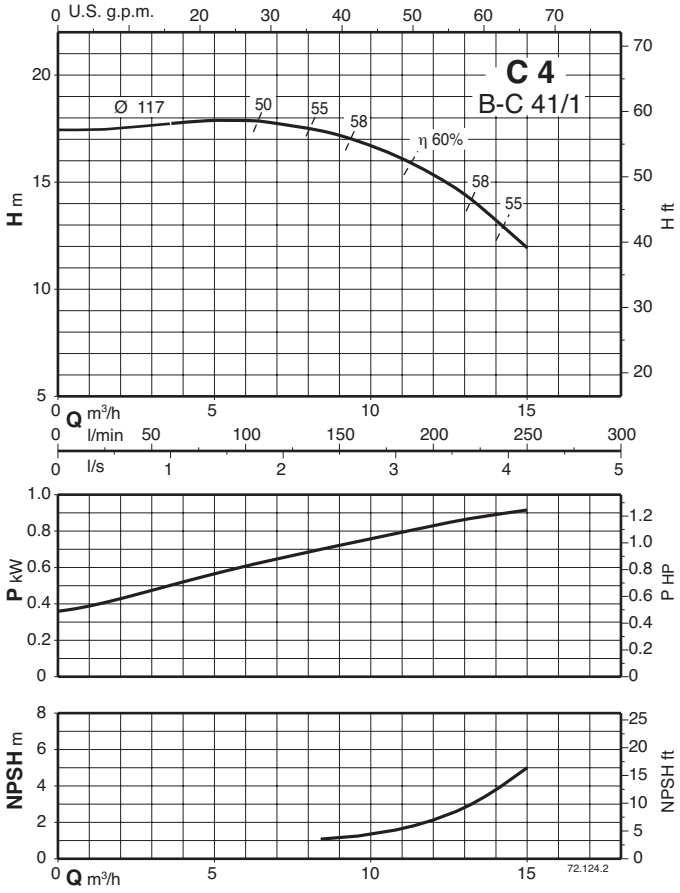


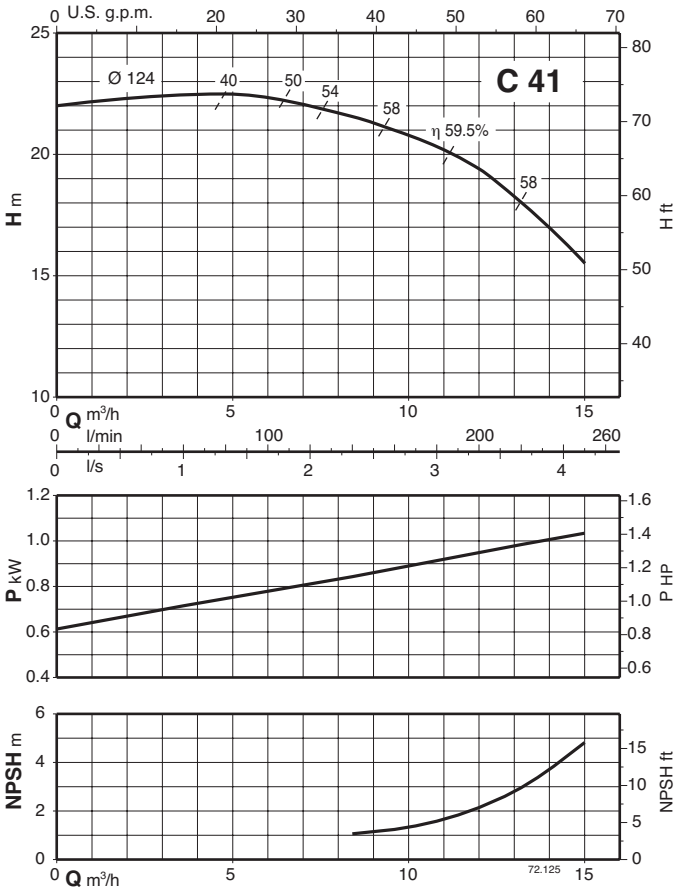




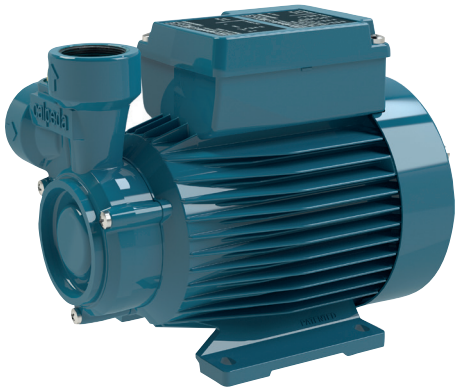
Characteristic curves n ≈ 2900 rpm

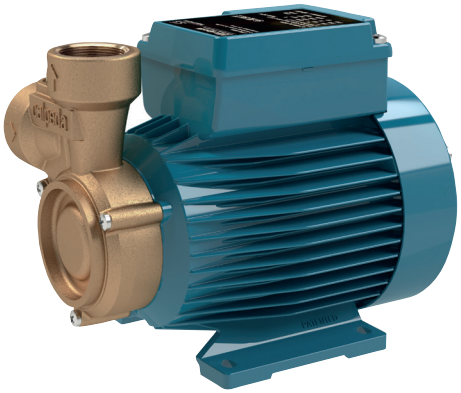




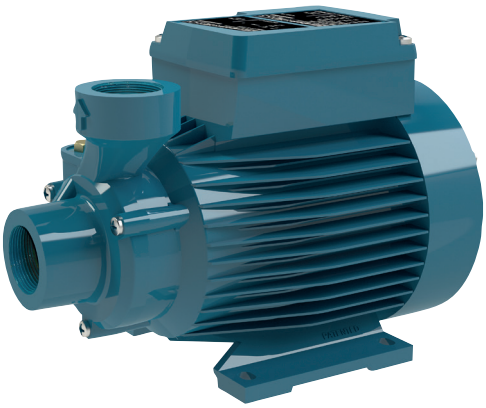


CT

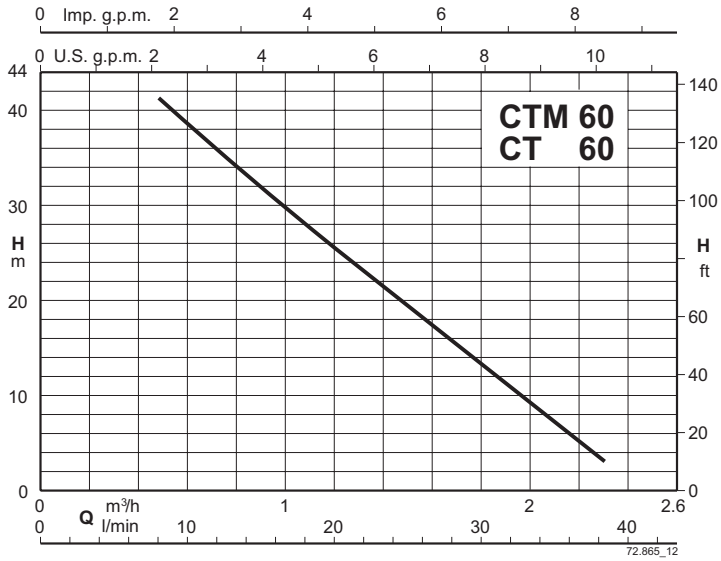


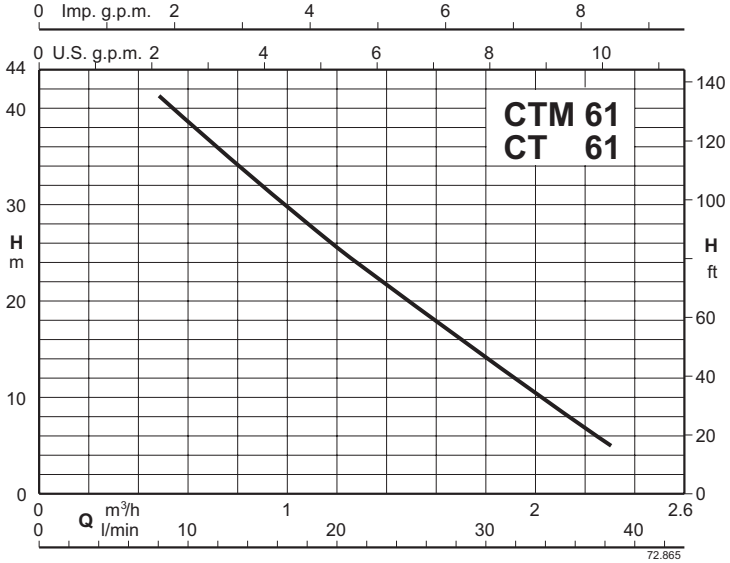






Coverage chart n ≈ 2900 rpm





Peripheral pumps

CT

Construction

Peripheral close coupled electropumps
Compact, patented construction with singlepiece motor casing and pump-side wall.
Protected against water entering the motor from outside.
CT: version with pump casing in cast iron.
B-CT 61: version with bronze pump body.
I-CT: version with pump casing in Stainless steel.
The pumps are supplied fully painted.

Applications

For clean liquids without abrasives, without suspended solids, non-explosive, non-aggressive for the pump materials.
Per aumentare la pressione disponibile da una rete di distribuzione (osservare le prescrizioni locali).
For the reduced dimensions, these pumps are very well suitable to be mounted in cooling and air-conditioning machines and equipments, circulation.

Operating conditions

Liquid temperature up to 60 °C.
Ambient temperature up to 40° C.
Total suction lift up to 7 m.
Continuous duty. (S3 60% for three-phase).

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
CT: three-phase 230/400 V ± 10%.
CTM: single-phase 230 V ± 10%, with thermal protector.
Capacitor inside the terminal box.
Insulation class F.
Protection IP54
IE2 efficiency class for single-phase motors.
IE2 efficiency class for three-phase motors
Constructed in accordance with EN 60034-1;
EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Special mechanical seal

Designation

BCTM 61
B = Bronze version (without Cast Iron version indication)
I = Stainless steel version (without Cast Iron version indication)
CT = Series
M = Singlephase version (no indication: threephase)
61 = Nominal impeller diameter
/A = It refers to a revision

Materials

Component	CT	BCT 61	ICT 61
Pump casing	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982	Cr-Ni steel Cr-Ni-Mo 1.4401 EN 10088 (AISI 316)
Casing cover	Brass CW617N EN 12167	Brass CW617N EN 12167	Brass CW617N EN 12167
Impeller	Brass CW617N EN 12167	Brass CW617N EN 12167	Brass CW617N EN 12167
Shaft	Steel 1.4104 EN 10088 (AISI 430F)	Steel 1.4104 EN 10088 (AISI 430F)	Steel 1.4104 EN 10088 (AISI 430F)
Mechanical seal	Carbon - Ceramic - NBR	Carbon - Ceramic - NBR	Carbon - Ceramic - NBR

Coverage chart n ≈ 2900 rpm

Three-phase

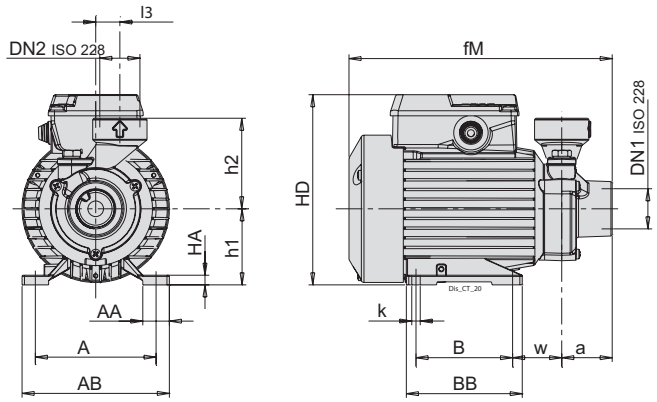
						Q = Flow									
						m³/h	0	0,48	0,6	0,75	0,96	1,2	1,5	1,89	2,3
Model		230V	400V	P2		l/min		8	10	12,5	16	20	25	31,5	38,3
		A		kW	HP	H (m) = Total head									
-	CT 60/A	1,9	1,1	0,33	0,45		48	41	38,5	35,5	31	25,5	19	11	3
BCT, ICT	CT 61/A	1,9	1,1	0,33	0,45		48	41	38,5	35,5	31	25,5	19	11	3

Single-phase

						Q = Flow									
						m³/h	0	0,48	0,6	0,75	0,96	1,2	1,5	1,89	2,3
Model		230V	P2		P1	l/min		8	10	12,5	16	20	25	31,5	38,3
		A	kW	HP	kW	H (m) = Total head									
-	CTM 60/A	2,5	0,3	0,4	0,55		48	41	38,5	35,5	31	25,5	19	11	3
BCTM, ICTM	CTM 61/A	2,5	0,3	0,4	0,55		48	41	38,5	35,5	31	25,5	19	11	3

CT

Dimensions and weights

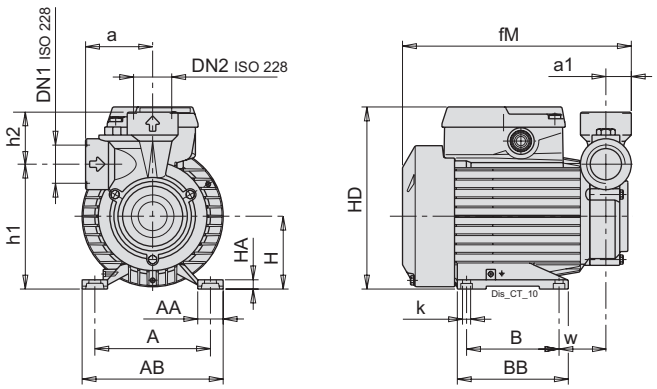


Three-phase

TYPE	ISO 228		mm														kg
	DN1	DN2	a	A	AA	AB	B	BB	fM	h1	h2	HA	HD	K	l5	w	Weight
CT 60/A	G 1	G 1	42	100	22	122	80	96	223	63	75	8	158	7	20	40.5	4.6

Single-phase

TYPE	ISO 228		mm														kg
	DN1	DN2	a	A	AA	AB	B	BB	fM	h1	h2	HA	HD	K	l5	w	Weight
CTM 60/A	G 1	G 1	42	100	22	122	80	96	223	63	75	8	158	7	20	40.5	5



Three-phase

TYPE	ISO 228		mm															kg
	DN1	DN2	a	A	a1	AA	AB	B	BB	fM	H	h1	h2	HA	HD	K	w	Weight
CT 61/A	G 1	G 1	58	100	22.5	22	122	80	96	203	63	108	45	8	158	7	40.5	4.7
BCT 61/A	G 1	G 1	58	100	22.5	22	122	80	96	203	63	108	45	8	158	7	40.5	4.8
ICT 61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Single-phase

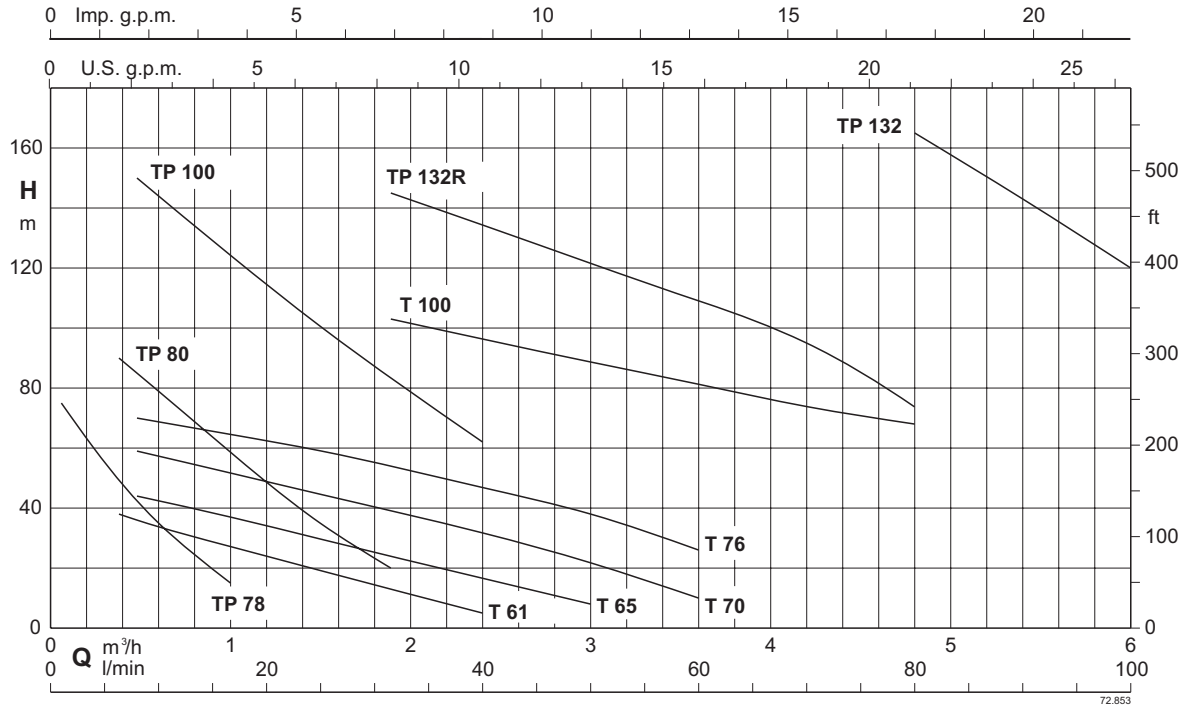
TYPE	ISO 228		mm															kg
	DN1	DN2	a	A	a1	AA	AB	B	BB	fM	H	h1	h2	HA	HD	K	w	Weight
CTM 61/A	G 1	G 1	58	100	22.5	22	122	80	96	203	63	108	45	8	158	7	40.5	5.1
BCTM 61/A	G 1	G 1	58	100	22.5	22	122	80	96	203	63	108	45	8	158	7	40.5	5.1
ICTM 61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

T, TP





Coverage chart n ≈ 2900 rpm



Peripheral pumps

T, TP

Construction

Peripheral close coupled electropumps
T, TP: version with pump casing and lantern bracket in cast iron.
BT, BTP: version with pump body and bronze fitting.
The pumps are supplied fully painted.

Applications

For clean liquids without abrasives, without suspended solids, non-explosive, non-aggressive for the pump materials.
Per aumentare la pressione disponibile da una rete di distribuzione (osservare le prescrizioni locali).
For the reduced dimensions, these pumps are very well suitable to be mounted in cooling and air-conditioning machines and equipments, circulation.

Operating conditions

Liquid temperature from -10 °C to +90 °C.
Ambient temperature up to 40° C.
Total suction lift up to 7 m.
Maximum permissible pressure in the pump casing: 12.5 bar, (TP 16 bar series).
Continuous duty.

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
T, TP: three-phase 230/400 V ± 10%.
400/690 V ± 10%, da 4 a 7,5 kW;
TM, TPM: single-phase 230 V ± 10% with thermal protector.
Capacitor inside the terminal box.
Insulation class F.
Protection IP54
IE2 efficiency class for single-phase motors.
IE3 efficiency class for three-phase motors (IE2 up to 0,65 kW).
Constructed in accordance with EN 60034-1; EN 60034-30-1.
EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
IP protection: IP55
Special mechanical seal
Higher or lower liquid or ambient temperatures.
Construction with bearing bracket.

Designation

BTM 61E
B = Bronze version (without Cast Iron version indication)
T = Series
M = Singlephase version (no indication: threephase)
61 = Nominal impeller diameter
E = It refers to a revision

Materials

Component	T-TP	BCT 61
Pump casing	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Lantern bracket	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Casing cover	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
	Brass CW617N EN 12165 for T 61-65-70	Brass CW617N EN 12165 for B-T 61-70
Impeller	Brass CW617N EN 12167	Brass CW617N EN 12167
	Bronze CC480K EN 1982 per TP 132-132R	
Shaft	Steel 1.4305 EN 10088 (AISI 303) per T 76, TP 80-100	Steel 1.4401 EN 10088 (AISI 316)
	Steel 1.4104 EN 10088 (AISI 430F) per T 61-65-70-100, TP 78-132-132R	
Mechanical seal	Carbon - Ceramic - NBR	Carbon - Ceramic - NBR

T, TP

Coverage chart n ≈ 2900 rpm

Three-phase

							Q = Flow																		
							m³/h	0	0,06	0,12	0,24	0,38	0,48	0,6	0,75	1	1,2	1,5	1,89	2,4	3	3,6	4,2	4,8	5,4	6
Model		230V	400V	690V	P2		l/min		1	2	4	6,33	8	10	12,5	16,6	20	25	31,5	40	50	60	70	80	90	100
		A			kW	HP	H (m) = Total head																			
BT	T 61/A	1,9	1,1	-	0,33	0,45		44,5	-	-	-	38	36	34	31,5	28	24	19	12,5	5	-	-	-	-	-	-
BT	T 65E	2,8	1,6	-	0,45	0,6		53	-	-	-	-	44	42	40	37	33	29	24	16	8	-	-	-	-	-
BT	T 70/B	3,7	2,2	-	0,75	1		67,5	-	-	-	-	59	57	55	51	48	43	38	30	22	10	-	-	-	-
BT	T 76/A	5,3	3,1	-	1,1	1,5		78	-	-	-	-	70	68	67	65	62	58	53	46	38	26	-	-	-	-
BTP	TP 78/A	2,3	1,3	-	0,37	0,5		82	75	70	60	50	42	35	25	15	-	-	-	-	-	-	-	-	-	-
BTP	TP 80E	4	2,3	-	0,75	1		115	-	-	-	90	85	79	73	61	48	34	20	-	-	-	-	-	-	-
BTP	TP 100/B	9,6	5,5	-	2,2	3		184	-	-	-	-	150	144	136	125	115	100	84	62	-	-	-	-	-	-
BT	T 100/A	11,5	6,6	-	3	4		124,5	-	-	-	-	-	-	-	-	-	-	103	97	89	82	75	68	-	-
BTP	TP 132R/A	-	10,8	6,2	5,5	7,5		186	-	-	-	-	-	-	-	-	-	-	145	135	120	110	95	70	-	-
BTP	TP 132/A	-	14,3	8,3	7,5	10		372	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	165	143	120

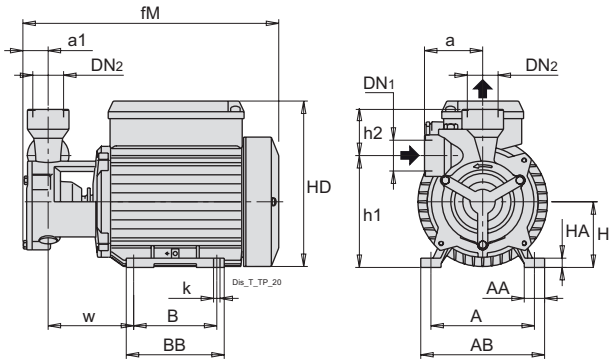
Single-phase

							Q = Flow														
							m³/h	0	0,06	0,12	0,24	0,38	0,48	0,6	0,75	1	1,2	1,5	1,89	2,4	3	3,6
Model		230V	P2		P1		l/min		1	2	4	6,33	8	10	12,5	16,6	20	25	31,5	40	50	60
		A	kW	HP	kW		H (m) = Total head														
BTM	TM 61E	2,5	0,33	0,45	0,52		44,5	-	-	-	38	36	34	31,5	28	24	19	12,5	5	-	-
BTM	TM 65E	3,5	0,45	0,6	0,67		53	-	-	-	-	44	42	40	37	33	29	24	16	8	-
BTM	TM 70/A	5,7	0,75	1	1,01		67,5	-	-	-	-	59	57	55	51	48	43	38	30	22	10
BTM	TM 76E	7,4	1,1	1,5	1,44		78	-	-	-	-	70	68	67	65	62	58	53	46	38	26
BTPM	TPM 78/A	2,8	0,37	0,5	0,57		82	75	70	60	50	42	35	25	15	-	-	-	-	-	-
BTPM	TPM 80E	5,8	0,75	1	1,01		115	-	-	-	90	85	79	73	61	48	34	20	-	-	-

P1: Maximum power input.
P2: Rated motor power output.
H: Total head in m

T, TP

Dimensions and weights



TYPE	ISO 228		mm															kg
	DN1	DN2	a	A	a1	AA	AB	B	BB	fM	H	h1	h2	HA	HD	K	w	Weight
T 61/A	G 1	G 1	58	100	24	22	122	80	96	244	63	108	45	8	160	7	80	6.2
T 65E	G 1	G 1	58	100	24	22	122	80	96	244	63	108	45	8	160	7	80	7
T 70/B	G 1	G 1	63	112	24	22	134	90	106	278	71	121	50	10	182	7	93	10.8
TP 78/A	G 1/2	G 1/2	56	112	22	22	134	90	106	276	71	127	24	10	182	7	93	8.2

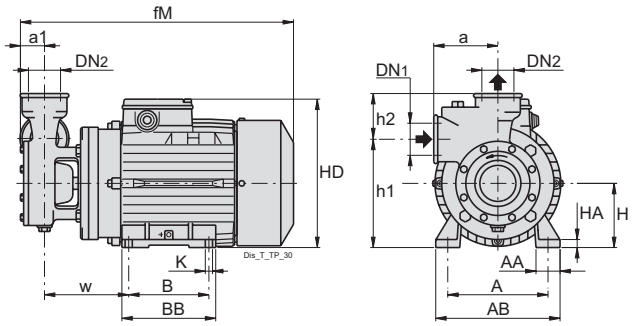
TYPE	ISO 228		mm															kg
	DN1	DN2	a	A	a1	AA	AB	B	BB	fM	H	h1	h2	HA	HD	K	w	Weight
TM 61E	G 1	G 1	58	100	24	22	122	80	96	244	63	108	65	8	160	7	80	5.3
TM 65E	G 1	G 1	58	100	24	22	122	80	96	244	63	108	65	8	160	7	80	7.2
TM 70/A	G 1	G 1	63	112	24	22	134	90	106	278	71	121	50	10	182	7	93	10.8
TPM 78/A	G 1/2	G 1/2	56	112	22	22	134	90	106	276	71	127	24	10	182	7	93	8.2

TYPE	ISO 228		mm															kg
	DN1	DN2	a	A	a1	AA	AB	B	BB	fM	H	h1	h2	HA	HD	K	w	Weight
BT 61/A	G 1	G 1	58	100	24	22	122	80	96	244	63	108	45	8	160	7	80	6.4
BT 65E	G 1	G 1	58	100	24	22	122	80	96	244	63	108	45	8	160	7	80	7.3
BT 70/B	G 1	G 1	63	112	24	22	134	90	106	278	71	121	50	10	182	7	93	11.1
BTP 78/A	G 1/2	G 1/2	56	112	22	22	134	90	106	276	71	127	24	10	182	7	93	8.6

TYPE	ISO 228		mm															kg
	DN1	DN2	a	A	a1	AA	AB	B	BB	fM	H	h1	h2	HA	HD	K	w	Weight
BTM 61E	G 1	G 1	58	100	24	22	122	80	96	244	63	108	65	8	160	7	80	5.9
BTM 65E	G 1	G 1	58	100	24	22	122	80	96	244	63	108	65	8	160	7	80	7.4
BTM 70/A	G 1	G 1	63	112	24	22	134	90	106	278	71	121	50	10	182	7	93	11.1
BTPM 78/A	G 1/2	G 1/2	56	112	22	22	134	90	106	276	71	127	24	10	182	7	93	8.7

T, TP

Dimensions and weights



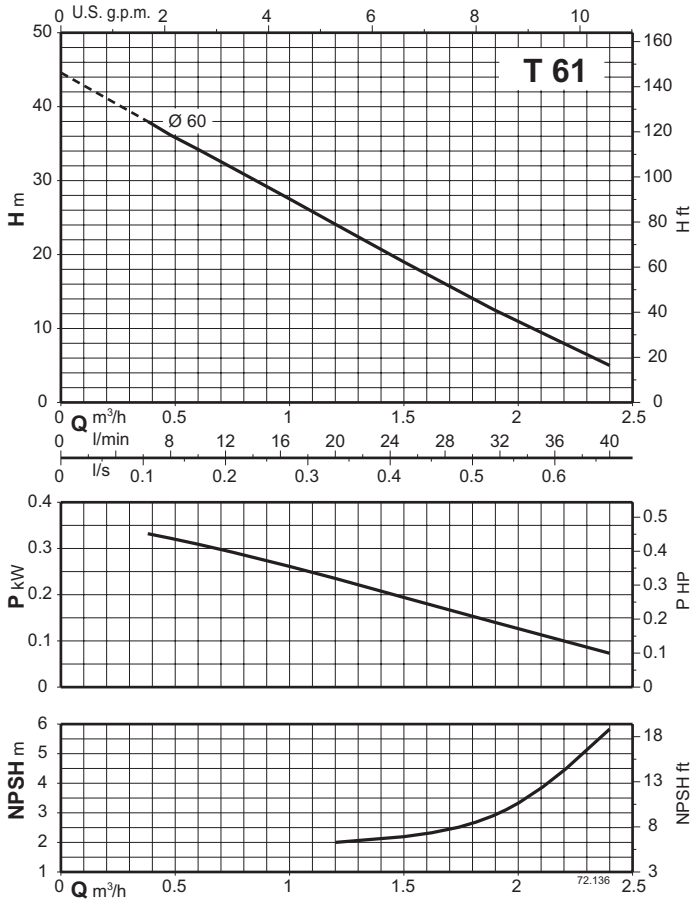
TYPE	ISO 228		mm															kg
	DN1	DN2	a	A	a1	AA	AB	B	BB	fM	H	h1	h2	HA	HD	K	w	Weight
T 76/A	G 1 1/4	G 1 1/4	80	125	26	30	155	100	117	338	80	136	56	10	208	9	105	16.5
T 100/A	G 1 1/4	G 1 1/4	95	140	32	40	180	125	152	410	90	161	59	12	226	9.5	121	29.5
TP 80E	G 3/4	G 3/4	60	125	27	30	155	100	117	332	80	135	35	10	208	9	104	13.8
TP 100/B	G 3/4	G 3/4	65	125	27	30	155	100	117	387	80	142	38	10	208	9	113	22.1
TP 132R/A	G 1 1/4	G 1 1/4	100	190	42	50	230	140	180	485	112	202	70	14	272	11.5	183	57.1
TP 132/A	G 1 1/4	G 1 1/4	100	190	42	50	230	140	180	485	112	202	70	14	272	11.5	183	62.1

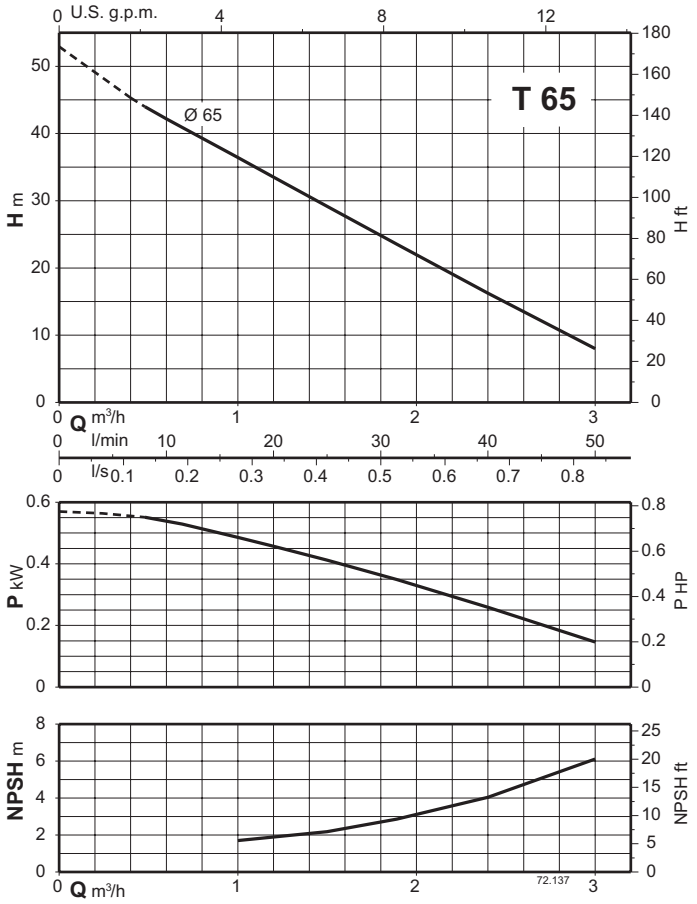
TYPE	ISO 228		mm															kg
	DN1	DN2	a	A	a1	AA	AB	B	BB	fM	H	h1	h2	HA	HD	K	w	Weight
TM 76E	G 1 1/4	G 1 1/4	80	125	26	30	155	100	117	338	80	136	56	10	208	9	105	18
TPM 80E	G 3/4	G 3/4	60	125	27	30	155	100	117	332	80	135	35	10	208	9	104	16

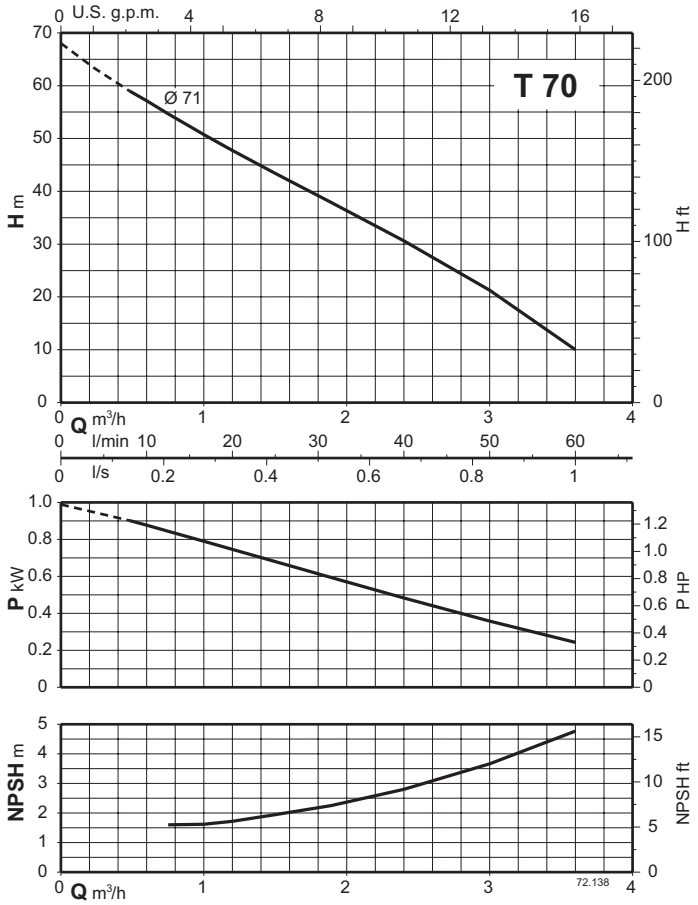
TYPE	ISO 228		mm															kg
	DN1	DN2	a	A	a1	AA	AB	B	BB	fM	H	h1	h2	HA	HD	K	w	Weight
BTP 80E	G 3/4	G 3/4	60	125	27	30	155	100	117	332	80	135	35	10	208	9	104	14.4

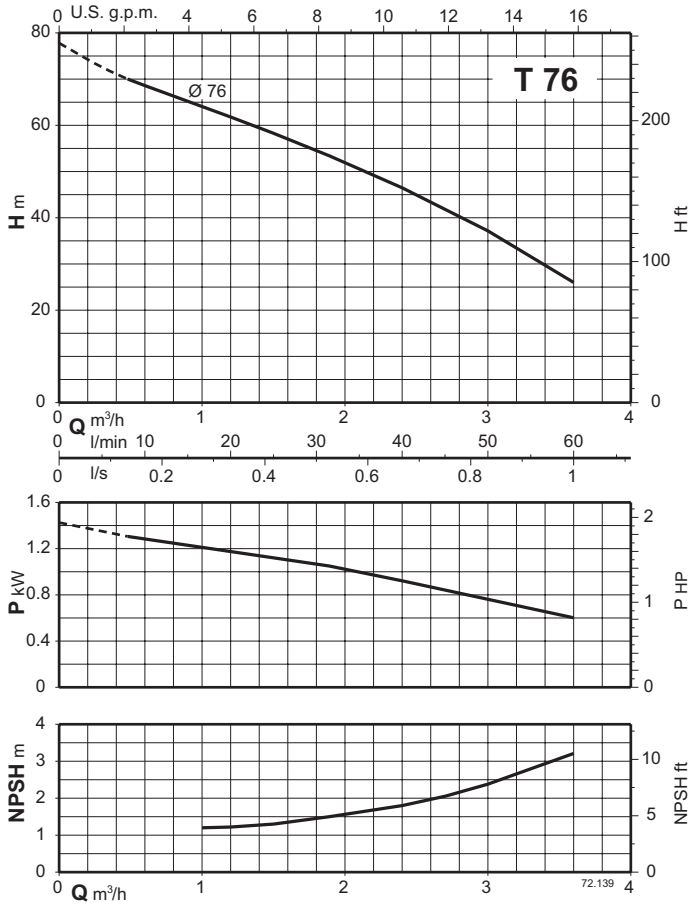
TYPE	ISO 228		mm															kg
	DN1	DN2	a	A	a1	AA	AB	B	BB	fM	H	h1	h2	HA	HD	K	w	Weight
BTPM 80E	G 3/4	G 3/4	60	125	27	30	155	100	117	332	80	135	35	10	208	9	104	15.5

T, TP

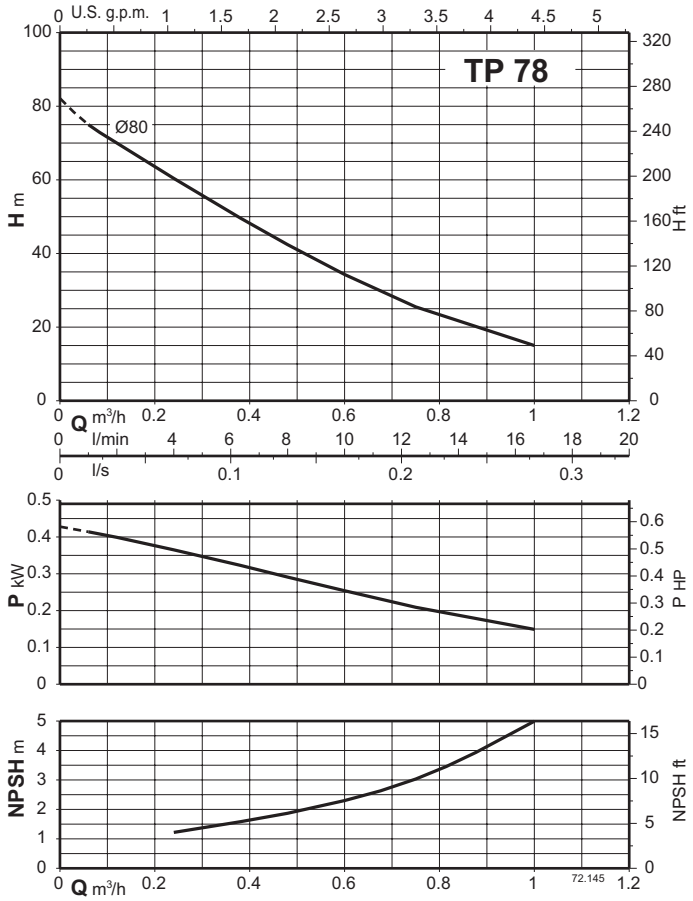

T 61
Ø 60
H m
H ft
Q m³/h
Q l/min
Q l/s
P kW
P HP
NPSH m
NPSH ft
72.136

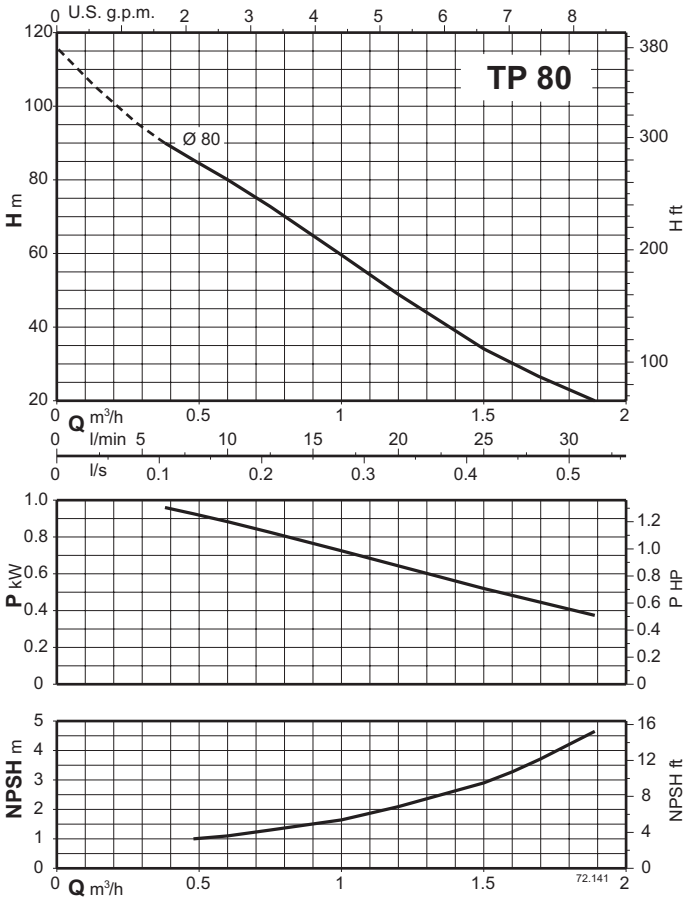

T 65
Ø 65
H m
H ft
Q m³/h
Q l/min
Q l/s
P kW
P HP
NPSH m
NPSH ft
72.137

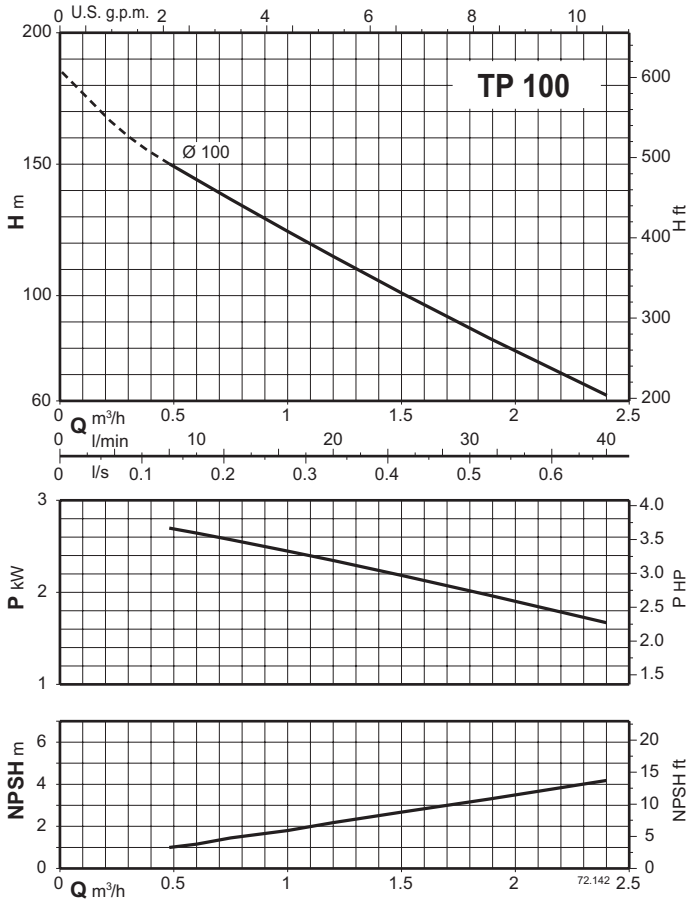

T 70
Ø 71
H m
H ft
Q m³/h
Q l/min
Q l/s
P kW
P HP
NPSH m
NPSH ft
72.138

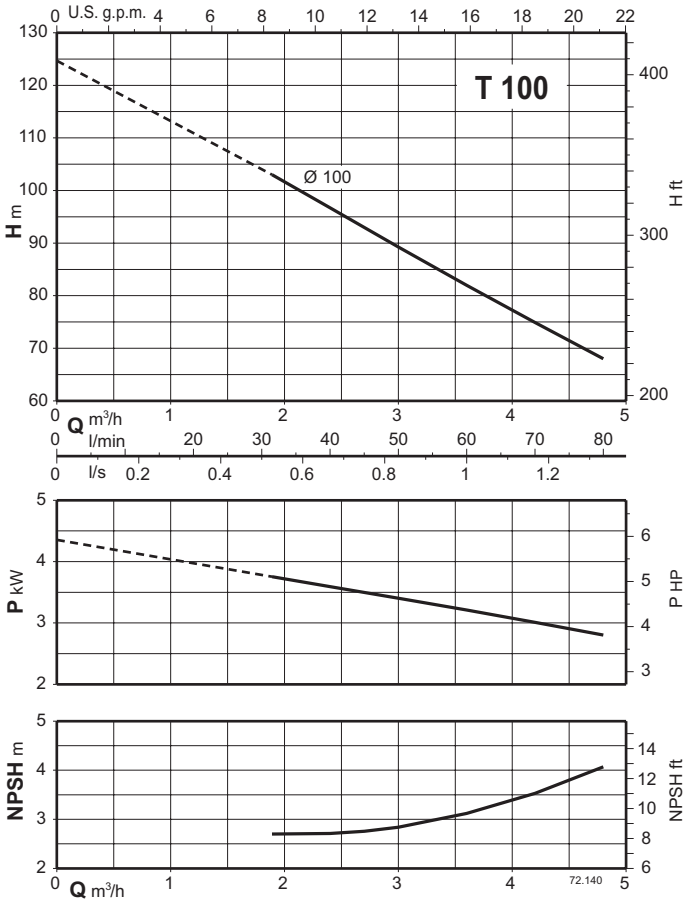

T 76
Ø 76
H m
H ft
Q m³/h
Q l/min
Q l/s
P kW
P HP
NPSH m
NPSH ft
72.139

T, TP

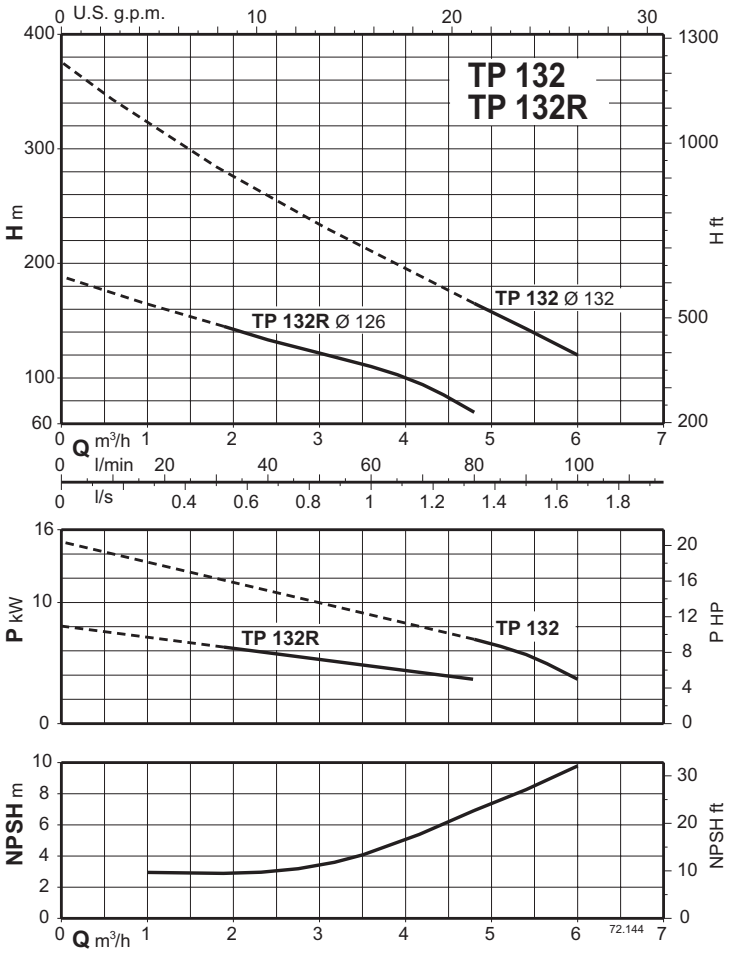

TP 78
Ø80
H m
H ft
P kW
P HP
NPSH m
NPSH ft
Q m³/h
Q l/min
Q l/s
U.S. g.p.m.
72.145


TP 80
Ø 80
H m
H ft
P kW
P HP
NPSH m
NPSH ft
Q m³/h
Q l/min
Q l/s
U.S. g.p.m.
72.141

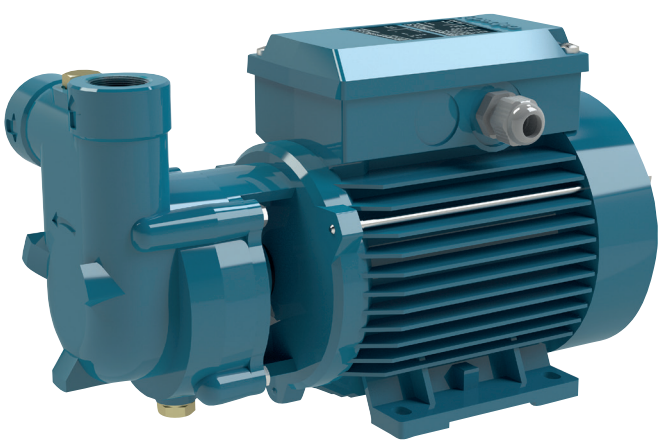

TP 100
Ø 100
H m
H ft
P kW
P HP
NPSH m
NPSH ft
Q m³/h
Q l/min
Q l/s
U.S. g.p.m.
72.142

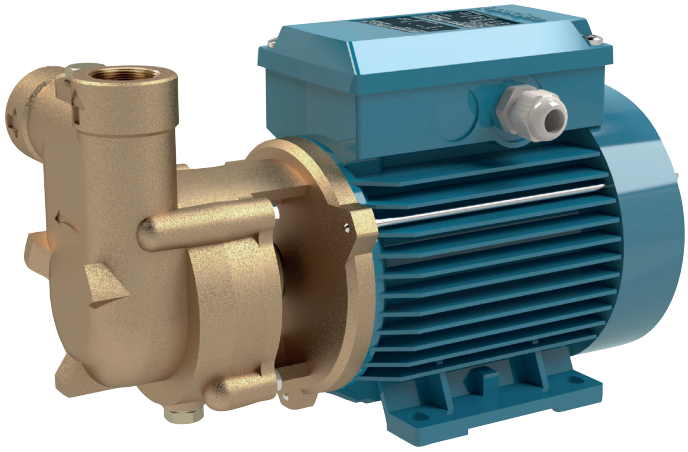

T 100
Ø 100
H m
H ft
P kW
P HP
NPSH m
NPSH ft
Q m³/h
Q l/min
Q l/s
U.S. g.p.m.
72.140

T, TP

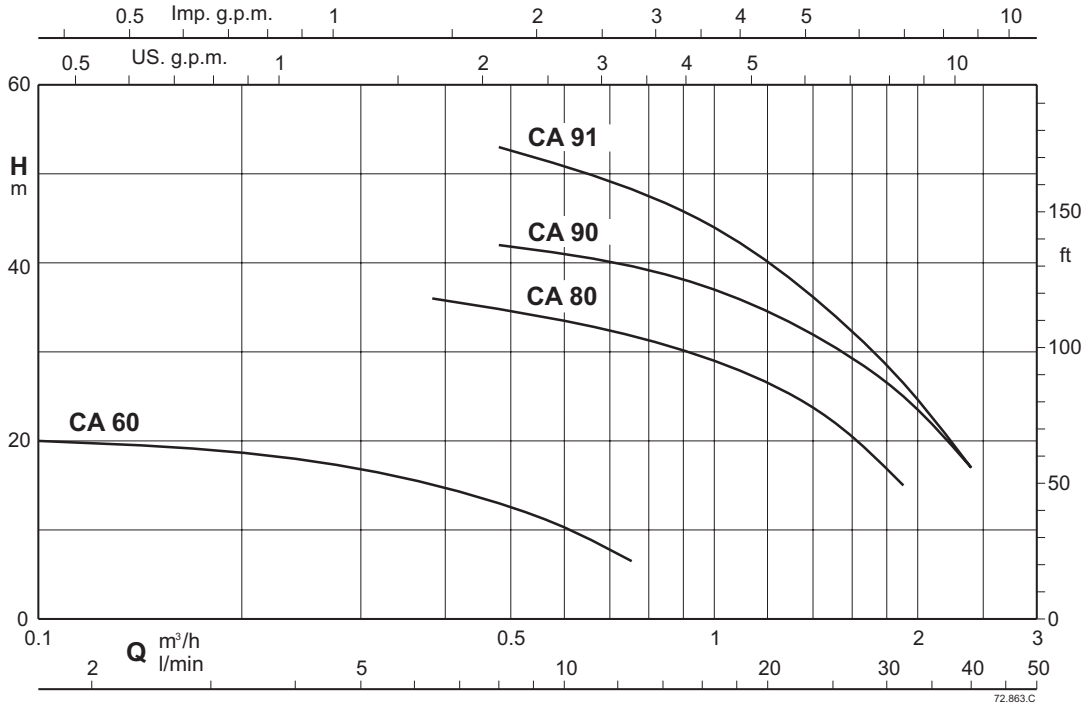

TP 132
TP 132R
TP 132 Ø 132
TP 132R Ø 126
H m
H ft
Q m³/h
Q l/min
Q l/s
U.S. g.p.m.
P kW
P HP
TP 132
TP 132R
NPSH m
NPSH ft
72.144

CA





Coverage chart n ≈ 2900 rpm



Self-priming liquid ring pumps

CA

Construction

Liquid ring self-priming one-piece electric pumps with star-shaped impeller with anti-locking shim ring for CA 80, 90, 91.
CA: version with pump casing and lantern bracket in cast iron.
BCA: version with pump casing and lantern bracket in bronze.
The pumps are supplied fully painted.

Applications

For clean liquids without abrasives, without suspended solids, non-explosive, non-aggressive for the pump materials.
If the liquid to be pumped has entrained air or gas or the flow in the suction pipe is not stable.
For drawing water out of a well.
For increasing network pressure (follow local specifications).

Operating conditions

Liquid temperature from -10 °C to +90 °C.
Ambient temperature up to 40° C.
Negative suction pressure up to 9 m.
Maximum permissible pressure in the pump casing: 6 bar.
Continuous duty.

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
CA: three-phase 230/400 V ± 10%.
CAM: single-phase 230 V ± 10%, with thermal protector.
Capacitor inside the terminal box.
Insulation class F.
Protection IP54
IE2 efficiency class for single-phase motors.
IE3 efficiency class for three-phase motors (IE2 up to 0,65 kW).
Constructed in accordance with EN 60034-1; EN 60034-30-1.
EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
IP protection: IP55
Special mechanical seal
Higher or lower liquid or ambient temperatures.
Construction with bearing bracket.

Designation

Example: BCAM 90/A
B = Bronze version (without Cast Iron version indication)
CA = Series
M = Singlephase version (no indication: threephase)
90 = Nominal impeller diameter
/A = It refers to a revision

Materials

Components	CA	BCA
Pump casing	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Lantern bracket	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Impeller	Brass CW617N EN 12167	Brass CW617N EN 12167
Shaft	Steel 1.4104 EN 10088 (AISI 430F)	Steel 1.4401 EN 10088 (AISI 316)
Mechanical seal	Carbon - Ceramic - NBR	Carbon - Ceramic - NBR

CA

Coverage chart n ≈ 2900 rpm

Three-phase

						Q = Flow											
						m³/h	0	0,12	0,24	0,38	0,48	0,6	0,75	1	1,2	1,5	1,89	2,4
Model		230V	400V	P2		l/min		2	4	6,33	8	10	12,5	16,6	20	25	31,5	40
		A		kW	HP		H (m) = Total head											
BCA	CA 60E	1,7	1	0,15	0,2		21,2	20	18	15,5	13	10,5	6,5	-	-	-	-	-
-	CA 80E	2,8	1,6	0,45	0,6		38	-	-	36	35	33,5	31,5	29	26	22	15	-
-	BCA 80/A	2,3	1,3	0,45	0,6		38	-	-	36	35	33,5	31,5	29	26	22	15	-
BCA	CA 90/A	3	1,7	0,55	0,75		47	-	-	-	42	41	40	37	34	30	25	17
BCA	CA 91/B	3,7	2,2	0,75	1		60	-	-	-	53	51	48	44	39	34	26,5	17

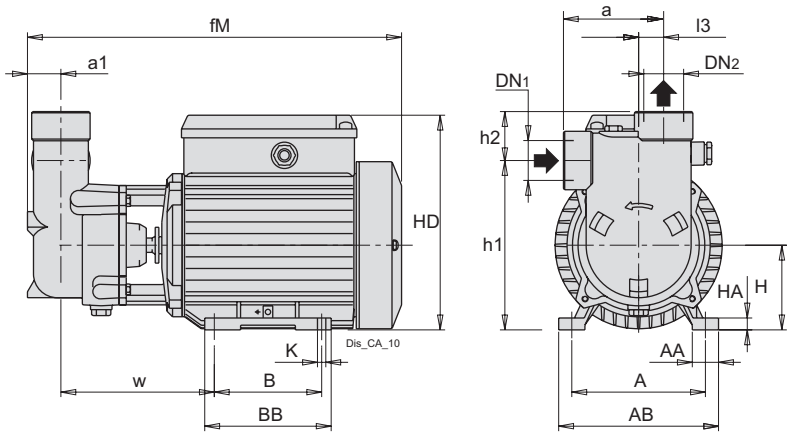
Single-phase

						Q = Flow											
						m³/h	0	0,12	0,24	0,38	0,48	0,6	0,75	1	1,2	1,5	1,89	2,4
Model		230V	P2		P1	l/min		2	4	6,33	8	10	12,5	16,6	20	25	31,5	40
		A	kW	HP	kW		H (m) = Total head											
BCAM	CAM 60E	1,6	0,15	0,2	0,29		21,2	20	18	15,5	13	10,5	6,5	-	-	-	-	-
-	CAM 80E	3,5	0,45	0,6	0,67		38	-	-	36	35	33,5	31,5	29	26	22	15	-
-	BCAM 80/A	3,6	0,45	0,6	0,67		38	-	-	36	35	33,5	31,5	29	26	22	15	-
BCAM	CAM 90/A	4,5	0,55	0,75	0,78		47	-	-	-	42	41	40	37	34	30	25	17
BCAM	CAM 91/A	5,7	0,75	1	1,01		60	-	-	-	53	51	48	44	39	34	26,5	17

P1: Maximum power input.
P2: Rated motor power output.
H: Total head in m
Head and power values valid for liquids with density ρ = 1,0 kg/dm3 and kinematic viscosity v = max 20 mm2/sec. Total head in m

CA

Dimensions and weights



TYPE	ISO 228		mm																kg
	DN1	DN2	a	A	a1	AA	AB	B	BB	fM	H	h1	h2	HA	HD	K	l5	w	Weight
CA 60E	G 1/2	G 1/2	59	100	18	22	122	80	96	256	63	103	25	8	158	7	14	103	5.8
CA 80E	G 3/4	G 3/4	72	100	23	22	122	80	96	272	63	126	27	8	158	7	17	109	7.5
CA 90/A	G 1	G 1	84	112	28	22	134	90	106	318	71	142	41	10	182	7	21	128	10
CA 91/B	G 1	G 1	84	112	28	22	134	90	106	318	71	142	41	10	182	7	21	128	12

TYPE	ISO 228		mm																kg
	DN1	DN2	a	A	a1	AA	AB	B	BB	fM	H	h1	h2	HA	HD	K	l5	w	Weight
CAM 60E	G 1/2	G 1/2	59	100	18	22	122	80	96	256	63	103	25	8	158	7	14	103	5.9
CAM 80E	G 3/4	G 3/4	72	100	23	22	122	80	96	272	63	126	27	8	158	7	17	109	7.6
CAM 90/A	G 1	G 1	84	112	28	22	134	90	106	318	71	142	41	10	182	7	21	128	10.9
CAM 91/A	G 1	G 1	84	112	28	22	134	90	106	318	71	142	41	10	182	7	21	128	11.9

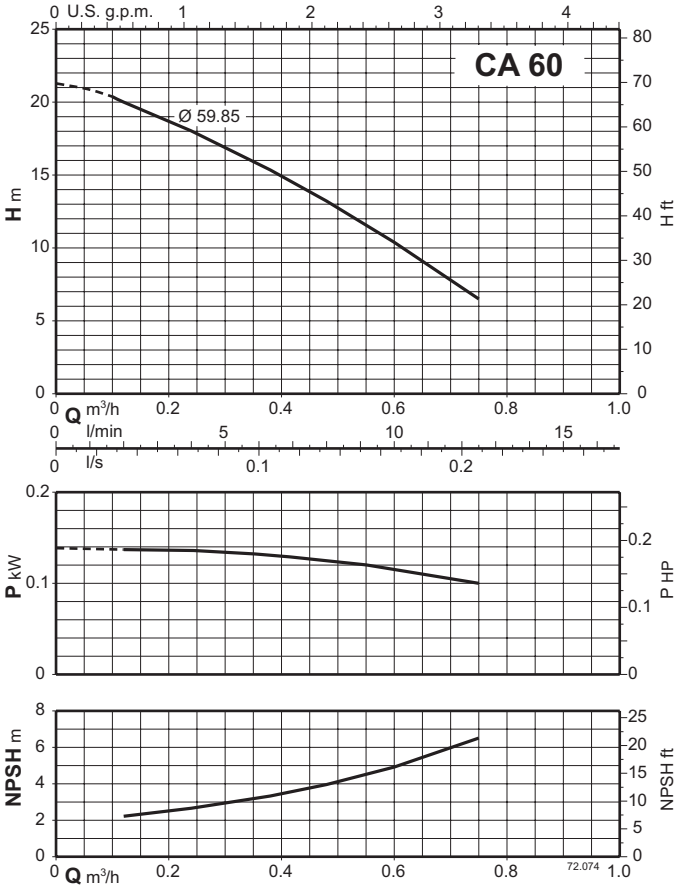
TYPE	ISO 228		mm																kg
	DN1	DN2	a	A	a1	AA	AB	B	BB	fM	H	h1	h2	HA	HD	K	l5	w	Weight
BCA 60E	G 1/2	G 1/2	59	100	18	22	122	80	96	256	63	103	25	8	158	7	14	103	6.2
BCA 80/A	G 3/4	G 3/4	72	112	23	22	134	90	106	307	71	134	27	10	182	7	17	122	9
BCA 90/A	G 1	G 1	84	112	28	22	134	90	106	318	71	142	41	10	182	7	21	128	10.9
BCA 91/B	G 1	G 1	84	112	28	22	134	90	106	318	71	142	41	10	182	7	21	128	12.9

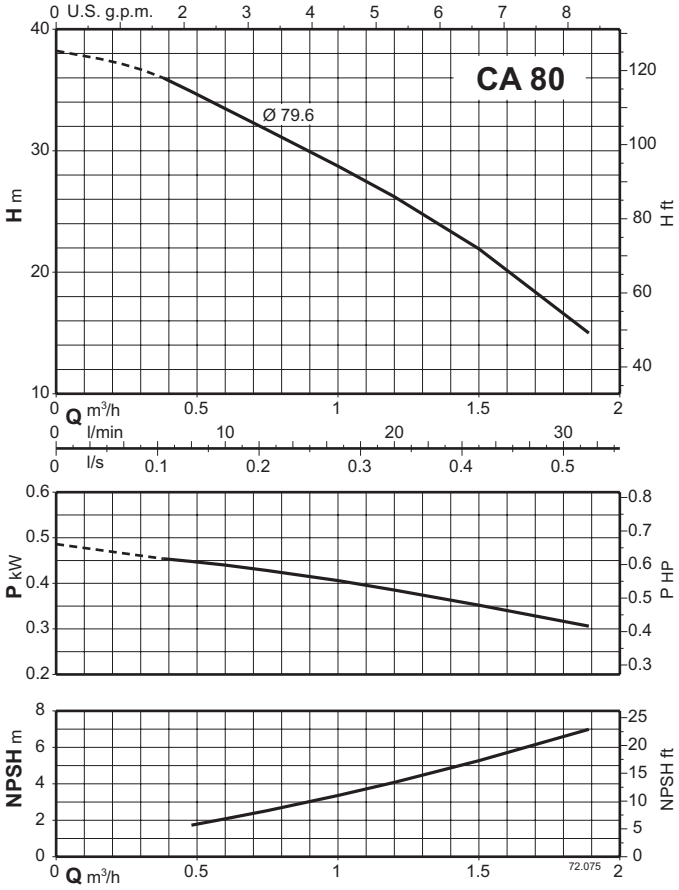
TYPE	ISO 228		mm																kg
	DN1	DN2	a	A	a1	AA	AB	B	BB	fM	H	h1	h2	HA	HD	K	l5	w	Weight
BCAM 60E	G 1/2	G 1/2	59	100	18	22	122	80	96	256	63	103	25	8	158	7	14	103	6.3
BCAM 80/A	G 3/4	G 3/4	72	112	23	22	134	90	106	307	71	134	27	10	182	7	17	122	9.7
BCAM 90/A	G 1	G 1	84	112	28	22	134	90	106	318	71	142	41	10	182	7	21	128	11.8
BCAM 91/A	G 1	G 1	84	112	28	22	134	90	106	318	71	142	41	10	182	7	21	128	13

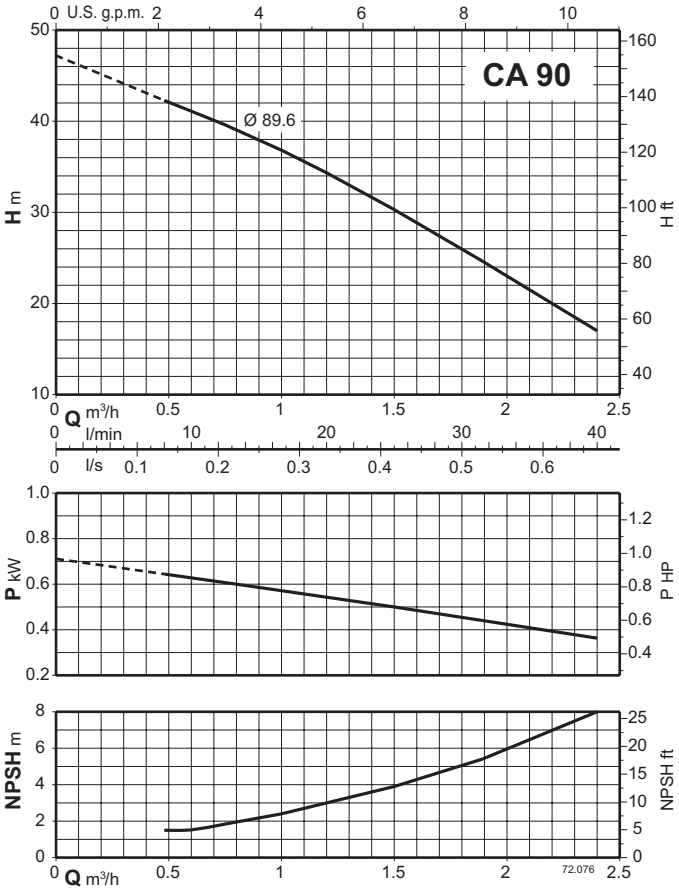
CA

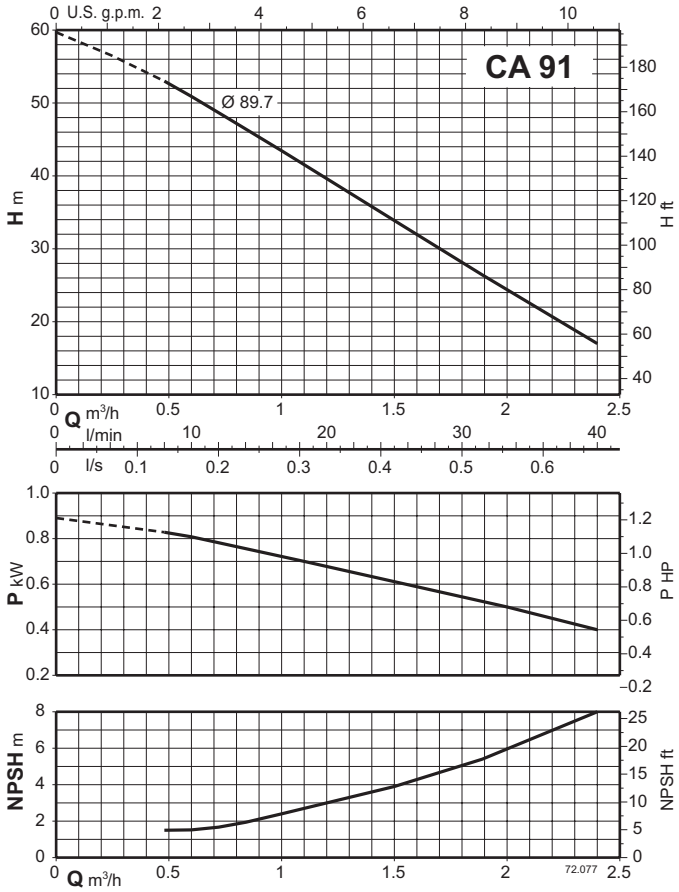
calpeda®

Characteristic curves n ≈ 2900 rpm

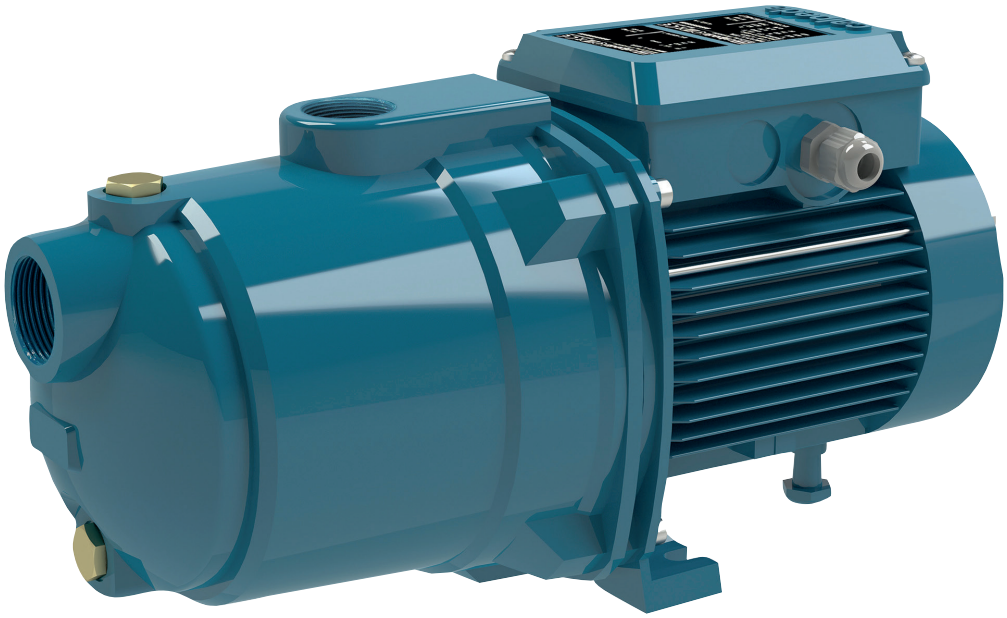




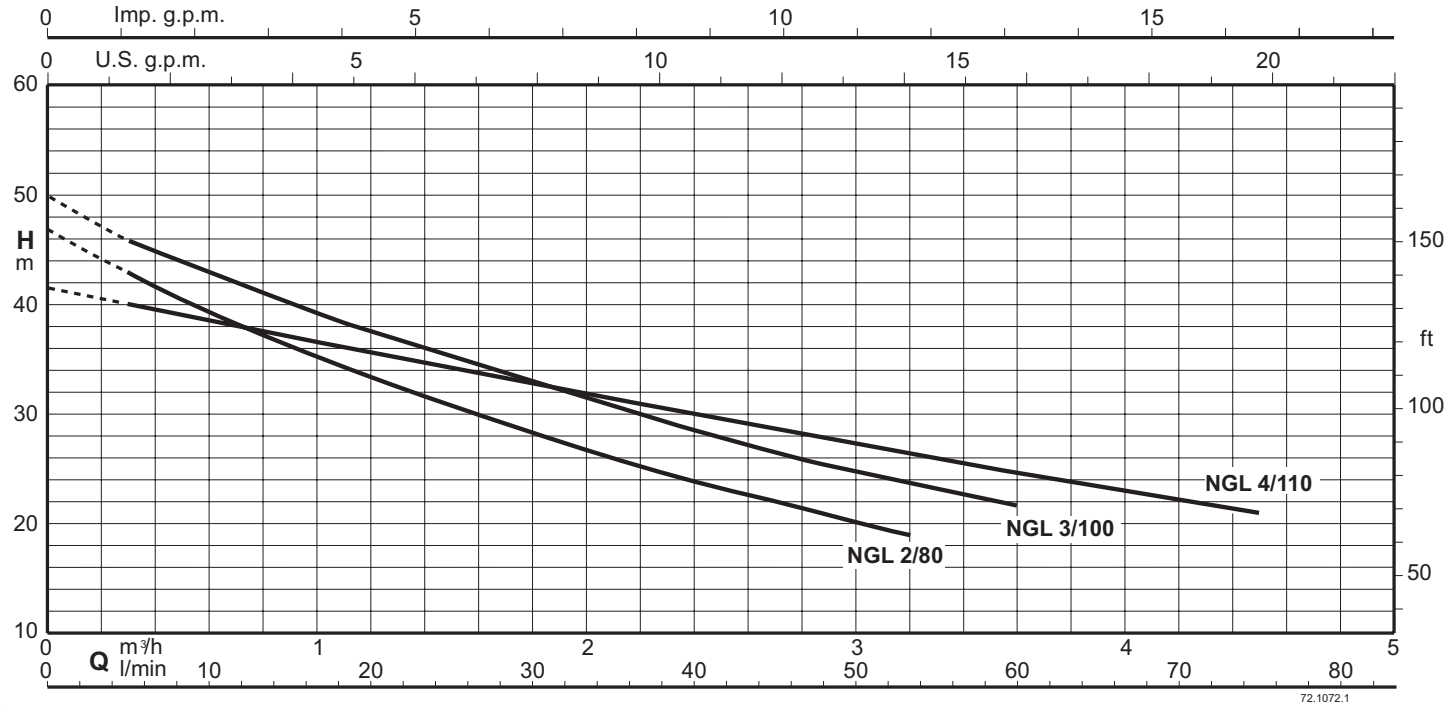




NGL



Coverage chart n ≈ 2800 rpm



Self-priming jet pumps

NGL

Construction

Close-coupled self-priming shallow-well pump with built-in ejector.

Applications

For drawing water out of a well.
For lifting water containing air or other gases.
For increasing water pressure from flooded suction applications.
For increasing network pressure (follow local specifications).
For garden use.
For washing with a jet of water.

Operating conditions

Liquid temperature: 0 °C to +35 °C.
Ambient temperature up to +40 °C.
Maximum permissible pressure in the pump casing: 8 bar.
Continuous duty.

Motor

2-pole induction motor, 50 Hz (n ≈ 2800 1/min).
NGL: three-phase 230/400 V ± 10%.
NGLM: single-phase 230 V ± 10%, with thermal protector.
Capacitor inside the terminal box.
Insulation class F.
Protection IP54
IE2 efficiency class for single-phase motors.
IE3 efficiency class for three-phase motors (IE2 up to 0,65 kW).
Constructed in accordance with EN 60034-1.
EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Brass impeller.

Designation

NGLM 2/80
NGL = Series
M = Singlephase version (no indication: threephase)
2 = Progressive type number
80 = Nominal power P1

Materials

Components	Material
Pump casing	Cast iron GJL 200 EN 1561
Casing cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Impeller	Noryl PPO-GF20
Wear ring impeller-diffuser	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Diffuser	Noryl PPO-GF20
Ejector	Noryl PPO-GF20
Shaft	Steel 1.4104 EN 10088 (AISI 430F)
Mechanical seal	Carbon - Ceramic - NBR

Performance n ≈ 2800 rpm

Three-phase

					Q = Flow										
					m³/h	0	0,3	1	2	2,4	3	3.2	3,6	4	4,5
Model	230V	400V	P2		l/min		5	16,6	33,3	40	50	53.3	60	66,6	75
	A		kW	HP	H (m) = Total head										
NGL 2/80/A	2,8	1,6	0,55	0,75		46,8	43	35,2	26,7	23,9	20,2	19,1	-	-	-
NGL 3/100	3	1,7	0,65	0,9		50	45,9	39,4	31,3	28,5	24,8	23,7	21,7	-	-
NGL 4/110	3,7	2,2	0,75	1		41,6	40	36,6	31,9	30	27,3	26,4	24,6	23	21,1

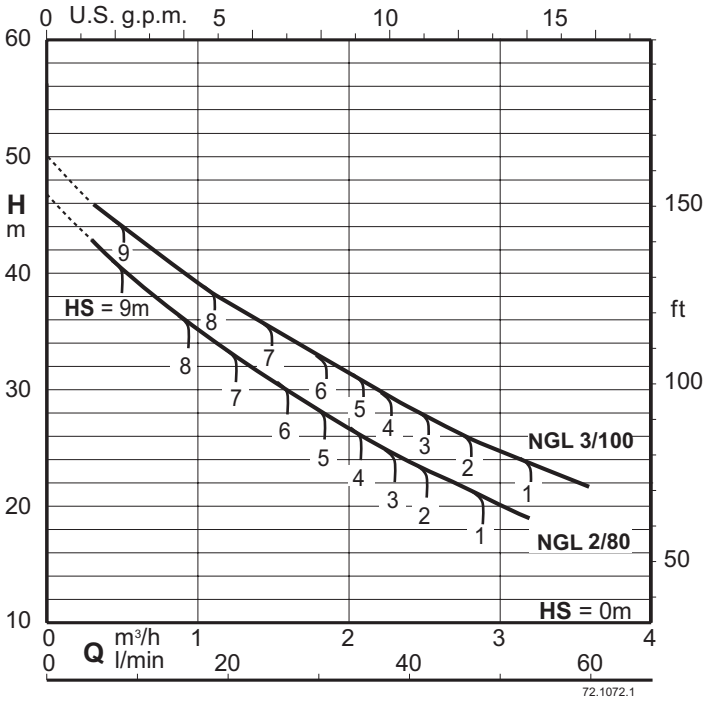
Single-phase

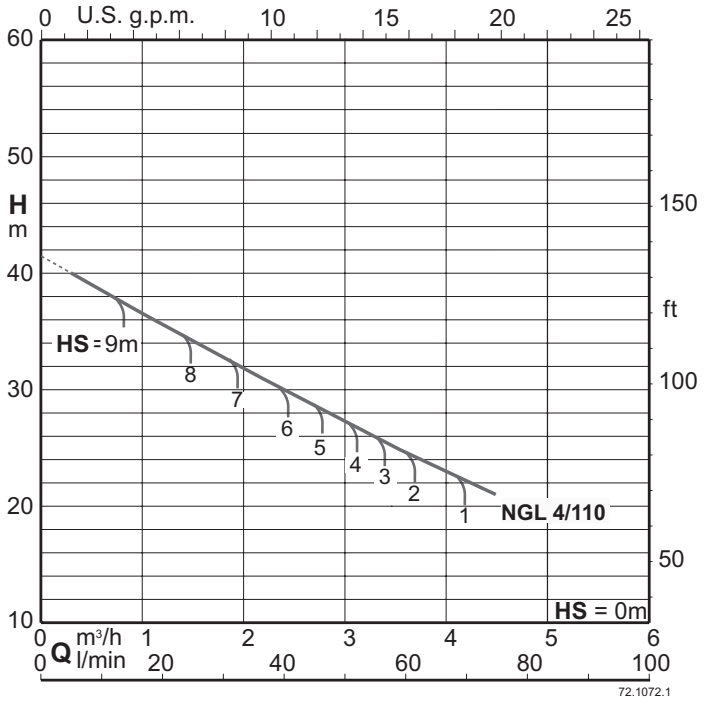
					Q = Flow										
					m³/h	0	0,3	1	2	2,4	3	3.2	3,6	4	4,5
Model	230V	P2		P1	l/min		5	16,6	33,3	40	50	53.3	60	66,6	75
	A	kW	HP	kW	H (m) = Total head										
NGLM 2/80/A	4,5	0,55	0,75	0,78		46,8	43	35,2	26,7	23,9	20,2	19,1	-	-	-
NGLM 3/100	4,5	0,65	0,9	0,89		50	45,9	39,4	31,3	28,5	24,8	23,7	21,7	-	-
NGLM 4/110	5,7	0,75	1	1,01		41,6	40	36,6	31,9	30	27,3	26,4	24,6	23	21,1

P1: Maximum power input.
P2: Rated motor power output.
Tolerances according to UNI EN ISO 9906:2012

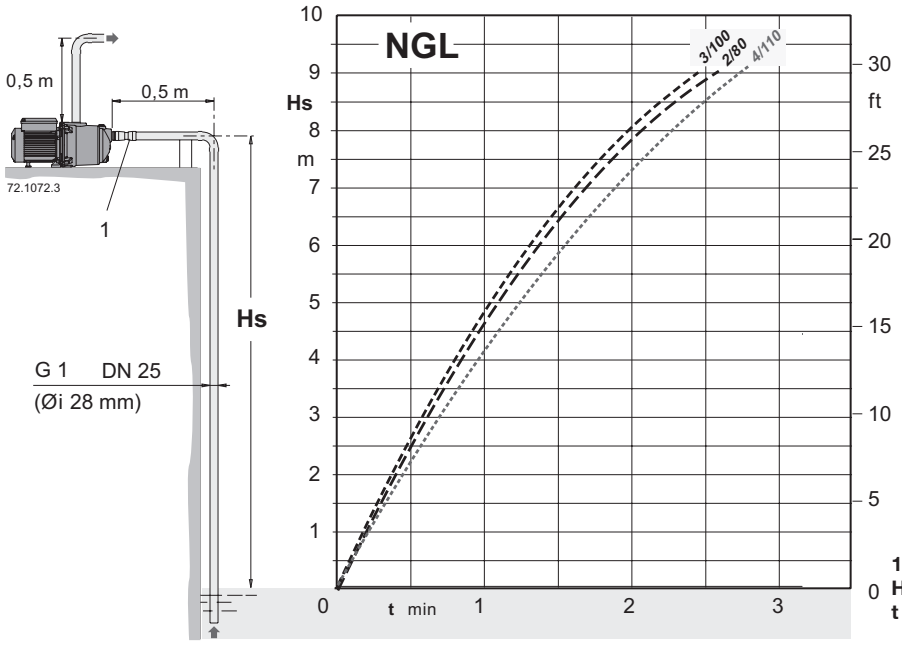
NGL

Characteristic curves for different suction lifts Hs





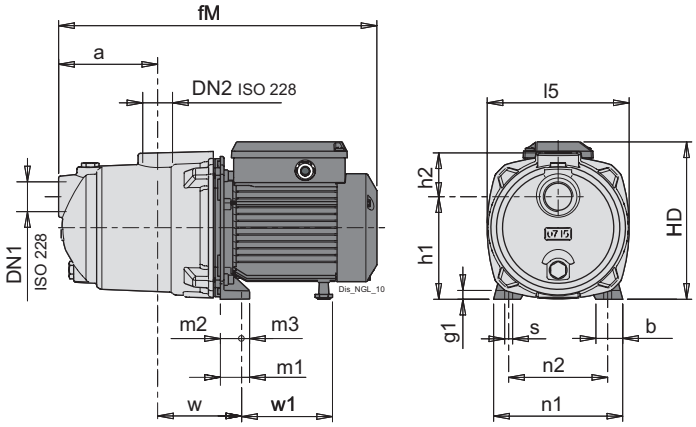
Self-priming capability
50 Hz (n ≈ 2800 1/min), H2O, T = 20°C, Pa = 1000 hPa (mbar)



1: Non-return valve
Hs (m) Aspiration height
t (min) Self-priming time

NGL

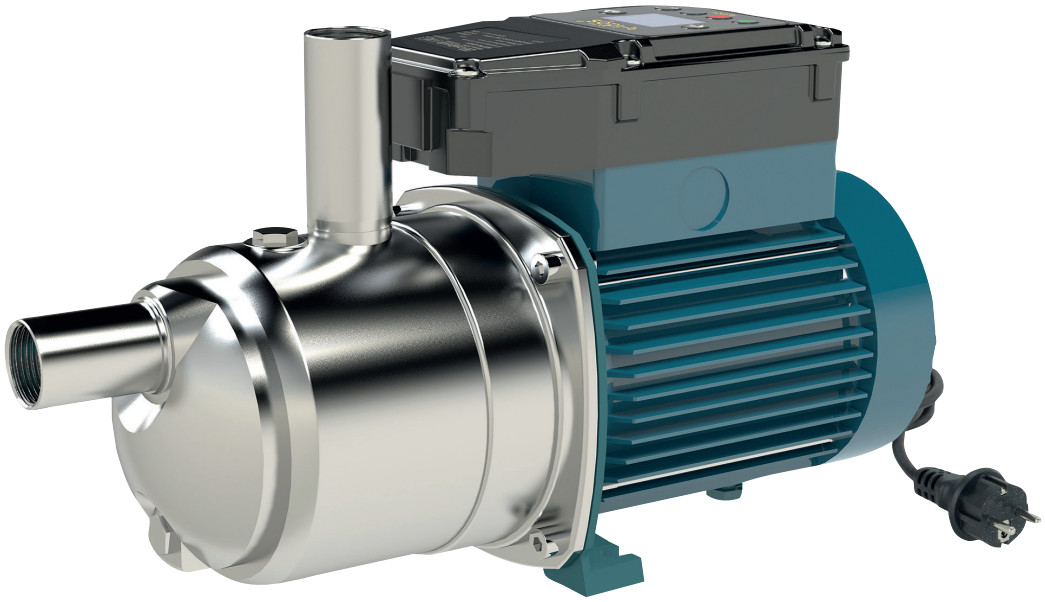
Dimensions and weights



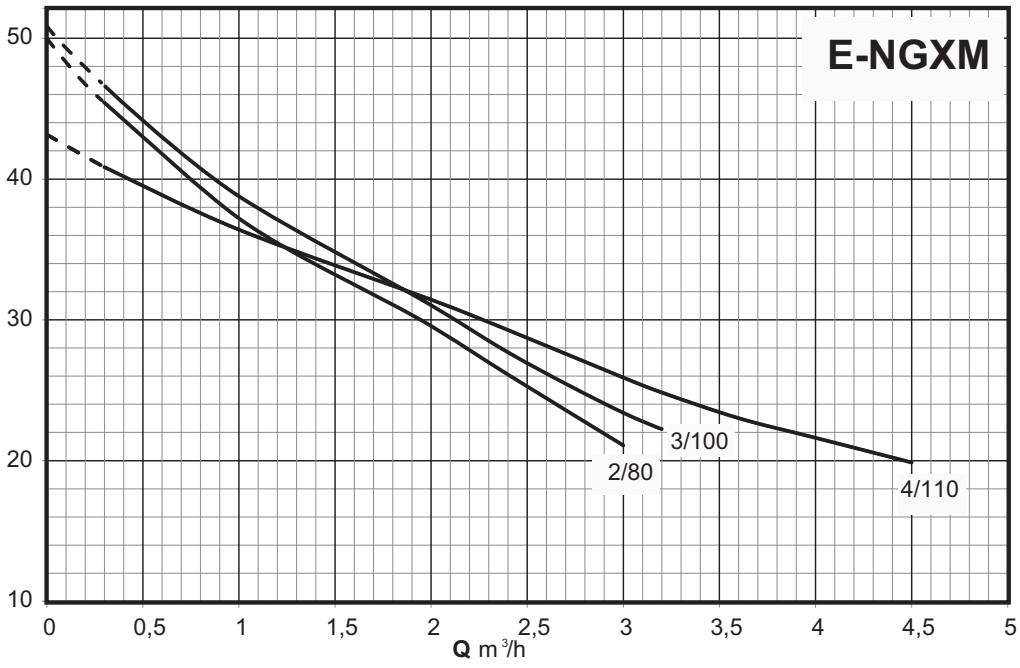
TYPE	ISO 228		mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l5	m1	m2	m3	n1	n2	s	w	w1	Weight
NGL 2/80/A	G 1	G 1	113	30	388	10	116	61	193	161.00	33	25	8	146	113	9	95	119	11.2
NGL 3/100	G 1	G 1	113	30	388	10	116	61	193	161.00	33	25	8	146	113	9	95	119	11.1
NGL 4/110	G 1	G 1	113	30	388	10	116	61	193	161.00	33	25	8	146	113	9	95	119	13

TYPE	ISO 228		mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l5	m1	m2	m3	n1	n2	s	w	w1	Weight
NGLM 2/80/A	G 1	G 1	113	30	388	10	116	61	193	161.00	33	25	8	146	113	9	95	119	12.2
NGLM 3/100	G 1	G 1	113	30	388	10	116	61	193	161.00	33	25	8	146	113	9	95	119	12.1
NGLM 4/110	G 1	G 1	113	30	388	10	116	61	193	161.00	33	25	8	146	113	9	95	119	13.1

E-NGX



Coverage chart n ≈ 2800 rpm



Variable speed pressure with integrated control

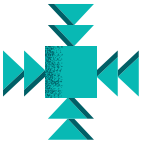
E-NGX



EASY TO INSTALL
Plug And play solution



ECONOMIC SAVING
High efficiency asynchronous motor 24 % less energy consumption compared to a standard pump



EASY TO USE
Equipped with a programmable software and, thanks to the analogic pressure sensor, the product allows to set the restart pressure. An ideal solution which allows to reduce or remove the need of a expansion tank

Construction

Easy to install, compact and plug and play pressurized system with integrated pressure transducer for automatic control of starting/stopping of the pump when utilization points are opened/closed with a integrated non-return valve into the pump suction.
pumps:
E-NGX: version with self-priming pumps

Applications

For water supply systems.
For domestic use, for garden use and irrigation.

Features

high efficiency asynchronous motor
- capacitor less stressed in voltage
- uniform and lower motor temperature
- motor power control
- programmable re-start pressure
- programmable stop pressure
- no hydraulic losses due to the measuring devices
- voltage and current control
- monitoring of maximum starting current

Protections

- dry-run protection
- overload control and overheating motor control
- pump blockage
- power supply control
- starts per hour control

Operating conditions

Liquid temperature: 0 °C to +35 °C.
Ambient temperature up to 40° C.
Maximum permissible pressure in the pump casing: 8 bar.
Continuous duty.

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
Single-phase 230 V ± 10%, with thermal protector.
Capacitor inside the terminal box.
H07RN-F cable, 3G1.5 mm2, length 1.5 m, with CEI-UNEL 47166 plug.
IE2 efficiency class for single-phase motors.
Insulation class F.
Protection IP X4.
Constructed in accordance with EN 60034-1, EN 60335-1, EN 60335-2-41.

Designation

Example: E-NGXM 2/80-PCD
E · = · Electronic
NGX = Series
M = Singlephase version (no indication: threephase)
2 = Progressive type number
80 · = P1 nominal power input in kW
PCD = Constant pressure Display

Materials

Components	Material
Pump casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Casing cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Pump shaft	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Plug	Chrome-nickel steel 1.4305 EN 10088 (AISI 303)
Impeller	PPO-GF20 (Noryl)
Diffuser	PPO-GF20 (Noryl)
Ejector	PPO-GF20 (Noryl)
Mechanical seal	Carbon - Ceramic - NBR

E-NGX

Performance n ≈ 2800 rpm

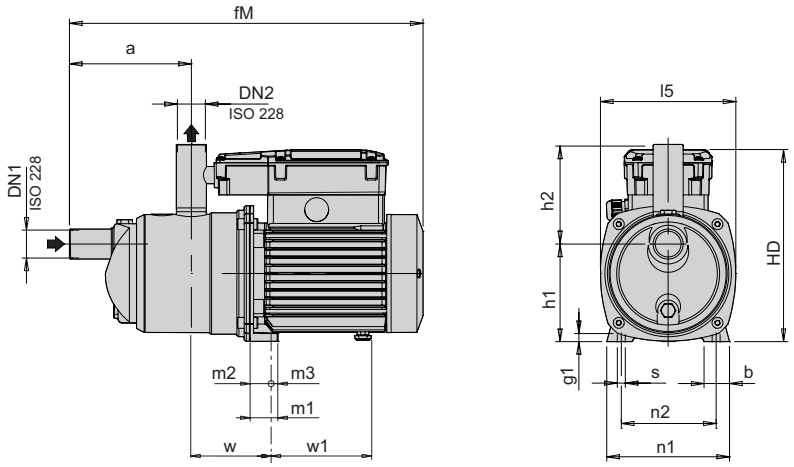
Single-phase

					Q = Flow									
				m³/h	0	0,3	1	2	2,4	3	3.2	3,6	4	4,5
Model	230V	P2		P1	l/min	5	16,6	33,3	40	50	53.3	60	66,6	75
	A	kW	HP	kW	H (m) = Total head									
E-NGXM 2/80-PCD	3,8	0,55	0,75	0,78	50	45,5	37,2	29,6	26,1	21,1	-	-	-	-
E-NGXM 3/100-PCD	4,2	0,65	0,9	0,93	50,9	46	38,8	31	27,4	23,2	22,2	-	-	-
E-NGXM 4/110-PCD	4,8	0,75	1	1,01	43,2	40,8	36,4	31,4	29,3	25,9	24,8	23	21,6	19,9

P1: Maximum power input.
P2: Rated motor power output.
H: Total head in m

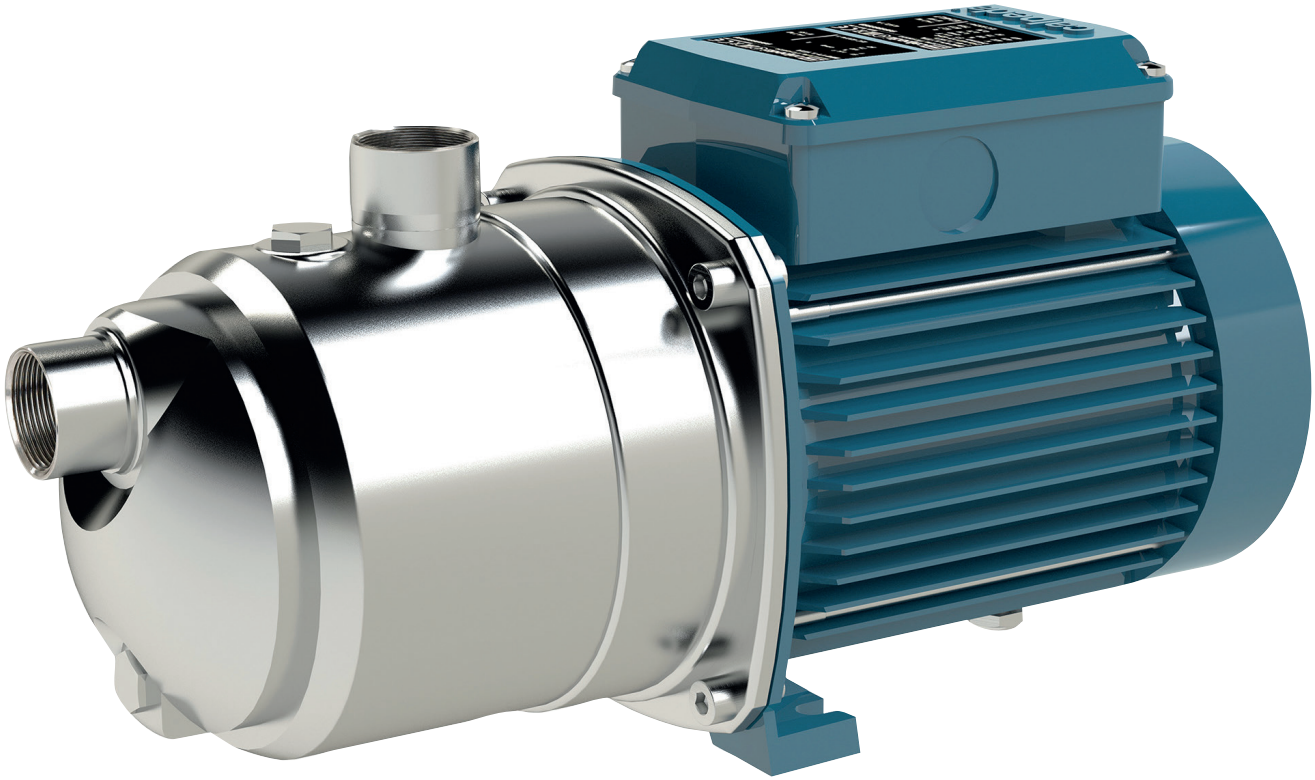
Test results with clean cold water, without gas content.
A safety margin of + 0.5 m is recommended for the NPSH value.
Tolerances according to UNI EN ISO 9906:2012

Dimensions and weights

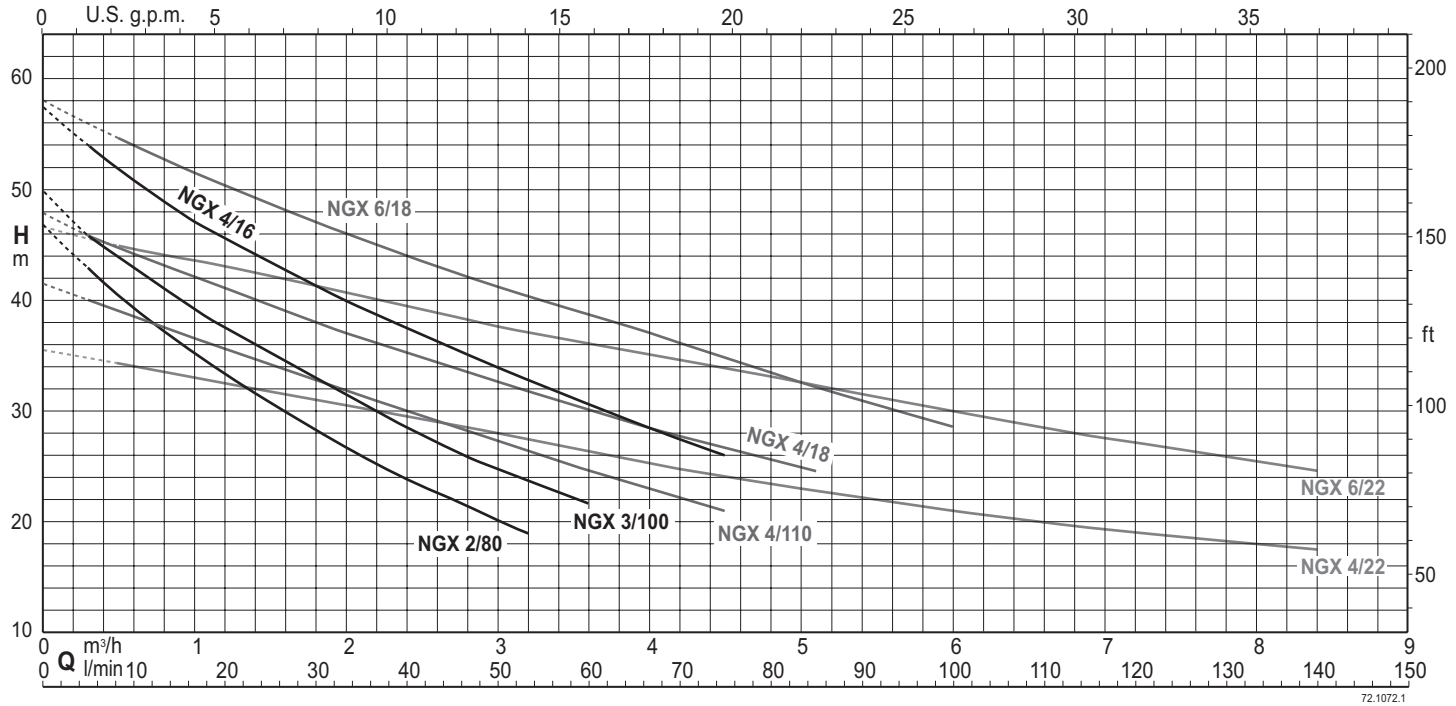


TYPE	ISO 228		mm															kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l5	m1	m2	m3	n1	n2	s	w	Weight
E-NGXM 2/80-PCD	G 1	G 1	145	30	420	10	116	119	228	161	33	25	8	146	112.5	9	95	10.1
E-NGXM 3/100-PCD	G 1	G 1	145	30	420	10	116	119	228	161	33	25	8	146	112.5	9	95	10.2
E-NGXM 4/110-PCD	G 1	G 1	145	30	420	10	116	119	228	161	33	25	8	146	112.5	9	95	11

NGX



Coverage chart n ≈ 2800 rpm



Self-priming jet pumps

NGX

Construction

Close-coupled self-priming shallow well jet pumps with built-in ejector.
A high-quality pump for domestic water supply. Designed with environmental considerations, featuring a stainless steel casing.

Applications

For drawing water out of a well.
For lifting water containing air or other gases.
For increasing network pressure (follow local specifications).
For increasing water pressure from flooded suction applications.
For garden use.
For washing with a jet of water.

Operating conditions

Liquid temperature: 0 °C to +35 °C.
Ambient temperature up to 40° C.
Maximum permissible pressure in the pump casing: 8 bar.
Continuous duty (S3 60% for single-phase pump to 1,5 kW).

Motor

2-pole induction motor, 50 Hz (n ≈ 2800 1/min).
NGX: three-phase 230/400 V ± 10%.
NGXM: single-phase 230 V ± 10%, with thermal protector.
Capacitor inside the terminal box.
Insulation class F.
Protection IP54
IE2 efficiency class for single-phase motors up to 1,1 kW.
IE3 efficiency class for three-phase motors (IE2 up to 0,65 kW).
Constructed in accordance with EN 60034-1; EN 60034-30-1.
EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Brass impeller

Designation

NGXM 6/18/A
NGX = Series
M = Singlephase version (no indication: threephase)
6 = Progressive type number
18 · = Ejector type
/A = It refers to a revision

Materials

Component	Material
Pump casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Casing cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Impeller	Brass CW617N EN 12165 (Noryl PPO-GF20 for NGX 2/80, 3/100, 4/110)
Wear ring impeller-diffuser	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Diffuser	Noryl PPO-GF20
Ejector	Noryl PPO-GF20
Shaft	Steel 1.4104 EN 10088 (AISI 430F)
	Steel 1.4305 EN 10088 (AISI 303). NGX 6
Mechanical seal	Carbon - Ceramic - NBR

NGX

Performance n ≈ 2800 rpm

Single-phase

Model	230V	P2		P1	Q = Flow																	
					m³/h	0	0,3	0,5	1	2	2,4	3	3.2	3,6	4	4,5	5	5,5	6	6,5	7	8	8,4
					l/min		5	8,33	16,6	33,3	40	50	53.3	60	66,6	75	83,3	91,6	100	108	117	133	140
	A	kW	HP	kW	H (m) = Total head																	
NGXM 2/80/A	4,5	0,55	0,75	0,78		46,8	43	40,7	35,2	26,7	23,9	20,2	19,1	-	-	-	-	-	-	-	-	-
NGXM 3/100	4,5	0,65	0,9	0,89		50	45,9	44	39,4	31,3	28,5	24,8	23,7	21,7	-	-	-	-	-	-	-	-
NGXM 4/110	5,7	0,75	1	1,01		41,6	40	39	36,6	31,9	30	27,3	26,4	24,6	23	21,1	-	-	-	-	-	-
NGXM 4/16	7	1,1	1,5	1,44		57,5	54	52	47,3	40	37,5	34	32,9	30,7	28,5	26	-	-	-	-	-	-
NGXM 4/18	7	1,1	1,5	1,44		48	46	45	42,5	37	35	32,5	31,7	30,1	28,5	27	25	-	-	-	-	-
NGXM 4/22	7	1,1	1,5	1,44		35,5	34,8	34,3	33	30,5	29,5	28	27,5	26,4	25,3	24	23	22	21	20,3	19,5	18	17,5
NGXM 6/18	9,2	1,5	2	2		58	-	54,7	51,5	46	44	41,3	40,4	38,7	37	34,7	32,5	30,5	28,5	-	-	-	-
NGXM 6/22	9,2	1,5	2	2		46,5	-	45	43,5	40,5	39,3	37,5	37	36	35	33,5	32,5	31,2	30	28,5	27,5	25,5	24,5

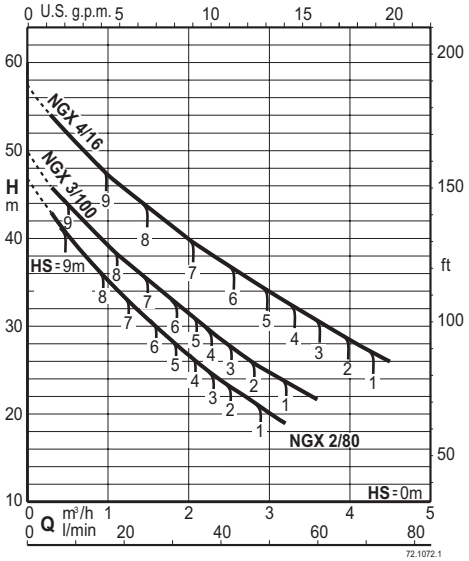
Three-phase

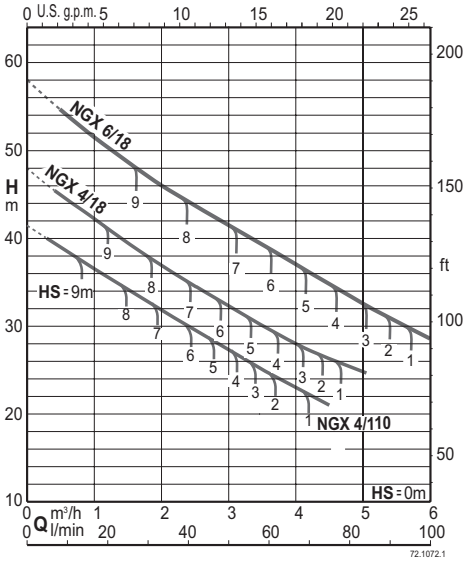
Model	230V	400V	P2		Q = Flow																	
					m³/h	0	0,3	0,5	1	2	2,4	3	3.2	3,6	4	4,5	5	5,5	6	6,5	7	8	8,4
					l/min		5	8,33	16,6	33,3	40	50	53.3	60	66,6	75	83,3	91,6	100	108	117	133	140
	A		kW	HP	H (m) = Total head																	
NGX 2/80/A	2,8	1,6	0,55	0,75		46,8	43	40,7	35,2	26,7	23,9	20,2	19,1	-	-	-	-	-	-	-	-	-
NGX 3/100	3	1,7	0,65	0,9		50	45,9	44	39,4	31,3	28,5	24,8	23,7	21,7	-	-	-	-	-	-	-	-
NGX 4/110	3,7	2,2	0,75	1		41,6	40	39	36,6	31,9	30	27,3	26,4	24,6	23	21,1	-	-	-	-	-	-
NGX 4/16	4,5	2,6	1,1	1,5		57,5	54	52	47,3	40	37,5	34	32,9	30,7	28,5	26	-	-	-	-	-	-
NGX 4/18	4,5	2,6	1,1	1,5		48	46	45	42,5	37	35	32,5	31,7	30,1	28,5	27	25	-	-	-	-	-
NGX 4/22	4,5	2,6	1,1	1,5		35,5	34,8	34,3	33	30,5	29,5	28	27,5	26,4	25,3	24	23	22	21	20,3	19,5	18	17,5
NGX 6/18/A	7,5	4,3	1,5	2		58	-	54,7	51,5	46	44	41,3	40,4	38,7	37	34,7	32,5	30,5	28,5	-	-	-	-
NGX 6/22/A	7,5	4,3	1,5	2		46,5	-	45	43,5	40,5	39,3	37,5	37	36	35	33,5	32,5	31,2	30	28,5	27,5	25,5	24,5

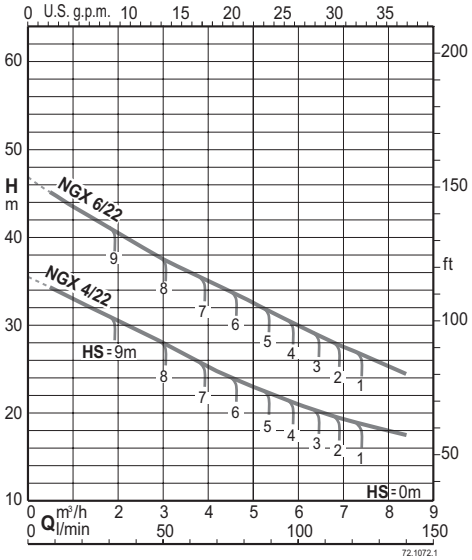
P1: Maximum power input.
P2: Rated motor power output.
Hs (m) Aspiration height
Tolerances according to UNI EN ISO 9906:2012

NGX

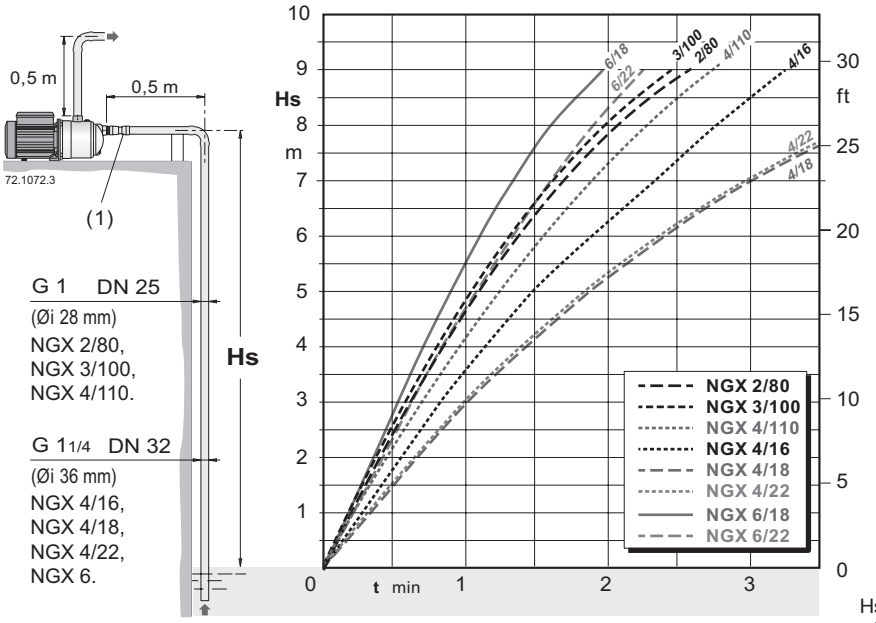
Curve caratteristiche con diverse altezze di aspirazi







Self-priming capability
50 Hz (n ≈ 2800 1/min), H2O, T = 20°C, Pa = 1000 hPa (mbar)

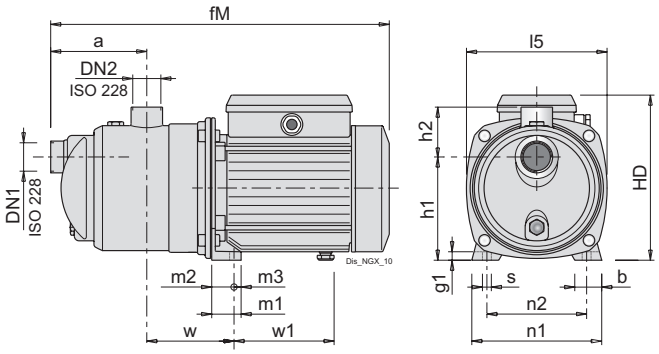


Hs (m): Aspiration height
t (min): Self-priming time
(1) Non-return valve

NGX

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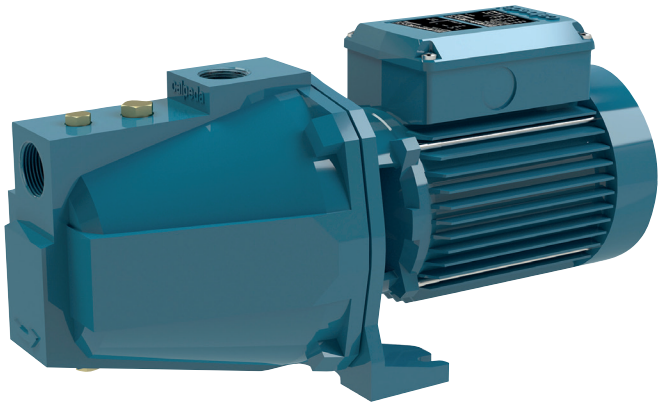
Dimensions and weights

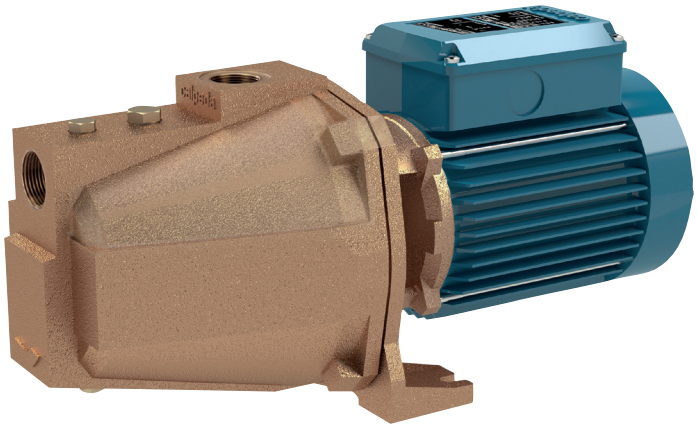


TYPE	ISO 228		mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l5	m1	m2	m3	n1	n2	s	w	w1	Weight
NGXM 2/80/A	G 1	G 1	115	30	391	10	116	61	192	161.00	33	25	8	146	112	9	95	112	9.3
NGXM 3/100	G 1	G 1	115	30	391	10	116	61	192	161.00	33	25	8	146	112	9	95	112	9.3
NGXM 4/110	G 1	G 1	115	30	391	10	116	61	192	161.00	33	25	8	146	112	9	95	112	10.2
NGXM 4/16	G 1 1/4	G 1	140	33	462	11	152	68	225	213.5	37.5	28	9.5	185	155	9.5	113	147	14.4
NGXM 4/18	G 1 1/4	G 1	140	33	488.5	11	152	68	225	213.5	37.5	28	9.5	185	155	9.5	113	147	15
NGXM 4/22	G 1 1/4	G 1	140	33	488.5	11	152	68	225	213.5	37.5	28	9.5	185	155	9.5	113	147	14.7
NGXM 6/18	G 1 1/4	G 1	140	33	488.5	11	152	68	240	213.5	37.5	28	9.5	185	155	9.5	113	157.5	17.4
NGXM 6/22	G 1 1/4	G 1	140	33	488.5	11	152	68	240	213.5	37.5	28	9.5	185	155	9.5	113	157.5	17.4

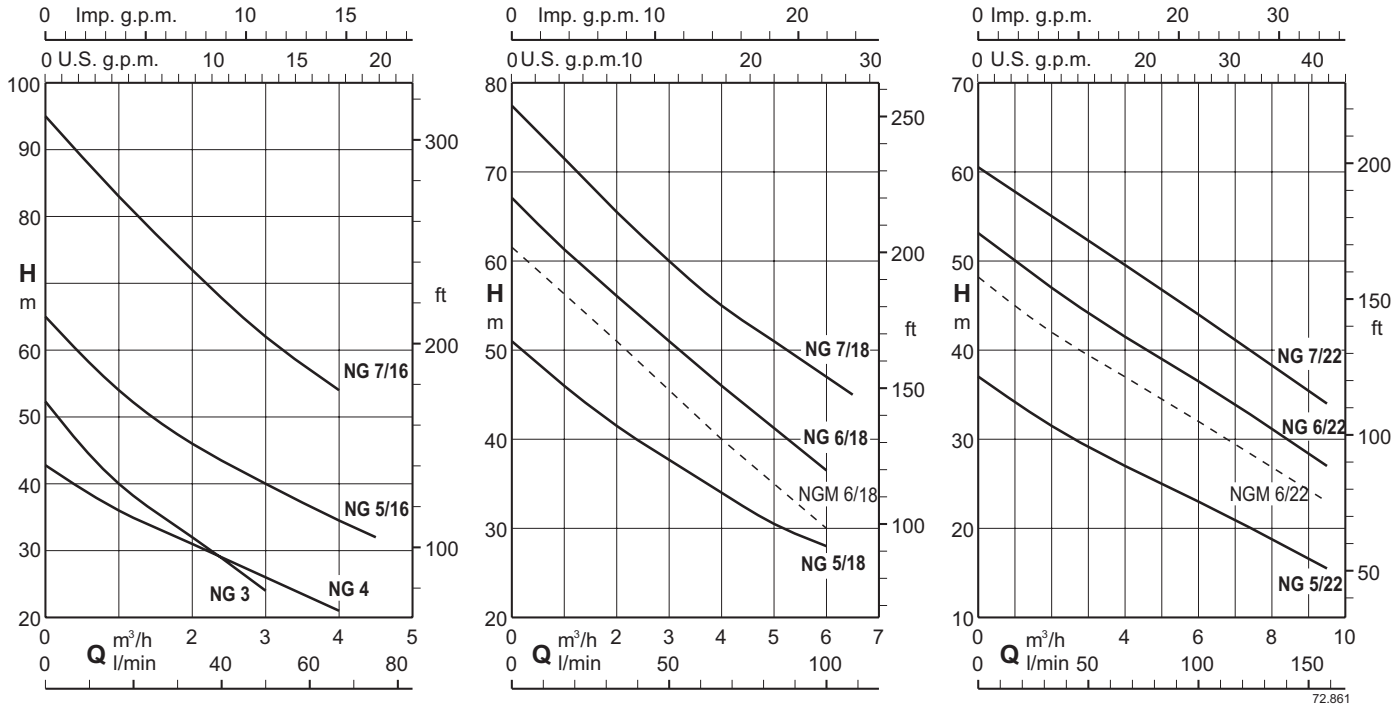
TYPE	ISO 228		mm																kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l5	m1	m2	m3	n1	n2	s	w	w1	Weight
NGX 2/80/A	G 1	G 1	115	30	391	10	116	61	192	161.00	33	25	8	146	112	9	95	112	8.4
NGX 3/100	G 1	G 1	115	30	391	10	116	61	192	161.00	33	25	8	146	112	9	95	112	8.3
NGX 4/110	G 1	G 1	115	30	391	10	116	61	192	161.00	33	25	8	146	112	9	95	112	10.9
NGX 4/16	G 1 1/4	G 1	140	33	462	11	152	68	225	213.5	37.5	28	9.5	185	155	9.5	113	147	14.8
NGX 4/18	G 1 1/4	G 1	140	33	488.5	11	152	68	225	213.5	37.5	28	9.5	185	155	9.5	113	147	14.8
NGX 4/22	G 1 1/4	G 1	140	33	488.5	11	152	68	225	213.5	37.5	28	9.5	185	155	9.5	113	147	14.8
NGX 6/18/A	G 1 1/4	G 1	140	33	488.5	11	152	68	240	213.5	37.5	28	9.5	185	155	9.5	113	157.5	18.1
NGX 6/22/A	G 1 1/4	G 1	140	33	488.5	11	152	68	240	213.5	37.5	28	9.5	185	155	9.5	113	157.5	17.3

NG





Coverage chart n ≈ 2900 rpm



Self-priming jet pumps

NG

Construction

Close-coupled self-priming shallow well jet pumps with built-in ejector.
NG: version with pump casing and lanter bracket in cast iron.
BNG: version with pump body and bronze fitting.
The pumps are supplied fully painted.

Applications

For drawing water out of a well.
For increasing network pressure (follow local specifications).
For clean liquids or slightly dirty surface water.
For garden use.
For washing with a jet of water.

Operating conditions

Liquid temperature up to 40°C.
Ambient temperature up to 40° C.
Maximum permissible working pressure up to 10 bar.
Continuous duty (S3 60% for single-phase pump to 1,5 kW).

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
NG: three-phase 230/400 V ± 10%.
NGM: single-phase 230 V ± 10%, with thermal protector.
Capacitor inside the terminal box.
Insulation class F.
Protection IP54
IE2 efficiency class for single-phase motors up to 1,1 kW.
IE3 efficiency class for three-phase motors (IE2 up to 0,65 kW).
Constructed in accordance with EN 60034-1.
EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Protection IP 55.
Special mechanical seal

Designation

BNGM 5/16/A
B = Bronze version (without Cast Iron version indication)
NG = Series
M = Singlephase version (no indication: threephase)
5 = Progressive type number
16 = Diameter of Venturi body
/A = It refers to a revision

Materials

Components	NG	BNG
Pump casing	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Casing cover	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Diffuser plate	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Impeller	Brass CW617N EN 12167	Brass CW617N EN 12167
Shaft	Steel 1.4104 EN 10088 (AISI 430F). NG 3-4	Steel 1.4401 EN 10088 (AISI 316)
Shaft	Steel 1.4305 EN 10088 (AISI 303). NG 5-6-7	Steel 1.4401 EN 10088 (AISI 316)
Diffuser	Noryl PPO-GF20	Noryl PPO-GF20
Nozzle	Noryl PPO-GF20	Noryl PPO-GF20
Mechanical seal	Carbon - Ceramic - NBR	Carbon - Ceramic - NBR

NG

Coverage chart n ≈ 2900 rpm

Three-phase

						Q = Flow																		
						m³/h	0	0,25	0,5	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6	6,5	7	8	9	9,5
Model		230V	400V	P2		l/min		4,16	8,33	16,6	25	33,3	41,6	50	58,3	66,6	75	83,3	91,6	100	108	117	133	150	158
		A		kW	HP	H (m) = Total head																		
BNG	NG 3/A	3	1,7	0,55	0,75		52,1	49	45,5	40	36	32	28	24	-	-	-	-	-	-	-	-	-	-
BNG	NG 4/B	3,7	2,2	0,75	1		45,8	41	39	36	33	31	29	26	24	21	-	-	-	-	-	-	-	-	-
BNG	NG 5/16/A	4,6	2,7	1,1	1,5		64	-	59	54	50	46	43	40	37	34,5	32	-	-	-	-	-	-	-	-
BNG	NG 5/18/A	4,6	2,7	1,1	1,5		53	-	48,5	46	43,5	41,5	39,5	38	35,5	34	32	30,5	29	28	-	-	-	-	-
BNG	NG 5/22/A	4,6	2,7	1,1	1,5		36,5	-	35,5	34,5	33	31,5	30,5	29,5	28	27	26	25	23,5	23	21,5	20,5	18,5	16,5	15,5
BNG	NG 6/18/A	7,5	4,3	1,5	2		67,3	-	64,5	62	59	56	54	51	48,5	46	43,5	41,5	39	36,5	-	-	-	-	-
BNG	NG 6/22/A	7,5	4,3	1,5	2		53	-	51,5	50	48,5	47	46	44,5	43	41,5	40	39	37,5	36,5	35	33,5	31	28,5	27
BNG	NG 7/16/B	9,2	5,3	2,2	3		95	-	89	83	77	72	67	62	58	54	-	-	-	-	-	-	-	-	-
BNG	NG 7/18/B	9,2	5,3	2,2	3		77	-	74,5	71,5	68,5	65,5	63	60	57,5	55	53	51	49	47	45	-	-	-	-
BNG	NG 7/22/B	9,2	5,3	2,2	3		60	-	59	57,5	56,5	55	54	52,5	51	50	48,5	47	45,5	44	42,5	41,5	38	35	34

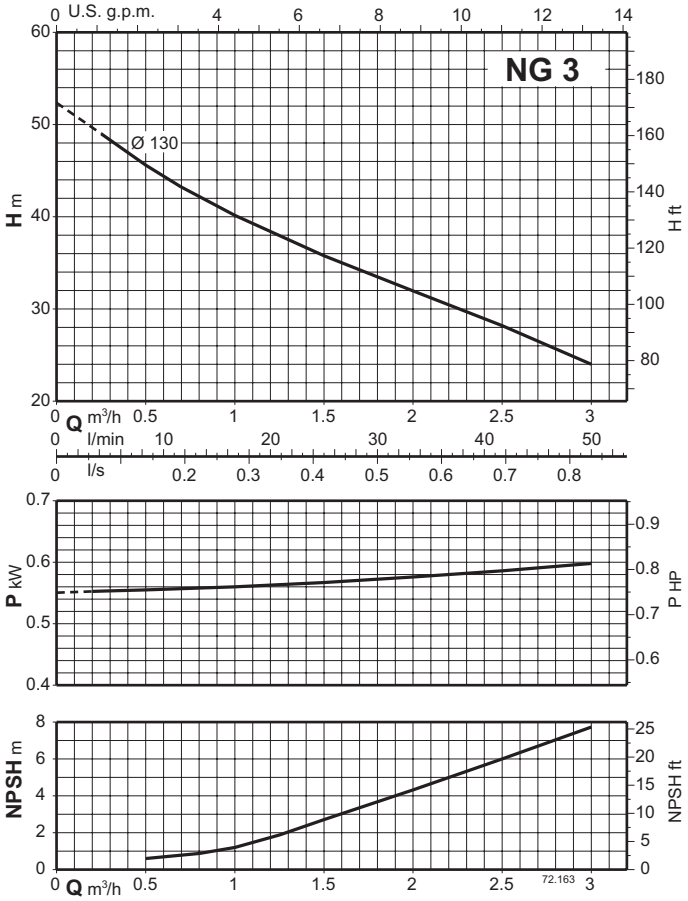
Single-phase

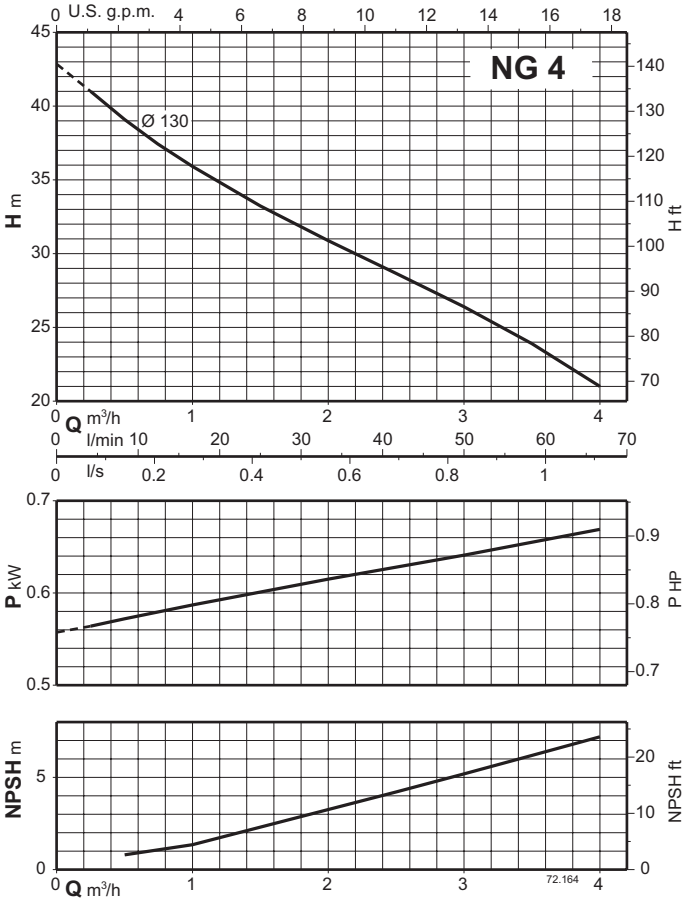
						Q = Flow																		
						m³/h	0	0,25	0,5	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6	6,5	7	8	9	9,5
Model		230V	P2		P1	l/min		4,16	8,33	16,6	25	33,3	41,6	50	58,3	66,6	75	83,3	91,6	100	108	117	133	150	158
		A	kW	HP	kW	H (m) = Total head																		
BNGM	NGM 3/A	4,5	0,55	0,75	0,78		52,1	49	45,5	40	36	32	28	24	-	-	-	-	-	-	-	-	-	-
BNGM	NGM 4/A	5,7	0,75	1	1,01		45,8	41	39	36	33	31	29	26	24	21	-	-	-	-	-	-	-	-	-
BNGM	NGM 5/16E	7,4	1,1	1,5	1,44		64	-	59	54	50	46	43	40	37	34,5	32	-	-	-	-	-	-	-	-
BNGM	NGM 5/18E	7,4	1,1	1,5	1,44		53	-	48,5	46	43,5	41,5	39,5	38	35,5	34	32	30,5	29	28	-	-	-	-	-
BNGM	NGM 5/22E	7,4	1,1	1,5	1,44		36,5	-	35,5	34,5	33	31,5	30,5	29,5	28	27	26	25	23,5	23	21,5	20,5	18,5	16,5	15,5
BNGM	NGM 6/18E	9,2	1,5	2	2		61,8	-	59	57	54	51	48	45	43	40	37,5	35	33	30	-	-	-	-	-
BNGM	NGM 6/22E	9,2	1,5	2	2		48,5	-	47	45	43,5	42	41	40	38	37	36	35	33	32	31	30	27	24	23

P1: Maximum power input.
P2: Rated motor power output.
Tolerances according to UNI EN ISO 9906:2012

NG

Characteristic curves n ≈ 2900 rpm

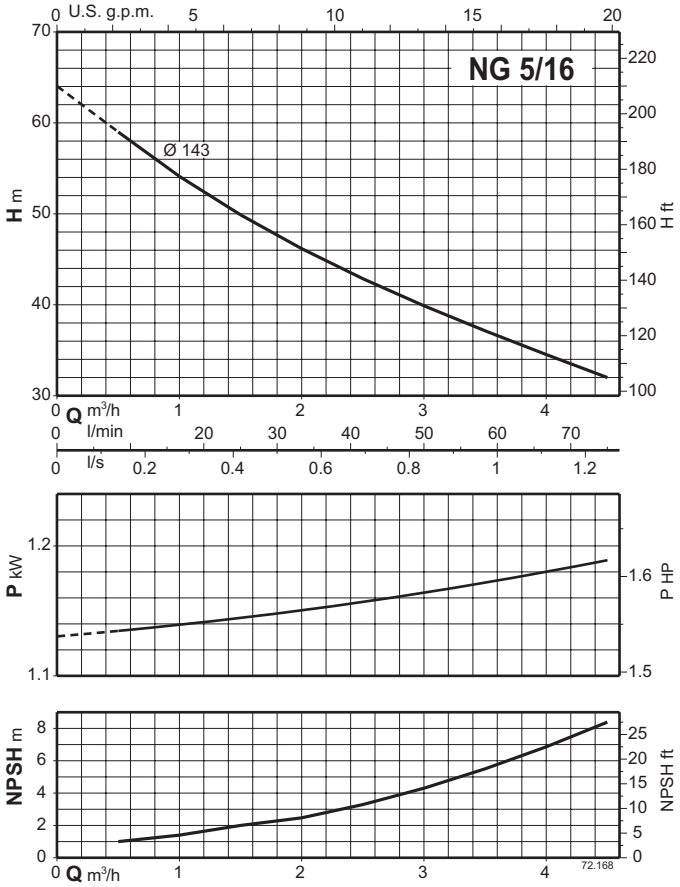


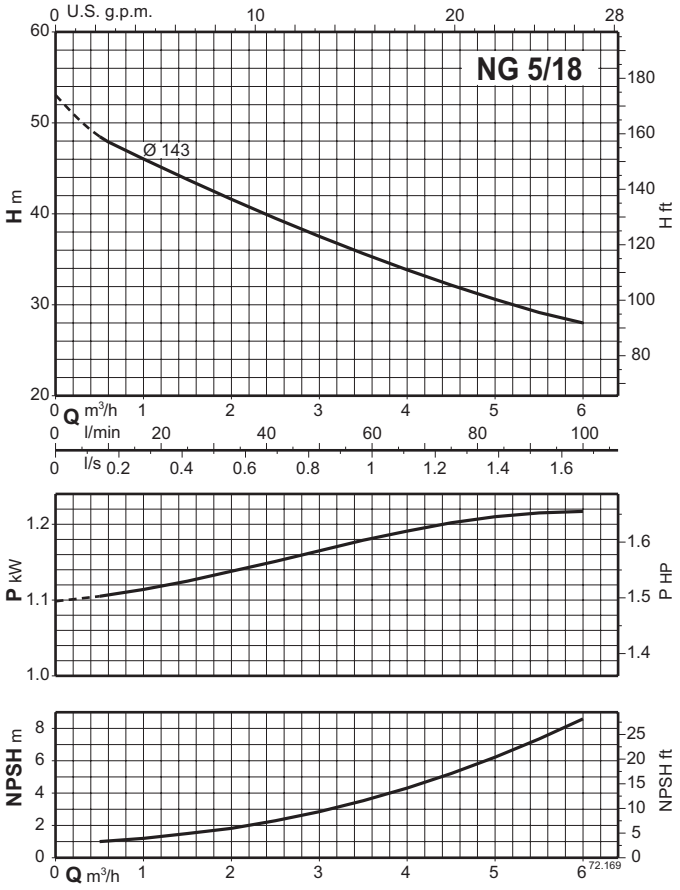


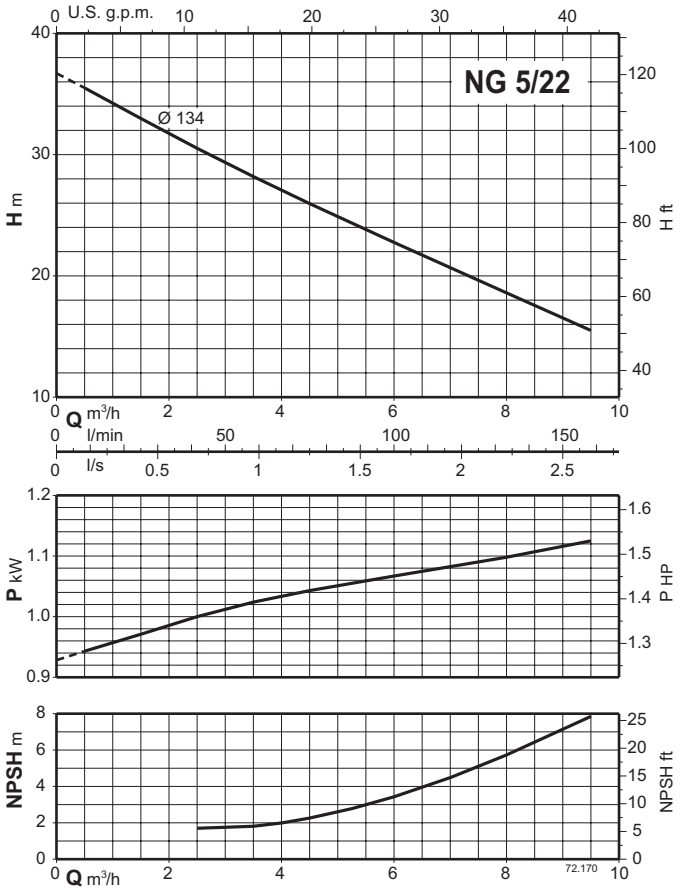
NG

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Characteristic curves n ≈ 2900 rpm

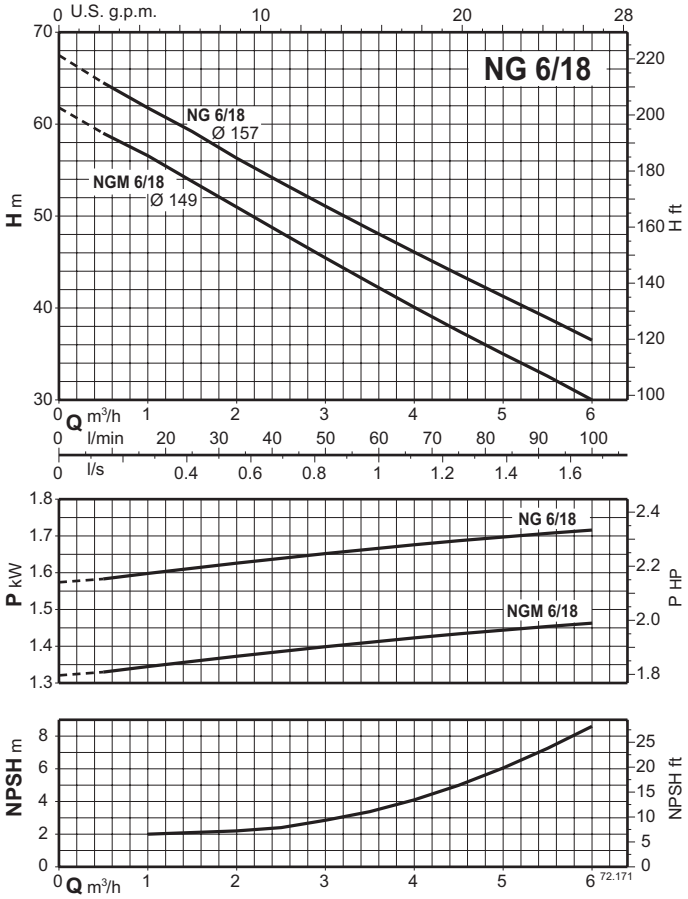


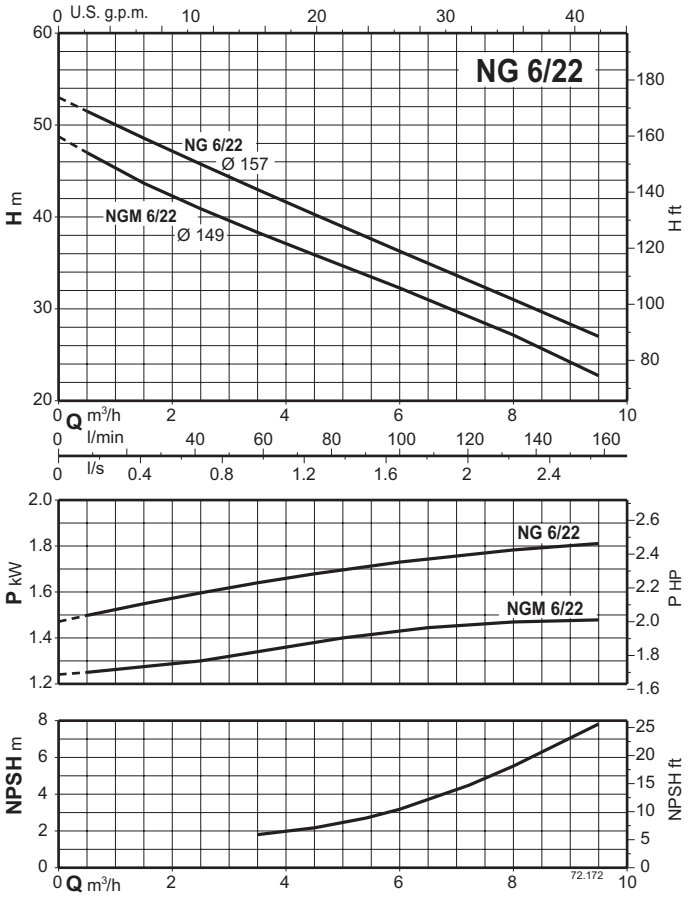




NG

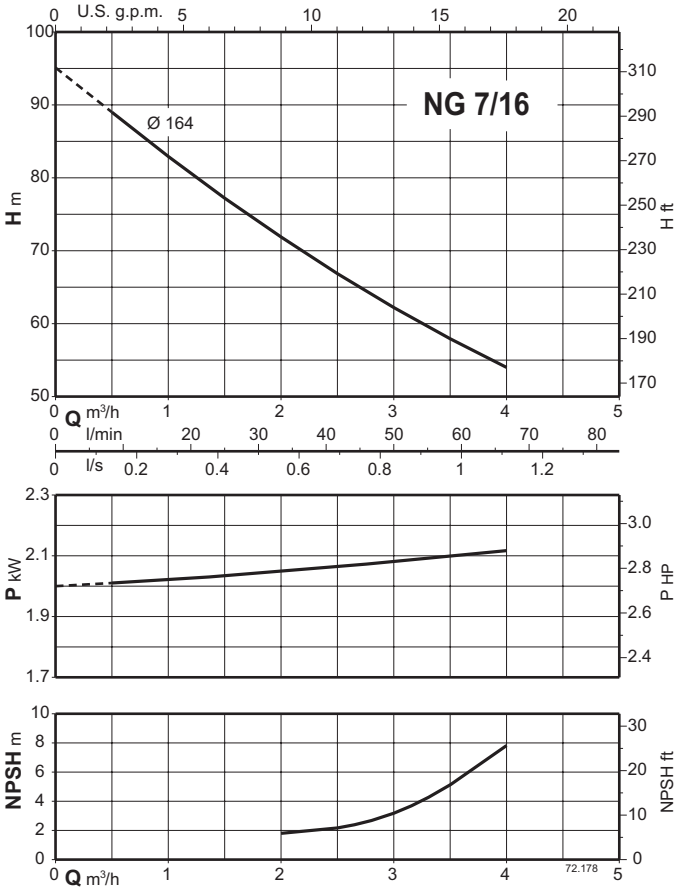
Characteristic curves n ≈ 2900 rpm

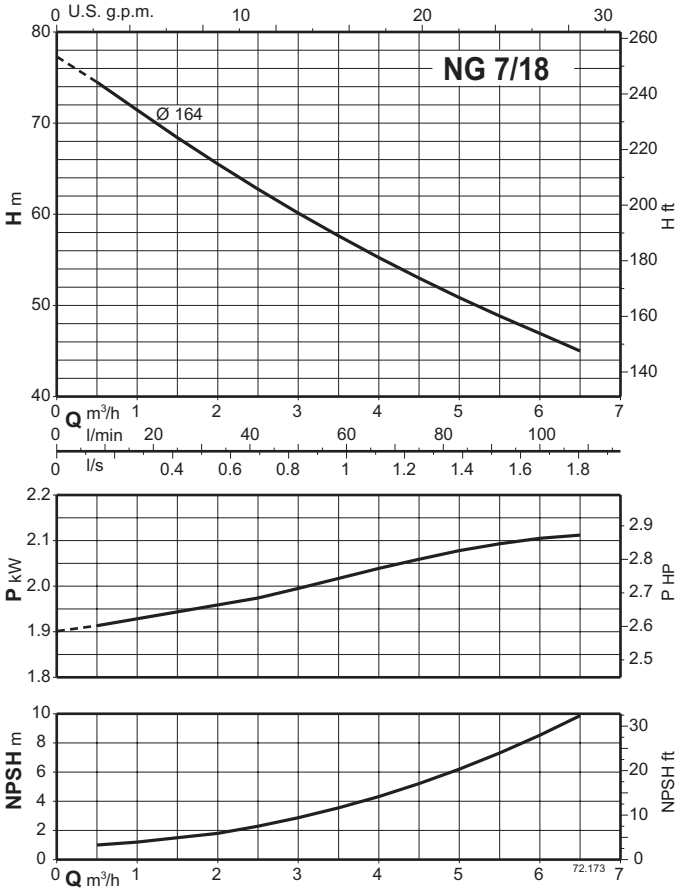


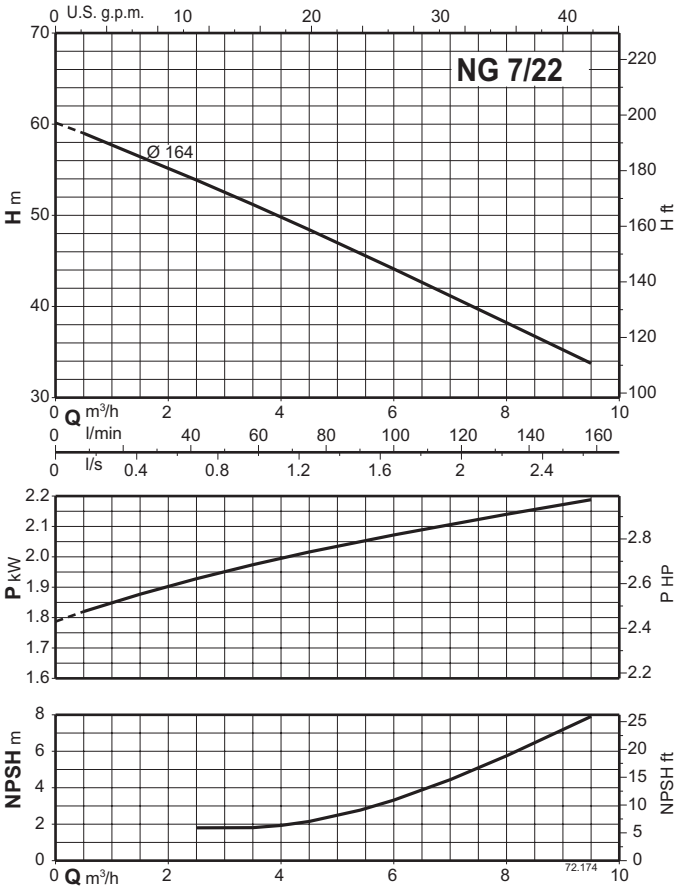


NG

Characteristic curves n ≈ 2900 rpm

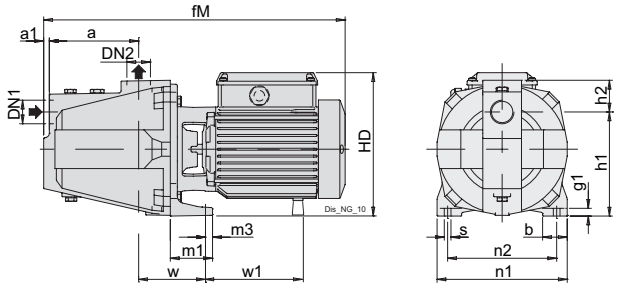






NG

Dimensions and weights



TYPE	ISO 228		mm															kg
	DN1	DN2	a	a1	b	fM	g1	h1	h2	HD	m1	m3	n1	n2	s	w	w1	Weight
NG 3/A	G 1	G 1	127	8	35	430	11	150	43	207	60	8	185	155	9.5	100	-	17.3
NG 4/B	G 1	G 1	127	8	35	430	11	150	43	207	60	8	185	155	9.5	100	-	19.3
NG 5/16/A	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	28.1
NG 5/18/A	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	28.1
NG 5/22/A	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	28.1
NG 6/18/A	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	29.7
NG 6/22/A	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	29.7
NG 7/16/B	G 1 1/2	G 1	160	10	40	600	11	165	57	240	60	10	215	175	11.5	115	233	32.9
NG 7/18/B	G 1 1/2	G 1	160	10	40	600	11	165	57	240	60	10	215	175	11.5	115	233	32.9
NG 7/22/B	G 1 1/2	G 1	160	10	40	600	11	165	57	240	60	10	215	175	11.5	115	233	32.9

TYPE	ISO 228		mm														kg
	DN1	DN2	a	a1	b	fM	g1	h1	h2	HD	m1	m3	n1	n2	s	w	Weight
NGM 3/A	G 1	G 1	127	8	35	430	11	150	43	207	60	8	185	155	9.5	100	18.5
NGM 4/A	G 1	G 1	127	8	35	430	11	150	43	207	60	8	185	155	9.5	100	19.4
NGM 5/16E	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	29.6
NGM 5/18E	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	29.7
NGM 5/22E	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	29.3
NGM 6/18E	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	29.6
NGM 6/22E	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	29.6

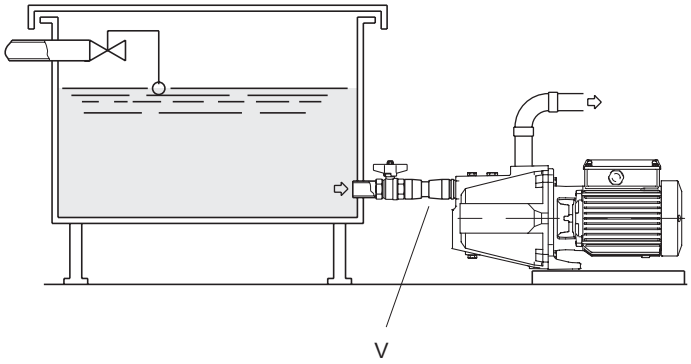
TYPE	ISO 228		mm															kg
	DN1	DN2	a	a1	b	fM	g1	h1	h2	HD	m1	m3	n1	n2	s	w	w1	Weight
BNG 3/A	G 1	G 1	127	8	35	430	11	150	43	207	60	8	185	155	9.5	100	-	20.6
BNG 4/B	G 1	G 1	127	8	35	430	11	150	43	207	60	8	185	155	9.5	100	-	22.3
BNG 5/16/A	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	32.1
BNG 5/18/A	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	32.1
BNG 5/22/A	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	32.1
BNG 6/18/A	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	33.4
BNG 6/22/A	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	-	33.4
BNG 7/16/B	G 1 1/2	G 1	160	10	40	600	11	165	57	240	60	10	215	175	11.5	115	233	36.6
BNG 7/18/B	G 1 1/2	G 1	160	10	40	600	11	165	57	240	60	10	215	175	11.5	115	233	36.6
BNG 7/22/B	G 1 1/2	G 1	160	10	40	600	11	165	57	240	60	10	215	175	11.5	115	233	36.6

TYPE	ISO 228		mm														kg
	DN1	DN2	a	a1	b	fM	g1	h1	h2	HD	m1	m3	n1	n2	s	w	Weight
BNGM 3/A	G 1	G 1	127	8	35	430	11	150	43	207	60	8	185	155	9.5	100	21.6
BNGM 4/A	G 1	G 1	127	8	35	430	11	150	43	207	60	8	185	155	9.5	100	22.4
BNGM 5/16E	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	34
BNGM 5/18E	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	34
BNGM 5/22E	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	34
BNGM 6/18E	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	34
BNGM 6/22E	G 1 1/2	G 1	160	10	40	560	11	165	57	240	60	10	215	175	11.5	115	34

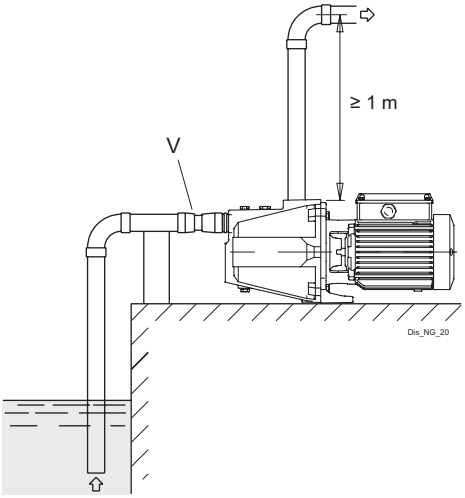
NG

Examples of installations

Positive suction head operation



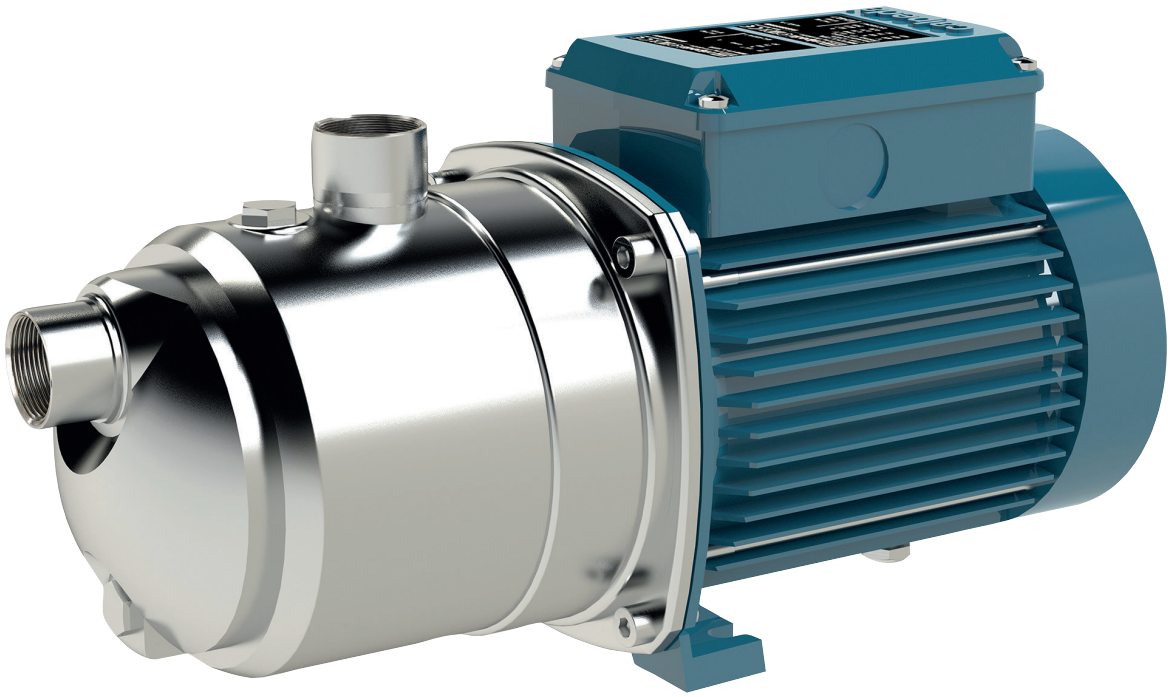
Operation with suction lift



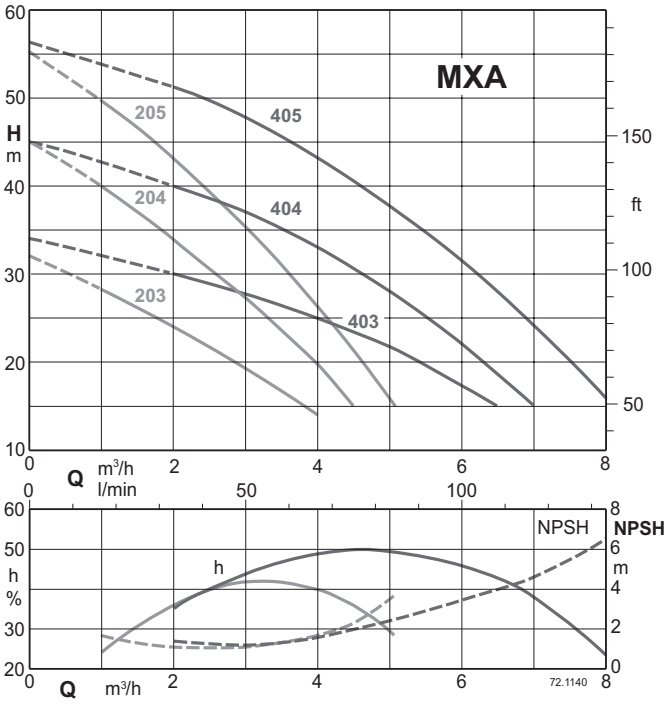
Check valve

MXA

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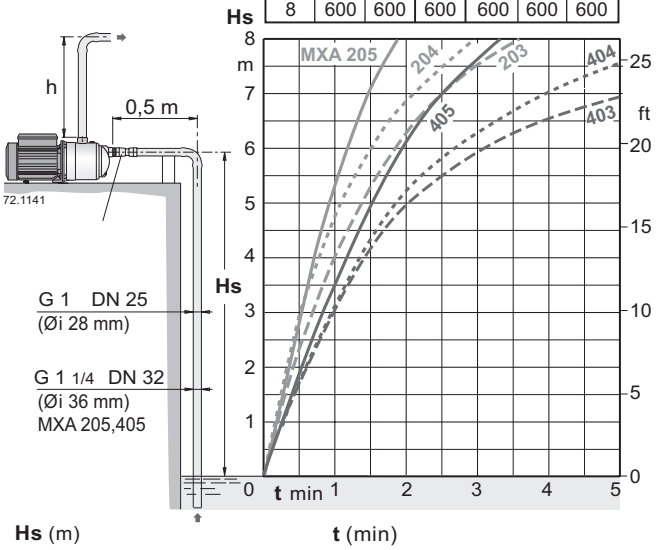


Coverage chart n ≈ 2800 rpm



H₂O, T = 20°C,
Pa = 1000 hPa (mbar)
50 Hz (n ≈ 2800 1/min)

Hs (m) ≤	h (mm)					
	203	204	205	403	404	405
2	100	100	500	100	100	500
4	200	200	500	450	450	500
6	450	450	500	600	600	600
8	600	600	600	600	600	600



Horizontal multi-stage self-priming close coupled pumps

MXA

Construction

Horizontal multi-stage, self-priming, close coupled pump.
Single-piece barrel casing in chrome-nickel stainless steel, with front suction port above pumps axis and radial delivery at top.
Stages in Noryl.

Applications

For water supply systems.
For domestic use, for garden use and irrigation.

Operating conditions

Liquid temperature: 0 °C to +35 °C.
Ambient temperature up to 40° C.
Suction lift up to 8 m.
Maximum permissible pressure in the pump casing: 8 bar.
Continuous service (S3 60% for 1.5 kW single-phase pumps).

Motor

2-pole induction motor, 50 Hz (n ≈ 2800 1/min).
MXA: three-phase 230/400 V ± 10%.
MXAM: single-phase 230 V ± 10%, with thermal protector.
Capacitor inside the terminal box.
Insulation class F.
Protection IP54
IE2 efficiency class for single-phase motors up to 1,1 kW.
IE3 efficiency class for three-phase motors (IE2 up to 0,65 kW).
Constructed in accordance with EN 60034-1; EN 60034-30-1.
EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
IP protection: IP55

Designation

MXAM 204/A
MXA = Series
M = Singlephase version (no indication: threephase)
2 = Rated capacity in m3/h
04 = Number of impellers
/A = It refers to a revision

Materials

Component	Material
Pump casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Casing cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Shaft	Steel 1.4104 EN 10088 (AISI 430F)
Plug	Chrome-nickel steel 1.4305 EN 10088 (AISI 303)
Suction casing	Noryl PPO-GF20
Stage casing	Noryl PPO-GF20
Impeller	Noryl PPO-GF20
Mechanical seal	Carbon - Ceramic - NBR

MXA

Coverage chart n ≈ 2900 rpm

Single-phase

Model	230V	P2		P1	Q = Flow							
					m³/h	0	1	2	3	4	4,5	5
					l/min		16,6	33,3	50	66,6	75	83,3
	A	kW	HP	kW	H (m) = Total head							
MXAM 203	3	0,37	0,5	0,57		32	28	24	19	14	-	-
MXAM 204/A	4,5	0,55	0,75	0,78		45	40	34	27	20	15	-
MXAM 205/A	5,7	0,75	1	1,01		55,5	50	43	35,5	26,5	21,5	15,5

Three-phase

Model	230V	400V	P2		Q = Flow							
					m³/h	0	1	2	3	4	4,5	5
					l/min		16,6	33,3	50	66,6	75	83,3
	A		kW	HP	H (m) = Total head							
MXA 203	2,4	1,4	0,37	0,5		32	28	24	19	14	-	-
MXA 204/A	2,8	1,6	0,55	0,75		45	40	34	27	20	15	-
MXA 205/B	3,7	2,2	0,75	1		55,5	50	43	35,5	26,6	21,4	15,5

Single-phase

Model	230V	P2		P1	Q = Flow									
					m³/h	0	2	3	4	5	6	6,5	7	8
					l/min		33,3	50	66,6	83,3	100	108	117	133
	A	kW	HP	kW	H (m) = Total head									
MXAM 403/A	4,5	0,55	0,75	0,78		34	30	28	25	22	17	15	-	-
MXAM 404/A	5,7	0,75	1	1,01		45	40	37	33	28	22	19	15	-
MXAM 405/A	7	1,1	1,5	1,44		56	51	47,5	42,5	36,5	30	26,5	23	14

Three-phase

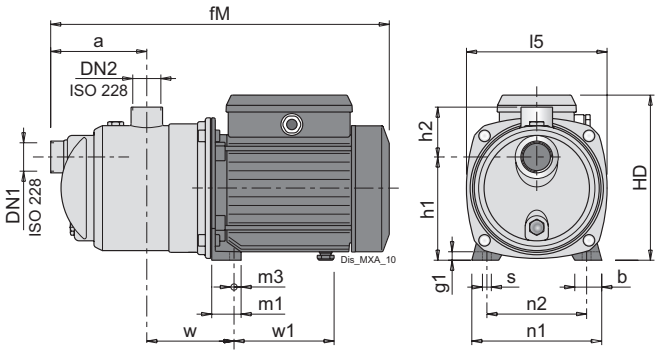
Model	230V	400V	P2		Q = Flow									
					m³/h	0	2	3	4	5	6	6,5	7	8
					l/min		33,3	50	66,6	83,3	100	108	117	133
	A		kW	HP	H (m) = Total head									
MXA 403/A	2,8	1,6	0,55	0,75		34	30	28	25	22	17	15	-	-
MXA 404/B	3,5	2	0,75	1		45	40	37	33	28	22	19	15	-
MXA 405/A	4,5	2,6	1,1	1,5		56	51	47,5	42,5	36,5	30	26,5	23	14

P1: Maximum power input.
P2: Rated motor power output.
Test results with clean cold water, without gas content.
A safety margin of + 0.5 m is recommended for the NPSH value.
For flow rates greater than 4 m³/h use a G1 1/4 suction pipe (DN 32).
Tolerances according to UNI EN ISO 9906:2012

MXA

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Dimensions and weights



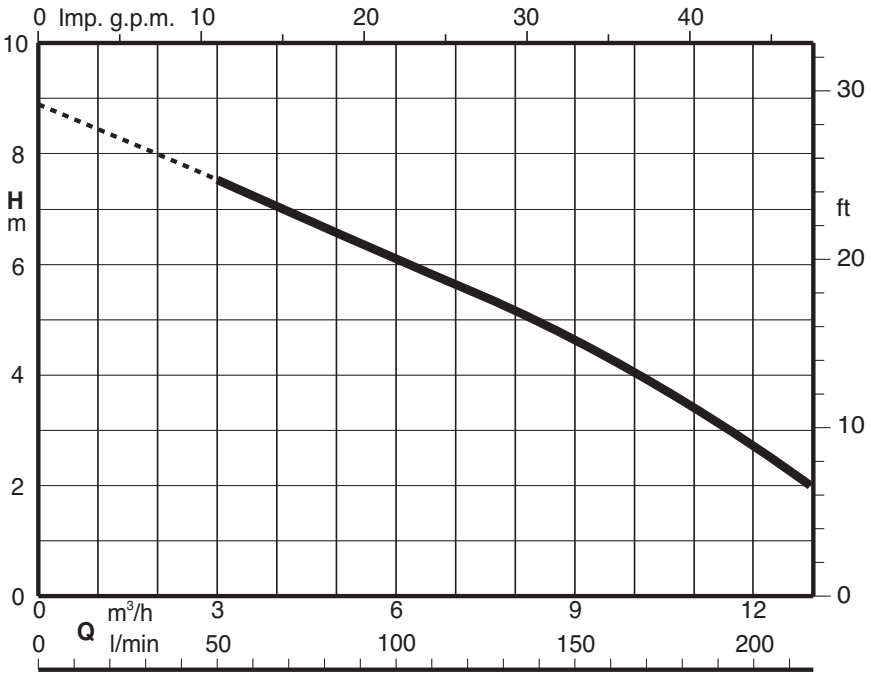
TYPE	ISO 228		mm															kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l5	m1	m3	n1	n2	s	w	w1	Weight
MXA 203	G 1	G 1	115	30	362	10	116	61	176	161	33	8	146	112	9	102	102	6.8
MXA 204/A	G 1	G 1	115	30	691	10	116	61	192	161	33	8	146	112	9	112	112	8.9
MXA 205/B	G 1 1/4	G 1	140	33	462	11	152	68	225	213.5	37.5	9.5	185	155	9.5	147	147	12.8
MXA 403/A	G 1	G 1	115	30	391	10	116	61	192	161	33	8	146	112	9	112	112	8.8
MXA 404/B	G 1	G 1	115	30	391	10	116	61	192	161	33	8	146	112	9	112	112	10.8
MXA 405/A	G 1	G 1	140	33	462	11	152	68	225	213.5	37.5	9.5	185	155	9.5	147	147	14.5

TYPE	ISO 228		mm															kg
	DN1	DN2	a	b	fM	g1	h1	h2	HD	l5	m1	m3	n1	n2	s	w	w1	Weight
MXAM 203	G 1	G 1	115	30	362	10	116	61	176	161	33	8	146	112	9	102	102	6.8
MXAM 204/A	G 1	G 1	115	30	691	10	116	61	192	161	33	8	146	112	9	112	112	10
MXAM 205/A	G 1 1/4	G 1	140	33	462	11	152	68	225	213.5	37.5	9.5	185	155	9.5	147	147	12.8
MXAM 403/A	G 1	G 1	115	30	391	10	116	61	192	161	33	8	146	112	9	112	112	9.9
MXAM 404/A	G 1	G 1	115	30	391	10	116	61	192	161	33	8	146	112	9	112	112	10.9
MXAM 405/A	G 1	G 1	140	33	462	11	152	68	225	213.5	37.5	9.5	185	155	9.5	147	147	14.6

GM 5-9



Coverage chart n ≈ 2800 rpm



Submersible drainage pump

GM 5-9

Construction

Submersible drainage pump constructed with composite polymers developed especially for this product.
Double shaft seal with oil chamber.
Small dimensions and great performance, for use in a wide variety of applications, for flow rates up to 217 litres per minute.
With float switch for automatic start and stop.

Applications

For clean water with suspended solids up to a diameter of 5 mm.
For draining flooded rooms or tanks.
Extraction of water from ponds, flowing water or pits for collection of rain water.
For irrigation.

Operating conditions

Maximum liquid temperature for prolonged use: 35 °C (with immersed motor).
Immersion depth: 5 m max.

Motor

2-pole induction motor, 50 Hz (n ≈ 2800 1/min).
Single-phase 230 V ± 10%, with thermal protector.
Incorporated capacitor
Cable H05RN-F, 3G0,75 mm2: with plug, length 10 m, 245IEC57, according to EN 60335-2-41 for pumps up to 10 kg.
Insulation class F.
Protection IP 68.

Materials

Components	Materials
Pump casing	PP+GF30
Impeller	PA66+GF30
motor jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Pump jacket	PP+GF30
Filter	PP+GF30
Handle	PP+GF30
Shaft	Steel C45E EN 10083-2
Mechanical seal	Graphite/Ceramic/NBR

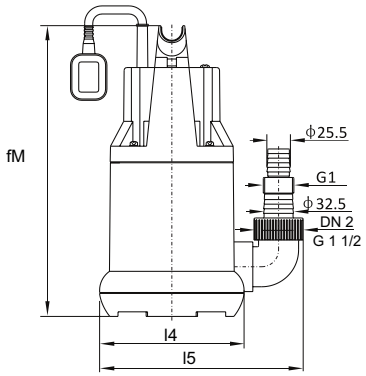
Performance n ≈ 2800 rpm

Single-phase

					Q = Flow							
					m³/h	0	1,2	3	6	9	12	13
Model	230V	P2		P1	l/min		20	50	100	150	200	217
	A	kW	HP	kW	H (m) = Total head							
GM 5-9	2,4	0,33	0,45	0,55		8,9	8,2	7,6	6,1	4,7	2,8	2

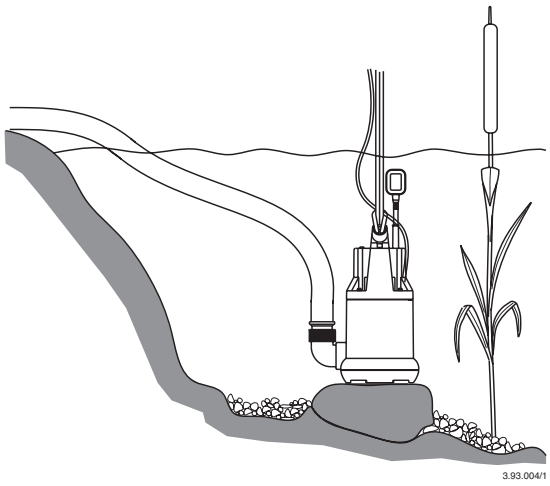
P1: Maximum power input.
P2: Rated motor power output.
H: Total head in m

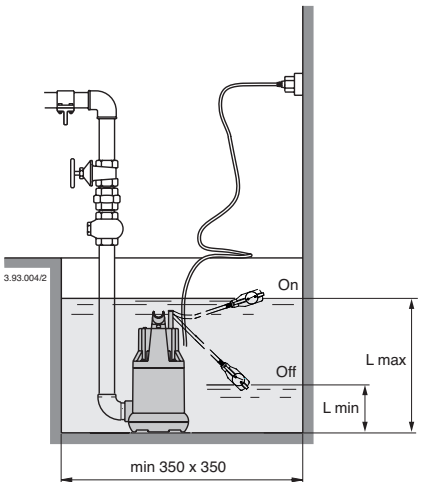
Dimensions and weights



TYPE		mm					kg
	DN2	fM	l4	l5	Lmax	Lmin	Weight
GM 5-9	G 1 1/2	316	157	222	340	120	4.7

Examples of installations

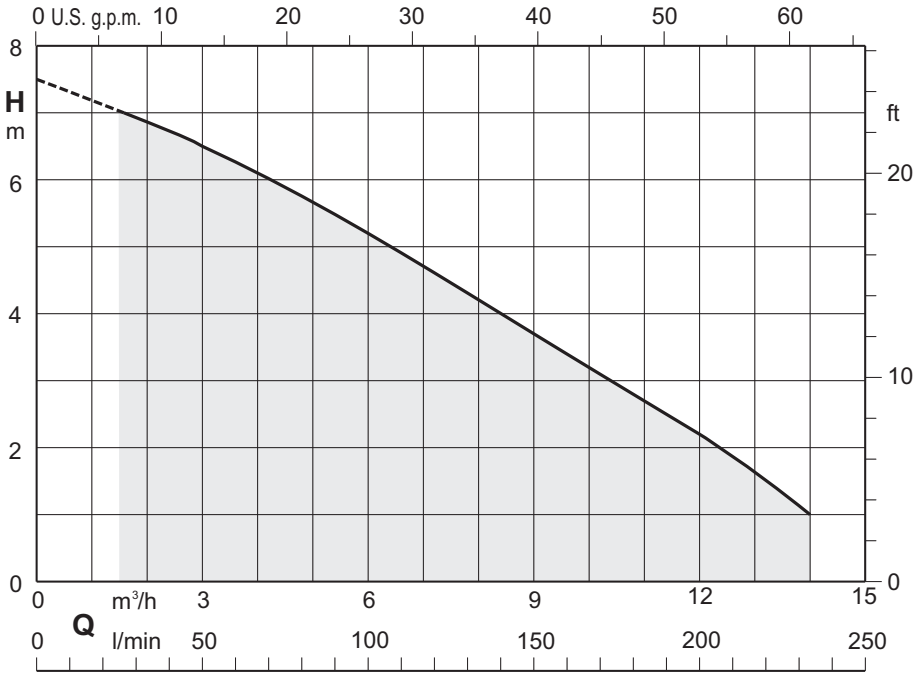




GM 10-8



Coverage chart n ≈ 2900 rpm



Submersible drainage pump

GM 10-8

Construction

Submersible drainage pump constructed with composite polymers developed especially for this product.
Double shaft seal with oil chamber.
Small dimensions and great performance, for use in a wide variety of applications, for flow rates up to 233 litres per minute.
With float switch for automatic start and stop.

Applications

For clean or slightly dirty water.
For draining flooded rooms or tanks.
Extraction of water from ponds, flowing water or pits for collection of rain water.
For irrigation.
For use outdoor, the power supply cable shall have a length not less than 10 m.

Operating conditions

Maximum liquid temperature for prolonged use: 35 °C (with immersed motor).
Immersion depth: 5 m max (with suitable cable length).
Continuous duty.

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
Single-phase 230 V ± 10%, with thermal protector.
Incorporated capacitor
H05RN-F cable, 3G0.75 mm2, length 5 m, with CEI-UNEL 47166 plug.
Insulation class F.
Protection IP X8.
Double impregnation humidity-proof dry winding.

Materials

Components	Materials
Pump casing	PP+30FV Polypropylene
Cover	PP+30FV Polypropylene
Impeller	PPO-GF20 (Noryl)
motor jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Jacket cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Handle	Polypropylene (with frame made of AISI 304)
Shaft	Steel 1.4104 EN 10088 (AISI 430)
Mechanical seal	Alumina/Carbon/NBR
Seal lubrication oil	Oil for food/pharmaceutical machinery

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Other mechanical seal.
- Vertical magnetic float switch.
Without float switch.
With elbow on discharge port.

Designation

Example: GM 10-8
GM = Series
M = Single-phase
10 = Solids passage diameter
8 = Total head in m indoors

Coverage chart n ≈ 2900 rpm

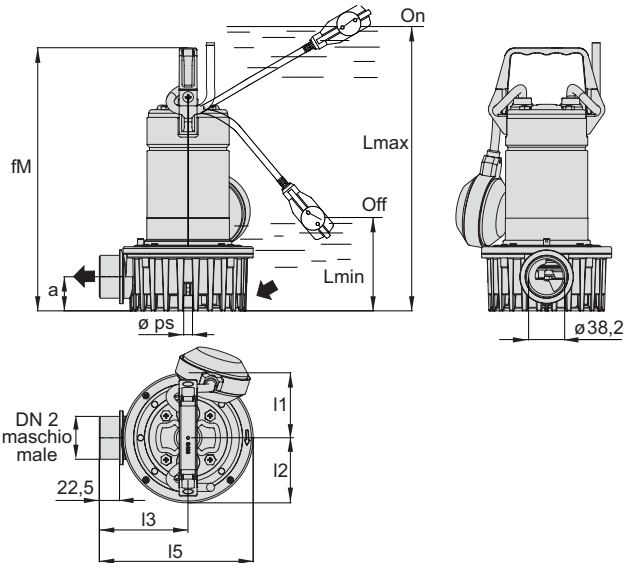
Single-phase

					Q = Flow							
					m³/h	0	1,2	3	6	9	12	14
Model	230V	P2		P1	l/min		20	50	100	150	200	233
	A	kW	HP	kW	H (m) = Total head							
GM 10-8	2	0,25	0,34	0,4		7,5	7	6,4	5,2	3,8	2,2	1

P1: Maximum power input.
P2: Rated motor power output.
H: Total head in m

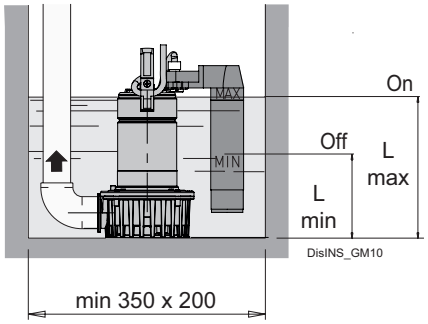
GM 10-8

Dimensions and weights

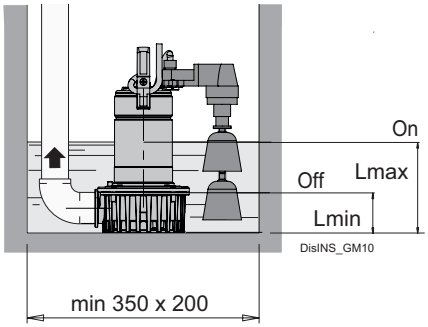


TYPE	ISO 228	mm								
	DN2	a	fM	l1	l2	l5	l5	Lmax	Lmin	ps
GM 10-8	G1 1/2	38	293.4	72.5	72.5	99	171,5	370	110	10

Installation examples with vertical magnetic float switch

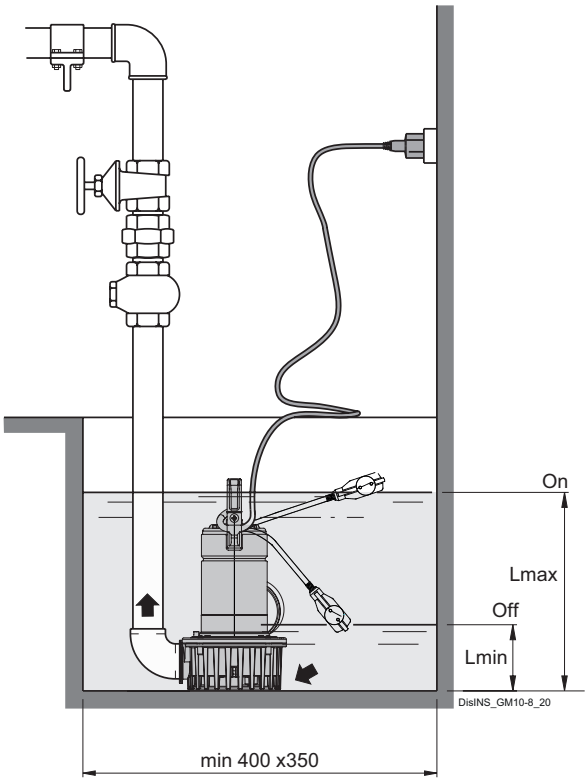


TYPE	ISO 228	mm								
	DN2	a	fM	l1	l2	l5	l5	Lmax	Lmin	ps
GM 10-8 GF	G1 1/2	38	293.4	72.5	72.5	99	171,5	218	128	10



TYPE	ISO 228	mm								
	DN2	a	fM	l1	l2	l5	l5	Lmax	Lmin	ps
GM 10-8 GFA	G1 1/2	38	293.4	72.5	72.5	99	171,5	142	62	10

Examples of installations

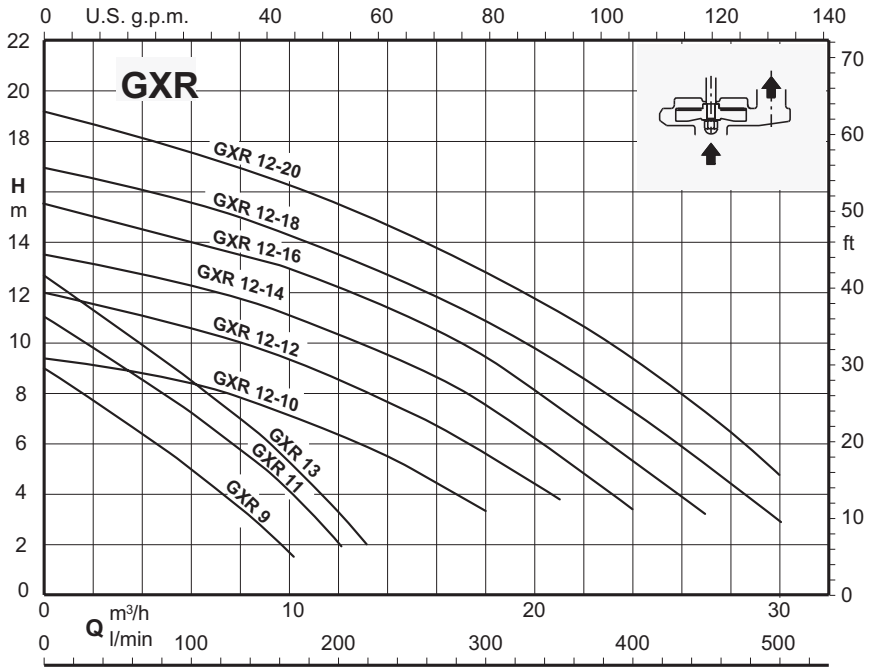


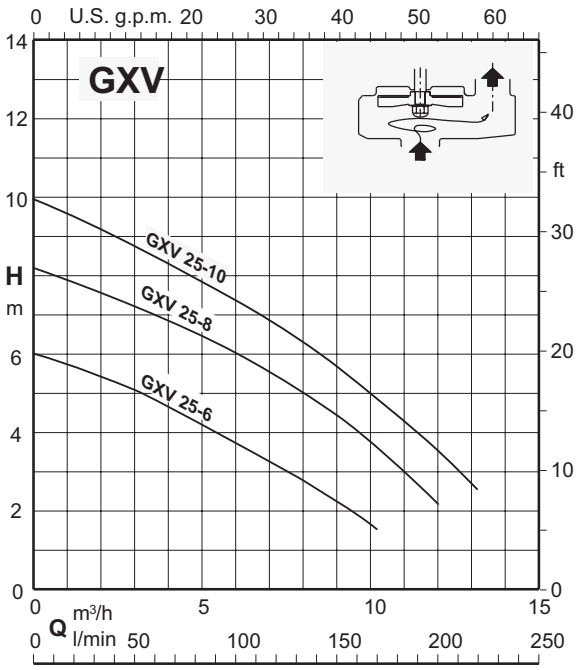
GXR, GXV

(patented system)



Coverage chart n ≈ 2900 rpm





Stainless steel submersible pumps

GXR, GXV

Construction

Single-impeller submersible pumps in chrome-nickel stainless steel, with vertical delivery port.
GXR: with open impeller.
GXV: with free-flow (vortex) impeller.
Motor cooled by the pumped water passing between the motor jacket and the external jacket.
Double shaft seal with oil chamber.

Applications

GXR:
Clean water with suspended solids up to a diameter of 10 mm (12 mm for GXR 12..).
draining flooded rooms or tanks.
Extraction of water from ponds, streams or pits and for rainwater collection.
GXV:
For clean or slightly dirty water, containing solids up to 25 mm grain size.
Particularly suitable for liquids with a high solid content.
For outdoor use a power supply cable of not less than 10 m should be used in accordance EN 60 335-2-41.

Operating conditions

Liquid temperature up to 50°C (40°C for GXR 12..).
Maximum immersion depth: 5 m.
Minimum water level with float: GXR = 70 mm, GXV = 130 mm.
Minimum water level manual operation: GXR = 15 mm, GXV = 30 mm.
Continuous duty.

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
GXR, GXV: three-phase 230 V ± 10%;
400V ± 10%;
GXRM, GXVM: single-phase 230 V ± 10%,
with float switch and thermal protector.
Incorporated capacitor.
Insulation class F.
Protection IP X8 (for continuous immersion)
Double impregnation humidity-proof dry winding.
Constructed in accordance with EN 60034-1.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Other mechanical seal.
Cable length 10 m (20 m for GXR 12..).
- Vertical magnetic float switch.
Motor suitable for operation with frequency converter.
Three-phase pumps with built-in switch and float.

Designation

Example: GXVLM 25-10
GX = Series
V = Vortex impeller R with open impeller.
L = AISI 316L vesion (no code = AISI 304 vesion)
M = Single-phase (without three-phase indication)
25 = Solids passage diameter
10 = Total head in m indoors

Materials

Components	**GX materials... AISI 304**	**Materials GXVL 25-10 AISI 316**
Pump casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Filter	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Impeller	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
motor jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Pump jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Handle	Polypropylene	Polypropylene
Shaft	1.4305 EN 10088 steel (AISI 303) 1.4301 EN 10088 steel (AISI 304)	Stainless Steel 1.4404 EN 10088 (AISI 316L)
Mechanical seal	Alumina-Carbon-NBR	Alumina-Carbon-NBR
Seal lubrication oil	Oil for food/pharmaceutical machinery	Oil for food/pharmaceutical machinery

Pump type	Power supply cable				Float switch	
	Cable material	Sezione	Lunghezza	Spina CEI-UNEL 47166	Cable material	Sezione
GXRM 9	H05RN-F	3G0,75 mm2	5 m	SI	H07RN-F	3G1 mm2
GXVM 25-6	H05RN-F	3G0,75 mm2	5 m	SI	H07RN-F	3G1 mm2
GXRM 11, 13	H07RN-F	3G1 mm2	5 m	SI	H07RN-F	3G1 mm2
GXVM 25-8, 25-10	H07RN-F	3G1 mm2	5 m	SI	H07RN-F	3G1 mm2
GXRM 12-10,12,14,16	H07RN-F	3G1 mm2	10 m	SI	H07RN-F	3G1 mm2
GXRM 12-18	H07RN-F	3G1,5 mm2	10 m	SI	H07RN-F	3G1 mm2
GXRM 12-20	H07RN-F	3G2,5 mm2	10 m	SI	H07RN-F	3G1 mm2
GXR 9	H05RN-F	4G0,75 mm2	5 m	NO	NO	-
GXV 25-6	H05RN-F	4G0,75 mm2	5 m	NO	NO	-
GXR 11, 13	H07RN-F	4G1 mm2	5 m	NO	NO	-
GXV 25-8, 25-10	H07RN-F	4G1 mm2	5 m	NO	NO	-
GXR 12	H07RN-F	4G1 mm2	10 m	NO	NO	-

GXR, GXV

Coverage chart n ≈ 2900 rpm

Three-phase

				Q = Flow										
				m³/h	0	1,2	3	4,5	6	7,5	9	10,2	12	13,2
Model	400V	P2		l/min		20	50	75	100	125	150	170	200	220
	A	kW	HP	H (m) = Total head										
GXR 9	0,9	0,25	0,34		9	8,3	7	6	4,8	3,6	2,5	1,7	-	-
GXR 11	1,3	0,37	0,5		11	10,4	9,5	8,5	7,5	6,5	5,3	4,2	2,2	-
GXR 13	1,6	0,45	0,6		12,7	11,7	10,7	9,7	8,5	7,3	6,3	5,2	3,2	2

Single-phase

							Q = Flow										
							m³/h	0	1,2	3	4,5	6	7,5	9	10,2	12	13,2
Model	230V	Capacitor		P2		P1	l/min		20	50	75	100	125	150	170	200	220
	A	Vc	uf	kW	HP	kW	H (m) = Total head										
GXRM 9	2,5	450	8	0,25	0,34	0,5		9	8,3	7	6	4,8	3,6	2,5	1,7	-	-
GXRM 11	3,5	450	12,5	0,37	0,5	0,7		11	10,4	9,5	8,5	7,5	6,5	5,3	4,2	2,2	-
GXRM 13	4,5	450	16	0,45	0,6	0,95		12,7	11,7	10,7	9,7	8,5	7,3	6,3	5,2	3,2	2

Three-phase

				Q = Flow										
				m³/h	0	1,2	3	4,5	6	7,5	9	10,2	12	13,2
Model	400V	P2		l/min		20	50	75	100	125	150	170	200	220
	A	kW	HP	H (m) = Total head										
GXV 25-6	0,9	0,25	0,34		6	5,7	5,2	4,5	3,8	3	2,2	1,5	-	-
GXV 25-8	1,3	0,37	0,5		8,2	7,8	7,2	6,7	6,1	5,4	4,5	3,6	2,2	-
GXV 25-10	1,6	0,45	0,6		10	9,5	8,7	8	7,3	6,5	5,7	4,9	3,7	2,6

Single-phase

							Q = Flow										
							m³/h	0	1,2	3	4,5	6	7,5	9	10,2	12	13,2
Model	230V	Capacitor		P2		P1	l/min		20	50	75	100	125	150	170	200	220
	A	Vc	uf	kW	HP	kW	H (m) = Total head										
GXVM 25-6	2,5	450	8	0,25	0,34	0,5		6	5,7	5,2	4,5	3,8	3	2,2	1,5	-	-
GXVM 25-8	3,5	450	12,5	0,37	0,5	0,7		8,2	7,8	7,2	6,7	6,1	5,4	4,5	3,6	2,2	-
GXVM 25-10	4,5	450	16	0,45	0,6	0,95		10	9,5	8,7	8	7,3	6,5	5,7	4,9	3,7	2,6

Three-phase

				Q = Flow										
				m³/h	0	1,2	3	4,5	6	7,5	9	10,2	12	13,2
Model	400V	P2		l/min		20	50	75	100	125	150	170	200	220
	A	kW	HP	H (m) = Total head										
GXVL 25-10	1,6	0,45	0,6		10	9,5	8,7	8	7,3	6,5	5,7	4,9	3,7	2,6

Single-phase

							Q = Flow										
							m³/h	0	1,2	3	4,5	6	7,5	9	10,2	12	13,2
Model	230V	Capacitor		P2		P1	l/min		20	50	75	100	125	150	170	200	220
	A	Vc	uf	kW	HP	kW	H (m) = Total head										
GXVLM 25-10	4,5	450	16	0,45	0,6	0,95		10	9,5	8,7	8	7,3	6,5	5,7	4,9	3,7	2,6

P1: Maximum power input.
P2: Rated motor power output.
Head and power values valid for liquids with density ρ = 1,0 kg/dm3 and kinematic viscosity v = max 20 mm2/sec. Total head in m

GXR, GXV

Coverage chart n ≈ 2900 rpm

Three-phase

				Q = Flow											
				m³/h	0	3	6	9	12	15	18	21	24	27	30
Model	400V	P2		l/min		50	100	150	200	250	300	350	400	450	500
	A	kW	HP	H (m) = Total head											
GXR 12-10	1,5	0,45	0,6		9,3	9	8,3	7,5	6,3	5	3,3	-	-	-	-
GXR 12-12	1,9	0,55	0,75		12	11,3	10,6	9,6	8,5	7,2	5,6	3,7	-	-	-
GXR 12-14	2,2	0,75	1		13,5	13	12,2	11,4	10,4	9	7,5	5,6	3,3	-	-
GXR 12-16	2,8	0,9	1,2		15,5	14,7	14	13,2	12,2	11	9,4	7,5	5,4	3,2	-
GXR 12-18	3,3	1,1	1,5		17	16,3	15,5	14,6	13,5	12,3	10,8	9,2	7,3	5,2	3
GXR 12-20	4	1,5	2		19,2	18,4	17,5	16,5	15,5	14,2	12,8	11,2	9,3	7,2	4,7

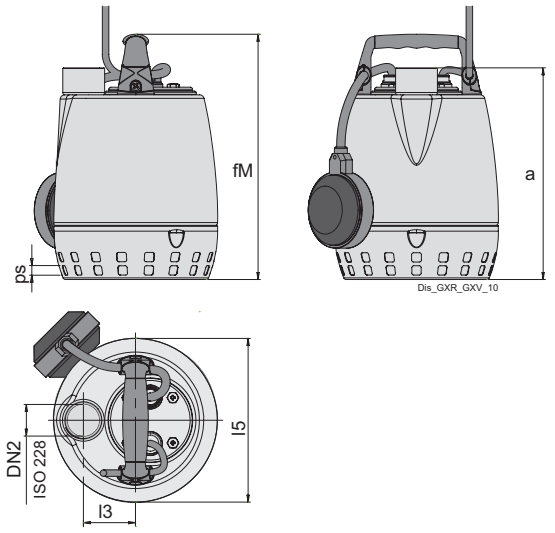
Single-phase

							Q = Flow										
							m³/h	0	3	6	9	12	15	18	21	24	27	30
Model	230V	Capacitor		P2		P1	l/min		50	100	150	200	250	300	350	400	450	500
	A	Vc	uf	kW	HP	kW	H (m) = Total head											
GXRM 12-10	4	450	12,5	0,45	0,6	0,85		9,3	9	8,3	7,5	6,3	5	3,3	-	-	-	-
GXRM 12-12	5,2	450	16	0,55	0,75	1,1		12	11,3	10,6	9,6	8,5	7,2	5,6	3,7	-	-	-
GXRM 12-14	6	450	20	0,75	1	1,3		13,5	13	12,2	11,4	10,4	9	7,5	5,6	3,3	-	-
GXRM 12-16	7,4	450	25	0,9	1,2	1,6		15,5	14,7	14	13,2	12,2	11	9,4	7,5	5,4	3,2	-
GXRM 12-18	9,5	450	30	1,1	1,5	2		17	16,3	15,5	14,6	13,5	12,3	10,8	9,2	7,3	5,2	3
GXRM 12-20	13	450	35	1,5	2	2,2		19,2	18,4	17,5	16,5	15,5	14,2	12,8	11,2	9,3	7,2	4,7

P1: Maximum power input.
P2: Rated motor power output.
Head and power values valid for liquids with density ρ = 1,0 kg/dm3 and kinematic viscosity v = max 20 mm2/sec. Total head in m

GXR, GXV

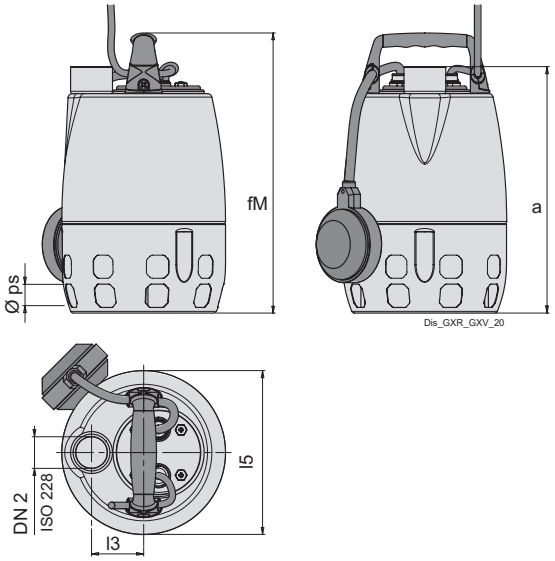
Dimensions and weights



TYPE	ISO 228	mm					kg
	DN2	a	fM	l5	l5	ps	Weight
GXR 9	G 1 1/4	230	265	56	176	10	5.2
GXR 11	G 1 1/4	265	300	56	176	10	6.5
GXR 13	G 1 1/4	265	300	56	176	10	7.2

TYPE	ISO 228	mm					kg
	DN2	a	fM	l5	l5	ps	Weight
GXRM 9	G 1 1/4	230	265	56	176	10	5.3
GXRM 11	G 1 1/4	265	300	56	176	10	6.5
GXRM 13	G 1 1/4	265	300	56	176	10	7.2

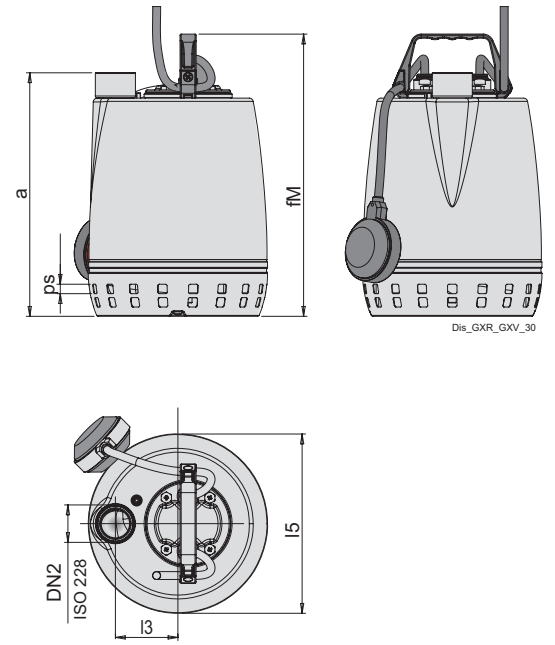
weights with cable length: 5 m



TYPE	ISO 228	mm					kg
	DN2	a	fM	l5	l5	ps	Weight
GXV 25-6	G1 1/4	267	302	56	176	25	5.3
GXV 25-8	G1 1/4	302	337	56	176	25	6.6
GXV 25-10	G1 1/4	302	337	56	176	25	7.3
GXVL 25-10	G1 1/4	302	337	56	176	25	7

TYPE	ISO 228	mm					kg
	DN2	a	fM	l5	l5	ps	Weight
GXVM 25-6	G1 1/4	267	302	56	176	25	5.3
GXVM 25-8	G1 1/4	302	337	56	176	25	6.8
GXVM 25-10	G1 1/4	302	337	56	176	25	7.3
GXVLM 25-10	G1 1/4	302	337	56	176	25	7

weights with cable length: 5 m



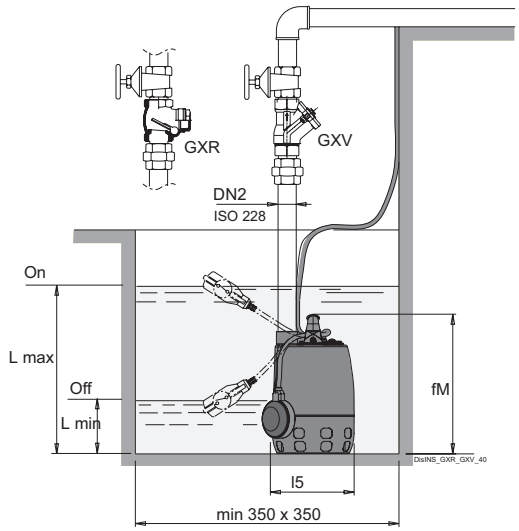
TYPE	ISO 228	mm					kg
	DN2	a	fM	l5	l5	ps	Weight
GXR 12-10	G 1 1/2	310	360	80	228	12	10.3
GXR 12-12	G 1 1/2	325	375	80	228	12	11.4
GXR 12-14	G 1 1/2	350	400	80	228	12	12.5
GXR 12-16	G 1 1/2	350	400	80	228	12	12.6
GXR 12-18	G 1 1/2	370	420	80	228	12	14.3
GXR 12-20	G 1 1/2	400	450	80	228	12	15.5

TYPE	ISO 228	mm					kg
	DN2	a	fM	l5	l5	ps	Weight
GXRM 12-10	G 1 1/2	310	360	80	228	12	11.3
GXRM 12-12	G 1 1/2	325	375	80	228	12	12.5
GXRM 12-14	G 1 1/2	350	400	80	228	12	13.7
GXRM 12-16	G 1 1/2	350	400	80	228	12	14.5
GXRM 12-18	G 1 1/2	370	420	80	228	12	16.4
GXRM 12-20	G 1 1/2	400	450	80	228	12	19

weights With cable length: 10 m

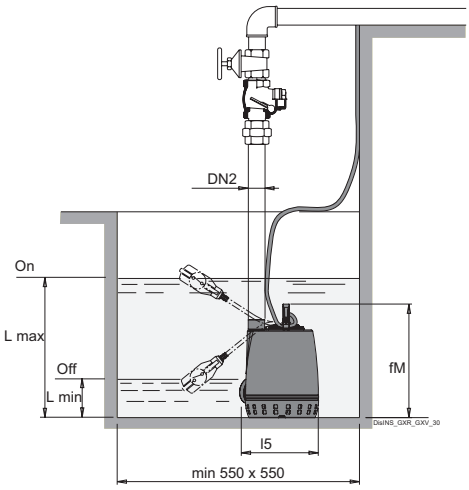
GXR, GXV

Examples of installations



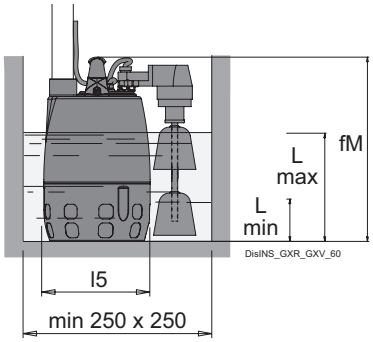
TYPE	ISO 228	mm				kg
	DN2	fM	l5	Lmax	Lmin	Weight
GXRM 9	G 1 1/4	265	176	340	70	5.3
GXRM 11	G 1 1/4	300	176	340	70	6.5
GXRM 13	G 1 1/4	300	176	340	70	7.2

TYPE	ISO 228	mm				kg
	DN2	fM	l5	Lmax	Lmin	Weight
GXVM 25-6	G1 1/4	302	176	375	130	5.3
GXVM 25-8	G1 1/4	337	176	375	130	6.8
GXVM 25-10	G1 1/4	337	176	375	130	7.3
GXVLM 25-10	G1 1/4	337	176	375	130	7

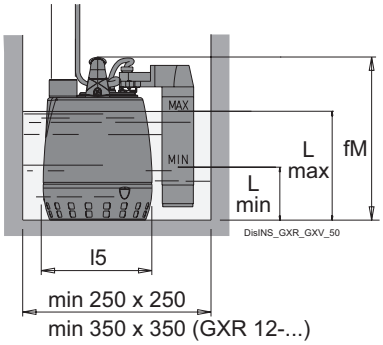


TYPE	ISO 228	mm				kg
	DN2	fM	l5	Lmin	ps	Weight
GXRM 12-10	G 1 1/2	360	228	175	12	11.3
GXRM 12-12	G 1 1/2	375	228	190	12	12.5
GXRM 12-14	G 1 1/2	400	228	215	12	13.7
GXRM 12-16	G 1 1/2	400	228	215	12	14.5
GXRM 12-18	G 1 1/2	420	228	235	12	16.4
GXRM 12-20	G 1 1/2	450	228	265	12	19

Installation examples with vertical magnetic float switch



TYPE		mm				kg
	DN2	fM	l5	Lmax	Lmin	Weight
GXVM 25-6 GFA	G1 1/4	302	176	150	70	5.3
GXVM 25-8 GFA	G1 1/4	337	176	185	70	6.6
GXVM 25-10 GFA	G1 1/4	337	176	185	70	7.3

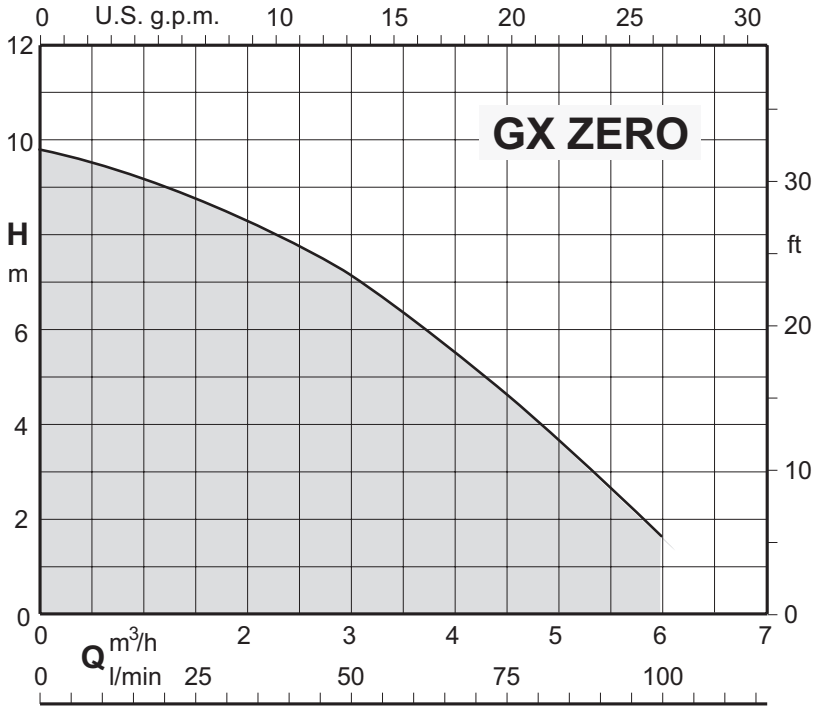


TYPE		mm				kg
	DN2	fM	l5	Lmax	Lmin	Weight
GXRM 9 GF	G 1 1/4	265	176	190	100	5.5
GXRM 11 GF	G 1 1/4	300	176	225	135	6.9
GXRM 13 GF	G 1 1/4	300	176	225	135	7.4
GXRM 12-10 GF	G 1 1/2	360	228	180	270	11.5
GXRM 12-12 GF	G 1 1/2	375	228	195	285	12.6
GXRM 12-14 GF	G 1 1/2	400	228	220	310	13.9
GXRM 12-16 GF	G 1 1/2	400	228	220	310	15.3

GX ZERO



Coverage chart n ≈ 2900 rpm



Submersible clean water pumps

GX ZERO

Construction

Single-impeller submersible pumps in chrome-nickel stainless steel, with vertical delivery port and suction non-return valve.
Suction capability up to 1 mm from the bottom.
Motor cooled by the pumped water passing between the motor jacket and the external jacket.
Double shaft seal with oil chamber.
The pump is fitted with a suction non-return valve which, during operation, allows to manually move the pump to several points in the room and draw water up to 1 mm avoiding that the pump loses its priming.

Applications

For clean water containing solids up to 3 mm grain size.
draining flooded rooms or tanks.
Extraction of water from ponds, streams or pits and for rainwater collection.

Operating conditions

Liquid temperature up to 35° C.
Maximum immersion depth: 5 m.
Minimum manual emptying level 1 mm.
Continuous duty.

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
GX ZERO: three-phase 230 V ± 10%;
400V ± 10%;
H05RN-F cable, 4G0.75 mm2, length 10 m, without plug.
GXM ZERO: single-phase 230 V ± 10%,
with thermal protector.
Incorporated capacitor.
H05RN-F cable, 3G0.75 mm2, length 10 m, with CEI-UNEL 47166 plug.
Insulation class F.
Protection IP X8 (for continuous immersion)
Double impregnation humidity-proof dry winding.
Constructed in accordance with EN 60034-1.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Other mechanical seal.
Motor suitable for operation with frequency converter.

Designation

Example: GXM ZERO
GX = Series
M = Single-phase (without three-phase indication)
ZERO = Pump type

Materials

Components	Materials
Pump casing	PA66-50FV (Noryl)
Filter	Polypropylene
Impeller	PPO-GF20 (Noryl)
valve	NBR / Chrome-nickel steel AISI 304
motor jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Pump jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Handle	Polypropylene
Shaft	Chrome-nickel steel 1.4305 EN 10088 (AISI 303)
Mechanical seal	Alumina-Carbon-NBR
Seal lubrication oil	Oil for food/pharmaceutical machinery

GX ZERO

Coverage chart n ≈ 2900 rpm

Three-phase

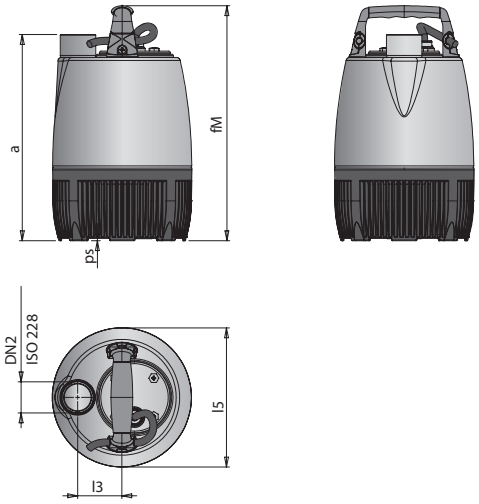
				Q = Flow						
				m³/h	0	1,2	2,25	3	4,5	6
Model	400V	P2		l/min		20	37,5	50	75	100
	A	kW	HP	H (m) = Total head						
GX ZERO	0,9	0,25	0,34		9,8	9	8,1	7,1	4,5	1,6

Single-phase

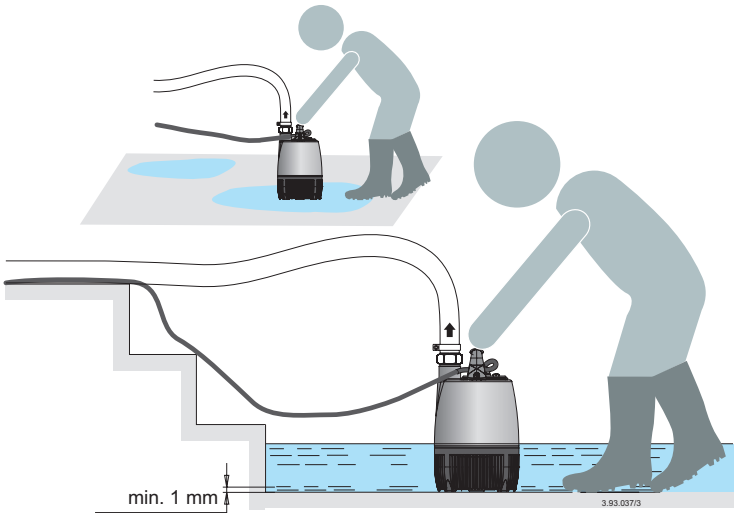
							Q = Flow						
							m³/h	0	1,2	2,25	3	4,5	6
Model	230V	Capacitor		P2		P1	l/min		20	37,5	50	75	100
	A	Vc	uf	kW	HP	kW	H (m) = Total head						
GXM ZERO	2,5	450	8	0,25	0,34	0,5		9,8	9	8,1	7,1	4,5	1,6

P1: Maximum power input.
P2: Rated motor power output.
Head and power values valid for liquids with density ρ = 1,0 kg/dm3 and kinematic viscosity v = max 20 mm2/sec. Total head in m

Dimensions and weights



Examples of installations



TYPE	ISO 228	mm					kg
	DN2	a	fM	l5	l5	ps	Weight
GXM ZERO	G 1 1/4	261	297	56	176	3	5.4

weights With cable length: 10 m

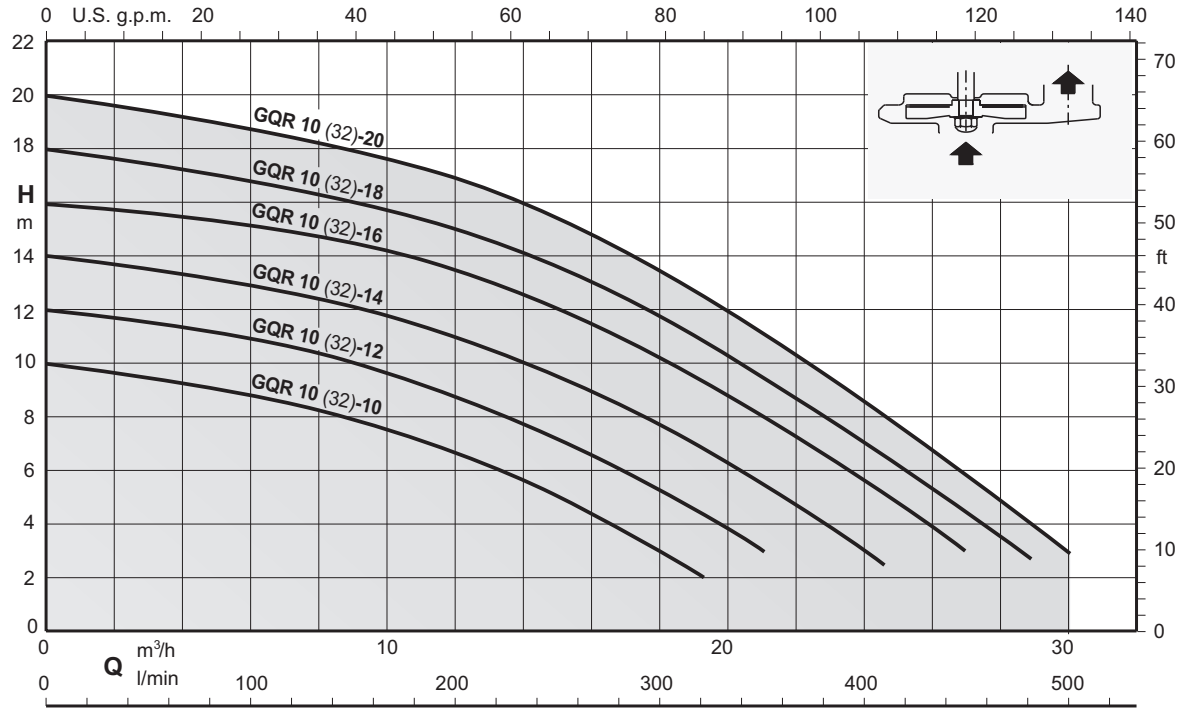
GQR

(patented system)





Coverage chart n ≈ 2900 rpm



Submersible drainage pumps

GQR

Construction

Single-impeller submersible drainage pump, with open impeller.
GQR: with threaded vertical delivery port (G1 1/2).
GQR 10 32: with horizontal flanged and threaded delivery port (DN 32, PN 6 - G 1 1/2).
Double mechanical shaft seal with interposed oil chamber, to protect against dry-running.

Applications

For clean water with suspended solids up to a diameter of 10 mm.
Emptying of flooded rooms or tanks.
Extraction of water from ponds, flowing water or pits for collection of rain water.
For irrigation purposes.

Operating conditions

Liquid temperature up to 35° C.
Maximum immersion depth: 5 m.
Minimum immersion depth: 205 mm.
Continuous duty (with submerged motor).

Motor

2-pole induction motor, 50Hz (n ≈ 2900 1/min).
GQR: three-phase 230V ± 10%
400V ± 10%
Cable: H07RN-F, 4G1 mm2, length 10 m, without plug.
GQRM: single-phase 230V ± 10%
with float switch and thermal protector.
Incorporated capacitor
Cable: H07RN-F, 3G1 mm2, length 10 m, with plug CEI-UNEL 47166.
Insulation class F.
Protection IP X8 (for continuous immersion).
Triple impregnation humidity-proof dry winding
Constructed in accordance with EN 60034-1
EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Other mechanical seal.
Cable length 20 m.
With switch and fixed float (magnetic).
Motor set up for operation with inverter.
Three-phase pumps with built-in switch and float.

Designation

GQRM 10 32-12
GQ = Series
R = with open impeller.
M = Single-phase (without three-phase indication)
10 = Free passage
32 = Delivery port diameter in mm (value for flanged pumps only)
12 = Max. head

Materials

Components	Materials
Pump casing	Cast iron GJL EN 1561
Impeller	Cast iron GJL EN 1561
Filter	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
motor jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Jacket cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Casing cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Handle	Polypropylene (with frame made of 1.4301 EN 10088 (AISI 304)
Shaft	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Upper mechanical seal	Ceramic / Carbon / NBR
Lower mechanical seal	Ceramic / Carbon / NBR
Seal lubrication oil	Oil for food/pharmaceutical machinery

GQR

Coverage chart n ≈ 2900 rpm

Three-phase

Model	400V	P2		Q = Flow m³/h	0	3	6	9	12	15	18	21	24	27	30
				l/min		50	100	150	200	250	300	350	400	450	500
	A	kW	HP	H (m) = Total head											
GQR 10-10	1,2	0,45	0,6		10	9,5	8,8	8	6,7	5	3	-	-	-	-
GQR 10-12	1,4	0,55	0,75		12	11,6	11	10,2	9	7,5	5,5	3,2	-	-	-
GQR 10-14	1,6	0,75	1		14	13,5	12,8	12	10,8	9,3	7,5	5,5	3	-	-
GQR 10-16	2,3	0,9	1,2		16	15,5	15	14,2	13,2	11,8	10,2	8	5,5	2,3	-
GQR 10-18	2,8	1,1	1,5		18	17,5	17	16,2	15	13,7	11,8	9	7	4,3	-
GQR 10-20	3,8	1,5	2		20	19,5	18,8	18	16,8	15,2	13,2	10,8	8,4	5,7	3

Single-phase

Model	230V	Capacitor		P2		P1	Q = Flow m³/h	0	3	6	9	12	15	18	21	24	27	30
							l/min		50	100	150	200	250	300	350	400	450	500
	A	Vc	uf	kW	HP	kW	H (m) = Total head											
GQRM 10-10	3,1	450	12,5	0,45	0,6	0,7		10	9,5	8,8	8	6,7	5	3	-	-	-	-
GQRM 10-12	3,6	450	16	0,55	0,75	1		12	11,6	11	10,2	9	7,5	5,5	3,2	-	-	-
GQRM 10-14	4,5	450	16	0,75	1	1		14	13,5	12,8	12	10,8	9,3	7,5	5,5	3	-	-
GQRM 10-16	6	450	25	0,9	1,2	1,3		16	15,5	15	14,2	13,2	11,8	10,2	8	5,5	2,3	-
GQRM 10-18	8	450	30	1,1	1,5	1,7		18	17,5	17	16,2	15	13,7	11,8	9	7	4,3	-
GQRM 10-20	13	450	35	1,5	2	2,2		20	19,5	18,8	18	16,8	15,2	13,2	10,8	8,4	5,7	3

Three-phase

Model	400V	P2		Q = Flow m³/h	0	3	6	9	12	15	18	21	24	27	30
				l/min		50	100	150	200	250	300	350	400	450	500
	A	kW	HP	H (m) = Total head											
GQR 10-32-10	1,2	0,45	0,6		10	9,5	8,8	8	6,7	5	3	-	-	-	-
GQR 10-32-12	1,4	0,55	0,75		12	11,6	11	10,2	9	7,5	5,5	3,2	-	-	-
GQR 10-32-14	1,6	0,75	1		14	13,5	12,8	12	10,8	9,3	7,5	5,5	3	-	-
GQR 10-32-16	2,3	0,9	1,2		16	15,5	15	14,2	13,2	11,8	10,2	8	5,5	2,3	-
GQR 10-32-18	2,8	1,1	1,5		18	17,5	17	16,2	15	13,7	11,8	9	7	4,3	-
GQR 10-32-20	3,8	1,5	2		20	19,5	18,8	18	16,8	15,2	13,2	10,8	8,4	5,7	3

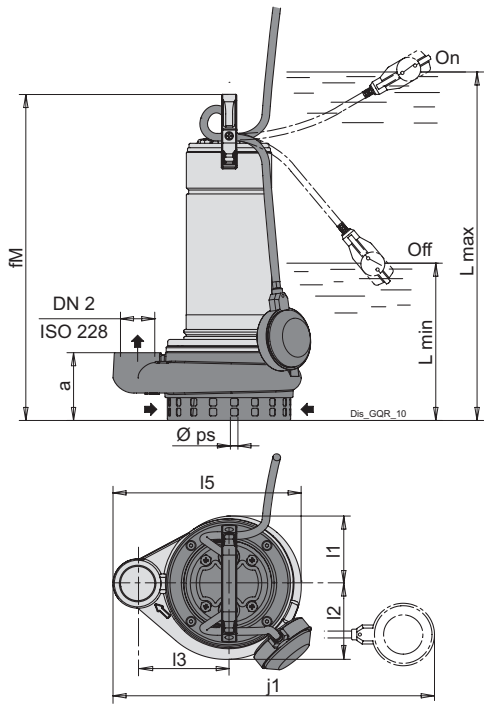
Single-phase

Model	230V	Capacitor		P2		P1	Q = Flow m³/h	0	3	6	9	12	15	18	21	24	27	30
							l/min		50	100	150	200	250	300	350	400	450	500
	A	Vc	uf	kW	HP	kW	H (m) = Total head											
GQRM 10-32-10	3,1	450	12,5	0,45	0,6	0,7		10	9,5	8,8	8	6,7	5	3	-	-	-	-
GQRM 10-32-12	3,6	450	16	0,55	0,75	1		12	11,6	11	10,2	9	7,5	5,5	3,2	-	-	-
GQRM 10-32-14	4,5	450	16	0,75	1	1		14	13,5	12,8	12	10,8	9,3	7,5	5,5	3	-	-
GQRM 10-32-16	6	450	25	0,9	1,2	1,3		16	15,5	15	14,2	13,2	11,8	10,2	8	5,5	2,3	-
GQRM 10-32-18	8	450	30	1,1	1,5	1,7		18	17,5	17	16,2	15	13,7	11,8	9	7	4,3	-
GQRM 10-32-20	12	450	35	1,5	2	2,2		20	19,5	18,8	18	16,8	15,2	13,2	10,8	8,4	5,7	3

P1: Maximum power input.
P2: Rated motor power output.
Head and power values valid for liquids with density ρ = 1,0 kg/dm3 and kinematic viscosity v = max 20 mm2/sec. Total head in m

GQR

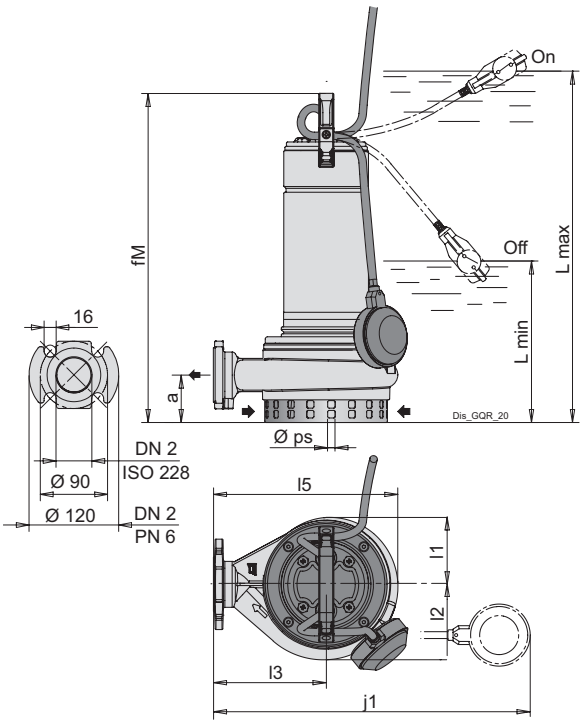
Dimensions and weights



TYPE	ISO 228	mm							kg
	DN2	a	fM	l1	l2	l5	l5	ps	Weight
GQR 10-10	G1 1/2	90	390	89	100	120	247	10	12.8
GQR 10-12	G1 1/2	90	405	89	100	120	247	10	14.3
GQR 10-14	G1 1/2	90	405	89	100	120	247	10	14.3
GQR 10-16	G1 1/2	90	430	89	100	120	247	10	16
GQR 10-18	G1 1/2	90	450	89	100	120	247	10	17.5
GQR 10-20	G1 1/2	90	450	89	100	120	247	10	18.3

TYPE	ISO 228	mm										kg
	DN2	a	fM	j1	l1	l2	l5	l5	Lmax	Lmin	ps	Weight
GQRM 10-10	G1 1/2	90	390	430	89	100	120	247	410	205	10	13.8
GQRM 10-12	G1 1/2	90	405	430	89	100	120	247	425	220	10	15.5
GQRM 10-14	G1 1/2	90	430	430	89	100	120	247	425	220	10	15.5
GQRM 10-16	G1 1/2	90	430	430	89	100	120	247	450	245	10	17
GQRM 10-18	G1 1/2	90	450	430	89	100	120	247	470	265	10	19
GQRM 10-20	G1 1/2	90	480	430	89	100	120	247	500	295	10	20.3

weights With cable length: 10 m



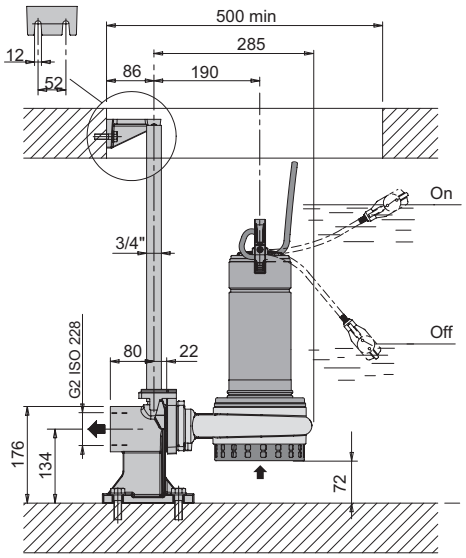
TYPE		mm								kg
	DN2	a	fM	l1	l2	l5	l5	ps	s	Weight
GQR 10-32-10	G1 1/2 (DN32)	62	395	89	100	120	245	10	16	13.4
GQR 10-32-12	G1 1/2 (DN32)	62	410	89	100	120	245	10	16	14.5
GQR 10-32-14	G1 1/2 (DN32)	62	410	89	100	120	245	10	16	14.5
GQR 10-32-16	G1 1/2 (DN32)	62	435	89	100	120	245	10	16	15.5
GQR 10-32-18	G1 1/2 (DN32)	62	455	89	100	120	245	10	16	17.2
GQR 10-32-20	G1 1/2 (DN32)	62	455	89	100	120	245	10	16	18.7

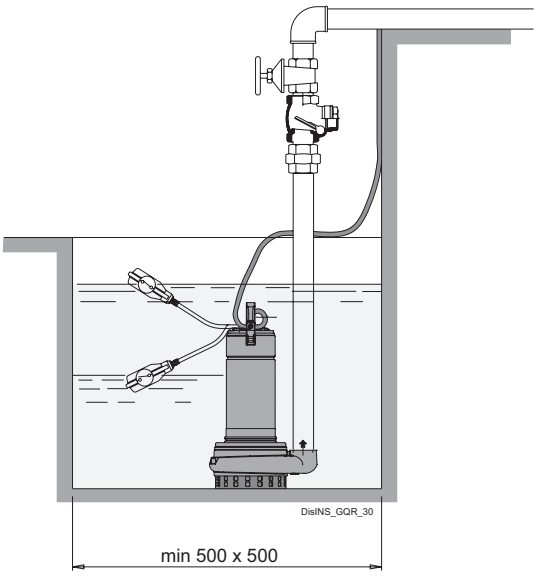
TYPE		mm									kg
	DN2	a	fM	j1	l1	l2	l5	l5	Lmax	Lmin	ps	Weight
GQRM 10-32-10	G1 1/2 (DN32)	62	395	430	89	100	120	245	415	210	10	14.5
GQRM 10-32-12	G1 1/2 (DN32)	62	410	430	89	100	120	245	430	225	10	15.6
GQRM 10-32-14	G1 1/2 (DN32)	62	410	430	89	100	120	245	430	225	10	15.5
GQRM 10-32-16	G1 1/2 (DN32)	62	435	430	89	100	120	245	455	250	10	17.7
GQRM 10-32-18	G1 1/2 (DN32)	62	455	430	89	100	120	245	475	270	10	19.2
GQRM 10-32-20	G1 1/2 (DN32)	62	485	430	89	100	120	245	505	300	10	21.3

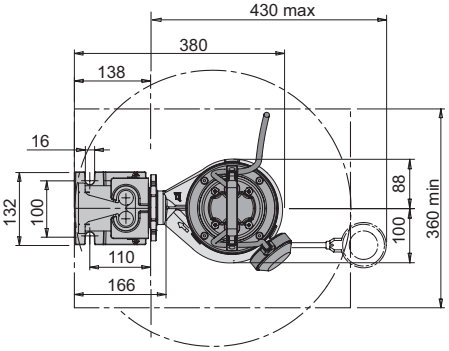
weights With cable length: 10 m

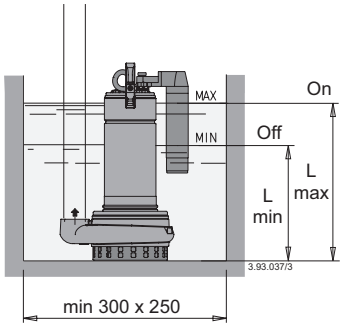
GQR

Installation examples





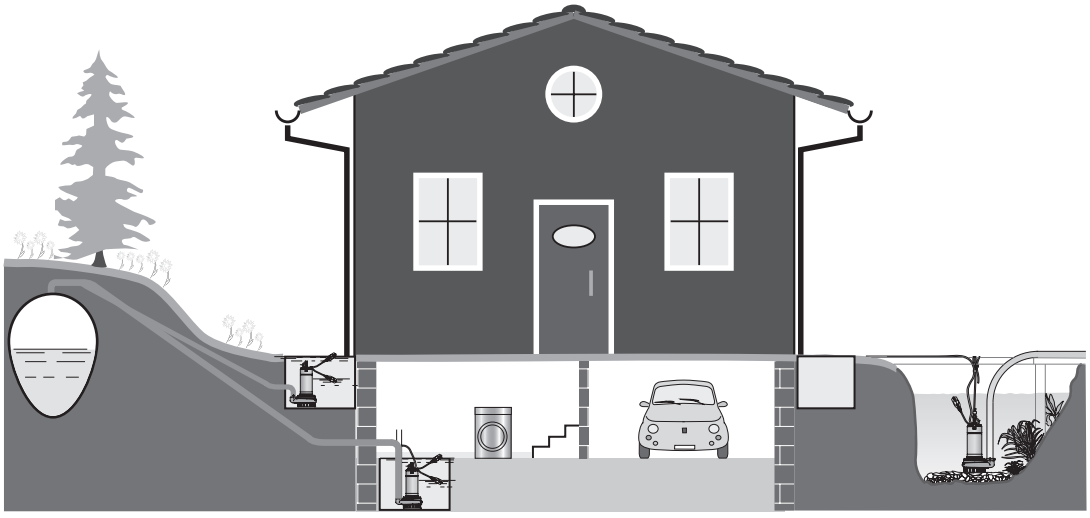




Installation examples with vertical magnetic float switch

TYPE		mm		kg
	DN2	Lmax	Lmin	Weight
GQRM 10-10 GF	G1 1/2	410	205	14.1
GQRM 10-12 GF	G1 1/2	425	220	15
GQRM 10-14 GF	G1 1/2	425	220	15.5
GQRM 10-16 GF	G1 1/2	450	245	17.4
GQRM 10-18 GF	G1 1/2	470	265	19

Examples of installations

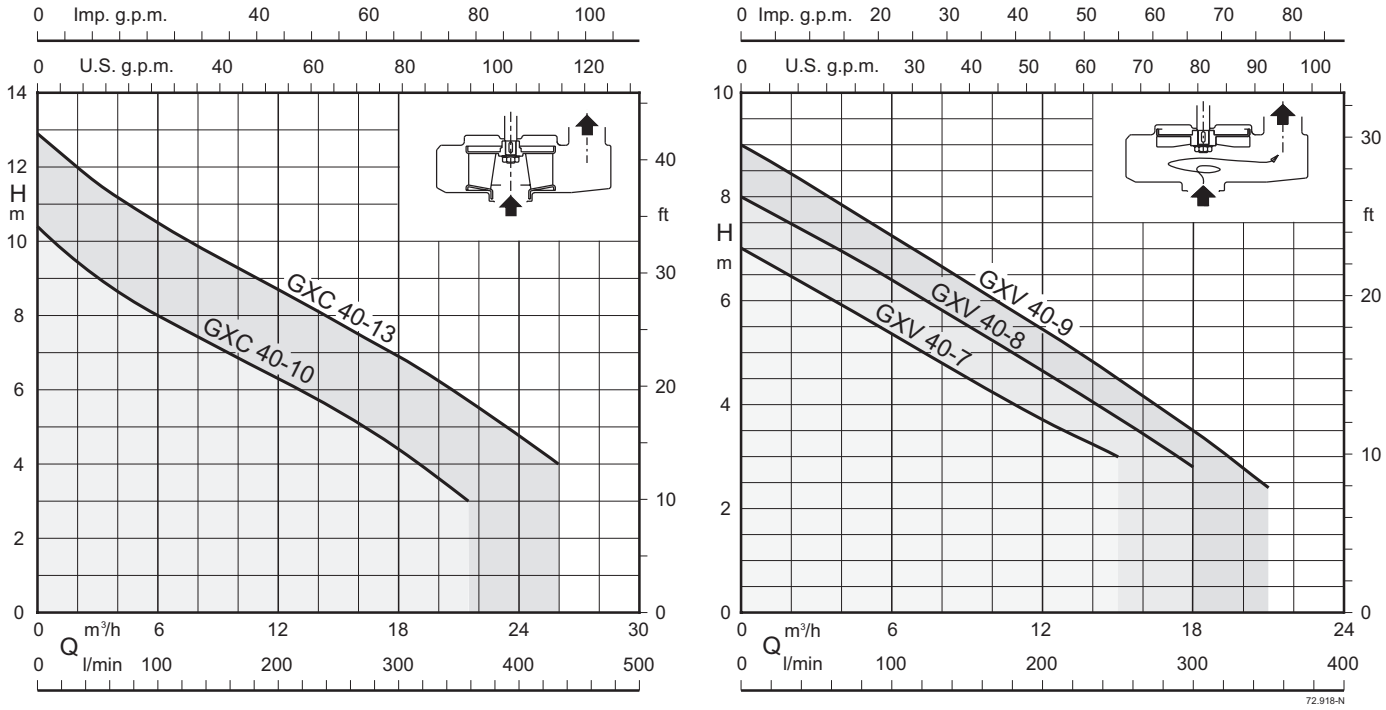


GX 40

(patented system)



Coverage chart n ≈ 2900 rpm



Stainless steel submersible pumps sewage and drainage

GX 40

Construction

Single-impeller submersible pumps in chrome-nickel stainless steel, with vertical delivery port.
GXC: with two-passage impeller.
GXV: with free-flow (vortex) impeller
Double shaft seal with interposed oil chamber.

Applications

clean and dirty water, also containing solids up to 35 mm grain size.
The GXV free-flow impeller construction is particularly suitable for liquids with a high solid content or with filamentous particles.
This construction (with smooth surfaces in rolled-stainless steel and easy access for cleaning) is also suitable for certain uses in the food industry.

Operating conditions

Liquid temperature up to 35° C.
Maximum immersion depth: 5 m.
Maximum immersion depth: 5 m.
Continuous duty (with submerged motor).

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
GXC, GXV: three-phase 230 V ± 10%;
400V ± 10%;
H07RN-F cable, 3G1 mm², length 10 m, with CEI-UNEL 74166 plug.
GXRM, GXVM: single-phase 230 V ± 10%,
with float switch and thermal protector.
Incorporated capacitor.
Cable: H07RN-F, 3G1 mm2, length 10 m, with plug CEI-UNEL 47166.
Insulation class F.
Protection IP X8 (for continuous immersion)
Triple impregnation humidity-proof dry winding.
Constructed in accordance with EN 60034-1, EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Other mechanical seal.
Cable length 20 m.
Motor suitable for operation with frequency converter.
Three-phase pumps with incorporated float switch.

Designation

Example: GXCM 40-7
GX = Series
C = Two-passage impeller
V = Free-flow impeller (wortex impeller)
M = Single-phase (without three-phase indication)
40 = Delivery port diameter in mm
7 = Total head in m indoors

Materials

Components	Materials
Pump casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Impeller	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
motor jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Jacket cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Casing cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Handle	Polypropylene (with frame 1.4301 EN 10088 (AISI 304))
Shaft	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Upper mechanical seal	Ceramic / Carbon / NBR
Lower mechanical seal	Ceramic / Carbon / NBR
Seal lubrication oil	Oil for food/pharmaceutical machinery

GX 40

Coverage chart n ≈ 2900 rpm

Three-phase

				Q = Flow										
				m³/h	0	3	6	9	12	15	18	21	24	26
Model	400V	P2		l/min		50	100	150	200	250	300	350	400	433
	A	kW	HP	H (m) = Total head										
GXC 40-10	1,6	0,55	0,75		10,4	9	8	7,1	6,3	5,4	4,4	3,2	-	-
GXC 40-13	2,3	0,9	1,2		12,9	11,6	10,5	9,5	8,7	7,8	6,9	5,9	4,7	4

Three-phase

				Q = Flow								
				m³/h	0	3	6	9	12	15	18	21
Model	400V	P2		l/min		50	100	150	200	250	300	350
	A	kW	HP	H (m) = Total head								
GXV 40-7	1,6	0,55	0,75		7	6,2	5,4	4,6	3,7	3	-	-
GXV 40-8	2,2	0,75	1		8	7,2	6,4	5,5	4,6	3,7	2,8	-
GXV 40-9	2,3	0,9	1,2		9	8,1	7,2	6,3	5,4	4,5	3,5	2,4

Single-phase

							Q = Flow									
							m³/h	0	3	6	9	12	15	18	21	24	26
Model	230V	Capacitor		P2		P1	l/min		50	100	150	200	250	300	350	400	433
	A	Vc	uf	kW	HP	kW	H (m) = Total head										
GXCM 40-10	4,6	450	16	0,55	0,75	1		10,4	9	8	7,1	6,3	5,4	4,4	3,2	-	-
GXCM 40-13	6,6	450	25	0,9	1,2	1,45		12,9	11,6	10,5	9,5	8,7	7,8	6,9	5,9	4,7	4

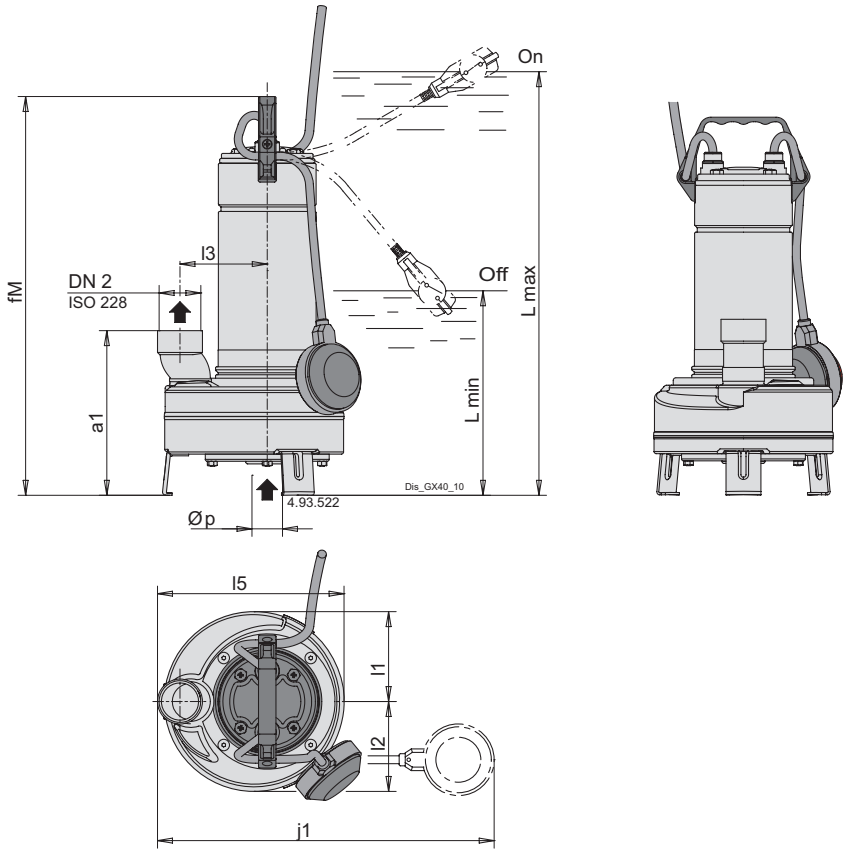
Single-phase

							Q = Flow								
							m³/h	0	3	6	9	12	15	18	21
Model	230V	Capacitor		P2		P1	l/min		50	100	150	200	250	300	350
	A	Vc	uf	kW	HP	kW	H (m) = Total head								
GXVM 40-7	4,6	450	16	0,55	0,75	1		7	6,2	5,4	4,6	3,7	3	-	-
GXVM 40-8	5,4	450	25	0,75	1	1,1		8	7,2	6,4	5,5	4,6	3,7	2,8	-
GXVM 40-9	6	450	25	0,9	1,2	1,3		9	8,1	7,2	6,3	5,4	4,5	3,5	2,4

P1: Maximum power input.
P2: Rated motor power output.
Head and power values valid for liquids with density ρ = 1,0 kg/dm3 and kinematic viscosity v = max 20 mm2/sec. Total head in m

GX 40

Dimensions and weights



TYPE	ISO 228	mm							kg
	DN2	a1	fM	l1	l2	l5	l5	p	Weight
GXV 40-7	G1 1/2	190	433	103	103	100	215	35	10
GXV 40-8	G1 1/2	190	458	103	103	100	215	35	11
GXV 40-9	G1 1/2	190	458	103	103	100	215	35	11.1

TYPE	ISO 228	mm										kg
	DN2	a1	fM	j1	l1	l2	l5	l5	Lmax	Lmin	p	Weight
GXVM 40-7	G1 1/2	190	433	405	103	103	100	215	508	248	35	11.2
GXVM 40-8	G1 1/2	190	458	405	103	103	100	215	533	273	35	13
GXVM 40-9	G1 1/2	190	458	405	103	103	100	215	533	273	35	13

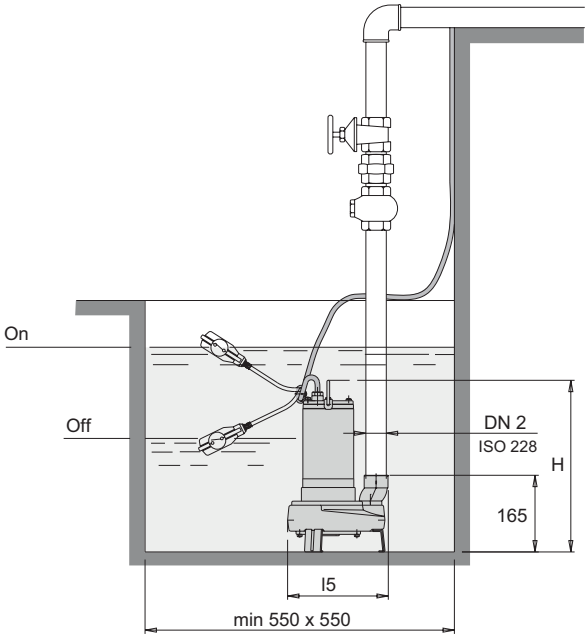
TYPE	ISO 228	mm							kg
	DN2	a1	fM	l1	l2	l5	l5	p	Weight
GXC 40-10	G1 1/2	190	433	103	103	100	215	35	11
GXC 40-13	G1 1/2	190	458	103	103	100	215	35	11.3

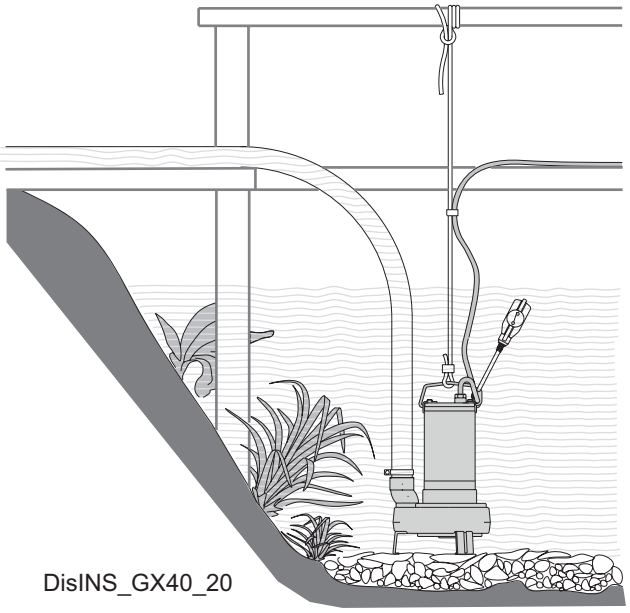
TYPE	ISO 228	mm										kg
	DN2	a1	fM	j1	l1	l2	l5	l5	Lmax	Lmin	p	Weight
GXCM 40-10	G1 1/2	190	433	405	103	103	100	215	508	248	35	11.5
GXCM 40-13	G1 1/2	190	458	405	103	103	100	215	533	273	35	13.3

weights With cable length: 10 m

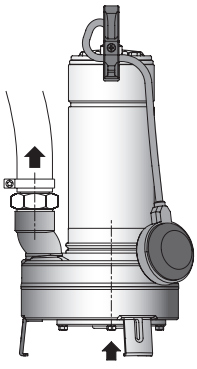
GX 40

Examples of installations

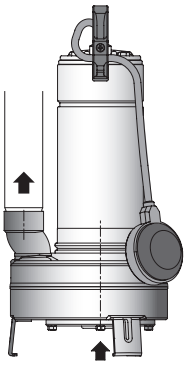




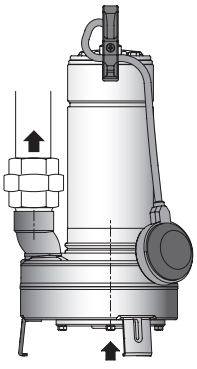
Example of connection



Pump with hosetail seat and clamp (locally available)



Pump with pipe screwed into the delivery port



Pump with pipe and union (locally available)

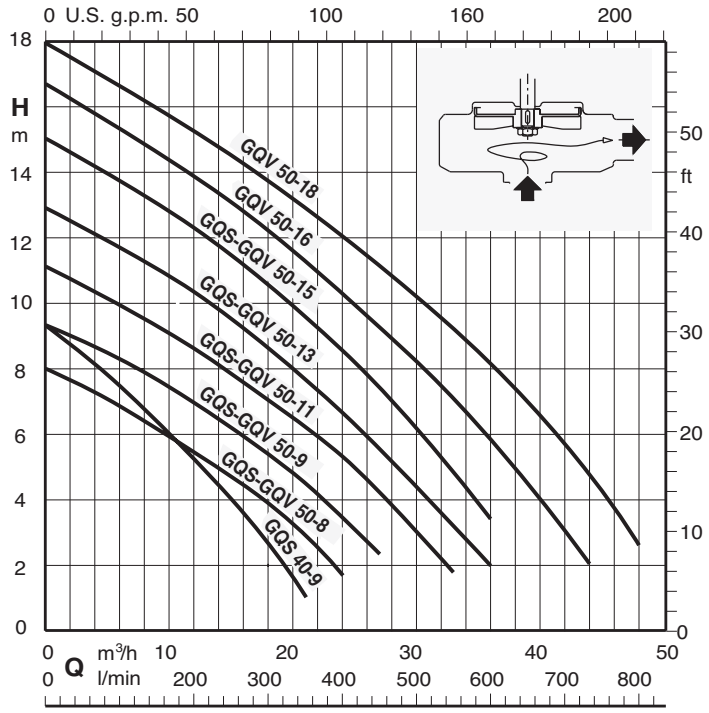
GQV, GQS

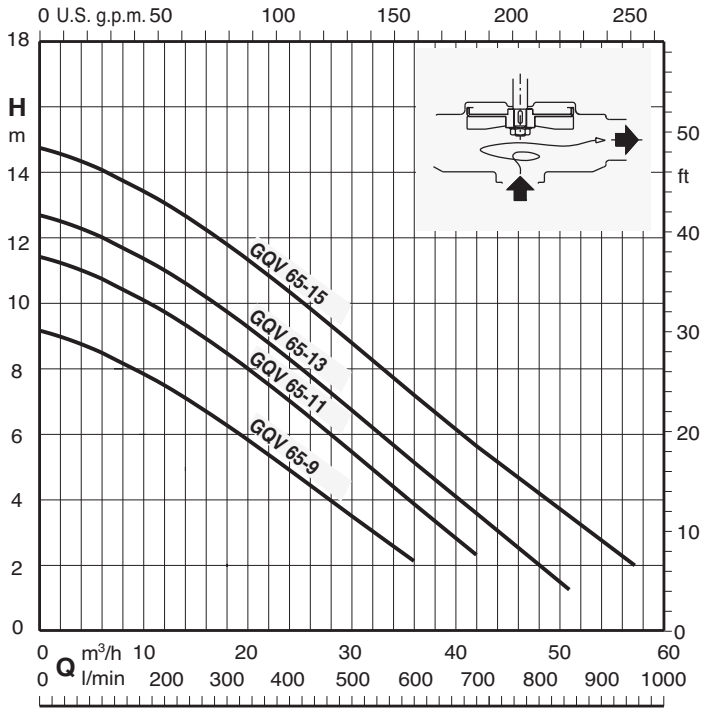
(patented system)





Coverage chart n ≈ 2900 rpm





Submersible sewage and drainage pumps

GQV, GQS

Construction

Single-impeller submersible pumps, with free-flow (vortex) impeller.
GQS: with threaded vertical delivery port G 1 1/2" or G 2".
GQV: with threaded horizontal delivery port G 2" or G 2 1/2" and flanged DN 50 or DN 65.
Double mechanical shaft seal with interposed oil chamber, to protect against dry-running.

Applications

For civil and industrial wastewater that is not aggressive to the pump materials, for dirty water even with solids with a diameter of 40, 50, 65 mm.
Emptying of flooded rooms or tanks.
Extraction of water from ponds, streams or pits and for rainwater collection.

Operating conditions

Liquid temperature up to 35° C.
Steam pH: 6-11.
Maximum immersion depth: 5 m.
Minimum immersion depth:
- 200 mm for GQS 40
- 275 mm for GQS, GQV 50).
- 355 mm for GQV 65).

Continuous duty (with submerged motor).

Motor

2-pole induction motor, 50Hz (n ≈ 2900 1/min).
GQS, GQV: three-phase 230V ± 10%
400V ± 10%
Cable: H07RN-F, 4G1 mm2, length 10 m, without plug.
GQSM, GQVM: single-phase 230V ± 10%
with float switch and thermal protector.
Incorporated capacitor
Cable: H07RN-F, 3G1 mm2, length 10 m, with plug CEI-UNEL 47166.
Insulation class F.
Protection IP X8 (for continuous immersion).
Dry winding with triple moisture-resistant impregnation (double for GQS 40).
Constructed in accordance with EN 60034-1, EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Other mechanical seal.
Cable length 20 m.
Motor set up for operation with inverter.
Three-phase pumps with built-in switch and float.

Designation

Example: GQSM 40-9
GQ = Series
S = Horizontal Vortex impeller V = Vertical Vortex impeller
M = Single-phase (without three-phase indication)
40 = Free passage diameter in mm
9 = Total head in m indoors

Materials

Components	Materials
Pump casing	Cast iron GJL 200 EN 1561
Impeller	Cast iron GJL 200 EN 1561, Steel 1.4301 EN 10088 (AISI 304) for GQS 40
motor jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Jacket cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Casing cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Handle	Polypropylene (with frame made of 1.4301 EN 10088 (AISI 304))
Shaft	Steel 1.4301 EN 10088 (AISI 304), Steel 1.4305 EN 10088 (AISI 303) per GQS 40
Upper mechanical seal	Ceramic / Carbon / NBR
Lower mechanical seal	Ceramic / Carbon / NBR
Seal lubrication oil	Oil for food/pharmaceutical machinery

GQV, GQS

Coverage chart n ≈ 2900 rpm

Three-phase

				Q = Flow									
				m³/h	0	1,5	3	6	9	12	15	18	21
Model	400V	P2		l/min		25	50	100	150	200	250	300	350
	A	kW	HP	H (m) = Total head									
GQS 40-9	1,6	0,45	0,6		9,3	8,8	8,3	7,3	6,3	5,2	3,8	2,3	0,9

				Q = Flow																	
				m³/h	0	3	6	9	12	15	18	21	24	27	30	33	36	39	42	44	48
Model	400V	P2		l/min		50	100	150	200	250	300	350	400	450	500	550	600	650	700	733	800
	A	kW	HP	H (m) = Total head																	
GQS 50-8	1,5	0,55	0,75		8	7,4	6,9	6,3	5,6	4,8	4	3	1,8	-	-	-	-	-	-	-	-
GQV 50-8	1,5	0,55	0,75		8	7,4	6,9	6,3	5,6	4,8	4	3	1,8	-	-	-	-	-	-	-	-
GQS 50-9	1,8	0,75	1		9,3	8,8	8,3	7,7	7	6,2	5,3	4,3	3,2	2,2	-	-	-	-	-	-	-
GQV 50-9	1,8	0,75	1		9,3	8,8	8,3	7,7	7	6,2	5,3	4,3	3,2	2,2	-	-	-	-	-	-	-
GQS 50-11	2,3	0,9	1,2		11	10,5	10	9,3	8,6	7,8	7	6,2	5,2	4,2	3	1,8	-	-	-	-	-
GQV 50-11	2,3	0,9	1,2		11	10,5	10	9,3	8,6	7,8	7	6,2	5,2	4,2	3	1,8	-	-	-	-	-
GQS 50-13	3	1,1	1,5		12,8	12,2	11,6	11	10,3	9,5	8,6	7,7	6,7	5,7	4,5	3,3	2	-	-	-	-
GQV 50-13	3	1,1	1,5		12,8	12,2	11,6	11	10,3	9,5	8,6	7,7	6,7	5,7	4,5	3,3	2	-	-	-	-
GQS 50-15	4	1,5	2		15	14,4	13,7	13	12,2	11,3	10,4	9,5	8,5	7,4	6,2	4,8	3,5	-	-	-	-
GQV 50-15	4	1,5	2		15	14,4	13,7	13	12,2	11,3	10,4	9,5	8,5	7,4	6,2	4,8	3,5	-	-	-	-
GQV 50-16	5	2	2,7		16	16	15,3	14,5	13,7	12,9	12	11,1	10,2	9,2	8,2	7,1	5,9	4,6	3,1	2	-
GQV 50-18	7,5	2,6	3,5		18	17,4	16,7	16	15,3	14,5	13,8	12,9	12,1	11,2	10,3	9,3	8,2	7,1	5,8	4,8	2,6

				Q = Flow												
				m³/h	0	6	12	18	24	30	36	42	48	51	54	57
Model	400V	P2		l/min		100	200	300	400	500	600	700	800	850	900	950
	A	kW	HP	H (m) = Total head												
GQV 65-9	3	1,1	1,5		9,1	8,5	7,5	6,3	4,9	3,5	2,1	-	-	-	-	-
GQV 65-11	4	1,5	2		11,4	10,7	9,7	8,5	7	5,5	3,9	2,3	-	-	-	-
GQV 65-13	5	2	2,7		13	11,9	11	10	8,8	7,6	6,1	4,3	2,3	1,2	-	-
GQV 65-15	7,5	2,6	3,5		15	13,9	13	12	10,9	9,8	8,5	7	5	3,9	2,8	2

Single-phase

							Q = Flow									
							m³/h	0	1,5	3	6	9	12	15	18	21
Model	230V	Capacitor		P2		P1	l/min		25	50	100	150	200	250	300	350
	A	Vc	uf	kW	HP	kW	H (m) = Total head									
GQSM 40-9	4,5	450	20	0,45	0,6	0,95		9,3	8,8	8,3	7,3	6,3	5,2	3,8	2,3	0,9

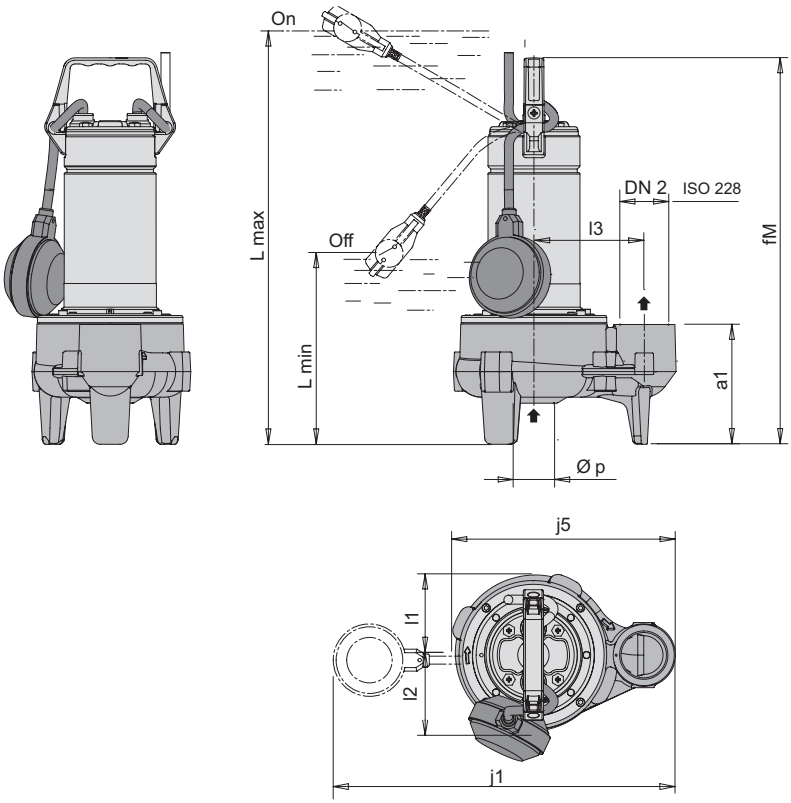
							Q = Flow													
							m³/h	0	3	6	9	12	15	18	21	24	27	30	33	36
Model	230V	Capacitor		P2		P1	l/min		50	100	150	200	250	300	350	400	450	500	550	600
	A	Vc	uf	kW	HP	kW	H (m) = Total head													
GQSM 50-8	4,3	450	16	0,55	0,75	0,95		8	7,4	6,9	6,3	5,6	4,8	4	3	1,8	-	-	-	-
GQVM 50-8	4,3	450	16	0,55	0,75	0,95		8	7,4	6,9	6,3	5,6	4,8	4	3	1,8	-	-	-	-
GQSM 50-9	4,8	450	16	0,75	1	1,1		9,3	8,8	8,3	7,7	7	6,2	5,3	4,3	3,2	2,2	-	-	-
GQVM 50-9	4,8	450	16	0,75	1	1,1		9,3	8,8	8,3	7,7	7	6,2	5,3	4,3	3,2	2,2	-	-	-
GQSM 50-11	6,6	450	25	0,9	1,2	1,45		11	10,5	10	9,3	8,6	7,8	7	6,2	5,2	4,2	3	1,8	-
GQVM 50-11	6,6	450	25	0,9	1,2	1,45		11	10,5	10	9,3	8,6	7,8	7	6,2	5,2	4,2	3	1,8	-
GQSM 50-13	8,4	450	30	1,1	1,5	1,8		12,8	12,2	11,6	11	10,3	9,5	8,6	7,7	6,7	5,7	4,5	3,3	2
GQVM 50-13	8,4	450	30	1,1	1,5	1,8		12,8	12,2	11,6	11	10,3	9,5	8,6	7,7	6,7	5,7	4,5	3,3	2
GQSM 50-15	13	450	35	1,5	2	2,2		15	14,4	13,7	13	12,2	11,3	10,4	9,5	8,5	7,4	6,2	4,8	3,5
GQVM 50-15	13	450	35	1,5	2	2,2		15	14,4	13,7	13	12,2	11,3	10,4	9,5	8,5	7,4	6,2	4,8	3,5

							Q = Flow								
							m³/h	0	6	12	18	24	30	36	42
Model	230V	Capacitor		P2		P1	l/min		100	200	300	400	500	600	700
	A	Vc	uf	kW	HP	kW	H (m) = Total head								
GQVM 65-9	8,4	450	30	1,1	1,5	1,8		9,1	8,5	7,5	6,3	4,9	3,5	2,1	-
GQVM 65-11	12	450	35	1,5	2	2,2		11,4	10,7	9,7	8,5	7	5,5	3,9	2,3

P1: Maximum power input. **P2:** Rated motor power output.
Head and power values valid for liquids with density ρ = 1,0 kg/dm3 and kinematic viscosity v = max 20 mm2/sec. Total head in m

GQV, GQS

Dimensions and weights



TYPE	ISO 228	mm							kg
	DN2	a1	fM	j5	l1	l2	l5	p	Weight
GQS 40-9	G1 1/2	120	385	222	78	81	110	40	10

TYPE	ISO 228	mm										kg
	DN2	a1	fM	j1	j5	l1	l2	l5	Lmax	Lmin	p	Weight
GQSM 40-9	G1 1/2	120	385	410	222	78	81	110	460	200	40	10.9

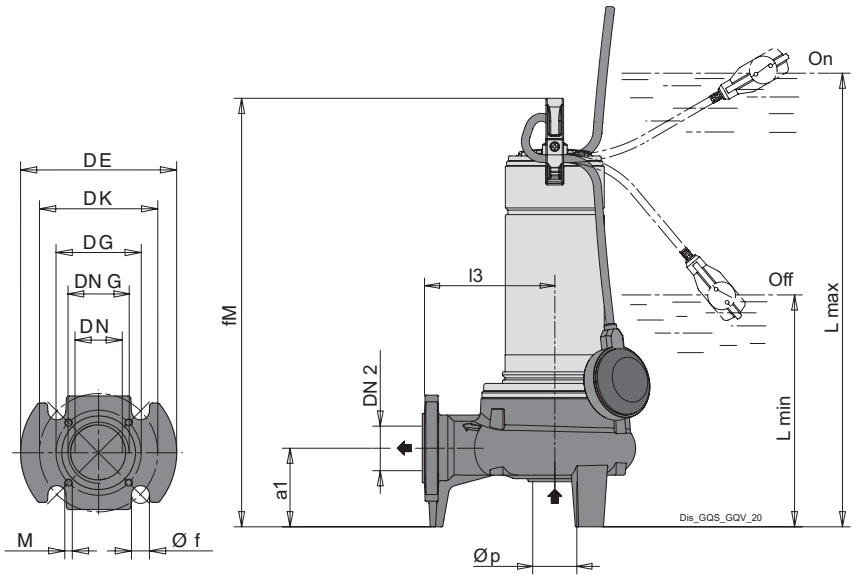
TYPE	ISO 228	mm							kg
	DN2	a1	fM	j5	l1	l2	l5	p	Weight
GQS 50-8	G 2	145	460	264	89	94	130	50	14.8
GQS 50-9	G 2	145	460	264	89	94	130	50	15
GQS 50-11	G 2	145	485	264	89	94	130	50	15.8
GQS 50-13	G 2	145	505	264	89	94	130	50	17.8
GQS 50-15	G 2	145	505	264	89	94	130	50	19.3

TYPE	ISO 228	mm										kg
	DN2	a1	fM	j1	j5	l1	l2	l5	Lmax	Lmin	p	Weight
GQSM 50-8	G 2	145	460	452	264	89	94	130	535	275	50	15.8
GQSM 50-9	G 2	145	460	452	264	89	94	130	535	275	50	16
GQSM 50-11	G 2	145	485	452	264	89	94	130	560	300	50	18.1
GQSM 50-13	G 2	145	505	452	264	89	94	130	580	320	50	19.2
GQSM 50-15	G 2	145	535	452	264	89	94	130	610	350	50	21.3

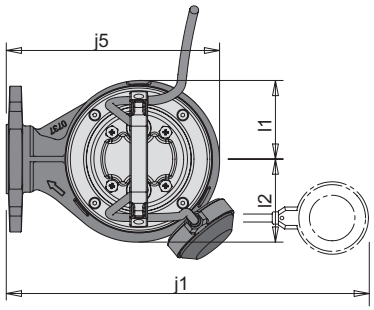
weights With cable length: 10 m

GQV, GQS

Dimensions and weights



DN	DN G	DE	DK	N.	Ø f	DG	N.	M
50	G 2	165	125	4	19	90	4	M8
65	G 21/2	185	145	4	19	118	4	M8



TYPE		mm								kg
	DN2	a1	fM	l1	l2	l5	l5	p	s	Weight
GQV 50-8	G 2 (DN50)	90	460	89	94	150	242	50	19 (M8)	15
GQV 50-9	G 2 (DN50)	90	460	89	94	150	242	50	19 (M8)	15.2
GQV 50-11	G 2 (DN50)	90	485	89	94	150	242	50	19 (M8)	16
GQV 50-13	G 2 (DN50)	90	505	89	94	150	242	50	19 (M8)	18
GQV 50-15	G 2 (DN50)	90	505	89	94	150	242	50	19 (M8)	19.8
GQV 50-16	G 2 (DN50)	90	592	89	94	150	242	50	19 (M8)	-
GQV 50-18	G 2 (DN50)	90	642	89	94	150	242	50	19 (M8)	-
GQV 65-9	G 2 1/2 (DN65)	110	540	100	105	150	253	65	19 (M8)	20.2
GQV 65-11	G 2 1/2 (DN65)	110	540	100	105	150	253	65	19 (M8)	21.6
GQV 65-13	G 2 1/2 (DN65)	110	621	99.4	104.6	150	253	65	19 (M8)	-
GQV 65-15	G 2 1/2 (DN65)	110	671	99.4	104.4	150	253	65	19 (M8)	-

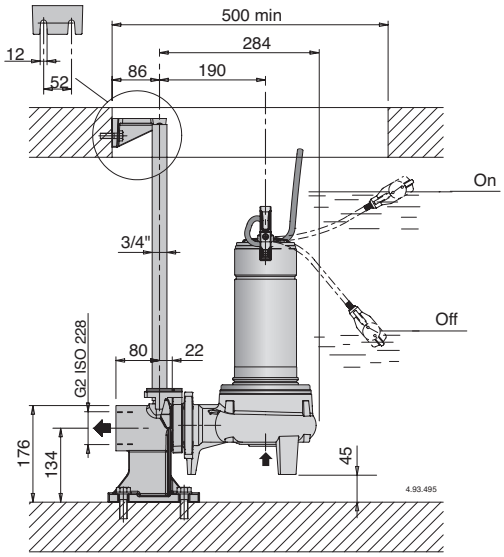
TYPE		mm											kg
	DN2	a1	fM	j1	l1	l2	l5	l5	Lmax	Lmin	p	s	Weight
GQVM 50-8	G 2 (DN50)	90	460	430	89	94	150	242	535	275	50	19 (M8)	16
GQVM 50-9	G 2 (DN50)	90	460	430	89	94	150	242	535	275	50	19 (M8)	16.2
GQVM 50-11	G 2 (DN50)	90	485	430	89	94	150	242	560	300	50	19 (M8)	17.4
GQVM 50-13	G 2 (DN50)	90	505	430	89	94	150	242	580	320	50	19 (M8)	19.4
GQVM 50-15	G 2 (DN50)	90	535	430	89	94	150	242	610	350	50	19 (M8)	21.5
GQVM 65-9	G 2 1/2 (DN65)	110	540	430	100	105	150	253	615	355	65	19 (M8)	21.7
GQVM 65-11	G 2 1/2 (DN65)	110	570	430	100	105	150	253	645	385	65	19 (M8)	24.2

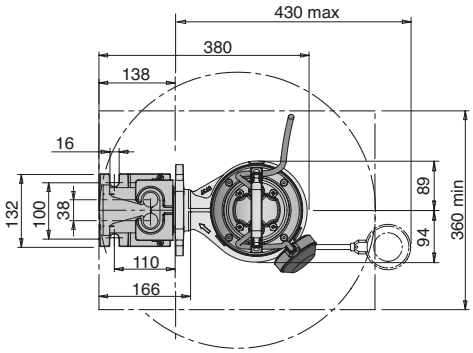
weights With cable length: 10 m

GQV, GQS

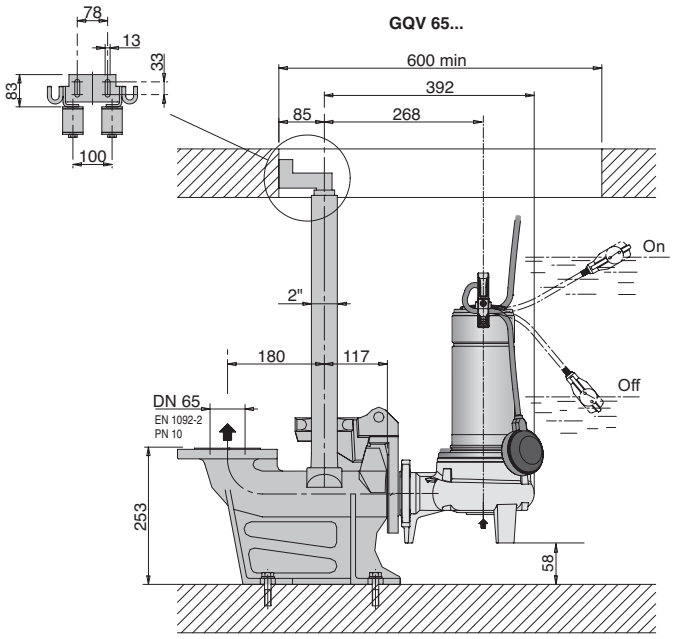
Examples of installations

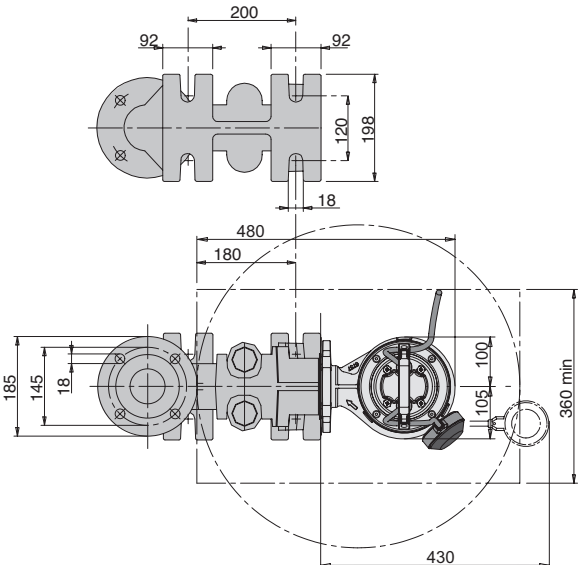
GQV 50...

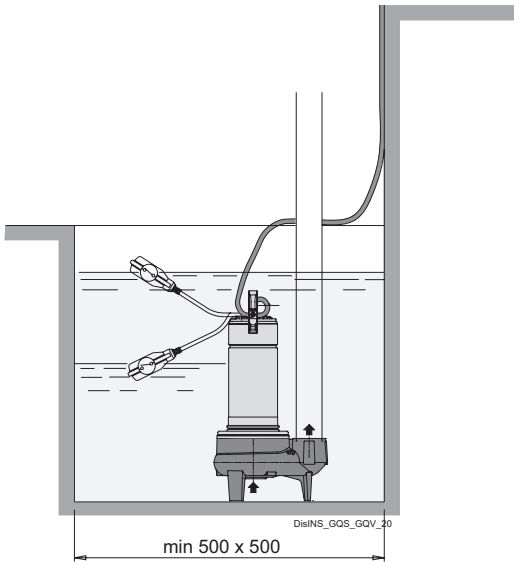


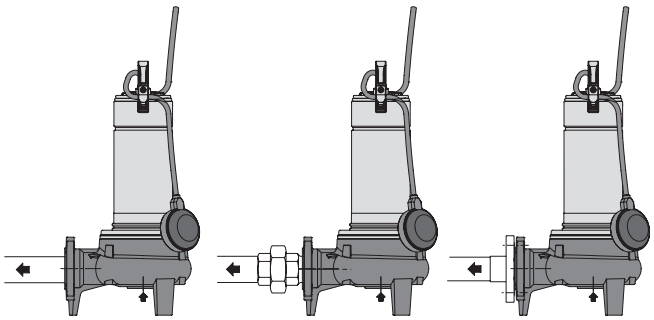


GQV 65...









Pump with threaded ports: pipes screwed into the ports

Pump with threaded ports: pipes with union couplings (locally available)

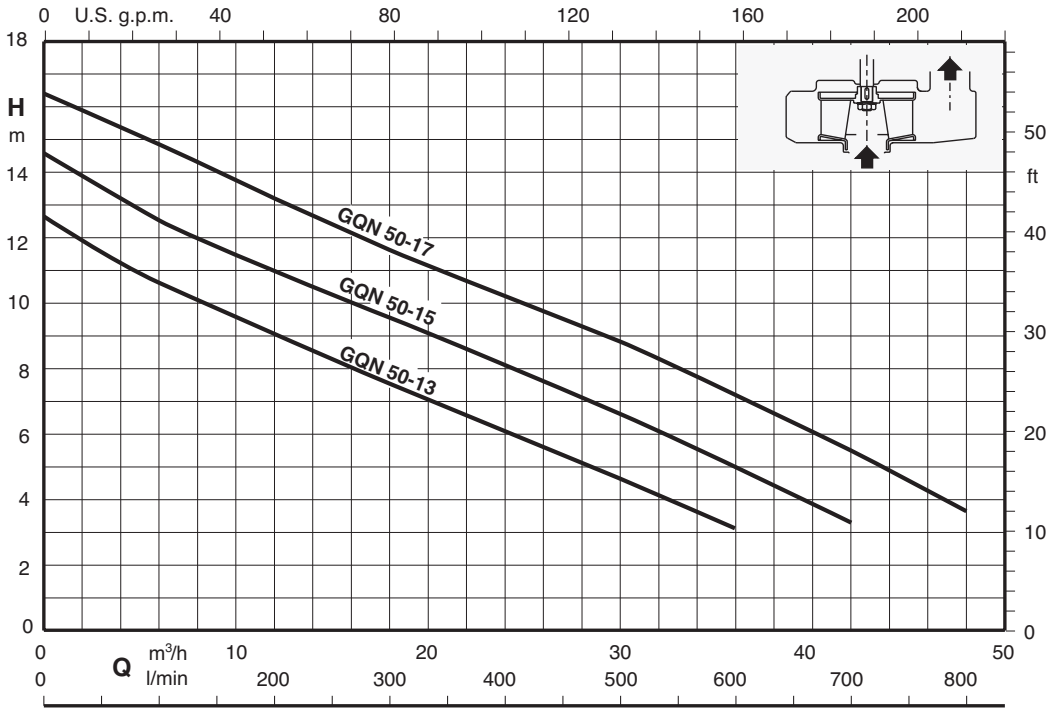
Pompa con bocca flangiata: tubo con controflangia

GQN

(patented system)



Coverage chart n ≈ 2900 rpm



Submersible sewage and drainage pumps

GQN

Construction

Single-impeller submersible pumps, (with two-passage) with channels impeller with vertical threaded delivery port (G 2”).
Double mechanical shaft seal with interposed oil chamber, to protect against dry-running.

Applications

For civil and industrial wastewater that is not aggressive to the pump materials, for dirty water even with solids with a diameter of 50 mm.
Emptying of flooded rooms or tanks.
Extraction of water from ponds, streams or pits and for rainwater collection.

Operating conditions

Maximum liquid temperature: 35 °C
pH value: 6-11.
Immersion depth: 5 m max
Minimum immersion depth: 275 mm.
Continuous duty (with submerged motor).

Motor

2-pole induction motor, 50Hz (n ≈ 2900 1/min).
GQN: three-phase 230V ± 10%
400V ± 10%
Cable: H07RN-F, 4G1 mm2, length 10 m, without plug.
GQNM: single-phase 230V ± 10%
with float switch and thermal protector.
Incorporated capacitor
Cable: H07RN-F, 3G1 mm2, length 10 m, with plug CEI-UNEL 47166.
Insulation class F.
Protection IP X8 (for continuous immersion).
Triple impregnation humidity-proof dry winding
Constructed in accordance with EN 60034-1, EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Cable length 20 m.
Motor suitable for operation with frequency converter.
Three-phase pumps with incorporated float switch.

Designation

Example: GQNM 50-15
GQ = Series
N = channels impeller
M = Single-phase (without three-phase indication)
50 = Free passage diameter in mm
15 = Total head in m indoors

Materials

Components	Materials
Pump casing	Cast iron GJL 200 EN 1561
Impeller	Cast iron GJL 200 EN 1561
motor jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Jacket cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Casing cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Handle	Polypropylene (with frame made of 1.4301 EN 10088 (AISI 304))
Shaft	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Upper mechanical seal	Ceramic / Carbon / NBR
Lower mechanical seal	Ceramic / Carbon / NBR
Seal lubrication oil	Oil for food/pharmaceutical machinery

GQN

Coverage chart n ≈ 2900 rpm

Three-phase

				Q = Flow										
				m³/h	0	3	6	12	18	24	30	36	42	48
Model	400V	P2		l/min		50	100	200	300	400	500	600	700	800
	A	kW	HP	H (m) = Total head										
GQN 50-13	2,3	0,9	1,2		12,7	11,6	10,6	8,9	7,7	6,3	4,7	3,1	-	-
GQN 50-15	3,3	1,1	1,5		14,7	13,5	12,6	10,9	9,6	8,3	6,7	5	3,2	-
GQN 50-17	4,5	1,5	2		16,4	15,7	14,9	13,2	11,7	10,3	8,9	7,3	5,5	3,6

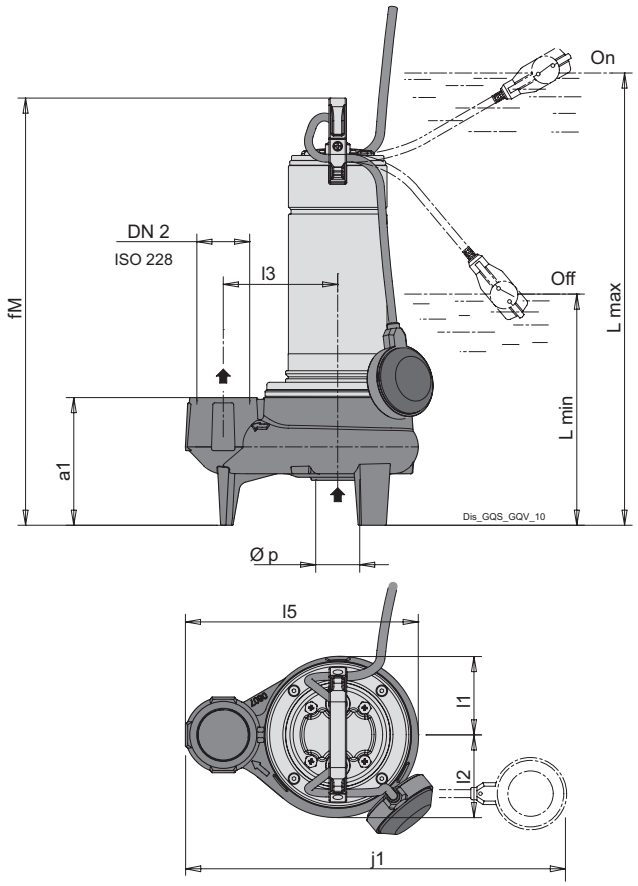
Single-phase

							Q = Flow										
							m³/h	0	3	6	12	18	24	30	36	42	48
Model	230V	Capacitor		P2		P1	l/min		50	100	200	300	400	500	600	700	800
	A	Vc	uf	kW	HP	kW	H (m) = Total head										
GQNM 50-13	6,6	450	25	0,9	1,2	1,45		12,7	11,6	10,6	8,9	7,7	6,3	4,7	3,1	-	-
GQNM 50-15	8,4	450	30	1,1	1,5	1,8		14,7	13,5	12,6	10,9	9,6	8,3	6,7	5	3,2	-
GQNM 50-17	12	450	35	1,5	2	2,2		16,4	15,7	14,9	13,2	11,7	10,3	8,9	7,3	5,5	3,6

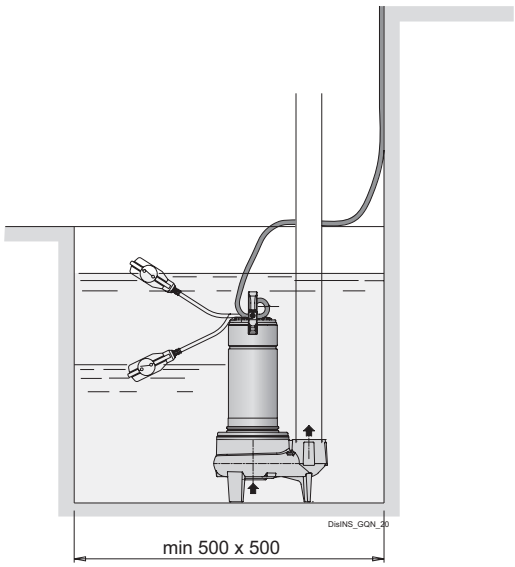
P2: Rated motor power output.
P1: Maximum power input.
Head and power values valid for liquids with density ρ = 1,0 kg/dm3 and kinematic viscosity v = max 20 mm2/sec. Total head in m

GQN

Dimensions and weights



Installation examples

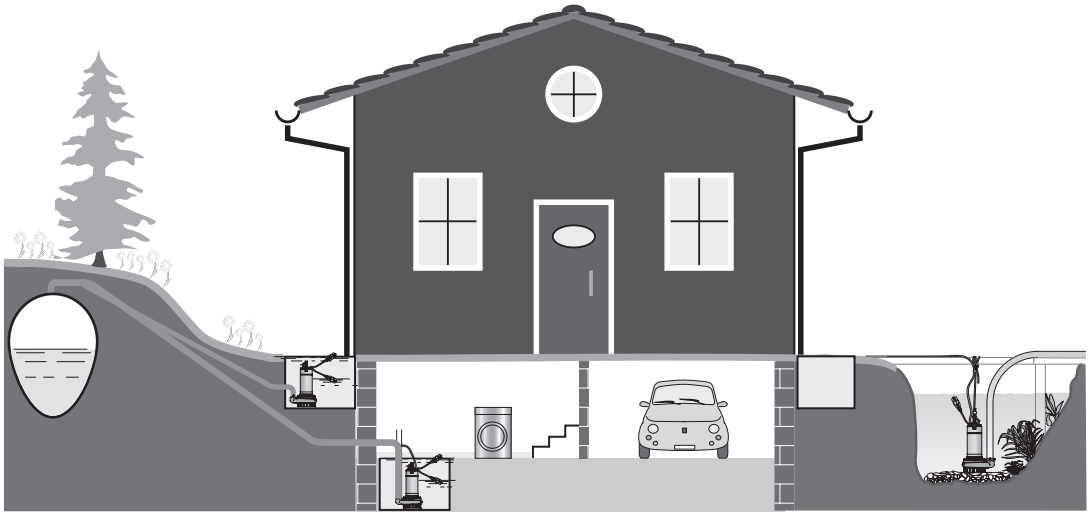


TYPE		mm								kg
	DN2	a1	fM	j1	l1	l2	l5	l5	p	Weight
GQN 50-13	G 2 (DN50)	152.5	493	452	92	104	130	272	50	16.4
GQN 50-15	G 2 (DN50)	152.5	513	452	92	104	130	272	50	18.2
GQN 50-17	G 2 (DN50)	152.5	513	452	92	104	130	272	50	19

TYPE		mm										kg
	DN2	a1	fM	j1	l1	l2	l5	l5	Lmax	Lmin	p	Weight
GQNM 50-13	G 2 (DN50)	152.5	493	452	92	104	130	272	568	308	50	18.5
GQNM 50-15	G 2 (DN50)	152.5	513	452	92	104	130	272	588	328	50	19.6
GQNM 50-17	G 2 (DN50)	152.5	543	452	92	104	130	272	618	358	50	22.3

weights With cable length: 10 m

Examples of installations

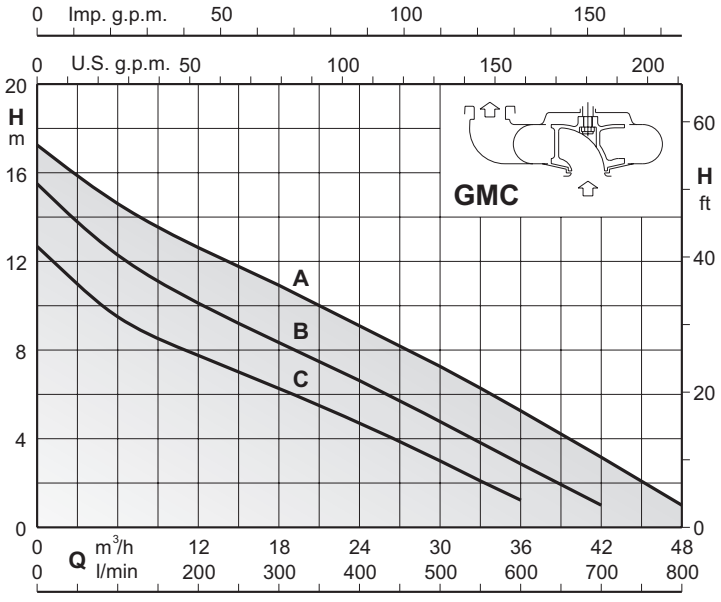


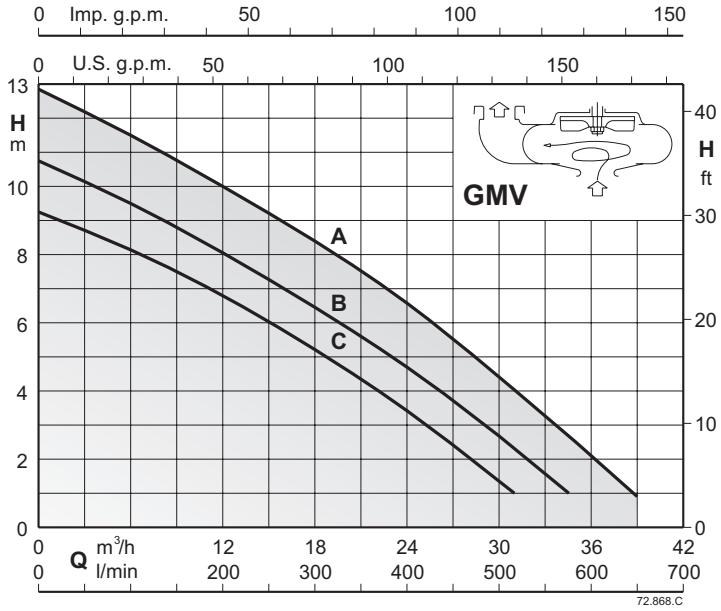
GM 50





Coverage chart n ≈ 2900 rpm





Submersible sewage and drainage pumps

GM 50

Construction

Close coupled electric submersible pumps.
GMC:with single-channel impeller.
GMV:with free-flow (vortex) impeller
Double seal on the shaft, with interposed oil chamber, protected against dry running.

Applications

For civil and industrial wastewater that is not aggressive to the pump materials, for dirty water even with solids with a diameter of 45 mm for GMC and 50 mm for GMV.

Operating conditions

Maximum liquid temperature: 35 °C
pH value: 6-11.
Maximum immersion depth: 10 m (with suitable cable length).
Continuous duty (with submerged motor).

Motor

2-pole induction motor, 50Hz (n ≈ 2900 1/min).
GMC, GMV: three-phase 230V ± 10%
400V ± 10%
2 built-in thermal protectors to be connected to a control box.
H07RN-F cable, 4G1.5 mm²+2x0.5 mm², length 10 m, without plug.
GMCM, GMVM: single-phase 230V ± 10%
with float switch and thermal protector.
Incorporated capacitor
H07RN-F cable, 3G1.5 mm², length 10 m, with CEI-UNEL 47166 plug.
Insulation class F.
Protection IP X8 (for continuous immersion).
Triple impregnation humidity-proof dry winding
Constructed in accordance with EN 60034-1, EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Motor suitable for operation with frequency converter.

Designation

Example: GMCM 50-65C
GM = Series
C = with single-channel impeller. V Free-flow impeller (wortex impeller)
M = Single-phase (without three-phase indication)
50 = Delivery port diameter in mm
65 = Delivery port diameter in mm (value for flanged pumps only)
C = Impeller diameter

Materials

Components	Materials
Pump casing	Cast iron GJL 200 EN 1561
Casing cover	Cast iron GJL 200 EN 1561
Impeller	Cast iron GJL 200 EN 1561
Motor housing	Cast iron GJL 200 EN 1561
Motor cover	Cast iron GJL 200 EN 1561
Shaft	Steel 1.4104 EN 10088 (AISI 430F)
Upper mechanical seal	Ceramic / Carbon / NBR
Lower mechanical seal	Silicon carbide / Silicon carbide / NBR
Seal lubrication oil	Oil for food/pharmaceutical machinery

GM 50

Coverage chart n ≈ 2900 rpm

Three-phase

				Q = Flow									
				m³/h	0	6	12	18	24	30	36	42	48
Model	400V	P2		l/min		100	200	300	400	500	600	700	800
	A	kW	HP	H (m) = Total head									
GMC 50/CE	1,9	0,75	1		12,8	9,5	8	6,5	5	3	1	-	-
GMC 50-65C	1,9	0,75	1		12,8	9,5	8	6,5	5	3	1	-	-
GMC 50/BE	2,7	1,1	1,5		15,5	12,5	10	8,5	6,5	5	3	1	-
GMC 50-65B	2,7	1,1	1,5		15,5	12,5	10	8,5	6,5	5	3	1	-
GMC 50/AE	3,8	1,5	2		17,3	14,5	12,5	11	9	7,5	5,5	3	1
GMC 50-65A	3,8	1,5	2		17,3	14,5	12,5	11	9	7,5	5,5	3	1

Single-phase

							Q = Flow								
							m³/h	0	6	12	18	24	30	36	42
Model	230V	Capacitor		P2		P1	l/min		100	200	300	400	500	600	700
	A	Vc	uf	kW	HP	kW	H (m) = Total head								
GMCM 50/CE	4,5	450	16	0,75	1	1,1		12,8	9,5	8	6,5	5	3	1	-
GMCM 50-65C	4,5	450	16	0,75	1	1,1		12,8	9,5	8	6,5	5	3	1	-
GMCM 50/BE	6,5	450	25	1,1	1,5	1,5		15,5	12,5	10	8,5	6,5	5	3	1
GMCM 50-65B	6,5	450	25	1,1	1,5	1,5		15,5	12,5	10	8,5	6,5	5	3	1

Three-phase

				Q = Flow								
				m³/h	0	6	12	18	24	30	35	39
Model	400V	P2		l/min		100	200	300	400	500	583	650
	A	kW	HP	H (m) = Total head								
GMV 50/CE	1,9	0,75	1		9,2	8	7	5	3,5	1,5	-	-
GMV 50-65C	1,9	0,75	1		9,2	8	7	5	3,5	1,5	-	-
GMV 50/BE	2,7	1,1	1,5		10,7	9,5	8	6,5	4,5	2,5	1	-
GMV 50-65B	2,7	1,1	1,5		10,7	9,5	8	6,5	4,5	2,5	1	-
GMV 50/AE	3,8	1,5	2		12,9	11,5	10	8,5	6,5	4,3	2,5	1
GMV 50-65A	3,8	1,5	2		12,9	11,5	10	8,5	6,5	4,3	2,5	1

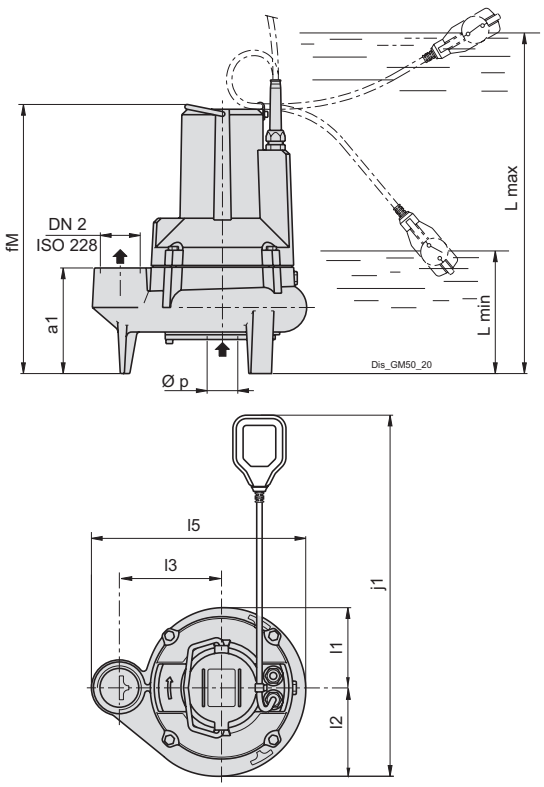
Single-phase

							Q = Flow							
							m³/h	0	6	12	18	24	30	35
Model	230V	Capacitor		P2		P1	l/min		100	200	300	400	500	583
	A	Vc	uf	kW	HP	kW	H (m) = Total head							
GMVM 50/CE	4,5	450	16	0,75	1	1,1		9,2	8	7	5	3,5	1,5	-
GMVM 50-65C	4,5	450	16	0,75	1	1,1		9,2	8	7	5	3,5	1,5	-
GMVM 50/BE	6,5	450	25	1,1	1,5	1,5		10,7	9,5	8	6,5	4,5	2,5	1
GMVM 50-65B	6,5	450	25	1,1	1,5	1,5		10,7	9,5	8	6,5	4,5	2,5	1

P1: Maximum power input.
P2: Rated motor power output.
Head and power values valid for liquids with density ρ = 1,0 kg/dm3 and kinematic viscosity v = max 20 mm2/sec. Total head in m

GM 50

Dimensions and weights



TYPE	ISO 228	mm							kg
	DN2	a1	fM	l1	l2	l5	l5	p	Weight
GMV 50/CE	G 2	155	395	118	130	150	315	45	26.5
GMV 50/BE	G 2	155	395	118	130	150	315	45	27.5
GMV 50/AE	G 2	155	395	118	130	150	315	45	29.1

TYPE	ISO 228	mm										kg
	DN2	a1	fM	j1	l1	l2	l5	l5	Lmax	Lmin	p	Weight
GMVM 50/CE	G 2	155	395	530	118	130	150	315	500	180	45	27.2
GMVM 50/BE	G 2	155	395	530	118	130	150	315	500	180	45	29

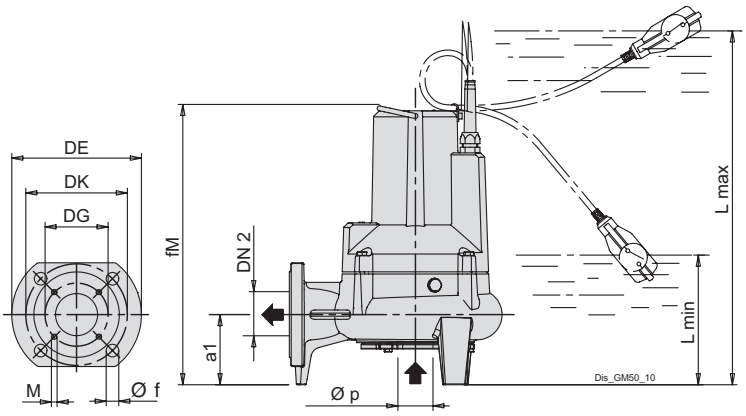
TYPE	ISO 228	mm							kg
	DN2	a1	fM	l1	l2	l5	l5	p	Weight
GMC 50/CE	G 2	155	395	118	130	150	315	45	27.3
GMC 50/BE	G 2	155	395	118	130	150	315	45	28.6
GMC 50/AE	G 2	155	395	118	130	150	315	45	30.2

TYPE	ISO 228	mm										kg
	DN2	a1	fM	j1	l1	l2	l5	l5	Lmax	Lmin	p	Weight
GMCM 50/CE	G 2	155	395	530	118	130	150	315	500	180	45	28
GMCM 50/BE	G 2	155	395	530	118	130	150	315	500	180	45	31

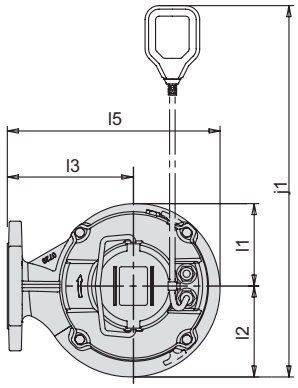
weights With cable length: 10 m

GM 50

Dimensions and weights



DN	DE	DK	N.	Ø f	DG	N.	M
65	185	145	4	18	118	4	M8



TYPE		mm								kg
	DN2	a1	fM	h2	l1	l2	l5	l5	p	Weight
GMV 50-65C	65	100	400	-	118	130	180	304	50	27.2
GMV 50-65B	65	100	400	180	118	130	180	304	50	28.1
GMV 50-65A	65	100	400	180	118	130	180	304	50	29.8

TYPE		mm											kg
	DN2	a1	fM	h2	j1	l1	l2	l5	l5	Lmax	Lmin	p	Weight
GMVM 50-65C	65	100	400	180	530	118	130	180	304	505	85	50	29.4
GMVM 50-65B	65	100	400	180	530	118	130	180	304	505	85	50	29.7

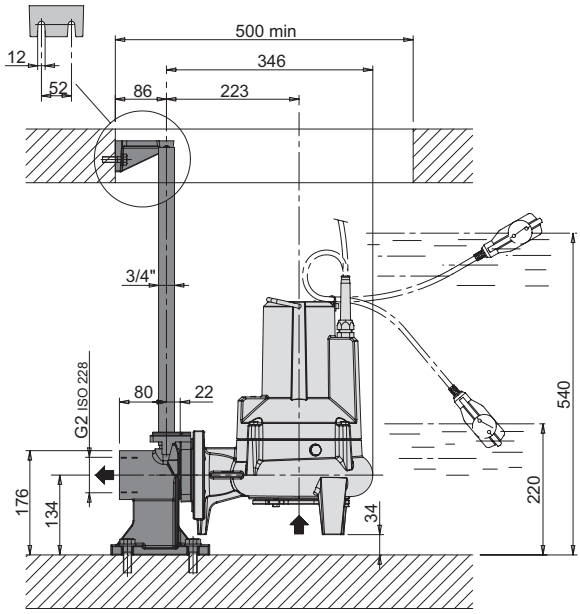
TYPE		mm							kg
	DN2	a1	fM	h2	l1	l2	l5	l5	p	Weight
GMC 50-65C	65	100	400	180	118	130	180	304	45	28
GMC 50-65B	65	100	400	180	118	130	180	304	45	29.1
GMC 50-65A	65	100	400	180	118	130	180	304	45	30.7

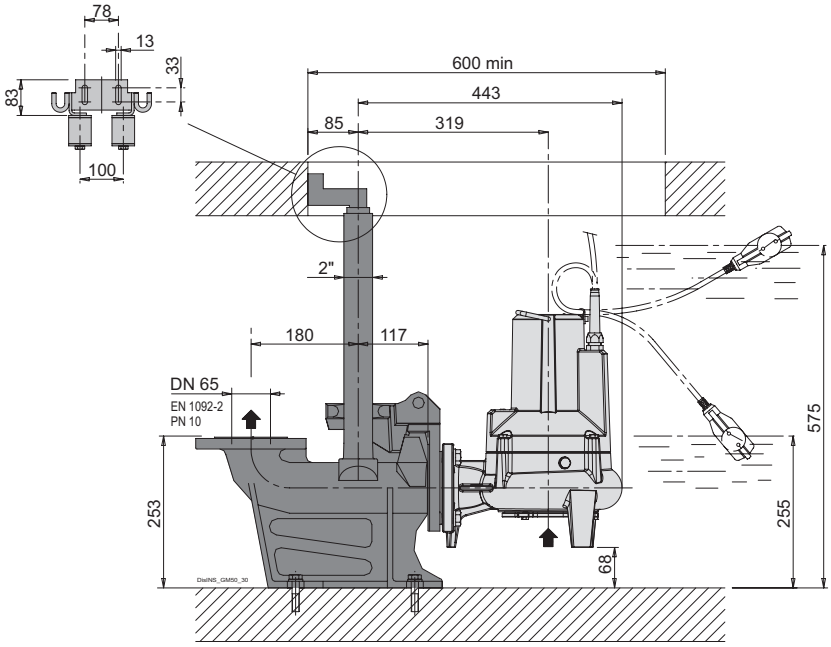
TYPE		mm											kg
	DN2	a1	fM	h2	j1	l1	l2	l5	l5	Lmax	Lmin	p	Weight
GMCM 50-65C	65	100	400	180	530	118	130	180	304	505	85	45	28.7
GMCM 50-65B	65	100	400	180	530	118	130	180	304	505	85	45	30.6

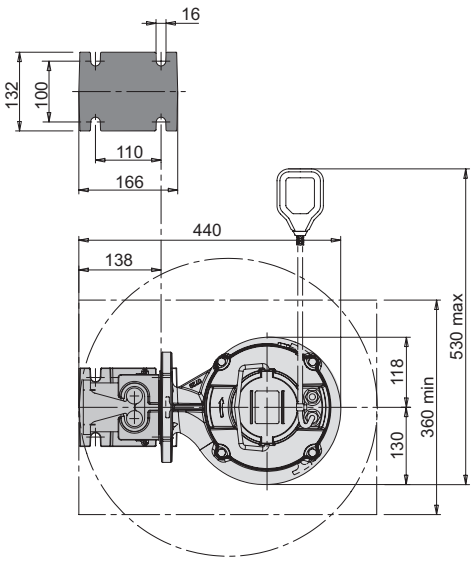
weights With cable length: 10 m

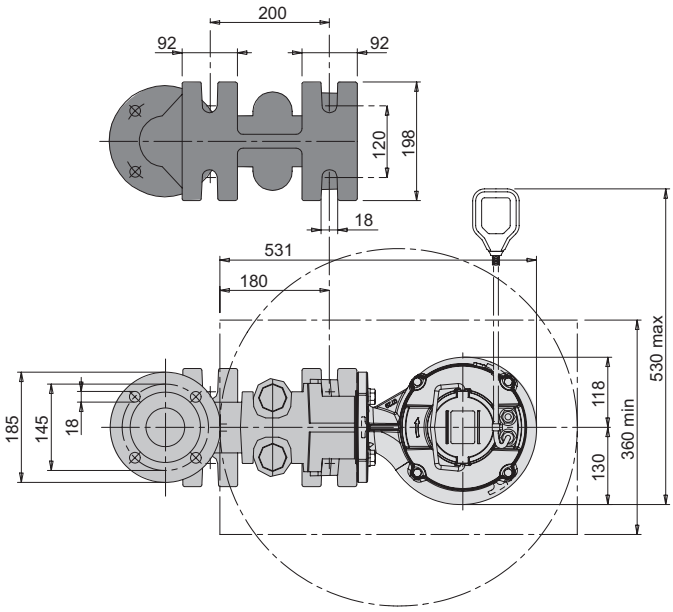
GM 50

Dimensions with duck foot coupling









GQG

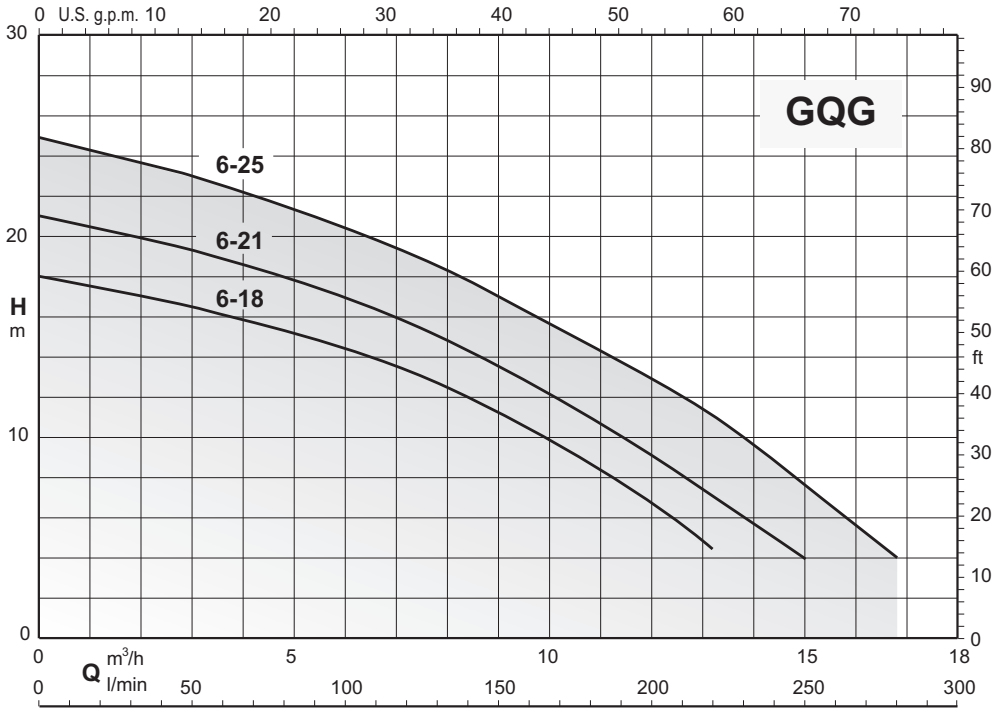
(patented system)







Coverage chart n ≈ 2900 rpm



Submersible pumps with high power grinder

GQG

Construction

Submersible pumps with high-power grinding system, with threaded horizontal delivery port G 1 1/2 and flanged DN 32 PN 6.
Double mechanical shaft seal with interposed oil chamber, to protect against dry-running.

Applications

To move water containing long filamentary materials, paper or textile material.
They are particularly suitable for use in domestic, residential and industrial installations
Solid passage Ø 6 mm

Operating conditions

Maximum liquid temperature: 35 °C
Immersion depth: 5 m max
Minimum immersion depth: 300 mm.
Continuous duty (with submerged motor).

Motor

2-pole induction motor, 50Hz (n ≈ 2900 1/min).
GQG: three-phase 230V ± 10%
400V ± 10%
GQGM: single-phase 230V ± 10%
With switch and float, thermal protector and control panel with starting capacitors.
H07RN-F cable, 4G1 mm², (4G1.5 mm² for GMGM 6-25), length 10 m.
Insulation class F.
Protection IP X8 (for continuous immersion).
Triple impregnation humidity-proof dry winding
Constructed in accordance with EN 60034-1, EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Other mechanical seal.
Cable length 20 m.
- Vertical magnetic float switch.
Three-phase pumps with incorporated float switch.

Designation

Example: GQGM 6-21
GQ = Series
G = Submersible pumps with high power grinder
M = Single-phase (without three-phase indication)
6 = Passage of solids Ø mm
21 = Total head in m indoors

Materials

Components	Materials
Pump casing	Cast iron GJL 200 EN 1561
Impeller	Cast iron GJL 200 EN 1561
Casing cover	Cast iron GJL 200 EN 1561
Rotating blade	Steel 1.4125 EN 10088 (AISI 440C)
Fixed cutting blade	Steel 1.4125 EN 10088 (AISI 440C)
motor jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Jacket cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Handle	Polypropylene (with frame made of 1.4301 EN 10088 (AISI 304))
Shaft	Chrome-nickel steel 1.4305 EN 10088 (AISI 303)
Upper mechanical seal	Ceramic / Carbon / NBR
Lower mechanical seal	Ceramic / Carbon / NBR
Seal lubrication oil	Oil for food/pharmaceutical machinery

Coverage chart n ≈ 2900 rpm

Three-phase

				Q = Flow								
				m³/h	0	3	6	9	12	13,2	15	16,8
Model	400V	P2		l/min		50	100	150	200	220	250	280
	A	kW	HP	H (m) = Total head								
GQG 6-18	2,3	0,9	1,2		18	16,5	14,5	11,2	6,5	4,5	-	-
GQG 6-21	2,8	1,1	1,5		21	19,2	17	13,5	9	7	4	-
GQG 6-25	3,8	1,5	2		25	23	20,5	17	13	11	7,8	4

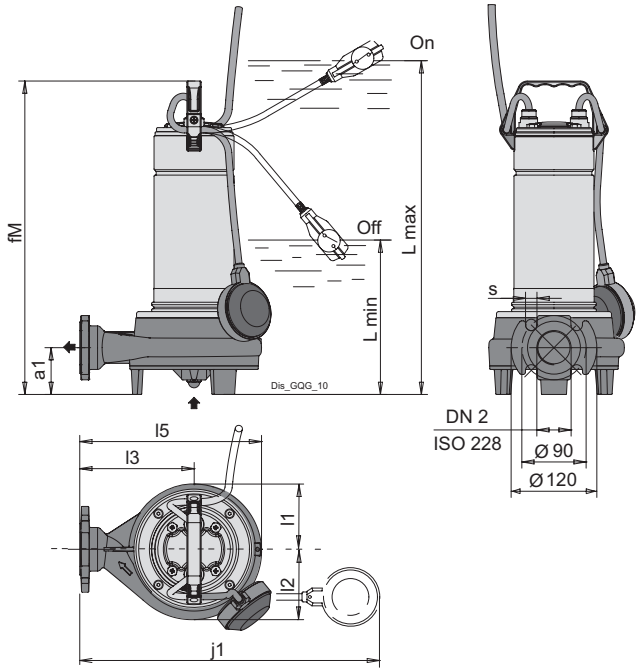
Single-phase

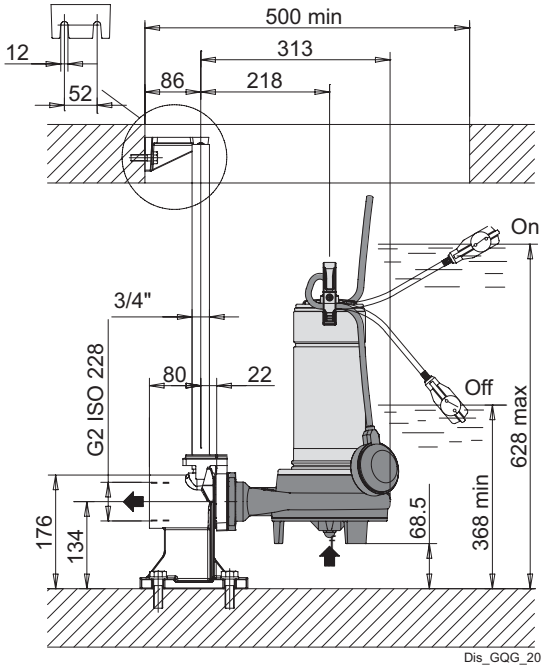
							Q = Flow								
							m³/h	0	3	6	9	12	13,2	15	16,8
Model	230V	Capacitor		P2		P1	l/min		50	100	150	200	220	250	280
	A	Vc	uf	kW	HP	kW	H (m) = Total head								
GQGM 6-18	7	450	30+80	0,9	1,2	1,3		18	16,5	14,5	11,2	6,5	4,5	-	-
GQGM 6-21	7,5	450	30+80	1,1	1,5	1,5		21	19,2	17	13,5	9	7	4	-
GQGM 6-25	9,5	450	30+80	1,5	2	2		25	23	20,5	17	13	11	7,8	4

P1: Maximum power input.
P2: Rated motor power output.
ρ: Density 1000kg/m³
υ: Kinematic viscosity max 20 mm2/sec.

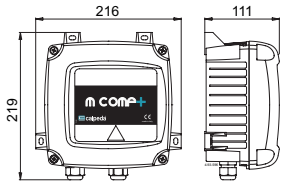
GQG

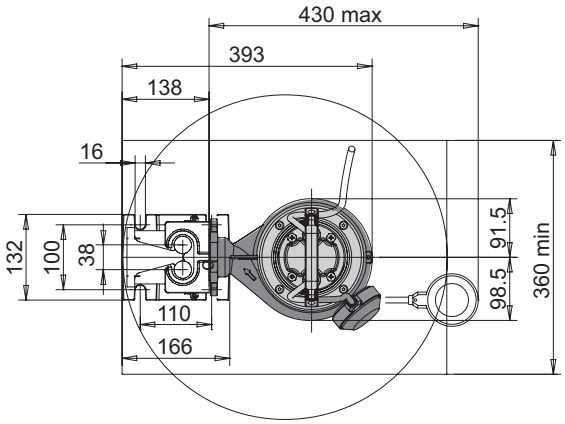
Dimensions and weights





GQGM
Control with box starting capacitors





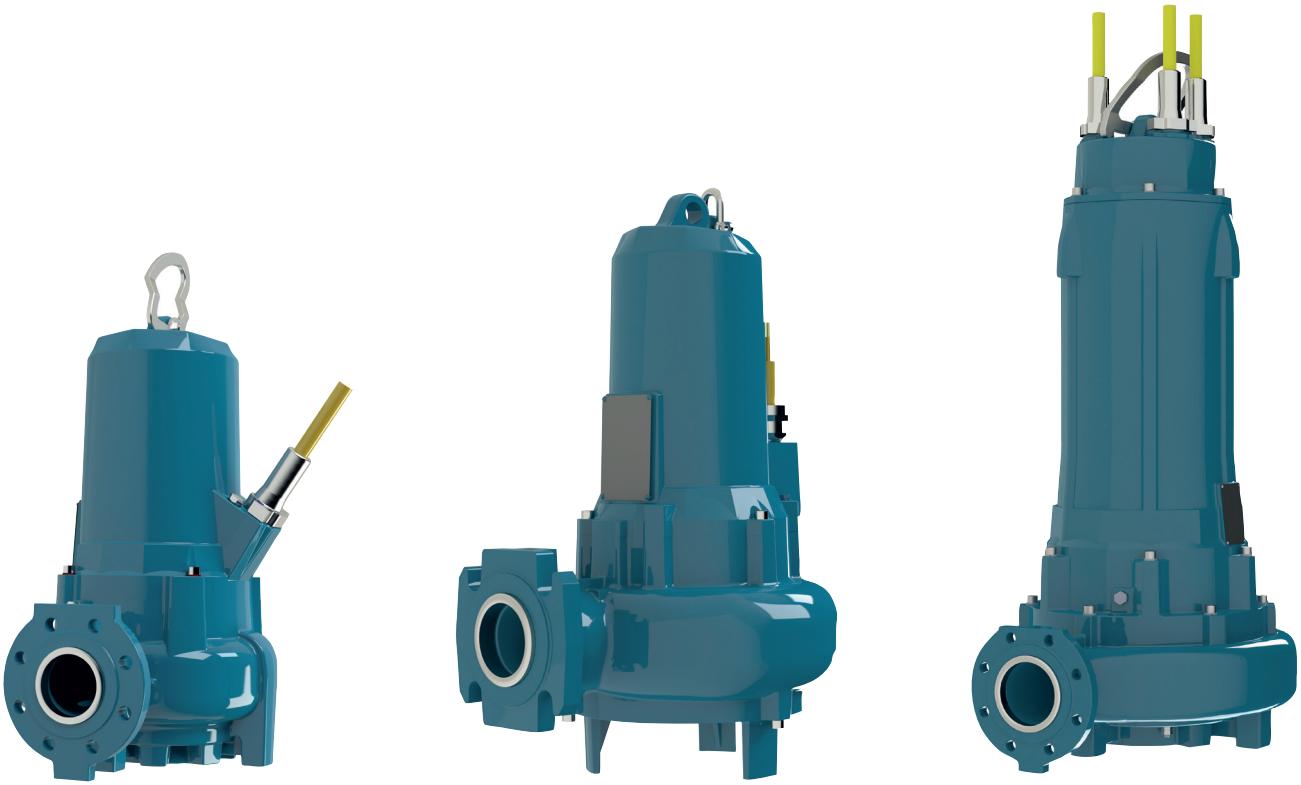
TYPE	ISO 228	mm							kg
	DN2	a1	fM	h2	l1	l2	l5	s	Weight
GQG 6-18	G1 1/2 (DN32)	65	485	160	91	99	255	16	18.4
GQG 6-21	G1 1/2 (DN32)	65	485	160	91	99	255	16	18.6
GQG 6-25	G1 1/2 (DN32)	65	485	160	91	99	255	16	18.7

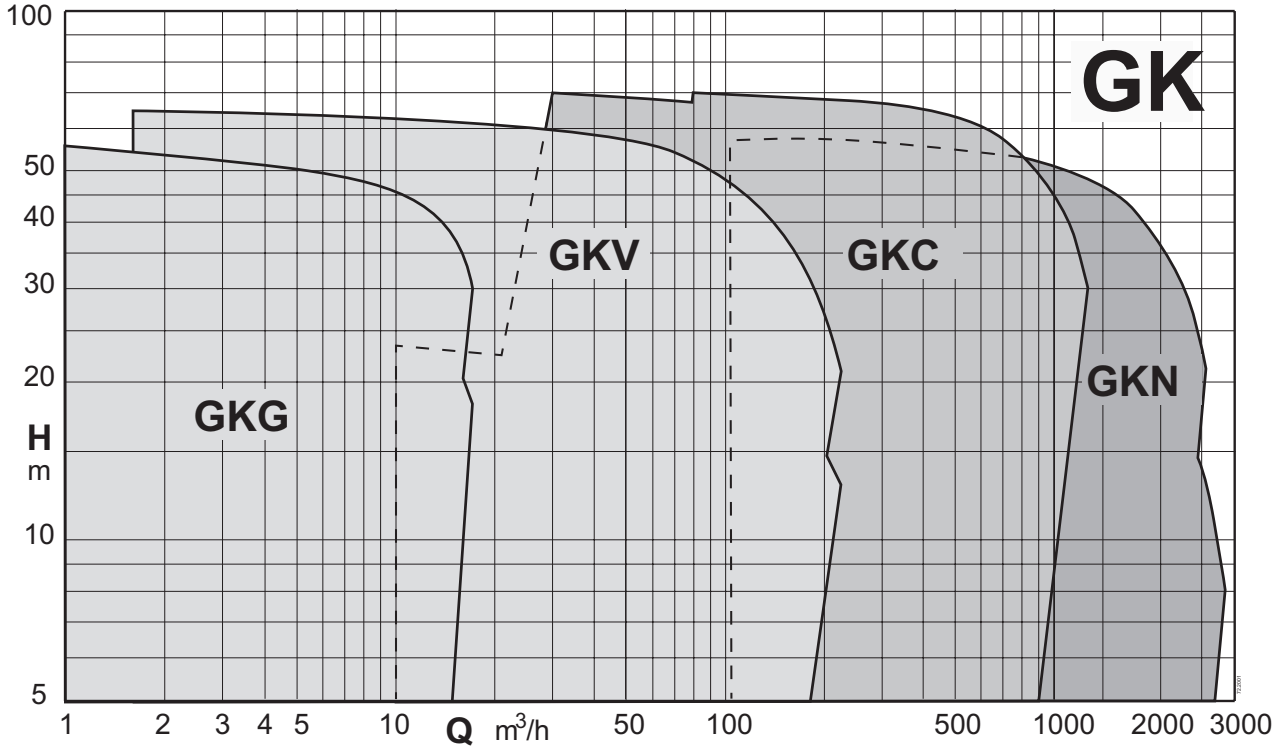
TYPE	ISO 228	mm									kg
	DN2	a1	fM	h2	l1	l2	l5	Lmax	Lmin	s	Weight
GQGM 6-18	G1 1/2 (DN32)	65	485	160	91	99	255	560	300	16	21.8
GQGM 6-21	G1 1/2 (DN32)	65	485	160	91	99	255	560	300	16	21.8
GQGM 6-25	G1 1/2 (DN32)	65	485	160	91	99	255	560	300	16	22

weights With cable length: 10 m

GK

calpeda®





Submersible pumps

GK

The electric submersible sewage pumps have been specially designed to operate submerged in the pumped fluid.
The hydraulic section is close coupled to the electric motor making the pumping unit compact, easy to install and reliable in operation.
The pumps are essential in depuration systems and are widely used in the sewage handling facilities of industry and local communities.
The GK series electric pumps are designed to pump sewage containing gas, compacted solids and long fibrous material.
The pumps can be supplied for fixed or submersible installation with base frame.
The design has paid particular attention to achieving a good overall efficiency to ensure that the pumps are as cheap as possible to run.

MOTOR
Asynchronous, three-phase with squirrel-cage rotor.
The motor is cooled by the fluid in which it is submerged or by a forced cooling system.
The motor is separated from the pump by a large chamber partially filled with oil
that acts as a lubricant for the mechanical seals and as a heat exchanger.
Ensure compliance with the minimum head value given with the dimensions of each individual electric pump in order to ensure that the motor is correctly cooled, the exception being made for motors with forced cooling.

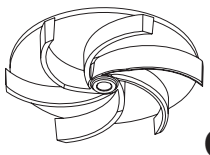
SUPPORTS
The shaft of the motor, on the extension of which the impeller is mounted, is guided by two bearings prelubricated with grease; the lower one supports the axial thrust.
The rotating assembly is very compact, with a short overhung pump shaft which reduces bearing loads and ensures reliability and long life.

MECHANICAL SEALS
The double mechanical seal (mounted in series) is a dual protection safeguarding the electric motor.
If the seal on the pump side becomes faulty, the motor will not be damaged thanks to the second seal on the motor side.
These seals are made of particularly suitable materials able to withstand heavy-duty conditions; the pump side seal is made with abrasionproof materials.

SAFE OPERATION
- The conductivity sensor in the oil chamber warns if there is water and transmits the relative signal to the appropriately preset electric panel.
This checks that the mechanical seals on the pump side operate correctly.
- The motor is equipped with thermal probes connected in series in the stator winding.
Should over-temperature conditions occur, the probes automatically cut off the power.

Electric pumps of the GK series feature three different hydraulics with the following characteristics.

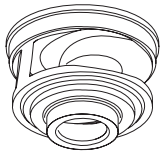
Page



GKV

RETRACTED VORTEX IMPELLER
The impeller offers reliability against clogging due to the feature of wide through passages, and a good resistance to wear thanks to the absence of shimming. The versatility of use compensates for this impellers somewhat lower efficiency. The impeller can be reduced in dimension to offer different characteristics.
For water containing a large amount of solids and long fibre, sewage with a high gas and sludge content.

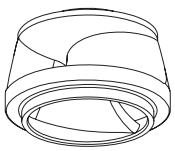
Page



GKC

SINGLE-CHANNEL IMPELLER
It offers reliability against clogging and features wide through sections and a good resistance to wear, low mechanical action on the fluid, high hydraulic efficiency.
Particularly suitable for clean water, water containing solid and fibrous solids, cloacal water, sewage and sludge.
Low vibrations thanks to the dynamically balanced impeller.

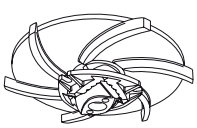
Page



GKN

DOUBLE CHANNEL IMPELLER
It offers reliability against clogging and features wide through sections and a good resistance to wear, low mechanical action on the fluid, high hydraulic efficiency.
Particularly suitable for clean water, water containing solid and fibrous solids, cloacal water, sewage and sludge.
Low vibrations thanks to the dynamically balanced impeller.

Page

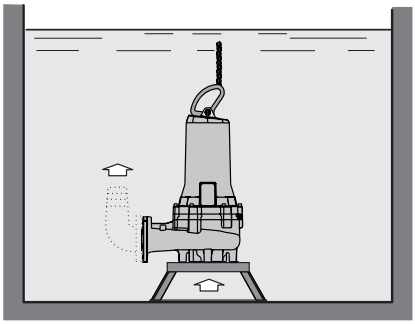


GKG

SHREDDER
Made of very hard stainless steel, the shape of the shredder ensures long-life and fade-free shredding capacity.
Waste water disposal from gas stations, community housing and neighbourhoods.
No particular tools are required to replace this part.

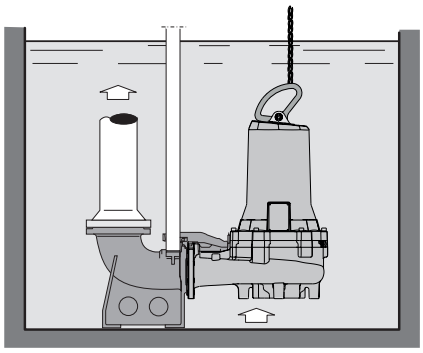
GK

STANDARD INSTALLATIONS



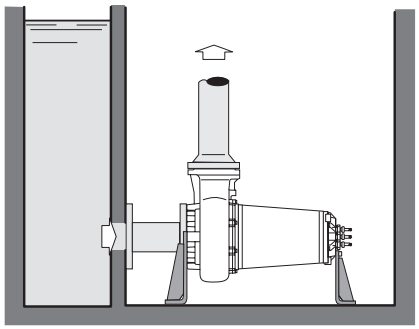
Mobile and emergency immersed installation with support foot
Version only recommended with electric pump installed on a solid and flat support surface and with flexible delivery pipe, particularly suitable for:
- all occasional or exceptional uses
- use on site or where mobility is required
- renovation of existing stations with architectural constraints.

The support frame, flexible delivery pipe bend, chain, etc. are available.

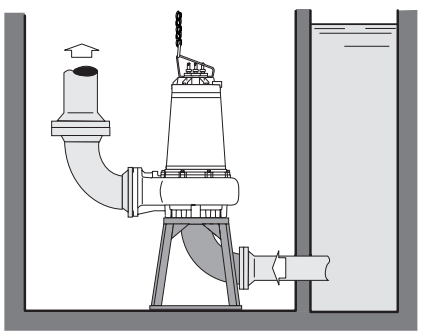


Fixed installation with guide chute and automatic coupling base.
It is the most suitable installation for fixed lifting stations. No special building infrastructures are required and the system is easy to build. The quick coupling allows quick and easy extraction and subsequent repositioning
of the electric pump in the tank, allowing ordinary maintenance or exceptional interventions to be performed in complete safety without having to enter the collection tank. The coupling foot, guide pipes, chain, etc. are available for this installation.

IN A DRY CHAMBER
It is the horizontal or vertical installation that requires a dry chamber, adjacent to the liquid collection tank, to house the electric pump unit.
Compared to traditional non-submersible machines, it has maximum operating safety and absence of risks even in the event that the dry chamber is submerged in liquid. Support stands are available.

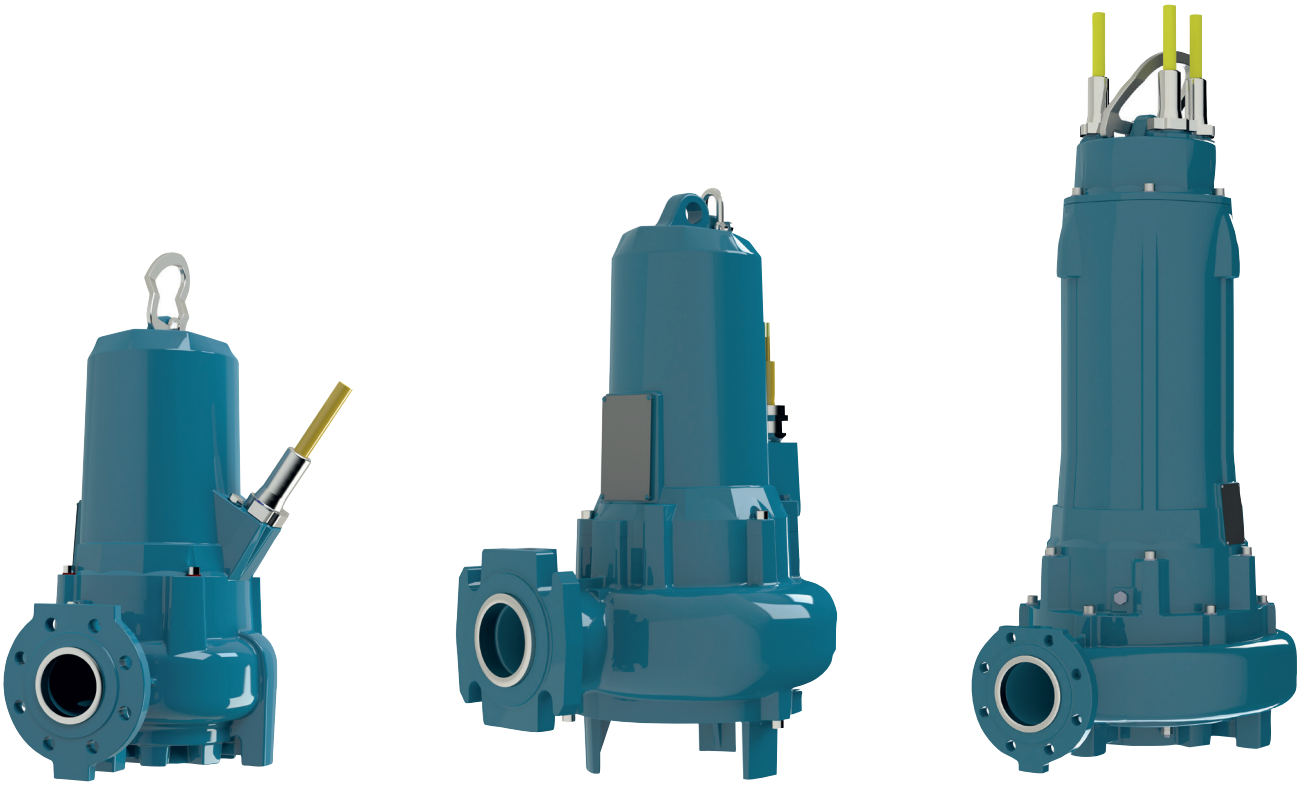


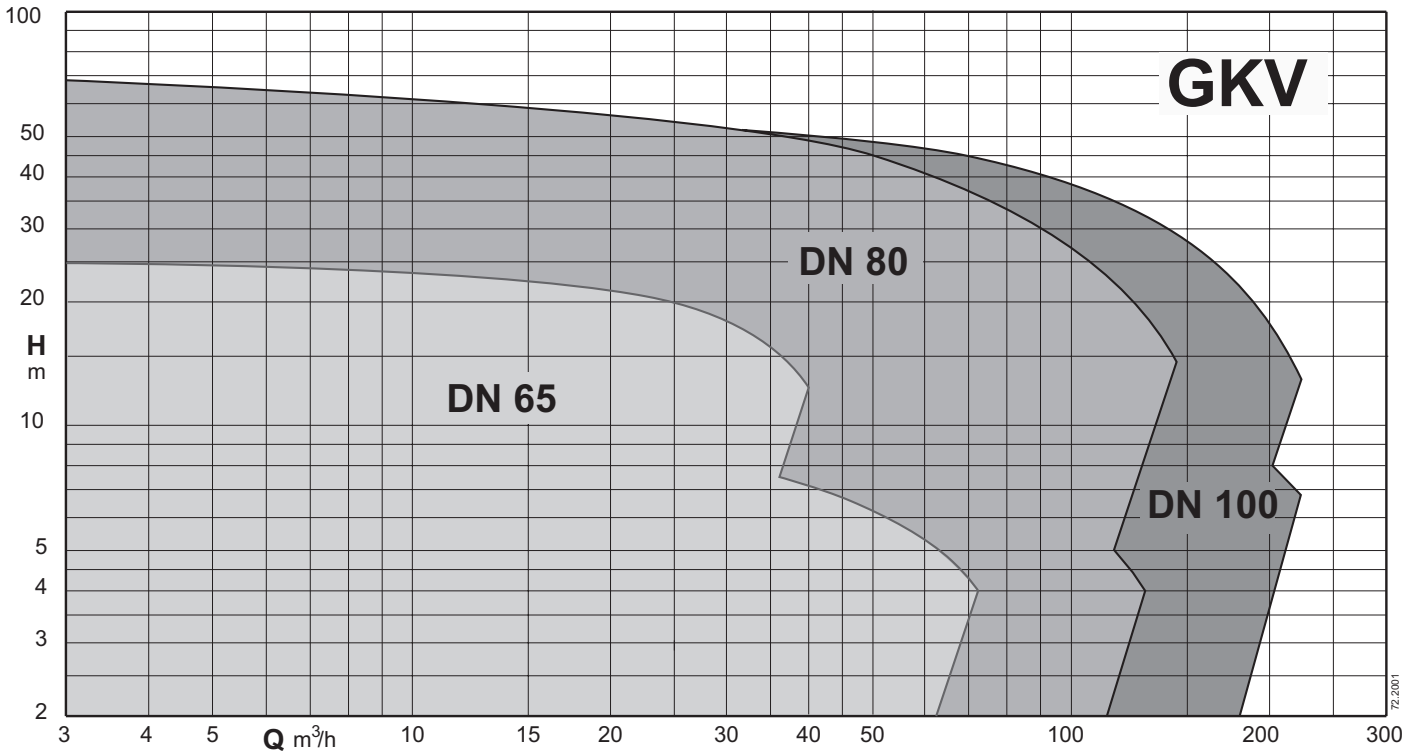
HORIZONTAL
With outlet vent pointing upwards. The electric pump is attached with support brackets.
This arrangement requires a limited number of special pieces. The suction is horizontal and the delivery is vertical with a limited overall height.



VERTICAL
This arrangement allows for maximum ease of inspection and maintenance, the suction and delivery are horizontal and it ensures minimum overall dimensions in plan configuration.

GKV





Submersible pumps with vortex impeller

GKV

Construction

Submersible pumps with vortex impeller.
The impeller offers reliability against clogging due to the feature of wide through passages, and a good resistance to wear thanks to the absence of shimming.
The versatility of use compensates for this impellers somewhat lower efficiency.
The impeller can be reduced in dimension to offer different characteristics.
Delivery port DN 65-80-100.

Applications

For waste water and sewage with suspended bodies and with the presence of filamentous bodies, they are particularly suitable for the emptying of wells or primary collection tanks and septic tanks in domestic, residential and industrial installations.
Solid passage from 40 to 100mm

Operating conditions

Liquid temperature: from 0°C to +40°C.
Maximum immersion depth: 20m (with cable of suitable length).
Maximum working pressure: 80 m.w.c.
pH of the liquid to be lifted: 4 ÷ 10
Continuous service (with water at minimum immersion level).

Materials

Pump casing: cast iron EN-GJL250 UNI-EN 1561-11
Impeller: cast iron EN-GJL250 UNI-EN 1561-11
Motor casing: cast iron EN-GJL250 UNI-EN 1561-11
Shaft: stainless steel X20Cr13 (AISI420)
Motor side mechanical seal: graphite/ceramic
Pump side mechanical seal: silicon carbide/ceramic

Motor

Induction motor with 2, 4 or 6 poles, 50Hz.
Three-phase version: 400V ± 10%up to 4.8 kW
400/690V ± 10%from 5.8 kW
Isolation class: H
Degree of protection: IP 68
Max number of starts per hour:
- 20 up to 5 kW
- 15 up to 10 kW
- 10 for higher powers

Cable: length 10m
Direction of rotation: clockwise top view
Motor suitable for operation with frequency converter.

Special features on request

(Check feasibility according to the model with our Technical Sales Office).
Impeller in stainless steel AISI 316 or bronze.
Bronze impeller seat ring.
Cable length up to 40 m
Other mechanical seal.
Higher or lower liquid or ambient temperatures.
Ceramic coating.
Internal anti-erosion coating, external anti-corrosion.

Designation

GKV4 65-55D-0021F
GK = Series
V = Vortex impeller
4 = Number of poles
65 = Delivery port diameter in mm
55 = Free passage in mm
D = Impeller trim
0021 = Motor size kW x 10
F = Size of electric motor flanging

Technical data

TYPE	Dry chamber version		Probes		Cable		Class	Duck foot coupling	Submersible pump rest	Dry chamber pump rest	Dry chamber pump support
	Vertical	Horizontal	thermal	conductivity	NSSHOU-J	H07RN-F	Isolation /Efficiency				
GKV4 65-55G-0016F	–	–	o	o	–	•	H / IE3	SAK 65-65-2	-	-	-
GKV4 65-55D-0021F	–	–	o	o	–	•	H / IE3	SAK 65-65-2	-	-	-
GKV4 65-55A-0026F	–	–	o	o	–	•	H / IE3	SAK 65-65-2	-	-	-
GKV2 65-40L-0020F	–	–	o	o	–	•	H / IE3	SAK 65-65-2	-	-	-
GKV2 65-40G-0025F	–	–	o	o	–	•	H / IE3	SAK 65-65-2	-	-	-
GKV2 65-40A-0031F	–	–	o	o	–	•	H / IE3	SAK 65-65-2	-	-	-
GKV2 65-40D-0031F	–	–	o	o	–	•	H / IE3	SAK 65-65-2	-	-	-
GKV6 80-80P-0015H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV6 80-80M-0015H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV6 80-80I-0015H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV6 80-80E-0015H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV6 80-80A-0015H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV4 80-80P-0016H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV4 80-80M-0016H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV4 80-80I-0021H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV4 80-80H-0029H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV4 80-80E-0037H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV4 80-80C-0046H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV4 80-80A-0058H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV2 80-80V-0048H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV2 80-80X-0048H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV2 80-80Z-0048H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV2 80-80N-0065H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV2 80-80P-0065H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV2 80-80Q-0065H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV2 80-80R-0065H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV2 80-80T-0065H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV2 80-80W-0048H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV2 80-80W-0065H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3

• = Standard o = Optional # = Version with oil chamber
- = Not present

= In case of operation in a dry chamber or with a low level of the pumped liquid, it is necessary to introduce the cooling oil according to the quantities indicated in the use and maintenance manual

GKV

Technical data

TYPE	Dry chamber version		Probes		Cable		Class	Duck foot coupling	Submersible pump rest	Dry chamber pump rest	Dry chamber pump support
	Vertical	Horizontal	thermal	conductivity	NSSHOU-J	H07RN-F	Isolation				
GKV2 80-80W-0090H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV2 80-80T-0090H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV2 80-80R-0090H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV2 80-80Q-0090H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV2 80-80P-0090H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV2 80-80N-0090H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV2 80-80R-0125L	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV2 80-80P-0165L	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV2 80-80L-0165L	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV2 80-80G-0165L	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV2 80-80D-0165L	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV2 80-80A-0165L	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKV6 100-100E-0040L	#	#	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100	APCK 100	SOK100/N3
GKV6 100-100C-0040L	#	#	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100	APCK 100	SOK100/N3
GKV6 100-100A-0040L	#	#	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100	APCK 100	SOK100/N3
GKV4 100-100R-0021H	#	#	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100	APCK 100	SOK100/N3
GKV4 100-100N-0029H	#	#	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100	APCK 100	SOK100/N3
GKV4 100-100L-0037H	#	#	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100	APCK 100	SOK100/N3
GKV4 100-100F-0046H	#	#	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100	APCK 100	SOK100/N3
GKV4 100-100A-0058H	#	#	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100	APCK 100	SOK100/N3
GKV4 100-100E-0075L	#	#	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100	APCK 100	SOK100/N3
GKV4 100-100C-0105L	#	#	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100	APCK 100	SOK100/N3
GKV4 100-100A-0125L	#	#	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100	APCK 100	SOK100/N3
GKV2 100-80L-0260N	#	–	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100A	APCK 100	-
GKV2 100-80I-0260N	#	–	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100A	APCK 100	-
GKV2 100-80H-0350N	#	–	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100A	APCK 100	-
GKV2 100-80G-0350N	#	–	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100A	APCK 100	-
GKV2 100-80F-0350N	#	–	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100A	APCK 100	-
GKV2 100-80E-0350N	#	–	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100A	APCK 100	-
GKV2 100-80D-0350N	#	–	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100A	APCK 100	-

• = Standard
- = Not present
o = Optional
# = Version with oil chamber
# = In case of operation in a dry chamber or with a low level of the pumped liquid, it is necessary to introduce the cooling oil according to the quantities indicated in the use and maintenance manual

GKV

calpeda®

Performance

n ≈ 1450 1/min

			Q = Flow													
			m³/h	0	2,9	3,6	7,2	10,8	14,4	18	21,5	25,2	28,8	32,4	36	54	72
Model	400V	P2	l/min	0	48,33	60	120	180	240	300	358	420	480	540	600	900	1200
	A	kW	H (m) = Total head														
GKV4 65-55G-0016F	3,7	1,6		7,8	7,8	7,7	7,7	7,5	7,3	7,1	6,9	6,6	6,3	5,9	5,5	2,7	-
GKV4 65-55D-0021F	5,1	2,1		9,3	9,3	9,1	9,1	8,9	8,6	8,4	8,1	7,9	7,6	7,4	7,1	4,8	-
GKV4 65-55A-0026F	5,8	2,6		10,6	10,5	10,4	10,2	10	9,9	9,7	9,4	9,2	8,9	8,7	8,4	6,5	4,1

n ≈ 2850 1/min

			Q = Flow															
			m³/h	0	2,2	2,5	2,9	3,2	3,6	7,2	10,8	14,4	18	21,5	25,2	28,8	32,4	36	39,6
Model	400V	P2	l/min		36,66	41,66	48,33	53,33	60	120	180	240	300	358	420	480	540	600	660
	A	kW	H (m) = Total head																
GKV2 65-40L-0020F	4,1	2		15,8	15	14,9	14,7	14,6	14,5	13,3	12,4	11,6	10,8	10,1	9,3	8,6	7,8	7	6,2
GKV2 65-40G-0025F	5,5	2,5		17,4	16,9	16,8	16,7	16,6	16,6	15,7	14,9	14,2	13,5	12,8	12,1	11,3	10,4	9,5	8,5
GKV2 65-40A-0031F	5,6	3,1		26,8	-	-	-	-	-	24,5	23,4	22,3	21,2	20,1	18,9	-	-	-	-
GKV2 65-40D-0031F	5,6	3,1		22,7	22	21,9	21,8	21,7	21,6	20,6	19,6	18,6	17,7	16,8	15,9	14,8	13,8	12,7	11,6

n ≈ 950 1/min

			Q = Flow														
			m³/h	0	2,2	2,9	3,6	7,2	10,8	14,4	18	21,5	25,2	28,8	32,4	36	54	72
Model	400V	P2	l/min		36,66	48,33	60	120	180	240	300	358	420	480	540	600	900	1200
	A	kW	H (m) = Total head															
GKV6 80-80P-0015H	3,4	1,5		3,1	3,1	3,1	3	2,9	2,7	2,5	2,2	2	1,7	1,4	1	0,6	-	-
GKV6 80-80M-0015H	3,4	1,5		4,1	4	4	4	3,8	3,6	3,4	3,2	2,9	2,7	2,4	2,1	1,8	-	-
GKV6 80-80I-0015H	3,4	1,5		4,7	4,6	4,6	4,6	4,4	4,3	4,1	3,9	3,7	3,4	3,2	2,9	2,7	1,4	-
GKV6 80-80E-0015H	3,4	1,5		6,1	6	6	6	5,8	5,6	5,4	5,2	5	4,8	4,6	4,4	4,2	2,9	1,4
GKV6 80-80A-0015H	3,4	1,5		7,6	7,5	7,4	7,4	7,2	7	6,7	6,5	6,3	6,1	5,9	5,7	5,4	4,2	2,7

n ≈ 1450 1/min

						Q = Flow												
						m³/h	0	2,9	3,6	7,2	14,4	21,5	28,8	36	54	72	90	108	126
Model	400V	400V	690V	P2	P2	l/min	0	48,33	60	120	240	358	480	600	900	1200	1500	1800	2100
	A	A	A	kW	HP	H (m) = Total head													
GKV4 80-80P-0016H	3,4	-	-	1,6	-		6,9	6,8	6,8	6,6	6,1	5,4	4,6	3,7	-	-	-	-	-
GKV4 80-80M-0016H	3,4	-	-	1,6	-		9,4	9,2	9,1	8,9	8,3	7,8	7,2	6,4	4,3	-	-	-	-
GKV4 80-80I-0021H	5,0	-	-	2,1	-		10,9	10,8	10,7	10,5	10	9,5	8,8	8,1	6,2	4,1	-	-	-
GKV4 80-80H-0029H	6,1	-	-	2,9	-		12,4	12,2	12,2	11,9	11,4	10,9	10,2	9,6	7,7	5,6	3,3	-	-
GKV4 80-80E-0037H	7,7	-	-	3,7	5		14,1	13,9	13,8	13,5	12,9	12,3	11,7	11,1	9,6	7,7	5,6	3	-
GKV4 80-80C-0046H	9,5	-	-	4,6	-		15,7	15,5	15,5	15,2	14,6	14	13,4	12,7	11,1	9,4	7,6	5,7	-
GKV4 80-80A-0058H	-	11,9	6,9	5,8	-		17,3	17	16,9	16,6	15,8	15	14,3	13,6	12,1	10,5	8,7	6,5	4,2

n ≈ 2850 1/min

					Q = Flow														
					m³/h	0	1,4	2,2	2,9	3,6	7,2	10,8	14,4	18	21,5	25,2	28,8	32,4	36	54	72
Model	400V		690V	P2	l/min	0	23,33	36,66	48,33	60	120	180	240	300	358	420	480	540	600	900	1200
	A			kW	H (m) = Total head																
GKV2 80-80V-0048H	8,9	-	-	4,8		19,5	19,5	19,4	19,4	19,4	19,1	18,8	18,3	17,9	17,3	16,8	16,2	15,6	15	-	-
GKV2 80-80X-0048H	8,9	-	-	4,8		17	17	16,9	16,9	16,9	16,6	16,2	15,8	15,4	15	14,5	14,1	13,6	13,1	10,5	-
GKV2 80-80Z-0048H	8,9	-	-	4,8		14	14	13,9	13,9	13,9	13,6	13,3	12,9	12,5	12	11,5	11	10,5	9,9	6,6	-
GKV2 80-80W-0048H	8,9	-	-	4,8		25,1	25	24,9	24,8	24,8	24,4	24	23,5	23,1	22,5	22	21,3	20,6	-	-	-
GKV2 80-80N-0065H	-	11,9	6,9	6,5		34,9	34,8	34,8	34,8	34,8	34,6	34,2	33,5	32,6	31,7	-	-	-	-	-	-
GKV2 80-80P-0065H	-	11,9	6,9	6,5		28,8	28,6	28,5	28,4	28,3	27,9	27,5	27,1	26,6	26,2	25,7	25,1	24,5	23,9	-	-
GKV2 80-80Q-0065H	-	11,9	6,9	6,5		33,1	33,1	33,1	33,1	33	32,7	32,2	31,7	31,1	30,5	29,9	29,4	-	-	-	-
GKV2 80-80R-0065H	-	11,9	6,9	6,5		30,9	30,8	30,7	30,7	30,6	30,3	30	29,5	28,9	28,3	27,6	27	26,3	25,5	-	-
GKV2 80-80T-0065H	-	11,9	6,9	6,5		26,7	26,6	26,6	26,6	26,5	26,2	25,9	25,4	24,9	24,3	23,7	23,1	22,4	21,7	18,2	-
GKV2 80-80W-0065H	-	11,9	6,9	6,5		25,6	25,5	25,5	25,5	25,4	25,1	24,7	24,2	23,6	23	22,4	21,7	21,1	20,4	16,6	12,3

GKV

calpeda®

Performance

n ≈ 2850 1/min

				Q = Flow																	
				m³/h	0	1,4	2,2	2,9	3,2	3,6	7,2	14,4	21,5	28,8	36	54	72	90	108	126	144
Model	400V	690V	P2	l/min		23,33	36,66	48,33	53,33	60	120	240	358	480	600	900	1200	1500	1800	2100	2400
	A		kW	H (m) = Total head																	
GKV2 80-80W-0090H	16,3	9,4	9		25,5	-	-	-	25,2	25,2	24,9	24	22,9	21,6	20,3	16,9	13,5	10,4	7,6	4,9	-
GKV2 80-80T-0090H	16,3	9,4	9		26,6	-	-	-	26,3	26,3	25,9	25,1	24	22,9	21,6	18	14,5	11,2	8,3	-	-
GKV2 80-80R-0090H	16,3	9,4	9		30,7	-	-	-	30,4	30,4	30,1	29,2	28	26,8	25,4	21,6	17,7	13,9	10,3	-	-
GKV2 80-80Q-0090H	16,3	9,4	9		33	-	-	-	32,7	32,7	32,3	31,4	30,2	28,8	27,2	23,1	19	15	-	-	-
GKV2 80-80P-0090H	16,3	9,4	9		28,7	-	-	-	28,4	28,4	28,1	27,2	26,2	25	23,6	19,9	16	12,5	9,4	-	-
GKV2 80-80N-0090H	16,3	9,4	9		34,9	-	-	-	34,8	34,7	34,5	33,5	32	30,4	28,9	25,6	-	-	-	-	-
GKV2 80-80R-0125L	22,4	12,9	12,5		33,3	33,2	33,1	33,1	-	33	32,7	31,9	31	29,9	28,7	25,3	21,5	17,8	14,3	11,2	8,4
GKV2 80-80P-0165L	31	17,9	16,5		41,8	41,7	41,7	41,6	-	41,6	41,5	40,7	39,6	38,3	36,9	33,2	29,3	25,5	21,8	18,1	14,1
GKV2 80-80L-0165L	31	17,9	16,5		47,7	47,6	47,6	47,6	-	47,5	47,3	46,5	45,5	44,3	43	39,7	36,5	33,1	-	-	-
GKV2 80-80G-0165L	31	17,9	16,5		55,2	55,2	55,1	55,1	-	55,1	54,9	54,2	53,1	51,7	50,3	46,6	-	-	-	-	-
GKV2 80-80D-0165L	31	17,9	16,5		61,5	61,4	61,4	61,3	-	61,2	60,8	59,8	58,2	56,1	53,7	-	-	-	-	-	-
GKV2 80-80A-0165L	31	17,9	16,5		67,7	67,6	67,5	67,4	-	67,3	66,7	65,2	-	-	-	-	-	-	-	-	-

n ≈ 950 1/min

			Q = Flow											
			m³/h	0	7,2	14,4	21,5	28,8	36	54	72	90	108	126	144
Model	400V	P2	l/min		120	240	358	480	600	900	1200	1500	1800	2100	2400
	A	kW	H (m) = Total head												
GKV6 100-100E-0040L	9	4		7,3	7,1	6,9	6,6	6,3	6	5,2	4,2	3,1	1,7	-	-
GKV6 100-100C-0040L	9	4		8,3	8,1	7,9	7,7	7,4	7,2	6,4	5,5	4,5	3,3	2,1	0,7
GKV6 100-100A-0040L	9	4		10,1	9,8	9,5	9,2	8,9	8,6	7,9	7,2	6,4	5,4	4,3	2,9

n ≈ 1450 1/min

				Q = Flow																
				m³/h	0	7,2	14,4	21,5	28,8	36	45	54	63	72	81	90	99	108	117	126
Model	400V	690V	P2	l/min	0	120	240	358	480	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100
	A		kW	H (m) = Total head																
GKV4 100-100R-0021H	5,0	-	-	2,1		7,4	7,2	7	6,8	6,5	6,1	5,7	5,1	4,5	3,8	3,1	2,4	-	-	-	-
GKV4 100-100N-0029H	6,1	-	-	2,9		8,8	8,6	8,3	8,1	7,8	7,5	7,1	6,6	6	5,3	4,6	3,8	2,9	2	-	-
GKV4 100-100L-0037H	7,7	-	-	3,7		10	9,7	9,4	9,2	8,9	8,5	8,1	7,5	6,9	6,3	5,7	5	4,4	3,8	3,1	2,3
GKV4 100-100F-0046H	9,5	-	-	4,6		11,6	11,5	11,3	11,1	10,7	10,4	9,9	9,3	8,8	8,3	7,7	7,1	6,5	5,9	5,2	-
GKV4 100-100A-0058H	-	11,9	6,9	5,8		15	14,5	14,1	13,8	13,4	13,1	12,6	12,2	11,8	11,3	10,8	10,3	9,7	9,1	-	-

n ≈ 1450 1/min

				Q = Flow													
				m³/h	0	10,8	18	36	54	72	90	108	126	144	162	180	216
Model	400V	690V	P2	l/min		180	300	600	900	1200	1500	1800	2100	2400	2700	3000	3600
	A		kW	H (m) = Total head													
GKV4 100-100E-0075L	15,3	8,8	7,5		16,6	16,4	16,2	15,2	14	12,7	11,2	9,7	8,2	6,7	5,2	-	-
GKV4 100-100C-0105L	20	11,5	10,5		18,8	18,5	18,2	17,2	16,1	14,9	13,6	12,2	10,8	9,4	7,8	6,1	-
GKV4 100-100A-0125L	24	13,9	12,5		23	22,4	22,1	21,1	20	18,9	17,7	16,5	15,3	13,9	12,6	11,1	7,9

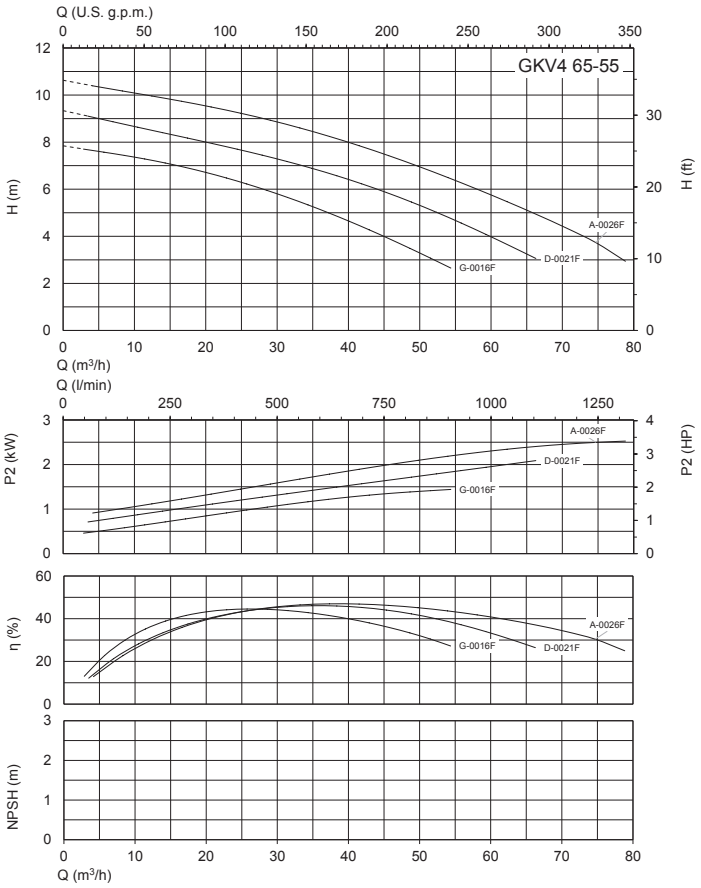
n ≈ 2850 1/min

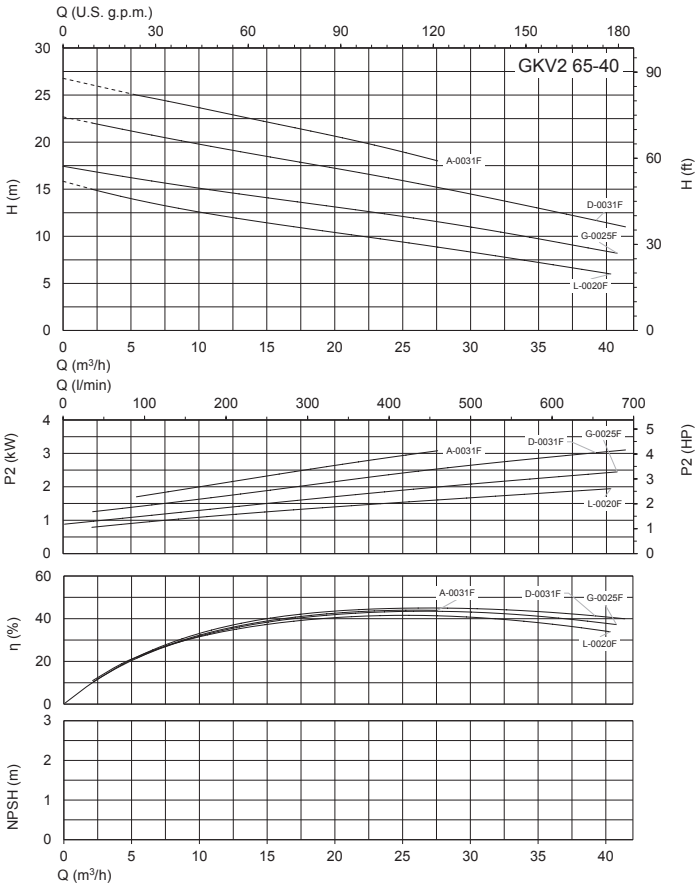
				Q = Flow																
				m³/h	0	7,2	14,4	21,5	28,8	36	54	72	90	108	126	144	162	180	198	216
Model	400V	690V	P2	l/min		120	240	358	480	600	900	1200	1500	1800	2100	2400	2700	3000	3300	3600
	A		kW	H (m) = Total head																
GKV2 100-80L-0260N	44,6	25,7	26		29,2	28,8	28,3	27,8	27,3	26,7	25,2	23,5	21,7	19,7	17,6	15,3	12,9	10,4	7,9	-
GKV2 100-80I-0260N	44,6	25,7	26		35,4	35	34,7	34,2	33,8	33,3	31,8	30,2	28,3	26,2	23,9	21,5	19	16,3	-	-
GKV2 100-80H-0350N	57,8	33,4	35		40,6	40,1	39,6	39,1	38,6	38,1	36,8	35,4	33,8	32,1	30,1	27,8	25,4	22,7	19,8	16,8
GKV2 100-80G-0350N	57,8	33,4	35		45,5	45,1	44,6	44,2	43,7	43,2	41,9	40,3	38,5	36,5	34,3	32	29,4	26,7	-	-
GKV2 100-80F-0350N	57,8	33,4	35		49,7	49,3	48,9	48,5	48,1	47,6	46,1	44,3	42,2	40	37,6	34,9	-	-	-	-
GKV2 100-80E-0350N	57,8	33,4	35		53,4	53,1	52,7	52,3	51,9	51,4	50	48,3	46,2	43,9	41,5	-	-	-	-	-
GKV2 100-80D-0350N	57,8	33,4	35		56,3	56	55,7	55,3	54,9	54,4	52,9	51,1	49	46,6	-	-	-	-	-	-

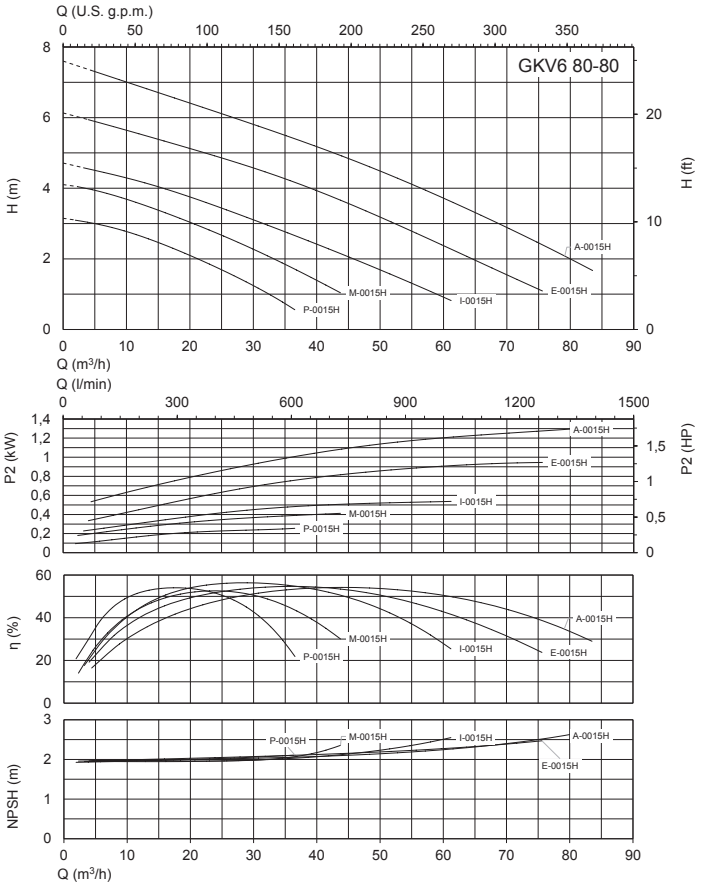
GKV

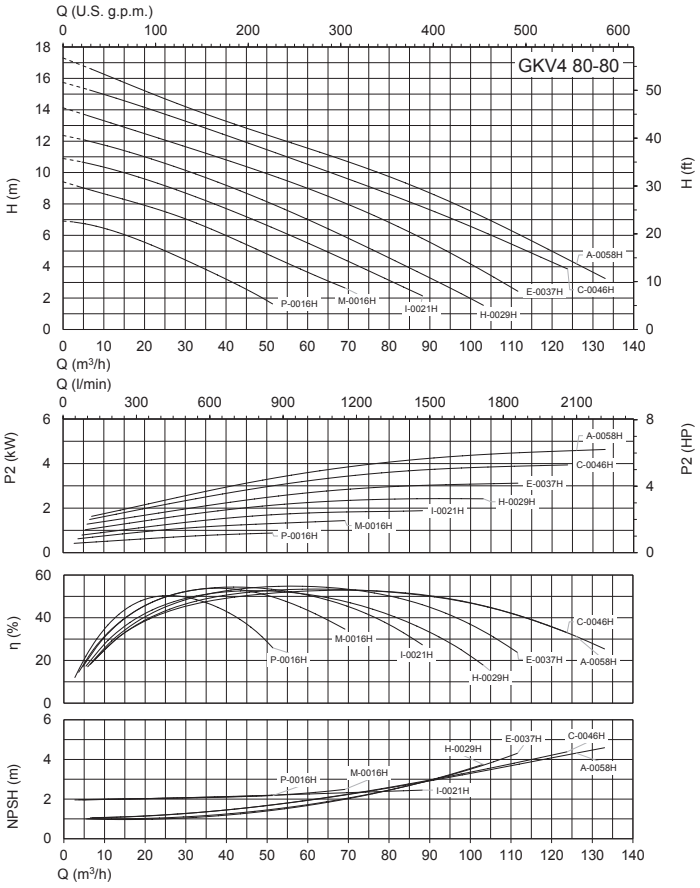
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Characteristic curves





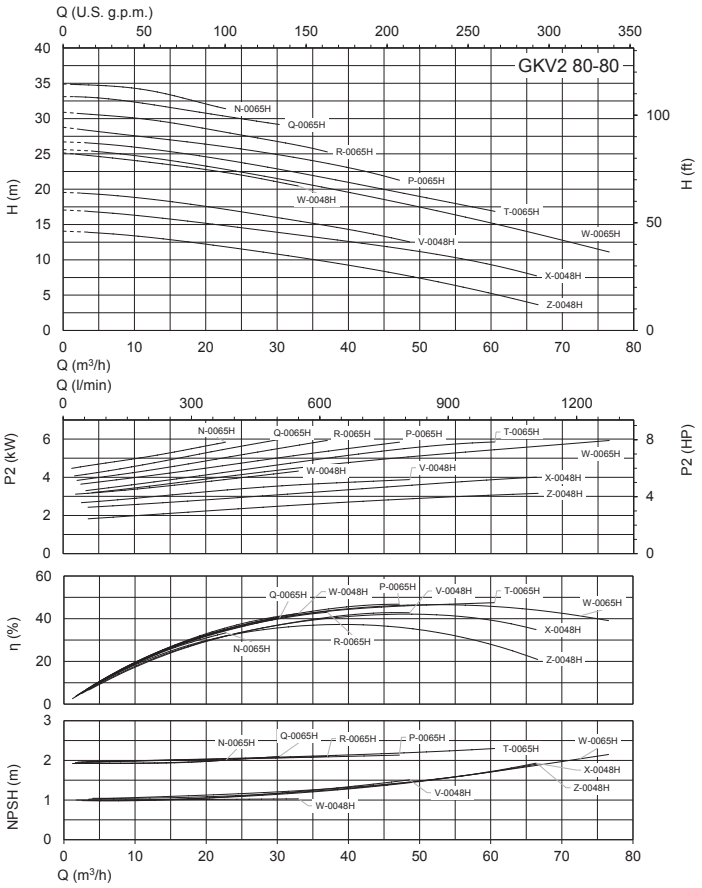


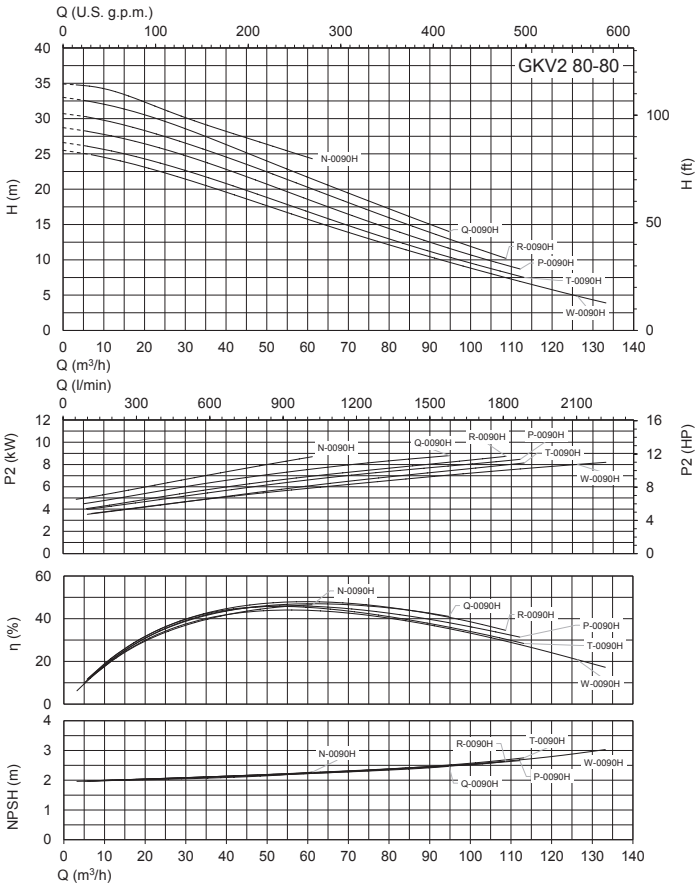


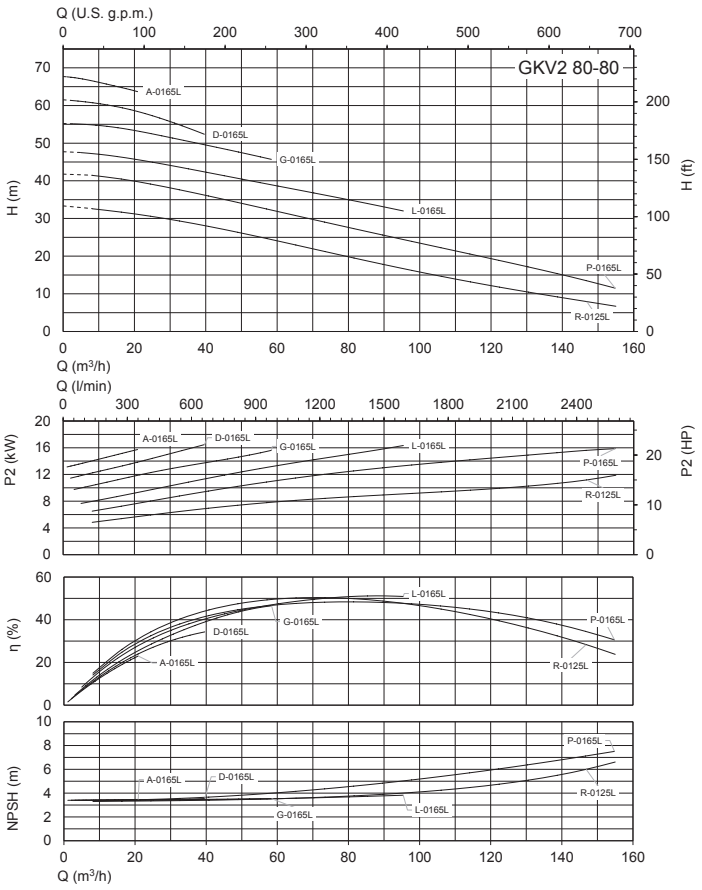
GKV

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Characteristic curves



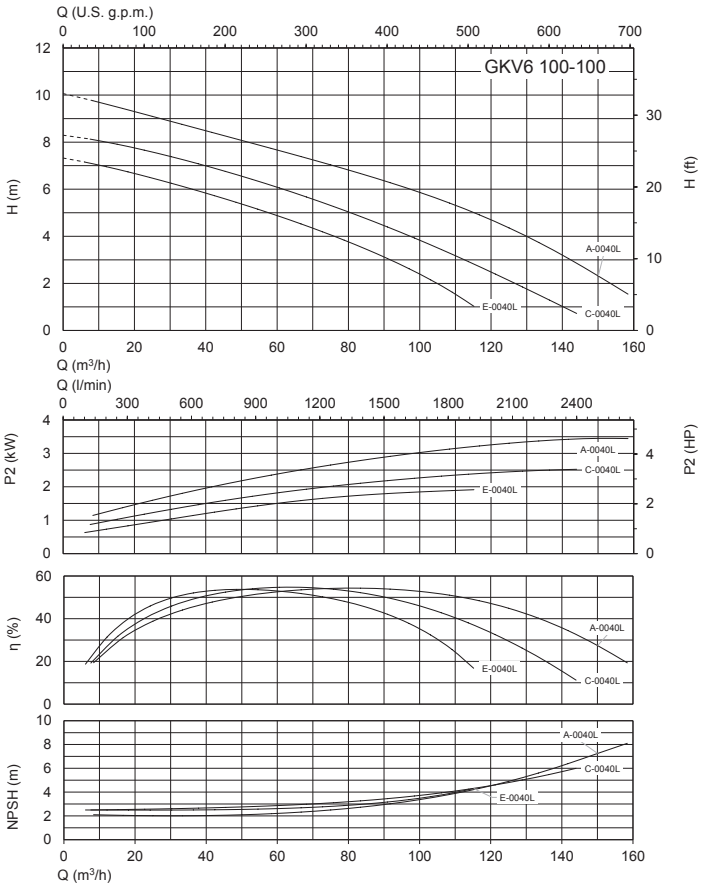


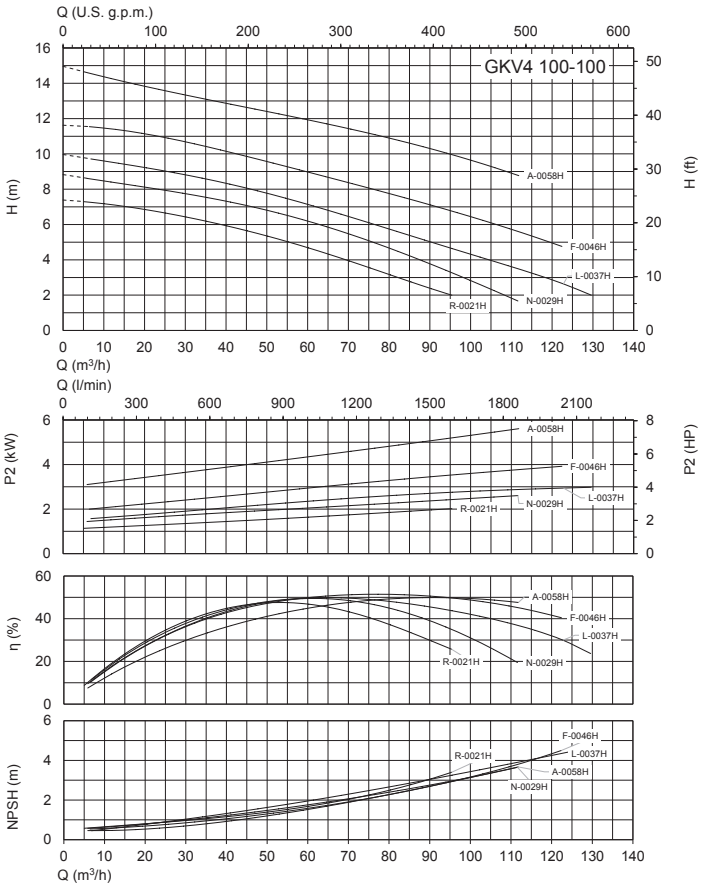


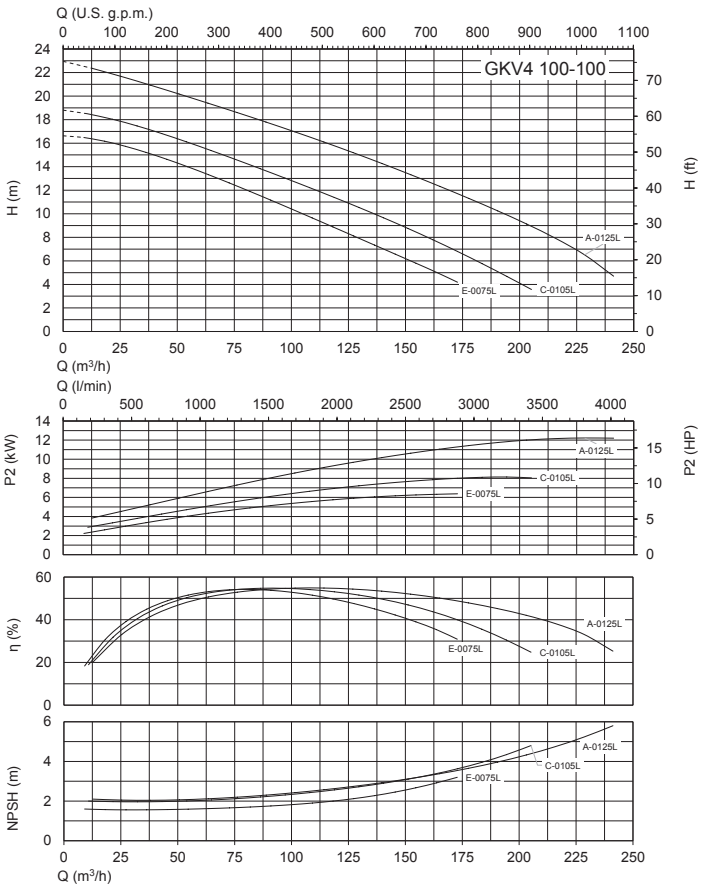
GKV

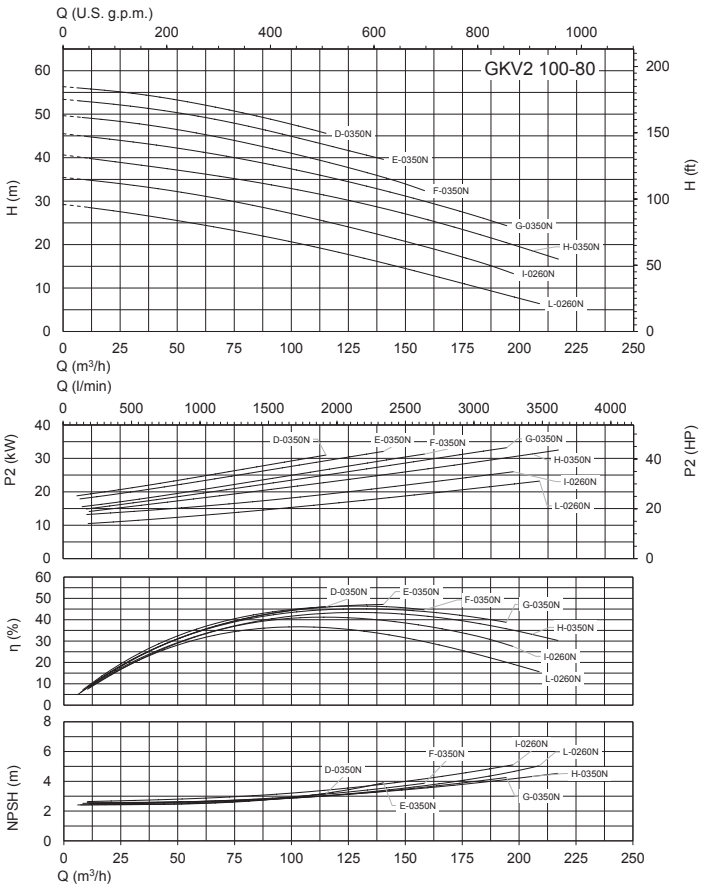
calpeda®

Characteristic curves









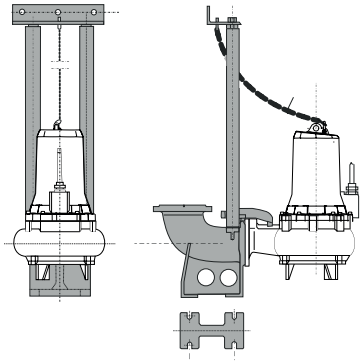
GKV

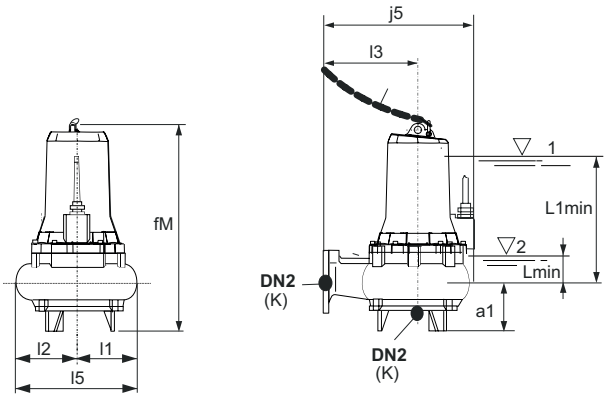
calpeda®

Dimensions and weights

Duck foot coupling

SAK





TYPE		mm										Kg
	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKV4 65-55G-0016F	65	140	565.6	373	16	148	148	225	296	255	90	63
GKV4 65-55D-0021F	65	140	565.6	373	16	148	148	225	296	255	90	63
GKV4 65-55A-0026F	65	140	565.6	373	16	148	148	225	296	255	90	66
GKV2 65-40L-0020F	65	107.5	529.6	363	16	113	113	225	226	282.5	92.5	54
GKV2 65-40G-0025F	65	107.5	529.6	370	16	113	113	225	226	282.5	92.5	56
GKV2 65-40A-0031F	65	107.5	533.6	370	16	113	113	225	226	282.5	92.5	61
GKV2 65-40D-0031F	65	107.5	533.6	370	16	113	113	225	226	282.5	92.5	60

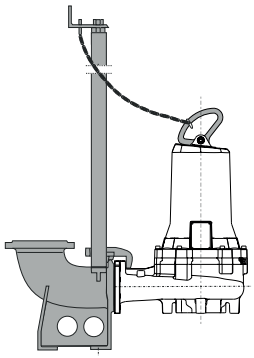
L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

GKV

Dimensions and weights

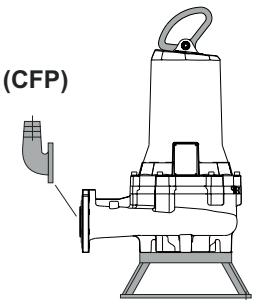
Duck foot coupling

SAK



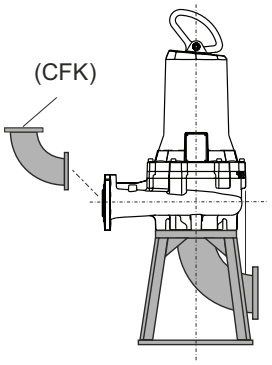
Submersible pump rest

APK



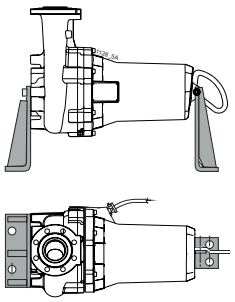
Dry chamber pump rest

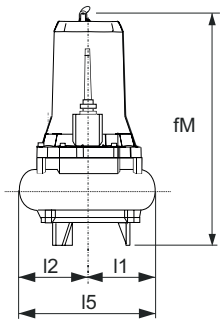
APCK

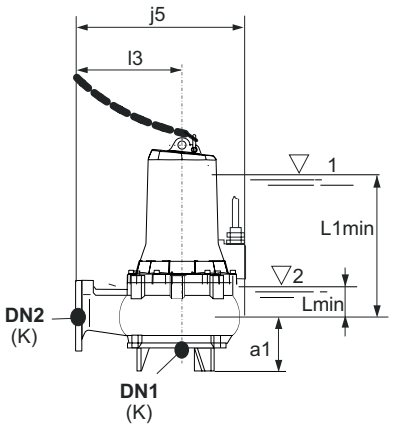


Dry chamber pump support

SOK







TYPE			mm										Kg
	DN1	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKV6 80-80P-0015H	80	80	92	638.3	392	16	204.5	146	245	350.5	315	97	83.6
GKV6 80-80M-0015H	80	80	92	638.3	392	16	204.5	146	245	350.5	315	97	84.5
GKV6 80-80I-0015H	80	80	92	638.3	392	16	204.5	146	245	350.5	315	97	81.6
GKV6 80-80E-0015H	80	80	92	638.3	392	16	204.5	146	245	350.5	315	97	86.6
GKV6 80-80A-0015H	80	80	92	638.3	392	16	204.5	146	245	350.5	315	97	82.7
GKV4 80-80P-0016H	80	80	92	638.3	392	16	204.5	146	245	350.5	315	97	87.8
GKV4 80-80M-0016H	80	80	92	638.3	392	16	204.5	146	245	350.5	315	97	88.7
GKV4 80-80I-0021H	80	80	92	638.3	392	16	204.5	146	245	350.5	315	97	90.2
GKV4 80-80H-0029H	80	80	92	638.3	392	16	204.5	146	245	350.5	315	97	89
GKV4 80-80E-0037H	80	80	92	707.4	392	16	221	146	245	367	349	97	109.5
GKV4 80-80C-0046H	80	80	92	707.4	392	16	221	146	245	367	349	97	109.7
GKV4 80-80A-0058H	80	80	92	707.4	392	16	221	146	245	367	349	97	109

L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

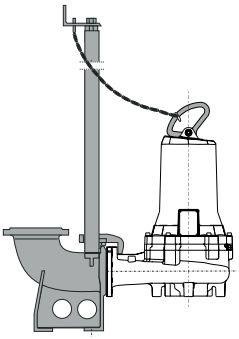
GKV

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Dimensions and weights

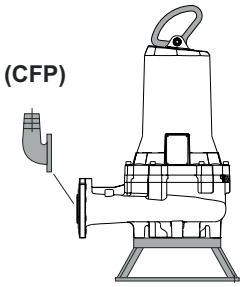
Duck foot coupling

SAK



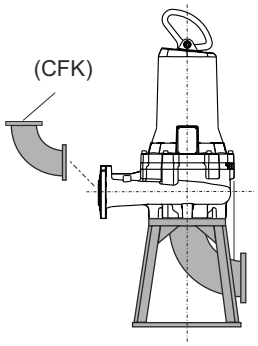
Submersible pump rest

APK



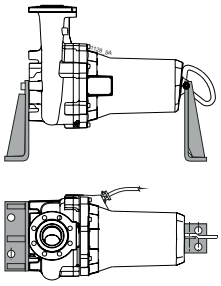
Dry chamber pump rest

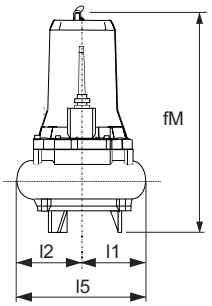
APCK

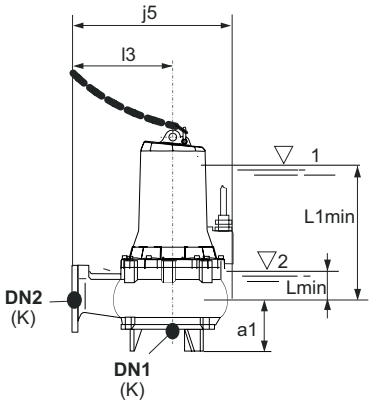


Dry chamber pump support

SOK







TYPE			mm										Kg
	DN1	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKV2 80-80V-0048H	80	80	92	638.3	392	16	204.5	146	245	350.5	349	97	92.8
GKV2 80-80X-0048H	80	80	92	638.3	392	16	204.5	146	245	350.5	349	97	92.7
GKV2 80-80Z-0048H	80	80	92	638.3	392	16	204.5	146	245	350.5	349	97	92.5
GKV2 80-80N-0065H	80	80	92	707.4	392	16	221	146	245	367	349	97	112.8
GKV2 80-80P-0065H	80	80	92	707.4	392	16	221	146	245	367	349	97	112.4
GKV2 80-80Q-0065H	80	80	92	707.4	392	16	221	146	245	367	349	97	113
GKV2 80-80R-0065H	80	80	92	707.4	392	16	221	146	245	367	349	97	112.6
GKV2 80-80T-0065H	80	80	92	707.4	392	16	221	146	245	367	349	97	108
GKV2 80-80W-0048H	80	80	92	638.3	392	16	204.5	146	245	350.5	349	97	90
GKV2 80-80W-0065H	80	80	92	707.4	392	16	221	146	245	367	349	97	105
GKV2 80-80W-0090H	80	80	92	707.4	392	16	221	146	245	367	349	97	-
GKV2 80-80T-0090H	80	80	92	707.4	392	16	221	146	245	367	349	97	-
GKV2 80-80R-0090H	80	80	92	707.4	392	16	221	146	245	367	349	97	-
GKV2 80-80Q-0090H	80	80	92	707.4	392	16	221	146	245	367	349	97	-
GKV2 80-80P-0090H	80	80	92	707.4	392	16	221	146	245	367	349	97	-
GKV2 80-80N-0090H	80	80	92	707.4	392	16	221	146	245	367	349	97	108
GKV2 80-80R-0125L	80	80	99	775	543	16	225.5	165	370	390.5	446	98	144.2
GKV2 80-80P-0165L	80	80	99	777.4	543	16	236.5	165	370	401.5	446	98	169
GKV2 80-80L-0165L	80	80	99	777.4	543	16	236.5	165	370	401.5	446	98	169.1
GKV2 80-80G-0165L	80	80	99	777.4	543	16	236.5	165	370	401.5	446	98	169.4
GKV2 80-80D-0165L	80	80	99	777.4	543	16	236.5	165	370	401.5	446	98	169.7
GKV2 80-80A-0165L	80	80	99	777.4	543	16	236.5	165	370	401.5	446	98	163

L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

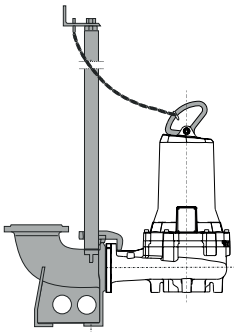
GKV

calpeda®

Dimensions and weights

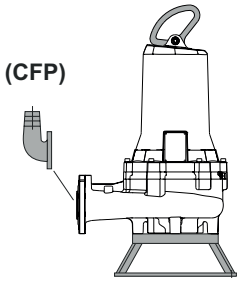
Duck foot coupling

SAK



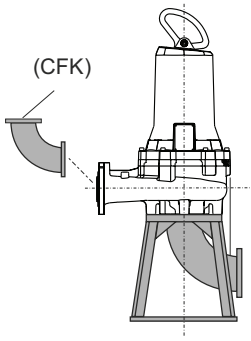
Submersible pump rest

APK



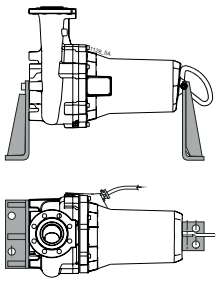
Dry chamber pump rest

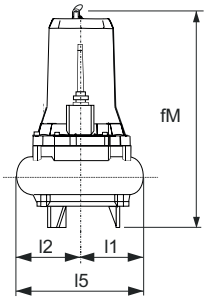
APCK

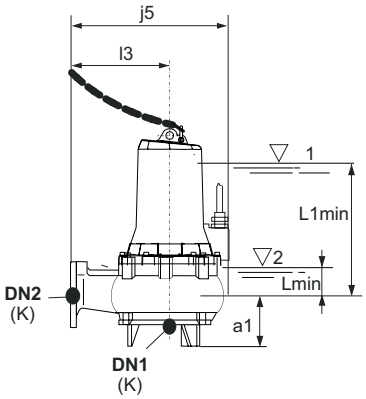


Dry chamber pump support

SOK







TYPE			mm										Kg
	DN1	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKV6 100-100E-0040L	100	100	112	798	473	16	225.5	178.5	295	404	468	106	139.9
GKV6 100-100C-0040L	100	100	112	798	473	16	225.5	178.5	295	404	468	106	140.3
GKV6 100-100A-0040L	100	100	112	798	473	16	225.5	178.5	295	404	468	106	140.9
GKV4 100-100R-0021H	100	100	112	668.3	434	16	204.5	171	263	375.5	326	106	96.6
GKV4 100-100N-0029H	100	100	112	668.3	434	16	204.5	171	263	375.5	326	106	96.8
GKV4 100-100L-0037H	100	100	112	737.4	434	16	221	171	263	392	361	106	103
GKV4 100-100F-0046H	100	100	112	737.4	434	16	221	171	263	392	361	106	111.7
GKV4 100-100A-0058H	100	100	112	737.4	434	16	221	171	263	392	361	106	121.2
GKV4 100-100E-0075L	100	100	112	798	473	16	225.5	178.5	295	404	468	106	149
GKV4 100-100C-0105L	100	100	112	800.4	473	16	236	178.5	295	414.5	468	106	172
GKV4 100-100A-0125L	100	100	112	800.4	473	16	236.5	178.5	295	415	468	106	175

L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

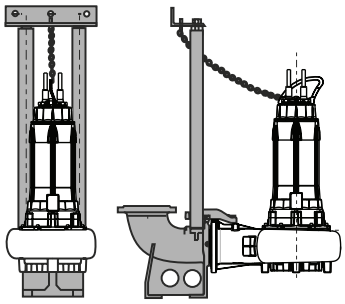
GKV

calpeda®

Dimensions and weights

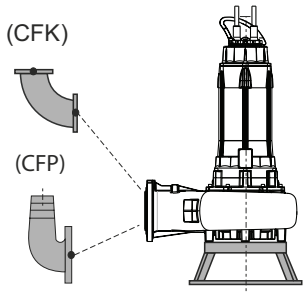
Duck foot coupling

SAK



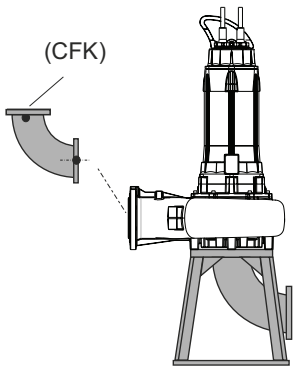
Submersible pump rest

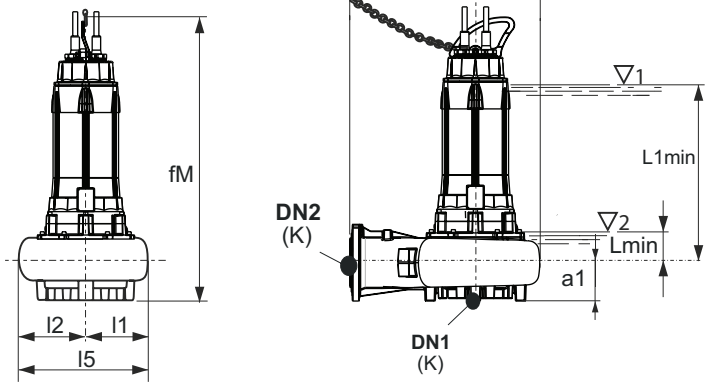
APK



Dry chamber pump rest

APCK



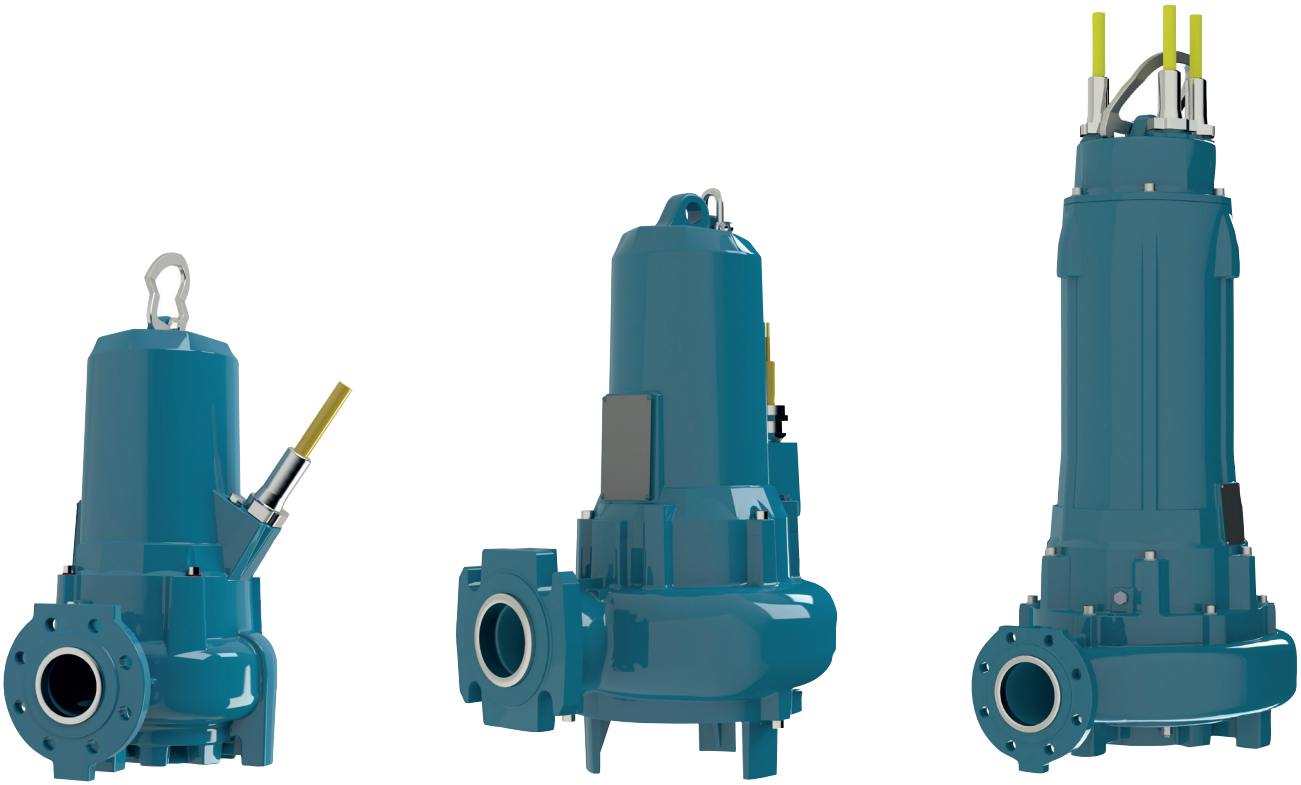


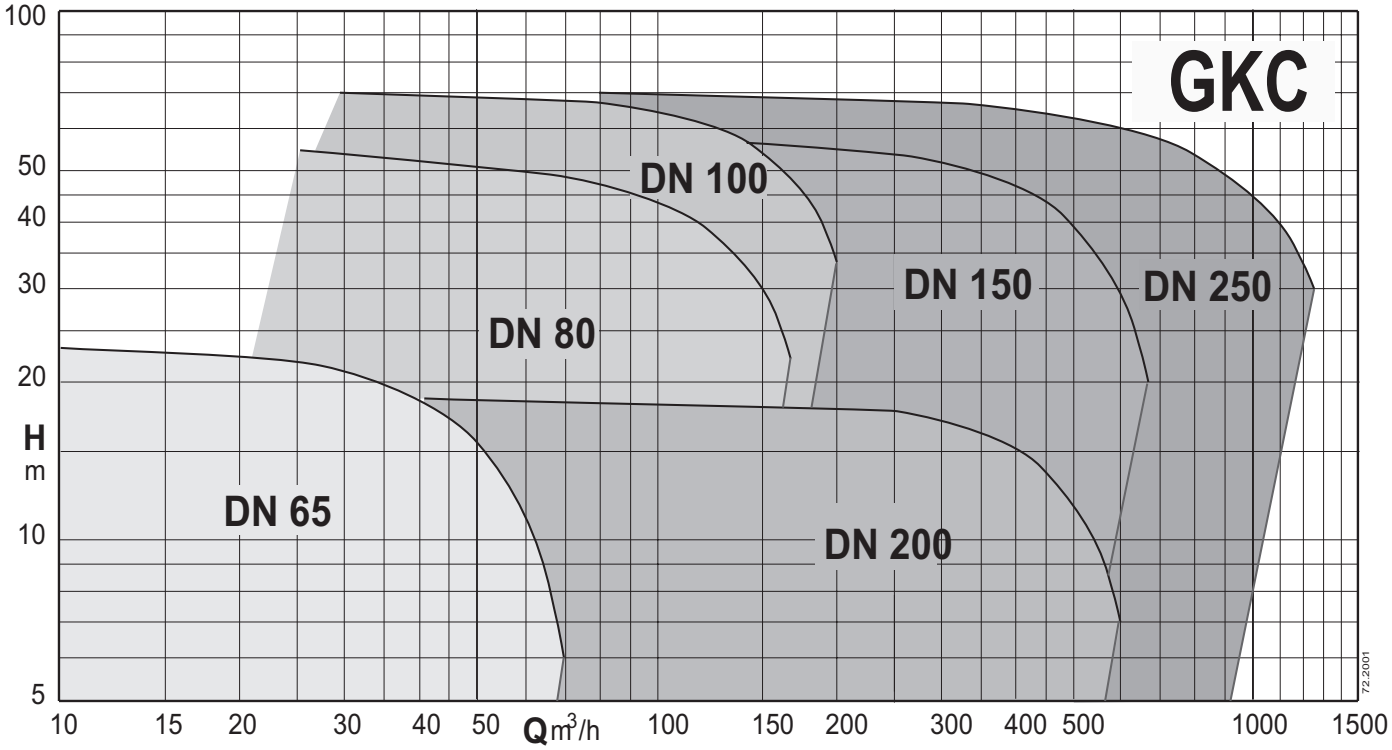
TYPE			mm										Kg
	DN1	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKV2 100-80L-0260N	100	100	110	1183	553	16	200	200	335	400	788	167	330.7
GKV2 100-80I-0260N	100	100	110	1183	553	16	200	200	335	400	788	167	330.9
GKV2 100-80H-0350N	100	100	110	1183	553	16	200	200	335	400	788	167	354.1
GKV2 100-80G-0350N	100	100	110	1183	553	16	200	200	335	400	788	167	354.2
GKV2 100-80F-0350N	100	100	110	1183	553	16	200	200	335	400	788	167	354.3
GKV2 100-80E-0350N	100	100	110	1183	553	16	200	200	335	400	788	167	349.1
GKV2 100-80D-0350N	100	100	110	1183	553	16	200	200	335	400	788	167	354.6

L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

GKC

calpeda®





Submersible pumps with single channel impeller

GKC

Construction

Submersible pumps with single-channel impeller.
It offers reliability against clogging and features wide through sections and a good resistance to wear, low mechanical action on the fluid, high hydraulic efficiency.
Low vibrations thanks to the dynamically balanced impeller.
Delivery port DN 65-80-100-150-200-250

Applications

Particularly suitable for clean water, water containing solid and fibrous solids, cloacal water, sewage and sludge.
Particularly suitable for the emptying of sewage from cesspits or primary collection tanks or industrial waste water.
Solid passage from 40 to 163 mm.

Operating conditions

Liquid temperature: from 0°C to +40°C.
Maximum immersion depth: 20m (with cable of suitable length).
Maximum working pressure: 80 m.w.c.
pH of the liquid to be lifted: 4 ÷ 10
Continuous service (with water at minimum immersion level).

Materials

Pump casing: cast iron EN-GJL250 UNI-EN 1561-11
Impeller: cast iron EN-GJL250 UNI-EN 1561-11
Motor casing: cast iron EN-GJL250 UNI-EN 1561-11 / EN-GJL450 UNI-EN 1561-11
Shaft: stainless steel X20Cr13 (AISI420)
Pump mechanical seal with flange size F - H - L - N - P
- motor side: graphite/ceramic
- pump side: silicon/ceramic carbide

Pump mechanical seal with flange size R - Z - T
- motor side: stainless steel/graphite
- pump side: Silicon carbide/silicon carbide

Motor

2,4,6,8 pole, 50Hz induction motor.
Three-phase version: 400V ± 10%, up to 4.8kW
400/690V ± 10% from 5.8kW
Isolation class: F or H
Degree of protection: IP 68
Max number of starts per hour:
- 20 up to 5 kW
- 15 up to 10 kW
- 10 for higher powers

Cable: length 10m
Direction of rotation: clockwise top view
Motor suitable for operation with frequency converter.

Special features on request

(Check feasibility according to the model with our Technical Sales Office).
Impeller in stainless steel AISI 316 or bronze
Bronze impeller seat ring
Cable length up to 40 m
Other mechanical seal.
For liquid or environment with higher or lower temperature
Ceramic coating
Internal anti-erosion coating, external anti-corrosion

Designation

GKC4 100-80A-0058R
GK = Series
C = Single-channel impeller
4 = Number of poles
100 = Delivery port diameter in mm
80 = Free passage in mm
A = Impeller trim
0058 = Motor size kW x 10
F = Size of electric motor flanging
R = With cooling jacket / oil chamber

Technical data

TYPE	Dry chamber version		Probes		Cable		Class	Duck foot coupling	Submersible pump rest	Dry chamber pump rest	Dry chamber pump support
	Vertical	Horizontal	thermal	conductivity	NSSHOU-J	H07RN-F	Isolation /Efficiency				
GKC2 65-40G-0020F	–	–	o	o	–	•	H / IE3	SAK 65-65-2	–	–	–
GKC2 65-40D-0020F	–	–	o	o	–	•	H / IE3	SAK 65-65-2	–	–	–
GKC2 65-40A-0025F	–	–	o	o	–	•	H / IE3	SAK 65-65-2	–	–	–
GKC2 65-40A-0048H	#	#	o	o	•	–	H / IE3	SAK 65-65-2	APK 80	APCK 65	SOK80/N3
GKC2 65-40D-0048H	#	#	o	o	•	–	H / IE3	SAK 65-65-2	APK 80	APCK 65	SOK80/N3
GKC2 65-40G-0038H	#	#	o	o	•	–	H / IE3	SAK 65-65-2	APK 80	APCK 65	SOK80/N3
GKC2 65-40L-0038H	#	#	o	o	•	–	H / IE3	SAK 65-65-2	APK 80	APCK 65	SOK80/N3
GKC6 80-75G-0015H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKC6 80-75D-0015H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKC6 80-75A-0015H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKC4 80-75A-0029H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKC4 80-76A-0021F	–	–	•	•	•	–	F / IE3	SAK 80-80-2	–	–	–
GKC4 80-76D-0021F	–	–	•	•	•	–	F / IE3	SAK 80-80-2	–	–	–
GKC4 80-76G-0016F	–	–	•	•	•	–	F / IE3	SAK 80-80-2	–	–	–
GKC4 80-76L-0016F	–	–	•	•	•	–	F / IE3	SAK 80-80-2	–	–	–
GKC4 80-80A-0058H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 100	APCK 100	SOK100/N3
GKC4 80-80G-0037H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 100	APCK 100	SOK100/N3
GKC4 80-75G-0016H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKC4 80-75D-0021H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKC4 80-80L-0029H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 100	APCK 100	SOK100/N3
GKC4 80-80D-0046H	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 100	APCK 100	SOK100/N3
GKC2 80-80P-0165L	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKC2 80-80I-0065L	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKC2 80-80G-0065L	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKC2 80-80E-0090L	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKC2 80-80C-0125L	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKC2 80-80A-0125L	#	#	•	•	•	–	H / IE3	SAK 80-80-2	APK 80	APCK 80	SOK80/N3
GKC6 100-80L-0015H	#	#	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100	APCK 100	SOK100/N3
GKC6 100-80G-0015H	#	#	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100	APCK 100	SOK100/N3
GKC6 100-80D-0018H	#	#	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100	APCK 100	SOK100/N3
GKC6 100-80A-0018H	#	#	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100	APCK 100	SOK100/N3

• = Standard
- = Not present
o = Optional
# = Version with oil chamber

= In case of operation in a dry chamber or with a low level of the pumped liquid, it is necessary to introduce the cooling oil according to the quantities indicated in the use and maintenance manual

GKC

Technical data

TYPE	Dry chamber version		Probes		Cable		Class	Duck foot coupling	Submersible pump rest	Dry chamber pump rest	Dry chamber pump support
	Vertical	Horizontal	thermal	conductivity	NSSHOU-J	H07RN-F	Isolation				
GKC4 100-80D-0046H	#	#	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100	APCK 100	SOK100/N3
GKC4 100-80A-0058H	#	#	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100	APCK 100	SOK100/N3
GKC4 100-100L-0165N	#	–	•	•	•	–	H / IE3	SAK 100-100-2	APK 150	APCK 150A	–
GKC4 100-100G-0193N	#	–	•	•	•	–	H / IE3	SAK 100-100-2	APK 150	APCK 150A	–
GKC4 100-100D-0193N	#	–	•	•	•	–	H / IE3	SAK 100-100-2	APK 150	APCK 150A	–
GKC4 100-100A-0230N	#	–	•	•	•	–	H / IE3	SAK 100-100-2	APK 150	APCK 150A	–
GKC4 100-80L-0029H	#	#	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100	APCK 100	SOK100/N3
GKC4 100-80G-0037H	#	#	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100	APCK 100	SOK100/N3
GKC2 100-80C-0260N	#	–	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100A	APCK 100	–
GKC2 100-80D-0260N	#	–	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100A	APCK 100	–
GKC2 100-80G-0260N	#	–	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100A	APCK 100	–
GKC2 100-80F-0260N	#	–	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100A	APCK 100	–
GKC2 100-80E-0260N	#	–	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100A	APCK 100	–
GKC2 100-80C-0350N	#	–	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100A	APCK 100	–
GKC2 100-80D-0350N	#	–	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100A	APCK 100	–
GKC2 100-80B-0350N	#	–	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100A	APCK 100	–
GKC2 100-80A-0350N	#	–	•	•	•	–	H / IE3	SAK 100-100-2A	APK 100A	APCK 100	–
GKC6 150-100G-0040L	#	#	•	•	•	–	H / IE3	SAK 150-150-2	APK 150	APCK 150A	SOK150/N3
GKC6 150-100D-0040L	#	#	•	•	•	–	H / IE3	SAK 150-150-2	APK 150	APCK 150A	SOK150/N3
GKC6 150-100A-0040L	#	#	•	•	•	–	H / IE3	SAK 150-150-2	APK 150	APCK 150A	SOK150/N3
GKC4 150-80D-0046H	#	#	•	•	•	–	H / IE3	SAK 150-150-2	APK 150	APCK 150A	SOK150/N3
GKC4 150-80A-0058H	#	#	•	•	•	–	H / IE3	SAK 150-150-2	APK 150	APCK 150A	SOK150/N3
GKC4 150-100G-0075L	#	#	•	•	•	–	H / IE3	SAK 150-150-2	APK 150	APCK 150A	SOK150/N3
GKC4 150-100D-0105L	#	#	•	•	•	–	H / IE3	SAK 150-150-2	APK 150	APCK 150A	SOK150/N3
GKC4 150-100A-0125L	#	#	•	•	•	–	H / IE3	SAK 150-150-2	APK 150	APCK 150A	SOK150/N3
GKC4 150-115L-0165N	#	–	•	•	•	–	H / IE3	SAK 150-200-3	APK 150	APCK 150A	–
GKC4 150-115G-0193N	#	–	•	•	•	–	H / IE3	SAK 150-200-3	APK 150	APCK 150A	–
GKC4 150-115D-0210N	#	–	•	•	•	–	H / IE3	SAK 150-200-3	APK 150	APCK 150A	–
GKC4 150-115A-0260N	#	–	•	•	•	–	H / IE3	SAK 150-200-3	APK 150	APCK 150A	–
GKC4 150-102L-0340R	–	–	•	•	•	–	H / IE3	SAK 150-200-3	APK 150A	–	–
GKC4 150-102G-0420R	–	–	•	•	•	–	H / IE3	SAK 150-200-3	APK 150A	–	–
GKC4 150-102D-0510R	–	–	•	•	•	–	H / IE3	SAK 150-200-3	APK 150A	–	–
GKC4 150-102A-0620R	–	–	•	•	•	–	H / IE3	SAK 150-200-3	APK 150A	–	–
GKC4 150-102L-0340R-R	#	–	•	•	•	–	H / IE3	SAK 150-200-3	–	APCK 150	–
GKC4 150-102G-0420R-R	#	–	•	•	•	–	H / IE3	SAK 150-200-3	–	APCK 150	–
GKC4 150-102D-0510R-R	#	–	•	•	•	–	H / IE3	SAK 150-200-3	–	APCK 150	–
GKC4 150-102A-0620R-R	#	–	•	•	•	–	H / IE3	SAK 150-200-3	–	APCK 150	–
GKC6 200-135G-0110P	#	–	•	•	•	–	H / IE3	SAK 200-250-3	APK 150	APCK 200	–
GKC6 200-135D-0150P	#	–	•	•	•	–	H / IE3	SAK 200-250-3	APK 150	APCK 200	–
GKC6 200-135A-0195P	#	–	•	•	•	–	H / IE3	SAK 200-250-3	APK 150	APCK 200	–
GKC8 250-163A-0210Z	–	–	•	•	–	•	F	SAK 250-300-3	APK 350	–	–
GKC6 250-163L-0250R	–	–	•	•	•	–	H / IE3	SAK 250-300-3	APK 350	–	–
GKC6 250-163G-0340R	–	–	•	•	•	–	H / IE3	SAK 250-300-3	APK 350	–	–
GKC6 250-163D-0420R	–	–	•	•	•	–	H / IE3	SAK 250-300-3	APK 350	–	–
GKC6 250-163A-0510R	–	–	•	•	•	–	H / IE3	SAK 250-300-3	APK 350	–	–
GKC8 250-163A-0210Z-R	$	$	•	•	•	–	H / IE3	SAK 250-300-3	–	APCK 250A	SOK350-200
GKC6 250-163L-0250R-R	#	–	•	•	•	–	H / IE3	SAK 250-300-3	–	APCK 250A	SOK350-200
GKC6 250-163G-0340R-R	#	–	•	•	•	–	H / IE3	SAK 250-300-3	–	APCK 250A	SOK350-200
GKC6 250-163D-0420R-R	#	–	•	•	•	–	H / IE3	SAK 250-300-3	–	APCK 250A	SOK350-200
GKC6 250-163A-0510R-R	#	–	•	•	•	–	H / IE3	SAK 250-300-3	–	APCK 250A	SOK350-250
GKC4 250-163M-0820R	–	–	•	•	•	–	H / IE3	SAK 250-300-3A	APK 350	–	–
GKC4 250-163L-1000T	–	–	•	•	–	•	F	SAK 250-300-3A	APK 350	–	–
GKC4 250-163H-1000T	–	–	•	•	–	•	F	SAK 250-300-3A	APK 350	–	–
GKC4 250-163G-1200T	–	–	•	•	–	•	F	SAK 250-300-3A	APK 350	–	–
GKC4 250-163E-1450T	–	–	•	•	–	•	F	SAK 250-300-3A	APK 350	–	–
GKC4 250-163T-1450T	–	–	•	•	–	•	F	SAK 250-300-3A	APK 350	–	–
GKC4 250-163B-1450T	–	–	•	•	–	•	F	SAK 250-300-3A	APK 350	–	–
GKC4 250-163A-1800T	–	–	•	•	–	•	F	SAK 250-300-3A	APK 350	–	–
GKC4 250-163M-0820R-R	#	–	•	•	•	–	H / IE3	SAK 250-300-3A	–	APCK 250A	–
GKC4 250-163L-1000T-R	$	–	•	•	–	•	F	SAK 250-300-3A	–	APCK 250A	SOK350-280
GKC4 250-163H-1000T-R	$	–	•	•	–	•	F	SAK 250-300-3A	–	APCK 250A	SOK350-280
GKC4 250-163G-1200T-R	$	–	•	•	–	•	F	SAK 250-300-3A	–	APCK 250A	SOK350-280
GKC4 250-163E-1450T-R	$	–	•	•	–	•	F	SAK 250-300-3A	–	APCK 250A	SOK350-280
GKC4 250-163T-1450T-R	$	–	•	•	–	•	F	SAK 250-300-3A	–	APCK 250A	SOK350-280
GKC4 250-163B-1450T-R	$	–	•	•	–	•	F	SAK 250-300-3A	–	APCK 250A	SOK350-280
GKC4 250-163A-1800T-R	$	–	•	•	–	•	F	SAK 250-300-3A	–	APCK 250A	SOK350-315

• = Standard
o = Optional
- = Not present
= Version with oil chamber
$ = Version with cooling jacket

= In case of operation in a dry chamber or with a low level of the pumped liquid, it is necessary to introduce the cooling oil according to the quantities indicated in the use and maintenance manual

GKC

calpeda®

Performance

n ≈ 2850 1/min

Model	400V	P2	Q = Flow m³/h	0	10,8	14,4	18	21,5	25,2	28,8	32,4	36	43,2	45	50,4	54	57,6	63	64,8	72	81	90
			l/min	0	180	240	300	358	420	480	540	600	720	750	840	900	960	1050	1080	1200	1350	1500
	A	kW	H (m) = Total head																			
GKC2 65-40G-0020F	4,1	2		19,5	16,1	15,2	14,4	13,5	12,7	12	11,2	10,4	8,9	-	7,2	-	-	-	-	-	-	-
GKC2 65-40D-0020F	4,1	2		24,1	18,1	17,2	16,4	15,5	14,7	13,8	13	12,2	10,4	-	8,6	-	6,7	-	-	-	-	-
GKC2 65-40A-0025F	5,5	2,5		27,9	21,8	20,7	19,7	18,8	17,9	17	16,2	15,3	13,6	-	11,8	-	9,8	-	7,7	5,3	-	-
GKC2 65-40L-0038H	7,5	3,8		25	20,8	19,8	18,8	17,8	16,9	16	15,1	14,3	-	12,1	-	9,8	-	7,1	-	-	-	-
GKC2 65-40G-0038H	7,5	3,8		26,2	-	22,6	21,7	20,8	20	19,1	18,2	17,3	-	15	-	12,6	-	10,1	-	7,5	-	-
GKC2 65-40D-0048H	8,9	4,8		31	27,9	26,8	25,8	24,9	24	23,2	22,4	21,5	-	19,4	-	17,2	-	14,9	-	12,5	10,2	7,9
GKC2 65-40A-0048H	8,9	4,8		35	-	29,5	28,3	27,3	26,4	25,7	24,9	24,1	-	22,1	-	19,8	-	-	-	-	-	-

n ≈ 950 1/min

Model	400V	P2		Q = Flow m³/h	0	18	21,5	25,2	28,8	32,4	36	43,2	50,4	57,6	64,8	72	79,2
				l/min	0	300	358	420	480	540	600	720	840	960	1080	1200	1320
	A	kW	HP	H (m) = Total head													
GKC6 80-75G-0015H	3,4	1,5	2		4,3	3,6	3,4	3,2	3	2,9	2,7	2,3	1,8	1,3	0,7	-	-
GKC6 80-75D-0015H	3,4	1,5	2		5,7	4,3	4,2	4	3,9	3,7	3,5	3,1	2,7	2,2	1,7	-	-
GKC6 80-75A-0015H	3,4	1,5	2		7,2	-	5,5	5,3	5,1	4,9	4,7	4,3	3,9	3,5	3,1	2,5	1,9

n ≈ 1450 1/min

Model	400V	P2	Q = Flow m³/h	0	21,5	25,2	28,8	32,4	36	45	54	63	72	81	90	99	108
			l/min	0	358	420	480	540	600	750	900	1050	1200	1350	1500	1650	1800
	A	kW	H (m) = Total head														
GKC4 80-76L-0016F	3,7	1,6		9,6	-	-	6,8	6,6	6,4	6	5,4	4,9	4,3	3,7	3,2	-	-
GKC4 80-76G-0016F	3,7	1,6		11	8,2	8	7,8	7,6	7,4	6,8	6,3	5,7	5,1	4,4	3,7	-	-
GKC4 80-76D-0021F	5,1	2,1		12,6	9,3	9,1	9	8,8	8,6	8,1	7,5	6,9	6,3	5,6	4,9	4,2	3,5
GKC4 80-76A-0021F	5,1	2,1		13,9	10,5	10,2	10	9,8	9,7	9,2	8,7	8,1	7,5	6,9	-	-	-

n ≈ 1450 1/min

Model	400V		690V	P2	Q = Flow m³/h	0	21,5	28,8	36	54	72	90	108	126	144	162	180	198	216
					l/min	0	358	480	600	900	1200	1500	1800	2100	2400	2700	3000	3300	3600
	A			kW	H (m) = Total head														
GKC4 80-75G-0016H	3,4	-	-	1,6		10,8	-	8,1	7,5	6,1	4,7	3,2	-	-	-	-	-	-	-
GKC4 80-75D-0021H	5,0	-	-	2,1		13,2	10,2	9,8	9,4	8,3	6,8	5,1	-	-	-	-	-	-	-
GKC4 80-75A-0029H	6,1	-	-	2,9		15,9	13,2	12,6	12	10,5	9,1	7,6	5,8	-	-	-	-	-	-
GKC4 80-80L-0029H	6,1	-	-	2,9		14,9	-	-	10,2	9,1	7,7	6,2	4,7	3	-	-	-	-	-
GKC4 80-80G-0037H	7,7	-	-	3,7		16,8	12,7	12,3	11,9	10,8	9,6	8,2	6,6	5	3,3	-	-	-	-
GKC4 80-80D-0046H	9,5	-	-	4,6		19,3	-	14,5	13,9	12,8	11,7	10,5	9,1	7,5	5,9	4,1	-	-	-
GKC4 80-80A-0058H	-	11,9	6,9	5,8		21,4	-	-	16,7	15,6	14,4	13,2	12	10,5	8,9	7,2	5,3	3,4	1,3

n ≈ 2850 1/min

Model	400V	690V	P2	Q = Flow m³/h	0	18	21,5	28,8	36	54	72	90	108	126	144	162
				l/min	0	300	358	480	600	900	1200	1500	1800	2100	2400	2700
	A		kW	H (m) = Total head												
GKC2 80-80I-0065L	11,8	6,8	6,5		28,1	-	22,1	20,3	18,7	15,4	12,7	10,2	7,5	4,6	-	-
GKC2 80-80G-0065L	11,8	6,8	6,5		33,9	-	28,3	26,3	24,7	21,7	18,9	15,8	12,6	9,5	-	-
GKC2 80-80E-0090L	16,1	9,3	9		42,1	36,1	34,8	32,5	30,5	27	24,3	21,3	17,5	13,3	-	-
GKC2 80-80C-0125L	22,4	12,9	12,5		47,9	41,3	40,1	37,7	35,6	31,4	28,2	25	21,3	17,3	13,4	-
GKC2 80-80A-0125L	22,4	12,9	12,5		53,6	-	46,1	43,5	41,2	36,9	33,9	30,9	27	22,4	17,6	-
GKC2 80-80P-0165L	31	17,9	16,5		62,9	-	-	53,6	51	45,9	42	38,8	35,6	32,1	28,1	22,9

n ≈ 950 1/min

Model	400V	P2	Q = Flow m³/h	0	21,5	25,2	28,8	32,4	36	45	54	63	72	81	90	99	108	117	126	135
			l/min	0	358	420	480	540	600	750	900	1050	1200	1350	1500	1650	1800	1950	2100	2250
	A	kW	H (m) = Total head																	
GKC6 100-80L-0015H	3,4	1,5		5,4	4,7	4,6	4,5	4,3	4,2	3,9	3,5	3,2	2,8	2,5	2,1	-	-	-	-	-
GKC6 100-80G-0015H	3,4	1,5		7,2	5,5	5,4	5,2	5,1	4,9	4,5	4,2	3,8	3,5	3,1	2,6	2,1	1,5	-	-	-
GKC6 100-80D-0018H	4,1	1,8		8,7	6,8	6,6	6,4	6,3	6,1	5,7	5,4	5	4,6	4,3	3,9	3,5	3,1	2,7	2,2	-
GKC6 100-80A-0018H	4,1	1,8		9,5	7,5	7,4	7,3	7,2	7	6,7	6,4	6,1	5,7	5,4	5	4,6	4,1	3,7	3,2	2,6

GKC

calpeda®

Performance

n ≈ 1450 1/min

					Q = Flow																
				m³/h	0	28,8	36	54	72	90	108	126	144	162	180	198	216	234	252	270
Model	400V		690V	P2	l/min	0	480	600	900	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500
	A			kW	H (m) = Total head																
GKC4 100-80L-0029H	6,1	-	-	2,9		14,3	-	10,1	9,1	8	6,9	5,8	4,6	-	-	-	-	-	-	-	-
GKC4 100-80G-0037H	7,7	-	-	3,7		16,9	12,6	12,2	11,3	10,2	9,2	8	6,8	5,5	-	-	-	-	-	-	-
GKC4 100-80D-0046H	9,5	-	-	4,6		19,3	-	13,9	13	12	11	10	8,9	7,7	6,5	-	-	-	-	-	-
GKC4 100-80A-0058H	-	11,9	6,9	5,8		21,2	17,7	16,9	15,5	14,4	13,4	12,3	11,2	10	8,6	7,1	5,4	3,7	-	-	-
GKC4 100-100L-0165N	-	31,2	18	16,5		27,4	-	-	-	21,4	20,7	20	19,3	18,5	17,7	16,8	15,7	14,6	13,4	12	10,7
GKC4 100-100G-0193N	-	38,8	22,4	19,3		31	-	-	-	24,9	24,1	23,3	22,4	21,5	20,6	19,6	18,6	17,5	16,3	15,1	13,8
GKC4 100-100D-0193N	-	38,8	22,4	19,3		34,3	-	-	-	29	27,6	26,4	25,2	24,1	23	21,9	20,8	19,7	18,5	17,3	16
GKC4 100-100A-0230N	-	42,4	24,5	23		39,6	-	-	-	34	32,7	31,4	30,1	29	27,9	26,8	25,7	24,7	23,5	22,3	-

n ≈ 2850 1/min

				Q = Flow												
				m³/h	0	28,8	36	54	72	90	108	126	144	162	180	198
Model	400V	690V	P2	l/min		480	600	900	1200	1500	1800	2100	2400	2700	3000	3300
	A		kW	H (m) = Total head												
GKC2 100-80C-0260N	44,6	25,7	26		73,7	-	-	56,2	53,1	49,9	46,6	-	-	-	-	-
GKC2 100-80D-0260N	44,6	25,7	26		67,9	-	53,7	50,8	47,9	45	42,2	39,4	36,6	-	-	-
GKC2 100-80G-0260N	44,6	25,7	26		49,4	39	37,6	34,7	31,9	29,2	26,4	23,5	20,7	17,7	14,6	11,4
GKC2 100-80F-0260N	44,6	25,7	26		54,5	44,6	42,6	39,1	36,2	33,4	30,6	27,8	24,8	21,8	18,8	15,7
GKC2 100-80E-0260N	44,6	25,7	26		59,3	-	46,6	43,7	40,9	38,2	35,4	32,5	29,6	26,7	23,6	-
GKC2 100-80C-0350N	57,8	33,4	35		73,9	-	-	56,3	53,3	50,3	47,2	44,1	40,9	37,7	34,6	-
GKC2 100-80D-0350N	57,8	33,4	35		68	-	54,3	51,5	48,6	45,8	42,9	39,9	36,9	33,9	30,8	-
GKC2 100-80B-0350N	57,8	33,4	35		77	-	-	59,3	56,1	53,1	50,2	47,4	44,7	41,9	39	-
GKC2 100-80A-0350N	57,8	33,4	35		80,1	-	-	66,2	61,9	58,4	55,4	52,6	49,9	47	-	-

n ≈ 950 1/min

			Q = Flow															
			m³/h	0	10,8	14,4	21,5	28,8	36	54	72	90	108	126	144	162	180	198	216
Model	400V	P2	l/min		180	240	358	480	600	900	1200	1500	1800	2100	2400	2700	3000	3300	3600
	A	kW	H (m) = Total head																
GKC6 150-100G-0040L	9	4		9,3	-	-	-	-	7,3	6,8	6,2	5,7	5	4,4	3,7	3	-	-	-
GKC6 150-100D-0040L	9	4		10,9	10	9,7	9,2	8,8	8,5	7,8	7,3	6,8	6,3	5,7	5,1	4,4	3,6	-	-
GKC6 150-100A-0040L	9	4		12,4	-	-	-	-	9,8	9,1	8,6	8,1	7,6	7,1	6,5	5,9	5,2	4,5	3,7

n ≈ 1450 1/min

					Q = Flow																			
					m³/h	0	54	72	90	108	126	144	162	180	216	234	252	270	288	324	360	450	540	630
Model	400V		690V	P2	l/min	0	900	1200	1500	1800	2100	2400	2700	3000	3600	3900	4200	4500	4800	5400	6000	7500	9000	10500
	A			kW	H (m) = Total head																			
GKC4 150-80D-0046H	9,5	-	-	4,6		12,1	10,4	9,8	9,1	8,3	7,6	6,9	6,2	5,5	4	-	-	-	-	-	-	-	-	-
GKC4 150-80A-0058H	-	11,9	6,9	5,8		18,1	13,5	12,8	12,1	11,3	10,5	9,8	9	8,2	6,6	5,8	4,9	3,9	-	-	-	-	-	-
GKC4 150-100G-0075L	-	15,3	8,8	7,5		20,2	16	14,9	14,1	13,4	12,6	11,8	10,9	10	8,1	-	6,1	-	-	-	-	-	-	-
GKC4 150-100D-0105L	-	20	11,5	10,5		24,1	19	18,3	17,6	16,8	16	15,1	14,3	13,4	11,6	-	9,7	-	7,6	5,1	-	-	-	-
GKC4 150-100A-0125L	-	24	13,9	12,5		28,9	23	21,6	20,7	19,9	19,1	18,4	17,6	16,8	15	-	13	-	10,9	8,5	5,5	-	-	-
GKC4 150-115L-0165N	-	31,2	18	16,5		27,6	-	21,7	20,8	20,1	19,3	18,6	17,9	17,1	15,6	-	14	-	12,2	10,4	8,5	-	-	-
GKC4 150-115G-0193N	-	38,8	22,4	19,3		32	-	26,1	24,9	23,8	22,9	22	21,2	20,4	18,8	-	17,1	-	15,3	13,4	11,3	-	-	-
GKC4 150-115D-0210N	-	39	22,5	21		34,9	-	28,4	27,3	26,4	25,6	24,8	24	23,2	21,5	-	19,7	-	17,8	15,7	13,6	-	-	-
GKC4 150-115A-0260N	-	47,2	27,3	26		39,9	-	33	31,7	30,6	29,7	28,8	27,9	27,1	25,4	-	23,7	-	21,9	20	18	11,9	-	-
GKC4 150-102L-0340R	-	65,8	37,6	34		45,5	-	-	-	35,8	34,5	33,4	32,3	31,2	29,3	-	27,5	-	25,9	24,2	22,5	17,8	12,5	7,1
GKC4 150-102G-0420R	-	80,5	46,0	42		51,7	-	-	-	41,3	40,1	39	37,9	36,8	34,8	-	32,9	-	31,1	29,3	27,5	22,8	17,2	10,6
GKC4 150-102D-0510R	-	93,5	53,4	51		58	-	-	-	46,8	45,6	44,5	43,4	42,3	40,3	-	38,4	-	36,5	34,7	32,8	28	22,1	15,1
GKC4 150-102A-0620R	-	117	66,9	62		64,8	-	-	-	52	50,7	49,7	48,7	47,8	45,9	-	44,1	-	42,2	40,3	38,4	33,5	27,8	20,8
GKC4 150-102L-0340R-R	-	65,8	37,6	34		45,5	-	-	-	35,8	34,5	33,4	32,3	31,2	29,3	-	27,5	-	25,9	24,2	22,5	17,8	12,5	7,1
GKC4 150-102G-0420R-R	-	80,5	46,0	42		51,7	-	-	-	41,3	40,1	39	37,9	36,8	34,8	-	32,9	-	31,1	29,3	27,5	22,8	17,2	10,6
GKC4 150-102D-0510R-R	-	93,5	53,4	51		58	-	-	-	46,8	45,6	44,5	43,4	42,3	40,3	-	38,4	-	36,5	34,7	32,8	28	22,1	15,1
GKC4 150-102A-0620R-R	-	117	66,9	62		64,8	-	-	-	52	50,7	49,7	48,7	47,8	45,9	-	44,1	-	42,2	40,3	38,4	33,5	27,8	20,8

GKC

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Performance

n ≈ 950 1/min

				Q = Flow														
				m³/h	0	90	108	126	144	162	180	216	252	288	324	360	450	540
Model	400V	690V	P2	l/min		1500	1800	2100	2400	2700	3000	3600	4200	4800	5400	6000	7500	9000
	A		kW	H (m) = Total head														
GKC6 200-135G-0110P	23,8	13,7	11		13	-	11,1	10,8	10,5	10,2	9,9	9,3	8,6	7,9	7,1	6,3	4,3	-
GKC6 200-135D-0150P	33	19,1	15		20,3	16,7	16,2	15,8	15,4	15	14,6	13,7	12,9	12,1	11,2	10,4	8,1	5,7
GKC6 200-135A-0195P	40,2	23,2	19,5		23,2	19,6	19,2	18,7	18,3	17,9	17,5	16,7	15,9	15,1	14,3	13,5	11,3	8,9

n ≈ 725 1/min

				Q = Flow																
				m³/h	0	108	126	144	162	180	216	252	288	324	360	450	540	630	720	810	900
Model	400V	690V	P2	l/min		1800	2100	2400	2700	3000	3600	4200	4800	5400	6000	7500	9000	10500	12000	13500	15000
	A		kW	H (m) = Total head																	
GKC8 250-163A-0210Z	44,1	25,2	21		19,7	16,9	16,6	16,4	16,2	15,9	15,4	14,9	14,4	13,9	13,4	12	10,6	9	7,1	5	2,5

n ≈ 950 1/min

				Q = Flow																	
				m³/h	0	144	162	180	216	252	288	324	360	450	540	630	720	810	900	990	1080
Model	400V	690V	P2	l/min		2400	2700	3000	3600	4200	4800	5400	6000	7500	9000	10500	12000	13500	15000	16500	18000
	A		kW	H (m) = Total head																	
GKC6 250-163L-0250R	50,0	28,6	25		23,8	-	-	-	17,5	16,7	16,1	15,5	14,9	13,3	11,7	9,9	8,1	6,3	4,5	-	-
GKC6 250-163G-0340R	68,5	39,1	34		28,3	23,6	23,3	23	22,4	21,7	21	20,2	19,5	17,8	16	14,2	12,3	10,5	8,6	6,5	4
GKC6 250-163D-0420R	84,7	48,4	42		32	-	26,6	26,3	25,6	25	24,3	23,6	22,9	21,2	19,4	17,5	15,6	13,6	11,6	9,6	7,3
GKC6 250-163A-0510R	103	58,9	51		35,4	30,2	29,9	29,6	29	28,3	27,7	27	26,3	24,6	22,8	20,9	18,9	16,8	14,6	12,2	8,8
GKC6 250-163L-0250R-R	50,0	28,6	25		23,8	-	-	-	17,5	16,7	16,1	15,5	14,9	13,3	11,7	9,9	8,1	6,3	4,5	-	-
GKC6 250-163G-0340R-R	68,5	39,1	34		28,3	23,6	23,3	23	22,4	21,7	21	20,2	19,5	17,8	16	14,2	12,3	10,5	8,6	6,5	4
GKC6 250-163D-0420R-R	84,7	48,4	42		32	-	26,6	26,3	25,6	25	24,3	23,6	22,9	21,2	19,4	17,5	15,6	13,6	11,6	9,6	7,3
GKC6 250-163A-0510R-R	103	58,9	51		35,4	30,2	29,9	29,6	29	28,3	27,7	27	26,3	24,6	22,8	20,9	18,9	16,8	14,6	12,2	8,8

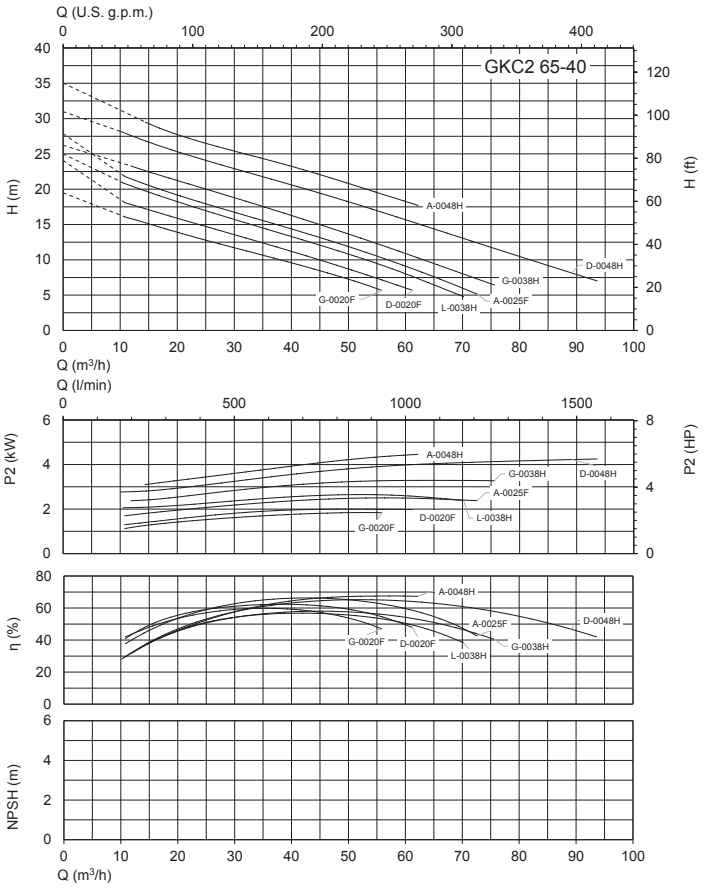
n ≈ 1450 1/min

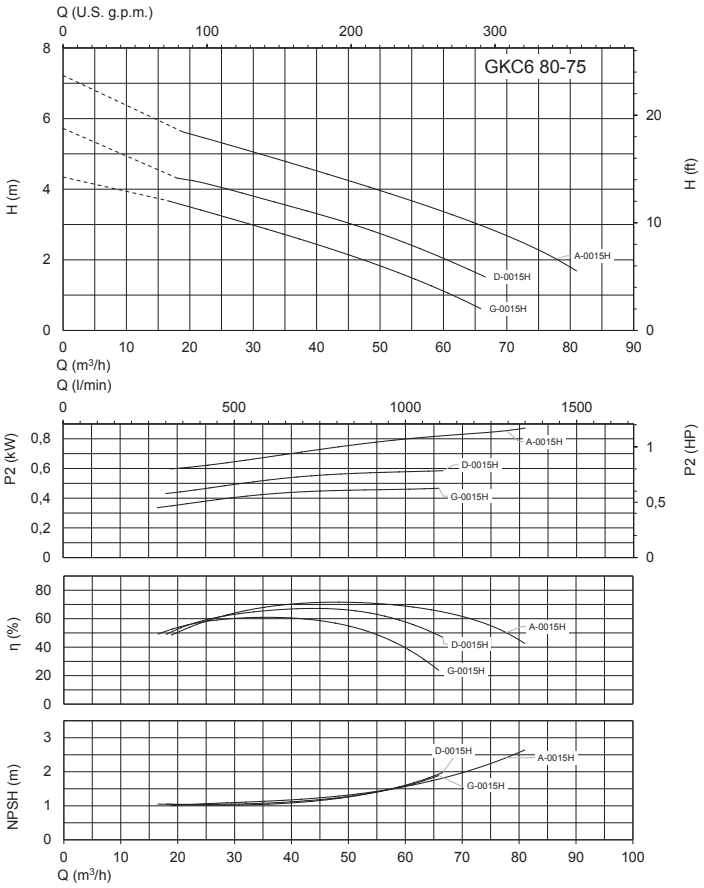
				Q = Flow												
				m³/h	0	324	360	450	540	630	720	810	900	990	1080	1188
Model	400V	690V	P2	l/min		5400	6000	7500	9000	10500	12000	13500	15000	16500	18000	19800
	A		kW	H (m) = Total head												
GKC4 250-163M-0820T	148	84,5	82		45,8	36,2	35,3	33	30,8	28,5	26,2	24	21,7	19,6	17,5	15
GKC4 250-163L-1000T	184	105	100		55,3	41,1	40	37,4	35	32,5	30,1	27,6	25,1	22,4	19,6	15,9
GKC4 250-163H-1000T	184	105	100		59,3	43,3	42,3	39,8	37,2	34,6	32,1	29,5	26,8	24	21	17,5
GKC4 250-163G-1200T	223	128	120		62,4	50,2	49,2	46,4	43,6	40,7	37,9	35	32,2	29,4	26,5	23,1
GKC4 250-163E-1450T	262	150	145		65,9	56,8	55,4	52,1	49,3	46,8	44,3	41,7	39	36,3	33,4	30,1
GKC4 250-163T-1450T	262	150	145		70,8	57	56	53,5	50,9	48,2	45,4	42,5	39,4	36,2	32,9	28,9
GKC4 250-163B-1450T	262	150	145		74,1	61	59,8	57,1	54,4	51,6	48,8	45,9	42,9	39,8	36,6	32,5
GKC4 250-163A-1800T	321	184	180		78,1	66,8	65,7	62,8	59,9	57,1	54,3	51,6	48,8	46	43	39,2
GKC4 250-163M-0820T-R	148	84,5	82		45,8	36,2	35,3	33	30,8	28,5	26,2	24	21,7	19,6	17,5	15
GKC4 250-163L-1000T-R	184	105	100		55,3	41,1	40	37,4	35	32,5	30,1	27,6	25,1	22,4	19,6	15,9
GKC4 250-163H-1000T-R	184	105	100		59,3	43,3	42,3	39,8	37,2	34,6	32,1	29,5	26,8	24	21	17,5
GKC4 250-163G-1200T-R	223	128	120		62,4	50,2	49,2	46,4	43,6	40,7	37,9	35	32,2	29,4	26,5	23,1
GKC4 250-163E-1450T-R	262	150	145		65,9	56,8	55,4	52,1	49,3	46,8	44,3	41,7	39	36,3	33,4	30,1
GKC4 250-163T-1450T-R	262	150	145		70,8	57	56	53,5	50,9	48,2	45,4	42,5	39,4	36,2	32,9	28,9
GKC4 250-163B-1450T-R	262	150	145		74,1	61	59,8	57,1	54,4	51,6	48,8	45,9	42,9	39,8	36,6	32,5
GKC4 250-163A-1800T-R	321	184	180		78,1	66,8	65,7	62,8	59,9	57,1	54,3	51,6	48,8	46	43	39,2

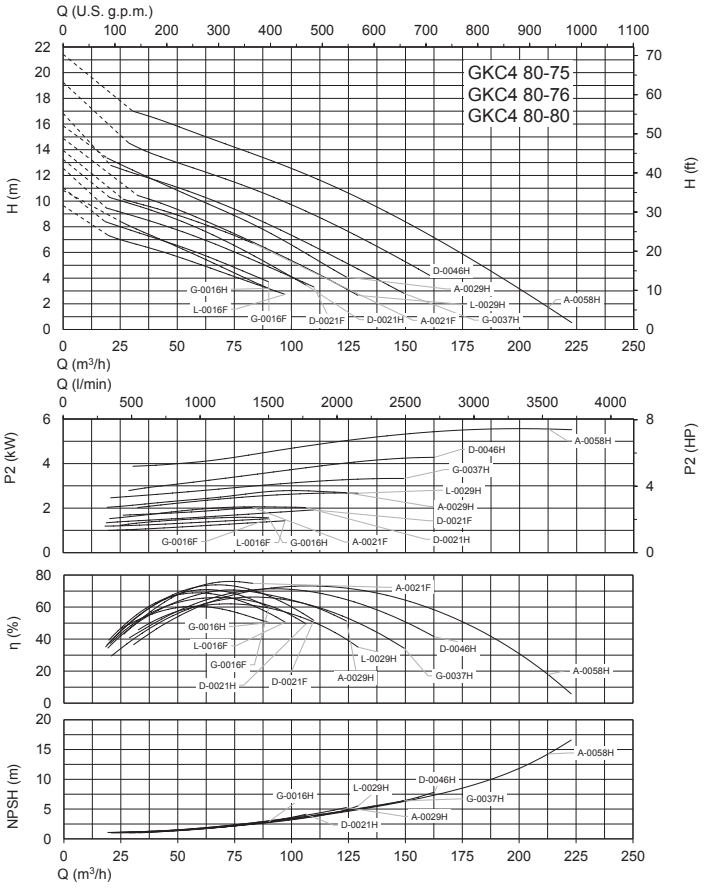
GKC

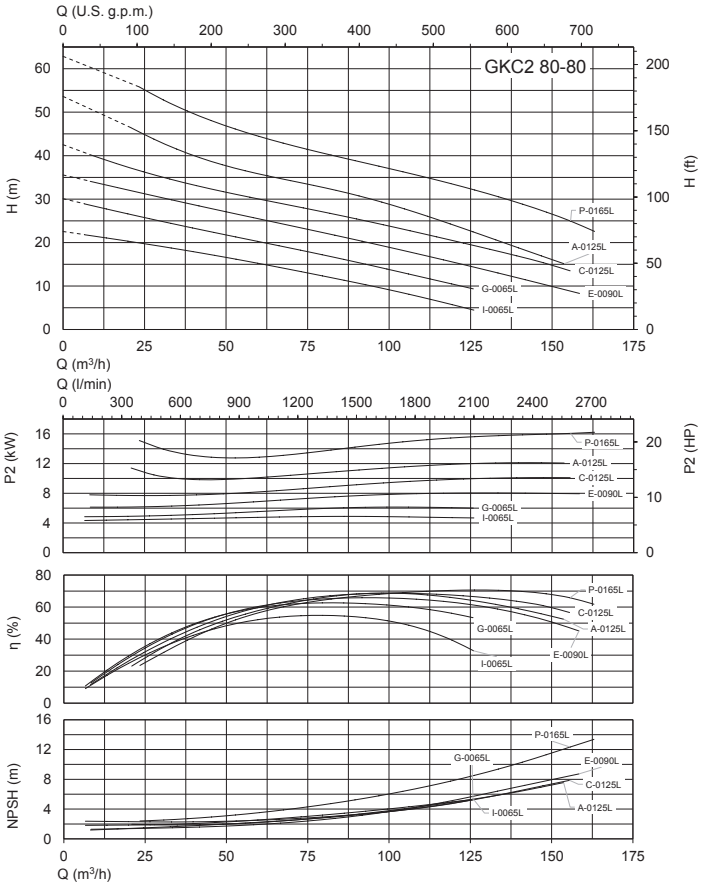
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Characteristic curves





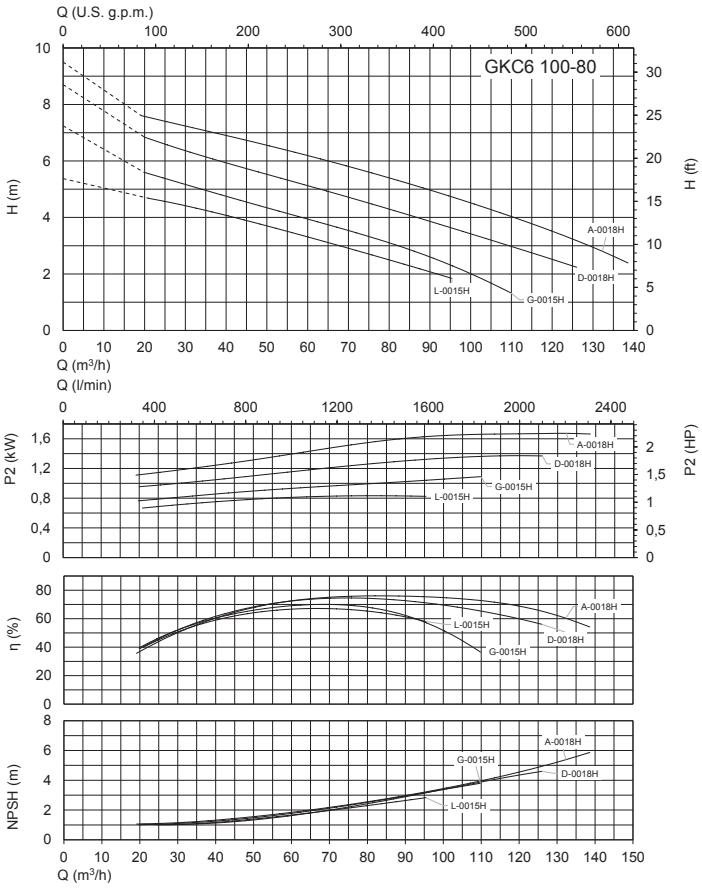


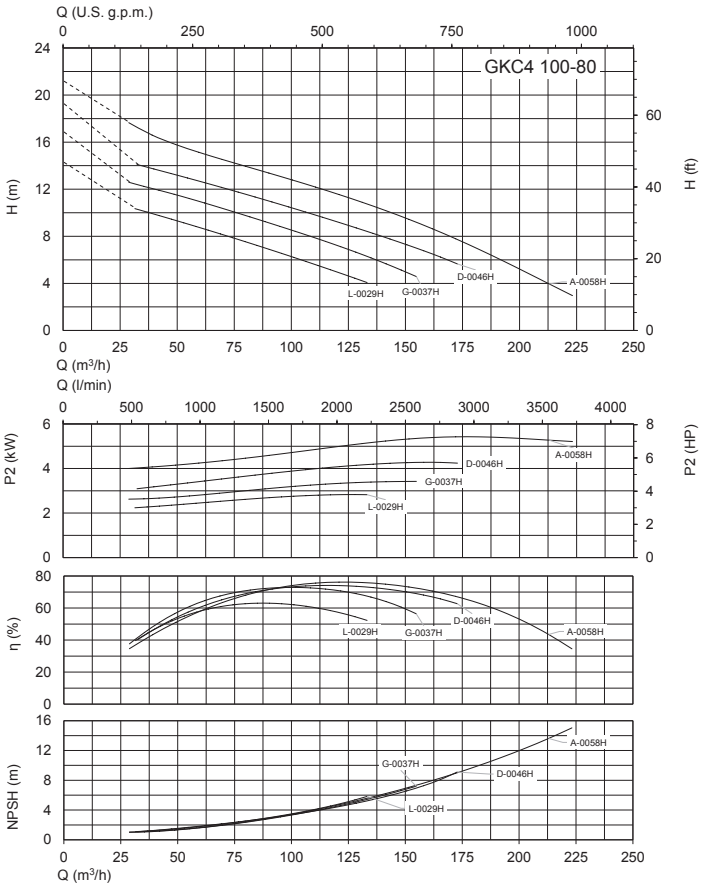


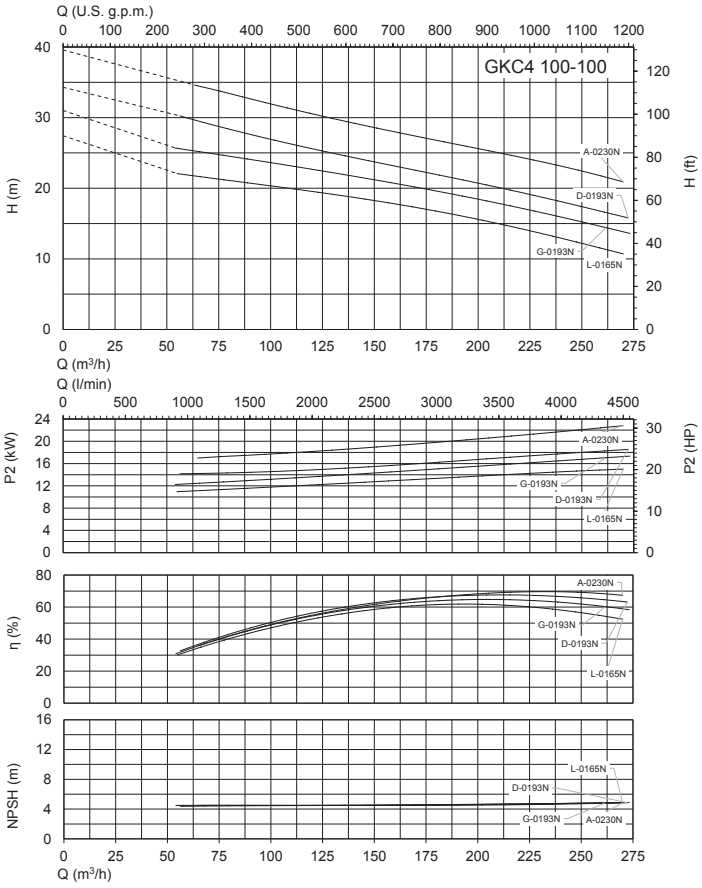
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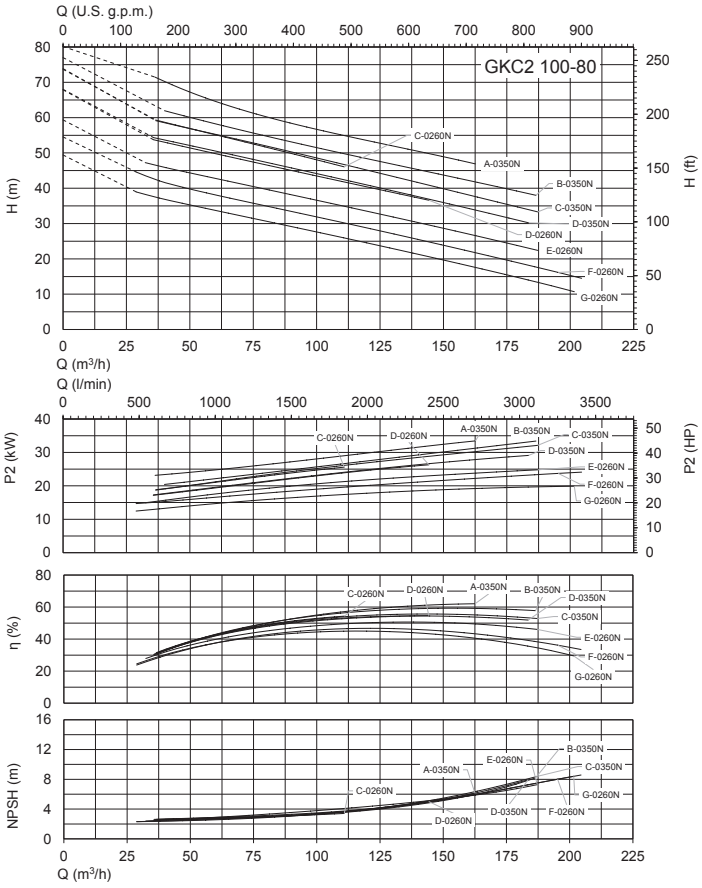
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Characteristic curves





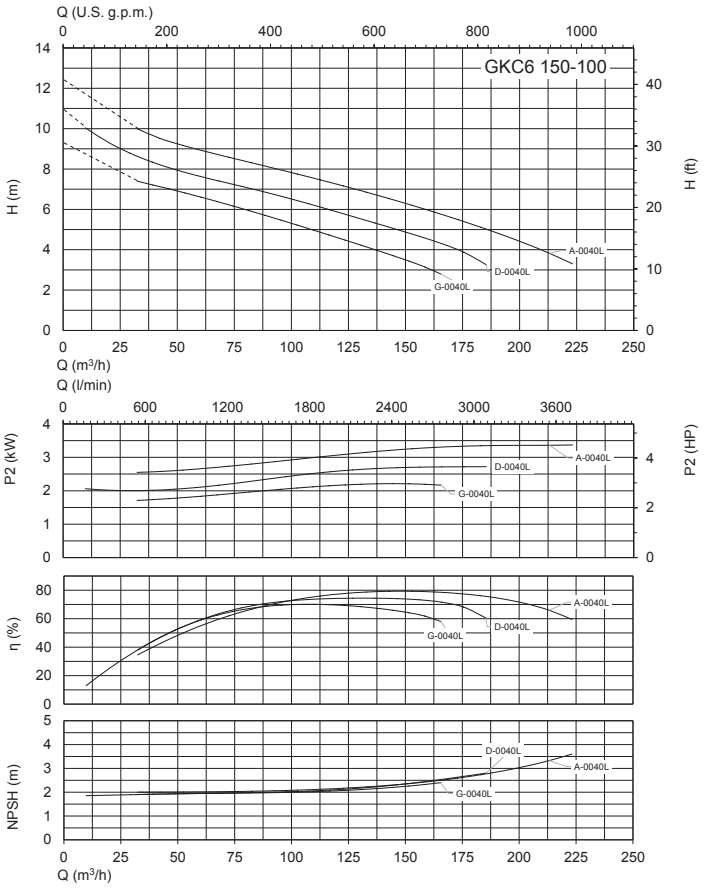


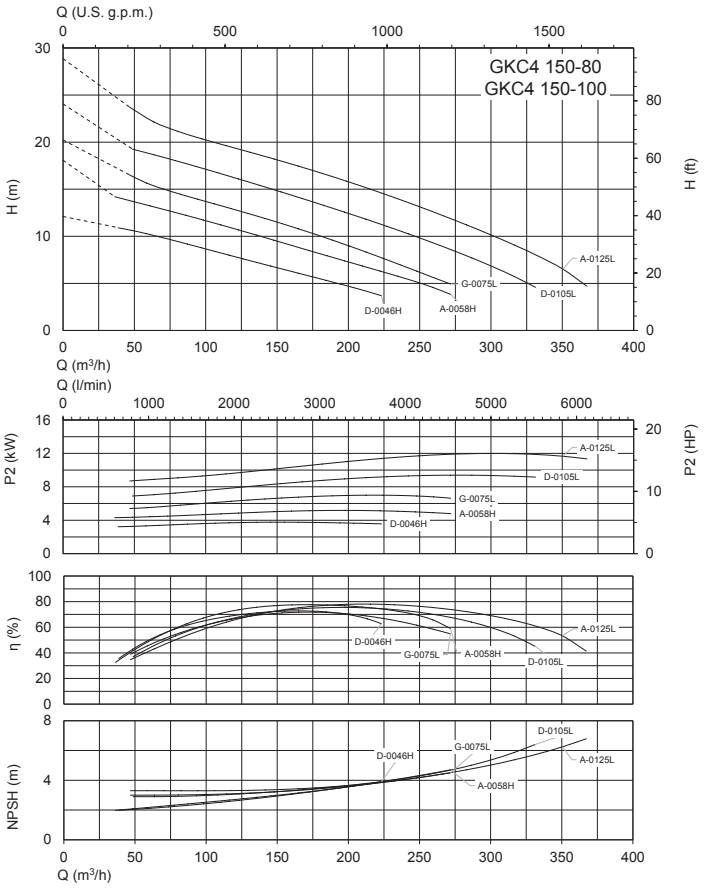


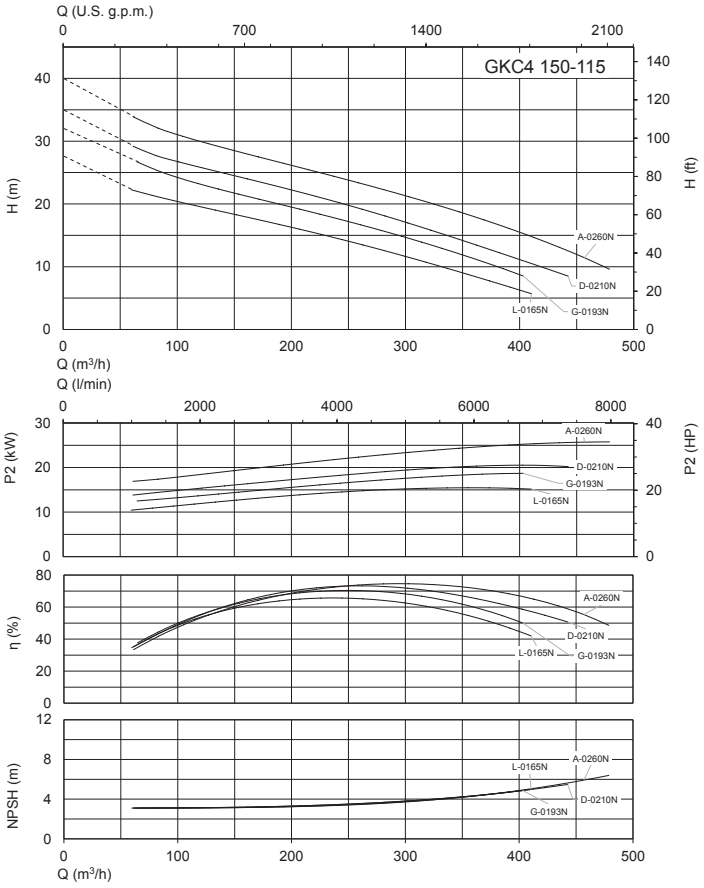
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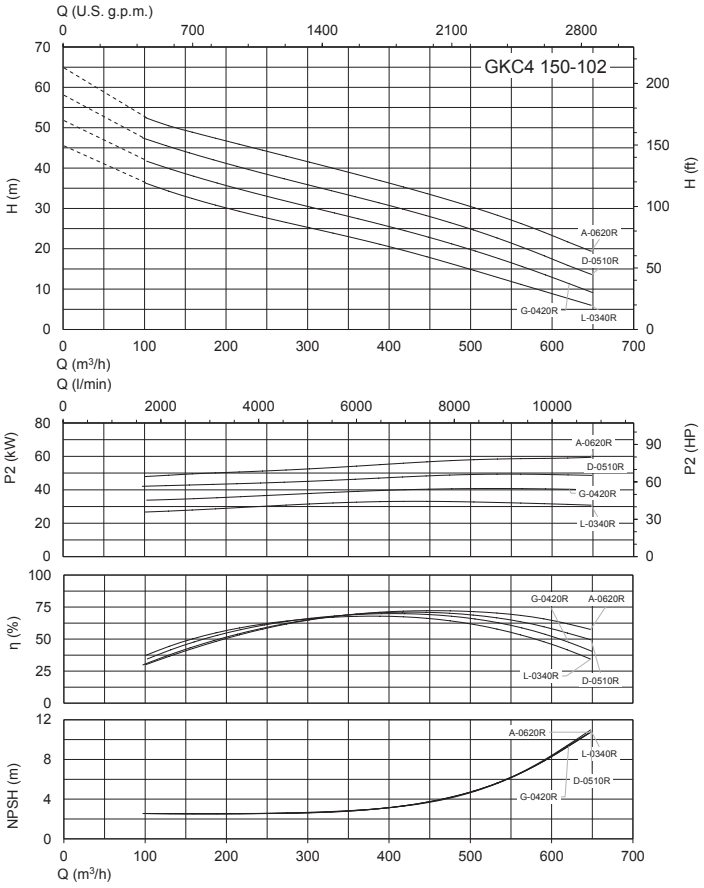
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Characteristic curves





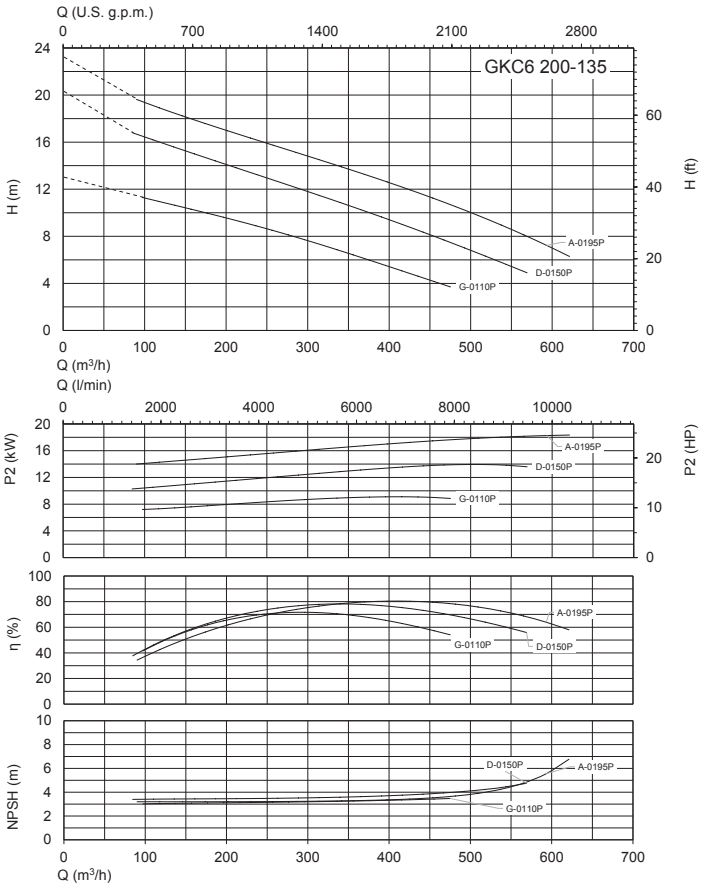


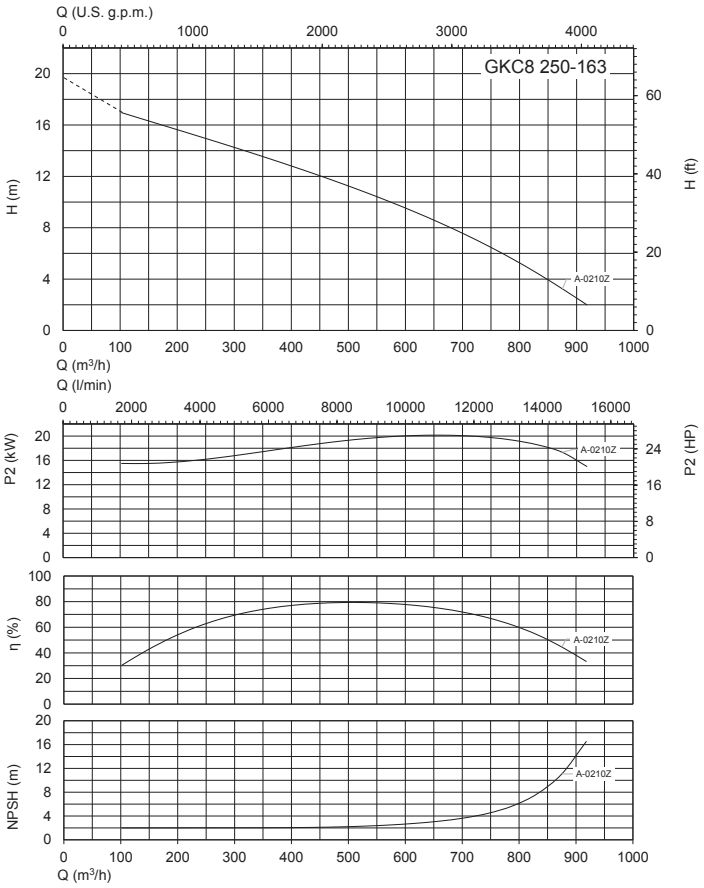


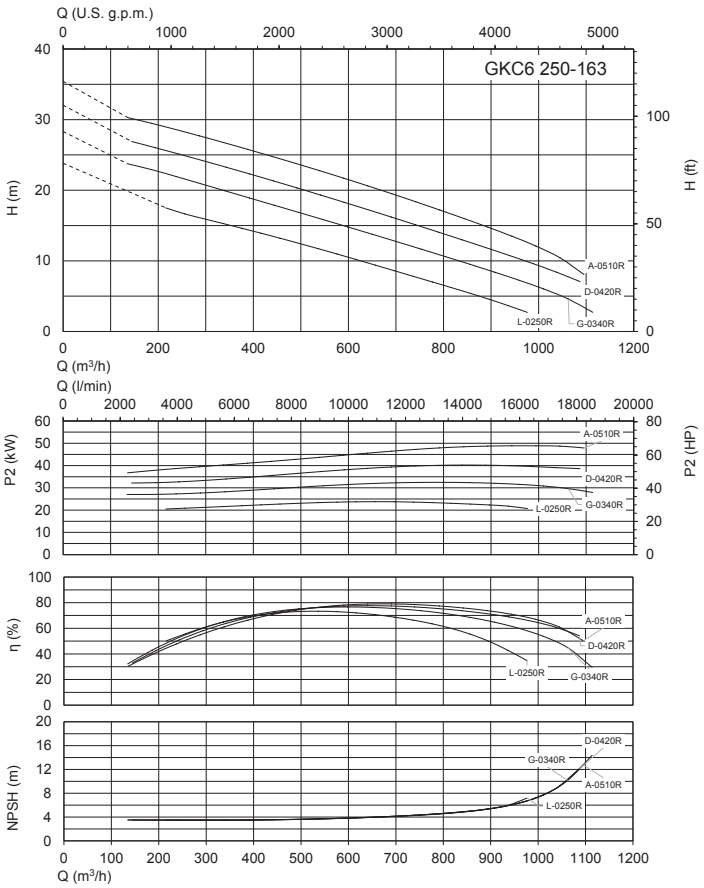
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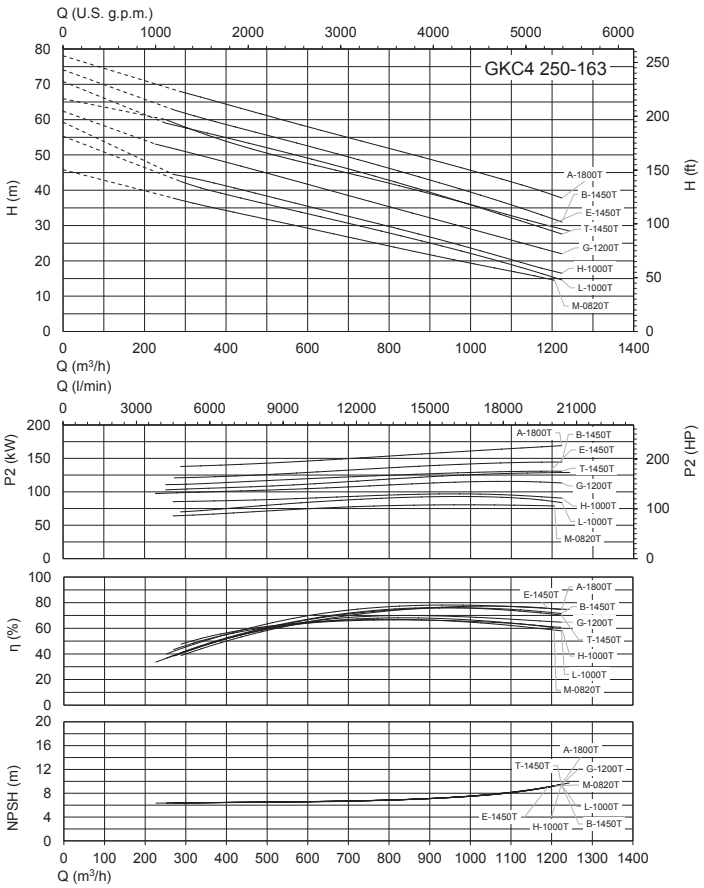
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Characteristic curves









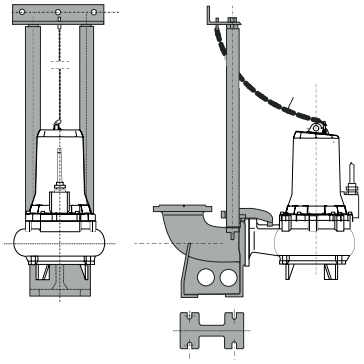
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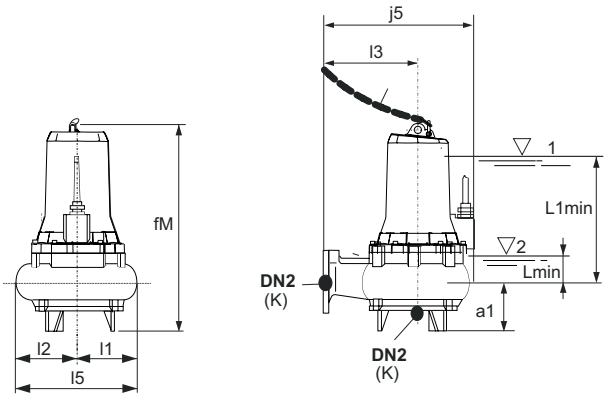
calpeda®

Dimensions and weights

Duck foot coupling

SAK





TYPE		mm										Kg
	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKC2 65-40G-0020F	65	140	561.6	373	16	148	148	225	296	255	90	61
GKC2 65-40D-0020F	65	140	561.6	373	16	148	148	225	296	255	90	60
GKC2 65-40A-0025F	65	140	561.6	373	16	148	148	225	296	255	90	58

L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

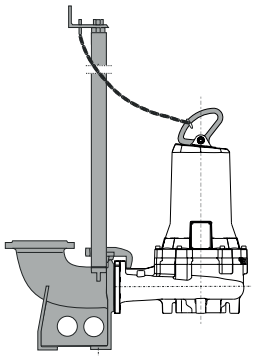
GKC

calpeda®

Dimensions and weights

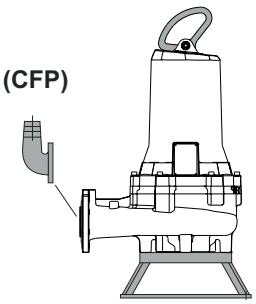
Duck foot coupling

SAK



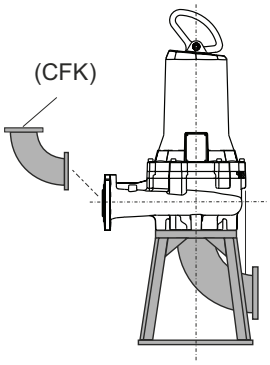
Submersible pump rest

APK



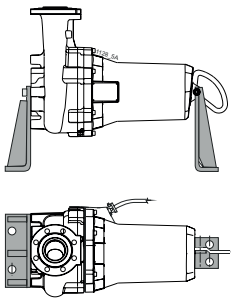
Dry chamber pump rest

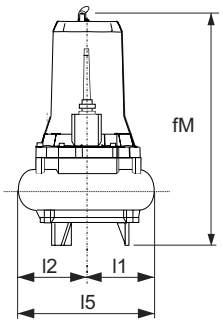
APCK

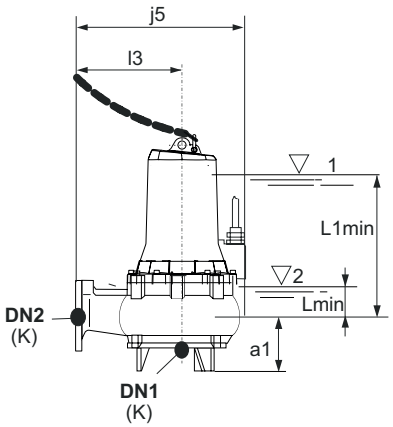


Dry chamber pump support

SOK







TYPE			mm					
	DN1	DN2	a1	fM	j5	l1	l2	l5
GKC2 65-40A-0048H	65	65	805	601.7	390	204.5	145	245
GKC2 65-40D-0048H	65	65	805	601.7	390	204.5	145	245
GKC2 65-40G-0038H	65	65	805	601.7	390	204.5	145	245
GKC2 65-40L-0038H	65	65	805	601.7	390	204.5	145	245

L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

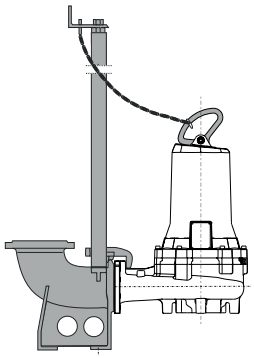
GKC

calpeda®

Dimensions and weights

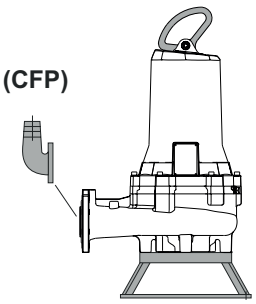
Duck foot coupling

SAK



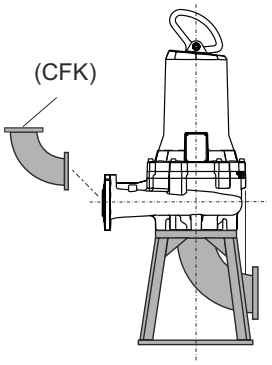
Submersible pump rest

APK



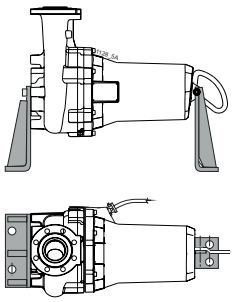
Dry chamber pump rest

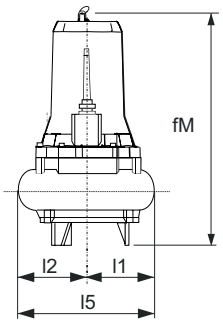
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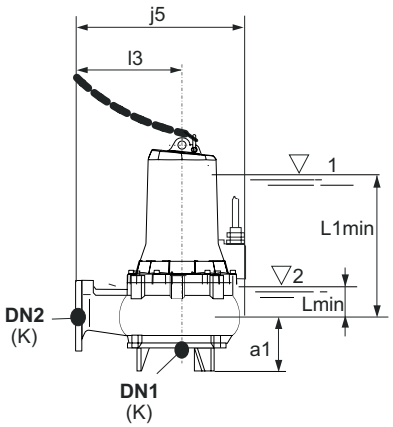


Dry chamber pump support

SOK







TYPE			mm										Kg
	DN1	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKC6 80-75G-0015H	80	80	121	647.3	407	16	204.5	176	245	380.5	297	75	87.2
GKC6 80-75D-0015H	80	80	121	647.3	407	16	204.5	176	245	380.5	297	75	87.1
GKC6 80-75A-0015H	80	80	121	647.3	407	16	204.5	176	245	380.5	297	75	84.9
GKC4 80-75G-0016H	80	80	121	647.3	407	16	204.5	176	245	380.5	297	75	91.3
GKC4 80-75D-0021H	80	80	118	650.3	435	16	204.5	176	255	380.5	370	80	95.6
GKC4 80-75A-0029H	80	80	121	647.3	407	16	204.5	176	245	380.5	297	75	93
GKC4 80-80G-0037H	100	80	120.5	716.4	407	16	221	176	245	397	370	80	117
GKC4 80-80L-0029H	100	80	120.5	647.3	407	16	204.5	176	245	380.5	322	80	95
GKC4 80-80D-0046H	100	80	120.5	716.4	407	16	221	176	245	397	370	80	108
GKC4 80-80A-0058H	100	80	120.5	716.4	407	16	221	176	245	397	370	80	120
GKC2 80-80P-0165L	80	80	95	765.4	498	16	236.5	180	325	416.5	438	87	172.2
GKC2 80-80I-0065L	80	80	95	763	498	16	225.5	180	325	405.5	438	87	134
GKC2 80-80G-0065L	80	80	95	763	498	16	225.5	180	325	405.5	438	87	137
GKC2 80-80E-0090L	80	80	95	763	498	16	225.5	180	325	405.5	438	87	142.5
GKC2 80-80C-0125L	80	80	95	763	498	16	225.5	180	325	405.5	438	87	148.1
GKC2 80-80A-0125L	80	80	95	763	498	16	225.5	180	325	405.5	438	87	148

L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

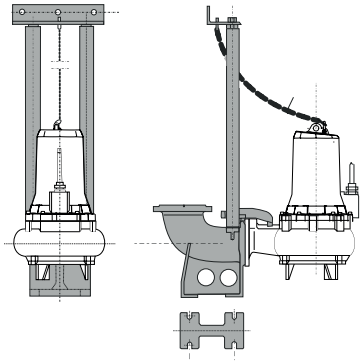
GKC

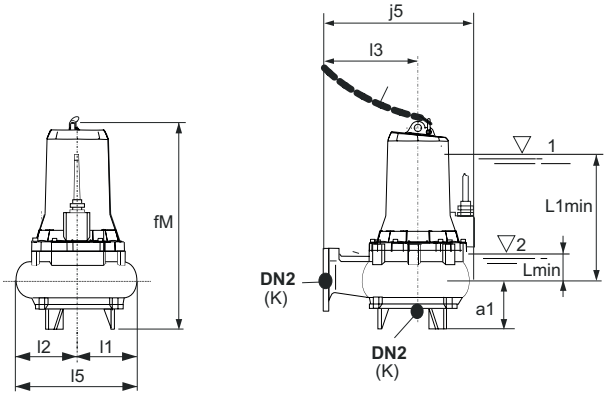
calpeda®

Dimensions and weights

Duck foot coupling

SAK





TYPE		mm					
	DN2	a1	fM	j5	l1	l2	l5
GKC4 80-76A-0021F	80	180	622.6	393	144	173	235
GKC4 80-76D-0021F	80	180	622.6	393	144	173	235
GKC4 80-76G-0016F	80	180	622.6	393	144	173	235
GKC4 80-76L-0016F	80	180	622.6	393	144	173	235

L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

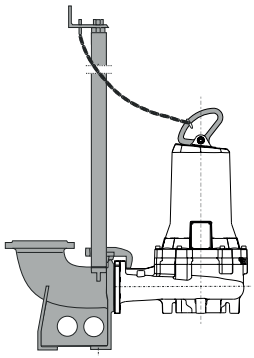
GKC

calpeda®

Dimensions and weights

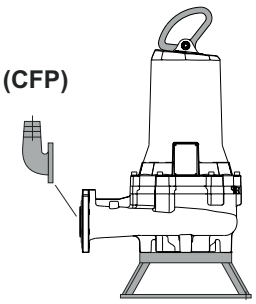
Duck foot coupling

SAK



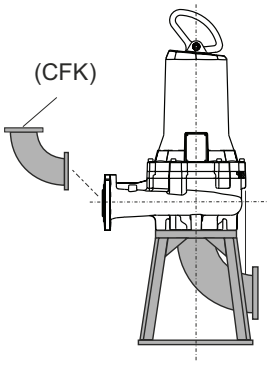
Submersible pump rest

APK



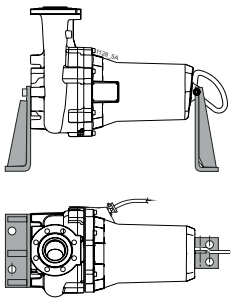
Dry chamber pump rest

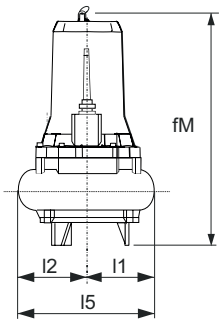
APCK

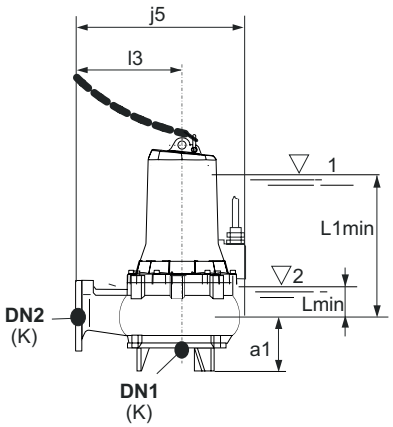


Dry chamber pump support

SOK







TYPE			mm										Kg
	DN1	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKC6 100-80L-0015H	100	100	118	650.3	435	16	204.5	198	255	402.5	302	82	94.7
GKC6 100-80G-0015H	100	100	118	650.3	435	16	204.5	198	255	402.5	302	82	94.7
GKC6 100-80D-0018H	100	100	118	719.4	435	16	221	198	255	419	337	82	116
GKC6 100-80A-0018H	100	100	118	719.4	435	16	221	198	255	419	337	82	116
GKC4 100-80L-0029H	100	100	118	650.3	435	16	204.5	198	255	402.5	302	82	103.2
GKC4 100-80G-0037H	100	100	118	719.4	435	16	221	198	255	419	337	82	118
GKC4 100-80D-0046H	100	100	118	719.4	435	16	221	198	255	419	337	82	113
GKC4 100-80A-0058H	100	100	118	719.4	435	16	221	198	255	419	337	82	126.6

L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

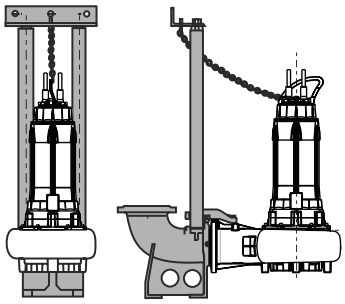
GKC

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Dimensions and weights

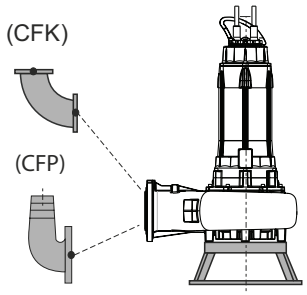
Duck foot coupling

SAK



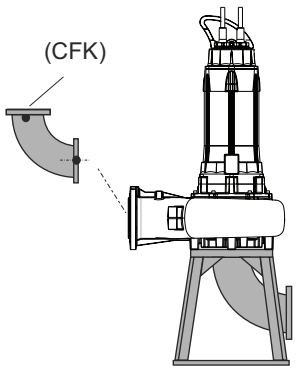
Submersible pump rest

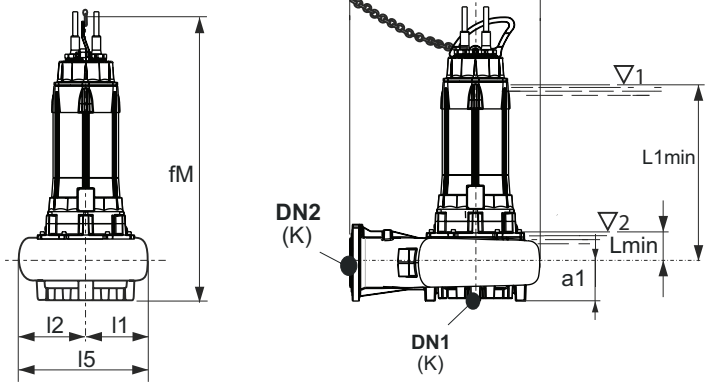
APK



Dry chamber pump rest

APCK





TYPE			mm										Kg
	DN1	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKC4 100-100L-0165N	150	100	160	1240	551	16	224	262	308	486	795	174	340
GKC4 100-100G-0193N	150	100	160	1240	551	16	224	262	308	486	795	174	371.9
GKC4 100-100D-0193N	150	100	160	1240	551	16	224	262	308	486	795	174	372.8
GKC4 100-100A-0230N	150	100	160	1240	551	16	224	262	308	486	795	174	380.7
GKC2 100-80C-0260N	100	100	110	1183	553	16	200	200	335	400	788	167	343.9
GKC2 100-80D-0260N	100	100	110	1183	553	16	200	200	335	400	788	167	343.7
GKC2 100-80G-0260N	100	100	110	1183	553	16	200	200	335	400	788	167	342.3
GKC2 100-80F-0260N	100	100	110	1183	553	16	200	200	335	400	788	167	342.4
GKC2 100-80E-0260N	100	100	110	1183	553	16	200	200	335	400	788	167	342.9
GKC2 100-80C-0350N	100	100	110	1183	553	16	200	200	335	400	788	167	367.1
GKC2 100-80D-0350N	100	100	110	1183	553	16	200	200	335	400	788	167	366.9
GKC2 100-80B-0350N	100	100	110	1183	553	16	200	200	335	400	788	167	367.4
GKC2 100-80A-0350N	100	100	110	1183	553	16	200	200	335	400	788	167	368.1

L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

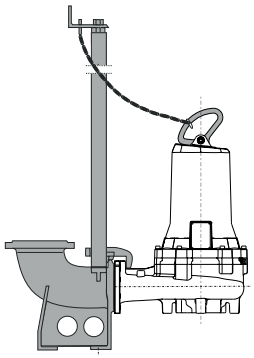
GKC

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Dimensions and weights

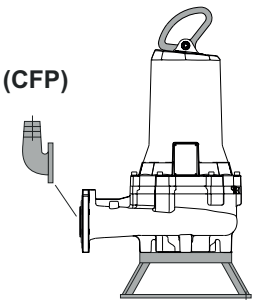
Duck foot coupling

SAK



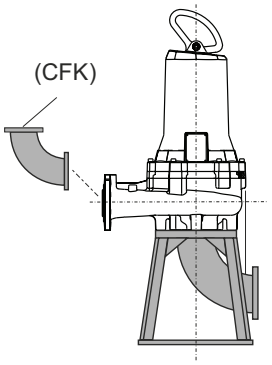
Submersible pump rest

APK



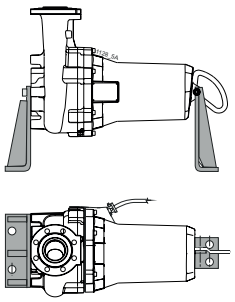
Dry chamber pump rest

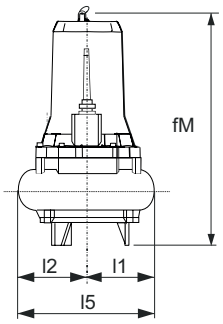
APCK

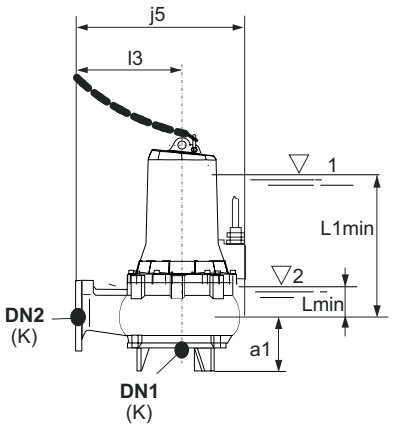


Dry chamber pump support

SOK







TYPE			mm										Kg
	DN1	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKC6 150-100G-0040L	150	150	138	808	532	16	227	241	305	468	440	89	168.5
GKC6 150-100D-0040L	150	150	138	808	532	16	227	241	305	468	440	89	168
GKC6 150-100A-0040L	150	150	138	808	532	16	227	241	305	468	440	89	167.8
GKC4 150-80D-0046H	150	150	138	752.9	567	16	227	238.5	340	465.5	350	95	153
GKC4 150-80A-0058H	150	150	138	752.9	567	16	227	238.5	340	465.5	350	95	164.4
GKC4 150-100G-0075L	150	150	138	808	532	16	227	241	305	468	440	89	177
GKC4 150-100D-0105L	150	150	138	810.4	532	16	236	241	305	477	440	89	199.7
GKC4 150-100A-0125L	150	150	138	810.4	532	16	236.5	241	305	477.5	440	89	199.5

L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

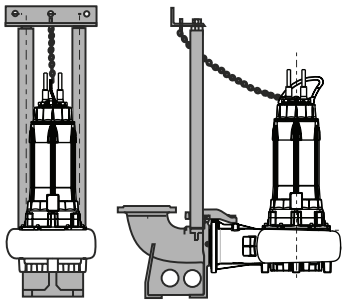
GKC

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Dimensions and weights

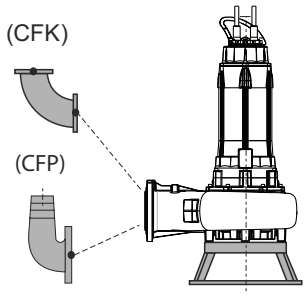
Duck foot coupling

SAK



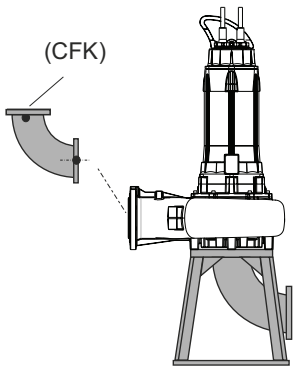
Submersible pump rest

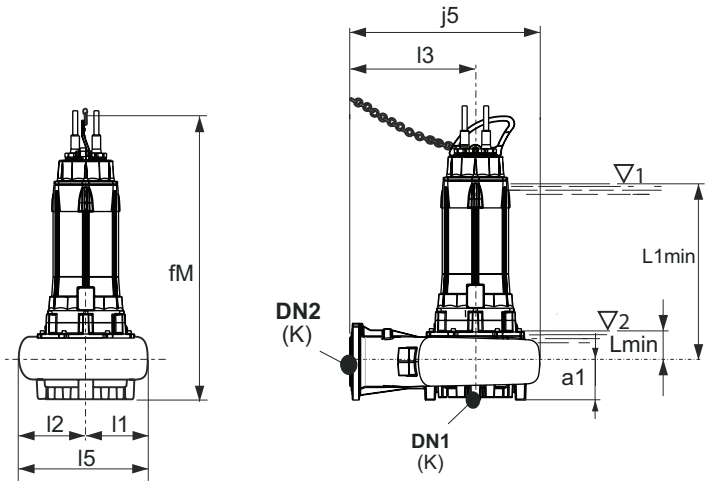
APK



Dry chamber pump rest

APCK





TYPE			mm										Kg
	DN1	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKC4 150-115L-0165N	150	150	160	1240	658	16	229	278	405	507	795	174	358
GKC4 150-115G-0193N	150	150	160	1240	658	16	229	278	405	507	795	174	379.9
GKC4 150-115D-0210N	150	150	160	1240	658	16	229	278	405	507	795	174	380
GKC4 150-115A-0260N	150	150	160	1240	658	16	229	278	405	507	795	174	388.7

L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

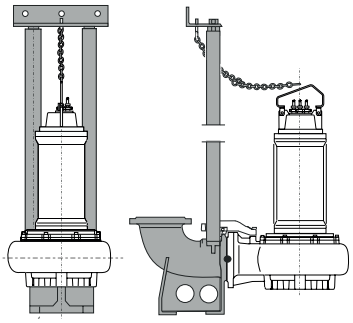
GKC

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Dimensions and weights

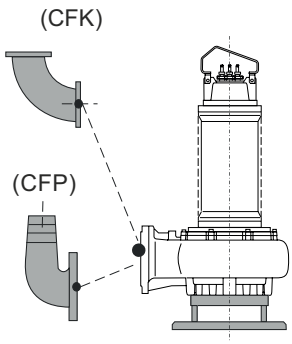
Duck foot coupling

SAK



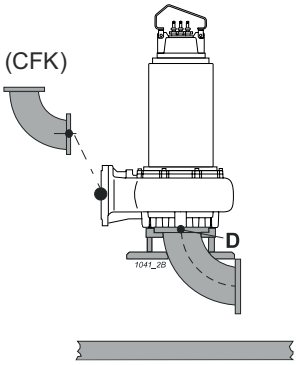
Submersible pump rest

APK



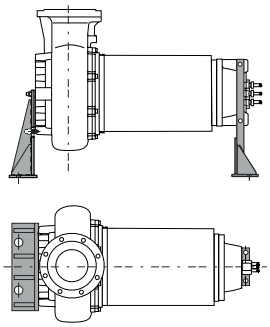
Dry chamber pump rest

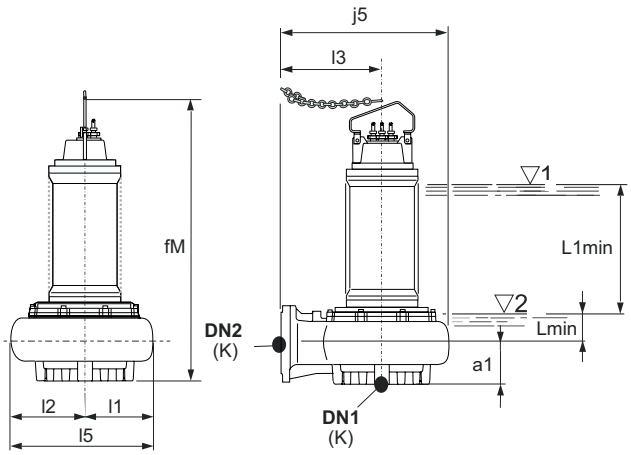
APCK



Dry chamber pump support

SOK





TYPE			mm										Kg
	DN1	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKC4 150-102L-0340R	150	150	195	1559.5	825	16	305	365	500	670	900	155	567
GKC4 150-102G-0420R	150	150	195	1559.5	825	16	305	365	500	670	900	155	677
GKC4 150-102D-0510R	150	150	195	1559.5	825	16	305	365	500	670	900	155	607
GKC4 150-102A-0620R	150	150	195	1581.5	825	16	305	365	500	670	900	155	812
GKC4 150-102L-0340R-R	150	150	195	1559.5	825	16	305	365	500	670	900	155	582
GKC4 150-102G-0420R-R	150	150	195	1559.5	825	16	305	365	500	670	900	155	692
GKC4 150-102D-0510R-R	150	150	195	1559.5	825	16	305	365	500	670	900	155	622
GKC4 150-102A-0620R-R	150	150	195	1581.5	825	16	305	365	500	670	900	155	832

L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

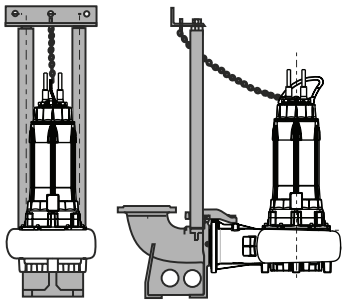
GKC

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Dimensions and weights

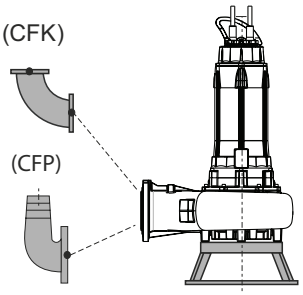
Duck foot coupling

SAK



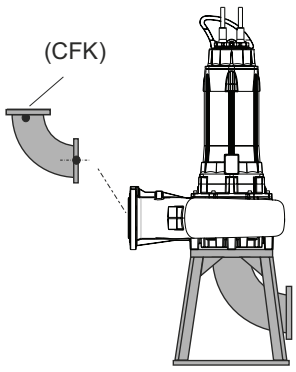
Submersible pump rest

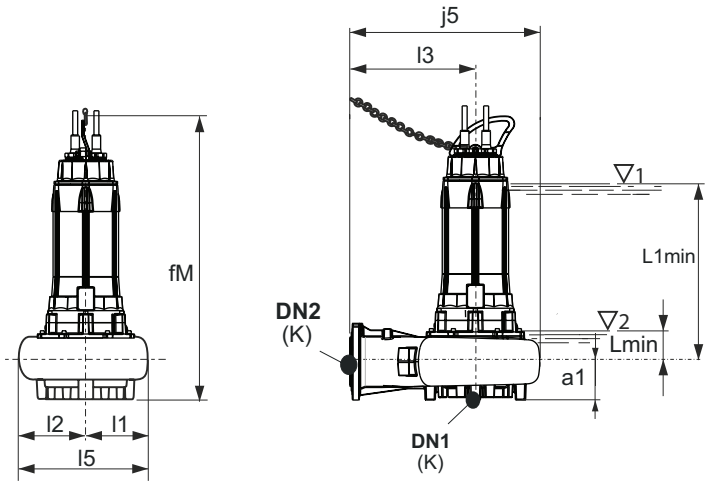
APK



Dry chamber pump rest

APCK





TYPE			mm										Kg
	DN1	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKC6 200-135G-0110P	200	200	185	1280	765	10	277	345	455	622	810	189	423.3
GKC6 200-135D-0150P	200	200	185	1280	765	10	277	345	455	622	810	189	450.2
GKC6 200-135A-0195P	200	200	185	1280	765	10	277	345	455	622	810	189	497.5

L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

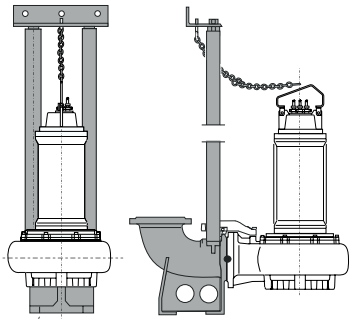
GKC

calpeda®

Dimensions and weights

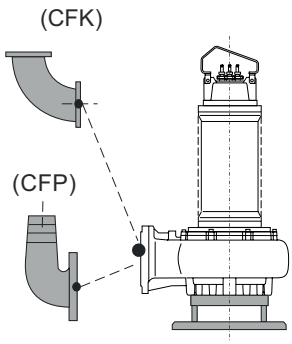
Duck foot coupling

SAK



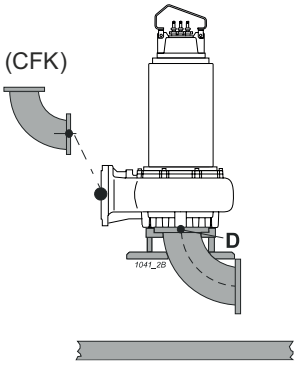
Submersible pump rest

APK



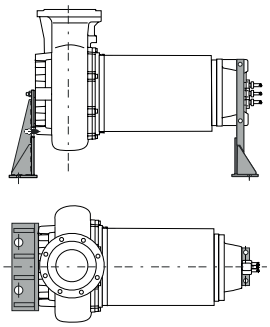
Dry chamber pump rest

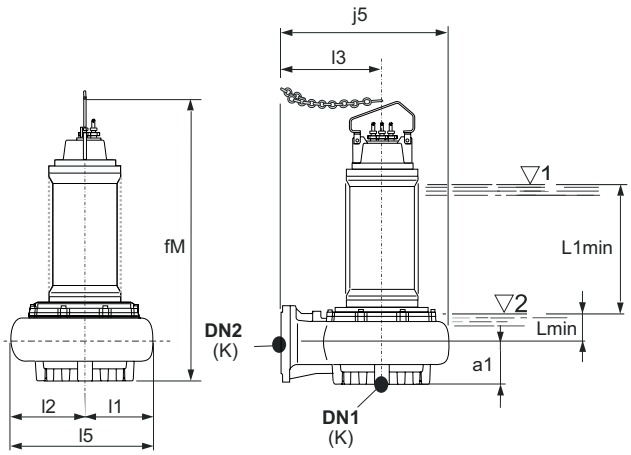
APCK



Dry chamber pump support

SOK





HL minimum level of submersibility

TYPE			mm										Kg
	DN1	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKC8 250-163A-0210Z	250	250	220	1612.5	935	10	330	405	570	735	930	185	653
GKC8 250-163A-0210Z-R	250	250	220	1612.5	935	10	330	405	570	735	930	185	668

L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

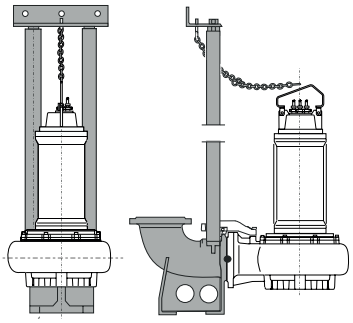
GKC

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Dimensions and weights

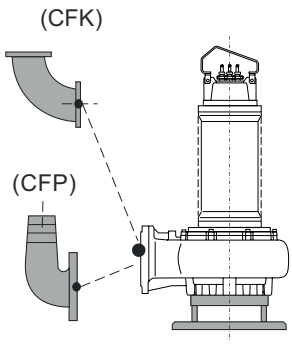
Duck foot coupling

SAK



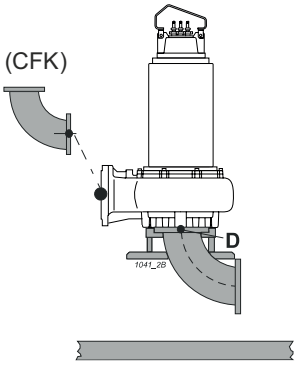
Submersible pump rest

APK



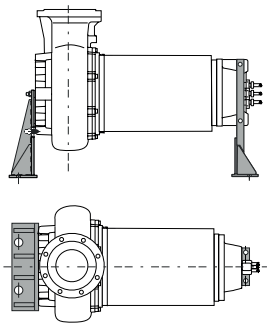
Dry chamber pump rest

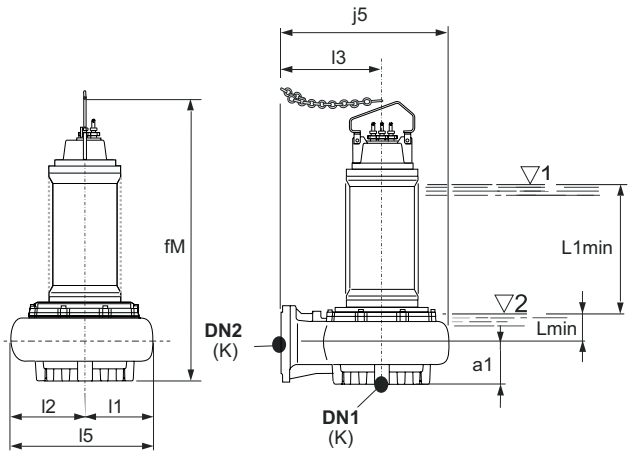
APCK



Dry chamber pump support

SOK





TYPE			mm										Kg
	DN1	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKC6 250-163L-0250R	250	250	220	1612.5	935	10	330	405	570	735	930	185	717
GKC6 250-163G-0340R	250	250	220	1612.5	935	10	330	405	570	735	930	185	653
GKC6 250-163D-0420R	250	250	220	1612.5	935	10	330	405	570	735	930	185	744
GKC6 250-163A-0510R	250	250	220	1644.5	935	10	330	405	570	735	930	185	885
GKC6 250-163L-0250R-R	250	250	220	1612.5	935	10	330	405	570	735	930	185	732
GKC6 250-163G-0340R-R	250	250	220	1612.5	935	10	330	405	570	735	930	185	668
GKC6 250-163D-0420R-R	250	250	220	1612.5	935	10	330	405	570	735	930	185	688
GKC6 250-163A-0510R-R	250	250	220	1644.5	935	10	330	405	570	735	930	185	1023

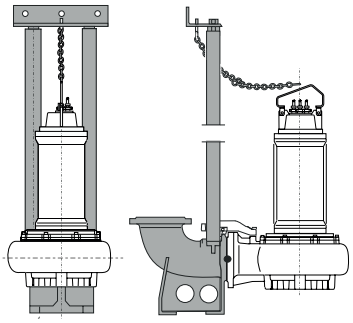
L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

GKC

Dimensions and weights

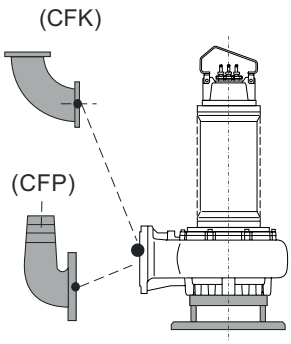
Duck foot coupling

SAK



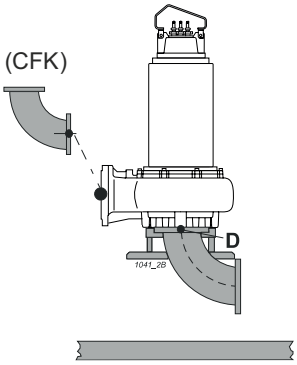
Submersible pump rest

APK



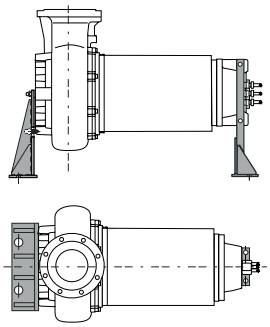
Dry chamber pump rest

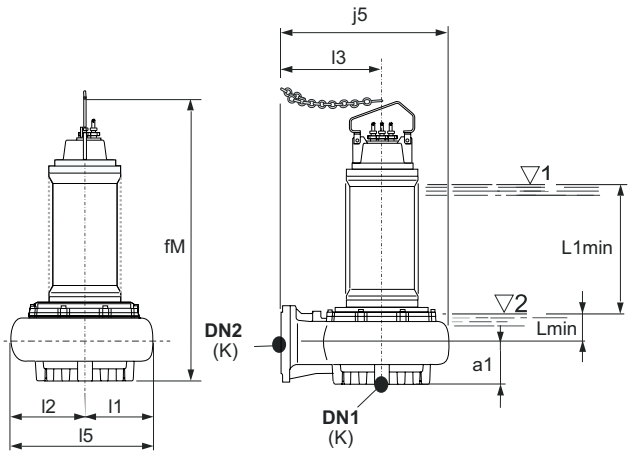
APCK



Dry chamber pump support

SOK





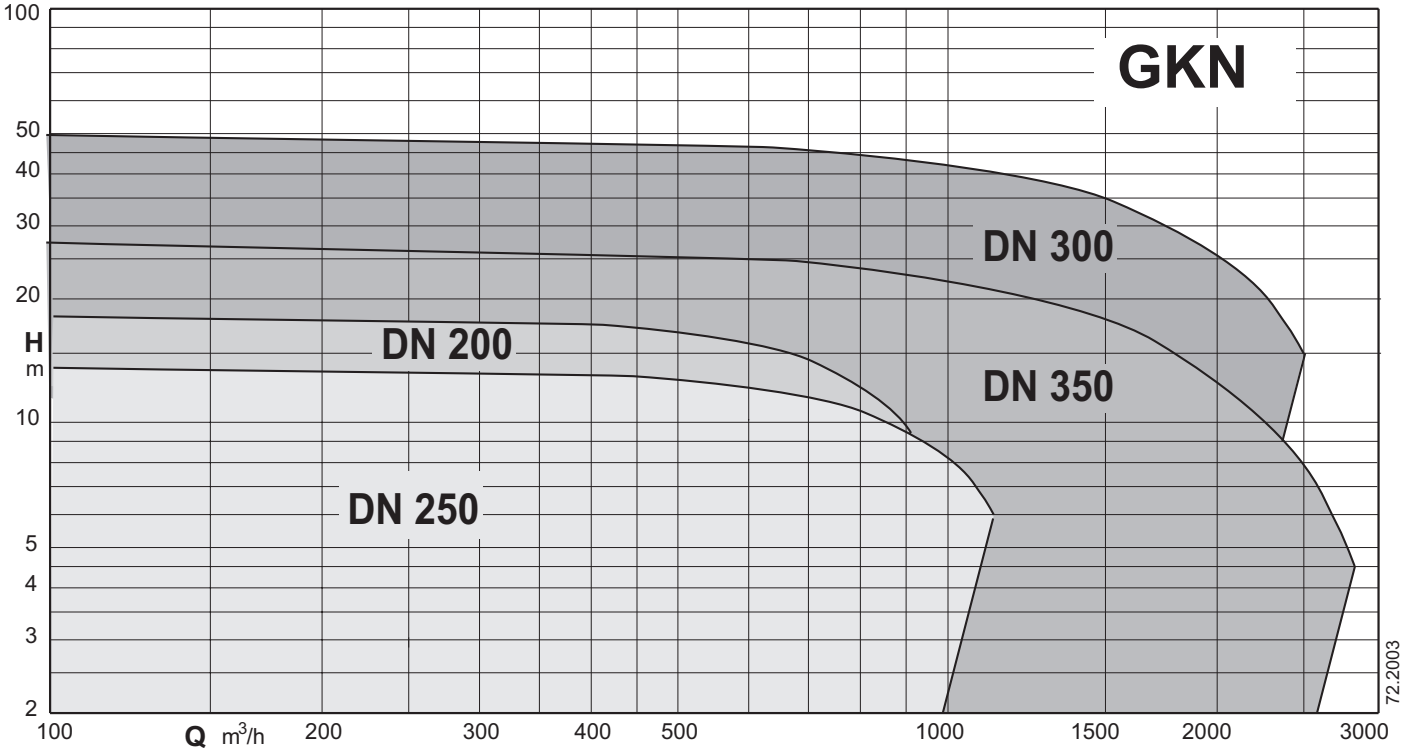
TYPE			mm										Kg
	DN1	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKC4 250-163M-0820T	250	250	220	1666.5	935	10	330	405	570	735	1023	185	1077
GKC4 250-163L-1000T	250	250	220	1880	935	10	330	405	570	735	1140	185	1078
GKC4 250-163H-1000T	250	250	220	1880	935	10	330	405	570	735	1140	185	1355
GKC4 250-163G-1200T	250	250	220	1880	935	10	330	405	570	735	1140	185	1416
GKC4 250-163E-1450T	250	250	220	1880	935	10	330	405	570	735	1140	185	1468
GKC4 250-163T-1450T	250	250	220	1880	935	10	330	405	570	735	1140	185	1469
GKC4 250-163B-1450T	250	250	220	1880	935	10	330	405	570	735	1140	185	1880
GKC4 250-163A-1800T	250	250	220	2116	935	10	330	405	570	735	1350	185	1872
GKC4 250-163M-0820T-R	250	250	220	1666.5	935	10	330	405	570	735	1023	185	1098
GKC4 250-163L-1000T-R	250	250	220	1880	935	10	330	405	570	735	1140	185	1311
GKC4 250-163H-1000T-R	250	250	220	1880	935	10	330	405	570	735	1140	185	1588
GKC4 250-163G-1200T-R	250	250	220	1880	935	10	330	405	570	735	1140	185	1650
GKC4 250-163E-1450T-R	250	250	220	1880	935	10	330	405	570	735	1140	185	1702
GKC4 250-163T-1450T-R	250	250	220	1880	935	10	330	405	570	735	1140	185	1703
GKC4 250-163B-1450T-R	250	250	220	1880	935	10	330	405	570	735	1140	185	1705
GKC4 250-163A-1800T-R	250	250	220	2116	935	10	330	405	570	735	1350	185	2200

L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

GKN

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submersible pumps with channels impeller

GKN

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Construction

Submersible pumps with multi-channel impeller.
Characterised by good protection against clogging, large spherical passages, good wear resistance, low mechanical action on the fluid and high hydraulic efficiency at high flow rates.
Low vibrations thanks to the dynamically balanced impeller.
Delivery port DN 200-250-300-350.

Applications

For the movement of sewage and sewage grates.
Particularly suitable for the emptying of sewage from cesspits or primary collection tanks or industrial waste water.
They replace single-channel pumps when a high solids passage diameter is not required.
Solid passage from 100 to 164 mm.

Operating conditions

Liquid temperature: from 0°C to +40°C.
Maximum immersion depth: 20m (with cable of suitable length).
Maximum working pressure: 80 m.w.c.
pH of the liquid to be lifted: 4 ÷ 10
Continuous service (with water at minimum immersion level).

Materials

Pump casing: cast iron EN-GJL250 UNI-EN 1561-11
Impeller: cast iron EN-GJL250 UNI-EN 1561-11
Motor casing: cast iron EN-GJL250 UNI-EN 1561-11 / EN-GJL450 UNI-EN 1561-11
Shaft: stainless steel X20Cr13 (AISI420)
Pump mechanical seal with flange size F - H - L - N - P
- motor side: graphite/ceramic
- pump side: silicon/ceramic carbide

Pump mechanical seal with flange size R - Z - T
- motor side: stainless steel/graphite
- pump side: Silicon carbide/silicon carbide

Motor

Induction motor 4-6 or 8 poles, 50Hz
400/690V ± 10%
Isolation class: F or H
Degree of protection: IP 68
Max number of starts per hour:
- 20 up to 5 kW
- 15 up to 10 kW
- 10 for higher powers

Cable: length 10m
Direction of rotation: clockwise top view
Motor suitable for operation with frequency converter.

Special features on request

(Check feasibility according to the model with our Technical Sales Office).
Impeller in stainless steel AISI 316 or bronze
Bronze impeller seat ring
Cable length up to 40 m
Other mechanical seal.
For liquid or environment with higher or lower temperature
Ceramic coating
Internal anti-erosion coating, external anti-corrosion

Designation

GKN4 200-100A-0260R
GK = Series
N = Multi-channel impeller
4 = Number of poles
200 = Delivery port diameter in mm
100 = Free passage in mm
A = Impeller trim
0260 = Motor size kW x 10
F = Size of electric motor flanging
R = With cooling jacket / oil chamber

Technical data

TYPE	Dry chamber version		Probes		Cable		Class	Duck foot coupling	Submersible pump rest	Dry chamber pump rest	Dry chamb pump suppo
	Vertical	Horizontal	thermal	conductivity	NSSHOU-J	H07RN-F	Isolation				
GKN6 200-100A-0075N	#	–	•	•	•	–	H / IE3	SAK 200-250-3	APK 150	APCK 200	SOK150/N
GKN6 200-100G-0075N	#	–	•	•	•	–	H / IE3	SAK 200-250-3	APK 150	APCK 200	SOK150/N
GKN6 200-100L-0075N	#	–	•	•	•	–	H / IE3	SAK 200-250-3	APK 150	APCK 200	SOK150/N
GKN6 200-100A-0110N	#	–	•	•	•	–	H / IE3	SAK 200-250-3	APK 150	APCK 200	–
GKN6 200-100G-0110N	#	–	•	•	•	–	H / IE3	SAK 200-250-3	APK 150	APCK 200	–
GKN6 200-100L-0110N	#	–	•	•	•	–	H / IE3	SAK 200-250-3	APK 150	APCK 200	–
GKN4 200-100A-0260N	#	–	•	•	•	–	H / IE3	SAK 200-250-3	APK 150	APCK 200	–
GKN4 200-100D-0210N	#	–	•	•	•	–	H / IE3	SAK 200-250-3	APK 150	APCK 200	–
GKN4 200-100G-0193N	#	–	•	•	•	–	H / IE3	SAK 200-250-3	APK 150	APCK 200	–
GKN4 200-100L-0165N	#	–	•	•	•	–	H / IE3	SAK 200-250-3	APK 150	APCK 200	–
GKN6 250-115A-0195P	#	–	•	•	•	–	H / IE3	SAK 250-300-3	APK 250	APCK 250	–
GKN6 250-115D-0150P	#	–	•	•	•	–	H / IE3	SAK 250-300-3	APK 250	APCK 250	–
GKN6 250-115I-0110P	#	–	•	•	•	–	H / IE3	SAK 250-300-3	APK 250	APCK 250	–
GKN8 300-143A-0210Z	–	–	•	•	–	•	F	SAK 300-350-3	APK 350	–	–
GKN8 300-143B-0210Z-R	$	$	•	•	–	•	F	SAK 300-350-3	–	APCK 300	–
GKN8 300-143D-0170Z	–	–	•	•	–	•	F	SAK 300-350-3	APK 350	–	–
GKN8 300-143E-0170Z-R	$	$	•	•	–	•	F	SAK 300-350-3	–	APCK 300	–
GKN6 300-143A-0510R	–	–	•	•	•	–	H / IE3	SAK 300-350-3	APK 350	–	–
GKN6 300-143B-0510R-R	#	–	•	•	•	–	H / IE3	SAK 300-350-3	–	APCK 300	–
GKN6 300-143D-0420R	–	–	•	•	•	–	H / IE3	SAK 300-350-3	APK 350	–	–
GKN6 300-143E-0420R-R	#	–	•	•	•	–	H / IE3	SAK 300-350-3	–	APCK 300	–
GKN6 300-143G-0340R	–	–	•	•	•	–	H / IE3	SAK 300-350-3	APK 350	–	–
GKN6 300-143H-0340R-R	#	–	•	•	•	–	H / IE3	SAK 300-350-3	–	APCK 300	–
GKN6 300-143M-0250R	–	–	•	•	•	–	H / IE3	SAK 300-350-3	APK 350	–	–
GKN6 300-143N-0250R-R	#	–	•	•	•	–	H / IE3	SAK 300-350-3	–	APCK 300	–

• = Standard
- = Not present
o = Optional
# = Version with oil chamber
$ = Version with cooling jacket
# = In case of operation in a dry chamber or with a low level of the pumped liquid, it is necessary to introduce the cooling oil according to the quantities indicated in the use and maintenance manual

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Technical data

TYPE	Dry chamber version		Probes		Cable		Class	Duck foot coupling	Submersible pump rest	Dry chamber pump rest	Dry chamber pump support
	Vertical	Horizontal	thermal	conductivity	NSSHOU-J	H07RN-F	Isolation				
GKN8 350-143A-0420R	–	–	•	•	–	•	F	SAK 350-400-3	APK 350	–	–
GKN8 350-143B-0420R-R	$	$	•	•	–	•	F	SAK 350-400-3	–	APCK 350	SOK350-250
GKN8 350-143G-0340R	–	–	•	•	–	•	F	SAK 350-400-3	APK 350	–	–
GKN8 350-143H-0340R-R	$	$	•	•	–	•	F	SAK 350-400-3	–	APCK 350	SOK350-225
GKN8 350-143O-0250R	–	–	•	•	–	•	F	SAK 350-400-3	APK 350	–	–
GKN8 350-143P-0250R-R	$	$	•	•	–	•	F	SAK 350-400-3	–	APCK 350	SOK350-225
GKN8 350-143S-0210R	–	–	•	•	–	•	F	SAK 350-400-3	APK 350	–	–
GKN8 350-143T-0210R-R	$	$	•	•	–	•	F	SAK 350-400-3	–	APCK 350	SOK350-200
GKN6 350-164S-0510R	–	–	•	•	•	–	H / IE3	SAK 350-400-3A	APK 350	–	–
GKN6 350-164T-0510R-R	#	–	•	•	•	–	H / IE3	SAK 350-400-3A	–	APCK 350	–
GKN6 350-164V-0420R	–	–	•	•	•	–	H / IE3	SAK 350-400-3A	APK 350	–	–
GKN6 350-164W-0420R-R	#	–	•	•	•	–	H / IE3	SAK 350-400-3A	–	APCK 350	–
GKN4 300-143A-1800T	–	–	•	•	–	•	F	SAK 300-350-3A	APK 350	–	–
GKN4 300-143B-1800T-R	$	$	•	•	–	•	F	SAK 300-350-3A	–	APCK 300	SOK350-315
GKN4 300-143D-1450T	–	–	•	•	–	•	F	SAK 300-350-3A	APK 350	–	–
GKN4 300-143E-1450T-R	$	$	•	•	–	•	F	SAK 300-350-3A	–	APCK 300	SOK350-280
GKN4 300-143G-1200T	–	–	•	•	–	•	F	SAK 300-350-3A	APK 350	–	–
GKN4 300-143H-1200T-R	$	$	•	•	–	•	F	SAK 300-350-3A	–	APCK 300	SOK350-280
GKN4 300-143I-1000T	–	–	•	•	–	•	F	SAK 300-350-3A	APK 350	–	–
GKN4 300-143L-1000T-R	$	$	•	•	–	•	F	SAK 300-350-3A	–	APCK 300	SOK350-280
GKN4 300-143M-0900T	–	–	•	•	–	•	F	SAK 300-350-3A	APK 350	–	–
GKN4 300-143N-0820R	–	–	•	•	•	–	H / IE3	SAK 300-350-3A	APK 350	–	–
GKN4 300-143P-0900T-R	$	$	•	•	–	•	F	SAK 300-350-3A	–	APCK 300	SOK350-250
GKN4 300-143Q-0820R-R	#	–	•	•	•	–	H / IE3	SAK 300-350-3A	–	APCK 300	–
GKN6 350-164A-1000T	–	–	•	•	–	•	F	SAK 350-400-3A	APK 350	–	–
GKN6 350-164B-1000T-R	$	$	•	•	–	•	F	SAK 350-400-3A	–	APCK 350	SOK350-280
GKN6 350-164G-0820R	–	–	•	•	•	–	H / IE3	SAK 350-400-3A	APK 350	–	–
GKN6 350-164H-0820R-R	#	$	•	•	•	–	H / IE3	SAK 350-400-3A	–	APCK 350	–
GKN6 350-164O-0600T	–	–	•	•	–	•	F	SAK 350-400-3A	APK 350	–	–
GKN6 350-164P-0600T-R	$	$	•	•	–	•	F	SAK 350-400-3A	–	APCK 350	SOK350-280

• = Standard
- = Not present

o = Optional

= Version with oil chamber
$ = Version with cooling jacket

= In case of operation in a dry chamber or with a low level of the pumped liquid, it is necessary to introduce the cooling oil according to the quantities indicated in the use and maintenance manual

GKN

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Performance

n ≈ 950 1/min

				Q = Flow													
				m³/h	0	108	126	144	162	180	216	252	288	324	360	450	540
Model	400V	690V	P2	l/min		1800	2100	2400	2700	3000	3600	4200	4800	5400	6000	7500	9000
	A		kW	H (m) = Total head													
GKN6 200-100L-0075N	15,8	9,1	7,5		5,9	-	4,8	4,6	4,5	4,3	3,9	3,5	3,1	2,7	2,3	-	-
GKN6 200-100G-0075N	15,8	9,1	7,5		7,7	-	6,1	5,9	5,7	5,6	5,2	4,8	4,4	3,9	3,4	2,2	-
GKN6 200-100A-0075N	15,8	9,1	7,5		10,4	-	-	-	7,9	7,7	7,3	6,9	6,4	5,9	5,3	3,8	2,1
GKN6 200-100L-0110N	23,8	13,7	11		5,9	5	4,8	4,6	4,4	4,3	4	3,7	3,3	3	2,5	-	-
GKN6 200-100G-0110N	23,8	13,7	11		8,1	-	-	6,4	6,2	6	5,6	5,3	4,9	4,4	4	2,7	-
GKN6 200-100A-0110N	23,8	13,7	11		11,6	-	-	-	8,2	8	7,6	7,2	6,9	6,5	6	4,7	3,1

n ≈ 1450 1/min

				Q = Flow												
				m³/h	0	216	252	288	324	360	450	540	630	720	810	900
Model	400V	690V	P2	l/min		3600	4200	4800	5400	6000	7500	9000	10500	12000	13500	15000
	A		kW	H (m) = Total head												
GKN4 200-100L-0165N	31,2	18	16,5		12,9	10	9,5	9	8,6	8,1	6,9	5,4	3,6	-	-	-
GKN4 200-100G-0193N	38,8	22,4	19,3		18	14,2	13,6	13	12,4	11,9	10,4	8,8	7	4,9	2,9	-
GKN4 200-100D-0210N	39	22,5	21		20,1	-	14,9	14,2	13,6	13	11,6	10	8,1	6	3,8	-
GKN4 200-100A-0260N	47,2	27,3	26		24,9	18,1	17,6	17	16,5	15,9	14,5	12,9	11	8,7	6,1	3,7

n ≈ 950 1/min

				Q = Flow													
				m³/h	0	252	288	324	360	450	540	630	720	810	900	990	1080
Model	400V	690V	P2	l/min		4200	4800	5400	6000	7500	9000	10500	12000	13500	15000	16500	18000
	A		kW	H (m) = Total head													
GKN6 250-115I-0110P	23,8	13,7	11		8,4	6,4	6,1	5,8	5,6	4,9	4	3,1	2,1	-	-	-	-
GKN6 250-115D-0150P	33	19,1	15		11,4	9,4	9,1	8,8	8,5	7,7	6,8	5,8	4,7	3,5	2,2	-	-
GKN6 250-115A-0195P	40,2	23,2	19,5		15	13,1	12,7	12,3	11,9	10,8	9,8	8,7	7,6	6,4	5,1	3,8	2,5

n ≈ 725 1/min

				Q = Flow														
				m³/h	0	288	360	450	540	630	720	810	900	990	1080	1170	1260	1350
Model	400V	690V	P2	l/min		4800	6000	7500	9000	10500	12000	13500	15000	16500	18000	19500	21000	22500
	A		kW	H (m) = Total head														
GKN8 300-143D-0170Z	36,0	20,6	17		11,1	8,6	8,2	7,7	7,3	6,8	6,3	5,7	5	4,2	3,4	2,6	1,7	-
GKN8 300-143A-0210Z	44,1	25,2	21		13	10,1	9,8	9,4	8,9	8,3	7,7	6,9	6,2	5,4	4,6	3,8	3	2,2
GKN8 300-143E-0170Z-R	36,0	20,6	17		11,1	8,6	8,2	7,7	7,3	6,8	6,3	5,7	5	4,2	3,4	2,6	1,7	-
GKN8 300-143B-0210Z-R	44,1	25,2	21		13	10,1	9,8	9,4	8,9	8,3	7,7	6,9	6,2	5,4	4,6	3,8	3	2,2

n ≈ 950 1/min

				Q = Flow													
				m³/h	0	324	360	450	540	630	720	900	1080	1260	1440	1620	1800
Model	400V	690V	P2	l/min		5400	6000	7500	9000	10500	12000	15000	18000	21000	24000	27000	30000
	A		kW	H (m) = Total head													
GKN6 300-143M-0250R	50,0	28,6	25		11,6	9,6	9,4	9	8,5	8,1	7,6	6,4	5,1	3,5	2	-	-
GKN6 300-143G-0340R	68,5	39,1	34		16,4	-	12,7	12,4	12	11,5	10,9	9,6	8	6,2	4,3	-	-
GKN6 300-143D-0420R	84,7	48,4	42		20,5	-	15,3	14,8	14,3	13,9	13,4	12,2	10,6	8,6	6,4	4,2	-
GKN6 300-143A-0510R	103	58,9	51		23,7	-	18	17,5	17	16,6	16,1	14,8	13,1	11	8,8	6,5	4,1
GKN6 300-143N-0250R-R	50,0	28,6	25		11,6	9,6	9,4	9	8,5	8,1	7,6	6,4	5,1	3,5	2	-	-
GKN6 300-143H-0340R-R	68,5	39,1	34		16,4	-	12,7	12,4	12	11,5	10,9	9,6	8	6,2	4,3	-	-
GKN6 300-143E-0420R-R	84,7	48,4	42		20,5	-	15,3	14,8	14,3	13,9	13,4	12,2	10,6	8,6	6,4	4,2	-
GKN6 300-143B-0510R-R	103	58,9	51		23,7	-	18	17,5	17	16,6	16,1	14,8	13,1	11	8,8	6,5	4,1

GKN

calpeda®

Performance

n ≈ 1450 1/min

				Q = Flow																	
				m³/h	0	540	630	720	810	900	990	1080	1170	1260	1440	1620	1800	1980	2160	2340	2520
Model	400V	690V	P2	l/min		9000	10500	12000	13500	15000	16500	18000	19500	21000	24000	27000	30000	33000	36000	39000	42000
	A		kW	H (m) = Total head																	
GKN4 300-143N-0820T	148	84,5	82		30,8	24	22,9	21,9	20,8	19,8	18,8	17,8	16,8	15,8	13,8	11,7	9,5	7,2	4,5	1,6	-
GKN4 300-143M-0900T	159	90,9	90		32,1	25,2	24,2	23,1	22,1	21	20	18,9	17,9	16,9	14,8	12,7	10,6	8,3	5,8	2,8	-
GKN4 300-143I-1000T	184	105	100		34,4	27,5	26,4	25,4	24,3	23,2	22,1	21	19,9	18,9	16,7	14,5	12,2	9,8	7,4	4,9	2,3
GKN4 300-143G-1200T	223	128	120		37,9	32,9	31,3	29,8	28,5	27,2	25,9	24,8	23,7	22,6	20,5	18,3	16,1	13,6	10,9	8,1	5,2
GKN4 300-143D-1450T	262	150	145		48,3	38,4	37	35,7	34,5	33,3	32,1	30,9	29,7	28,4	25,7	22,8	20	17,2	14,6	12,2	10
GKN4 300-143A-1800T	321	184	180		56,6	46,8	45,4	44,2	43,1	42	40,9	39,7	38,6	37,4	34,8	32	29	25,9	22,6	19,3	15,9
GKN4 300-143Q-0820T-R	148	84,5	82		30,8	24	22,9	21,9	20,8	19,8	18,8	17,8	16,8	15,8	13,8	11,7	9,5	7,2	4,5	1,6	-
GKN4 300-143P-0900T-R	159	90,9	90		32,1	25,2	24,2	23,1	22,1	21	20	18,9	17,9	16,9	14,8	12,7	10,6	8,3	5,8	2,8	-
GKN4 300-143L-1000T-R	184	105	100		34,4	27,5	26,4	25,4	24,3	23,2	22,1	21	19,9	18,9	16,7	14,5	12,2	9,8	7,4	4,9	2,3
GKN4 300-143H-1200T-R	223	128	120		37,9	32,9	31,3	29,8	28,5	27,2	25,9	24,8	23,7	22,6	20,5	18,3	16,1	13,6	10,9	8,1	5,2
GKN4 300-143E-1450T-R	262	150	145		48,3	38,4	37	35,7	34,5	33,3	32,1	30,9	29,7	28,4	25,7	22,8	20	17,2	14,6	12,2	10
GKN4 300-143B-1800T-R	321	184	180		56,6	46,8	45,4	44,2	43,1	42	40,9	39,7	38,6	37,4	34,8	32	29	25,9	22,6	19,3	15,9

n ≈ 725 1/min

				Q = Flow																
				m³/h	0	252	270	360	450	540	630	720	900	1080	1260	1440	1620	1800	1980	2160
Model	400V	690V	P2	l/min		4200	4500	6000	7500	9000	10500	12000	15000	18000	21000	24000	27000	30000	33000	36000
	A		kW	H (m) = Total head																
GKN8 350-143S-0210R	44,1	25,2	21		8,4	7,2	7,2	7,1	7	6,8	6,5	6,2	5,6	4,8	3,8	2,8	1,8	-	-	-
GKN8 350-143O-0250R	58,5	33,4	25		10,1	-	-	8,7	8,5	8,3	8	7,6	6,8	5,9	4,9	3,8	2,5	-	-	-
GKN8 350-143G-0340R	80,0	45,7	34		13,9	-	-	12	11,5	11,1	10,7	10,3	9,4	8,4	7,3	6,1	4,8	3,4	2	-
GKN8 350-143A-0420R	90,5	51,7	42		16,1	-	-	13,5	13,1	12,8	12,4	12	11,1	10,1	9,1	8	6,7	5,3	3,9	2,4
GKN8 350-143T-0210R-R	44,1	25,2	21		8,4	7,2	7,2	7,1	7	6,8	6,5	6,2	5,6	4,8	3,8	2,8	1,8	-	-	-
GKN8 350-143P-0250R-R	58,5	33,4	25		10,1	-	-	8,7	8,5	8,3	8	7,6	6,8	5,9	4,9	3,8	2,5	-	-	-
GKN8 350-143H-0340R-R	80,0	45,7	34		13,9	-	-	12	11,5	11,1	10,7	10,3	9,4	8,4	7,3	6,1	4,8	3,4	2	-
GKN8 350-143B-0420R-R	90,5	51,7	42		16,1	-	-	13,5	13,1	12,8	12,4	12	11,1	10,1	9,1	8	6,7	5,3	3,9	2,4

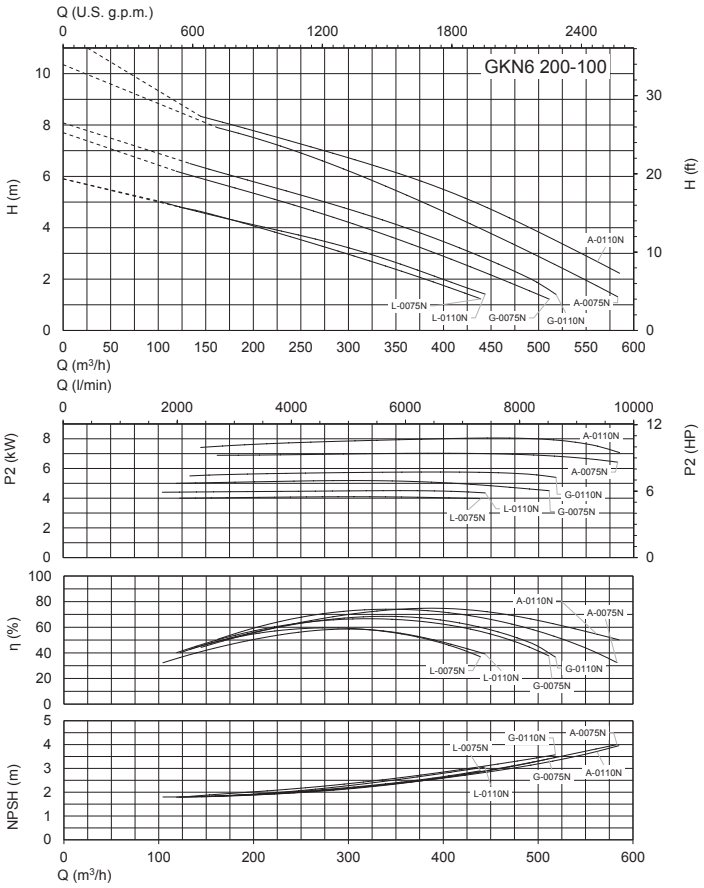
n ≈ 950 1/min

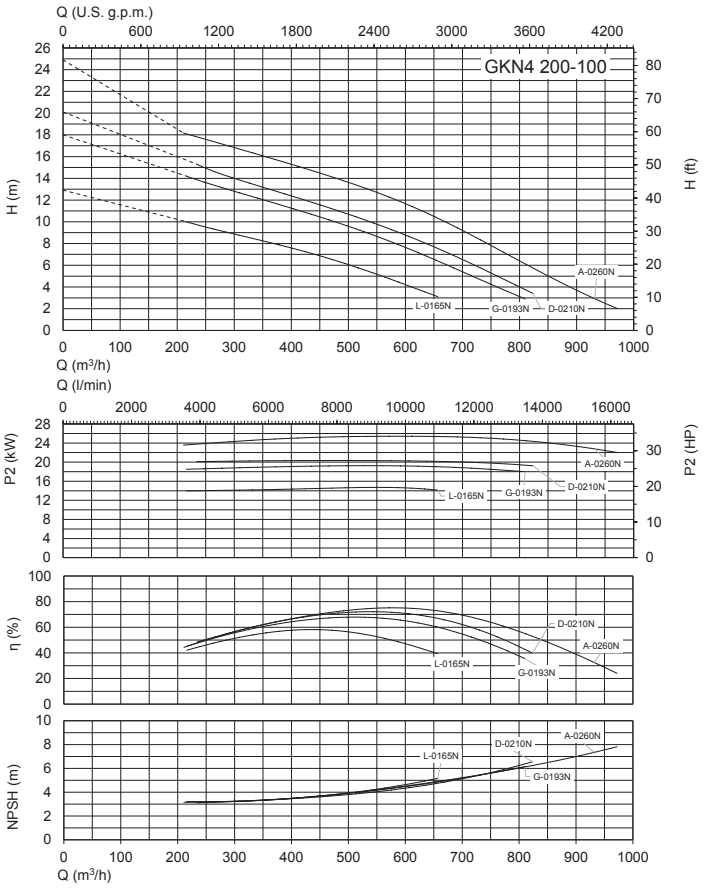
				Q = Flow																
				m³/h	0	720	810	900	990	1080	1170	1260	1440	1620	1800	1980	2160	2340	2520	2700	2880
Model	400V	690V	P2	l/min		12000	13500	15000	16500	18000	19500	21000	24000	27000	30000	33000	36000	39000	42000	45000	48000
	A		kW	H (m) = Total head																	
GKN6 350-164V-0420R	84,7	48,4	42		12,7	10,2	9,9	9,6	9,3	8,9	8,5	8,1	7,1	5,9	4,6	3,1	1,8	-	-	-	-
GKN6 350-164S-0510R	103	58,9	51		15,2	12,2	11,9	11,6	11,2	10,8	10,3	9,8	8,7	7,4	6,1	4,7	3,4	2	-	-	-
GKN6 350-164W-0420R-R	84,7	48,4	42		12,7	10,2	9,9	9,6	9,3	8,9	8,5	8,1	7,1	5,9	4,6	3,1	1,8	-	-	-	-
GKN6 350-164T-0510R-R	103	58,9	51		15,2	12,2	11,9	11,6	11,2	10,8	10,3	9,8	8,7	7,4	6,1	4,7	3,4	2	-	-	-
GKN6 350-164O-0600T	110	62,7	60		21,1	16,4	15,8	15,1	14,4	13,8	13,1	12,3	10,9	9,4	8	6,5	5,2	3,9	2,7	-	-
GKN6 350-164G-0820T	145	82,7	82		27,2	20,7	20	19,3	18,6	17,9	17,1	16,4	14,9	13,3	11,7	10	8,4	6,8	5,2	3,6	-
GKN6 350-164A-1000T	177	101	100		31,7	24,9	24	23,2	22,4	21,6	20,8	19,9	18,3	16,6	14,9	13,3	11,6	10	8,3	6,8	5,2
GKN6 350-164P-0600T-R	110	62,7	60		21,1	16,4	15,8	15,1	14,4	13,8	13,1	12,3	10,9	9,4	8	6,5	5,2	3,9	2,7	-	-
GKN6 350-164H-0820T-R	145	82,7	82		27,2	20,7	20	19,3	18,6	17,9	17,1	16,4	14,9	13,3	11,7	10	8,4	6,8	5,2	3,6	-
GKN6 350-164B-1000T-R	177	101	100		31,7	24,9	24	23,2	22,4	21,6	20,8	19,9	18,3	16,6	14,9	13,3	11,6	10	8,3	6,8	5,2

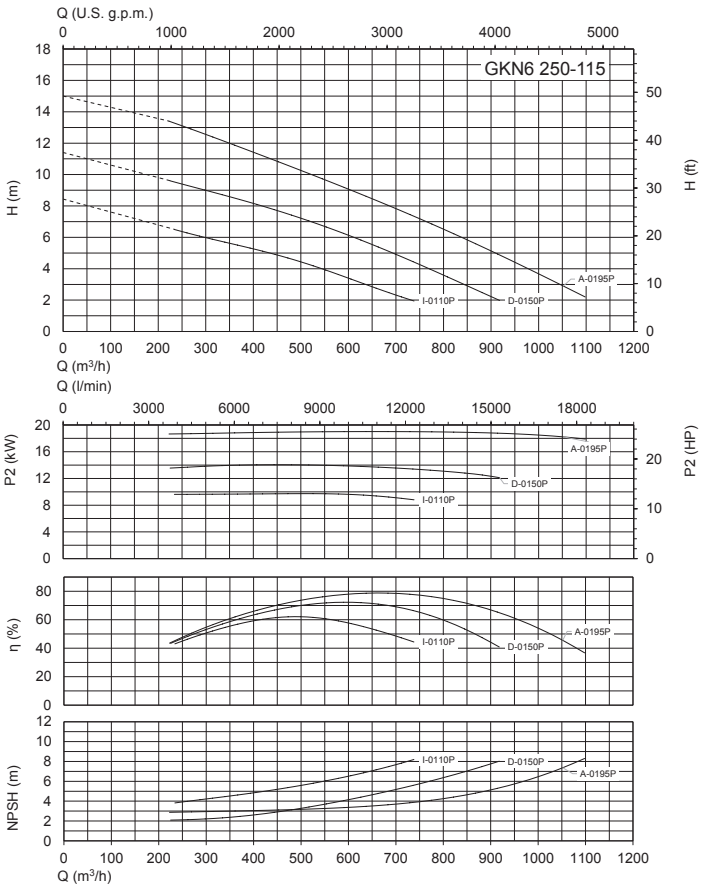
GKN

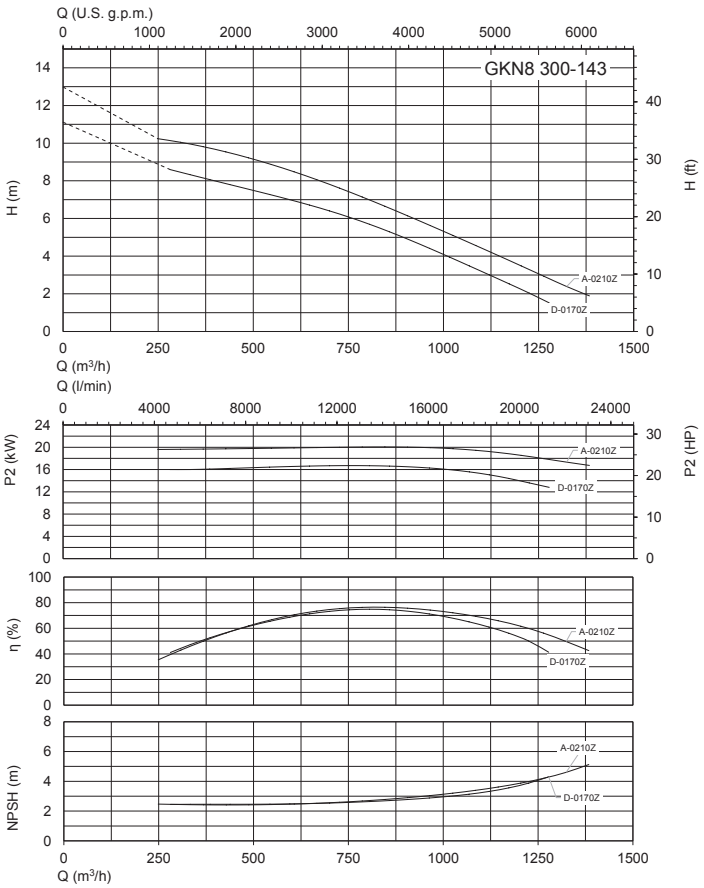
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Characteristic curves





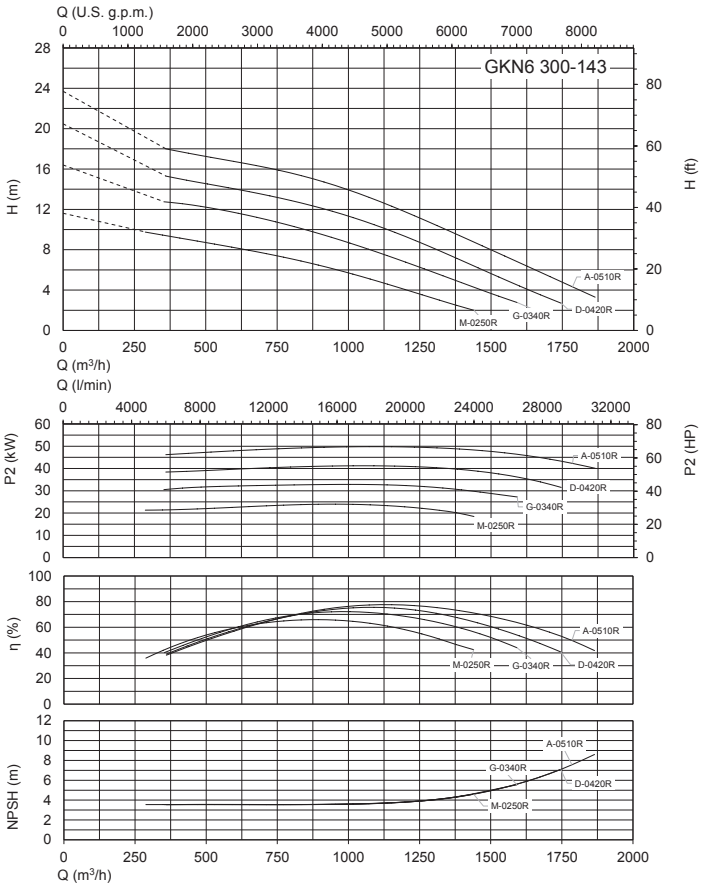


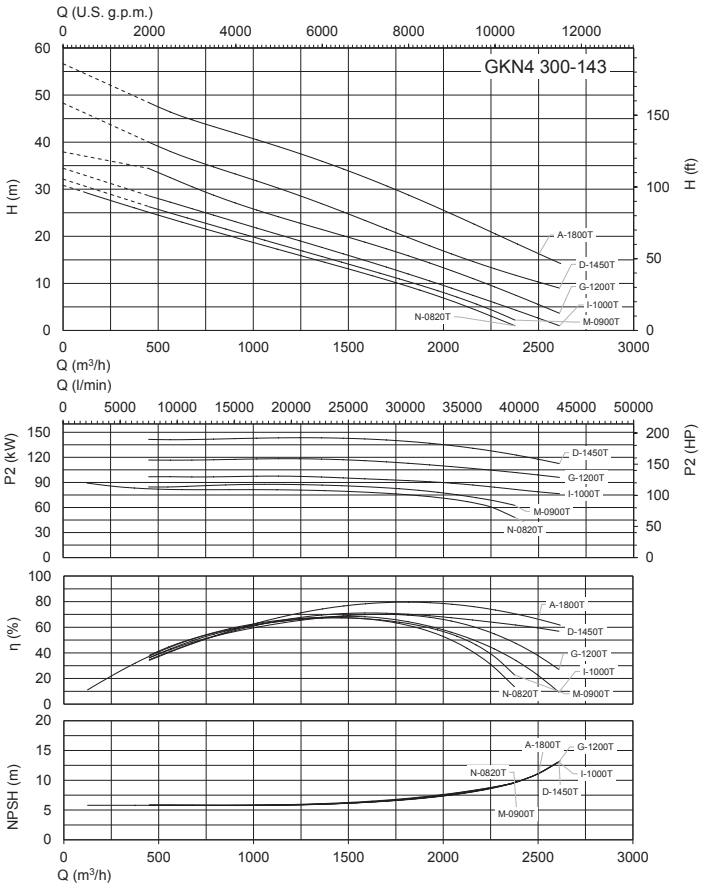


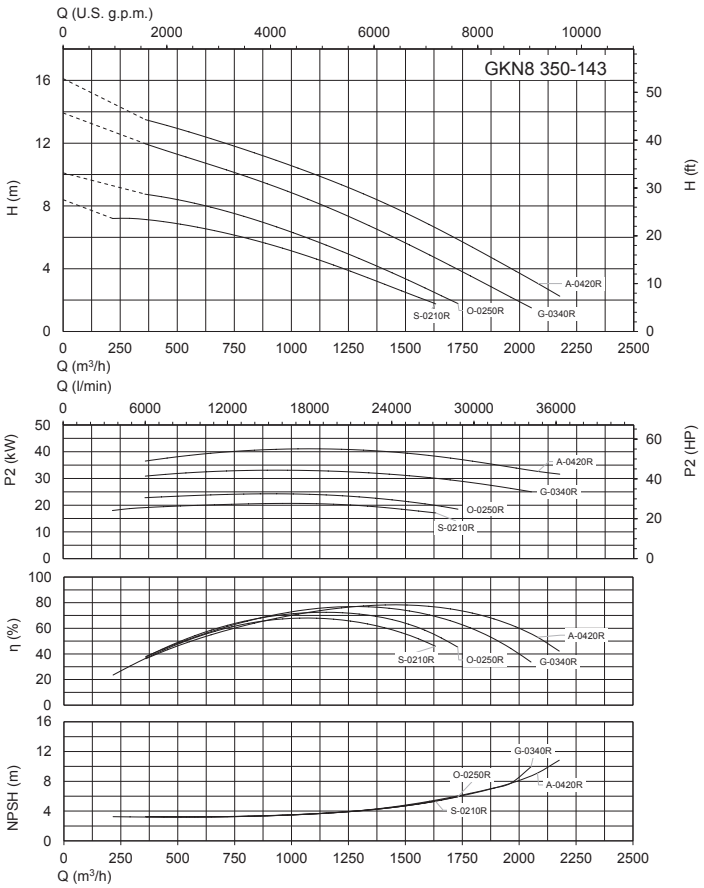
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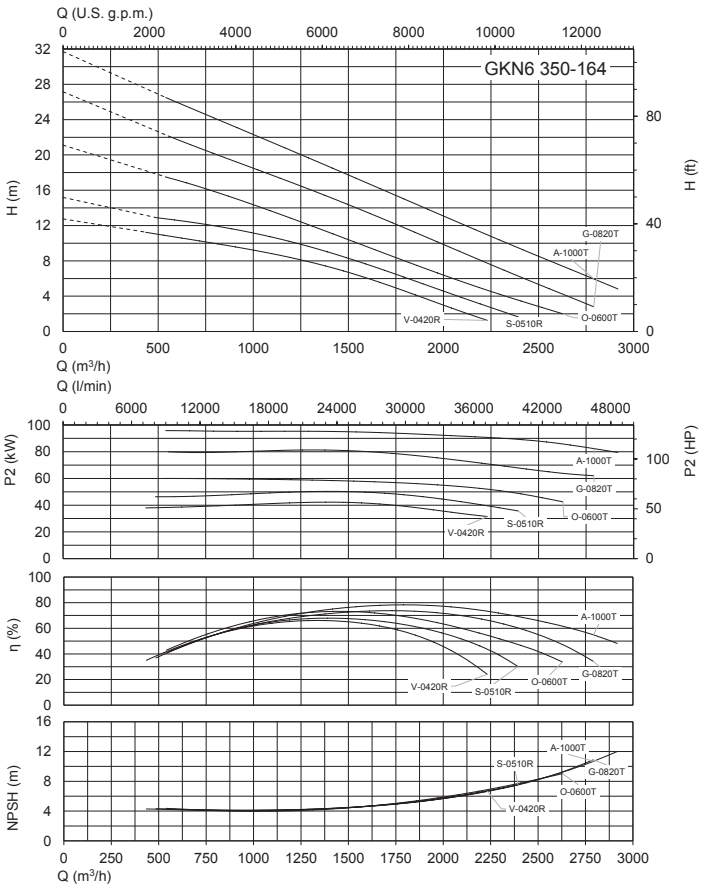
calpeda®

Characteristic curves









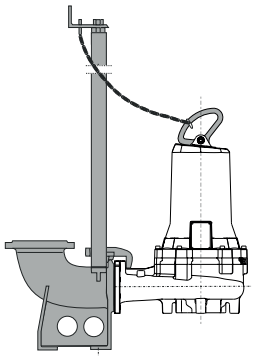
GKN

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Dimensions and weights

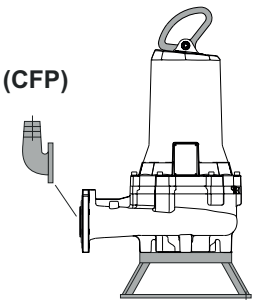
Duck foot coupling

SAK



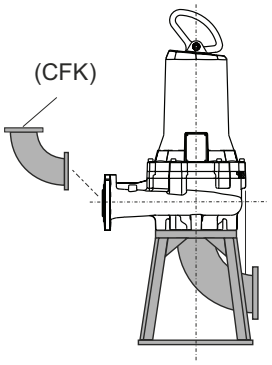
Submersible pump rest

APK



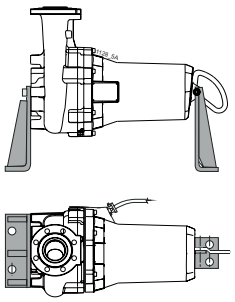
Dry chamber pump rest

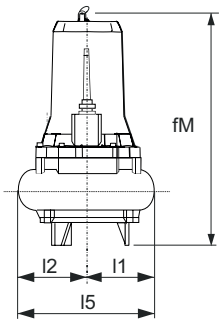
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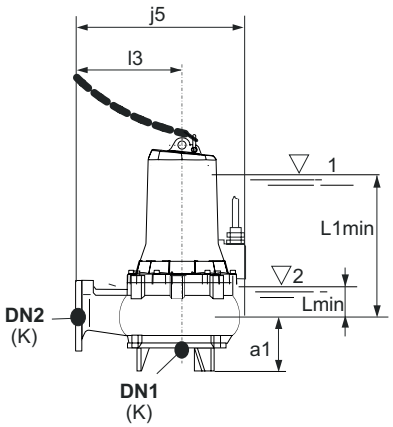


Dry chamber pump support

SOK







TYPE			mm										Kg
	DN1	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKN6 200-100L-0075N	200	200	170	846.9	840	10	240	340	550	580	446	120	235
GKN6 200-100G-0075N	200	200	170	846.9	840	10	240	340	550	580	446	120	235.3
GKN6 200-100A-0075N	200	200	170	846.9	840	10	240	340	550	580	446	120	236.7

L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

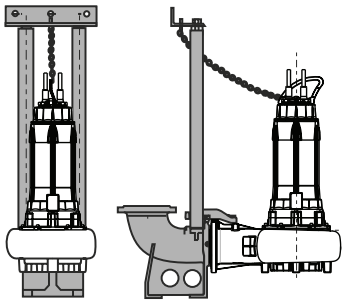
GKN

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Dimensions and weights

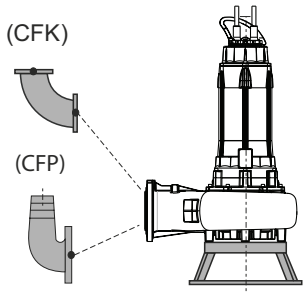
Duck foot coupling

SAK



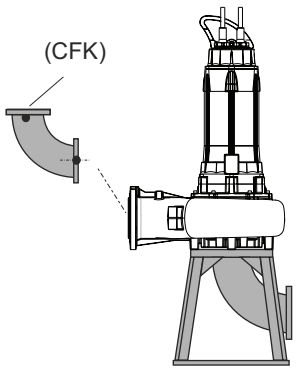
Submersible pump rest

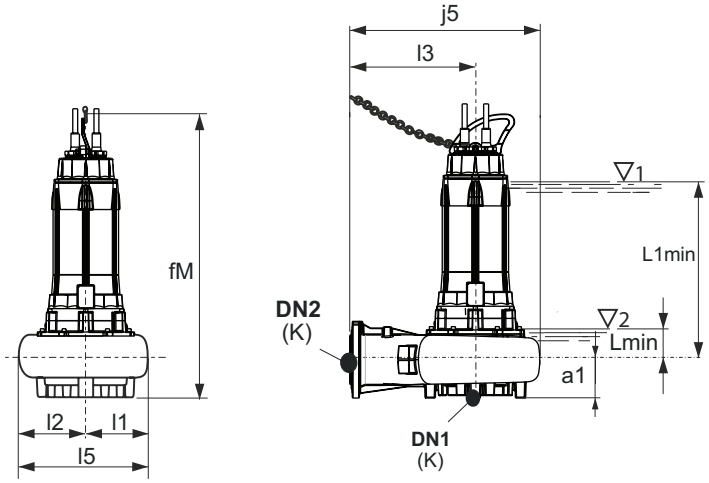
APK



Dry chamber pump rest

APCK





TYPE			mm										Kg
	DN1	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKN6 200-100L-0110N	200	200	170	1259	835	16	236	334	550	570	804	183	387.3
GKN6 200-100G-0110N	200	200	170	1259	835	16	236	334	550	570	804	183	388
GKN6 200-100A-0110N	200	200	170	1259	835	16	236	334	550	570	804	183	389.7

TYPE			mm										Kg
	DN1	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKN4 200-100L-0165N	200	200	170	1259	835	16	236	334	550	570	804	183	374.1
GKN4 200-100G-0193N	200	200	170	1259	835	16	236	334	550	570	804	183	396.6
GKN4 200-100D-0210N	200	200	170	1259	835	16	236	334	550	570	804	183	421.2
GKN4 200-100A-0260N	200	200	170	1259	835	16	236	334	550	570	804	183	404.9

TYPE			mm										Kg
	DN1	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKN6 250-115I-0110P	250	250	200	1305	843	10	282	404	500	686	820	199	412.8
GKN6 250-115D-0150P	250	250	200	1305	843	10	282	404	500	686	820	199	477.8
GKN6 250-115A-0195P	250	250	200	1305	843	10	282	404	500	686	820	199	524.3

L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

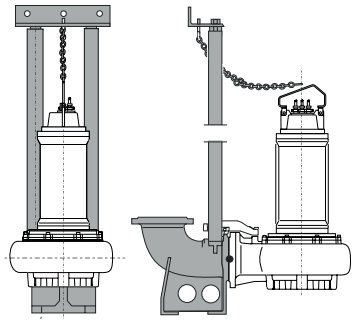
GKN

calpeda®

Dimensions and weights

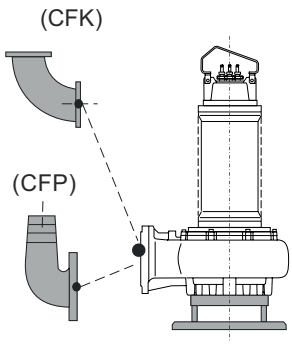
Duck foot coupling

SAK



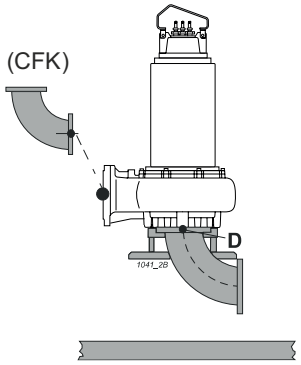
Submersible pump rest

APK



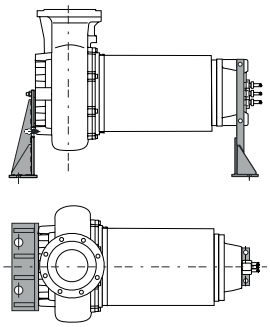
Dry chamber pump rest

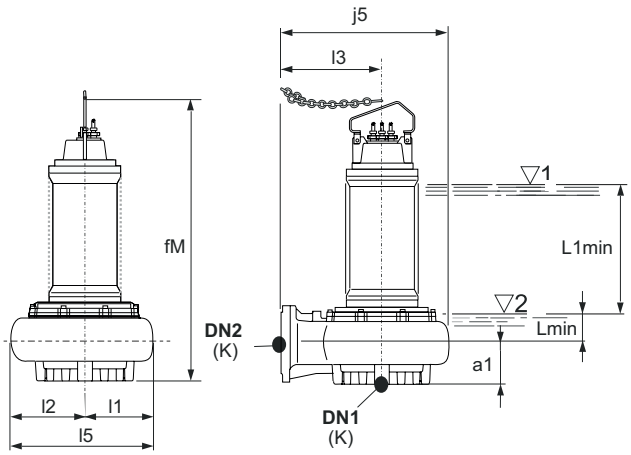
APCK



Dry chamber pump support

SOK





TYPE			mm										Kg
	DN1	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKN8 300-143D-0170Z	300	300	230	1599.5	1030	10	340	480	620	820	910	165	656
GKN8 300-143A-0210Z	300	300	230	1599.5	1030	10	340	480	620	820	910	165	676
GKN8 300-143E-0170Z-R	300	300	230	1599.5	1030	10	340	480	620	820	910	165	761
GKN8 300-143B-0210Z-R	300	300	230	1599.5	1030	10	340	480	620	820	910	165	691

TYPE			mm										Kg
	DN1	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKN6 300-143M-0250R	300	300	230	1599.5	1030	10	340	480	620	820	910	165	656
GKN6 300-143G-0340R	300	300	230	1599.5	1030	10	340	480	620	820	910	165	676
GKN6 300-143D-0420R	300	300	230	1599.5	1030	10	340	480	620	820	910	165	788
GKN6 300-143A-0510R	300	300	230	1631.5	1030	10	340	480	620	820	910	165	1026
GKN6 300-143N-0250R-R	300	300	230	1599.5	1030	10	340	480	620	820	910	165	671
GKN6 300-143H-0340R-R	300	300	230	1599.5	1030	10	340	480	620	820	910	165	696
GKN6 300-143E-0420R-R	300	300	230	1599.5	1030	10	340	480	620	820	910	165	804
GKN6 300-143B-0510R-R	300	300	230	1631.5	1030	10	340	480	620	820	910	165	1046

L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

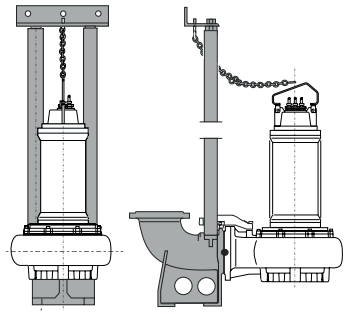
GKN

calpeda®

Dimensions and weights

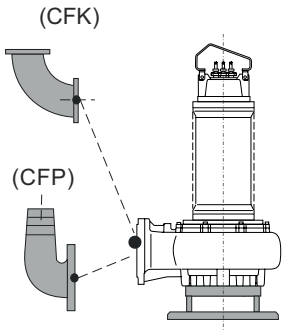
Duck foot coupling

SAK



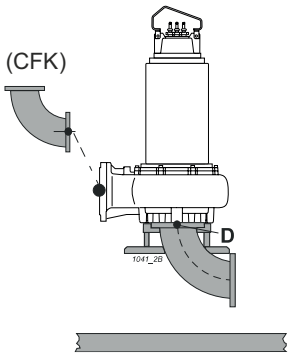
Submersible pump rest

APK



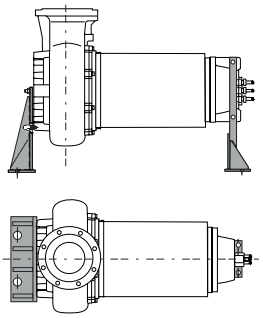
Dry chamber pump rest

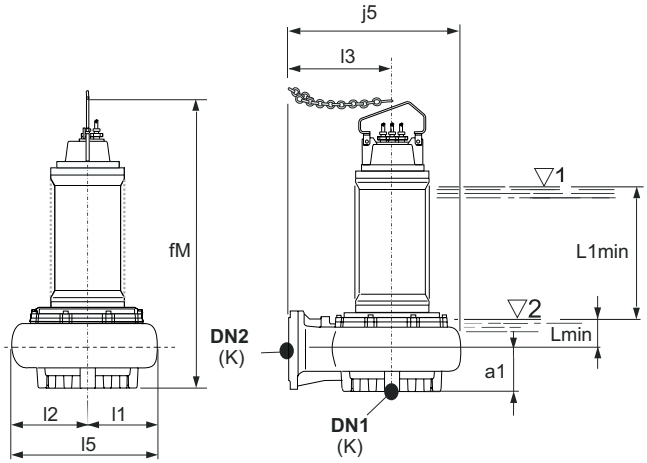
APCK



Dry chamber pump support

SOK





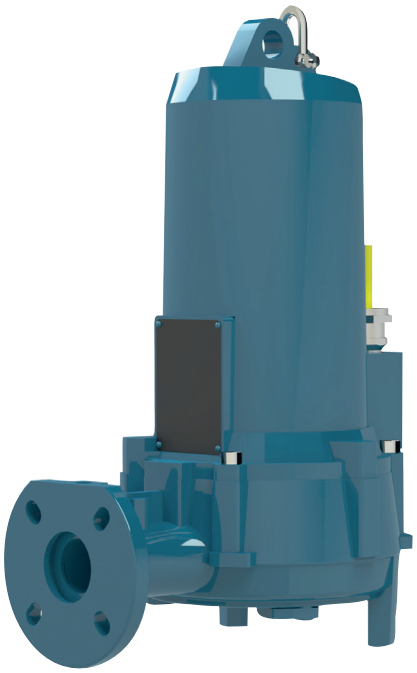
TYPE			mm										Kg
	DN1	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKN8 350-143S-0210R	350	350	268	1640.5	1170	10	385	550	700	935	997	192	785
GKN8 350-143O-0250R	350	350	268	1662.5	1170	10	385	550	700	935	912	167	970
GKN8 350-143G-0340R	350	350	268	1662.5	1170	10	385	550	700	935	912	167	1070
GKN8 350-143A-0420R	350	350	268	1672.5	1170	10	385	550	700	935	1002	192	1155
GKN8 350-143T-0210R-R	350	350	268	1640.5	1170	10	385	550	700	935	997	192	805
GKN8 350-143P-0250R-R	350	350	268	1662.5	1170	10	385	550	700	935	912	167	990
GKN8 350-143H-0340R-R	350	350	268	1662.5	1170	10	385	550	700	935	912	167	1025
GKN8 350-143B-0420R-R	350	350	268	1672.5	1170	10	385	550	700	935	1002	192	1175

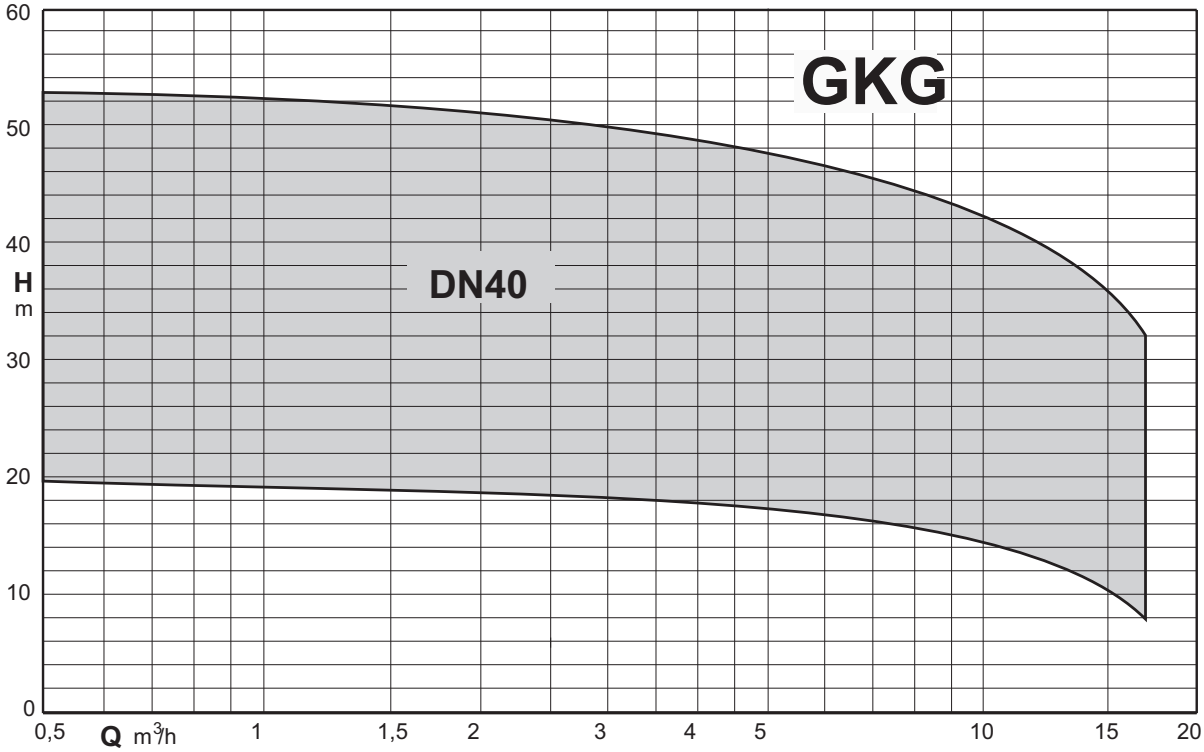
TYPE			mm										Kg
	DN1	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKN6 350-164V-0420R	350	350	268	1640.5	1170	10	385	550	700	935	997	192	865
GKN6 350-164S-0510R	350	350	268	1672.5	1170	10	385	550	700	935	1002	192	1198
GKN6 350-164W-0420R-R	350	350	268	1640.5	1170	10	385	550	700	935	997	192	880
GKN6 350-164T-0510R-R	350	350	268	1672.5	1170	10	385	550	700	935	1002	192	1219
GKN6 350-164O-0600T	350	350	268	1908	1170	10	385	550	700	935	1177	192	1409
GKN6 350-164G-0820T	350	350	268	1908	1170	10	385	550	700	935	1177	192	1482
GKN6 350-164A-1000T	350	350	268	1908	1170	10	385	550	700	935	1177	192	1544
GKN6 350-164P-0600T-R	350	350	268	1908	1170	10	385	550	700	935	1177	192	1642
GKN6 350-164H-0820T-R	350	350	268	1908	1170	10	385	550	700	935	1177	192	1715
GKN6 350-164B-1000T-R	350	350	268	1908	1170	10	385	550	700	935	1177	192	1778

L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

GKG

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Submersible pumps with high power grinder

GKG

Construction

Submersible pumps with high cutting power shredder system.
Made of very hard stainless steel, the shape of the shredder ensures long-life and fade-free shredding capacity.
No particular tools are required to replace this part.
Delivery port DN 40.

Applications

To move water containing long filamentary materials, paper or textile material.
They are particularly suitable for the disposal of waste water in domestic, residential and industrial use.
Solid passage 4 mm.

Operating conditions

Liquid temperature up to 40°C.
Maximum immersion depth: 20m (with cable of suitable length).
Maximum working pressure: 80 m.w.c.
pH of the liquid to be lifted: 6 ÷ 10
Continuous service (with water at minimum immersion level).

Materials

Pump casing: cast iron EN-GJL250 UNI-EN 1561-11
Impeller: cast iron EN-GJL250 UNI-EN 1561-11
Motor casing: cast iron EN-GJL250 UNI-EN 1561-11
Shaft: stainless steel X20Cr13 (AISI420)
Motor side mechanical seal: graphite/ceramic
Pump side mechanical seal: silicon carbide/ceramic

Motor

Induction motor 2.4 poles, 50Hz
Three-phase version: 400V ± 10%up to 4.8 kW
400/690V ± 10%from 5.8 kW
Isolation class: H
Degree of protection: IP 68
Max number of starts per hour: 20 at regular intervals
Cable: length 10m
Direction of rotation: clockwise top view
Motor suitable for operation with frequency converter.

Special features on request

(Check feasibility according to the model with our Technical Sales Office).
Impeller in stainless steel AISI 316 or bronze
Bronze impeller seat ring
Cable length up to 40 m
Other mechanical seal.
For liquid or environment with higher or lower temperature
Ceramic coating
Internal anti-erosion coating, external anti-corrosion

Designation

GKG2 40-4T-0020
GK = Series
G = Impeller with shredder system
2 = Number of poles
40 = Delivery port diameter in mm
4 = Free passage in mm
T = Impeller trim
0020 = Motor size kW x 10

Technical data

TYPE	Dry chamber version		Probes		Cable		Class	Duck foot coupling	Duck foot coupling	Threaded bend
	Vertical	Horizontal	thermal	conductivity	NSSHOU-J	H07RN-F	Isolation			
GKG2 40-4T-0020F	–	–	o	o	–	•	H	SAK 40-G11/2A	SAK 40-G11/2-3/4	CFF 1 1/2"
GKG2 40-4R-0020F	–	–	o	o	–	•	H	SAK 40-G11/2A	SAK 40-G11/2-3/4	CFF 1 1/2"
GKG2 40-4D-0020F	–	–	o	o	–	•	H	SAK 40-G11/2A	SAK 40-G11/2-3/4	CFF 1 1/2"
GKG2 40-4G-0020F	–	–	o	o	–	•	H	SAK 40-G11/2A	SAK 40-G11/2-3/4	CFF 1 1/2"
GKG2 40-4P-0025F	–	–	o	o	–	•	H	SAK 40-G11/2A	SAK 40-G11/2-3/4	CFF 1 1/2"
GKG2 40-4A-0025F	–	–	o	o	–	•	H	SAK 40-G11/2A	SAK 40-G11/2-3/4	CFF 1 1/2"
GKG2 40-4G-0038H	•	•	•	•	•	–	H	SAK 40-G11/2A	SAK 40-G11/2-3/4	CFF 1 1/2"
GKG2 40-4D-0048H	•	•	•	•	•	–	H	SAK 40-G11/2A	SAK 40-G11/2-3/4	CFF 1 1/2"
GKG2 40-4A-0065H	•	•	•	•	•	–	H	SAK 40-G11/2A	SAK 40-G11/2-3/4	CFF 1 1/2"

• = Standard - = Not present o = Optional

GKG

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Performance

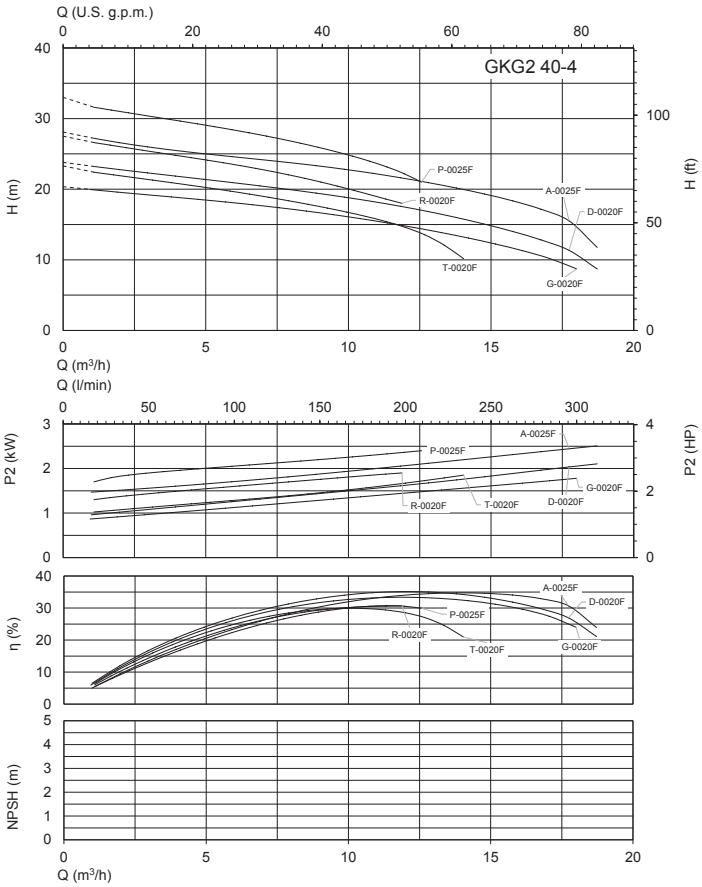
n ≈ 2850 1/min

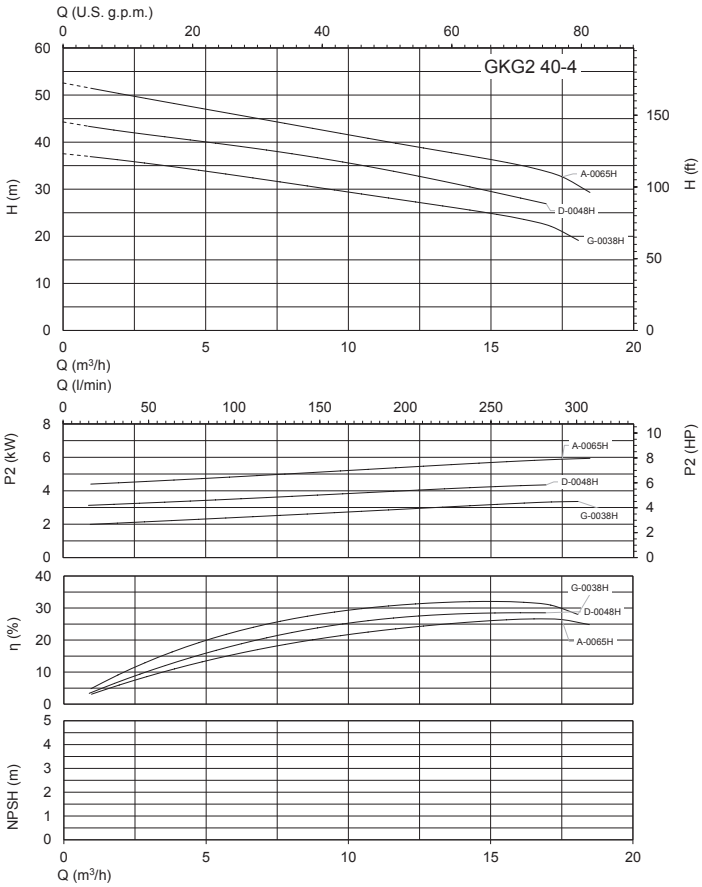
						Q = Flow											
					m³/h	0	1,4	1,8	2,2	2,5	2,9	3,2	3,6	7,2	10,8	14,4	18
Model	400V	400V	690V	P2	l/min	0	23,33	30	36,66	41,66	48,33	53,33	60	120	180	240	300
	A	A	A	kW		H (m) = Total head											
GKG2 40-4T-0020F	4,1	-	-	2		23,3	22,2	22	21,8	21,6	21,4	21,2	21	18,9	16	-	-
GKG2 40-4R-0020F	4,1	-	-	2		27,5	26,4	26,1	25,9	25,7	25,5	25,2	25	22,6	19,2	-	-
GKG2 40-4D-0020F	4,1	-	-	2		23,8	23	22,9	22,7	22,5	22,3	22,2	22	20,3	18,3	15,4	10,6
GKG2 40-4G-0020F	4,1	-	-	2		20,3	19,8	19,6	19,5	19,4	19,2	19,1	19	17,5	15,6	12,9	8,7
GKG2 40-4P-0025F	5,5	-	-	2,5		33	31,4	31,1	30,9	30,7	30,4	30,2	30	27,5	23,9	-	-
GKG2 40-4A-0025F	5,5	-	-	2,5		28,1	27	26,7	26,5	26,3	26	25,9	25,7	24,1	22,3	19,6	14,5
GKG2 40-4G-0038H	7,5	-	-	3,8		37,5	36,6	36,3	36,1	35,8	35,5	35,3	35	31,9	28,7	25,4	19,3
GKG2 40-4D-0048H	8,9	-	-	4,8		44,3	42,9	42,5	42,3	42	41,7	41,4	41,1	38,3	34,7	30,3	-
GKG2 40-4A-0065H	-	11,9	6,9	6,5		52,6	50,9	50,5	50,1	49,7	49,3	48,9	48,5	44,6	40,7	36,9	30,9

GKG

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Characteristic curves



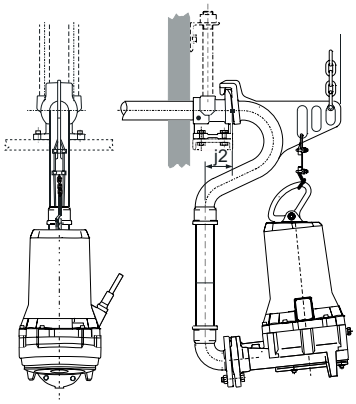


GKG

Dimensions and weights

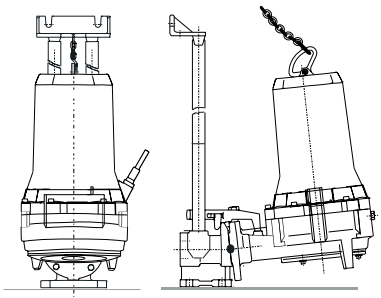
Duck foot coupling

SAK 40-G11/2A



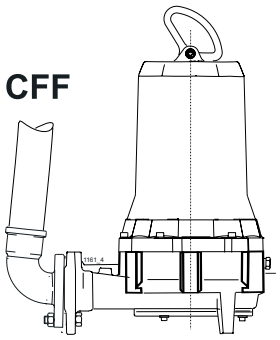
Submersible pump rest

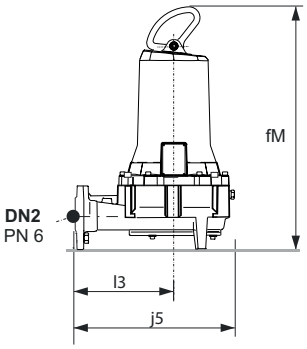
SAK 40-G11/2-3/4

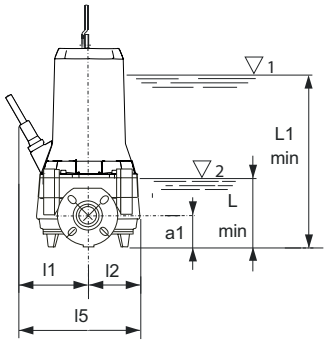


Submersible pump with bend

CFF





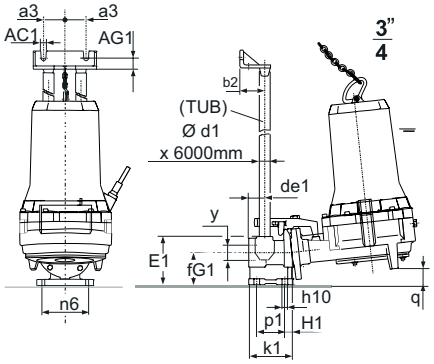


TYPE		mm										Kg
	DN2	a1	fM	j5	K	l1	l2	l5	l5	L1min	Lmin	Weight
GKG2 40-4T-0020F	40	73	476	338	6	112	112	200	224	261	61	52
GKG2 40-4R-0020F	40	73	476	338	6	112	112	200	224	261	61	52
GKG2 40-4D-0020F	40	73	476	338	6	112	112	200	224	261	61	52
GKG2 40-4G-0020F	40	73	476	338	6	112	112	200	224	261	61	52
GKG2 40-4P-0025F	40	73	476	338	6	112	112	200	224	261	61	48
GKG2 40-4A-0025F	40	73	476	338	6	112	112	200	224	261	61	46
GKG2 40-4G-0038H	40	73	571	373	6	204.5	136.5	240	341	317	49	81.8
GKG2 40-4D-0048H	40	73	571	373	6	204.5	136.5	240	341	317	49	76
GKG2 40-4A-0065H	40	73	640	373	6	221	136.5	240	357.5	317	49	97

L1min = Minimum submergence depth for motor without casing with continuous duty S1 (NPSHR permitting)
Lmin = Minimum submergence depth for motor without casing with intermittent duty S3 (NPSHR permitting)

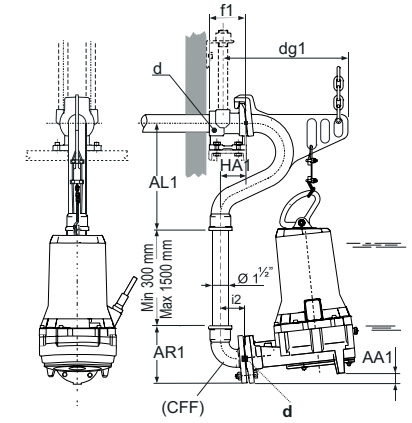
ACCESSORIES

Dimensions and weights



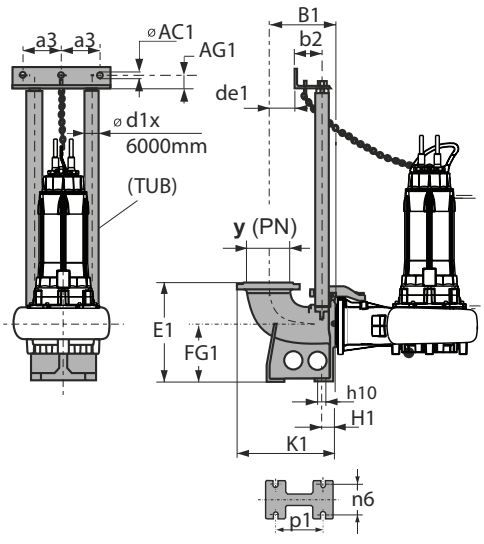
Duck foot coupling

TYPE	mm														
	a3	AC1	AG1	b2	d1	de1	E1	fG1	H1	h10	K1	n6	p1	q	y
SAK 40-G11/2-3/4	52.5	12	27	60	3/4"	40	120	80	21.5	14	113	115	70	37	G1 1/2"



Duck foot coupling

TYPE	mm							
	AA1	AL1	AR1	d	dg1	f1	g3	HA1
SAK 40-G11/2A	29	315	165	G1 1/2"	403	107	76	76

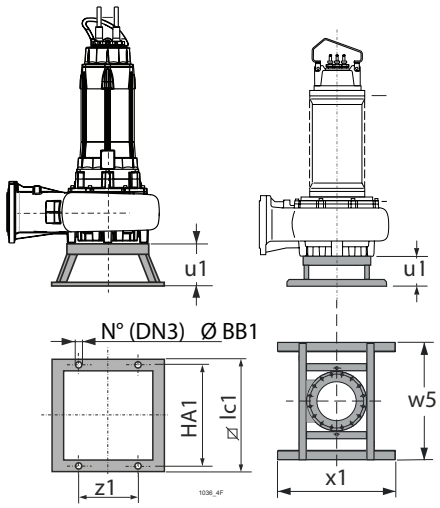


Duck foot coupling

TYPE	mm															
	a3	AC1	AG1	B1	b2	d1	de1	E1	fG1	H1	h10	K1	n6	p1	y	PN
SAK 65-65-2	130	12.5	35	220	102	2"	40	280	160	47	18	312,5	110	156	65	16
SAK 65-80-2	130	12.5	35	220	102	2"	40	280	160	47	18	320	110	156	80	16
SAK 80-100-2	130	12.5	35	228	102	2"	48	320	180	47	18	338	110	156	100	16
SAK 80-80-2	130	12.5	35	220	102	2"	40	320	180	47	18	320	110	156	80	16
SAK 100-100-2	130	12.5	35	228	102	2"	48	430	280	49	18	338	194	186	100	16
SAK 100-100-2A	130	12.5	35	228	102	2"	48	350	200	49	18	338	135	186	100	16
SAK 150-150-2	158	12.5	35	260	102	2"	75	435	235	59	19	403	194	214	150	16
SAK 150-200-3	157.5	12.5	35	385	117	3"	180	540	290	80	24	555	210	280	200	10
SAK 200-250-3	157.5	12.5	35	425	117	3"	220	595	345	80	24	623	250	380	250	10
SAK 200-250-3	157.5	12.5	35	425	117	3"	220	595	345	80	24	623	250	380	250	10
SAK 250-300-3	157,5	12,5	35	450	117	3"	245	700	400	85	24	673	310	425	300	10
SAK 300-350-3	157,5	12,5	35	500	117	3"	295	820	500	90	24	755	360	475	350	10
SAK 350-400-3	157,5	12,5	35	525	117	3"	320	920	575	95	24	810	400	510	400	10
SAK 250-300-3A	157,5	12,5	35	450	117	3"	245	700	400	85	24	673	310	425	300	10
SAK 300-350-3A	157,5	12,5	35	500	117	3"	295	820	500	90	24	755	360	475	350	10
SAK 350-400-3A	157,5	12,5	35	525	117	3"	320	920	575	95	24	810	400	510	400	10

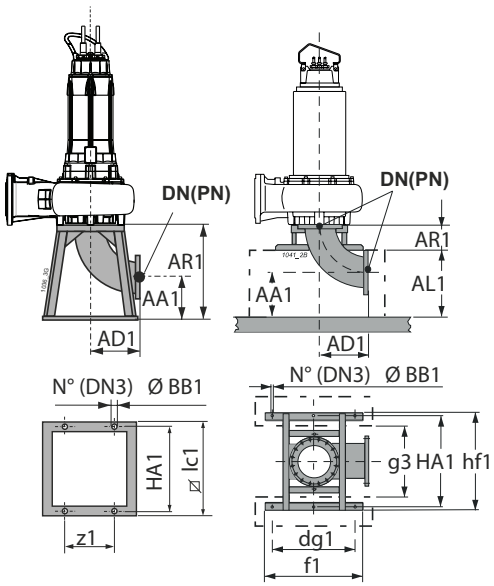
ACCESSORIES

Dimensions and weights



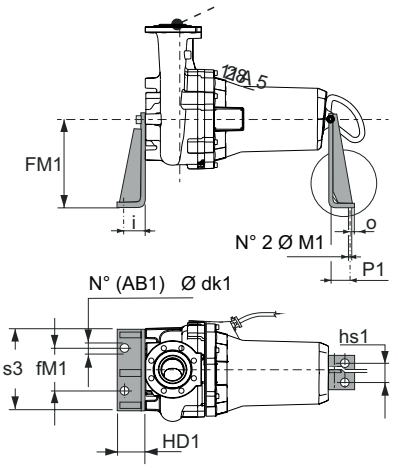
Submersible pump rest

TYPE	mm							
	BB1	DN3	HA1	lc1	u1	w5	x1	z1
APK 80	12	4	400	440	166	-	-	230
APK 100	14	4	600	650	180	-	-	350
APK 100A	14	4	600	650	180	-	-	350
APK 150	14	4	600	650	220	-	-	350
APK 150A	-	-	-	-	280	1000	1000	-
APK 250	14	4	600	650	220	-	-	350
APK 350	-	-	-	-	280	1000	1000	-



Dry chamber pump rest

TYPE	mm													
	DN	PN	AA1	AD1	AL1	AR1	BB1	dg1	DN3	f1	g3	HA1	hf1	lc1	z1
APCK 65	65	16	150	140	-	290	12	-	4	-	-	390	-	440	230
APCK 80	80	16	126	164	-	290	12	-	4	-	-	390	-	440	230
APCK 100	100	16	135	204	-	340	22	-	4	-	-	600	-	650	-
APCK 150	150	16	285	395	400	280	22	850	6	1000	740	935	1000	-	-
APCK 150A	150	16	205	395	-	600	22	-	4	-	-	600	-	650	-
APCK 200	200	10	290	310	-	600	22	-	4	-	-	600	-	650	-
APCK 250	250	10	215	385	-	600	22	-	4	-	-	600	-	650	-
APCK 250A	250	10	295	385	400	280	22	850	6	1000	740	935	1000	-	-
APCK 300	300	10	320	465	500	280	22	850	6	1000	740	935	1000	-	-
APCK 350	350	10	345	540	600	280	22	850	6	1000	740	935	1000	-	-

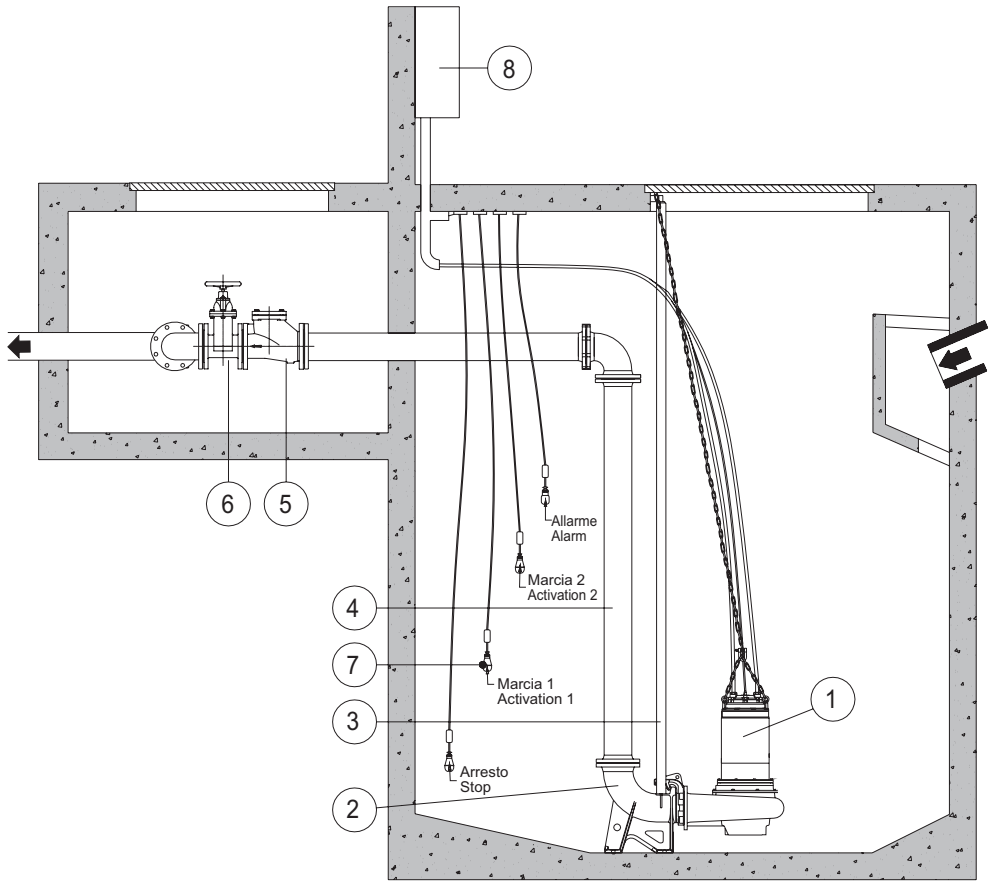


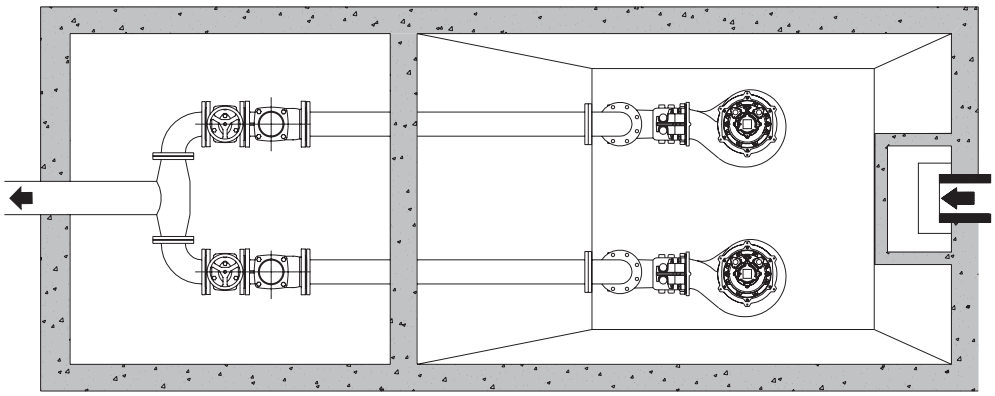
Dry chamber pump support

TYPE	mm										
	AB1	c1	dk1	fM1	HD1	hs1	i	M1	o	P1	s3
SOK80/N3	2	400	22	270	100	100	66	22	34	43	400
SOK100/N3	2	400	22	320	100	100	66	22	34	43	470
SOK150/N3	2	400	22	320	100	100	66	22	34	43	470
SOK150-200	3	530	22	335	160	270	100	22	40	85	-
SOK150-225	3	530	22	335	160	270	100	22	40	85	-
SOK150-250	3	530	22	335	160	270	100	22	40	85	-
SOK350-200	3	530	22	500	160	270	100	22	40	85	-
SOK350-225	3	530	22	500	160	270	100	22	40	85	-
SOK350-250	3	530	22	500	160	270	100	22	40	85	-
SOK 350-280	3	530	22	500	160	270	100	22	100	20	-
SOK 350-315	3	530	22	500	160	270	100	22	100	20	-

ACCESSORIES

Installation with duck foot coupling



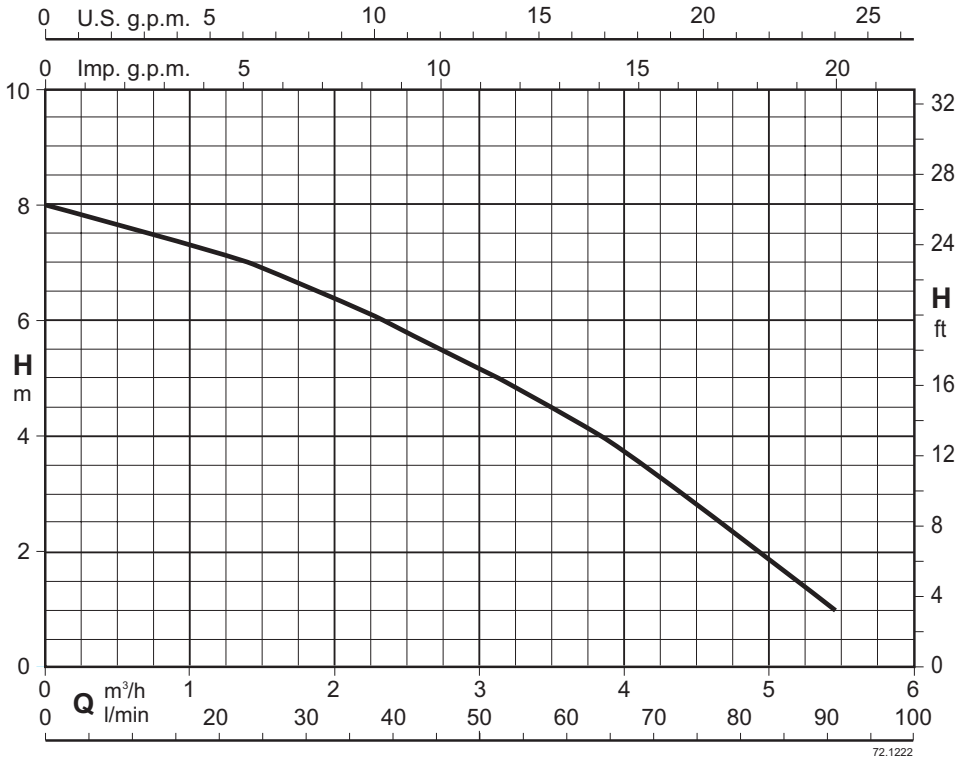


2 Submersible pump
3 Duck foot coupling
4 Guide pipes
5 Delivery pipe
6 Check valve
7 Gate valve
8 Level floats
9 Control box

GEOTRIT



Q m3/h	0	1,2	2,4	3,6	4,8	5,4
Q l/min	0	20	40	60	80	90
H m	8	7,1	5,9	4,3	2,2	1,1



Automatic waste water lifting station

GEOTRIT

Construction

This macerating pumping system has been designed to pump away the waste water from a WC and a washbasin.
GEOTRIT permette di arrivare all'apparato fognario quando questi non si trova nella posizione consona per favorire un allacciamento normale.
Installed and used correctly, this unit will give consistent and reliable service.
GEOTRIT is provided with flexible sleeves, elbow, metal hose clips.



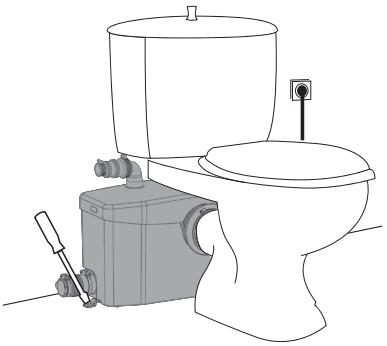
Applications

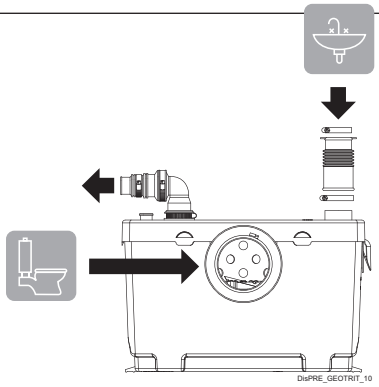
GEOTRIT can be used for drains from Wcs and washbasins

Operating conditions

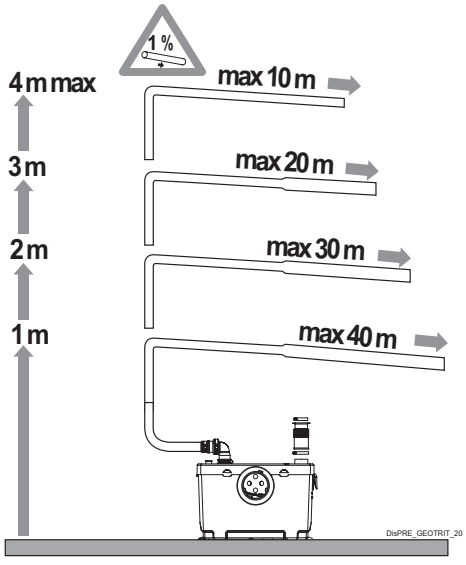
Voltage: 220-240 V
Frequency: 50 Hz
Degree of protection: IP44
Maximum power rating: 400 W
Maximum current consumption: 1,9 A
Vertical pumping: max. 4 m
Liquid temperature up to 35° C.

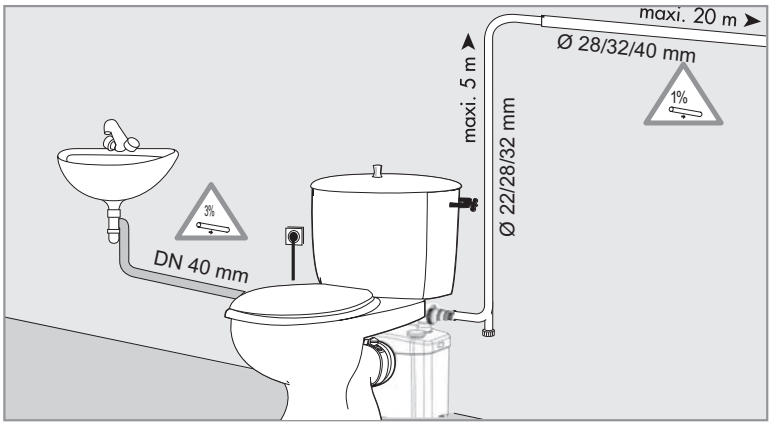
Installation



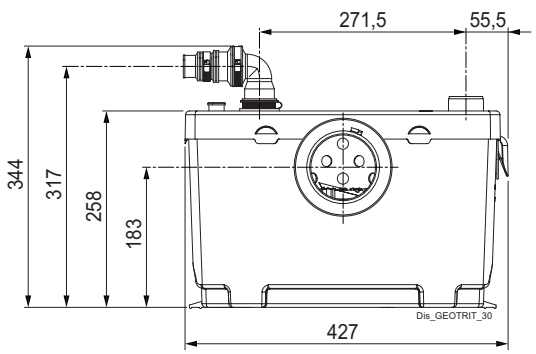


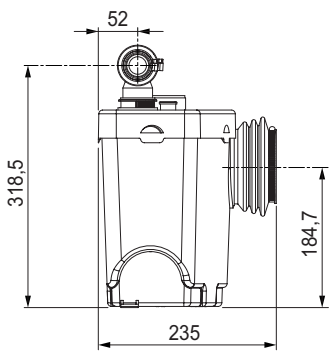
Performance





Dimensions and weights



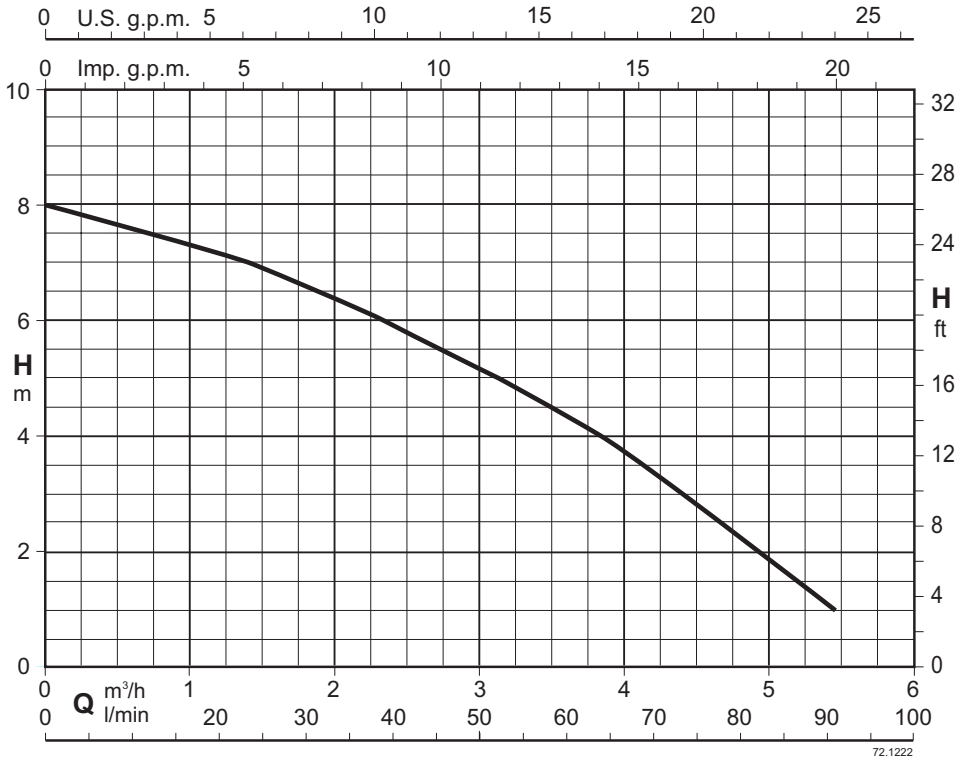


Weight: 6.6 kg

GEOCOMP



Q m3/h	0	1,2	2,4	3,6	4,8	5,4
Q l/min	0	20	40	60	80	90
H m	8	7,1	5,9	4,3	2,2	1,1



Automatic waste water lifting station

GEOCOMP

Construction

This macerating pumping system has been designed to pump away the waste water from WC, washbasin, bidet and shower.
The GEOCOMP macerating system is installed in a case specifically designed for horizontal outlet spigots.
Installed and used correctly, this unit will give consistent and reliable service.
GEOCOMP is provided with flexible sleeves, elbow, metal hose clips.



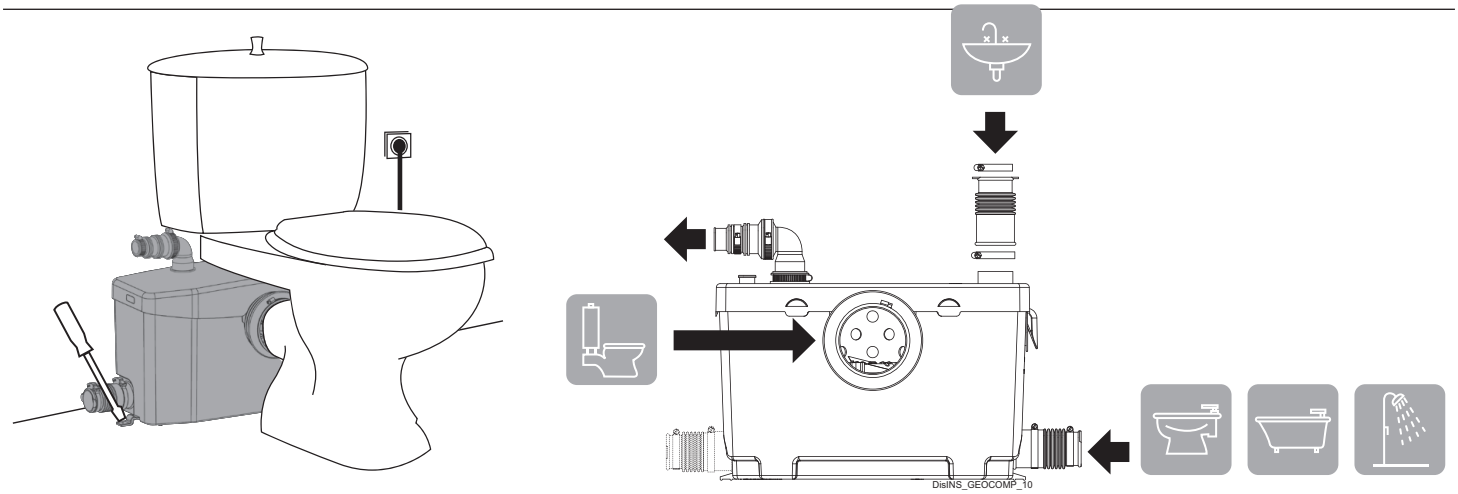
Applications

GEOCOMP can be used for drains from: WCs, washbasins, bidets, bathtubs, showers.

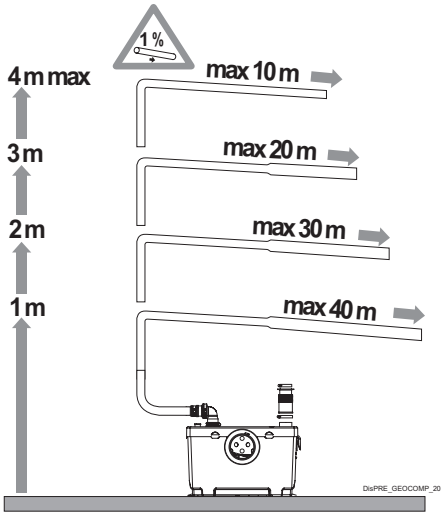
Operating conditions

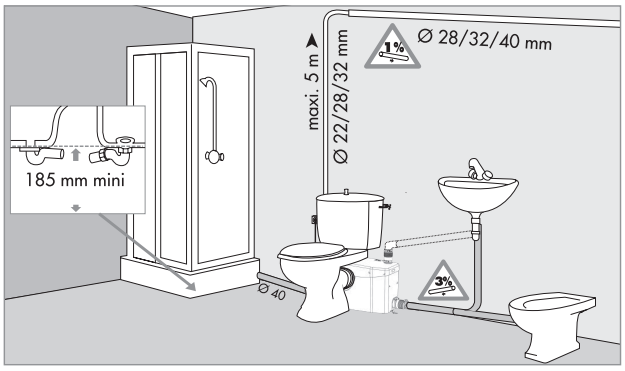
Voltage: 220-240 V
Frequency: 50 Hz
Degree of protection: IP44
Maximum power rating: 400 W
Maximum current consumption: 1,9 A
Vertical pumping: max. 4 m
Liquid temperature up to 35° C.

Installation

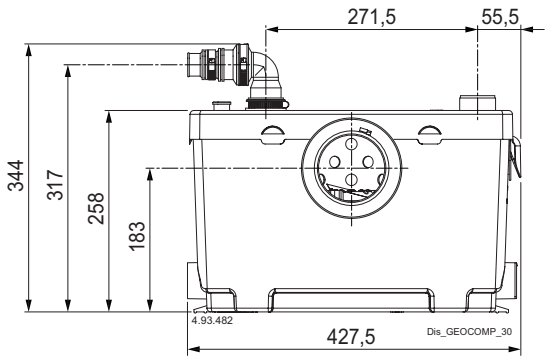


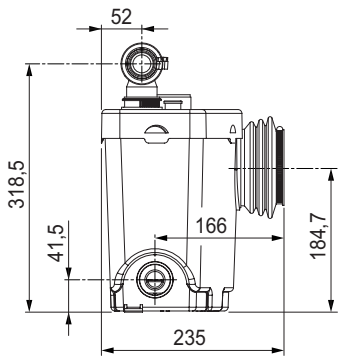
Performance





Dimensions and weights



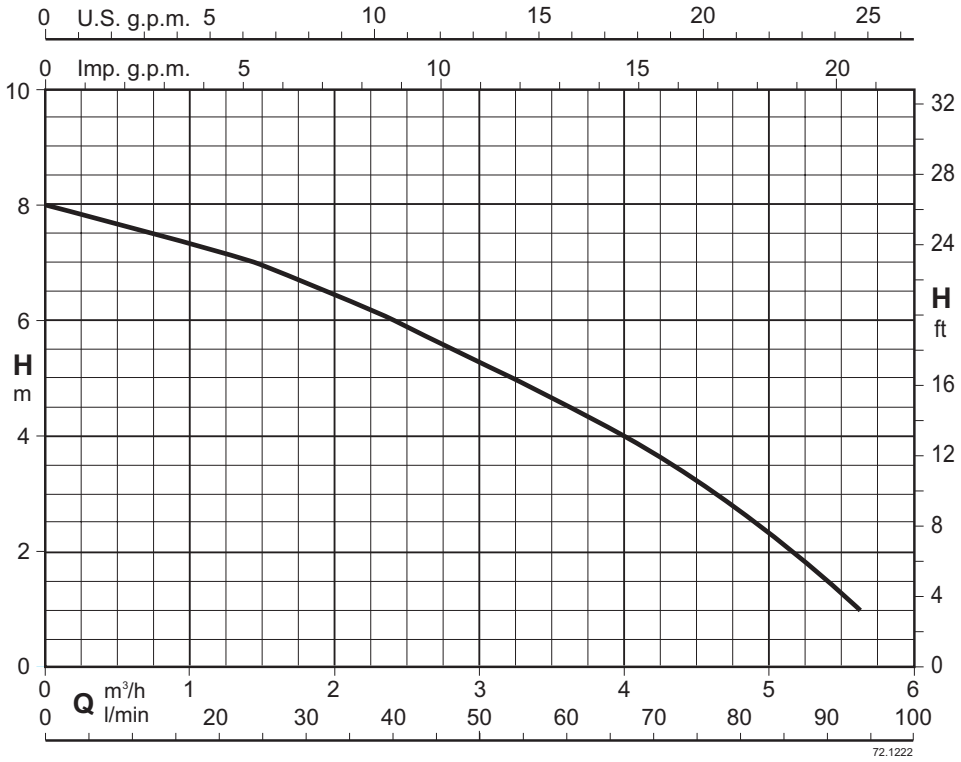


Weight: 6.6 kg

GEOCLEAN



Q m3/h	0	1,2	2,4	3,6	4,8	5,6
Q l/min	0	20	40	60	80	93
H m	8	7,1	5,9	4,5	2,7	1



Automatic clear water lifting station

GEOCLEAN

Construction

The system is design to handle the evacuation water from a domestic kitchen sink, dishwasher and washing machine – all working at the same time if required. GEOCLEAN makes the addition of a domestic kitchen or utility room easy even when below or distant from a drain.
The system has a clapet valve and it cannot be used with waste waters.
GEOCLEAN is provided with flexible sleeves, elbow, metal hose clips, plugs.



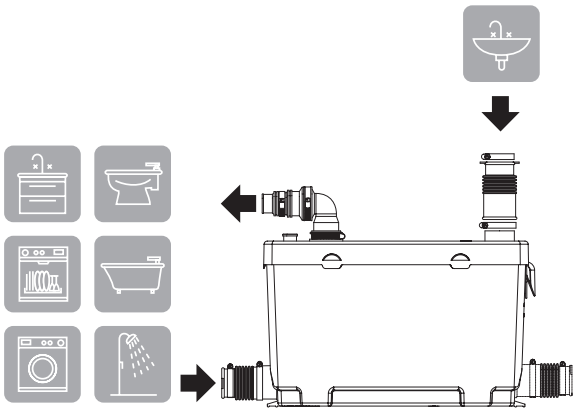
Applications

GEOCLEAN can be used for drains from: washbasin, bidet, bathtub, shower, kitchen sink, dishwasher, washing machine.

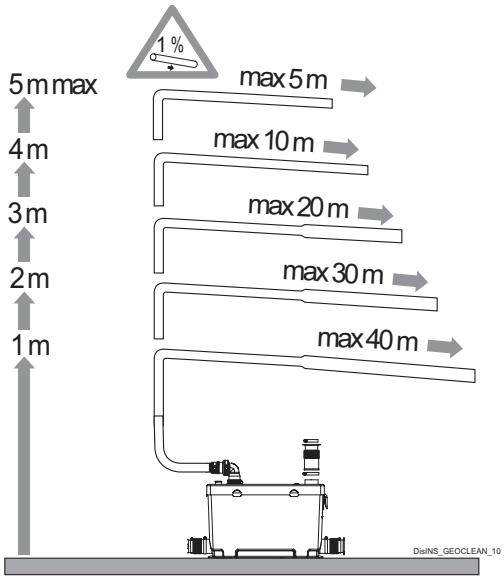
Operating conditions

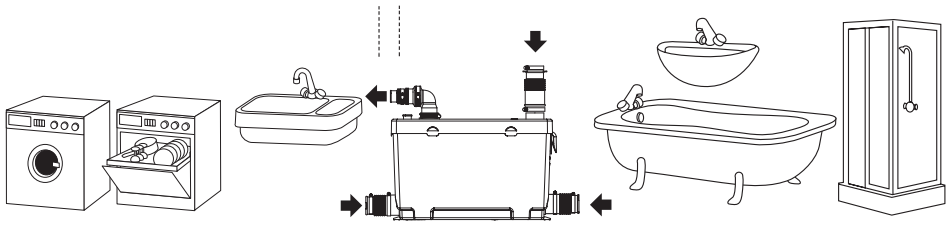
Voltage: 220-240 V
Frequency: 50 Hz
Degree of protection: IP44
Maximum power rating: 400 W
Maximum current consumption: 1,9 A
Vertical pumping: max. 4 m
Liquid temperature up to 60 °C.

Installation

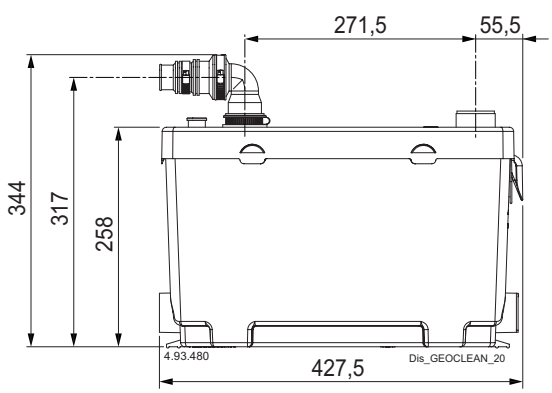


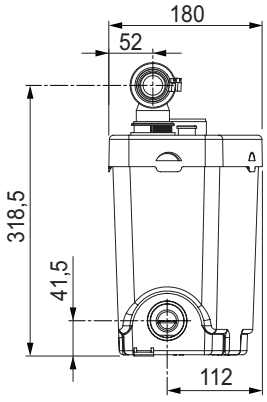
Performance





Dimensions and weights





Weight: 6.4 kg

GEO





Construction

Medium-density polyethylene tank, resistant to corrosion, with minimum overall dimensions.
GEO 40 single tank with 40 liters nominal capacity for the installation of a GXRM type.
GEO 230 single tank with 230 liters nominal capacity for the installation of an electropump type GM 10, GQ, GX or GM series.
Pipe kit for electropump connection.
Two installation options: on the ground and underground.
For underground installation, extentions can be used (maximum two extentions).
Easy pump access through a cover fixed with screws.

Applications

Automatic waste water collecting and lifting stations, to handle domestic, civil and industrial waste water.

Designation

Example: GEO 40-GXRM 9
GEO = Series
40 = Nominal flow rate in litres
GXRM 9 = Pump type

Example: GEO 230-GXVM 40
GEO = Series
230 = Nominal flow rate in litres
GXVM 40-7 = Pump type

Example: GEO 500-2GXRM 40-7
GEO = Series
500 = Nominal flow rate in litres
2GXRM 40-7 = Pump type

Automatic waste water collecting and lifting station

GEO 40

Pumps characteristics

GEO 40-GXRM



GEO 40-GXRM .GF

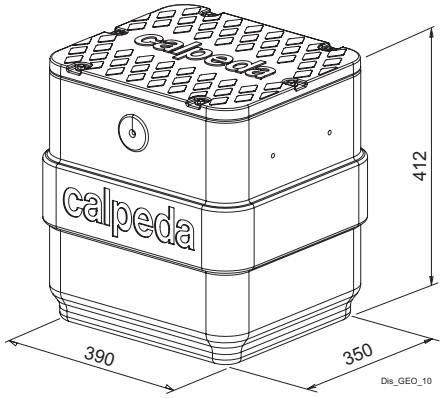


Characteristics
Automatic collecting and lifting station for clean water with GXRM pump type.

It includes:
1 40 lt capacity tank
1 single-phase pump with 5 m cable and float switch
1 non-return valve with clapet on the pump delivery side
1 discharge pipe kit arranged for the connection of a Ø 40 mm PVC pipe
1 PVC adapter nipple for 40 mm diameter inlet
1 hose connector for 25 mm diameter hose

On request:
1 pump with 10 m cable

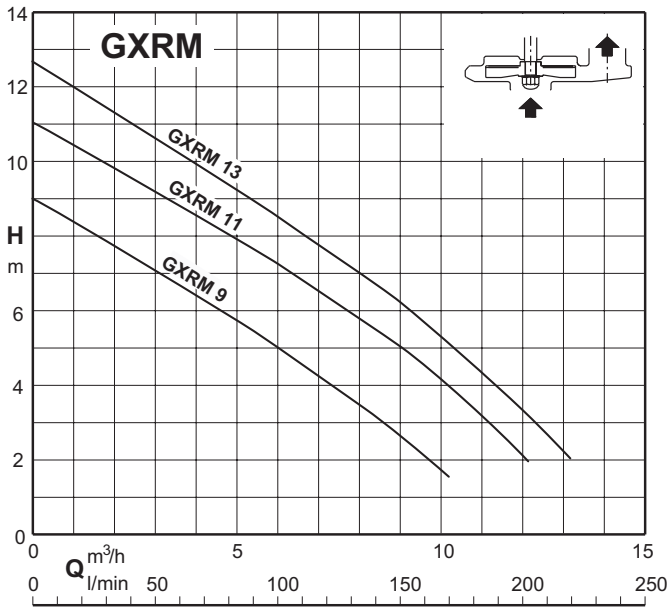
Type single-phase	1 ~ 230 V	1 ~ 230 V	Q max	H max
	kW	A	m3/h	m
GEO 40-GXRM 9	0,25	2,5	10,2	8,3
GEO 40-GXRM 9 GF	0,25	2,5	10,2	8,3
GEO 40-GXRM 11 GF	0,37	3,5	12	10,4
GEO 40-GXRM 13 GF	0,45	4,5	13,2	11,7







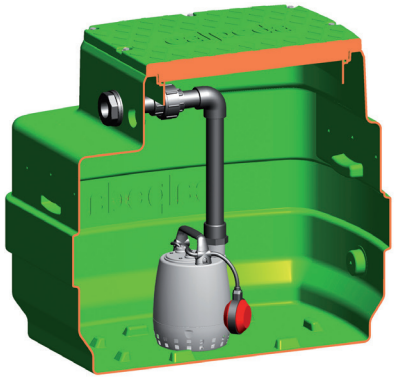
GXRM
Submersible drainage pumps made of chrome-nickel stainless steel, with vertical delivery port.
Open impeller
2-pole induction motor, 50Hz (n ≈ 2900 rpm), Single-phase 230 V +/-10% with float switch and thermal protector.
- GXRM: with standard float switch.
- GXRM .. GF: with vertical magnetic float switch.
Cable length 5 m, Shuko plug.
Liquid temperature up to 35° C.



GEO 230

Pumps characteristics

GEO 230-GX..

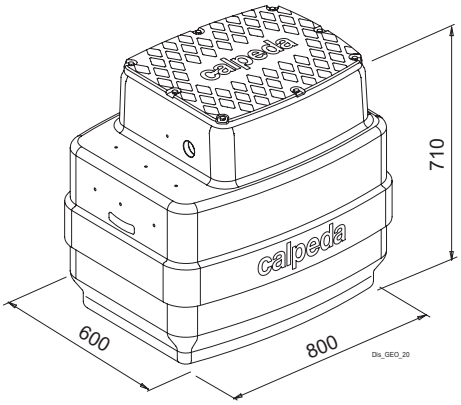


Characteristics
Automatic collecting and lifting station
- for clean water GXR pump series.
- for waste water GXV pump series.

It includes:
1 tank capacity 230 l
1 single-phase pump with 5 m cable and float switch
1 discharge pipe kit Ø 40 mm in PVC

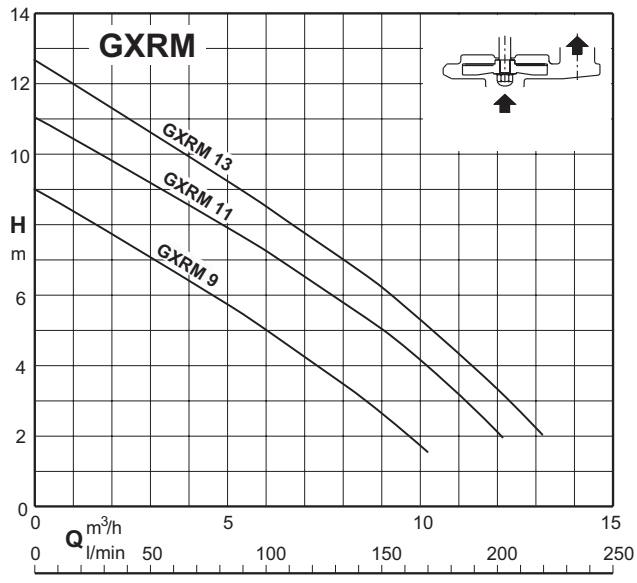
On request:
1 pump with 10 m cable
1 discharge pipe kit Ø 40 mm in PVC with a ball valve and non-return ball valve
1 support kit with safety float switch and auto-supplied control panel for remote alarm with horn and flashing light
- extention 300 mm

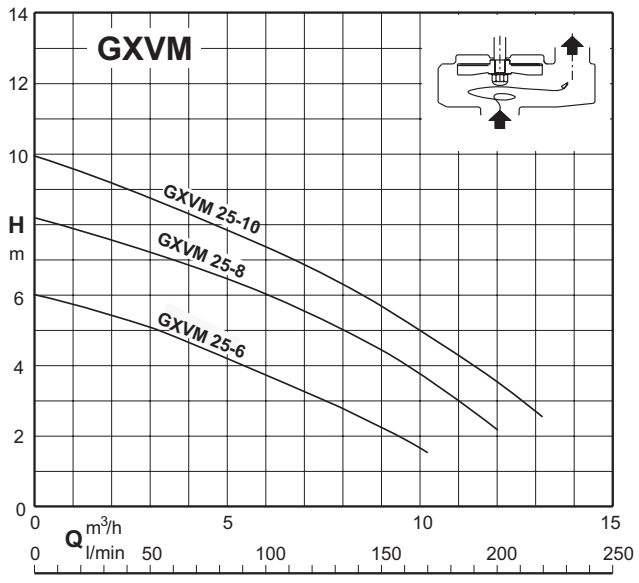
Type single-phase	1 ~ 230 V	1 ~ 230 V	Q max	H max
	kW	A	m3/h	m
GEO 230-GXVM 25-6	0,25	2,5	10,2	5,7
GEO 230-GXVM 25-8	0,37	3,5	12	7,8
GEO 230-GXVM 25-10	0,45	4,5	13,2	9,5
GEO 230-GXRM 9	0,25	2,5	10,2	8,3
GEO 230-GXRM 11	0,37	3,5	12	10,4
GEO 230-GXRM 13	0,45	4,5	13,2	11,7





GXRM, GXVM
Submersible drainage pump in chrome-nickel stainless steel, with vertical delivery port.
GXRM:with open impeller.
GXVM:with free-flow (vortex) impeller
2-pole induction motor, 50Hz (n ≈ 2900 rpm), Single-phase 230 V +/-10% with float switch and thermal protector.
Float switch for automatic operation.
5 m cable and control box QM 6,3 with capacitor.
Liquid temperature up to 35° C.

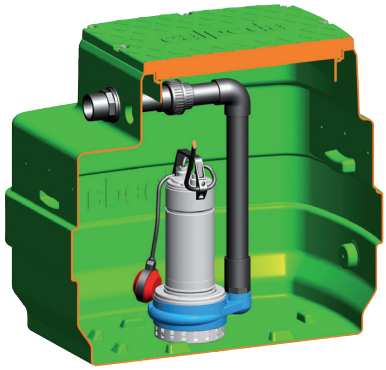




GEO 230

Pumps characteristics

GEO 230-GQR..



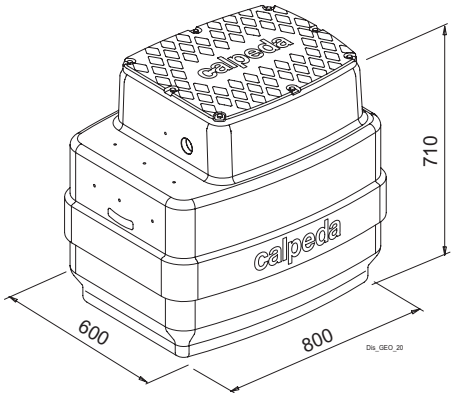
Characteristics
Automatic collecting and lifting station for clean water with GQR pump series.

It includes:
1 tank capacity 230 l
1 pump
- - single-phase with 10 m cable and float switch
- - three-phase with 10 m cable with support and float switch kit
1 control box for three-phase version
1 discharge pipe kit Ø 50 mm in PVC

On request:
1 discharge pipe kit Ø 50 mm in PVC with a ball valve and non-return ball valve
1 support kit with safety float switch and auto-supplied control panel for remote alarm with horn and flashing light
- extention 300 mm

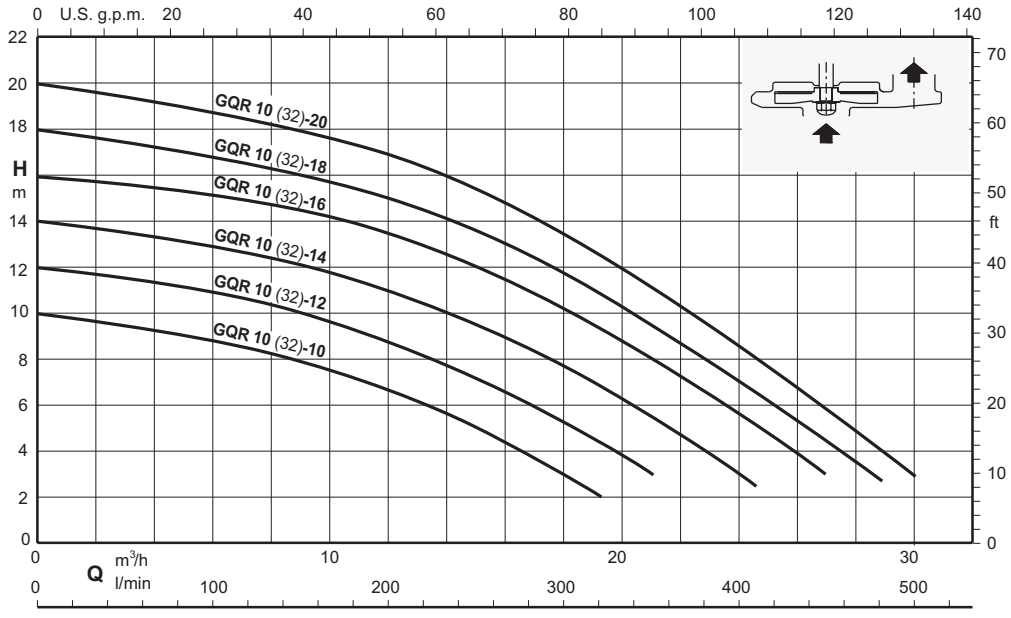
Type single-phase	1 ~ 230 V	1 ~ 230 V	Q max	H max
	kW	A	m3/h	m
GEO 230-GQRM 10-10	0,45	3,1	18	9,5
GEO 230-GQRM 10-12	0,55	3,6	21	11,6
GEO 230-GQRM 10-14	0,75	4,6	24	13,5
GEO 230-GQRM 10-16	0,9	6	27	15,5
GEO 230-GQRM 10-18	1,1	8	30	17,5
GEO 230-GQRM 10-20	1,5	13	30	19,5

Type three-phase	3 ~ 400 V	3 ~ 400 V	Q max	H max
	kW	A	m3/h	m
GEO 230-GQR 10-10	0,45	1,2	18	9,5
GEO 230-GQR 10-12	0,55	1,4	21	11,6
GEO 230-GQR 10-14	0,75	1,6	24	13,5
GEO 230-GQR 10-16	0,9	2,3	27	15,5
GEO 230-GQR 10-18	1,1	2,8	30	17,5
GEO 230-GQR 10-20	1,5	3,8	30	19,5



GQR
Single-impeller submersible drainage pump, with vertical delivery port.
GQR:with open impeller.
2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
GQR:three-phase 400 V +/-10%;
GQRM: Single-phase 230 V +/-10% with float switch and thermal protector.
Incorporated capacitor.
Float switch for automatic start and stop.
Cable length 10 m.
Liquid temperature up to 35° C.

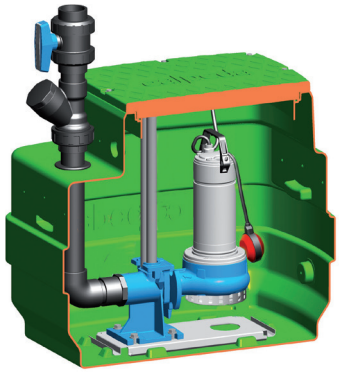




GEO 230

Pumps characteristics

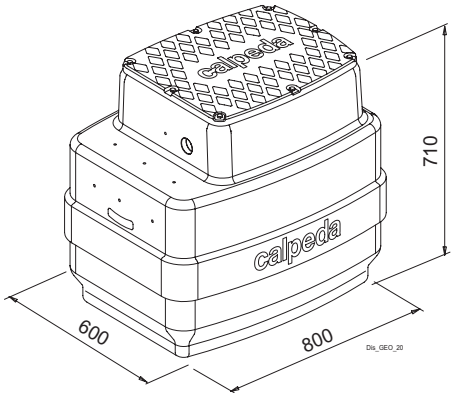
GEO 230-GQR..



Characteristics
Dirty water collection and lifting station with GQR series pumps.

It includes:
1 tank capacity 230 l
1 pump
- - single-phase with 10 m cable and float switch
- - three-phase with 10 m cable with support and float switch kit
1 control box for three-phase version
1 duck foot coupling kit
1 discharge pipe kit Ø 63 mm in PVC with a ball valve and non-return ball valve

On request:
1 support kit with safety float switch and auto-supplied control panel for remote alarm with horn and flashing light
- extention 300 mm

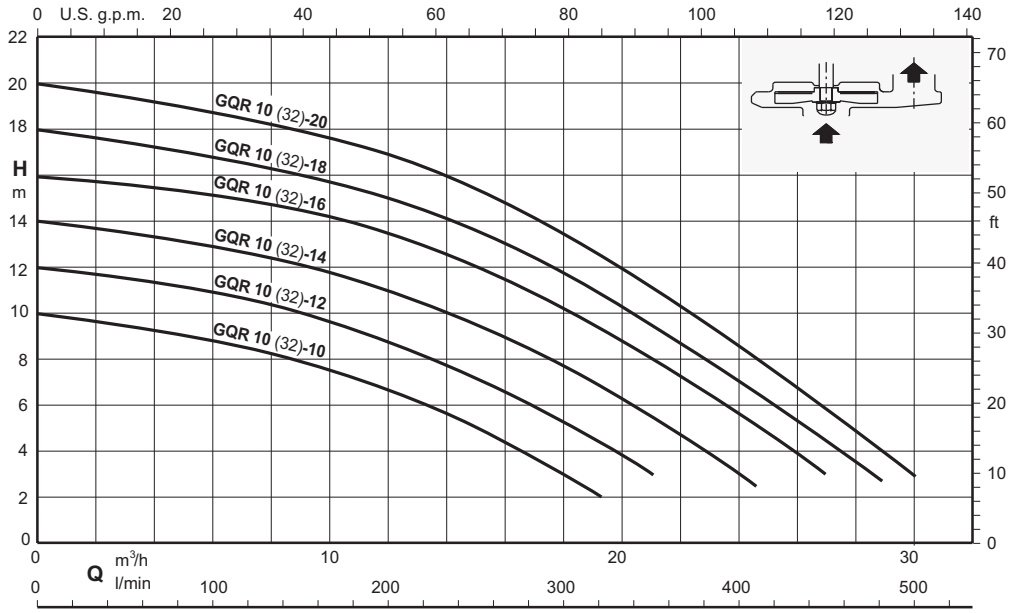


Type single-phase	1 ~ 230 V	1 ~ 230 V	Q max	H max
	kW	A	m3/h	m
GEO 230-GQRM 10 32-10	0,45	3,1	18	9,5
GEO 230-GQRM 10 32-12	0,55	3,6	21	11,6
GEO 230-GQRM 10 32-14	0,75	4,6	24	13,5
GEO 230-GQRM 10 32-16	0,9	6	27	15,5
GEO 230-GQRM 10 32-18	1,1	8	30	17,5
GEO 230-GQRM 10 32-20	1,5	13	30	19,5

Type three-phase	3 ~ 400 V	3 ~ 400 V	Q max	H max
	kW	A	m3/h	m
GEO 230-GQR 10 32-10	0,45	1,2	18	9,5
GEO 230-GQR 10 32-12	0,55	1,4	21	11,6
GEO 230-GQR 10 32-14	0,75	1,6	24	13,5
GEO 230-GQR 10 32-16	0,9	2,3	27	15,5
GEO 230-GQR 10 32-18	1,1	2,8	30	17,5
GEO 230-GQR 10 32-20	1,5	3,8	30	19,5

GQR
Submersible pumps with high power grinder, with horizontal delivery port.
GQR:with open impeller.
2-pole induction motor, 50Hz (n ≈ 2900 rpm)
GQR:three-phase 400 V +/-10%;
GQRM: Single-phase 230 V +/-10% with float switch and thermal protector. Incorporated capacitor.
Float switch for automatic start and stop.
Cable length 10 m.
Liquid temperature up to 35° C.

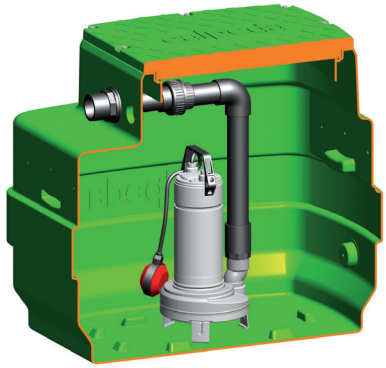




GEO 230

Pumps characteristics

GEO 230-GX..



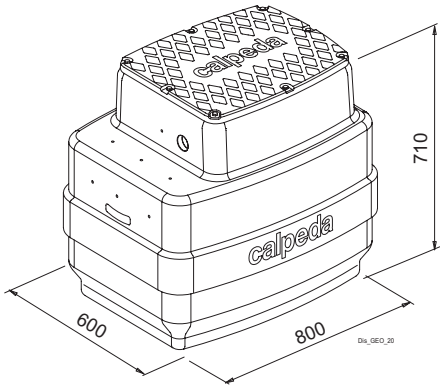
Characteristics
Dirty water collection and lifting station with GX 40 series pumps.

It includes:
- 1 tank capacity 230l
- 1 Pump
  - - single-phase with 10 m cable and float switch
  - - three-phase with 10 m cable with support and float switch kit
- 1 control box for three-phase version
- 1 discharge pipe kit Ø 50 mm in PVC

On request:
- 1 discharge pipe kit Ø 50 mm in PVC with a ball valve and non-return ball valve
- 1 safety float switch (with support for single-phase version) and autosupplied control panel for remote alarm with horn and flashing light
- - extention 300 mm

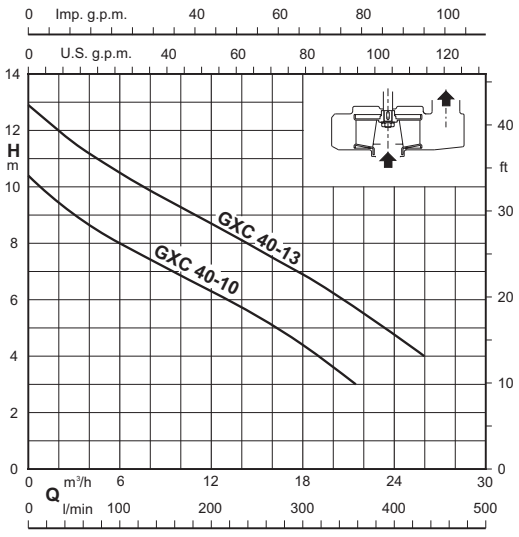
Type single-phase	1 ~ 230 V	1 ~ 230 V	Q max	H max
	kW	A	m3/h	m
GEO 230-GXCM 40-10	0,55	4,6	21	9
GEO 230-GXCM 40-13	0,9	6,6	26	11,6
GEO 230-GXVM 40-7	0,55	4,6	15	6,2
GEO 230-GXVM 40-8	0,75	5,4	18	7,2
GEO 230-GXVM 40-9	0,9	6	21	8,1

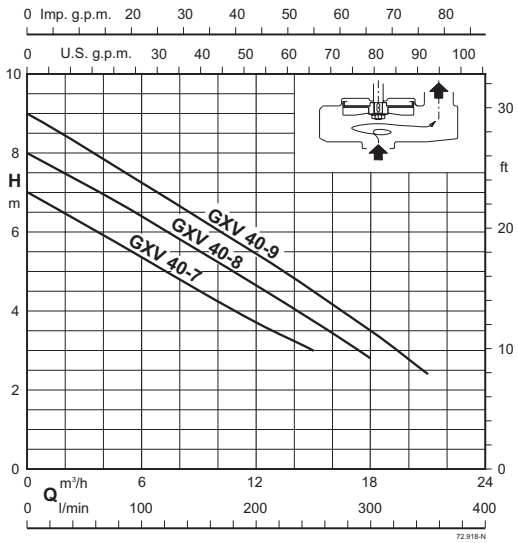
Type three-phase	3 ~ 400 V	3 ~ 400 V	Q max	H max
	kW	A	m3/h	m
GEO 230-GXC 40-10	0,55	1.6	21	9
GEO 230-GXC 40-13	0,9	2.3	26	11,6
GEO 230-GXV 40-7	0,55	1.6	15	6,2
GEO 230-GXV 40-8	0,75	2.2	18	7,2
GEO 230-GXV 40-9	0,9	2.3	21	8,1



GXC, GXV
Submersible sewage and drainage pumps in chrome-nickel stainless steel, with vertical delivery port.
GXC:with two-passage impeller.
GXV:with free-flow (vortex) impeller
2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
GXC, GXV:three-phase 400 V +/-10%;
GXCM, GXVM: Single-phase 230 V +/-10% with float switch and thermal protector. Incorporated capacitor.
Float switch for automatic start and stop.
Cable length 10 m.
Liquid temperature up to 35° C.



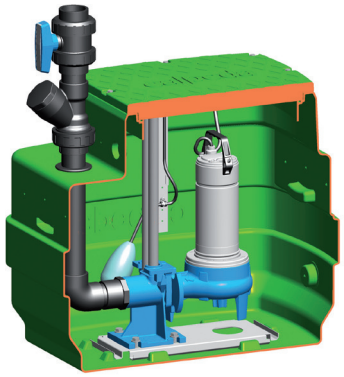




GEO 230

Pumps characteristics

GEO 230-GQG



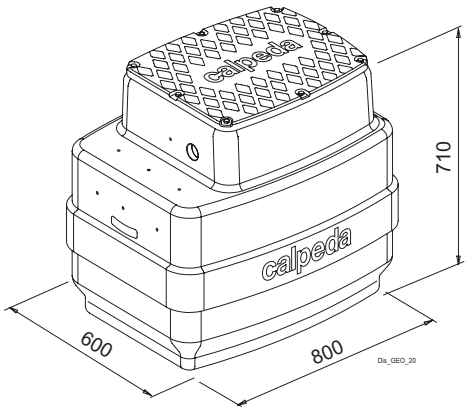
Characteristics
Dirty water collection and lifting station with GQG series grinder pumps.

It includes:
1 tank capacity 230 l
1 pump
- single-phase with 10 m cable without float switch
- - three-phase with 10 m cable
1 support kit with float switch
1 control box (with capacitor for single-phase motors)
1 duck foot coupling kit
1 discharge pipe kit Ø 63 mm in PVC with a ball valve and non-return ball valve

On request:
1 support kit with safety float switch and auto-supplied control panel for remote alarm with horn and flashing light
- extention 300 mm

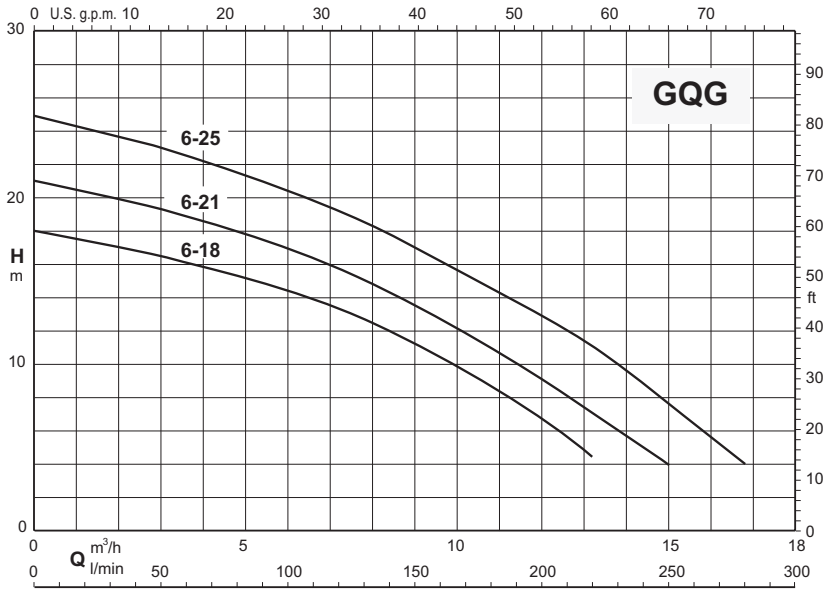
Type single-phase	1 ~ 230 V	1 ~ 230 V	Q max	H max
	kW	A	m3/h	m
GEO 230-GQGM 6-18	0,9	7	13,2	16,5
GEO 230-GQGM 6-21	1,1	7,5	15	19,2
GEO 230-GQGM 6-25	1,5	9,5	16,8	23

Type three-phase	3 ~ 400 V	3 ~ 400 V	Q max	H max
	kW	A	m3/h	m
GEO 230-GQG 6-18	0,9	2.3	13,2	16,5
GEO 230-GQG 6-21	1,1	2.8	15	19,2
GEO 230-GQG 6-25	1,5	3.8	16,8	23



GQG
Submersible pumps with high power grinder, with horizontal delivery port.
GQG:with grinding system.
2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
GQG:three-phase 400 V +/-10%;
GQGM:single-phase 230V ± 10% complete with control panel with thermal protection and starting capacitors (without float).
Cable length 10 m.
Liquid temperature up to 35° C.

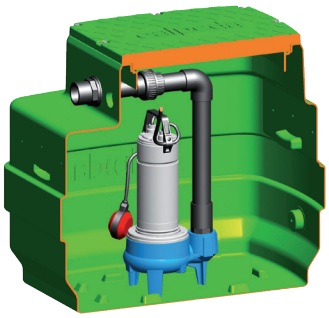




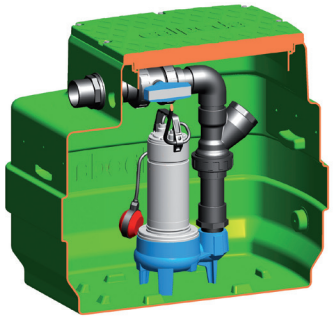
GEO 230

Pumps characteristics

GEO 230-GQS 40



GEO 230-GQS 50



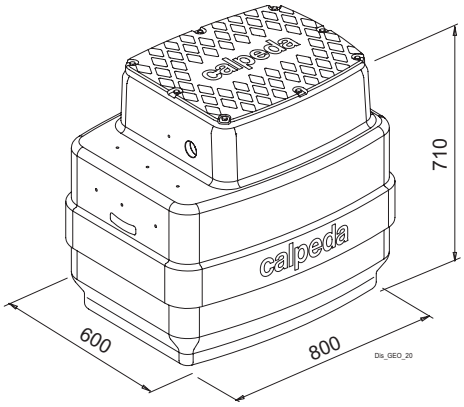
Characteristics
Dirty water collection and lifting station with GQS series pumps.

It includes:
1 tank capacity 230 l
1 pump
- - single-phase with 10 m cable and float switch
- - three-phase with 10 m cable with support and float switch kit
1 control box for three-phase version
For GQS 40: 1 x Ø 50 mm PVC drainage pipe kit
For GQS 50: 1 x Ø 63 mm PVC drainage pipe kit with ball valve and ball non-return valve

On request:
For GQS 40: 1 x Ø 50 mm PVC drainage pipe kit with ball valve and ball non-return valve
1 safety float switch (with support for single-phase version) and autosupplied control panel for remote alarm with horn and flashing light
- extention 300 mm

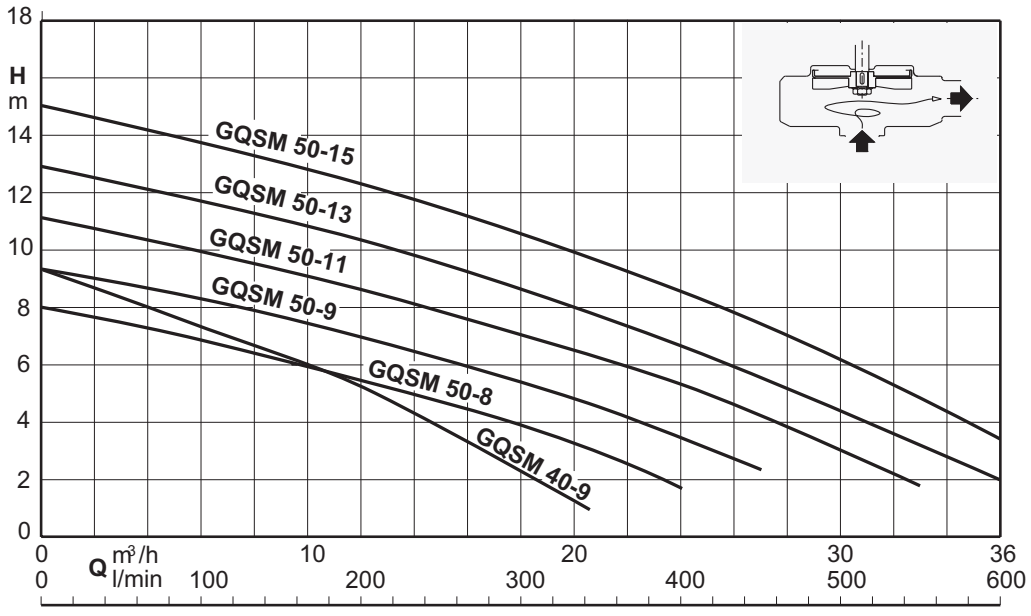
Type single-phase	1 ~ 230 V	1 ~ 230 V	Q max	H max
	kW	A	m3/h	m
GEO 230-GQSM 40-9	0.45	4.5	21	8.8
GEO 230-GQSM 50-8	0,55	4,3	24	7,4
GEO 230-GQSM 50-9	0,75	4,8	27	8,8
GEO 230-GQSM 50-11	0,9	6,6	33	10,5
GEO 230-GQSM 50-13	1,1	8,4	36	12,5
GEO 230-GQSM 50-15	1,5	13	36	14,4

Type three-phase	3 ~ 400 V	3 ~ 400 V	Q max	H max
	kW	A	m3/h	m
GEO 230-GQS 40-9	0.45	1.6	21	8.8
GEO 230-GQS 50-8	0,55	1.5	24	7,4
GEO 230-GQS 50-9	0,75	1.8	27	8,8
GEO 230-GQS 50-11	0,9	2.3	33	10,5
GEO 230-GQS 50-13	1,1	3	36	12,5
GEO 230-GQS 50-15	1,5	4	36	14,4



GQS
Single-impeller submersible pumps, with vertical delivery port.
GQS:with free-flow (vortex) impeller
2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
GQS:three-phase 400 V +/-10%;
GQSM: Single-phase 230 V +/-10% with float switch and thermal protector. Incorporated capacitor.
Cable length 10 m.
Liquid temperature up to 35° C.

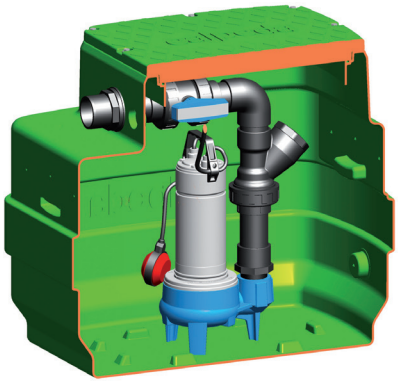




GEO 230

Pumps characteristics

GEO 230-GQN



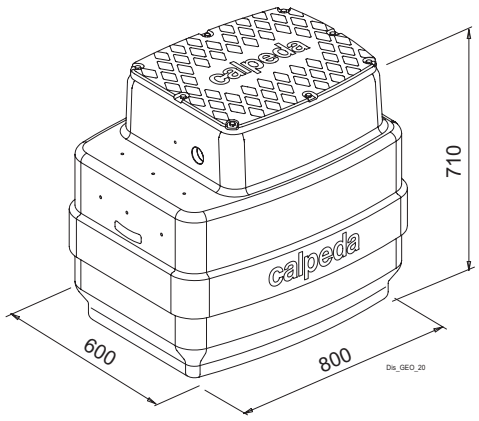
Characteristics
Dirty water collection and lifting station with GQN series pumps.

It includes:
1 tank capacity 230 l
1 pump
- single-phase with 10 m cable, with float
- - three-phase with 10 m cable with support and float switch kit
1 support kit with float switch
1 control box for three-phase version
1 discharge pipe kit Ø 63 mm in PVC with a ball valve and non-return ball valve

On request:
1 support kit with safety float switch and auto-supplied control panel for remote alarm with horn and flashing light
- extention 300 mm

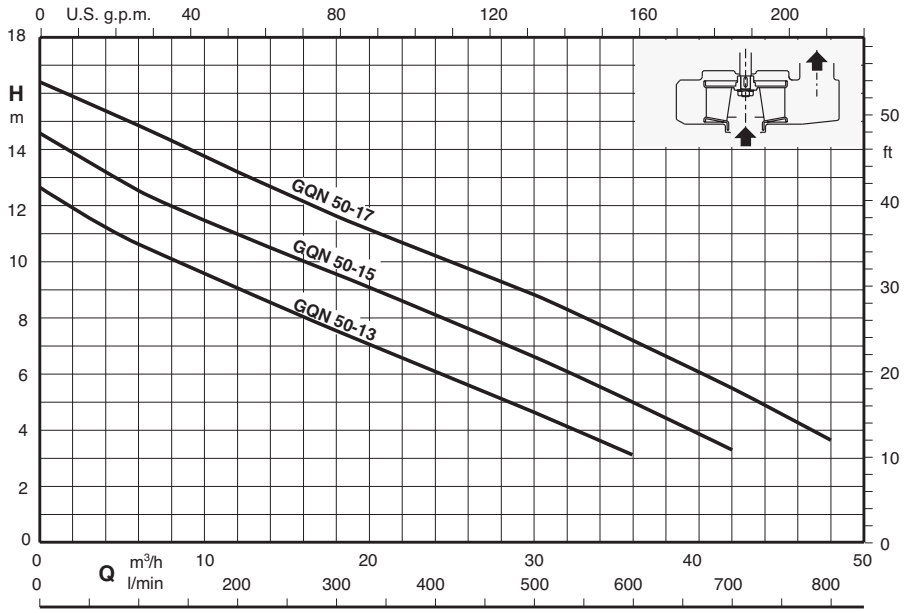
Type single-phase	1 ~ 230 V	1 ~ 230 V	Q max	H max
	kW	A	m3/h	m
GEO 230-GQNM 50-13	0,9	6,6	36	11,6
GEO 230-GQNM 50-15	1,1	8,4	42	13,5
GEO 230-GQNM 50-17	1,5	12	48	15,7

Type three-phase	3 ~ 400 V	3 ~ 400 V	Q max	H max
	kW	A	m3/h	m
GEO 230-GQN 50-13	0,9	2,3	36	11,6
GEO 230-GQN 50-15	1,1	3,3	42	13,5
GEO 230-GQN 50-17	1,5	4,5	48	15,7



GQN
Single-impeller submersible pumps, with vertical delivery port.
GQN:with two-passage impeller.
2-pole induction motor, 50Hz (n ≈ 2900 rpm)
GQN:three-phase 400 V +/-10%;
GQNM: Single-phase 230 V +/-10% with float switch and thermal protector. Incorporated capacitor.
Cable length 10 m.
Liquid temperature up to 35° C.

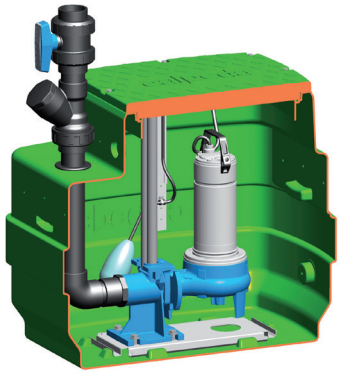




GEO 230

Pumps characteristics

GEO 230-GQV



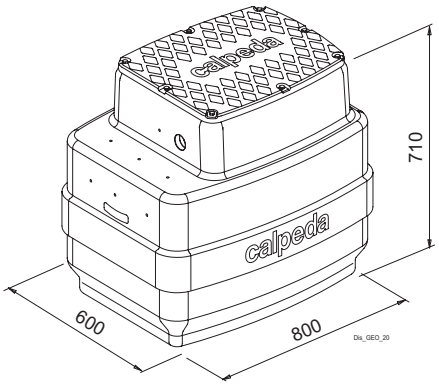
Characteristics
Dirty water collection and lifting station with GQV series pumps.

It includes:
1 tank capacity 230 l
1 pump
- single-phase with 10 m cable without float switch
- - three-phase with 10 m cable
1 support kit with float switch
1 control box
1 duck foot coupling kit
1 discharge pipe kit Ø 63 mm in PVC with a ball valve and non-return ball valve

On request:
1 safety float switch (with support for single-phase version) and autosupplied control panel for remote alarm with horn and flashing light
- extention 300 mm

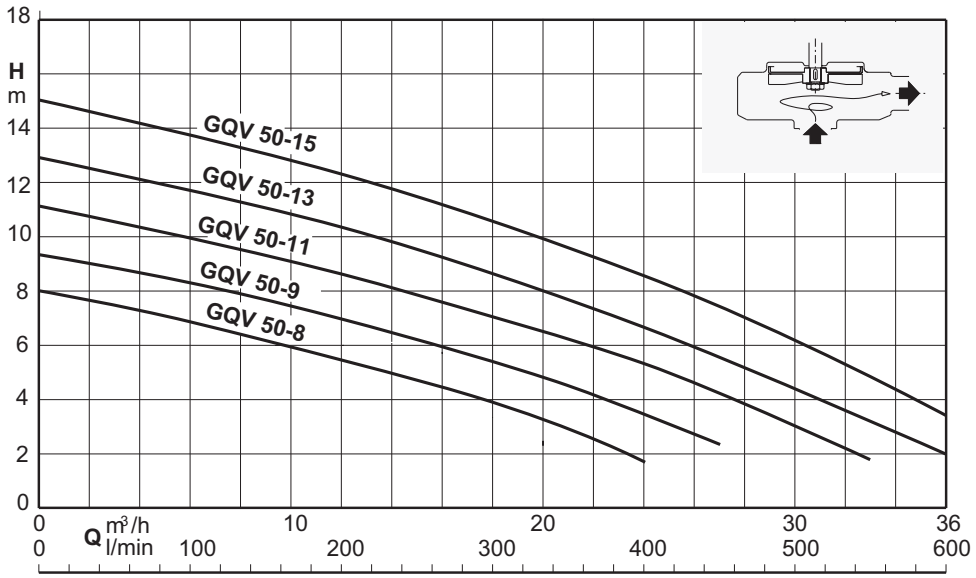
Type single-phase	1 ~ 230 V	1 ~ 230 V	Q max	H max
	kW	A	m3/h	m
GEO 230-GQVM 50-8	0,55	4,3	24	7,4
GEO 230-GQVM 50-9	0,75	4,8	27	8,8
GEO 230-GQVM 50-11	0,9	6,6	33	10,5
GEO 230-GQVM 50-13	1,1	8,4	36	12,5
GEO 230-GQVM 50-15	1,5	13	36	14,4

Type three-phase	3 ~ 400 V	3 ~ 400 V	Q max	H max
	kW	A	m3/h	m
GEO 230-GQV 50-8	0,55	1.5	24	7,4
GEO 230-GQV 50-9	0,75	1.8	27	8,8
GEO 230-GQV 50-11	0,9	2.3	33	10,5
GEO 230-GQV 50-13	1,1	3	36	12,5
GEO 230-GQV 50-15	1,5	4	36	14,4



GQV
Single-impeller submersible pumps, with horizontal delivery port.
GQV:with free-flow (vortex) impeller
2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
GQV:three-phase 400 V +/-10%;
GQVM:single-phase 230 V +/-10%, with thermal protector, with built-in capacitor (without float switch).
Cable length 10 m.
Liquid temperature up to 35° C.

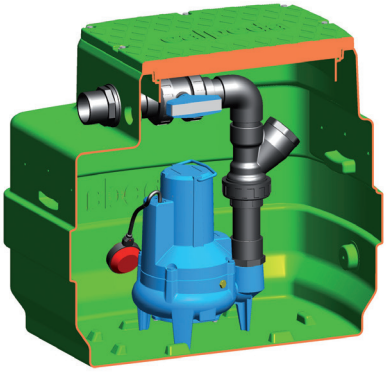




GEO 230

Pumps characteristics

GEO 230-GM..



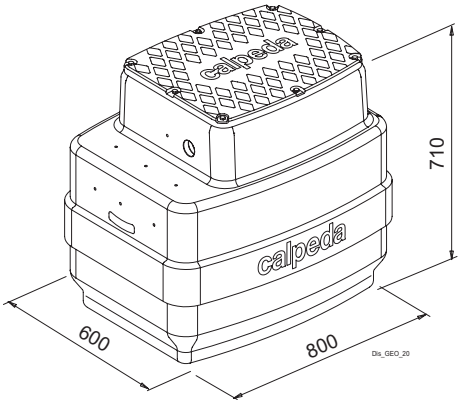
Characteristics
Dirty water collection and lifting station with GMV GMC series pumps.

It includes:
1 tank capacity 230 l
1 pump
- - single-phase with 10 m cable and float switch
- three-phase with 10 m cable with rod kit and float
1 control box for three-phase version
1 discharge pipe kit Ø 63 mm in PVC with a ball valve and non-return ball valve

On request:
1 support kit with safety float switch and auto-supplied control panel for remote alarm with horn and flashing light
- extention 300 mm

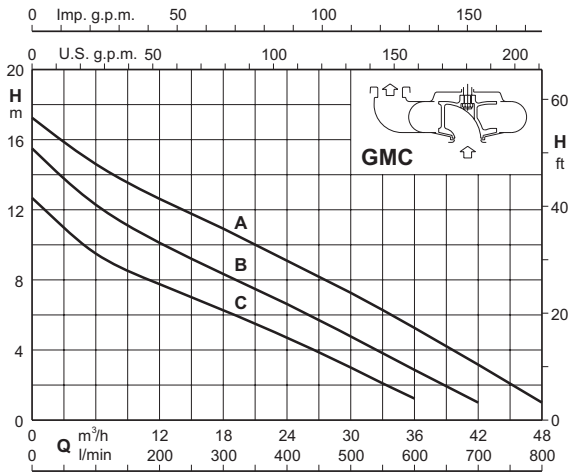
Type single-phase	1 ~ 230 V	1 ~ 230 V	Q max	H max
	kW	A	m3/h	m
GEO 230-GMCM 50CE	0,75	4,5	36	9,5
GEO 230-GMCM 50BE	1,1	6,5	42	12,5
GEO 230-GMVM50CE	0,75	4,5	31	8
GEO 230-GMVM 50BE	1,1	6,5	35	9,5

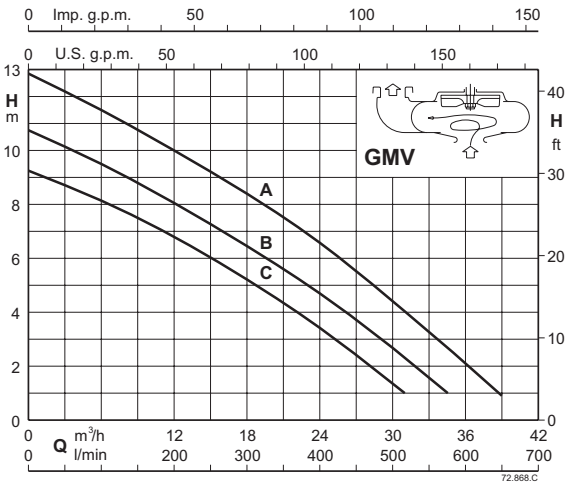
Type three-phase	3 ~ 400 V	3 ~ 400 V	Q max	H max
	kW	A	m3/h	m
GEO 230-GMC 50CE	0,75	1,9	36	9,5
GEO 230-GMC 50BE	1,1	2,K7	42	12,5
GEO 230-GMC 50AE	1,5	3,8	48	14,5
GEO 230-GMV 50CE	0,75	1,9	31	8
GEO 230-GMV 50BE	1,1	2,7	35	9,5
GEO 230-GMV 50AE	1,5	3,8	39	11,5



GMC, GMV
Submersible sewage and drainage pumps.
GMC:with single-channel impeller.
GMV:with free-flow (vortex) impeller
2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
GMC, GMV:three-phase 400 V +/-10%; with 2 built-in thermal protectors to be connected to the control panel.
GMCM, GMVM:single-phase 230 V ± 10%, built-in thermal protector and built-in capacitor.Float switch for automatic operation.
Cable length 10 m.
Liquid temperature up to 35° C.



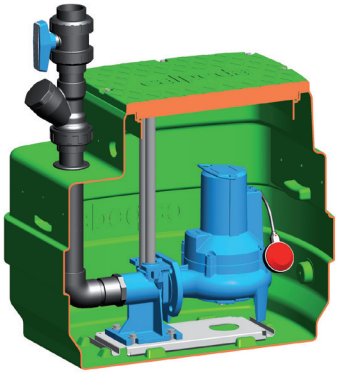




GEO 230

Pumps characteristics

GEO 230-GM..



Characteristics
Dirty water collection and lifting station with GMV GMC series pumps.

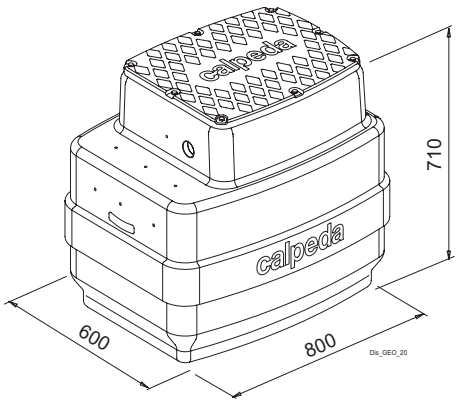
It includes:
1 tank capacity 230 l
1 pump
- single-phase with 10 m cable and float
- three-phase with 10 m cable with rod kit and float

1 control box for three-phase version
1 duck foot coupling kit
1 discharge pipe kit Ø 63 mm in PVC with a ball valve and non-return ball valve

On request:
1 support kit with safety float switch and auto-supplied control panel for remote alarm with horn and flashing light
- extention 300 mm

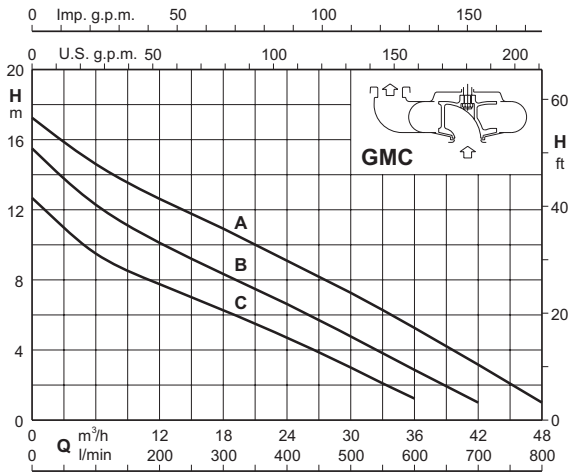
Type single-phase	1 ~ 230 V	1 ~ 230 V	Q max	H max
	kW	A	m3/h	m
GEO 230-GMCM 50-65C	0,75	4,5	36	9,5
GEO 230-GMCM 5065B	1,1	6,5	42	12,5
GEO 230-GMVM50-65C	0,75	4,5	31	8
GEO 230-GMVM 50-65B	1,1	6,5	35	9,5

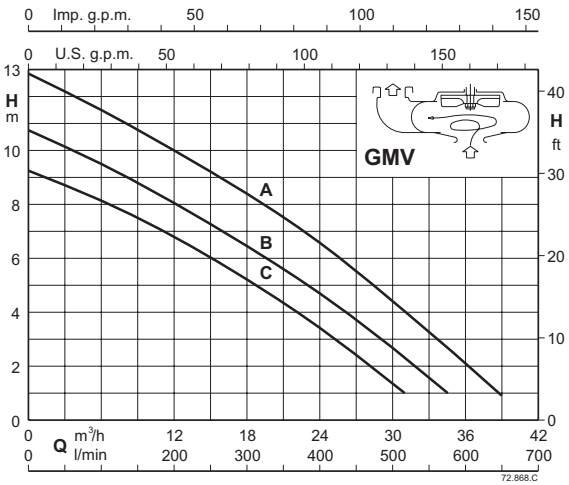
Type three-phase	3 ~ 400 V	3 ~ 400 V	Q max	H max
	kW	A	m3/h	m
GEO 230-GMC 50-65C	0,75	1,9	36	9,5
GEO 230-GMC 50-65B	1,1	2.7	42	12,5
GEO 230-GMC 50-65A	1,5	3,8	48	14,5
GEO 230-GMV 50-65C	0,75	1,9	31	8
GEO 230-GMV 50-65B	1,1	2,7	35	9,5
GEO 230-GMV 50-65C	1,5	3,8	39	11,5



GMC, GMV
Submersible sewage and drainage pumps.
GMC:with single-channel impeller.
GMV:with free-flow (vortex) impeller
2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
GMC, GMV:three-phase 400 V +/-10%; with 2 built-in thermal protectors to be connected to the control panel.
GMCM, GMVM:single-phase 230 V ± 10%, built-in thermal protector and built-in capacitor.Float switch for automatic operation.
Cable length 10 m.
Liquid temperature up to 35° C.



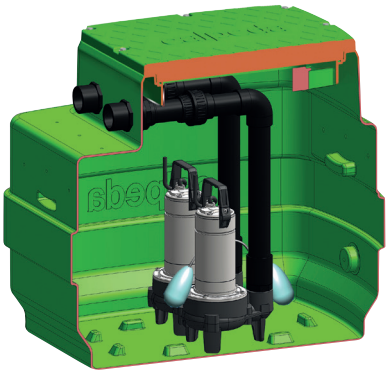




GEO 230

Pumps characteristics

GEO 230-GQS 40

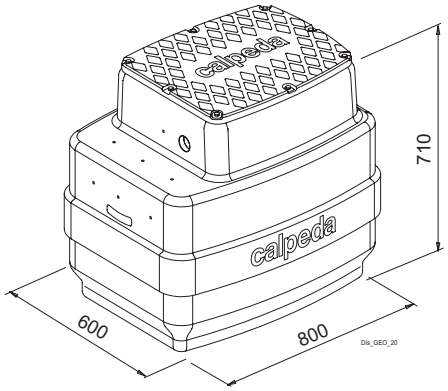


Characteristics
Dirty water collection and lifting station with GQS 40-9 series pumps.

It includes:
1 tank capacity 230 l
2 pump
- single-phase with 10 m cable without float switch
- - three-phase with 10 m cable
1 support kit with 2 float switch
1 control box
4 x Ø 50 mm PVC drainage pipe kit

On request:
4 x Ø 50 mm PVC drainage pipe kit with ball valve and ball non-return valves
1 safety float switch (with support for single-phase version) and autosupplied control panel for remote alarm with horn and flashing light
- extention 300 mm

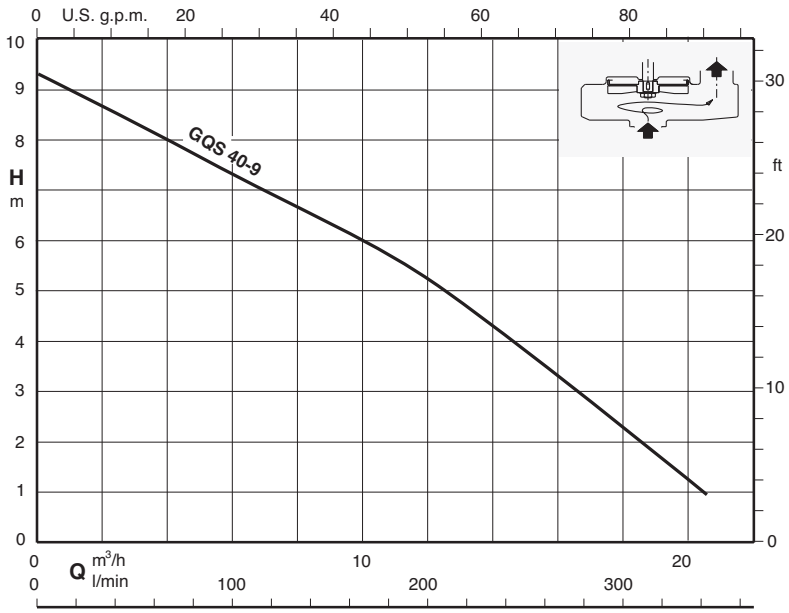
Type single-phase	1 ~ 230 V	1 ~ 230 V	Q max	H max
	kW	A	m3/h	m
GEO 230-2GQSM 40-9	0,45x2	4,5x2	21x2	8.8



Type three-phase	3 ~ 400 V	3 ~ 400 V	Q max	H max
	kW	A	m3/h	m
GEO 230-2GQS 40-9	0,45x2	1,6x2	21x2	8.8

GQS
Single-impeller submersible pumps, with vertical delivery port.
GQS:with free-flow (vortex) impeller
2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
GQS:three-phase 400 V +/-10%;
GQSM:single-phase 230 V +/-10%, with thermal protector, with built-in capacitor (without float switch).
Cable length 10 m.
Liquid temperature up to 35° C.

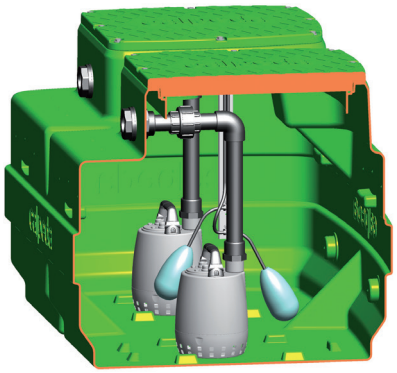




GEO 500

Pumps characteristics

GEO 500-GX..

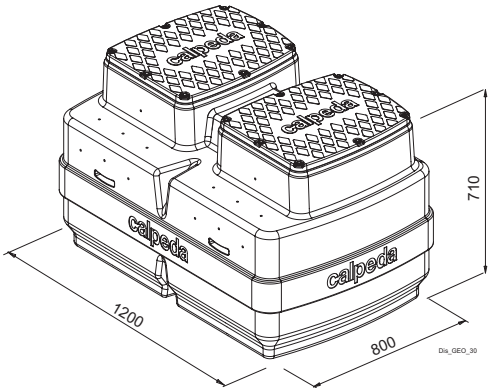


Characteristics
Automatic collecting and lifting station
- for clean water with GXR pump series
- - for waste water with GXV pump series.

It includes:
1 tank capacity 500 l
2 single-phase pump with 5 m cable without float switch
1 support kit with 2 float switch
1 control box
2 discharge pipe kit Ø 40 mm in PVC

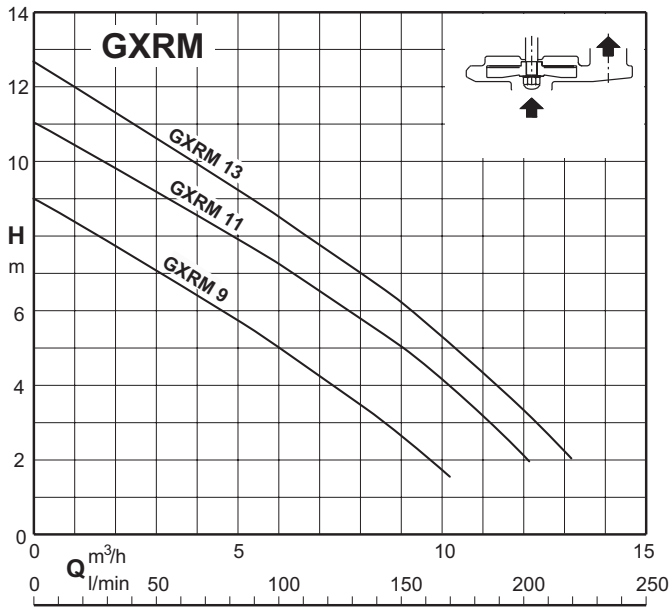
On request:
- 2 single-phase pumps with 10 m cable, without floats
2 discharge pipe kit Ø 40 mm in PVC with a ball valve and non-return ball valve
1 safety float switch and auto-supplied control panel for remote alarm with horn and flashing light
- extention 300 mm

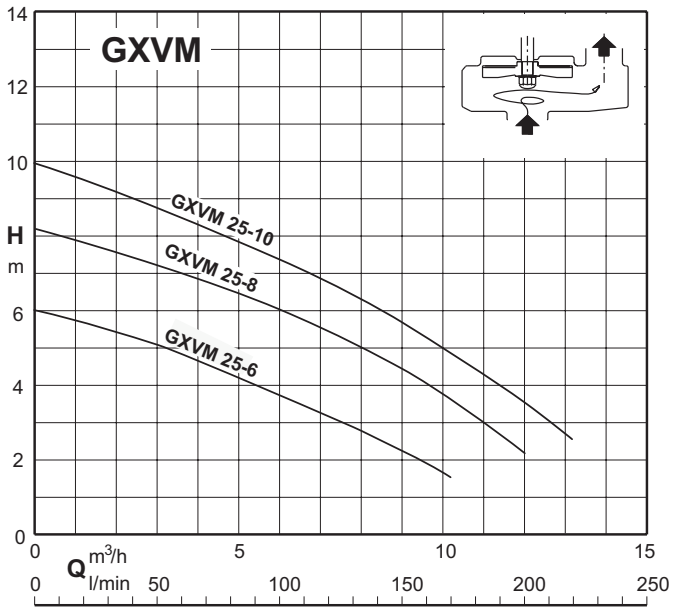
Type single-phase	1 ~ 230 V	1 ~ 230 V	Q max	H max
	kW	A	m3/h	m
GEO 500-2GXVM 25-6	0,25x2	2,5x2	10,2x2	5,7
GEO 500-2GXVM 25-8	0,37x2	3,5x2	12x2	7,8
GEO 500-2GXVM 25-10	0.45x2	4,5x2	13,2x2	9,5
GEO 500-2GXRM 9	0,25x2	2,5x2	10,2x2	8,3
GEO 500-2GXRM 11	0,37x2	3,5x2	12x2	10,4
GEO 500-2GXVM 13	0.45x2	4,5x2	13,2x2	11,7





GXRM, GXVM
Submersible drainage pumps made of chrome-nickel stainless steel, with vertical delivery port.
GXRM:with open impeller.
GXVM:with free-flow (vortex) impeller
2-pole induction motor, 50 Hz (n ≈ 2900 1/min), single-phase 230V ± 10% with thermal protector and built-in capacitor (without float).
5 m cable and control box with capacitor.
Liquid temperature up to 35° C.

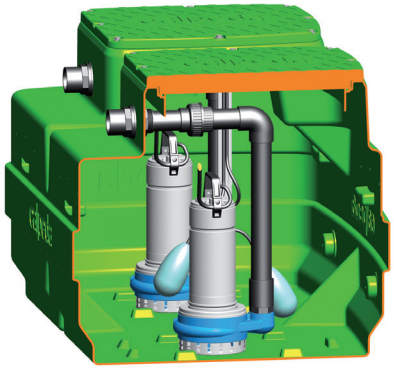




GEO 500

Pumps characteristics

GEO 500-GQR



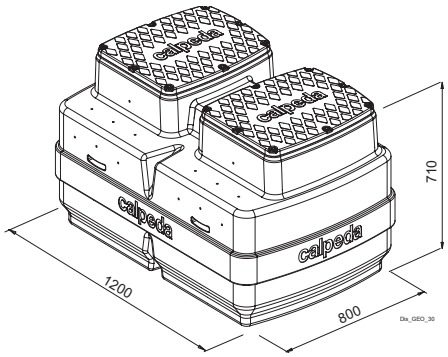
Characteristics
Automatic collecting and lifting station for clean water with GQR pump series.

It includes:
1 tank capacity 500 l
2 pump
- single-phase with 10 m cable without float switch
- - three-phase with 10 m cable
1 support kit with 2 float switch
1 control box
- 2 x 50 mm diameter PVC drainage pipe kits

On request:
- 2 x 50 mm diameter PVC drainage pipe kits with ball valves and ball non-return valves
1 safety float switch and auto-supplied control panel for remote alarm with horn and flashing light
- extention 300 mm

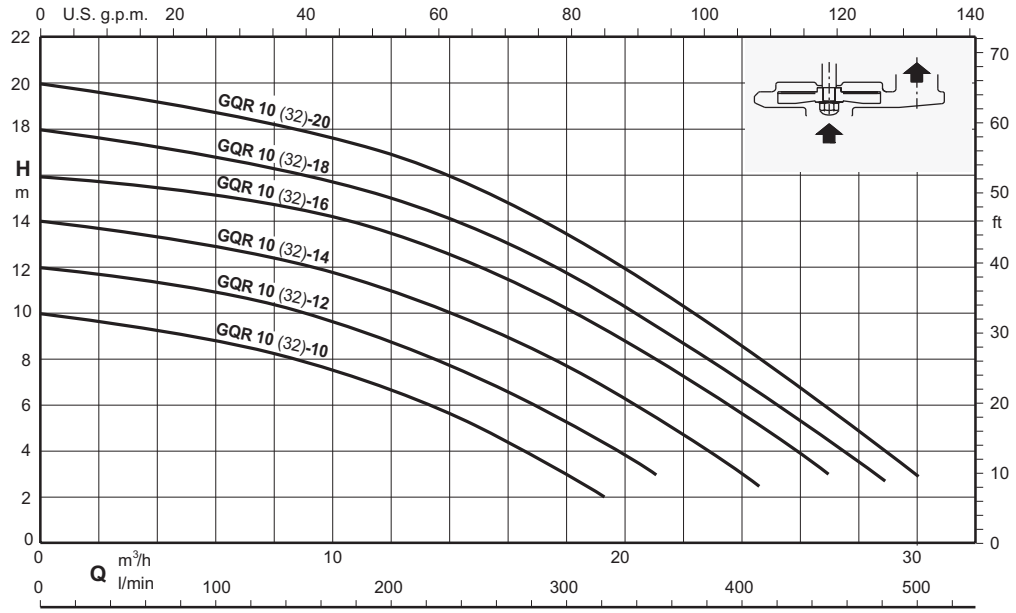
Type single-phase	1 ~ 230 V	1 ~ 230 V	Q max	H max
	kW	A	m3/h	m
GEO 500-2GQRM 10-10	0,45x2	3,1x2	18x2	9,5
GEO 500-2GQRM 10-12	0,55x2	3,6x2	21x2	11,6
GEO 500-2GQRM 10-14	0,75x2	4,6x2	24x2	13,5
GEO 500-2GQRM 10-16	0,9x2	6x2	27x2	15,5
GEO 500-2GQRM 10-18	1,1x2	8x2	30x2	17,5
GEO 500-2GQRM 10-20	1,5x2	13x2	30x2	19,5

Type three-phase	3 ~ 400 V	3 ~ 400 V	Q max	H max
	kW	A	m3/h	m
GEO 500-2GQR 10-10	0,45x2	1,2x2	18x2	9,5
GEO 500-2GQR 10-12	0,55x2	1,4x2	21x2	11,6
GEO 500-2GQR 10-14	0,75x2	1,6x2	24x2	13,5
GEO 500-2GQR 10-16	0,9x2	2,3x2	27x2	15,5
GEO 500-2GQR 10-18	1,1x2	2,8x2	30x2	17,5
GEO 500-2GQR 10-20	1,5x2	3,8x2	30x2	19,5



GQR
Single-impeller submersible drainage pump, with vertical delivery port.
GQR:with open impeller.
2-pole induction motor, 50 Hz (n ≈ 2900 1/min)
GQR:three-phase 400 V +/-10%;
GQRM:single-phase 230 V +/-10%, with thermal protector, with built-in capacitor (without float switch).
Cable length 10 m.
Liquid temperature up to 35° C.

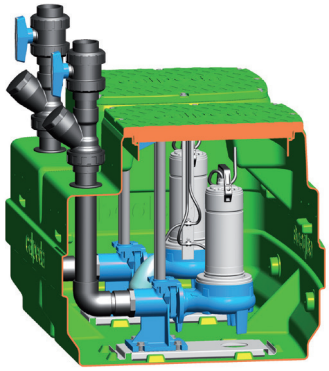




GEO 500

Pumps characteristics

GEO 500-GQR



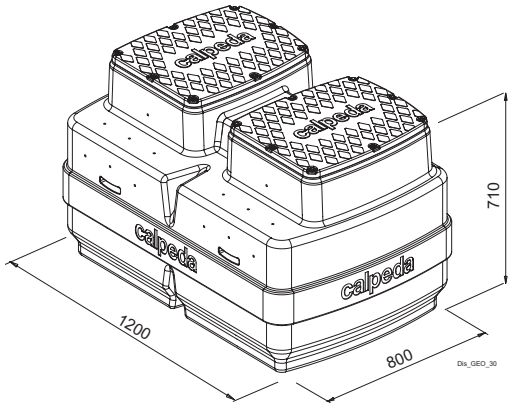
Characteristics
Automatic collecting and lifting station for clean water with GQR pump series.

It includes:
1 tank capacity 500 l
2 pump
- single-phase with 10 m cable without float switch
- - three-phase with 10 m cable
1 support kit with 2 float switch
1 control box
2 duck foot coupling kit
2 discharge pipe kit Ø 63 mm in PVC with a ball valve and non-return ball valve

On request:
1 safety float switch and auto-supplied control panel for remote alarm with horn and flashing light
- extention 300 mm

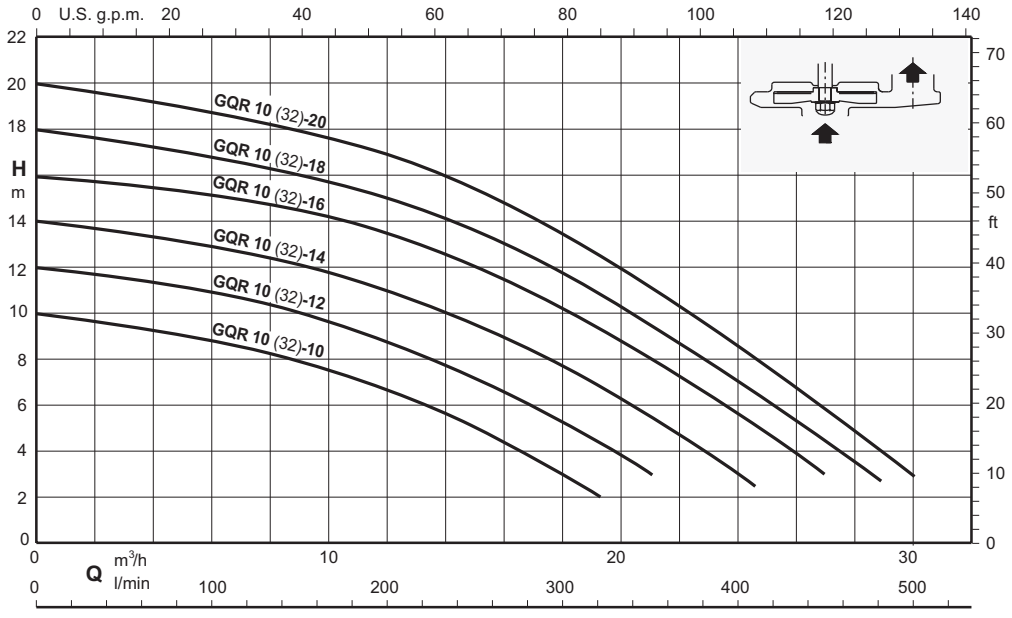
Type single-phase	1 ~ 230 V	1 ~ 230 V	Q max	H max
	kW	A	m3/h	m
GEO 500-2GQRM 10 32-10	0,45x2	3,1x2	18x2	9,5
GEO 500-2GQRM 10 32-12	0,55x2	3,6x2	21x2	11,6
GEO 500-2GQRM 10 32-14	0,75x2	4,6x2	24x2	13,5
GEO 500-2GQRM 10 32-16	0,9x2	6x2	27x2	15,5
GEO 500-2GQRM 10 32-18	1,1x2	8x2	30x2	17,5
GEO 500-2GQRM 10 32-20	1,5x2	13x2	30x2	19,5

Type three-phase	3 ~ 400 V	3 ~ 400 V	Q max	H max
	kW	A	m3/h	m
GEO 500-2GQR 10 32-10	0,45x2	1,2x2	18x2	9,5
GEO 500-2GQR 10 32-12	0,55x2	1,4x2	21x2	11,6
GEO 500-2GQR 10 32-14	0,75x2	1,6x2	24x2	13,5
GEO 500-2GQR 10 32-16	0,9x2	2,3x2	27x2	15,5
GEO 500-2GQR 10 32-18	1,1x2	2,8x2	30x2	17,5
GEO 500-2GQR 10 32-20	1,5x2	3,8x2	30x2	19,5



GQR
Submersible pumps with high power grinder, with horizontal delivery port.
GQR:with open impeller.
2-pole induction motor, 50 Hz (n ≈ 2900 1/min)
GQR:three-phase 400 V +/-10%;
GQRM:single-phase 230 V +/-10%, with thermal protector, with built-in capacitor (without float switch).
Cable length 10 m.
Liquid temperature up to 35° C.

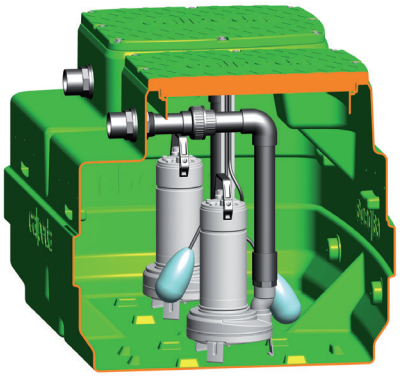




GEO 500

Pumps characteristics

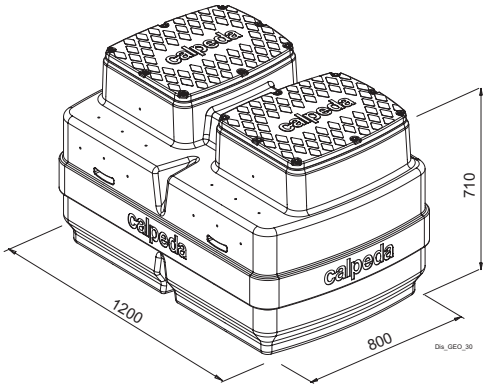
GEO 500-GX..



Characteristics
Clear water collection and lifting station with GX 40 series pumps.

It includes:
1 tank capacity 500 l
2 pump
- single-phase with 10 m cable without float switch
- - three-phase with 10 m cable
1 support kit with 2 float switch
1 control box
- 2 x 50 mm diameter PVC drainage pipe kits

On request:
- 2 x 50 mm diameter PVC drainage pipe kits with ball valves and ball non-return valves
1 safety float switch (with support for single-phase version) and autosupplied control panel for remote alarm with horn and flashing light
- extention 300 mm

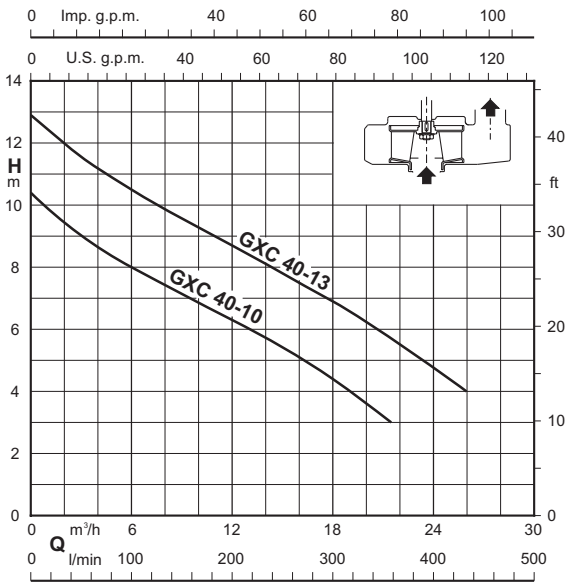


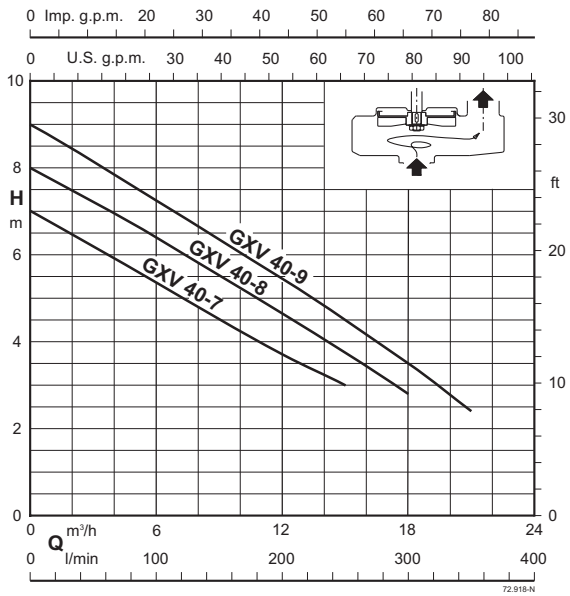
Type single-phase	1 ~ 230 V	1 ~ 230 V	Q max	H max
	kW	A	m3/h	m
GEO 500-2GXCM 40-10	0,55x2	4,6x2	21x2	9
GEO 500-2GXCM 40-13	0,9x2	6,6x2	26x2	11,6
GEO 500-2GXVM 40-7	0,55x2	4,6x2	15x2	6,2
GEO 500-2GXVM 40-8	0,75x2	5,4x2	18x2	7,2
GEO 500-2GXVM 40-9	0,9x2	6x2	21x2	8,1

Type three-phase	3 ~ 400 V	3 ~ 400 V	Q max	H max
	kW	A	m3/h	m
GEO 500-2GXC 40-10	0,55x2	1,6x2	21x2	9
GEO 500-2GXC 40-13	0,9x2	2,3x2	26x2	11,6
GEO 500-2GXV 40-7	0,55x2	1,6x2	15x2	6,2
GEO 500-2GXV 40-8	0,75x2	2,2x2	18x2	7,2
GEO 500-2GXV 40-9	0,9x2	2,3x2	21x2	8,1

GXC, GXV
Submersible sewage and drainage pumps in chrome-nickel stainless steel, with vertical delivery port.
GXC:with two-passage impeller.
GXV:with free-flow (vortex) impeller
2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
GXC, GXV:three-phase 400 V +/-10%;
GXCM, GXVM:single-phase 230V ± 10% with built-in thermal protector and capacitor (without float).
Float switch for automatic start and stop.
Cable length 10 m.
Liquid temperature up to 35° C.



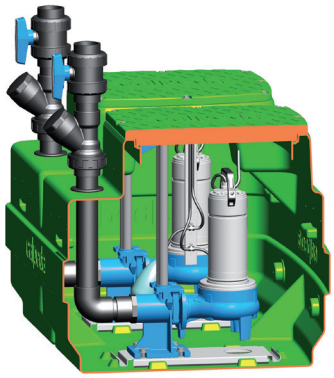




GEO 500

Pumps characteristics

GEO 500-GQG



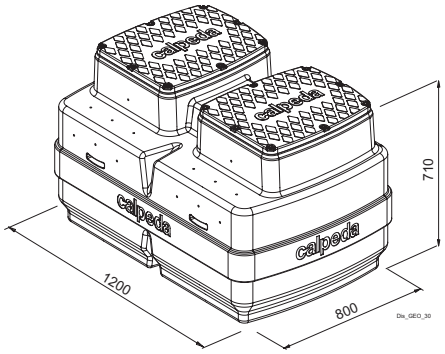
Characteristics
Sewage collection and lifting station with GQG series grinder pumps.

It includes:
1 tank capacity 500 l
2 pump
- single-phase with 10 m cable without float switch
- - three-phase with 10 m cable
1 support kit with 2 float switch
1 control box (with capacitor for single-phase motors)
2 duck foot coupling kit
2 discharge pipe kit Ø 63 mm in PVC with a ball valve and non-return ball valve

On request:
1 safety float switch (with support for single-phase version) and autosupplied control panel for remote alarm with horn and flashing light
- extention 300 mm

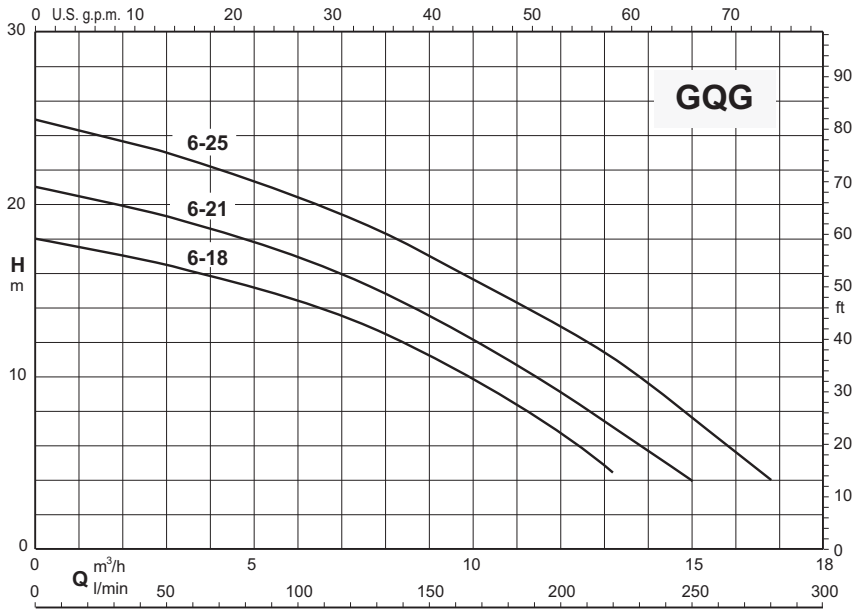
Type single-phase	1 ~ 230 V	1 ~ 230 V	Q max	H max
	kW	A	m3/h	m
GEO 500-2GQGM 6-18	0,9x2	7x2	13,2x2	16,5
GEO 500-2GQGM 6-21	1,1x2	7,5x2	15x2	19,2
GEO 500-GQGM 6-25	1,5x2	9,5x2	16,8x2	23

Type three-phase	3 ~ 400 V	3 ~ 400 V	Q max	H max
	kW	A	m3/h	m
GEO 500-2GQG 6-18	0,9x2	2,3x2	13,2x2	16,5
GEO 500-2GQG 6-21	1,1x2	2,8x2	15x2	19,2
GEO 500-2GQG 6-25	1,5x2	3,8x2	16,8x2	23



GQG
Submersible pumps with high power grinder, with horizontal delivery port.
GQG:with grinding system.
2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
GQG:three-phase 400 V +/-10%;
GQGM:single-phase 230V ± 10% complete with control panel with thermal protection and starting capacitors (without float).
Cable length 10 m.
Liquid temperature up to 35° C.

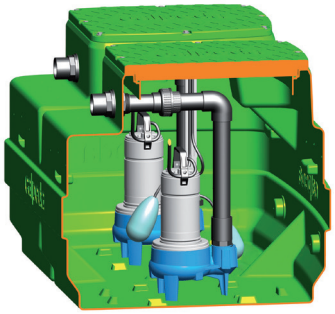




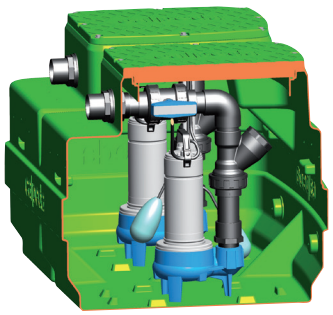
GEO 500

Pumps characteristics

GEO 500-GQS 40



GEO 500-GQS 50



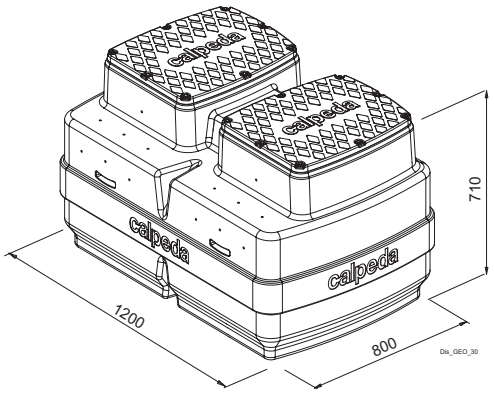
Characteristics
Dirty water collection and lifting station with GQS series pumps.

It includes:
1 tank capacity 500 l
2 pump
- single-phase with 10 m cable without float switch
- - three-phase with 10 m cable
1 support kit with 2 float switch
1 control box
- For GQS 40: 2 x Ø 50 mm PVC drainage pipe kit
- For GQS 50: 2 x Ø 63 mm PVC drainage pipe kit with ball valve and ball non-return valves

On request:
- For GQS 40: 2 x Ø 50 mm PVC drainage pipe kit with ball valve and ball non-return valves
1 safety float switch (with support for single-phase version) and autosupplied control panel for remote alarm with horn and flashing light
- extention 300 mm

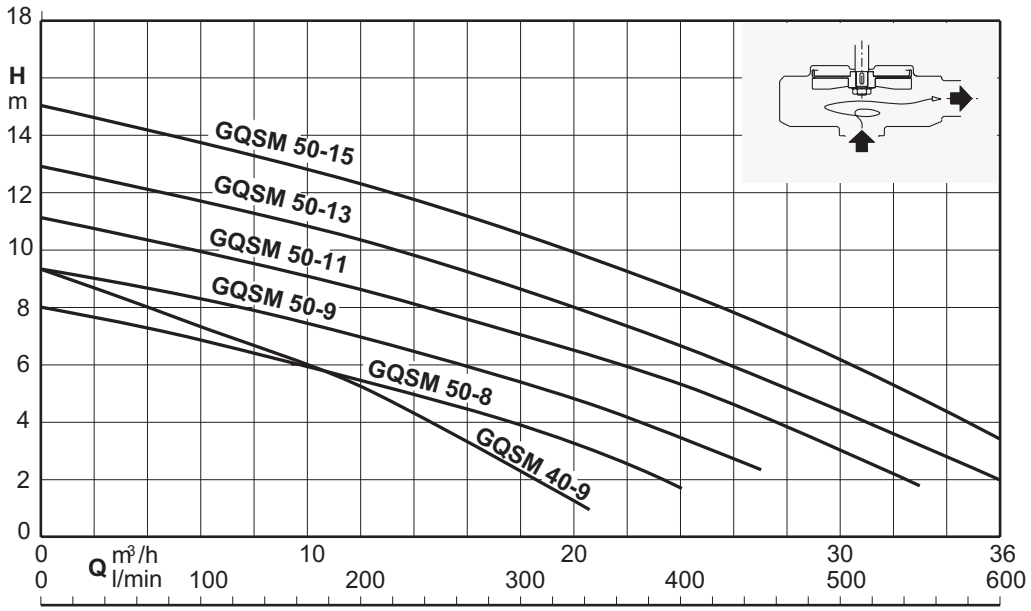
Type single-phase	1 ~ 230 V	1 ~ 230 V	Q max	H max
	kW	A	m3/h	m
GEO 500-2GQSM 40-9	0,45x2	4,5x2	21x2	8.8
GEO 500-2GQSM 50-8	0,55x2	4,3x2	24x2	7,4
GEO 500-2GQSM 50-9	0,75x2	4,8x2	27x2	8,8
GEO 500-2GQSM 50-11	0,9x2	6,6x2	33x2	10,5
GEO 500-2GQSM 50-13	1,1x2	8,4x2	36x2	12,5
GEO 500-2GQSM 50-15	1,5x2	13x2	36x2	14,4

Type three-phase	3 ~ 400 V	3 ~ 400 V	Q max	H max
	kW	A	m3/h	m
GEO 500-2GQS 40-9	0,45x2	1,6x2	21x2	8.8
GEO 500-2GQS 50-8	0,55x2	1,5x2	24x2	7,4
GEO 500-2GQS 50-9	0,75x2	1,8x2	27x2	8,8
GEO 500-2GQS 50-11	0,9x2	2,3x2	33x2	10,5
GEO 500-2GQS 50-13	1,1x2	3x2	36x2	12,5
GEO 500-2GQS 50-15	1,5x2	4x2	36x2	14,4



GQS
Single-impeller submersible pumps, with vertical delivery port.
GQS:with free-flow (vortex) impeller
2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
GQS:three-phase 400 V +/-10%;
GQSM:single-phase 230 V +/-10%, with thermal protector, with built-in capacitor (without float switch).
Cable length 10 m.
Liquid temperature up to 35° C.

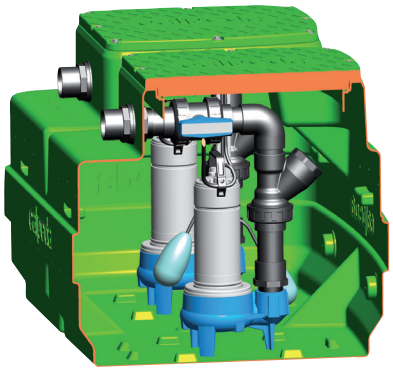




GEO 500

Pumps characteristics

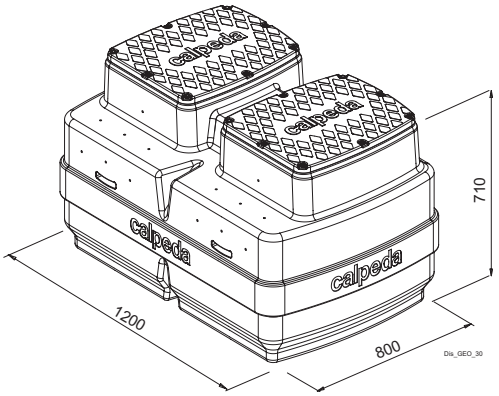
GEO 500-GQN



Characteristics
Dirty water collection and lifting station with GQN series pumps.

It includes:
1 tank capacity 500 l
2 pump
- single-phase with 10 m cable without float switch
- - three-phase with 10 m cable
1 support kit with 2 float switch
1 control box
2 discharge pipe kit Ø 63 mm in PVC with a ball valve and non-return ball valve

On request:
1 safety float switch (with support for single-phase version) and autosupplied control panel for remote alarm with horn and flashing light
- extention 300 mm

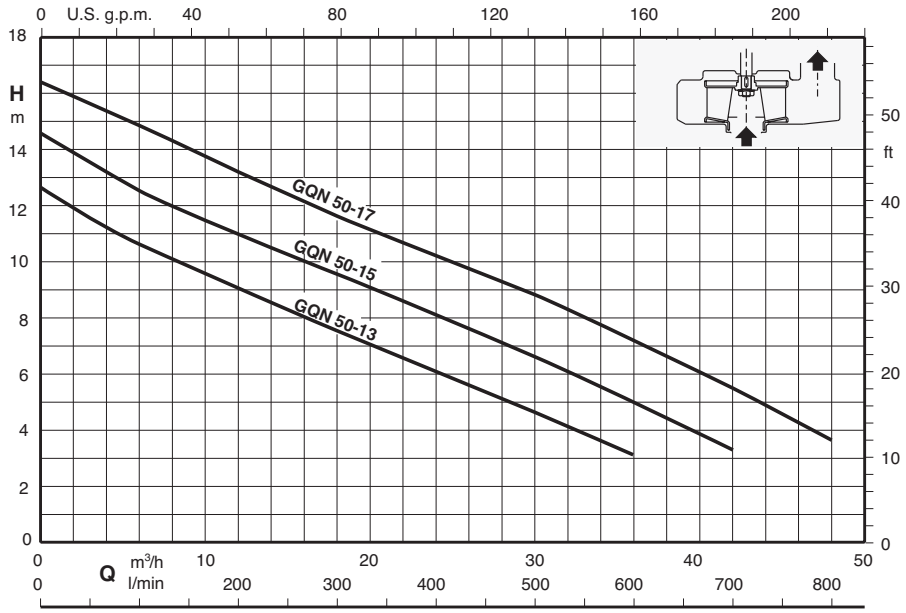


Type single-phase	1 ~ 230 V	1 ~ 230 V	Q max	H max
	kW	A	m3/h	m
GEO 500-2GQNM 50-13	0,9x2	6,6x2	36x2	11,6
GEO 500-2GQNM 50-15	1,1x2	8,4x2	42x2	13,5
GEO 500-2GQNM 50-17	1,5x2	12x2	48x2	15,7

Type three-phase	3 ~ 400 V	3 ~ 400 V	Q max	H max
	kW	A	m3/h	m
GEO 500-2GQN 50-13	0,9x2	2,3x2	36x2	11,6
GEO 500-2GQN 50-15	1,1x2	3,3x2	42x2	13,5
GEO 500-2GQN 50-17	1,5x2	4,5x2	48x2	15,7

GQN
Single-impeller submersible pumps, with vertical delivery port.
GQN:with two-passage impeller.
2-pole induction motor, 50Hz (n ≈ 2900 rpm)
GQN:three-phase 400 V +/-10%;
GQNM:single-phase 230 V +/-10%, with thermal protector, with built-in capacitor (without float switch).
Cable length 10 m.
Liquid temperature up to 35° C.

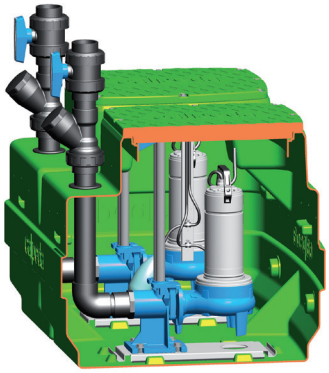




GEO 500

Pumps characteristics

GEO 500-GQV



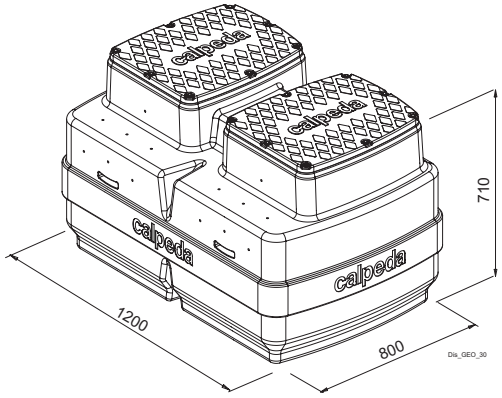
Characteristics
Dirty water collection and lifting station with GQV series pumps.

It includes:
1 tank capacity 500 l
2 pump
- single-phase with 10 m cable without float switch
- - three-phase with 10 m cable
1 support kit with 2 float switch
1 control box
2 duck foot coupling kit
2 discharge pipe kit Ø 63 mm in PVC with a ball valve and non-return ball valve

On request:
1 safety float switch (with support for single-phase version) and autosupplied control panel for remote alarm with horn and flashing light
- extention 300 mm

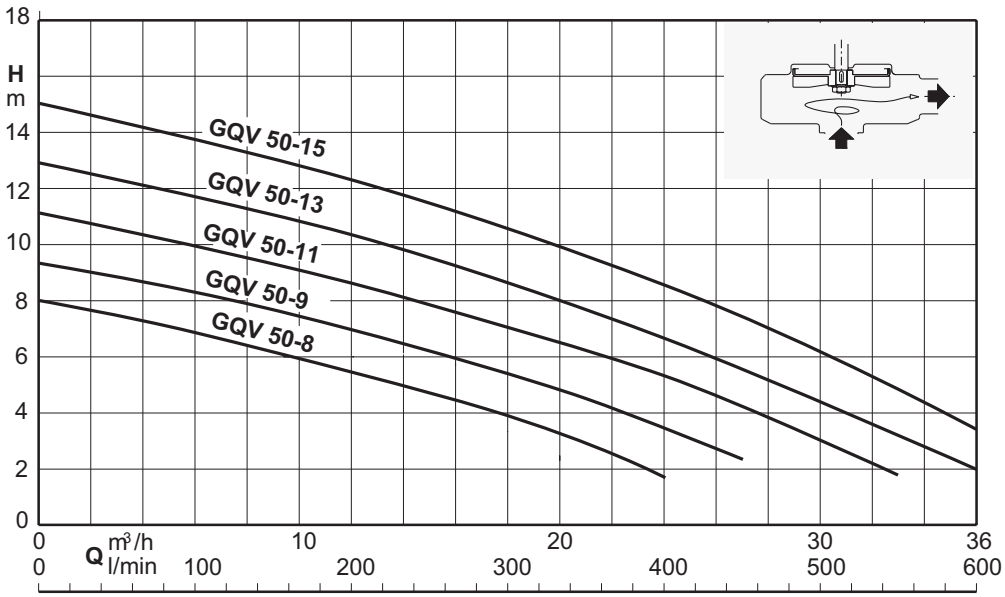
Type single-phase	1 ~ 230 V	1 ~ 230 V	Q max	H max
	kW	A	m3/h	m
GEO 500-2GQVM 50-8	0,55x2	4,3x2	24x2	7,4
GEO 500-2GQVM 50-9	0,75x2	4,8x2	27x2	8,8
GEO 500-2GQVM 50-11	0,9x2	6,6x2	33x2	10,5
GEO 500-2GQVM 50-13	1,1x2	8,4x2	36x2	12,5
GEO 500-2GQVM 50-15	1,5x2	13x2	36x2	14,4

Type three-phase	3 ~ 400 V	3 ~ 400 V	Q max	H max
	kW	A	m3/h	m
GEO 500-2GQV 50-8	0,55x2	1,5x2	24x2	7,4
GEO 500-2GQV 50-9	0,75x2	1,8x2	27x2	8,8
GEO 500-2GQV 50-11	0,9x2	2,3x2	33x2	10,5
GEO 500-2GQV 50-13	1,1x2	3x2	36x2	12,5
GEO 500-2GQV 50-15	1,5x2	4x2	36x2	14,4



GQV
Single-impeller submersible pumps, with horizontal delivery port.
GQV:with free-flow (vortex) impeller
2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
GQV:three-phase 400 V +/-10%;
GQVM:single-phase 230 V +/-10%, with thermal protector, with built-in capacitor (without float switch).
Cable length 10 m.
Liquid temperature up to 35° C.

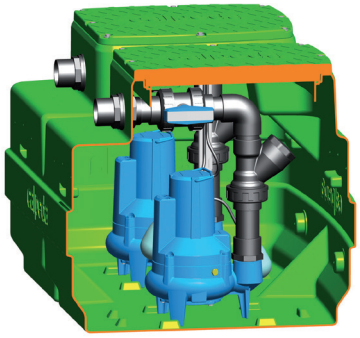




GEO 500

Pumps characteristics

GEO 500-GM..

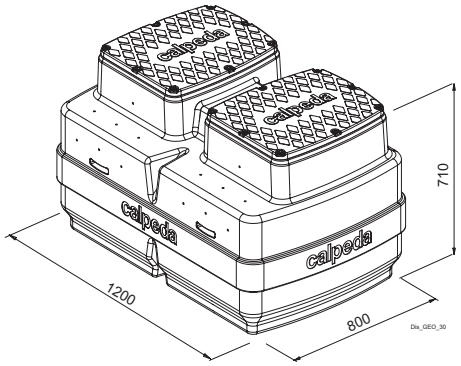


Characteristics
Dirty water collection and lifting station with GMV, GMC series pumps.

It includes:
1 tank capacity 500 l
2 pump
- single-phase with 10 m cable without float switch
- - three-phase with 10 m cable
1 support kit with 2 float switch
1 control box
2 discharge pipe kit Ø 63 mm in PVC with a ball valve and non-return ball valve

On request:
1 safety float switch (with support for single-phase version) and autosupplied control panel for remote alarm with horn and flashing light
- extention 300 mm

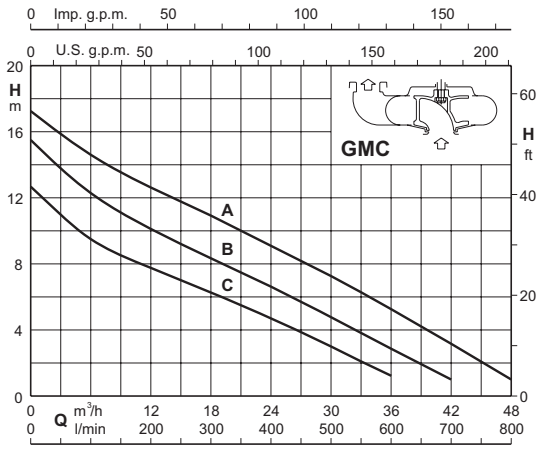
Type single-phase	1 ~ 230 V	1 ~ 230 V	Q max	H max
	kW	A	m3/h	m
GEO 500-2GMCM 50CE	0,75x2	4,5x2	36x2	9,5
GEO 500-2GMCM 50BE	1,1x2	6,5x2	42x2	12,5
GEO 500-2GMVM50CE	0,75x2	4,5x2	31x2	8
GEO 500-2GMVM 50BE	1,1x2	6,5x2	35x2	9,5

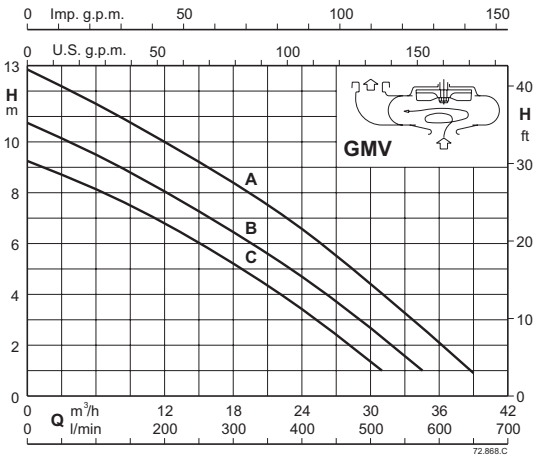


Type three-phase	3 ~ 400 V	3 ~ 400 V	Q max	H max
	kW	A	m3/h	m
GEO 500-2GMC 50CE	0,75x2	1,9x2	36x2	9,5
GEO 500-2GMC 50BE	1,1x2	2,7x2	42x2	12,5
GEO 500-2GMC 50AE	1,5x2	3,8x2	48x2	14,5
GEO 500-2GMV 50CE	0,75x2	1,9x2	31x2	8
GEO 500-2GMV 50BE	1,1x2	2,7x2	35x2	9,5
GEO 500-2GMV 50AE	1,5x2	3,8x2	39x2	11,5

GMC, GMV
Submersible sewage and drainage pumps.
GMC:with single-channel impeller.
GMV:with free-flow (vortex) impeller
2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
GMC, GMV:three-phase 400 V +/-10%; with 2 built-in thermal protectors to be connected to the control panel.
GMCM, GMVM:single-phase 230V ± 10% with thermal protector in the winding and built-in capacitor (without float).
Cable length 10 m.
Liquid temperature up to 35° C.



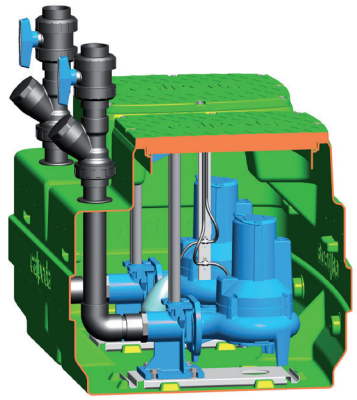




GEO 500

Pumps characteristics

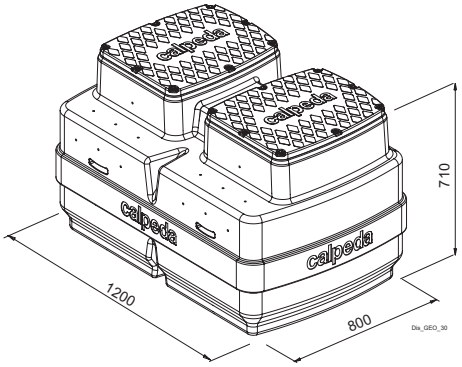
GEO 500-GM..



Characteristics
Dirty water collection and lifting station with GMV, GMC series pumps.

It includes:
1 tank capacity 500 l
2 pump
- single-phase with 10 m cable without float switch
- - three-phase with 10 m cable
1 support kit with 2 float switch
1 control box
2 duck foot coupling kit
2 discharge pipe kit Ø 63 mm in PVC with a ball valve and non-return ball valve

On request:
1 safety float switch (with support for single-phase version) and autosupplied control panel for remote alarm with horn and flashing light
- extention 300 mm

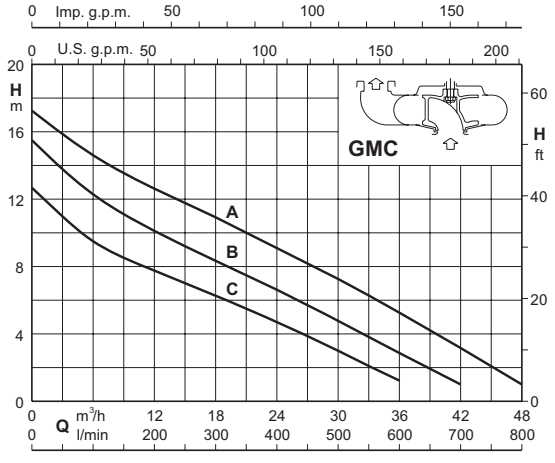


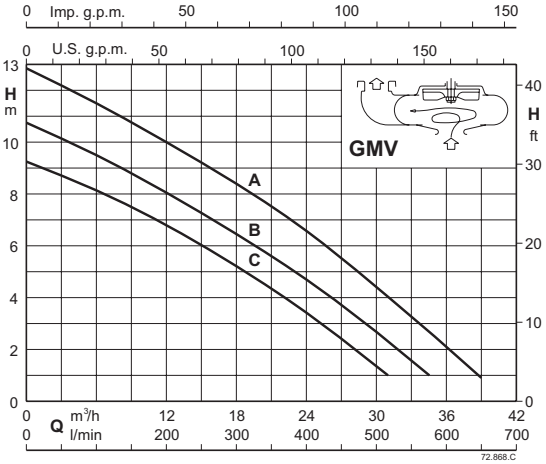
Type single-phase	1 ~ 230 V	1 ~ 230 V	Q max	H max
	kW	A	m3/h	m
GEO 500-2GMCM 50-65CE	0,75x2	4,5x2	36x2	9,5
GEO 500-2GMCM 5065BE	1,1x2	6,5x2	42x2	12,5
GEO 500-2GMVM50-65CE	0,75x2	4,5x2	31x2	8
GEO 500-2GMVM 50-65BE	1,1x2	6,5x2	35	9,5

Type three-phase	3 ~ 400 V	3 ~ 400 V	Q max	H max
	kW	A	m3/h	m
GEO 500-2GMC 50-65C	0,75x2	1,9x2	36x2	9,5
GEO 500-2GMC 50-65B	1,1x2	2,7x2	42x2	12,5
GEO 500-2GMC 50-65A	1,5x2	3,8x2	48x2	14,5
GEO 500-2GMV 50-65C	0,75x2	1,9x2	31x2	8
GEO 500-2GMV 50-65B	1,1x2	2,7x2	35x2	9,5
GEO 500-2GMV 50-65C	1,5x2	3,8x2	39x2	11,5

GMC, GMV
Submersible sewage and drainage pumps.
GMC:with single-channel impeller.
GMV:with free-flow (vortex) impeller
2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
GMC, GMV:three-phase 400 V +/-10%; with 2 built-in thermal protectors to be connected to the control panel.
GMCM, GMVM:single-phase 230V ± 10% with thermal protector in the winding and built-in capacitor (without float).
Cable length 10 m.
Liquid temperature up to 35° C.



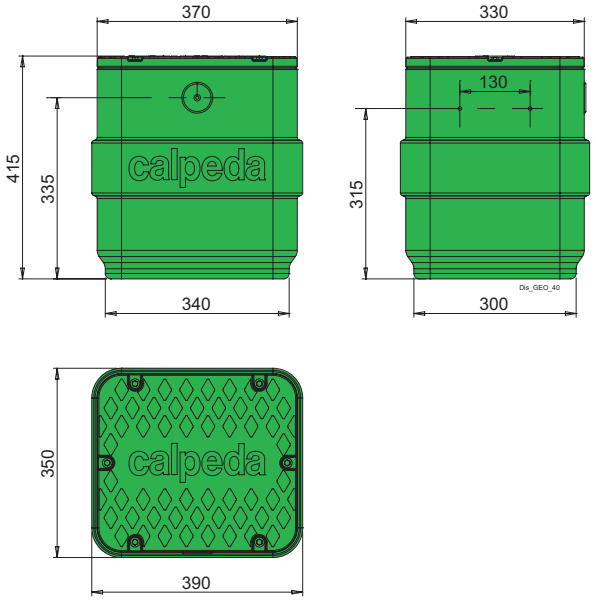


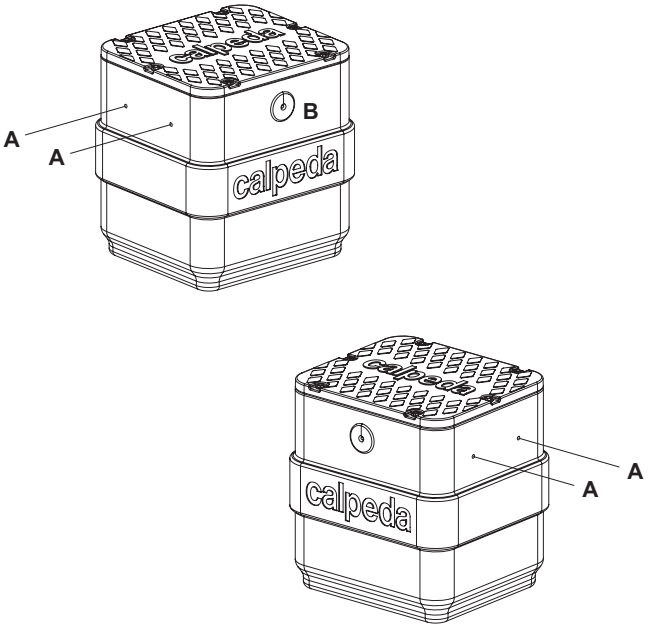


GEO

Dimensions and weights

GEO 40



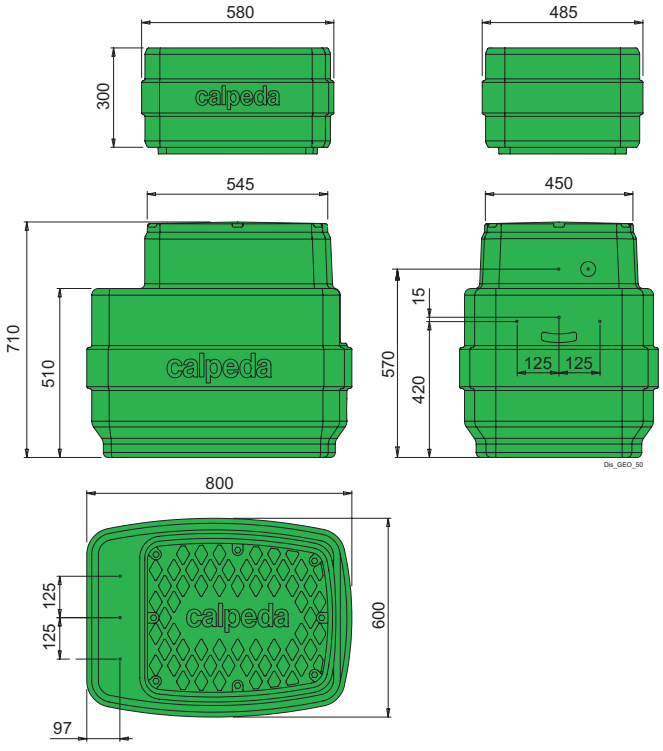


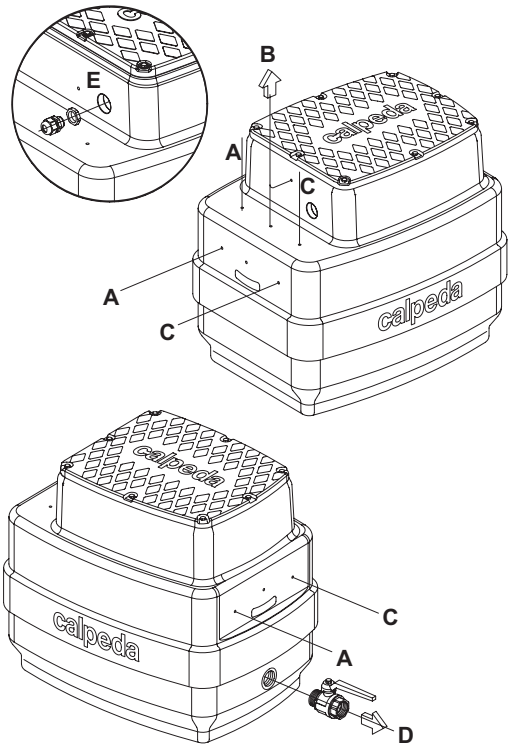
A) Arrangement for :
- Ø 40 mm inlet
- Ø 40 mm outlet
- Ø 25 mm relief

B) Cable passage with Shuko plug

Tank kg.6

GEO 230





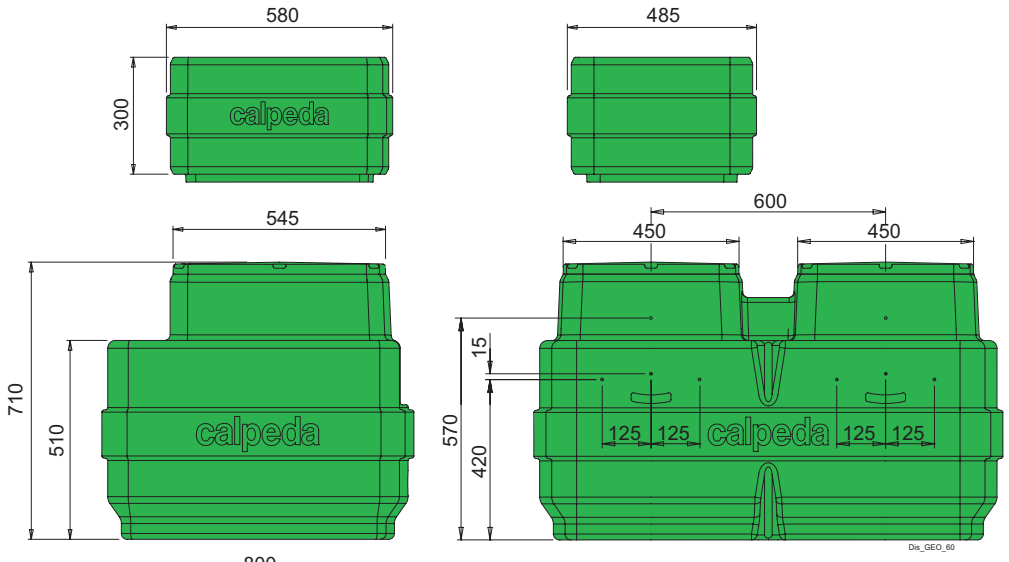
A-C) inlet and relief
B) Inlet for delivery
D) G 1 1/2 draining outlet
E) Cable outlet

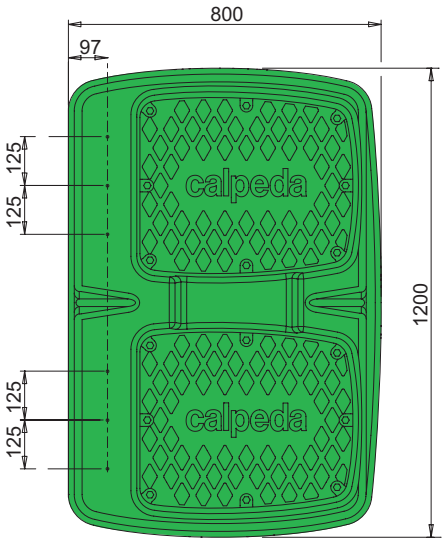
Extention kg.4,5
Tank kg.16

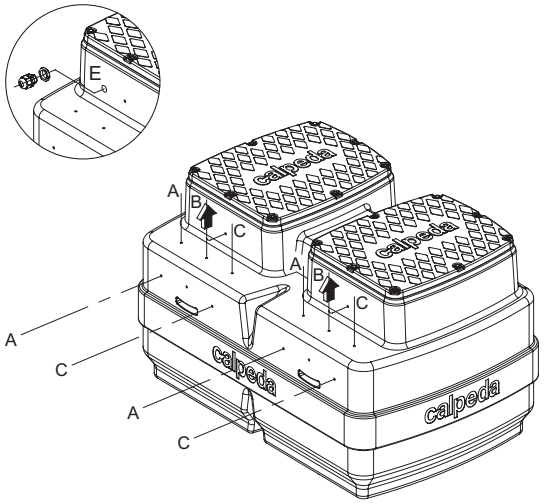
GEO

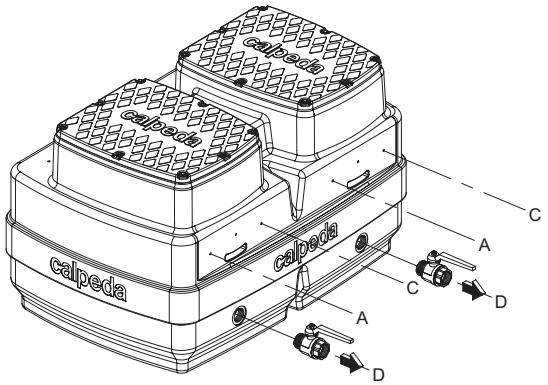
Dimensions and weights

GEO 500









A-C) inlet and relief
B) Inlet for delivery
D) G 1 1/2 draining outlet
E) Cable outlet

Extention kg.4,5
Tank kg.32

GEO

Technical appendix

LIFTING STATION SIZING

Normally the domestic waste water flows by gravity into the mains sewage collectors.
If there are underground rooms with discharge positions below the sewage main, a lifting station with one or more pumps may be required.

It is necessary to remember that the UNI-EN 12056-4 standard allows rainwater to be pumped to the sewage main only in exceptional cases.

To sizing a lifting station pump it is necessary to calculate the flow Qtot and the Head hmt necessary for the water drainage.

FLOW CALCULATION

The flow of the lifting pumps can be calculated using Table1, according to the number of people using the building and the location of the building. It is easy to calculate the flow Qr of the sewage water.
The value indicated is already appropriately increased by a coefficient that takes into account peak hours, when water consumption is highest.

The lifting systems of waste water are usually separated from the rainwater system. In case of a mixed system is required to sum the flow Qm of the rainwater of the Table 2 with the flow Qr of the Table 1.

The table indicates the rainwater flow Qm as a function of the exposed surface to rainfall, it varies according to the capacity of the surface to absorb rain water (Table 3).

The total flow of the pump or pumps is:

Qtot = Qr + Qm

HEAD CALCULATION

To calculate the head hmt it is necessary to add the geodetic head existing between the fluid levels with the head losses from internal friction created by the flow of the fluid in the hydraulic pipes and fittings (Figure 1).

After the choice of the discharge pipe diameter, such that the flow speed it is not lower than 0,7 m/s (to avoid deposits) and higher than 2,3 m/s, it is possible to determine the distributed head loss Hd and concentrated head loss Hv Hc, due to

The sum of the head losses DPC is:

Δpc = Hd+ΣHv+ ΣHc

The total head hmt is calculated as:

Hmt = Hg + Δpc

Tabella 1

Portata massima delle acque domestiche di rifiuto nell'ora di punta

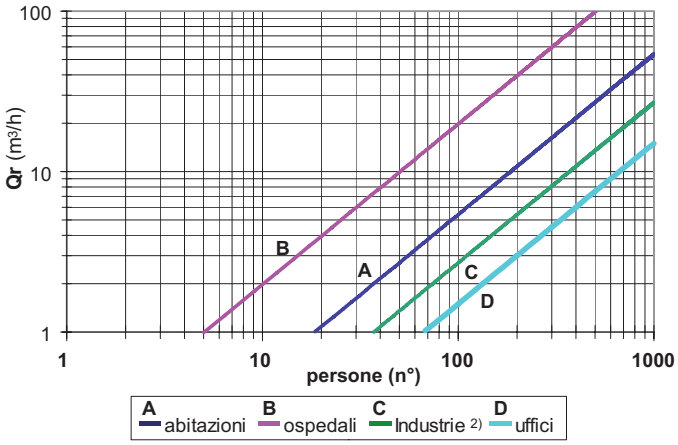
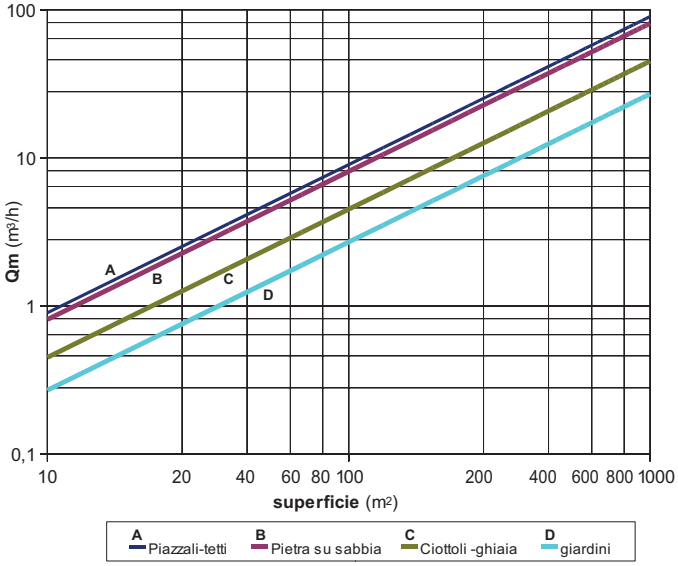
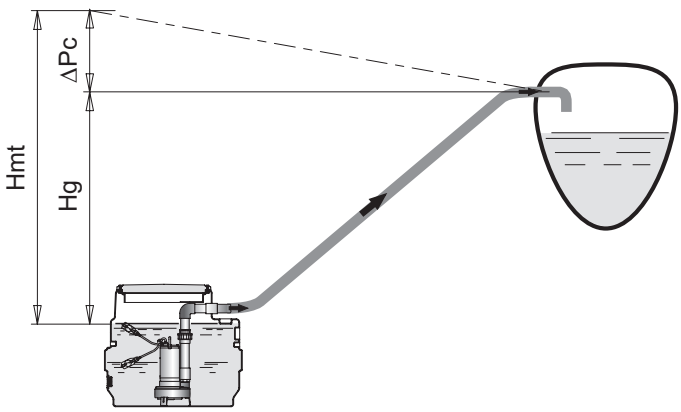


Tabella 2

Portata delle acque meteoriche



Picture 1



1) Water arriving from sinks discharge, toilets, showers, washing machines etc.
2) Excluding consumption from industrial processes.
3) The unit flow reference is 1,5 l/min/m2

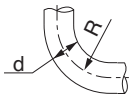
Technical appendix

General data

Table 5
Pressure drops in PVC pipes PN6 (m)

Tubo Pipe Øe mm	Q m³/h	1,8	3,6	5,4	7,2	9	18	27	36	50,4	64,8	90	126	162	180
	Q l/min	30	60	90	120	150	300	450	600	840	1080	1500	2100	2700	3000
50	HL **v** m/100m **m/s**	0,24 0,30	0,85 0,59	1,8 0,89	3,1 1,18	4,6 1,48	16,7 2,96	35,3 4,44	- -	- -	- -	-	- -	- -	- -
63		0,08 0,18	0,26 0,37	0,56 0,55	0,95 0,73	1,11 0,92	5,2 1,83	10,9 2,75	18,6 3,66	34,8 5,13	- -	-	- -	- -	- -
75			0,11 0,26	0,24 0,39	0,4 0,51	0,61 0,64	2,2 1,29	4,6 1,93	7,9 2,57	14,7 3,6	23,4 4,63	43 6,43	- -	- -	- -
90			0,05 0,18	0,1 0,27	0,16 0,36	0,25 0,45	0,9 0,89	1,9 1,34	3,3 1,79	6,1 2,5	9,7 3,22	17,8 4,47	33,2 6,26	- -	- -
110				0,04 0,17	0,06 0,2	0,09 0,29	0,3 0,58	0,67 0,87	1,15 1,16	2,15 1,63	3,4 2,10	6,25 2,91	11,7 4,08	18,5 5,24	22,5 5,82
125					0,03 0,18	0,05 0,23	0,17 0,45	0,36 0,68	0,6 0,90	1,15 1,26	1,84 1,63	3,37 2,26	6,3 3,16	10 4,06	12,2 4,52
140						0,03 0,18	0,1 0,36	0,2 0,54	0,35 0,72	0,65 1,01	1,05 1,30	1,95 1,80	3,6 2,52	5,77 3,24	7 3,60
160							0,05 0,28	0,11 0,41	0,18 0,55	0,34 0,77	0,55 0,99	1,02 1,38	1,9 1,93	3 2,48	3,66 2,76
180							0,03 0,22	0,06 0,33	0,1 0,43	0,19 0,61	0,31 0,78	0,57 1,09	1,06 1,52	1,69 1,96	2,05 2,17
200							0,02 0,18	0,04 0,26	0,06 0,35	0,12 0,49	0,18 0,63	0,34 0,88	0,64 1,23	1 1,59	1,23 1,76
225								0,02 0,21	0,04 0,28	0,07 0,39	0,1 0,55	0,19 0,70	0,36 0,97	0,57 1,25	0,7 1,39
250									0,02 0,23	0,04 0,32	0,06 0,41	0,12 0,56	0,22 0,79	0,34 1,02	0,42 1,13
280									0,01 0,18	0,02 0,25	0,04 0,32	0,07 0,45	0,13 0,63	0,2 0,81	0,24 0,90

Table 6
Pressure drops in bends and gate valves (cm)

Velocità dell'acqua Water flow velocity m/sec.	Curve ad angolo arrotondato α = 90 α = 90 sweep elbow 					Saracinesche Gate valves 
	$\frac{d}{R}$ = 0,4	$\frac{d}{R}$ = 0,6	$\frac{d}{R}$ = 0,8	$\frac{d}{R}$ = 1	$\frac{d}{R}$ = 1,5	
0,4	0,11	0,13	0,16	0,23	0,43	0,23
0,5	0,18	0,21	0,26	0,37	0,67	0,37
0,6	0,25	0,29	0,36	0,52	0,97	0,52
0,7	0,34	0,40	0,48	0,70	1,35	0,70
0,8	0,45	0,53	0,64	0,93	1,7	0,95
0,9	0,57	0,67	0,82	1,18	2,2	1,20
1,0	0,7	0,82	1,0	1,45	2,7	1,45
1,5	1,6	1,9	2,3	3,3	6	3,3
2,0	2,8	3,3	4,0	5,8	11	5,8
2,5	4,4	5,2	6,3	9,1	17	9,1
3,0	6,3	7,4	9	13	25	13
3,5	8,5	10	12	18	33	18
4,0	11	13	16	23	42	23
4,5	14	21	26	37	55	37
5,0	18	29	36	52	67	52

GEO

Technical appendix

EXAMPLE OF CALCULATION

Suppose it is required to size a lifting station, for a residential building where 80 people live. The pumps will have to lift waste water up to an additional tank located 5m higher, the linear distance between the 2
In addition the station will receive rainwater from 400 m2 of tarmac, roof surfaces and 120 m2 of garden.

Considering:**Q tot = Qr + Qm**

It is possible to calculate the Qr from the Table1 which is 4 m3/h, while Qm is obtained from the Table 2 and is 36 m3/h (roofs and tarmac) plus 2 m3/h from gardens, with this value Qtot is 42 m3/h. At this flow it will be necessary split the flow between two pumps.We choose a delivery pipe diameter such that the flow rate with two pumps in operation does not exceed 2.3 m / sec and not be lower than 0.7 m / s with a single pump.

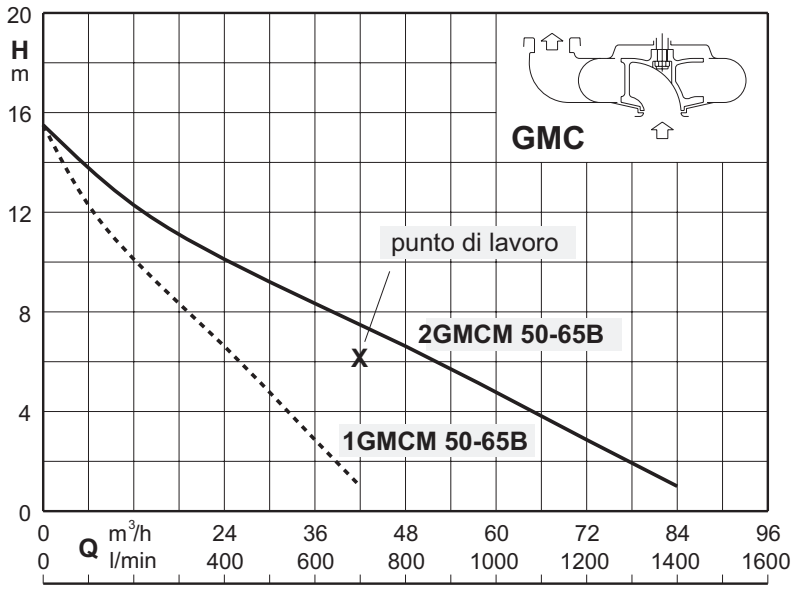
From (Table 3) we obtain:
42 m3/h => 1,4 m/s => TUBO DN 110 (with two pumps in parallel operation)
21 m3/h => 0,7 m/s => TUBO DN 110 (with one operating pump)

The distributed head loss in 70 m pipe with 720 l / min is 1.13 m (Table 3), then from the formula: Hmt = Hg + Δpc

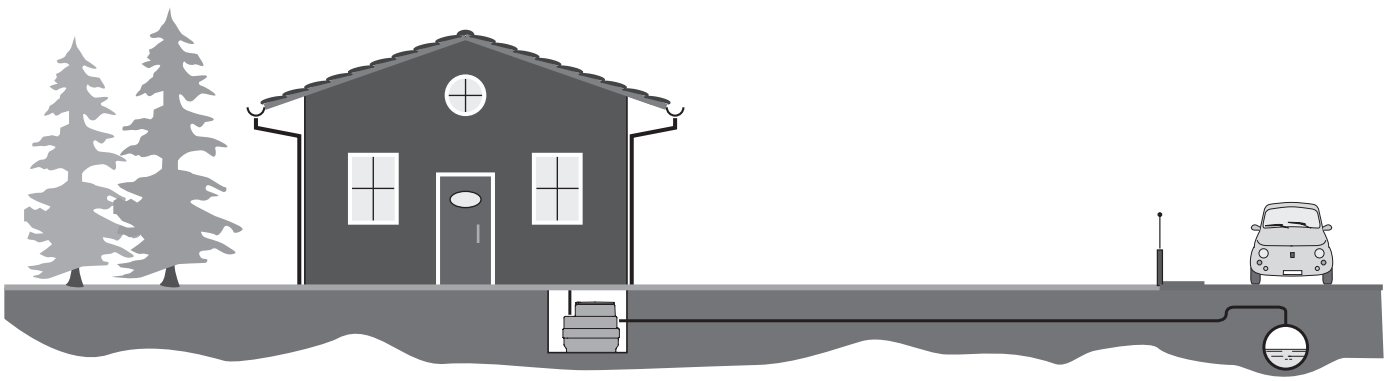
Hmt = Hg + Δpc

It is obtained Hmt = 6,13 mca

he suitable pumps are no. 2 GMCM 50-65B and then it result a station type **GEO 500-2GMCM 50-65B.**



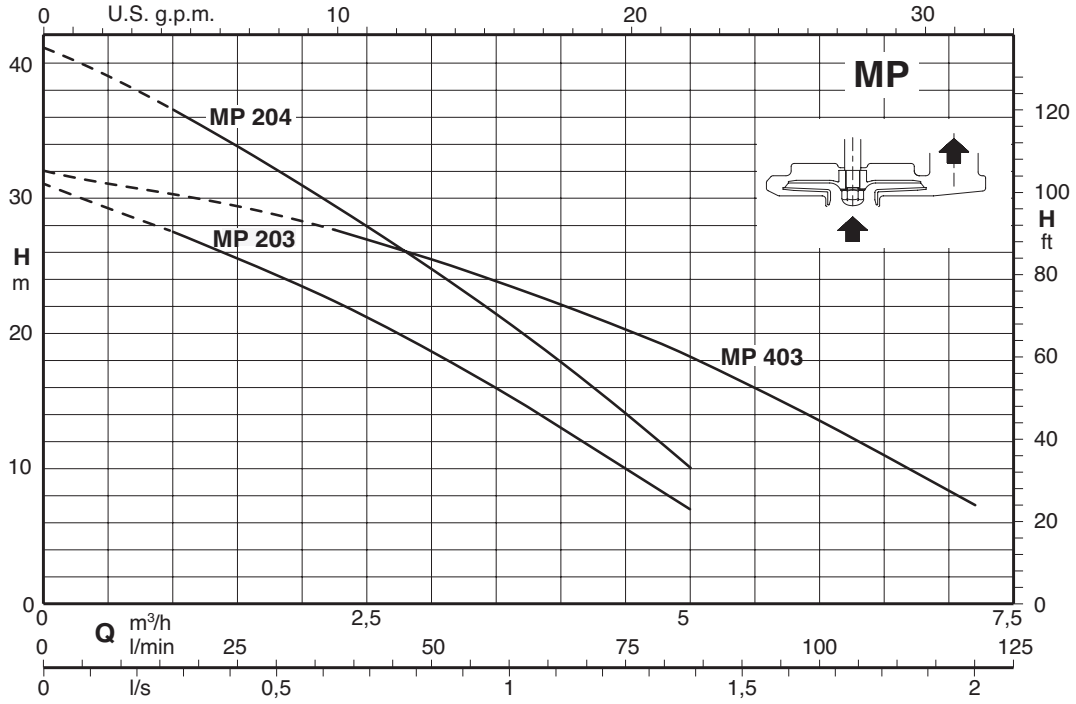
Examples of installations



MP



Coverage chart n ≈ 2900 rpm



Multi-stage submersible pumps for clean water

MP

Construction

Multi-stage centrifugal submersible pumps with pump jacket in chrome-nickel stainless steel, with vertical delivery port.
Motor cooled by the pumped water passing between the motor jacket and the external jacket.
Double shaft seal with oil chamber.

Applications

For clean water containing solids up to 2 mm grain size.
draining flooded rooms or tanks.
Extraction of water from ponds, streams or pits and for rainwater collection. For irrigation purposes.
For outdoor use a power supply cable of not less than 10 m should be used in accordance with: EN 60 335-2-41.

Operating conditions

Liquid temperature up to 35° C.
Maximum immersion depth: 5 m.
Minimum water level with float 100 mm.
Continuous duty.

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
MP: three-phase 230 V ± 10%;
400 V ± 10%.
MPM: single-phase 230 V ± 10%;
with float switch and thermal protector.
Incorporated capacitor
Insulation class F.
Protection IP X8 (for continuous immersion).
Double impregnation humidity-proof dry winding.
Constructed in accordance with: EN 60034-1; EN 60335-1, EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Other mechanical seal.
Cable length 10 m.
- Vertical magnetic float switch.
Motor suitable for operation with frequency converter.

Designation

Example: MP 203/A
MP = Series
2 = Rated capacity in m3/h
03 = Number of impellers
/A = It refers to a revision

Materials

Components	Materials
Pump casing	PPO-GF20 (Noryl)
Stage casing	PPO-GF20 (Noryl)
Impeller	PPO-GF20 (Noryl)
motor jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Pump jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Filter	Polypropylene
Handle	Polypropylene
Shaft	Chrome-nickel steel 1.4305 EN 10088 (AISI 303)
Mechanical seal	Ceramic / Carbon / NBR
Seal lubrication oil	Oil for food/pharmaceutical machinery

MP

Coverage chart n ≈ 2900 rpm

Three-phase

				Q = Flow													
				m³/h	0	1	1,5	2	2,25	2,5	3	3,5	4	4,5	5	6	7,2
Model	400V	P2		l/min		16,66	25	33,33	37,5	41,66	50	58,33	66,66	75	83,33	100	120
	A	kW	HP	H (m) = Total head													
MP 203/A	1,45	0,37	0,5		31	27,5	25,5	23,5	-	21,2	18,6	16	13	10	7	-	-
MP 204	1,6	0,45	0,6		41,1	36,5	33,8	30,9	-	27,9	24,7	21,4	17,9	14,1	10,1	-	-
MP 403	1,6	0,45	0,6		32	-	-	-	27,6	-	25,5	23,8	22,1	20,3	18,3	13,5	7,3

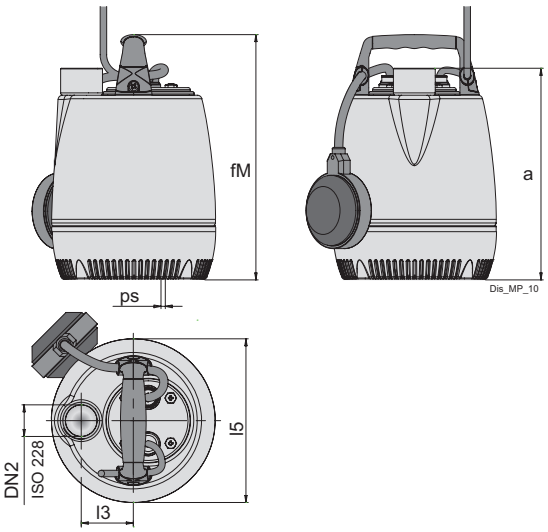
Single-phase

							Q = Flow													
							m³/h	0	1	1,5	2	2,25	2,5	3	3,5	4	4,5	5	6	7,2
Model	230V	Capacitor		P2		P1	l/min		16,6	25	33,3	37,5	41,6	50	58,3	66,6	75	83,3	100	120
	A	Vc	uf	kW	HP	kW	H (m) = Total head													
MPM 203/A	3,5	450	12,5	0,37	0,5	0,63		31	27,5	25,5	23,5	-	21,2	18,6	16	13	10	7	-	-
MPM 204	4,5	450	16	0,45	0,6	0,95		41,1	36,5	33,8	30,9	-	27,9	24,7	21,4	17,9	14,1	10,1	-	-
MPM 403	4,5	450	16	0,45	0,6	0,95		32	-	-	-	27,6	-	25,5	23,8	22,1	20,3	18,3	13,5	7,3

P1: Maximum power input.
P2: Rated motor power output.
Head and power values valid for liquids with density ρ = 1,0 kg/dm3 and kinematic viscosity v = max 20 mm2/sec. Total head in m

MP

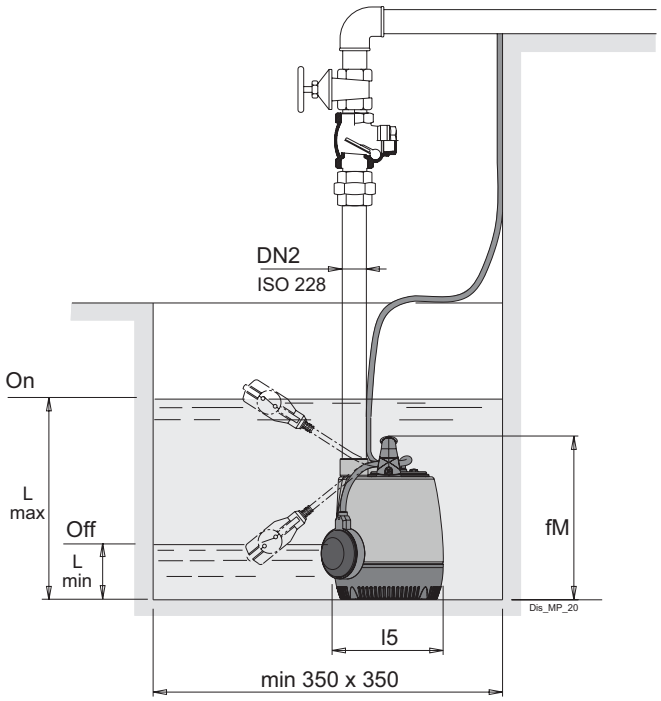
Dimensions and weights



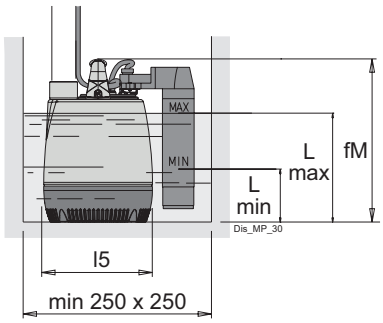
TYPE		mm					kg
	DN2	a	fM	l5	l5	ps	Weight
MP 203/A	G 1 1/4	346.5	382.5	56	176	2	7
MP 204	G 1 1/4	346.5	382.5	56	176	2	7.9
MP 403	G 1 1/4	346.5	382.5	56	176	2	8

TYPE		mm							kg
	DN2	a	fM	l5	l5	Lmax	Lmin	ps	Weight
MPM 203/A	G 1 1/4	346.5	382.5	56	176	428	218	2	7.5
MPM 204	G 1 1/4	346.5	382.5	56	176	428	218	2	8
MPM 403	G 1 1/4	346.5	382.5	56	176	428	218	2	8

Examples of installations

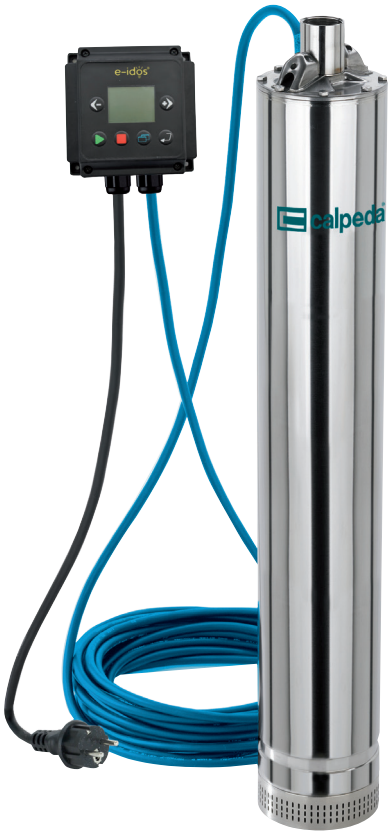


Installation examples with vertical magnetic float switch



TYPE	mm		Kg
	Lmax	Lmin	Weight
MPM 203/A GF	308	210	7
MPM 204 GF	308	210	7.9
MPM 403 GF	308	210	8.2

E-MPS



EASY TO INSTALL
Plug And play solution

ECONOMIC SAVING
High efficiency asynchronous motor 24 % less energy consumption compared to a standard pump

EASY TO USE
Equipped with a programmable software and, thanks to the analogic pressure sensor, the product allows to set the restart pressure. An ideal solution which allows to reduce or remove the need of a expansion tank

Multi-stage submersible pumps for clean water with built-in electronic pressure sensor

E-MPS

Construction

5” Close coupled multi-stage submersible pumps. Easy to install, compact and plug and play with integrated pressure transducer for automatic control of starting/stopping of the pump when utilization points are opened/closed with E-MPSM with built-in capacitor, accessible through the delivery casing.
Hydraulics located below the motor with the motor cooled by the pumped fluid.
Safe operation is possible with the motor only partially submerged.
Double shaft seal with oil chamber.
The suction strainer prevents the entrance of solids with diameter bigger than 2 mm.

Applications

For water supply from wells, tanks or reservoirs.
For domestic, civil and industrial applications, for garden use, irrigation rain water harvesting systems.

Features

high efficiency asynchronous motor
- capacitor less stressed in voltage
- uniform and lower motor temperature
- motor power control
- programmable re-start pressure
- programmable stop pressure
- no hydraulic losses due to the measuring devices
- voltage and current control
- monitoring of maximum starting current

Protections

- dry-run protection
- overload control and overheating motor control
- pump blockage
- power supply control
- starts per hour control

Operating conditions

Liquid temperature: 0 °C to +35 °C.
Minimum internal diameter of well: 140 mm.
Minimum immersion depth: 100 mm.
Maximum immersion depth: 20 m (with suitable cable length).
Continuous duty.

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
Single-phase 230 V ± 10%, with thermal protector.
Incorporated capacitor
Cable: - Pump 07BB-F, 3G1+4x0,34 mm2 , length 23 m.
Cable - Power supply cable H07RN8-F, 3G1,5 length 1,5 m with plug CEI-UNEL 47166.
Insulation class F.
Protection IP X8 (for continuous immersion).
Triple impregnation humidity-proof dry winding.
Constructed in accordance with EN 60335-2-41.(CEI 61-69)

Designation

Example: E-MPSM 304
E = Electronic
MPS = Series
M = Single-phase (without three-phase indication)
3 = Rated capacity in m3/h
04 = Number of impellers

Materials

Components	Material
delivery casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
External jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Suction strainer	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
motor jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Non-return valve	POM - POLYACETAL
Stage casing	PPO-GF20 (Noryl)
Impeller	PPO-GF20 (Noryl)
Shaft	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Capacitor cover	PPS Polymer (Grivory)
Oil chamber cover	PPS Polymer (Grivory)
Support ring preload	PPS Polymer (Grivory)
Preload ring stages	PPS Polymer (Grivory)
Upper mechanical seal	Steatite, carbon, NBR
Lower mechanical seal	Carbone, carburo di silicio, NBR
Seal lubrication oil	Oil for food machinery and pharmaceutic use

E-MPS

Coverage chart n ≈ 2900 rpm

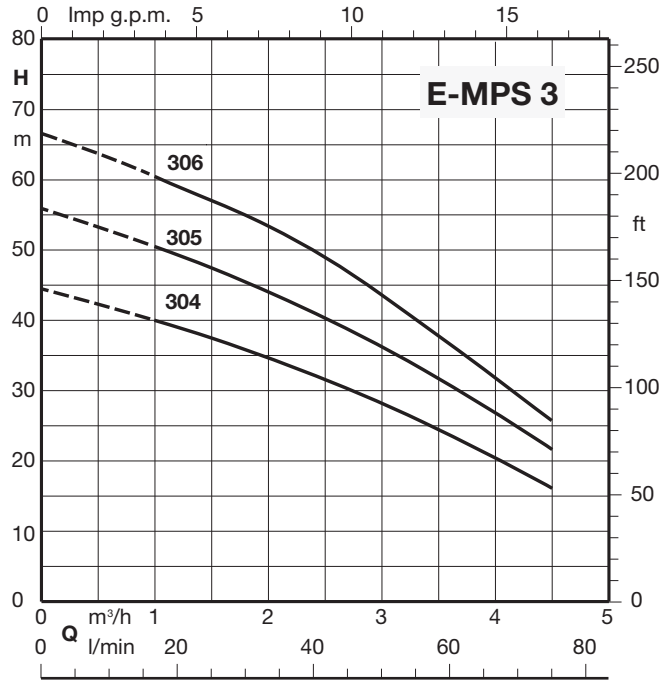
Single-phase

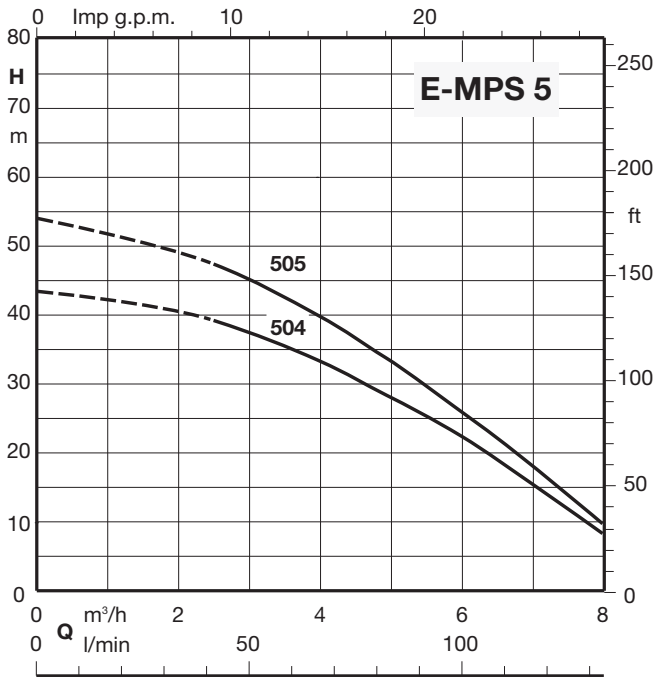
							Q = Flow												
							m³/h	0	1	1,5	2	2,5	3	3,5	4	4,5	5	6	7	8
Model	230V	Capacitor		P2		P1	l/min		16,6	25	33,3	41,6	50	58,3	66,6	75	83,3	100	117	133
	A	V	uf	kW	HP	kW	H (m) = Total head												
E-MPSM 304	4,1	450	25	0,55	0,75	0,8		44	50	47	44	40	36	32	26,5	21,5	-	-	-	-
E-MPSM 305	5	450	30	0,75	1	1		56	40	37,5	35	31,5	28,5	24,5	21	16	-	-	-	-
E-MPSM 306	6	450	35	0,9	1,2	1,2		66,5	60,5	57	53	48,5	43,5	38	32	26	-	-	-	-
E-MPSM 504	6	450	35	0,9	1,2	1,2		45	-	-	-	39,5	37,8	35,8	33,5	31	28	22	15,5	8
E-MPSM 505	7	450	35	1,1	1,5	1,3		53	-	-	-	47,5	45,5	43	40	37	33	26	18	10

P1: Maximum power input.
P2: Rated motor power output.
H: Total head in m

Test results with clean cold water, without gas content.
Tolerances according to UNI EN ISO 9906:2012

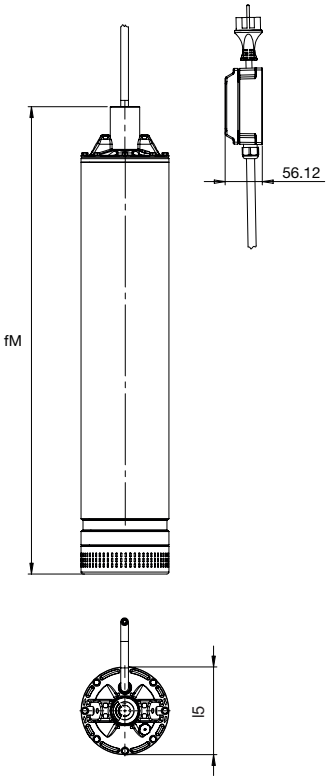
Characteristic curves n ≈ 2800 1/min

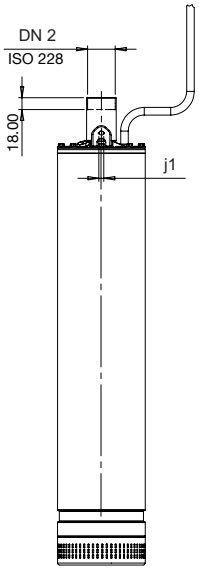


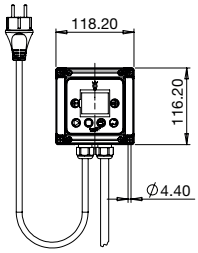


E-MPS

Dimensions and weights



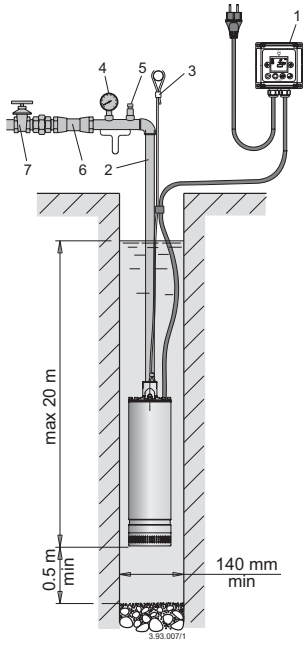




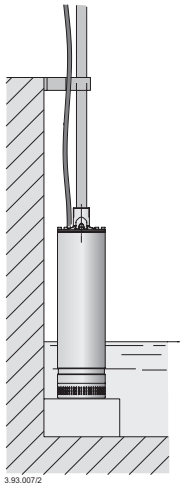
TYPE	ISO 228	mm			kg
	DN2	fM	j1	l5	Weight
E-MPSM 304	G 1 1/4	659.2	7	133	15.5
E-MPSM 305	G 1 1/4	708.2	7	133	16.9
E-MPSM 306	G 1 1/4	732.2	7	133	17.8
E-MPSM 504	G 1 1/4	684.2	7	133	17.1
E-MPSM 505	G 1 1/4	708.2	7	133	17.4

With cable length: 23 m

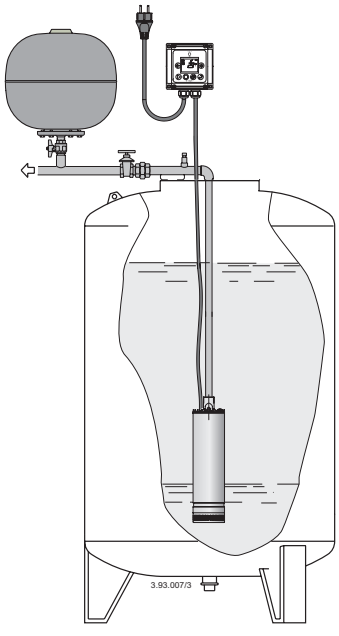
Installation



Pump in suspended position



Pump in the standing position



Examples of installations

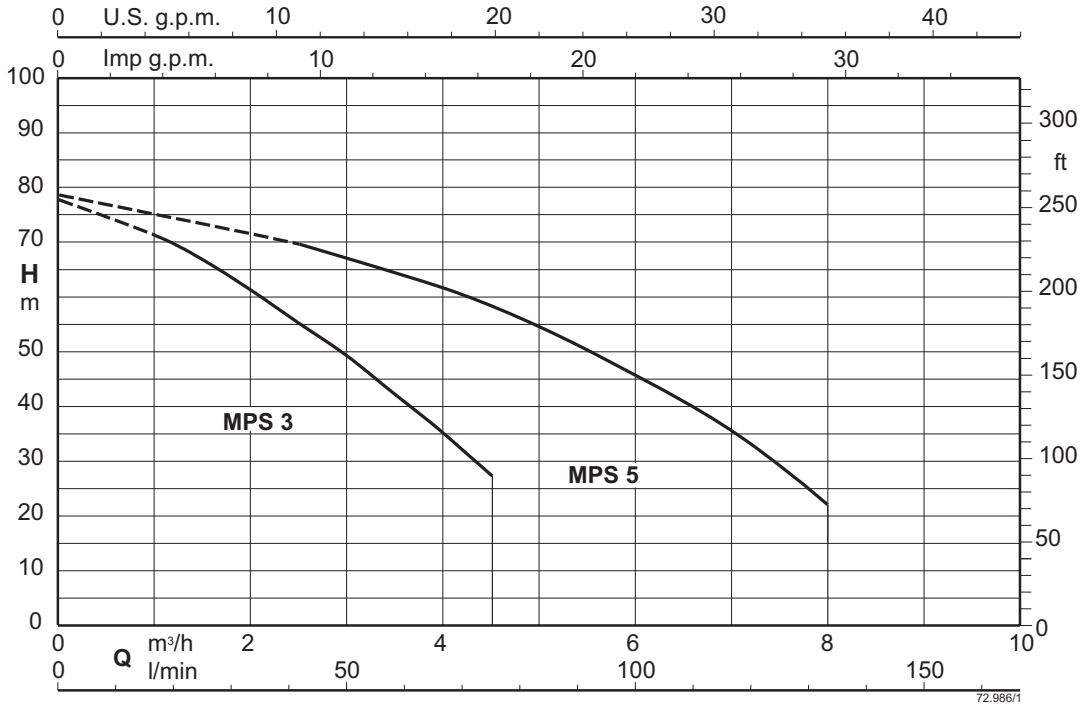
1. Control box
2. Delivery pipe
3. Safety rope
4. Pressure gauge
5. Air vent valve
6. Gate valve
7. Pressure tank

MPS





Coverage chart n ≈ 2900 rpm



Multi-stage submersible pumps for clean water

MPS

Construction

5” Close coupled multi-stage submersible pumps.
External jacket made of steel 1.4301 EN 10088 (AISI 304) and Noryl stages.
MPSM with built-in capacitor, accessible through the delivery casing.
Hydraulics located below the motor with the motor cooled by the pumped fluid.
Safe operation is possible with the motor only partially submerged.
Double shaft seal with oil chamber.
The suction strainer prevents the entrance of solids with diameter bigger than 2 mm.

Applications

For water supply from wells, tanks or reservoirs.
For domestic, civil and industrial applications, for garden use, irrigation rain water harvesting systems.

Operating conditions

Liquid temperature up to 35° C.
Minimum internal diameter of well: 140 mm.
Minimum immersion depth: 100 mm.
Maximum immersion depth: 20 m (with suitable cable length).
Continuous duty.

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
MPS: three-phase 230 V ± 10%;
400 V ± 10%.
Cable: H07RN8-F, length 15 m, without plug.
MPSM: single-phase 230 V ± 10%, with thermal protector.
Incorporated capacitor
Float switch MPSM.. CG (on demand)
Cable: H07RN8-F, length 15 m, with plug CEI-UNEL 47166.
Insulation class F.
Protection IP X8 (for continuous immersion).
Triple impregnation humidity-proof dry winding
Constructed in accordance with EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Other mechanical seal.
Cable length 20 m.
Motor suitable for operation with frequency converter.

Designation

Example: MPSM 304
MPS = Series
M = Single-phase (without three-phase indication)
3 = Rated capacity in m3/h
04 = Number of impellers

Materials

Components	Materials
delivery casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
External jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Suction strainer	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
motor jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Stage casing	PPO-GF20 (Noryl)
Impeller	PPO-GF20 (Noryl)
Shaft	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Capacitor cover	PPS Polymer (Grivory)
Oil chamber cover	PPS Polymer (Grivory)
Support ring preload	PPS Polymer (Grivory)
Preload ring stages	PPS Polymer (Grivory)
Upper mechanical seal	Steatite, carbon, NBR
Lower mechanical seal	Carbone, carburo di silicio, NBR
Seal lubrication oil	Oil for food machinery and pharmaceutic use

MPS

Coverage chart n ≈ 2900 rpm

Three-phase

Model	400V	P2		Q = Flow m³/h	0	1	1,5	2	2,5	3	3,5	4	4,5	5	6	7	8
				l/min		16,66	25	33,33	41,66	50	58,33	66,66	75	83,33	100	116	133
	A	kW	HP	H (m) = Total head													
MPS 303	1,4	0,45	0,6		32,5	29,5	27,5	25,5	23	19,5	17	13	10	-	-	-	-
MPS 304	1,6	0,55	0,75		44	41,5	39,5	36,5	33,5	29,5	25,5	21	16	-	-	-	-
MPS 305	1,9	0,75	1		54	49,5	47	44	40	35	30	25	19	-	-	-	-
MPS 306	2,2	0,9	1,2		66,5	61	58	54	49	43	37	30,5	23	-	-	-	-
MPS 307	2,6	0,9	1,2		75	71	66,5	61	55	49	42	35	27	-	-	-	-
MPS 503	1,6	0,55	0,75		32,2	-	-	-	28,5	27,5	26	24,5	22,5	21,5	18	13,5	8
MPS 504	2,2	0,9	1,2		45	-	-	-	39,5	37,8	35,8	33,5	31	28,5	23	16,5	9,5
MPS 505	2,6	1,1	1,5		53	-	-	-	47,5	45,5	43,5	41	38,5	35,5	29,5	22	13,5
MPS 506	2,8	1,1	1,5		66,5	-	-	-	58	55,6	53	50	46,3	42,5	34	24,5	14
MPS 507	4	1,5	2		78,5	-	-	-	69,5	66,5	64	61,5	58	54,5	45,5	36	22

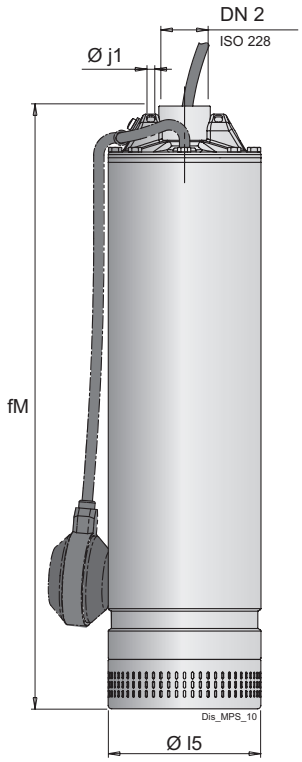
Single-phase

Model	230V	Capacitor		P2		P1	Q = Flow m³/h	0	1	1,5	2	2,5	3	3,5	4	4,5	5	6	7	8
							l/min		16,6	25	33,3	41,6	50	58,3	66,6	75	83,3	100	117	133
	A	Vc	uf	kW	HP	kW	H (m) = Total head													
MPSM 303	3,5	450	14	0,45	0,6	0,8		32,5	29,5	27,5	25,5	23	19,5	17	13	10	-	-	-	-
MPSM 304	4,1	450	20	0,55	0,75	0,9		44	41,5	39,5	36,5	33,5	29,5	25,5	21	16	-	-	-	-
MPSM 305	5	450	20	0,75	1	1,1		54	49,5	47	44	40	35	30	25	19	-	-	-	-
MPSM 306	6	450	25	0,9	1,2	1,3		66,5	61	58	54	49	43	37	30,5	23	-	-	-	-
MPSM 307	6,6	450	25	0,9	1,2	1,5		75	71	66,5	61	55	49	42	35	27	-	-	-	-
MPSM 503	4,1	450	20	0,55	0,75	0,9		32,2	-	-	-	28,5	27,5	26	24,5	22,5	21,5	18	13,5	8
MPSM 504	6	450	25	0,9	1,2	1,2		45	-	-	-	39,5	37,8	35,8	33,5	31	28,5	23	16,5	9,5
MPSM 505	7	450	25	1,1	1,5	1,5		53	-	-	-	47,5	45,5	43,5	41	38,5	35,5	29,5	22	13,5
MPSM 506	8,3	450	30	1,1	1,5	1,7		66,5	-	-	-	58	55,6	53	50	46,3	42,5	34	24,5	14
MPSM 507	12	450	35	1,5	2	2,2		78,5	-	-	-	69,5	66,5	64	61,5	58	54,5	45,5	36	22

P1: Maximum power input.
P2: Rated motor power output.
Head and power values valid for liquids with density ρ = 1,0 kg/dm3 and kinematic viscosity v = max 20 mm2/sec. Total head in m

MPS

Dimensions and weights



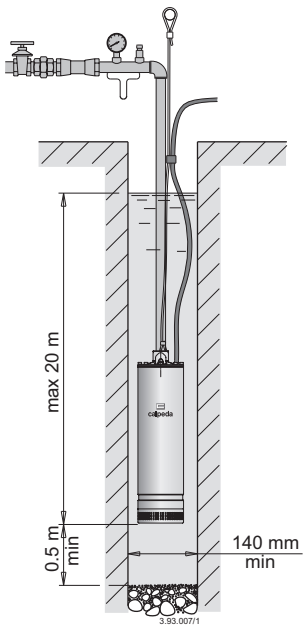
TYPE		mm			kg
	DN2	fM	j1	l5	Weight
MPS 303	G 1 1/4	465	7	133	10.4
MPS 304	G 1 1/4	504	7	133	11.7
MPS 305	G 1 1/4	553	7	133	12.1
MPS 306	G 1 1/4	601	7	133	13.2
MPS 307	G 1 1/4	601	7	133	13.6
MPS 503	G 1 1/4	504	7	133	11.4
MPS 504	G 1 1/4	553	7	133	14.4
MPS 505	G 1 1/4	553	7	133	12.9
MPS 506	G 1 1/4	622	7	133	15.2
MPS 507	G 1 1/4	671	7	133	17.3

TYPE		mm			kg
	DN2	fM	j1	l5	Weight
MPSM 303	G 1 1/4	465	7	133	11.1
MPSM 304	G 1 1/4	504	7	133	12.4
MPSM 305	G 1 1/4	553	7	133	13.9
MPSM 306	G 1 1/4	601	7	133	14.8
MPSM 307	G 1 1/4	601	7	133	15
MPSM 503	G 1 1/4	504	7	133	12.2
MPSM 504	G 1 1/4	553	7	133	14.2
MPSM 505	G 1 1/4	553	7	133	14.5
MPSM 506	G 1 1/4	622	7	133	17.2
MPSM 507	G 1 1/4	671	7	133	20.2

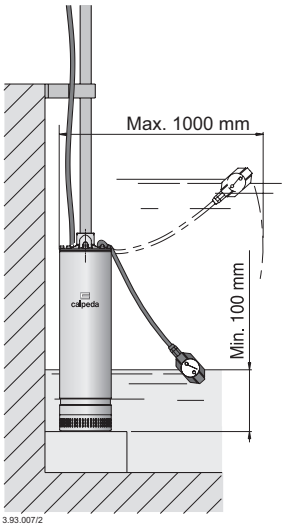
With cable length: 15m

MPSM ... CG
With float switch pump (on demand)

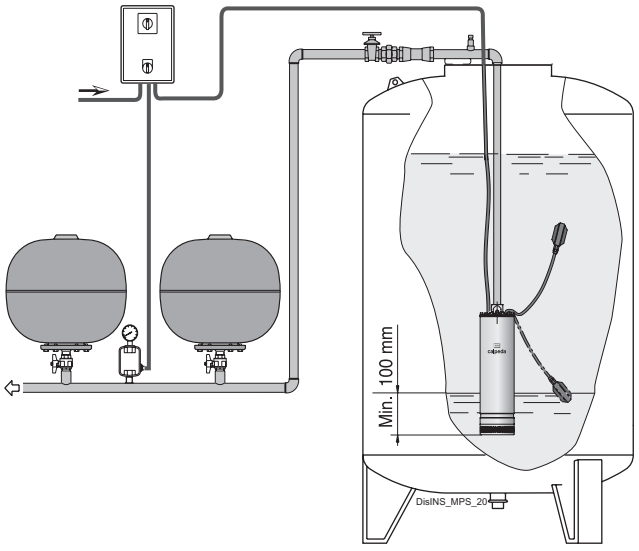
Installation



Pump in suspended position



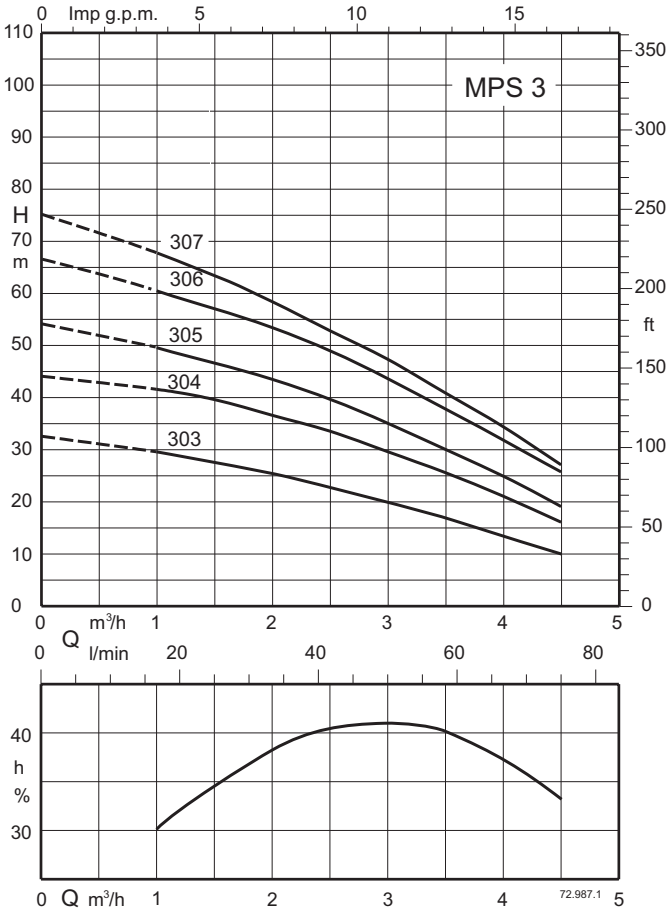
Pump in the standing position

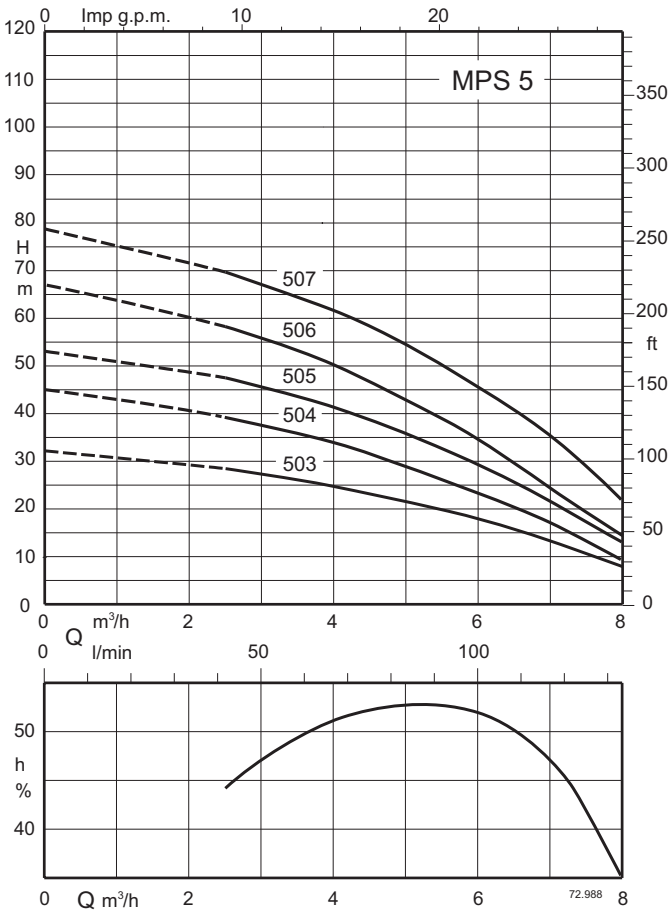


Examples of installations

MPS

Characteristic curves n ≈ 2900 rpm

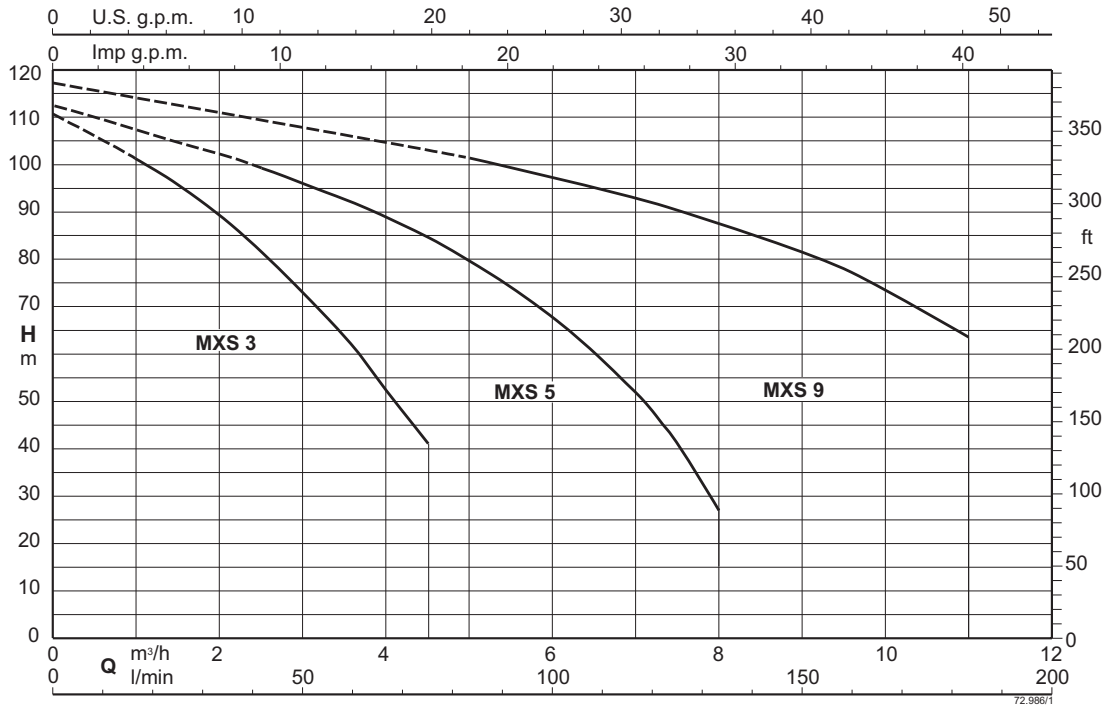




MXS



Coverage chart n ≈ 2900 rpm



Multi-stage stainless steel submersible clean water pumps

MXS

Construction

5” Close coupled multi-stage submersible pumps.
All parts in contact with the fluid both internal and external are in chrome-nickle stainless steel.
MXSM with built-in capacitor, accessible through the delivery casing.
Hydraulics located below the motor with the motor cooled by the pumped fluid.
Safe operation is possible with the motor only partially submerged.
Double shaft seal with oil chamber.
The suction strainer prevents the entrance of solids with diameter bigger than 2 mm.

Applications

For water supply from wells, tanks or reservoirs.
For domestic, civil and industrial applications, for garden use, irrigation rain water harvesting systems.

Operating conditions

Liquid temperature up to 35° C.
Minimum internal diameter of well: 140 mm.
Minimum immersion depth: 100 mm.
Maximum immersion depth: 20 m (with suitable cable length).
Continuous duty.

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
MXS: three-phase 230 V ± 10%;
400 V ± 10%.
Cable: H07RN8-F, length 15 m, without plug.
MXSM: single-phase 230 V ± 10%, with thermal protector.
Incorporated capacitor
Float switch MXSM.. CG up to 10A (on demand)
Cable: H07RN8-F, length 15 m, with plug CEI-UNEL 47166.
Insulation class F.
Protection IP X8 (for continuous immersion).
Triple impregnation humidity-proof dry winding
Constructed in accordance with EN 60335-2-41.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Cable length 20 m.
Motor suitable for operation with frequency converter.

Designation

Example: MXSM 304
MXS = Series
M = Single-phase (without three-phase indication)
3 = Rated capacity in m3/h
04 = Number of impellers

Materials

Components	Materials
delivery casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
External jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Suction strainer	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Stage casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Spacer sleeve	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Impeller	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
motor jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Oil chamber cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Shaft	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Capacitor cover	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Upper mechanical seal	Steatite, carbon, NBR
Lower mechanical seal	Carbone, carburo di silicio, NBR
Seal lubrication oil	Oil for food machinery and pharmaceutic use

MXS

Coverage chart n ≈ 2900 rpm

Three-phase

				Q = Flow									
				m³/h	0	1	1,5	2	2,5	3	3,5	4	4,5
Model	400V	P2		l/min		16,66	25	33,33	41,66	50	58,33	66,66	75
	A	kW	HP	H (m) = Total head									
MXS 303	1,4	0,45	0,6		32,5	29,5	27,5	25,5	23	19,5	17	13	10
MXS 304	1,6	0,55	0,75		44	41,5	39,5	36,5	33,5	29,5	25,5	21	16
MXS 305	1,9	0,75	1		53	49,5	47	44	40	35	30	25	19
MXS 306	2,2	0,9	1,2		65	61	58	54	49	43	37	30,5	23
MXS 307	2,6	0,9	1,2		77,5	71	66,5	61	55	49	42	35	27
MXS 308	2,8	1,1	1,5		88,5	81,5	76	70,5	64	56,5	49,5	41	32
MXS 309	3,8	1,5	2		100	91	85	78,5	70,5	62,5	54,4	45	35
MXS 310	4,3	1,5	2		111	101,5	95	88,5	80	71	62	52,5	41,5

Single-phase

							Q = Flow								
							m³/h	0	1	1,5	2	2,5	3	3,5	4	4,5
Model	230V	Capacitor		P2		P1	l/min		16,6	25	33,3	41,6	50	58,3	66,6	75
	A	Vc	uf	kW	HP	kW	H (m) = Total head									
MXSM 303	3,5	450	14	0,45	0,6	0,8		32,5	29,5	27,5	25,5	23	19,5	17	13	10
MXSM 304	4,1	450	20	0,55	0,75	0,9		44	41,5	39,5	36,5	33,5	29,5	25,5	21	16
MXSM 305	5	450	20	0,75	1	1,1		53	49,5	47	44	40	35	30	25	19
MXSM 306	6	450	25	0,9	1,2	1,3		65	61	58	54	49	43	37	30,5	23
MXSM 307	6,6	450	25	0,9	1,2	1,5		77,5	71	66,5	61	55	49	42	35	27
MXSM 308	8,3	450	30	1,1	1,5	1,7		88,5	81,5	76	70,5	64	56,5	49,5	41	32
MXSM 309	9	450	30	1,5	2	1,9		100	91	85	78,5	70,5	62,5	54,4	45	35
MXSM 310	12	450	35	1,5	2	2,2		111	101,5	95	88,5	80	71	62	52,5	41,5

Three-phase

				Q = Flow									
				m³/h	0	2,5	3	3,5	4	4,5	5	6	7	8
Model	400V	P2		l/min		41,66	50	58,33	66,66	75	83,33	100	116	133
	A	kW	HP	H (m) = Total head										
MXS 503	1,6	0,55	0,75		32,2	28,5	27,5	26	24,5	22,5	21,5	18	13,5	8
MXS 504	2,2	0,9	1,2		43	39	38	36,5	34,5	33	30,5	25,5	19,5	13
MXS 505	2,6	1,1	1,5		53	47,5	45,5	43,5	41	38,5	35,5	29,5	22	13,5
MXS 506	2,8	1,1	1,5		66,5	58	55,6	53,5	51	48	45	36,5	27,5	16
MXS 507	4	1,5	2		78,5	69,5	66,5	64	61,5	58	54,5	45,5	36	22
MXS 508	4,3	1,5	2		88,5	78	75	72	68	64	60	50	38	25
MXS 509	5,6	2,2	3		101	91	87,5	84	80,5	75,5	71	60	46,5	28,5
MXS 510	5,6	2,2	3		111	100	96,5	93	89	84,5	80	66,5	52	31

Single-phase

							Q = Flow									
							m³/h	0	2,5	3	3,5	4	4,5	5	6	7	8
Model	230V	Capacitor		P2		P1	l/min		41,6	50	58,3	66,6	75	83,3	100	117	133
	A	Vc	uf	kW	HP	kW	H (m) = Total head										
MXSM 503	4,1	450	20	0,55	0,75	0,9		32,2	28,5	27,5	26	24,5	22,5	21,5	18	13,5	8
MXSM 504	6	450	25	0,9	1,2	1,2		43	39	38	36,5	34,5	33	30,5	25,5	19,5	13
MXSM 505	7	450	25	1,1	1,5	1,5		53	-	47,5	45,5	43,5	41	38,5	35,5	29,5	13,5
MXSM 506	8,3	450	30	1,1	1,5	1,7		66,5	58	55,6	53,5	51	48	45	36,5	27,5	16
MXSM 507	12	450	35	1,5	2	2,2		78,5	69,5	66,5	64	61,5	58	54,5	45,5	36	22
MXSM 508	13	450	35	1,5	2	2,4		88,5	78	75	72	68	64	60	50	38	25
MXSM 509	14,3	450	40	2,2	3	2,9		101	91	87,5	84	80,5	75,5	71	60	46,5	28,5

MXS

Three-phase

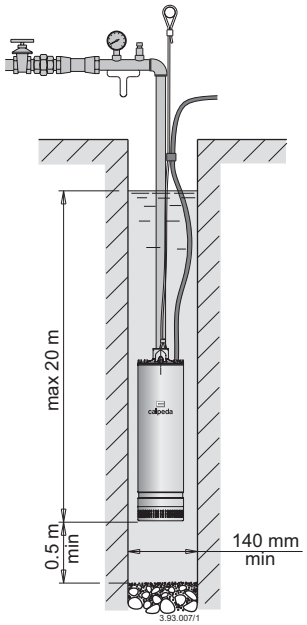
				Q = Flow								
				m³/h	0	5	6	7	8	9	10	11
Model	400V	P2		l/min		83,33	100	116	133	150	166	183
	A	kW	HP	H (m) = Total head								
MXS 903	2,6	1,1	1,5		34	28,2	26,8	25,2	23,3	21,2	18,5	15,5
MXS 904	3,8	1,5	2		45,5	39	37	35	32,5	30	26,5	22,5
MXS 905	4,3	2,2	3		58	49	46,5	45	42,5	38,5	34	30
MXS 906	5,6	2,2	3		70	59,5	56,5	54	50,5	46,5	42	37
MXS 907	6,6	3	4		81	71	68,5	66	62	58	53	47
MXS 908	8,5	3	4		93	81	78	75	71	66	60,5	53
MXS 909	8,5	3	4		105	92	88	84	79	73,5	67,5	57,5
MXS 910	8,5	3	4		117	101,2	96,5	93	87,5	81,5	73,5	63,5

Single-phase

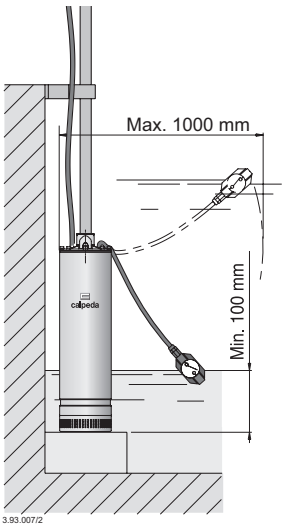
							Q = Flow								
							m³/h	0	5	6	7	8	9	10	11
Model	230V	Capacitor		P2		P1	l/min		83,3	100	117	133	150	167	183
	A	Vc	uf	kW	HP	kW	H (m) = Total head								
MXSM 903	7	450	25	1,1	1,5	1,5		34	29,5	28	26,5	24,5	22,5	20	16,5
MXSM 904	9	450	30	1,5	2	1,9		45,5	39	37	35	32,5	30	26,5	22,5
MXSM 905	13	450	35	2,2	3	2,4		58	49	47,3	45,2	42,5	38,9	34,5	30
MXSM 906	14,3	450	40	2,2	3	2,9		70	59,5	56,5	54	50,5	46,5	42	37

P1: Maximum power input.
P2: Rated motor power output.
Tolerances according to UNI EN ISO 9906:2012
Test results with clean cold water, without gas content.

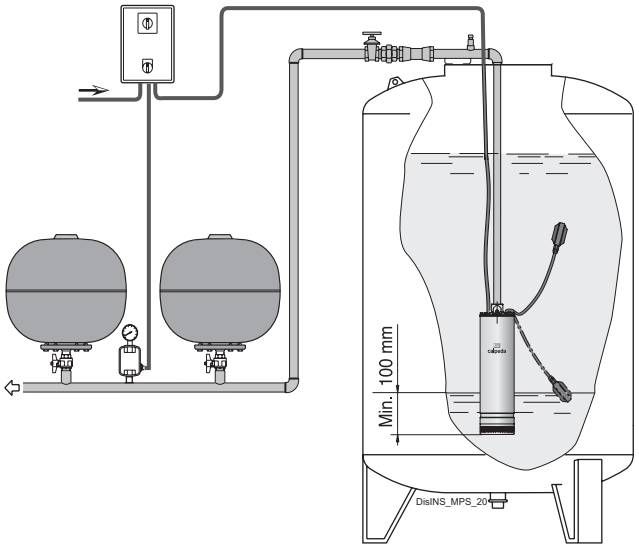
Installation



Pump in suspended position



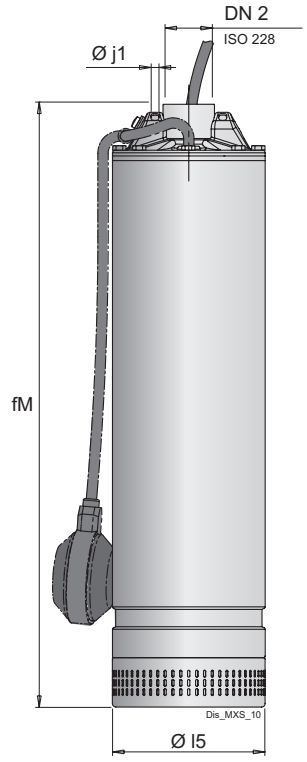
Pump in the standing position



Examples of installations

MXS

Dimensions and weights



TYPE		mm			kg
	DN2	fM	j1	l5	Weight
MXS 303	G 1 1/4	465	7	133	11.7
MXS 304	G 1 1/4	504	7	133	13.3
MXS 305	G 1 1/4	553	7	133	14
MXS 306	G 1 1/4	601	7	133	15.7
MXS 307	G 1 1/4	601	7	133	16
MXS 308	G 1 1/4	671	7	133	18.8
MXS 309	G 1 1/4	768	7	133	19.3
MXS 310	G 1 1/4	768	7	133	21.4
MXS 503	G 1 1/4	504	7	133	12.7
MXS 504	G 1 1/4	553	7	133	14.5
MXS 505	G 1 1/4	553	7	133	15
MXS 506	G 1 1/4	622	7	133	17.5
MXS 507	G 1 1/4	671	7	133	19.8
MXS 508	G 1 1/4	768	7	133	20.2
MXS 509	G 1 1/4	768	7	133	22.7
MXS 510	G 1 1/4	768	7	133	23.6
MXS 903	G 1 1/4	523	7	133	14.2
MXS 904	G 1 1/4	573	7	133	16.5
MXS 905	G 1 1/4	653	7	133	19
MXS 906	G 1 1/4	738	7	133	21.8
MXS 907	G 1 1/4	738	7	133	24.2
MXS 908	G 1 1/4	853	7	133	27.4
MXS 909	G 1 1/4	853	7	133	28.1
MXS 910	G 1 1/4	853	7	133	29.2

MXSM ... CG
With float switch pump (on demand)

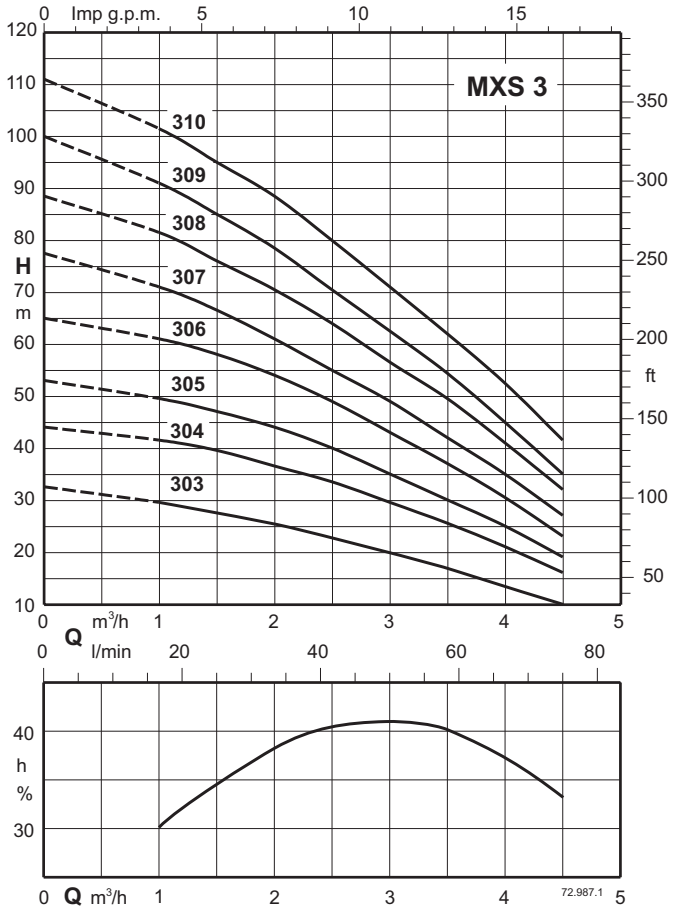
TYPE		mm			kg
	DN2	fM	j1	l5	Weight
MXSM 303	G 1 1/4	465	7	133	12.4
MXSM 304	G 1 1/4	504	7	133	14.1
MXSM 305	G 1 1/4	553	7	133	15.8
MXSM 306	G 1 1/4	601	7	133	17.1
MXSM 307	G 1 1/4	601	7	133	17.7
MXSM 308	G 1 1/4	671	7	133	20.5
MXSM 309	G 1 1/4	768	7	133	20.9
MXSM 310	G 1 1/4	768	7	133	24.6
MXSM 503	G 1 1/4	504	7	133	13.7
MXSM 504	G 1 1/4	553	7	133	16.1
MXSM 505	G 1 1/4	553	7	133	16.7
MXSM 506	G 1 1/4	622	7	133	19.2
MXSM 507	G 1 1/4	671	7	133	22.1
MXSM 508	G 1 1/4	768	7	133	23.4
MXSM 509	G 1 1/4	768	7	133	25.7
MXSM 903	G 1 1/4	553	7	133	16.1
MXSM 904	G 1 1/4	573	7	133	18.2
MXSM 905	G 1 1/4	653	7	133	22.3
MXSM 906	G 1 1/4	738	7	133	24.8

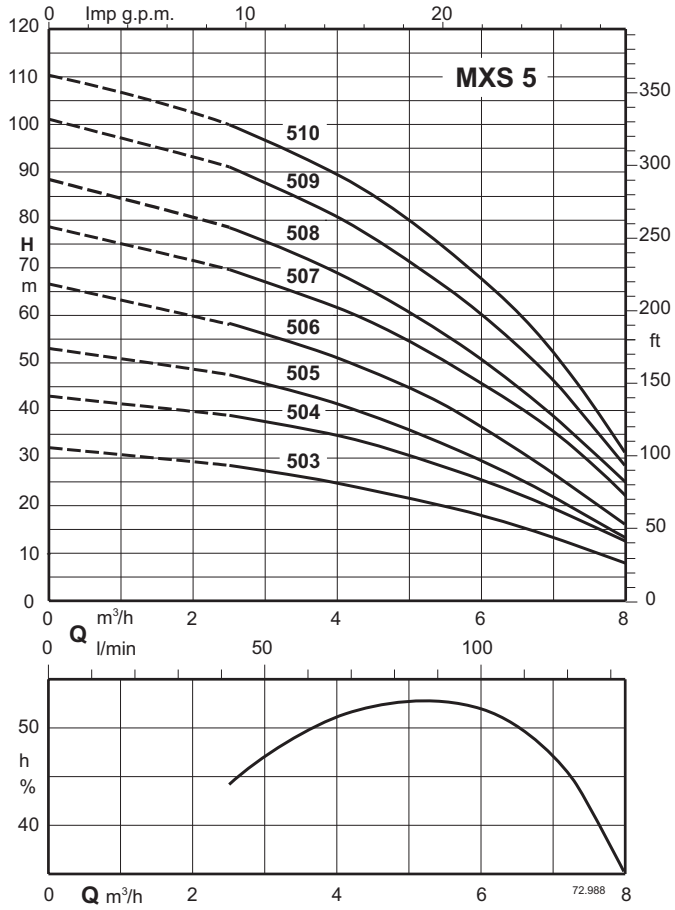
With cable length: 15m

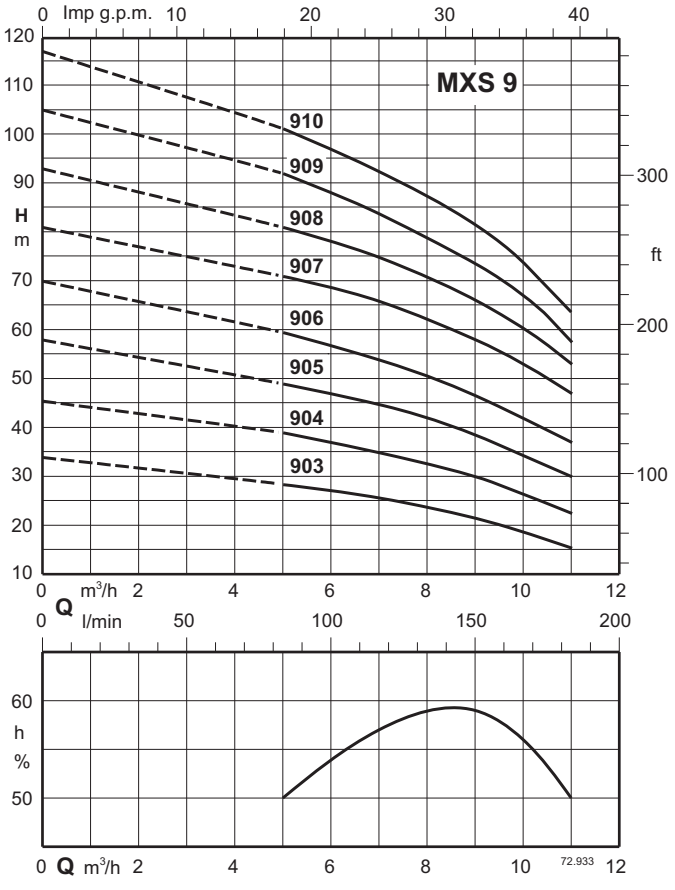
MXS

calpeda®

Characteristic curves n ≈ 2900 rpm



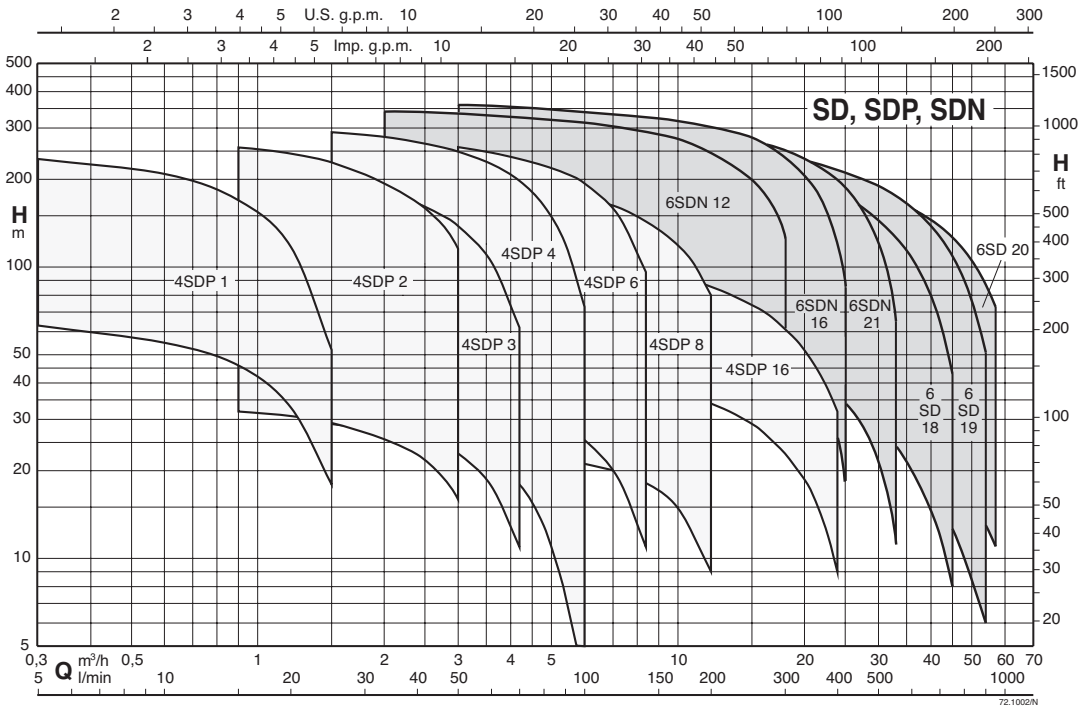




SD



Coverage chart n ≈ 2900 rpm



Submersible borehole pumps for 4” and 6” wells

SD

Construction

Submersible borehole pumps for 4” wells (DN 100 mm), and 6” (DN 150 mm), with external jacket in stainless steel AISI 304 and impellers in Noryl.
Impellers
radial floating impellers 4SDP
radial impellers 6SDN 12, 16, 21
mixed flow impellers 6SD 18, 19, 20
Connection: screwed connection ISO 228.
Delivery casing with built-in non-return valve.

Applications

For water supply systems.
For civil and industrial applications.
For fire fighting applications.
For irrigation.

Operating conditions

PUMP
Liquid temperature:
up to a 35 °C for 4” motors
- up to a 25 °C for 6” motors.
Max. sand quantity into the water: 150 g/m3 (300 g/m3 high percentage of solids and sand).
Continuous duty.

MOTOR

Motor	Motor P2	Max. Liquid temperature	Cooling minimum flow velocity	Max n° of starting x hour
4CS-R	all	35 °C	0,1 m/s	30
6CS-R	4÷15 kW	40 °C	0,5 m/s	20
6CS-R	18,5÷30 kW	35 °C	0,5 m/s	20
6CS-R	37 kW	30 °C	0,5 m/s	20

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
Sized for connection to the pumps according to NEMA Standards.
Standard voltages:
single-phase - single-phase 230 V up to 2,2 kW for 4” motors.
three-phase - three-phase 230 V; 400 V, for 4” motors.
- three-phase 400 V; 400/690 V, for 6” motors.
Voltage tolerance : +6% / -10%.
In order to limit both current and torque at each starting, for rated motor powers equal to or higher than 7.5 kW, one of the following types of starting is necessary: star/delta, soft starter, stator impedance or autotransformer.
Insulation class F for 4” motors, class E for 6” motors.
Protection IP 68.
Continuous duty.
Motor suitable operation with frequency converter (with suitable filter dv/dt).

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
High temperatures.
Encapsulated motor FK series.

Designation

Example: 4SDPM 6/14
4 = Ø of the well in inches
SDP = Series
M = Single-phase (without three-phase indication)
6 = Stage identification
04 = Number of impellers

The electropumps 4SDP 1,2,3,6 series comply with the European Regulation no. 547/2012.

Materials

Components	**4SDP**	**6SD, 6SDN**
External jacket	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Stage casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	GFN2V* (NORYL®)
Diffuser	Polycarbonate	GFN2V* (NORYL®)
Impeller	GFN2V* (NORYL®)	GFN2V* (NORYL®)
Wear ring	-	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Shaft	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Steel 1.4104 EN 10088 (AISI 430F)
delivery casing	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Bronze CC480K EN 1982
Suction lantern	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Bronze CC480K EN 1982
Bearing bush	POM - POLYACETAL	Rubber
Filter	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Steel 1.4104 EN 10088 (AISI 430F)
Screws	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)

* Trademark of General Electric

SD

Coverage chart n ≈ 2900 rpm

Three-phase

Model	400V	P2		Q = Flow m³/h	0	0,3	0,6	0,9	1,2	1,5	1,8	2,1	2,4	2,7	3	3,6	4,2	4,8	6
				l/min		5	10	15	20	25	30	35	40	45	50	60	70	80	100
	A	kW	HP	H (m) = Total head															
4SDP 1/10C	1,7	0,37	0,5		67	63	55	46	33	18	-	-	-	-	-	-	-	-	-
4SDP 1/13C	1,7	0,37	0,5		86	78	70	56	42	23	-	-	-	-	-	-	-	-	-
4SDP 1/19C	2	0,55	0,75		126	118	105	86	60	30	-	-	-	-	-	-	-	-	-
4SDP 1/26C	2,5	0,75	1		173	160	141	117	81	39	-	-	-	-	-	-	-	-	-
4SDP 1/38C	3,3	1,1	1,5		253	234	208	169	117	52	-	-	-	-	-	-	-	-	-
4SDP 2/5C	1,7	0,37	0,5		34	-	-	32	31	29	27	25	23	19	16	-	-	-	-
4SDP 2/7C	1,7	0,37	0,5		46	-	-	43	42	39	36	33	29	26	22	-	-	-	-
4SDP 2/10C	2	0,55	0,75		67	-	-	64	61	58	54	49	43	36	28	-	-	-	-
4SDP 2/14C	2,5	0,75	1		92	-	-	86	83	79	74	67	60	52	42	-	-	-	-
4SDP 2/20C	3,3	1,1	1,5		139	-	-	131	127	120	111	101	90	75	60	-	-	-	-
4SDP 2/28C	4,4	1,5	2		189	-	-	178	172	164	153	140	126	108	90	-	-	-	-
4SDP 2/40C	6,1	2,2	3		265	-	-	247	237	224	208	189	170	147	120	-	-	-	-
4SDP 3/5C	1,7	0,37	0,5		34	-	-	-	32	31	30	29	27	25	23	18	11	-	-
4SDP 3/8C	2	0,55	0,75		54	-	-	-	51	50	49	46	43	41	38	30	19	-	-
4SDP 3/11C	2,5	0,75	1		72	-	-	-	68	66	64	61	58	54	49	38	26	-	-
4SDP 3/16C	3,3	1,1	1,5		106	-	-	-	101	98	95	89	83	77	70	54	33	-	-
4SDP 3/21C	4,4	1,5	2		142	-	-	-	135	132	127	122	115	108	100	79	49	-	-
4SDP 3/32C	6,1	2,2	3		208	-	-	-	200	194	187	177	165	152	138	104	62	-	-
4SDP 4/5C	1,7	0,37	0,5		33	-	-	-	-	29	28	27	26	-	24	21	18	13	3
4SDP 4/7C	2	0,55	0,75		46	-	-	-	-	43	42	41	39	-	36	33	28	22	7
4SDP 4/9C	2,5	0,75	1		59	-	-	-	-	55	54	52	51	-	47	43	37	28	10
4SDP 4/14C	3,3	1,1	1,5		93	-	-	-	-	87	86	83	81	-	76	68	58	47	20
4SDP 4/18C	4,4	1,5	2		120	-	-	-	-	113	111	108	105	-	98	88	75	60	25
4SDP 4/27C	6,1	2,2	3		175	-	-	-	-	164	161	157	152	-	141	127	109	87	35
4SDP 4/35C	6,9	3	4		228	-	-	-	-	212	208	203	197	-	184	166	145	119	46
4SDP 4/44C	9,4	4	5,5		282	-	-	-	-	261	255	249	241	-	223	201	173	140	52
4SDP 4/48C	9,4	4	5,5		309	-	-	-	-	289	283	276	267	-	248	225	197	162	73

Model	400V	P2		Q = Flow m³/h	0	3	3,6	4,2	4,8	5,4	6	7,2	8,4	9,6	10,8	12	13,2	18	21,5	24
				l/min		50	60	70	80	90	100	120	140	160	180	200	220	300	358	400
	A	kW	HP	H (m) = Total head																
4SDP 6/7C	2,5	0,75	1		42	36	34	32	30	28	25	19	11	-	-	-	-	-	-	-
4SDP 6/10C	3,3	1,1	1,5		62	53	51	48	45	41	38	29	18	-	-	-	-	-	-	-
4SDP 6/14C	4,4	1,5	2		90	77	74	71	68	63	59	46	28	-	-	-	-	-	-	-
4SDP 6/20C	6,1	2,2	3		125	107	102	97	92	86	80	62	40	-	-	-	-	-	-	-
4SDP 6/27C	6,9	3	4		169	145	139	131	123	115	107	84	55	-	-	-	-	-	-	-
4SDP 6/34C	9,4	4	5,5		208	178	170	162	153	143	132	103	66	-	-	-	-	-	-	-
4SDP 6/36C	9,4	4	5,5		221	190	181	173	164	154	143	112	72	-	-	-	-	-	-	-
4SDP 6/49C	13,4	5,5	7,5		302	257	246	234	222	209	193	151	96	-	-	-	-	-	-	-
4SDP 8/4C	2,5	0,75	1		26	-	-	-	23	22	21	20	18	16	12	9	-	-	-	-
4SDP 8/6C	3,3	1,1	1,5		38	-	-	-	35	34	33	31	28	24	19	14	-	-	-	-
4SDP 8/8C	4,4	1,5	2		52	-	-	-	47	45	44	41	37	31	25	18	-	-	-	-
4SDP 8/13C	6,1	2,2	3		82	-	-	-	75	73	71	66	59	50	40	30	-	-	-	-
4SDP 8/17C	6,9	3	4		108	-	-	-	98	96	94	87	79	70	58	46	-	-	-	-
4SDP 8/21C	9,4	4	5,5		132	-	-	-	117	114	111	103	93	82	68	52	-	-	-	-
4SDP 8/23C	9,4	4	5,5		148	-	-	-	134	131	127	118	108	95	79	60	-	-	-	-
4SDP 8/32C	13,4	5,5	7,5		202	-	-	-	182	178	172	160	143	125	105	80	-	-	-	-
4SDP 16/8C	6,1	2,2	3		49	-	-	-	-	-	-	-	39	38	36	34	32	23	15	9
4SDP 16/11C	6,9	3	4		67	-	-	-	-	-	-	-	55	53	50	48	45	33	23	16
4SDP 16/13C	9,4	4	5,5		79	-	-	-	-	-	-	-	65	62	59	56	53	40	28	20
4SDP 16/15C	9,4	4	5,5		93	-	-	-	-	-	-	-	76	73	70	66	62	47	34	25
4SDP 16/20C	13,4	5,5	7,5		122	-	-	-	-	-	-	-	99	95	90	86	81	61	44	32
4SDP 16/27C	16,4	7,5	10		161	-	-	-	-	-	-	-	130	125	120	114	109	81	57	39

P2: Rated motor power output.
H: Total head in m

SD

Coverage chart n ≈ 2900 rpm

Single-phase

							Q = Flow													
							m³/h	0	0,3	0,6	0,9	1,2	1,5	1,8	2,1	2,4	2,7	3	3,6	4,2	4,8	6
Model	230V	Capacitor		P2		P1	l/min		5	10	15	20	25	30	35	40	45	50	60	70	80	100
	A	Vc	uf	kW	HP	kW	H (m) = Total head															
4SDPM 1/10C	3,6	450	20	0,37	0,5	0,71		67	63	55	46	33	18	-	-	-	-	-	-	-	-	-
4SDPM 1/13C	3,6	450	20	0,37	0,5	0,71		86	78	70	56	42	23	-	-	-	-	-	-	-	-	-
4SDPM 1/19C	4,7	450	25	0,55	0,75	0,91		126	118	105	86	60	30	-	-	-	-	-	-	-	-	-
4SDPM 1/26C	5,6	450	35	0,75	1	1,24		173	160	141	117	81	39	-	-	-	-	-	-	-	-	-
4SDPM 1/38C	7,6	450	40	1,1	1,5	1,71		253	234	208	169	117	52	-	-	-	-	-	-	-	-	-
4SDPM 2/5C	3,6	450	20	0,37	0,5	0,71		34	-	-	32	31	29	27	25	23	19	16	-	-	-	-
4SDPM 2/7C	3,6	450	20	0,37	0,5	0,71		46	-	-	43	42	39	36	33	29	26	22	-	-	-	-
4SDPM 2/10C	4,7	450	25	0,55	0,75	0,91		67	-	-	64	61	58	54	49	43	36	28	-	-	-	-
4SDPM 2/14C	5,6	450	35	0,75	1	1,24		92	-	-	86	83	79	74	67	60	52	42	-	-	-	-
4SDPM 2/20C	7,6	450	40	1,1	1,5	1,71		139	-	-	131	127	120	111	101	90	75	60	-	-	-	-
4SDPM 2/28C	10,7	450	60	1,5	2	2,33		189	-	-	178	172	164	153	140	126	108	90	-	-	-	-
4SDPM 2/40C	14,6	450	80	2,2	3	3,25		265	-	-	247	237	224	208	189	170	147	120	-	-	-	-
4SDPM 3/5C	3,6	450	20	0,37	0,5	0,71		34	-	-	-	32	31	30	29	27	25	23	18	11	-	-
4SDPM 3/8C	4,7	450	25	0,55	0,75	0,91		54	-	-	-	51	50	49	46	43	41	38	30	19	-	-
4SDPM 3/11C	5,6	450	35	0,75	1	1,24		72	-	-	-	68	66	64	61	58	54	49	38	26	-	-
4SDPM 3/16C	7,6	450	40	1,1	1,5	1,71		106	-	-	-	101	98	95	89	83	77	70	54	33	-	-
4SDPM 3/21C	10,7	450	60	1,5	2	2,33		142	-	-	-	135	132	127	122	115	108	100	79	49	-	-
4SDPM 3/32C	14,6	450	80	2,2	3	3,25		208	-	-	-	200	194	187	177	165	152	138	104	62	-	-
4SDPM 4/5C	3,6	450	20	0,37	0,5	0,71		33	-	-	-	-	29	28	27	26	-	24	21	18	13	3
4SDPM 4/7C	4,7	450	25	0,55	0,75	0,91		46	-	-	-	-	43	42	41	39	-	36	33	28	22	7
4SDPM 4/9C	5,6	450	35	0,75	1	1,24		59	-	-	-	-	55	54	52	51	-	47	43	37	28	10
4SDPM 4/14C	7,6	450	40	1,1	1,5	1,71		93	-	-	-	-	87	86	83	81	-	76	68	58	47	20
4SDPM 4/18C	10,7	450	60	1,5	2	2,33		120	-	-	-	-	113	111	108	105	-	98	88	75	60	25
4SDPM 4/27C	14,6	450	80	2,2	3	3,25		175	-	-	-	-	164	161	157	152	-	141	127	109	87	35

							Q = Flow													
							m³/h	0	3	3,6	4,2	4,8	5,4	6	7,2	8,4	9,6	10,8	12	13,2	18	24
Model	230V	Capacitor		P2		P1	l/min		50	60	70	80	90	100	120	140	160	180	200	220	300	400
	A	Vc	uf	kW	HP	kW	H (m) = Total head															
4SDPM 6/7C	5,6	450	35	0,75	1	1,24		42	36	34	32	30	28	25	19	11	-	-	-	-	-	-
4SDPM 6/10C	7,6	450	40	1,1	1,5	1,71		62	53	51	48	45	41	38	29	18	-	-	-	-	-	-
4SDPM 6/14C	10,7	450	60	1,5	2	2,33		90	77	74	71	68	63	59	46	28	-	-	-	-	-	-
4SDPM 6/20C	14,6	450	80	2,2	3	3,25		125	107	102	97	92	86	80	62	40	-	-	-	-	-	-
4SDPM 8/4C	5,6	450	35	0,75	1	1,24		26	-	-	-	23	22	21	20	18	16	12	9	-	-	-
4SDPM 8/6C	7,6	450	40	1,1	1,5	1,71		38	-	-	-	35	34	33	31	28	24	19	14	-	-	-
4SDPM 8/8C	10,7	450	60	1,5	2	2,33		52	-	-	-	47	45	44	41	37	31	25	18	-	-	-
4SDPM 8/13C	14,6	450	80	2,2	3	3,25		82	-	-	-	75	73	71	66	59	50	40	30	-	-	-
4SDPM 16/8C	14,6	450	80	2,2	3	3,25		49	-	-	-	-	-	-	-	39	38	36	34	32	23	9

P2: Rated motor power output.
H: Total head in m

SD

Coverage chart n ≈ 2900 rpm

Three-phase

			Q = Flow									
			m³/h	0	2	4	6	8	10	12	14	16	18
Model	P2		l/min		33,3	66,6	100	133	167	200	233	267	300
	kW	HP	H (m) = Total head										
6SDN 12/10	4	5,5		111	102	95	89,5	85	80,5	73,5	64	52	37
6SDN 12/14	5,5	7,5		153,8	142	133	125	119	113	103	89,5	73	52
6SDN 12/19	7,5	10		209	193	181	170	162	153	140	122	99	70,5
6SDN 12/24	9,2	12,5		263,4	244	231	215	204	193	176	154	125	89
6SDN 12/29	11	15		317,8	294	276	260	247	233	213	186	151	107
6SDN 12/34	13	17,5		373,9	345	323	304	289	274	250	218	177	126

			Q = Flow									
			m³/h	0	3	6	9	12	15	18	21	25
Model	P2		l/min		50	100	150	200	250	300	350	417
	kW	HP	H (m) = Total head									
6SDN 16/7	4	5,5		79,8	75	71	67	63,5	59	50	38	18,5
6SDN 16/10	5,5	7,5		113,9	107	101	96	91	84	71,5	54,5	26
6SDN 16/13	7,5	10		148	139	132	124	118	110	93	70,5	34
6SDN 16/17	9,2	12,5		193,7	182	172	163	155	143	122	92,5	44,5
6SDN 16/20	11	15		229,8	215	202	192	182	168	143	109	52,5
6SDN 16/23	13	17,5		264,2	247	233	220	209	194	165	125	60
6SDN 16/27	15	20		309,9	290	273	259	245	227	193	147	71
6SDN 16/33	18,5	25		377,6	354	334	316	300	278	236	179	86,5

			Q = Flow										
			m³/h	0	5	9	12	15	18	21	24	27	30	33
Model	P2		l/min		83,3	150	200	250	300	350	400	450	500	550
	kW	HP	H (m) = Total head											
6SDN 21/5	4	5,5		59,4	54	51	48,5	46,5	45	41,5	36	29	21,5	11,5
6SDN 21/7	5,5	7,5		83	75,5	71,5	68	65	62,5	58	50	41	30	16
6SDN 21/9	7,5	10		106,5	97	92	87,5	83,5	80,5	74,5	64,5	53	38,5	21
6SDN 21/11	9,2	12,5		131,1	119	112	107	102	99	91	79	64	47	25,5
6SDN 21/14	11	15		165,6	151	143	136	130	125	116	100	81,5	60	32,5
6SDN 21/16	13	17,5		190,6	173	163	155	149	143	132	114	93	69	37
6SDN 21/19	15	20		225,1	205	194	185	176	170	157	136	111	81,5	44
6SDN 21/23	18,5	25		274,2	249	235	224	213	206	190	164	134	99	53
6SDN 21/28	22	30		333,6	303	286	272	260	251	231	200	163	120	64,5

P2: Rated motor power output.
H: Total head in m

SD

Coverage chart n ≈ 2900 rpm

Three-phase

Model	P2		Q = Flow									
			m³/h	0	6	12	18	24	30	36	42	45
			l/min		100	200	300	400	500	600	700	750
	kW	HP	H (m) = Total head									
6SD 18/3	4	5,5		44,3	42	39	36	32	27	20	12	8
6SD 18/4	5,5	7,5		58,2	56	53	48	43	36	27	16	11
6SD 18/5	7,5	10		73,8	70	66	60	53	45	34	21	13
6SD 18/6	9,2	12,5		90,3	85	79	72	64	54	40	25	16
6SD 18/7	9,2	12,5		105,7	100	93	84	75	63	46	28	19
6SD 18/8	11	15		119,9	113	105	96	86	72	54	32	21
6SD 18/9	13	17,5		133,7	127	119	108	96	81	60	37	24
6SD 18/11	15	20		165,5	156	145	132	118	99	74	45	30
6SD 18/13	18,5	25		193,2	184	172	157	139	117	87	52	35
6SD 18/16	22	30		237,2	227	213	194	172	144	107	65	43

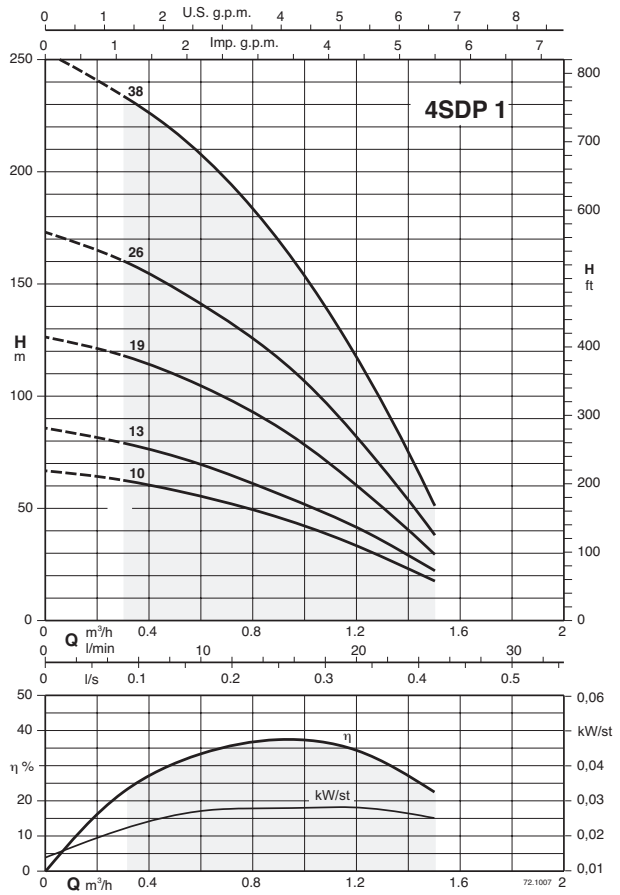
Model	P2		Q = Flow										
			m³/h	0	6	12	18	24	30	36	42	48	54
			l/min		100	200	300	400	500	600	700	800	900
	kW	HP	H (m) = Total head										
6SD 19/2	4	5,5		30,4	30	29	27	25	22	19	15	10	6
6SD 19/3	5,5	7,5		45,6	45	43	41	38	33	29	23	15	9
6SD 19/4	7,5	10		60,8	60	57	55	50	45	38	30	21	12
6SD 19/5	9,2	12,5		75,4	75	72	69	63	56	47	38	26	15
6SD 19/6	11	15		91	90	86	82	75	67	56	45	31	18
6SD 19/7	13	17,5		106,3	105	100	96	88	79	66	53	37	21
6SD 19/8	15	20		120,7	120	115	110	101	89	75	60	42	24
6SD 19/9	15	20		136	135	130	123	114	100	85	68	47	27
6SD 19/11	18,5	25		166,4	165	158	151	139	123	104	83	58	33
6SD 19/13	22	30		195,9	195	188	179	164	145	122	98	69	39
6SD 19/17	30	40		255,9	255	245	234	215	190	160	127	90	51

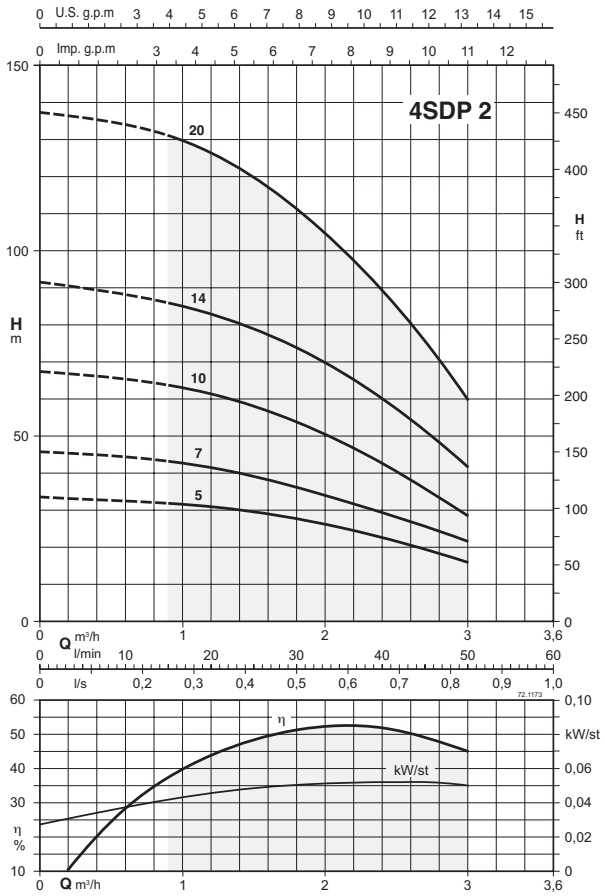
Model	P2		Q = Flow										
			m³/h	0	12	18	24	30	36	42	48	54	57
			l/min		200	300	400	500	600	700	800	900	950
	kW	HP	H (m) = Total head										
6SD 20/2	5,5	7,5		28,7	31	30	29	28	24	21	17	13	11
6SD 20/3	7,5	10		41	46	45	44	42	37	32	26	20	17
6SD 20/4	9,2	12,5		59,6	62	60	58	55	49	42	35	26	22
6SD 20/5	11	15		71,5	77	76	73	68	61	53	44	33	28
6SD 20/6	13	17,5		87,3	93	91	87	83	73	63	53	40	34
6SD 20/7	15	20		100,4	108	106	102	96	86	74	61	47	39
6SD 20/8	18,5	25		121,1	124	120	115	110	99	85	70	53	45
6SD 20/9	18,5	25		135,8	140	136	130	124	111	96	79	60	51
6SD 20/10	22	30		149,8	155	151	144	138	123	106	88	67	56
6SD 20/13	30	40		195,6	202	196	188	179	160	138	114	87	73

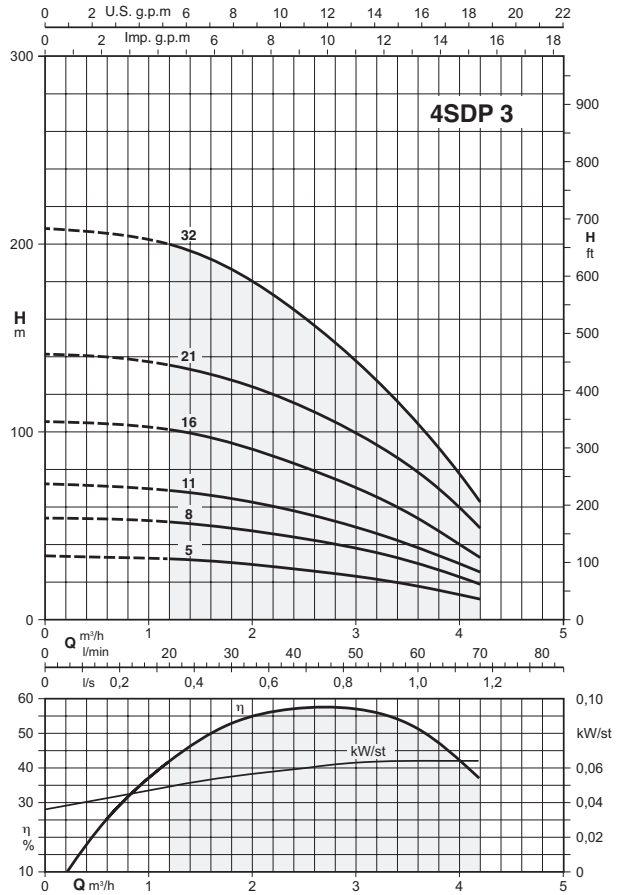
P2: Rated motor power output.
H: Total head in m

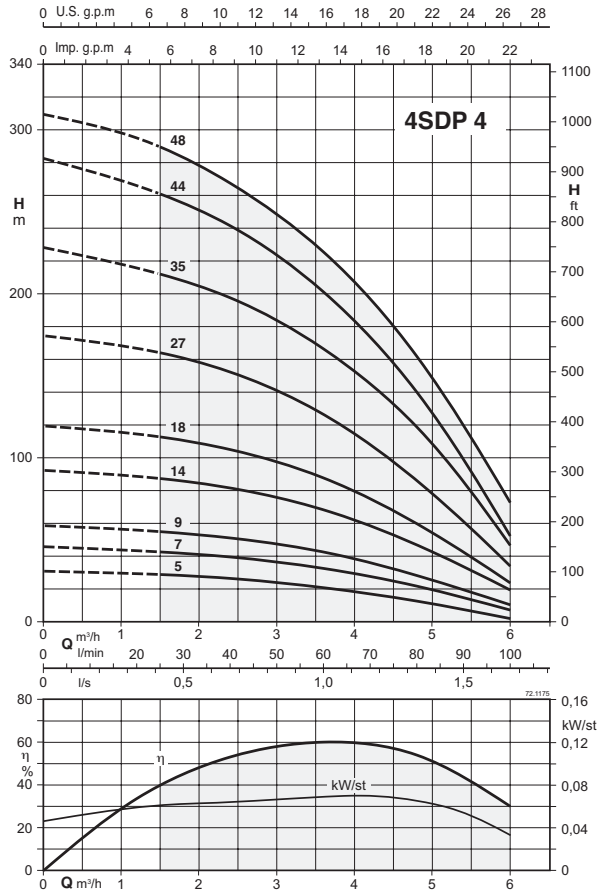
SD

Characteristic curves n ≈ 2900 rpm



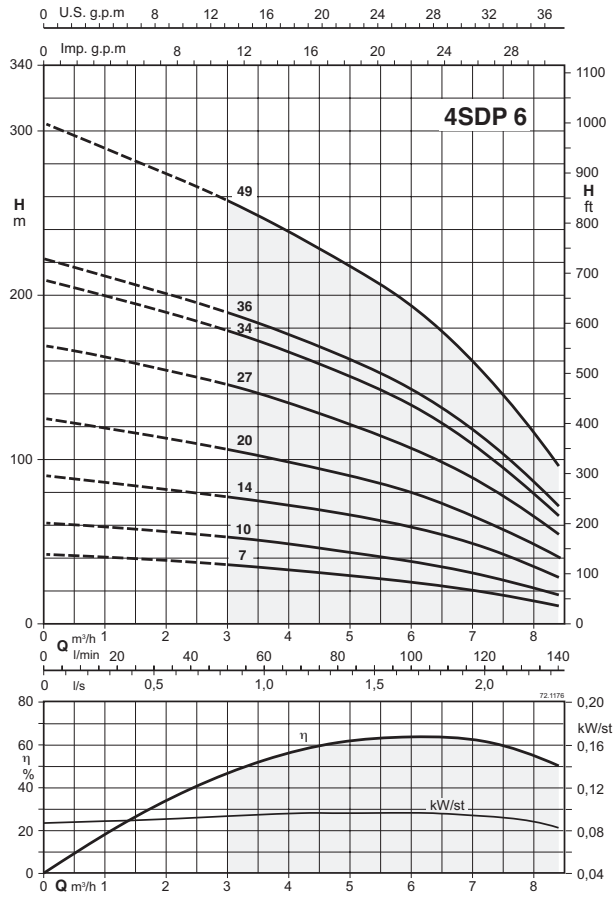


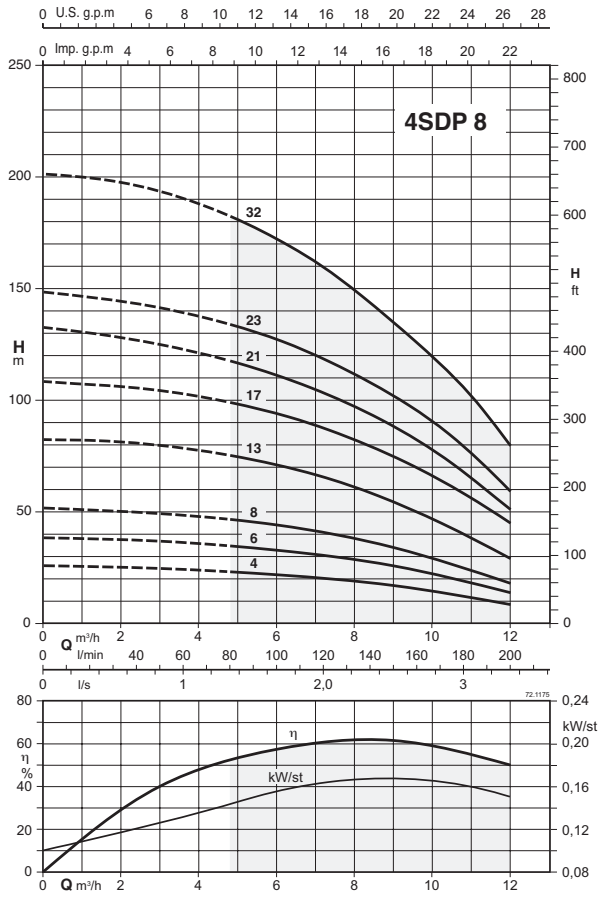


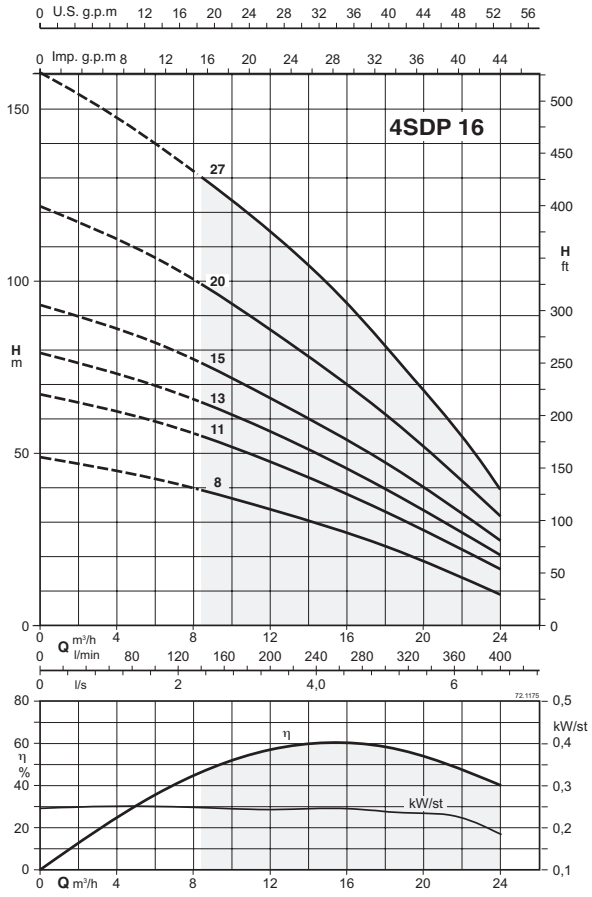


SD

Characteristic curves n ≈ 2900 rpm



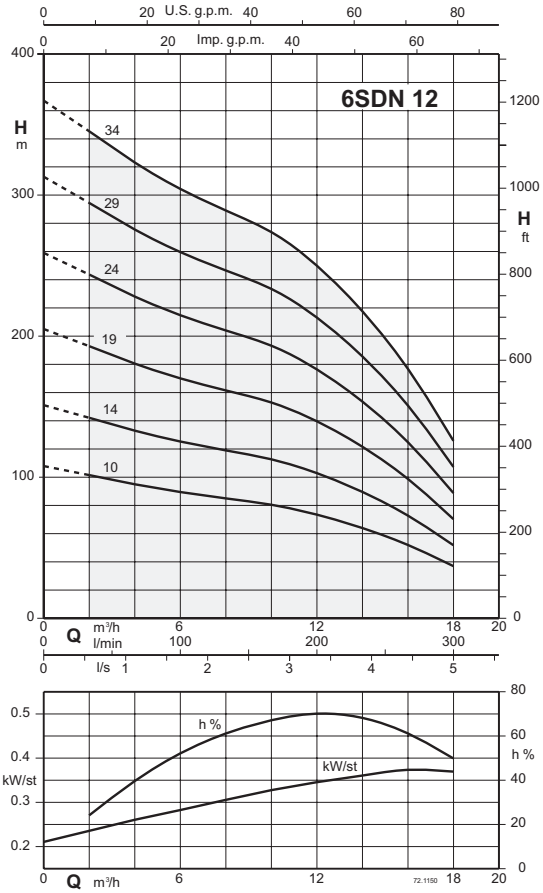


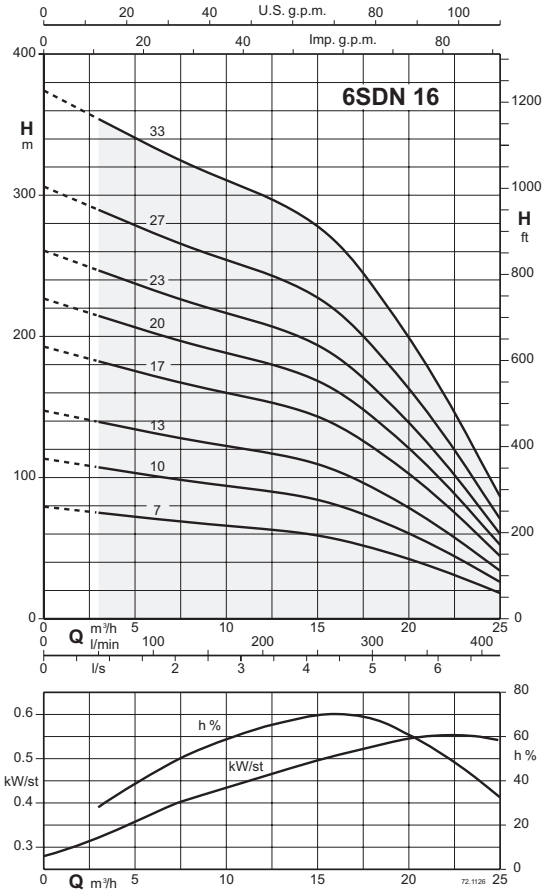


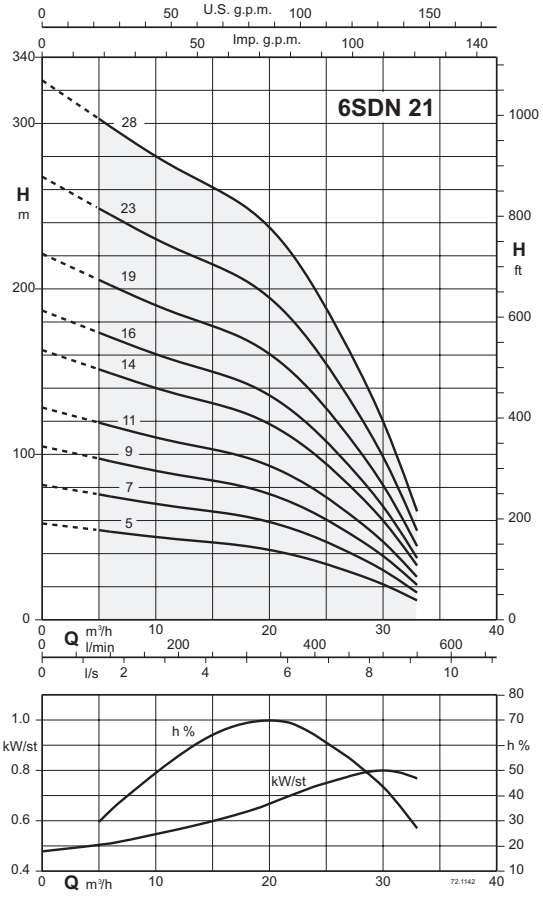
4SDP(M) 8,16 Pumps for specific applications with high sand content

SD

Characteristic curves n ≈ 2900 rpm



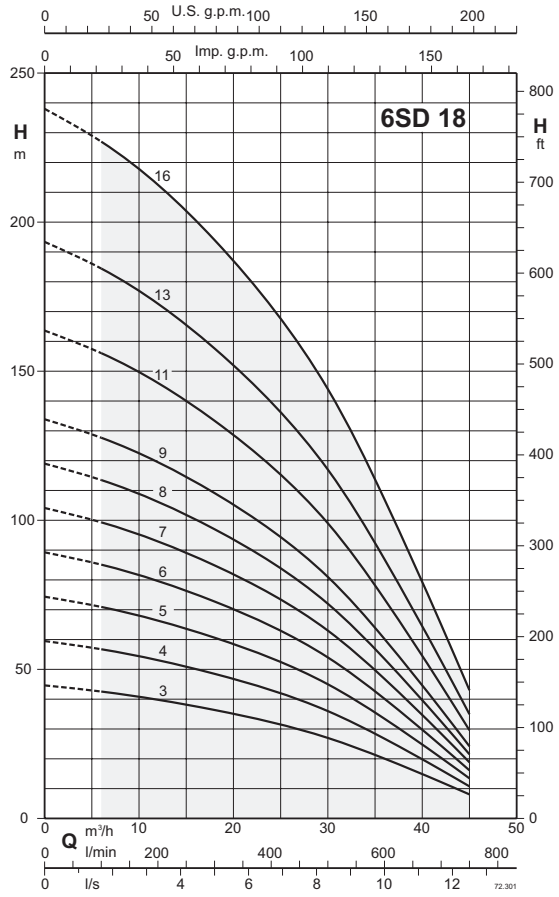


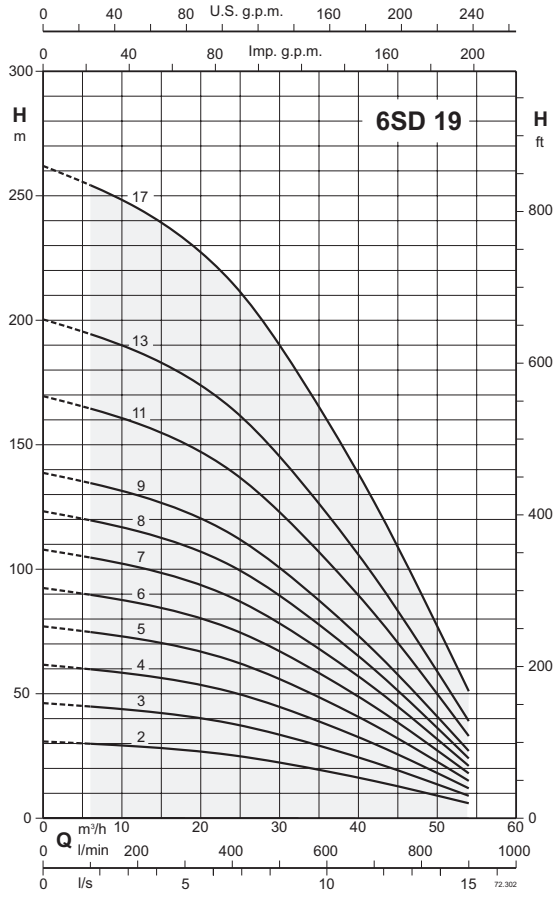


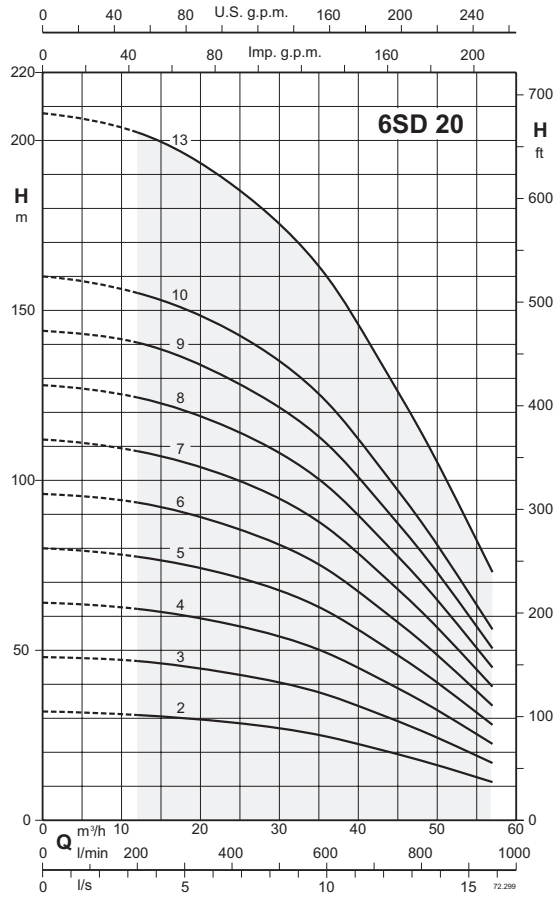
6SDN 12,16,21 Pumps for specific applications with high sand content

SD

Characteristic curves n ≈ 2900 rpm







6SD 18,19,20 Pumps for specific applications with high sand content

SD

Dimensions and weights

TYPE		mm			kg
	DN2	f	fM	l5	Weight
4SDP 1/10C	Rp 1 1/4"	324	651	98	10.6
4SDP 1/13C	Rp 1 1/4"	377	704	98	11.1
4SDP 1/19C	Rp 1 1/4"	481	808	98	13.1
4SDP 1/26C	Rp 1 1/4"	642	989	98	14.7
4SDP 1/38C	Rp 1 1/4"	864	1226	98	20.1

TYPE		mm			kg
	DN2	f	fM	l5	Weight
4SDPM 1/10C	Rp 1 1/4"	324	651	98	10.5
4SDPM 1/13C	Rp 1 1/4"	377	704	98	11.5
4SDPM 1/19C	Rp 1 1/4"	481	843	98	11.2
4SDPM 1/26C	Rp 1 1/4"	642	1004	98	15.2
4SDPM 1/38C	Rp 1 1/4"	864	1266	98	20.4

TYPE		mm			kg
	DN2	f	fM	l5	Weight
4SDP 2/5C	Rp 1 1/4"	236	563	98	9.8
4SDP 2/7C	Rp 1 1/4"	271	598	98	10.1
4SDP 2/10C	Rp 1 1/4"	324	651	98	10.7
4SDP 2/14C	Rp 1 1/4"	394	741	98	12.9
4SDP 2/20C	Rp 1 1/4"	499	861	98	13.9
4SDP 2/28C	Rp 1 1/4"	680	1082	98	17
4SDP 2/40C	Rp 1 1/4"	885	1287	98	21

TYPE		mm			kg
	DN2	f	fM	l5	Weight
4SDPM 2/5C	Rp 1 1/4"	236	563	98	9.3
4SDPM 2/7C	Rp 1 1/4"	271	598	98	10
4SDPM 2/10C	Rp 1 1/4"	324	686	98	12
4SDPM 2/14C	Rp 1 1/4"	394	756	98	11.6
4SDPM 2/20C	Rp 1 1/4"	499	901	98	16
4SDPM 2/28C	Rp 1 1/4"	680	1127	98	19.8
4SDPM 2/40C	Rp 1 1/4"	885	1402	98	25.1

TYPE		mm			kg
	DN2	f	fM	l5	Weight
4SDP 3/5C	Rp 1 1/4"	236	563	98	9.7
4SDP 3/8C	Rp 1 1/4"	289	616	98	11.2
4SDP 3/11C	Rp 1 1/4"	342	689	98	11
4SDP 3/16C	Rp 1 1/4"	430	792	98	12.5
4SDP 3/21C	Rp 1 1/4"	519	921	98	17.9
4SDP 3/32C	Rp 1 1/4"	787	1189	98	19.3

TYPE		mm			kg
	DN2	f	fM	l5	Weight
4SDPM 3/5C	Rp 1 1/4"	236	563	98	9.6
4SDPM 3/8C	Rp 1 1/4"	289	651	98	12
4SDPM 3/11C	Rp 1 1/4"	342	704	98	12.3
4SDPM 3/16C	Rp 1 1/4"	430	832	98	14.8
4SDPM 3/21C	Rp 1 1/4"	519	966	98	18.3
4SDPM 3/32C	Rp 1 1/4"	787	1304	98	23.5

TYPE		mm			kg
	DN2	f	fM	l5	Weight
4SDP 4/5C	Rp 1 1/4"	257	584	98	9.8
4SDP 4/7C	Rp 1 1/4"	301	628	98	11.2
4SDP 4/9C	Rp 1 1/4"	344	691	98	11
4SDP 4/14C	Rp 1 1/4"	452	814	98	13.1
4SDP 4/18C	Rp 1 1/4"	538	940	98	15.6
4SDP 4/27C	Rp 1 1/4"	805	1207	98	18.7
4SDP 4/35C	Rp 1 1/4"	972	1453	98	23.5
4SDP 4/44C	Rp 1 1/4"	1166	1712	98	28.5
4SDP 4/48C	Rp 1 1/4"	1291	1837	98	29.6

TYPE		mm			kg
	DN2	f	fM	l5	Weight
4SDPM 4/5C	Rp 1 1/4"	257	584	98	9.7
4SDPM 4/7C	Rp 1 1/4"	301	663	98	11.6
4SDPM 4/9C	Rp 1 1/4"	344	706	98	12.1
4SDPM 4/14C	Rp 1 1/4"	452	854	98	14.7
4SDPM 4/18C	Rp 1 1/4"	538	985	98	17.3
4SDPM 4/27C	Rp 1 1/4"	805	1322	98	22.8

TYPE		mm			kg
	DN2	f	fM	l5	Weight
4SDP 6/7C	Rp 2"	390	737	98	12
4SDP 6/10C	Rp 2"	483	845	98	13.5
4SDP 6/14C	Rp 2"	607	1009	98	16.3
4SDP 6/20C	Rp 2"	831	1233	98	19.5
4SDP 6/27C	Rp 2"	1086	1567	98	24.5
4SDP 6/34C	Rp 2"	1295	1841	98	29.7
4SDP 6/36C	Rp 2"	1356	1902	98	30.2
4SDP 6/49C	Rp 2"	1840	2486	98	41

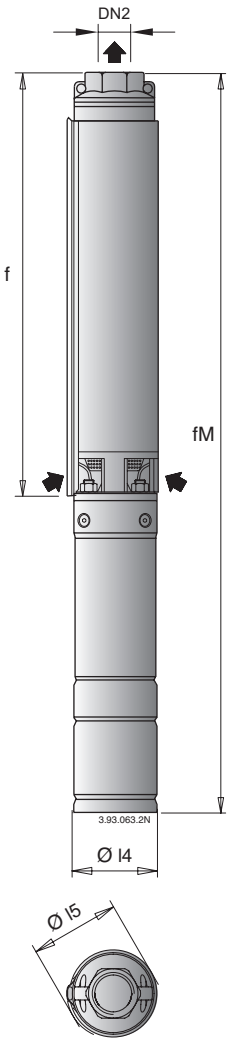
TYPE		mm			kg
	DN2	f	fM	l5	Weight
4SDPM 6/7C	Rp 2"	390	752	98	12.5
4SDPM 6/10C	Rp 2"	483	885	98	15
4SDPM 6/14C	Rp 2"	607	1054	98	18.1
4SDPM 6/20C	Rp 2"	831	1348	98	23.1

TYPE		mm			kg
	DN2	f	fM	l5	Weight
4SDP 8/4C	Rp 2"	294	641	98	11.1
4SDP 8/6C	Rp 2"	356	718	98	12.5
4SDP 8/8C	Rp 2"	418	820	98	16.3
4SDP 8/13C	Rp 2"	573	975	98	16.7
4SDP 8/17C	Rp 2"	697	1178	98	20.5
4SDP 8/21C	Rp 2"	859	1405	98	24.9
4SDP 8/23C	Rp 2"	959	1505	98	25.9
4SDP 8/32C	Rp 2"	1276	1922	98	33.8

TYPE		mm			kg
	DN2	f	fM	l5	Weight
4SDPM 8/4C	Rp 2"	294	656	98	11.7
4SDPM 8/6C	Rp 2"	356	758	98	14
4SDPM 8/8C	Rp 2"	418	865	98	16.9
4SDPM 8/13C	Rp 2"	573	1090	98	21.2

TYPE		mm				kg
	DN2	f	fM	l4	l5	Weight
4SDP 16/8C	Rp 2"	676	1078	4"	98	17.5
4SDP 16/11C	Rp 2"	880	1361	4"	98	20.5
4SDP 16/13C	Rp 2"	1013	1559	4"	98	26.2
4SDP 16/15C	Rp 2"	1149	1695	4"	98	27.3
4SDP 16/20C	Rp 2"	1489	2135	4"	98	35
4SDP 16/27C	Rp 2"	2020	2820	4"	98	-

TYPE		mm			kg
	DN2	f	fM	l5	Weight
4SDPM 16/8C	Rp 2"	676	1193	98	21.6



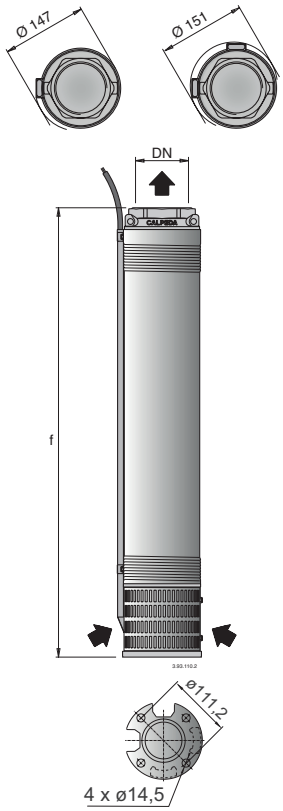
SD

Dimensions and weights

TYPE		mm			kg
	DN2	f	l4	l5	Weight
6SDN 12/10	G 3"	715	6"	147	14.6
6SDN 12/14	G 3"	870	6"	147	16.3
6SDN 12/19	G 3"	1060	6"	147	19.3
6SDN 12/24	G 3"	1320	6"	147	22.3
6SDN 12/29	G 3"	1510	6"	147	24.8
6SDN 12/34	G 3"	1705	6"	147	28.4

TYPE		mm			kg
	DN2	f	l4	l5	Weight
6SDN 16/7	G 3"	600	6"	147	13.1
6SDN 16/10	G 3"	715	6"	147	14.5
6SDN 16/13	G 3"	830	6"	147	16.3
6SDN 16/17	G 3"	985	6"	147	18
6SDN 16/20	G 3"	1100	6"	147	19.5
6SDN 16/23	G 3"	1285	6"	147	21.6
6SDN 16/27	G 3"	1435	6"	147	23.5
6SDN 16/33	G 3"	1665	6"	147	26.7

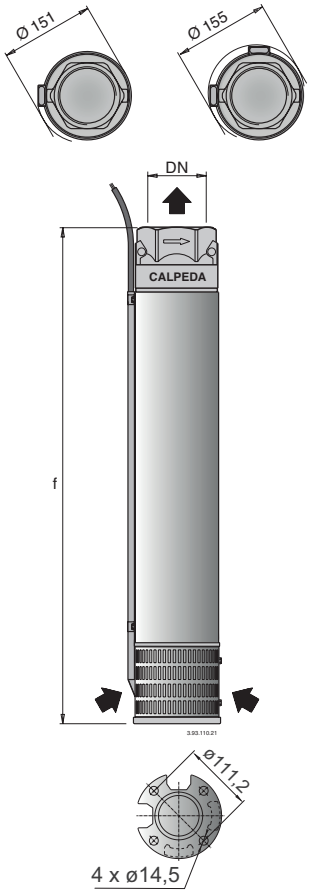
TYPE		mm			kg
	DN2	f	l4	l5	Weight
6SDN 21/5	G 3"	565	6"	147	13
6SDN 21/7	G 3"	660	6"	147	13.7
6SDN 21/9	G 3"	755	6"	147	14.6
6SDN 21/11	G 3"	850	6"	147	16
6SDN 21/14	G 3"	990	6"	147	18.5
6SDN 21/16	G 3"	1085	6"	147	19
6SDN 21/19	G 3"	1225	6"	147	20.5
6SDN 21/23	G 3"	1480	6"	147	23.3
6SDN 21/28	G 3"	1710	6"	147	26.1



TYPE		mm			kg
	DN2	f	l4	l5	Weight
6SD 18/3	G 3"	647	6"	151	14.5
6SD 18/4	G 3"	756	6"	151	17.2
6SD 18/5	G 3"	865	6"	151	17.6
6SD 18/6	G 3"	974	6"	151	19
6SD 18/7	G 3"	1083	6"	151	21.8
6SD 18/8	G 3"	1192	6"	151	22.4
6SD 18/9	G 3"	1301	6"	151	23.5
6SD 18/11	G 3"	1519	6"	151	27
6SD 18/13	G 3"	1737	6"	151	30
6SD 18/16	G 3"	2064	6"	151	5

TYPE		mm			kg
	DN2	f	l4	l5	Weight
6SD 19/2	G 3"	538	6"	151	13
6SD 19/3	G 3"	647	6"	151	15
6SD 19/4	G 3"	756	6"	151	15.9
6SD 19/5	G 3"	865	6"	151	17.4
6SD 19/6	G 3"	974	6"	151	19
6SD 19/7	G 3"	1083	6"	151	20
6SD 19/8	G 3"	1192	6"	151	22.3
6SD 19/9	G 3"	1301	6"	151	23.6
6SD 19/11	G 3"	1519	6"	151	27
6SD 19/13	G 3"	1737	6"	151	30
6SD 19/17	G 3"	2173	6"	151	37

TYPE		mm			kg
	DN2	f	l4	l5	Weight
6SD 20/2	G 3"	538	6"	151	12.7
6SD 20/3	G 3"	647	6"	151	14.2
6SD 20/4	G 3"	756	6"	151	16
6SD 20/5	G 3"	865	6"	151	17.5
6SD 20/6	G 3"	974	6"	151	19
6SD 20/7	G 3"	1083	6"	151	20.7
6SD 20/8	G 3"	1192	6"	151	22.2
6SD 20/9	G 3"	1301	6"	151	23.6
6SD 20/10	G 3"	1410	6"	151	24.1
6SD 20/13	G 3"	1737	6"	151	30



SDX



Submersible borehole pumps for 6” and 8” wells

SDX

Construction

Submersible pumps for deep wells 4” (DN 100 mm), 6” (DN 150 mm), 8” (DN 200 mm).
4, 6, 8 SDX: with outer jacket and stages made of steel 1.4301 EN 10088 (AISI 304).
6, 8 SDXL: with outer jacket and stages made of 1.4401 EN 10088 (AISI 316).

Impellers
Radial impellers:
- 4SDX 1-2-3-5-8, 6SDXL 18
mixed flow impellers:
- 4SDX 12, 6SDX 16-28-45-60, 8SDX 78-97
- 6SDXL 30-46-65, 8SDXL 78-97
Connection: Threaded Rp 11/4, 11/2, 2”, 21/2, 3”, 4”, 5”
Delivery casing with built-in non-return valve.

Applications

For water supply systems.
For civil and industrial applications.
For fire fighting applications.
For irrigation.

Operating conditions

Liquid temperature:
- 35 °C for 4SDX
- 30 °C for 6SDX
- 60 °C for 8SDX
- 90 °C for SDXL.
Maximum amount of sand in the water:
- 50 g/m3 for 4SDX, 6SDX
- 100 g/m3 for 8SDX.
- 100 g/m3 for SDXL.
- 300 g/m3 high percentage of solids and sand.
Continuous duty.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Other temperatures.
Encapsulated motor FK series.

The electropumps comply with the European Regulation no. 547/2012.

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
Sized for connection to the pumps according to NEMA Standards (10” excluded).
Standard voltages:
single-phase 230 V - up to 2,2 kW for 4” motors.
three-phase 230 V; 400 V, for 4” motors.
400 V; 400/690 V for 6-8-10” motors.
Voltage tolerance : ± 10%
In order to limit both current and torque at each starting, for rated motor powers equal to or higher than 7.5 kW, one of the following types of starting is necessary: star/delta, soft starter, stator impedance or autotransformer.
Insulation class:
- class F for 4” motors,
- class E for 6” motors, PVC for I-6” (I-6” 45 kW PE2+PA).
- PVC for 8”
- PVC for 10” (10” 170kW and 190 kW PE2+PA)
Protection IP 68.
Installation below water level: 100 m for 4”, 150 m for 6”, 500 m for 8,10” 4” motor
Motor suitable operation with frequency converter (with suitable filter dv/dt).
Horizontal installation (6" 37-45kW, 8" 92kW, 10" 170-190 kW excluded)

Motor	Motor P2	Max. Liquid temperature	Cooling minimum flow velocity	Max n° of starting x hour
4CS-R	all	35 °C	0,1 m/s	30
6CS-R	4÷15 kW	40 °C	0,5 m/s	20
6CS-R	18,5÷30 kW	35 °C	0,5 m/s	20
6CS-R	37 kW	30 °C	0,5 m/s	20
8CS-R	30÷45 kW	30 °C	0,2 m/s	10
8CS-R	51 kW	30 °C	0,2 m/s	8
8CS-R	59÷75 kW	30 °C	0,5 m/s	8
8CS-R	92÷110 kW	30 °C	0,5 m/s	6
10CS-R	all	25 °C	0,15 m/s	6

Designation

Example: 6 SDX L 30/17
6 = Well diameter in inches
SDX = Series
L = Design made of 1.4401 EN 10088 (AISI 316)
30 = Stage identification
17 = Number of stages

Materials

Pumps

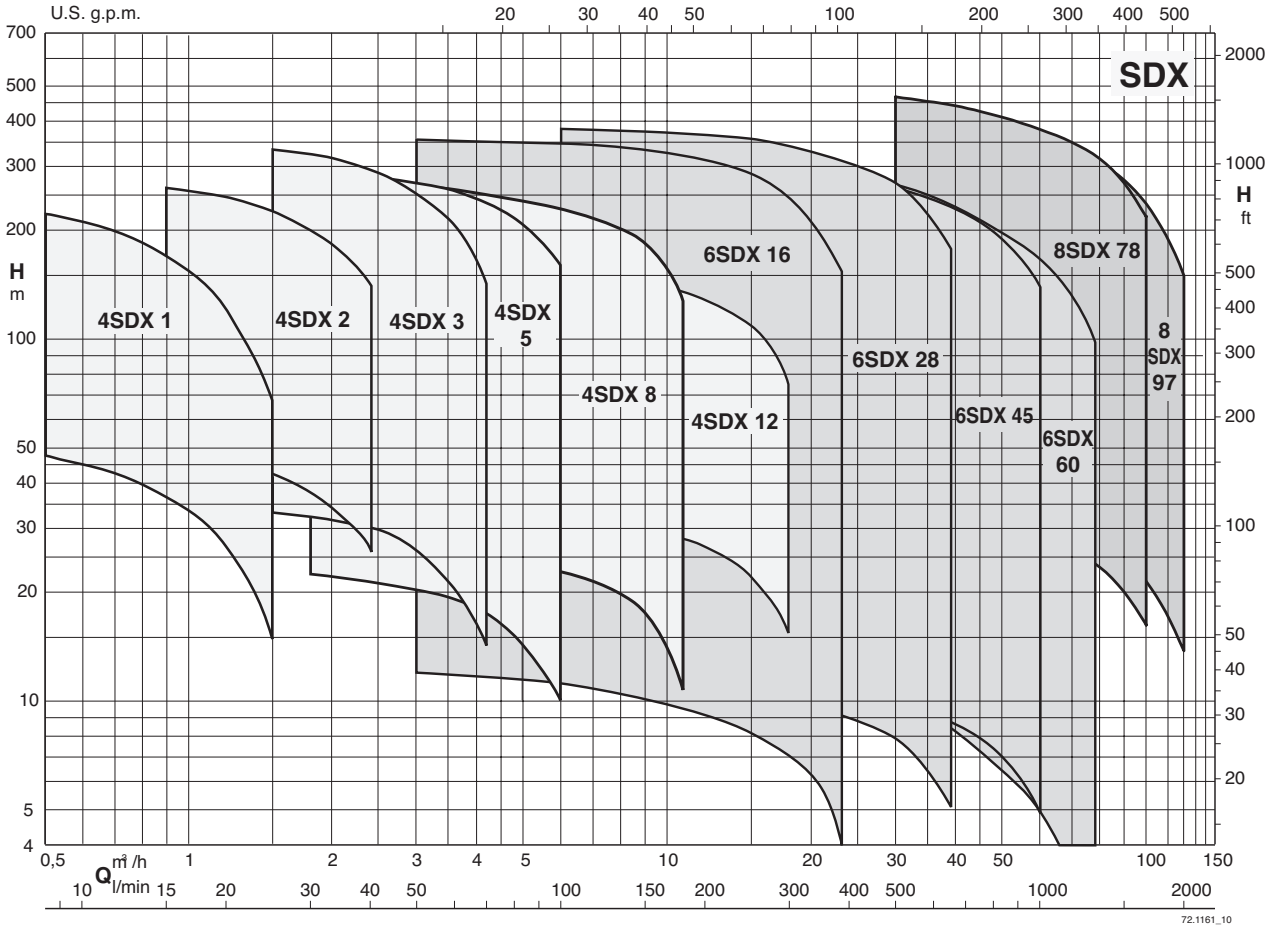
Components	6SDX	6SDXL	8SDX	8SDXL
External jacket	Cr-Ni steel AISI 304	Acciaio Cr-Ni-Mo AISI 316L	Cr-Ni steel AISI 304	Acciaio Cr-Ni-Mo AISI 316
Suction lantern	Cr-Ni steel AISI 304	Acciaio Cr-Ni-Mo AISI 316L	Cr-Ni steel AISI 304	Acciaio Cr-Ni-Mo AISI 316
delivery casing	Cr-Ni steel AISI 304	Acciaio Cr-Ni-Mo AISI 316L	Cr-Ni steel AISI 304	Acciaio Cr-Ni-Mo AISI 316
Upper cover	Cr-Ni steel AISI 304	Acciaio Cr-Ni-Mo AISI 316L	-	-
Filter	Cr-Ni steel AISI 304	Acciaio Cr-Ni-Mo AISI 316	Acciaio Cr-Ni-Mo AISI 316	Acciaio Cr-Ni-Mo AISI 316
Valve set	Cr-Ni steel AISI 304	Acciaio Cr-Ni-Mo AISI 316	Acciaio Cr-Ni-Mo AISI 316	Acciaio Cr-Ni-Mo AISI 316
O-ring valve	NBR	NBR	NBR	NBR
Shaft	Steel Cr AISI 431	Acciaio Cr-Ni-Mo AISI 316	Steel Cr Ni Mo AISI 329	Steel Cr Ni Mo AISI 329
Coupling set	Steel Cr AISI 431	Cr-Ni-Mo steel AISI 316/329	Cr-Ni-Mo steel AISI 316/329	Cr-Ni-Mo steel AISI 316/329
Diffuser	Cr-Ni steel AISI 304	Acciaio Cr-Ni-Mo AISI 316L	Cr-Ni steel AISI 304	Acciaio Cr-Ni-Mo AISI 316
Stage casing	Cr-Ni steel AISI 304	Acciaio Cr-Ni-Mo AISI 316L	Cr-Ni steel AISI 304	Acciaio Cr-Ni-Mo AISI 316
Impeller	Cr-Ni steel AISI 304	Acciaio Cr-Ni-Mo AISI 316L	Acciaio Cr-Ni-Mo AISI 316	Acciaio Cr-Ni-Mo AISI 316
Wear ring	NBR	Teflon (PTFE)	Teflon (PTFE)	Teflon (PTFE)
Bearing bush	NBR	HNBR	NBR	HNBR
Cable guard Screws	Cr Ni AISI 304 steel (AISI 316 steel for 4SDX)	Acciaio Cr-Ni-Mo AISI 316	Acciaio Cr-Ni-Mo AISI 316	Acciaio Cr-Ni-Mo AISI 316

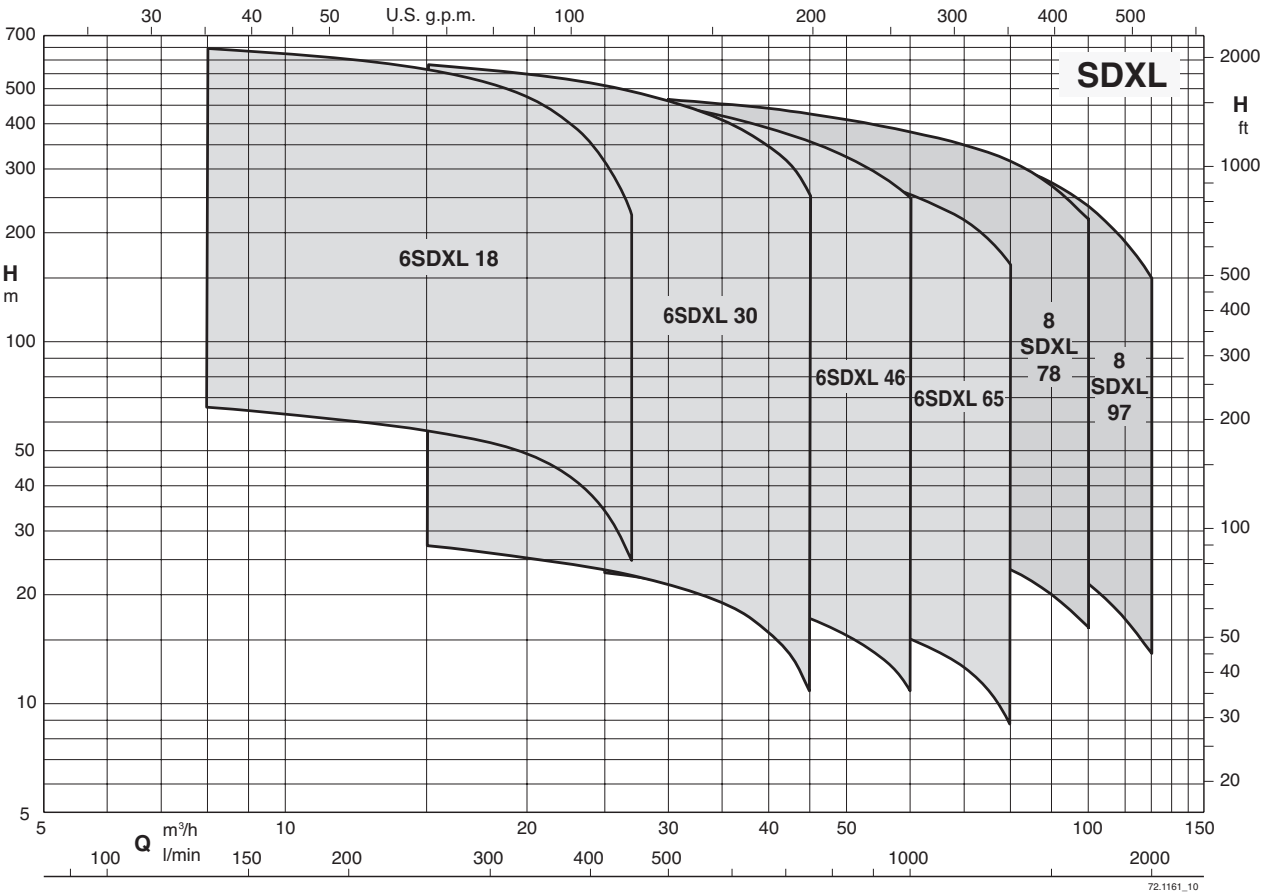
CS-R Motor

Components	4" standard	6”, 8”, 10” standard	6”, 8”, 10” AISI 316
External frame	Cr-Ni AISI 306 steel	Steel AISI 304 (AISI 316 for 6”)	Acciaio Cr-Ni-Mo AISI 316
Motor flange	Cr-Ni AISI 306 steel	Cast iron GJL 250 EN 1561 (Cast iron G 25 EN 1561 for 8,10”)	Acciaio Cr-Ni-Mo AISI 316
Shaft	Acciaio Cr-Ni-Mo AISI 316	Steel AISI 431 (AISI 630 for 10")	Duplex 1.4462 (Steel AISI 630 for 8,10”)
Thrust bearing	In oil bath	Brass skids	Brass skids

SDX

Coverage chart n ≈ 2900 rpm





SDX

Coverage chart n ≈ 2900 rpm

Three-phase

Model	230V	P2		Q = Flow																							
				m³/h	0	0,3	0,6	0,9	1,2	1,5	1,8	2,1	2,4	2,7	3	3,6	4,2	4,8	5,4	6	7,2	8,4	9,6	10,8	12	15	18
				l/min		5	10	15	20	25	30	35	40	45	50	60	70	80	90	100	120	140	160	180	200	250	300
	A	kW	HP	H (m) = Total head																							
4SDX 1/9C	1,7	0,37	0,5		50	47	45	36	26	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDX 1/14C	1,7	0,37	0,5		78	75	68	55	38	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDX 1/18C	2	0,55	0,75		102	97	88	72	52	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDX 1/21C	2	0,55	0,75		118	111	100	81	58	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDX 1/28C	2,5	0,75	1		158	151	138	111	79	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDX 1/36C	3,3	1,1	1,5		205	196	175	144	103	54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDX 1/42C	3,3	1,1	1,5		238	227	203	168	118	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDX 2/9C	1,7	0,37	0,5		52	-	-	48	45	42	38	33	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDX 2/13C	2	0,55	0,75		76	-	-	68	64	59	53	46	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDX 2/18C	2,5	0,75	1		104	-	-	94	89	82	74	63	51	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDX 2/23C	3,3	1,1	1,5		136	-	-	124	117	109	98	85	69	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDX 2/28C	4,4	1,5	2		166	-	-	153	144	134	121	105	85	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDX 2/33C	4,4	1,5	2		196	-	-	182	172	159	143	124	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDX 2/40C	6,1	2,2	3		235	-	-	217	205	190	170	47	119	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDX 2/48C	6,1	2,2	3		280	-	-	261	246	227	205	178	144	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDX 3/6C	1,7	0,37	0,5		38	-	-	-	-	33	32	31	30	28	26	21	14	-	-	-	-	-	-	-	-	-	-
4SDX 3/9C	2	0,55	0,75		57	-	-	-	-	49	47	46	43	41	38	30	19	-	-	-	-	-	-	-	-	-	-
4SDX 3/12C	2,5	0,75	1		77	-	-	-	-	66	64	62	58	56	52	42	28	-	-	-	-	-	-	-	-	-	-
4SDX 3/15C	3,3	1,1	1,5		97	-	-	-	-	85	83	80	77	74	69	57	40	-	-	-	-	-	-	-	-	-	-
4SDX 3/18C	3,3	1,1	1,5		116	-	-	-	-	101	97	94	90	85	80	67	45	-	-	-	-	-	-	-	-	-	-
4SDX 3/22C	4,4	1,5	2		142	-	-	-	-	123	120	115	110	105	98	80	54	-	-	-	-	-	-	-	-	-	-
4SDX 3/25C	4,4	1,5	2		160	-	-	-	-	139	134	129	123	117	110	90	61	-	-	-	-	-	-	-	-	-	-
4SDX 3/29C	6,1	2,2	3		185	-	-	-	-	160	155	150	143	136	127	103	70	-	-	-	-	-	-	-	-	-	-
4SDX 3/33C	6,1	2,2	3		211	-	-	-	-	183	177	171	164	155	145	118	80	-	-	-	-	-	-	-	-	-	-
4SDX 3/39C	6,9	3	4		251	-	-	-	-	219	212	205	196	185	172	138	95	-	-	-	-	-	-	-	-	-	-
4SDX 3/45C	6,9	3	4		288	-	-	-	-	250	242	234	224	213	199	162	110	-	-	-	-	-	-	-	-	-	-
4SDX 3/52C	9,4	4	5,5		334	-	-	-	-	291	282	272	261	247	230	184	124	-	-	-	-	-	-	-	-	-	-
4SDX 3/60C	9,4	4	5,5		384	-	-	-	-	336	325	312	297	280	260	210	143	-	-	-	-	-	-	-	-	-	-
4SDX 5/4C	1,7	0,37	0,5		25	-	-	-	-	-	23	22	21	-	20	19	17	15	12	10	-	-	-	-	-	-	-
4SDX 5/6C	2	0,55	0,75		38	-	-	-	-	-	34	33	32	-	30	28	26	23	20	16	-	-	-	-	-	-	-
4SDX 5/8C	2,5	0,75	1		51	-	-	-	-	-	45	44	43	-	41	39	36	32	28	23	-	-	-	-	-	-	-
4SDX 5/12C	3,3	1,1	1,5		77	-	-	-	-	-	68	67	66	-	63	60	56	51	44	37	-	-	-	-	-	-	-
4SDX 5/17C	4,4	1,5	2		108	-	-	-	-	-	96	94	92	-	88	83	77	70	62	53	-	-	-	-	-	-	-
4SDX 5/21C	6,1	2,2	3		134	-	-	-	-	-	118	115	113	-	108	103	96	87	77	67	-	-	-	-	-	-	-
4SDX 5/25C	6,1	2,2	3		157	-	-	-	-	-	138	136	133	-	127	121	113	103	90	78	-	-	-	-	-	-	-
4SDX 5/33C	6,9	3	4		209	-	-	-	-	-	184	180	176	-	168	153	149	137	122	105	-	-	-	-	-	-	-
4SDX 5/38C	9,4	4	5,5		242	-	-	-	-	-	212	208	203	-	194	184	172	158	142	123	-	-	-	-	-	-	-
4SDX 5/44C	9,4	4	5,5		279	-	-	-	-	-	247	242	237	-	226	215	202	187	166	143	-	-	-	-	-	-	-
4SDX 5/52C	13,4	5,5	7,5		332	-	-	-	-	-	291	285	279	-	167	253	237	218	195	166	-	-	-	-	-	-	-
4SDX 8/5C	2,5	0,75	1		30	-	-	-	-	-	-	-	28	-	-	26	-	24	23	22	21	19	15	11	-	-	-
4SDX 8/7C	3,3	1,1	1,5		41	-	-	-	-	-	-	-	39	-	-	37	-	35	34	33	32	28	24	18	-	-	-
4SDX 8/10C	4,4	1,5	2		58	-	-	-	-	-	-	-	54	-	-	51	-	48	47	46	43	38	32	25	-	-	-
4SDX 8/12C	6,1	2,2	3		71	-	-	-	-	-	-	-	65	-	-	61	-	58	56	55	52	47	40	31	-	-	-
4SDX 8/15C	6,1	2,2	3		88	-	-	-	-	-	-	-	80	-	-	76	-	72	70	68	64	57	49	38	-	-	-
4SDX 8/18C	6,9	3	4		104	-	-	-	-	-	-	-	98	-	-	93	-	88	86	84	79	72	60	46	-	-	-
4SDX 8/21C	9,4	4	5,5		122	-	-	-	-	-	-	-	114	-	-	107	-	102	100	98	93	85	72	55	-	-	-
4SDX 8/25C	9,4	4	5,5		144	-	-	-	-	-	-	-	133	-	-	126	-	119	116	114	108	98	84	64	-	-	-
4SDX 8/30C	13,4	5,5	7,5		174	-	-	-	-	-	-	-	163	-	-	154	-	145	142	139	132	120	102	79	-	-	-
4SDX 8/37C	13,4	5,5	7,5		215	-	-	-	-	-	-	-	199	-	-	188	-	177	173	169	160	145	122	93	-	-	-
4SDX 8/44C	16,4	7,5	10		256	-	-	-	-	-	-	-	240	-	-	224	-	212	207	203	192	175	148	112	-	-	-
4SDX 8/50C	16,4	7,5	10		290	-	-	-	-	-	-	-	269	-	-	254	-	241	236	231	21	199	168	127	-	-	-
4SDX 12/5C	4,4	1,5	2		33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	31	30	29	28	26	22	16
4SDX 12/7C	6,1	2,2	3		46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44	43	42	40	38	36	30	20
4SDX 12/10C	6,9	3	4		65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	62	60	58	56	54	51	43	29
4SDX 12/13C	9,4	4	5,5		84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	78	77	74	71	67	56	38
4SDX 12/18C	13,4	5,5	7,5		117	-	-	-	-	-	-	-	-	-	-	-	-	-	-	111	108	104	102	97	93	77	54
4SDX 12/25C	16,4	7,5	10		163	-	-	-	-	-	-	-	-	-	-	-	-	-	-	154	149	145	141	135	129	107	75

P2: Rated motor power output.
H: Total head in m

SDX

Coverage chart n ≈ 2900 rpm

Single-phase

Model	230V	P2		P1	Q = Flow																							
					m³/h	0	0,3	0,6	0,9	1,2	1,5	1,8	2,1	2,4	2,7	3	3,6	4,2	4,8	5,4	6	7,2	8,4	9,6	10,8	12	15	18
					l/min		5	10	15	20	25	30	35	40	45	50	60	70	80	90	100	120	140	160	180	200	250	300
	A	kW	HP	kW	H (m) = Total head																							
4SDXM 1/9C	3,6	0,37	0,5	0,77		50	47	45	36	26	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDXM 1/14C	3,6	0,37	0,5	0,77		78	75	68	55	38	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDXM 1/18C	4,7	0,55	0,75	0,99		102	97	88	72	52	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDXM 1/21C	4,7	0,55	0,75	0,99		118	111	100	81	58	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDXM 1/28C	5,6	0,75	1	1,25		158	151	138	111	79	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDXM 1/36C	7,6	1,1	1,5	1,64		205	196	175	144	103	54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDXM 1/42C	7,6	1,1	1,5	1,64		238	227	203	168	118	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDXM 2/9C	3,6	0,37	0,5	0,77		52	-	-	48	45	42	38	33	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDXM 2/13C	4,7	0,55	0,75	0,99		76	-	-	68	64	59	53	46	37	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDXM 2/18C	5,6	0,75	1	1,25		104	-	-	94	89	82	74	63	51	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDXM 2/23C	7,6	1,1	1,5	1,64		136	-	-	124	117	109	98	85	69	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDXM 2/28C	10,7	1,5	2	2,26		166	-	-	153	144	134	121	105	85	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDXM 2/33C	10,7	1,5	2	2,26		196	-	-	182	172	159	143	124	101	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDXM 2/40C	14,6	2,2	3	3,12		235	-	-	217	205	190	170	47	119	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDXM 2/48C	14,6	2,2	3	3,12		280	-	-	261	246	227	205	178	144	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4SDXM 3/6C	3,6	0,37	0,5	0,77		38	-	-	-	-	33	32	31	30	28	26	21	14	-	-	-	-	-	-	-	-	-	-
4SDXM 3/9C	4,7	0,55	0,75	0,99		57	-	-	-	-	49	47	46	43	41	38	30	19	-	-	-	-	-	-	-	-	-	-
4SDXM 3/12C	5,6	0,75	1	1,25		77	-	-	-	-	66	64	62	58	56	52	42	28	-	-	-	-	-	-	-	-	-	-
4SDXM 3/15C	7,6	1,1	1,5	1,64		97	-	-	-	-	85	83	80	77	74	69	57	40	-	-	-	-	-	-	-	-	-	-
4SDXM 3/18C	7,6	1,1	1,5	1,64		116	-	-	-	-	101	97	94	90	85	80	67	45	-	-	-	-	-	-	-	-	-	-
4SDXM 3/22C	10,7	1,5	2	2,26		142	-	-	-	-	123	120	115	110	105	98	80	54	-	-	-	-	-	-	-	-	-	-
4SDXM 3/25C	10,7	1,5	2	2,26		160	-	-	-	-	139	134	129	123	117	110	90	61	-	-	-	-	-	-	-	-	-	-
4SDXM 3/29C	14,6	2,2	3	3,12		185	-	-	-	-	160	155	150	143	136	127	103	70	-	-	-	-	-	-	-	-	-	-
4SDXM 3/33C	14,6	2,2	3	3,12		211	-	-	-	-	183	177	171	164	155	145	118	80	-	-	-	-	-	-	-	-	-	-
4SDXM 5/4C	3,6	0,37	0,5	0,77		25	-	-	-	-	-	23	22	21	-	20	19	17	15	12	10	-	-	-	-	-	-	-
4SDXM 5/6C	4,7	0,55	0,75	0,99		38	-	-	-	-	-	34	33	32	-	30	28	26	23	20	16	-	-	-	-	-	-	-
4SDXM 5/8C	5,6	0,75	1	1,25		51	-	-	-	-	-	45	44	43	-	41	39	36	32	28	23	-	-	-	-	-	-	-
4SDXM 5/12C	7,6	1,1	1,5	1,64		77	-	-	-	-	-	68	67	66	-	63	60	56	51	44	37	-	-	-	-	-	-	-
4SDXM 5/17C	10,7	1,5	2	2,26		108	-	-	-	-	-	96	94	92	-	88	83	77	70	62	53	-	-	-	-	-	-	-
4SDXM 5/21C	14,6	2,2	3	3,12		134	-	-	-	-	-	118	115	113	-	108	103	96	87	77	67	-	-	-	-	-	-	-
4SDXM 5/25C	14,6	2,2	3	3,12		157	-	-	-	-	-	138	136	133	-	127	121	113	103	90	78	-	-	-	-	-	-	-
4SDXM 8/5C	5,6	0,75	1	1,25		30	-	-	-	-	-	-	-	28	-	-	26	-	24	23	22	21	19	15	11	-	-	-
4SDXM 8/7C	7,6	1,1	1,5	1,64		41	-	-	-	-	-	-	-	39	-	-	37	-	35	34	33	32	28	24	18	-	-	-
4SDXM 8/10C	10,7	1,5	2	2,26		58	-	-	-	-	-	-	-	54	-	-	51	-	48	47	46	43	38	32	25	-	-	-
4SDXM 8/12C	14,6	2,2	3	3,12		71	-	-	-	-	-	-	-	65	-	-	61	-	58	56	55	52	47	40	31	-	-	-
4SDXM 8/15C	14,6	2,2	3	3,12		88	-	-	-	-	-	-	-	80	-	-	76	-	72	70	68	64	57	49	38	-	-	-
4SDXM 12/5C	10,7	1,5	2	2,26		33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	31	30	29	28	26	22	16
4SDXM 12/7C	14,6	2,2	3	3,12		46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44	43	42	40	38	36	30	20

P1: Maximum power input.
P2: Rated motor power output.
H: Total head in m

SDX

Coverage chart n ≈ 2900 rpm

Three-phase

Model	P2		Q = Flow								
			m³/h	0	3	6	9	12	15	18	21	23
			l/min		50	100	150	200	250	300	350	383
	kW	HP	H (m) = Total head									
6SDX 16/1	0,55	0,75		12	12	11	11	10	8	7	6	4
6SDX 16/2	1,1	1,5		22	22	22	20	19	18	14	12	9
6SDX 16/3	2,2	3		32	32	32	30	28	25	21	17	13
6SDX 16/4	2,2	3		43	43	42	40	38	33	29	23	18
6SDX 16/5	3	4		53	53	52	51	48	43	37	29	22
6SDX 16/6	4	5,5		64	64	63	60	56	50	43	34	27
6SDX 16/7	4	5,5		75	75	74	70	66	59	51	40	32
6SDX 16/8	5,5	7,5		85	85	84	80	75	68	59	46	37
6SDX 16/9	5,5	7,5		97	97	95	91	85	77	65	51	42
6SDX 16/10	5,5	7,5		108	108	107	102	95	86	74	58	48
6SDX 16/11	7,5	10		119	119	118	113	105	94	80	63	52
6SDX 16/12	7,5	10		128	128	127	123	116	105	89	69	57
6SDX 16/13	7,5	10		141	141	139	133	124	112	95	75	60
6SDX 16/14	9,2	12,5		150	150	149	144	135	122	103	81	66
6SDX 16/15	9,2	12,5		162	162	160	155	145	130	110	86	71
6SDX 16/16	9,2	12,5		173	173	171	165	154	139	119	93	77
6SDX 16/17	9,2	12,5		184	184	182	175	163	147	126	100	80
6SDX 16/18	9,2	12,5		195	195	192	185	173	156	134	105	86
6SDX 16/19	11	15		204	204	202	194	181	163	139	110	91
6SDX 16/20	11	15		216	216	213	206	192	173	147	116	95
6SDX 16/21	11	15		227	227	224	216	201	182	155	122	100
6SDX 16/22	13	17,5		239	239	237	228	212	190	163	129	105
6SDX 16/23	13	17,5		250	250	247	237	222	200	171	134	109
6SDX 16/24	13	17,5		260	260	257	247	230	208	178	140	115
6SDX 16/25	15	20		270	270	267	257	240	217	185	145	119
6SDX 16/26	15	20		281	281	278	267	250	225	192	151	124
6SDX 16/27	15	20		291	291	288	277	259	234	200	158	128
6SDX 16/28	18,5	25		302	302	298	288	269	242	207	162	133
6SDX 16/29	18,5	25		314	314	311	300	279	250	215	170	138
6SDX 16/30	18,5	25		324	324	319	307	288	260	222	175	144
6SDX 16/31	18,5	25		335	335	330	318	298	269	230	181	148
6SDX 16/32	18,5	25		345	345	341	328	307	277	237	187	153
6SDX 16/33	18,5	25		355	355	350	337	315	285	243	191	157

P2: Rated motor power output.
H: Total head in m

SDX

Coverage chart n ≈ 2900 rpm

Three-phase

Model	P2		Q = Flow												
			m³/h	0	6	9	12	15	18	21	24	27	30	33	36	39
			l/min		100	150	200	250	300	350	400	450	500	550	600	650
	kW	HP	H (m) = Total head													
6SDX 28/1	1,1	1,5		11	11	11	10	10	10	9	9	8	8	7	6	5
6SDX 28/2	2,2	3		23	23	22	21	20	19	18	17	16	15	13	11	9
6SDX 28/3	3	4		33	33	32	31	30	29	28	26	24	22	20	17	14
6SDX 28/4	4	5,5		44	43	42	41	40	38	36	34	31	28	26	23	19
6SDX 28/5	5,5	7,5		56	55	54	52	50	48	45	43	40	37	34	29	25
6SDX 28/6	5,5	7,5		68	67	64	62	60	58	56	52	49	45	40	36	30
6SDX 28/7	7,5	10		79	77	76	74	71	68	65	61	56	52	46	40	34
6SDX 28/8	7,5	10		90	88	87	84	81	78	73	68	64	58	53	46	38
6SDX 28/9	9,2	12,5		101	100	98	95	91	87	82	77	72	66	60	53	45
6SDX 28/10	9,2	12,5		112	110	108	105	101	97	92	86	81	74	67	58	50
6SDX 28/11	11	15		124	122	120	117	112	108	102	97	90	83	76	67	57
6SDX 28/12	11	15		134	132	130	126	121	116	110	104	97	89	81	71	61
6SDX 28/13	11	15		146	143	140	137	132	127	120	113	105	97	87	77	66
6SDX 28/14	13	17,5		158	157	155	152	147	141	134	126	116	108	95	84	73
6SDX 28/15	15	20		170	168	166	162	157	150	142	134	124	113	102	90	77
6SDX 28/16	15	20		178	176	174	171	165	159	151	142	132	122	110	97	84
6SDX 28/17	15	20		190	188	185	180	173	167	158	148	138	127	116	103	88
6SDX 28/18	18,5	25		199	198	194	189	182	174	165	155	143	130	119	106	90
6SDX 28/19	18,5	25		210	208	205	199	192	182	172	161	150	137	125	110	94
6SDX 28/20	18,5	25		222	220	216	210	202	197	182	170	157	144	129	114	97
6SDX 28/21	18,5	25		232	230	226	220	212	202	190	177	164	149	134	117	100
6SDX 28/22	22	30		240	238	235	230	222	212	200	187	173	159	142	124	104
6SDX 28/23	22	30		250	248	245	239	231	221	209	196	182	167	150	131	110
6SDX 28/24	22	30		260	258	254	248	240	230	219	207	191	175	156	137	117
6SDX 28/25	22	30		278	276	272	265	256	245	233	219	203	187	166	145	122
6SDX 28/26	22	30		290	287	282	275	266	255	242	227	212	194	173	152	127
6SDX 28/27	26	35		302	298	293	286	277	265	253	238	221	202	181	157	132
6SDX 28/28	26	35		313	309	303	296	287	276	263	248	231	212	189	164	137
6SDX 28/29	26	35		325	319	314	307	298	287	273	257	240	220	196	170	143
6SDX 28/30	26	35		336	330	325	317	307	295	282	266	248	227	202	176	148
6SDX 28/31	26	35		347	340	335	327	317	305	291	275	256	234	209	183	154
6SDX 28/32	30	40		358	353	347	338	327	313	298	281	261	240	217	190	160
6SDX 28/33	30	40		367	362	356	347	336	322	307	289	270	248	223	196	166
6SDX 28/34	30	40		375	369	363	355	344	331	316	298	278	255	229	200	170
6SDX 28/35	30	40		388	382	377	368	358	346	329	311	290	267	240	211	180

P2: Rated motor power output.
H: Total head in m

SDX

Coverage chart n ≈ 2900 rpm

Three-phase

Model	P2		Q = Flow												
			m³/h	0	12	15	18	21	24	27	30	36	42	48	54	60
			l/min		200	250	300	350	400	450	500	600	700	800	900	1000
	kW	HP	H (m) = Total head													
6SDX 45/1	2,2	3		13	13	13	12	12	11	11	10	9	9	8	6	5
6SDX 45/2	3	4		25	24	24	23	23	22	21	20	18	17	15	12	9
6SDX 45/3	5,5	7,5		41	40	39	38	37	35	34	33	29	27	23	18	14
6SDX 45/4	7,5	10		54	53	51	49	48	46	44	42	39	36	31	26	19
6SDX 45/5	7,5	10		67	65	63	61	59	57	55	53	48	44	39	32	24
6SDX 45/6	9,2	12,5		80	78	76	74	71	69	66	63	59	54	48	39	29
6SDX 45/7	11	15		97	94	92	88	85	82	79	76	70	64	57	47	37
6SDX 45/8	13	17,5		110	107	104	101	97	94	90	86	79	73	64	54	42
6SDX 45/9	15	20		124	120	117	114	110	106	102	98	92	85	75	62	47
6SDX 45/10	15	20		138	133	130	127	122	117	112	107	98	90	80	67	53
6SDX 45/11	18,5	25		151	146	142	138	133	128	124	120	112	103	91	76	59
6SDX 45/12	18,5	25		163	158	155	150	145	140	135	130	120	110	98	83	64
6SDX 45/13	22	30		178	172	169	164	158	152	146	140	130	120	106	89	69
6SDX 45/14	22	30		193	187	183	177	171	164	158	151	140	129	115	97	75
6SDX 45/15	22	30		207	200	195	189	183	176	169	163	150	138	124	103	81
6SDX 45/16	26	35		220	214	209	203	196	189	182	174	162	149	134	113	90
6SDX 45/17	26	35		234	227	222	215	208	200	193	186	172	158	143	121	96
6SDX 45/18	30	40		248	240	235	229	221	213	204	196	182	168	150	127	101
6SDX 45/19	30	40		261	254	248	241	233	224	216	208	193	178	160	136	107
6SDX 45/20	30	40		275	267	262	255	246	238	228	219	203	187	167	142	112
6SDX 45/21	37	50		289	280	275	268	259	250	240	230	212	195	174	148	117
6SDX 45/22	37	50		302	294	288	280	270	260	251	241	222	203	183	155	123
6SDX 45/23	37	50		317	307	301	293	283	273	262	252	232	213	189	161	129
6SDX 45/24	37	50		332	325	317	309	298	287	276	265	244	223	199	171	140

P2: Rated motor power output.
H: Total head in m

SDX

Coverage chart n ≈ 2900 rpm

Three-phase

Model	P2		Q = Flow												
			m³/h	0	18	21	24	30	36	42	48	54	60	66	72	78
			l/min		300	350	400	500	600	700	800	900	1000	1100	1200	1300
	kW	HP	H (m) = Total head													
6SDX 60/1	2,2	3		14	13	13	12	11	10	8	7	6	5	4	2	1
6SDX 60/2	4	5,5		28	26	25	24	22	20	18	16	14	13	11	8	5
6SDX 60/3	5,5	7,5		42	40	39	38	36	32	28	26	24	21	18	14	10
6SDX 60/4	7,5	10		55	53	52	51	47	43	38	35	32	28	25	20	14
6SDX 60/5	9,2	12,5		69	67	66	64	60	55	50	46	42	38	33	27	19
6SDX 60/6	11	15		82	79	78	76	70	64	58	53	48	44	38	32	23
6SDX 60/7	13	17,5		98	94	92	89	84	77	70	64	59	54	47	40	29
6SDX 60/8	15	20		110	106	104	101	94	87	80	73	67	60	53	44	33
6SDX 60/9	18,5	25		126	122	118	116	108	99	91	83	76	69	61	51	38
6SDX 60/10	18,5	25		140	135	132	128	120	111	102	95	87	78	68	57	45
6SDX 60/11	22	30		153	148	146	142	132	122	112	103	95	89	76	64	49
6SDX 60/12	22	30		166	162	157	153	143	133	122	112	103	94	89	68	53
6SDX 60/13	26	35		179	176	169	165	155	143	132	121	110	100	87	73	57
6SDX 60/14	26	35		195	188	184	180	168	156	142	130	120	109	96	80	63
6SDX 60/15	26	35		210	203	197	193	180	166	152	138	127	116	103	86	67
6SDX 60/16	30	40		222	216	211	206	193	178	162	148	135	123	108	98	72
6SDX 60/17	37	50		239	230	226	220	207	192	175	158	145	132	116	97	78
6SDX 60/18	37	50		252	243	238	233	218	202	185	170	155	141	123	107	83
6SDX 60/19	37	50		263	254	249	243	228	210	193	177	163	148	131	110	86
6SDX 60/20	37	50		278	267	263	256	239	220	201	184	168	153	136	115	90
6SDX 60/21	37	50		292	281	276	269	252	232	211	194	177	161	142	120	95
6SDX 60/22	37	50		306	295	289	282	264	243	221	202	184	167	147	125	99

P2: Rated motor power output.
H: Total head in m

SDX

Coverage chart n ≈ 2900 rpm

Model	P2		Q = Flow									
			m³/h	0	8	10	12	15	18	21	24	27
			l/min		133	167	200	250	300	350	400	450
	kW	HP	H (m) = Total head									
6SDXL 18/6	4	5,5		70	66,4	64	62	57,6	51,6	43,2	32,9	20,5
6SDXL 18/7	5,5	7,5		81,7	77,5	74,7	72,3	67,2	60,2	50,4	38,4	23,9
6SDXL 18/8	5,5	7,5		93,3	88,5	85,3	82,7	76,8	68,8	57,6	43,9	27,4
6SDXL 18/9	5,5	7,5		105	99,6	96	93	86,4	77,4	64,8	49,4	30,8
6SDXL 18/10	7,5	10		117	111	107	103	96	86	72	54,9	34,2
6SDXL 18/11	7,5	10		128	122	117	114	106	94,6	79,2	60,4	37,6
6SDXL 18/12	7,5	10		140	133	128	124	115	103	86,4	65,8	41
6SDXL 18/13	9,2	12,5		152	144	139	134	125	112	93,6	71,3	44,5
6SDXL 18/14	9,2	12,5		163	155	149	145	134	120	101	76,8	47,9
6SDXL 18/15	9,2	12,5		175	166	160	155	144	129	108	82,3	51,3
6SDXL 18/16	11	15		187	177	171	165	154	138	115	87,8	54,7
6SDXL 18/17	11	15		198	188	181	176	163	146	122	93,3	58,1
6SDXL 18/18	11	15		210	199	192	186	173	155	130	98,8	61,6
6SDXL 18/19	13	17,5		222	210	203	196	182	163	137	104	65
6SDXL 18/20	13	17,5		233	221	213	207	192	172	144	110	68,4
6SDXL 18/21	13	17,5		245	232	224	217	202	181	151	115	71,8
6SDXL 18/22	15	20		257	243	235	227	211	189	158	121	75,2
6SDXL 18/23	15	20		268	254	245	238	221	198	166	126	78,7
6SDXL 18/24	15	20		280	266	256	248	230	206	173	132	82,1
6SDXL 18/25	18,5	25		292	277	267	258	240	215	180	137	85,5
6SDXL 18/26	18,5	25		303	288	277	269	250	224	187	143	88,9
6SDXL 18/27	18,5	25		315	299	288	279	259	232	194	148	92,3
6SDXL 18/28	18,5	25		327	310	299	289	269	241	202	154	95,8
6SDXL 18/29	18,5	25		338	321	309	300	278	249	209	159	99,2
6SDXL 18/30	18,5	25		350	332	320	310	288	258	216	165	103
6SDXL 18/31	22	30		362	343	331	320	298	267	223	170	106
6SDXL 18/32	22	30		373	354	342	331	307	275	230	176	109
6SDXL 18/33	22	30		385	365	352	341	317	284	238	181	113
6SDXL 18/34	22	30		397	376	363	351	326	292	245	187	116
6SDXL 18/35	22	30		408	387	373	362	336	301	252	192	120
6SDXL 18/36	22	30		420	443	427	413	384	344	288	220	137
6SDXL 18/37	26	35		432	409	395	382	355	318	266	203	127
6SDXL 18/38	26	35		443	420	405	393	365	327	274	209	130
6SDXL 18/39	26	35		455	432	416	403	374	335	281	214	133
6SDXL 18/40	30	40		467	443	427	413	384	344	288	220	137
6SDXL 18/41	26	35		478	454	437	424	394	353	295	225	140
6SDXL 18/42	26	35		490	465	448	434	403	361	302	230	144
6SDXL 18/43	30	40		502	476	459	444	413	370	310	236	147
6SDXL 18/44	30	40		513	487	469	455	422	378	317	241	151
6SDXL 18/45	30	40		525	498	480	465	432	387	324	247	154
6SDXL 18/46	30	40		537	509	491	475	442	396	331	252	157
6SDXL 18/47	30	40		548	520	501	486	451	404	338	258	161
6SDXL 18/48	30	40		560	531	512	496	461	413	346	263	164
6SDXL 18/49	30	40		572	542	523	506	470	421	353	269	168
6SDXL 18/50	37	50		583	553	533	517	480	430	360	274	171
6SDXL 18/51	37	50		595	564	544	527	490	439	367	280	174
6SDXL 18/52	37	50		607	575	555	537	499	447	374	285	178
6SDXL 18/53	37	50		618	586	565	548	509	456	382	291	181
6SDXL 18/54	37	50		630	598	576	558	518	464	389	296	185
6SDXL 18/55	37	50		642	609	587	568	528	473	396	302	188
6SDXL 18/56	37	50		653	620	597	579	538	482	403	307	192
6SDXL 18/57	37	50		665	631	608	589	547	490	410	313	195
6SDXL 18/58	37	50		677	642	619	599	557	499	418	318	198
6SDXL 18/59	37	50		688	653	629	610	566	507	452	324	202
6SDXL 18/60	37	50		700	664	640	620	576	516	432	329	205

P2: Rated motor power output.
H: Total head in m

SDX

Coverage chart n ≈ 2900 rpm

Three-phase

			Q = Flow								
			m³/h	0	15	20	25	30	35	40	45
Model	P2		l/min		250	333	417	500	583	667	750
	kW	HP	H (m) = Total head								
6SDXL 30/3	4	5,5		46,3	38,9	36	33,3	30,2	26,7	21,7	15,3
6SDXL 30/4	5,5	7,5		62,5	52,6	48,8	45,2	41,1	36,5	30	21,4
6SDXL 30/5	7,5	10		78,6	66,2	61,5	56,9	51,8	46,1	38	27,4
6SDXL 30/6	7,5	10		93,1	78,4	72,6	67,1	61	54	44,1	31,2
6SDXL 30/7	9,2	12,5		110	92,6	86	79,7	72,6	64,6	53,3	38,4
6SDXL 30/8	11	15		125	106	98,1	90,9	82,7	73,6	60,5	43,5
6SDXL 30/9	11	15		140	118	109	101	91,8	81,4	66,6	47,3
6SDXL 30/10	13	17,5		158	133	124	115	105	93,5	77,3	56,1
6SDXL 30/11	15	20		173	146	135	125	114	102	83,8	60,4
6SDXL 30/12	15	20		188	158	147	136	123	110	90	64,4
6SDXL 30/13	18,5	25		205	173	161	149	136	121	100	72,4
6SDXL 30/14	18,5	25		220	185	172	159	145	129	106	76,7
6SDXL 30/15	22	30		237	200	185	172	157	140	116	84
6SDXL 30/16	22	30		252	212	197	183	166	148	122	88,3
6SDXL 30/17	22	30		267	224	208	193	176	156	129	92,5
6SDXL 30/18	22	30		281	237	220	203	185	164	135	96,5
6SDXL 30/19	26	35		302	255	237	220	201	180	149	109
6SDXL 30/20	26	35		317	267	249	231	210	188	156	114
6SDXL 30/21	26	35		332	280	260	241	220	197	163	118
6SDXL 30/22	30	40		347	293	272	252	230	205	169	123
6SDXL 30/23	30	40		362	305	283	263	239	213	176	127
6SDXL 30/24	30	40		377	317	295	273	249	221	182	131
6SDXL 30/25	37	50		395	333	309	287	261	233	193	140
6SDXL 30/26	37	50		410	345	321	297	271	242	200	144
6SDXL 30/27	37	50		425	358	332	308	280	250	206	149
6SDXL 30/28	37	50		440	370	344	318	290	258	212	153
6SDXL 30/29	37	50		454	383	355	329	299	266	219	157
6SDXL 30/30	37	50		469	395	366	339	308	274	225	161
6SDXL 30/31	45	60		490	413	384	356	324	289	239	174
6SDXL 30/32	45	60		505	425	395	366	334	298	246	178
6SDXL 30/33	45	60		520	438	407	377	343	306	252	182
6SDXL 30/34	45	60		535	450	418	387	353	314	259	186
6SDXL 30/35	45	60		549	463	429	398	362	322	265	190
6SDXL 30/36	45	60		564	475	441	408	371	330	271	194
6SDXL 30/37	45	60		579	487	452	418	380	338	277	198
6SDXL 30/38	51	70		613	517	482	448	410	369	309	229
6SDXL 30/39	51	70		628	530	494	459	420	378	316	234
6SDXL 30/40	51	70		644	543	506	471	430	387	323	240
6SDXL 30/41	51	70		659	557	518	482	440	396	330	245
6SDXL 30/42	55	75		675	569	530	493	450	404	338	250
6SDXL 30/43	55	75		690	582	542	504	460	413	345	255

P2: Rated motor power output.
H: Total head in m

SDX

Coverage chart n ≈ 2900 rpm

Model	P2		Q = Flow									
			m³/h	0	25	30	35	40	45	50	55	60
			l/min		417	500	583	667	750	833	917	1000
	kW	HP	H (m) = Total head									
6SDXL 46/2	3	4		26,4	22,6	20,9	19,3	17,8	16,6	15,1	13,4	11,3
6SDXL 46/3	4	5,5		39,4	33,8	31,2	28,8	26,6	24,7	22,5	19,9	16,8
6SDXL 46/4	5,5	7,5		52,5	45	41,5	38,3	35,5	32,9	29,9	26,5	22,3
6SDXL 46/5	7,5	10		66,1	56,8	52,3	48,3	44,7	41,5	37,8	33,6	28,4
6SDXL 46/6	9,2	12,5		80,7	70	65,2	60,4	55,5	50,3	46	41,6	35,7
6SDXL 46/7	9,2	12,5		93,1	80,4	74,8	69,3	63,5	57,6	52,7	47,5	40,5
6SDXL 46/8	11	15		106	91,6	85,1	78,9	72,2	65,5	59,9	54	46
6SDXL 46/9	13	17,5		121	105	98,2	91	83,7	75,9	69,5	62,9	54,1
6SDXL 46/10	13	17,5		134	116	108	100	91,9	83,3	76,2	68,9	59
6SDXL 46/11	15	20		146	126	118	109	99,9	90,5	82,8	74,7	63,7
6SDXL 46/12	18,5	25		161	140	130	12	111	101	92	83,3	71,4
6SDXL 46/13	18,5	25		174	150	140	130	119	108	98,7	89,2	76,3
6SDXL 46/14	18,5	25		186	161	149	139	127	115	105	95	81
6SDXL 46/15	22	30		201	174	162	150	138	125	114	103	88,4
6SDXL 46/16	22	30		213	184	171	159	146	132	121	109	93,2
6SDXL 46/17	22	30		225	195	181	168	154	139	127	115	97,8
6SDXL 46/18	26	35		244	212	198	183	169	153	140	127	109
6SDXL 46/19	26	35		257	223	208	192	177	160	147	133	114
6SDXL 46/20	30	40		269	234	218	208	185	168	154	139	119
6SDXL 46/21	30	40		282	244	227	211	193	175	160	145	124
6SDXL 46/22	30	40		294	255	237	220	202	183	167	151	129
6SDXL 46/23	30	40		307	265	247	229	209	190	174	157	134
6SDXL 46/24	37	50		322	280	260	241	222	201	184	166	143
6SDXL 46/25	37	50		335	290	270	250	230	208	191	172	147
6SDXL 46/26	37	50		347	301	280	259	238	216	197	178	152
6SDXL 46/27	37	50		360	311	289	268	246	223	204	184	157
6SDXL 46/28	37	50		372	321	299	277	254	230	210	190	162
6SDXL 46/29	45	60		390	339	315	292	268	243	223	201	173
6SDXL 46/30	45	60		403	349	325	301	276	251	229	207	178
6SDXL 46/31	45	60		415	360	334	310	284	258	236	213	183
6SDXL 46/32	45	60		427	370	344	319	292	265	243	219	187
6SDXL 46/33	45	60		440	380	353	328	300	272	249	225	192
6SDXL 46/34	51	70		469	411	383	355	328	298	272	248	216
6SDXL 46/35	51	70		482	422	394	365	337	306	279	255	221
6SDXL 46/36	51	70		496	434	404	374	346	314	287	261	227
6SDXL 46/37	51	70		509	445	415	384	355	322	294	268	233
6SDXL 46/38	55	75		522	456	425	394	364	330	302	275	238
6SDXL 46/39	55	75		535	467	436	403	372	338	309	281	244
6SDXL 46/40	55	75		548	479	446	413	381	346	316	288	249

P2: Rated motor power output.
H: Total head in m

SDX

Coverage chart n ≈ 2900 rpm

Model	P2		Q = Flow										
			m³/h	0	35	40	45	50	55	60	65	70	75	80
			l/min		583	667	750	833	917	1000	1083	1167	1250	1333
	kW	HP	H (m) = Total head											
6SDXL 65/2	4	5,5		26,8	21,1	19	17,3	16,5	15,7	14,9	13,9	12,4	10,5	8,2
6SDXL 65/3	5,5	7,5		40,4	31,8	28,8	26,2	24,9	23,7	22,5	21	18,9	16	12,6
6SDXL 65/4	7,5	10		54	42,5	38,4	35	33,2	31,6	30,1	28	25,2	21,4	16,9
6SDXL 65/5	9,2	12,5		68	53,8	48,7	44,3	41,9	40,1	38,2	35,6	32,2	27,5	22
6SDXL 65/6	11	15		81,2	64	57,9	52,7	50	47,7	45,3	42,3	38,1	32,3	25,7
6SDXL 65/7	13	17,5		94,9	76,2	70,1	65,2	61,7	58,6	55,7	52,1	46,1	39,7	33,4
6SDXL 65/8	15	20		108	86	79,1	73,5	69,7	66,1	62,8	58,5	51,6	44,3	37
6SDXL 65/9	15	20		120	95,5	87,8	81,5	77,4	73,4	69,6	64,6	56,8	48,6	40,2
6SDXL 65/10	18,5	25		134	108	99	91,9	87,2	82,7	78,5	73,2	64,6	55,5	46,3
6SDXL 65/11	18,5	25		147	117	108	100	95	90	85,4	79,4	69,8	59,9	49,6
6SDXL 65/12	22	30		161	129	118	110	104	99,1	94,1	87,6	77,3	66,3	55,3
6SDXL 65/13	22	30		174	138	127	118	112	106	101	93,8	82,5	70,8	58,6
6SDXL 65/14	26	35		190	153	141	131	124	118	112	105	93	80,2	67,7
6SDXL 65/15	26	35		203	163	150	140	132	126	119	111	98,7	85	71,5
6SDXL 65/16	30	40		216	173	159	148	140	133	126	118	104	89,7	75,2
6SDXL 65/17	30	40		-	183	168	156	148	141	133	124	110	94,3	78,8
6SDXL 65/18	37	50		243	195	180	167	158	150	143	133	118	101	85,2
6SDXL 65/19	37	50		256	205	189	175	166	158	150	140	123	106	88,9
6SDX6 65/20	37	50		269	215	198	184	174	165	157	146	129	111	92,4
6SDXL 65/21	37	50		281	225	206	192	182	173	164	152	134	115	95,7
6SDXL 65/22	45	60		298	239	220	204	194	184	175	163	144	124	104
6SDXL 65/23	45	60		310	249	229	213	202	191	182	170	150	129	108
6SDXL 65/24	45	60		323	259	238	221	209	199	189	176	155	133	111
6SDXL 65/25	45	60		336	268	247	229	217	206	196	182	161	138	115
6SDXL 65/26	45	60		348	278	255	237	225	213	202	188	166	142	118
6SDXL 65/27	51	70		373	303	279	259	245	233	222	208	186	162	137
6SDXL 65/28	51	70		386	313	288	268	253	241	229	216	193	167	142
6SDXL 65/29	51	70		399	324	298	277	262	249	237	223	199	172	146
6SDXL 65/30	55	75		413	334	308	286	270	258	245	230	205	177	151
6SDXL 65/31	55	75		426	345	317	295	279	265	252	237	211	183	155

P2: Rated motor power output.
H: Total head in m

SDX

Coverage chart n ≈ 2900 rpm

Model		P2		Q = Flow								
				m³/h	0	30	40	50	60	70	80	90	100
				l/min		500	667	833	1000	1167	1333	1500	1667
		kW	HP	H (m) = Total head									
8SDXL	8SDX 78/2	7,5	10		39,9	37,1	34,9	32,6	29,7	27,1	24,3	20,4	16,3
8SDXL	8SDX 78/3	11	15		59,8	55,7	52,3	48,9	44,6	40,7	36,4	30,6	24,4
8SDXL	8SDX 78/4	15	20		79,7	74,3	69,7	65,1	59,4	54,3	48,6	40,9	32,6
8SDXL	8SDX 78/5	18,5	25		99,6	92,9	87,1	81,4	74,3	67,9	60,7	51,1	40,7
8SDXL	8SDX 78/6	22	30		120	111	105	97,7	89,1	81,4	72,9	61,3	48,9
8SDXL	8SDX 78/7	26	35		140	130	122	114	104	95	85	71,5	57
8SDXL	8SDX 78/8	30	40		156	146	138	128	117	107	94,5	80	63,3
8SDXL	8SDX 78/9	37	50		176	164	155	144	132	120	106	90	71,2
8SDXL	8SDX 78/10	37	50		195	183	173	160	147	134	118	100	79,1
8SDXL	8SDX 78/11	45	60		215	201	190	176	162	147	130	110	87
8SDXL	8SDX 78/12	45	60		248	232	218	203	187	171	154	130	105
8SDXL	8SDX 78/13	51	70		268	251	237	220	203	185	166	141	114
8SDXL	8SDX 78/14	51	70		289	271	255	237	218	200	179	152	122
8SDXL	8SDX 78/15	55	75		310	290	273	254	234	214	192	163	131
8SDXL	8SDX 78/16	59	80		332	312	293	274	252	232	206	176	143
8SDXL	8SDX 78/17	66	90		353	332	311	292	268	247	219	187	152
8SDXL	8SDX 78/18	66	90		374	351	329	309	284	261	232	198	161
8SDXL	8SDX 78/19	75	100		394	371	348	326	299	276	245	209	170
8SDXL	8SDX 78/20	75	100		415	390	366	343	315	290	258	220	179
8SDXL	8SDX 78/21	75	100		436	409	385	361	331	304	271	231	187
8SDXL	8SDX 78/22	92	125		457	428	403	378	347	318	284	242	196
8SDXL	8SDX 78/23	92	125		478	448	422	395	363	333	297	253	205
8SDXL	8SDX 78/24	92	125		499	467	440	412	379	347	310	264	214

P2: Rated motor power output.
H: Total head in m

SDX

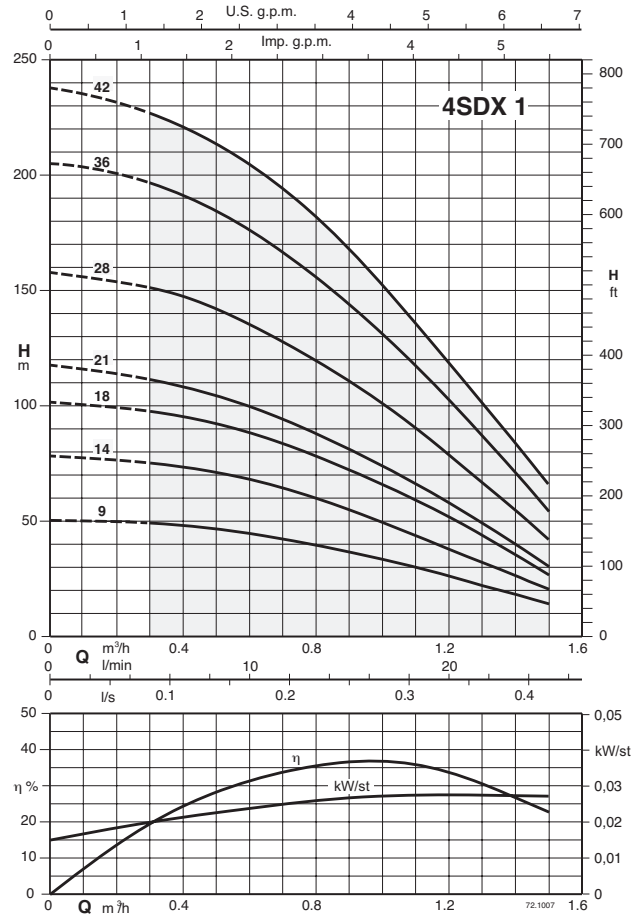
Coverage chart n ≈ 2900 rpm

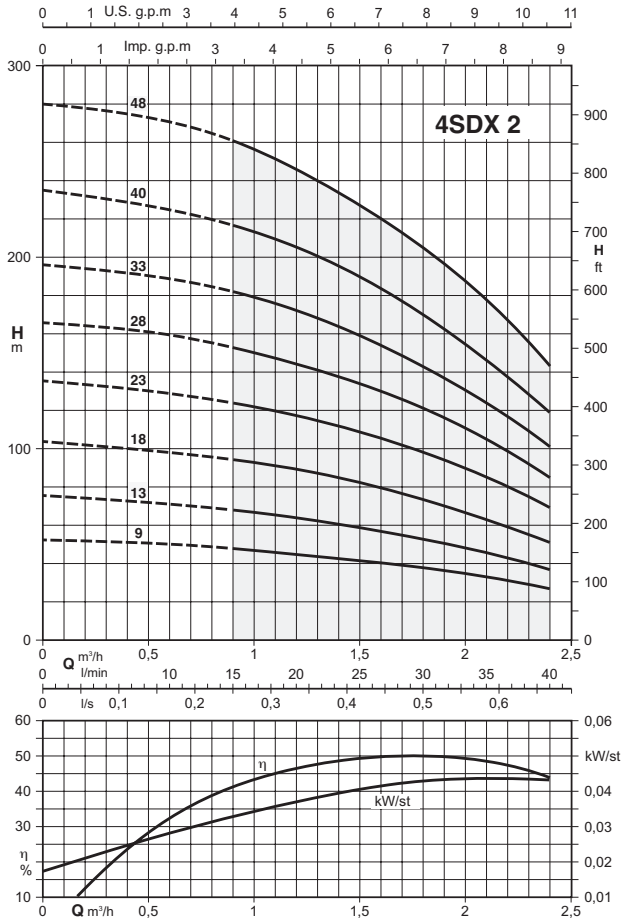
Model		P2		Q = Flow										
				m³/h	0	40	50	60	70	80	90	100	110	120
				l/min		667	833	1000	1167	1333	1500	1667	1833	2000
		kW	HP	H (m) = Total head										
8SDXL	8SDX 97/2	9,2	12,5		41,2	38,6	35,2	32,2	29,8	27,8	24,8	21,8	18,6	14,8
8SDXL	8SDX 97/3	13	17,5		61,8	57,9	52,8	48,3	44,7	41,7	37,2	32,7	27,9	22,2
8SDXL	8SDX 97/4	18,5	25		82,4	77,2	70,4	64,4	59,6	55,6	49,6	43,6	37,2	29,6
8SDXL	8SDX 97/5	22	30		103	96,5	88	80,5	74,5	69,5	62	54,5	46,5	37
8SDXL	8SDX 97/6	26	35		125	113	105	96,7	89	82,7	75	66,3	55	44
8SDXL	8SDX 97/7	30	40		146	132	123	113	104	96,4	87,5	77,4	64,2	51,3
8SDXL	8SDX 97/8	37	50		167	151	140	129	119	110	100	88,4	73,3	58,7
8SDXL	8SDX 97/9	37	50		188	170	158	145	134	124	113	99,5	82,5	66
8SDXL	8SDX 97/10	45	60		219	200	185	172	158	147	135	119	102	83,1
8SDXL	8SDX 97/11	51	70		241	220	204	189	174	162	149	131	112	91,4
8SDXL	8SDX 97/12	51	70		263	240	222	206	190	176	162	143	122	99,7
8SDXL	8SDX 97/13	55	75		285	260	241	223	206	191	176	155	132	108
8SDXL	8SDX 97/14	59	80		309	281	262	242	224	208	191	169	144	120
8SDXL	8SDX 97/15	66	90		331	302	279	261	240	222	205	182	156	129
8SDXL	8SDX 97/16	75	100		353	322	298	278	256	237	219	194	166	138
8SDXL	8SDX 97/17	75	100		375	342	317	295	272	251	233	206	176	147
8SDXL	8SDX 97/18	92	125		397	362	335	313	288	266	246	218	187	155
8SDXL	8SDX 97/19	92	125		419	382	354	330	304	281	260	230	197	164
8SDXL	8SDX 97/20	92	125		440	403	374	348	322	298	274	244	209	173
8SDXL	8SDX 97/21	92	125		462	424	393	365	338	313	288	257	219	182
8SDXL	8SDX 97/22	110	150		484	444	411	383	354	328	301	269	230	190
8SDXL	8SDX 97/23	110	150		507	464	430	400	370	343	315	281	240	199

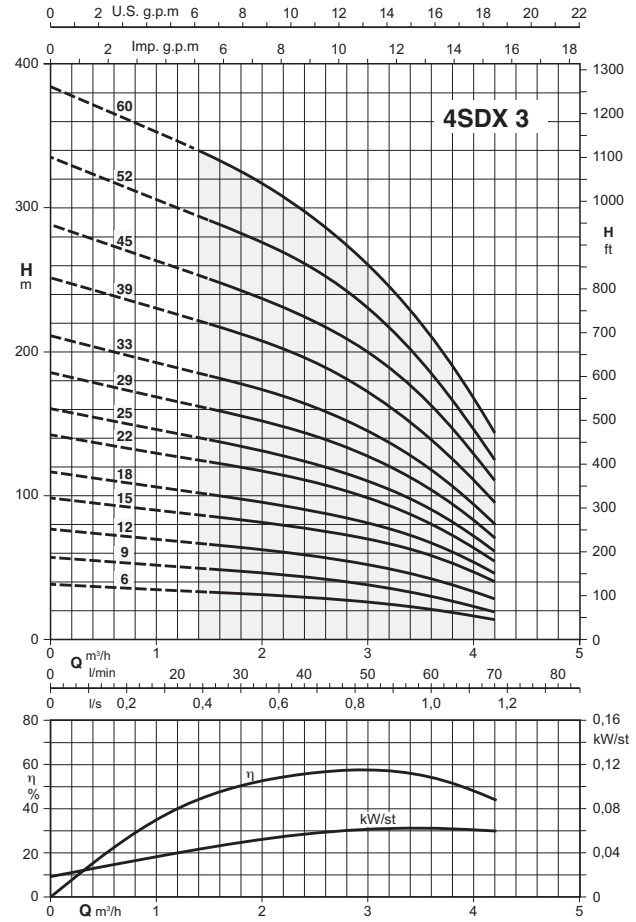
P2: Rated motor power output.
H: Total head in m

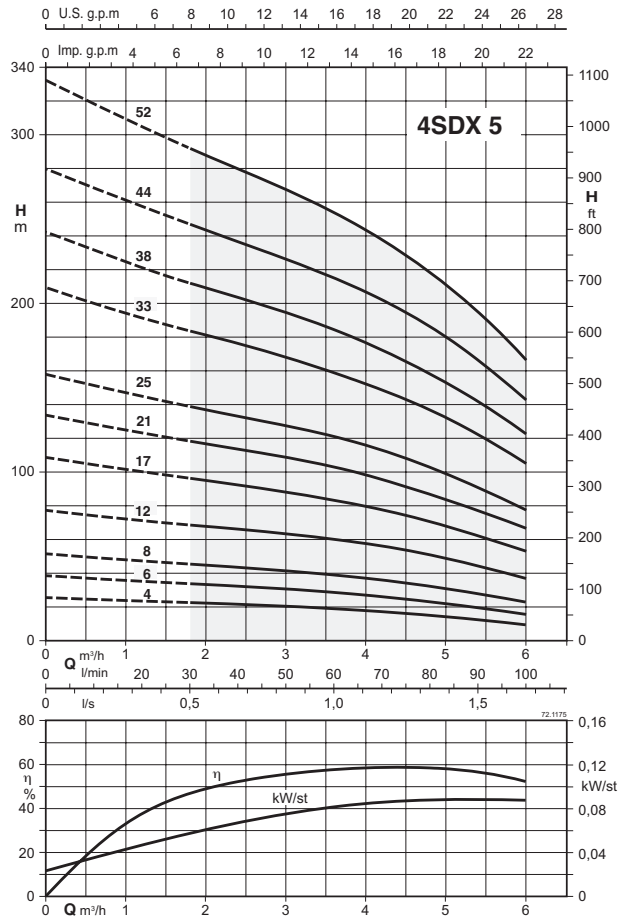
SDX

Coverage chart n ≈ 2900 rpm



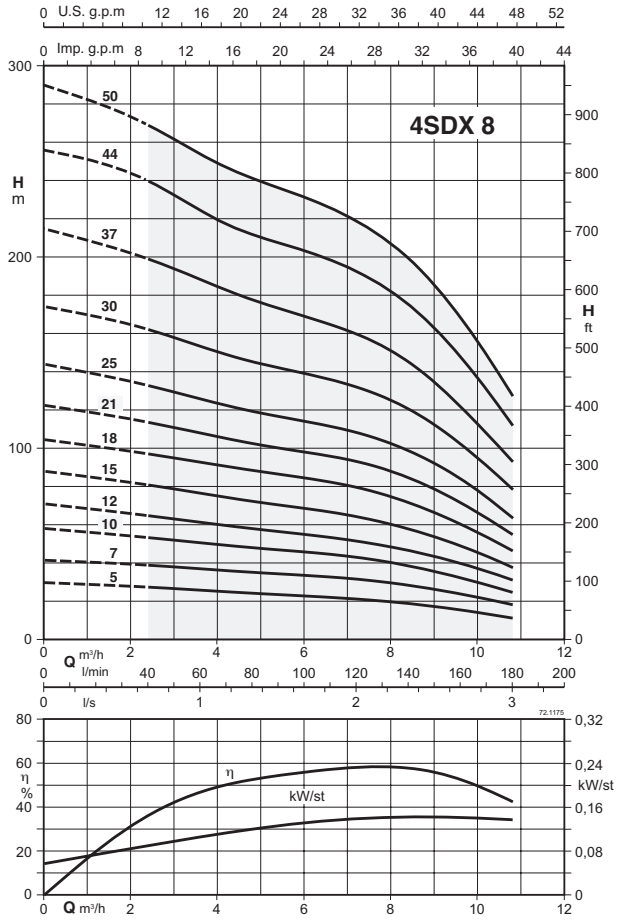


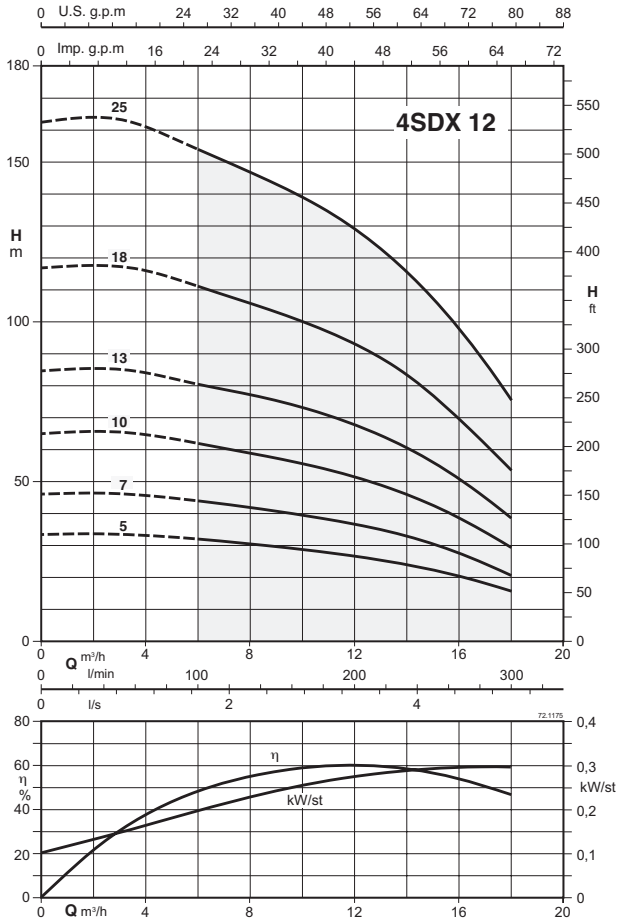




SDX

Coverage chart n ≈ 2900 rpm

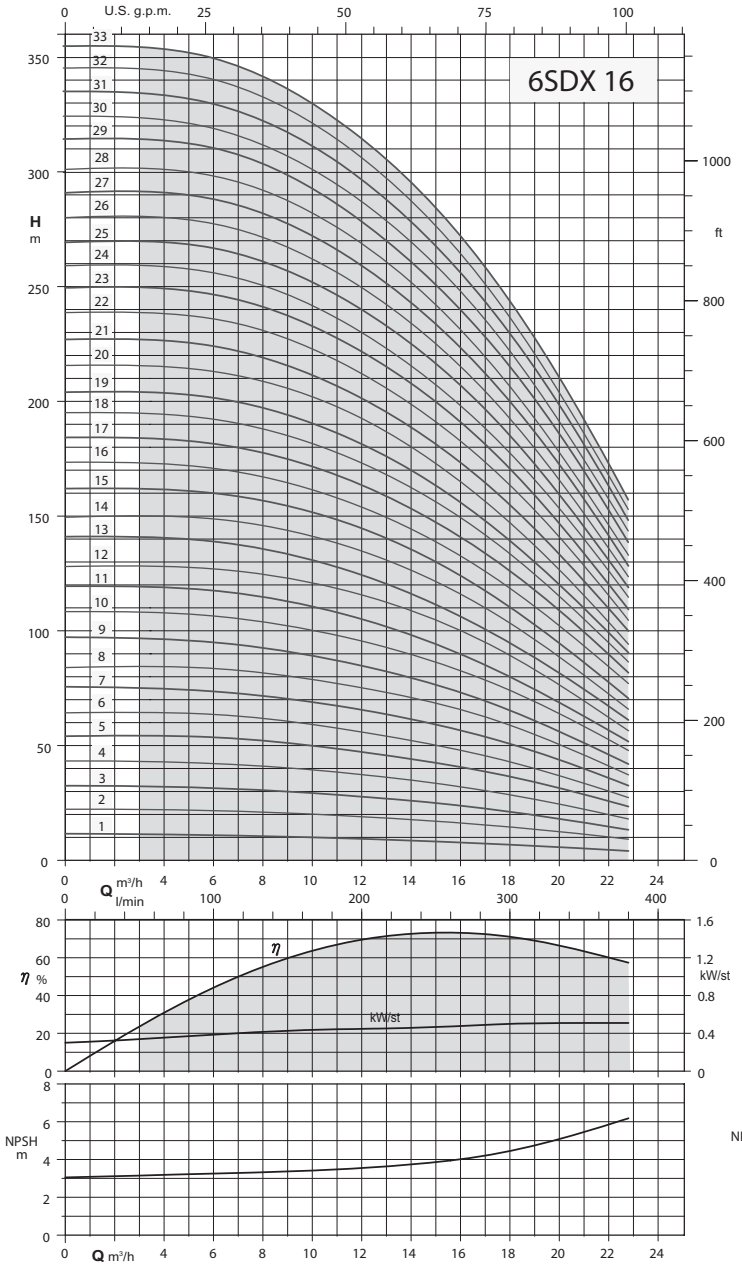


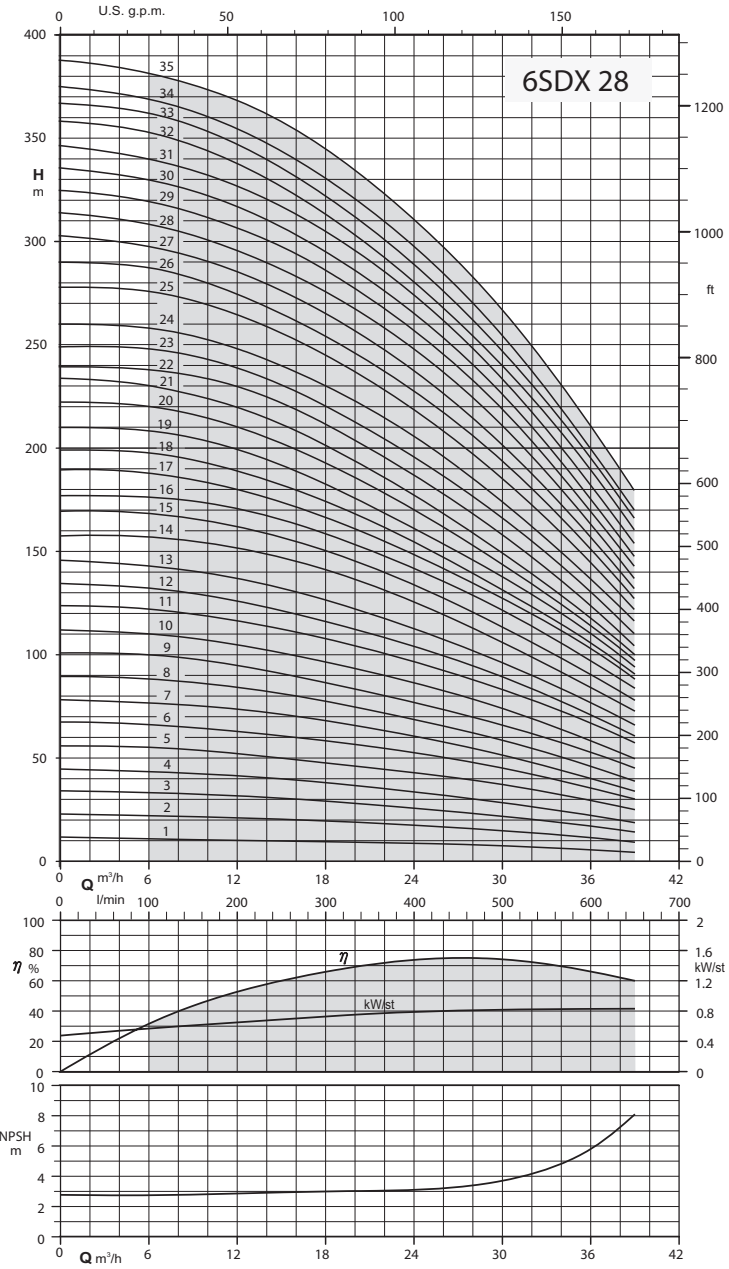


translation_not_found Pumps for specific applications with high sand content

SDX

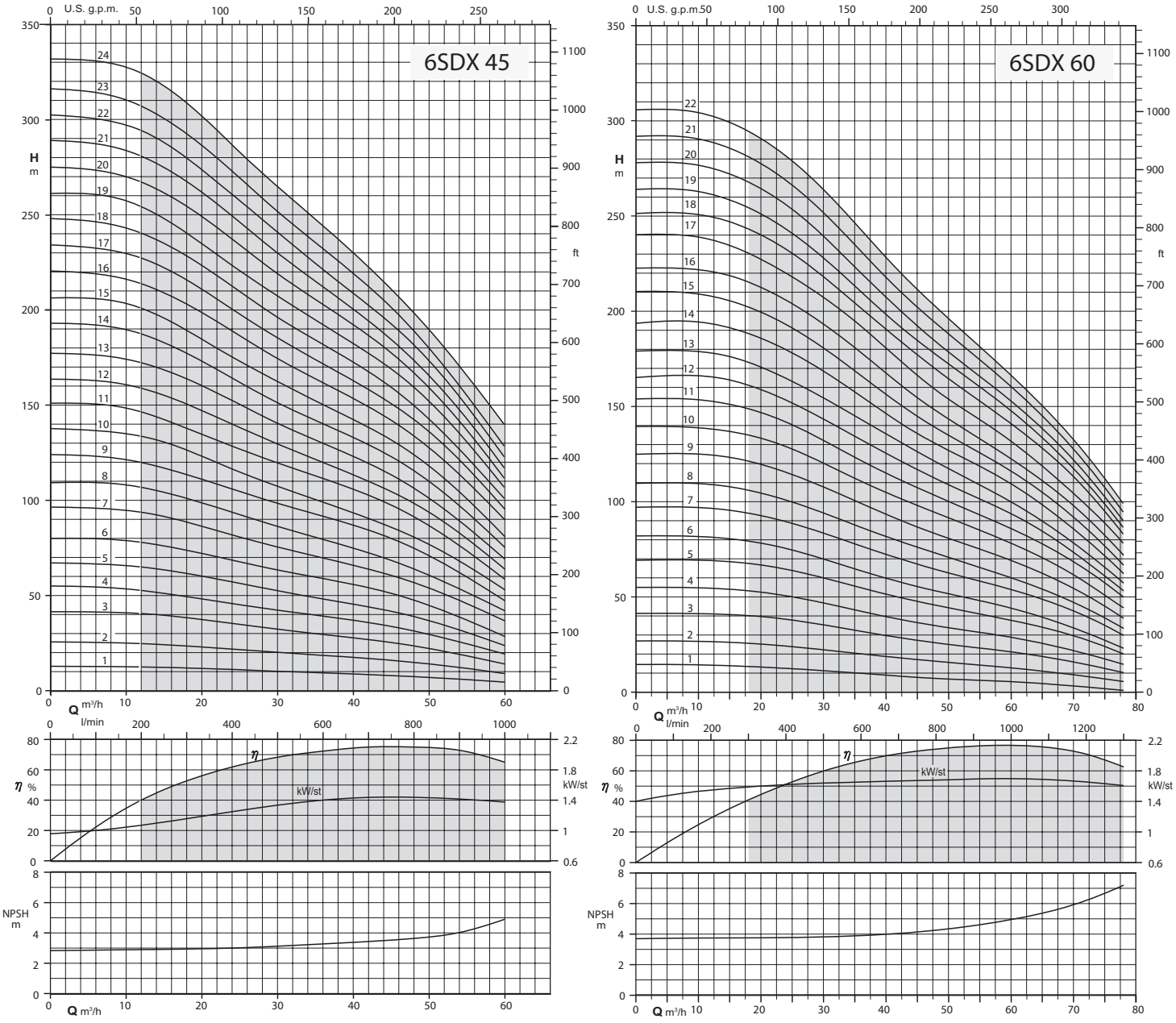
Coverage chart n ≈ 2900 rpm





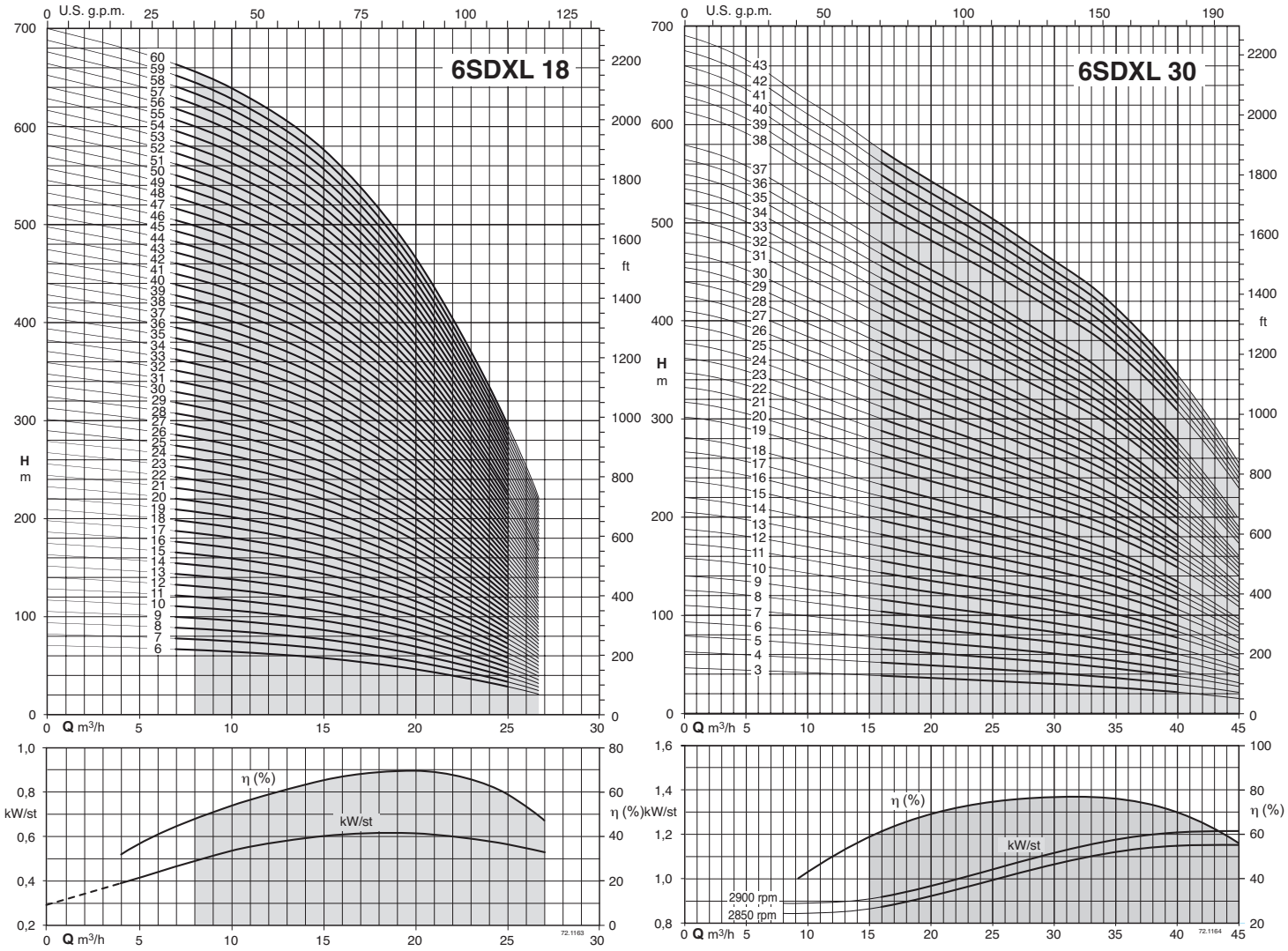
SDX

Coverage chart n ≈ 2900 rpm



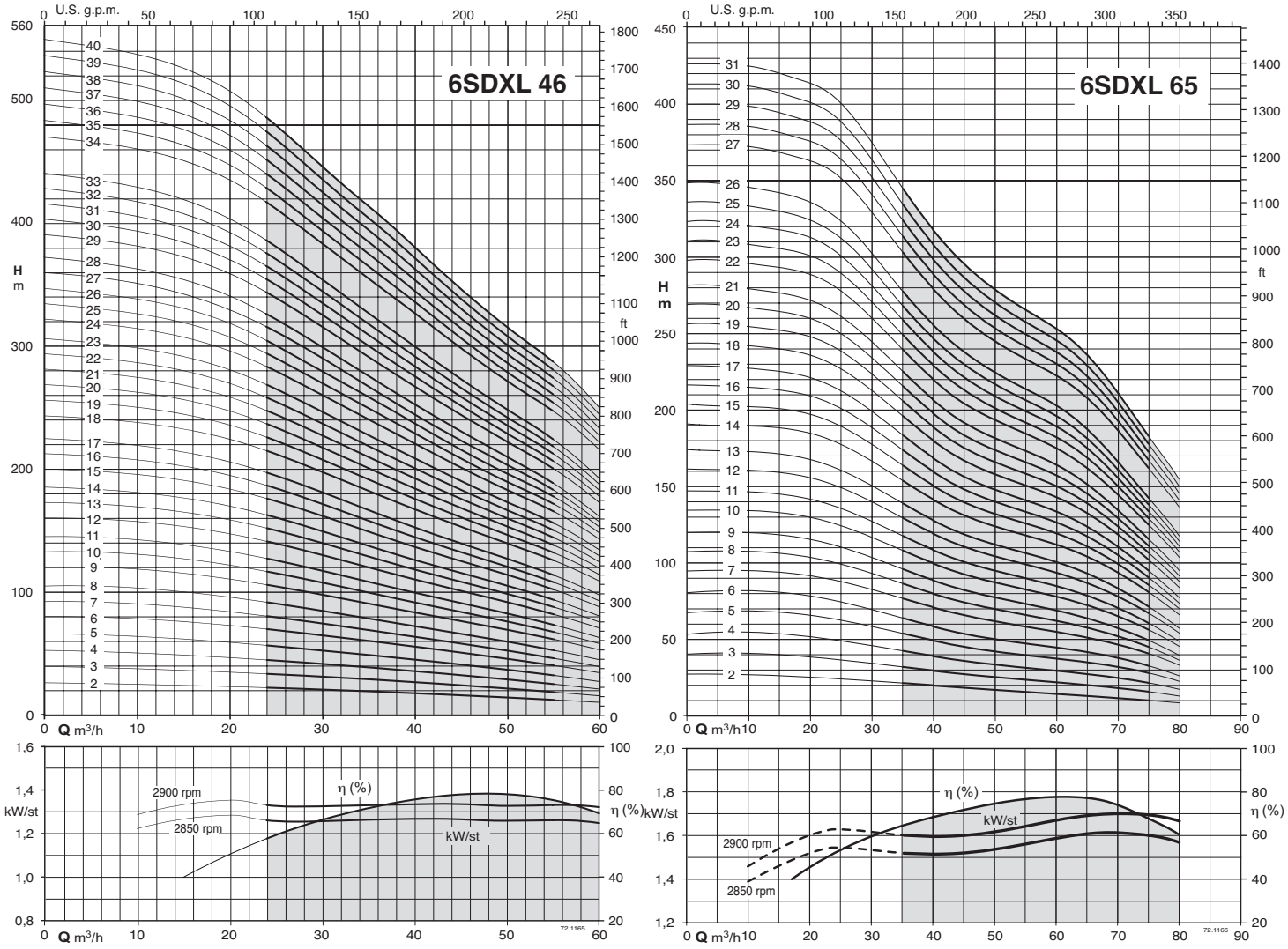
SDX

Coverage chart n ≈ 2900 rpm



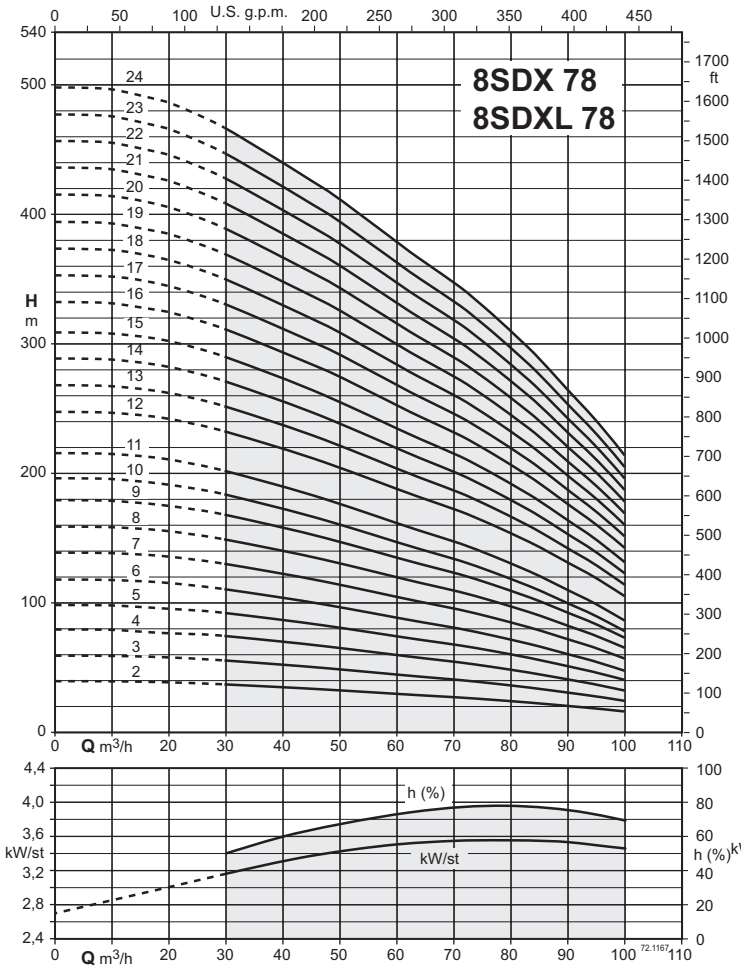
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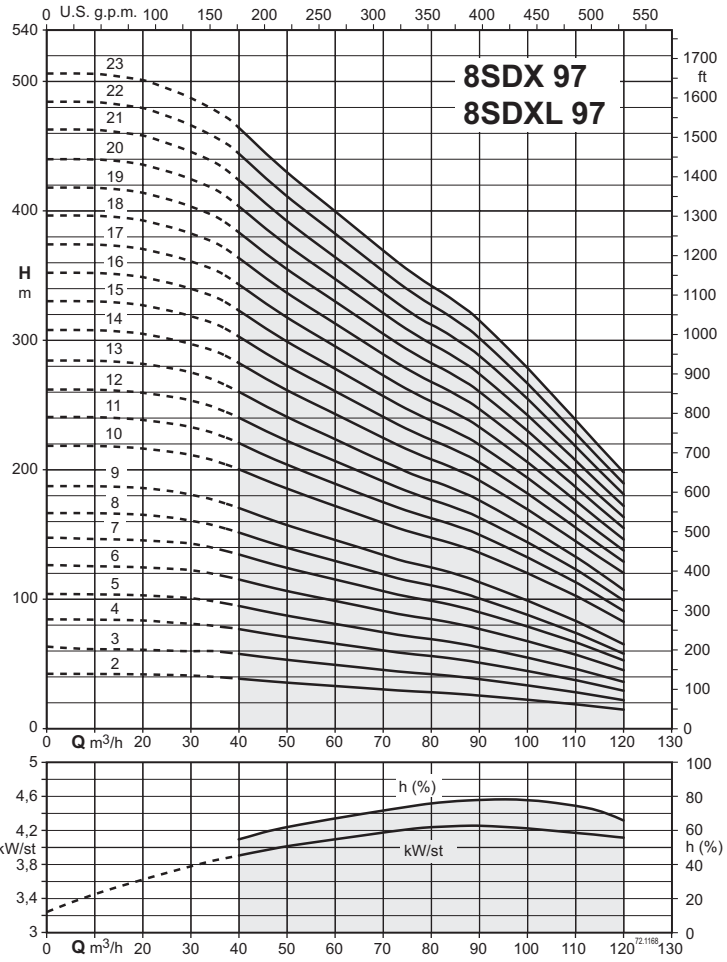
Coverage chart n ≈ 2900 rpm



SDX

Coverage chart n ≈ 2900 rpm

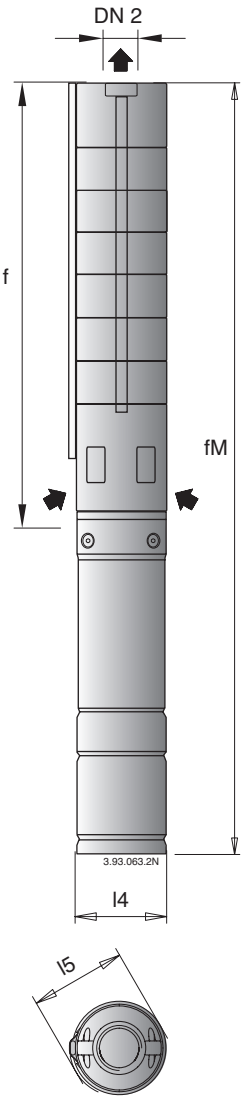




SDX

Dimensions and weights

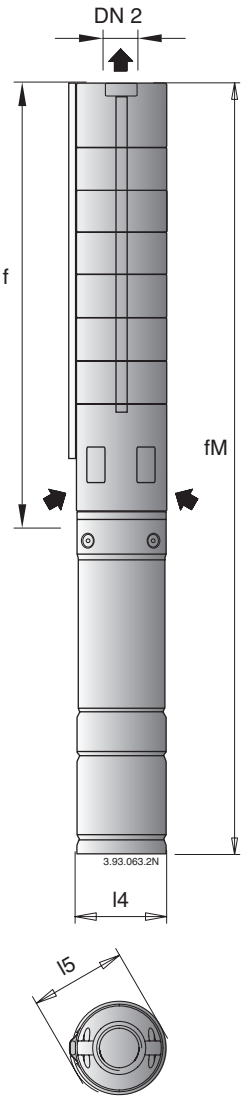
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	DN2	f	fM	l4	l5	Weight
4SDX 1/9C	Rp 1 1/4"	356	667.3	4"	98	-
4SDX 1/14C	Rp 1 1/4"	461	772.3	4"	98	-
4SDX 1/18C	Rp 1 1/4"	545	876.4	4"	98	-
4SDX 1/21C	Rp 1 1/4"	608	939.4	4"	98	-
4SDX 1/28C	Rp 1 1/4"	755	1111.4	4"	98	-
4SDX 1/36C	Rp 1 1/4"	946	1317.4	4"	98	-
4SDX 1/42C	Rp 1 1/4"	1072	1443.4	4"	98	-
4SDX 2/9C	Rp 1 1/4"	356	667.3	4"	98	-
4SDX 2/13C	Rp 1 1/4"	440	771.4	4"	98	-
4SDX 2/18C	Rp 1 1/4"	545	901.4	4"	98	-
4SDX 2/23C	Rp 1 1/4"	650	1021.4	4"	98	-
4SDX 2/28C	Rp 1 1/4"	755	1151.4	4"	98	-
4SDX 2/33C	Rp 1 1/4"	883	1279.4	4"	98	-
4SDX 2/40C	Rp 1 1/4"	1030	1466.5	4"	98	-
4SDX 2/48C	Rp 1 1/4"	1198	1634.5	4"	98	-
4SDX 3/6C	Rp 1 1/4"	293	604.3	4"	98	-
4SDX 3/9C	Rp 1 1/4"	356	687.4	4"	98	-
4SDX 3/12C	Rp 1 1/4"	419	775.4	4"	98	-
4SDX 3/15C	Rp 1 1/4"	482	853.4	4"	98	-
4SDX 3/18C	Rp 1 1/4"	545	916.4	4"	98	-
4SDX 3/22C	Rp 1 1/4"	629	1025.4	4"	98	-
4SDX 3/25C	Rp 1 1/4"	692	1088.4	4"	98	-
4SDX 3/29C	Rp 1 1/4"	776	1212.5	4"	98	-
4SDX 3/33C	Rp 1 1/4"	883	1319.5	4"	98	-
4SDX 3/39C	Rp 1 1/4"	1009	1459	4"	98	-
4SDX 3/45C	Rp 1 1/4"	1135	1585	4"	98	-
4SDX 3/52C	Rp 1 1/4"	1282	1787	4"	98	-
4SDX 3/60C	Rp 1 1/4"	1450	1955	4"	98	34.5
4SDX 5/4C	Rp 1 1/2"	251	562.3	4"	98	-
4SDX 5/6C	Rp 1 1/2"	293	624.4	4"	98	-
4SDX 5/8C	Rp 1 1/2"	335	691.4	4"	98	-
4SDX 5/12C	Rp 1 1/2"	419	790.4	4"	98	-
4SDX 5/17C	Rp 1 1/2"	524	920.4	4"	98	-
4SDX 5/21C	Rp 1 1/2"	608	1044.5	4"	98	-
4SDX 5/25C	Rp 1 1/2"	392	828.5	4"	98	18.5
4SDX 5/33C	Rp 1 1/2"	868	1318	4"	98	-
4SDX 5/38C	Rp 1 1/2"	973	1478	4"	98	-
4SDX 5/44C	Rp 1 1/2"	1099	1604	4"	98	-
4SDX 5/52C	Rp 1 1/2"	1267	1856	4"	98	36.9
4SDX 8/5C	Rp 2"	412	768.4	4"	98	-
4SDX 8/7C	Rp 2"	496	867.4	4"	98	-
4SDX 8/10C	Rp 2"	622	1018.4	4"	98	-
4SDX 8/12C	Rp 2"	706	1142.5	4"	98	-
4SDX 8/15C	Rp 2"	832	1268.5	4"	98	21.4
4SDX 8/18C	Rp 2"	958	1408	4"	98	-
4SDX 8/21C	Rp 2"	1084	1589	4"	98	-
4SDX 8/25C	Rp 2"	1252	1757	4"	98	-
4SDX 8/30C	Rp 2"	1462	2051	4"	98	-
4SDX 8/37C	Rp 2"	1753	2342	4"	98	39
4SDX 8/44C	Rp 2"	2047	2847	4"	98	-
4SDX 8/50C	Rp 2"	2299	3099	4"	98	-
4SDX 12/5C	Rp 2"	505	901.4	4"	98	-
4SDX 12/7C	Rp 2"	635	1071.5	4"	98	-
4SDX 12/10C	Rp 2"	830	1280	4"	98	22.3
4SDX 12/13C	Rp 2"	1025	1530	4"	98	-
4SDX 12/18C	Rp 2"	1350	1939	4"	98	36
4SDX 12/25C	Rp 2"	1805	2605	4"	98	-



SDX

Dimensions and weights

TYPE		mm				kg
	DN2	f	fM	l4	l5	Weight
4SDXM 1/9C	Rp 1 1/4"	356	667.3	4"	98	-
4SDXM 1/14C	Rp 1 1/4"	461	772.3	4"	98	-
4SDXM 1/18C	Rp 1 1/4"	545	876.4	4"	98	-
4SDXM 1/21C	Rp 1 1/4"	608	939.4	4"	98	-
4SDXM 1/28C	Rp 1 1/4"	755	1111.4	4"	98	-
4SDXM 1/36C	Rp 1 1/4"	946	1342.4	4"	98	-
4SDXM 1/42C	Rp 1 1/4"	1072	1468.4	4"	98	-
4SDXM 2/9C	Rp 1 1/4"	356	667.3	4"	98	-
4SDXM 2/13C	Rp 1 1/4"	440	771.4	4"	98	-
4SDXM 2/18C	Rp 1 1/4"	545	901.4	4"	98	-
4SDXM 2/23C	Rp 1 1/4"	650	1046.4	4"	98	-
4SDXM 2/28C	Rp 1 1/4"	755	1191.5	4"	98	-
4SDXM 2/33C	Rp 1 1/4"	883	1319.5	4"	98	-
4SDXM 2/40C	Rp 1 1/4"	1030	1521.5	4"	98	-
4SDXM 2/48C	Rp 1 1/4"	1198	1689.5	4"	98	-
4SDXM 3/6C	Rp 1 1/4"	293	604.3	4"	98	-
4SDXM 3/9C	Rp 1 1/4"	356	687.4	4"	98	-
4SDXM 3/12C	Rp 1 1/4"	419	775.4	4"	98	-
4SDXM 3/15C	Rp 1 1/4"	482	878.4	4"	98	-
4SDXM 3/18C	Rp 1 1/4"	545	941.4	4"	98	-
4SDXM 3/22C	Rp 1 1/4"	629	1065.5	4"	98	-
4SDXM 3/25C	Rp 1 1/4"	692	1128.5	4"	98	-
4SDXM 3/29C	Rp 1 1/4"	776	1267.5	4"	98	-
4SDXM 3/33C	Rp 1 1/4"	883	1374.5	4"	98	-
4SDXM 5/4C	Rp 1 1/2"	251	562.3	4"	98	-
4SDXM 5/6C	Rp 1 1/2"	293	624.4	4"	98	-
4SDXM 5/8C	Rp 1 1/2"	335	691.4	4"	98	-
4SDXM 5/12C	Rp 1 1/2"	419	815.4	4"	98	-
4SDXM 5/17C	Rp 1 1/2"	524	960.5	4"	98	16.8
4SDXM 5/21C	Rp 1 1/2"	608	1099.5	4"	98	-
4SDXM 5/25C	Rp 1 1/2"	392	883.5	4"	98	-
4SDXM 8/5C	Rp 2"	412	768.4	4"	98	-
4SDXM 8/7C	Rp 2"	496	892.4	4"	98	-
4SDXM 8/10C	Rp 2"	622	1058.5	4"	98	-
4SDXM 8/12C	Rp 2"	706	1197.5	4"	98	-
4SDXM 8/15C	Rp 2"	832	1323.5	4"	98	-
4SDXM 12/5C	Rp 2"	505	941.5	4"	98	-
4SDXM 12/7C	Rp 2"	635	1126.5	4"	98	-

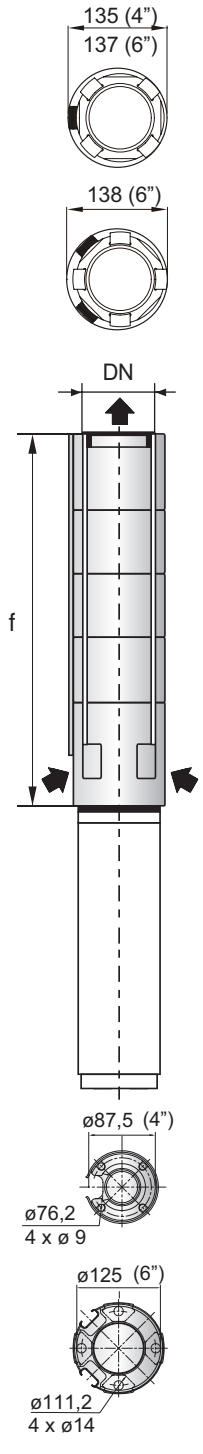


SDX

Dimensions and weights

TYPE		mm		kg
	DN2	f	l4	Weight
6SDX 16/1	RP 3"	343	4"	-
6SDX 16/2	RP 3"	403	4"	6
6SDX 16/3	RP 3"	464	4"	-
6SDX 16/4	RP 3"	524	4"	-
6SDX 16/5	RP 3"	585	4"	9.8
6SDX 16/6	RP 3"	645	4"	11.8
6SDX 16/7	RP 3"	706	4"	12.7
6SDX 16/8	RP 3"	766	4"	15.1
6SDX 16/9	RP 3"	827	4"	15
6SDX 16/10	RP 3"	887	4"	16.4
6SDX 16/11	RP 3"	948	6"	18.6
6SDX 16/12	RP 3"	1008	6"	20.6
6SDX 16/13	RP 3"	1069	6"	22.4
6SDX 16/14	RP 3"	1129	6"	22.3
6SDX 16/15	RP 3"	1190	6"	25.5
6SDX 16/16	RP 3"	1250	6"	26.8
6SDX 16/17	RP 3"	1311	6"	-
6SDX 16/18	RP 3"	1371	6"	30.5
6SDX 16/19	RP 3"	1432	6"	-
6SDX 16/20	RP 3"	1492	6"	-
6SDX 16/21	RP 3"	1553	6"	36
6SDX 16/22	RP 3"	1613	6"	33
6SDX 16/23	RP 3"	1674	6"	35
6SDX 16/24	RP 3"	1734	6"	-
6SDX 16/25	RP 3"	1795	6"	-
6SDX 16/26	RP 3"	1855	6"	39.7
6SDX 16/27	RP 3"	1916	6"	-
6SDX 16/28	RP 3"	1976	6"	-
6SDX 16/29	RP 3"	2037	6"	-
6SDX 16/30	RP 3"	2097	6"	-
6SDX 16/31	RP 3"	2158	6"	-
6SDX 16/32	RP 3"	2218	6"	-
6SDX 16/33	RP 3"	2279	6"	48

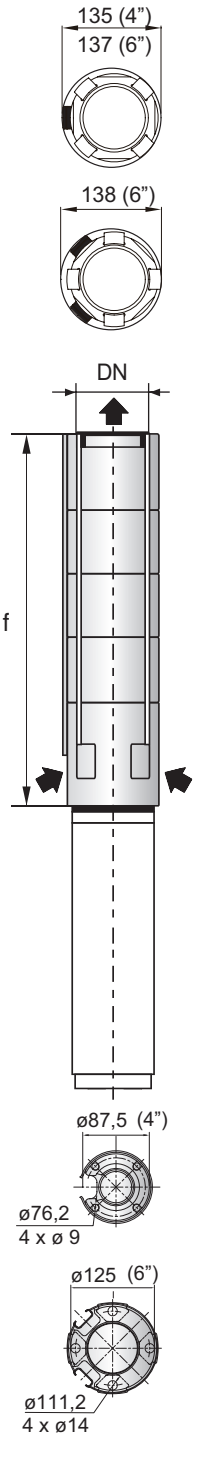
TYPE		mm		kg
	DN2	f	l4	Weight
6SDX 28/1	RP 3"	366	4"	-
6SDX 28/2	RP 3"	462	4"	7.3
6SDX 28/3	RP 3"	558	4"	8.6
6SDX 28/4	RP 3"	654	4"	12.5
6SDX 28/5	RP 3"	750	4"	12.5
6SDX 28/6	RP 3"	846	4"	14.3
6SDX 28/7	RP 3"	942	6"	16.9
6SDX 28/8	RP 3"	1038	6"	19.2
6SDX 28/9	RP 3"	1134	6"	20.3
6SDX 28/10	RP 3"	1230	6"	23
6SDX 28/11	RP 3"	1326	6"	23.6
6SDX 28/12	RP 3"	1422	6"	25.3
6SDX 28/13	RP 3"	1518	6"	28
6SDX 28/14	RP 3"	1614	6"	30
6SDX 28/15	RP 3"	1710	6"	30
6SDX 28/16	RP 3"	1806	6"	-
6SDX 28/17	RP 3"	1902	6"	35
6SDX 28/18	RP 3"	1998	6"	-
6SDX 28/19	RP 3"	2094	6"	-
6SDX 28/20	RP 3"	2190	6"	38.9
6SDX 28/21	RP 3"	2286	6"	-
6SDX 28/22	RP 3"	2382	6"	44
6SDX 28/23	RP 3"	2478	6"	46
6SDX 28/24	RP 3"	2574	6"	-
6SDX 28/25	RP 3"	2670	6"	-
6SDX 28/26	RP 3"	2766	6"	52
6SDX 28/27	RP 3"	2862	6"	-
6SDX 28/28	RP 3"	2958	6"	-
6SDX 28/29	RP 3"	3054	6"	-
6SDX 28/30	RP 3"	3150	6"	55.8
6SDX 28/31	RP 3"	3246	6"	-
6SDX 28/32	RP 3"	3342	6"	75
6SDX 28/33	RP 3"	3438	6"	-
6SDX 28/34	RP 3"	3534	6"	-
6SDX 28/35	RP 3"	3630	6"	-



SDX

Dimensions and weights

TYPE		mm		kg
	DN2	f	l4	Weight
6SDX 45/1	RP 2"	383	4"	5.8
6SDX 45/2	RP 2"	496	4"	8.3
6SDX 45/3	RP 2"	609	4"	11.5
6SDX 45/4	RP 2"	722	6"	14.1
6SDX 45/5	RP 2"	835	6"	16.4
6SDX 45/6	RP 2"	948	6"	19.1
6SDX 45/7	RP 2"	1061	6"	21.4
6SDX 45/8	RP 2"	1174	6"	22.9
6SDX 45/9	RP 2"	1287	6"	27
6SDX 45/10	RP 2"	1400	6"	29.5
6SDX 45/11	RP 2"	1513	6"	29.7
6SDX 45/12	RP 2"	1626	6"	32
6SDX 45/13	RP 2"	1739	6"	35
6SDX 45/14	RP 2"	1852	6"	-
6SDX 45/15	RP 2"	1965	6"	38.8
6SDX 45/16	RP 2"	2078	6"	41
6SDX 45/17	RP 2"	2191	6"	43.4
6SDX 45/18	RP 2"	2304	6"	-
6SDX 45/19	RP 2"	2417	6"	51
6SDX 45/20	RP 2"	2530	6"	50
6SDX 45/21	RP 2"	2643	6"	-
6SDX 45/22	RP 2"	2756	6"	-
6SDX 45/23	RP 2"	2869	6"	-
6SDX 45/24	RP 2"	2982	6"	-

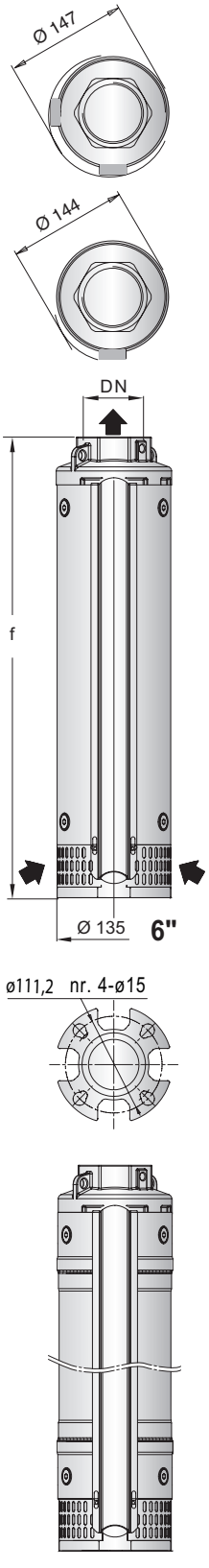


TYPE		mm		kg
	DN2	f	l4	Weight
6SDX 60/1	RP 2"	383	4"	-
6SDX 60/2	RP 2"	496	4"	9.2
6SDX 60/3	RP 2"	609	4"	10.4
6SDX 60/4	RP 2"	722	6"	15
6SDX 60/5	RP 2"	835	6"	16
6SDX 60/6	RP 2"	948	6"	18.3
6SDX 60/7	RP 2"	1061	6"	24
6SDX 60/8	RP 2"	1174	6"	24.5
6SDX 60/9	RP 2"	1287	6"	25.1
6SDX 60/10	RP 2"	1400	6"	29
6SDX 60/11	RP 2"	1513	6"	29.7
6SDX 60/12	RP 2"	1626	6"	32.5
6SDX 60/13	RP 2"	1739	6"	34.3
6SDX 60/14	RP 2"	1852	6"	41
6SDX 60/15	RP 2"	1965	6"	39.5
6SDX 60/16	RP 2"	2078	6"	42
6SDX 60/17	RP 2"	2191	6"	-
6SDX 60/18	RP 2"	2304	6"	-
6SDX 60/19	RP 2"	2417	6"	-
6SDX 60/20	RP 2"	2530	6"	50
6SDX 60/21	RP 2"	2463	6"	-
6SDX 60/22	RP 2"	2784	6"	-

SDX

Dimensions and weights

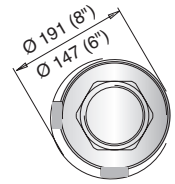
TYPE		mm			kg
	DN2	f	l4	l5	Weight
6SDXL 18/6	G 2 1/2"	494	6"	144	13
6SDXL 18/7	G 2 1/2"	532	6"	144	14.4
6SDXL 18/8	G 2 1/2"	569	6"	144	-
6SDXL 18/9	G 2 1/2"	607	6"	144	17.2
6SDXL 18/10	G 2 1/2"	644	6"	144	16
6SDXL 18/11	G 2 1/2"	682	6"	144	17.5
6SDXL 18/12	G 2 1/2"	719	6"	144	18.7
6SDXL 18/13	G 2 1/2"	757	6"	144	23
6SDXL 18/14	G 2 1/2"	794	6"	144	20.2
6SDXL 18/15	G 2 1/2"	832	6"	144	21.5
6SDXL 18/16	G 2 1/2"	869	6"	144	22.2
6SDXL 18/17	G 2 1/2"	907	6"	144	22
6SDXL 18/18	G 2 1/2"	944	6"	144	24.5
6SDXL 18/19	G 2 1/2"	982	6"	144	25.3
6SDXL 18/20	G 2 1/2"	1019	6"	144	-
6SDXL 18/21	G 2 1/2"	1057	6"	144	26
6SDXL 18/22	G 2 1/2"	1094	6"	144	22
6SDXL 18/23	G 2 1/2"	1132	6"	144	26.5
6SDXL 18/24	G 2 1/2"	1169	6"	144	-
6SDXL 18/25	G 2 1/2"	1207	6"	144	-
6SDXL 18/26	G 2 1/2"	1244	6"	144	29
6SDXL 18/27	G 2 1/2"	1282	6"	144	31
6SDXL 18/28	G 2 1/2"	1319	6"	144	-
6SDXL 18/29	G 2 1/2"	1356	6"	144	-
6SDXL 18/30	G 2 1/2"	1394	6"	144	-
6SDXL 18/31	G 2 1/2"	1431	6"	144	-
6SDXL 18/32	G 2 1/2"	1469	6"	144	34
6SDXL 18/33	G 2 1/2"	1506	6"	144	-
6SDXL 18/34	G 2 1/2"	1544	6"	144	35.7
6SDXL 18/35	G 2 1/2"	1581	6"	144	36.3
6SDXL 18/36	G 2 1/2"	1619	6"	144	42
6SDXL 18/37	G 2 1/2"	1656	6"	144	38.4
6SDXL 18/38	G 2 1/2"	1694	6"	144	39.8
6SDXL 18/39	G 2 1/2"	1731	6"	144	-
6SDXL 18/40	G 2 1/2"	1769	6"	144	-
6SDXL 18/41	G 2 1/2"	1806	6"	144	41.8
6SDXL 18/42	G 2 1/2"	1844	6"	144	48
6SDXL 18/43	G 2 1/2"	1881	6"	144	44
6SDXL 18/44	G 2 1/2"	1919	6"	144	45
6SDXL 18/45	G 2 1/2"	1956	6"	144	46
6SDXL 18/46	G 2 1/2"	1993	6"	144	47
6SDXL 18/47	G 2 1/2"	2031	6"	144	-
6SDXL 18/48	G 2 1/2"	2068	6"	144	48
6SDXL 18/49	G 2 1/2"	2106	6"	144	50
6SDXL 18/50	G 2 1/2"	2143	6"	144	61
6SDXL 18/51	G 2 1/2"	2181	6"	144	52
6SDXL 18/52	G 2 1/2"	2218	6"	144	53
6SDXL 18/53	G 2 1/2"	2256	6"	144	54
6SDXL 18/54	G 2 1/2"	2293	6"	144	55
6SDXL 18/55	G 2 1/2"	2331	6"	144	56
6SDXL 18/56	G 2 1/2"	2368	6"	144	57
6SDXL 18/57	G 2 1/2"	2406	6"	144	58
6SDXL 18/58	G 2 1/2"	2443	6"	144	59
6SDXL 18/59	G 2 1/2"	2481	6"	144	65
6SDXL 18/60	G 2 1/2"	2518	6"	144	-

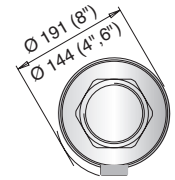


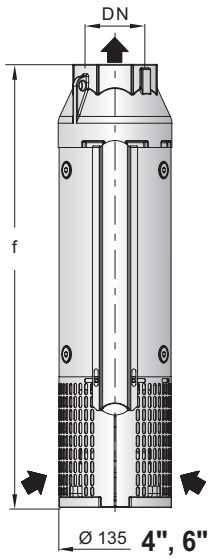
SDX

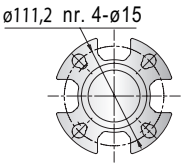
Dimensions and weights

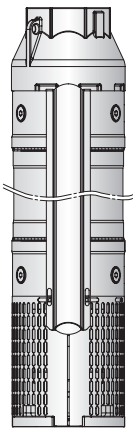
TYPE		mm			kg
	DN2	f	l4	l5	Weight
6SDXL 30/3	G 3"	620	6"	144	17
6SDXL 30/4	G 3"	705	6"	144	16.8
6SDXL 30/5	G 3"	790	6"	144	18.8
6SDXL 30/6	G 3"	876	6"	144	21.1
6SDXL 30/7	G 3"	961.5	6"	144	23.4
6SDXL 30/8	G 3"	1047	6"	144	27
6SDXL 30/9	G 3"	1132	6"	144	29
6SDXL 30/10	G 3"	1218	6"	144	32
6SDXL 30/11	G 3"	1303	6"	144	33
6SDXL 30/12	G 3"	1389	6"	144	33.6
6SDXL 30/13	G 3"	1474	6"	144	38
6SDXL 30/14	G 3"	1560	6"	144	39
6SDXL 30/15	G 3"	1645	6"	144	39.9
6SDXL 30/16	G 3"	1730	6"	144	42
6SDXL 30/17	G 3"	1816	6"	144	46
6SDXL 30/18	G 3"	1901	6"	144	45
6SDXL 30/19	G 3"	1987	6"	144	48.2
6SDXL 30/20	G 3"	2072	6"	144	50.3
6SDXL 30/21	G 3"	2157	6"	144	52.4
6SDXL 30/22	G 3"	2243	6"	144	-
6SDXL 30/23	G 3"	2328	6"	144	-
6SDXL 30/24	G 3"	2414	6"	144	58.7
6SDXL 30/25	G 3"	2499	6"	144	60.8
6SDXL 30/26	G 3"	2584	6"	144	62.9
6SDXL 30/27	G 3"	2670	6"	144	65
6SDXL 30/28	G 3"	2755	6"	144	67.2
6SDXL 30/29	G 3"	2840	6"	144	-
6SDXL 30/30	G 3"	2926	6"	144	71.3
6SDXL 30/31	G 3"	3011	6"	144	75.2
6SDXL 30/32	G 3"	3096	6"	144	78.3
6SDXL 30/33	G 3"	3182	6"	144	80.4
6SDXL 30/34	G 3"	3267	6"	144	82.5
6SDXL 30/35	G 3"	3352	6"	144	84.6
6SDXL 30/36	G 3"	3438	6"	144	87.9
6SDXL 30/37	G 3"	3523	6"	144	90
6SDXL 30/38	G 3"	3709	8"	191	92.3
6SDXL 30/39	G 3"	3794	8"	191	94.5
6SDXL 30/40	G 3"	3879	8"	191	96.6
6SDXL 30/41	G 3"	3965	8"	191	97.6
6SDXL 30/42	G 3"	4050	8"	191	98.7
6SDXL 30/43	G 3"	4135	8"	191	99.8

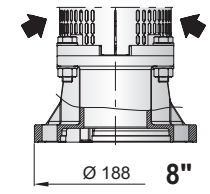


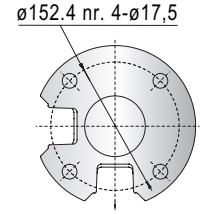










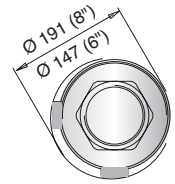


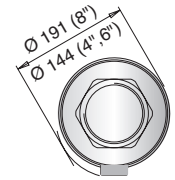
Reinforced with special collar from:
6SDXL 30/36

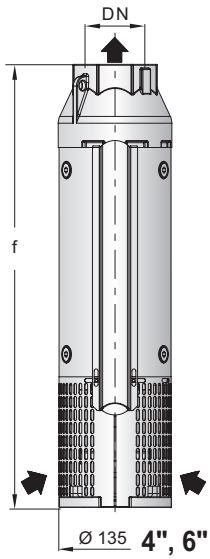
SDX

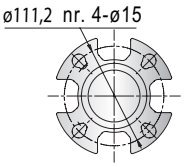
Dimensions and weights

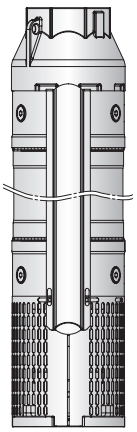
TYPE		mm			kg
	DN2	f	l4	l5	Weight
6SDXL 46/2	G 3"	594	4"	144	14
6SDXL 46/3	G 3"	705	6"	144	16.1
6SDXL 46/4	G 3"	819	6"	144	19.6
6SDXL 46/5	G 3"	933	6"	144	21.4
6SDXL 46/6	G 3"	1047	6"	144	24
6SDXL 46/7	G 3"	1161	6"	144	-
6SDXL 46/8	G 3"	1275	6"	144	31.2
6SDXL 46/9	G 3"	1389	6"	144	33.5
6SDXL 46/10	G 3"	1503	6"	144	35
6SDXL 46/11	G 3"	1617	6"	144	38
6SDXL 46/12	G 3"	1730	6"	144	41
6SDXL 46/13	G 3"	1844	6"	144	-
6SDXL 46/14	G 3"	1958	6"	144	49
6SDXL 46/15	G 3"	2072	6"	144	47.4
6SDXL 46/16	G 3"	2186	6"	144	50.1
6SDXL 46/17	G 3"	2300	6"	144	120
6SDXL 46/18	G 3"	2414	6"	144	58
6SDXL 46/19	G 3"	2527	6"	144	58
6SDXL 46/20	G 3"	2641	6"	144	58
6SDXL 46/21	G 3"	2755	6"	144	63.1
6SDXL 46/22	G 3"	2869	6"	144	65.7
6SDXL 46/23	G 3"	2983	6"	144	68
6SDXL 46/24	G 3"	3096	6"	144	68
6SDXL 46/25	G 3"	3210	6"	144	-
6SDXL 46/26	G 3"	3324	6"	144	76.1
6SDXL 46/27	G 3"	3438	6"	144	79.3
6SDXL 46/28	G 3"	3552	6"	144	82
6SDXL 46/29	G 3"	3665	6"	144	87.4
6SDXL 46/30	G 3"	3779	6"	144	90
6SDXL 46/31	G 3"	3893	6"	144	105
6SDXL 46/32	G 3"	4007	6"	144	95.2
6SDXL 46/33	G 3"	4121	6"	144	97.8
6SDXL 46/34	G 3"	4335	8"	191	101
6SDXL 46/35	G 3"	4449	8"	191	103
6SDXL 46/36	G 3"	4562	8"	191	106
6SDXL 46/37	G 3"	4676	8"	191	109
6SDXL 46/38	G 3"	4790	8"	191	111
6SDXL 46/39	G 3"	4904	8"	191	114
6SDXL 46/40	G 3"	5018	8"	191	117

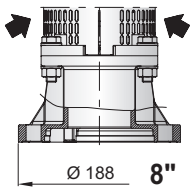


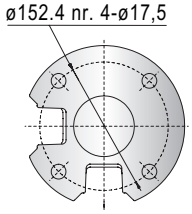










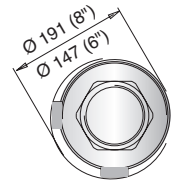


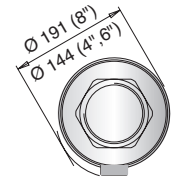
Reinforced with special collar from:
6SDXL 46/27

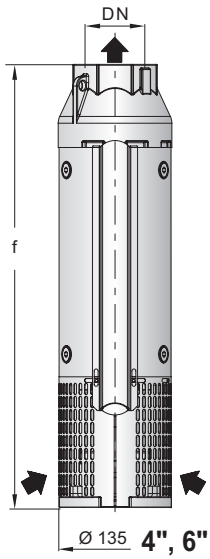
SDX

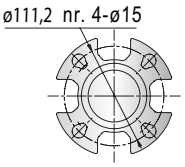
Dimensions and weights

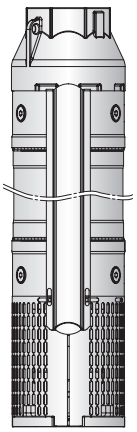
TYPE		mm			kg
	DN2	f	l4	l5	Weight
6SDXL 65/2	G 3"	592	6"	144	13.6
6SDXL 65/3	G 3"	705	6"	144	16.1
6SDXL 65/4	G 3"	819	6"	144	19
6SDXL 65/5	G 3"	933	6"	144	21.5
6SDXL 65/6	G 3"	1047	6"	144	24
6SDXL 65/7	G 3"	1161	6"	144	27.8
6SDXL 65/8	G 3"	1275	6"	144	31
6SDXL 65/9	G 3"	1389	6"	144	34
6SDXL 65/10	G 3"	1503	6"	144	34.5
6SDXL 65/11	G 3"	1617	6"	144	38.5
6SDXL 65/12	G 3"	1730	6"	144	39.7
6SDXL 65/13	G 3"	1844	6"	144	43.5
6SDXL 65/14	G 3"	1958	6"	144	44.9
6SDXL 65/15	G 3"	2072	6"	144	-
6SDXL 65/16	G 3"	2186	6"	144	-
6SDXL 65/17	G 3"	2300	6"	144	56
6SDXL 65/18	G 3"	2414	6"	144	55.4
6SDXL 65/19	G 3"	2527	6"	144	-
6SDX6 65/20	G 3"	2641	6"	144	-
6SDXL 65/21	G 3"	2755	6"	144	-
6SDXL 65/22	G 3"	2869	6"	144	68.7
6SDXL 65/23	G 3"	2983	6"	144	-
6SDXL 65/24	G 3"	3096	6"	144	-
6SDXL 65/25	G 3"	3210	6"	144	76.5
6SDXL 65/26	G 3"	3324	6"	144	-
6SDXL 65/27	G 3"	3538	8"	191	82.6
6SDXL 65/28	G 3"	3652	8"	191	85.3
6SDXL 65/29	G 3"	3765	8"	191	-
6SDXL 65/30	G 3"	3879	8"	191	90.5
6SDXL 65/31	G 3"	3993	8"	191	-

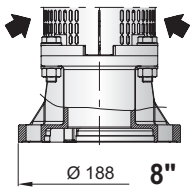


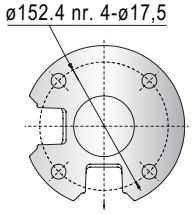










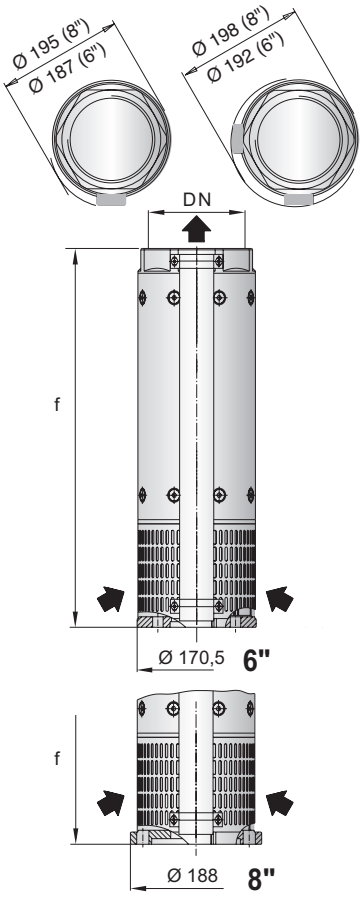


Reinforced with special collar from:
6SDXL 65/27

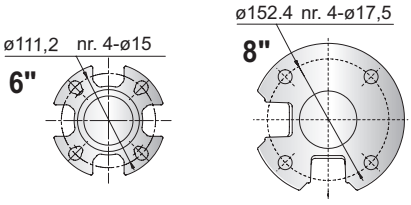
SDX

Dimensions and weights

TYPE		mm		kg
	DN2	f	l4	Weight
8SDX 78/2	G 5"	644	6"	30.5
8SDX 78/3	G 5"	770	6"	35
8SDX 78/4	G 5"	896	6"	40.3
8SDX 78/5	G 5"	1022	6"	42
8SDX 78/6	G 5"	1148	6"	-
8SDX 78/7	G 5"	1274	6"	63
8SDX 78/8	G 5"	1400	6"	65
8SDX 78/9	G 5"	1526	6"	66
8SDX 78/10	G 5"	1652	6"	76.5
8SDX 78/11	G 5"	1778	6"	-
8SDX 78/12	G 5"	1909	6"	-
8SDX 78/13	G 5"	2035	8"	87
8SDX 78/14	G 5"	2161	8"	92
8SDX 78/15	G 5"	2287	8"	97
8SDX 78/16	G 5"	2413	8"	102
8SDX 78/17	G 5"	2539	8"	106.5
8SDX 78/18	G 5"	2665	8"	111.5
8SDX 78/19	G 5"	2791	8"	116.5
8SDX 78/20	G 5"	2917	8"	121
8SDX 78/21	G 5"	3043	8"	130
8SDX 78/22	G 5"	3169	8"	131
8SDX 78/23	G 5"	3295	8"	136
8SDX 78/24	G 5"	3421	8"	-



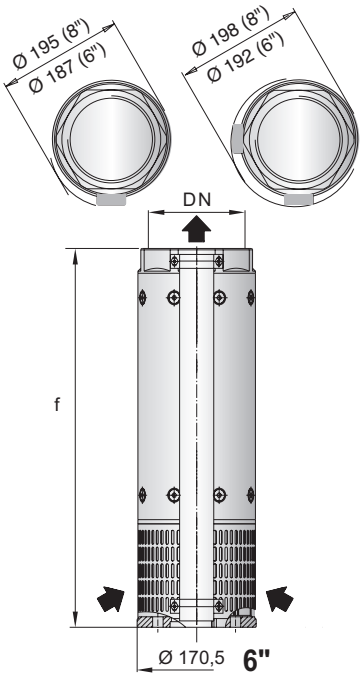
TYPE		mm		kg
	DN2	f	l4	Weight
8SDX 97/2	G 5"	644	6"	30.5
8SDX 97/3	G 5"	770	6"	35
8SDX 97/4	G 5"	896	6"	57
8SDX 97/5	G 5"	1022	6"	51
8SDX 97/6	G 5"	1148	6"	-
8SDX 97/7	G 5"	1274	6"	60
8SDX 97/8	G 5"	1400	6"	100
8SDX 97/9	G 5"	1526	6"	-
8SDX 97/10	G 5"	1657	8"	75
8SDX 97/11	G 5"	1783	8"	77
8SDX 97/12	G 5"	1909	8"	82
8SDX 97/13	G 5"	2035	8"	87
8SDX 97/14	G 5"	2161	8"	92
8SDX 97/15	G 5"	2287	8"	97
8SDX 97/16	G 5"	2413	8"	102
8SDX 97/17	G 5"	2539	8"	106.5
8SDX 97/18	G 5"	2665	8"	111.5
8SDX 97/19	G 5"	2791	8"	116.5
8SDX 97/20	G 5"	2917	8"	121
8SDX 97/21	G 5"	3043	8"	121
8SDX 97/22	G 5"	3169	10"	131
8SDX 97/23	G 5"	3295	10"	136



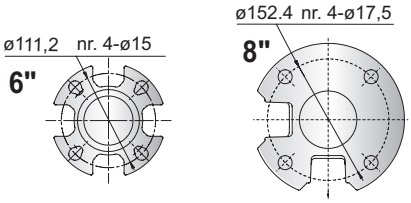
SDX

Dimensions and weights

TYPE		mm		kg
	DN2	f	l4	Weight
8SDXL 78/2	G 5"	644	6"	47
8SDXL 78/3	G 5"	770	6"	37
8SDXL 78/4	G 5"	896	6"	-
8SDXL 78/5	G 5"	1022	6"	49
8SDXL 78/6	G 5"	1148	6"	52
8SDXL 78/7	G 5"	1274	6"	-
8SDX6 78/8	G 5"	1400	6"	-
8SDXL 78/9	G 5"	1526	6"	-
8SDXL 78/10	G 5"	1652	6"	-
8SDXL 78/11	G 5"	1778	6"	-
8SDXL 78/12	G 5"	1909	6"	90
8SDXL 78/13	G 5"	2035	8"	-
8SDXL 78/14	G 5"	2161	8"	-
8SDXL 78/15	G 5"	2287	8"	-
8SDXL 78/16	G 5"	2413	8"	-
8SDXL 78/17	G 5"	2539	8"	-
8SDXL 78/18	G 5"	2665	8"	-
8SDXL 78/19	G 5"	2791	8"	-
8SDXL 78/20	G 5"	2917	8"	-
8SDXL 78/21	G 5"	3043	8"	-
8SDXL 78/22	G 5"	3169	8"	-
8SDXL 78/23	G 5"	3295	8"	-
8SDXL 78/24	G 5"	3421	8"	-



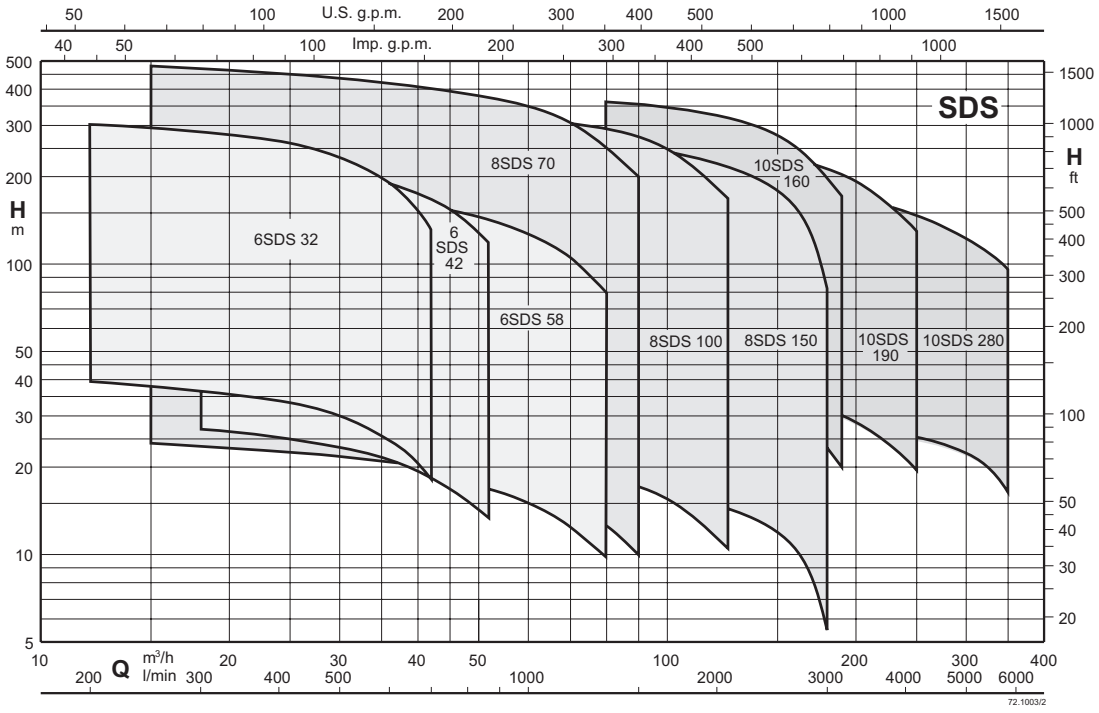
TYPE		mm		kg
	DN2	f	l4	Weight
8SDXL 97/2	G 5"	644	6"	36
8SDXL 97/3	G 5"	770	6"	40
8SDXL 97/4	G 5"	896	6"	-
8SDXL 97/5	G 5"	1022	6"	-
8SDXL 97/6	G 5"	1148	6"	-
8SDXL 97/7	G 5"	1274	6"	56.5
8SDXL 97/8	G 5"	1526	6"	-
8SDXL 97/9	G 5"	1526	6"	-
8SDXL 97/10	G 5"	1657	6"	-
8SDXL 97/11	G 5"	1783	8"	-
8SDXL 97/12	G 5"	1909	8"	-
8SDXL 97/13	G 5"	2035	8"	-
8SDXL 97/14	G 5"	2161	8"	-
8SDXL 97/15	G 5"	2287	8"	-
8SDXL 97/16	G 5"	2413	8"	-
8SDXL 97/17	G 5"	2539	8"	-
8SDXL 97/18	G 5"	2665	8"	-
8SDXL 97/19	G 5"	2791	8"	-
8SDXL 97/20	G 5"	2917	8"	-
8SDXL 97/21	G 5"	3043	8"	-
8SDXL 97/22	G 5"	3169	8"	-
8SDXL 97/23	G 5"	3295	10"	-



SDS



Coverage chart n ≈ 2900 rpm



Submersible borehole pumps for 6” and 8” wells

SDS

Construction

Submersible borehole pumps for 6” wells (DN 150 mm), 8” (DN 200 mm) and 10” (DN 250 mm), with stages in cast iron or in bronze, on request.
Impellers mixed flow impellers.
Connection: flanged for 8SDS, 10SDS with counter-flange to be welded overlapped.
Delivery casing with built-in non-return valve.

Applications

For water supply systems.
For civil and industrial applications.
For fire fighting applications.
For irrigation.

Operating conditions

Liquid temperature:
up to a 25 °C.
Maximum amount of sand in the water: 150 g/m3 (300 g/m3 for high sand content pumps).
Continuous duty.

Special features on request

Other voltages.
Frequency 60 Hz (as per 60 Hz data sheet).
Other temperatures.
Encapsulated motor FK series.

Designation

Example: B 10 SDS 190 / 6
B = Bronze construction (on request)
10 = Well diameter in inches
SDS = Series
190 = Stage identification
6 = Number of stages

Motor

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
Sized for connection to the pumps according to NEMA Standards (10” excluded).
Standard voltages:
single-phase 230 V - up to 2,2 kW for 4” motors.
Three-phase · · 230 V; 400 V for 4” motors.
· 400 V; 400/690 V for 6", 8", 10” motors.
Voltage tolerance : ± 10%
In order to limit both current and torque at each starting, for rated motor powers equal to or higher than 7.5 kW, one of the following types of starting is necessary: star/delta, soft starter, stator impedance or autotransformer.
Insulation class:
- class F for 4” motors,
- class E for 6” motors, PVC for I-6” (I-6” 45 kW PE2+PA).
- PVC for 8”
- PVC for 10” (10” 170kW and 190 kW PE2+PA)
Protection IP 68.
Installation below water level: 100 m for 4”, 150 m for 6”, 500 m for 8,10” 4” motor
Motor suitable operation with frequency converter (with suitable filter dv/dt).
Horizontal installation (6" 37-45kW, 8" 92kW, 10" 170-190 kW excluded)

Motor	Motor P2	Max. Liquid temperature	Cooling minimum flow velocity	Max n° of starting x hour
4CS-R	all	35 °C	0,1 m/s	30
6CS-R	4÷15 kW	40 °C	0,5 m/s	20
6CS-R	18,5÷30 kW	35 °C	0,5 m/s	20
6CS-R	37 kW	30 °C	0,5 m/s	20
8CS-R	30÷45 kW	30 °C	0,2 m/s	10
8CS-R	51 kW	30 °C	0,2 m/s	8
8CS-R	59÷75 kW	30 °C	0,5 m/s	8
8CS-R	92÷110 kW	30 °C	0,5 m/s	6
10CS-R	all	25 °C	0,15 m/s	6

Materials

Pumps

Components	**Part No.**	**6, 8, 10 SDS**	**B-6, B-8, B-10 SDS**
Stage casing	25.02	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Diffuser	26.00	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Impeller	28.00	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Wear ring		Rubber (Bronze for 10SDS 190-280)	Rubber (Bronze for 10SDS 190-280)
Shaft	64.00	Steel AISI F51duplex	Steel AISI F51duplex
Shaft sleeve	64.08	Brass with chrome-plated surface (for 10 SDS only)	Brass with chrome-plated surface (for 10 SDS only)
delivery casing	12.01	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Suction lantern	32.02	Cast iron GJL 200 EN 1561	Bronze CC480K EN 1982
Bearing bush	12.30	Rubber	Rubber
Filter	15.50	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)
Screws		Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)

SDS

Coverage chart n ≈ 2900 rpm

				Q = Flow											
				m³/h	0	12	18	21	24	27	30	33	36	39	42
Model		P2		l/min		200	300	350	400	450	500	550	600	650	700
		kW	HP	H (m) = Total head											
B6SDS	6SDS 32/3	4	5,5		38,8	39	37	35,5	33,5	31,5	30	26,5	24	21	18
B6SDS	6SDS 32/4	5,5	7,5		52,9	52	49	47	45	42	39,5	35,5	32	28	24
B6SDS	6SDS 32/5	7,5	10		65,5	65	61,5	59	56	52,5	49,5	44,5	40	35	30
B6SDS	6SDS 32/6	7,5	10		78,1	78	74	71	67	63	59,5	53,5	48	42	36
B6SDS	6SDS 32/7	9,2	12,5		96,7	92	86	82,5	78,5	73,5	69	62	56	49	42
B6SDS	6SDS 32/8	11	15		109,3	105	98,5	94,5	89,5	84	79	71	64	56	48
B6SDS	6SDS 32/9	13	17,5		109,3	105	98,5	94,5	89,5	84	79	71	64	56	48
B6SDS	6SDS 32/10	13	17,5		136,4	131	123	118	112	105	99	89	80	70	60
B6SDS	6SDS 32/11	15	20		150,7	144	135	130	123	115	109	98	88	77	66
B6SDS	6SDS 32/12	15	20		167,2	157	147	141	134	126	119	107	96	84	72
B6SDS	6SDS 32/13	18,5	25		178,5	170	160	153	145	136	129	116	104	91	78
B6SDS	6SDS 32/14	18,5	25		188	183	172	165	157	147	138	124	112	98	84
B6SDS	6SDS 32/15	22	30		202,2	196	184	177	168	157	148	133	120	105	90
B6SDS	6SDS 32/16	22	30		213,2	209	197	189	179	168	158	142	128	112	96
B6SDS	6SDS 32/17	22	30		235,5	223	209	200	190	178	168	151	136	119	102
B6SDS	6SDS 32/18	26	35		249,4	236	221	212	201	189	178	160	144	126	108
B6SDS	6SDS 32/19	26	35		242,7	246	234	224	213	199	188	169	152	133	114
B6SDS	6SDS 32/20	26	35		272,9	262	246	236	224	210	198	178	160	140	120
B6SDS	6SDS 32/21	26	35		287,1	275	258	248	235	220	208	187	168	147	126
B6SDS	6SDS 32/22	30	40		303,6	288	270	259	246	231	218	196	176	154	132
B6SDS	6SDS 32/23	30	40		315	301	283	271	257	241	228	205	184	161	138

				Q = Flow											
				m³/h	0	18	24	30	33	36	39	42	45	48	51
Model		P2		l/min		300	400	500	550	600	650	700	750	800	850
		kW	HP	H (m) = Total head											
B6SDS	6SDS 42/2	4	5,5		28,1	27	25,5	23,5	22,5	21,5	20	18,5	17	15,5	14
B6SDS	6SDS 42/3	5,5	7,5		38,2	40	38	35,5	34	32	30	28	25,5	23	21
B6SDS	6SDS 42/4	7,5	10		54	53,5	51	47	45	43	40	37	34	31	27,5
B6SDS	6SDS 42/5	9,2	12,5		68,4	67	63,5	59	56,5	53,5	50	46,5	42,5	38,5	34,5
B6SDS	6SDS 42/6	11	15		68,4	67	63,5	59	56,5	53,5	50	46,5	42,5	38,5	34,5
B6SDS	6SDS 42/7	13	17,5		98,5	94	89	82,5	79	75	70	65	59,5	54	48
B6SDS	6SDS 42/8	15	20		111,7	107	101	94,5	90,5	85,5	80	74,5	68	61,5	55
B6SDS	6SDS 42/9	15	20		121,2	120	114	106	102	96	90	84	76,5	69	62
B6SDS	6SDS 42/10	18,5	25		136,7	134	127	118	113	107	100	93	85	77	69
B6SDS	6SDS 42/11	18,5	25		143,8	147	140	130	124	118	110	102	93,5	85	76
B6SDS	6SDS 42/12	22	30		169,7	161	152	141	135	128	120	111	102	92,5	83
B6SDS	6SDS 42/13	22	30		175,7	174	165	153	147	139	130	121	110	100	90
B6SDS	6SDS 42/14	26	35		186,5	187	178	165	158	150	140	130	119	108	96,5
B6SDS	6SDS 42/15	26	35		207,5	201	190	177	169	160	150	139	127	115	103
B6SDS	6SDS 42/16	30	40		217,3	214	203	189	181	171	160	149	136	123	110
B6SDS	6SDS 42/17	30	40		235,9	228	216	200	192	182	170	158	144	131	117
B6SDS	6SDS 42/18	30	40		249,8	241	228	212	203	192	180	167	153	138	124

P2: Rated motor power output.
H: Total head in m

SDS

Coverage chart n ≈ 2900 rpm

				Q = Flow												
				m³/h	0	27	35	40	45	50	55	60	65	70	75	80
Model		P2		l/min		450	583	667	750	833	917	1000	1083	1167	1250	1333
		kW	HP	H (m) = Total head												
B6SDS	6SDS 58/2	4	5,5		27,4	21	20	19	18	17	16,5	15,5	14	12,5	11	9
B6SDS	6SDS 58/3	5,5	7,5		42,8	32	30	28,5	27	26	24,5	23	21	18,5	16	13,5
B6SDS	6SDS 58/4	7,5	10		59,3	42,5	39,5	38	36	34,5	33	31	28	25	21,5	18
B6SDS	6SDS 58/5	9,2	12,5		71,9	53	49,5	47,5	45	43	41	38,5	35	31	27	22,5
B6SDS	6SDS 58/6	11	15		84,4	63,5	59,5	57	54	51,5	49	46	42	37	32,5	27
B6SDS	6SDS 58/7	13	17,5		99,2	74	69,5	66,5	63	60	57,5	54	49	43,5	38	31,5
B6SDS	6SDS 58/8	15	20		117,3	85	79	76	72	69	66	62	56	49,5	43	36
B6SDS	6SDS 58/9	18,5	25		131,5	95,5	89	85,5	81	77,5	74	69,5	63	56	49	40,5
B6SDS	6SDS 58/10	18,5	25		143,7	106	99	95	90	86	82	77	70	62	54	45
B6SDS	6SDS 58/11	22	30		163,1	117	109	104	99	94,5	90	85	77	68	59,5	49,5
B6SDS	6SDS 58/12	22	30		182,9	127	119	114	108	103	100	94,5	86,5	76,5	66,5	55,5
B6SDS	6SDS 58/13	26	35		188,5	138	129	123	117	112	107	100	91	80,5	70	58,5
B6SDS	6SDS 58/14	26	35		198,1	148	139	133	126	120	115	108	98	87	75,5	63
B6SDS	6SDS 58/15	30	40		218,3	159	148	142	135	129	123	115	105	93	81	67,5
B6SDS	6SDS 58/16	30	40		233,1	170	158	152	144	138	131	123	112	99	86,5	72
B6SDS	6SDS 58/17	30	40		241,4	180	168	162	153	146	139	131	119	105	92	76,5

P2: Rated motor power output.
H: Total head in m

SDS

Coverage chart n ≈ 2900 rpm

				Q = Flow											
				m³/h	0	60	70	80	90	100	110	125	140	150	160	180
Model		P2		l/min		1000	1167	1333	1500	1667	1833	2083	2333	2500	2667	3000
		kW	HP	H (m) = Total head												
B8SDS	8SDS 150/1	7,5	10		26,7	18	17,5	17	16,5	16	15,5	14,5	13	11,5	10,5	5,5
B8SDS	8SDS 150/2	15	20		53,4	36	35	34	33	32	31	29	26	23	21	11
B8SDS	8SDS 150/3	22	30		80	54	52,5	51	49,5	48	46,5	43,5	39	34,5	31,5	16,5
B8SDS	8SDS 150/4	30	40		106,7	72	70	68	66	64	62	58	52	46	42	22
B8SDS	8SDS 150/5	37	50		133,4	90	87,5	85	82,5	80	77,5	72,5	65	57,5	52,5	27,5
B8SDS	8SDS 150/6	45	60		160	108	105	102	99	96	93	87	78	69	63	33
B8SDS	8SDS 150/7	51	70		189,6	126	122	119	115	112	108	101	91	80,5	73,5	38,5
B8SDS	8SDS 150/8	59	80		213,4	144	140	136	132	128	124	116	104	92	84	44
B8SDS	8SDS 150/9	66	90		241,8	162	157	153	148	144	139	130	117	103	94,5	49,5
B8SDS	8SDS 150/10	75	100		266,8	180	175	170	165	160	155	145	130	115	105	55
B8SDS	8SDS 150/11	92	125		294,1	198	192	187	181	176	170	159	143	126	115	60,5
B8SDS	8SDS 150/12	92	125		320,1	216	210	204	198	192	186	174	156	138	126	66
B8SDS	8SDS 150/13	110	150		347,5	234	227	221	214	208	201	188	169	149	136	71,5
B8SDS	8SDS 150/14	110	150		373,5	252	245	238	231	224	217	203	182	161	147	77
B8SDS	8SDS 150/15	110	150		400,8	270	262	255	247	240	232	217	195	172	157	82,5

P2: Rated motor power output.
H: Total head in m

SDS

Coverage chart n ≈ 2900 rpm

				Q = Flow											
				m³/h	0	30	40	50	60	70	80	90	100	110	125
Model		P2		l/min		500	667	833	1000	1167	1333	1500	1667	1833	2083
		kW	HP	H (m) = Total head											
B8SDS	8SDS 100/1	5,5	7,5		23,1	21,5	21	20,5	20	19	18	17	15,5	14	10,5
B8SDS	8SDS 100/2	11	15		46,2	43	42	41	40	38	36	34	31	28	21
B8SDS	8SDS 100/3	18,5	25		69,3	64,5	63	61,5	60	57	54	51	46,5	42	31,5
B8SDS	8SDS 100/4	22	30		92,4	86	84	82	80	76	72	68	62	56	42
B8SDS	8SDS 100/5	30	40		114,1	107	105	102	100	95	90	85	77,5	70	52,5
B8SDS	8SDS 100/6	37	50		136,9	129	126	123	120	114	108	102	93	84	63
B8SDS	8SDS 100/7	45	60		159,7	150	147	143	140	133	126	119	108	98	73,5
B8SDS	8SDS 100/8	45	60		182,6	172	168	164	160	152	144	136	124	112	84
B8SDS	8SDS 100/9	51	70		205,8	193	189	184	180	171	162	153	139	126	94,5
B8SDS	8SDS 100/10	55	75		231	215	210	205	200	190	180	170	155	140	105
B8SDS	8SDS 100/11	66	90		252,6	236	231	225	220	209	198	187	170	154	115
B8SDS	8SDS 100/12	66	90		277,2	258	252	246	240	228	216	204	186	168	126
B8SDS	8SDS 100/13	75	100		298,8	279	273	266	260	247	234	221	201	182	136
B8SDS	8SDS 100/14	92	125		323,4	301	294	287	280	266	252	238	217	196	147
B8SDS	8SDS 100/15	92	125		345	322	315	307	300	285	270	255	232	210	157
B8SDS	8SDS 100/16	92	125		369,6	344	336	328	320	304	288	272	248	224	168

				Q = Flow											
				m³/h	0	60	70	80	90	100	110	125	140	150	160	180
Model		P2		l/min		1000	1167	1333	1500	1667	1833	2083	2333	2500	2667	3000
		kW	HP	H (m) = Total head											
B8SDS	8SDS 150/1	7,5	10		26,7	18	17,5	17	16,5	16	15,5	14,5	13	11,5	10,5	5,5
B8SDS	8SDS 150/2	15	20		53,4	36	35	34	33	32	31	29	26	23	21	11
B8SDS	8SDS 150/3	22	30		80	54	52,5	51	49,5	48	46,5	43,5	39	34,5	31,5	16,5
B8SDS	8SDS 150/4	30	40		106,7	72	70	68	66	64	62	58	52	46	42	22
B8SDS	8SDS 150/5	37	50		133,4	90	87,5	85	82,5	80	77,5	72,5	65	57,5	52,5	27,5
B8SDS	8SDS 150/6	45	60		160	108	105	102	99	96	93	87	78	69	63	33
B8SDS	8SDS 150/7	51	70		189,6	126	122	119	115	112	108	101	91	80,5	73,5	38,5
B8SDS	8SDS 150/8	59	80		213,4	144	140	136	132	128	124	116	104	92	84	44
B8SDS	8SDS 150/9	66	90		241,8	162	157	153	148	144	139	130	117	103	94,5	49,5
B8SDS	8SDS 150/10	75	100		266,8	180	175	170	165	160	155	145	130	115	105	55
B8SDS	8SDS 150/11	92	125		294,1	198	192	187	181	176	170	159	143	126	115	60,5
B8SDS	8SDS 150/12	92	125		320,1	216	210	204	198	192	186	174	156	138	126	66
B8SDS	8SDS 150/13	110	150		347,5	234	227	221	214	208	201	188	169	149	136	71,5
B8SDS	8SDS 150/14	110	150		373,5	252	245	238	231	224	217	203	182	161	147	77
B8SDS	8SDS 150/15	110	150		400,8	270	262	255	247	240	232	217	195	172	157	82,5

P2: Rated motor power output.
H: Total head in m

SDS

Coverage chart n ≈ 2900 rpm

				Q = Flow											
				m³/h	0	80	90	100	110	125	140	150	160	170	180	190
Model		P2		l/min		1333	1500	1667	1833	2083	2333	2500	2667	2833	3000	3167
		kW	HP	H (m) = Total head												
B10SDS	10SDS 160/1	18,5	25		63,2	39,5	38	37,5	36	34,5	32,5	31	29	26,5	22	20
-	10SDS 160/2	37	50		0	78,5	76,5	74,5	72,5	69	65	62	58,2	53,5	44	40
B10SDS	10SDS 160/3	55	75		187	118	114	112	108	104	98	92,5	87,5	80	66,5	60
B10SDS	10SDS 160/4	75	100		238,6	157	153	149	145	138	130	123	117	107	88,5	80
B10SDS	10SDS 160/5	92	125		298,5	196	191	186	181	173	163	154	146	134	111	100
B10SDS	10SDS 160/6	110	150		365,5	236	229	224	217	207	195	185	175	160	133	120
B10SDS	10SDS 160/7	130	175		424,8	275	267	261	253	242	228	216	204	187	155	140
B10SDS	10SDS 160/8	150	200		479,7	314	305	298	289	276	260	246	233	213	177	160
B10SDS	10SDS 160/9	185	250		573,3	356	342	338	324	311	293	279	261	239	198	180

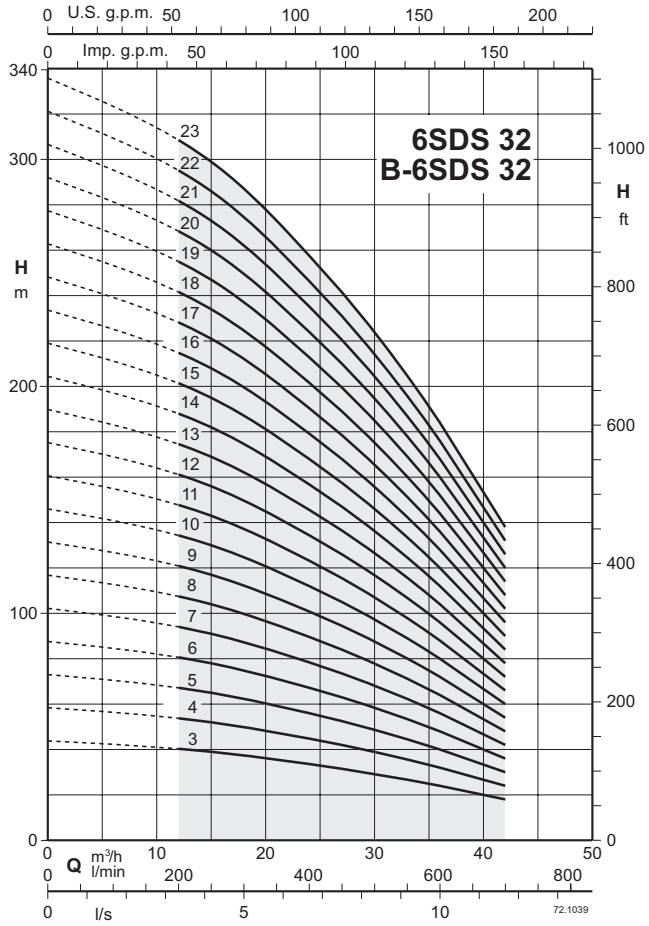
				Q = Flow											
				m³/h	0	100	120	140	160	180	200	220	230	240	250
Model		P2		l/min		1667	2000	2333	2667	3000	3333	3667	3833	4000	4167
		kW	HP	H (m) = Total head											
B10SDS	10SDS 190/1	22	30		43	38	37	35	33	30	27	24	22	20	18
-	10SDS 190/2	45	60		0	76	73	70	66	61	55	47	44	40	36
B10SDS	10SDS 190/3	66	90		129,4	115	110	105	98	91	82	71	65	59	53
B10SDS	10SDS 190/4	92	125		163,7	153	147	140	131	121	109	95	87	79	71
B10SDS	10SDS 190/5	110	150		209,5	191	183	175	164	152	137	119	109	99	89
B10SDS	10SDS 190/6	130	175		238,7	229	220	210	197	182	164	142	131	119	107
B10SDS	10SDS 190/7	185	250		277,4	267	257	244	230	212	191	166	152	139	125

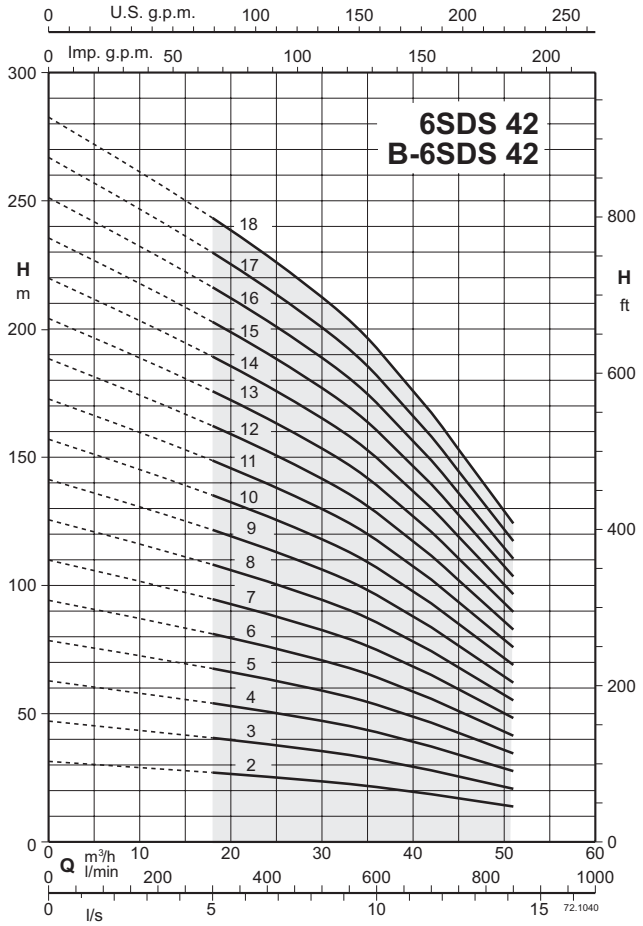
				Q = Flow											
				m³/h	0	150	180	200	220	240	260	280	300	315	350
Model		P2		l/min		2500	3000	3333	3667	4000	4333	4667	5000	5250	5833,3
		kW	HP	H (m) = Total head											
B10SDS	10SDS 280/1	26	35		40,3	29	28	27	26	25	24	23	21	20	16
B10SDS	10SDS 280/2	55	75		123,8	59	55	53	51	50	48	46	42	40	31
B10SDS	10SDS 280/3	75	100		168,7	88	83	80	77	75	71	69	64	60	47
B10SDS	10SDS 280/4	110	150		232,1	118	111	106	103	100	95	92	85	80	63
B10SDS	10SDS 280/5	130	175		272,4	147	139	133	129	125	119	115	106	100	79
B10SDS	10SDS 280/6	150	200		312,7	176	167	160	155	150	143	138	127	120	95

P1: Maximum power input.
P2: Rated motor power output.
H: Total head in m

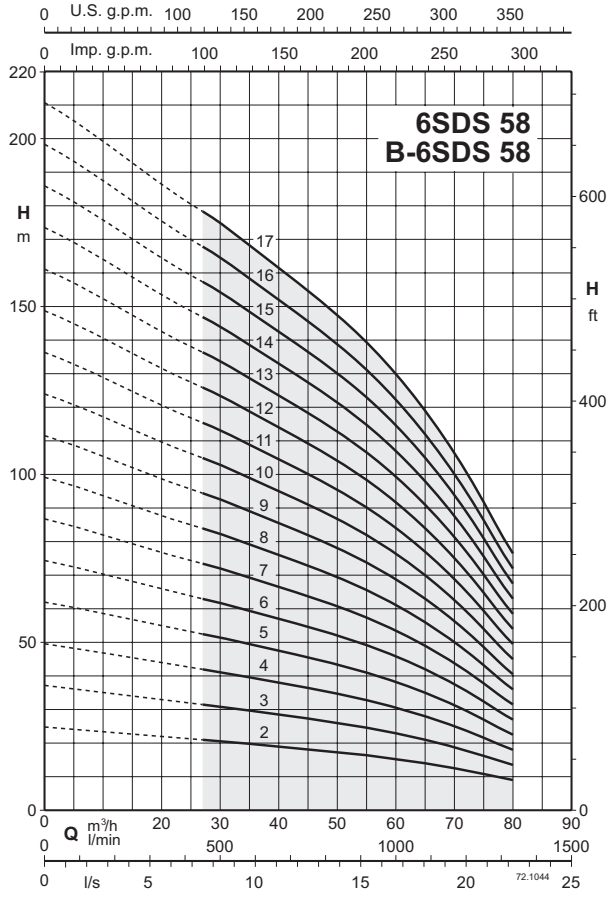
SDS

Characteristic curves n ≈ 2900 rpm



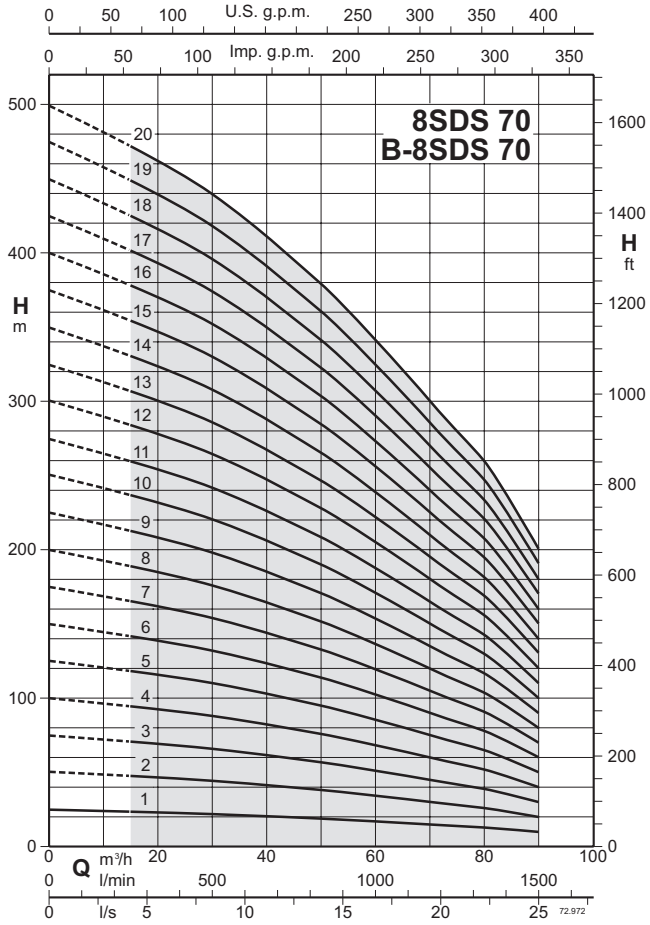


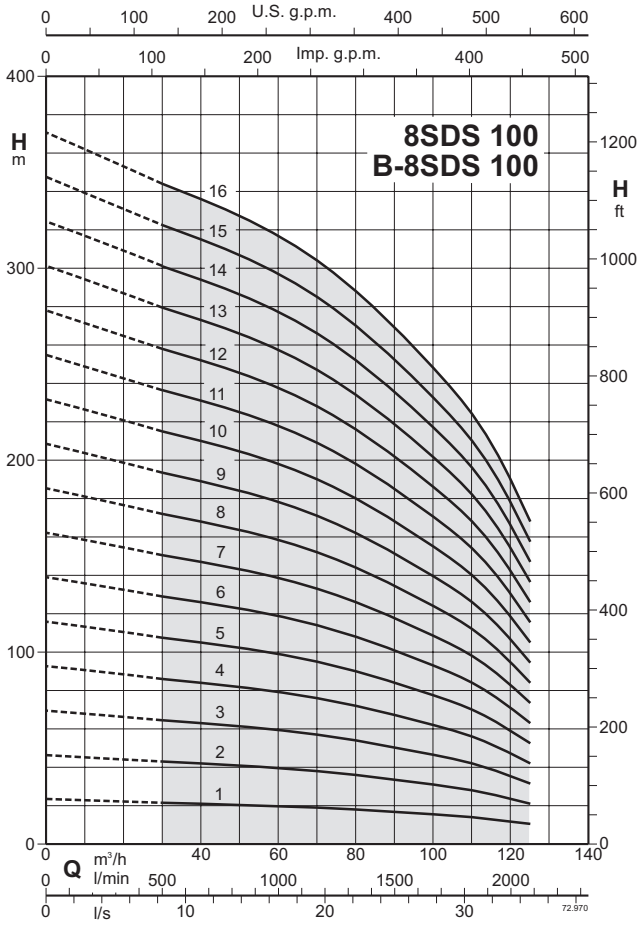
Pumps for specific applications with high sand content

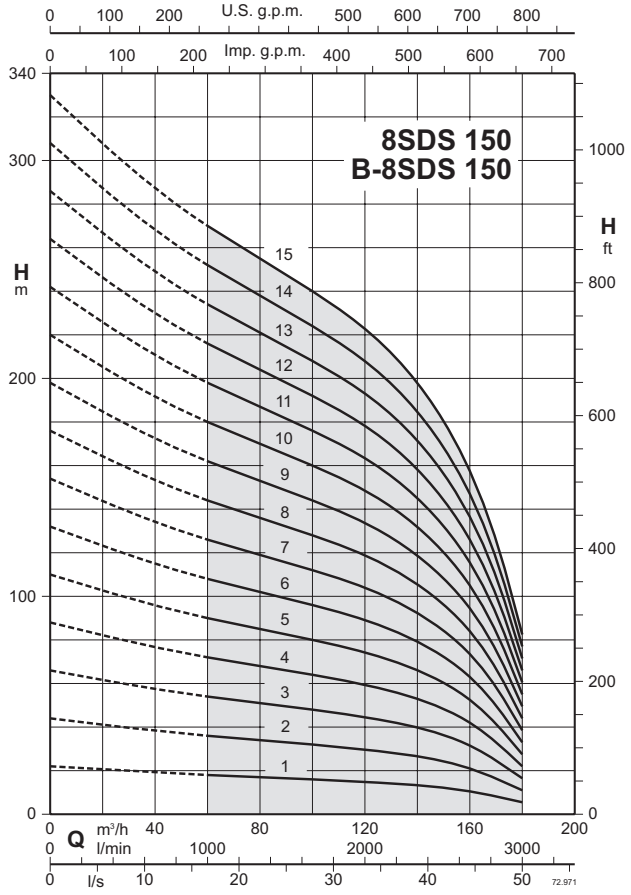


SDS

Characteristic curves n ≈ 2900 rpm

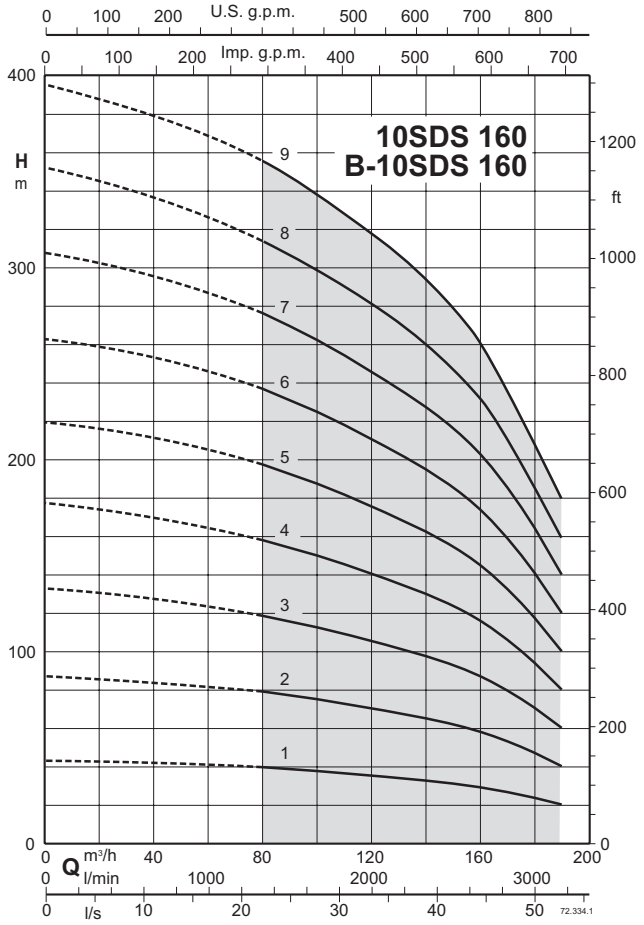


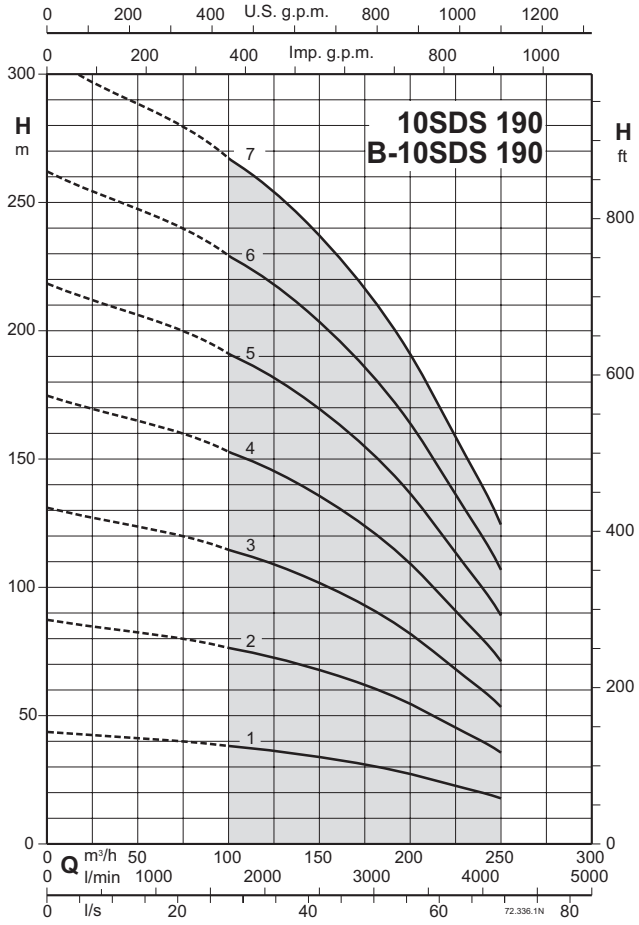


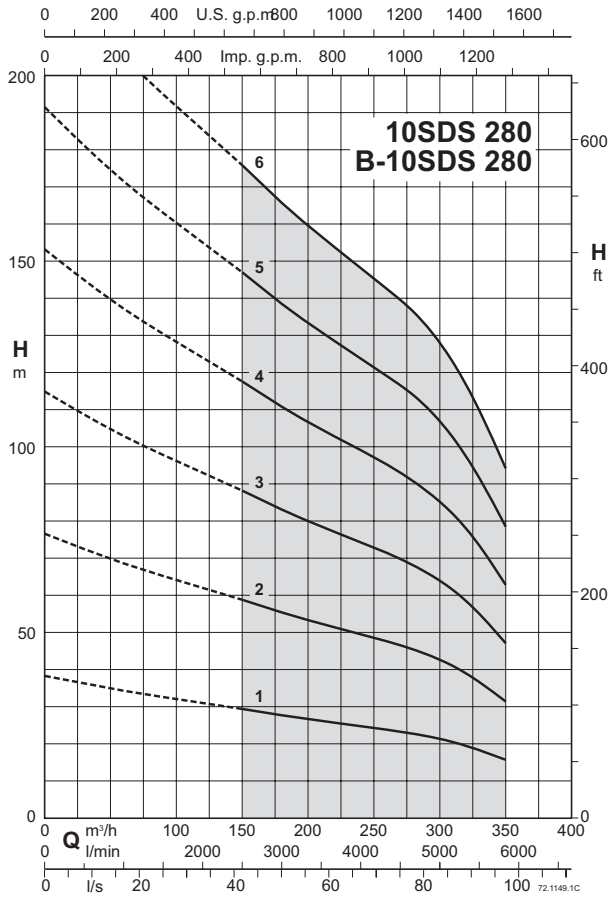


SDS

Characteristic curves n ≈ 2900 rpm





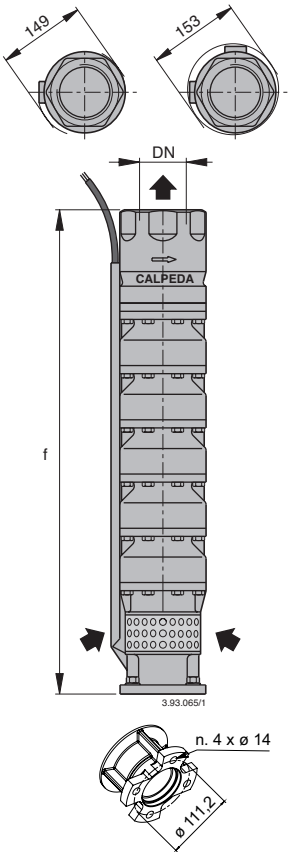


SDS

Dimensions and weights

TYPE		mm			kg
	DN2	f	l4	l5	Weight
6SDS 32/3	G 3"	686	6"	149	30.1
6SDS 32/4	G 3"	788	6"	149	38
6SDS 32/5	G 3"	890	6"	149	39.5
6SDS 32/6	G 3"	992	6"	149	46.5
6SDS 32/7	G 3"	1094	6"	149	51
6SDS 32/8	G 3"	1196	6"	149	56.5
6SDS 32/9	G 3"	1298	6"	149	64
6SDS 32/10	G 3"	1400	6"	149	-
6SDS 32/11	G 3"	1502	6"	149	75
6SDS 32/12	G 3"	1604	6"	149	77
6SDS 32/13	G 3"	1706	6"	149	-
6SDS 32/14	G 3"	1808	6"	149	-
6SDS 32/15	G 3"	1910	6"	149	-
6SDS 32/16	G 3"	2012	6"	149	-
6SDS 32/17	G 3"	2114	6"	149	-
6SDS 32/18	G 3"	2216	6"	149	-
6SDS 32/19	G 3"	2318	6"	149	-
6SDS 32/20	G 3"	2420	6"	149	-
6SDS 32/21	G 3"	2522	6"	149	-
6SDS 32/22	G 3"	2624	6"	149	-
6SDS 32/23	G 3"	2726	6"	149	-

TYPE	ISO 228	mm			Kg
	DN2	f	l4	l5	Weight
B6SDS 32/3	G 3"	686	6"	149	38
B6SDS 32/4	G 3"	788	6"	149	43
B6SDS 32/5	G 3"	890	6"	149	47.5
B6SDS 32/6	G 3"	992	6"	149	57
B6SDS 32/7	G 3"	1094	6"	149	62.3
B6SDS 32/8	G 3"	1196	6"	149	-
B6SDS 32/9	G 3"	1298	6"	149	-
B6SDS 32/10	G 3"	1400	6"	149	-
B6SDS 32/11	G 3"	1502	6"	149	86.5
B6SDS 32/12	G 3"	1604	6"	149	93.5
B6SDS 32/13	G 3"	1706	6"	149	101
B6SDS 32/14	G 3"	1808	6"	149	108
B6SDS 32/15	G 3"	1910	6"	149	112
B6SDS 32/16	G 3"	2012	6"	149	119
B6SDS 32/17	G 3"	2114	6"	149	125
B6SDS 32/18	G 3"	2216	6"	149	132
B6SDS 32/19	G 3"	2318	6"	149	139
B6SDS 32/20	G 3"	2420	6"	149	145
B6SDS 32/21	G 3"	2522	6"	149	151
B6SDS 32/22	G 3"	2624	6"	149	157
B6SDS 32/23	G 3"	2726	6"	149	164



TYPE		mm			kg
	DN2	f	l4	l5	Weight
6SDS 42/2	G 3"	584	6"	149	26.6
6SDS 42/3	G 3"	686	6"	149	30.7
6SDS 42/4	G 3"	788	6"	149	34
6SDS 42/5	G 3"	890	6"	149	43
6SDS 42/6	G 3"	992	6"	149	46.5
6SDS 42/7	G 3"	1094	6"	149	50.5
6SDS 42/8	G 3"	1196	6"	149	55
6SDS 42/9	G 3"	1298	6"	149	67
6SDS 42/10	G 3"	1400	6"	149	66
6SDS 42/11	G 3"	1502	6"	149	72
6SDS 42/12	G 3"	1604	6"	149	-
6SDS 42/13	G 3"	1706	6"	149	83
6SDS 42/14	G 3"	1808	6"	149	-
6SDS 42/15	G 3"	1910	6"	149	-
6SDS 42/16	G 3"	2012	6"	149	-
6SDS 42/17	G 3"	2114	6"	149	-
6SDS 42/18	G 3"	2216	6"	149	-

TYPE	ISO 228	mm			Kg
	DN2	f	l4	l5	Weight
B6SDS 42/2	G 3"	584	6"	149	-
B6SDS 42/3	G 3"	686	6"	149	36.6
B6SDS 42/4	G 3"	788	6"	149	-
B6SDS 42/5	G 3"	890	6"	149	-
B6SDS 42/6	G 3"	992	6"	149	-
B6SDS 42/7	G 3"	1094	6"	149	-
B6SDS 42/8	G 3"	1196	6"	149	-
B6SDS 42/9	G 3"	1298	6"	149	-
B6SDS 42/10	G 3"	1400	6"	149	-
B6SDS 42/11	G 3"	1502	6"	149	86
B6SDS 42/12	G 3"	1604	6"	149	94.2
B6SDS 42/13	G 3"	1706	6"	149	99.2
B6SDS 42/14	G 3"	1808	6"	149	106
B6SDS 42/15	G 3"	1910	6"	149	113
B6SDS 42/16	G 3"	2012	6"	149	119
B6SDS 42/17	G 3"	2114	6"	149	126
B6SDS 42/18	G 3"	2216	6"	149	132

TYPE		mm			kg
	DN2	f	l4	l5	Weight
6SDS 58/2	G 4"	584	6"	149	24.4
6SDS 58/3	G 4"	686	6"	149	29.5
6SDS 58/4	G 4"	788	6"	149	33.5
6SDS 58/5	G 4"	890	6"	149	39.2
6SDS 58/6	G 4"	992	6"	149	43
6SDS 58/7	G 4"	1094	6"	149	55
6SDS 58/8	G 4"	1196	6"	149	53.5
6SDS 58/9	G 4"	1298	6"	149	58.5
6SDS 58/10	G 4"	1400	6"	149	63
6SDS 58/11	G 4"	1502	6"	149	67.5
6SDS 58/12	G 4"	1604	6"	149	72
6SDS 58/13	G 4"	1706	6"	149	-
6SDS 58/14	G 4"	1808	6"	149	80
6SDS 58/15	G 4"	1910	6"	149	-
6SDS 58/16	G 4"	2012	6"	149	-
6SDS 58/17	G 4"	2114	6"	149	-

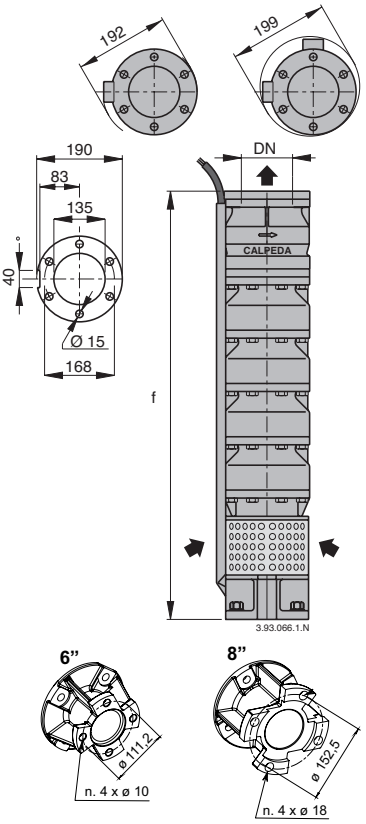
TYPE	ISO 228	mm			Kg
	DN2	f	l4	l5	Weight
B6SDS 58/2	G 4"	584	6"	149	-
B6SDS 58/3	G 4"	686	6"	149	40
B6SDS 58/4	G 4"	788	6"	149	-
B6SDS 58/5	G 4"	890	6"	149	48
B6SDS 58/6	G 4"	992	6"	149	-
B6SDS 58/7	G 4"	1094	6"	149	-
B6SDS 58/8	G 4"	1196	6"	149	70.5
B6SDS 58/9	G 4"	1298	6"	149	-
B6SDS 58/10	G 4"	1400	6"	149	84
B6SDS 58/11	G 4"	1502	6"	149	90.2
B6SDS 58/12	G 4"	1604	6"	149	97.2
B6SDS 58/13	G 4"	1706	6"	149	104
B6SDS 58/14	G 4"	1808	6"	149	111
B6SDS 58/15	G 4"	1910	6"	149	118
B6SDS 58/16	G 4"	2012	6"	149	124
B6SDS 58/17	G 4"	2114	6"	149	131

SDS

Dimensions and weights

TYPE		mm			kg
	DN2	f	l4	l5	Weight
8SDS 70/1	100	602	6"	192	41.5
8SDS 70/2	100	734	6"	192	64
8SDS 70/3	100	866	6"	192	64.5
8SDS 70/4	100	998	6"	192	74
8SDS 70/5	100	1130	6"	192	84.5
8SDS 70/6	100	1262	6"	192	95
8SDS 70/7	100	1394	6"	192	105
8SDS 70/8	100	1526	6"	192	96
8SDS 70/9	100	1658	6"	192	-
8SDS 70/10	100	1790	6"	192	136
8SDS 70/11	100	1922	8"	192	-
8SDS 70/12	100	2054	8"	192	-
8SDS 70/13	100	2186	8"	192	175
8SDS 70/14	100	2318	8"	192	181
8SDS 70/15	100	2450	8"	192	-
8SDS 70/16	100	2582	8"	192	-
8SDS 70/17	100	2714	8"	192	-
8SDS 70/18	100	2846	8"	192	-
8SDS 70/19	100	2978	8"	192	-
8SDS 70/20	100	3110	8"	192	-

TYPE		mm			kg
	DN2	f	l4	l5	Weight
B8SDS 70/1	100	602	6"	192	43
B8SDS 70/2	100	734	6"	192	62.2
B8SDS 70/3	100	866	6"	192	76
B8SDS 70/4	100	998	6"	192	80.5
B8SDS 70/5	100	1130	6"	192	-
B8SDS 70/6	100	1262	6"	192	106
B8SDS 70/7	100	1394	6"	192	-
B8SDS 70/8	100	1526	6"	192	131
B8SDS 70/9	100	1658	6"	192	143
B8SDS 70/10	100	1790	6"	192	156
B8SDS 70/11	100	1922	8"	192	168
B8SDS 70/12	100	2054	8"	192	181
B8SDS 70/13	100	2186	8"	192	194
B8SDS 70/14	100	2318	8"	192	206
B8SDS 70/15	100	2450	8"	192	219
B8SDS 70/16	100	2582	8"	192	231
B8SDS 70/17	100	2714	8"	192	244
B8SDS 70/18	100	2846	8"	192	256
B8SDS 70/19	100	2978	8"	192	269
B8SDS 70/20	100	3110	8"	192	281



TYPE		mm			kg
	DN2	f	l4	l5	Weight
8SDS 100/1	125	602	6"	192	40.5
8SDS 100/2	125	734	6"	192	50.5
8SDS 100/3	125	866	6"	192	62
8SDS 100/4	125	998	6"	192	73
8SDS 100/5	125	1130	6"	192	82
8SDS 100/6	125	1262	6"	192	93
8SDS 100/7	125	1394	6"	192	104
8SDS 100/8	125	1526	6"	192	112
8SDS 100/9	125	1658	8"	192	124
8SDS 100/10	125	1790	8"	192	143
8SDS 100/11	125	1922	8"	192	160
8SDS 100/12	125	2054	8"	192	-
8SDS 100/13	125	2186	8"	192	175
8SDS 100/14	125	2318	8"	192	-
8SDS 100/15	125	2450	8"	192	-
8SDS 100/16	125	2582	8"	192	213

TYPE		mm			kg
	DN2	f	l4	l5	Weight
B8SDS 100/1	125	602	6"	192	49
B8SDS 100/2	125	734	6"	192	-
B8SDS 100/3	125	866	6"	192	-
B8SDS 100/4	125	998	6"	192	-
B8SDS 100/5	125	1130	6"	192	98
B8SDS 100/6	125	1262	6"	192	-
B8SDS 100/7	125	1394	6"	192	-
B8SDS 100/8	125	1526	6"	192	-
B8SDS 100/9	125	1658	8"	192	-
B8SDS 100/10	125	1790	8"	192	152
B8SDS 100/11	125	1922	8"	192	164
B8SDS 100/12	125	2054	8"	192	176
B8SDS 100/13	125	2186	8"	192	188
B8SDS 100/14	125	2318	8"	192	200
B8SDS 100/15	125	2450	8"	192	212
B8SDS 100/16	125	2582	8"	192	224

TYPE		mm			kg
	DN2	f	l4	l5	Weight
8SDS 150/1	125	602	6"	192	40.5
8SDS 150/2	125	734	6"	192	50
8SDS 150/3	125	866	6"	192	61
8SDS 150/4	125	998	6"	192	69.5
8SDS 150/5	125	1130	6"	192	82.5
8SDS 150/6	125	1262	6"	192	83
8SDS 150/7	125	1394	8"	192	97
8SDS 150/8	125	1526	8"	192	111
8SDS 150/9	125	1658	8"	192	123
8SDS 150/10	125	1790	8"	192	126
8SDS 150/11	125	1922	8"	192	-
8SDS 150/12	125	2054	8"	192	-
8SDS 150/13	125	2186	10"	192	-
8SDS 150/14	125	2318	10"	192	-
8SDS 150/15	125	2450	10"	192	-

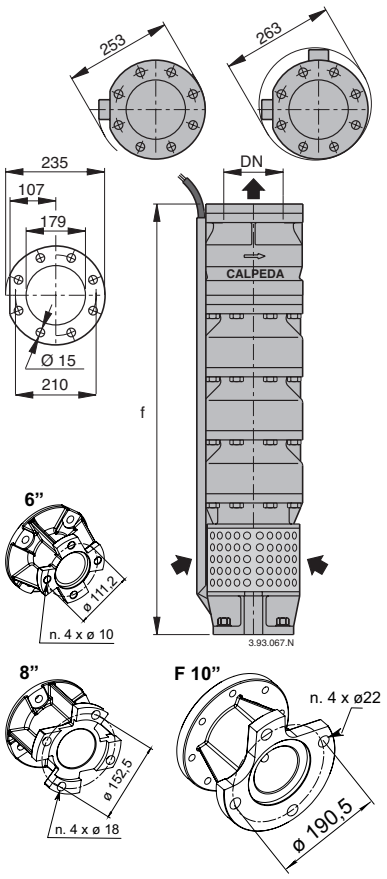
TYPE		mm			Kg
	DN2	f	l4	l5	Weight
B8SDS 150/1	125	602	6"	192	47.2
B8SDS 150/2	125	734	6"	192	58.5
B8SDS 150/3	125	866	6"	192	-
B8SDS 150/4	125	998	6"	192	83
B8SDS 150/5	125	1130	6"	192	-
B8SDS 150/6	125	1262	6"	192	-
B8SDS 150/7	125	1394	8"	192	120
B8SDS 150/8	125	1526	8"	192	-
B8SDS 150/9	125	1658	8"	192	-
B8SDS 150/10	125	1790	8"	192	156
B8SDS 150/11	125	1922	8"	192	168
B8SDS 150/12	125	2054	8"	192	181
B8SDS 150/13	125	2186	10"	192	194
B8SDS 150/14	125	2318	10"	192	206
B8SDS 150/15	125	2450	10"	192	219

SDS

Dimensions and weights

TYPE		mm			kg
	DN2	f	l4	l5	Weight
10SDS 160/1	175	865	6"	253	90
10SDS 160/2	175	1035	6"	253	108
10SDS 160/3	175	1205	8"	253	130
10SDS 160/4	175	1375	8"	253	150
10SDS 160/5	175	1545	8"	253	175
10SDS 160/6	175	1715	10"	253	-
10SDS 160/7	175	1885	10"	253	-
10SDS 160/8	100	2055	10"	253	244
10SDS 160/9	100	2225	10"	253	268

TYPE		mm			kg
	DN2	f	l4	l5	Weight
B10SDS 160/1	175	865	6"	253	-
B10SDS 160/2	175	1035	6"	253	124
B10SDS 160/3	175	1205	8"	253	141
B10SDS 160/4	175	1375	8"	253	169
B10SDS 160/5	175	1545	8"	253	195
B10SDS 160/6	175	1715	10"	253	222
B10SDS 160/7	175	1885	10"	253	-
B10SDS 160/8	175	2055	10"	253	276
B10SDS 160/9	175	2225	10"	253	303



TYPE		mm			kg
	DN2	f	l4	l5	Weight
10SDS 190/1	175	865	6"	253	80
10SDS 190/2	175	1035	6"	253	105
10SDS 190/3	175	1205	8"	253	132
10SDS 190/4	175	1375	8"	253	-
10SDS 190/5	175	1545	10"	253	-
10SDS 190/6	175	1715	10"	253	-
10SDS 190/7	175	1715	10"	253	-

TYPE		mm			kg
	DN2	f	l4	l5	Weight
B10SDS 190/1	175	865	6"	253	90
B10SDS 190/2	175	1035	6"	253	122
B10SDS 190/3	175	1205	8"	253	143
B10SDS 190/4	175	1375	8"	253	170
B10SDS 190/5	175	1545	10"	253	198
B10SDS 190/6	175	1715	10"	253	225
B10SDS 190/7	175	1885	10"	253	252

TYPE		mm			kg
	DN2	f	l4	l5	Weight
10SDS 280/1	175	865	6"	253	75
10SDS 280/2	175	1035	8"	253	98
10SDS 280/3	175	1205	8"	253	115
10SDS 280/4	175	1375	10"	253	-
10SDS 280/5	175	1545	10"	253	170
10SDS 280/6	175	1715	10"	253	-

TYPE		mm			kg
	DN2	f	l4	l5	Weight
B10SDS 280/1	175	865	6"	253	89
B10SDS 280/2	175	1035	8"	253	116
B10SDS 280/3	175	1205	8"	253	143
B10SDS 280/4	175	1375	10"	253	170
B10SDS 280/5	175	1545	10"	253	226
B10SDS 280/6	175	1715	10"	253	-

SDS

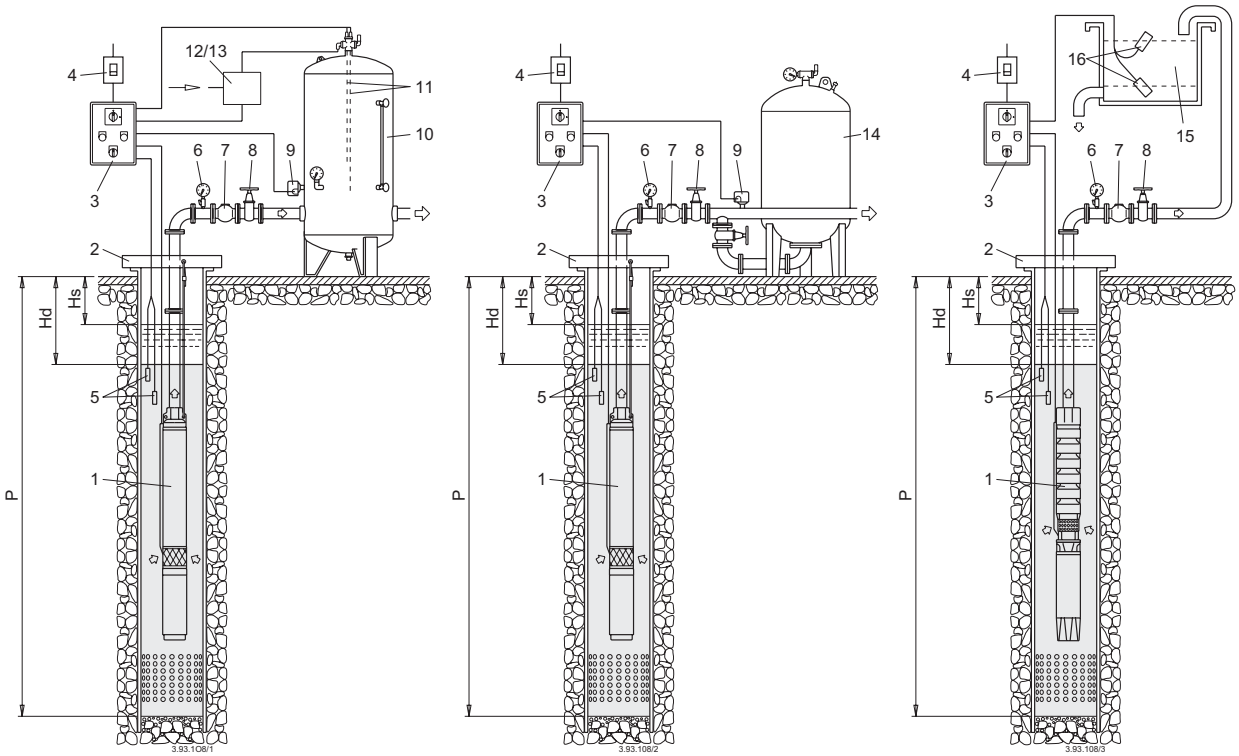
Cables connection kit

It allows connection of electric cables with junction submerged in water.
The kit includes:
- 4 connectors
- 4 shrink-sheaths for protection of individual wires
- 1 shrink-sheath for protection of the 4-pole wire.

The shrinkage of the sheath occurs with the action of a heat source (flame or hair dryer) that causes the resin to escape, thus guaranteeing the watertightness of the joint.



Plant examples



1 Submersible pump
2 Pump support system
3 Electric control board
4 Circuit breaker
5 Minimum level probes
6 Pressure gauge
7 Check valve
8 Throttle gate valve
9 Pressure switch
10 Pressure tank
11 Probes for air entry control
12 Electric valve
13 Compressor
14 Membrane tank
15 Storage tank
16 Start-stop probes

Hs Static level
Hd Dynamic level
P Tubewell depth

CS-R









Submersible motors

CS-R

kW	4" 1 ~	4" 3 ~	6" 3 ~		8" 3 ~		10" 3 ~		kW
	CS-R	CS-R	CS-R	I-CS-R 316	CS-R	I-CS-R 316	CS-R	I-CS 316	
0,37	•	•							0,37
0,55	•	•							0,55
0,75	•	•							0,75
1,1	•	•							1,1
1,5	•	•							1,5
2,2	•	•							2,2
3		•							3
4		•	•	•					4
5,5		•	•	•					5,5
7,5		•	•	•					7,5
9,2			•	•					9,2
11			•	•					11
13			•	•					13
15			•	•					15
18,5			•	•					18,5
22			•	•					22
26			•	•					26
30			•	•	•	•			30
37			•	•	•	•			37
45			•	•	•	•			45
51					•	•			51
59					•	•			59
66					•	•			66
75					•	•	•	•	75
92					•	•	•	•	92
110					•	•	•	•	110
130							•	•	130
150							•	•	150
165							•	•	165
185							•	•	185

Rewindable motor CS-R series

Operating conditions

Motor	Motor P2	Max. Liquid temperature	Cooling minimum flow velocity	Max n° of starting x hour
4CS-R	all	35 °C	0,1 m/s	30
6CS-R	4÷15 kW	40 °C	0,5 m/s	20
6CS-R	18,5÷30 kW	35 °C	0,5 m/s	20
6CS-R	37÷45 kW	30 °C	0,5 m/s	20
8CS-R	30÷45 kW	30 °C	0,2 m/s	10
8CS-R	51 kW	30 °C	0,2 m/s	8
8CS-R	59÷75 kW	30 °C	0,5 m/s	8
8CS-R	92÷110 kW	30 °C	0,5 m/s	6
10CS-R	all	25 °C	0,15 m/s	6

Continuous duty.

CS-R

Rewindable motor CS-R series

The CS-R 6/8/10" motors are in a water bath with the wire being coated with polyvinyl chloride, while the CS-R 4” motors have a special food grade dielectric fluid that gives a better lubricant effect, increasing the life of all moving parts and the copper wires.
The special design of all our motors allows easy access to the various components, simplifying maintenance and repair.
All CS, CS-R series motors can be rewound and are NEMA compliant.
CS-R: Standard construction
I-CS-R:AISI 316 construction.

Operation data

2-pole induction motor, 50 Hz (n ≈ 2900 rpm).
Sized for connection to the pumps according to NEMA Standards (10” excluded).
Standard voltages:
single-phase 230 V - up to 2,2 kW for 4” motors.
three-phase 230 V; 400 V, for 4” motors.
400 V; 400/690 V for 6-8-10” motors.
Voltage tolerance : ± 10%
In order to limit both current and torque at each starting, for rated motor powers equal to or higher than 7.5 kW, one of the following types of starting is necessary: star/delta, soft starter, stator impedance or autotransformer.
Insulation class:
- class F for 4” motors,
- class E for 6” motors, PVC for I-6” (I-6” 45 kW PE2+PA).
- PVC for 8”
- PVC for 10” (10” 170kW and 190 kW PE2+PA)

Protection IP 68.
Installation below water level: 100 m for 4”, 150 m for 6”, 500 m for 8,10” 4” motor
Motor suitable operation with frequency converter (with suitable filter dv/dt).
Horizontal installation (6" 37-45kW, 8" 92kW, 10" 170-190 kW excluded)

Cable

Motor 230V - 50 Hz - 1 ~	Sezione	Lunghezza
4CS-R 0,37 ÷ 2,2 kW	4 x 1,5 mm2	1,7 m

Motor 400V - 50 Hz - 3 ~	Sezione	Lunghezza
4CS-R 0,37 ÷ 3 kW	4 x 1,5 mm2	1,7 m
4CS-R 4 ÷ 7,5 kW	4 x 2 mm2	2,7 m
6CS-R 4 ÷ 11 kW	3 x (1x2,5) mm2	3,5 m
6CS-R 13 ÷ 22 kW	3 x (1x4) mm2	3,5 m
6CS-R 26 - 30 kW	3 x (1x6) mm2	3,5 m
6CS-R 37 - 45 kW	3 x (1x10) mm2	4,5 m
8CS-R 30 ÷ 45 kW	3 x (1x16) mm2	4 m
8CS-R 51 ÷ 92 kW	3 x (1x25) mm2	4 m
8CS-R 110 kW	3 x (1x35) mm2	4 m
10CS 75 ÷ 92 kW	3x(1x25) mm2	4 m
10CS 110 ÷ 150 kW	3x(1x50) mm2	4 m
10CS 165 ÷ 185 kW	3x(1x70) mm2	4 m

Materials

Components	**4"**	
External frame	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	
Motor flange	Cast iron with cataphoresis treatment and protected with a Cr-Ni steel AISI 304 cover	
Shaft	Chrome-nickel steel 1.4301 EN 10088 (AISI 304)	
Thrust bearing	Oil wetted	
Components	6”, 8”, 10” standard	6", 8", 10" 1.4401 EN 10088 (AISI 316)
External frame	Cr-Ni steel 1.4301 EN 10088 (AISI 304) (Steel AISI 316 for 6”)	Steel 1.4401 EN 10088 (AISI 316)
Motor flange	Cast iron GJL 250 EN 1561 (Cast iron G 25 EN 1561 for 8,10”)	Steel 1.4401 EN 10088 (AISI 316)
Shaft	Cr-Ni steel 1.4057 EN 10088 (AISI 431) (Steel AISI 630 for 8,10”)	Duplex 1.4462 (Steel AISI 630 for 8,10”)
Thrust bearing	Brass skids	Brass skids

Special features on request

- Other voltage.
- Frequency 60 Hz.
- Higher liquid temperature.
- PT100 temperature sensor
- PE2 / PA winding insulation
- Cooling jackets
- Special Coupling Flange

CS-R

Performance, dimensions and weights

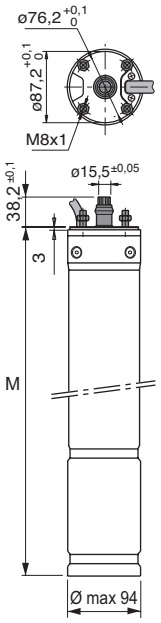
4" CS-R - 1 ~

Pump type	PN		IN 230 V	Power factor	Efficiency	R.P.M.	Direct start	Capacitor 450 Vc	Axial thrust	M	Weight
	kW	HP	A	cos ϕ	η %		IA	µF	N	mm	kg
4CS-R 0,37MC	0,37	0,5	3.6	0.93	50	2805	10.5	20	2000	311.3	6.45
4CS-R 0,55MC	0,55	0,75	4.7	0.92	56	2790	14.5	25	2000	331.4	7.2
4CS-R 0,75MC	0,75	1	5.6	0.97	61	2830	16.5	35	2000	356.4	8.45
4CS-R 1,1MC	1,1	1,5	7.6	0.94	68	2845	22	40	2000	396.4	10.2
4CS-R 1,5MC	1,5	2	10.7	0.92	66	2840	32	60	2000	436.5	11.65
4CS-R 2,2MC	2,2	3	14.6	0.93	69	2810	43	80	2000	491.5	14.9

4" CS-R - 3 ~

Pump type	PN		IN 400 V	Power factor	Efficiency	R.P.M.	Direct start	Axial thrust	M	Weight
	kW	HP	A	cos ϕ	η %		IA	N	mm	kg
4CS-R 0,37TC	0,37	0,5	1.7	0.61	52	2830	6	2000	311.3	6.45
4CS-R 0,55TC	0,55	0,75	2	0.66	60	2815	7	2000	331.4	7.2
4CS-R 0,75TC	0,75	1	2.5	0.69	62	2820	8.5	2000	356.4	8.45
4CS-R 1,1TC	1,1	1,5	3.3	0.76	67	2810	11.5	2000	371.4	9.35
4CS-R 1,5TC	1,5	2	4.4	0.71	69	2815	15.5	2000	396.4	10.2
4CS-R 2,2TC	2,2	3	6.1	0.73	71	2815	21	2000	436.5	11.65
4CS-R 3TC	3	4	6.9	0.85	74	2820	24	3000	450	12.1
4CS-R 4TC	4	5,5	9.4	0.84	75	2820	33	5000	505	15.1
4CS-R 5,5TC	5,5	7,5	13.4	0.77	77	2820	47	5000	589	19.8
4CS-R 7,5TC	7.5	10	16.4	0.81	81	2840	88	5000	800	29

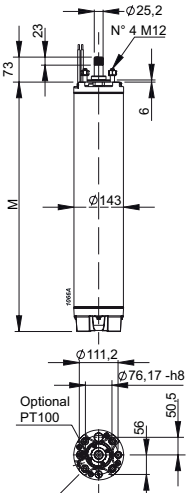
4" NEMA



6" CS-R, I-6"CS-R

Pump type		PN		IN 400 V	Power factor cos ϕ		Efficiency η %		R.P.M.	Direct start		Axial thrust	M	Weight
Standard	AISI 316	kW	HP	A	4/4	3/4	4/4	3/4	R.P.M.	IA/IN	CA/CN	N	mm	kg
6CS-R 4	I-6CS-R 4	4	5,5	9,5	0,79	0,72	76,6	76	2895	4,35	1	30000	570	34,6
6CS-R 5,5	I-6CS-R 5,5	5,5	7,5	12,4	0,83	0,79	77,2	78,1	2875	4	0,9	30000	615	39,6
6CS-R 7,5	I-6CS-R 7,5	7,5	10	16,6	0,83	0,78	78,5	77,7	2885	4,45	1	30000	670	44,4
6CS-R 9,2	I-6CS-R 9,2	9,2	12,5	20,8	0,81	0,74	79,1	76,8	2880	4,2	0,9	30000	700	47,7
6CS-R 11	I-6CS-R 11	11	15	25,4	0,79	0,7	79,4	79	2870	4,75	1,4	30000	715	52
6CS-R 13	I-6CS-R 13	13	17,5	28,3	0,83	0,75	79,9	80,9	2870	4,75	1,3	30000	750	56
6CS-R 15	I-6CS-R 15	15	20	32,5	0,83	0,75	80,4	82,2	2880	4,2	1	30000	790	59,8
6CS-R 18,5	I-6CS-R 18,5	18,5	25	40,4	0,81	0,73	81,3	82,9	2870	4,8	1,5	30000	830	64,2
6CS-R 22	I-6CS-R 22	22	30	46,6	0,82	0,75	83	84,2	2870	4,9	1,5	30000	920	74,5
6CS-R 26	I-6CS-R 26	26	35	55,8	0,8	0,73	84	85,4	2880	5,25	1,7	30000	1055	89,3
6CS-R 30	I-6CS-R 30	30	40	62,5	0,83	0,77	83,5	85,4	2870	4,6	1,3	30000	1165	101,9
6CS-R 37	I-6CS-R 37	37	50	76,6	0,84	0,78	83,5	85,2	2860	4,55	1,3	30000	1245	111
6CS-R 45	I-6CS-R 45	45	60	96,3	0,82	0,75	82,5	84,3	2855	4,65	1,5	30000	1322	123.3

6" NEMA

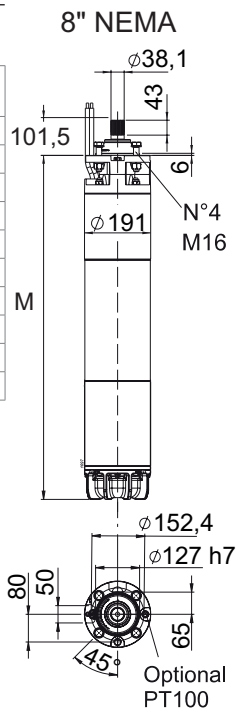


CS-R

Performance, dimensions and weights

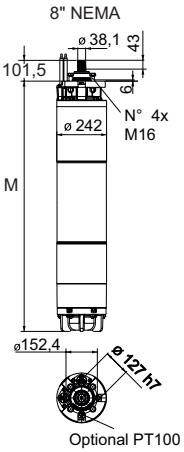
8" CS-R, I-8"CS-R

Pump type		PN		IN 400 V	Power factor cos ϕ		Efficiency η %		R.P.M.	Direct start		Axial thrust	M	Weight
Standard	AISI 316	kW	HP	A	4/4	3/4	4/4	3/4	R.P.M.	IA/IN	CA/CN	N	mm	kg
8CS-R 30	I-8CS-R 30	30	40	61	0,86	0,83	82,6	83,3	2900	5,5	1,8	50000	1060	143
8CS-R 37	I-8CS-R 37	37	50	76,2	0,83	0,78	84,6	84,5	2910	5,9	1,8	50000	1115	155
8CS-R 45	I-8CS-R 45	45	60	91,9	0,83	0,79	84,8	85,2	2905	5,85	1,9	50000	1195	172
8CS-R 51	I-8CS-R 51	51	70	101,1	0,85	0,8	85,9	86,5	2910	6	1,9	50000	1290	192
8CS-R 59	I-8CS-R 59	59	80	116,7	0,84	0,79	86,8	87,2	2915	6,2	2	50000	1395	210
8CS-R 66	I-8CS-R 66	66	90	131,2	0,84	0,79	86,6	87,1	2905	6,1	2	50000	1430	219
8CS-R 75	I-8CS-R 75	75	100	145,4	0,86	0,82	86,6	87,5	2895	5,9	2	50000	1500	235
8CS-R 92	I-8CS-R 92	92	125	179,2	0,85	0,8	86,9	87,8	2900	6,3	2,1	50000	1685	265
8CS-R 110	I-8CS-R 110	110	150	213,8	0,86	0,81	86,9	87,8	2895	6	1,9	50000	1760	283



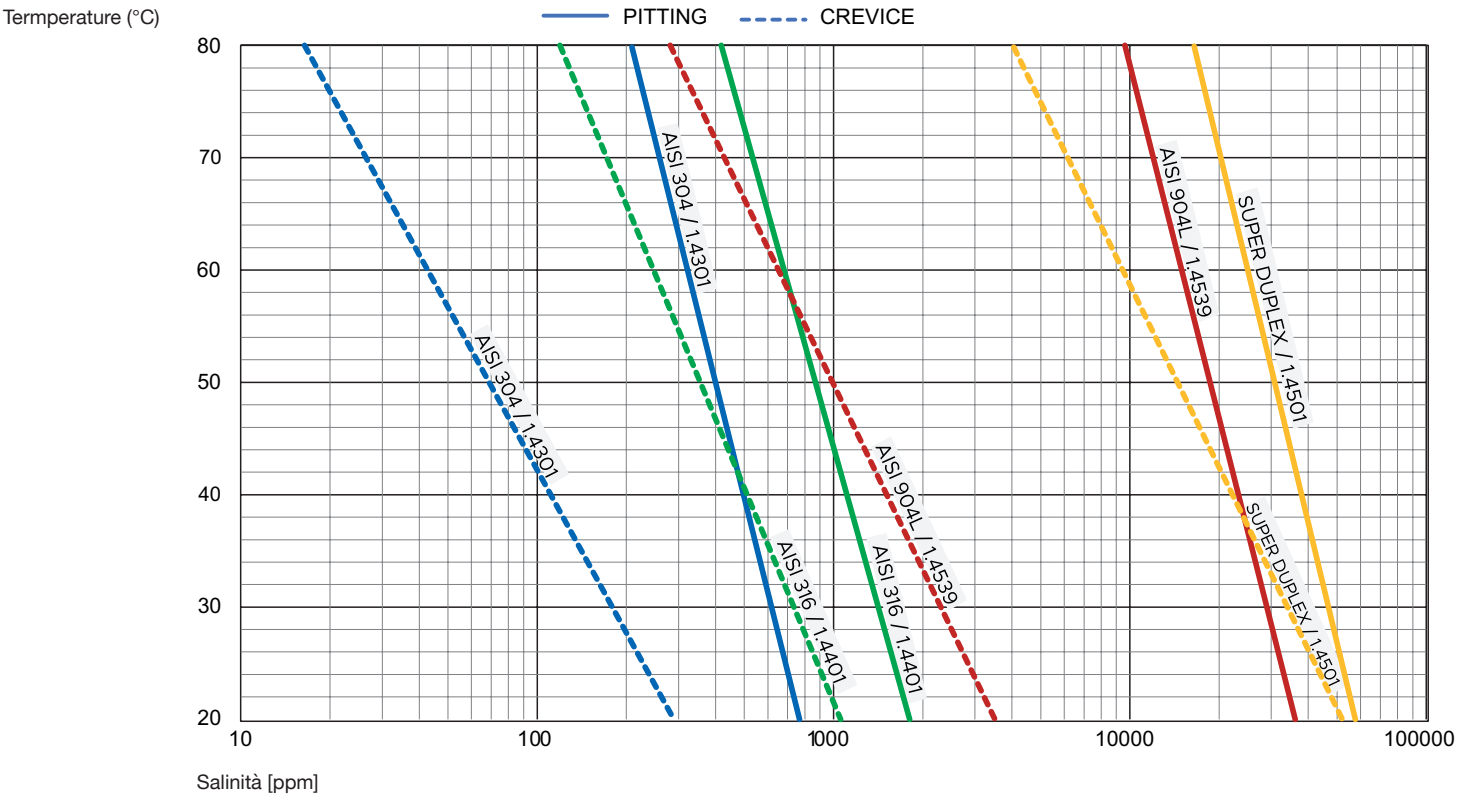
10" CS-R, I-10"CS-R

Pump type		PN		IN 400 V	Power factor cos ϕ		Efficiency η %		R.P.M.	Direct start		Axial thrust	M	Weight
Standard	AISI 316	kW	HP	A	4/4	3/4	4/4	3/4	R.P.M.	IA/IN	CA/CN	N	mm	kg
10CS 75	I-10CS 75	75	100	145,5	0,87	0,85	85,9	86,6	2925	6,1	1,4	70000	1406	300
10CS 92	I-10CS 92	92	125	177,2	0,86	0,84	87	87,3	2925	6,7	1,6	70000	1536	338
10CS 110	I-10CS 110	110	150	209,7	0,86	0,83	87,8	88,2	2930	6,3	1,5	70000	1641	373
10CS 130	I-10CS 130	130	175	251,1	0,86	0,83	87,9	88,4	2930	6,6	1,6	70000	1766	408
10CS 150	I-10CS 150	150	200	284,3	0,86	0,83	88,4	88,8	2930	6,7	1,7	70000	1866	436
10CS 165	I-10CS 165	165	220	317,5	0,85	0,81	88,3	88,6	2930	6,9	1,7	70000	2026	466
10CS 185	I-10CS 185	185	250	358,5	0,84	0,8	88,4	88,6	2935	6,7	1,6	70000	2126	499



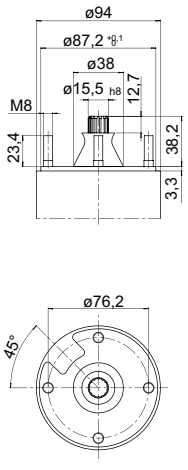
CS-R

Relationship between temperature and salinity

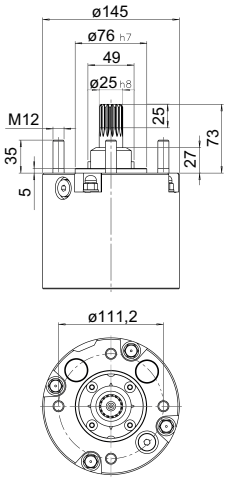


Coupling flange

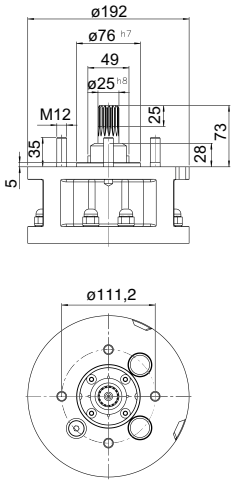
Motor 4”
4" NEMA Coupling



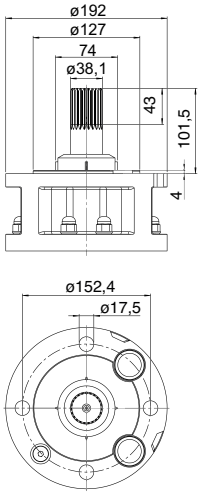
Motor 6”
6" NEMA Coupling



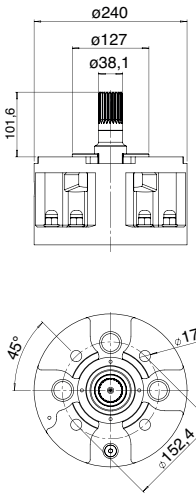
Motor 8”
6" NEMA Coupling



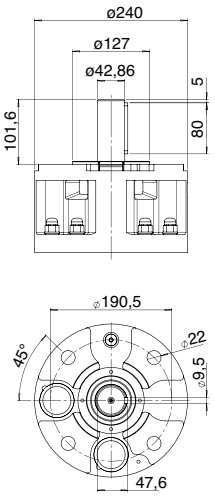
Motor 8”
8" F Coupling



Motor 10”
8" F Coupling



Motor 10”
10" NEMA Coupling



CS-R

Maximum length of electric cables

IN	230 Volt - 50 Hz - 1 ~				
	1 cavo quadripolare 4 x mm2				
A	1,5	2,5	4	6	10
	cables max m				
2	142	235			
4	71	118	189		
6	47	78	126	189	
8	35	59	94	142	231
10	28	47	76	113	185
12	24	39	63	95	154
14	20	34	54	81	132
16	18	29	47	71	115
18		26	42	63	103
20		24	38	57	92
25			30	45	74
30			25	38	62

Voltage drop 3%.
Maximum ambient temperature + 30 °C.

Direct-starting

IN	230 Volt - 50 Hz - 3 ~												
	1 cavo quadripolare 4 x mm2								4 cables 1 x mm2				
A	1,5	2,5	4	6	10	16	25	35	50	70	95	120	150
	cables max m												
2	164	272											
4	82	136	218										
6	55	91	145	218									
8	41	68	109	164	267								
10	33	54	87	131	213								
12	27	45	73	109	178								
14	23	39	62	94	152	239							
16	20	34	55	82	133	209							
18		30	48	73	118	186							
20		27	44	65	107	167	257						
25			35	52	85	134	206						
30			29	44	71	111	171	233					
35				37	61	95	147	200					
40				33	53	83	129	175	227				
45					47	74	114	155	202				
50					43	67	103	140	181	249			
60						56	86	116	151	207			
70						48	73	100	130	178	230		
80							64	87	113	155	201	241	
90							57	78	101	138	179	214	
100							51	70	91	124	161	193	224
110								64	82	113	146	175	203
120								58	76	104	134	161	186
130									70	96	124	148	172
140									65	89	115	138	160
150									60	83	107	128	149
160									57	78	101	120	140
170									53	73	95	113	132
180									50	69	89	107	124
190									48	65	85	101	118
200									45	62	81	96	112
220										57	73	88	102
240										52	67	80	93
260											62	74	86
280											58	69	80
300											54	64	75

IN	400 Volt - 50 Hz - 3 ~														
	1 cavo quadripolare 4 x mm2								4 cables 1 x mm2						
A	1,5	2,5	4	6	10	16	25	35	50	70	95	120	150	185	240
	cables max m														
2	285	473													
4	143	236	379												
6	95	158	253												
8	71	118	190	285											
10	57	95	152	228											
12	48	79	126	190	309										
14	41	68	108	163	265										
16	36	59	95	142	232										
18		53	84	127	206	323									
20		47	76	114	185	290									
25			61	91	148	232	358								
30			51	76	124	194	298								
35				65	106	166	256	347							
40				57	93	145	224	304							
45					82	129	199	270							
50					74	116	179	243	316						
60						97	149	203	263						
70						83	128	174	225	309					
80							112	152	197	270					
90							99	135	175	240	311				
100							89	122	158	216	280				
110								110	143	197	255	305			
120								101	132	180	233	279			
130									121	166	216	258	299		
140									113	155	200	239	278		
150									105	144	187	223	259	302	
160									99	135	175	209	243	283	
170									93	127	165	197	229	267	
180									88	120	156	186	216	252	297
190									83	114	147	176	205	239	281
200									79	108	140	168	195	227	267
220										98	127	152	177	206	243
240										90	117	140	162	189	223
260											108	129	150	174	206
280											100	120	139	162	191
300											93	112	130	151	178

CS-R

Maximum length of electric cables

Star-delta starting

IN	230 Volt - 50 Hz - 3 ~ Y/Δ												
	2 four-wires cables 4 G mm2								7 cables 1 x mm2				
A	1,5	2,5	4	6	10	16	25	35	50	70	95	120	150
	cables max m												
30	19	31	50	76	123	193							
35		27	43	65	105	165							
40		24	38	57	92	144							
45		21	34	50	82	128	198						
50			30	45	74	116	178						
60				38	62	96	148	201					
70				32	53	83	127	173	224				
80					46	72	111	151	196				
90					41	64	99	134	174				
100						58	89	121	157	215			
110						53	81	110	143	196			
120						48	74	101	131	179			
130						44	68	93	121	166	214		
140							64	86	112	154	199		
150							59	81	105	143	186		
160							56	76	98	134	174	208	
170							52	71	92	127	164	196	
180								67	87	120	155	185	
190								64	83	113	147	175	204
200									78	108	139	167	194
220										98	127	152	176
240										90	116	139	161
260										83	107	128	149
280										77	100	119	138
300										7	93	111	129

IN	400 Volt - 50 Hz - 3 ~ Y/Δ												
	2 four-wires cables 4 G mm2								7 cables 1 x mm2				
A	1,5	2,5	4	6	10	16	25	35	50	70	95	120	150
	cables max m												
30	33	55	88	131	214	335							
35		47	75	113	183	287							
40		41	66	99	160	251							
45			58	88	143	223	344						
50			53	79	128	201	310						
60				66	107	167	258	350					
70				56	92	144	221	300					
80					80	126	193	263	341				
90					71	112	172	234	303				
100					64	100	155	210	273	374			
110					58	91	141	191	248	340			
120						84	129	175	228	312			
130						77	119	162	210	288	373		
140							111	150	195	267	346		
150							103	140	182	249	323		
160							97	131	171	234	303	362	
170								124	161	220	285	341	
180								117	152	208	269	322	
190								111	144	197	255	305	354
200									137	187	242	290	337
220										170	220	264	306
240										156	202	242	280
260											186	223	259
280											173	207	240
300											162	193	224

Against short-circuits and overloads to the electric pumps system we advise to follow the usually applied normative.
- To avoid a possible dry working of the electric pump in is better to install a level control.
- In order to avoid overheatings, tension grops above 3%, we advise to use suitable starting motors systems.
- All the cable wave to respect the usually applied normative and to present excellent insullation characteristics.

The tables show the maximum length of the cable depending on the current absorbed by the motor and the cross section area of the cable, at different voltages. The maximum voltage drop equal to 3%, cable temperature of 80°C, water installation similar to air installation at a temperature of 30°C.

CS-R

Choice of electric cable by calculation

For dimensioning the phase cross section area for the submersible motor need the following information:
- • V: Rated voltage (V)
- • I: Motor current (A)
- • L: Length of cable (km)
- • cos ϕ: power factor
- • Ambient temperature (°C)

The choice of the minimum cross section area of the phase conductor is determined by the rated motor current and the values reported in Table 1.

Table 1

Type of cable*	Cable cross section	Maximum cable current			Resistance	Reactance
		1 Ader		2 Ader	R at 80°C Ω/ km 4)	X at 50 Hz Ω/km 4)
	mm2	A 1)	A 2)	A 3)		
four-wires cable	1,5	18		15	15,1	0,142
four-wires cable	2,5	24		20	9,08	0,131
four-wires cable	4	32		27	5,63	0,121
four-wires cable	6	41		35	3,73	0,115
four-wires cable	10	57		48	2,27	0,103
four-wires cable	16	76		65	1,43	0,098
four-wires cable	25	96		82	0,91	0,097
four-wires cable	35		119	101	0,65	0,094
single-wire cable	50		167	142	0,473	0,121
single-wire cable	70		216	184	0,328	0,116
single-wire cable	95		264	224	0,236	0,118
single-wire cable	120		308	262	0,188	0,113
single-wire cable	150		356	303	0,153	0,112
single-wire cable	185		409	348	0,123	0,109
single-wire cable	240		485	412	0,094	0,110

1) IEC 60364-5-52:2009 Tab.B52.4 / C
2) IEC 60364-5-52:2009 Tab.B52.6
3) 1)x0,85 IEC 60364-5-52:2009 Tab.B52.17 ITEM2
4) UNEL 35023-70

* Up to 35 mm2 sections four-wire cable are used, from 50 mm2 single core cables are recommended as well.Tab.1

Le portate massime dei cavi indicate nella Tabella 1 sono valide per temperatura ambiente di 30°C, qualora la temperatura ambiente fosse diversa, le portate massime dei cavi devono essere corrette con un coefficiente moltiplicativo riportato in Tabella 2.

Table 2 (IEC 60364-5-52:2009 Tab.B.52.14)

Ambient Temperature	10	15	20	25	30	35	40	45	50	55	60
Correction factor	1,22	1,17	1,12	1,06	1	0,94	0,87	0,79	0,71	0,61	0,5

Minimum power cable cross-sections

The cross section area of the phase conductor is choosen by checking the voltage drop along the line , through the following equation:

DU% = 1,73*I*L*(R*cos ϕ+X*sen ϕ)/(V*1000)

K= 1.73 for three-phase motors and 2 for single-phase motors
DU% the voltage drop should not be greater than 3%
R, X = cable resistance and reactance in ohms/km (indicated in Table 1)

$\text{sen}\varphi = \sqrt{1-(\cos\varphi)^2}$

In case of star / delta starting the rated current of the motor should be divided by 1.73.

Determination of minimal sections of the protective conductor PE.
The minimum cross-section of the PE protective conductor can be determined from Table 3.

Table 3 (CEI 64-8:2007 Tab.54F)

Phase cross section area S	PE cross section area SPE
mm2	mm2
S ≤ 16	S
16 < S ≤ 25	16
S > 25	S/2

CS-R

Control panels

M COMP Control panel for 1 single-phase submersible pump



Pump type	Protection	Capacitor	Motor 220V-240V - 1~	Dimensions HxBxP
	max A	450Vc	kW	mm
M COMP 4-16	4,5	16 µF	0,37	220x210x110
M COMP 4-20	4,5	20 µF	0,55	220x210x110
M COMP 5-20	5	20 µF	0,55	220x210x110
M COMP 5-25	5	25 µF	0,55	220x210x110
M COMP 6-20	6	20 µF	0,75	220x210x110
M COMP 6-35	6	35 µF	0,9	220x210x110
M COMP 7-25	7	25 µF	0,9	220x210x110
M COMP 7-30	7	30 µF	0,9	220x210x110
M COMP 8-25	8	25 µF	1,1	220x210x110
M COMP 8-30	8	30 µF	1,1	220x210x110
M COMP 10-35	10	35 µF	1,1	220x210x110
M COMP 10-40	10	40 µF	1,1	220x210x110
M COMP 12-35	12	35 µF	1,5	220x210x110
M COMP 12-50	12	50 µF	1,5	220x210x110
M COMP 12-60	12	60 µF	1,5	220x210x110
M COMP 16-70	16	70 µF	2,2	220x210x110

Construction
Control panel with ON-OFF switch and capacitor for 1 submersible pump with single-phase motor.
Suitable for use with LVBT board for level control.
Protection is provided by means of a main bipolar switch with a phase protected against overload by means of a thermal element.
N.B. Not suitable for pumps with internal capacitor.

PFC-M Control panel for 1 submersible pump with single-phase motor, PF control



Pump type	Protection	Capacitor	Motor 220V-240V - 1~	Dimensions HxBxP
	max A	450Vc	kW	mm
PFC-M 18-16	1 - 18	16 µF	0,37	220x210x110
PFC-M 18-20	1 - 18	20 µF	0,55	220x210x110
PFC-M 18-25	1 - 18	25 µF	0,55	220x210x110
PFC-M 18-30	1 - 18	30 µF	0,75	220x210x110
PFC-M 18-35	1 - 18	35 µF	0,75	220x210x110
PFC-M 18-40	1 - 18	40 µF	1,1	220x210x110
PFC-M 18-50	1 - 18	50 µF	1,5	220x210x110
PFC-M 18-60	1 - 18	60 µF	1,5	220x210x110
PFC-M 18-70	1 - 18	70 µF	2,2	220x210x110

Construction
Control panel for controlling one submersible pump with single-phase motor.
Electronic control of the operation and dryrunning protection through the power factor (PF) control.
The installation of level probes into the well is not required.
It stops the pump in case of lack of air cushion in the pressure vessel (patented system).
Displayed operating data and alarms available in four languages.
N.B. Not suitable for pumps with internal capacitor and float mounted on the pump.

QML/A 1 D Control panel for 1 pump with single-phase motor, direct starting



Pump type	Motor 230V - 1~	Setting	Dimensions HxBxP
	kW	A	mm
QML/A 1 D 12A-FA	0,25 - 1,5	1 - 12	250x205x115
QML/A 1 D 12A-FA 20	0,25 - 1,5	1 - 12	250x205x115
QML/A 1 D 12A-FA 25	0,25 - 1,5	1 - 12	250x205x115
QML/A 1 D 3 FT	2,2 - 3	13 - 18	400x300x160

Construction
Control panel for 1 pump with single-phase motor, direct starting for pressure booster sets, with a patented working time-measuring system that stops the pump in case of lack of air cushion in the pressure vessel
Dry-running protection with float switch.
Arranged for the capacitor internal connection (for pumps without built-in capacitor).
Pump operation controlled by an electronic card type MPS 3000 with microprocessor which allows three different modes of operation of the pump: standard, emergency and timed.

T COMP Control panel for 1 submersible pump with three-phase motor



Pump type	Protection	Motor 230V - 3~	Motor 400V - 3~	Dimensions HxBxP
	A	kW	kW	mm
T COMP 8	1 ÷ 8	0,37 ÷ 1,5	0,5 ÷ 2,2	170x145x85
T COMP 10	7 ÷ 10	---	3 ÷ 3,7	230x180x155
T COMP 12	9 ÷ 12	2,2	4	230x180x155
T COMP 16	11 ÷ 16	3	5,5	230x180x155
T COMP 20	14 ÷ 20	3,7 - 4	7,5	230x180x155

Construction
Control panel and protection for 1 pump with three-phase motor.
Arranged for the LVBT level control internal connection against dry running (T COMP8 model has the level control as a standard).
Control pumps with pressure switch and float-type switch.

CS-R

Control panels

PFC-T Control panel for 1 submersible pump with three-phase motor, PF control



Pump type	Protection	Motor 230V - 3~	Motor 400V - 3~	Dimensions HxBxP	kg
	A	kW	kW	mm	
PFC-T 16/A	1 - 16	0,37 - 5,5	250x205x105	1,7	1,7

Construction
Control panel for controlling 1 pump with three-phase motor. Electronic control of the operation and dry-running protection through the power factor (PF) control.
It stops the pump in case of lack of air cushion in the pressure vessel (patented system).
Displayed operating data and alarms available in four languages.

QTL/A 1 D Control panel for 1 pump with three-phase motor, direct starting



Pump type	Motor	Setting	Dimensions
	400V - 3~		HxBxP
	kW	A	mm
QTL/A 1 D 12A-FA	0,25 - 5,5	1 - 12	250x205x105
QTL/A 1 D 7,5 FT	7,5	13 - 18	400x300x160
QTL/A 1 D 9,2 FT	9,2	17 - 23	400x300x160
QTL/A 1 D 11 FT	11	20 - 25	400x300x160

Construction
Control panel for 1 pump with three-phase motor, direct starting for pressure booster sets, with a patented working time-measuring system that stops the pump in case of lack of air cushion in the pressure vessel.
Dry-running protection with float switch.
Pump operation controlled by an electronic card type MPS 3000 with microprocessor which allows three different modes of operation of the pump: standard, emergency and timed.

QTL 1 D FTE Control panel for 1 pump with three-phase motor, direct starting



Pump type	Motor	Setting	Dimensions
	400V - 3~		HxBxP
	kW	A	mm
QTL 1 D 4 FTE	4	6,3 - 10	400x300x160
QTL 1 D 5,5 FTE	5,5	9 - 12	400x300x160
QTL 1 D 7,5 FTE	7,5	13 - 18	400x300x160
QTL 1 D 9,2 FTE	9,2	17 - 23	400x300x160
QTL 1 D 11 FTE	11	20 - 25	400x300x160
QTL 1 D 15 FTE	15	24 - 32	500x350x200
QTL 1 D 18,5 FTE	18,5	32 - 38	500x350x200
QTL 1 D 22 FTE	22	35 - 50	500x350x200
QTL 1 D 30 FTE	30	46 - 65	500x350x200

Construction
Electromechanical control panel for 1 pump with three-phase motor, direct starting.
Operating signals by E 1000 led card.
Dry-running protection with float switch.

QTL/A 1 ST FT Control panel for 1 pump with three-phase motor, Y/Δ starting



Pump type	Motor 400V - 3~		Dimensions
	Rated motor power	Current	HxBxP
	kW	A	mm
QTL/A 1 ST 5,5 FT	5,5	11 - 15	600x400x200
QTL/A 1 ST 7,5 FT	7,5	12 - 17	600x400x200
QTL/A 1 ST 11 FT	9,2 - 11	16 - 24	600x400x200
QTL/A 1 ST 15 FT	15	23 - 31	600x400x200
QTL/A 1 ST 18,5 FT	18,5	30 - 39	600x400x200
QTL/A 1 ST 22 FT	22	35 - 43	700x500x200
QTL/A 1 ST 30B FT	30	42 - 55	700x500x200
QTL/A 1 ST 30A FT	30	55 - 65	700x500x200
QTL/A 1 ST 37 FT	37	61 - 84	800x600x250
QTL/A 1 ST 45 FT	45	80 - 105	800x600x250

Construction
Electromechanical control panel for 1 submersible pump with three-phase motor, with Stator Impedence starter.
Pump operation controlled by an electronic card type MPS 3000 with microprocessor with different pump operating modes.
Dry-running protection with float switch or level control probes.

CS-R

Control panels

QTL 1 ST FTE Control panel for 1 pump with three-phase motor, Y/Δ starting



Pump type	Motor 400V - 3~		Dimensions
	Rated motor power	Current	HxBxP
	kW	A	mm
QTL 1 ST 5,5 FTE	5,5	11 - 15	500x350x200
QTL 1 ST 7,5 FTE	7,5	12 - 17	500x350x200
QTL 1 ST 11 FTE	9,2 - 11	16 - 24	500x350x200
QTL 1 ST 15 FTE	15	23 - 31	500x350x200
QTL 1 ST 18,5 FTE	18,5	30 - 39	500x350x200
QTL 1 ST 22 FTE	22	35 - 43	600x400x200
QTL 1 ST 30B FTE	30	42 - 55	600x400x200
QTL 1 ST 30A FTE	30	55 - 65	600x400x200
QTL 1 ST 37 FTE	37	61 - 84	700x500x200
QTL 1 ST 45 FTE	45	80 - 105	700x500x200
QTL 1 ST 55 FTE	55	100 - 125	700x500x200
QTL 1 ST 75 FTE	75	120 - 160	800x600x250
QTL 1 ST 92 FTE	92	140 - 198	800x600x250
QTL 1 ST 110 FTE	110	180 - 250	800x600x250

Construction
Electromechanical control panel for 1 pump with three-phase motor, Y/Δ starting.
Operating signals by E 1000 led card.
Dry-running protection with float switch.

QTL 1 SS E Control panel for 1 pump with three-phase motor, start/stop with soft starter



Pump type	Motor 400V - 3~		Dimensions
	Rated motor power	Current	HxBxP
	kW	A	mm
QTL 1 SS 7,5 E	7,5	17	700x500x250
QTL 1 SS 9,2 E	9,2	22	700x500x250
QTL 1 SS 15 E	11 - 15	34	700x500x250
QTL 1 SS 22 E	18,5 - 22	48	700x500x250
QTL 1 SS 26 E	26	58	900x600x300
QTL 1 SS 30 E	30	68	900x600x300
QTL 1 SS 37 E	37	82	900x600x300
QTL 1 SS 45 E	45	92	900x600x300
QTL 1 SS 55 E	55	114	900x600x300
QTL 1 SS 63 E	63	126	1100x700x300
QTL 1 SS 75 E	75	150	1100x700x300
QTL 1 SS 92 E	92	196	1200x800x400
QTL 1 SS 110 E	110	231	1200x800x400
QTL 1 SS 132 E	132	245	1200x800x400

Construction
Control panel for 1 pump with three-phase motor, start/stop with soft starter
Operating signals by E 1000 led card.
Application: control of submersible motor with great cable length and surface motors.
Dry-running protection with float switch.

QTL 1 IS FTE Control panel for 1 pump with three-phase motor, with Stator Impedence starter



Pump type	Motor 400V - 3~		Dimensions
	Rated motor power	Current	HxBxP
	kW	A	mm
QTL 1 IS 5,5 FTE-2RL	5,5	11 - 15	
QTL 1 IS 7,5 FTE-2RL	7,5	12 - 17	
QTL 1 IS 11 FTE-2RL	9,2 - 11	16 - 24	
QTL 1 IS 15 FTE-2RL	15	23 - 31	
QTL 1 IS 18,5 FTE-2RL	18,5	30 - 39	
QTL 1 IS 22 FTE-2RL	22	35 - 43	
QTL 1 IS 30 FTE-2RL	30	42- 65	
QTL 1 IS 37 FTE-2RL	37	61 - 84	
QTL 1 IS 45 FTE-2RL	45	80 - 105	
QTL 1 IS 55 FTE-2RL	55	100 - 125	
QTL 1 IS 75 FTE-2RL	75	120 - 160	
QTL 1 IS 92 FTE-2RL	92	140 - 198	
QTL 1 IS 110 FTE-2RL	110	180 - 250	

Construction
Electromechanical control panel for 1 submersible pump with three-phase motor, with Stator Impedence starter.
Operating signals by E 1000 led card.
Application : submersible motors control with great cable length.

CS-R

Control panels

QML 1 VFT Control panel for 1 pump with variable speed three-phase motor



Pump type	Motor 400V - 3~		Dimensions
	Rated motor power	Current	HxBxP
	kW	A	mm
QML 1 VFT 0,4	0,37 - 0,45	2,6	500x350x200
QML 1 VFT 0,75	0,55 - 0,75	4	500x350x200
QML 1 VFT 1,5	1,1 - 1,5	7,1	500x350x200
QML 1 VFT 2,2	2,2	10	500x350x200

Construction
Single-phase mains supply control panel with frequency converter for 1 pump with three-phase variable speed motor, for constant pressure booster sets.
Arranged for SRL 3 level control application for probes connection against dry-running.
Pump operation controlled by an electronic board type MPS 4000 with microprocessor.

QTL 1 VFT Control panel for 1 pump with variable speed three-phase motor



Pump type	Motor 400V - 3~		Dimensions
	Rated motor power	Current	HxBxP
	kW	A	mm
QTL 1 VFT 0,4	0,4	1,5	500x350x200
QTL 1 VFT 0,75	0,55 - 0,75	2,3	500x350x200
QTL 1 VFT 1,5	1,1 - 1,5	4,1	500x350x200
QTL 1 VFT 2,2	2,2	5,5	500x350x200
QTL 1 VFT 4	3 - 4	9,5	500x350x200
QTL 1 VFT 5,5	5,5	14,3	600x400x250
QTL 1 VFT 7,5	7,5	17	600x400x250
QTL 1 VFT 11	9,2 - 11	27,7	700x500x250
QTL 1 VFT 15	15	33	700x500x250
QTL 1 VFT 18,5	18,5	46,3	800x600x250
QTL 1 VFT 22	22	61,5	800x600x250
QTL 1 VFT 30	30	74,5	900x600x250
QTL 1 VFT 37	37	88	1100x700x300
QTL 1 VFT 45	45	106	1200x800x300
QTL 1 VFT 55	55	145	1200x800x300
QTL 1 VFT 75	75	173	1200x800x300

Construction
Control panel with frequency converter for 1 pump with three-phase variable speed motor, for constant pressure booster sets.
Arranged for SRL 3 level control application for probes connection against dry-running.
Pump operation controlled by an electronic board type MPS 4000 with microprocessor.

CS-R

Cooling jacket

When the submersible motor is installed:
below the well inlet points (picture A)
in tanks, lakes, basins, etc… (pictures B and C) an external jacket must be installed to create a cooling flow around the motor. Only in this way a safe operation can be assured avoiding any overheating which can

Fig. A

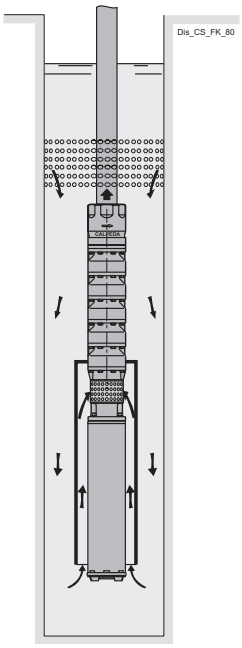


Fig. B

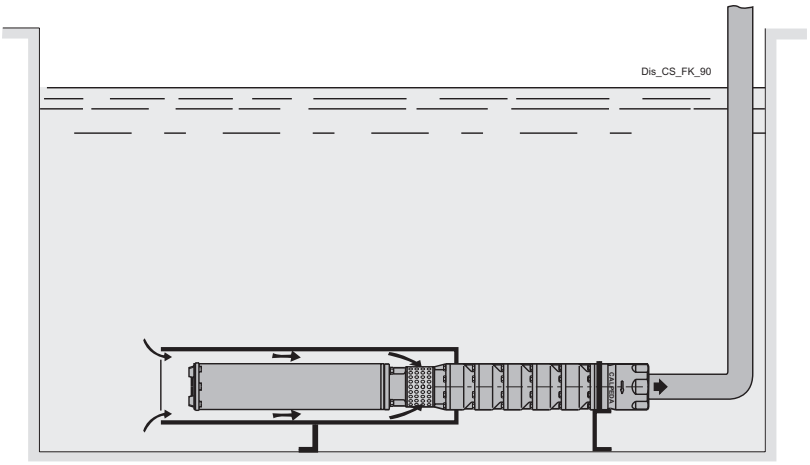
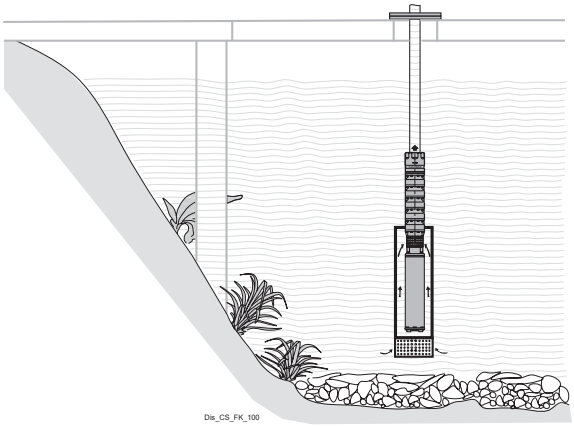


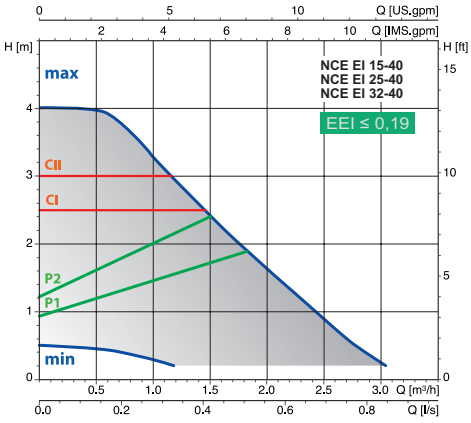
Fig. C

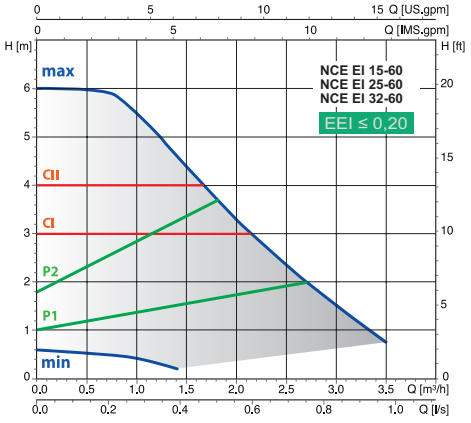


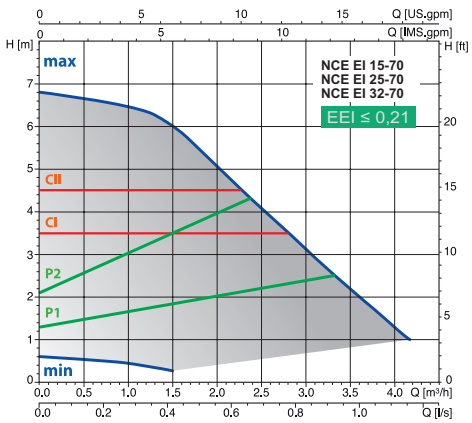
NCE EI



Coverage chart n ≈ 2900 rpm







CI-CII curva costante P1-P2 curva proporzionale min-max n curve fisse

Energy saving Circulating Pumps with frequency converter

NCE EI

Construction

Energy saving variable speed circulating pump driven by a permanent magnet synchronous motor (pm) controlled by on board inverter.

Applications

Small domestic heating systems.
Floor heating systems.
Liquid temperature from +2 °C to +95 °C
- Ambient temperature from 0 °C to +40 °C
Maximum permissible working pressure: 6 bar
- Storage: -20°C/+70°C max. relative humidity 95% at 40 °C
- Certifications: in conformity with CE requirements
Sound pressure ≤ 43 dB (A).
Minimum suction pressure: 0,3 bar at 50 °C 1,0 bar at 95 °C
Maximum glycol quantity: 40%
- EMC according to: EN 55014-1, EN 61000-3-2, EN 55014-2
- Connections: threaded ports ISO 228: G 1, G 1 1/2, G 2
- The benchmark for most efficient circulators is EEI ≤ 0,20.
- Minimun power: 3 W.

Operating conditions

Liquid temperature from +2 °C to +95 °C
- Ambient temperature from 0 °C to +40 °C
Maximum permissible working pressure: 6 bar
- Storage: -20°C/+70°C max. relative humidity 95% at 40 °C
- Certifications: in conformity with CE requirements
Sound pressure ≤ 43 dB (A).
Minimum suction pressure: 0,3 bar at 50 °C 1,0 bar at 95 °C
Maximum glycol quantity: 40%
- EMC according to: EN 55014-1, EN 61000-3-2, EN 55014-2
- Connections: threaded ports ISO 228: G 1, G 1 1/2, G 2
- The benchmark for most efficient circulators is EEI ≤ 0,20.
- Minimun power: 3 W.

Motor

Synchronous motor with permanent magnet.
- Motor: variable speed
- Standard voltage: single-phase 230 V (-10%;+6%)
Frequency: 50-60 Hz
- Protection: IP 44
- Insulation class: H
- Class II appliance
- Overload protection (integrated).
1) automatic protection with electronic rotor release
2) Overload thermal protector
- Cable: phases and neutral.
Constructed in accordance with EN 60335-1, EN 60335-2-51.

Special features on request

Brass or cast iron unions.
EPP thermal insulation shell.

Designation

NCE EI 32 - 60 / 180
NCE = Series
EI = Version
32 = DN ports in mm
60 = Max. head in dm
180 = connection size mm

Features

Compact design
The space saving NCE EI is a very compact circulating pump, allows inr easy installation in small domestic heating systems.
Easy to install and to adjust
Installing the NCE EI is considerably simplified by the quick setting and power installation plug.
Reliable
Like all our electronic circulating pumps, the NCE EI features the patented self-cleaning square chamber design, which eliminates any possibility of rotor blockage.
Ceramic shaft
Hydraulics components are completely painted with cataphoresis.
Program for automatic venting and unblocking routines.
Easy use
Operating range with fixed curves from 0,5 m to 7 m; possibility to choose 2 (1-2) proportional pressure curves and 2 (I-II) constant pressure curves.

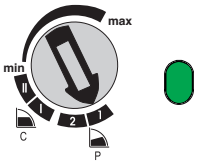
Materials

Component	Material
Pump casing	Cast iron GJL 200 EN 1561
Impeller	Composite
Shaft	Ceramic
Ball bearings	Carbon
Thrust bearing	Ceramic
Rotor	Composite / Ferrite
Winding	Copper wire
Electronic card	-
Gasket	EPDM

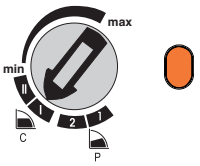
NCE EI

Operating modes

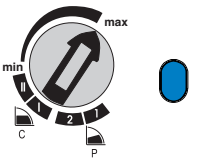
PROPORTIONAL CURVE PROGRAMMING Δp-v
(GREEN LED)
Moving the switch to 1 or 2 setting, the pump operates with the proportional curve.
This mode ensures maximum energy efficiency.



CONSTANT CURVE PROGRAMMING Δp-c
(ORANGE LED)
Moving the switch to I or II setting, the pump operates with a constant curve according to the selected flow rates.

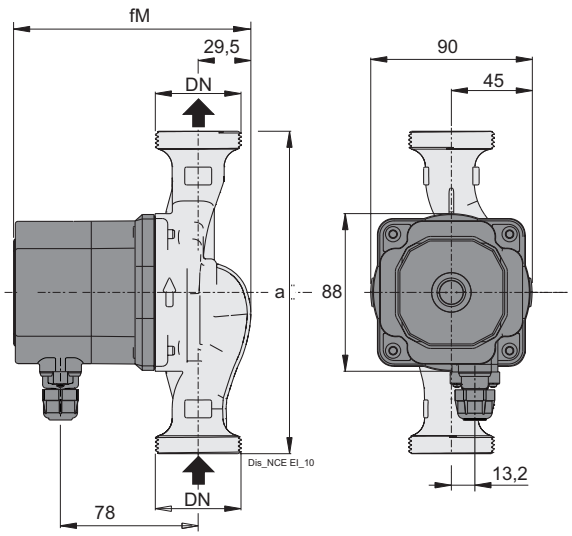


MANUAL PROGRAMMING
(BLUE LED)
Setting the switch in any position between the MIN and MAX points, the most suitable operating curve for the installation is manually selected.



WARNING!
- The red LED indicates that the pump is not rotating but is still under tension.
- White flashing LED : plant degassing requirement, air in the system.

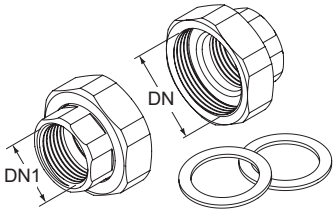
Dimensions and weights



TYPE	DN	230V	230V	P1	P1	mm	mm	kg
		A max	A min	W max	W min	fm	a	
NCE EI 15-40/130	G 1	0,17	0,03	22	3	134	130	1,67
NCE EI 25-40/130	G 1 1/2	0,17	0,03	22	3	134	130	1,81
NCE EI 25-40/180	G 1 1/2	0,17	0,03	22	3	134	180	1,96
NCE EI 32-40/180	G 2	0,17	0,03	22	3	134	180	2,10
NCE EI 15-60/130/A	G 1	0,33	0,03	42	3	134	130	1,67
NCE EI 25-60/130/A	G 1 1/2	0,33	0,03	42	3	134	130	1,81
NCE EI 25-60/180/A	G 1 1/2	0,33	0,03	42	3	134	180	1,96
NCE EI 32-60/180/A	G 2	0,33	0,03	42	3	134	180	2,10
NCE EI 15-70/130	G 1	0,44	0,03	56	3	144	130	1,91
NCE EI 25-70/130	G 1 1/2	0,44	0,03	56	3	144	130	2,05
NCE EI 25-70/180	G 1 1/2	0,44	0,03	56	3	144	180	2,20
NCE EI 32-70/180	G 2	0,44	0,03	56	3	144	180	2,34

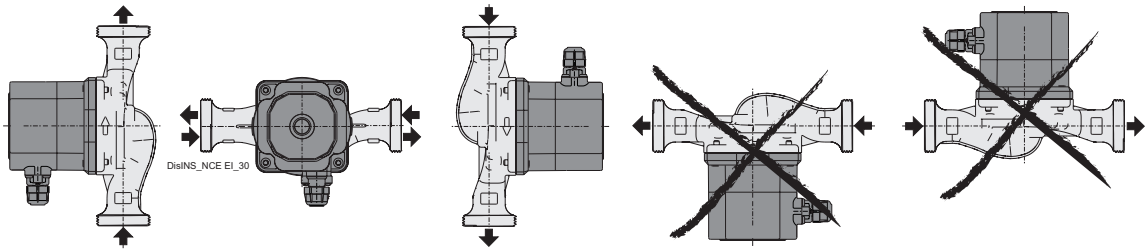
NCE EI

Unions (on request)

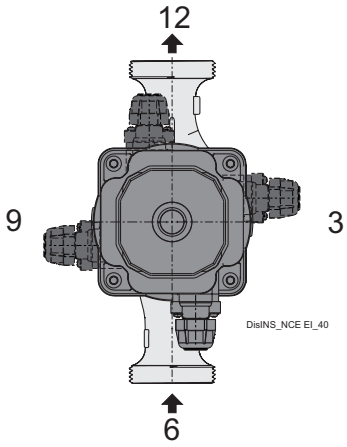


TYPE	DN	DN1
KIT G 1 - G 1/2 (NCE . 15..)	G 1	G 1/4
KIT G 1 1/2 - G 1 (NCE . 25..)	G 1 1/2	G 1
KIT G 2 - G 1 1/4 (NCE . 32..)	G 2	G 1 1/4

Examples of installations



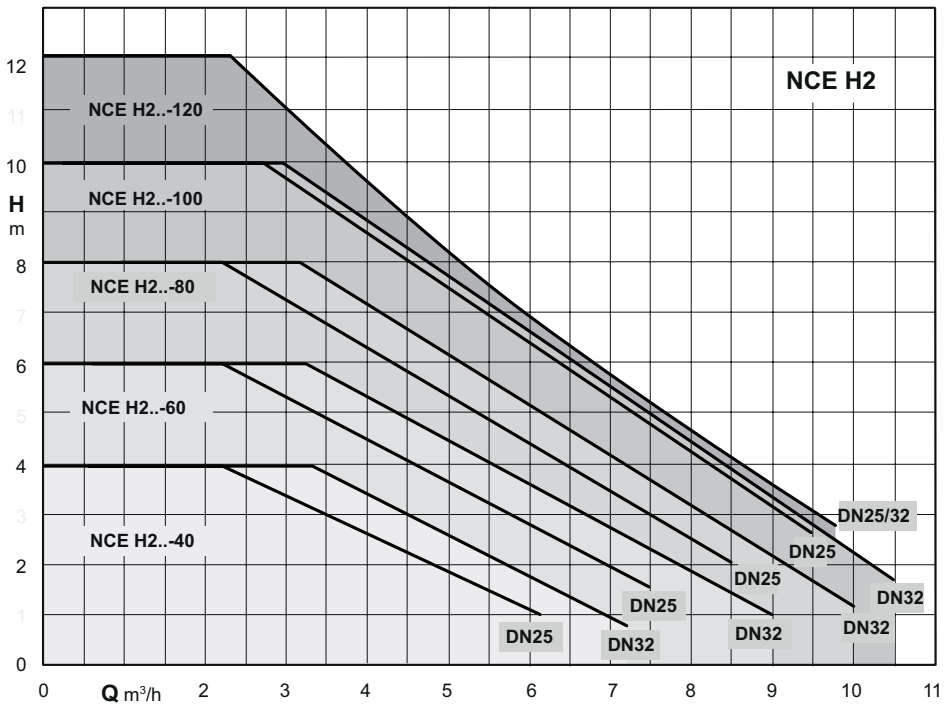
Terminal box arrangement (on request)



NCE H2



Coverage chart



Energy saving Circulating Pumps with frequency converter

NCE H2

Construction

Energy saving variable speed circulating pump driven by a permanent magnet synchronous motor (pm) controlled by on board inverter.

Standard with steel unions with cataphoresis treatment.

Applications

The energy-efficient circulation pump is designed for water circulation in heating systems.
Underfloor heating systems
Single-pipe systems
Two-pipe systems
Pumping liquid:
Clean, non-aggressive and non-expolosive liquids, not containing solid particles, fibers or mineral/vegetable oil
In heating systems, water must meet the requirements of accepted standards of water quality in heating systems.

Operating conditions

- Liquid temperature from -10 °C to +110 °C
- Ambient temperature from 0 °C to +40 °C
- Maximum permissible working pressure: 10 bar
Storage: -10°C/+50°C max. relative humidity 95% at 40 °C
- Certifications: in conformity with CE requirements
Sound pressure ≤ 45 dB (A).
Max. quantity of ethylene glycol: 40%
EMC according to: EN 55014-1, EN 55014-2, EN 61000-3-2, EN 61000-3-3.
Connections: threaded ports ISO 228: G 1 1/2, G 2.
Flanged connection DN 32 PN 10
The energy efficiency index of circulators is IEE ≤ 0.23.
- The benchmark for most efficient circulators is EEI ≤ 0,20.

Motor

Synchronous motor with permanent magnet.
- Motor: variable speed
- Standard voltage: single-phase 230 V (-10%;+6%)
Frequency: 50-60 Hz
- Protection: IP 44
- Insulation class: F
- Overload protection (integrated).
- Cable: phases and neutral.
- Constructed in accordance with: EN 60335-1, EN 60335-2-51.

Designation

NCE H2 32 F - 100 / 180
NCE = Series
H2 = Version
32 = DN ports in mm
F = Flanged connection
100 = Max. head in dm
180 = connection size mm

Materials

Component	Material
Pump casing	Cast iron with cataphoresis coating
Impeller	Composite PES
Shaft	Ceramic
Ball bearings	Ceramic
Thrust bearing	Graphite carbon
Rotor	Stainless steel jacket
Electronic card	..

Operating modes



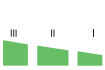
Automatic mode
(factory setting):
In this mode the pump automatically sets the operating pressure, depending on the hydraulic system. This mode is recommended in most systems.



Proportional pressure mode:
The circulator changes the pressure propotionally to the current flow.
The pressure value can be adjusted on three curves.



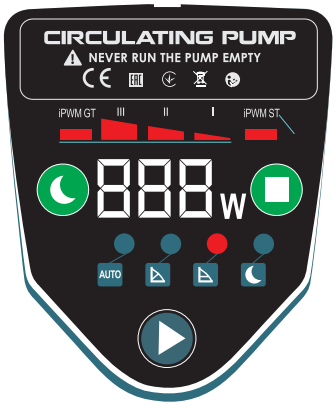
Constant pressure mode:
The circulator mantains the pressure constant when the reference flow changes.
The pressure value can be adjusted on three curves.



Fixed speed mode:
The circulator works with constant curve and the curve could be changed over three curves.



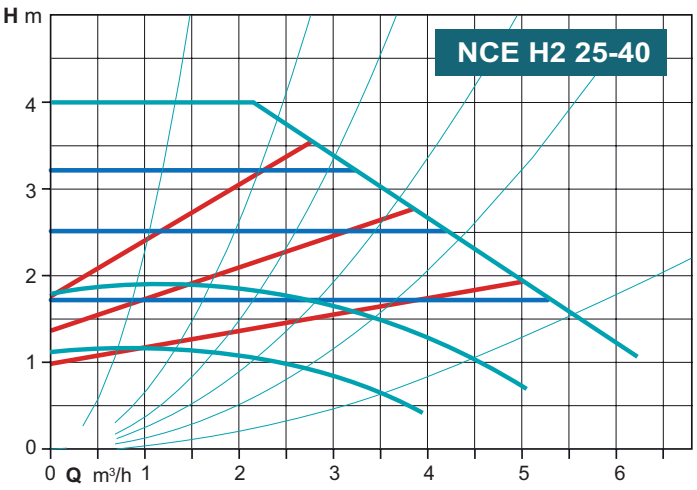
Night mode:.
The pump is changed to an automatic deceleration curve at night, so that it runs at low performance and low energy consumption.

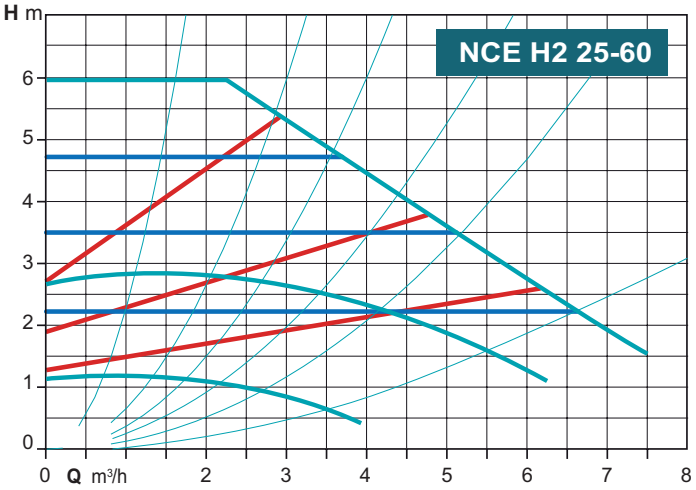


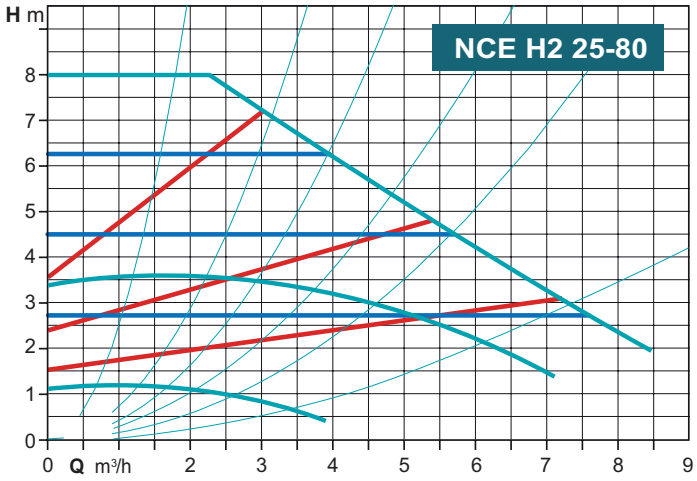
The circulator can operate in:
- automatic mode
- proportional pressure mode
- constant pressure mode
- fixed speed mode
- night mode

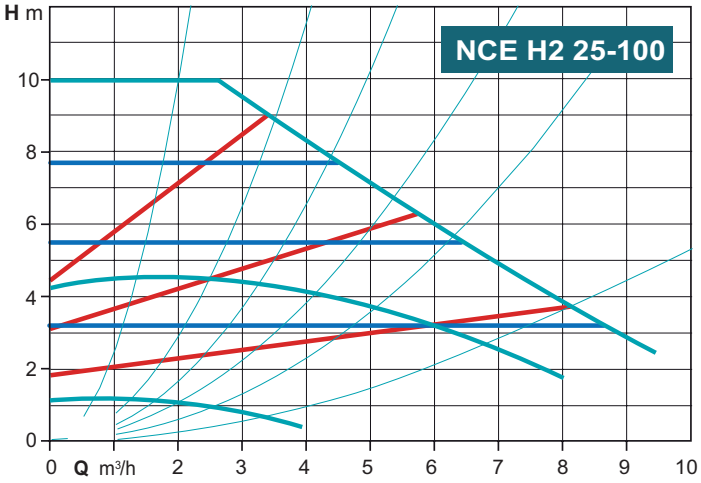
NCE H2

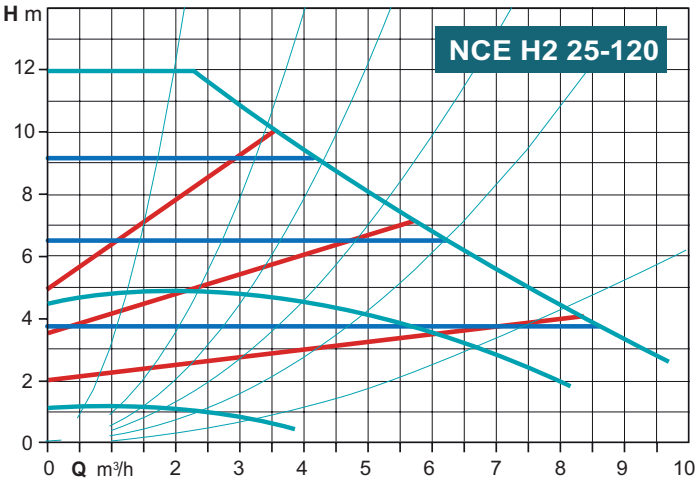
Characteristic curves







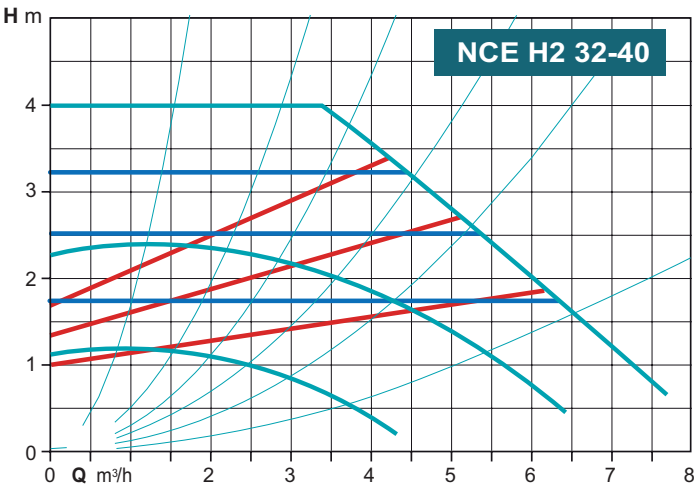


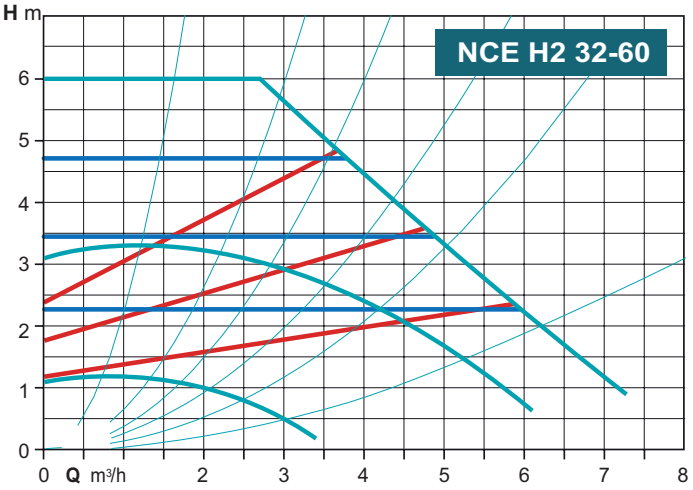


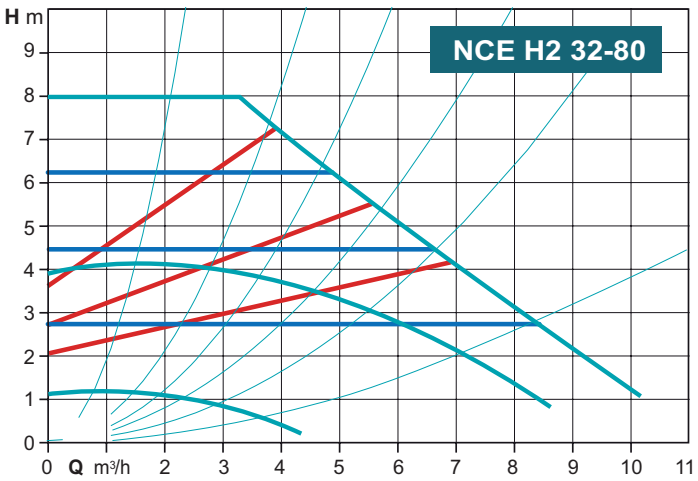
Proportional pressure Constant pressure Constant speed

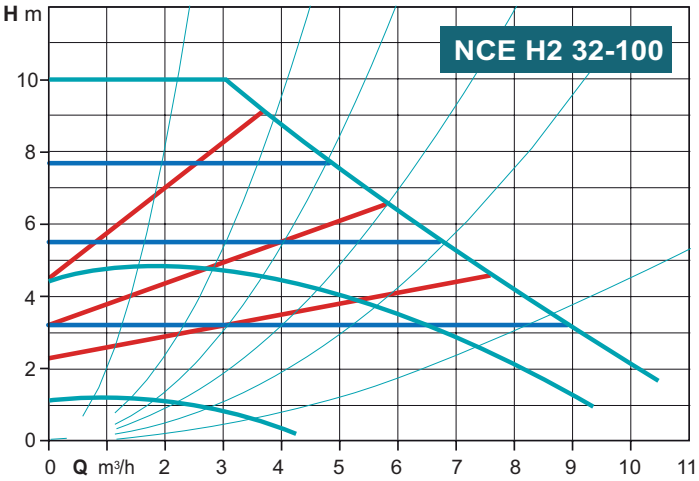
NCE H2

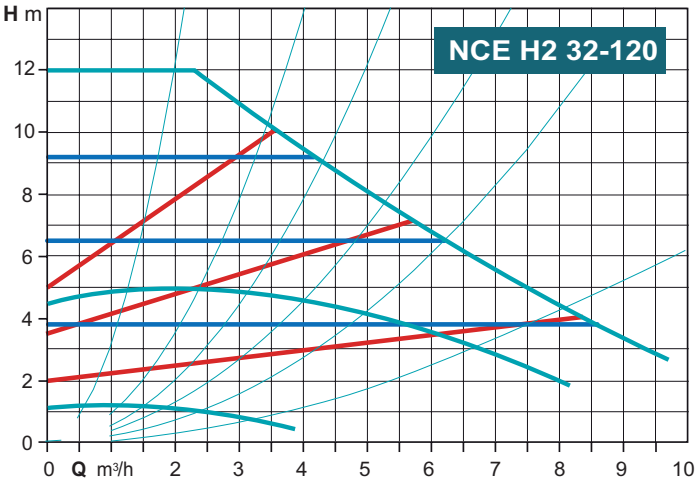
Characteristic curves







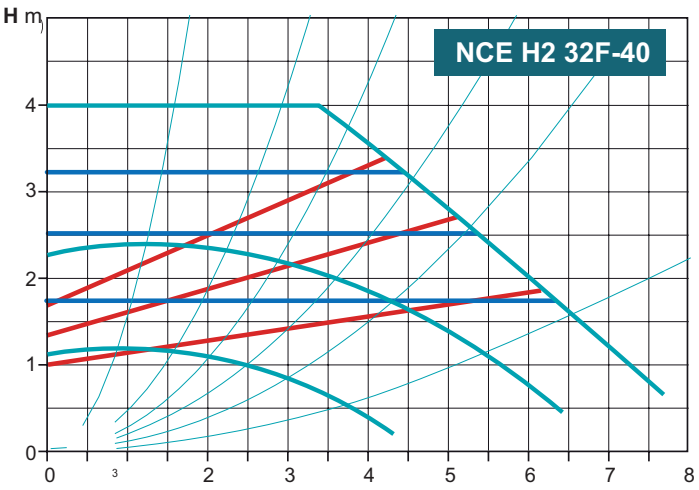


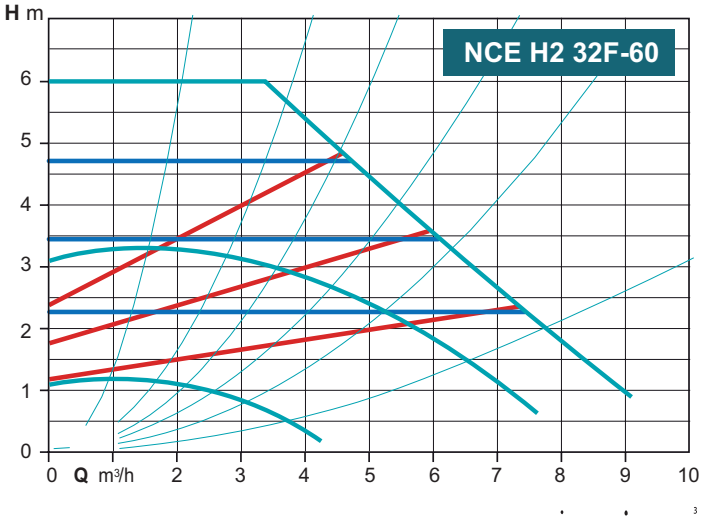


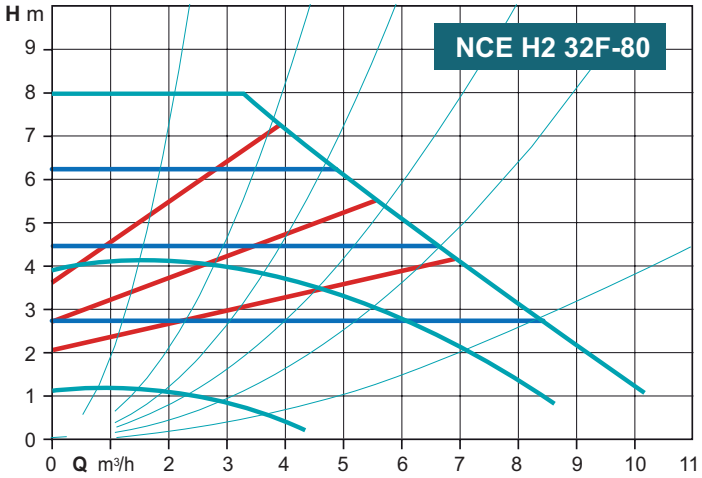
Proportional pressure | Constant pressure | Constant speed

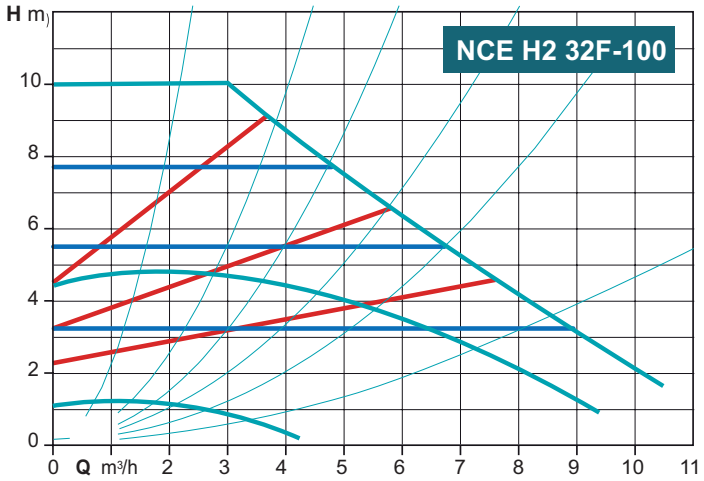
NCE H2

Characteristic curves





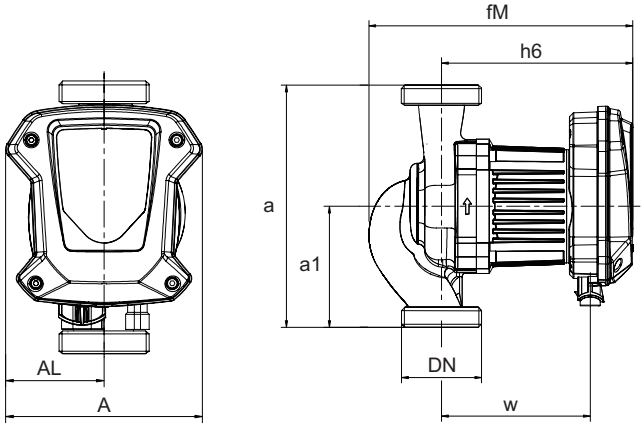




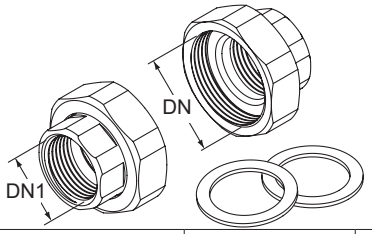
Proportional pressure | Constant pressure | Constant speed

NCE H2

Dimensions and weights

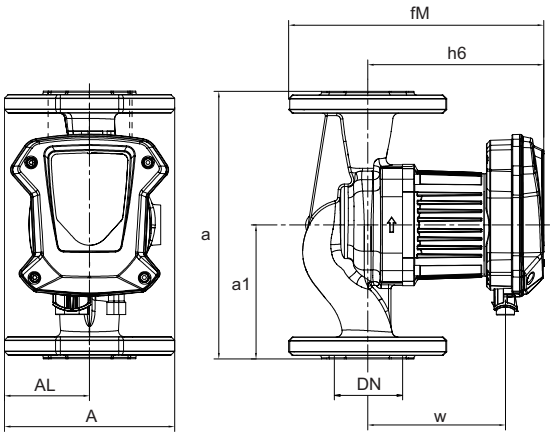


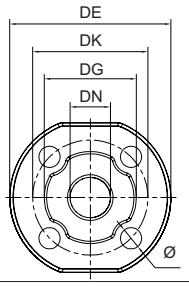
Unions



TYPE	DN	DN1
KIT G 1 1/2 - G 1 (NCE . 25..)	G 1 1/2	G 1
KIT G 2 - G 1 1/4 (NCE . 32..)	G 2	G 1 1/4

TYPE	DN	H max	Q max	1~ 230 V	P1	P1	mm	mm	mm	mm	mm	mm	mm	kg
		m	m3/h	A max	W min	W max	a	a1	fM	A	AL	h6	w	kg
NCE H2 25-40/180	G 1 1/2	4	6.2	0.23	9	60	180	90	196	130	65	142	110.5	4
NCE H2 32-40/180	G 2	4	7.7	0.3	9	78	180	90	196	130	65	142	110.5	4.4
NCE H2 25-60/180	G 1 1/2	6	7,5	0.41	9	105	180	90	196	130	65	142	110.5	4
NCE H2 32-60/180	G 2	6	9.1	0.46	9	120	180	90	196	130	65	142	110.5	4.4
NCE H2 25-80/180	G 1 1/2	8	8.5	0.58	9	150	180	90	196	130	65	142	110.5	4
NCE H2 32-80/180	G 2	8	10.1	0.65	9	168	180	90	196	130	65	142	110.5	4.4
NCE H2 25-100/180	G 1 1/2	10	9.4	0.78	9	200	180	90	196	130	65	142	110.5	4
NCE H2 32-100/180	G 2	10	10.5	0.76	9	200	180	90	196	130	65	142	110.5	4.4
NCE H2 25-120/180	G 1 1/2	12	9.7	0.86	9	220	180	90	196	130	65	142	110.5	4
NCE H2 32-120/180	G 2	12	9.7	0.84	9	220	180	90	196	130	65	142	110.5	4.4

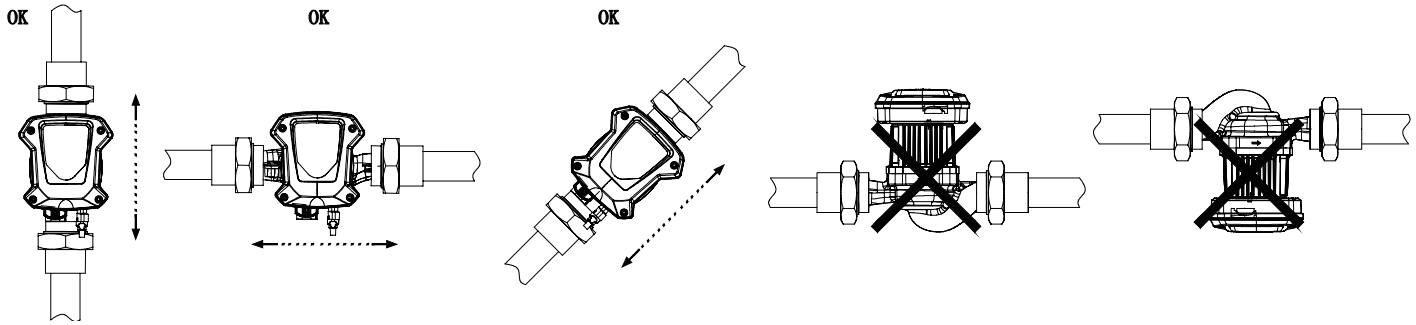




mm					
DN	DE	DK	DG	Holes	
				N°	ø
32	140	100	80	4	19

TYPE	DN	H max	Q max	1~ 230 V	P1	P1	mm	mm	mm	mm	mm	mm	mm	kg
		m	m3/h	A max	W min	W max	a	a1	fM	A	AL	h6	w	kg
NCE H2 32F-40/220	32	4	7.7	0.3	9	78	220	110	210	140	70	145	113	7.3
NCE H2 32F-60/220	32	6	9.1	0.46	9	120	220	110	210	140	70	145	113	7.3
NCE H2 32F-80/220	32	8	10.1	0.65	9	168	220	110	210	140	70	145	113	7.3
NCE H2 32F-100/220	32	10	10.5	0.79	9	200	220	110	210	140	70	145	113	7.3

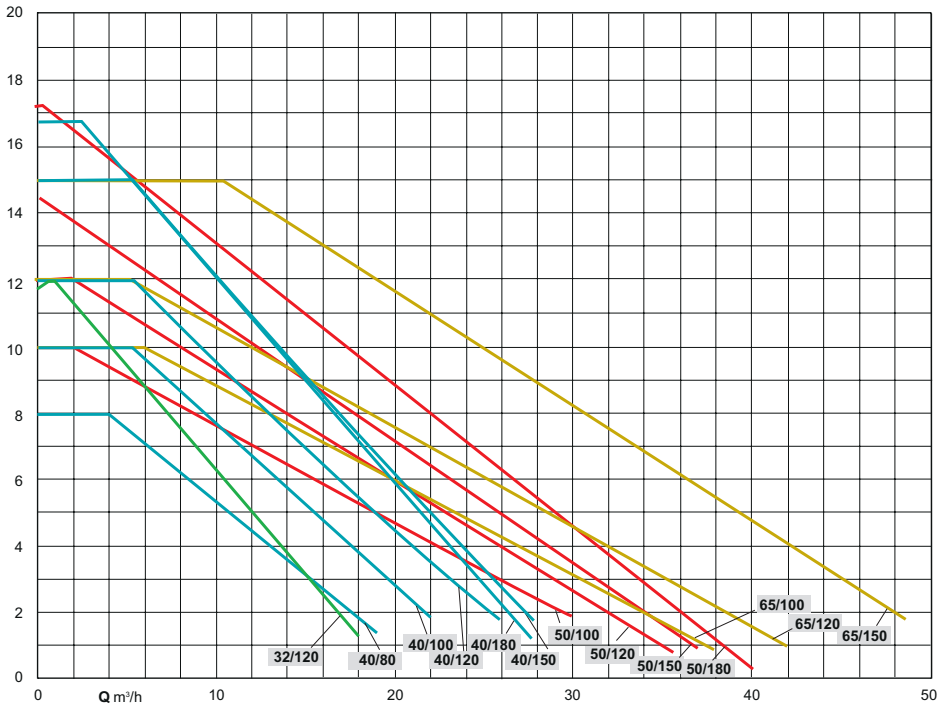
Examples of installations



NCE HQ2



Coverage chart



Energy saving circulating pumps with flanges

NCE HQ2

Construction

Energy saving variable speed circulating pump driven by a permanent magnet synchronous motor (pm) controlled by on board inverter.
• Dry running detection
• Automatic venting function

Digital input and output
• Start / stop input
• Relay output
• 0-10V input
• 4-20 mA input
• Modbus (RS485 and TCP / IP)

Applications

The energy-efficient circulation pump is designed for water circulation in heating systems.
Underfloor heating systems
Single-pipe systems
Two-pipe systems
Pumping liquid:
Clean, non-aggressive and non-expolosive liquids, not containing solid particles, fibers or mineral/vegetable oil
In heating systems, water must meet the requirements of accepted standards of water quality in heating systems.

Operating conditions

- Liquid temperature from -10 °C to +110 °C
- Ambient temperature from 0 °C to +40 °C
- Maximum permissible working pressure: 10 bar
Storage: -10°C/+50°C max. relative humidity 95% at 40 °C
- Certifications: in conformity with CE requirements
Sound pressure ≤ 65 dB (A).
Max. quantity of ethylene glycol: 40%
EMC according to: · · EN 55014-1, EN 55014-2, EN 61000-3-2, EN 61000-3-3.
Flanged connection DN 32,40,50,65 PN 6/10
The energy efficiency index of circulators is IEE ≤ 0.23.
- The benchmark for most efficient circulators is EEI ≤ 0,20.

Motor

Synchronous motor with permanent magnet.
- Motor: variable speed
- Standard voltage: single-phase 230 V (-10%;+6%)
Frequency: 50-60 Hz
- Protection: IP 44
- Insulation class: F
- Overload protection (integrated).
- Cable: phases and neutral.
- Constructed in accordance with: EN 60335-1, EN 60335-2-51.

Designation

NCE HQ2 40F - 100 / 220
NCE = Series
HQ2 = Version
40 = DN ports in mm
F = Flanged connection
100 = Max. head in dm
220 = connection size mm

Materials

Component	Material
Pump casing	Cast iron with cataphoresis coating
Impeller	Composite PES
Shaft	Ceramic
Ball bearings	Ceramic
Thrust bearing	Graphite carbon
Rotor	Stainless steel jacket
Electronic card	..

Operating modes



Automatic mode
(factory setting):
In this mode the pump automatically sets the operating pressure, depending on the hydraulic system. This mode is recommended in most systems.



Proportional pressure mode:
The circulator changes the pressure propotionally to the current flow.
The pressure value can be adjusted on three curves.



Constant pressure mode:
The circulator mantains the pressure constant when the reference flow changes.
The pressure value can be adjusted on three curves.



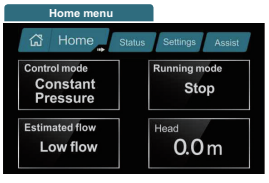
Fixed speed mode:
The circulator works with constant curve and the curve could be changed over three curves.

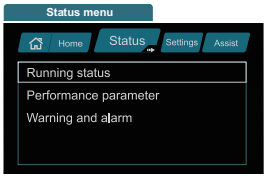


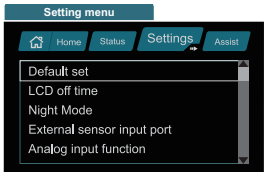
Night mode:.
The pump is changed to an automatic deceleration curve at night, so that it runs at low performance and low energy consumption.

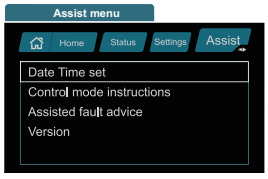


Temperature mode
This control mode is suitable for systems with fixed system characteristic curves, and the pump can be controlled based on feedback from the system temperature sensor to operate under the working conditions required by the user.



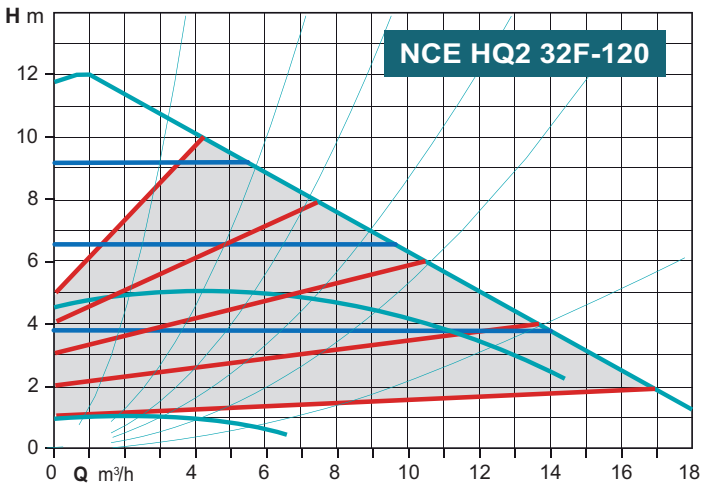


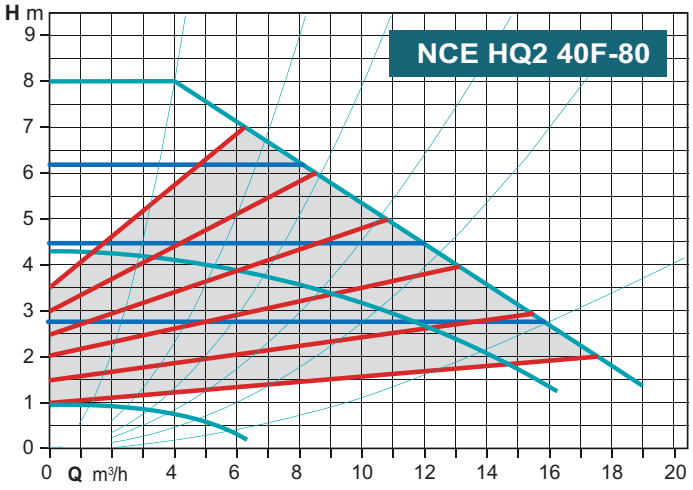


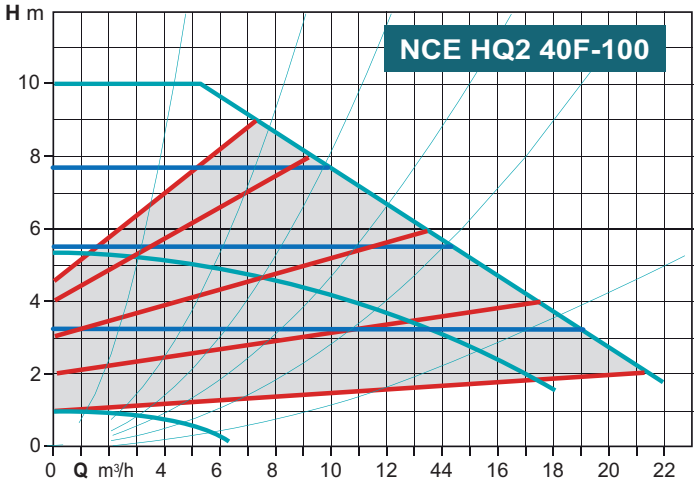


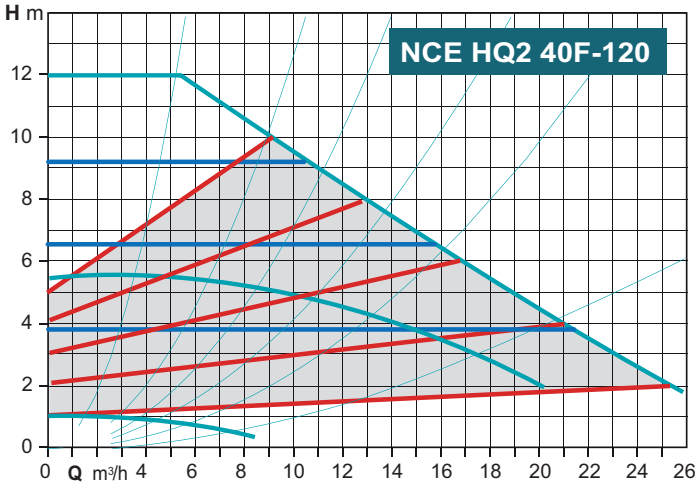
NCE HQ2

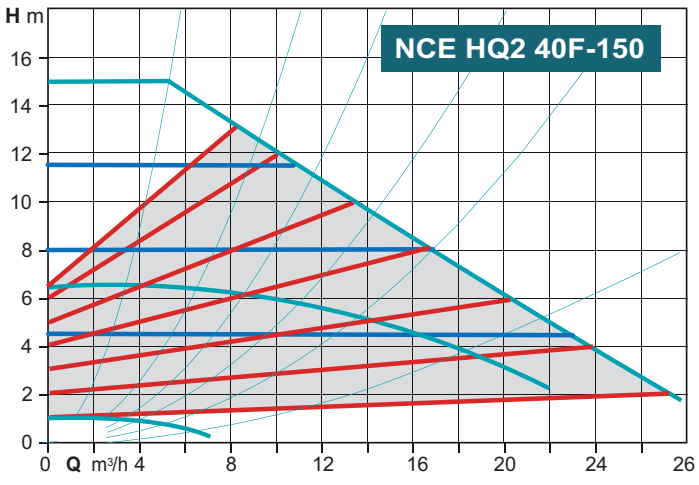
Features

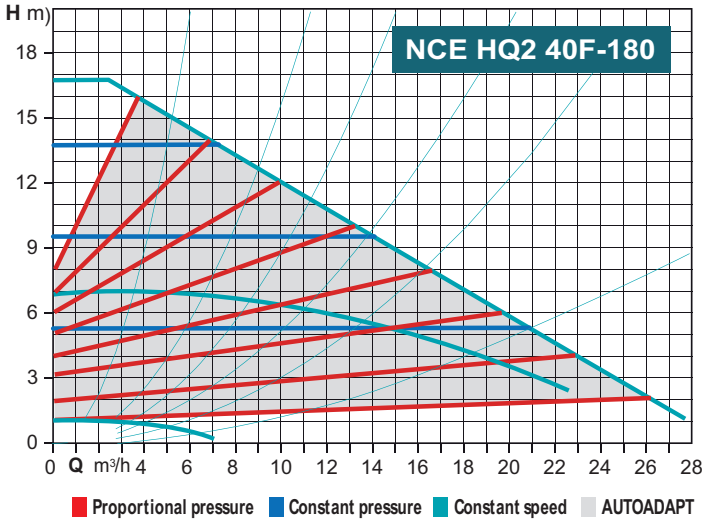






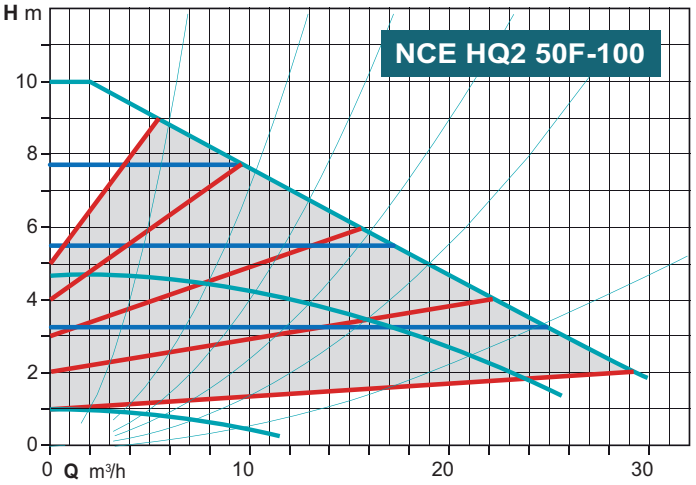


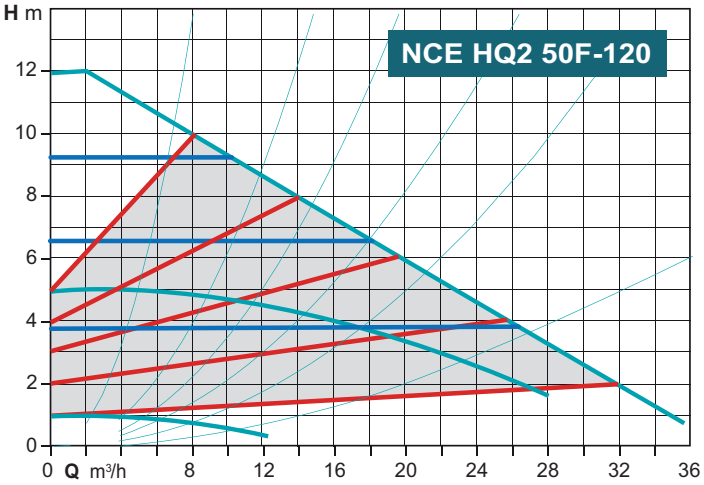


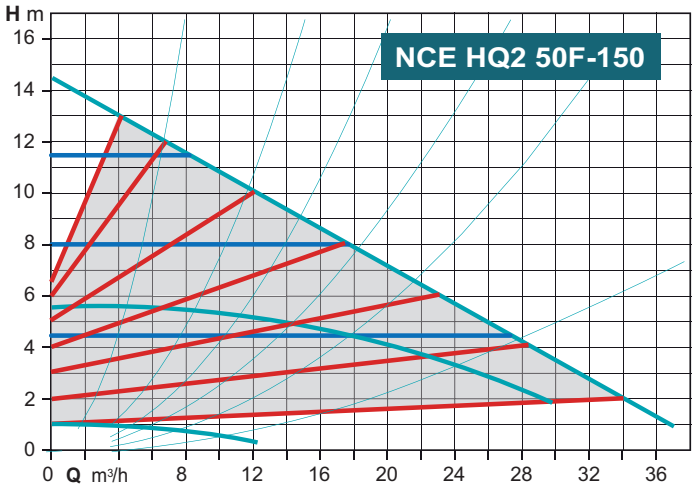


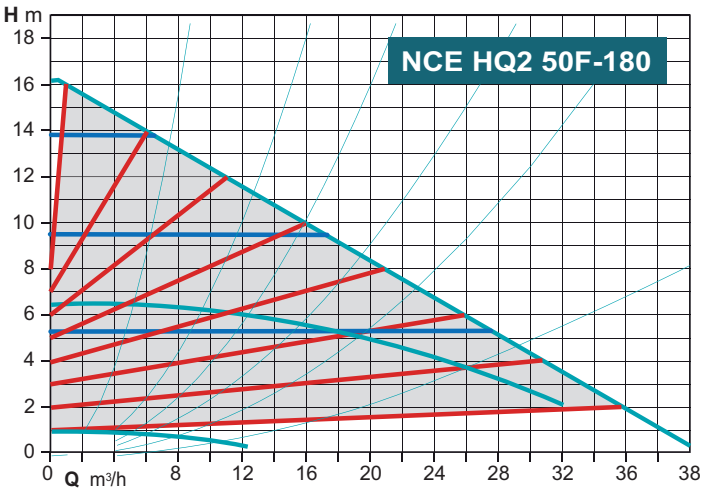
NCE HQ2

Features





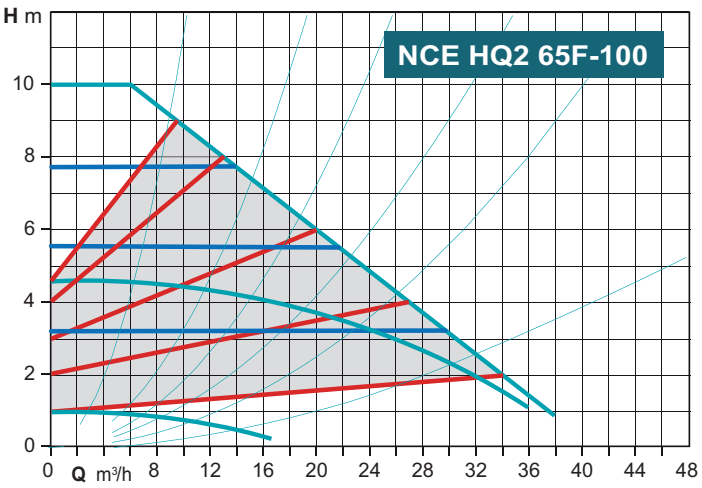


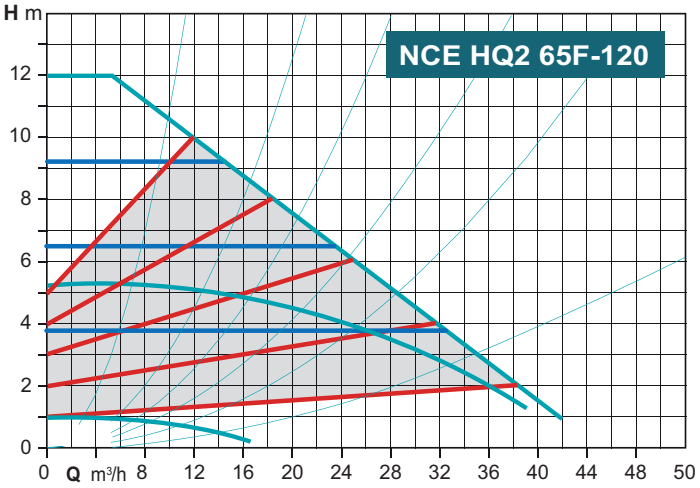


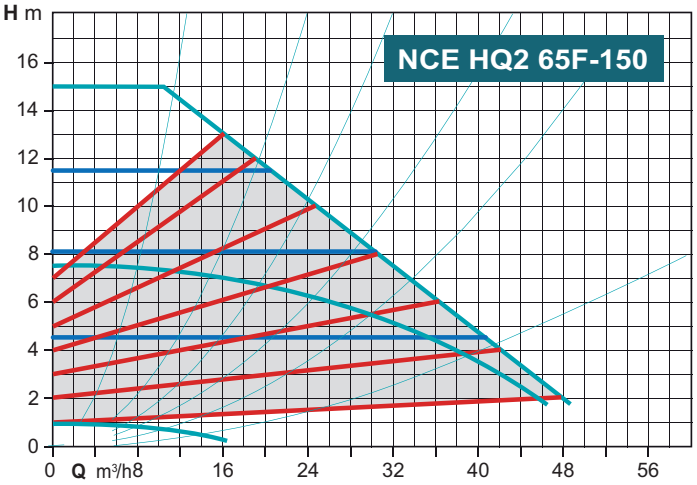
Proportional pressure | Constant pressure | Constant speed | AUTOADAPT

NCE HQ2

Features



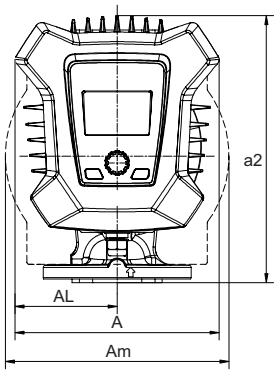


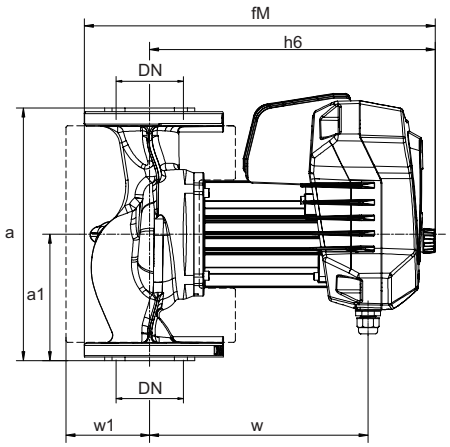


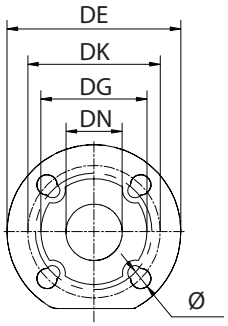
Proportional pressure | Constant pressure | Constant speed | AUTOADAPT

NCE HQ2

Dimensions and weights



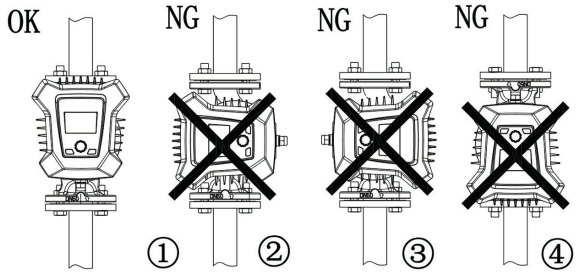


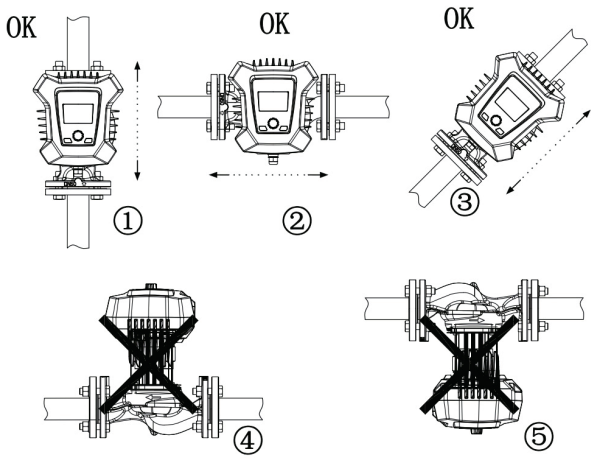


mm							
DN	DE	DK		DG	Holes		
		PN6	PN10		N°	PN6 ø	PN10 ø
32	140	90	100	76	4	14	19
40	150	100	110	84	4	14	19
50	164	110	125	102	4	14	19
65	185	130	145	119	4	14	19

TYPE	DN	H max	Q max	1~ 230 V	1~ 230 V	P1	P1	mm									kg
		m	m3/h	A min	A max	W min	W max	a	a1	a2	fM	A	AL	Am	h6	w	kg
NCE HQ2 32F-120/220	32	12	17	0.17	1.48	15	329	220	110	266	379	226	113	212	312	242	16.4
NCE HQ2 40F-80/220	40	8	19	0.19	1.18	17	267	220	110	266	382	226	113	212	312	242	16.7
NCE HQ2 40F-100/220	40	10	22	0.19	1.65	17	370	220	110	266	382	226	113	212	312	242	16.7
NCE HQ2 40F-120/250	40	12	24	0.18	2.05	15	463	250	125	281	382	226	113	212	312	242	17.2
NCE HQ2 40F-150/250	40	15	26.2	0.18	2.71	16	615	250	125	281	382	226	113	212	312	242	17.2
NCE HQ2 40F-180/250	50	18	26.2	0.22	2.71	16	615	250	125	281	382	226	113	212	312	242	17.2
NCE HQ2 50F-100/280	50	10	30	0.22	1.9	21	425	280	140	296	389	226	113	248	312	242	18.8
NCE HQ2 50F-120/280	50	12	33	0.22	2.37	20	533	280	140	296	389	226	113	248	312	242	19
NCE HQ2 50F-150/280	50	15	35	0.24	2.87	22	649	280	140	296	389	226	113	248	312	242	19.7
NCE HQ2 50F-180/280	50	18	37.5	0.24	3.4	22	769	280	140	296	389	226	113	248	312	242	19.7
NCE HQ2 65F-100/340	65	10	37	0.26	2.73	25	619	340	170	326	399	226	113	266	320	250	21.3
NCE HQ2 65F-120/340	65	12	40	0.26	3.42	24	774	340	170	326	399	226	113	266	320	250	21.3
NCE HQ2 65F-150/340	65	15	49	0.31	5.53	31	1263	340	170	326	399	226	113	266	320	250	21.3

Examples of installations

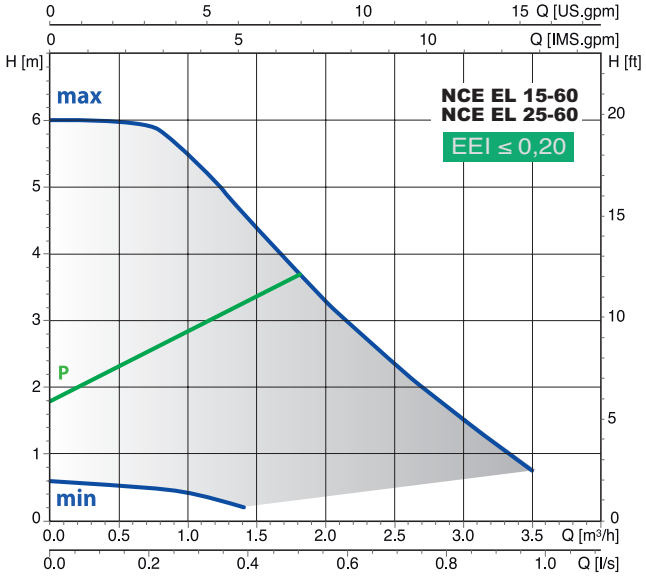


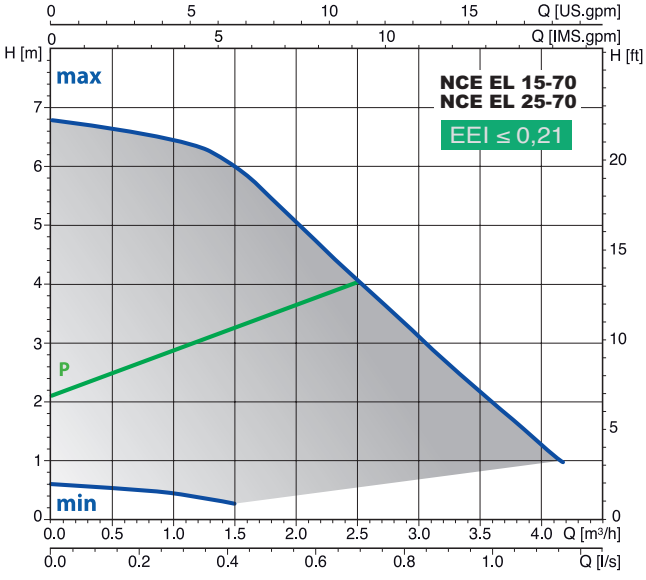


NCE EL



Coverage chart n ≈ 2900 rpm





Energy saving circulating pumps for solar systems with frequency converter

NCE EL

Construction

Energy saving variable speed circulating pump driven by a permanent magnet synchronous motor (pm) controlled by on board inverter.

Applications

Solar thermal systems.

Operating conditions

Liquid temperature from +2 °C to +110 °C
- Ambient temperature from 0 °C to +40 °C
- Maximum permissible working pressure: 10 bar
- Storage: -20°C/+70°C max. relative humidity 95% at 40 °C
- Certifications: in conformity with CE requirements

Sound pressure ≤ 43 dB (A).
Minimum suction pressure: 0.3 bar at 50°C, 1.0 bar at 95°C, 1.5 bar at 110°C
Maximum glycol quantity: 40%
- EMC according to: EN 55014-1, EN 61000-3-2, EN 55014-2
- Connections: threaded ports ISO 228: G 1, G 1 1/2, G 2
- The benchmark for most efficient circulators is EEI ≤ 0,20.
- Minimun power: 3 W.

Motor

Synchronous motor with permanent magnet.
- Motor: variable speed
- Standard voltage: single-phase 230 V (-10%;+6%)
- Frequency: 50/60 Hz
- Protection: IP 44
- Insulation class: H
- Class II appliance
- Overload protection (integrated).
  1) automatic protection with electronic rotor release
  2) Overload thermal protector
- Cable: phases and neutral.

Constructed in accordance with EN 60335-1, EN 60335-2-51.

Special features on request

Brass or cast iron unions.
EPP thermal insulation shell.

Designation

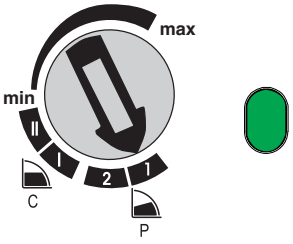
NCE EL 25 - 60 / 180
NCE = Series
EL = Version
32 = DN ports in mm
60 = Max. head in dm
180 = connection size mm

Materials

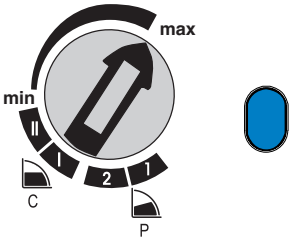
Component	Material
Pump casing	Cast iron GJL 200 EN 1561
Impeller	Composite
Shaft	Ceramic
Ball bearings	Carbon
Thrust bearing	Ceramic
Rotor	Composite / Ferrite
Winding	Copper wire
Electronic card	-
Gasket	EPDM

Operating modes

PROPORTIONAL CURVE PROGRAMMING Δp-v
(GREEN LED)
Moving the switch to 1 or 2 setting, the pump operates with the proportional curve.
This mode ensures maximum energy efficiency.



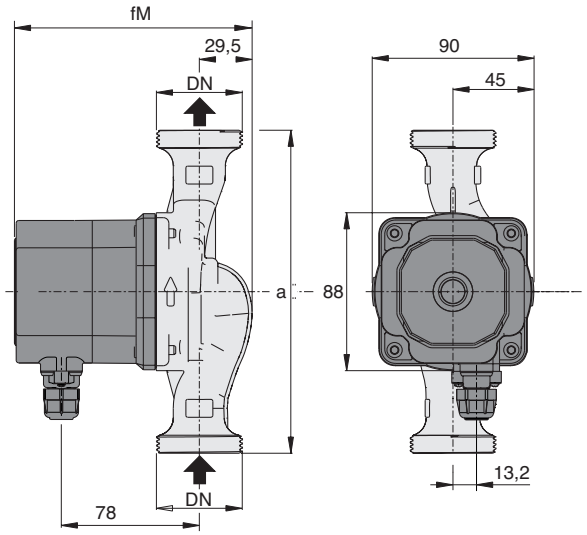
MANUAL PROGRAMMING
(BLUE LED)
Setting the switch in any position between the MIN and MAX points, the most suitable operating curve for the installation is manually selected.



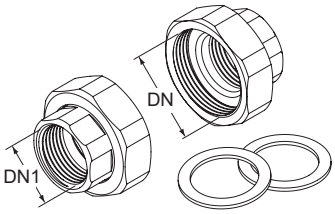
WARNING!
- The red LED indicates that the pump is not rotating but is still under tension.
- White flashing LED : plant degassing requirement, air in the system.

NCE EL

Dimensions and weights



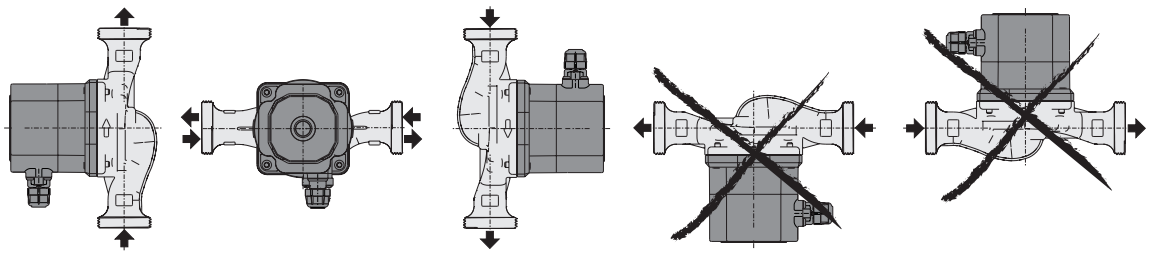
Unions (on request)



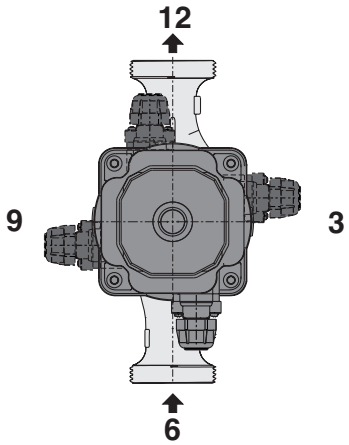
TYPE	DN	DN1
KIT G 1 - G 1/2 (NCE . 15..)	G 1	G 1/4
KIT G 1 1/2 - G 1 (NCE . 25..)	G 1 1/2	G 1
KIT G 2 - G 1 1/4 (NCE . 32..)	G 2	G 1 1/4

TYPE	DN	230 V		P1		mm		kg
		A max	A min	W max	W min	fm	a	
NCE EL 15-60/130/A	G 1	0,33	0,33	42	3	134	130	1,67
NCE EL 25-60/130/A	G 1 1/2	0,33	0,33	42	3	134	130	1,81
NCE EL 25-60/180/A	G 1 1/2	0,33	0,33	42	3	134	180	1,96
NCE EL 15-70/130	G 1	0,44	0,33	56	3	144	130	1,91
NCE EL 25-70/130	G 1 1/2	0,44	0,33	56	3	144	130	2,05
NCE EL 25-70/180	G 1 1/2	0,44	0,33	56	3	144	180	2,20

Examples of installations



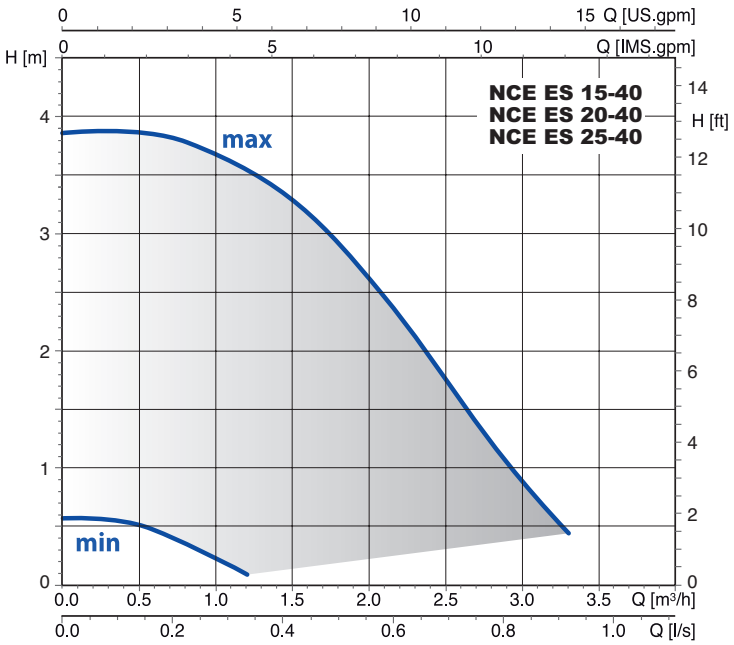
Terminal box arrangement (on request)



NCE ES



Coverage chart n ≈ 2900 rpm



High efficiency energy circulating pumps for sanitary hot water

NCE ES

Construction

Energy saving variable speed circulating pump driven by a permanent magnet synchronous motor (pm) controlled by on board inverter. Bronze pump casing.

Applications

Impianti di circolazione di acqua calda sanitaria.

Operating conditions

Liquid temperature from +2 °C to +95 °C
Ambient temperature from +2 °C to +40 °C
- Maximum permissible working pressure: 10 bar
- Storage: -20°C/+70°C max. relative humidity 95% at 40 °C
- Certifications: in conformity with CE requirements
Sound pressure ≤ 43 dB (A).
Minimum suction pressure: 0.3 bar at 50°C, 1.0 bar at 95°C
EMC secondo: EN 55014-1, EN 55014-2, EN 61000-3-2, EN 61000-3-3.
Threated ports ISO 228: G 1, G 1 1/4, G 1 1/2.

Motor

Synchronous motor with permanent magnet.
- Motor: variable speed
- Standard voltage: single-phase 230 V (-10%;+6%)
- Frequency: 50/60 Hz
- Protection: IP 44
- Insulation class: H
- Class II appliance
- Overload protection (integrated).
  1) automatic protection with electronic rotor release
  2) Overload thermal protector
- Cable: phases and neutral.
Constructed in accordance with EN 60335-1, EN 60335-2-51.

Special features on request

Brass unions.

Designation

NCE ES 25 - 40 / 130
NCE = Series
ES = Version for sanitary hot water
32 = DN ports in mm
60 = Max. head in dm
180 = connection size mm

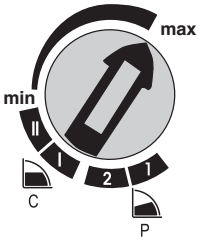
Materials

Component	Material
Pump casing	Bronze
Impeller	Composite
Shaft	Ceramic
Ball bearings	Carbon
Thrust bearing	Ceramic
Rotor	Composite / Ferrite
Winding	Copper wire
Electronic card	-
Gasket	EPDM

Operating modes



MANUAL PROGRAMMING
(BLUE LED)
Setting the switch in any position between the MIN and MAX points, the most suitable operating curve for the installation is manually selected.



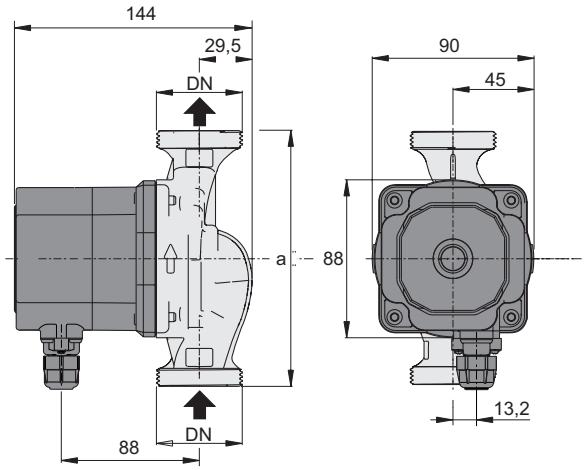




WARNING!
- The red LED indicates that the pump is not rotating but is still under tension.
- White flashing LED : plant degassing requirement, air in the system.

NCE ES

Dimensions and weights



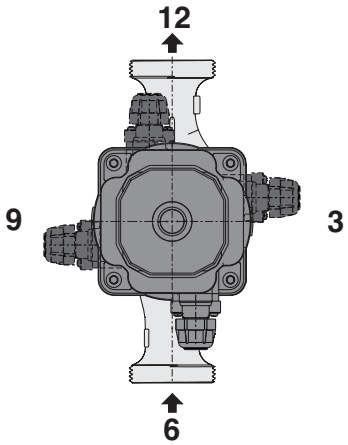
Disegno_NCE_ES_10

Unions (on request)

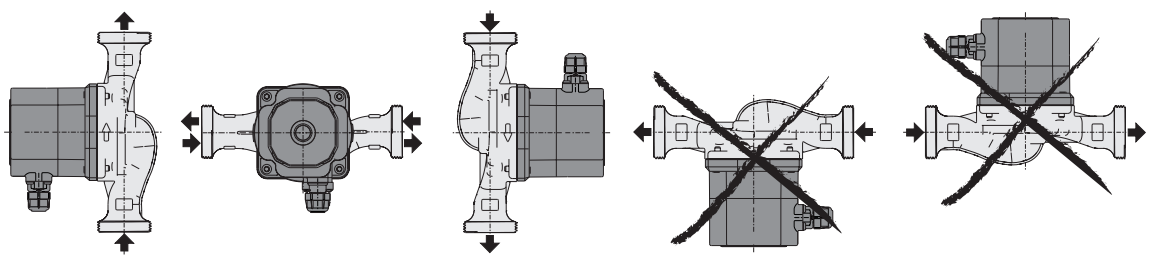
TYPE	DN	DN1
KIT G 1 - G 1/2 (NCE . 15..)	G 1	G 1/4
KIT G 1 1/2 - G 1 (NCE . 25..)	G 1 1/2	G 1
KIT G 2 - G 1 1/4 (NCE . 32..)	G 2	G 1 1/4

TYPE	DN	230 V		P1		mm	kg
		A max	A min	W max	W min	a	
NCE ES 15-40/130	G 1	0,35	0,03	44	4,5	130	2,15
NCE ES 20-40/130	G 1 1/4	0,35	0,03	44	4,5	130	2,25
NCE ES 25-40/130	G 1 1/2	0,35	0,03	44	4,5	130	2,35

Examples of installations



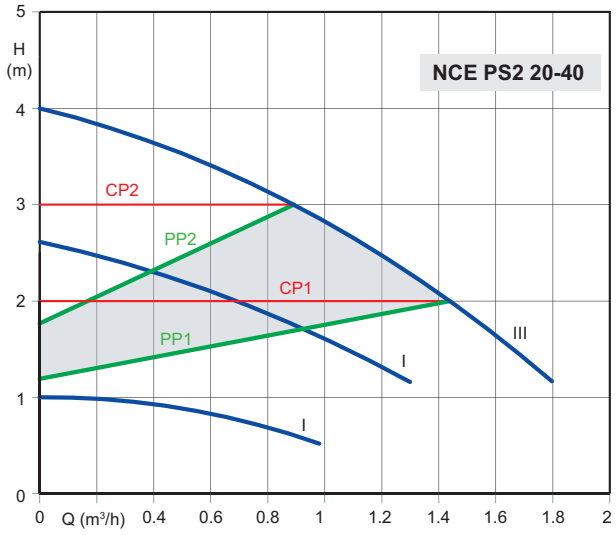
Terminal box arrangement (on request)

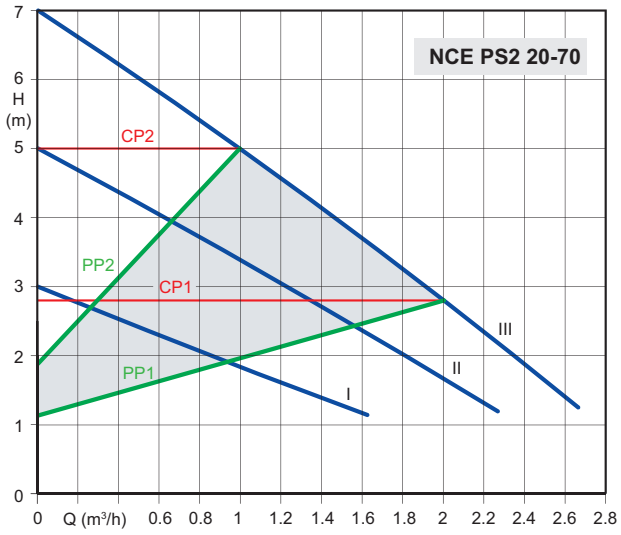


NCE PS2



Coverage chart





High efficiency energy circulating pumps for sanitary hot water

NCE PS2

Construction

Energy saving variable speed circulating pump driven by a permanent magnet synchronous motor (pm) controlled by on board inverter. Bronze pump casing. Standard with brass unions.

Applications

Impianti di circolazione di acqua calda sanitaria.

Operating conditions

Liquid temperature from +5 °C to +65 °C
- Ambient temperature from 0 °C to +40 °C
Maximum permissible working pressure: 3 bar
Storage: -10°C/+50°C max. relative humidity 95% at 40 °C
- Certifications: in conformity with CE requirements
Sound pressure ≤ 45 dB (A).
- Minimum suction pressure: - 0,05 bar at 75 °C 0,28 bar a 90 °C.
EMC secondo: EN 55014-1, EN 55014-2, EN 61000-3-2, EN 61000-3-3.
Connections: threaded ports ISO 228: G 1.

Motor

Synchronous motor with permanent magnet.
- Motor: variable speed
- Standard voltage: single-phase 230 V (-10%;+6%)
Frequency: 50-60 Hz
- Protection: IP 44
- Insulation class: F
- Class II appliance
Overload protection (integrated).
- Cable: phases and neutral.
Constructed in accordance with EN 60335-1, EN 60335-2-51.

Designation

NCE PS2 20 - 40 / 130
NCE = Series
PS2 = Version for sanitary hot water
20 = DN ports in mm
40 = Max. head in dm
130 = connection size mm

Materials

Component	Material
Pump casing	Bronze
Impeller	Composite PES
Shaft	Ceramic
Ball bearings	Ceramic
Thrust bearing	Ceramic
Rotor	jacket
Winding	Copper wire
Gasket	EPDM

Operating modes



Proportional pressure mode:
PP1 Lowest proportional pressure curve
PP2 Highest proportional pressure curve
The duty point of the pump will move up or down on the higher proportional pressure curve, depending on the heating demand.
The head (pressure) is reduced as the heating demand decreases and increases as the heating demand increases



Constant pressure mode:
(CP1 Lowest constant pressure curve)
(CP2 Highest constant pressure curve)
The duty point of the pump will move outwards or along a constant pressure curve, depending on the heating demand.
The head (pressure) is kept constant, regardless of the heating demand.



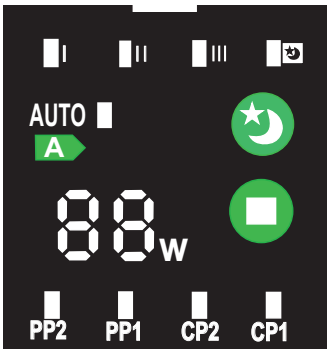
Fixed speed mode:
(III) Pump runs at a constant speed and consequently on a constant curve.In speed III, the pump is set to run on the Max. curve under all operating conditions.
Quick venting of the pump can be obtained by setting the pump to speed III for a short period.
(II) Pump runs at a constant speed and consequently on a constant curve.In speed II, the pump is set to run on the Medium curve under all operating conditions.
(I) Pump runs at a constant speed and consequently on a constant curve.
In speed I, the pump is set to run on the Min. curve under all operating conditions.



Automatic mode
In “AUTO” mode, pump power automatically increases or decreases based on system flow under certain conditions.



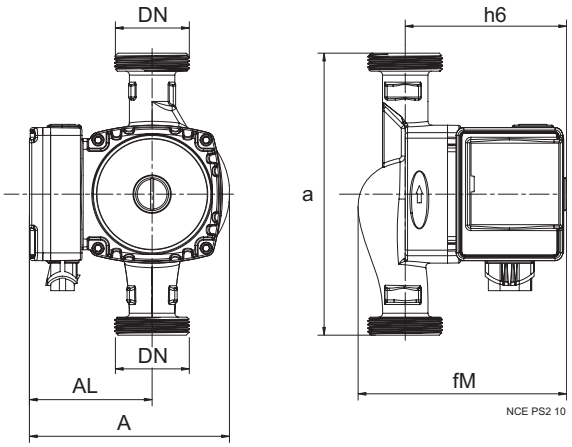
Night mode:.
The pump works by selecting the night mode, after one hour the power turns off automatically, after two hours it will drop to a minimum between 5 and 10 watts, after seven hours the automatic mode of the pump is eliminated and restored to the original conditions.



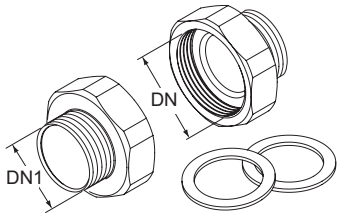
Operating functions - control buttons.
NCE PS circulator could work:
with curves at proportional pressure
with curves at constant pressure
with curves at fixed speed
- automatic mode
- night mode

NCE PS2

Dimensions and weights



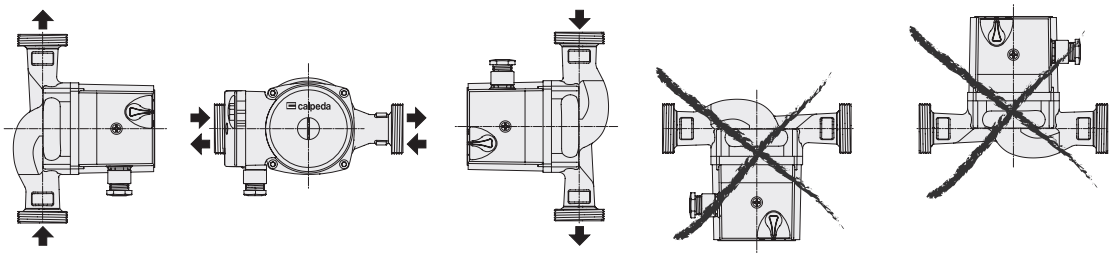
Unions



TYPE	DN	DN1
KIT G 1 - G 3/4 (NCE PS . 20..)	G 1	G 3/4

TYPE	DN	H	Q	P1	a	fM	h6	A	AL	kg
		m	m3/h	W max	mm	mm	mm	mm	mm	kg
NCE PS2 20-40/130	G 1	4	1.8	22	130	129	101	128	78	2.1
NCE PS2 20-70/130	G 1	7	2.7	47	130	129	101	128	78	2.1

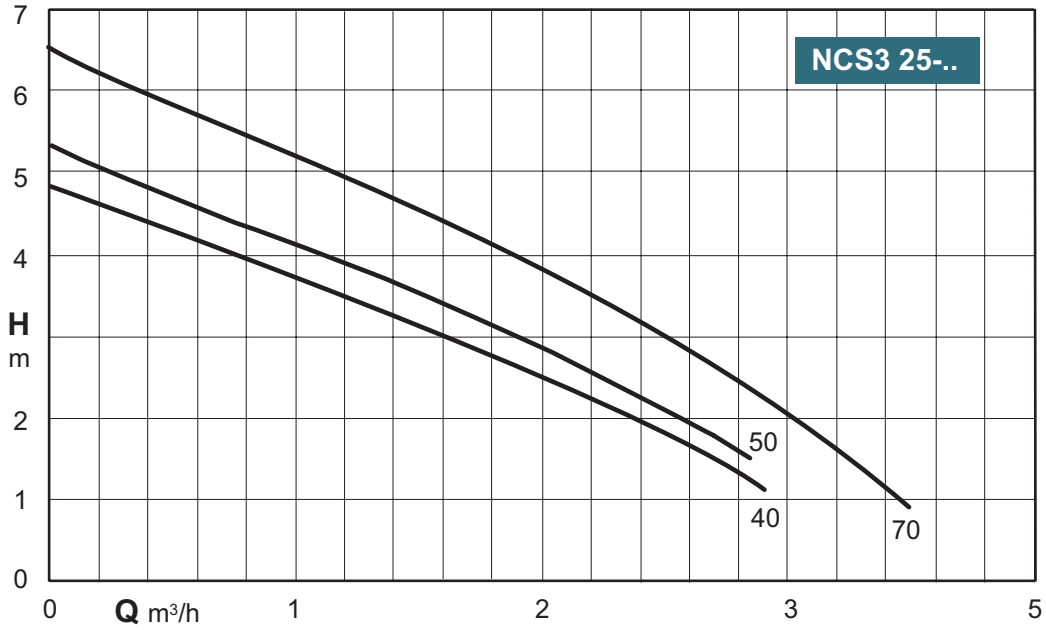
Examples of installations



NCS3



Coverage chart



Circulating pumps for sanitary hot water

NCS3

Construction

3-speed circulator.
Pump casing with suction and delivery connections with the same diameter and on the same axis (in-line).
Bronze pump casing.
Standard with brass unions.

Applications

Impianti di circolazione di acqua calda sanitaria.

Operating conditions

Liquid temperature from +5 °C to +65 °C.
Ambient temperature up to 40 °C.
Sound pressure ≤ 45 dB (A)
Minimum suction pressure: 0,05 bar at 50 °C
- Maximum permissible working pressure: 10 bar
Storage: -10°C/+50°C max. relative humidity 95% at 40 °C
Connections: threaded ports ISO 228: G 1 1/2.

Motor

2-pole induction motor, 50 Hz.
Three adjustable speeds.
NCS3: single-phase 230 V.
Insulation class H.
- Protection: IP 44
Overload protection (integrated).
- Cable: phases and neutral.
Constructed in accordance with EN 60335-1, EN 60335-2-51.

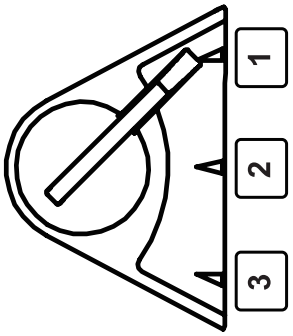
Designation

NCS3 25 - 40 / 130
NCS3 = Series
25 = DN ports in mm
40 = Max. head in dm
130 = connection size mm

Materials

Component	**Material**
Pump casing	Bronze
Impeller	Composite PES
Shaft	Ceramic
Ball bearings	Ceramic
Thrust bearing	Ceramic
Rotor	jacket
Winding	Copper wire
Gasket	EPDM

Operating modes

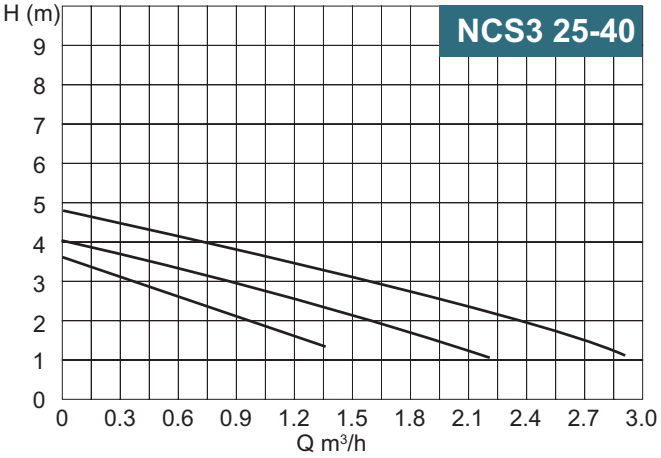


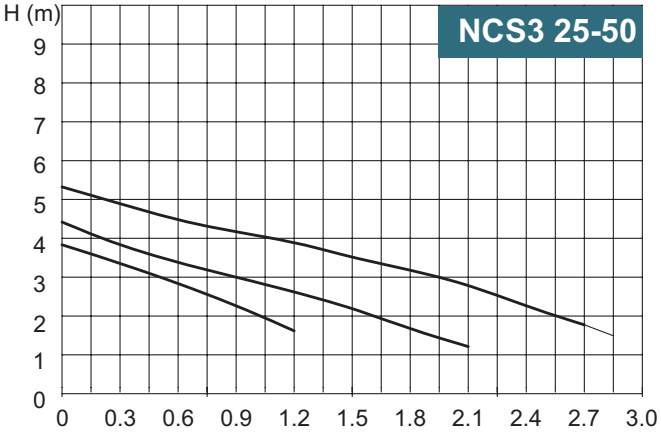


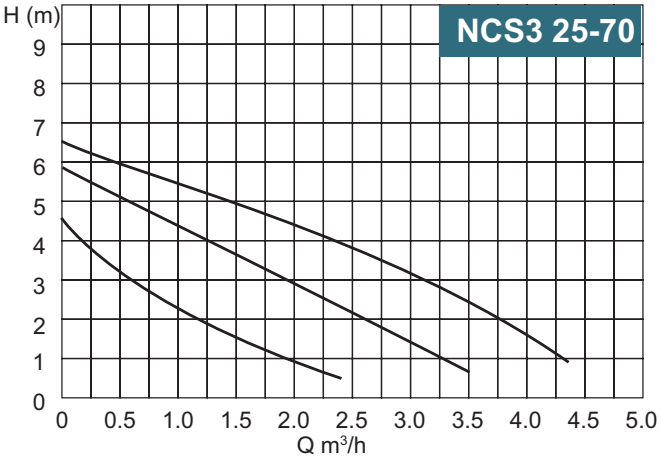
MANUAL PROGRAMMING
By positioning the selector at any point between 1,2 and 3, the most suitable operating curve for the system is manually chosen.

NCS3

Characteristic curves n ≈ 2900 rpm

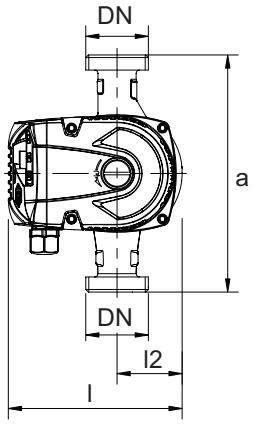


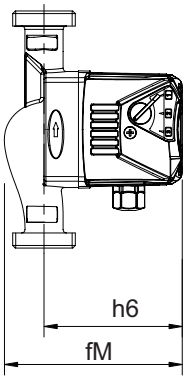




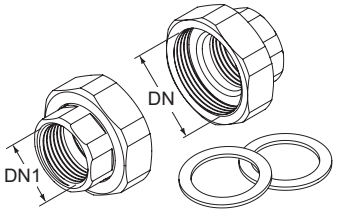
NCS3

Dimensions and weights





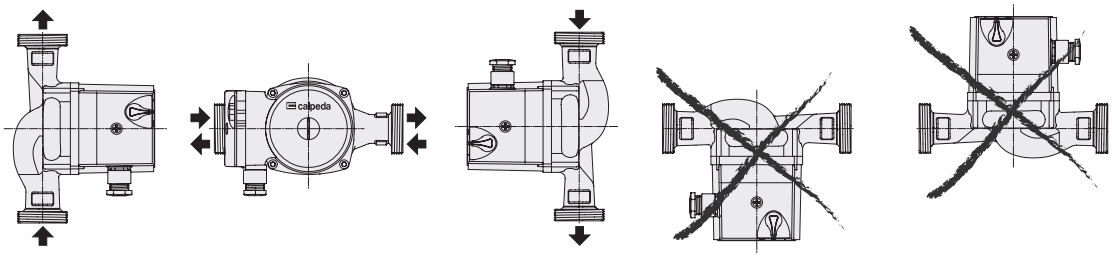
Unions



TYPE	DN	DN1
KIT G 1 1/4 - G 3/4 (NCS3 20..)	G 1 1/4	G 3/4
KIT G 1 1/2 - G 1 (NCS3 25..)	G 1 1/2	G 1

TYPE	DN	Pos.	P1 (W)	a	FM	l2	l	h6	kg
NCS3 25-40/130/A	G 1 1/2	3	72	130	135	49	132	105	2.5
		2	53						
		1	38						
NCS3 25-50/130/A	G 1 1/2	3	81	130	135	49	132	105	2.6
		2	67						
		1	46						
NCS3 25-70/130/A	G 1 1/2	3	122	130	135	49	132	105	2.7
		2	95						
		1	66						

Examples of installations

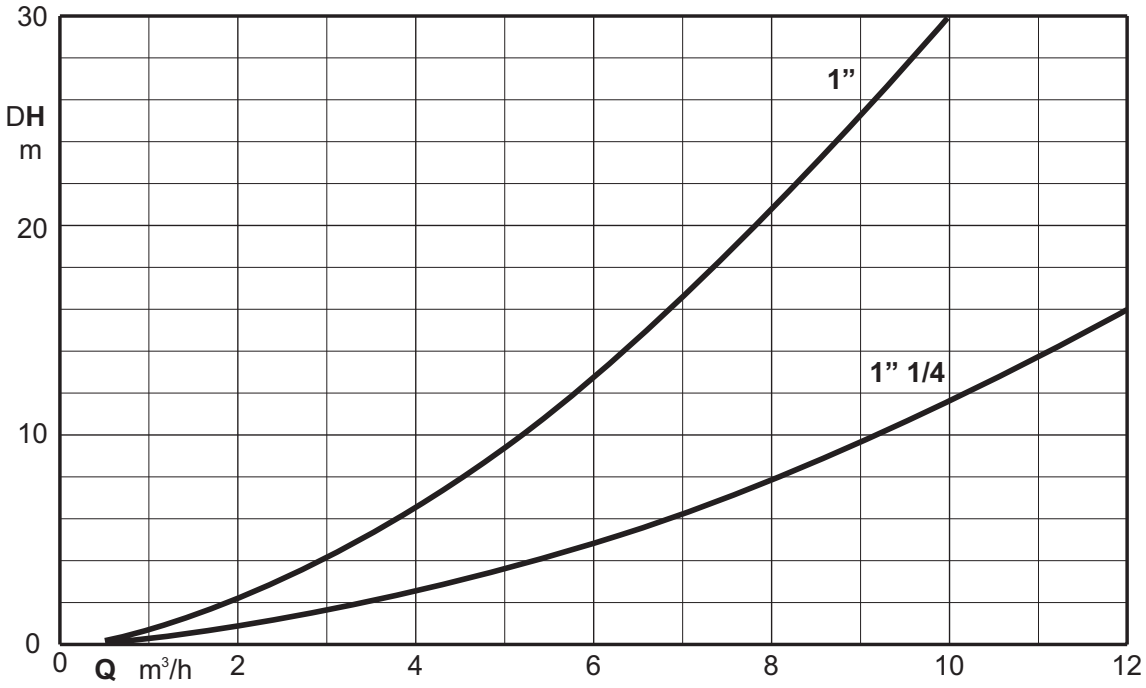


IDROMAT





Diagram of head loss



Electronic regulator for pumps

IDROMAT

Construction

Pumps control device provided with flow rate and pressure sensor
Inlet and delivery connection ports of the same diameter.
Built-in check valve.
Pressure gauge 0-12 bar supplied as standard for IDROMAT 5.. (IDROMAT 6.. not present).
Automatic reset function for the reset of the system without manual operation.

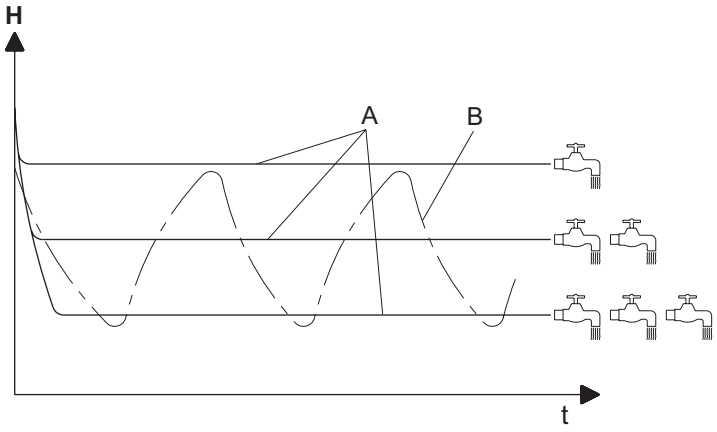
Applications

Automatic control of pumps for water supply and increase of network pressure.
Control of starting/stopping of the pump when cocks are opened/closed.
For protection of the pump:
– against dry running;
– against the risk of operation without water at the inlet (caused by a lack of water inflow in the inlet pipe under positive suction head, by a non-immersed suction pipe, by excessive suctionlift or by air entering the suction pipe);
– against operation with closed connection ports.

Materials

Component	Material
Housing	Poliammide PA 6 caricato F.V
Membrane	Gomma naturale

Comparison of pressure values

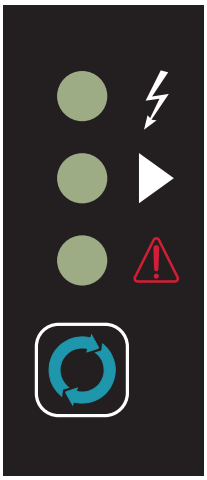


Operating conditions

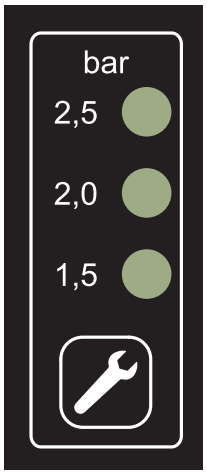
Mains voltage:single-phase 230 V ±10% Idromat 5e;
single-phase 115 - 240 V ±5% for Idromat 5, 6.
Frequency: 50 - 60 Hz.
Current values:
- 8A max during operation (16A max at start-up) for IDROMAT 5;
- 16A max during operation (30A max at start-up) for IDROMAT 6
Maximum pump motor power 1,5 kW (2,2 kW for IDROMAT 6).
Protection: IP 65.
Maximum working pressure: 12 bar (1,2 MPa)
Maximum Operating temperature up to 65 °C.
Minimum flow ~ 1 l/min.
Male connections 1” (1 1/4 for IDROMAT 6).

TYPE	Switching-on pressure	Pump head
IDROMAT 5-15	1,2 bar	> 25 m
IDROMAT 5-18	1,5 bar	> 30 m
IDROMAT 5-25	2,2 bar	> 35 m
IDROMAT 5-33	3 bar	> 45 m
IDROMAT 6-15	1,5 bar	> 30 m
IDROMAT 6-30	3 bar	> 45 m
IDROMAT 5e	adjustable from 1,5 to 2,5 bar	1,5 bar more than the expected restart pressure

Control Panel



Status indications and system reset
The three leds give the information about the system operativity, the first led indicates the presence of supply, the second led indicates if the pump is operating and the third led indicates if an alarm has occurred in the system.
The Reset button allows to manually restart the system when an alarm occur.



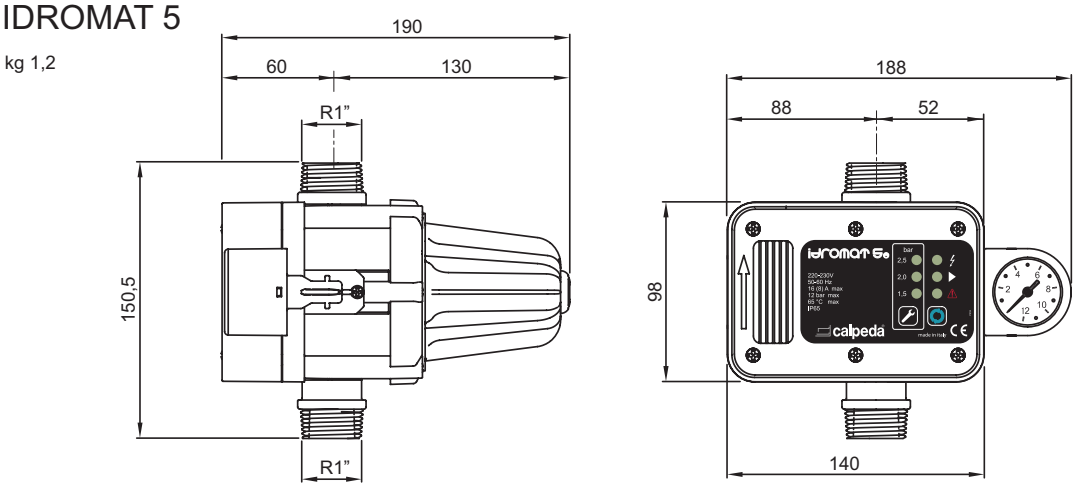
Programming of the re-start pressure
The display allows to visualize the re-start pressure of the system,
the buttons allow to change the re-start pressure value.

IDROMAT

Dimensions and weights

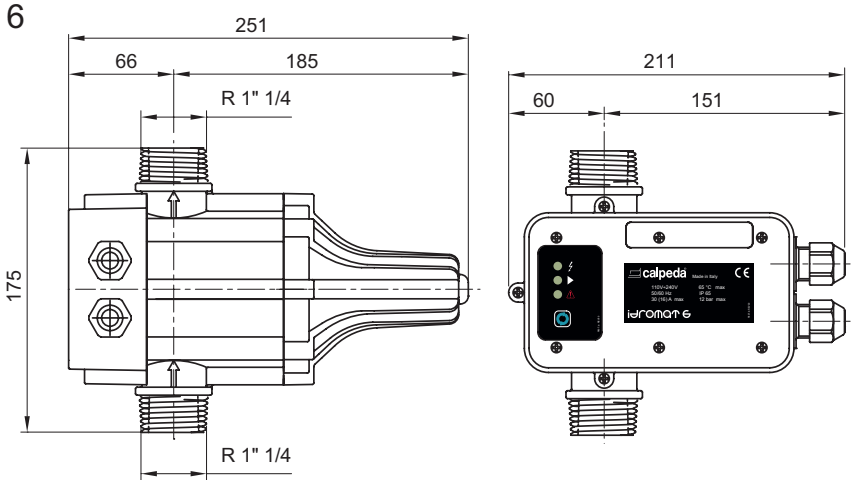
IDROMAT 5

kg 1,2

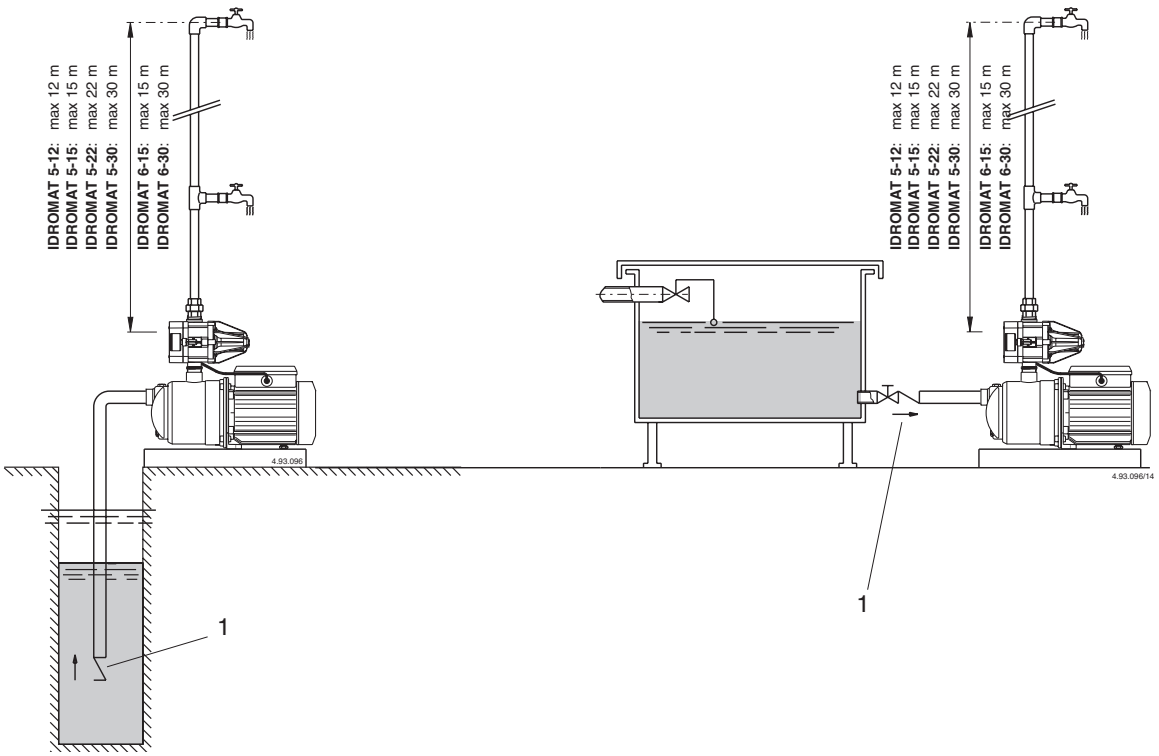


IDROMAT 6

kg 1,5



Examples of installations



1 Foot valve

EASYMAT



Features

- **Constant pressure**
- via a frequency inverter keeps the pressure constant as the flow demand changes.
- **Energy saving**
- The variable speed operation ensures that only the energy required by the plant at any instant is used.
- **System reliability**
- Because the easymat is independent of the pumped liquid it's operation is not affected by fluid impurity.
- A float switch can also be integrated to further protect against dry running.
- **Flexibility**
- Thanks to it's patented design the easymat does not come into contact with the pumped fluid.
- This provides for more flexibility during installation eliminating the need for pipe-work modifications or the installation of isolating valves.
- **Easy to use**
- The easymat has a clear display making it very simple to set-up.
- **Cascade control mode**
- The system flexibility allows via a microprocessor for cascade operation of two easymat's via one pressure transducer.

Variable speed system driven by frequency converter

EASYMAT

Construction

Variable speed system driven by frequency converter, for the pressure control in domestic and residential plants.
The system is connected to the delivery pipe providing for simple installation and better cooling (patented) making the unit more compact and easy to assemble.
Easymat is supplied with one pressure transducer, G 1/4 connection and 1.5 m cable length.

Applications

Automatic frequency inverter control for use on pumps to increase network pressure.
The system maintains constant pressure whilst the controlling the pump operation against changing system demand.
For protection of the pump:
Against dry running
– Against operations with closed connection ports
– Against overcurrent of the motor
– Against overvoltage and undervoltage of the power supply

Pump type

Pump type		Freqeuency converter max current output (A)	Standard power motor 230V (kW)
Single-phase	Easymat 9,2MM	9,2	0,37 - 1,5
Three-phase	Easymat 9,2MT	9,2	0,37 - 2,2

Construction

(Standard execution)
The system comprises of:
- Frequency converter.
- Pressure transducer.
- Pipe housing.

Terminals board
- Cable glands.
- Multi-hole gaskets.

On request:
Cradles for pipe connection.
Inlet filter and outlet filter.

Operating conditions

IP55 protection rating.
Max Ambient temperature: 40°C
Liquid temperature up to 40°C.
Minimum Flow: 3 l/min
Altitude: no higher than 1000 m, inside a closed environment.

	Voltage:		Frequence	
	Input	Output	Input	Output
EASYMAT MM	1~ 230V ±10%	1~ 230V	50-60 Hz	up to 70 Hz
EASYMAT MT	1~ 230V ±10%	3~ 230V	50-60 Hz	up to 70 Hz

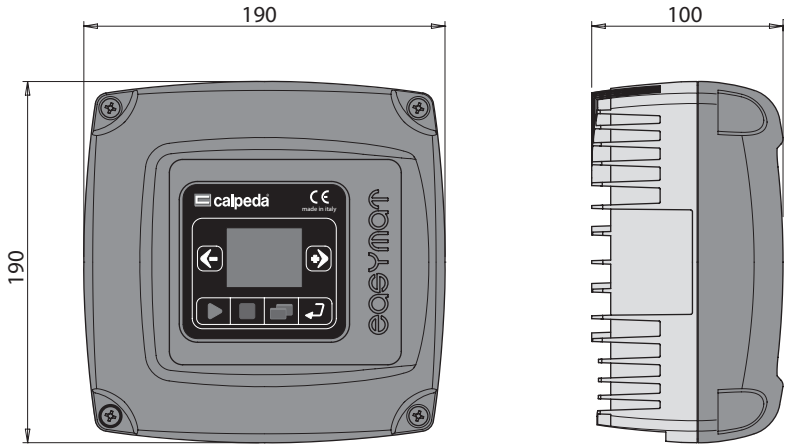
Control Panel



Easymat is equipped with a control panel for simple system programming and parameter monitoring.
The 2 scroll buttons are used to scroll the different operating parameters that EASYMAT can show.
At the same time you can use the 2 scroll buttons to move in the set up menu and to change the different options.
The LCD custom display gives an easy overview of the system situation and of the operating parameters.
The icons on the top and below the display area explain in which way EASYMAT is working and if there are problems on the system.
The four set-up buttons allow the operator to move between and set-up the menu's and to start and stop the pump.The symbols help to make the function of each button clear.
With these 4 buttons and the 2 scroll buttons you can manage all the set-up and operating parameters without the use of an other control panel or computer.

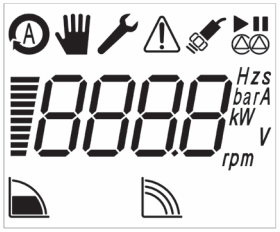
Dimensions and weights

Weight: 1.9 kg



EASYMAT

Display LCD



The integrated LCD custom display gives you an easy overview of the system situation and operating parameters.



DISPLAY AREA
The display area gives the status of the parameters of the pump.

The OPERATING ICONS show in which mode the system is operating:



Constant pressure mode
The system keeps the pressure constant when the quantity of water requested by the user changes.The user can choose the operating pressure according his needs.



Fixed speed mode
The system works at a fixed speed that user can choose according his needs.

The SYSTEM ICONS show in which way the system is operating:



Auto Mode
The icon shows that the system is operating in auto mode (constant pressure mode), the constant pressure mode it is indicated by the icon on the lower part of the display.



Manual Mode
The icon show that the system is operating in manual mode (fixed speed mode), with the navigation buttons the user can change the speed, the fixed speed mode is indicated by the icon on the lower part of the display.



Set-up Mode
The icon shows that the set-up menu is activated, in this mode it is possible to change all the operating parameters of the EASYMAT. With the navigations buttons it is possible to scroll the parameters and, if necessary, change them.



Sensor State
indicates the state of the pressure transducer connected to the EASYMAT, if lit it indicates that the pressure transducer is working, if it is blinking there is a fault or a incorrect connection of the pressure transducer.



Alarm
It indicates that there is a fault on the system, the error number appears on the display area.

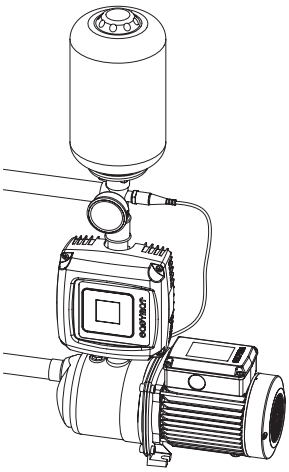


Cascade Mode
It indicates that the multi-pump mode (up to 2 pumps) is working, the upper icon shows if the pump connected with the frequency converter is running or is in stand-by, the lower icon indicates if the pump is the master pump (the icon is lit) or the slave pump (the icon is blinking).

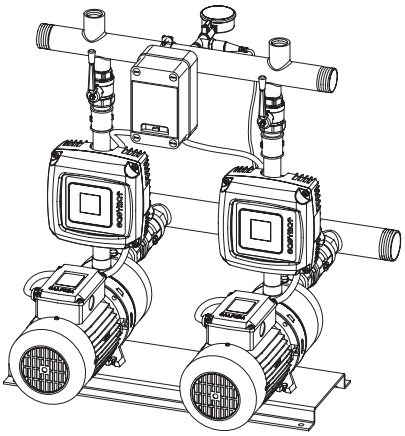
EASYMAT

Examples of installations

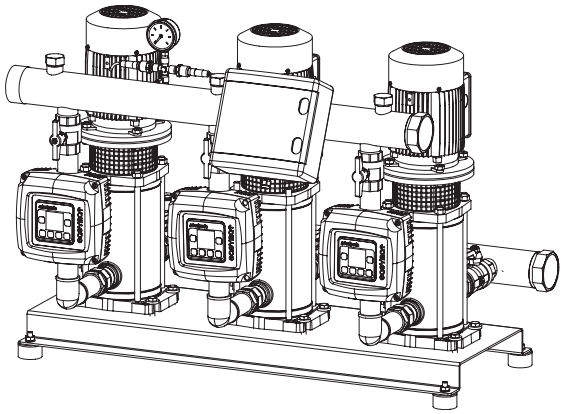
One pump installation scheme



Two pumps installation scheme



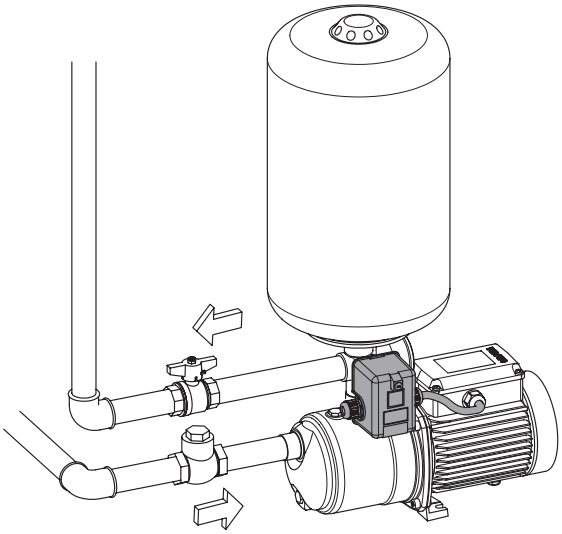
Three pumps installation scheme



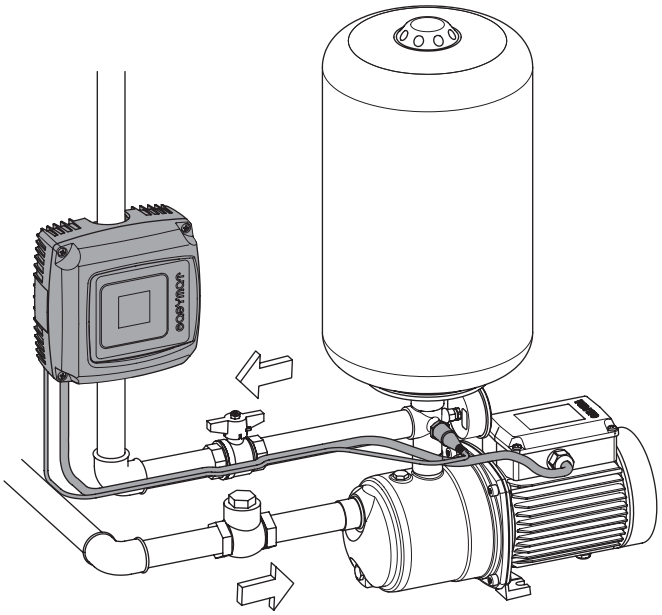
Plant examples

With EASYMAT it is easy to create a variable speed system starting from a existing fixed speed system without disturbing the existing pipe-work.
To create the variable speed system it is only necessary to:
- Disconnect the pressure switch from the system and, in the same housing connect the pressure transducer.
- Connect EASYMAT to the pipe.
- Connect EASYMAT to electric motor.
- Connect the supply cable to the electric grid.

Existing fixed speed version



Variable speed system version



I-MAT



Features

- **Flexibility**
- I-MAT frequency converters are equipped with a software which provide different operating modes in order to cover a wide range of applications.
- **Reliable**
- The high efficiency heatsink with integrated fans allows to cool the frequency converter independently from the motor, to provide a higher reliability of the system.
- **Safety**
- The shape of the I-MAT frequency converters allows to separate the signal terminals area, from the power terminals area, in this way the user can operate on the signals connections in safety conditions.
- **Easy to use**
- The integrated control panel allows to program all the parameters directly on the frequency converters. Moreover it's possible to remove the control panel and remote it with a connection cable.
- **Cascade control mode**
- The system flexibility allows, with an optional electronic card, to assemble more units making them communicate together. The system is capable to manage variable speed pumps (up to 6) and fixed speed pump (up to 5).

Construction

Variable speed system driven by frequency converter for the motor control in the water supply applications and in the production/ distribution of hot/cold water.
I-MAT is an integrated control system which, applied to the motor, allows to manage a wide range of applications and operating modes.
Classification scheme IE2

Applications

Frequency converter for automatic pump control suitable for:
- water supply
- water transport and distribution
- production and distribution of hot/cold water
- water treatment

For protection of the pump:
- – against dry running;
- – against operation with closed connection ports.
- Against overcurrent of the motor
- Against overvoltage and undervoltage of the power supply
- Against unbalance or missing supply phases.

Operating conditions

Input voltage: 3~380V-10% ÷ 3~480V+5%
Output voltage: 0 ÷ 100% of the input voltage
Input frequency: 50-60 Hz
Output frequency: up to 70 Hz
Protection: IP55
Max Ambient Temperature: 50°C
Altitude: no higher than 1000 m, inside a closed environment.

Construction

(Standard execution)
The system comprises of:
- Frequency converter.
Removable control panel
- Power terminal board
- Signals terminal board
- Cable glands.

On request:
Motor adapter for the motor mounting of the frequency converter
Adapter for wall mounting
- Pressure and temperature transducer
- Main switch
- Line filter and output filter
- Modbus Kit
Multi-pump board

Pump type

Type three-phase	Max. VFD output current	Typical motor power 400V
	(A)	(kW)
I-MAT 5,2 TT-A	5,2	0,55 ÷ 1,8
I-MAT 11,2 TT-B	11,2	2,2 ÷ 4
I-MAT 25,8 TT-C	25,8	5,5 ÷ 11
I-MAT 65,4 TT-D	65,4	15 ÷ 30 (37)*
I-MAT 119 TT-E	119	37 ÷ 55

* 2-pole 37 kW

Variable speed system driven by frequency converter

I-MAT

Operating modes

Constant pressure mode
The system keeps the pressure constant when the quantity of water requested by the user changes.The user can choose the operating pressure according his needs.

Proportional pressure modes
Proportional pressure reduces the pressure of the pump (and as a consequence, the operating frequency) proportionally with the water demand of the system.

Constant temperature mode
In this operating mode the system is used to keep the temperature at a constant value in a specified system point.

Constant flow mode
Constant flow mode grants that system change the speed of the pump in order to keep constant the flow which pass inside a flow meter.

Fixed speed mode
In this operating mode the system work as a fixed speed pump. The speed of the pump could be set by the user between a range of speeds, or controlled by an external signal.

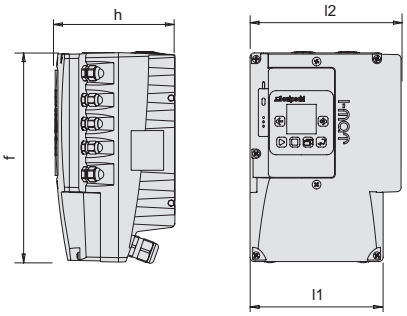
Night mode
The night mode is an optional mode which allows to reduce the speed of the pump if the temperature in the system decreases below a set value, this operating mode can be used with all operating modes over described.

Control Panel



I-MAT is equipped with a control panel that allows to carry out the set-up of the system and to monitor all system parameters.
The control panel is inside a IP55 enclosure which is possible to rotate and install in remote positions.
It is possible use the control panel in remote positions by means a cable with M12 connectors (standard cable).
The LCD custom display gives an easy overview of the system situation and of the operating parameters.
The icons on the top and below the display area explain in which way i-MAT is working and if there are some problems on the system.
The 2 scroll buttons are used to scroll the different operating parameters that i- MAT can show. At the same time you can use the 2 scroll buttons to move in the set up menu and to change the different options.
At the same time you can use the 2 scroll buttons to move in the set up menu and to change the different options.
The 4 set-up buttons are created to enter and to move on the set-up menus and to start and to stop the pump. The symbols help to understand the function of each button. With these 4 buttons and the 2 scroll buttons you can manage all the set-up and operating parameters without the use of another control panel or computers.The symbols help to make the function of each button clear.With these 4 buttons and the 2 scroll buttons you can manage all the set-up and operating parameters without the use of an other control panel or computer.

Dimensions and weights



Pump type	mm				kg
	h	f	l1	l2	
I-MAT 5,2 TT-A	165	263	170	190	5,8
I-MAT 11,2 TT-B	165	292	185	210	6,7
I-MAT 25,8 TT-C	207	336	255	281	13,5
I-MAT 65,4 TT-D	288	460	320	350	33
I-MAT 119 TT-E	336	700	424	455	59

I-MAT

Features

1 Control Panel
The integrated control panel gives the customer the possibility to set all the parameters of the frequency converter.

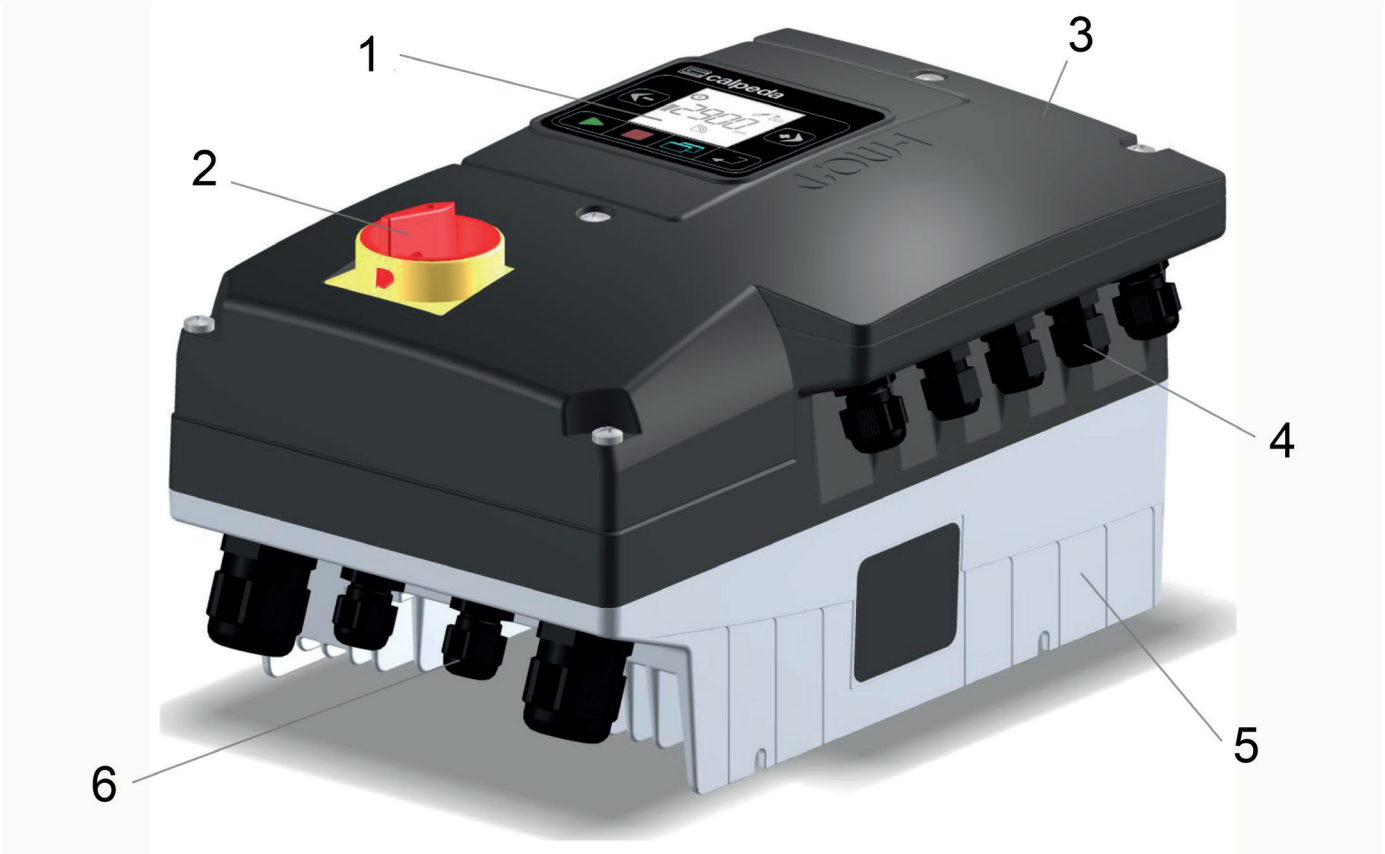
2 Main switch
The frequency converters have the possibility (optional) to install a main switch.

3 Optional modules
On the front side of the frequency converter are predisposed compartments for connecting the optional modules.

4 I/O connection area
The connection area for the input/outputs is separated from the power connection area, this solution allows to connect external.

5 Power connection area
The connection area is protected by a safety cover.

6 Heatsink
The high efficiency heat sink cooled by fans guarantees a high reliability. The side connection system allows an easy connection with the motors.



I-MAT

Examples of installations

One pump installation scheme



MXH EI



NM EI

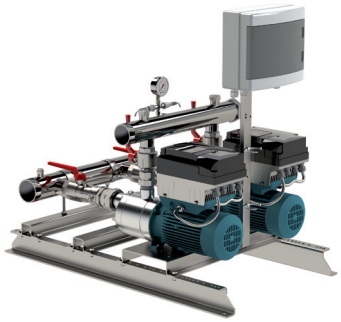


NR EI

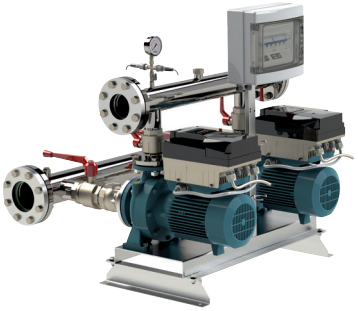


MXV EI

Two pumps installation scheme



2 MXH

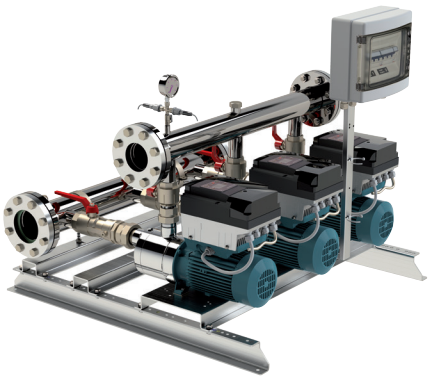


2 NM

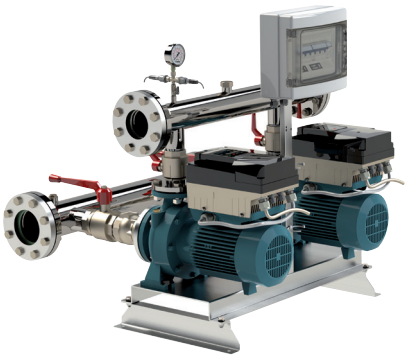


2 MXV

Three pumps installation scheme



3 MXH



3 NM

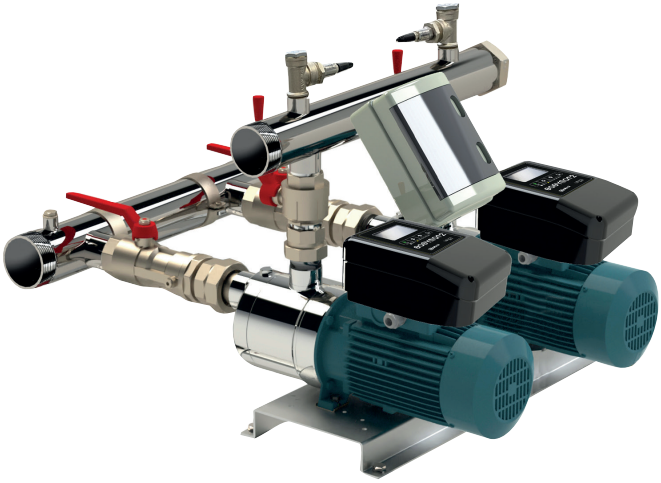


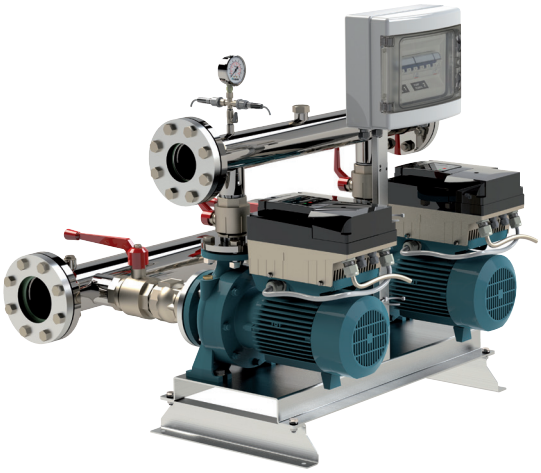
3 MXV

BS









Designation

BS M 2V 2 MXV 25/204 - I TT
BS M 1V 1F 2 MXV 25/204 - E MT
BS M 2F 2 MXV 25/204

- **T** Motore trifase
- **M** Motore monofase
- **T** Alimentazione trifase
- **M** Alimentazione monofase

Serie **E = EASYMAT**
I = I-MAT
WALL

Tipo di pompe

N. pompe

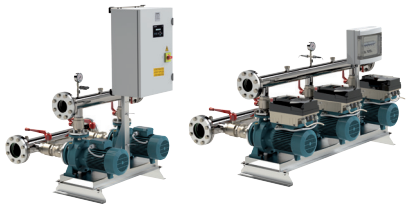
- **1F** 1 pompa a velocità fissa
- **2F** 2 pompe a velocità fissa
- **3F** 3 pompe a velocità fissa
- **1V** 1 pompa a velocità variabile
- **2V** 2 pompe a velocità variabile
- **3V** 3 pompe a velocità variabile

Alimentazione monofase
(senza indicazione: alimentazione trifase)

Serie prodotto (Booster Sets)

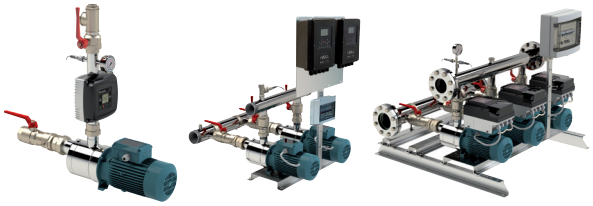
Pressure units with fixed and variable speed pumps

BS



Pressure boosting sets NM, NMD

BS .F fixed speed 2/3 pumps
BS .V variable speed with I-MAT 2/3 pumps



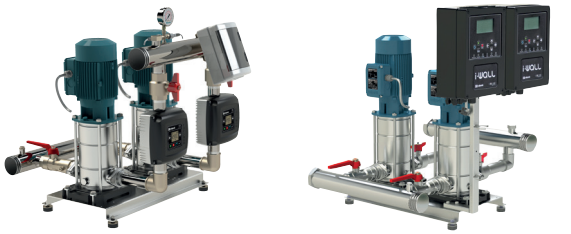
Pressure boosting sets MXH

BS .F fixed speed 2/3 pumps
BS .V variable speed with EASYMAT 1/3 pumps
BS .V variable with EASYMAT2 2 pumps
BS .V variable with WALL 2 pumps
BS .V variable speed with I-MAT 2/3 pumps



Pressure boosting sets MPSU

BS .F fixed speed 2/3 pumps
BS .V variable speed with EASYMAT 1/3 pumps



Pressure boosting sets MXVB

BS .V variable speed with EASYMAT 1/3 pumps
BS .V variable with EASYMAT2 2 pumps
BS .V variable with WALL 2 pumps



Pressure boosting sets MXV

BS .F fixed speed 1/3 pumps
BS .V variable with WALL 2 pumps
BS .V variable with I-MAT 2/3 pumps

TO SELECT A PRESSURE BOOSTING SET

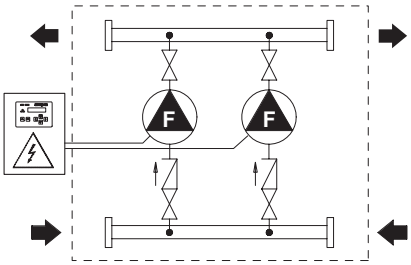
BS

BSF
2 and 3 fixed speed pumps

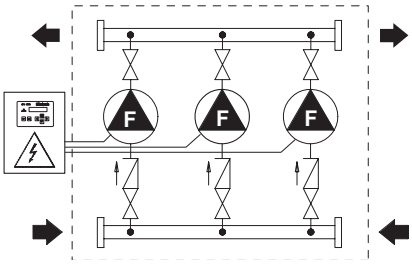
Construction

Pressure boosting sets with automatic operation, consisting in 2 and 3 pumps on a common baseplate, with sunction and delivery manifolds, gate and non-return valves, pressure switches, pressure gauge, control panel and

BS 2F
2 pompe a velocità fissa



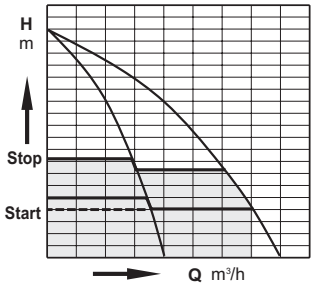
BS 3F
3 pompe a velocità fissa



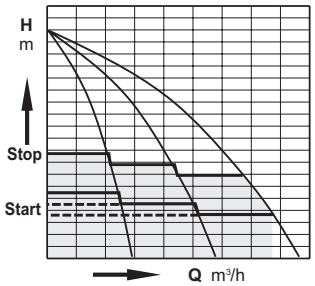
Functioning mode

The control panel, with electronic card, manages the pump operation, the changeover of pump starting sequence and it stops the system when there is no air in the tank (patented system).
Pumps starting in a cascade sequence, with a signal from the pressure switches.

BS 2F
2 pompe a velocità fissa



BS 3F
3 pompe a velocità fissa



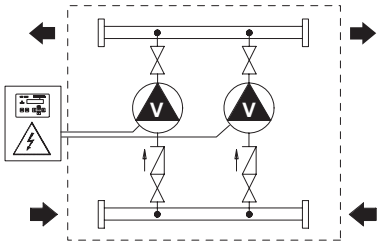
BS

BSV
2-6 variable speed pumps (with frequency converter)

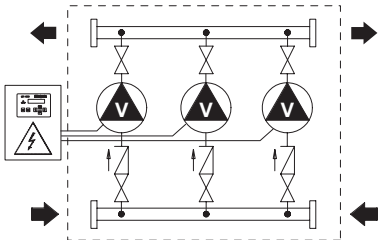
Construction

Pressure boosting sets with automatic operation, consisting of variable speed pumps (from 1 to 6) with frequency converter, assembled on a common baseplate, with suction and delivery manifolds,

BS 2V
2 pompe a velocità variabile



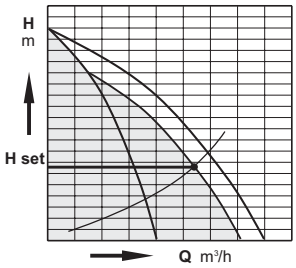
BS 3V
3 pompe a velocità variabile



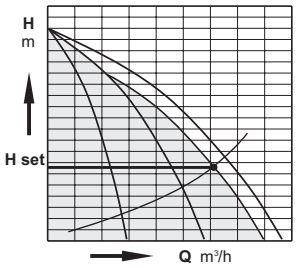
Functioning mode

The control panel, with electronic card, manages the pump operation, the changeover of pumps starting sequence.
Pumps starting is in a cascade sequence, with a signal from the pressure transducer.

BS 2V
2 pompe a velocità variabile



BS 3V
3 pompe a velocità variabile



BS

Fixed speed pump units

Fixed speed pump units New electrical control panels
New electrical control panels for pressurisation units, all with electronic card with microprocessors, for managing pump operation.
The microprocessor carries out continuous secure checks during all the various work phases of the pumps and incorporates all necessary functions, thus reducing electrical and electronic components inside the panel.

In particular:
- - pumps starting in a cascade sequence according to water demand.
- - changeover of pump starting sequence.
- - delay start-up of the 2nd/3rd pump in case of breakdown of pressure switch 1 or after a power cut.
- - avoid pump starting in case of water hammering.
- - activate the alarm when pressure 1 fails.
- - activate the alarm when air cushion in the vessel drops.
- - stop the pump when air cushion is over.

Maximum clarity for all signals
The status of the unit can easily be identified on the front of the electronic card with the following signals:
- - Power on.
- - No water.
- - Failure.
- - Pump running.
- - Thermal block.
- - Pump automatic operation.
- - Pump stop.

Maximum simplicity of control
The front of electronic card features the following signals and controls:
- - AUT-STOP push-button (1 for each pump)
- - MAN push-button (1 for each pump)
- - RESET push-button.

Optional remote control
The RA 100 panel enables a remote warning light and acoustic signal.
Control panel for units up to 6 pumps
Using the MPS 6000 (Multi Pumps System) electronic card it is possible to control pressure units up to a maximum of 6 fixed speed pumps with a single pressure calibration.

Automatic air supply systems
The pump control panels are completed by microprocessor controlled systems for automatic air supply in the pressure vessels by means of a compressor or solenoid valve. Operation

Functioning mode
For booster sets made up to three pumps: according to the pressure decrease in the system, the pressure switches (pressure transducer for 3-pump sets) make the pumps to start in cascade mode and the starting changeover is made by the microprocessor.
For sets made of 4, 5, 6 pumps: Operation controlled by a microprocessor with signal from a pressure transducer. The pumps operate with only one pressure setting. The pumps operate with only one pressure setting.



BS

Variable speed pump units with EASYMAT

EASYMAT for variable speed pump units.
Variable speed system driven by frequency converter, for the pressure control in domestic and residential plants.
The system maintains constant pressure whilst the controlling the pump operation against changing system demand.

Maximum clarity for all signals
Easymat is equipped with a control panel for simple system programming and parameter monitoring.
2 scroll buttons are used to scroll the different operating parameters that EASYMAT can show.
At the same time you can use the 2 scroll buttons to move in the set up menu and to change the different options.
The LCD custom display gives an easy overview of the system situation and of the operating parameters.
The icons on the top and below the display area explain in which way EASYMAT is working and if there are problems on the system.
The four set-up buttons allow the operator to move between and set-up the menu's and to start and stop the pump.The symbols help to make the function of each button clear.
With these 4 buttons and the 2 scroll buttons you can manage all the set-up and operating parameters without the use of an other control panel or computer.

Functioning mode
Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

The system is connected to the delivery pipe providing for simple installation and better cooling (patented) making the unit more compact and easy to assemble.
Easymat is supplied with one pressure transducer, G 1/4 connection and 1.5 m cable length.

For protection of the pump:
- Against dry running
- – Against operations with closed connection ports
- – Against overcurrent of the motor
- – Against overvoltage and undervoltage of the power supply

Silent operation
Motors working at reduced speed and check valves that close gradually mean that operation is particularly quite.

Long life for pumps
All the mechanical components of the pumps and motors are stressed to a minimum, due to the variable speed operation.

Energy saving
The motors consume only the precise level of power necessary moment to moment, in order to supply the quantity of water required by the system.

No more high capacity vessels
The use of inverters means that high capacity pressure vessels and membrane vessels are no longer necessary. Even units with high flowrate pumps only require a small number of 20 litre membrane vessels.

Constant pressure mode
The system keeps the pressure constant when the quantity of water requested by the user changes.The user can choose the operating pressure according his needs.

Fixed speed mode
The system works at a fixed speed that user can choose according his needs.



BS

Variable speed pump units with EASYMAT4

EASYMAT2 for variable speed pump units.
Variable speed system driven by frequency converter, for the pressure control in domestic and residential plants.
The system maintains constant pressure whilst the controlling the pump operation against changing system demand.

Maximum clarity for all signals
Easymat2 is equipped with a control panel for simple system programming and parameter monitoring.

2 scroll buttons are used to scroll the different operating parameters that EASYMAT can show.
At the same time you can use the 2 scroll buttons to move in the set up menu and to change the different options.

The LCD custom display gives an easy overview of the system situation and of the operating parameters.
The icons on the top and below the display area explain in which way EASYMAT2 is working and if there are problems on the system.
Functioning mode
Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

For protection of the pump:
- Against dry running
- – Against overcurrent of the motor
- – Against overvoltage and undervoltage of the power supply

Silent operation
Motors working at reduced speed and check valves that close gradually mean that operation is particularly quite.

Long life for pumps
All the mechanical components of the pumps and motors are stressed to a minimum, due to the variable speed operation.

Energy saving
The motors consume only the precise level of power necessary moment to moment, in order to supply the quantity of water required by the system.

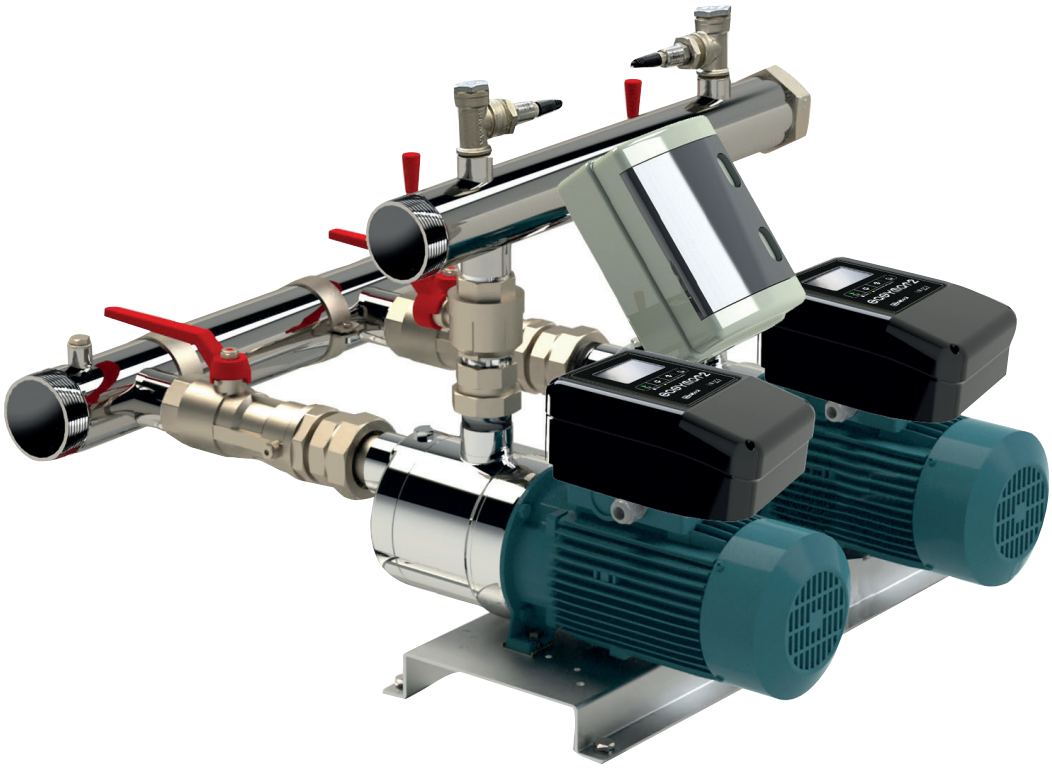
No more high capacity vessels
The use of inverters means that high capacity pressure vessels and membrane vessels are no longer necessary. Even units with high flowrate pumps only require a small number of 20 litre membrane vessels.



Constant pressure mode
The system keeps the pressure constant when the quantity of water requested by the user changes.The user can choose the operating pressure according his needs.



Fixed speed mode
The system works at a fixed speed that user can choose according his needs.



BS

Variable speed pump units with WALL

WALL for variable speed pump units.
Variable speed system driven by frequency converter, for the pressure control in domestic and residential plants.
The system maintains constant pressure whilst the controlling the pump operation against changing system demand.

Maximum clarity of signals
WALL is equipped with a control panel that allows to carry out the set-up of the system and to monitor all system parameters.
The 4 set-up buttons are created to enter and to move on the set-up menus and to start and to stop the pump. The symbols help to understand the function of each button. With these 4 buttons and the 2 scroll buttons you can manage all the set-up

For protection of the pump:
- Against dry running
- – Against overcurrent of the motor
- – Against overvoltage and undervoltage of the power supply

Functioning mode
Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

Silent operation
Motors working at reduced speed and check valves that close gradually mean that operation is particularly quite.

Long life for pumps
All the mechanical components of the pumps and motors are stressed to a minimum, due to the variable speed operation.

Energy saving
The motors consume only the precise level of power necessary moment to moment, in order to supply the quantity of water required by the system.

No more high capacity vessels
The use of inverters means that high capacity pressure vessels and membrane vessels are no longer necessary. Even units with high flowrate pumps only require a small number of 20 litre membrane vessels.



Constant pressure mode
The system keeps the pressure constant when the quantity of water requested by the user changes.The user can choose the operating pressure according his needs.



Fixed speed mode
In this operating mode the system work as a fixed speed pump. The speed of the pump could be set by the user between a range of speeds, or controlled by an external signal.



BS

Variable speed pump units with I-MAT

I-MAT for variable speed pump units.
Variable speed system driven by frequency converter, for the pressure control in domestic and residential plants.
The system maintains constant pressure whilst the controlling the pump operation against changing system demand.

Maximum clarity of signals
I-MAT is equipped with a control panel that allows to carry out the set-up of the system and to monitor all system parameters.
It is possible use the control panel in remote positions by means a cable with M12 connectors (standard cable).
The LCD custom display gives an easy overview of the system situation and of the operating parameters.
The 4 set-up buttons are created to enter and to move on the set-up menus and to start and to stop the pump. The symbols help to understand the function of each button. With these 4 buttons and the 4 scroll buttons you can manage all the set-up

For protection of the pump:
- Against dry running
- – Against operations with closed connection ports
- – Against overcurrent of the motor
- – Against overvoltage and undervoltage of the power supply
- Against overvoltage and undervoltage of the power supply

Functioning mode
Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

Silent operation
Motors working at reduced speed and check valves that close gradually mean that operation is particularly quite.

Long life for pumps
All the mechanical components of the pumps and motors are stressed to a minimum, due to the variable speed operation.

Energy saving
The motors consume only the precise level of power necessary moment to moment, in order to supply the quantity of water required by the system.

No more high capacity vessels
The use of inverters means that high capacity pressure vessels and membrane vessels are no longer necessary. Even units with high flowrate pumps only require a small number of 20 litre membrane vessels.



Constant pressure mode
The system keeps the pressure constant when the quantity of water requested by the user changes.The user can choose the operating pressure according his needs.



Proportional pressure modes
Proportional pressure reduces the pressure of the pump (and as a consequence, the operating frequency) proportionally with the water demand of the system.



Constant temperature mode
In this operating mode the system is used to keep the temperature at a constant value in a specified system point.



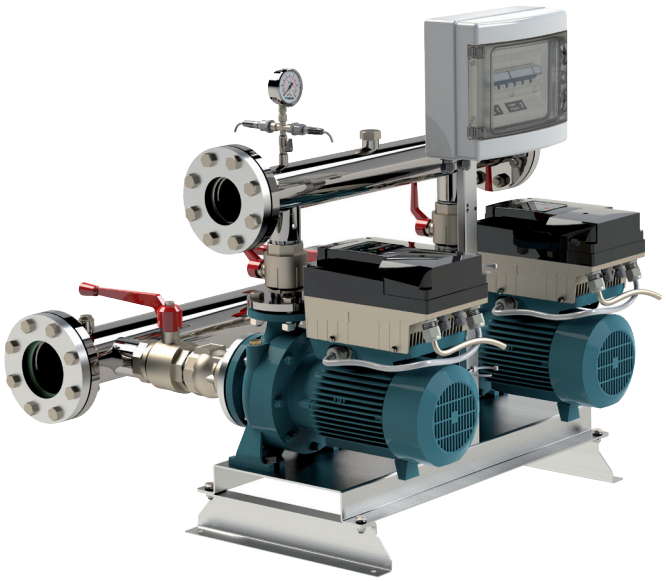
Constant flow mode
Constant flow mode grants that system change the speed of the pump in order to keep constant the flow which pass inside a flow meter.



Fixed speed mode
In this operating mode the system work as a fixed speed pump. The speed of the pump could be set by the user between a range of speeds, or controlled by an external signal.

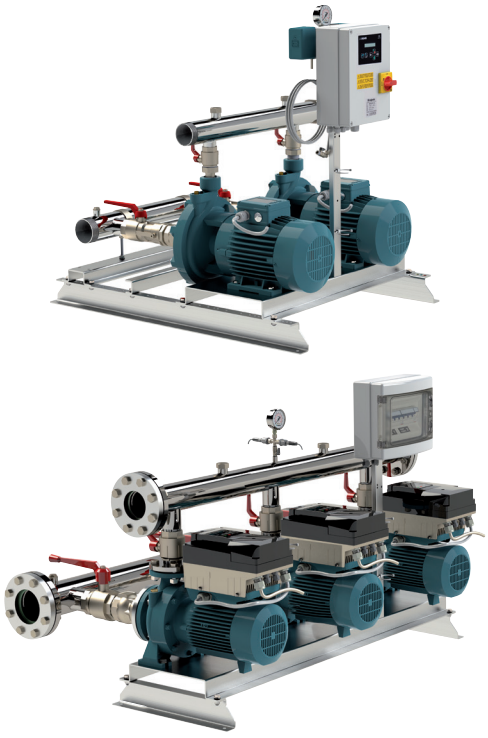


Night mode
The night mode is an optional mode which allows to reduce the speed of the pump if the temperature in the system decreases below a set value, this operating mode can be used with all operating modes over described.



BS, NM, NMD

Pressure units with 1 to 3 fixed or variable speed centrifugal pumps (INVERTER)



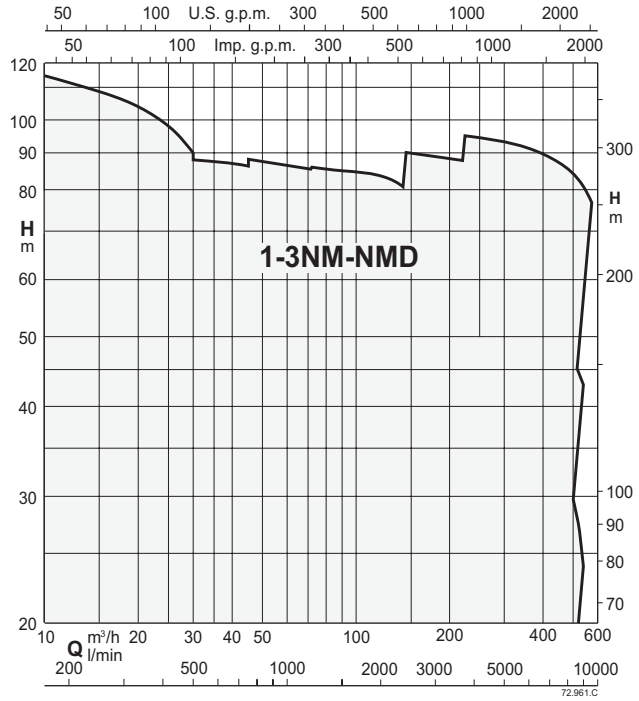
Fixed speed units

BS 2-6F Units with 2 to 6 fixed speed pumps
Sets with 4,5 and 6 pumps on request.
Depending on the reduction of the pressure in the system, the pressure switches (pressure transducer for 3-pump sets) determine the starting up of the pumps in sequence and the microprocessor alternates the starts.

Variable speed units with I-MAT

BS2-3V Pressure boosting sets with 2 to 3 variable speed pumps (with I-MAT).
Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

Coverage chart



Construction

Automatic pressure boosting plant consisting of 1 to 6 centrifugal pumps complete with ball, non return valve on the suction side and ball valves on the delivery side.
Suction and delivery manifolds for boosting
- stainless steel AISI 304 up to 2NM 40.. and 3NM 32...
- - steel S235JR from 2NM 50.. and 3NM 40... .

Set up for mounting cylindrical tanks with G1 connection.
Electrical control boards:
- with microprocessor for fixed speed pump units.Motor starting is D.O.L. up to 5,5 kW and Y/Δ for power rating 7,5 up to 55 kW.
- - with frequency converter for variable speed pump units.

The unit includes one pressure gauge and three adjustable differential pressure switches or pressure transducer.

Applications

To supply water in civil and industrial buildings.
For increasing network pressure (follow local specifications).

Motor

2-pole induction motors, 50 Hz, n ≈ 2900 1/min, set up for inverter operation.
Three-phase: 230/400V ± 10% up to 3 kW;
400/690V ± 10% for 4 kW to 55 kW;
Insulation class F.
Protection IP54
Constructed in accordance with: IEC 60034.
Other voltages and frequencies on request.

Vessels on request

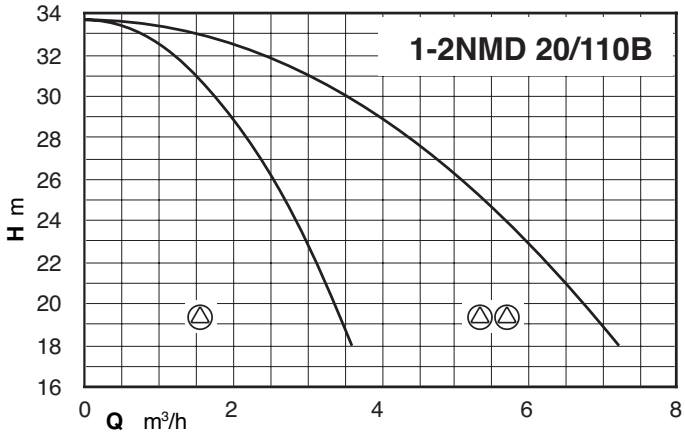
When installing the unit, connect in the delivery section to a diaphragm or galvanised tank.
The recommended sized are shown in the following page.

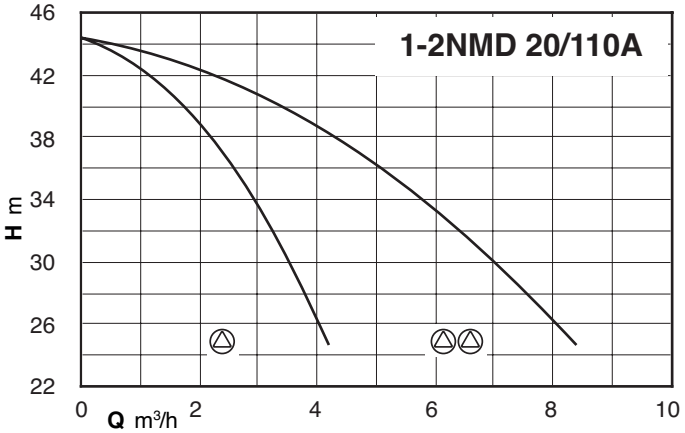
Special features on request

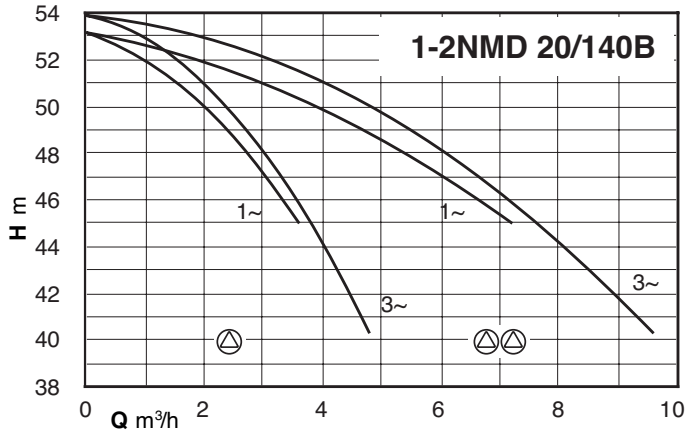
Pressure unit with 4, 5 and 6 pumps

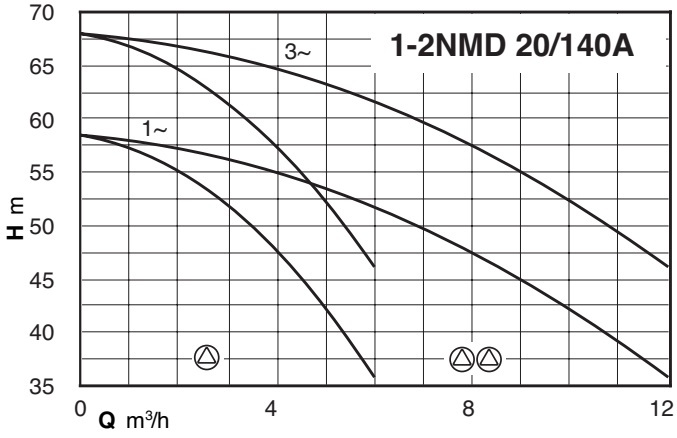
BS, NM, NMD

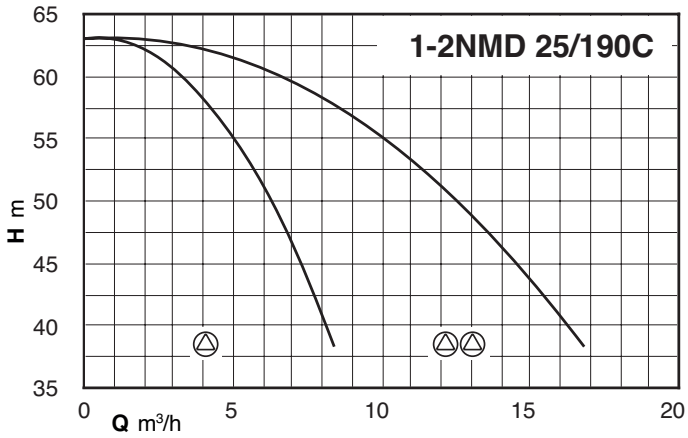
Characteristic curves

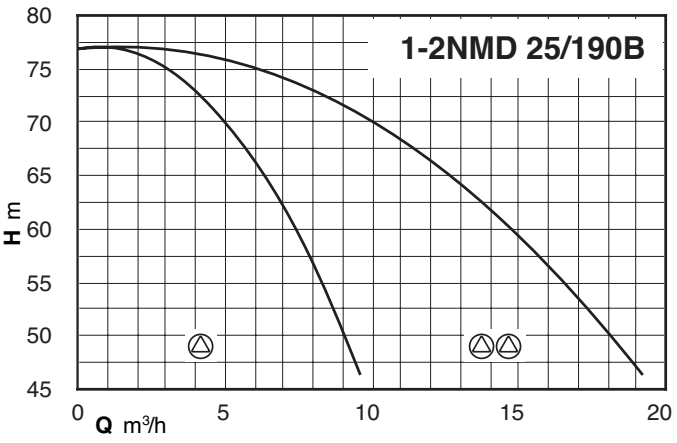


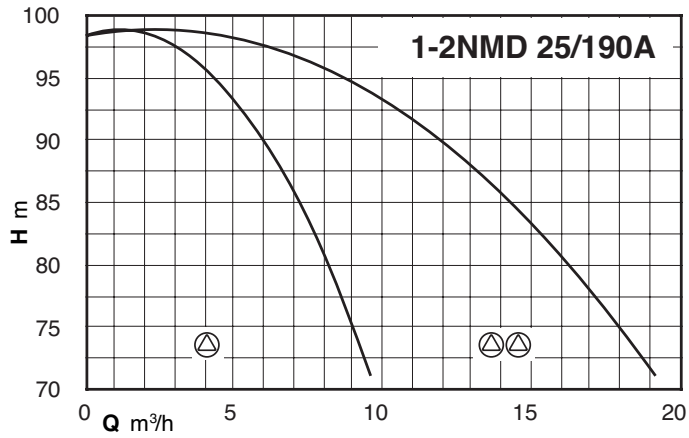






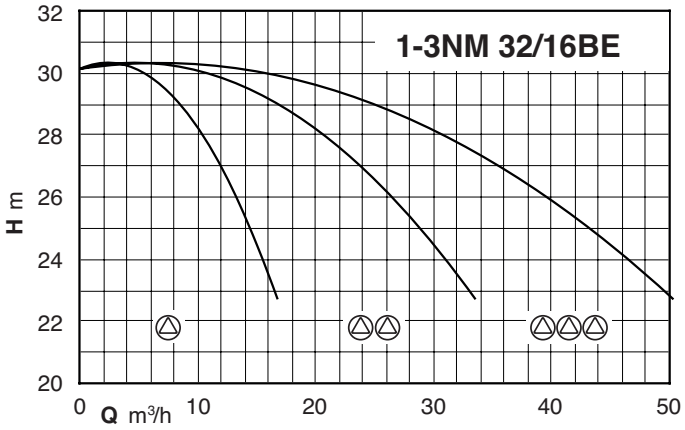


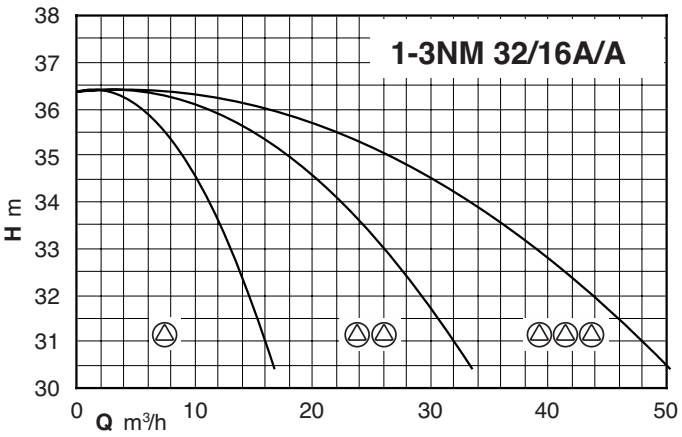


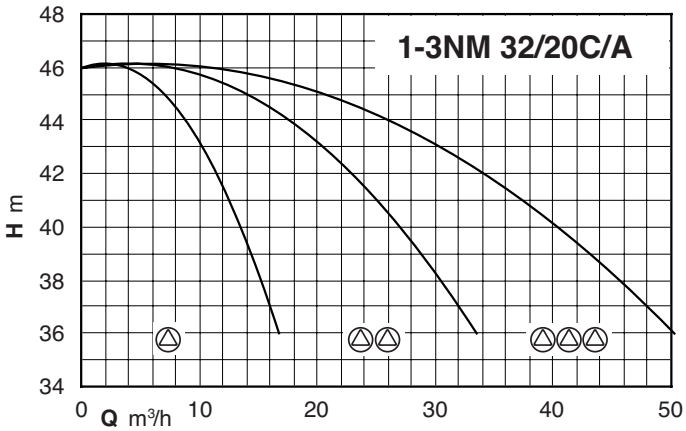


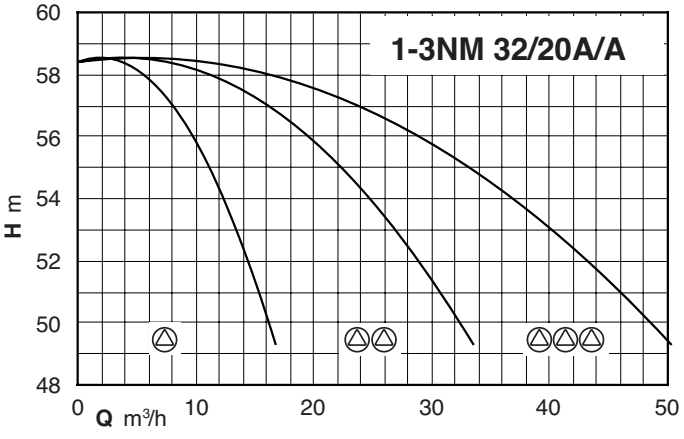
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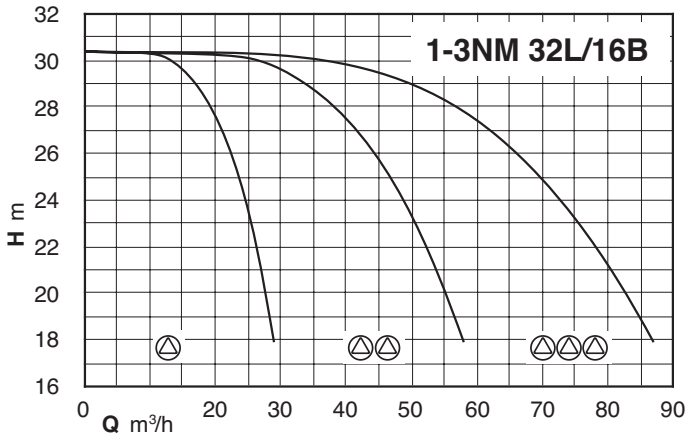
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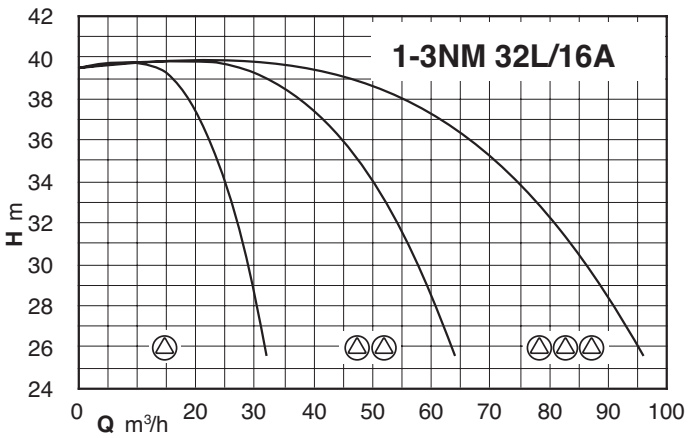


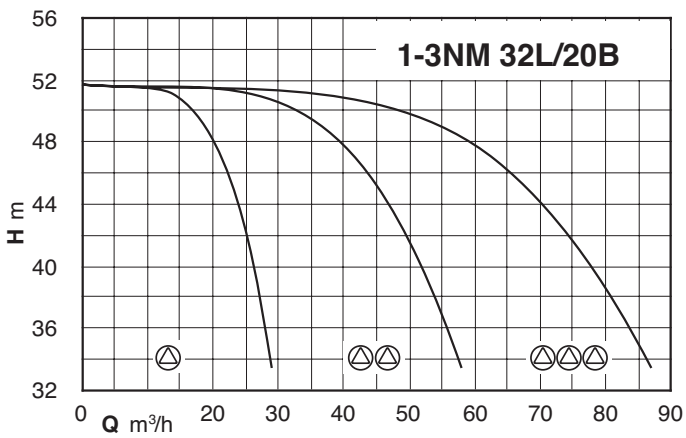


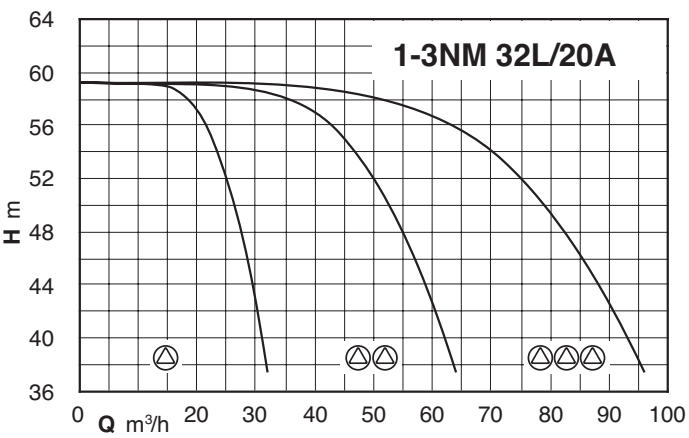






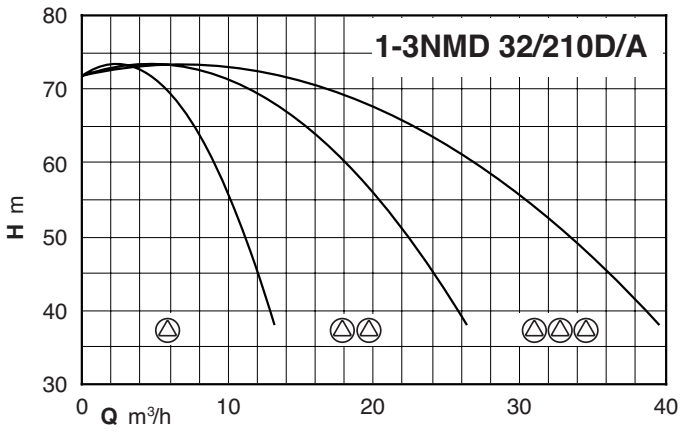


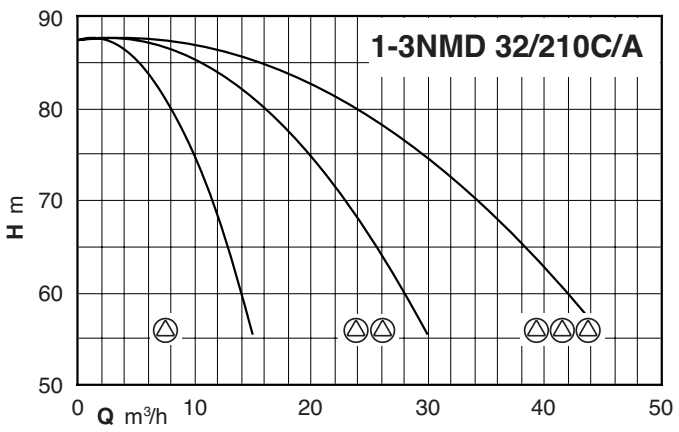


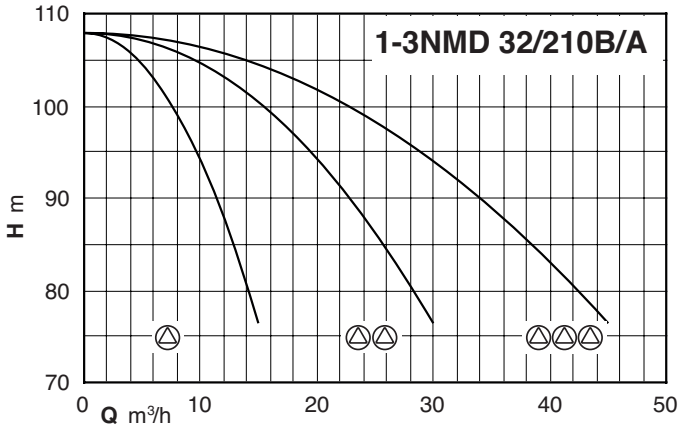


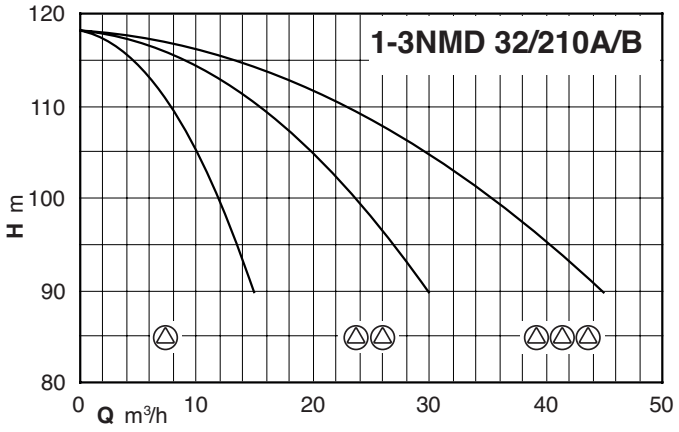
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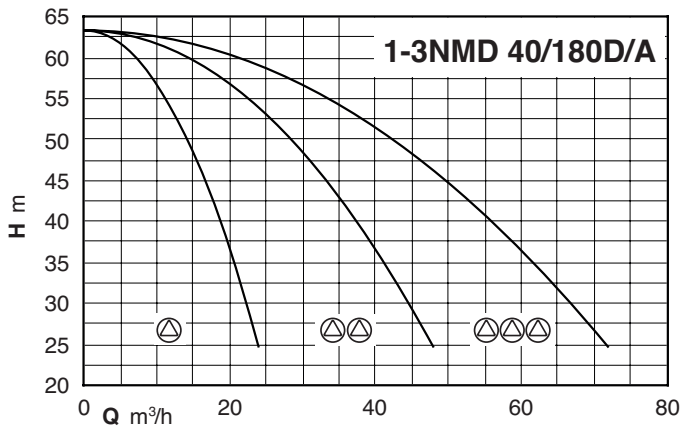
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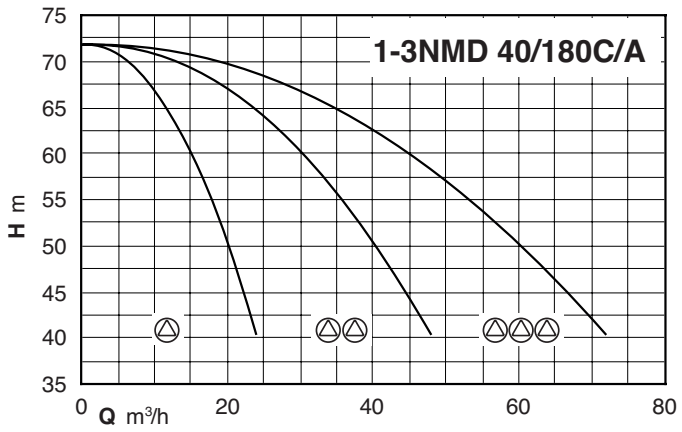


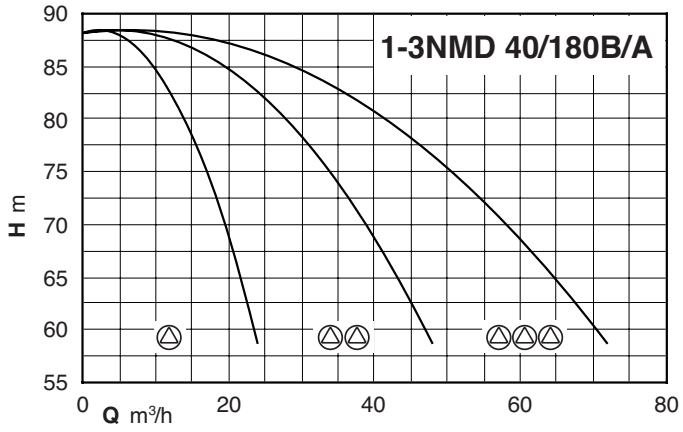


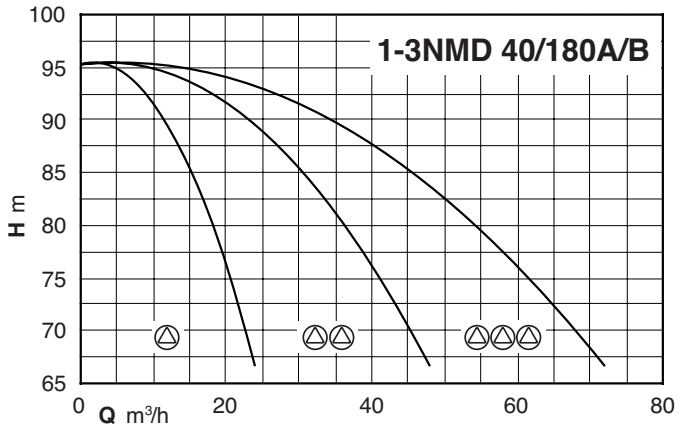






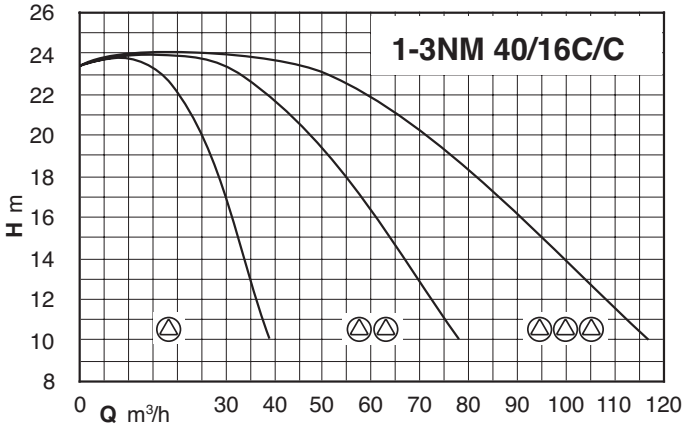


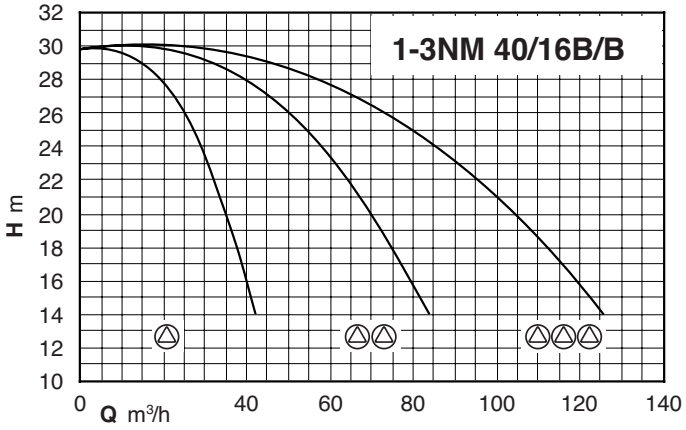


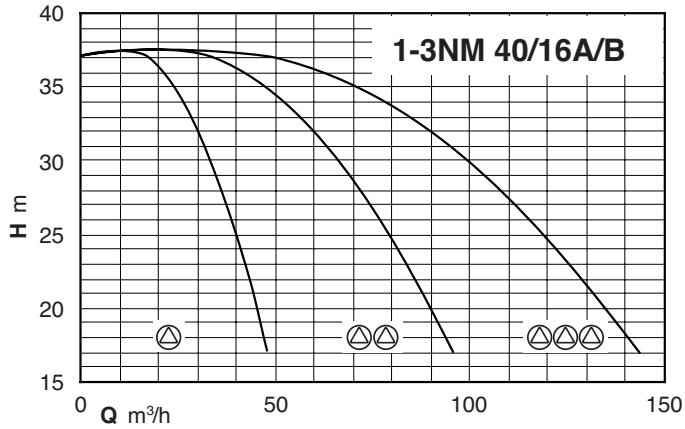


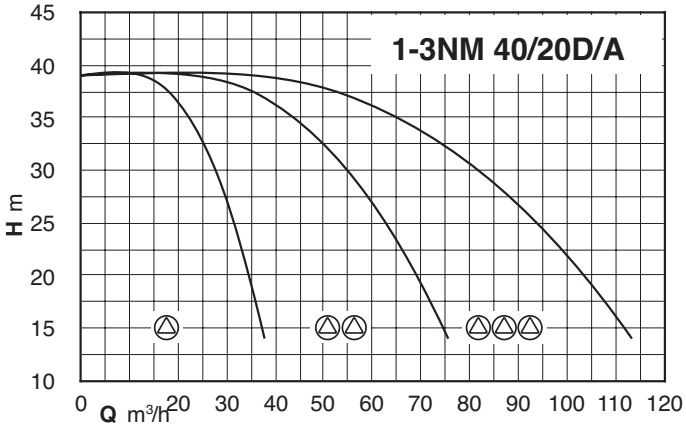
BS, NM, NMD

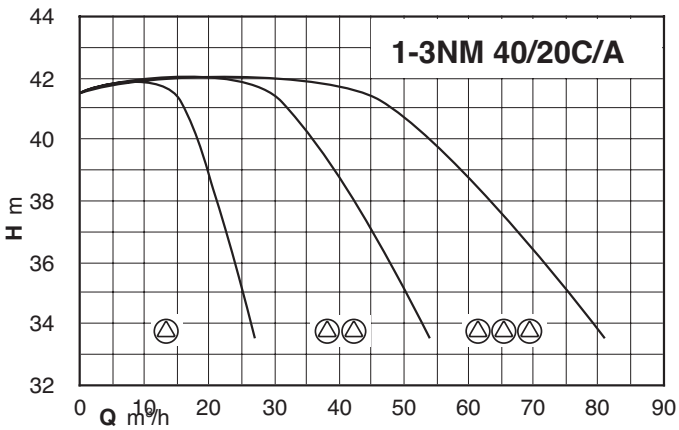
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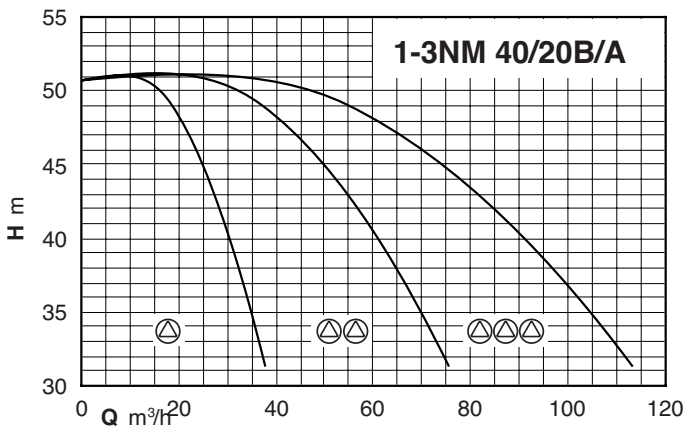


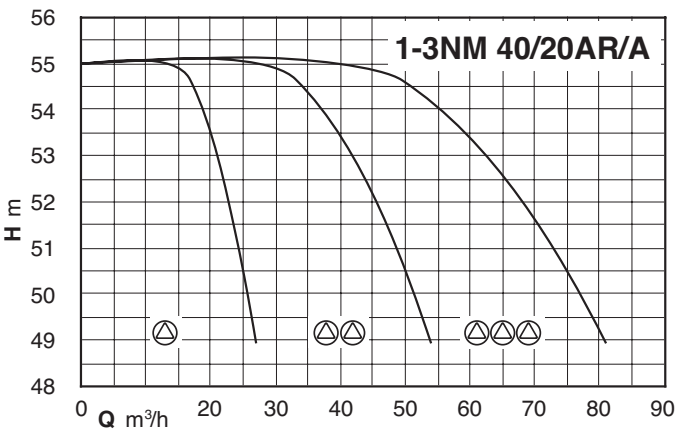


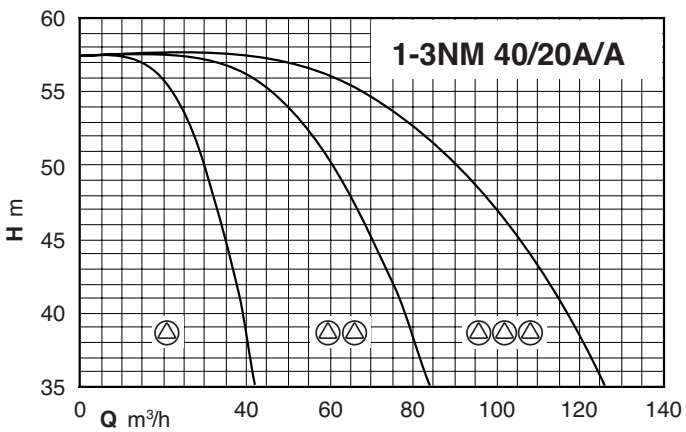






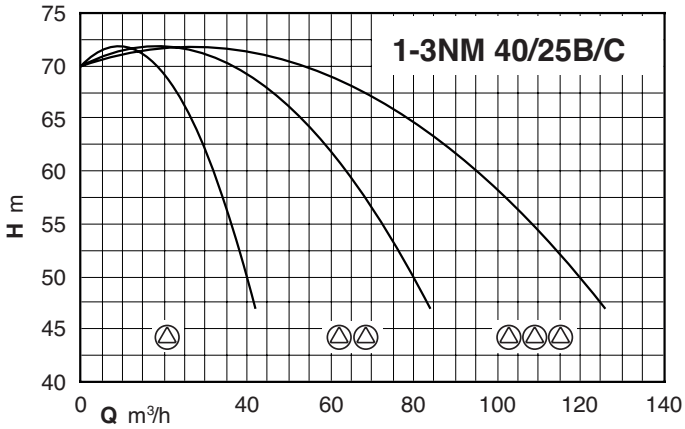


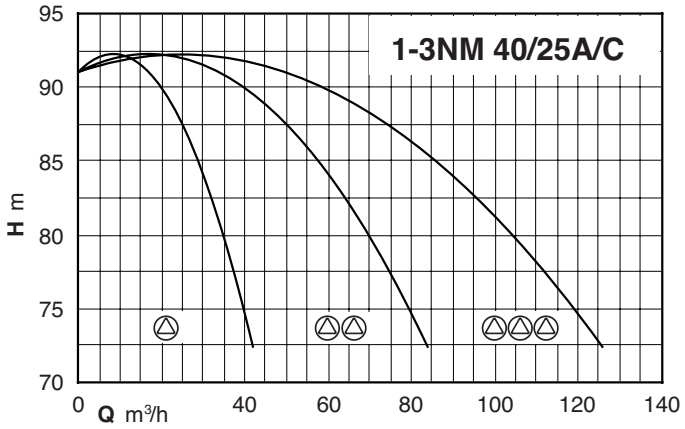


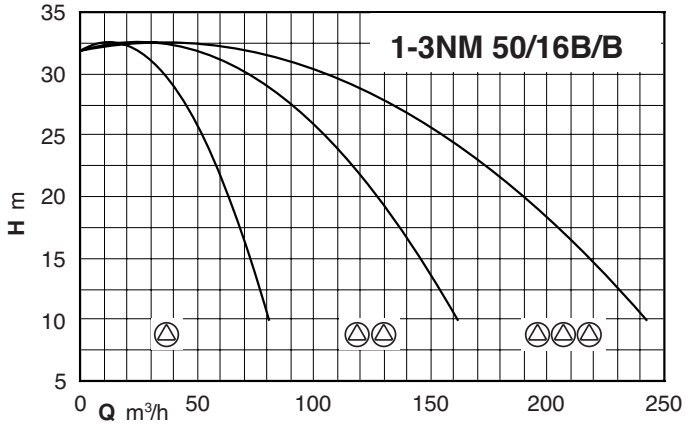


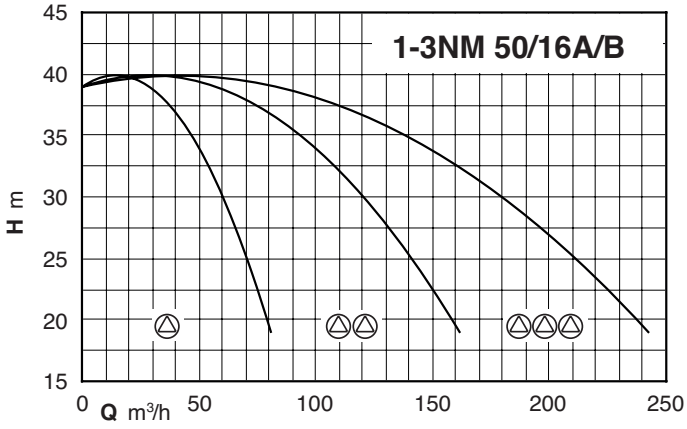
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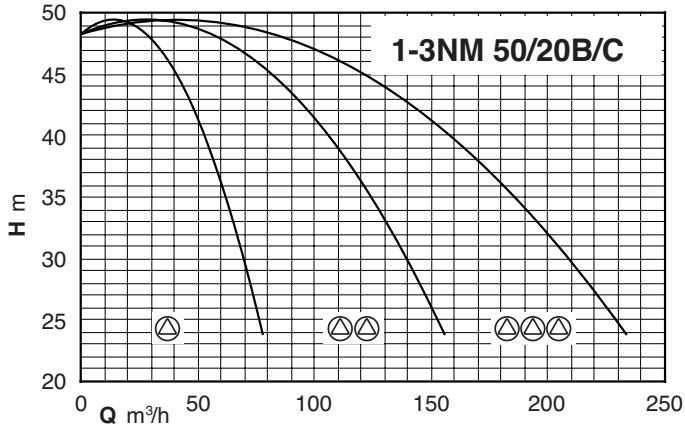
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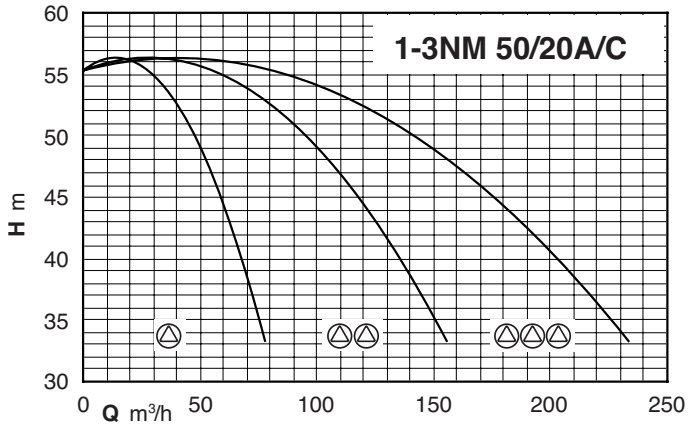


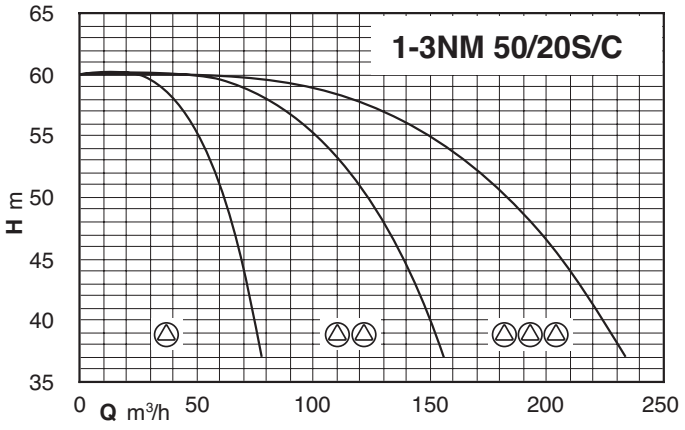






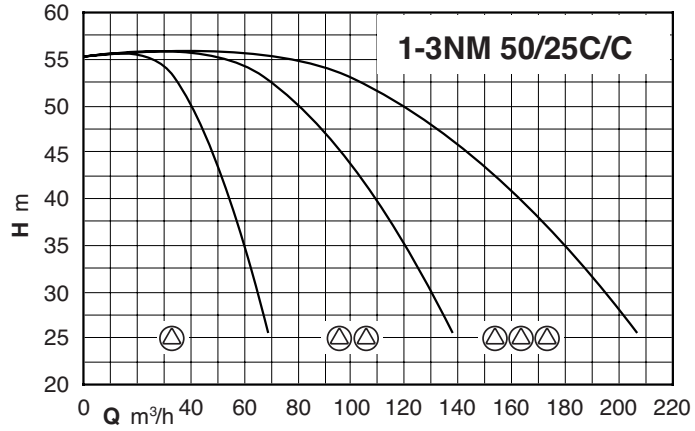


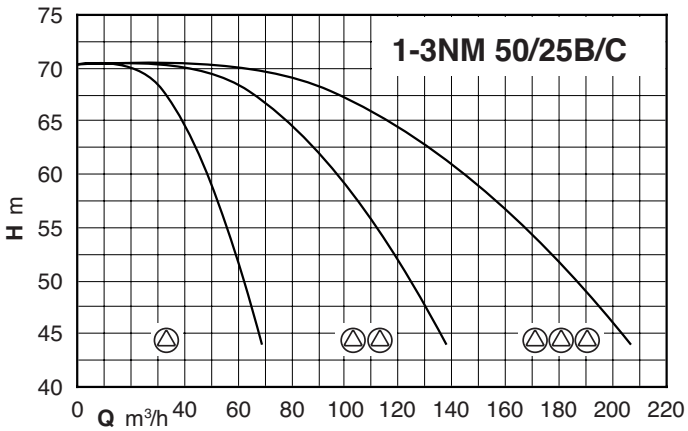


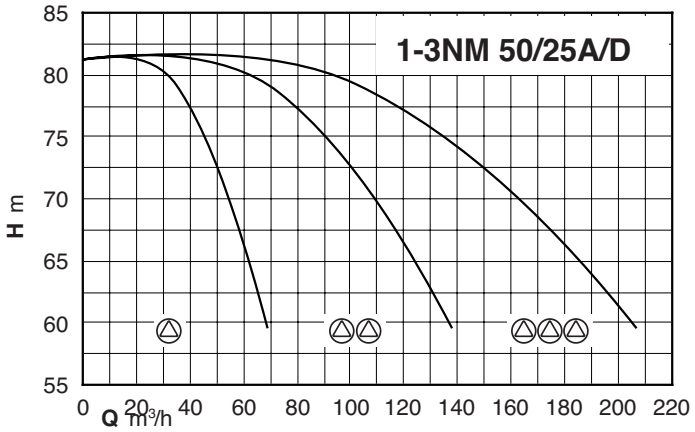


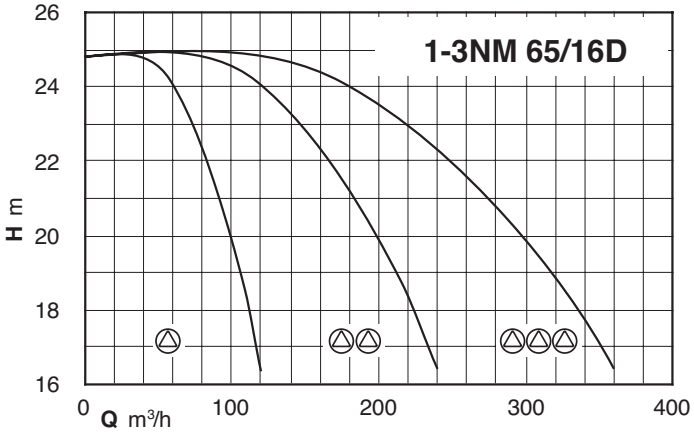
BS, NM, NMD

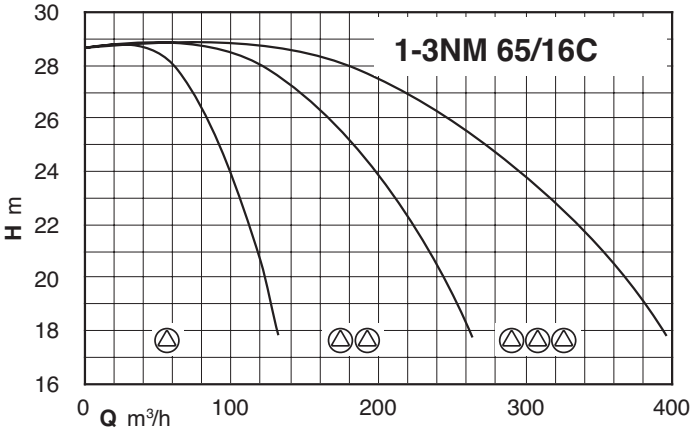
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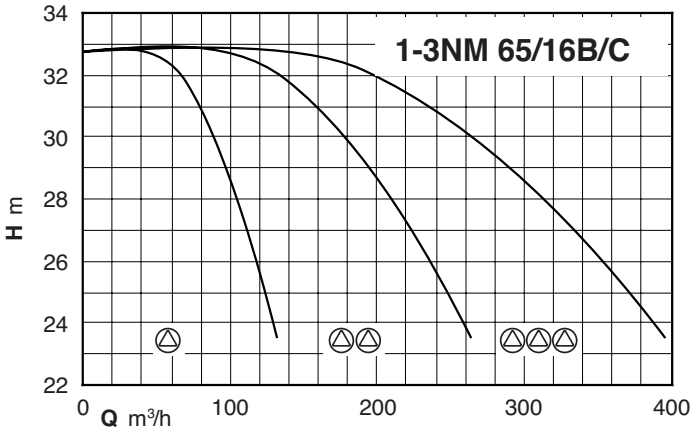


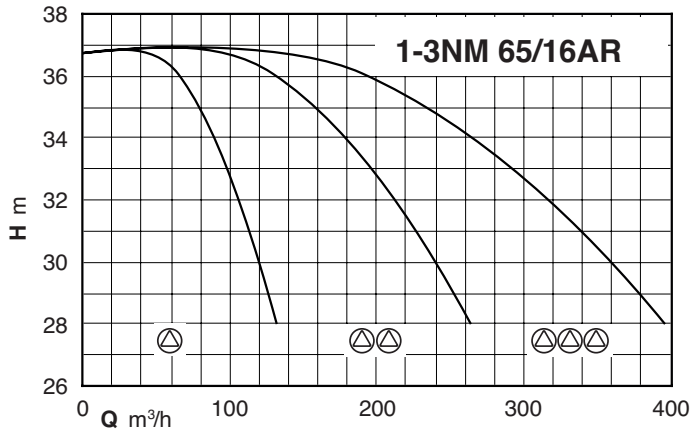


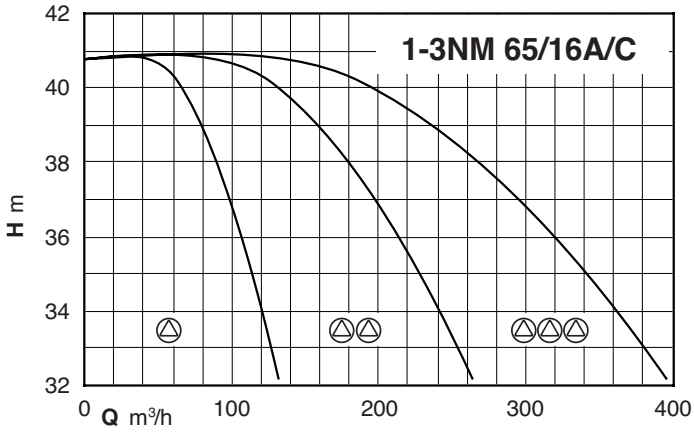






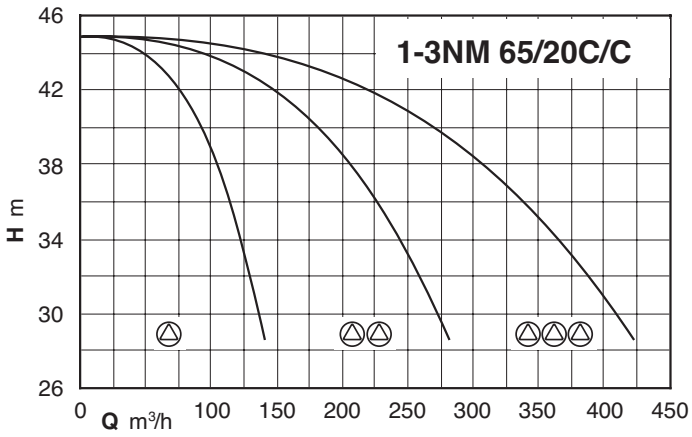


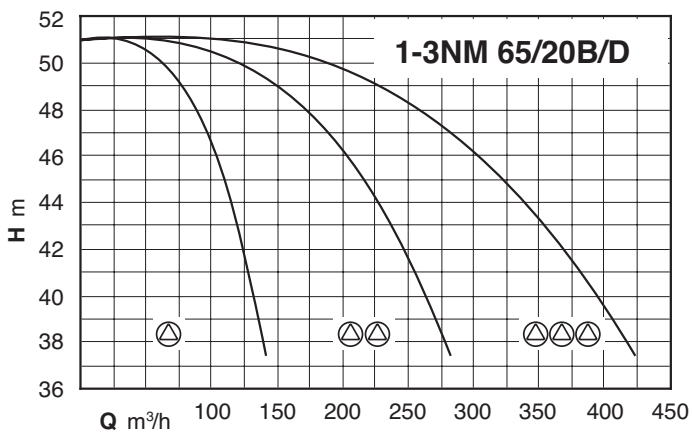


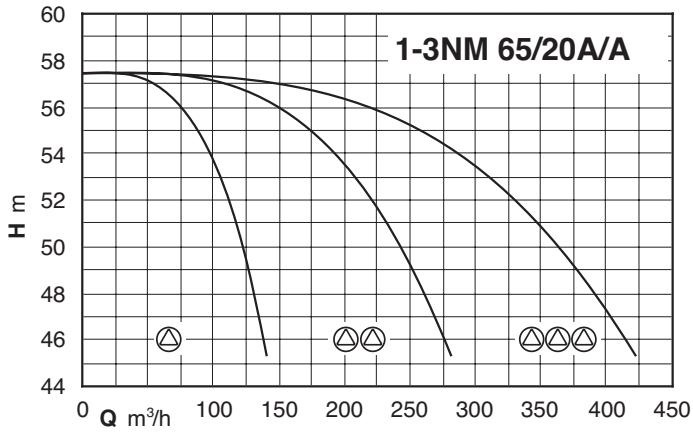


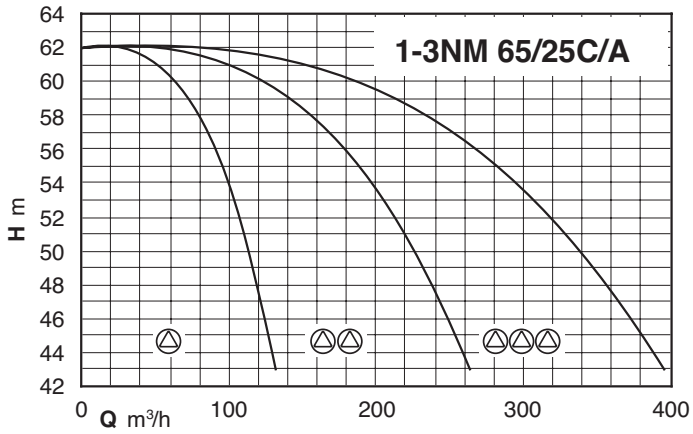
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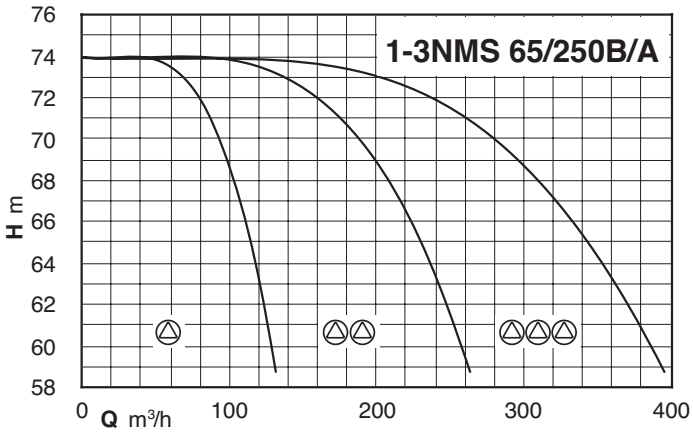
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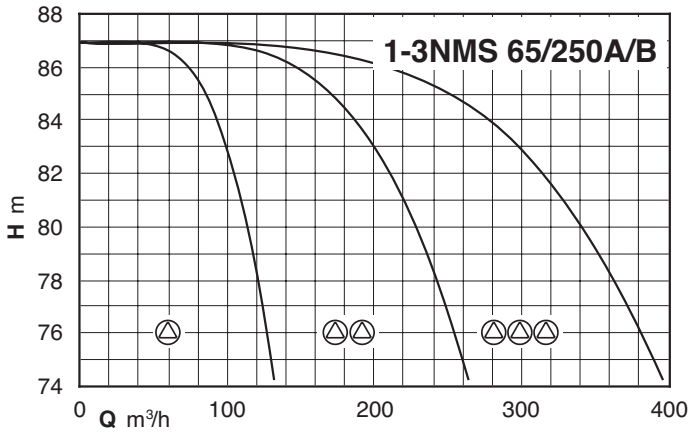






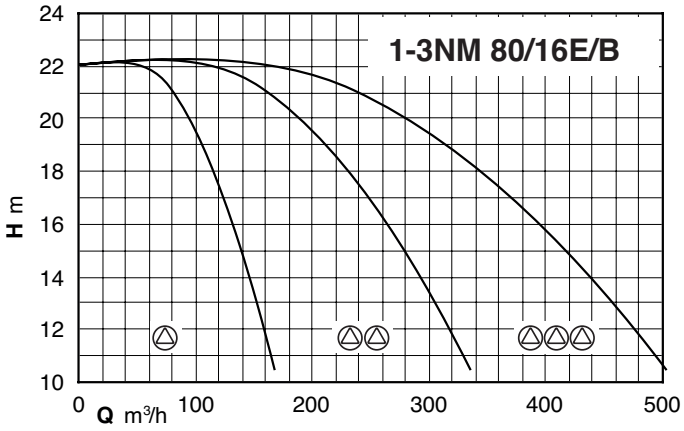


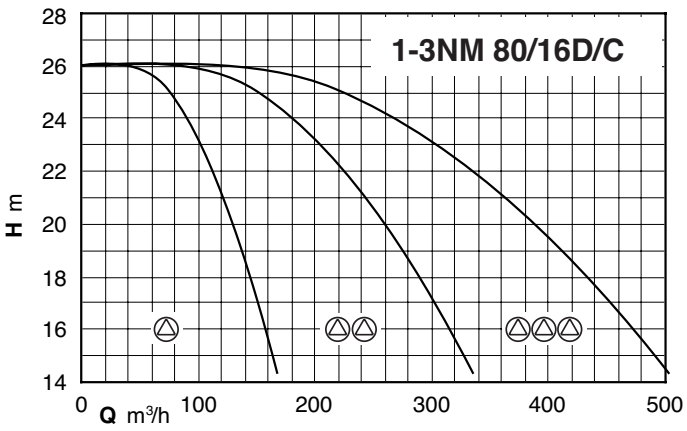


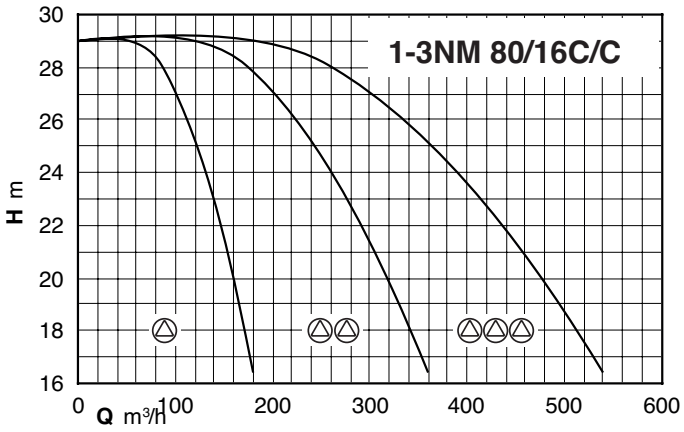


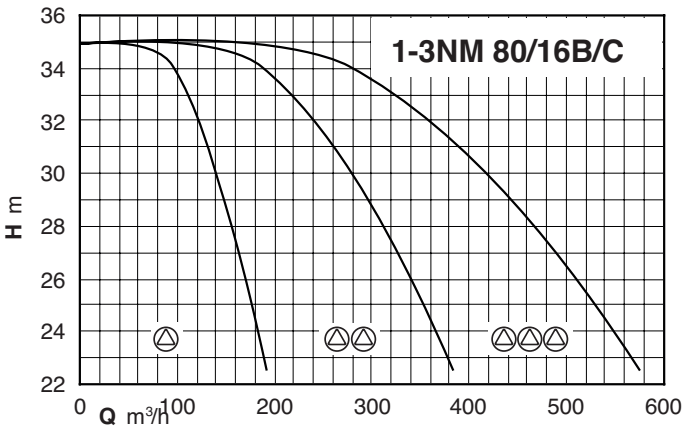
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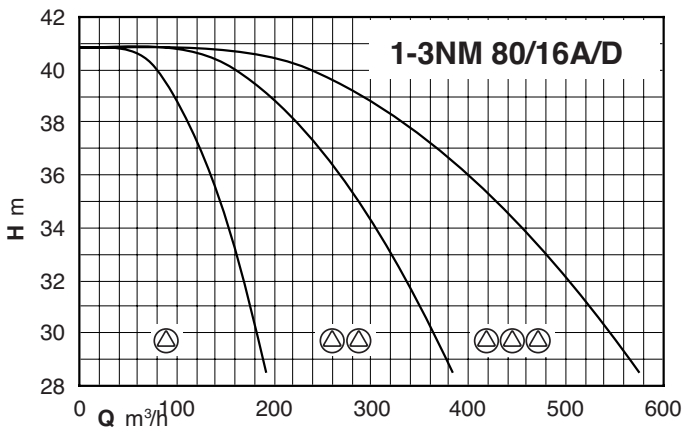
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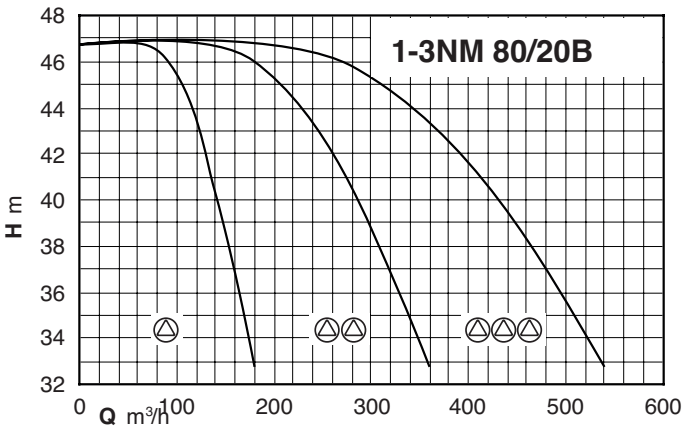


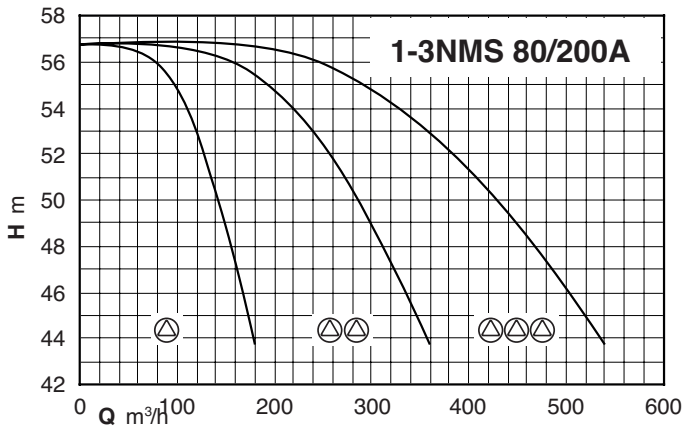


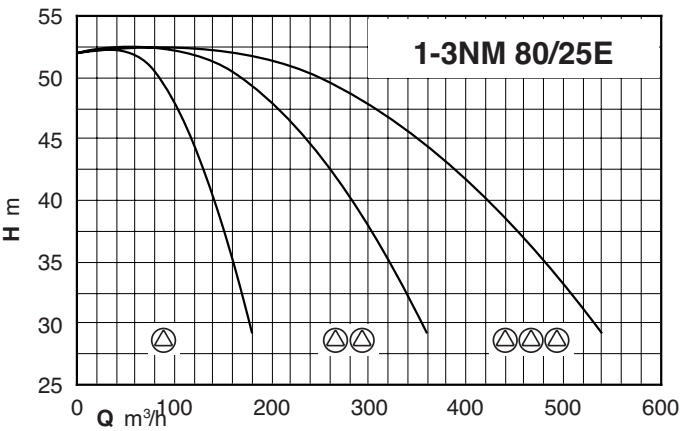






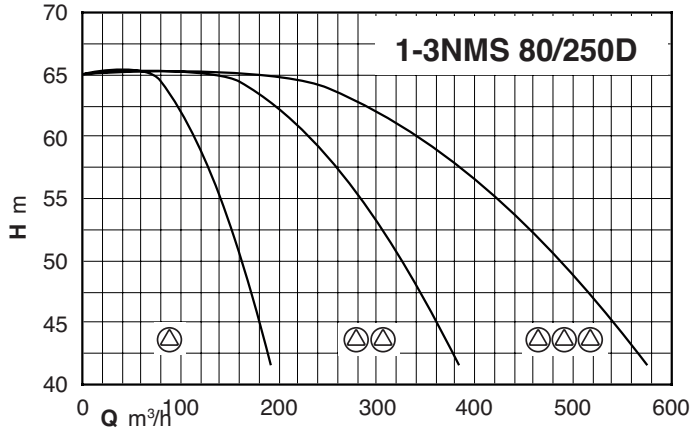


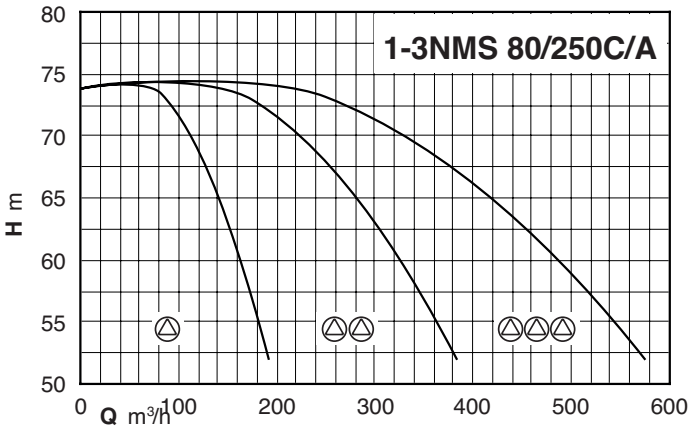


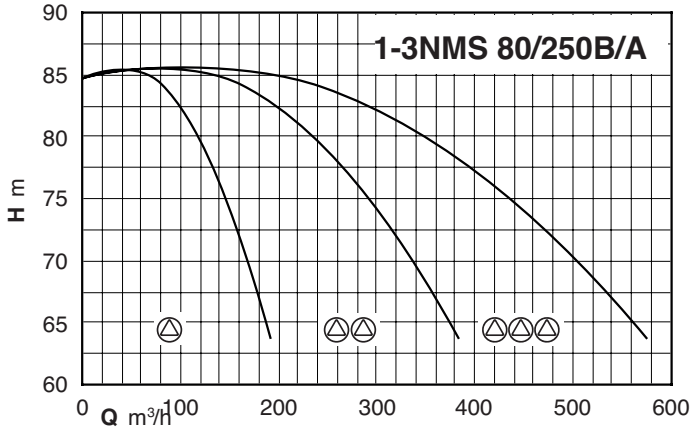


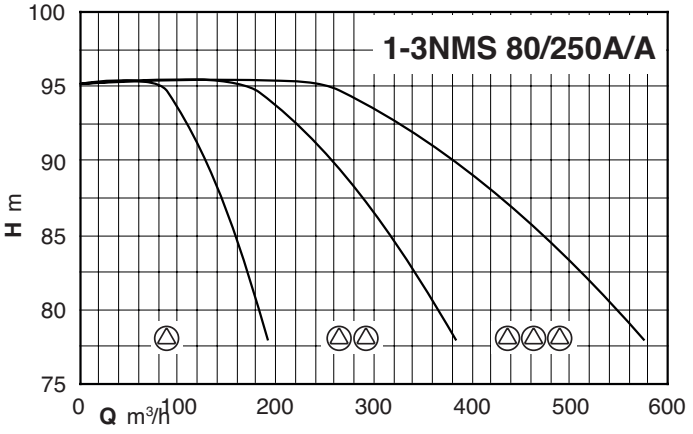
BS, NM, NMD

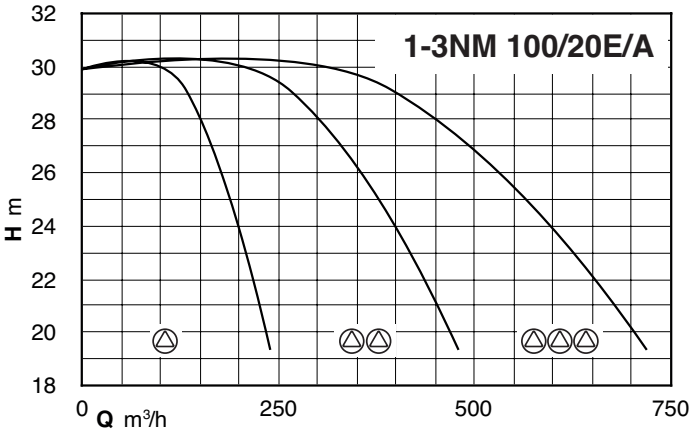
Characteristic curves

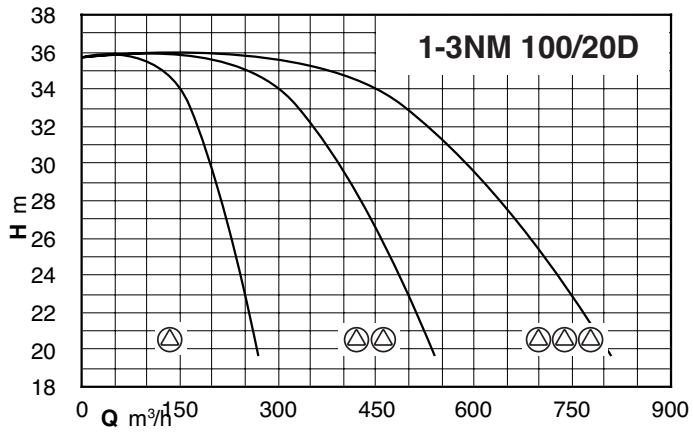












BS, NM, NMD

Fixed speed pump units

BS2F

		Pressure switch		Tank	
		1	2	membrane	Vessel
Model	P2	Start/Stop			
	kW	bar		litri	
BS2F 2 NMD 20/110B/A	0.45 X2	2.1 - 2.9	1.8 - 2.6	24X2	100
BS2F 2 NMD 20/110A/B	0.75 X2	3 - 3.9	2.7 - 3.6	100	200
BS2F 2 NMD 20/140B/A	1.1 X2	3.3 - 4.8	3 - 4.5	80	100
BS2F 2 NMD 20/140A/A	1.5 X2	4.3 - 6	4.1 - 5.7	100	200
BS2F 2 NMD 25/190C/B	2.2 X2	3.9 - 5.5	3.7 - 5.2	200	300
BS2F 2 NMD 25/190B/A	3 X2	5 - 6.8	4.8 - 6.5	300	500
BS2F 2 NMD 25/190A/B	4 X2	6.8 - 8.8	6.5 - 8.5	300	500
BS2F 2 NM 32/16B/A	1.5 X2	1.8 - 2.6	1.5 - 2.3	300	800
BS2F 2 NM 32/16A/B	2.2 X2	2.4 - 3.2	2.1 - 2.9	500	800
BS2F 2 NM 32/20C/A	3 X2	3.1 - 4	2.8 - 3.7	500	1000
BS2F 2 NM 32/20A/B	4 X2	3.6 - 5.2	3.3 - 4.9	200	300
BS2F 2 NM 32L/16B	3 X2	1.9 - 2.7	1.6 - 2.4	200	300
BS2F 2 NM 32L/16A	4 X2	2.8 - 3.6	2.5 - 3.3	200	300
BS2F 2 NM 32L/20B	5,5 X2	3.2 - 4.7	2.9 - 4.4	200	300
BS2F 2 NM 32L/20A	7.5 X2	3.7 - 5.4	3.5 - 5.1	200	300
BS2F 2 NMD 32/210D/B	4 X2	4.7 - 6.4	4.4 - 6.1	500	800
BS2F 2 NMD 32/210C/A	5.5 X2	5.7 - 7.6	5.5 - 7.3	500	1000
BS2F 2 NMD 32/210B/A	7.5 X2	7.3 - 9.4	7 - 9.1	750	1000
BS2F 2 NMD 32/210A/B	9.2 X2	8.8 - 10.3	8.5 - 10	1000	2000
BS2F 2 NMD 40/180D/B	4 X2	3.8 - 5.4	3.5 - 5.1	500	1000
BS2F 2 NMD 40/180C/A	5.5 X2	4.5 - 6.2	4.3 - 5.9	750	1500
BS2F 2 NMD 40/180B/A	7.5 X2	5.9 - 7.8	5.7 - 7.5	1000	1500
BS2F 2 NMD 40/180A/B	9.2 X2	6.5 - 8.5	6.2 - 8.2	1000	2000
BS2F 2 NM 40/16B/B	3 X2	1.8 - 2.6	1.5 - 2.3	750	2000
BS2F 2 NM 40/16A/C	4 X2	2.5 - 3.3	2.2 - 3	1500	3000
BS2F 2 NM 40/20B/A	5.5 X2	3 - 4.5	2.7 - 4.2	1000	2000
BS2F 2 NM 40/20A/A	7.5 X2	3.6 - 5.1	3.3 - 4.8	1500	3000
BS2F 2 NM 40/25B/C	11 X2	4.5 - 6.2	4.3 - 5.9	2000	3000
BS2F 2 NM 40/25A/C	15 X2	6.1 - 8.1	5.9 - 7.8	3000	4000
BS2F 2 NM 50/16B/B	5.5 X2	2 - 2.8	1.7 - 2.5	2000	4000
BS2F 2 NM 50/16A/B	7.5 X2	2.6 - 3.4	2.3 - 3.1	3000	6000
BS2F 2 NM 50/20B/C	9.2 X2	3.4 - 4.3	3.1 - 4	-	6000
BS2F 2 NM 50/20A/C	11 X2	3.3 - 4.9	3.1 - 4.6	3000	5000
BS2F 2 NM 50/25C/C	11 X2	3.4 - 4.9	3.1 - 4.6	3000	5000
BS2F 2 NM 50/25B/C	15 X2	4.5 - 6.2	4.2 - 5.9	-	6000
BS2F 2 NM 50/25A/D	18.5 X2	5.4 - 7.2	5.1 - 6.9	-	8000
BS2F 2 NM 65/16B/C	11 X2	2.1 - 2.9	1.8 - 2.6	-	10000
BS2F 2 NM 65/16AR	15 X2	2.4 - 3.2	2.1 - 2.9	-	-
BS2F 2 NM 65/16A/C	15 X2	2.8 - 3.6	2.5 - 3.3	-	-
BS2F 2 NM 65/20C/C	15 X2	3 - 3.9	2.7 - 3.6	-	-
BS2F 2 NM 65/20B/D	18.5 X2	2.9 - 4.4	2.6 - 4.1	-	-
BS2F 2 NM 65/20A/A	22 X2	3.5 - 5	3.2 - 4.7	-	-
BS2F 2 NM 65/25C/A	22 X2	4.1 - 5.7	3.8 - 5.4	-	-
BS2F 2 NMS 65/250B/A	30 X2	5.3 - 7.1	5 - 6.8	-	6000
BS2F 2 NMS 65/250A/B	37 X2	6.1 - 8.1	5.9 - 7.8	2000	3000
BS2F 2 NM 80/16B/C	15 X2	2.3 - 3.1	2 - 2.8	-	-
BS2F 2 NM 80/16A/D	18.5 X2	2.7 - 3.5	2.4 - 3.2	-	-
BS2F 2 NM 80/20B	22 X2	3.2 - 4.1	2.9 - 3.8	-	-
BS2F 2 NMS 80/200A	30 X2	3.4 - 5	3.1 - 4.7	-	-
BS2F 2 NM 80/25E	22 X2	3 - 4.5	2.7 - 4.2	-	-
BS2F 2 NMS 80/250D	30 X2	4.1 - 5.8	3.9 - 5.5	-	-
BS2F 2 NMS 80/250C/A	37 X2	4.8 - 6.6	4.5 - 6.3	-	-
BS2F 2 NMS 80/250B/A	45 X2	5.7 - 7.6	5.4 - 7.3	-	-
BS2F 2 NMS 80/250A/A	55 X2	6.6 - 8.6	6.3 - 8.3	-	-

Start and stop pressure controlled by pressure switches

BS3F

		Transducer	Tank	
		1	membrane	Vessel
Model	P2	Start/Stop		
	kW	bar	litri	
BS3F 3 NM 32L/16B	3 X3	1.9 - 2.7	750	2000
BS3F 3 NM 32L/16A	4 X3	2.8 - 3.6	750	2000
BS3F 3 NM 32L/20B	5.5 X3	3.2 - 4.7	750	2000
BS3F 3 NM 32L/20A	7.5 X3	3.7 - 5.4	750	2000
BS3F 3 NM 40/16B/B	3 X3	1.8 - 2.6	750	2000
BS3F 3 NM 40/16A/C	4 X3	2.5 - 3.3	1500	3000
BS3F 3 NM 40/20B/A	5.5 X3	3 - 4.5	1000	2000
BS3F 3 NM 40/20A/A	7.5 X3	3.5 - 5.1	1500	3000
BS3F 3 NM 40/25B/C	11 X3	4.5 - 6.2	2000	3000
BS3F 3 NM 40/25A/C	15 X3	6.1 - 8.1	3000	4000
BS3F 3 NM 50/16B/B	5.5 X3	2 - 2.8	2000	4000
BS3F 3 NM 50/16A/B	7.5 X3	2.6 - 3.4	3000	6000
BS3F 3 NM 50/20B/C	9.2 X3	3.4 - 4.3	-	6000
BS3F 3 NM 50/20A/C	11 X3	3.4 - 4.9	3000	5000
BS3F 3 NM 50/25C/C	11 X3	3.4 - 4.9	3000	5000
BS3F 3 NM 50/25B/C	15 X3	4.5 - 6.2	-	6000
BS3F 3 NM 50/25A/D	18.5 X3	5.4 - 7.2	-	8000
BS3F 3 NM 65/16B/C	11 X3	2.1 - 2.9	-	10000
BS3F 3 NM 65/16AR	15 X3	2.4 - 3.2	-	-
BS3F 3 NM 65/16A/C	15 X3	2.8 - 3.6	-	-
BS3F 3 NM 65/20C/C	15 X3	3 - 3.9	-	-
BS3F 3 NM 65/20B/D	18.5 X3	2.9 - 4.4	-	-
BS3F 3 NM 65/20A/A	22 X3	3.5 - 5	-	-
BS3F 3 NM 65/25C/A	22 X3	4 - 5.7	-	-
BS3F 3 NMS 65/250B/A	30 X3	5.3 - 7.1	-	-
BS3F 3 NMS 65/250A/B	37 X3	6.1 - 8.1	-	-
BS3F 3 NM 80/16B/C	15 X3	2.3 - 3.1	-	-
BS3F 3 NM 80/16A/D	18.5 X3	2.7 - 3.5	-	-
BS3F 3 NM 80/20B	22 X3	3.2 - 4.1	-	-
BS3F 3 NMS 80/200A	30 X3	3.4 - 4.9	-	-
BS3F 3 NM 80/25E	22 X3	3 - 4.5	-	-
BS3F 3 NMS 80/250D	30 X3	4.1 - 5.8	-	-
BS3F 3 NMS 80/250C/A	37 X3	4.8 - 6.6	-	-
BS3F 3 NMS 80/250B/A	45 X3	5.7 - 7.6	-	-
BS3F 3 NMS 80/250A/A	55 X3	6.6 - 8.6	-	-

Start and stop pressure controlled by a pressure transducer

BS, NM, NMD

Variable speed pump units with frequency converter

BS2V ..ITT

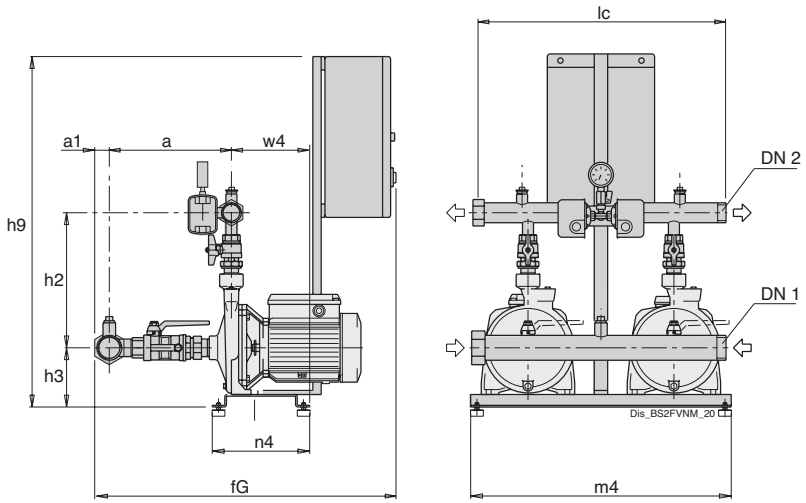
Model	P2
	kW
BS2V 2 NM 32/16B/A-ITT	1.5 X2
BS2V 2 NM 32/16A/B-ITT	2.2 X2
BS2V 2 NM 32/20D/B-ITT	2.2 X2
BS2V 2 NM 32/20C/A-ITT	3 X2
BS2V 2 NM 32/20A/B-ITT	4 X2
BS2V 2 NM 32L/16B-ITT	3 X2
BS2V 2 NM 32L/16A-ITT	4 X2
BS2V 2 NM 32L/20B-ITT	5.5 X2
BS2V 2 NM 32L/20A-ITT	7.5 X2
BS2V 2 NM 40/16C/C-ITT	2.2 X2
BS2V 2 NM 40/16B/B-ITT	3 X2
BS2V 2 NM 40/16A/C-ITT	4 X2
BS2V 2 NM 40/20D/B-ITT	4 X2
BS2V 2 NM 40/20C/B-ITT	4 X2
BS2V 2 NM 40/20B/A-ITT	5.5 X2
BS2V 2 NM 40/20AR/A-ITT	5.5 X2
BS2V 2 NM 40/20A/A-ITT	7.5 X2
BS2V 2 NM 40/25C/C-ITT	9.2 X2
BS2V 2 NM 40/25B/C-ITT	11 X2
BS2V 2 NM 40/25A/C-ITT	15 X2
BS2V 2 NM 50/16B/B-ITT	5.5 X2
BS2V 2 NM 50/16A/B-ITT	7.5 X2
BS2V 2 NM 50/20B/C-ITT	9.2 X2
BS2V 2 NM 50/20A/C-ITT	11 X2
BS2V 2 NM 50/20S/C-ITT	15 X2
BS2V 2 NM 50/25C/C-ITT	11 X2
BS2V 2 NM 50/25B/C-ITT	15 X2
BS2V 2 NM 50/25A/D-ITT	18.5 X2
BS2V 2 NM 65/16D/B-ITT	7.5 X2
BS2V 2 NM 65/16C/C-ITT	9.2 X2
BS2V 2 NM 65/16B/C-ITT	11 X2
BS2V 2 NM 65/16AR-ITT	15 X2
BS2V 2 NM 65/16A/C-ITT	15 X2
BS2V 2 NM 65/20C/C-ITT	15 X2
BS2V 2 NM 65/20B/D-ITT	18.5 X2
BS2V 2 NM 65/20A/A-ITT	22 X2
BS2V 2 NM 65/25C/A-ITT	22 X2
BS2V 2 NM 80/16E/B-ITT	7.5 X2
BS2V 2 NM 80/16D/C-ITT	9.2 X2
BS2V 2 NM 80/16C/C-ITT	11 X2
BS2V 2 NM 80/16B/C-ITT	15 X2
BS2V 2 NM 80/16A/D-ITT	18.5 X2
BS2V 2 NM 80/20B-ITT	22 X2
BS2V 2 NM 80/25E-ITT	22 X2
BS2V 2 NM 100/20E/A-ITT	18.5 X2
BS2V 2 NM 100/20D-ITT	22 X2

BS3V ..ITT

Model	P2
	kW
BS3V 3 NM 32/16B/A-ITT	1.5 X3
BS3V 3 NM 32/16A/B-ITT	2.2 X3
BS3V 3 NM 32/20D/B-ITT	2.2 X3
BS3V 3 NM 32/20C/A-ITT	3 X3
BS3V 3 NM 32/20A/B-ITT	4 X3
BS3V 3 NM 32L/16B-ITT	3 X3
BS3V 3 NM 32L/16A-ITT	4 X3
BS3V 3 NM 32L/20B-ITT	5.5 X3
BS3V 3 NM 32L/20A-ITT	7.5 X3
BS3V 3 NM 40/16C/C-ITT	2.2 X3
BS3V 3 NM 40/16B/B-ITT	3 X3
BS3V 3 NM 40/16A/C-ITT	4 X3
BS3V 3 NM 40/20D/B-ITT	4 X3
BS3V 3 NM 40/20C/B-ITT	4 X3
BS3V 3 NM 40/20B/A-ITT	5.5 X3
BS3V 3 NM 40/20AR/A-ITT	5.5 X3
BS3V 3 NM 40/20A/A-ITT	7.5 X3
BS3V 3 NM 40/25C/C-ITT	9.2 X3
BS3V 3 NM 40/25B/C-ITT	11 X3
BS3V 3 NM 40/25A/C-ITT	15 X3
BS3V 3 NM 50/16B/B-ITT	5.5 X3
BS3V 3 NM 50/16A/B-ITT	7.5 X3
BS3V 3 NM 50/20B/C-ITT	9.2 X3
BS3V 3 NM 50/20A/C-ITT	11 X3
BS3V 3 NM 50/20S/C-ITT	15 X3
BS3V 3 NM 50/25C/C-ITT	11 X3
BS3V 3 NM 50/25B/C-ITT	15 X3
BS3V 3 NM 50/25A/D-ITT	18.5 X3
BS3V 3 NM 65/16D/B-ITT	7.5 X3
BS3V 3 NM 65/16C/C-ITT	9.2 X3
BS3V 3 NM 65/16B/C-ITT	11 X3
BS3V 3 NM 65/16AR-ITT	15 X3
BS3V 3 NM 65/16A/C-ITT	15 X3
BS3V 3 NM 65/20C/C-ITT	15 X3
BS3V 3 NM 65/20B/D-ITT	18.5 X3
BS3V 3 NM 65/20A/A-ITT	22 X3
BS3V 3 NM 65/25C/A-ITT	22 X3
BS3V 3 NM 80/16E/B-ITT	7.5 X3
BS3V 3 NM 80/16D/C-ITT	9.2 X3
BS3V 3 NM 80/16C/C-ITT	11 X3
BS3V 3 NM 80/16B/C-ITT	15 X3
BS3V 3 NM 80/16A/D-ITT	18.5 X3
BS3V 3 NM 80/20B-ITT	22 X3
BS3V 3 NM 80/25E-ITT	22 X3
BS3V 3 NM 100/20E/A-ITT	18.5 X3
BS3V 3 NM 100/20D-ITT	22 X3

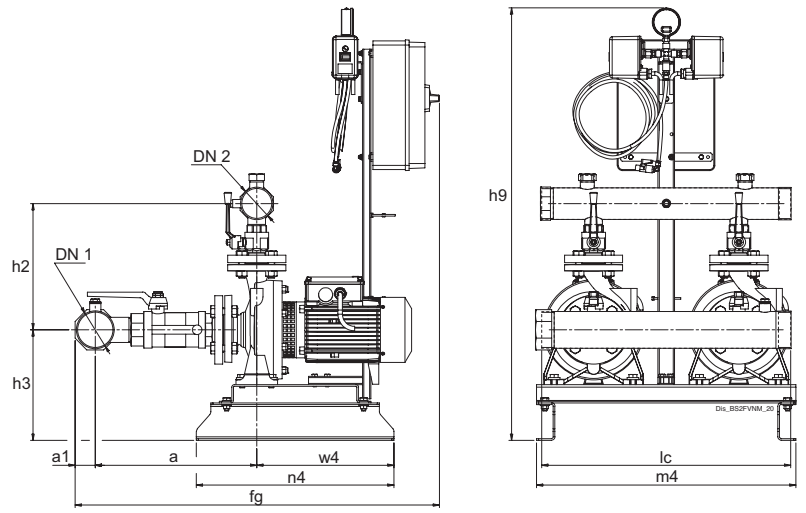
BS, NM, NMD

Dimensions and weights



TYPE	Manifolds		mm										Kg
	DN1	DN2	a	a1	fG	h2	h3	h9	lc	m4	n4	w4	Weight
BS2F 2 NMD 20/110B/A	G 2	G 1 1/2	315	32	670	277	129	840	600	625	365	280	45.8
BS2F 2 NMD 20/110A/B	G 2	G 1 1/2	315	32	670	277	129	840	600	625	365	280	52.6
BS2F 2 NMD 20/140B/A	G 2	G 1 1/2	320	32	670	295	146	840	600	625	365	280	70
BS2F 2 NMD 20/140A/A	G 2	G 1 1/2	320	32	670	295	146	840	600	625	365	280	74.6
BS2F 2 NMD 25/190C/B	G 2 1/2	G 2	407	40	760	330	175	840	600	625	365	280	109
BS2F 2 NMD 25/190B/A	G 2 1/2	G 2	407	40	760	330	175	840	600	625	365	280	120.8
BS2F 2 NMD 25/190A/B	G 2 1/2	G 2	407	40	760	330	175	840	600	625	365	280	127
BS2F 2 NMD 32/210D/B	G 3	G 2 1/2	389	48	460	380	245	890	700	800	550	493	180.5
BS2F 2 NMD 32/210C/A	G 3	G 2 1/2	389	48	460	380	272	890	700	800	550	493	181
BS2F 2 NMD 32/210B/A	G 3	G 2 1/2	389	48	460	380	272	1370	700	800	550	493	-
BS2F 2 NMD 32/210A/B	G 3	G 2 1/2	389	48	460	380	307	1370	700	800	550	493	267
BS2F 2 NMD 40/180D/B	G 3	G 2 1/2	477	48	475	460	245	890	700	800	550	519	185.3
BS2F 2 NMD 40/180C/A	G 3	G 2 1/2	477	48	475	460	272	890	700	800	550	519	182
BS2F 2 NMD 40/180B/A	G 3	G 2 1/2	477	48	475	460	272	1370	700	800	550	519	243
BS2F 2 NMD 40/180A/B	G 3	G 2 1/2	477	48	475	460	307	1370	700	800	550	519	266

Non-binding dimensions to be checked when ordering
Anti-vibration kit supplied disassembled as standard

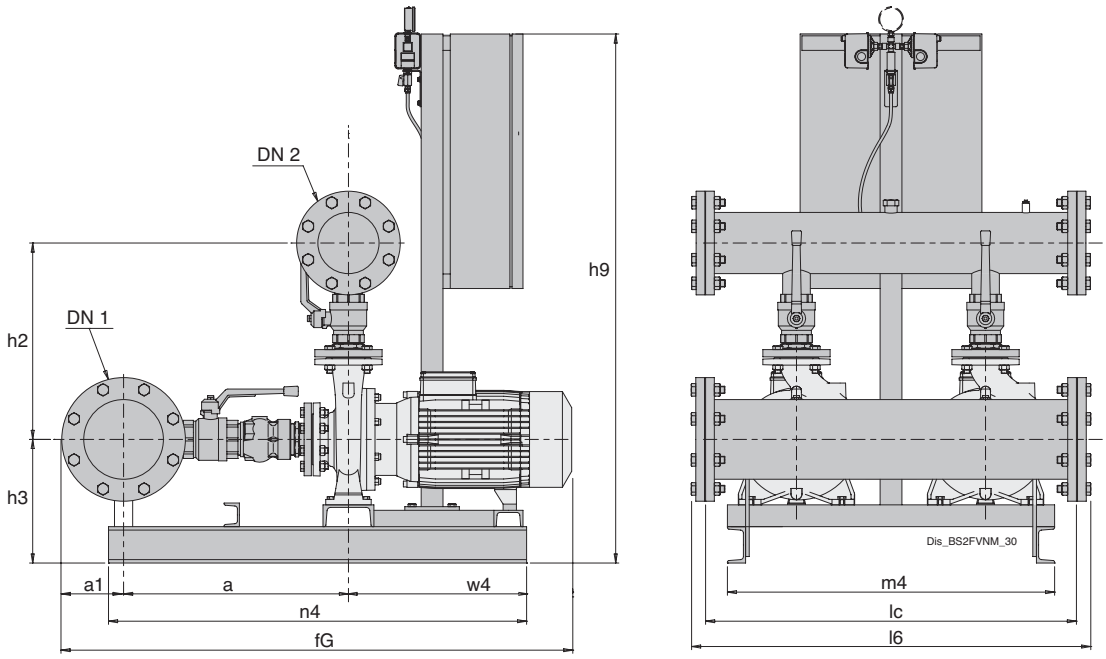


TYPE	Manifolds		mm										Kg
	DN1	DN2	a	a1	fG	h1	h3	h9	lc	m4	n4	w4	Weight
BS2F 2 NM 32/16B/A	G 3	G 2 1/2	304	48	878	266	345	830	600	625	476	389	114.6
BS2F 2 NM 32/16A/B	G 3	G 2 1/2	304	48	878	266	345	830	600	625	476	389	117
BS2F 2 NM 32/20C/A	G 3	G 2 1/2	324	48	878	294	365	830	600	625	476	389	143
BS2F 2 NM 32/20A/B	G 3	G 2 1/2	324	48	878	294	365	830	600	625	476	389	144.1

Non-binding dimensions to be checked when ordering

BS, NM, NMD

Dimensions and weights

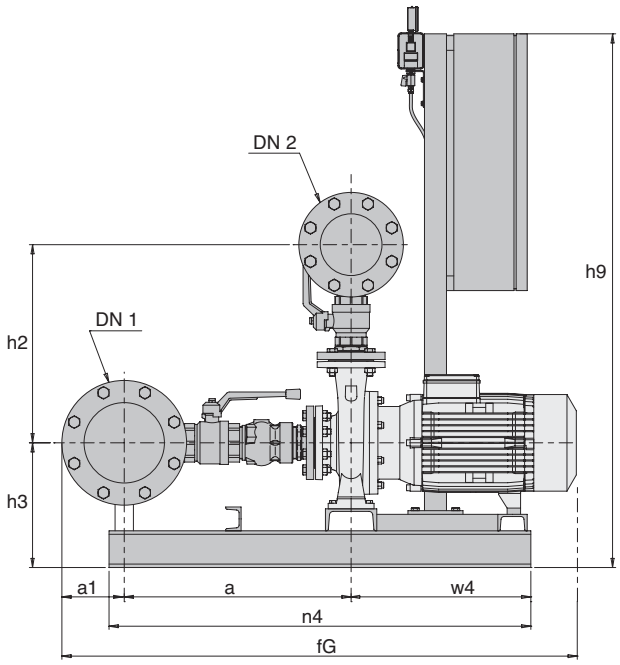


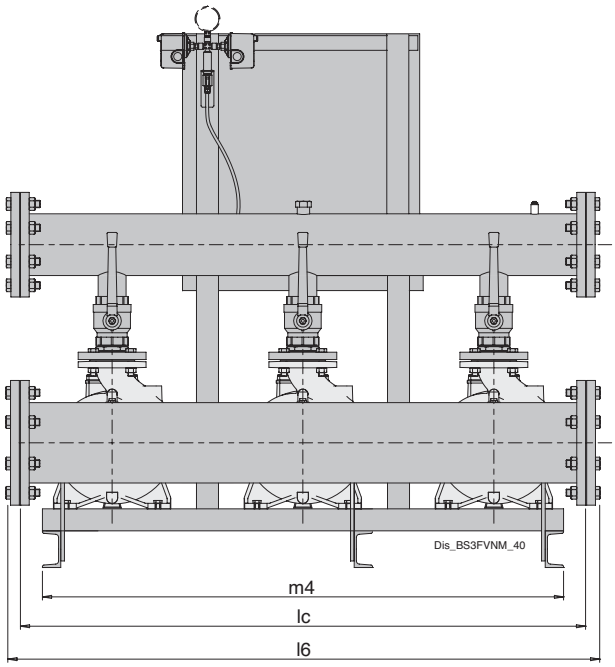
TYPE	Manifolds		mm											Kg
	DN1	DN2	a	a1	fG	h2	h3	h9	l6	lc	m4	n4	w4	Weight
BS2F 2 NM 32L/16B	100	80	487	110	1008	383	281	830	886	820	800	476	352	144.1
BS2F 2 NM 32L/16A	100	80	487	110	1008	383	281	830	886	820	800	476	352	144.1
BS2F 2 NM 32L/20B	100	80	507	110	1008	383	281	830	886	820	900	1040	325	-
BS2F 2 NM 32L/20A	100	80	207	110	1008	383	281	1310	886	820	900	1040	352	144.1
BS2F 2 NM 40/16B/B	100	80	487	110	1008	383	281	830	886	820	800	476	325	190
BS2F 2 NM 40/16A/C	100	80	487	110	1008	383	281	830	886	820	800	476	325	195
BS2F 2 NM 40/20B/A	100	80	507	110	1245	403	320	830	886	820	900	1040	627.5	271.5
BS2F 2 NM 40/20A/A	100	80	507	110	1245	403	320	1310	886	820	900	1040	627.5	311
BS2F 2 NM 40/25B/C	100	80	507	110	1245	448	340	1455	886	820	900	1040	627.5	428
BS2F 2 NM 40/25A/C	100	80	507	110	1245	448	340	1455	886	820	900	1040	627.5	-
BS2F 2 NM 50/16B/B	125	100	515	125	1568	517	320	975	988	920	900	1500	628	391.6
BS2F 2 NM 50/16A/B	125	100	515	125	1568	517	320	1455	988	920	900	1500	628	439
BS2F 2 NM 50/20B/C	125	100	515	125	1568	537	320	1455	988	920	900	1500	628	491
BS2F 2 NM 50/20A/C	125	100	515	125	1568	537	320	1455	988	920	900	1500	628	532
BS2F 2 NM 50/25C/C	125	100	515	125	1754	562	340	1455	988	920	900	1500	628	-
BS2F 2 NM 50/25B/C	125	100	515	125	1754	562	340	1455	988	920	900	1500	628	581.5
BS2F 2 NM 50/25A/D	125	100	515	125	1754	562	340	1455	988	920	900	1500	628	-
BS2F 2 NM 65/16B/C	200	150	625	170	1800	571	320	1455	1100	1020	900	1500	628	-
BS2F 2 NM 65/16AR	200	150	625	170	1800	571	320	1455	1100	1020	900	1500	628	107.5
BS2F 2 NM 65/16A/C	200	150	625	170	1800	571	320	1455	1100	1020	900	1500	628	-
BS2F 2 NM 65/20C/C	200	150	625	170	1800	596	340	1455	1277	1200	1080	1500	628	-
BS2F 2 NM 65/20B/D	200	150	625	170	1800	596	340	1455	1277	1200	1080	1500	628	-
BS2F 2 NM 65/20A/A	200	150	625	170	1800	596	340	1455	1277	1200	1080	1500	628	765
BS2F 2 NM 65/25C/A	200	150	625	170	1800	596	340	1455	1277	1200	1080	1500	628	107.5
BS2F 2 NMS 65/250B/A	200	150	625	170	1882	621	430	1655	1277	1200	1200	1750	845	-
BS2F 2 NMS 65/250A/B	200	150	625	170	1882	621	430	1855	1277	1200	1200	1750	845	107.5
BS2F 2 NM 80/16B/C	250	200	730	202.5	1852	653	340	1455	1283	1200	1080	1650	628	-
BS2F 2 NM 80/16A/D	250	200	730	202.5	1852	653	340	1455	1283	1200	1080	1650	628	-
BS2F 2 NM 80/20B	250	200	730	202.5	1852	653	340	1455	1283	1200	1080	1650	628	107.5
BS2F 2 NMS 80/200A	250	200	730	202.5	-	-	-	1655	-	1200	-	-	-	107.5
BS2F 2 NM 80/25E	250	200	730	202.5	-	-	-	1655	-	1200	-	-	-	107.5
BS2F 2 NMS 80/250D	250	200	730	202.5	-	-	-	1655	-	1200	-	-	-	-
BS2F 2 NMS 80/250C/A	250	200	730	202.5	-	-	-	1855	-	1200	-	-	-	-
BS2F 2 NMS 80/250B/A	250	200	730	202.5	-	708	480	1400	1283	1200	1200	2050	943	107.5
BS2F 2 NMS 80/250A/A	250	200	730	202.5	-	-	-	1400	-	1200	-	-	-	107.5

Non-binding dimensions to be checked when ordering
Missing dimensions on request

BS, NM, NMD

Dimensions and weights



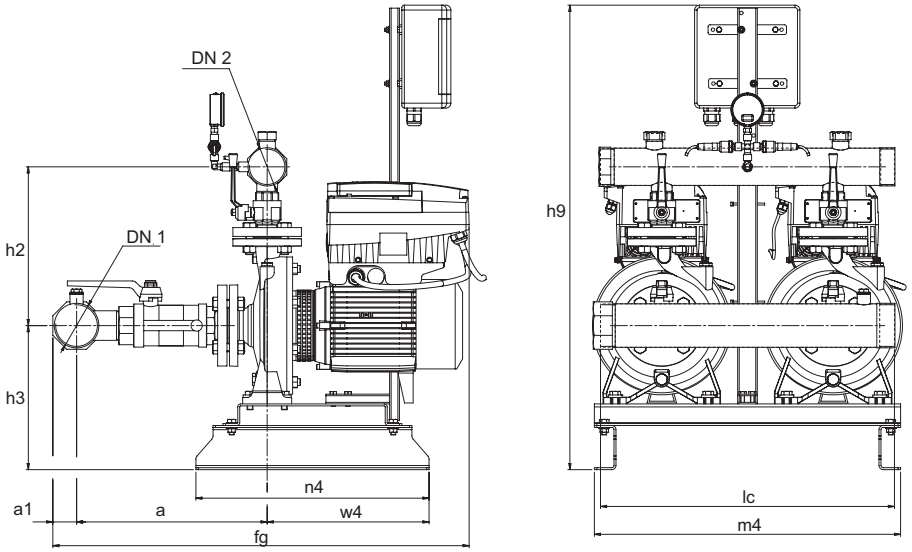


TYPE	Manifolds		mm											Kg
	DN1	DN2	a	a1	fG	h2	h3	h9	l6	lc	m4	n4	w4	Weight
BS3F 3 NM 40/16B/B	125	100	500	125	1300	400	292	1165	1408	1340	1400	1030	558	358
BS3F 3 NM 40/16A/C	125	100	500	125	1300	400	292	1165	1408	1340	1400	1030	558	-
BS3F 3 NM 40/20B/A	125	100	520	125	1300	420	320	1165	1408	1340	1400	1030	558	-
BS3F 3 NM 40/20A/A	125	100	520	125	1300	420	320	1410	1408	1340	1400	1030	558	447
BS3F 3 NM 40/25B/C	125	100	520	125	1357	465	340	1555	1408	1340	1400	1030	558	-
BS3F 3 NM 40/25A/C	125	100	520	125	1357	465	340	1555	1408	1340	1400	1030	558	-
BS3F 3 NM 50/16B/B	150	125	525	142.5	1690	575	315	975	1515	1340	1400	1430	563	-
BS3F 3 NM 50/16A/B	150	125	525	142.5	1690	575	315	1555	1515	1340	1400	1430	563	631
BS3F 3 NM 50/20B/C	150	125	525	142.5	1690	575	315	1555	1515	1340	1400	1430	563	-
BS3F 3 NM 50/20A/C	150	125	525	142.5	1690	575	315	1555	1515	1340	1400	1430	563	-
BS3F 3 NM 50/25C/C	150	125	525	142.5	1690	575	340	1555	1515	1440	1400	1430	563	-
BS3F 3 NM 50/25B/C	150	125	525	142.5	1690	575	340	1555	1515	1440	1400	1430	563	858
BS3F 3 NM 50/25A/D	150	125	525	142.5	1690	575	340	1555	1515	1440	1400	1430	563	-
BS3F 3 NM 65/16B/C	250	200	650	202.5	1690	555	320	1555	1623	1540	1400	1430	563	706
BS3F 3 NM 65/16AR	250	200	650	202.5	1690	555	320	1555	1623	1540	1400	1430	563	-
BS3F 3 NM 65/16A/C	250	200	650	202.5	1690	555	320	1555	1623	1540	1400	1430	563	800
BS3F 3 NM 65/20C/C	250	200	650	202.5	1794	620	340	1555	1623	1540	1400	1430	563	-
BS3F 3 NM 65/20B/D	250	200	650	202.5	1741	620	340	1755	1623	1900	1780	1550	628	-
BS3F 3 NM 65/20A/A	250	200	650	202.5	1741	620	340	1755	1623	1900	1780	1550	628	-
BS3F 3 NM 65/25C/A	250	200	650	202.5	1741	620	340	1755	1623	1900	1780	1550	628	-
BS3F 3 NMS 65/250B/A	250	200	650	202.5	-	605	260	1855	-	1900	-	-	-	-
BS3F 3 NMS 65/250A/B	250	200	650	202.5	-	605	310	1545	-	1900	-	-	-	-
BS3F 3 NM 80/16B/C	300	250	755	222.5	-	645	340	1555	-	1900	-	-	-	-
BS3F 3 NM 80/16A/D	300	250	755	222.5	-	645	240	1755	-	1900	-	-	-	-
BS3F 3 NM 80/20B	300	250	755	222.5	-	670	360	1855	-	1900	-	-	-	-
BS3F 3 NMS 80/200A	300	250	755	222.5	-	670	260	1855	-	1900	-	-	-	-
BS3F 3 NM 80/25E	300	250	755	222.5	-	700	360	1855	-	1900	-	-	-	-
BS3F 3 NMS 80/250D	300	250	755	222.5	-	700	260	1855	-	1900	-	-	-	-
BS3F 3 NMS 80/250C/A	300	250	755	222.5	-	700	310	1400	-	1900	-	-	-	-
BS3F 3 NMS 80/250B/A	300	250	755	222.5	-	700	310	1400	-	1900	-	-	-	-
BS3F 3 NMS 80/250A/A	300	250	755	222.5	-	700	310	1400	-	1900	-	-	-	-

Non-binding dimensions to be checked when ordering
Missing dimensions on request

BS, NM, NMD

Dimensions and weights

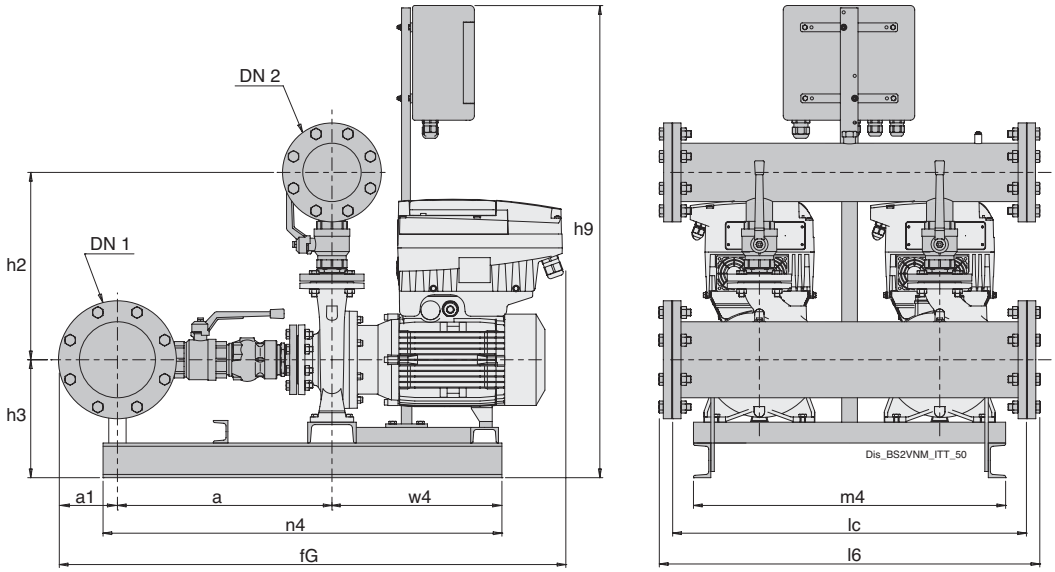


TYPE	Manifolds		mm										Kg
	DN1	DN2	a	a1	fG	h1	h3	h9	lc	m4	n4	w4	Weight
BS2V 2 NM 32/16B/A-ITT	G 3	G 2 1/2	389	48	813	266	304	948	600	625	476	330	-
BS2V 2 NM 32/16A/B-ITT	G 3	G 2 1/2	389	48	813	266	304	948	600	625	476	370	135
BS2V 2 NM 32/20D/B-ITT	G 3	G 2 1/2	389	48	850	266	304	948	600	625	476	370	-
BS2V 2 NM 32/20C/A-ITT	G 3	G 2 1/2	389	48	850	294	324	948	600	625	476	395	156.5
BS2V 2 NM 32/20A/B-ITT	G 3	G 2 1/2	389	48	850	294	324	948	600	625	476	395	164.5

Non-binding dimensions to be checked when ordering
Missing dimensions on request

BS, NM, NMD

Dimensions and weights

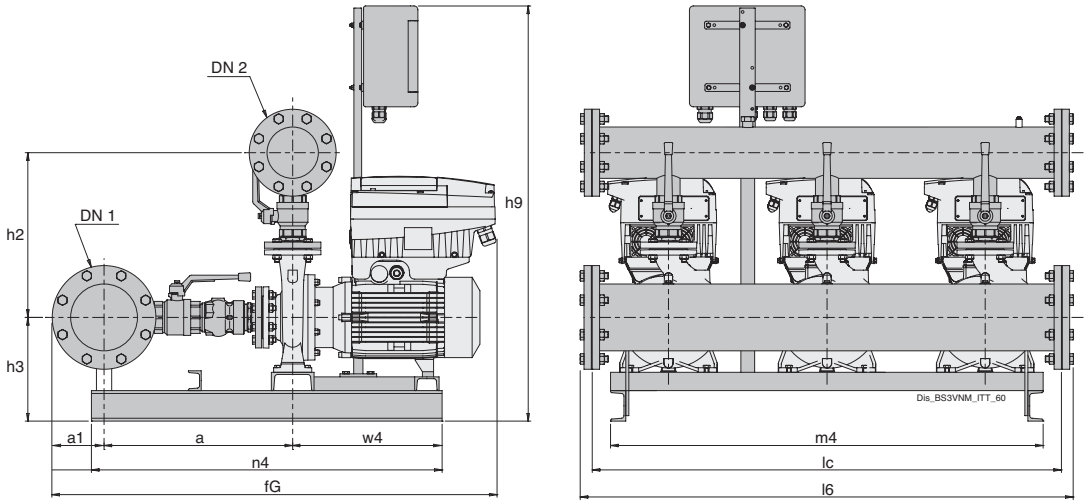


TYPE	Manifolds		mm											Kg
	DN1	DN2	a	a1	fG	h2	h3	h9	l6	lc	m4	n4	w4	Weight
BS2V 2 NM 32L/16B-ITT	100	80	487	110	1008	387	280	989	886	820	800	476	325	164.5
BS2V 2 NM 32L/16A-ITT	100	80	487	110	1008	387	280	989	886	820	800	476	325	164.5
BS2V 2 NM 32L/20B-ITT	100	80	507	110	1025	407	320	897	886	820	900	1040	325	280.4
BS2V 2 NM 32L/20A-ITT	100	80	507	110	1025	407	320	897	886	820	900	1040	325	164.5
BS2V 2 NM 40/16C/C-ITT	100	80	487	110	990	387	280	897	886	820	800	476	325	-
BS2V 2 NM 40/16B/B-ITT	100	80	487	110	1006	387	280	897	886	820	800	476	325	-
BS2V 2 NM 40/16A/C-ITT	100	80	487	110	1006	387	280	897	886	820	800	476	325	210
BS2V 2 NM 40/20D/B-ITT	100	80	507	110	1245	407	309	985	886	820	800	476	628	-
BS2V 2 NM 40/20C/B-ITT	100	80	507	110	1245	407	309	985	886	820	800	476	628	-
BS2V 2 NM 40/20B/A-ITT	100	80	507	110	1245	407	320	985	886	820	900	1040	628	286
BS2V 2 NM 40/20AR/A-ITT	100	80	507	110	1245	407	320	897	886	820	900	1040	628	284.5
BS2V 2 NM 40/20A/A-ITT	100	80	507	110	1245	407	320	897	886	820	900	1040	628	312
BS2V 2 NM 40/25C/C-ITT	100	80	507	110	1245	452	340	977	886	820	900	1040	628	-
BS2V 2 NM 40/25B/C-ITT	100	80	507	110	1245	452	340	977	886	820	900	1040	628	405
BS2V 2 NM 40/25A/C-ITT	100	80	507	110	1245	452	340	977	886	820	900	1040	628	-
BS2V 2 NM 50/16B/B-ITT	125	100	515	125	1568	435	315	1185	988	920	900	1500	628	-
BS2V 2 NM 50/16A/B-ITT	125	100	515	125	1568	435	315	1185	988	920	900	1500	628	-
BS2V 2 NM 50/20B/C-ITT	125	100	515	125	1568	455	315	1185	988	920	900	1500	628	494
BS2V 2 NM 50/20A/C-ITT	125	100	515	125	1568	455	315	1185	988	920	900	1500	628	532
BS2V 2 NM 50/20S/C-ITT	125	100	515	125	1568	455	315	1350	988	920	900	1500	628	-
BS2V 2 NM 50/25C/C-ITT	125	100	515	125	1568	480	340	1185	988	920	900	1500	628	530
BS2V 2 NM 50/25B/C-ITT	125	100	515	125	1568	480	340	1350	988	920	900	1500	628	630
BS2V 2 NM 50/25A/D-ITT	125	100	515	125	1568	480	340	1350	988	920	900	1500	628	639
BS2V 2 NM 65/16D/B-ITT	200	150	625	170	-	525	320	-	-	1020	-	-	628	-
BS2V 2 NM 65/16C/C-ITT	200	150	625	170	-	525	320	-	-	1020	-	-	628	-
BS2V 2 NM 65/16B/C-ITT	200	150	625	170	-	525	320	-	-	1020	-	-	628	-
BS2V 2 NM 65/16AR-ITT	200	150	625	170	-	525	320	-	-	1020	-	-	628	-
BS2V 2 NM 65/16A/C-ITT	200	150	625	170	-	525	320	-	-	1020	-	-	628	-
BS2V 2 NM 65/20C/C-ITT	200	150	-	170	-	550	340	-	-	1020	-	-	628	-
BS2V 2 NM 65/20B/D-ITT	200	150	852	170	1817	596	340	1200	1277	1200	900	1500	628	-
BS2V 2 NM 65/20A/A-ITT	200	150	-	170	-	550	360	-	-	1200	-	-	-	-
BS2V 2 NM 65/25C/A-ITT	200	150	852	170	1750	575	360	1490	1277	1200	1200	1560	665	862
BS2V 2 NM 80/16E/B-ITT	250	200	-	202.5	-	615	-	-	-	1050	-	-	-	-
BS2V 2 NM 80/16D/C-ITT	250	200	-	202.5	-	615	-	-	-	1050	-	-	-	-
BS2V 2 NM 80/16C/C-ITT	250	200	-	202.5	-	615	-	-	-	1050	-	-	-	-
BS2V 2 NM 80/16B/C-ITT	250	200	-	202.5	-	615	340	-	-	1050	-	-	-	-
BS2V 2 NM 80/16A/D-ITT	250	200	-	202.5	-	615	340	-	-	1200	-	-	-	712
BS2V 2 NM 80/20B-ITT	250	200	989	202.5	1841	678	360	1450	1283	1200	1100	1700	840	-
BS2V 2 NM 80/25E-ITT	250	200	-	202.5	-	670	360	-	-	1200	-	-	-	-
BS2V 2 NM 100/20E/A-ITT	300	250	1083	222.5	-	770	410	1490	-	1200	1200	1835	-	-
BS2V 2 NM 100/20D-ITT	300	250	1083	222.5	-	770	410	1490	-	1200	1200	1835	-	1079

Non-binding dimensions to be checked when ordering
Missing dimensions on request

BS, NM, NMD

Dimensions and weights

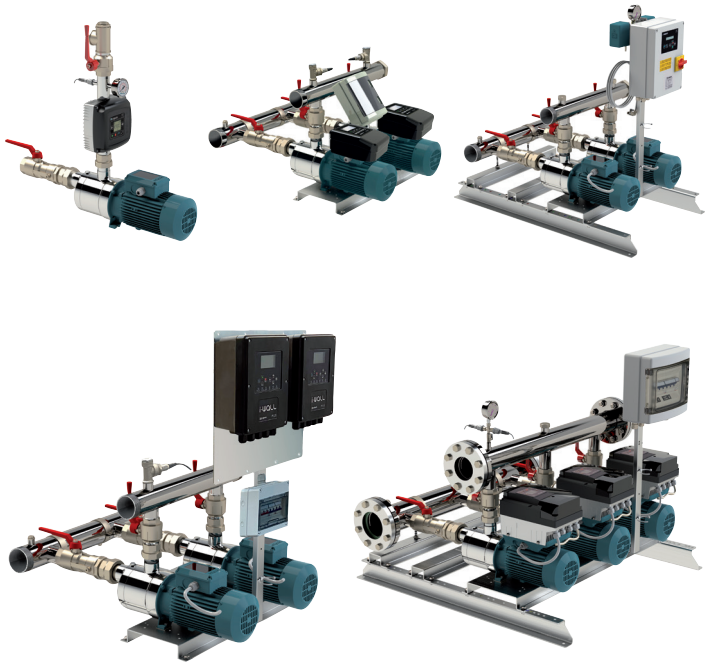


TYPE	Manifolds		mm											Kg
	DN1	DN2	a	a1	fG	h2	h3	h9	l6	lc	m4	n4	w4	Weight
BS3V 3 NM 32/16B/A-ITT	100	80	400	110	923	392	310	1189	1016	950	1000	476	340	-
BS3V 3 NM 32/16A/B-ITT	100	80	400	110	923	392	310	1189	1016	950	1000	476	340	-
BS3V 3 NM 32/20D/B-ITT	100	80	400	110	923	392	310	1189	1016	950	1000	476	340	-
BS3V 3 NM 32/20C/A-ITT	100	80	400	110	923	392	310	1189	1016	950	1000	476	340	274.5
BS3V 3 NM 32/20A/B-ITT	100	80	400	110	923	392	310	1189	1016	950	1000	476	340	-
BS3V 3 NM 32L/16B-ITT	125	100	500	125	1263	400	292	985	1515	1440	1400	1030	558	1240
BS3V 3 NM 32L/16A-ITT	125	100	500	125	1263	400	292	985	1515	1440	1400	1030	558	1240
BS3V 3 NM 32L/20B-ITT	125	100	500	125	1263	400	292	985	1515	1440	1400	1030	558	1240
BS3V 3 NM 32L/20A-ITT	125	100	500	125	1263	400	292	985	1515	1440	1400	1030	558	1240
BS3V 3 NM 40/16C/C-ITT	125	100	500	125	1263	400	292	985	1515	1440	1400	1100	558	-
BS3V 3 NM 40/16B/B-ITT	125	100	500	125	1263	400	292	985	1515	1440	1400	1100	558	362
BS3V 3 NM 40/16A/C-ITT	125	100	500	125	1263	400	292	897	1515	1440	1400	1100	558	-
BS3V 3 NM 40/20D/B-ITT	125	100	520	125	1283	420	320	897	1515	1440	1400	1100	558	-
BS3V 3 NM 40/20C/B-ITT	125	100	500	125	1283	400	292	985	1515	1440	1400	1100	558	-
BS3V 3 NM 40/20B/A-ITT	125	100	520	125	1283	420	320	897	1515	1440	1400	1100	558	-
BS3V 3 NM 40/20AR/A-ITT	125	100	520	125	1283	420	320	897	1515	1440	1400	1100	558	-
BS3V 3 NM 40/20A/A-ITT	125	100	520	125	1283	420	320	897	1515	1440	1400	1100	558	-
BS3V 3 NM 40/25C/C-ITT	125	100	520	125	1330	465	340	977	1515	1440	1400	1030	558	-
BS3V 3 NM 40/25B/C-ITT	125	100	520	125	1330	465	340	1175	1515	1440	1400	1030	558	-
BS3V 3 NM 40/25A/C-ITT	125	100	520	125	1330	465	340	977	1515	1440	1400	1100	558	-
BS3V 3 NM 50/16B/B-ITT	150	125	525	142.5	1653	448	315	977	1515	1440	1400	1430	558	-
BS3V 3 NM 50/16A/B-ITT	150	125	525	142.5	1653	530	315	1175	1515	1440	1400	1430	558	635.5
BS3V 3 NM 50/20B/C-ITT	150	125	525	142.5	1653	468	315	977	1515	1440	1400	1430	558	-
BS3V 3 NM 50/20A/C-ITT	150	125	525	142.5	1653	468	315	977	1515	1440	1400	1430	558	786
BS3V 3 NM 50/20S/C-ITT	150	125	525	142.5	1653	468	315	977	1515	1440	1400	1430	558	-
BS3V 3 NM 50/25C/C-ITT	150	125	525	142.5	1653	493	340	977	1515	1440	1400	1430	558	-
BS3V 3 NM 50/25B/C-ITT	150	125	830	142.5	1688	575	340	1855	1515	1440	1400	1430	563	952
BS3V 3 NM 50/25A/D-ITT	150	125	830	142.5	1688	575	340	1855	1515	1440	1400	1430	563	-
BS3V 3 NM 65/16D/B-ITT	250	200	-	202.5	-	-	-	-	-	1540	-	-	-	-
BS3V 3 NM 65/16C/C-ITT	250	200	-	202.5	-	-	-	-	-	1540	-	-	-	-
BS3V 3 NM 65/16B/C-ITT	250	200	-	202.5	-	-	-	-	-	1540	-	-	-	-
BS3V 3 NM 65/16AR-ITT	250	200	-	202.5	-	-	-	-	-	1540	-	-	-	-
BS3V 3 NM 65/16A/C-ITT	250	200	-	202.5	-	-	-	-	-	1540	-	-	-	-
BS3V 3 NM 65/20C/C-ITT	250	200	-	202.5	-	-	-	-	-	1540	-	-	-	-
BS3V 3 NM 65/20B/D-ITT	250	200	-	202.5	-	-	-	-	-	1900	-	-	-	-
BS3V 3 NM 65/20A/A-ITT	250	200	-	202.5	-	-	-	-	-	1900	-	-	-	1240
BS3V 3 NM 65/25C/A-ITT	250	200	-	202.5	-	-	-	-	-	1900	-	-	-	-
BS3V 3 NM 80/16E/B-ITT	300	250	-	222.5	-	-	-	-	-	1900	-	-	-	-
BS3V 3 NM 80/16D/C-ITT	300	250	-	222.5	-	-	-	-	-	1900	-	-	-	-
BS3V 3 NM 80/16C/C-ITT	300	250	-	222.5	-	-	-	-	-	1900	-	-	-	-
BS3V 3 NM 80/16B/C-ITT	300	250	-	222.5	-	-	-	-	-	1900	-	-	-	-
BS3V 3 NM 80/16A/D-ITT	300	250	1015	222.5	2035	700	390	1985	1983	1900	1850	1830	650	-
BS3V 3 NM 80/20B-ITT	300	250	-	222.5	-	-	-	-	-	1900	-	-	-	-
BS3V 3 NM 80/25E-ITT	300	250	-	222.5	-	-	-	-	-	1900	-	-	-	-
BS3V 3 NM 100/20E/A-ITT	350	300	-	252.5	-	-	-	-	-	1900	-	-	-	-
BS3V 3 NM 100/20D-ITT	350	300	-	252.5	-	-	-	-	-	1900	-	-	-	-

Non-binding dimensions to be checked when ordering
Missing dimensions on request

BS. MXH

Pressure boosting plants with 1 to 3 fixed or variable horizontal multi-stage pumps (INVERTER)



Fixed speed units

BS 2-6F Pressure boosting sets with 2 to 6 fixed speed pump.
Sets with 4,5 and 6 pumps on request.
Depending on the reduction of the pressure in the system, the pressure switches (pressure transducer for 3-pump sets) determine the starting up of the pumps in sequence and the microprocessor alternates the starts.

Variable speed units with I-MAT

BS2-3V Pressure boosting sets with 2 to 3 variable speed pumps (with I-MAT).
Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

Variable speed units with EASYMAT

BS1-3V Pressure boosting sets with 1 to 3 variable speed pumps (with EASYMAT).
Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

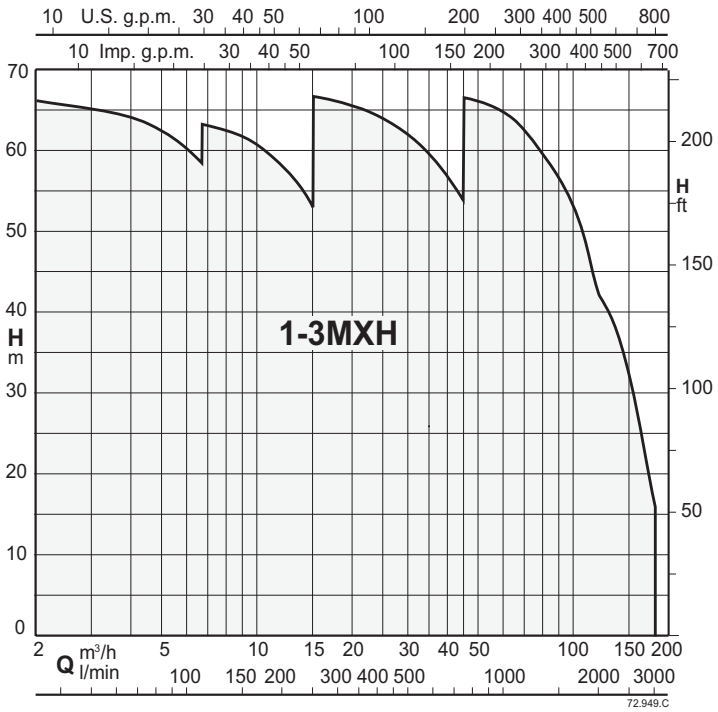
Variable speed pump units with EASYMAT2

BS2V Pressure boosting sets with 2 variable speed pumps with EASYMAT2.
Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

Variable speed pump units with WALL

BS2V Pressure boosting sets with 2 variable speed pumps with WALL.
Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

Coverage chart



Construction

Automatic pressure boosting plant consisting of 1 to 6 vertical multistage pumps complete with ball, non return valve on the suction side and ball valves on the delivery side.
Suction and delivery manifolds for boosting sets with 2,3 pumps in stainless steel AISI 304.
Connections are located on the delivery manifold for the installation of vessels G1 connection.
Electrical control boards:

- with microprocessor for fixed speed pump units. Motor starting is D.O.L. up to 5,5 kW and Y/Δ for power rating 7,5 kW.
- - with frequency converter for variable speed pump units.

The unit includes one pressure gauge and three adjustable differential pressure switches or pressure transducer.

Applications

To supply water in civil and industrial buildings.
For increasing network pressure (follow local specifications).

Motor

2-pole induction motors, 50 Hz, n ≈ 2900 1/min, set up for inverter operation.
Three-phase 230/400V ± 10% up to a 3 kW,
set up for inverter operation;
400/690 ± 10% da 4 a 7,5 kW,
set up for inverter operation.
Single-phase 230 V ± 10%
Insulation class F.
Protection IP54
Constructed in accordance with: IEC 60034.
Other voltages and frequencies on request.

Vessels on request

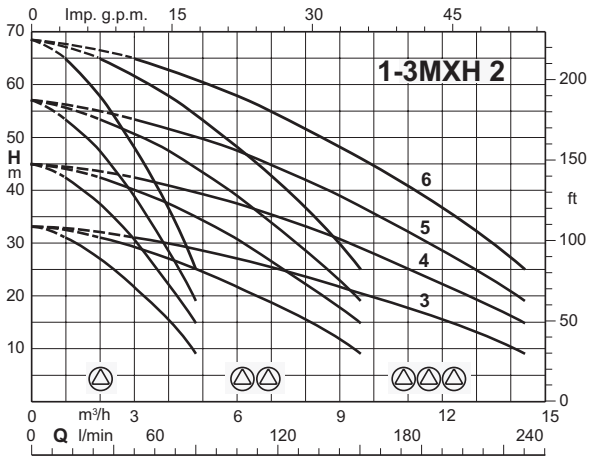
When installing the unit, connect in the delivery section to a diaphragm or galvanised tank.
The recommended sized are shown in the following page.

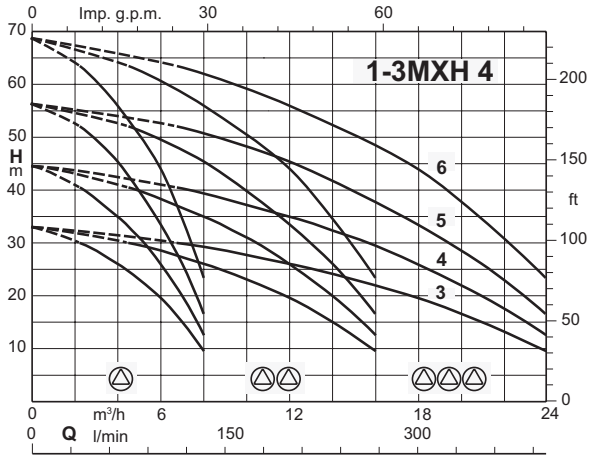
Special features on request

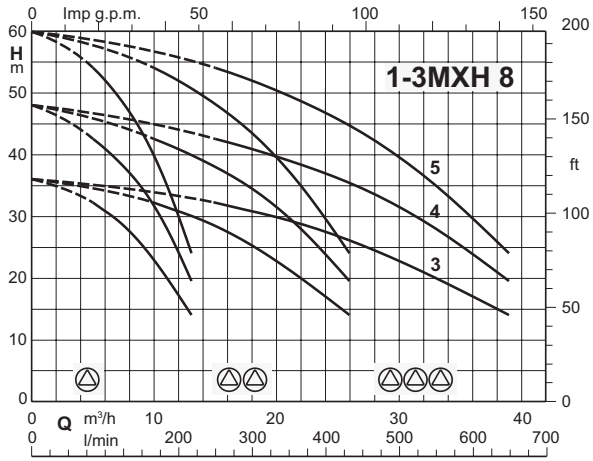
Pressure unit with 4, 5 and 6 pumps

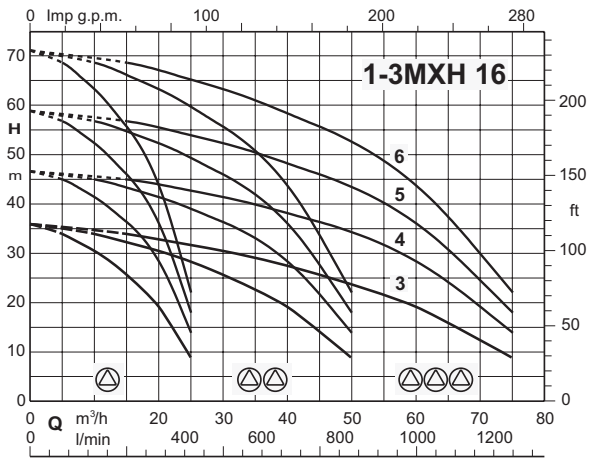
BS. MXH

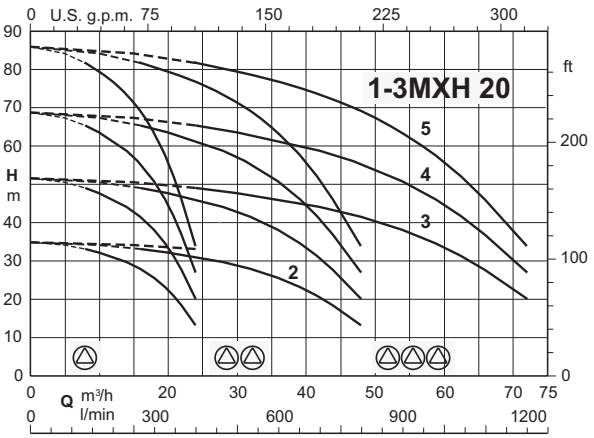
Characteristic curves

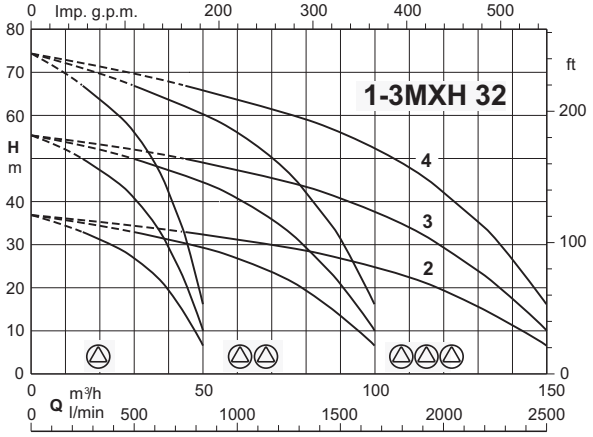


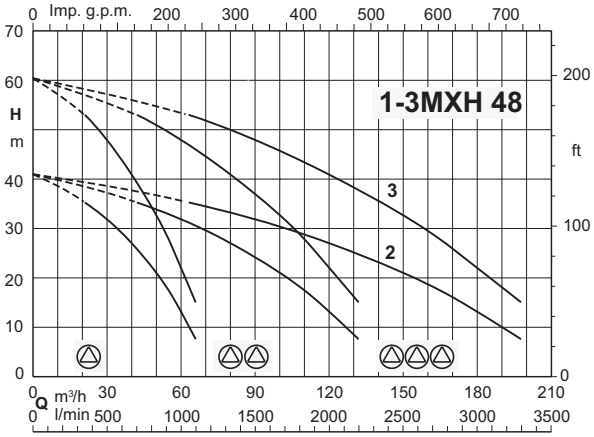












BS. MXH

Fixed speed pump units

BS2F

		Pressure switch		Tank	
		1	2	membrane	Vessel
Model	P2	Start/Stop			
	kW	bar		litri	
BS2F 2 MXH 203E	0.37 X2	2 - 2.8	1.7 - 2.5	24X2	100
BS2F 2 MXH 204/A	0.55 X2	3 - 3.9	2.7 - 3.6	24X2	100
BS2F 2 MXH 205/B	0.75 X2	3.3 - 4.9	3.1 - 4.6	24X2	100
BS2F 2 MXH 206/C	1.1 X2	4.3 - 5.9	4 - 5.6	60	100
BS2F 2 MXH 403/A	0.55 X2	1.9 - 2.7	1.6 - 2.4	80	200
BS2F 2 MXH 404/B	0.75 X2	2.9 - 3.7	2.6 - 3.4	100	200
BS2F 2 MXH 405/C	1.1 X2	3.2 - 4.7	2.9 - 4.4	100	200
BS2F 2 MXH 406/A	1.5 X2	4.1 - 5.7	3.8 - 5.4	150	200
BS2F 2 MXH 803/A	1.1 X2	2.1 - 2.9	1.8 - 2.6	200	500
BS2F 2 MXH 804/A	1.5 X2	3 - 3.9	2.7 - 3.6	300	500
BS2F 2 MXH 805/B	1.8 X2	3.4 - 4.9	3.1 - 4.6	300	500
BS2F 2 MXH 1602/A	1.5 X2	0.6 - 2.1	0.3 - 1.8	300	800
BS2F 2 MXH 1603/B	1.8 X2	2.3 - 3.1	2 - 2.8	300	800
BS2F 2 MXH 1604/A	3 X2	3.3 - 4.2	3 - 3.9	500	1000
BS2F 2 MXH 1605/B	3.7 X2	3.7 - 5.2	3.4 - 4.9	500	1000
BS2F 2 MXH 1606/B	4 X2	4.5 - 6.2	4.2 - 5.9	500	1000
BS2F 2 MXH 2002/A	1.8 X2	2.1 - 2.9	1.8 - 2.6	500	1000
BS2F 2 MXH 2003	3 X2	3 - 4.5	2.7 - 4.2	500	800
BS2F 2 MXH 2004/A	4 X2	4.3 - 5.9	4 - 5.6	500	1000
BS2F 2 MXH 2005	5.5 X2	5.5 - 7.4	5.3 - 7.1	750	1500
BS2F 2 MXH-F 3202/B	4 X2	2.2 - 3	1.9 - 2.7	1000	2000
BS2F 2 MXH-F 3203/A	5.5 X2	3.1 - 4.6	2.8 - 4.3	1000	2000
BS2F 2 MXH-F 3204/A	7.5 X2	4.4 - 6.1	4.1 - 5.8	1500	3000
BS2F 2 MXH-F 4802/A	5.5 X2	2.4 - 3.2	2.1 - 2.9	1500	3000
BS2F 2 MXH-F 4803/A	7.5 X2	3.3 - 4.8	3 - 4.5	1500	3000

400V 3~ power supply / 400V 3~ motor
Start and stop pressure controlled by pressure switches

BS3F

		Transducer	Tank	
		1	membrane	Vessel
Model	P2	Start/Stop		
	kW	bar	litri	
BS3F 3 MXH 203E	0.37 X3	2 - 2.8	24X2	100
BS3F 3 MXH 204/A	0.55 X3	2.9 - 3.8	24X2	100
BS3F 3 MXH 205/B	0.75 X3	3.3 - 4.8	24X2	100
BS3F 3 MXH 206/C	1.1 X3	4.2 - 5.9	60	100
BS3F 3 MXH 403/A	0.55 X3	1.9 - 2.7	80	200
BS3F 3 MXH 404/B	0.75 X3	2.8 - 3.6	100	200
BS3F 3 MXH 405/C	1.1 X3	3.2 - 4.7	100	200
BS3F 3 MXH 406/A	1.5 X3	4 - 5.7	150	200
BS3F 3 MXH 803/A	1.1 X3	2.1 - 2.9	200	500
BS3F 3 MXH 804/A	1.5 X3	2.9 - 3.8	300	500
BS3F 3 MXH 805/B	1.8 X3	3.4 - 4.9	300	500
BS3F 3 MXH 1602/A	1.5 X3	0.6 - 2.1	300	800
BS3F 3 MXH 1603/B	1.8 X3	2.2 - 3	300	800
BS3F 3 MXH 1604/A	3 X3	3.3 - 4.2	500	1000
BS3F 3 MXH 1605/B	3.7 X3	3.6 - 5.2	500	1000
BS3F 3 MXH 1606/B	4 X3	4.4 - 6.1	500	1000
BS3F 3 MXH 2002/A	1.8 X3	2.1 - 2.9	500	1000
BS3F 3 MXH 2003	3 X3	3.4 - 4.3	500	800
BS3F 3 MXH 2004/A	4 X3	4.1 - 5.8	500	1000
BS3F 3 MXH 2005	5.5 X3	5.4 - 7.3	750	1500
BS3F 3 MXH-F 3202/B	4 X3	2.1 - 2.9	1000	2000
BS3F 3 MXH-F 3203/B	5.5 X3	2.9 - 4.4	1000	2000
BS3F 3 MXH-F 3204/A	7.5 X3	4.3 - 6	1500	3000
BS3F 3 MXH-F 4802/A	5.5 X3	2.3 - 3.1	1500	3000
BS3F 3 MXH-F 4803/A	7.5 X3	3.2 - 4.7	1500	3000

400V 3~ power supply / 400V 3~ motor
Start and stop pressure controlled by a pressure transducer

BSM2F

		Pressure switch		Tank	
		1	2	membrane	Vessel
Model	P2	Start/Stop			
	kW	bar		litri	
BSM2F 2 MXHM 203E	0.37 X2	2 - 2.8	1.7 - 2.5	24X2	100
BSM2F 2 MXHM 204/A	0.55 X2	3 - 3.9	2.7 - 3.6	24X2	100
BSM2F 2 MXHM 205/A	0.75 X2	3.3 - 4.9	3.1 - 4.6	24X2	100
BSM2F 2 MXHM 206	1.1 X2	4.3 - 5.9	4 - 5.6	60	100
BSM2F 2 MXHM 403/A	0.55 X2	1.9 - 2.7	1.6 - 2.4	80	200
BSM2F 2 MXHM 404/A	0.75 X2	2.9 - 3.7	2.6 - 3.4	100	200
BSM2F 2 MXHM 405	1.1 X2	3.2 - 4.7	2.9 - 4.4	100	200
BSM2F 2 MXHM 406	1.5 X2	4.1 - 5.7	3.8 - 5.4	150	200
BSM2F 2 MXHM 803	1.1 X2	2.1 - 2.9	1.8 - 2.6	200	500
BSM2F 2 MXHM 804	1.5 X2	3 - 3.9	2.7 - 3.6	300	500

230V 1~ power supply / 230V 1~ motor
Start and stop pressure controlled by pressure switches

BS. MXH

Variable speed pump units with frequency converter

BSM1V ..-EMT

		voltage	
		Mains Voltage	Motor
Model	P2	1 ~230 V	3 ~230 V
	kW	A	bar
BSM1V 1 MXH 204/A-EMT	0.55	6,3	2,8
BSM1V 1 MXH 205/B-EMT	0.75	7,4	3,5
BSM1V 1 MXH 206/C-EMT	1.1	10,6	4,6
BSM1V 1 MXH 403/A-EMT	0.55	6,3	2,8
BSM1V 1 MXH 404/B-EMT	0.75	7,4	3,5
BSM1V 1 MXH 405/C-EMT	1.1	10,6	4,6
BSM1V 1 MXH 406/A-EMT	1.5	14,6	6,2
BSM1V 1 MXH 803/A-EMT	1.1	10,6	4,6
BSM1V 1 MXH 804/A-EMT	1.5	14,6	6,2
BSM1V 1 MXH 805/B-EMT	1.8	17,6	8,3
BSM1V 1 MXH 1603/B-EMT	1.8	17,6	8,3

BSM1V ..-EMM

Model	P2
	kW
BSM1V 1 MXHM 204/A-EMM	0.55
BSM1V 1 MXHM 205/A-EMM	0.75
BSM1V 1 MXHM 206-EMM	1.1
BSM1V 1 MXHM 403/A-EMM	0.55
BSM1V 1 MXHM 404/A-EMM	0.75
BSM1V 1 MXHM 405-EMM	1.1
BSM1V 1 MXHM 803-EMM	1.1

BSM2V ..-EMT2

Model	P2
	kW
BSM2V 2 MXH 203E-EMT2	0.37 X2
BSM2V 2 MXH 204/A-EMT2	0.55 X2
BSM2V 2 MXH 205/B-EMT2	0.75 X2
BSM2V 2 MXH 206/C-EMT2	1.1 X2
BSM2V 2 MXH 403/A-EMT2	0.55 X2
BSM2V 2 MXH 404/B-EMT2	0.75 X2
BSM2V 2 MXH 405/C-EMT2	1.1 X2
BSM2V 2 MXH 406/A-EMT2	1.5 X2
BSM2V 2 MXH 803/A-EMT2	1.1 X2
BSM2V 2 MXH 804/A-EMT2	1.5 X2
BSM2V 2 MXH 805/B-EMT2	1.8 X2

BSM2V ..-EMT

		voltage	
		Mains Voltage	Motor
Model	P2	1 ~230 V	3 ~230 V
	kW	A	bar
BSM2V 2 MXH 204/A-EMT	0.55 X2	6,3 X 2	2,8 X 2
BSM2V 2 MXH 205/B-EMT	0.75 X2	7,4 X 2	3,5 X 2
BSM2V 2 MXH 206/C-EMT	1.1 X2	10,6 X 2	4,6 X 2
BSM2V 2 MXH 403/A-EMT	0.55 X2	6,3 X 2	2,8 X 2
BSM2V 2 MXH 404/B-EMT	0.75 X2	7,4 X 2	3,5 X 2
BSM2V 2 MXH 405/C-EMT	1.1 X2	10,6 X 2	4,6 X 2
BSM2V 2 MXH 406/A-EMT	1.5 X2	14,6 X 2	6,2 X 2
BSM2V 2 MXH 803/A-EMT	1.1 X2	10,6 X 2	4,6 X 2
BSM2V 2 MXH 804/A-EMT	1.5 X2	14,6 X 2	6,2 X 2
BSM2V 2 MXH 805/B-EMT	1.8 X2	17,6 X 2	8,3 X 2
BSM2V 2 MXH 1603/B-EMT	1.8 X2	17,6 X 2	8,3 X 2

BSM3V ..-EMT

		voltage	
		Mains Voltage	Motor
Model	P2	1 ~230 V	3 ~230 V
	kW	A	bar
BSM3V 3 MXH 203E-EMT	0.37 X3	4,9 X 3	2,4 X 3
BSM3V 3 MXH 204/A-EMT	0.55 X3	6,3 X 3	2,8 X 3
BSM3V 3 MXH 205/B-EMT	0.75 X3	7,4 X 3	3,5 X 3
BSM3V 3 MXH 206/C-EMT	1.1 X3	10,6 X 3	4,6 X 3
BSM3V 3 MXH 403/A-EMT	0.55 X3	6,3 X 3	2,8 X 3
BSM3V 3 MXH 404/B-EMT	0.75 X3	7,4 X 3	3,5 X 3
BSM3V 3 MXH 405/C-EMT	1.1 X3	10,6 X 3	4,6 X 3
BSM3V 3 MXH 406/A-EMT	1.5 X3	14,6 X 3	6,2 X 3
BSM3V 3 MXH 803/A-EMT	1.1 X3	10,6 X 3	4,6 X 3
BSM3V 3 MXH 804/A-EMT	1.5 X3	14,6 X 3	6,2 X 3
BSM3V 3 MXH 805/B-EMT	1.8 X3	17,6 X 3	8,3 X 3
BSM3V 3 MXH 1603/B-EMT	1.8 X3	17,6 X 3	8,3 X 3

BS2V ..-WALL

Model	P2
	kW
BS2V 2 MXH 405-WALL	0.75 X2
BS2V 2 MXH 406-WALL	1.1 X2
BS2V 2 MXH 805-WALL	1.8 X2

BS. MXH

Variable speed pump units with frequency converter

BSM2V ..-ITT

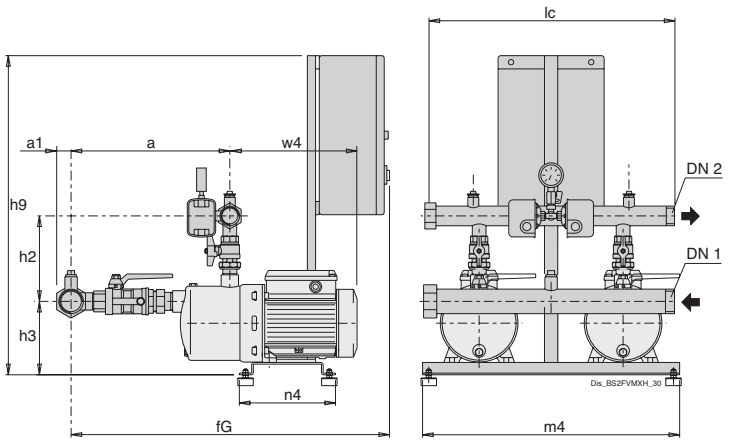
Model	P2
	kW
BS2V 2 MXH 204/A-ITT	0.55 X2
BS2V 2 MXH 205/B-ITT	0.75 X2
BS2V 2 MXH 206/C-ITT	1.1 X2
BS2V 2 MXH 403/A-ITT	0.55 X2
BS2V 2 MXH 404/B-ITT	0.75 X2
BS2V 2 MXH 405/C-ITT	1.1 X2
BS2V 2 MXH 406/A-ITT	1.5 X2
BS2V 2 MXH 803/A-ITT	1.1 X2
BS2V 2 MXH 804/A-ITT	1.5 X2
BS2V 2 MXH 805/B-ITT	1.8 X2
BS2V 2 MXH 1603/B-ITT	1.8 X2
BS2V 2 MXH 1604/A-ITT	3 X2
BS2V 2 MXH 1605/B-ITT	3.7 X2
BS2V 2 MXH 1606/B-ITT	4 X2
BS2V 2 MXH 2002/A-ITT	1.8 X2
BS2V 2 MXH 2003-ITT	3 X2
BS2V 2 MXH 2004/A-ITT	4 X2
BS2V 2 MXH 2005-ITT	5.5 X2
BS2V 2 MXH-F 3202/B-ITT	4 X2
BS2V 2 MXH-F 3203/A-ITT	5.5 X2
BS2V 2 MXH-F 3204/A-ITT	7.5 X2
BS2V 2 MXH-F 4802/A-ITT	5.5 X2
BS2V 2 MXH-F 4803/A-ITT	7.5 X2

BSM3V ..-ITT

Model	P2
	kW
BS3V 3 MXH 204/A-ITT	0.55 X3
BS3V 3 MXH 205/B-ITT	0.75 X3
BS3V 3 MXH 206/C-ITT	1.1 X3
BS3V 3 MXH 403/A-ITT	0.55 X3
BS3V 3 MXH 404/B-ITT	0.75 X3
BS3V 3 MXH 405/C-ITT	1.1 X3
BS3V 3 MXH 406/A-ITT	1.5 X3
BS3V 3 MXH 803/A-ITT	1.1 X3
BS3V 3 MXH 804/A-ITT	1.5 X3
BS3V 3 MXH 805/B-ITT	1.8 X3
BS3V 3 MXH 1603/B-ITT	1.8 X3
BS3V 3 MXH 1604/A-IT	1.8
BS3V 3 MXH 1605/B-ITT	3.7 X3
BS3V 3 MXH 1606/B-ITT	4 X3
BS3V 3 MXH 2002/A-ITT	1.8 X3
BS3V 3 MXH 2003-ITT	3 X3
BS3V 3 MXH 2004/A-ITT	4 X3
BS3V 3 MXH 2005-ITT	5.5 X3
BS3V 3 MXH-F 3202/B-ITT	4 X3
BS3V 3 MXH-F 3203/A-ITT	5.5 X3
BS3V 3 MXH-F 3204/A-ITT	7.5 X3
BS3V 3 MXH-F 4802/A-ITT	5.5 X3
BS3V 3 MXH-F 4803/A-ITT	7.5 X3

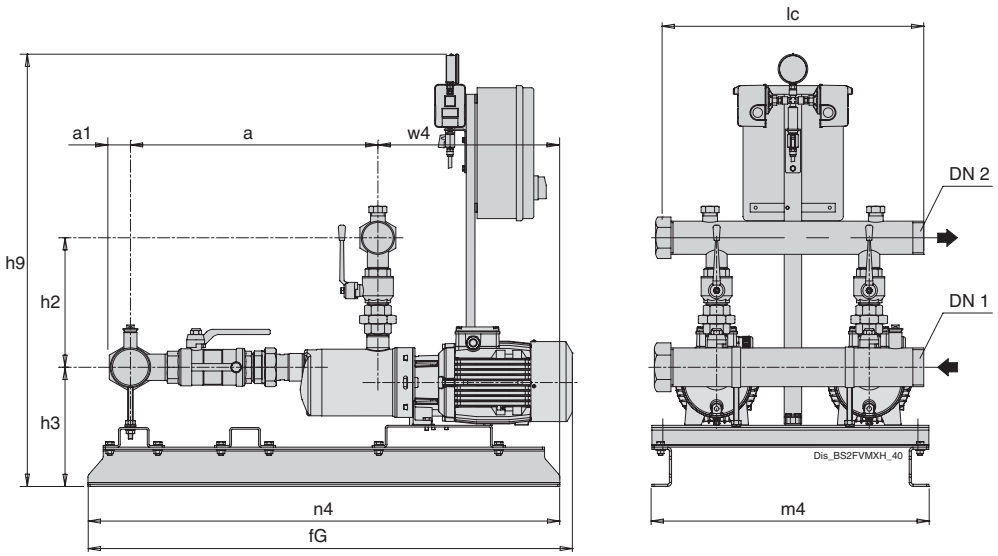
BS. MXH

Dimensions and weights



TYPE	Manifolds		mm								Kg
	DN1	DN2	a	fG	h2	h3	h9	lc	m4	n4	Weight
BS2F 2 MXH 203E	G 2	G 1 1/2	323	757	202	162	840	600	625	235	37.1
BS2F 2 MXH 204/A	G 2	G 1 1/2	347	-	202	162	840	600	625	235	42
BS2F 2 MXH 205/B	G 2	G 1 1/2	371	-	202	162	840	600	625	235	47.5
BS2F 2 MXH 206/C	G 2	G 1 1/2	395	829	202	162	840	600	625	235	57.5
BS2F 2 MXH 403/A	G 2	G 1 1/2	323	-	202	162	840	600	625	235	40.7
BS2F 2 MXH 404/B	G 2	G 1 1/2	347	-	202	162	840	600	625	235	-
BS2F 2 MXH 405/C	G 2	G 1 1/2	371	-	202	162	840	600	625	235	53.4
BS2F 2 MXH 406/A	G 2	G 1 1/2	395	-	202	162	840	600	625	235	59.4
BS2F 2 MXH 803/A	G 2 1/2	G 2	386	-	208	162	840	600	625	235	55.6
BS2F 2 MXH 804/A	G 2 1/2	G 2	416	-	208	162	840	600	625	235	60.5
BS2F 2 MXH 805/B	G 2 1/2	G 2	446	-	208	162	840	600	625	235	69

Non-binding dimensions to be checked when ordering
Anti-vibration kit supplied disassembled as standard
Missing dimensions on request

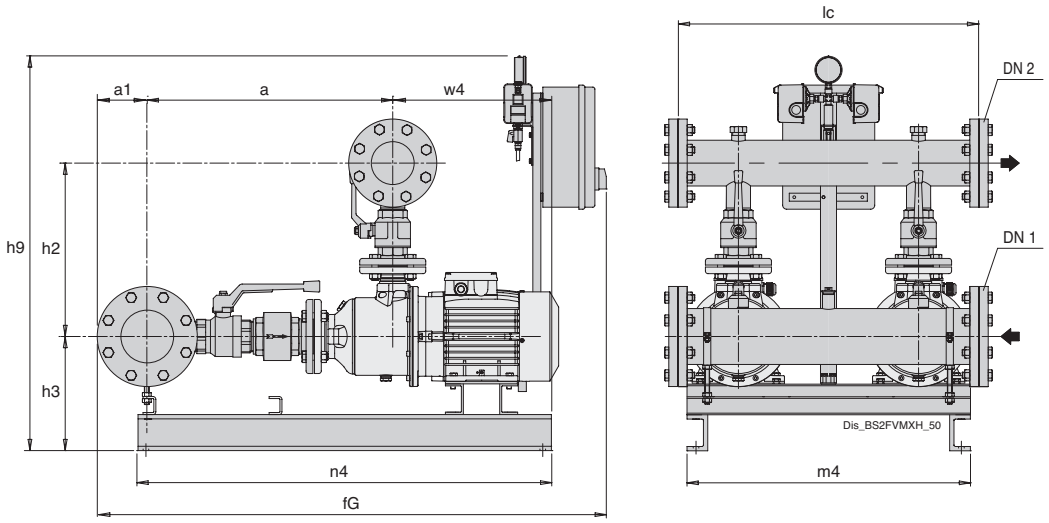


TYPE	Manifolds		mm							Kg
	DN1	DN2	a	h2	h3	h9	lc	m4	n4	Weight
BS2F 2 MXH 1602/A	G 3	G 2 1/2	490	281	258	1040	600	625	1090	94.4
BS2F 2 MXH 1603/B	G 3	G 2 1/2	490	281	258	1040	600	625	1090	101
BS2F 2 MXH 1604/A	G 3	G 2 1/2	530	281	273	1040	600	625	1090	120.3
BS2F 2 MXH 1605/B	G 3	G 2 1/2	565	281	273	1040	600	625	1090	127.5
BS2F 2 MXH 1606/B	G 3	G 2 1/2	605	281	273	1040	600	625	1090	131
BS2F 2 MXH 2002/A	G 3	G 2 1/2	484	351	220	1040	600	625	1090	107.5
BS2F 2 MXH 2003	G 3	G 2 1/2	503	351	230	1040	600	625	1090	107.5
BS2F 2 MXH 2004/A	G 3	G 2 1/2	537	351	230	1040	600	625	1090	134.5
BS2F 2 MXH 2005	G 3	G 2 1/2	572	351	252	1040	600	625	1090	107.5

Non-binding dimensions to be checked when ordering
Missing dimensions on request

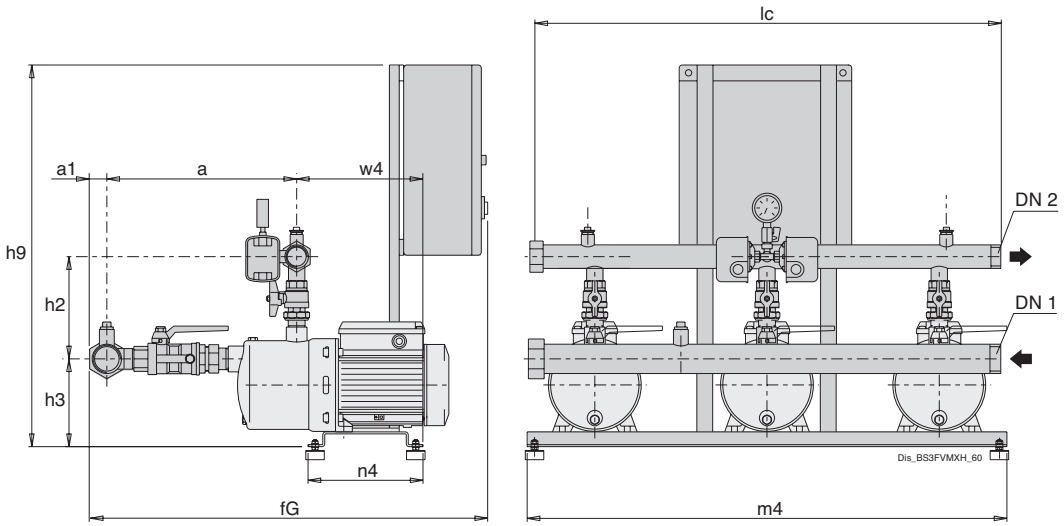
BS. MXH

Dimensions and weights



TYPE	Manifolds		mm										Kg
	DN1	DN2	a	fG	h2	h3	h9	l6	lc	m4	n4	w4	Weight
BS2F 2 MXH-F 3202/B	100	80	558	1091	402	298	1510	816	750	750	1175	393	-
BS2F 2 MXH-F 3203/A	100	80	604	1137	402	298	1510	816	750	750	1150	393	230
BS2F 2 MXH-F 3204/A	100	80	650	1183	402	298	1510	816	750	750	1175	393	277
BS2F 2 MXH-F 4802/A	125	100	654	-	402	298	1510	816	750	750	1175	408	107.5
BS2F 2 MXH-F 4803/A	125	100	716	-	402	298	1510	816	750	750	1220	408	230

Non-binding dimensions to be checked when ordering

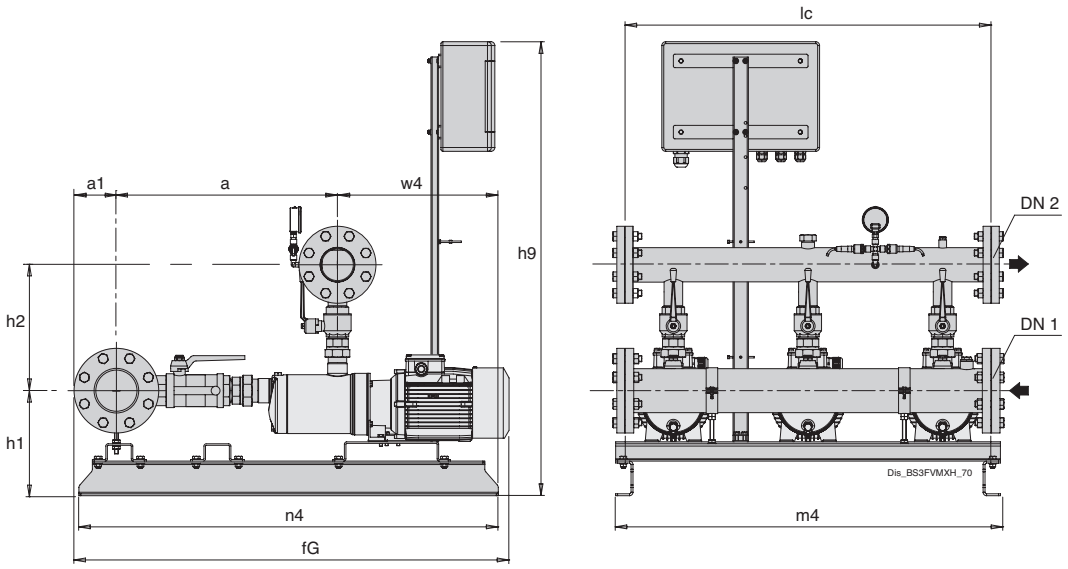


TYPE	Manifolds		mm								Kg
	DN1	DN2	a	a1	h2	h3	h9	lc	m4	n4	Weight
BS3F 3 MXH 203E	G 2 1/2	G 2	335	40	202	178	840	950	1000	305	-
BS3F 3 MXH 204/A	G 2 1/2	G 2	358	40	202	178	840	950	1000	305	-
BS3F 3 MXH 205/B	G 2 1/2	G 2	382	40	202	178	840	950	1000	305	76.8
BS3F 3 MXH 206/C	G 2 1/2	G 2	406	40	202	178	840	950	1000	305	-
BS3F 3 MXH 403/A	G 2 1/2	G 2	335	40	202	178	840	950	1000	305	-
BS3F 3 MXH 404/B	G 2 1/2	G 2	358	40	202	178	840	950	1000	305	-
BS3F 3 MXH 405/C	G 2 1/2	G 2	382	40	202	178	840	950	1000	305	96
BS3F 3 MXH 406/A	G 2 1/2	G 2	406	40	202	178	840	950	1000	305	102.5
BS3F 3 MXH 803/A	G 3	G 2 1/2	428	48	208	178	840	950	1000	305	111.5
BS3F 3 MXH 804/A	G 3	G 2 1/2	458	48	208	178	840	950	1000	305	-
BS3F 3 MXH 805/B	G 3	G 2 1/2	488	48	208	178	840	950	1000	305	-

Non-binding dimensions to be checked when ordering
Anti-vibration kit supplied disassembled as standard

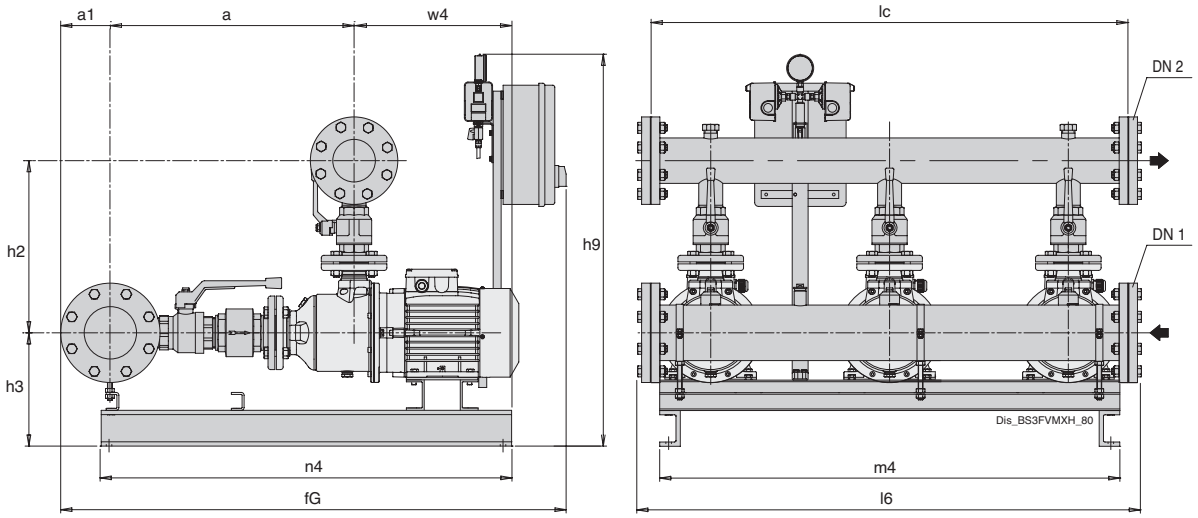
BS. MXH

Dimensions and weights



TYPE	Manifolds		mm								Kg
	DN1	DN2	a	a1	h1	h2	h9	lc	m4	n4	Weight
BS3F 3 MXH 1602/A	100	80	500	110	258	327	1060	950	1000	1090	-
BS3F 3 MXH 1603/B	100	80	500	110	258	327	1060	950	1000	1090	-
BS3F 3 MXH 1604/A	100	80	538	110	273	327	1060	950	1000	1090	-
BS3F 3 MXH 1605/B	100	80	575	110	273	327	1060	950	1000	1090	-
BS3F 3 MXH 1606/B	100	80	613	110	273	327	1060	950	1000	1090	228.5
BS3F 3 MXH 2002/A	100	80	499	110	290	398	1060	950	1000	1090	-
BS3F 3 MXH 2003	100	80	518	110	290	398	1060	950	1000	1090	-
BS3F 3 MXH 2004/A	100	80	553	110	290	398	1060	950	1000	1090	-
BS3F 3 MXH 2005	100	80	587	110	252	398	1060	950	1000	1090	-

Non-binding dimensions to be checked when ordering

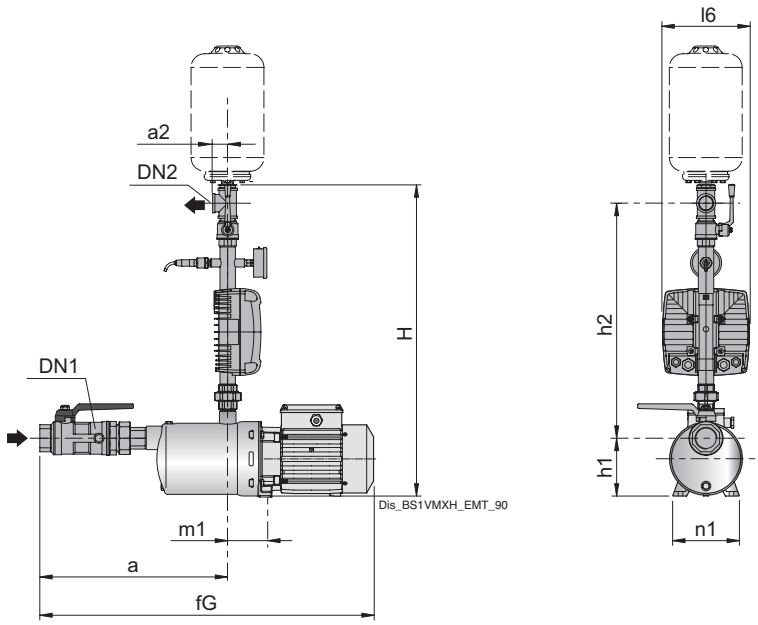


TYPE	Manifolds		mm							
	DN1	DN2	a	a1	h2	h3	h9	lc	m4	n4
BS3F 3 MXH-F 3202/B	125	100	565	125	415	318	1510	1200	1150	1175
BS3F 3 MXH-F 3203/B	125	100	617	125	415	318	1510	1200	1150	1060
BS3F 3 MXH-F 3204/A	125	100	660	125	415	318	1510	1200	1150	1175
BS3F 3 MXH-F 4802/A	150	125	665	142.5	465	318	1510	1200	1150	1175
BS3F 3 MXH-F 4803/A	150	125	725	142.5	465	318	1510	1200	1150	1220

Non-binding dimensions to be checked when ordering

BS. MXH

Dimensions and weights



TYPE	Manifolds		mm								Kg
	DN1	DN2	a	fG	H	h1	h2	l6	m1	n1	Weight
BSM1V 1 MXH 203E-EMT	G 1 1/4	G 1	274	511	708	127	516	165	88	146	14
BSM1V 1 MXH 204/A-EMT	G 1 1/4	G 1	298	561	708	127	516	165	88	146	16.8
BSM1V 1 MXH 205/B-EMT	G 1 1/4	G 1	322	585	708	127	516	165	88	146	18.3
BSM1V 1 MXH 206/C-EMT	G 1 1/4	G 1	346	609	708	127	516	165	88	146	23.9
BSM1V 1 MXH 403/A-EMT	G 1 1/4	G 1	274	537	708	127	516	165	88	146	16.1
BSM1V 1 MXH 404/B-EMT	G 1 1/4	G 1	298	561	708	127	516	165	88	146	19
BSM1V 1 MXH 405/C-EMT	G 1 1/4	G 1	322	585	708	127	516	165	88	146	22.1
BSM1V 1 MXH 406/A-EMT	G 1 1/4	G 1	346	680	708	127	516	165	88	146	25.4
BSM1V 1 MXH 803/A-EMT	G 1 1/2	G 1	323	657	708	127	516	165	88	146	23.3
BSM1V 1 MXH 804/A-EMT	G 1 1/2	G 1	353	687	708	127	516	165	88	146	25.1
BSM1V 1 MXH 805/B-EMT	G 1 1/2	G 1	383	717	708	127	516	165	88	146	29.3
BSM1V 1 MXH 1603/B-EMT	G 2	G 1 1/2	404	752	750	117	560	165	101	146	32.8

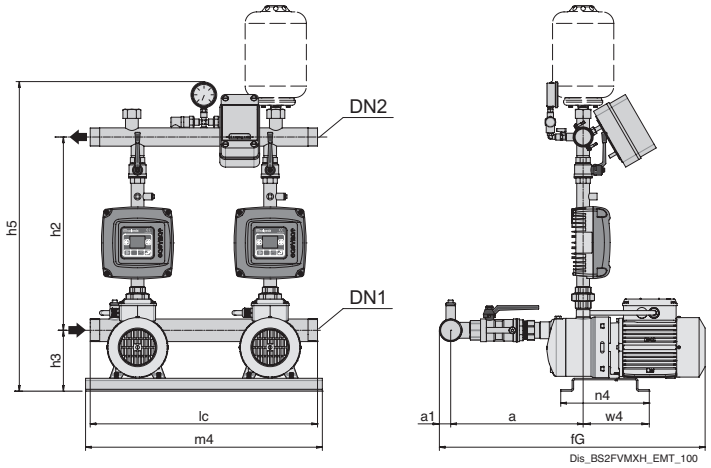
Non-binding dimensions to be checked when ordering

TYPE	Manifolds		mm								Kg
	DN1	DN2	a	fG	H	h1	h2	l6	m1	n1	Weight
BSM1V 1 MXHM 203E-EMM	G 1 1/4	G 1	274	511	708	127	516	165	88	146	14
BSM1V 1 MXHM 204/A-EMM	G 1 1/4	G 1	298	561	708	127	516	165	88	146	17.6
BSM1V 1 MXHM 205/A-EMM	G 1 1/4	G 1	322	585	708	127	516	165	88	146	18.8
BSM1V 1 MXHM 206-EMM	G 1 1/4	G 1	346	609	708	127	516	165	88	146	24
BSM1V 1 MXHM 403/A-EMM	G 1 1/4	G 1	274	537	708	127	516	165	88	146	16.6
BSM1V 1 MXHM 404/A-EMM	G 1 1/4	G 1	298	561	708	127	516	165	88	146	19
BSM1V 1 MXHM 405-EMM	G 1 1/4	G 1	322	585	708	127	516	165	88	146	24.3
BSM1V 1 MXHM 803-EMM	G 1 1/2	G 1	323	657	708	127	516	165	88	146	24

Non-binding dimensions to be checked when ordering

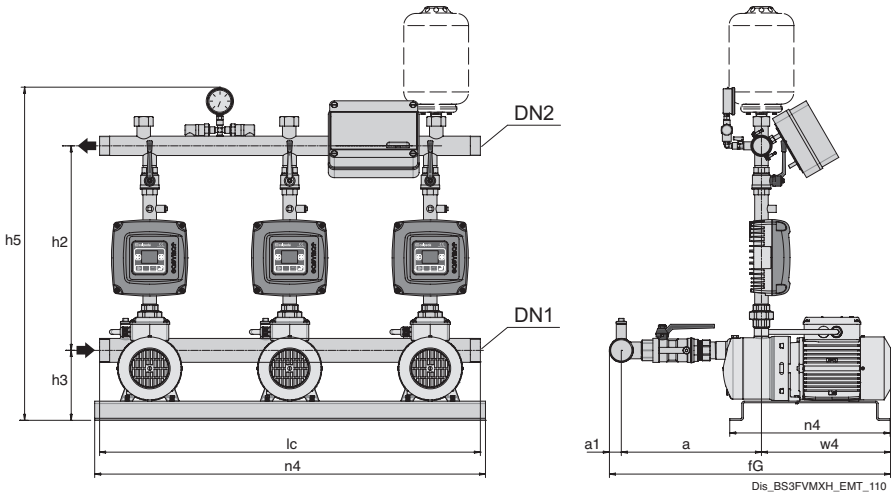
BS. MXH

Dimensions and weights



TYPE	Manifolds		mm									Kg
	DN1	DN2	a	fG	h2	h3	h5	lc	m4	n4	w4	Weight
BSM2V 2 MXH 203E-EMT	G 2	G 1 1/2	323	617	486	162	800	600	625	240	213	37
BSM2V 2 MXH 204/A-EMT	G 2	G 1 1/2	347	641	486	162	800	600	625	240	213	43.1
BSM2V 2 MXH 205/B-EMT	G 2	G 1 1/2	371	665	486	162	800	600	625	240	213	49
BSM2V 2 MXH 206/C-EMT	G 2	G 1 1/2	395	689	486	162	800	600	625	240	213	56.5
BSM2V 2 MXH 403/A-EMT	G 2	G 1 1/2	323	617	486	162	800	600	625	240	213	42
BSM2V 2 MXH 404/B-EMT	G 2	G 1 1/2	347	641	486	162	800	600	625	240	213	44.2
BSM2V 2 MXH 405/C-EMT	G 2	G 1 1/2	371	665	486	162	800	600	625	240	213	54.1
BSM2V 2 MXH 406/A-EMT	G 2	G 1 1/2	395	689	486	162	800	600	625	240	213	61
BSM2V 2 MXH 803/A-EMT	G 2 1/2	G 2	386	-	492	162	806	600	625	240	-	55.8
BSM2V 2 MXH 804/A-EMT	G 2 1/2	G 2	416	-	492	162	806	600	625	240	-	62.7
BSM2V 2 MXH 805/B-EMT	G 2 1/2	G 2	446	-	492	162	806	600	625	240	-	68.7
BSM2V 2 MXH 1603/B-EMT	G 3	G 2 1/2	490	1090	563	258	975	600	625	1090	478	102.5

Non-binding dimensions to be checked when ordering

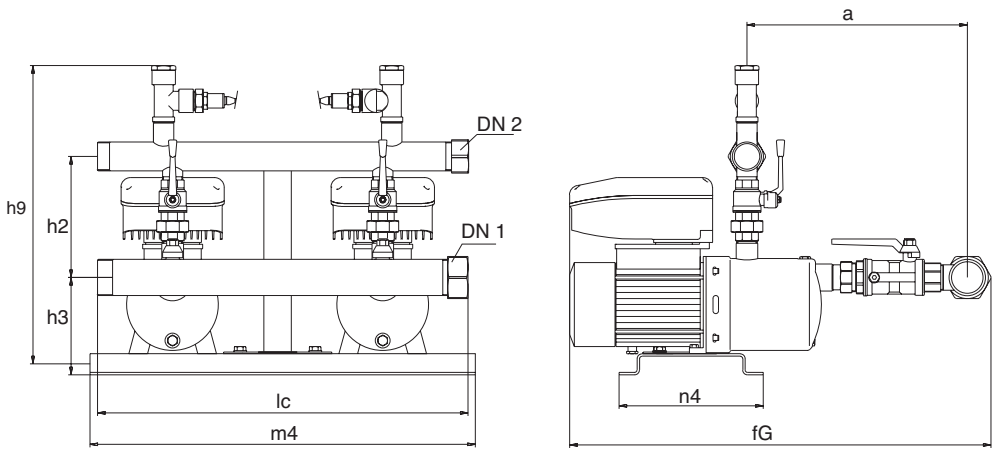


TYPE	Manifolds		mm								Kg
	DN1	DN2	a	a1	h2	h3	h5	lc	m4	n4	Weight
BSM3V 3 MXH 203E-EMT	G 2 1/2	G 2	331	40	492	178	821	950	1000	305	62.1
BSM3V 3 MXH 204/A-EMT	G 2 1/2	G 2	355	40	492	178	821	950	1000	305	70.2
BSM3V 3 MXH 205/B-EMT	G 2 1/2	G 2	379	40	492	178	821	950	1000	305	77.6
BSM3V 3 MXH 206/C-EMT	G 2 1/2	G 2	403	40	492	178	821	950	1000	305	-
BSM3V 3 MXH 403/A-EMT	G 2 1/2	G 2	331	40	492	178	821	950	1000	305	67.8
BSM3V 3 MXH 404/B-EMT	G 2 1/2	G 2	355	40	492	178	821	950	1000	305	78.7
BSM3V 3 MXH 405/C-EMT	G 2 1/2	G 2	379	40	492	178	821	950	1000	305	89.5
BSM3V 3 MXH 406/A-EMT	G 2 1/2	G 2	403	40	492	178	821	950	1000	305	-
BSM3V 3 MXH 803/A-EMT	G 3	G 2 1/2	402	48	512	178	845	950	1000	305	92.3
BSM3V 3 MXH 804/A-EMT	G 3	G 2 1/2	432	48	512	178	845	950	1000	305	101
BSM3V 3 MXH 805/B-EMT	G 3	G 2 1/2	462	48	512	178	845	950	1000	305	115
BSM3V 3 MXH 1603/B-EMT	100	80	498	110	609	258	1136	1000	1000	1090	189

Non-binding dimensions to be checked when ordering

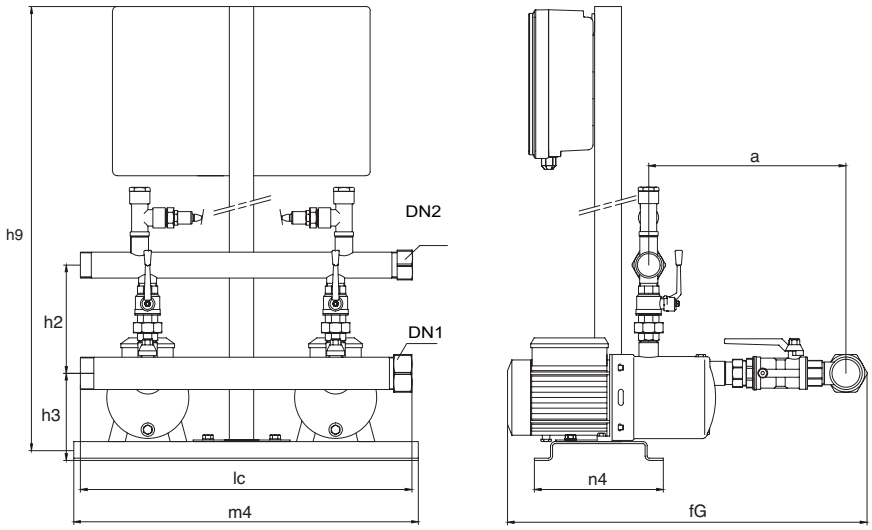
BS. MXH

Dimensions and weights



TYPE	Manifolds		mm								Kg
	DN1	DN2	a	fG	h1	h2	h9	lc	m4	n4	Weight
BSM2V 2 MXH 203E-EMT2	G 2	G 1 1/2	343	656	161	242	543	600	625	240	-
BSM2V 2 MXH 204/A-EMT2	G 2	G 1 1/2	367	647	161	242	543	600	625	240	-
BSM2V 2 MXH 205/B-EMT2	G 2	G 1 1/2	391	671	161	242	543	600	625	240	-
BSM2V 2 MXH 206/C-EMT2	G 2	G 1 1/2	415	790	161	242	543	600	625	240	-
BSM2V 2 MXH 403/A-EMT2	G 2	G 1 1/2	367	671	161	242	543	600	625	240	-
BSM2V 2 MXH 404/B-EMT2	G 2	G 1 1/2	367	671	161	242	543	600	625	240	-
BSM2V 2 MXH 405/C-EMT2	G 2	G 1 1/2	391	766	161	242	543	600	625	240	58
BSM2V 2 MXH 406/A-EMT2	G 2	G 1 1/2	415	790	161	242	543	600	625	240	76
BSM2V 2 MXH 803/A-EMT2	G 2 1/2	G 2	430	797	162	252	564	600	625	240	-
BSM2V 2 MXH 804/A-EMT2	G 2 1/2	G 2	460	827	162	252	564	600	625	240	100
BSM2V 2 MXH 805/B-EMT2	G 2 1/2	G 2	460	897	162	252	564	600	625	365	-

Non-binding dimensions to be checked when ordering

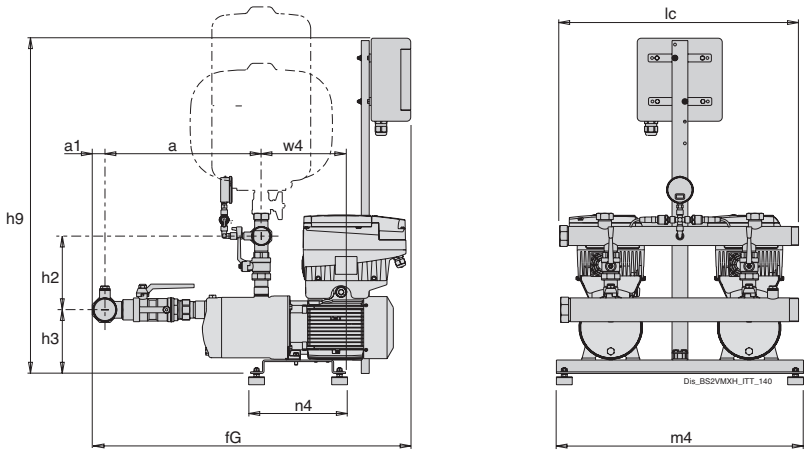


TYPE	Manifolds		mm							
	DN1	DN2	a	fG	h2	h3	h9	lc	m4	n4
BS2V 2 MXH 405-WALL	G 2	G 1 1/2	391	766	242	161	1034	600	625	240
BS2V 2 MXH 406-WALL	G 2	G 1 1/2	415	790	242	161	1034	600	625	240
BS2V 2 MXH 805-WALL	G 2 1/2	G 2	460	897	252	171	1034	600	625	365

Non-binding dimensions to be checked when ordering

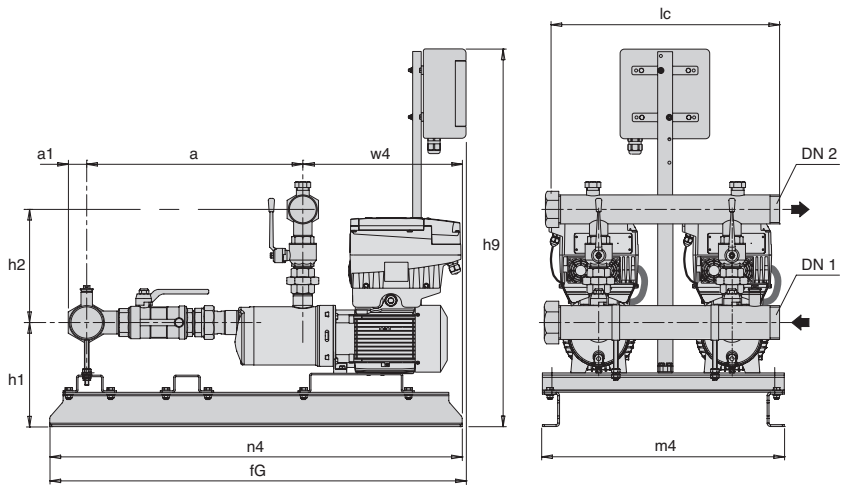
BS. MXH

Dimensions and weights



TYPE	Manifolds		mm										Kg
	DN1	DN2	a	a1	fG	h2	h3	h9	lc	m4	n4	w4	Weight
BS2V 2 MXH 204/A-ITT	G 2	G 1 1/2	347	32	758	187	162	848	600	625	235	218	53.2
BS2V 2 MXH 205/B-ITT	G 2	G 1 1/2	371	32	782	187	162	848	600	625	235	218	-
BS2V 2 MXH 206/C-ITT	G 2	G 1 1/2	395	32	806	187	162	848	600	625	235	218	67.7
BS2V 2 MXH 403/A-ITT	G 2	G 1 1/2	323	32	734	187	162	848	600	625	235	220	52
BS2V 2 MXH 404/B-ITT	G 2	G 1 1/2	347	32	758	187	162	848	600	625	235	220	56.7
BS2V 2 MXH 405/C-ITT	G 2	G 1 1/2	371	32	782	187	162	848	600	625	235	220	66.2
BS2V 2 MXH 406/A-ITT	G 2	G 1 1/2	395	32	806	187	162	848	600	625	235	220	69.7
BS2V 2 MXH 803/A-ITT	G 2 1/2	G 2	386	40	797	193	162	848	600	625	235	220	67.4
BS2V 2 MXH 804/A-ITT	G 2 1/2	G 2	416	40	827	193	162	848	600	625	235	220	72.3
BS2V 2 MXH 805/B-ITT	G 2 1/2	G 2	446	40	857	193	162	848	600	625	235	220	80

Non-binding dimensions to be checked when ordering
Anti-vibration kit supplied disassembled as standard

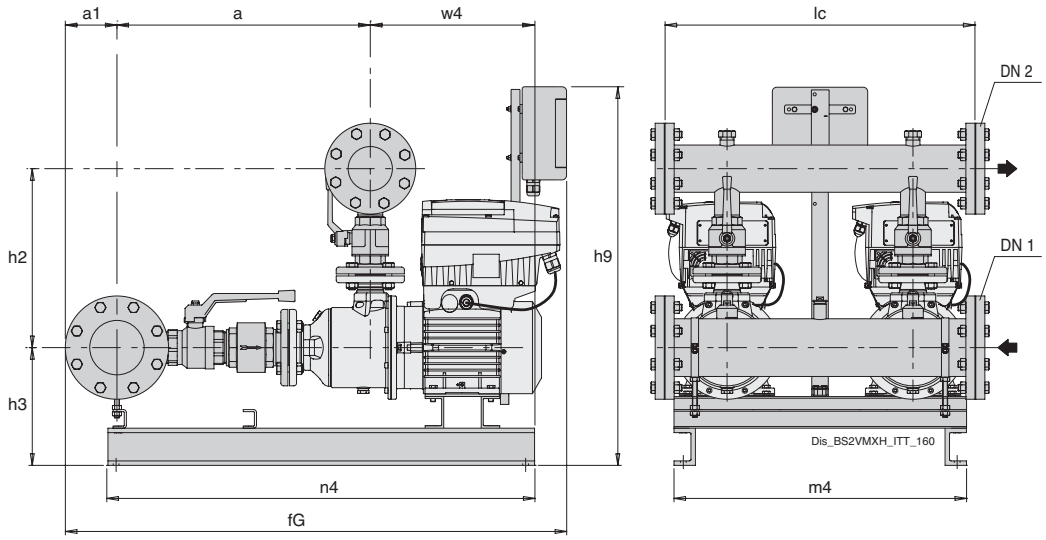


TYPE	Manifolds		mm										Kg
	DN1	DN2	a	a1	fG	h1	h2	h9	lc	m4	n4	w4	Weight
BS2V 2 MXH 1603/B-ITT	G 3	G 2 1/2	490	48	1090	258	283	980	600	625	1090	478	110
BS2V 2 MXH 1604/A-ITT	G 3	G 2 1/2	530	48	1100	273	273	980	600	625	1090	-	133
BS2V 2 MXH 1605/B-ITT	G 3	G 2 1/2	565	48	1133	273	273	980	600	625	1090	-	141.7
BS2V 2 MXH 1606/B-ITT	G 3	G 2 1/2	605	48	1192	273	273	980	600	625	1090	-	143
BS2V 2 MXH 2002/A-ITT	G 3	G 2 1/2	484	48	1170	290	220	980	600	625	1090	-	-
BS2V 2 MXH 2003-ITT	G 3	G 2 1/2	503	48	1170	290	230	980	600	625	1090	-	138.5
BS2V 2 MXH 2004/A-ITT	G 3	G 2 1/2	537	48	1195	290	230	980	600	625	1090	-	147.3
BS2V 2 MXH 2005-ITT	G 3	G 2 1/2	572	48	1245	252	252	980	600	625	1090	-	173

Non-binding dimensions to be checked when ordering

BS. MXH

Dimensions and weights

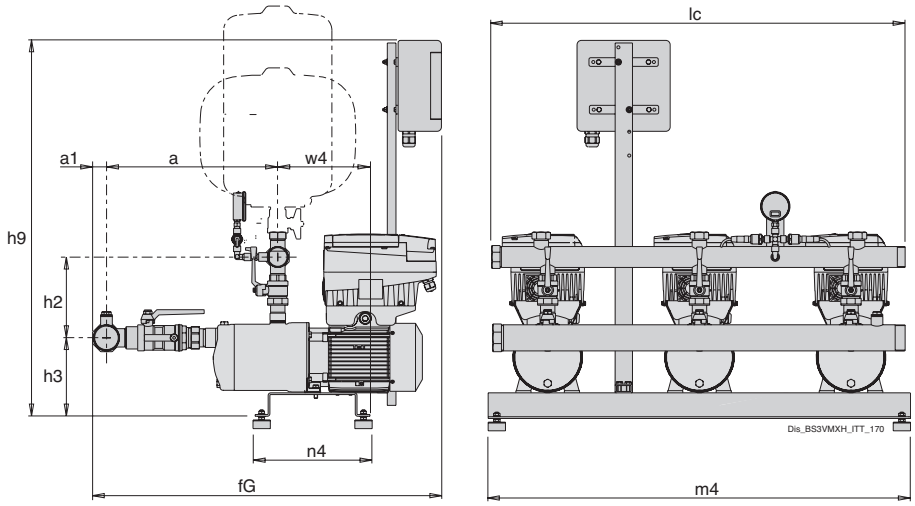


TYPE	Manifolds		mm									Kg
	DN1	DN2	a	a1	fG	h2	h3	h9	lc	m4	n4	Weight
BS2V 2 MXH-F 3202/B-ITT	100	80	558	110	1180	402	298	1225	750	750	1010	224.8
BS2V 2 MXH-F 3203/A-ITT	100	80	604	110	1274	402	298	1225	750	750	1050	244
BS2V 2 MXH-F 3204/A-ITT	100	80	650	110	1320	402	298	1225	750	750	1110	-
BS2V 2 MXH-F 4802/A-ITT	125	100	654	125	1306	468	298	1225	750	750	1065	-
BS2V 2 MXH-F 4803/A-ITT	125	100	716	125	1367	468	298	1225	750	750	1110	-

Non-binding dimensions to be checked when ordering

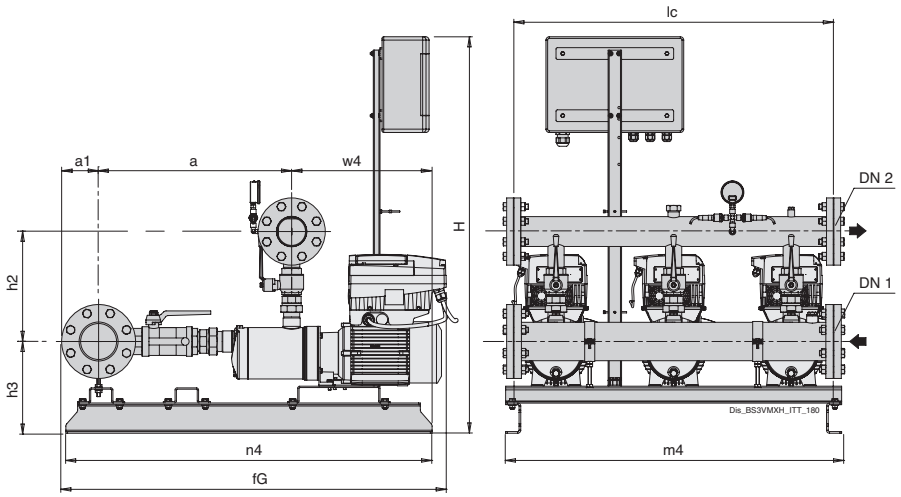
BS. MXH

Dimensions and weights



TYPE	Manifolds		mm									Kg
	DN1	DN2	a	a1	fG	h2	h3	h9	lc	m4	n4	Weight
BS3V 3 MXH 204/A-ITT	G 2 1/2	G 2	356	40	857	193	178	913	950	1000	423	-
BS3V 3 MXH 205/B-ITT	G 2 1/2	G 2	380	40	881	193	178	913	950	1000	423	-
BS3V 3 MXH 206/C-ITT	G 2 1/2	G 2	404	40	905	193	178	913	950	1000	423	106
BS3V 3 MXH 403/A-ITT	G 2 1/2	G 2	332	40	833	193	178	913	950	1000	423	-
BS3V 3 MXH 404/B-ITT	G 2 1/2	G 2	356	40	857	193	178	913	950	1000	423	-
BS3V 3 MXH 405/C-ITT	G 2 1/2	G 2	390	40	881	193	178	913	950	1000	423	101.4
BS3V 3 MXH 406/A-ITT	G 2 1/2	G 2	404	40	905	193	178	913	950	1000	423	-
BS3V 3 MXH 803/A-ITT	G 3	G 2 1/2	404	48	905	193	178	913	950	1000	423	-
BS3V 3 MXH 804/A-ITT	G 3	G 2 1/2	432	48	933	193	178	913	950	1000	423	114
BS3V 3 MXH 805/B-ITT	G 3	G 2 1/2	449	48	950	193	178	913	950	1000	423	125.5

Non-binding dimensions to be checked when ordering
Anti-vibration kit supplied disassembled as standard

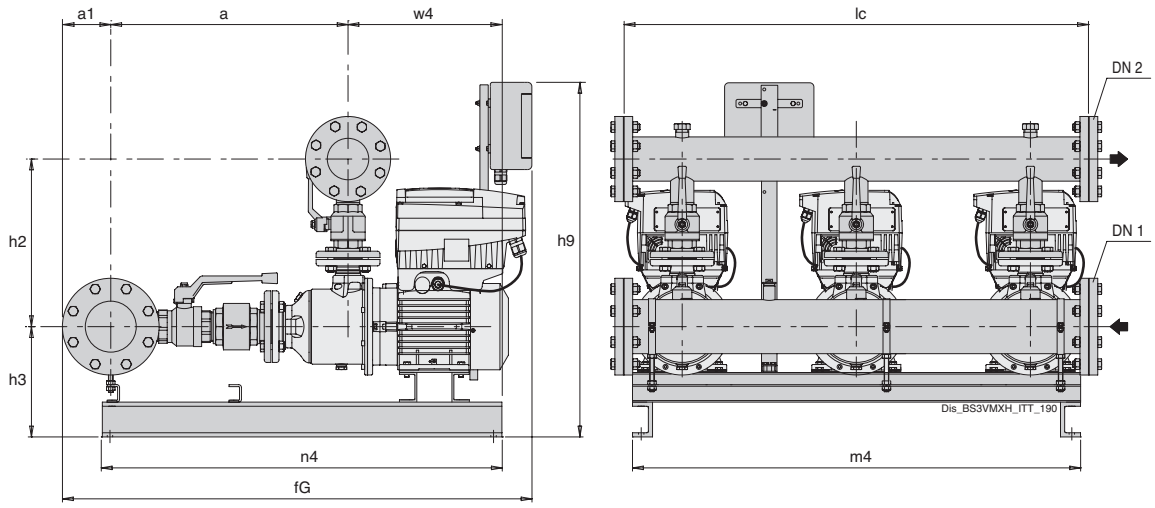


TYPE	Manifolds		mm									Kg
	DN1	DN2	a	a1	fG	h2	h3	h9	lc	m4	n4	Weight
BS3V 3 MXH 1603/B-ITT	100	80	500	110	1100	321	258	980	950	1000	1090	201
BS3V 3 MXH 1604/A-IT	100	80	538	110	1135	321	273	980	950	1000	1090	233
BS3V 3 MXH 1605/B-ITT	100	80	575	110	1171	321	273	980	950	1000	1090	-
BS3V 3 MXH 1606/B-ITT	100	80	613	110	1231	321	273	980	950	1000	1090	250.8
BS3V 3 MXH 2002/A-ITT	100	80	499	110	1170	391	290	980	950	1000	1090	-
BS3V 3 MXH 2003-ITT	100	80	518	110	1170	391	290	980	950	1000	1090	-
BS3V 3 MXH 2004/A-ITT	100	80	553	110	1230	391	290	980	950	1000	1090	-
BS3V 3 MXH 2005-ITT	100	80	587	110	1245	391	252	980	950	1000	1090	-

Non-binding dimensions to be checked when ordering

BS. MXH

Dimensions and weights



TYPE	Manifolds		mm									Kg
	DN1	DN2	a	a1	fG	h2	h3	h9	lc	m4	n4	Weight
BS3V 3 MXH-F 3202/B-ITT	125	100	571	125	1180	415	318	1246	1200	1150	1065	-
BS3V 3 MXH-F 3203/A-ITT	125	100	617	125	1096	415	318	1246	1200	1150	1060	365
BS3V 3 MXH-F 3204/A-ITT	125	100	663	125	1320	415	318	1246	1200	1150	1110	-
BS3V 3 MXH-F 4802/A-ITT	150	125	668	142.5	1320	480	316	1246	1200	1150	1065	-
BS3V 3 MXH-F 4803/A-ITT	150	125	750	142.5	1381	480	316	1246	1200	1150	1110	-

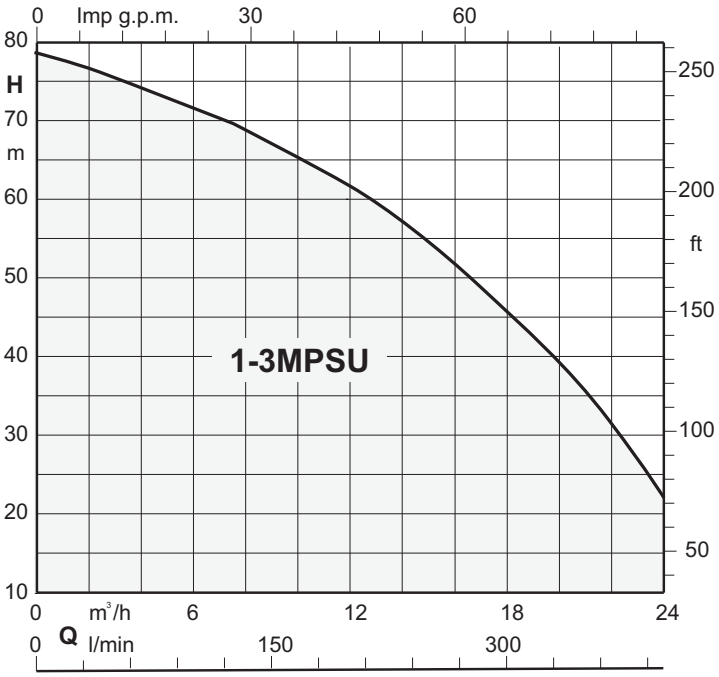
Non-binding dimensions to be checked when ordering

BS. MPSU

Pressure units with 1 to 3 multi-stage vertical, fixed or variable speed pumps (INVERTER)



Coverage chart



Fixed speed units

BS 2-6F Pressure boosting sets with 2 to 6 fixed speed pump.
Sets with 4,5 and 6 pumps on request.
Depending on the reduction of the pressure in the system, the pressure switches (pressure transducer for 3-pump sets) determine the starting up of the pumps in sequence and the microprocessor alternates the starts.

Variable speed units with EASYMAT

BS1-3V Pressure boosting sets with 1 to 3 variable speed pumps (with EASYMAT).
Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

Construction

Automatic pressure boosting plant consisting of 1 to 6 vertical multistage pumps complete with ball, non return valve on the suction side and ball valves on the delivery side.
Suction and delivery manifolds for boosting sets with 2,3 pumps in stainless steel AISI 304.
Connections are located on the delivery manifold for the installation of vessels G1 connection.
Electrical control boards:

- with microprocessor for fixed speed pump units. Motor starting is D.O.L. up to 5,5 kW and Y/Δ for power rating 7,5 kW.
- - with frequency converter for variable speed pump units.

The unit includes one pressure gauge and three adjustable differential pressure switches or pressure transducer.

Applications

To supply water in civil and industrial buildings.
For increasing network pressure (follow local specifications).

Motor

2-pole induction motors, 50 Hz, n ≈ 2900 1/min.
Three-phase 230V - 400V ± 10%;
Single-phase 230 V ± 10%.
Insulation class F.
Protection IP 68.
Constructed in accordance with IEC 60034.
Other voltages and frequencies on request.

Vessels on request

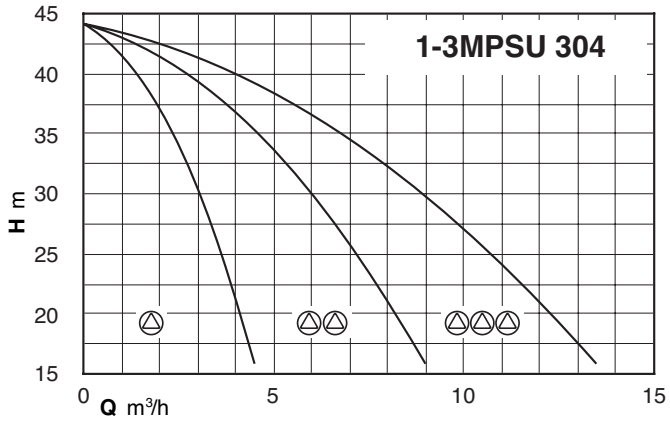
When installing the unit, connect in the delivery section to a diaphragm or galvanised tank.
The recommended sized are shown in the following page.

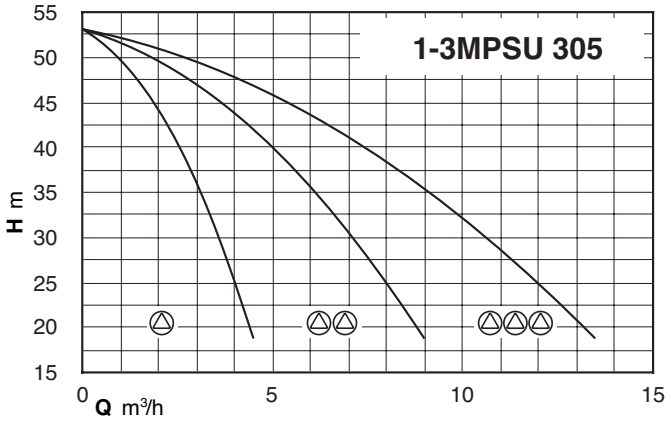
Special features on request

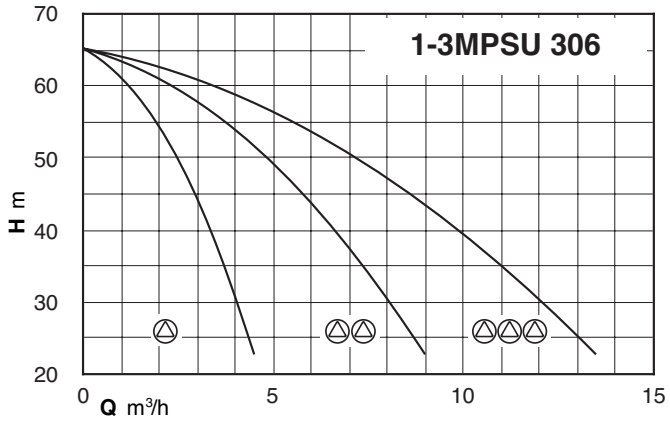
Pressure unit with 4, 5 and 6 pumps

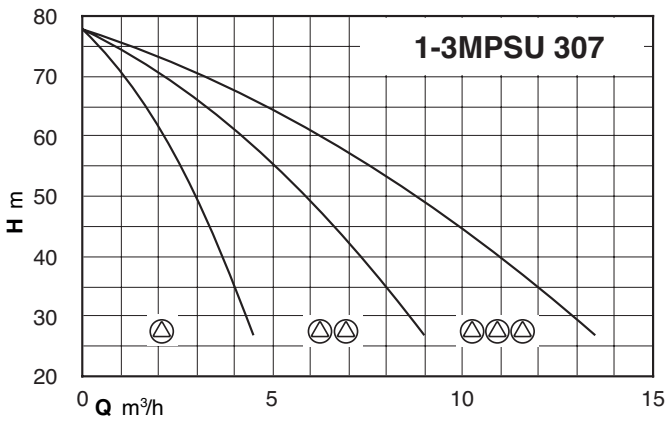
BS. MPSU

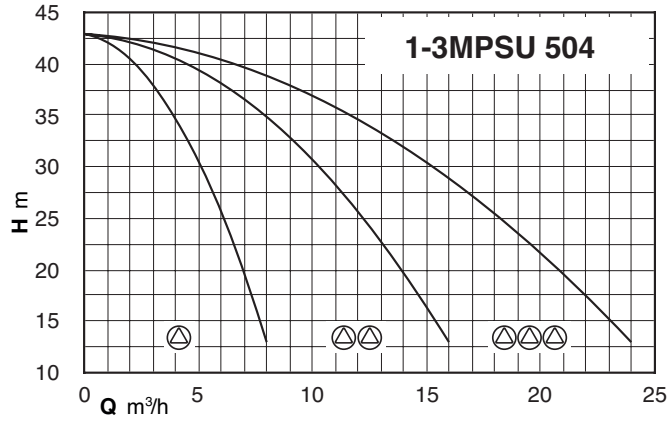
Characteristic curves

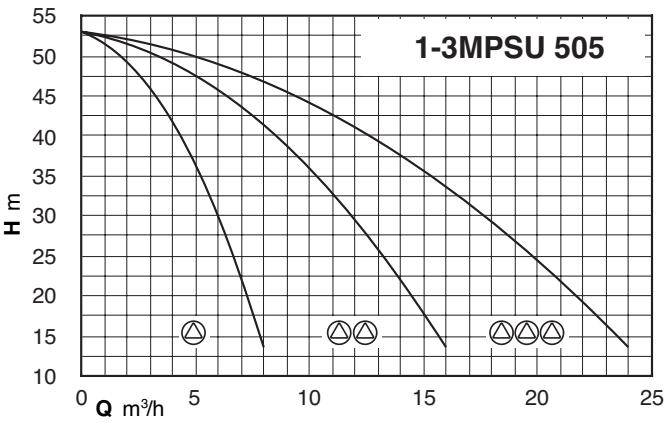


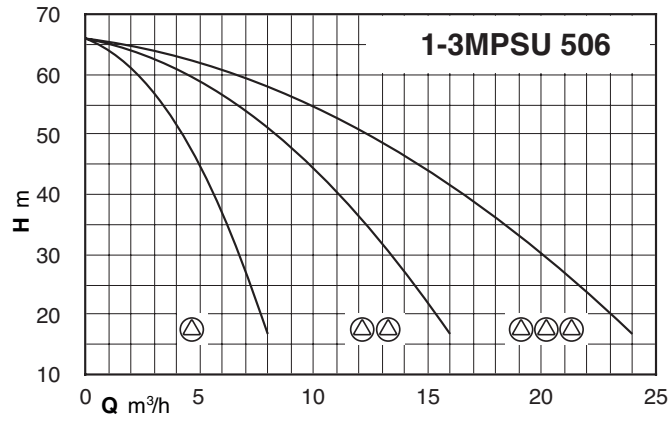


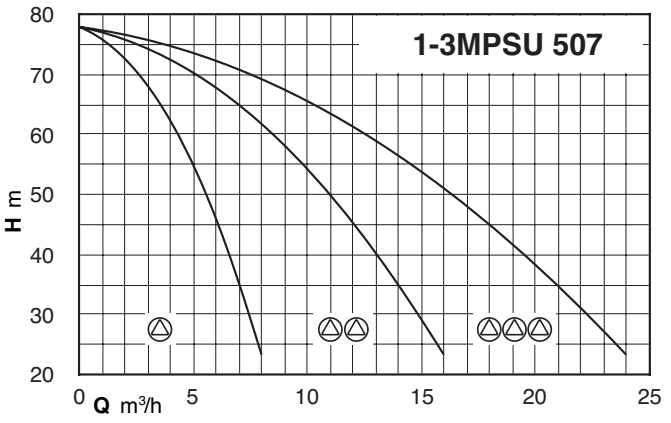












BS. MPSU

Fixed speed pump units

BS2F

		Pressure switch		Tank	
		1	2	membrane	Vessel
Model	P2	Start/Stop			
	kW	bar		litri	
BS2F 2 MPSU 304	0.55 X2	1.8 - 2.6	1.5 - 2.3	24X2	100
BS2F 2 MPSU 305	0.75 X2	2.3 - 3.1	2 - 2.8	24X2	100
BS2F 2 MPSU 306	0.9 X2	3 - 3.9	2.7 - 3.6	24X2	100
BS2F 2 MPSU 307	0.9 X2	2.9 - 4.4	2.6 - 4.1	24X2	100
BS2F 2 MPSU 504	0.9 X2	2.7 - 3.5	2.4 - 3.2	150	200
BS2F 2 MPSU 505	1.1 X2	3.4 - 4.3	3.1 - 4	150	200
BS2F 2 MPSU 506	1.1 X2	3.6 - 5.2	3.4 - 4.9	150	200
BS2F 2 MPSU 507	1.5 X2	4.6 - 6.3	4.3 - 6	150	200

400V 3~ power supply / 400V 3~ motor
Start and stop pressure controlled by pressure switches

BSM2F

		Pressure switch		Tank	
		1	2	membrane	Vessel
Model	P2	Start/Stop			
	kW	bar		litri	
BSM2F 2 MPSUM 304	0.55 X2	1.8 - 2.6	1.5 - 2.3	24X2	100
BSM2F 2 MPSUM 305	0.75 X2	2.3 - 3.1	2 - 2.8	24X2	100
BSM2F 2 MPSUM 306	0.9 X2	3 - 3.9	2.7 - 3.6	24X2	100
BSM2F 2 MPSUM 307	0.9 X2	2.9 - 4.4	2.6 - 4.1	24X2	100
BSM2F 2 MPSUM 504	0.9 X2	2.7 - 3.5	2.4 - 3.2	150	200
BSM2F 2 MPSUM 505	1.1 X2	3.4 - 4.3	3.1 - 4	150	200
BSM2F 2 MPSUM 506	1.1 X2	3.6 - 5.2	3.4 - 4.9	150	200
BSM2F 2 MPSUM 507	1.5 X2	4.6 - 6.3	4.3 - 6	150	200

230V 1~ power supply / 230V 1~ motor
Start and stop pressure controlled by pressure switches

BS3F

		Transducer	Tank	
		1	membrane	Vessel
Model	P2	Start/Stop		
	kW	bar	litri	
BS3F 3 MPSU 304	0.55 X3	1.8 - 2.6	24X2	100
BS3F 3 MPSU 305	0.75 X3	2.3 - 3.1	24X2	100
BS3F 3 MPSU 306	0.9 X3	3 - 3.9	24X2	100
BS3F 3 MPSU 307	0.9 X3	2.9 - 4.4	24X2	100
BS3F 3 MPSU 504	0.9 X3	2.7 - 3.5	150	200
BS3F 3 MPSU 505	1.1 X3	3.4 - 4.3	150	200
BS3F 3 MPSU 506	1.1 X3	3.6 - 5.2	150	200
BS3F 3 MPSU 507	1.5 X3	4.6 - 6.3	150	200

400V 3~ power supply / 400V 3~ motor
Start and stop pressure controlled by a pressure transducer

BS. MPSU

Variable speed pump units with frequency converter

BSM1V ..-EMT

		voltage	
		Mains Voltage	Motor
Model	P2	1 ~230 V	3 ~230 V
	kW	A	bar
BSM1V 1 MPSU 304-EMT	0.55	6,5	2,8
BSM1V 1 MPSU 305-EMT	0.75	7,7	3,3
BSM1V 1 MPSU 306-EMT	0.9	8,8	3,8
BSM1V 1 MPSU 307-EMT	0.9	10,5	4,5
BSM1V 1 MPSU 504-EMT	0.9	8,7	3,8
BSM1V 1 MPSU 505-EMT	1.1	10,9	4,5
BSM1V 1 MPSU 506-EMT	1.1	11,3	4,8
BSM1V 1 MPSU 507-EMT	1.5	14,6	6,9

BSM2V ..-EMT

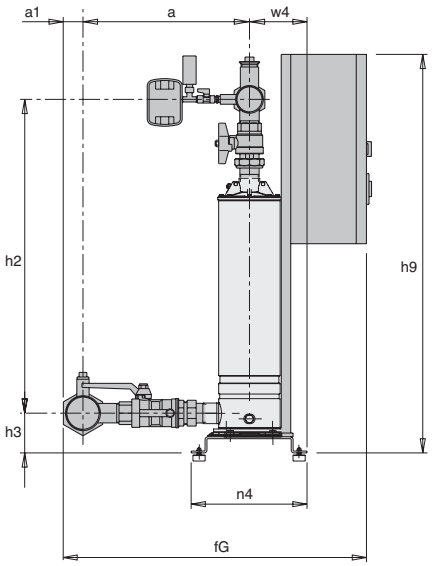
		voltage	
		Mains Voltage	Motor
Model	P2	1 ~230 V	3 ~230 V
	kW	A	bar
BSM2V 2 MPSU 304-EMT	0.55 X2	6,5 X 2	2,8 X 2
BSM2V 2 MPSU 305-EMT	0.75 X2	7,7 X 2	3,3 X 2
BSM2V 2 MPSU 306-EMT	0.9 X2	8,8 X 2	3,8 X 2
BSM2V 2 MPSU 307-EMT	0.9 X2	10,5 X 2	4,5 X 2
BSM2V 2 MPSU 504-EMT	0.9 X2	8,7 X 2	3,8 X 2
BSM2V 2 MPSU 505-EMT	1.1 X2	10,9 X 2	4,5 X 2
BSM2V 2 MPSU 506-EMT	1.1 X2	11,3 X 2	4,8 X 2
BSM2V 2 MPSU 507-EMT	1.5 X2	14,6 X 2	6,9 X 2

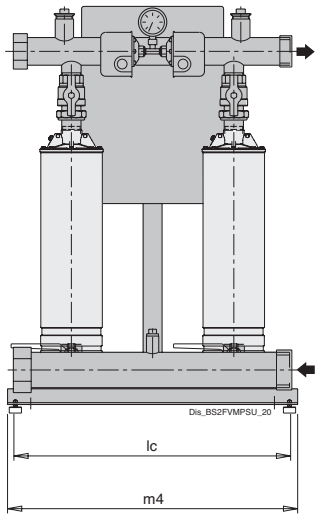
BSM3V ..-EMT

		voltage	
		Mains Voltage	Motor
Model	P2	1 ~230 V	3 ~230 V
	kW	A	bar
BSM3V 3 MPSU 304-EMT	0.55 X3	6,5 X 3	2,8 X 3
BSM3V 3 MPSU 305-EMT	0.75 X3	7,7 X 3	3,3 X 3
BSM3V 3 MPSU 306-EMT	0.9 X3	8,8 X 3	3,8 X 3
BSM3V 3 MPSU 307-EMT	0.9 X3	10,5 X 3	4,5 X 3
BSM3V 3 MPSU 504-EMT	0.9 X3	8,7 X 3	3,8 X 3
BSM3V 3 MPSU 505-EMT	1.1 X3	10,9 X 3	4,5 X 3
BSM3V 3 MPSU 506-EMT	1.1 X3	11,3 X 3	4,8 X 3
BSM3V 3 MPSU 507-EMT	1.5 X3	14,6 X 3	6,9 X 3

BS. MPSU

Dimensions and weights



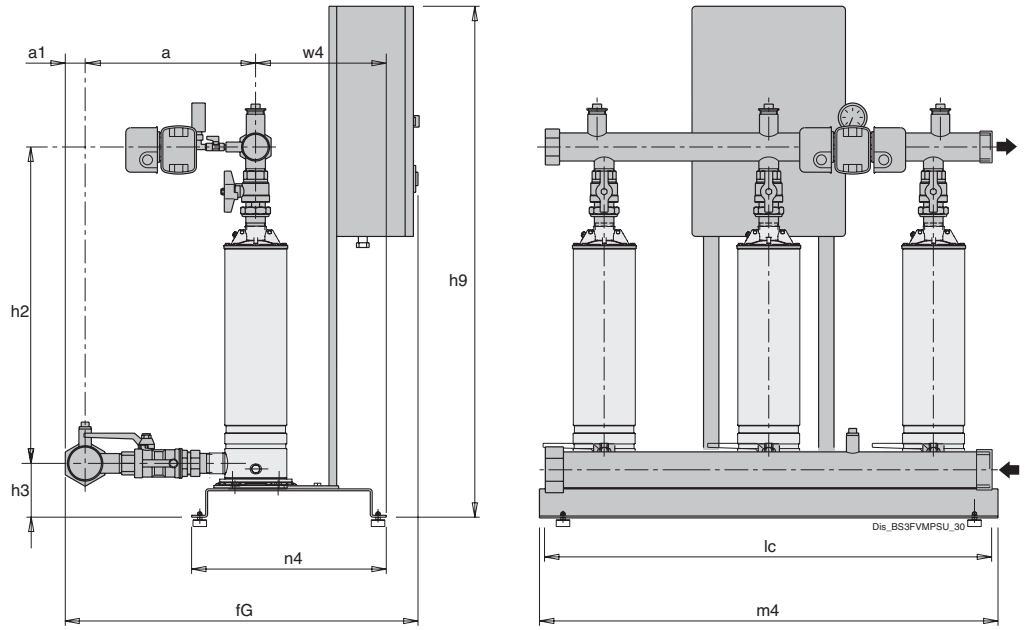


TYPE	Manifolds		mm									Kg
	DN1	DN2	a	fG	h2	h3	h9	lc	m4	n4	w4	Weight
BS2F 2 MPSU 304	G 2	G 2	330	736	629	84	865	600	625	365	220	107.5
BS2F 2 MPSU 305	G 2	G 2	330	736	698	84	865	600	625	365	220	107.5
BS2F 2 MPSU 306	G 2	G 2	330	736	722	84	865	600	625	365	220	107.5
BS2F 2 MPSU 307	G 2	G 2	330	736	746	84	865	600	625	365	220	107.5
BS2F 2 MPSU 504	G 2	G 2	330	736	674	84	865	600	625	365	220	107.5
BS2F 2 MPSU 505	G 2	G 2	330	736	698	84	865	600	625	365	220	107.5
BS2F 2 MPSU 506	G 2	G 2	330	736	767	84	865	600	625	365	220	107.5
BS2F 2 MPSU 507	G 2	G 2	330	736	816	84	865	600	625	365	220	107.5

Non-binding dimensions to be checked when ordering
Anti-vibration kit supplied disassembled as standard

BS. MPSU

Dimensions and weights

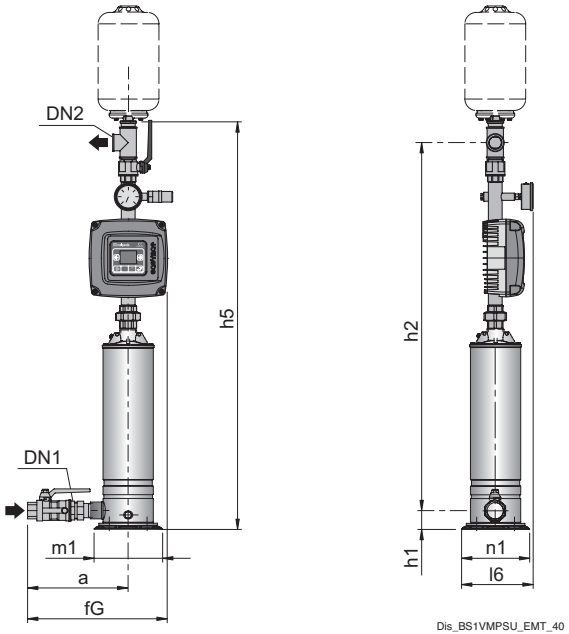


TYPE	Manifolds		mm							
	DN1	DN2	a	fG	h2	h3	h9	lc	m4	n4
BS3F 3 MPSU 304	G 2 1/2	G 2	329	735	636	105	1090	950	1000	406
BS3F 3 MPSU 305	G 2 1/2	G 2	329	735	705	105	1090	950	1000	406
BS3F 3 MPSU 306	G 2 1/2	G 2	329	735	729	105	1090	950	1000	406
BS3F 3 MPSU 307	G 2 1/2	G 2	329	735	753	105	1090	950	1000	406
BS3F 3 MPSU 504	G 2 1/2	G 2	329	735	681	105	1090	950	1000	406
BS3F 3 MPSU 505	G 2 1/2	G 2	329	735	705	105	1090	950	1000	406
BS3F 3 MPSU 506	G 2 1/2	G 2	329	735	774	105	1090	950	1000	406
BS3F 3 MPSU 507	G 2 1/2	G 2	329	735	823	105	1090	950	1000	406

Non-binding dimensions to be checked when ordering
Anti-vibration kit supplied disassembled as standard

BS. MPSU

Dimensions and weights

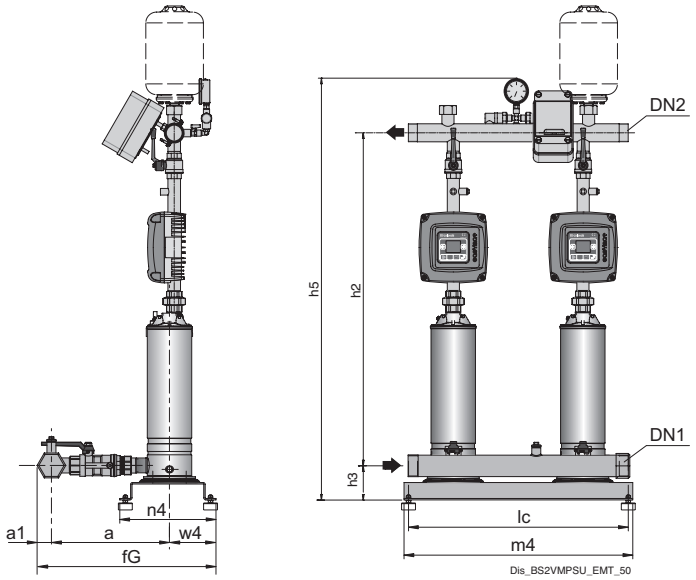


TYPE	Manifolds		mm								Kg
	DN1	DN2	a	fG	h1	h2	h5	l6	m1	n1	Weight
BSM1V 1 MPSU 304-EMT	G 1 1/4	G 1 1/4	286	376	50	952	1002	205	180	205	18.2
BSM1V 1 MPSU 305-EMT	G 1 1/4	G 1 1/4	286	376	50	1021	1071	205	180	205	18.7
BSM1V 1 MPSU 306-EMT	G 1 1/4	G 1 1/4	286	376	50	1045	1095	205	180	205	53.8
BSM1V 1 MPSU 307-EMT	G 1 1/4	G 1 1/4	286	376	50	1069	1119	205	180	205	53.8
BSM1V 1 MPSU 504-EMT	G 1 1/4	G 1 1/4	286	376	50	997	1047	205	180	205	53.8
BSM1V 1 MPSU 505-EMT	G 1 1/4	G 1 1/4	286	376	50	1021	1071	205	180	205	53.8
BSM1V 1 MPSU 506-EMT	G 1 1/4	G 1 1/4	286	376	50	1090	1140	205	180	205	53.8
BSM1V 1 MPSU 507-EMT	G 1 1/4	G 1 1/4	286	376	50	1139	1189	205	180	205	53.8

Non-binding dimensions to be checked when ordering

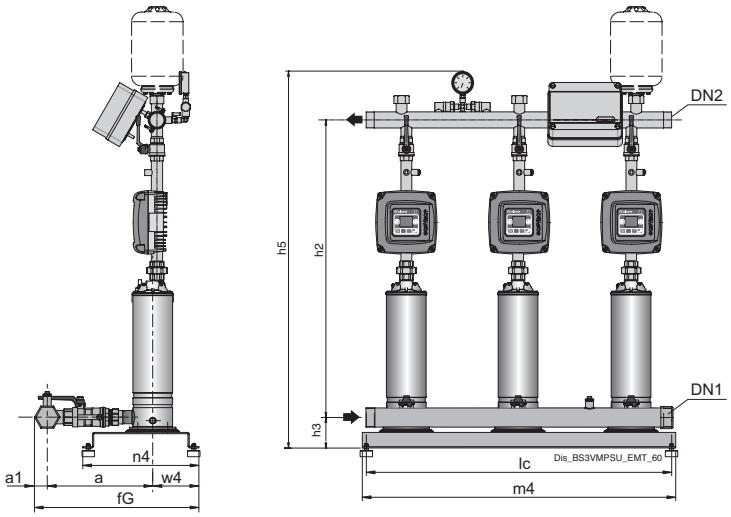
BS. MPSU

Performance, dimensions and weights



TYPE	Manifolds		mm									Kg
	DN1	DN2	a	fG	h2	h3	h5	lc	m4	n4	w4	Weight
BSM2V 2 MPSU 304-EMT	G 2	G 2	320	580	932	84	1130	600	625	365	220	107.5
BSM2V 2 MPSU 305-EMT	G 2	G 2	320	580	1001	84	1199	600	625	365	220	50
BSM2V 2 MPSU 306-EMT	G 2	G 2	320	580	1025	84	1223	600	625	365	220	107.5
BSM2V 2 MPSU 307-EMT	G 2	G 2	320	580	1049	84	1247	600	625	365	220	107.5
BSM2V 2 MPSU 504-EMT	G 2	G 2	320	580	977	84	1175	600	625	365	220	50
BSM2V 2 MPSU 505-EMT	G 2	G 2	320	580	1001	84	1199	600	625	365	220	107.5
BSM2V 2 MPSU 506-EMT	G 2	G 2	320	580	1070	84	1268	600	625	365	220	107.5
BSM2V 2 MPSU 507-EMT	G 2	G 2	320	580	1119	84	1317	600	625	365	220	60

Non-binding dimensions to be checked when ordering
Anti-vibration kit supplied disassembled as standard



TYPE	Manifolds		mm								
	DN1	DN2	a	fG	h2	h3	h5	lc	m4	n4	w4
BSM3V 3 MPSU 304-EMT	G 2 1/2	G 2	329	566	953	105	1151	950	1000	406	237
BSM3V 3 MPSU 305-EMT	G 2 1/2	G 2	329	566	1022	105	1120	950	1000	406	237
BSM3V 3 MPSU 306-EMT	G 2 1/2	G 2	329	566	1046	105	1244	950	1000	406	237
BSM3V 3 MPSU 307-EMT	G 2 1/2	G 2	329	566	1070	105	1268	950	1000	406	237
BSM3V 3 MPSU 504-EMT	G 2 1/2	G 2	329	566	998	105	1196	950	1000	406	237
BSM3V 3 MPSU 505-EMT	G 2 1/2	G 2	329	566	1022	105	1220	950	1000	406	237
BSM3V 3 MPSU 506-EMT	G 2 1/2	G 2	329	566	1091	105	1286	950	1000	406	237
BSM3V 3 MPSU 507-EMT	G 2 1/2	G 2	329	566	1140	105	1338	950	1000	406	237

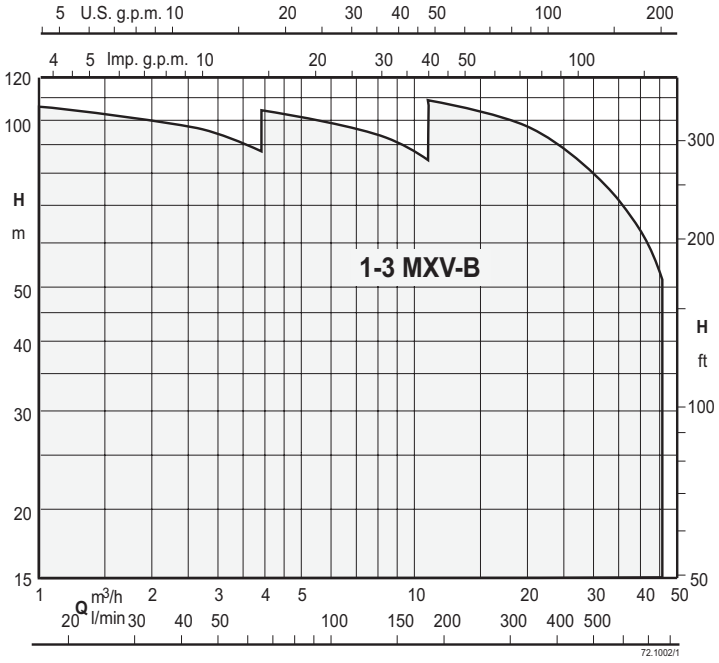
Non-binding dimensions to be checked when ordering
Anti-vibration kit supplied disassembled as standard

BS. MXV-B

Pressure units with 1 to 3 multi-stage vertical, fixed or variable speed pumps (INVERTER)



Coverage chart



Variable speed units with EASYMAT

BS1-3V Pressure boosting sets with 1 to 3 variable speed pumps (with EASYMAT).
Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

Variable speed pump units with EASYMAT2

BS2V Pressure boosting sets with 2 variable speed pumps with EASYMAT2.
Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

Variable speed pump units with WALL

BS2V Pressure boosting sets with 2 variable speed pumps with WALL.
Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

Construction

Automatic pressure boosting plant consisting of 2 to 3 vertical multistage pumps complete with ball, non return valve on the suction side and ball valves on the delivery side.
Suction and delivery manifolds for boosting sets with 2,3 pumps in stainless steel AISI 304.
Connections are located on the delivery manifold for the installation of vessels G1 connection.

Applications

To supply water in civil and industrial buildings.
As pressure boosting pump to increase water pressure when needed (follow local rules).

Motor

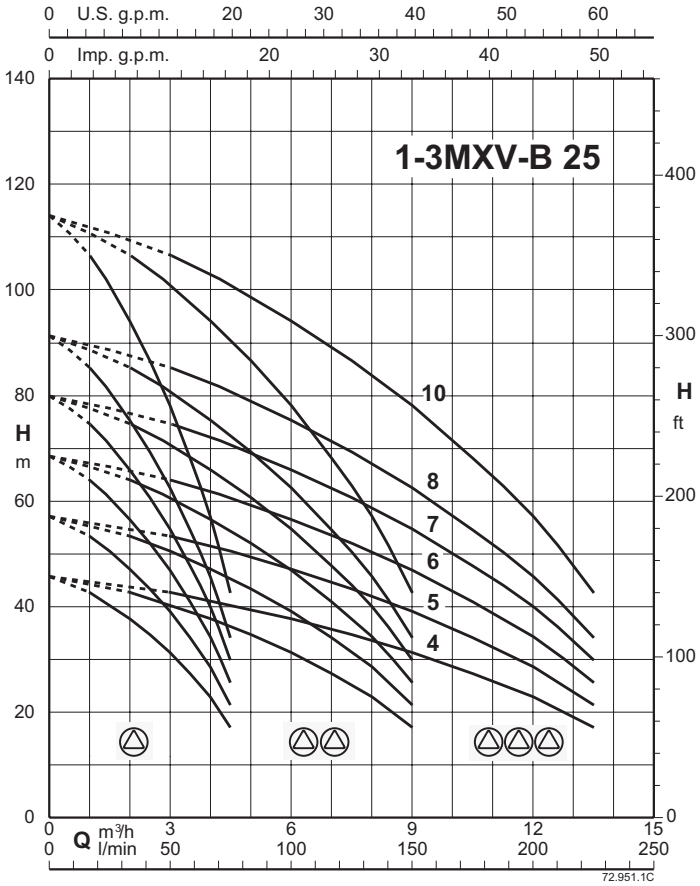
2-pole induction motors, 50 Hz, n ≈ 2900 1/min.
Three-phase: 230/400V ± 10%
set up for inverter operation;
Single-phase: 230V ± 10% (on request)
Insulation class F.
Protection IP54
Constructed in accordance with IEC 60034.
Other voltages and frequencies on request.

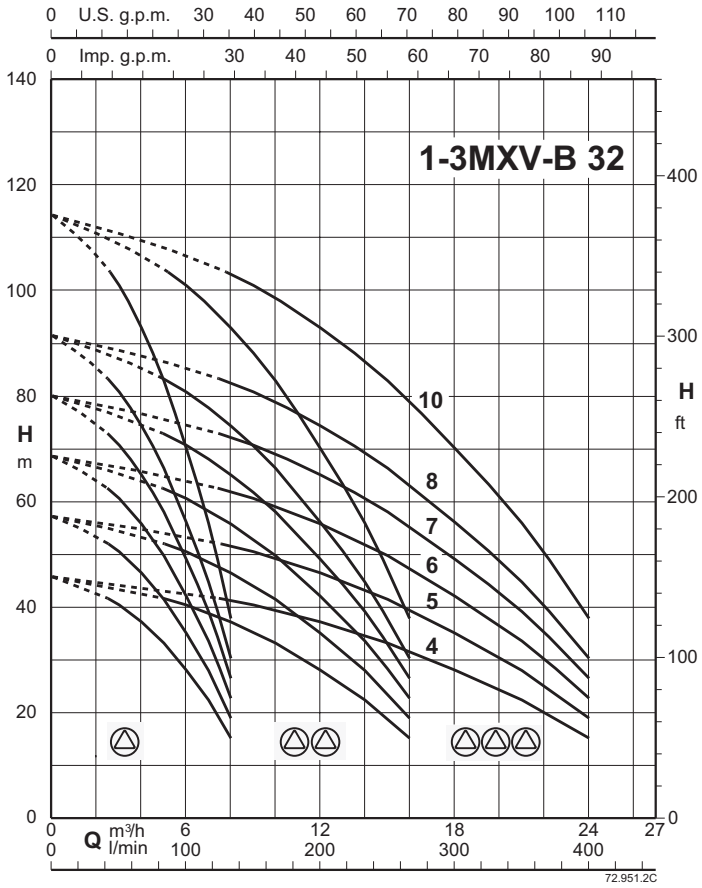
Vessels on request

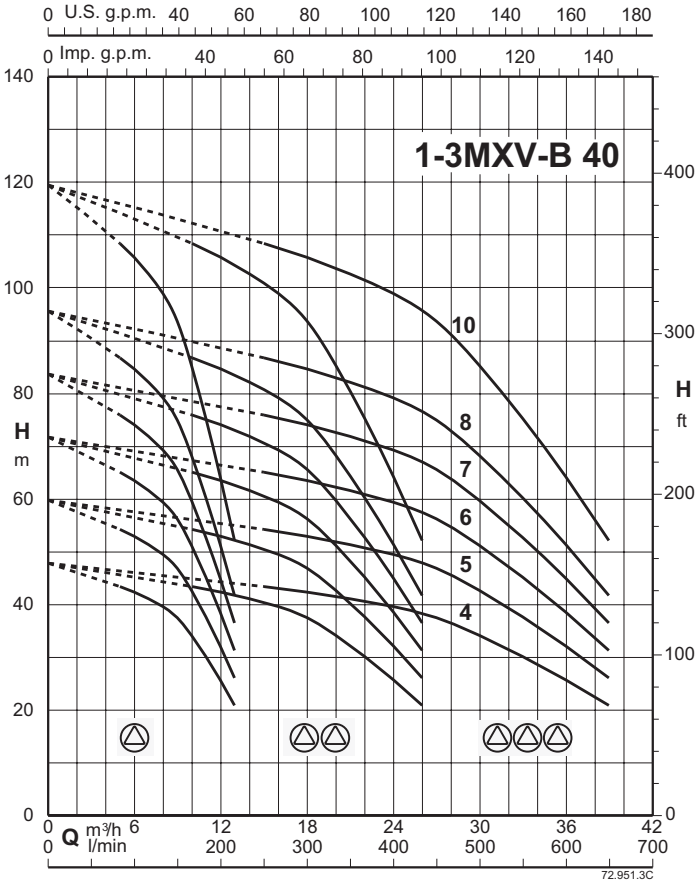
When installing the unit, connect in the delivery section to a diaphragm or galvanised tank.
The recommended sized are shown in the following page.

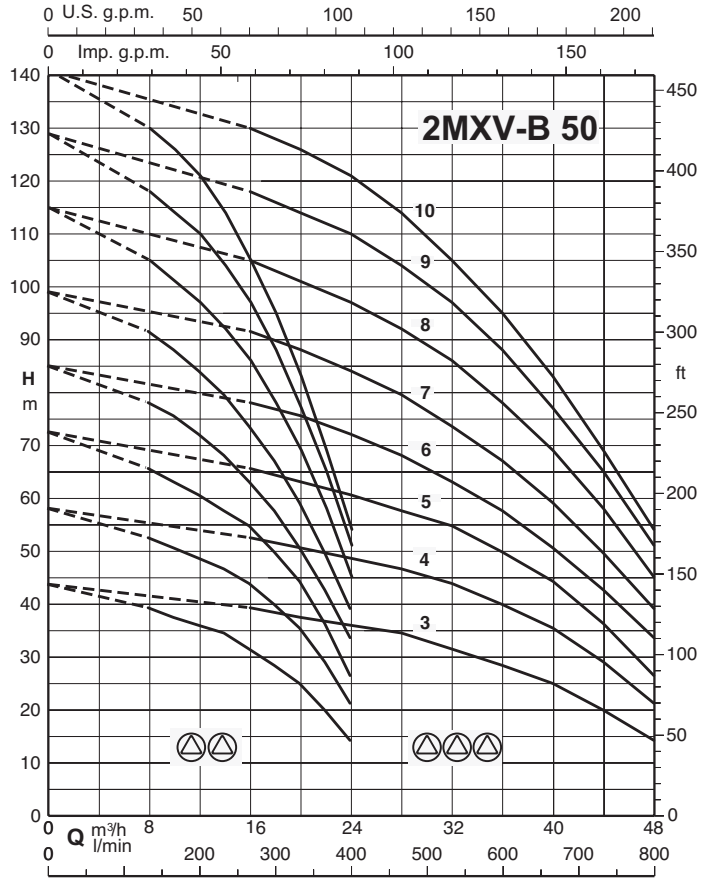
BS. MXV-B

Characteristic curves









BS. MXV-B

Variable speed pump units with EASYMAT

BSM1V ..-EMT

Model	P2
	kW
BSM1V 1 MXV-B 25-304 O-EMT	0.75
BSM1V 1 MXV-B 25-305 O-EMT	0.75
BSM1V 1 MXV-B 25-306 O-EMT	1.1
BSM1V 1 MXV-B 25-307 O-EMT	1.1
BSM1V 1 MXV-B 25-308 O-EMT	1.5
BSM1V 1 MXV-B 25-310 O-EMT	1.5
BSM1V 1 MXV-B 32-504 O-EMT	1.1
BSM1V 1 MXV-B 32-505 O-EMT	1.1
BSM1V 1 MXV-B 32-506 O-EMT	1.5
BSM1V 1 MXV-B 32-507 O-EMT	1.5
BSM1V 1 MXV-B 32-508 O-EMT	2.2
BSM1V 1 MXV-B 32-510 O-EMT	2.2
BSM1V 1 MXV-B 40-904 O-EMT	1.5
BSM1V 1 MXV-B 40-905 O-EMT	2.2
BSM1V 1 MXV-B 40-906 O-EMT	2.2

BSM2V ..-EMT

Model	P2
	kW
BSM2V 2 MXV-B 25-304 O-EMT	0.75 X2
BSM2V 2 MXV-B 25-305 O-EMT	0.75 X2
BSM2V 2 MXV-B 25-306 O-EMT	1.1 X2
BSM2V 2 MXV-B 25-307 O-EMT	1.1 X2
BSM2V 2 MXV-B 25-308 O-EMT	1.5 X2
BSM2V 2 MXV-B 25-310 O-EMT	1.5 X2
BSM2V 2 MXV-B 32-504 O-EMT	1.1 X2
BSM2V 2 MXV-B 32-505 O-EMT	1.1 X2
BSM2V 2 MXV-B 32-506 O-EMT	1.5 X2
BSM2V 2 MXV-B 32-507 O-EMT	1.5 X2
BSM2V 2 MXV-B 32-508 O-EMT	2.2 X2
BSM2V 2 MXV-B 32-510 O-EMT	2.2 X2
BSM2V 2 MXV-B 40-904 O-EMT	1.5 X2
BSM2V 2 MXV-B 40-905 O-EMT	2,2 X2
BSM2V 2 MXV-B 40-906 O-EMT	2.2 X2

BSM3V ..-EMT

Model	P2
	kW
BSM3V 3 MXV-B 25-304 O-EMT	0.75 X3
BSM3V 3 MXV-B 25-305 O-EMT	0.75 X3
BSM3V 3 MXV-B 25-306 O-EMT	1.1 X3
BSM3V 3 MXV-B 25-307 O-EMT	1.1 X3
BSM3V 3 MXV-B 25-308 O-EMT	1.5 X3
BSM3V 3 MXV-B 25-310 O-EMT	1.5 X3
BSM3V 3 MXV-B 32-504 O-EMT	1.1 X3
BSM3V 3 MXV-B 32-505 O-EMT	1.1 X3
BSM3V 3 MXV-B 32-506 O-EMT	1.5 X3
BSM3V 3 MXV-B 32-507 O-EMT	1.5 X3
BSM3V 3 MXV-B 32-508 O-EMT	2.2 X3
BSM3V 3 MXV-B 32-510 O-EMT	2.2 X3
BSM3V 3 MXV-B 40-904 O-EMT	1.5 X3
BSM3V 3 MXV-B 40-905 O-EMT	2.2 X3
BSM3V 3 MXV-B 40-906 O-EMT	2.2 X3

Variable speed pump units with EASYMAT4

BSM2V ..-EMT2

Model	P2
	kW
BSM2V 2 MXV-B 25-304 O-EMT2	0.75 X2
BSM2V 2 MXV-B 25-305 O-EMT2	0.75 X2
BSM2V 2 MXV-B 25-306 O-EMT2	1.1 X2
BSM2V 2 MXV-B 25-307 O-EMT2	1.1 X2
BSM2V 2 MXV-B 25-308 O-EMT2	1.5 X2
BSM2V 2 MXV-B 25-310 O-EMT2	1.5 X2
BSM2V 2 MXV-B 32-504 O-EMT2	1.1 X2
BSM2V 2 MXV-B 32-505 O-EMT2	1.1 X2
BSM2V 2 MXV-B 32-506 O-EMT2	1.5 X2
BSM2V 2 MXV-B 32-507 O-EMT2	1.5 X2
BSM2V 2 MXV-B 32-508 O-EMT2	2.2 X2
BSM2V 2 MXV-B 32-510 O-EMT2	2.2 X2
BSM2V 2 MXV-B 40-904 O-EMT2	1.5 X2
BSM2V 2 MXV-B 40-905 O-EMT2	2.2 X2
BSM2V 2 MXV-B 40-906 O-EMT2	2.2 X2

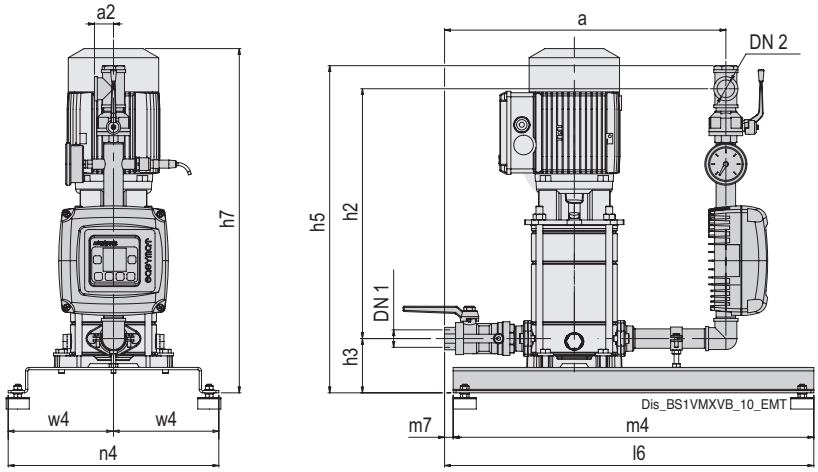
Variable speed pump units with WALL

BS2V ..-WALL

Model	P2
	kW
BS2V 2 MXV-B 25-304 O-WALL	0.75 X2
BS2V 2 MXV-B 25-305 O-WALL	0.75 X2
BS2V 2 MXV-B 25-306 O-WALL	1.1 X2
BS2V 2 MXV-B 25-307 O-WALL	1.1 X2
BS2V 2 MXV-B 25-308 O-WALL	1.5 X2
BS2V 2 MXV-B 25-310 O-WALL	1.5 X2
BS2V 2 MXV-B 32-504 O-WALL	1.1 X2
BS2V 2 MXV-B 32-505 O-WALL	1.1 X2
BS2V 2 MXV-B 32-506 O-WALL	1.5 X2
BS2V 2 MXV-B 32-507 O-WALL	1.5 X2
BS2V 2 MXV-B 32-508 O-WALL	2.2 X2
BS2V 2 MXV-B 32-510 O-WALL	2.2 X2
BS2V 2 MXV-B 40-904 O-WALL	1.5 X2
BS2V 2 MXV-B 40-905 O-WALL	2.2 X2
BS2V 2 MXV-B 40-906 O-WALL	2.2 X2
BS2V 2 MXV-B 40-907 O-WALL	3 X2
BS2V 2 MXV-B 40-908 O-WALL	3 X2
BS2V 2 MXV-B 40-910 O-WALL	3.7 X2
BS2V 2 MXV-B 50-1503 O-WALL	2.2 X2
BS2V 2 MXV-B 50-1504 O-WALL	3 X2
BS2V 2 MXV-B 50-1505 O-WALL	4 X2
BS2V 2 MXV-B 50-1506 O-WALL	5.5 X2
BS2V 2 MXV-B 50-1507 O-WALL	5.5 X2

BS. MXV-B

Dimensions and weights

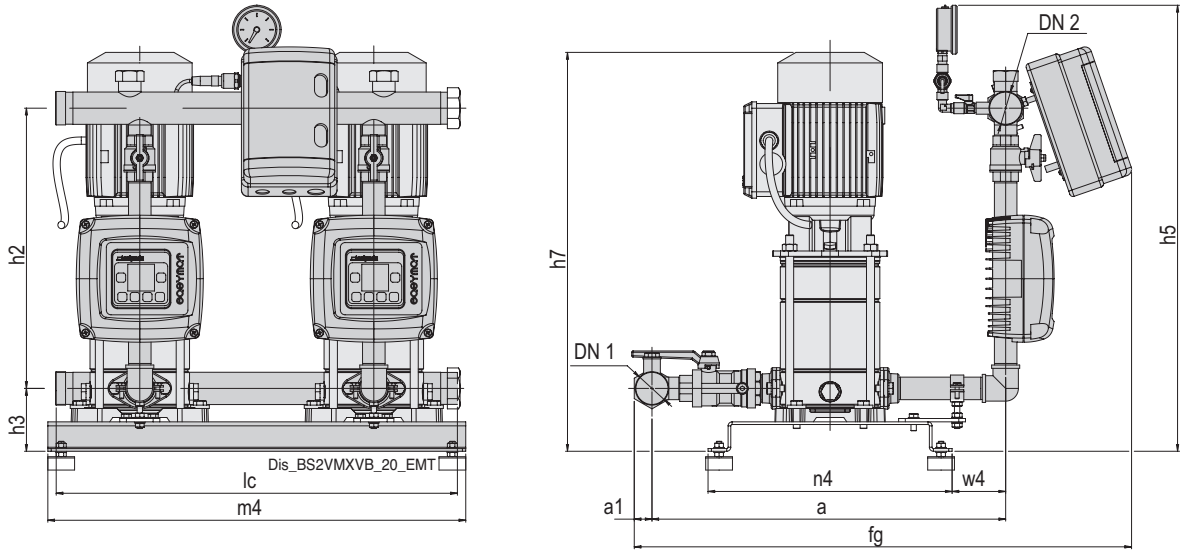


TYPE	Manifolds		mm										Kg
	DN1	DN2	a	a2	h2	h3	h5	h7	l6	m4	n4	w4	Weight
BSM1V 1 MXV-B 25-304 O-EMT	G 1	G 1	488	33	433	94	567	597	640	625	365	183	29
BSM1V 1 MXV-B 25-305 O-EMT	G 1	G 1	488	33	433	94	567	621	640	625	365	183	30.4
BSM1V 1 MXV-B 25-306 O-EMT	G 1	G 1	488	33	433	94	567	645	640	625	365	183	32.5
BSM1V 1 MXV-B 25-307 O-EMT	G 1	G 1	488	33	433	94	567	669	640	625	365	183	34
BSM1V 1 MXV-B 25-308 O-EMT	G 1	G 1	488	33	433	94	567	693	640	625	365	183	35.3
BSM1V 1 MXV-B 25-310 O-EMT	G 1	G 1	488	33	433	94	567	741	640	625	365	183	37.6
BSM1V 1 MXV-B 32-504 O-EMT	G 1 1/4	G 1 1/4	528	45	463	94	617	597	662	625	365	183	34
BSM1V 1 MXV-B 32-505 O-EMT	G 1 1/4	G 1 1/4	528	45	463	94	617	621	662	625	365	183	34.6
BSM1V 1 MXV-B 32-506 O-EMT	G 1 1/4	G 1 1/4	528	45	463	94	617	645	662	625	365	183	36
BSM1V 1 MXV-B 32-507 O-EMT	G 1 1/4	G 1 1/4	528	45	463	94	617	669	662	625	365	183	37.9
BSM1V 1 MXV-B 32-508 O-EMT	G 1 1/4	G 1 1/4	528	45	463	94	617	733	662	625	365	183	48
BSM1V 1 MXV-B 32-510 O-EMT	G 1 1/4	G 1 1/4	528	45	463	94	617	781	662	625	365	183	49.5
BSM1V 1 MXV-B 40-904 O-EMT	G 1 1/2	G 1 1/2	590	46.5	547	94	734	65	712	625	365	183	40
BSM1V 1 MXV-B 40-905 O-EMT	G 1 1/2	G 1 1/2	590	46.5	547	94	734	715	712	625	365	183	44
BSM1V 1 MXV-B 40-906 O-EMT	G 1 1/2	G 1 1/2	590	46.5	547	94	734	745	712	625	365	183	54.5

Non-binding dimensions to be checked when ordering
Anti-vibration kit supplied disassembled as standard

BS. MXV-B

Dimensions and weights

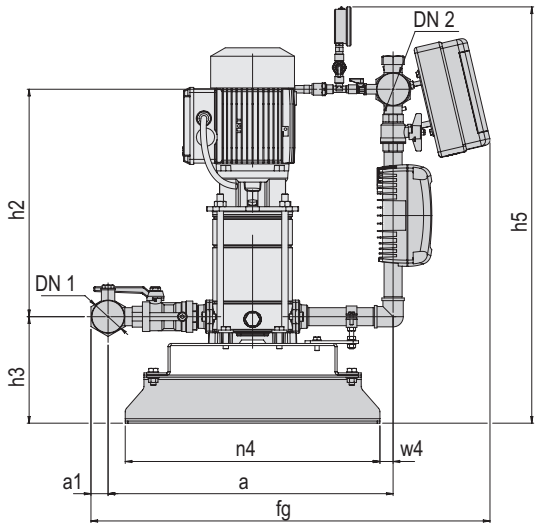


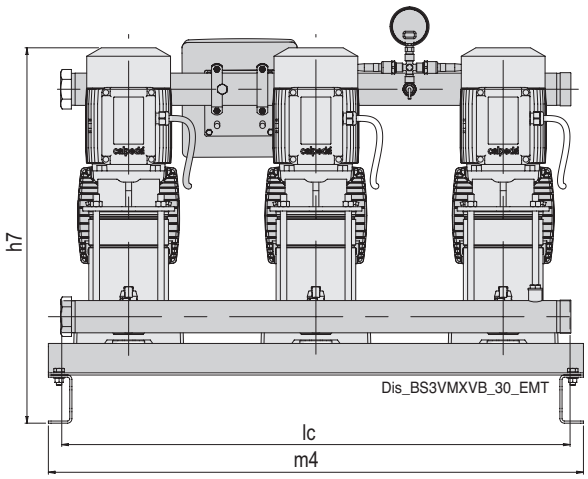
TYPE	Manifolds		mm											Kg
	DN1	DN2	a	a1	fG	h2	h3	h5	h7	lc	m4	n4	w4	Weight
BSM2V 2 MXV-B 25-304 O-EMT	G 1 1/2	G 1 1/2	529	26.5	744	420	94	667	597	600	625	365	80	70.4
BSM2V 2 MXV-B 25-305 O-EMT	G 1 1/2	G 1 1/2	529	26.5	744	420	94	667	621	600	625	365	80	71.3
BSM2V 2 MXV-B 25-306 O-EMT	G 1 1/2	G 1 1/2	529	26.5	744	420	94	667	645	600	625	365	80	81
BSM2V 2 MXV-B 25-307 O-EMT	G 1 1/2	G 1 1/2	529	26.5	744	420	94	667	669	600	625	365	80	81.6
BSM2V 2 MXV-B 25-308 O-EMT	G 1 1/2	G 1 1/2	529	26.5	744	420	94	667	693	600	625	365	80	82.4
BSM2V 2 MXV-B 25-310 O-EMT	G 1 1/2	G 1 1/2	529	26.5	744	420	94	667	741	600	625	365	80	85.4
BSM2V 2 MXV-B 32-504 O-EMT	G 2	G 2	571	32	795	443	94	690	597	600	625	365	97	80.6
BSM2V 2 MXV-B 32-505 O-EMT	G 2	G 2	571	32	795	443	94	690	621	600	625	365	97	78.9
BSM2V 2 MXV-B 32-506 O-EMT	G 2	G 2	571	32	795	443	94	690	645	600	625	365	97	86.7
BSM2V 2 MXV-B 32-507 O-EMT	G 2	G 2	571	32	795	443	94	690	669	600	625	365	97	89.5
BSM2V 2 MXV-B 32-508 O-EMT	G 2	G 2	571	32	795	443	94	690	733	600	625	365	97	92.7
BSM2V 2 MXV-B 32-510 O-EMT	G 2	G 2	571	32	795	443	94	690	781	600	625	365	97	94.6
BSM2V 2 MXV-B 40-904 O-EMT	G 2 1/2	G 2 1/2	645	40	900	479	124	757	645	600	625	365	114	93.5
BSM2V 2 MXV-B 40-905 O-EMT	G 2 1/2	G 2 1/2	645	40	900	479	124	757	715	600	625	365	114	99.7
BSM2V 2 MXV-B 40-906 O-EMT	G 2 1/2	G 2 1/2	645	40	900	479	124	757	745	600	625	365	114	102.8

Non-binding dimensions to be checked when ordering
Anti-vibration kit supplied disassembled as standard

BS. MXV-B

Dimensions and weights



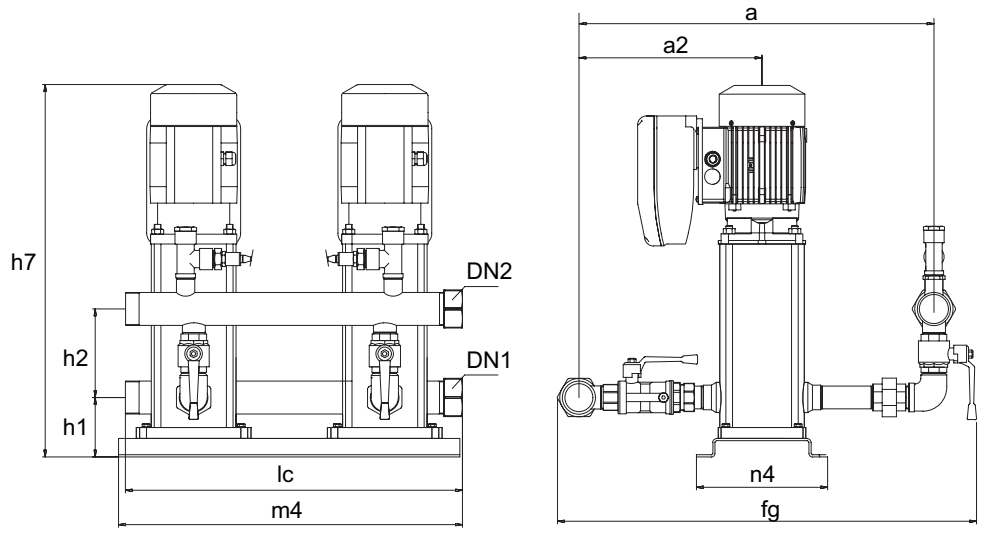


TYPE	Manifolds		mm											Kg
	DN1	DN2	a	a1	fG	h2	h3	h5	h7	lc	m4	n4	w4	Weight
BSM3V 3 MXV-B 25-304 O-EMT	G 2	G 2	533	32	746	423	199	776	702	950	1000	476	25	-
BSM3V 3 MXV-B 25-305 O-EMT	G 2	G 2	533	32	746	423	199	776	726	950	1000	476	25	116.4
BSM3V 3 MXV-B 25-306 O-EMT	G 2	G 2	533	32	746	423	199	776	750	950	1000	476	25	-
BSM3V 3 MXV-B 25-307 O-EMT	G 2	G 2	533	32	746	423	199	776	774	950	1000	476	25	-
BSM3V 3 MXV-B 25-308 O-EMT	G 2	G 2	533	32	746	423	199	776	798	950	1000	476	25	-
BSM3V 3 MXV-B 25-310 O-EMT	G 2	G 2	533	32	746	423	199	776	846	950	1000	476	25	-
BSM3V 3 MXV-B 32-504 O-EMT	G 2 1/2	G 2 1/2	579	40	814	451	199	803	702	950	1000	476	42	-
BSM3V 3 MXV-B 32-505 O-EMT	G 2 1/2	G 2 1/2	579	40	814	451	199	803	726	950	1000	476	42	-
BSM3V 3 MXV-B 32-506 O-EMT	G 2 1/2	G 2 1/2	579	40	814	451	199	803	750	950	1000	476	42	-
BSM3V 3 MXV-B 32-507 O-EMT	G 2 1/2	G 2 1/2	579	40	814	451	199	803	774	950	1000	476	42	-
BSM3V 3 MXV-B 32-508 O-EMT	G 2 1/2	G 2 1/2	579	40	814	451	199	803	838	950	1000	476	42	-
BSM3V 3 MXV-B 32-510 O-EMT	G 2 1/2	G 2 1/2	579	40	814	451	199	803	886	950	1000	476	42	153
BSM3V 3 MXV-B 40-904 O-EMT	G 3	G 3	746	48	908	485	229	868	750	950	1000	476	59	150
BSM3V 3 MXV-B 40-905 O-EMT	G 3	G 3	746	48	908	485	229	868	820	950	1000	476	59	-
BSM3V 3 MXV-B 40-906 O-EMT	G 3	G 3	746	48	908	485	229	868	850	950	1000	476	59	166

Non-binding dimensions to be checked when ordering

BS. MXV-B

Dimensions and weights

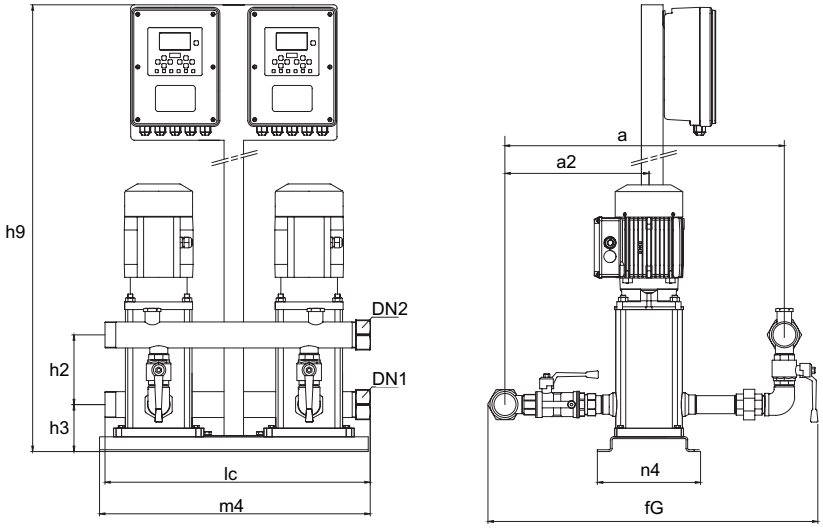


TYPE	Manifolds		mm									Kg
	DN1	DN2	a	a2	fG	h1	h2	h7	lc	m4	n4	Weight
BSM2V 2 MXV-B 25-304 O-EMT2	G 2	G 1 1/2	647	315	700	109	169	597	600	625	240	-
BSM2V 2 MXV-B 25-305 O-EMT2	G 2	G 1 1/2	647	315	700	109	169	621	600	625	240	-
BSM2V 2 MXV-B 25-306 O-EMT2	G 2	G 1 1/2	647	315	700	109	169	645	600	625	240	-
BSM2V 2 MXV-B 25-307 O-EMT2	G 2	G 1 1/2	647	315	700	109	169	669	600	625	240	-
BSM2V 2 MXV-B 25-308 O-EMT2	G 2	G 1 1/2	647	315	700	118	169	693	600	625	365	-
BSM2V 2 MXV-B 25-310 O-EMT2	G 2	G 1 1/2	647	315	700	118	169	741	600	625	365	-
BSM2V 2 MXV-B 32-504 O-EMT2	G 2	G 2	683	345	748	118	188	597	600	625	365	-
BSM2V 2 MXV-B 32-505 O-EMT2	G 2	G 2	683	345	748	118	188	621	600	625	365	-
BSM2V 2 MXV-B 32-506 O-EMT2	G 2	G 2	683	345	748	118	188	645	600	625	365	-
BSM2V 2 MXV-B 32-507 O-EMT2	G 2	G 2	683	345	748	118	188	669	600	625	365	-
BSM2V 2 MXV-B 32-508 O-EMT2	G 2	G 2	683	345	748	118	188	733	600	625	365	-
BSM2V 2 MXV-B 32-510 O-EMT2	G 2	G 2	683	345	748	118	188	781	600	625	365	-
BSM2V 2 MXV-B 40-904 O-EMT2	G 2 1/2	G 2 1/2	773	425	841	138	215	645	600	1000	365	-
BSM2V 2 MXV-B 40-905 O-EMT2	G 2 1/2	G 2 1/2	773	425	841	138	215	715	600	1000	365	-
BSM2V 2 MXV-B 40-906 O-EMT2	G 2 1/2	G 2 1/2	773	425	841	138	215	745	600	1000	365	102

Non-binding dimensions to be checked when ordering

BS. MXV-B

Dimensions and weights



TYPE	Manifolds		mm									Kg
	DN1	DN2	a	a2	fG	h2	h3	h9	lc	m4	n4	Weight
BS2V 2 MXV-B 25-304 O-WALL	G 2	G 1 1/2	647	315	700	169	109	1384	600	625	240	-
BS2V 2 MXV-B 25-305 O-WALL	G 2	G 1 1/2	647	315	700	169	109	1384	600	625	240	-
BS2V 2 MXV-B 25-306 O-WALL	G 2	G 1 1/2	647	315	700	169	109	1384	600	625	240	-
BS2V 2 MXV-B 25-307 O-WALL	G 2	G 1 1/2	647	315	700	169	109	1384	600	625	240	-
BS2V 2 MXV-B 25-308 O-WALL	G 2	G 1 1/2	647	315	700	169	109	1384	600	625	240	-
BS2V 2 MXV-B 25-310 O-WALL	G 2	G 1 1/2	647	315	700	169	109	1384	600	625	240	-
BS2V 2 MXV-B 32-504 O-WALL	G 2	G 2	683	345	748	188	118	1393	600	625	365	-
BS2V 2 MXV-B 32-505 O-WALL	G 2	G 2	683	345	748	188	118	1393	600	625	365	-
BS2V 2 MXV-B 32-506 O-WALL	G 2	G 2	683	345	748	188	118	1393	600	625	365	-
BS2V 2 MXV-B 32-507 O-WALL	G 2	G 2	683	345	748	188	118	1393	600	625	365	100
BS2V 2 MXV-B 32-508 O-WALL	G 2	G 2	683	345	748	188	118	1393	600	625	365	122
BS2V 2 MXV-B 32-510 O-WALL	G 2	G 2	683	345	748	188	118	1393	600	625	365	-
BS2V 2 MXV-B 40-904 O-WALL	G 2 1/2	G 2 1/2	773	425	841	215	138	1393	600	1000	365	-
BS2V 2 MXV-B 40-905 O-WALL	G 2 1/2	G 2 1/2	773	425	841	215	138	1393	600	1000	365	-
BS2V 2 MXV-B 40-906 O-WALL	G 2 1/2	G 2 1/2	773	425	841	215	138	1393	600	1000	365	120
BS2V 2 MXV-B 40-907 O-WALL	G 2 1/2	G 2 1/2	773	425	841	215	138	1393	600	1000	365	-
BS2V 2 MXV-B 40-908 O-WALL	G 2 1/2	G 2 1/2	773	425	841	215	138	1393	600	1000	365	135
BS2V 2 MXV-B 40-910 O-WALL	G 2 1/2	G 2 1/2	773	425	841	215	138	1393	600	1000	365	-
BS2V 2 MXV-B 50-1503 O-WALL	G 3	G 3	793	479	888	148	148	1408	600	1000	406	-
BS2V 2 MXV-B 50-1504 O-WALL	G 3	G 3	793	479	888	148	148	1408	600	1000	406	-
BS2V 2 MXV-B 50-1505 O-WALL	G 3	G 3	793	479	888	148	148	1408	600	1000	406	-
BS2V 2 MXV-B 50-1506 O-WALL	G 3	G 3	793	479	888	148	148	1408	600	1000	406	-
BS2V 2 MXV-B 50-1507 O-WALL	G 3	G 3	793	479	888	148	148	1408	600	1000	406	-

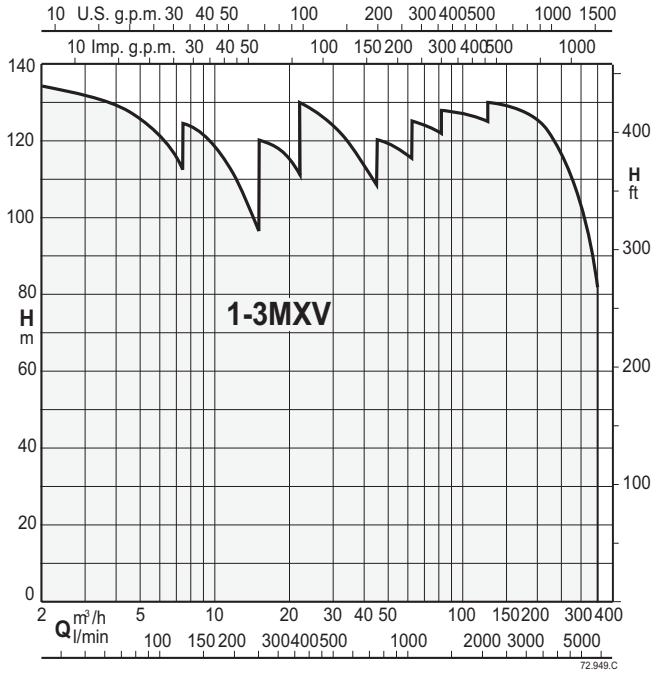
Non-binding dimensions to be checked when ordering

BS. MXV

Pressure units with 1 to 3 multi-stage vertical, fixed or variable speed pumps (INVERTER)



Coverage chart



Fixed speed units

BS 1-6F Pressure boosting sets with 1 to 6 fixed speed pump.
Sets with 4,5 and 6 pumps on request.
Depending on the reduction of the pressure in the system, the pressure switches determine the starting up of the pumps in sequence and the microprocessor alternates the starts.

Variable speed units with I-MAT

BS2-3V Pressure boosting sets with 2 to 3 variable speed pumps (with I-MAT).
Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

Variable speed pump units with WALL

BS2V Pressure boosting sets with 2 variable speed pumps with WALL.
Depending on water consumption, one or more pumps are activated, all at variable speed, in order to guarantee the quantity of water required at the set pressure.

Construction

Automatic pressure boosting plant consisting of 1 to 6 vertical multistage pumps complete with ball, non return valve on the suction side and ball valves on the delivery side.
Suction and delivery manifolds made of 1.4301 EN 10088 (AISI 304) for units with 2 and 3 pumps.
Set up for mounting cylindrical tanks with G1 connection.
Electrical control boards:

- with microprocessor control for fixed speed pumps. Motor starting is direct up to 5.5 kW and Y/Δ for powers from 7.5 to 37 kW.
- - with frequency converter for variable speed pump units.

The unit includes one pressure gauge and three adjustable differential pressure switches or pressure transducer.

Applications

To supply water in civil and industrial buildings.
For increasing network pressure (follow local specifications).

Motor

2-pole induction motors, 50 Hz, n ≈ 2900 1/min.
Three-phase
230/400V ± 10% up to a 3 kW
set up for inverter operation;
400/690V ± 10% for 4 kW to 37 kW,
set up for inverter operation.
Single-phase 230 V ± 10%,
Insulation class F.
IP protection: IP55
Constructed in accordance with IEC 60034.
Other voltages and frequencies on request.

Vessels on request

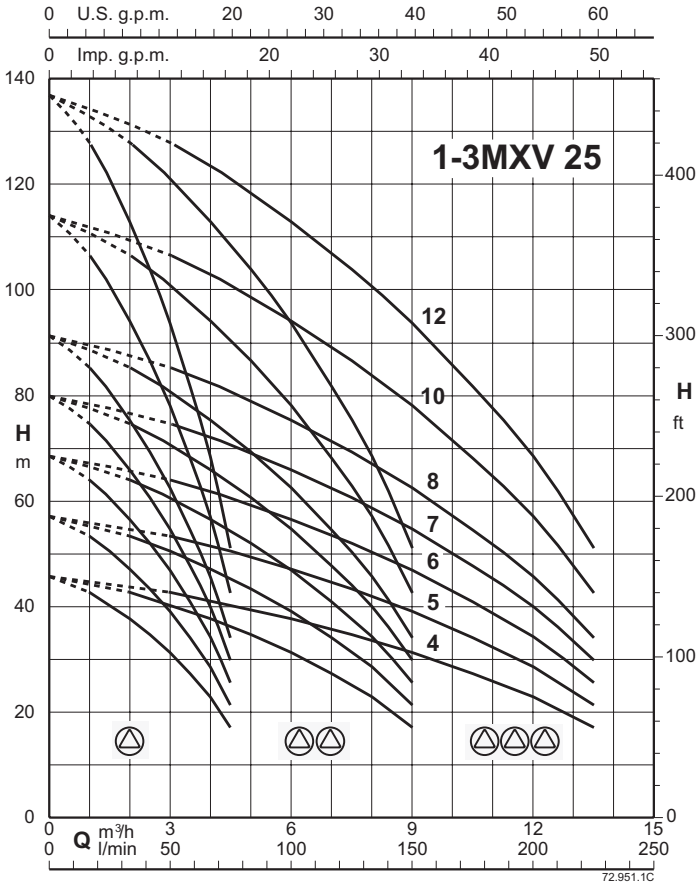
When installing the unit, connect in the delivery section to a diaphragm or galvanised tank.
The recommended sized are shown in the following page.

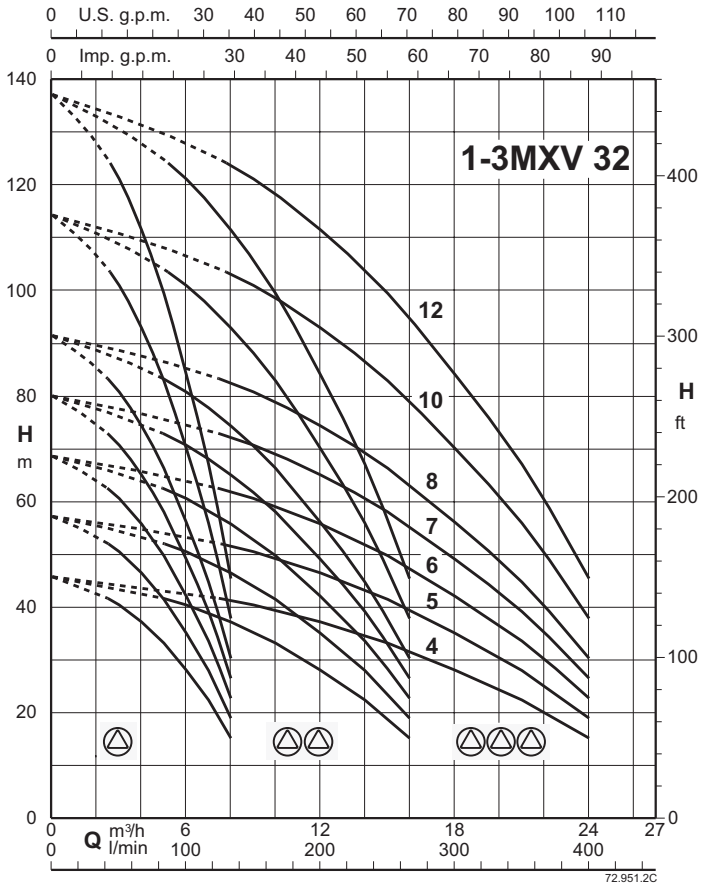
Special features on request

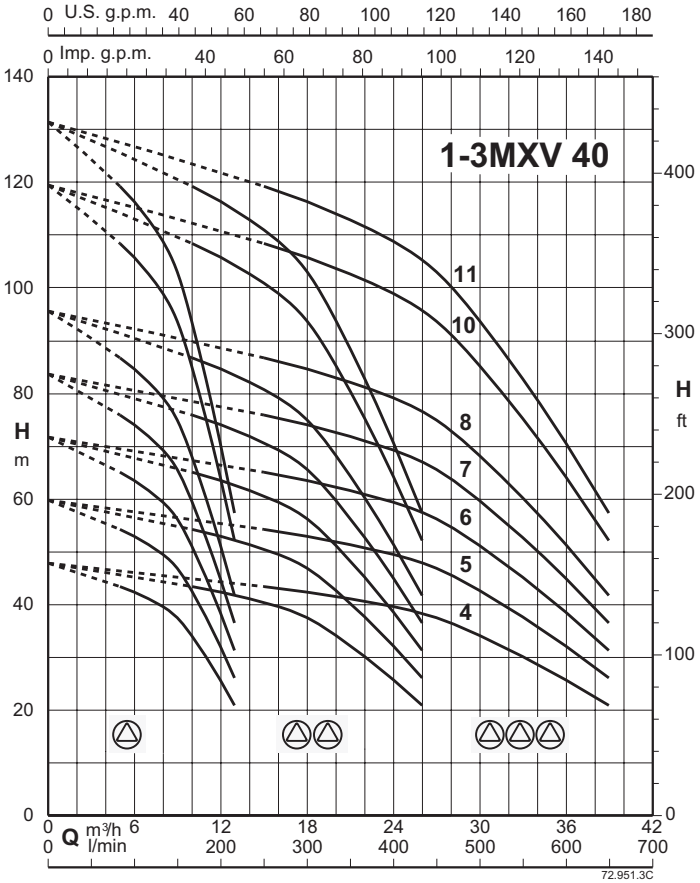
Pressure unit with 4, 5 and 6 pumps

BS. MXV

Characteristic curves



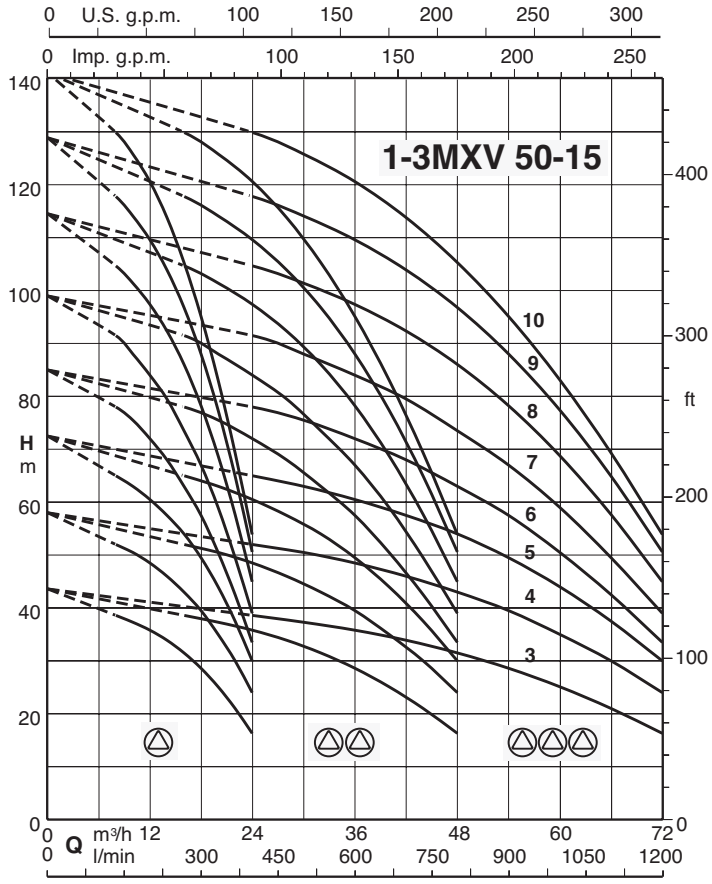


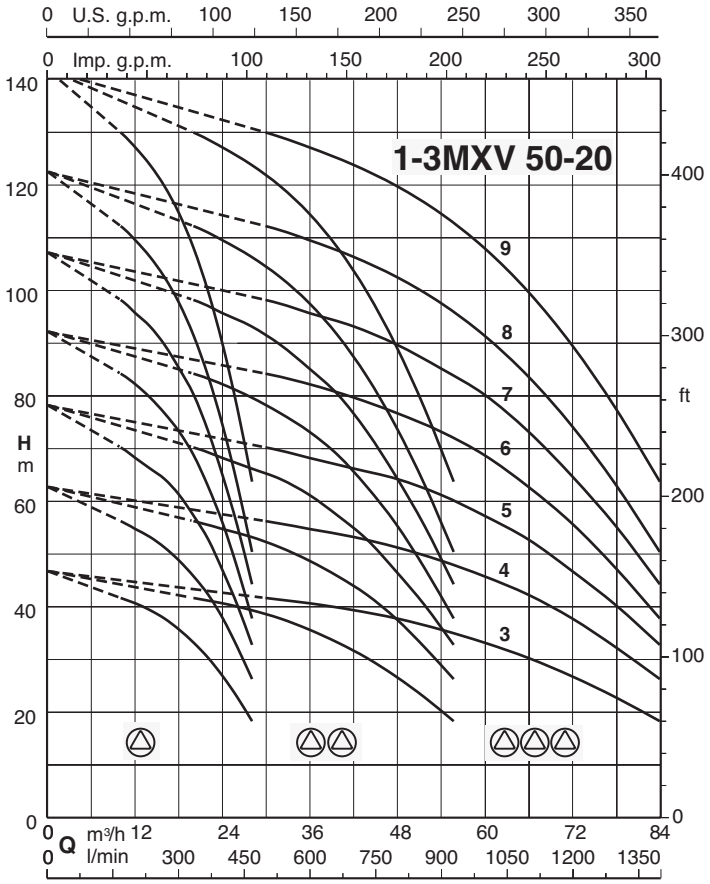


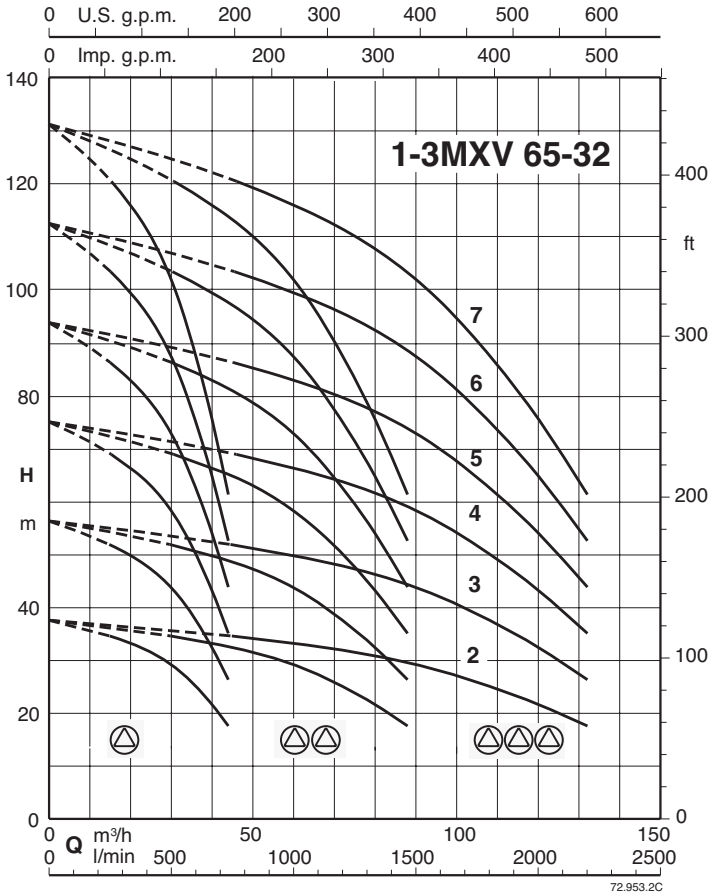
BS. MXV

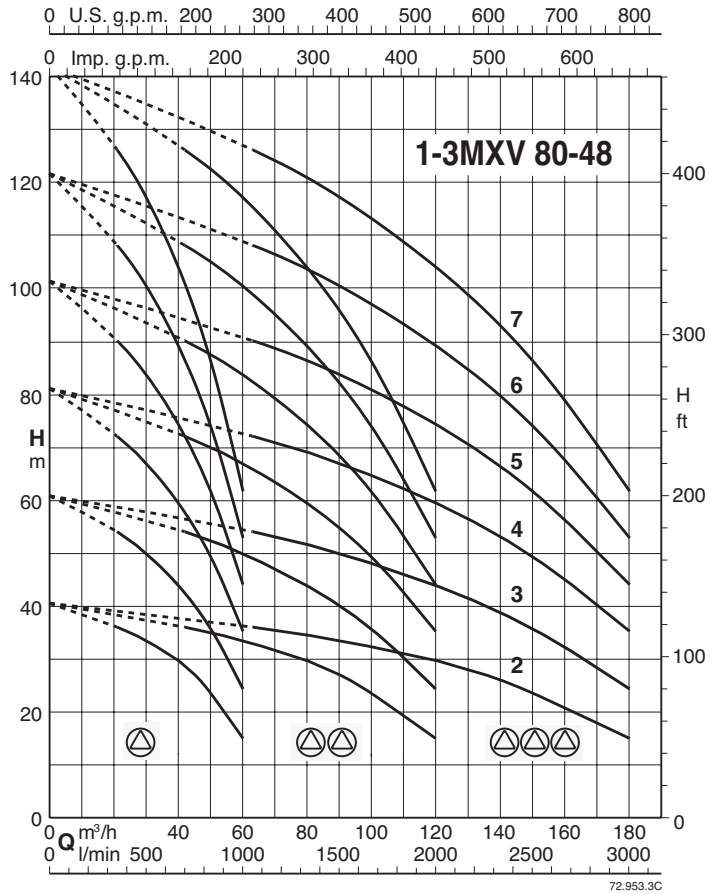
calpeda®

Characteristic curves



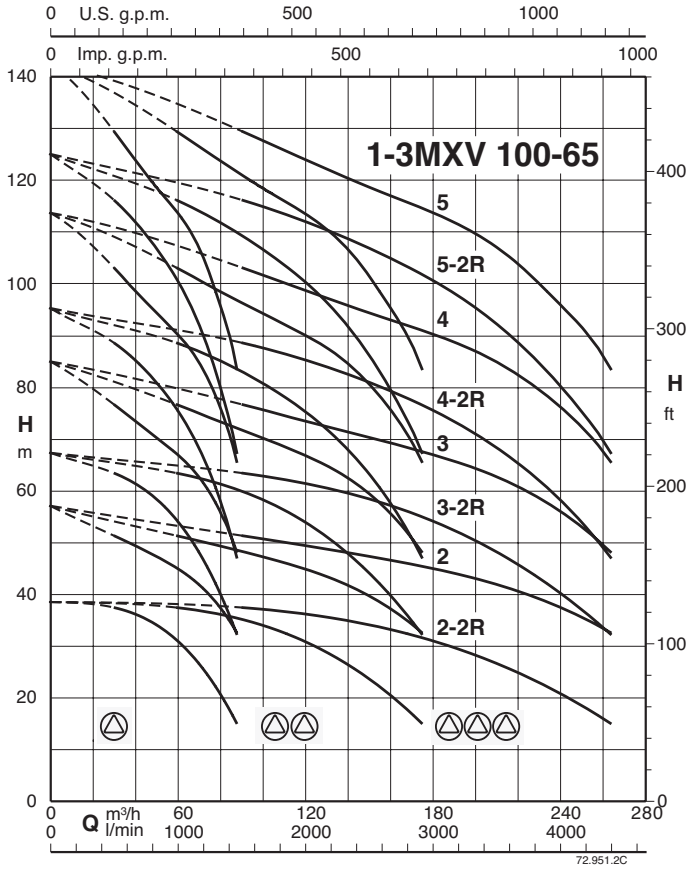


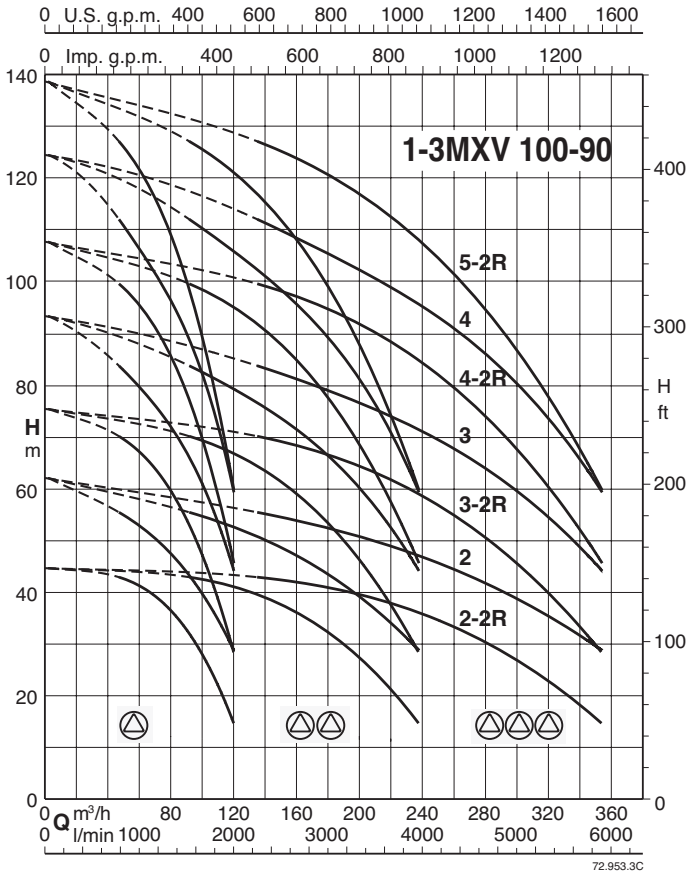




BS. MXV

Characteristic curves





BS. MXV

Fixed speed pump units

BS1F

		Pressure switch	Tank	
		1	membrane	Vessel
Model	P2	Start/Stop		
	kW	bar	litri	
BS1F 1 MXV 25-304 O	0.75	3 - 3.9	60	100
BS1F 1 MXV 25-305 O	0.75	3.3 - 4.8	80	100
BS1F 1 MXV 25-306 O	1.1	4.1 - 5.8	80	100
BS1F 1 MXV 25-307 O	1.1	5 - 6.7	100	100
BS1F 1 MXV 25-308 O	1.5	5.9 - 7.8	100	100
BS1F 1 MXV 25-310 O	1.5	7.5 - 9.7	150	200
BS1F 1 MXV 25-312 O	2.2	10.1 - 11.6	200	300
BS1F 1 MXV 32-504 O	1.1	3 - 3.8	300	500
BS1F 1 MXV 32-505 O	1.1	3.2 - 4.7	200	300
BS1F 1 MXV 32-506 O	1.5	4 - 5.7	200	300
BS1F 1 MXV 32-507 O	1.5	4.9 - 6.6	300	500
BS1F 1 MXV 32-508 O	2.2	5.7 - 7.6	300	500
BS1F 1 MXV 32-510 O	2.2	7.4 - 9.5	200	300
BS1F 1 MXV 32-512 O	3	9.8 - 11.3	300	500
BS1F 1 MXV 40-904 O	1.5	3 - 3.9	500	800
BS1F 1 MXV 40-905 O	2.2	3.4 - 4.9	500	800
BS1F 1 MXV 40-906 O	2.2	4.3 - 5.9	500	800
BS1F 1 MXV 40-907 O	3	5.1 - 6.9	750	1000
BS1F 1 MXV 40-908 O	3	6 - 7.9	500	800
BS1F 1 MXV 40-910 O	4	7.8 - 9.9	500	1000
BS1F 1 MXV 40-911 O	4	9.4 - 10.9	1000	1500
BS1F 1 MXV 50-1503/A	2.2	2.7 - 3.5	750	1500
BS1F 1 MXV 50-1504	3	3.2 - 4.7	750	1500
BS1F 1 MXV 50-1505	4	4.3 - 5.9	750	1500
BS1F 1 MXV 50-1506	5.5	5.3 - 7.1	750	1500
BS1F 1 MXV 50-1507	5.5	6.4 - 8.3	750	1500
BS1F 1 MXV 50-1508/A	5.5	7.5 - 9.6	750	1500
BS1F 1 MXV 50-1509	7.5	9.3 - 10.8	750	1500
BS1F 1 MXV 50-1510	7.5	10.4 - 11.9	750	1500
BS1F 1 MXV 50-2003	3	3 - 3.8	750	1500
BS1F 1 MXV 50-2004	4	3.5 - 5.1	750	1500
BS1F 1 MXV 50-2005	5.5	4.7 - 6.4	750	1500
BS1F 1 MXV 50-2006	7.5	5.8 - 7.7	750	1500
BS1F 1 MXV 50-2007	7.5	6.9 - 8.9	750	1500
BS1F 1 MXV 50-2008	9.2	8.7 - 10.2	750	1500
BS1F 1 MXV 50-2009	9.2	10.4 - 11.9	750	1500
BS1F 1 MXV 65-3202/D	4	2.3 - 3.1	2000	4000
BS1F 1 MXV 65-3203/C	5.5	3.1 - 4.7	2000	3000
BS1F 1 MXV 65-3204/C	7.5	4.6 - 6.3	2000	4000
BS1F 1 MXV 65-3205/D	11	5.9 - 7.8	3000	4000
BS1F 1 MXV 65-3206/D	11	7.3 - 9.4	3000	5000
BS1F 1 MXV 65-3207/D	15	9.5 - 11	-	6000
BS1F 1 MXV 80-4802/C	5.5	2.5 - 3.3	3000	6000
BS1F 1 MXV 80-4803/C	7.5	3.4 - 4.9	2000	4000
BS1F 1 MXV 80-4804/D	11	4.8 - 6.6	3000	5000
BS1F 1 MXV 80-4805/D	15	6.3 - 8.2	-	6000
BS1F 1 MXV 80-4806/D	15	7.7 - 9.8	-	6000
BS1F 1 MXV 80-4807/E	18.5	10 - 11.5	-	9000

400V 3~ power supply / 400V 3~ motor
Start and stop pressure controlled by pressure switches

BSM1F

		Pressure switch	Tank	
		1	membrane	Vessel
Model	P2	Start/Stop		
	kW	bar	litri	
BSM1F 1 MXVM 25-304 O	0.75	3 - 3.9	60	100
BSM1F 1 MXVM 25-305 O	0.75	3.3 - 4.8	80	100
BSM1F 1 MXVM 25-306 O	1.1	4.1 - 5.8	80	100
BSM1F 1 MXVM 25-307 O	1.1	5 - 6.7	100	100
BSM1F 1 MXVM 25-308 O	1.5	5.9 - 7.8	100	100
BSM1F 1 MXVM 32-504 O	1.1	3 - 3.8	300	500
BSM1F 1 MXVM 32-505 O	1.1	3.2 - 4.7	200	300
BSM1F 1 MXVM 32-506 O	1.5	4 - 5.7	200	300
BSM1F 1 MXVM 32-507 O	1.5	4.9 - 6.6	300	500
BSM1F 1 MXVM 40-904 O	1.5	3 - 3.9	500	800

230V 1~ power supply / 230V 1~ motor
Start and stop pressure controlled by a pressure transducer

BS. MXV

Fixed speed pump units

BS2F

		Pressure switch		Tank	
		1	2	membrane	Vessel
Model	P2	Start/Stop			
	kW	bar		litri	
BS2F 2 MXV 25-304 O	0.75 X2	3 - 3.9	2.7 - 3.6	60	100
BS2F 2 MXV 25-305 O	0.75 X2	3.3 - 4.8	3 - 4.5	80	100
BS2F 2 MXV 25-306 O	1.1 X2	4.1 - 5.8	3.9 - 5.5	80	100
BS2F 2 MXV 25-307 O	1.1 X2	5 - 6.7	4.7 - 6.4	100	100
BS2F 2 MXV 25-308 O	1.5 X2	5.9 - 7.8	5.6 - 7.5	100	100
BS2F 2 MXV 25-310 O	1.5 X2	7.5 - 9.7	7.3 - 9.4	150	200
BS2F 2 MXV 25-312 O	2.2 X2	10.1 - 11.6	9.8 - 11.3	200	300
BS2F 2 MXV 32-504 O	1.1 X2	3 - 3.8	2.7 - 3.5	300	500
BS2F 2 MXV 32-505 O	1.1 X2	3.2 - 4.7	2.9 - 4.4	200	300
BS2F 2 MXV 32-506 O	1.5 X2	4 - 5.7	3.7 - 5.4	200	300
BS2F 2 MXV 32-507 O	1.5 X2	4.9 - 6.6	4.6 - 6.3	300	500
BS2F 2 MXV 32-508 O	2.2 X2	5.7 - 7.6	5.4 - 7.3	300	500
BS2F 2 MXV 32-510 O	2.2 X2	7.4 - 9.5	7.1 - 9.2	200	300
BS2F 2 MXV 32-512 O	3 X2	9.8 - 11.3	9.5 - 11	300	500
BS2F 2 MXV 40-904 O	1.5 X2	3 - 3.9	2.7 - 3.6	500	800
BS2F 2 MXV 40-905 O	2.2 X2	3.4 - 4.9	3.1 - 4.6	500	800
BS2F 2 MXV 40-906 O	2.2 X2	4.3 - 5.9	4 - 5.6	500	800
BS2F 2 MXV 40-907 O	3 X2	5.1 - 6.9	4.9 - 6.6	750	1000
BS2F 2 MXV 40-908 O	3 X2	6 - 7.9	5.7 - 7.6	500	800
BS2F 2 MXV 40-910 O	4 X2	7.8 - 9.9	7.5 - 9.6	500	1000
BS2F 2 MXV 40-911 O	4 X2	9.4 - 10.9	9.1 - 10.6	1000	1500
BS2F 2 MXV 50-1503/A	2.2 X2	2.7 - 3.5	2.4 - 3.2	750	1500
BS2F 2 MXV 50-1504	3 X2	3.2 - 4.7	2.9 - 4.4	750	1500
BS2F 2 MXV 50-1505	4 X2	4.3 - 5.9	4 - 5.6	750	1500
BS2F 2 MXV 50-1506	5.5 X2	5.3 - 7.1	5 - 6.8	750	1500
BS2F 2 MXV 50-1507	5.5 X2	6.4 - 8.3	6.1 - 8	750	1500
BS2F 2 MXV 50-1508/A	5.5 X2	7.5 - 9.6	7.2 - 9.3	750	1500
BS2F 2 MXV 50-1509	7.5 X2	9.3 - 10.8	9 - 10.5	750	1500
BS2F 2 MXV 50-1510	7.5 X2	10.4 - 11.9	10.1 - 11.6	750	1500
BS2F 2 MXV 50-2003	3 X2	3 - 3.8	2.7 - 3.5	750	1500
BS2F 2 MXV 50-2004	4 X2	3.5 - 5.1	3.3 - 4.8	750	1500
BS2F 2 MXV 50-2005	5.5 X2	4.7 - 6.4	4.4 - 6.1	750	1500
BS2F 2 MXV 50-2006	7.5 X2	5.8 - 7.7	5.5 - 7.4	750	1500
BS2F 2 MXV 50-2007	7.5 X2	6.9 - 8.9	6.6 - 8.6	750	1500
BS2F 2 MXV 50-2008	9.2 X2	8.7 - 10.2	8.4 - 9.9	750	1500
BS2F 2 MXV 50-2009	9.2 X2	10.4 - 11.9	10.1 - 11.6	750	1500
BS2F 2 MXV 65-3202/D	4 X2	2.3 - 3.1	2 - 2.8	2000	4000
BS2F 2 MXV 65-3203/C	5.5 X2	3.2 - 4.7	2.9 - 4.4	2000	3000
BS2F 2 MXV 65-3204/C	7.5 X2	4.6 - 6.3	4.3 - 6	2000	4000
BS2F 2 MXV 65-3205/D	11 X2	5.9 - 7.8	5.7 - 7.5	3000	4000
BS2F 2 MXV 65-3206/D	11 X2	7.3 - 9.4	7 - 9.1	3000	5000
BS2F 2 MXV 65-3207/D	15 X2	9.5 - 11	9.2 - 10.7	-	6000
BS2F 2 MXV 80-4802/C	5.5 X2	2.5 - 3.3	2.2 - 3	3000	6000
BS2F 2 MXV 80-4803/C	7.5 X2	3.4 - 4.9	3.1 - 4.6	2000	4000
BS2F 2 MXV 80-4804/D	11 X2	4.8 - 6.6	4.5 - 6.3	3000	5000
BS2F 2 MXV 80-4805/D	15 X2	6.3 - 8.2	6 - 7.9	-	6000
BS2F 2 MXV 80-4806/D	15 X2	7.7 - 9.8	7.4 - 9.5	-	6000
BS2F 2 MXV 80-4807/E	18.5 X2	10 - 11.5	9.7 - 11.2	-	9000
BS2F 2 MXV 100-6502-2R/A	7.5 X2	2.6 - 3.4	2.3 - 3.1	-	-
BS2F 2 MXV 100-6502/A	11 X2	3.2 - 4.7	2.9 - 4.4	-	-
BS2F 2 MXV 100-6503-2R/A	15 X2	4.1 - 5.8	3.9 - 5.5	-	-
BS2F 2 MXV 100-6503/B	18.5 X2	5.1 - 6.9	4.9 - 6.6	-	-
BS2F 2 MXV 100-6504-2R/B	18.5 X2	6.1 - 8.1	5.9 - 7.8	-	-
BS2F 2 MXV 100-6504/A	22 X2	7.2 - 9.3	6.9 - 9	-	-
BS2F 2 MXV 100-6505-2R/A	30 X2	9.1 - 10.6	8.8 - 10.3	-	-
BS2F 2 MXV 100-6505/A	30 X2	10.3 - 11.8	10 - 11.5	-	-
BS2F 2 MXV 100-9002-2R/A	11 X2	3 - 3.9	2.7 - 3.6	-	-
BS2F 2 MXV 100-9002/A	15 X2	3.5 - 5.1	3.2 - 4.8	-	-
BS2F 2 MXV 100-9003-2R/B	18.5 X2	4.7 - 6.4	4.4 - 6.1	-	-
BS2F 2 MXV 100-9003/A	22 X2	5.8 - 7.7	5.5 - 7.4	-	-
BS2F 2 MXV 100-9004-2R/A	30 X2	7.1 - 9.1	6.8 - 8.8	-	-
BS2F 2 MXV 100-9004/A	30 X2	8.7 - 10.2	8.4 - 9.9	-	-
BS2F 2 MXV 100-9005-2R/A	37 X2	10.1 - 11.6	9.8 - 11.3	-	-

400V 3~ power supply / 400V 3~ motor
Start and stop pressure controlled by pressure switches

BS3F

		Transducer	Tank	
		1	membrane	Vessel
Model	P2	Start/Stop		
	kW	bar	litri	
BS3F 3 MXV 25-304 O	0.75 X3	3 - 3.9	60	100
BS3F 3 MXV 25-305 O	0.75 X3	3.3 - 4.8	80	100
BS3F 3 MXV 25-306 O	1.1 X3	4.1 - 5.8	80	100
BS3F 3 MXV 25-307 O	1.1 X3	5 - 6.7	100	100
BS3F 3 MXV 25-308 O	1.5 X3	5.9 - 7.8	100	100
BS3F 3 MXV 25-310 O	1.5 X3	7.5 - 9.7	150	200
BS3F 3 MXV 25-312 O	2.2 X3	10.1 - 11.6	200	300
BS3F 3 MXV 32-504 O	1.1 X3	3 - 3.8	300	500
BS3F 3 MXV 32-505 O	1.1 X3	3.2 - 4.7	200	300
BS3F 3 MXV 32-506 O	1.5 X3	4 - 5.7	200	300
BS3F 3 MXV 32-507 O	1.5 X3	4.9 - 6.6	300	500
BS3F 3 MXV 32-508 O	2.2 X3	5.7 - 7.6	300	500
BS3F 3 MXV 32-510 O	2.2 X3	7.4 - 9.5	200	300
BS3F 3 MXV 32-512 O	3 X3	9.8 - 11.3	300	500
BS3F 3 MXV 40-904 O	1.5 X3	3 - 3.9	500	800
BS3F 3 MXV 40-905 O	2.2 X3	3.4 - 4.9	500	800
BS3F 3 MXV 40-906 O	2.2 X3	4.3 - 5.9	500	800
BS3F 3 MXV 40-907 O	3 X3	5.1 - 6.9	750	1000
BS3F 3 MXV 40-908 O	3 X3	6 - 7.9	500	800
BS3F 3 MXV 40-910 O	4 X3	7.8 - 9.9	500	1000
BS3F 3 MXV 40-911 O	4 X3	9.4 - 10.9	1000	1500
BS3F 3 MXV 50-1503/A	2.2 X3	2.7 - 3.5	750	1500
BS3F 3 MXV 50-1504	3 X3	3.2 - 4.7	750	1500
BS3F 3 MXV 50-1505	4 X3	4.3 - 5.9	750	1500
BS3F 3 MXV 50-1506	5.5 X3	5.3 - 7.1	750	1500
BS3F 3 MXV 50-1507	5.5 X3	6.4 - 8.3	750	1500
BS3F 3 MXV 50-1508/A	5.5 X3	7.5 - 9.6	750	1500
BS3F 3 MXV 50-1509	7.5 X3	9.3 - 10.8	750	1500
BS3F 3 MXV 50-1510	7.5 X3	10.4 - 11.9	750	1500
BS3F 3 MXV 50-2003	3 X3	3 - 3.8	750	1500
BS3F 3 MXV 50-2004	4 X3	3.5 - 5.1	750	1500
BS3F 3 MXV 50-2005	5.5 X3	4.7 - 6.4	750	1500
BS3F 3 MXV 50-2006	7.5 X3	5.8 - 7.7	750	1500
BS3F 3 MXV 50-2007	7.5 X3	6.9 - 8.9	750	1500
BS3F 3 MXV 50-2008	9.2 X3	8.7 - 10.2	750	1500
BS3F 3 MXV 50-2009	9.2 X3	10.4 - 11.9	750	1500
BS3F 3 MXV 65-3202/D	4 X3	2.3 - 3.1	2000	4000
BS3F 3 MXV 65-3203/C	5.5 X3	3.2 - 4.7	2000	3000
BS3F 3 MXV 65-3204/C	7.5 X3	4.6 - 6.3	2000	4000
BS3F 3 MXV 65-3205/D	11 X3	5.9 - 7.8	3000	4000
BS3F 3 MXV 65-3206/D	11 X3	7.3 - 9.4	3000	5000
BS3F 3 MXV 65-3207/D	15 X3	9.5 - 11	-	6000
BS3F 3 MXV 80-4802/C	5.5 X3	2.5 - 3.3	3000	6000
BS3F 3 MXV 80-4803/C	7.5 X3	3.4 - 4.9	2000	4000
BS3F 3 MXV 80-4804/D	11 X3	4.8 - 6.6	3000	5000
BS3F 3 MXV 80-4805/D	15 X3	6.3 - 8.2	-	6000
BS3F 3 MXV 80-4806/D	15 X3	7.7 - 9.8	-	6000
BS3F 3 MXV 80-4807/E	18.5 X3	10 - 11.5	-	9000
BS3F 3 MXV 100-6502-2R/A	7.5 X3	2.6 - 3.4	-	-
BS3F 3 MXV 100-6502/A	11 X3	3.2 - 4.7	-	-
BS3F 3 MXV 100-6503-2R/A	15 X3	4.1 - 5.8	-	-
BS3F 3 MXV 100-6503/B	18.5 X3	5.1 - 6.9	-	-
BS3F 3 MXV 100-6504-2R/B	18.5 X3	6.1 - 8.1	-	-
BS3F 3 MXV 100-6504/A	22 X3	7.2 - 9.3	-	-
BS3F 3 MXV 100-6505-2R/A	30 X3	9.1 - 10.6	-	-
BS3F 3 MXV 100-6505/A	30 X3	10.3 - 11.8	-	-
BS3F 3 MXV 100-9002-2R/A	11 X3	3 - 3.9	-	-
BS3F 3 MXV 100-9002/A	15 X3	3.6 - 5.1	-	-
BS3F 3 MXV 100-9003-2R/B	18.5 X3	4.7 - 6.4	-	-
BS3F 3 MXV 100-9003/A	22 X3	5.8 - 7.7	-	-
BS3F 3 MXV 100-9004-2R/A	30 X3	7.1 - 9.1	-	-
BS3F 3 MXV 100-9004/A	30 X3	8.7 - 10.2	-	-
BS3F 3 MXV 100-9005-2R/A	37 X3	10.1 - 11.6	-	-

400V 3~ power supply / 400V 3~ motor
Start and stop pressure controlled by a pressure transducer

BS. MXV

Variable speed pump units with I-MAT

BSM2V ..-ITT

Model	P2
	kW
BS2V 2 MXV 25-304 O-ITT	0.75 X2
BS2V 2 MXV 25-305 O-ITT	0.75 X2
BS2V 2 MXV 25-306 O-ITT	1.1 X2
BS2V 2 MXV 25-307 O-ITT	1.1 X2
BS2V 2 MXV 25-308 O-ITT	1.5 X2
BS2V 2 MXV 25-310 O-ITT	1.5 X2
BS2V 2 MXV 25-312 O-ITT	2.2 X2
BS2V 2 MXV 32-504 O-ITT	1.1 X2
BS2V 2 MXV 32-505 O-ITT	1.1 X2
BS2V 2 MXV 32-506 O-ITT	1.5 X2
BS2V 2 MXV 32-507 O-ITT	1.5 X2
BS2V 2 MXV 32-508 O-ITT	2.2 X2
BS2V 2 MXV 32-510 O-ITT	2.2 X2
BS2V 2 MXV 32-512 O-ITT	3 X2
BS2V 2 MXV 40-904 O-ITT	1.5 X2
BS2V 2 MXV 40-905 O-ITT	2.2 X2
BS2V 2 MXV 40-906 O-ITT	2.2 X2
BS2V 2 MXV 40-907 O-ITT	3 X2
BS2V 2 MXV 40-908 O-ITT	3 X2
BS2V 2 MXV 40-910 O-ITT	4 X2
BS2V 2 MXV 40-911 O-ITT	4 X2
BS2V 2 MXV 50-1503/A-ITT	2.2 X2
BS2V 2 MXV 50-1504-ITT	3 X2
BS2V 2 MXV 50-1505-ITT	4 X2
BS2V 2 MXV 50-1506-ITT	5.5 X2
BS2V 2 MXV 50-1507-ITT	5.5 X2
BS2V 2 MXV 50-1508/A-ITT	5.5 X2
BS2V 2 MXV 50-1509-ITT	7.5 X2
BS2V 2 MXV 50-1510-ITT	7.5 X2
BS2V 2 MXV 50-2003-ITT	3 X2
BS2V 2 MXV 50-2004-ITT	4 X2
BS2V 2 MXV 50-2005-ITT	5.5 X2
BS2V 2 MXV 50-2006-ITT	7.5 X2
BS2V 2 MXV 50-2007-ITT	7.5 X2
BS2V 2 MXV 50-2008-ITT	9.2 X2
BS2V 2 MXV 50-2009-ITT	9.2 X2
BS2V 2 MXV 65-3202/D-ITT	4 X2
BS2V 2 MXV 65-3203/C-ITT	5.5 X2
BS2V 2 MXV 65-3204/C-ITT	7.5 X2
BS2V 2 MXV 65-3205/D-ITT	11 X2
BS2V 2 MXV 65-3206/D-ITT	11 X2
BS2V 2 MXV 65-3207/D-ITT	15 X2
BS2V 2 MXV 80-4802/C-ITT	5.5 X2
BS2V 2 MXV 80-4803/C-ITT	7.5 X2
BS2V 2 MXV 80-4804/D-ITT	11 X2
BS2V 2 MXV 80-4805/D-ITT	15 X2
BS2V 2 MXV 80-4806/D-ITT	15 X2
BS2V 2 MXV 80-4807/E-ITT	18.5 X2
BS2V 2 MXV 100-6501/A-ITT	5.5 X2
BS2V 2 MXV 100-6502-2R/A-ITT	7.5 X2
BS2V 2 MXV 100-6502/A-ITT	11 X2
BS2V 2 MXV 100-6503-2R/A-ITT	15 X2
BS2V 2 MXV 100-6503/B-ITT	18.5 X2
BS2V 2 MXV 100-6504-2R/B-ITT	18.5 X2
BS2V 2 MXV 100-6504/A-ITT	22 X2
BS2V 2 MXV 100-9001/A-ITT	7.5 X2
BS2V 2 MXV 100-9002-2R/A-ITT	11 X2
BS2V 2 MXV 100-9002/A-ITT	15 X2
BS2V 2 MXV 100-9003-2R/B-ITT	18.5 X2
BS2V 2 MXV 100-9003/A-ITT	22 X2

BSM3V ..-ITT

Model	P2
	kW
BS3V 3 MXV 25-304 O-ITT	0.75 X3
BS3V 3 MXV 25-305 O-ITT	0.75 X3
BS3V 3 MXV 25-306 O-ITT	1.1 X3
BS3V 3 MXV 25-307 O-ITT	1.1 X3
BS3V 3 MXV 25-308 O-ITT	1.5 X3
BS3V 3 MXV 25-310 O-ITT	1.5 X3
BS3V 3 MXV 25-312 O-ITT	2.2 X3
BS3V 3 MXV 32-504 O-ITT	1.1 X3
BS3V 3 MXV 32-505 O-ITT	1.1 X3
BS3V 3 MXV 32-506 O-ITT	1.5 X3
BS3V 3 MXV 32-507 O-ITT	1.5 X3
BS3V 3 MXV 32-508 O-ITT	2.2 X3
BS3V 3 MXV 32-510 O-ITT	2.2 X3
BS3V 3 MXV 32-512 O-ITT	3 X3
BS3V 3 MXV 40-904 O-ITT	1.5 X3
BS3V 3 MXV 40-905 O-ITT	2.2 X3
BS3V 3 MXV 40-906 O-ITT	2.2 X3
BS3V 3 MXV 40-907 O-ITT	3 X3
BS3V 3 MXV 40-908 O-ITT	3 X3
BS3V 3 MXV 40-910 O-ITT	4 X3
BS3V 3 MXV 40-911 O-ITT	4 X3
BS3V 3 MXV 50-1503/A-ITT	2.2 X3
BS3V 3 MXV 50-1504-ITT	3 X3
BS3V 3 MXV 50-1505-ITT	4 X3
BS3V 3 MXV 50-1506-ITT	5.5 X3
BS3V 3 MXV 50-1507-ITT	5.5 X3
BS3V 3 MXV 50-1508/A-ITT	5.5 X3
BS3V 3 MXV 50-1509-ITT	7.5 X3
BS3V 3 MXV 50-1510-ITT	7.5 X3
BS3V 3 MXV 50-2003-ITT	3 X3
BS3V 3 MXV 50-2004-ITT	4 X3
BS3V 3 MXV 50-2005-ITT	5.5 X3
BS3V 3 MXV 50-2006-ITT	7.5 X3
BS3V 3 MXV 50-2007-ITT	7.5 X3
BS3V 3 MXV 50-2008-ITT	9.2 X3
BS3V 3 MXV 50-2009-ITT	9.2 X3
BS3V 3 MXV 65-3202/D-ITT	4 X3
BS3V 3 MXV 65-3203/C-ITT	5.5 X3
BS3V 3 MXV 65-3204/C-ITT	7.5 X3
BS3V 3 MXV 65-3205/D-ITT	11 X3
BS3V 3 MXV 65-3206/D-ITT	11 X3
BS3V 3 MXV 65-3207/D-ITT	15 X3
BS3V 3 MXV 80-4802/C-ITT	5.5 X3
BS3V 3 MXV 80-4803/C-ITT	7.5 X3
BS3V 3 MXV 80-4804/D-ITT	11 X3
BS3V 3 MXV 80-4805/D-ITT	15 X3
BS3V 3 MXV 80-4806/D-ITT	15 X3
BS3V 3 MXV 80-4807/E-ITT	18.5 X3
BS3V 3 MXV 100-6501/A-ITT	5.5 X3
BS3V 3 MXV 100-6502-2R/A-ITT	7.5 X3
BS3V 3 MXV 100-6502/A-ITT	11 X3
BS3V 3 MXV 100-6503-2R/A-ITT	15 X3
BS3V 3 MXV 100-6503/B-ITT	18.5 X3
BS3V 3 MXV 100-6504-2R/B-ITT	18.5 X3
BS3V 3 MXV 100-6504/A-ITT	22 X3
BS3V 3 MXV 100-9001/A-ITT	7.5 X3
BS3V 3 MXV 100-9002-2R/A-ITT	11 X3
BS3V 3 MXV 100-9002/A-ITT	15 X3
BS3V 3 MXV 100-9003-2R/B-ITT	18.5 X3
BS3V 3 MXV 100-9003/A-ITT	22 X3

BS. MXV

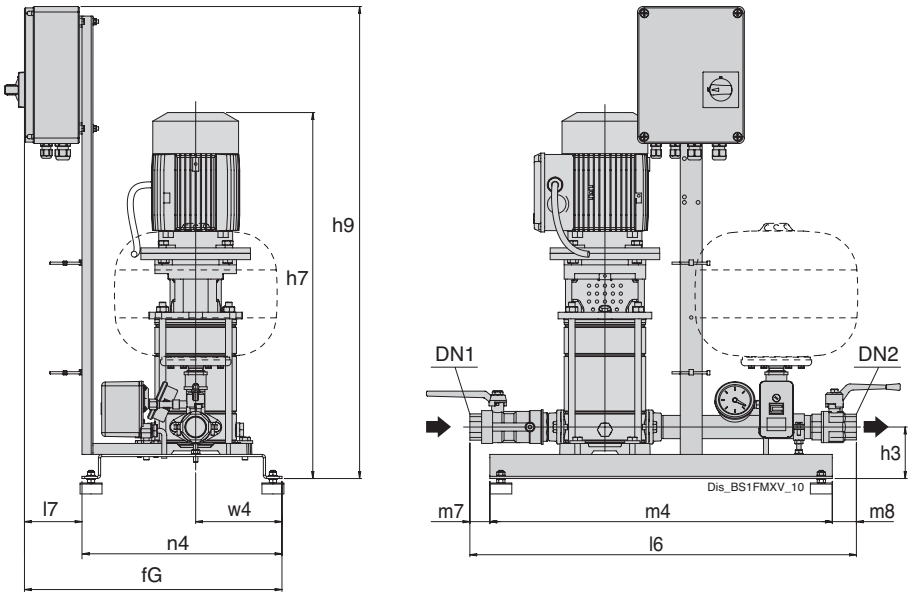
Variable speed pump units with WALL

BS2V ..-WALL

Model	P2
	kW
BS2V 2 MXV 50-1504-WALL	3 X2
BS2V 2 MXV 50-1505-WALL	4 X2
BS2V 2 MXV 50-1506-WALL	5.5 X2
BS2V 2 MXV 50-1507-WALL	5.5 X2
BS2V 2 MXV 50-1508/A-WALL	5.5 X2
BS2V 2 MXV 50-1509-WALL	7.5 X2
BS2V 2 MXV 50-1510-WALL	7.5 X2
BS2V 2 MXV 50-1512-WALL	9.2 X2
BS2V 2 MXV 50-1515-WALL	11 X2
BS2V 2 MXV 50-1517-WALL	15 X2
BS2V 2 MXV 50-2003-WALL	3 X2
BS2V 2 MXV 50-2004-WALL	4 X2
BS2V 2 MXV 50-2005-WALL	5.5 X2
BS2V 2 MXV 50-2006-WALL	7.5 X2
BS2V 2 MXV 50-2007-WALL	7.5 X2
BS2V 2 MXV 50-2008-WALL	9.2 X2
BS2V 2 MXV 50-2009-WALL	9.2 X2
BS2V 2 MXV 50-2011-WALL	11 X2
BS2V 2 MXV 50-2015-WALL	15 X2

BS. MXV

Dimensions and weights



TYPE			mm									kg
	DN1	DN2	fG	h3	h7	h9	l6	l7	m4	n4	w4	Weight
BS1F1MXV25-304O	G 1	G 1	470	94	666	862	651	105	625	365	158	44.5
BS1F1MXV25-305O	G 1	G 1	470	94	690	862	651	105	625	365	158	53.8
BS1F1MXV25-306O	G 1	G 1	470	94	714	862	651	105	625	365	158	48.3
BS1F1MXV25-307O	G 1	G 1	470	94	738	862	651	105	625	365	158	53.8
BS1F1MXV25-308O	G 1	G 1	470	94	762	862	651	105	625	365	158	55.8
BS1F1MXV25-310O	G 1	G 1	470	94	811	862	651	105	625	365	158	53.8
BS1F1MXV25-312O	G 1	G 1	470	94	899	862	651	105	625	365	158	53.8
BS1F1MXV32-504O	G 1 1/4	G 1 1/4	470	94	666	862	706	105	625	365	158	53.8
BS1F1MXV32-505O	G 1 1/4	G 1 1/4	470	94	690	862	706	105	625	365	158	53.8
BS1F1MXV32-506O	G 1 1/4	G 1 1/4	470	94	714	862	706	105	625	365	158	51.1
BS1F1MXV32-507O	G 1 1/4	G 1 1/4	470	94	738	862	706	105	625	365	158	-
BS1F1MXV32-508O	G 1 1/4	G 1 1/4	470	94	802	862	706	105	625	365	158	55.4
BS1F1MXV32-510O	G 1 1/4	G 1 1/4	470	94	851	862	706	105	625	365	158	56.6
BS1F1MXV32-512O	G 1 1/4	G 1 1/4	470	94	915	862	706	105	625	365	158	53.8
BS1F1MXV40-904O	G 1 1/2	G 1 1/2	470	124	711	862	706	105	625	365	160	53.8
BS1F1MXV40-905O	G 1 1/2	G 1 1/2	470	124	781	862	706	105	625	365	160	53.8
BS1F1MXV40-906O	G 1 1/2	G 1 1/2	470	124	811	862	706	105	625	365	160	60
BS1F1MXV40-907O	G 1 1/2	G 1 1/2	470	124	857	862	706	105	625	365	160	53.8
BS1F1MXV40-908O	G 1 1/2	G 1 1/2	470	124	887	862	706	105	625	365	160	53.8
BS1F1MXV40-910O	G 1 1/2	G 1 1/2	470	124	947	862	706	105	625	365	160	53.8
BS1F1MXV40-911O	G 1 1/2	G 1 1/2	470	124	977	862	706	105	625	365	160	53.8

Non-binding dimensions to be checked when ordering
Anti-vibration kit supplied disassembled as standard

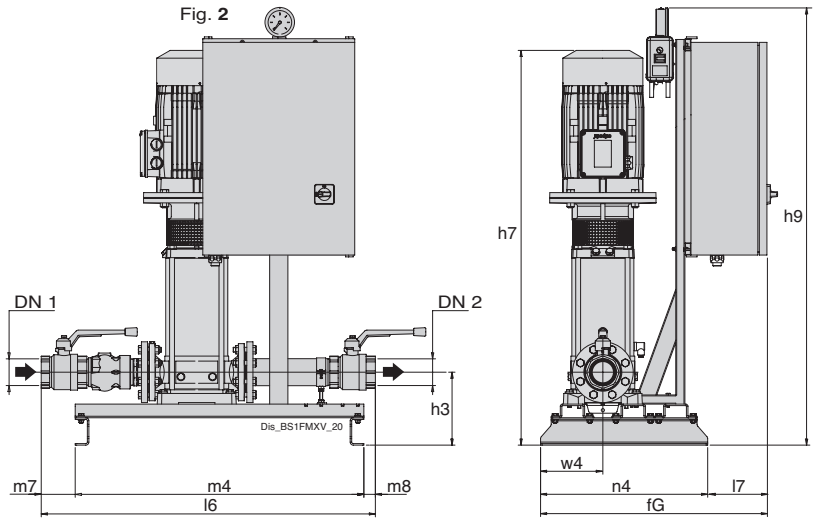
TYPE	ISO 228		mm									Kg
	DN1	DN2	fG	h3	h7	h9	l6	l7	m4	n4	w4	Weight
BSM1F1MXVM25-304O	G 1	G 1	470	94	666	862	790	105	625	365	158	42.3
BSM1F1MXVM25-305O	G 1	G 1	470	94	690	862	790	105	625	365	158	42.3
BSM1F1MXVM25-306O	G 1	G 1	470	94	714	862	790	105	625	365	158	42.3
BSM1F1MXVM25-307O	G 1	G 1	470	94	738	862	790	105	625	365	158	42.3
BSM1F1MXVM25-308O	G 1	G 1	470	94	762	862	790	105	625	365	158	42.3
BSM1F1MXVM32-504O	G 1 1/4	G 1 1/4	470	94	666	862	790	105	625	365	158	42.3
BSM1F1MXVM32-505O	G 1 1/4	G 1 1/4	470	94	690	862	790	105	625	365	158	42.3
BSM1F1MXVM32-506O	G 1 1/4	G 1 1/4	470	94	714	862	790	105	625	365	158	42.3
BSM1F1MXVM32-507O	G 1 1/4	G 1 1/4	470	94	738	862	790	105	625	365	158	42.3
BSM1F1MXVM40-904O	G 1 1/2	G 1 1/2	470	94	802	862	790	105	625	365	158	42.3

Non-binding dimensions to be checked when ordering
Anti-vibration kit supplied disassembled as standard

BS. MXV

Dimensions and weights

Fig. **2**

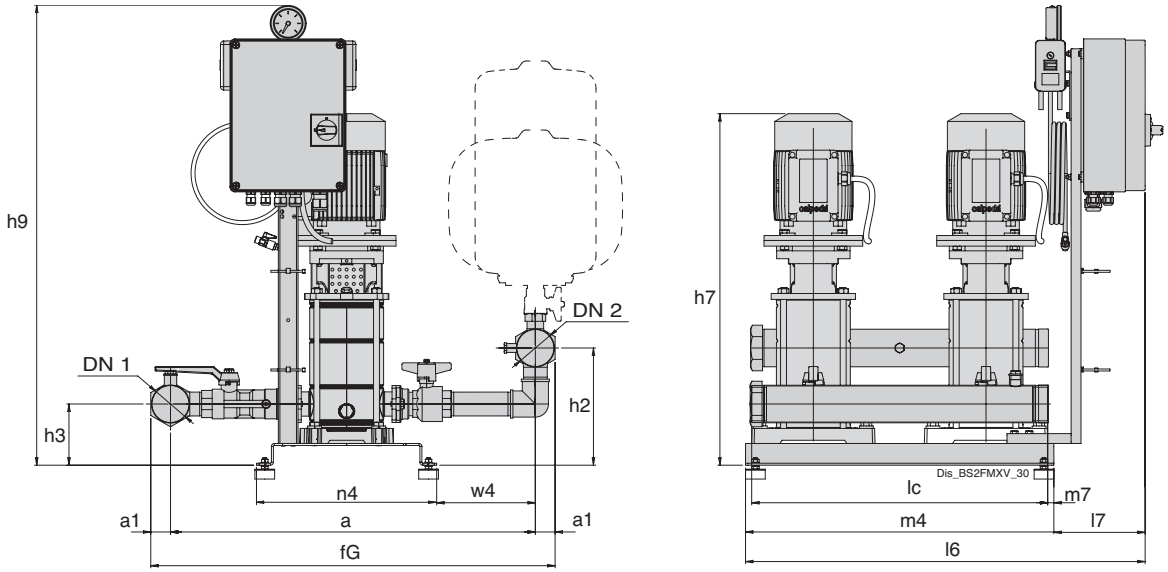


TYPE	Manifolds		mm									Kg
	DN1	DN2	fG	h3	h7	h9	l6	l7	m4	n4	w4	Weight
BS1F 1 MXV 50-1503/A	G 2	G 2	550	225	934	1155	919	-	950	550	205	55.4
BS1F 1 MXV 50-1504	G 2	G 2	550	225	980	1155	919	-	950	550	205	107
BS1F 1 MXV 50-1505	G 2	G 2	550	225	1028	1155	919	-	950	550	205	103
BS1F 1 MXV 50-1506	G 2	G 2	550	225	1167	1155	919	-	950	550	205	55.4
BS1F 1 MXV 50-1507	G 2	G 2	550	225	1215	1155	919	-	950	550	205	-
BS1F 1 MXV 50-1508/A	G 2	G 2	695	225	1263	1420	919	145	950	550	205	55.4
BS1F 1 MXV 50-1509	G 2	G 2	695	225	1311	1420	919	145	950	550	205	55.4
BS1F 1 MXV 50-1510	G 2	G 2	695	225	1359	1420	919	145	950	550	205	55.4
BS1F 1 MXV 50-2003	G 2	G 2	550	225	932	1155	919	-	950	550	205	55.4
BS1F 1 MXV 50-2004	G 2	G 2	550	225	967	1155	919	-	950	550	205	110
BS1F 1 MXV 50-2005	G 2	G 2	550	225	1119	1155	919	-	950	550	205	55.4
BS1F 1 MXV 50-2006	G 2	G 2	695	225	1167	1420	919	145	950	550	205	165
BS1F 1 MXV 50-2007	G 2	G 2	65	225	1215	1420	919	145	950	550	205	55.4
BS1F 1 MXV 50-2008	G 2	G 2	695	225	1367	1420	919	145	950	550	205	55.4
BS1F 1 MXV 50-2009	G 2	G 2	695	225	1415	1420	919	145	950	550	205	55.4
BS1F 1 MXV 65-3202/D	G 2 1/2	G 2 1/2	550	240	853	1155	1042	-	950	550	205	119
BS1F 1 MXV 65-3203/C	G 2 1/2	G 2 1/2	550	240	947	1155	1042	-	950	550	205	53.8
BS1F 1 MXV 65-3204/C	G 2 1/2	G 2 1/2	695	240	993	1420	1042	145	950	550	205	178
BS1F 1 MXV 65-3205/D	G 2 1/2	G 2 1/2	695	240	1189	1420	1042	145	950	550	205	228.5
BS1F 1 MXV 65-3206/D	G 2 1/2	G 2 1/2	695	240	1235	1420	1042	145	950	550	205	221
BS1F 1 MXV 65-3207/D	G 2 1/2	G 2 1/2	695	240	1306	1420	1042	145	950	550	205	245.5
BS1F 1 MXV 80-4802/C	G 3	G 3	550	240	940	1155	1100	-	950	550	205	53.8
BS1F 1 MXV 80-4803/C	G 3	G 3	695	240	1001	1420	1100	145	950	550	205	53.8
BS1F 1 MXV 80-4804/D	G 3	G 3	695	240	1212	1420	1100	145	950	550	205	53.8
BS1F 1 MXV 80-4805/D	G 3	G 3	695	240	1299	1420	1100	145	950	550	205	53.8
BS1F 1 MXV 80-4806/D	G 3	G 3	695	240	1360	1420	1100	145	950	550	205	53.8
BS1F 1 MXV 80-4807/E	G 3	G 3	695	240	1498	1420	1100	145	950	550	205	53.8

Non-binding dimensions to be checked when ordering

BS. MXV

Dimensions and weights

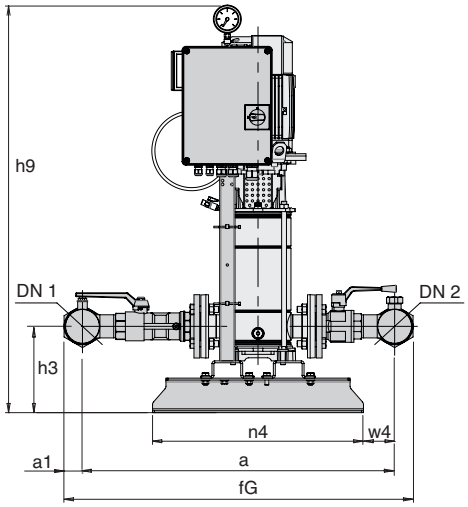


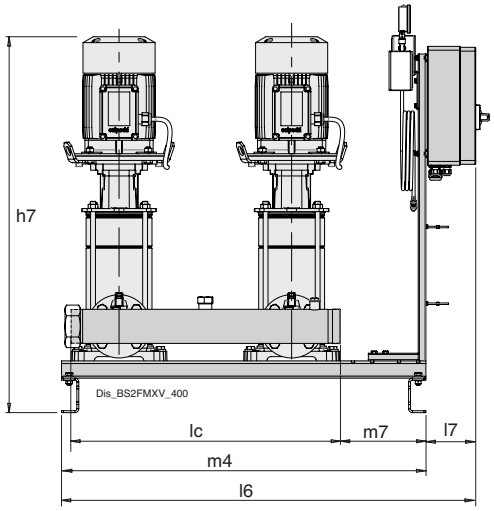
TYPE	Manifolds		mm													Kg
	DN1	DN2	a	a1	fG	h2	h3	h7	h9	l6	l7	lc	m4	n4	w4	Weight
BS2F 2 MXV 25-304 O	G 1 1/2	G 1 1/2	589	26.5	642	170	94	666	864	810	185	600	625	365	140	-
BS2F 2 MXV 25-305 O	G 1 1/2	G 1 1/2	589	26.5	642	170	94	690	864	810	185	600	625	365	140	-
BS2F 2 MXV 25-306 O	G 1 1/2	G 1 1/2	589	26.5	642	170	94	714	864	810	185	600	625	365	140	87.7
BS2F 2 MXV 25-307 O	G 1 1/2	G 1 1/2	589	26.5	642	170	94	738	864	810	185	600	625	365	140	-
BS2F 2 MXV 25-308 O	G 1 1/2	G 1 1/2	589	26.5	642	170	94	762	864	810	185	600	625	365	140	-
BS2F 2 MXV 25-310 O	G 1 1/2	G 1 1/2	589	26.5	642	170	94	811	864	810	185	600	625	365	140	-
BS2F 2 MXV 25-312 O	G 1 1/2	G 1 1/2	589	26.5	642	170	94	899	864	810	185	600	625	365	140	-
BS2F 2 MXV 32-504 O	G 2	G 2	642	32	706	186	94	666	864	810	185	600	625	365	168	86.9
BS2F 2 MXV 32-505 O	G 2	G 2	642	32	706	186	94	690	864	810	185	600	625	365	168	-
BS2F 2 MXV 32-506 O	G 2	G 2	642	32	706	186	94	714	864	810	185	600	625	365	168	93.3
BS2F 2 MXV 32-507 O	G 2	G 2	642	32	706	186	94	738	864	810	185	600	625	365	168	94.5
BS2F 2 MXV 32-508 O	G 2	G 2	642	32	706	186	94	802	864	810	185	600	625	365	168	-
BS2F 2 MXV 32-510 O	G 2	G 2	642	32	706	186	94	851	864	810	185	600	625	365	168	103
BS2F 2 MXV 32-512 O	G 2	G 2	642	32	706	186	94	915	864	810	185	600	625	365	168	-
BS2F 2 MXV 40-904 O	G 2 1/2	G 2 1/2	706	40	820	238	124	711	931	810	185	600	625	365	200	-
BS2F 2 MXV 40-905 O	G 2 1/2	G 2 1/2	706	40	820	238	124	781	931	810	185	600	625	365	200	-
BS2F 2 MXV 40-906 O	G 2 1/2	G 2 1/2	706	40	820	238	124	811	931	810	185	600	625	365	200	110.9
BS2F 2 MXV 40-907 O	G 2 1/2	G 2 1/2	706	40	820	238	124	857	931	810	185	600	625	365	200	128
BS2F 2 MXV 40-908 O	G 2 1/2	G 2 1/2	706	40	820	238	124	887	931	810	185	600	625	365	200	-
BS2F 2 MXV 40-910 O	G 2 1/2	G 2 1/2	706	40	820	238	124	947	931	810	185	600	625	365	200	139.5
BS2F 2 MXV 40-911 O	G 2 1/2	G 2 1/2	706	40	820	170	94	977	1012	810	185	600	625	365	200	-

Non-binding dimensions to be checked when ordering
Anti-vibration kit supplied disassembled as standard

BS. MXV

Dimensions and weights



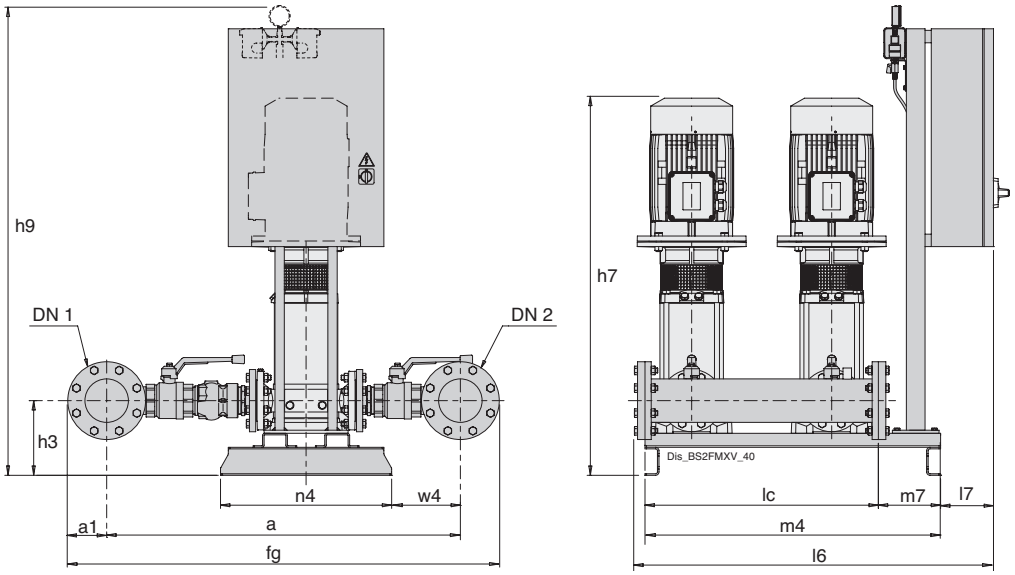


TYPE	Manifolds		mm												Kg
	DN1	DN2	a	a1	fG	h3	h7	h9	l6	l7	lc	m4	n4	w4	Weight
BS2F 2 MXV 50-1503/A	G 3	G 3	816	48	913	225	934	1015	1080	130	700	950	550	82	52.4
BS2F 2 MXV 50-1504	G 3	G 3	816	48	913	225	980	1015	1080	130	700	950	550	82	174.5
BS2F 2 MXV 50-1505	G 3	G 3	816	48	913	225	1028	1015	1080	130	700	950	550	82	52.4
BS2F 2 MXV 50-1506	G 3	G 3	816	48	913	225	1167	1015	1080	130	700	950	550	82	236
BS2F 2 MXV 50-1507	G 3	G 3	816	48	913	225	1215	1015	1080	130	700	950	550	82	241
BS2F 2 MXV 50-1508/A	G 3	G 3	816	48	913	225	1263	1420	1170	220	700	950	550	82	52.4
BS2F 2 MXV 50-1509	G 3	G 3	816	48	913	225	1311	1420	1170	220	700	950	550	82	-
BS2F 2 MXV 50-1510	G 3	G 3	816	48	913	225	1359	1420	1170	220	700	950	550	82	290
BS2F 2 MXV 50-2003	G 3	G 3	816	48	913	225	932	1015	1112	130	700	950	550	82	52.4
BS2F 2 MXV 50-2004	G 3	G 3	816	48	913	225	967	1015	1112	130	700	950	550	82	181.5
BS2F 2 MXV 50-2005	G 3	G 3	816	48	913	225	1119	1015	1112	130	700	950	550	82	227
BS2F 2 MXV 50-2006	G 3	G 3	816	48	913	225	1167	1420	1202	220	700	950	550	82	278
BS2F 2 MXV 50-2007	G 3	G 3	816	48	913	225	1215	1420	1202	220	700	950	550	82	52.4
BS2F 2 MXV 50-2008	G 3	G 3	816	48	913	225	1367	1420	1202	220	700	950	550	82	52.4
BS2F 2 MXV 50-2009	G 3	G 3	816	48	913	225	1415	1420	1202	220	700	950	550	82	52.4

Non-binding dimensions to be checked when ordering

BS. MXV

Dimensions and weights

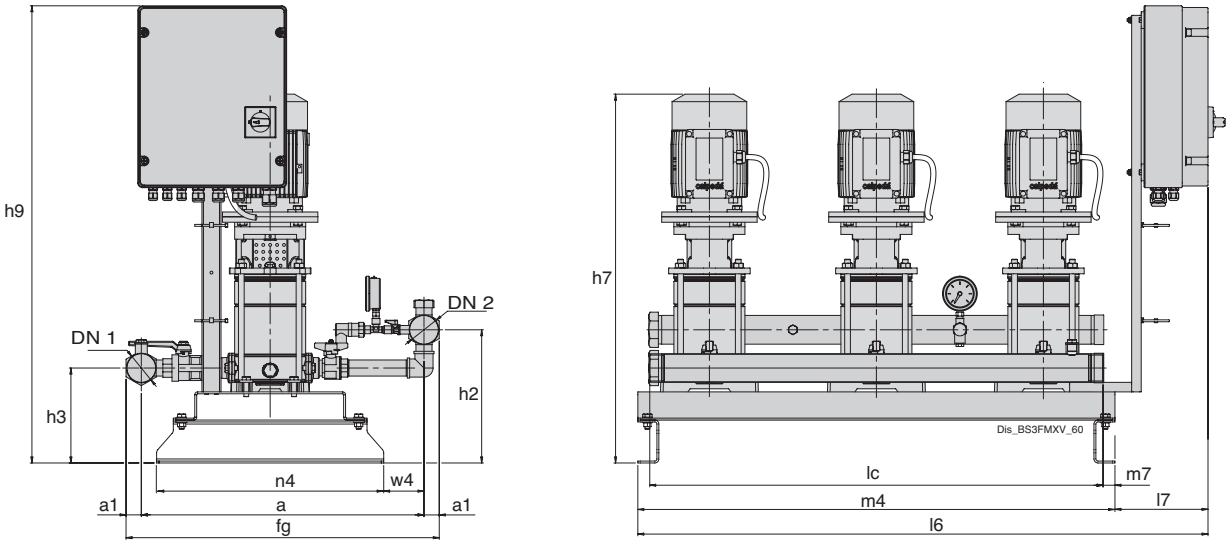


TYPE	Manifolds		mm												Kg
	DN1	DN2	a	a1	fG	h3	h7	h9	l6	l7	lc	m4	n4	w4	Weight
BS2F 2 MXV 65-3202/D	100	100	1090	110	1310	240	853	1015	1114	130	750	950	550	231	271
BS2F 2 MXV 65-3203/C	100	100	1090	110	1310	240	947	1015	1114	130	750	950	550	231	304
BS2F 2 MXV 65-3204/C	100	100	1090	110	1310	240	993	1420	1204	220	750	950	550	231	354
BS2F 2 MXV 65-3205/D	100	100	1090	110	1310	240	1189	1420	1204	220	750	950	550	231	-
BS2F 2 MXV 65-3206/D	100	100	1090	110	1310	240	1235	1420	1204	220	750	950	550	231	436.5
BS2F 2 MXV 65-3207/D	100	100	1090	110	1310	240	1306	1420	1204	220	750	950	550	231	107.5
BS2F 2 MXV 80-4802/C	125	125	1191	125	1441	240	940	1015	1080	130	750	950	550	279	-
BS2F 2 MXV 80-4803/C	125	125	1191	125	1441	240	1001	1420	1170	220	750	950	550	279	-
BS2F 2 MXV 80-4804/D	125	125	1191	125	1441	240	1212	1420	1170	220	750	950	550	279	471
BS2F 2 MXV 80-4805/D	125	125	1191	125	1441	240	1299	1420	1170	220	750	950	550	279	-
BS2F 2 MXV 80-4806/D	125	125	1191	125	1441	240	1360	1420	1170	220	750	950	550	279	534
BS2F 2 MXV 80-4807/E	125	125	1191	125	1441	240	1498	1420	1170	220	750	950	550	279	534
BS2F 2 MXV 100-6502-2R/A	150	150	-	142.5	-	-	1394	-	-	-	950	-	-	-	107.5
BS2F 2 MXV 100-6502/A	150	150	-	142.5	-	-	1534	-	-	-	950	-	-	-	107.5
BS2F 2 MXV 100-6503-2R/A	150	150	-	142.5	-	-	1651	-	-	-	950	-	-	-	107.5
BS2F 2 MXV 100-6503/B	150	150	-	142.5	-	-	1705	-	-	-	950	-	-	-	107.5
BS2F 2 MXV 100-6504-2R/B	150	150	-	142.5	-	-	1797	-	-	-	950	-	-	-	107.5
BS2F 2 MXV 100-6504/A	150	150	-	142.5	-	-	1797	-	-	-	950	-	-	-	107.5
BS2F 2 MXV 100-6505-2R/A	150	150	-	142.5	-	-	1968	-	-	-	950	-	-	-	107.5
BS2F 2 MXV 100-6505/A	150	150	-	142.5	-	-	1968	-	-	-	950	-	-	-	107.5
BS2F 2 MXV 100-9002-2R/A	200	200	1543	170	1883	370	1538	-	-	-	950	1300	1050	260	107.5
BS2F 2 MXV 100-9002/A	200	200	1543	170	1883	370	1563	-	-	-	950	1300	1050	260	107.5
BS2F 2 MXV 100-9003-2R/B	200	200	1543	170	1883	370	1709	-	-	-	950	1300	1050	260	107.5
BS2F 2 MXV 100-9003/A	200	200	1543	170	1883	370	1709	-	-	-	950	1300	1050	260	107.5
BS2F 2 MXV 100-9004-2R/A	200	200	1543	170	1883	370	1904	-	-	-	950	1300	1050	260	107.5
BS2F 2 MXV 100-9004/A	200	200	1543	170	1883	370	1904	-	-	-	950	1300	1050	260	107.5
BS2F 2 MXV 100-9005-2R/A	200	200	1543	170	1883	370	1997	-	-	-	950	1300	1050	260	107.5

Non-binding dimensions to be checked when ordering
Missing dimensions on request

BS. MXV

Dimensions and weights

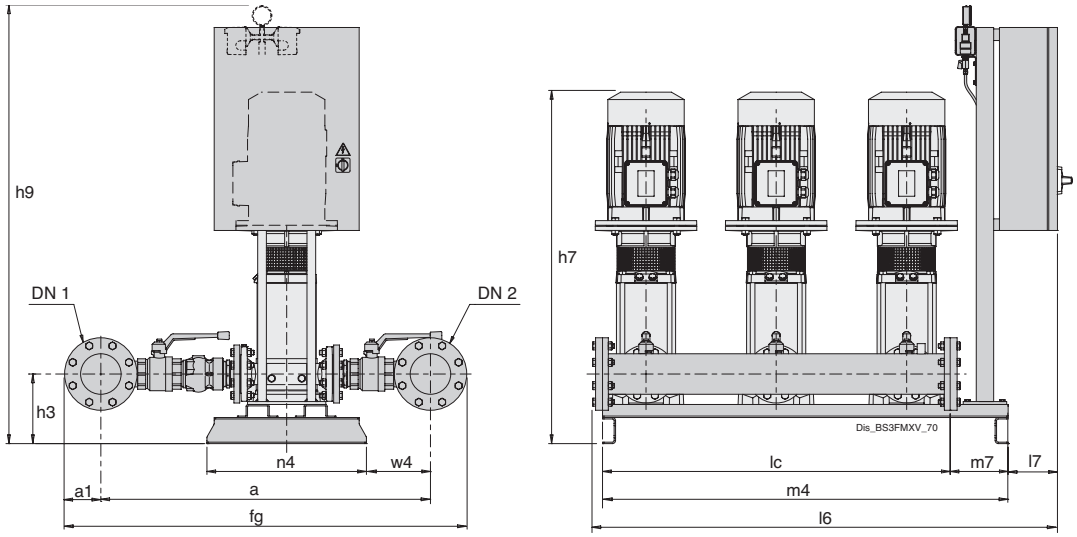


TYPE	Manifolds		mm													Kg
	DN1	DN2	a	a1	fG	h2	h3	h7	h9	l6	l7	lc	m4	n4	w4	Weight
BS3F 3 MXV 25-304 O	G 2	G 2	593	32	657	279	199	771	969	1195	195	950	1000	476	84	136
BS3F 3 MXV 25-305 O	G 2	G 2	593	32	657	279	199	795	969	1195	195	950	1000	476	84	136
BS3F 3 MXV 25-306 O	G 2	G 2	593	32	657	279	199	819	969	1195	195	950	1000	476	84	136
BS3F 3 MXV 25-307 O	G 2	G 2	593	32	657	279	199	843	969	1195	195	950	1000	476	84	136
BS3F 3 MXV 25-308 O	G 2	G 2	593	32	657	279	199	867	969	1195	195	950	1000	476	84	136
BS3F 3 MXV 25-310 O	G 2	G 2	593	32	657	279	199	916	969	1195	195	950	1000	476	84	136
BS3F 3 MXV 25-312 O	G 2	G 2	593	32	657	279	199	1004	969	1195	195	950	1000	476	84	136
BS3F 3 MXV 32-504 O	G 2 1/2	G 2 1/2	650	40	730	299	199	771	969	1195	195	950	1000	476	113	136
BS3F 3 MXV 32-505 O	G 2 1/2	G 2 1/2	650	40	730	299	199	795	969	1195	195	950	1000	476	113	136
BS3F 3 MXV 32-506 O	G 2 1/2	G 2 1/2	650	40	730	299	199	918	969	1195	195	950	1000	476	113	136
BS3F 3 MXV 32-507 O	G 2 1/2	G 2 1/2	650	40	730	299	199	843	969	1195	195	950	1000	476	113	136
BS3F 3 MXV 32-508 O	G 2 1/2	G 2 1/2	650	40	730	299	199	907	969	1195	195	950	1000	476	113	136
BS3F 3 MXV 32-510 O	G 2 1/2	G 2 1/2	650	40	730	299	199	956	969	1195	195	950	1000	476	113	136
BS3F 3 MXV 32-512 O	G 2 1/2	G 2 1/2	650	40	730	299	199	1020	969	1195	195	950	1000	476	113	136
BS3F 3 MXV 40-904 O	G 3	G 3	746	48	842	349	229	816	969	1195	195	950	1000	476	145	136
BS3F 3 MXV 40-905 O	G 3	G 3	746	48	842	349	229	886	969	1195	195	950	1000	476	145	136
BS3F 3 MXV 40-906 O	G 3	G 3	746	48	842	349	229	916	969	1195	195	950	1000	476	145	136
BS3F 3 MXV 40-907 O	G 3	G 3	746	48	842	349	229	962	969	1195	195	950	1000	476	145	136
BS3F 3 MXV 40-908 O	G 3	G 3	746	48	842	349	229	992	969	1195	195	950	1000	476	145	224
BS3F 3 MXV 40-910 O	G 3	G 3	746	48	842	349	229	1052	969	1195	195	950	1000	476	145	136
BS3F 3 MXV 40-911 O	G 3	G 3	746	48	842	349	229	1082	969	1195	195	950	1000	476	145	136

Non-binding dimensions to be checked when ordering

BS. MXV

Dimensions and weights

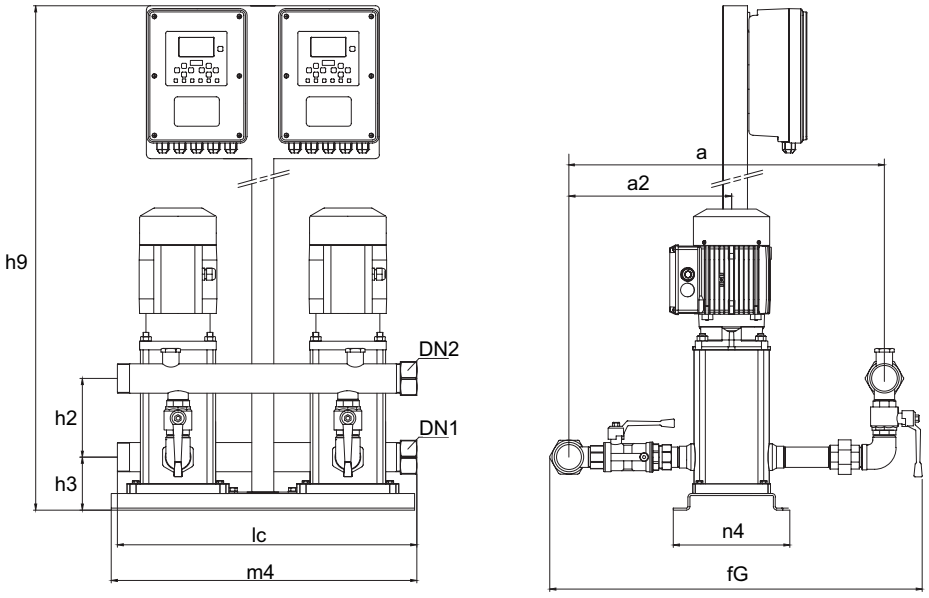


TYPE	Manifolds		mm												Kg
	DN1	DN2	a	a1	fG	h3	h7	h9	l6	l7	lc	m4	n4	w4	Weight
BS3F 3 MXV 50-1503/A	100	100	880	110	1100	296	1005	1020	1572	140	1200	1400	550	94	194
BS3F 3 MXV 50-1504	100	100	880	110	1100	296	1051	1020	1572	140	1200	1400	550	94	339
BS3F 3 MXV 50-1505	100	100	880	110	1100	296	1099	1020	1572	140	1200	1400	550	94	194
BS3F 3 MXV 50-1506	100	100	880	110	1100	296	1239	1220	1572	140	1200	1400	550	94	194
BS3F 3 MXV 50-1507	100	100	880	110	1100	296	1287	1220	1572	140	1200	1400	550	94	194
BS3F 3 MXV 50-1508/A	100	100	880	110	1100	296	1335	1408	1652	220	1200	1400	550	94	486
BS3F 3 MXV 50-1509	100	100	880	110	1100	296	1382	1408	1652	220	1200	1400	550	94	194
BS3F 3 MXV 50-1510	100	100	880	110	1100	296	1430	1408	1652	220	1200	1400	550	94	194
BS3F 3 MXV 50-2003	100	100	880	110	1100	296	1003	1020	1572	140	1200	1400	550	94	194
BS3F 3 MXV 50-2004	100	100	880	110	1100	296	1038	1020	1572	140	1200	1400	550	94	194
BS3F 3 MXV 50-2005	100	100	880	110	1100	296	1190	1020	1572	140	1200	1400	550	94	194
BS3F 3 MXV 50-2006	100	100	880	110	1100	296	1238	1408	1572	140	1200	1400	550	94	194
BS3F 3 MXV 50-2007	100	100	880	110	1100	296	1286	1408	1572	140	1200	1400	550	94	482
BS3F 3 MXV 50-2008	100	100	880	110	1100	296	1438	-	1652	220	1200	1400	550	94	194
BS3F 3 MXV 50-2009	100	100	880	110	1100	296	1486	-	1652	220	1200	1400	550	94	194
BS3F 3 MXV 65-3202/D	125	125	1156	125	1406	291	903	1500	1574	140	1200	1400	550	284	-
BS3F 3 MXV 65-3203/C	125	125	1156	125	1406	291	997	1500	1574	140	1200	1400	550	284	-
BS3F 3 MXV 65-3204/C	125	125	1156	125	1406	291	1043	1500	1574	140	1200	1400	550	284	-
BS3F 3 MXV 65-3205/D	125	125	1156	125	1406	291	1239	1713	1654	220	1200	1400	550	284	-
BS3F 3 MXV 65-3206/D	125	125	1156	125	1406	291	1285	1713	1654	220	1200	1400	550	284	-
BS3F 3 MXV 65-3207/D	125	125	1156	125	1406	291	1356	1713	1654	220	1200	1400	550	284	-
BS3F 3 MXV 80-4802/C	150	150	1240	142.5	1525	291	990	1500	1577	140	1200	1400	550	313	-
BS3F 3 MXV 80-4803/C	150	150	1240	142.5	1525	291	1051	1500	1577	140	1200	1400	550	313	-
BS3F 3 MXV 80-4804/D	150	150	1240	142.5	1525	291	1262	1713	1657	220	1200	1400	550	313	-
BS3F 3 MXV 80-4805/D	150	150	1240	142.5	1525	291	1349	1713	1657	220	1200	1400	550	313	-
BS3F 3 MXV 80-4806/D	150	150	1240	142.5	1525	291	1410	1713	1657	220	1200	1400	550	313	-
BS3F 3 MXV 80-4807/E	150	150	1240	142.5	1525	291	1548	1713	-	-	1200	1400	550	313	-
BS3F 3 MXV 100-6502-2R/A	200	200	1318	170	1658	386	1414	-	-	-	1500	1650	900	65	-
BS3F 3 MXV 100-6502/A	200	200	1318	170	1658	386	1554	-	-	-	1500	1650	900	65	-
BS3F 3 MXV 100-6503-2R/A	200	200	1318	170	1658	386	1671	-	-	-	1500	1650	900	65	-
BS3F 3 MXV 100-6503/B	200	200	1318	170	1658	386	1725	-	-	-	1500	1650	900	65	-
BS3F 3 MXV 100-6504-2R/B	200	200	1318	170	1658	386	1817	-	-	-	1500	1650	900	65	-
BS3F 3 MXV 100-6504/A	200	200	1318	170	1658	386	1817	-	-	-	1500	1650	900	65	-
BS3F 3 MXV 100-6505-2R/A	200	200	1318	170	1658	386	1988	-	-	-	1500	1650	900	65	-
BS3F 3 MXV 100-6505/A	200	200	1318	170	1658	386	1988	-	-	-	1500	1650	900	65	-
BS3F 3 MXV 100-9002-2R/A	200	200	1561	170	1901	390	1988	-	-	-	1500	1850	1050	280	-
BS3F 3 MXV 100-9002/A	200	200	1561	170	1901	390	1558	-	-	-	1500	1850	1050	280	-
BS3F 3 MXV 100-9003-2R/B	200	200	1561	170	1901	390	1583	-	-	-	1500	1850	1050	280	-
BS3F 3 MXV 100-9003/A	200	200	1561	170	1901	390	1729	-	-	-	1500	1850	1050	280	-
BS3F 3 MXV 100-9004-2R/A	200	200	1561	170	1901	390	1924	-	-	-	1500	1850	1050	280	-
BS3F 3 MXV 100-9004/A	200	200	1561	170	1901	390	1729	-	-	-	1500	1850	1050	280	-
BS3F 3 MXV 100-9005-2R/A	200	200	1561	170	1901	390	1924	-	-	-	1500	1850	1050	280	-

Non-binding dimensions to be checked when ordering
Missing dimensions on request

BS. MXV

Dimensions and weights

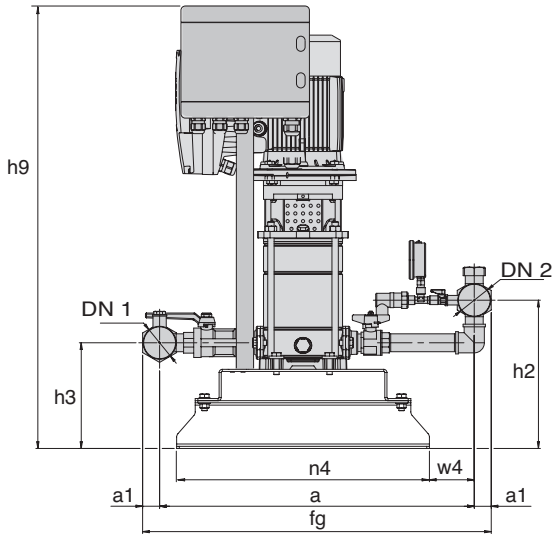


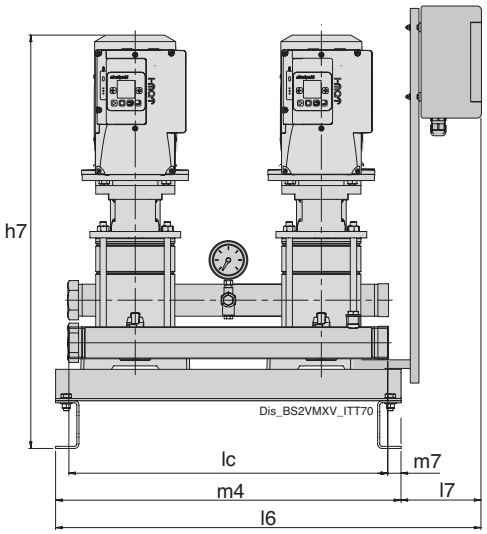
TYPE	Manifolds		mm									Kg
	DN1	DN2	a	a2	fG	h2	h3	h9	lc	m4	n4	Weight
BS2V 2 MXV 50-1504-WALL	G 3	G 3	825	495	920	148	148	1408	600	1000	406	210
BS2V 2 MXV 50-1505-WALL	G 3	G 3	825	495	920	148	148	1408	600	1000	406	-
BS2V 2 MXV 50-1506-WALL	G 3	G 3	825	495	920	148	148	1408	600	1000	406	-
BS2V 2 MXV 50-1507-WALL	G 3	G 3	825	495	920	148	148	1408	600	1000	406	-
BS2V 2 MXV 50-1508/A-WALL	G 3	G 3	825	495	920	148	148	1408	600	1000	406	-
BS2V 2 MXV 50-1509-WALL	G 3	G 3	825	495	920	148	148	1408	600	1000	406	-
BS2V 2 MXV 50-1510-WALL	G 3	G 3	825	495	920	148	148	1408	600	1000	406	-
BS2V 2 MXV 50-1512-WALL	G 3	G 3	825	495	920	148	148	1408	600	1000	406	-
BS2V 2 MXV 50-1515-WALL	G 3	G 3	825	495	920	148	148	1408	600	1000	406	-
BS2V 2 MXV 50-1517-WALL	G 3	G 3	825	495	920	148	148	1408	600	1000	406	-
BS2V 2 MXV 50-2003-WALL	G 3	G 3	825	495	920	148	148	1408	600	1000	406	-
BS2V 2 MXV 50-2004-WALL	G 3	G 3	825	495	920	148	148	1408	600	1000	406	-
BS2V 2 MXV 50-2005-WALL	G 3	G 3	825	495	920	148	148	1408	600	1000	406	-
BS2V 2 MXV 50-2006-WALL	G 3	G 3	825	495	920	148	148	1408	600	1000	406	-
BS2V 2 MXV 50-2007-WALL	G 3	G 3	825	495	920	148	148	1408	600	1000	406	-
BS2V 2 MXV 50-2008-WALL	G 3	G 3	825	495	920	148	148	1408	600	1000	406	-
BS2V 2 MXV 50-2009-WALL	G 3	G 3	825	495	920	148	148	1408	600	1000	406	-
BS2V 2 MXV 50-2011-WALL	G 3	G 3	825	495	920	148	148	1408	600	1000	406	-
BS2V 2 MXV 50-2015-WALL	G 3	G 3	825	495	920	148	148	1408	600	1000	406	-

Non-binding dimensions to be checked when ordering

BS. MXV

Dimensions and weights



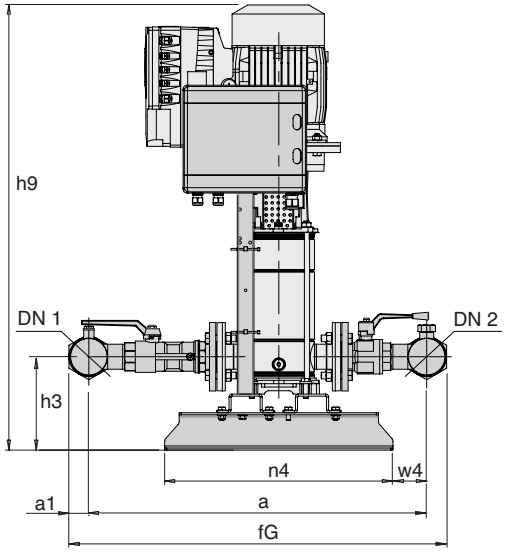


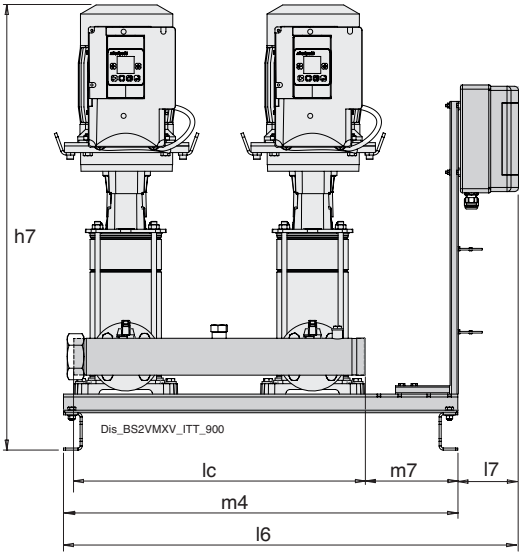
TYPE	Manifolds		mm													Kg
	DN1	DN2	a	a1	fG	h2	h3	h7	h9	l6	l7	lc	m4	n4	w4	Weight
BS2V 2 MXV 25-304 O-ITT	G 1 1/2	G 1 1/2	589	26.5	642	170	94	666	884	825	200	600	625	365	140	-
BS2V 2 MXV 25-305 O-ITT	G 1 1/2	G 1 1/2	589	26.5	642	170	94	690	884	825	200	600	625	365	140	-
BS2V 2 MXV 25-306 O-ITT	G 1 1/2	G 1 1/2	589	26.5	642	170	94	714	884	825	200	600	625	365	140	-
BS2V 2 MXV 25-307 O-ITT	G 1 1/2	G 1 1/2	589	26.5	642	170	94	738	884	825	200	600	625	365	140	100
BS2V 2 MXV 25-308 O-ITT	G 1 1/2	G 1 1/2	589	26.5	642	170	94	762	884	825	200	600	625	365	140	-
BS2V 2 MXV 25-310 O-ITT	G 1 1/2	G 1 1/2	589	26.5	642	170	94	811	884	825	200	600	625	365	140	-
BS2V 2 MXV 25-312 O-ITT	G 1 1/2	G 1 1/2	589	26.5	642	170	94	899	884	825	200	600	625	365	140	-
BS2V 2 MXV 32-504 O-ITT	G 2 1/2	G 2 1/2	642	40	706	186	94	666	884	825	200	600	625	365	168	-
BS2V 2 MXV 32-505 O-ITT	G 2 1/2	G 2 1/2	642	40	706	186	94	690	884	825	200	600	625	365	168	99.2
BS2V 2 MXV 32-506 O-ITT	G 2 1/2	G 2 1/2	642	40	706	186	94	714	884	825	200	600	625	365	168	104.5
BS2V 2 MXV 32-507 O-ITT	G 2 1/2	G 2 1/2	642	40	706	186	94	738	884	825	200	600	625	365	168	105.5
BS2V 2 MXV 32-508 O-ITT	G 2 1/2	G 2 1/2	642	40	706	186	94	802	884	825	200	600	625	365	168	114.5
BS2V 2 MXV 32-510 O-ITT	G 2 1/2	G 2 1/2	642	40	706	186	94	851	884	825	200	600	625	365	168	118.1
BS2V 2 MXV 32-512 O-ITT	G 2 1/2	G 2 1/2	642	40	706	186	94	915	884	825	200	600	625	365	168	135.2
BS2V 2 MXV 40-904 O-ITT	G 2 1/2	G 2 1/2	740	40	820	238	124	711	884	825	200	600	625	365	200	114
BS2V 2 MXV 40-905 O-ITT	G 2 1/2	G 2 1/2	740	40	820	238	124	781	884	825	200	600	625	365	200	123.5
BS2V 2 MXV 40-906 O-ITT	G 2 1/2	G 2 1/2	740	40	820	238	124	811	884	825	200	600	625	365	200	125.6
BS2V 2 MXV 40-907 O-ITT	G 2 1/2	G 2 1/2	740	40	820	238	124	857	884	825	200	600	625	365	200	-
BS2V 2 MXV 40-908 O-ITT	G 2 1/2	G 2 1/2	740	40	820	238	124	887	884	825	200	600	625	365	200	143.6
BS2V 2 MXV 40-910 O-ITT	G 2 1/2	G 2 1/2	740	40	820	238	124	947	884	825	200	600	625	365	200	154.6
BS2V 2 MXV 40-911 O-ITT	G 2 1/2	G 2 1/2	740	40	820	170	94	977	884	825	200	600	625	365	200	-

Non-binding dimensions to be checked when ordering

BS. MXV

Dimensions and weights



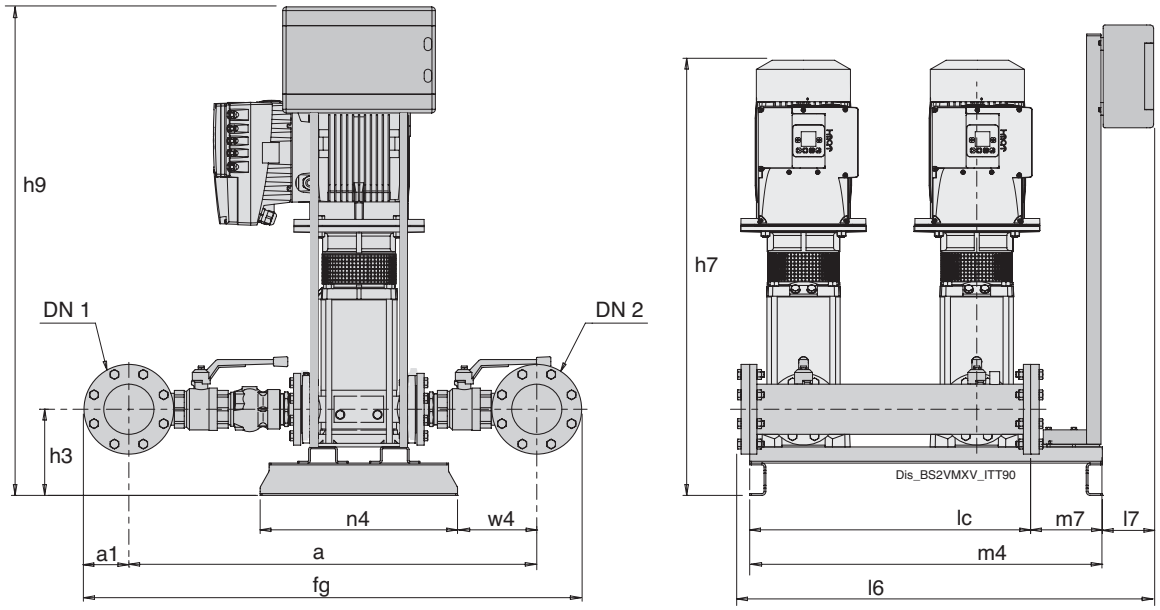


TYPE	Manifolds		mm												Kg
	DN1	DN2	a	a1	fG	h3	h7	h9	l6	l7	lc	m4	n4	w4	Weight
BS2V 2 MXV 50-1503/A-ITT	G 3	G 3	816	48	913	225	934	975	1110	145	700	82	550	82	184
BS2V 2 MXV 50-1504-ITT	G 3	G 3	816	48	913	225	980	975	1110	145	700	82	550	82	187
BS2V 2 MXV 50-1505-ITT	G 3	G 3	816	48	913	225	1028	975	1110	145	700	82	550	82	200
BS2V 2 MXV 50-1506-ITT	G 3	G 3	816	48	913	225	1167	975	1110	145	700	82	550	82	252
BS2V 2 MXV 50-1507-ITT	G 3	G 3	816	48	913	225	1215	1175	1110	145	700	82	550	82	254
BS2V 2 MXV 50-1508/A-ITT	G 3	G 3	816	48	913	225	1263	1175	1110	145	700	82	550	82	260
BS2V 2 MXV 50-1509-ITT	G 3	G 3	816	48	913	225	1311	1175	1110	145	700	82	550	82	289.5
BS2V 2 MXV 50-1510-ITT	G 3	G 3	816	48	913	225	1359	1175	1110	145	700	82	550	82	-
BS2V 2 MXV 50-2003-ITT	G 3	G 3	816	48	913	225	932	975	1142	145	700	82	550	82	-
BS2V 2 MXV 50-2004-ITT	G 3	G 3	816	48	913	225	967	975	1142	145	700	82	550	82	195
BS2V 2 MXV 50-2005-ITT	G 3	G 3	816	48	913	225	1119	975	1142	145	700	82	550	82	248
BS2V 2 MXV 50-2006-ITT	G 3	G 3	816	48	913	225	1167	975	1142	145	700	82	550	82	280
BS2V 2 MXV 50-2007-ITT	G 3	G 3	816	48	913	225	1215	1175	1142	145	700	82	550	82	281.5
BS2V 2 MXV 50-2008-ITT	G 3	G 3	816	48	913	225	1367	1175	1142	145	700	82	550	82	351.5
BS2V 2 MXV 50-2009-ITT	G 3	G 3	816	48	913	225	1415	1175	1142	145	700	82	550	82	-

Non-binding dimensions to be checked when ordering

BS. MXV

Dimensions and weights

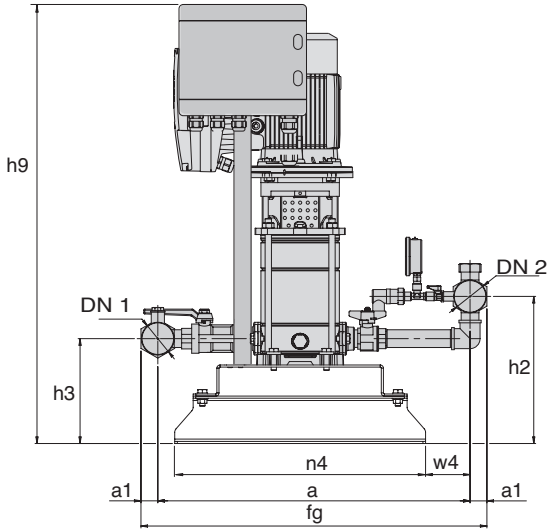


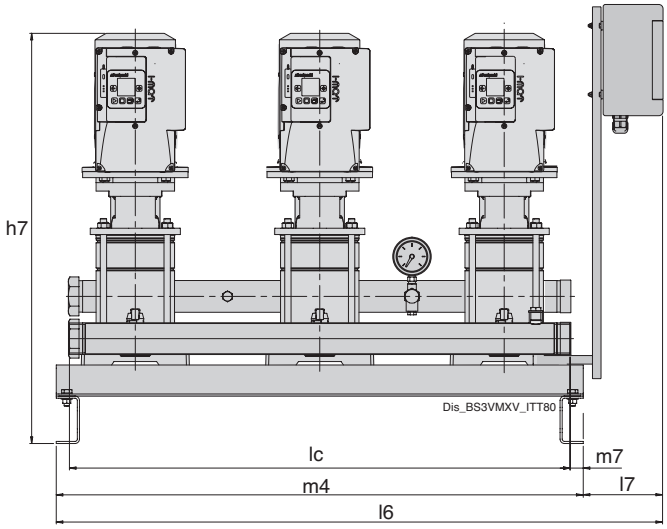
TYPE	Manifolds		mm												Kg
	DN1	DN2	a	a1	fG	h3	h7	h9	l6	l7	lc	m4	n4	w4	Weight
BS2V 2 MXV 65-3202/D-ITT	100	100	1090	110	1310	240	853	975	1114	145	750	950	550	231	279.5
BS2V 2 MXV 65-3203/C-ITT	100	100	1090	110	1310	240	947	975	1114	145	750	950	550	231	320.5
BS2V 2 MXV 65-3204/C-ITT	100	100	1090	110	1310	240	993	975	1204	145	750	950	550	231	355
BS2V 2 MXV 65-3205/D-ITT	100	100	1090	110	1310	240	1189	1175	1204	145	750	950	550	231	462.5
BS2V 2 MXV 65-3206/D-ITT	100	100	1090	110	1310	240	1235	1175	1204	145	750	950	550	231	444
BS2V 2 MXV 65-3207/D-ITT	100	100	1090	110	1310	240	1306	1175	1204	145	750	950	550	231	-
BS2V 2 MXV 80-4802/C-ITT	125	125	1191	125	1441	240	940	975	1080	145	750	950	550	279	-
BS2V 2 MXV 80-4803/C-ITT	125	125	1191	125	1441	240	1001	975	1170	145	750	950	550	279	385
BS2V 2 MXV 80-4804/D-ITT	125	125	1191	125	1441	240	1212	1175	1170	145	750	950	550	279	492.5
BS2V 2 MXV 80-4805/D-ITT	125	125	1191	125	1441	240	1299	1175	1170	145	750	950	550	279	-
BS2V 2 MXV 80-4806/D-ITT	125	125	1191	125	1441	240	1360	1175	1170	145	750	950	550	279	-
BS2V 2 MXV 80-4807/E-ITT	125	125	1191	125	1441	240	1498	1175	1170	145	750	950	550	279	-
BS2V 2 MXV 100-6501/A-ITT	150	150	-	142.5	-	-	1302	-	-	-	950	-	-	-	-
BS2V 2 MXV 100-6502-2R/A-ITT	150	150	-	142.5	-	-	1394	-	-	-	950	-	-	-	-
BS2V 2 MXV 100-6502/A-ITT	150	150	-	142.5	-	-	1534	-	-	-	950	-	-	-	-
BS2V 2 MXV 100-6503-2R/A-ITT	150	150	-	142.5	-	-	1651	-	-	-	950	-	-	-	-
BS2V 2 MXV 100-6503/B-ITT	150	150	-	142.5	-	-	1705	-	-	-	950	-	-	-	782
BS2V 2 MXV 100-6504-2R/B-ITT	150	150	-	142.5	-	-	1797	-	-	-	950	-	-	-	-
BS2V 2 MXV 100-6504/A-ITT	150	150	-	142.5	-	-	1797	-	-	-	950	-	-	-	-
BS2V 2 MXV 100-9001/A-ITT	200	200	1543	170	1883	370	1306	-	-	-	950	1300	1050	260	-
BS2V 2 MXV 100-9002-2R/A-ITT	200	200	1543	170	1883	370	1538	-	-	-	950	1300	1050	260	770
BS2V 2 MXV 100-9002/A-ITT	200	200	1543	170	1883	370	1563	-	-	-	950	1300	1050	260	879
BS2V 2 MXV 100-9003-2R/B-ITT	200	200	1543	170	1883	370	1709	-	-	-	950	1300	1050	260	-
BS2V 2 MXV 100-9003/A-ITT	200	200	1543	170	1883	370	1709	-	-	-	950	1300	1050	260	-

Non-binding dimensions to be checked when ordering

BS. MXV

Dimensions and weights



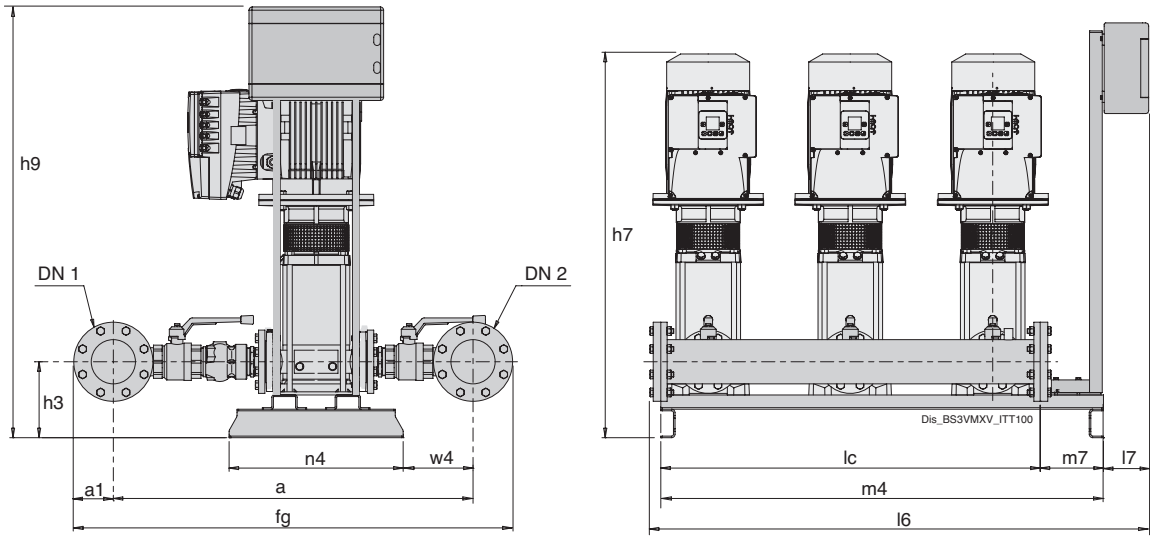


TYPE	Manifolds		mm													Kg
	DN1	DN2	a	a1	fG	h2	h3	h7	h9	l6	l7	lc	m4	n4	w4	Weight
BS3V 3 MXV 25-304 O-ITT	G 2	G 2	593	32	657	279	199	771	989	1200	200	950	1000	476	84	-
BS3V 3 MXV 25-305 O-ITT	G 2	G 2	593	32	657	279	199	795	989	1200	200	950	1000	476	84	-
BS3V 3 MXV 25-306 O-ITT	G 2	G 2	593	32	657	279	199	819	989	1200	200	950	1000	476	84	-
BS3V 3 MXV 25-307 O-ITT	G 2	G 2	593	32	657	279	199	843	989	1200	200	950	1000	476	84	-
BS3V 3 MXV 25-308 O-ITT	G 2	G 2	593	32	657	279	199	867	989	1200	200	950	1000	476	84	-
BS3V 3 MXV 25-310 O-ITT	G 2	G 2	593	32	657	279	199	916	989	1200	200	950	1000	476	84	-
BS3V 3 MXV 25-312 O-ITT	G 2	G 2	593	32	657	279	199	1004	989	1200	200	950	1000	476	84	-
BS3V 3 MXV 32-504 O-ITT	G 2 1/2	G 2 1/2	650	40	730	299	199	771	989	1200	200	950	1000	476	113	-
BS3V 3 MXV 32-505 O-ITT	G 2 1/2	G 2 1/2	650	40	730	299	199	795	989	1200	200	950	1000	476	113	156.5
BS3V 3 MXV 32-506 O-ITT	G 2 1/2	G 2 1/2	650	40	730	299	199	819	989	1200	200	950	1000	476	113	162.5
BS3V 3 MXV 32-507 O-ITT	G 2 1/2	G 2 1/2	650	40	730	299	199	843	989	1200	200	950	1000	476	113	-
BS3V 3 MXV 32-508 O-ITT	G 2 1/2	G 2 1/2	650	40	730	299	199	907	989	1200	200	950	1000	476	113	180
BS3V 3 MXV 32-510 O-ITT	G 2 1/2	G 2 1/2	650	40	730	299	199	956	989	1200	200	950	1000	476	113	184.5
BS3V 3 MXV 32-512 O-ITT	G 2 1/2	G 2 1/2	650	40	730	299	199	1020	989	1200	200	950	1000	476	113	-
BS3V 3 MXV 40-904 O-ITT	G 3	G 3	746	48	842	349	229	816	989	1200	200	950	1000	476	145	-
BS3V 3 MXV 40-905 O-ITT	G 3	G 3	746	48	842	349	229	886	989	1200	200	950	1000	476	145	195
BS3V 3 MXV 40-906 O-ITT	G 3	G 3	746	48	842	349	229	916	989	1200	200	950	1000	476	145	-
BS3V 3 MXV 40-907 O-ITT	G 3	G 3	746	48	842	349	229	962	989	1200	200	950	1000	476	145	-
BS3V 3 MXV 40-908 O-ITT	G 3	G 3	746	48	842	349	229	992	989	1200	200	950	1000	476	145	223.5
BS3V 3 MXV 40-910 O-ITT	G 3	G 3	746	48	842	349	229	1052	989	1200	200	950	1000	476	145	242
BS3V 3 MXV 40-911 O-ITT	G 3	G 3	746	48	842	349	229	1082	989	1200	200	950	1000	476	145	-

Non-binding dimensions to be checked when ordering

BS. MXV

Dimensions and weights



TYPE	Manifolds		mm												Kg
	DN1	DN2	a	a1	fG	h3	h7	h9	l6	l7	lc	m4	n4	w4	Weight
BS3V 3 MXV 50-1503/A-ITT	100	100	880	110	1100	296	1005	1040	1577	145	1200	1400	550	94	-
BS3V 3 MXV 50-1504-ITT	100	100	880	110	1100	296	1051	1040	1577	145	1200	1400	550	94	359
BS3V 3 MXV 50-1505-ITT	100	100	880	110	1100	296	1099	1040	1577	145	1200	1400	550	94	178.5
BS3V 3 MXV 50-1506-ITT	100	100	880	110	1100	296	1239	1240	1577	145	1200	1400	550	94	458
BS3V 3 MXV 50-1507-ITT	100	100	880	110	1100	296	1287	1240	1577	145	1200	1400	550	94	453.5
BS3V 3 MXV 50-1508/A-ITT	100	100	880	110	1100	296	1335	1240	1577	145	1200	1400	550	94	502
BS3V 3 MXV 50-1509-ITT	100	100	880	110	1100	296	1382	1240	1577	145	1200	1400	550	94	-
BS3V 3 MXV 50-1510-ITT	100	100	880	110	1100	296	1430	1240	1577	145	1200	1400	550	94	-
BS3V 3 MXV 50-2003-ITT	100	100	880	110	1100	296	1003	1040	1577	145	1200	1400	550	94	349
BS3V 3 MXV 50-2004-ITT	100	100	880	110	1100	296	1038	1040	1577	145	1200	1400	550	94	178.5
BS3V 3 MXV 50-2005-ITT	100	100	880	110	1100	296	1190	-	1577	145	1200	1400	550	94	-
BS3V 3 MXV 50-2006-ITT	100	100	880	110	1100	296	1238	1240	1577	145	1200	1400	550	94	490
BS3V 3 MXV 50-2007-ITT	100	100	880	110	1100	296	1286	1240	1577	145	1200	1400	550	94	496
BS3V 3 MXV 50-2008-ITT	100	100	880	110	1100	296	1438	-	1577	145	1200	1400	550	94	178.5
BS3V 3 MXV 50-2009-ITT	100	100	880	110	1100	296	1486	-	1577	145	1200	1400	550	94	596
BS3V 3 MXV 65-3202/D-ITT	125	125	1156	125	1406	291	903	1020	1579	145	1200	1400	550	284	456
BS3V 3 MXV 65-3203/C-ITT	125	125	1156	125	1406	291	997	1020	1579	145	1200	1400	550	284	515
BS3V 3 MXV 65-3204/C-ITT	125	125	1156	125	1406	291	1043	1020	1579	145	1200	1400	550	284	559
BS3V 3 MXV 65-3205/D-ITT	125	125	1156	125	1406	291	1239	1220	1579	145	1200	1400	550	284	-
BS3V 3 MXV 65-3206/D-ITT	125	125	1156	125	1406	291	1285	1220	1579	145	1200	1400	550	284	-
BS3V 3 MXV 65-3207/D-ITT	125	125	1156	125	1406	291	1356	1388	1704	270	1200	1400	550	284	843
BS3V 3 MXV 80-4802/C-ITT	125	125	1240	125	1525	291	990	1020	1582	145	1200	1400	550	313	-
BS3V 3 MXV 80-4803/C-ITT	125	125	1240	125	1525	291	1051	1020	1582	145	1200	1400	550	313	604.5
BS3V 3 MXV 80-4804/D-ITT	125	125	1240	125	1525	291	1262	1220	1582	145	1200	1400	550	313	761
BS3V 3 MXV 80-4805/D-ITT	125	125	1240	125	1525	291	1349	1388	1707	270	1200	1400	550	313	234
BS3V 3 MXV 80-4806/D-ITT	125	125	1240	125	1525	291	1410	1388	1707	270	1200	1400	550	313	890
BS3V 3 MXV 80-4807/E-ITT	125	125	1240	125	1525	291	1548	1388	1707	270	1200	1400	550	313	-
BS3V 3 MXV 100-6501/A-ITT	150	150	1318	142.5	1658	386	1322	-	-	-	1500	1650	900	65	-
BS3V 3 MXV 100-6502-2R/A-ITT	150	150	1318	142.5	1658	386	1414	-	-	-	1500	1650	900	65	-
BS3V 3 MXV 100-6502/A-ITT	150	150	1318	142.5	1658	386	1554	-	-	-	1500	1650	900	65	-
BS3V 3 MXV 100-6503-2R/A-ITT	150	150	1318	142.5	1658	386	1671	-	-	-	1500	1650	900	65	-
BS3V 3 MXV 100-6503/B-ITT	150	150	1318	142.5	1658	386	1725	-	-	-	1500	1650	900	65	-
BS3V 3 MXV 100-6504-2R/B-ITT	150	150	1318	142.5	1658	386	1817	-	-	-	1500	1650	900	65	-
BS3V 3 MXV 100-6504/A-ITT	150	150	1318	142.5	1658	386	1817	-	-	-	1500	1650	900	65	1240
BS3V 3 MXV 100-9001/A-ITT	200	200	1561	170	1901	390	1326	-	-	-	1500	1850	1050	280	-
BS3V 3 MXV 100-9002-2R/A-ITT	200	200	1561	170	1901	390	1558	-	-	-	1500	1850	1050	280	-
BS3V 3 MXV 100-9002/A-ITT	200	200	1561	170	1901	390	1583	-	-	-	1500	1850	1050	280	-
BS3V 3 MXV 100-9003-2R/B-ITT	200	200	1561	170	1901	390	1729	-	-	-	1500	1850	1050	280	1360
BS3V 3 MXV 100-9003/A-ITT	200	200	1561	170	1901	390	1729	-	-	-	1500	1850	1050	280	-

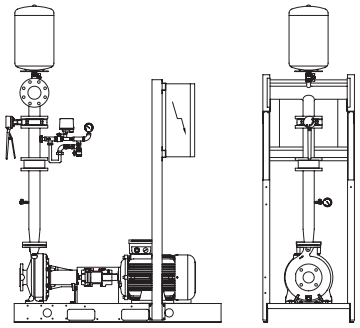
Non-binding dimensions to be checked when ordering

EJ, DJ

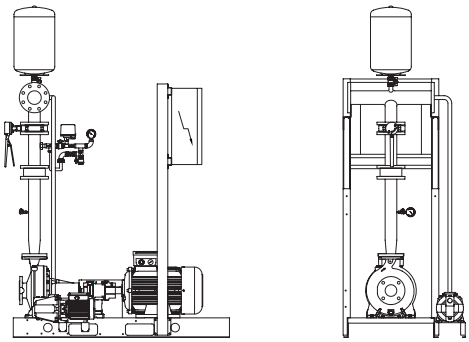


UNI-EN 12845 fire-fighting systems

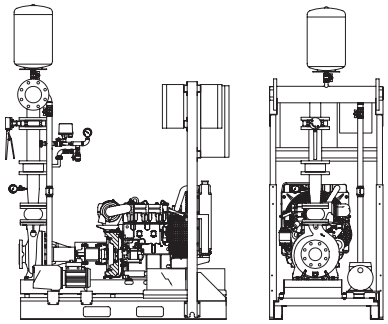
EJ, DJ



EJ 10
Gruppi UNI-EN 12845 per alimentazione di impianti antincendioUNI-EN 12845 units with 1 N series electric main pump

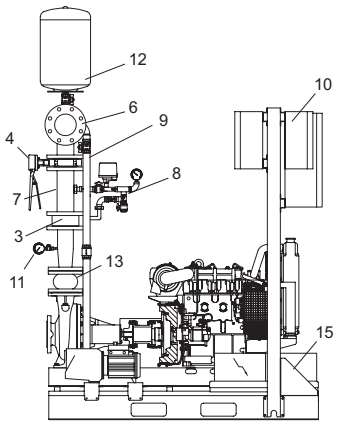


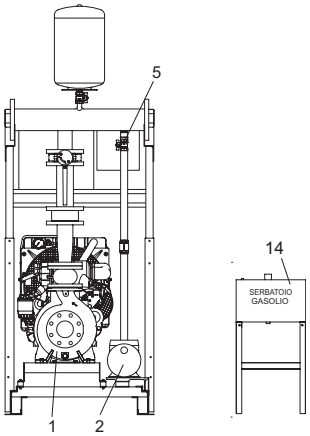
EJ 11
UNI-EN 12845 units with 1 electric feed pump N and compensation pump



DJ 11
UNI-EN 12845 units with 1 diesel feed pump N and compensation pump

Construction





1 1) Main pump (with diesel motor)
2 3) Jockey pump
3 Non-return valve
4 4) Non-return valve
5 5) Lockable valve
6 6) Ball valve
7 7) Delivery manifold
8 8) Sprinkler connection for protection of pump room
9 9) Starting system for main pump composed by two pressure switches, one 0-16 bar glycerine filled pressure gauge, ball valve, by-pass circuit.

10 -11) Electric control panel (one for each pump)
11 12) Pressure switch for "pump running" signal, re cycling water connection and 0-16 bar glycerine filled pressure gauge.
12 13) 20-lt PN 16 membrane pressure tank
13 14) Compensating joint for vibration damping
14 15) Diesel tank on a separate pedestal (6 hour autonomy)
15 16) Painted steel skid
All the butterfly valves or ball valve are locked in the normal position by means of a lock and key.
On request: anti-vibration couplings in both the suction and delivery sections.

EJ, DJ

Construction

Units constructed in accordance with UNI-EN 12845 standards for automatic fire-fighting systems (with sprinkler) and according to UNI 10779 for fire-fighting systems with fire hydrants.
Depending on the model, the units can be equipped with a compensation pump that allows for the system to be kept pressurised without the intervention of the main pumps.
When two pumps are installed, each one shall be capable of providing the specified flows and pressures independently. When three pumps are installed, each pump shall be capable of providing at least 50% of the specified flow at the specified pressure.

Applications

Supply of automatic fire extinguishing systems with sprinklers and hydrants.

Functioning mode

The pumps start operating after a fall in the pressure level in the fireextinguishing system.
The first one to start is the compensation pump (where present); if it fails to restore the pressure, the feed pump intervenes.
When there is more than one main pump, the pumps start in cascade sequence, with the starting pressure switches set at different pressure levels.
The pressure switches of the main pumps are used only for starting, as the pumps must be stopped manually for UNI-EN 12845 units or automatically with a timer for UNI 10779 sets.
The recirculation diaphragm allows for operation of the main pumps also when the delivery port is closed (with no consumption of water in the system), avoiding overheating of the water inside the pump body.

Pumps

main pumps.
The N series centrifugal pumps are coupled with the electric or diesel motor through a bearing coupling. This solution allows to operate on the hydraulic part without moving the motor.

Jockey pump
Jockey pump can be a self-priming jet pump, a centrifugal pump with two impellers.
The maximum pressure developed by the jockey pump is always greater than the pressure of the main pumps.

electric motor
Two-pole induction type, 50 Hz, n = 2,900 rpm
Three-phase 230/400V ± 10% up to 3 kW
400/690V ± 10% 4 kW and higher.
Insulation class F.
IP protection: IP55
Construction in accordance with: IEC 60034
Other voltages and frequencies on request.

Diesel motors (for standardised N-series pumps)
These are direct-injection pumps fitted with electric control box, fuel tank, starter batteries and silencer.

Designation

Example: EJ11 N 40-250C
EJ = Series
1 = A feed pump
1 = A compensation pump
N 40-250C = Feed pump type

Hydraulic components

Each main pump is fitted with:
- - Butterfly valve in the suction section (on request only for installation with positive suction head).
- - Pressure gauge in the delivery section.
- - Recirculation diaphragm.
- - Non return valve of the accessible swing-type or dual disc non-return valve, depending on the models.
- - Butterfly valve in the delivery section.
- - Manual test circuit with pressure switches, pressure gauge, nonreturn valve and ball valve.

The jockey pump is fitted with:
- - Ball valve in the suction section.
- - Non-return valve and ball valve in the delivery section.
- - Circuit with pressure switch, pressure gauge, non-return valve and ball valve.

Other components:
- - Delivery manifold.
- Attacco per serbatoio di adescamento (da utilizzare solo per le
- pumps installed with positive suction head).
- - 20-lt cylindrical tank on the delivery manifold.
- - Arrangement for sprinkler connection to the pump compartment
- - Pressure switch for pump working signal

On request:
- Manifold for flow meter.
- - Adjusted-flange, diaphragm type, flow meter.
- - Eccentric conical reducers on suction side.
- - Interception valves on suction side (for installations under positive suction head).

Control panels

Electric main-pump box (electric motor)
Each main pump has its own electric control board housed in a metal cabinet with IP55 protection. The box contains the devices required for operation and control of the pump.
For motors with a rating equal to or higher than 22 kW pump starting is of the Y/Δ type with fuses, contactors and timer.
- - Timer for pumps stop after 20 minutes (UNI 10779)

The following devices are located on the front of the box:
- - Line-sectioning handle.
- - Front panel of the electronic unit.
- - Manual-0-Automatic selector with extractible key only an “automatic” position.
- Start/stop buttons
- LED indicating: voltage present, pump running, pump stopped, low pressure.

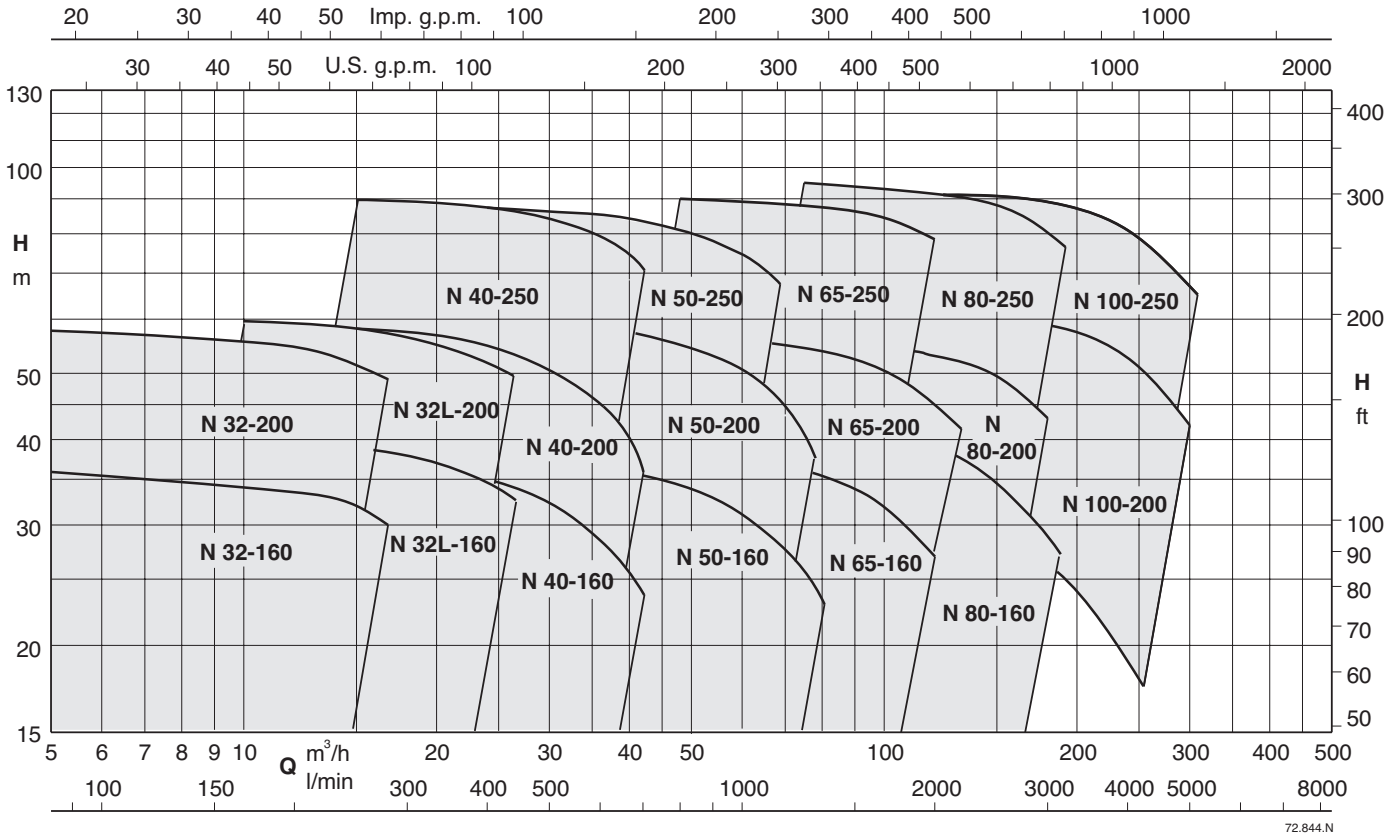
Electric main-pump box (diesel motor)
This cabinet contains the electronic control devices for the control of the diesel motor and the battery chargers for feeding the starter accumulators.
The following devices are located on the front of the box:
- - Line-sectioning handle.
- - Front panel of the electronic unit.
- - Manual-0-Automatic selector with extractible key only an “automatic” position.

Electric jockey-pump box
When installed, the jockey pump is fitted with its own electric panel, with thermoplastic housing with IP 55 protection.

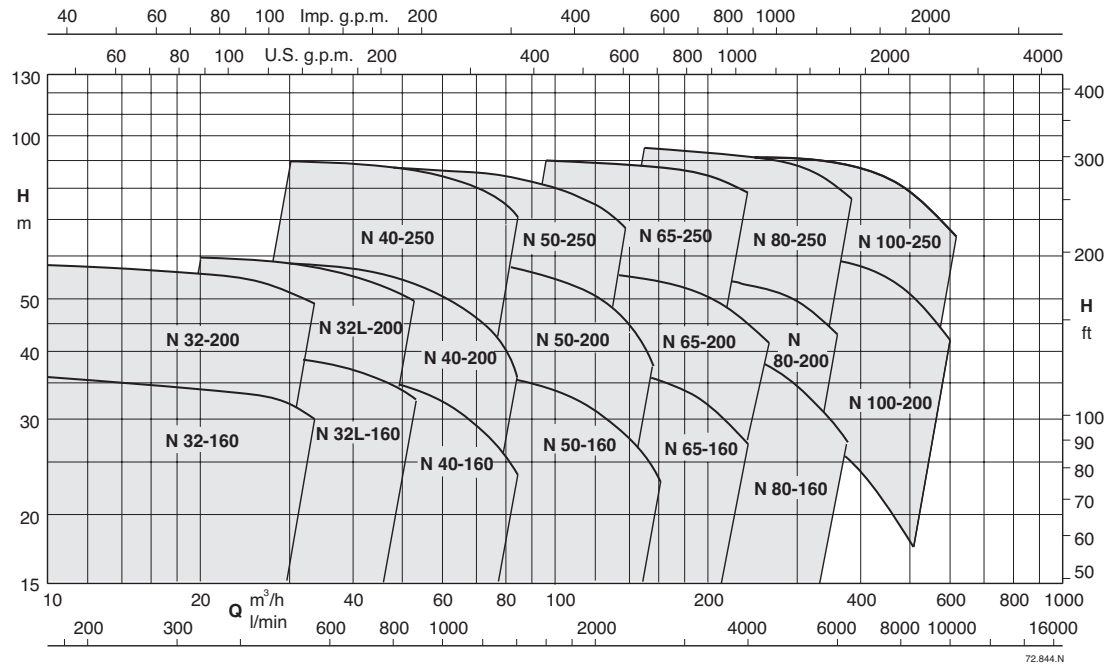
Control box (on request).
To be installed in a place to be looked after, to signal any possible failure of the unit state. It must be connected to V.220 and it gives an acoustic and visual signal for 24 hours.

EJ, DJ

With 1 electric main pump in operation



With 2 electric main pumps in operation

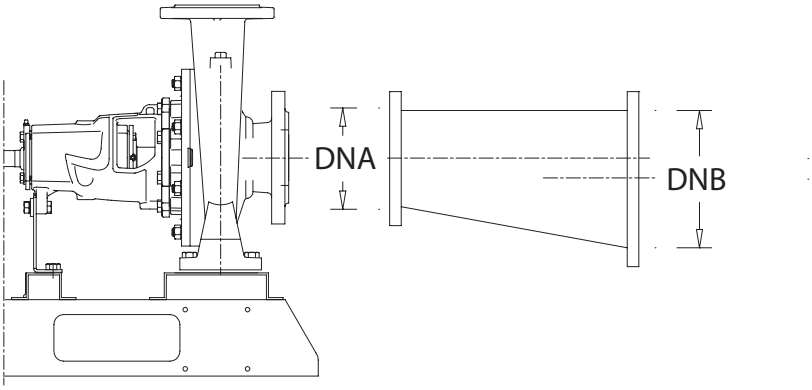


When two pumps are installed, each one shall be capable of providing the specified flows and pressures independently.
When three pumps are installed, each pump shall be capable of providing at least 50% of the specified flow at the specified pressure.

EJ, DJ

Accessories

ECCENTRICS REDUCTIONS



TYPE	DNA	DNB
RE50-65	DN50	DN65
RE50-80	DN50	DN80
RE50-100	DN50	DN100
RE50-125	DN50	DN125
RE65-80	DN65	DN80
RE65-100	DN65	DN100
RE65-125	DN65	DN125
RE65-150	DN65	DN150
RE65-200	DN65	DN200
RE80-100	DN80	DN100
RE80-125	DN80	DN125
RE80-150	DN80	DN150
RE80-200	DN80	DN200
RE80-250	DN80	DN250
RE100-150	DN100	DN150
RE100-200	DN100	DN200
RE100-250	DN100	DN250
RE125-200	DN125	DN200
RE125-250	DN125	DN250
RE125-300	DN125	DN300
RE150-250	DN150	DN250
RE150-300	DN150	DN300
RE150-350	DN150	DN350
RE150-400	DN150	DN400
RE200-300	DN200	DN300
RE200-350	DN200	DN350
RE200-400	DN200	DN400

Flanged reductions eccentric to be installed in the suction of main pumps, are complete of ¼" out point, ball interception valve and vacuum gauge (or gauge on request).
To choice it take the diameter inlet of the main pumps DNA (limit of standard) and then consult the following tables in order to define the enlargement of the eccentric cone DNB (depending on the type of installation: suction lift or positive head).
Clarification: the previous tables suggest only indications concerning the maximum permissible speed in suction of main pumps, that choice may not be enough because the standard EN 12845 requires also that the suction piping, including all valves and fittings, shall be designed in such a way a sto ensure that the available NPSH at the pump inlet exceeds the required NPSH by at least 1 mt at the maximum pump flow as shown in table 14 of the EN 12845 norm.

Quick selection table for eccentric reductions
To maintain inside the suction pipe of the main pump flow velocities indicated in the standard EN 12845, depending on the maximum flow rate required by the plant, you have to enlarge the suction port of the main pump to the minimum diameter indicated in the following table:

POSITIVE HEAD INSTALLATION Water Speed (V≤ 1,8 m/s)										
Q (l/m)	0÷358	359÷542	543÷848	849÷1324	1325÷1907	1908÷3390	3391÷5297	5298÷7626	7627÷10381	10382÷13558
Ø min	DN65	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400

SUCTION LIFT INSTALLATION Water Speed (V≤ 1,5 m/s)										
Q (l/m)	0÷452	453÷706	707÷1103	1104÷1589	1590÷2824	2825÷4413	4414÷6355	6356÷8650	8651÷11299	10382÷13558
Ø min	DN80	DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400	DN400

ELASTIC VIBRATION COMPENSATORS



TYPE	DN
CE-50	DN50 PN16
CE-65	DN65 PN16
CE-80	DN80 PN16
CE-100	DN100 PN16
CE-125	DN125 PN16
CE-150	DN150 PN16
CE-200	DN200 PN16
CE-250	DN250 PN16
CE-300	DN300 PN16
CE-350	DN350 PN16
CE-400	DN400 PN16

In presence of diesel motorpump is recommended to install on suction an elastic anti-vibration compensator to dampen the vibrations (in the delivery of the pump is already present). By inserting a compensator between two manifolds you can connect each two fire fighting modules.

EJ, DJ

Accessories

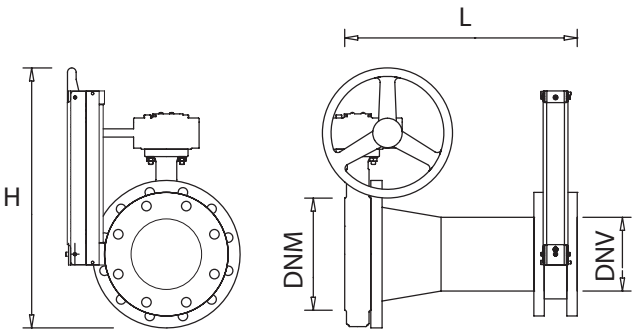
INTERCEPTION BUTTERFLY VALVES “LUG” TYPE



TYPE	DN
LUG-50	DN50
LUG-65	DN65
LUG-80	DN80
LUG-100	DN100
LUG-125	DN125
LUG-150	DN150
LUG-200	DN200
LUG-250	DN250
LUG-300	DN300
LUG-350	DN350
LUG-400	DN400

Interception butterfly valve LUG type, with threaded ears, complete with operating lever up to DN100 and hand-wheel for larger diameters

KIT FLOWMETER



TYPE	Flowmeter	Full scale	Connections		L	H
		(m3/h)	DNM	DNV	(mm)	(mm)
KM-65-40	T40	55	DN65	DN40	412	452
KM-65-50	T50	90	DN65	DN50	465	452
KM-80-65	T65	140	DN80	DN65	540	460
KM-100-80	T80	200	DN100	DN80	635	470
KM-125-100	T100	280	DN125	DN100	770	485
KM-150-125	T125	480	DN150	DN125	910	550
KM-200-150	T150	600	DN200	DN150	1045	600
KM-250-200	T200	1000	DN250	DN200	1335	670
KM-300-250	T250	1600	DN300	DN250	1630	730

Kit of connection between the fire fighting delivery manifold and the flow meter, composed by: interception valve, steel galvanized socket with adequate length and flowmeter. In the case of flanged composition is also supplied with the counter-flange to be inserted after the flowmeter, with two black rubber gaskets and bolts for fixing the flowmeter. Please note that is necessary the insertion after the flowmeter of another interception valve for adjusting the water flow.

SELF-POWERED REMOTE ACOUSTIC/LUMINOUS ALARMS

These equipments permit monitoring and remote signaling of fire alarms related to the fire fighting booster set, in according to the EN12845 standard.



Tipo RA 12845 (no. 4 alarm input “Level A” and no. 12 alarm inputs “level B”)

- - Features: Electronic control panel for alarm signalling
- - Input voltage 1 ~ 50/60Hz 230V±10%
- - Transformer 230 V/24 V for auxiliary circuit
- - Nr.4 very low voltage input from free NC contact for alarm fire “level A”
- (at the opening of the NC contact the red flashing light and the buzzer activate)
- - Nr.12 very low voltage input from free NC contact for alarm breakdown “level B”
- (when opening the NC contact the yellow flashing light and the buzzer activate)
- - Green light for power on
- - Red light for “alarm”
- - Pushbutton “test” for temporary activation of the beacon
- - Pushbutton “reset” for manual restoration of the alarm
- - Pushbutton “beacon activation” for the activation of the acoustic alarm
- - Pushbutton “beacon exclusion” for the exclusion of the acoustic alarm
- - Internal selector for selecting the alarm restoration mode (automatic-manual)
- - Internal selector for activation of the timer for automatic switch-off of the beacon
- - Trimmer for automatic switch-off time delay selection (from 25” to 120”)
- - Alarm beacon 90dB 12Vcc
- - Sealed internal battery for back-up 12Vcc 1,2Ah
- - Auxiliary protection fuse
- - Battery protection fuse
- - General alarm output with exchangeable contact (max 5A 250V AC1)
- - Red flashing light 12Vcc; Yellow flashing light 12Vcc
- - Box in thermoplastic material
- - Output with cable holder
- - Protection IP55;

QM, QT









Control panels

QM, QT

QM Control panel for 1 pump with single-phase motor, direct starting



PANELS FOR SUBMERGED AND SUBMERSIBLE PUMPS

Construction

Control panel with ON-OFF switch and capacitor, for 1 pump with single-phase motor without built-in capacitor.

Technical data

Mains single-phase 230V ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
- Protection IP 44.

Components

Enclosure in thermoplastic material
ON-OFF switch with lamp
Capacitor
Terminal board
Cable glands

Code	Pump type	Capacitor	Motor 230V - 1~	Dimensions
		450Vc	kW	HxBxP mm
44017940000	QM 6,3	6,3 µF	0,3	200x75x76
44017950000	QM 20	20 µF	0,55 - 0,75	200x75x76
44017960000	QM 25	25 µF	0,9 -1,1	200x75x76
44017990000	QM 30	30 µF	0,9 -1,1	200x75x76

QM Control panels with circuit breaker for 1 single-phase pump



PANELS FOR SUBMERGED AND SUBMERSIBLE PUMPS

Construction

Control panel with ON-OFF switch and capacitor, for 1 pump with single-phase motor without built-in capacitor.

Technical data

Mains single-phase 230V ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
- Protection IP 44.

Components

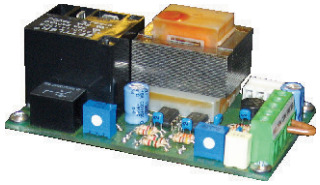
Enclosure in thermoplastic material
ON-OFF switch with lamp
Thermal device
Capacitor
Terminal board
Cable glands

Code	Pump type	Protection	Capacitor	Motor 230V - 1~	Dimensions
		max A	450Vc	kW	HxBxP mm
44017950004	QM 4-16	4	16 µF	0,37	200x75x76
44017950007	QM 5-20	5	20 µF	0,55	200x75x76
44017960004	QM 5-25	5	25 µF	0,55	200x75x76
44017950012	QM 6-20	6	20 µF	0,75	200x75x76
44017960009	QM 7-25	7	25 µF	0,9	200x75x76
44017990001	QM 7-30	7	30 µF	0,75	200x75x76
44017960007	QM 8-25	8	25 µF	1,1	200x75x76
44017990004	QM 8-30	8	30 µF	1,1	200x75x76
44018000001	QM 10-40	10	40 µF	1,1	200x75x76
44018000000	QM 12-35	12	35 µF	1,5	200x75x76

QM, QT

M COMP Control panel for 1 pump with single-phase motor, direct starting





PANELS FOR SUBMERGED AND SUBMERSIBLE PUMPS

Construction

Control panel with ON-OFF switch and capacitor for 1 pump with singlephase motor.
Suitable for use with LVBT board for level control.
Protection is provided by means of a main bipolar switch with a phase protected against overload by means of a thermal element.

Technical data

Mains single-phase 230V ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
Protection IP 44.
- Control through pressure switch (pressure booster set).
- Control through float switch (for filling a tank).

Components

Enclosure in thermoplastic material
ON-OFF switch with pilot lamp with thermal protector
Capacitor
Terminal board
Terminals for LVBT board for level control.
Cable glands

On request

LVBT board for level control

Code	Pump type	Protection	Capacitor	Motor 230V - 1~	Dimensions
		max A	450Vc	kW	HxBxP mm
44020000000	M COMP 4-16	4,5	16 µF	0,37	220x210x110
44020001000	M COMP 4-20	4,5	20 µF	0,55	220x210x110
44020010000	M COMP 5-20	5	20 µF	0,55	220x210x110
44020011000	M COMP 5-25	5	25 µF	0,55	220x210x110
44020021000	M COMP 6-20	6	20 µF	0,75	220x210x110
44020023000	M COMP 6-35	6	35 µF	0,75	220x210x110
44020031000	M COMP 7-25	7	25 µF	0,9	220x210x110
44020032000	M COMP 7-30	7	30 µF	0,9	220x210x110
44020040000	M COMP 8-25	8	25 µF	1,1	220x210x110
44020041000	M COMP 8-30	8	30 µF	1,1	220x210x110
44020052000	M COMP 10-35	10	35 µF	1,1	220x210x110
44020053000	M COMP 10-40	10	40 µF	1,1	220x210x110
44020060000	M COMP 12-35	12	35 µF	1,5	220x210x110
44020062000	M COMP 12-50	12	50 µF	1,5	220x210x110
44020063000	M COMP 12-60	12	60 µF	1,5	220x210x110
44020081000	M COMP 16-70	16	70 µF	2,2	220x210x110

QM, QT

PFC-M Control panel for 1 submersible pump with single-phase motor, PF control



PANELS FOR SUBMERGED PUMPS

Construction

Control panel for controlling one submersible pump with single-phase motor.
Electronic control of the operation and dryrunning protection through the power factor (PF) control.
The installation of level probes into the well is not required.
It stops the pump in case of lack of air cushion in the pressure vessel (patented system).
Displayed operating data and alarms available in four languages.

Technical data

Mains single-phase 230V ±10% 50/60 Hz.
- Max output current: 18 A.
- Ambient temperature from -5 °C to +40 °C.
- Relative humidity: from 20% to 90% without condensation
- Protection IP 44.
- Control through pressure switch (pressure booster set).
- Control through float switch (for filling a tank).
- Alarm output signal.

Constructed in accordance with IEC/EN 60439-1.

Setting

- Min – Max voltage range.
- Motor rated current.
- Power factor (PF) value for dry-running protection.
- Up to four programmable restarts in case of no water condition.

Alarms (with pump stop)

No electrical supply.
- Undervoltage and overvoltage.
- Motor overload.
- No water.
- No air cushion in the pressure vessel.

Components

Enclosure in thermoplastic material
Capacitor
Terminal board
- Display : 2x16 characters.
- 6 button key board.
- In/Out Cable glands.

On request

- RA 100 control panel for remote alarm.

Code	Pump type	Setting	Capacitor	Motor 230V - 1~	Dimensions
		A	450Vc	kW	HxBxP mm
44021000000	PFC-M 18-16	1 - 18	16 µF	0,37	220x210x110
44021060000	PFC-M 18-20	1 - 18	20 µF	0,55	220x210x110
44021010000	PFC-M 18-25	1 - 18	25 µF	0,55	220x210x110
44021020000	PFC-M 18-30	1 - 18	30 µF	0,75	220x210x110
44021070000	PFC-M 18-35	1 - 18	35 µF	0,75	220x210x110
44021030000	PFC-M 18-40	1 - 18	40 µF	1,1	220x210x110
44021040000	PFC-M 18-50	1 - 18	50 µF	1,5	220x210x110
44021090000	PFC-M 18-60	1 - 18	60 µF	1,5	220x210x110
44021050000	PFC-M 18-70	1 - 18	70 µF	2,2	220x210x110

QM, QT

QML/A 1 D **Control panel for 1 pump with single-phase motor, direct starting**



PANELS FOR SURFACE, SUBMERGED AND SUBMERSIBLE PUMPS

Construction

Control panel for 1 pump with single-phase motor, direct starting for pressure booster sets and submersible drainage pumps. Arranged for the capacitor internal connection (for pumps without built-in capacitor).
For pressure booster sets:
- with working time-measuring system that stops the pump in case of lack of air cushion in the pressure vessel.
- dry-running protection with float switch or level control probes.
For submersible drainage pumps:
- automatic operating test of the pump every set hours of inactivity (with pump in the automatic operating mode).
- Pump control with signals coming from:
  - 2 float switches: one for starting-up and stopping pump, one for the alarm maximum level (optional).
  - 3 float switches: one for starting-up pump, one for stopping the pump and one for the alarm maximum level (optional).

Pump operation controlled by an electronic card type MPS 3000 with microprocessor which allows three different modes of operation of the pump: standard, emergency and timed.

Components

Thermoplastic case. - Door lock master switch.
Line disconnector with door lock.
- Fuses for power line. - Fuses for auxiliary circuit.
Auxiliary circuit fuses
- Electronic board type MPS 3000 with microprocessor.
- Terminals for pressure trasducer / level probes.
- Connection terminals for thermal protector.
- Connection terminals for the RA 100 - RA 100A type.
- Terminals for pressure switch connection.
- Terminals for float switch connection against dry-running.
- Cable glands.

Remote alarm control panel or volt free contact module.

On request

- Volt free contact control panel Q-MSP 9M.

RA 100 - RA 100A control panel for remote alarm.

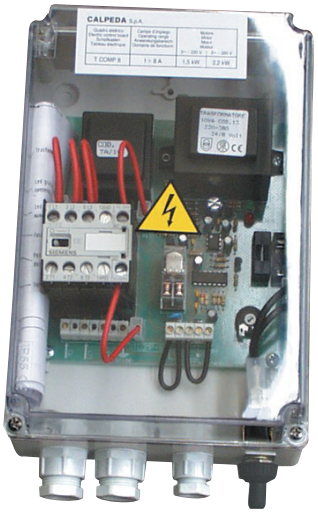
Technical data

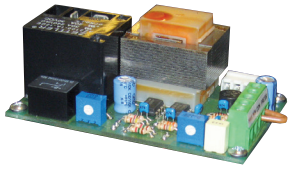
Mains single-phase 230V ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
- Protection IP 44.

Code	Pump type	Setting	Motor 230V - 1~	Dimensions
		A	kW	HxBxP mm
14054460000	QML/A 1 D 12A-FA	1 - 12	0,25 - 1,5	250x205x115
24054460000	QML/A 1 D 12A-FA 20	1 - 12	0,25 - 1,5	250x205x115
24054460001	QML/A 1 D 12A-FA 25	1 - 12	0,25 - 1,5	250x205x115
14055740000	QML/A 1 D 3 FT	13 - 18	2,2 - 3	400x300x160

QM, QT

T COMP Control panel for 1 submersible pump with three-phase motor





PANELS FOR SUBMERGED PUMPS

Construction

Control panel and protection for 1 pump with three-phase motor.
Arranged for the LVBT level control internal connection against dry running (T COMP8 model has the level control as a standard).
Control pumps with pressure switch and float-type switch.

Technical data

Mains 230V or 400V ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
Protection IP 44.

Components

Enclosure in thermoplastic material
ON-OFF control switch
- Fuse holder - Contactor - Thermal relay
Fuses for change of voltage: 230 V or 400 V
Transformer
Terminals for pressure switch or float switch connection
Terminals for LVBT board (for T COMP 10,12,16,20 models)
- Green LED indicator: voltage ON - Red LED indicator: thermic block
Cable glands

On request

LVBT board for level control (for T COMP 10,12,16,20 models)

Code	Pump type	Protection	Motor 230V - 1~	Motor 400V - 3~	Dimensions
		A	kW	kW	HxBxP mm
14013130000	T COMP 8	1 ÷ 8	0,37 ÷ 1,5	0,5 ÷ 2,2	170x145x85
14013480000	T COMP 10	7 ÷ 10	---	3 ÷ 3,7	230x180x155
14024250000	T COMP 12	9 ÷ 12	2,2	4	230x180x155
14013560000	T COMP 16	11 ÷ 16	3	5,5	230x180x155
14013490000	T COMP 20	14 ÷ 20	3,7 - 4	7,5	230x180x155

QM, QT

PFC-T Power Factor Control **Control panel for 1 submersible pump with three-phase motor, PF control**



PANELS FOR SUBMERGED PUMPS

Construction

Control panel for controlling 1 submersible pump with three-phase motor.
Electronic control of the operation and dry-running protection through the power factor (PF) control.
The installation of level probes into the well is not required.
It stops the pump in case of lack of air cushion in the pressure vessel (patented system).
Displayed operating data and alarms available in four languages.

Technical data

Mains three-phase 400V - 3 ~ ±10% 50/60 Hz
Output current: 11 A - 16 A
Ambient temperature from -5 °C to +40 °C.
- Relative humidity: from 20% to 90% without condensation
- Protection IP 55.
- Control through pressure switch (pressure booster set)
- Control through float switch (for filling a tank)
- Alarm output signal

Constructed in accordance with IEC/EN 60439-1.

Setting

Min – Max voltage range
- Motor rated current
- Power factor (PF) value for dry-running protection
- Up to four programmable restarts in case of no water condition

Alarms (with pump stop)

Phase failure
- Wrong phase sequence
- Undervoltage and overvoltage
- Motor overload
- No water
- No air cushion in the pressure vessel

Components

Thermoplastic case.
Terminal board
- Display : 2x16 characters.
- 6 button key board.
- In/Out Cable glands.

On request

- RA 100 control panel for remote alarm.

Code	Pump type	Setting	Motor 400V 50Hz - 3~	Dimensions	kg
		A	kW	HxBxP mm	
14058390000	PFC-T 16/A	1 - 16	0,37 - 5,5	250x205x105	1,7

QM, QT

QTL/A 1 D **Control panel for 1 pump with three-phase motor, direct starting**



PANELS FOR SURFACE, SUBMERGED AND SUBMERSIBLE PUMPS

Construction

Control panel for 1 pump with three-phase motor, direct starting for pressure booster sets and submersible drainage pumps.
Arranged for the capacitor internal connection (for pumps without builtin capacitor).

For pressure booster sets:
with a patented working time-measuring system that stops the pump in case of lack of air cushion in the pressure vessel.
- dry-running protection with float switch or level control probes.

For submersible drainage pumps:
- automatic operating test of the pump every set hours of inactivity (with pump in the automatic operating mode).

- Pump control with signals coming from:
- 2 float switches: one for starting-up and stopping pump, one for the alarm maximum level (optional).
- 3 float switches: one for starting-up pump, one for stopping the pump and one for the alarm maximum level (optional).
Pump operation controlled by an electronic card type MPS 3000 with microprocessor which allows three different modes of operation of the pump: standard, emergency and timed.

Technical data

Power supply 400V 3~ ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
- Protection IP 44.

Components

Thermoplastic case (metallic for 7,5-9,2-11kW).
Line disconnector with door lock.
- Fuses for power line. - Fuses for auxiliary circuit.
Auxiliary circuit fuses
Starting contactor and thermal relay (for 7,5-9,2-11kW).
- Electronic board type MPS 3000 with microprocessor.
- Terminals for pressure trasducer / level probes.
- Connection terminals for thermal protector.
- Connection terminals for the RA 100 - RA 100A type.
- Terminals for pressure switch connection.
- Terminals for float switch connection against dry-running.
Terminals for remote signals
- Cable glands.

On request

Volt free contact control panel Q-MSP 9M
RA 100 - RA 100A control panel for remote alarm.

Code	Pump type	Setting	Motor 400V - 3~	Dimensions
		A	kW	HxBxP mm
14054470000	QTL/A 1 D 12A-FA	1 - 12	0,25 - 5,5	250x205x105
14054480000	QTL/A 1 D 7,5 FT	13 - 18	7,5	400x300x160
14054490000	QTL/A 1 D 9,2 FT	17 - 23	9,2	400x300x160
14054500000	QTL/A 1 D 11 FT	20 - 25	11	400x300x160

QM, QT

QTL 1 D FTE **Control panel for 1 pump with three-phase motor, direct starting**



PANELS FOR SURFACE AND SUBMERGED PUMPS

Construction

Electromechanical control panel for 1 pump with three-phase motor, direct starting.
Operating signals by E 1000 led card.
Dry-running protection with float switch.

Technical data

Mains 400V 3 ~ ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
- Protection IP 44.

Components

Metal case.
Line disconnector with door lock.
- Fuses for power line. - Fuses for auxiliary circuit.
Auxiliary circuit fuses
Starting contactor
Thermal relay
Transformer.
E 1000 led card
Terminals for connection pump operating signal
Terminals for float switch connection against dry-running
- Cable glands.

On request

RLE level control for probes against dry running
- RLE level control for pump operating probes.
Voltmeter
Ammeter

Code	Pump type	Motor 400V - 3~	Setting	Dimensions
		kW	A	HxBxP mm
14029820000	QTL 1 D 4 FTE	4	6,3 - 10	400x300x160
14058920000	QTL 1 D 5,5 FTE	5,5	9 - 12	400x300x160
14058930000	QTL 1 D 7,5 FTE	7,5	13 - 18	400x300x160
14050250000	QTL 1 D 9,2 FTE	9,2	17 - 23	400x300x160
14037630000	QTL 1 D 11 FTE	11	20 - 25	400x300x160
14058940000	QTL 1 D 15 FTE	15	24 - 32	500x350x200
14029220000	QTL 1 D 18,5 FTE	18,5	32 - 38	500x350x200
14058950000	QTL 1 D 22 FTE	22	35 - 50	500x350x200
14058960000	QTL 1 D 30 FTE	30	46 - 65	500x350x200

QM, QT

QTL/A 1 ST FT **Control panel for 1 pump with three-phase motor, Y/Δ starting**



PANELS FOR SURFACE AND SUBMERGED PUMPS

Construction

Control panel for 1 pump with three-phase motor, Y/Δ starting for pressure booster sets, with working time-measuring system that stops the pump in case of lack of air cushion in the pressure vessel.

Pump operation controlled by an electronic card type MPS 3000 with microprocessor with different pump operating modes.

Dry-running protection with float switch or level control probes.

Technical data

Mains 400V 3 ~ ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
- Protection IP 44.

Components

Metal case.
Line disconnector with door lock.
- Fuses for power line. - Fuses for auxiliary circuit.
Auxiliary circuit fuses
Starting contactor
Thermal relay
Transformer
Electronic board MPS 3000 with microprocessor.
Terminals for pressure trasducer / level probes.
- Connection terminals for thermal protector.
- Connection terminals for the RA 100 - RA 100A type.
Terminals for motor connection.
- Terminals for connection pressure switch of pump operating.
- Terminals for float switch connection against dry-running.
Terminals for remote signals
Cable glands

On request

RA 100 - RA 100A control panel for remote alarm.
Voltmeter
Ammeter

Code	Pump type	Motor 400V - 3~	Setting	Dimensions
		kW	A	HxBxP mm
14054510000	QTL/A 1 ST 5,5 FT	5,5	11 - 15	600x400x200
14054520000	QTL/A 1 ST 7,5 FT	7,5	12 - 17	600x400x200
14054530000	QTL/A 1 ST 11 FT	9,2 - 11	16 - 24	600x400x200
14054540000	QTL/A 1 ST 15 FT	15	23 - 31	600x400x200
14054550000	QTL/A 1 ST 18,5 FT	18,5	30 - 39	600x400x200
14054560000	QTL/A 1 ST 22 FT	22	35 - 43	700x500x200
14054570000	QTL/A 1 ST 30B FT	30	42 - 55	700x500x200
14054580000	QTL/A 1 ST 30A FT	30	55 - 65	700x500x200
14054590000	QTL/A 1 ST 37 FT	37	61 - 84	800x600x250
14054600000	QTL/A 1 ST 45 FT	45	80 - 105	800x600x250

QM, QT

QTL/A 1 ST FT-RH **Control panel for 1 submersible drainage pump with three-phase motor, Y/Δ starting**



PANELS FOR SUBMERSIBLE PUMPS

Construction

Control panel with protection for 1 submersible drainage pump with three-phase motor, Y/Δ starting.

Operation managed by the MPS 3000 electronic circuit board that has the following functions:
- automatic operating test of the pump every set hours of inactivity (with pump in the automatic operating mode).

- Pump control with signals coming from:
2 float switches: for starting-up and stopping pump, for the alarm (maximum level is optional).
- 3 float switches: for starting-up pump, for stopping the pump and for the alarm (maximum level is optional).

Technical data

Mains 400V 3 ~ ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
- Protection IP 44.

Components

Metal case.
Line disconnector with door lock.
- Fuses for power line. - Fuses for auxiliary circuit.
Auxiliary circuit fuses
Starting contactor
Thermal relay
Transformer
Electronic board MPS 3000 with microprocessor.
Terminals for pressure trasducer / level probes.
Connection terminals for thermal protector.
Connection terminals for the RA 100 - RA 100A type.
Connection terminals for float switches.
Terminals for motor connection.
Terminals for connection pressure switch of pump operating.
Terminals for float switch connection against dry-running.
Remote signal terminals and cable glands

On request

Volt free contact control panel Q-MSP 9M
RA 100 - RA 100A control panel for remote alarm.
Voltmeter
Ammeter

Code	Pump type	Motor 400V - 3~	Setting	Dimensions
		kW	A	HxBxP mm
14054610000	QTL/A 1 ST 4 FT-RH	4	7 - 11	600x400x200
14054620000	QTL/A 1 ST 5,5 FT-RH	5,5	11 - 15	600x400x200
14054630000	QTL/A 1 ST 7,5 FT-RH	7,5	12 - 17	600x400x200
14054640000	QTL/A 1 ST 11 FT-RH	9,2 - 11	16 - 24	600x400x200
14054650000	QTL/A 1 ST 15 FT-RH	15	23 - 31	600x400x200
14054660000	QTL/A 1 ST 18,5 FT-RH	18,5	30 - 39	600x400x200
14054670000	QTL/A 1 ST 22 FT-RH	22	35 - 43	700x500x250
14054680000	QTL/A 1 ST 30B FT-RH	30	42 - 55	700x500x250
14054690000	QTL/A 1 ST 30A FT-RH	30	55 - 65	700x500x250
14054700000	QTL/A 1 ST 37 FT-RH	37	61 - 84	800x600x250
14054710000	QTL/A 1 ST 45 FT-RH	45	80 - 105	800x600x250
14054720000	QTL/A 1 ST 55 FT-RH	55	100 - 125	800x600x250
14054730000	QTL/A 1 ST 75 FT-RH	75	120 - 150	900x600x300
14054740000	QTL/A 1 ST 92 FT-RH	92	155 - 255	1100x700x250

QM, QT

QTL 1 ST FTE **Control panel for 1 pump with three-phase motor, Y/Δ starting**



PANELS FOR SURFACE AND SUBMERGED PUMPS

Construction

Electromechanical control panel for 1 pump with three-phase motor, Y/Δ starting.
Operating signals by E 1000 led card.
Dry-running protection with float switch.

Technical data

Mains 400V 3 ~ ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
- Protection IP 44.

Components

Metal case.
Line disconnector with door lock.
- Fuses for power line. - Fuses for auxiliary circuit.
Contactors.
Starting contactors.
Thermal relay
Y/Δ timer
Transformer.
E 1000 led board.
Terminals for motor connection.
Terminals for connection of pump operating signal.
- Terminals for float switch connection against dry-running.
- Cable glands.

On request

RLE level control for probes against dry running.
- RLE level control for pump operating probes.
- Voltmeter.
- Ammeter.

Code	Pump type	Motor 400V - 3~	Setting	Dimensions
		kW	A	HxBxP mm
14058970000	QTL 1 ST 5,5 FTE	5,5	11 - 15	500x350x200
14058980000	QTL 1 ST 7,5 FTE	7,5	12 - 17	500x350x200
14029200000	QTL 1 ST 11 FTE	9,2 - 11	16 - 24	500x350x200
14058990000	QTL 1 ST 15 FTE	15	23 - 31	500x350x200
14029440000	QTL 1 ST 18,5 FTE	18,5	30 - 39	500x350x200
14031710000	QTL 1 ST 22 FTE	22	35 - 43	600x400x200
14059000000	QTL 1 ST 30B FTE	30	42 - 55	600x400x200
14048380000	QTL 1 ST 30A FTE	30	55 - 65	600x400x200
14048520000	QTL 1 ST 37 FTE	37	61 - 84	700x500x200
14047050000	QTL 1 ST 45 FTE	45	80 - 105	700x500x200
14059010000	QTL 1 ST 55 FTE	55	100 - 125	700x500x200
14059020000	QTL 1 ST 75 FTE	75	120 - 160	800x600x250
14059030000	QTL 1 ST 92 FTE	92	140 - 198	800x600x250
14059040000	QTL 1 ST 110 FTE	110	180 - 250	800x600x250

QM, QT

QTL 1 SS E **Control panel for 1 pump with three-phase motor, start/stop with soft starter**



PANELS FOR SURFACE AND SUBMERGED PUMPS

Construction

Control panel for 1 pump with three-phase motor, start/stop with soft starter
Operating signals by E 1000 led card.
Application: control of submersible motor with great cable length and surface motors.
Dry-running protection with float switch.

Technical data

Mains 400V 3 ~ ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
- Protection IP 44.

Components

Metal case.
Line disconnector with door lock.
- Fuses for power line. - Fuses for auxiliary circuit.
Auxiliary circuit fuses
start/stop with soft starter
By pass contactors (built into the soft starter)
Transformer
E 1000 led card
Terminals for float switch or level probes connection for pump operating.
- Terminals for float switch or level probes connection against dry-running.
Cable glands

On request

RLE level control for connection level probes of pump operating.
RLE level control for probes against dry running.
Voltmeter
Ammeter

Code	Pump type	Motor 400V - 3~	Max corrente erogata	Dimensions
		kW	max A	HxBxP mm
14059050000	QTL 1 SS 7,5 E	7,5	17	700x500x250
14053880000	QTL 1 SS 15 E	9,2 - 11 - 15	30	700x500x250
14028440000	QTL 1 SS 22 E	18,5 - 22	45	700x500x250
14059060000	QTL 1 SS 30 E	26 - 30	60	900x600x300
14045900000	QTL 1 SS 37 E	37	75	900x600x300
14059070000	QTL 1 SS 45 E	45	85	900x600x300
14059080000	QTL 1 SS 55 E	55	110	900x600x300
14059090000	QTL 1 SS 63 E	63	125	1100x700x300
14059100000	QTL 1 SS 75 E	75	142	1100x700x300
14059110000	QTL 1 SS 90 E	90	190	1200x800x400
14059120000	QTL 1 SS 132 E	110 - 132	245	1200x800x400

QM, QT

QTL 1 IS FTE **Control panel for 1 pump with three-phase motor, with Stator Impedence starter**



PANELS FOR SUBMERGED PUMPS

Construction

Electromechanical control panel for 1 submersible pump with three-phase motor, with Stator Impedence starter.
Operating signals by E 1000 led card.
Application : submersible motors control with great cable length.

Technical data

Mains 400V 3 ~ ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
- Protection IP 44.

Components

Metal case
Door lock master switch
Fuses for power line
Auxiliary circuit fuses
Stator Impedence starter
By pass contactors
Transformer
E 1000 led card
RLE level control for connection level probes of pump control.
RLE level control for probes against dry running
Terminals for connection level probes or float switch for operating pump.
- Terminals for level probes or float switch connection against dry-running.
Cable glands

On request

Voltmeter
Ammeter

Code	Pump type	Motor 400V - 3~	Setting
		kW	max A
14059130000	QTL 1 IS 5,5 FTE-2RL	5,5	11 - 15
14059140000	QTL 1 IS 7,5 FTE-2RL	7,5	12 - 17
14059150000	QTL 1 IS 11 FTE-2RL	9,2 - 11	16 - 24
14052700000	QTL 1 IS 15 FTE-2RL	15	23 - 31
14059160000	QTL 1 IS 18,5 FTE-2RL	18,5	30 - 39
14059170000	QTL 1 IS 22 FTE-2RL	22	35 - 43
14059180000	QTL 1 IS 30 FTE-2RL	30	42- 65
14059190000	QTL 1 IS 37 FTE-2RL	37	61 - 84
14059200000	QTL 1 IS 45 FTE-2RL	45	80 - 105
14059210000	QTL 1 IS 55 FTE-2RL	55	100 - 125
14059220000	QTL 1 IS 75 FTE-2RL	75	120 - 160
14059230000	QTL 1 IS 92 FTE-2RL	92	140 - 198
14059240000	QTL 1 IS 110 FTE-2RL	110	180 - 250

QM, QT

QML/A 2 D **Control panel for 2 pumps with single-phase motor, direct starting**



Control panels for booster sets with surface pumps and for booster sets with submersible pumps

Construction

Control panel for 2 pumps with single-phase motor, direct starting for pressure booster sets and submersible drainage pumps. Arranged for the capacitor internal connection (for pumps without built-in capacitor).

For pressure booster sets:
with a patented working time-measuring system that stops the pump in case of lack of air cushion in the pressure vessel.
- dry-running protection with float switch or level control probes.

For submersible drainage pumps:
pump changing at every pump start.
- working pumps changing after 30 minutes of uninterrupted operation.
- automatic operating test of each individual pump every set hours of inactivity (with pumps in the automatic functioning mode).
- Pump control with signals coming from:
3 float switches: for starting-up and stopping pump 1, for starting-up and stopping pump 2, for the alarms (maximum level is optional).
- 4 float switches: for starting-up pump 1, for starting up pump 2, for stopping the pumps and for the alarms (maximum level is optional).
Pump operation controlled by an electronic card type MPS 3000 with microprocessor which allows three different modes of operation of the pump: standard, emergency and timed.

Technical data

Power supply 230V ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
- Protection IP 44.

Components

Thermoplastic case. - Door lock master switch.
Line disconnector with door lock.
- Fuses for power line. - Fuses for auxiliary circuit.
Auxiliary circuit fuses
- Electronic board type MPS 3000 with microprocessor.
- Terminals for pressure trasducer / level probes.
- Connection terminals for thermal protector.
- Connection terminals for the RA 100 - RA 100A type.
- Terminals for pressure switch connection.
- Terminals for float switch connection against dry-running.
Terminals for remote signals
- Cable glands.

On request

Volt free contact control panel Q-MSP 13M.
RA 100 - RA 100A control panel for remote alarm.

Code	Pump type	Motor 400V - 3~	Setting	Dimensions
		kW	max A	HxBxP mm
14054750000	QML/A 2 D 12A-FA	0,25 - 1,5	1 - 12	310x235x125
24054750000	QML/A 2 D 12A-FA 20	0,25 - 1,5	1 - 12	310x235x125
24054750001	QML/A 2 D 12A-FA 25	0,25 - 1,5	1 - 12	310x235x125
24054750002	QML/A 2 D 12A-FA 30-85	0,25 - 1,5	1 - 12	395x315x135
24054750003	QML/A 2 D 12A-FA 35-85	0,25 - 1,5	1 - 12	395x315x135
14055750000	QML/A 2 D 3 FT	2,2 - 3	13 - 18	500x350x160

QM, QT

QTL/A 2 D **Control panel for 2 pumps with three-phase motor, direct starting**



Control panels for booster sets with surface pumps and for booster sets with submersible pumps

Construction

Control panel for 2 pumps with single-phase motor, direct starting for pressure booster sets and submersible drainage pumps.
For pressure booster sets:
with a patented working time-measuring system that stops the pump in case of lack of air cushion in the pressure vessel.
- dry-running protection with float switch or level control probes.
For submersible drainage pumps:
pump changing at every pump start.
- working pumps changing after 30 minutes of uninterrupted operation.
- automatic operating test of each individual pump every set hours of inactivity (with pumps in the automatic functioning mode).
- Pump control with signals coming from:
3 float switches: for starting-up and stopping pump 1, for starting-up and stopping pump 2, for the alarms (maximum level is optional).
- 4 float switches: for starting-up pump 1, for starting up pump 2, for stopping the pumps and for the alarms (maximum level is optional).
Pump operation controlled by an electronic card type MPS 3000 with microprocessor which allows three different modes of operation of the pump: standard, emergency and timed.

Components

Thermoplastic case. - Door lock master switch.
Line disconnector with door lock.
- Fuses for power line. - Fuses for auxiliary circuit.
Auxiliary circuit fuses
- Electronic board type MPS 3000 with microprocessor.
- Terminals for pressure trasducer / level probes.
- Connection terminals for thermal protector.
- Connection terminals for the RA 100 - RA 100A type.
Terminals for float switch or float switch connection against dry-running.
- Terminals for float switch connection against dry-running.
Terminals for remote signals
- Cable glands.

On request

Volt free contact control panel Q-MSP 13M.
RA 100 - RA 100A control panel for remote alarm.

Technical data

Power supply 230V ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
- Protection IP 44.

Code	Pump type	Motor 400V - 3~	Setting	Dimensions
		kW	max A	HxBxP mm
14054760000	QTL/A 2 D 12A-FA	0,25 - 5,5	1 - 12	310x235x125

QM, QT

QTL/A 2 ST FT **Control panel for 2 pumps with three-phase motor, Y/Δ starting**



PANELS FOR SURFACE PUMP ASSEMBLIES

Construction

Control panel for 2 pumps with three-phase motor, Y/Δ starting for pressurisation systems, with system that detects the operating time of the pumps (patented) and stops them when the air cushion in the tank is reduced.

Pump operation cascade mode controlled by an electronic board type MPS 3000 with microprocessor which allows different operation modes:

Dry-running protection with float switch or level control probes.

Technical data

Mains 400V ±10% 50 Hz (other voltages on request
- Ambient temperature from -5 °C to +40 °C.
- Protection IP 44.

Components

Metal case
Line disconnector with door lock.
- Fuses for power line. - Fuses for auxiliary circuit.
Auxiliary circuit fuses
Starting contactors
Thermal relay.
- Y/Δ timers.
Transformer.
- Electronic board type MPS 3000 with microprocessor.
- Terminals for pressure trasducer / level probes.
- Connection terminals for thermal protector.
- Connection terminals for the RA 100 - RA 100A type.
Terminals for float switch or float switch connection against dry-running.
Terminals for float switch or float switch connection against dry-running.
Terminals for remote signals
- Cable glands.

On request

Volt free contact control panel Q-MSP 13M.
RA 100 - RA 100A control panel for remote alarm.
Voltmeter
Ammeter

Code	Pump type	Motor 400V - 3~	Current	Dimensions
		kW	max A	HxBxP mm
14054770000	QTL/A 2 ST 5,5 FT	5,5	11 - 15	700x500x200
14054780000	QTL/A 2 ST 7,5 FT	7,5	12 - 17	700x500x200
14054790000	QTL/A 2 ST 11 FT	9,2 - 11	16 - 24	700x500x200
14054800000	QTL/A 2 ST 15 FT	15	23 - 31	700x500x200
14054810000	QTL/A 2 ST 18,5 FT	18,5	30 - 39	700x500x200
14054820000	QTL/A 2 ST 22 FT	22	35 - 43	900x600x250
14054830000	QTL/A 2 ST 30B FT	30	42 - 55	900x600x250
14054840000	QTL/A 2 ST 30A FT	30	55 - 65	900x600x250
14054850000	QTL/A 2 ST 37 FT	37	61 - 84	1100x700x250
14054860000	QTL/A 2 ST 45 FT	45	80 - 105	1100x700x250

QM, QT

QTL/A 2 ST .. FT-RH Electric control panel for 2 drainage pumps with three-phase motor, Y/Δ starting



PANELS FOR SUBMERSIBLE PUMP ASSEMBLIES

Construction

Control panel with protection for 2 submersible drainage pumps with threephase motor, Y/Δ starting.
Pump operation in cascade managed by MPs 3000 electronic control unit with microprocessor that allows for different operating modes:
pump changing at every pump start.
- working pumps changing after 30 minutes of uninterrupted operation.
- automatic operating test of each individual pump every set hours of inactivity (with pumps in the automatic functioning mode).

- Pump control with signals coming from:
3 float switches: for starting-up and stopping pump 1, for starting-up and stopping pump 2, for the alarms (maximum level is optional).
4 float switches: for starting-up pump 1, for starting up pump 2, for stopping the pumps and for the alarms (maximum level is optional).

Technical data

Mains 400V ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
- Protection IP 44.

Components

Metal case.
Line disconnector with door lock.
- Fuses for power line. - Fuses for auxiliary circuit.
Auxiliary circuit fuses
Starting contactors
Thermal relay.
- Y/Δ timers.
Transformer
Electronic board MPS 3000 with microprocessor.
Terminals for pressure trasducer / level probes.
Connection terminals for thermal protector
- Connection terminals for the RA 100 - RA 100A type.
Connection terminals for float switches.
- Connection terminals for thermal protectors.
Terminals for float switch or float switch connection against dry-running.
Terminals for remote signals
Cable glands

On request

Volt free contact control panel Q-MSP 13M
RA 100 - RA 100A control panel for remote alarm.
Voltmeter
Ammeter

Code	Pump type	Motor 400V - 3~	Current	Dimensions
		kW	A	HxBxP mm
14054870000	QTL/A 2 ST 4 FT-RH	4	7 - 11	700x500x200
14054880000	QTL/A 2 ST 5,5 FT-RH	5,5	11 - 15	700x500x200
14054890000	QTL/A 2 ST 7,5 FT-RH	7,5	12 - 17	700x500x200
14054900000	QTL/A 2 ST 11 FT-RH	9,2 - 11	16 - 24	700x500x200
14054910000	QTL/A 2 ST 15 FT-RH	15	23 - 31	700x500x200
14054920000	QTL/A 2 ST 18,5 FT-RH	18,5	30 - 39	700x500x200
14054930000	QTL/A 2 ST 22 FT-RH	22	35 - 43	900x600x250
14054940000	QTL/A 2 ST 30B FT-RH	30	42 - 55	900x600x250
14054950000	QTL/A 2 ST 30A FT-RH	30	55 - 65	900x600x250
14054960000	QTL/A 2 ST 37 FT-RH	37	61 - 84	1100x700x250
14054970000	QTL/A 2 ST 45 FT-RH	45	80 - 105	1100x700x250
14054980000	QTL/A 2 ST 55 FT-RH	55	100 - 125	1200x800x300
14054990000	QTL/A 2 ST 75 FT-RH	75	120 - 150	1200x800x300
14055000000	QTL/A 2 ST 92 FT-RH	92	155 - 255	1400x800x400

QM, QT

QML/A 3 D **Control panel for 3 pumps with single-phase motor, direct starting**



Control panels for booster sets with surface pumps and for booster sets with submersible pumps

Construction

Control panel for 3 pumps with single-phase motor, direct starting for pressurisation systems, with system that detects the operating time of the pumps (patented) and stops them when the air cushion in the tank is reduced. Pump operation cascade mode controlled by an electronic board type MPS 3000 with microprocessor which allows different operation modes.
Dry-running protection with float switch or level control probes.

Technical data

Power supply 230V ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
- Protection IP 44.

Components

Thermoplastic case. - Door lock master switch.
Line disconnector with door lock.
- Fuses for power line. - Fuses for auxiliary circuit.
Contactors.
Starting contactors.
Fuses for auxiliary circuit.
- Electronic board type MPS 3000 with microprocessor.
- Terminals for pressure trasducer / level probes.
- Connection terminals for thermal protector.
- Connection terminals for the RA 100 - RA 100A type.
- Terminals for pressure switch connection.
Terminals for float switch or float switch connection against dry-running.
Terminals for remote signals
- Cable glands.

On request

Volt free contact control panel Q-MSP 13M.
RA 100 - RA 100A control panel for remote alarm.

Code	Pump type	Motor 400V - 3~	Setting	Dimensions
		kW	max A	HxBxP mm
14055010000	QML/A 3 D 12A-FA	0,25 - 1,5	1 - 12	395x315x135

QM, QT

QTL/A 3 D **Control panel for 3 pumps with three-phase motor, direct starting**



Control panels for booster sets with surface pumps and for booster sets with submersible pumps

Construction

Control panel for 3 pumps with three-phase motor, direct starting, for pressure booster sets and submersible drainage pumps.
For pressure booster sets:
with a patented working time-measuring system that stops the pump in case of lack of air cushion in the pressure vessel.
- dry-running protection with float switch or level control probes.
For submersible drainage pumps:
pump changing at every pump start.
- working pumps changing after 30 minutes of uninterrupted operation.
- automatic operating test of each individual pump every set hours of inactivity (with pumps in the automatic functioning mode).
- Pump control with signals coming from:
4 float switches: for starting-up and stopping pump, for the alarm (maximum level is optional).
- 5 float switches: for starting-up pump, for stopping the pumps and for the alarm (maximum level is optional).

Technical data

Power supply 230V ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
- Protection IP 44.

Components

Thermoplastic case. - Door lock master switch.
Line disconnector with door lock.
- Fuses for power line. - Fuses for auxiliary circuit.
Contactors.
Starting contactors.
Fuses for auxiliary circuit.
- Electronic board type MPS 3000 with microprocessor.
- Terminals for pressure trasducer / level probes.
- Connection terminals for thermal protector.
- Connection terminals for the RA 100 - RA 100A type.
Terminals for float switch or float switch connection against dry-running.
- Terminals for float switch connection against dry-running.
Terminals for remote signals
- Cable glands.

On request

Volt free contact control panel Q-MSP 13M.
RA 100 - RA 100A control panel for remote alarm.

Code	Pump type	Motor 400V - 3~	Setting	Dimensions
		kW	max A	HxBxP mm
14055020000	QTL/A 3 D 12A-FA	0,37 - 5,5	1 - 12	395x315x135

QM, QT

QTL/A 3 ST FT **Control panel for 3 pumps with three-phase motor, Y/Δ starting**



PANELS FOR SURFACE PUMP ASSEMBLIES

Construction

Control panel for 3 pumps with three-phase motor, Y/Δ starting, for pressure booster sets, with working time-measuring system that stops the pump in case of lack of air cushion in the pressure vessel.
Pump operation cascade mode controlled by an electronic board type MPS 3000 with microprocessor which allows different operation modes.
Dry-running protection with float switch or level control probes.

Technical data

Mains 400V 3 ~ ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
- Protection IP 44.

Components

Metal case
Line disconnector with door lock.
- Fuses for power line. - Fuses for auxiliary circuit.
Contactors.
Starting contactors
Thermal relay.
- Y/Δ timers.
Transformer.
- Electronic board type MPS 3000 with microprocessor.
- Terminals for pressure trasducer / level probes.
- Connection terminals for thermal protector.
- Connection terminals for the RA 100 - RA 100A type.
Terminals for pumps connection.
Terminals for float switch or float switch connection against dry-running.
Terminals for float switch or float switch connection against dry-running.
Terminals for remote signals
- Cable glands.

On request

Volt free contact control panel Q-MSP 13M.
RA 100 - RA 100A control panel for remote alarm.
Voltmeter
Ammeter

Code	Pump type	Motor 400V - 3~	Current	Dimensions
		kW	max A	HxBxP mm
14055030000	QTL/A 3 ST 5,5 FT	5,5	11 - 15	700x500x200
14055040000	QTL/A 3 ST 7,5 FT	7,5	12 - 17	700x500x200
14055050000	QTL/A 3 ST 11 FT	9,2 - 11	16 - 24	800x600x250
14055060000	QTL/A 3 ST 15 FT	15	23 - 31	800x600x250
14055070000	QTL/A 3 ST 18,5 FT	18,5	30 - 39	1000x600x250
14055080000	QTL/A 3 ST 22 FT	22	35 - 43	1100x700x250
14055090000	QTL/A 3 ST 30B FT	30	42 - 55	1200x800x300
14055100000	QTL/A 3 ST 30A FT	30	55 - 65	1200x800x300
14055110000	QTL/A 3 ST 37 FT	37	61 - 84	1400x800x400
14055120000	QTL/A 3 ST 45 FT	45	80 - 105	1400x800x400

QM, QT

QTL/A 3 ST .. FT-RH Electric control panel for 3 drainage pumps with three-phase motor, Y/Δ starting



PANELS FOR SUBMERSIBLE PUMP ASSEMBLIES

Construction

Control panel with protection for 3 submersible drainage pumps with threephase motor, Y/Δ starting.
Operation managed by the MPS 3000 electronic circuit board that incorporates the following functions:
pump changing at every pump start.
- working pumps changing after 30 minutes of uninterrupted operation.
- automatic operating test of each individual pump every set hours of inactivity (with pumps in the automatic functioning mode).
- Pump control with signals coming from:
4 float switches: for starting-up and stopping pump, for the alarm (maximum level is optional).
- 5 float switches: for starting-up pump, for stopping the pumps and for the alarm (maximum level is optional).

Technical data

Mains 400V 3 ~ ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
- Protection IP 44.

Components

Metal case.
Line disconnector with door lock.
- Fuses for power line. - Fuses for auxiliary circuit.
Auxiliary circuit fuses
Starting contactors
Thermal relay.
- Y/Δ timers.
Transformer
Electronic board MPS 3000 with microprocessor.
Terminals for pressure trasducer / level probes.
Connection terminals for thermal protector
- Connection terminals for the RA 100 - RA 100A type.
Connection terminals for float switches.
Terminals for pumps connection.
- Connection terminals for thermal protectors.
Terminals for float switch or float switch connection against dry-running.
Terminals for remote signals
Cable glands

On request

Volt free contact control panel Q-MSP 13M
RA 100 - RA 100A control panel for remote alarm.
Voltmeter
Ammeter

Code	Pump type	Motor 400V - 3~	Current	Dimensions
		kW	A	HxBxP mm
14055130000	QTL/A 3 ST 4 FT-RH	4	7 - 11	700x500x200
14055140000	QTL/A 3 ST 5,5 FT-RH	5,5	11 - 15	700x500x200
14055150000	QTL/A 3 ST 7,5 FT-RH	7,5	12 - 17	700x500x200
14055160000	QTL/A 3 ST 11 FT-RH	9,2 - 11	16 - 24	800x600x250
14055170000	QTL/A 3 ST 15 FT-RH	15	23 - 31	800x600x250
14055180000	QTL/A 3 ST 18,5 FT-RH	18,5	30 - 39	1000x600x250
14055190000	QTL/A 3 ST 22 FT-RH	22	35 - 43	1100x700x250
14055200000	QTL/A 3 ST 30B FT-RH	30	42 - 55	1200x800x300
14055210000	QTL/A 3 ST 30A FT-RH	30	55 - 65	1200x800x300
14055220000	QTL/A 3 ST 37 FT-RH	37	61 - 84	1400x800x400
14055230000	QTL/A 3 ST 45 FT-RH	45	80 - 105	1400x800x400
14055240000	QTL/A 3 ST 55 FT-RH	55	100 - 125	1600x800x400
14055250000	QTL/A 3 ST 75 FT-RH	75	120 - 150	1600x1000x400
14055260000	QTL/A 3 ST 92 FT-RH	92	155 - 255	1600x1000x400

QM, QT

QML 1 VFT **Control panel for 1 pump with variable speed three-phase motor**



PANELS FOR SURFACE AND SUBMERGED PUMPS

Construction

Single-phase mains supply control panel with frequency converter for 1 pump with three-phase 230V variable speed motor, for constant pressure booster sets.
Arranged for SRL 3 level control application for probes connection against dry-running.
Pump operation controlled by an electronic board type MPS 4000 with microprocessor.

Technical data

Mains single-phase 230V ±10% 50 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
- Protection IP 44.

Components

Metal case.
Line disconnector with door lock.
- Fuses for power line. - Fuses for auxiliary circuit.
Fuses for auxiliary circuit.
Fuses for power line.
Inverter.
electronic board type MPS 4000 with microprocessor.
Interface for MPS 4000 electronic board.
- Ventilator for electric panel cooling.
- Terminals board. -
Terminal board
Terminals for remote signals
- Cable glands.

On request

SRL3 level control for probes against dry running
Volt free contact module MSP 1M, control panel Q-MSP 9M.
- RA 100 control panel for remote alarm.

Code	Pump type	Max corrente erogata	Motor 230V - 1~	Dimensions
		max A	kW	HxBxP mm
14059250000	QML 1 VFT 0,4	2,4	0,37 - 0,45	500x350x200
14059260000	QML 1 VFT 0,75	4,2	0,55 - 0,75	500x350x200
14059270000	QML 1 VFT 1,5	7,5	1,1 - 1,5	500x350x200
14050260000	QML 1 VFT 2,2	10	2,2	500x350x200

QM, QT

QTL 1 VFT **Control panel for 1 pump with variable speed three-phase motor**



PANELS FOR SURFACE AND SUBMERGED PUMPS

Construction

Control panel with frequency converter for 1 pump with three-phase variable speed motor, for constant pressure booster sets.Arranged for SRL 3 level control application for probes connection against dry-running.
Pump operation controlled by an electronic board type MPS 4000 with microprocessor.

Technical data

Mains 400V 3 ~ ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
Protection IP 44.

Components

Metal case
Door lock master switch
Fuses for power line
Fuses for auxiliary circuit.
Fuses for power line.
Inverter.
electronic board type MPS 4000 with microprocessor.
Interface for MPS 4000 electronic board.
- Ventilator for electric panel cooling.
Pressure transducer
Terminal board
Terminals for remote signals
Cable glands

On request

SRL3 level control for probes against dry running
Volt free contact module MSP 1M, control panel Q-MSP 9M.
RA 100 control panel for remote alarm

Code	Pump type	Max corrente erogata	Motor 400V - 3~	Dimensions
		max A	kW	HxBxP mm
14046510000	QTL 1 VFT 0,4	1,5	0,4	500x350x200
14046520000	QTL 1 VFT 0,75	2,3	0,55 - 0,75	500x350x200
14046530000	QTL 1 VFT 1,5	4,1	1,1 - 1,5	500x350x200
14046540000	QTL 1 VFT 2,2	5,5	2,2	500x350x200
14046550000	QTL 1 VFT 4	9,5	3 - 4	500x350x200
14046560000	QTL 1 VFT 5,5	14,3	5,5	600x400x250
14046570000	QTL 1 VFT 7,5	17	7,5	600x400x250
14046580000	QTL 1 VFT 11	27,7	9,2 - 11	700x500x250
14046590000	QTL 1 VFT 15	33	15	700x500x250
14046600000	QTL 1 VFT 18,5	46,3	18,5	800x600x250
14046610000	QTL 1 VFT 22	61,5	22	800x600x250
14046620000	QTL 1 VFT 30	74,5	30	900x600x250
14046630000	QTL 1 VFT 37	88	37	1100x700x300
14046640000	QTL 1 VFT 45	106	45	1200x800x300
14046650000	QTL 1 VFT 55	145	55	1200x800x300
14046660000	QTL 1 VFT 75	173	75	1200x800x300

QM, QT

QML 2 VFT **Control panel for 2 pumps with variable speed three-phase motor**



PANELS FOR SURFACE PUMP ASSEMBLIES

Construction

Single-phase mains supply control panel with frequency converter for 2 pumps with three-phase 230V variable speed motor, for constant pressure booster sets.
Arranged for SRL 3 level control application for probes connection against dry-running.
Pump operation controlled by an electronic board type MPS 4000 with microprocessor.

Technical data

Mains single-phase 230V ±10% 50 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
Protection IP 44.

Components

Metal case
Door lock master switch
Fuses for power line
Fuses for auxiliary circuit.
Fuses for power line.
Inverter.
electronic board type MPS 4000 with microprocessor.
Interface for MPS 4000 electronic board.
- Ventilator for electric panel cooling.
Terminal board
Terminals for remote signals
Cable glands

On request

SRL3 level control for probes against dry running
Volt free contact module MSP 1M, control panel Q-MSP 9M.
RA 100 control panel for remote alarm

Code	Pump type	Max corrente erogata	Motor 230V - 3~	Dimensions
		max A	kW	HxBxP mm
14059280000	QML 2 VFT 0,45	2,4x2	0,37 - 0,45	600x400x200
14048320000	QML 2 VFT 0,75	4,2x2	0,55 - 0,75	600x400x200
14047020000	QML 2 VFT 1,5	7,5x2	1,1 - 1,5	600x400x200
14059290000	QML 2 VFT 2,2	10x2	2,2	600x400x200

QM, QT

QML 2 VFT **Control panel for 2 pumps with variable speed three-phase motor**



PANELS FOR SURFACE PUMP ASSEMBLIES

Construction

Control panel with frequency converter for 2 pump with three-phase variable speed motor, for constant pressure booster sets. Arranged for SRL 3 level control application for probes connection against dry-running.
Pump operation controlled by an electronic board type MPS 4000 with microprocessor.

Technical data

Mains 400V 3 ~ ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
Protection IP 44.

Components

Metal case
Door lock master switch
Fuses for power line
Fuses for auxiliary circuit.
Fuses for power line.
Inverter.
electronic board type MPS 4000 with microprocessor.
Interface for MPS 4000 electronic board.
- Ventilator for electric panel cooling.
Terminal board
Terminals for remote signals
Cable glands

On request

SRL3 level control for probes against dry running
Volt free contact module MSP 1M, control panel Q-MSP 9M.
RA 100 control panel for remote alarm

Code	Pump type	Max corrente erogata	Motor 400V - 3~	Dimensions
		max A	kW	HxBxP mm
14046670000	QTL 2 VFT 0,45	1,5x2	0,37 - 0,45	600x400x250
14046680000	QTL 2 VFT 0,75	2,3x2	0,55 - 0,75	600x400x250
14046690000	QTL 2 VFT 1,5	4,1x2	1,1 - 1,5	600x400x250
14046700000	QTL 2 VFT 2,2	5,5x2	2,2	600x400x250
14046710000	QTL 2 VFT 4	9,5x2	3 - 4	600x400x250
14046720000	QTL 2 VFT 5,5	14,3x2	5,5	700x500x250
14046730000	QTL 2 VFT 7,5	17x2	7,5	700x500x250
14046740000	QTL 2 VFT 11	27,7x2	9,2 - 11	900x600x250
14046750000	QTL 2 VFT 15	33x2	15	900x600x250
14046760000	QTL 2 VFT 18,5	46,3x2	18,5	1200x800x300
14046770000	QTL 2 VFT 22	61,5x2	22	1200x800x300
14046780000	QTL 2 VFT 30	74,5x2	30	1200x800x300
14046790000	QTL 2 VFT 37	88x2	37	1600x1000x400
14046800000	QTL 2 VFT 45	106x2	45	2100x1400x500
14046810000	QTL 2 VFT 55	145x2	55	2100x1400x500
14046820000	QTL 2 VFT 75	173x2	75	2100x1400x500

QM, QT

QML 1.1 VFT **Control panel for 1 variable speed pump and 1 fixed speed pump**



PANELS FOR SURFACE PUMP ASSEMBLIES

Construction

Single-phase mains supply control panel with frequency converter for 2 pumps, one with three-phase 230V variable speed motor and one with fixed speed single-phase motor, for constant pressure booster sets. Arranged for SRL 3 level control application for probes connection against dry-running.
Pump operation controlled by an electronic board type MPS 4000 with microprocessor.

Technical data

Mains single-phase 230V ±10% 50 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
Protection IP 44.

Components

Metal case.
Line disconnector with door lock.
- Fuses for power line. - Fuses for auxiliary circuit.
Fuses for auxiliary circuit.
Fuses for power line.
Inverter.
Starting contactors of the second pump.
Transformer
electronic board type MPS 4000 with microprocessor.
Interface for MPS 4000 electronic board.
- Ventilator for electric panel cooling.
- Terminals board. -
Terminal board
Terminals for remote signals
- Cable glands.

On request

SRL3 level control for probes against dry running
Volt free contact module MSP 1M, control panel Q-MSP 9M.
- RA 100 control panel for remote alarm.

Code	Pump type	Max corrente erogata	Motor 230V - 3~	Dimensions
		max A	kW	HxBxP mm
14058910000	QML 1.1 VFT 0,45 - D 0,45	2,4	0,37 - 0,45	600x400x250
14047430000	QML 1.1 VFT 0,75 - D 0,75	4,2	0,55 - 0,75	600x400x250
14058510000	QML 1.1 VFT 1,5 - D 1,5	7,5	1,1 - 1,5	600x400x250
14050290000	QML 1.1 VFT 2,2 - D 2,2	10	2,2	600x400x250

QM, QT

QTL 1.1 VFT **Control panel for 1 variable speed pump and 1 fixed speed pump**



PANELS FOR SURFACE PUMP ASSEMBLIES

Construction

Control panel with frequency converter for 2 pumps with three-phase motor, one with variable speed and one with fixed speed motor, for constant pressure booster sets.Arranged for SRL 3 level control application for probes connection against dry-running.
Pump operation controlled by an electronic board type MPS 4000 with microprocessor.

Technical data

Mains 400V 3 ~ ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
Protection IP 44.

Components

Metal case
Door lock master switch
Fuses for power line
Fuses for auxiliary circuit.
Fuses for power line.
Inverter.
Starting contactors of the second pump.
Timer (Y/Δ) from 7,5 kW.
Transformer
electronic board type MPS 4000 with microprocessor.
Interface for MPS 4000 electronic board.
- Ventilator for electric panel cooling.
Pressure transducer
Terminal board
Terminals for remote signals
Cable glands

On request

SRL3 level control for probes against dry running
Clean signal module MSP 1M, Panel Q-MPS 9M
RA 100 control panel for remote alarm

Code	Pump type	Corrente max A		Motor 400V - 3~	Dimensions
		variable	Fixed	kW	HxBxP mm
14059300000	QTL 1.1 VFT 0,45 - D 0,45	1,5	1 - 1,6	0,37 - 0,45	600x400x250
14047460000	QTL 1.1 VFT 0,75 - D 0,75	2,3	1,6 - 2,5	0,55 - 0,75	600x400x250
14047230000	QTL 1.1 VFT 1,5 - D 1,5	4,1	2,5 - 4	1,1 - 1,5	600x400x250
14047130000	QTL 1.1 VFT 2,2 - D 2,2	5,5	4 - 6,5	2,2	600x400x250
14059840000	QTL 1.1 VFT 4 - D 3	9,5	4 - 6,5	3	600x400x250
14047160000	QTL 1.1 VFT 4 - D 4	9,5	6,3 - 10	4	600x400x250
14047120000	QTL 1.1 VFT 5,5 - D 5,5	14,3	9 - 14	5,5	700x500x250
14047030000	QTL 1.1 VFT 7,5 - ST 7,5	17	11 - 17	7,5	800x600x250
14048390000	QTL 1.1 VFT 11 - ST 11	27,7	16 - 24	9,2 - 11	800x600x250
14048210000	QTL 1.1 VFT 15 - ST 15	33	22 - 31	15	800x600x250
14048340000	QTL 1.1 VFT 18,5 - ST 18,5	46,3	30 - 39	18,5	900x600x250
14055630000	QTL 1.1 VFT 22 - ST 22	61,5	35 - 43	22	900x600x250
14059310000	QTL 1.1 VFT 30 - ST 30B	74,5	42 - 55	30	1000x800x250
14059320000	QTL 1.1 VFT 30 - ST 30A	74,5	55 - 65	30	1000x800x250
14059330000	QTL 1.1 VFT 37 - ST 37	88	61 - 84	37	1200x800x300
14059340000	QTL 1.1 VFT 45 - ST 45	106	80 - 105	45	1200x800x300
14059350000	QTL 1.1 VFT 55 - ST 55	145	100 - 125	55	1200x800x300
14059360000	QTL 1.1 VFT 75 - ST 75	173	120 - 160	75	1200x800x300

QM, QT

QML 3 VFT **Control panel for 3 variable speeds pump with three-phase motor**



PANELS FOR SURFACE PUMP ASSEMBLIES

Construction

Single-phase mains supply control panel with frequency converter for 3 pumps with three-phase 230V variable speed motor, for constant pressure booster sets.
Arranged for SRL 3 level control application for probes connection against dry-running.
Pump operation controlled by an electronic board type MPS 4000 with microprocessor.

Technical data

Mains single-phase 230V ±10% 50 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
Protection IP 44.

Components

Metal case
Door lock master switch
Fuses for power line
Fuses for auxiliary circuit.
Fuses for power line.
Frequency converter (1 for each pump).
electronic board type MPS 4000 with microprocessor.
Interface for MPS 4000 electronic board.
- Ventilator for electric panel cooling.
Pressure transducer
Terminal board
Terminals for remote signals
Cable glands

On request

SRL3 level control for probes against dry running
Clean signal module MSP 1M, Panel Q-MPS 13M
RA 100 control panel for remote alarm

Code	Pump type	Max corrente erogata	Motor 230V - 3~	Dimensions
		max A	kW	HxBxP mm
14059370000	QML 3 VFT 0,45	2,4x3	0,37 - 0,45	700x500x200
14059380000	QML 3 VFT 0,75	4,2x3	0,55 - 0,75	700x500x200
14059390000	QML 3 VFT 1,5	7,5x3	1,1 - 1,5	700x500x200
14056970000	QML 3 VFT 2,2	10x3	2,2	800x600x250

QM, QT

QTL 3 VFT **Control panel for 3 pumps with variable speed three-phase motor**



PANELS FOR SURFACE PUMP ASSEMBLIES

Construction

Control panel with frequency converter for 3 pumps with variable speed three-phase motor, for constant pressure booster sets. Arranged for SRL 3 level control application for probes connection against dry-running.
Pump operation controlled by an electronic board type MPS 4000 with microprocessor.

Technical data

Mains 400V 3 ~ ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
Protection IP 44.

Components

Metal case
Door lock master switch
Fuses for power line
Fuses for auxiliary circuit.
Fuses for power line.
Frequency converter (1 for each pump).
electronic board type MPS 4000 with microprocessor.
Interface for MPS 4000 electronic board.
- Ventilator for electric panel cooling.
Pressure transducer
Terminal board
Terminals for remote signals
Cable glands

On request

SRL3 level control for probes against dry running
Clean signal module MSP 1M, Panel Q-MPS 13M
RA 100 control panel for remote alarm

Code	Pump type	Max corrente erogata	Motor 400V - 3~	Dimensions
		max A	kW	HxBxP mm
14059400000	QTL 3 VFT 0,45	1,5x3	0,37 - 0,45	700x500x250
14048840000	QTL 3 VFT 0,75	2,3x3	0,55 - 0,75	700x500x250
14046930000	QTL 3 VFT 1,5	4,1x3	1,1 - 1,5	700x500x250
14047140000	QTL 3 VFT 2,2	5,5x3	2.2	800x600x250
14047040000	QTL 3 VFT 4	9,5x3	3 - 4	800x600x250
14048250000	QTL 3 VFT 5,5	14,3x3	5.5	800x600x250
14049760000	QTL 3 VFT 7,5	17x3	7.5	800x600x250
14047280000	QTL 3 VFT 11	27,7x3	9,2 - 11	1700x800x300
14050350000	QTL 3 VFT 15	33x3	15	1700x800x300
14054370000	QTL 3 VFT 18,5	46,3x3	18.5	1700x1000x400
14047150000	QTL 3 VFT 22	61,5x3	22	1700x1000x400
14047270000	QTL 3 VFT 30	74,5x3	30	1300x600x300n3
14052180000	QTL 3 VFT 37	88x3	37	1300x600x300n3
14059410000	QTL 3 VFT 45	106x3	45	1400x800x400n3
14059420000	QTL 3 VFT 55	145x3	55	-
14059430000	QTL 3 VFT 75	173x3	75	-

QM, QT

QTL 1.2 VFT **Control panel for 1 variable speed pump and 2 fixed speed pumps**



PANELS FOR SURFACE PUMP ASSEMBLIES

Construction

Control panel with frequency converter for 3 pumps with three-phase motor: one with variable speed motor (with frequency converter) and 2 with fixed speed motor, for constant pressure booster sets.Arranged for SRL 3 level control application for probes connection against dry-running.
Pump operation controlled by an electronic board type MPS 4000 with microprocessor alternating the starting order at each start.

Technical data

Mains 400V 3 ~ ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
Protection IP 44.

Setting

Components

Metal case
Door lock master switch
Fuses for power line
Fuses for auxiliary circuit.
Fuses for power line.
Inverter.
Starting contactors of the second and third pump.
Timer (Y/Δ) from 7,5 kW.
Transformer
electronic board type MPS 4000 with microprocessor.
Interface for MPS 4000 electronic board.
- Ventilator for electric panel cooling.
Pressure transducer
Terminal board
Terminals for remote signals
Cable glands

On request

SRL3 level control for probes against dry running
Clean signal module MSP 1M, Panel Q-MPS 13M
RA 100 control panel for remote alarm

Code	Pump type	Corrente max A		Motor 400V - 3~	Dimensions
		variable	Fixed	kW	HxBxP mm
14059440000	QTL 1.2 VFT 0,45 - D 0,45	1,5	1 - 1,6	0,37 - 0,45	600x400x200
14059450000	QTL 1.2 VFT 0,75 - D 0,75	2,3	1,6 - 2,5	0,55 - 0,75	600x400x200
14047640000	QTL 1.2 VFT 1,5 - D 1,5	4,1	2,5 - 4	1,1 - 1,5	600x400x200
14048510000	QTL 1.2 VFT 2,2 - D 2,2	5,5	4 - 6,5	2,2	600x400x200
14059460000	QTL 1.2 VFT 4 - D 3	9,5	4 - 6,5	3	600x400x200
14048260000	QTL 1.2 VFT 4 - D 4	9,5	6,3 - 10	4	600x400x200
14047200000	QTL 1.2 VFT 5,5 - D 5,5	14,3	9 - 14	5,5	700x500x200
14051640000	QTL 1.2 VFT 7,5 - ST 7,5	17	11 - 17	7,5	800x600x250
14047300000	QTL 1.2 VFT 11 - ST 11	27,7	16 - 24	9,2 - 11	800x600x250
14059470000	QTL 1.2 VFT 15 - ST 15	33	22 - 31	15	800x600x250
14059480000	QTL 1.2 VFT 18,5 - ST18,5	46,3	30 - 39	18,5	1200x800x250
14048660000	QTL 1.2 VFT 22 - ST 22	61,5	35 - 43	22	1000x800x250
14059490000	QTL 1.2 VFT 30 - ST 30B	74,5	42 - 55	30	1000x800x250
14059500000	QTL 1.2 VFT 30 - ST 30A	74,5	55 - 65	30	1000x800x250
14059510000	QTL 1.2 VFT 37 - ST 37	88	61 - 84	37	1200x800x300
14059520000	QTL 1.2 VFT 45 - ST 45	106	80 - 105	45	
14059530000	QTL 1.2 VFT 55 - ST 55	145	100 - 125	55	
14059540000	QTL 1.2 VFT 75 - ST 75	173	120 - 160	75	

QM, QT

QTL 4 VFT **Control panel for 4 pumps with variable speed three-phase motor**



PANELS FOR SURFACE PUMP ASSEMBLIES

Construction

Control panel with frequency converter for 4 pumps with variable speed three-phase motor, for constant pressure booster sets.Arranged for SRL 3 level control application for probes connection against dry-running.
Pump operation controlled by an electronic board type MPS 4000 with microprocessor alternating the starting order at each start.

Technical data

Mains 400V 3 ~ ±10% 50/60 Hz (other voltages on request).
- Ambient temperature from -5 °C to +40 °C.
Protection IP 44.

Components

Metal case
Door lock master switch
Fuses for power line
Fuses for auxiliary circuit.
Fuses for power line.
Frequency converter (1 for each pump).
electronic board type MPS 4000 with microprocessor.
Interface for MPS 4000 electronic board.
- Ventilator for electric panel cooling.
Pressure transducer
Terminal board
Terminals for remote signals
Cable glands

On request

SRL3 level control for probes against dry running
Clean signal module MSP 1M, Panel Q-MPS 13M
RA 100 control panel for remote alarm

Code	Pump type	Current	Motor 400V - 3~	Dimensions
		max A	kW	HxBxP mm
14059550000	QTL 4 VFT 0,45	0,37- 0,45	0,37- 0,45	800x600x250
14059560000	QTL 4 VFT 0,75	0,55 - 0,75	0,55 - 0,75	800x600x250
14059570000	QTL 4 VFT 1,5	1,1 - 1,5	1,1 - 1,5	800x600x250
14049710000	QTL 4 VFT 2,2	2,2	2,2	900x600x250
14047840000	QTL 4 VFT 4	3 - 4	3 - 4	900x600x250
14059580000	QTL 4 VFT 5,5	5,5	5,5	1200x800x300
14059590000	QTL 4 VFT 7,5	7,5	7,5	1200x800x300
14059600000	QTL 4 VFT 11	9,2 - 11	9,2 - 11	1400x800x400
14059610000	QTL 4 VFT 15	15	15	1400x800x400
14059620000	QTL 4 VFT 18,5	18,5	18,5	2000x1800x400
14053940000	QTL 4 VFT 22	22	22	2000x1800x400
14059630000	QTL 4 VFT 30	30	30	2000x1800x400
14059640000	QTL 4 VFT 37	37	37	2000x1800x400
14059650000	QTL 4 VFT 45	45	45	2000x1800x400
14059660000	QTL 4 VFT 55	55	55	2000x1800x400
14059670000	QTL 4 VFT 75	75	75	2000x1800x400

QM, QT

RA Control panel for remote alarm

RA 100A



RA 100



Construction

RA 100 Control panel for remote alarm.
RA 100A Self powered control panel for remote alarm.

Technical data

Mains single-phase 220-230 V.
- Ambient temperature from -5 °C to +40 °C.
Protection IP 44.

Components

Box in thermoplastic material
Transformer card with terminals.
Buttons card with led.
Flashing light.
Buzzer.
Cable glands
Charger (only for RA 100A).
Battery (only for RA 100A).

Code	Pump type	Dimensions HxBxP mm
14027900000	RA 100	160x120x75
14042960000	RA 100A	250x200x180

Q-MSP Volt free contact control panel



Construction

A module featuring a free contact (0,1A - 50V), to be connected to an alarm signal system.

Technical data

Ambient temperature from -5 °C to +40 °C.
Protection IP 44.

Code	Pump type	Dimensions HxBxP mm
14045600000	Q-MSP 9M	160x120x75
14045960000	Q-MSP 13M	160x120x75

ACCESSORIES

SMAT ELECTRONIC PROTECTION DEVICE FOR PUMPS



Construction

Electronic device for the protection of electric pumps, stops the pump in the event of water shortage and motor overcurrent.
Electrical connection
To pump motor cable (Schuko plug built-in)
- To electric line socket (Schuko plug built-in)

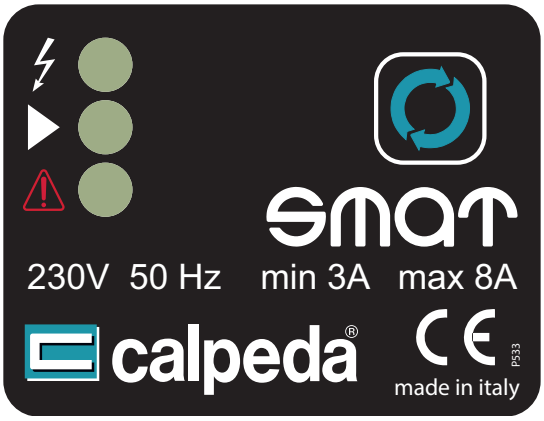
Applications

For protection of the pump:
Protects the pump against dry running and overcurrent

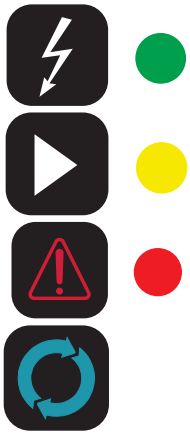
Operating conditions

Maximum ambient temperature max 55 °C.
Single-phase mains voltage: 230 V ±10%.
Frequency: 50 - 60 Hz.
Protection IP 65.
Pump motor current Minimum 3 A - Maximum 8 A.

Control Panel



Functioning mode



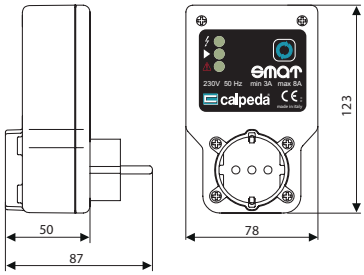
Led verde acceso = Apparecchio in tensione

Led giallo acceso = Pompa in marcia

Led rosso intermittente = Mancanza acqua
Led rosso acceso fisso = Sovracorrente

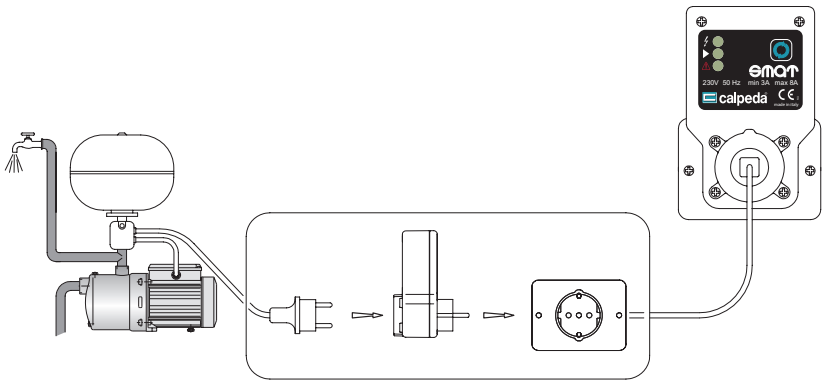
Pulsante RESTART = - Acquisizione dati motore - Reset dopo anomalia

Dimensions and weights



Examples of installations

In order to operate, the electrical power supply of the pump must be connected to the mains. For this reason the power supply plug of the pump must be inserted in the socket of the device which is in turn connected to the power point (see Figure).In case of a water shortage on suction, the device will stop the pump and protect it against dry running.This malfunctioning is indicated with the red "Failure" Led lit up.In case of the current absorption exceeding 8 amperes, the device will stop the pump motor and protect it against over-current.This malfunctioning is indicated with the red "Failure" Led lit up.To restore normal operation to the device and the system simply press the red "Restart" button.
In case of a blackout, it will automatically rearm again several seconds after the electricity returns.



ACCESSORIES

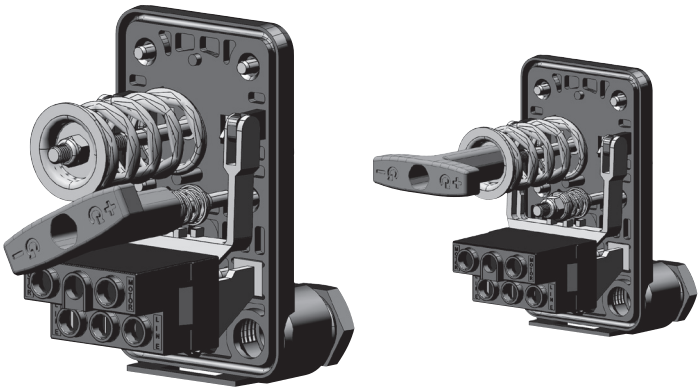
PMAT PRESSURE SWITCHES FOR WATER SYSTEM APPLICATIONS



Construction

Pressure switches for use with water in autoclave systems
- The switch ensures automatically the starting and stopping of the electric pump according to the set pressure values
- Electric contacts: normally closed and made of brass alloy with Ag-Ni surfacing
- Terminals with M4 screws and 8x8 mm pressure dice
- NBR rubber membrane with textile insert (food grade for PMAT 5M- 10, PMAT 5M/T-16, PMAT 5.5M/T-16)
- ¼"F hydraulic connection made of galvanized steel
- Standard protection degree IP 44
- Liquid temperature up to 55 °C
- Max ambient temperature: 55°C
- Tear resistant cable clamps

Adjustment key included



Technical data

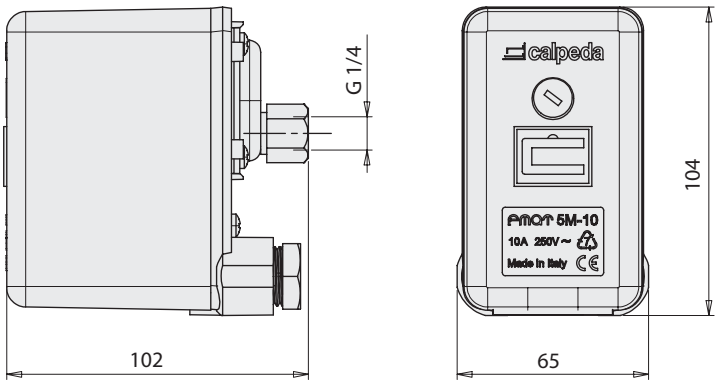
2-pins	max A	Pressure range	Differential		Factory setting
		bar	min bar	max bar	bar
PMAT 5M-10	10	1 - 5	0,6	2,3	1,4 - 2,8

Maximum rated voltage 250V

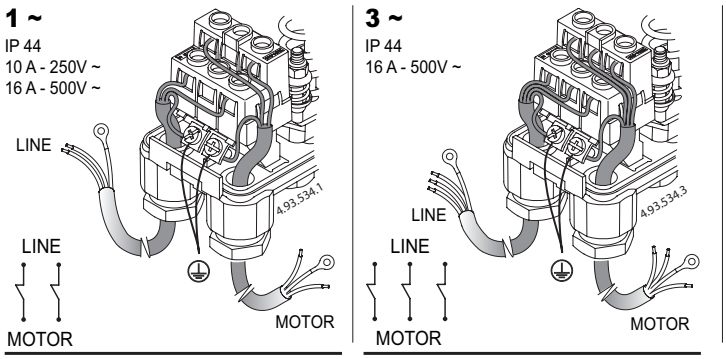
3 - pins	max A	Pressure range	Differential		Factory setting
		bar	min bar	max bar	bar
PMAT 5M/T-16	16	1 - 5	0,6	2,3	1,4 - 2,8
PMAT 5,5M/T-16	16	1,5 - 5,5	0,8	2,2	1,8 - 3
PMAT 12M/T-16	16	3 - 12	1,5	5	5 - 7

Maximum rated voltage 500V

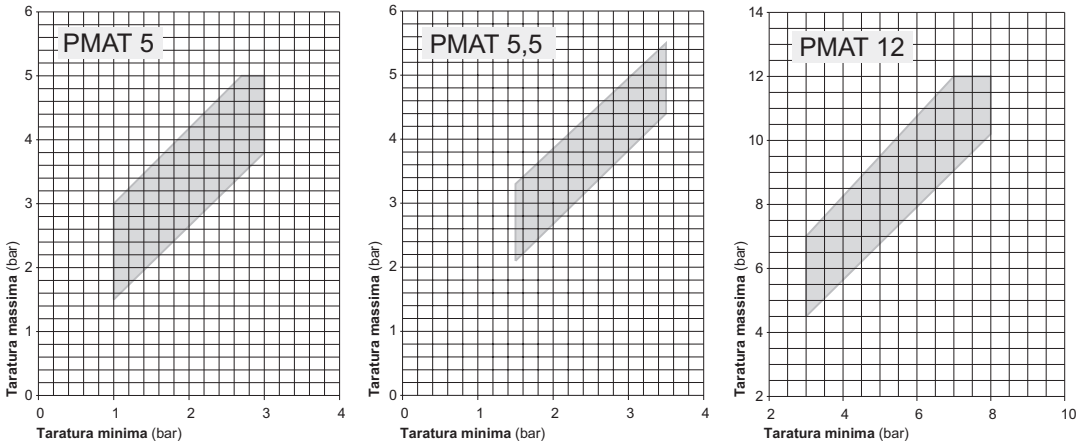
Dimensions



Connection diagram



Characteristic curves



ACCESSORIES

ARIAMAT AUTOMATIC AIR FEEDER



ARIAMAT
AR 300E
AR 1000E
AR 2000E
Complete with connections and 1 m polyethylene pipe

Materials

Components	Materials
upper elbow	Brass
valve	Brass
Housing	Polycarbonate
Ball valve	Rubber
Conical fittings	Brass
Pipe	polyethylene

Construction

The automatic air feeder ARIAMAT controls the air cushion in the pressure vessel by replacing the air dissolved in the water at every pump start.
This device limits the number of pump starts and stops, allows a better use of the water reserve and improves the overall performance of the automatic pressure system.

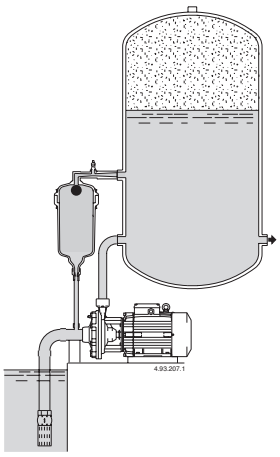
Functioning mode

ARIAMAT operation is explained in pictures 1-2-3-4.At the end of every cycle, ARIAMAT AR 300E, AR 1000E and AR 2000E let in the vessel 300, 1000 and 2000 cm3 of air respectively.If the pumps work under positive suction head and water falls to the suction inlet, there will not be enough suction pressure in the suction pipe to allow a correct operation of ARIAMAT; in this case, it is necessary to create an artificial loss in the suction pipe, by closing gradually the gate valve when the pump is running until the water level in the ARIAMAT starts dropping. When a sufficient suction pressure to grant a safe ARIAMAT operation cannot be achieved, it is recommended to feed the vessel with a compressed air system and level probes.

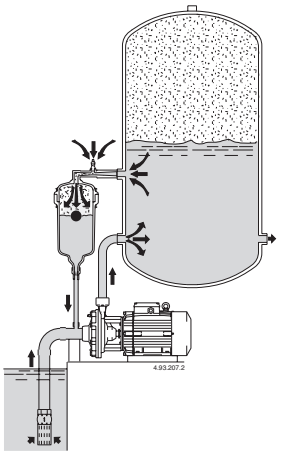
Description of the supply

The ARIAMAT is normally fitted on our automatic water systems.The supply of ARIAMAT, as a spare part to be installed by the customer, includes:
ARIAMAT assembled with upper elbow and air valve;
Polyethylene tube with ring nut and fitting for connection to the pump suction side.

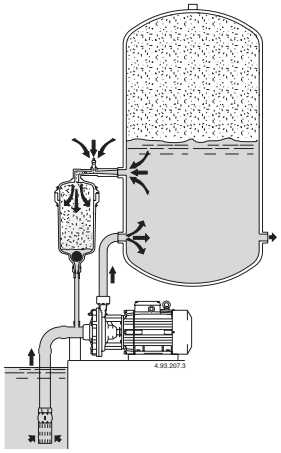
Pressure in m	Pressure vessel capacity in litres										
	100	200	300	400	500	750	1000	2000	3000	4000	5000
14/28	AR 300E						AR 1000E				AR 2000E
20/30	AR 300E					AR 1000E					AR 2000E
30/40	AR 300E			AR 1000E						AR 2000E	
35/55	AR 300E			AR 1000E					AR 2000E		
55/70	AR 300E		AR 1000E						AR 2000E		
75/95	AR 300E	AR 1000E				The use of an air compressor is recommended.					



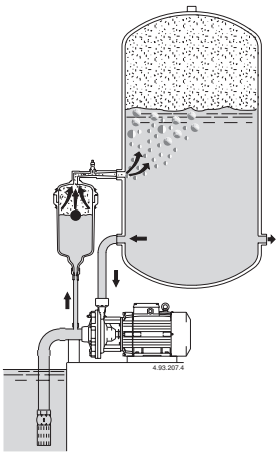
1) When the pump is stopped, ARIAMAT is full of water.



When starting, the pumps creates a suction pressure which also takes the water from ARIAMAT, allowing some more water to come from the vessel. The water through the ARIAMAT venturi sucks air from the upper valve.



The water level in the ARIAMAT drops until the ball valve moves to the bottom of the ARIAMAT closing the hole of the pipe connected to the pump. ARIAMAT is now full of water.



When stopping, there is a back-flow of water from the vessel through the pump, to the ARIAMAT. Air is pushed inside the vessel.

ACCESSORIES

VALVES



check valve
- VNR 1
- VNR 1 1/4
- VNR 1 1/2
- VNR 2

Foot valve:
VDF 1
VDF 1 1/4
VDF 1 1/2
VDF 2

PRESSURE GAUGES



axial connection type
MA 0-6
MA 0-6 ABS

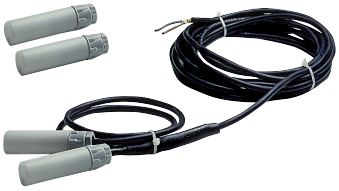
radial connection type
MR 0-10
MR 0-12
MR 0-16

CONNECTOR



Type:
RA5 H 92
RA5 H 105
connection G 1

LEVEL PROBES



Type:
SL 2 electrodes
SLA Assembled level probes
(cable length on request)

example:
SLA 30
SLA Assembled level probes
30 = cable length 30 m

FLOAT SWITCH



Type:
INTGALL (cable 3m, 5m, 10m)

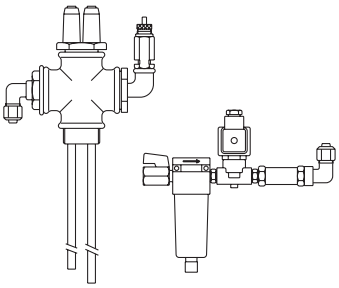


Type:
INTGALL M (5m, 10m, 20m cable)



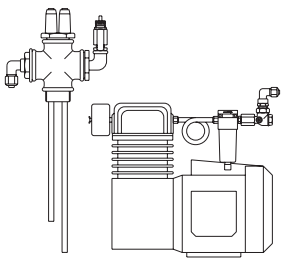
Type:
INTGALL A (5m, 10m cable)

SYSTEM FOR AIR INTAKE



Level probe assembly with solenoid valve

SYSTEM FOR AIR INTAKE



Kit of level probes with compressor

FLEXIBLE HOSE



Pump type	d x length
FP 1-630	G 1 x 630
FP 1-680	G 1 x 680

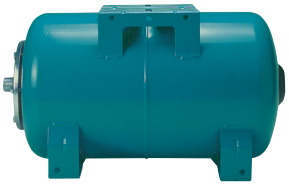
ACCESSORIES

SPHERICAL VESSEL



Type:
SS 24: G1 connection, 24l capacity
BUTYL rubber diaphragm.

CYLINDRICAL TANK WITH BASE AND FEET



Type:
SC 20 BP: G1 connection, 20l capacity
BUTYL rubber diaphragm.

VERTICAL STAINLESS STEEL CYLINDRICAL TANK



Type:
SCX 20: G1 connection, 20l capacity
BUTYL rubber diaphragm.

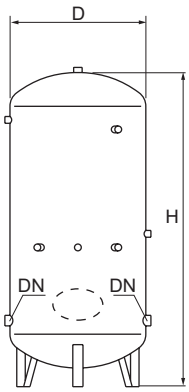
STAINLESS STEEL CYLINDRICAL TANK WITH BASE AND FEET



Type:
SCX 20 BP: G1 connection, 20l capacity
BUTYL rubber diaphragm.

CE 97/23 PED APPROVED PRESSURE VESSELS (Air tanks)

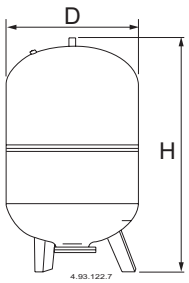
Hot galvanized vessels



Pump type	Dimensions D x H mm	DN	weigth Kg
100- 5	400 x 1020	G 1	32
200- 5	450 x 1440	G 1	48
300- 8	550 x 1500	G 1 1/2	65
500-8	650 x 1820	G 2	105
800-8	800 x 1900	G 2	145
1000-8	800 x 2150	G 2 1/4	160
1000-12 (1)	800 x 2300	G 2 1/4	203
1500-8 (1)	950 x 2500	G 2	255
2000-8 (1)	1100 x 2570	G 2 1/4	330
2000-12 (1)	1000 x 2780	G 2 1/4	387
3000-8 (1)	1250 x 2930	G 3	470
3000-12 (1)	1200 x 2930	G 3	596
4000-8 (1)	1450 x 3090	G 3	620
4000-12 (1)	1450 x 3090	G 3	880
5000-8 (1)	1450 x 3590	G 4	715
5000-12 (1)	1450 x 3590	G 4	1020

The vessels are suitable for water up to 50 °C
The vessels are all approved at manufacturer's premises and are supplied complete with safety valve, tested pressure gauge and fittings.
(1) Tanks subject to annual inspection by authorised bodies, by the customer.(Pressure x Volume P x V > 8000; or nominal pressure >11.76 bar).

CE 97/23 PED APPROVED MEMBRANE VESSELS (Membrane vessels)



Pump type	PRESSURE bar	Dimensions D x H mm	DN	weigth Kg
SM 60 V	10	382 x 845	G 1	-
SM 80 V	10	450 x 850	G 1	-
SM 100 V	10	450 x 950	G 1	-
SM 200 V	10	550 x 1255	G 1 1/2	-
SM 300 V	10	630 x 1405	G 1 1/2	-
SM 500 V	10	780 x 1550	G 1 1/2	-
SM 750 V	10	780 x 1940	G 1 1/2	-
SM 1000 V	10	780 x 1940	G 2	-

EPDM diaphragm
Temperature -10 ÷ +100 °C
With safety valve and pressure gauge 0÷10 bar

Technical appendix

How to select a centrifugal pump

The selection of a centrifugal pump should be made according to the actual characteristics and conditions of the plant.
The required data for a correct selection are the following:

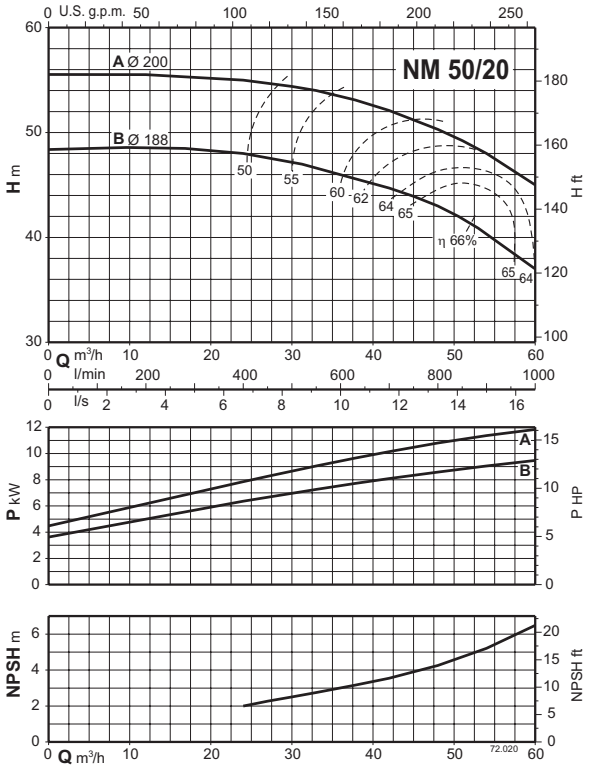
Flow Q
Quantity of fluid delivered by the pump in the unit of time, generally expressed in m3/h.

Total manometric head Hmt
It is considered as the sum between the geometric head exsisting between the fluid levels and the head loss due to frictions from the fluid passage in the pipework, into the pump and relevant hydraulic accessories.

The expression is the following:
Hmt = Hg + Δpc mt fluid column

Hg= geometric head inlet (Hga) + geometric head outlet (Hgp)
Δpc= sum of head loss of the plant calculated from the following data:
- Diameter, length and material of the suction and pressure pipes (see table no. 1 and 1.1)
- Quantity and type of bends along the path and hydraulic accessories such as foot valves with suction, shut-off valves, check valves and possible filters (see table no. 2).
- Viscosity and specific weight of the liquid.

Pay attention to the manometric suction lift Hga + Δpc asp, which should be compared with the suction capability of the pump.
This suction capability or NPSHr is defined as net positve suction head and its value is obtained from a curve in accordance with the flow.

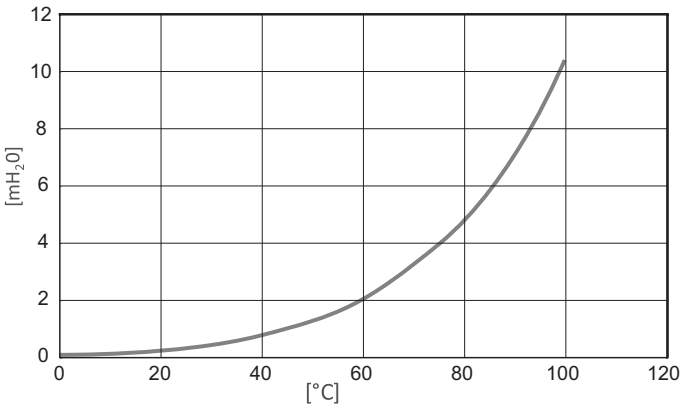


For this purpose, once the pump has been selected according to the required flow and head, where possible at the middle of the curve, check the following simplified formula:

12 mt ± Hga - Δpc asp - tv NPSH required + 0.5 mt (a)

Hga = difference in height between the free water level and the pump axis, with minus sign if the pump is above the free water level;
Δpc asp = the sum of distributed (piping) and concentrated (valves, elbows, etc.) pressure drops in the suction line
tv the vapour pressure of the liquid (depending on the temperature, see the following graph for water).

H2O vapour pressure



NOTE
In the case of closed circuits (circulators), formula (a) becomes:
12 mt + Hga - tv > NPSH required + 0.5 mt
where Hga is now the manometric head in the suction line.

CHARACTERISTIC DATA OF THE PUMPS
Once the flow (Q) and total manometric head of the installation (Hmt) are established, the pump absorbed power N should be calculated through the following formula:

$$N = \frac{Q \times H \times \gamma}{367 \times \eta p} \text{ in Kw}$$

where:

Q = Flow in m3/h
H = Head (m)
γ = Fluid density (water = 1 kg/dm3)
ηp = Pump efficiency (Ex. Pump efficiency 68% ηp = 0.68)

The pumps are normally connected to electric motors, which operate at 2900 rpm with 2-pole motors at 50Hz, or at 1450 rpm with 4-pole motors at 50Hz. However, they can run at any other speed within the limits of design.
Therefore, when changing the number of revolutions, the pump performance will change according to the following rules:

$Q2 = Q1 \times \frac{n_2}{n_1}$ The flow in proportion to the number of revolutions:

$H2 = H1 \times \left(\frac{n_2}{n_1}\right)^2$ The head, in proportion to the square of the number of revolutions

$N2 = N1 \times \left(\frac{n_2}{n_1}\right)^3$ The absorbed power, in proportion to the cube of the number of revolutions

Technical appendix

How to select a centrifugal pump

Calculation example for the selection of a centrifugal pump

Case A

- - Q (Flow) = 42 m3/h
- - Hga (geometric head inlet) = 3,5 m
- - Hgp (geometric head outlet) = 39 m
- - 5 m DN 100 mm diameter suction pipe complete with 1 elbow and 1 foot valve
- - 70 m DN 80 mm diameter delivery pipe with 1 non-return valve, 1 gate valve and 3 sweep elbows

Hg = Hg = Hgp + Hga = 39 + 3,5 = 42,5 m Geometric head of the installation
Δpc = total head loss

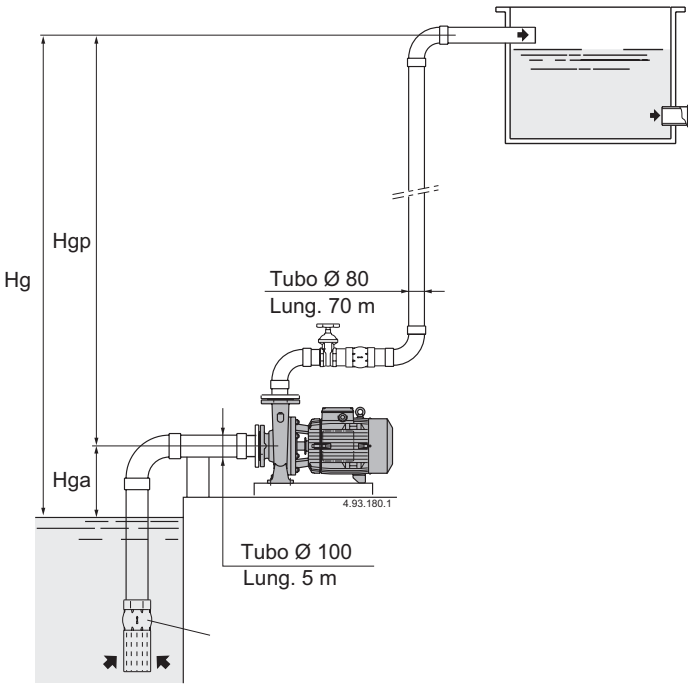
Suction side:	
5 m Ø100 piping	pc = 0,12 m.
1 Elbows	pc = 0,045 m.
1 Foot valve	pc = 0,46 m.
Delivery side:	
70 m Ø 80 pipe	pc = 5,25 m.
1 Non-return valve	pc = 0,5 m.
1 Gate valve	pc = 0,05 m.
3 Elbows	pc = 0,09 m.
Total	**Δpc = 6,5 m.**

Considering that the calculation has been made for new pipes, an increase of 15/20% is to be applied for ageing etc. Therefore the total head loss Δp amounts to about 8 m.
Therefore, the total manometric head which the pump must achieve is:

Hmt = Hg + Δp = Hgp + Hga + Δpc = 39 + 3,5 + 8 = 50,5 m total.

The pump type NM 50/20AE can be chosen (see pump diagram)

Operation with suction lift



Case B

- - Q (Flow) = 42 m3/h
- - Hga (geometric head inlet) = 3,5 m
- - Hgp (geometric head outlet) = 39 m
- 5 m DN 100 mm diameter suction pipe complete with 1 gate valve and 1 foot valve
- 70 m DN 80 mm diameter delivery pipe with 1 non-return valve, 1 gate valve and 3 sweep elbows

Hg = Hg = Hgp - Hga = 39 - 3,5 = 35,5 m Geometric head of the installation
Δpc = total head loss

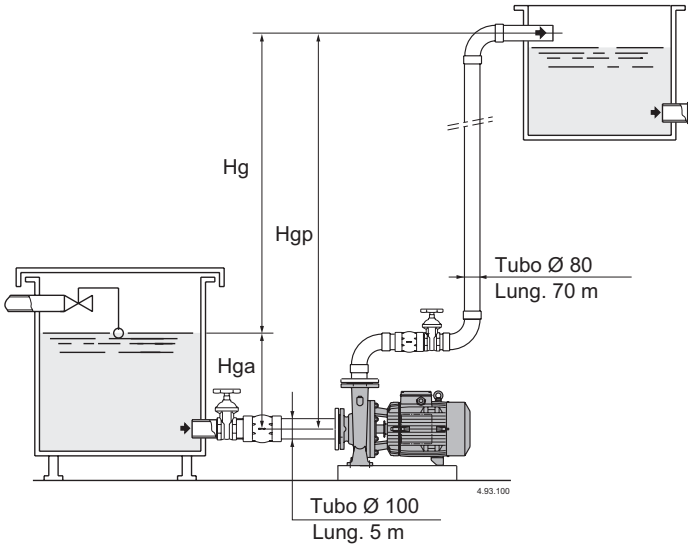
Suction side:	
5 m Ø100 piping	pc = 0,12 m.
1 Non-return valve	pc = 0,05 m.
1 Gate valve	pc = 0,05 m.
Delivery side:	
70 m Ø 80 pipe	pc = 5,25 m.
1 Non-return valve	pc = 0,5 m.
1 Gate valve	pc = 0,05 m.
3 Elbows	pc = 0,09 m.
Total	**Δpc = 6,5 m.**

Considering that the calculation has been made for new pipes, an increase of 15/20% is to be applied for ageing etc. Therefore the total head loss Δp amounts to about 8 m.
Therefore, the total manometric head which the pump must achieve is:

Hmt = Hg + Δp = Hgp - Hga + Δpc = 39 - 3,5 + 8 = 43,5 m total.

The pump type NM 50/20AE can be chosen (see pump diagram)

Positive suction head operation



Technical appendix

How to select a centrifugal pump

ACCESSORIES FOR WATER SUPPLY

Foot valve with suction unit - Sealing member installed on the lower end of the suction pipe.It prevents the water coming out from the piping and pump at every plant stop.It must be always immersed in the fluid at an installation depth which allows a p

Non-return valve - It must be installed on the pump delivery port to avoid reflux in case of a sudden stop of the plant.It is recommended using a type fitted with an inner return spring and with ogive shutter, as this will help to diminish water hammering.

Gate valve - - The installation of a gate valve is very important.In addition to allowing the pump to be dissasembled without emptying the plant, it is used to start the plant and to adjust the flow.

PIPING

The piping must be selected in-line with the water velocity which is recommended to be 1.5 meter per second on the suction side and 3 meter per second on the delivery side.The calculation of the suction piping must be carefully checked so as to avoid the maximum head loss and allow the pumps maximum suction capability. The piping must be perfectly tight and have no counterslopes towards the pump port, so to avoid the development or entrapment of air bubbles or pockets.

All the piping must be secured to rests, so that they will not weigh on the pump ports.

PROBLEM	PROBABLE CAUSES
Problems at the pump	Jammed pump This may happen after periods of inactivity due to inner oxidation.
	To release smaller sized monobloc electropumps use a screwdriver at the notch on the back part of the shaft.
	For the larger sizes, turn on the shaft or the flexible coupling
Pumps which do not prime	Pump and/or suction pipe with air entraped.
	Uncomplete priming or totally unprimed.
	Possible air entering from taps, drain or fill plugs, joints or stuffing box
	Foot valve not fully immersed in the fluid or obstructed by deposits.
	Suction lift too high compared with the capability of the pump.
	Wrong direction of rotation
	Wrong number of revolutions
Insufficient flow	Piping and accessories of too small a diameter which cause too high head loss.
	Jammed impeller with presence of debris in the vanes.
	Corroded or broken impeller
	Impeller wear rings and/or pump casing worn by abrasion.
	Gas presence in the water, or too high fluid viscosity in case of fluids different from water.
Noise and vibrations in the Pump	Unbalanced rotary part or worn ball bearings.
	pump and piping not properly secured.
	Too low flow rate for the selected pump
	Operation with cavitation
Overloaded motor	Pump characteristics higher than those of the plant
	Fixed and rotary parts in contact tending to seize owing to a lack of lubrication
	Too high rotation speed
	Wrong mains supply
	Poor unit allignement
	Fluid with too higher density than the design

Technical appendix

TO SELECT A PRESSURE BOOSTING SET

Required quantity of water
The public water-supply system is normally capable of supplying water at an adequate pressure and capacity level to the various outlets connected to it.
In those cases where a water-supply system is non-existent or insufficient for correct operation of the various facilities, a pressure-boosting system has to be installed to ensure an acceptable level of pressure and capacity also at the outlets in the most unfavourable positions.
The size of the water-supply unit is determined according to the quantity of water and pressure required.

Residential buildings
The main data needed for calculation of the quantity of water required is given in the following list:
- - the number of outlets
- - consumption per each type of outlet (Tab.1)
- - the contemporaneity factor (Fc)

Maximum consumption at points of demand

Outlet Qu.	**delivered (l/min)**
Sink	10
Wash-basin	10
Bath/whirlpool tub	18
Shower	12
WC - flush-tank type	7
WC - fast-feed type	90
Bidet	6
Washing machine	12
Kitchen sink	12
Dishwasher	8
Outlet w/ 1/2” tap	20
Outlet w/ 3/4” tap	25

The maximum theoretical requirement is given by the sum of the quantities of water delivered to the various outlets of an appartment multiplied by the number of appartments.
In practice, it is generally found that only some of the outlets are used simultaneously.
The contemporaneity factor (Fc) allows for definition of the real maximum delivery that may be required by the outlets.
The following formulae are used to calculate the Fc factor. The value “Ut” is the total number of outlets (the number of outlets in an appartment multiplied by the number of appartments).

$Fc = \frac{1}{\sqrt{0,85 \times Ut}}$ Appartments with 1 toilet - flush-type tank:

$Fc = \frac{1}{\sqrt{0,7 \times Ut}}$ Appartments with 1 toilet - fast-feed type:

$Fc = \frac{1}{\sqrt{1,1 \times Ut}}$ Appartments with 2 toilets - flush-type tank:

$Fc = \frac{1}{\sqrt{0,83 \times Ut}}$ Appartments with 2 toilets - fast-feed type:

Diagram A gives the values of actual delivery, which depend on the number of appartments connected to the water-supply system. Seven outlets are hypothesized for one-bathroom appartments and ten outlets for two-bathroom appartments.

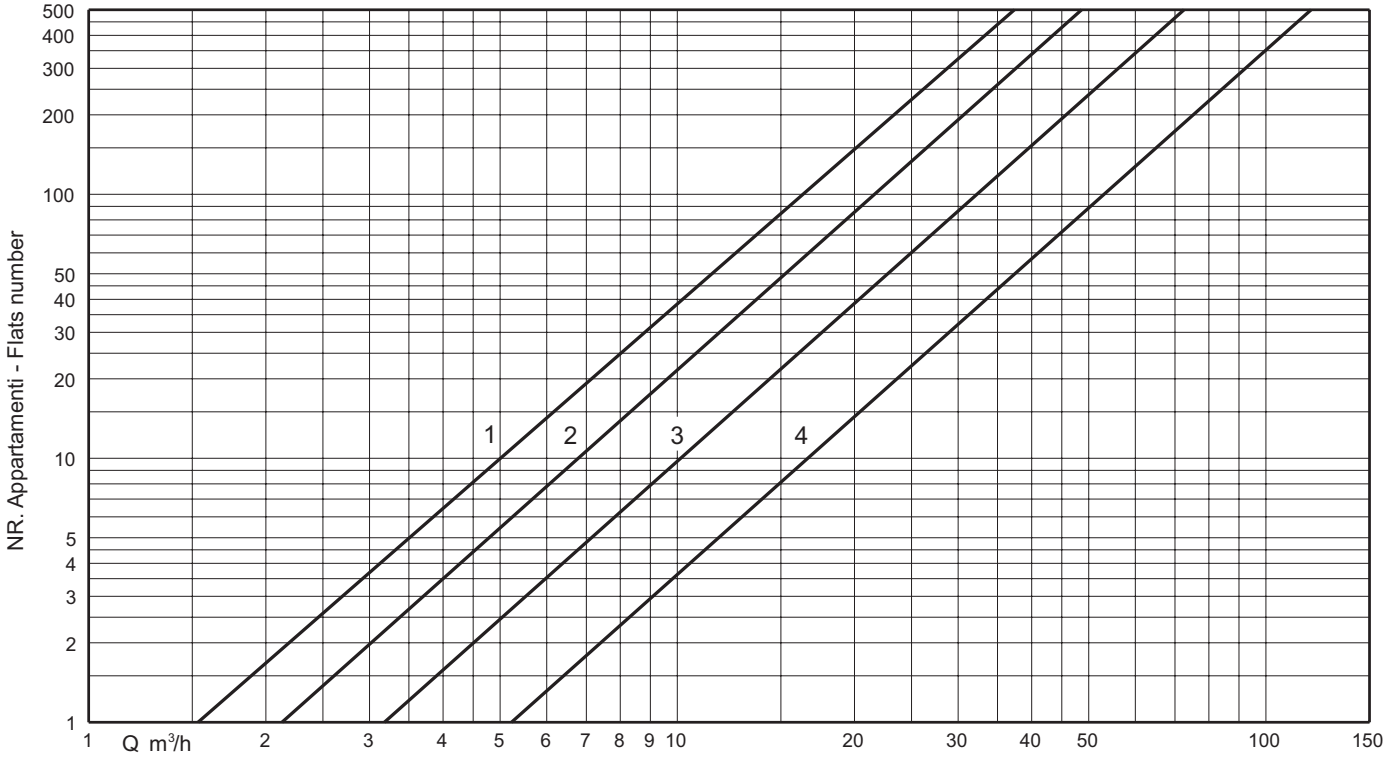
Non-residential buildings
For calculation of quantities of water required, the following types of building are considered:
- - offices
- - shopping centres
- - hospitals
- - hotels

These buldings require quantities of water greater than those needed in residential buildings.
Diagram B shows the values of actual delivery for the main types of building. The values are based on hypothetical numbers of persons present in these buildings.
These values offer a guideline and may vary in accordance with particular requirements of projects.

Technical appendix

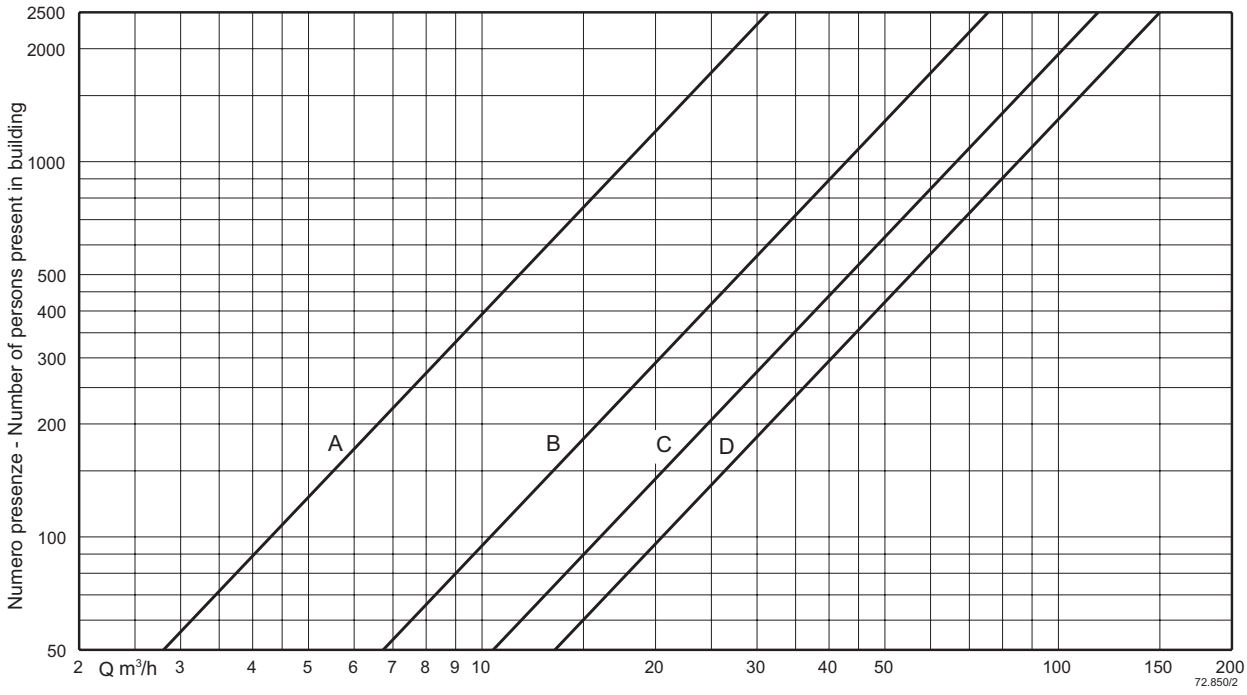
TO SELECT A PRESSURE BOOSTING SET

A Consumption in residential buildings



3 Flats with 1 bathroom, flush tank WC
4 Flats with 2 bathrooms, flush tank WC
5 Flats with 1 bathroom, flush valve WC
6 Flats with 2 bathrooms, flush valve WC

B Consumption in non-residential buildings



A Offices
B Shopping centres
C Hospitals
D Hotels

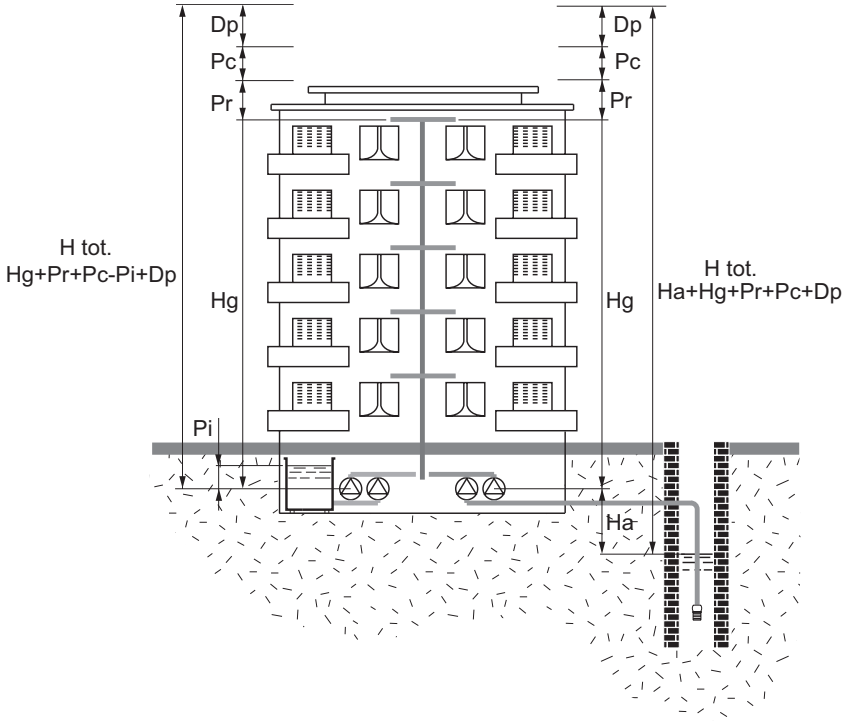
Technical appendix

TO SELECT A PRESSURE BOOSTING SET

Delivery head

The outlet pressure required for proper operation of electrical appliances must not be lower than 1.5 bar and not greater then 4-5 bar.
When the pressure level is insufficient and to such a degree that it impedes operation of domestic appliances, a pressure-boosting system must be installed to ensure adequate pressure also at the more unfavourably—located points of demand.

The values to consider for calculation of the pressure level are the following:
- **Hg** - geodetic head between the pressure-boosting unit and the highest outlet.
- **Ha** -the suction lift.
- **- Pi** the initial pressure (or positive suction head).
- **Pr** - the minimum residual pressure at the highest outlet (normally 1.5 bar).
- **Pc** - the system head loss.
- **Δp** - the difference in pressure between starting and stopping pumps.



When the pumps draw water from a well, the dynamic height difference (Ha), when pumps are operating, should not exceed 4 m.
A greater suction head or erroneous sizing of the suction pipe may cause improper operation of the pumps - e.g. cavitation and priming loss.

The pumps are installed with a positive suction head when they are connected to a raised tank or a pressurized primary collection tank.
The pumps therefore have an initial pressure at the suction port which can vary from 0.1 bar (suction with a collection tank) to 2-3 bar (with suction from a pressurized primary collection tank).
When choosing a pressure-boosting system, the positive value of the initial pressure (Pi) must be considered as a value to be subtracted from the height (Hg).

The system head loss (Pc) are given by the sum of the losses of the pipes (including the suction pipe) added to the losses due to gate valves, nonreturn valves, water purifiers, counters, filters, elbows etc.

Head loss in the tubes, caused by the friction of the water against the inner surface of the pipelines, may be quantified as 0.5 m per floor in the case of new systems and 1 m per floor in the case of old systems.

To avoid pressure levels greater than 4-5 bar arriving at outlets on the lower floors of apartment blocks and other buildings with a height greater than 30 m (about 10 floors), pressure reducers must be installed at the offtake point of the lower floors or otherwise two pressure-boosting units can be installed: one for the lower floors and one for the upper floors.

Technical appendix

TO SELECT A PRESSURE BOOSTING SET

Surge tanks
The purpose of surge tanks is to retain a quantity of water, under pressure, thus avoiding continuous pump starts, as water is demanded.
The selection of the vessel must be made in-line with the pump flow and pressure and number of starts allowed by the motor.

For water pressure units with more than one pump, the selection of the vessel should refer to the data for one pump only.
- **The surge vessel may be of the following type:**

a) Air cushion vessels
b) Membrane vessels

Air cushion vessels
In this type of vessels the air and water are in contact with each other. This will therefore result in a decrease of air as it dissolves into the water.
The installation will therefore require an automatic air feed (“Ariamat” air feeder, compressor or auto valve connected to existing compressed air network).
Air cushion vessels are normally manufactured from hot galvanized sheet steel, with rated pressures from 6 to 12 bar and capacity from 100 to 5000 ltrs, complete with safety valves, pressure gauge and level indicator.

Calculation to size an air cushion vessel.

$$Vt = \frac{1{,}25 \times Qm \times (P1 + 10)}{4 \times Z \times (P1 - P2)}$$

where:
Vt = Total volume of air cushion vessel in m3
Qm = Average pump flow in m3
P1 = Maximum set pressure of pressure switch
P2 = Minimum set pressure of pressure switch
Z = Maximum number of starts/hour allowed by the motor (see table).
Qm é la media fra la portata alla pressione di avviamento (Q min) e la portata alla pressione di arresto (Q max):

$$Qm = \frac{Qmin + Qmax}{2}$$

example: Pump MXV 40-807
P1 = 70 m
P2 = 50 m
Qm = 9,45 m3/h
Z = 23 starts/hour

$$Vt = \frac{Qm}{4 \times Z} \times \frac{1}{1 - \frac{(P2 - 2)}{P1}}$$

From the calculation, it would result in the selection of a 500 litre vessel.

Membrane autoclaves

These pressure tanks are equipped with an internal membrane into which the pumped water flows.
At the time of commissioning, they must be pre-inflated to a certain pressure, depending on the calibration value of the pressure switch.

Calculation to size a membrane vessel

$$Vt = \frac{1{,}25 \times 9{,}45 \times (70 + 10)}{4 \times 23 \times (70 - 50)} = 0{,}514\ m^3$$

where:
Vt = Total volume of air cushion vessel in m3
Qm = Average pump flow in m3
P1 = Maximum set pressure of pressure switch
P2 = Minimum set pressure of pressure switch
Z = Maximum number of starts/hour allowed by the motor (see table).

example: Pump MXV 40-807
P1 = 70 m
P2 = 50 m
Qm = 9,45 m3/h
Z = 23 starts/hour

$$Vt = \frac{9{,}45}{4 \times 23} \times \frac{1}{1 - \frac{(50 - 2)}{70}} = 0{,}327\ m^3$$

From the calculation it will result in the selection of a 300 litre membrane vessel.

Technical appendix

General data

Number of starts/hour allowed for CALPEDA motors

Rated motor power output kW	0,25	0,37	0,55	0,75	1,1	1,5	2,2	3	4	5,5	7,5	9,2	11	15	18,5	22	30	37	45
Max. number of starts/hour Z	59	51	44	38	35	30	25	23	20	18	16	15	14	12	11	10	9	9	8

The number of starts/hour mentioned in the table is approximate.
The maximum admissible starts/hour depends on the pump model and are mentioned in the original operating manual.

Table no. 1 Head loss in m for steel pipes

Pipe	Pipe	Q m3/h	1	3	6	9	12	18	24	30	36	42	48	60	90	120	180	240	300	360	420
G	Ø mm	Q l/min	16	50	100	150	200	300	400	500	600	700	800	1000	1500	2000	3000	4000	5000	6000	7000
G 1/4	DN 15	HL m/100m	29.9																		
		v m/s	1.6																		
G 1/4	DN 200	HL m/100m	7.4	56.3																	
		v m/s	0.9	2.7																	
G 1	DN 25	HL m/100m	0.7	19	68.6																
		v m/s	0.3	1.7	3.4																
G 1 1/4	DN 32	HL m/100m	0.3	5.7	20.6	43.6	74.4														
		v m/s	0.2	1	2.1	3.1	4.1														
G 1 1/2	DN 40	HL m/100m		1.9	6.9	14.7	25.1	53.1	90.5												
		v m/s		0.7	1.3	2	2.7	4	5.3												
G 2	DN 50	HL m/100m		0.6	2.3	5	8.5	17.9	30.5	46.2	64.7	86.1									
		v m/s		0.4	0.8	1.3	1.7	2.5	3.4	4.2	5.1	5.9									
G 2 1/4	DN 65	HL m/100m		0.2	0.7	1.4	2.4	5	8.5	12.9	18	24	30.7	46.4							
		v m/s		0.3	0.5	0.8	1	1.5	2	2.5	3	3.5	4	5							
	DN 80	HL m/100m				0.5	0.9	1.8	3.1	4.7	6.6	8.7	11.2	16.9	35.8	60.9					
		v m/s				0.5	0.7	1	1.3	1.7	2	2.3	2.7	3.3	5	6.6					
	DN 100	HL m/100m						0.6	1	1.6	2.2	2.9	3.8	5.7	12.1	20.6	43.6	74.2			
		v m/s						0.6	0.8	1.1	1.3	1.5	1.7	2.1	3.2	4.2	6.4	8.5			
	DN 125	HL m/100m									0.7	1	1.3	1.9	4.1	6.9	14.7	25	37.8	53	
		v m/s									0.8	1	1.1	1.4	2	2.7	4.1	5.4	6.8	8.1	
	DN 150	HL m/100m											0.5	0.8	1.7	2.9	6	10.3	15.6	21.8	
		v m/s											0.8	0.9	1.4	1.9	2.8	3.8	4.7	5.7	
	DN 200	HL m/100m												0.2	0.4	0.7	1.5	2.5	3.8	5.4	6,5
		v m/s												0.5	0.8	1.1	1.6	2.1	2.7	3.2	3,5
	DN 250	HL m/100m														0.2	0.5	0.9	1.3	1.8	2
		v m/s														0.7	1	1.4	1.7	2	2,3
	DN 300	HL m/100m															0.2	0.4	0.5	0.7	0,9
		v m/s															0.7	0.9	1.2	1.1	1,6

Technical appendix

General data

Tables no. 1.1 Pressure drops in PE 100 - PFA polyethylene pipes 16

Pipe	Pipe	Q m3/h	1	3	6	9	12	18	24	30	36	42	48	60	90	120	180	240	300	360	420	500	600
Ø est. mm	Ø int. mm	Q l/min	16	50	100	150	200	300	400	500	600	700	800	1000	1500	2000	3000	4000	5000	6000	7000	8333	100000
32	26	HL m/100m	1.4	10.4	37.5	79.4																	
		v m/s	0.5	1.6	3.1	4.7																	
40	32.6	HL m/100m	0.5	3.4	12.4	26.4	44.9																
		v m/s	0.33	1	2	3	3.99																
50	40.8	HL m/100m	0.2	1.2	4.2	8.8	15.1	31.9	54.4														
		v m/s	0.2	0.6	1.3	1.9	2.5	3.8	5.1														
63	51.4	HL m/100m		0.4	1.4	2.9	4.9	10.4	17.7	26.7	37.4	49.8	63.7										
		v m/s		0.4	0.8	1.2	1.6	2.4	3.2	4	4.8	5.6	6.4										
75	61.4	HL m/100m		0.2	0.6	1.2	2.1	4.4	7.4	11.2	15.7	20.9	26.8	40.5									
		v m/s		0.3	0.6	0.8	1.1	1.7	2.3	2.8	3.4	3.9	4.5	5.6									
90	73.6	HL m/100m			0.2	0.5	0.9	1.8	3.1	4.6	6.5	8.7	11.1	16.8	35.5	60.5							
		v m/s			0.4	0.6	0.8	1.2	1.6	2	2.4	2.7	3.1	3.9	5.9	7.8							
110	90	HL m/100m				0.2	0.3	0.7	1.2	1.7	2.4	3.3	4.2	6.3	13.3	22.7	48.1						
		v m/s				0.4	0.5	0.8	1	1.3	1.6	1.8	2.1	2.6	3.9	5.2	7.9						
125	102.2	HL m/100m				0.1	0.2	0.4	0.6	0.9	1.3	1.7	2.2	3.4	7.2	12.2	25.9	44.1					
		v m/s				0.3	0.4	0.6	0.8	1	1.2	1.4	1.6	2	3	4.1	6.1	8.1					
140	114.6	HL m/100m				0.1	0.1	0.2	0.4	0.5	0.8	1	1.3	1.9	4.1	7	14.8	25.3	38.2	53.5			
		v m/s				0.2	0.3	0.5	0.6	0.8	1	1.1	1.3	1.6	2.4	3.2	4.8	6.5	8.1	9.7			
160	130.8	HL m/100m					0.1	0.1	0.2	0.3	0.4	0.5	0.7	1	2.2	3.7	7.8	13.3	20.1	28.1	37.4		
		v m/s					0.2	0.4	0.5	0.6	0.7	0.9	1	1.2	1.9	2.5	3.7	5	6.2	7.4	8.7		
180	147.2	HL m/100m						0.1	0.1	0.2	0.2	0.3	0.4	0.6	1.2	2.1	4.4	7.5	11.3	15.8	21	29.1	40.7
		v m/s						0.3	0.4	0.5	0.6	0.7	0.8	1	1.5	2	2.9	3.9	4.9	5.9	6.9	8.2	9.8
200	163.6	HL m/100m							0.1	0.1	0.1	0.2	0.2	0.3	0.7	1.2	2.6	4.5	6.7	9.5	12.6	17.4	24.4
		v m/s							0.32	0.4	0.48	0.55	0.63	0.79	1.19	1.59	2.38	3.17	3.96	4.76	5.55	6.61	7.93
225	184	HL m/100m								0.1	0.1	0.1	0.1	0.2	0.4	0.7	1.5	2.5	3.8	5.3	7.1	9.8	13.7
		v m/s								0.3	0.4	0.4	0.5	0.6	0.9	1.3	1.9	2.5	3.1	3.8	4.4	5.2	6.3
250	204.6	HL m/100m										0.1	0.1	0.1	0.2	0.4	0.9	1.5	2.3	3.2	4.2	5.8	8.2
		v m/s										0.4	0.4	0.5	0.8	1	1.5	2	2.5	3	3.5	4.2	5.1
280	229.2	HL m/100m												0.1	0.1	0.2	0.5	0.9	1.3	1.8	2.4	3.4	4.7
		v m/s												0.4	0.6	0.8	1.2	1.6	2	2.4	2.8	3.4	4
315	257.8	HL m/100m													0.1	0.1	0.3	0.5	0.7	1	1.4	1.9	2.7
		v m/s													0.5	0.6	1	1.3	1.6	1.9	2.2	2.7	3.2
355	290.6	HL m/100m														0.1	0.2	0.3	0.4	0.6	0.8	1.1	1.5
		v m/s														0.5	0.8	1	1.3	1.5	1.8	2.1	2.5
400	327.4	HL m/100m															0.1	0.2	0.2	0.3	0.4	0.6	0.8
		v m/s															0.6	0.8	1	1.2	1.4	1.6	2
450	368.2	HL m/100m															0.1	0.1	0.1	0.2	0.2	0.3	0.5
		v m/s															0.5	0.6	0.8	0.9	1.1	1.3	1.6
500	409.2	HL m/100m																0.1	0.1	0.1	0.1	0.2	0.3
		v m/s																0.5	0.6	0.8	0.9	1.1	1.3

Table no. 2 Head loss in cm for bends, gate valves, foot valves and check valves

Velocità dell'acqua	Elbows					α = 90 sweep elbow					Gate valves	Foot valves	Check valves
m/sec	α = 30	α = 40	α = 60	α = 80	α = 90	d/R = 0,4	d/R = 0,6	d/R = 0,8	d/R = 1	d/R = 1,5			
0,4	0,43	0,52	0,71	1,0	1,2	0,11	0,13	0,16	0,23	0,43	0,23	32	31
0,5	0,67	0,81	1,1	1,6	1,9	0,18	0,21	0,26	0,37	0,67	0,37	33	32
0,6	0,97	1,2	1,6	2,3	2,8	0,25	0,29	0,36	0,52	0,97	0,52	34	32
0,7	1,35	1,65	2,2	3,2	3,9	0,34	0,40	0,48	0,70	1,35	0,70	35	32
0,8	1,7	2,1	2,8	4,0	4,8	0,45	0,53	0,64	0,93	1,7	0,95	36	33
0,9	2,2	2,7	3,6	5,2	6,2	0,57	0,67	0,82	1,18	2,2	1,20	37	34
1,0	2,7	3,3	4,5	6,4	7,6	0,7	0,82	1,0	1,45	2,7	1,45	38	35
1,5	6,0	7,3	10	14	17	1,6	1,9	2,3	3,3	6	3,3	47	40
2,0	11	14	18	26	31	2,8	3,3	4,0	5,8	11	5,8	61	48
2,5	17	21	28	40	48	4,4	5,2	6,3	9,1	17	9,1	78	58
3,0	25	30	41	60	70	6,3	7,4	9	13	25	13	100	71
3,5	33	40	55	78	93	8,5	10	12	18	33	18	123	85
4,0	43	52	70	100	120	11	13	16	23	42	23	150	100
4,5	55	67	90	130	160	14	21	26	37	55	37	190	120
5,0	67	82	110	160	190	18	29	36	52	67	52	220	140

Technical appendix

Electric pumps powered by a frequency converter

Using a frequency converter to power an electric pump makes it possible to operate at different operating points depending on the system requirements and the desired hydraulic or mechanical performance. However, this is to the detriment of the quality of the voltage and therefore also of the current circulating in the motor. Figure 1 shows the converter output current sinusoid with “noise”, i.e. sinusoids with high frequency orders but low amplitude.

High frequency parasitic capacitances have a very low impedence and therefore allow current harmonics to circulate in the motor housing and in the motor bearings, thus compromising correct operation. The most common methods to reduce this phenomenon are mainly:

- shielding of the power cable with connection to the earthing system;
- use of a dv/dt or sinusoidal filter at the converter output;
- use of an insulated bearing (e.g. made of ceramic).

dv/dt filters consist of inductors and capacitors with a cut-off frequency higher than the switching frequency of the converter. These filters lower the voltage rise time, thus making the current more sinusoidal. Figure 2 shows that the current sinusoid has a lower harmonic content than the circulating current without a dv/dt filter. Standard IEC 60034-17 requires that the rise time value (dv/dt) must have a supply voltage based on the peak values it takes on, so that the current cannot damage the bearings (figure 3).

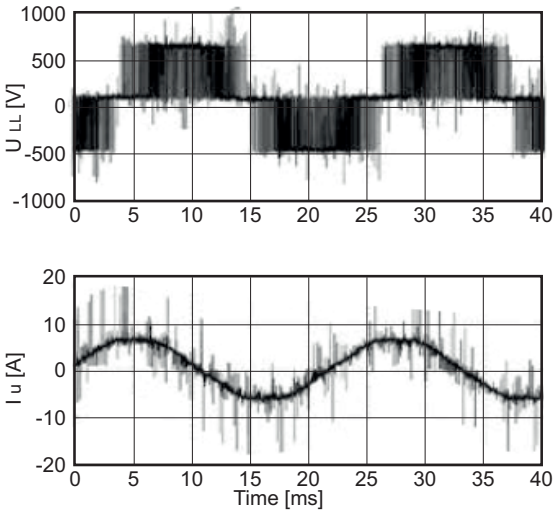


Figure 1 Voltage and current trend without dv/dt filter

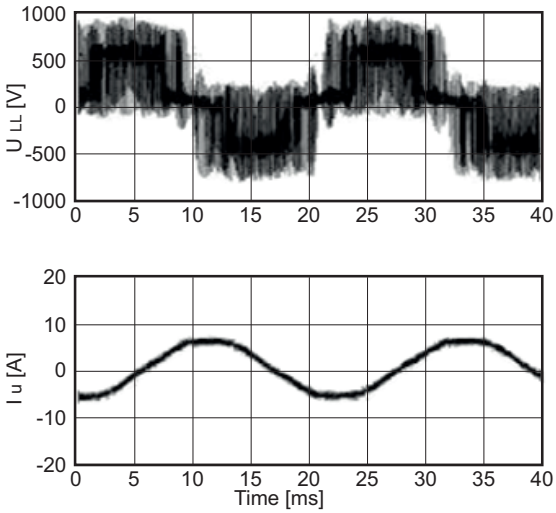
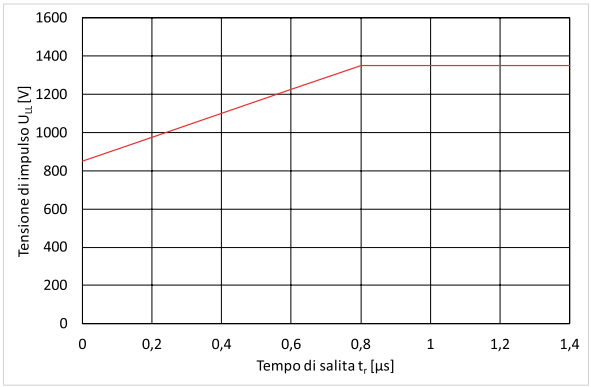


Figure 2 Voltage and current trend with dv/dt filter

ULL (V) = Pulse voltage



tr (us) (V) = Rise time

Figure 3: Permissible limit curve of ULL pulse voltage at the motor terminals as a function of the rise time tr

Technical appendix

EFFICIENCY OF ELECTRIC MOTORS

COMMISSION REGULATION (EU) 2019/1781

With Directive 2009/125/EC, the European Parliament established a framework for the development of ecodesign specifications applicable to energy-consuming products, specifying the performance levels that machines sold on the European market must achieve.



This regulation applies to the following products:

- a) brushless electric induction motors, switches, slip rings or electrical connections to the rotor, designed to operate at a sinusoidal voltage of 50 Hz, 60 Hz or 50/60 Hz, which:
- i) have two, four, six or eight poles;
  ii) have a rated voltage (UN) greater than 50 V and up to 1 000 V, included;
  iii) have a rated power (PN) between 0.12 kW and 1 000 kW, included;
  iv) have characteristics based on continuous operation; and
  v) are designed for operation with direct start-up;
- b) variable speed drives with 3 input phases which:
- i) are designed to operate with a motor as defined in letter a), with a rated motor power range between 0.12 kW and 1 000 kW;
  ii) have a rated voltage greater than 100 V and up to 1 000 V, included, with alternating current (AC);
  iii) have only one AC output voltage.

This Regulation shall not apply to:

a) motors fully built into a product (e.g. in a gearbox, pump, fan or compressor) for which it is not possible to test the energy performance independently of the product, even with a temporary shield and a front bearing; the motor must share common components (apart from connectors such as bolts) with the driven unit (e.g. an axle or housing) and it is not designed so that it can be completely separated from the driven unit and operate independently. The separation process makes the motor inoperative;
b) motors with a built-in variable speed drive (compact variable speed drives) for which it is not possible to test the energy performance independently of the variable speed drive;
c) motors with a built-in brake which is an integral part of the motor and cannot be removed or powered by a separate power source during the motor efficiency test;
d) motors specially designed and intended to operate only:
  I) at altitudes above 4000 metres above sea level;
  II) at ambient air temperatures above 60°C;
  III) at a maximum operating temperature above 400°C;
  IV) at air temperatures below -30°C;
or
  V) at a product inlet water coolant temperature below 0°C or above 32°C;
e) motors specially designed to operate fully immersed in a liquid;
f) motors with specific characteristics to ensure the safety of nuclear plants as defined in Article 3 of Council Directive 2009/71/Euratom (8);
g) explosion-proof motors specially designed and certified for work in mines, as defined in Annex I, section 1, of Directive 2014/34/EU of the European Parliament and of the Council (9);
h) motors in wireless or battery-operated equipment;
i) motors in portable equipment, the weight of which is held by hand during operation;
j) motors in hand-driven mobile equipment carried during operation;
k) motors equipped with mechanical switches;
l) Totally Enclosed Non-Ventilated (TENV) motors;
m) motors placed on the market before 1 July 2029 to replace identical motors built into products placed on the market before 1 July 2022 and specifically marketed as such;
n) multiple speed motors, i.e. motors with multiple windings or one switchable winding, with a different number of poles and speeds;
o) motors specially designed for electrically driven vehicles.

This regulation does not apply to the following variable speed drives:

a) variable speed drives built into a product and whose energy performance cannot be tested independently of the product, i.e. an attempt to do so would make the variable speed drive or product inoperative;
  b) variable speed drives with specific characteristics to ensure the safety of nuclear plants as defined in Article 3 of Council Directive 2009/71/Euratom;
  c) regenerative variable speed drives;
  d) sinusoidal variable speed drives.

Technical appendix

COMMISSION REGULATION (EU) 2019/1781

Each ecodesign specification applies according to the following timetable:

1. ENERGY EFFICIENCY REQUIREMENTS FOR MOTORS

Energy efficiency requirements for motors shall apply according to the following timetable:

(a) from 1 July 2021:
(i) the energy efficiency of three-phase motors with a rated output equal to or above 0,75 kW and equal to or below 1 000 kW, with 2, 4, 6 or 8 poles, which are not Ex eb increased safety motors, shall correspond to at least the IE3 efficiency level set out in Table 2 of Directive 2019/1781/ Euratom;
(ii) the energy efficiency of three-phase motors with a rated output equal to or above 0,12 kW and below 0,75 kW, with 2, 4, 6 or 8 poles, which are not Ex eb increased safety motors, shall correspond to at least the IE2 efficiency level set out in Table 1 of Directive 2019/1781/ Euratom;
(b) from 1 July 2023:
(i) the energy efficiency of Ex eb increased safety motors with a rated output equal to or above 0,12 kW and equal to or below 1 000 kW, with 2, 4, 6 or 8 poles, and single-phase motors with a rated output equal to or above 0,12 kW shall correspond to at least the IE2 efficiency level set out in Table 1 of Directive 2019/1781/ Euratom;
(ii) the energy efficiency of three-phase motors which are not brake motors, Ex eb increased safety motors, or other explosion-protected motors, with a rated output equal to or above 75 kW and equal to or below 200 kW, with 2, 4, or 6 poles, shall correspond to at least the IE4 efficiency level set out in Table 3 of Directive 2019/1781/ Euratom.

2. EFFICIENCY SPECIFICATIONS OF VARIABLE SPEED DRIVES

The efficiency specifications of variable speed drives apply as follows:

from 1 July 2021, the power losses of variable speed drives designed to operate with motors with a rated power equal to or greater than 0.12 kW and equal to or lower than 1 000 kW do not exceed the maximum power losses corresponding to efficiency level IE2.

The energy efficiency for variable speed drives, expressed in international energy efficiency classes (IE), is determined on the bases of power losses as follows: the maximum power losses of class IE2 are 25% lower than the reference value in table 6 of Regulation 2019/1781.

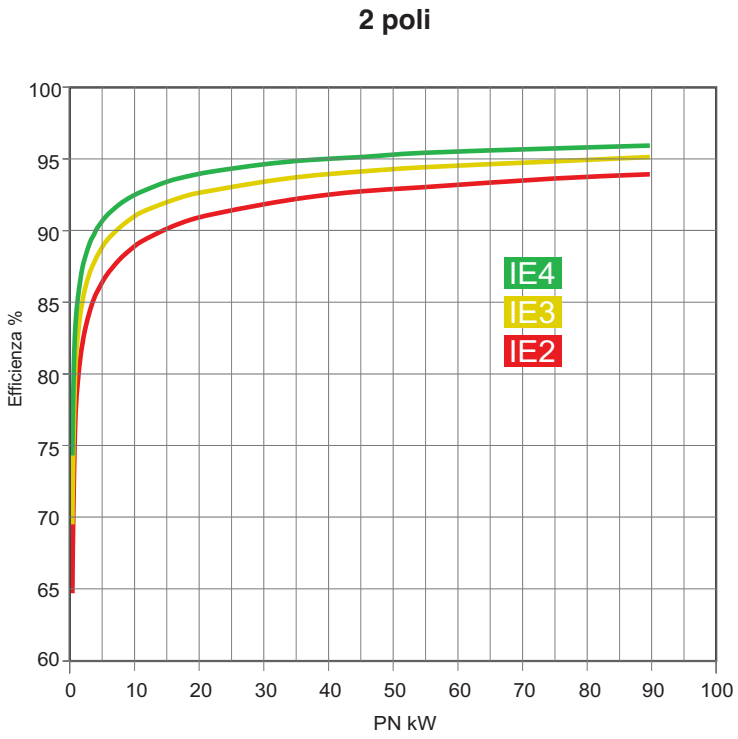
Technical appendix

EFFICIENCY OF ELECTRIC MOTORS

Summary table of the levels of efficiency as expected in IEC 60034-30-1

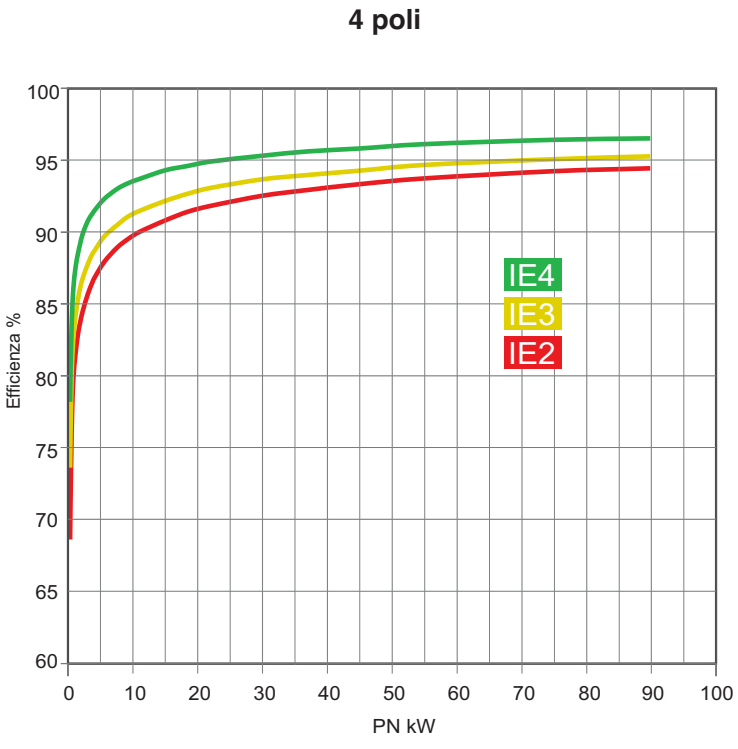
2 - Pole

Rated power	Efficiency %		
kW	IE3	IE3	IE4
0.25	64.8	69.7	74.3
0.3	67.1	71.6	76.1
0.33	68.2	72.6	77.1
0.37	69.5	73.8	78.1
0.45	71.7	75.8	79.9
0.55	74.1	77.8	81.5
0.75	77.4	80.7	83.5
1.1	79.6	82.7	85.2
1.5	81.3	84.2	86.5
1.8	82.2	85	87.3
2.2	83.2	85.9	88
3	84.6	87.1	89.1
3.7	85.5	87.8	89.7
4	85.8	88.1	90
5.5	87	89.2	90.9
7.5	88.1	90.1	91.7
9.2	88.8	90.7	92.2
11	89.4	91.2	92.6
15	90.3	91.9	93.3
18.5	90.9	92.4	93.7
22	91.3	92.7	94
30	92	93.3	94.5
37	92.5	93.7	94.8
45	92.9	94	95
55	93.2	94.3	95.3
75	93.8	94.7	95.6
90	94.1	95	95.8



4-pole

Rated power	Efficiency %		
kW	IE2	IE3	IE4
0.25	68.5	73.5	77.9
0.3	70.5	75.3	79.5
0.33	71.5	76.2	80.3
0.37	72.7	77.3	81.1
0.45	74.8	79	82.5
0.55	77.1	80.8	83.9
0.75	79.6	82.5	85.7
1.1	81.4	84.1	87.2
1.5	82.8	85.3	88.2
1.8	83.5	86	88.8
2.2	84.3	86.7	89.5
3	85.5	87.7	90.4
3.7	86.3	88.4	90.9
4	86.6	88.6	91.1
5.5	87.7	89.6	91.9
7.5	88.7	90.4	92.6
9.2	89.3	91	93
11	89.8	91.4	93.3
15	90.6	92.1	93.9
18.5	91.2	92.6	94.2
22	91.6	93	94.5
30	92.3	93.6	94.9
37	92.7	93.9	95.2
45	93.1	94.2	95.4
55	93.5	94.6	95.7
75	94	95	96
90	94.2	95.2	96.1



The efficiency value (IE) of Calpeda motors is available at www.calpeda.com

Technical appendix

EFFICIENCY OF WATER PUMPS

Directive of the European Parliament COMMISSION REGULATION (EC) No 547/2012

With the Eco-design Directive of Energy Using Products (ErP Directive – Energy-related Products) the European Union wants to improve the design of equipment that “consume” significant energy (e.g. televisions, refrigerators, washing machines, boilers,

The objective of the Directive is to force manufacturers and importers to produce and distribute products with high energy efficiency, and carbon output.The criteria for eco-design will be an integral part of the declaration of conformity (CE), which is a necessary requirement/mark for products being sold in the EU.



This Regulation shall apply to:

The Regulation 547/2012/EC defines the eco-design requirements for marketing centrifugal water pumps in the European market, even if they are integrated in other products

The Regulation provides the introduction and the calculation of a minimum efficiency index (MEI).

The pumps involved in the Regulation are:

- End suction own bearing water pumps (ESOB) designed for pressures up to 16 bar, a maximum shaft power of 150 kW, a maximum head of 90 m at nominal speed of 1450 rpm and a maximum head of 140 m at nominal speed of 2900 rpm;
- - End suction close coupled water pumps (ESCC) designed for pressures up to 16 bar, a maximum shaft power of 150 kW, a maximum head of 90 m at nominal speed of 1450 rpm and a maximum head of 140 m at nominal speed of 2900 rpm;
- - End suction close coupled in-line water pumps (ESCCi) designed for pressures up to 16 bar, a maximum shaft power of 150 kW, a maximum head of 90 m at nominal speed of 1450 rpm and a maximum head of 140 m at nominal speed of 2900 rpm;
- - Vertical multistage water pumps (MS-V) designed for pressures up to 25 bar, with a nominal speed of 2900 rpm and a maximum flow of 100 m3/h (27,78·10–3 m3/s);
- - Submersible multistage water pumps (MSS) with a nominal outer diameter of 4″ (10,16 cm) or 6″ (15,24 cm) designed to operate in a borehole at nominal speed of 2 900 rpm, at operating temperatures within a range of 0 °C and 90 °C;

This regulation shall apply in accordance with the following timetable:

- a) Water pumps designed specifically for pumping clean water at temperatures below – 10 °C or above 120 °C.
- b) b) Water pumps designed only for fire-fighting applications.
- c) c) Displacement water pumps.
- d) d) Self-priming water pumps.

The information on benchmark efficiency is available on the web site www.europump.org/efficiencycharts

The MEI value of Calpeda pumps is available on the web site www.calpeda.com

Regulation (EU) No 547/2012

- - The benchmark for most efficient water pumps is MEI ≥ 0,70.
- - The efficiency of a pump with a trimmed impeller is usually lower than that of a pump with the full impeller diameter. The trimming of the impeller will adapt the pump to a fixed duty point, leading to reduced energy consumption. The minimum efficiency index (MEI) is based on the full impeller diameter.
- - The operation of this water pump with variable duty points may be more efficient and economic when controlled, for example, by the use of a variable speed drive that matches the pump duty to the system.

Technical appendix

Catalogue dimension tolerances

Pumps

Da 0mm a 30mm	oltre 30mm fino a 120mm	oltre 120mm fino a 400mm	oltre 400mm fino a 1000mm	oltre 1000mm fino a 2000mm	oltre 2000mm fino a 4000mm
±1mm	±1,5mm	±2,5mm	±4mm	±6mm	±8mm

For NMS, NMS4, N, N4, MXV pumps, the fm and motor dimensions are subject to variation depending on the motor used.

Pressure boosting plants

Da 0mm a 30mm	oltre 30mm fino a 120mm	oltre 120mm fino a 400mm	oltre 400mm fino a 1000mm	oltre 1000mm fino a 2000mm	oltre 2000mm fino a 4000mm
±5mm	±71,5mm	±12,5mm	±20mm	±30mm	±40mm

Calpeda in the World

UNITED KINGDOM
Calpeda Limited
HQ, PRODUCTION & COMMERCIAL CENTRE
6-8 Wedgwood Road, Ind. Estate,
BICESTER, Oxon OX26 4UL
Tel. +44 1869 241441
pumps@calpeda.co.uk

TECHNICAL CENTRE
Grove House, Friarwood Lane,
PONTEFRACT
West Yorkshire, WF8 1DY
Tel. +44 1869 241441

IRELAND
Calpeda Pumps (Ireland) Ltd.
Unit 5, Old Quarry Campus,
Kilshane Park, Blanchardstown,
DUBLIN 15
Tel. +353 1 8612200
info@calpedaireland.com

FRANCE
Calpeda Pompes S.A.
Parc d'activités de la Forêt,
19, Rue de la Communauté – BP3
F-44140, LE BIGNON
Tel. +33 2 40031330
info@calpeda.fr

SPAIN
Calpeda Ibérica S.A.
Montclar, 31 – Nave 14 Polig. Ind. Polizur
E-08290 CERDANYOLA DEL VALLÉS
Tel. +34 93 5802417
info@calpedaiberica.com

GERMANY
Calpeda Pumpen Vertrieb GmbH
Philipp-Reis-Strasse, 2
D-63755 ALZENAU
Tel. +49 6023 964330
info@calpeda.de

SOUTH AFRICA
Calpeda Pumps Southern Africa Pty Ltd
Unit 3, Kingsley Close, Warbler Close
Montague Gardens
CAPE TOWN
Tel. +27 10 442 2200
M. +27 72 722 9097
pumps@calpeda.co.za

JOHANNESBURG OFFICE
Unit 11 Joanick Eco Park
186, 2nd Avenue
Florentia, ALBERTON
M: +27 79 101 6655

AUSTRALIA
Calpeda Pumps Pty Ltd
3 Maritime Court
SA 5013 Gillman, South Australia
Tel. +61 8 82688880
sales@calpeda.com.au

INDIA
Calpeda Pumps India Pvt Ltd
Sy.No.84/10 & 84/11, Pallathal Farm,
New RTO Bypass Road, Singanayakanahalli
BANGALORE 560064
Tel: +91 9480809571/79
info_india@calpeda.it

SINGAPORE
Calpeda Asia Pacific Pte Ltd
3, Gul Street 1,
629316 SINGAPORE
Tel. +65 68984111
sales@calpeda-asiapac.com

MALAYSIA
Calpeda (Malaysia) Sdn Bhd
No 40, Jalan 5/KU6,
Kaw Perindustrian Sg Puloh,
42100 Klang, Selangor
Tel. +60 3 3292 9022
enquiry@calpeda-asiapac.com

CHINA (PRC)
Calpeda Beijing Pump Co. Ltd.
No.15-12A South Jingsheng Four Street,
Liandong U Valley Science Park,Tongzhou District
101102 BEIJING
Tel. +86 10 59770570/71/72
calpeda@calpeda.cn

SHANGHAI OFFICE
No. 67, 300 Nong Shunda Road
Nanxiang, Jiading District,
SHANGHAI
Tel. +86 021 69179880
calpeda@calpeda.cn

GUANGZHOU OFFICE
The International Center for Layered Leader
Room 622, Junya North Street,
Huangpu District, GUANGZHOU
Tel. +86 020 82480841
calpeda@calpeda.cn

THAILAND
Calpeda (Thailand) Co. Ltd.
380/6 Rachadaphisek Road
Huay-Kwang
10320 BANGKOK
Tel. +66 2 2750027
pump@calpeda.co.th

TAIWAN
Calpeda Taiwan Co Ltd
No.367-1, Fongren Road, Renwu Township,
81449 KAOHSIUNG COUNTY
Tel. +886 7 3723855
calpeda@calpeda.com.tw

TAIPEI OFFICE
9F., No.79, Aly. 3, Ln. 182, Sec. 2,
Wenhua Rd., Banqiao Dist.,
NEW TAIPEI CITY 220

KOREA
Calpeda Korea Co. Ltd.
144, Hyeomnyeok-ro, Siheung-si,
Gyeonggi-do, 15093, South Korea
Tel. +82 31 4999550
calpedakr@calpedakorea.com

Calpeda S.p.A.
Via Roggia di Mezzo, 39 - 36050 Montorso Vicentino - Vicenza - Italy
Tel. + 39-0444 476 476
Web: www.calpeda.com - E-mail: info@calpeda.it

water passion