











## Control panels

QM





#### 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	D	Capacitor	Motor 230V - 1~	Dimensions
	Pump type	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

## 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  $\pm 10\%$  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

0-4-	Division to up a	Protection	Capacitor	Motor 230V - 1~	Dimensions
Code	Pump type	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





## 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 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.

## **Technical data**

Mains single-phase 230V  $\pm 10\%$  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	Dump tupo	Protezione	Capacitor	Motor 230V - 1~	Dimensions
Code	Pump type	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





#### 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.

Codo	Division to up a	Setting	Capacitor	Motor 230V - 1~	Dimensions
Code	Pump type	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





#### 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  $3\sim\pm10\%\,$  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





#### 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  $\pm 10\%$  50/60 Hz (other voltages on request). - Ambient temperature from -5  $^{\circ}C$  to +40  $^{\circ}C.$  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)

Codo	D	Protection	Motor 230V - 3~	Motor 400V - 3~	Dimensions
Code	Pump type	А	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





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 ~  $\pm 10\%$  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.

Carla	Division to us a	Setting	Motor 400V 50Hz - 3~	Dimensions	l.m.
Code	Pump type	A	kW	HxBxP mm	kg
14058390000	PFC-T 16/A	1 - 16	0,37 - 5,5	250x205x105	1,7





#### 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  $3\sim\pm10\%\,$  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





## 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  $\sim \pm 10\%$  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	Di iron ti in a	Motor 400V - 3~	Setting	Dimensions
Code	Pump type	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





## 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,  $Y/\Delta$  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  $\sim \pm 10\%$  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

0-1-	D	Motor 400V - 3~	Setting	Dimensions
Code	Pump type	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





## 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,  $Y\!/\!\Delta$  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  $\sim \pm 10\%$  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 relav

Transformer

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

			T	1
Code	Dump tupo	Motor 400V - 3~	Setting	Dimensions
Code	Pump type	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

# **calpeda**

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,  $Y/\Delta$  starting. Operating signals by E 1000 led card.

Dry-running protection with float switch.

## **Technical data**

Mains 400V 3  $\sim \pm 10\%$  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.

Codo	Code Pump type	Motor 400V - 3~	Setting	Dimensions
Code		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





#### 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  $\sim \pm 10\%$  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

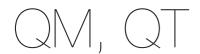
#### On request

RLE level control for connection level probes of pump operating. RLE level control for probes against dry running. Voltmeter

Voltmete

Ammeter

O-d-		Motor 400V - 3~	Max corrente erogata	Dimensions
Code	Pump type	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





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  $\sim$  ±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

0 - 1 -	Division to the	Motor 400V - 3~	Setting
Code	Pump type	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





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.

	Motor 400V - 3~	Setting	Dimensions		
	Code	Pump type	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





#### 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.

## **Technical data**

Power supply 230V ±10% 50/60 Hz (other voltages on request).

- Ambient temperature from -5  $^{\circ}$ C to +40  $^{\circ}$ 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 float switch or float switch connection against dry-running. Terminals for 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.

Oo da	Motor 400V - 3~	Setting	Dimensions	
Code	Pump type	kW	max A	HxBxP mm
14054760000	QTL/A 2 D 12A-FA	0,25 - 5,5	1 - 12	310x235x125





## QTL/A 2 ST FT Control panel for 2 pumps with three-phase motor, Y/\Delta starting



#### PANELS FOR SURFACE PUMP ASSEMBLIES

#### Construction

Control panel for 2 pumps with three-phase motor,  $Y/\Delta$  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.

-  $Y/\Delta$  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

0-1-	D	Motor 400V - 3~	Current	Dimensions
Code	Pump type	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





#### 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 three phase motor,  $Y\!/\!\Delta$  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  $\pm 10\%\,\, 50/60$  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.

-  $Y/\Delta$  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

	_	Motor 400V - 3~	Current	Dimensions
Code	Pump type	kW	Α	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





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.

0! -	D	Motor 400V - 3~	Setting	Dimensions
Code	Pump type	kW	max A	HxBxP mm
14055010000	QML/A 3 D 12A-FA	0,25 - 1,5	1 - 12	395x315x135





#### 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:
- $4\ \mbox{float}$  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 400V  $\pm 10\%$  50/60 Hz (other voltages on request).

- Ambient temperature from -5  $^{\circ}\text{C}$  to +40  $^{\circ}\text{C}.$
- 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.

Cada	D	Motor 400V - 3~	Setting	Dimensions	
	Code	Pump type	kW	max A	HxBxP mm
	14055020000	QTL/A 3 D 12A-FA	0,37 - 5,5	1 - 12	395x315x135





QTL/A 3 ST FT

#### Control panel for 3 pumps with three-phase motor, Y/A starting



#### PANELS FOR SURFACE PUMP ASSEMBLIES

#### Construction

Control panel for 3 pumps with three-phase motor,  $Y/\Delta$  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  $\sim \pm 10\%$  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

0 - 1 -	D	Motor 400V - 3~	Current	Dimensions
Code	Pump type	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





## QTL/A 3 ST .. FT-RH Electric control panel for 3 drainage pumps with three-phase motor, Y/A starting



#### PANELS FOR SUBMERSIBLE PUMP ASSEMBLIES

#### Construction

Control panel with protection for 3 submersible drainage pumps with three phase motor,  $Y\!/\!\Delta$  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  $\sim \pm 10\%$  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/∆ 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

Cada	Division to us a	Motor 400V - 3~	Current	Dimensions
Code	Pump type	kW	Α	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





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 dryrunning.

Pump operation controlled by an electronic board type MPS 4000 with microprocessor.

#### **Technical data**

Mains single-phase 230V  $\pm 10\%$  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.

0 - 1 -	D	Max corrente erogata	Motor 230V - 1~	Dimensions
Code	Pump type	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





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  $\sim$  ±10% 50/60 Hz (other voltages on request). - Ambient temperature from -5  $^{\circ}$ C to +40  $^{\circ}$ 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

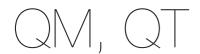
Terminals for remote signals

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

0.1	Б	Max corrente erogata	Motor 400V - 3~	Dimensions
Code	Code Pump type	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





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 dryrunning.

Pump operation controlled by an electronic board type MPS 4000 with microprocessor.

## **Technical data**

Mains single-phase 230V  $\pm10\%$  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





QTL 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  $\sim$  ±10% 50/60 Hz (other voltages on request). - Ambient temperature from -5  $^{\circ}C$  to +40  $^{\circ}C.$  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





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 dryrunning.

Pump operation controlled by an electronic board type MPS 4000 with microprocessor.

#### **Technical data**

Mains single-phase 230V  $\pm10\%$  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





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  $^{\sim}$  ±10% 50/60 Hz (other voltages on request). - Ambient temperature from -5  $^{\circ}C$  to +40  $^{\circ}C.$  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	-





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  $^{\sim}$  ±10% 50/60 Hz (other voltages on request). - Ambient temperature from -5  $^{\circ}C$  to +40  $^{\circ}C.$  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

C-4-	Code Pump type	Current	Motor 400V - 3~	Dimensions
Code		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





## 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).



Codo	Di imam di ima	Dimensions
Code	Pump type	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.

01 -	Divinor divino	Dimensions
Code	Pump type	HxBxP mm
14045600000	Q-MSP 9M	160x120x75
14045960000	Q-MSP 13M	160x120x75