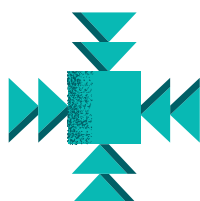




EASY TO INSTALL
Plug And play solution



ECONOMIC SAVING
High efficiency single-phase motor



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

Self-priming swimming pool pumps boosting system with integrated control

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 = Single-phase version (no indication: three-phase)

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 | Stainless Steel 1.4401 EN 10088 (AISI 316) |
| Mechanical seal | Carbon - Ceramic - FPM |

Performance

Single-phase

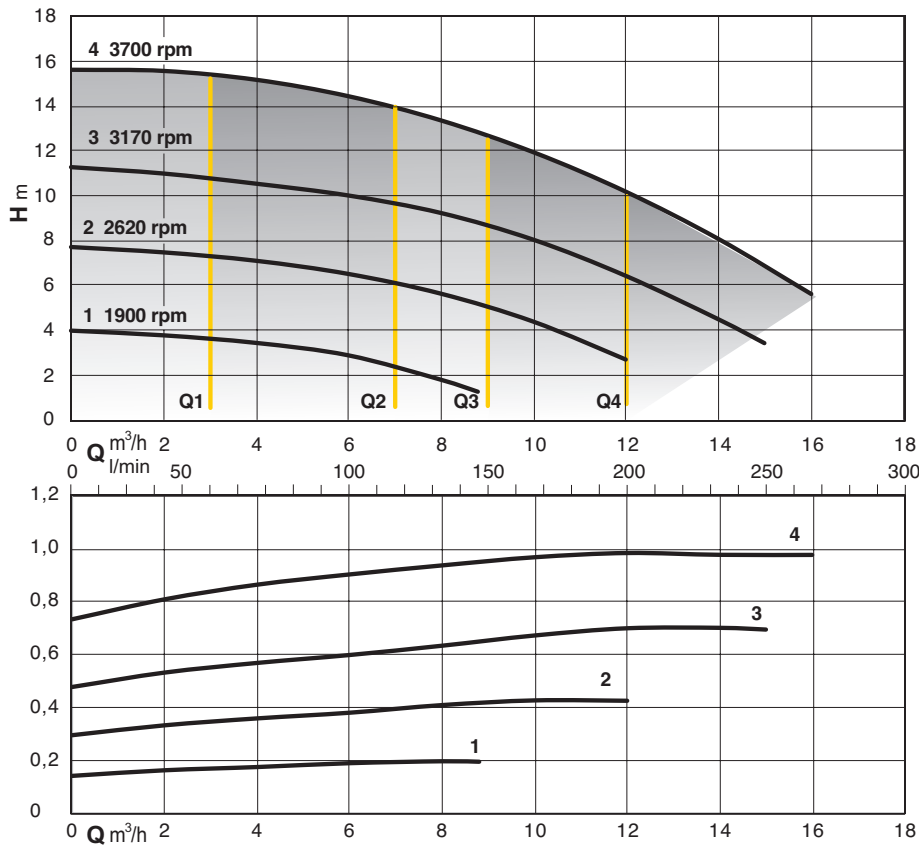
| | | | Q = Flow | | | | | | | | | |
|-----------|------|------|--------------------|------|------|------|------|------|------|------|-----|-----|
| | | | m³/h | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 |
| Model | 230V | P1 | l/min | | 33,3 | 66,6 | 100 | 133 | 167 | 200 | 233 | 267 |
| | A | kW | H (m) = 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

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.

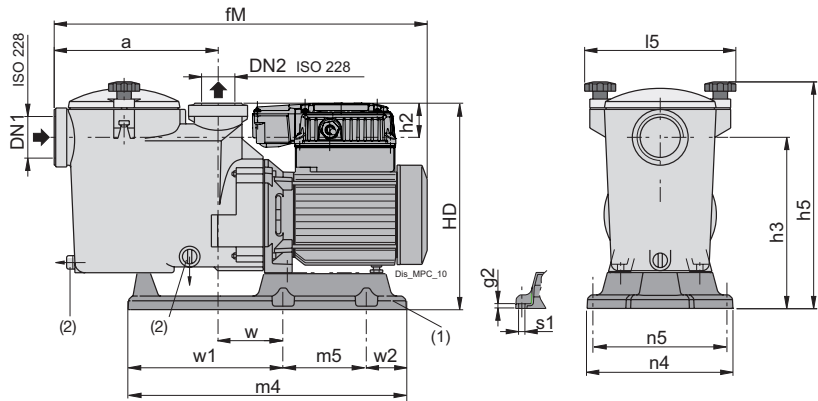


Programmable Speed Mode

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 | DN1 | DN2 | a | fM | g2 | h2 | h3 | h5 | HD | l5 | m4 | m5 | n4 | n5 | s1 | w | w1 | w2 | kg |
|-----------|-----|--------|-----|-----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|-------|-------|------|
| 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 |

Control Panel



The control panel allows 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

