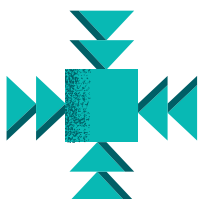




**EASY TO INSTALL**  
Plug And play solution



**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

## 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.  
 Cable: H07RN8-F, 3G1,5 mm<sup>2</sup>, 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.

## 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

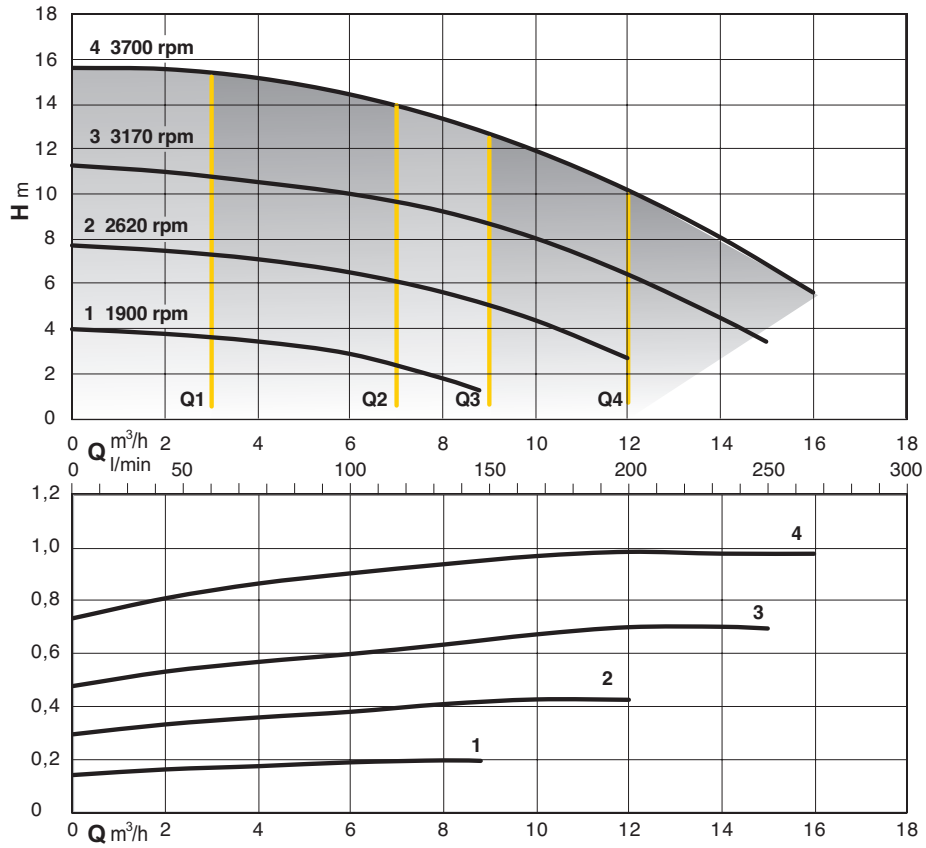
## Performance

### Single-phase

Model	230V A	P1 kW	Q = Flow									
			m <sup>3</sup> /h l/min	0	2	4	6	8	10	12	14	16
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.  
**P2:** Rated motor power output.  
**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.

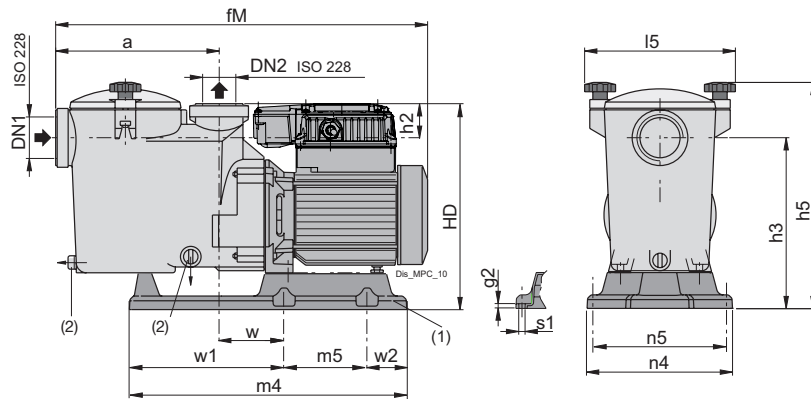


### Programmable Speed Mode

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	mm																Kg Weight		
	DN1	DN2	a	fM	g2	h2	h3	h5	HD	l5	m4	m5	n4	n5	s1	w		w1	w2
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



- 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

