# **Technical Data Sheet**

# **Circulation Pump**







#### **Function**

Circulator pump with high energetic efficiency at variable speed driven by a synchronous with permanent magnet motor controlled by an inverter to cover the range of use in small domestic installation systems. The new pump PCEEI 752 is studied to give a significant reduction of the energy consumption and combines to the new hydraulic a sophisticated motor with permanent magnets.

#### **Technical data**

EEI:  $\leq$  0.20 Fluid temperature:  $2 \div 95$  °C Room temperature:  $0 \div 40$  °C Max. pressure: 6 bar

Storage: -20°C/+70°C UR 95% a 40 °C

Sound pressure:  $\leq$  43 dB (A) Threaded connections: ISO 228 G 1"1/2

Mark: compliant with CE mark requirements

Minimum suction pressure: 0,3 bar a 50 °C / 1,0 bar a 95 °C

Regulation reference: EN 55014-1, EN 61000-3-2, EN 55014-2

Power: 42 W max; 3 W min-

Max. quantity of glycol: 40 %

Working fluids: water in compliance with UNI 8065:2019

#### **Motor characteristics**

Type: Permanent magnet synchronous motor.

Number of turns: Variable

Power supply: 230 V (-10%; +6%)
Intensity: 0.33 A max, 0.03 A min.

Frequency: 50/60 Hz
Degree of protection: IP 44
Insulation class: H
Device class: II

Overload protection (locked rotor)

1) automatic protection with electronic unlocking function of the rotor;

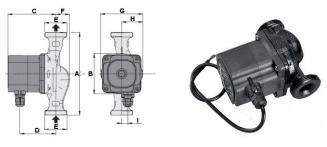
2) protection with thermal protector

Regulation reference: EN 60335-1, EN 60335-2-51
Wiring: Cable with phase and neutral

## **Dimensional Drawings**

## **PCEEI 752**

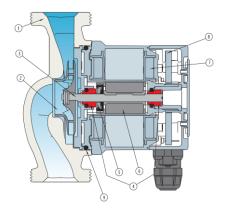
Electronic circulation pump with 25/60 synchronous motor, interaxis 130 mm.



Code	Size	Α	В	С	D	Е
69011558	25/60	130	88	104.5	78	G1"1/2
Code	Size	F	G	Н	1	-
69011558	25/60	29.5	90	45	13.2	-

### **Design and Function**

- 1. Pump body in cast iron GJL 200 EN 1561
- 2. Rotor in composite material



- 3. Shaft in ceramic
- 4. Bearings in graphite
- 5. Thrust in ceramic
- 6. Rotor in composite material and ferrite
- 7. Windings in copper wire
- 8. Electronic board
- 9. Gaskets in EPDM

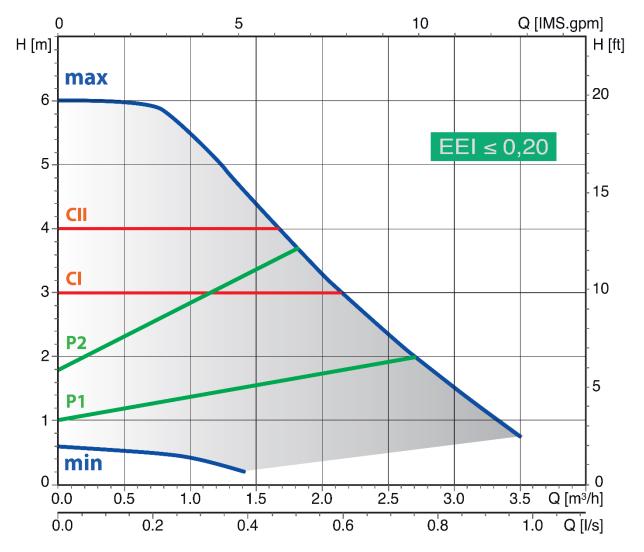
A product of exceptionally small dimensions for an easier installation even in the most restricted sites, such as in underfloor heating modules.

The installation of the PCEEI 752 circulator is greatly simplified by the rapid current connection.

Reliability is guaranteed by the patented square chamber that eliminates any possibility of engine stalling, the ceramic crankshaft, the fully electrophoresis painted hydraulics and the program for automatic bleeding and unblocking routines.

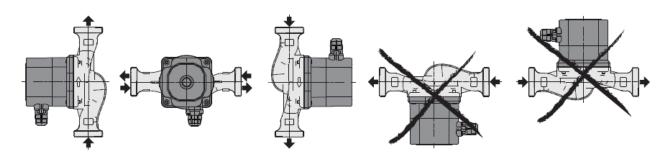
The use is easy and intuitive with fixed curves from 0.5 m to 7 m; 2 (1-2) proportional pressure curves and 2 (I II) constant pressure curves

# **Characteristic Curves**



CI-CII constant curve
P1-P2 proportional curve
min-max n fixed curves

## Installation



#### **Programmes**



# PROPORTIONAL CURVE PROGRAMME Δp-v

(GREEN LED)

Placing the switch on number 1 or 2, the pump produces a proportional performance curve.

This action guarantees the maximum energetic efficiency.





# CONSTANT CURVE PROGRAMME $\Delta p$ -c

(ORANGE LED)

Placing the switch on the letter I or II, the pump maintains the selected constant pressure curve as the reference flow rate varies.







### **MANUAL PROGRAM**

(BLUE LED)

Placing the switch in any position between MIN and MAX, it is possible to chose manually the best working curve most suitable for the system.







#### **WARNING**

- Red LED: the pump is blocked but is still powered.
- Flashing white LED: system degassing request, air in the system.

#### Energy saving and topmost reduction of consumption

The PCEEI 752 is a groundbreaking product which already complies with EC regulation 641/2009, imposing a drastic reduction of energy consumption for the sake of the environment.

The PCEEI 752 has an Energy Efficiency Index (EEI) < 0,20.

The consumption of electricity is further reduced through the possibility of proportional adjustment of pressure: when the system's request for heat decreases (lower flow rate), the pump reduces the pressure level (prevalence) proportionally.

# **Item Specifications**

#### **PCEEI 752**

25-60 permanent magnet circulation pump, energy class A. Working fluids: water and glycol solutions; max. percentage of glycol 40%. Max. working pressure 6 bar. Max. fluid temperature 95°C. Max. depth 90mm.



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