Circulation Pump

PCE 757

Energ i

D E

G

B



Function

The PCE 757 is a highly efficient wet rotor pump providing various advantages:

- Energy class A; •
- Top efficiency thanks to the ECM technology; •
- Electrical energy saving up to 80 % compared to old heat pumps; •
- It can be used in hot water based heating systems of all types: thermal, geothermal and solar systems, closed cooling circuits, industrial circulation systems within a temperature range from -10 °C to +95 °C (+110 °C); Low flow noise;
- Reliability and comfort during operation;
- Functions specifically conceived to fulfil the market's demands and • space-saving design;

Optimal performances even in case of peculiar installations. • The PCE 757 pump is specially designed for use in environments with high temperatures, which may result in heating systems due to the reduced space.

Technical data

| Energy alege: | A |
|---|--|
| Energy class: | |
| EEI: | < 0.23 |
| Fluid temperature: | -10 ÷ 90 °C |
| Room temperature: | 0 ÷ 40 °C |
| Max. pressure: | 6 bar |
| Max prevalence: | 8 m |
| Max. quantity of glycol: | 20 % |
| Max flow rate: | 8 m ³ /h |
| Speed range: | 1200 – 3900 rpm |
| Working fluids: | water in compliance with UNI 8065:2019 |
| Motor characteristics | |
| | |
| Number of turns: | Variable |
| Number of turns: Power supply: | Variable 230 V (-15%;+10%) |
| | |
| Power supply: | 230 V (-15%;+10%) |
| Power supply: Frequency: | 230 V (-15%;+10%) 50/60 Hz |
| Power supply: Frequency: Starting current: | 230 V (-15%;+10%) 50/60 Hz < 30A for 10 ms |
| Power supply: Frequency: Starting current: Power consumption on standby: | 230 V (-15%;+10%) 50/60 Hz < 30A for 10 ms 1.44 W |
| Power supply: Frequency: Starting current: Power consumption on standby: Electromagnetic compatibility: Emission of electromagnetic | 230 V (-15%;+10%) 50/60 Hz < 30A for 10 ms 1.44 W EN 61800-3 |
| Power supply: Frequency: Starting current: Power consumption on standby: Electromagnetic compatibility: Emission of electromagnetic disturbances: | 230 V (-15%;+10%) 50/60 Hz < 30A for 10 ms 1.44 W EN 61800-3 EN 61000-6-3 |
| Power supply: Frequency: Starting current: Power consumption on standby: Electromagnetic compatibility: Emission of electromagnetic disturbances: Interference immunity: | 230 V (-15%;+10%) 50/60 Hz < 30A for 10 ms 1.44 W EN 61800-3 EN 61000-6-3 EN 61000-6-2 |

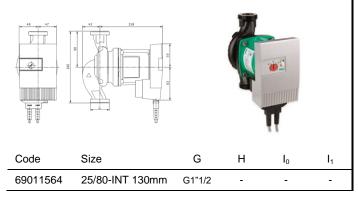
Materials

| Pump body: | Grey cast iron (EN GJL 200) |
|------------|-----------------------------|
| Impeller: | Plastic (PPS – 40%GF) |
| Shaft: | Stainless steel (X6 Cr13) |
| Bearing: | Metal – impregnated carbon |

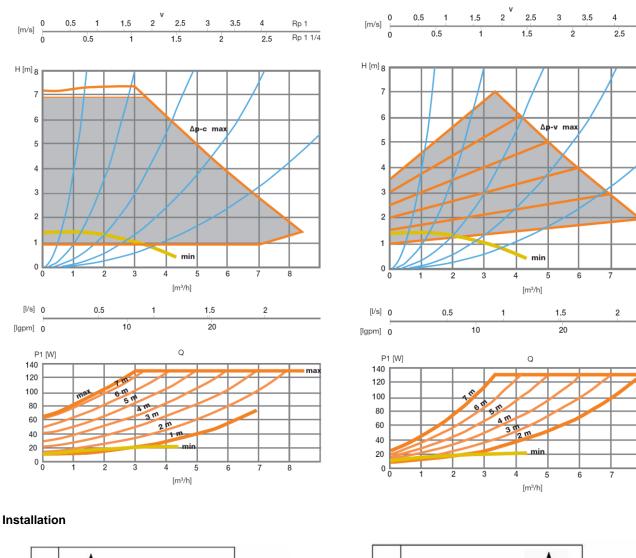
Dimensional Drawings

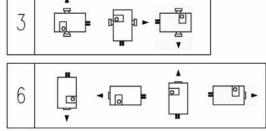
PCE 757

Electronic circulation pump with 25/80 synchronous motor, interaxis 130 mm.



Characteristic Curves





Programmes



Variable differential pressure (Δp-v):

9

12

The delivery value of differential pressure is increased linearly between ½ H e H within the allowed flow rate field (fig. 3a). The differential pressure generated by the pump is adjusted according to the set delivery value. This adjustment mode is particularly suitable for heating systems with radiators, because it reduces the flow noise of the thermostatic valves.

0

Rp 1

8

max

8

0)

2

0

Rp 1 1/4





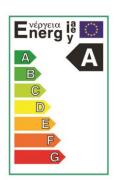


Constant differential pressure (Δp-c):

The delivery value of differential pressure H is constantly kept to the set delivery value - within the allowed flow rate field - until the maximum characteristic curve (fig. 3b). This adjustment mode is recommended for floor heating systems or old systems with large pipings, as well as for all applications without variable characteristic curves, such as feedwater pumps for boilers.

Power adjustment with remote controller through a 0-10 V signal

Energy saving and topmost reduction of consumption



The PCE 757 is beyond Class A, it 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 PCE 757 has an Energy Efficiency Index (EEI) < 0,23. 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

PCE 757

25-80 permanent magnet circulation pump, energy class A. Working fluids: water and glycol solutions; max. percentage of glycol 20%. Max. working pressure 6 bar. Max. fluid temperature 95°C.



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