

CIRCULATOR PUMP

Installation & Operating Instructions





Thank you very much for choosing our company's products. Please read the instructions carefully and save it properly before installation and use.

Warnings

- Please read the instructions carefully before installation and use.
- The circulator pump must be reliably grounded and installed with leakage protection devices before use.
- It is strictly forbidden to touch the circulator pump during operation

Warning for Children

- It is strictly forbidden for children, incapacitated persons, or person limited in disposing capacity (If have not been taught how to use this product safely and understand the hazards involved) to use this product without supervision by a guardian

Electricity Warning

- The electric power system may be used only when it has the safety protection measures specified by the existing provisions of the country where the product is installed

Pressure Warning

- The pump system must be able to withstand the maximum pressure of the pump.

Modification-related Warning

- The manufacturer is not responsible for any consequences caused by the user changing the electric pump or operating the electric pump beyond the operating conditions.

Cautions

1. Make sure that the pipe system is securely connected before installation and verify that the impurities, soldering leftover and wastes have been cleaned within the pipes
2. Make sure the pump is located in dry and ventilation environment to avoid short circuit due to moisture or splashing into the casing, and guarantee its availability to service and replacement.
3. The protection cover must be added, for the requirement of outdoor installation while actions must be taken to avoid being splashed and to prevent electric shock risk in indoor installation. Warning: do not install in bathroom to prevent vapor or water or moisture from going into the junction box resulting in electric leakage
4. When complete installing the pump, connect the power supply as pilot run and set the speed adjusting switch at rated max grade to check if the starting is normal, but the pilot running time can not be over 10 seconds so as to avoid idle running influencing self life of the bearing.
5. We strongly suggest you esteemed users to install shutoff valves at intake and outlet ports for the sake of following pump service and maintenance.
6. When the pump is supplying water to match the heat system, do not touch the pump and/or other pipes to avoid burning.
7. The power plug must be strictly grounded. Securely connect the GND pin of the power plug to the power plug grounded hole. Do not attempt to defeat the GND plug of the pump.
8. The striking security caution markings must be set up during pump working to avoid any accident.
9. The power supply must be firstly disconnected before adjusting pump location or before any action that may touch the pump during the pump is working to avoid any accident.
10. Regularly check the pump and timely replace in case of any damage.
11. Regularly check the insulating resistor of the pump, the insulating resistor in cooled state can not be lower than 50MΩ; and the insulating resistor can not be lower than 5 MΩ when it closes to working temperature.
12. The power cable can only be replaced with corresponding cords or the dedicating components.
13. In Winter, when the environment temperature is below 0°C, the water within the pipes must be exhausted thoroughly if the pump ceases working to avoid pump frost crack.
14. The heat supply pipes can not be always compensated with non-soft water to avoid the calcareous that water contained increasing even jam the impeller.

Working Condition

- Liquid temperature: 2 °C ~ 95 °C
- Ambient temperature: 0 °C ~ 40 °C
- Max system pressure: 10bar
- Pumped liquid characteristics: clean liquid, free from solid sand mineraloils, non-toxic, chemically neutral, close to the characteristics of water
- Installation: the motor shaft must be kept in horizontal direction
- Inlet pressure

Liquid Temperature	< 85 °C	90 °C	110 °C
Inlet Pressure	0.05 bar	0.28 bar	1.0 bar
	0.5m head	2.8m head	10m head

Pumped Liquid

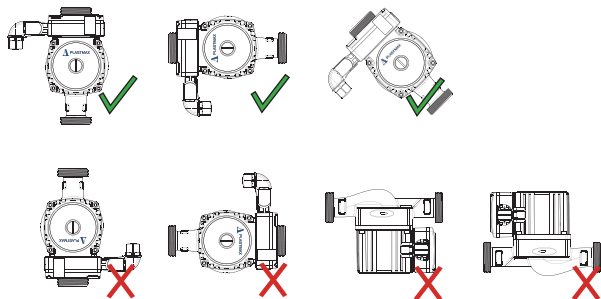
- Heating water
- Glycol solution with density $\leq 50\%$

Technical Data

Parameter	Data
Rated Voltage	1 x 230 V
Frequency	50/60Hz
Enclosure class	IP44
Insulation class	F
TF class	95
EEL	≤ 0.23
Pipe size	DN15 DN25 DN32
Size of connection	G1" G1 1/2" G2"
Built-in pump protection	Locked-rotor protection
	Open phase protection
	Short-circuit protection
	Over current protection
Pump housing	Cast iron
Port-to-port length	130mm 180mm

Installation

When installing the pump, the pump shaft should remain in horizontal position.
The arrow on pump volute indicates the flow direction of the liquid through the pump.



The pump head can be rotated by 90° according to the following steps:

- ① Close the valves at the inlet and outlet, sides of the pump and release the pressure;
- ② Unscrew and remove the four screws that connecting the pump head and volute;
- ③ Rotate the pump head to the expected position;
- ④ Screw up the pump head;
- ⑤ Open the valves at both sides of the pump.

Operation

HES XX/4,5,6,7

Everything under control

9-segment power display provides an easy overview of all that is going on in the pump

- The factory setting, AUTO, analyzes the heating system and automatically adjusts the pump setting to meet the heating requirement. The result is optimum comfort and a minimum of energy consumption.
- AUTO can be used in 80% of the heating system.

Proportional pressure mode

- If the proportional pressure mode is selected, the differential pressure varies proportionally with the flow, i.e. higher flow means higher differential pressure
- Proportional pressure is the preferred choice for one-string systems with high flow variation
- Proportional pressure curve (high and low)

Constant speed mode

Three constant speed modes for constant flow applications

Night mode

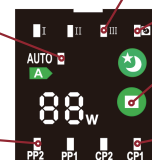
The night mode reduces the power consumption to a minimum with power-saving features.

Easy operation

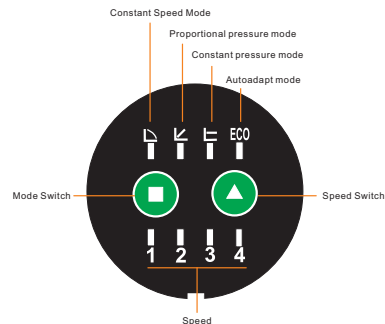
Intuitive one-touch operation makes control mode selection simple

Constant pressure mode

- The pump maintains constant pressure regardless of the flow
- The preferred operation mode for under floor heating and 2 string systems with low flow variation
- Constant pressure curves (low and high)



HES XX/8,10,12

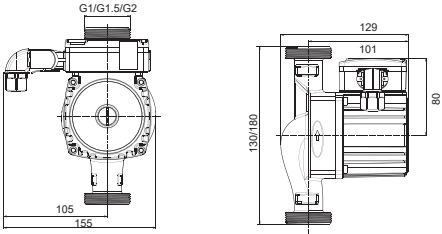


Parameter

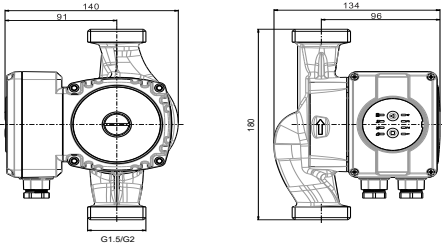
Model	Power	Max. Flow	Max. Head	Volute Length	Inlet/Outlet	Thread
	W	m³/h	m	mm	mm	inch
HES 15/4	5~22	1.8	4	130	15	G1
HES 25/4	5~22	2.6	4	130/180	25	G1.5
HES 32/4	5~22	3.0	4	180	32	G2
HES 15/5	5~30	2.3	5	130	15	G1
HES 25/5	5~30	3.1	5	130/180	25	G1.5
HES 32/5	5~30	3.4	5	180	32	G2
HES 15/6	5~45	2.4	6	130	15	G1
HES 25/6	5~45	3.6	6	130/180	25	G1.5
HES 32/6	5~45	3.6	6	180	32	G2
HES 15/7	5~47	2.7	7	130	15	G1
HES 25/7	5~47	3.7	7	130/180	25	G1.5
HES 32/7	5~47	3.7	7	180	32	G2
HES 25/8	12~140	6.8	8	180	25	G1.5
HES 32/8	12~140	7.3	8	180	32	G2
HES 25/10	12~140	6.8	10	180	25	G1.5
HES 32/10	12~140	7.3	10	180	32	G2
HES 25/12	12~140	6.8	12	180	25	G1.5
HES 32/12	12~140	7.3	12	180	32	G2

Dimensions

HES XX/4,5,6,7

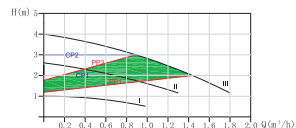


HES XX/8,10,12

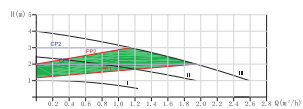


Curves

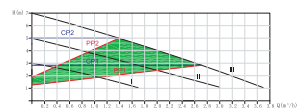
HES 15/4



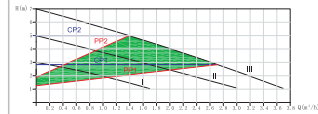
HES 25/4



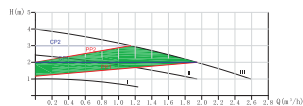
HES 25/7



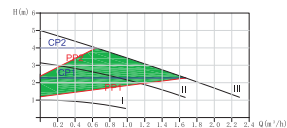
HES 32/7



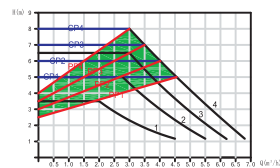
HES 32/4



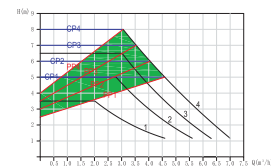
HES 15/5



HES 25/8



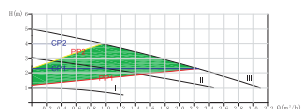
HES 32/8



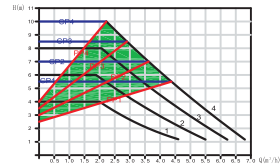
HES 25/5



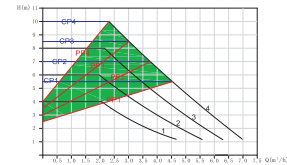
HES 32/5



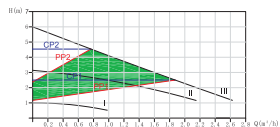
HES 25/10



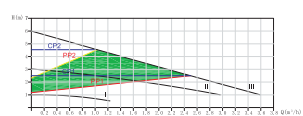
HES 32/10



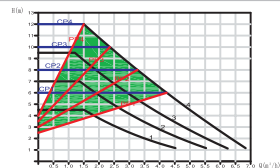
HES 15/6



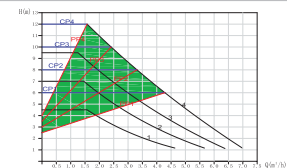
HES 25/6



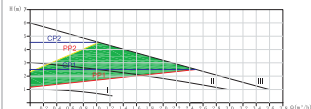
HES 25/12



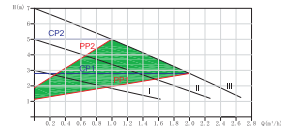
HES 32/12



HES 32/6



HES 15/7



Troubleshooting

Error code is judged by the number of times that the indicator lights flashing.

Four Indicator lights would flash at the same time.

(There would be 1 second of lights off before or after reporting the error code.)

Error Code	Protection Type	Likely Causes	What To Do
E1	Locked-rotor protection	Pump rotor is blocked	Disassemble the motor and check if the rotor can rotate normally. If not, clean up the impurities inside the rotor
E2	Open phase protection	One or more phases of the internal connection circuit is disconnected	Replace the pump
E4	Over current protection by hardware	Short circuit of internal connection circuit	Replace the pump
E5	Over current protection by software	Short circuit of internal connection circuit	Replace the pump