RHEKEN

R JHB
Permanent Magnet
Circulating Pump

R JHB
Operation Manual

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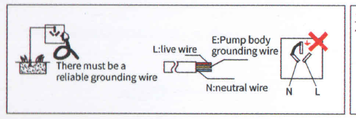
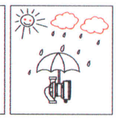
Installation and use safety instructions for pumps

Warning : Personnel without relevant qualifications are prohibited from carrying out any work, as it may pose a fatal risk.

- The external water pump of the system should be installed at the location for future maintenance and replacement.
- In case of leakage, the power supply must ensure reliable grounding. The yellow green dual color wire in the configured three core power harness is the ground wire. To ensure safety, it is necessary to install corresponding security measures such as residual current circuit breakers.
- The power supply must comply with the information requirements on the power nameplate. The grounding wire and neutral wire of the power socket should be strictly separated. Any accidents caused by unreliable grounding wire are not related to our company.
- It is strictly prohibited to pull or bend the power cord, and it is not allowed to attempt to lift the water pump through the power cord of the pump.
- When installing pumps in outdoor or bathroom settings, protective measures should be taken to prevent exposure to sunlight and rain, which may affect the service life of the pump and even cause electric shock accidents.

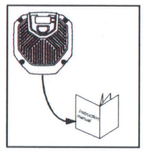
Warning
Deadly risk!



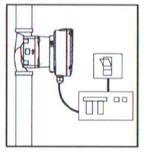


- After the pump installation is completed and the power is connected, try running it for a few seconds to confirm if the pump starts normally. The idle time should be less than 20 seconds to prevent long-term dry operation from affecting the bearing life.
- When installing the water pump, attention should be paid to the direction of water flow, and the direction of water flow in the pipeline should be consistent with the water flow label of the pump;
- Long term storage of water pumps in summer can lead to water accumulation and scaling, which can easily cause pump jamming. If there is slight jamming, the internal pump jamming release software will automatically perform the pump jamming release action; If there is a serious pump jamming phenomenon, the water pump will report a blockage fault. At this time, please turn off the power, close the inlet and outlet valves of the water pump, use an M5 hex wrench to disassemble the water pump motor and pump seat, hold the water pump impeller to rotate left and right, or pull out the motor rotor to rinse and clean before resetting. After manually and visually confirming the smooth rotation of the rotor, reassemble the water pump motor and pump seat and confirm that the assembly is correct before powering on and running.
  If the water pump is not used for a long time in winter, there is a risk of ice breaking. Please make sure to drain the water in the water pump completely.
- During summer or when the ambient temperature is high, attention should be paid to ventilation and avoiding exposure to sunlight to prevent electrical components from producing dew, which can cause electrical faults.
- During the operation of the water pump, there may be high temperatures in the pump casing and control box heat dissipation plate. Please add protective devices externally to prevent installation at heights and positions that children can touch. After installation, isolation measures should be added.
- When the water pump is running, it is strictly prohibited to remove or stop any protective components. Please do not cover the water pump motor or pump with blankets or other items, as there is a risk of fire. Flammable and explosive materials must be stored away from this product.

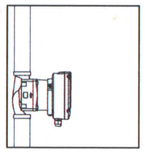
Installation and use safety instructions for pumps



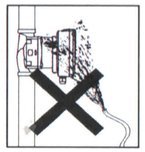
1.To ensure the normal and safe operation of the water pump, please read the user manual carefully before use.



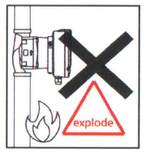
2.The electric pump should be reliably grounded. To prevent leakage, a leakage protector should be installed for safety reasons, and the socket area should be protected from moisture.



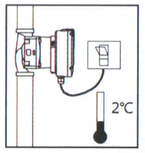
3.No coverings are allowed on the surface of the water pump.



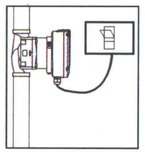
4.Do not spray or splash pressurized water onto the water pump and prevent it from being submerged.



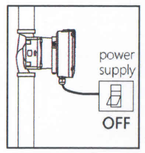
5.Do not transport any flammable, combustible or explosive liquids beyond the prescribed limits.



6.When the medium is clean water and the ambient temperature is below 2 °C, please take anti freezing measures to prevent the water pump from freezing and cracking.



7.When the water pump is running, to prevent burns, it is forbidden to touch it directly with hands.



8.When maintaining the water pump, the power must be cut off first.

Installation and precautions of pump

Qualification requirements for installation personnel

Warning:
Installation, operation, and maintenance personnel must possess the necessary qualifications for their work, and those who do not have the necessary knowledge must receive training. The manufacturer shall not be held responsible for any personnel or property damage caused by lack of qualifications or failure to comply with safety instructions.

Installation and maintenance safety instructions

Before carrying out any task, the operator must read and understand the contents of this manual. The above operation can only be carried out when the pump is powered off and stopped running. After carrying out any task, various protective devices (such as protective boards) must be reset without error. During the installation process, sharp edges of system pipeline fittings may pose a danger to relevant personnel. Please be careful and pay attention to them.

Improper use

Warning:
When installing insulation devices on the pump, it is important to note that the pump motor and electronic control box must not be included.

Warning:
Only by using the pump settings as expected can reliable operation of the pump be ensured, and all instructions mentioned for the pump should be followed. The limit value must not be l ower than or exceed the value specified in the product data sheet.

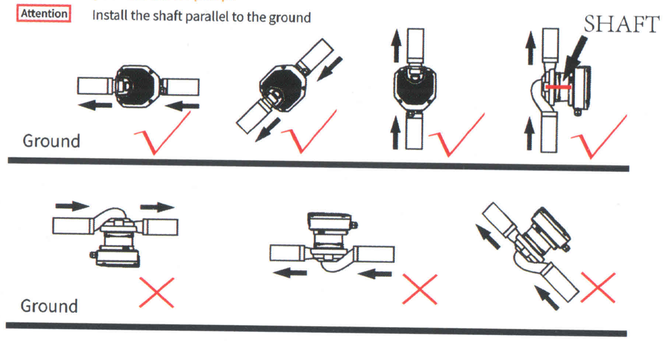
Warning:
Pumps used in systems with temperatures exceeding 90 °C must be insulated and protected.

Warning:
Pump falling may cause serious injury, please be careful.

Warning:
When using this product in conjunction with the heating system, do not touch it with your hands to prevent burns.

Installation specifications for pumps

Attention Install the shaft parallel to the ground



Fault code description

RJHB Alarm Types and Display

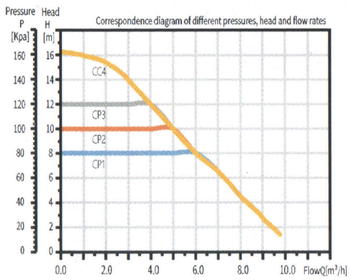
If the circulation pump detects one or more alarms and the alarms are activated, the display screen will show the following alarm types. If multiple alarms are activated simultaneously, the display screen will only show the highest priority error. Priority is defined according to the sequence of the table. When there is no activated alarm, the user interface switches back to the operating mode.

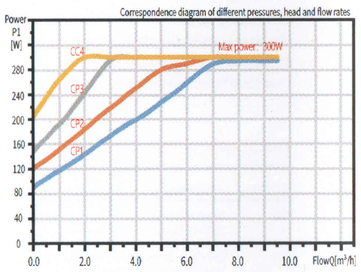
The display screen shows the following fault codes:

Screen	Fault content	Fault Description	Treatment measures
E01	High voltage protection	Input voltage>285VAC, stop running	Voltage difference drops by 5% and resumes operation on its own
E02	Undervoltage protection	Input voltage<140VAC, stop running	Wait for the voltage to return to normal and resume operation on its own
E03	Overcurrent	Short circuit or water ingress in stator coil or circuit board	Replace the stator coil or circuit board
E04	Phase loss	UVW three-phase missing	Replace the stator coil or circuit board
E05	Locked-rotor	The rotor is stuck due to foreign objects	Disassemble the rotor, clean it thoroughly, and reinstall it
E06	Light load	The power is lower than the set value	Drain the air or fill the system with liquid
E07	IPM overheating	IPM module temperature exceeds 125 °C, stop running	IPM module temperature drops to the set value and recovers automatically or is installed in a ventilated and cool place
0.5 times the power	IPM overheating	IPM module operates at 0.5 times rated power when the temperature is above 115 °C	IPM module temperature drops to the set value and recovers automatically or is installed in a ventilated and cool place

Performance curve, gear description

RJHB32-160-180Performance parameter diagram:





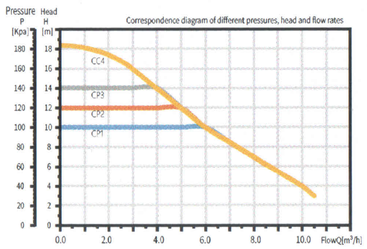
CP1-constant pressure8m

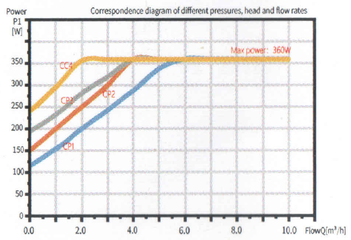
CP2-constant pressure10m

CP3-constant pressure12m

CC4-Maximum curve

RJHB32-180-180Performance parameter diagram:





CP1-constant pressure10m

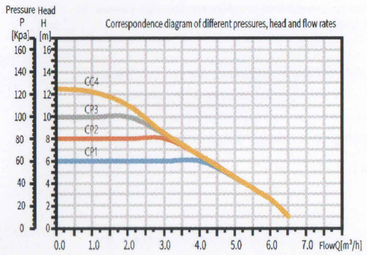
CP2-constant pressure12m

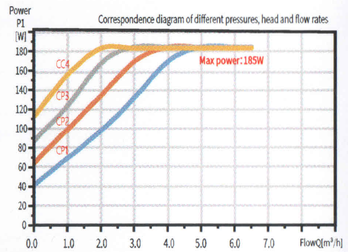
CP3-constant pressure14m

CC4-Maximum curve

Performance curve, gear description

RJHB25-125-130Performance parameter diagram:





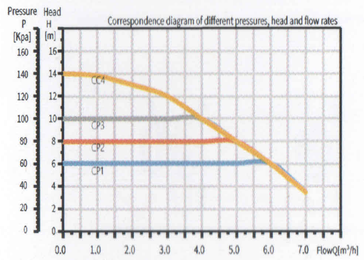
CP1-constant pressure6m

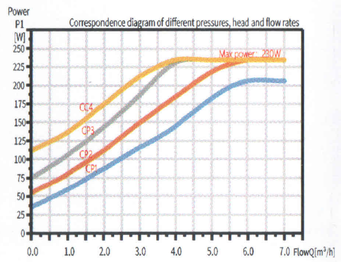
CP2-constant pressure8m

CP3-constant pressure10m

CC4-Maximum curve

RJHB25-140-130Performance parameter diagram:





CP1-constant pressure6m

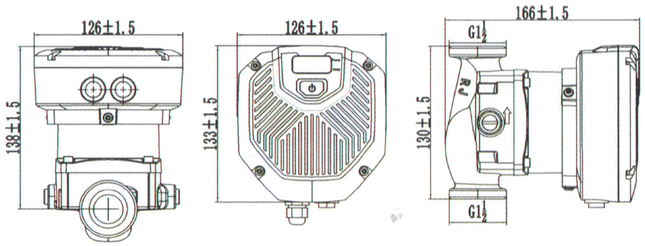
CP2-constant pressure8m

CP3-constant pressure10m

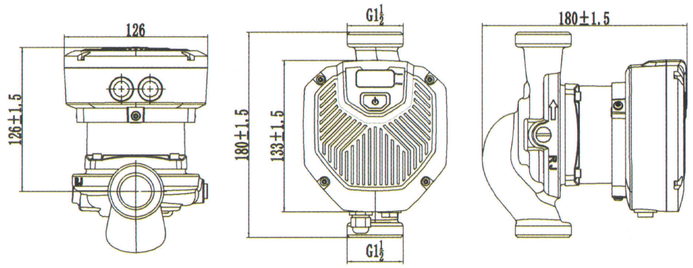
CC4-Maximum curve

- Size

RJHB25-125-130
RJHB25-140-130



RJHB32-160-180
RJHB32-180-180



product structure

• Occasions for use

The RJHB permanent magnet circulating pump is suitable for applications such as heat pumps, domestic hot water systems, air conditioning, and cooling systems.

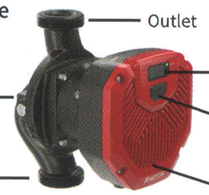
• Terms of Use

Pump transporting liquid: low viscosity, clean, non-corrosive, non-flammable and non-explosive liquid, free of solid particles, fibers, or mineral oil.

Note: When transporting water pumps with glycol mixtures (with a mixing ratio of 1:1 between glycol and water), the performance of the water pump may be reduced. To prevent degradation of the glycol mixture, avoid temperatures exceeding the rated liquid temperature and minimize operation time under high temperature conditions. Before adding the glycol mixture, clean and flush the system. To prevent corrosion and scale formation, regularly inspect the glycol mixture and take measures to maintain its quality. If further dilution of the supplied glycol is required, please follow the instructions provided by the glycol supplier.

Ambient temperature: -20°C~50°C
Liquid temperature: 2°C~95°C
Maximum system pressure: 1.0 MPa (10 bar)
Minimum inlet pressure: 0.05 MPa (0.5 bar), at a liquid temperature of 95°C
Protection level: IPX4

• External structure



• Model descripyion

RJHB 25 - 125 - 130

- 130 — Pump inlet and outlet length
- 125 — Max Flow
- 25 — Pipe size
- RJHB — RHEKEN Permanent Magnet Circulating Pump

• Product parameter

Model	Voltage	Max Power	Max Flow	Max Head	Insulation Class
RJHB25-125-130	220-240V 50/60Hz	185W	6.5m³/h	12.5m	H级
RJHB25-140-130		230W	7.0m³/h	14m	
RJHB32-160-180		300W	10m³/h	16m	
RJHB32-180-180		360W	11m³/h	18m	

• Gear indication instructions

Normal mode: After power on, it defaults to CC4 mode. Short press the button on the panel to switch between different working modes.

When running normally, if the upper light is always on and the lower light is not on, it indicates that the power is displayed. After power failure, turn on the power again and be in the pre power failure gear. Switching order: CC4 → CP1 → CP2 → CP3 → CC4

PWM mode: When PWM is connected, the lower light is on and the upper light is not on, indicating PWM mod.