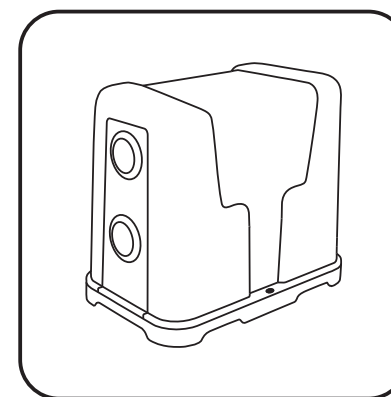




Automatic Peripheral Pump

Original Instruction Manual



PQ50E-1

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Fault	Cause	Remedy
Insufficient pressure	Wrong type of water pump.	Select proper water pump.
	Inlet pipeline too long or has too many bends, inlet pipe has improper diameter.	Select proper pipe size.
	Serious wearing of impeller.	Replace for new impeller.
Motor continue to work	The water tank isn't full, the water supply isn't sufficient.	Shutdown the pump manually.
	Pipeline leakage.	Repair the pipeline.
	The pressure sensor is damaged(blocked).	Replace the pressure sensor.
The pump starts frequently	Check valve leakage.	Wash check valve or replace O-ring seal.
	Pipeline leakage.	Repair the pipeline.
Noise	Vibration noise	Fasten the pump with bolts
	Bearing is damaged	Replace the bearing
	Impeller is jammed	Remove sundries

8. Common Failures and Troubleshooting



Check the pump after power cut-off

Fault	Cause	Remedy
The motor cannot start	Abnormal circuit board component	Replace circuit board components.
	Abnormal pressure sensor.	Replace pressure sensor.
	Fuse burn out.	Replace the fuse.
	The overheat protector is tripped.	Wait for the overheat protector switch to reset.
	The leakage protector is tripped.	Send to professional repair spot for repair.
	Pipe pressure below 3m.	Increase the pressure.
	Pipe pressure is greater than starting pressure.	Open the valve and wait for a minute or replug the plug.
	Stator winding burnout.	Replace winding(Repair Location).
	Capacitor broken or unconnected capacitor.	Replace suit capacitor.
Overheat protector tripped after a short running time	The liquid temperature is too high.	Wait for cooling naturally.
	The impeller is clogged with impurities.	Remove sundries.
Output flow is insufficient on continuous running	Impeller is damaged.	Replace the impeller.
	The inlet is clogged with impurities.	Remove sundries.
	The outlet is clogged with impurities.	Wash the pipeline.
No water coming out when the motor is in operation	The pump is blocked.	Remove the obstruction.
	The outlet is blocked.	Wash the pipeline.
	The pump isn't filled with water.	Fill the pump with water.

Always disconnect the appliance from the supply before assembling, disassembling or cleaning.

Appliances can be used by persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and if they understand the hazards involved.

Children shall not play with the appliance.

Pumps without indication that they are protected against the effect of freezing shall not be left outside during freezing weather conditions

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Cleaning and user maintenance shall not be carried out by children unless they are aged from 8 years and above and supervised.

Attention!

If the appliance or the supply cord is damaged, it must be repaired by manufacturer, its service agent or qualified person.



Meaning of crossed –out wheeled dustbin:

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.

Contact you local government for information regarding the collection systems available.



Before installation, please carefully read this manual and pay attention to the safety warning signs and content of the manual.
Any violation of the safety warning signs and manual content may cause injury, water pump damage and other property losses. The manufacturer will not be responsible for it and any claim arising from it.
The electric pump must be reliably grounded and installed with an electric leakage protection device before using.
Do not touch the electric pump when it is operating.

1. Production description

The full-intelligence PQ50E-1 water pump is a kind of intelligent, automatic and stationary booster pump. The electronic controller can timely start or shutdown the water pump according to the pressure change inside of the pipe, which provides customers with a stable, safe and comfortable water using environment.

2. Application Environment

It can be used for living water supply, well water lifting, pipe pressurizing and household car washing etc.

It can only be used for supplying clean water and other low-viscosity and erosion-free liquids. It cannot be used to supply liquids that are inflammable, explosive, easy for evaporation and that contain solid particles or fibers.

Liquid PH value: 6.5-8.5

Max.ambient temperature: 40°C

Medium temperature: 60°C

Max.particle size: 0.2mm

3. Model Description

PQ 50 E - 1

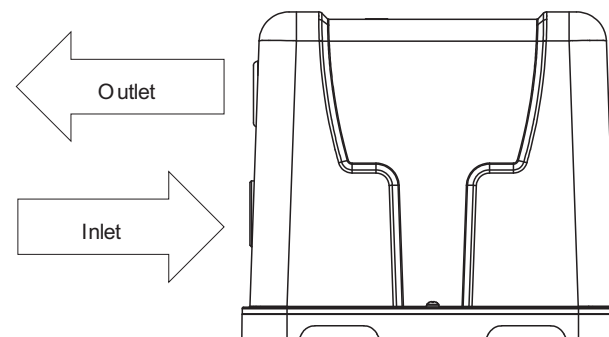
— New design appearance

— Automatic (Integrated circuit board)

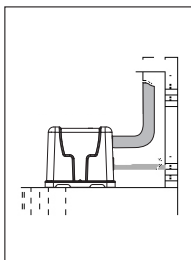
— Output Power: 0.5HP(370W)

— Peripheral Pump

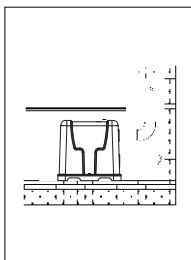
7. Pipeline Installation



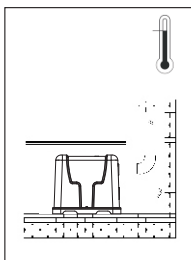
- 1). The pump should be installed in a well-ventilated area horizontally. If the pump needs to be installed outside, then a shelter is needed to be installed above it, ensuring to keep the pump dry; The pipeline should be fixed after connecting. Please check whether the pump is reliably grounded and the cable is damage before operation to avoid safety accidents in power-on mode.
- 2). The pipeline should be sealed, otherwise the pump will frequently start and make flow and head cannot meet the demand;
If the pump is not operated for a long time, it is better to evacuate all fluids within the pipe system to avoid icing or frost cracking within the pump chamber;
- 3). If the pump cannot work normally after a long time of shutdown, pull the plug and use the flat screwdriver move the fan before starting the pump;
- 4). When the ambient temperature is too high, please notice the pump is in good ventilation to prevent condensate water from occurring in the electrical part, which may cause electrical faults.
- 5).
- 6).



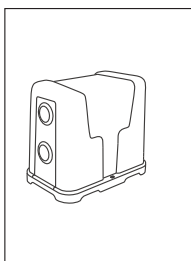
1. When water supply is seriously insufficient, the pump will stop running and enter standby mode, to avoid damage of motor.



1. Water pump should be installed in places convenient for maintenance and inspection. Do keep the pump dry and ventilated. When installing the pump in narrow places, the process should be done in accordance with the Fig. on the left to ensure fan cover against thermal dissipation problem, electric pump overheating and damage.



1. The pump shouldn't be used in water above 60°C to avoid damage of sealing parts which will result in leakage of electricity, burn out and other fault of motor.
2. When the environment temperature is lower than 4°C or when the pump will not be operated for a long time, it is better to evacuate all fluids within the pipe system to avoid icing or frost cracking within the pump chamber.



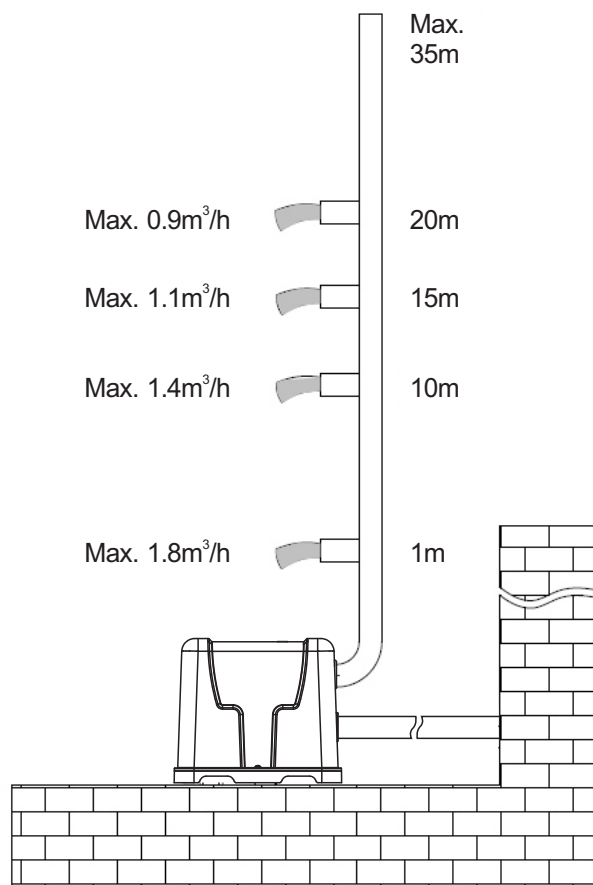
1. Power supply should be done in accordance with the indicated figures on the nameplate.

4. Intelligent Function of Water Pump

No.	Name	Function description
1	Start protection	The pump is connected to the water pipe, the power is turned on, and the pump will run after waiting for 3 seconds, and the LED will be steady green.
2	No-water Protection	In the power-on mode, 1. When the flow sensor senses that there is no water, the pump runs for 3 minutes, stops running and enters the standby state. After 30s of shutdown, start to run for 3 minutes to detect, if there is water, the pump runs normally and the LED light is on green. If not, the pump enters the standby state, the LED lights are red and flashing, and the pump runs for 3 minutes every 6 hours to detect whether there is water; 2. When the flow sensor senses that there is water, the pump will start automatically, and the LED light will always be green; 3. When the water source is sufficient, but the inlet water has no pressure. It is necessary to refill the pump cavity and water inlet pipe with water and then unplug and replug the power supply before the pump can be started.
3	Automatic Function	The intelligent control system controls the operation or standby of the pump according to the parameter changes of the pipeline, the running status LED light is always green, and the standby status is blue;
4	Locked rotor Protection	When the pump is in the standby state, it will run for 10s every 6h and then stop to prevent the impeller from jamming and the pump cannot be used normally.

5. Technical data and schematic diagram

Model	Power	Max. Flow	Max.Head	Flow Rated	Head Rated
PQ50E-1	370W(0.5HP)	1.8(m³/h)	35m	1(m³/h)	15m

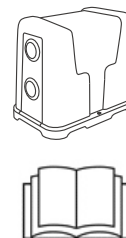


Hydraulic performance schematic diagram

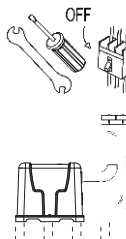
6. Safety Precautions



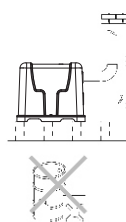
Installation and commission can only be performed by staff who is qualified with certificate and has mastered this instruction.



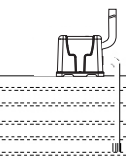
1. Please read the manual carefully before use to ensure normal and safe operation of the electric pump.
2. Pump should be used in areas where people are not easily accessible to avoid the injury.
3. Pump must be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30mA.
4. Please carefully check whether the power cord and the connection between power cord and pump end is in good condition before use. If there is any damage, please send it to professional maintenance points for repair.



1. The electric pump shall be reliably grounded to prevent electric leakage.
2. To ensure the water pump not operating during installation and maintenance, please cut off the water pump's power source before operation.



1. Do not use the water pump to transmit any flammable, gasifiable or explosive gas that is not within the specified range.



1. The vertical distance of the bottom valve from the water source bottom is at least 30cm to avoid sediment inhalation.