

Permanent magnet variable frequency self-priming silent constant pressure pump

Thank you for choosing our products.
Before using the pump, carefully read the instruction manual.
Save this manual for future reference.



Model:

PAE Series

ATTENTION!



Before starting operation, make sure that the pump is properly grounded. Don't touch to a running pump. Do not operate the pump without water.



WARRANTING



Thank you very much for choosing INTOP water pump. Before installing and using this product, please read the manual in detail and keep it properly. Pay attention to the safety warnings and instructions in the content, and use it strictly in accordance with the specifications of the "Product Manual". Before powering on, please carefully check the insulation resistance to prevent leakage. The electric pump must be reliably grounded and cannot be installed without grounding. And install a leakage protection device. No matter what fault occurs in the electric pump, the power supply must be cut off immediately and then repaired. In addition, if the machine is not installed properly or fails, there is a risk of water leakage (involving pipelines, mechanical seals, pressure parts, etc.). Please do not install it in a place where water leakage may cause damage to the facility to avoid losses. If the safety warning marks are not followed, and personal injury, water pump damage and other property losses caused by non-compliance with regulations are caused, the manufacturer will not be responsible for any consequences caused by the above situations, nor will it bear any compensation.

Product Overview

Permanent magnet variable frequency self-priming silent constant pressure pump is a new generation of intelligent constant pressure water supply equipment integrated with intelligent control system, motor, water pump, pressure sensor, water control switch, etc. It has the advantages of high head, large flow, ultra-quiet, high efficiency and energy saving, health and environmental protection, intelligent control, etc. It is widely used in household water, tap water pressurization, water well extraction, equipment matching (air energy, solar energy, water heater, water purifier, etc.), pipeline pressurization, garden irrigation, agricultural irrigation, breeding and other occasions.

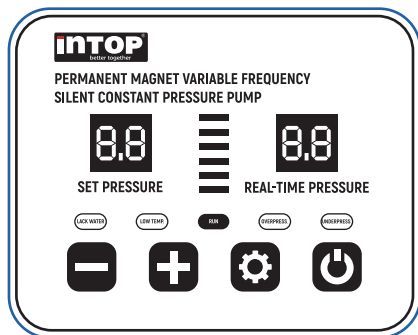
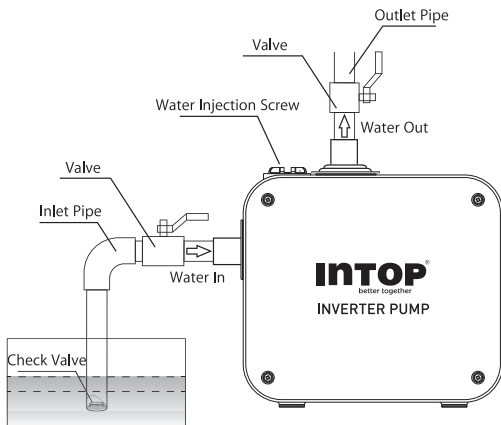
Features

- Energy saving
- Intelligent detection
- Cold and heat resistant
- Quiet and comfortable
- Antifreeze and heat resistant
- Health and Environmental Protection
- Human-computer interaction
- Constant pressure in the whole house
- Permanent magnet high efficiency
- Frequency conversion energy saving

Working Condition

- Conveying medium: clean water
- Medium temperature: 0~90℃
- Medium pH: 6.5~8.5
- Medium solids: <0.2mm
- Relative humidity: <90%
- Medium specific gravity: <1.1%
- Ambient temperature: 0~40℃

- 1 During installation, the pipeline must be fully sealed, and check whether the adapters, valves, etc. are leaking. Close the valve after stopping water use to avoid frequent starts due to leakage.
- 2 The diameter of the water outlet pipe should be the same as the diameter of the water outlet to achieve the best pressure drop, high-speed flow and noise, and prevent the water inlet from being too small.
- 3 Before starting, unscrew the water filling screw and fill the pump cavity with clean water.



8.8

LED digital tube indicator light: The left side shows the set pressure value and the right side shows the real-time pressure value. When a fault occurs, the EXXX fault code will flash and display. Please troubleshoot according to the fault code.



Decrease button: Press the "-" button to change the set working pressure value, each button press decreases by 0.1 bar. Long press to quickly decrease!



Increase button: Press the "+" button to change the set working pressure value. Each press will increase by 0.1 bar. Long press to increase quickly!



Setting key: Press and hold the setting key for 6 seconds to enter the setting state, then tap to switch the setting parameters. Please set the parameters under the guidance of professional after-sales service.



Start-Stop Button: The factory setting is the intelligent constant pressure mode. It can start working normally after plugging in. If the pipeline is special and affects normal use, you can press this button to manually stop the water pump. The light is on for the start state, and the light is off for the stop state.



Frequency conversion efficiency indicator light: percentage of maximum speed, each lit grid represents 16% and all lights on represent full speed operation.



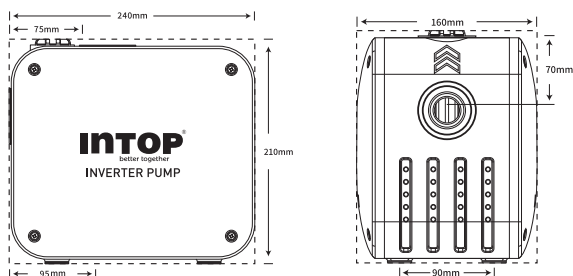
Fault alarm indicator light: When the light here is on, it indicates the current fault cause. Please eliminate it according to the cause of the fault.



Operation standby indicator light: This light flashes when the pump is running, stays on when on standby, and goes out when forced to stop.

Model	Power(P ₂)		Max. Flow	Max. Head	Inlet/Outlet	Head Range	Max. Suction
	kW	HP	l/min	m	inch	m	m
PAE430	0.43	0.58	72	33	1×1	1~33	5
PAE630	0.63	0.85	92	43	1×1	1~43	5

1. Before starting, unscrew the water filling screw and fill the pump cavity with clean water.
2. When installing the water pump, do not use too soft rubber hose for the water inlet pipe to avoid being sucked flat.
3. All joints of the water inlet pipe of the pumping well must be sealed and the number of elbows must be minimized.
4. The bottom valve should be installed vertically and 30cm away from the ground in the water to avoid sucking in mud and sand, otherwise it will not be able to suck in water.
5. The water pump should be installed at the upper end of the well as far as possible. It should not be more



1. During installation and maintenance, the power supply must be cut off first. The water pump should be properly installed with a leakage protection device and should be reliably grounded at the grounding mark of the electric pump or cable. If there is moisture in the power socket, it will cause electric shock, so please be careful.
2. If any abnormal situation is found during use, such as abnormal sound, less water output, intermittent water flow, etc., the power supply should be cut off immediately to check and troubleshoot.
3. Avoid splashing pressurized water on the water pump and prevent water from soaking the water pump. It can only be used for thin, clean, non-condensable, non-flammable and non-explosive liquids that do not contain solid particles or fibers.
4. Avoid running the water pump without water, as the motor will heat up and easily fail. Do not expose the water pump to direct sunlight, which will affect the service life of the water pump.
5. Supply power according to the voltage indicated on the nameplate. If it is not used for a long time, it should be stored at room temperature in a dry, ventilated and cool place.
6. When the ambient temperature is below 4C°, please take anti-freeze measures. In cold seasons, the drain screw should be unscrewed to drain the liquid in the pump body to prevent the pump body from freezing and cracking (anti-freeze type can be exempted).
7. If you have any questions, please check the instructions or call the company's customer service.

Fault Codes	Cause	Workaround
E02	Over current protection	The current returns to normal and the fault is automatically eliminated
E04	Low voltage protection	The grid voltage is lower than 170V, and the fault will be automatically eliminated after the voltage returns to normal.
E05	Stall fault	Check whether the water pump is stuck by foreign objects and whether the motor is stuck.
E08	Controller temperature is too high	1. Overload operation time is too long. It is recommended to replace a larger power pump, or turn down the pump and use a meteor pump; 2. The ambient temperature is too high. After the temperature returns to normal, the pump will automatically run normally.
E09	Bias Error	Turn off the power and wait for 5 minutes before using again or contact after-sales service
E10	Startup failure	The water pump is stuck by foreign objects or the load is too large
E11	Module failure	The controller is abnormal. Please restart after 5 minutes of power off or contact after-sales service.
E12	Driver board communication failure	Check if the communication cable and port are disconnected or in poor contact.
E17	Pressure sensor failure	1. Check if the sensor cable or terminal is detached; 2. The sensor point is offset, replace the pressure sensor.
E20	Display communication failure	Check if the communication cable and port are disconnected or in poor contact.
E22	Water temperature sensor open circuit prompt	Check if the water temperature sensor communication cable or port is in poor contact. It does not affect water use, but only prompts
E26	Water shortage failure	1. Automatically start with incoming water or start with active detection every 24 hours; 2. Replace the pipe with a diameter that matches the water outlet; 3. Increase the set pressure or deactivate.

Fault	Possible cause of failure	Workaround
The water pump does not start	The motor is soaked in water or the motor is missing a phase	Replace the water pump or send it for repair
	Starting capacitor damaged	Replace the starting capacitor
	Control panel buttons are inoperative or damaged	Replace the controller circuit board
No stopping of pump	Water flow switch failure	Contact after-sales service to switch to single control program or replace water flow switch
	The water supply is not completely shut off or the pipe is leaking	Check for leaks in pipes and water-using equipment

Fault	Possible cause of failure	Workaround
The water pump does not work	Lack of water	Check the water supply in the pipeline
	First installation without water injection	Open the water filling screw and fill the pump chamber with water.
	Impeller damage	Replace the impeller (contact after-sales customer service)
	Motor reverse	Open the rear hood and check if the motor rotates clockwise.
	Water level is too low	Adjust the installation height of the water pump
	The pump body check valve is stuck	Remove the sensor on the pump body and check whether the check valve is stuck.
	Water inlet pipe leaks	Check whether the water inlet pipe is installed and sealed
	The bottom valve is not open or is blocked	Check the flexibility of the foot valve and remove any obstructions
Insufficient water pump pressure	Incorrect pump selection	Choose the right pump
	Foreign matter blocks the inlet pipe filter or pump cavity	Clean the filter screen of the water inlet pipe, the bottom valve or the pump cavity to remove debris
water leakage	Mechanical seal wear	Clean or replace mechanical seal
	The pump head or joint is leaking	Find out the cause of the water leakage and contact after-sales customer service for corresponding treatment
	Medium temperature is too high	Lower the medium temperature



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