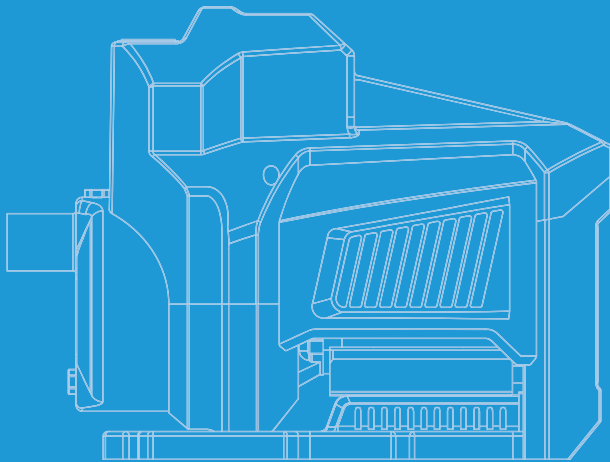




Service hotline:



## INSTRUCTIONS



**SMP** SERIES PERMANENT  
MAGNET VARIABLE FREQUENCY PUMP

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Maximum Regulating Pressure Of Water Outlet 5.5bar

Intake Suction Head Height: 8M  
Medium Temperature: 0 ~ 75 °C



PERMANENT MAGNET  
FREQUENCY CONVERSION



LOW NOISE BOOST



ENERGY SAVING AND  
ENVIRONMENTAL  
PROTECTION



MULTIPLE PROTECTION



INTELLIGENT OPERATION

PhantomSMP series multi-stage centrifugal permanent magnet variable frequency pump head is made of thickened stainless steel, which is acid and alkali resistant and corrosion-resistant, effectively preventing rust water and healthy water. When the water is stopped, the microcomputer control system will automatically detect and control the motor to slow down. Intelligent constant pressure water supply, high efficiency, energy saving and power saving, to meet the water requirements of different customers.

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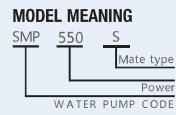
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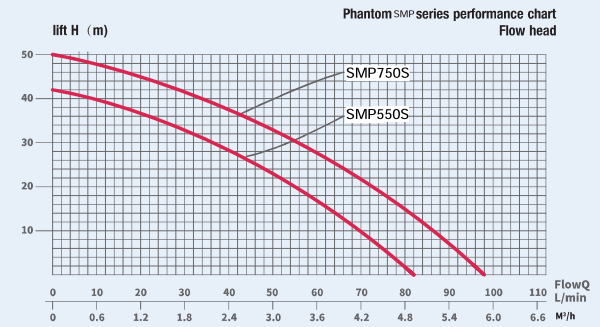
## SMP<sup>SERIES</sup> PERMANENT MAGNET VARIABLE FREQUENCY PUMP



**SMP 550S/750S**



### TECHNICAL PARAMETERS (CURVE CHART):



Model	Voltage (V)	Power (kW)	Max. Flow (m <sup>3</sup> /h)	Max. Head (m)	Rated Flow (m <sup>3</sup> /h)	Rated Head (m)	Piping (mm)	Maximum suction range (m)
SMP750S	160~260V	0.75	5.8	50	3	31	25	8
SMP550S	50/60Hz	0.55	3	42	3	24	25	8

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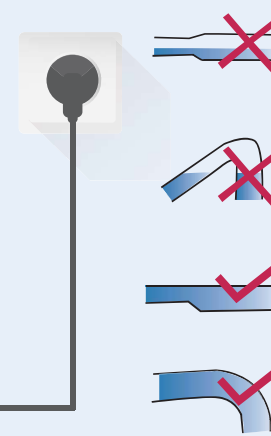
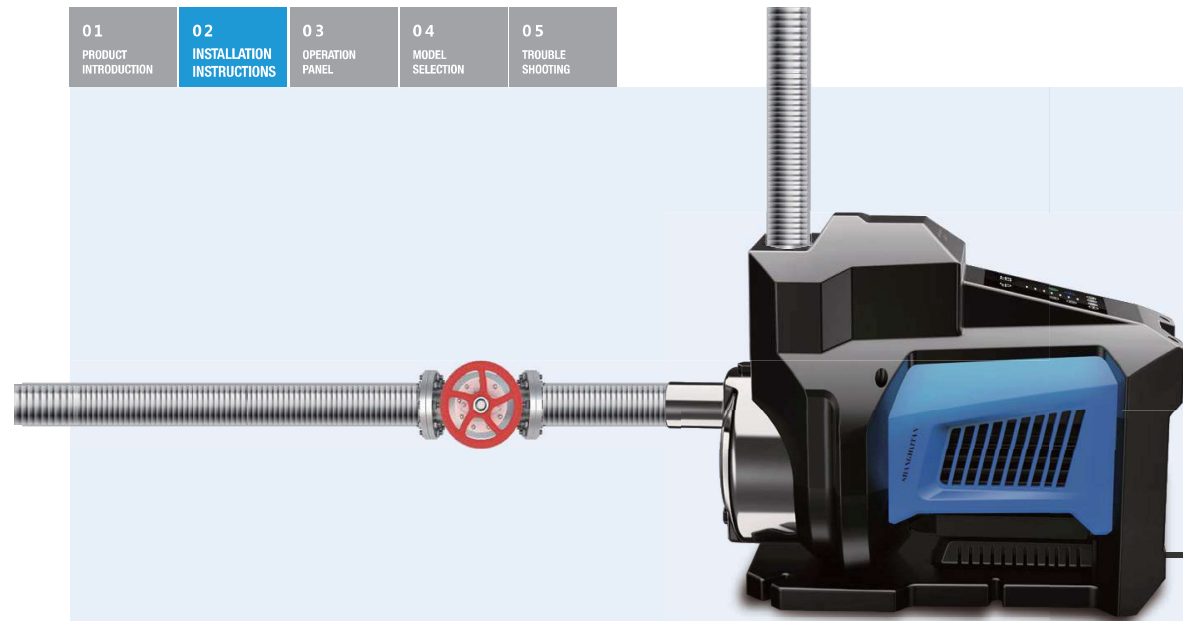
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#### PRECAUTIONS FOR INSTALLATION OF WATER INLET PIPE

1. There is no water pressure in the water inlet pipe, and water must be added for the first installation of water pump.
2. When installing the water pump, it is forbidden to use too soft rubber pipe for the water inlet pipe to avoid flattening.
3. The bottom valve shall be vertical and installed 30cm away from the bottom of the water to avoid sediment inhalation.
4. All connections of the inlet pipeline must be sealed to minimize elbows, otherwise it will not be able to be sucked up.
5. The diameter of the water inlet pipe shall be at least the same as that of the water inlet to prevent the hydraulic loss from affecting the water outlet performance.
6. When using, pay attention to the water level drop, and the bottom valve shall not be exposed to the water surface.
7. When the length of the water inlet pipe is more than 10m or the lifting height of the water inlet pipe is more than 4m, the diameter of the water inlet pipe must be greater than the diameter of the water inlet of the electric pump.
8. When installing the pipeline, make sure that the electric pump is not under the pipeline pressure.
9. In case of special circumstances, the series of water pumps are not allowed to install bottom valve, but in order to avoid solid particles entering the electric pump, the inlet pipeline must be equipped with filter.

#### PRECAUTIONS FOR WATER OUTLET PIPELINE INSTALLATION

The outlet pipe diameter shall be at least the same as the outlet diameter to minimize the pressure drop, high flow rate and noise.

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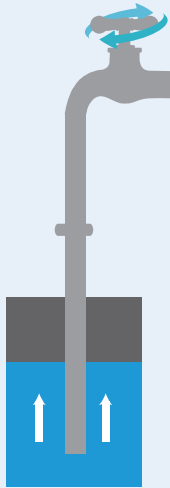
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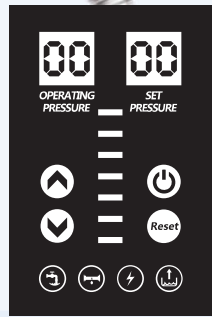
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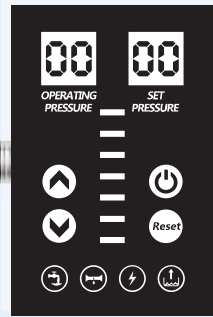


NORMAL WATER  
OUTLET WITHIN  
6 MINUTES

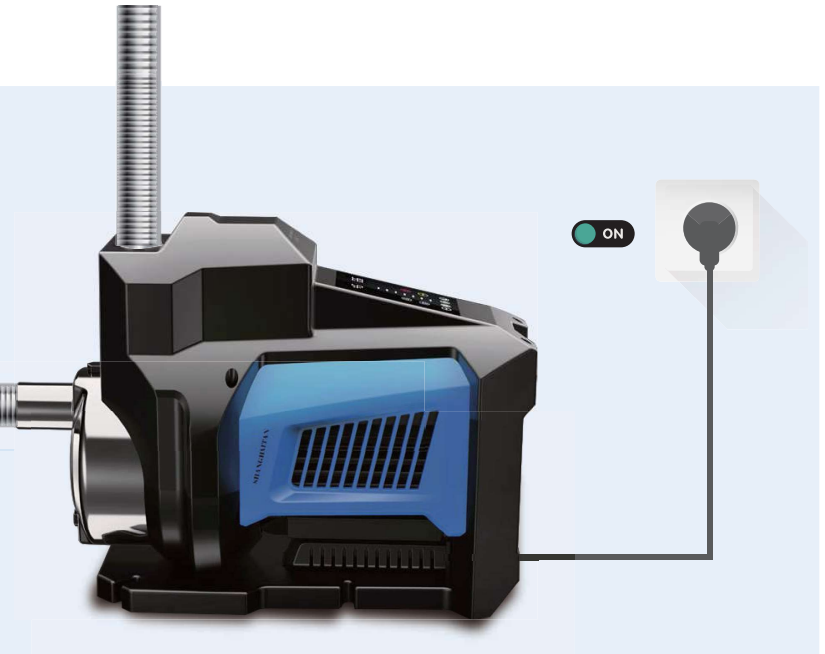
WELL



THREE SECOND DELAY  
AFTER POWER ON



PRESS AND HOLD THE  
START KEY FOR 3 SECONDS  
TO ENTER THE SPEED MODE



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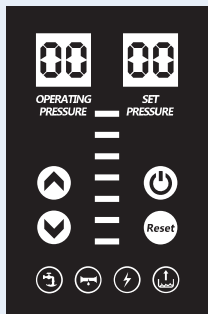
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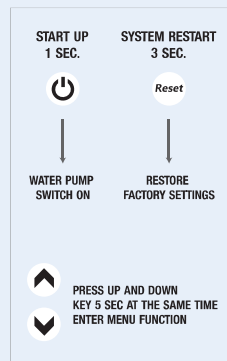
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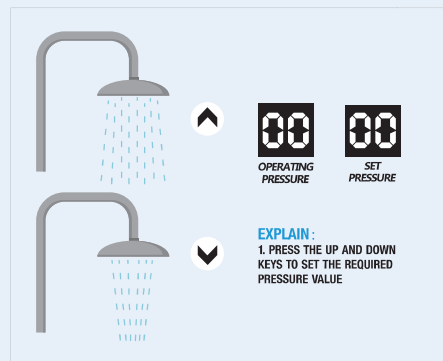
### CONTROL PANEL



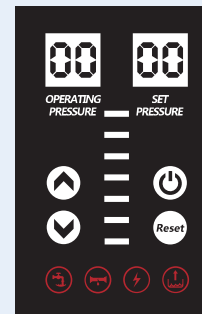
### MENU USE



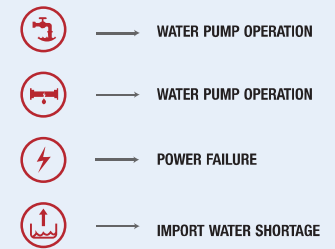
### PRESSURE SETTING



### CONTROL PANEL



### FAULT BUTTON INDICATOR



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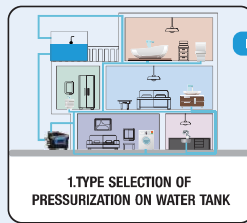
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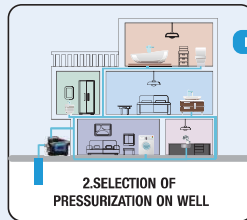
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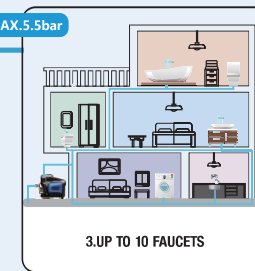
MAX. 4bar



MAX. 3bar

BAR	PSI	Water column (m)/ft)	kPa	MPa
5.5	80	55/180	550	0.55
5.0	73	50/165	500	0.50
4.5	65	45/150	450	0.45
4.0	58	40/130	400	0.40
3.5	51	35/115	350	0.35
3.0	44	30/100	300	0.30
2.5	36	25/80	250	0.25
2.0	30	20/65	200	0.20
1.5	22	15/50	150	0.15

MAX. 5.5bar



#### PUMP SELECTION FOR VILLA

FOR THE SELECTION OF THE TARGET ROOM, 7-8 FAUCETS ARE USED AS AN EXAMPLE. THE FLOW OF EACH FAUCET IS  $0.7 \text{ m}^3 / \text{H}$  -  $0.9 \text{ m}^3 / \text{H}$ , AND THE INTERNAL PRESSURE OF THE PIPELINE IS THE CUMULATIVE SUPERIMPOSED PRESSURE. THE LOSS OF THE PIPELINE MUST BE CONSIDERED. ONE ELBOW IS EQUIVALENT TO 1 METER OF PRESSURE LOSS. BEST EFFICIENCY POINT OF WATER PUMP + INTERNAL PRESSURE OF PIPELINE - ACTUAL LOSS OF PIPELINE = FINAL CUSTOMER SELECTION (FOR POSITION 7-8 FAUCETS)

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## COMMON FAULTS AND SOLUTIONS

FAULT	REASON	MEASURES			
WATER PUMP DOES NOT STOP	<ol style="list-style-type: none"> <li>1. WATER LEAKAGE OF PIPELINE</li> <li>2. CHECK VALVE STUCK</li> </ol>	<p>CHECK THE PIPELINE AND WATER EQUIPMENT FOR WATER LEAKAGE</p> <p>CHECK THE CHECK VALVE OF WATER PUMP</p>	INSUFFICIENT WATER	<ol style="list-style-type: none"> <li>1. INCORRECT TYPE SELECTION OF WATER PUMP OR TOO LOW CONSTANT PRESSURE VALUE</li> <li>2. THE WATER INLET PIPE IS TOO LONG, OR THERE ARE TOO MANY TURNS. THE DIAMETER OF THE WATER INLET PIPE IS NOT SUITABLE</li> <li>3. FOREIGN MATTER BLOCKING THE INLET PIPE, FILTER SCREEN OR PUMP CAVITY</li> </ol>	<p>SELECT APPROPRIATE WATER PUMP OR INCREASE CONSTANT PRESSURE VALUE</p> <p>SELECT THE SPECIFIED PIPE DIAMETER TO MAKE THE DESIGN OF WATER INLET PIPE SHORTER.</p> <p>CLEAN THE PIPELINE, BOTTOM VALVE OR PUMP CHAMBER, AND REMOVE SUNDRIES.</p>
WATER PUMP DOES NOT START	<ol style="list-style-type: none"> <li>1. CONSTANT PRESSURE VALUE OF WATER PUMP IS TOO LOW</li> <li>2. IMPELLER STUCK</li> <li>3. THERE IS AN OPEN CIRCUIT IN THE WINDING</li> <li>4. POOR CONTACT OR FRACTURE OF CABLE</li> <li>5. CONTROLLER DAMAGED</li> </ol>	<p>INCREASE THE CONSTANT PRESSURE OF WATER PUMP</p> <p>USE A SCREWDRIVER TO MOVE THE ROTOR SHAFT AT THE BLADE END TO MAKE IT ROTATE FLEXIBLY OR DISASSEMBLE IT</p> <p>REMOVE SUNDRIES FROM PUMP COVER</p> <p>CHECK THE MOTOR (SEND IT TO THE MAINTENANCE POINT FOR MAINTENANCE)</p> <p>CHECK THE TERMINAL OR REPLACE THE CABLE WITH A NEW ONE</p> <p>REPLACE THE WATER PUMP CONTROLLER (SENT TO THE MAINTENANCE POINT FOR MAINTENANCE)</p>	EXCESSIVE VIBRATION OF WATER PUMP	<ol style="list-style-type: none"> <li>1. THE PUMP IS NOT FIXED ON THE BASE</li> <li>2. INSUFFICIENT STABILITY OF WATER PUMP FIXING FRAME</li> <li>3. IMPELLER STUCK</li> <li>4. WRONG GROUNDING OR DAMAGED CABLE, ELECTRIC PUMP STRUCK BY LIGHTNING</li> </ol>	<p>TIGHTEN THE FOUNDATION BOLT</p> <p>IT IS INSTALLED ON THE STABLE WATER PUMP FIXING FRAME</p> <p>CLEAR THE SUNDRIES IN THE PUMP CAVITY</p> <p>FIND OUT THE CAUSE AND REPLACE THE WINDING COIL</p>
NO WATER IS DISCHARGED DURING THE OPERATION OF WATER PUMP	<ol style="list-style-type: none"> <li>1. PUMP ROTATION DIRECTION IS WRONG</li> <li>2. NO WATER ADDED FOR THE FIRST INSTALLATION</li> <li>3. IMPELLER DAMAGED</li> <li>4. WATER LEVEL TOO LOW</li> <li>5. PUMP BODY CHECK VALVE STUCK</li> <li>6. AIR LEAKAGE OF WATER INLET PIPE</li> <li>7. BOTTOM VALVE NOT OPEN OR BLOCKED</li> </ol>	<p>CHECK THE ROTATION DIRECTION OF THE MOTOR, AND CORRECT IF IT IS WRONG</p> <p>FILL THE PUMP WITH WATER</p> <p>REPLACE IMPELLER (SEND TO MAINTENANCE POINT FOR MAINTENANCE)</p> <p>ADJUST THE INSTALLATION HEIGHT OF WATER PUMP</p> <p>DISASSEMBLE THE SENSING DEVICE ON THE PUMP BODY AND CHECK WHETHER THE CHECK VALVE IS STUCK</p> <p>CHECK THAT THE LINES ARE INSTALLED CORRECTLY</p> <p>CHECK THE FLEXIBILITY OF BOTTOM VALVE AND REMOVE OBSTRUCTION</p>	WATER PUMP LEAKS	<ol style="list-style-type: none"> <li>1. WEAR OF MECHANICAL SEAL</li> <li>2. PUMP HEAD OR CONNECTOR LEAKING</li> </ol>	<p>CLEAN OR REPLACE MECHANICAL SEAL</p> <p>FIND OUT THE CAUSE OF WATER LEAKAGE AND DEAL WITH IT ACCORDINGLY</p>
			THE NOISE OF WATER PUMP IS TOO LOUD	<ol style="list-style-type: none"> <li>1. BEARING DAMAGE</li> <li>2. IMPELLER CARD</li> <li>3. WATER INLET PIPE LESS THAN 1 INCH</li> <li>4. MEDIUM TEMPERATURE TOO HIGH</li> </ol>	<p>REPLACE BEARINGS OF THE SAME MODEL</p> <p>CLEAN UP SUNDRIES</p> <p>ADJUST THE SIZE OF WATER INLET PIPE</p> <p>REDUCE MEDIUM TEMPERATURE</p>



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## WATER PUMP MAINTENANCE



### (1) MAINTENANCE IN OPERATION

1. The inlet pipe must be full of liquid, and it is forbidden to operate the pump in the state of cavitation.
  2. Regularly check the motor current value, which shall not exceed the rated current of the motor.
  3. After long-term operation of the pump, due to mechanical wear, the noise and vibration of the unit may increase, leakage may occur, and the performance may decline. At this time, the pump shall be shut down for inspection.
- If necessary, vulnerable parts (such as bearings, mechanical seals, impellers, etc.) can be replaced. The overhaul period of the unit is generally one year.

### (2) MECHANICAL SEAL MAINTENANCE

1. The mechanical unsealing lubrication shall be clean and free of fixed particles.
2. It is forbidden to work under dry grinding.
3. Before starting, turn the pump (motor) for several circles to prevent the graphite ring from breaking and damage due to sudden starting.
4. The seal leakage tolerance is 3 drops / min, otherwise, it shall be repaired.
5. When repairing and assembling the mechanical seal, avoid contacting with oil substances, and use soapy water, detergent, etc. to lubricate and reduce resistance.

## PRODUCT AFTER SALES WARRANTY CERTIFICATE

User name : \_\_\_\_\_ User phone : \_\_\_\_\_

User address : \_\_\_\_\_ Date of purchase : \_\_\_\_\_

Name of unit sold : \_\_\_\_\_ Phone number of : \_\_\_\_\_  
the company sold

Address of selling unit : \_\_\_\_\_

Customer service hotline: