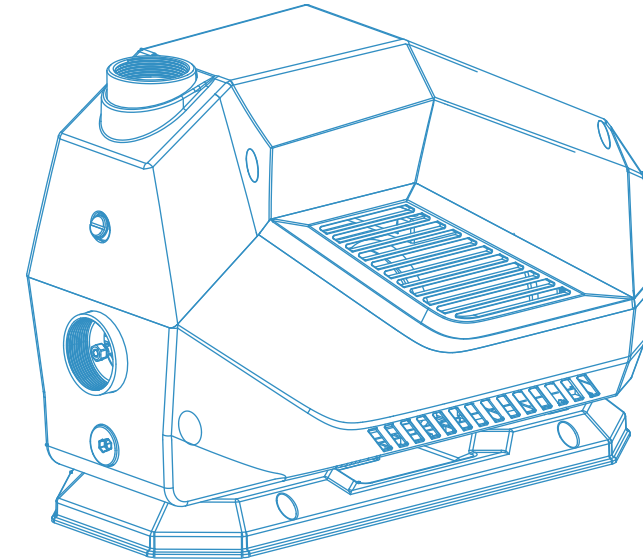


**BB SERIES PERMANENT
MAGNET VARIABLE FREQUENCY PUMP**



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BB SERIES PERMANENT MAGNET VARIABLE FREQUENCY PUMP

BB SERIES COMMERCIAL PERMANENT MAGNET FREQUENCY CONVERSION PUMP

Beautiful constant pressure Innovation changes the world

Environmental protection leads the future

Create national brand

Build science and technology pump

It's been us

Unchanging mission



PERMANENT MAGNET
FREQUENCY CONVERSION



LOW NOISE BOOST



ENERGY SAVING AND
ENVIRONMENTAL
PROTECTION



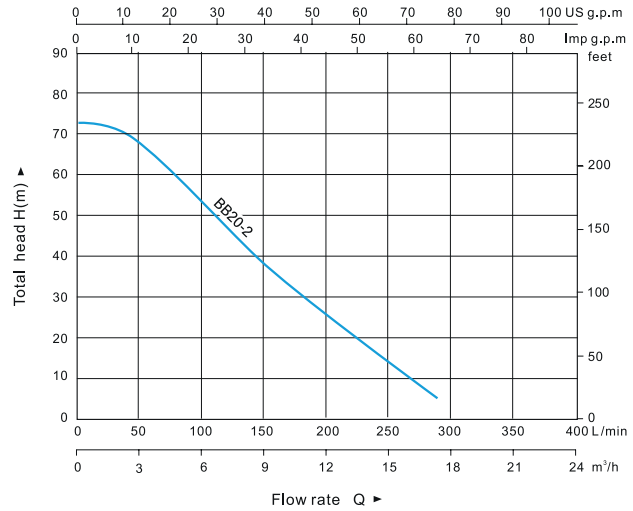
MULTIPLE PROTECTION



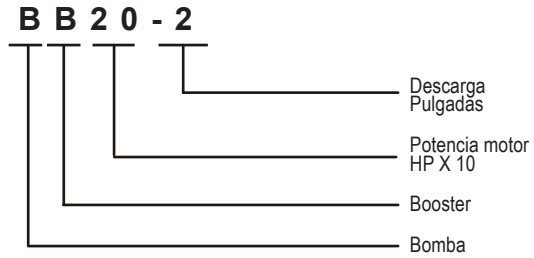
MULTI-PUMP LINKAGE

BB series commercial permanent magnet frequency conversion pump, belongs to the multistage centrifugal pump, fluid using all stainless steel structure, with 8m self-suction function, can, to extract water tank, well water, pipe booster, and can pump together, adaptive identification between pump and pump, no complex, trivial setting, suitable for various advanced clubs, bars, hotels and other large public places, luxury villas, apartment buildings, auxiliary solve public places and home water supply problem, perfect control function, easy operation, high reliability, high quality.

TECHNICAL PARAMETERS (CURVE CHART):

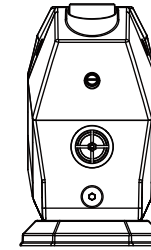
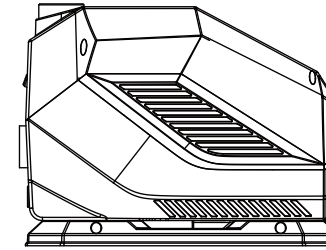


Model meaning



Modelo	Potencia (hp)	Altura Máx. (m)	Caudal Máx. (lpm)	Altura Nom. (m)	Caudal Nom. (lpm)	Conexión	Voltaje
BB20-2	2	73	283	32	167	2" x 2"	220V Monofásica

PRODUCT SIZE



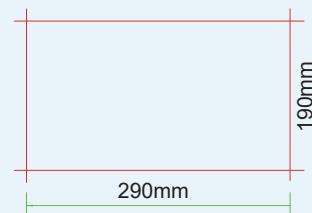
PRODUCT SIZE





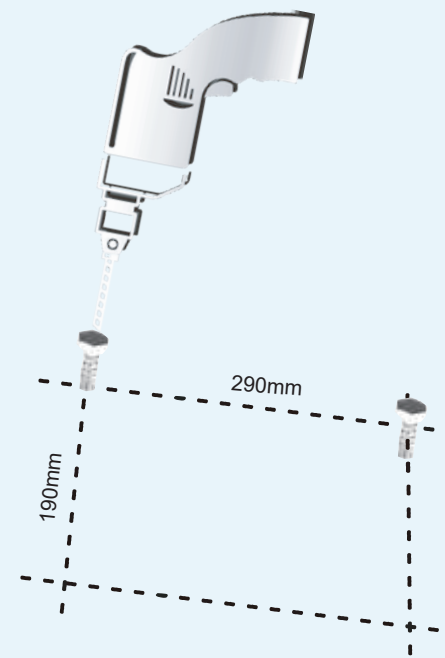
Fixed installation considerations

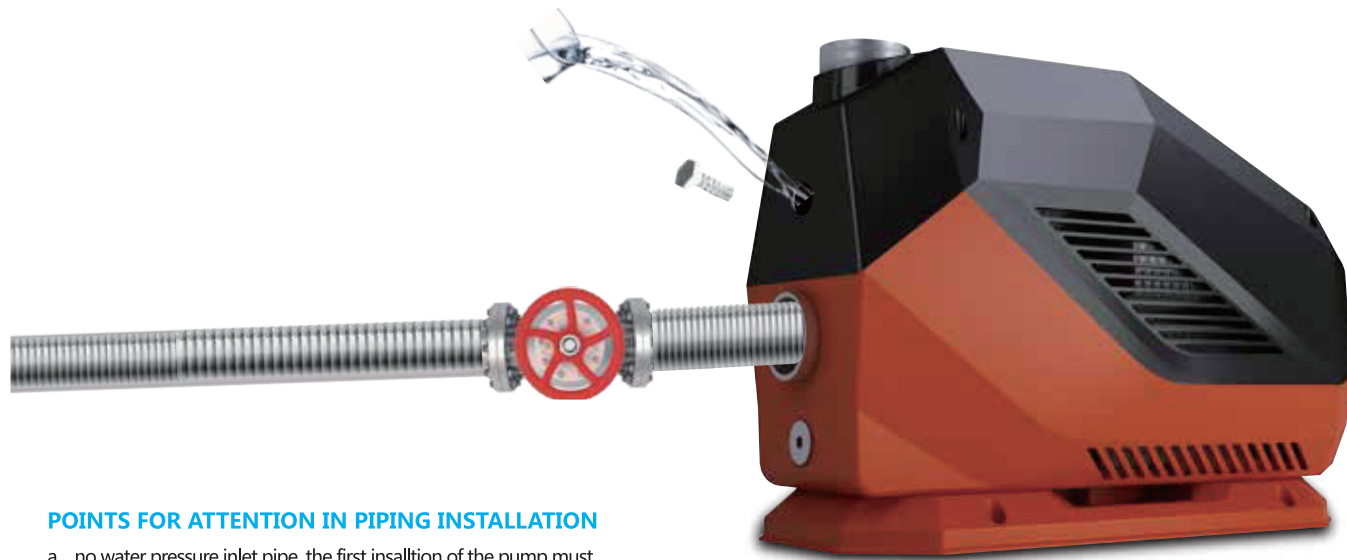
- a. When installing, apply a wrench to the screw to confirm whether it is fixed or not
- b. The base plate is provided with a screw clamp at a certain distance, and the pump group is confirmed to be qualified in the case of leveling, in the case of fastening anchor bolt, tightening torque and bolt axial tensile stress in accordance with the standard or requirements.



Fixed installation considerations

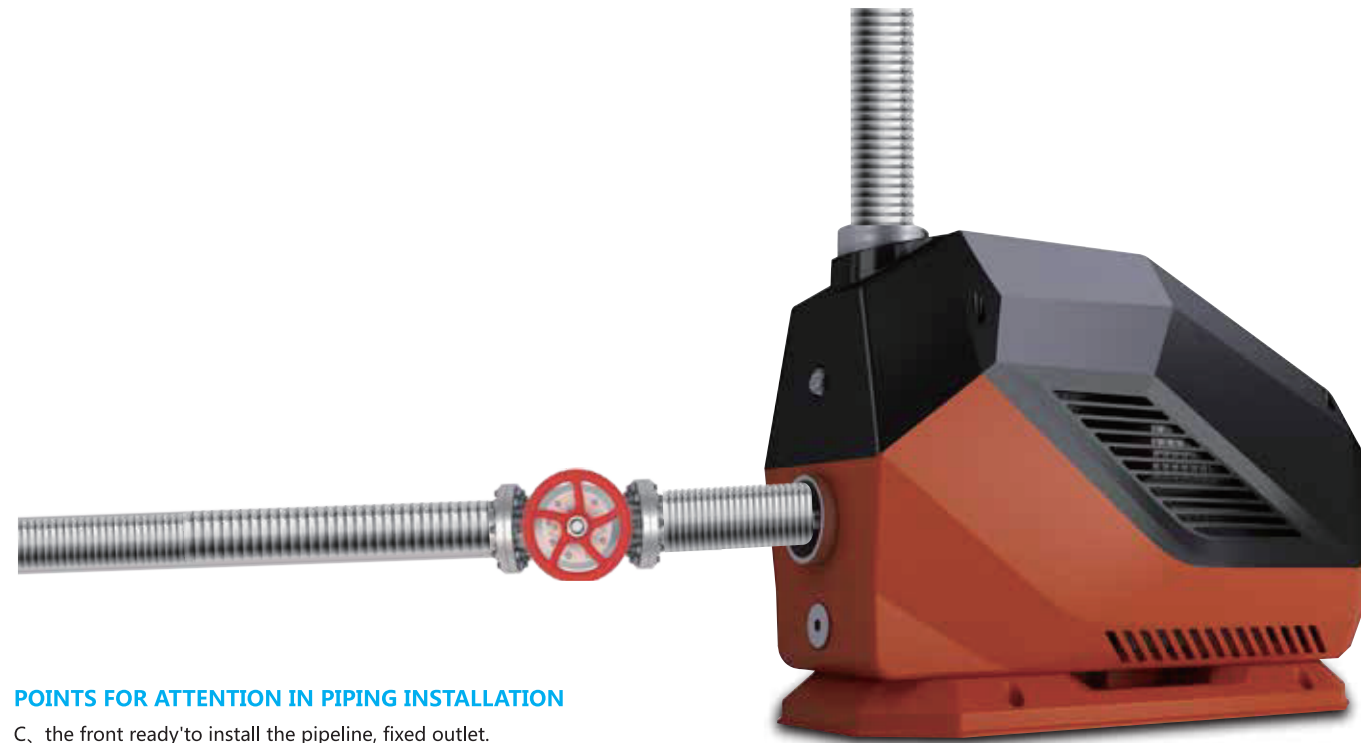
- a. Fasten with screws when installing
- b. The base plate is provided with a screw clamp at a certain distance, and the pump group is confirmed to be qualified in the case of leveling, in the case of fastening anchor bolt, tightening torque and bolt axial tensile stress in accordance with the standard or requirements.





POINTS FOR ATTENTION IN PIPING INSTALLATION

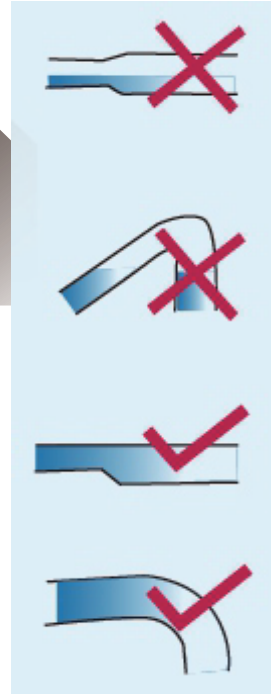
- a. no water pressure inlet pipe, the first installation of the pump must add water, water before the first screw-off, and then inject a certain amount of water.
- b. the installation of water pump, the water inlet line is prohibited to use too soft rubber pipe to avoid sucking flat.



POINTS FOR ATTENTION IN PIPING INSTALLATION

- C. the front ready to install the pipeline, fixed outlet.

01 PRODUCT DESCRIPTION	02 INSTALLATION METHOD	03 OPERATION PANEL	04 USE TYPE SELECTION	05 FAULT AND HANDLING	06 POST MAINTENANCE
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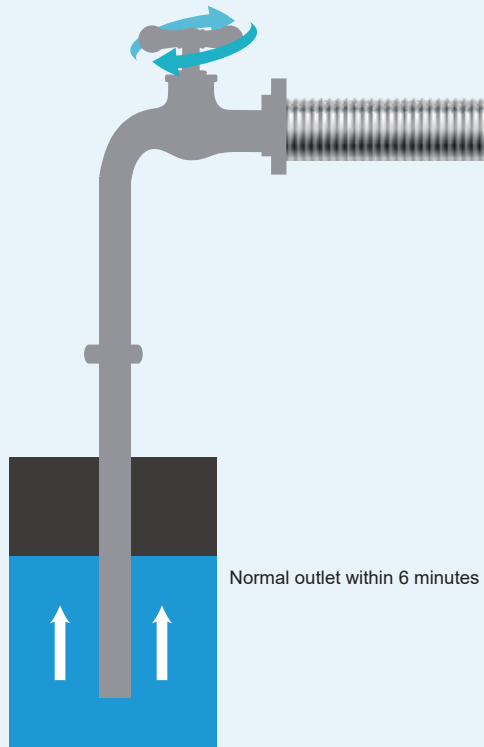


PRECAUTIONS FOR INSTALLATION OF WATER INLET PIPE

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.

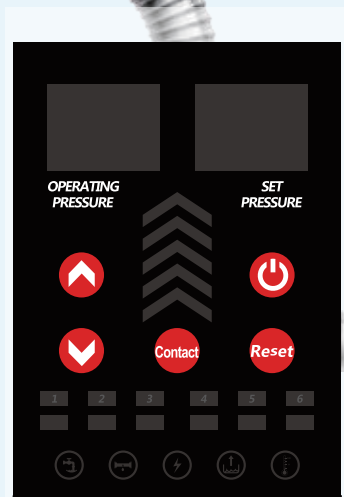
PRECAUTIONS FOR WATER OUTLET PIPELINE INSTALLATION

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

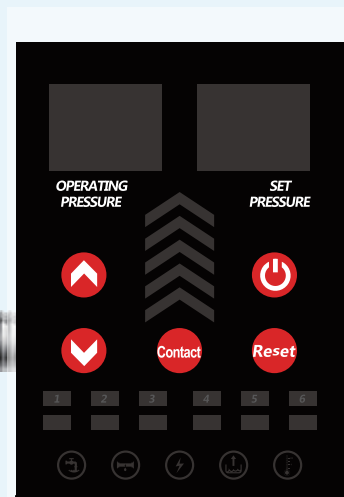


Normal outlet within 6 minutes

Well water



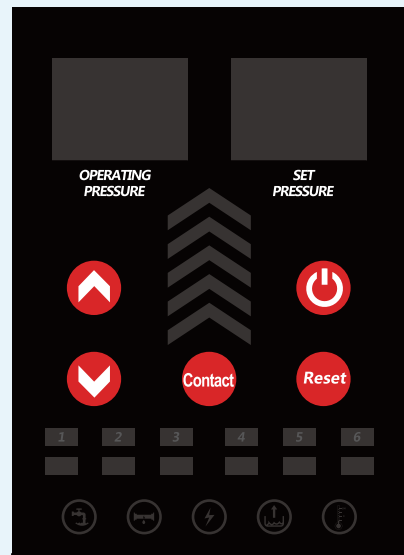
Delay of three seconds after electrification



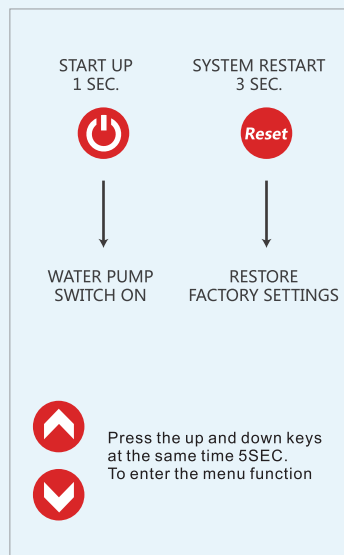
Press the start button for 3 seconds to enter speed mode



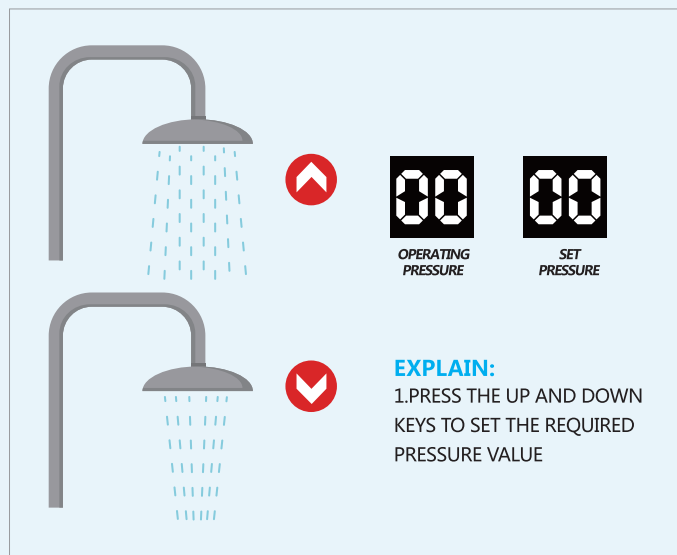
CONTROL PANEL



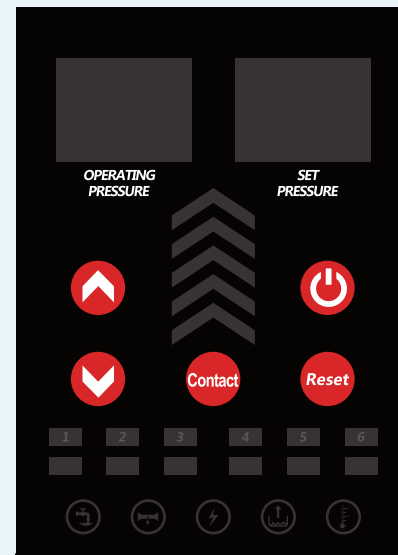
MENU USE



PRESSURE SETTING



CONTROL PANEL



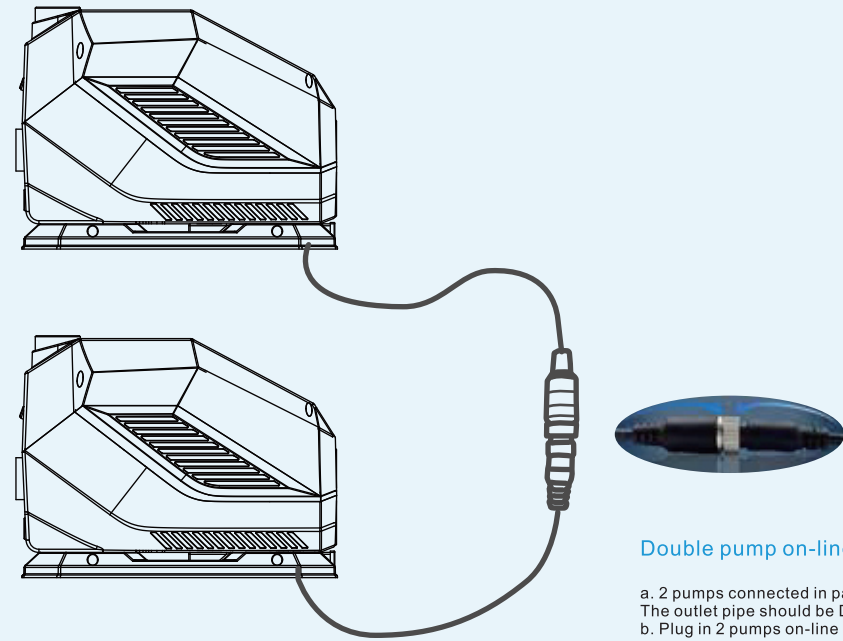
FAULT BUTTON INDICATOR

- [Water Pump Icon] → WATER PUMP OPERATION
- [Water Level Icon] → WATER PUMP OPERATION
- [Lightning Bolt Icon] → POWER FAILURE
- [Water Drop Icon] → IMPORT WATER SHORTAGE
- [Thermometer Icon] → THE TEMPERATURE IS OFF THE CHARTS

**CSBP
SERIES PERMANENT
MAGNET VARIABLE
FREQUENCY PUMP**



**Dual pump online
Operation Instructions**



Double pump on-line Operation

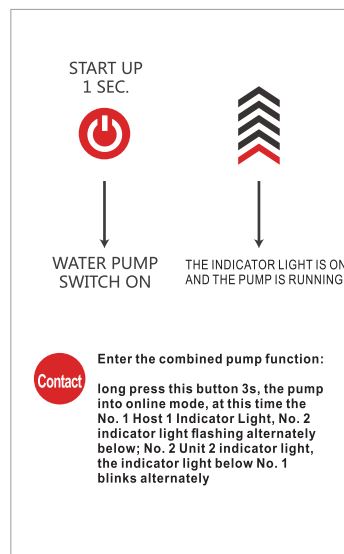
- a. 2 pumps connected in parallel into the water inlet and outlet pipe, water inlet pipe to DN65. The outlet pipe should be DN50 or above.
- b. Plug in 2 pumps on-line terminals with data lines and lock them tightly.

CONTROL PANEL



Combined Pump No. 1 host status

MENU USE



CONTROL PANEL



Combined Pump No. 2 status

CONTROL PANEL



Out of the joint pump state

Instructions for use



Off-line function:

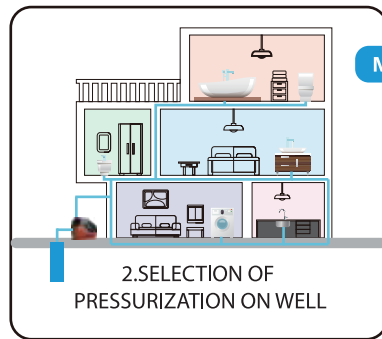
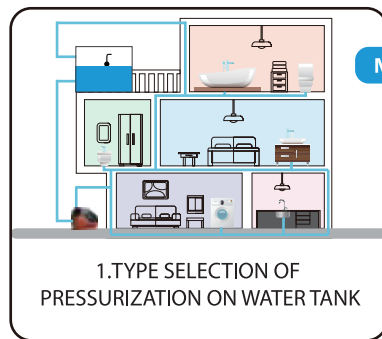
Long Press the host panel this button 3S, 1 host and 2 machine red indicator stop flashing, represents the off-line mode.

Operating mode description:

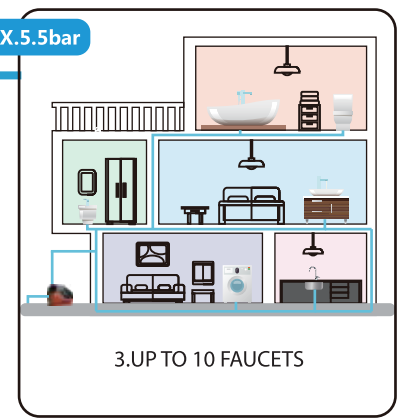
- A. When the operating pressure of the host machine is lower than the set pressure 0.2 bar, Unit 2 starts automatically and adjusts the pressure to the set pressure value automatically.
- B. When the faucet is completely closed, the pump stops running; when the faucet is re-opened, Unit 2 starts, and when Unit 2's operating pressure is below the set pressure of 0.2 bar, the main engine starts automatically.
- C. two pumps are used alternately and have the same service life. When one pump fails, it will automatically withdraw from the online function.

Adjust the set pressure of the combined pump:

- A. Adjust No. 1 host set pressure size, No. 2 unit pressure adjustment button is invalid



BAR	PSI	Water colum [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



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 0.7m³/H-0.9 m³/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)

COMMON FAULTS AND SOLUTIONS

FAULT	REASON	MEASURES
WATER PUMP DOES NOT STOP	<ol style="list-style-type: none"> 1. WATER LEAKAGE OF PIPELINE 2. CHECK VALVE STUCK 	<p>CHECK THE PIPELINE AND WATER EQUIPMENT FOR WATER LEAKAGE</p> <p>CHECK THE CHECK VALVE OF WATER PUMP</p>
WATER PUMP DOES NOT START	<ol style="list-style-type: none"> 1. CONSTANT PRESSURE VALUE OF WATER PUMP IS TOO LOW 2. IMPELLER STUCK 3. THERE IS AN OPEN CIRCUIT IN THE WINDING 4. POOR CONTACT OR FRACTURE OF CABLE 5. CONTROLLER DAMAGED 	<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>
NO WATER IS DISCHARGED DURING THE OPERATION OF WATER PUMP	<ol style="list-style-type: none"> 1. PUMP ROTATION DIRECTION IS WRONG 2. NO WATER ADDED FOR THE FIRST INSTALLATION 3. IMPELLER DAMAGED 4. WATER LEVEL TOO LOW 5. PUMP BODY CHECK VALVE STUCK 6. AIR LEAKAGE OF WATER INLET PIPE 7. BOTTOM VALVE NOT OPEN OR BLOCKED 	<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>

INSUFFICIENT WATER PUMP PRESSURE	<ol style="list-style-type: none"> 1. INCORRECT TYPE SELECTION OF WATER PUMP OR TOO LOW CONSTANT PRESSURE VALUE 2. THE WATER INLET PIPE IS TOO LONG, OR THERE ARE TOO MANY TURNS. THE DIAMETER OF THE WATER INLET PIPE IS NOT SUITABLE 3. FOREIGN MATTER BLOCKING THE INLET PIPE, FILTER SCREEN OR PUMP CAVITY 	<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>
EXCESSIVE VIBRATION OF WATER PUMP	<ol style="list-style-type: none"> 1. THE PUMP IS NOT FIXED ON THE BASE 2. INSUFFICIENT STABILITY OF WATER PUMP FIXING FRAME 3. IMPELLER STUCK 4. WRONG GROUNDING OR DAMAGED CABLE, ELECTRIC PUMP STRUCK BY LIGHTNING 	<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>
WATER PUMP LEAKS	<ol style="list-style-type: none"> 1. WEAR OF MECHANICAL SEAL 2. PUMP HEAD OR CONNECTOR LEAKING 	<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"> 1. BEARING DAMAGE 2. IMPELLER CARD 3. WATER INLET PIPE LESS THAN 1 INCH 4. MEDIUM TEMPERATURE TOO HIGH 	<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.

