

Kenya

Tanzania

South Sudan

Uganda

East Congo

Flagship showroom at the Sarit Centre Nairobi



60L, 80L, 100L, 120L HEATPUMP MANUAL



MODEL

➡ A-O60CSL

➡ A-O100CSL

➡ A-O80CSL

➡ A-O120CSL

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Thank you very much for purchasing our product, please keep this installation manual carefully and read this manual carefully before you install heat pump.

NOTES

Dear customers,

Thank you for selecting our products!

The manual is aim to let you learn more installation, operation and maintenance of heat pump and provides some important safe information for you. It' s quite required to carefully read the whole contents shown in this manual before you install and use heat pump, and please keep this installation manual carefully for purpose of future reference.

CONTENT

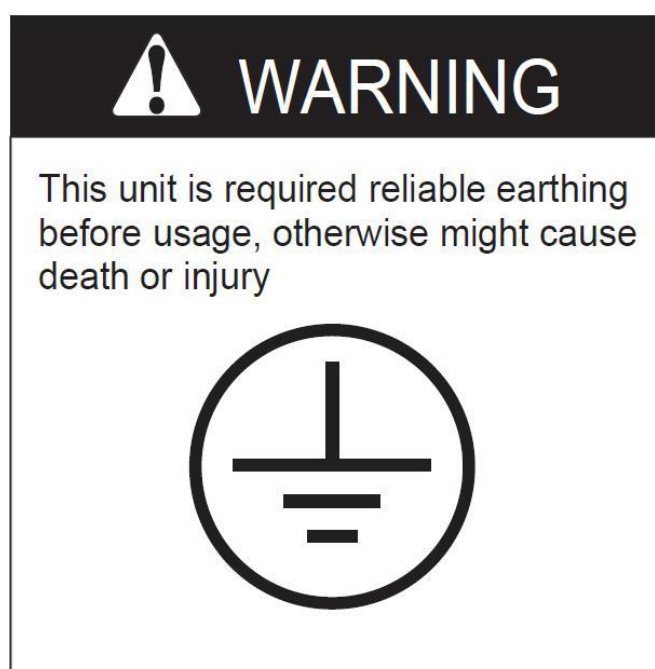
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Safety Precautions

Please make sure you have read at least one chapter of safety precautions shown in the manual. This part provides quite important safe points for you and please operate it based on safety precautions.

Warning

1. Household electric must have a reliable ground connection;



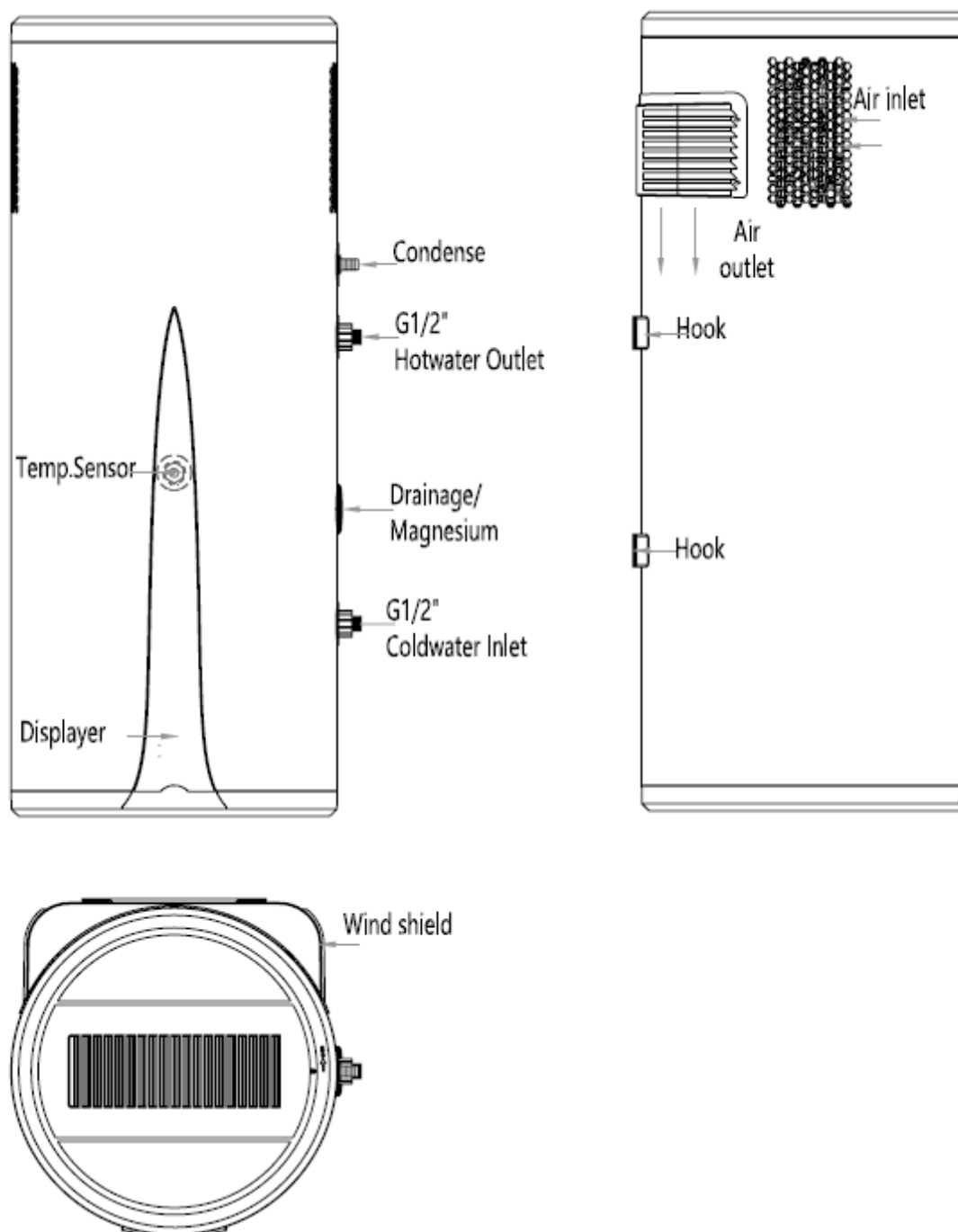
2. Household electric must install leakage protection device;
3. Do not dismantle any permanent instruction, label or parameter plate attached in the outside cover or all kinds of internal plate of heat pump;
4. Please entrust dealer or professional personnel to install the device; Installer must have professional knowledge, any improper operation by yourself may cause a fire, electric shock, injured or leakage etc.;
5. Purchased from the local market must select specified product by our company;
6. Please obey the local regulations issued by electric company to connect power supply;
7. When needed remove or re-install heat pump, please entrust dealer or professional personnel to operate it;

8. Any self-transformation or repair is forbidden, improper repair may cause a fire, electric shock, injured or leakage etc., must entrust dealer or professional personnel to repair it;
9. Earthing pole of outlet must be reliable to connect, and rated current value should be not less than 10A, outlet and power plug must keep dry to prevent leakage, and make sure outlet and power plug are well matched.
10. Place or wall which the water source may spatter into, the installation height of power plug is not less than 1.8m and make water source and power plug keep a certain distance, meanwhile make sure children are out of touch;
11. One way valve specified by our company must be installed near to cold water inlet;

	The content of this warning sign, related to product safety and user personal safety, must be operated strictly in accordance with the content of this warning requirements
	Any content of this warning sign must be prohibited, otherwise it will cause damage to the machine or endanger the personal safety of the user
  Must use a power supply with a ground wire and ensure the water heater is effectively grounded	 Do not connect the ground wire and neutral wire of the power supply together, and do not connect the ground wire to a gas pipeline or water pipe or lightning rod or telephone wire
 Please do not install the water heater at the place where it cannot drain	 Do not insert your hand or fingers or any other objects into the wind grill to avoid injury and damage to the water heater
 This water heater is equipped with a safety valve. For safety, the installation position of the safety valve must not be changed, and the pressure relief port of the safety valve must not be blocked	 The water heater install indoor
 When you just open the hot water valve, please do not directly flow the hot water to the human body to avoid being scalded by the hot water	 Children's bathing needs to be done under the guidance of an adult

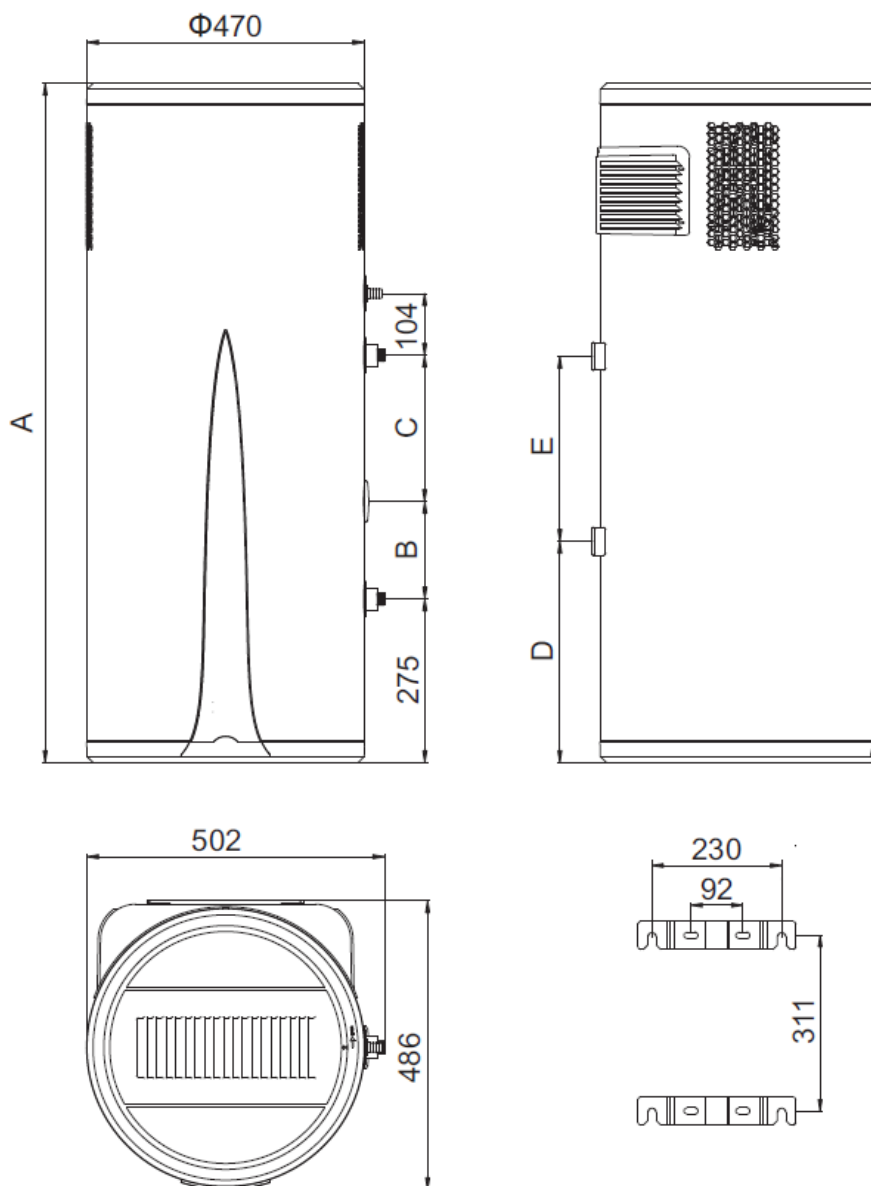
General Information

1、Schematic



Installation of Heat Pump

1、Products External Dimension: (unit: mm)



Model \ Dim	A	B	C	D	E
YT-060GV	977	120	125	243	270
YT-080GV	1142	164	246	372	311
YT-100GV	1282	164	608	383	673
YT-120GV	1400	164	608	383	673

* The size deviation range is $\pm 5\text{mm}$.

2、 Choice the installation site for the water heater

- 1) The water heater should be installed indoors, where the ambient temperature is above 0°C, and the pipelines should be centrally arranged. The hot water outlet should not be too far away from the hot water use point. The hot water pipeline should be insulated to reduce heat loss.
- 2) When install the water heater, It must leave a certain space (at least 300mm on the right side) to ensure normal air intake and facilitate future maintenance. If the water heater is embedded in the gusset during installation, the right-side gusset should be movable to facilitate the removal the plastic cover during maintenance.
- 3)The wall which the water heater is hung should be sturdy and reliable, capable of withstanding 4 times the weight of the water heater after being filled with water. If it is not a load-bearing wall or a hollow brick wall, corresponding protection measures must be taken, brackets shall be installed, wall screws shall be used, and the back plate shall be installed.
- 4)It can ensure reasonable air distribution, no obstacles will affect the air flow in and out, and not to be affected by external air.
- 5) Please choice the position where the noise of heat pump operation does not affect the normal life of users
- 6) There is no strong electromagnetic field interference nearby, so as not to affect the control performance.
- 7) There is no sulfur gas at the installation place, The place has no combustibile air to leak; The place has no mineral oil.
- 8) It is necessary to ensure that the water pipes of water heaters used in areas below 0°C will not freeze.
- 9)The installation location of the water heater should be easy to use, maintain and have a floor drain. When the water heater or water pipe leaks, it will not cause damage to nearby or underlying facilities.
Try to avoid installing them on toilets, bathtubs, washbasins, and the upper part of the door frame, so as not to make users feel depressed or unsafe.

3、 Installation Precautions

The installation must be performed by installers with local installation qualifications.

- 1) The power socket of the water heater should be placed in a dry place out of water, so as not to affect the normal operation of the unit (it is better to be equipped with a waterproof box for the power socket).
- 2) Use a tester to measure whether the live wire and the neutral wire are connected reversely.

- 3) After confirming that the unit has been filled with water, there is no water leakage in the joints, and the power supply meets the requirements, then the water heater can be power on.
- 4) The water heater must use a dedicated power line.
- 5) When installing the water heater, Please install a leakage circuit breaker.
- 6) The ground wire and neutral wire of the power supply must be strictly separated. It is wrong to connect the neutral wire and the ground wire together.
- 7) The strong wires are arranged separately from the wire control wires and the temperature sensor connection wires.
- 8) If the power cable is damaged, in order to avoid danger, it must be replaced by the professional personnel.
- 9) The installation shall be carried out by the personnel who have obtained the electrical qualifications according to the wiring rules stipulated by the local national standards. In places and walls where water may splash, the installation height of the switch should not be lower than 1.8 meters, and ensure that water does not splash on the switch.
- 10) The live wire, neutral wire, and ground wire of the home power socket must be connected correctly and reliably without internal short circuit. Incorrect connection may cause fire.

4、 Water heater installation

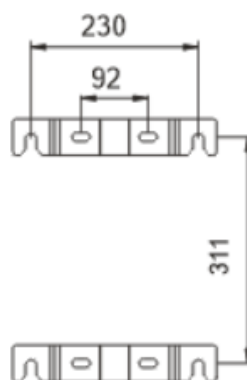
The water heater is installed on the wall.

installation steps:

- 1) Choose a strong and firm wall refer to part 2, Determine the installation location of the water heater, drill four $\phi 12\text{mm}$, 65mm deep holes on the wall with an impact drill according to the size shown in Figure 1, pull out the connection terminal on the back of the water heater, and insert the connection terminal ring into the four Insert the expansion bolt into the corresponding wall hole through the hole of the wall hanging plate and fix it. Then lift the water heater, and the hook on the back of the water heater is hung on the wall plate.
- 2) The safety valve equipped with accessories should be installed at the water inlet position according to the installation diagram, and the direction should be accurate;
- 3) When the unit is running, condensate water will be discharged. Please fix the condensate pipe at the condensate outlet and connect it to the floor drain;
- 4) After installation, screw on the drain pipe of the safety valve, pay attention to sealing with seal material to prevent water leakage.
- 5) When installing the elbow, please add the gasket to the live joint of the elbow.

6) In order to facilitate the installation and disassembly of the water heater, it is recommended to install G1/2 unions in the suitable positions of the inlet and outlet pipes of the water heater. Determine the location of the water supply, and connect the inlet and outlet water pipes and the tap water pipes to the water source respectively. Fill the inner tank with water to check whether the waterway is leaking. If there is a leak, reconnect it.

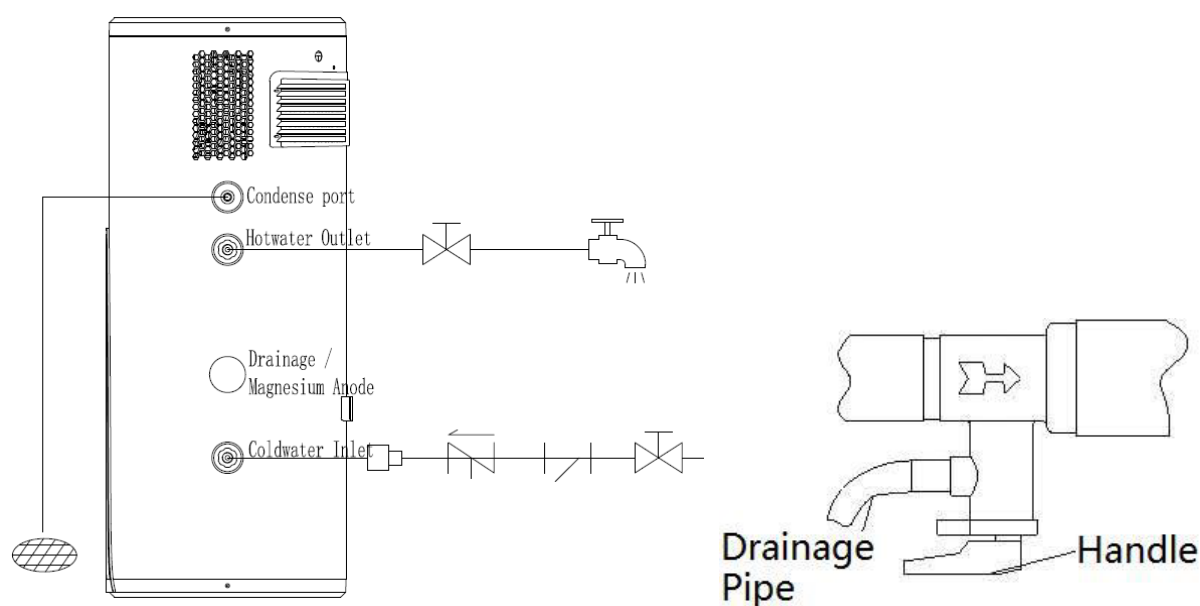
⚠️ Note: Make sure that the water heater wall mount is reliably hung on the hook before letting go to prevent the water heater from falling, causing personal injury or property damage.)



(Figure 1)

5. Water pipeline installation

- 1) Determine the installation location for the water heater and use PPR pipes to install the pipeline according to the external dimension drawing and user requirements. Install the safety valve and other accessories according to the figure below. Pay attention to sealing with seal material to prevent water leakage.
- 2) In order to facilitate the installation and maintain of the water heater, it is recommended that the water heater inlet and outlet pipes add the live connections. And install the Shut-off Valve at the cold water inlet pipeline for maintain use.
- 3) Do not connect the inlet and outlet pipes in reverse. The safety valve should be installed at the designated location and cannot be modified. The following figure is only a schematic diagram for the pipeline installation, which can be installed according to the actual situation of the user.
- 4) The inlet pressure of tap water should be 0.1~0.4MPa. If it is lower than 0.1MPa, please add a booster pump at the water inlet; if it is higher than 0.4MPa, please install a pressure reducing valve at the water inlet.
- 5) Before filling the water tank for the first time, Please make sure that the water tank cold water inlet, water tank hot water outlet, and the faucet at the farthest end are opened, and stop filling after the faucet drains continuously for 10 seconds.



6) Install the safety valve (its connector is G1/2) to the water inlet pipe in the direction of the arrow on the safety valve in the photo (the arrow points to the direction of the water flow). When the water is heated by water heater, the water in the water tank expands due to heat, and a small amount of water will flow out from the pressure relief hole of the safety valve to reduce the water pressure in the tank, which is a normal phenomenon. The drainage pipe one end connect to the safety valve and the other end of the drainage pipe to the mouth of the sewer, so as not to splash the room when the pressure is released.

NOTE

- After installation, must sure that the drainage pipe which connect with the relief valve is not blocked.
- The relief valve need to be pulled one time every six months for purpose of taking calcium carbonate out and ensuring no obstacle, outlet temperature of drainage port may be high, please be careful;
- Drainage pipe must be taken measures to keep temperature to prevent pipe from freezing to cause accident.

Danger

- Do not hold down the handle of safety valve;



- Do not knock down safety valve;
 - Do not plug the drainage port;
 - Excretion pipe must be connected with a open drainage port.
-

Explosion Danger

System Check and Trial run

Please user check the follow items when the water heater test operation according to the instruction manual, tick ✓ in ☐

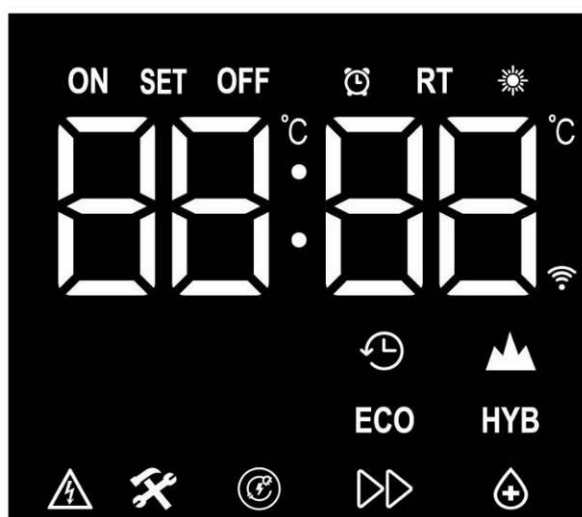
- ☐ Is the electrical wire securely fixed?
- ☐ Is the drain pipe arranged correctly?
- ☐ Is the grounding wire connected securely?
- ☐ Does the power supply voltage comply with electrical regulations?
- ☐ Is the control panel display normal?
- ☐ Is there any abnormal noise?
- ☐ Is the pressure relief valve (TP valve) or pressure relief check valve already installed with the water tank?
- ☐ If the hot and cold water pipe materials (such as PPR, etc.) meet the requirements for hot and cold water use?
- ☐ If the water tank filled with water after the water heater system installation finished, and if there with water out from the hot water pipe outlet?
- ☐ After filling the water to the pipeline of the water heater system, check the entire water pipeline to make sure no leakage?
- ☐ After the water heater system is filled with water, is there with some water flowing out from the automatic safety relief valve when you manually relieve the pressure?

- After the water heater system is filled with water and make sure no leakage, if all the outdoor water pipes insulated?
- Is the water tank drain valve, drain pipe and pressure relief valve drain pipe connected to the sewer and can drain smoothly?
- If the water tank is installed outdoors, have the water tank drain pipes and pressure relief valve drain pipes been insulated?

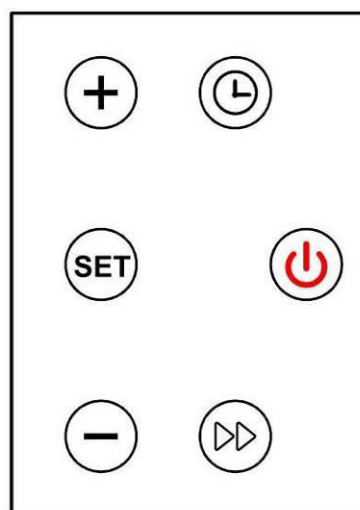
If you make sure all the above item is good, then you can use your heat pump water heater normally. If not, please let your plumber check the problem and right install it refer to the manual or local electrical regulations or other locally regulations.

Instruction of Operation

Display panel



Operation buttons



1. Display description

- When power on, the buzzer will sound once, and all the symbol will display 3 seconds, then it will work normally.

- When power off, the now clock is displayed.
- When power on, Display the follow symbol: The working mode (default **ECO** "power saving"), The actual and set water temperature, and  ("no electric washing") status, and the default set temperature is 65°C.

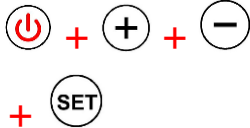
2. Display symbol description

symbol	status	Description
	bright	heat pump is on
	off	Heat pump is off
	flash	heat pump is on and at defrosting
	bright	In reserved work mode, default time 12:00-21:00
	bright	In night power work mode, default time 22:00-07:00;
ECO	bright	In ECO mode(only heat pump heating)
HYB	bright	In Hybrid mode (heatpump+E.heater)
	bright	Force electric heater working state. E-heater will stop when the water temp. reaches the setpoint, Enabled once only.
	bright	Disinfection mode: electric heater is working, it will stop when the water temp. reaches 80°C, Enabled once only.
	bright	No power mode: when the water outlet flow reaches 0.8L/Min, the city power cut off compulsively. (Optional)
	bright	There is an error and needs to be repaired. Otherwise, icon is off.
	bright	the unit has electric leakage, Stop all the strong electricity output
	Flash	the unit has electric leakage, Stop all the strong electricity output, and buzzer alarm
	Off	the unit no electric leakage, it can work normally
ON	Flash	In setting the start time for modes
ON	bright	the start time for modes is enabled
OFF	Flash	In setting the end time for modes
OFF	bright	the end time for modes is enabled
	Flash	In setting the clock time
	bright	Show current clock time
SET	Flash	in the state of setting parameters
SET	bright	Indicate the current actual set point of water temp.
RT	bright	Indicate the current actual water temperature.
88 88	bright	Display actual water temperature、 set water temperature、 Error code
°C	bright	The unit of temp. is Celsius in displayer
	Flash	in WIFI pairing state

	bright	Indicates that the current WIFI is connected (optional)
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3. Controller Instruction

Name	Symbol	Description
turn on/off		1. Press 1 second to turn on/off 2. In the check state, click it to return to main interface 3. In the setting state, click it to return to main interface
up		1. In the main interface, click to set temperature 2. In on/off state, Press 3 seconds to enter check state 3. Select options or increase values
down		1. In the main interface, click to set temperature 2. In on/off state, Press 3 seconds to enter check state 3. Select options or decrease values
Timed work		1. In the main interface, click it to change modes: Normal mode,  reserved work mode,  Night work mode, Default : Normal mode(when  &  off) 2. In the main interface, Press 3 seconds to enter state
SET		1. In the main interface, click to chose mode between "ECO" (heat pump only)、"HYB" (heat pump & E-heater) hybrid mode 2. Default: ECO mode 3. Click it to confirm after adjust/setting 4. In the main interface, Press 3 seconds to enter the inner parameter interface
Quick heat		1. In the main interface, click it to change mode between "quick heat ", "disinfection ", Default: None 2. In the main interface, Press 3 seconds to turn on/off the function:(Power off during washing ; Default: this function is on)
Combined	 + 	1. Press 3 seconds to turn on/off the defrost compel.
	 + 	1. Press 3 seconds to enter the WIFI setting state, the  flash. (Optional)

		When heat pump off(but have power on),press these 4 keys together"⏻"+"^"+"∨"+"SET" for more than 5 seconds, to restore factory parameter setting.
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4、Controller operation description

1) Turn on/off

When the controller is powered on for the first time, it is in the off state, and when it is powered on thereafter, it is the same as the state before the last power off.

Under the normal display state of the controller, press and hold the "⏻" key for more than 1 second to switch the heat pump to the on or off state. In the power-on state, the controller normally displays for control; in the off-state, the current actual time is displayed and the controller stops controlling the output. The controller can display and operate normally in both the on state and the off state.

2) set the water temperature

Press and immediately release the "^" key or "∨" key to enter the water temperature setting state, start to display the setting symbol "SET" and display the corresponding water temperature setting value according to the current heating mode. In the water temperature setting state, press the "^" key or "∨" key to adjust up or down and display the water temperature set value; press the "∨" key or "∨" key for more than 1 second to quickly adjust up or down and display the water temperature set value; Press and immediately release the "⏻" key or if there is no key operation within 5 seconds, it will exit the modification and return to the normal display state. When the parameter value is modified, it will flash for 10 seconds and then return to the normal display state.

3) The real-time clock setting

In the main interface, long press the "⌚" button for 3 seconds to enter the real-time clock setting interface; in the real-time clock interface, press the "set" button, the number of the hour part flashes, at this time press "∨" key or "∨" key, you can Set the hour of the real-time clock; when the hour part is set, press the "set" button again, and the number of the minute part will flash. Press "∨" key or "∨" key at this time to set the minute of the real-time clock; After the minute part is set, press the "Set" button again to confirm the real-time clock setting and return to the main interface;

In the real-time clock setting interface, if there is no key operation for 10 seconds, confirm the current real-time clock setting value and return to the main interface;

In the real-time clock setting interface, press the "⏻" key to confirm the current real-time clock setting value and return to the main interface.

4) Timed work mode setting

Press the "⊕" button in the main interface to switch between "Normal", "Timed work" , and "night power"  three working modes. When the corresponding mode is enabled, it will enter the timing period setting. Press and immediately release the "set" button to switch in turn the hour part and minute part of the "start" time, the hour part and the minute part of the "end" time, flash when switched to the corresponding value, press "^" or "v" to adjust up or down and flash the corresponding value. After setting the time, press and release the "⏻" key immediately or without any key operation within 10 seconds, the modification can be saved and the normal display state can be returned.

When the heat pump is power on, it only heats during the set working period, and does not heat the rest of the time. When the start time and end time of a certain working period are the same, the timing period is deemed to be canceled. When all time periods are canceled, it is deemed to be in working hours throughout the day. If the start time of a certain working period is greater than the end time, the end time is considered to be the next day.

 Timed work mode: Default 12:00(start) to 21:00(end)

 Night power work mode: Default 22:00(start) to 07:00(end)

Normal mode: Default 08:00(start) to 20:00(end)

5) Working mode setting

Under the normal display state of the controller, press the "SET" key to switch between **ECO** ("power saving") and **HYB** ("dual energy") modes. Both **ECO** and **HYB** modes are limited by the operating time, that is, when the "normal", Timed work  or "night power"  are activated, the heat pump only can run within the setting working hours

6) Quick heat : (optional)

When the controller displays normally and is power on (not restricted by the "Timed work" or "night power" working hours), if the current water temperature is lower than the set value to meet the temperature conditions for continuing heating, no other "electric heating" is not allowed working alarm, press the "quick heat" button once to start the secondary electric heating. The corresponding "" symbol is bright; when the water temperature is heated to the set temperature, the secondary electric heating will be automatically stopped, the symbol will disappear, and only be heated once without cycling.

7) Antibacterial

The controller displays normally and is in the power-on state (not restricted by the "timed work" or "night power" working hours), if the current water temperature is lower than 80 degrees and there is no other alarm that does not allow "electric heating" to work, the first level of electric heating can be started by pressing the "quick heat" key 2 times. The corresponding  symbol is bright; when the water temperature is heated to 80 degrees, the electric heating will be automatically stopped, the symbol will disappear, and it will only be heated once without cycling.

8) Forced defrost

In the normal display state of the controller, when the heat pump is in the power-on state (if timed work model is enabled, it needs to be in the working period), if the current is heating mode and the defrosting time is not zero and the temperature conditions for continuing defrosting are met, There is no other alarm that does not allow "defrost", press and hold the "SET" + "" keys at the same time for more than 3 seconds to start or close the "defrost" function; when defrost is running, "" flashes.

9) No Electric Wash:(optional)

In the normal display state of the controller, when it detects that the water inlet flow is greater than 0.8L/Min, it will automatically cut off the strong current, and there is no need to switch off the unit or take plug out to power off the unit.

Long press the "quick heat" button for 3 seconds to enable/disable the "No Electric Washing" function; when the unit is powered on again or turned on and off, the "No Electric Washing" function is automatically activated.

When the "No Electric Wash" function is enabled, the characters "" are displayed.

When canceling the "No Electric Washing" function, the "" character disappears.

10) Check running status

When the main interface is display during power on or off, press and hold the "" or "" key for more than 3 seconds to enter the running status check interface; press and immediately release the "" or "" key to check each running status; Press and immediately release the "" button or there is no button operation within 10 seconds, it will automatically return to the normal display state.

Under the status check, press the "SET" + "" key to view the version information r10 of the wire controller, the main board V1.0 will be displayed after 3 seconds, and the data display will return after 3 seconds.

running status

symbol	Status name	Data and description
01	compressor	0 = stop; 1 = run
02	Electrical heater L	0 = stop; 1 = run
03	Electrical heater N (more quick heater: Optional)	0 = stop; 1 = run
04	Electronic expansion valve opening	Measured value
05	Coil temperature	Measured value
06	Ambient temperature	Measured value
07	Compressor absorb air temperature	Measured value
08	Compressor Exhaust air temperature	Measured value
09	Water tank temperature	Measured value
10	Reserved	Measured value
11	Fan 1	0 = stop; 1 = run
12	Fan 2	0 = stop; 1 = run
13	Fan 3	0 = stop; 1 = run
14	Defrost	0 = No; 1 = Yes

11) Reset

Within 5 minutes after heat pump power-on and turn off condition, press and hold the "⏻" + "⤴" + "⤵" + "SET" key for more than 5 seconds to restore the factory settings

Care and Maintenance



Turn off the unit and cut off the electrical power before maintenance operations.

1. When cleaning the shell of the water heater, use a damp cloth dipped in a small amount of neutral detergent to wipe gently, do not use gasoline or other liquid. Finally, wipe it with a dry cloth to keep the water heater dry. Be careful not to scrub with abrasives (such as toothpaste), acids, chemical solvents (such as alcohol) or polishing agents.
2. During the use of the water heater, the safety valve should be checked once a month. The method is: pull the small handle of the safety valve on the side of the water inlet pipe (be careful not to hurt your hands). If water flows out, the safety valve will work normally. If the water not flows out, please contact the local after-sales service person. If it is damaged, please replace it

with a safety valve of the same specification.

3. If you need to stop the water heater for a long time, please follow this step:

Close the tap water valve, Open the hot water valve of the water heater to the maximum, screw one end of the drain pipe to the relief valve of the safety valve, and open the handle of the safety valve, drain the water in the tank to prevent the tank from freezing in winter.

4. When using again, in order to avoid injury accidents, it is recommended to open the hot water valve before turning on the power switch of the water heater to exhaust the air that may exist in the pipe. At this time, no smoking or smoking near the opened valve. There are other open flames, and at the same time, carefully check whether all parts of the water heater are in good condition, and confirm that the tank is full of water before putting it into use.

5. In order to keep the water heater working efficiently, it is recommended to clean the inner tank once a year. When cleaning, do not damage the protective layer on the outside of the heating tube and the surface of the inner tank. To protect the safety of users, this operation must be performed by professional maintenance personnel authorized by the water heater manufacturer.

Trouble Shooting

1. Safety valve flow out water phenomenon

The tap water pressure is too high, and the water tank pressure is too high after the water heater is heated, and the safety valve automatically releases the pressure. However, if there is frequent water flow out, it may be that the tap water pressure is too high or the safety valve is problem. Please contact professional maintenance person.

2. The water heater does not start

- 1) The water heater have not power on.
- 2) If the water heater is turned on immediately after it turn off. The water heater cannot be operated for about 3 minutes. The compressor has a self-protection function and cannot be started within 3 minutes.

3. Water temperature rise slowly

- 1) The ambient temperature is low. Because if the ambient temperature is low, the heat absorption capacity of the air source heat pump water heater will decrease, and the water temperature will rise slowly. This is a normal phenomenon, but if the user does not use hot

water, the heating time (you need make sure the setting for the unit is continue working) exceeds 12 hours and the set value is not reached. please call the after-sales service in time
2) The user continuously uses hot water during the heating process.

4. Cold wind

When the heat pump water heater is working, the water heater will blow out cold air, which is normal.

5. Automatic defrost function

Automatic defrost when the water heater is frosted.

6. Unit operating environment temperature conditions

The working environment temperature of this water heater is $-7^{\circ}\text{C}\sim 43^{\circ}\text{C}$. If it exceeds this range, it will automatically switch the electric auxiliary heating function

7. Antifreeze function

Even if the water heater is turned off, the water heater will automatically heat up for antifreeze protection operation if the temperature meet the antifreeze condition.

Fault and Protection handling

1. Leakage Protection

In the normal display state of the controller, when a strong current leakage is detected, the strong current power supply will be cut off immediately. At the same time, the "" symbol flashes and the buzzer beeps 3 long alarms; at this time, press any key to cancel the sound. The "" symbol is always on and no longer flashes.

2. Error protection

When a new Error occurs in the unit, the "" symbol is flash, the Error code and water temperature are displayed in the temperature display area in turn, and the buzzer alarms intermittently for 1 second; at this time, press any button to cancel the sound. The fault code exits after the error disappears.

1) high exhaust temperature failure Protection

After the compressor starts running for 1 minute, when the exhaust gas temperature is detected to

be higher than or equal to the exhaust high temperature protection value by 110°C for 10 consecutive seconds, an high exhaust temperature alarm occurs and the compressor stops. At this time, controller shows high temperature fault alarm code "E02". When the exhaust temperature drops back to 90°C, the alarm is released and the normal temperature control function is restored.

If high temperature fault protection appears 3 times within half an hour, the controller will lock the protection. And the compressor will be locked in the shutdown protection state. At this time, only the shutdown and restarting can unlock the compressor.

2) low ambient temperature protection

When the ambient temperature is $\leq 7^{\circ}\text{C}$, the compressor is prohibited from running. When the ambient temperature is $\geq 9^{\circ}\text{C}$, normal operation is resumed, This protection has no fault display.

3) Antifreeze protection (water cycle model):

When the controller is powered on, when the ambient temperature too low, it will enter the antifreeze mode to prevent the circulation line or the water tank from freezing.

When the ambient temperature is $\leq 2^{\circ}\text{C}$, and the water tank temperature is $\leq 5^{\circ}\text{C}$, heat pump enters the anti-freeze protection, Heat pump automatically turned on for heating.

When the ambient temperature $\geq 4^{\circ}\text{C}$ or the tank temperature $\geq 10^{\circ}\text{C}$, heat pump stops heating and exits the anti-freeze protection

4) Temperature sensor failure:

Heat pump will stop once the water tank temperature sensor faulty.

When absorb or exhaust or evaporator coil or ambient temperature sensor is faulty, electric heater is allowed to operate.

When water tank temperature sensor faulty, electric heating operation is not allowed.

5) Other fault:

"09E" is displayed when the communication between the main control board and the wire controller is abnormal or the data line is not connected normally. "---:---" is displayed when the valid clock cannot be obtained. And the communication indicator of the main control board flashes. The buzzer sounds when an alarm occurs. Press any key to silence the alarm.

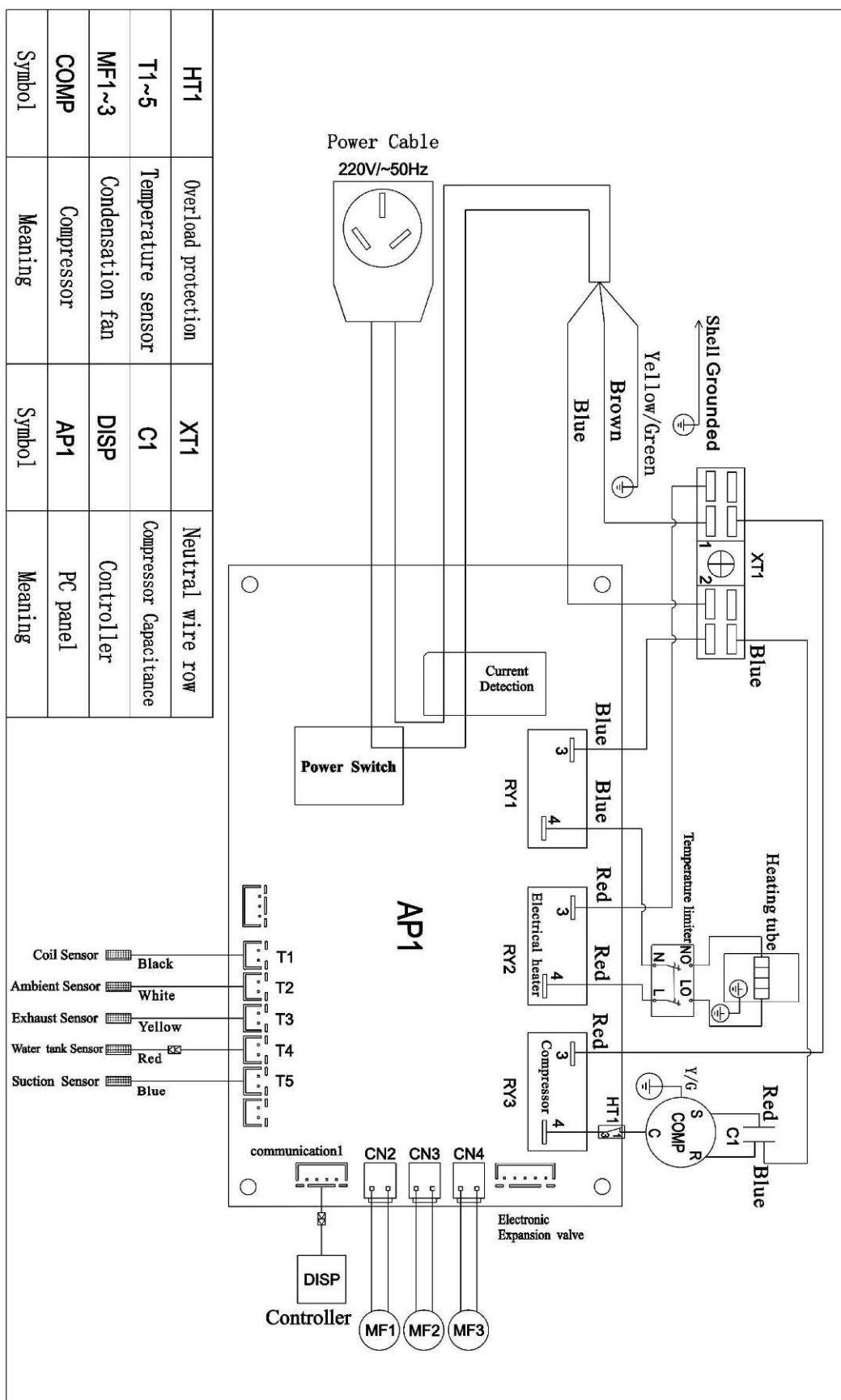
6) The fault code table is as follows:

Error code	Fault name	Action conditions	Cancel condition
E02	exhaust temperature too high	exhaust temperature $\geq 110^{\circ}\text{C}$	exhaust temperature $\leq 90^{\circ}\text{C}$
E09	Communication failure	The communication is abnormal or the data wire is not properly connected	Automatic recovery after troubleshooting
E11	evaporator coil temperature sensor failure	When the sensor is short or disconnected	Automatic recovery after troubleshooting
E12	ambient temperature sensor failure	When the sensor is short or disconnected	Automatic recovery after troubleshooting
E13	exhaust temperature sensor failure	When the sensor is short or disconnected	Automatic recovery after troubleshooting
E15	Water tank temperature sensor failure	When the sensor is short or disconnected	Automatic recovery after troubleshooting
E17	absorb temperature sensor failure	When the sensor is short or disconnected	Automatic recovery after troubleshooting

Specification

Model No.	A -060CSL	A -080CSL	A -100CSL	A -120CSL
Power Supply	220 ~ 240V/1/50Hz			
Heating Capacity at Air 20°C/15°C, Water Temperature from 15°C to 55°C				
Heating Capacity	600W	600W	600W	600W
Power Input	169W	169W	169W	169W
Rated Current	0.8A	0.8A	0.8A	0.8A
COP	3.55	3.55	3.55	3.55
Hot Water Production	12L/h	12L/h	12L/h	12L/h
Refrigerant	R134a / 280g	R134a / 280g	R134a / 280g	R134a / 280g
Electric Heating Element	2000W	2000W	2000W	2000W
Max Power Input	2500W	2500W	2500W	2500W
Max Current	11.4A	11.4A	11.4A	11.4A
Water Tank Volume	60L	80L	100L	120L
Compressor Type	Rotary			
Heat exchanger	Microchannel / Wrap Around Tank			
Air Flow Direction	Horizontal			
Max Water Tank Pressure	0.8MPa	0.8MPa	0.8MPa	0.8MPa
IP Class	IPX4	IPX4	IPX4	IPX4
Max refrigerant running pressure	3.0MPa	3.0MPa	3.0MPa	3.0MPa
Working temperature range	-7 ~ 43°C	-7 ~ 43°C	-7 ~ 43°C	-7 ~ 43°C
Net Dimension	φ470*977mm	φ470*1142mm	φ470*1282mm	φ470*1400mm
Package Dimension	565*585*1010mm	565*585*1180mm	565*585*1320mm	565*585*1440mm
Net Weight	39Kg	42Kg	45Kg	48Kg
Gross Weight	43Kg	46Kg	58Kg	62Kg
Noise	38dB	38dB	38dB	38dB
Installation	Wall Mounted	Wall Mounted	Wall Mounted	Wall Mounted
Water connection mm	G1/2	G1/2	G1/2	G1/2

Electrical Wiring Diagram



After-Sale Service

If your hot water heater can not operate normally, please turn off the unit and cut off the power supply at once, then contact with our service center or technical department.



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