



Monoblock DC Inverter Series

Installation Manual



CGK030V2



CGK050V2、CGK-050V2
CGK060V2、CGK-060V2

Air to Water Heat Pump

Heating+Cooling+DHW

Refrigerant: R410A

PC board code:

LCD code:

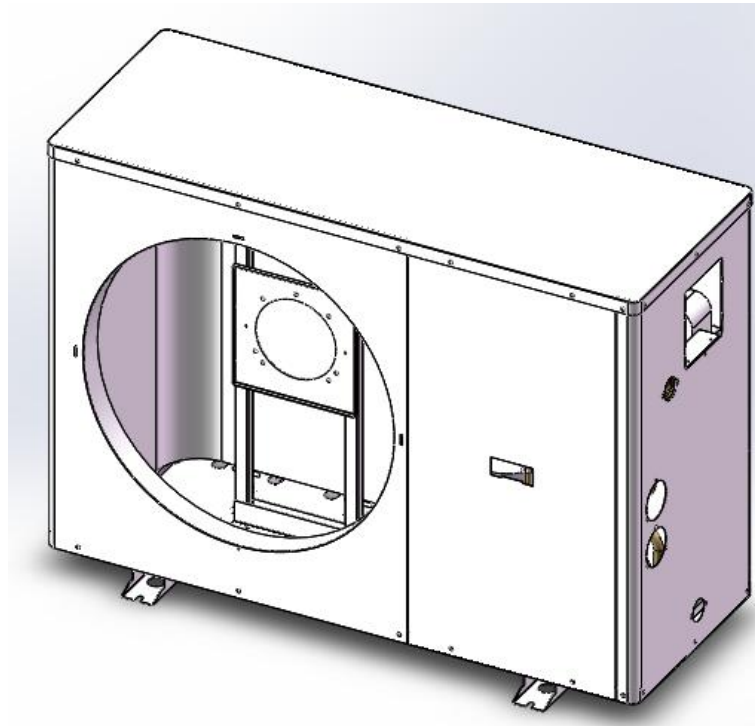
Safety precaution



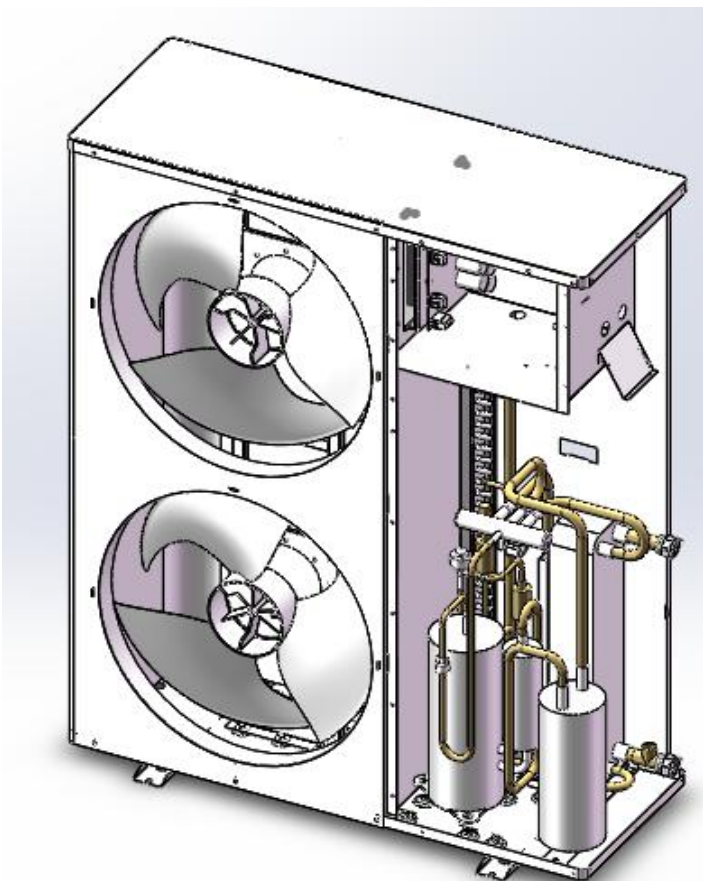
- a. To avoid electrical shock, make sure to disconnect power supply 1 minute or more before operating the electrical part. Even after 1 minute, always measure the voltage at the terminals of main circuit capacitors or electrical parts and, before touching, make sure that those voltages are lower than the safety voltage.
- b. Power supply wire line size must be selected according to this manual. And must be grounded.
- c. Don't put in hands or stick to air outlet grill when fan motor are working.
- d. Don't use wet hand touch wire lines, and don't pull any wire lines of the unit.
- e. Water or any other kind liquid is forbidden to poured into the unit.
- f. Select correct air breaker and leakage protection switch.
- g. Don't touch the fin of source side heat exchanger, it may hurt your finger.
- h. If any wire line is loose or damaged, suggest let qualified person to fix it.

To know the product from exterior

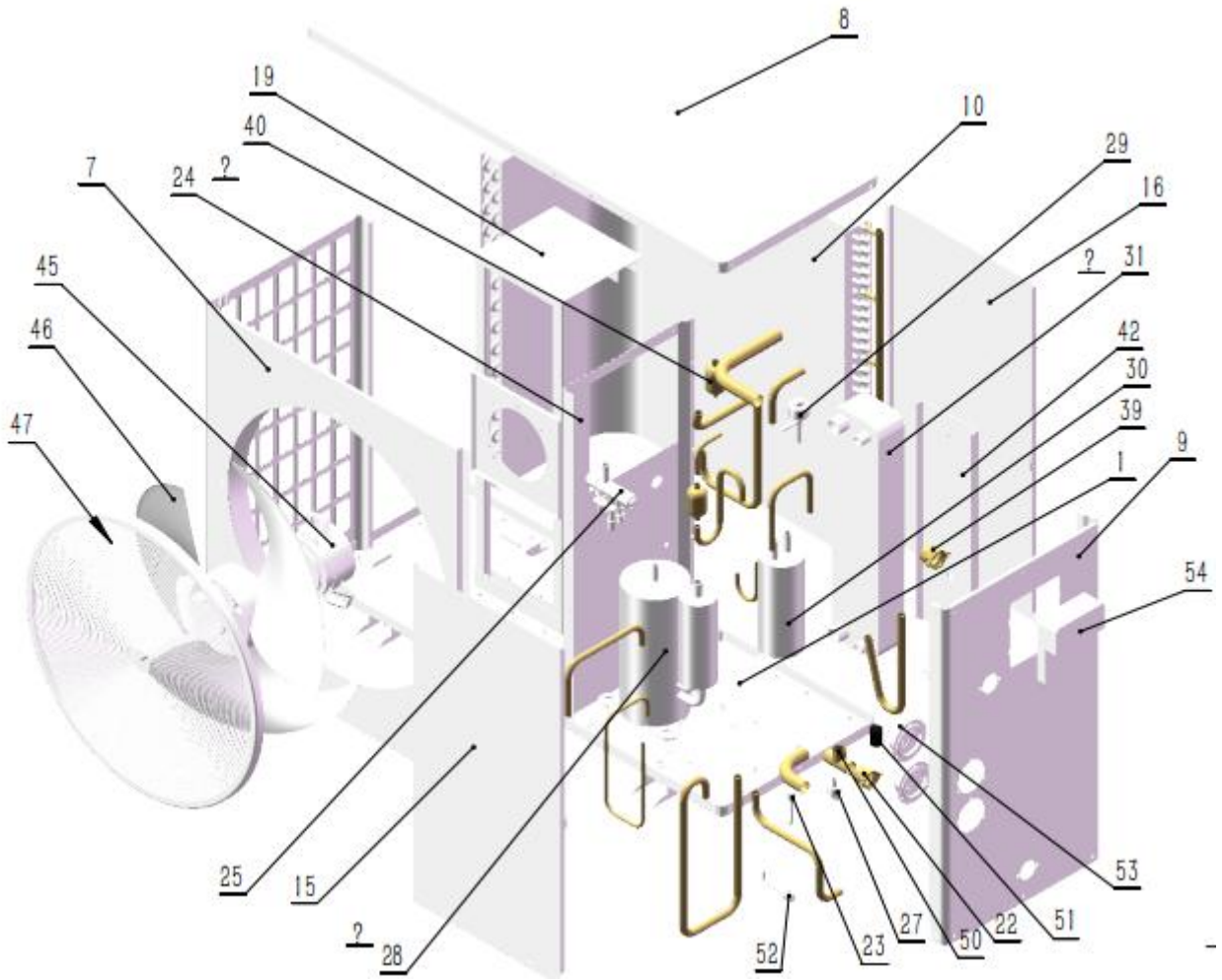
CGK030V2



CGK050V2、CGK-050V2/CGK060V2、CGK-060V2

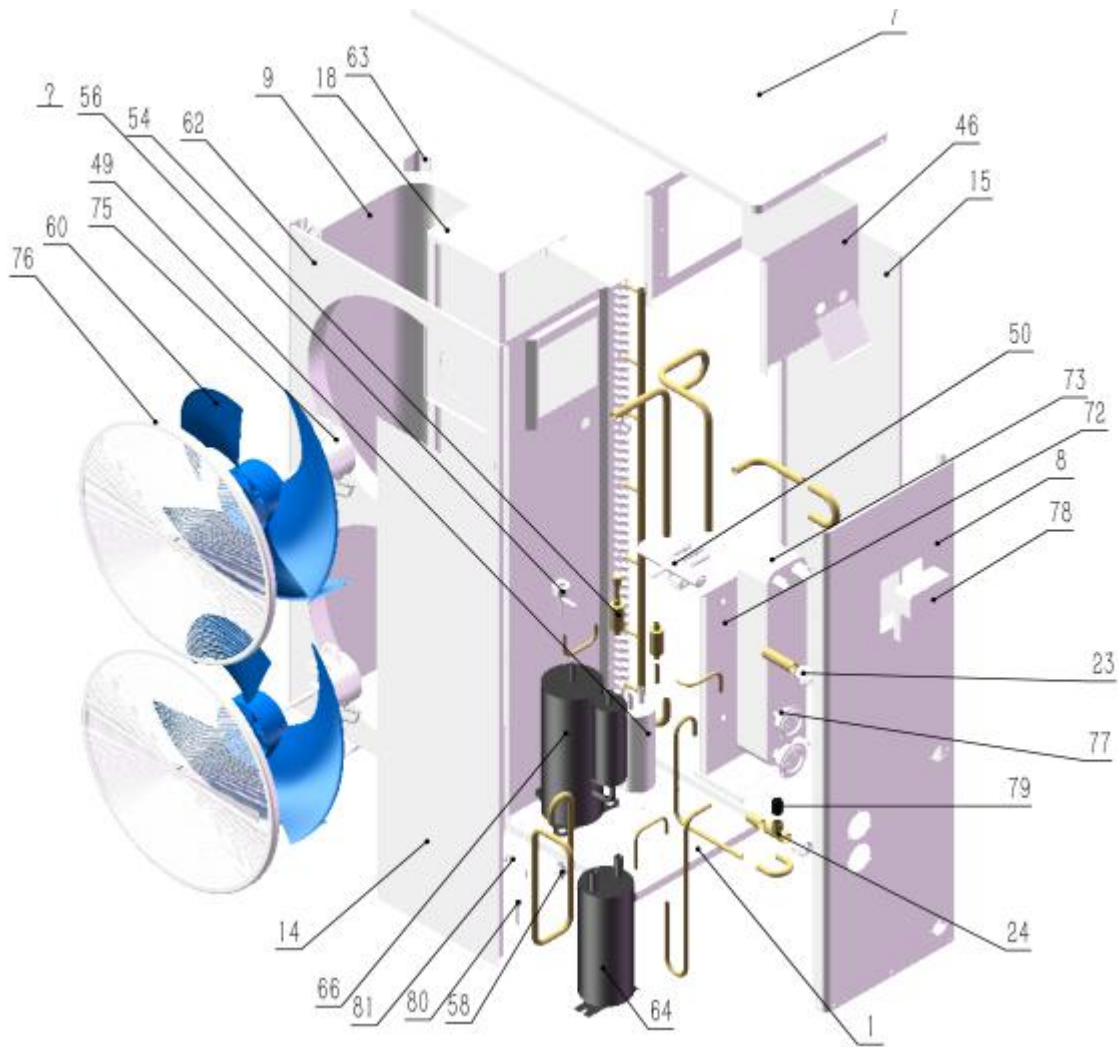


Important parts in heat pump



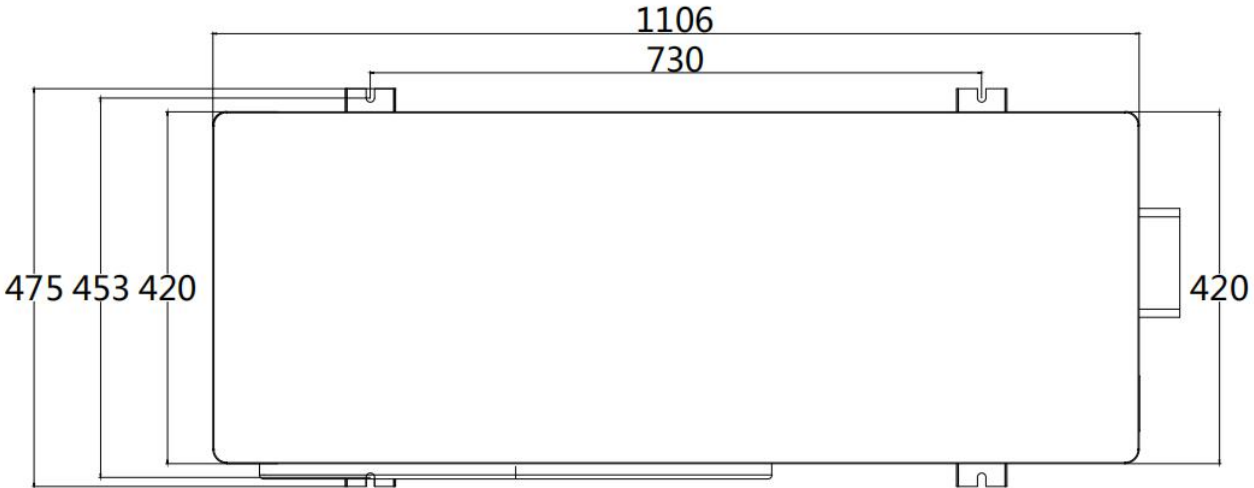
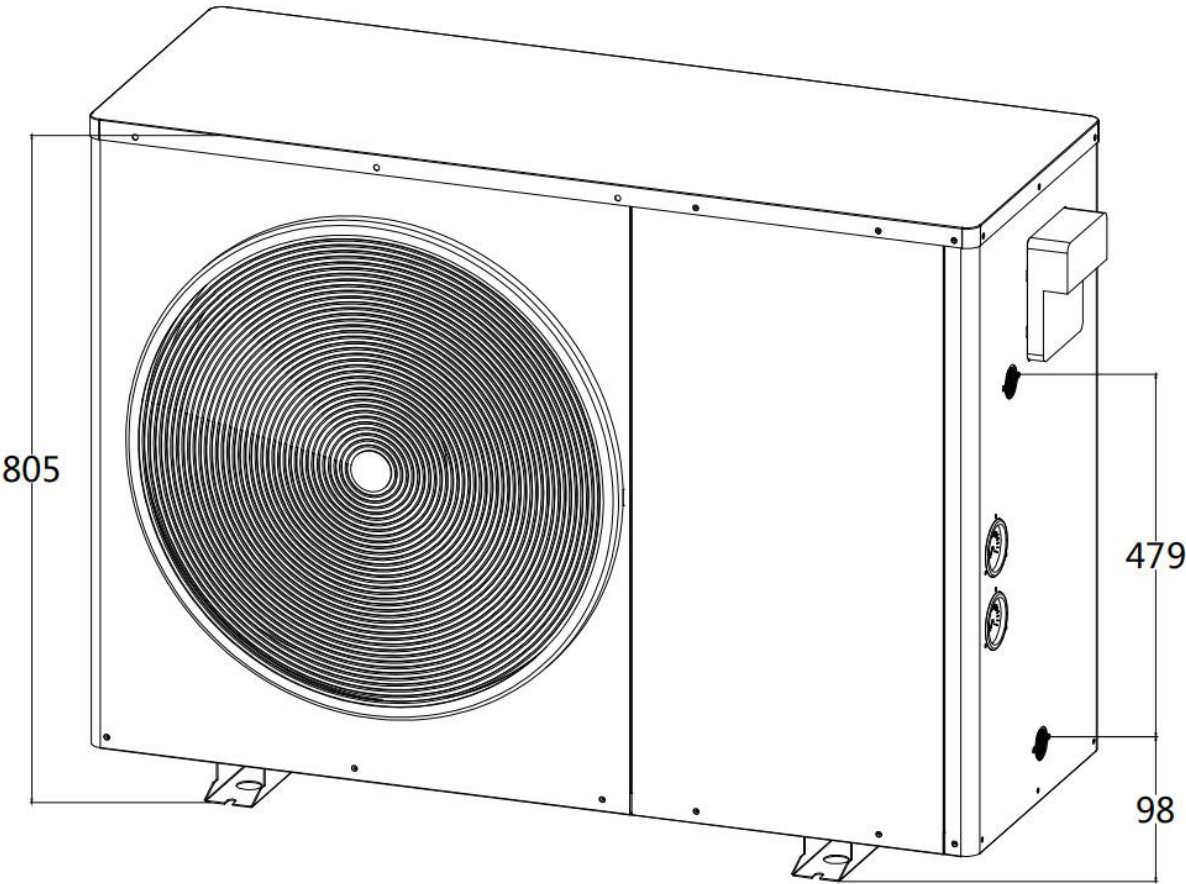
No.	Component	No.	Component
7	Air outlet board	8	Top cover
45	Fan motor	10	Evaporator
39	Brass water connector	19	Motor bracket
1	Bottom plate	40	Copper filter
9	Right side plate	24	Middle septum board
46	Fan	29	Expansion valve
47	Plastic mesh cover	54	Big draw
31	Plate heat exchanger	53	Pressure gauge
42	Plate exchanger bracket	51	Water flow switch
30	Reservoir	22	Brass water connector
15	Front repair board	50	T-type three-way valve
25	Four-way valve	27	Trousers-type four-way valve
28	Compressor	23	Low pressure sensor
16	Back repair board	52	High pressure sensor

Important parts in heat pump

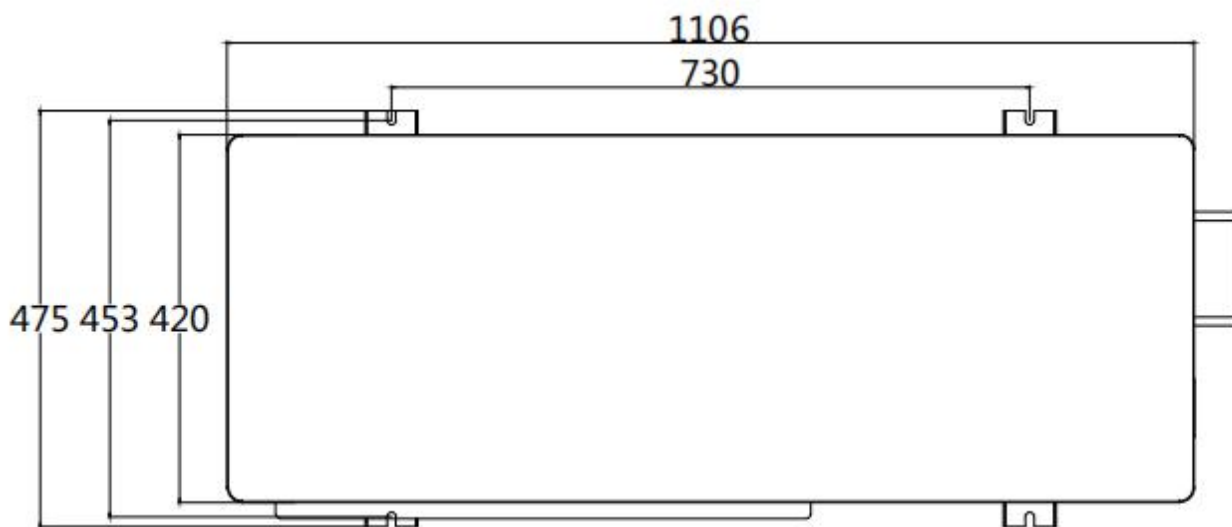
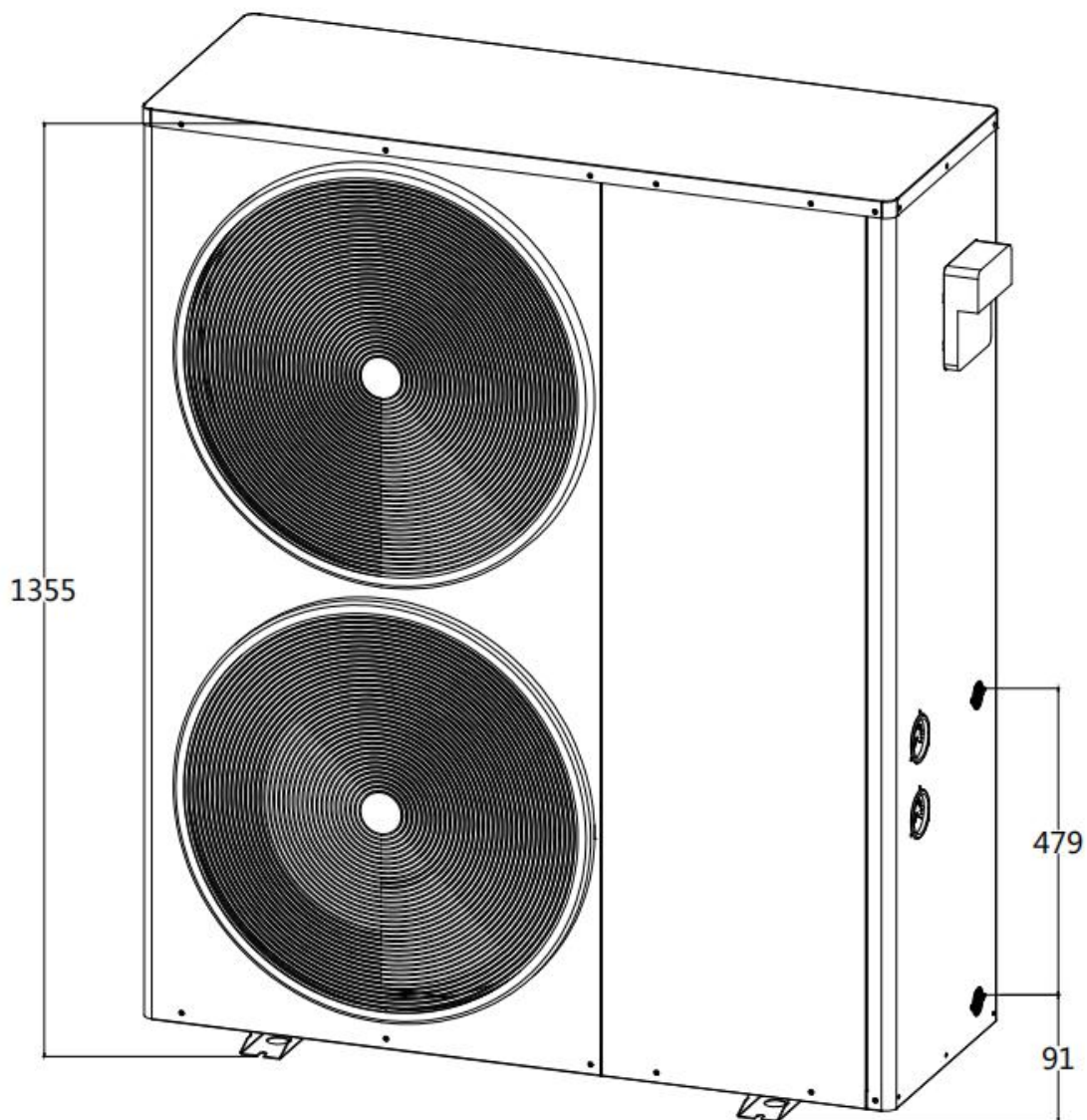


No.	Component	No.	Component
76	Plastic mesh cover	15	Back repair board
60	Fan	50	Four-way valve
75	DC-inverter fan motor	72	Plate exchanger bracket
49	Reservoir	8	Right side plate
7	Top cover	78	Big draw
56	Expansion valve	23	Brass water connector
54	Copper filter	77	Pressure gauge
62	Air outlet board	79	Water flow switch
9	Evaporator	84	Gas liquid separator
63	Upright column	58	Trousers-type four-way valve
18	Motor bracket	80	Low pressure sensor
46	Electric box	31	High pressure sensor
24	T-type three-way valve	66	Compressor
1	Bottom plate	14	Front repair board

Heat pump size



Installation diagram



Installation diagram

Primary circulation system

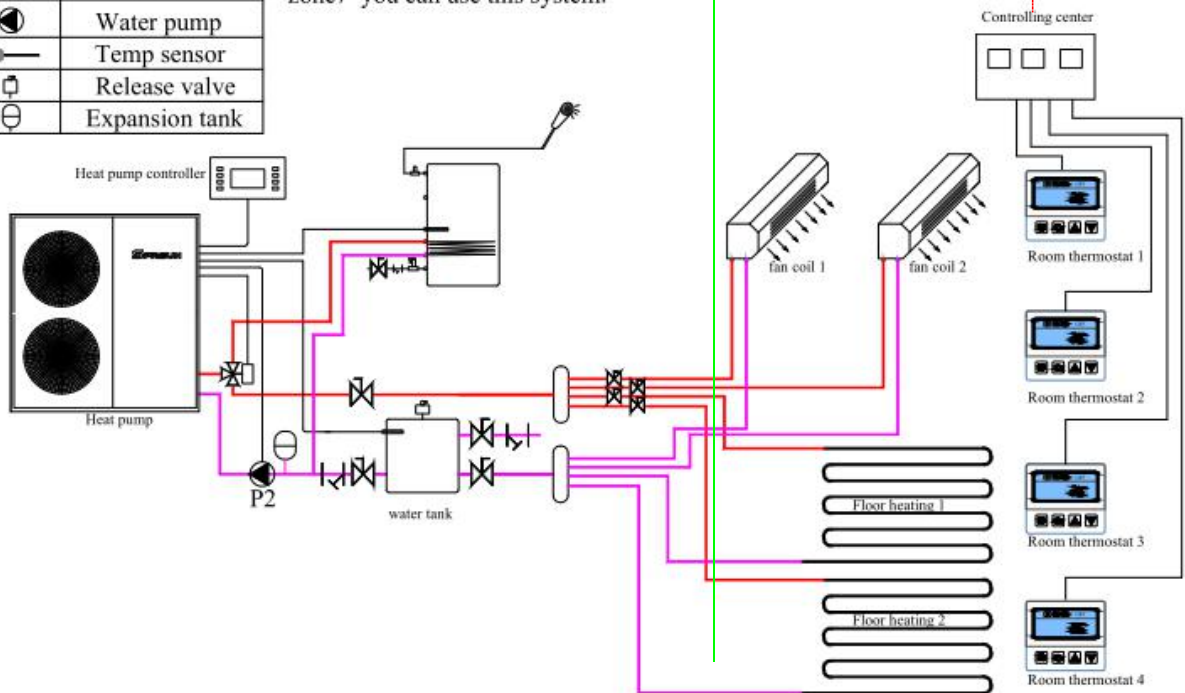
Symbol	Name
	3-way valve
	2-way valve
	Ball valve
	Non-return valve
	Filter
	Water pump
	Temp sensor
	Release valve
	Expansion tank

Notice:

1. Pls select the right modes according to your demand then install it according to the installation diagram. If only hot water function required, pls select heating+hot water mode , and then put the hot water sensor into the hot water tank.

Fan coil can be controlled by linkage with the secondary circulation pump . Meanwhile, a passive linkage thermostat shall be installed.










3. This is primary circulation system, If you not need to control the temperature by different zone, you can use this system.



SPRSUN DC inverter air source heat pump

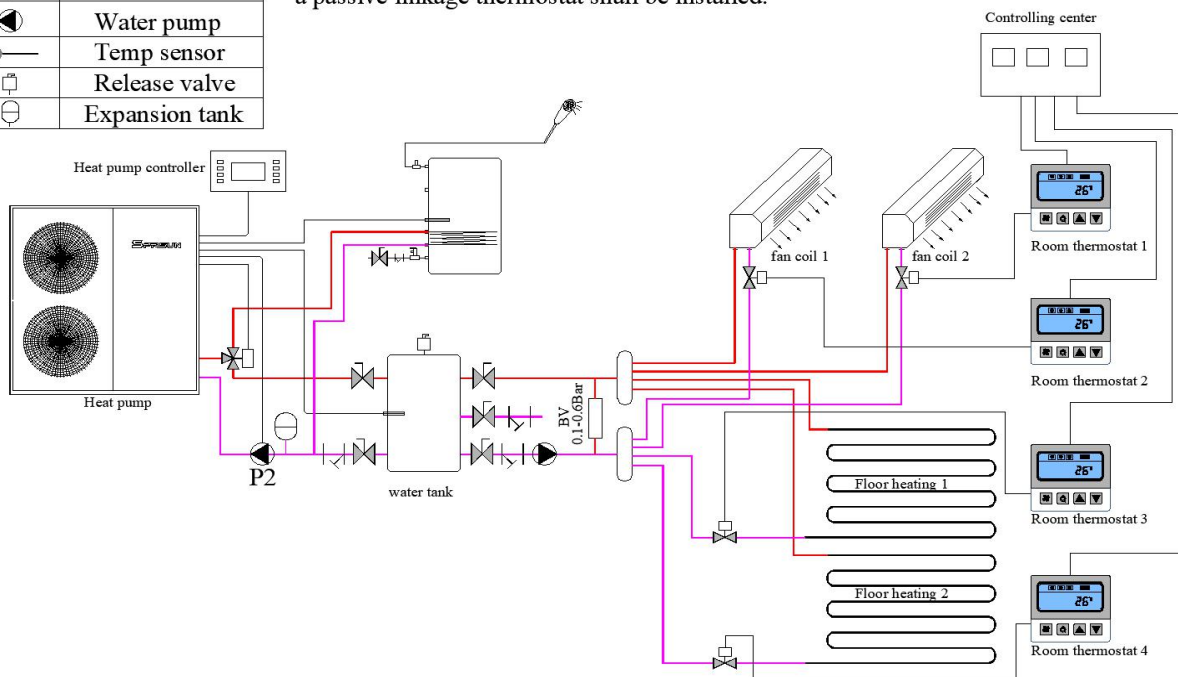
Installation diagram

Secondary circulation system

Symbol	Name
	3-way valve
	2-way valve
	Ball valve
	Non-return valve
	Filter
	Water pump
	Temp sensor
	Release valve
	Expansion tank

Notice:

1. Pls select the right modes according to your demand then install it according to the installation diagram. If only hot water function required, pls select heating+hot water mode , and then put the hot water sensor into the hot water tank.
2. Two-way valve and BV valve are optional for installation. Only If you need to control the temperature by different zone, then pls install both.
3. Fan coil can be controlled by linkage with the secondary circulation pump . Meanwhile, a passive linkage thermostat shall be installed.

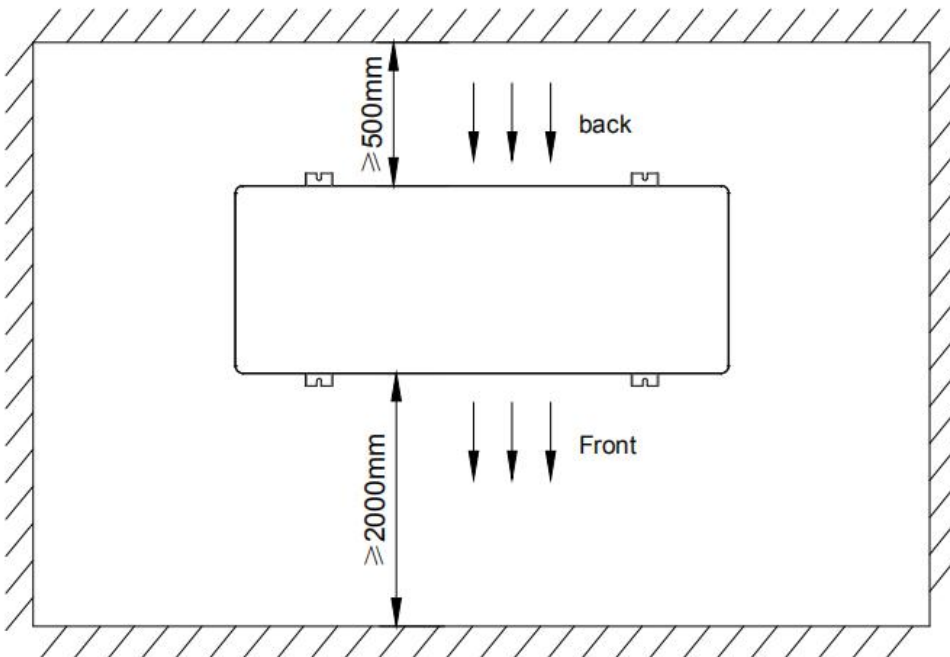
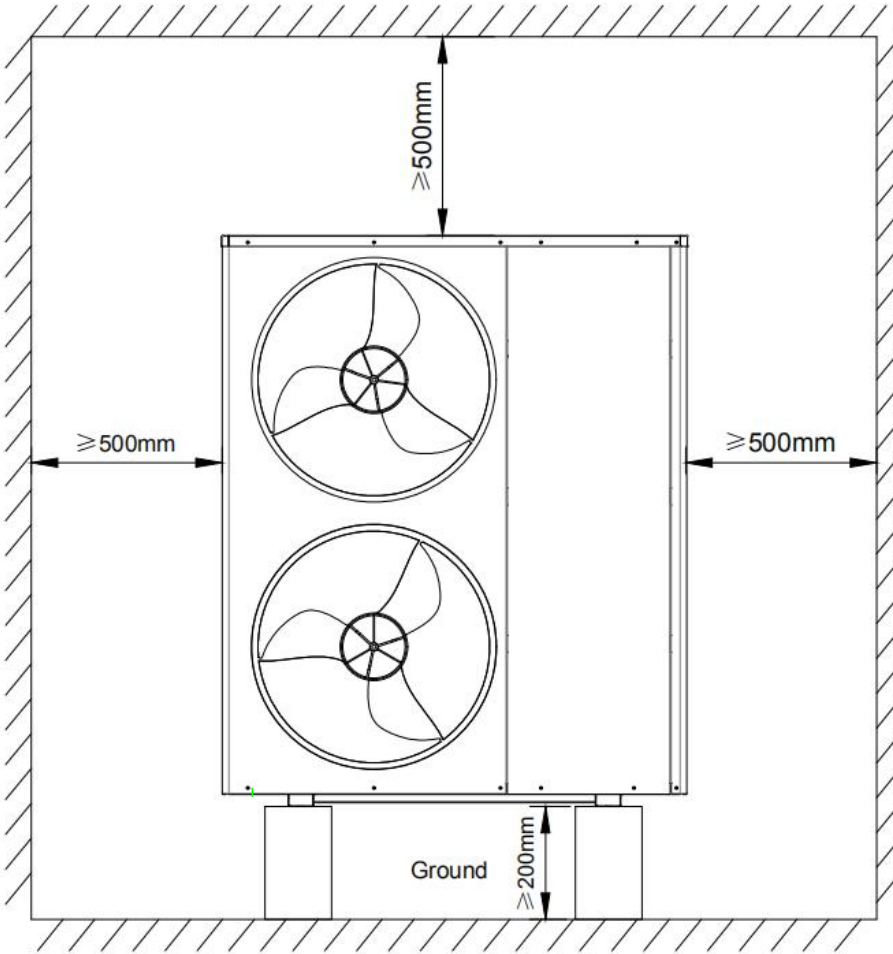


SPRSUN DC inverter air source heat pump

Heat pump installation notes

- 1) The heat pump must be installed in open space. Normally is installed on the roof of house.
- 2) The unit should be placed in dry and well-ventilated environment. If the environment is humid, electronic components may get corroded or short circuit.
- 3) Heat pump mustn't be installed in the environment where corrosive, volatile, or flammable liquid or gas exists.
- 4) Because of the noise is a little loud, please don't install the heat pump near bedroom or living room or meeting room.
- 5) The bottom of the heat pump should be at least 50cm higher than ground, because rain water, snow may enter inside if the installation is on ground. Heat pump can be installed on concrete basic or steel support.
- 6) Please install a shed for the heat pump, otherwise, rain water can reduce the lifetime of the shell, and snow may cover the air outlet.
- 7) Water drainage ditch should be set around the heat pump, when heat pump is working, there is condensing water flow down, or when defrosting, there are plenty of water flow down too.
- 8) Heat pump should far away from kitchen exhaust, because the finned tube is not easy to clean if there is oil on it.

Distances to barrier and ground



Basic of installation

- 1) Heat pump must be installed on flat concrete blocks or a raised concrete platform, or steel bracket.
- 2) Between heat pump and basic or bracket, at least 4 pcs anti-shock pads should be placed



Concrete basic

Anti-shock pad



Steel bracket

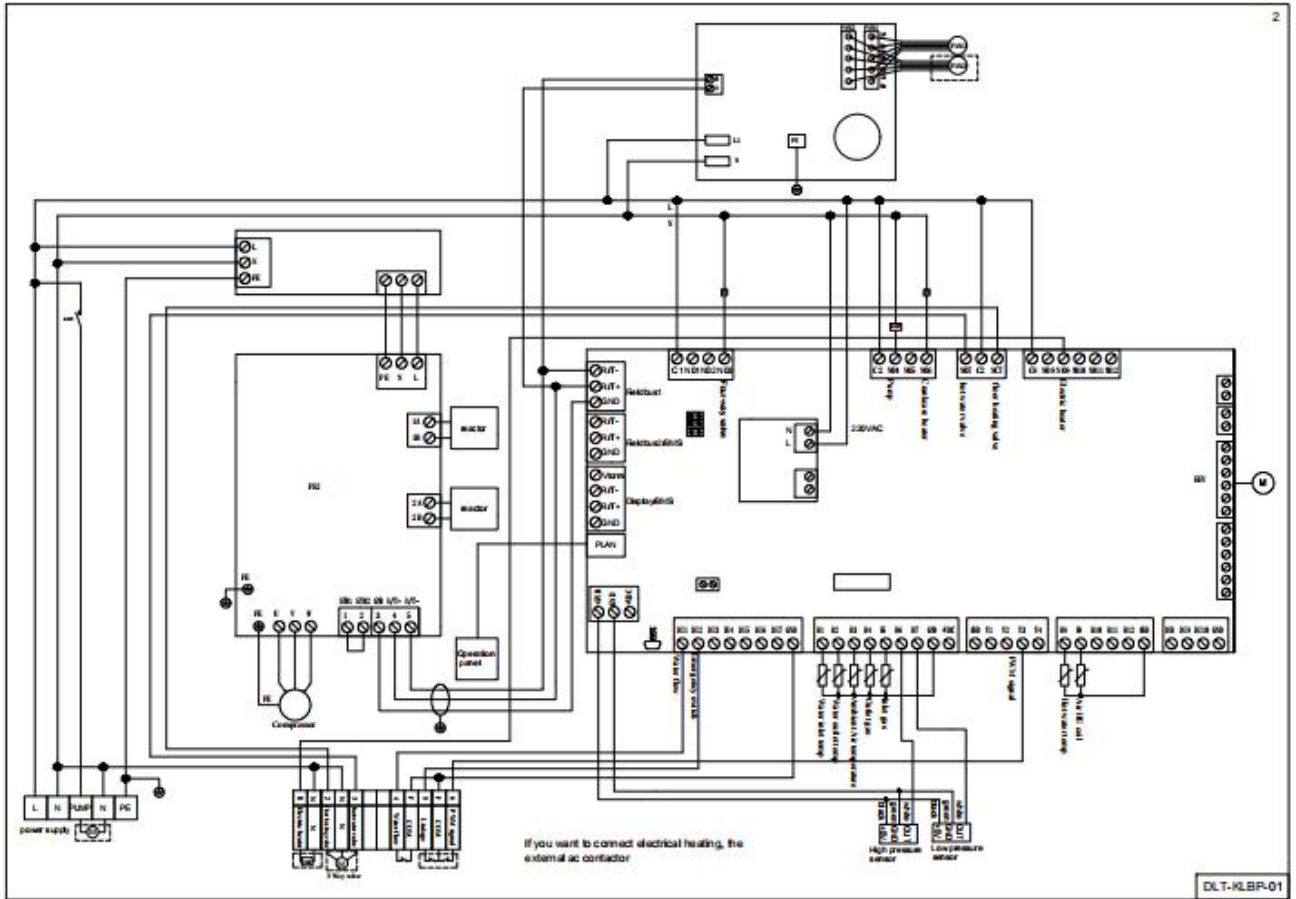


Expansion bolt

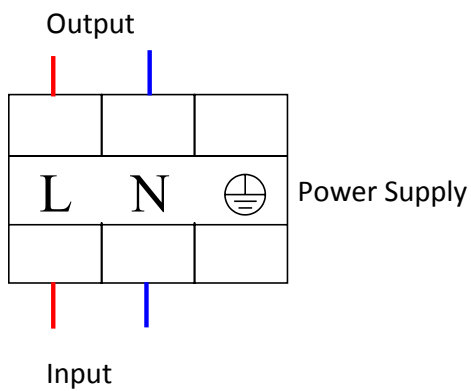
- 3) Before make basic or bracket, please check heat pump dimension
- 4) Before fix heat pump on basic, please confirm heat pump direction according to project design.
- 5) Normally use expansion bolt to fix heat pump on concrete basic.
- 6) Make sure circulating water pipe must be \geq DN25 (or PPR32), and pipes must be insulated.
- 7) When install water temp sensor on pipe or in water tank, make sure temp sensor will not touch water directly, best through a sensor tube. Like below picture.

Wiring diagram

220V



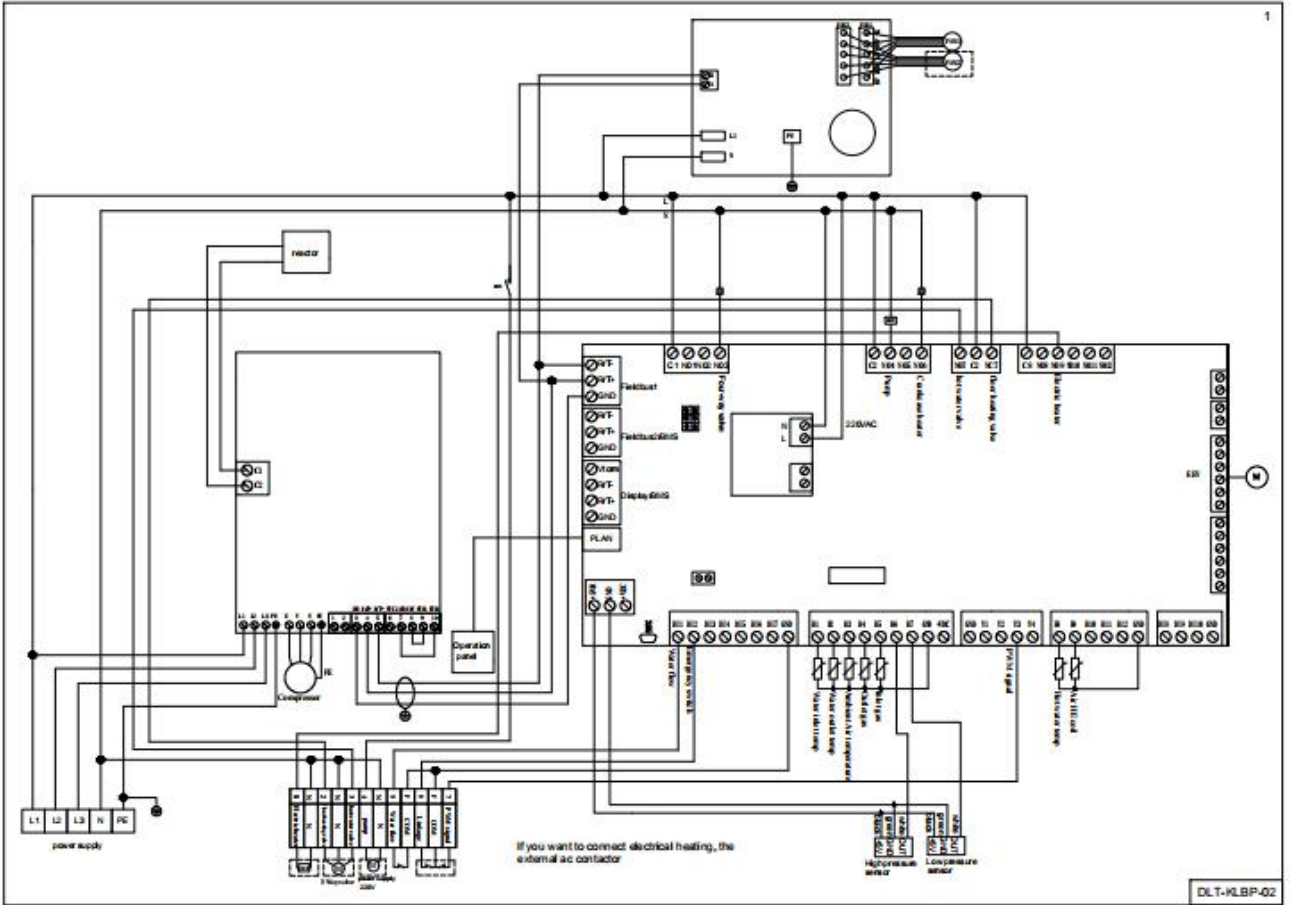
Voltage: 220V~240V/50Hz or 60 Hz/1Ph



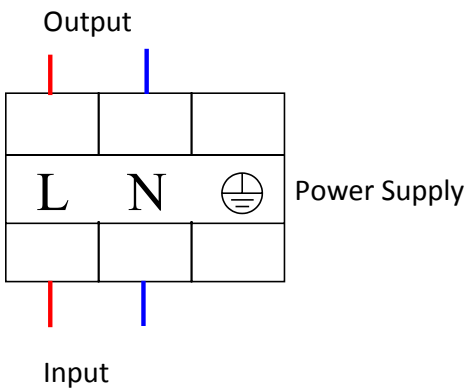
	CGK030V2	CGK050V2	CGK060V2
Line(mm)	4	6	6
Max. Current(A)	15	26	30

Wiring diagram

380V



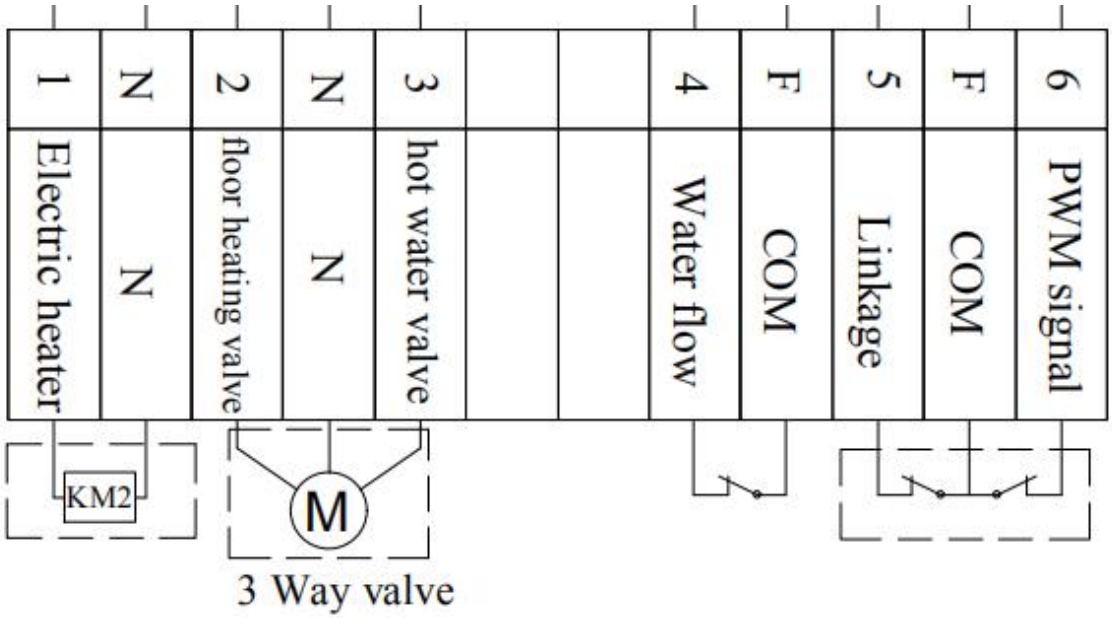
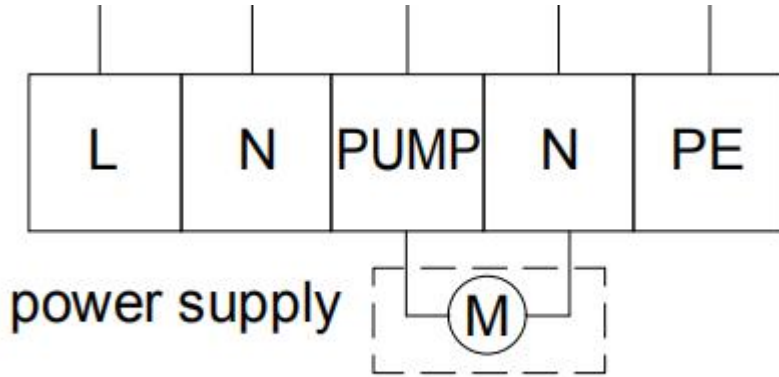
Voltage: 380V~420V/50Hz or 60 Hz/3Ph



	CGK-050V2	CGK-060V2
Line(mm)	4	4
Max. Current(A)	12	13

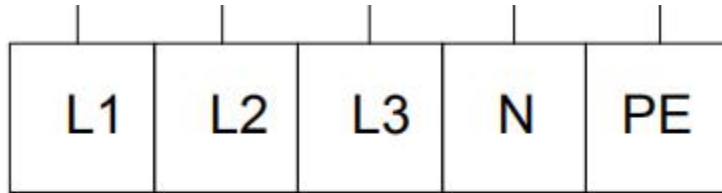
Terminals

220V

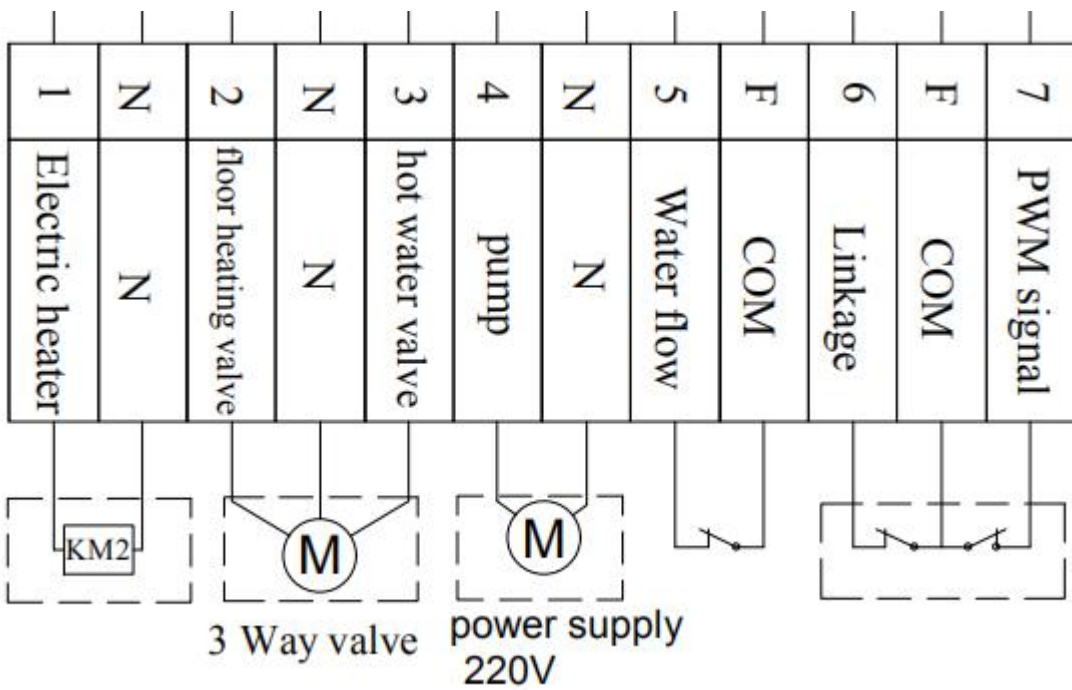


Terminals

380V



power supply



Warning

Air-water heat pump

1. Y-shape filter must be installed in front of water pump.
2. Water flow of cycle water pump for each 0.75kw(input power) $>$ 1m³/h
3. Pump lift according to job site.
A quarter bend water resistance \geq 1 meters
4. Domestic hot water utilize national standards urban tap water.
5. Water sensor can't touch water directly, it must be put into the blind hole in water tank .
6. Installation must comply with above conditions, if non-compliance with any one, we do not afford any loss.
7. When air temperature is below 0C, please drain water in heat exchanger if blackout ,to avoid water ice up.
8. A 40-70 mesh filter needs to be added to the water path before entering the heat pump, and the water ion concentration must be less than 280 ppm.