

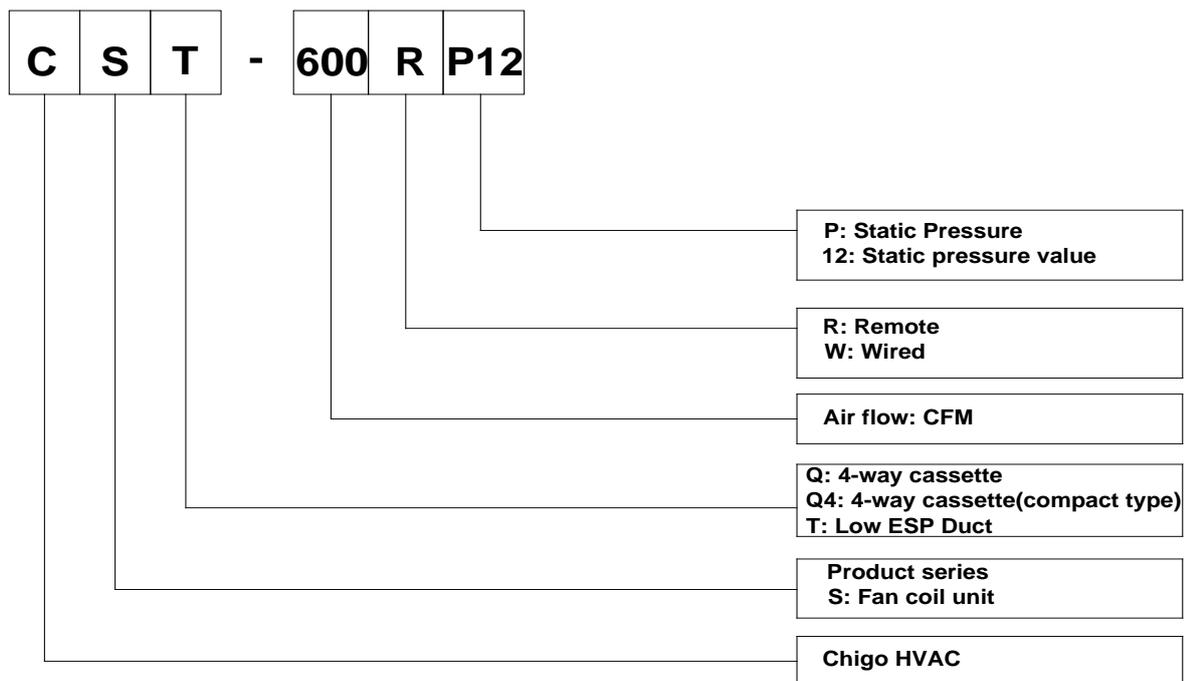
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1. Introduction

Fan coil unit is a kind of compound device which assemble fan and surface-type coil heating-exchanger together. Fan coil with fresh air supply system is a main type of center air-conditioner system, so it is an important component of AC devices. Fan coil has horizontal type, vertical type, etc. A cooling (heating) supply system usually consists of fan coil terminals and chilled water system (heated water system).

CHIGO commercial AC fan coil is designed and manufactured on the base of advanced technology, and utilize qualified galvanized iron as material. Due to its supper-thin design, it has such advantages: beautiful outlook, space saving, easy installation, etc. And the most obvious advantage is that it can decrease the outlet air Temp-difference as low as possible to make room more comfortable, as well as don't decrease cooling capacity output. For the large air flow volume design, it can increase room ventilation frequency, supply more flesh air, and balance room temperature distribution. Benefiting from adoption of advanced material and technology, it can effectively decrease the running noise and keep running smoothly. With the advantages above, it can be widely applied in market, hospital, office building, hotel airport, etc..

Part 2 Nomenclature



Part 3 Product Schedule

NO	Model	Type	Power source
1	CST-200P12	3-Row Duct Type	220-240V~,1Ph, 50Hz
2	CST-300P12		
3	CST-400P12		
4	CST-500P12		
5	CST-600P30		
6	CST-800P30		
7	CST-1000P30		
8	CST-1200P30		
9	CST-1400P30		

4. External Appearance



5. Features

- Nested in the ceiling, space-saving and noble.
- High capacity of cooling / heating performance, high efficiency and energy-saving.
- Adjust the indoor temperature rapidly and averagely.
- Low noise fan direct driven by single phase, 3 speed permanent split capacitor motor.
- The air outlet is laid out in the way you desire.
- Unit constructed by electrostatic galvanized sheet, providing maximum protection against corrosion
- Heavy gauge zinc coated steel drainage pan with good insulation processing, avoiding sweating and corrosion
- Unit tested performance comply with GB4706.32-2004、JB9063-1999 and JB/T4283-1991.

6. Specifications Chilled Water Fan Coil Units

Model		CST-200P12	CST-300P12	CST-400P12	CST-500P12	CST-600P30	
Air-flow volume(m ³ /h)	High-speed	340	510	680	850	1020	
	Middle-speed	285	420	580	700	840	
	Low-speed	210	320	420	520	620	
Cooling capacity (W)	High-speed	2130	3260	4170	4840	5810	
Heating capacity (W)	High-speed	3480	5320	6810	7910	10000	
Fan	Type	Front-wing double-inlet centrifugal type fan					
	Number	1	2	2	2	2	
	Nosie level dB (A)	36	37	40	43	47	
Motor	Type	3 level speed, low noise, capacitance motor					
	Number	1					
	Power supply	220V~240V,1Φ,50Hz					
	Power input (W)	30	39	60	76	106	
	Model	YDK-8-6P-1	YSK-13-6P-1	YSK-26-4P-1	YSK-32-4P-1	YSK-36-4P-1	
	Speed	r/min	720/570/480	720/560/480	770/630/510	910/760/640	960/820/670
Coil	Type	copper tube, grilled aluminum fin					
	Rows	3					
	Working pressure	1.0MPa					
Connection pipe	Water inlet	RC3/4" internal thread					
	Water outlet	RC3/4" internal thread					
	Drainage	ZG3/4" external thread					
Water-flow Volume(m ³ /h)		0.37	0.56	0.72	0.83	1	
Hydraulic resistance	(kPa)	Standard	14	20	22	24	34
		High Static Pressure	14	20	22	24	34
Dimension	Width	mm	770	825	927	927	1140
	Height	mm	240	240	240	240	240
	Depth	mm	461	461	461	461	461
Net weight (kg)	No air-return box	13	15	17	17	20	

Remark: 1. All performance data above is based upon 0Pa ambient static pressure.

2. Cooling capacity test condition: air inlet Temp. : 27DB

°C/19.5W B°C w

3. Heating capacity test condition: air inlet Temp. : 21DB
cooling.

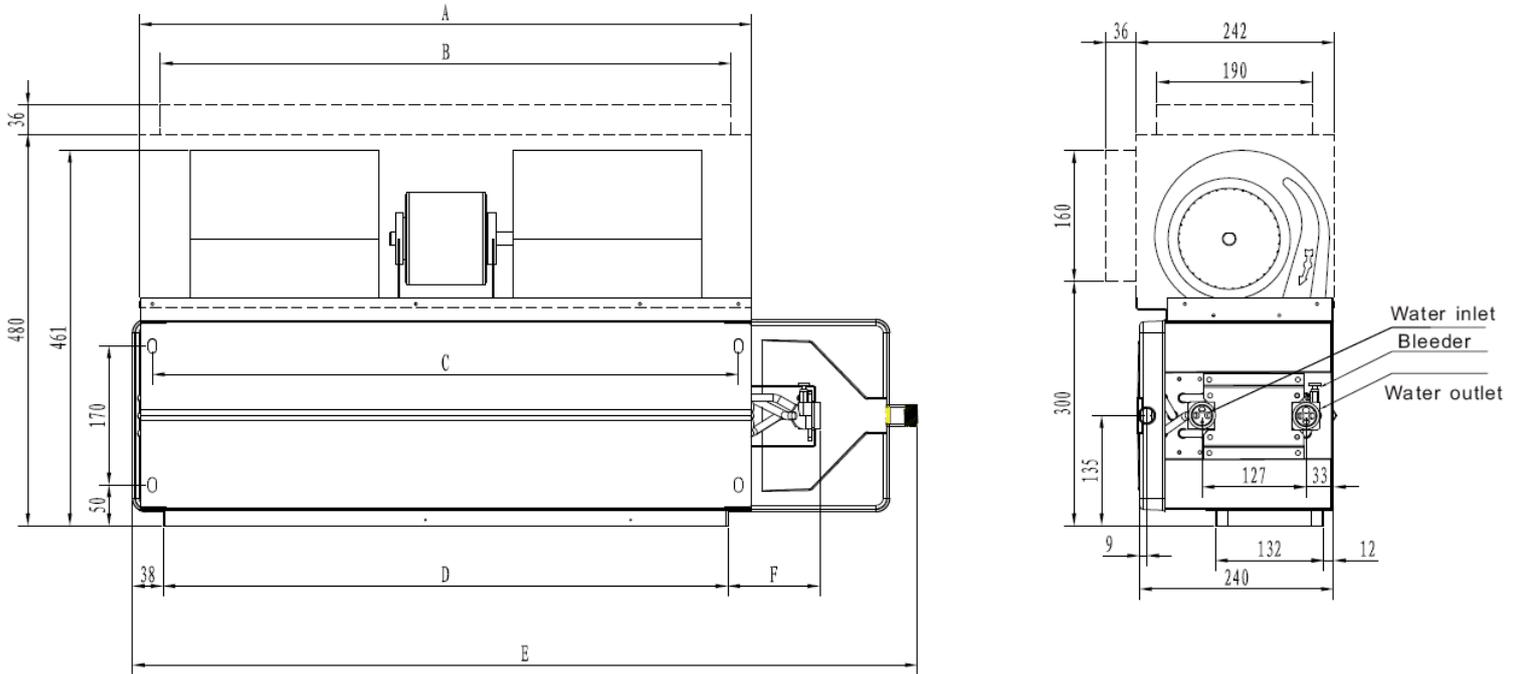
°C, water in

4. Noise level is tested in full-anechoic room.

Model		CST-800P30	CST-1000P30	CST-1200P30	CST-1400P30	
Air-flow volume(m3/h)	High-speed	1360	1700	2040	2380	
	Middle-speed	1150	1400	1650	2000	
	Low-speed	840	1000	1250	1480	
Cooling capacity (W)	High-speed	7920	9070	10800	12600	
Heating capacity (W)	High-speed	13600	16000	16200	18900	
Fan	Type	Front-wing double-inlet centrifugal type fan				
	Number	4	4	4	4	
	Nosie level dB (A)	47	50	51	52	
Motor	Type	3 level speed, low noise, capacitance motor				
	Number	2		2	2	
	Power supply	220V~240V, 1Φ, 50Hz				
	Power input (W)	150	172	210	250	
	Model	YSK-20-4P-1	YSK-33-4P-1	YSK-37-4P	YSK-50-4P	
	Speed	r/min	970/810/700	1030/850/730	1050/900/750	1170/1030/880
Coil	Type	copper tube, grilled aluminum fin				
	Rows	3				
	Working pressure	1.0MPa				
Connection pipe	Water inlet	RC3/4" internal thread				
	Water outlet	RC3/4" internal thread				
	Drainage	ZG3/4" external thread				
Water-flow Volume(m3/h)		1.36	1.56	1.98	2.24	
Hydraulic resistance	(kPa)	Standard	34	40	42	50
		High Static Pressure	34	40	42	50
Dimension	Width	mm	1440	1546	1835	1835
	Height	mm	240	240	240	240
	Depth	mm	461	461	461	461
Net weight (kg)	No air-return box	27	32	36	36	

Part 7 Dimension

Duct-type fan coil



mm

model \ dimension	CST-200P12	CST-300P12	CST-400P12 CST-500P12	CST-600P30	CST-800P30	CST-1000P30	CST-1200P30 CST-1400P30
A	547	647	747	967	1267	1372	1662
B	517	617	717	937	1237	1342	1632
C	513	613	713	933	1233	1338	1628
D	485	585	685	905	1205	1310	1600
E	770	825	927	1140	1440	1546	1835
F	106	106	106	106	106	106	106

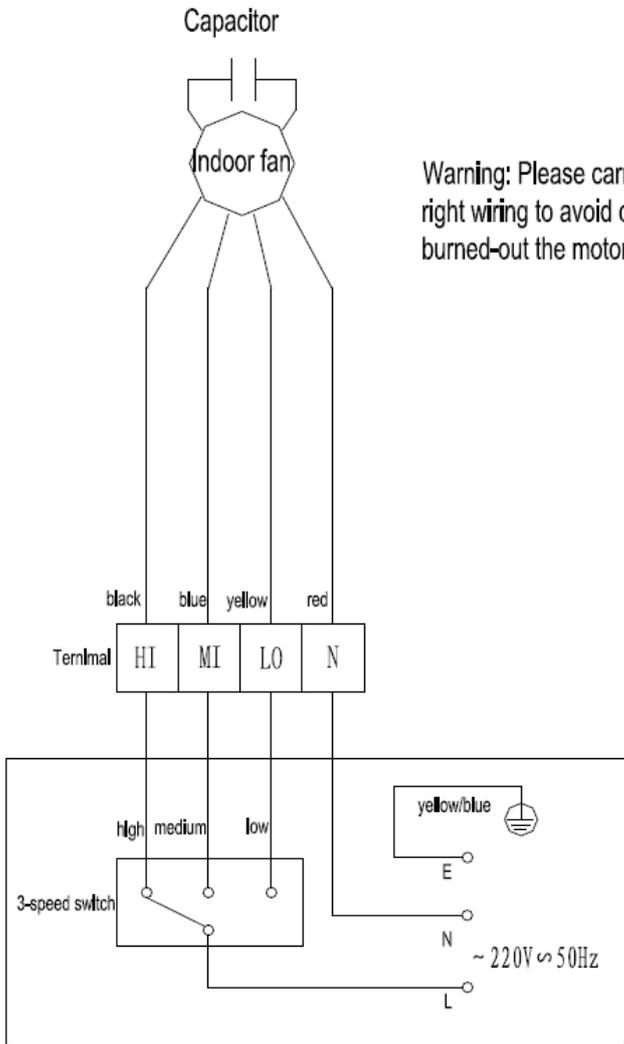
Notice:

1. Example above is based on double scroll cases type, it may be different from the one you choose
2. Double-dash line in drawing is the dimension of air-return box (down air-return type and rear air-return type)
3. If customer need air-return box, please declare when booking, furthermore, please explain whether it is down air-return type or rear air-return type.

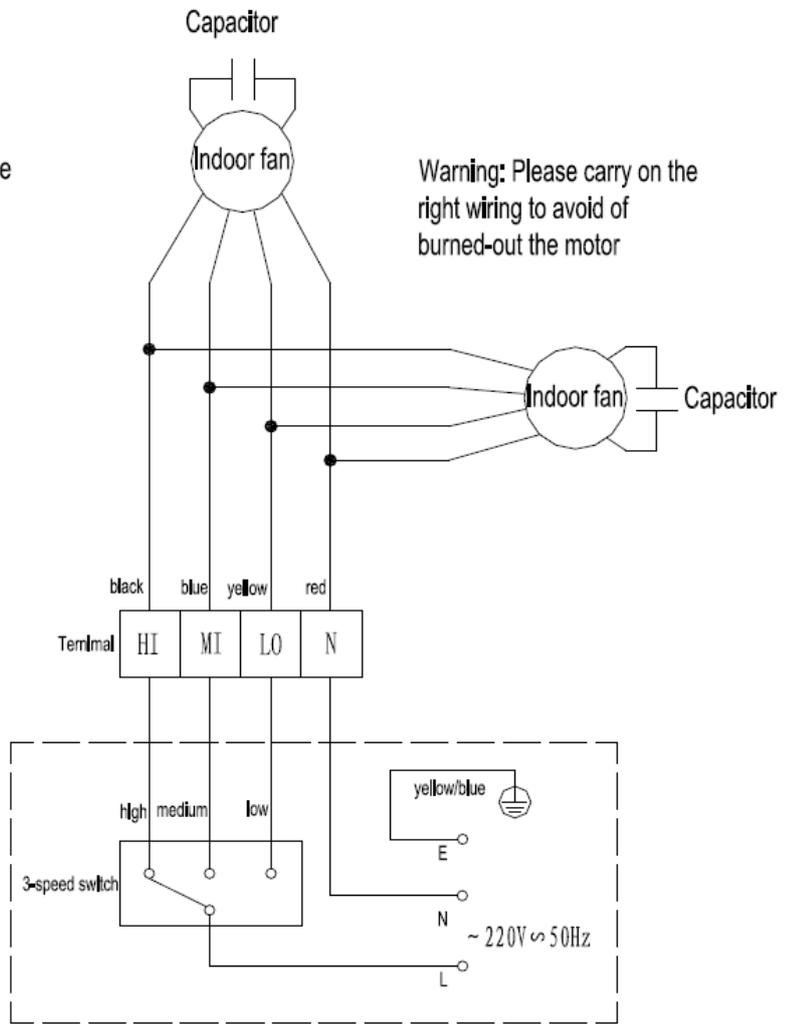
Part 8 Wiring Diagram

CST-200P12 CST-300P12 CST-400P12 CST-500P12 CST-600P30 (Single fan motor)

CST-800P30 CST-1000P30 CFP-204WA-Y3-G30-001 CFP-238WA-Y3-G30-001 (Double fan motor)



Single fan motor



Double fan motor

Part 9 Unit installation

9.1 Installation place

There is enough room for installation and maintenance.

The ceiling is horizontal, and its structure can endure the weight of the indoor unit.

The air outlet and the air inlet are not impeded, and the influence of external air is the least.

The air flow can reach throughout the room.

The connecting pipe and drainpipe could be extracted out easily.

There is no direct radiation from heaters

Caution

Location in the following places may cause malfunction of the machine. (If unavoidable, please consult your local dealer.)

1. There exists petrolatum.
2. There is salty air surrounding (near the coast).
3. There is caustic gas (the sulfide, for example) existing in the air (near a hot spring).
4. The Volt vibrates violently (in the factories).

9.2 Install the Main Body

Please refer to the following figure for the hanging screw bolts.

Please install with Ø10 hanging screw bolts.

The handling to the ceiling varies from the constructions,

Consult the construction person for the specific condition.

1. The size of the ceiling to be handled----- Do keep the ceiling flat. Consolidate the roof beam for possible vibration.
2. Cut off the roof beam.
3. Strengthen the place that has been cut off, and consolidate the roof beam.

Carry out the pipe and line operation in the ceiling after finishing the installation of the main body. While choosing where to start the operation, determine the direction of the pipes to be drawn out. Especially in case there is a ceiling, position the water refrigerant pipes, drain pipes, indoor lines to the connection places before hanging up the machine.

The installation of hanging screw bolts.

Wooden structure

Put rectangular sticks across the beams, and set pendant bolts. (See Figure 1)

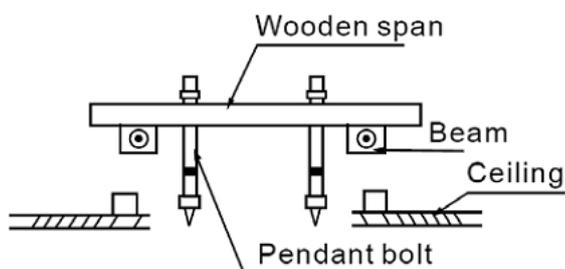


Figure 1

New concrete roughcast

Set it with embedded bushes or embedded bolts. (Figure 2)

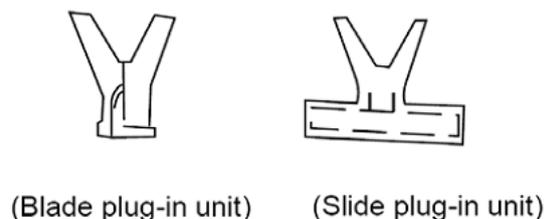
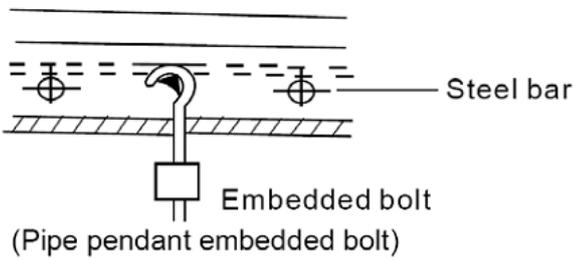


Figure 2

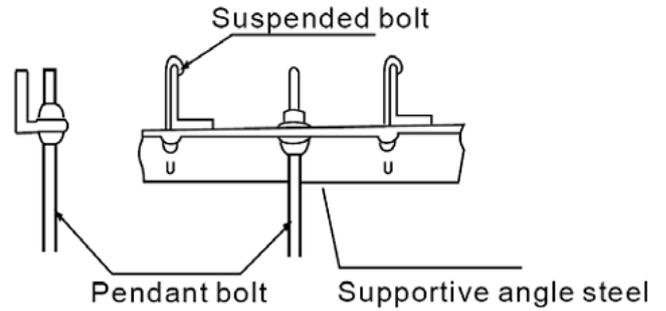
Old concrete roughcast

Use embedded bolts, embedded pulling plugs, and embedded stick harness.(Figure 3)



Steel beam and girder structure

Set and use supportive angle steel.(Figure 4)



Suspending the indoor unit

- 1.Use tools such as pulleys to hoist the indoor unit to the pendant bolt.
- 2.Use tools such as gradient to settle the indoor unit horizontally. Lack of horizontality may cause water leak.

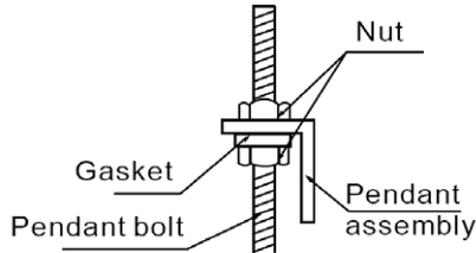


Figure 5

Pipe Connecting

- 1.The water vent is with the air outlet valve; the other side is air inlet.
- 2.When connecting the water collecting box, the torque is 6180~7540N.cm (630~770kgf.cm).
- 3.Put the connecting tubing at the proper position, wrench the nuts with hands, then fasten it with a wrench. (Refer to Figure 6)

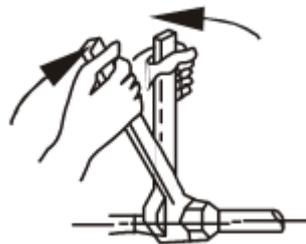


Figure 6

9.3 Connect the Drainage Pipe

1. Install indoor unit drain pipe

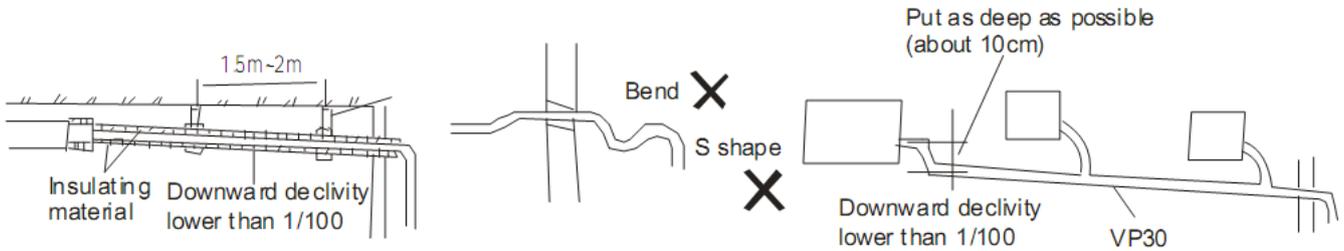
The outlet has PTI screw bread, please use sealing materials and pipe sheath (fitting) when connecting PVC pipes.

CAUTIONS:

The drain pipe of indoor unit must be heat insulated, or it will condense dew, as well as the connections of the indoor unit.

CHIGO CAC-FAN COIL

Hard PVC binder must be used for pipe connection, and make sure there is no leakage. With the connection part to the indoor unit, please be noted not to impose pressure on the side of indoor unit pipes. When the declivity of the drain pipe downwards is over 1/100, there should not be any winding. The total length of the drain pipe when pulled out traverse shall not exceed 20m, when the pipe is over long, a prop stand must be installed to prevent winding. Refer to the figures on the right for the installation of the pipes.



2. Drainage test

Check whether the drainpipe is unhindered
 New built house should have this test done before paving the ceiling.

9.4 Wiring Installation

The connecting diagram refers to the wiring diagrams.

Fan coil unit model	Name of cable	Cable quantity	Specification	Note
All modes without auxiliary electrical heater	Fan power cord	1	RVV-300/500 5×1.0mm ²	Connect the wire controller with fan coil units(Owner purchase it optionally)
	Control wire for magnetic valve	1	RVV-300/500 2×0.75mm ²	Connect the wire controller with magnetic water valve(Owner purchase it optionally)
All modes with auxiliary electrical heater	Main power cord	1	RVV-300/500 3×3.3mm ²	Owner purchase it optionally
	Controller	1	RVV-300/500 3×2.5mm ²	Owner purchase it optionally
	Control wire	1	RVV-300/500 5×1.5mm ²	Owner purchase it optionally