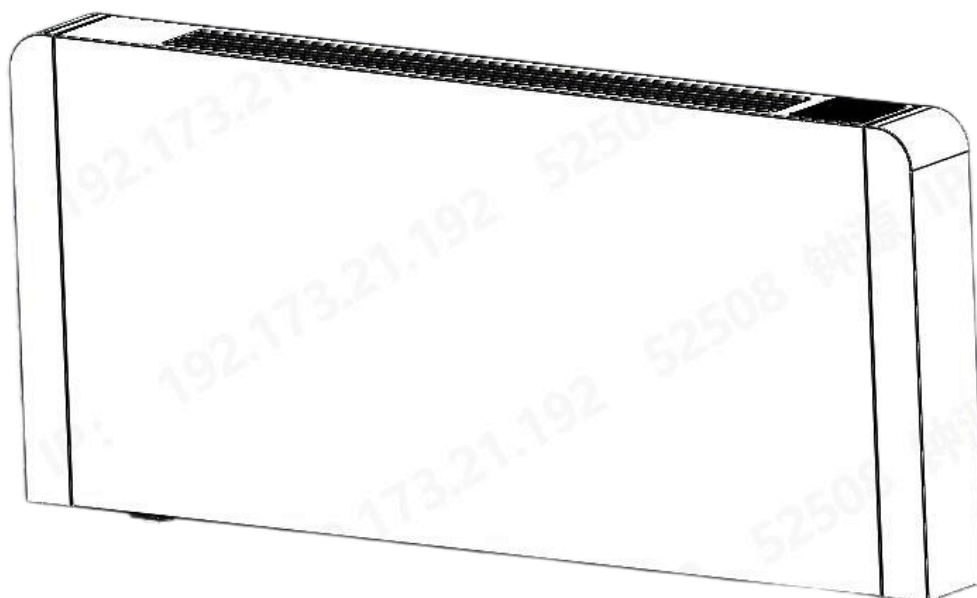




Water Fan Coil Technical Manual



FFP-SLIM-250L2V-W/B

FFP-SLIM-450L2V-W/B

FFP-SLIM-650L2V-W/B

FFP-SLIM-850L2V-W/B

The producer reserves the right to discontinue, or change at any time, specifications or designs without notices and without incurring obligations

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CHAPTER 1 GENERAL INTRODUCTION

1.Preface

Thank you for choosing vertical water fan coil for controlling the climate in your home;

The manual includes necessary information concerning correct installation, running and maintenance of units. Before running or mending machines, please carefully read this manual.

When installing vertical water fan coil, connecting water circulation and wiring electric or electronic devices, please strictly operate on this manual. After finishing installation and checking, then power on machines.

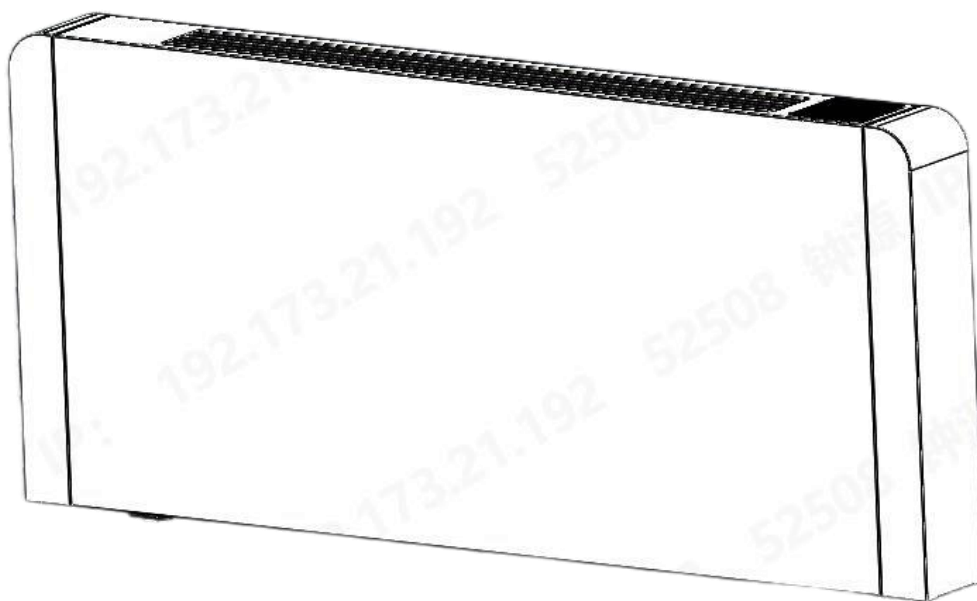
PHNIX reserves rights to change specification and design of units which leads to content change of this manual.

2.Production Introduction

Vertical water fan coil is energy-saving and environmentally friendly equipment. The vertical water fan coil has simple system structure, little space occupation, beautiful appearance and easy maintenance.

3.Measurement

Model	Net Dimension (mm: L/W/H)	Package Dimension (mm: L/W/H)	Net weight / Gross weight (kg)	Power Supply
FFP-SLIM-250L2V-W/B	730/125/586	780/175/655	16/18	220-240V-1ph-50Hz
FFP-SLIM-450L2V-W/B	930/125/586	980/175/655	20/22	220-240V-1ph-50Hz
FFP-SLIM-650L2V-W/B	1130/125/586	1180/175/655	24/27	220-240V-1ph-50Hz
FFP-SLIM-850L2V-W/B	1330/125/586	1380/175/655	28/31	220-240V-1ph-50Hz



4.Products Feature

- Extremely compact structure, good looking face, and easy mountable for access.
- The use of DC fan motor combined with newly wind-guiding technology makes lower noise and you can enjoy a healthier and more comfortable sleep.
- Air exchanger (fins-coil) with hydrophilic coating.
- With module-noble & fashion arc frame and color-elegant & graceful snow white, it will be inviting wherever it is in your room.
- General testing and operational test carried out for every unit before packaged in the factory.

CHAPTER 2 PERFORMANCE AND SPECIFICATION

1.Specification

Water fan coil (220-240V~/50Hz)					
Model		FFP-SLIM-250L2V-	FFP-SLIM-450L2V-	FFP-SLIM-650L2V-	FFP-SLIM-850L2V-
Heating capacity①	W	2750	4435	5950	7450
Water flow rate①	l/min	4.7	6.4	9.1	11.5
Pressure drop①	kPa	10.6	12.2	26.2	27.5
Heating capacity②	W	1450	2800	3450	4400
Water flow rate②	l/min	5.4	7.8	9.8	12.5
Pressure drop②	kPa	10.8	13.1	27.5	27.9
Cooling capacity③	W	1100	2100	2650	3700
Water flow rate③	l/min	2.9	5.6	7.3	10
Pressure drop③	kPa	11.1	13.3	27.7	28.3
Air volume	m ³ /h	145	175	290	320
Noise (High speed)	dB(A)	40	39	41	43
Noise (Low speed)	dB(A)	28	30	31	32
Power Supply		220-240V~/50Hz			
Power Input	W	15	20	23	25
Pipe connection	inch	3/4	3/4	3/4	3/4
Drain pipe	mm	16	16	16	16

Testing condition:

- ① Heating test conditions: entering water temp. at 70°C , $\Delta T=10^{\circ}\text{C}$, and entering air temp. at 20°C DB.
- ② Heating test conditions: entering water temp. at 50°C , $\Delta T=5^{\circ}\text{C}$, and entering air temp. at 20°C DB .
- ③ Cooling test conditions: entering water temp. at 7°C , $\Delta T=5^{\circ}\text{C}$, and entering air temp. at 27°C DB / 19°C WB.

Working condition:

Heating:

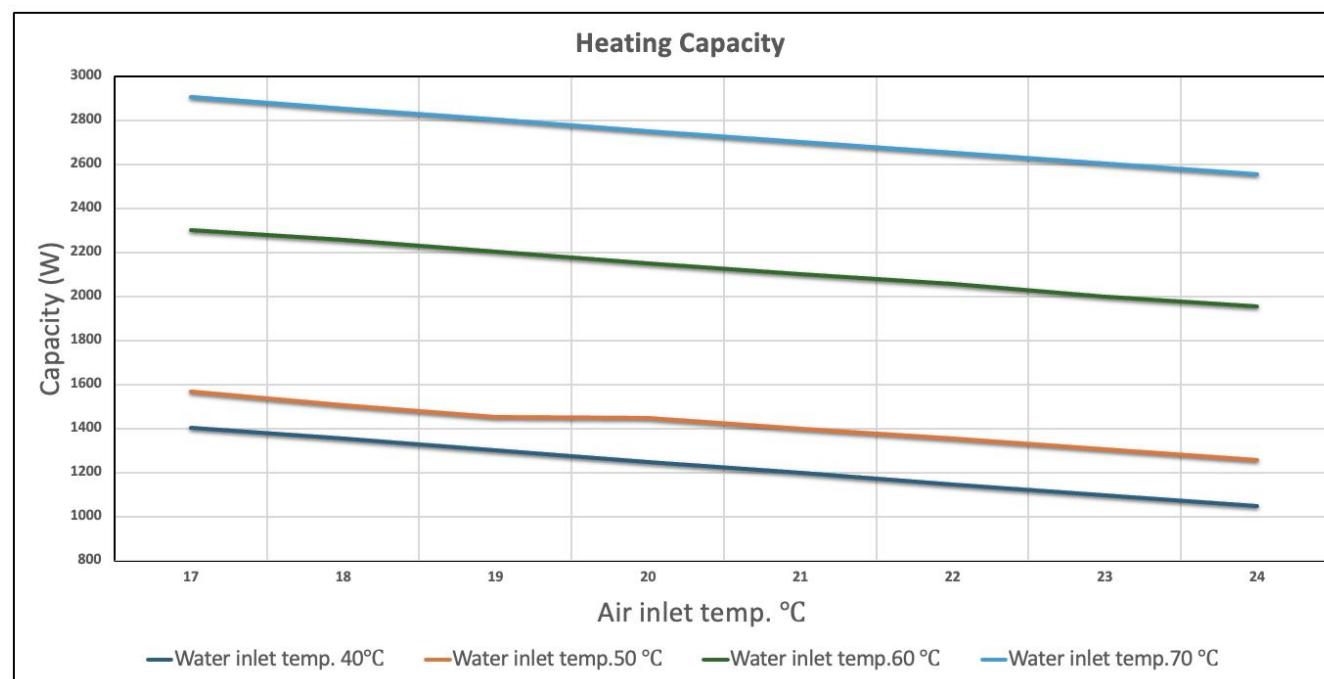
Ambient temperature: $5-29^{\circ}\text{C}$; Inlet water temperature: $35-70^{\circ}\text{C}$.

Cooling:

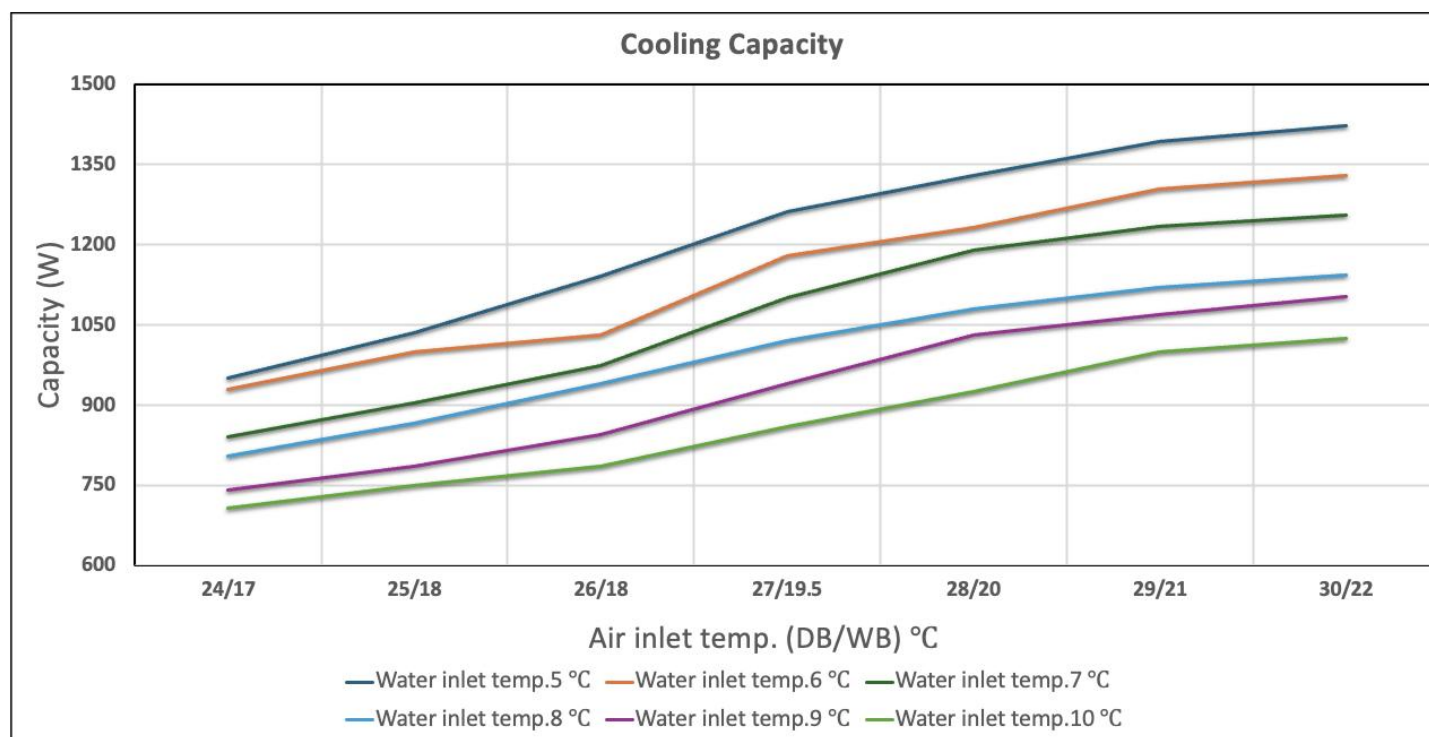
Ambient temperature: $9-35^{\circ}\text{C}$; Inlet water temperature: $5-20^{\circ}\text{C}$.

2. Performance curve

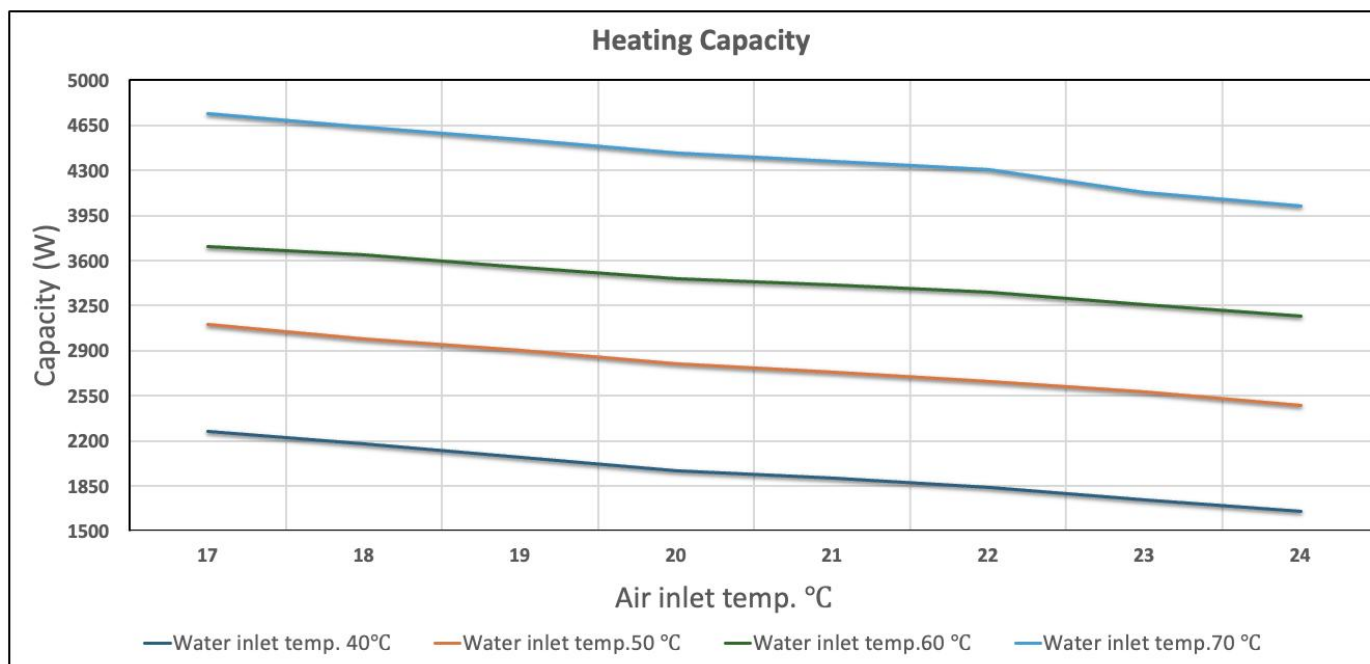
FFP-SLIM-250L2V-		Performance curve of Heating mode			
Water inlet temp. (°C)	Air inlet temp.(D.B.)(°C)	40°C	50 °C	60 °C	70 °C
17		1404	1566	2300	2904
18		1355	1505	2255	2855
19		1302	1454	2203	2803
20		1250	1450	2150	2750
21		1200	1401	2102	2702
22		1146	1356	2055	2655
23		1095	1304	2001	2603
24		1046	1256	1955	2554



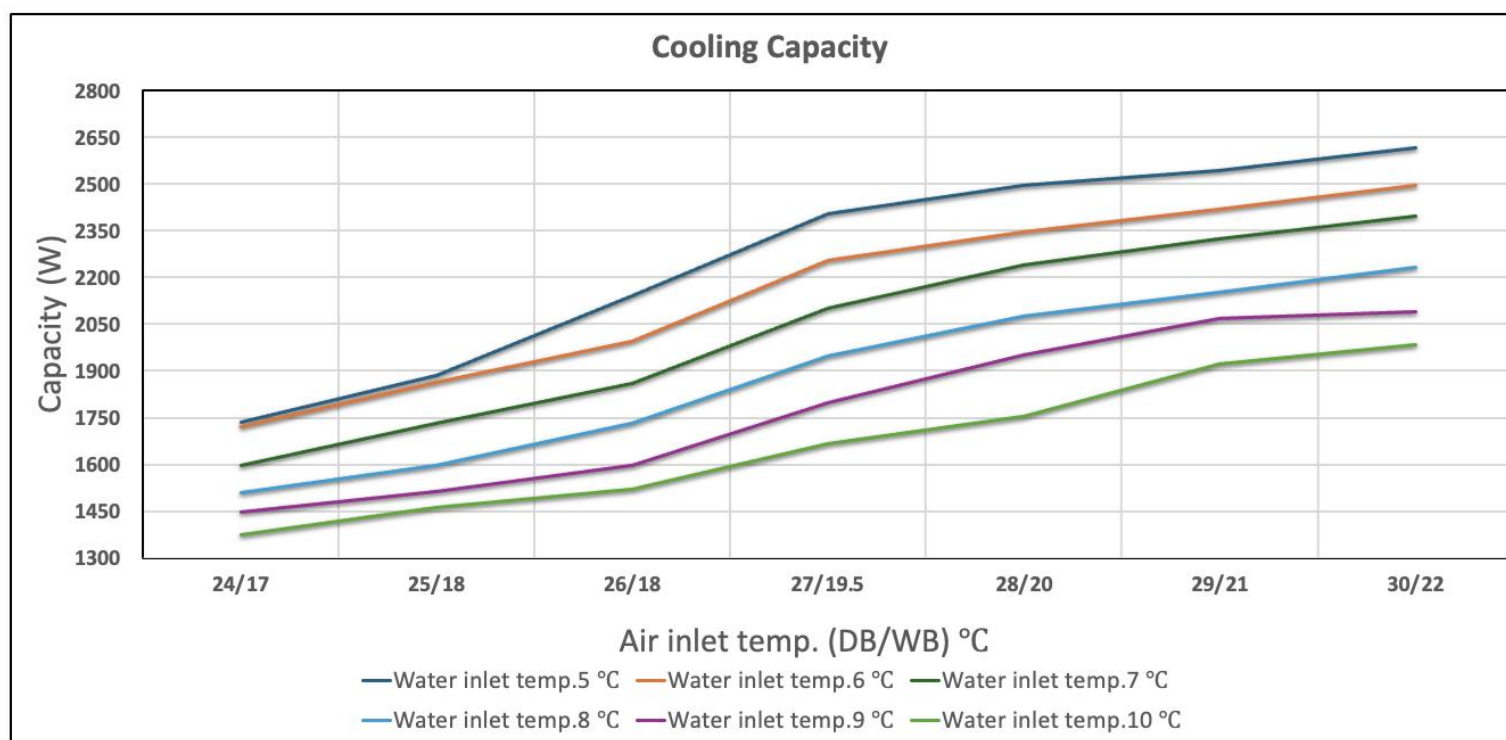
FFP-SLIM-250L2V-		Performance curve of Cooling mode					
Water inlet temp. (°C)		5 °C	6 °C	7 °C	8 °C	9 °C	10 °C
Air inlet temp.(D.B./W.B.)(°C)							
24/17		950	930	840	805	740	706
25/18		1035	1000	904	865	785	750
26/18		1141	1030	974	940	845	785
27/19.5		1261	1180	1100	1020	940	860
28/20		1330	1233	1190	1080	1030	926
29/21		1393	1305	1235	1120	1070	1000
30/22		1422	1330	1255	1143	1102	1025



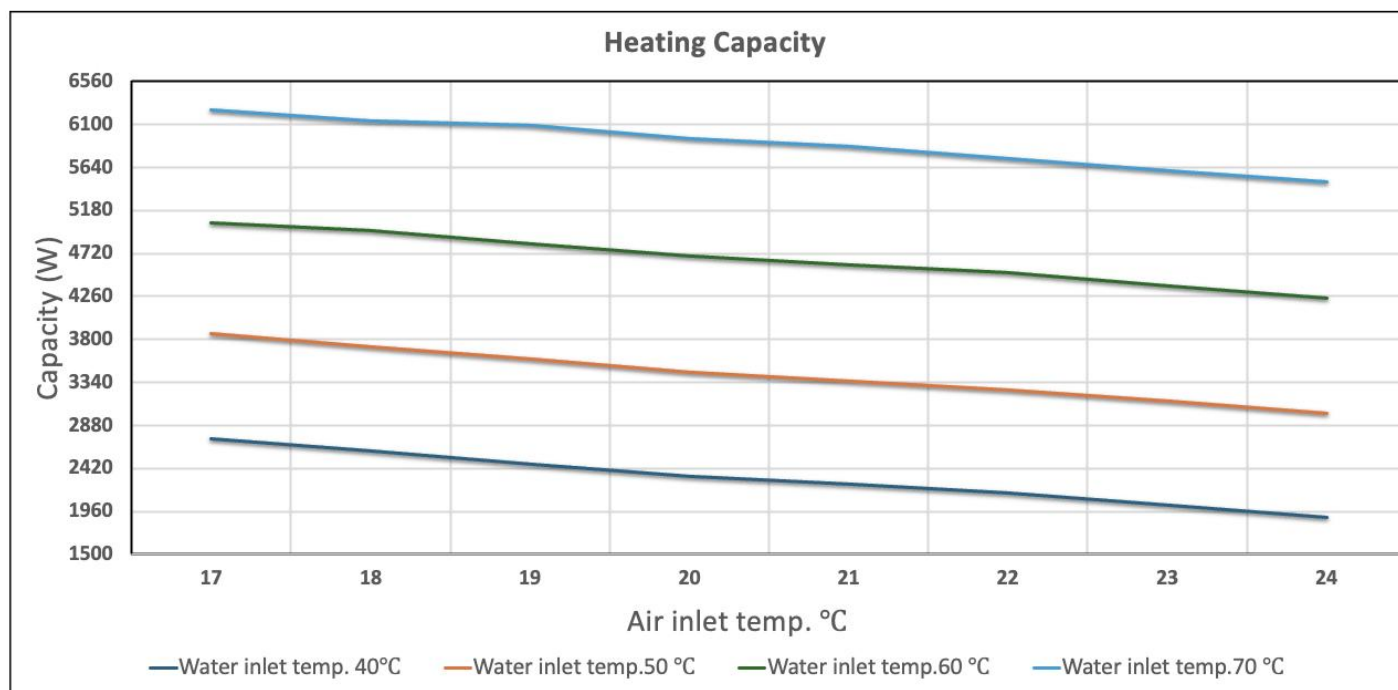
FFP-SLIM-450L2V-		Performance curve of Heating mode			
Air inlet temp.(D.B.)(°C)		40°C	50 °C	60 °C	70 °C
Water inlet temp.(°C)					
17		2275	3100	3705	4745
18		2180	2995	3645	4635
19		2070	2900	3550	4540
20		1970	2800	3460	4435
21		1910	2735	3410	4370
22		1835	2660	3355	4305
23		1740	2580	3260	4130
24		1650	2475	3170	4025



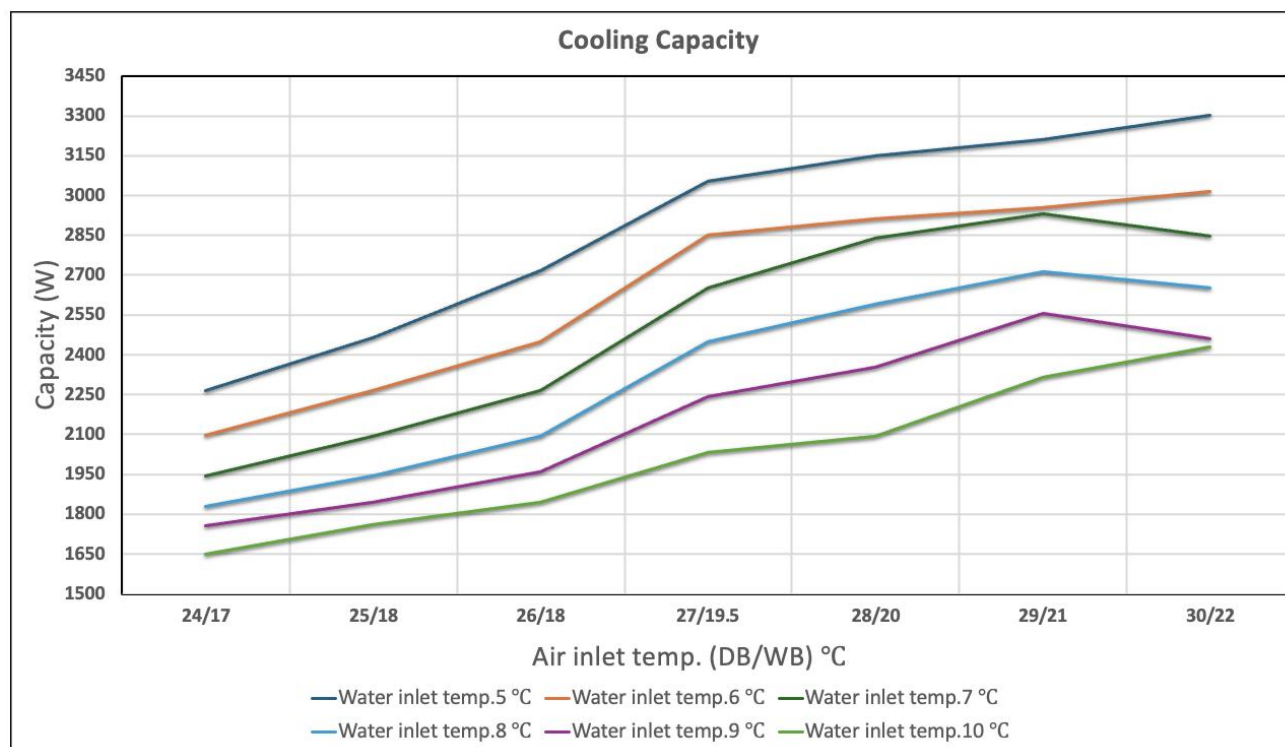
FFP-SLIM-450L2V-		Performance curve of Cooling mode					
Water inlet temp. (°C)		5 °C	6 °C	7 °C	8 °C	9 °C	10 °C
Air inlet temp.(D.B./W.B.)(°C)							
24/17		1735	1720	1595	1510	1445	1375
25/18		1886	1865	1730	1595	1513	1463
26/18		2140	1995	1860	1730	1595	1520
27/19.5		2402	2253	2100	1947	1796	1665
28/20		2495	2345	2240	2075	1950	1753
29/21		2544	2420	2325	2150	2066	1920
30/22		2615	2493	2395	2233	2090	1983



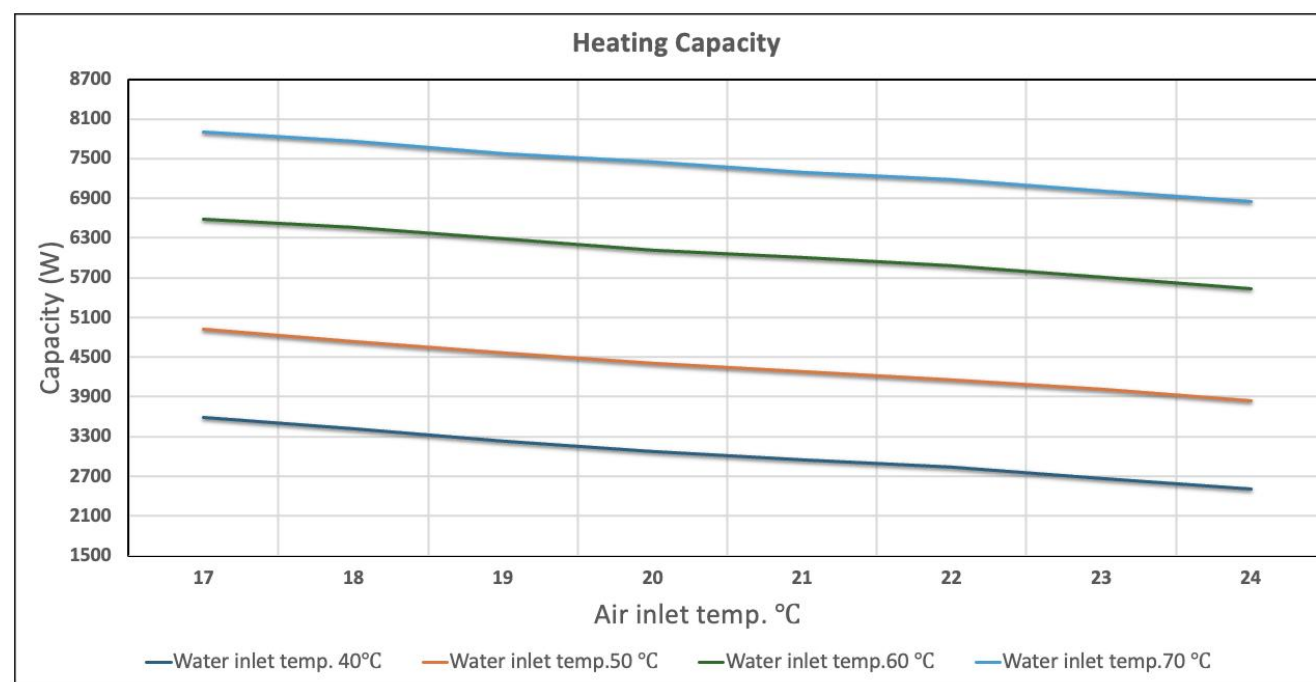
FFP-SLIM-650L2V- Performance curve of Heating mode				
Air inlet temp.(D.B.)(°C) Water inlet temp. (°C)	40°C	50 °C	60 °C	70 °C
17	2735	3864	5050	6250
18	2601	3720	4960	6140
19	2467	3585	4825	6090
20	2333	3450	4690	5950
21	2247	3351	4600	5863
22	2159	3262	4510	5732
23	2026	3140	4375	5605
24	1892	3010	4240	5480



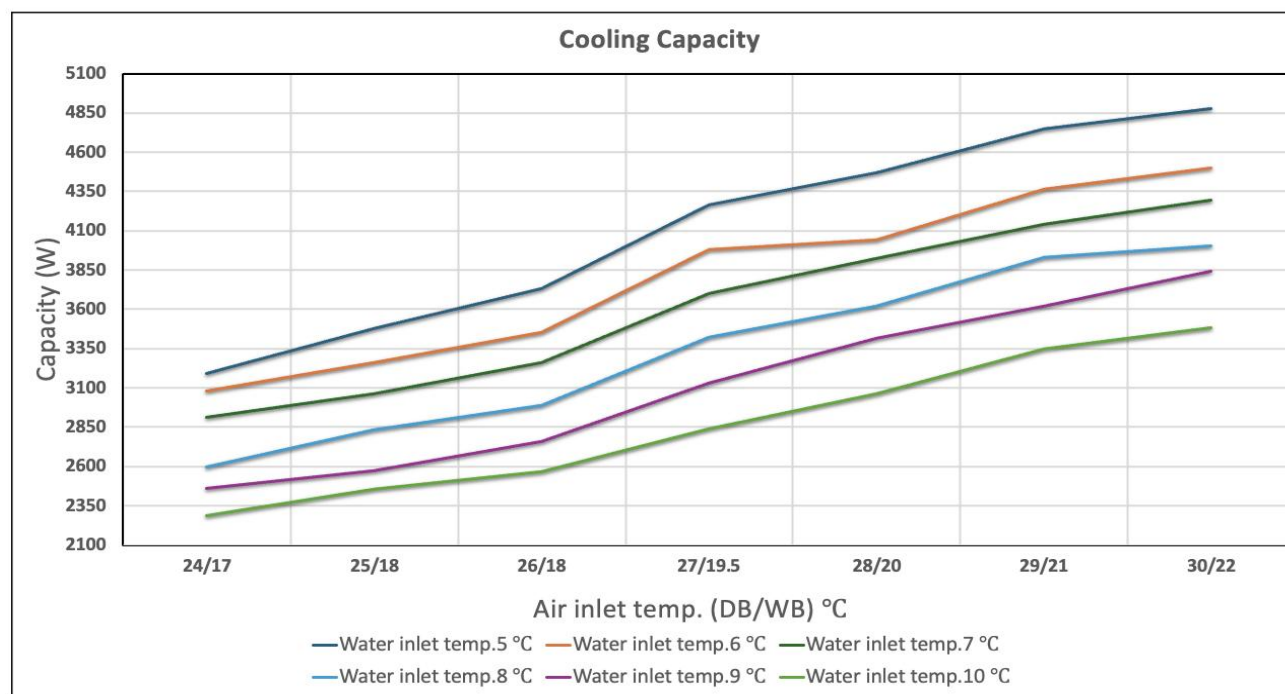
FFP-SLIM-650L2V-		Performance curve of Cooling mode					
Water inlet temp. (°C)		5 °C	6 °C	7 °C	8 °C	9 °C	10 °C
Air inlet temp.(D.B./W.B.)(°C)							
24/17		2265	2095	1945	1830	1755	1650
25/18		2465	2265	2095	1945	1845	1760
26/18		2715	2450	2265	2095	1958	1845
27/19.5		3053	2850	2650	2450	2243	2034
28/20		3150	2913	2840	2590	2355	2095
29/21		3209	2955	2930	2712	2555	2317
30/22		3300	3015	2845	2650	2460	2430



FFP-SLIM-850L2V-		Performance curve of Heating mode			
Air inlet temp.(D.B.)(°C)		40°C	50 °C	60 °C	70 °C
Water inlet temp. (°C)					
17		3585	4916	6585	7904
18		3415	4735	6465	7760
19		3235	4572	6290	7580
20		3067	4400	6116	7450
21		2955	4275	6005	7294
22		2840	4157	5880	7182
23		2670	4009	5710	7018
24		2500	3839	5530	6852



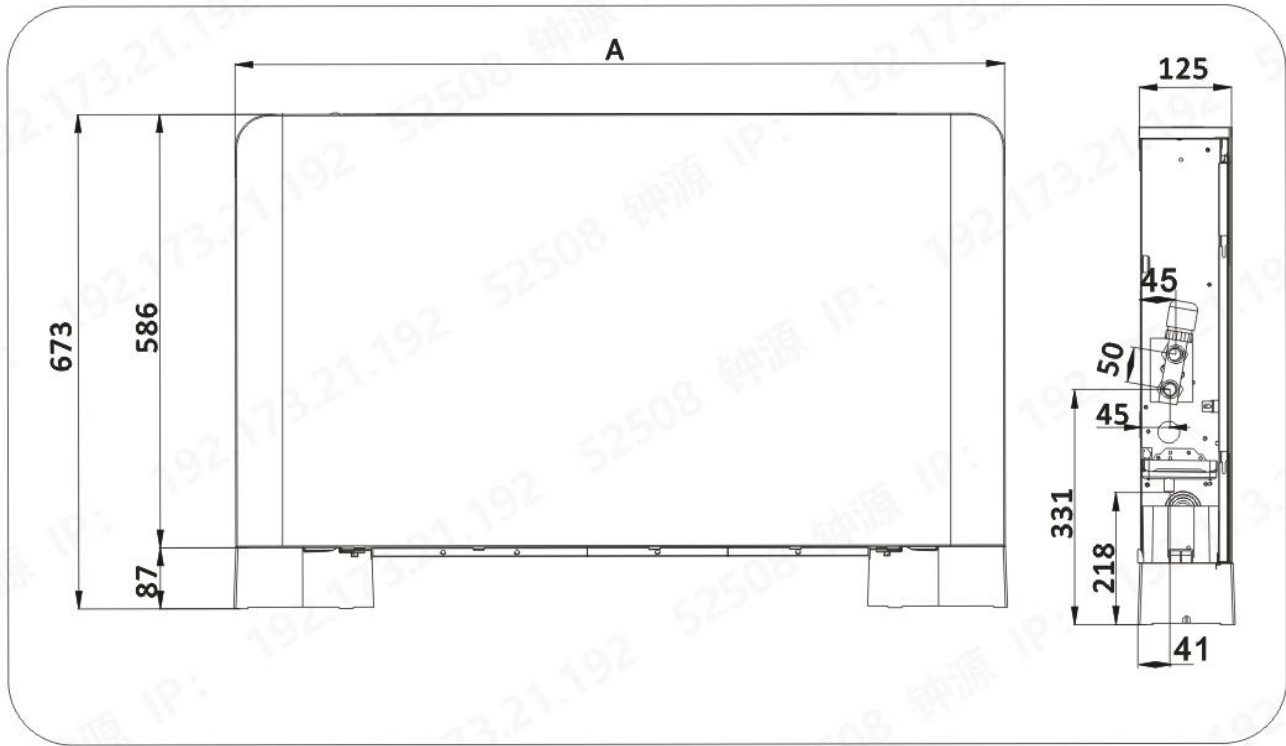
FFP-SLIM-850L2V-		Performance curve of Cooling mode					
Water inlet temp. (°C)		5 °C	6 °C	7 °C	8 °C	9 °C	10 °C
Air inlet temp.(D.B./W.B.)(°C)							
24/17		3190	3080	2915	2595	2460	2289
25/18		3475	3260	3065	2831	2570	2455
26/18		3733	3455	3259	2985	2756	2569
27/19.5		4264	3980	3700	3420	3130	2837
28/20		4470	4040	3923	3620	3415	3060
29/21		4750	4363	4139	3930	3620	3350
30/22		4880	4500	4295	4005	3841	3485



3. Dimension

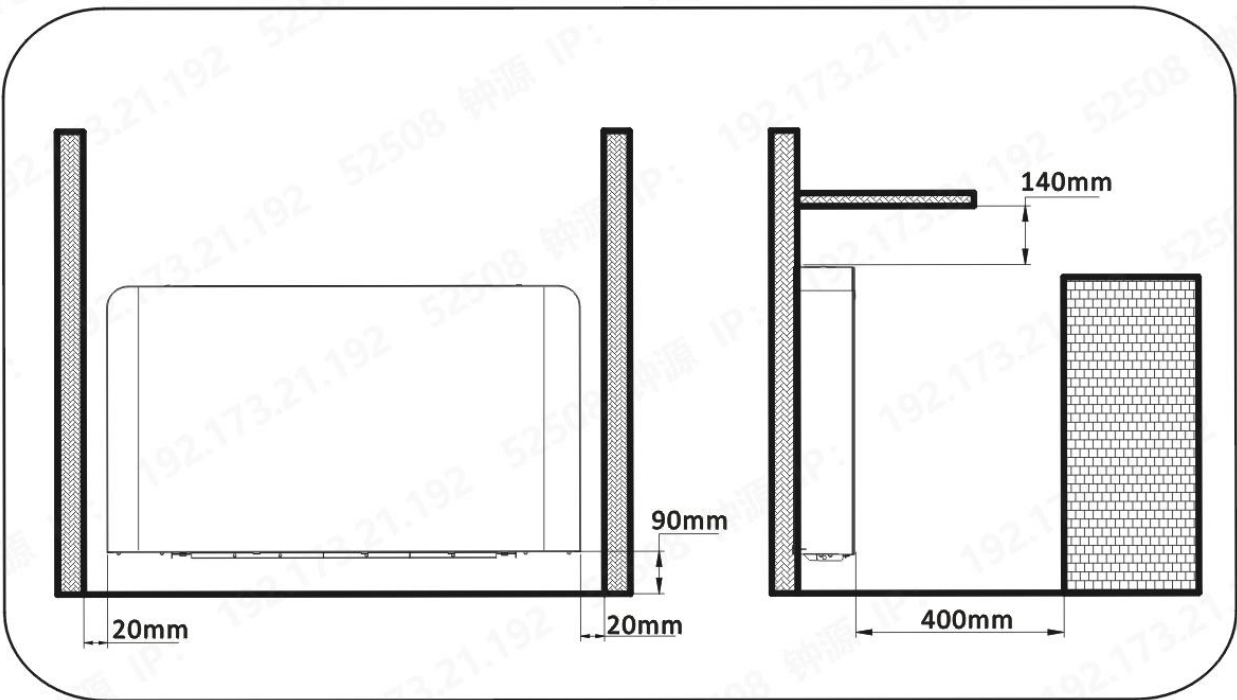
Product model: FFP-SLIM-250-450-650850L2V-

Unit: mm

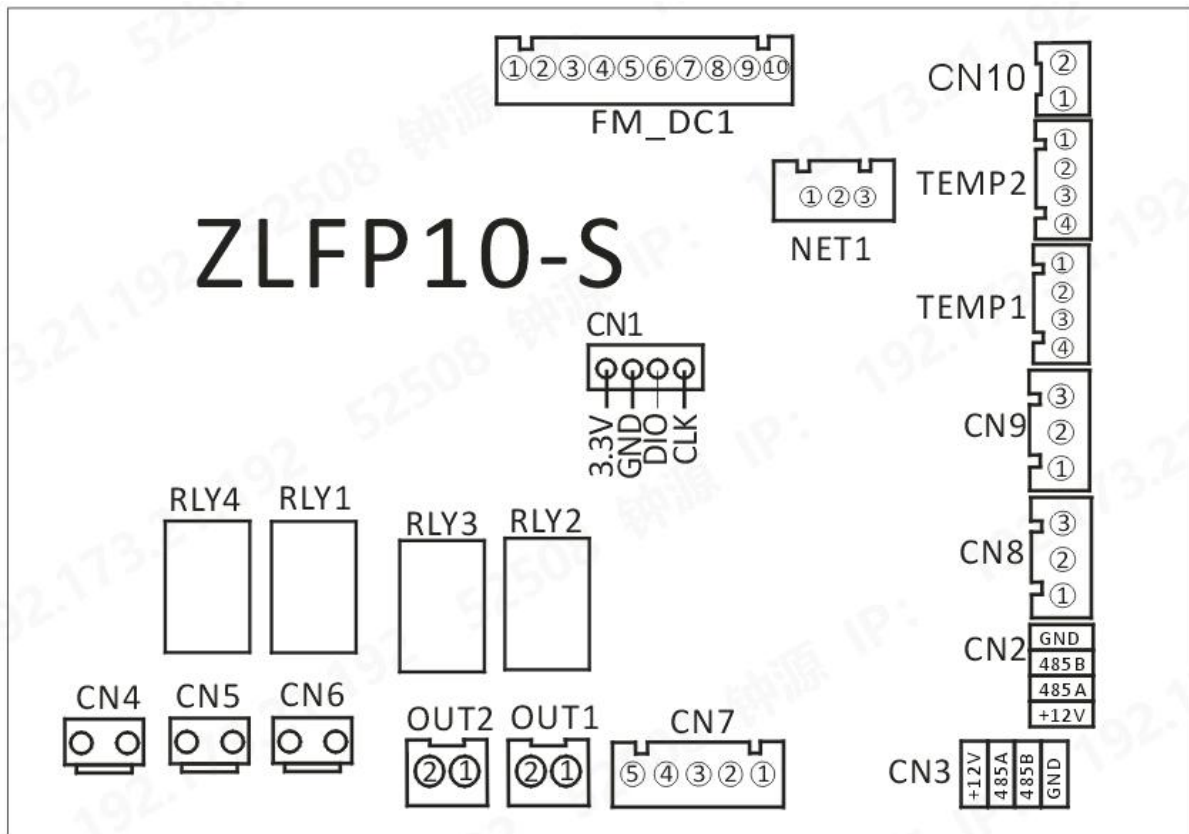


Model	FFP-SLIM-250L2V-	FFP-SLIM-450L2V-	FFP-SLIM-650L2V-	FFP-SLIM-850L2V-
A	730	930	1130	1330

4.Mending Space



5.Controller interface diagram and definition



Connections explanation:

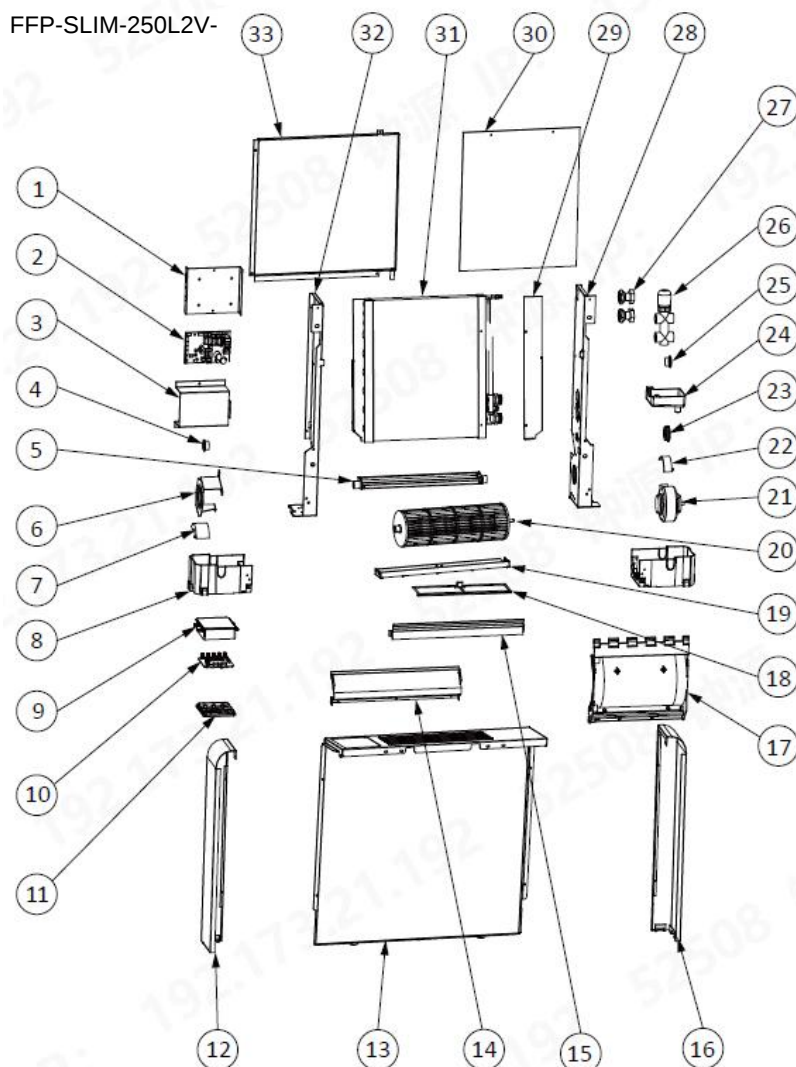
Number	Signal	Meaning
1	CN1	Program port
2	CN2	Centralized control/Barcode injection
3	CN3	The colour wire controller/WIFI
4	CN4	220V input
5	CN5	Water valve
6	CN6	Reserved
7	CN7	Air vent output
8	CN8	Reserved
9	CN9	Reserved
10	CN10	Remote switch
11	TEMP1	Reserved
12	TEMP2	Indoor temp.and coil temp.
13	OUT1	Control the heat pump mode
14	OUT2	Control the heat pump ON/OFF
15	FM_DC1	DC motor
16	NET1	Wire controller (optional)

6. Exploded view

Maintenance and Service Explode view and spare parts

COMPANY MODEL:

FFP-SLIM-250L2V-

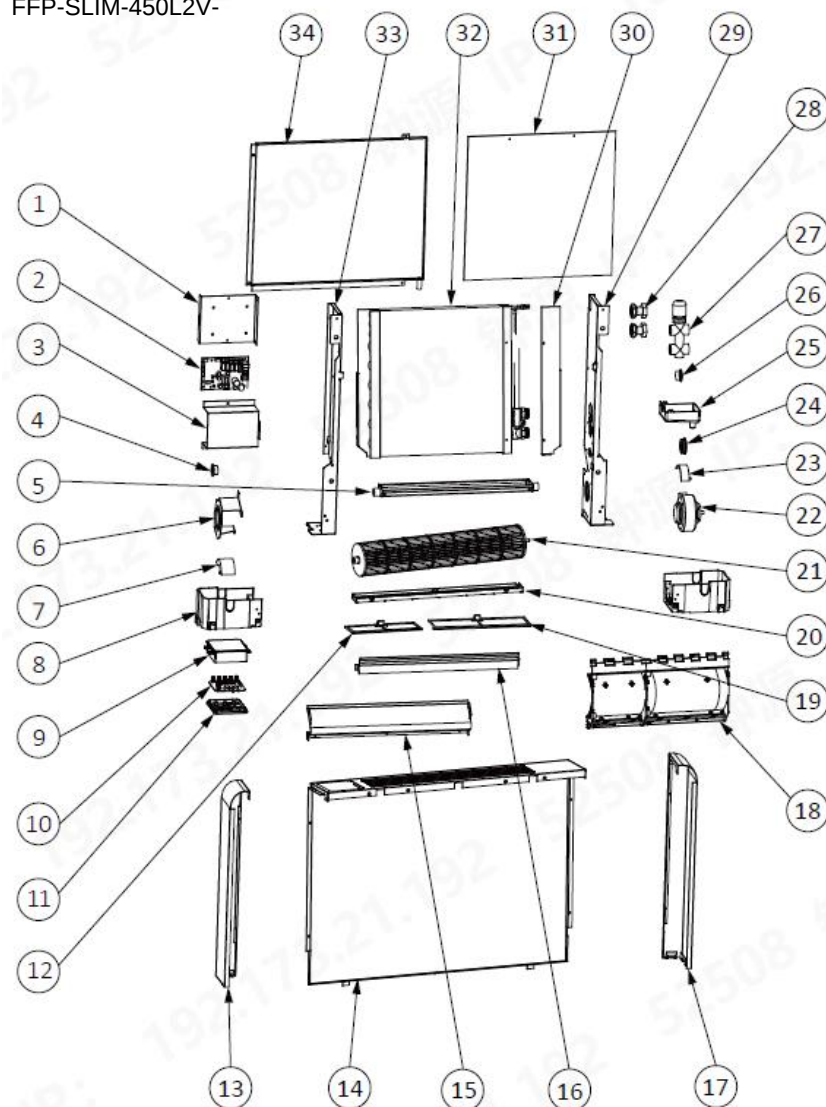


Number	Code	Components name	Specification
1	80715845	Fixed Plate	DX51D+Z80 t1.0
2	82300522	ZLFP10-S	MXL443
3	80715846	Electrical Cover Plate	DX51D+Z80 t1.0
4	31022-220057	Rubber Plug	Rubber
5	31020-220007	Water Collection Tray Assembly	ABS
6	80715844	Motor Bracket	DX51D+Z80 t1.2
7	31022-220033	Wind Shield	ABS
8	31022-220020	Reinforcement Block	ABS
9	80901645	Wire Controller Housing Assen	ABS
10	82300416	LED600-S	MXL415
11	80900767	Wire Controller Box	ABS
12	80715498	Side Panel	DX51D+Z80 t1.0
13	80719247	Front Panel Assembly	DX51D+Z80 t1.0
14	31020-210012	Air Guide Plate	DX51D+Z80 t1.0
15	80719268	Air Guide Plate	DX51D+Z80 t1.0
16	80715497	Side Panel	DX51D+Z80 t1.0
17	31022-220003	Air Guide Ring	ABS
18	80901707	Filter Screen	PP
19	80719244	Air Outlet Grille Assembly	DX51D+Z80 t1.0
20	31020-220004	Cross Flow Fan	ABS
21	80200384	DC Motor	ZWR15-E
22	31022-220032	Wind Shield	ABS
23	31022-220027	Rubber Foot	Rubber
24	80901676	Drain Pan	ABS
25	31022-220006	Rubber Plug	Rubber
26	81000210	Manual Three-Way Valve	SRV 061T23-A50+SRT061 230
27	20000-130536	Union Joint	Brass
28	80715794	Bracket	DX51D+Z80 t1.2
29	80715852	Support Plate	DX51D+Z80 t1.0
30	80901942	Wind Shield	ABS
31	80602148	Finned Heat Exchanger	188×375×45xΦ7×2
32	80715793	Bracket	DX51D+Z80 t1.2
33	80719250	Water Collection Tray	DX51D+Z80 t1.0

Maintenance and Service Explode view and spare parts

COMPANY MODEL:I

FFP-SLIM-450L2V-

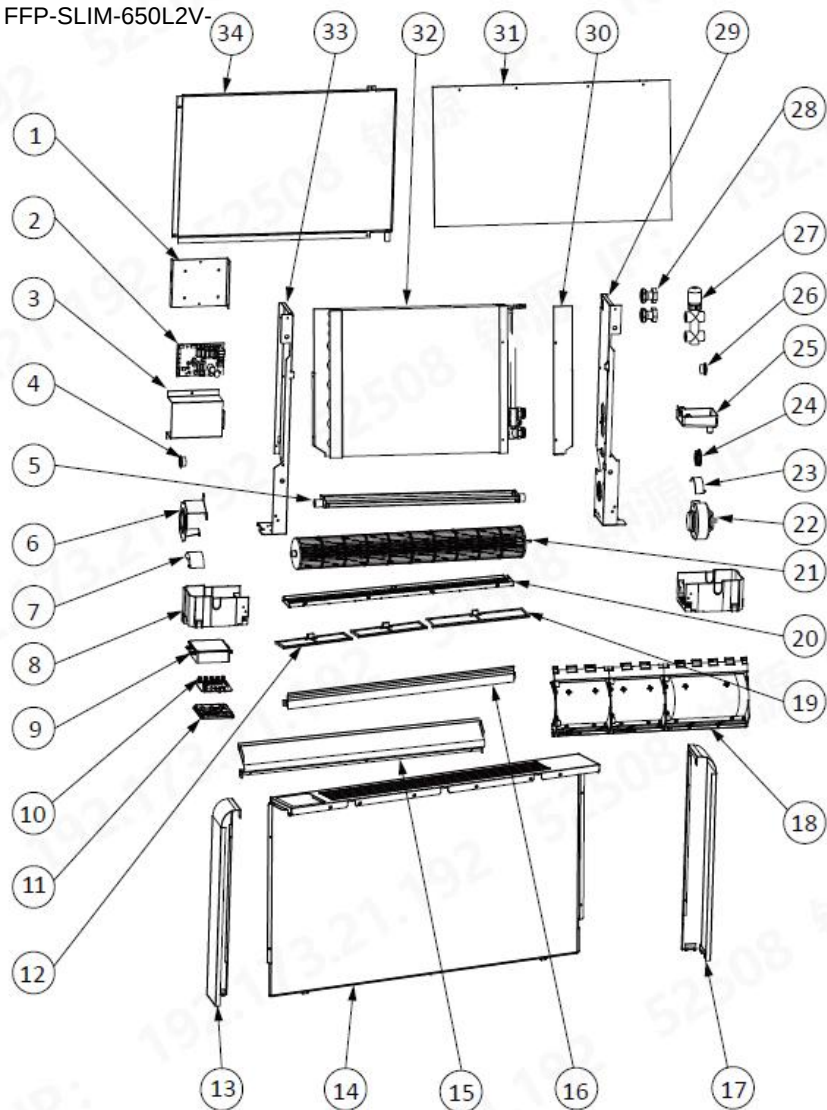


Number	Code	Components name	Specification
1	80715845	Fixed Plate	DX510+Z80 t1.0
2	82300522	ZLFP10-S	MXL443
3	80715846	Electrical Cover Plate	DX51D+Z80 t1.0
4	31022-220057	Rubber Plug	Rubber
5	31021-220007	Water Collection Tray Assembly	ABS
6	80715844	Motor Bracket	DX51D+Z80 t1.2
7	31022-220033	Wind Shield	ABS
8	31022-220020	Reinforcement Block	ABS
9	80901645	Wire Controller Housing Assen	ABS
10	82300416	LED600-S	MXL415
11	80900767	Wire Controller Box	ABS
12	80901708	Filter Screen	PP
13	80715498	Side Panel	DX51D+Z80 t1.0
14	80715496	Front Panel Assembly	DX51D+Z80 t1.0
15	31021-210013	Air Guide Plat	DX51D+Z80 t1.0
16	80717486	Air Guide Plat	DX51D+Z80 t1.0
17	80715497	Side Panel	DX51D+Z80 t1.0
18	809000000282	Air Guide Ring	ABS
19	80901707	Filter Screen	PP
20	80717485	Air Outlet Grille Assembly	DX51D+Z80 t1.0
21	31021-220005	Cross Flow Fan	ABS
22	80200384	DC Motor	ZWR15-E
23	31022-220032	Wind Shield	ABS
24	31022-220027	Rubber Foot	Rubber
25	80901676	Drain Pan	ABS
26	31022-220006	Rubber Plug	Rubber
27	81000210	Manual Three-Way Valve	SRV 061T23-A50+SRT061 230
28	20000-130536	Union Joint	Brass
29	80715794	Bracket	DX51D+Z80 t1.2
30	80715852	Support Plate	DX510+Z80 t1.0
31	80901444	Wind Shield	ABS
32	80601806	Finned Heat Exchanger	388×375×45×Φ7×2
33	80715793	Bracket	DX51D+Z80 t1.2
34	80715795	Water Collection Tray	DX51D+Z80 t1.0

Maintenance and Service Explode view and spare parts

COMPANY MODEL:

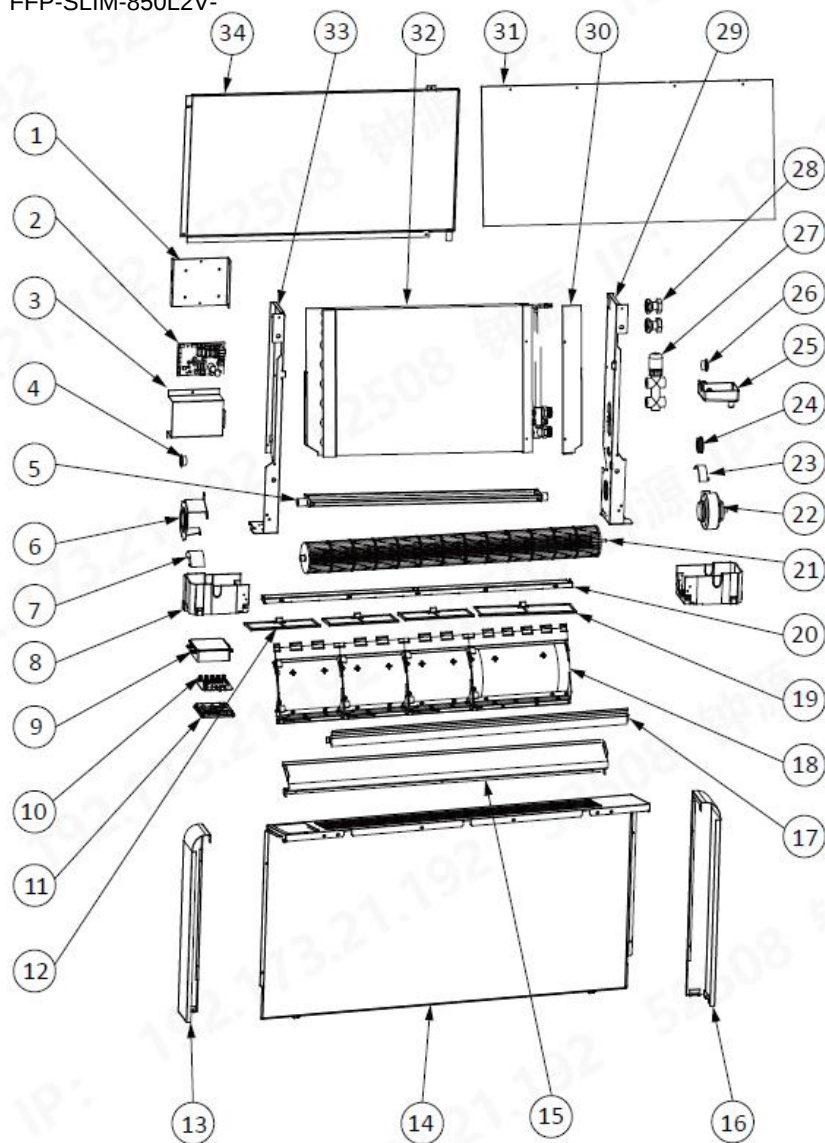
FFP-SLIM-650L2V-



Number	Code	Components name	Specification
1	80715845	Fixed Plate	DX51D+Z80 t1.0
2	82300522	ZLFP10-S	MXL443
3	80715846	Electical Cover Plate	DX51D+Z80 t1.0
4	31022-220057	Rubber Plug	Rubber
5	31022-220055	Water Collector Tray Assembly	ABS
6	80715844	Motor Bracket	DX51D+Z80 t1.2
7	31022-220033	Wind shield	ABS
8	31022-220020	Reinforcement Block	ABS
9	80901645	Wire Controller Housing Assen	ABS
10	82300416	LED600-S	MXL415
11	80900767	Wire Controller Box	ABS
12	80901708	Filter Screen	PP
13	80715498	Side Panel	DX51D+Z80 t1.0
14	80719248	Front Panel Assembly	DX51D+Z80 t1.0
15	80721571	Air Guide Plat	DX51D+Z80 t1.0
16	80719269	Air Guide Plat	DX51D+Z80 t1.0
17	80715497	Side Panel	DX51D+Z80 t1.0
18	809000000283	Air Guide Ring	ABS
19	80901707	Filter Screen	PP
20	80719245	Air Outlet Grille Assembly	DX51D+Z80 t1.0
21	31022-220028	Cross Flow Fan	ABS
22	80200384	DC Motor	ZWR15-E
23	31022-220032	Wind Shield	ABS
24	31022-220027	Rubber Foot	Rubber
25	80901676	Drain Pan	ABS
26	31022-220006	Rubber Plug	Rubber
27	81000210	Manual Three-Way Valve	SRV 061T23-A50+SRT061 230
28	20000-130536	Union Joint	Brass
29	80715794	Bracket	DX51D+Z80 t1.2
30	80715852	Support Plate	DX51D+Z80 t1.0
31	80901943	Wind Shield	ABS
32	80602149	Finned Heat Exchanger	588×375×45×Φ7×2
33	80715793	Bracket	DX51D+Z80 t1.2
34	80719251	Water Collection Tray	DX51D+Z80 t1.0

Maintenance and Service Explode view and spare parts

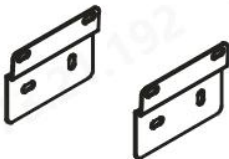
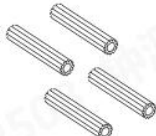
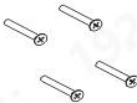
COMPANY MODEL
FFP-SLIM-850L2V-



Number	Code	Components name	Specification
1	80715845	Fixed Plate	DX51D+Z80 t1.0
2	82300522	ZLFP10-S	MXL443
3	80715846	Electrical Cover Plate	DX51D+Z80 t1.0
4	31022-220057	Rubber Plug	Rubber
5	31023-220007	Water Collection Tray Assembly	ABS
6	80715844	Motor Bracket	DX51D+Z80 t1.2
7	31022-220033	Wind Shield	ABS
8	31022-220020	Reinforcement Block	ABS
9	80901645	Wire Controller Housing Assen	ABS
10	82300416	LED600-S	MXL415
11	80900767	Wire Controller Box	ABS
12	80901708	Filter Screen	PP
13	80715498	Side Panel	DX51D+Z80 t1.0
14	80719248	Front Panel Assembly	DX51D+Z80 t1.0
15	31023-210012	Air Guide Plat	DX51D+Z80 t1.0
16	80715497	Side Panel	DX51D+Z80 t1.0
17	80719270	Air Guide Plat	DX51D+Z80 t1.0
18	809000000284	Air Gulde Ring	ABS
19	80901707	Filter Screen	PP
20	80719246	Air Outlet Grille Assembly	DX51D+Z80 t1.0
21	31023-220005	Cross Flow Fan	ABS
22	80200384	DC Motor	ZWR15-E
23	31022-220032	Wind Shield	ABS
24	31022-220027	Rubber Foot	Rubber
25	80901676	Drain Pan	ABS
26	31022-220006	Rubber Plug	Rubber
27	81000210	Manual Three-Way Valve	SRV 061T23-A50+SRT061 230
28	20000-130536	Union Joint	Brass
29	80715794	Bracket	DX51D+Z80 t1.2
30	80715852	Support Plate	DX51D+Z80 t1.0
31	80901944	Wind Shield	ABS
32	80602150	Finned Heat Exchanger	788×375×45×Φ7×2
33	80715793	Bracket	DX51D+Z80 t1.2
34	80719252	Water Collection Tray	DX51D+Z80 t1.0

CHAPTER 3 INSTALLATION

1.Accessories(Optional)

Vertical Water Fan Coil	Bellows	Manual	Feet
			
Brackets	Toggle bolts	Screw	Drain Pipe
			
electrothermal 3-way valve	Remote controller	Cable reserved for CN5	
			

CHAPTER 4 Operation

1. Interface display

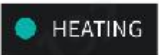


2.Key and icon and icon function instruction

2.1 Key function instruction function instruction

Key symbols	Designation	Function
	Mode key	It is used to switch the unit mode and clear faults.
	On-off key	It is used to carry out startup, shutdown, cancel current operation and return to the last level of operation.
	Up key	It is used to page up and increase variable value.
	Down key	It is used to page down and decrease variable value.
	Setting key	It is used to enter the setting interface, confirm saving and timing setting.
	Fan speed key	It is used to switch the fan speed.

2.2 Icon function instruction

Icon symbols	Designation	Function
	Cooling symbol	It will display during cooling(there is no limit to startup and shutdown, and it is optional when the unit is cooling-only unit or heating-and-cooling unit).
	Heating symbol	It will display during heating(there is no limit to startup and shutdown, and it is optional when the unit is heating-only unit or heating-and-cooling unit).
	Automatic symbol	It will display under the automatic mode(there is no limit to startup and shutdown, and it is optional when the unit is heating-and-cooling unit).
	Low fan speed	When the fan runs at low speed, the light is on.
	Medium fan speed	When the fan runs at medium speed, the light is on.
	High fan speed	When the fan runs at high speed, the light is on.
	Auto fan speed	When the fan runs at auto speed, the light is on.
	Set symbol	When the parameter is adjustable, it is on.
	Fault symbol	In case of unit fault, it will flash.

Note: When all mode indicators are off, the unit is in ventilation mode.

3.Startup and shutdown



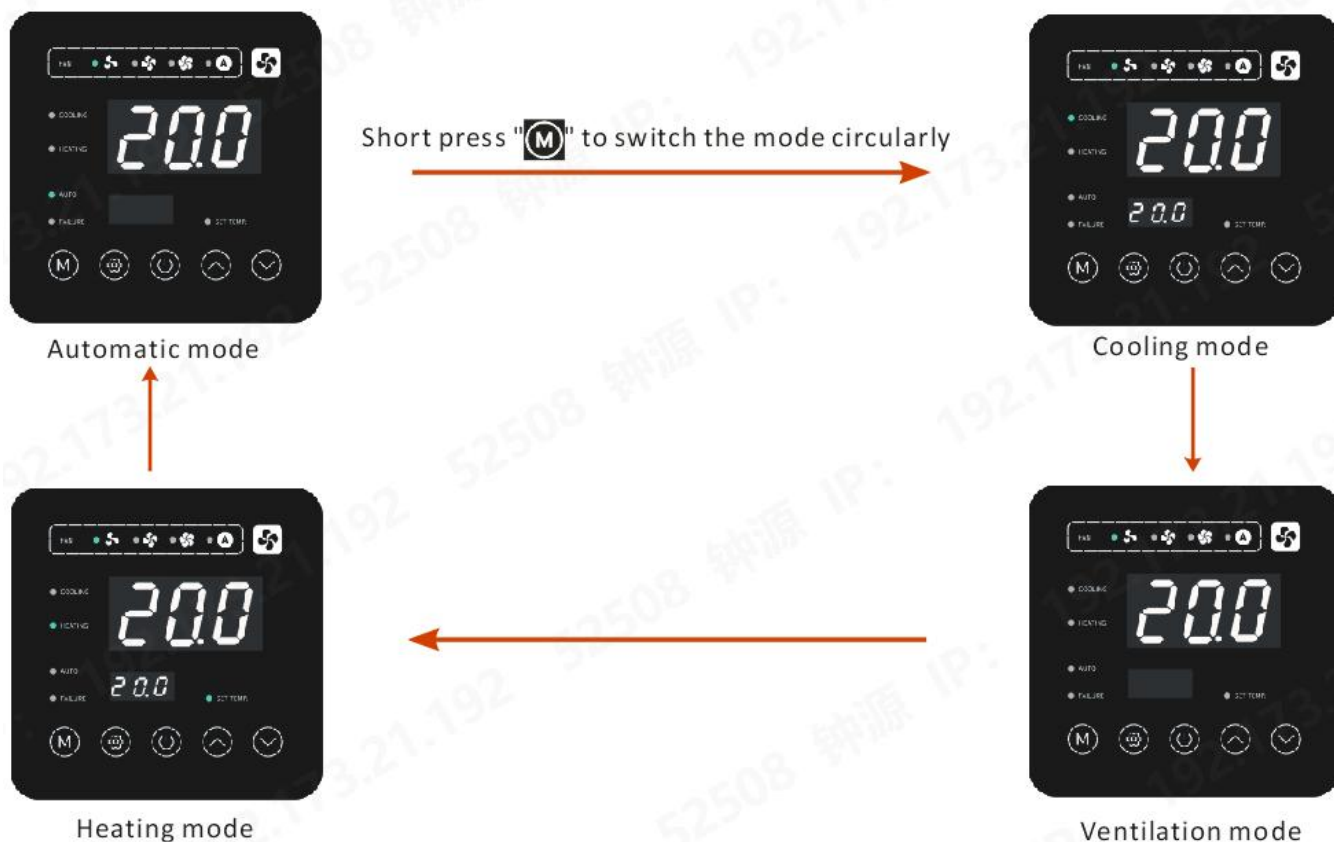
Notes:

Startup and shutdown operation can only be conducted in the main interface.

When it displays full screen off, click any key for returning to ON/OFF main interface.

4.Mode switch

In the main interface, short press "**M**" to switch the unit among automatic, cooling, ventilation and heating mode.



Operation descriptions:

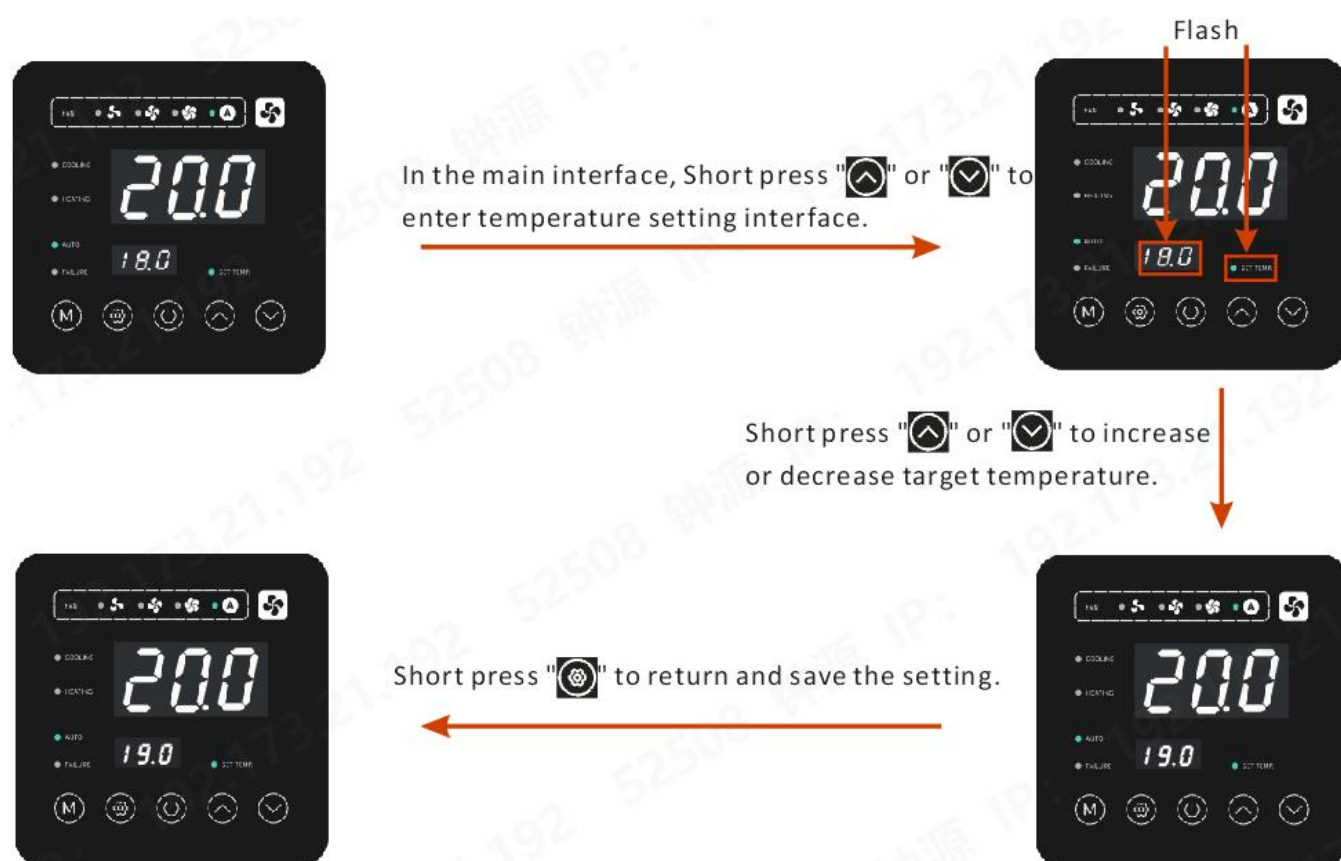
- 1). Mode switch operation can only be conducted in the main interface.
- 2). When the unit is under the dehumidification mode, the display interface as follows:



Notes:

This controller does not support switching to dehumidification mode. However, when the user switches to dehumidification mode through centralized control, "dEh." will be displayed in the second display area.

5. Temperature setting



Notes:

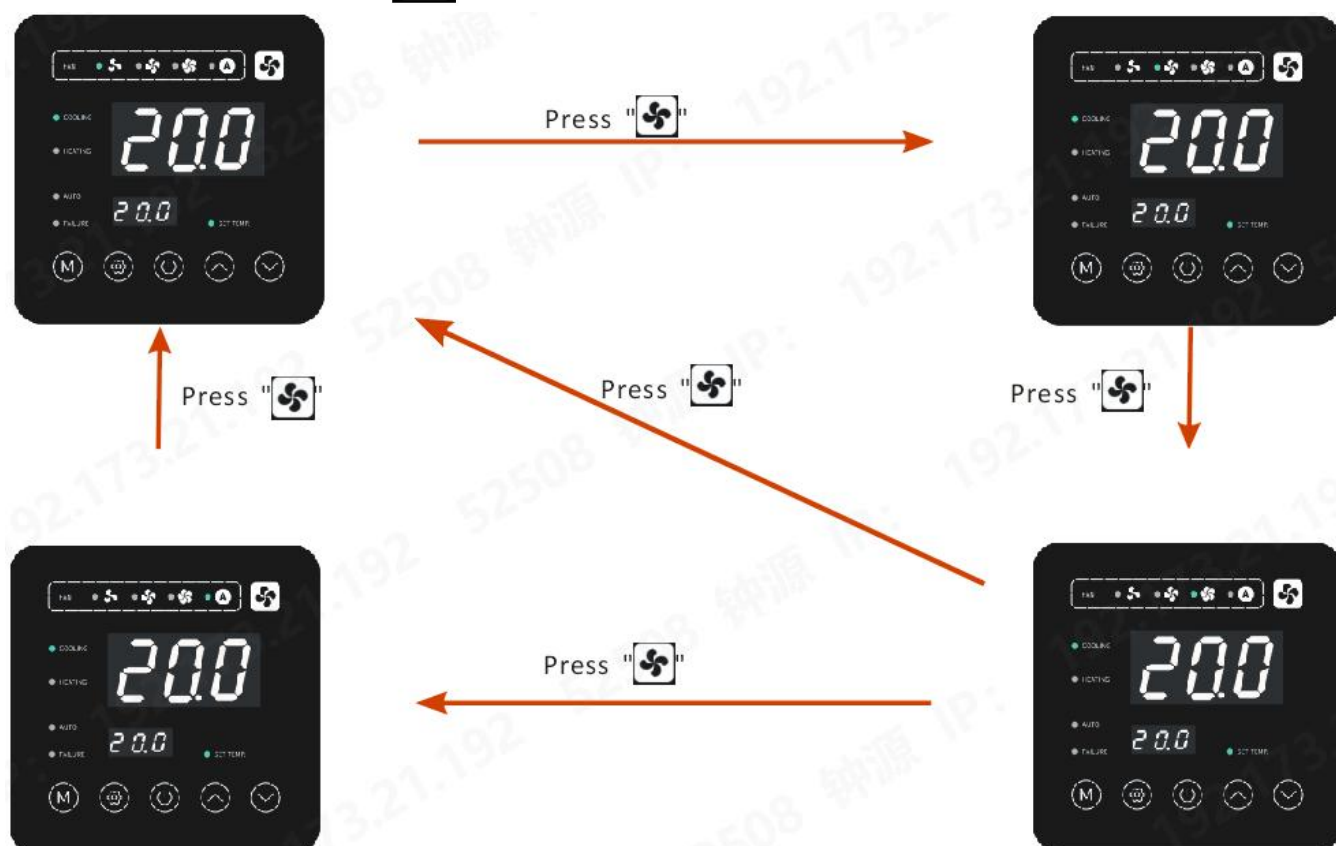
Under the temperature setting interface, if short press "⏻", the system will return to the main interface without any changes saved; If there is no operation for 5 s, the system will automatically memorize user's setting, and return to the main interface.

Remark:

Operation	Short press "⬆" or "⬇" to change each time within 2s	Long press "⬆" or "⬇" for more than 2s to change each time
Range of temp. variation	1°C / 1°F	1°C / 1°F

6. Fan speed setting

In the main interface, press "  " to switch fan speed to low, medium, high or auto.



Note: In heating, cooling and automatic modes, the circulation switches between low medium , high and automatic wind speed; In ventilation mode, available in switch between low, medium and high wind speed.

7.Setting of timing ON/OFF



Keep long press
"⚙️" for 2 s



Short press "⚙️" to
set timing off hour



Short press "⬆️" or "⬆️"
to adjust hour digit



Keep long press
"⚙️" for 2 s



Short press "⚙️" to
set timing on hour



Short press "⬆️" or "⬆️"
to adjust hour digit

Note:

1. Click "⚙️" to save the settings, click "⏻" to exit without saving and return to the main interface.
2. In the settings, if there is no operation for 6 seconds, it will stop flash; if there is no operation for 20 seconds, it will back to the main interface.

8. Check the unit status

When the screen is unlocked, press "▲" and "▼" in the main interface at the same time, the coil temperature will be displayed in the main display area, and the indoor temperature will be displayed after 3s.



9. Keyboard lock

To avoid mis-operation by others, please lock the wire controller after completing the setting.



Notes:

- 1). The screen lock function is available only when no fault occurs.
- 2). Under the locked screen interface, if a fault occurs, unlock the device immediately and return to the fault interface.
- 3). Under the locked screen interface, the main display area displays the indoor temperature, and the secondary display area displays the LOC. Other operations are unavailable except unlocking the screen.
- 4). Under the lock screen, the screen will sleep automatically after 1 minute without operation.
- 5). Under the lock screen, when H12=1, the remote control operation is effective; otherwise, the remote control operation is invalid.

10. Fault interface

When the unit fails, the fault code will be displayed on the secondary display interface, and the wire controller can display the corresponding code according to the fault reason. Refer to the fault table for the specific definition of the fault codes.

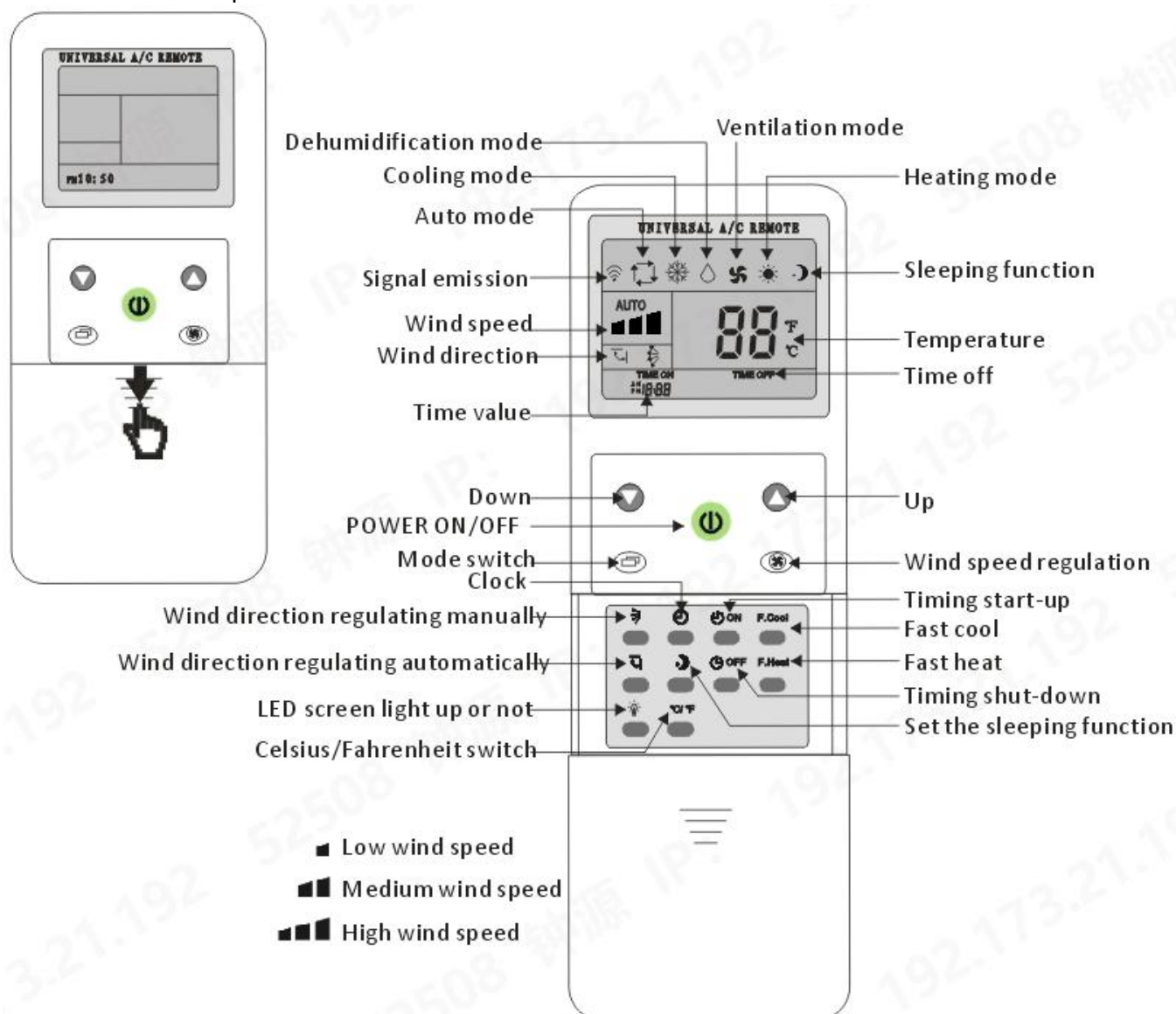
For example:



Notes:

- 1). When the fault is displayed in the secondary display area, press "Power" button to return to the main interface.
- 2). When the fault is displayed in the secondary display area, press "Up" button or "Down" button can make multiple faults cycle through the display.
- 3). In the main interface, if there is no operation for 10 seconds, it will return to the malfunction display.

11.Functional description of remote control



Key	Key name	Key instruction
	POWER ON/OFF	Press this key to start up or shut down the unit.
	Mode switch	Press this key to switch the mode among auto, cooling, dehumidifying, ventilating and heating.
	Wind speed	Press this key to switch the wind speed among high, medium, low and auto.
	Up	Press this key to increase the setting value.
	Down	Press this key to decrease the setting value.

CHAPTER 4 Fan coil controller Parameter

1.Parameter

Set	Description	Range	Default
H01	Enable anti-hot wind	0-Disable / 1-Enable	0
H02	Enable ultra low fan speed	0-Disable / 1-Enable	0
H03	Whether install the 3-way valve	0-No / 1-Yes	1
H04	Whether use floor heating	0-No / 1-Yes	0
H05	Temperature unit	0-°C / 1-°F	0
H06	Fan coil ON/OFF control	0-By dry contact CN10 1-By display/IR remote/Modbus	1
H07	Modbus slave ID	1~99	1
H08	Fan operation in sleep mode	0~1	1
H09	Fan operation when reached cooling target	0~2	2
H10	Fan operation when reached heating target	0~2	0
H11	Auto speed adjust period	0~120min	30
H12	Enable IR remote when key board is locked	0~1	1
R01	Cooling target	R05~R06	26°C
R02	Heating target	R05~R06	20°C
R03	Auto mode target for cooling	(R04+1)~R06°C	26°C
R04	Auto mode target for heating	R05~(R03-1)°C	20°C
R05	Min. Set point	-9.0~(R06-1)°C	8°C
R06	Max. Set point	(R05+1)~96.0°C	30°C
R07	Water temp. for anti-cold wind	5~40°C	25°C

Status	Description	Value
T01	Room temperature	/
T02	Water inlet temperature	/
O01	Fan speed	0: Stop 1: Ultra low 2: low 3: Medium 4: High 5: Reserve 6: Auto
O02	Fan rpm	/
O03	Water valve	0 -inactive / 1 -active
O04 (OUT2)	ON/OFF output	0: OPEN means turn off 1: CLOSE means turn on
O05 (OUT1)	Heating/Cooling output	0: OPEN means cooling 1: CLOSE means heating
O06	Anti-hot wind	0-Inactive/ 1-active
O07	Anti-cold wind	0-Inactive/ 1-active

2.Parameter description

H01: Enable anti-hot wind

H01=0

Disable this function

H01=1

Enable this function

Only use for cooling or Auto mode.

If inlet water temp. T02 $\geq 23^{\circ}\text{C}$, then stop the fan running.

When the inlet water temp. T02 is lower than 20°C , it will resume normal operation.

H02: Enable ultra low speed

H02=0

Fan has 3 speed control. High speed, Medium speed, low speed

H02=1

Fan has 4 speed control. High speed, Medium speed, low speed, ultra low speed.

The ultra low speed only use in auto speed and heating mode.

H03: Whether install the 3-way valve

H03=0

Without bypass valve

H03=1

With bypass valve

H04: Whether use floor heating

H04=0

Use fan coil heating

H04=1

Use floor heating. The fan will stop in heating mode

H06: Fan coil ON/OFF control

H06=0

Only use CN10 input control fan coil turn on/off. . CN10 is a dry contact input, voltage free.

CN10 input OPEN= turn off

CN10 input CLOSE= turn on

H06=1

Control fan coil by display/IR remote/Modbus

H08: Fan operation in sleep mode

H08=0

Fan will stop after enter sleep mode 1 hour later.

H08=1

Fan will switch to low speed after enter sleep mode 1 hour later

H09: Fan operation when reached cooling target

H09=0

Fan stop running after reach cooling target

H09=1

When the cooling target is reached, the fan will stop for 15 minutes and then run for 1 minute, repeating this cycle.

H09=2

Fan continue running after reach cooling target.

Note when H03=0 without bypass valve, can not set H09=2.

H10 Fan operation when reached heating target

H10=0

Fan stop running after reach heating target

H10=1

When the heating target is reached, the fan will stop for 15 minutes and then run for 1 minute, repeating this cycle.

H10=2

Fan continue running after reach heating target.

Note when H03=0 without bypass valve, can not set H09=2.

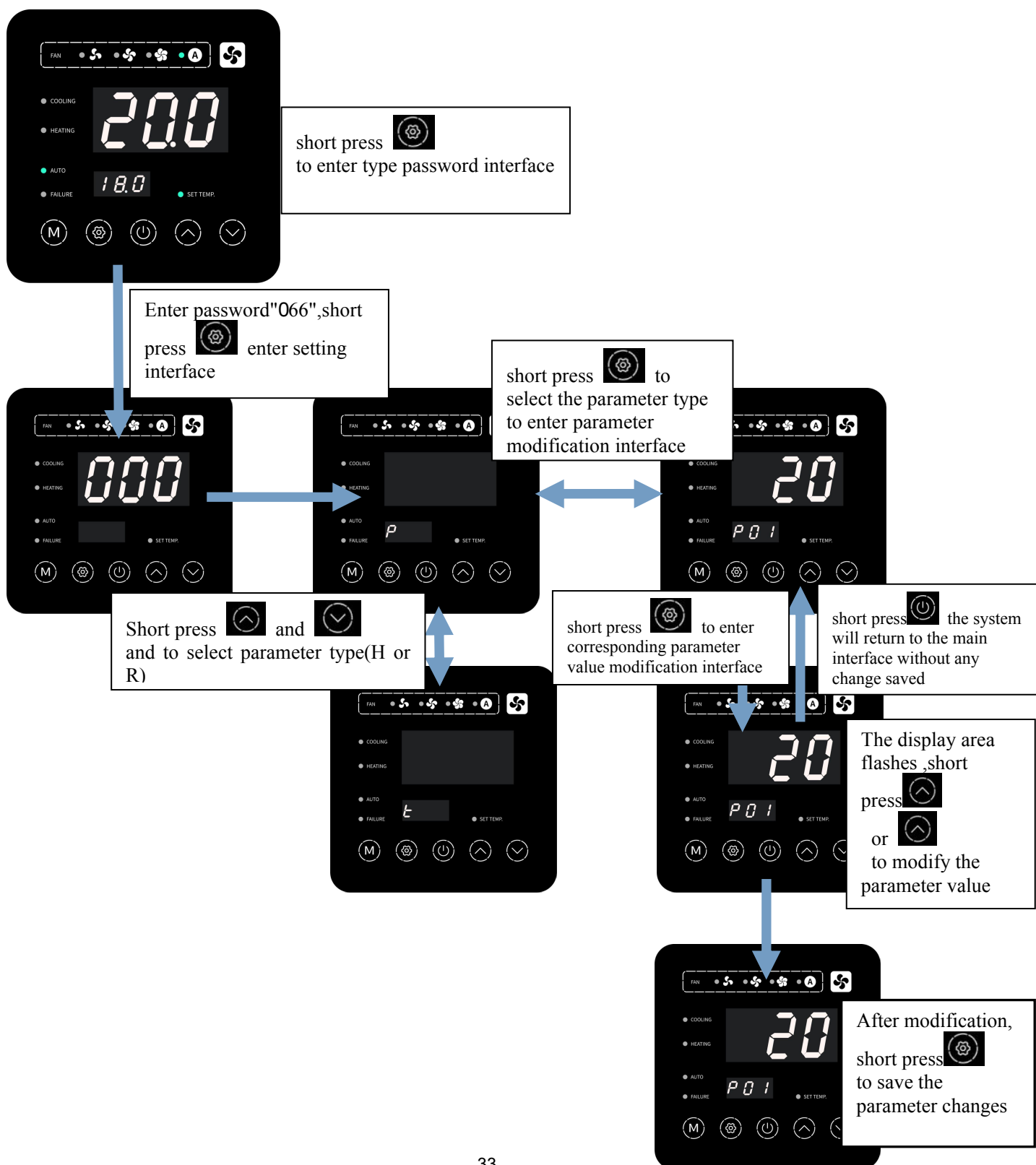
H12: Enable IR remote when key board is locked

H12=0

IR Remote controller is disabled when key board is locked.

H12=1

IR Remote controller can use all the time.

Parameter setting method

2. Malfunction table

The common failure cause and solution.

Fault	Fault display	Cause	Elimination methods
Indoor temp. sensor fault	P4	The temp. sensor is broken or short circuit	Check or change the temp. sensor
Coil temp. sensor fault	P5	The temp. sensor is broken or short circuit	Check or change the temp. sensor
Motor feedback signal	E0	Feedback wire is not inserted well or fan motor failure	Check the feedback wire or replace the motor
Communication fault	E8	Communication failure between wire controller and mainboard	Check the wire connection between remote wire controller and main board

Appendix I

NTC R-T Table (R25=5K Ω B25/50=3470K)

T (°C)	R (K Ω)		T (°C)	R (K Ω)		T (°C)	R (K Ω)
-30.0	63.7306		14.0	7.7643		58.0	1.5636
-29.0	60.3223		15.0	7.4506		59.0	1.5142
-28.0	57.1180		16.0	7.1513		60.0	1.4666
-27.0	54.1043		17.0	6.8658		61.0	1.4206
-26.0	51.2686		18.0	6.5934		62.0	1.3763
-25.0	48.5994		19.0	6.3333		63.0	1.3336
-24.0	46.0860		20.0	6.0850		64.0	1.2923
-23.0	43.7182		21.0	5.8479		65.0	1.2526
-22.0	41.4868		22.0	5.6213		66.0	1.2142
-21.0	39.3832		23.0	5.4048		67.0	1.1771
-20.0	37.3992		24.0	5.1978		68.0	1.1413
-19.0	35.5274		25.0	5.0000		69.0	1.1068
-18.0	33.7607		26.0	4.8108		70.0	1.0734
-17.0	32.0927		27.0	4.6298		71.0	1.0412
-16.0	30.5172		28.0	4.4566		72.0	1.0100
-15.0	29.0286		29.0	4.2909		73.0	0.9800
-14.0	27.6216		30.0	4.1323		74.0	0.9509
-13.0	26.2913		31.0	3.9804		75.0	0.9228
-12.0	25.0330		32.0	3.8349		76.0	0.8957
-11.0	23.8424		33.0	3.6955		77.0	0.8695
-10.0	22.7155		34.0	3.5620		78.0	0.8441
-9.0	21.6486		35.0	3.4340		79.0	0.8196
-8.0	20.6380		36.0	3.3113		80.0	0.7959
-7.0	19.6806		37.0	3.1937		81.0	0.7730
-6.0	18.7732		38.0	3.0809		82.0	0.7508
-5.0	17.9129		39.0	2.9727		83.0	0.7293
-4.0	17.0970		40.0	2.8688		84.0	0.7086
-3.0	16.3230		41.0	2.7692		85.0	0.6885
-2.0	15.5886		42.0	2.6735		86.0	0.6690
-1.0	14.8913		43.0	2.5816		87.0	0.6502
0.0	14.2293		44.0	2.4934		88.0	0.6320
1.0	13.6017		45.0	2.4087		89.0	0.6144
2.0	13.0057		46.0	2.3273		90.0	0.5973
3.0	12.4393		47.0	2.2491		91.0	0.5808
4.0	11.9011		48.0	2.1739		92.0	0.5647
5.0	11.3894		49.0	2.1016		93.0	0.5492
6.0	10.9028		50.0	2.0321		94.0	0.5342
7.0	10.4399		51.0	1.9656		95.0	0.5196

8.0	9.9995		52.0	1.9015		96.0	0.5055
9.0	9.5802		53.0	1.8399		97.0	0.4919
10.0	9.1810		54.0	1.7804		98.0	0.4786
11.0	8.8008		55.0	1.7232		99.0	0.4658
12.0	8.4385		56.0	1.6680		100.0	0.4533
13.0	8.0934		57.0	1.6149			

- 1) When there is some malfunction, test resistance value by multimeter, and compare the practical temperature with the above table, then you will know whether this NCT resistance is OK or not.
- 2) Generally, from above table, you can know the temperature by testing NTC resistance value.