



# Technical manual

## Europe Series

(DC Inverter 1 Drive 1 50/60Hz **R32**)

**DC Inverter LCAC Europe R32**

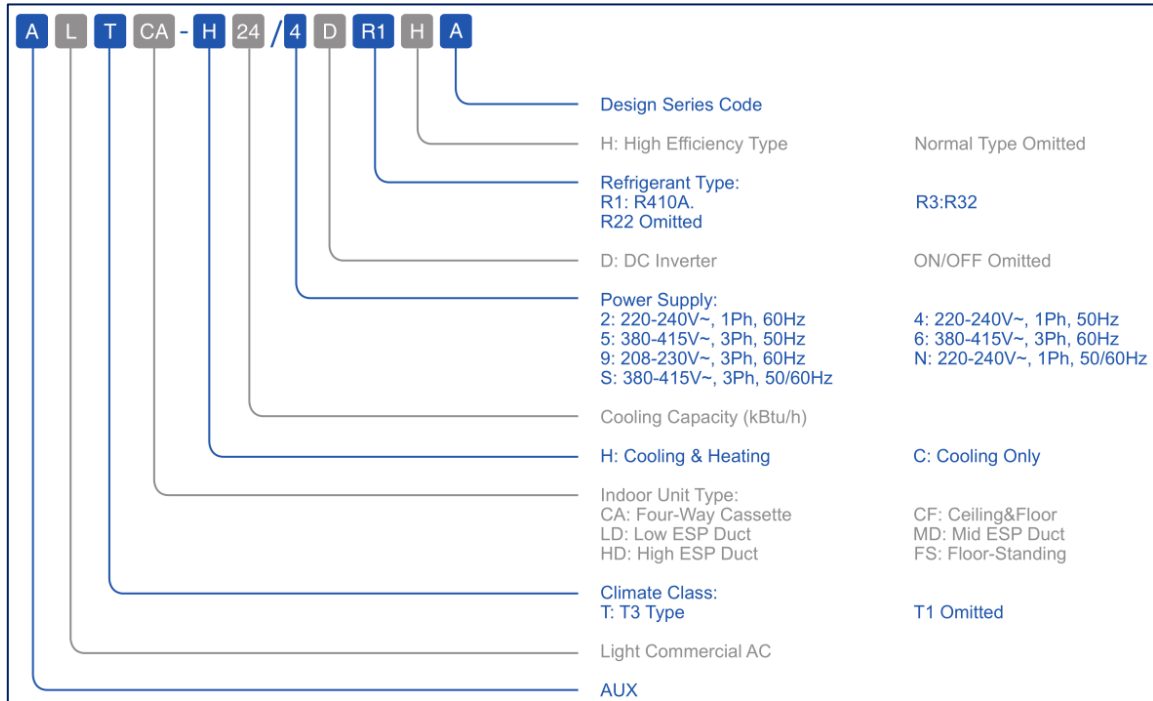
# Contents

<b>Contents .....</b>	<b>2</b>
<b>Part1 General information .....</b>	<b>3</b>
<b>Part2 Features .....</b>	<b>7</b>
<b>Part3 Piping System .....</b>	<b>19</b>
<b>Part4 Dimension.....</b>	<b>20</b>
<b>Part5 Electrical Principle Diagram.....</b>	<b>30</b>
<b>Part6 Capacity Amendment.....</b>	<b>38</b>
<b>Part7 Static pressure curve.....</b>	<b>43</b>
<b>Part8 Control .....</b>	<b>46</b>
<b>Part9 Explosive View .....</b>	<b>68</b>
<b>Part10 PCB Instruction .....</b>	<b>105</b>
<b>Part11 Trouble Shooting.....</b>	<b>112</b>

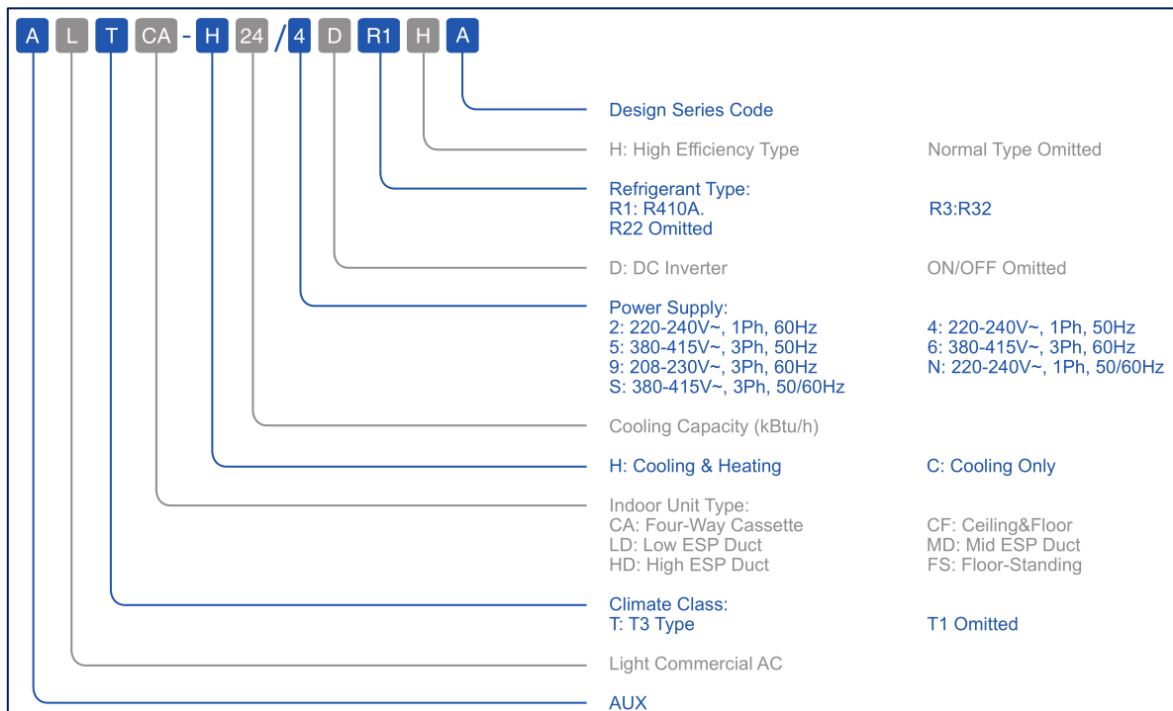
# Part1 General information

## 1. Nomenclature

### Indoor Unit






### Outdoor Unit

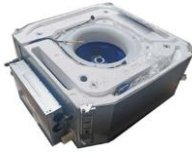
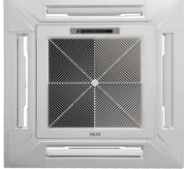





## 2. Unit appearance




### 2.1.1 Cassette(E Type)

Cassette Body	Model	Panel	
		Standard	Optional
	ALCA-H12/NDR3HAA	 MB13-I	 MB09
	ALCA-H18/NDR3HAA		




### 2.1.2 Cassette(Y Type) (only heating)

Cassette Body	Model	Panel(Standard)	
	ALCA-H18/NDR3HYA	Standard MB13-I 	Optional MB09 
	ALCA-H24/NDR3HYB	 MB08	
	ALCA-H36/NDR3HYB		
	ALCA-H42/NDR3HYB		
	ALCA-H48/NDR3HYB		
	ALCA-H60/NDR3HYB		



2.2.1 Ceiling floor (C5 Type) (only heating)

PICTURE	Capacity	Model
	18k/Btu	ALCF-H18/NDR3HB
	24k/Btu	ALCF-H24/NDR3HB
	36k/Btu	ALCF-H36/NDR3HB
	42k/Btu	ALCF-H42/NDR3HB
	48k/Btu	ALCF-H48/NDR3HB
	60k/Btu	ALCF-H60/NDR3HB





2.2.1 Ceiling floor (F Type)

	18k/Btu	ALCF-H18/NDR3HF
	24k/Btu	ALCF-H24/NDR3HF
	36 k/Btu	ALCF-H36/NDR3HF
	42 k/Btu	ALCF-H42/NDR3HF
	48k/Btu	ALCF-H48/NDR3HF
	60 k/Btu	ALCF-H60/NDR3HF

2.3 Duct

PICTURE	Capacity	Model
	18k/Btu	ALMD-H18/NDR3HA
	24k/Btu	ALMD-H24/NDR3HA
	30k/Btu	ALMD-H30/NDR3HA
	36k/Btu	ALMD-H36/NDR3HA
	42k/Btu	ALMD-H42/NDR3HA
	48k/Btu	ALMD-H48/SDR3HA
	60k/Btu	ALMD-H60/ SDR3HA

2.4 Outdoor Units

Capacity (BTU)	Picture	Capacity (BTU)	Picture
12K、18K		24K	
30K、36K、42k		48K、60k	

# Part2 Features

## 1. Outdoor Units

### Environmental-friendly Refrigerant R32

The GWP value of R32 is smaller, so the effect on the greenhouse effect is smaller. The ODP value of R32 is 0, so it's no harm to our planet's ozone layer.

### High Efficiency

Equipped with high efficiency DC Inverter compressor, adjustable fan motor and advanced 180° sine wave vector driver, the system can be higher than 6.1 in SEER and 4.0 in SCOP so as to meet the European and Australian new energy efficiency standards.

### Reliability

Stable cooling under  $-15^{\circ}\text{C}$  and heating under  $-15^{\circ}\text{C}$  outdoor environment temperature.

### 180°Sine Wave Control

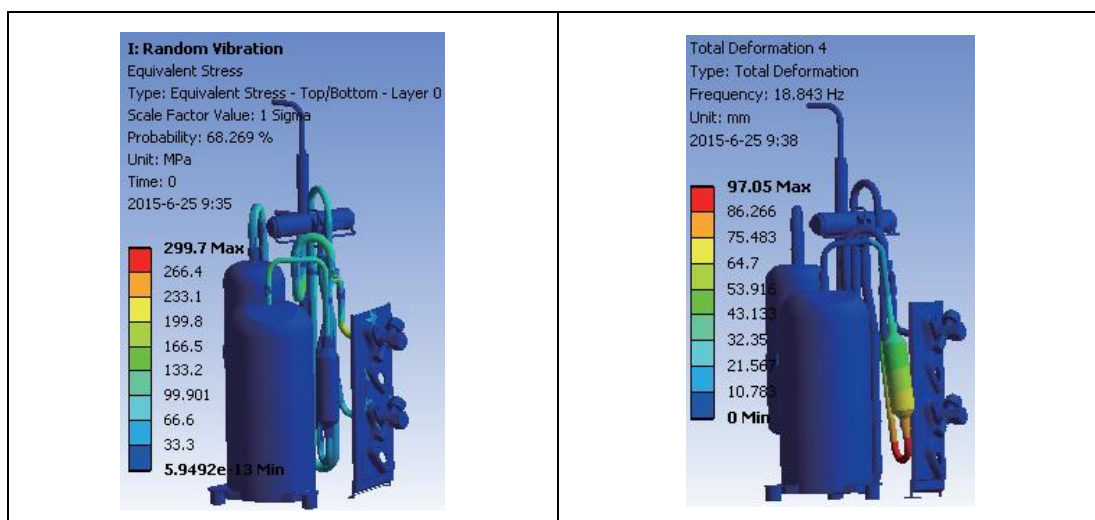
DC inverter compressor uses 180° sine wave vector control technique, make compressor motor operate smoothly and efficiency increases significantly.

### Optimized Pipeline Design

The design ensures the sub-cooling and enhances the cooling capacity by separating the refrigerant inlet and outlet.

### Simulation Technology

Via analysing piping stress distribution, piping amplitude and displacement in transportation and operation, the reliability has been improved greatly.



**Electrical heater (Optional)**

**Heater code: 11330029000010 220V 50W**

The electrical heater is used to melt ice on the chassis,make sure good heat exchange performance for condenser, powerful heating performance in very cold condition and create comfortable environment.



#### **Heating only function (Optional)**

Cooling & heating is standard, heating only is optional. Pls refer to Part9 2.2 Parameter setting.

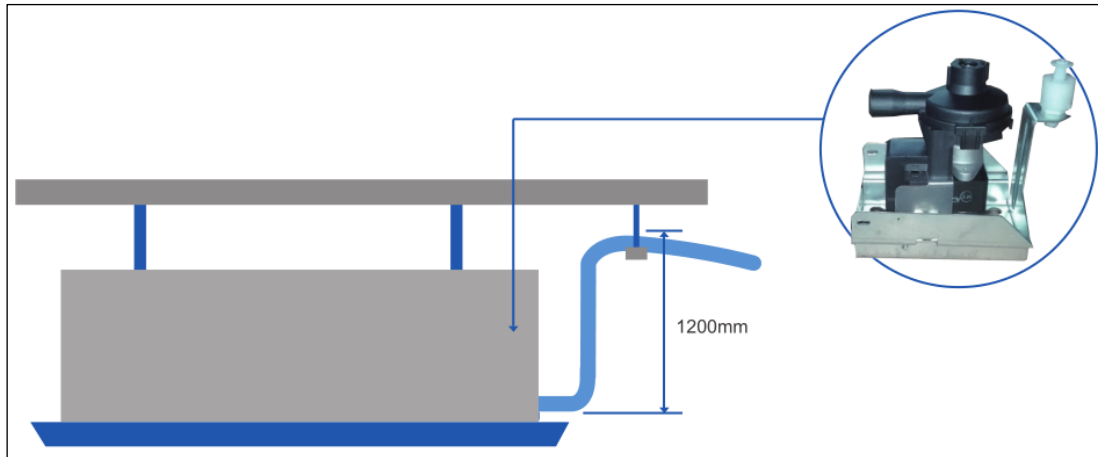


## 2. Four-way Cassette

Four-way cassette type A/C is installed under the ceiling, compared with Floor & Standing type A/C, it has following advantages: Ceiling installation combining with the decoration, makes the room more elegant; Flexible installation in anywhere in the ceiling and 4-direction blowing, makes you feel more comfortable.

### Built-in Drain Pump

The built-in drain pump can lift condensing water up to 1200mm high from the drainage pan.

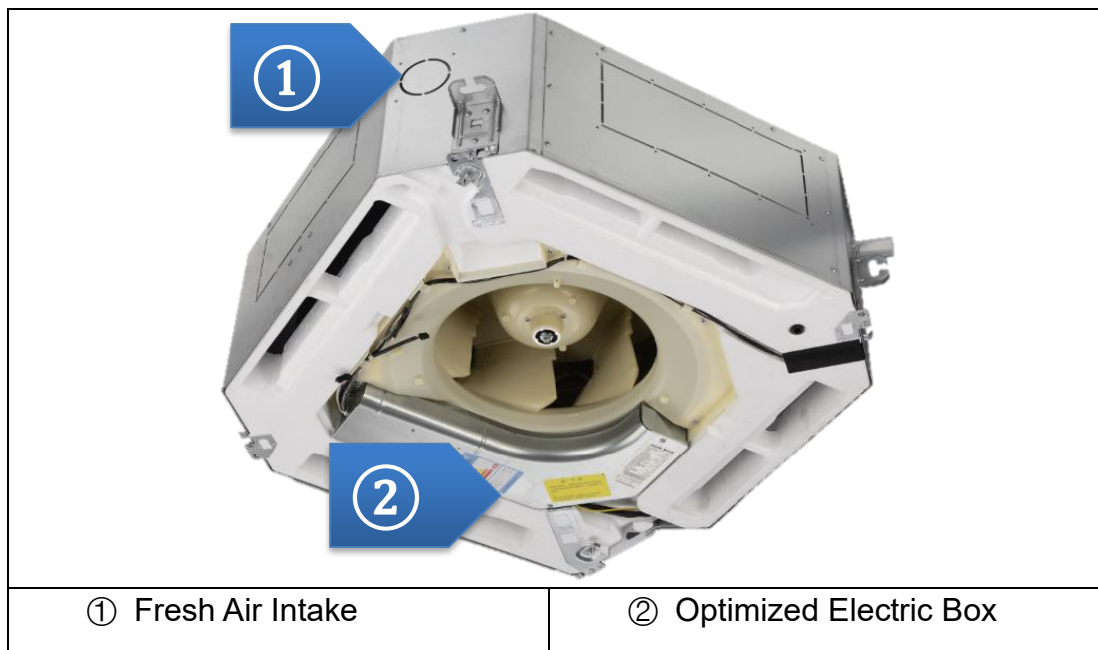


### Fresh Air Intake

Fresh air makes indoor air healthy and comfortable.

### Optimized Electric Box

Better fire-proof and easy to maintenance.



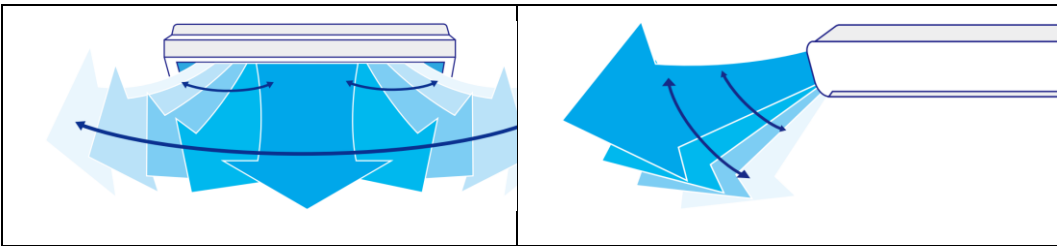
### 3. Ceiling Floor

#### 3.1 Ceiling Floor C5 Type

Ceiling & Floor type A/C can be installed under the ceiling and also on the floor. Compared with normal Floor & Standing type A/C, it can be hoisted under the ceiling, saving room space, it is also the updating Product for Floor & Standing type A/C.

##### 3D Air Swing

Vertical and horizontal swing makes air below to every corner of the room.



##### Ultra Slim Design

The thickness is only 205mm, save installation space.



##### Innovative Centrifugal Fan

Innovative centrifugal fan provides larger air volume but lower noise, making the air supply more quietly and smoothly.

##### Flexible Installation

Can be vertically installed against the wall or horizontally installed under the ceiling.



## 3.2 Ceiling Floor F Type

### 3.2.1 Comfortable

#### prevent gel

Unique air outlet insulation and wind guide bar arc design (Kangda effect), no condensation time from 4h to 6h, higher than the industry level.



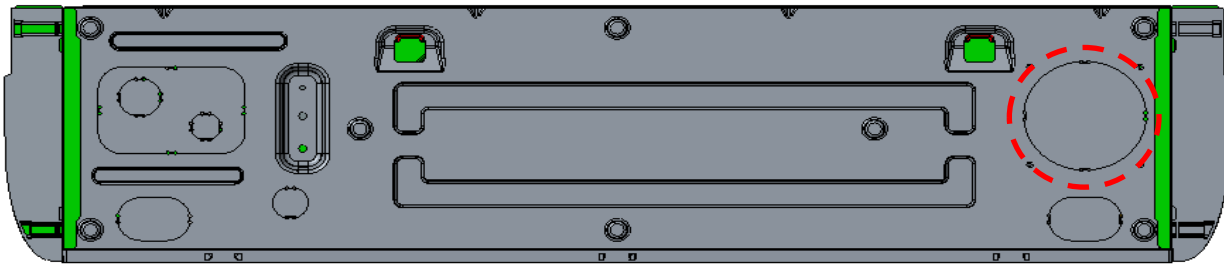
#### Strong air supply

Super air supply distance, up to 15m, the air supply volume is higher than the industry level to meet the circulation air supply of the whole room.



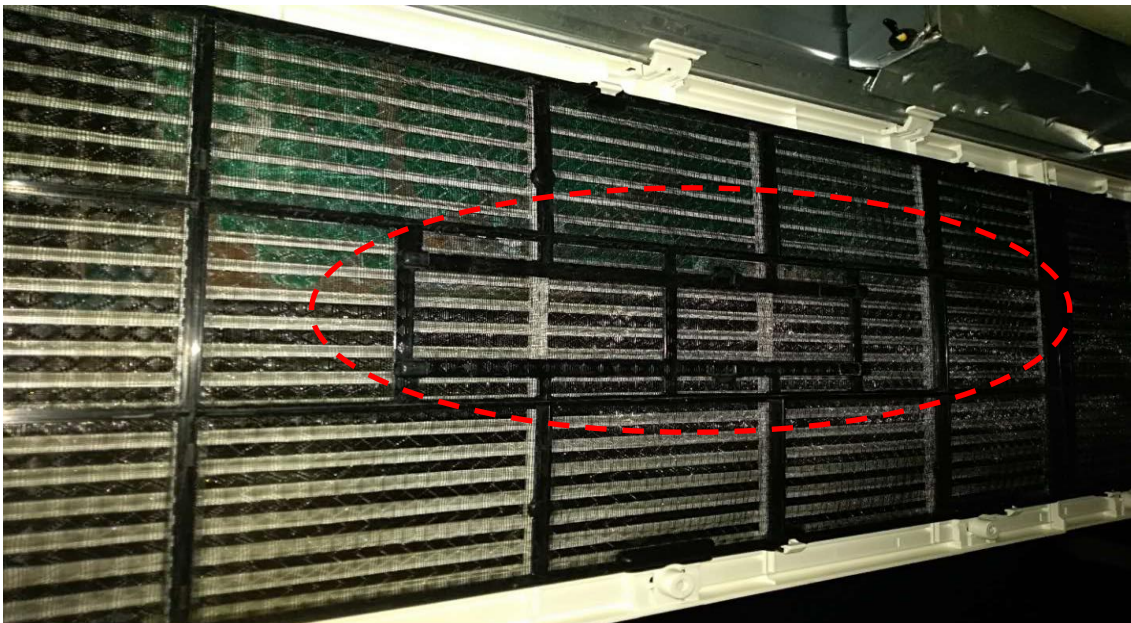
**Bring fresh air**

Fresh air inlet design can bring fresh air into the room to ensure fresh air in the room.



**degradation of formaldehyde**

The filter screen can be equipped with a formaldehyde removal module to ensure fresh air in the room.



**low noise**

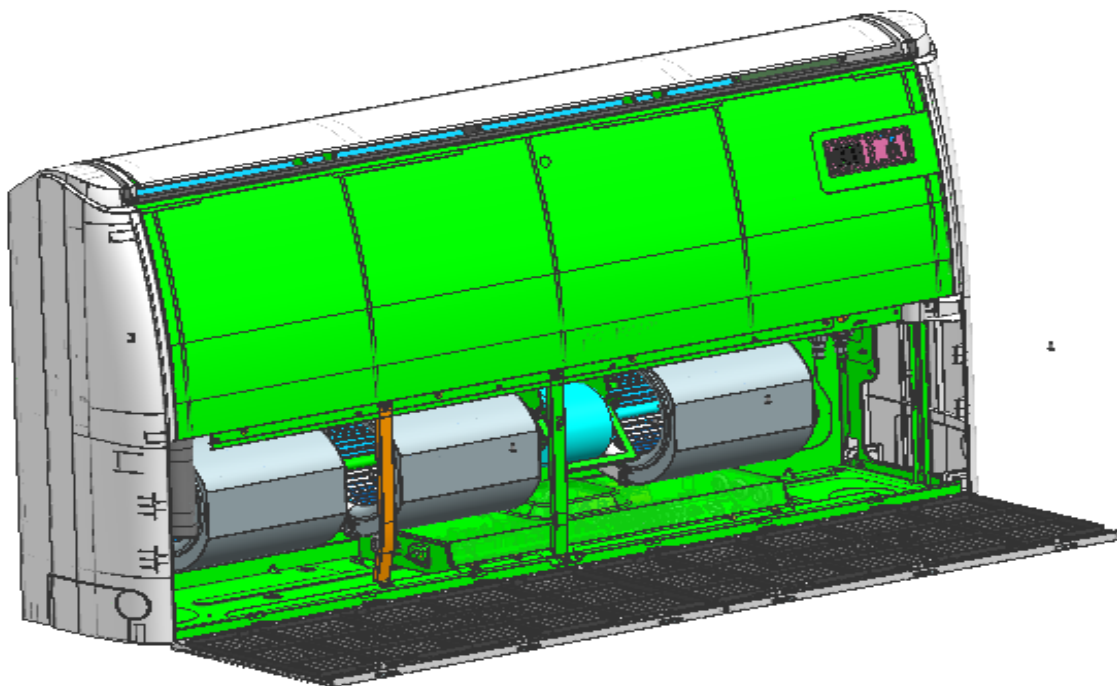
High quality wind wheel/turbine selection, using simulation design, the lowest noise than the industry level.



**3.2.2 Convenient and efficient**

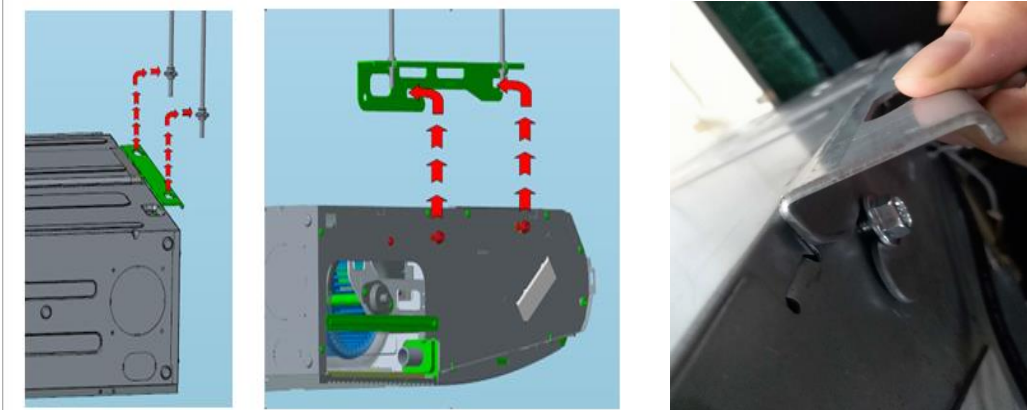
**Easy unpick and wash**

Return air grille, filter netease remove and wash.



**Easy Installation**

Can be hoisted, can be mounted; Removable load-bearing rod can be installed flexibly, and the rod can be fine-tuned up and down to adjust the horizontal Angle of machine hoisting



**Easy drainage**

The left and right water outlet design of the receiving tray is flexible to adapt to the installation site



**Easy maintenance**

Easy to repair, screw two screws, do not need to remove, left and right end cover 1 screw quickly remove, step motor 2 screws have been repaired, the bottom space is easy to repair



**3.2.3 Stable And Reliable**

The face plate is elegant, the display board is beautiful

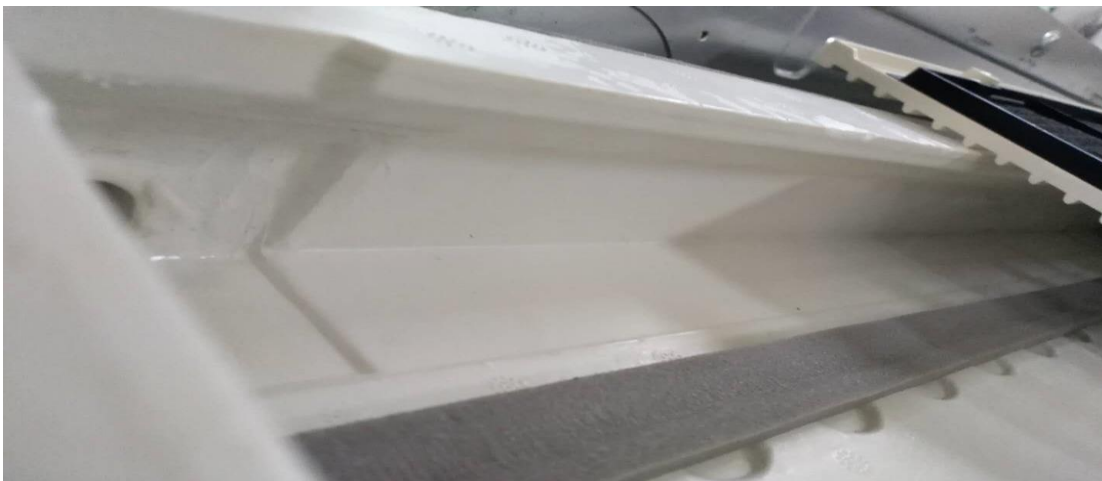
Matte white panel design, high-end elegant

Lamp board design beautiful, and good sealing, moistureproof, long reliable life



**Strong catchment**

Excellent water collection structure design, whether in lifting or upright installation can well collect condensed water to the water tray, avoid leakage



**Safe and reliable**

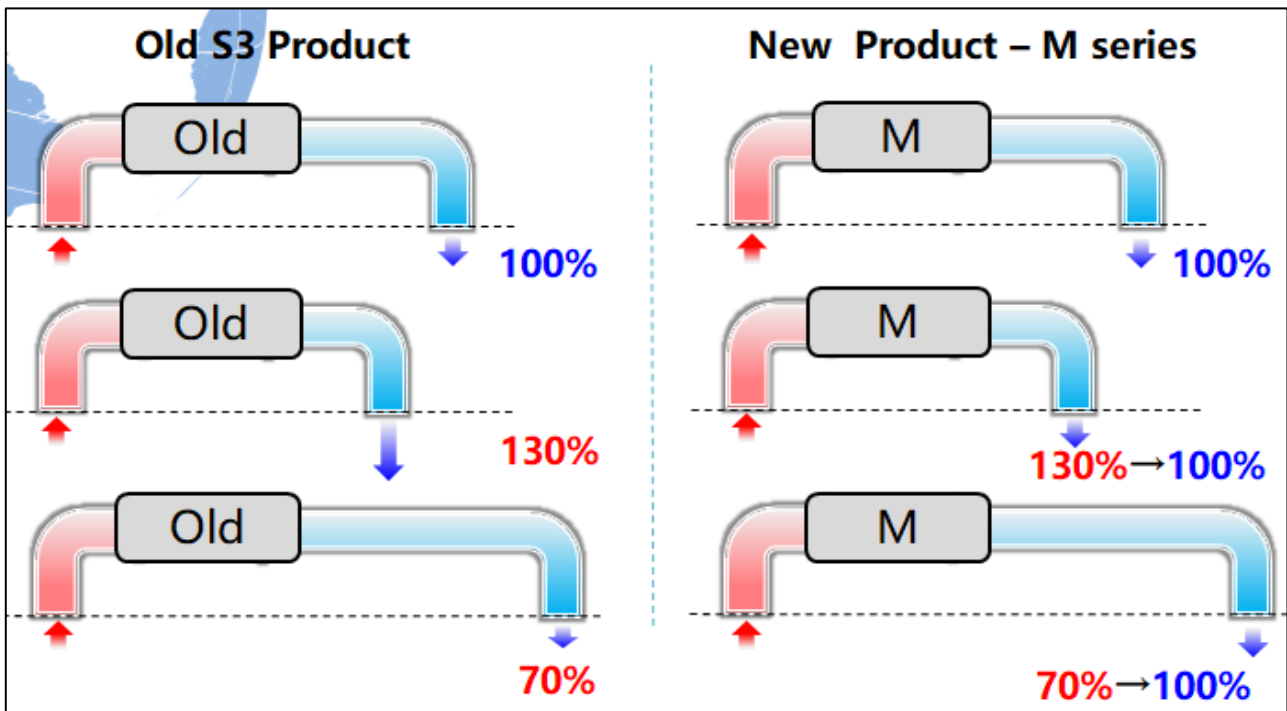
Strong and weak electric connection terminals are separated to ensure safe and reliable use of electricity



#### 4. Constant Duct

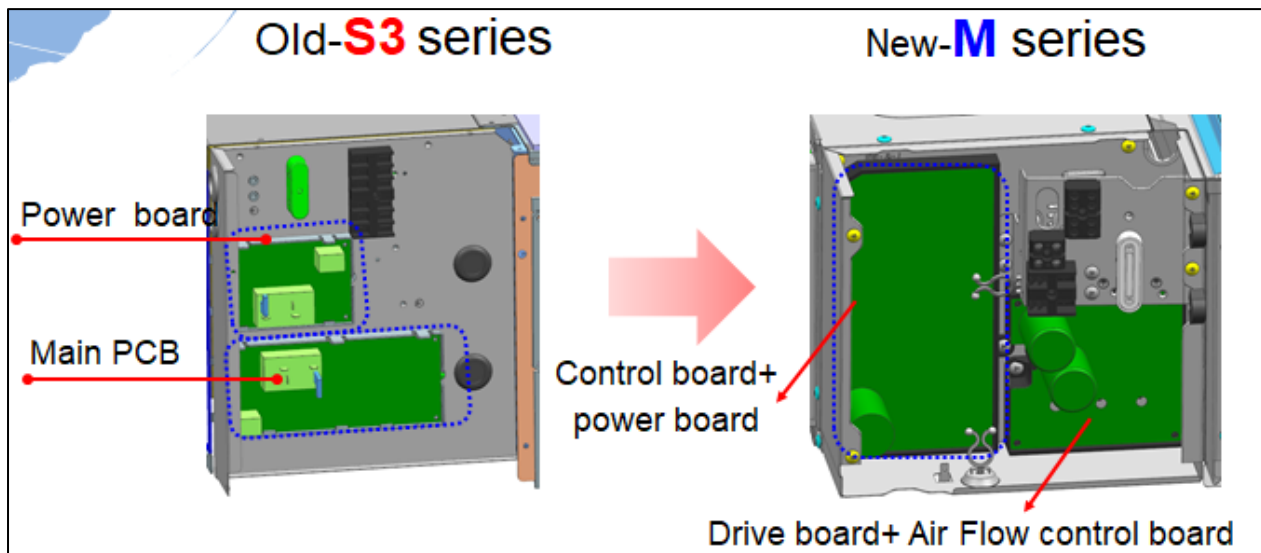
##### Constant Air Flow Volume

Under different ESP, the product supply Constant air flow volume for comfort.



##### Integrate the control board and power board

High reliability





**Two-way drain pan**

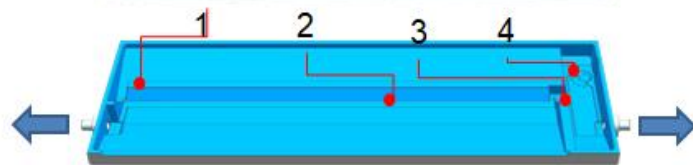
**Daikin Drain Pan**  
plastic suction, 1 way



**Old product Drain Pan**  
printed steel, 1 way



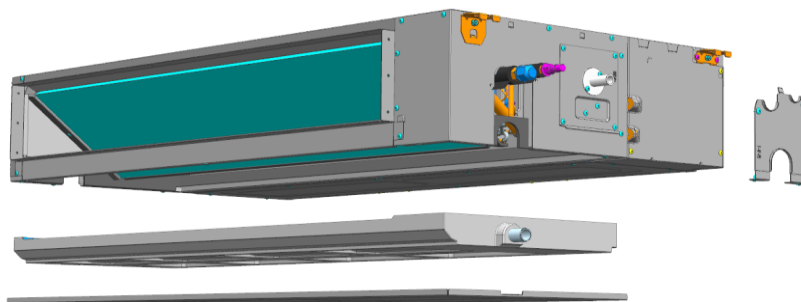
**New Drain Pan**  
plastic suction, 2 way,  
Convenient for installation



**4-step Drain Pan (same as Daikin)**  
Less storage water

**Independently designed bottom flange**

Independently designed bottom flange, The air duct will not be damaged in maintenance  
Easy for maintenance

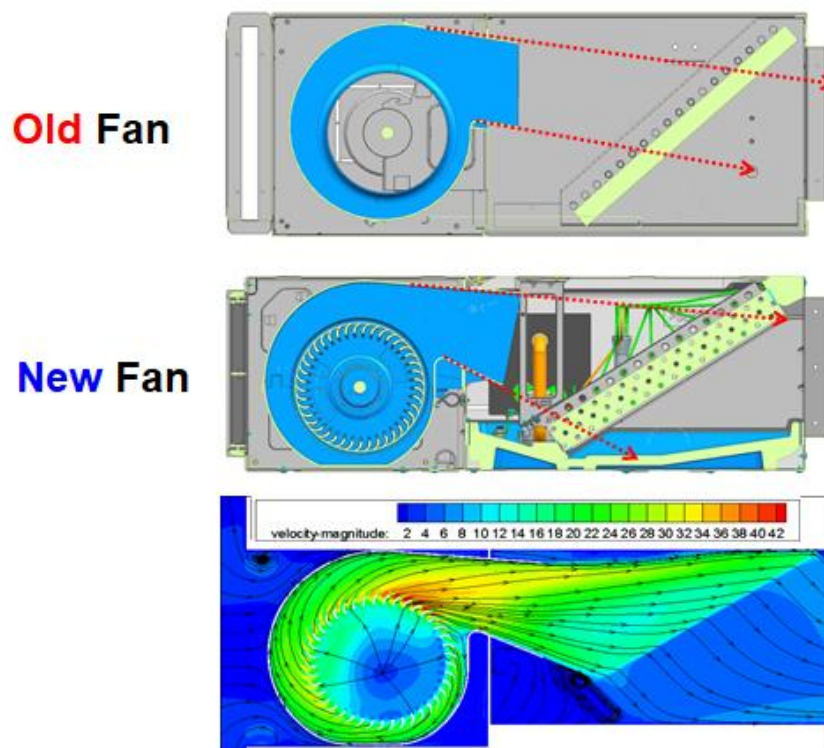


**Easy disassembly filter**

0 Screws, Easy disassembly, convenient for wash, W type high efficiency filter



**Optimized Centrifugal Fan**



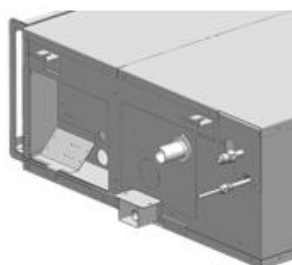
**Removable Control Box**

**Daikin product**



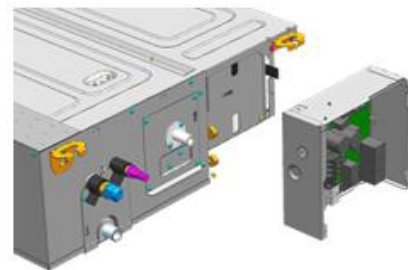
Non-removable

**Old-S3 series**



Not easy for remove

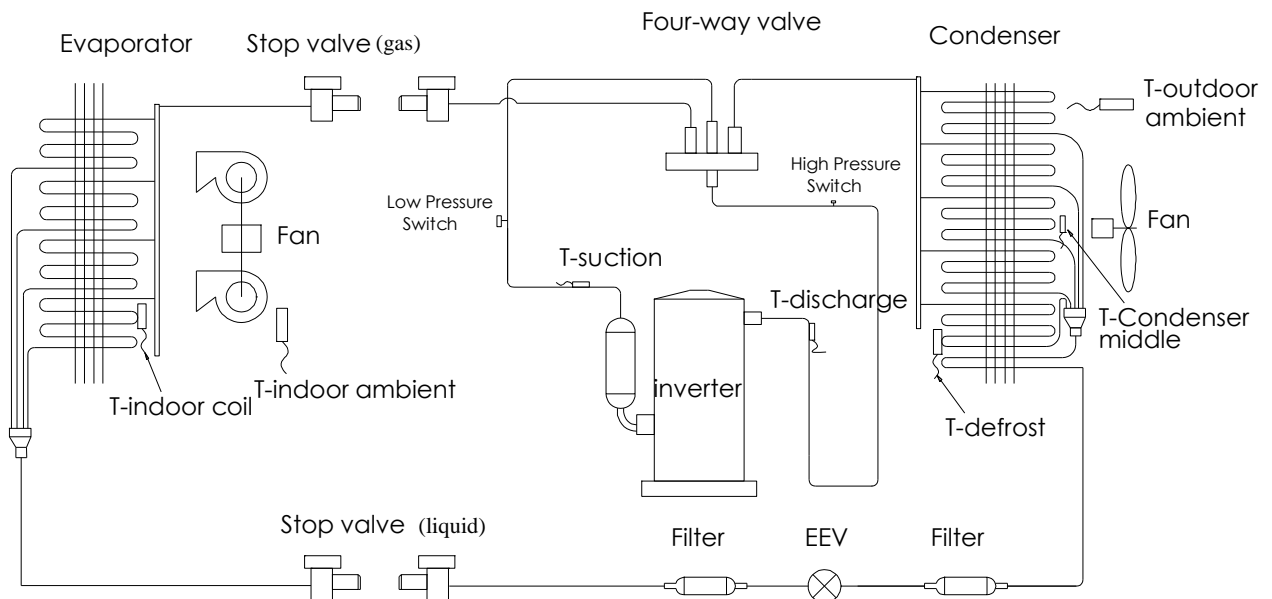
**New product M series**



2 Screws, easy for remove  
Easy for maintenance

## Part3 Piping System

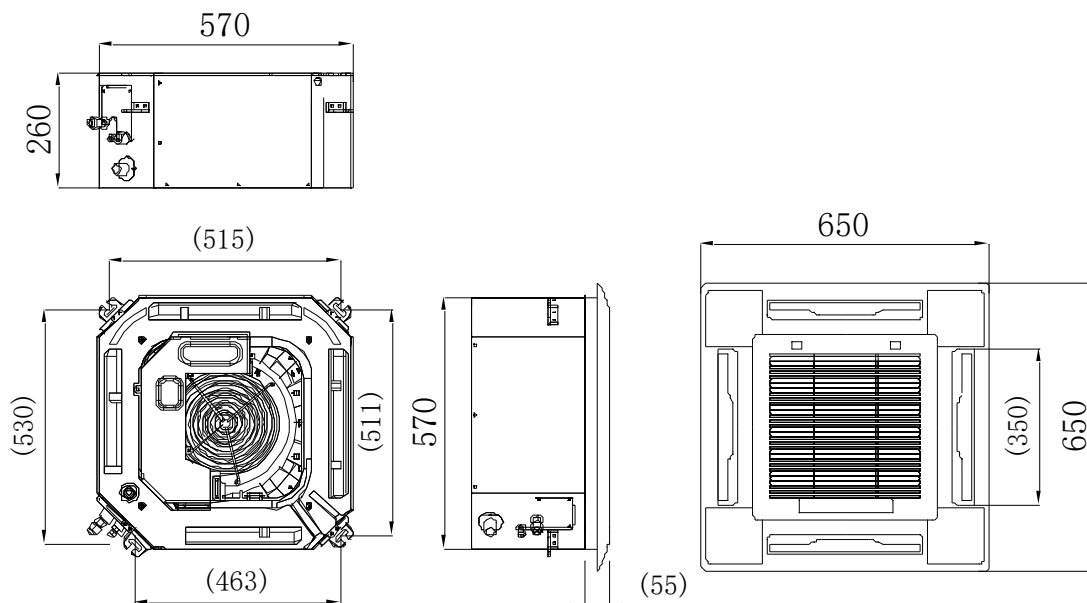
The compressor inhales the low-temperature and low-pressure refrigerant vapor from the evaporator, and vapor be turned into high-temperature and high-pressure gas then enters into condenser, the high-temperature and high-pressure refrigerant gas and outdoor air make heat exchange in the condenser, the compressed vapor is then cooled by heat exchange with the outside air, so that the vapor condenses to be a high-temperature and high-pressure fluid, and then through capillary throttling to cooled, low pressure, then the liquid enters into the evaporator and two-phase of gas and liquid refrigerant in the evaporator completely evaporate, thereby cooling the indoor air; from evaporator the vapor is inhaled into compressor again, so it runs continuously cycle to cycle, cooled air is continuous supplied to the air-conditioned area though duct by fan motor.



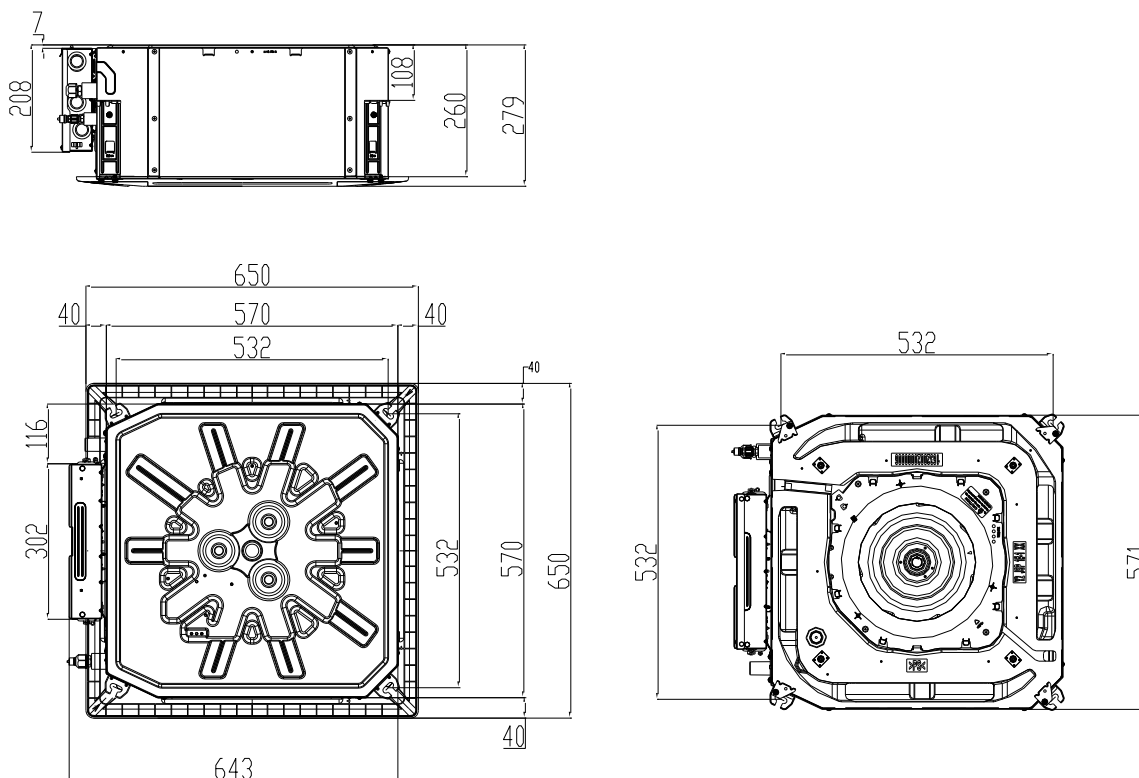
# Part4 Dimension

## 1. Cassette

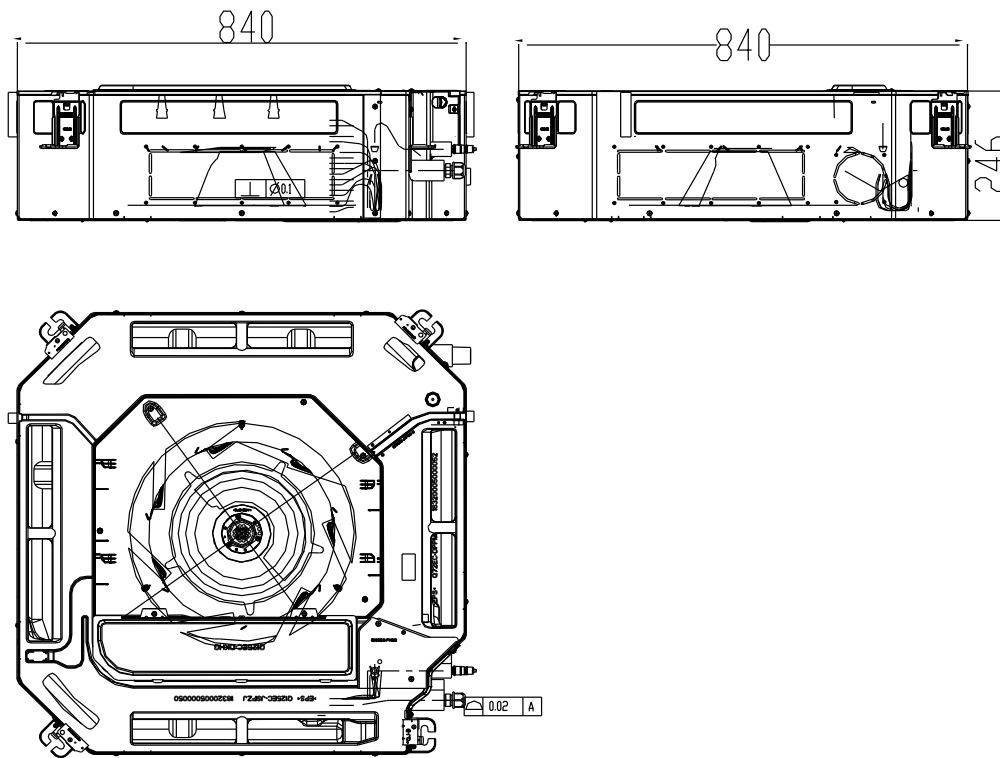
### 1.1 12K, 18K(E Type)



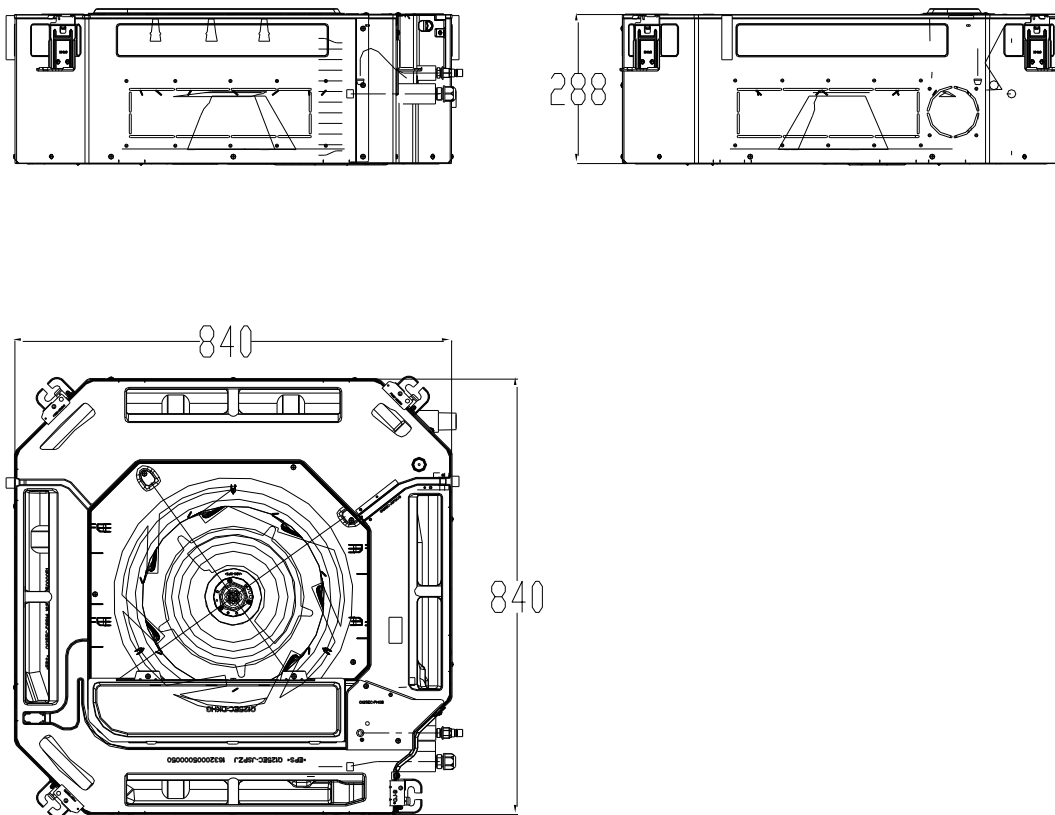
### 1.2 18K(Y Type) (only heating)



### 1.3 24K(Y Type) (only heating)

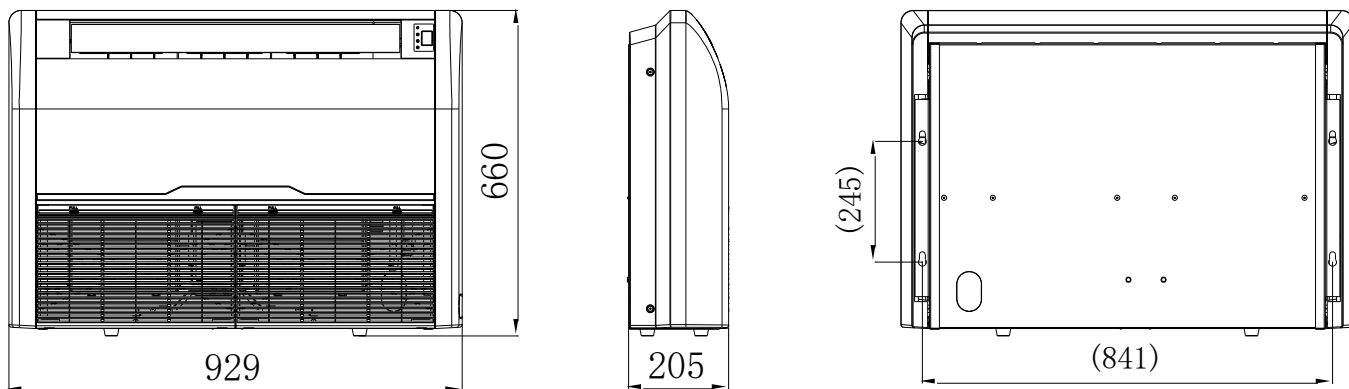


1.3 36K,42K,48K,60K(Y Type) (only heating)

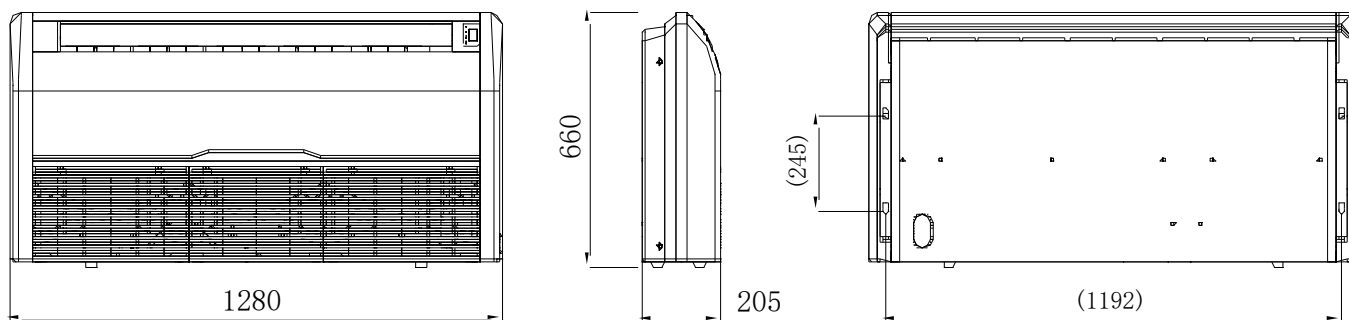


## 2. Ceiling Floor

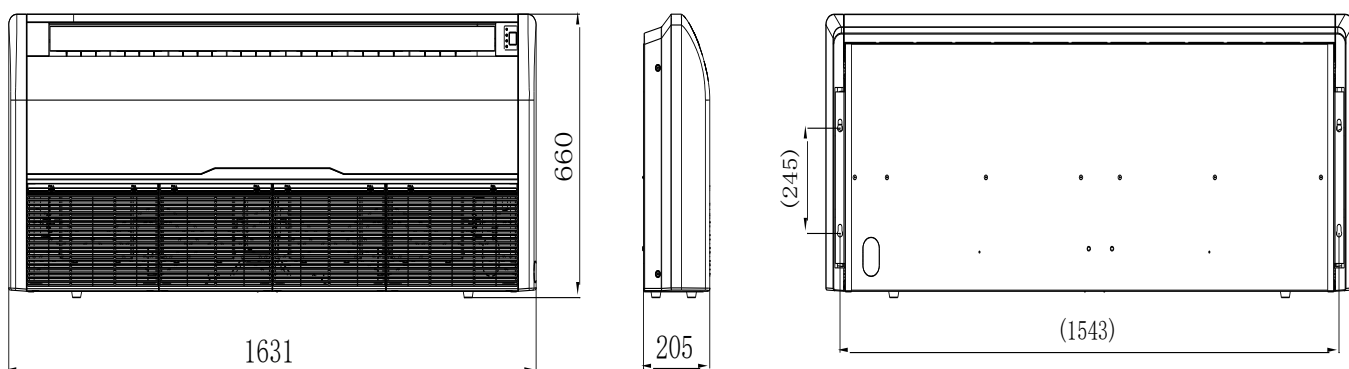
### 2.1 Ceiling Floor (C5) (only heating) 18K



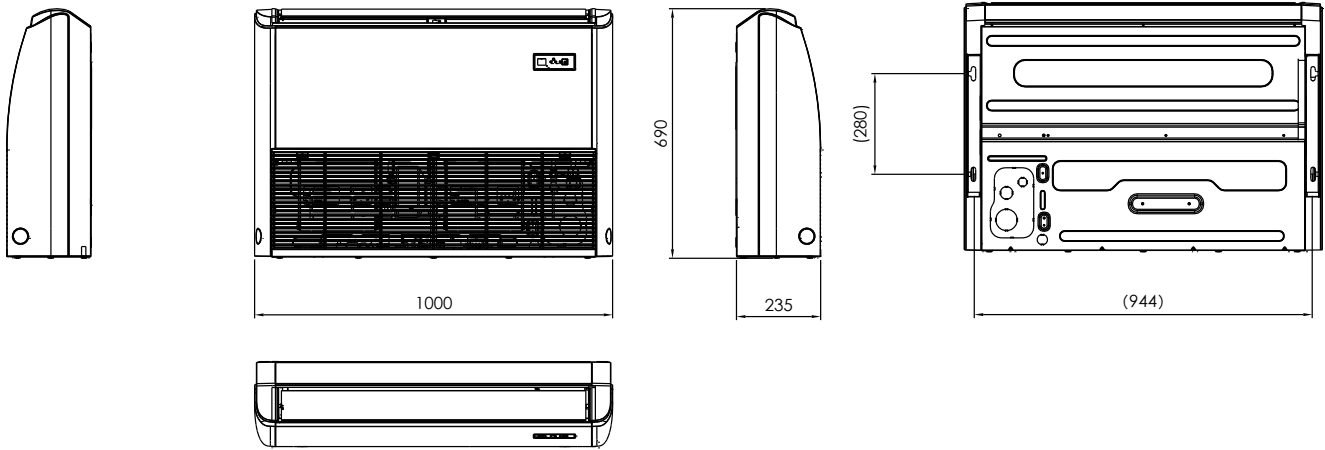
### 2.2 Ceiling Floor (C5) (only heating) 24K



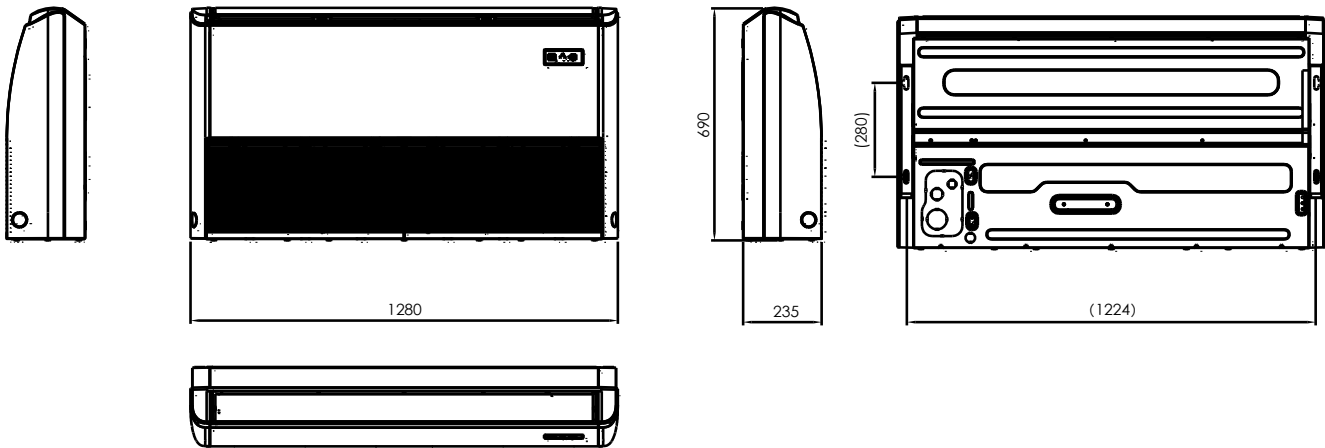
### 2.3 Ceiling Floor (C5) (only heating) 36K,42K,48K,60K



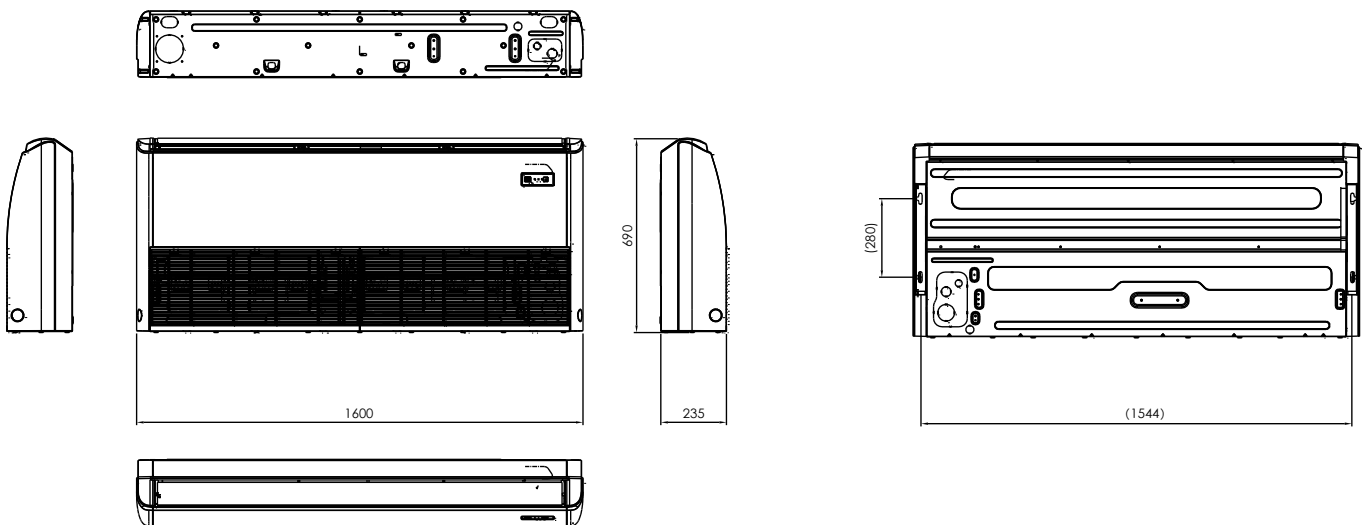
2.4 Ceiling Floor (F) 18K



2.5 Ceiling Floor (F) 24K

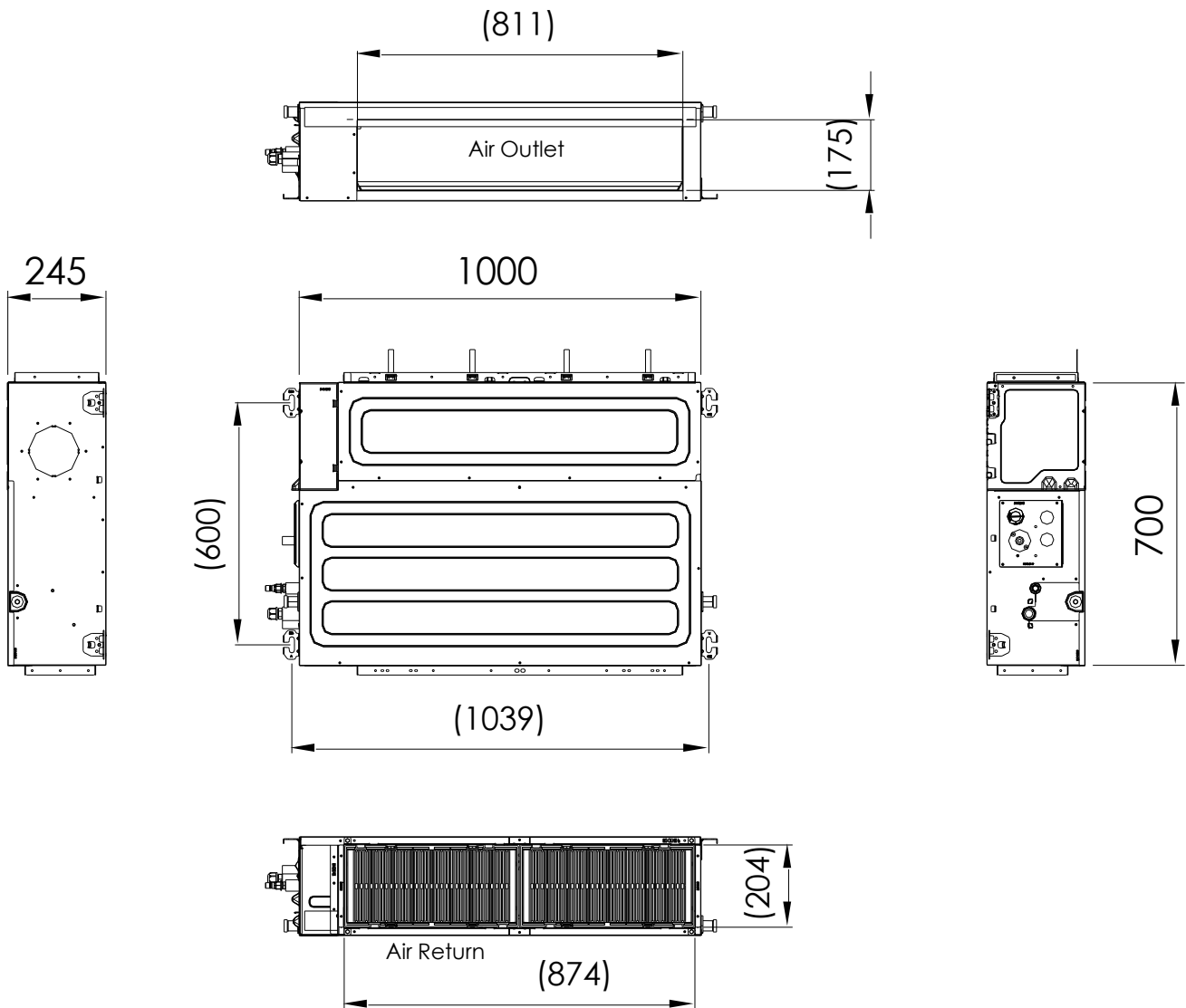


2.6 Ceiling Floor (F) 36K/42K/48K/60K



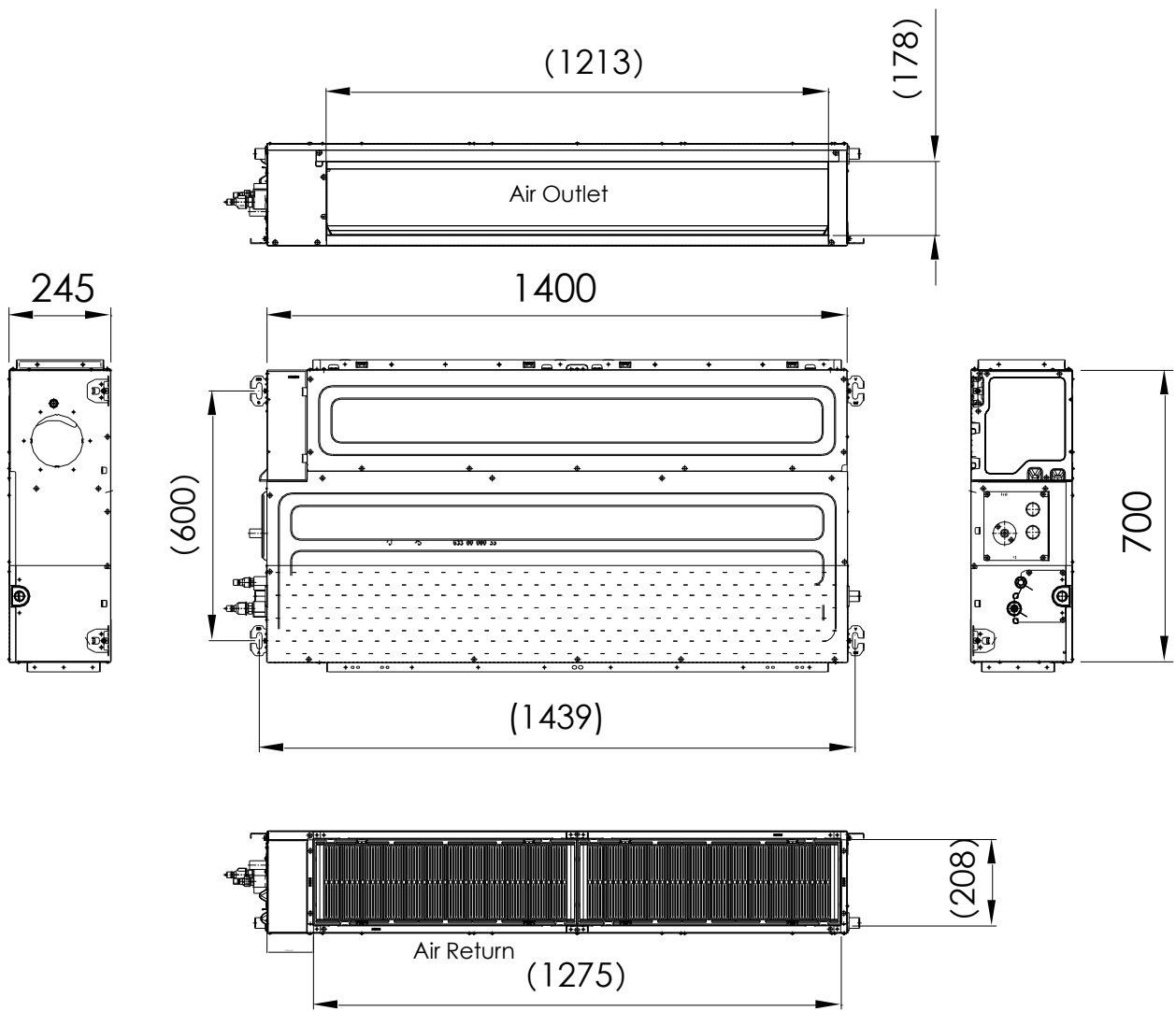
### 3. Duct

#### 3.1 18K, 24K, 30K



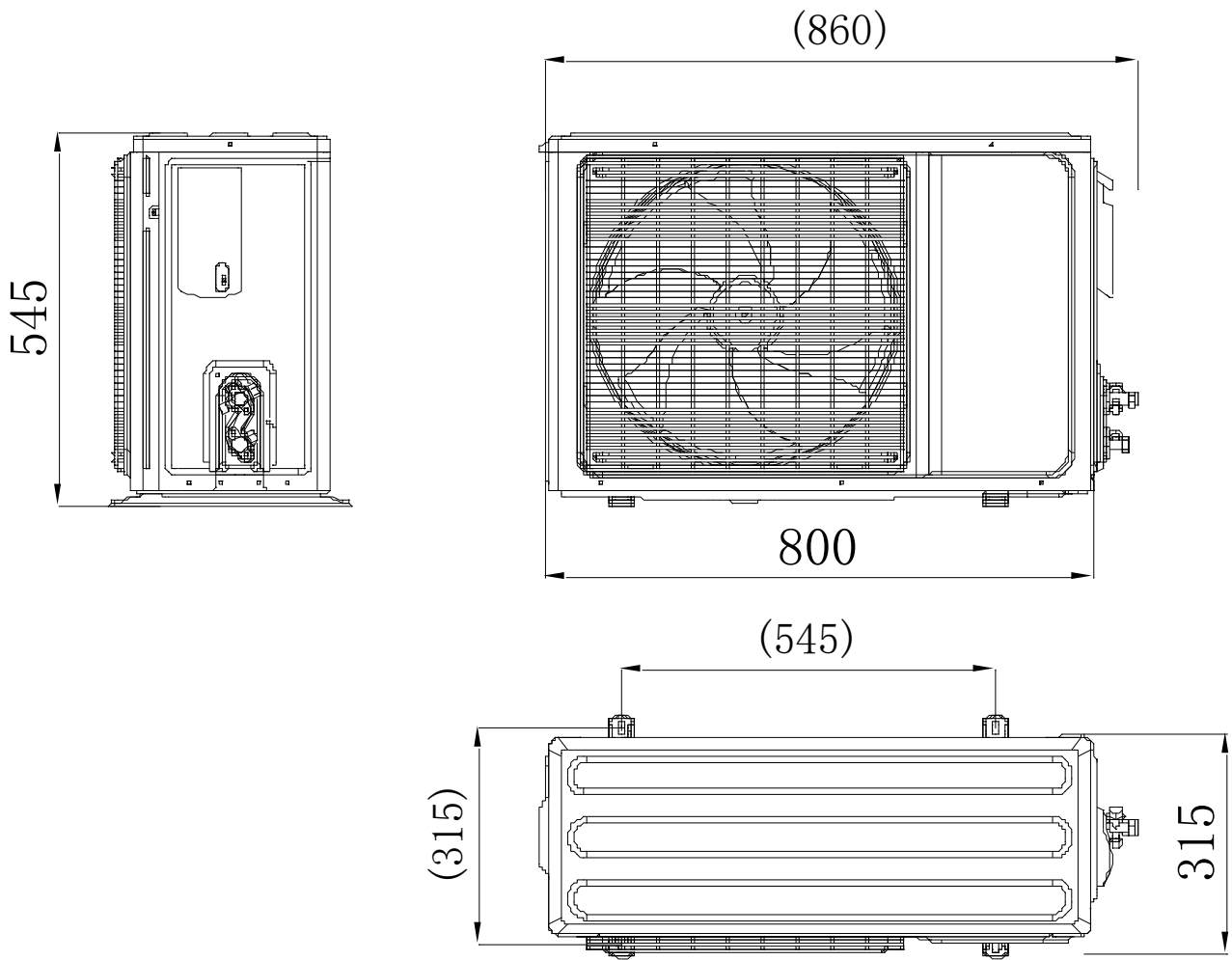


3.2 36K, 42K,48K,60K

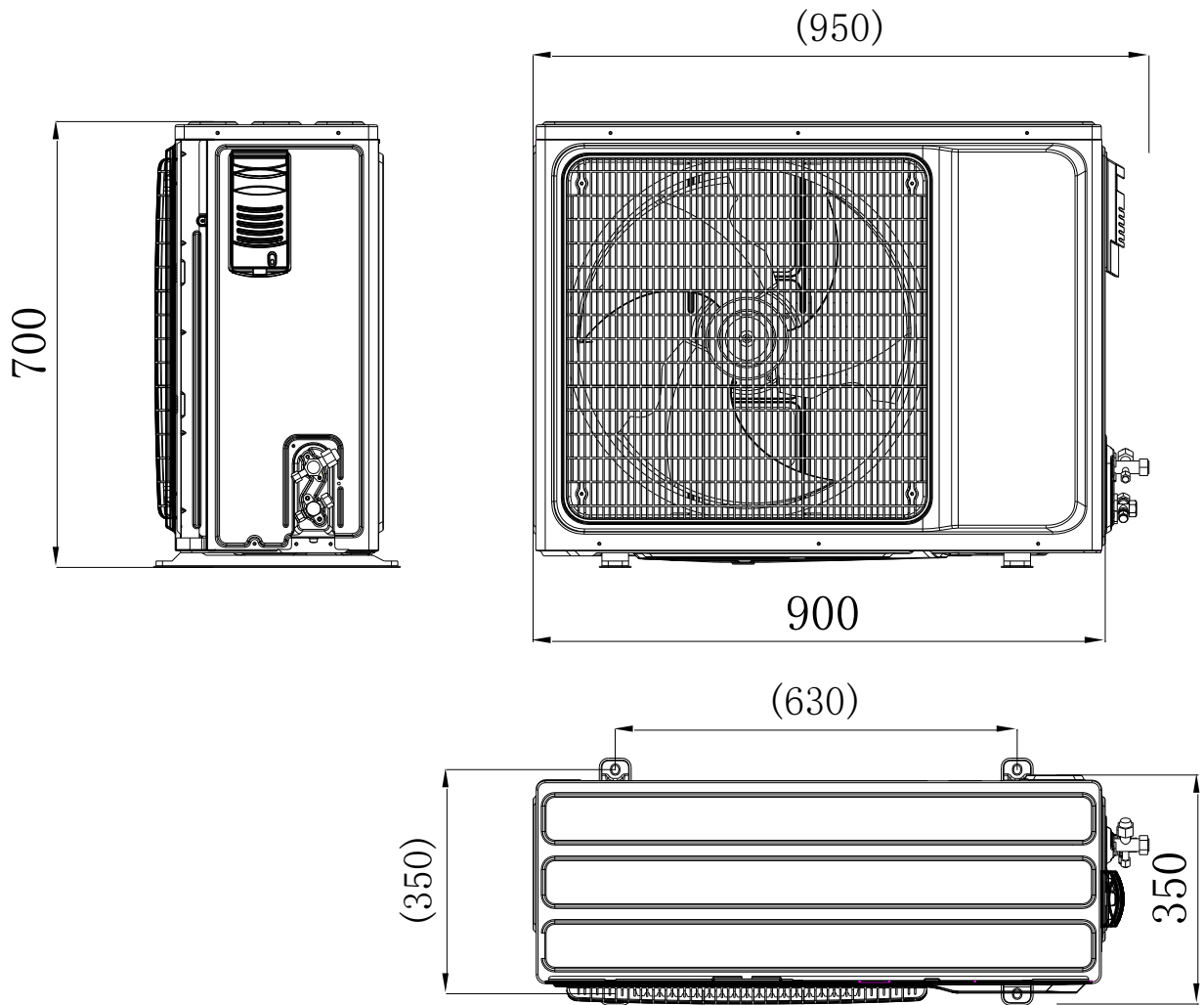


## 4. Outdoor Unit

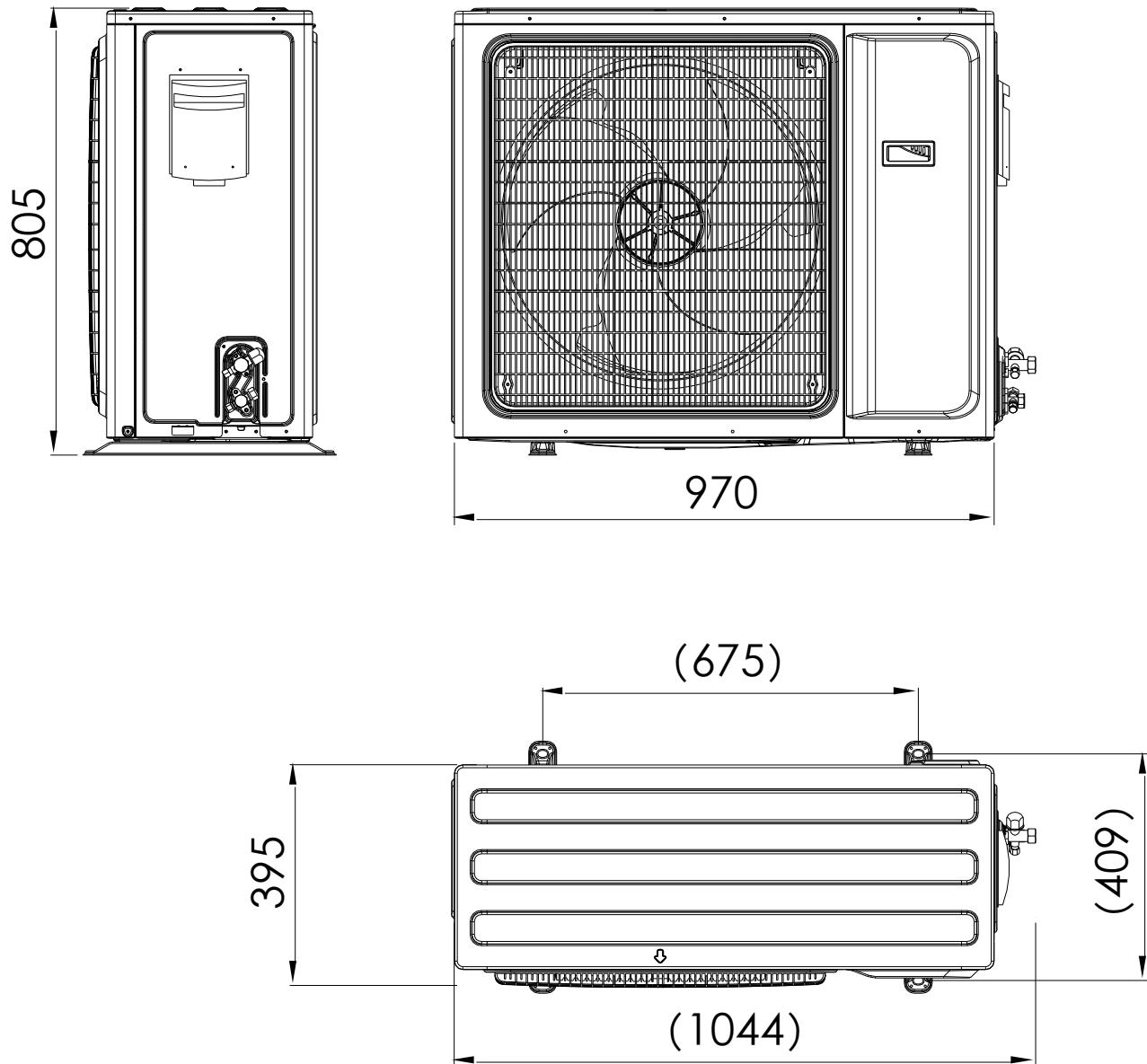
### 4.1 12K, 18K



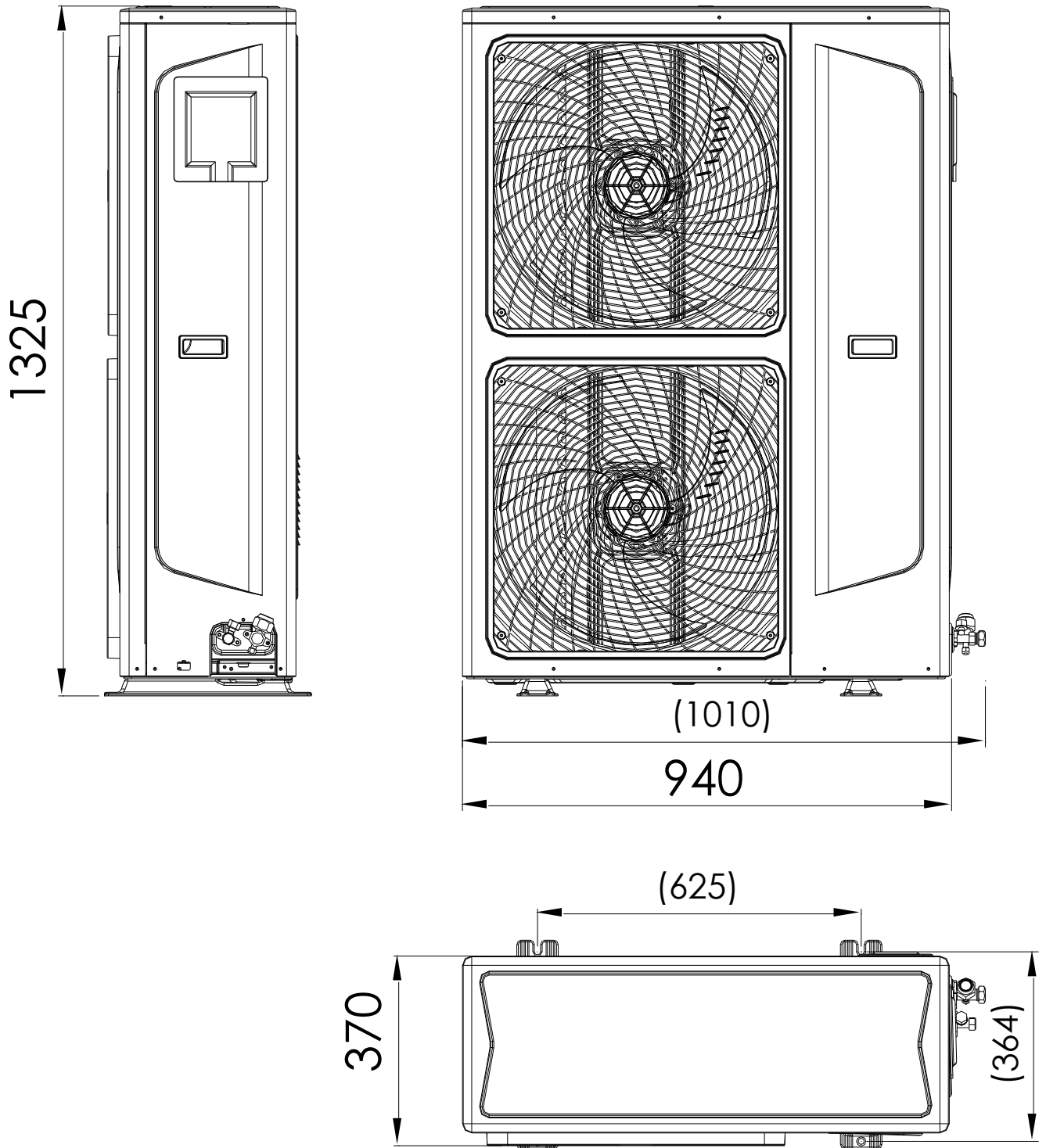
4.2 24K



4.3 30K, 36K, 42K



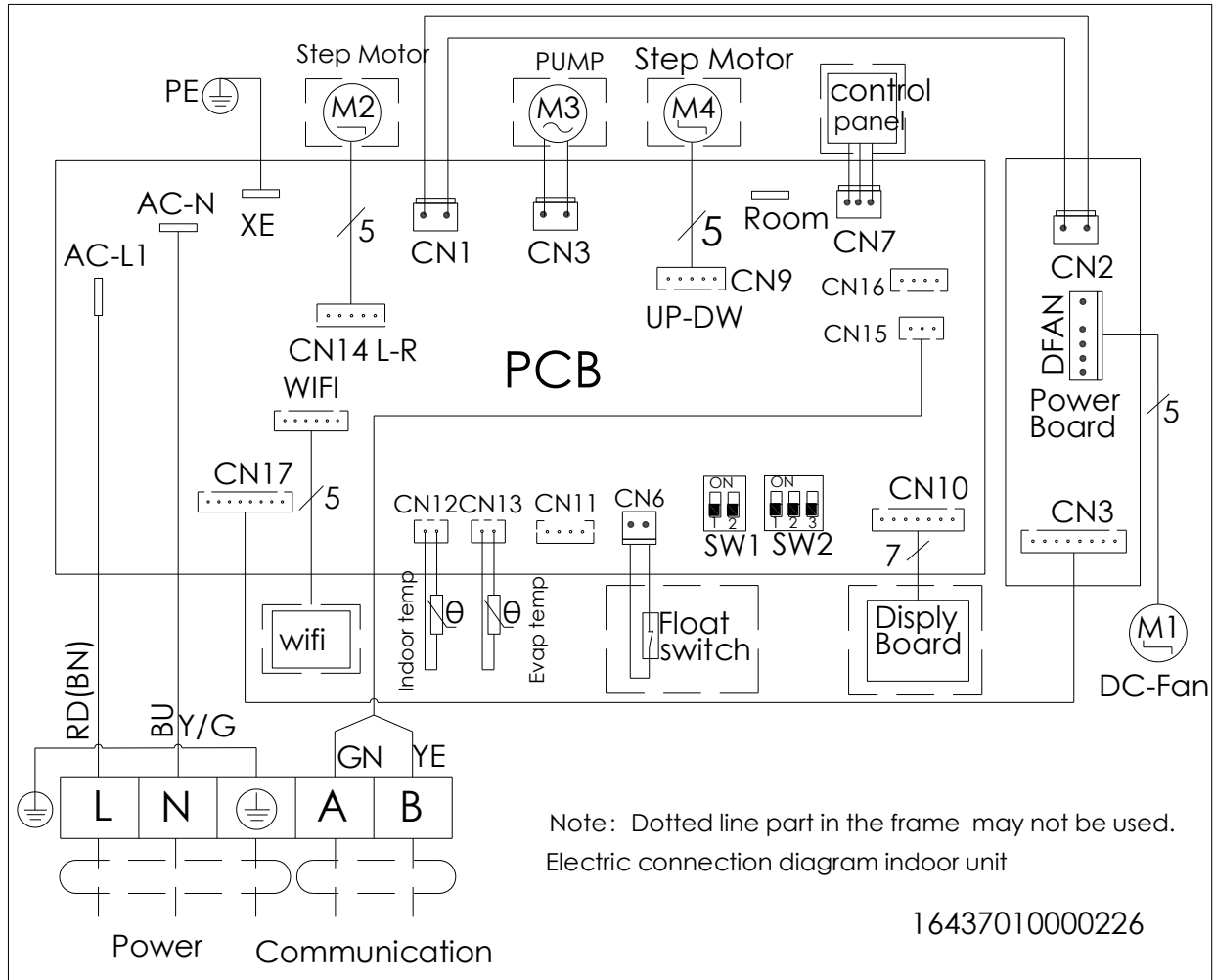
4.4 48K, 60K



# Part5 Electrical Principle Diagram

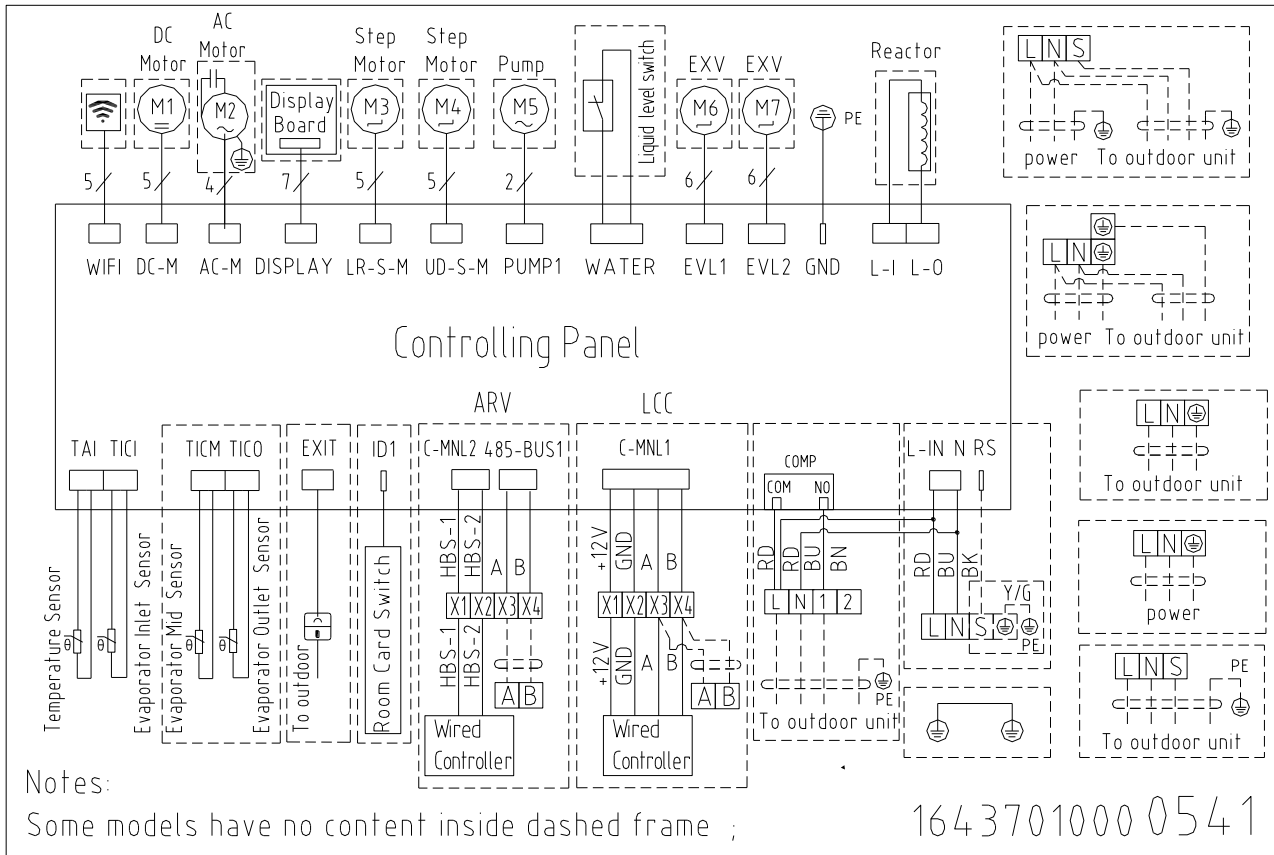
## 1. Cassette

### 1.1 12K, 18K(E Type)



1.2 Cassette(Y Type) (only heating)

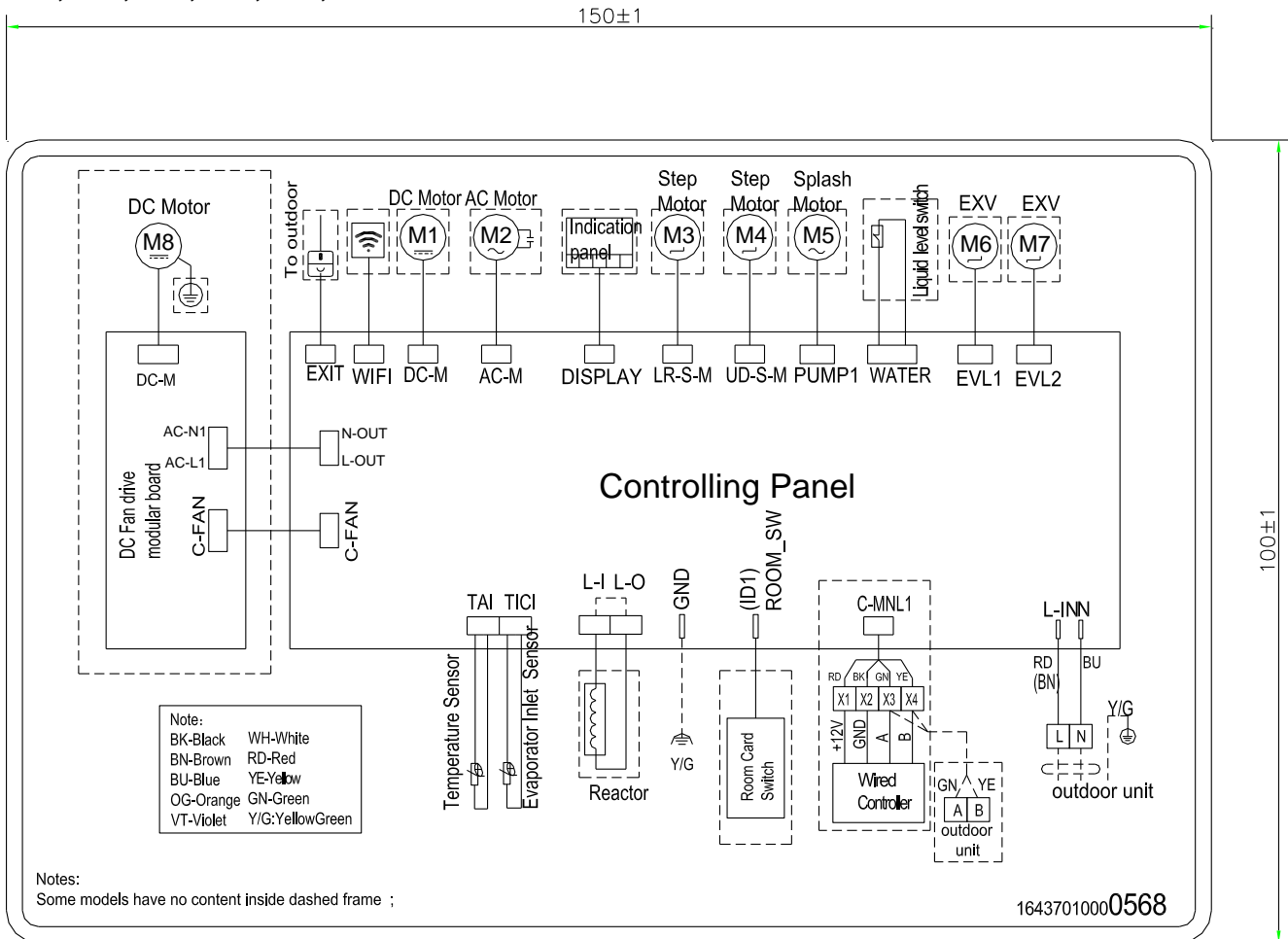
18K,24K,36K,42K,48K,60K



## 2. Ceiling Floor

### 2.1 Ceiling Floor (F) (New)

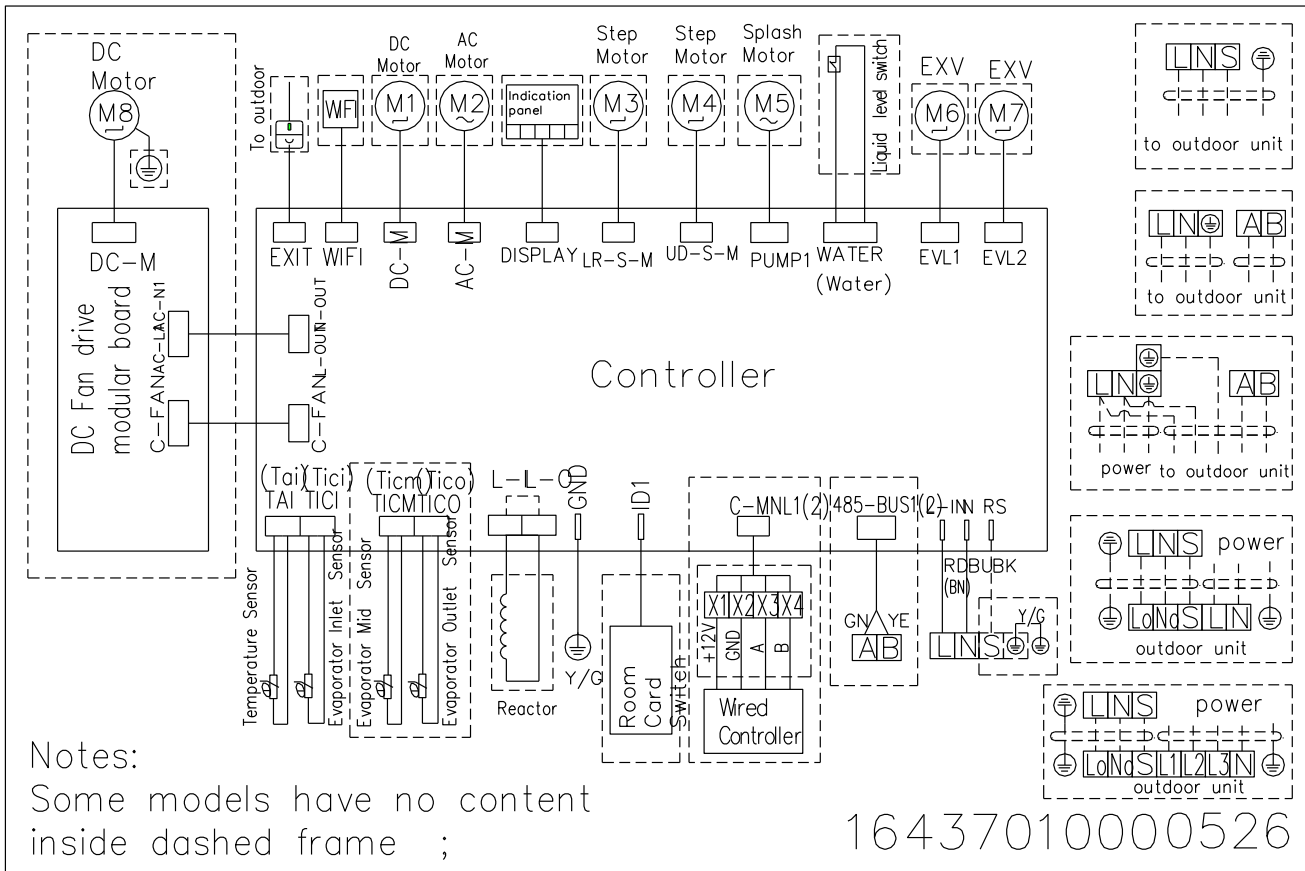
18K,24K,36K,42K,48K,60K





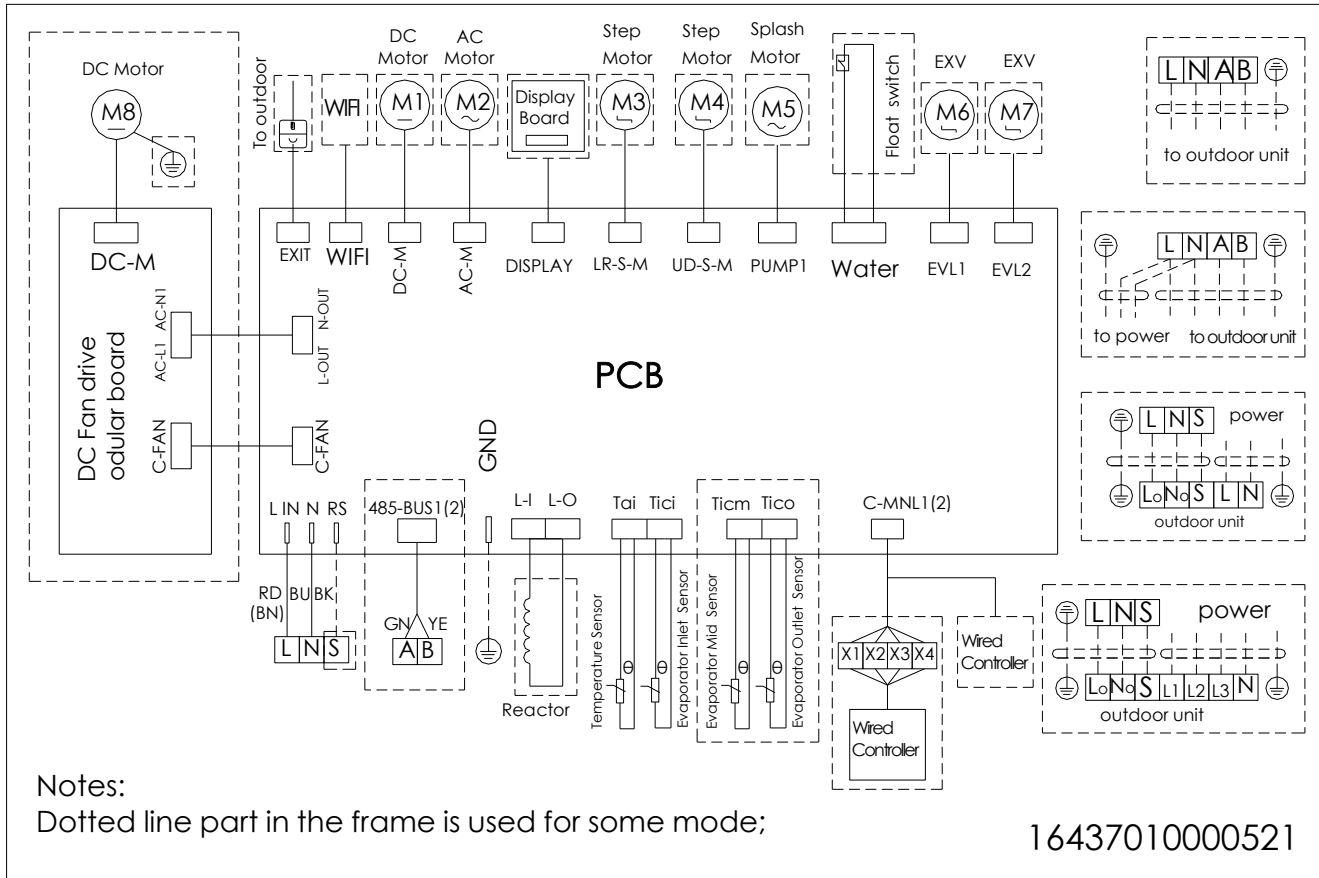
2.2 Ceiling Floor(C5) (only heating)

18K, 24K, 36K, 42K, 48K, 60K



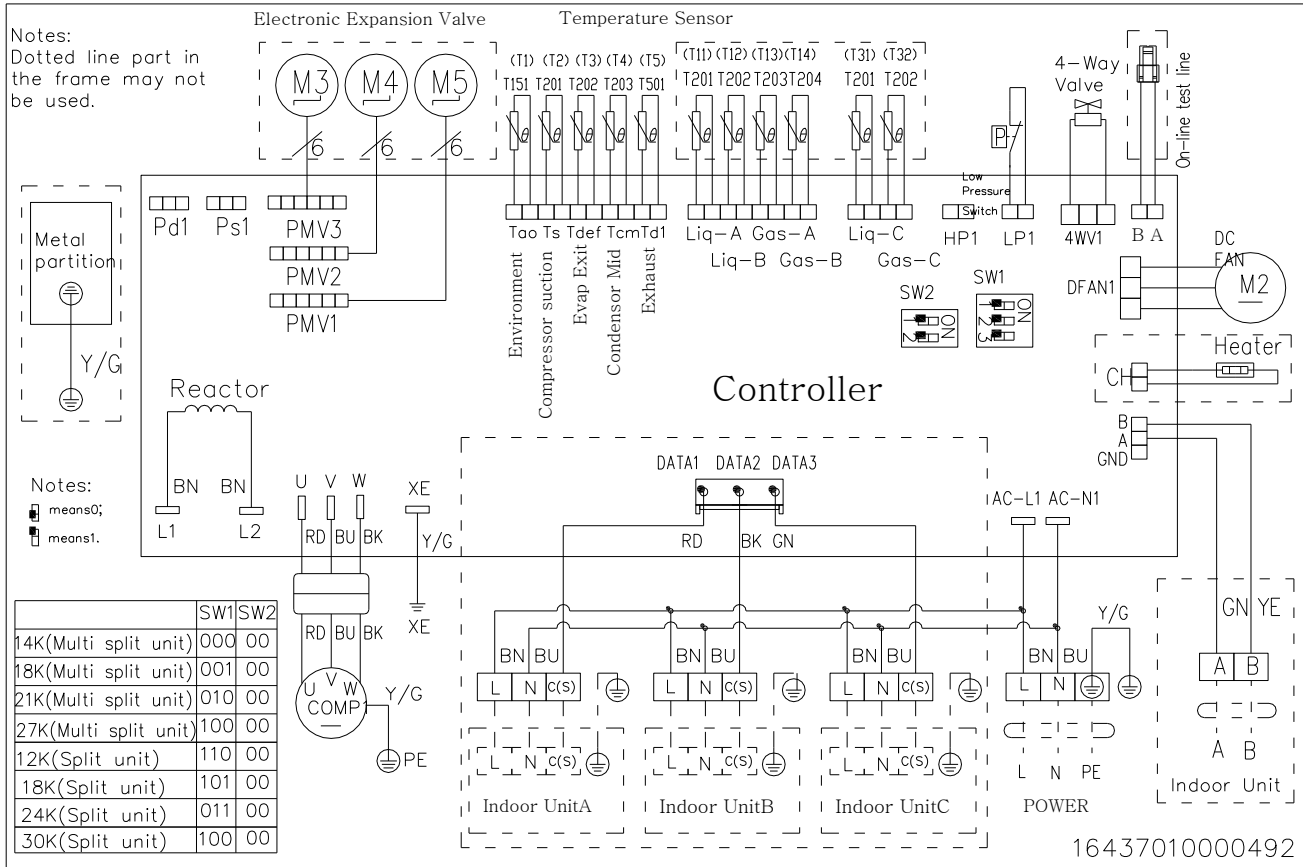
### 3. Duct

#### 3.1 18K, 24K, 30K, 36K, 42K,48K,60K

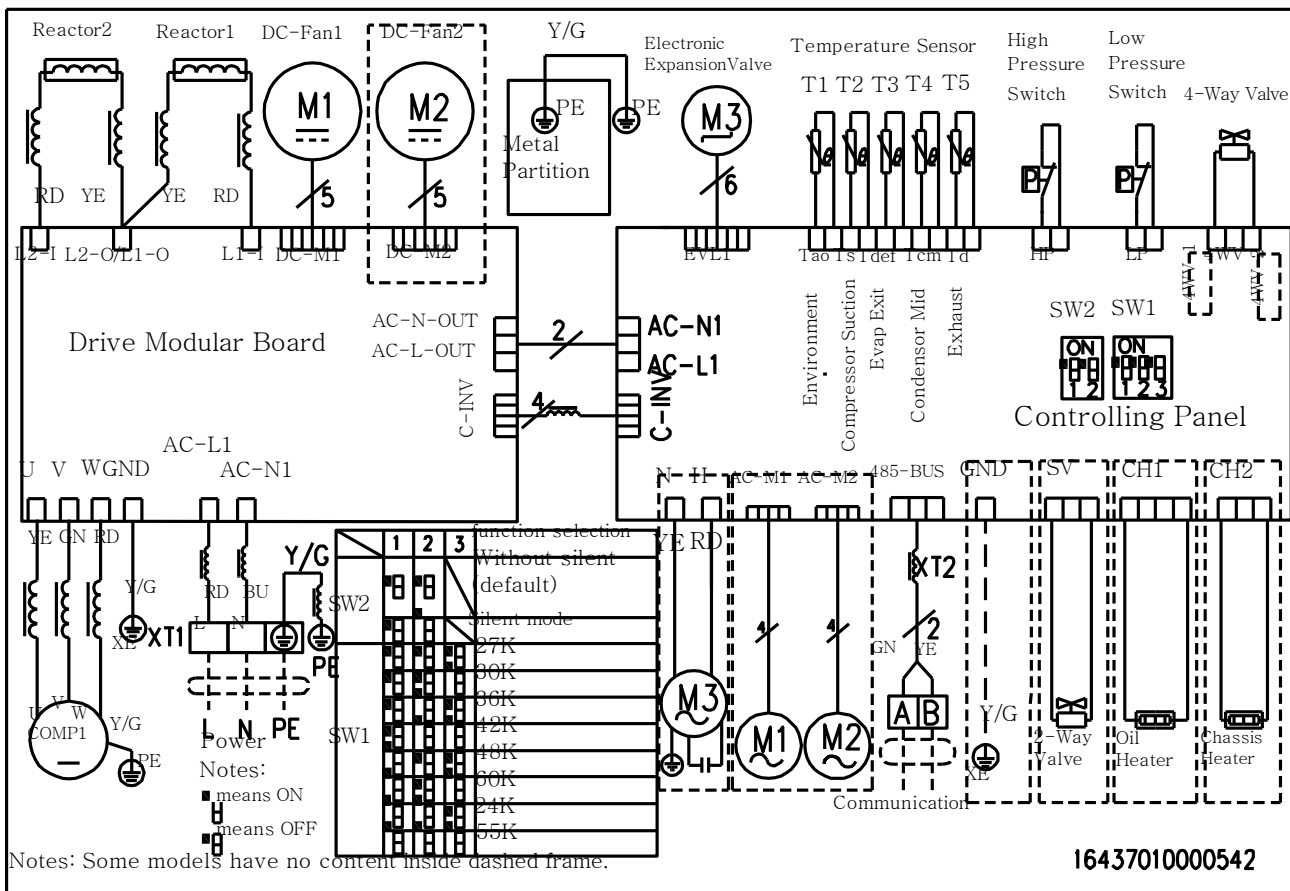


### 4. Outdoor Unit

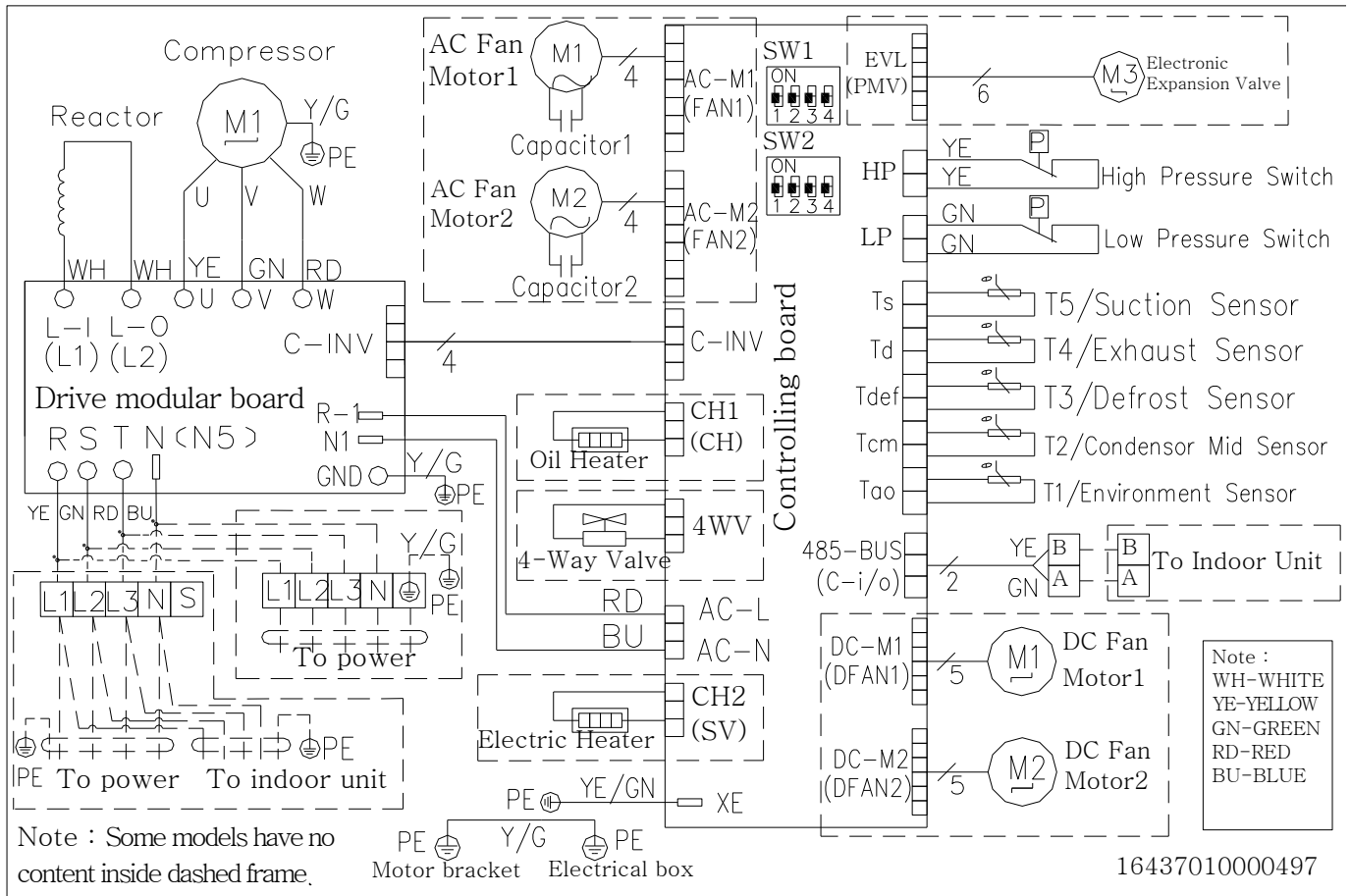
#### 4.1 12K, 18K, 24K



4.2 30K, 36K, 42K



4.2 48K, 60K



# Part6 Capacity Amendment

## 1. Operation range

Cooling capacity (KBtu/h)		12K	18K	24K	30K	36K	42K	48K	60K
Power supply		220-240V~/50Hz						380-415V~/50Hz	
Voltage		187~242V						342~456V	
Ambient temperature	Cooling	-15~52℃							
	Heating	-15~24℃							

## 2. Capacity amendment of different ambient temperature

2.1 Amendment coefficient of Cooling capacity under different indoor/outdoor DB/WB temperature

K1

IDU temp.℃		Outdoor air inlet DB temperature℃										
DB	WB	-10	0	10	16	25	30	35	40	43	48	52
23	16	1.19	1.12	1.08	1.05	1	0.95	0.90	0.87	0.85	0.82	0.77
25	18	1.26	1.19	1.12	1.08	1.05	1	0.95	0.90	0.87	0.85	0.82
27	19	1.28	1.26	1.19	1.12	1.08	1.05	1	0.95	0.90	0.87	0.85
28	20	1.30	1.28	1.26	1.19	1.12	1.08	1.05	1	0.95	0.90	0.87
30	22	1.33	1.30	1.28	1.26	1.19	1.12	1.08	1.05	1	0.95	0.90
32	24	1.5	1.33	1.30	1.28	1.26	1.19	1.12	1.08	1.05	1	0.95

Actual cooling capacity calculation:

Actual cooling capacity=amendment coefficient of cooling capacity × nominal cooling capacity

——Rated cooling capacity could be found from 【Part 4 Specification】

——Amendment coefficient of cooling capacity could be found from table above.

2.2 Amendment coefficient of Heating capacity under different indoor/outdoor DB/WB temperature

K2

IDU temp. °C	Outdoor air inlet DB temperature °C									
	DB	-15	-10	-5	0	7	10	15	20	24
16		0.93	0.97	1	1.06	1.08	1.1	1.14	1.2	1.25
18		0.87	0.93	0.97	1	1.06	1.08	1.1	1.14	1.2
20		0.8	0.87	0.93	0.97	1	1.06	1.08	1.1	1.14
22		0.71	0.8	0.87	0.93	0.97	1	1.06	1.08	1.1
24		0.62	0.71	0.8	0.87	0.93	0.97	1	1.06	1.08

Actual heating capacity calculation:

Actual heating capacity = amendment coefficient of heating capacity × nominal heating capacity

—— Rated heating capacity could be found from **【Part 4 Specification】**

—— amendment coefficient of heating capacity could be found from table above.

### 3. Long piping length

Cooling capacity (KBtu/h)		12K	18K	24K	30K	36K	42K	48K	60K
Connection Pipe(mm)	Liquid pipe	Φ6.35		Φ9.52			Φ9.52		
	Gas pipe	Φ12.7		Φ15.88			Φ19.05		
Max.piping length(m)		25	30	50		65			
Max.piping height(m)		10	20	25		30			
Max.Bend Qty		5		8		10			

#### Caution:

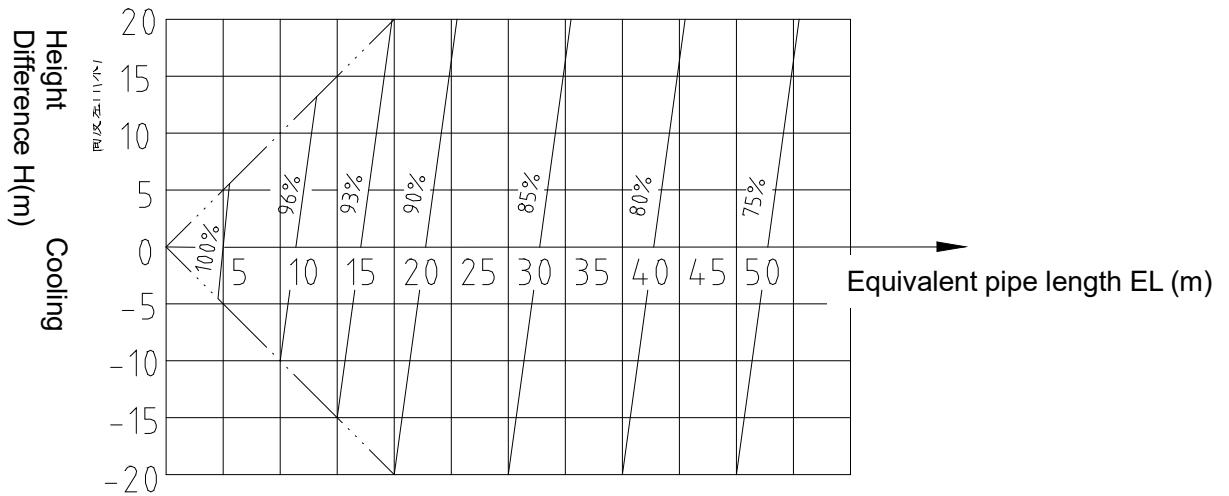
1. The standard Pipe length is 5m, if the pipe length is less than this then no additional charging is necessary. If the pipe length is more than this then you should charge more refrigerant into the system according to the above Charging Data
2. The thickness of the pipe is 0.6-1.0, bearing pressure is 4.2MPa;
3. If the connection pipe is too long, the cooling capacity and stability would be decreased. And the more bend quantity, the resistance in the piping system would be bigger, then the cooling and heating capacity would be decreased even lead to compressor broken. We suggest you to use the shortest connection pipe according to the pipe length parameter in this manual. If the height difference between outdoor and indoor unit is more than 5m, an oil trap should be installed in the gas pipe for every 10 meters.



### 4. Capacity amendment of different piping length

#### 4.1 Amendment coefficients of heating and cooling capacity under different height drop **K3**

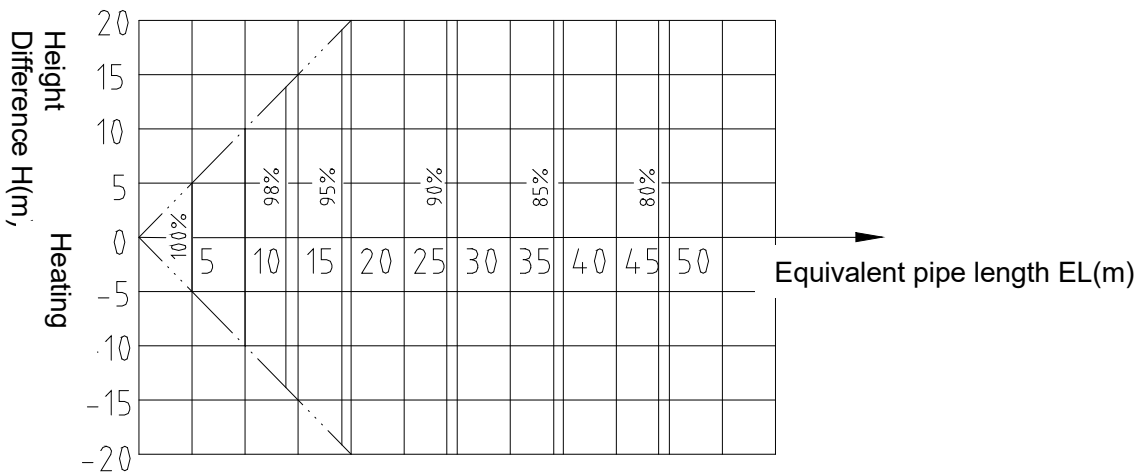
##### Different Cooling Capacity modified coefficients at different height:



**Note:**

H = Height of Outdoor Unit — Height of Indoor Unit

##### Different Heating Capacity modified coefficients at different height:



**Note:**

H = Height of Outdoor Unit — Height of Indoor Unit

#### 4.2 Correction capability

Cooling capacity = Rated cooling capacity xK1xK3

Heating capacity = Rated heating capacity xK2xK3

## 5. Equivalent Pipe length conversion

Equivalent pipe length means converting pipe elbow to straight pipe length after considerate the pressure loss.

**Bend and Oil Loop Conversion tablet**

Pipe Dia.(mm) \ Type	Bend (m)	Oil Loop(m)
6.35	0.10	0.7
9.52	0.18	1.3
12.70	0.20	1.5
15.88	0.25	2.0
19.05	0.35	2.4
22.02	0.40	3.0

Equivalent Pipe length  $L = \text{Actual Pipe length } L + \text{Bend Qty} \times \text{Equivalent pipe bend length} + \text{Oil Loop Qty} \times \text{Equivalent Oil Loop length}$

### Sample:

ALCA-H42/5 Actual Pipe length is 25 meters, Gas pipe diameter is 15.88mm. If there's 5 bends and 2 oil loops during the installation, then the equivalent pipe length should be:

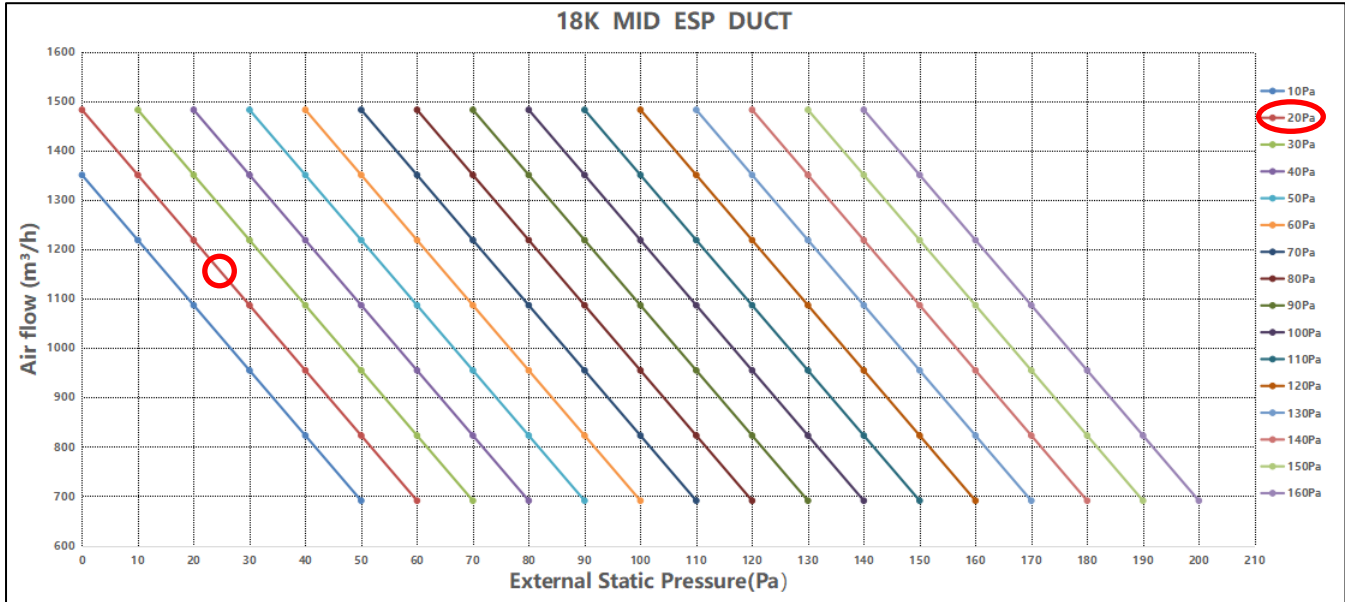
$$L = 25 + 0.25 \times 5 + 2.0 \times 2 = 30.25(\text{m})$$

### Note:

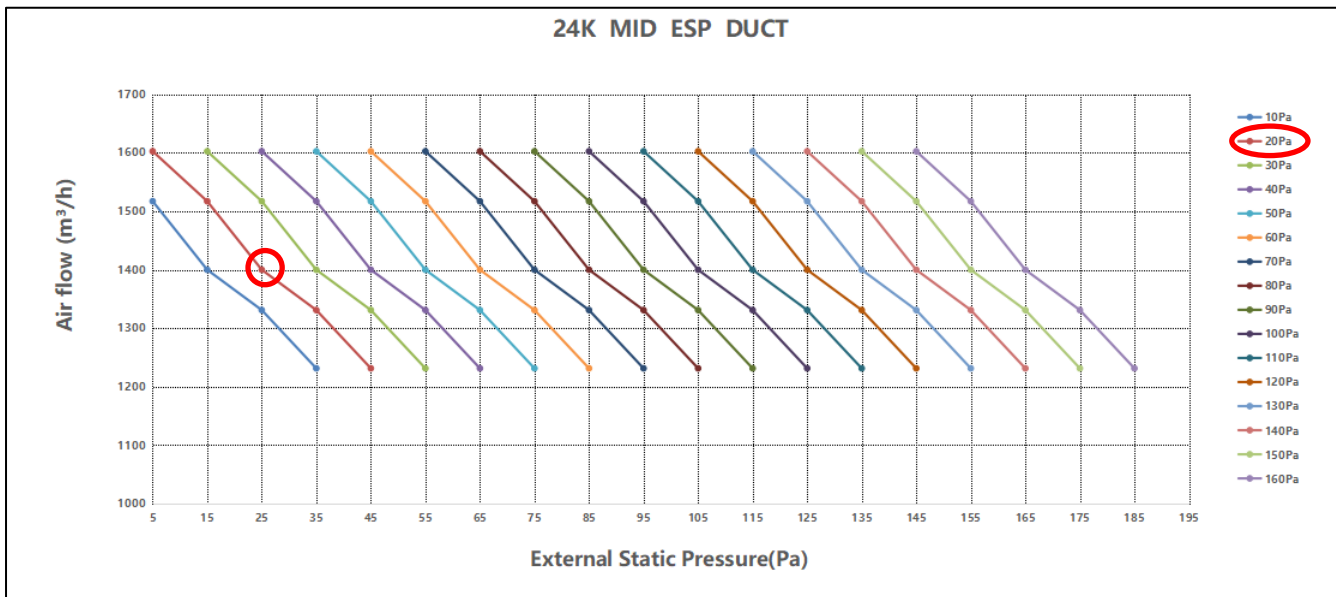
If there is relatively level difference of indoor and outdoor unit, S-shaped oil trap must be installed every 8~10m for vertical pipe.

# Part7 Static pressure curve

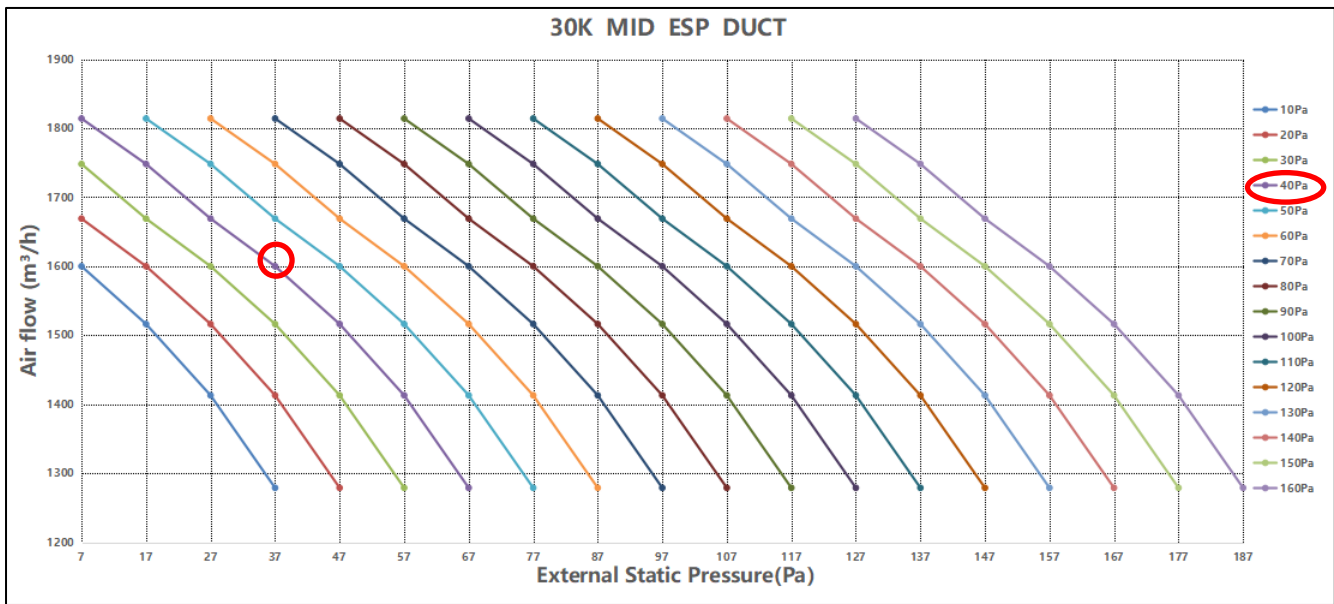
## 1. 18K Duct



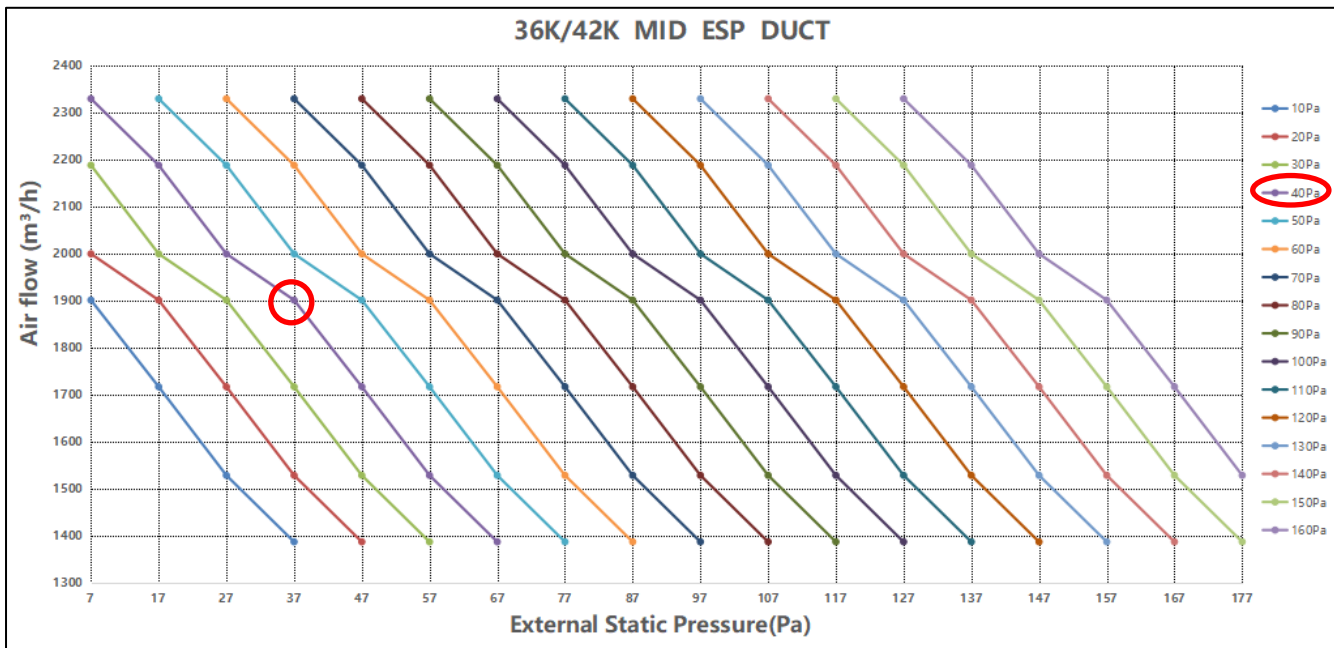
## 2. 24K Duct



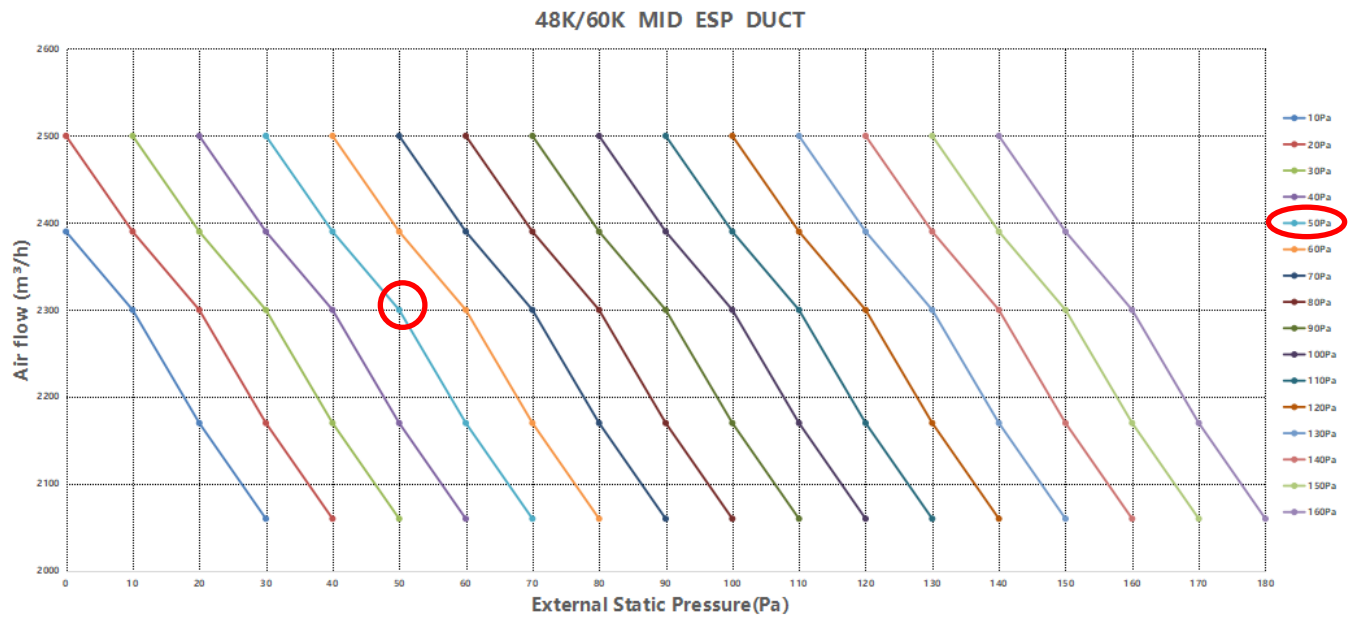
## 2. 30K Duct



## 2. 36K/42K Duct









### 3. 48K/60K Duct



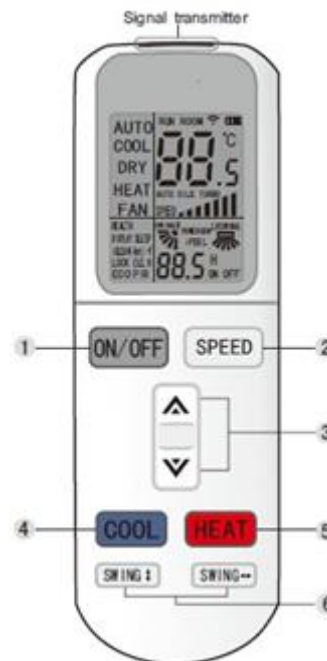
# Part8 Control

## 1. Controller

IDU type	Controller	
	Standard	Optional
Cassette		
	<p><b>YK-L(AUX)</b> 16422003000121</p>	<p><b>XK-04</b> 11222020000034</p>
Ceiling Floor		
	<p><b>YK-L(AUX)</b> 16422003000121</p>	<p><b>XK-04</b> 11222020000034</p>
Duct		
	<p><b>XK05-DY(AUX)120</b> 11222020000038</p>	<p><b>XK-04</b> 11222020000034</p>

## 1.1 Remote Controller YK-L

**Remote controller: L series** (This remote controller is standard configuration.)



### Note:

Remote controller outside buttons only valid when surface cover is closed.

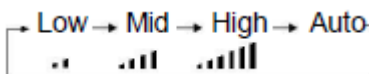
Two white button is only for addressing set. If it has been set, remember not to reset by yourself.

#### 1. “ON/OFF” button

\*Press this button, the unit will start or stop, which can clear the timer or sleeping function or last time.

#### 2. “SPEED” button

\*Press this button, speed will change as below:



#### 3. “▲/▼” button

\*When press ▲ button, the setting temperature will be increased by 0.5°C. When press ▼ button, the setting temperature will be decreased by 0.5°C.

\*The temperature will be changed quickly by pressing the button continuously and setting temperature range is 16°C to 32°C.

#### 4. “COOL” button

\*Press the **COOL** button, you can directly enter cooling mode.

## 5. "HEAT" button

\* Press the **HEAT** button, you can directly enter cooling mode.

\* **Note:** cooling only unit has no heating function.

## 6. "SWING" button (SWING ←→ and SWING ↑↓)

Press this button to start up/down (left/right) swing function, press it again, fix louver position.

\* Up/down (left/right) setting is only valid in this mode; it will not affect louver position in other modes.

\* Up/down (left/right) swing has memory function, it can keep primary setting when turn off then turn on or switch from other modes to primary mode.

## 7. "HEALTH" button

\* Press this button; you can turn on or off the health function.

## 8. "SLEEP" button

\* Press SLEEP button, the sleeping indicator light of indoor unit flashes on.

\* The air-conditioner runs in sleeping mode for 10 hours and quiet sleep mode, recover back to former mode.

\* The unit will turn off automatically if the timing mode is running out of time.

\* **Note:** press the MODE or ON/OFF button, the remote controller clears sleeping mode away.

## 9. "iFEEL" button

\* Press this button to set "iFEEL" function. The LCD shows the actual room temperature when the function set and it shows the setting temperature when the function can be cancelled.

\* This function is invalid at Fan mode.

## 10. "DISPLAY" button

\* In display mode, press button once, switch off "DISPLAY", Press "DISPLAY" again, LCD will show ambient & setting temperature after flashing 5s. It's convenient for users to check ambient or setting temperature at any time in darkness.

## 11. "iCLEAN" button

\* When remote controller is at the off state, press this button, the unit runs "iCLEAN" function.

\* The purpose of this function is to clean dust on evaporator and dry the inside water of evaporator and to prevent the evaporator going moldy due to water deposition and boasting strange smell.

\* After setting "iCLEAN" function, press "iCLEAN" button or "ON/OFF" button to quit.

\* The clean function will stop working after about 30 minutes running without any operation.

## 12. "ELE.H" button (for auxiliary electric heating IDU)

In heating mode, press this button, auxiliary electric heating will work.



**13.“Anti-FUNGUS”button**

\* The purpose of this function is to dry the inside of the evaporator and to prevent the evaporator from going mouldy due to water deposition and thus dispersing strange smell.

**14.“SPOTSWING”button**

\*Press this button,the horizontal wind direction vanes can swing automatically,when you have the desired vertical wind direction.

\*Press “SPOT SWING”again,the horizontal wind direction vanes will best opped depend on you.

**15.“ECO”button**

\*In cooling mode, press this button,the unit will run“ECO” economic operation mode which takes the least power consumption.

\*After running for 8h,it will automatically quit.You can press “ECO” button once again to quit.

\*Note:The unit will turn off automatically if the timing mode is running out off time.

**16.Two white button: Addressing set**


\*With the controller off, pressing the two white button simultaneously more than 10 seconds or more to enter address setting.This status displays only temperature and time parameters,temperature display area shows “Serial number” parameters,the range is 0-99. Time display area shows "Se tvalue", the range is 0-255.The initial value is 1.


\* By pressing “▲/▼”to set serial number +and-. Parameter within the serial number displays from 0 to 99 in circulation.

\* By pressing “ECO” and “iCLEAN” to set value number +and-.Parameters within the value number displays from 0 to 255 in circulation.After setting the two numbers, press the MODE button to confirm sending to ODU.

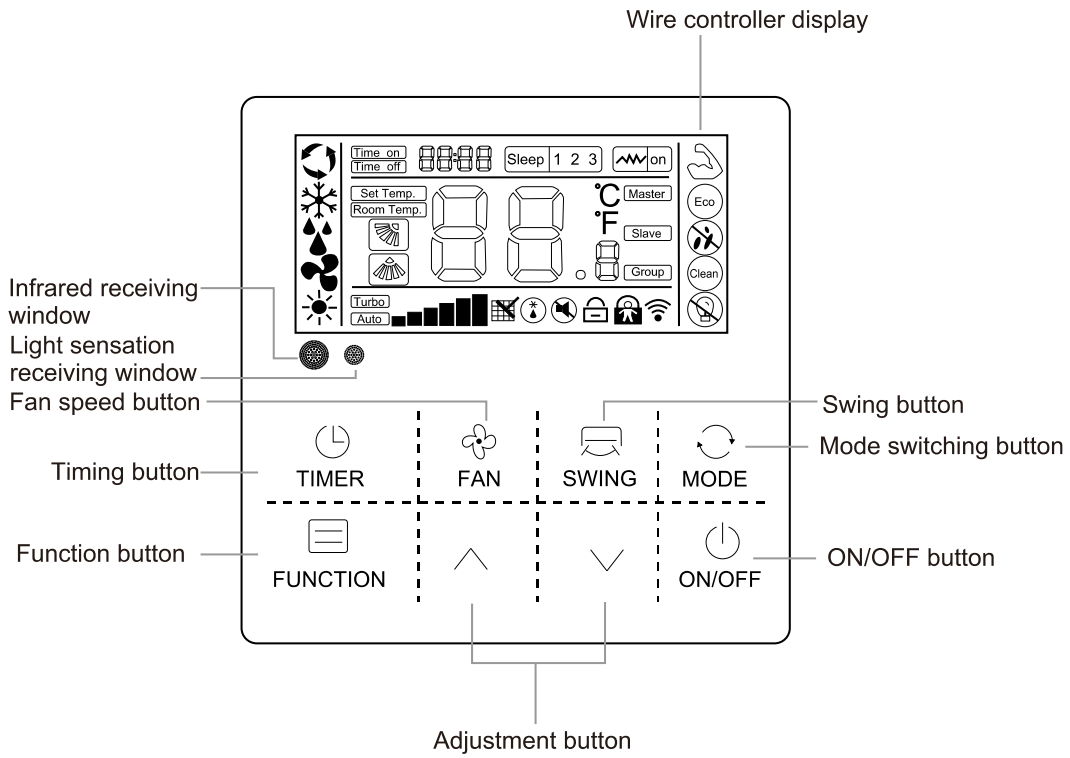
**1.2 Wired Controller XK-05/XK-04**

XK-05	Features
-------	----------

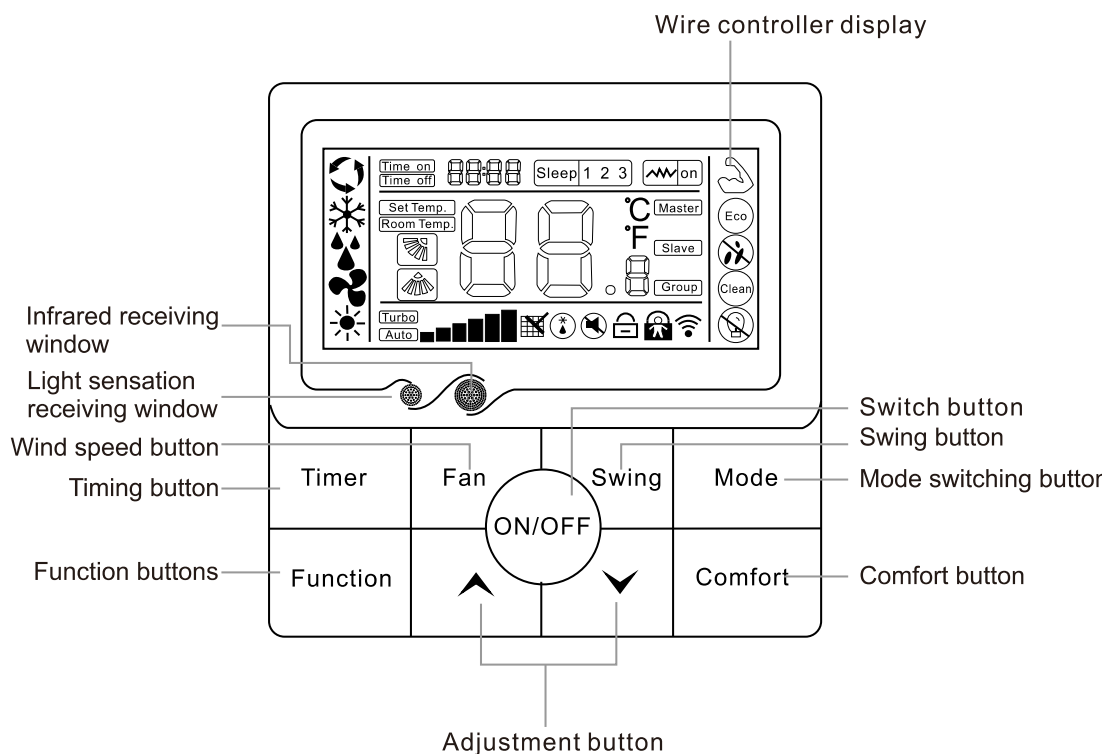
	<p><b>Technical indicator</b></p> <ol style="list-style-type: none"> <li>1. Power source:voltage DC 12V;</li> <li>2. Work temperature range of PCB:(-10~+70)°C;</li> <li>3. Work humidity range of PCB:RH20%~RH90%;</li> <li>4. Button: Touch button</li> <li>5. Dimensions(W*H*D):120*120*20mm</li> </ol>
	<p><b>Main functions</b></p> <ol style="list-style-type: none"> <li>1. 8-keytouch button input</li> <li>2. Buzzer prompt tone function</li> <li>3. LCD+ white backlight</li> <li>4. Display the failure of main controller</li> <li>5. Ambient temperature detection sensor</li> <li>6. Receive the signal of wireless remote controller</li> </ol>

XK-04	Features
	<p><b>Technical indicator</b></p> <ol style="list-style-type: none"> <li>1. Power source:voltage DC 12V;</li> <li>2. Work temperature range of PCB:(0~50)°C;</li> <li>3. Work humidity range of PCB:RH20%~RH90%;</li> <li>4. Button: Touch button</li> <li>5. Dimensions(W*H*D):86*86*10.8mm</li> </ol>
	<p><b>Main functions</b></p> <ol style="list-style-type: none"> <li>1. 9-keytouch button input</li> <li>2. Buzzer prompt tone function</li> <li>3. Comfort one-button setting</li> <li>4. LCD+ white backlight</li> <li>5. Display the failure of main controller</li> <li>6. Ambient temperature detection sensor</li> <li>7. Connect to indoor unit via 3 (4) -core shielded cable</li> <li>8. Receive the signal of wireless remote control</li> </ol>

**XK-05**



**XK-04**



**Detailed operation instructions please refer to wired controller instruction manual**

## 2. Parameters Setting

Indoor unit's parameters can be set by remote controller (YK-L) and wired controller—For after-sales (In indoor side ,After a new PCB was replaced, indoor parameters set is necessary).

### 2.1 Parameter Setting table (**General parameter**)

Serial Number Parameter	【04】	【05】	【15】
	Model of IDU	Capacity of IDU	Selection of room sensor
ALMD-H18/NDR3HA	12	18	01
ALMD-H24/NDR3HA	12	24	01
ALMD-H30/NDR3HA	12	30	01
ALMD-H36/NDR3HA	12	36	01
ALMD-H42/NDR3HA	12	42	01
ALMD-H48/SDR3HA	12	48	01
ALMD-H60/SDR3HA	12	60	01
ALCA-H12/NDR3HAA(B)	37	18	00
ALCA-H18/NDR3HAA(B)	37	18	00
<b>ALCA-H18/NDR3HYA</b>	<b>37</b>	<b>18</b>	<b>01</b>
ALCA-H24/NDR3HYB	01	24	01
ALCA-H36/NDR3HYB	01	36	01
ALCA-H42/NDR3HYB	01	42	01
ALCA-H48/ SDR3HYB	01	48	01
ALCA-H60/ SDR3HYB	01	48	01
ALCF-H18/NDR3HA	13	18	00
ALCF-H24/NDR3HA	13	24	00
ALCF-H36/NDR3HA	13	36	00
ALCF-H42/NDR3HA	13	42	00
ALCF-H48/SDR3HA	13	48	00
ALCF-H60/SDR3HA	13	60	00
ALCF-H18/NDR3HF	46	18	02
ALCF-H24/NDR3HF	46	24	02

ALCF-H36/NDR3HF	46	36	02
ALCF-H42/NDR3HF	46	48	02
ALCF-H48/SDR3HF	46	48	02
ALCF-H60/SDR3HF	46	60	02

**Note:**

**【04】** : Model of IDU

**【05】** : Capacity of IDU,

**【15】** : Selection of air return temperature sensor; 00 – sensor in indoor unit , 01—Sensor in wired controller

## 2.2 Working mode parameter (Heating only function)

Under heating only mode, IDU cannot receive signal of other working mode besides “OFF” signal.

Once change the parameter, need to power on again to activate the function.

Series No	Value	Meaning	Available mode
11	0	All mode	Cooling. Dehumidification. Swing. Heating. Auto
	1	No “Auto” mode	Cooling. Dehumidification. Swing. Heating
	2	Cooling	Cooling. Dehumidification. Swing
	3	Heating	Heating only

**Note: The duct type indoor unit produced before 2019.3 need to update program for IDU pcb so that achieve heating only.**

## 2.3 Parameter Setting by YK-L

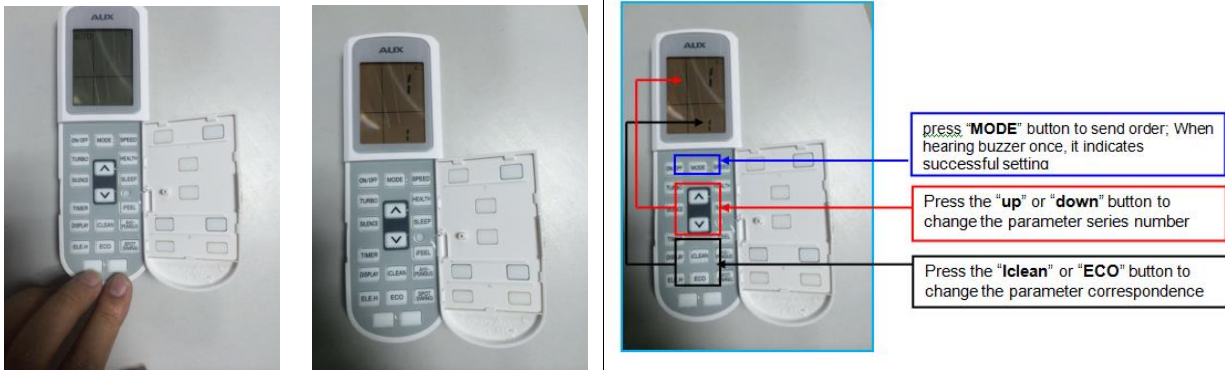
### Enter the setting interface

- ① Make sure the remote controller is **off**
- ② Press the **two white button** at the down side simultaneously **more than 10s** to enter the address setting mode.

### Parameter Setting

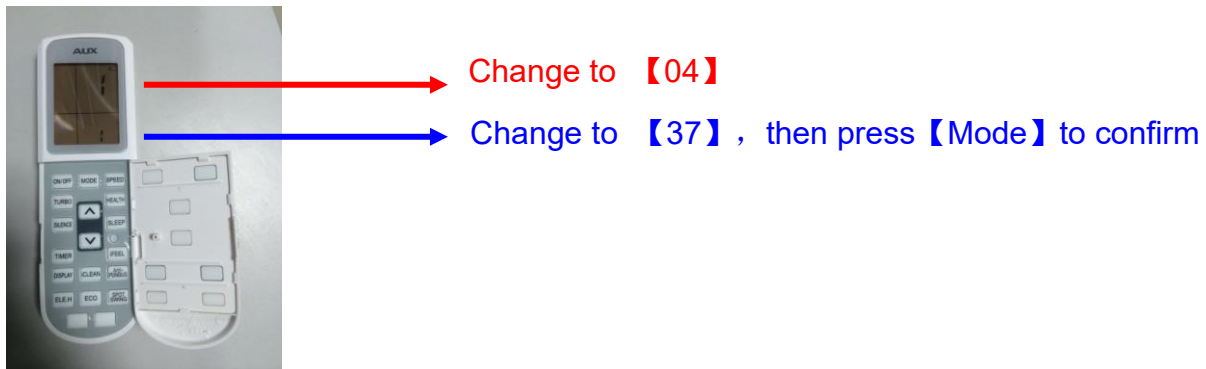
- ③ Press the [^] or [V] button to change the parameter series number

- ④ Press the **[IClean]** or **[ECO]** button to change the parameter correspondence
- ⑤ Press the **[MODE]** button to send order (Sent signal to display panels or receivers), Then can hearing buzzer once



**For example:**

If you changed a new PCB to 18K cassette indoor unit , then you should set the type of the unit , check the above**【Parameter Setting Items table】**--- Mode of IDU is **【04】**, 18K cassette parameter is **【37】**



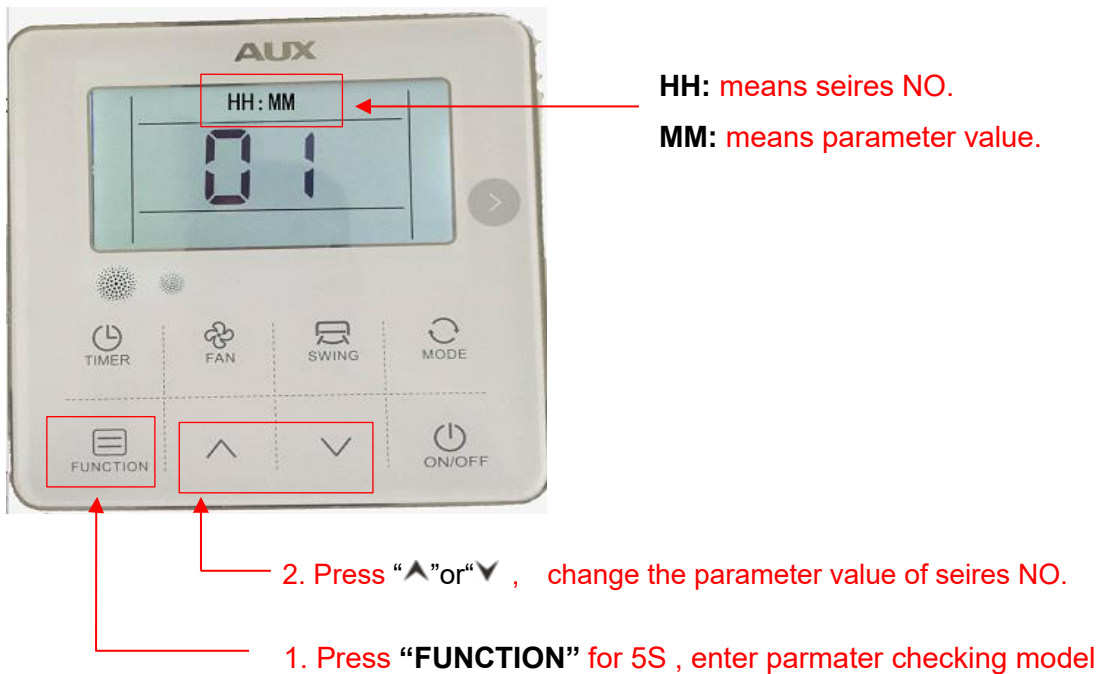
## 2.4 Parameter Setting by XK-04/ XK-05

### Parameter checking

Press the “FUNCTION” button for 5 seconds, enter into the parameter checking interface .

the wired controller’s address will be displayed in the temperature zone of LED screen ( press “FUNCTION” button, the wired controller’s address will flash, the wired controller ‘s address can be changed through press the “^” or “v” , then press “FUNCTION” button to confirm);

In the timing setting zone :**HH** means seires NO. **MM** means parameter value. After Entering into IDU parameter checking , via pressing the “^” or “v” button ,you can check the parameter value of seires NO. **【04】 【05】 【1】** .



### Parameter setting

**Only in parameter checking model** ,press the “FUNCTION” button for 5 seconds, Enter into parameter setting model.

The corresponding parameter valve”**MM**” began to flash,changing it throuth pressing the “^” or “v” button,after finished ,press the “FUNCTION” button to confirm.When finishing parameter setting,it will automatically go back to parameter checking model.



2. Press “^” or “v”, change the parameter value.

1. Only in checking model, Press “FUNCTION” for 5S ,  
enter parameter checking model

#### For example:

If you want to change the PCB from cassette type to mid duct type for 42k unit , you should set the type of the unit , check the above **【Parameter Setting Items table】** --- Mode of IDU is **【04】** , 42K cassette parameter is **【11】** , 42K mid duct parameter is **【39】**

**【0411】** change to **【0439】** (step1)



③ Press “FUNCTION” for 5S again, enter parameter setting model;

② Press the “^” or “v” button to get “04 11”

① Press “FUNCTION” for 5S, enter parameter check model;



【0411】 change to 【0439】 (step2)





④ Press the“^”or“v”button to get “04 39”

⑤ After finishing setting , press “FUNCTION”to confirm

### 3. Room Card Function

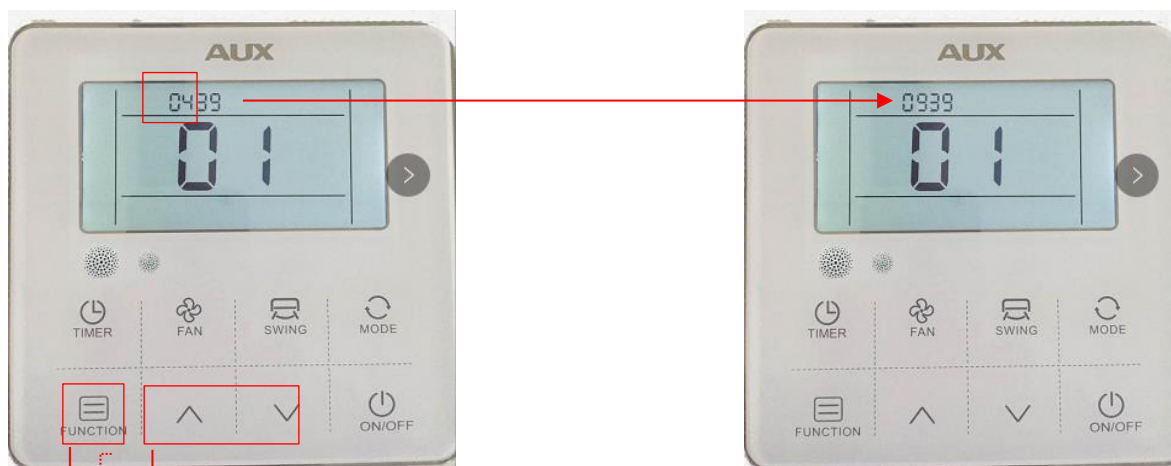
#### 3.1 Function setting

Parameter setting	Model	Contact State	Operation model specification
0900	Normal (default)		Stand
0901	Room Card (optional)		the IDU Will be into standby mode, can be controlled by controller
			the IDU Will be into standby mode, <b>can't be controlled by controller</b>

※ How to set the room card function ( Set method same as the above 【Part 9 →2.2Parameter Setting by YK-L or 2.3 Parameter Setting by XK-04/XK-05 】

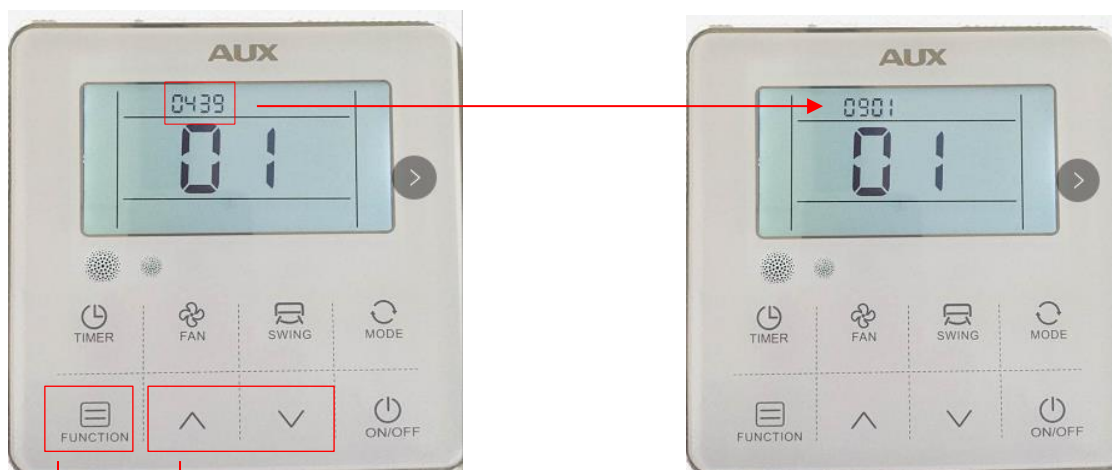
#### For example ( XK-05)

##### Step 1



- ③ Press “FUNCTION” for 5S again, enter parmater setting model;
- ② Press the“^”or“v”button to get “09 39”
- ① Press “FUNCTION” for 5S,enter parmater check model;

**Step 2**

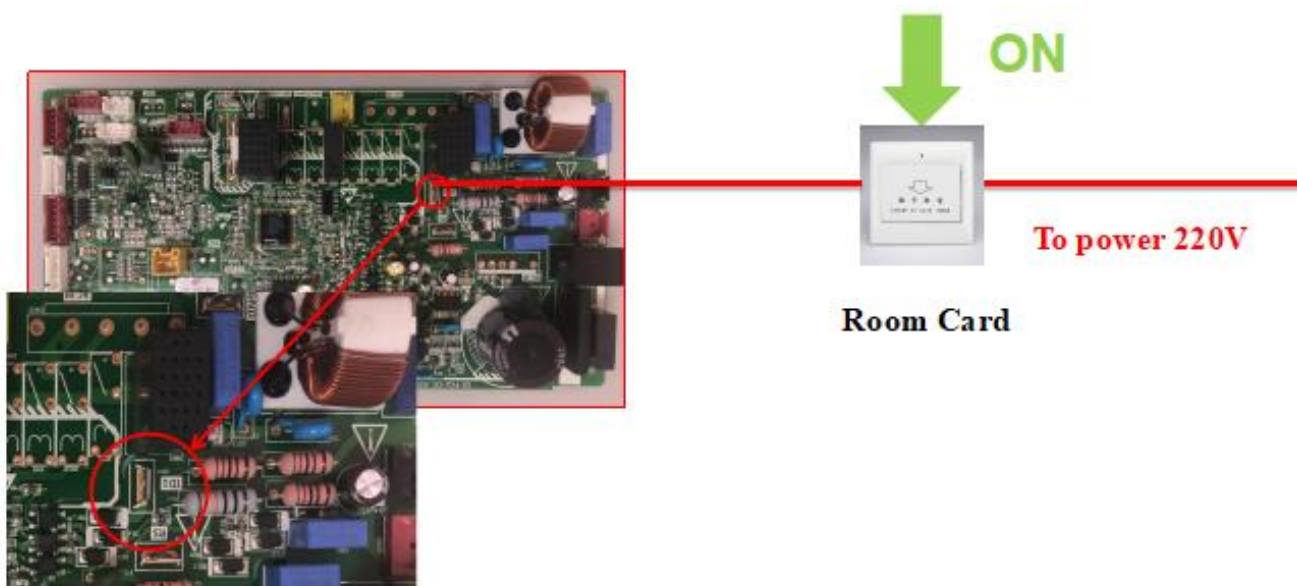


- ④ Press the“^”or“v”button to get “09 01”
- ⑤ after finishing setting , press “FUNCTION”to confirm

**3.2 Wiring diagram**

When the room card is inserted, the air conditioning can be controlled ; when you leave the room, the AC will standby, can not be controlled .

【DUCT TYPE】



【Cassette】 and 【ceiling&floor】



Room Card



## 4. Wifi Module

### 4.1 WiFi Module Configuration

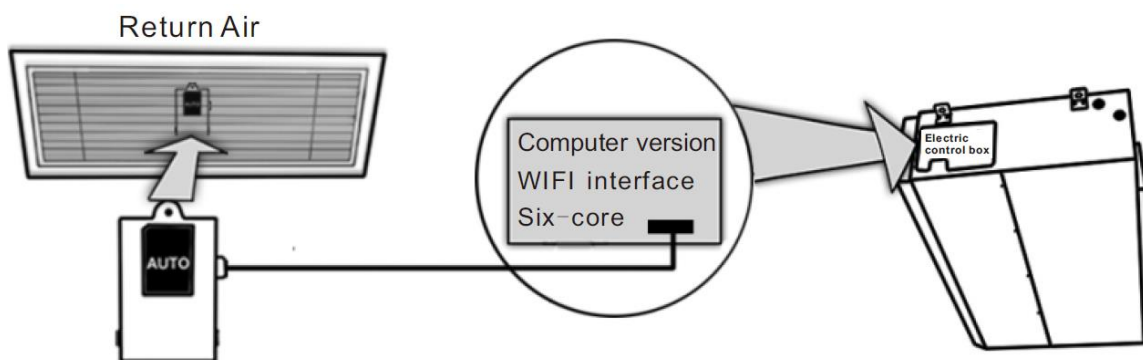
#### ① APP Download

Mobile terminal scan the following dimensional code to download APP, or search “AC Freedom” in APPSTORE and Google store



#### ② Light Commercial WiFi Module Installation

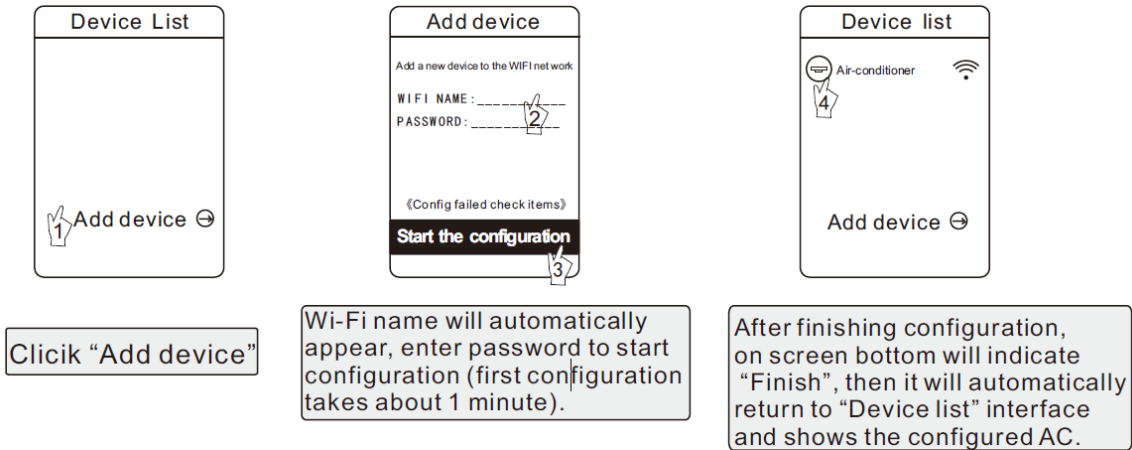
Connect the WiFi module communication wire to WiFi interfaces of main PCB, as shown below:



The WiFi module should be placed in the return air or some other place in WiFi area. (customers buy the wireless router)

#### ③ APP Configuration

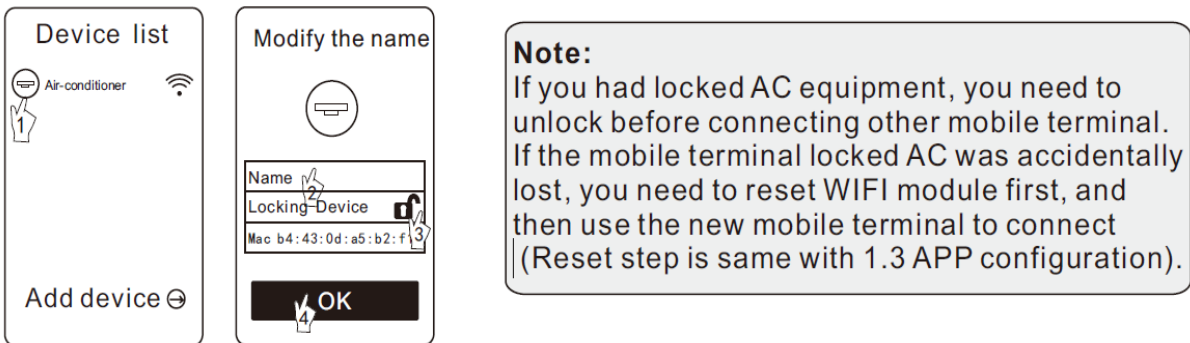
- Press "healthy" button 8 times consecutive, and buzzer even ring two sound then into the configuration
- Connect mobile terminals to WiFi, open APP “AC Freedom”, and then operate following the steps below:



**Note:** If the configuration fails or you change the password of wireless router, you need to reset the WIFI module to reconnect: Turn on the power of the module, then repeat the steps above for APP configuration.

**4.2 AC management**

**① Modify AC name and locking function**



**② For other instructions, please refer to "HELP" in APP.**

**③ Remote-control device**

Connect the wireless router to internet, then open the GPRS. It means the remote control device, voice control function only effective after connected to the Internet

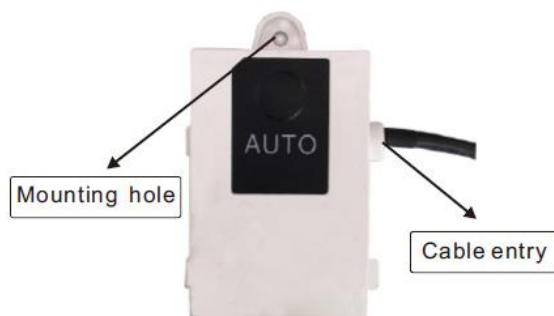
**4.3 Trouble Shooting**

**If unable to properly configured or connect the WIFI box:**

- Make sure the WIFI box for wiring is properly connected.
- Long press WIFI box 8 seconds to reconfigure the positive button. If the problem can't be solved, please contact after sales person.

#### 4.4 Technical Parameters

- Working temperature : 0~50°C ;
- Working environment humidity : 20~90%RH ;
- Dimensions : 78 X 52 X 15.5
- Configuration cable wire length : 1500mm



## 5. Static Pressure setting

### 5.1 Factory default

Capacity	Model	Default (Pa)	Parameters
18k/Btu	ALMD-H18/NDR3HA	20	0602
24k/Btu	ALMD-H24/NDR3HA	20	0602
36k/Btu	ALMD-H30/NDR3HA	40	0604
42k/Btu	ALMD-H36/NDR3HA	40	0604
48k/Btu	ALMD-H48/NDR3HA	50	0605
60k/Btu	ALMD-H60/NDR3HA	50	0605

### 5.2 Static Pressure setting (30Pa-example) use XK-05

【Step 1】 Feel free to touch a button and light up the screen, As shown in the right picture

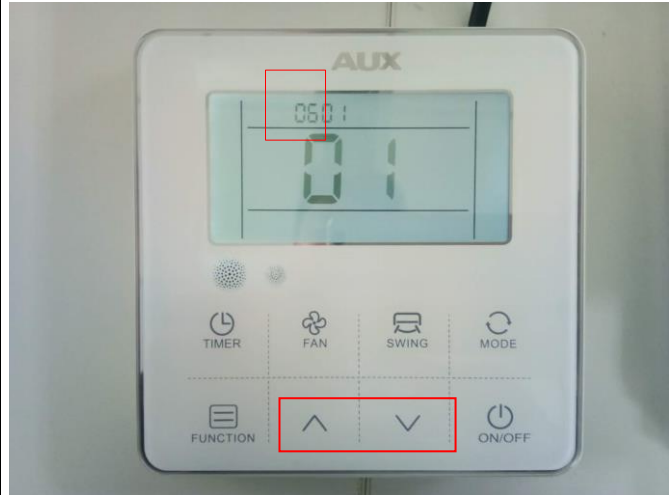


【Step 2】 Press the “FUNCTION” button for 5s to enter the set interface, As shown in the following picture





【Step 3】 Press “△ ▽”button changing the first 2 numbers of “01XX” to “06XX”, As shown in the following picture



【Step 4】 Press the “FUNCTION” button for 5S again to enter ESP set interface, the last 2 numbers of “0601” will be Twinkle ,then Press “△ ▽ ”button changing the last 2 numbers of “06XX” to set the ESP of IDU,As shown in the following picture,The“0603”means that ESP of IDU is 30 Pa.



ESP setting table

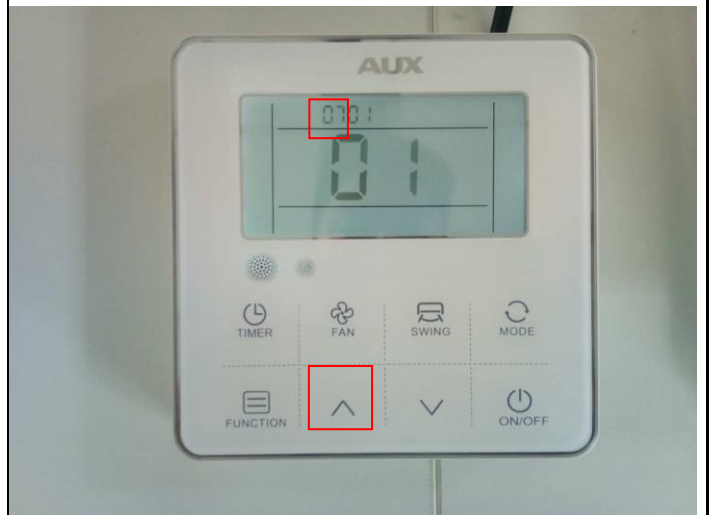
ESP(Pa)	0	10	20	30	40	50	60	70	80
parameter values	0600	0601	0602	0603	0604	0605	0606	0607	0608
ESP(Pa)	90	100	110	120	130	140	150	160	
parameter values	0609	0610	0611	0612	0613	0614	0615	0616	



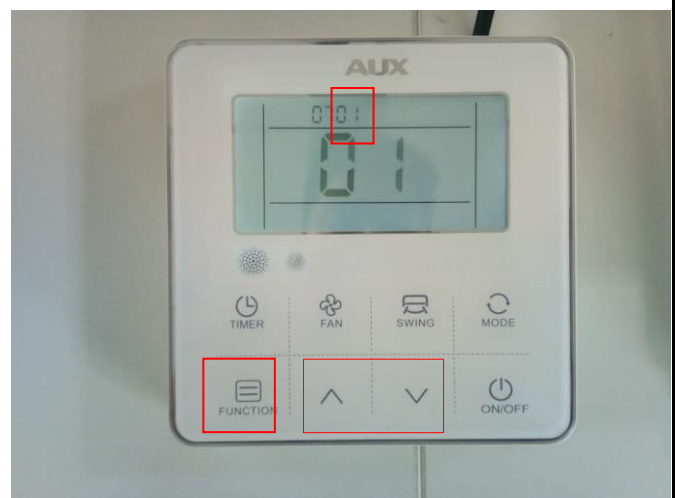
【Step 5】 Press “**FUNCTION**” button to confirm, As shown in the picture



【Step 6】 Press “ $\Delta$ ” button changing the first 2 numbers of “**06XX**” to “**07XX**”, As shown in the picture



【Step 7】 Press the “**FUNCTION**” button for 5S again , the last 2 numbers of “**07XX**” will be Twinkle ,then Press “ $\Delta$   $\nabla$  ” button change “**07XX**” to “**0701**” Confirm the ESP of IDU,As shown in the picture,



**【Step 8】** Press **“FUNCTION”** button to confirm, finishing set ,As shown in the picture.

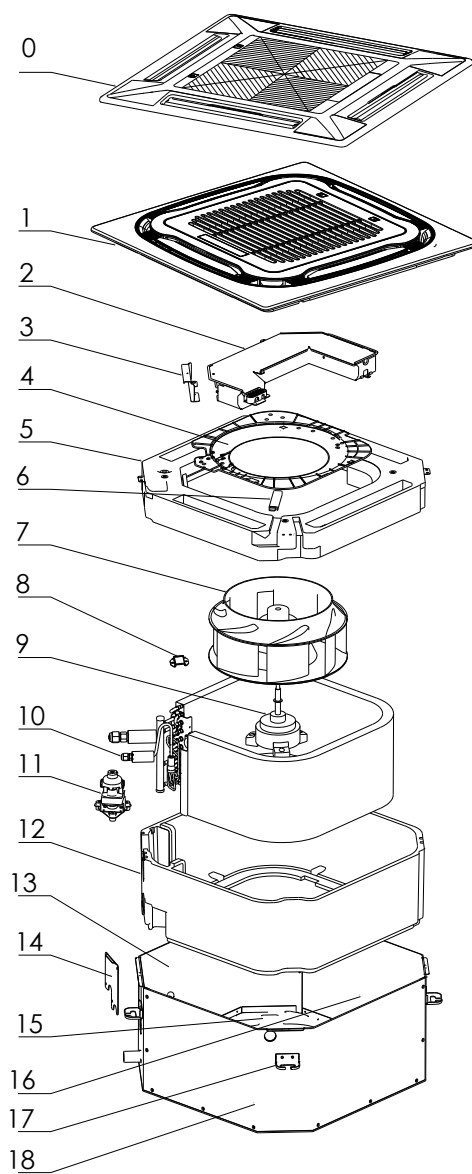
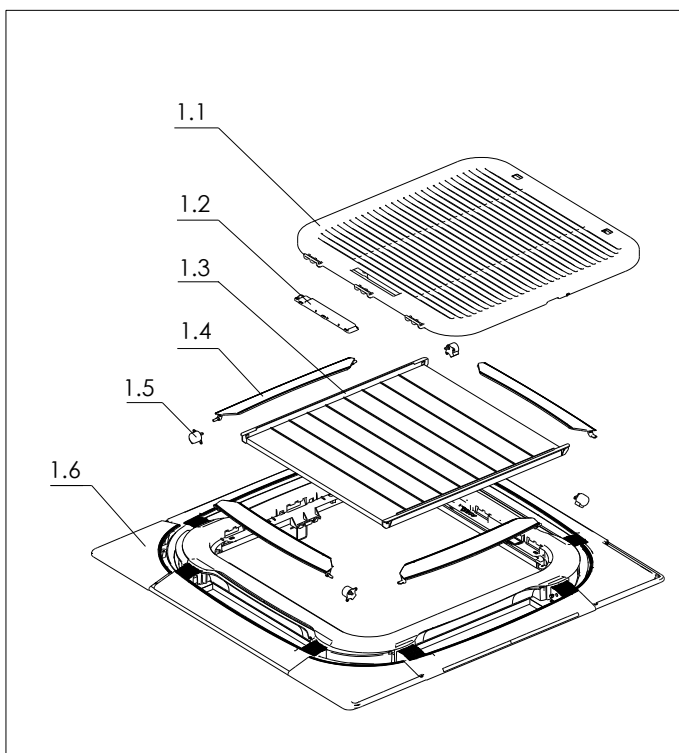
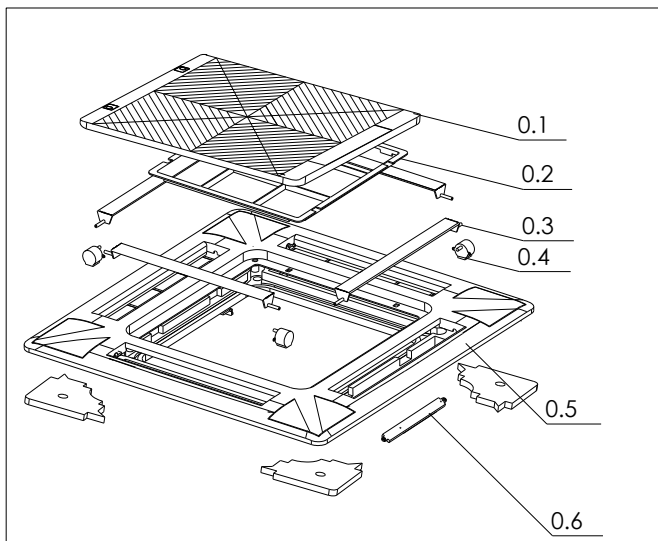


※ Use Remote controller(YK-L) and XK-04 Set method same as the above XK-05

# Part9 Explosive View

## 1. Cassette

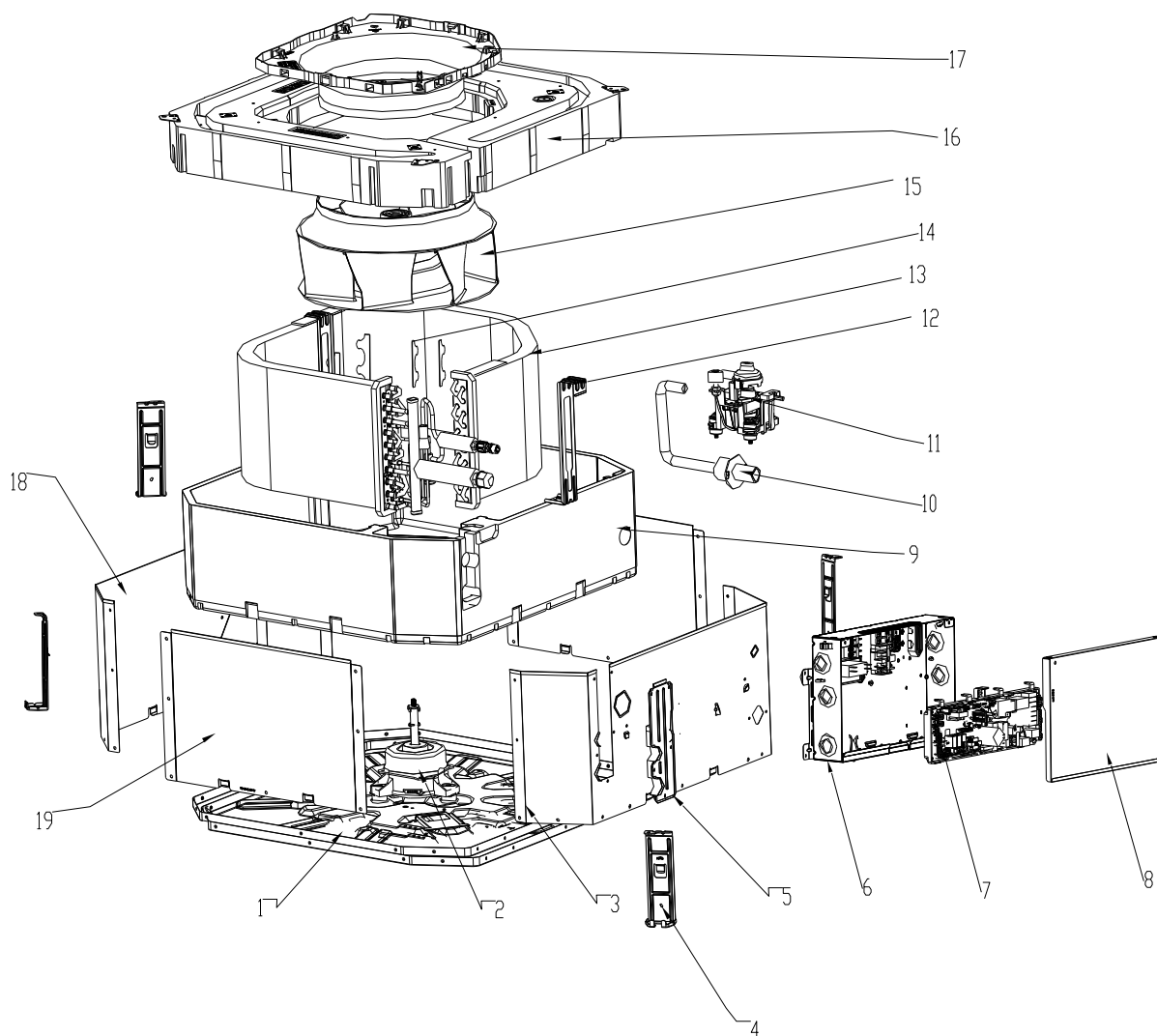
### 1.1 12K, 18K(E Type)



No.	Chinese Name	Part Name	Part Code	Qty
-----	--------------	-----------	-----------	-----

1.2	0.	面板 MB13/W-Y1	Panel MB13/W-Y1	16108022000016	1
	0.1	回风格栅	Return air grille	16420010000015	1
	0.2	过滤网 PP	fliter screen	16420012000012	1
	0.3	导风叶片	Guide the wind vane	16420007000023	4
	0.4	步进电机	Step motor	16430001000133	4
	0.5	面板围框 HIPS	Panel box around	16420014000035	1
	0.6	R 显示灯板组件	The led panel	16422015000007	1
	1	面板 09A	Panel MB09A	16108022000017	1
	1.1	回风格栅	Return air grille	16420010000033	1
	1.2	R 显示灯板组件	The led panel	11222014000718	1
	1.3	过滤网 PP	fliter screen	16420012000012	1
	1.4	导风叶片	Guide the wind vane	16420007000035	4
	1.5	步进电机	Step motor	16430001000133	4
	1.6	面板围框 HIPS	Panel box around	16420013000072	1
	2	电控盒组件	Electric box assembly	16321005000024	1
	3	电控盒 C	Electric box C	16421038000328	1
	4	导风圈	Air guide ring	16420004000008	1
	5	接水盘组件	Drain pan assembly	16320005000039	1
	6	过线夹	Wire clip	16420021000010	1
	7	风轮	Wind wheel	16444001000037	1
	8	压线扣	Wire clamp	16427018000007	1
	9	直流电机	DC motor	16430001000636	1
	10	蒸发器总成	Evaporator assembly	16324005000087 (12K)	1
				16324005000081 (18K)	1
	11	排水泵	Drain pump	16440001000020	1
	12	底盘泡沫组件	Chassis foam assembly	16320005000038	1
	13	围板 B	Baffle B	16421010000072	1
	14	出管口阀板	Valve plate	16434002000184	1
	15	底盘组件	Chassis assembly	16321005000023	1
	16	围板 C	Baffle C	16421010000073	1
	17	挂耳	Hook	16421040000042	4
	18	围板 A	Baffle A	16421010000071	1

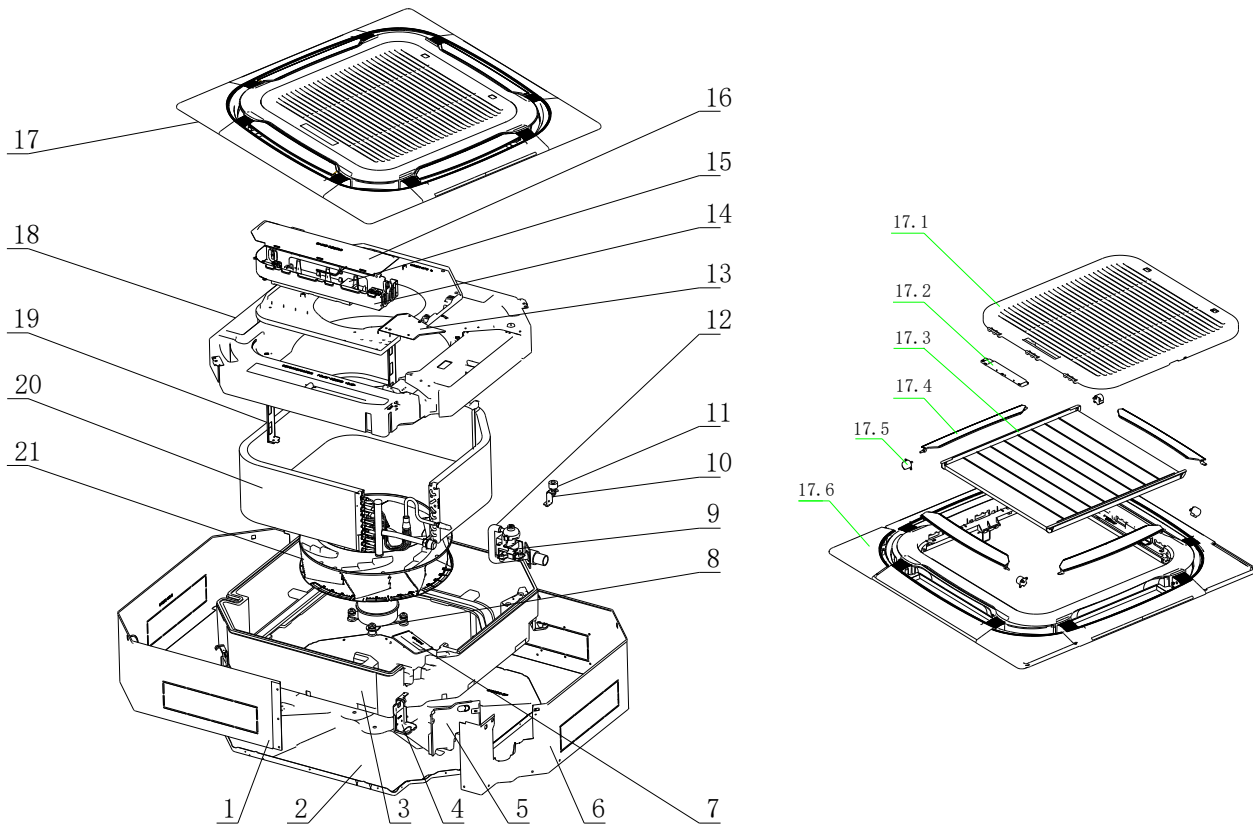
## 18K (Y Type) (only heating)



No.	BOM Code	Chinese Name	Part Name	Quantity
1	16321023000002	2P 天花 Y 底盘组件(直流)	Chassis assembly	1
2	16430034000019	室内直流电机 XD30D-ZL 310V/内置	DC fan motor	1
3	16421010000090	Y2 天花 围板 A	Coaming A	1
4	16421040000075	Y2 天花 挂耳	Hanging ear	4
5	16321054000003	Y2 天花 阀板组件	stop valve assembly	1
6	16321019000039	Y2 天花 电控盒组件	Electronic control box assembly	1
7	16420016000057	Y2 天花 主控 PCB 板	Main control PCB	1
8	16421042000028	Y2 天花 电控盒盖	Electronic control box cover	1
9	16320034000002	Y2 天花 底盘泡沫组件	Chassis foam module	1
10	16320030000002	Y2 天花 排水管组件	Drainage piping assembly	1
11	16320035000001	水泵组件 2P 天花 Y	Water pump assembly	1

12	16421125000001	Y2 天花 蒸发器挂钩(2 排)	Evaporator hook	2
13	16324018000079	ALCA-H18A4Y2/R1VDS1-C2 蒸发器总成(2 排 7)1.4 蓝	Evaporator assembly	1
14	16420007000040	Y2 天花 导风叶片(蒸发器,PP,T=0.8)	Guide vane	6
15	16444001000037	风轮 φ322*147.5*φ12(ABS 新料)(蓝色)	Fan wheel	1
16	16320020000006	Y2 天花 接水盘组件	Water tray assembly	1
17	16420004000018	Y2 天花 导风圈(HIPS)	Air guide ring	1
18	16421010000091	Y2 天花 围板 B	Coaming B	1
19	16421010000092	Y2 天花 围板 C	Coaming C	2

1.2 24K, 36K, 42K, 48K, 60K(Y Type) (only heating)



成品内机 ALCA-H24A4Y3/R3VDS1-C2

No.	Materiel No.	中文	Part Name	Quantity
1	16421010000082	QRD-72N/EC2 围板 B	Right side panel	1
2	16321023000001	天花 E 底盘组件(直流电机)	Chassis cover board	1
3	16320005000052	QRD-72N/EC2 底盘泡沫组件	Cystosepiment for Chassis cover board	1
4	16421040000054	QRD-72N/EC-N3 挂耳	hangers	4
5	16420014000042	QRD-120N/EC2 阀板(PS)	Valve board	1
6	16421010000083	QRD-72N/EC2 围板 A	Left side panel	1

7	16421002000466	QRD-120N/E 压线板	tension disc	1
8	16430034000009	室内直流电机, XD100B-ZL 310V/内置	continuous current dynamo	1
9	16440001000022	排水泵 PLD-1200(EC2)	Water pump	1
10	16421026000402	QRD-120N/EC2 浮子开关支架	float switch support	1
11	16445034000014	(ROHS)浮子开关 GMF-31(L=820mm)	float switch	1
12	16320005000053	QRD-125N/EC2S-N3 排水管组件	drain-pipe assembly	1
13	16421005000631	QRD-120N/EC2 防火盖板	cover plate	1
14	16421038000361	QRD-120N/EC2 电控盒	electronic control box	1
15	11222541000048	CJ 控制板 DYQ-R-DC02-E1(SY)	control panel	1
16	16421038000360	QRD-120N/EC2 电控盒盖	<a href="#">Valve board for electric cabinet</a>	1
17	16108002000007	面板 MB12(英文)	panel	1
17.1	16420010000004	(ROHS)面板 MB12 回风格栅	Grilling	1
17.2	11222014000704	显示灯板组件 SX-THJ-DISP(MB12)-C1	display lamp	1
17.3	16420012000001	面板 MB06 过滤网	filter screen	1
17.4	16420007000009	(ROHS)面板 MB12 导风叶片	vane	4
17.5	16430001000133	步进电机 24BYJ48-2	stepping motor	4
17.6	16420011000013	面板 MB06 边角盖板连接片	cover plate	4
18	16320005000050	QRD-120N/EC2 接水盘泡沫组件	Cystosepiment for water pan	1
19	16421040000047	QR-72N/E 蒸发器挂钩(喷涂)	Hanger for evaporator	3
20	16324018000035	ALTCA-H24A4Y3/R1VDS1-C5 蒸发器总成(2排 7)1.4 蓝	Evaporator assembly	1
21	16444001000041	风轮 φ477*147(ABS 新料)(白色)	wind wheel	1

## 成品内机 ALCA-H36A4Y5/R3VDS1-C2

No.	Material No.	中文	Part Name	Quantity
1	16421010000081	QRD-120N/EC2 围板 B	Right side panel	1
2	16321023000001	天花 E 底盘组件(直流电机)	Chassis cover board	1
3	16320005000051	QRD-120N/EC2 底盘泡沫组件	Cystosepiment for Chassis cover board	1
4	16421040000054	QRD-72N/EC-N3 挂耳	hangers	4
5	16420014000042	QRD-120N/EC2 阀板(P5)	Valve board	1
6	16421010000080	QRD-120N/EC2 围板 A	Left side panel	1
7	16421002000466	QRD-120N/E 压线板	tension disc	1
8	16430034000009	室内直流电机, XD100B-ZL 310V/内置	continuous current dynamo	1
9	16440001000022	排水泵 PLD-1200(EC2)	Water pump	1
10	16421026000402	QRD-120N/EC2 浮子开关支架	float switch support	1
11	16445034000014	(ROHS)浮子开关 GMF-31(L=820mm)	float switch	1
12	16320005000053	QRD-125N/EC2S-N3 排水管组件	drain-pipe assembly	1
13	16421005000631	QRD-120N/EC2 防火盖板	cover plate	1
14	16421038000361	QRD-120N/EC2 电控盒	electronic control box	1
15	11222541000048	CJ 控制板 DYQ-R-DC02-E1(SY)	control panel	1
16	16421038000360	QRD-120N/EC2 电控盒盖	<a href="#">Valve board for electric cabinet</a>	1
17	16108002000007	面板 MB12(英文)	panel	1



17.1	16420010000004	(ROHS)面板 MB12 回风格栅	Grilling	1
17.2	11222014000704	显示灯板组件 SX-THJ-DISP(MB12)-C1	display lamp	1
17.3	16420012000001	面板 MB06 过滤网	filter screen	1
17.4	16420007000009	(ROHS)面板 MB12 导风叶片	vane	4
17.5	16430001000133	步进电机 24BYJ48-2	stepping motor	4
17.6	16420011000013	面板 MB06 边角盖板连接片	cover plate	4
18	16320005000050	QRD-120N/EC2 接水盘泡沫组件	Cystosepiment for water pan	1
19	16421007000172	QRD-120N/EC2 蒸发器连接板	Hanger for evaporator	3
20	16324018000036	ALTA-H30A4Y5/R1VDS1-C5 蒸发器总成(2排 7)1.4 蓝	Evaporator assembly	1
21	16444001000041	风轮 φ477*147(ABS 新料)(白色)	wind wheel	1

## 成品内机 ALCA-H42A4Y5/R3VDS1-C2

No.	Materiel No.	中文	Part Name	Quantity
1	16421010000081	QRD-120N/EC2 围板 B	Right side panel	1
2	16321023000001	天花 E 底盘组件(直流电机)	Chassis cover board	1
3	16320005000051	QRD-120N/EC2 底盘泡沫组件	Cystosepiment for Chassis cover board	1
4	16421040000054	QRD-72N/EC-N3 挂耳	hangers	4
5	16420014000042	QRD-120N/EC2 阀板(PS)	Valve board	1
6	16421010000080	QRD-120N/EC2 围板 A	Left side panel	1
7	16421002000466	QRD-120N/E 压线板	tension disc	1
8	16430034000009	室内直流电机 XD100B-ZL 310V/内置	continuous current dynamo	1
9	16440001000022	排水泵 PLD-1200(EC2)	Water pump	1
10	16421026000402	QRD-120N/EC2 浮子开关支架	float switch support	1
11	16445034000014	(ROHS)浮子开关 GMF-31(L=820mm)	float switch	1
12	16320005000053	QRD-125N/EC2S-N3 排水管组件	drain-pipe assembly	1
13	16421005000631	QRD-120N/EC2 防火盖板	cover plate	1
14	16421038000361	QRD-120N/EC2 电控盒	electronic control box	1
15	11222541000048	CJ 控制板 DYQ-R-DC02-E1(SY)	control panel	1
16	16421038000360	QRD-120N/EC2 电控盒盖	Valve board for electric cabinet	1
17	16108002000007	面板 MB12(英文)	panel	1
17.1	16420010000004	(ROHS)面板 MB12 回风格栅	Grilling	1
17.2	11222014000704	显示灯板组件 SX-THJ-DISP(MB12)-C1	display lamp	1
17.3	16420012000001	面板 MB06 过滤网	filter screen	1
17.4	16420007000009	(ROHS)面板 MB12 导风叶片	vane	4
17.5	16430001000133	步进电机 24BYJ48-2	stepping motor	4
17.6	16420011000013	面板 MB06 边角盖板连接片	cover plate	4
18	16320005000050	QRD-120N/EC2 接水盘泡沫组件	Cystosepiment for water pan	1
19	16421040000061	DLR-140Q/DYCS 蒸发器挂钩(喷涂)	Hanger for evaporator	3
20	16324018000046	ALCA-H42A4Y5/R3VDS1-C2 蒸发器总成(3排 7)1.5 蓝	Evaporator assembly	1
21	16444001000041	风轮 φ477*147(ABS 新料)(白色)	wind wheel	1

## 成品内机 ALCA-H48A5Y5/R3VDS1-C2

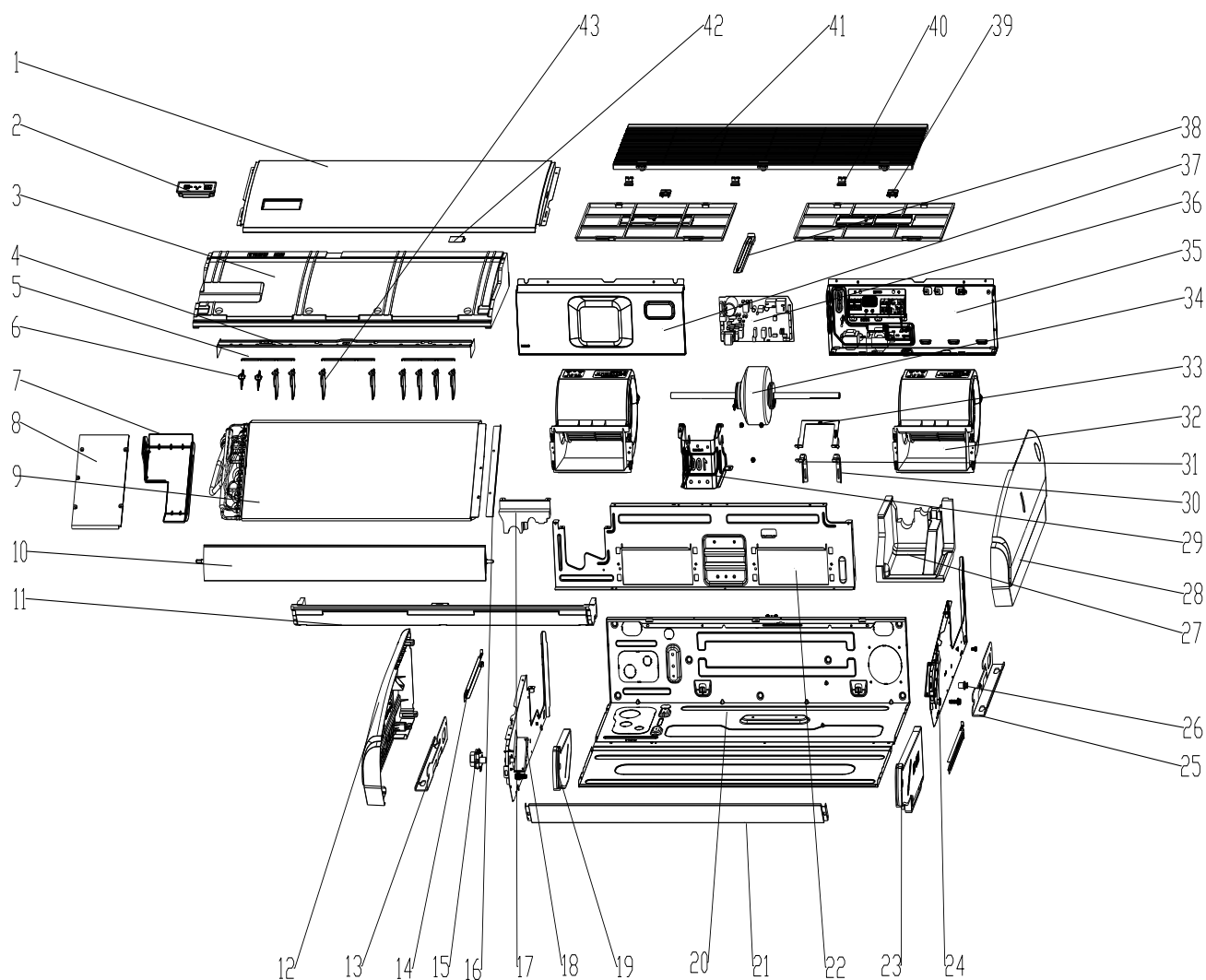
## 成品内机 ALCA-H60A5Y5/R3VDS1-C2

No.	Materiel No.	中文	Part Name	Quantity
1	16421010000081	QRD-120N/EC2 围板 B	Right side panel	1
2	16321023000001	天花 E 底盘组件(直流电机)	Chassis cover board	1
3	16320005000051	QRD-120N/EC2 底盘泡沫组件	Cystosepiment for Chassis cover board	1
4	16421040000054	QRD-72N/EC-N3 挂耳	hangers	4
5	16420014000042	QRD-120N/EC2 阀板(PS)	Valve board	1
6	16421010000080	QRD-120N/EC2 围板 A	Left side panel	1
7	16421002000466	QRD-120N/E 压线板	tension disc	1
8	16430034000009	室内直流电机 XD100B-ZL 310V/内置	continuous current dynamo	1
9	16440001000022	排水泵 PLD-1200(EC2)	Water pump	1
10	16421026000402	QRD-120N/EC2 浮子开关支架	float switch support	1
11	16445034000014	(ROHS)浮子开关 GMF-31(L=820mm)	float switch	1
12	16320005000053	QRD-125N/EC2S-N3 排水管组件	drain-pipe assembly	1
13	16421005000631	QRD-120N/EC2 防火盖板	cover plate	1
14	16421038000361	QRD-120N/EC2 电控盒	electronic control box	1
15	11222541000048	CJ 控制板 DYQ-R-DC02-E1(SY)	control panel	1
16	16421038000360	QRD-120N/EC2 电控盒盖	<a href="#">Valve board for electric cabinet</a>	1
17	16108002000007	面板 MB12(英文)	panel	1
17.1	16420010000004	(ROHS)面板 MB12 回风格栅	Grilling	1
17.2	11222014000704	显示灯板组件 SX-THJ-DISP(MB12)-C1	display lamp	1
17.3	16420012000001	面板 MB06 过滤网	filter screen	1
17.4	16420007000009	(ROHS)面板 MB12 导风叶片	vane	4
17.5	16430001000133	步进电机 24BYJ48-2	stepping motor	4
17.6	16420011000013	面板 MB06 边角盖板连接片	cover plate	4
18	16320005000050	QRD-120N/EC2 接水盘泡沫组件	Cystosepiment for water pan	1
19	16421040000061	DLR-140Q/DYCS 蒸发器挂钩(喷涂)	Hanger for evaporator	3
20	16324018000047	ALCA-H48A4Y5/R3VDS1-C2 蒸发器总成(3排7)1.5 蓝	Evaporator assembly	1
21	16444001000041	风轮 φ477*147(ABS 新料)(白色)	wind wheel	1

## 2. Ceiling Floor

### 2.1 Ceiling Floor (F Type)

18K

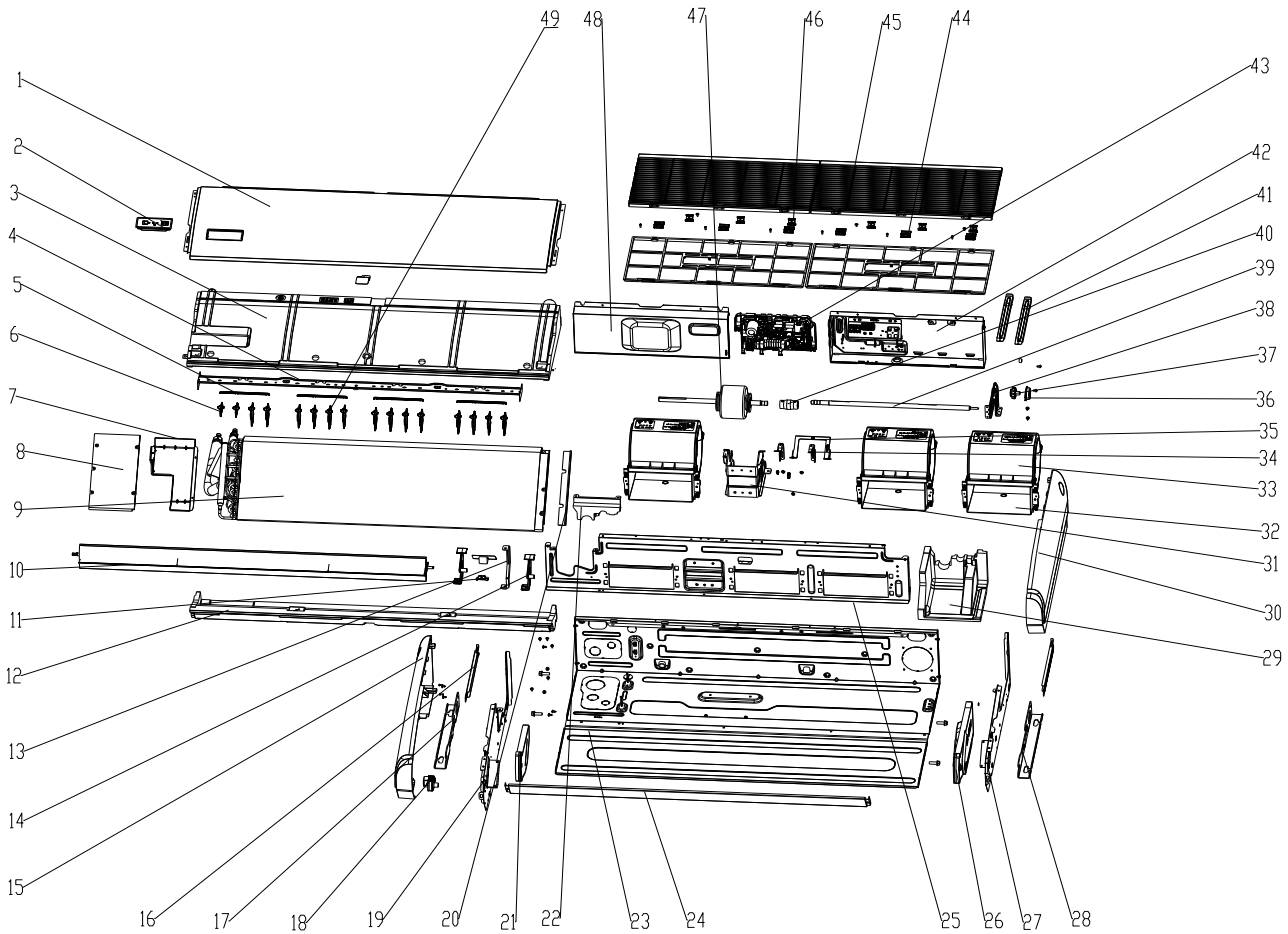


No.	Chinese Name	EN Part Name	Part Code	Qty
1	F2 座吊机面板	front panel	16421004000399	1
2	显示板组件	display assembly	11222023000610	1
3	F2 座吊机接水盘	drainage pan	16320020000001	1
4	2P 导风架	Air guide frame	16421002000526	1
5	导风叶片连接杆	Connecting rod of guide vane	16420008000016	3
6	导风叶片 B	Guide vane B	16420007000039	2

7	右导水板组件	Right water guide plate assembly	16321072000002	1
8	右盖板组件	Cover as-right	16321027000022	1
9	蒸发器总成	Evaporator assembly	16324018000057	1
10	2P 导风架组件	Air guide frame assembly	16320027000001	1
11	F2 顶泡沫组件	Top foam assembly	16428001000099	1
12	右端盖	Right end cover	16420050000001	1
13	F 安装挂架	Mounting pylon	16421040000071	1
14	侧支撑板	Side support plate	16421003000222	2
15	运动组件	Motion components	16320033000002	1
16	左导水板	Left water guide plate	16421017000025	1
17	阀板组件	stop valve plate assembly	16321054000002	1
18	右侧板	right side panel	16421001000776	1
19	右泡沫	Right bubble	16428001000097	1
20	2P 座吊机 F 背板	back plate of pedestal crane	16421018000009	1
21	F2 顶盖板	Top cover plate	16421068000009	1
22	2P 蜗壳固定板	Spiral case fixing plate	16421088000008	1
23	左泡沫	Left foam	16428001000098	1
24	左侧板	Left side panel	16421001000777	1
25	安装挂架(左)	Mounting rack (left)	16421040000070	1
26	导风门轴套	Shaft sleeve of air guide valve	16420044000002	1
27	阀板泡沫	Valve plate foam	16428001000094	1
28	左端盖	Left end cap	16420050000002	1
29	电机架	Motor frame	16421035000082	1
30	抱攀(L)	Baopan (L)	16421029000067	1
31	抱攀(R)	Baopan (R)	16421029000066	1
32	蜗壳(上)	Volute case (UP)	16420027000001	2
33	电机连接板	Motor connecting plate	16421007000180	1
34	室内直流电机	Indoor DC motor	16430034000013	1
35	电控盒	Electric control box	16421038000387	1
36	电控总成	Electric control assembly	16321019000021	1
37	电控盒盖	Electric control box cover	16421042000021	1
38	后支撑板	Rear support plate	16421002000529	1
39	格栅固定销	Grid fixing pin	16420049000001	3
40	格栅铰链	Grating hinge	16420051000001	3
41	进风格栅	Air inlet grille	16420010000042	1

42	集水盘固定板	Fixing plate of collecting tray	16421083000001	1
43	导风叶片 A	Guide vane a	16420007000038	8

24K

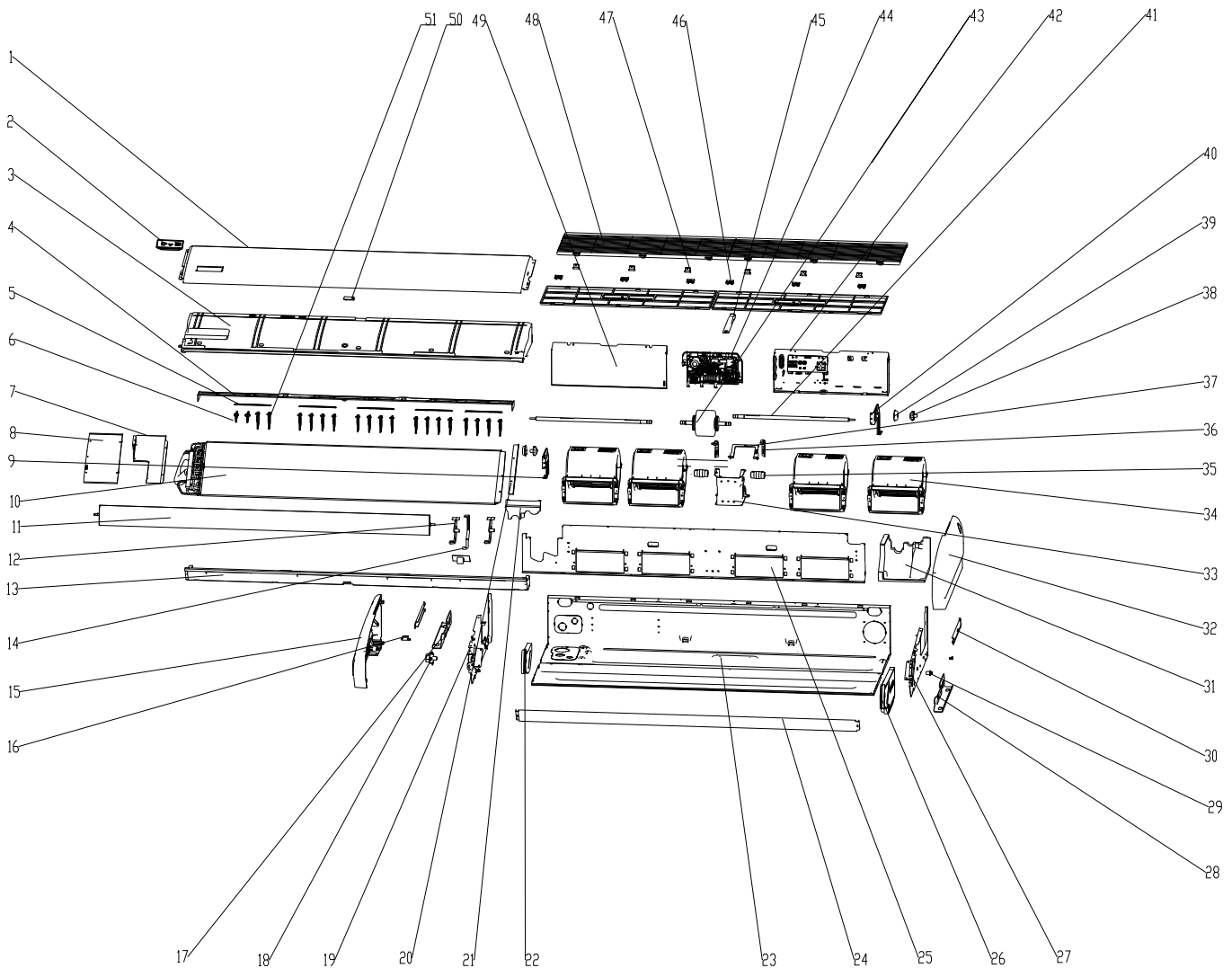


No.	Chinese Name	Part Name	Part Code	Qty
1	F3 面板	front panel	16421004000400	1
2	显示板组件	display assembly	11222023000610	1
3	F3 座吊机接水盘组件	drainage pan	16320020000002	1
4	3P 导风架组件	Air guide frame	16320027000002	1
5	导风叶片连接杆	Connecting rod of guide vane	16420008000016	4
6	导风叶片 B	Guide vane B	16420007000039	2
7	右导水板组件	Right water guide plate assembly	16321072000002	1
8	右盖板组件	Cover as-right	16321027000022	1
9	蒸发器总成	Evaporator assembly	16324018000058	1

10	导风门组件	Air guide frame assembly	16320028000002	1
11	前固定板	Front fixing plate	16421002000525	1
12	顶泡沫组件	Top foam assembly	16428001000100	1
13	前支撑板组件	Plate as-front support	16321047000003	1
14	导风门支架	Air guide door bracket	16420006000011	2
15	右端盖	Right end cover	16420050000001	1
16	侧支撑板	Side support plate	16421003000222	2
17	安装挂架(右)	Mounting pylon(right)	16421040000071	1
18	运动组件	Motion components	16320033000002	1
19	右侧板	right side panel	16421001000776	1
20	蒸发器左导水板	Left water guide plate	16421017000025	1
21	右泡沫	Right bubble	16428001000097	1
22	阀板组件	stop valve plate assembly	16321054000002	1
23	3P 背板	back plate of pedestal crane	16421018000010	1
24	F3 顶盖板	Top cover plate	16421068000010	1
25	3P 蜗壳固定板	Spiral case fixing plate	16421088000009	1
26	左泡沫	Left foam	16428001000098	1
27	左侧板	Left side panel	16421001000777	1
28	安装挂架(左)	Mounting rack (left)	16421040000070	1
29	阀板泡沫	Valve plate foam	16428001000094	1
30	左端盖	Left end cap	16420050000002	1
31	电机架	Motor frame	16421035000082	1
32	蜗壳(下)	Volute case (down)	16420027000002	3
33	蜗壳(上)	Volute case (UP)	16420027000001	3
34	电机抱攀(L)	Baopan (L)	16421029000067	1
35	电机连接板	Motor connecting plate	16421007000180	1
36	橡胶轴承	Rubber bearing	16432016000075	2
37	轴承压板	Bearing press plate	16421002000467	2
38	轴承固定座(L)	Bearing fixed seat (L)	16421082000001	1
39	加长轴(空心)	Extended shaft (hollow)	16421080000002	1
40	联轴器	coupling	16444007000036	1
41	后支撑板	Rear support plate	16421002000529	2
42	电控盒	Electric control box	16421038000387	1
43	电控总成	Electric control assembly	16321019000021	1
44	格栅固定销	Fixing plate of collecting tray	16420049000001	3
45	进风格栅	Air inlet grille	16420010000043	1

46	格栅铰链	Grating hinge	1642005100001	3
47	室内直流电机	Indoor DC motor	16430034000014	1
48	电控盒盖	Electric control box cover	16421042000021	1
49	导风叶片 A	Guide vane a	16420007000038	14

36K, 42K



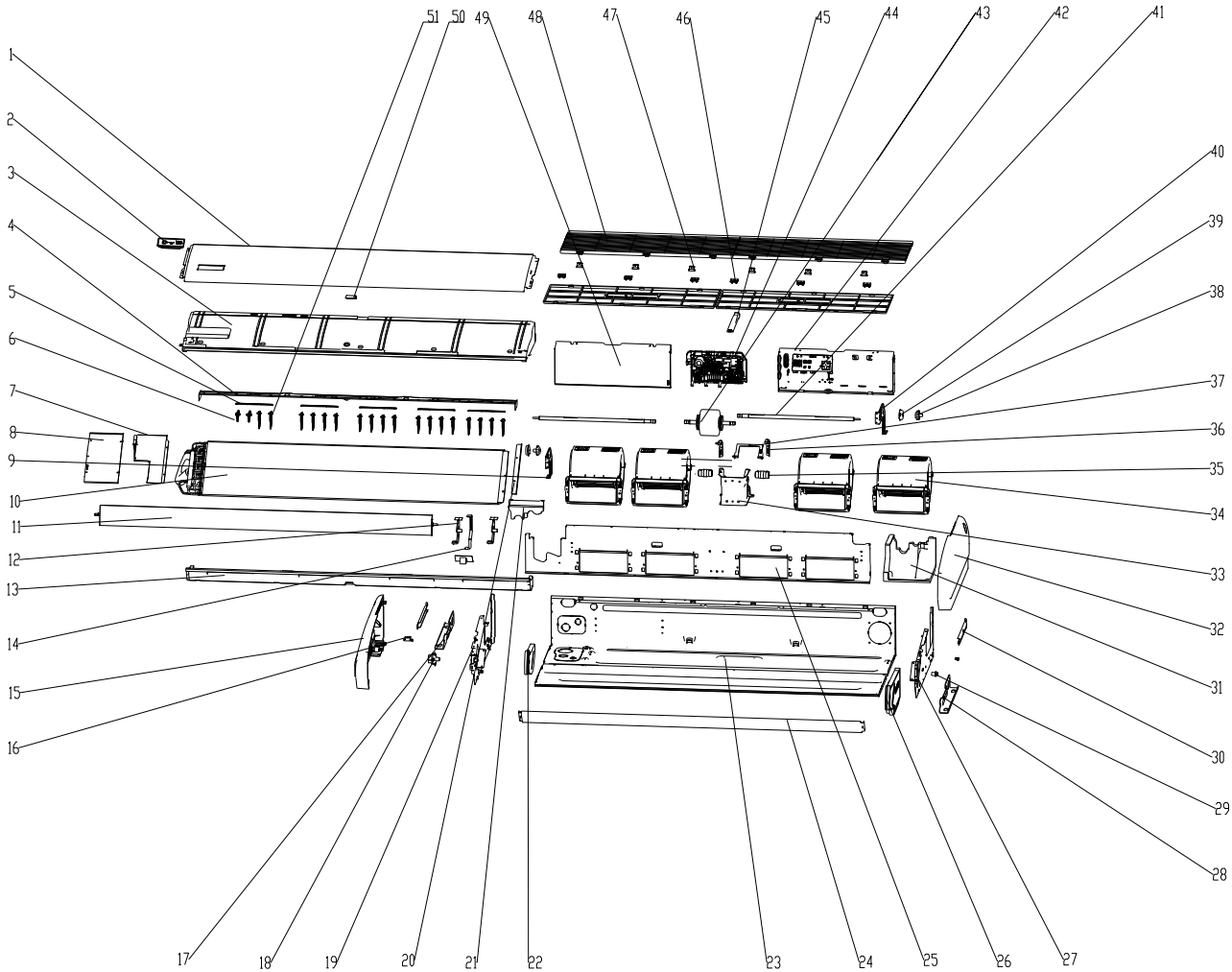
No.	Chinese Name	Part name	Part Code	Qty
1	F5 面板	front panel	16421004000401	1
2	显示板组件	display assembly	11222023000610	1
3	F5 接水盘组件	drainage pan	16320020000003	1
4	5P 导风架组件	Air guide frame	16321039000006	1
5	导风叶片连接杆	Connecting rod of guide vane	16420008000016	5
6	叶片 B	Guide vane B	16420007000039	2
7	右导水板组件	Right water guide plate assembly	16321072000002	1
8	右盖板组件	Cover as-right	16421071000001	1

9	轴承固定座(R)	Bearing fixed seat (R)	16421082000002	1
10	蒸发器总成	Evaporator assembly	16324018000066	1
11	5P 导风门组件	Air guide frame assembly	16320028000003	2
12	导风门支架	Air guide door bracket	16420006000011	1
13	F5 顶泡沫组件	Top foam assembly	16428001000101	1
14	前支撑板组件	Plate as-front support	16321047000003	1
15	右端盖	Right end cover	16420050000001	1
16	前固定板	Front fixing plate	16421002000525	1
17	安装挂架(右)	Mounting pylon(right)	16421040000071	1
18	5P 运动组件	Motion components	16320033000003	1
19	F 座吊机右侧板	right side panel	16421001000776	1
20	蒸发器左导水板	Left water guide plate	16421017000025	1
21	阀板组件	stop valve plate assembly	16321054000002	1
22	右泡沫	Right bubble	16428001000097	1
23	5P 背板	back plate of pedestal crane	16421018000011	1
24	F5 顶盖板	Top cover plate	16421068000011	1
25	5P 蜗壳固定板	Spiral case fixing plate	16421088000010	1
26	左泡沫	Left foam	16428001000098	1
27	左侧板	Left side panel	16421001000777	1
28	安装挂架(左)	Mounting pylon(left)	16421040000070	1
29	轴套	axle sleeve	16420044000002	1
30	侧支撑板	Side support plate	16421003000222	2
31	阀板泡沫	Valve plate foam	16428001000094	1
32	左端盖	Left end cap	16420050000002	1
33	电机架	Motor frame	16421035000082	1
34	蜗壳(上)	Volute case (down)	16420027000001	4
35	联轴器	coupling	16444007000036	2
36	电机抱攀(L)	Baopan (L)	16421029000067	1
37	电机连接板	Motor connecting plate	16421007000180	1
38	橡胶轴承	Rubber bearing	16432016000075	2
39	轴承压板	Bearing press plate	16421002000467	2
40	轴承固定座(L)	Bearing fixed seat (L)	16421082000001	1
41	加长轴	Extended shaft (hollow)	16421080000002	2
42	电控盒	Electric control box	16421038000387	1
43	室内直流电机	Indoor DC motor	16430034000015	1
44	电控总成	Electric control assembly	16321019000024	1
45	后支撑板	Rear support plate	16421002000529	2
46	格栅固定销	Fixing plate of collecting tray	16420049000001	3
47	格栅铰链	Grating hinge	16420051000001	3



48	进风格栅	Air inlet grille	16420010000044	1
49	电控盒盖	Electric control box cover	16421042000021	1
50	集水盘固定板	Fixing plate of collecting tray	16421083000001	1
51	叶片 A	Guide vane a	16420007000038	18

48K, 60K



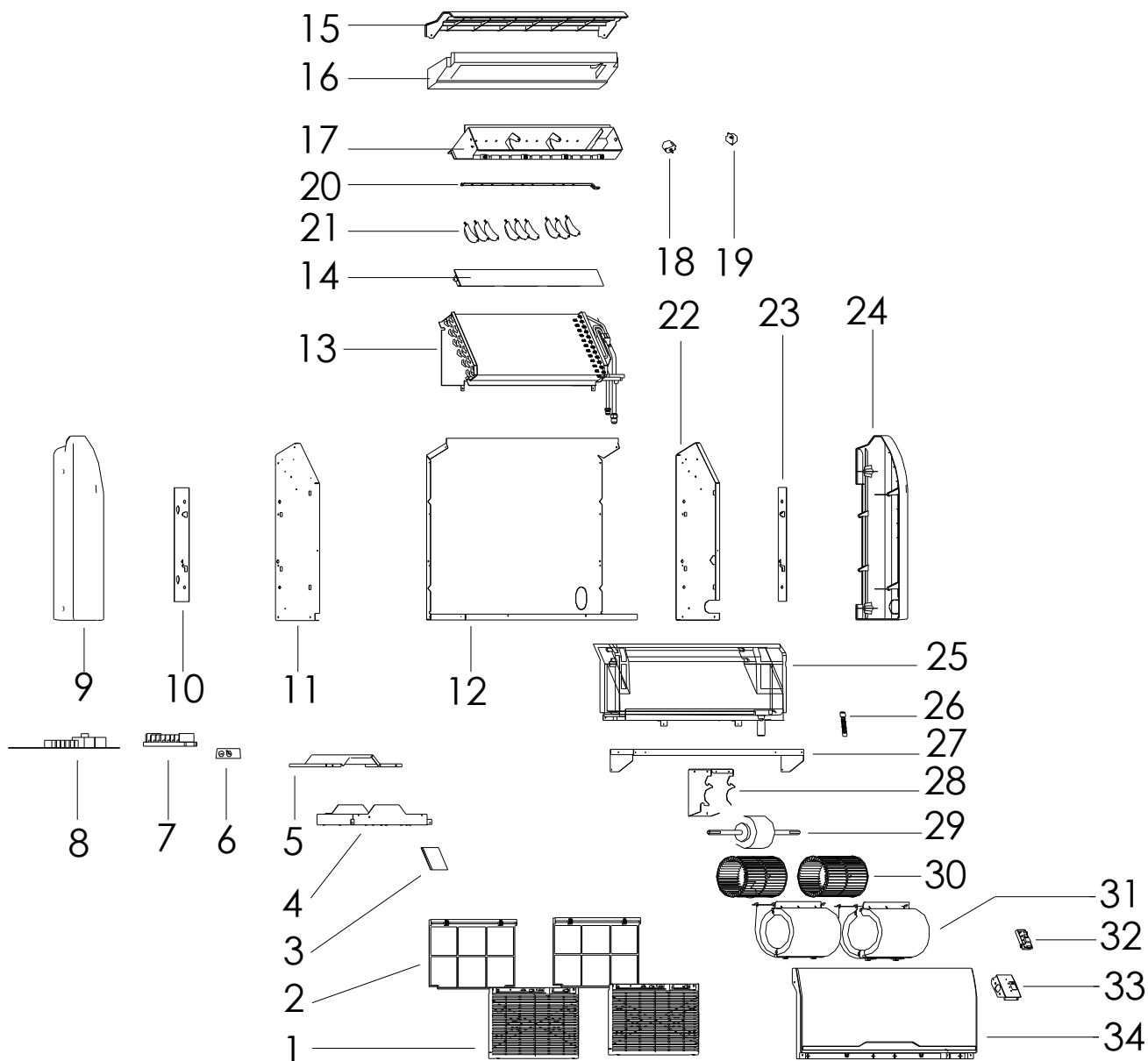
No.	Chinese Name	Part name	Part Code	Qty
1	F5 面板	front panel	16421004000401	1
2	显示板组件	display assembly	11222023000610	1
3	F5 接水盘组件	drainage pan	16320020000003	1
4	5P 导风架组件	Air guide frame	16321039000006	1
5	导风叶片连接杆	Connecting rod of guide vane	16420008000016	5
6	叶片 B	Guide vane B	16420007000039	2
7	右导水板组件	Right water guide plate assembly	16321072000002	1
8	右盖板组件	Cover as-right	16421071000001	1
9	轴承固定座(R)	Bearing fixed seat ®	16421082000002	1
10	蒸发器总成	Evaporator assembly	16324018000059	1

11	5P 导风门组件	Air guide frame assembly	16320028000003	2
12	导风门支架	Air guide door bracket	16420006000011	1
13	F5 顶泡沫组件	Top foam assembly	16428001000101	1
14	前支撑板组件	Plate as-front support	16321047000003	1
15	右端盖	Right end cover	16420050000001	1
16	前固定板	Front fixing plate	16421002000525	1
17	安装挂架(右)	Mounting pylon(right)	16421040000071	1
18	5P 运动组件	Motion components	16320033000003	1
19	F 座吊机右侧板	right side panel	16421001000776	1
20	蒸发器左导水板	Left water guide plate	16421017000025	1
21	阀板组件	stop valve plate assembly	16321054000002	1
22	右泡沫	Right bubble	16428001000097	1
23	5P 背板	back plate of pedestal crane	16421018000011	1
24	F5 顶盖板	Top cover plate	16421068000011	1
25	5P 蜗壳固定板	Spiral case fixing plate	16421088000010	1
26	左泡沫	Left foam	16428001000098	1
27	左侧板	Left side panel	16421001000777	1
28	安装挂架(左)	Mounting pylon(left)	16421040000070	1
29	轴套	axle sleeve	16420044000002	1
30	侧支撑板	Side support plate	16421003000222	2
31	阀板泡沫	Valve plate foam	16428001000094	1
32	左端盖	Left end cap	16420050000002	1
33	电机架	Motor frame	16421035000082	1
34	蜗壳(上)	Volute case (down)	16420027000001	4
35	联轴器	coupling	16444007000036	2
36	电机抱攀(L)	Baopan (L)	16421029000067	1
37	电机连接板	Motor connecting plate	16421007000180	1
38	橡胶轴承	Rubber bearing	16432016000075	2
39	轴承压板	Bearing press plate	16421002000467	2
40	轴承固定座(L)	Bearing fixed seat (L)	16421082000001	1
41	加长轴	Extended shaft (hollow)	16421080000002	2
42	电控盒	Electric control box	16421038000387	1
43	室内直流电机	Indoor DC motor	16430034000015	1
44	电控总成	Electric control assembly	16321019000021	1
45	后支撑板	Rear support plate	16421002000529	2
46	格栅固定销	Fixing plate of collecting tray	16420049000001	3
47	格栅铰链	Grating hinge	16420051000001	3
48	进风格栅	Air inlet grille	16420010000044	1
49	电控盒盖	Electric control box cover	16421042000021	1

50	集水盘固定板	Fixing plate of collecting tray	16421083000001	1
51	叶片 A	Guide vane a	16420007000038	18 </td

2.2 Ceiling Floor (C5) (only heating)

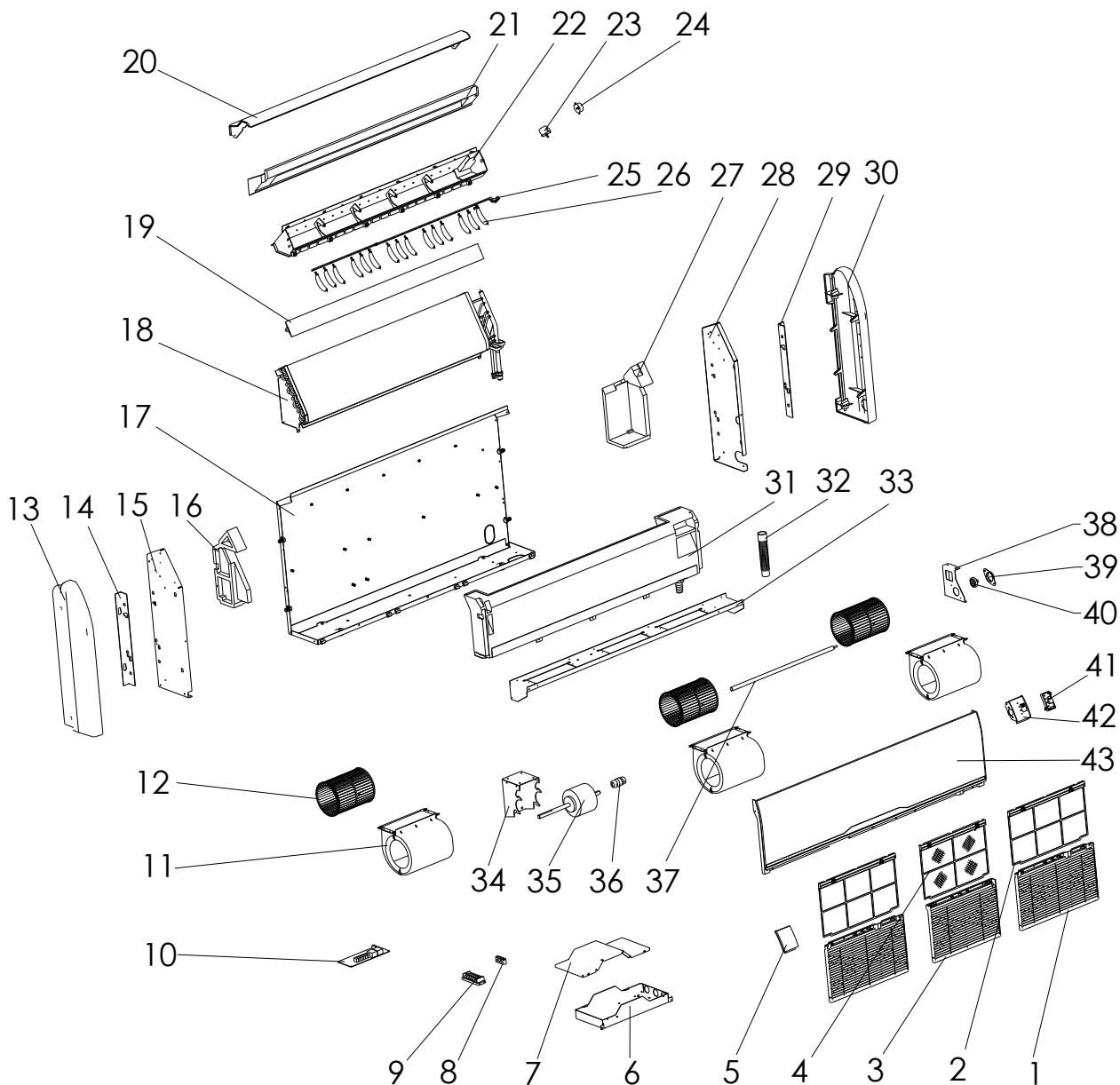
18K



No.	Chinese Name	Part Name	Part Code	Qty
1	滤网	Air-inlet filter	16420012000002	2
2	格栅	Air-inlet grill(white)	16420010000002	2
3	左装饰板	Left side adornment plank	16420015000002	1
4	电控盒	The electricity controls box	16421038000009	1
5	电控盒盖	The electricity controls box of cover	16421005000205	1
6	双联压线座	Compress tightly electric wire seat	11220544000008	1
7	端子板 5 位	Terminal board	16427001000072	1
8	CJ 控制板	CJ Power board	11222541000042	1
	CJ 控制板	CJ Power board	11222541000041	1
9	左盖板	The left side covers	16420014000007	1
10	左挂架	Left suspend plate	16421001000029	1
11	左侧板组件	Bracket board welding assembly of left-hand	16321006000005	1
12	背板组件	Chassis welding assembly	16421018000004	1
13	蒸发器总成	Evaporator assembly	16324018000015	1
14	导风门	Sway a breeze leaf	16420005000005	1
15	顶盖板	The crest covers plank	16420014000016	1
16	顶泡沫	Topmost foam	16428001000088	1
17	导风架	Air guide louver	16420006000007	1
18	步进电机	Step motor	16430001000604	1
19	步进电机	Step motor	16430001000603	1
20	垂直叶片连杆 A	Connect a pole	16420008000003	1
21	垂直叶片	Perpendicular blade	16420007000008	9
22	右侧板组件	Bracket board welding assembly of right-hand	16321006000006	1
23	右挂架	Right suspend plate	16421001000030	1
24	右盖板	The Right side covers	16420014000008	1
25	集水盘组件	Draining tray	16421002000503	1
26	塑料排水软管	Drain pipe	16432019000021	1
27	电机固定板	Volute fixing board	16421002000190	1
28	直流电机架	Motor frame	16421035000057	1
29	直流电机	Motor	16430001000504	1
30	风轮	Centrifugal fan	16444001000013	2

31	上蜗壳	Upper spiral case	16321006000040	2
	下蜗壳	Lower spiral case	16444002000015	2
32	R 显示灯板	Display board	11222023000333	1
33	显示盒	Display board cover	16420017000002	1
34	面板	Front panel	16420013000019	1

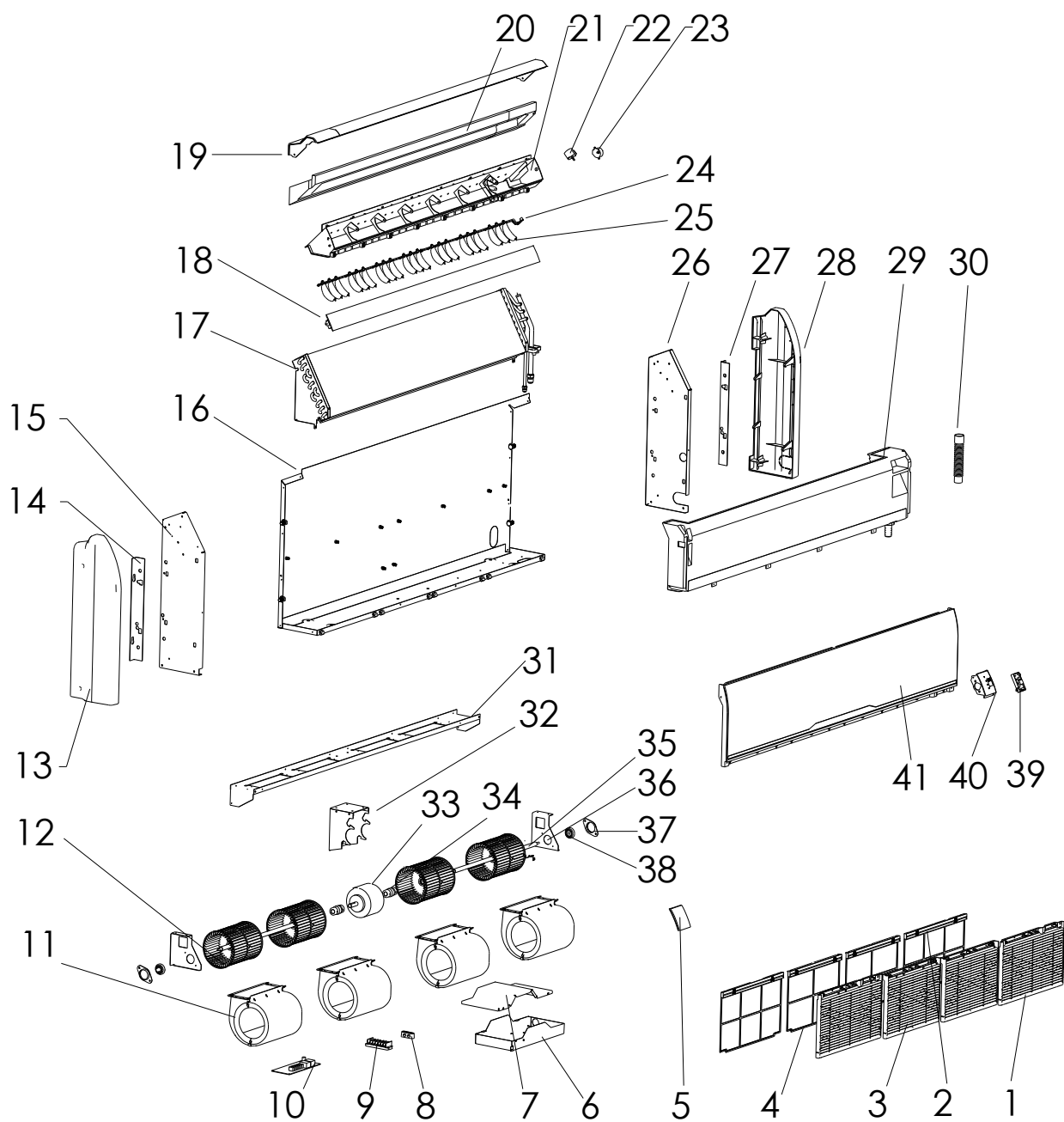
24K



N0	Chinese name	Part Name	Part Code	Qty
1	滤网	Air-inlet filter	16420012000002	2
2	格栅	Air-inlet grill(white)	16420010000002	2
3	中滤网	In the center filter net	16420012000003	1
4	中格栅	Air-inlet grill(white)	16420010000003	1
5	左装饰板	Left side adornment plank	16420015000002	1
6	电控盒	The electricity controls a box	16421038000009	1
7	电控盒盖	The electricity controls a box of cover	16421005000205	1
8	双联压线座	Compress tightly electric wire seat	11220544000008	1
9	端子板 5 位	Terminal board	16427001000072	1
10	CJ 控制板	CJ Power board	11222541000041	1
	CJ 控制板	CJ Power board	11222541000042	1
11	上蜗壳	Top plastics	16444002000014	3
	下蜗壳	Low plastics	16444002000015	3
12	风轮	Centrifugal fan	16444001000025	1
13	左盖板	The left side covers	16420014000007	1
14	左挂架	Left suspend plate	16421001000029	1
15	左侧板组件	Bracket board welding assembly of left-hand	16321006000005	1
16	左泡沫	Left foam		1
17	背板组件	Chassis welding assembly	16321006000003	1
18	蒸发器总成	Evaporator assembly	16324018000016	1
19	导风门	Sway a breeze leaf	16420005000003	1
20	顶盖板	The crest covers plank	16420014000009	1
21	顶泡沫	Topmost foam	16428001000083	1
22	导风架	Air guide louver assembly	16420006000004	1
23	步进电机	Step motor	16430001000604	1
24	步进电机	Step motor	16430001000603	1
25	垂直叶片连杆 A	Connect a pole	16420008000003	1
	垂直叶片连杆 B	Connect a pole	16420008000004	1
26	垂直叶片	Perpendicular blade	16420007000008	15
27	右泡沫	Right foam		1
28	右侧板组件	Bracket board welding assembly of right-hand	16321006000006	1
29	右挂架	Right suspend plate	16421001000030	1

30	右盖板	The Right side covers	16420014000008	1
31	集水盘组件	Draining tray	16320006000015	1
32	塑料排水软管	Drain pipe	16432019000021	1
33	电机固定板	Volute fixing board	16421002000185	1
34	直流电机架	Motor frame	16421035000057	1
35	直流电机	Motor	16430001000506	1
36	联轴器 Φ15	Motor coupling	16444007000001	2
37	加长轴	Motor lengthen axes	16444007000028	2
38	轴承固定座（右）	Bearing base	16421002000011	1
39	橡胶轴承压板	Bearing top cover	16421002000219	2
40	橡胶轴承	Rubber bearings	16421002000219	2
41	R 显示灯板	Display board	11222023000333	1
42	显示	Display board cover	16420017000002	1
43	面板	Front panel	16420013000016	1

36K, 42K,48K,60K



N0	Chinese name	Part Name	Part Code	Qty
1	滤网	Air-inlet filter	16420012000002	2
2	格栅	Air-inlet grill(white)	16420010000002	2
3	中滤网	In the center filter net	16420012000003	2
4	中格栅	Air-inlet grill(white)	16420010000003	2
5	左装饰板	Left side adornment plank	16420015000002	1
6	电控盒	The electricity controls a box	16421038000009	1

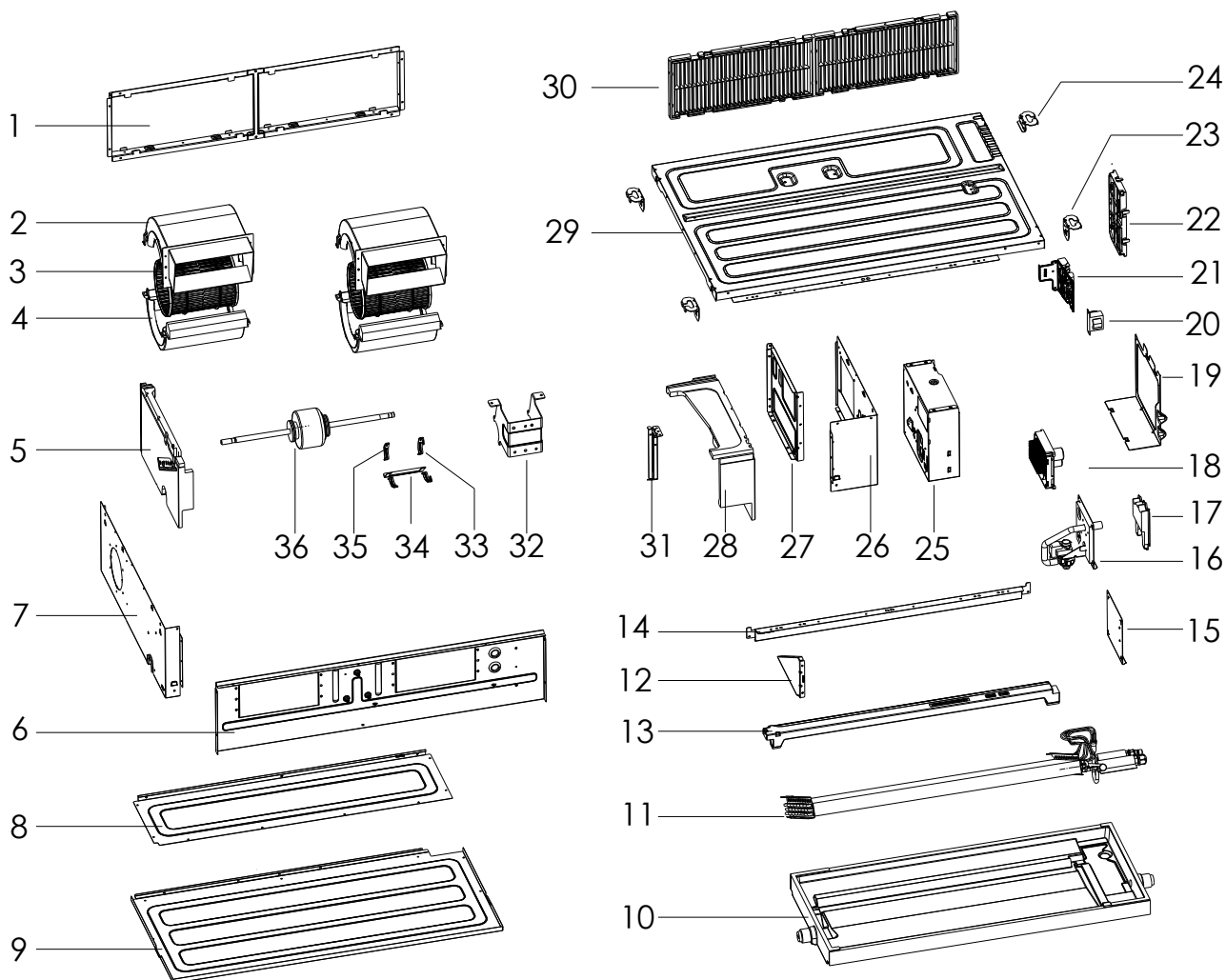


7	电控盒盖	The electricity controls a box of cover	16421005000205	1
8	双联压线座	Compress tightly electric wire seat	11220544000008	1
9	端子板 5 位	Terminal board	16427001000072	1
10	CJ 控制板	CJ Power board	11222541000041	
	CJ 控制板	CJ Power board	11222541000042	1
11	上蜗壳	Top plastics	16444002000014	4
	下蜗壳	Low plastics	16444002000015	4
12	风轮	Centrifugal fan	16444001000025	1
13	左盖板	The left side covers	16420014000007	1
14	左挂架	Left suspend plate	16421001000029	1
15	左侧板组件	Bracket board welding assembly of left-hand	16321006000005	1
16	背板组件	Chassis welding assembly	16421018000003	1
17	蒸发器总成	Evaporator assembly	16324006000035	1
18	导风门	Sway a breeze leaf	16420005000004	1
19	顶盖板	The crest covers plank	16420014000015	1
20	顶泡沫	Topmost foam	16428001000082	1
21	导风架	Air guide louver assembly	16420006000006	1
22	步进电机	Step motor	16430001000604	1
23	步进电机	Step motor	16430001000603	1
24	垂直叶片连杆 A	Connect a pole	16420008000003	1
	垂直叶片连杆 B	Connect a pole	16420008000005	1
25	垂直叶片	Perpendicular blade	16420007000008	21
26	右侧板组件	Bracket board welding assembly of right-hand	16321006000006	1
27	右挂架	Right suspend plate	16421001000030	1
28	右盖板	The Right side covers	16420014000008	1
29	集水盘组件	Draining tray	16320006000014	1
30	塑料排水软管	Drain pipe	16432019000021	1
31	电机固定板	Volute fixing board	16421002000187	1
32	直流电机架	Motor frame	16421035000057	1
33	直流电机	Motor	16430001000584	1
34	联轴器 Φ15	Motor coupling	16444007000001	2
35	加长轴	Motor lengthen axes	16444007000028	2
36	轴承固定座 (右)	Bearing base	16421002000011	1

37	橡胶轴承压板	Bearing top cover	16421002000219	2
38	橡胶轴承	Rubber bearings	16432016000033	2
39	R 显示灯板	Display board	11222023000333	1
40	显示盒	Display board cover	16420017000002	1
41	面板	Front panel	16420013000017	1

### 3. Duct

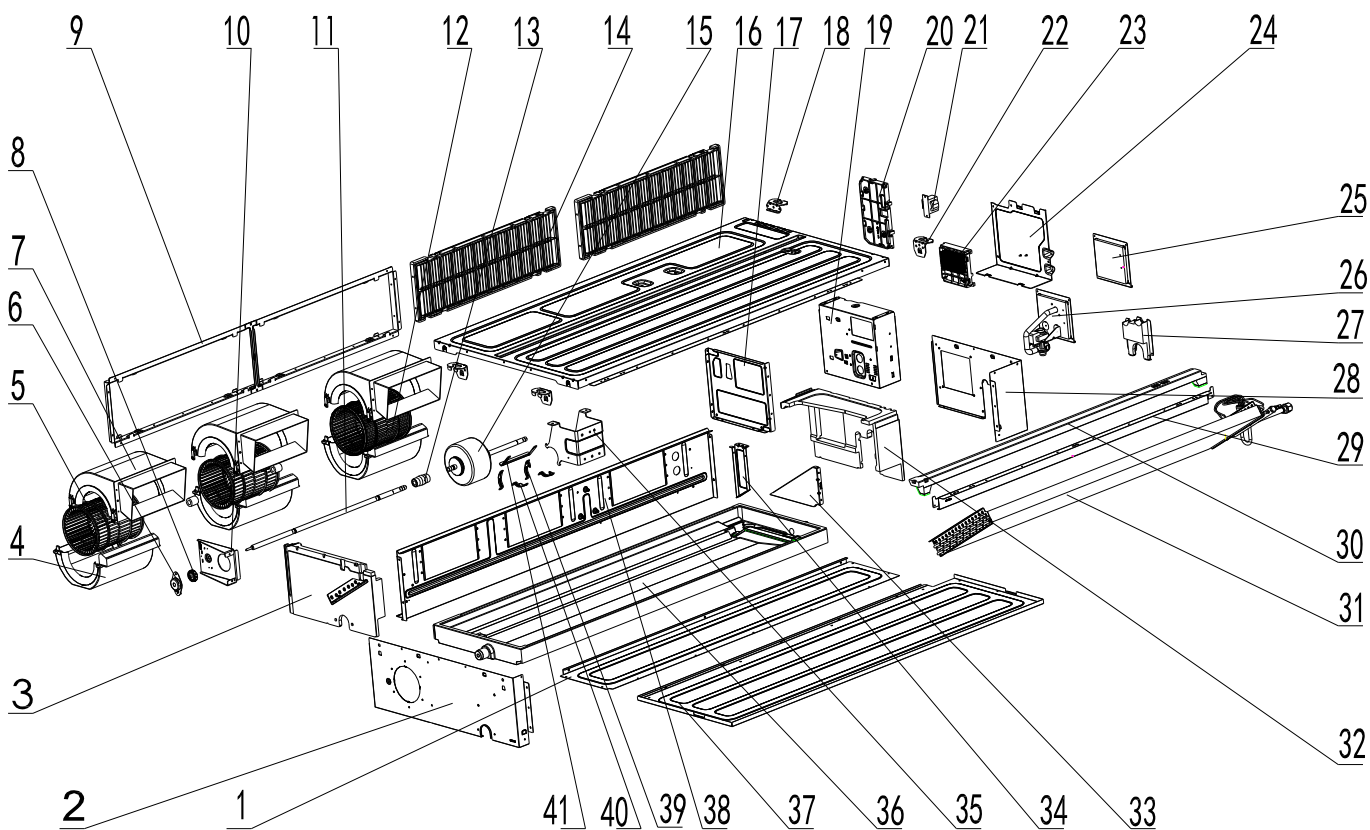
#### 3.1 18K, 24K, 30K



NO	Chinese Name	Part ame	Part Code	Qty
1	过滤网框架组件	filter screen	16321009000319	1
2	上蜗壳（白色）	Top volute	16444002000024	2
3	风轮（蓝色）	Wind wheel	16444001000039	2
4	下蜗壳（白色）	Low volute	16444002000025	2
5	右泡沫	The right foam	16428001000085	1
6	蜗壳固定板	Volute retaining plate	16421002000498	1
7	右侧板组件	Right side panel assembly	16321009000326	1

8	后盖板	back cover	16421005000628	1
9	前盖板	front cover	16421005000626	1
10	接水盘组件	water pan assembly	16331001000156	1
11	蒸发器总成(18K)	Evaporator assembly(18K)	16324018000025	1
	蒸发器总成(24K/30K)	Evaporator assembly(24K/30K)	16324018000007	1
12	蒸发器左支撑板	Evaporator left support plate	16421003000220	1
13	中间泡沫	Middle foam	16428001000086	1
14	前法兰	Front flange	16421030000211	1
15	检修板	service panel	16421013000022	1
16	水泵组件	water pump assembly	16320009000025	1
17	风管机阀板	valve plate	16421014000117	1
18	直流风机驱动	DC Fan motor drive module	11222543000026	1
19	电控盒盖	electric control box cover	16421042000007	1
20	R 电抗器	electric reactor	11330034000026	1
21	端子排固定架	Terminalboard supporting structure	16421002000497	1
22	CJ 控制板	control board	11222541000049	1
23	挂耳 A	Hanger A	16421040000059	3
24	挂耳 B	Hanger B	16421040000060	1
25	电控盒	electric control box	16421038000359	1
26	左侧板	left side plate	16421001000769	1
27	电控盒支撑板	Electric control box support plate	16421003000217	1
28	左泡沫	Left foam	16428001000084	1
29	底盘	chassis	16421005000630	1
30	过滤网(PP)	Fliter screen	16444013000123	2
31	蒸发器下支撑板	Evaporator low support plate	16421003000219	1
32	电机架	Motor frame	16421035000078	1
33	抱攀 A	Hold climbing A	16421029000062	2
34	抱攀连接板	Climbing link	16421007000171	1
35	抱攀 B	Hold climbing B	16421029000063	2
36	室内直流电机	DC motor	6430034000006	1

3.2 36K, 42K, 48K, 60K

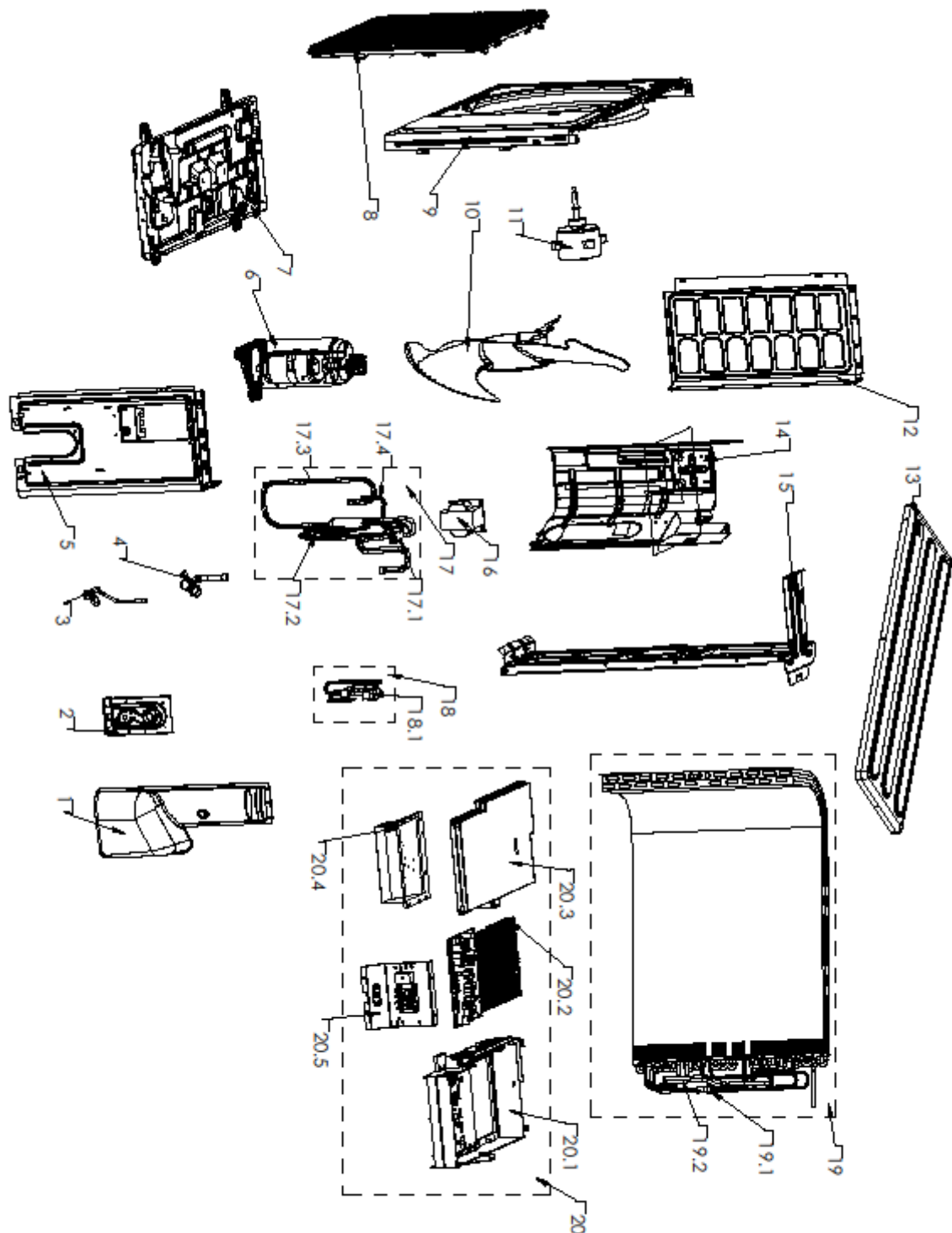


No	Chinese Name	Part Name	Part Code	Qty
1	后盖板	back cover	16421005000627	1
2	右侧板组件	Right side panel assembly	16321009000326	1
3	右泡沫	The right foam	16428001000085	1
4	下蜗壳（白色）	Low volute	16444002000025	2
5	风轮	Wind Wheel	16444001000040	3
6	轴承压板	Bearing plate pinch	16421002000467	1
7	上蜗壳（白色）	Top volute	16444002000024	3
8	橡胶轴承	rubber bearing	16432016000057	1
9	过滤网框架组件	Fliter Screen frame Assembly	16321009000327	1
10	轴承支架	bearing bracket	16421026000399	1
11	加长轴	extension shaft	16444007000035	1
12	风轮	Wind wheel	16444001000039	1
13	联轴器	Motor coupling	16444007000036	1

14	过滤网	filter screen	16444013000124	2
15	直流风机驱动	DC Fan motor drive module	16430034000005	1
16	风管机底盘	Chassis	16421005000629	1
17	电控盒支撑板	Electric control box support plate	16421003000217	1
18	挂耳 B	Hanger B	16421040000060	1
19	电控盒	electric control box	16421038000359	1
20	CJ 控制板	control board	11222541000049	1
21	R 电抗器	electric reactor	11330034000026	1
22	挂耳 B	Hanger B	16421040000060	3
23	直流风机驱动	DC Fan motor drive module	11222543000026	1
24	电控盒盖	electric control box cover	16421042000007	1
25	检修板	service panel	16421013000022	1
26	水泵组件	water pump assembly	16320009000025	1
27	阀板	valve plate	16421014000117	1
28	左侧板	left side plate	16421001000769	1
29	前法兰	Front flange	16421030000210	1
30	中间泡沫	Middle foam	16428001000086	1
31	蒸发器总成	Evaporator assembly	16324018000006	1
32	左泡沫	Left foam	16428001000084	1
33	蒸发器左支撑板	Evaporator left support plate	16421003000220	1
34	蒸发器下支撑板	Evaporator low support plate	16421003000219	1
35	电机架	Motor frame	16421035000079	1
36	接水盘组件	water pan assembly	16331001000155	1
37	前盖板	front cover	16421005000625	1
38	蜗壳固定板	Volute retaining plate	16421002000496	1
39	抱攀 A	Hold climbing A	16421029000062	2
40	抱攀 B	Hold climbing B	16421029000063	2
41	抱攀连接板	Climbing link	16421007000170	1

## 4. Outdoor Unit

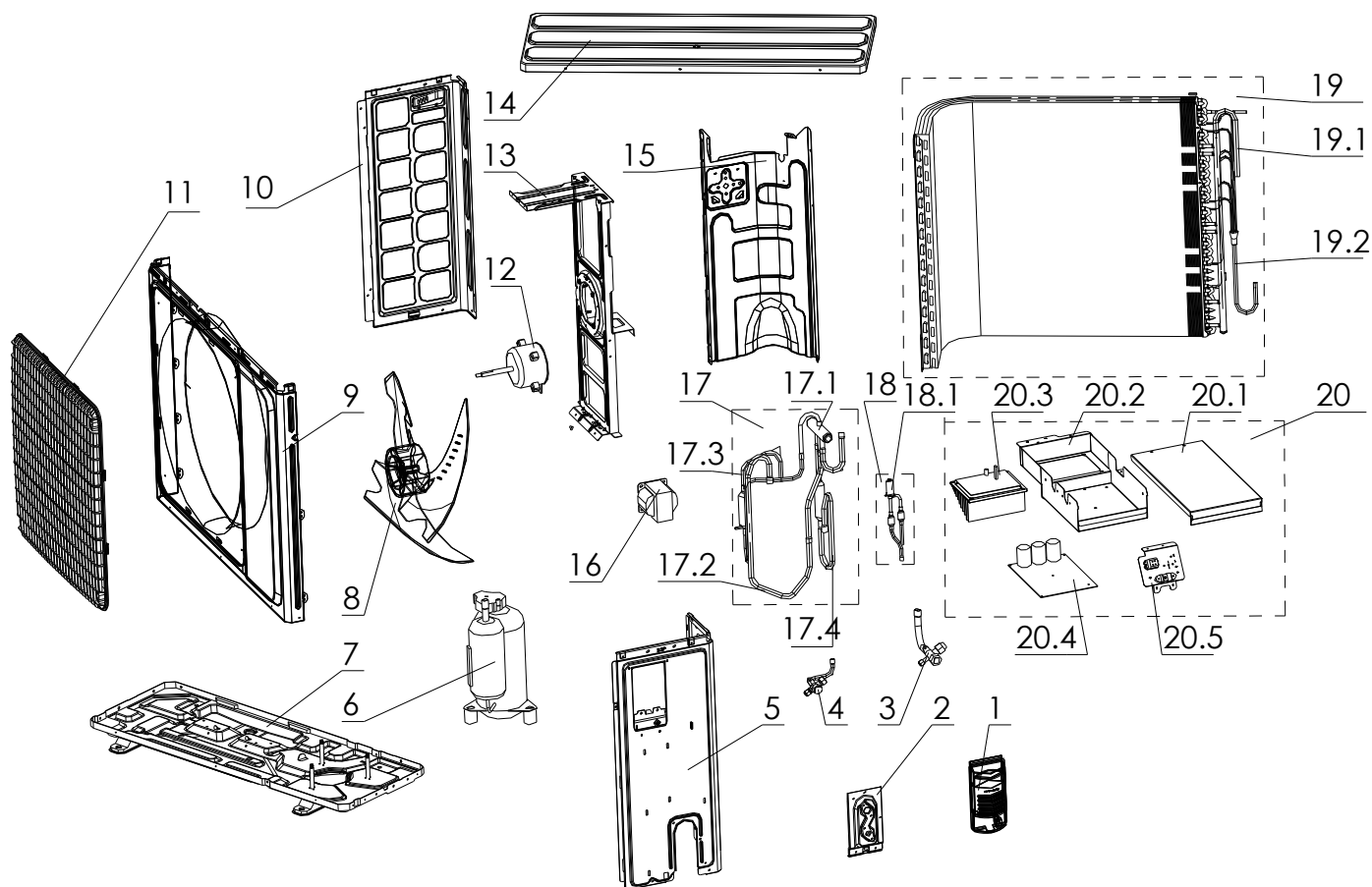
### 4.1 12K, 18K



No.	Chinese Name	Part Name	Part Code	Qty
1	截止阀护套	Stop valve guard	11320101000033	1
2	阀板	Valve plate	16421014000090	1
3	截止阀	Stop valve	16441004000077	1
4	截止阀	Stop valve	16441004000046	1
5	右侧板	Right-side plate	11321007000306	1
6	压缩机及配件	Compressor and accessories	16438004000119(12K)	1
			11223003000331(18K)	1
7	底盘组件	Foundation assembly	16321004000205	1
8	网罩	Screen	11320026000061	1
9	面板	Panel	11321005000107	1
10	轴流风叶	Axial-flow fan	11320009000063	1
11	电机	Motor	11230005000012	1
12	左侧板	Left-side plate	16421001000729	1
13	顶盖板	Lamina tecti	11321009000057	1
14	隔风立板	Every wind vertical plate	11321025000051	1
15	电机架	Motor frame	11321002000040	1
16	电抗器	Electric reactor	11330034000020	1
17	四通阀组件	Four-way valve assembly	16325020000022(12K)	1
			16325020000004(18K)	1
17.1	四通阀	Four-way valve	11225509000069	1
17.2	截止阀接管	Stop valve manifold	16426018000361(12K)	1
			16426018000320(18K)	1
17.3	回气管组件	Return pipe assembly	16325004001754(12K)	1
			16426035000030(18K)	1
17.4	排气管组件	Exhaust pipe assembly	16325004001753	1
			16325004001629	1
18	膨胀阀组件	Expansion valve assembly	16325004001752	1
18.1	膨胀阀	Expansion valve	16441014000030	1
19	冷凝器总成	Condenser assy	16324004000446	1
19.1	液管组件	Fluid pipe components	16325004001314	1
19.2	进气管组件	Inlet pipe assembly	16325004001313	1
20	控制器总成	Controller assembly	11222550000018	1
20.1	电控盒	Electric control box	11320057000076	1
20.2	控制板	Control board	11222542000102	1
20.3	电控盒盖	Cover of electric control box	11321020000025	1
20.4	散热器	Radiator	11329031000036	1
20.5	控制器支架	Controller bracket	11320015000118	1



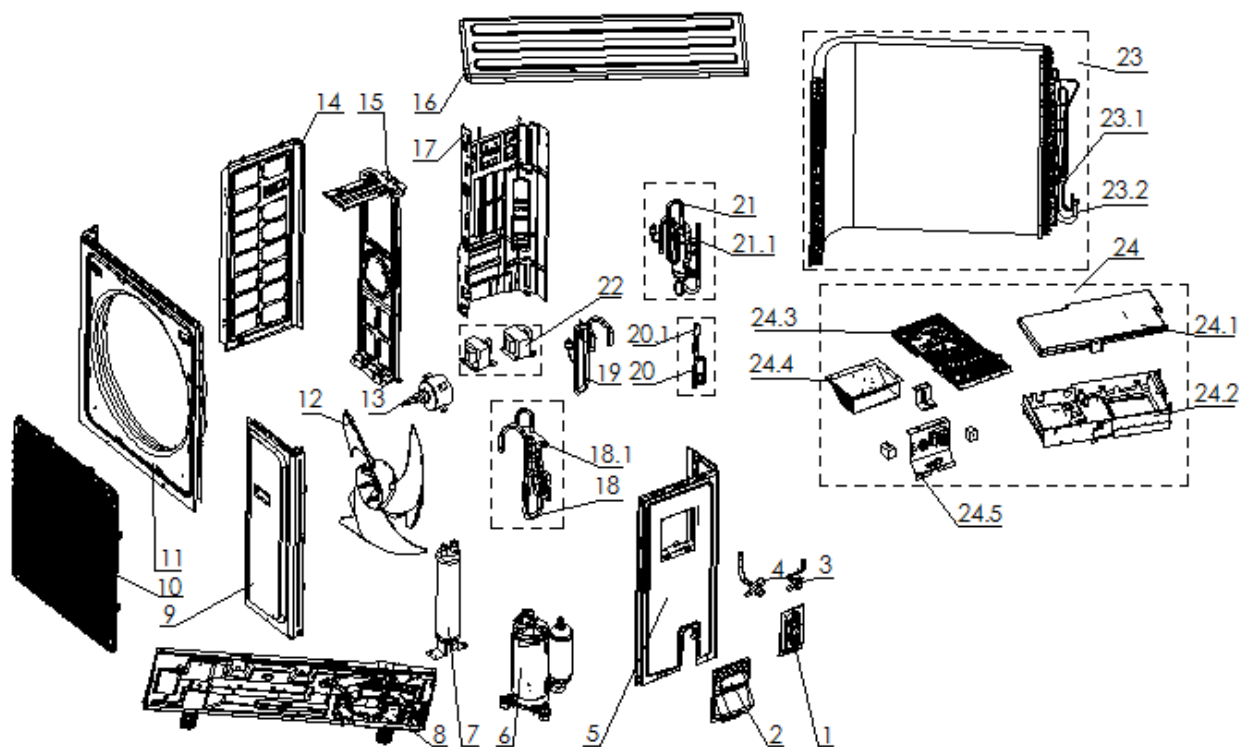
## 4.2 24K



No.	Chinese Name	Part Name	Part Code	Qty
1	截止阀护套	Stop valve guard	11320101000036	1
2	阀板	Valve plate	16421014000090	1
3	截止阀	Stop valve	16441004000066	1
4	截止阀	Stop valve	16441004000080	1
5	右侧板	Right-side plate	11321007000328	1
6	压缩机及其附件	Compressor and accessories	16438003000044	1
7	底盘组件	Foundation assembly	11221502000498	1
8	轴流风叶	Axial-flow fan	11320009000065	1
9	面板	Panel	16421004000351	1
10	左侧板	Left-side plate	16421001000731	1
11	网罩	Screen	11320026000049	1
12	电机	Motor	11230005000019	1
13	电机架	Motor frame	16321004000173	1
14	顶盖板	Lamina tecti	11321009000038	1

15	隔风立板	Every wind vertical plate	11321025000055	1
16	电抗器	Electric reactor	11330034000004	1
17	四通阀组件	Four-way valve assembly	16325020000012	1
17.1	四通阀	Four-way valve	16325004001259	1
17.2	回气管组件	Return pipe assembly	16325018000009	1
17.3	排气管组件	Exhaust pipe assembly	16325004001308	1
17.4	截止阀组件	Stop valve assembly	16325004001312	1
18	膨胀阀组件	Expansion valve assembly	16325004001755	1
18.1	膨胀阀	Expansion valve	16441014000028	1
19	冷凝器总成	Condenser assy	16324004000447	1
19.1	进气管组件	Inlet pipe assembly	16325004001315	1
19.2	液管组件	Fluid pipe components	16325004001316	1
20	控制器总成	Controller assembly	11222550000019	1
20.1	电控盒盖	Cover of electric control box	11321020000025	1
20.2	电控盒	Electric control box	11320057000076	1
20.3	散热器	Radiator	11329031000056	1
20.4	控制板	Control board	11222542000103	1
20.5	电器架	Electric plane	11321015000042	1

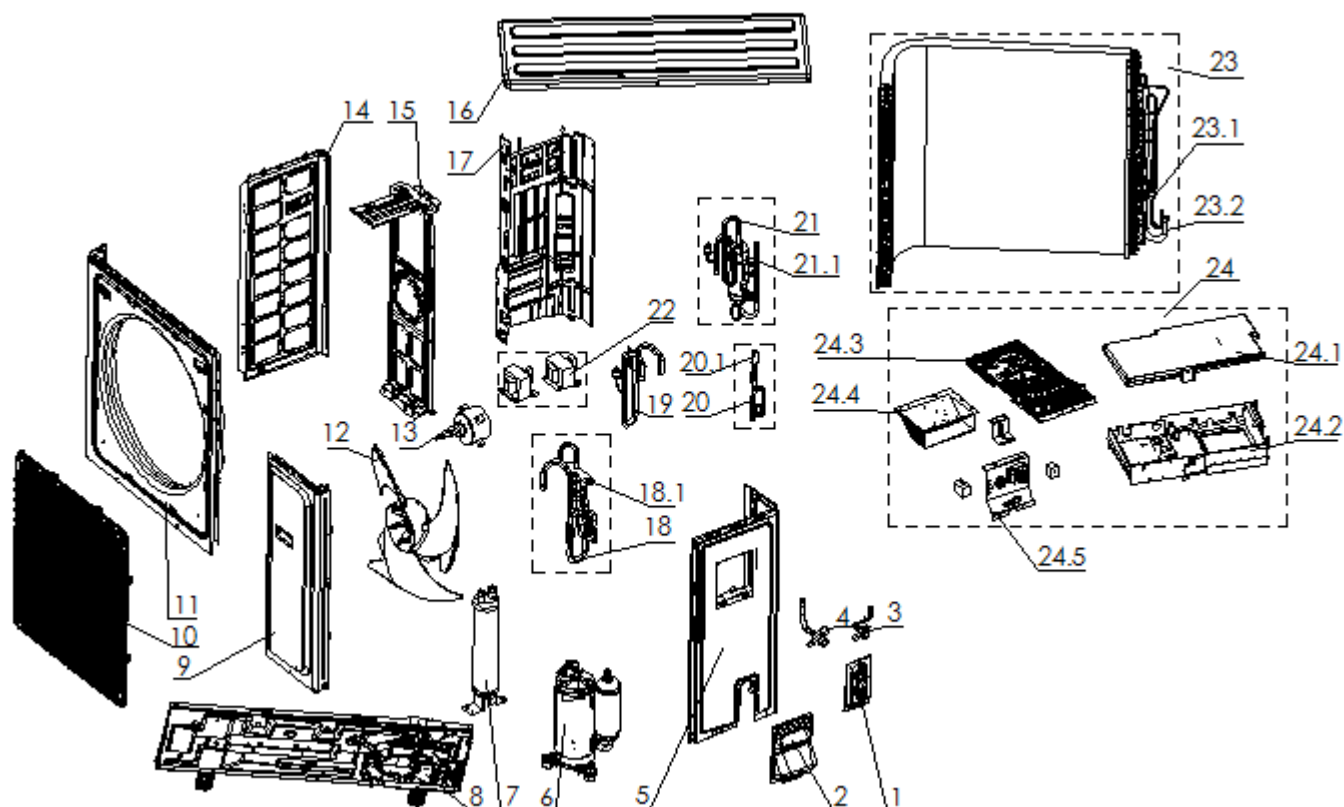
## 4.3 30K



No.	Chinese Name	Part Name	Part Code	Qty
1	阀板	Valve plate	16421014000090	1
2	电器盖板	Electrical plate	11320068000006	1
3	截止阀	Stop valve	16441004000080	1
4	截止阀	Stop valve	16441004000066	1
5	右侧板	Right-side plate	11321157000027	1
6	压缩机及附件	Compressor and accessories	16438003000044	1
7	气液分离器	Liquid-vapor separator	16442023000051	1
8	底盘组件	Foundation assembly	16321018000017	1
9	小面板	The small panel	11321005000100	1
10	网罩	Screen	11320026000057	1
11	大面板	The big panel	11321005000099	1
12	轴流风叶	Axial-flow fan	11320009000061	1
13	电机	Motor	16430033000043	1
14	左侧板	Left-side plate	11321156000010	1
15	电机架	Motor frame	11321002000038	1
16	顶盖板	Lamina tecti	11321009000054	1
17	隔风立板	Every wind vertical plate	11321025000074	1
18	四通阀组件	Four-way valve assembly	16325020000021	1

18. 1	四通阀	Four-way valve	11225509000064	1
19	回气管组件	Return pipe assembly	16325018000026	1
20	膨胀阀组件	Expansion valve assembly	16325034000002	1
20. 1	膨胀阀	Expansion valve	16441014000043	1
21	排气管组件	Exhaust pipe assembly	16325017000027	1
21. 1	油分离器	oil separator	16442021000020	1
22	电抗器	Electric reactor	11330034000012	2
23	冷凝器总成	Condenser assy	16324020000047	1
23. 1	出液管组件	Outlet tube assembly	16325019000038	1
23. 2	集气管组件	Gas collection tube assembly	16325004001728	1
24	控制器总成	Controller assembly	11222550000029	1
24. 1	电控盒盖	Cover of electric control box	11320058000088	1
24. 2	电控盒	Electric control box	11320057000110	1
24. 3	控制板	Control board	11222542000096	1
24. 4	散热器	Radiator	11329031000064	1
24. 5	电器架	Electric plane	11321015000074	1

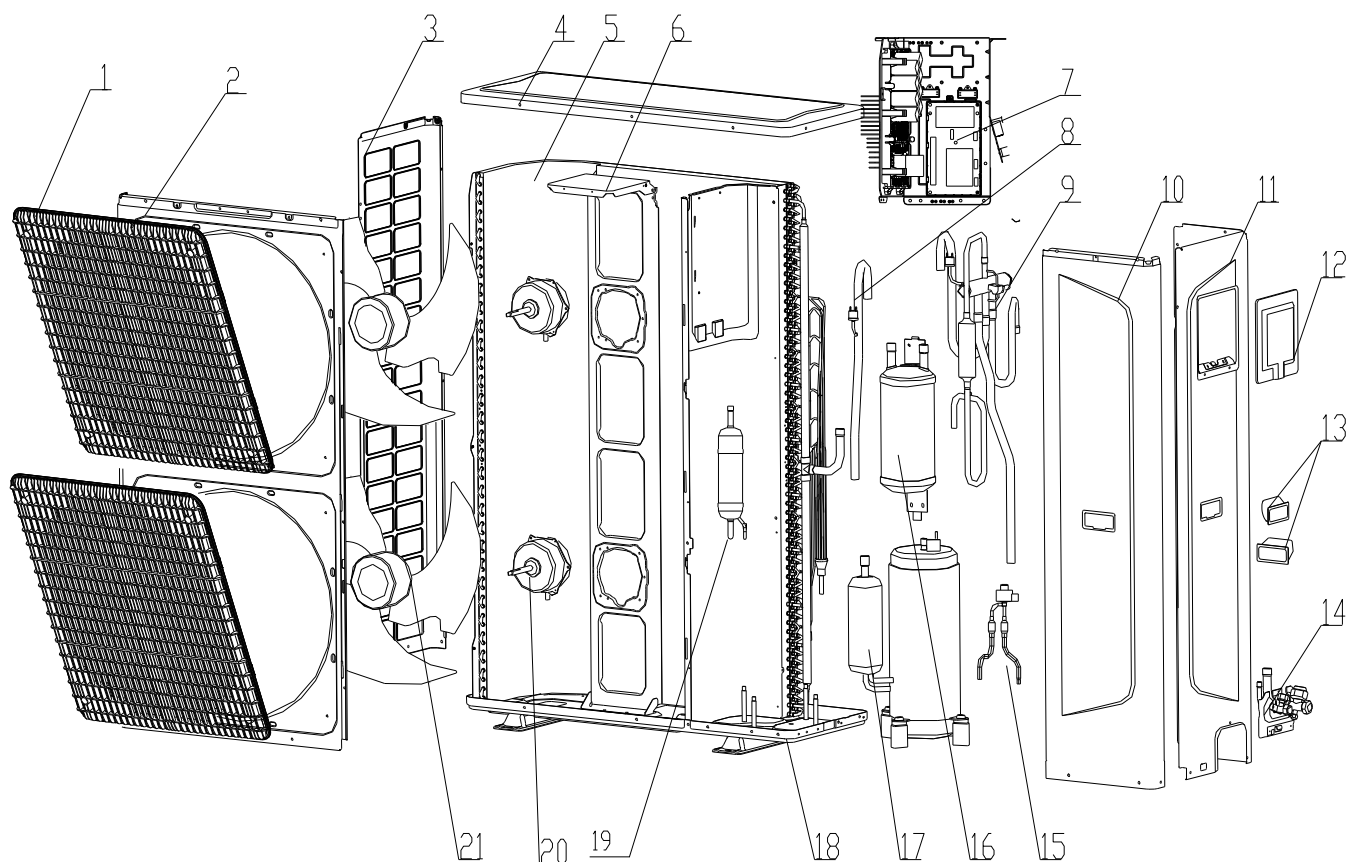
## 4.4 36K,42K



No.	Chinese Name	Part Name	Part Code	Qty
1	阀板	Valve plate	16421014000090	1
2	电器盖板	Electrical plate	11320068000006	1
3	截止阀	Stop valve	16441004000080	1
4	截止阀	Stop valve	16441004000066	1
5	右侧板	Right-side plate	11321157000027	1
6	压缩机及配件	Compressor and accessories	16438004000118	1
7	气液分离器	Liquid-vapor separator	16442023000051	1
8	底盘组件	Foundation assembly	16321018000008	1
9	小面板	The small panel	11321005000100	1
10	网罩	Screen	11320026000057	1
11	大面板	The big panel	11321005000099	1
12	轴流风叶	Axial-flow fan	11320009000061	1
13	电机	Motor	16430033000043	1
14	左侧板	Left-side plate	11321156000010	1

15	电机架	Motor frame	11321002000038	1
16	顶盖板	Lamina tecti	11321009000054	1
17	隔风立板	Every wind vertical plate	11321025000074	1
18	四通阀组件	Four-way valve assembly	16325020000021	1
18.1	四通阀	Four-way valve	11225509000064	1
19	回气管组件	Return pipe assembly	16325018000021	1
20	膨胀阀组件	Expansion valve assembly	16325034000001	1
20.1	膨胀阀	Expansion valve	16441014000043	1
21	排气管组件	Exhaust pipe assembly	16325017000020	1
21.1	油分离器	oil separator	16442021000020	1
22	电抗器	Electric reactor	11330034000012	2
23	冷凝器总成	Condenser assy	16324020000044	1
23.1	出液管组件	Outlet tube assembly	16325019000025	1
23.2	集气管组件	Gas collection tube assembly	16325004001750	1
24	控制器总成	Controller assembly	11222550000020	1
24.1	电控盒盖	Cover of electric control box	11320058000088	1
24.2	电控盒	Electric control box	11320057000110	1
24.3	控制板	Control board	11222542000096	1
24.4	散热器	Radiator	11329031000064	1
24.5	电器架	Electric plane	11321015000074	1

## 4.5 48K,60K



No.	Chinese Name	Part Name	BOM Code	Quantity
1	面板塑料网罩	Ventilation net cover	11320026000049	2
2	大面板	Big Board	16421004000360	1
3	左侧板	Left-side plate	16421004000362	1
4	顶盖板	Top plate	16421004000364	1
5	冷凝器总成	Condenser assembly	16324002000099	1
6	电机支架	Motor frame	16321002000175	1
7	控制器总成	Controller Assembly	11222531000009	1
8	回气管组件	muffler assembly	16325018000029	1
9	四通阀管路组件	Four-way valve assembly	16325020000034	1
10	小面板	Small plate	16421004000369	1
11	右侧板	Right-side plate	16421001000747	1
12	电器盖板	Control Box cover	11321008000003	1

13	小挖手	Dig hand	11320097000003	2
14	阀板	Valve plate	16421014000099	1
15	电子膨胀阀体	Electronic expansion valve	16441014000044	1
16	气液分离器	gas-liquid separator	16442023000048	1
17	压缩机	Compressor	16438003000047	1
18	底盘组件	chassis assembly	16321018000011	1
19	油分离器	Oil Separator	16442021000020	1
20	室外电机	Motor	16430001000583	2
21	R 轴流风叶	Axial-flow fan	11320009000065	2

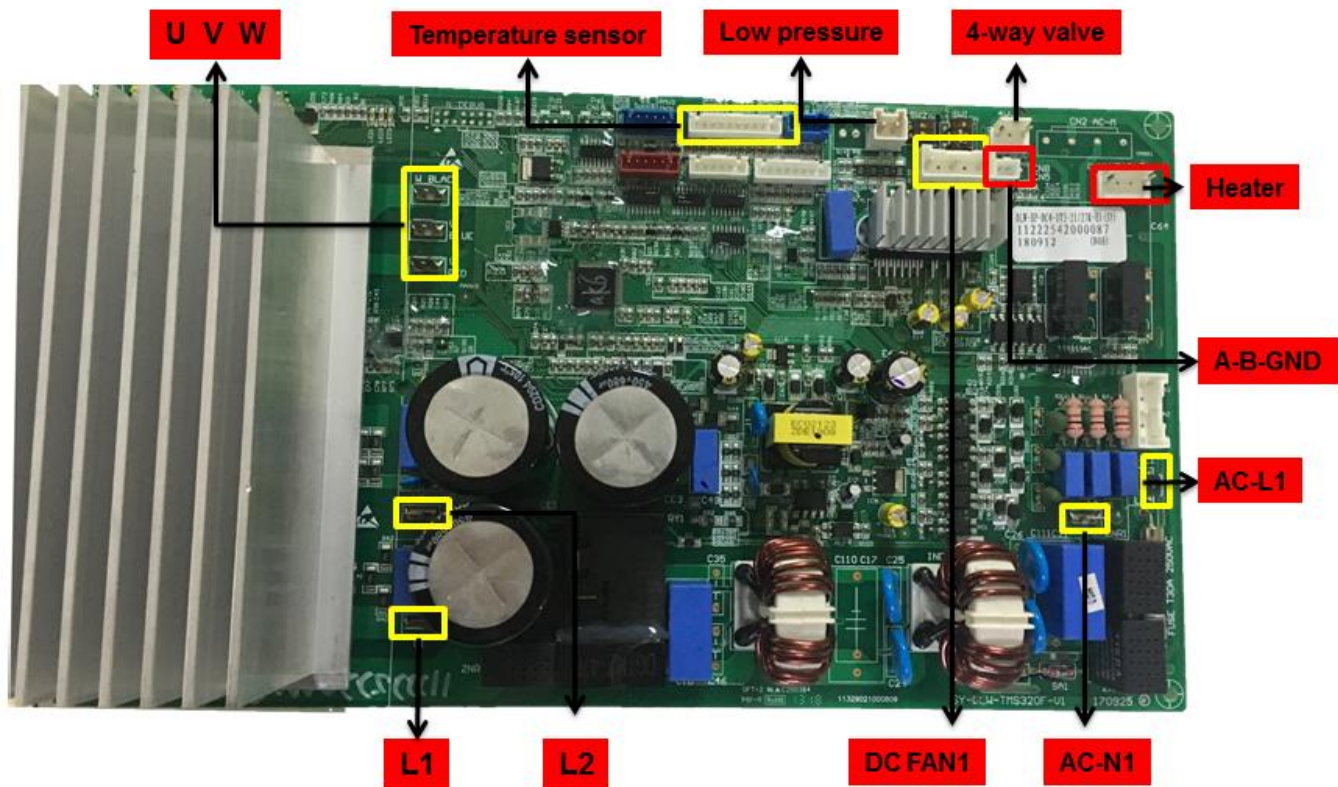


# Part10 PCB Instruction

## 1. Outdoor Unit PCB

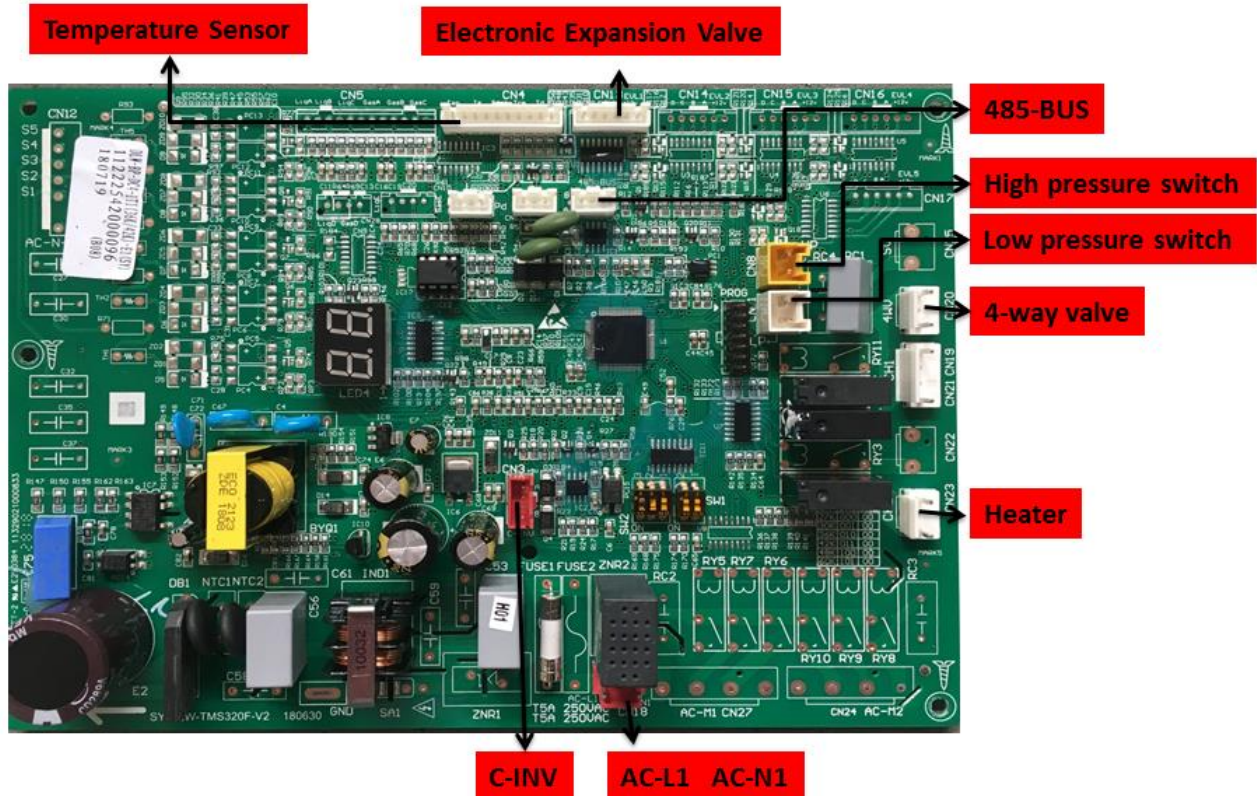
### 1.1 12K,18K,24K

#### Mian PCB

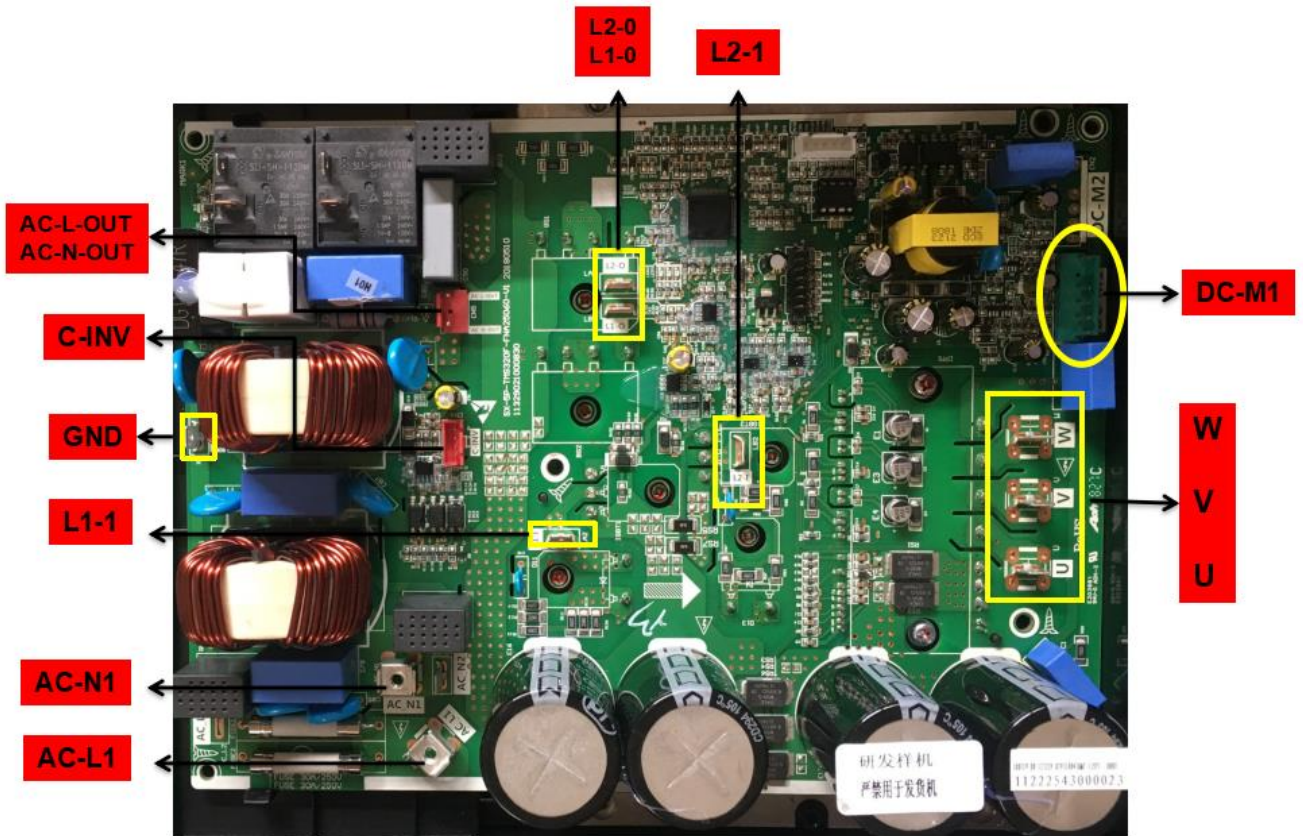


1.2 36K, 42K

Main PCB

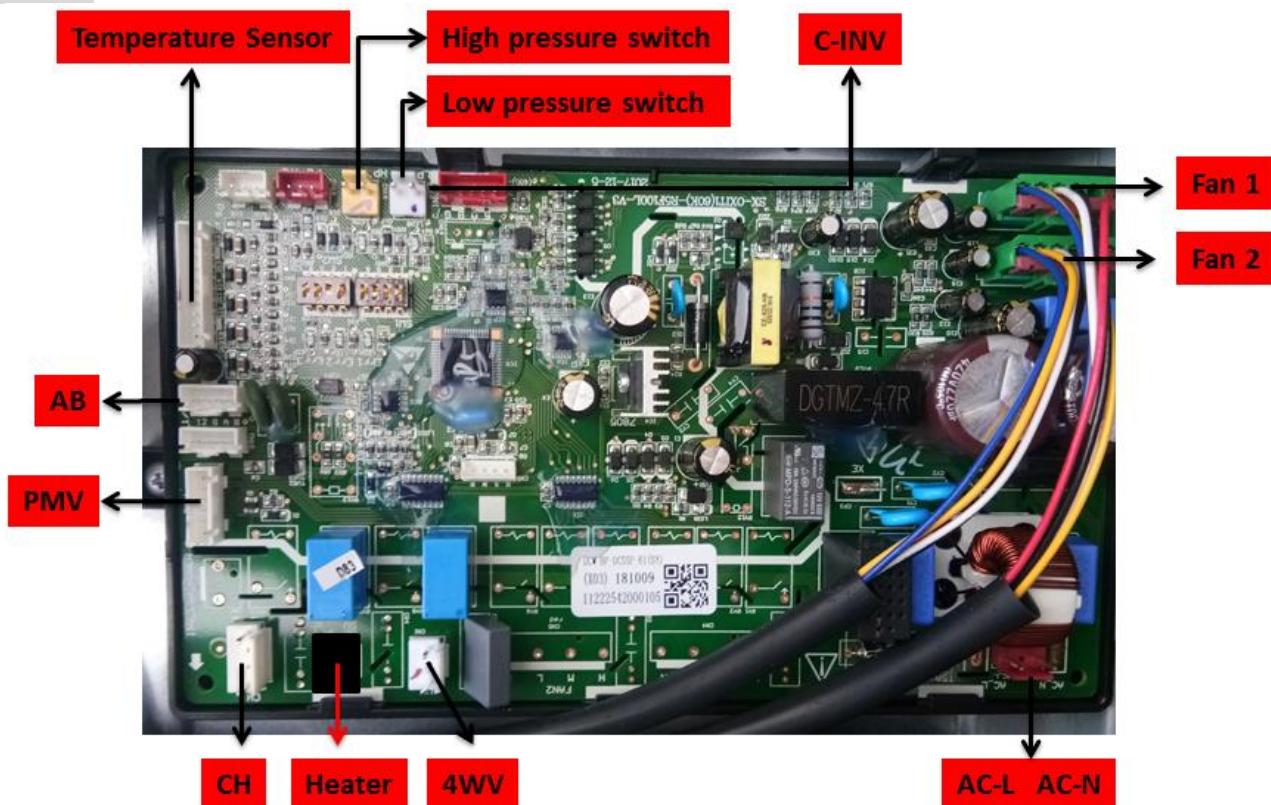


Drive Modular Board

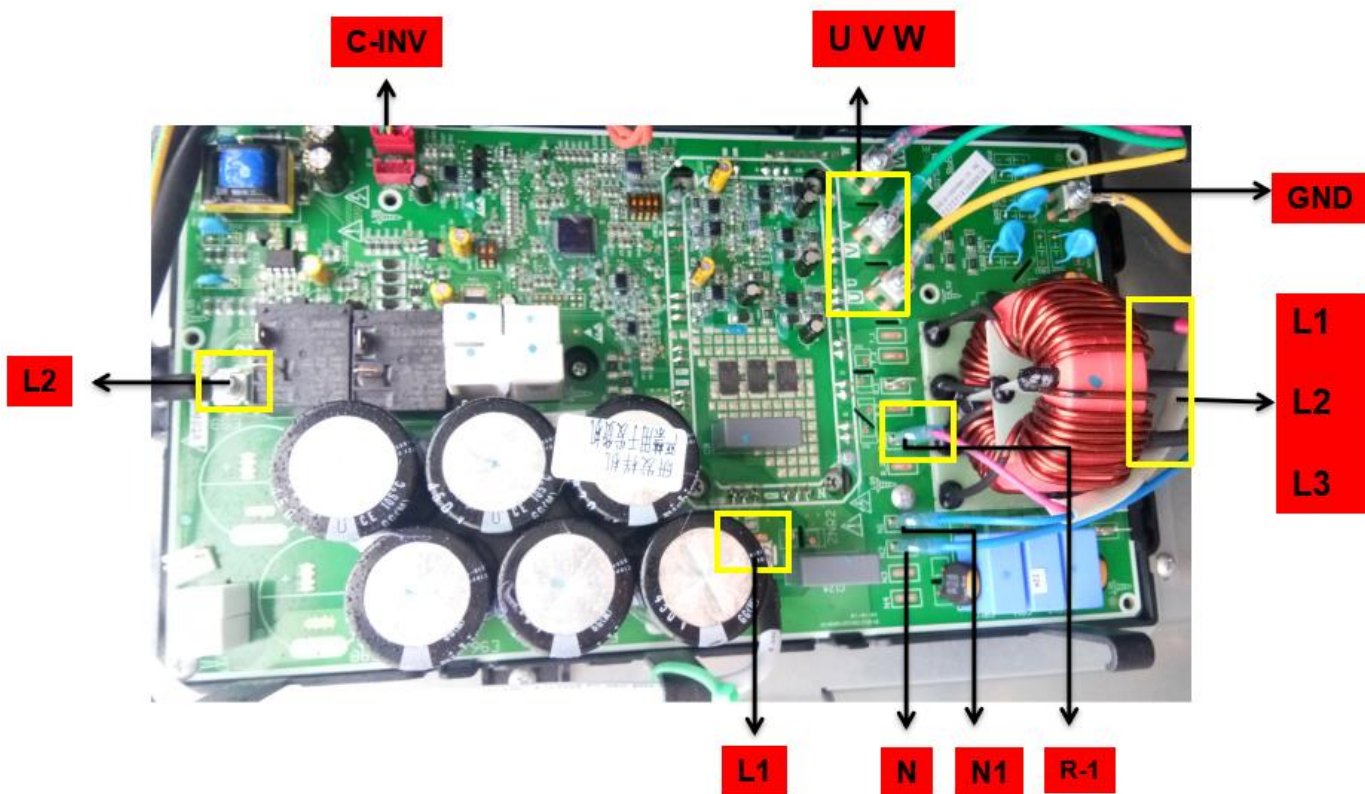


1.3 48K,60K

Main PCB



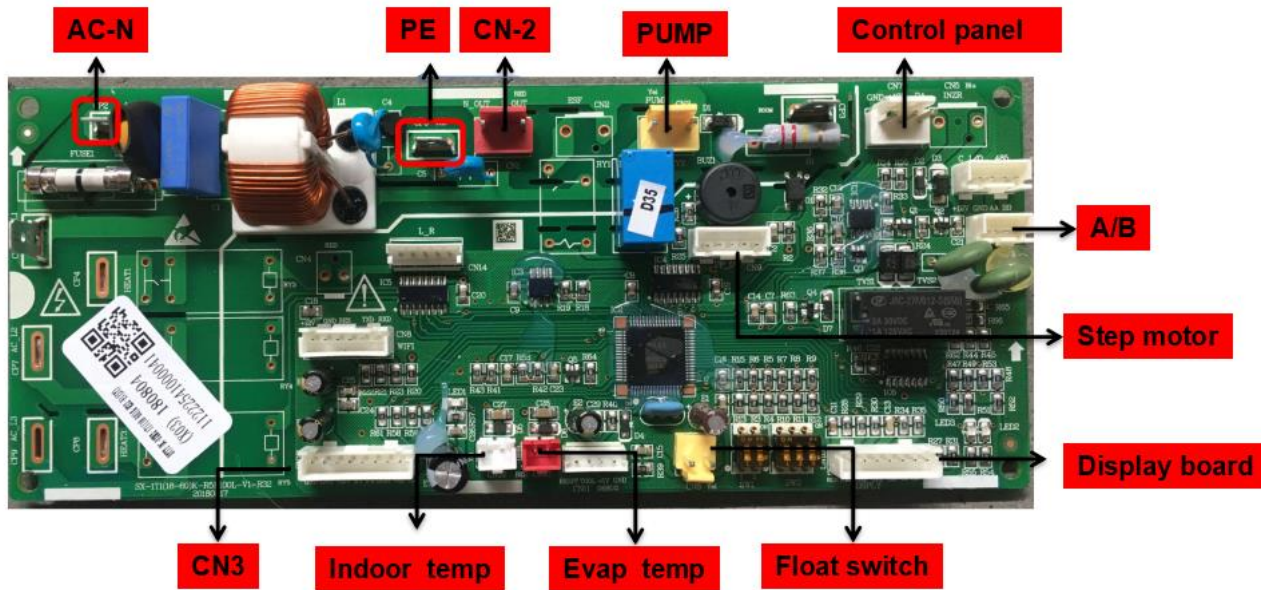
Drive Modular Board



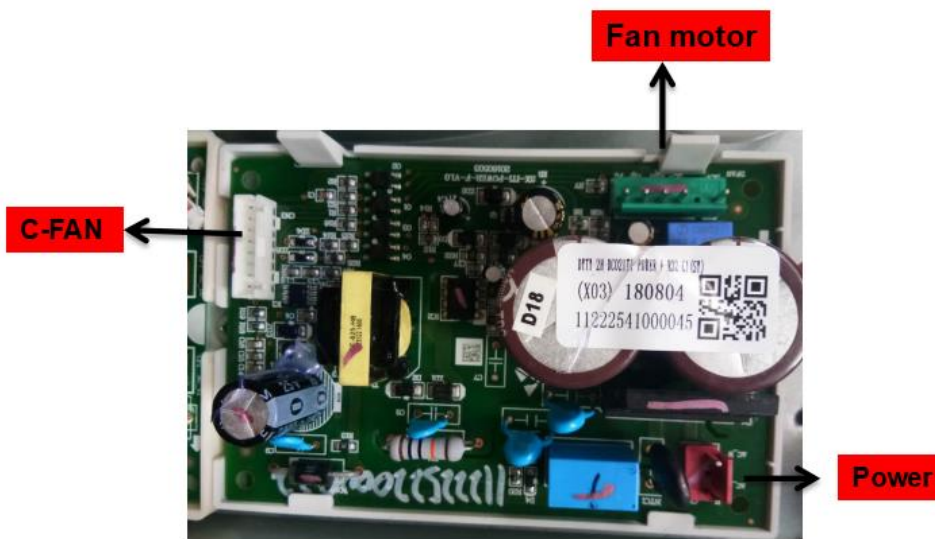
## 2. Indoor Unit PCB

### 2.1.1 12K~18K (Cassette) (E Type)

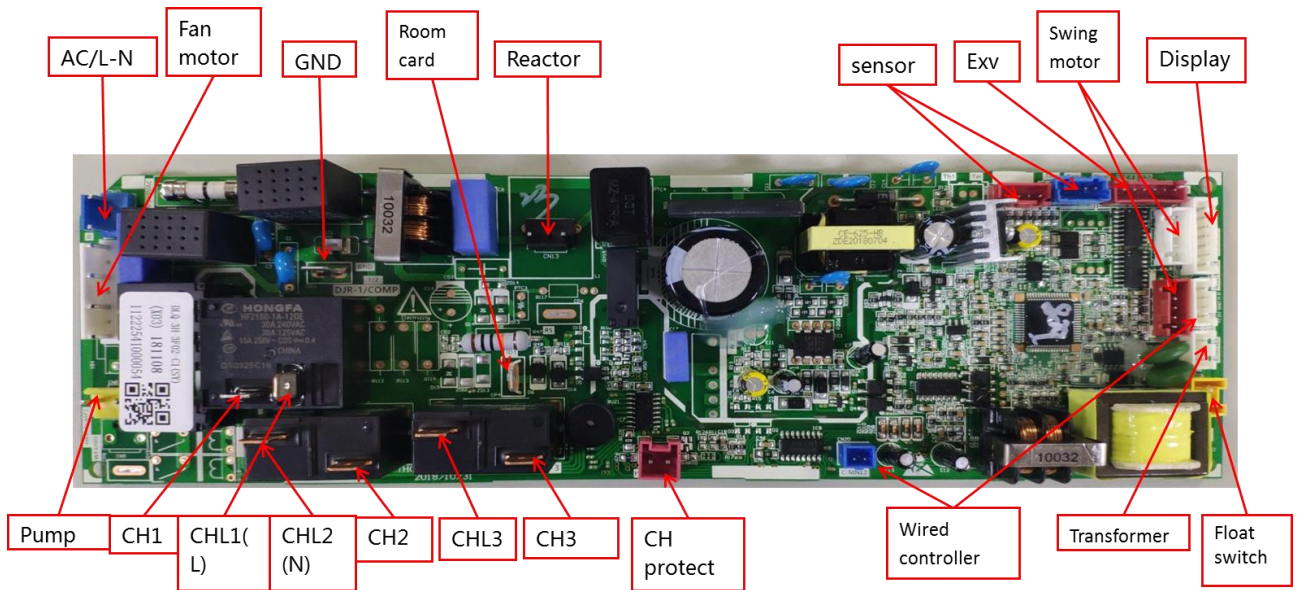
#### Main PCB



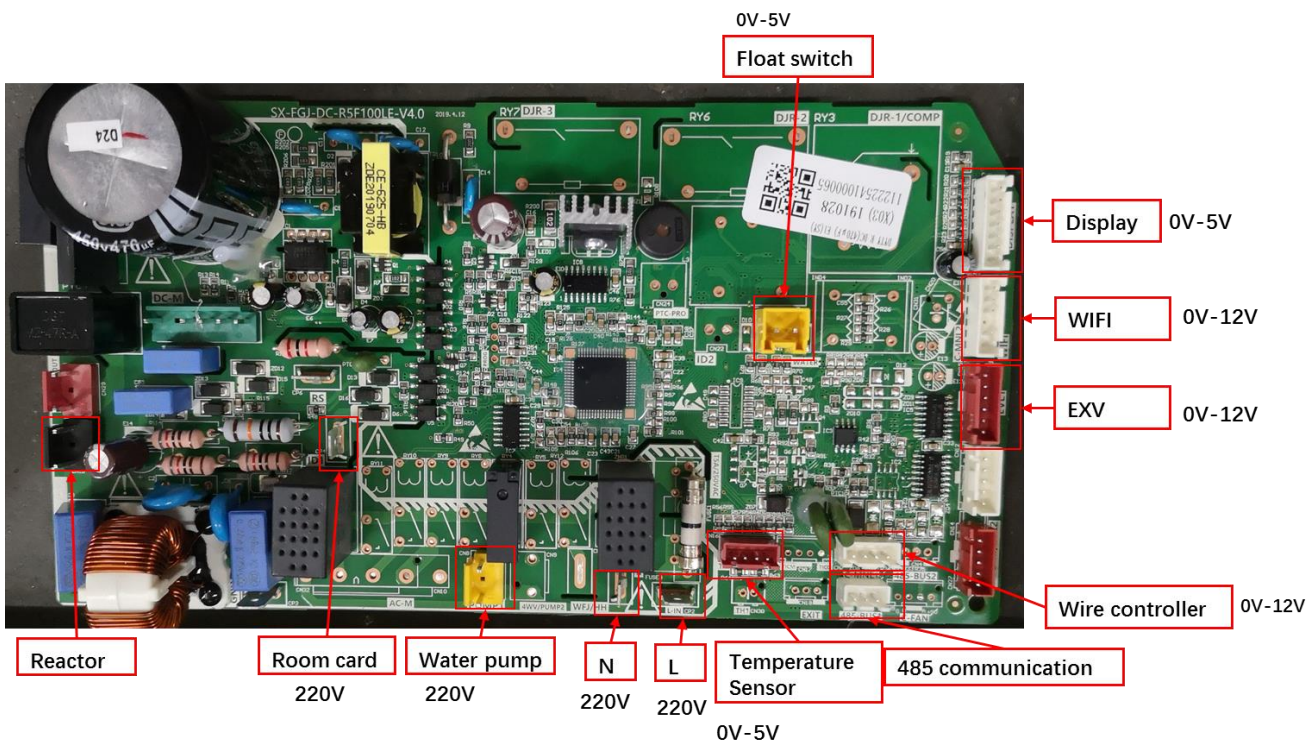
#### Driver Modular



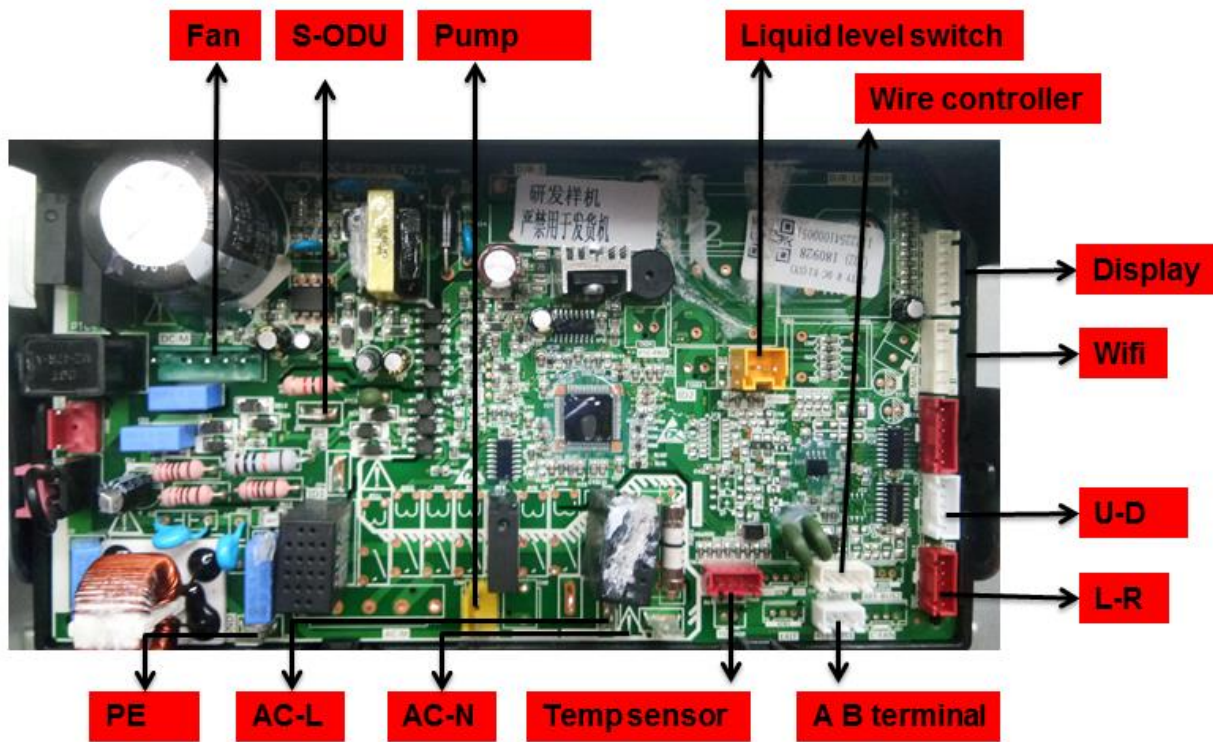
2.1.2 18K、24K~60K (Cassette) (Y Type) (only heating)



2.2.1 12~60K (Ceiling & Floor) (F Type)

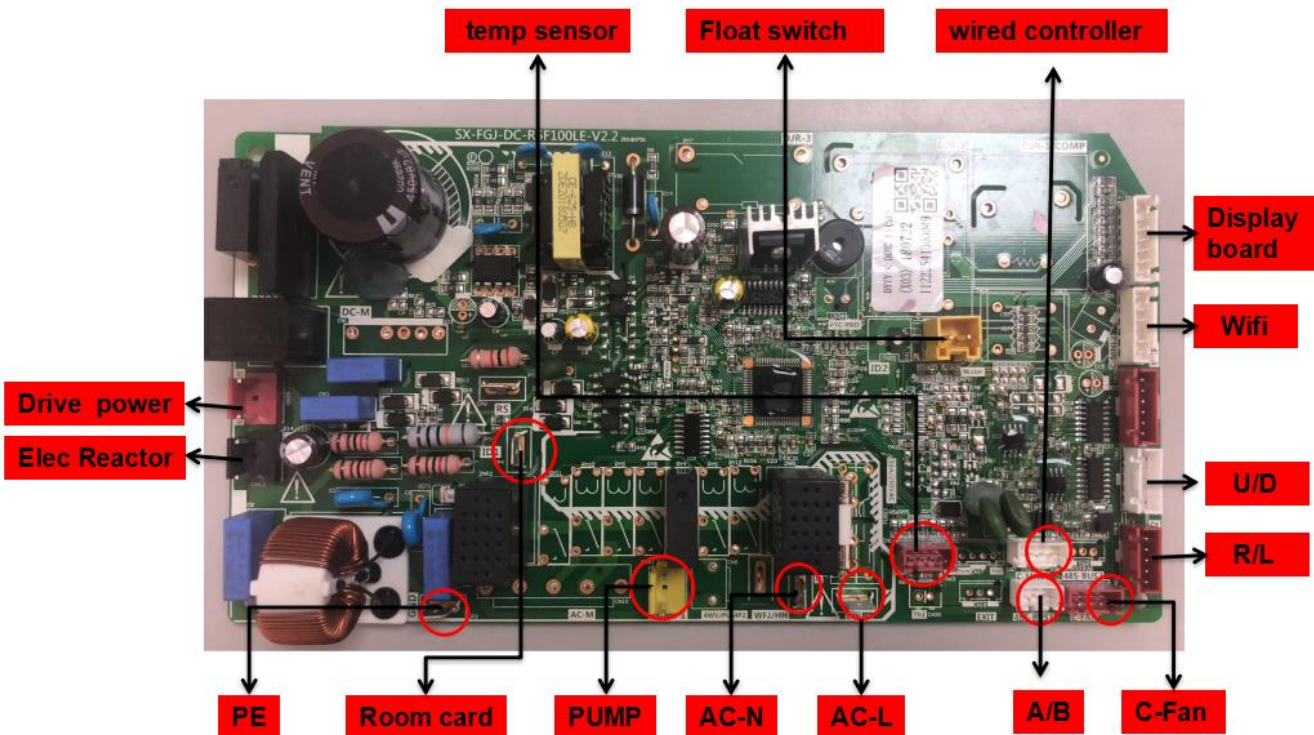


2.2.2 12~60K (Ceiling & Floor) (C5) (only heating)

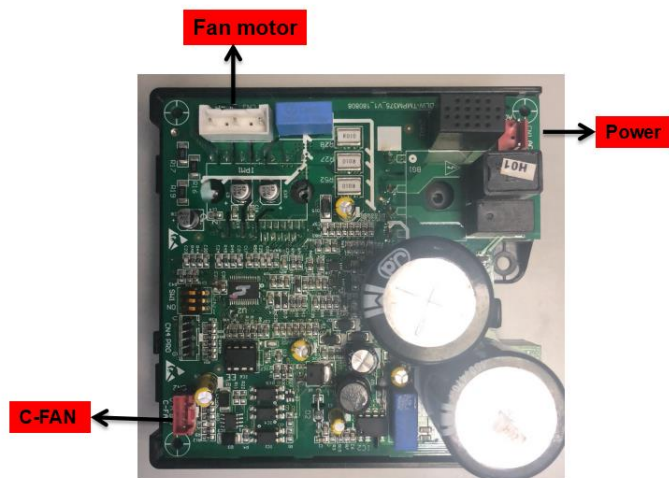


2.3 12K~60K(Duct)

Main PCB



Driver Modular



# Part11 Trouble Shooting

## 1. Failure code display

ERROR CODE (display board) (wired controller)	DESCRIPTION	Causes of possible failure
A1	Fault with the room temperature sensor on the Indoor unit	Damage of the room temperature sensor on the indoor unit
		Poor contact of the room temperature sensor on the indoor unit
		Damage of wiring of the room temperature sensor on the indoor unit
		Damage of the main PCB on the indoor unit
A2	Fault with the temperature sensor in the middle of indoor evaporator	Damage of the temperature sensor on the indoor unit
		Poor contact of the temperature sensor on the indoor unit
		Damage of wiring of the temperature sensor on the indoor unit
		Damage of the main PCB on the indoor unit
A3	Fault with the liquid pipe temperature sensor on the indoor unit	Damage of the liquid pipe temperature sensor on the indoor unit
		Poor contact of the liquid pipe temperature sensor on the indoor unit
		Damage of wiring of the liquid pipe temperature sensor on the indoor unit
		Damage of the main PCB on the indoor unit
A4	Fault with the gas pipe temperature sensor on the indoor unit	Damage of the gas pipe temperature sensor on the indoor unit
		Poor contact of the gas pipe temperature sensor on the indoor unit
		Damage of wiring of the gas pipe temperature sensor on the indoor unit
		Damage of the main PCB on the indoor unit
A5	Fault with the drainage	Float switch disconnected or poor wiring
		Error setting of model parameters
		Drain plug
		Damage of the pump
A6	Fault with the Fan motor of indoor unit	Low voltage
		Poor wiring
		Damage of the main PCB on the indoor unit
		Damage of the motor
A8		Indoor unit PCB is broken



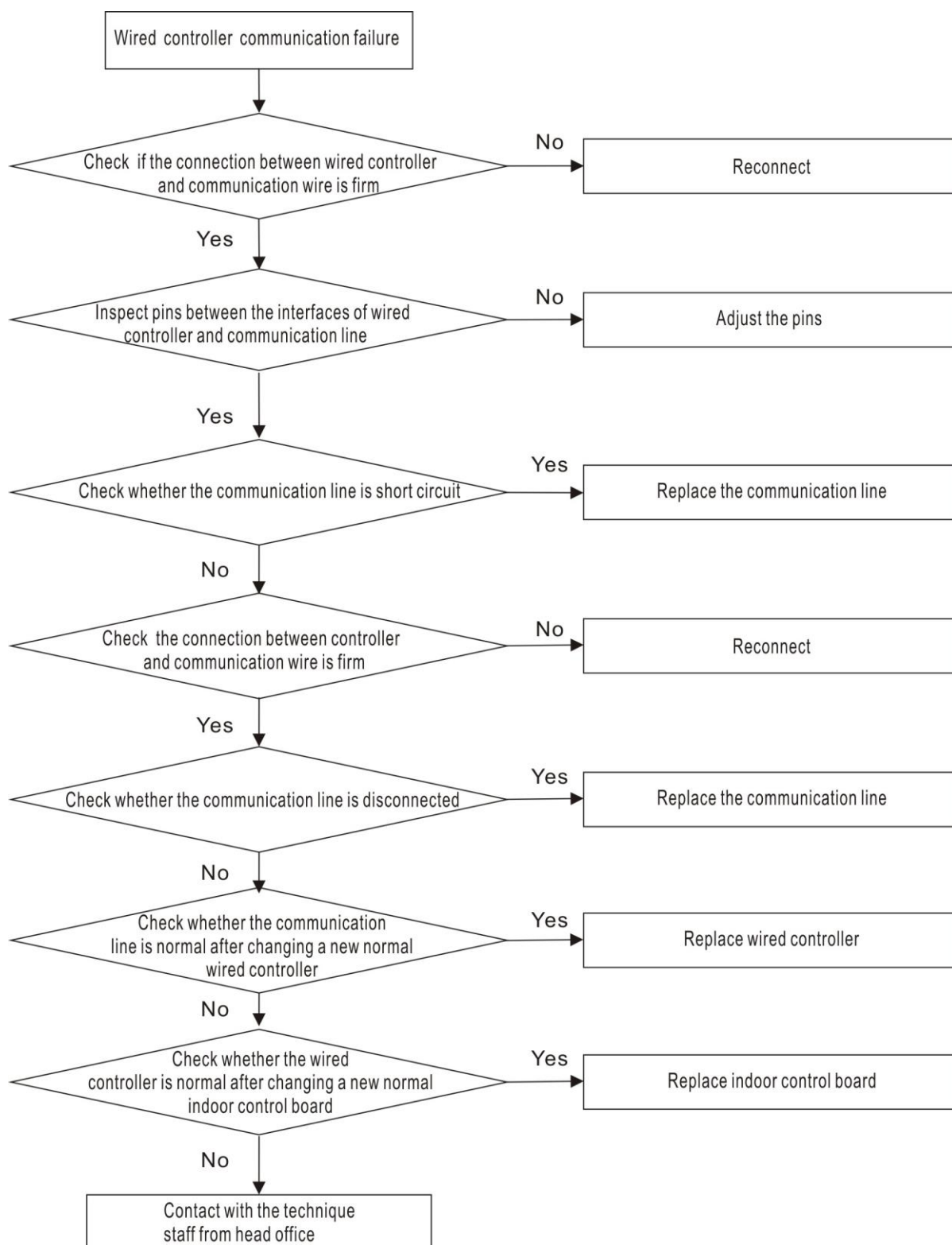
	Indoor unit EEPROM module failure	EEPROM module is broken.
A9	Communication error between the outdoor unit and the indoor unit	Damage of the main PCB on the indoor unit
		Damage of the main PCB on the outdoor unit
		Poor wiring
AA	Communication error between the wired controller and main PCB of the indoor unit	Poor wiring
		Damage of the wired controller
		Damage of the main PCB on the indoor unit
H1	Fault with the High pressure switch	System pipeline blockage
		Damage of the pressure switch
H4	Fault with the low pressure switch	Lack of the refrigerant
		Stop valve unopened
		Damage of the pressure switch
C1	Fault with the Environmental temperature sensor on the outdoor unit	Damage of the Environmental temperature sensor on the outdoor unit
		Poor contact of the Environmental temperature sensor on the outdoor unit
		Damage of wiring of the Environmental temperature sensor on the outdoor unit
		Damage of the main PCB on the outdoor unit
C2	Fault with the defrosting temperature sensor on the outdoor unit	Damage of the defrosting temperature sensor on the outdoor unit
		Poor contact of the defrosting temperature sensor on the outdoor unit
		Damage of wiring of the defrosting temperature sensor on the outdoor unit
		Damage of the main PCB on the outdoor unit
C3	Fault with the discharge temperature sensor	Damage of the discharge temperature sensor on the outdoor unit
		Poor contact of the discharge temperature sensor on the outdoor unit
		Damage of wiring of the discharge temperature sensor on the outdoor unit
		Damage of the main PCB on the outdoor unit
C6	Fault with the suction temperature Sensor	Damage of the suction temperature sensor on the outdoor unit
		Poor contact of the suction temperature sensor on the outdoor unit
		Damage of wiring of the suction temperature sensor on the outdoor unit
		Damage of the main PCB on the outdoor unit
C8	Fault with the temperature sensor in the mid of outdoor condenser	Damage of the temperature sensor on the outdoor unit
		Poor contact of the temperature sensor on the outdoor unit
		Damage of wiring of the temperature sensor on the outdoor unit

		Damage of the main PCB on the outdoor unit
J2	Communication error between the outdoor unit and the indoor unit	Damage of the main PCB on the indoor unit
		Damage of the main PCB on the outdoor unit
		Poor wiring
J3	Communication error between the driver PCB and main PCB of the outdoor unit	Damage of the driver PCB on the outdoor unit
		Damage of the main PCB on the outdoor unit
		Poor wiring
J7	Fault with the outdoor unit EPROM	Chip damage
E1	Fault of four way valve	Damage of four-way valve
		Damage to coil of four-way valve
E3	Protection high temperature discharge	Lack of the refrigerant
		Stop valve unopened
		Damage of the main PCB on the outdoor unit
E8	Fault with anti-high temperature protection of indoor unit in heating model	Outdoor condenser viscera
		Indoor evaporator viscera
FH	Protection lower temperature discharge	Temperature sensor shedding
		Damage of the main PCB on the outdoor unit
31	Fault with the inverter module protection	Fault with the inverter module protection
32	Compressor drive hardware protection	Damage of the EE chip of driver board
33	Module software protection	Supply voltage below level let the current excessive
		Supply voltage exceed limit
		Outdoor fan stop or low speed
34	Compressor start failure	Compressor power line not connected
35	Fault with the over-electric current protection	Excessive running current of the unit
		Voltage drops abruptly in operation
36	Fault with the over-voltage or low voltage protection	Excessive input voltage
		Lower input voltage
37	Fault with the modular temperature sensor on the outdoor unit	Sensor damage of compressor IPM module
38	Fault with the Compressor Power supply Phase deficiency protection	Compressor power line not connected
39	Protection of compressor driving module for excessive temperature	Poor contact between compressor IPM module and radiator
3H	Fault with the Fan motor of outdoor unit	Damage of motor
3C	Overcurrent protection of outdoor DC motor	High speed of DC motor

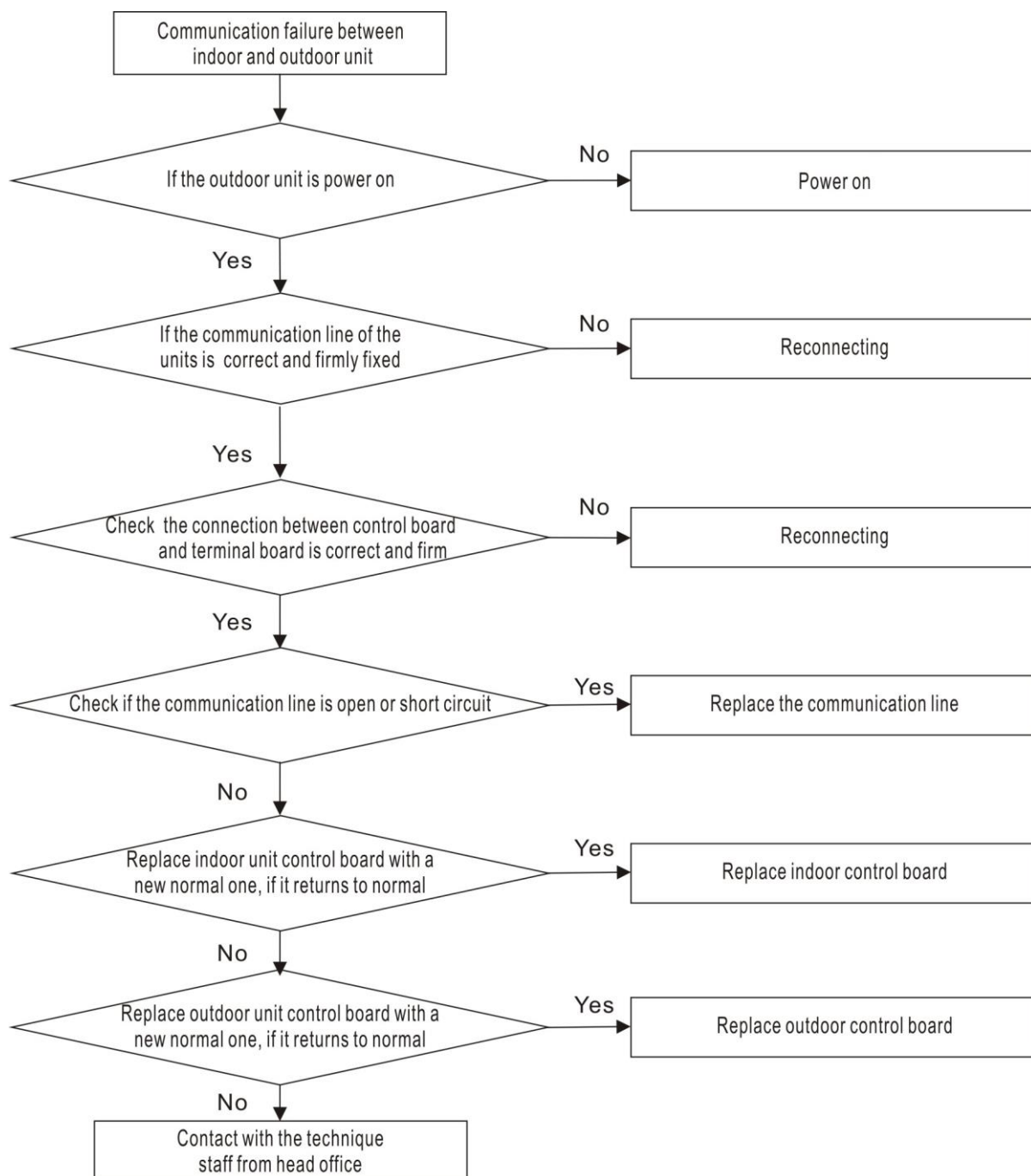
3J	Overvoltage protection of outdoor DC motor	Low voltage output
3E	Compressor drive PFC software protection	Excessive running current of the unit
		Voltage drops abruptly in operation
3F	Compressor drive PFC hardware protection	Damage of the PFC circuit components
		Reactor damage
41	IPM protection for driving board of outdoor DC fan	Damage of IPM components of DC fan
99	Communication error between the driver PCB and main PCB of the indoor unit	Abnormal power supply of fan driving board
		Poor contact of the communication line of fan drive board
		Damage of fan driving board
9A	Temperature protection of indoor DC fan module L5	Damage of fan driving board
9H	Failure of indoor DC fan start-up	Damage of fan motor
		High speed of DC motor
9C	Overcurrent protection of indoor DC motor	Excessive running current of fan motor
9J	Overvoltage and undervoltage protection of indoor DC motor	Excessive input voltage
		Lower input voltage
9E	IPM protection for driving board of indoor DC fan	Sensor damage of DC motor IPM module
9F	EE protection for driving board of indoor DC fan	Damage of EE chip of Driver board

## 2. Failure analysis

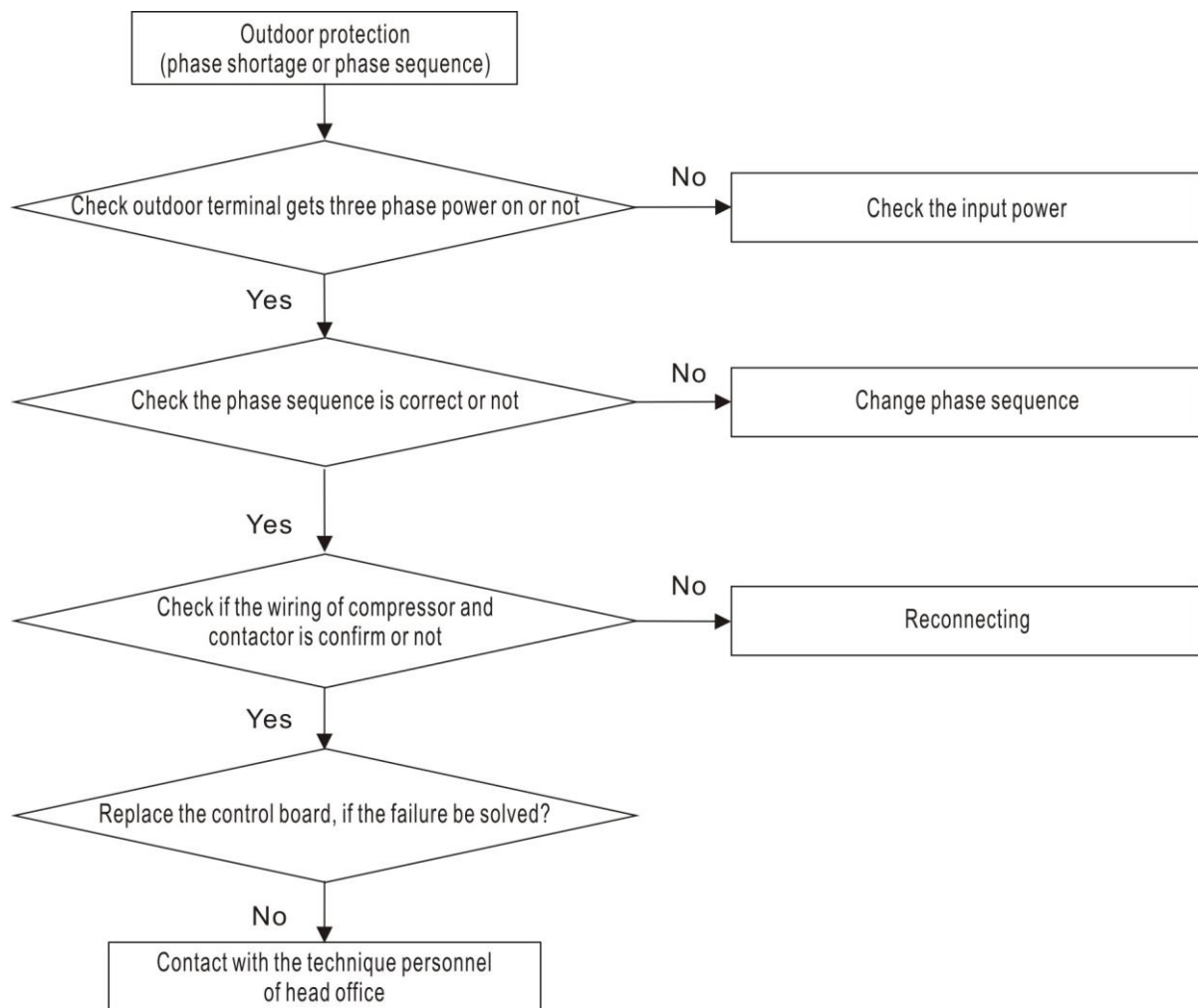
### 2.1 [AA] Wired controller communication failure



2.2 【A9】 Communication failure between indoor and outdoor unit

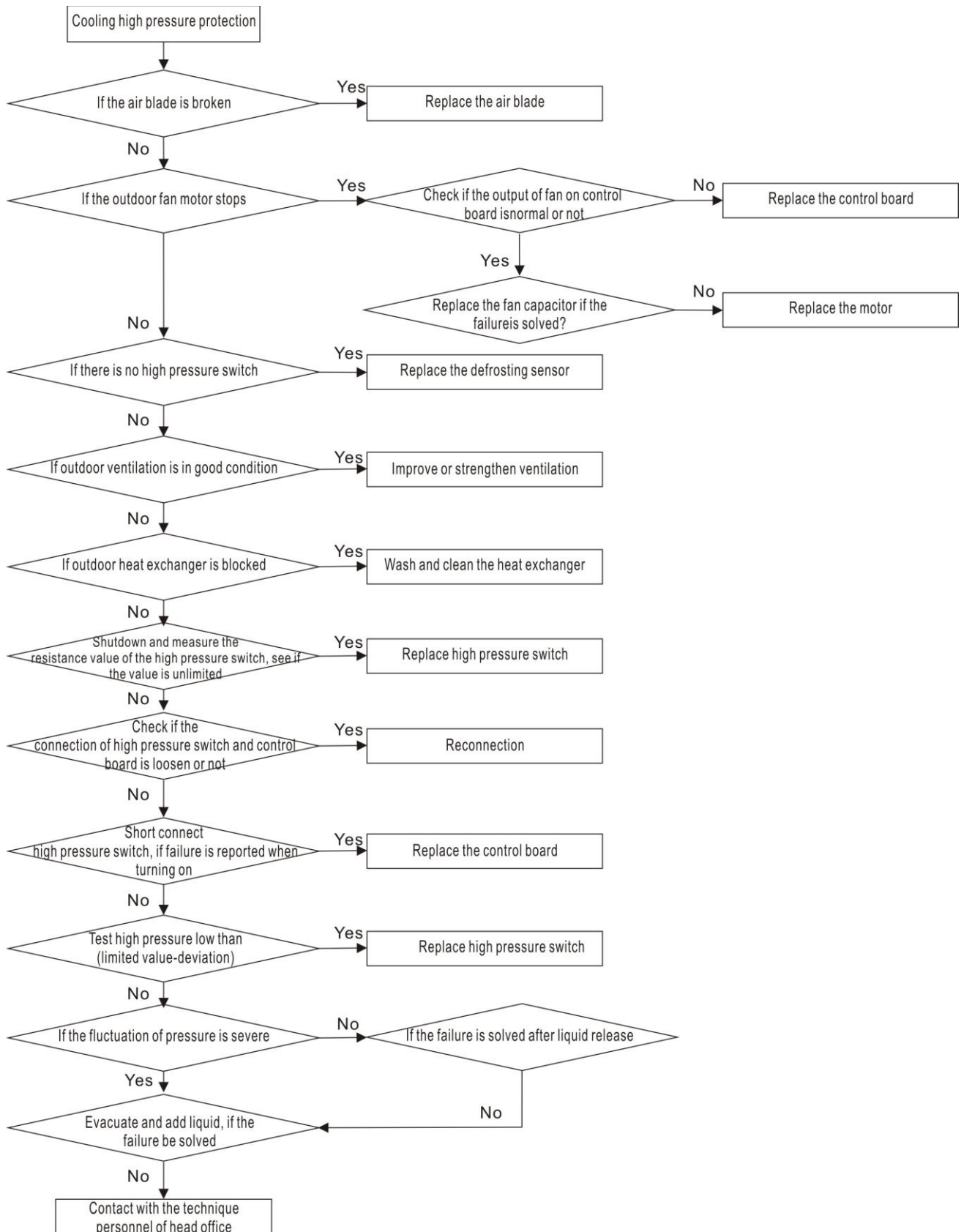


### Outdoor protection(phase sequence)

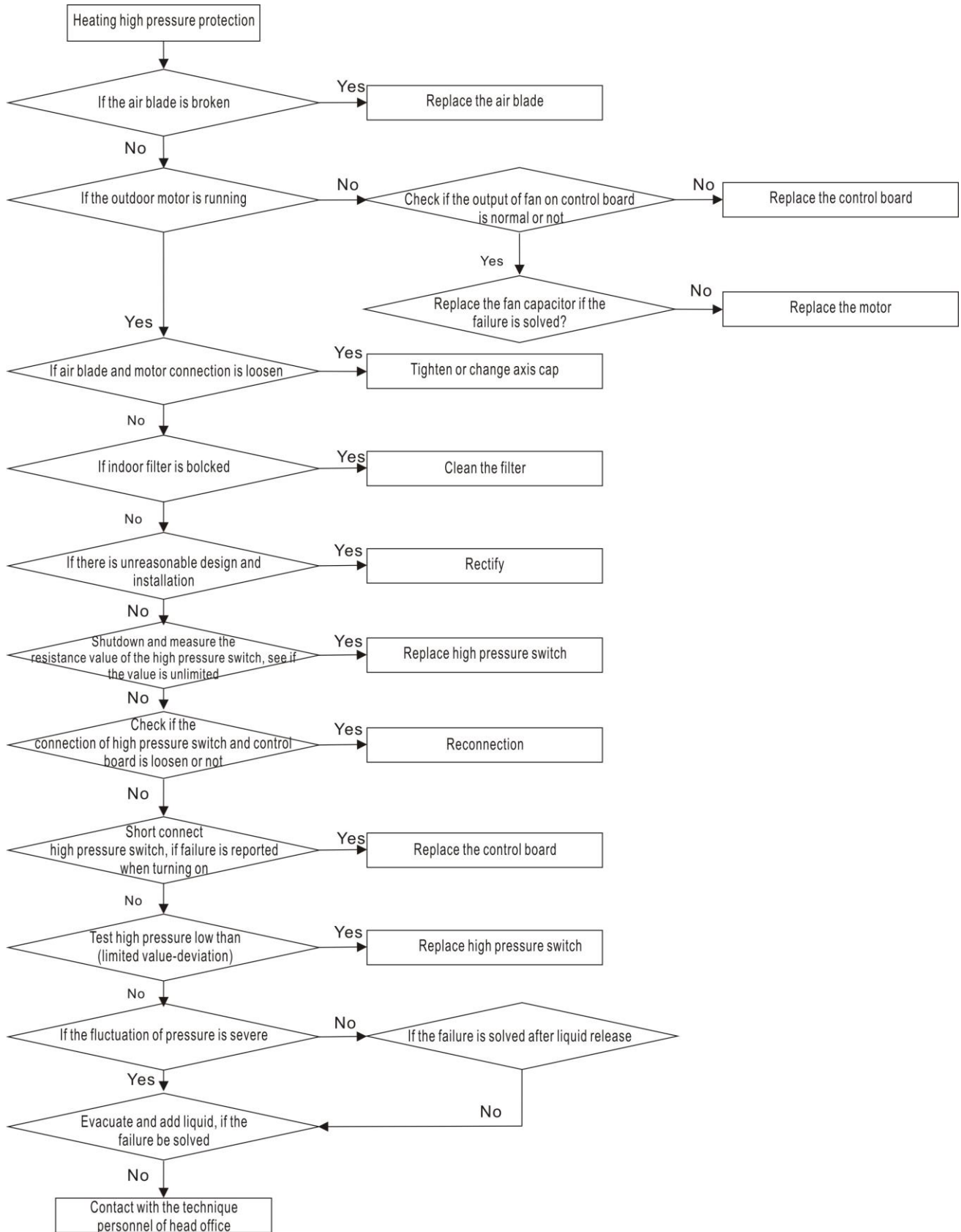


2.3 【H1】 high pressure protection

Cooling high pressure protection



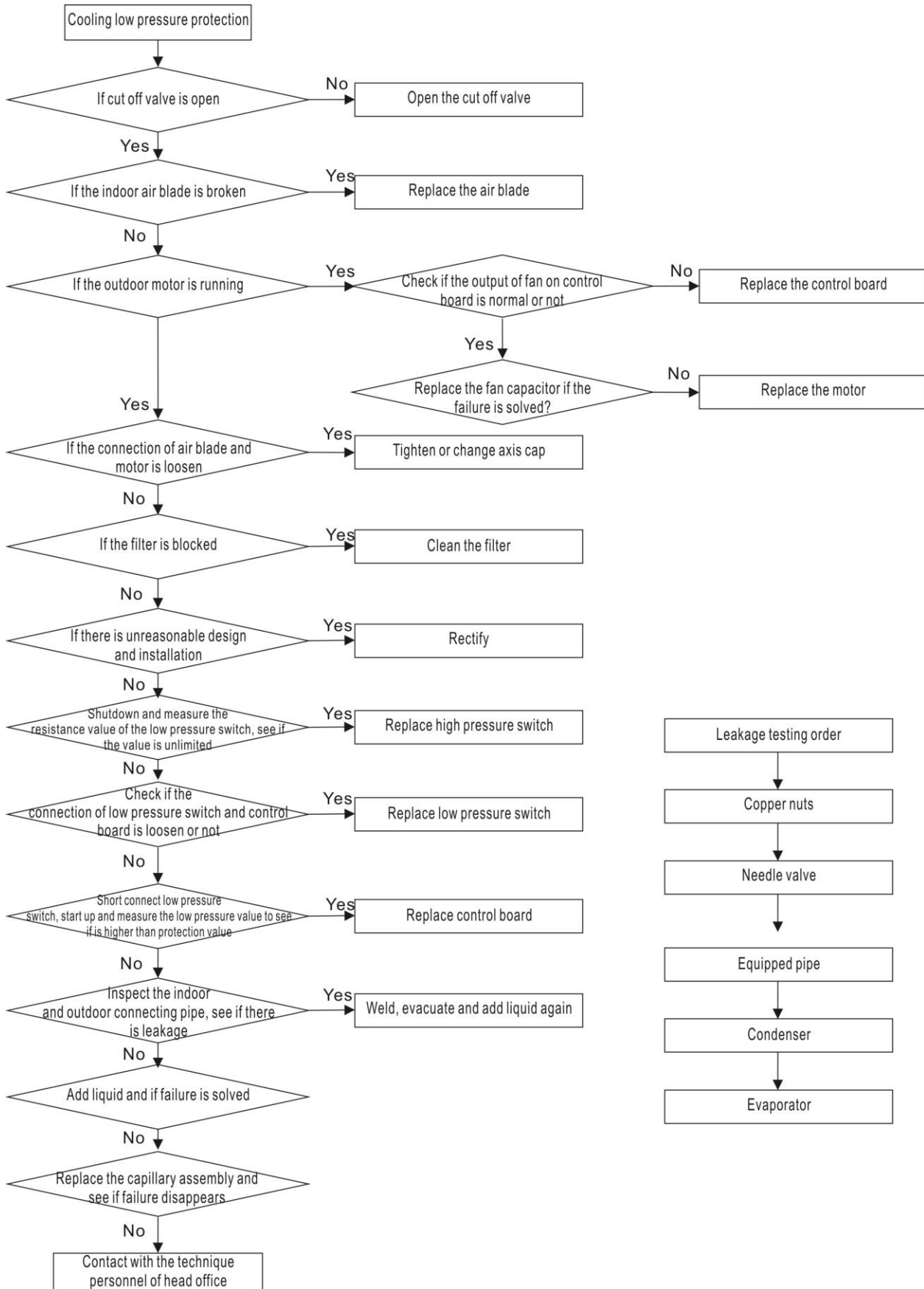
### Heating high pressure protection



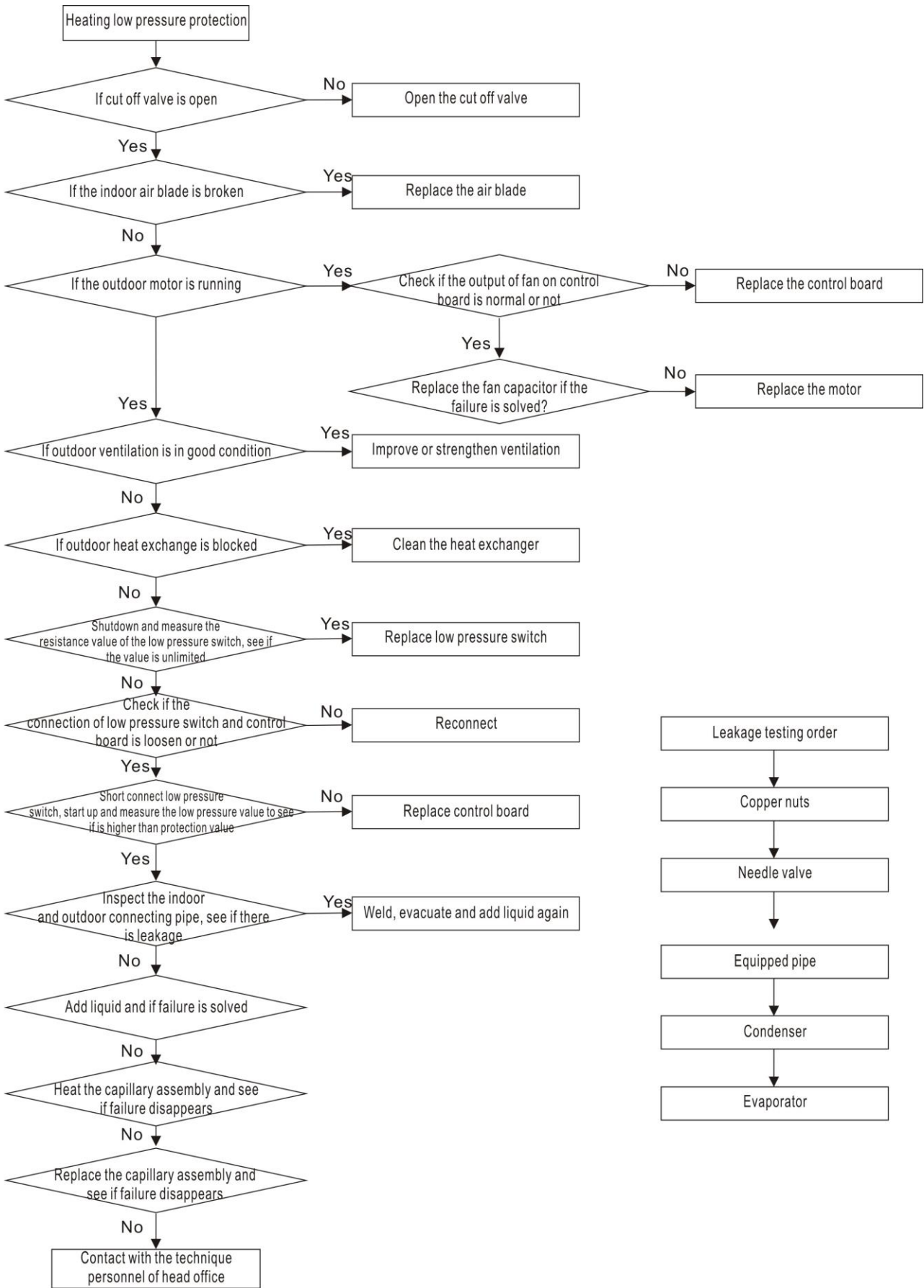


## 2.4 【H4】 low pressure protection

### 2.4.1 Cooling low pressure protection

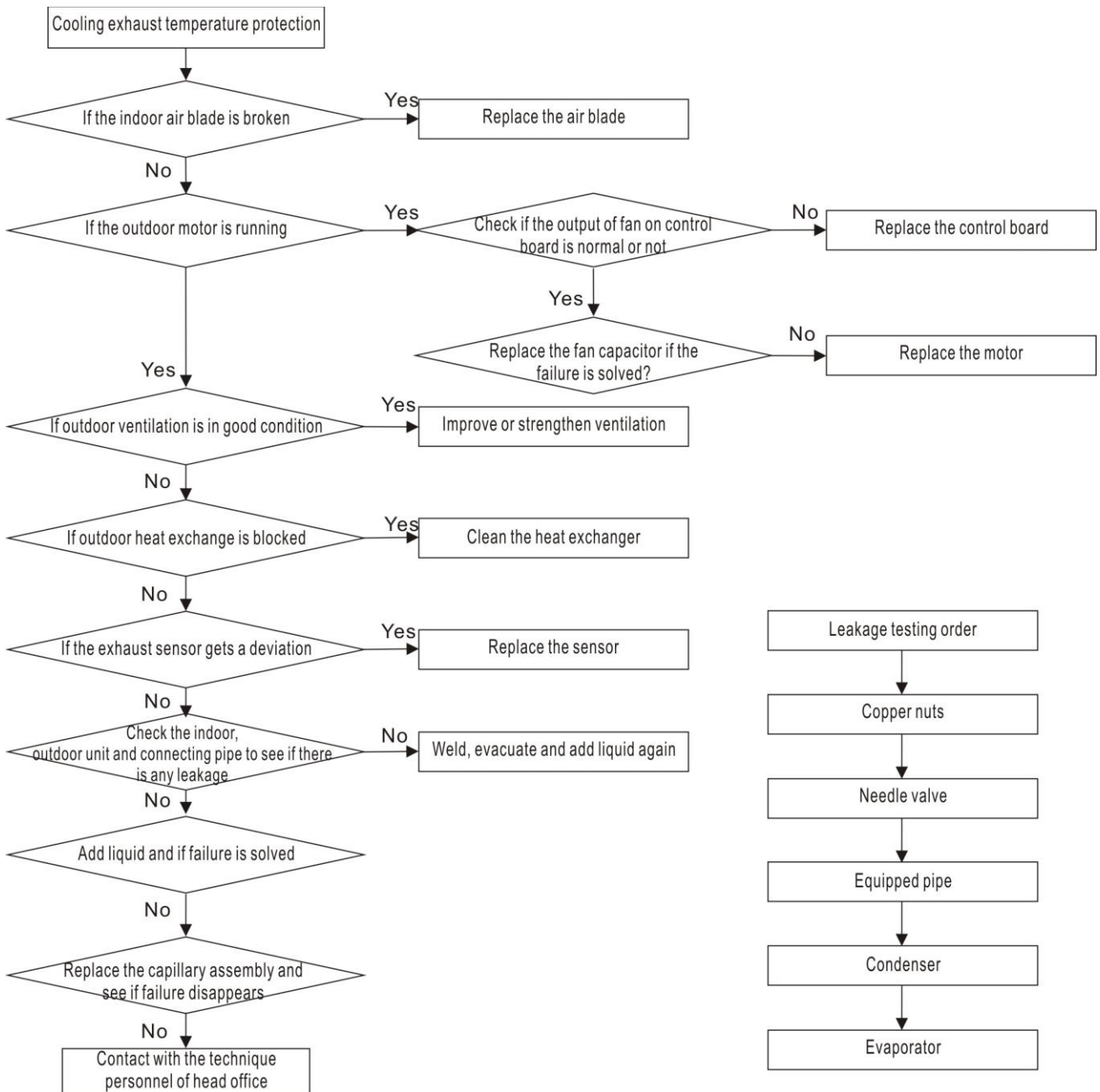


### 2.4.2 Heating low pressure protection

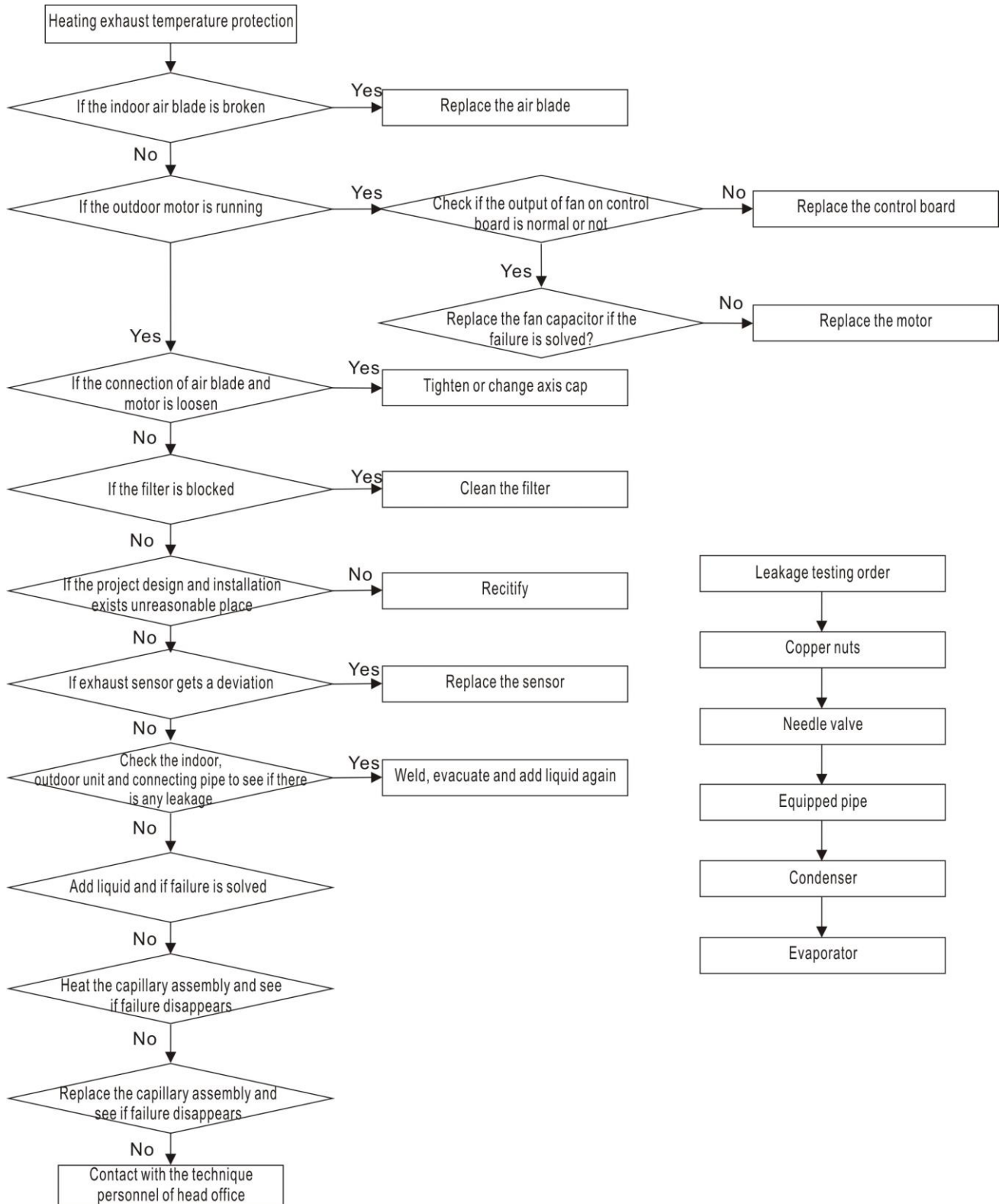


2.5 【E3】 High exhaust temperature protection

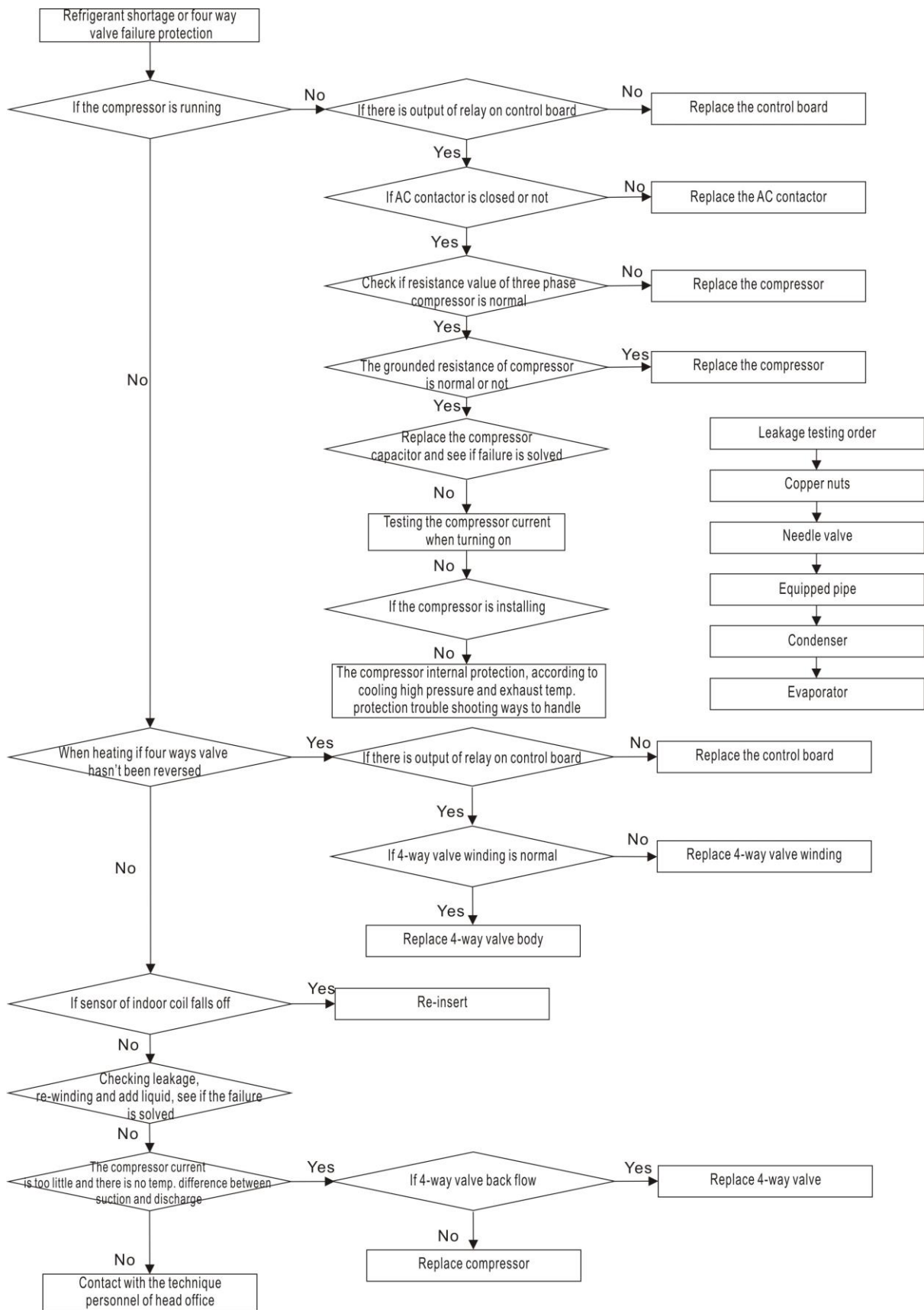
Cooling exhaust temperature protection



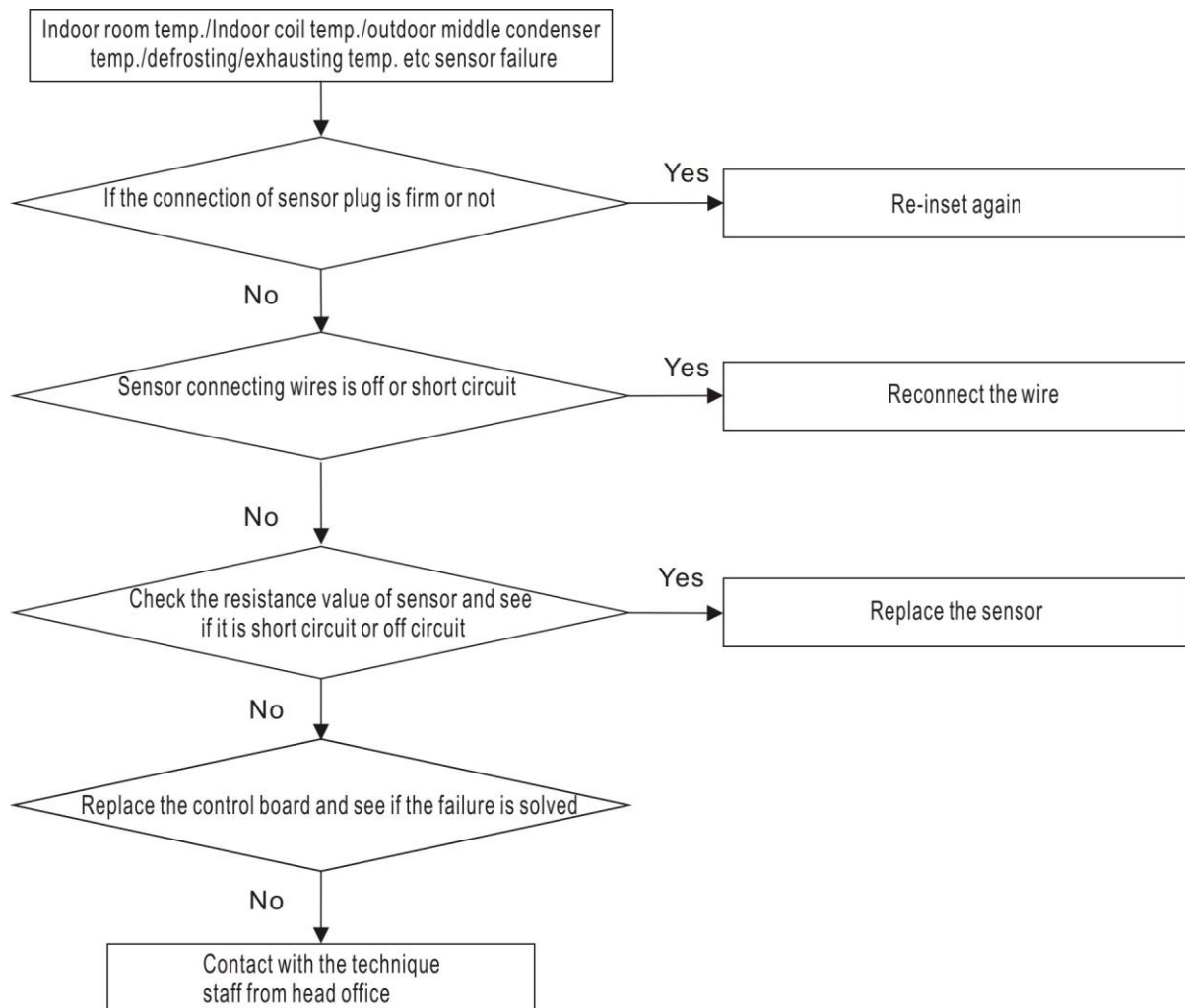
### Heating exhaust temperature protection



2.6 【E1】 four way valve failure protection



## 2.7 Sensor failure protection





Technology leads Intelligent life

## NINGBO AUX ELECTRIC CO.,LTD

**Web:** [Http://auxcac.cn](http://auxcac.cn)

**Tel:** +86-574-88220564

**E-mail:** [auxcac@mail.auxgroup.com](mailto:auxcac@mail.auxgroup.com)

**Add:** NO. 1166 North Mingguang Road, Jiangshan, Ningbo, Zhejinag, PR. China

The above designs and specifications are subject to change without prior notice. Final specifications please refer to latest technical specification provided by sales representative.

201810 *Technical Support Department*