



Light Commercial

Technical & Service Manual

EUROPE R32 T1 SERIES
DC INVERTER



Technology Leads Intelligent Life

Version 26 (2026.08)

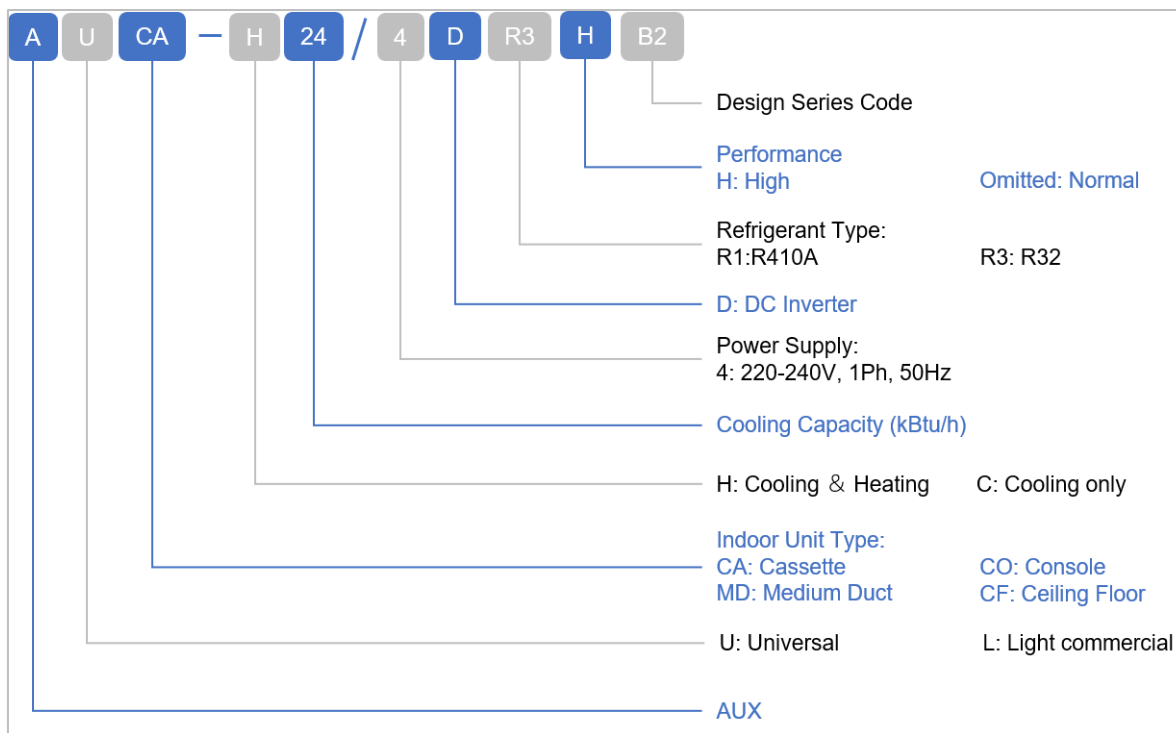
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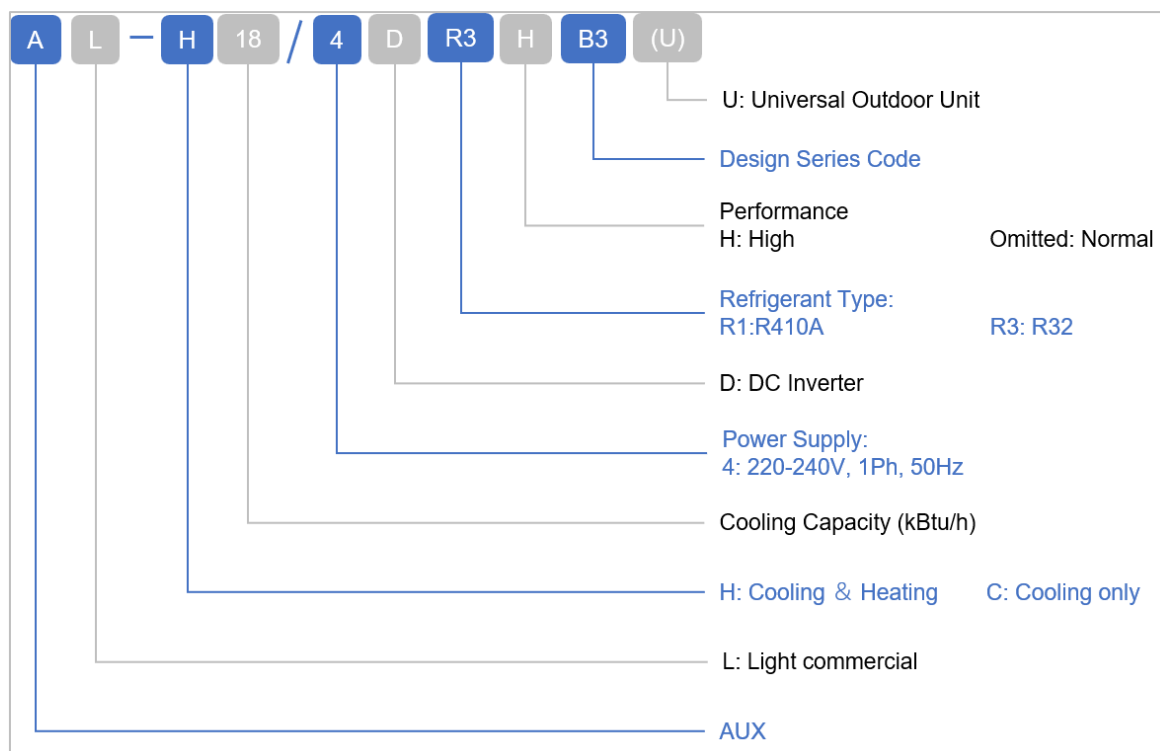
Part1 General Information

1. Nomenclature

Indoor Unit



Outdoor Unit:



2. Functions overview

•Standard □Optional × Invalid

Functions overview							
Category	Functions	Medium Duct	Cassette Y	Cassette Q	Ceiling Floor	Console	Details refer to
Basic Function	On/Off	•	•	•	•	•	Part9
	Fan mode	•	•	•	•	•	Part9
	Dry mode	•	•	•	•	•	Part9
	Turbo mode	•	•	•	•	•	Part9
	Cooling mode	•	•	•	•	•	Part9
	Heating mode	•	•	•	•	•	Part9
	Auto-mode	•	•	•	•	•	Part9
	Auto-restart	•	•	•	•	•	Part9
	Fan speed	•	•	•	•	•	Part9
	°F/°C - display	•	•	•	•	•	Part9
	Anti-cold air	•	•	•	•	•	/
Comfort Health &Energy saving	Eco	•	•	•	•	•	Part9
	Silent	•	•	•	•	×	Part9
	Sleep	•	•	•	•	•	Part9
	Self-cleaning	•	•	•	•	•	Part9
	Fresh air intake	•	•	•	•	×	/
	PM2.5	×	□	□	×	×	/
	I-Feel	□	□	□	□	□	Part9
	Child lock	•	•	•	•	•	Part9
	Display	•	•	•	•	•	Part9
	Up & down swing	•	•	•	•	•	Part9
	Left & right swing	×	×	×	×	×	/
	Auto-constant air volume	□	×	×	×	×	/
	8°C heating mode	•	•	•	•	×	Part2
	Forced refrigerant recovery	•	•	•	•	•	Part2

Functions overview							
Category	Functions	Medium Duct	Cassette Y	Cassette Q	Ceiling Floor	Console	Details refer to
	Individual louver control	x	x	□	x	x	/
	Sterilizing filter	x	□	□	□	x	/
Controller	Room card	•	•	•	•	x	Part9
	Timer	•	•	•	•	•	Part9
	Centralized control	•	•	•	•	x	Part12
	WIFI	□	□	□	□	□	Part9
	Remote switch	•	•	•	•	x	Part9
	Fire alarm	•	•	•	•	x	Part9
	Wired controller group control	•	•	•	•	x	Part9
	Window open	•	•	•	•	x	Part9
	Modbus	•	•	•	•	x	/
Communication	RS485 (wired controller)	•	•	•	•	•	/
	LNS (between indoor and outdoor units)	•	•	•	•	•	/
Reliability	Drain pump	□	•	•	x	x	/
	Float switch	□	•	•	x	x	/

3. Unit appearance

3.1 Cassette (Y type)

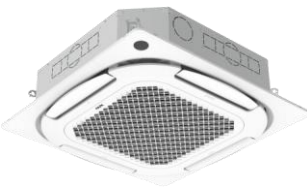
Type	Picture	Capacity (Btu/h) / Model		Dimension	Launch time
Compact Y series		12K	AUCA-H12/4DR3HA2 AUCA-H12/4DR3HB2	570×570×260	2025.05
		18K	AUCA-H18/4DR3HA2 AUCA-H18/4DR3HB2		2025.05

The letter "A" of the model represents the use of the 4-way panel, and "B" represents the use of the round-way panel

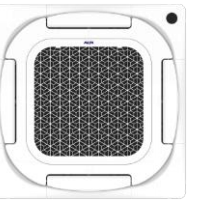
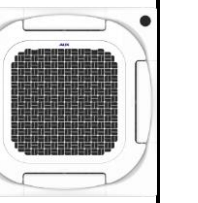
Panel

MODEL	A	B	C	D
4-way				-
Round-way				

3.2 Cassette (Q type)

Picture	Capacity (Btu/h) / Model		Dimension	Launch Time
	24K	AUCA-H24/4DR3HB2	840×840×245	2025.05
	36K	AUCA-H36/5DR3HB2	840×840×288	2026.06
	36K	AUCA-H36/4DR3C4	840×840×288	2026.07
	36K	AUCA-H36/4DR3HB2	840×840×288	2025.07
	42K	AUCA-H42/4DR3HB2		
	48K	AUCA-H48/5DR3HB2		
	60K	AUCA-H60/5DR3HB2		

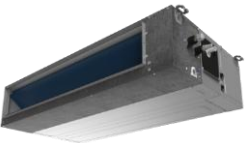
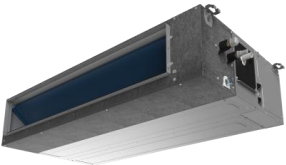
Panel

MODEL	MB-10A	MB-10B	MB-10C	MB-10D	MB-10E
Round-way					
MODEL	MB-10F	MB-10G	MB-10I	MB-10H	
Round-way					

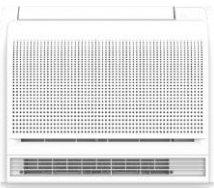
3.3 Ceiling Floor (F type)

Picture	Capacity (Btu/h) / Model		Dimension	Launch Time
	18K	AUCF-H18/4DR3HA2	1000×690×235	2025.07
	24K	AUCF-H24/4DR3HA2	1280×690×235	2025.07
	36K	AUCF-H36/4DR3HC2	1600×690×235	2025.07
	36K	AUCF-H36/4DR3C4		2026.07
	42K	AUCF-H42/4DR3HC2		2025.10
	48K	AUCF-H48/5DR3HC2		
	60K	AUCF-H60/5DR3HC2		

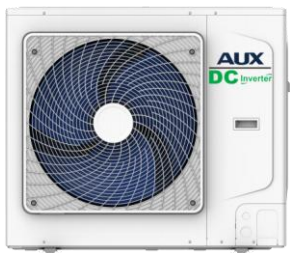
3.4 Duct (M type)

Picture	Capacity (Btu/h) / Model		Dimension	Launch Time
	12K	AUMD-H12/4DR3HB2	700x700x245	2025.05
	18K	AUMD-H18/4DR3HB2		2025.05
	24K	AUMD-H24/4DR3HB2	1000x700x245	2025.05
	30K	AUMD-H30/4DR3HC2		2025.05
	36K	AUMD-H36/5DR3HB2		2026.06
	36K	AUMD-H36/4DR3HC3		2026.07
	36K	AUMD-H36/4DR3HC2	1400×700×245	2025.08
	42K	AUMD-H42/4DR3HC2		2025.08
	48K	AUMD-H48/5DR3HC2		2025.08
	60K	AUMD-H60/5DR3HC2		2025.07

3.5 Console

Picture	Capacity (Btu/h) / Model		Dimension	Launch Time
	12K	AUCO-H12/4DR3HA2	700×225×600	2025.07
	18K	AUCO-H18/4DR3HA2		2025.07

3.6 Outdoor Units

Photos	Capacity (Btu/h) / Model		Dimension	Launch Time	Power supply (V~,Hz,PH)
	12K	AL-H12/4DR3HC1(U)	785×300×555	2025.05	220-240/ 50/1
	18K	AL-H18/4DR3HB3(U)		2025.05	
	24K	AL-H24/4DR3HB3(U)	900×360×700	2025.05	
	30K	AL-H30/4DR3HB3(U)		2025.05	
	36K	AL-H36/4DR3C3(U)	970×395×803	2025.07	
	42K	AL-H42/4DR3C3(U)		2025.07	
	36K	AL-H36/4DR3C5(U)	970×395×803	2026.07	220-240/ 50/1
	36K	AL-H36/5DR3C3(U)	970×395×803	2026.06	380-415/ 50&60/3
	48K	AL-H48/5DR3C3(U)	990×455×866	2025.07	
	60K	AL-H60/5DR3C3(U)	940×373×1320	2025.07	

Part2 Features

High efficiency

The entire series is equipped with a high efficiency DC inverter compressor, DC fan motor and electronic expansion valve, the system can meet the new European energy efficiency standards.

Reliability

It can operate stably in both cooling and heating modes at the lowest outdoor temperature of -20°C

180° Sine wave control

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

Optimized pipeline design

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

Simulation technology

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

Electrical heater (Optional)

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 at 8°C

In winter, keep the indoor temp at 8°C to prevent pipes and equipment in unoccupied rooms from being damaged by freezing. At same time, it is more energy-efficient than normal heating mode.

Entry method:

In the heating mode when the device is turned on, press the **【Mode】** and **【+】** keys on the remote controller simultaneously for 3s or more to activate the 8°C heating function.

Exit method:

- (1) Press the **【Mode】** and **【+】** keys simultaneously for 3s to exit the 8°C heating function
- (2) Switch to the non-heating mode

Logic:

When Indoor Temp is 7.5°C, compressor on. When it's 10°C, compressor off. The closer indoor temp is to 10°C, the lower the compressor frequency becomes.

Note:

- (1) Only the T011E and T021E remote controls have an 8°C heating function.
- (2) After enabling the 8°C heating function, the heating mode will be displayed at 8°C, with auto wind speed by default.

Cleaning mode

Clean the indoor unit heat exchanger to reduce the accumulation of mold, dust and odors, keep the air fresh, improve heat exchange efficiency and extend the service life of the air conditioner.

Entry method:

When the device is turned off, press the **【CLEAN】** button on the remote controller to enter the mode

Exit method:

- (1) The cleaning operation is completed
- (2) Press the **【CLEAN】** button again
- (3) Exit the cleaning mode immediately when there is error

Note:

In the cleaning mode, the indoor unit fan operates at a low wind speed all the time, and the air guide strip stops at the heating and anti-cold air position.

Forced refrigerant recovery

When the system is under maintenance, even in winter, refrigerant recovery can be forced and it can operate automatically, which is more convenient.

Entry method:

In the cooling mode, the remote controller is set to 24°C. If the interval between two consecutive key presses is no more than 2s, and the 【STRONG】 key or 【DISPLAY】 key is pressed 10 times in a row, the buzzer will sound twice, and the refrigerant recovery operation mode will be entered.

Exit method:

Shut down, power off, switch modes, or change the set temperature

Note:

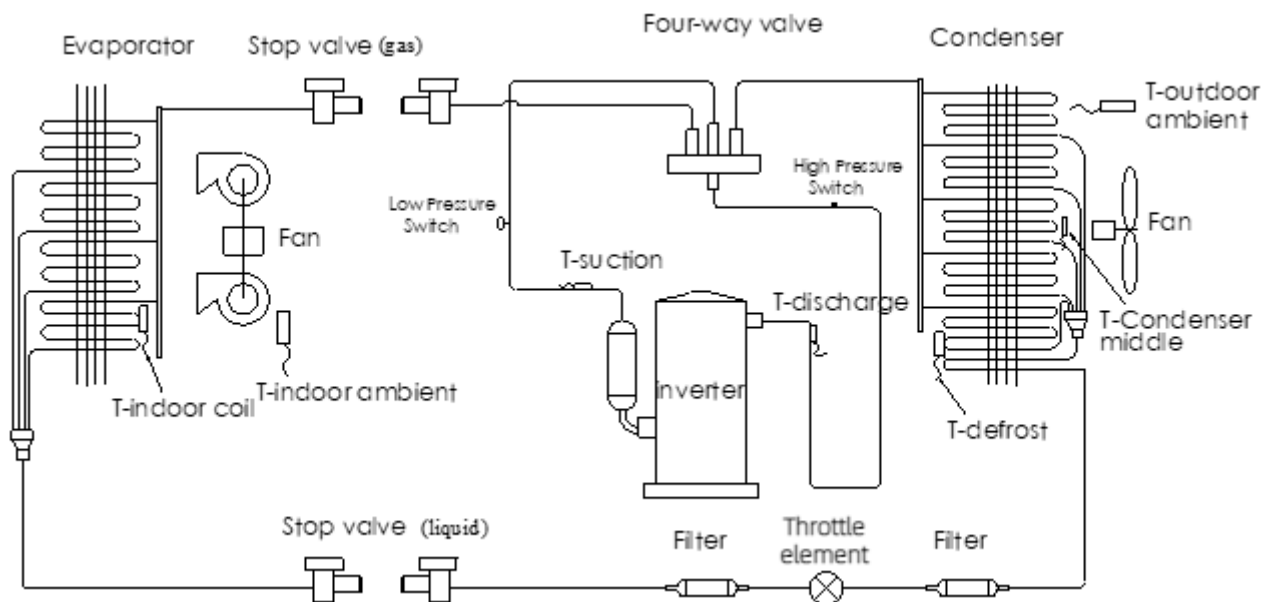
During the refrigerant recovery process, the wind speed is at a high level. The display of the three modes of cooling, heating and dry on the display are all on. The temperature display shows 'LL '. After 1 minute, the set temperature is displayed. After 10 minutes, the display goes out.

Centralized control by the wired controller

One wired controller can be used to control up to 16 indoor units of light commercial products for centralized control and simultaneous on and off.

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 throttling, it becomes a liquid with low temperature and 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.

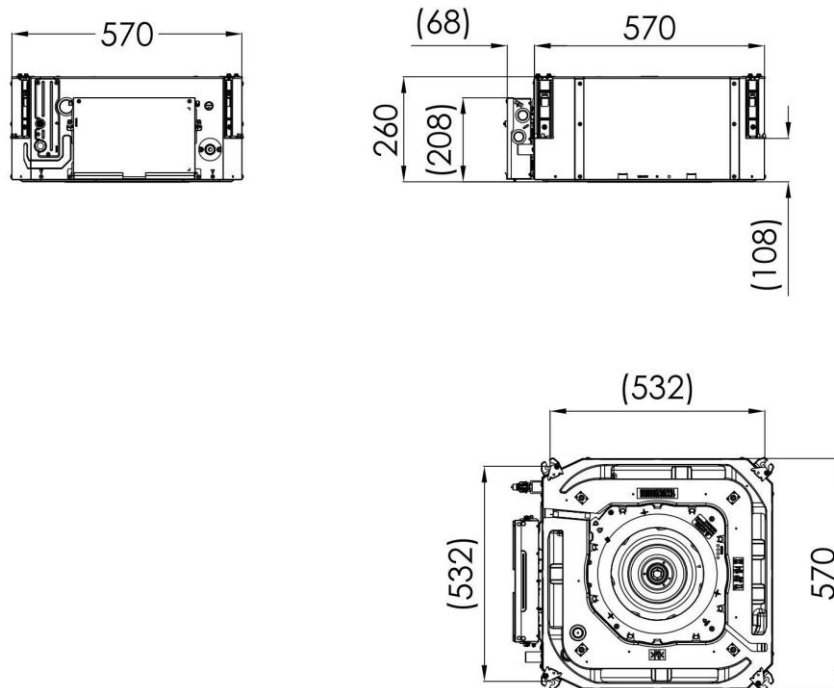


Note: The throttle elements is EXV.

Part4 Dimension

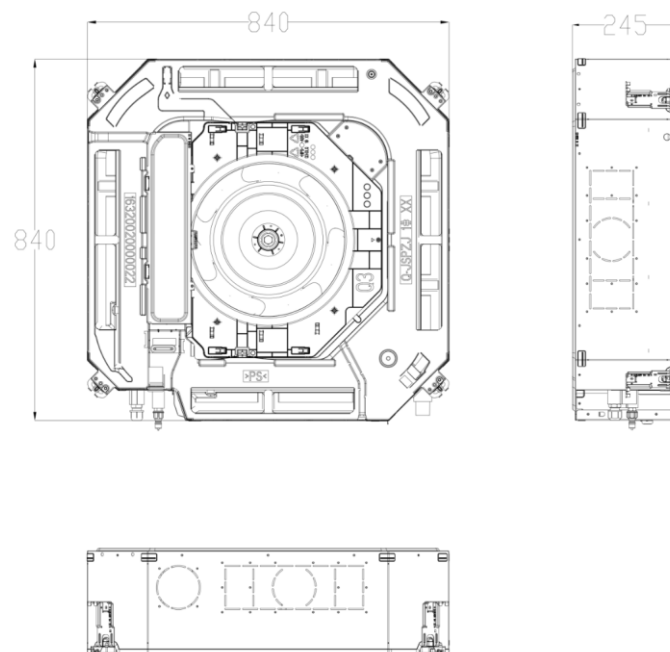
1. Cassette Y

AUCA-H12/4DR3HB2, AUCA-H18/4DR3HB2

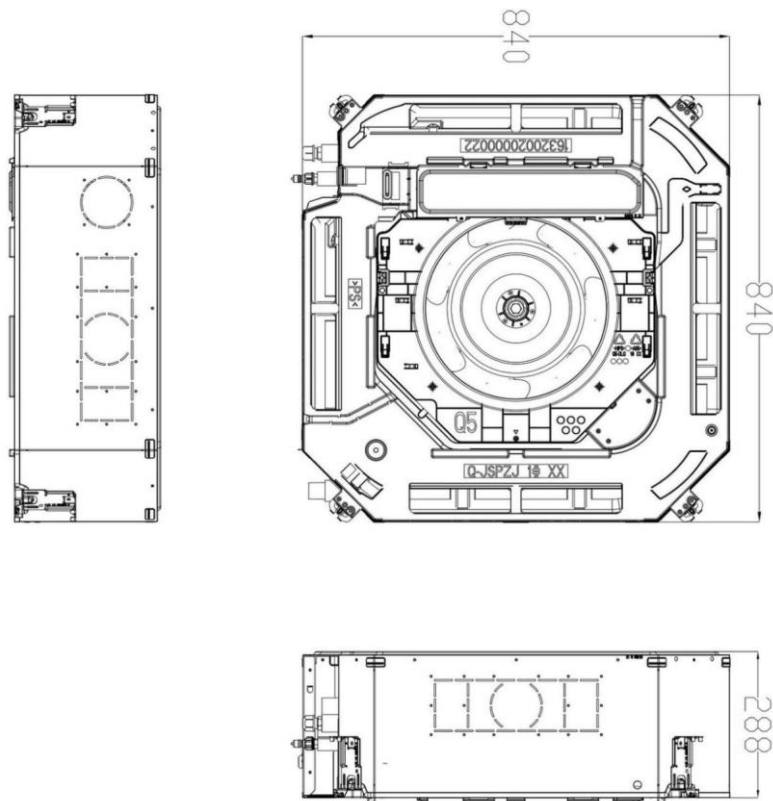


2. Cassette Q

AUCA-H24/4DR3HB2

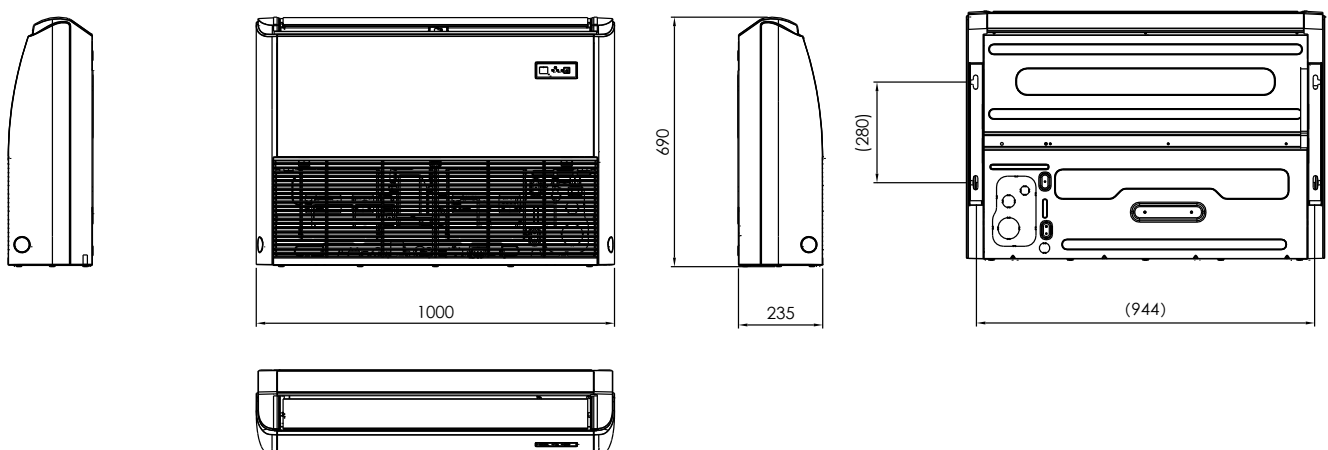


AUCA-H36/5DR3HB2 AUCA-H36/4DR3C4 AUCA-H36/4DR3HB2 AUCA-H42/4DR3HB2
 AUCA-H48/5DR3HB2 AUCA-H60/5DR3HB2

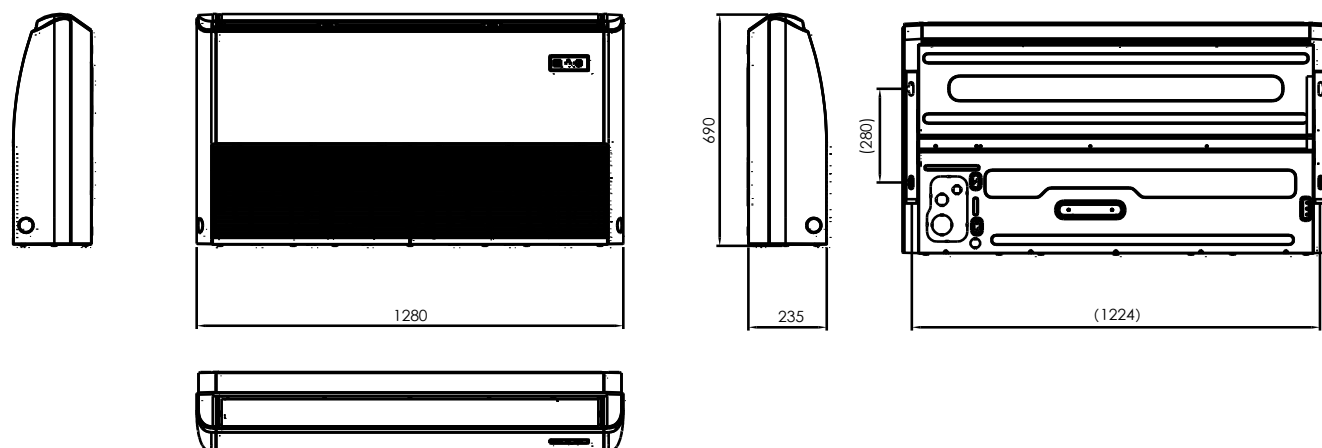


3. Ceiling Floor

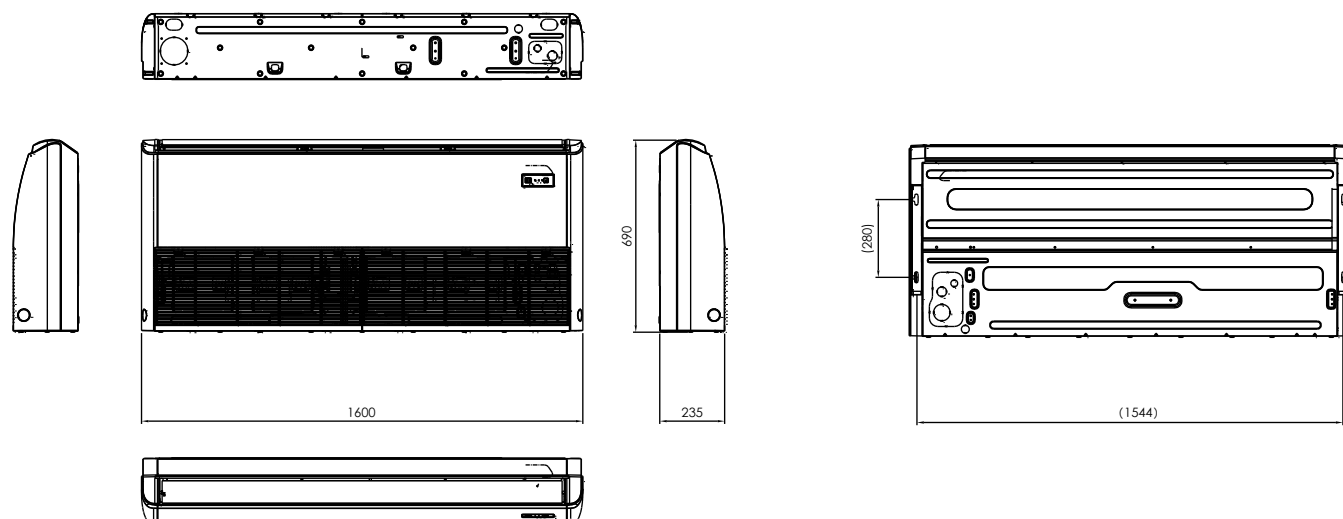
AUCF-H18/4DR3HA2



AUCF-H24/4DR3HA2

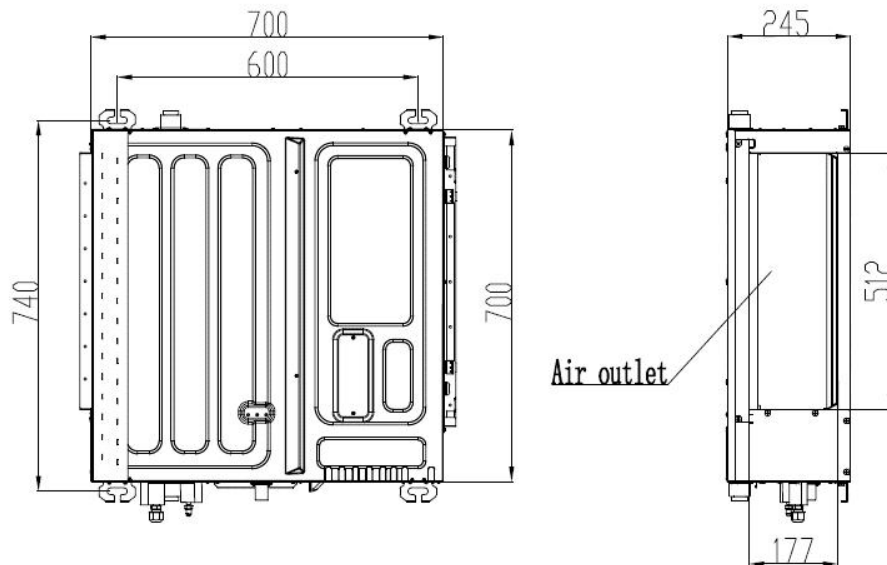


AUCF-H36/4DR3HC2, AUCF-H36/4DR3C4, AUCF-H42/4DR3HC2, AUCF-H48/5DR3HC2, AUCF-H60/5DR3HC2

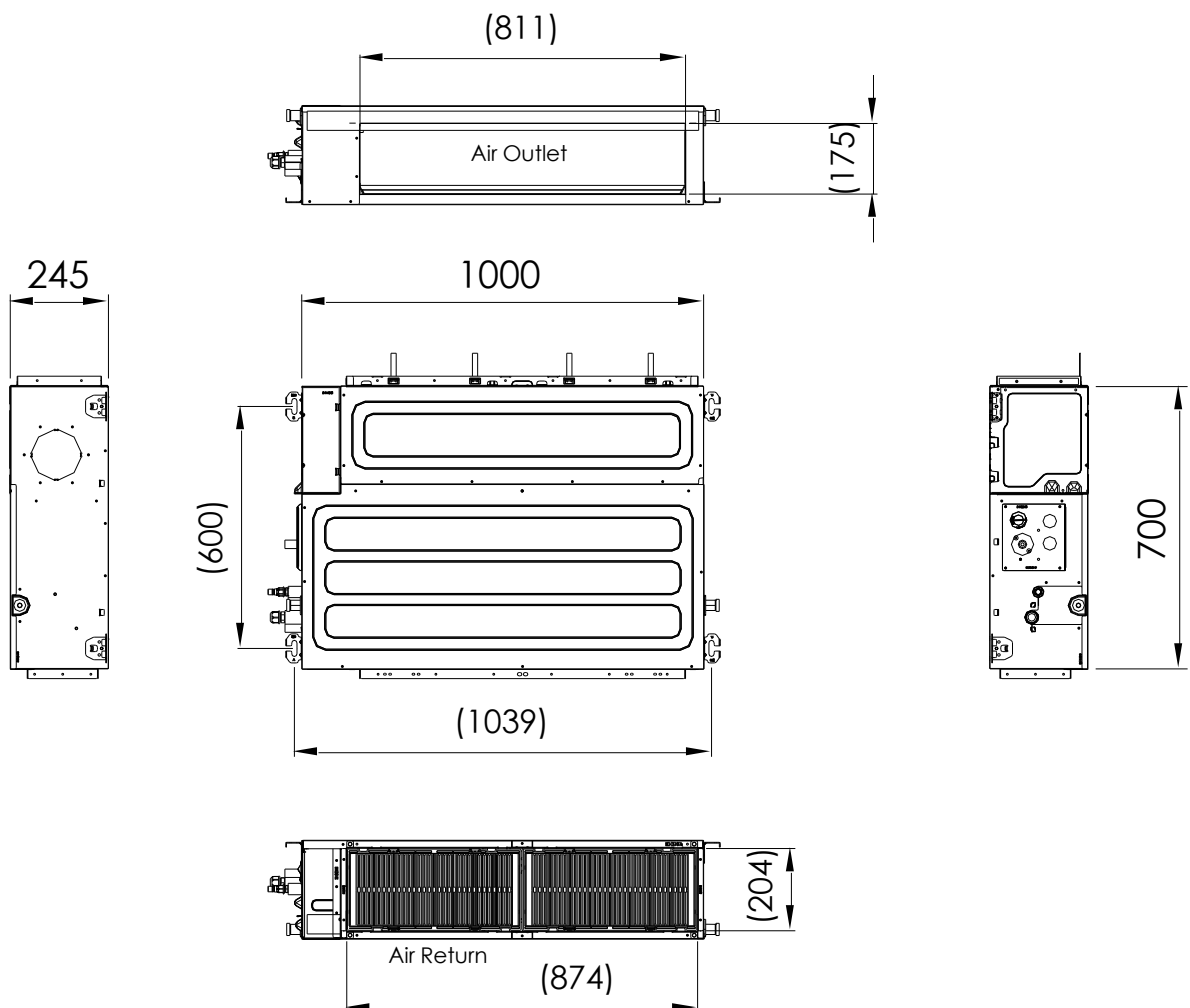


4. Duct

AUMD-H12/4DR3HB2, AUMD-H18/4DR3HB2

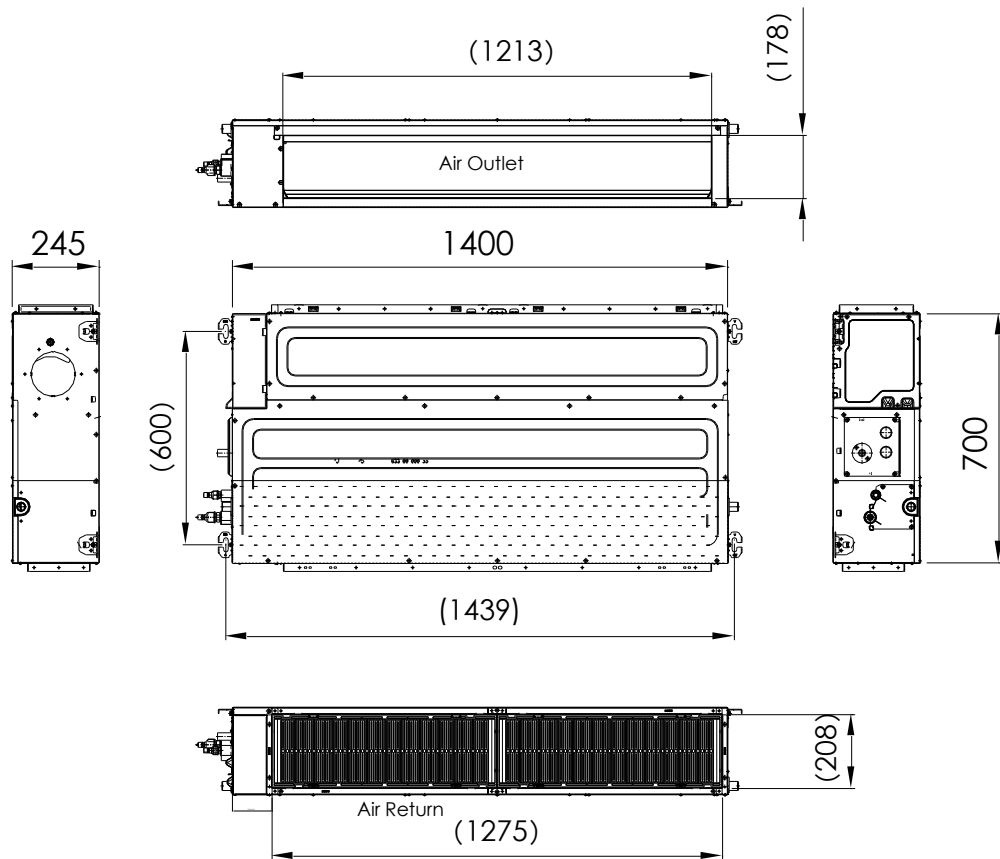


AUMD-H24/4DR3HB2, AUMD-H30/4DR3HC2, **AUMD-H36/5DR3HB2, AUMD-H36/4DR3HC3**



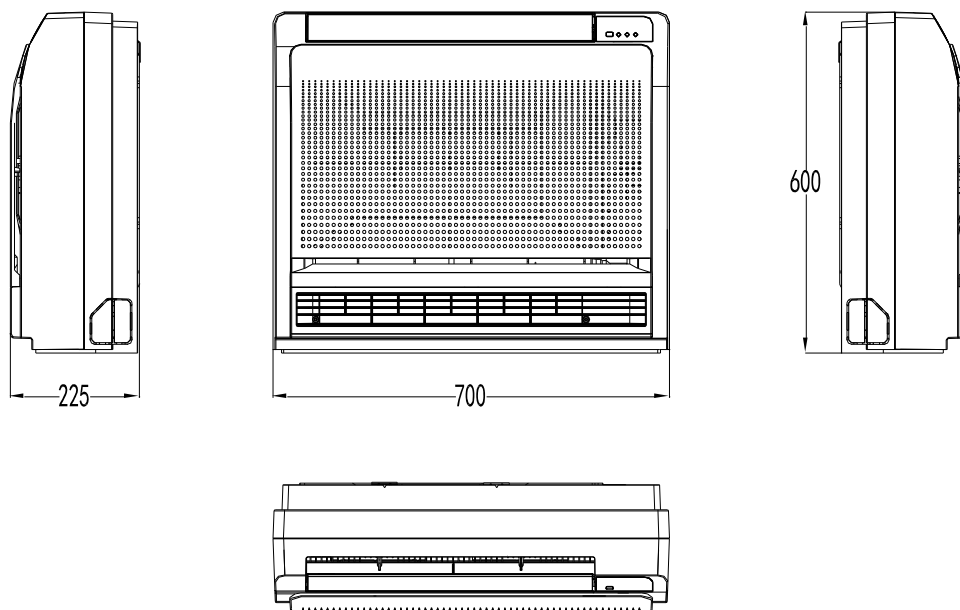
AUMD-H36/4DR3HC2, AUMD-H42/4DR3HC2

AUMD-H48/5DR3HC2, AUMD-H60/5DR3HC2



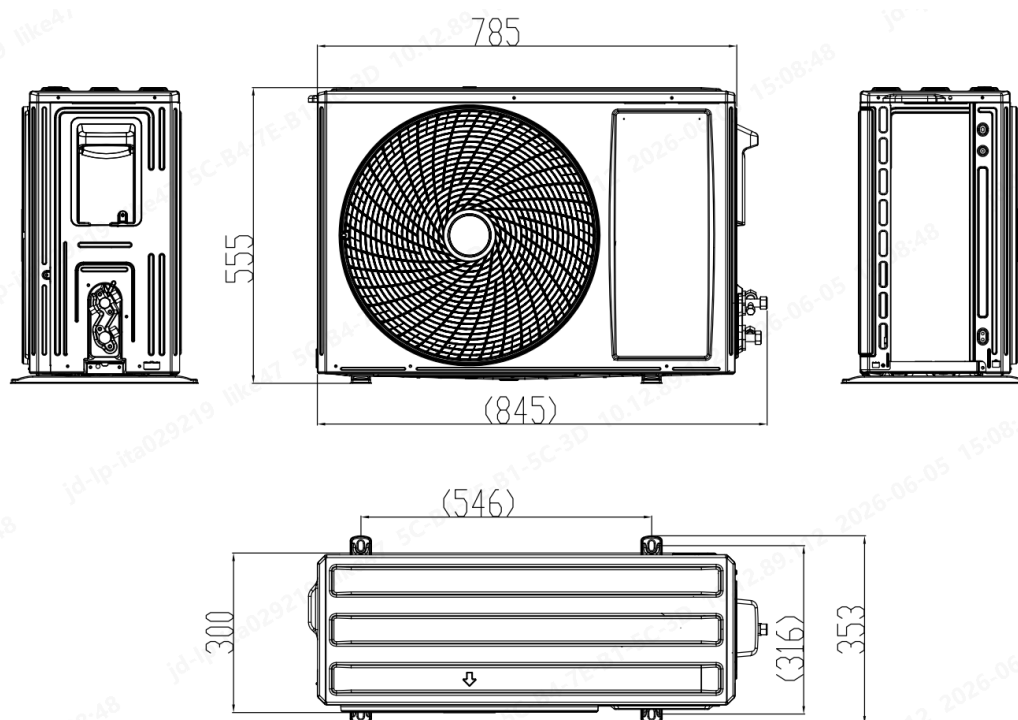
5. Console

AUCO-H12/4DR3HA2, AUCO-H18/4DR3HA2

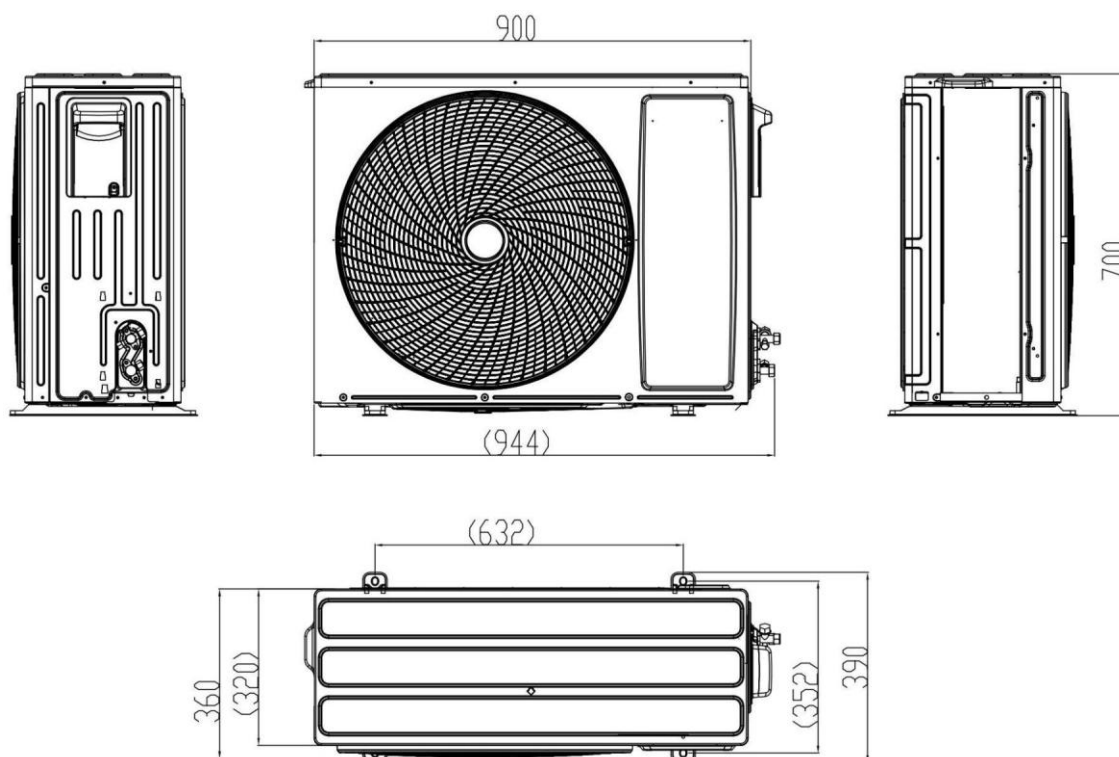


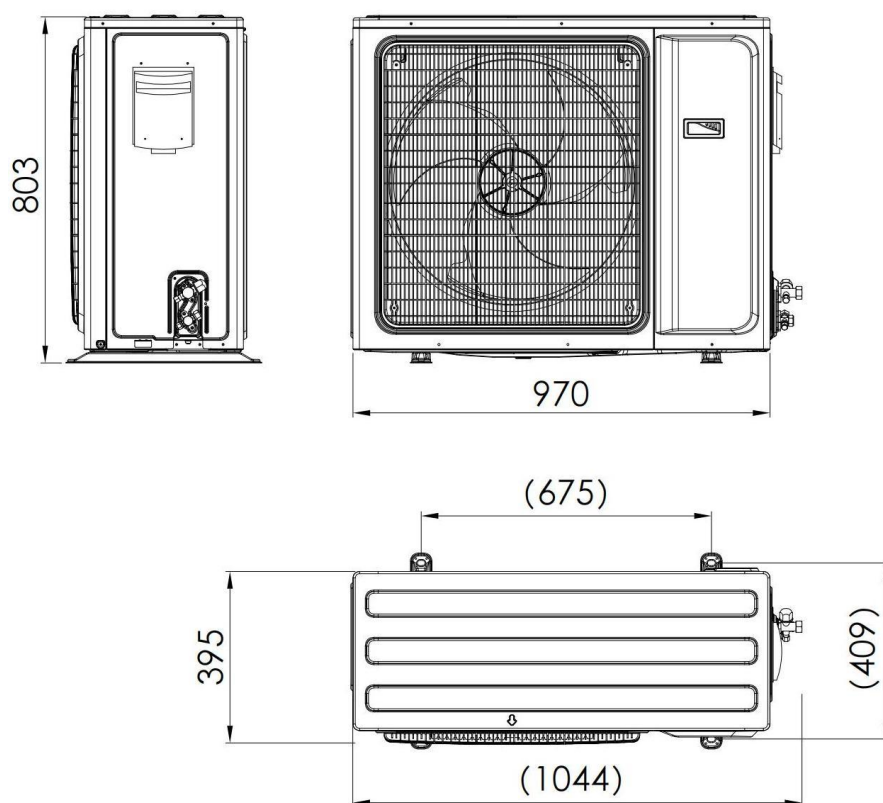
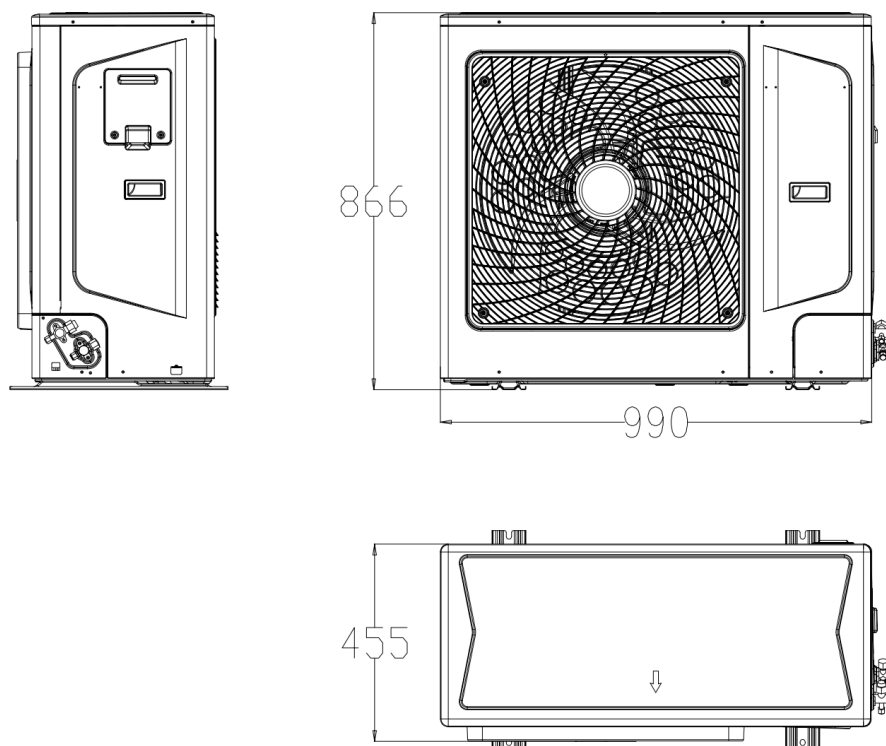
6. Outdoor Unit

6.1 AL-H12/4DR3HC1(U), AL-H18/4DR3HB3(U)

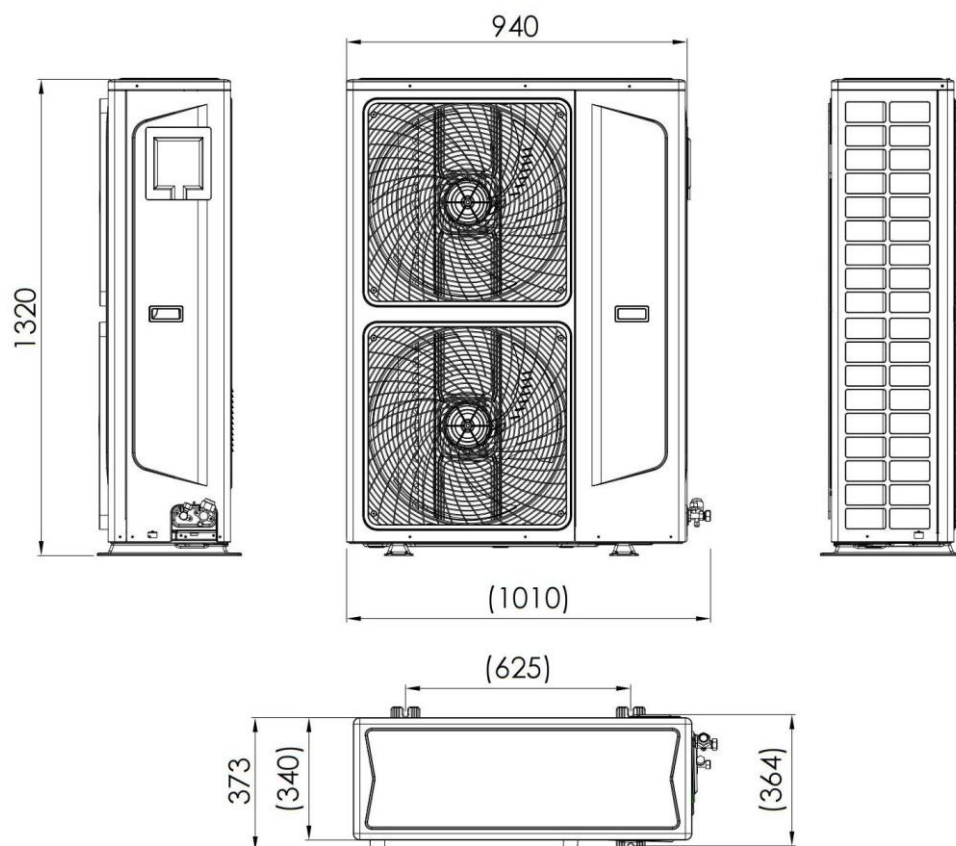


6.2 AL-H24/4DR3HB3(U), AL-H30/4DR3HB3(U)



6.3 AL-H36/4DR3C3(U), AL-H42/4DR3C3(U), AL-H36/5DR3C3(U), AL-H36/4DR3C5(U)**6.4** AL-H48/5DR3C3(U)

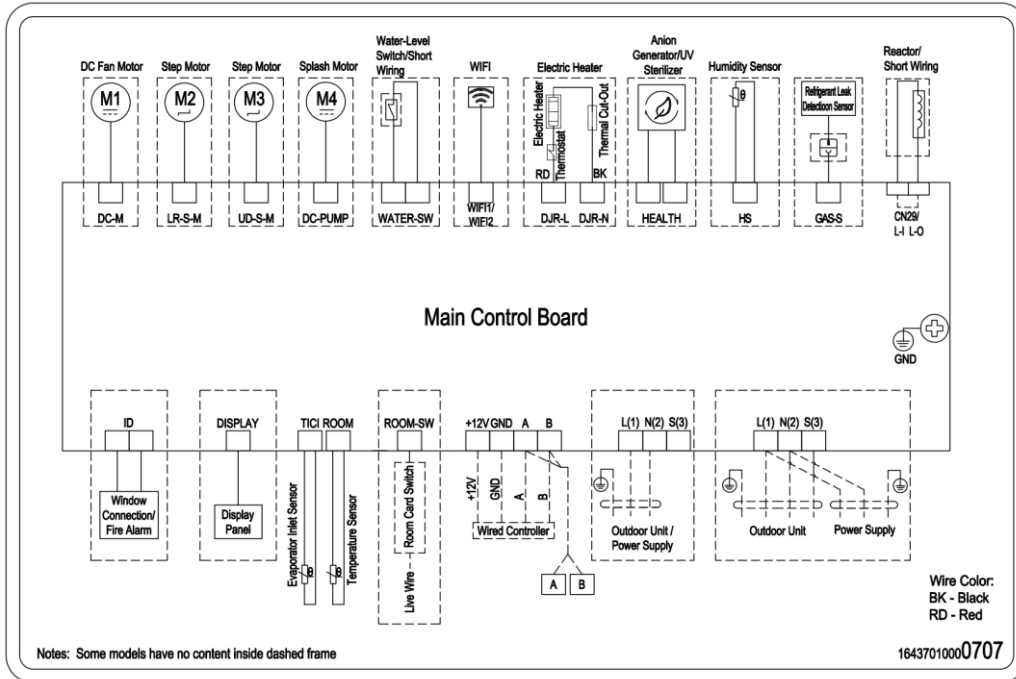
6.5 AL-H60/5DR3C3(U)



Part5 Electrical Principal Diagram

1. Cassette Y

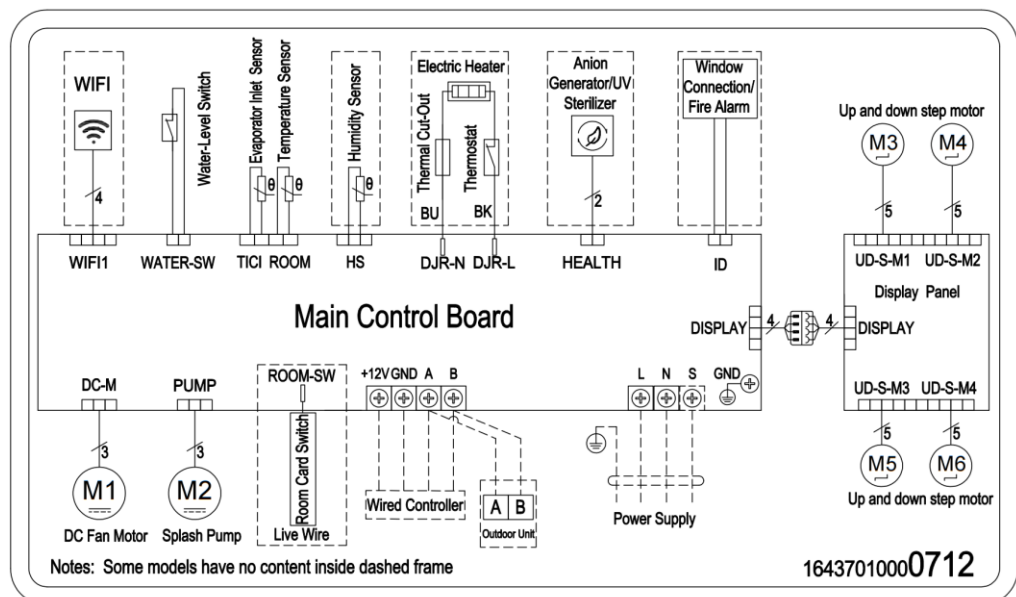
AUCA-H12/4DR3HB2, AUCA-H18/4DR3HB2



2. Cassette Q

AUCA-H24/4DR3HB2, AUCA-H36/4DR3HB2, AUCA-H36/5DR3HB2, AUCA-H36/4DR3C4

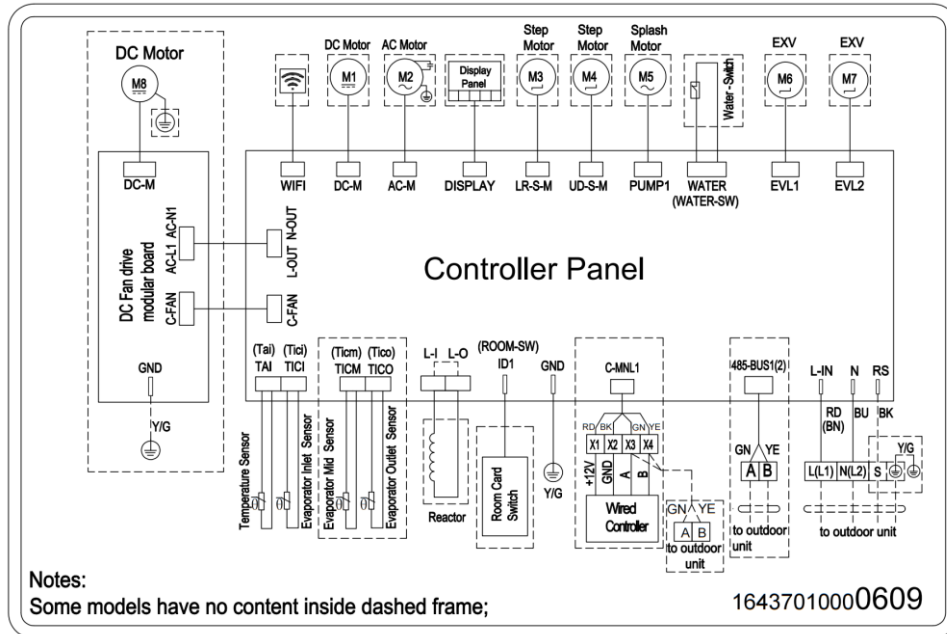
AUCA-H42/4DR3HB2, AUCA-H48/5DR3HB2, AUCA-H60/5DR3HB2



3. Ceiling Floor

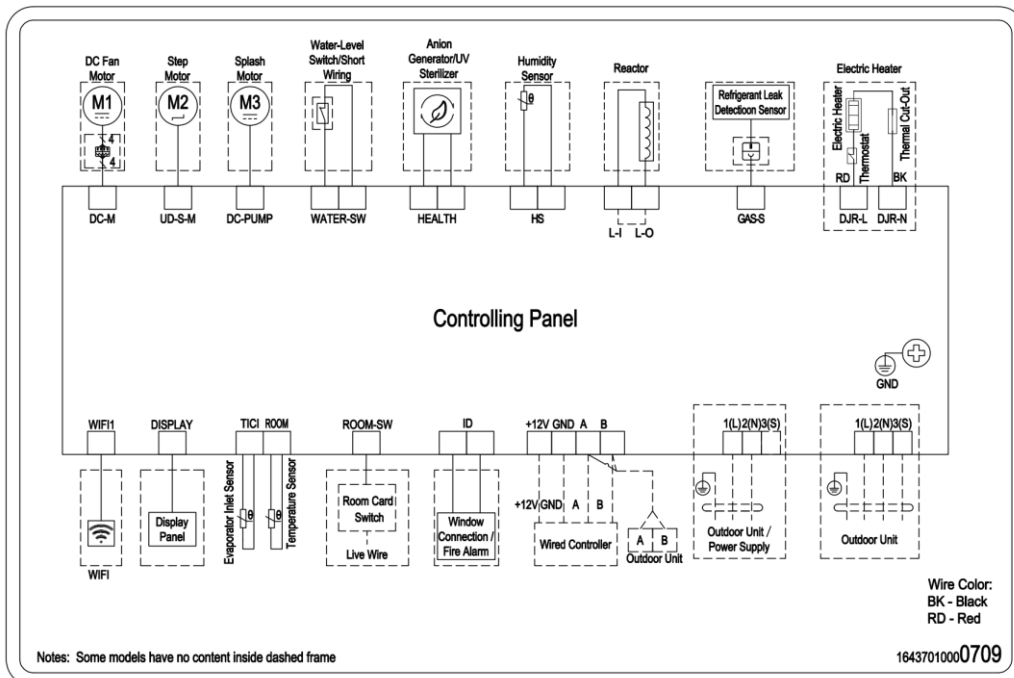
AUCF-H18/4DR3HA2, AUCF-H24/4DR3HA2, AUCF-H36/4DR3HC2, **AUCF-H36/4DR3C4**

AUCF-H42/4DR3HC2, AUCF-H48/5DR3HC2, AUCF-H60/5DR3HC2



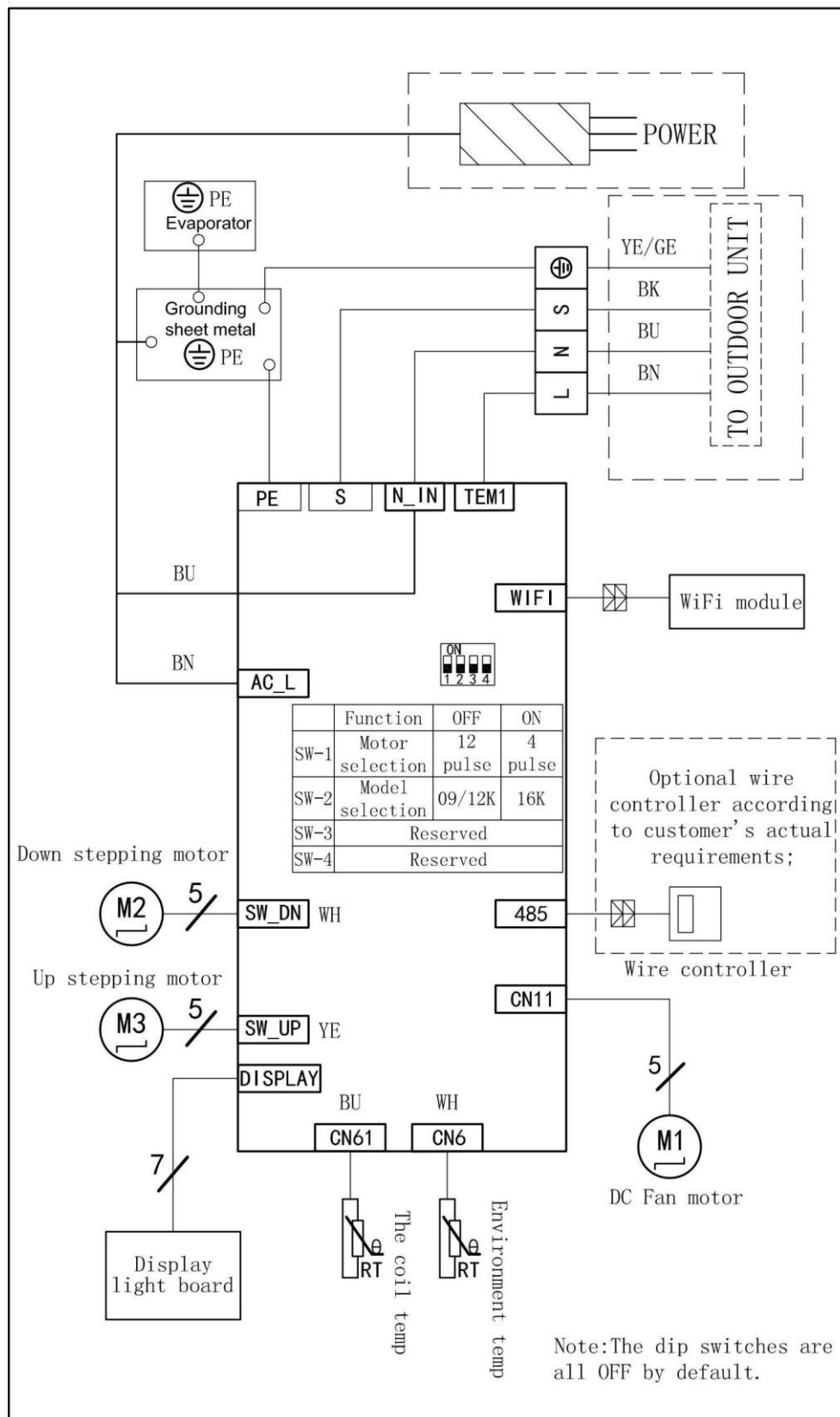
4. Duct

AUMD-H12/4DR3HB2, AUMD-H18/4DR3HB2, AUMD-H24/4DR3HB2, AUMD-H30/4DR3HC2
AUMD-H36/5DR3HB2, AUMD-H36/4DR3HC2, AUMD-H36/4DR3HC2, AUMD-H42/4DR3HC2,
AUMD-H48/5DR3HC2, AUMD-H60/5DR3HC2



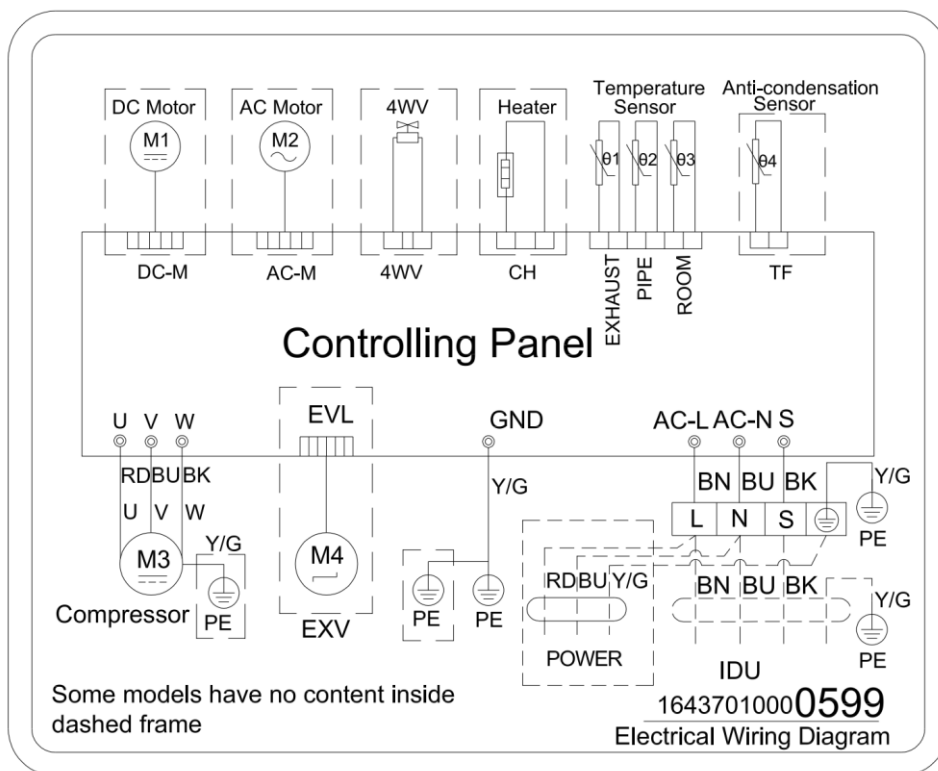
5. Console

AUCO-H12/4DR3HA2, AUCO-H18/4DR3HA2

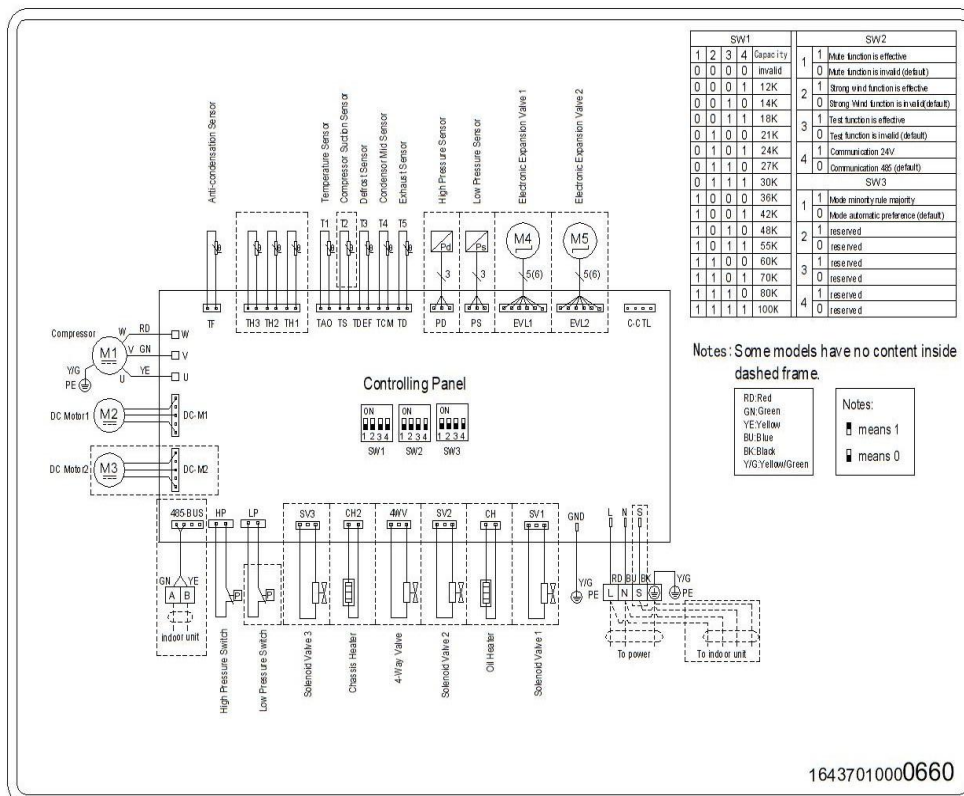


6. Outdoor Unit

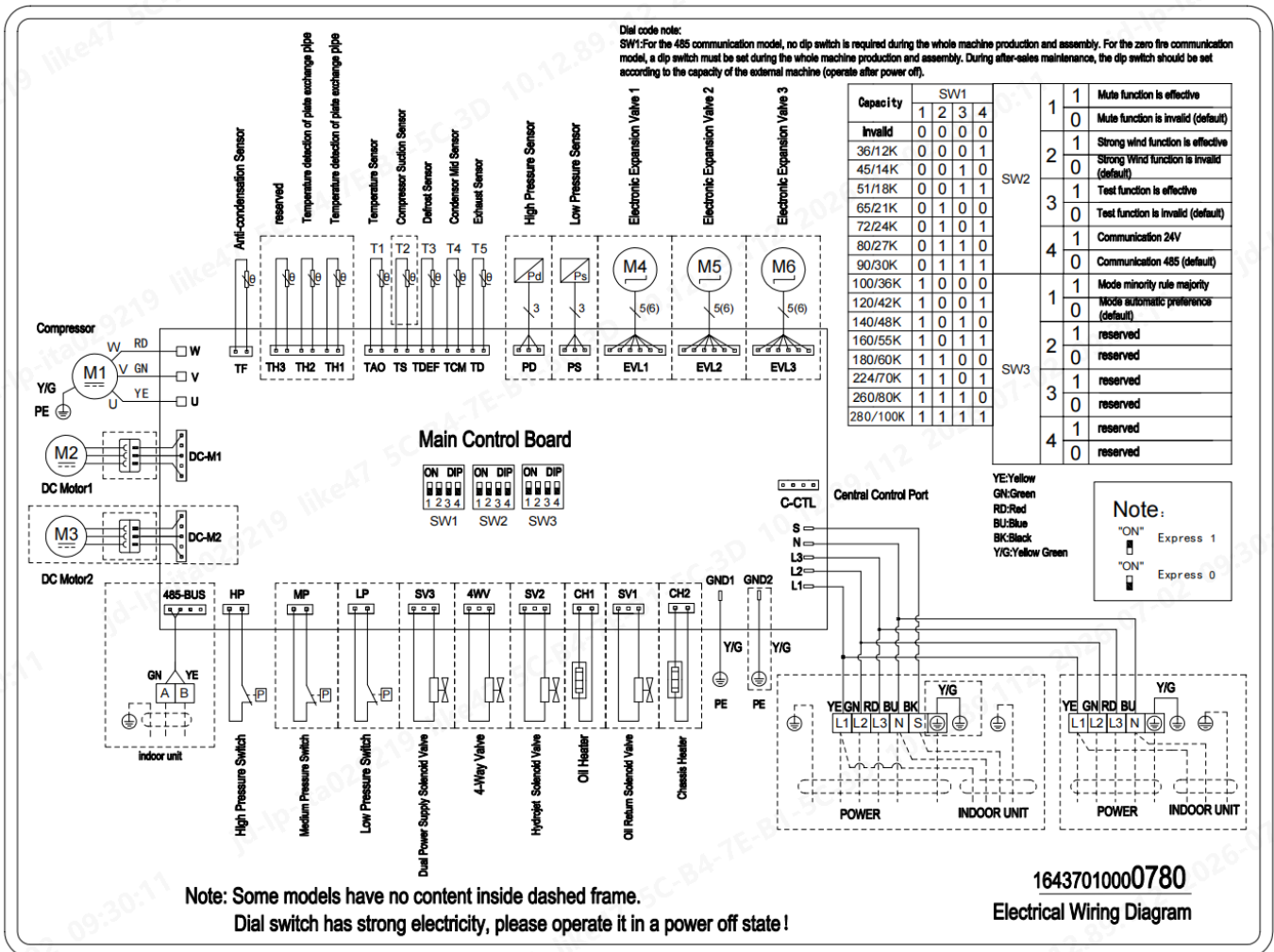
AL-H12/4DR3HC1(U), AL-H18/4DR3HB3(U), AL-H24/4DR3HB3(U), AL-H30/4DR3HB3(U)



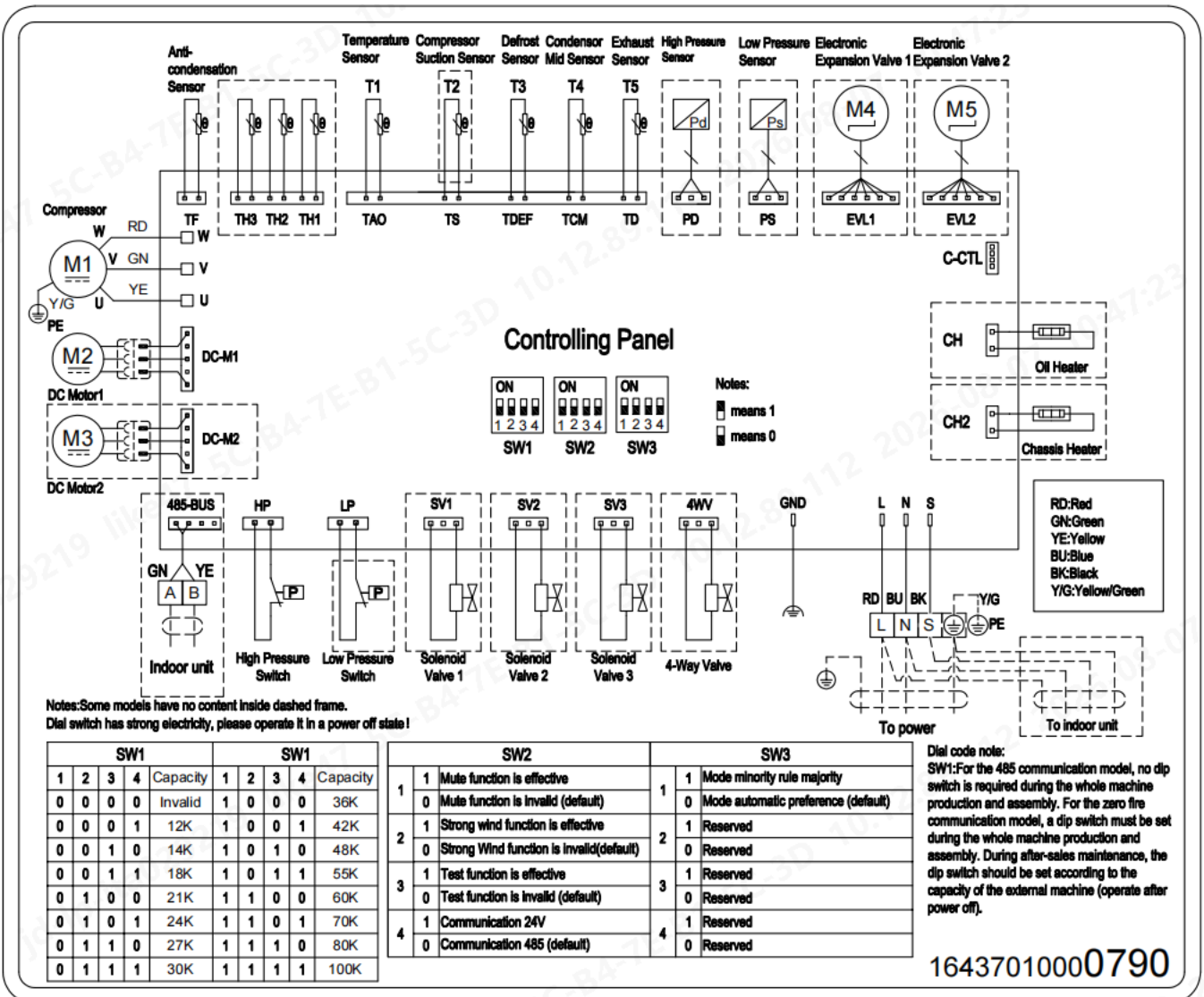
AL-H36/4DR3C3(U), AL-H42/4DR3C3(U)



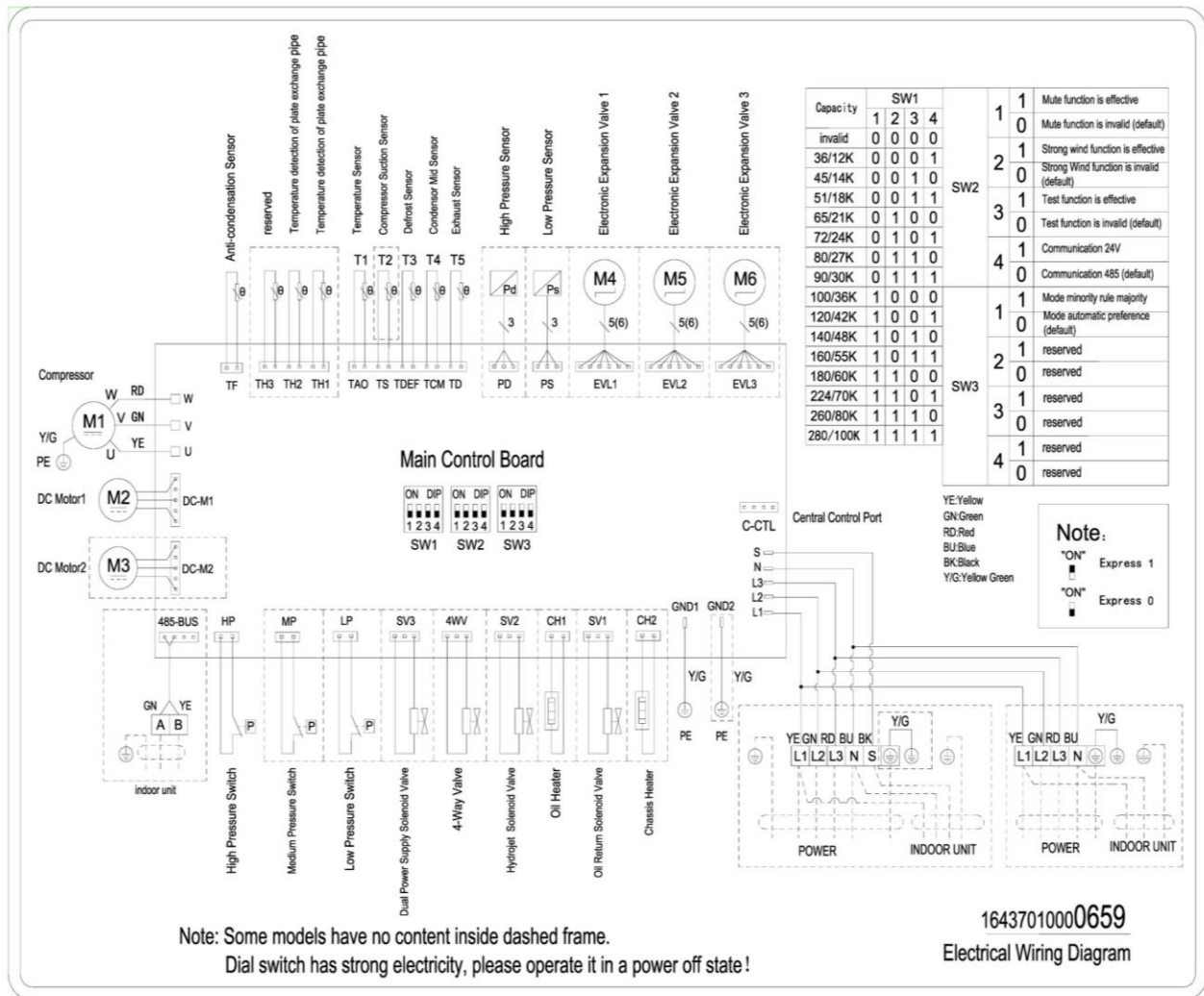
AL-H36/5DR3C3(U)



AL-H36/4DR3C5(U)



AL-H48/5DR3C3(U), AL-H60/5DR3C3(U)



Part6 Capacity Amendment

1. Operation range

Cooling capacity (K Btu/h)		12	18	24	30	36	36	42	36	48	60
Power supply		220-240V/50Hz							380-415/50Hz		
Ambient temperature	Cooling	-20~52℃									
	Heating	-20~24℃									

2. Capacity amendment of different ambient temperature

Please scan the QR code below to check and download the cooling/heating capacity and input power table for different indoor and outdoor temperatures.



Cassette



Duct



Ceiling Floor



Console

3. Long piping length

Cooling capacity (Btu/h)		12K	18K	24K	30K	36K	36K	42K	36K	48K	60K
Power supply		220-240V/50Hz							380-415/50Hz		
Connection Pipe(mm)	Liquid pipe	Φ6.35	Φ6.35	Φ9.52					Φ9.52		
	Gas pipe	Φ9.52	Φ12.7	Φ15.88					Φ15.88		
Max. connecting liquid pipe (m)		Φ7.94	Φ7.94	Φ9.52					Φ12.7		
Max. connecting gas pipe (m)		Φ15.88	Φ15.88	Φ19.05					Φ19.05		
Max. piping length(m)		25	30	50		75					
Max. piping height(m)		15	20	25		30					
Max. bend quantity		3	5	8						10	
Charge additional refrigerant (kg/m)		0.03		0.05							

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.

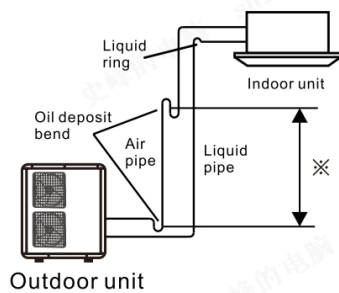
4. Oil trap

Different height situation of IDU and ODU:

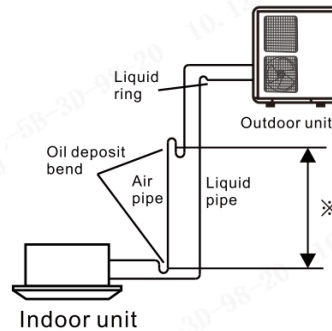
① Vertical pipe height difference < 6m: one oil trap should be installed on the gas pipe. When excessive pipe length: oil trap should be installed on the gas pipe every 10m.

② Vertical pipe height difference > 6m: see as below picture.

When the installation position of indoor unit is higher than that of the outdoor unit.



When the installation position of indoor unit is lower than that of the outdoor unit.



For 12K to 30K, ※ indicates 6m; for 36 to 60K, ※ indicates 10m

Same height situation of IDU and ODU:

If the horizontal connecting pipe length > 10m: oil trap should be installed on the gas pipe every 10m.

Note: For reference only. Adjust based on the site conditions. Oil trap bend radius: 1.5-2 times of pipe diameter.

5. Equivalent Pipe length conversion

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

Bend and Oil Trap Conversion table

Type Pipe Dia.(mm)	Bend(m)	Oil Trap(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 $L = \text{Actual Pipe length } L + \text{Bend Quantity} \times \text{Equivalent pipe bend length} + \text{Oil Trap Quantity} \times \text{Equivalent Oil Trap length}$

Sample:

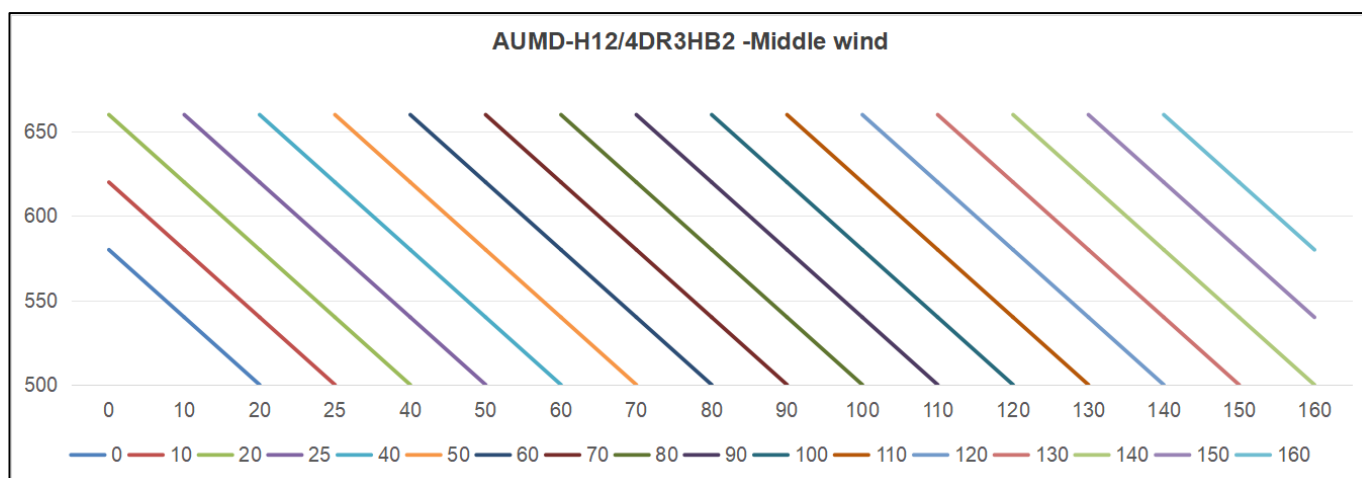
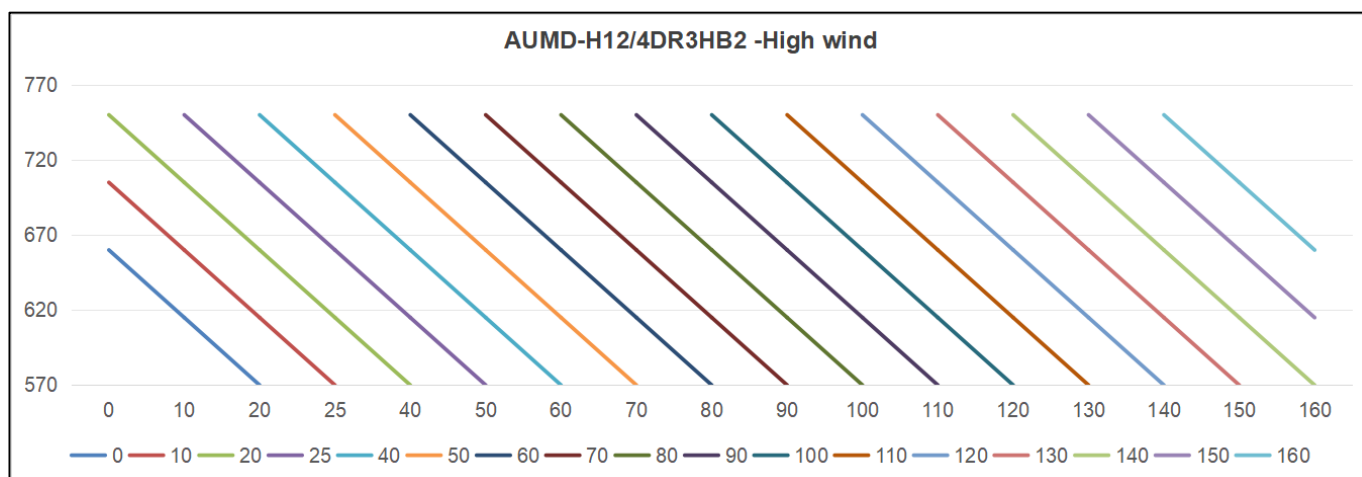
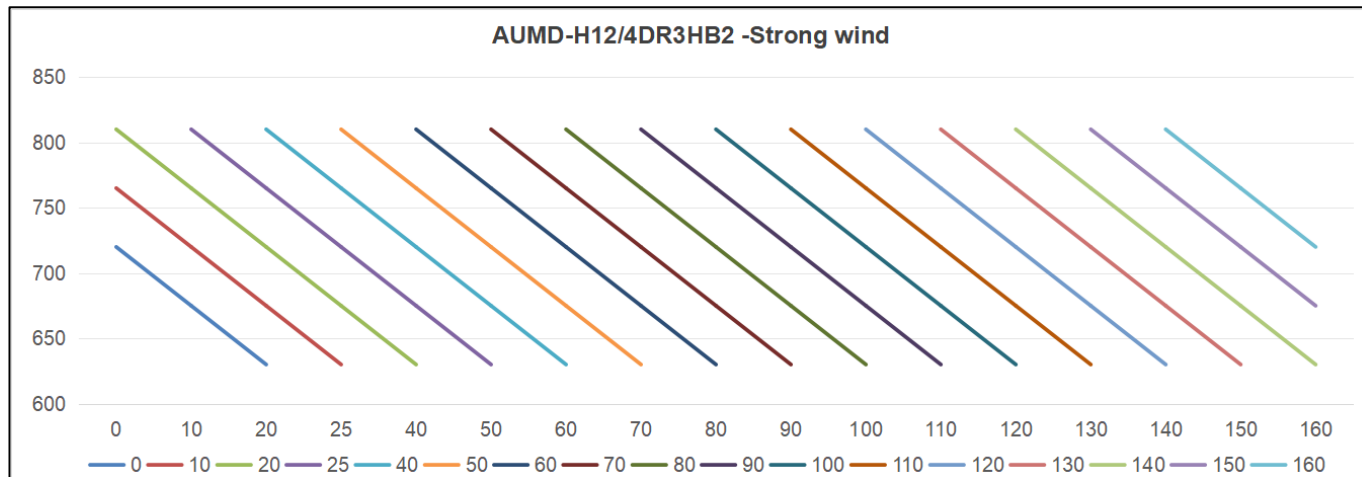
ALCA-H42/5 Actual Pipe length is 25meters, Gas pipe diameter is 15.88mm. If there's 5 bends and 2 oil traps during the installation, then the equivalent pipe length should be:

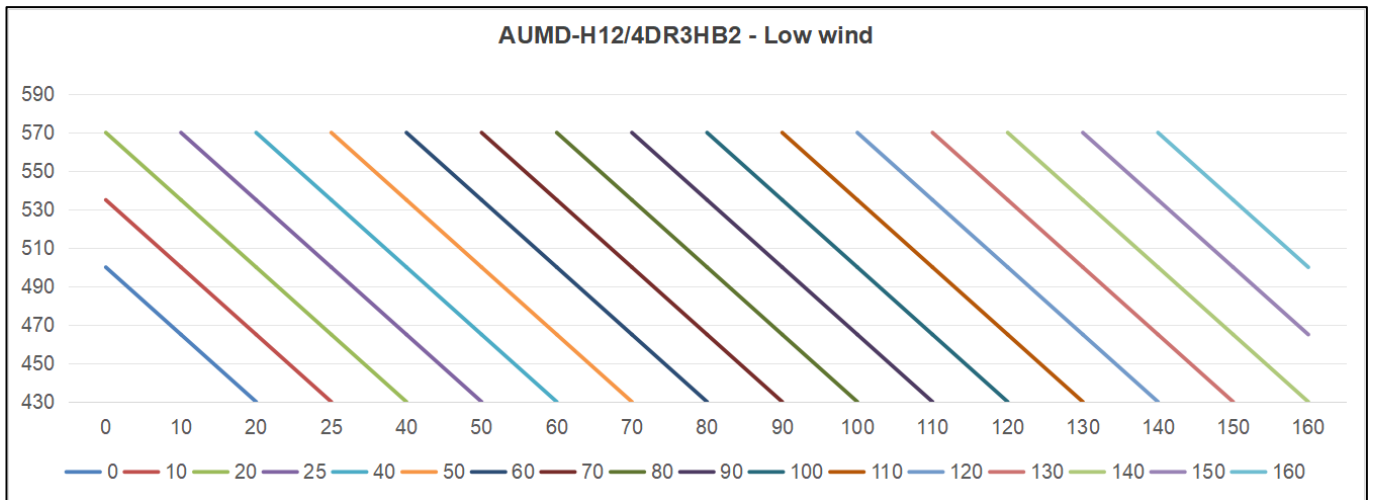
$$L = 25 + 0.25 \times 5 + 2.0 \times 2 = 30.25(\text{m})$$

Part7 Static pressure curve

1. 12K

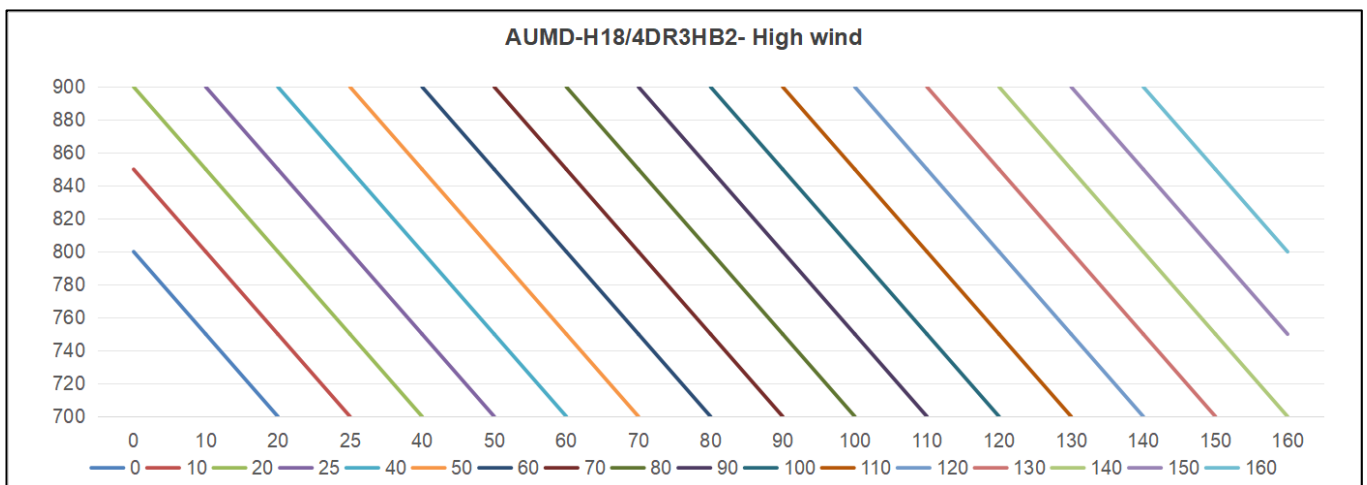
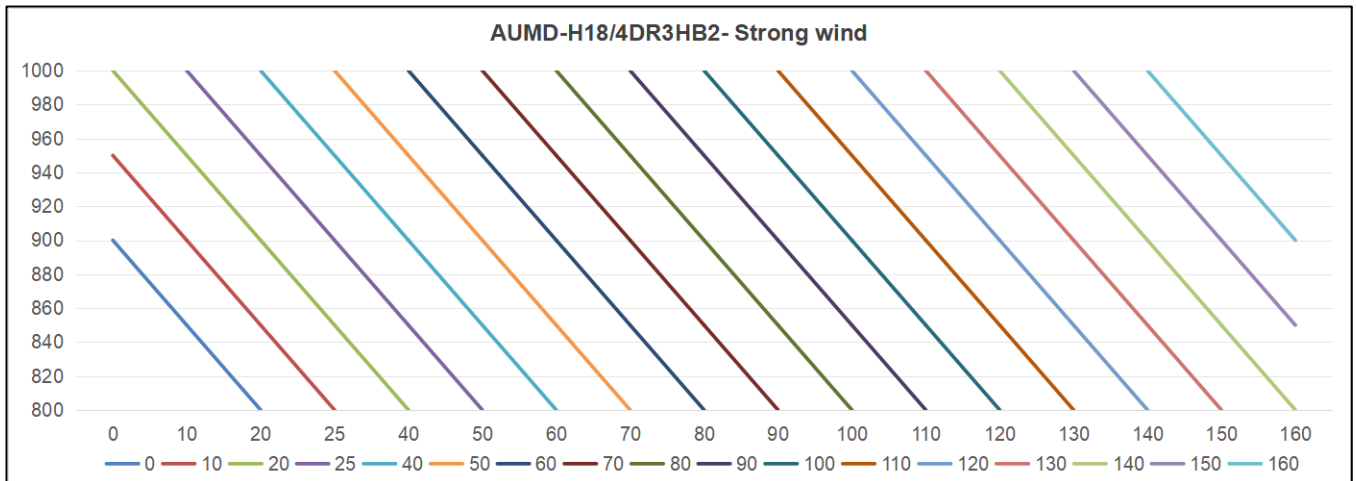
AUMD-H12/4DR3HB2

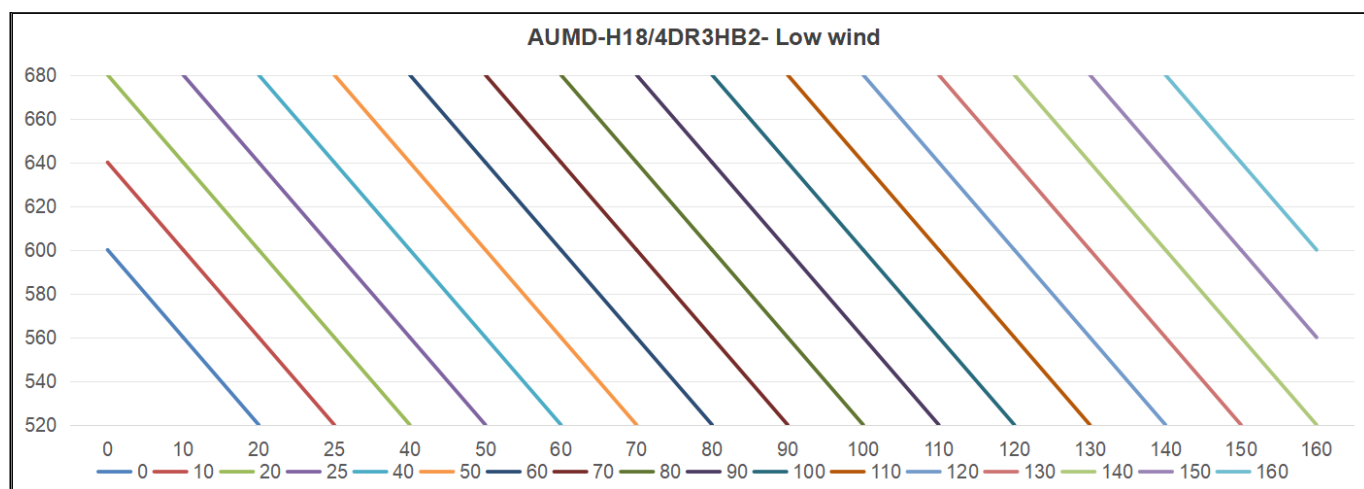
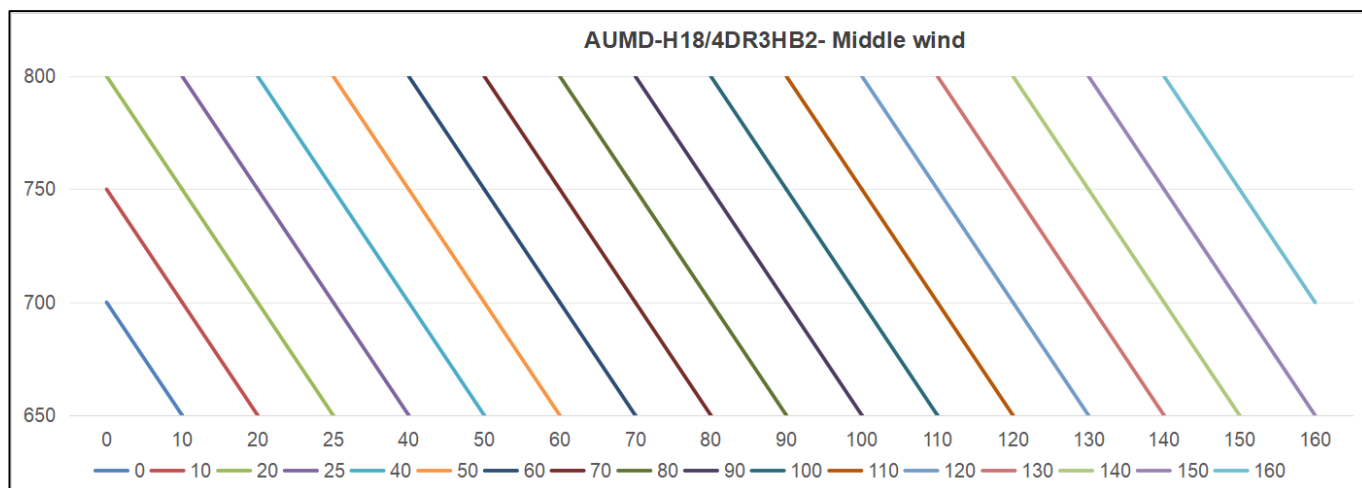




2. 18K

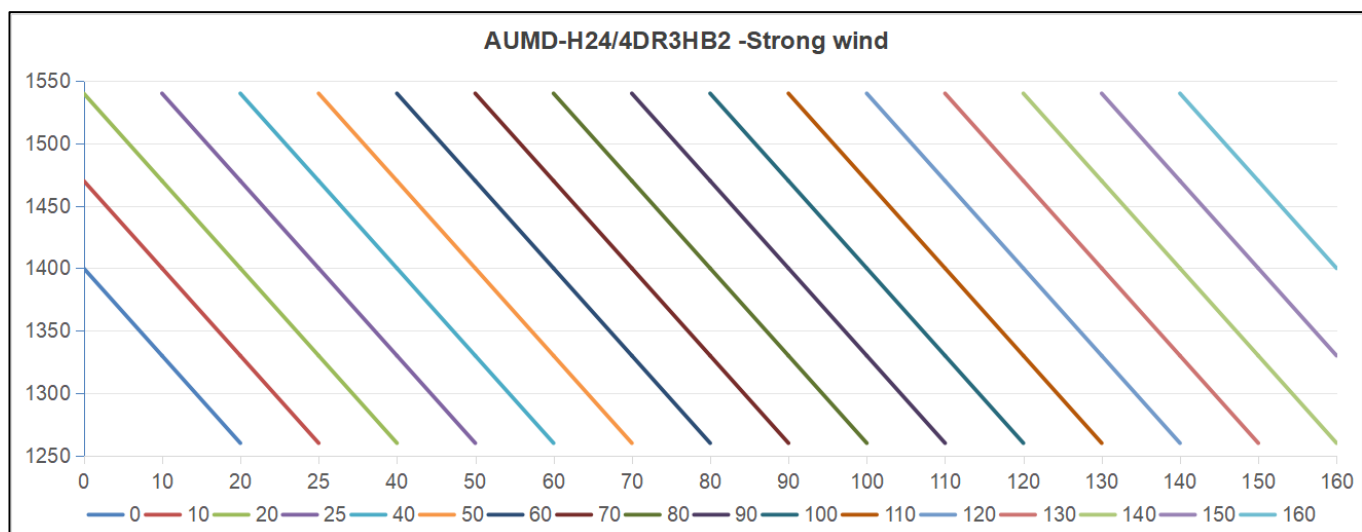
AUMD-H18/4DR3HB2

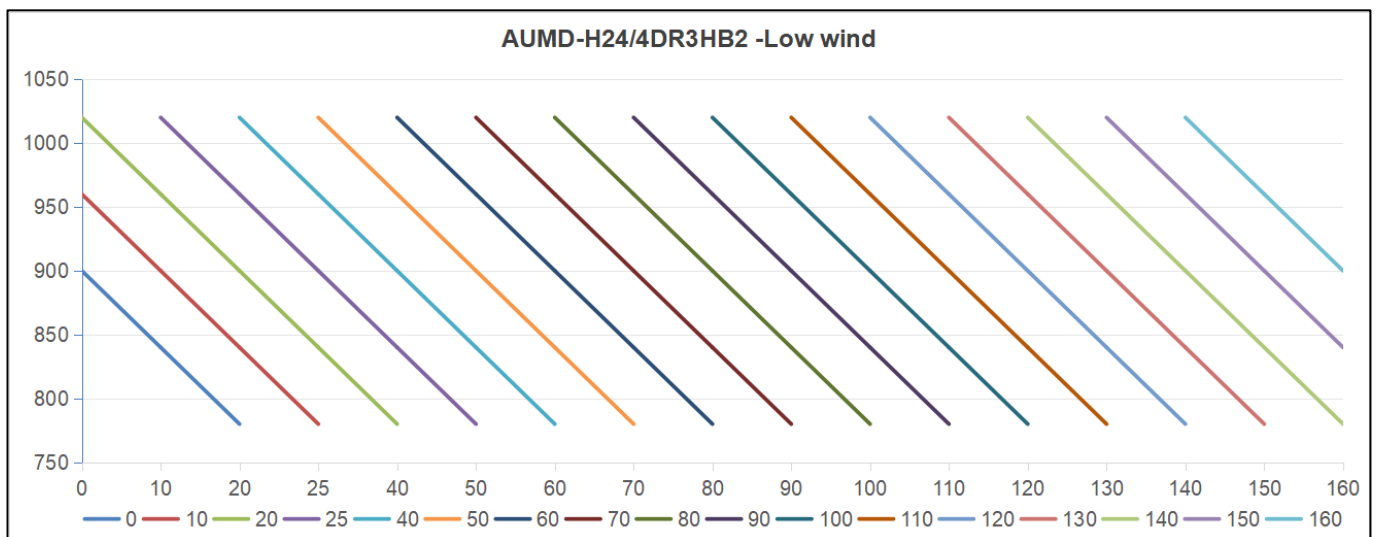
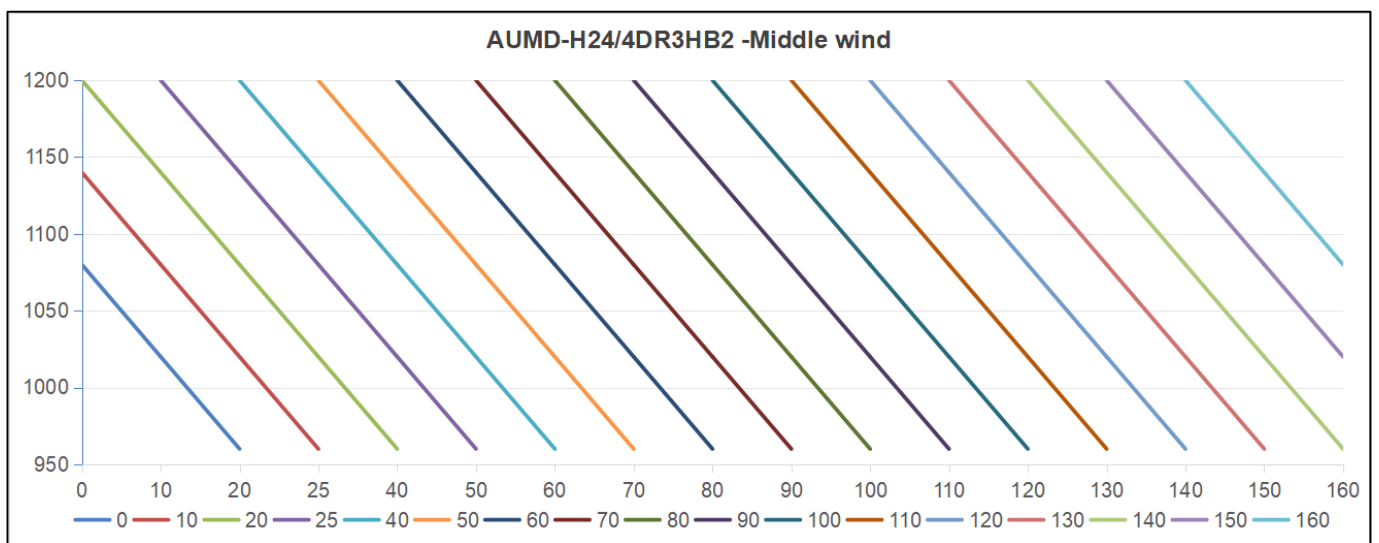
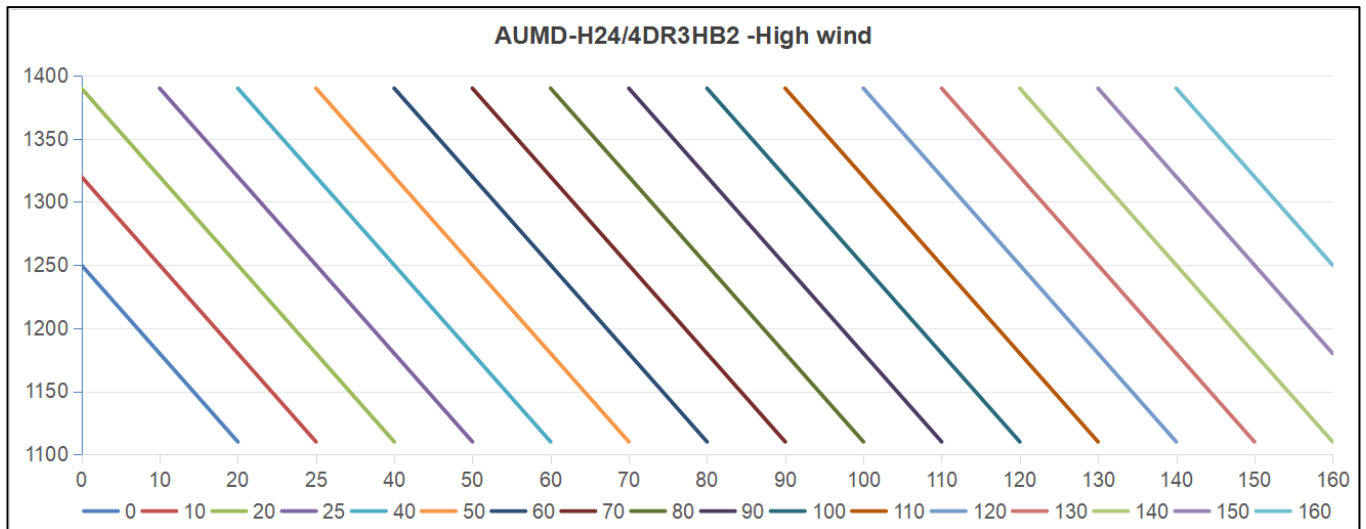




3. 24K

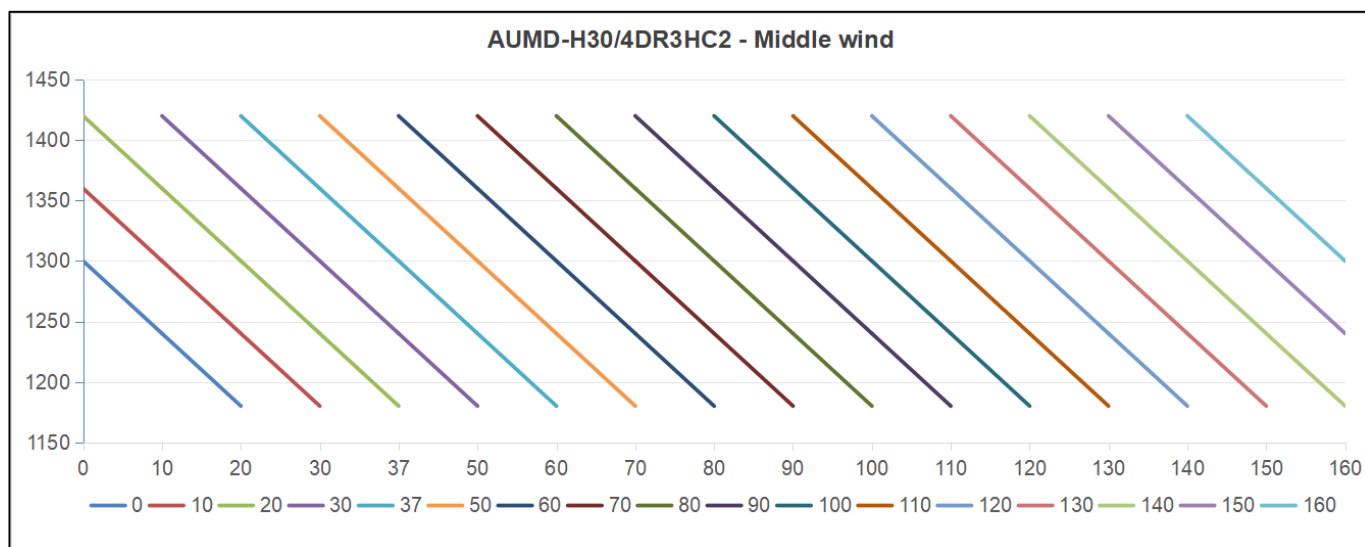
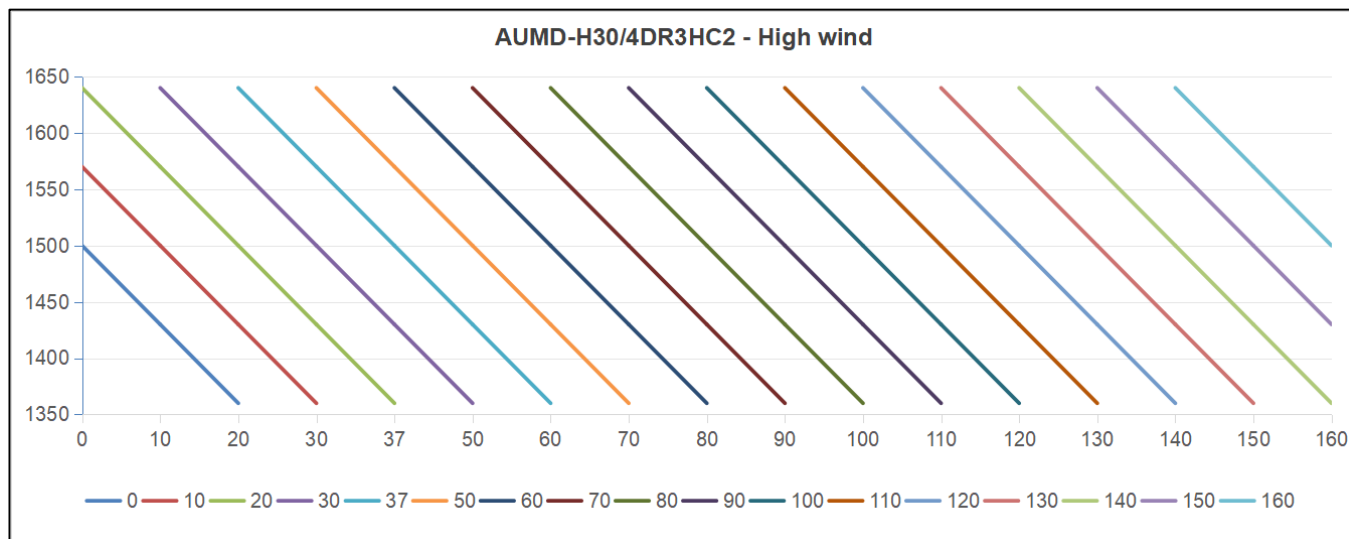
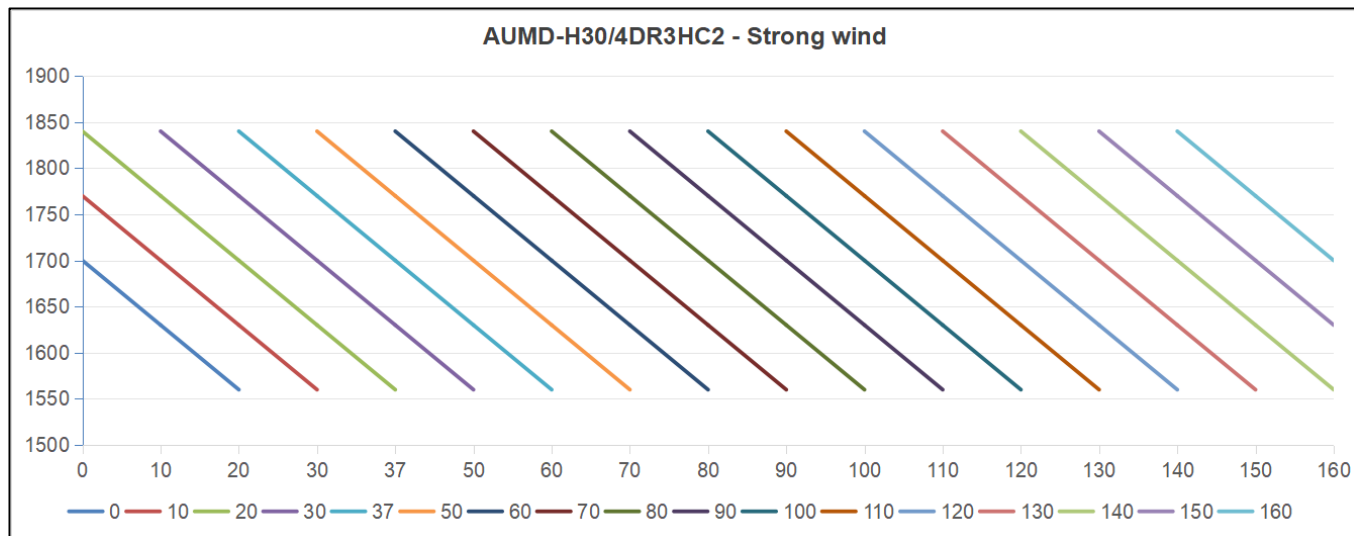
AUMD-H24/4DR3HB2

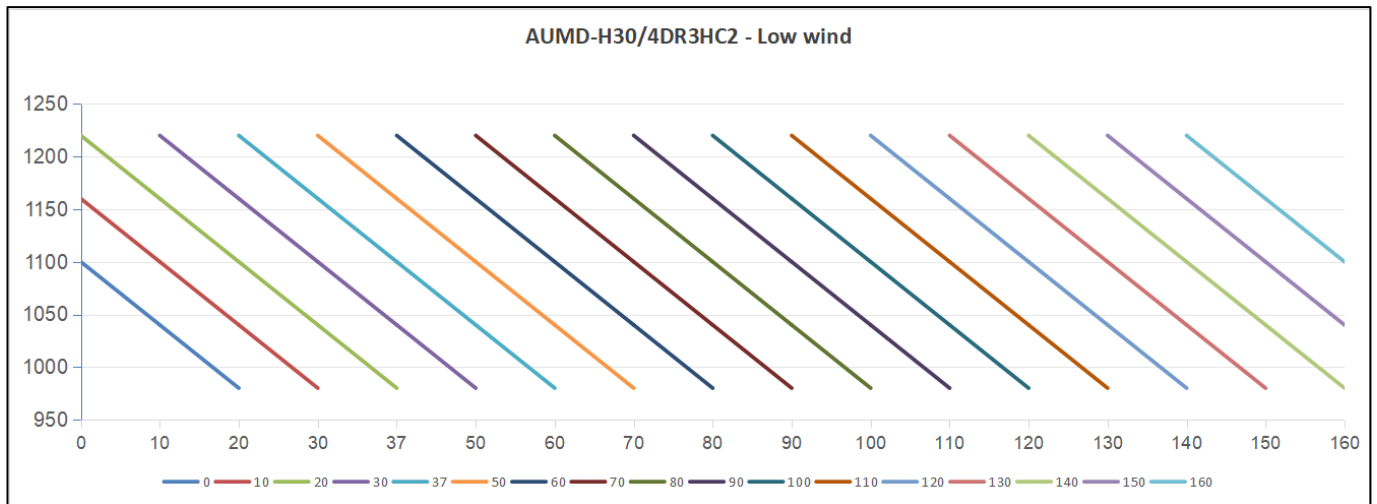




4. 30K

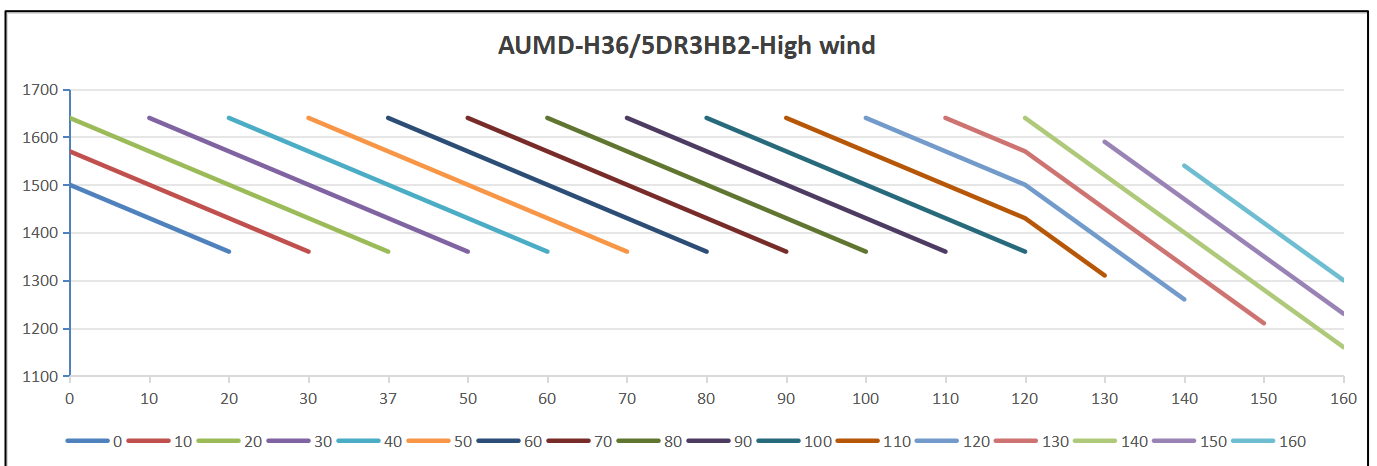
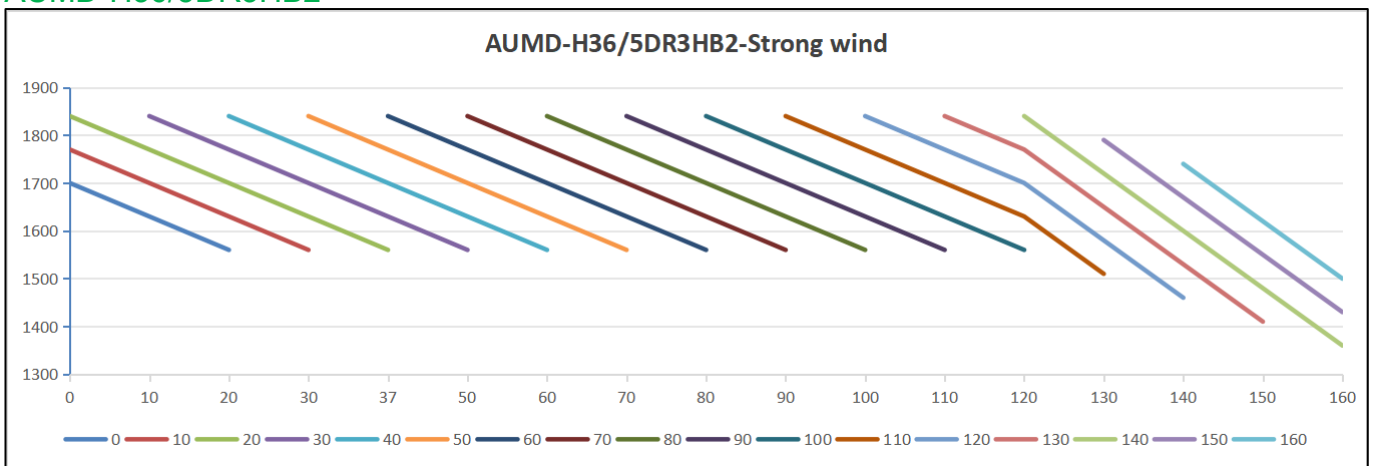
AUMD-H30/4DR3HC2

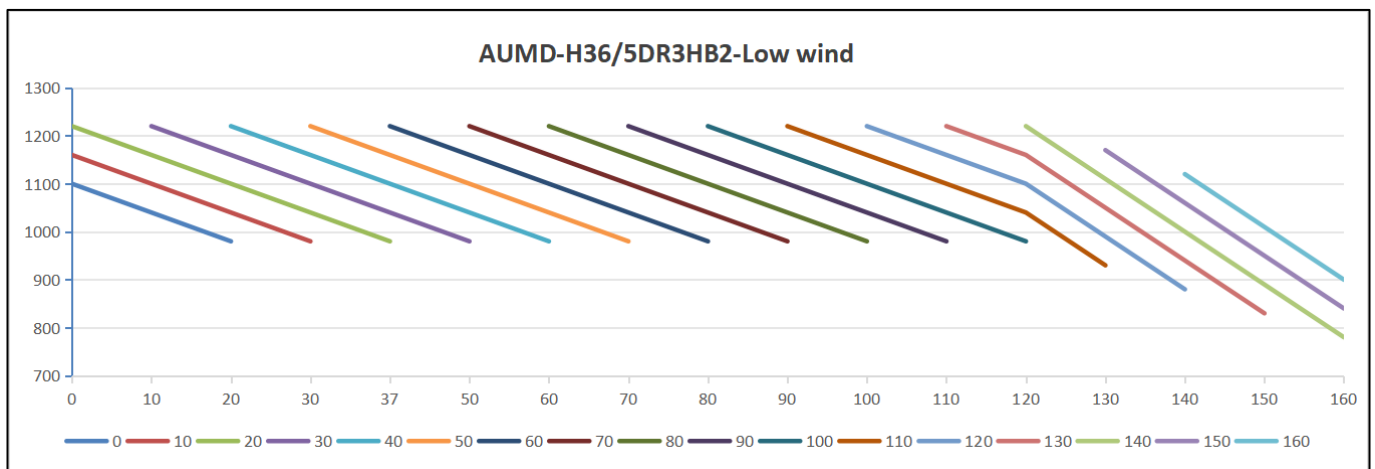
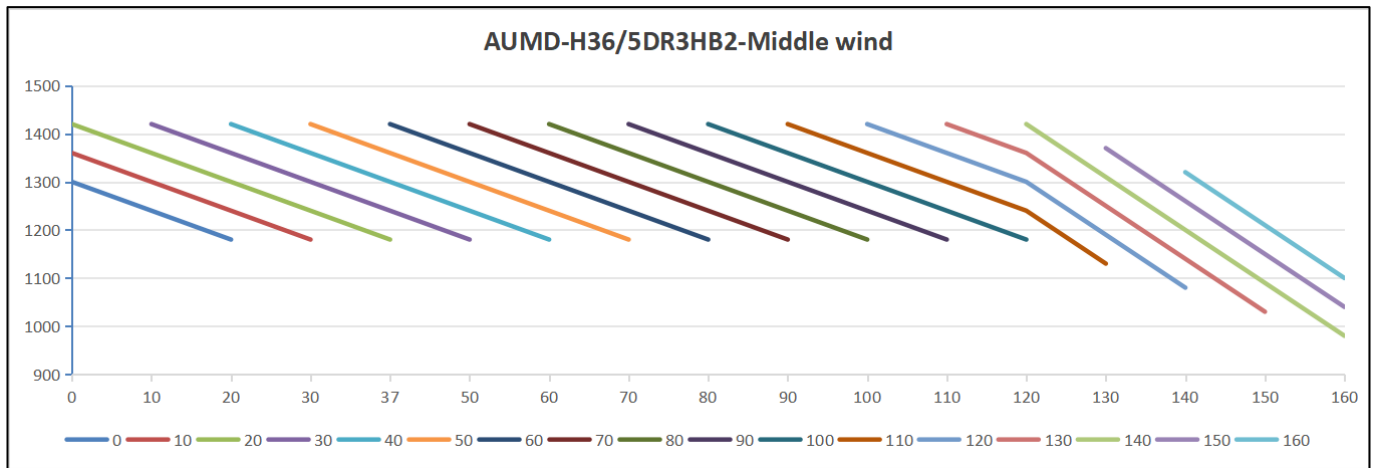




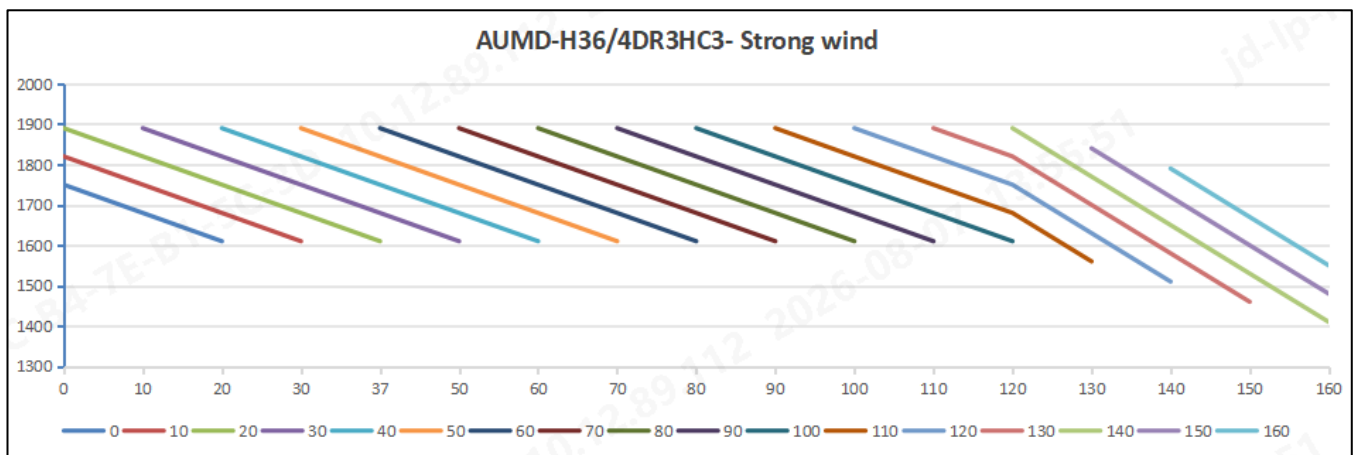
5. 36K

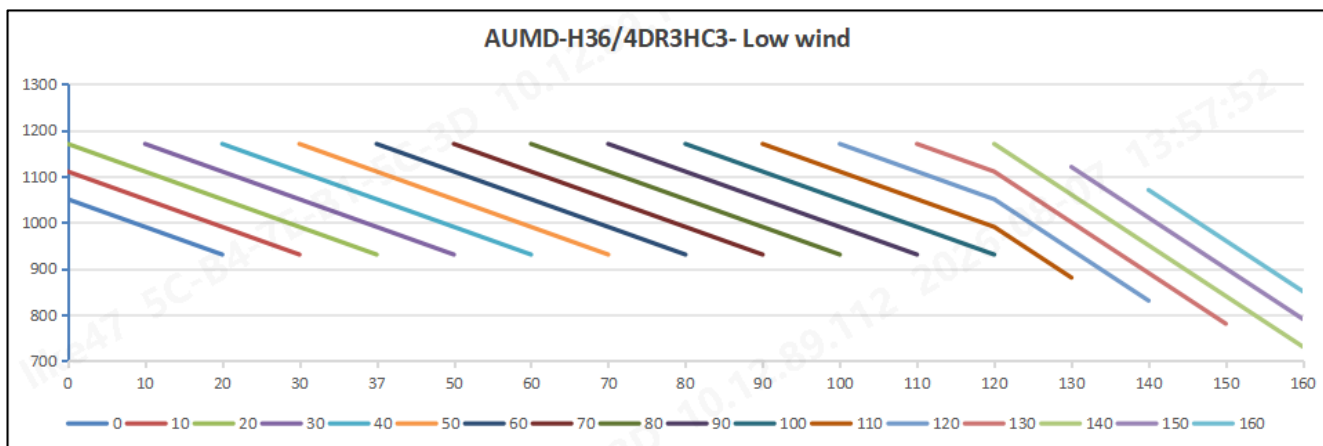
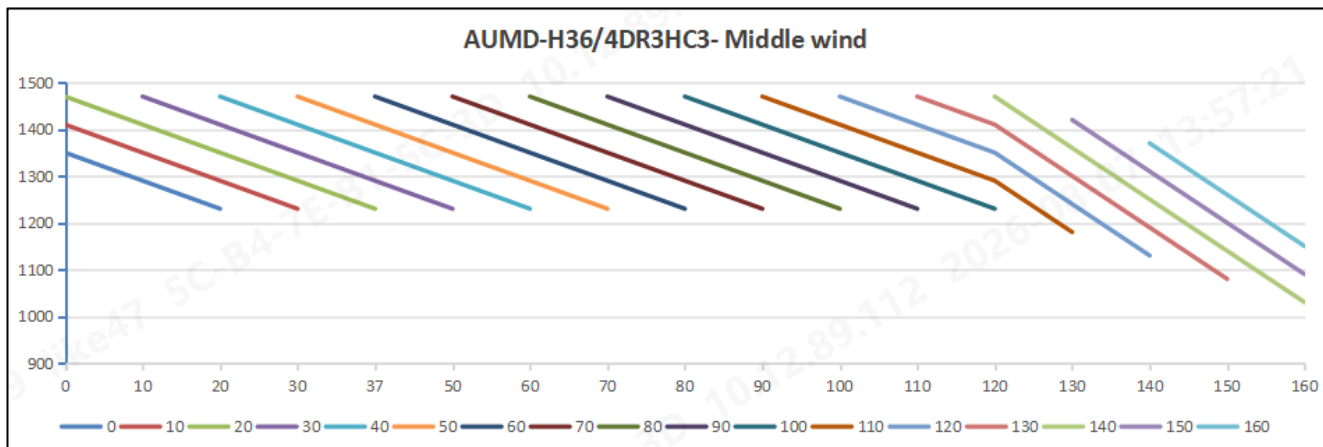
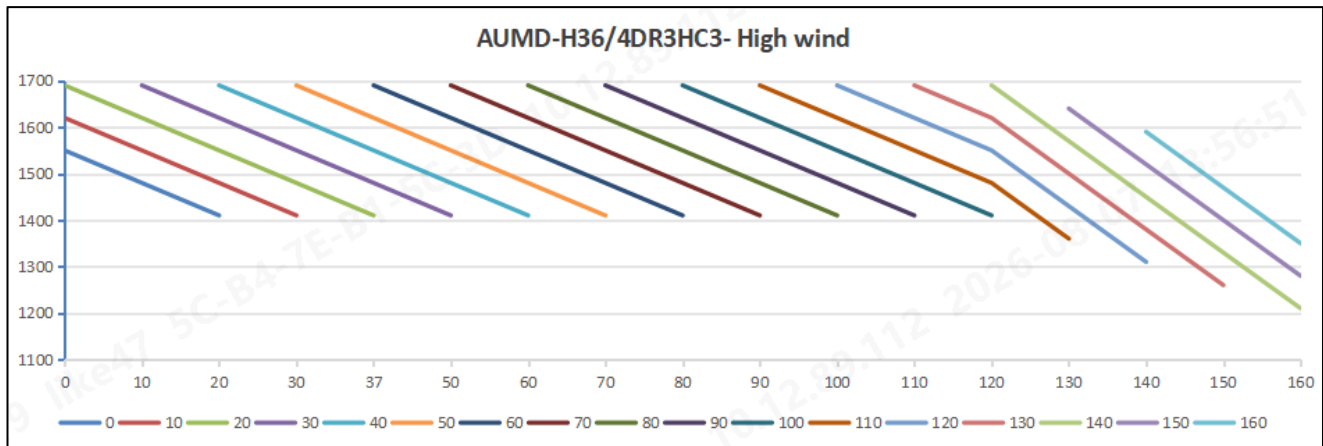
AUMD-H36/5DR3HB2



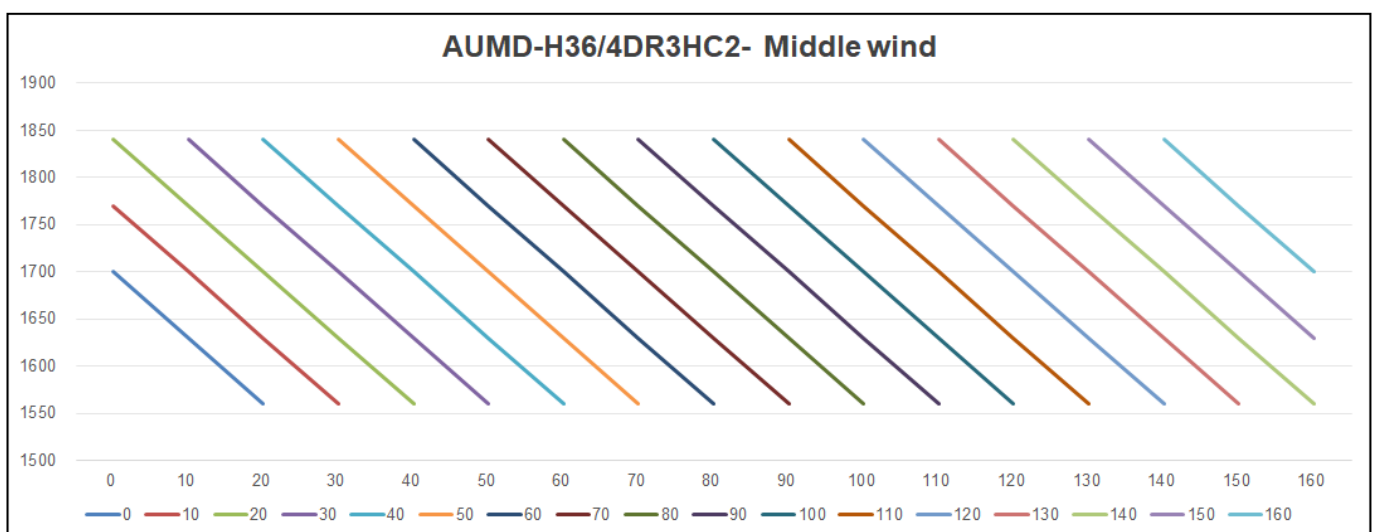
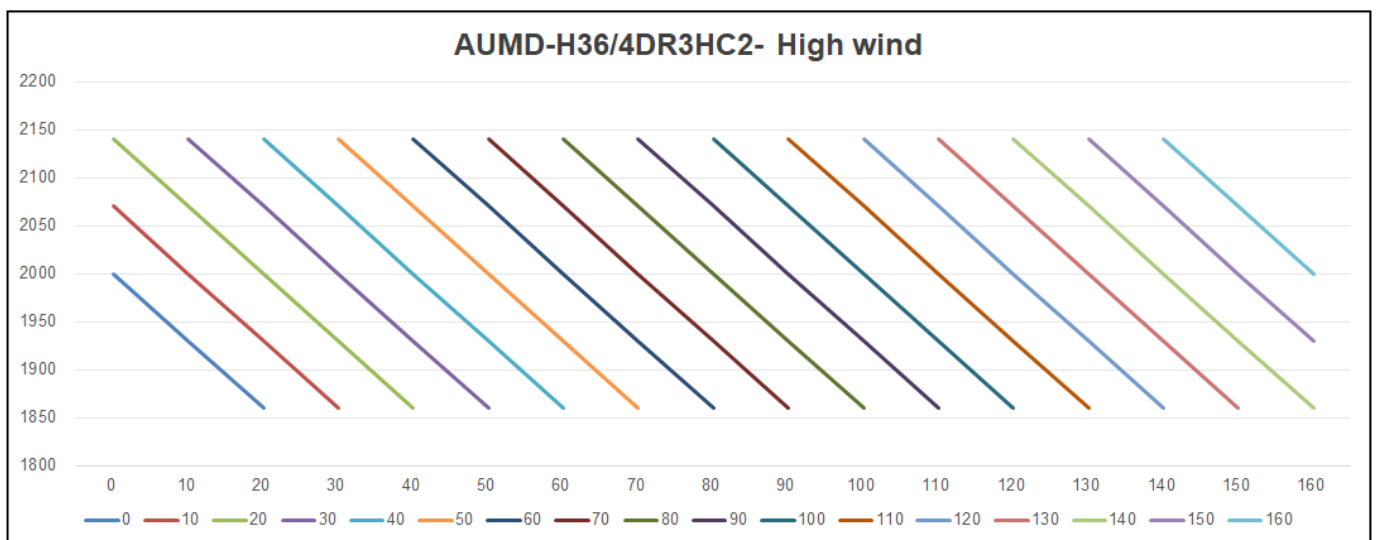
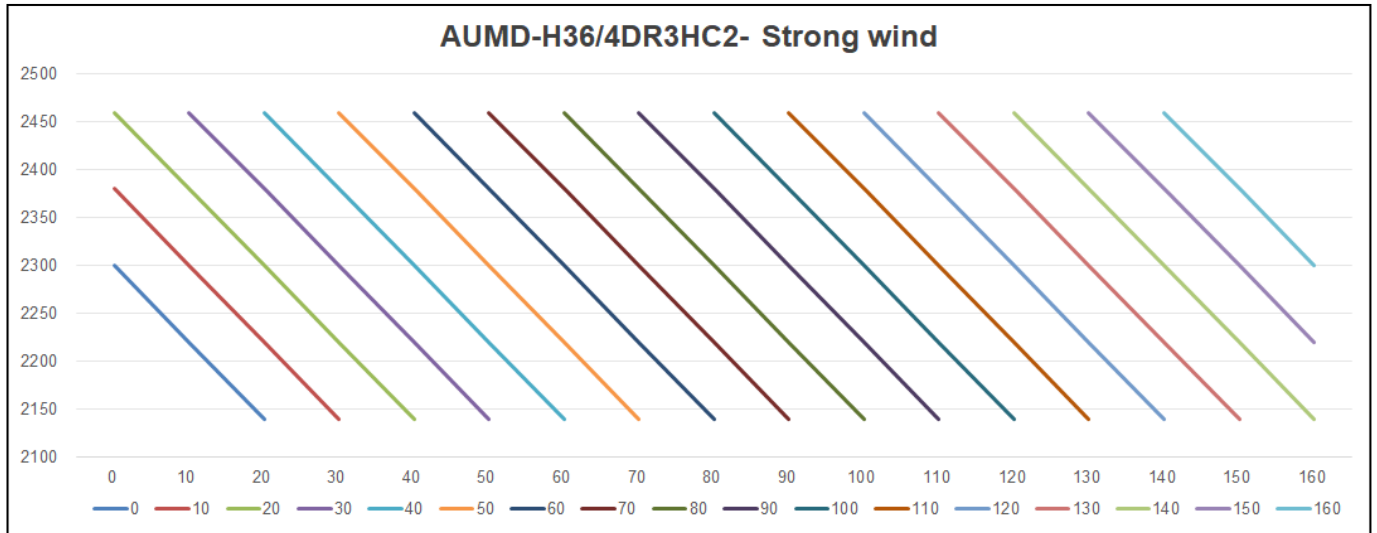


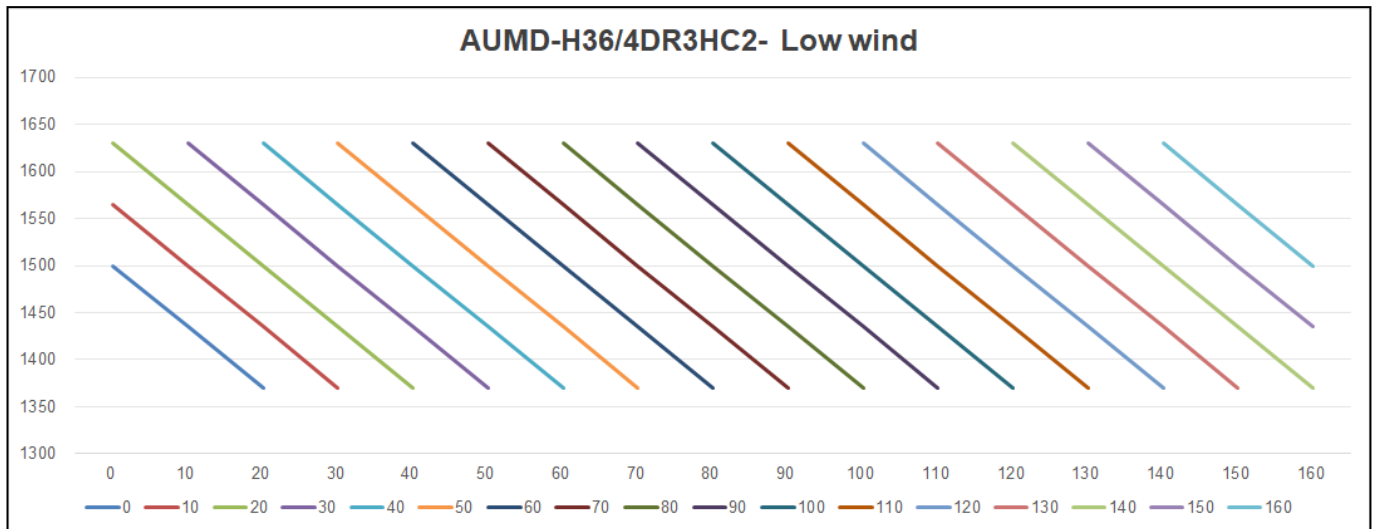
AUMD-H36/4DR3HC3





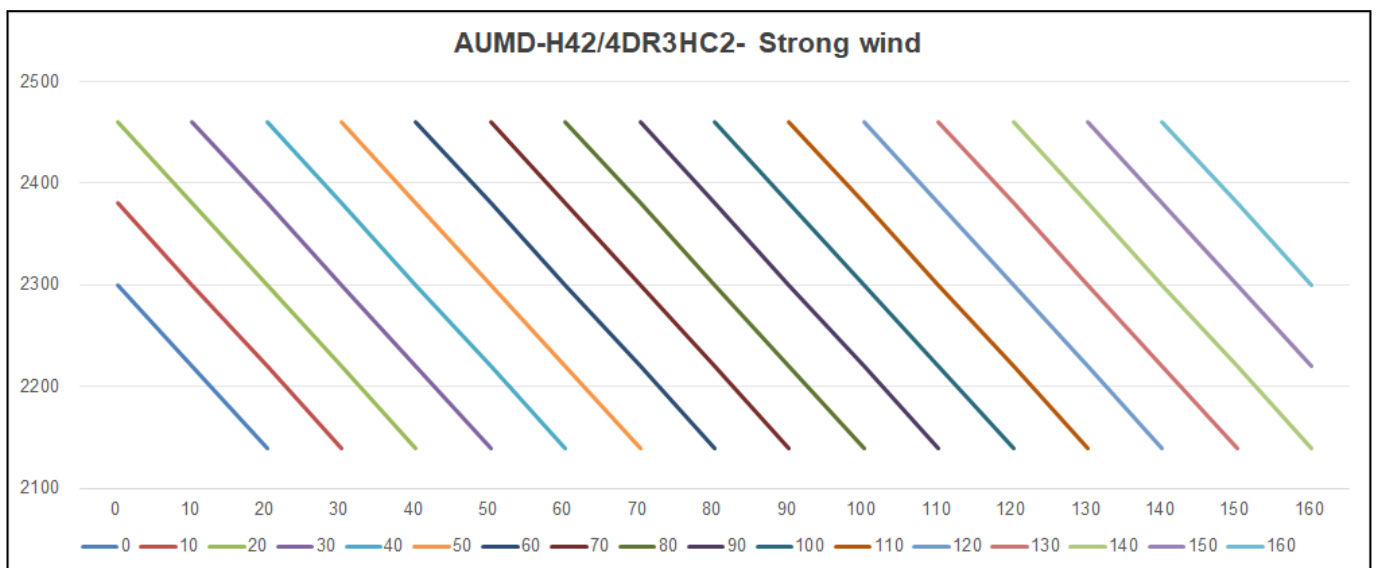
AUMD-H36/4DR3HC2

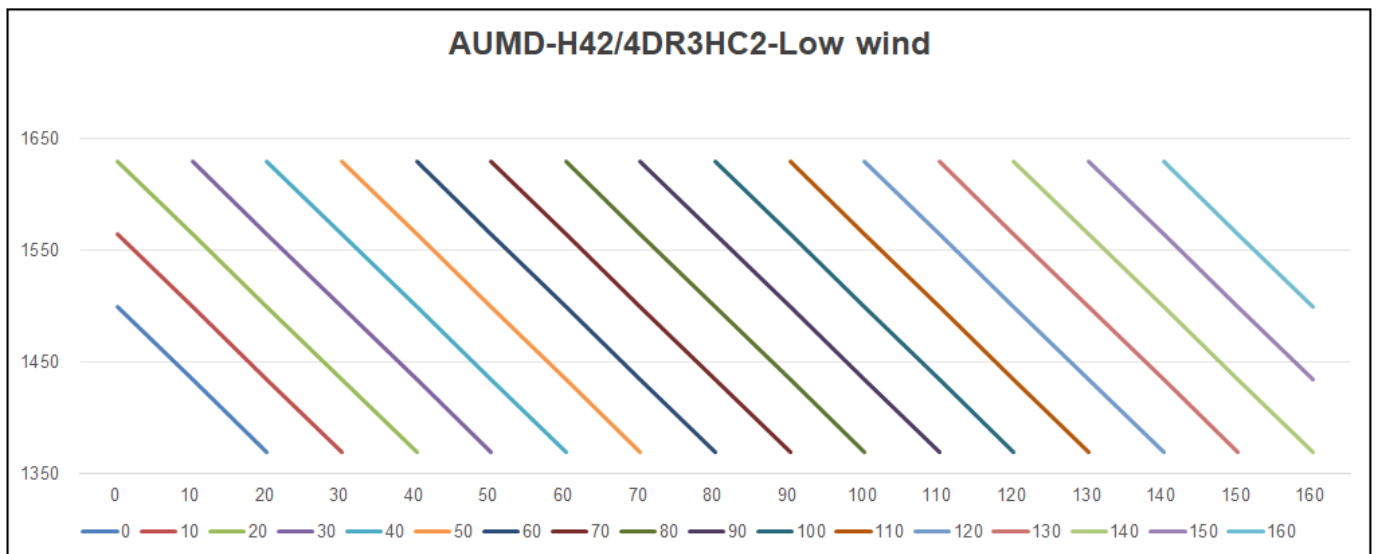
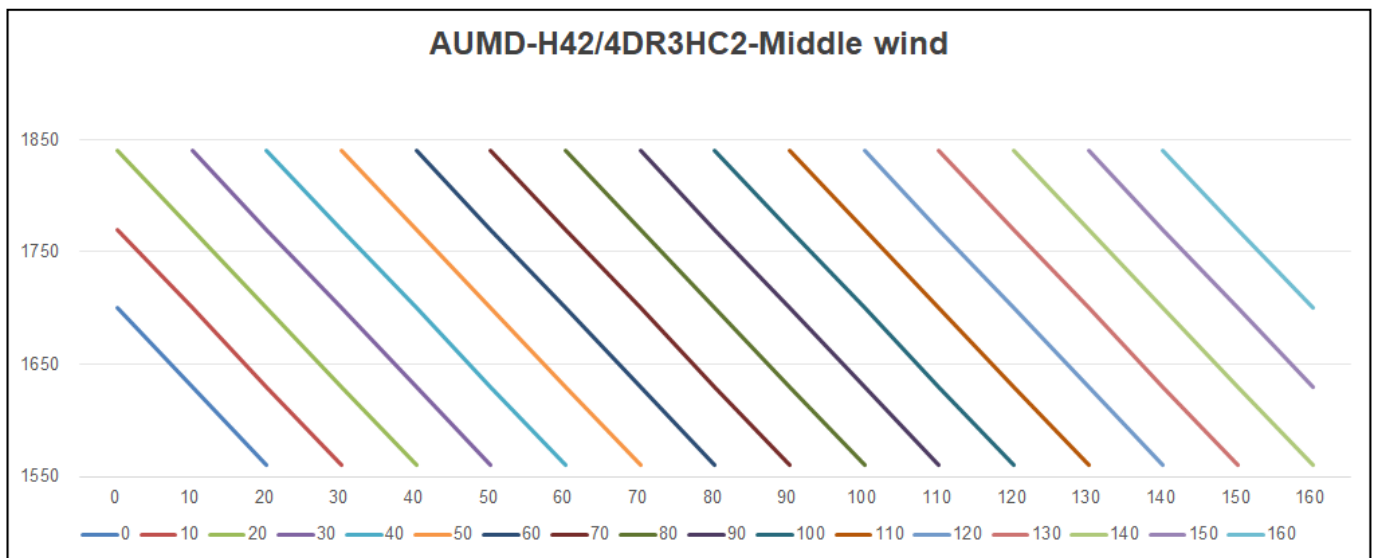
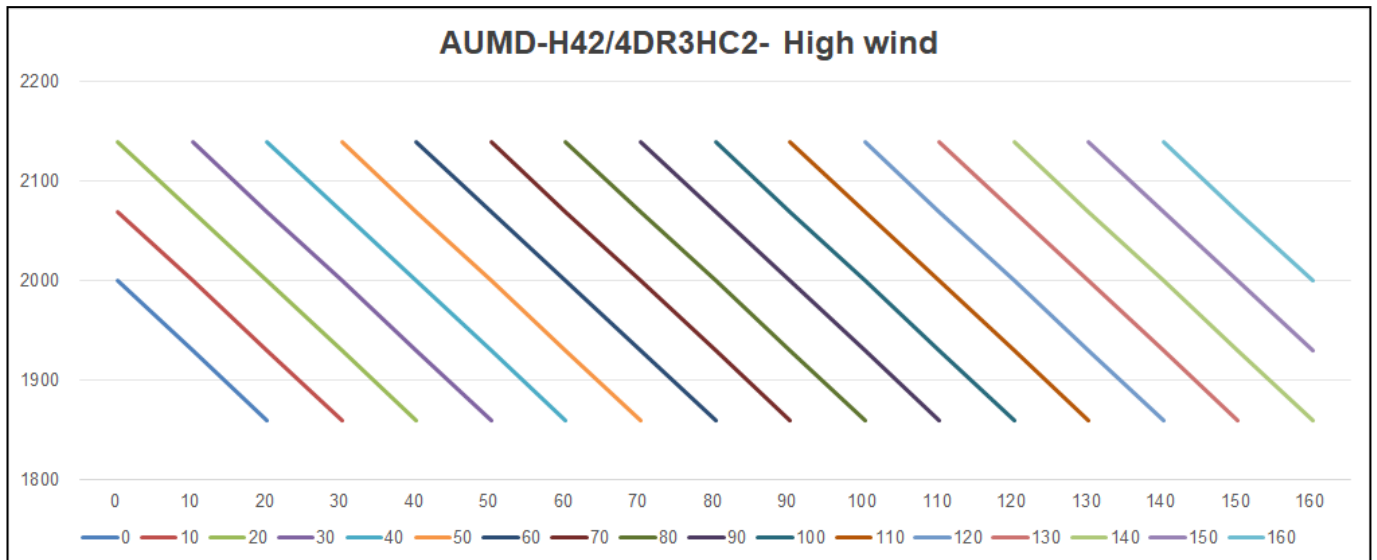




6. 42K

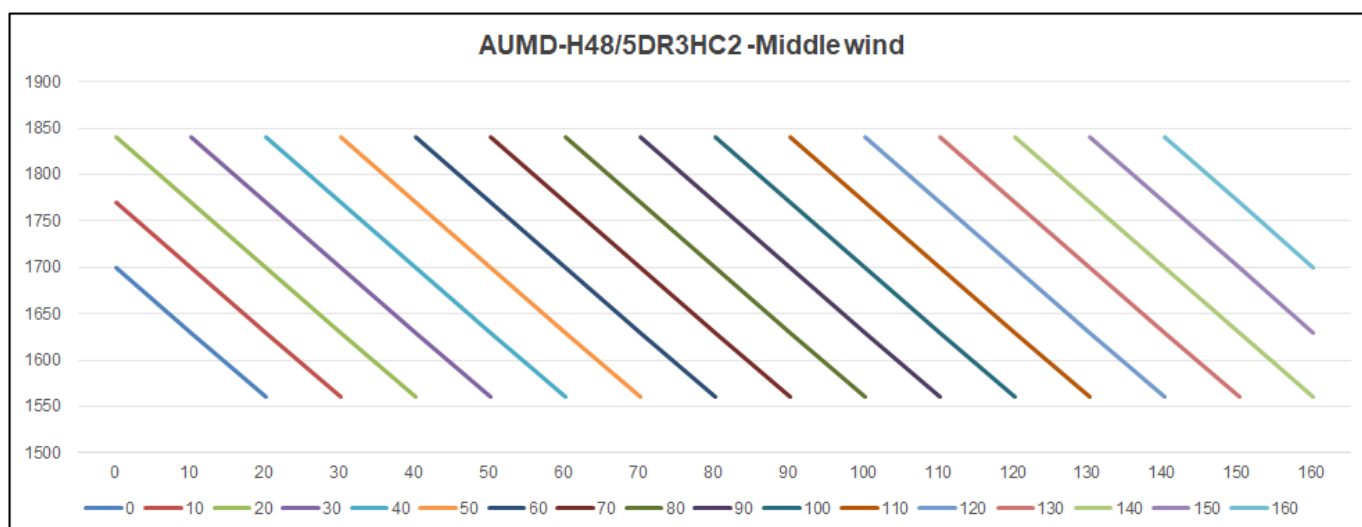
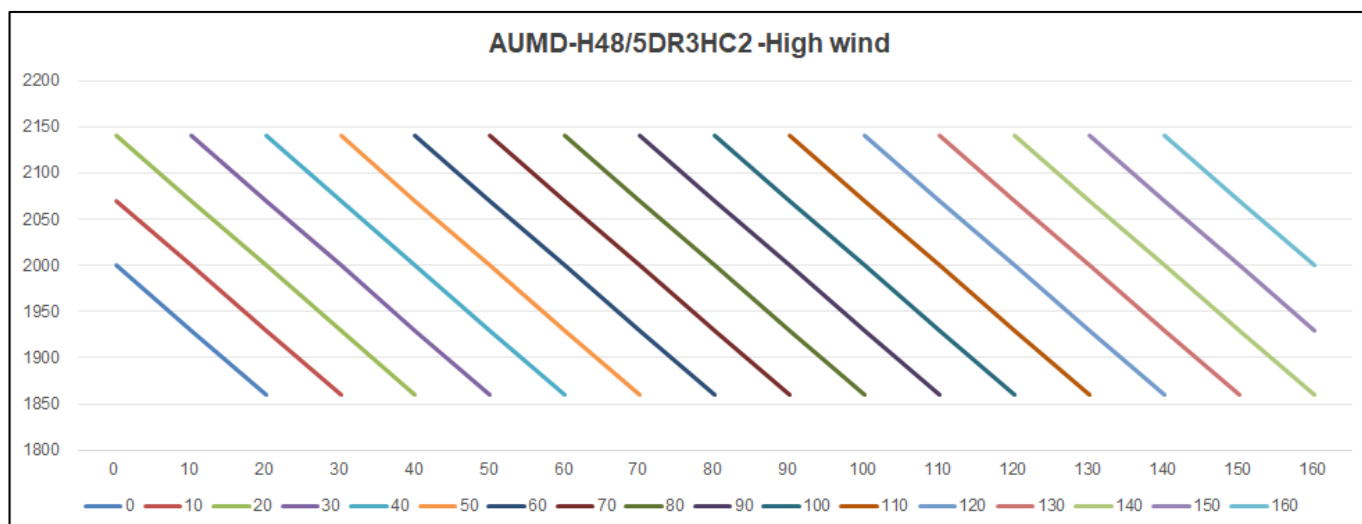
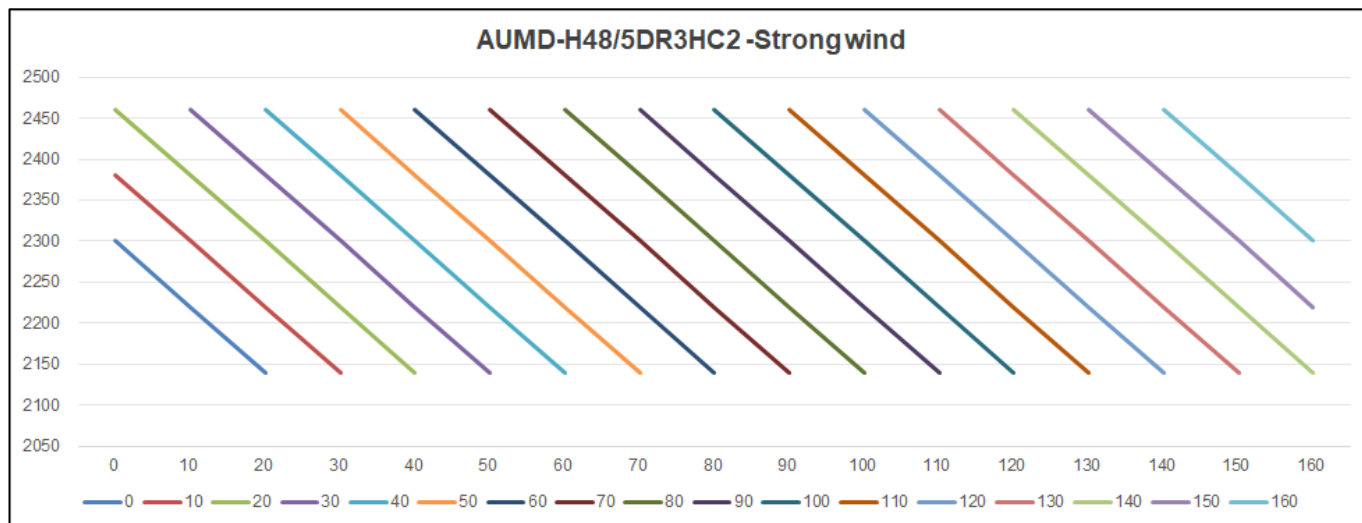
AUMD-H42/4DR3HC2

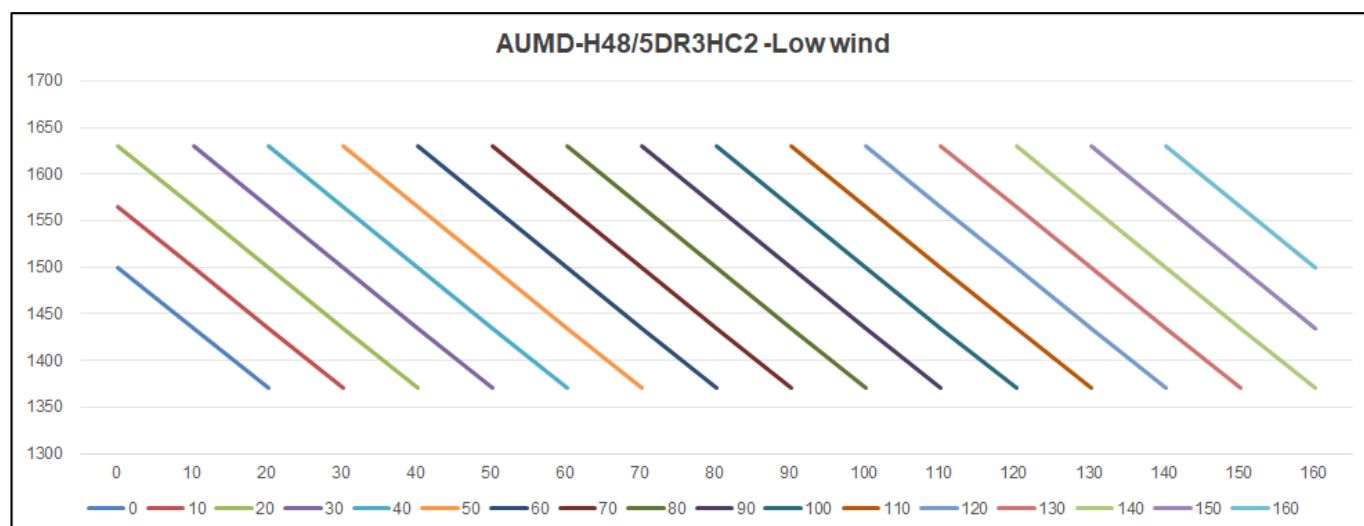




7. 48K 60K

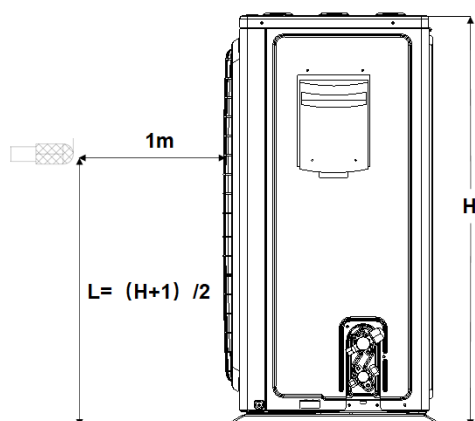
AUMD-H48/5DR3HC2 AUMD-H60/5DR3HC2





Part8 Sound level

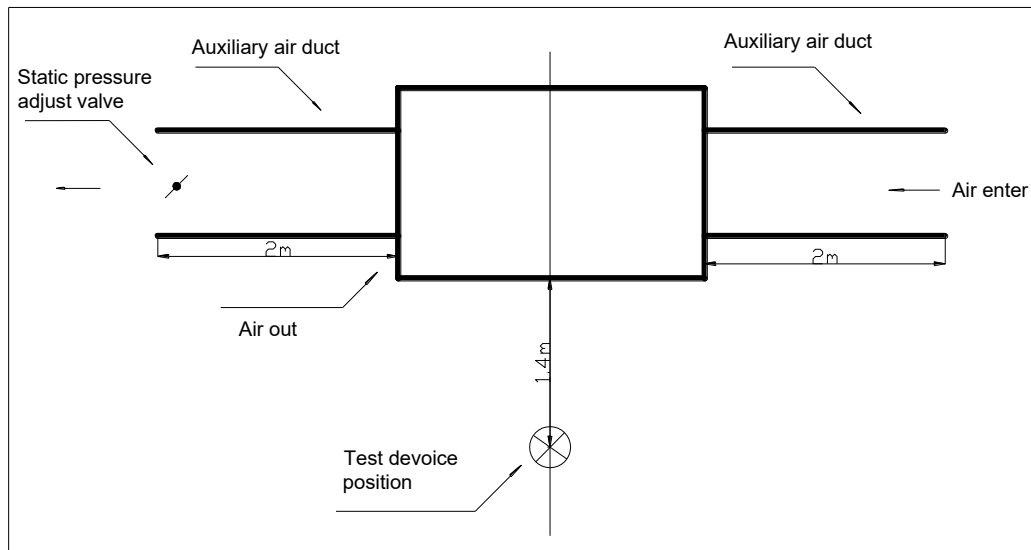
1. Outdoor unit



Test site: 1m directly in front of the air outlet

Model	Sound pressure (dB(A))
AL-H12/4DR3HC1(U)	53
AL-H18/4DR3HB3(U)	54
AL-H24/4DR3HB3(U)	57
AL-H30/4DR3HB3(U)	57
AL-H36/5DR3C3(U)	57
AL-H36/4DR3C5(U)	57
AL-H36/4DR3C3(U)	57
AL-H42/4DR3C3(U)	58
AL-H48/5DR3C3(U)	60
AL-H60/5DR3C3(U)	60

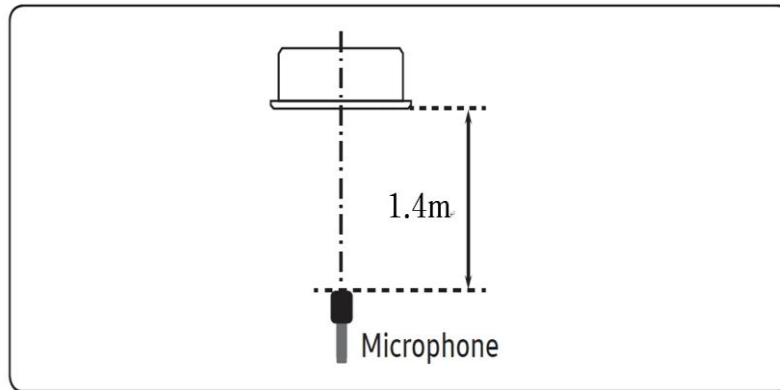
2. Duct



Test site: 1.4m directly below the center of the duct

Models	Sound pressure (dB(A))			
	T	H	M	L
AUMD-H12/4DR3HB2	39	37	34	31
AUMD-H18/4DR3HB2	42	40	37	35
AUMD-H24/4DR3HB2	44	42	39	36
AUMD-H30/4DR3HC2	46	44	41	39
AUMD-H36/5DR3HB2	46	44	41	39
AUMD-H36/4DR3HC3	45	43	40	38
AUMD-H36/4DR3HC2	46	44	41	39
AUMD-H42/4DR3HC2	48	46	44	41
AUMD-H48/5DR3HC2	48	46	44	41
AUMD-H60/5DR3HC2	50	48	45	41

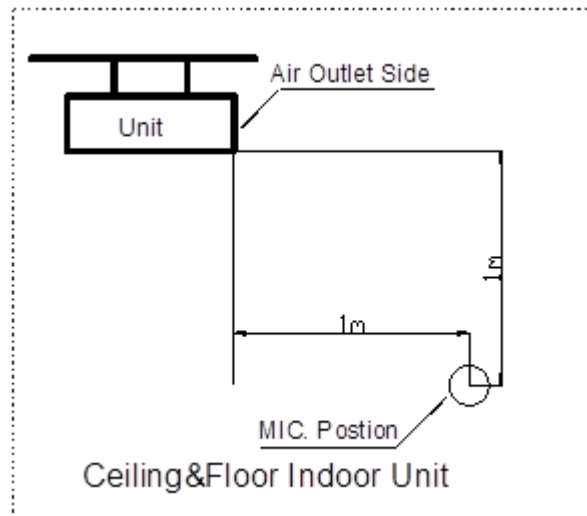
3. Cassette



Test site: 1.4m directly below the center of the duct

Models	Sound pressure (dB(A))			
	T	H	M	L
AUCA-H12/4DR3HB2	43	41	38	35
AUCA-H18/4DR3HB2	46	44	41	37
AUCA-H24/4DR3HB2	45	42	38	35
AUCA-H36/5DR3HB2	49	47	45	42
AUCA-H36/4DR3C4	49	47	45	42
AUCA-H36/4DR3HB2	51	49	46	43
AUCA-H42/4DR3HB2	51	49	47	43
AUCA-H48/5DR3HB2	51	49	46	44
AUCA-H60/5DR3HB2	52	50	45	41

4. Ceiling Floor



Test site: 1m directly in front of the air outlet and 1m above the ground

Models	Sound pressure (dB(A))			
	T	H	M	L
AUCF-H18/4DR3HA2	43	40	38	35
AUCF-H24/4DR3HA2	45	43	40	37
AUCF-H36/4DR3C4	50	47	43	40
AUCF-H36/4DR3HC2	50	47	43	40
AUCF-H42/4DR3HC2	50	47	43	40
AUCF-H48/5DR3HC2	52	49	45	42
AUCF-H60/5DR3HC2	53	50	46	42

5. Console

Models	Sound pressure (dB(A))		
	H	M	L
AUCO-H12/4DR3HA2	42	39	36
AUCO-H18/4DR3HA2	44	40	37

Part9 Controller

1. Controller

IDU type	Controller	
	Standard	Optional
Cassette, Ceiling floor		      
	YK-H	YK-T YK-L YK-M YK-K XK-05 XK-06 XK-10
Console		   
	YK-L	YK-T YK-K XK-05 XK-06
Duct		      
	XK05-DY	YK-T YK-K YK-H YK-L XK-05 XK-06 XK-10

Please scan the code to download the manuals for the remote controller and the wired controller

			
YKR-H/009E	YKR-L/101E	YKR-K/001E	YKR-T/021E YKR-T/121E YKR-T/131E
			
YKR-T/301E	YKR-M/101E YKR-C/101E YKR-C/111E	YKR-M/111E	YKR-K/231E
			
YKR-L/300E	XK-05DY	XK-06DY	XK-10DY

2. Parameters Setting

Some functions of the indoor unit require setting the EE parameters of the indoor unit to be used. For an introduction to the EE parameters of the indoor unit and the setting methods, please scan the QR code below to view.



Engineer manual- Light commercial

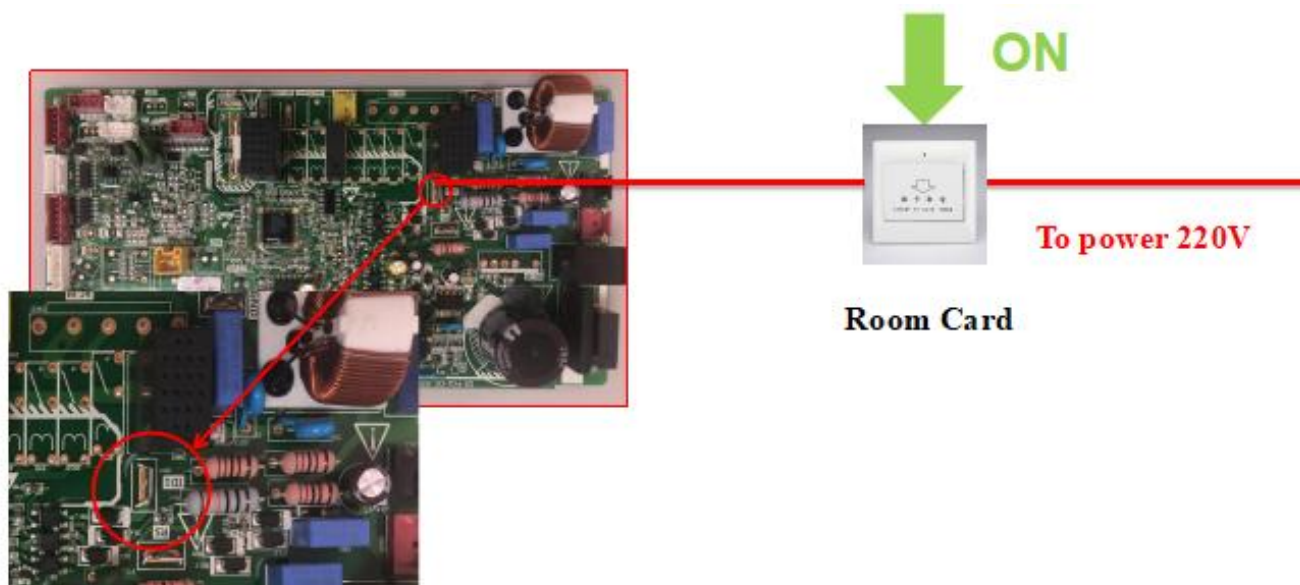
Parameter Setting table (General parameter)

Model	【04】	【05】	【15】
	Model of IDU	Capacity of IDU	Selection of room sensor
Duct			
AUMD-H12/4DR3HB2	12	12	01
AUMD-H18/4DR3HB2	12	18	01
AUMD-H24/4DR3HB2	12	24	01
AUMD-H30/4DR3HC2	12	30	01
AUMD-H36/5DR3HB2	12	36	01
AUMD-H36/4DR3HC3	12	36	01
AUMD-H36/4DR3HC2	12	50	01
AUMD-H42/4DR3HC2	12	60	01
AUMD-H48/5DR3HC2	12	60	01
AUMD-H60/5DR3HC2	12	60	01
Cassette			
AUCA-H12/4DR3HB2	37	12	01
AUCA-H18/4DR3HB2	37	18	01
AUCA-H24/4DR3HB2	00	50	01
AUCA-H36/5DR3HB2	00	36	01
AUCA-H36/4DR3C4	00	36	01
AUCA-H36/4DR3HB2	00	36	01
AUCA-H42/4DR3HB2	00	42	01
AUCA-H48/5DR3HB2	00	48	01
AUCA-H60/5DR3HB2	00	60	01
Ceiling floor			
AUCF-H18/4DR3HA2	46	18	01
AUCF-H24/4DR3HA2	46	24	01
AUCF-H36/4DR3C4	46	36	01
AUCF-H36/4DR3HC2	46	36	01
AUCF-H42/4DR3HC2	46	42	01
AUCF-H48/5DR3HC2	46	48	01
AUCF-H60/5DR3HC2	46	60	01

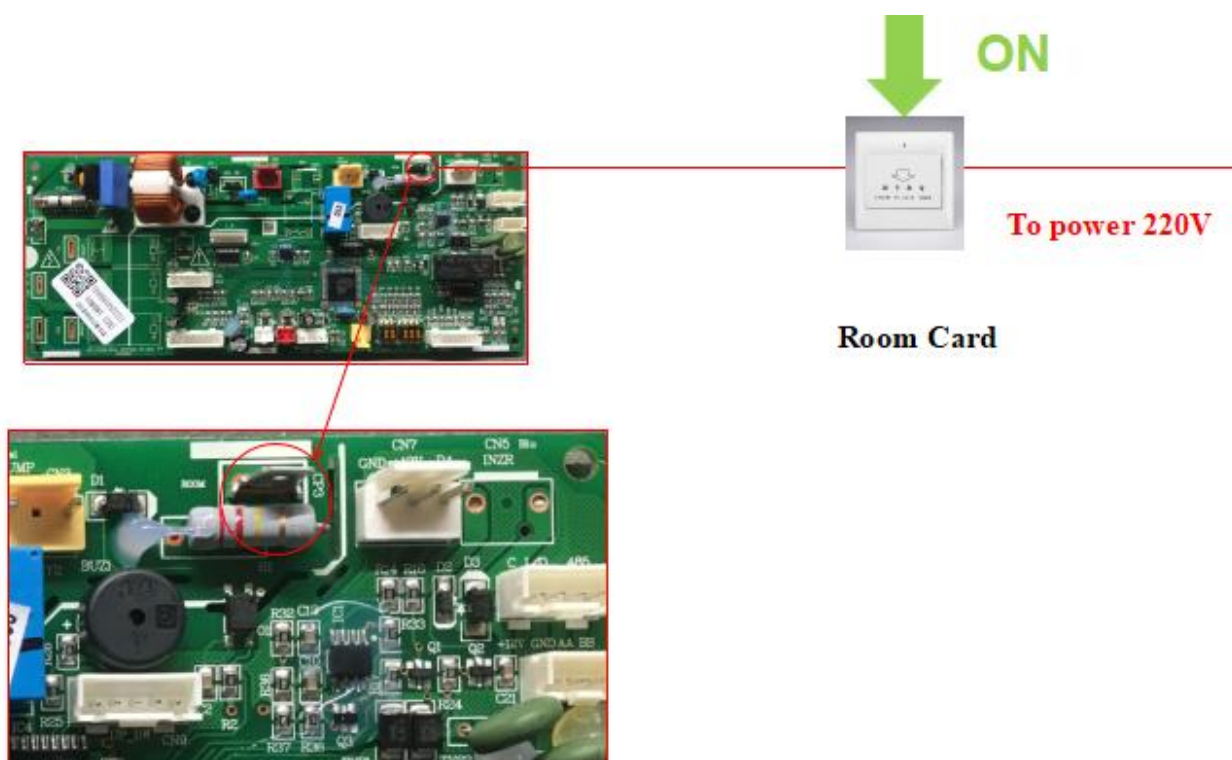
3. Room Card Function

3.1 Wiring diagram

[DUCT TYPE]



[Cassette] and [ceiling& floor]



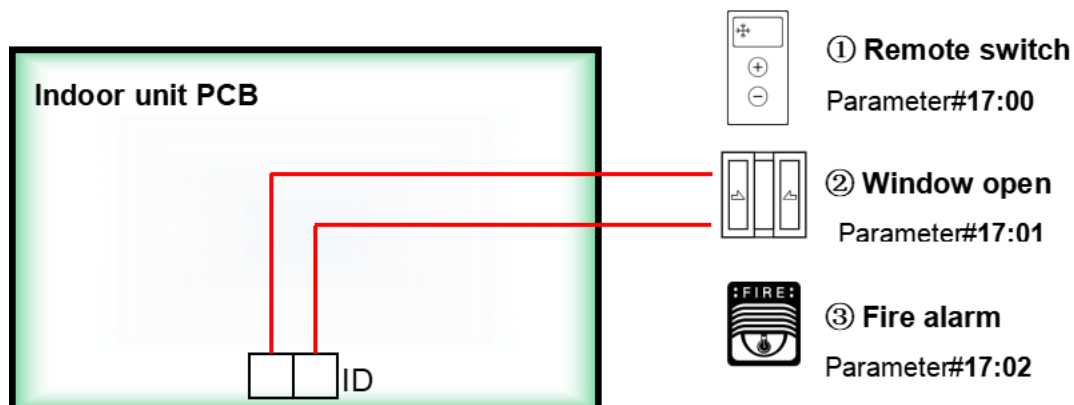
3.2 Function setting

Para. No	Set Value	Function	Contact State	Room Card State	Mode Description
09	00	Room card mode			1) Then unit turns on at auto mode/auto fan speed. 2) Unit can receive signal from controllers in this state.
					1) Then unit turns off immediately. 2) Unit can receive signal from controllers in this state.
09	01	Room card mode 1			Unit can receive signal from controllers in this state.
					1) Then unit turns off immediately. 2) Unit cannot receive signal from controller in this state.
09	02	Room card mode 2			Unit can receive signal from controllers in this state.
					1) Then unit turns off immediately. 2) Unit can receive signal from controllers in this state.
09	03	Room card mode 3			Unit can receive signal from controllers in this state.
					1) If current running mode is neither heating mode nor auto mode, then unit turns into fan mode/low fan speed 2) If current running mode is heating mode or auto mode, then unit turns off immediately. 3) Unit can receive signal from controllers in this state.

Para. No	Set Value	Function	Contact State	Room Card State	Mode Description
09	04	Room card mode 4			The operating status of the indoor unit will not change
					1. If the indoor ambient temperature $T_a < 10^{\circ}\text{C}$, operate at the 16°C in heating mode with a low wind. After 0.5h, if $T_a > 12^{\circ}\text{C}$, turn off the unit; otherwise, continue to heat at 16°C with low wind. 2. If $10^{\circ}\text{C} \leq T_a \leq 12^{\circ}\text{C}$, maintain the previous control. 3. If $12^{\circ}\text{C} < T_a < 28^{\circ}\text{C}$, turn off. 4. If $28^{\circ}\text{C} \leq T_a \leq 30^{\circ}\text{C}$, maintain the previous control. 5. If $T_a > 30^{\circ}\text{C}$, operate at the 26°C in cooling mode with a low wind. After 0.5h, if $T_a < 28^{\circ}\text{C}$, turn off; Otherwise, continue to cool at 26°C with low wind. The indoor unit can receive command from the controller.
09	05	Room card mode 5			Restore the working state before the room card was removed
					Turn off. The air conditioner cannot be controlled

4. Dry Contact

4.1 Wiring diagram



4.2 Function setting

Parameter No	Set Value	Function	Contact Type	Contact State	Mode Description
17	00	Remote switch	NO		Contact is opened: The unit starts up.
					Contact is closed: The unit immediately shuts down and stops operation but remains capable of receiving control commands from the controller.
17	01	Window open	NO		Window is closed: The contact is open, and the unit can receive control commands from the controller.
					Window is opened: The contact changes from open to closed, after remaining open for 60s, the unit shut down and stop operation.
17	02	Fire alarm	NO		No fire alarm: Contact open; unit can receive controller control signals.
					Fire alarm: Contact closes; unit shuts down immediately and cannot accept controller commands.

5. WIFI module

5.1 Introduction

The following are the WIFI modules used by LCAC.

Brand	Code	Photo	Remake
AUX	11222062000047		New version (Switch in August 2025)
TUYA	11222062000054		For 2025 new product, it can be chosen. If it is needed, please contact salesman to confirm in advance.

5.2 WiFi Configuration

For the installation of WIFI and network connection, please scan the QR code below to view.



WIFI Connection Guide

6. Static Pressure setting

Factory default

Capacity	Model	Default (Pa)	Parameters
12K Btu	AUMD-H12/4DR3HB2	25	0603
18K Btu	AUMD-H18/4DR3HB2	25	0603
24K Btu	AUMD-H24/4DR3HB2	25	0601
30K Btu	AUMD-H30/4DR3HC2	37	0604
36K Btu	AUMD-H36/5DR3HB2	37	0605
36K Btu	AUMD-H36/4DR3HC3	37	0605
36K Btu	AUMD-H36/4DR3HC2	37	0605
42K Btu	AUMD-H42/4DR3HC2	50	0605
48K Btu	AUMD-H48/5DR3HC2	50	0605
60K Btu	AUMD-H60/5DR3HC2	50	0605

7. Group control function

7.1 Applicable wired controllers

All models mentioned in this manual support this function.

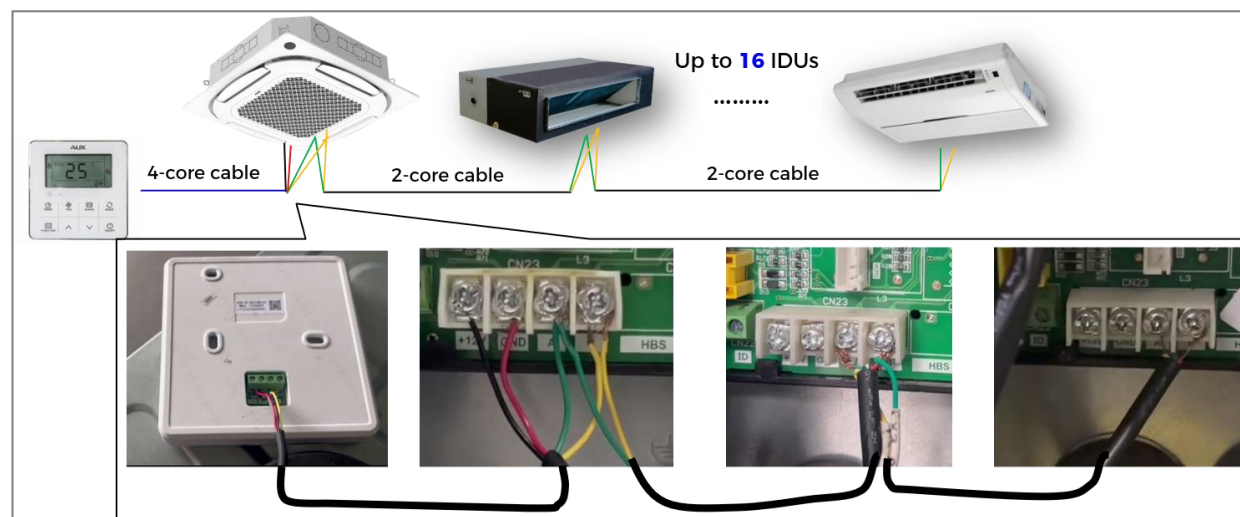
Code	Model	Built-in WIFI	Group Control Function	Remark
11222020000051	XK05-DY	×	✓ (After 4.2025)	Optional
11222020000068	XK06-DY(AUX)485-E1	×	×	Optional
11222020000112	XK06-DY(AUX)485-E2	×	✓	As a spare part
11222020000097	XK06-DY(AUX)485-E1-WIFI	✓	×	Optional
11222020000135	XK06-DY(AUX)485-E2-WIFI	✓	✓	As a spare part
11222020000088	XK10-DY	✓	✓	Optional

*Optional: Orders can be placed according to the optional of the unit.

* As a spare part: Now, can only be ordered as a spare part.

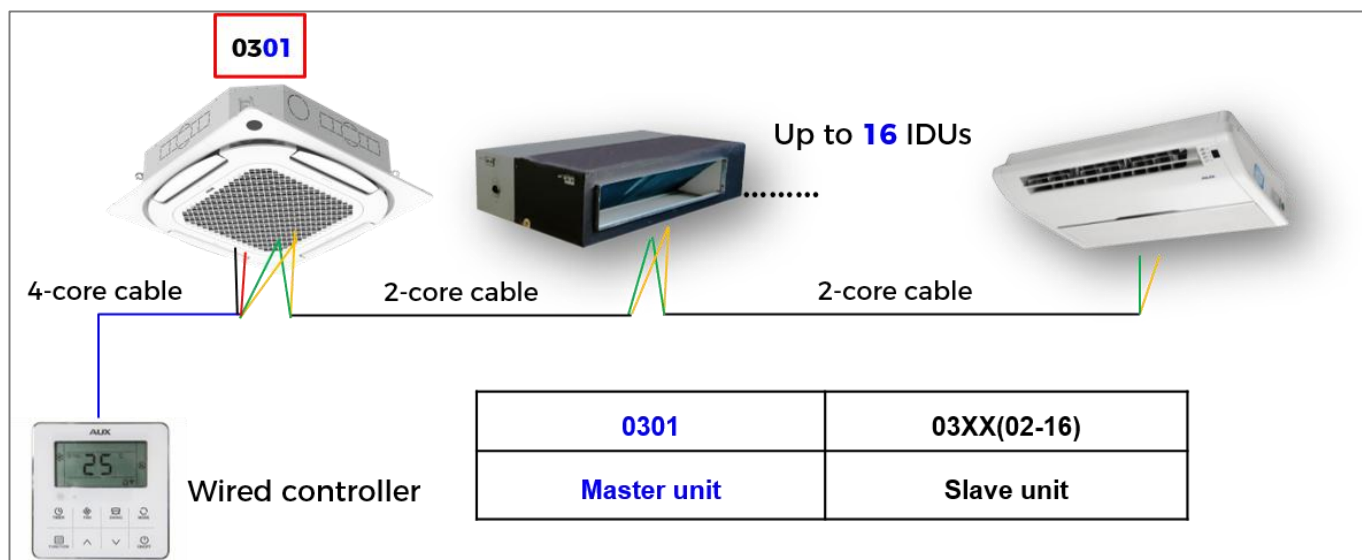
7.2 Wiring diagram

- ①The wired controller is connected to the first indoor unit.
- ②The indoor units are connected via a 2-core communication cable between the A and B terminals.



7.3 Master unit Setting

Set the first indoor unit as the master unit (Set the value of parameter 03 to 01), 2-15 is the slave, and the parameter value of the slave can be repeated.

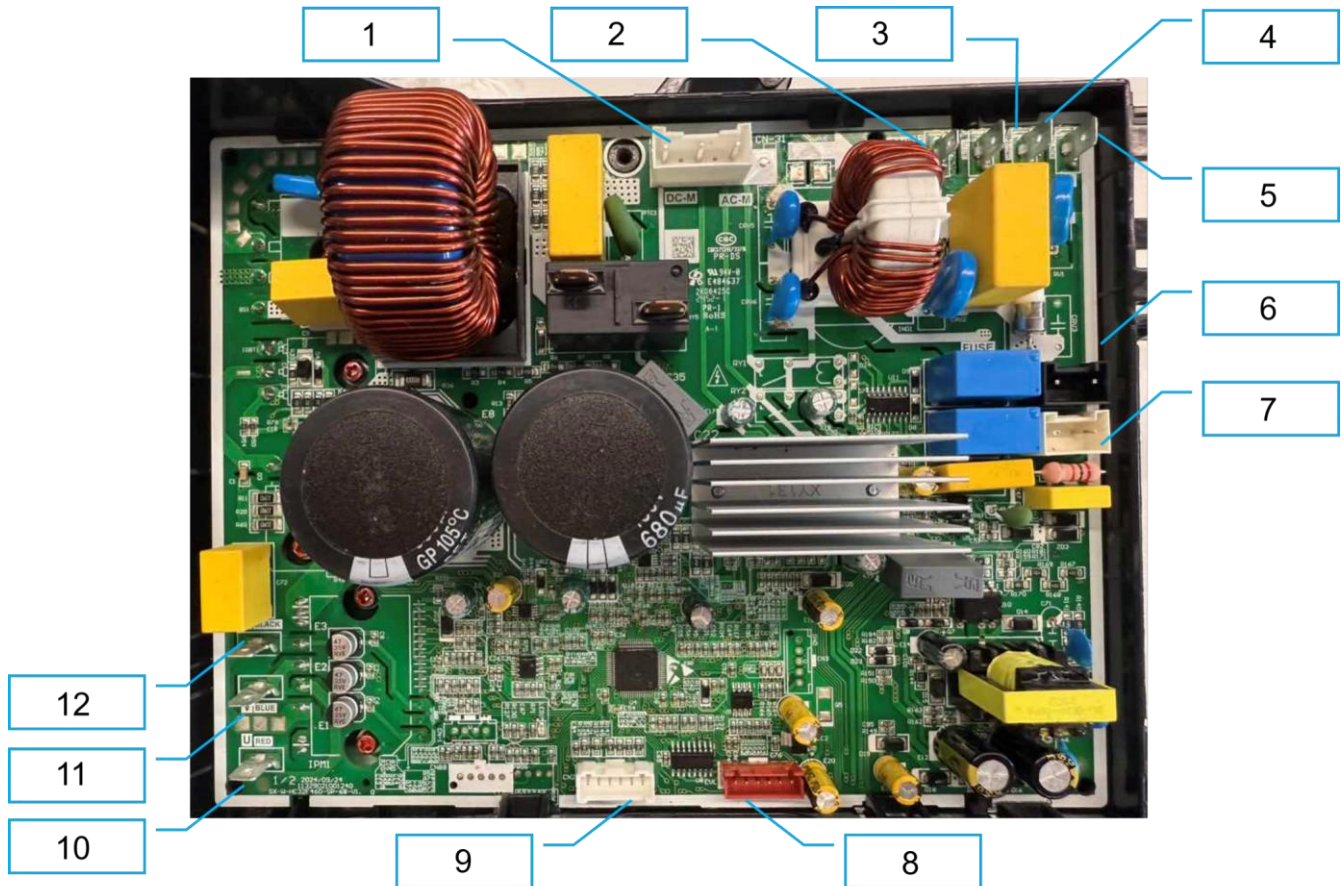


* After parameter setting, remember to power off and restart for the settings to take effect.

Part10 PCB Instruction

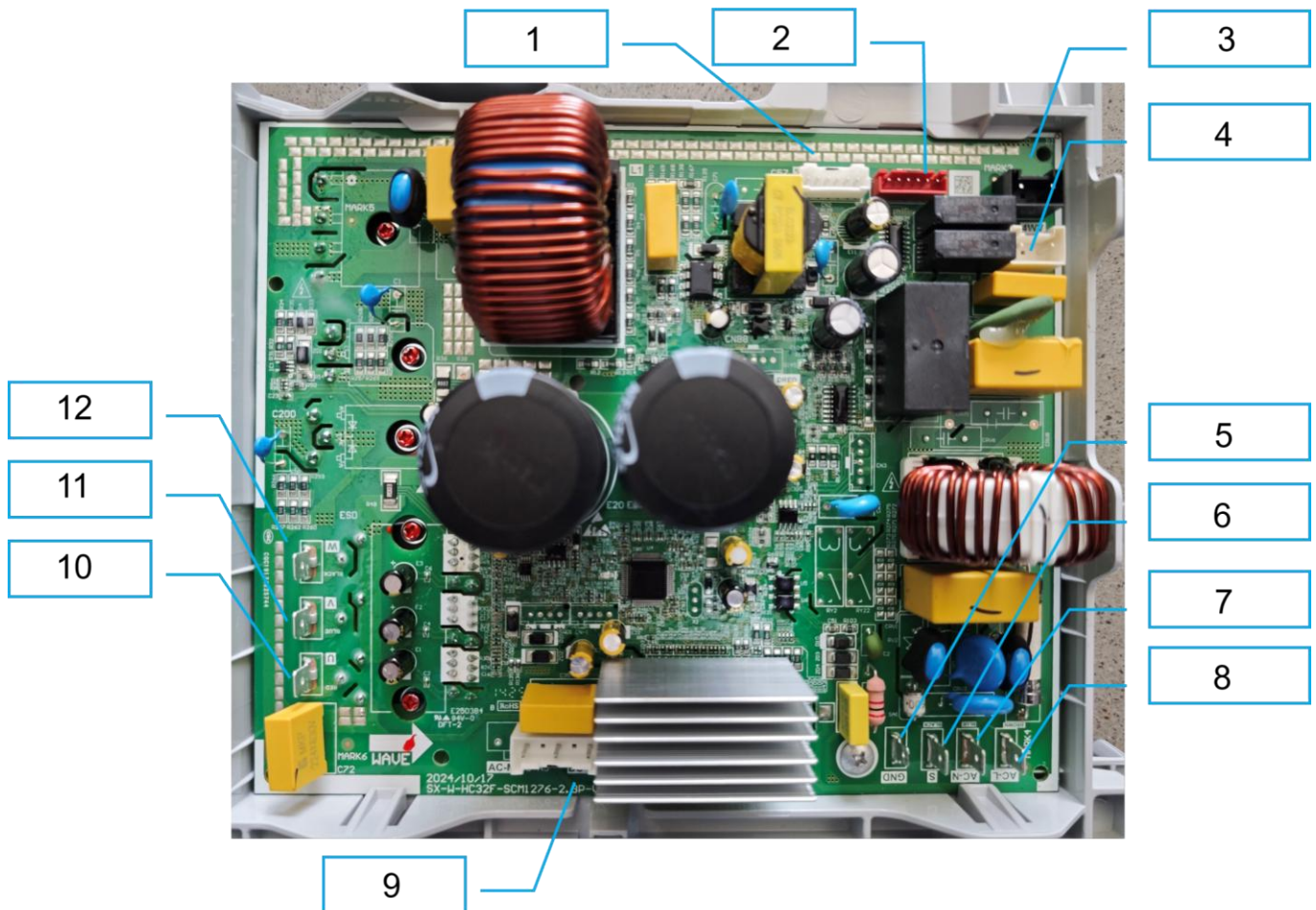
1. Outdoor Unit PCB

1.1 AL-H12/4DR3HC1(U) AL-H18/4DR3HB3(U)

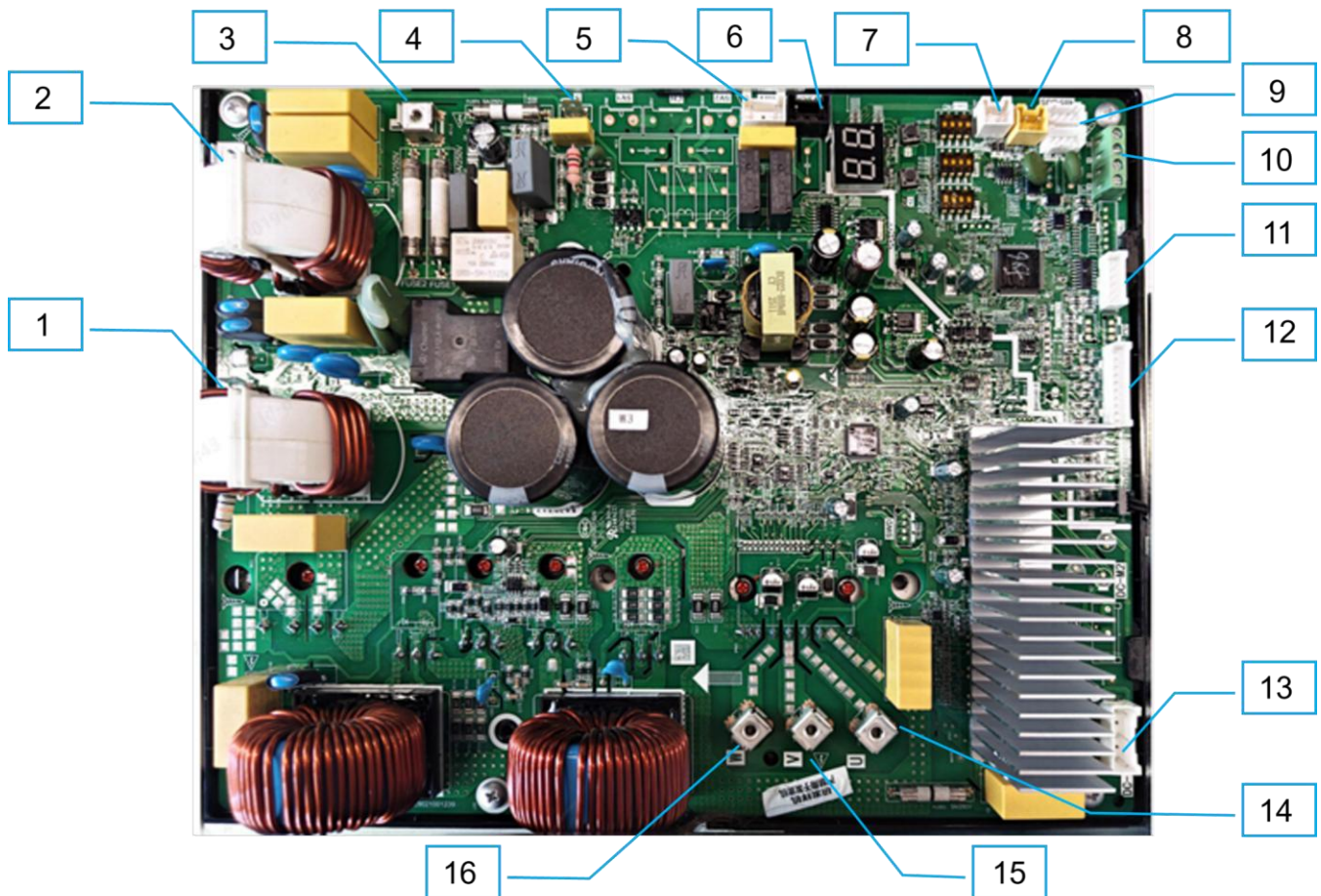


Comp.	Component description	Comp.	Component description
1	DC fan motor	7	4-way valve
2	GND	8	Electronic expansion valve
3	N	9	Temperature sensor
4	L	10	Compressor-U
5	S	11	Compressor-V
6	Chassis electric heating	12	Compressor-W

1.2 AL-H24/4DR3HB3(U) AL-H30/4DR3HB3(U)

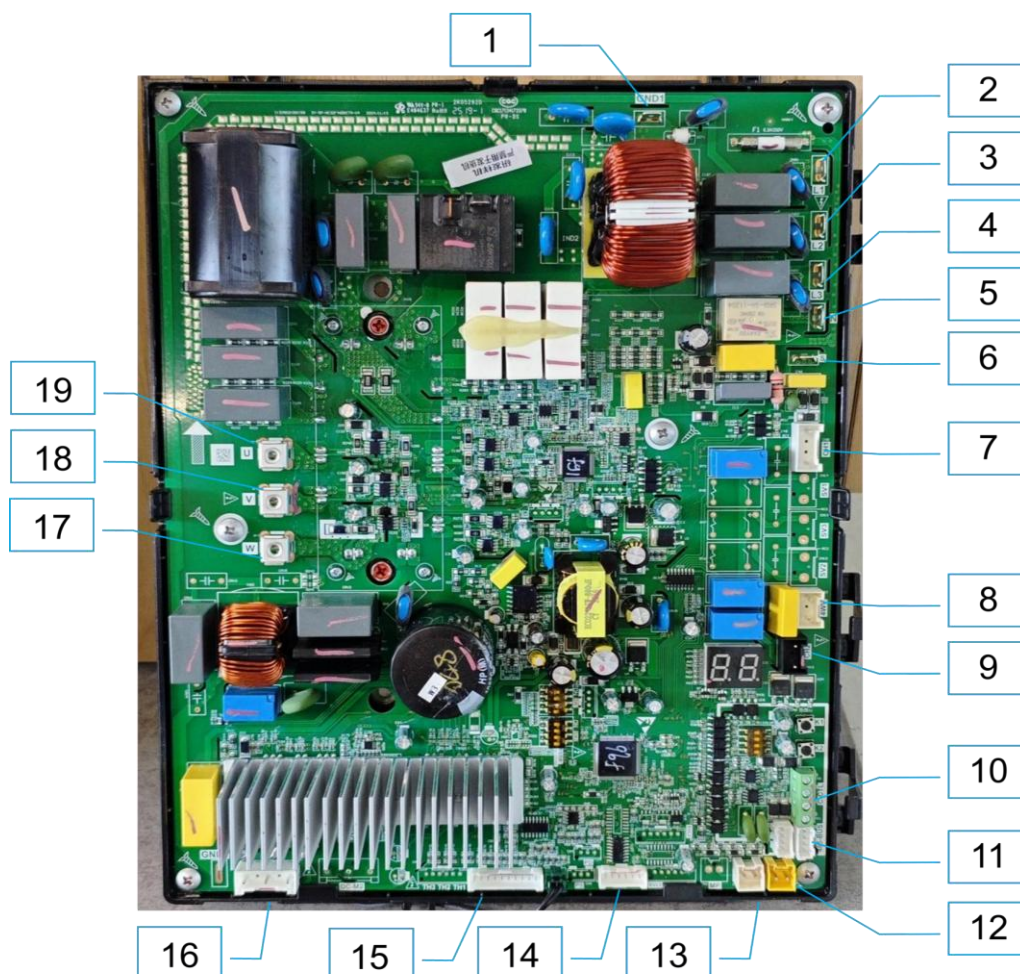


Comp.	Component description	Comp.	Component description
1	Temperature sensor	7	N
2	Electronic expansion valve	8	L
3	Chassis electric heating	9	DC fan motor
4	4-way valve	10	Compressor-U
5	GND	11	Compressor-V
6	S	12	Compressor-W

1.3 AL-H36/4DR3C3(U) **AL-H36/4DR3C5(U)** AL-H42/4DR3C3(U)

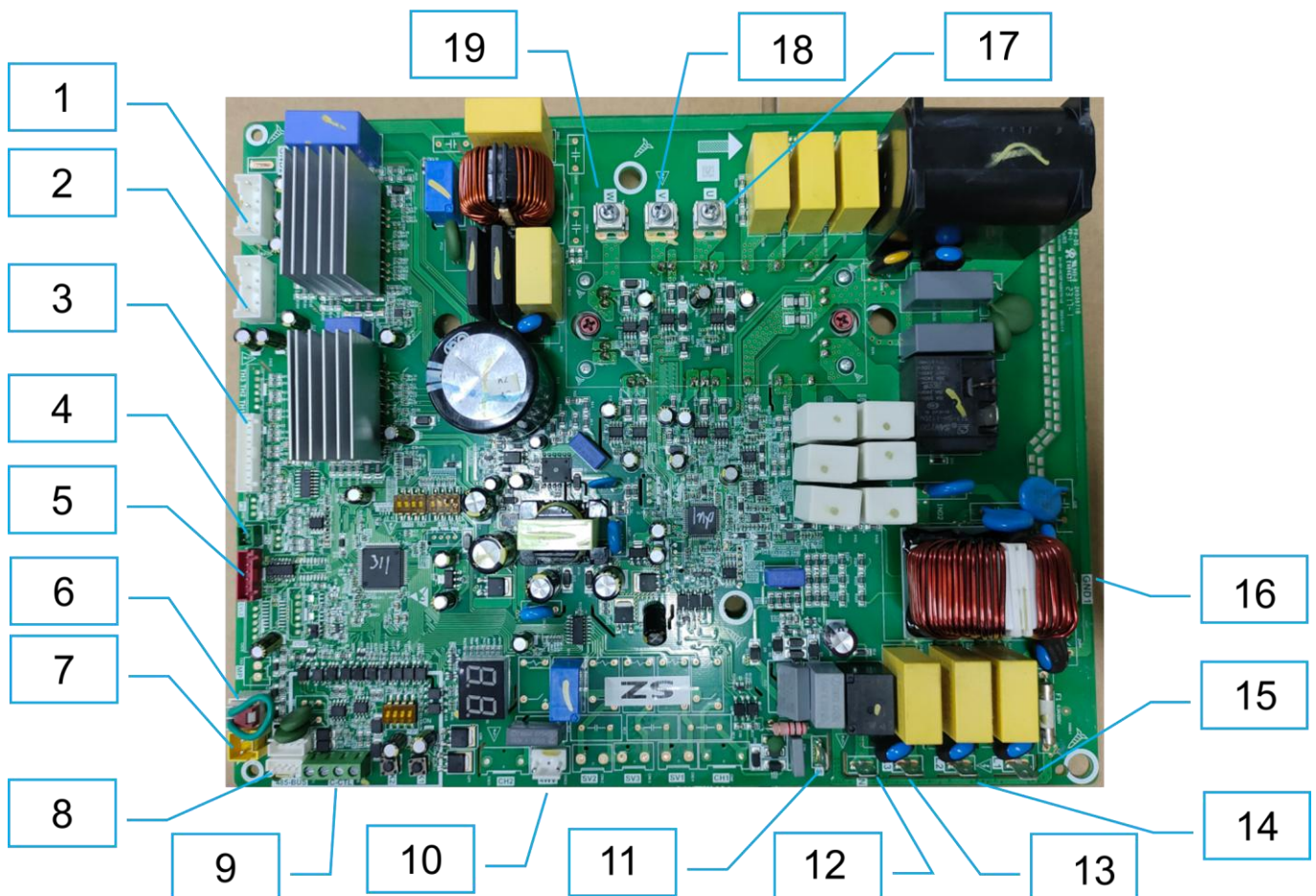
Comp.	Component description	Comp.	Component description
1	GND	9	485-BUS
2	N	10	Central control port
3	L	11	Electronic expansion valve
4	S	12	Temperature sensor
5	4-way valve	13	DC fan motor
6	Chassis electric heating	14	Compressor-U
7	Low pressure switch	15	Compressor-V
8	High pressure switch	16	Compressor-W

1.4 AL-H36/5DR3C3(U) AL-H48/5DR3C3(U)



Comp.	Component description	Comp.	Component description
1	GND	11	485-BUS
2	L1	12	High pressure switch
3	L2	13	Low pressure switch
4	L3	14	Electronic expansion valve
5	N	15	Temperature sensor
6	S	16	DC fan motor
7	Oil heater	17	Compressor-W
8	4-way valve	18	Compressor-V
9	Chassis electric heating	19	Compressor-U
10	Central control port	20	

1.5 AL-H60/5DR3C3(U)

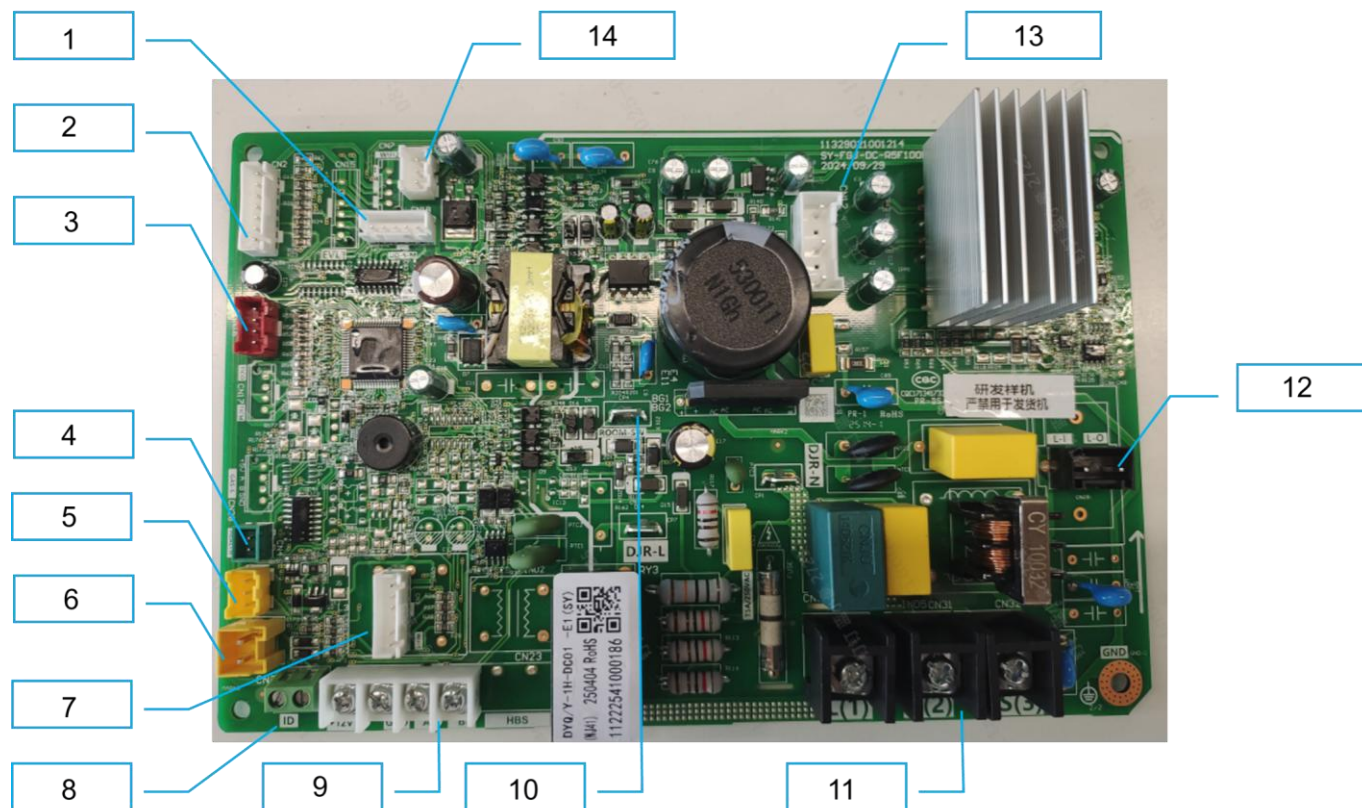


Comp.	Component description	Comp.	Component description
1	DC fan motor 1	11	S
2	DC fan motor 2	12	N
3	Temperature sensor	13	L3
4	High pressure sensor	14	L2
5	Electronic expansion valve	15	L1
6	Low pressure switch	16	GND
7	High pressure switch	17	Compressor-U
8	485-BUS	18	Compressor-V
9	Central control port	19	Compressor-W
10	4-way valve	20	

2. Indoor Unit PCB

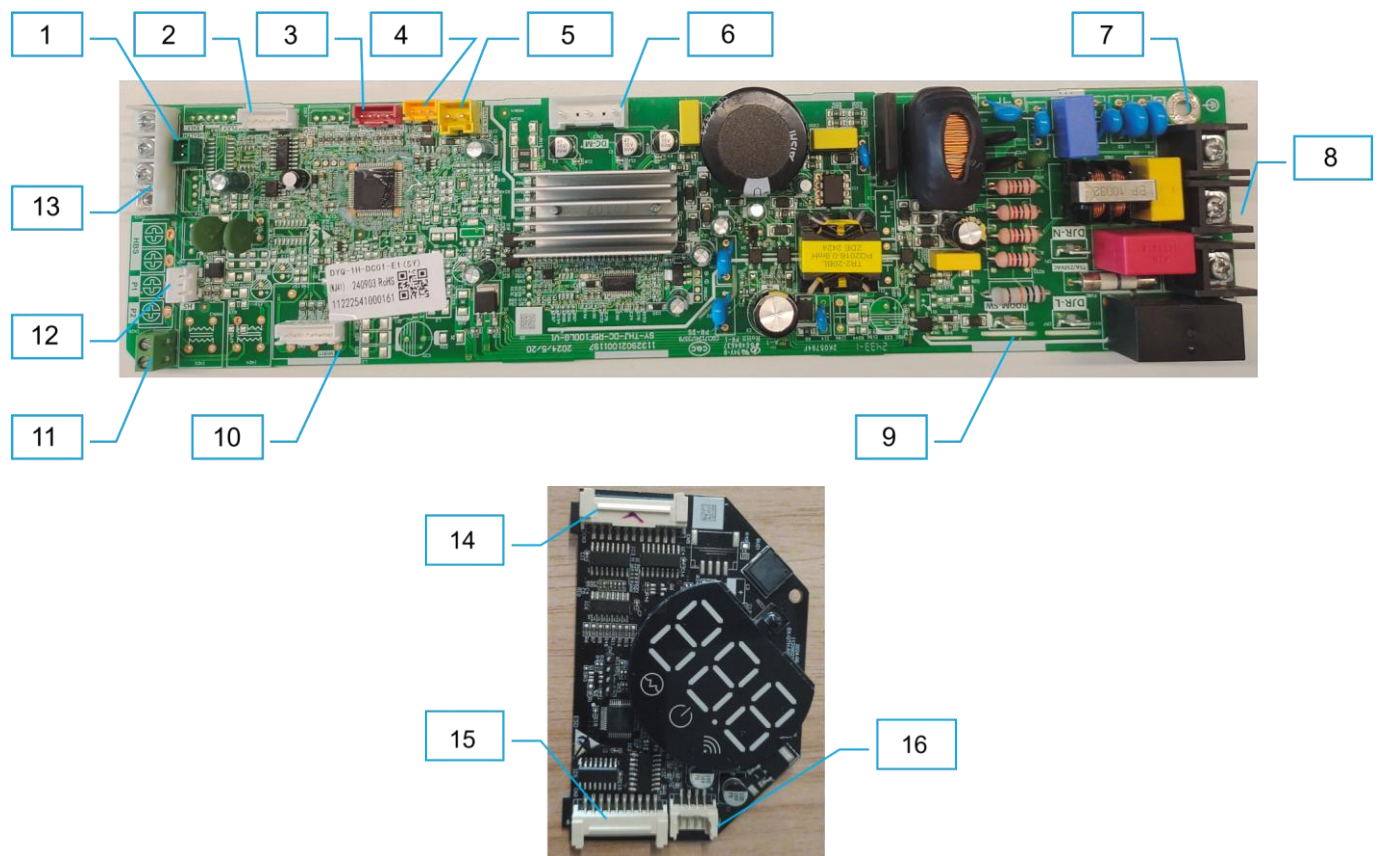
2.1.Cassette

AUCA-H12/4DR3HB2, AUCA-H18/4DR3HB2



Comp.	Component description	Comp.	Component description
1	Up/Down swing motor	8	Dry contact
2	Display	9	12V、GND、A、B
3	Temperature sensor	10	Room card
4	Health (Reserve)	11	L、N、S
5	Water pump	12	Reactor
6	Float switch	13	DC fan motor
7	WIFI	14	Humidity sensor (Reserve)

AUCA-H24/4DR3HB2 AUCA-H36/4DR3HB2 **AUCA-H36/5DR3HB2** **AUCA-H36/4DR3C4**
 AUCA-H42/4DR3HB2 AUCA-H48/5DR3HB2 AUCA-H60/5DR3HB2

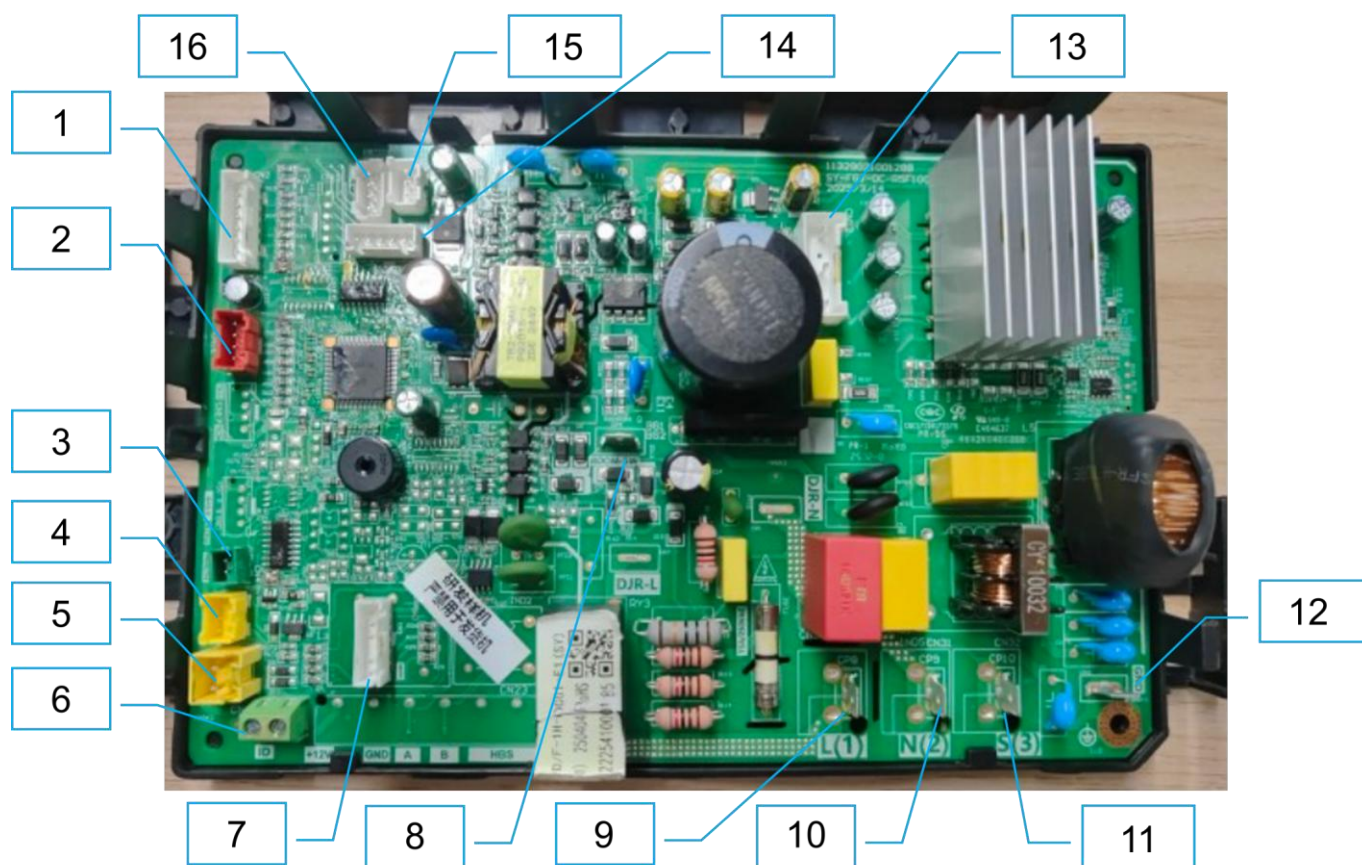


Comp.	Component description	Comp.	Component description
1	Health (Reserve)	9	Room card
2	Display	10	WIFI
3	Temperature sensor	11	Dry contact
4	Water pump	12	Humidity sensor (Reserve)
5	Float switch	13	12V、 GND、 A、 B
6	DC fan motor	14	Louver step motor 1&2
7	GND	15	Louver step motor 3&4
8	L、 N、 S	16	Communication port (with PCB)

2.2.Ceiling Floor

AUCF-H18/4DR3HA2, AUCF-H24/4DR3HA2, AUCF-H36/4DR3HC2, **AUCF-H36/4DR3C4**

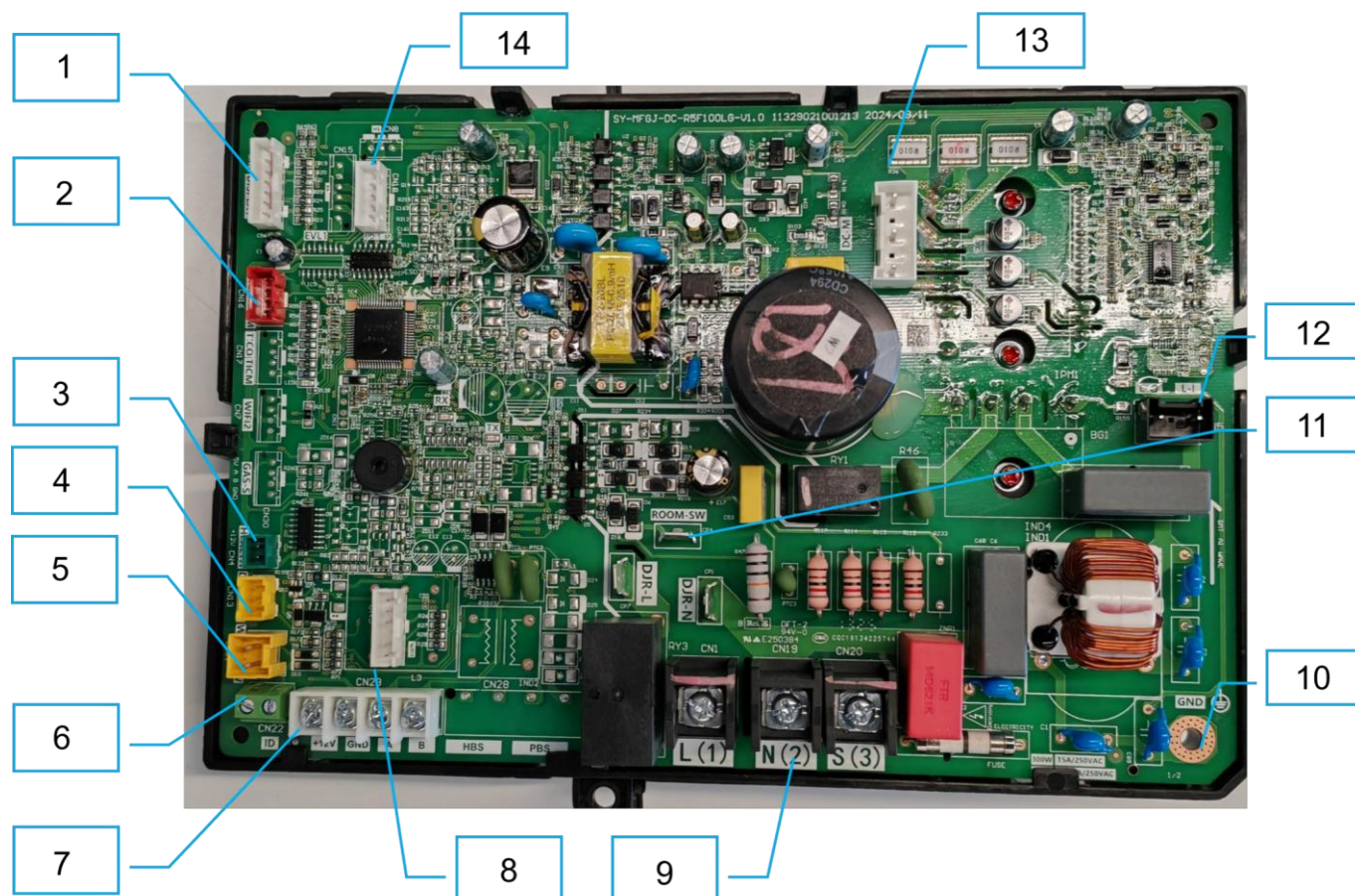
AUCF-H42/4DR3HC2, AUCF-H48/5DR3HC2, AUCF-H60/5DR3HC2



Comp.	Component description	Comp.	Component description
1	Display	9	L
2	Temperature sensor	10	N
3	Reserved	11	S
4	Reserved	12	GND
5	Reserved	13	DC fan motor
6	Dry contact	14	Up/Down swing motor
7	WIFI	15	Reserved
8	Room card	16	RS 485 communication

2.3 Duct

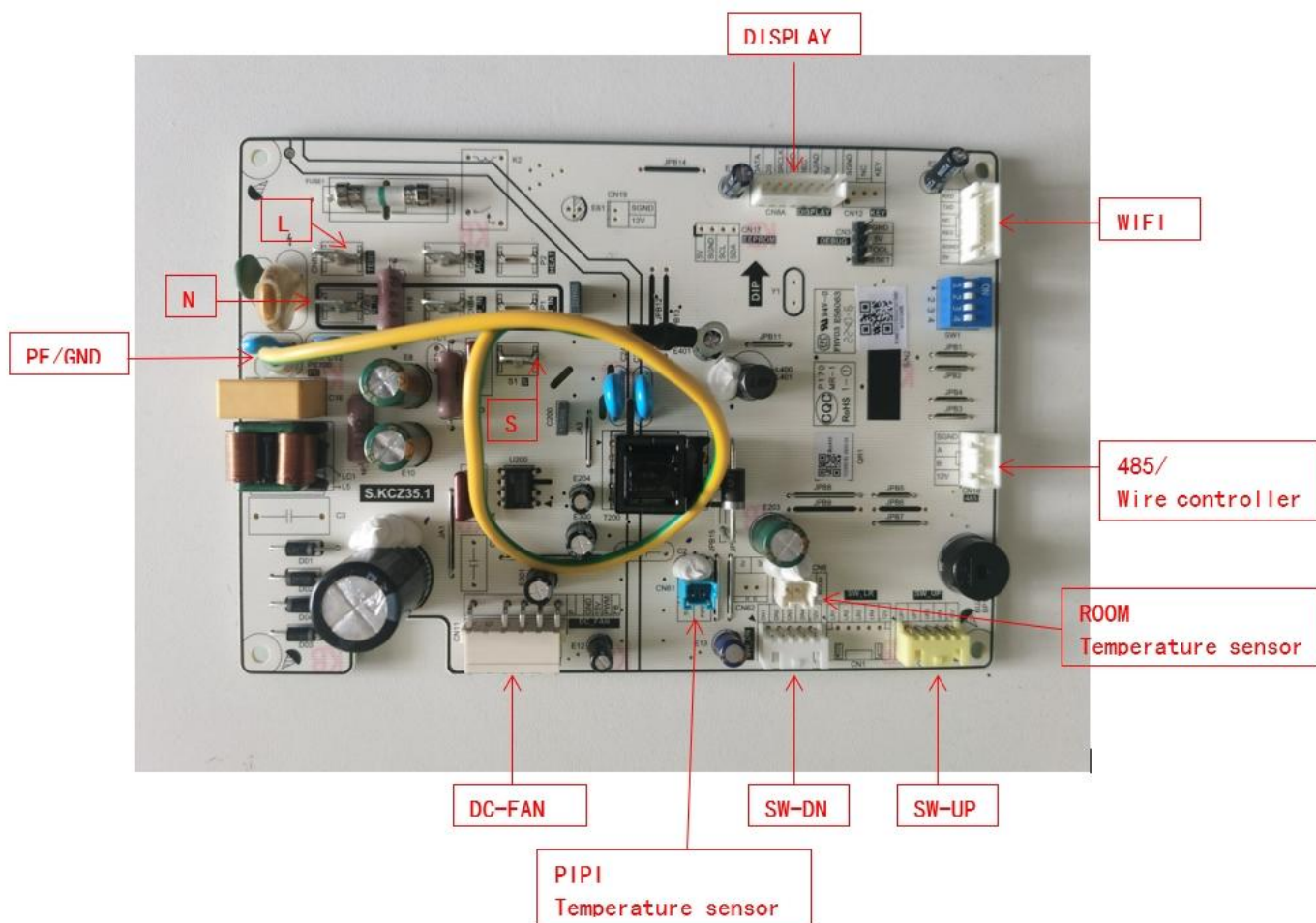
AUMD-H12/4DR3HB2, AUMD-H18/4DR3HB2, AUMD-H24/4DR3HB2, AUMD-H30/4DR3HC2, AUMD-H36/5DR3HB2, AUCA-H36/4DR3C4, AUMD-H36/4DR3HB2, AUMD-H42/4DR3HB2, AUMD-H48/5DR3HB2, AUMD-H60/5DR3HB2



Comp.	Component description	Comp.	Component description
1	Display	8	WIFI
2	Temperature sensor	9	L、N、S
3	Health (Reserve)	10	GND
4	Water pump	11	Room card
5	Float switch	12	Reactor
6	Dry contact	13	DC fan motor
7	12V、GND、A、B	14	Up/Down swing motor

2.4 Console

AUCO-H12/4DR3HA2、AUCO-H18/4DR3HA2



Part11 Electric Characteristic

Model	Power supply		Maximum Operating Current (A)	ODU fan motor input (W)
	Hz	voltage		
AL-H12/4DR3HC1(U)	50Hz	220-240	9	40
AL-H18/4DR3HB3(U)			12	40
AL-H24/4DR3HB3(U)			14.5	65
AL-H30/4DR3HB3(U)			16	65
AL-H36/4DR3C3(U)			23	90
AL-H36/4DR3C5(U)			25	90
AL-H42/4DR3C3(U)			25	90
AL-H36/5DR3C3(U)		380-415	9	90
AL-H48/5DR3C3(U)			12	170
AL-H60/5DR3C3(U)			15	130

Part12 Centralized control

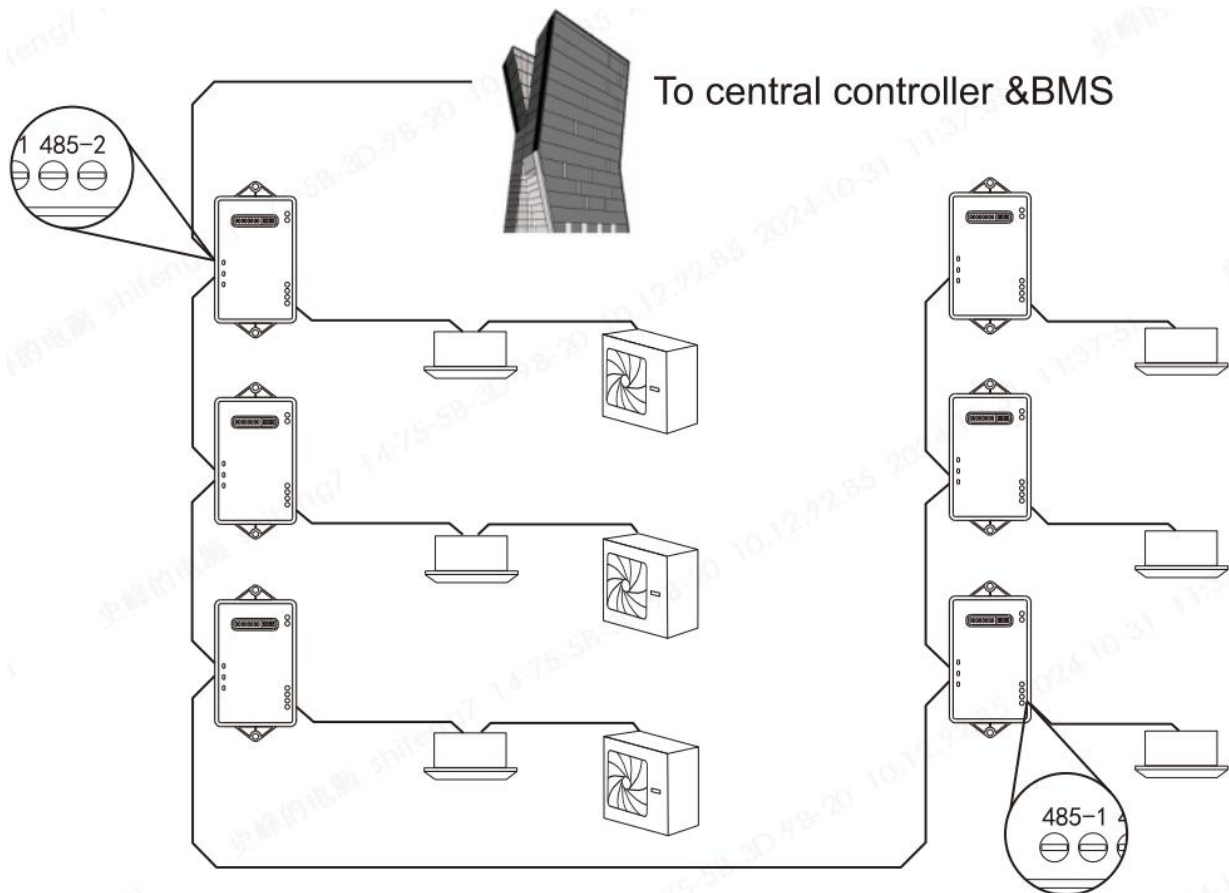
1. Centralized control

The communication between the indoor unit and the outdoor unit is LNS. However, the indoor unit PCB has the Modbus port and terminal board for connecting the wired controller (Modbus 485). Therefore, the indoor unit terminal board can be connected to the MINI gateway for centralized control. Here is the diagram.

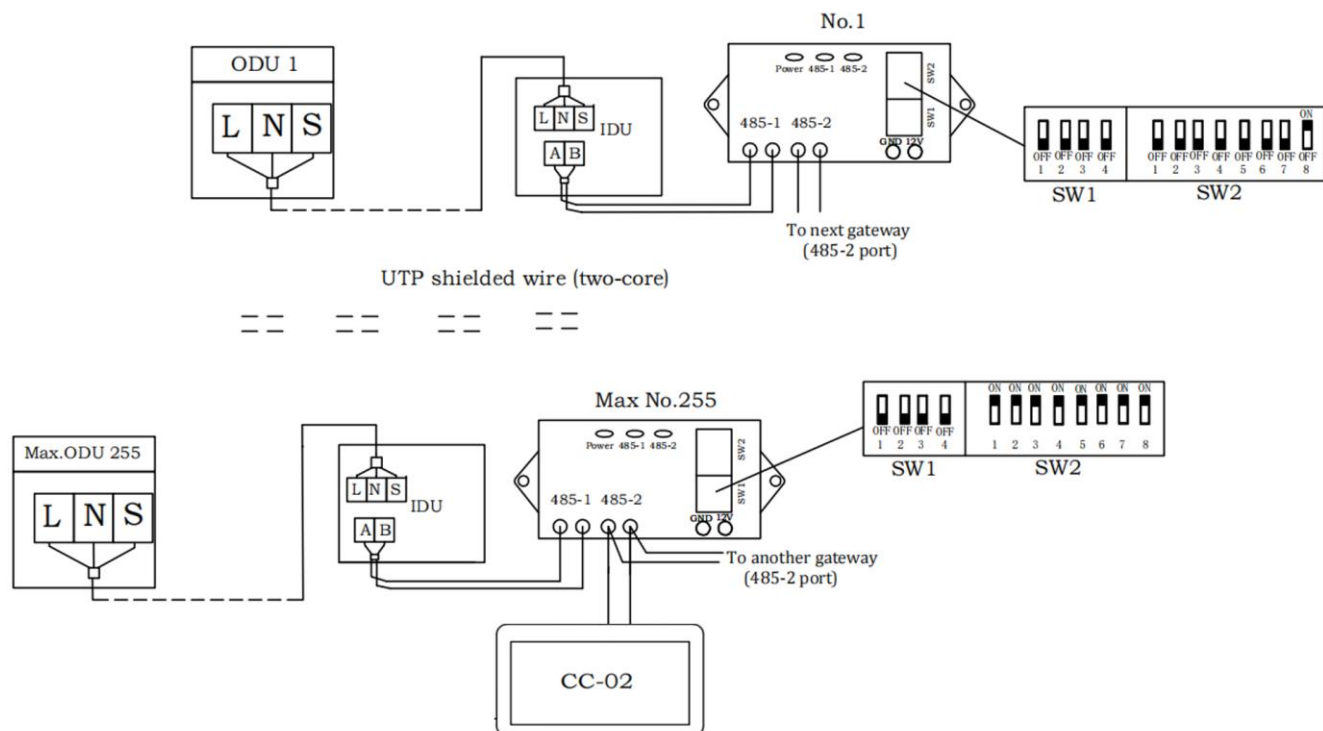
i INFORMATION

The wire is connected between the indoor unit PCB port and the terminal board.

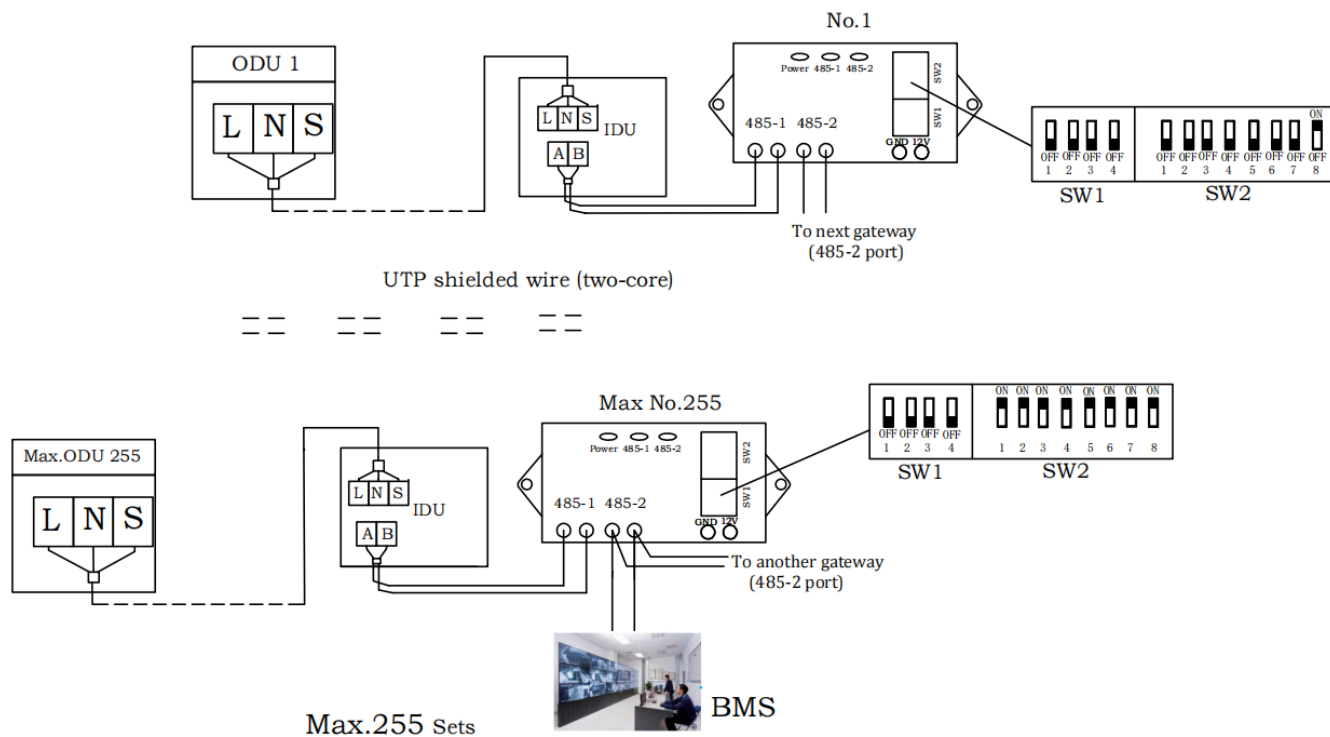
1. System wiring diagram



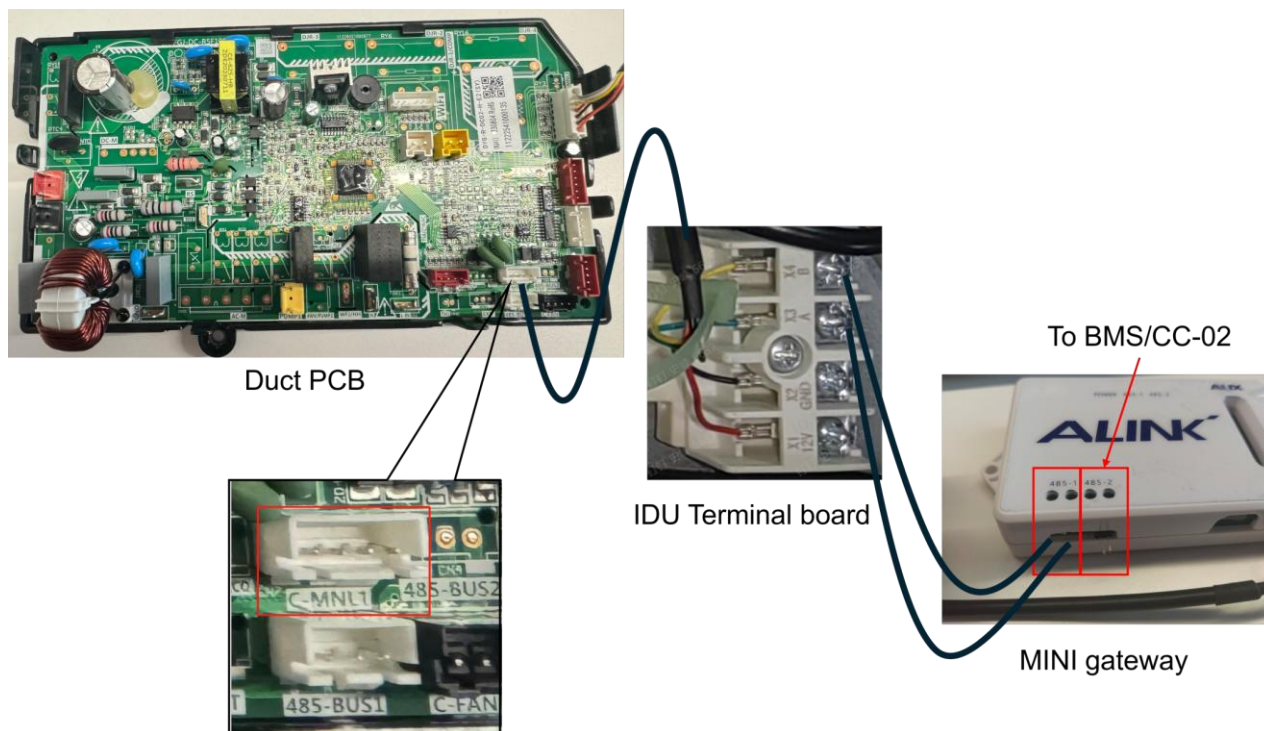
2. Connect to the centralized controller



3. Connect to the BMS

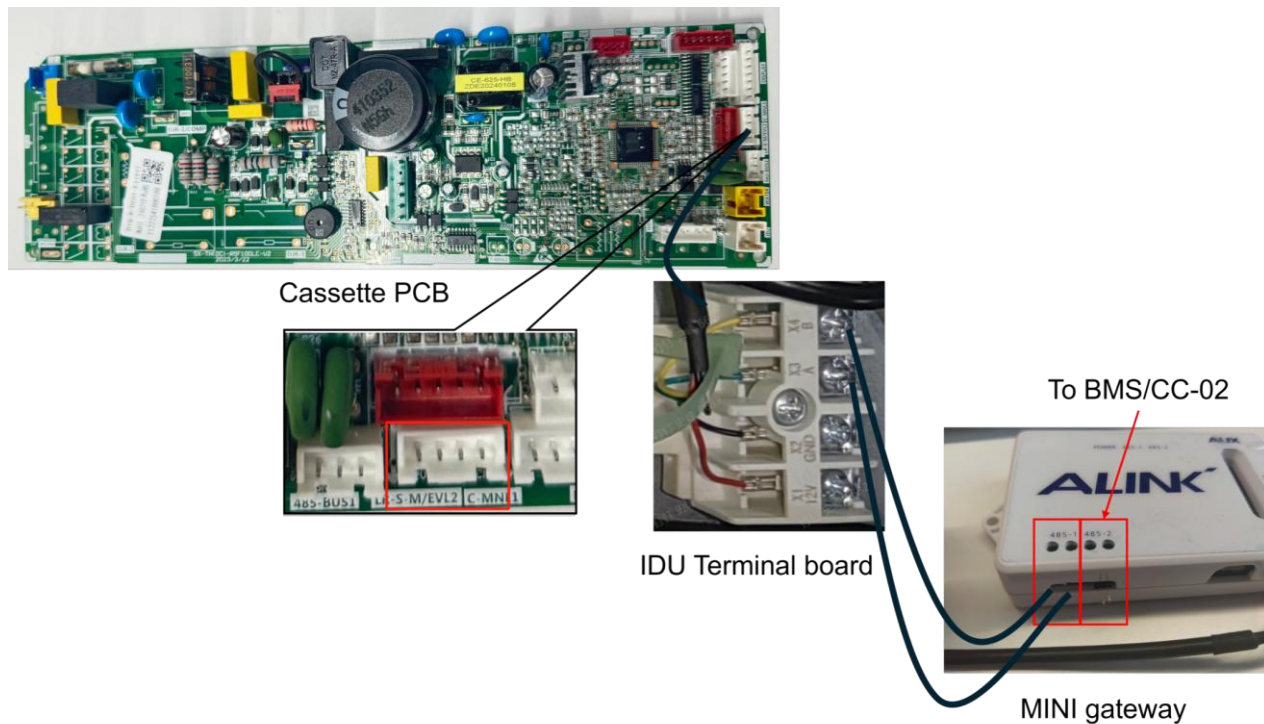


4. Wiring diagram (duct/ ceiling floor)



Note: The PCB of duct is the same as the PCB structure of the ceiling floor, so the connection of the ceiling floor can refer to the duct.

5. Wiring diagram (cassette)



Part13 Trouble Shooting

CF/ CA/ Duct /Co: Ceiling floor /Cassette/Duct/Console unit

1. Failure code display

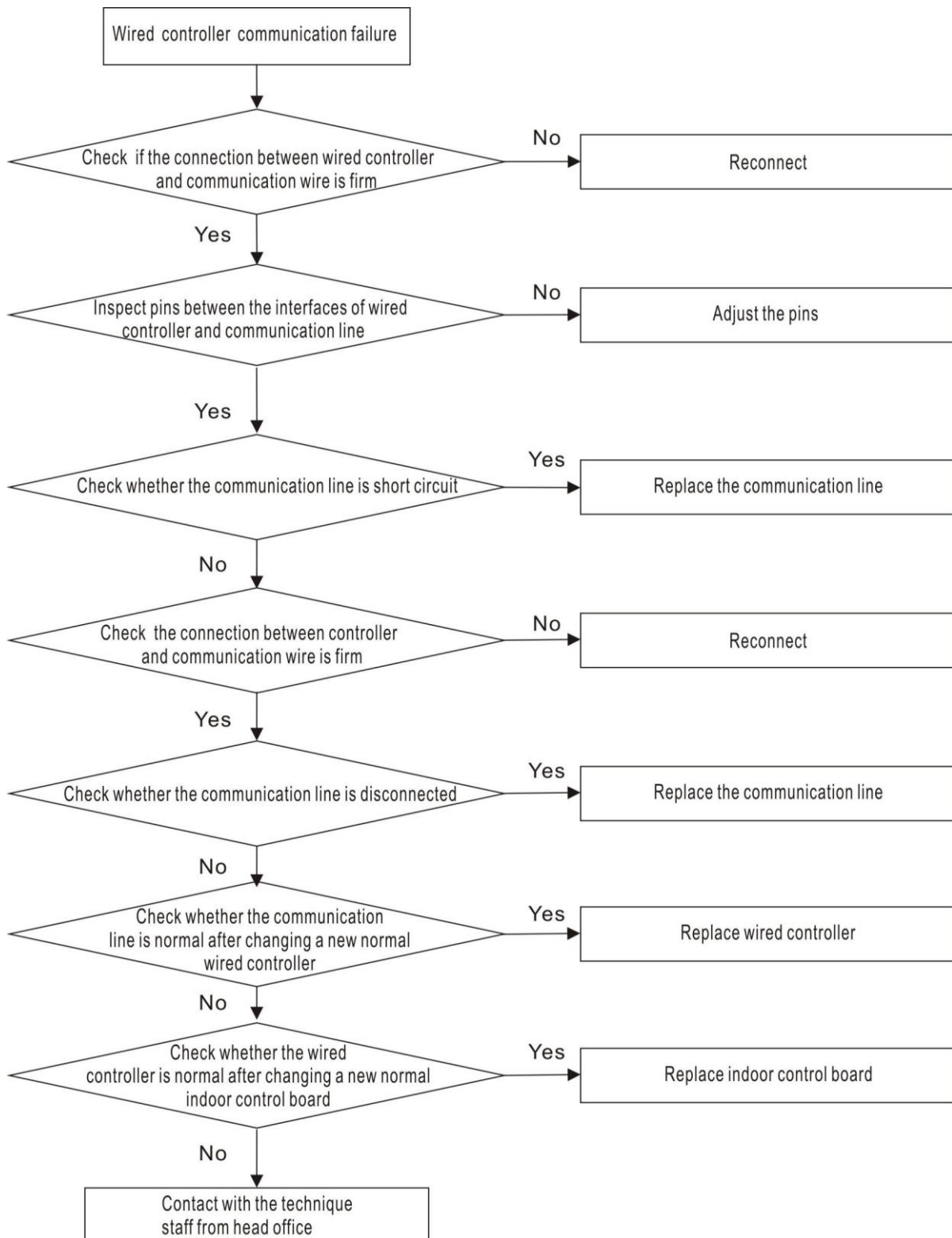
Error Code	Description	Causes of possible failure
A1	Fault with the room temperature sensor on the indoor unit	Damage of the room temperature sensor on the indoor unit
		Poor contact of the room temperature sensor on the indoor unit
		Damage of wiring of the room temperature sensor on the indoor unit
		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 EEPROM module failure	Indoor unit PCB is broken
		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

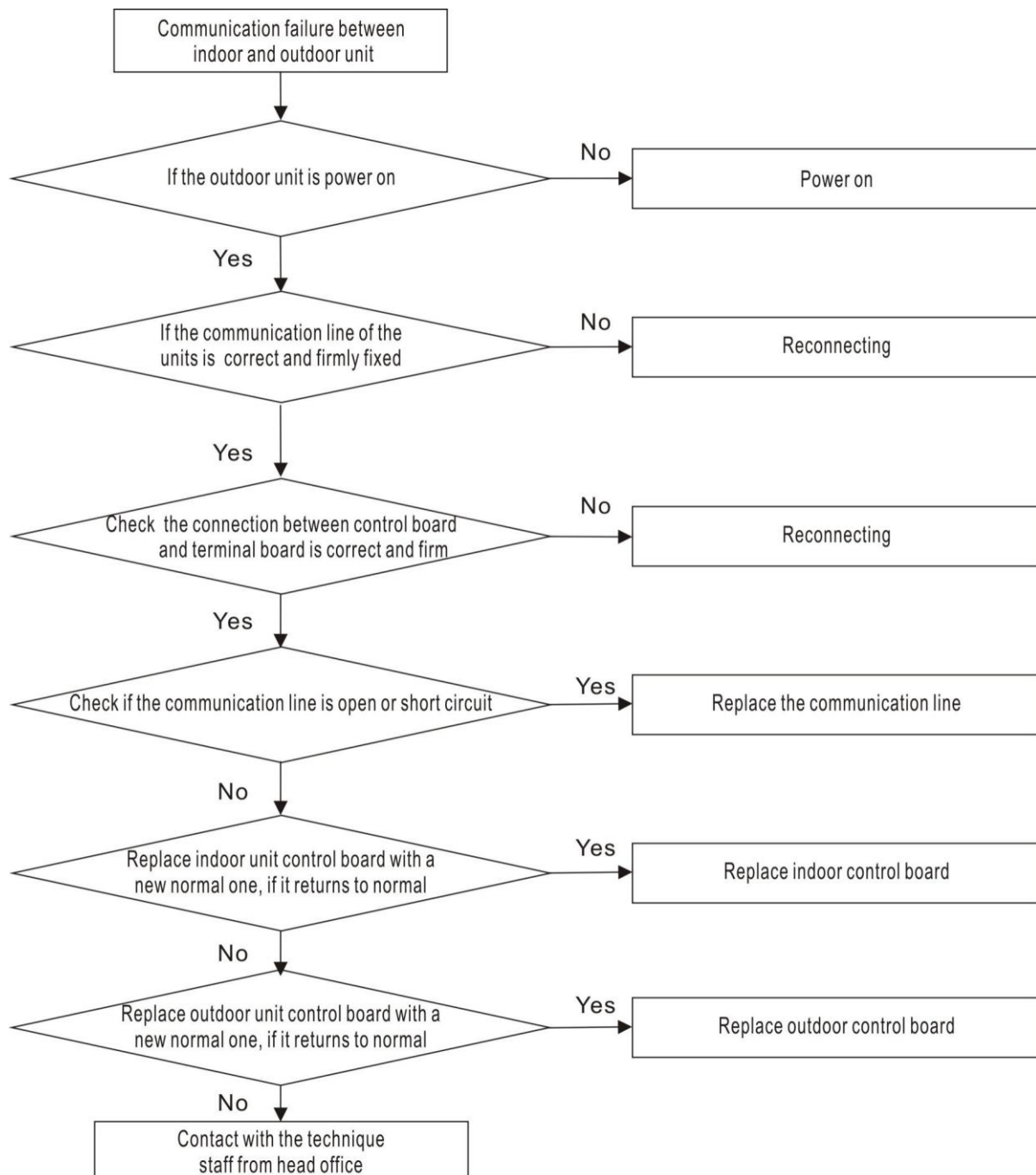
Error Code	Description	Causes of possible failure
H4	Fault with the low-pressure switch	Lack of the refrigerant
		Stop valve unopened
		Damage of the pressure switch
C1	Fault with the ambient temperature sensor on the outdoor unit	Damage of the ambient temperature sensor on the outdoor unit
		Poor contact of the ambient temperature sensor on the outdoor unit
		Damage of wiring of the ambient 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 mode	Outdoor condenser coil blocked
		Indoor evaporator coil blocked
FH	Protection lower temperature discharge	Temperature sensor shedding

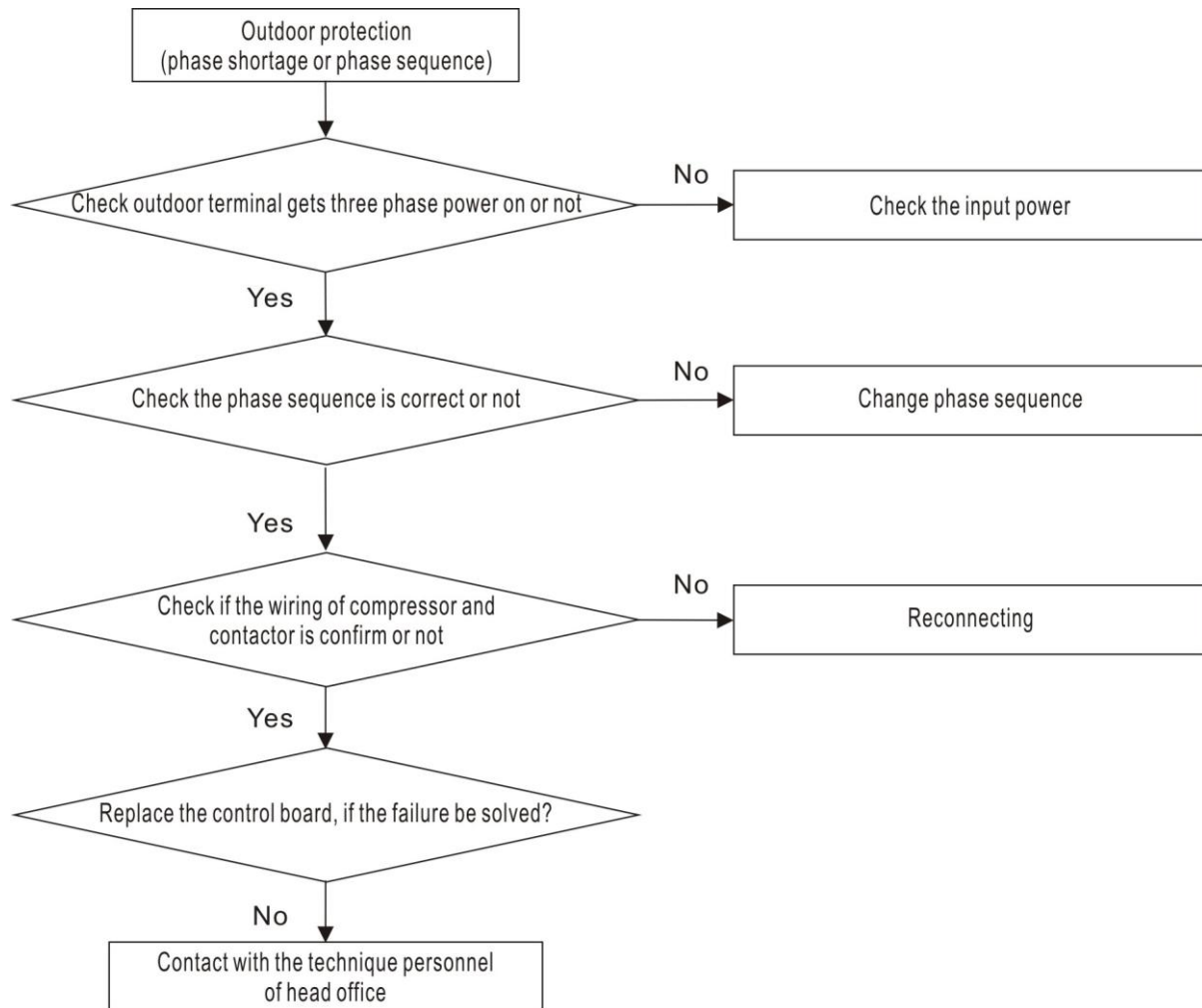
Error Code	Description	Causes of possible failure
		Damage of the main PCB on the outdoor unit
31	Fault with the inverter module protection	Fault with the inverter module protection
32	Compressor drive hardware protection	Damage of the EE chip of driver board
33	Module software protection	Supply voltage below level let the current excessive
		Supply voltage exceed limit
		Outdoor fan stops 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 efficiency 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	Over-current protection of outdoor DC motor	High speed of DC motor
3J	Over-voltage 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 driver board
		Poor contact of the communication line of fan drive board
		Damage of fan driving board
9A	Temperature protection of indoor DC fan module	Damage of fan driving board
9H	Failure of indoor DC fan start-up	Damage of fan motor
		High speed of DC motor
9C	Over-current protection of indoor DC motor	Excessive running current of fan motor
9J	Over-voltage and under-voltage 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

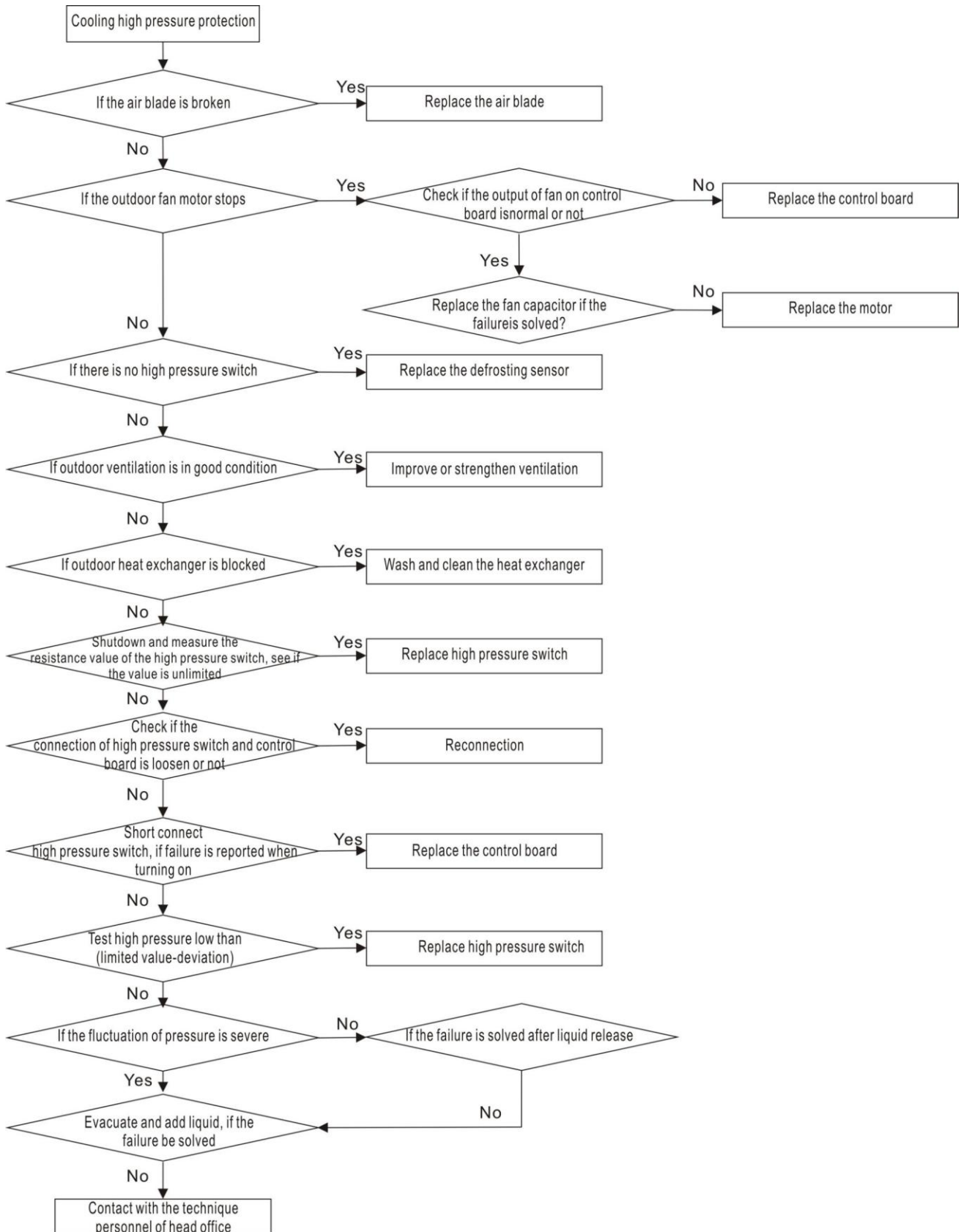


2.2 【A9】 Communication failure between indoor and outdoor unit

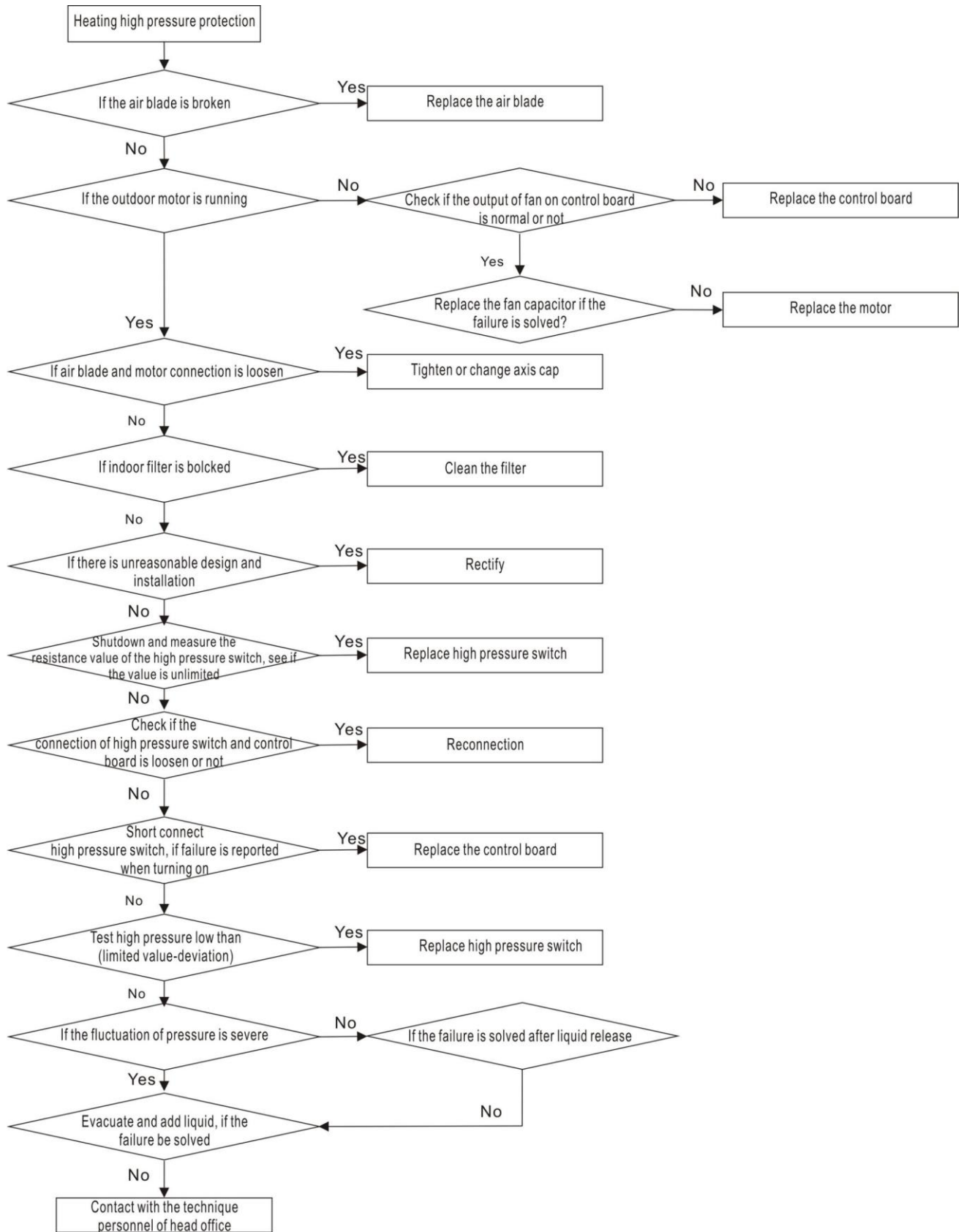
Outdoor protection (phase sequence)

2.3 【H1】 high pressure protection

Cooling high pressure protection

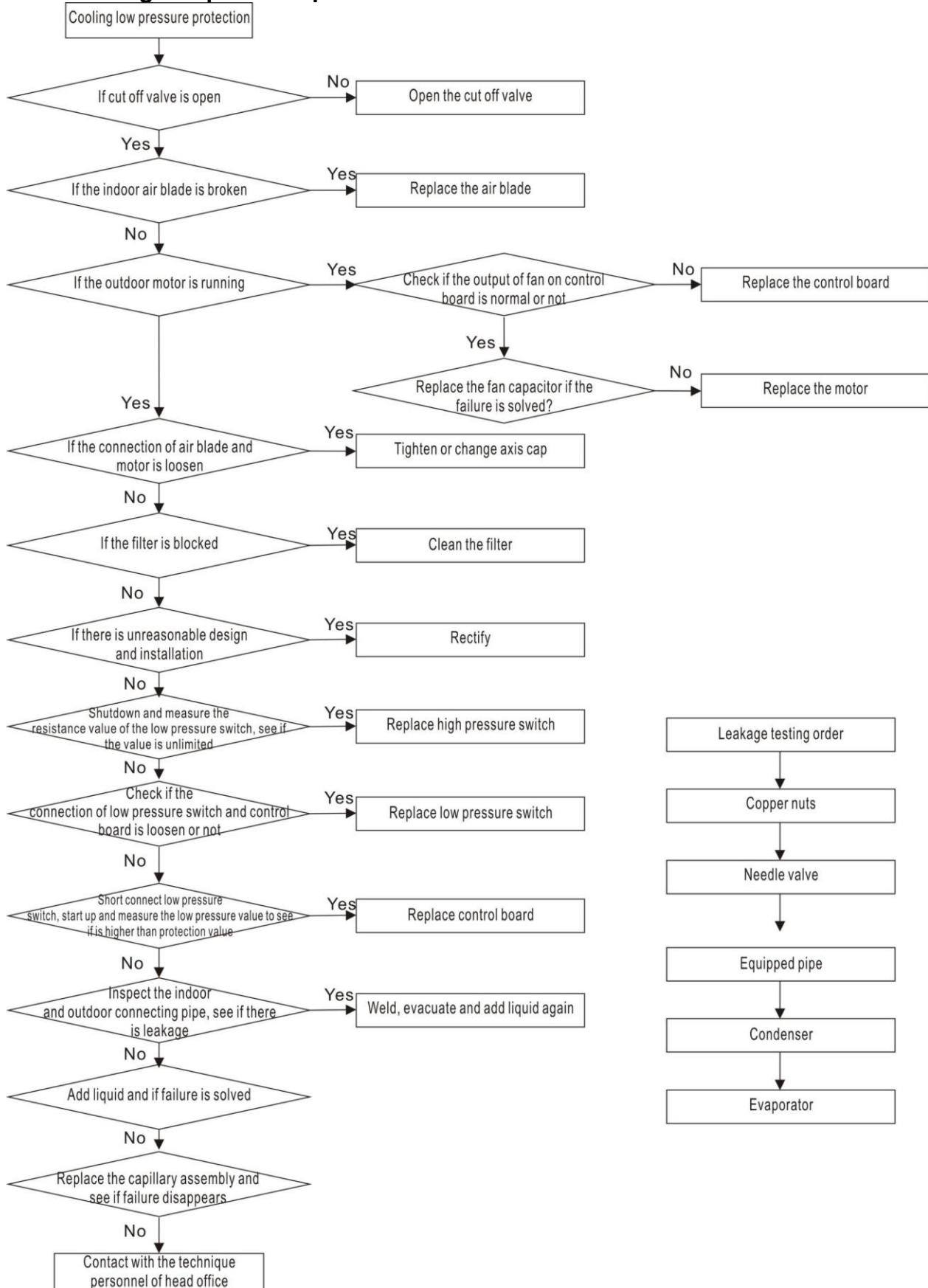


Heating high pressure protection



2.4 【H4】 low pressure protection

2.4.1 Cooling low pressure protection

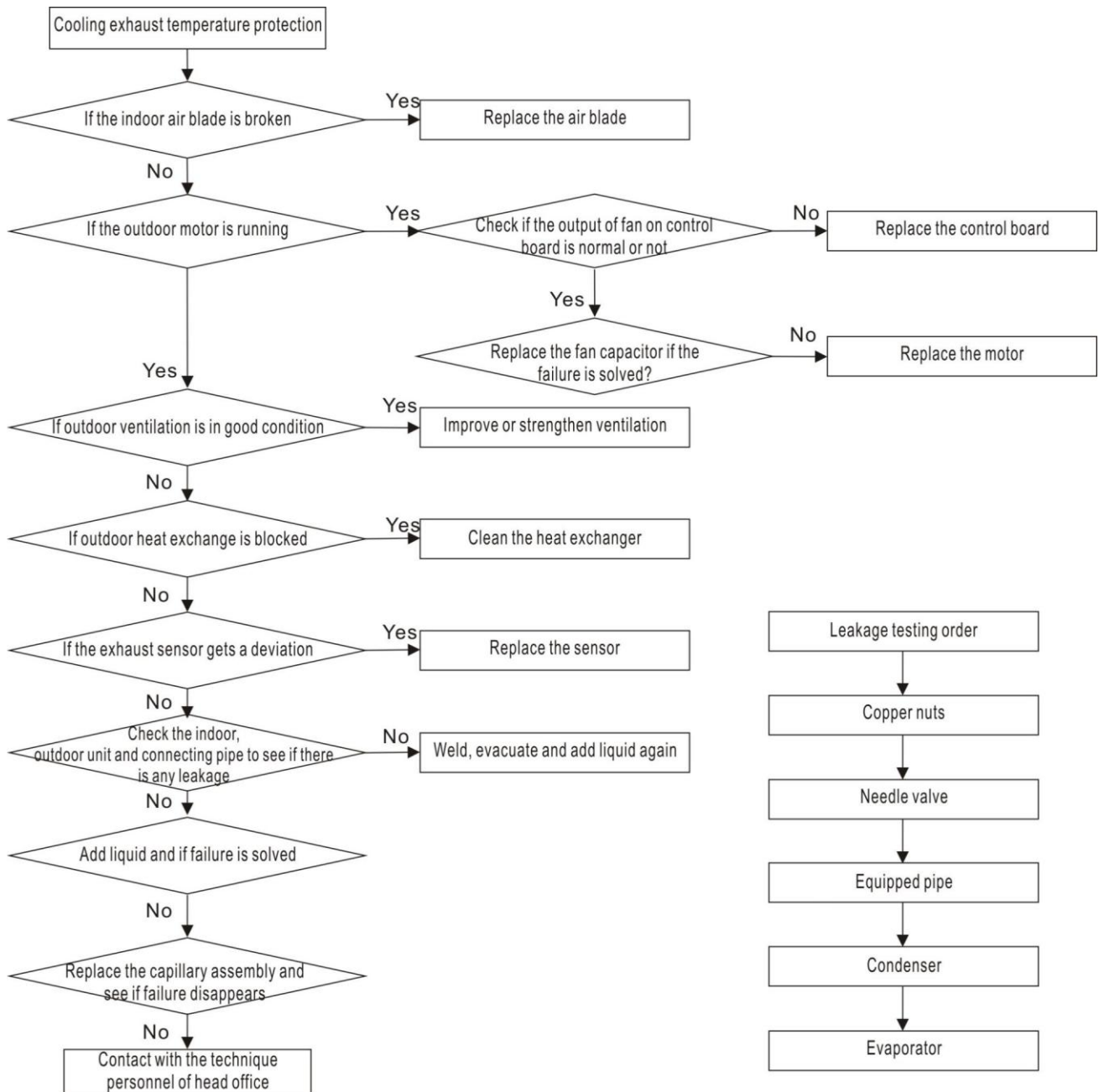


2.4.2 Heating low pressure protection

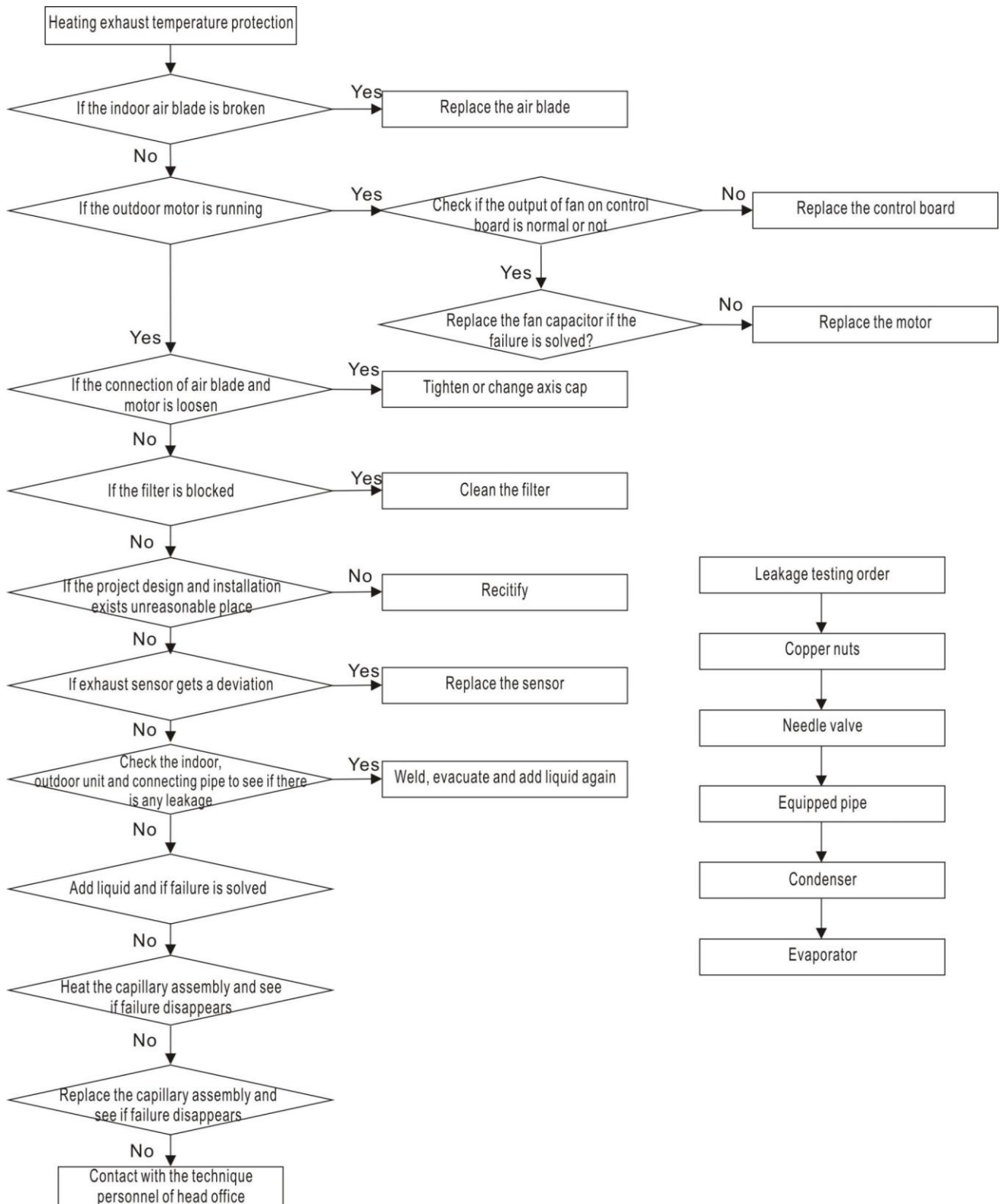


2.5 【E3】 High exhaust temperature protection

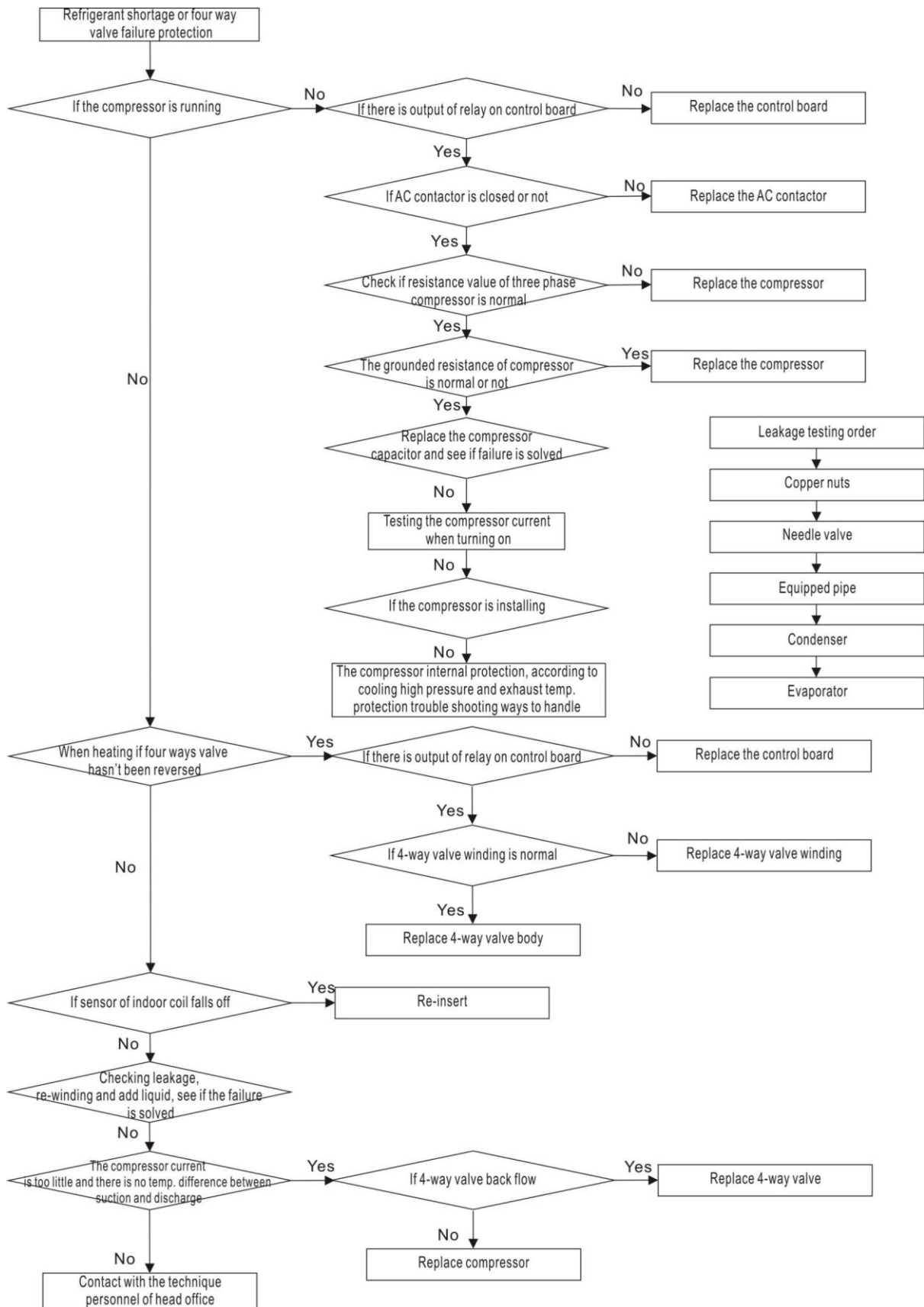
Cooling exhaust temperature protection



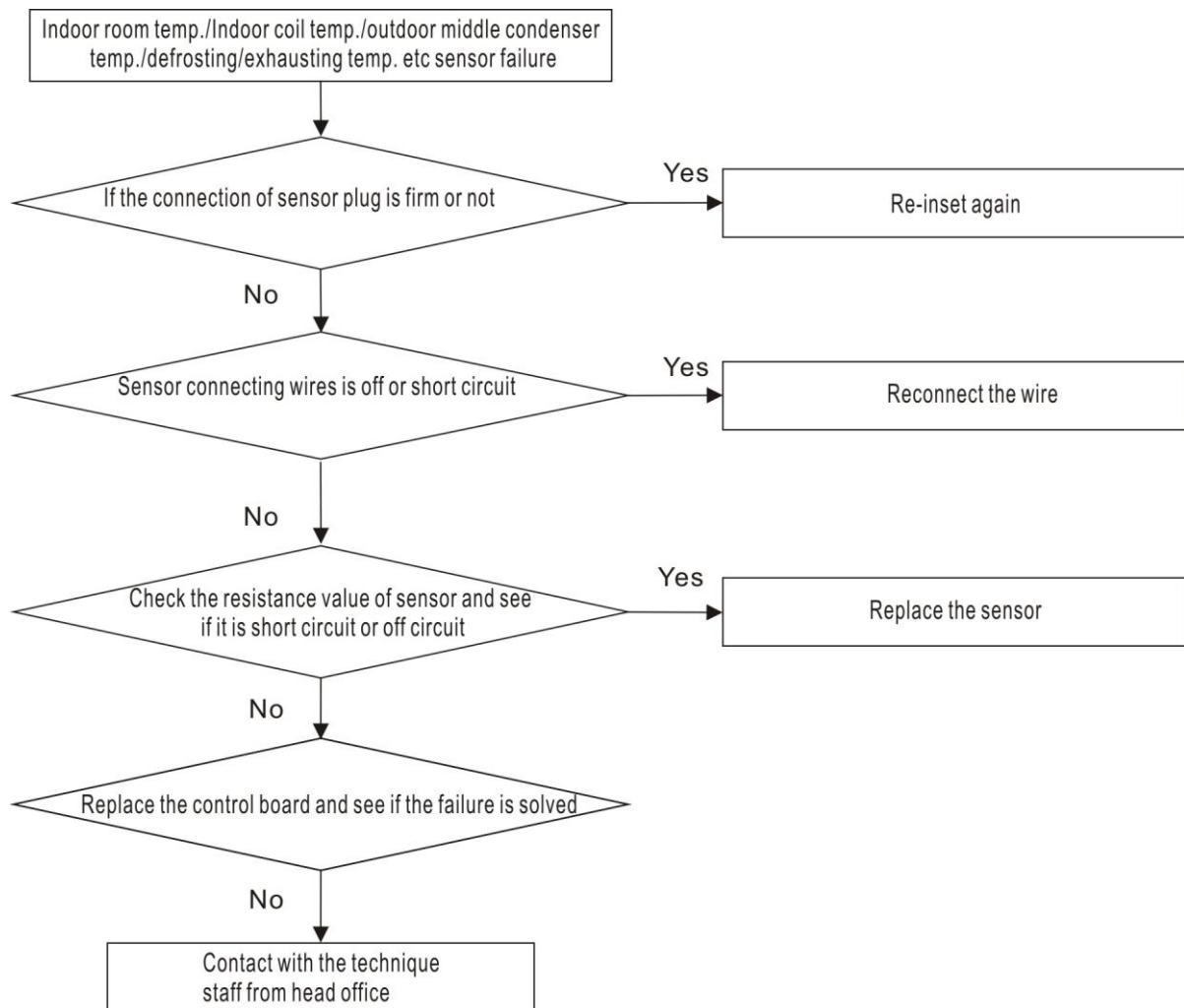
Heating exhaust temperature protection



2.6 【E1】 four way valve failure protection



2.7 Sensor failure protection



Update Record

Version	Updater	Update Content
V22	Steven	Product update: Some content has been reduced and transformed into a display in the form of QR codes.
V23	Nora	Product update: The relevant information of three type of Ceiling Floor (42K, 48K, 60K) has been updated. Also added Four new panels for Q Cassette.
V24	Clay	Add Group control function Introduction.
V25	Clay	Add new 36K three-phase product.
V26	Clay	Add new 36K single-phase product.