



INVERTER SPLIT TYPE AIR CONDITIONER (50Hz)

DUCT type

SERVICE MANUAL



Models

Indoor unit

Outdoor unit

ARHA24LATN

AOHA24LACL

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SPECIFICATIONS

TYPE	Inverter Cool & Heat
INDOOR UNIT	ARHA24LATN
OUTDOOR UNIT	AOHA24LACL
COOLING CAPACITY	7.10 kW
HEATING CAPACITY	8.00 kW

ELECTRICAL DATA

POWER SOURCE		230 V
FREQUENCY		50 Hz
RUNNING CURRENT	Cooling	9.7 A
	Heating	9.7 A
INPUT WATTS	Cooling	2.21 kW
	Heating	2.21 kW
E.E.R.	Cooling	3.21 kW/kW
	Heating	3.61 kW/kW
STARTING CURRENT		10.0 A
MOISTURE REMOVAL		2.5 L/hr

Note : The above list shows values at the external static pressure of 30Pa, setting the fan speed high notch. (indoor unit)

FAN SPEED

INDOOR UNIT	Discrimination	MFG-24RV
	High	830 r.p.m.
	Med	700 r.p.m.
	Low	600 r.p.m.
	Quiet	550 r.p.m.
OUTDOOR UNIT	Discrimination	MFE-24ROAM
	Cooling	1,050 r.p.m.
	Heating	1,050 r.p.m.

Note : The above list shows values at the external static pressure of 30Pa, setting the fan speed high notch. (indoor unit)

AIR FLOW

INDOOR UNIT	High	1,100 m³/h
	Med	950 m³/h
	Low	800 m³/h
	Quiet	600 m³/h
OUTDOOR UNIT	Cooling	2,470 m³/h
	Heating	2,470 m³/h

Note : The above list shows values at the external static pressure of 30Pa, setting the fan speed high notch. (indoor unit)

NOISE LEVEL

INDOOR UNIT	High speed	31 dB
	Med speed	29 dB
	Low speed	27 dB
	Quiet	25 dB
OUTDOOR UNIT	Cooling	52 dB
	Heating	53 dB

Note : Static pressure : 30Pa

Duct length : Inlet 1m, Outlet 2m (indoor unit)

DIMENSIONS AND WEIGHT

DIMENSIONS H x W x D	Indoor unit	270 x 1,135 x 700 mm
	Outdoor unit	578 x 790 x 315 mm
WEIGHT Gross / Net	Indoor unit	45 kg / 38 kg
	Outdoor unit	48 kg / 44 kg

COMPRESSOR

TYPE	Hermetic type, 4 poles, DC motor, Twin Rotary	
DISCRIMINATION	DA150AIF-20NA	
REFRIGERANT	R410A	1,700 g

REFRIGERANT CHARGE

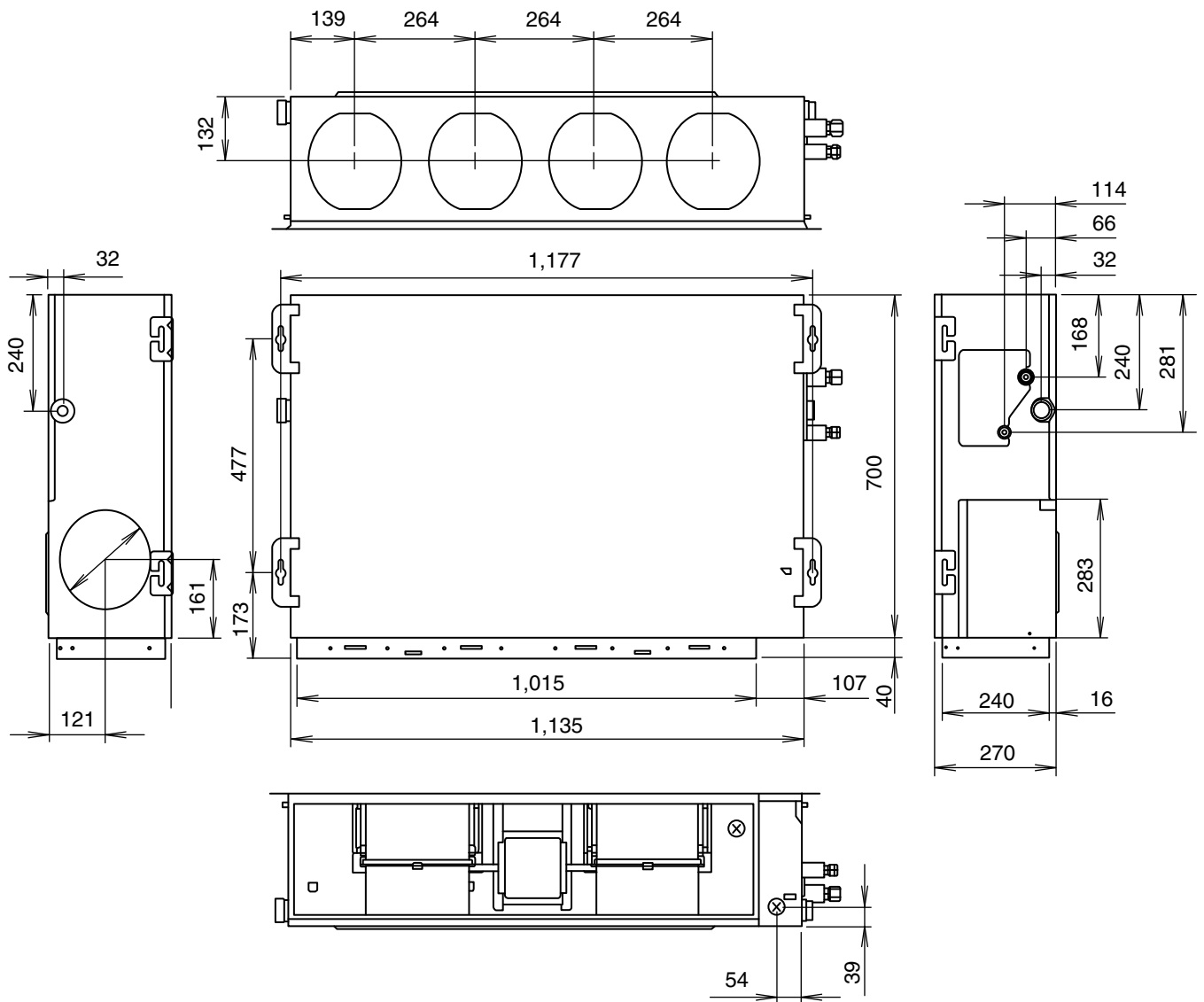
FULL CHARGE	Pipe Length	15 m	1,700 g
		20 m	1,800 g
		25 m	1,900 g
		30 m	2,000 g
ADDITIONAL CHARGE			20 g/m
MAXIMUM PIPE HEIGHT			20 m

When you dismantle indoor units which are installed, take care not to make parts fall down, especially motors.

DIMENSIONS

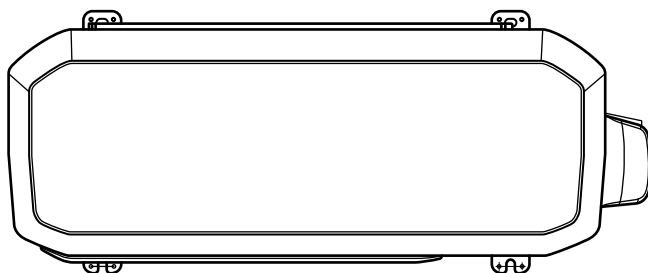
INDOOR UNIT

(Unit : mm)

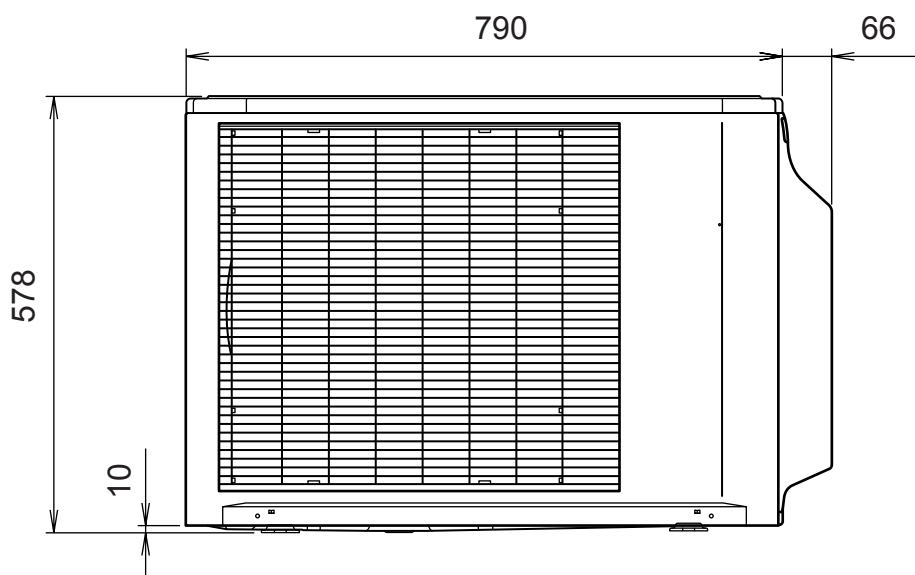


OUTDOOR UNIT

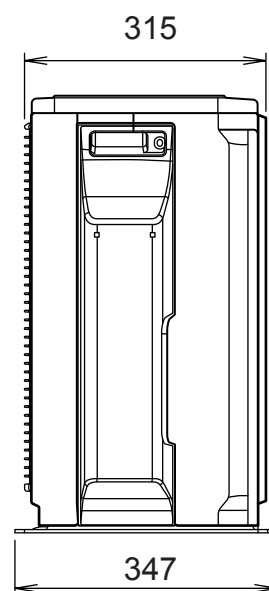
Unit : mm



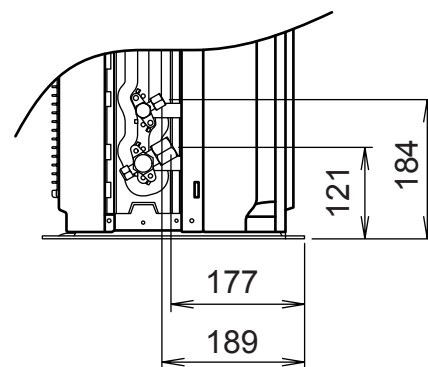
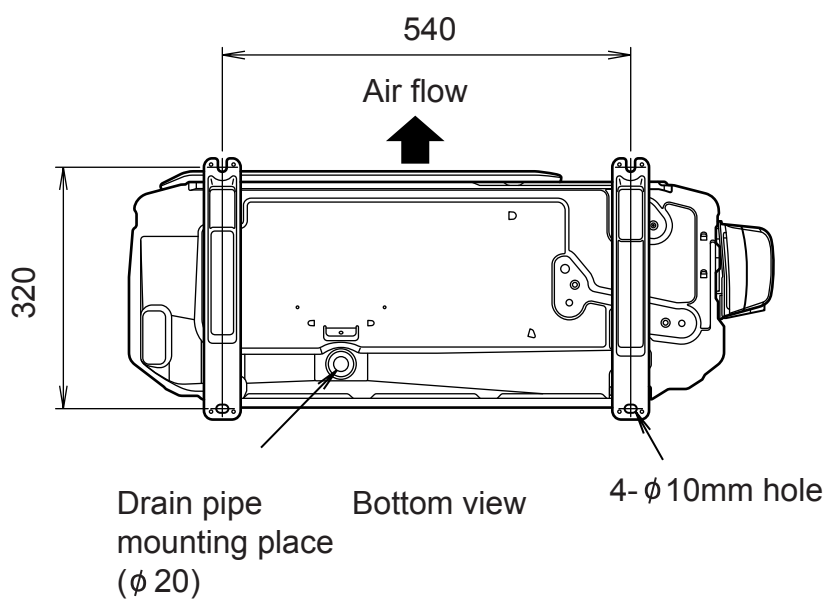
Top view



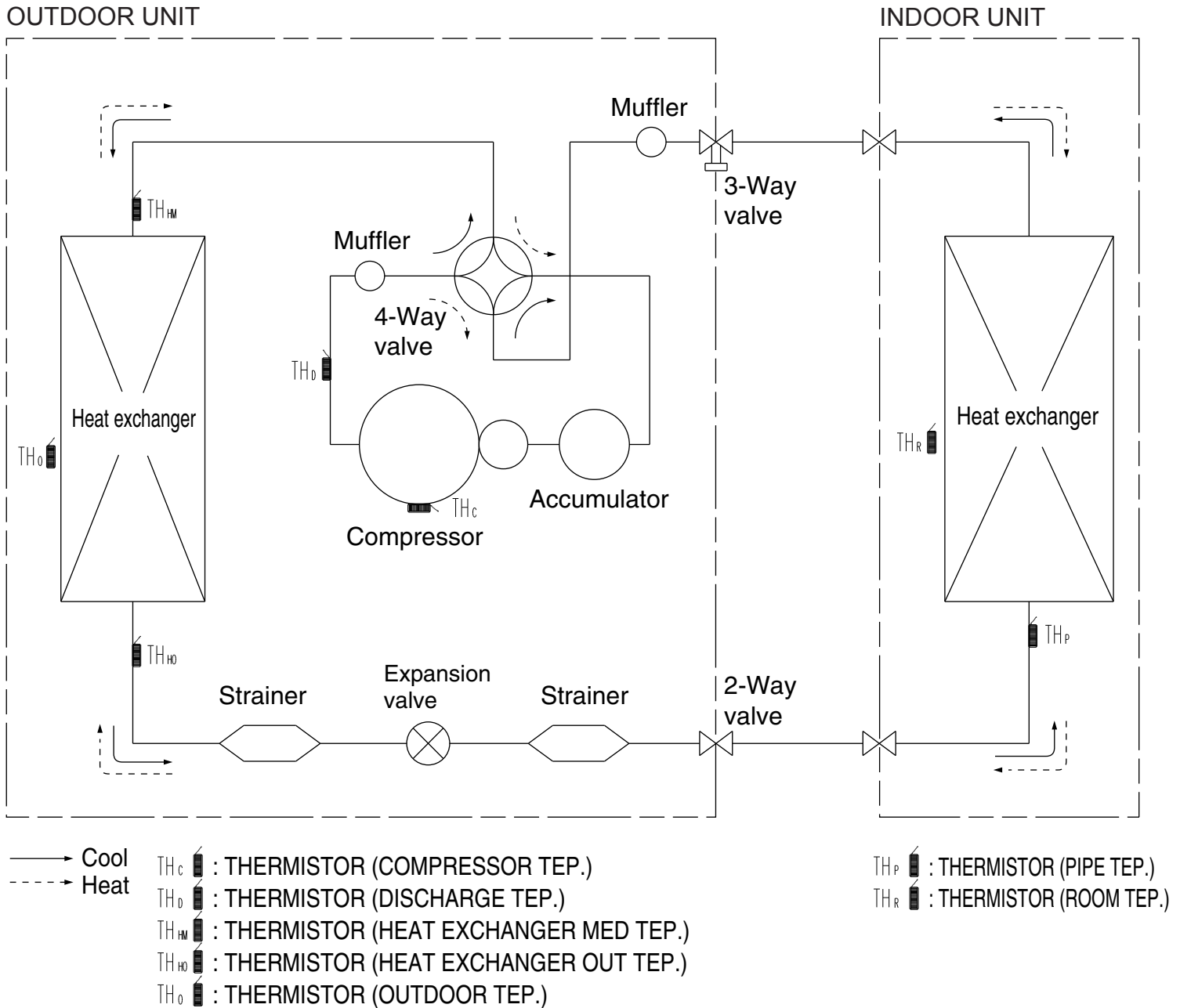
Front view



Side view



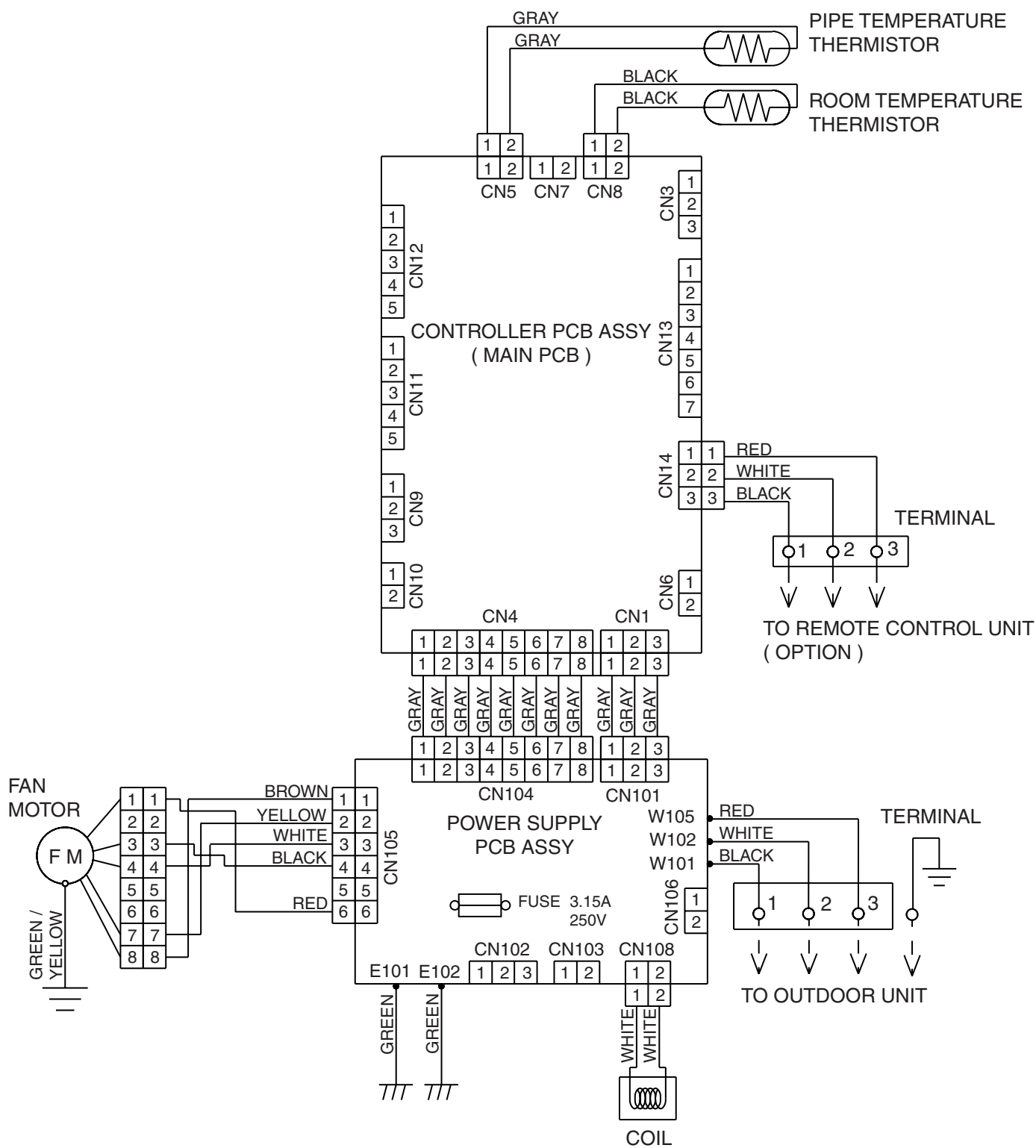
REFRIGERANT SYSTEM DIAGRAM



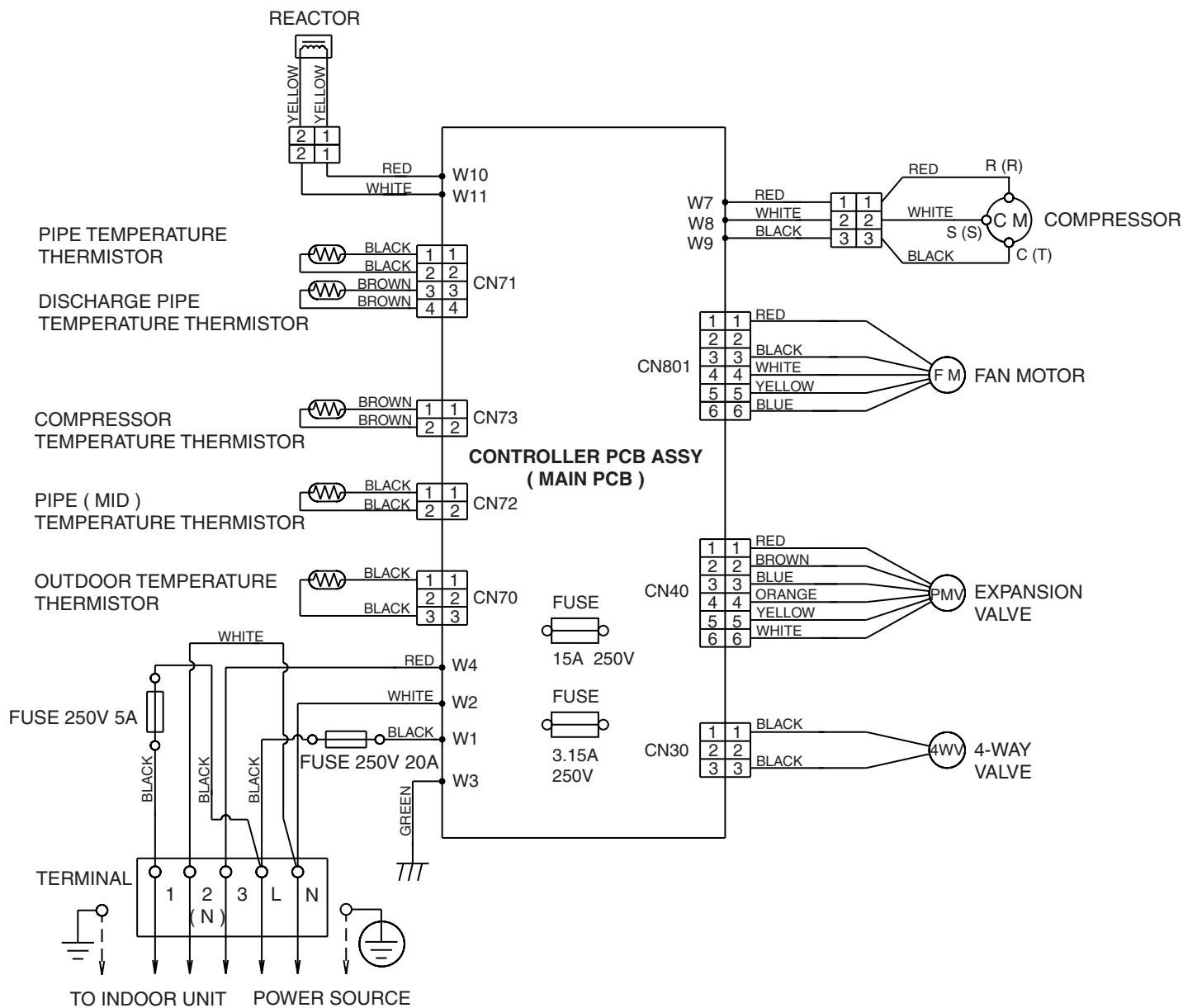
Refrigerant pipe diameter
 Liquid : 1/4" (6.35 mm)
 Gas : 5/8" (15.88 mm)

CIRCUIT DIAGRAM

INDOOR UNIT

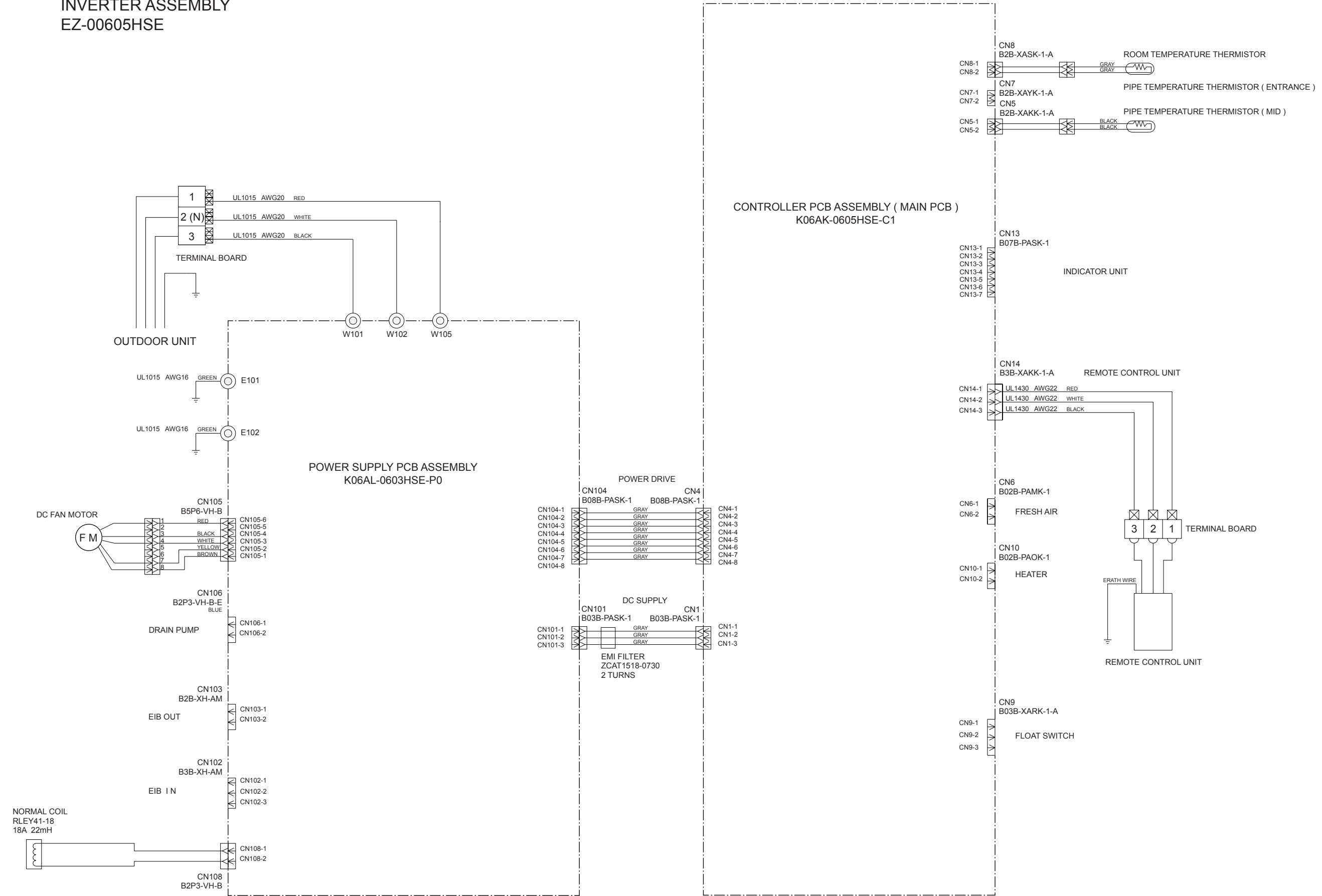


OUTDOOR UNIT

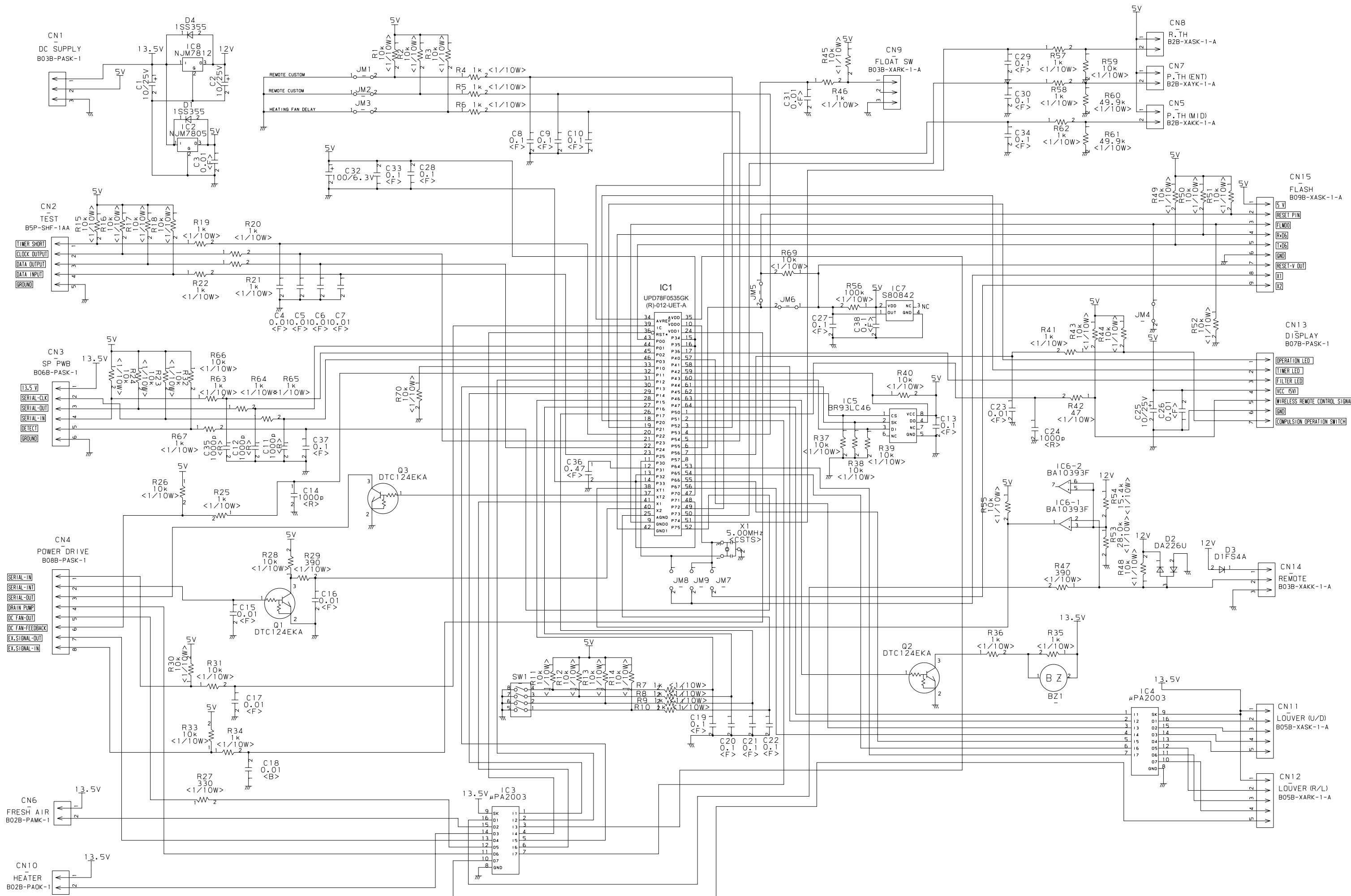


INDOOR PCB CIRCUIT DIAGRAM

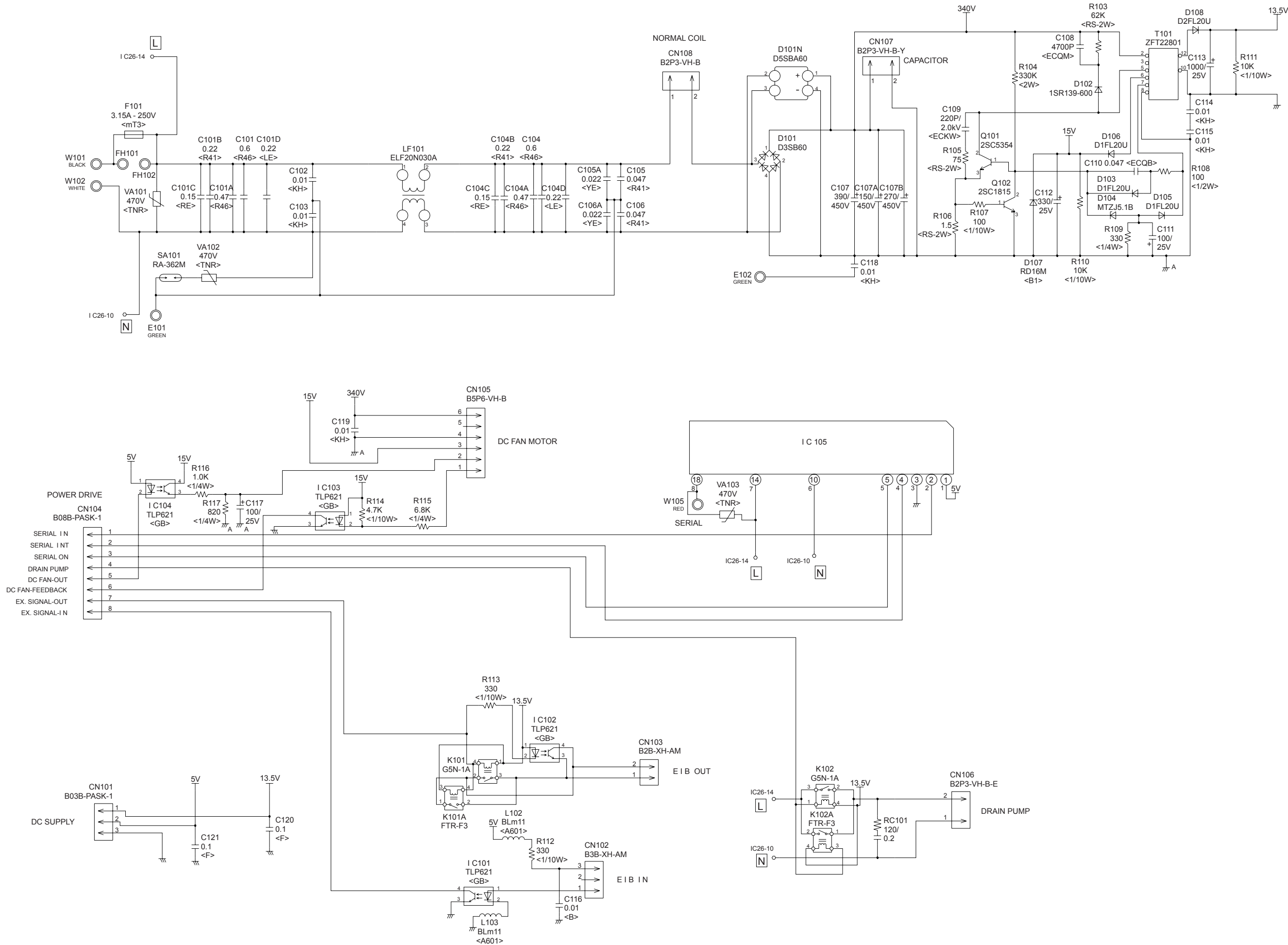
INVERTER ASSEMBLY
EZ-00605HSE



CONTROLLER PCB ASSEMBLY
K06AK-0605HSE-C1

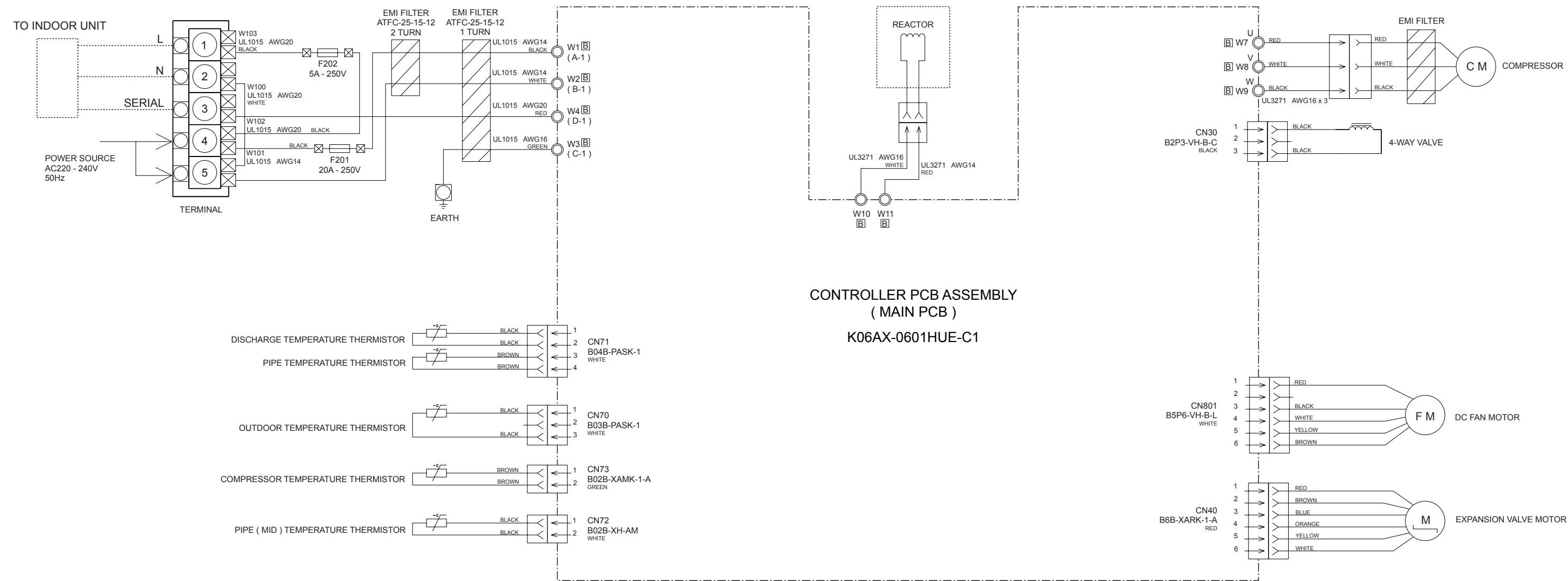


POWER SUPPLY PCB ASSEMBLY
K06AL-0603HSE-P0

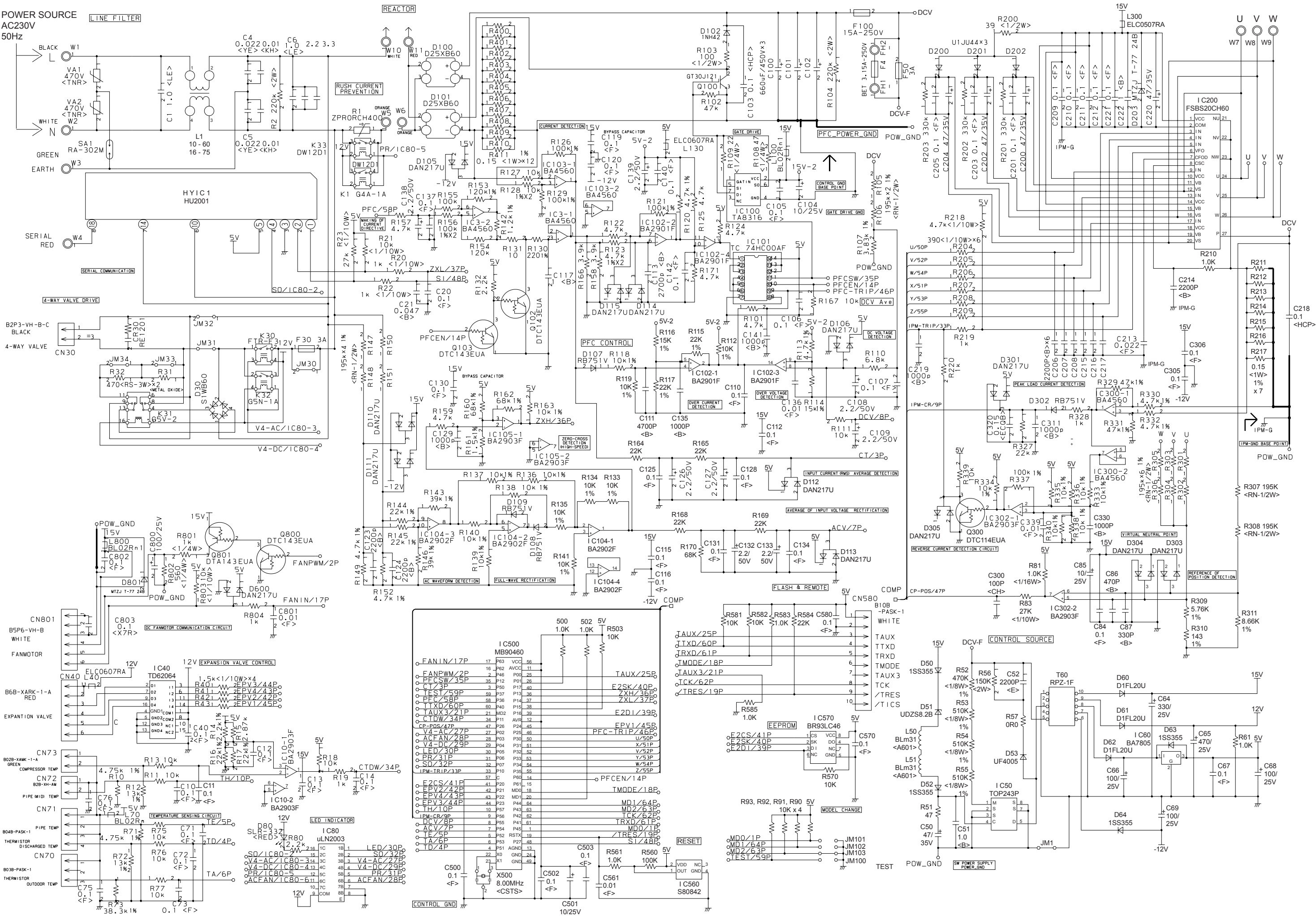


OUTDOOR PCB CIRCUIT DIAGRAM

CONTROL UNIT
EZ-006AHUE



CONTROLLER PCB ASSEMBLY
K06AX-0601HUE-C1



ERROR CONTENTS

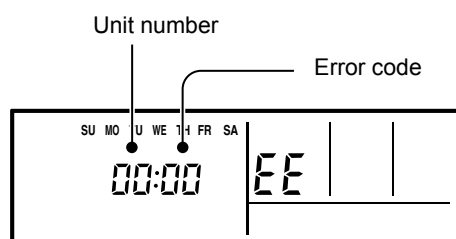
REMOTE CONTROL UNIT

Troubleshooting at the remote control LCD

This is possible only on the wired remote control.

[SELF-DIAGNOSIS]

If an error occurs, the following display will be shown.
("EE" will appear in the set room temperature display.)



Ex. Self-diagnosis

Code	Error contents
01 13 26 27	Indoor signal error
00	Wired remote controller abnormal
02	Indoor room temperature sensor error
04	Indoor heat exchanger temperature sensor (middle) error
28	Indoor heat exchanger temperature sensor (inlet) error
09	Float switch operated
0C	Outdoor discharge pipe temperature sensor error
06	Outdoor heat exchanger temperature sensor (outlet) error
0A	Outdoor temperature sensor error
15	Compressor temperature sensor error
1d	2-way valve temperature sensor error
1E	3-way valve temperature sensor error
29	Outdoor heat exchanger temperature sensor (middle) error
20	Indoor manual auto switch abnormal
2A	Power supply frequency detection error
17	IPM protection
18	CT error
1A	Compressor location error
1b	Outdoor fan error
1F	Connected indoor unit abnormal
1c	Outdoor unit computer communication error
12	Indoor fan abnormal
0F	Discharge temperature error
24	Excessive high pressure protection on cooling
2c	4-way valve abnormal
16	Pressure switch abnormal
2b	Compressor temperature error
19	Active filter abnormal
25	PFC circuit error

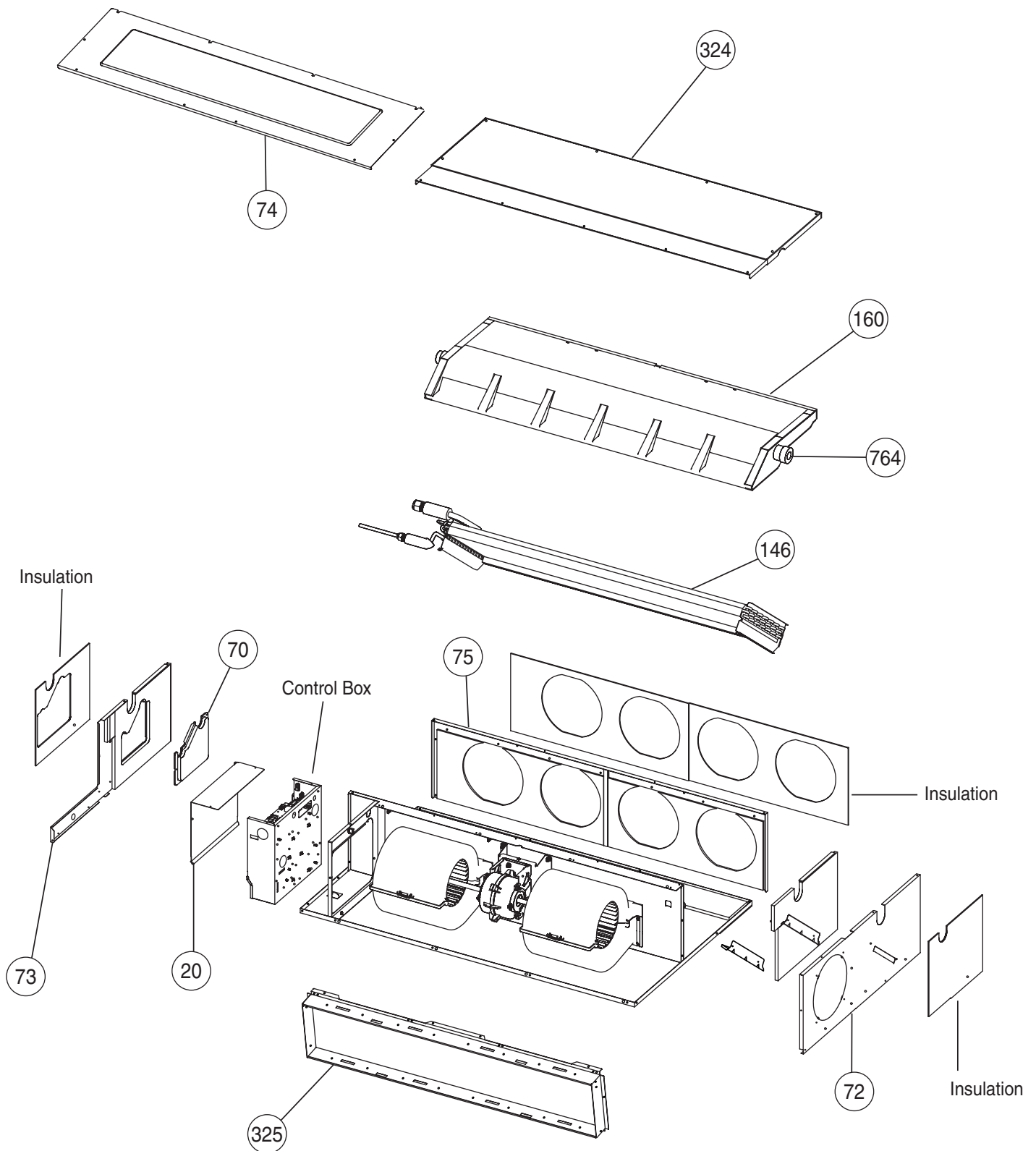
If "CO" appears in the unit number display, there is a remote controller error. Refer to the installation instruction sheet included with the remote controller.

OUTDOOR UNIT

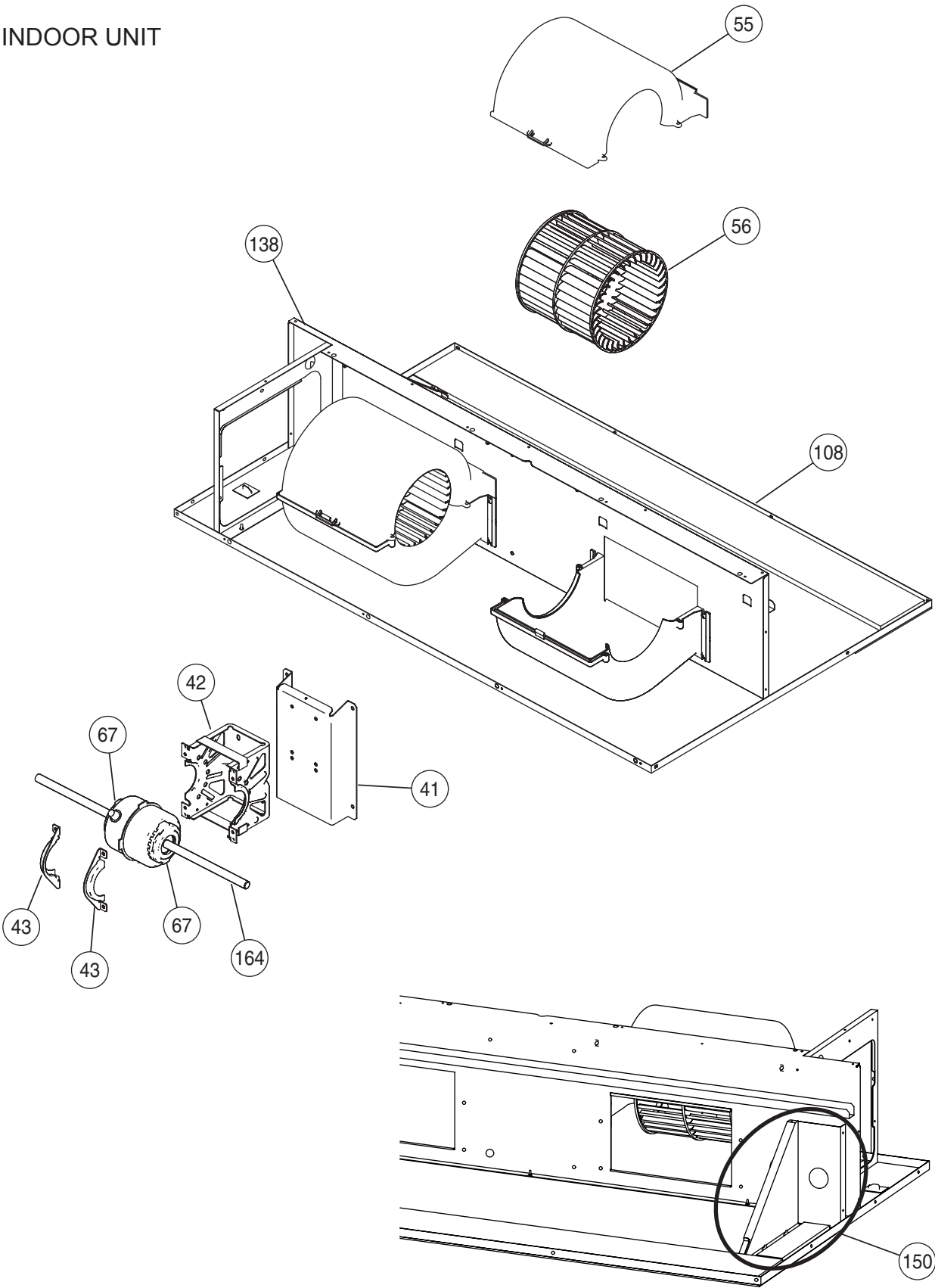
Error contents	LED
Thermistor malfunction	on 0.1 sec / off 0.1 sec
Abnormal discharge temperature	on
Current surge protection	on 0.5 sec / off 0.5 sec
CT abnormality	on 2.0 sec / off 2.0 sec
Compressor position detection malfunction	on 0.1 sec / off 2.0 sec
Fan malfunction	on 5.0 sec / off 5.0 sec
PAM voltage abnormality	on 5.0 sec / off 0.1 sec
Timer short	on 1.0 sec / off 0.1 sec
Compressor temperature protection (permanent stop)	on 2.0 sec / off 5.0 sec
PFC surge protection (permanent stop)	on 5.0 sec / off 2.0 sec

DISASSEMBLY ILLUSTRATION

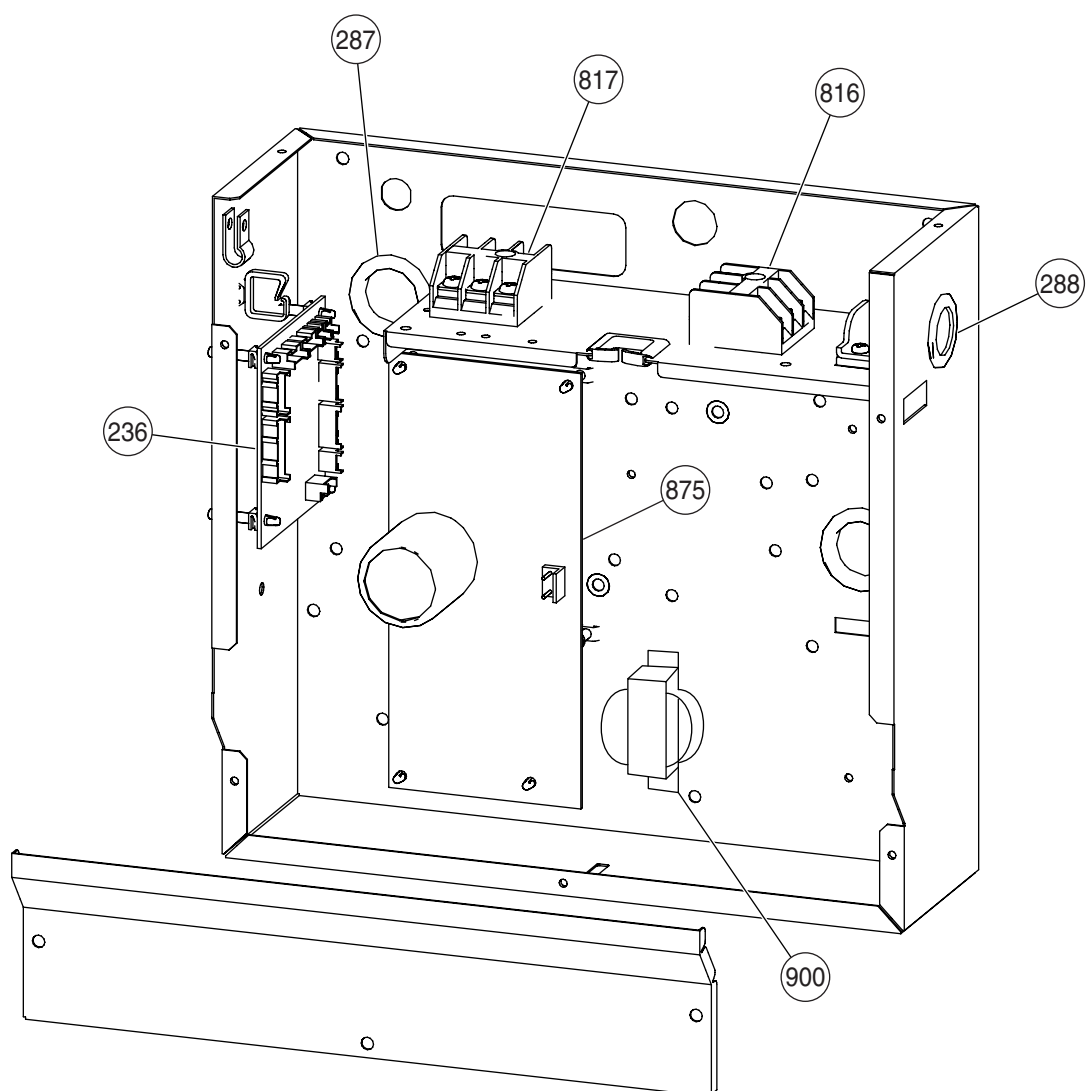
INDOOR UNIT



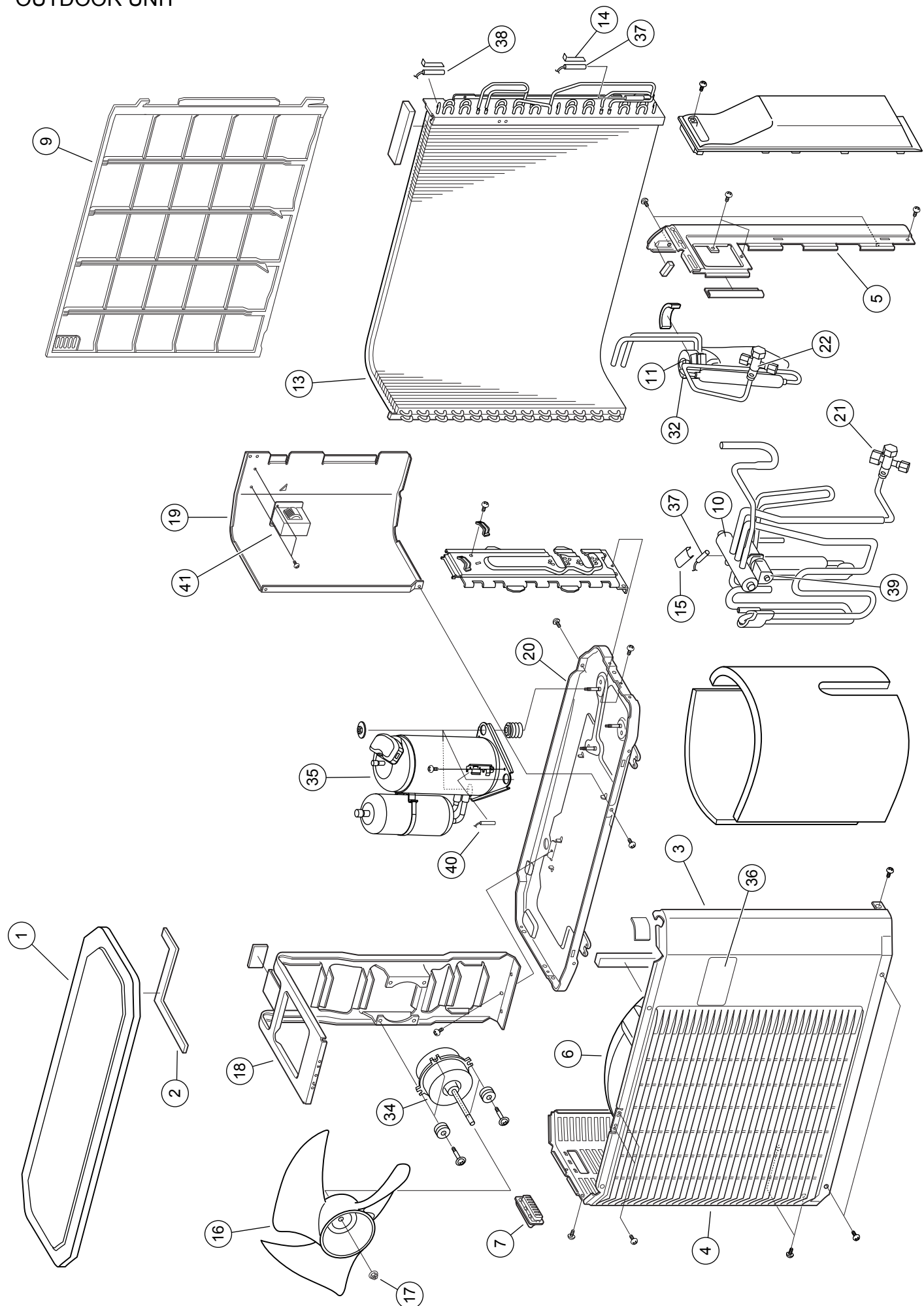
INDOOR UNIT



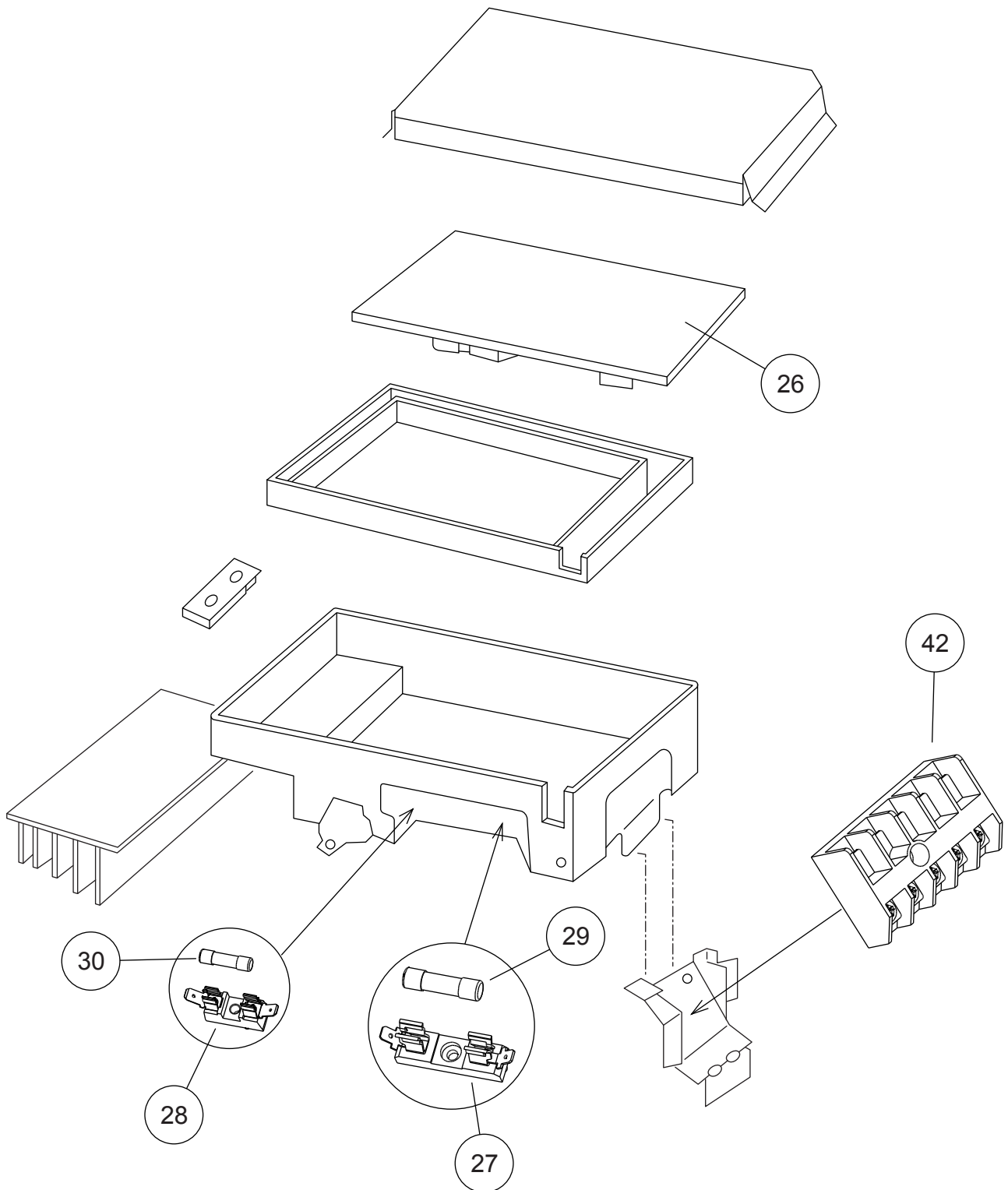
INDOOR UNIT



OUTDOOR UNIT



OUTDOOR UNIT



PARTS LIST

INDOOR UNIT

Ref. No.	Description	Part No.	Ord. Q'ty
		ARHA24LATN	
20	Control Cover-A Sub Assy	9374516018	
41	Bracket Motor Assy A	9374230020	
42	Bracket Motor Assy B	9358591000	
43	Bracket Motor C	9358594001	
55	Casing B	9374234011	
56	Sirocco Fan Assy	9356531039	
67	Rubber	9385102002	
70	Bracket (pipe) Sub Assy	9374514014	
72	Cabinet-L Sub Assy	9374509010	
73	Cabinet-R Sub Assy	9374508013	
74	Intake Cover Sub Assy	9374512010	
75	Outlet Panel Sub Assy	9374510016	
108	Base Sub Assy	9374504015	
138	Separate Wall Assy	9374228010	
146	Evaporator Assy	9374518012	
150	Bracket (Eva.)-R	9374207015	
160	Drain Pan Sub Assy	9374513017	
164	Motor, Induction	9602433018	
236	Controller PCB Assy	9707393064	
287	Cap (Power)	9352173011	
288	One Touch Bush	9374407019	
324	Main Panel Sub Assy	9374511013	
325	Intake Frame Assy	9374216017	
764	Drain Cap	9356541007	
816	Terminal-3P	9703345012	
817	Terminal-3P	9306489045	
875	Power Supply PCB Assy	9707398045	
900	Reactor Assy	9707457018	
----	Thermistor Spring-A	313728262708	
----	Room Temperature Thermistor	9703299025	
----	Pipe Temperature Thermistor	9703297021	
----	Bracket (Eva.)-L	9374208012	

OUTDOOR UNIT

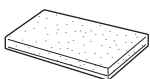
Ref. No.	Description	Part No.	Ord. Q'ty
		AOHA24LACL	
1	Top Panel Assy	9309230057	
2	Top Panel Seal	9309228016	
3	Cabinet Assy	9314809019	
4	Blow Down Grille	9308884015	
5	Cabinet Right Assy	9309236028	
6	Fan Ring	9308885012	
7	Grip	9308880017	
9	Protective Net	9315033017	
10	4-Way Valve	9900163013	
11	Pulse Motor Valve Assy	9315310019	
13	Condenser Assy	9315302014	
14	Thermistor Spring-A	313728262708	
15	Thermistor Spring	9300089012	
16	Propeller Fan	9309909014	
17	Nut	9304902003	
18	Motor Bracket	9308872029	
19	Separator Assy	9312971015	
20	Base Assy	9315296030	
21	3-Way Valve Assy	9315414014	
22	2-Way Valve Assy	9313062019	
26	Inverter PCB Assy	9707427028	
27	Fuse Holder	0501454012	
28	Fuse Holder	0501456016	
29	Fuse	0600382018	
30	Fuse	0600372163	
32	Expansion Valve Coil	9900057039	
34	Fan Motor	9602451012	
35	Compressor Assy	9315297037	
36	Emblem	9315211019	
37	Thermistor Assy	9900148027	
38	Heat Exchanger Thermistor	9900403010	
39	Solenoid Coil	9970055010	
40	Compressor Thermistor	9900156046	
41	Reactor Assy	9900354015	
42	Terminal	9703874031	
---	Outdoor Temp. Thermistor	9900210045	
---	Distributor	9315387011	
---	Condenser Assy B	9315303011	

STANDARD ACCESSORIES

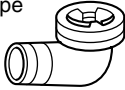
The following installation parts are furnished. Use them as required.

INDOOR UNIT ACCESSORIES

Name and Shape	Q'ty	Application
Hanger 	4	For suspending the indoor unit from ceiling
Special nut A (large flange) 	4	For suspending the indoor unit from ceiling
Special nut B (small flange) 	4	
Coupler heat insulation (large) 	1	For indoor side pipe joint (large pipe)
Coupler heat insulation (small) 	1	For indoor side pipe joint (small pipe)

Name and Shape	Q'ty	Application
Binder 	1 (large)	For fixing the drain hose
Drain hose insulation 	1	Insulates the drain hose and vinyl hose

OUTDOOR UNIT ACCESSORIES

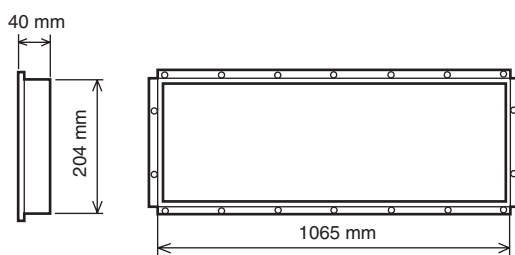
Name and Shape	Q'ty	Application	Part No.
Drain pipe 	1	For outdoor unit drain piping work.	9303029015

OPTIONAL PARTS

When connecting the square duct and round duct, use the optional square flange or round flange and flexible duct.

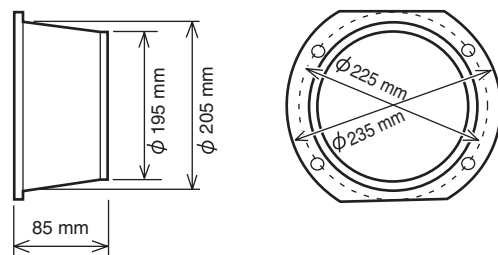
Square flange

Model name : UTD-SF045T (P/N 9098180007)



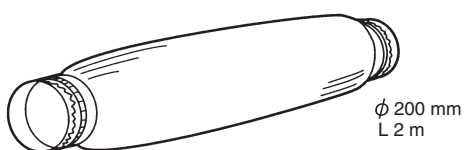
Round flange

Model name : UTD-RF204 (P/N 9093160004)



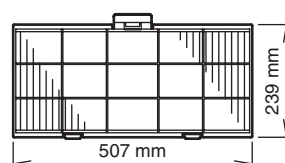
Flexible duct

Model name : UTD-RD202 (P/N 9074165004)



Long-life filter

Model name : UTD-LF25NA (P/N9079892004)



Remote sensor

Model name : UTD-RS100 (P/N9072619004)

