



**INVERTER MULTI
AIR CONDITIONER
DUCT type**

**SERVICE
MANUAL**



Models

Indoor unit	Outdoor unit
ARH9LUAB	AOHA18LAT3
ARH9LUAB	AOHA24LAT3

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SPECIFICATIONS

INDOOR UNIT

TYPE	Cool and Heat
MODEL NAME	ARH9LUAB

ELECTRICAL DATA

POWER SOURCE	230 V
FREQUENCY	50 Hz
AIR CIRCULATION HiGH	450 m ³ /hr

FAN MOTOR

DISCRIMINATION	MFA-9NTAT
POWER SOURCE	230 V
HIGH SPEED	955 r.p.m.
MED SPEED	870 r.p.m.
LOW SPEED	800 r.p.m.

DIMENSIONS	H x W x D	217 x 663 x 595 mm
WEIGHT	Gross / Net	22 kg / 18 kg

NOISE LEVEL

HIGH SPEED	--- dB
MED SPEED	--- dB
LOW SPEED	--- dB

OUTDOOR UNIT

TYPE	Colling & Heating	
MODEL NAME	AOHA18LAT3	AOHA24LAT3
COOLING CAPACITY	5.4 kW	6.8 kW
HEATING CAPACITY	6.8 kW	8.0 kW

ELECTRICAL SPECIFICATIONS

POWER SUPPLY	(220V) - 230V - (240V)		
FREQUENCY	50 Hz		
RUNNING CURRENT	Cooling	5.9 A	8.5 A
	Heating	7.1 A	8.8 A
INPUT	Cooling	1.35 kW	1.94 kW
	Heating	1.62 kW	2.00 kW
EER	Cooling	4.00 kW/kW	3.50 kW/kW
	Heating	4.20 kW/kW	4.00 kW/kW
AIR CIRCULATION HIGH	3,050 m ³ /hr	3,300 m ³ /hr	

COMPRESSOR

TYPE	Hermetic type, Inverter, 4 poles, 3-phase, DC motor, Twin Rotary		
DISCRIMINATION	DA150A1F-20NA		
REFRIGERANT	R410A	2,200 g	

FAN MOTOR

DISCRIMINATION	MFE-60PO	
HIGH SPEED (COOL)	730 r.p.m.	780 r.p.m.
HIGH SPEED (HEAT)	660 r.p.m.	780 r.p.m.

DIMENSIONS	H x W x D	700 x 900 x 330 mm
WEIGHT	Net / Gross	55 kg / 63 kg

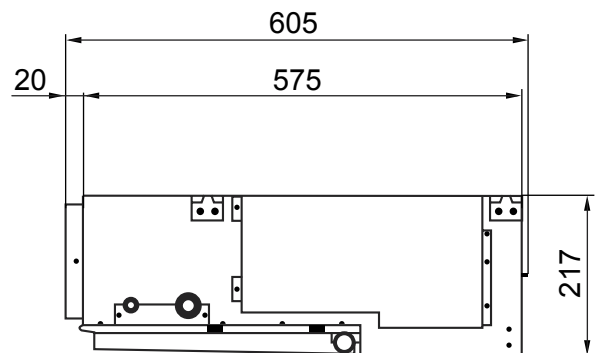
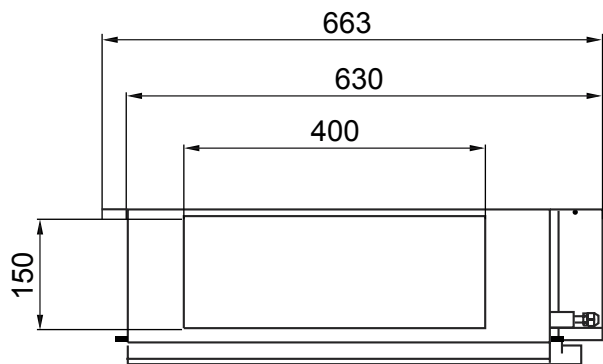
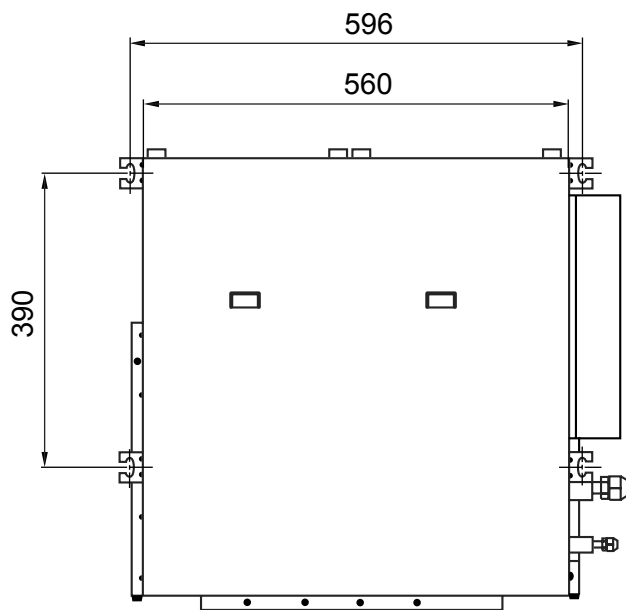
REFRIGERANT CHARGE (R410A)

FULL CHARGE AMOUNT	Total Pipe Length	30.0 m	2,200 g
		40.0 m	2,400 g
		50.0 m	2,600 g
ADDITIONAL CHARGE			20 g / m
CHARGELESS			30 m
MAX PIPE LENGTH (each unit)			25 m
MAX PIPE LENGTH (total)			50 m
MAX ELEVATION (between indoor units)			10 m
MAX ELEVATION (between indoor and outdoor)			15 m
MIN. PIPE LENGTH (each unit)			5 m

OUTLINE AND DIMENSIONS

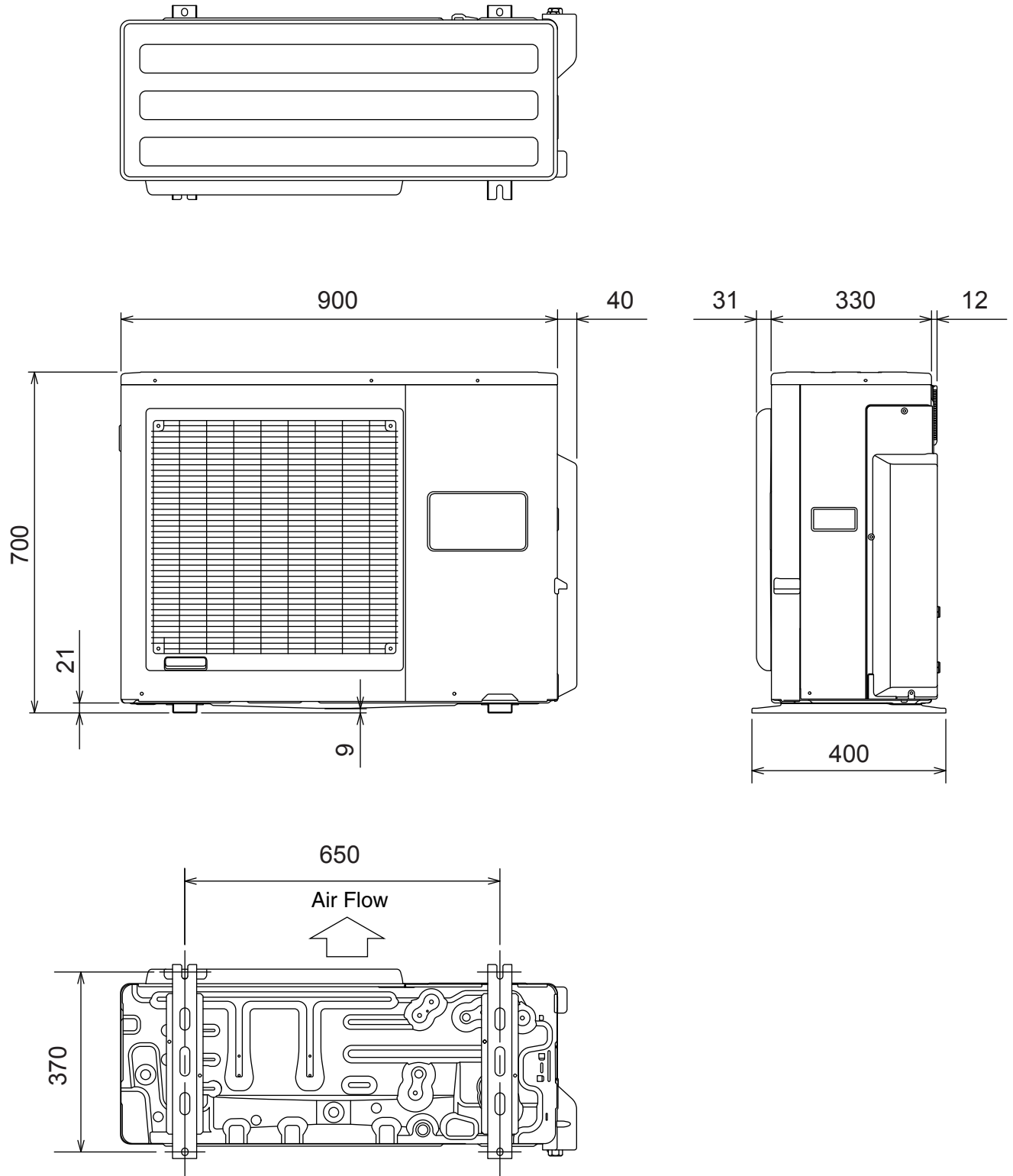
INDOOR UNIT

(unit : mm)



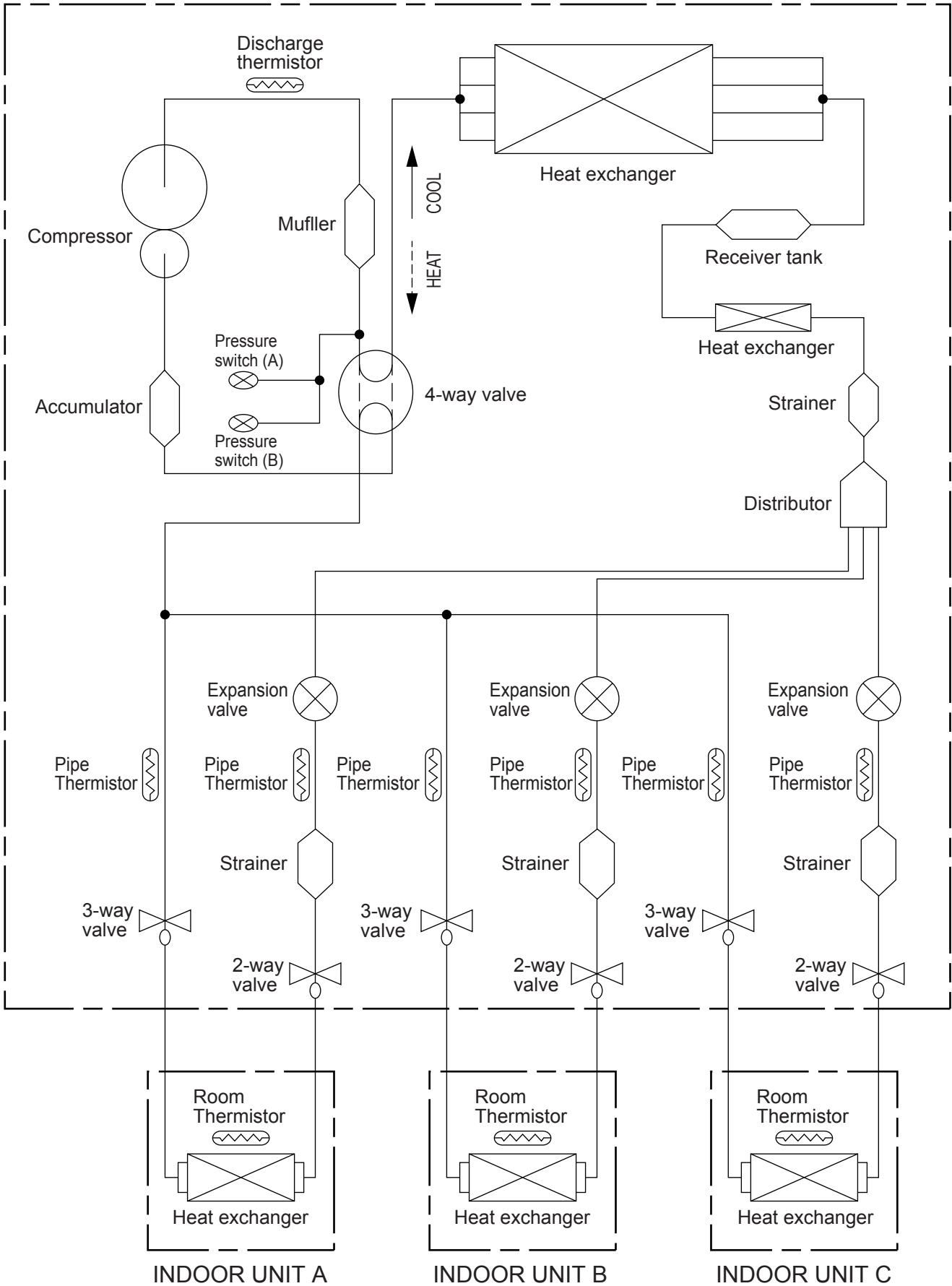
OUTDOOR UNIT

(Unit : mm)



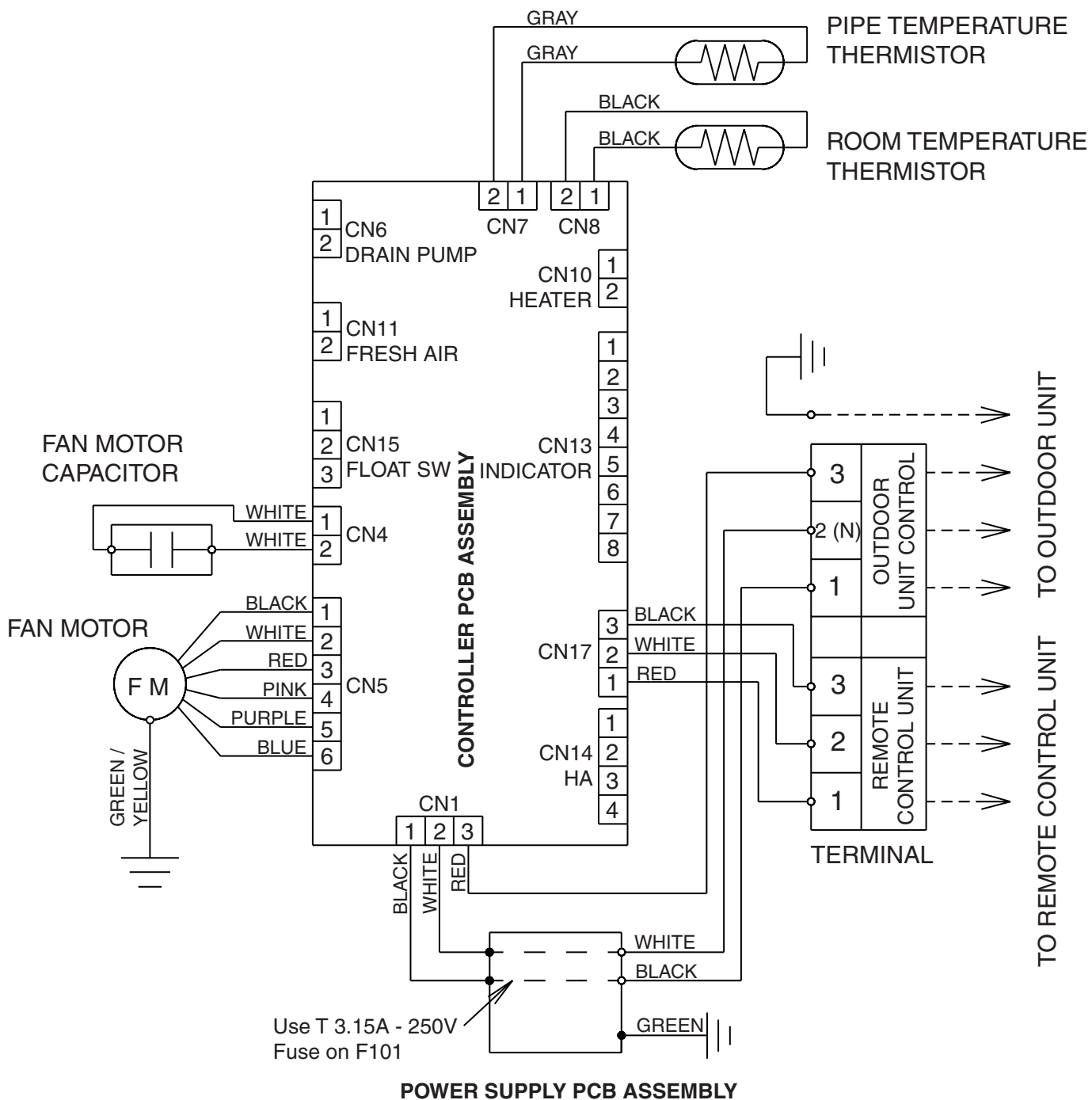
REFRIGERANT SYSTEM DIAGRAM

OUTDOOR UNIT

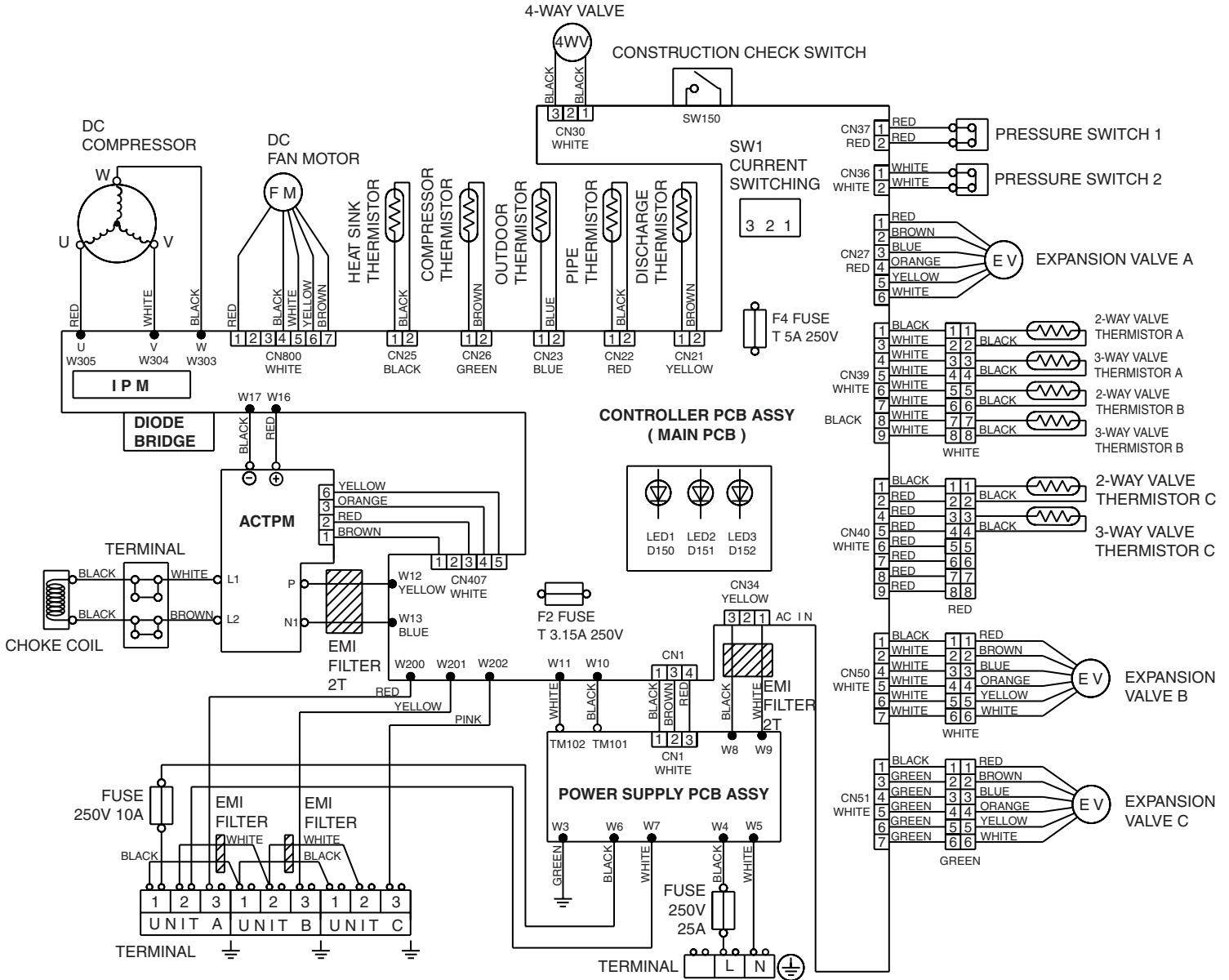


CIRCUIT DIAGRAM

INDOOR UNIT

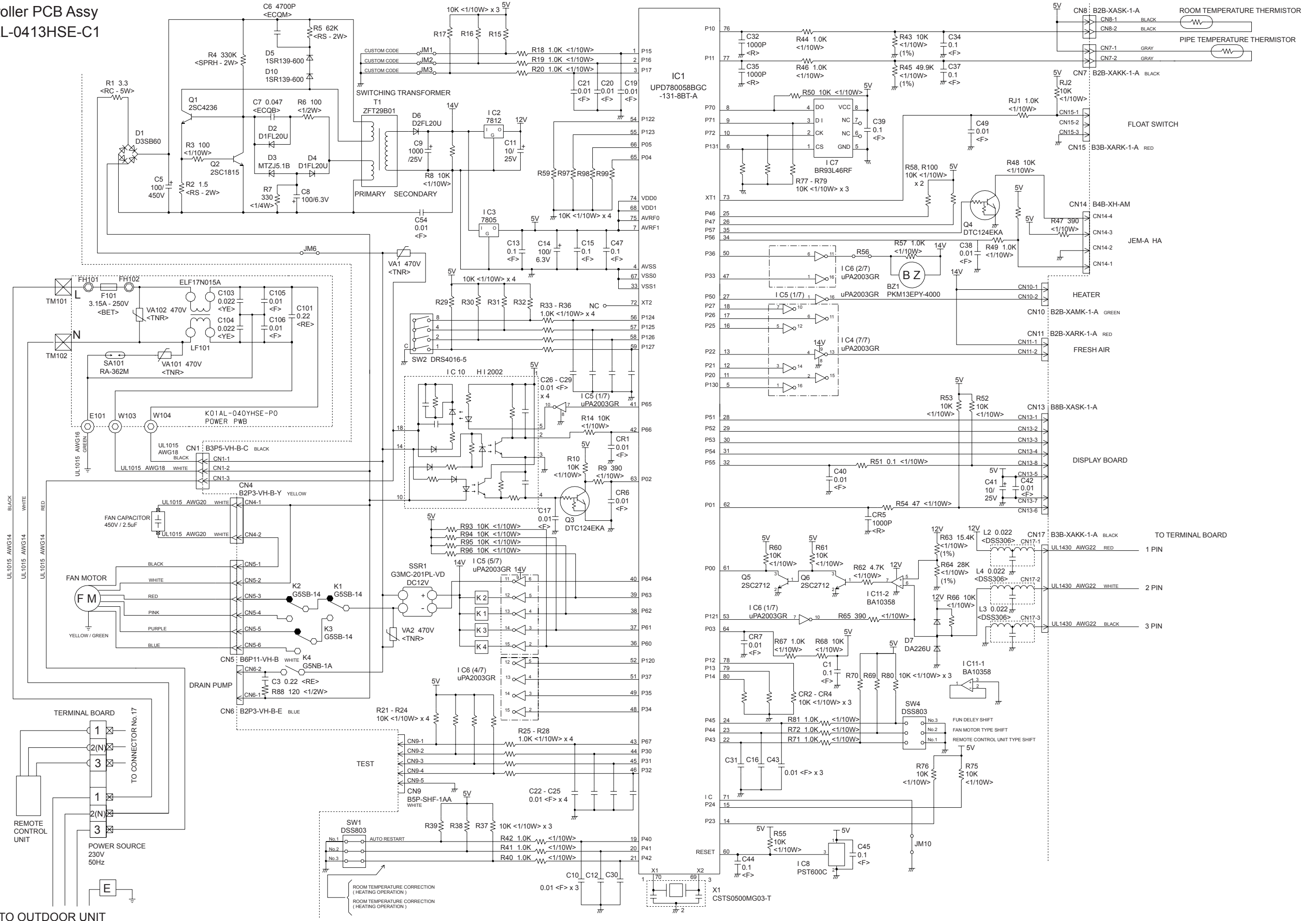


OUTDOOR UNIT



INDOOR PCB CIRCUIT DIAGRAM

Controller PCB Assy
K01AL-0413HSE-C1

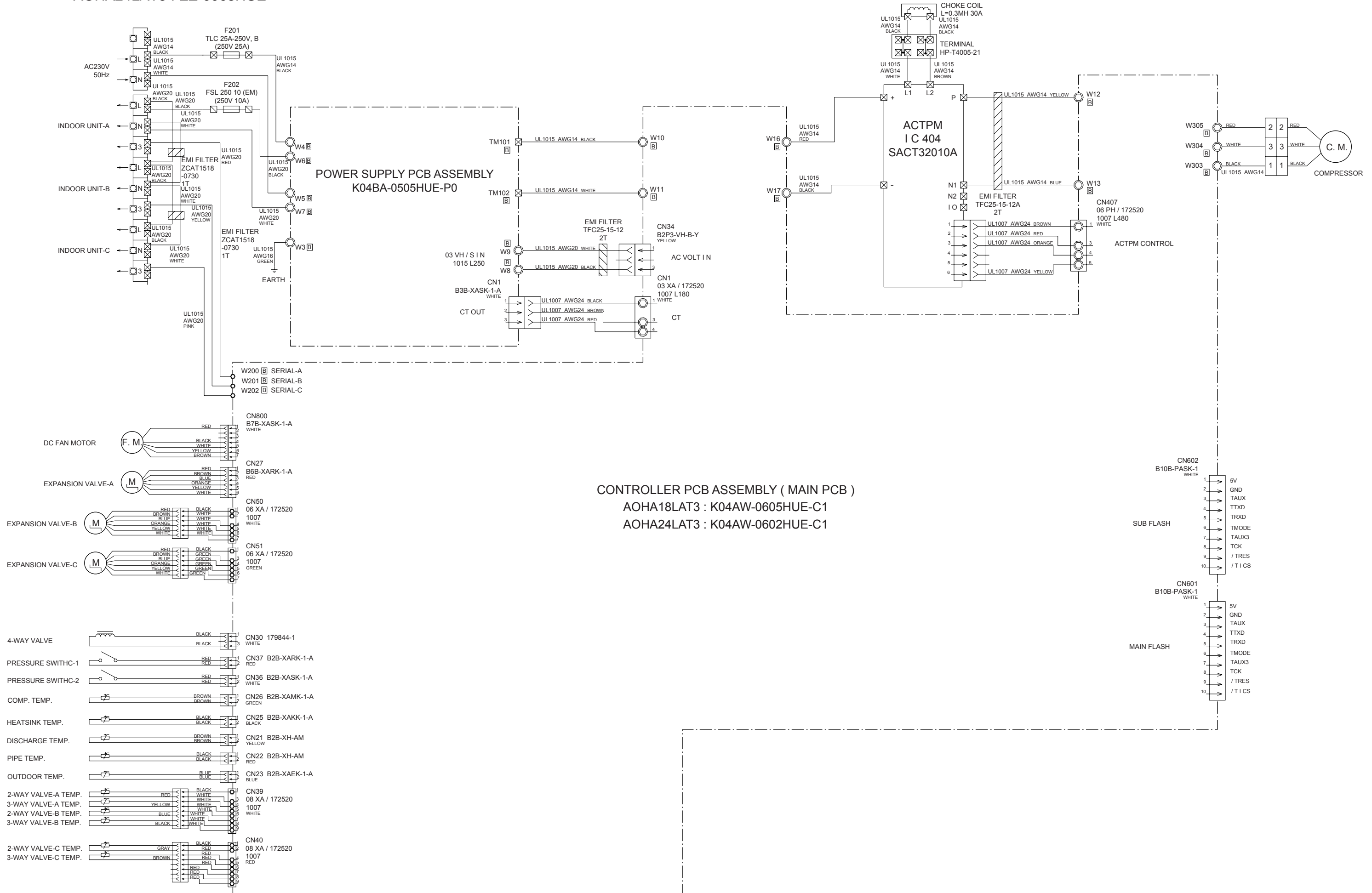


OUTDOOR PCB CIRCUIT DIAGRAM

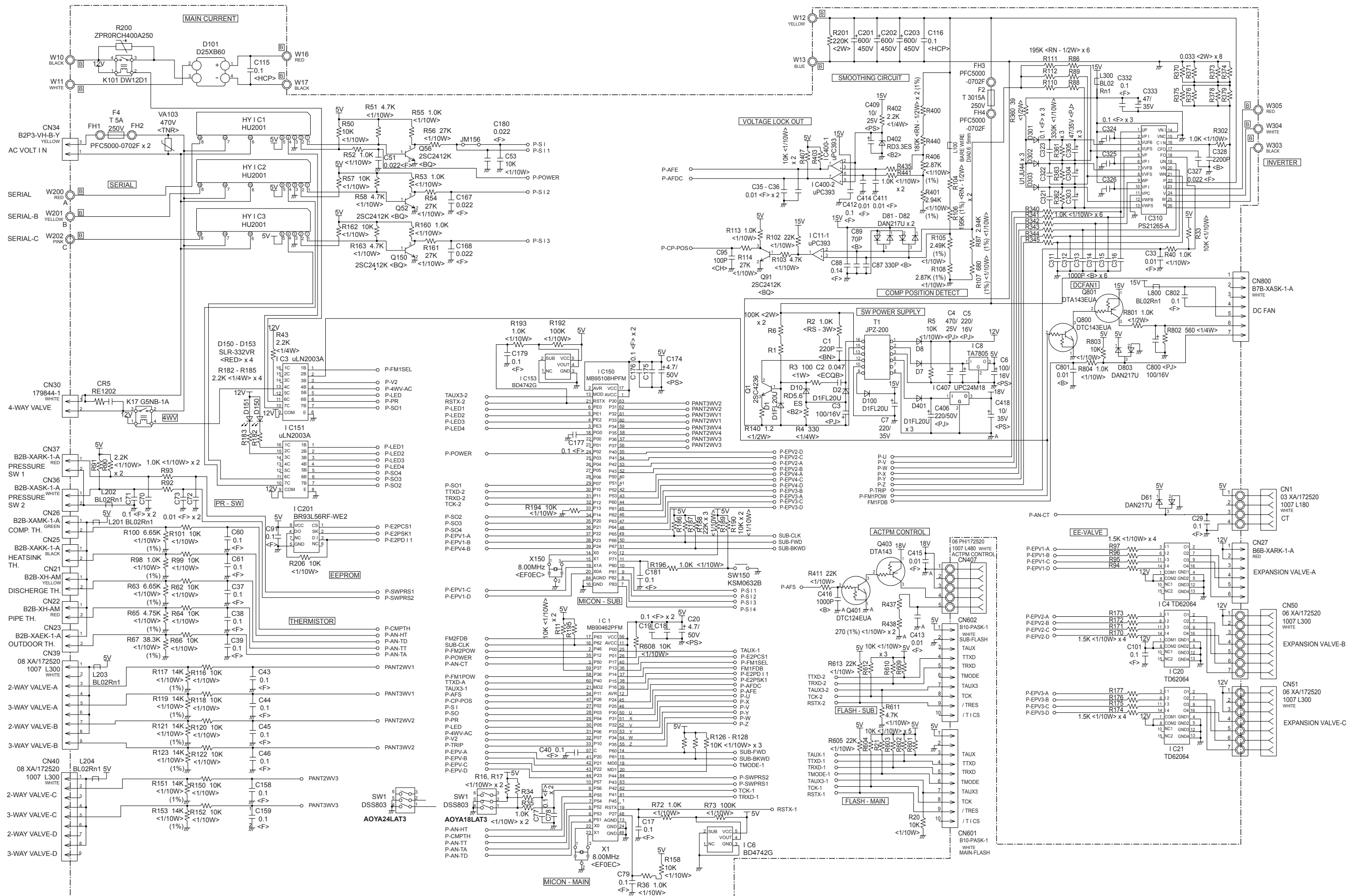
INVERTER ASSEMBLY

AOHA18LAT3 : EZ-006KHUE

AOHA24LAT3 : EZ-0068HUE

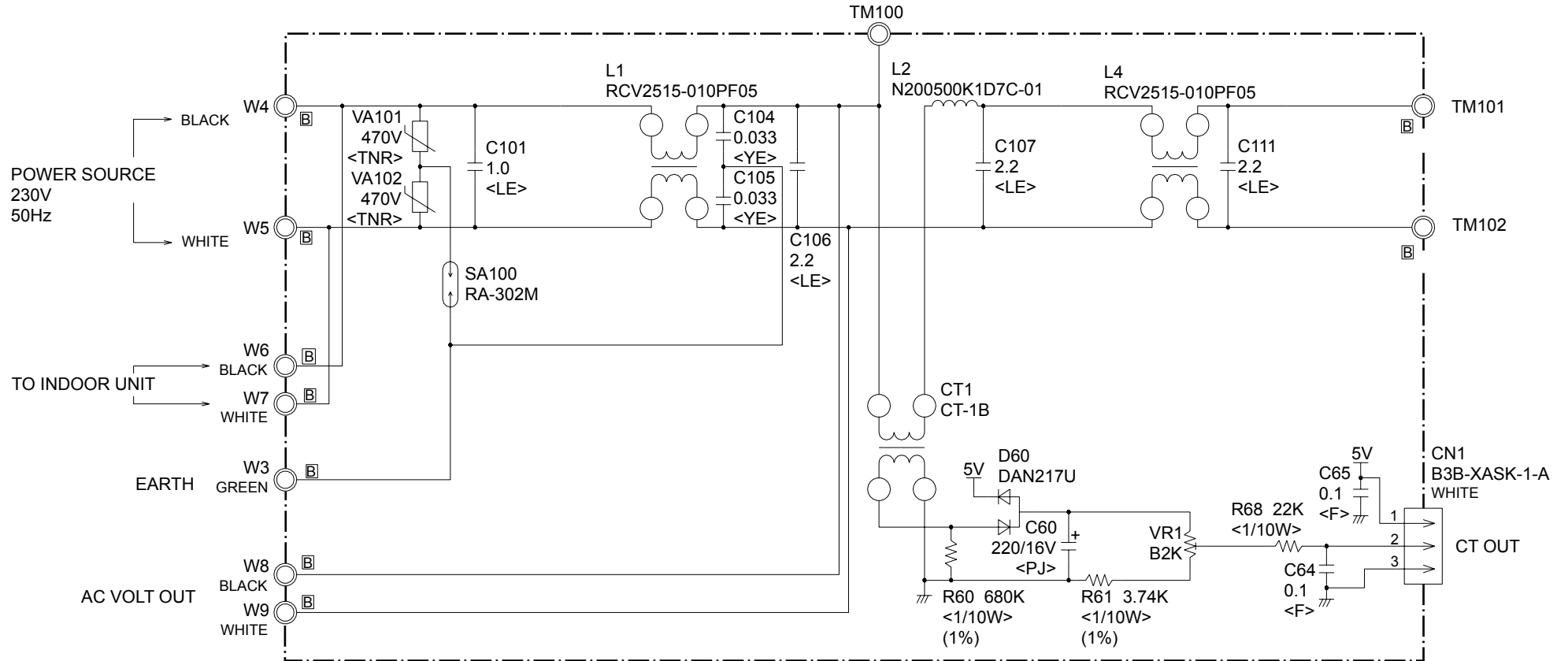


CONTROLLER PCB ASSEMBLY
 AOHA18LAT3 : K04AW-0605HUE-C1
 AOHA24LAT3 : K04AW-0602HUE-C1



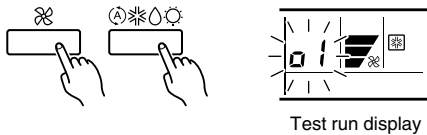
OUTDOOR UNIT

POWER SUPPLY PCB ASSEMBLY K04BA-0505HUE-P0



ERROR CONTENTS

- (1) Stop the air conditioner operation.
- (2) Press the master control button and the fan control button simultaneously for 2 seconds or more to start the test run.



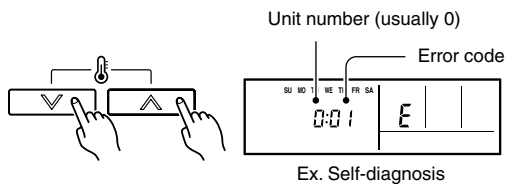
- (3) Press the start/stop button to stop the test run.

[SELF-DIAGNOSIS]

When the error indication "E:EE" is displayed, follow the following items to perform the self-diagnosis. "E:EE" indicates an error has occurred.

REMOTE CONTROLLER DISPLAY

- (1) Stop the air conditioner operation.
- (2) Press the set temperature buttons \wedge / \vee simultaneously for 5 seconds or more to start the self-diagnosis.
Refer to the following tables for the description of each error code.



- (3) Press the set temperature buttons \wedge / \vee simultaneously for 5 seconds or more to stop the self-diagnosis.

Error code	Error contents
00	Communication error (indoor unit \longleftrightarrow remote controller)
01	Communication error (outdoor unit \rightarrow indoor unit)
02	Room temperature sensor open
03	Room temperature sensor short-circuited
04	Indoor heat exchanger temperature sensor open
05	Indoor heat exchanger temperature sensor short-circuited
06	Outdoor heat exchanger temperature sensor
08	Power source connection error
09	Float switch operated
0A	Outdoor temperature sensor
0c	Discharge pipe temperature sensor
11	Model abnormal
12	Indoor fan abnormal
13	Outdoor signal abnormal
14	Outdoor EEPROM abnormal
15	Compressor temperature sensor
16	Pressure switch abnormal
17	IPM error
1A	Compressor cannot operate
1b	Outdoor fan abnormal

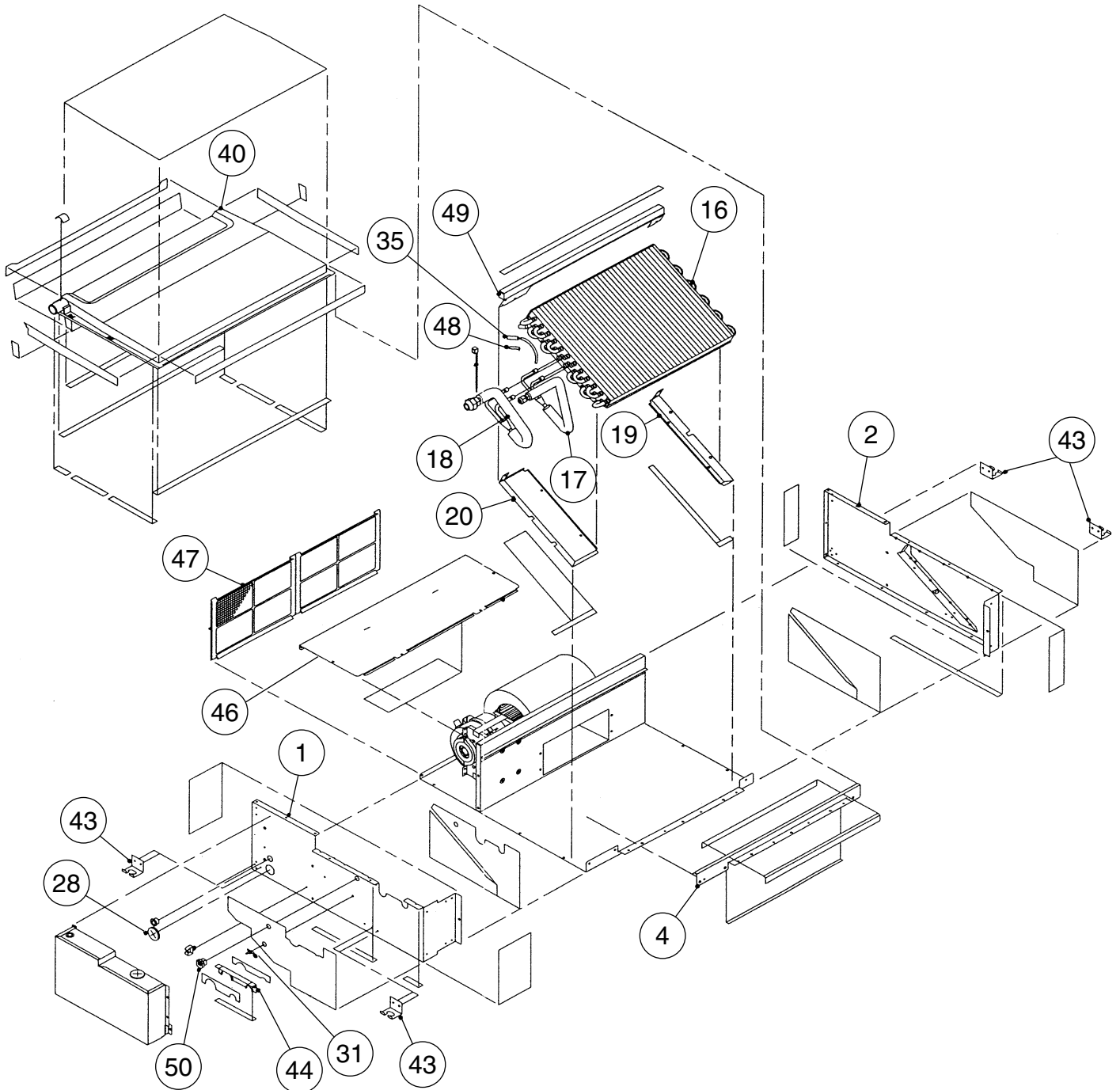
OUTDOOR UNIT LEDS

	LED A	LED B	LED C
Communication error (indoor unit A to outdoor unit)	● 1 time	—	—
Communication error (indoor unit B to outdoor unit)	—	● 1 time	—
Communication error (indoor unit C to outdoor unit)	—		● 1 time
Discharge pipe temperature sensor	● 2 times	—	—
Outdoor heat exchanger temperature sensor	● 3 times	—	—
Outdoor temperature sensor	● 4 times	—	—
Outdoor 2way valve(A) temperature sensor	● 5 times	—	—
Outdoor 2way valve(B) temperature sensor	—	● 5 times	—
Outdoor 2way valve(C) temperature sensor	—	—	● 5 times
Outdoor 3way valve(A) temperature sensor	● 6 times	—	—
Outdoor 3way valve(B) temperature sensor	—	● 6 times	—
Outdoor 3way valve(C) temperature sensor	—	—	● 6 times
Compressor temperature sensor	● 7 times	—	—
Heatsink temperature sensor	● 8 times	—	—
Pressure switch A abnormal	● 9 times	—	—
Pressure switch B abnormal	● 10 times	—	—
Indoor unit connection capacity error	● 11 times	—	—
IPM error	● 12 times	—	—
Compressor loter location error	● 13 times	—	—
Compressor can not start to operate	● 14 times	—	—
Outdoor fan (upper) motor error	● 15 times	—	—
Outdoor fan (lower) motor error	● 16 times	—	—
Microcomputer error	● 17 times	—	—
4way valve (Solenoid) abnormal	● 18 times	—	—

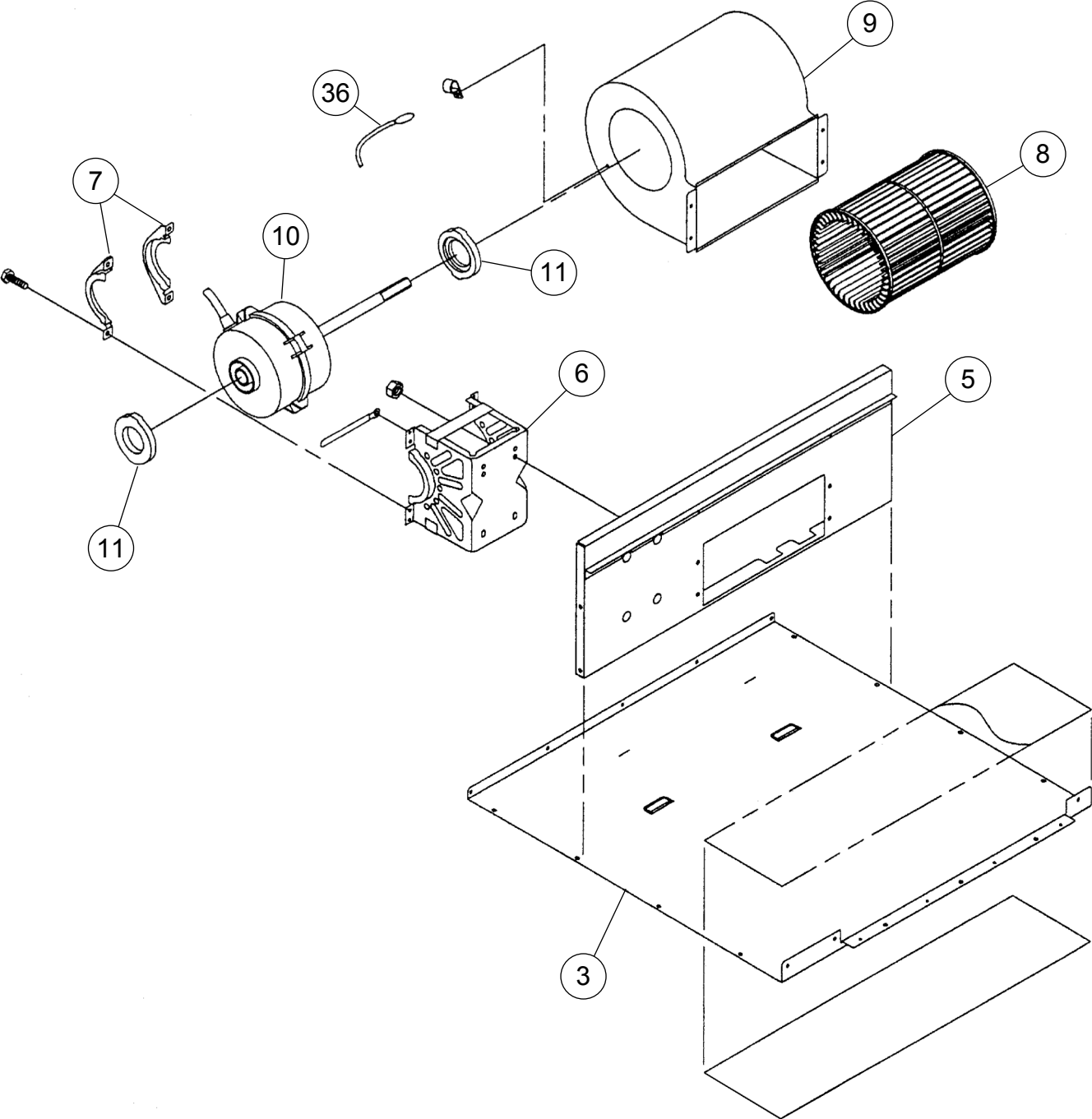
● : Slow flashing - : Off

DISASSEMBLY ILLUSTRATION

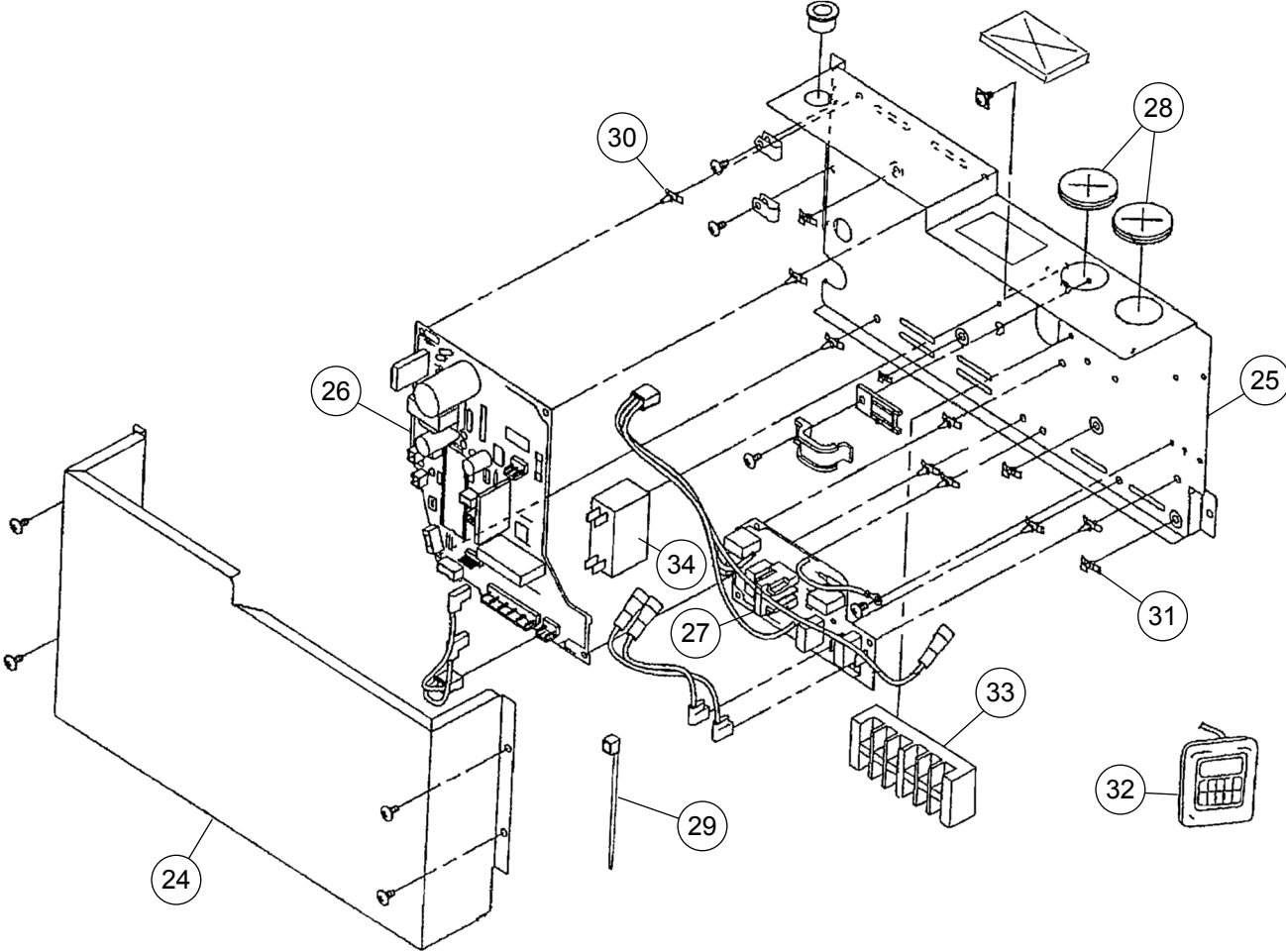
INDOOR UNIT



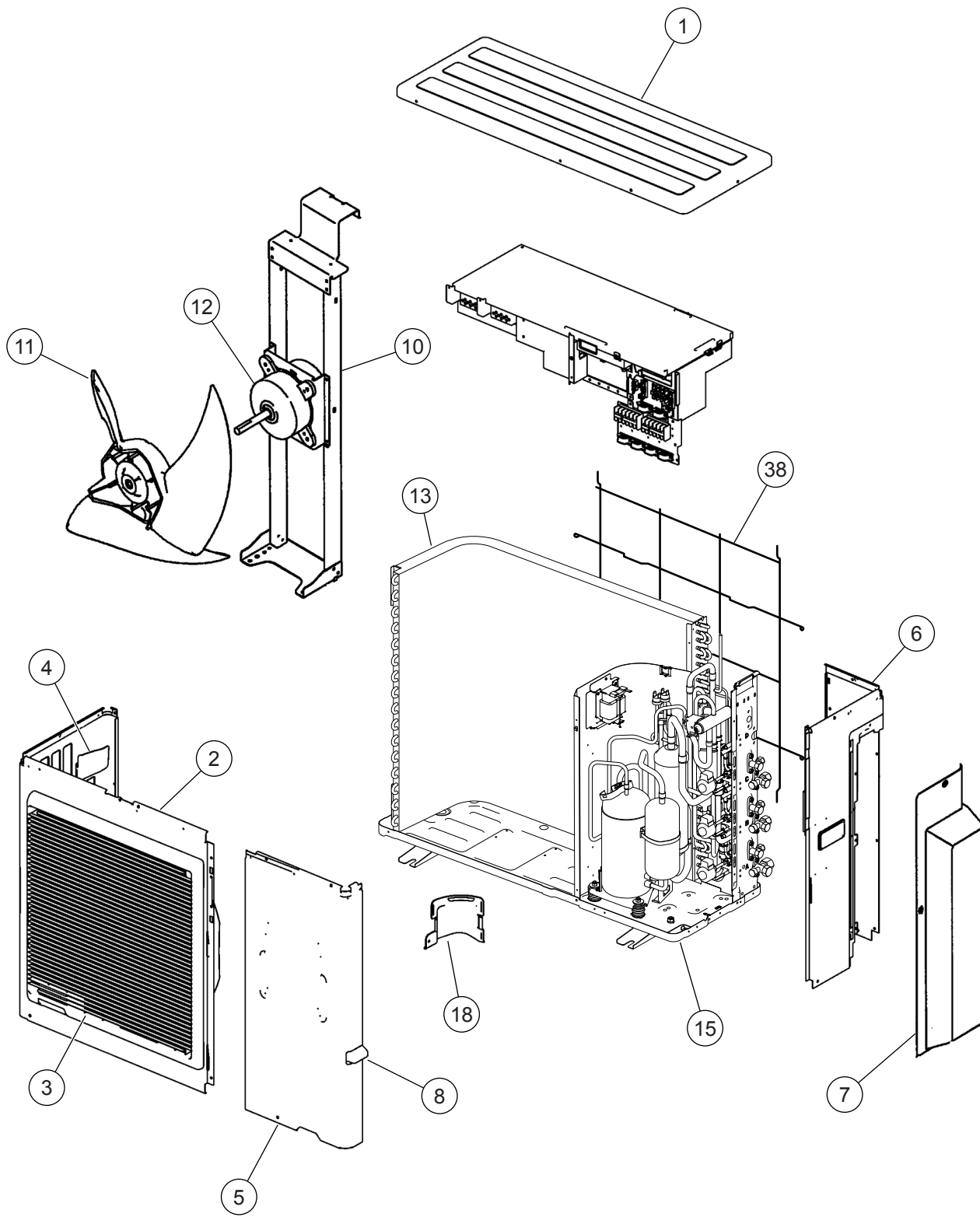
INDOOR UNIT
Fan motor



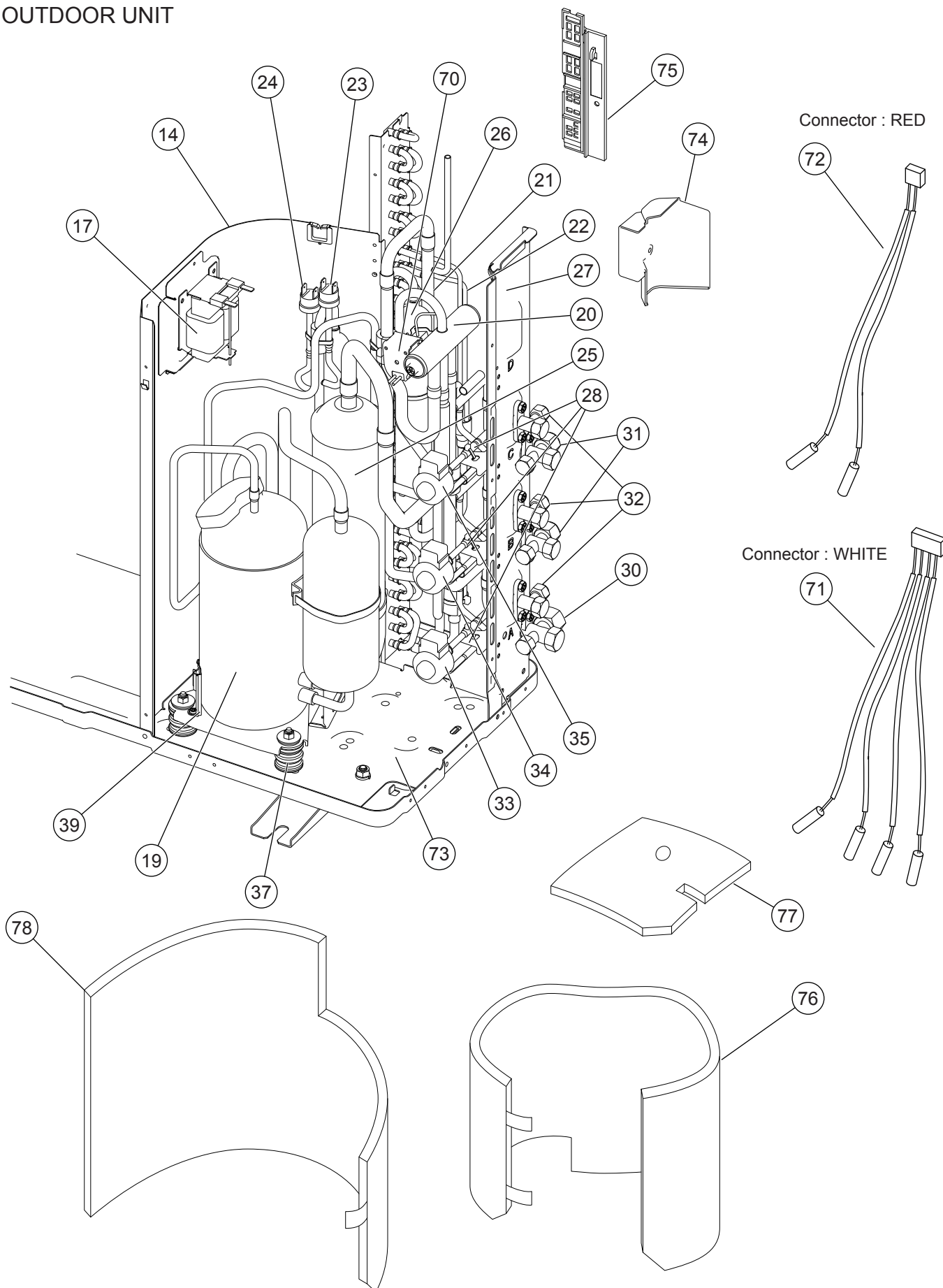
INDOOR UNIT
Control box



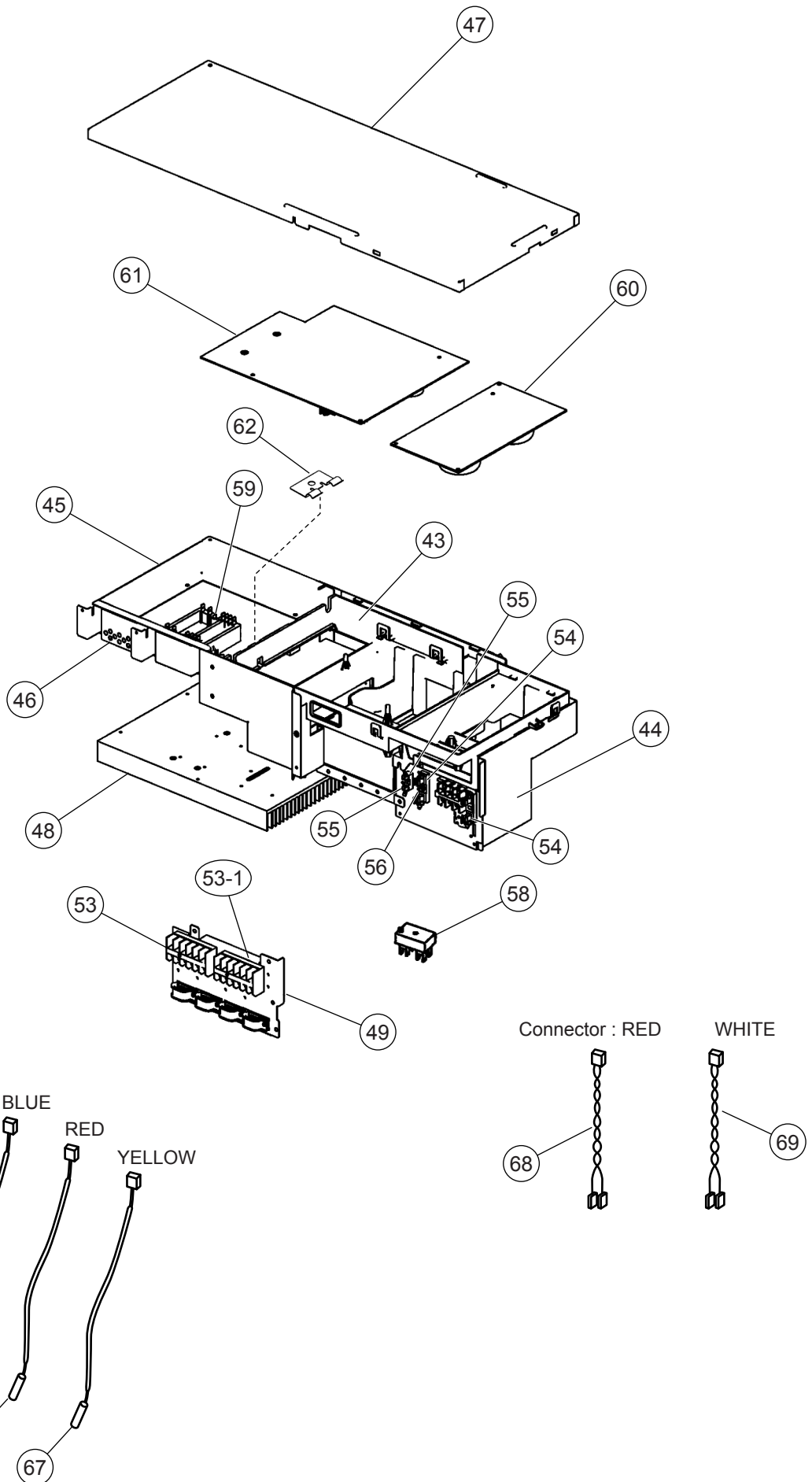
OUTDOOR UNIT



OUTDOOR UNIT



OUTDOOR UNIT
INVERTER ASSY



PARTS LIST

INDOOR UNIT

Ref. No.	Description	Part No.	Ord. Q'ty
		ARH9LUAB	
1	Side Panel Right Assy	9363411003	
2	Side Panel Left Assy	9363409000	
3	Top Panel	9363408003	
4	Panel Assy Front	9363722000	
5	Panel Assy (Motor)	9363193008	
6	Bracket (Motor) Assy	9358591000	
7	Bracket (Motor)	9358594001	
8	Sirocco Fan Assy	9358621004	
9	Casing Assy	9363322002	
10	Motor, Induction	9600778203	
11	Rubber (Vibration-proof)	313659068604	
16	Evaporator Assy	9373255031	
17	Distributor Assy	9373034070	
18	Coupling Pipe Assy	9373038078	
19	Bracket Evaporator R	9363199000	
20	Bracket Evaporator L	9363198003	
24	Control Box Cover	9363201000	
25	Control Box	9375586010	
26	Controller PCB Assy	9704557995	
		(K01AL-0413HSE-C1)	
27	Filter PCB Assy	9704561251	
28	Cap (Power)	9352173011	
29	Binder-C (SKB-100)	313361275805	
30	Locking Spacer KGLS-6S	313209391403	
31	Spacer KGPS-6S	0600118075	
32	Remote Control Unit	9372266014	
33	Terminal 7P	9703403019	
34	Fan Capacitor	9900270186	
35	Pipe Thermistor	9703297090	
36	Thermistor (Room)	9703299063	
40	Drain Pan Assy	9364502038	
43	Hook Metal	9363195002	
44	Cover (Piping)	9363330007	
46	Cabinet Cover	9363325003	
47	Air Filter	9366833017	
48	Thermostat Spring-A	313728262708	
49	Support Plate (Eva.)	9363323009	
50	Cord Bush	9359240006	

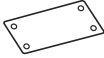












OUTDOOR UNIT

Ref. No.	Description	Part No.		Ref. No.	Description	Part No.		Ord. Q'ty
		AOHA18LAT3	AOHA24LAT3			AOHA18LAT3	AOHA24LAT3	
1	Top Panel Sub Assy	9374417049		45	Inverter Box C	9375140014		
2	Front Panel Sub Assy	9374414048		46	Inverter Box Duct	9374609017		
5	Service Panel Sub Assy	9374415045		47	Inverter Box Cover	9375139018		
6	Right Panel Sub Assy	9374416103		48	Heat Sink A	9375138011		
7	Valve Cover Sub Assy	9374827015		49	Inverter Box D	9374606023		
10	Motor Bracket Sub Assy	9374418060		52	Terminal (3P)	9900203016		
11	Propeller Fan Assy	9366378020		53	Terminal (6P)	9900016036		
12	Motor. DC Brushless	9601882015		53-1	Terminal (3P)	9306489045		
13	Condenser A Assy	9374433179		54	Fuse Holder (Big)	0501454012		
14	Separate Wall Assy SS	9375226022		55	Fuse Holder (Small)	0501456016		
15	Base Assy	9374166121		56	Fuse (Big)	0600086039		
17	Coil. Choke	9900366018		57	Fuse (Small)	0600376116		
18	Cap Foot	9374345014		58	Terminal (2P)	9701971015		
19	Compressor Assy	9315297037		59	ACTPM	9703457012		
20	4-Way Valve Assy	9374425136		60	Power Supply PCB Assy	9705647091		
21	Inlet Pipe (Cond) A Assy	9373461104		61	Controller PCB Assy (AOYA18L)	9705642225		
22	Outlet Pipe (Cond) A Assy	9374266111		61	Controller PCB Assy (AOYA24L)	9705642195		
23	Pressure Switch A	9900186012		62	Holder (Thermo)	9372797013		
24	Pressure Switch B	9900341015		63	Heat Sink Thermistor	9900311018		
25	Accumulator Assy	9375250027		64	Compressor Temp Thermistor	9900156053		
26	Receiver Tank Assy	9374575039		65	Thermistor (Outdoor Temp)	9900378028		
27	Valve Plate A Assy	9374628148		66	Heat Exchanger Thermistor	9900374020		
28	Pulse Motor Valve	9900056025		67	Discharge Temp Thermistor	9704219039		
30	3-Way Valve Assy (1/2")	9375104016		68	Wire (Pressure Sw) (Red)	9377823014		
31	3-Way Valve Assy (3/8")	9375103019		69	Wire (Pressure Sw) (White)	9377823021		
32	2-Way Valve Assy	9375102012		70	Solenoid	9900165079		
33	Coil (Expansion Valve) (A=Red)	9900057084		71	Thermistor (Pipe)(White)	9900373030		
34	Coil (Expansion Valve) (B=White)	9900057053		72	Thermistor (Pipe)(Red)	9900372019		
35	Coil (Expansion Valve) (C=Green)	9900057060		73	Compressor Plate Assy	9375221058		
37	Rubber Cushion (For Comp)	9312680016		74	Water Seal Plate	9375222017		
38	Net S Protective	9375381028		75	Thermo Holder	9375211011		
39	Thermistor Holder	9377911018		76	Compressor Cover A	9374430093		
43	Inverter Box A	9374603015		77	Compressor Cover B	9374431090		
44	Inverter Box B Assy	9374625024		78	Compressor Cover C	9372067079		
				---	Emblem Rear	9372171011		

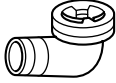



When you order parts, please make a photocopy of this page and fill the number of the parts in the "Order" column.

STANDARD ACCESSORIES

INDOOR UNIT

Name and Shape	Q'ty	Application	Parts No.
Installation template 	1	For positioning the indoor unit	9364224008
Hook metal 	4	For suspending the indoor unit from ceiling	9363195002
Tapping screw (φ4 x 10) 	8	For installing the hanger	301171164104
Special nut A (large flange) 	4	For suspending the indoor unit from ceiling	313005446653
Special nut B (small flange) 	4		313005446759
Coupler heat insulation (large) 	1	For indoor side pipe joint (large pipe)	9350716029
Coupler heat insulation (small) 	1	For indoor side pipe joint (small pipe)	9352766015
Binder 	(Small) 1	For remote controller and remote controller cord binding	313361275805
	(Large) 4	For fixing the coupler heat insulation	312300787605
Remote control unit 	1	Heat & Cool model	9372266014
		Cool model	9372266021
Remote controller cord 	1	For connecting the remote controller	9372714010
Tapping screw (φ4 x 16) 	2	For installing the remote controller	0700181108
Filter 	3		9366833017
Drain hose insulation 	1	Insulates the drain hose and vinyl hose connection	313806217708

OUTDOOR UNIT

Name and Shape	Q'ty	Use	Part No.
Drain pipe 	1	For outdoor unit drain piping work	9303029015
Drain cap 	2		313166024302
Adapter assy 12.7 mm → 9.52 mm (1/2 in.) (3/8 in.) 	1	For use when connecting models 9-12 to outdoor port A	9370244007
Putty 	1	For sealing	303020200114

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