

SERVICE MANUAL



Indoor unit	Outdoor unit
RDF12LALU	ROM-30LA4
RDF14LALU	
RDF18LALU	
RDF22LALU	

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SPECIFICATIONS

INDOOR UNIT

ELECTRICAL DATA

TYPE	Cool and Heat			
MODEL NAME	RDF12LALU	RDF14LALU	RDF18LALU	RDF22LALU
POWER SOURCE	230 V			
FREQUENCY	50 Hz			
AIR CIRCULATION HIGH	630 m3/hr	820 m3/hr	850 m3/hr	1,060 m3/hr

FAN MOTOR

POWER SOURCE	230 V			
DISCRIMINATION	MFH-24RVL			
HIGH SPEED	790 r.p.m.	990 r.p.m.	1,040 r.p.m.	1,320 r.p.m.
MIDDLE SPEED	720 r.p.m.	880 r.p.m.	950 r.p.m.	1,100 r.p.m.
LOW SPEED	620 r.p.m.	770 r.p.m.	840 r.p.m.	980 r.p.m.
QUIET	570 r.p.m.	620 r.p.m.	700 r.p.m.	780 r.p.m.

NOISE LEVEL

HIGH SPEED	30dB	33dB	34dB	40dB
MIDDLE SPEED	29dB	30dB	32dB	36dB
LOW SPEED	26dB	27dB	30dB	33dB
QUIET	25dB	24dB	29dB	30dB

Note: Static pressure: 0pa, Duct length: Inlet 1m, Outlet 2m(indoor unit)

MEASUREMENT

DIMENSIONS	H x W x D	217 x 953 x 595 mm
WEIGHT	Gross / Net	27 kg / 23 kg

OUTDOOR UNIT

ELECTRICAL SPECIFICATIONS

TYPE		Colling & Heating
MODEL NAME		ROM-30LA4
COOLING CAPACITY		8.0 kW
HEATING CAPACITY		9.6 kW
POWER SUPPLY		230 V
FREQUENCY		50 Hz
RUNNING CURRENT	Cooling	9.7 A
	Heating	10.5 A
INPUT	Cooling	2.22 kW
	Heating	2.40 kW
E.E.R.	Cooling	3.60 kW/kW
	Heating	4.00 kW/kW
AIR CIRCULATION HIGH		3,300 m ³ /hr

FAN MOTOR

DISCRIMINATION	MFE-60PO
HIGH SPEED (Cooling)	820 r.p.m.
HIGH SPEED (Heating)	780 r.p.m.

NOISE LEVEL

COOLING	50dB
HEATING	51dB

COMPRESSOR AND REFRIGERANT

TYPE		Hermetic type, Inverter, 4 poles, 3-phase, DC motor, Twin Rotary
DISCRIMINATION		TNB220FPBMT
WEIGHT (with oil)		14.3 kg
PRECHARGED REFRIGERANT		3,300 g
REFRIGERANT TYPE		R410A
FULL CHARGE	Total Pipe Length	50 m
		60 m
		70 m
ADDITIONAL CHARGE		25 g/m
CHARGELESS		50 m
MAX PIPE LENGTH (each unit)		25 m
MAX PIPE LENGTH (total)		70 m
MAX ELEVATION (between indoor units)		10 m
(between indoor and outdoor units)		10 m
MIN. PIPE LENGTH (each unit)		5 m

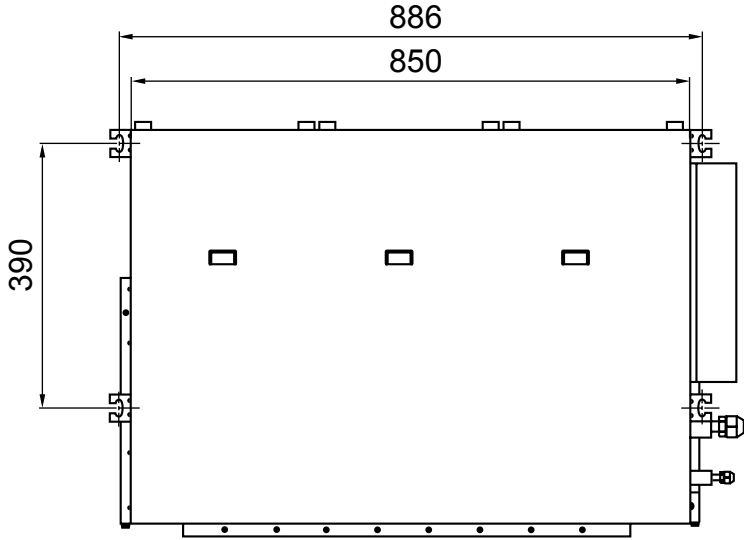
MEASUREMENT

DIMENSIONS	H x W x D	830 x 900 x 330 mm
WEIGHT	Gross / Net	78 kg / 68 kg

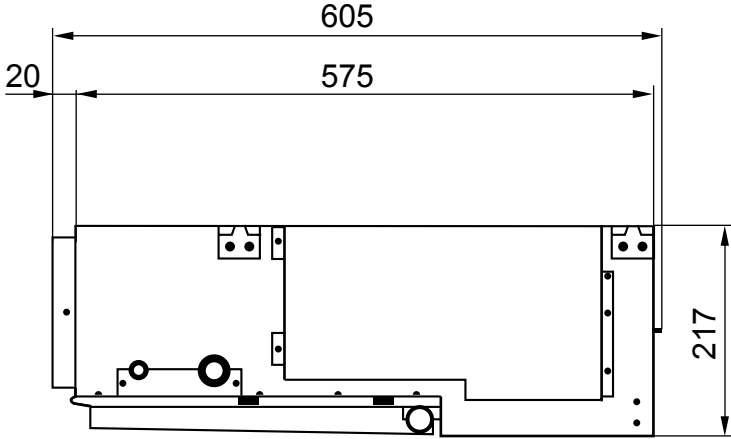
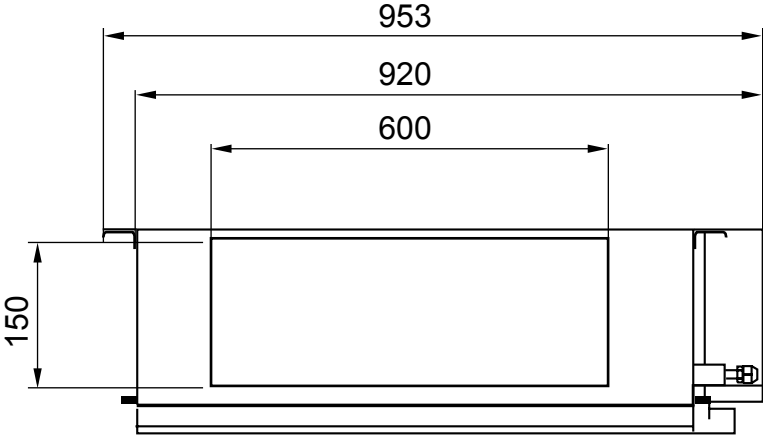
OUTLINE AND DIMENSIONS

INDOOR UNIT

Unit : mm

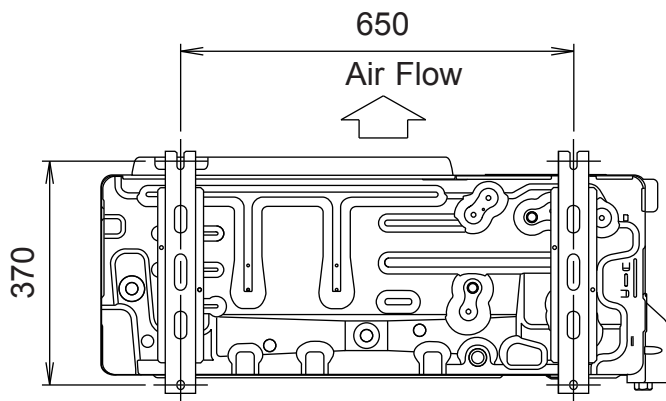
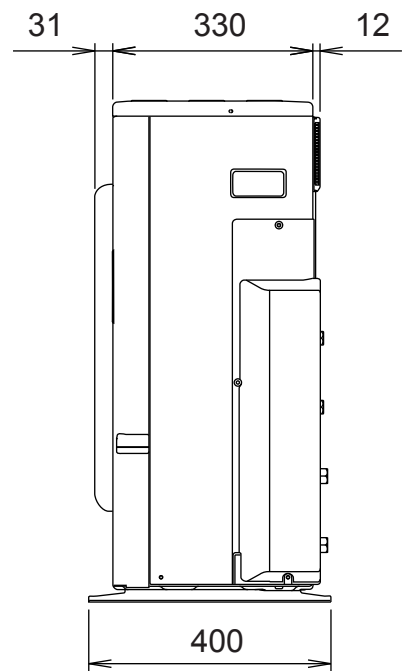
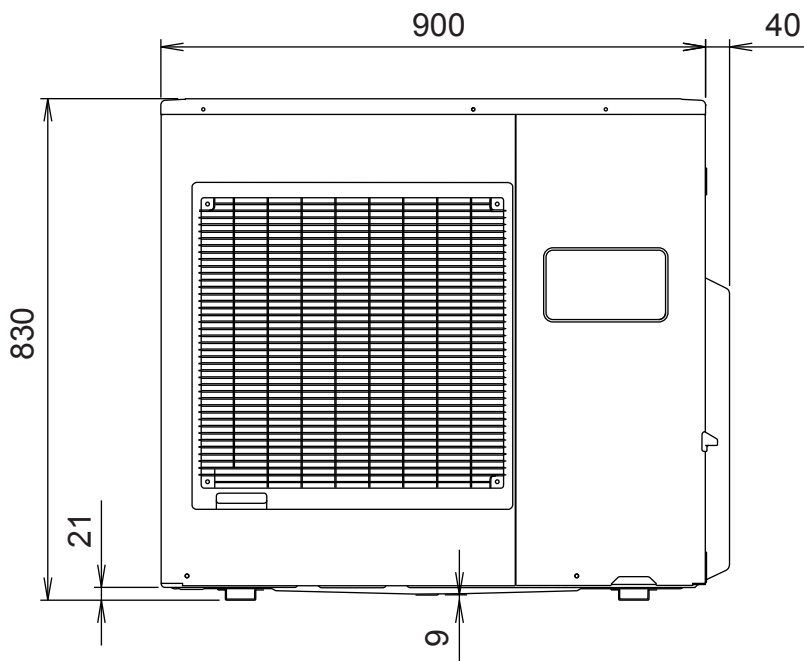
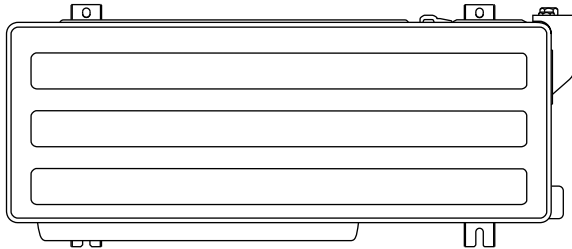


Drain pipe diameter
Inside : 21.5 mm
Outside : 26.0 mm



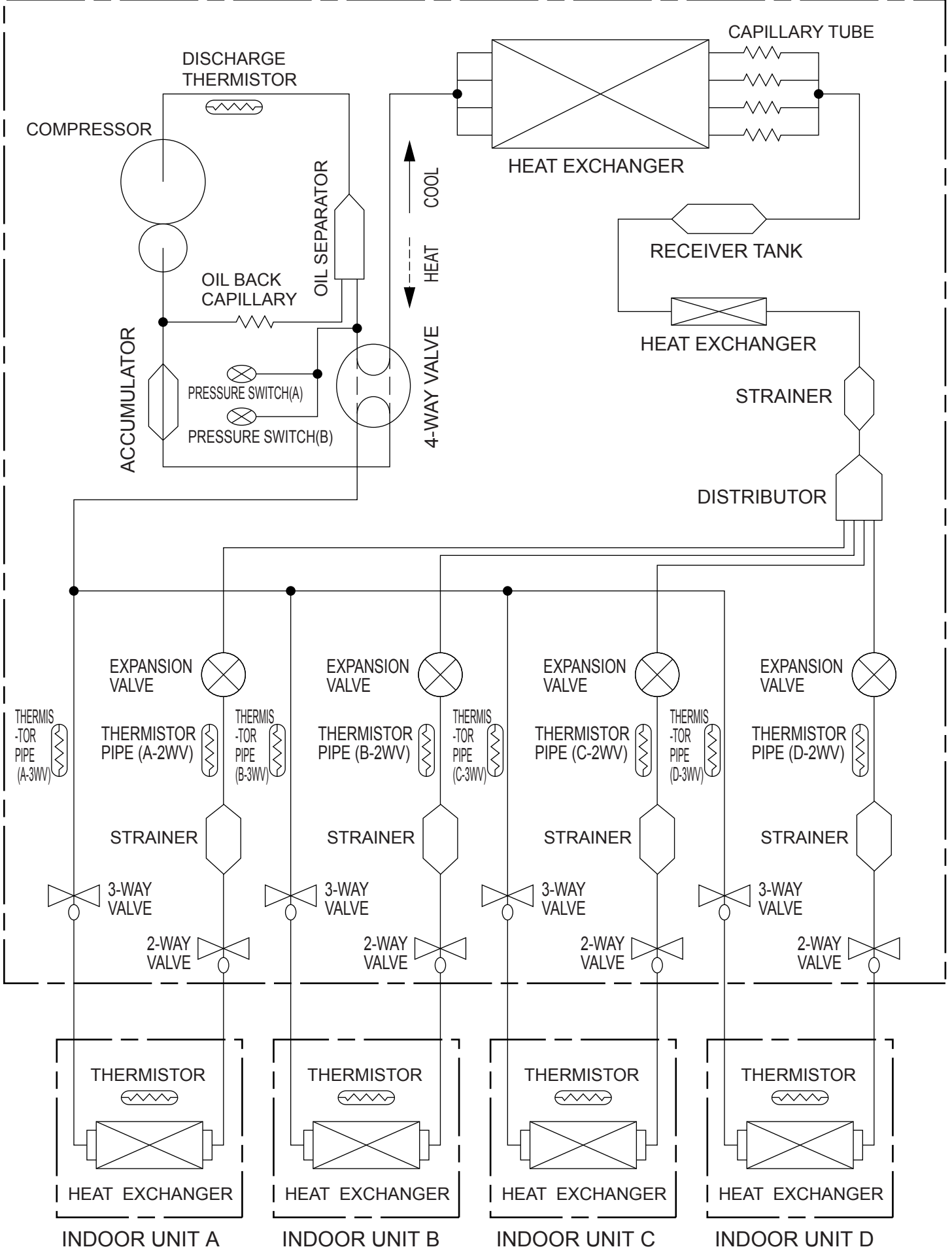
OUTDOOR UNIT

Unit : mm



REFRIGERANT SYSTEM DIAGRAM

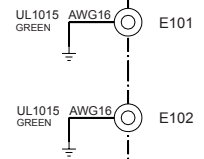
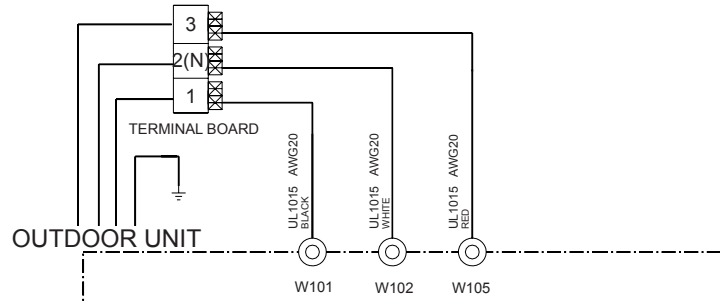
OUTDOOR UNIT



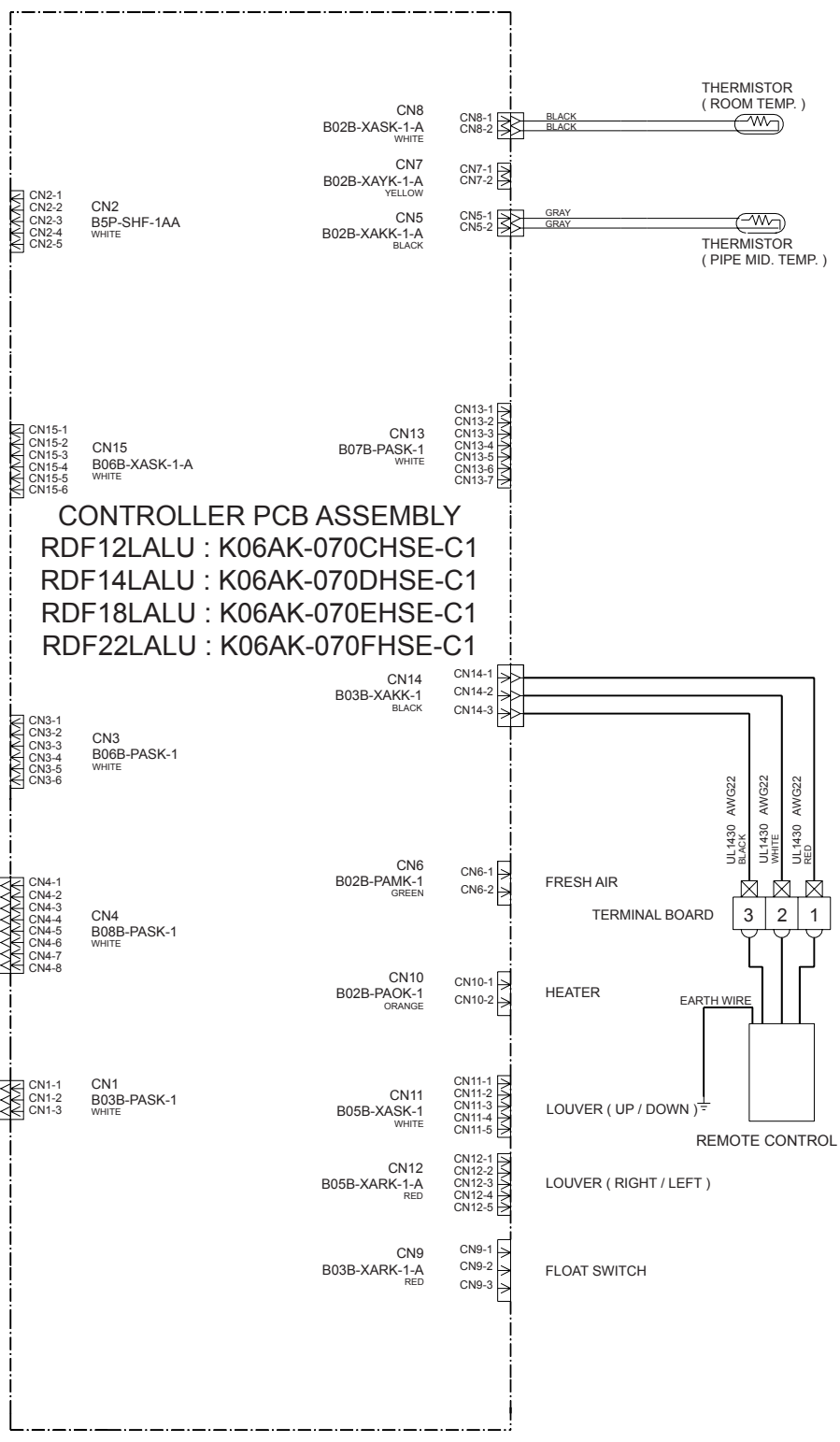
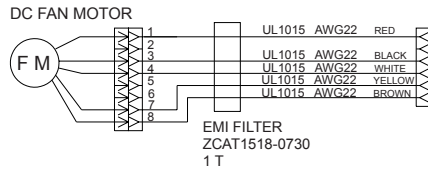
INDOOR PCB CIRCUIT DIAGRAM

CONTROL UNIT

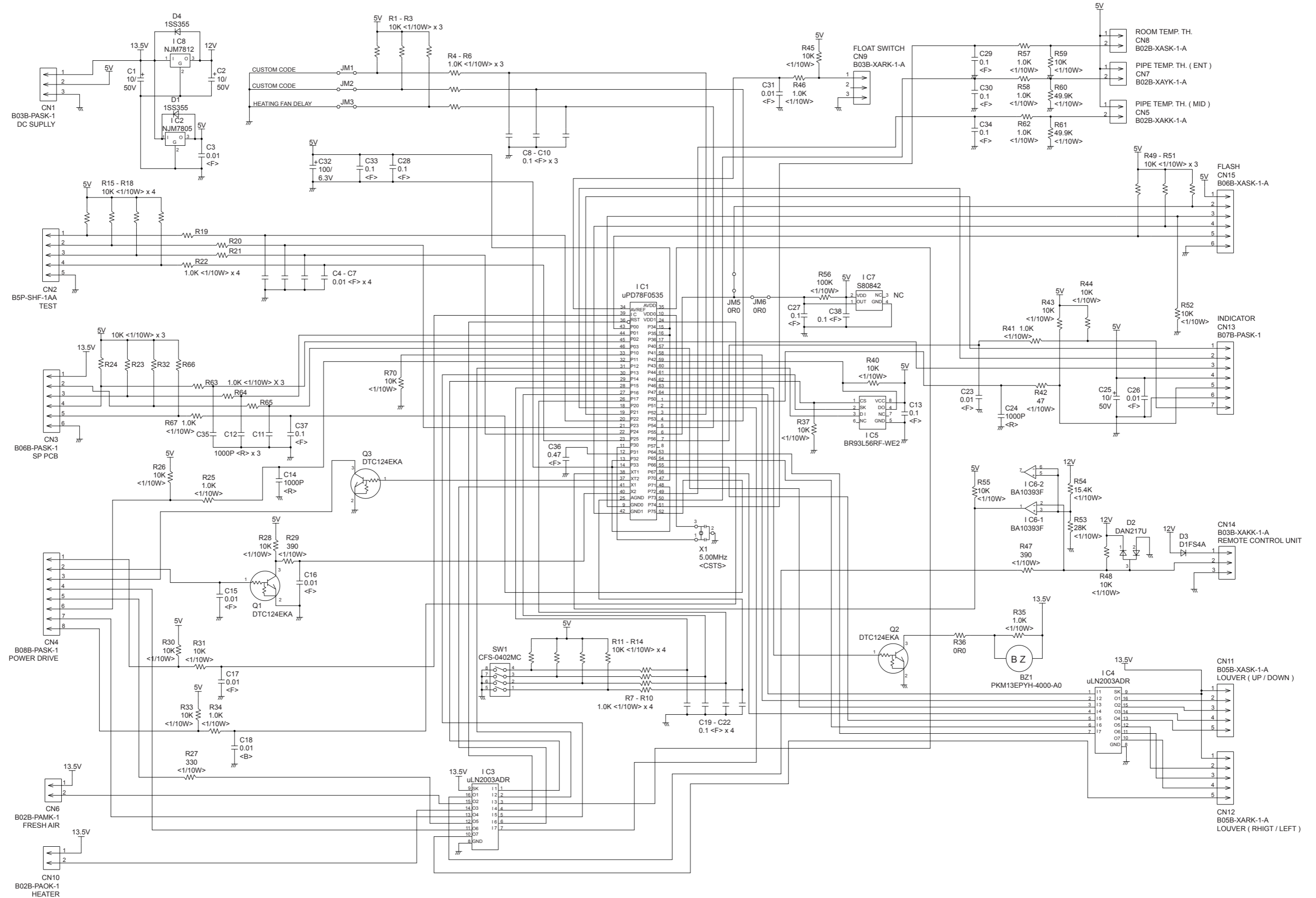
RDF12LALU : EZ-0070SHSE
 RDF14LALU : EZ-0070THSE
 RDF18LALU : EZ-0070WHSE
 RDF22LALU : EZ-0070YHSE



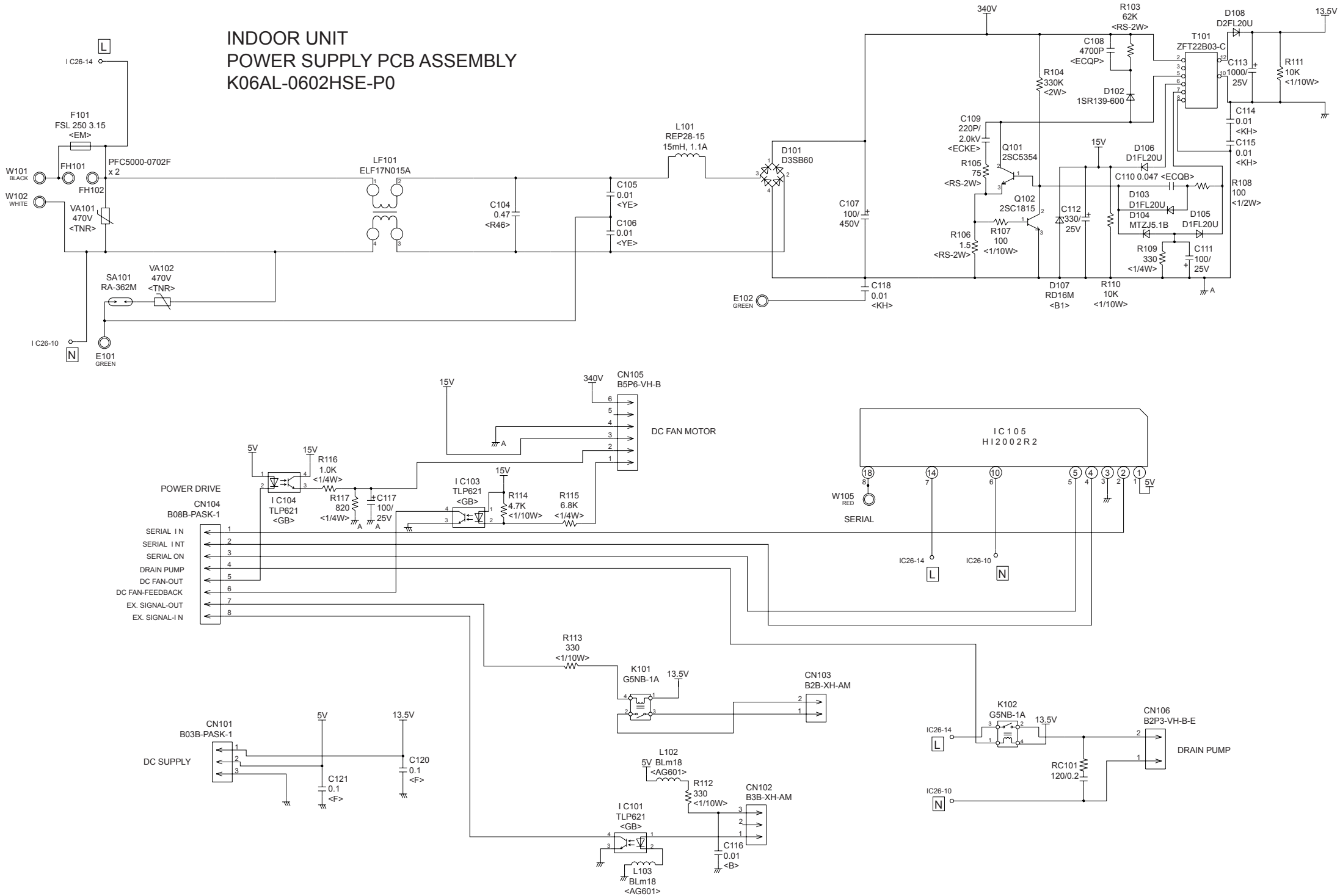
POWER SUPPLY PCB ASSEMBLY K06AL-0602HSE-P0



INDOOR UNIT
 CONTROLLER PCB ASSEMBLY
 RDF12LALU : K06AK-070CHSE-C1
 RDF14LALU : K06AK-070DHSE-C1
 RDF18LALU : K06AK-070EHSE-C1
 RDF22LALU : K06AK-070FHSE-C1



INDOOR UNIT POWER SUPPLY PCB ASSEMBLY K06AL-0602HSE-P0

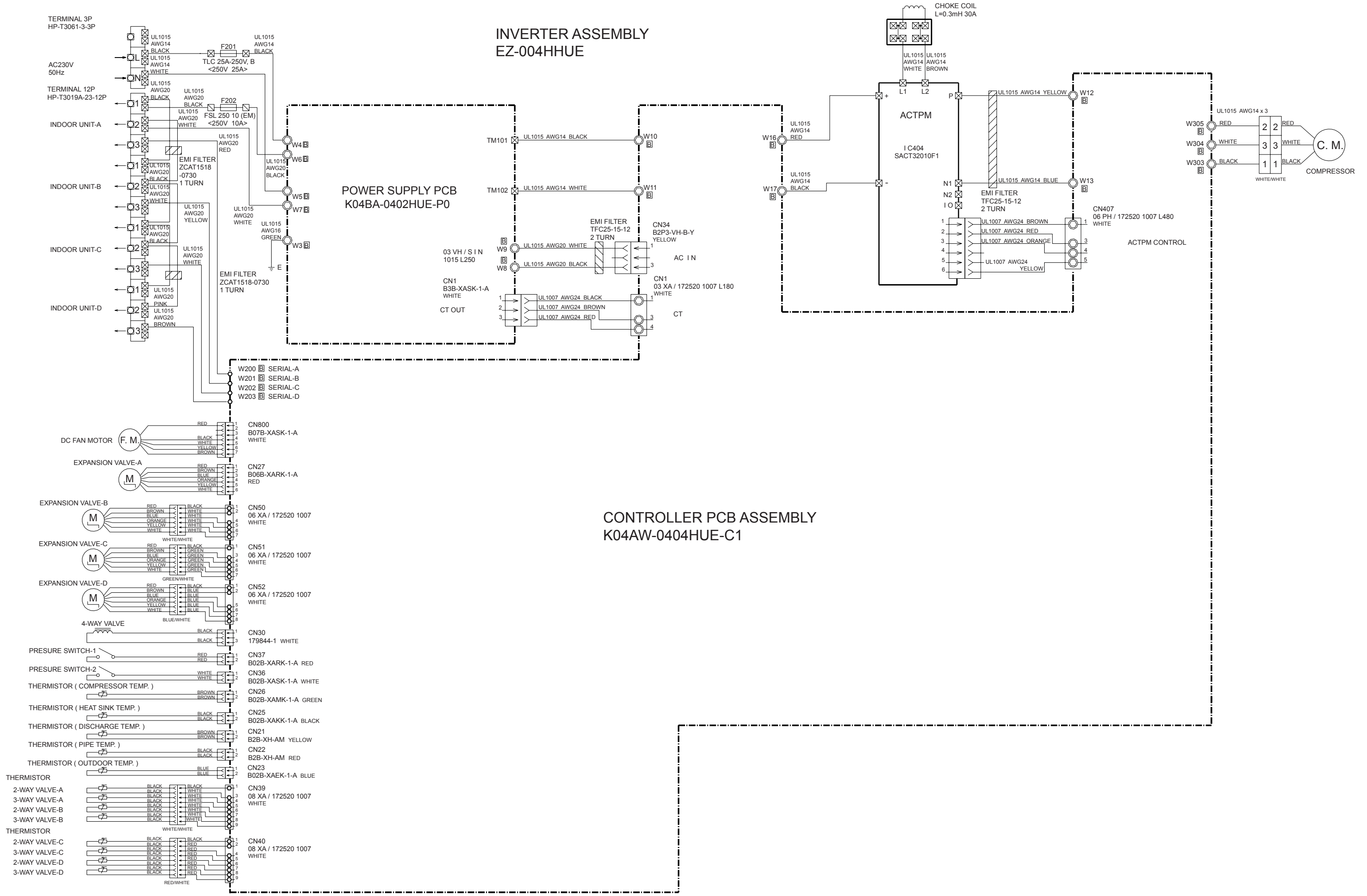


OUTDOOR PCB CIRCUIT DIAGRAM

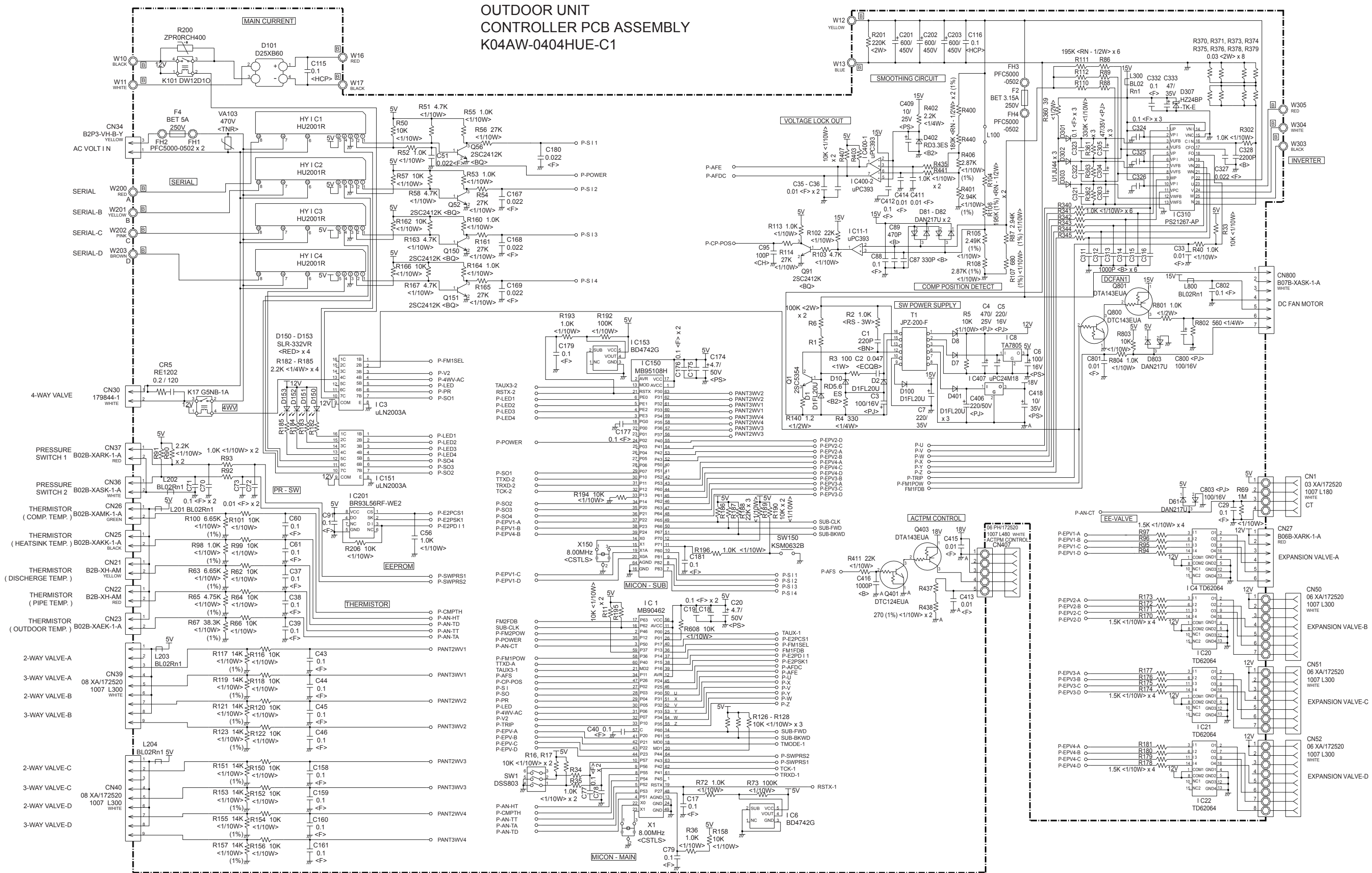
INVERTER ASSEMBLY EZ-004HHUE

POWER SUPPLY PCB K04BA-0402HUE-P0

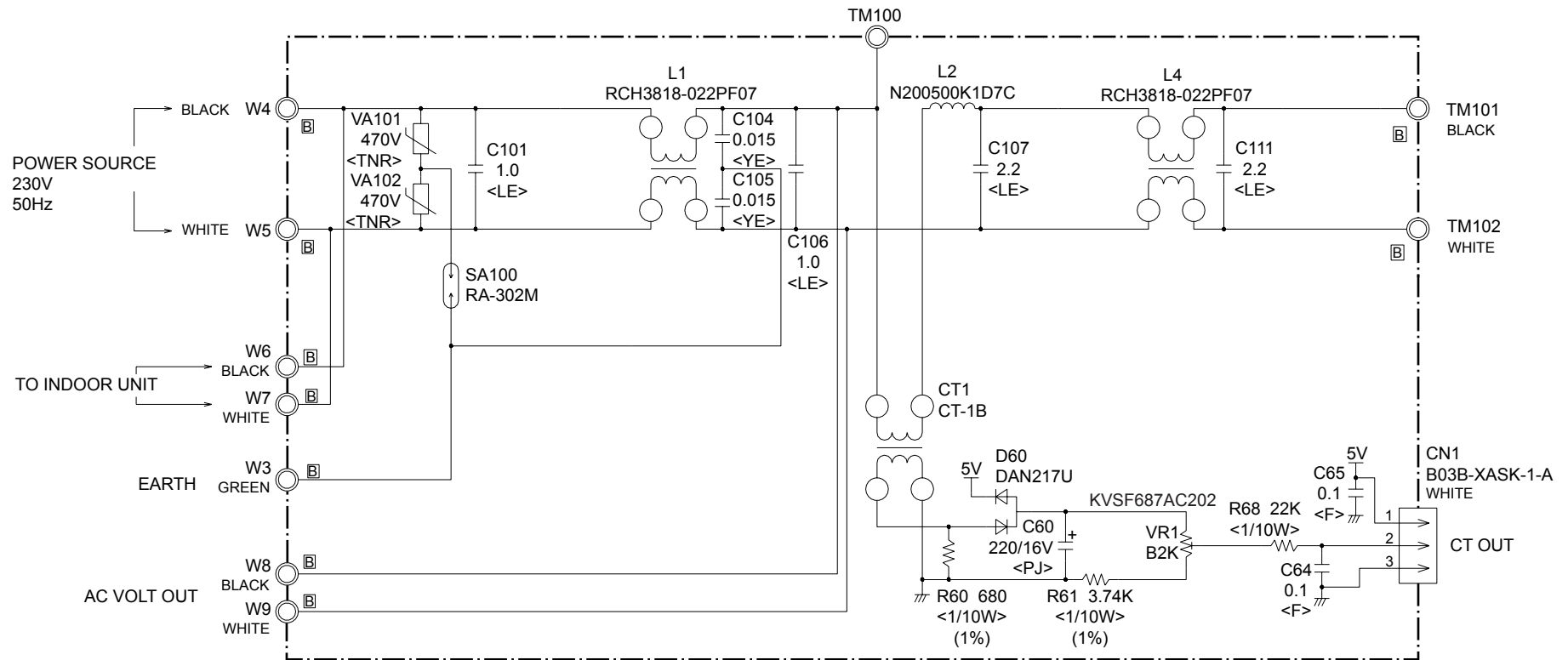
CONTROLLER PCB ASSEMBLY K04AW-0404HUE-C1



OUTDOOR UNIT CONTROLLER PCB ASSEMBLY K04AW-0404HUE-C1

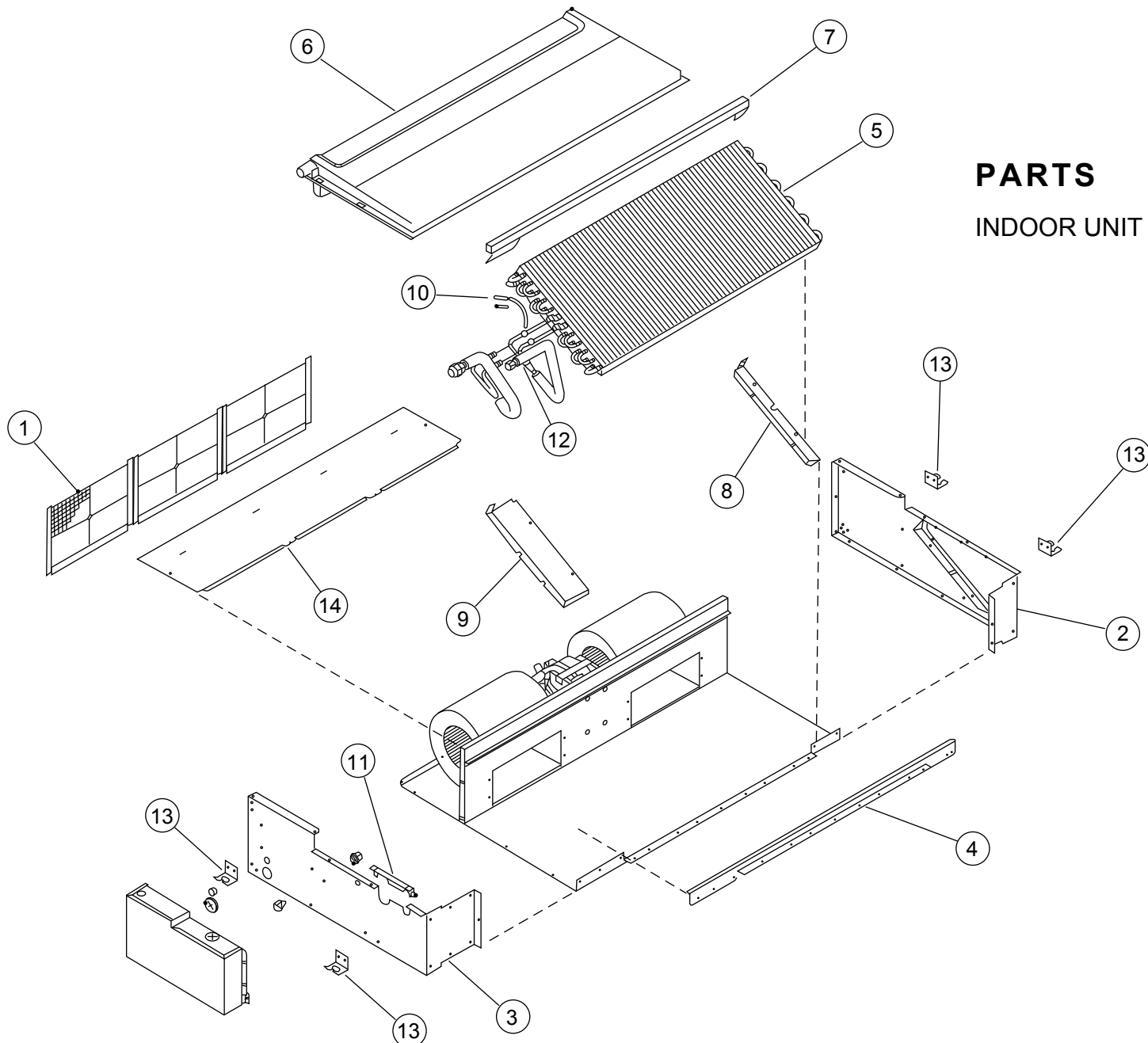


OUTDOOR UNIT
 POWER SUPPLY PCB ASSEMBLY
 K04BA-0402HUE-P0



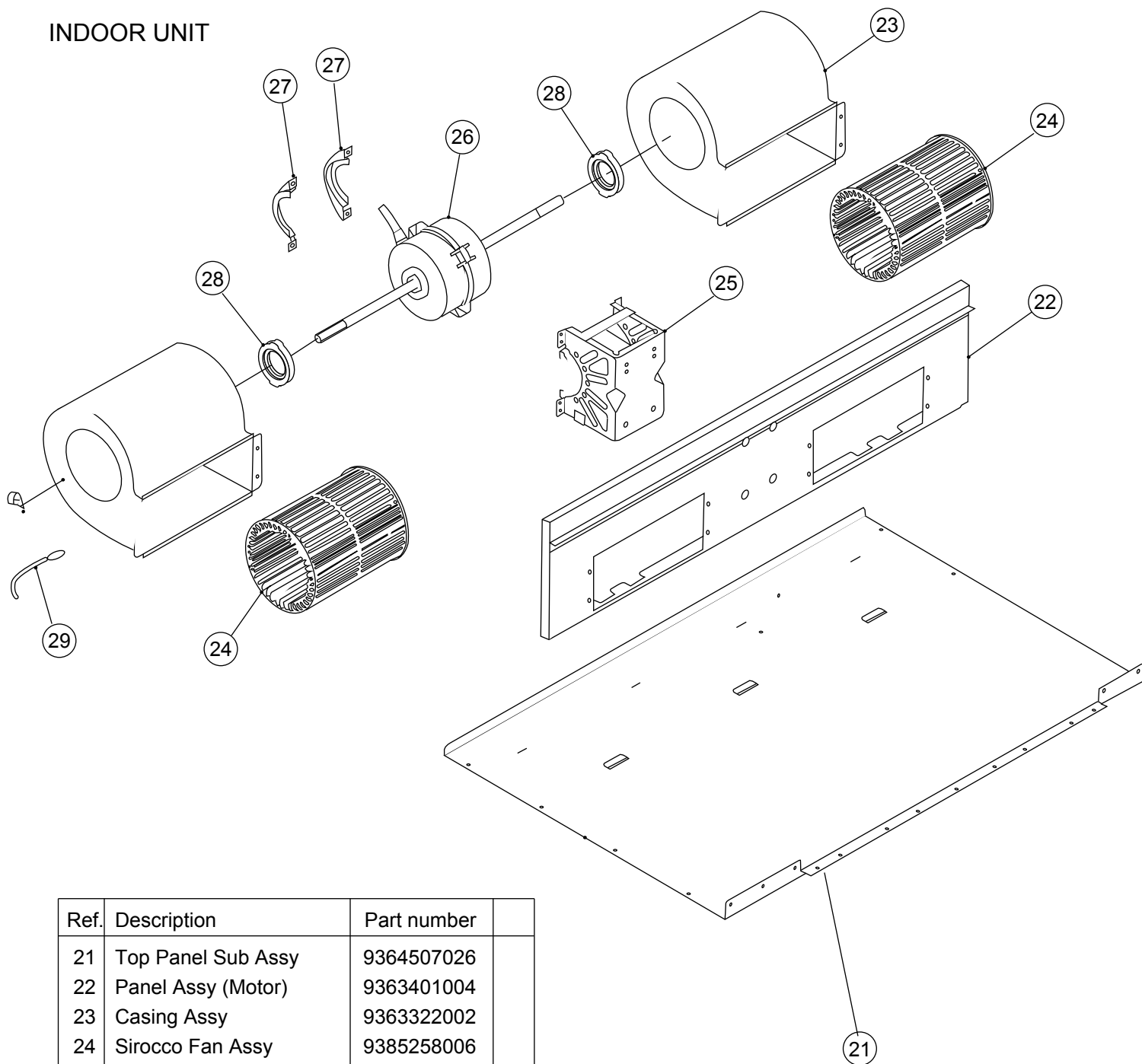
PARTS

INDOOR UNIT



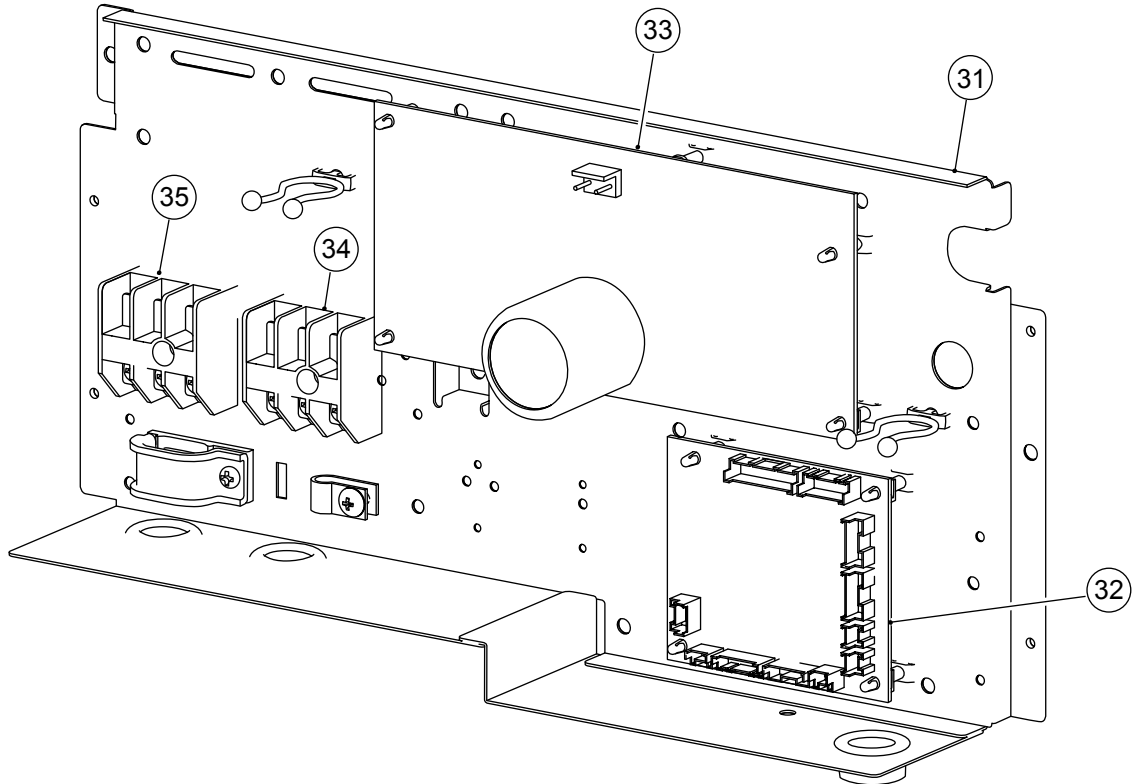
Ref.	Description	Part number		
		RDF12LALU	RDF14LALU	RDF18LALU RDF22LALU
1	Air Filter	9366833017	9366833017	9366833017
2	Side Panel R Sub Assy	9364505022	9364505022	9364505022
3	Side Panel L Sub Assy	9364506029	9364506029	9364506029
4	Front Panel Sub Assy	9364508023	9364508023	9364508023
5	Evaporator Assy	9373255024	9373255017	9372972014
6	Drain Pan Sub Assy	9364502069	9364502069	9364502069
7	Evaporator Support Plate	9363404005	9363404005	9363404005
8	Bracket Evaporator R	9363199000	9363199000	9363199000
9	Bracket Evaporator L	9363198003	9363198003	9363198003
10	Pipe Thermistor	9703297090	9703297069	9703297090
11	Pipe Cover	9363327007	9363327007	9363327007
12	Distributor Assy	9373034254	9373034209	9373034216
13	Hook	9363195002	9363195002	9363195002
14	Cabinet Cover Sub Assy	9364503028	9364503028	9364503028
--	Drain Cap Assy	9377878014	9377878014	9377878014
--	Coupling Pipe Assy	9373038467	9373038085	---
--	Outlet (Eva) Assy	---	---	9372978047

INDOOR UNIT



Ref.	Description	Part number
21	Top Panel Sub Assy	9364507026
22	Panel Assy (Motor)	9363401004
23	Casing Assy	9363322002
24	Sirocco Fan Assy	9385258006
25	Motor Fixing Table Assy	9358591000
26	Fan Motor Assy	9602401017
27	Motor Fixture	9358594001
28	Rubber (Vibration-proof)	9385102002
29	Room Thermistor	9703299018

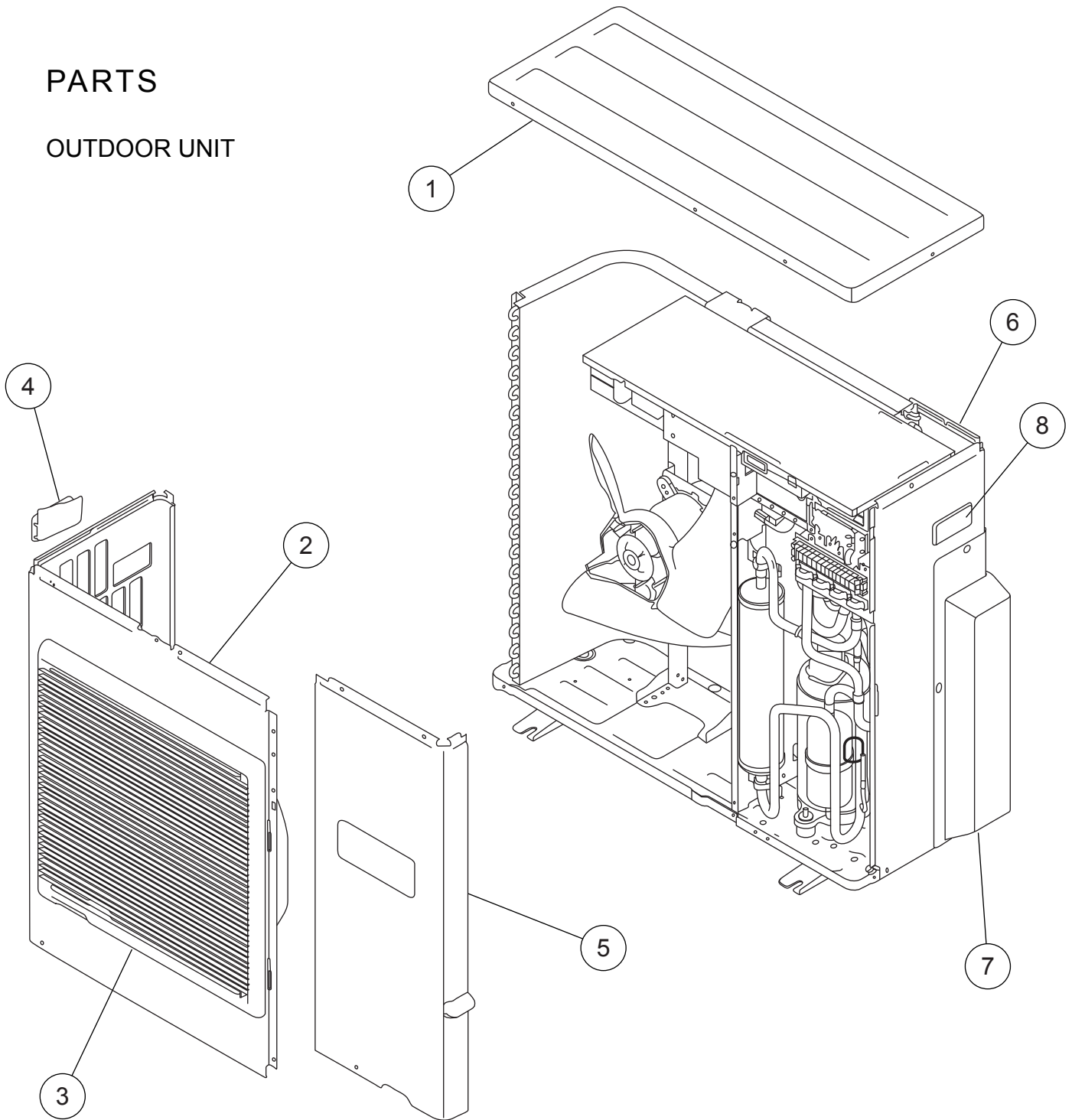
INDOOR UNIT



Ref.	Description	Part number
31	Control Box	9375240035
32	Controller PCB Assy (12)	9707393378
32	Controller PCB Assy (14)	9707393385
32	Controller PCB Assy (18)	9707393392
32	Controller PCB Assy (22)	9707393408
33	Power Supply PCB Assy	9707398038
34	Terminal	9703345012
35	Terminal	9306489045
--	Control Box Cover	9363201000
--	Remote Control	9372266199
--	Wire	9372714010
--	Hole Cover	9378176010
--	Cap (Power)	9352173011

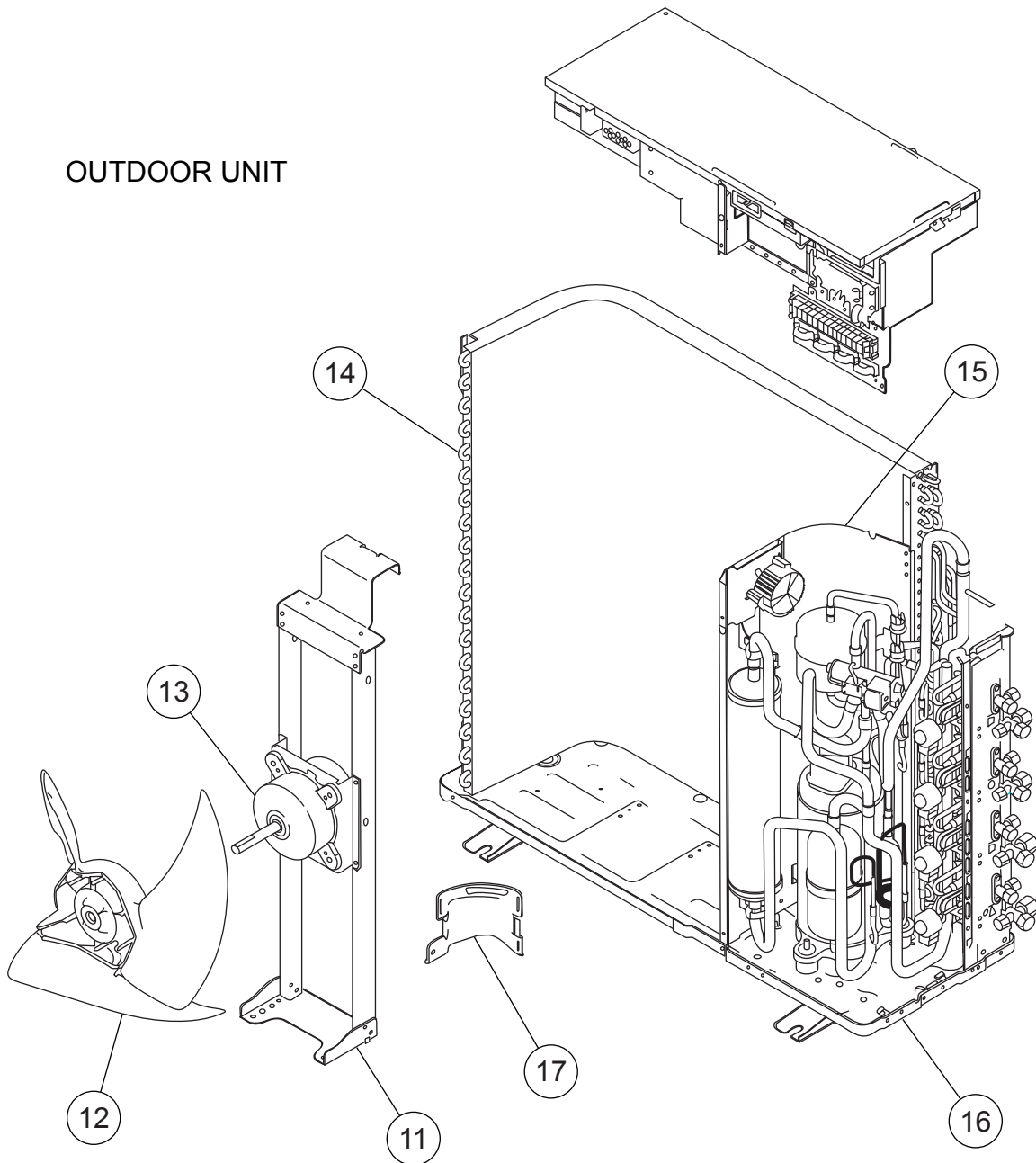
PARTS

OUTDOOR UNIT



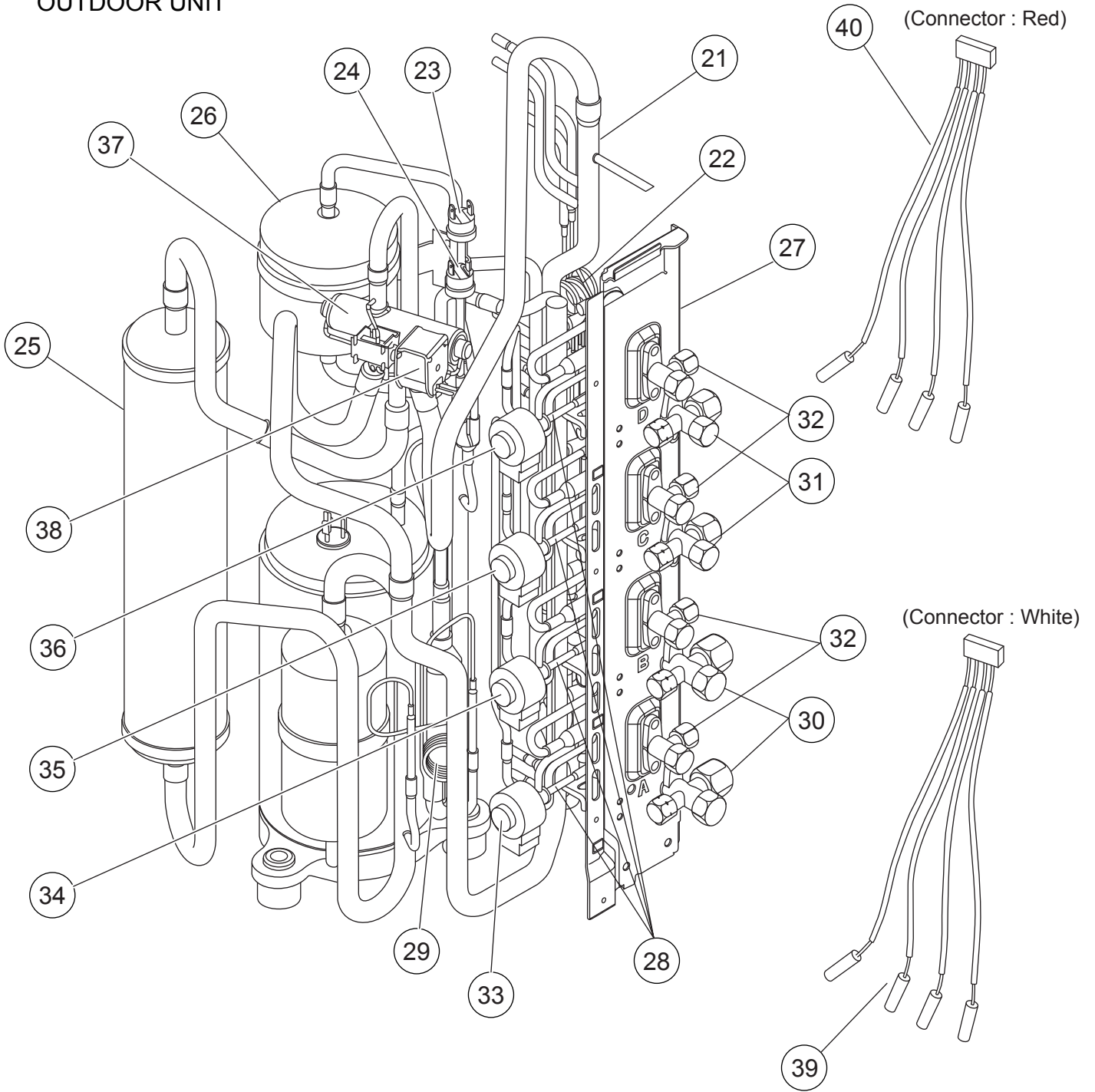
Ref.	Description	Part number
1	Top Panel Sub Assy	9374417025
2	Front Panel	9374094066
3	Fan Guard	9374330010
4	Grip Side	9374173013
5	Service Panel Assy	9374415038
6	Right Panel M	9374599028
7	Valve Cover Sub Assy	9374827015
8	Grip	9374172016
--	Protective Net	9375381011

OUTDOOR UNIT



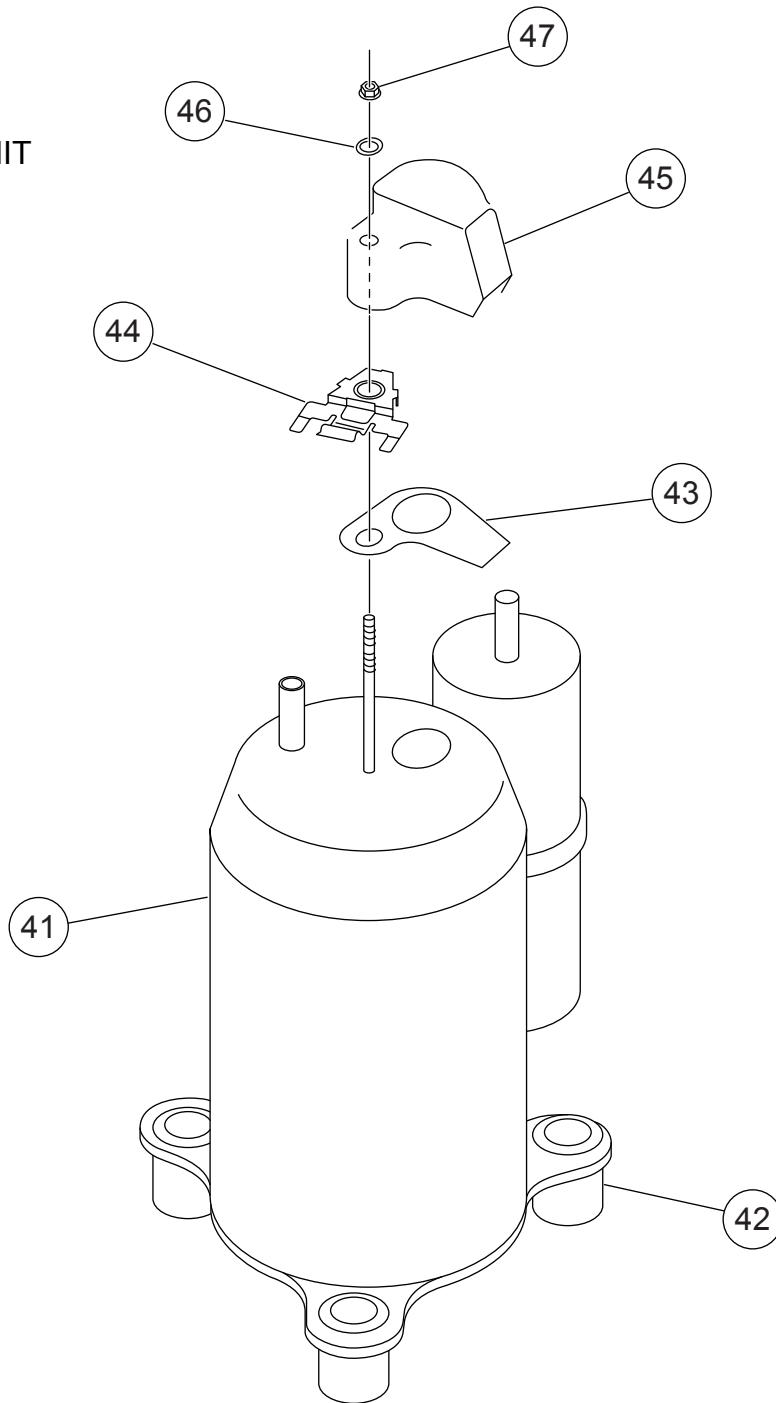
Ref.	Description	Part number
11	Motor Bracket Sub Assy	9374418053
12	Propeller Fan Assy	9366378020
13	Fan Motor	9601882015
14	Condenser A Assy	9374433056
15	Separate Wall Assy	9374629022
16	Base Assy	9374166084
17	Cap Foot	9374345014
--	Drain Assy	9303029015
--	Drain Cap	313166024302

OUTDOOR UNIT



Ref.	Description	Part number	Ref.	Description	Part number
21	Inlet Pipe (Cond) A Assy	9373461067	32	2-Way Valve Assy	9372204054
22	Outlet Pipe (Cond) A Assy	9374266067	33	Expansion Valve Coil (A, Red)	9900057084
23	Pressure Switch A Assy	9367726028	34	Expansion Valve Coil (B, White)	9900057053
24	Pressure Switch B Assy	9367727025	35	Expansion Valve Coil (C, Green)	9900057060
25	Accumulator Sub Assy	9374426072	36	Expansion Valve Coil (D, Blue)	9900057077
26	Receiver Tank Sub Assy	9373426028	37	4-Way Valve Assy	9374425044
27	Valve Plate A Assy	9374628025	38	Solenoid	9900165055
28	Expansion Valve Assy	9370947106	39	Pipe Thermistor (White)	9900322014
29	Capillary Assy	9372197370	40	Pipe Thermistor (Red)	9900289010
30	3-Way Valve Assy (1/2")	9372205051	--	Strainer	9372524015
31	3-Way Valve Assy (3/8")	9372205044	--	Strainer	9366602019

OUTDOOR UNIT
Compressor

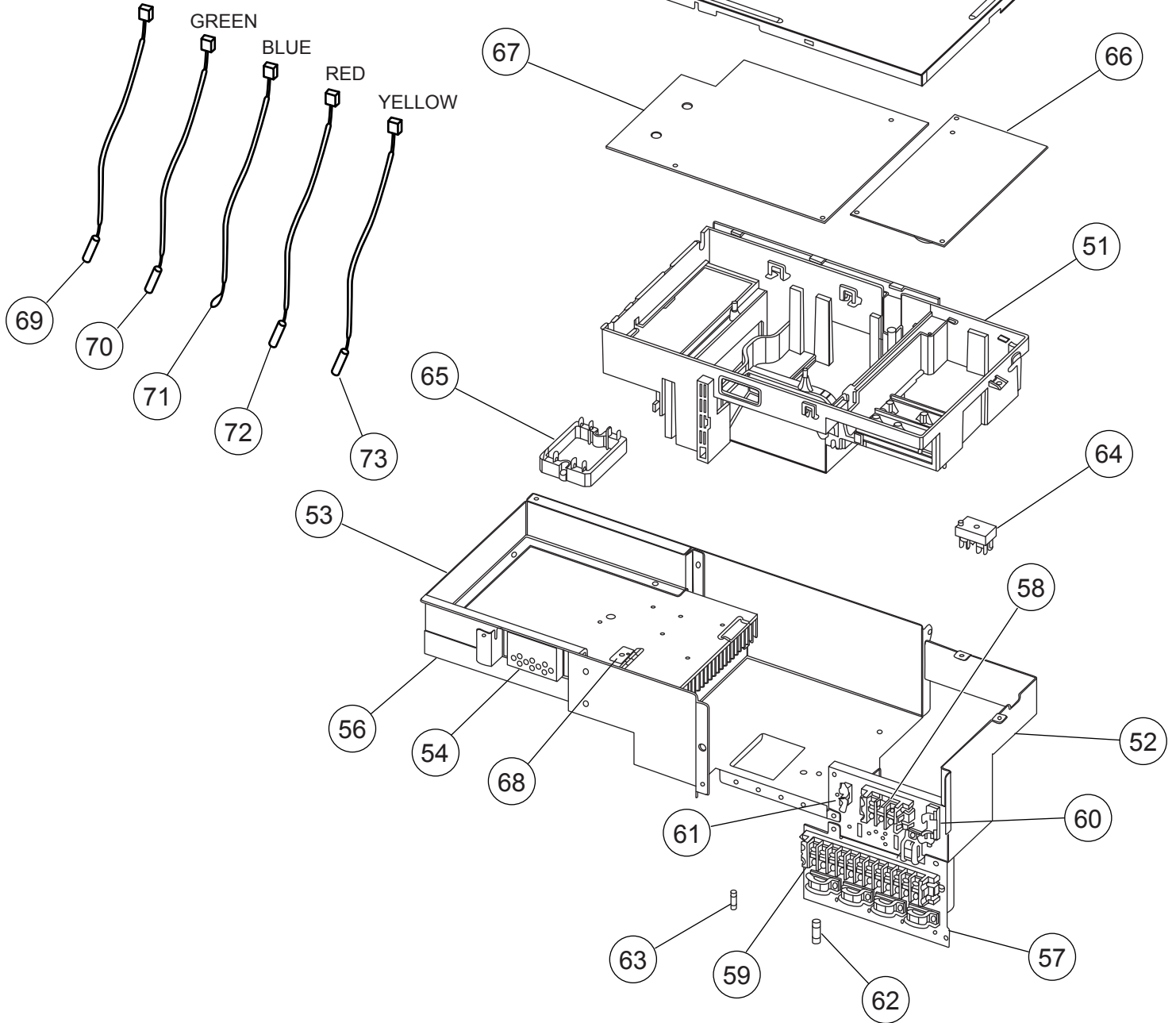


Ref.	Description	Part number
41	Compressor Assy	9377946010
42	Rubber Seat	9377951014
43	Terminal Packing	9377948014
44	Holder	9377952011
45	Terminal Cover	9377947017
46	Washer (Rubber)	9377949011
47	Frang Nut	9377950017
--	Compressor Cover A	9374430055
--	Compressor Cover B	9374431052
--	Compressor Cover C	9372067048

OUTDOOR UNIT

Inverter assy

Connector : BLACK

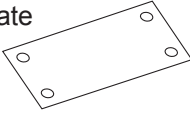
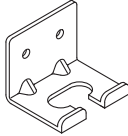
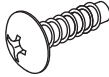



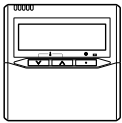
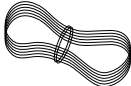





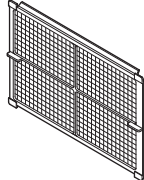
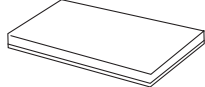

Ref.	Description	Part number
51	Inverter Box A	9374603015
52	Inverter Box B Assy	9374625017
53	Inverter Box C	9374605019
54	Inverter Box Duct	9374609017
55	Inverter Box Cover	9374608010
56	Heat Sink A	9374607013
57	Inverter Box D	9374606016
58	Terminal (3P)	9900203016
59	Terminal (12P)	9358660164
60	Fuse Holder (Big)	0501454012
61	Fuse Holder (Small)	0501456016
62	Fuse (Big)	0600086039

Ref.	Description	Part number
63	Fuse (Small)	0600376116
64	Terminal	9701971015
65	ACTPM	9703457012
66	Power Supply PCB Assy	9705647039
67	Controller PCB Assy	9705642058
68	Holder (Thermo)	9372797013
69	Heat Sink Thermistor	9900311018
70	Compressor Thermistor	9900156022
71	Thermistor (Outdoor)	9703516078
72	Heat Exchanger Thermistor	9704220059
73	Discharge Pipe Thermistor	9704219114

ACCESSORIES

INDOOR UNIT

Name and Shape	Q'ty	Application
Installation template 	1	For positioning the indoor unit (P/N 9364225005)
Hanger 	4	For suspending the indoor unit from ceiling (P/N 9363195002)
Tapping screw (ø4 x 10) 	8	For installing the hanger (P/N 301171164104)
Special nut A (large flange) 	4	For suspending the indoor unit from ceiling (P/N 313005446653)
Special nut B (small flange) 	4	(P/N 313005446759)
Binder 	(Small) 1	For remote control and cord binding (P/N 313361275805)
	(Large) 4	For fixing the coupler heat insulation (P/N 312300787605)
Remote control 	1	For air conditioner operation (P/N 9372266199)
Remote control cord 	1	For connecting the remote control (P/N 9372714010)
Tapping screw (ø4 x 16) 	2	For installing remote control (P/N 0700181108)

Name and Shape	Q'ty	Application
Coupler heat insulation (large) 	1	For indoor side pipe joint (gas pipe) (P/N 9350716029)
Coupler heat insulation (small) 	1	For indoor side pipe joint (liquid pipe) (P/N 9352766015)
Filter 	3	For protecting air conditioner against dust (P/N 9366833017)
Drain hose insulation 	1	Insulates the drain hose and vinyl hose connection (P/N 313806217708)
Edge cover 	1	For making a wiring hole for connecting optional units (P/N 9378176010)

OPTIONAL PARTS

The following options are available.

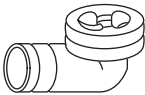
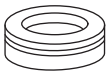




Remote sensor : UTD-RS100 (P/N 9072619004)

External control set : UTD-ECS5A (P/N 9077359004)

IR receiver unit : UTY-LRHY1 (P/N 9048098000)

Drain pump unit : UTZ-PX1BBA (P/N 9052976004)

OUTDOOR UNIT

Name and Shape	Q'ty	Application
Drain pipe 	1	For outdoor unit drain piping work (May not be supplied, depending on the model.)
Drain cap 	2	
Putty 	1	For filling in a gap at the entrance of connection cords.
Adapter E (1/4" → 3/8") 6.35mm → 9.52mm 	1	For connecting a pipe with different diameter to the outdoor unit.
Adapter G (1/2" → 5/8") 12.7mm → 15.88mm 	1	
Adapter D (1/2" → 3/8") 12.7mm → 9.52mm 	2	

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