FUJITSU

SPLIT TYPE
AIR CONDITIONER
DUCT TYPE (50Hz)

SERVICE MANUAL

Indoor unit	Outdoor unit
ARYG30LMLE	AOYG30LETL
ARYG36LMLE	AOYG36LETL

Refrigerant R410A

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FUJITSU GENERAL LIMITED

SPECIFICATIONS

ELECTRICAL DATA

TYPE		Cooling & Heating	
INDOOR UNIT		ARYG30LMLE	ARYG36LMLE
OUTDOOR UNIT		AOYG30LETL	AOYG36LETL
COOLING CAPACITY		8.5 kW	9.4 kW
HEATING CAPACITY		10.0 kW	11.2 kW
POWER SOURCE		230 V 50 Hz	230 V 50 Hz
RUNNING CURRENT	Cooling	11.6 A	13.0 A
	Heating	11.7 A	13.6 A
INPUT WATTS	Cooling	2.65 kW	2.96 kW
	Heating	2.68 kW	3.10 kW
E.E.R.	Cooling	3.21 kW/kW	3.18 kW/kW
C.O.P.	Heating	3.73 kW/kW	3.61 kW/kW
STARTING CURRENT		12.2 A	13.7 A
MOISTURE REMOVAL		2.5 L/hr	3.0 L/hr
AIRCIRCULATION INDOOR	Cooling	1,900 m3/hr	1,900 m3/hr
	Heating	2,100 m3/hr	2,100 m3/hr
AIRCIRCULATION OUTDOOR		3,600 m3/hr	3,800 m3/hr
MAXIMUM CURRENT		17.0 A	20.0 A

FAN SPEED

INDOOR UNIT	Discrimination	MFG-45RVN	MFG-45RVN
	High (cooling)	1,130 r.p.m.	1,130 r.p.m.
	High (heating)	1,270 r.p.m.	1,270 r.p.m.
	Medium	980 r.p.m.	980 r.p.m.
	Low	790 r.p.m.	790 r.p.m.
	Quiet	630 r.p.m.	630 r.p.m.
OUTDOOR UNIT	Discrimination	MFE-60TVT	MFE-60TVT
	Speed	850 r.p.m.	900 r.p.m.

NOISE LEVEL

INDOOR UNIT	High (cooling)	39 dB	39 dB
	High (heating)	42 dB	42 dB
	Medium	35 dB	35 dB
	Low	30 dB	30 dB
	Quiet	26 dB	26 dB
OUTDOOR UNIT	Cooling	53 dB	54 dB
	Heating	55 dB	55 dB

COMPRESSOR AND REFRIGERANT

COMPRESSOR TYPE		Hermetic type, Inverter, 6 poles, DC motor, 2-cylinder rotary
DISCRIMINATION		N-TF30ND1A
WEIGHT (with oil)		15.3 kg
PRECHARGED REFRIGERANT		2,100 g
REFRIGERANT TYPE		R410A
MAX PIPE LENGTH		50 m
MAX PIPE HEIGHT		30 m
FULL CHARGE Pipe length	20 m	2,100 g
	30 m	2,500 g
	40 m	2,900 g
	50 m	3,300 g
ADDITIONAL CHARGE		40 g/m

DIMENSIONS

INDOOR UNIT	H x W x D	270 x 1,135 x 700 mm
OUTDOOR UNIT	H x W x D	830 x 900 x 330 mm

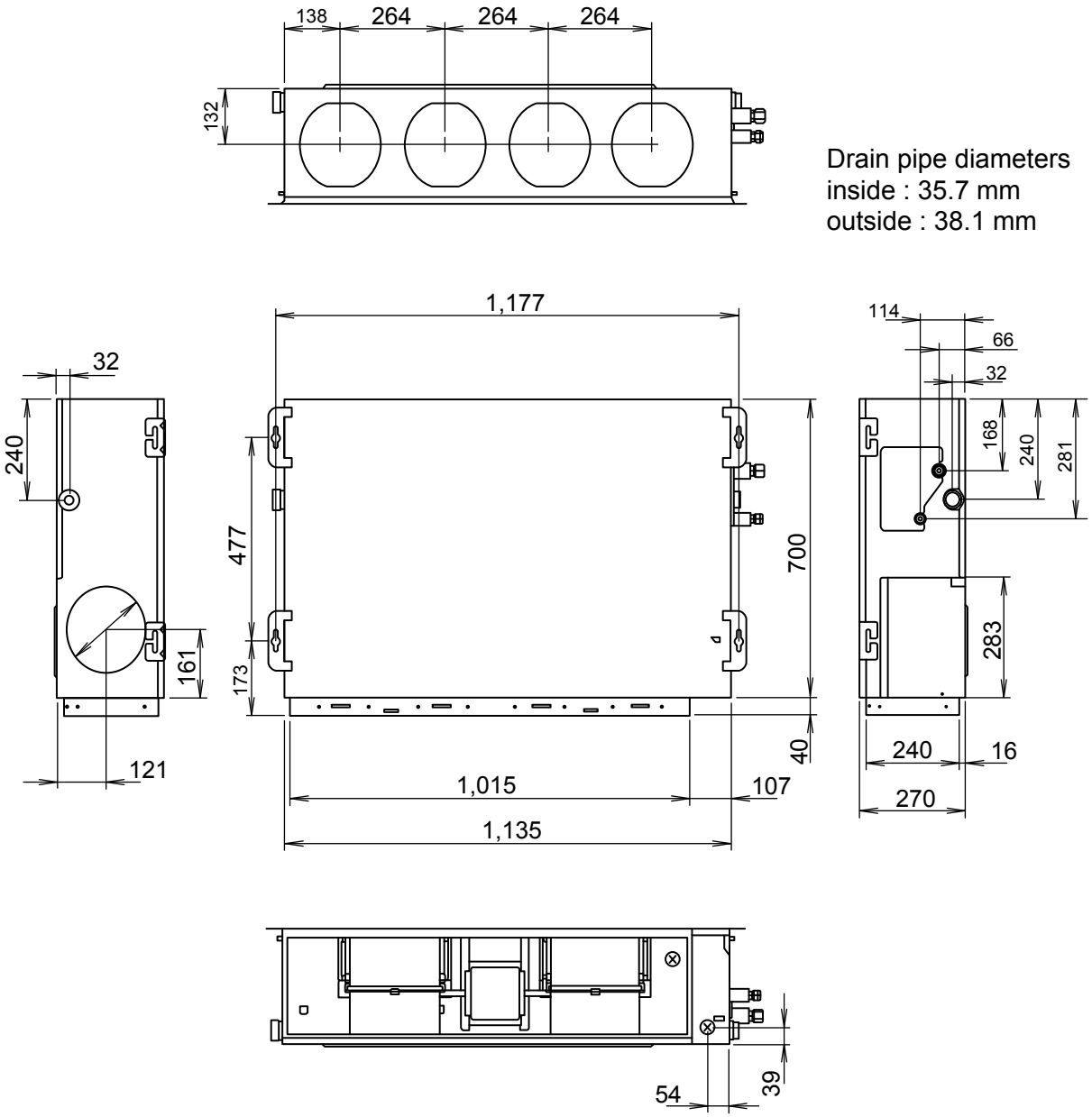
WEIGHT

INDOOR UNIT	Shipping / Net	47 kg / 40 kg
OUTDOOR UNIT	Shipping / Net	68 kg / 61 kg

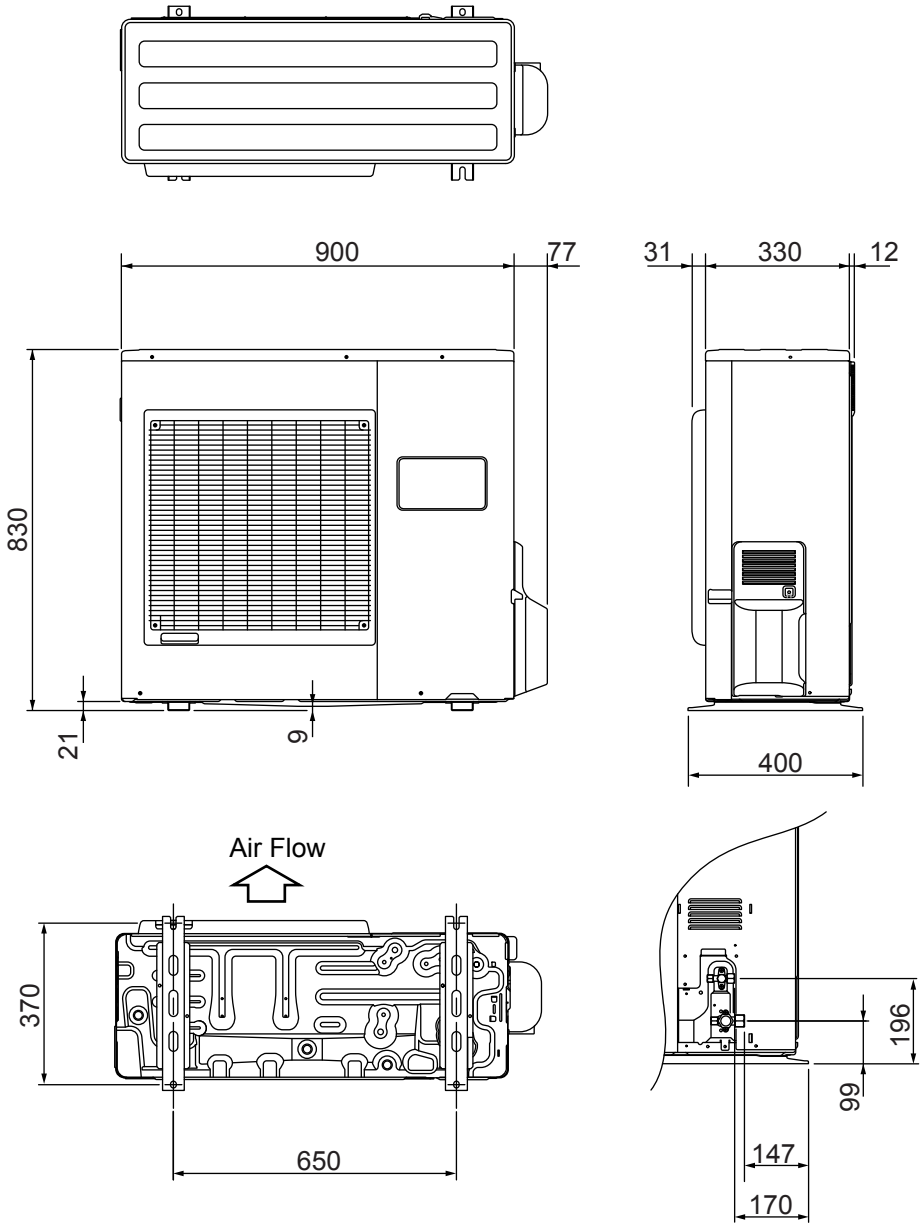
DIMENSIONS

(Unit : mm)

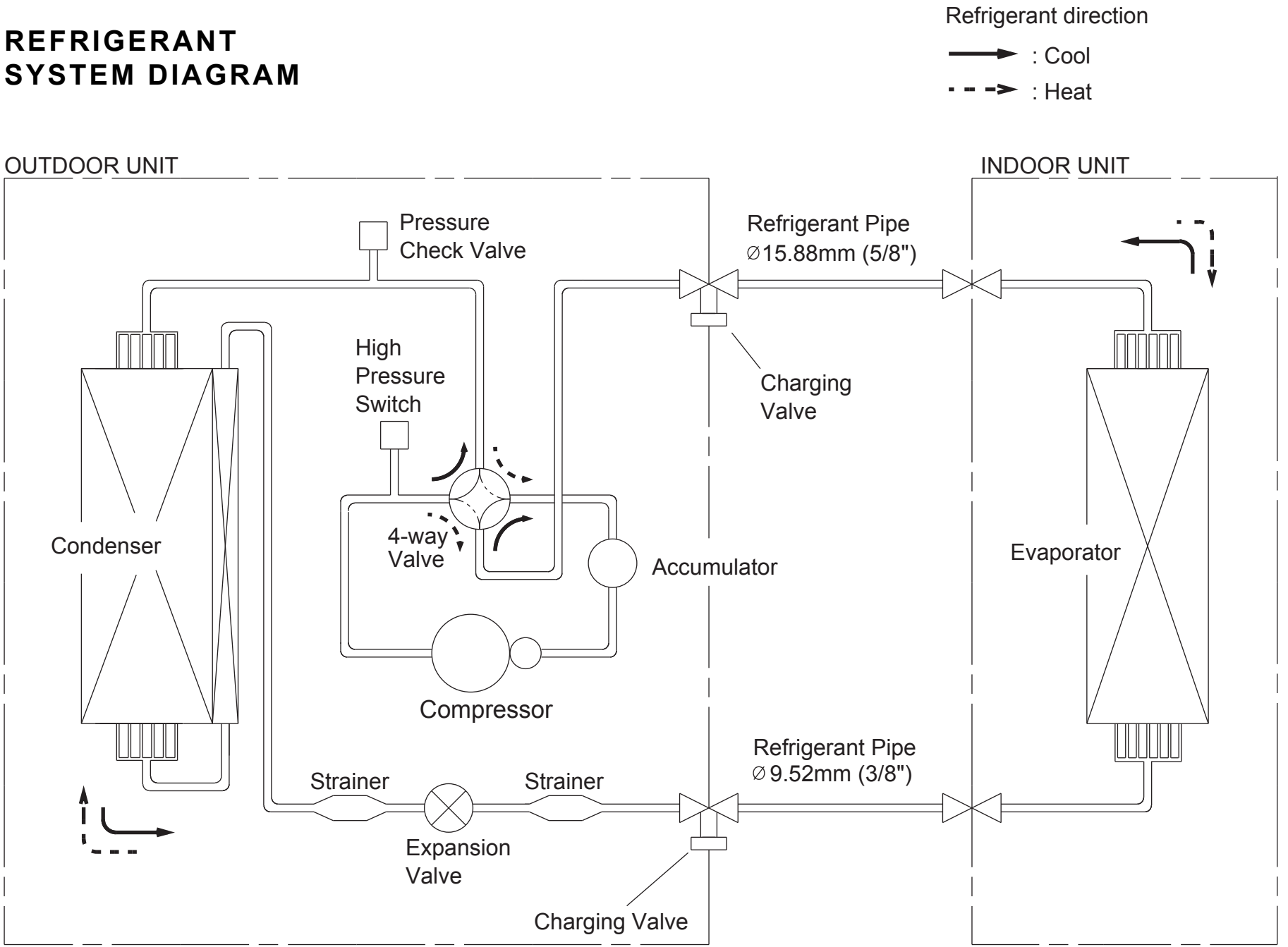
INDOOR UNIT



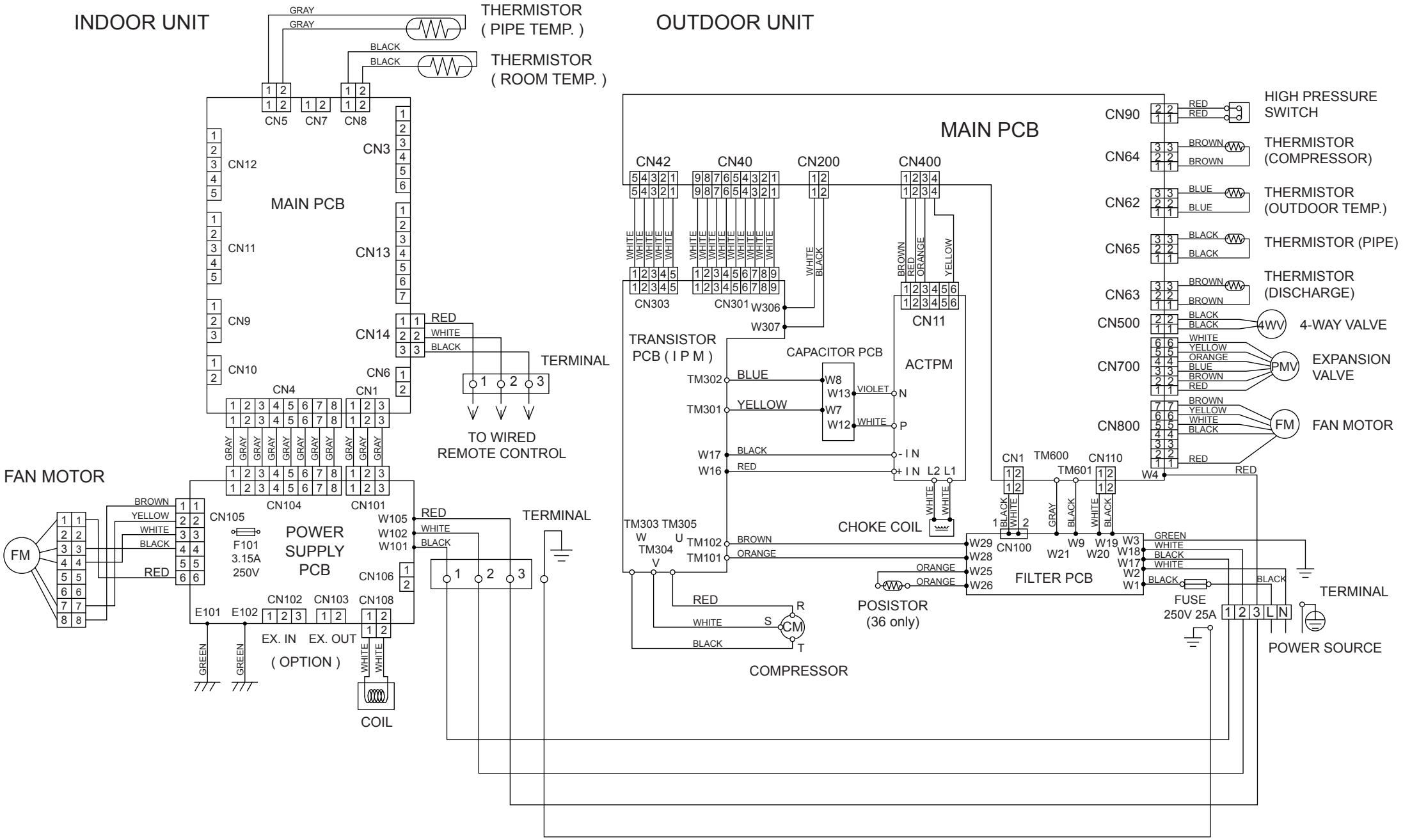
OUTDOOR UNIT



REFRIGERANT SYSTEM DIAGRAM

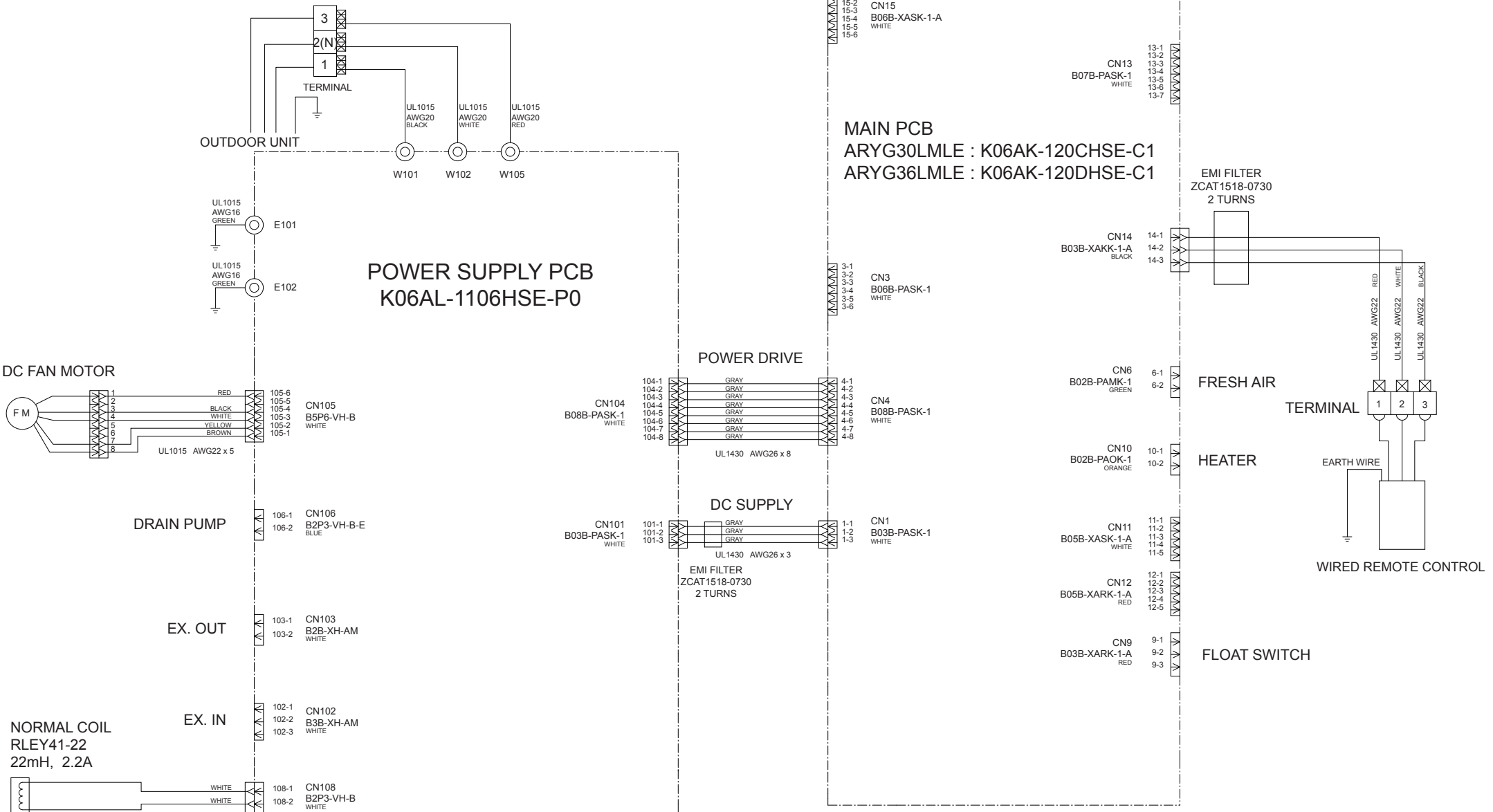


CIRCUIT DIAGRAM

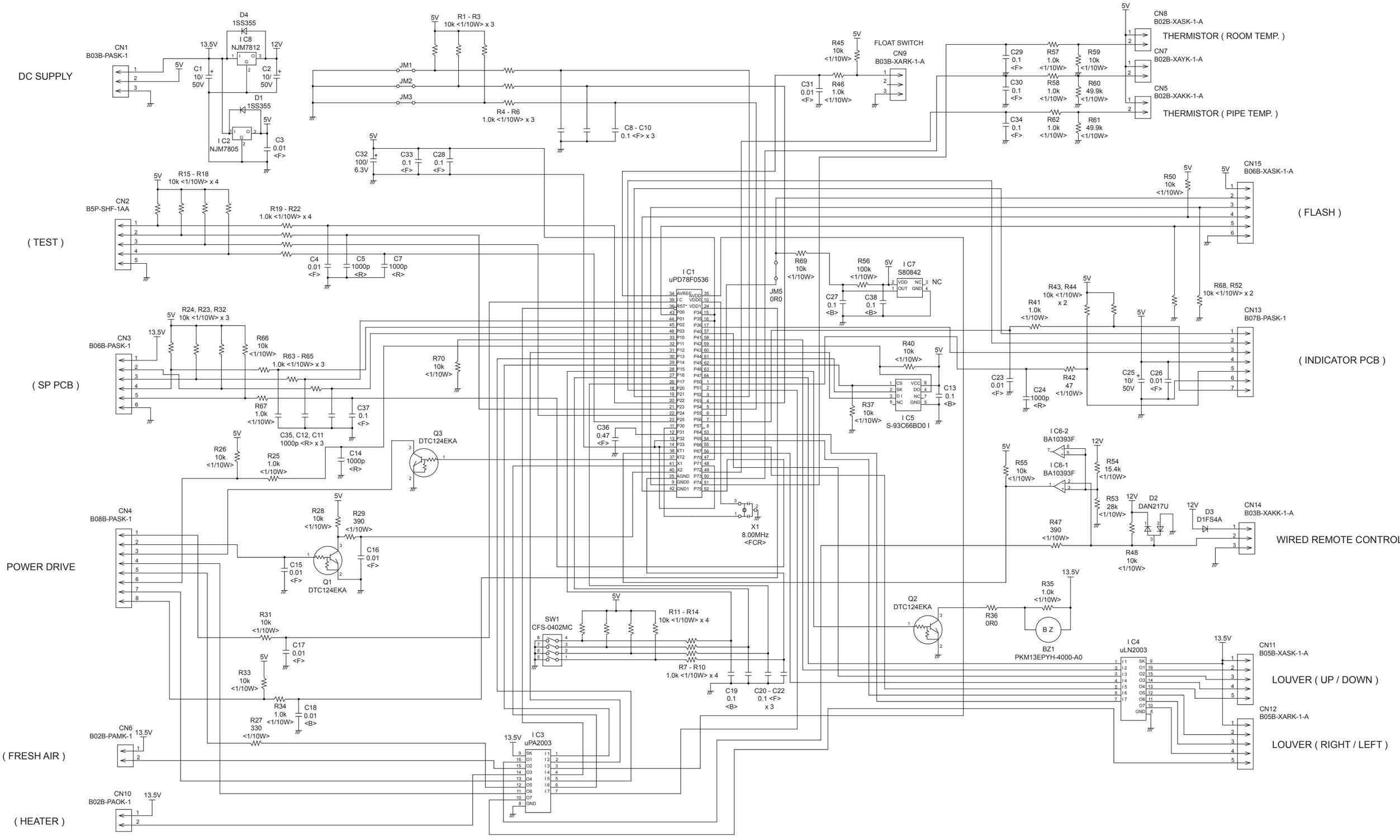


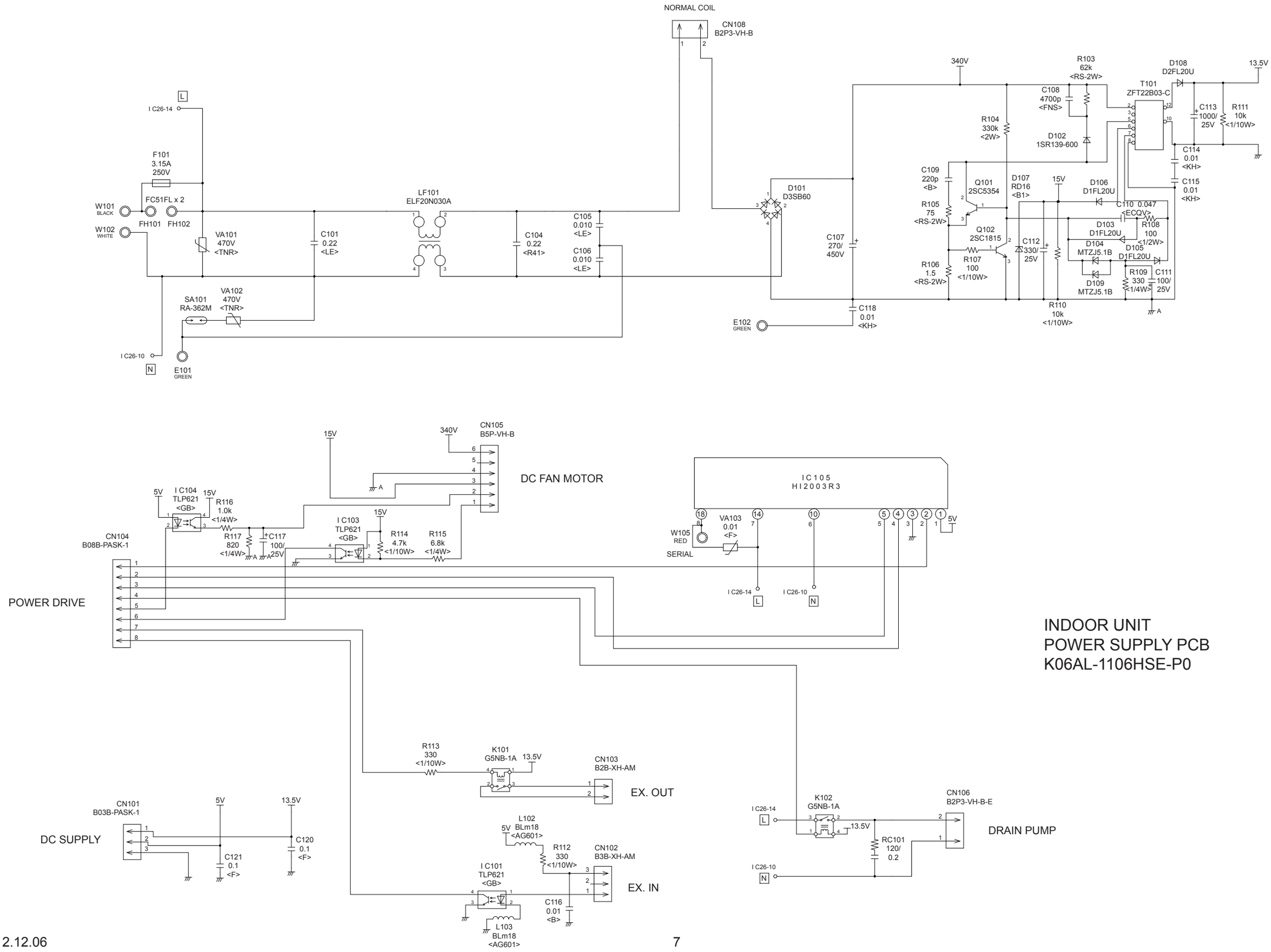
INDOOR PCB
CIRCUIT DIAGRAM

CONTROL UNIT
ARYG30LMLE : EZ-0121LHSE
ARYG36LMLE : EZ-0121MHSE



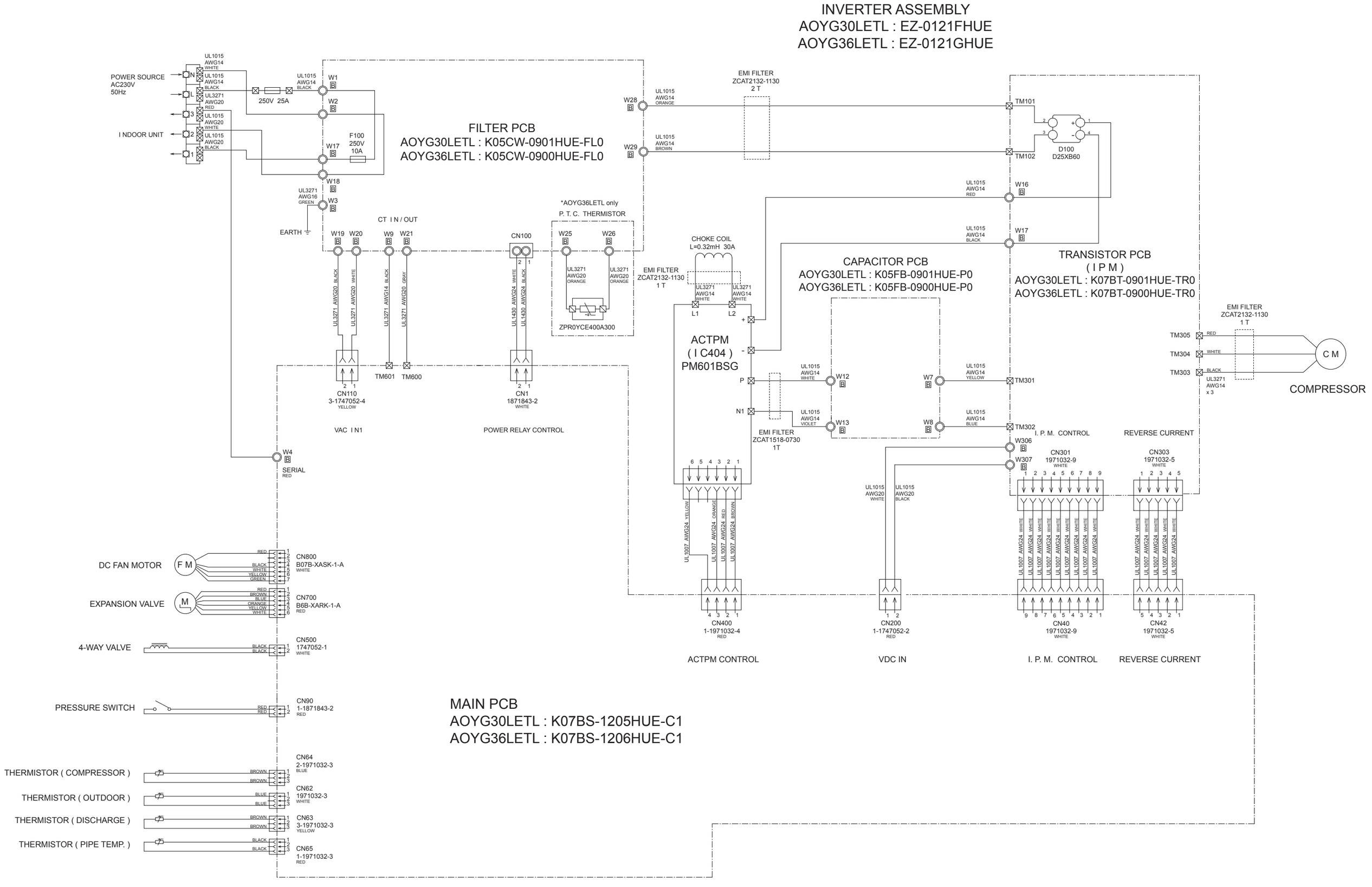
INDOOR UNIT
MAIN PCB
ARYG30LMLE : K06AK-120CHSE-C1
ARYG36LMLE : K06AK-120DHSE-C1





INDOOR UNIT
POWER SUPPLY PCB
K06AL-1106HSE-P0

OUTDOOR PCB CIRCUIT DIAGRAM



OUTDOOR UNIT
MAIN PCB
AOYG30LETL : K07BS-1205HUE-C1
AOYG36LETL : K07BS-1206HUE-C1

CN200 1-1747052-2 RED
DC VOLT I N
FC51FL x 2
FH200 FH201
F201 3.15A - 250V
C211 33/ 450V
CT600 CT-1B
TM601 86028
TM600 86028
D600 DAN217U
R601 1.0k <1/10W> 1%
R603 22k <1/10W>
C601 0.1 <F>
R600 1.0k <1/10W> 1%
C600 220/ 25V <A>
R602 4.75k <1/10W> 1%
P-AN-CT
CN110 3-1747052-4 YELLOW
AC VOLT IN
FC51FL x 2
FH110 FH111
F110 3.15A - 250V
W4 RED
SELIAL
SERIAL
H Y I C 2 0 GK-30434E4
R21 27k <1/10W>
R24 1.0k <1/10W>
R20 39k <1/10W>
R23 1.0k <1/10W>
R22 1.0k <1/10W>
Q200 2SC2412K <BQ>
C21 0.1 <B>
P-S I
P-POWER
C20 0.022 <B>
R18 150k <2W>
C8 2200p <E>
R14 560k <1/8W> 1%
R19 0R0
R15 - R17 510k <1/8W> 1% x 3
R12 0R0
D5 UF4005
D4 1SS355
R13 47 <1/10W>
C7 0.1 <F>
C6 47/ 35V
I C3 TOP243PN
D2 1SS355
D3 UDZS8.2B
T1 RPZ-1F
D6 D1FL20U
D7 D1FL20U x 3
D8
D9
D10 1SS355
C9 220/ 50V
C13 330/25V
C18 100/ 25V
C14 470/ 25V
D12 1SS355
I C5 7818
C19 0.1 <F>
C10 10/50V
D13 1SS355
R26 10k <1/10W>
C22 0.1 <F>
C15 100/ 25V
I C4 7805
C16 0.1 <F>
C17 100/ 25V
18V
12V
15V
5V
-8V

CN500 1747052-1 WHITE
4-WAY VALVE
JM504 JM501
K500 G5NB-1A
CR500 RE1202 0.2 / 120
JM503 JM502

CN1 1871843-2 WHITE
POWER RELAY CONTROL
*D801 : AOYG30LETL only
D801 ZP1027-TP
L800
C802 0.1 <F>
R800 27k <1/10W>
R801 22k <1/10W>
C800 4.7/ 50V
Q801 DTA143EUA
Q800 DTC143EUA
R802 10k <1/10W>
D800 DAN217U
R803 1.0k <1/10W>
C801 0.01 <B>
DC FAN MOTOR
CN800 B5 (7-2.3) B-XASK-1-A WHITE
P-FANPWM
P-FAN-I N

CN700 B06B-XARK-1-A
ELECTRIC EXPANSION VALVE
I C700 TD62064
R703
R702
R700
R701
1.5k <1/10W> x 4
C700 0.1 <F>
P-EPV-D
P-EPV-C
P-EPV-A
P-EPV-B

CN90 1-1871843-2 RED
PRESSURE SWITCH
R91 2.2k <1/10W>
R90 1.0k <1/10W>
L90 BL02Rn1
C90 0.1 <F>
C91 0.01 <F>
P-SW-PRS

CN65 1-1971032-3 RED
THERMISTOR (PIPE TEMP.)
L60 BL02Rn1
THERMISTOR (DISCHARGE TEMP.)
CN63 3-1971032-3 YELLOW
R63 4.75k <1/10W> 1%
R62 10k <1/10W>
C62 0.1 <F>
P-AN-TE
R61 13k <1/10W>
R60 10k <1/10W>
C61 0.1 <F>
P-AN-TD
CN62 1971032-3 WHITE
THERMISTOR (OUTDOOR TEMP.)
R65 38.3k <1/10W> 1%
R64 10k <1/10W>
C63 0.1 <F>
P-AN-TA
CN64 2-1971032-3 BLUE
C60 0.1 <F>
R68 13k <1/10W>
R69 10k <1/10W>
C65 0.1 <F>
P-AN-CP
THERMISTOR (COMPRESSOR TEMP.)

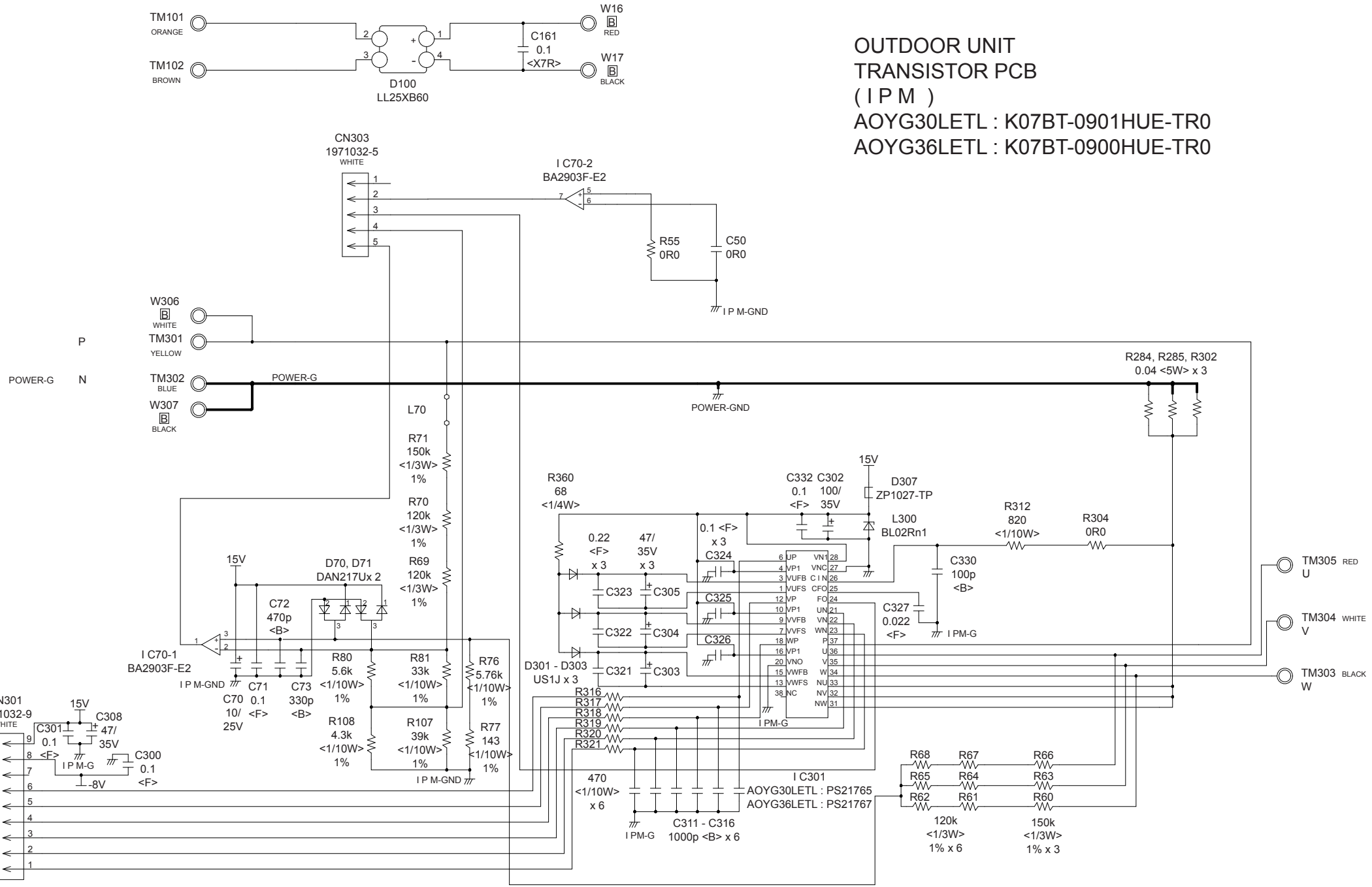
D1 SLR-332VR <RED>
R3 2.2k <1/10W>
I C2 uLN2003ADR
C5 0.1 <F>
P-SO
P-PR
P-LED
P-V4-DC
P-V4-AC
P-DBG-4

I C1 MB90F462
P-FAN-I N
P-DBG-4
P-FANPWM
P-SW-PRS
P-AN-CT
R900 10k <1/10W>
R52 10k <1/10W>
TTXD
TAUX3
P-POS
P-V4-AC
P-V4-DC
P-LED
P-PR
P-SO
P-TTR I P-FO
C1 0.1 <F>
P-E2P-CS
P-EPV-B
P-EPV-D
P-EPV-C
C49 0R0
P-AN-DC
P-AN-CP
P-AN-TE
P-AN-TA
P-AN-TD
X1 4.00MHz <CSTLS>
C2, C3 0.1 <F> x 2
C4 10/ 25V
R4 10k <1/10W>
JM1
TAUX
P-E2P-SK
R651 10k <1/10W>
P-POWER
R2 10k <1/10W>
JM2
P-E2P-D I
R645 10k <1/10W>
P-EPV-A
P-U
P-X
P-V
P-Y
P-W
P-Z
P-AFS
R7 10k <1/10W>
SW2 KSHC611BT
TMODE
R6 1.0k
R903, R902, R901 10k <1/10W> x 3
JM102
JM103
JM101
TCK
TRXD
C11 0.1 <F>
R11 1.0k <1/10W>
R10 100k <1/10W>
C12 0.1 <F>
I C10 BU4842F
P-S I

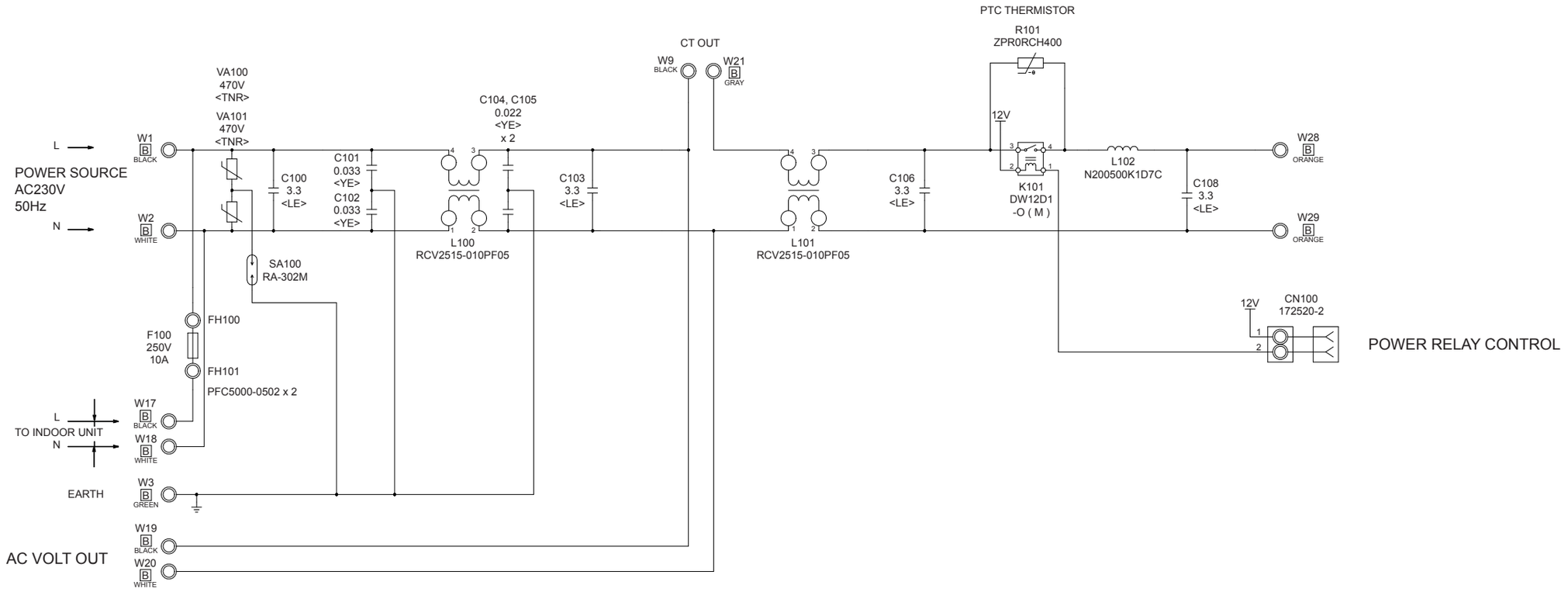
CN42 1971032-5 WHITE
P-TTR I P-FO
C42 1000p <B>
R41 1.0k <1/10W>
R40 10k <1/10W>
D670 DAN217U
P-AN-DC
C670 0.1 <F>
R674 1.0k <1/10W>
R84 1.0k <1/10W>
P-POS
C74 470p <CH>
R85 4.7k <1/10W>
PEAK LOAD CURRENT DETECTION
REVERSE CURRENT DETECTION
FO
DC VOLTAGE DETECTION
COMP POSITION DETECT

CN40 1971032-9 WHITE
C43 0.1 <F>
IPM CONTROL
P-U
P-V
P-W
P-X
P-Y
P-Z
I C30 M93C66
P-E2P-CS
P-E2P-SK
P-E2P-D I
C30 0.1 <F>
R31 10k <1/10W>
R30 10k <1/10W>
R401 22k <1/10W>
Q400 DTA143EUA
Q401 DTC143EUA
D11 ZP1027-TP
C400 0.01 <F>
C401 1000p <B>
P-AFS
CN400 1-1971032-4 RED
ACTPM CONTROL
R403, R402 270 <1/10W> 1% x 2
R952, R951, R950 10k <1/10W> x 3
R955 22k <1/10W>
TAUX
TTXD
TRXD
TMODE
TAUX3
TCK
R956 10k <1/10W>
R953 1.0k <1/10W>
R954 1.0k <1/10W>

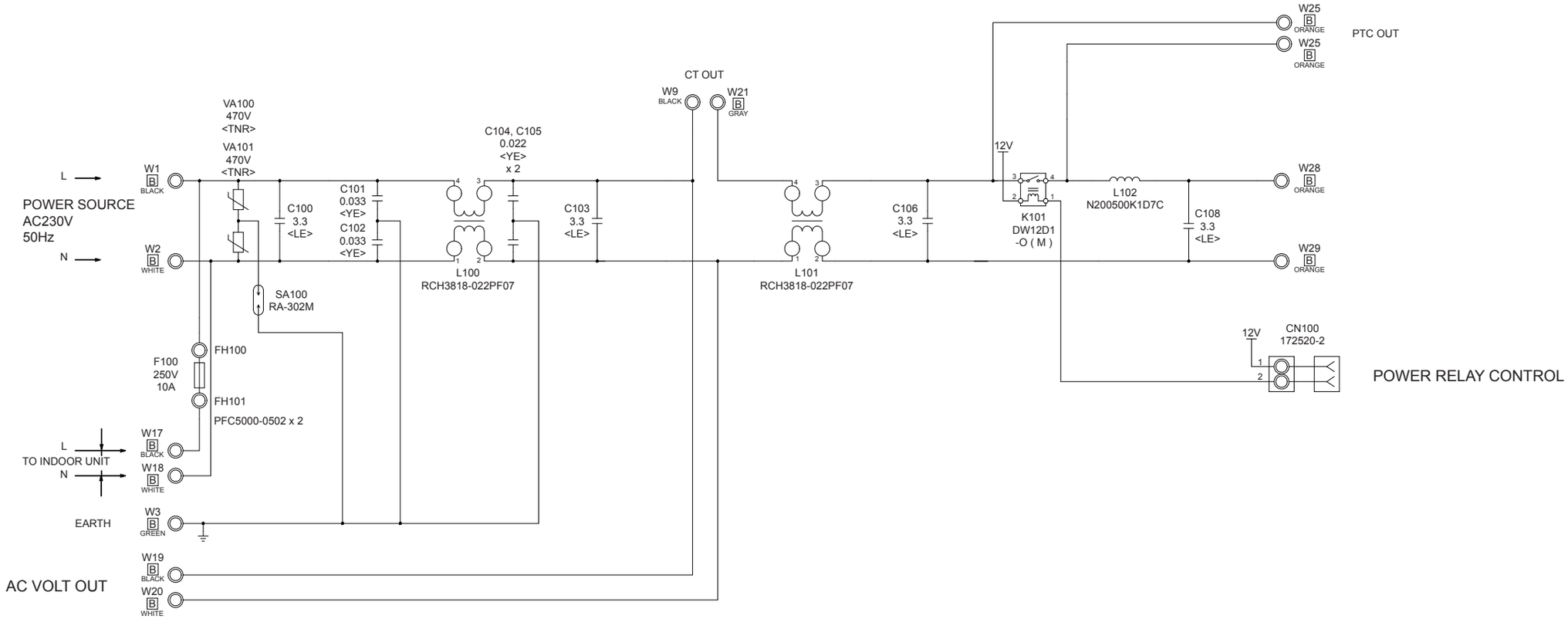
OUTDOOR UNIT
TRANSISTOR PCB
(I P M)
AOYG30LETL : K07BT-0901HUE-TR0
AOYG36LETL : K07BT-0900HUE-TR0



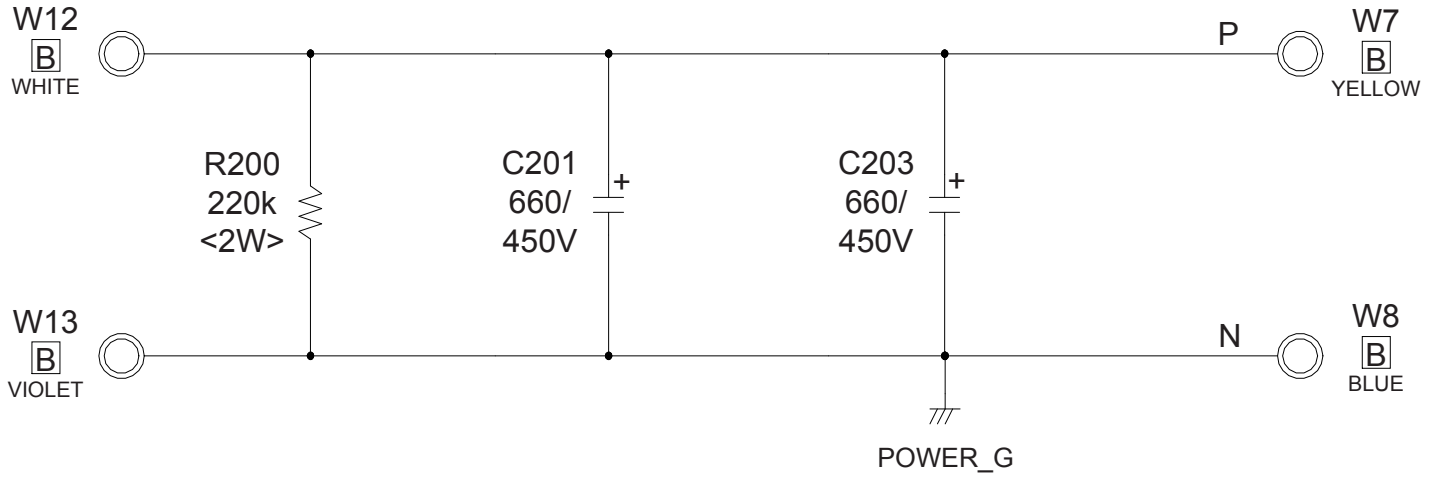
OUTDOOR UNIT
AOYG30LETL
FILTER PCB
K05CW-0901HUE-FL0



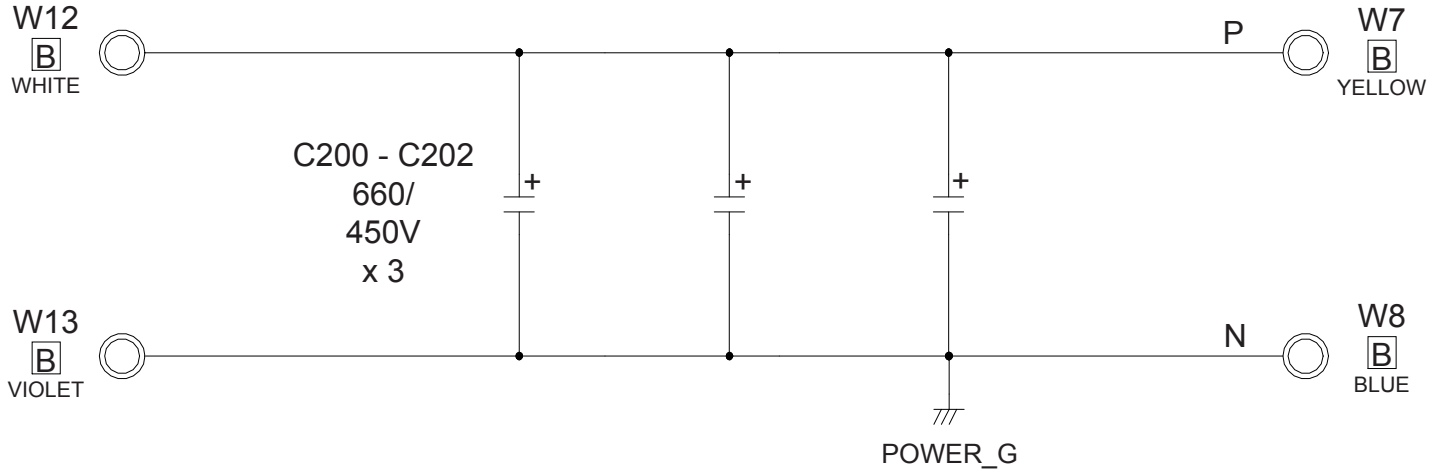
AOYG36LETL
FILTER PCB
K05CW-0900HUE-FL0



OUTDOOR UNIT
AOYG30LETL
CAPACITOR PCB
K05FB-0901HUE-P0



AOYG36LETL
CAPACITOR PCB
K05FB-0900HUE-P0

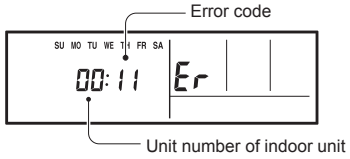


ERROR DETECTION

If you use a wireless remote control, the lamp on the photo detector unit will output error codes by way of blinking patterns.
If you use a wired type remote control, error codes will appear on the remote control display. See the lamp blinking patterns and error codes in the table. An error display is displayed only during running.

Remote control

This is possible only on a wired remote control.
If an error occurs, the following display will be shown.
("Er" will appear in the set room temperature display.)



EX. Self-diagnosis

● : 0.5s on / 0.5s off

◇ : 0.1s on / 0.1s off

( ) : Number of flashing

Indoor unit			Wired remote control	Description
OPERATION lamp (green)	TIMER lamp (orange)	ECONOMY lamp (green)		
●(1)	●(1)	◇	11	Serial communication error
●(1)	●(2)	◇	12	Wired remote control communication error
●(1)	●(5)	◇	15	Check run unfinished
●(2)	●(1)	◇	21	R.C. address or Refrigerant circuit address setting error [Simultaneous Multi]
●(2)	●(2)	◇	22	Indoor unit capacity error
●(2)	●(3)	◇	23	Combination error
●(2)	●(4)	◇	24	• Connection R.C. address error (indoor secondary unit) [Simultaneous Multi] • Connection R.C. address error (indoor unit or branch unit) [Flexible Multi]
●(2)	●(7)	◇	27	Primary unit, secondary unit set-up error [Simultaneous Multi]
●(3)	●(1)	◇	31	Power supply interruption error
●(3)	●(2)	◇	32	Indoor unit PCB model information error
●(3)	●(5)	◇	35	Manual auto switch error
●(4)	●(1)	◇	41	Room temp. sensor error
●(4)	●(2)	◇	42	Indoor unit Heat Ex. Middle temp. sensor error
●(5)	●(1)	◇	51	Indoor unit fan motor error
●(5)	●(3)	◇	53	Drain pump error
●(5)	●(7)	◇	57	Damper error
●(5)	●(15)	◇	5U	Indoor unit error
●(6)	●(2)	◇	62	Outdoor unit main PCB model information error or communication error
●(6)	●(3)	◇	63	Inverter error
●(6)	●(4)	◇	64	Active filter error, PFC circuit error
●(6)	●(5)	◇	65	Trip terminal L error
●(6)	●(10)	◇	6A	Display PCB microcomputers communication error

Indoor unit			Wired remote control	Description
OPERATION lamp (green)	TIMER lamp (orange)	ECONOMY lamp (green)		
●(7)	●(1)	◇	71	Discharge temp. sensor error
●(7)	●(2)	◇	72	Compressor temp. sensor error
●(7)	●(3)	◇	73	Outdoor unit Heat Ex. liquid temp. sensor error
●(7)	●(4)	◇	74	Outdoor temp. sensor error
●(7)	●(5)	◇	75	Suction Gas temp. sensor error
●(7)	●(6)	◇	76	• 2-way valve temp. sensor error • 3-way valve temp. sensor error
●(7)	●(7)	◇	77	Heat sink temp. sensor error
●(8)	●(2)	◇	82	• Sub-cool Heat Ex. gas inlet temp. sensor error • Sub-cool Heat Ex. gas outlet temp.sensor error
●(8)	●(3)	◇	83	Liquid pipe temp. sensor error
●(8)	●(4)	◇	84	Current sensor error
●(8)	●(6)	◇	86	• Discharge pressure sensor error • Suction pressure sensor error • High pressure switch error
●(9)	●(4)	◇	94	Trip detection
●(9)	●(5)	◇	95	Compressor rotor position detection error (permanent stop)
●(9)	●(7)	◇	97	Outdoor unit fan motor 1 error
●(9)	●(8)	◇	98	Outdoor unit fan motor 2 error
●(9)	●(9)	◇	99	4-way valve error
●(9)	●(10)	◇	9A	Coil (expansion valve) error
●(10)	●(1)	◇	A1	Discharge temp. error
●(10)	●(3)	◇	A3	Compressor temp. error
●(10)	●(4)	◇	A4	High pressure error
●(10)	●(5)	◇	A5	Low pressure error
●(13)	●(2)	◇	J2	Branch boxes error [Flexible Multi]

OUTDOOR UNIT

SPECIAL INSTALLATION SETTING

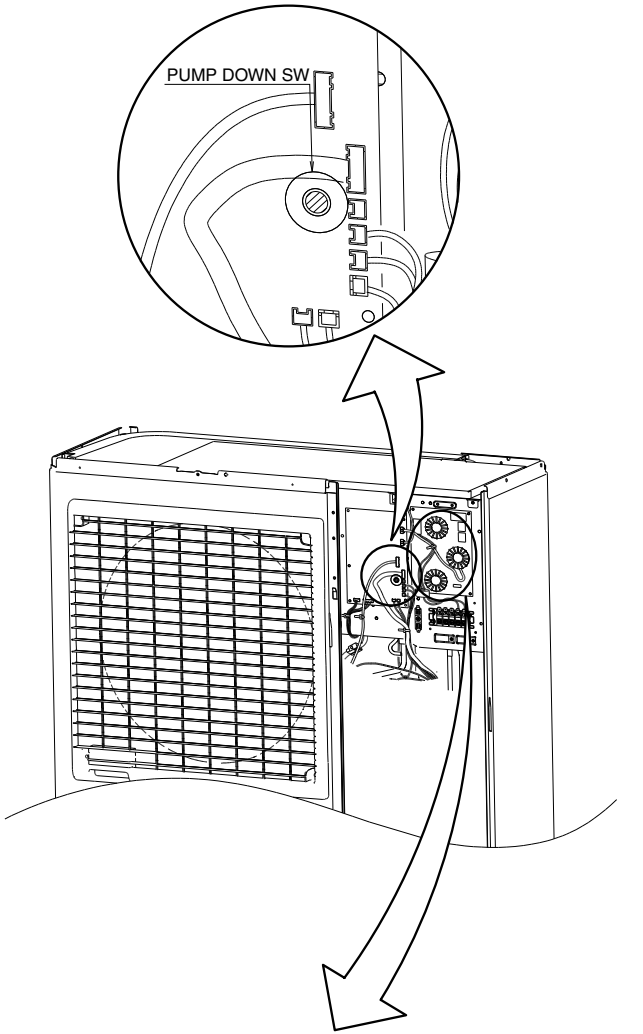
PUMP DOWN (Refrigerant collecting operation)

Perform the following procedures to collect the refrigerant when moving the indoor unit or the outdoor unit.

(1) Press the push-button switch on the circuit board once.
The LED on the circuit board starts flashing (one second ON/one se-cond OFF).
This indicates the start of PUMP DOWN operation.
When the switch is pressed while the compressor is in operation, PUMP DOWN operation starts automatically.
When the switch is pressed while the compressor is in stop, the compressor starts to operate automatically, and then move on to PUMP DOWN operation.

(2) PUMP DOWN operation continues for about 1 minute.
When PUMP DOWN operation is completed, the compressor stops automatically.
Then close the 2-way valve and 3-way valve immediately.

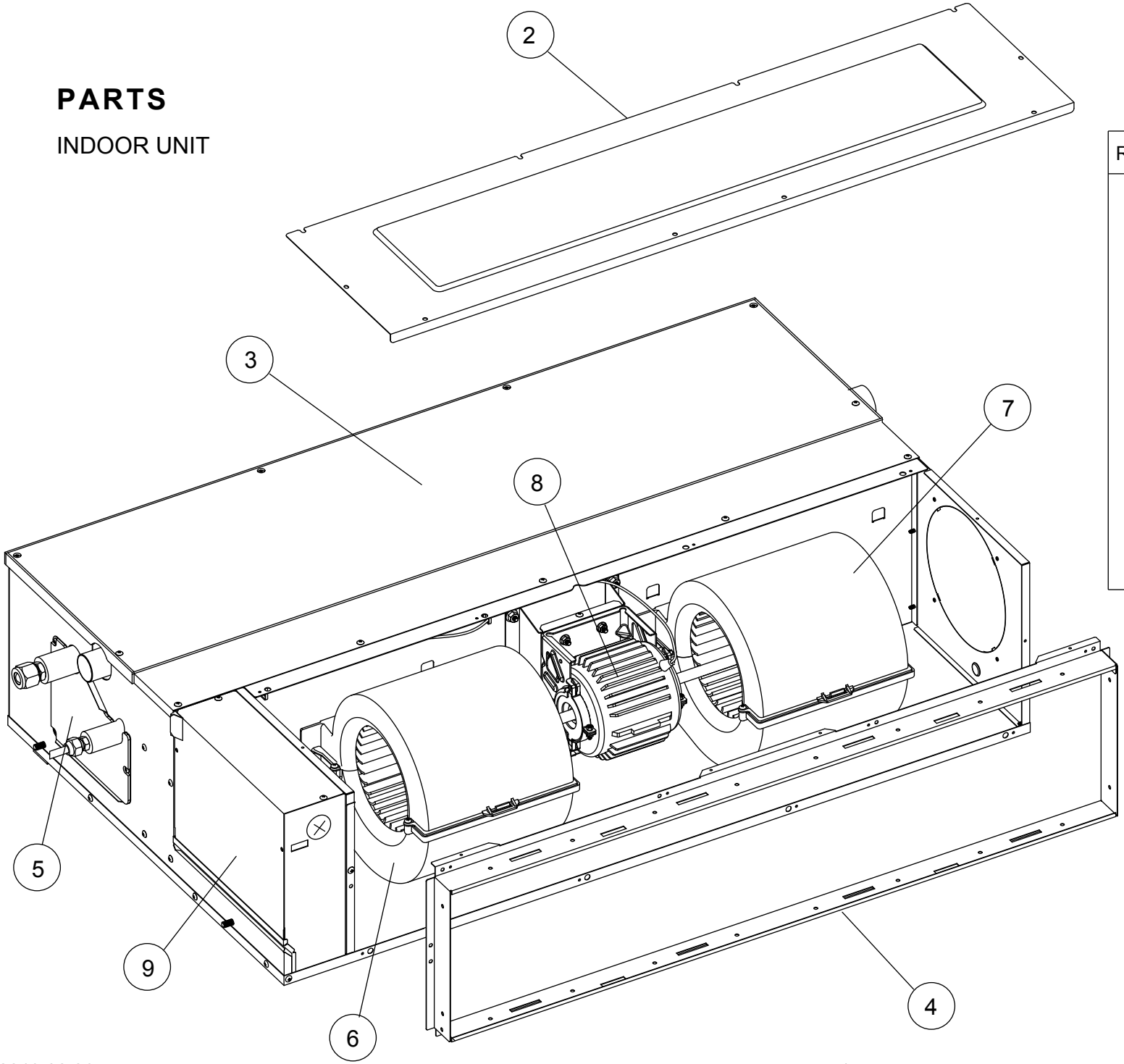
(3) Turn the power off.



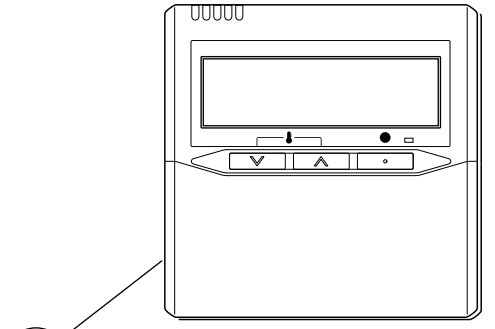
⚠ DANGER
This part (Choke coil) generates high voltages. Never touch this part.

PARTS

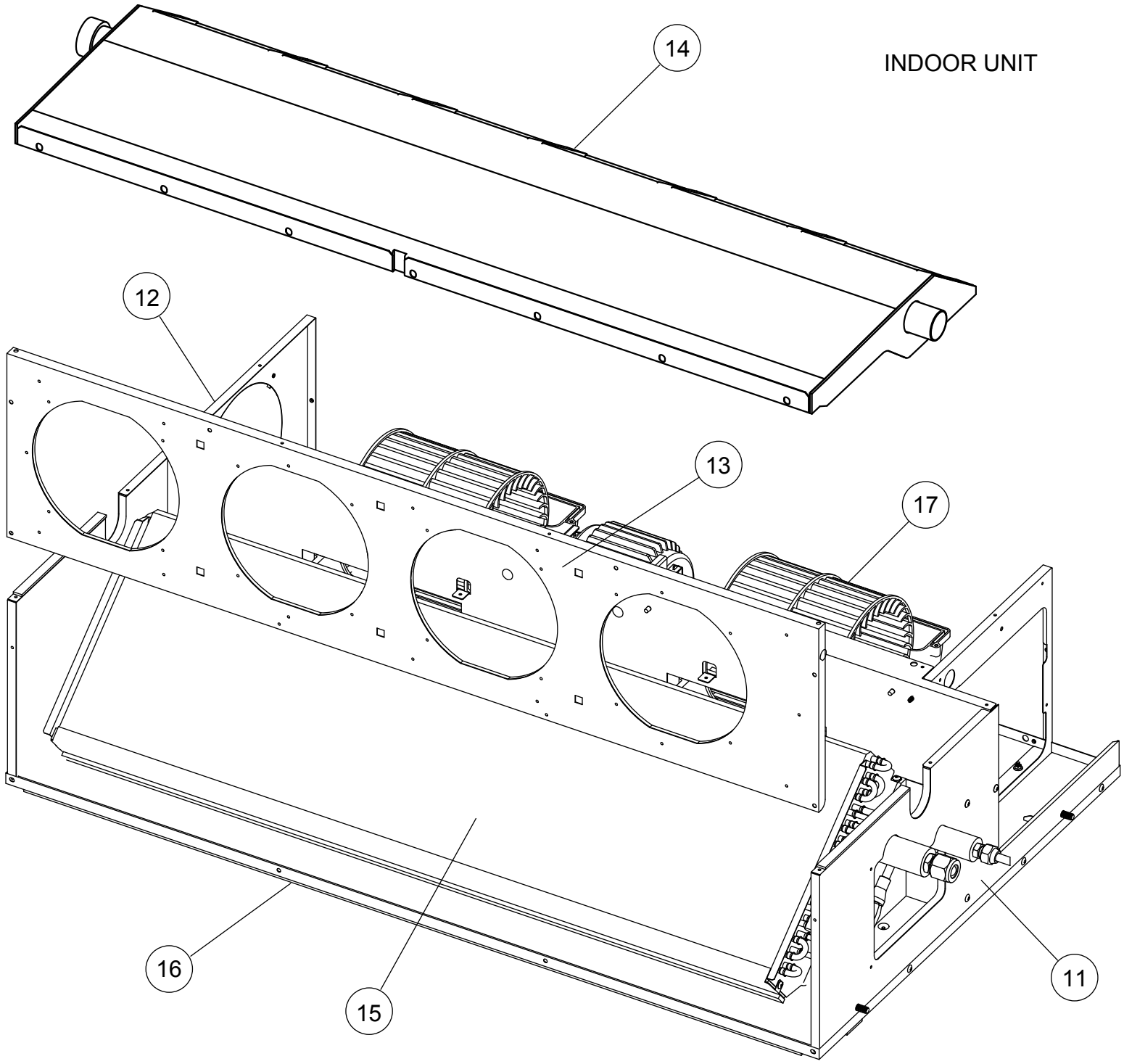
INDOOR UNIT



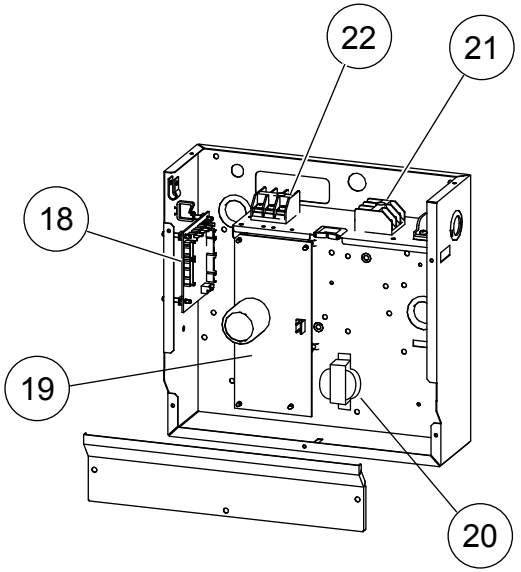
Ref.	Description	Part number	
1	Remote Control	9318593013	
2	Intake Cover Sub Assy	9374512010	
3	Main Panel Sub Assy	9374511013	
4	Intake Frame Assy	9374216017	
5	Bracket Pipe Sub Assy	9374514014	
6	Casing A	9374233021	
7	Casing B	9374234028	
8	Fan Motor	9603213015	
9	Control Cover A Sub Assy	9374516025	



INDOOR UNIT

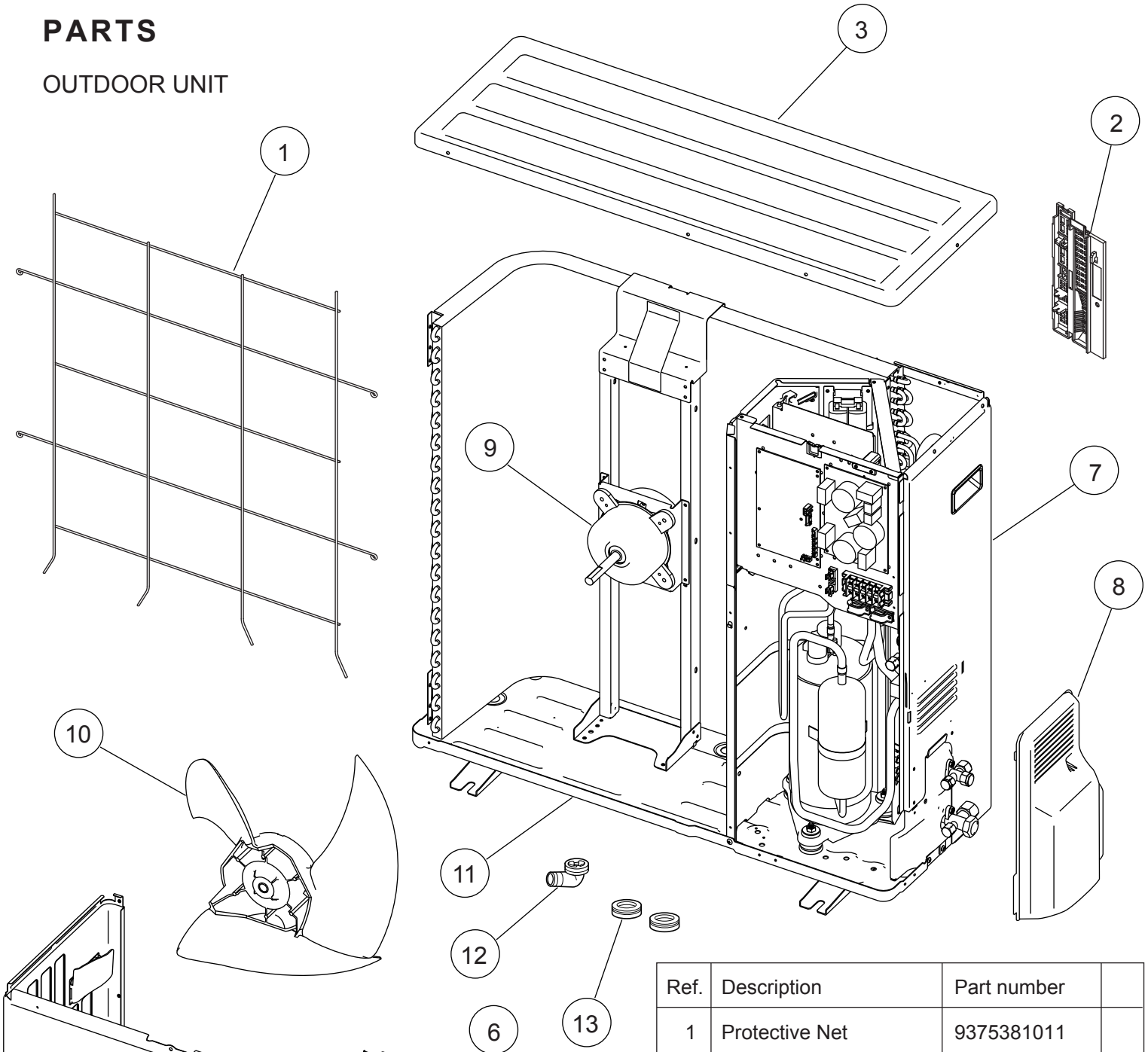


Ref.	Description	Part number	
11	Cabinet R Sub Assy	9374508020	
12	Cabinet L Sub Assy	9374509010	
13	Outlet Panel Sub Assy	9374510016	
14	Drain Pan Sub Assy	9374513017	
15	Evaporator Sub Assy	9374517312	
16	Base Sub Assy	9374504015	
17	Sirocco Fan Assy	9356531046	
18	Main PCB (30)	9709245217	
18	Main PCB (36)	9709245224	
19	Power Supply PCB	9707398359	
20	Reactor Assy	9707457018	
21	Terminal 3P	9703345012	
22	Terminal 3P	9306489045	
--	Room Thermistor	9703299025	
--	Pipe Thermistor	9703297021	



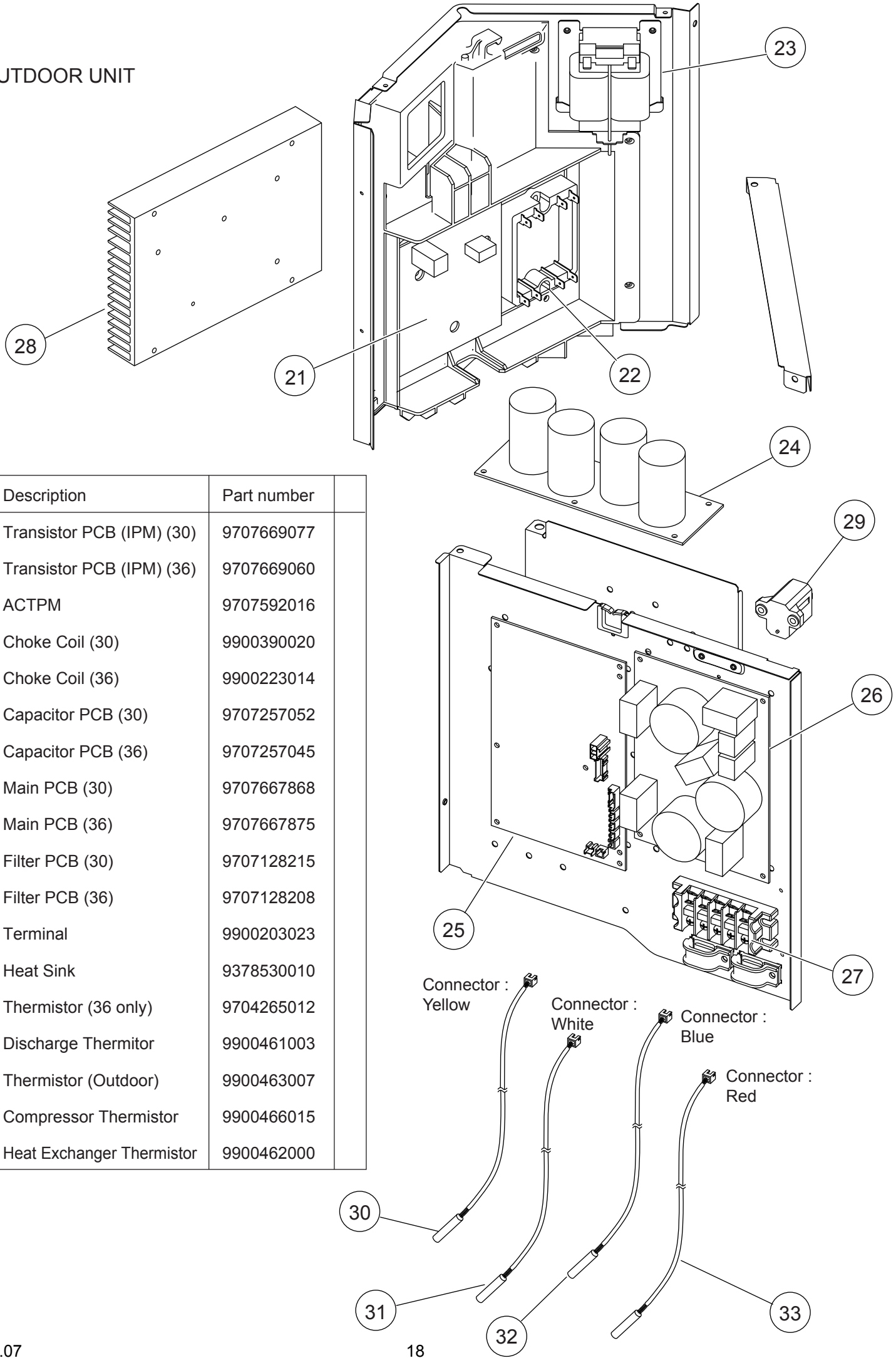
PARTS

OUTDOOR UNIT

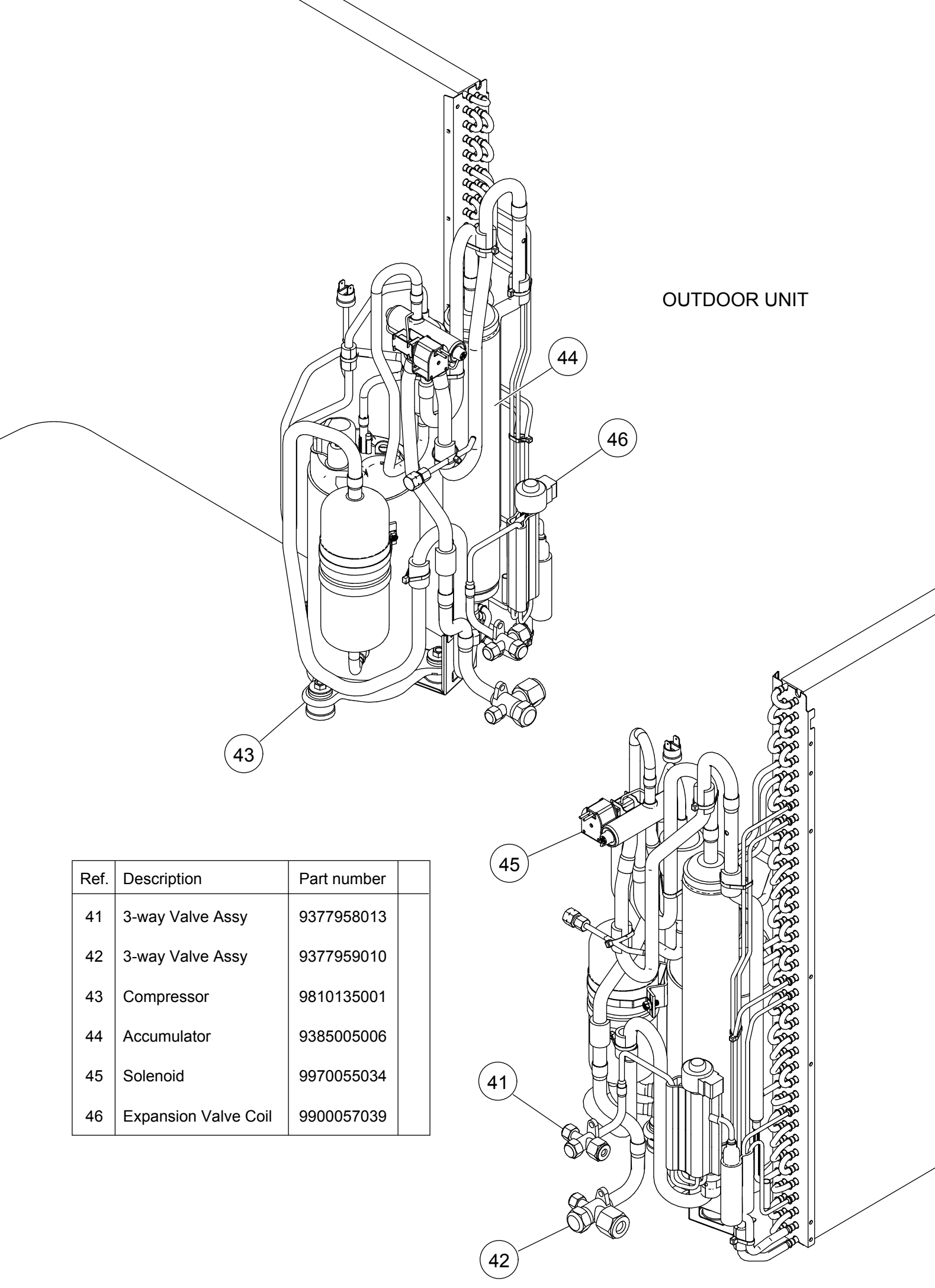


Ref.	Description	Part number	
1	Protective Net	9375381011	
2	Thermo Holder	9375211011	
3	Top Panel Sub Assy	9374417032	
4	Front Panel Sub Assy	9374414079	
5	Service Panel Sub Assy	9374415052	
6	Emblem Rear	9351355005	
7	Right Panel Sub Assy	9374416127	
8	Valve Cover	9374174010	
9	Fan Motor	9602843015	
10	Propeller Fan Assy	9366378020	
11	Base Assy	9374166138	
12	Drain Assy	9303029015	
13	Drain Cap	313166024302	

OUTDOOR UNIT

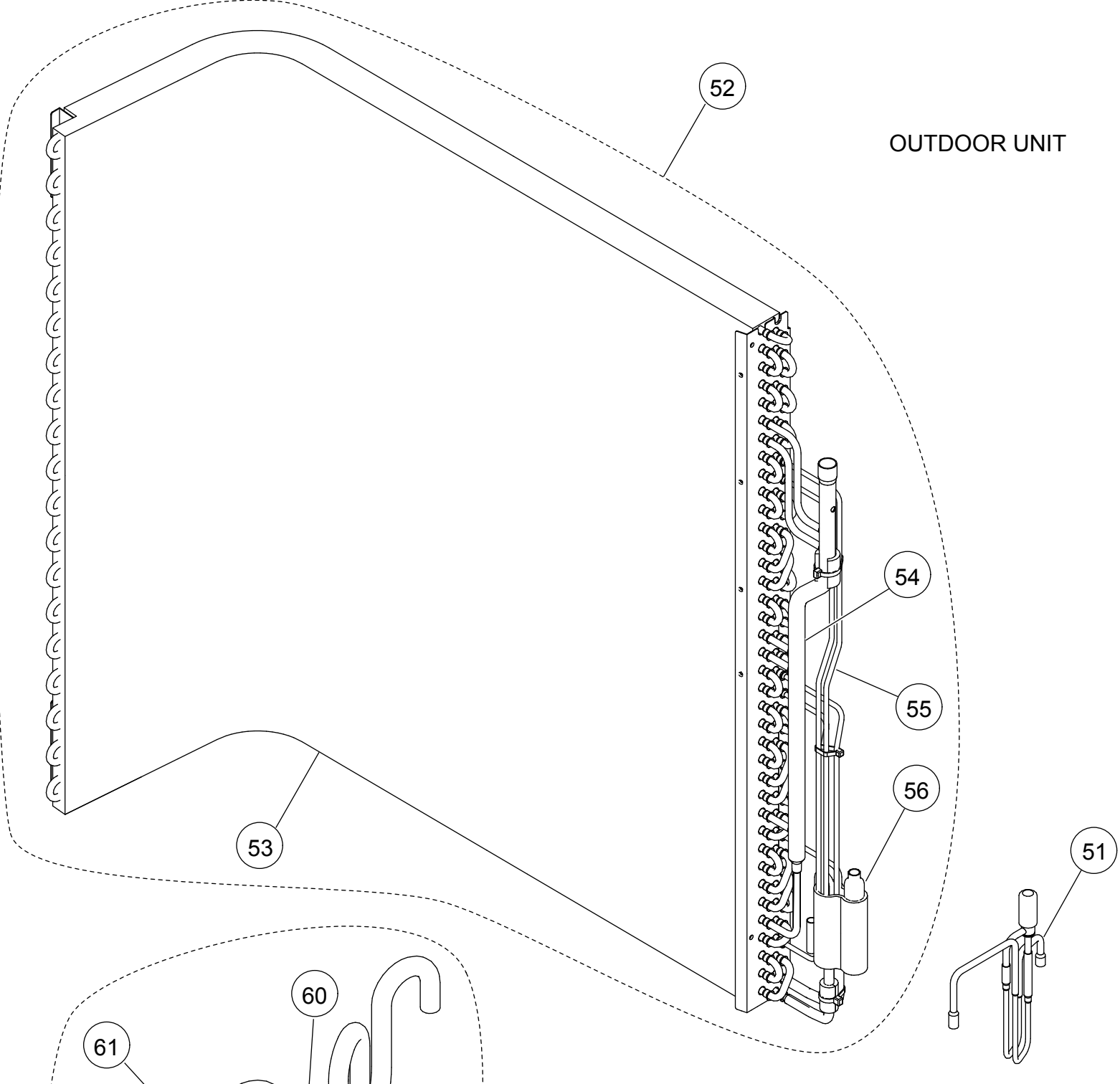


Ref.	Description	Part number	
21	Transistor PCB (IPM) (30)	9707669077	
21	Transistor PCB (IPM) (36)	9707669060	
22	ACTPM	9707592016	
23	Choke Coil (30)	9900390020	
23	Choke Coil (36)	9900223014	
24	Capacitor PCB (30)	9707257052	
24	Capacitor PCB (36)	9707257045	
25	Main PCB (30)	9707667868	
25	Main PCB (36)	9707667875	
26	Filter PCB (30)	9707128215	
26	Filter PCB (36)	9707128208	
27	Terminal	9900203023	
28	Heat Sink	9378530010	
29	Thermistor (36 only)	9704265012	
30	Discharge Thermitor	9900461003	
31	Thermistor (Outdoor)	9900463007	
32	Compressor Thermistor	9900466015	
33	Heat Exchanger Thermistor	9900462000	



Ref.	Description	Part number	
41	3-way Valve Assy	9377958013	
42	3-way Valve Assy	9377959010	
43	Compressor	9810135001	
44	Accumulator	9385005006	
45	Solenoid	9970055034	
46	Expansion Valve Coil	9900057039	

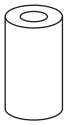
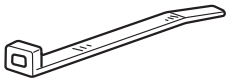
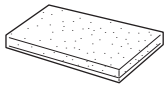
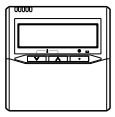
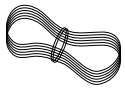
OUTDOOR UNIT



Ref.	Description	Part number	
51	Expansion Valve Assy	9370947144	
52	Condenser A Sub Assy	9374420308	
53	Condenser A Assy	9374433056	
54	Inlet Pipe (Cond) A Assy	9373461067	
55	Outlet Pipe (Cond) A Assy	9374266104	
56	Strainer Assy	9372524015	
57	4-way Valve Assy	9374425198	
58	4-way Valve	9900164010	
59	Check Joint Assy	9372802038	
60	Muffler	9372369050	
61	Pressure Switch	9900186012	

ACCESSORIES

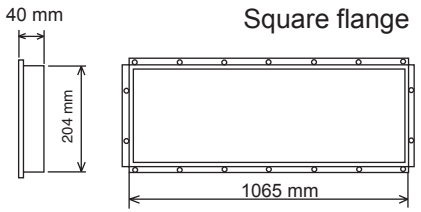
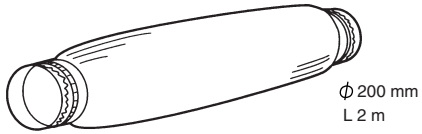
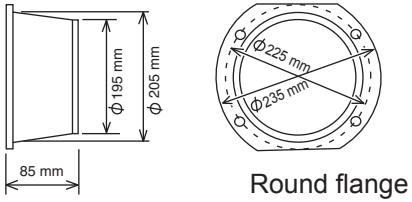
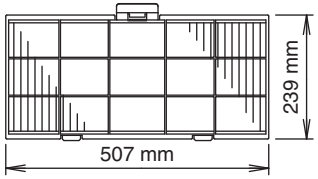
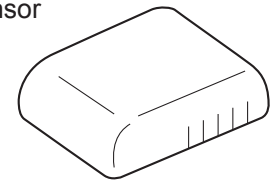
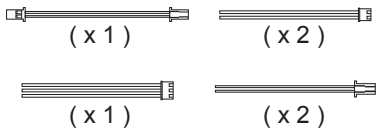
INDOOR UNIT

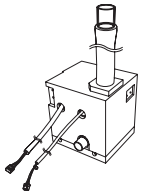
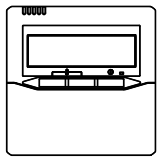
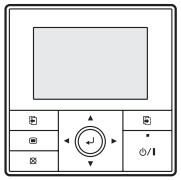
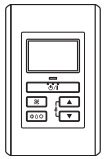
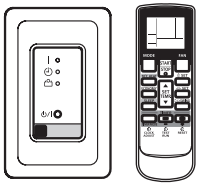
Name and Shape	Q'ty	Application
Hanger	4	For suspending the indoor unit from ceiling
Special nut A (large flange)	4	For suspending the indoor unit from ceiling
Special nut B (small flange)	4	
Coupler heat insulation (large) 	1	For indoor side pipe joint (large pipe)
Coupler heat insulation (small)	1	For indoor side pipe joint (small pipe)
Binder 	1 (large)	For fixing the drain hose
	1 (small)	For fixing the remote controller cord
Drain hose insulation 	1	Insulates the drain hose and vinyl hose
Remote control 	1	For air conditioner operation
Remote control cord (*1) 	1	For connecting the remote control
Tapping screw (ø4 × 16)	2	For installing the remote control

OUTDOOR UNIT

Name and Shape	Q'ty	Application	Part number
Drain pipe	1	For drain piping work	9303029015
Drain cap	2		313166024302

OPTIONAL PARTS

Name and Shape	Model name	Use
Square flange 	UTD-SF045T (P/N 9098180007)	
Flexible duct 	UTD-RD202 (P/N 9074165004)	
 Round flange	UTD-RF204 (P/N 9093160004)	
Long-life filter 	UTD-LF25NA (P/N9079892004)	
Remote sensor 	UTY-XSZX (P/N 9002763005)	
External control set 	UTD–ECS5A (P/N 9077359004)	Use to connect with various peripheral devices and air conditioner PCB.

Name and Shape	Model name	Use
Drain pump unit 	UTZ-PX1NBA (P/N 9052978008)	
Wired remote control 	UTY-RNNYM	Unit control is performed by wired remote control
High functional wired remote control 	UTY-RVNYM	
Simple remote control 	UTY-RSNYM	For air conditioner operation
IR receiver unit 	UTY-LRHYM	

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