

INVERTER SPLIT TYPE  
AIR CONDITIONER (50Hz)  
DUCT TYPE

# SERVICE MANUAL



Indoor unit	Outdoor unit
ARYG24LMLA	AOYG24LALA

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# SPECIFICATIONS

## ELECTRICAL DATA

TYPE	Inverter cool & heat	
INDOOR UNIT	ARYG24LMLA	
OUTDOOR UNIT	AOYG24LALA	
COOLING CAPACITY	6.80 kW	
HEATING CAPACITY	8.00 kW	
POWER SOURCE	230 V	
FREQUENCY	50 Hz	
RUNNING CURRENT	Cooling	9.7 A
	Heating	9.9 A
INPUT WATTS	Cooling	2.21 kW
	Heating	2.26 kW
E.E.R.	Cooling	3.08 kW/kW
COP	Heating	3.54 kW/kW
AIR FLOW, INDOOR UNIT	1,100 m <sup>3</sup> /h	
AIR FLOW, OUTDOOR UNIT	2,470 m <sup>3</sup> /h	
MOISTURE REMOVAL	2.5 L/hr	
MAXIMUM CURRENT	Cooling	12.0 A
	Heating	13.5 A

## FAN SPEED

INDOOR UNIT	Discrimination	MFG-24RVA
	High	830 r.p.m.
	Medium	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.

## NOISE LEVEL

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

## COMPRESSOR AND REFRIGERANT

TYPE	Hermetic type, 4 poles		
DISCRIMINATION	DA150A1F-20NA		
COMPRESSOR WEIGHT (with oil)	10.0 kg		
PRECHARGED REFRIGERANT	1,700 g		
REFRIGERANT TYPE	R410A		
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		

## DIMENSIONS

INDOOR UNIT	H x W x D	270 x 1,135 x 700 mm
OUTDOOR UNIT	H x W x D	570 x 790 x 315 mm

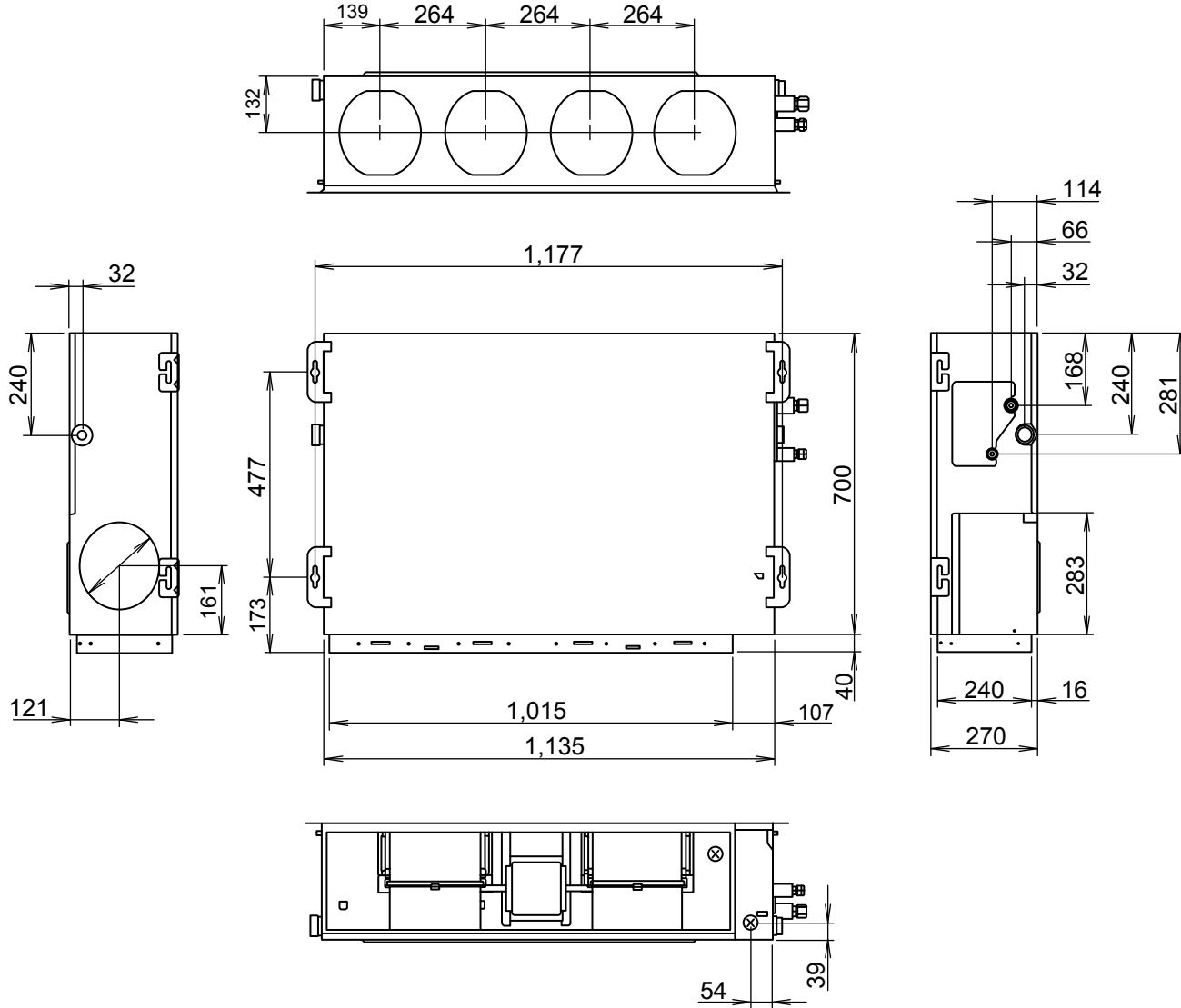
## WEIGHT

INDOOR UNIT	Net / Shipping	38 kg / 44 kg
OUTDOOR UNIT	Net / Shipping	44 kg / 48 kg

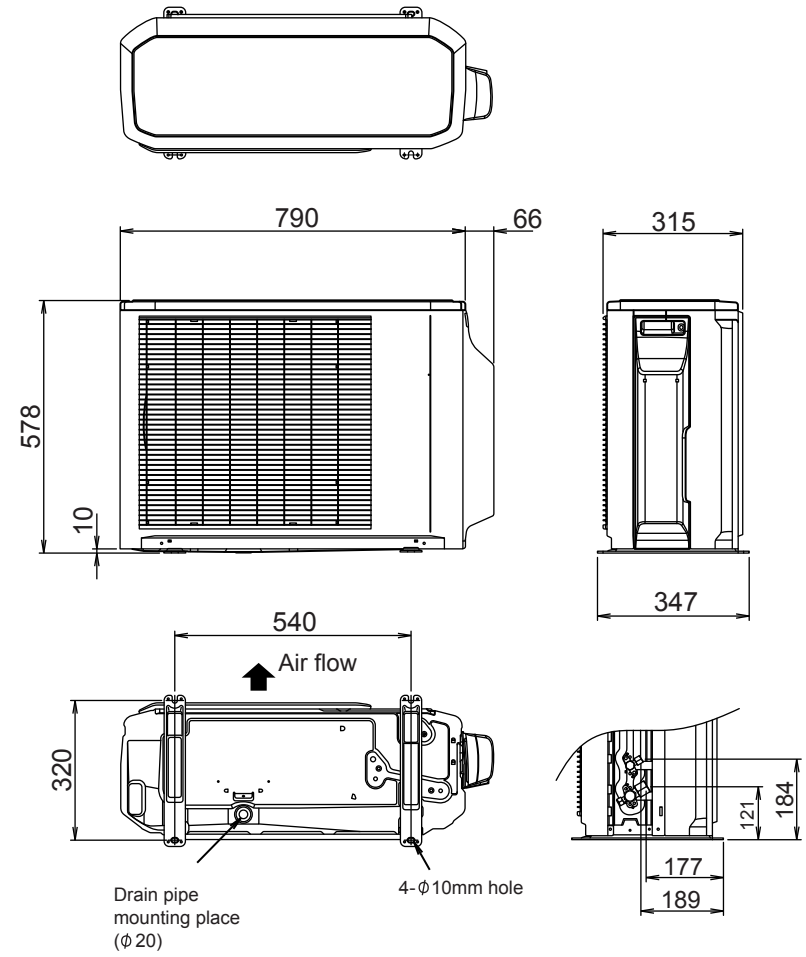
# DIMENSIONS

Unit : mm

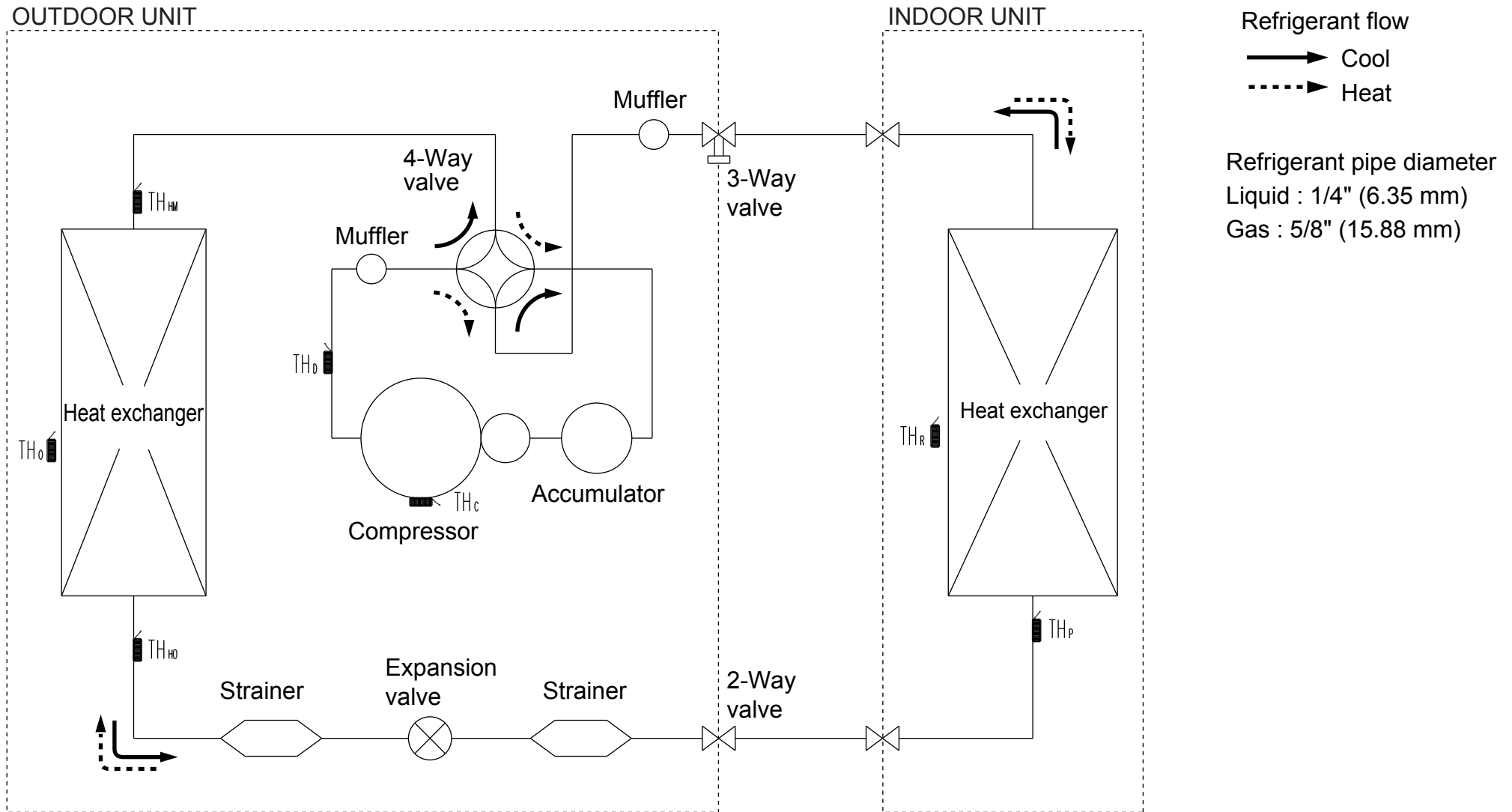
## INDOOR UNIT



## OUTDOOR UNIT



# REFRIGERANT SYSTEM DIAGRAM

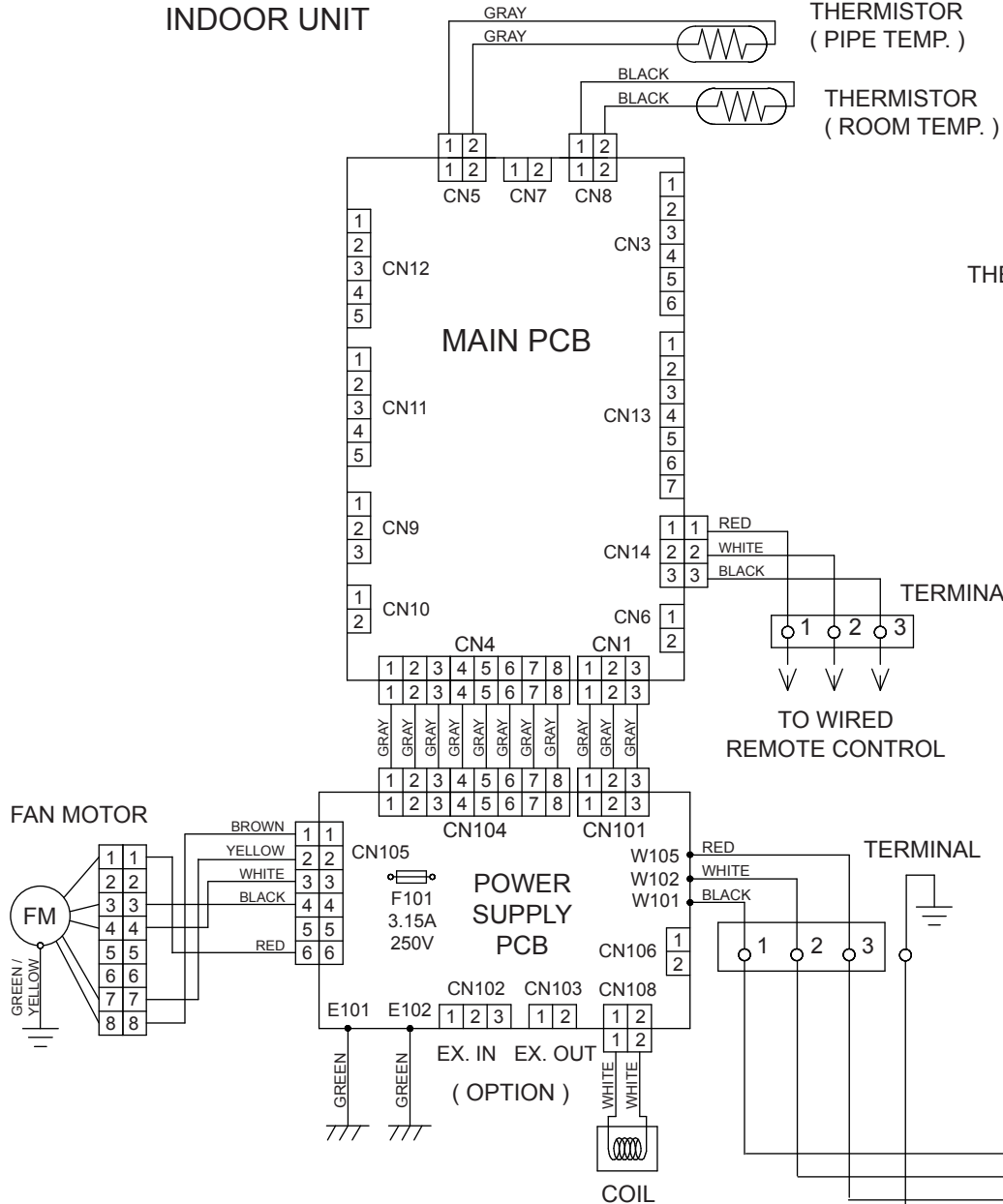


$TH_c$  : THERMISTOR (COMPRESSOR TEP.)  
 $TH_D$  : THERMISTOR (DISCHARGE TEP.)  
 $TH_{HM}$  : THERMISTOR (HEAT EXCHANGER MED TEP.)  
 $TH_{HO}$  : THERMISTOR (HEAT EXCHANGER OUT TEP.)  
 $TH_o$  : THERMISTOR (OUTDOOR TEP.)

$TH_P$  : THERMISTOR (PIPE TEP.)  
 $TH_R$  : THERMISTOR (ROOM TEP.)

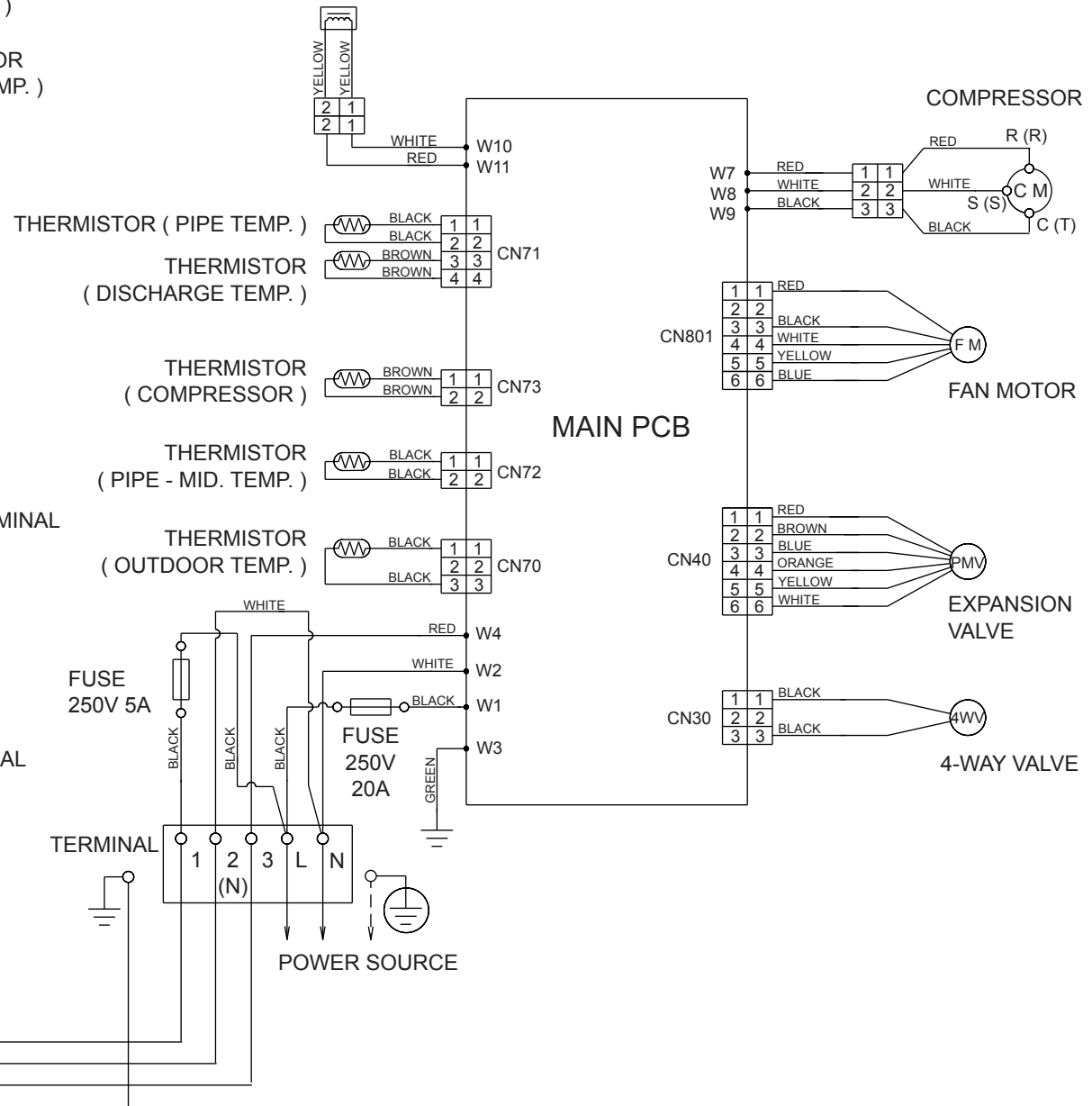
# CIRCUIT DIAGRAM

## INDOOR UNIT



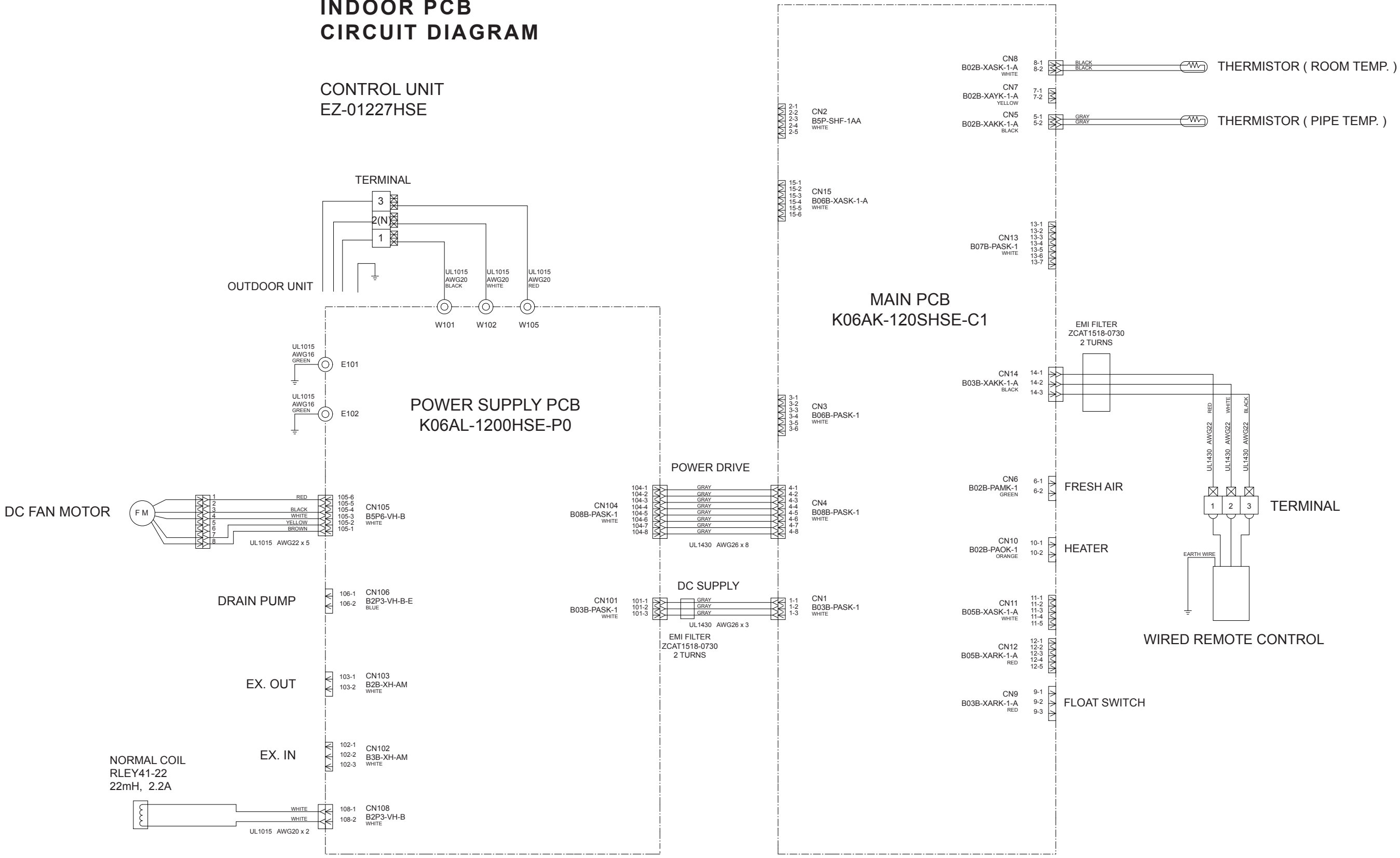
## REACTOR

## OUTDOOR UNIT

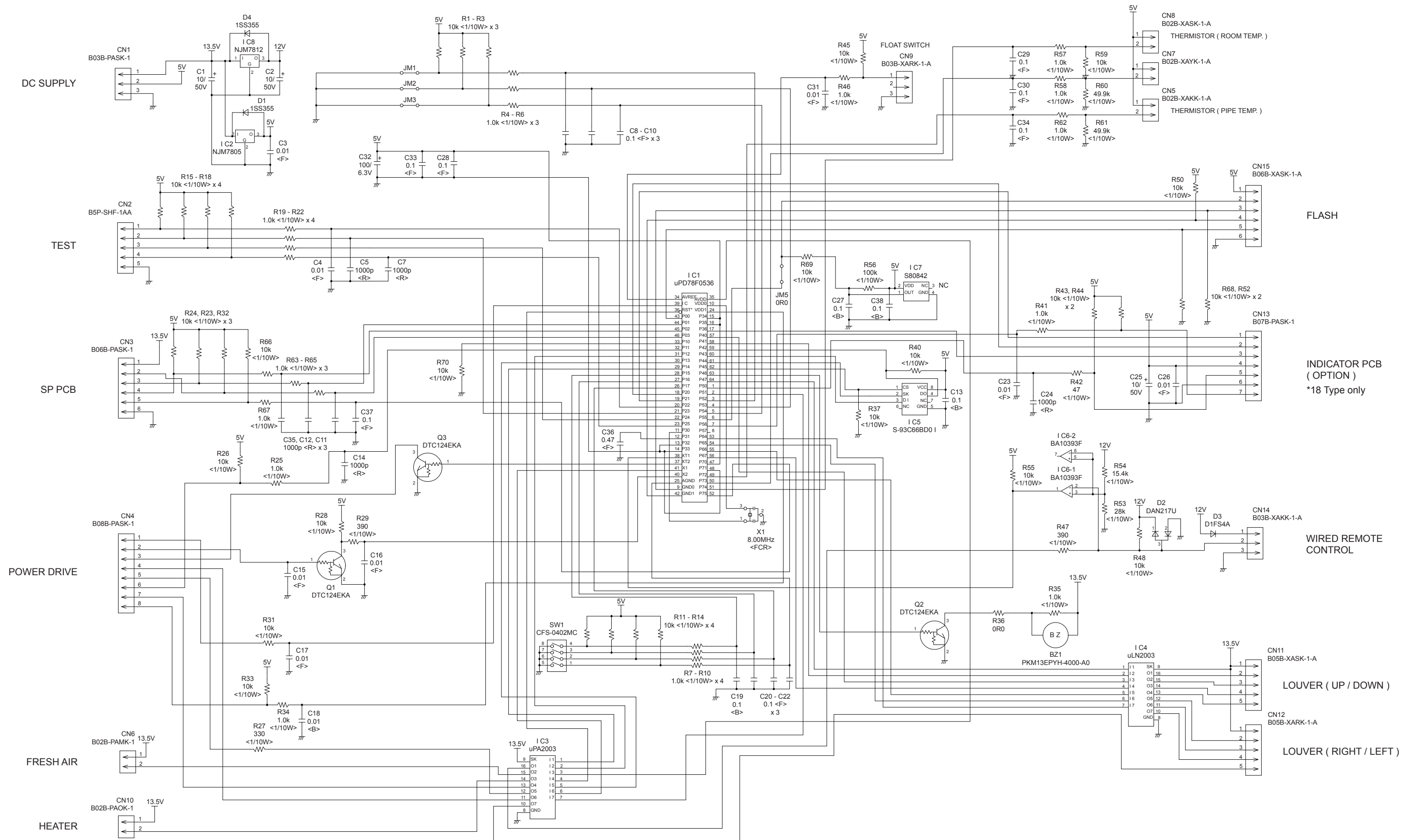


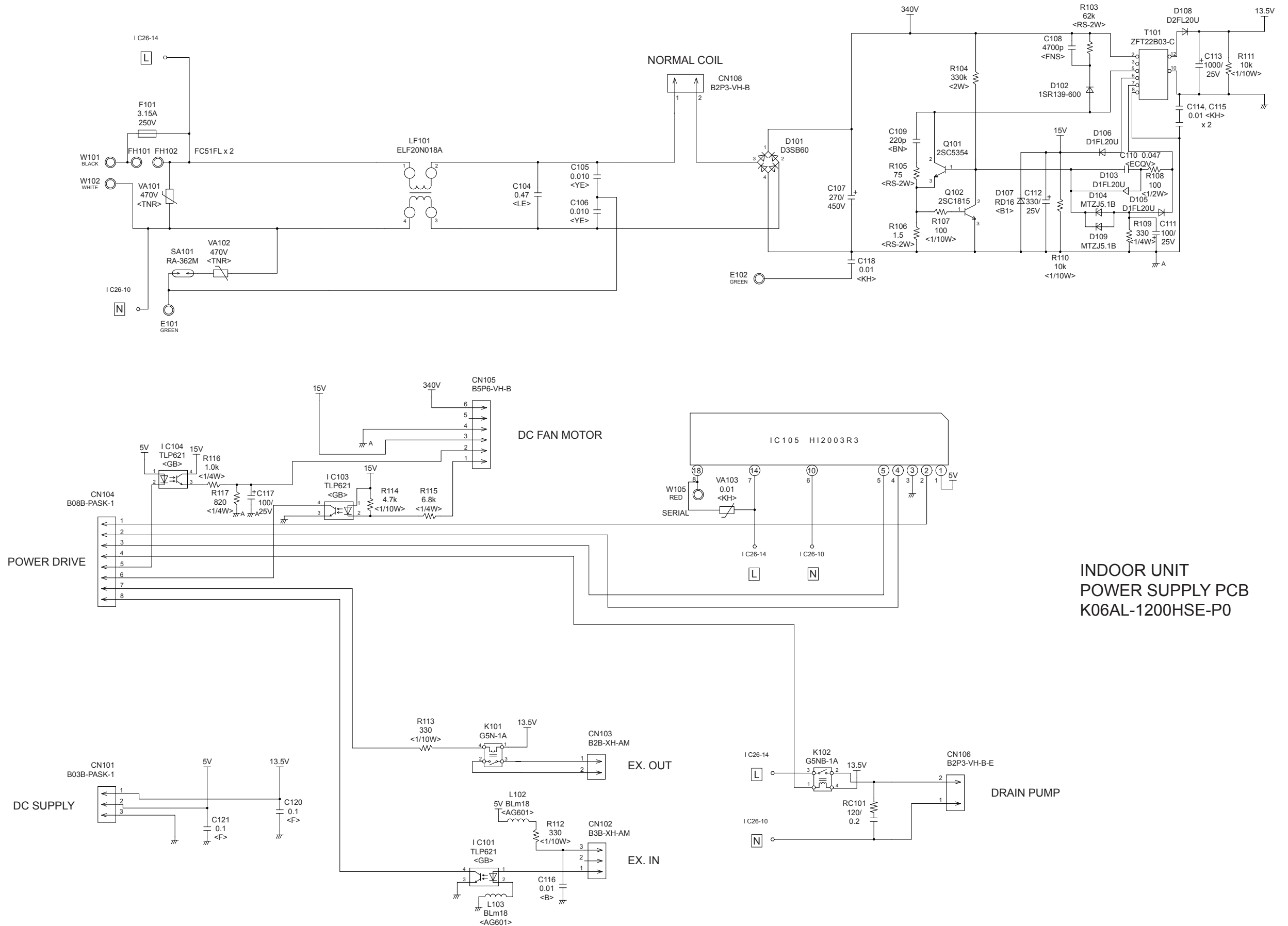
# INDOOR PCB CIRCUIT DIAGRAM

CONTROL UNIT  
EZ-01227HSE



INDOOR UNIT  
MAIN PCB  
K06AK-120SHSE-C1



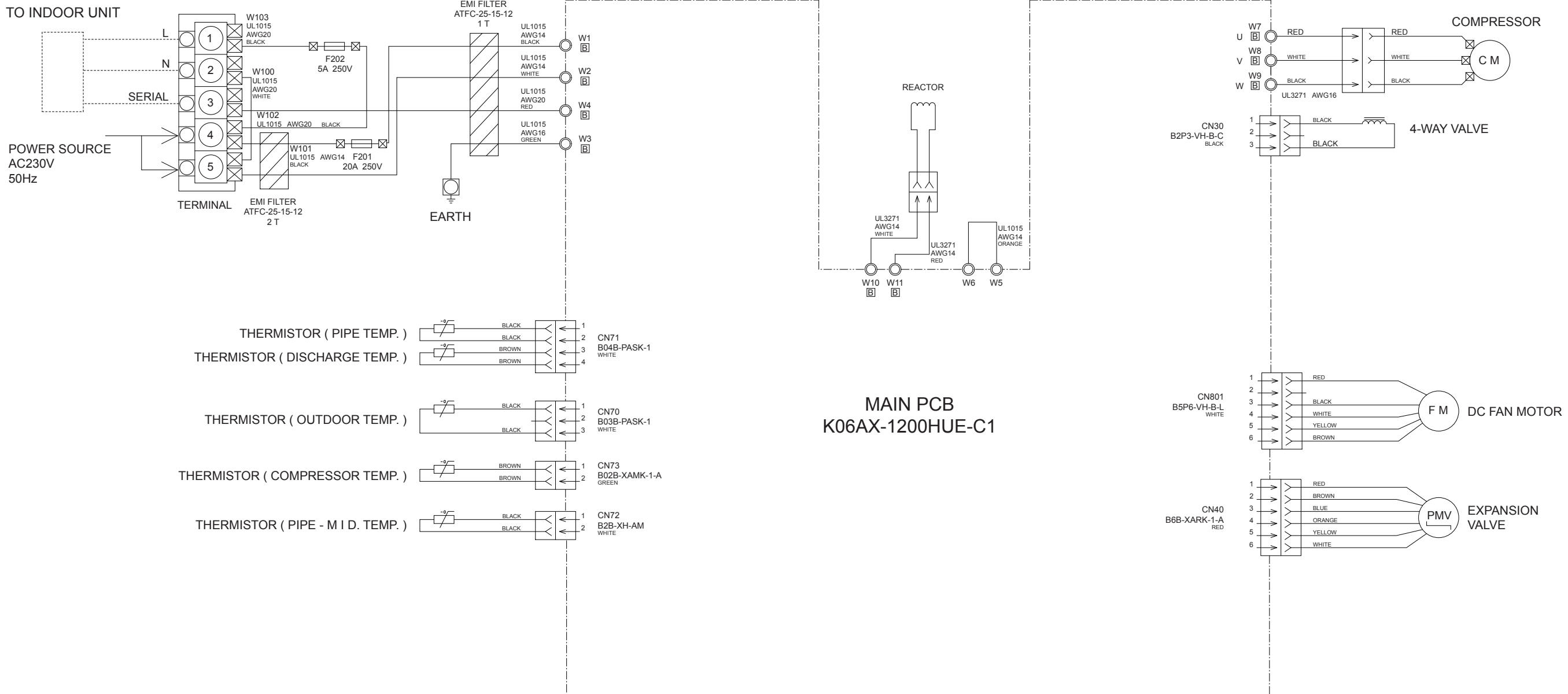


INDOOR UNIT  
POWER SUPPLY PCB  
K06AL-1200HSE-P0

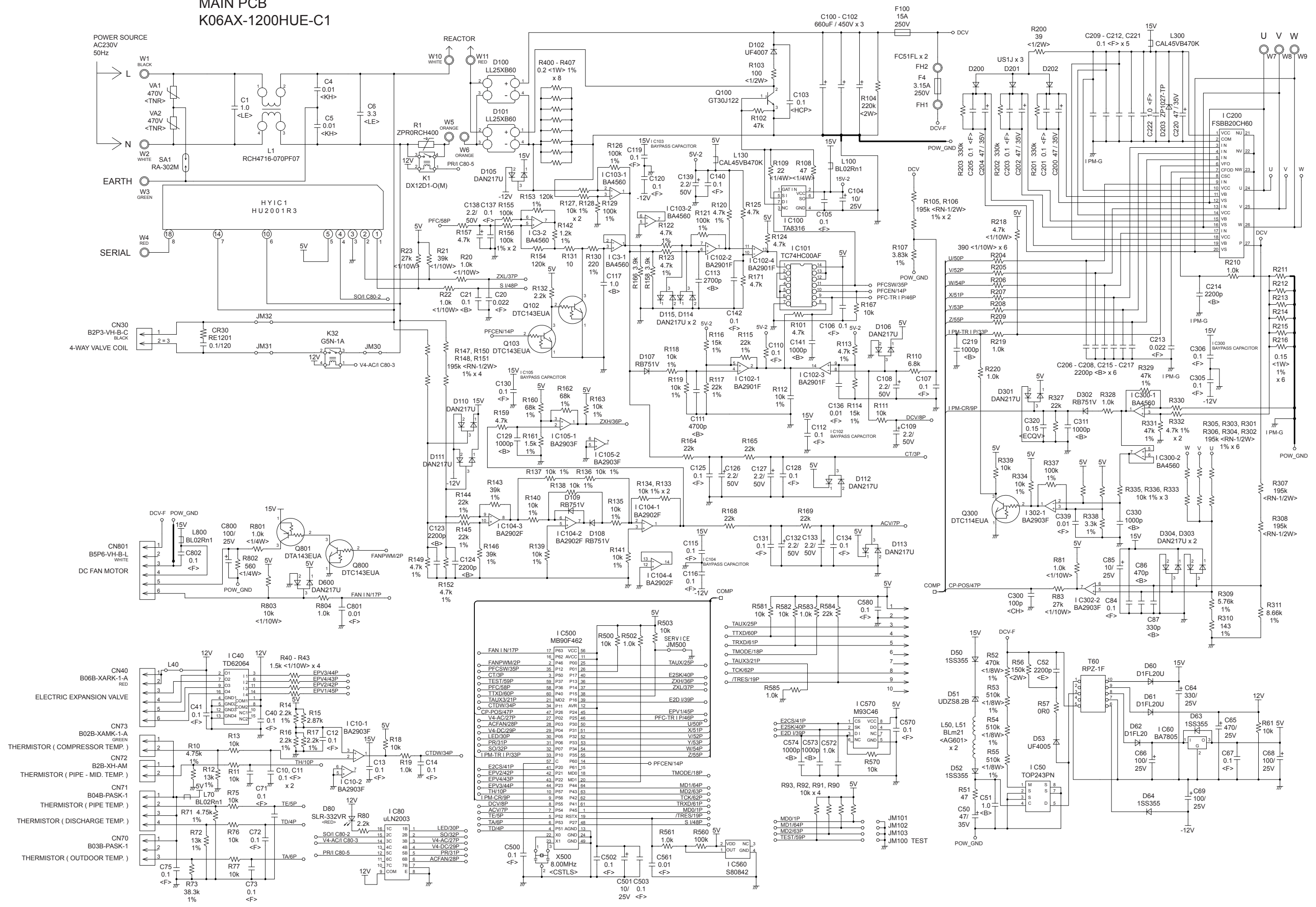


# OUTDOOR PCB CIRCUIT DIAGRAM

INVERTER ASSEMBLY  
EZ-0121EHUE



# OUTDOOR UNIT MAIN PCB K06AX-1200HUE-C1



# ERROR DETECTION

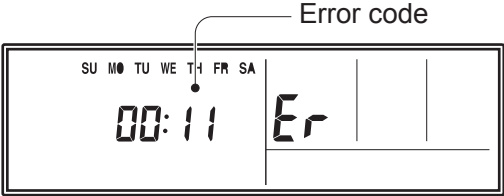
## INDOOR UNIT and WIRED REMOTE CONTROL

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.

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

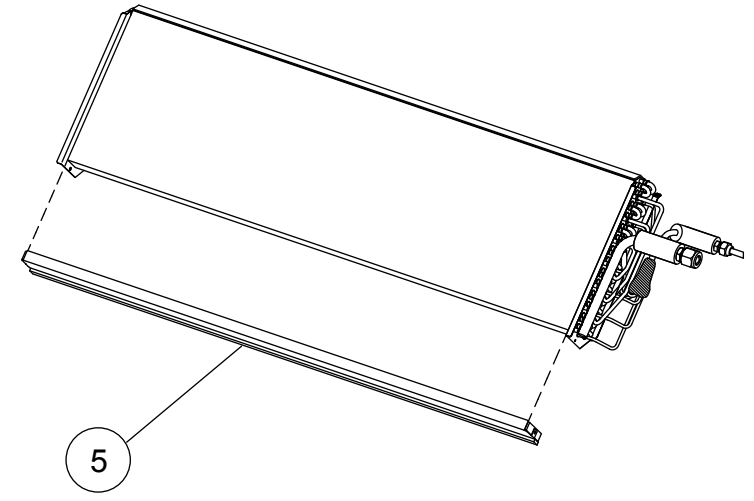
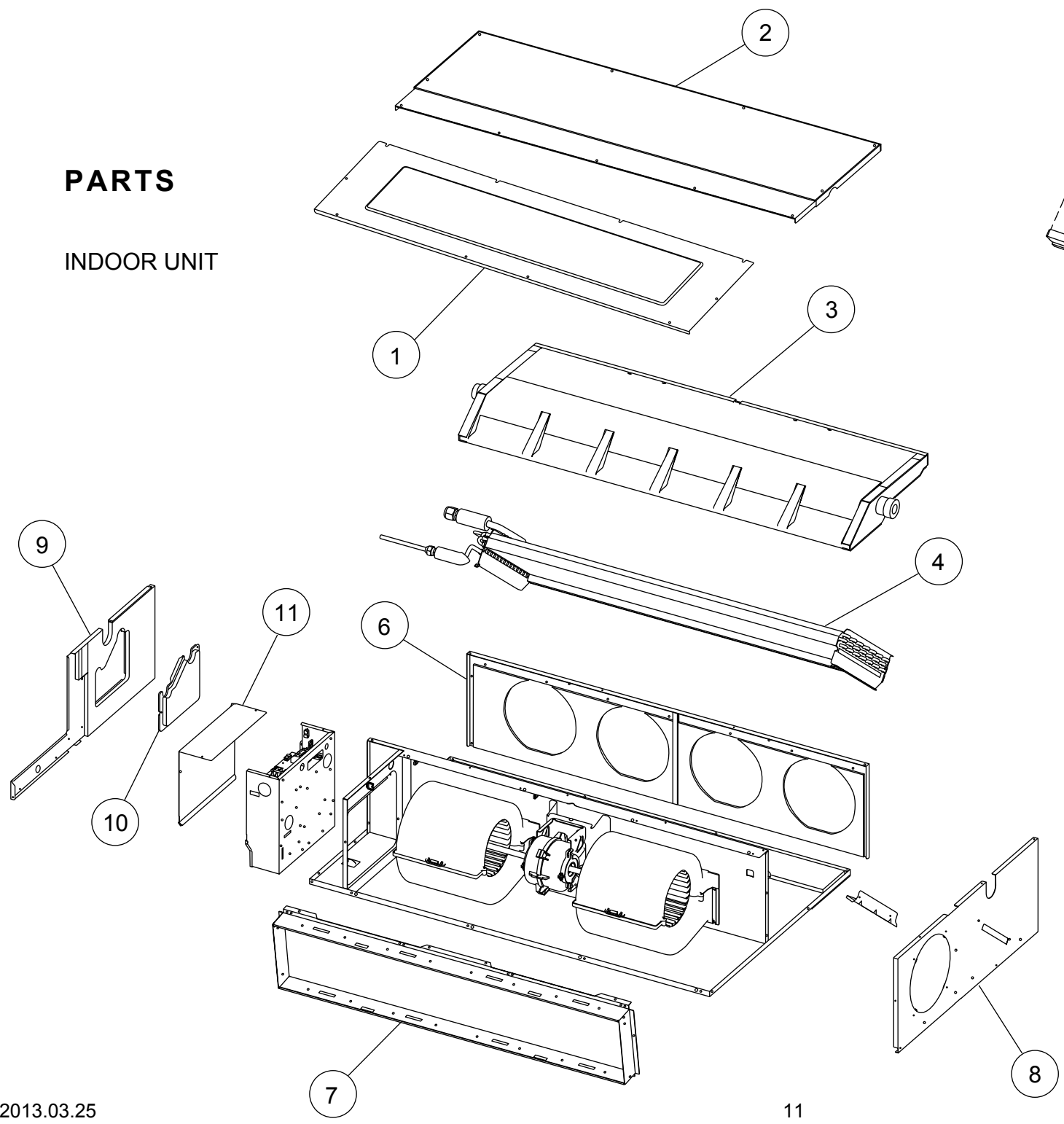
- : 0.5s on / 0.5s off
- ◇ : 0.1s on / 0.1s off
- ( ) : Number of flashing

Indoor unit lamps			Wired remote control	Description
OPERATION (green)	TIMER (orange)	ECONOMY (green)		
● (1)	● (1)	◇	11	Serial communication error
● (1)	● (2)	◇	12	Wired remote control communication error
● (1)	● (5)	◇	15	Check run unfinished
● (2)	● (1)	◇	21	Unit number or Refrigerant circuit address setting error [Simultaneous Multi]
● (2)	● (2)	◇	22	Indoor unit capacity error
● (2)	● (3)	◇	23	Combination error
● (2)	● (4)	◇	24	• Connection unit number error (indoor slave unit) [Simultaneous Multi] • Connection unit number error (indoor unit or branch unit) [Flexible Multi]
● (2)	● (7)	◇	27	Master unit, slave 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	Inlet air 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

Indoor unit lamps			Wired remote control	Description
OPERATION (green)	TIMER (orange)	ECONOMY (green)		
● (6)	● (10)	◇	6A	Display PCB microcomputers communication error
● (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 error
● (9)	● (9)	◇	99	4-way 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]

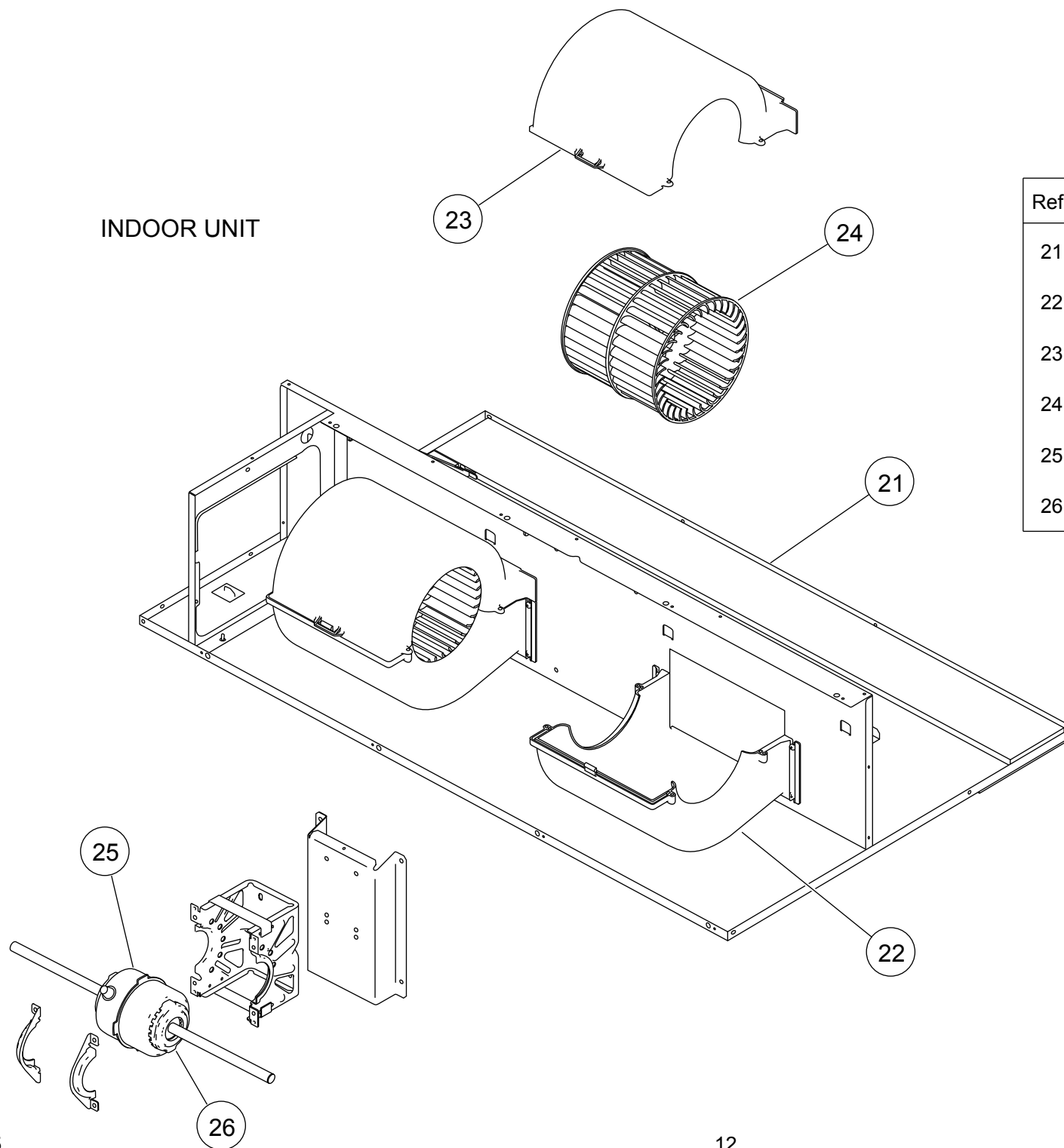
# PARTS

## INDOOR UNIT



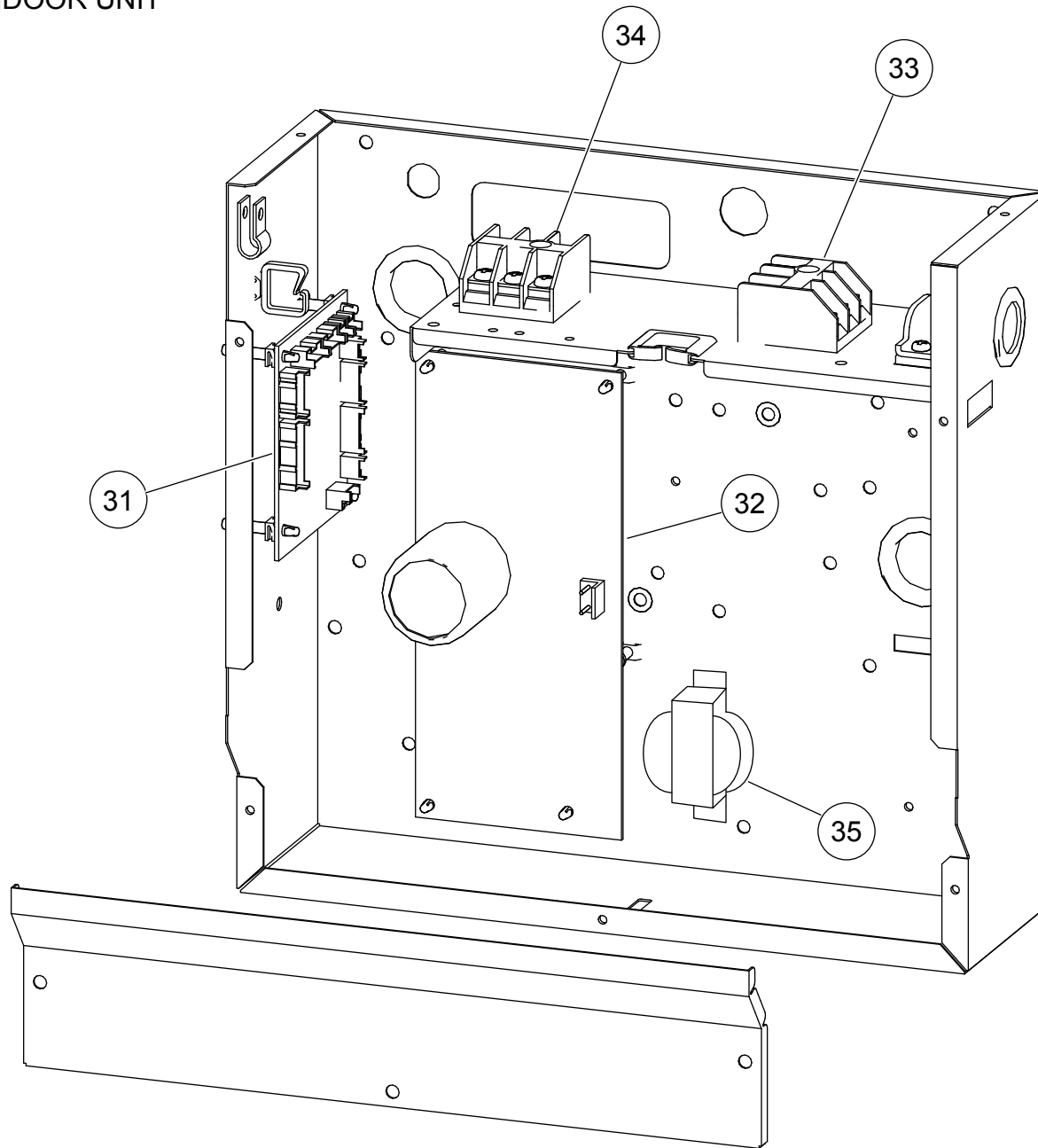
Ref.	Description	Part number
1	Intake Cover Sub Assy	9374512010
2	Main Panel Sub Assy	9374511013
3	Drain Pan Sub Assy	9374513017
4	Evaporator Total Assy	9374517268
5	Seal Panel Sub Assy	9374515011
6	Outlet Panel Sub Assy	9374510016
7	Intake Frame Assy	9374216017
8	Cabinet L Sub Assy	9374509010
9	Cabinet R Sub Assy	9374508013
10	Bracket Pipe Sub Assy	9374514014
11	Control Cover A Sub Assy	9374516025

INDOOR UNIT

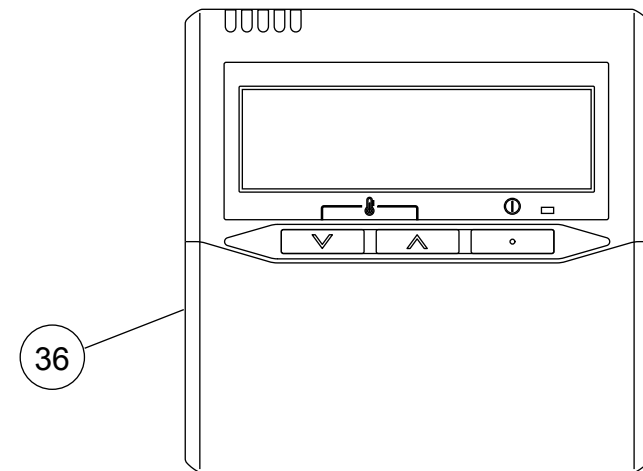


Ref.	Description	Part number
21	Base Sub Assy	9374504015
22	Casing A	9374233021
23	Casing B	9374234028
24	Sirocco Fan Assy	9356531060
25	Fan Motor	9602433025
26	Rubber	9385102002

# INDOOR UNIT

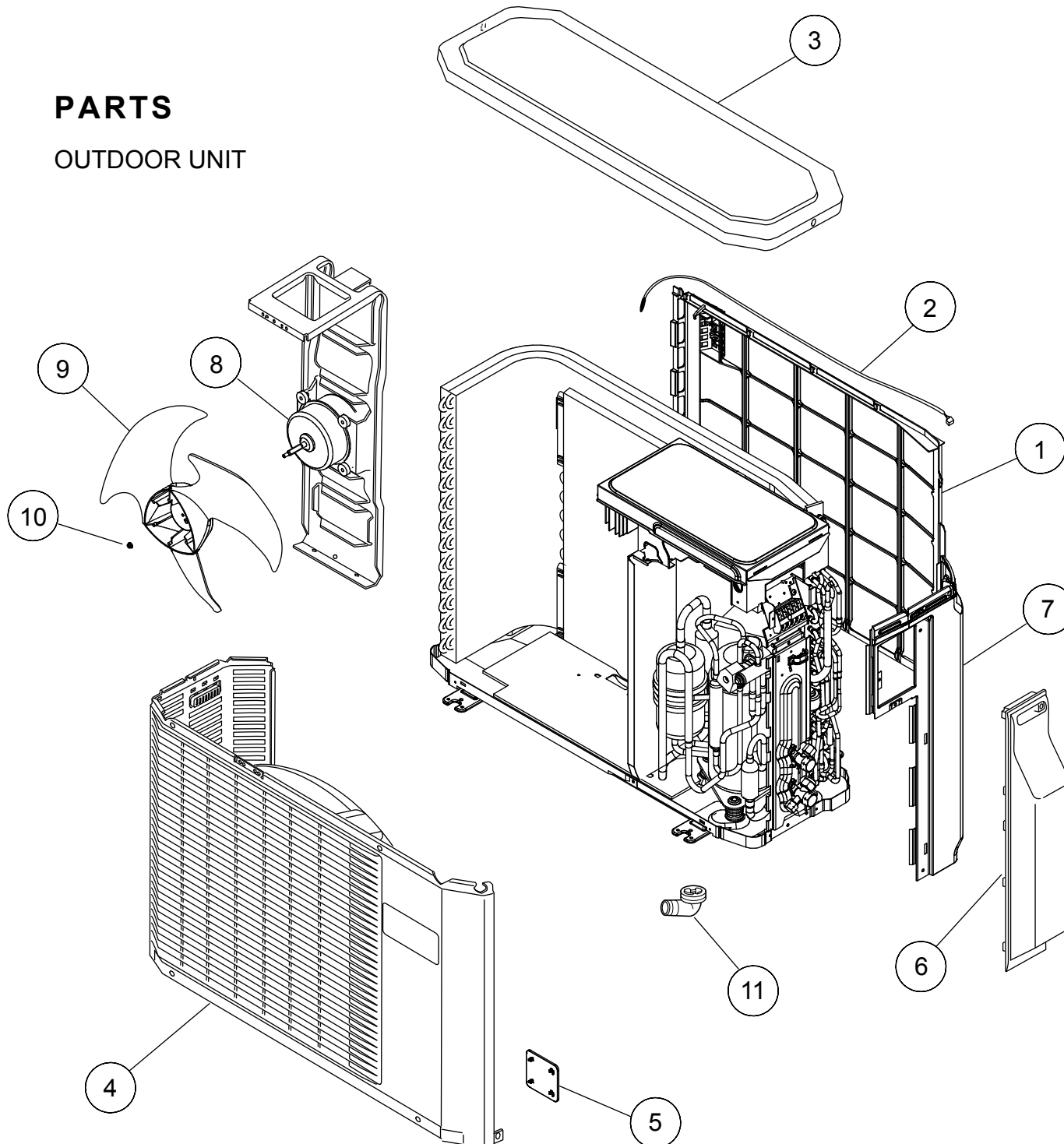


Ref.	Description	Part number
31	Main PCB	9709245323
32	Power Supply PCB	9707398373
33	Terminal 3P	9703345012
34	Terminal 3P	9306489045
35	Reactor Assy	9707457018
36	Remote Control	9318593013
--	Room Thermistor	9703299025
--	Pipe Thermistor	9703297021



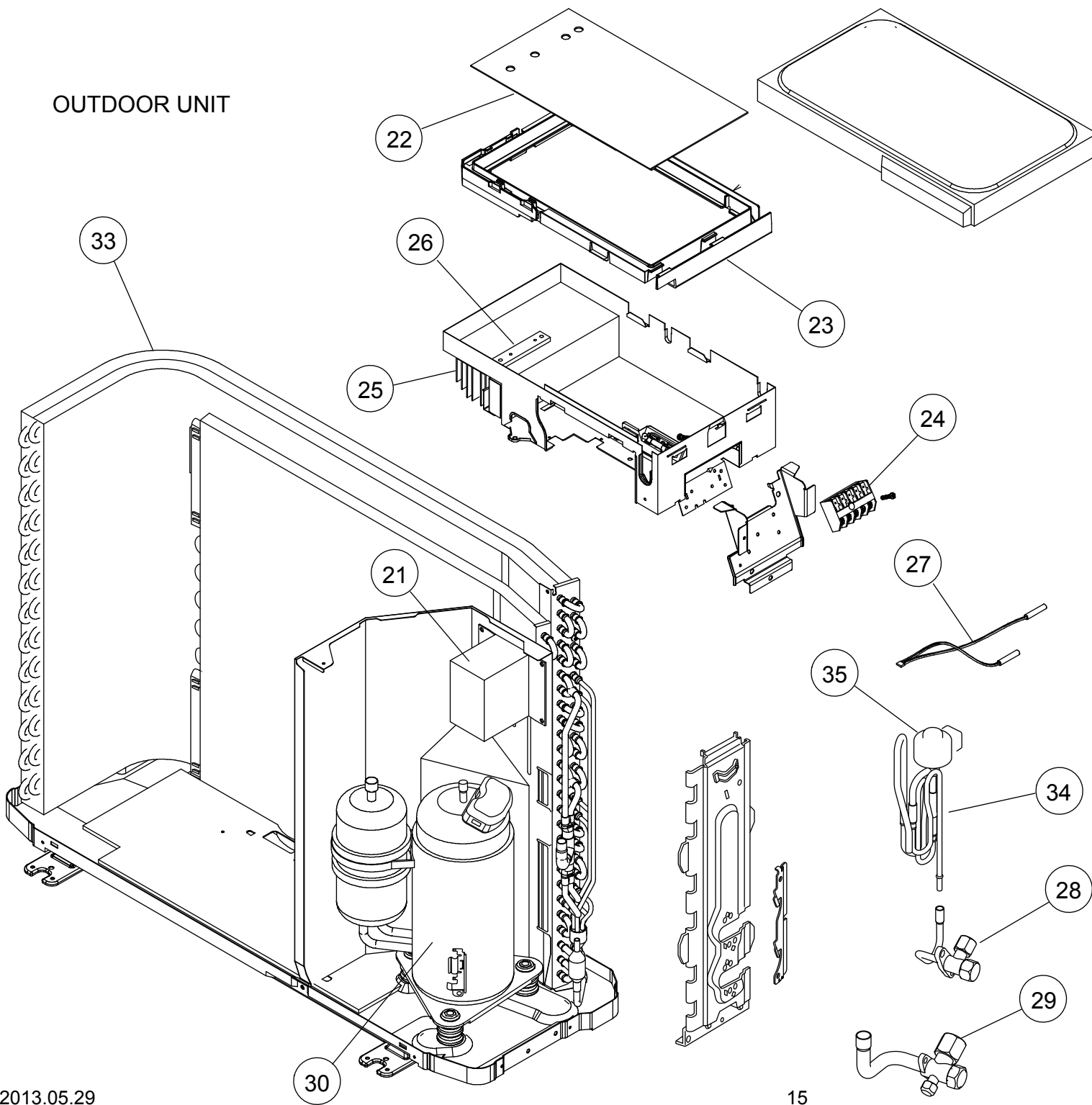
# PARTS

## OUTDOOR UNIT

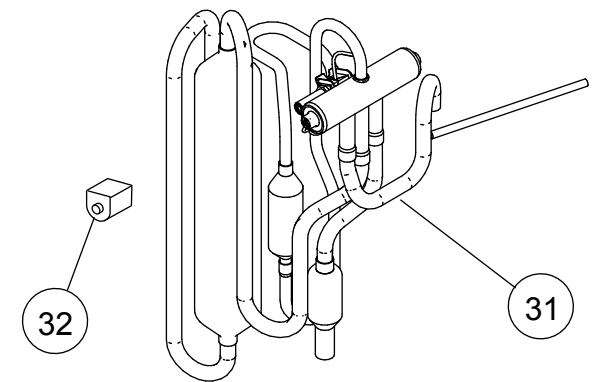


Ref	Description	Parts number
1	Protective Net	9315033017
2	Outdoor Thermistor	9900210045
3	Top Panel Assy	9309230057
4	Cabinet Assy	9312799459
5	Fan Guard Cover	9378110014
6	Switch Cover Assy	9309237032
7	Cabinet Right Assy	9309236028
8	Fan Motor	9602451012
9	Propeller Fan	9309909014
10	Nut with Washer	9304902003
11	Drain Assy	9303029015

OUTDOOR UNIT



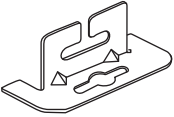
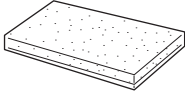



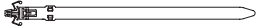
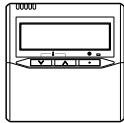
Ref	Description	Parts number
21	Reactor Assy	9900354015
22	Main PCB	9707427561
23	PCB Holder	9313074029
24	Terminal	9703874031
25	Heat Sink A	9314410017
26	Heat Sink B	9314090011
27	Thermistor Assy	9900148027
28	2-way Valve Assy	9313062019
29	3-way Valve Assy	9315414014
30	Compressor Assy	9315297037
31	4-way Valve Assy	9315311023
32	Solenoid	9970055010
33	Condenser Sub Assy	9312069118
34	Pulse Motor Valve Assy	9315310019
35	Expansion Valve Coil	9970057039
--	Compressor Thermistor	9900156046
--	Heat Exchanger Thermistor	9900403010

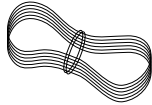

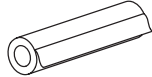
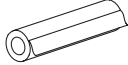






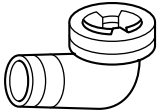
# ACCESSORIES

## INDOOR UNIT

Name and Shape	Q'ty	Application (part number)
Hanger 	4	For suspending the indoor unit from ceiling (9356563009)
Drain hose insulation 	1	Insulates the drain hose and vinyl hose (313806217708)
Cable tie (large) 	1	For fixing the drain hose (312300787605)
Cable tie (small) 	1	For remote control and remote control cable binding (313361275805)
Cable tie 	2	For electrical wiring
Wire clamber 	1	For electrical wiring
Remote control 	1	(9318593013)

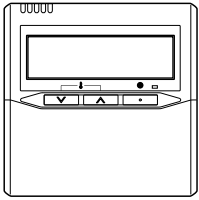

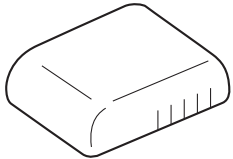
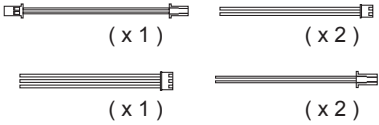
Name and Shape	Q'ty	Application (part number)
Remote control cord 	1	For connecting a remote control (9372714010)
Screw (M4 x 16) 	2	For installing a remote control (0700181108)
Coupler heat insulation (large) 	1	For indoor side pipe joint (large pipe) (9378173569)
Coupler heat insulation (small) 	1	For indoor side pipe joint (small pipe) (9378173521)
Special nut A (large flange) 	4	For suspending the indoor unit from ceiling (313005446653)
Special nut B (small flange) 	4	(313005446759)

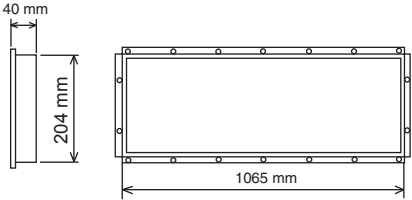
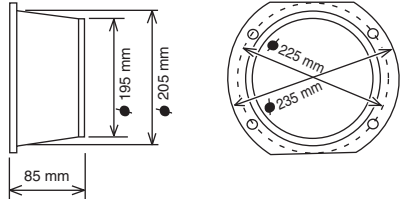
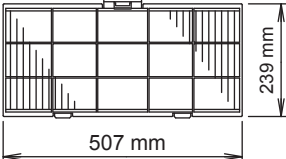
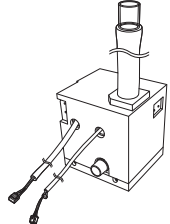
## OUTDOOR UNIT

Name and Shape	Q'ty	Application
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.

Name and Shape	Application (part number)
Wired remote control UTY-RNNYM 	
Simple remote control UTY-RSNYM 	
Remote sensor unit UTY-XSZX 	Room temperature sensor (9002763005)
External connect kit UTD-ECS5A 	For control input/output port (9077359004)

Name and Shape	Application (part number)
Square flange, UTD-SF045T 	(9098180007)
Round flange, UTD-RF204 	(9093160004)
Long-life filter UTD-LF25NA 	(9079892004)
Drain pump unit UTZ-PX1NBA 	(9052978008)

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