

SPLIT TYPE
ROOM AIR CONDITIONER
FLOOR type

SERVICE
MANUAL



Models

Indoor unit	Outdoor unit
AGYV09LAC	AOYV09LAC
AGYV12LAC	AOYV12LAC
AGYV14LAC	AOYV14LAC

CONTENTS

SPECIFICATIONS.....	1
DIMENSIONS.....	2
REFRIGERANT SYSTEM DIAGRAM	4
CIRCUIT DIAGRAM	5
INDOOR PCB CIRCUIT DIAGRAM.....	7
OUTDOOR PCB CIRCUIT DIAGRAM... ..	10
ERROR CONTENTS.....	12
PARTS LIST (INDOOR UNIT).....	13
PARTS LIST (OUTDOOR UNIT).....	19
STANDARD ACCESSORIES	25

SPECIFICATIONS

ELECTRICAL DATA

TYPE		Cooling & heating inverter		
INDOOR UNIT		AGYV09LAC	AGYV12LAC	AGYV14LAC
OUTDOOR UNIT		AOYV09LAC	AOYV12LAC	AOYV14LAC
COOLING CAPACITY		2.60 kW	3.50 kW	4.20 kW
HEATING CAPACITY		3.50 kW	4.50 kW	5.60 kW
POWER SOURCE		230 V	230 V	230 V
FREQUENCY		50 Hz	50 Hz	50 Hz
RUNNING CURRENT	Cooling	2.6 A	4.4 A	5.2 A
	Heating	3.8 A	5.5 A	6.4 A
INPUT WATTS	Cooling	0.53 kW	0.94 kW	1.14 kW
	Heating	0.79 kW	1.19 kW	1.44 kW
E.E.R.	Cooling	4.91 kW/kW	3.72 kW/kW	3.68 kW/kW
COP	Heating	4.43 kW/kW	3.78 kW/kW	3.61 kW/kW
MOISTURE REMOVAL		1.3 L/hr	1.8 L/hr	2.1 L/hr
AIR CIRCULATION HIGH	Cooling	570 m³/hr	570 m³/hr	650 m³/hr
	Heating	600 m³/hr	600 m³/hr	650 m³/hr

FAN MOTOR

POWER SOURCE		230 V		
INDOOR UNIT upper fan (cool / heat)	High speed	1,190 r.p.m. / 1,240 r.p.m.		1,330 / 1,330 r.p.m.
	Med speed	1,000 r.p.m. / 1,040 r.p.m.		1,100 / 1,100 r.p.m.
	Low speed	820 r.p.m. / 840 r.p.m.		890 / 860 r.p.m.
	Quiet	660 r.p.m. / 660 r.p.m.		660 / 660 r.p.m.
INDOOR UNIT lower fan (cool / heat)	High speed	1,000 r.p.m. / 1,040 r.p.m.		1,120 / 1,120 r.p.m.
	Med speed	850 r.p.m. / 880 r.p.m.		930 / 930 r.p.m.
	Low speed	690 r.p.m. / 700 r.p.m.		750 / 730 r.p.m.
	Quiet	560 r.p.m. / 560 r.p.m.		560 / 560 r.p.m.
OUTDOOR UNIT (cool / heat)		760 / 680 r.p.m.	760 / 760 r.p.m.	820 / 750 r.p.m.

NOISE LEVEL

INDOOR UNIT (cool / heat)	High speed	40 dB / 40 dB		44 dB / 42 dB
	Med speed	35 dB / 35 dB		38 dB / 37 dB
	Low speed	29 dB / 29 dB		32 dB / 32 dB
	Quiet	22 dB / 22 dB		25 dB / 27 dB
OUTDOOR UNIT (cool / heat)		47 dB / 48 dB	48 dB / 49 dB	50 dB / 50 dB

DIMENSIONS

INDOOR UNIT	H x W x D	600 x 740 x 200 mm		
OUTDOOR UNIT	H x W x D	540 x 790 x 290 mm		578 x 790 x 300 mm

WEIGHT

INDOOR UNIT	Gross / Net	17 kg / 14 kg		
OUTDOOR UNIT	Gross / Net	40 kg / 36 kg		44 kg / 40 kg

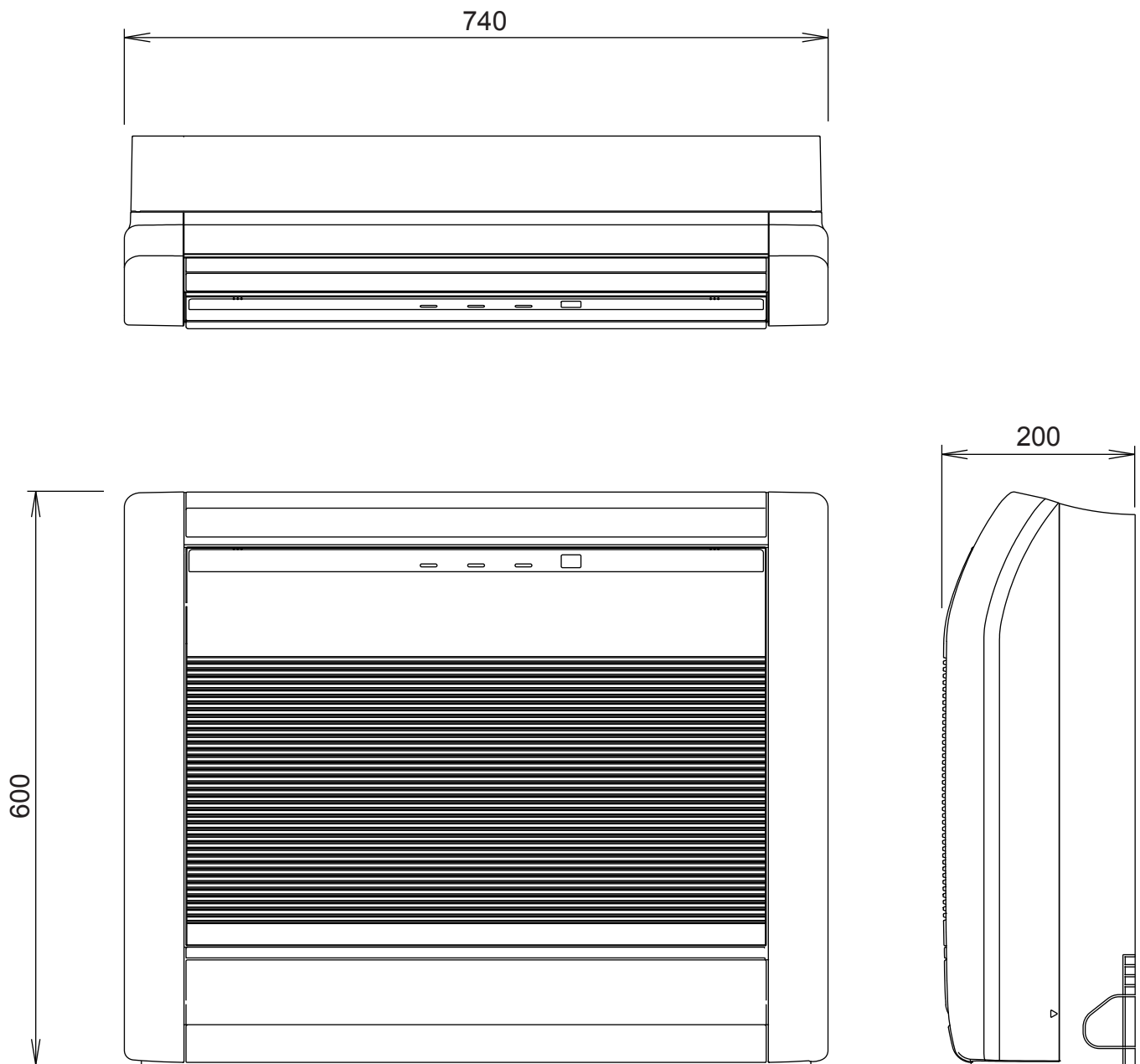
REFRIGERANT

COMPRESSOR TYPE		Hermetic type, 4 pole, 3 phase, DC inverter motor, Rotary		
DISCRIMINATION		DA89X1C-20FZ		DA130A1F-25F
STANDARD REFRIGERANT		1,050 g		1,150 g
REFRIGERANT TYPE		R410A		R410A
FULL CHARGE	Pipe Length 15 m	1,050 g		1,150 g
	20 m	1,150 g		1,250 g
ADDITIONAL CHARGE		20 g/m		20 g/m
MAXIMUM PIPE HEIGHT		15 m		15 m

DIMENSIONS

INDOOR UNIT

(unit : mm)



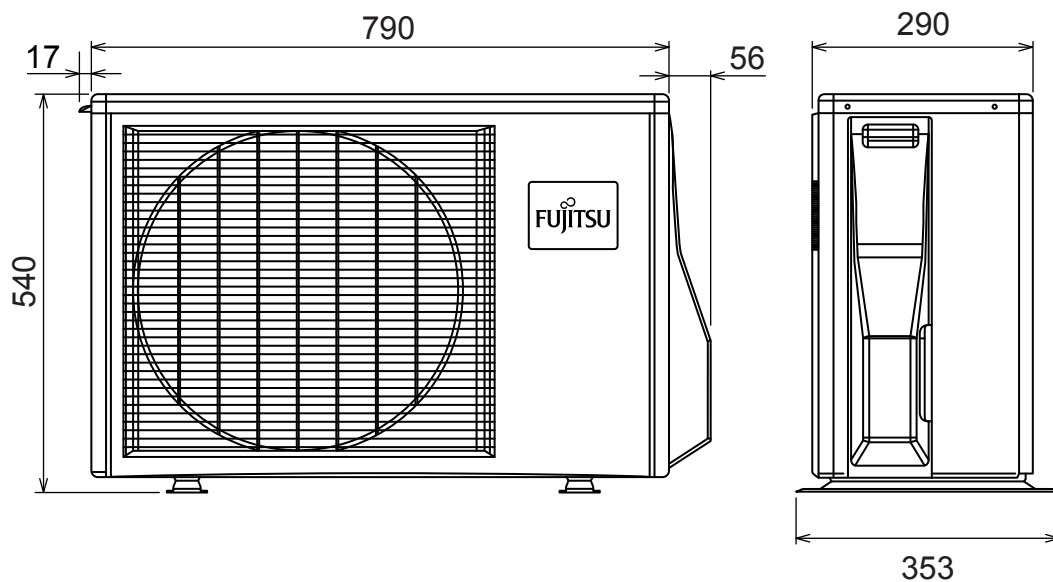
OUTDOOR UNIT

(unit : mm)

Models :

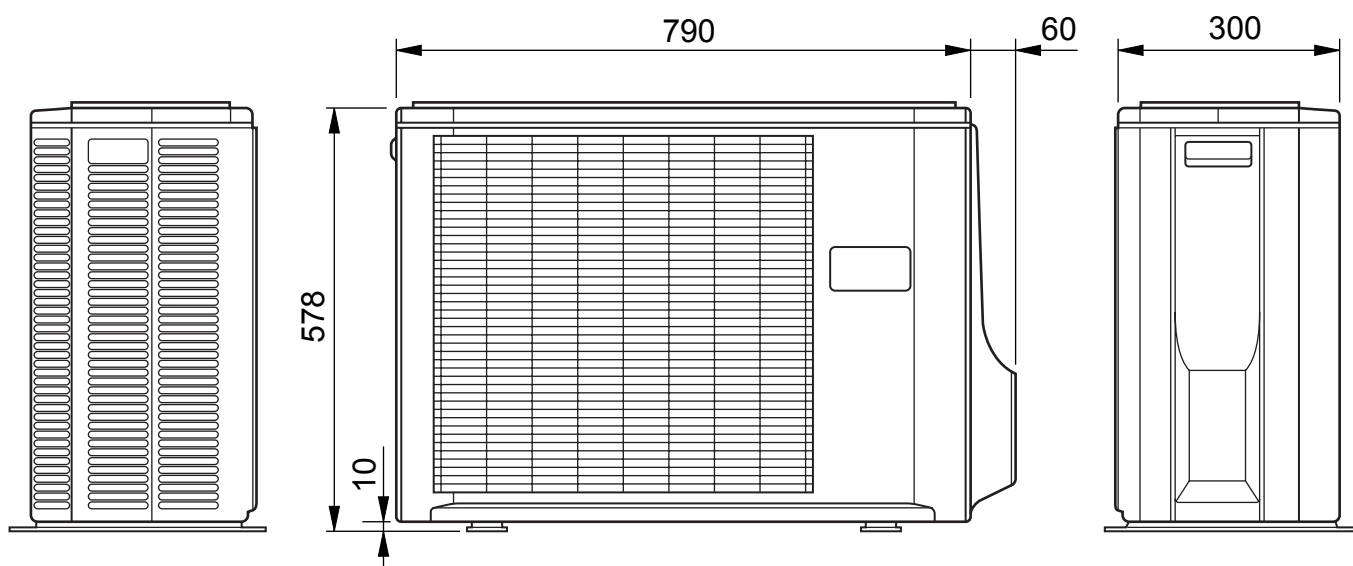
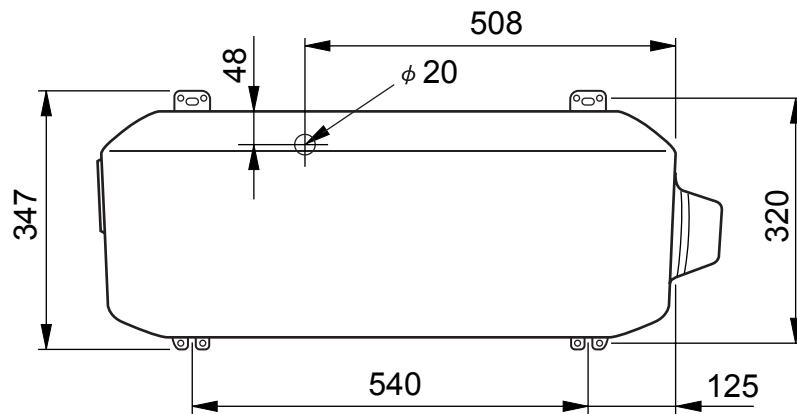
AOYV09LAC

AOYV12LAC

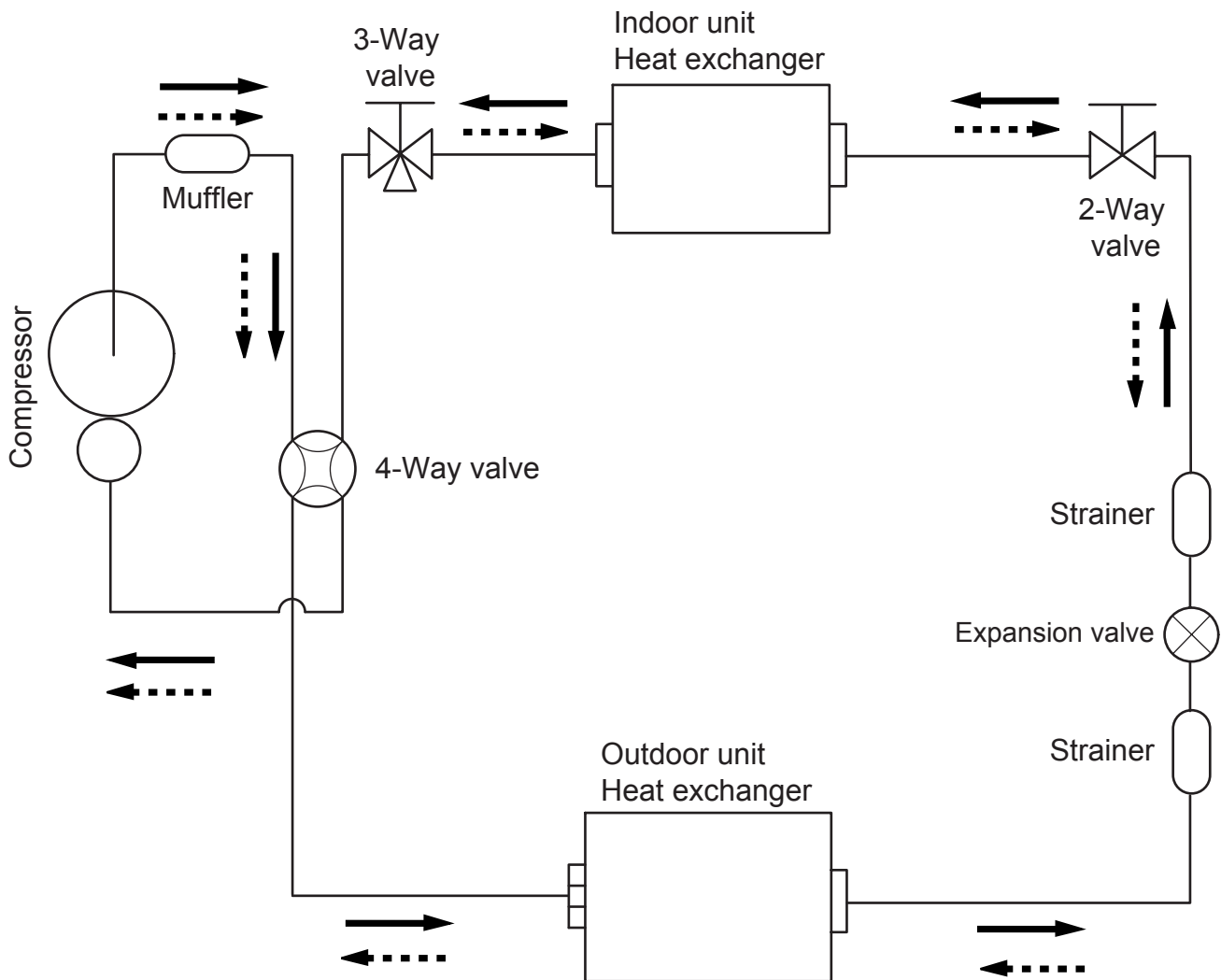


Model :

AOYV14LAC



REFRIGERANT SYSTEM DIAGRAM



Refrigerant direction

—————> Cooling

-----> Heating

Refrigerant pipe diameter

AGYV09LAC / AOYV09LAC

AGYV12LAC / AOYV12LAC

Liquid : 1/4" (6.35 mm)

Gas : 3/8" (9.52 mm)

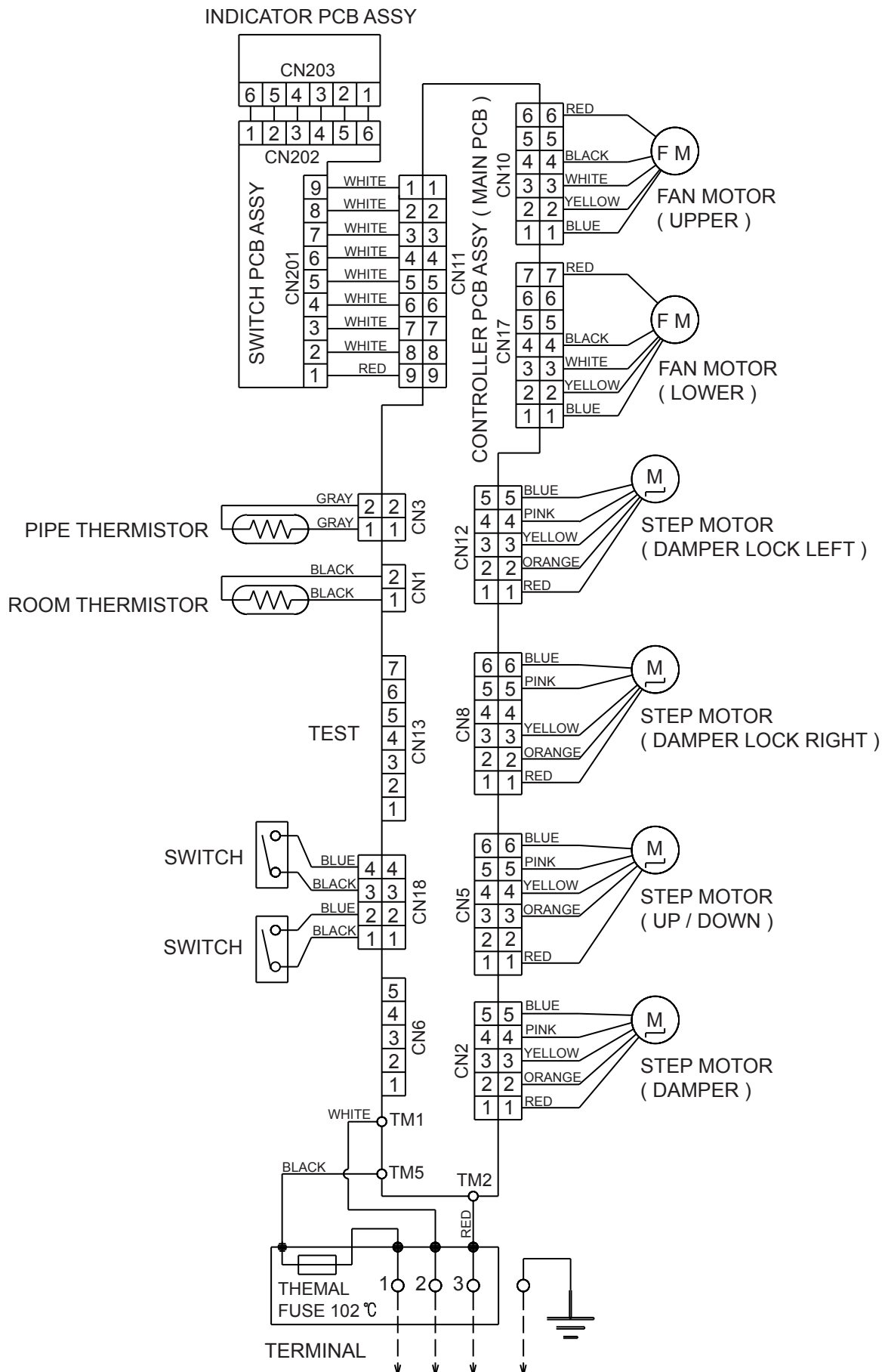
AGYV14LAC / AOYV14LAC

Liquid : 1/4" (6.35 mm)

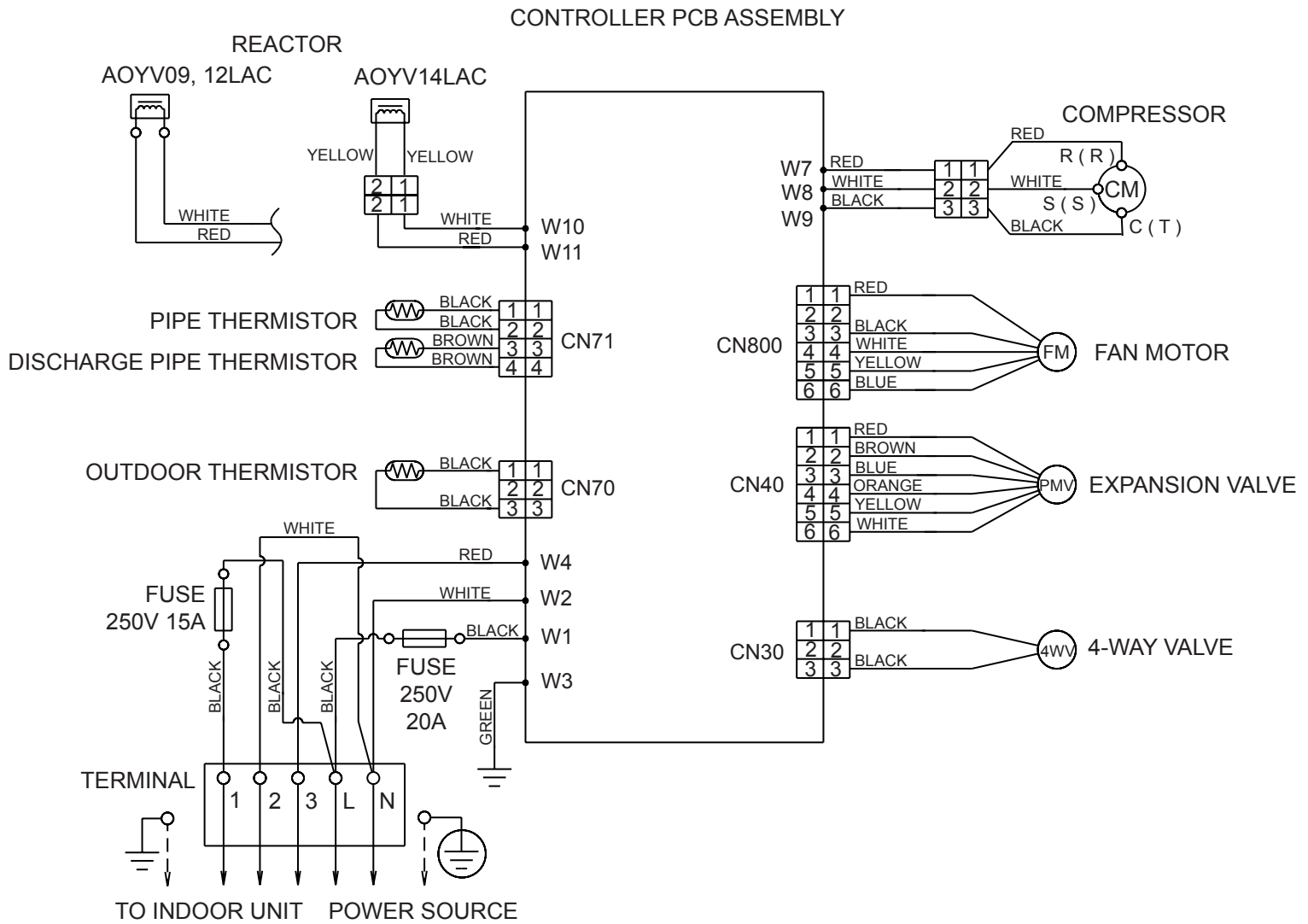
Gas : 1/2" (12.7 mm)

CIRCUIT DIAGRAM

INDOOR UNIT

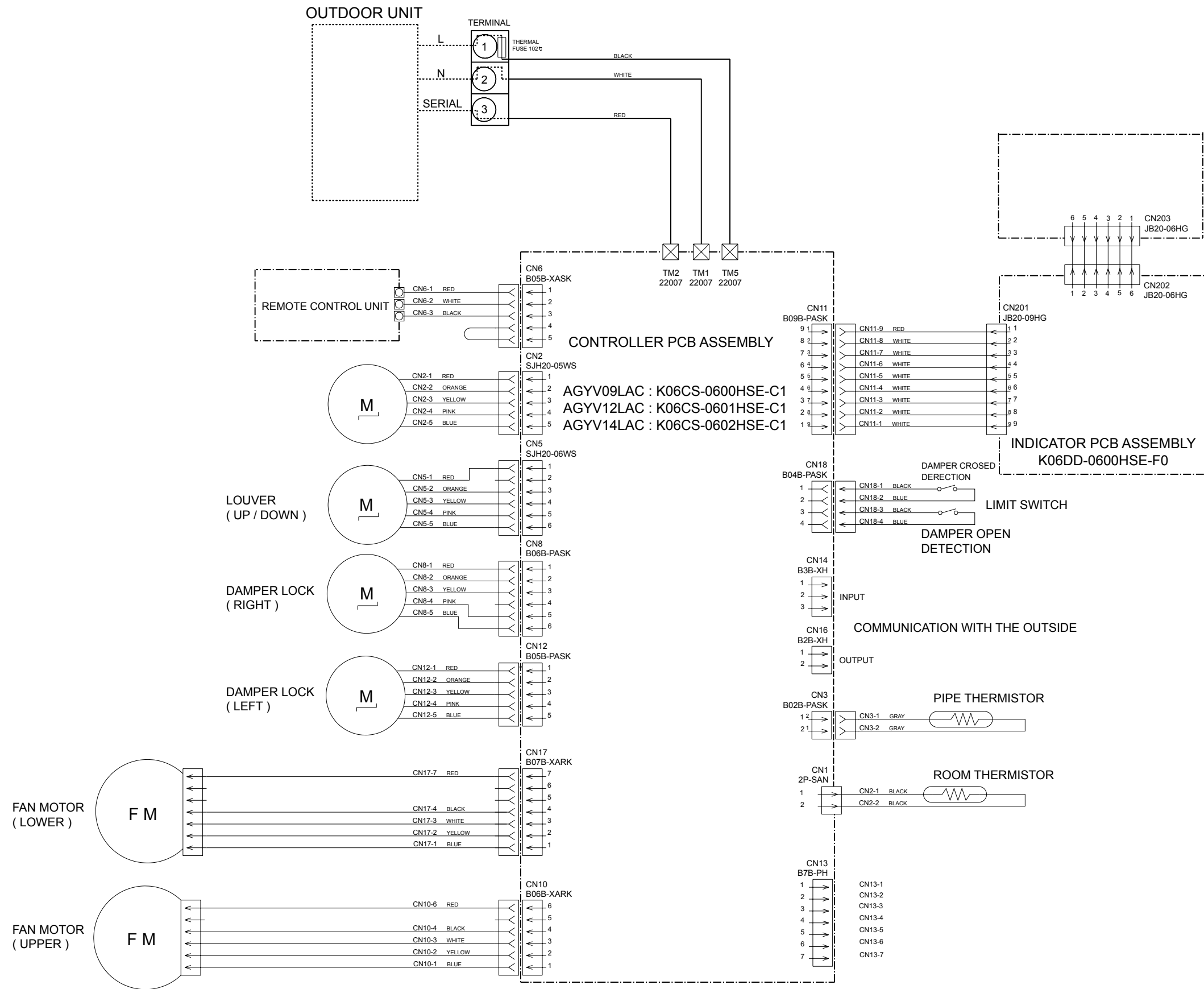


OUTDOOR UNIT

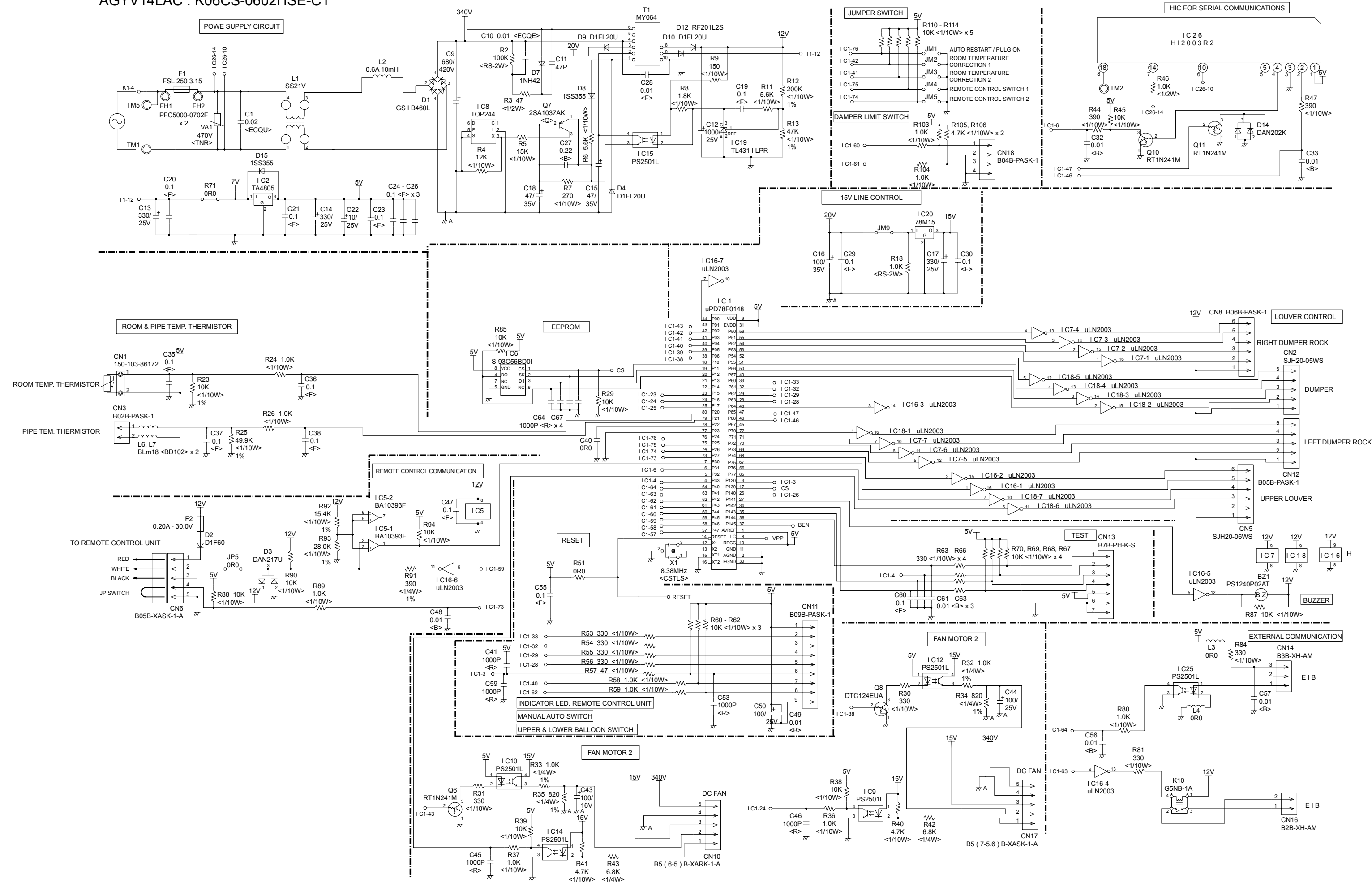


INDOOR PCB CIRCUIT DIAGRAM

CONTROL UNIT
AGYV09LAC : EZ-0060KHSE
AGYV12LAC : EZ-0060LHSE
AGYV14LAC : EZ-0060MHSE

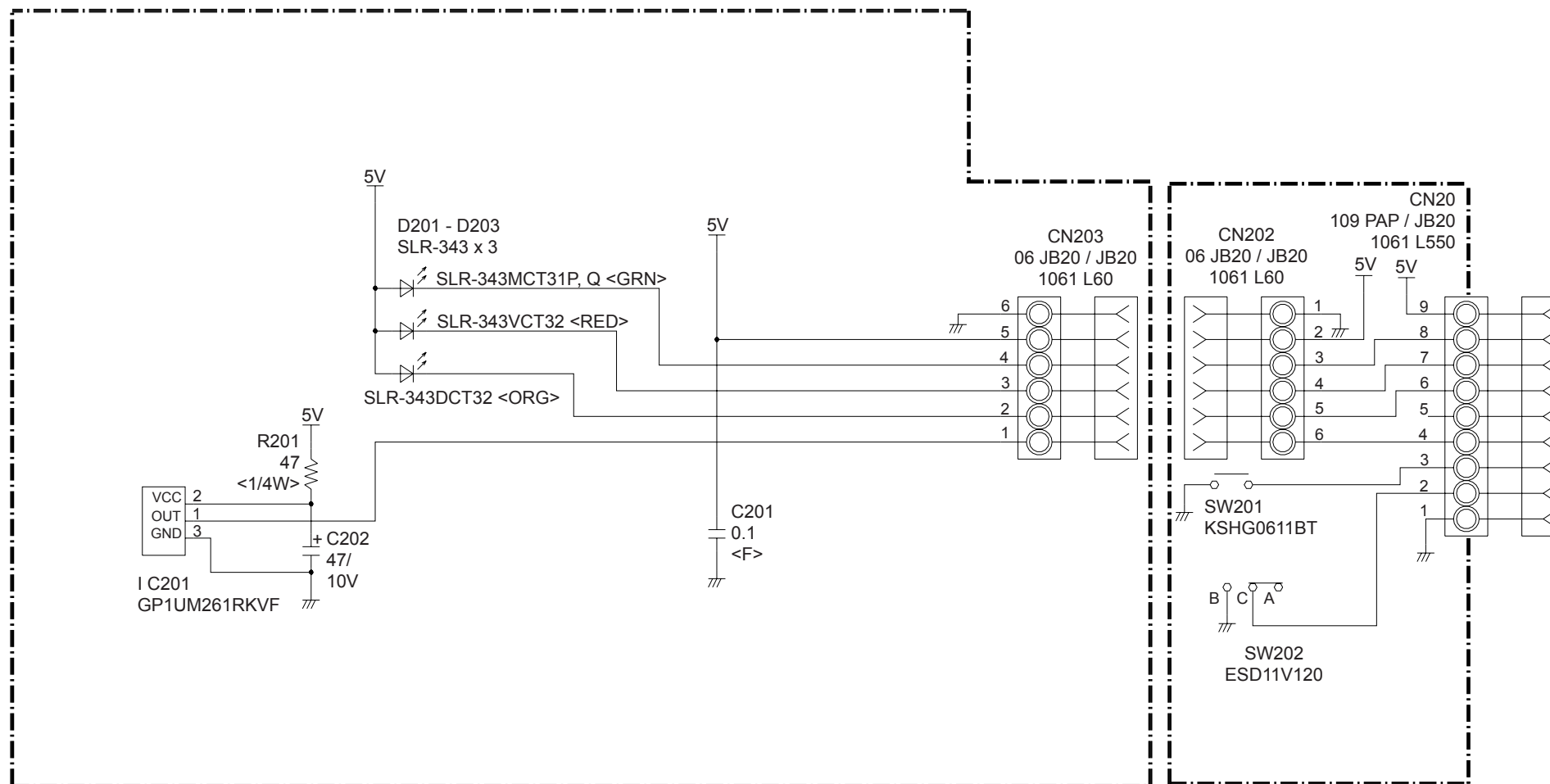


INDOOR UNIT
CONTROLLER PCB ASSEMBLY
AGYV09LAC : K06CS-0600HSE-C1
AGYV12LAC : K06CS-0601HSE-C1
AGYV14LAC : K06CS-0602HSE-C1



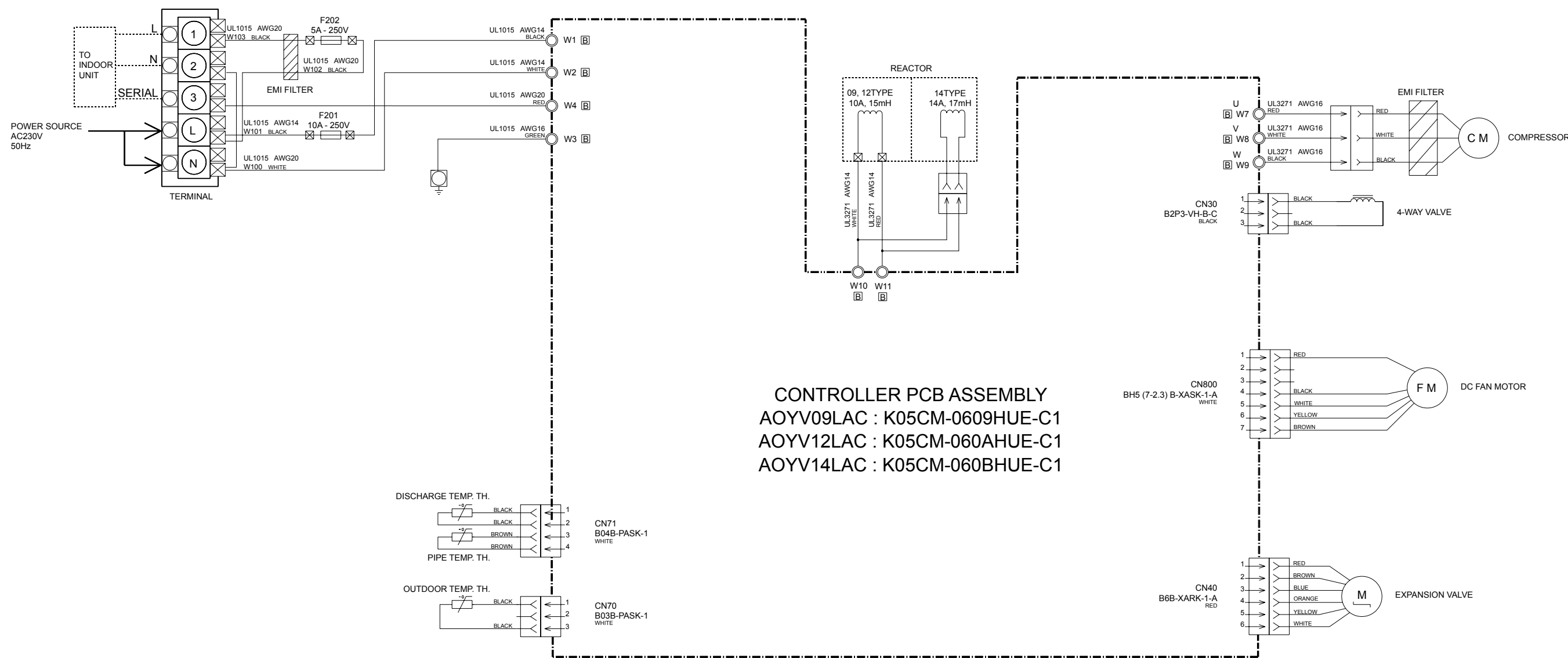
INDOOR UNIT

INDICATOR PCB ASSEMBLY K06DD-0600HSE-F0

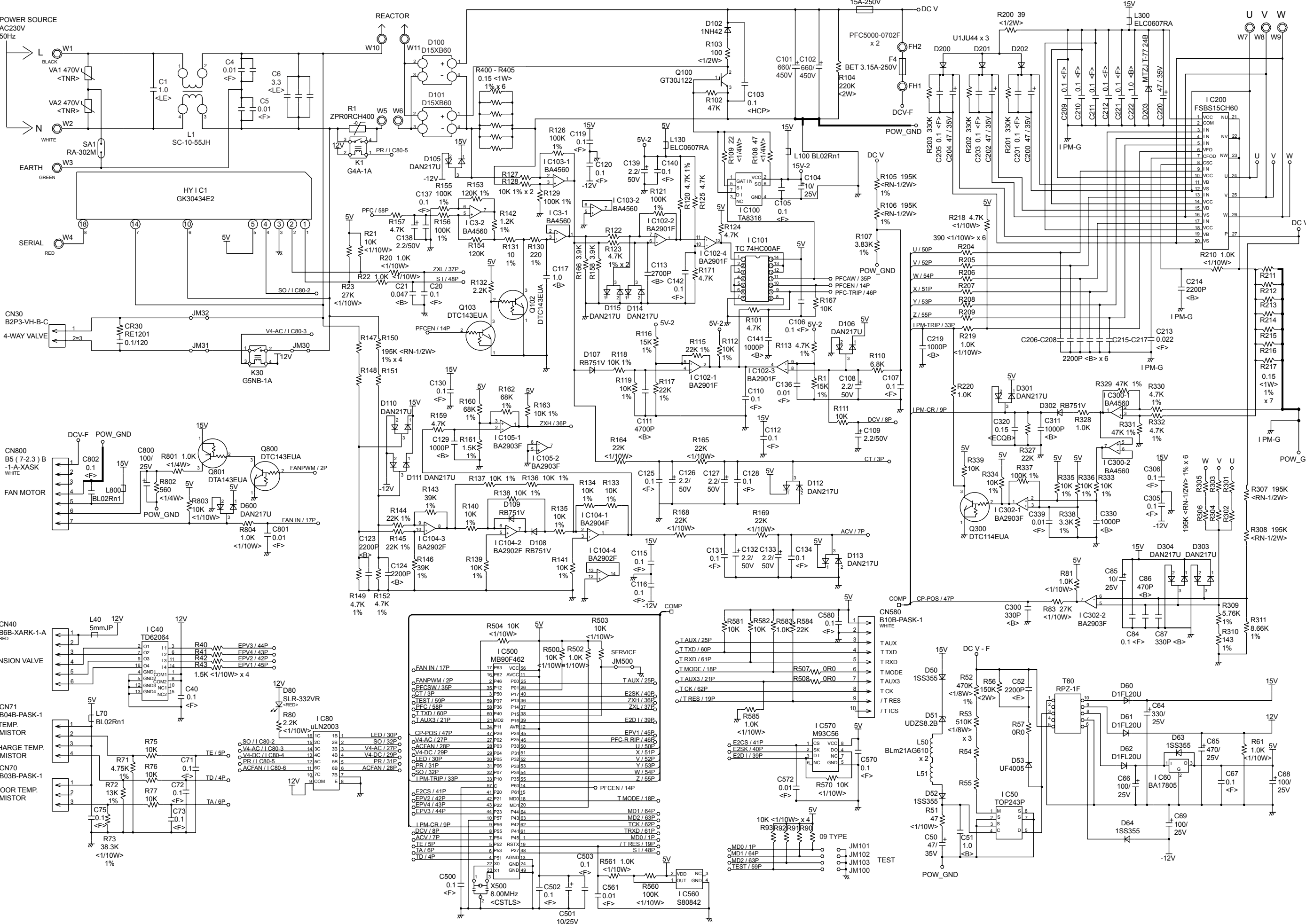


OUTDOOR PCB CIRCUIT DIAGRAM

INVERTER ASSEMBLY
AOYV09LAC : EZ-00605HUE
AOYV12LAC : EZ-00606HUE
AOYV14LAC : EZ-00607HUE



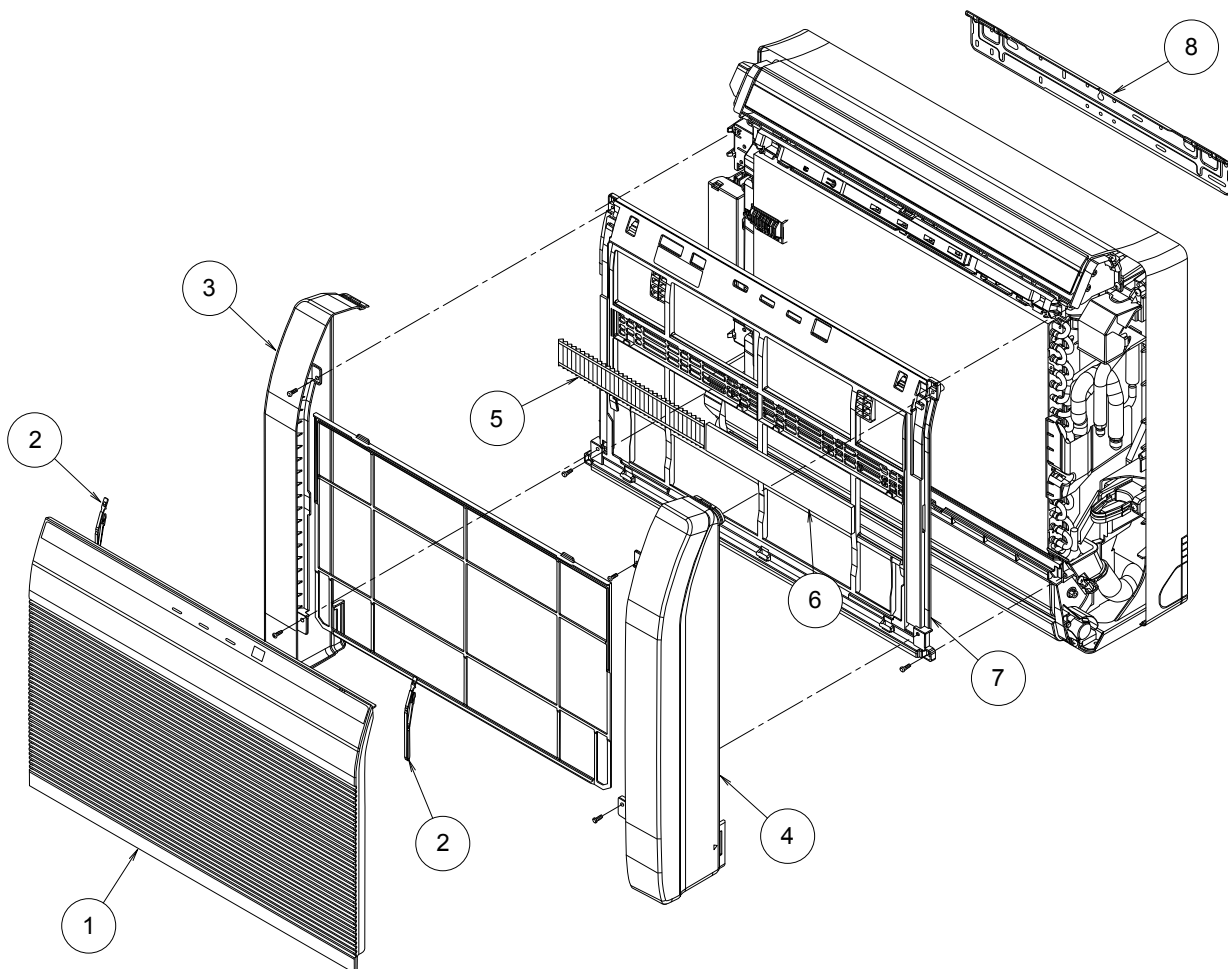
CONTROLLER PCB ASSEMBLY
 AOYV09LAC : K05CM-0609HUE-C1
 AOYV12LAC : K05CM-060AHUE-C1
 AOYV14LAC : K05CM-060BHUE-C1



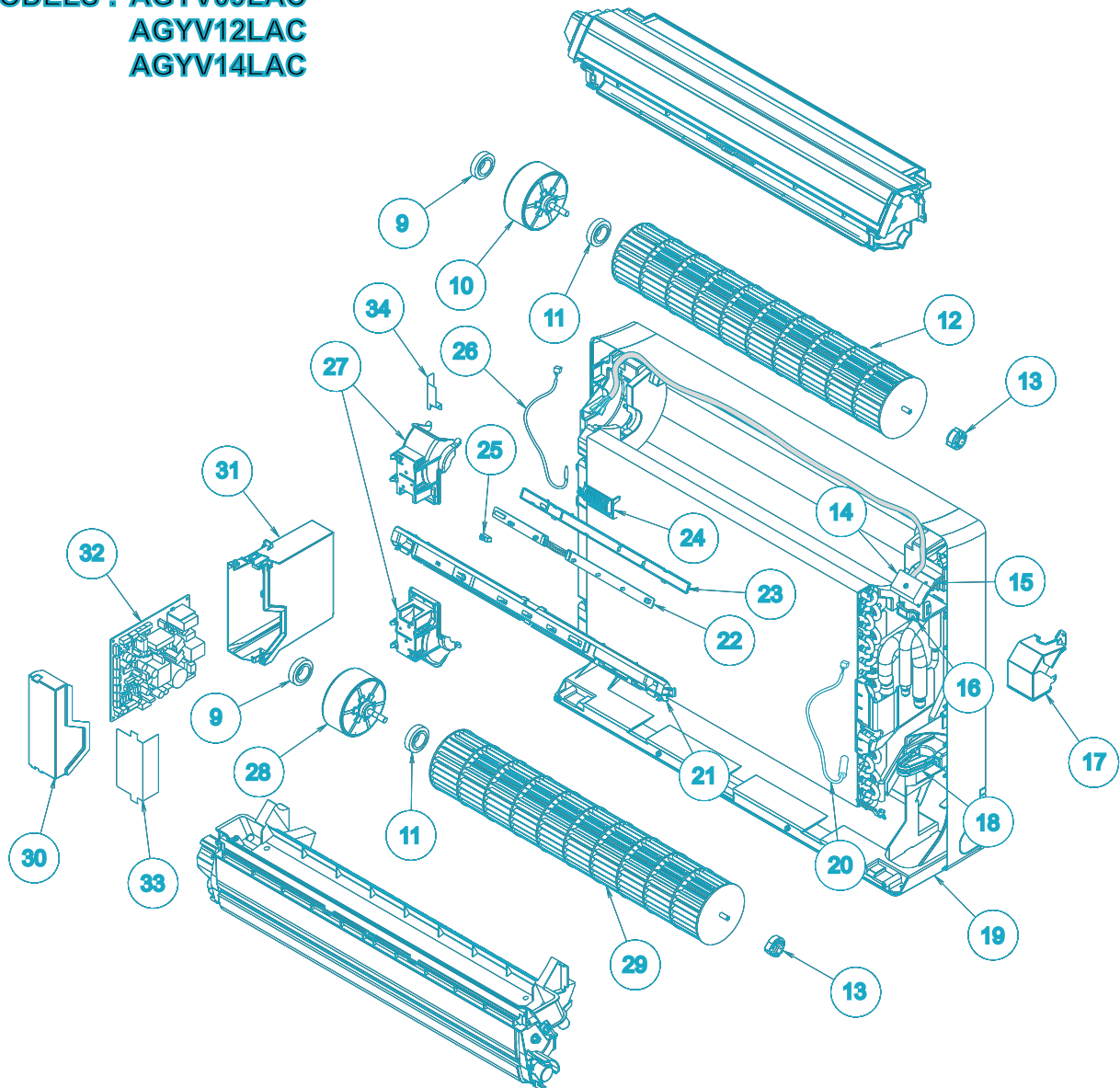
ERROR CONTENTS

Error	Indoor unit LED			Wired remote controller	Error
	Operation LED	Timer LED	10 C heat LED		
Serial signal error	Off	2 flash	Off	01	Serial signal (reverse) error, at operation start up
		3 flash	Off	01	Serial signal (reverse) error, during operation
		4 flash	Off	13	Serial signal (forward) error, at operation start up
		5 flash	Off	13	Serial signal (forward) error, during operation
		8 flash	Off	00	Wired remote controller error
Indoor unit thermistor error	2 flash	2 flash	Off	02	Indoor air thermistor error
		3 flash	Off	04	Heat exchanger middle thermistor error
Outdoor unit thermistor error	3 flash	2 flash	Off	0C	Discharge pipe thermistor error
		3 flash	Off	06	Heat exchanger thermistor error
		4 flash	Off	0A	Outdoor air thermistor error
		8 flash	Off	15	Compressor thermistor error
Indoor unit control error	4 flash	2 flash	Off	20	Forced automatic switch welded
Outdoor unit control error	5 flash	2 flash	Off	17	Current trip error
		3 flash	Off	18	CT abnormal
		5 flash	Off	1A	Compressor location detection error
		6 flash	Off	1b	Outdoor unit fan drive system abnormal
Indoor fan motor error	6 flash	2 flash	Off	12	Abnormal lock
		3 flash	Off	12	Abnormal rotation
		5 flash	Off	12	Abnormal lock
		6 flash	Off	12	Abnormal lock
		Off	2 flash	2E	Limit switch for damper
		Off	3 flash	2E	Limit switch for damper
		Off	4 flash	2E	Limit switch for damper
Refrigerant cycle error	7 flash	2 flash	Off	0F	Discharge temperature abnormal
		3 flash	Off	24	Cooling high pressure abnormal rise
		6 flash	Off	2b	Compressor temperature abnormal
Optional function error	8 flash	4 flash	Off	25	PFC circuit error
Power source error	0.1 sec on/off	Off	0.1 sec on/off	08	Power source error
Model information error	0.1 sec on/off	0.1 sec on/off	0.1 sec on/off	11	Model information error

**MODELS : AGYV09LAC
AGYV12LAC
AGYV14LAC**

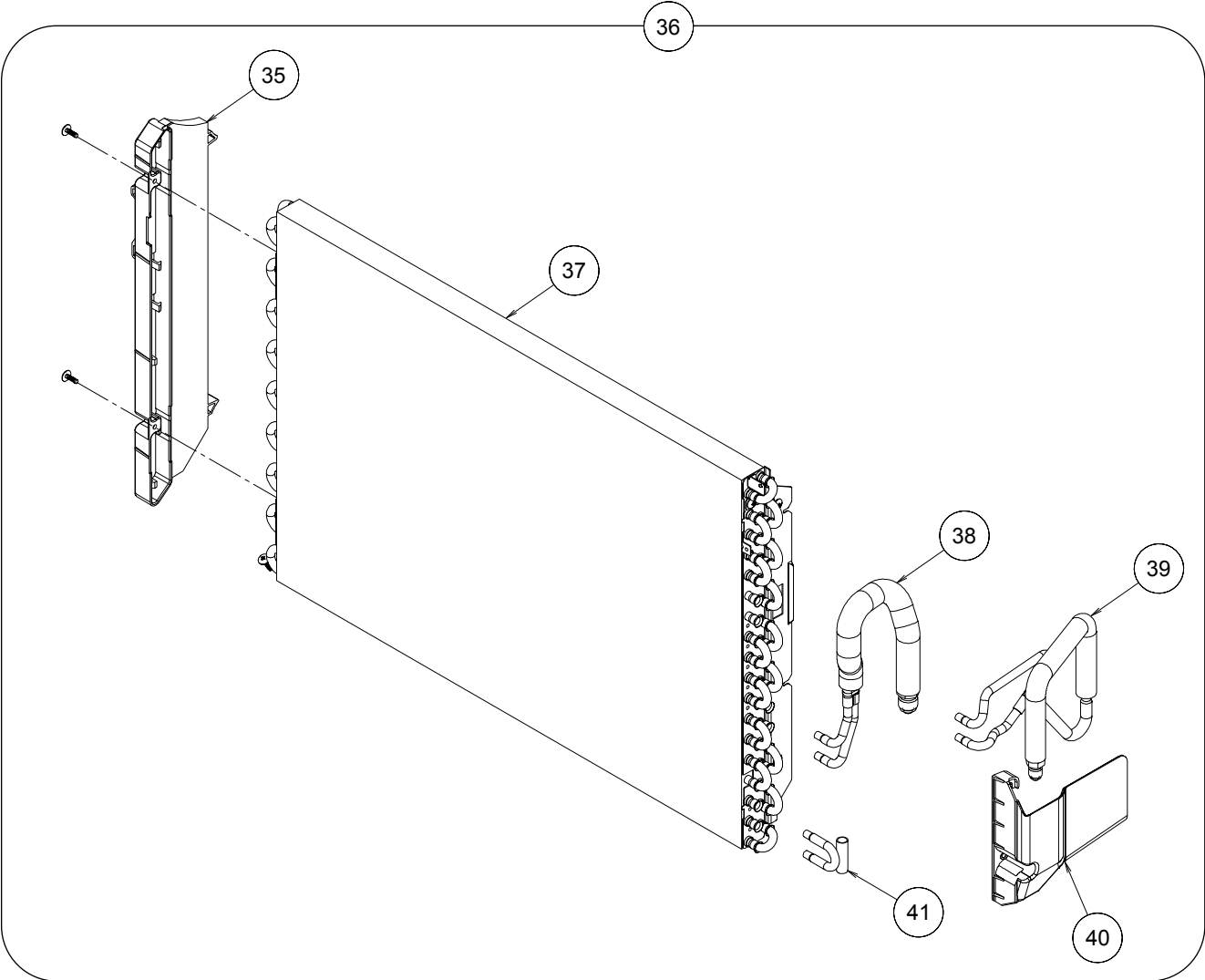
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**MODELS : AGYV09LAC
AGYV12LAC
AGYV14LAC**

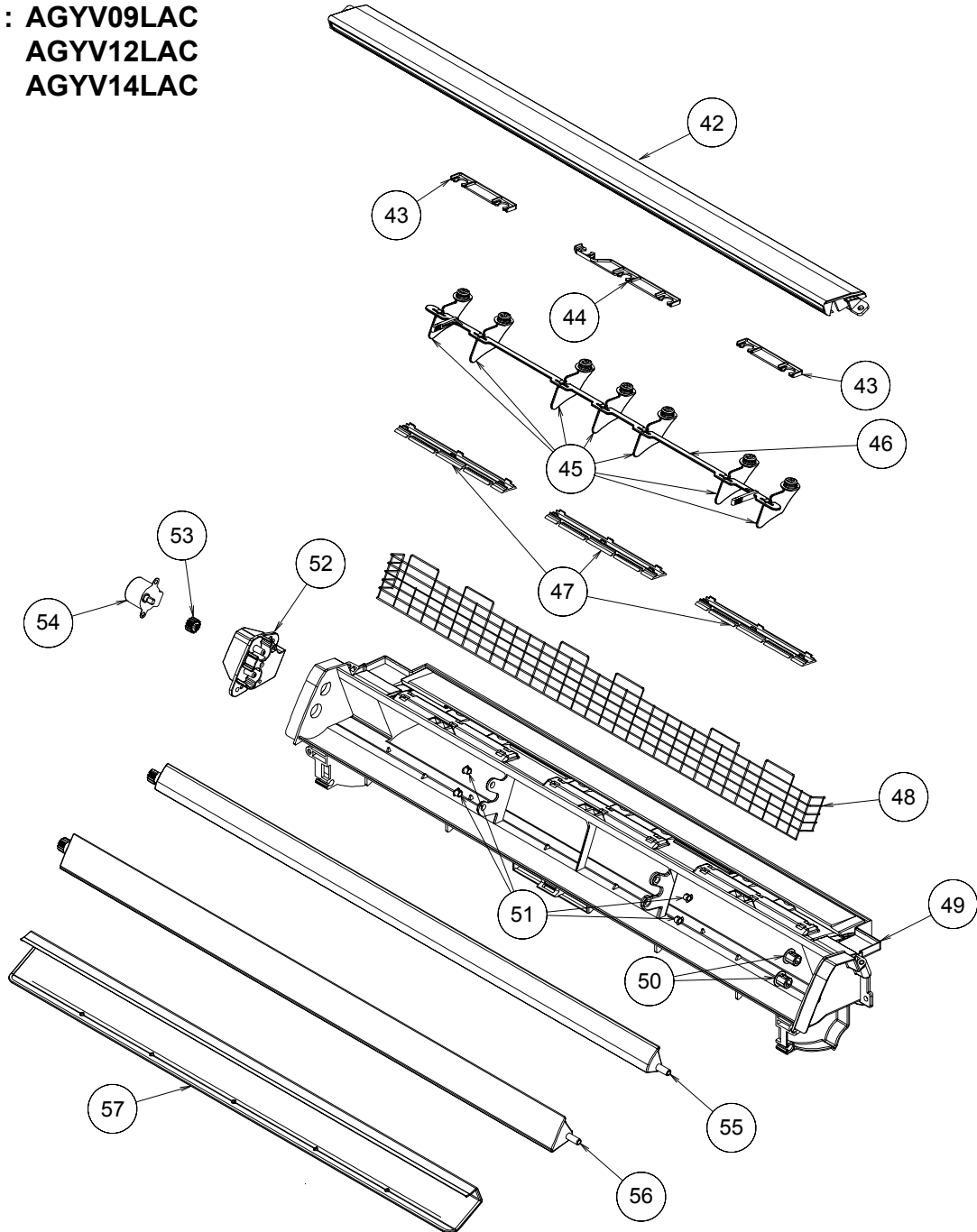


Ref No.	Description	Parts No.					Qty
		AGYV09LAC	AGYV12LAC	AGYV14LAC	-	-	
9	MOTOR CUSHION NR	9313168018	9313168018	9313168018	-	-	
10	MOTOR DC BRUSHLESS MFD-34ROM	9802108012	9802108012	9802108012	-	-	
11	MOTOR CUSHION N	9312979011	9312979011	9312979011	-	-	
12	CROSS FLOW FAN ASSY	9312004034	9312004034	9312004034	-	-	
13	BEARING C ASSY	9306628017	9306628017	9306628017	-	-	
14	TERMINAL	9900385026	9900385026	9900385026	-	-	
15	BRACKET (TERMINAL)	9316269019	9316269019	9316269019	-	-	
16	CORD CLAMP	9302271002	9302271002	9302271002	-	-	
17	COVER (TERMINAL)	9316307018	9316307018	9316307018	-	-	
18	BRACKET (PIPE)	9316270015	9316270015	9316270015	-	-	
19	BASE	9316193017	9316193017	9316193017	-	-	
20	PIPE THERMISTOR	9800425012	9800425012	9800425012	-	-	
21	DISPLAY CASE	9316194014	9316194014	9316194014	-	-	
22	DISPLAY PCB	9707571011	9707571011	9707571011	-	-	
23	DISPLAY COVER	9316191013	9316191013	9316191013	-	-	
24	THERMISTOR HOLDER	9316192010	9316192010	9316192010	-	-	
25	SLIDE SWITCH COVER	9316267015	9316267015	9316267015	-	-	
26	ROOM TEMP THERMISTOR	9700801108	9700801108	9700801108	-	-	
27	MOTOR HOLDER	9316195011	9316195011	9316195011	-	-	
28	MOTOR DC BRUSHLESS MFD-14SXM	9802481019	9802481019	9802481019	-	-	
29	CROSS FLOW FAN B ASSY	9316309012	9316309012	9316309012	-	-	
30	CONTROL COVER	9316201019	9316201019	9316201019	-	-	
31	CONTROLLER PCB	9707505016	9707505023	9707505030	-	-	
32	CONTROL BOX	9316200012	9316200012	9316200012	-	-	
33	CONTROL INNER COVER	9316487017	9316487017	9316487017	-	-	
34	SEALED PANEL	9316441019	9316441019	9316441019	-	-	

**MODELS : AGYV09LAC
AGYV12LAC
AGYV14LAC**

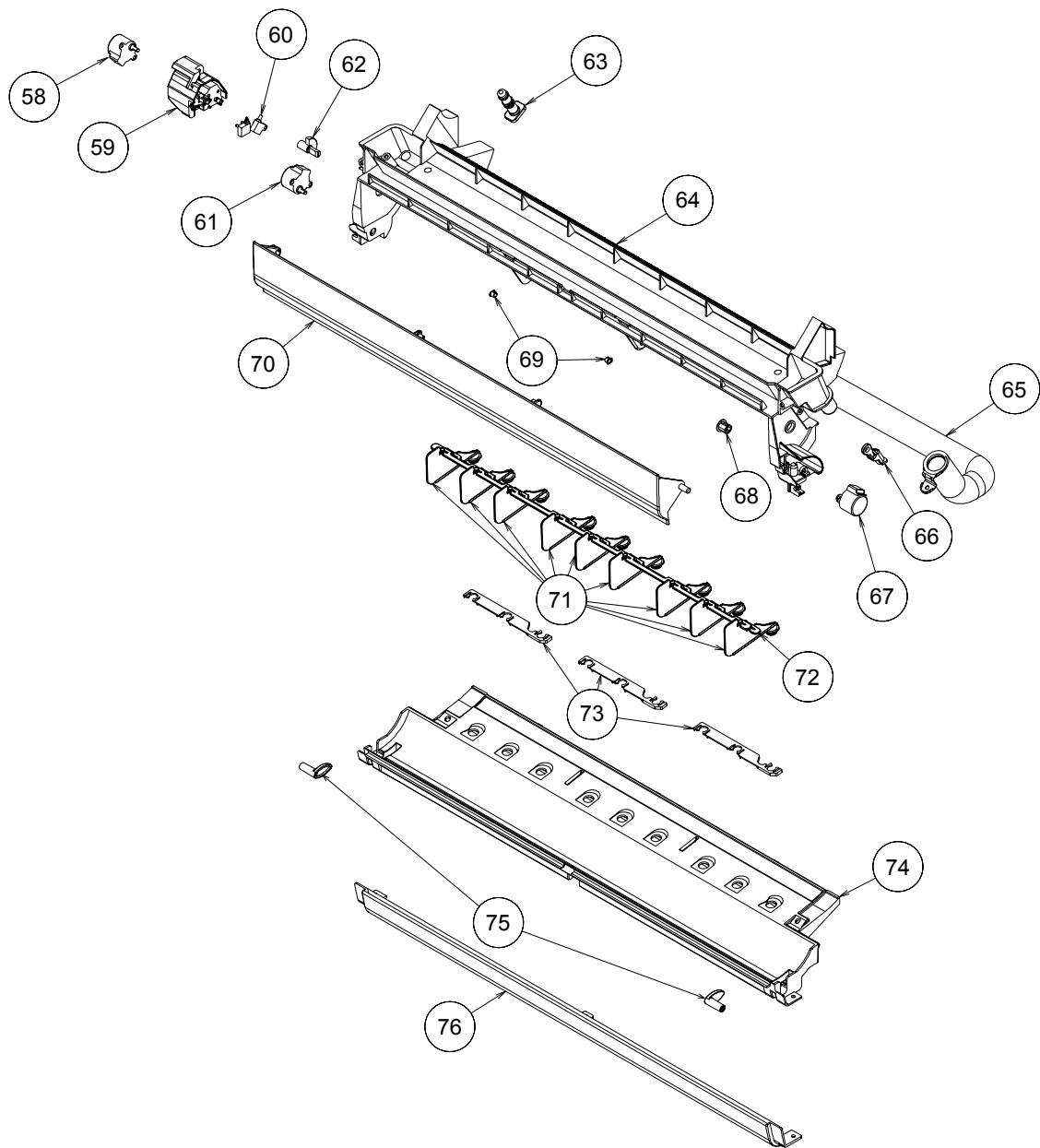
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**MODELS : AGYV09LAC
AGYV12LAC
AGYV14LAC**



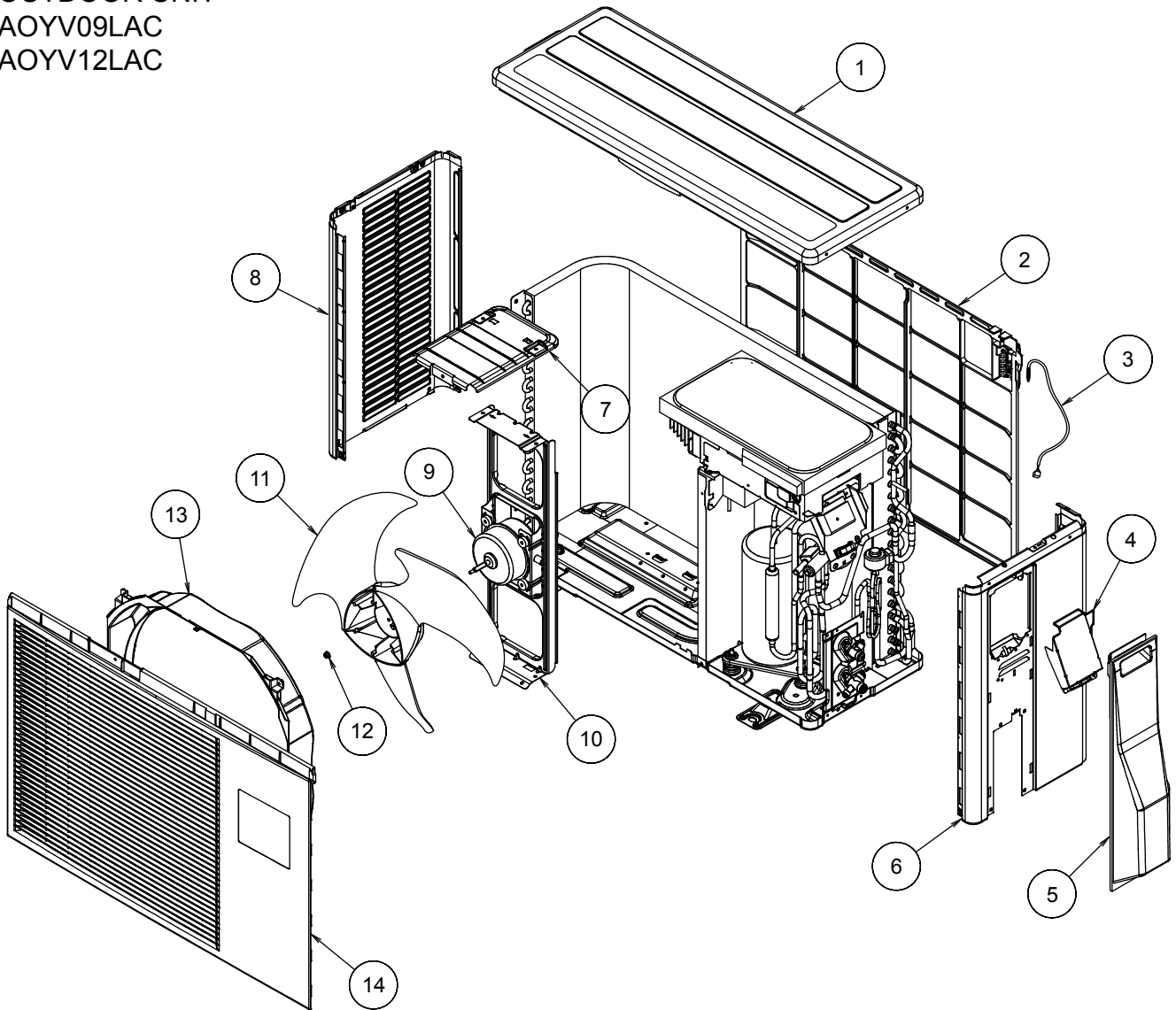
Ref No.	Description	Parts No.					Q'ty
		AGYV09LAC	AGYV12LAC	AGYV14LAC	-	-	
42	TOP COVER	9316207011	9316207011	9316207011	-	-	
43	SPACER C	9315281012	9315281012	9315281012	-	-	
44	SPACER D	9315282019	9315282019	9315282019	-	-	
45	R AND L LOUVER U	9316208018	9316208018	9316208018	-	-	
46	JOINT U	9316209015	9316209015	9316209015	-	-	
47	HOLDER (GUARD)	9316210011	9316210011	9316210011	-	-	
48	GUARD (FAN)	9316211018	9316211018	9316211018	-	-	
49	CASING	9316204010	9316204010	9316204010	-	-	
50	BUSING B	9312156016	9312156016	9312156016	-	-	
51	BUSING A	9303529010	9303529010	9303529010	-	-	
52	GEAR CASE	9316213012	9316213012	9316213012	-	-	
53	GEAR A	9309994003	9309994003	9309994003	-	-	
54	MOTOR STEP (UP/DOWN)	9900384043	9900384043	9900384043	-	-	
55	LOUVER U	9316205017	9316205017	9316205017	-	-	
56	LOUVER Z	9316206014	9316206014	9316206014	-	-	
57	REF (CASING)	9316378018	9316378018	9316378018	-	-	

MODELS : AGYV09LAC
AGYV12LAC
AGYV14LAC

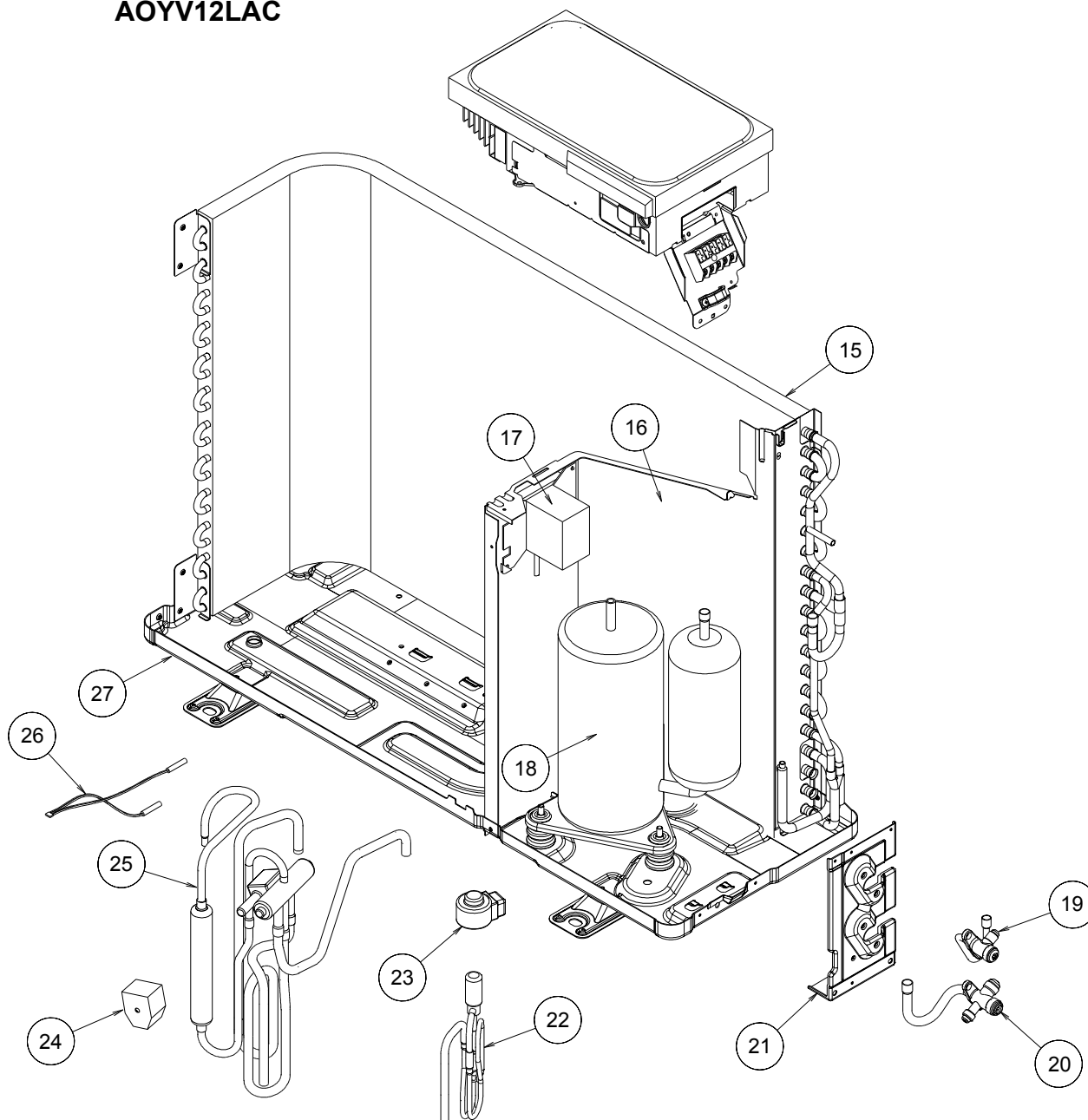


Ref No.	Description	Parts No.					Q'ty
		AGYV09LAC	AGYV12LAC	AGYV14LAC	-	-	
58	MOTOR STEP (DAMPER)	9900384050	9900384050	9900384050	-	-	
59	LIMIT SWITCH COVER	9316217010	9316217010	9316217010	-	-	
60	SWITCH MICRO	9900424015	9900424015	9900424015	-	-	
61	MOTOR STEP (DAMPER LOCK LEFT)	9900384067	9900384067	9900384067	-	-	
62	KEY TOP	9316218017	9316218017	9316218017	-	-	
63	CAP (DRAIN)	9316177017	9316177017	9316177017	-	-	
64	DRAIN PAN U	9316214019	9316214019	9316214019	-	-	
65	HOSE (DRAIN) ASSY	9314147029	9314147029	9314147029	-	-	
66	HOLDER (DRAIN HOSE)	9316384019	9316384019	9316384019	-	-	
67	MOTOR STEP (DAMPER LOCK RIGHT)	9900384074	9900384074	9900384074	-	-	
68	BUSING B	9312156016	9312156016	9312156016	-	-	
69	BUSING A	9303529010	9303529010	9303529010	-	-	
70	DAMPER	9316216013	9316216013	9316216013	-	-	
71	R AND L LOUVER Z	9316334014	9316334014	9316334014	-	-	
72	JOINT Z	9316335011	9316335011	9316335011	-	-	
73	SPACER D	9315282019	9315282019	9315282019	-	-	
74	DRAIN PAN Z	9316215016	9316215016	9316215016	-	-	
75	STOPPER	9316219014	9316219014	9316219014	-	-	
76	COVER (LOWER)	9316374010	9316374010	9316374010	-	-	

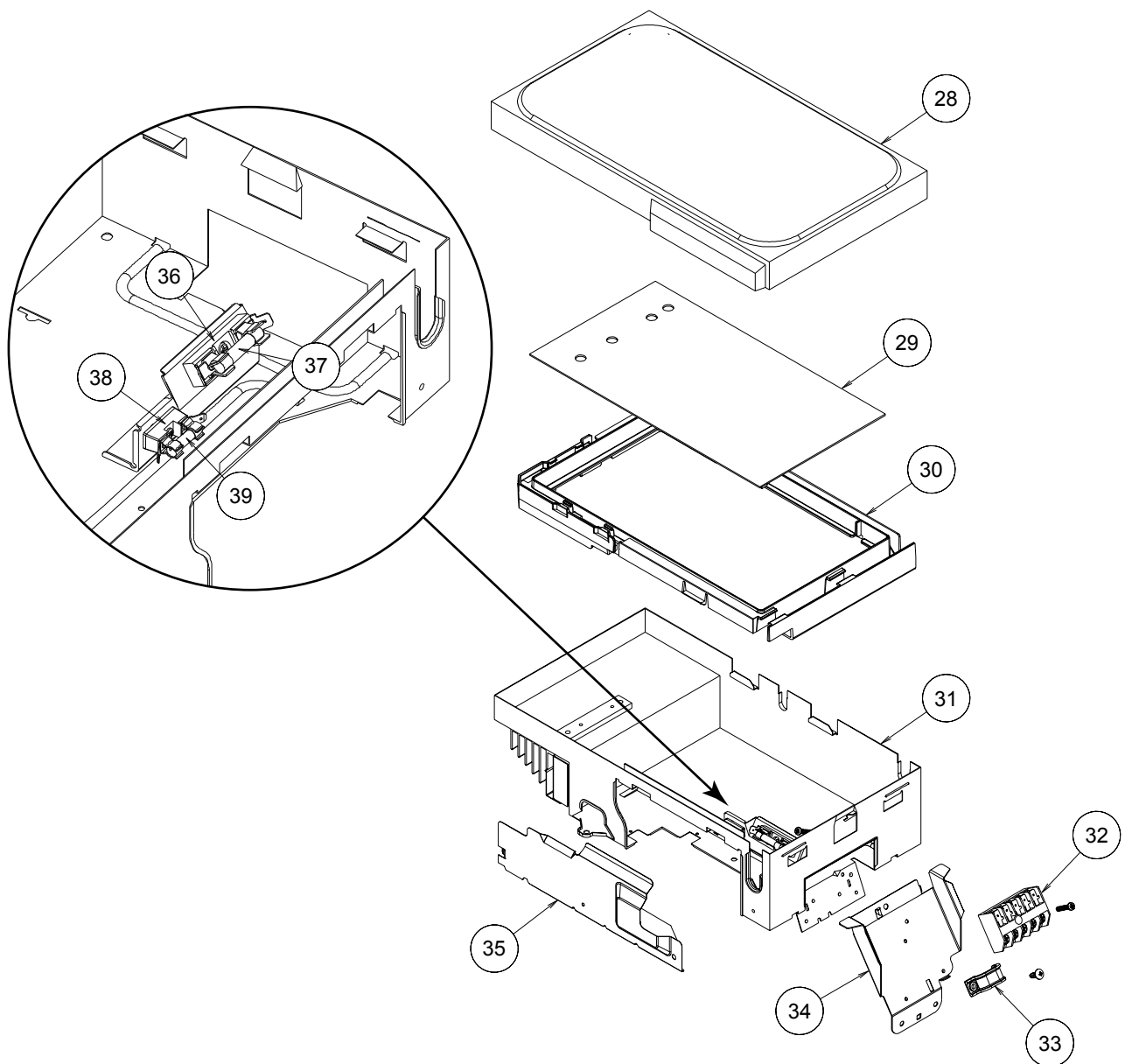
OUTDOOR UNIT
AOYV09LAC
AOYV12LAC

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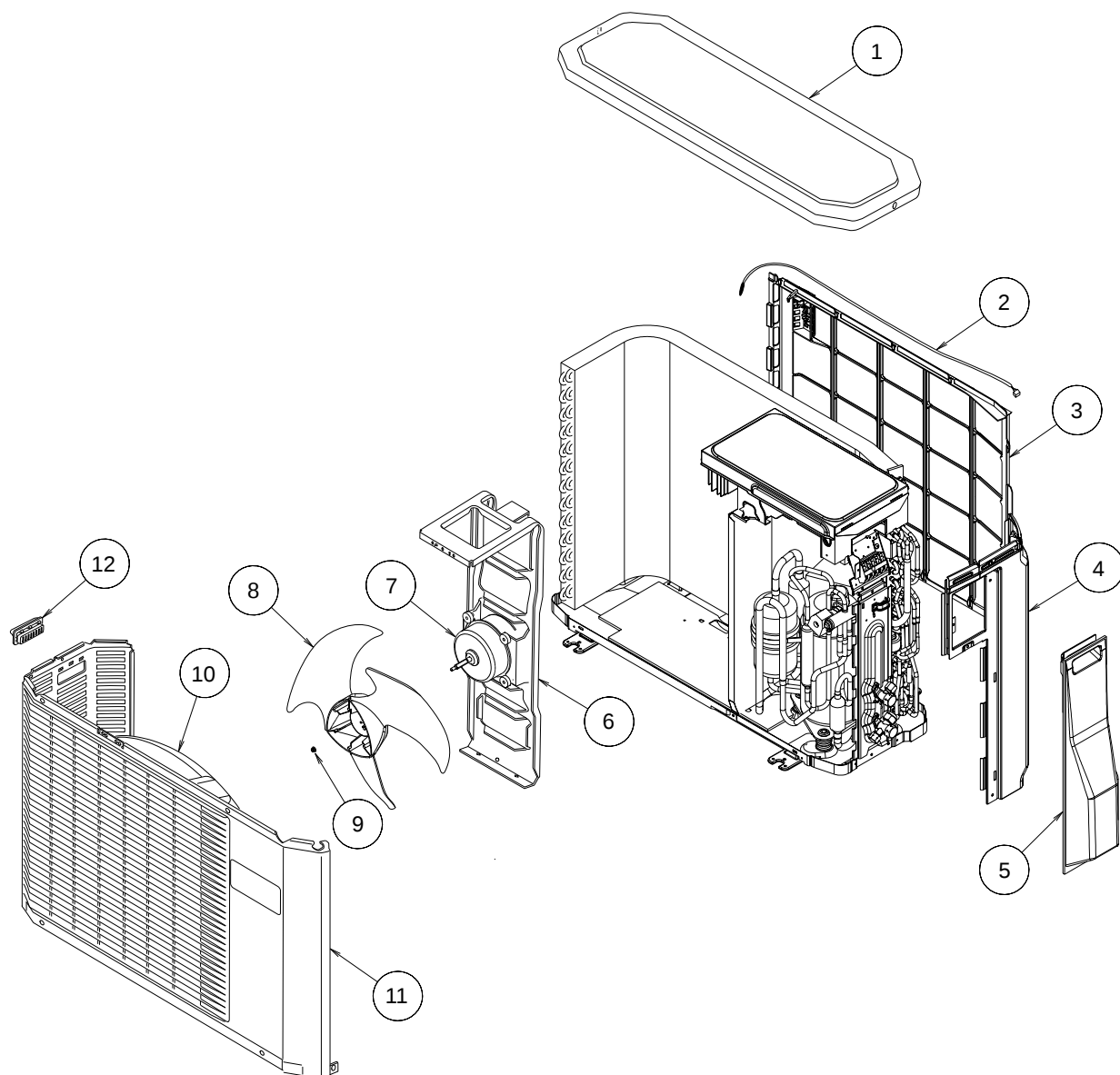
**MODELS : AOYV09LAC
AOYV12LAC**

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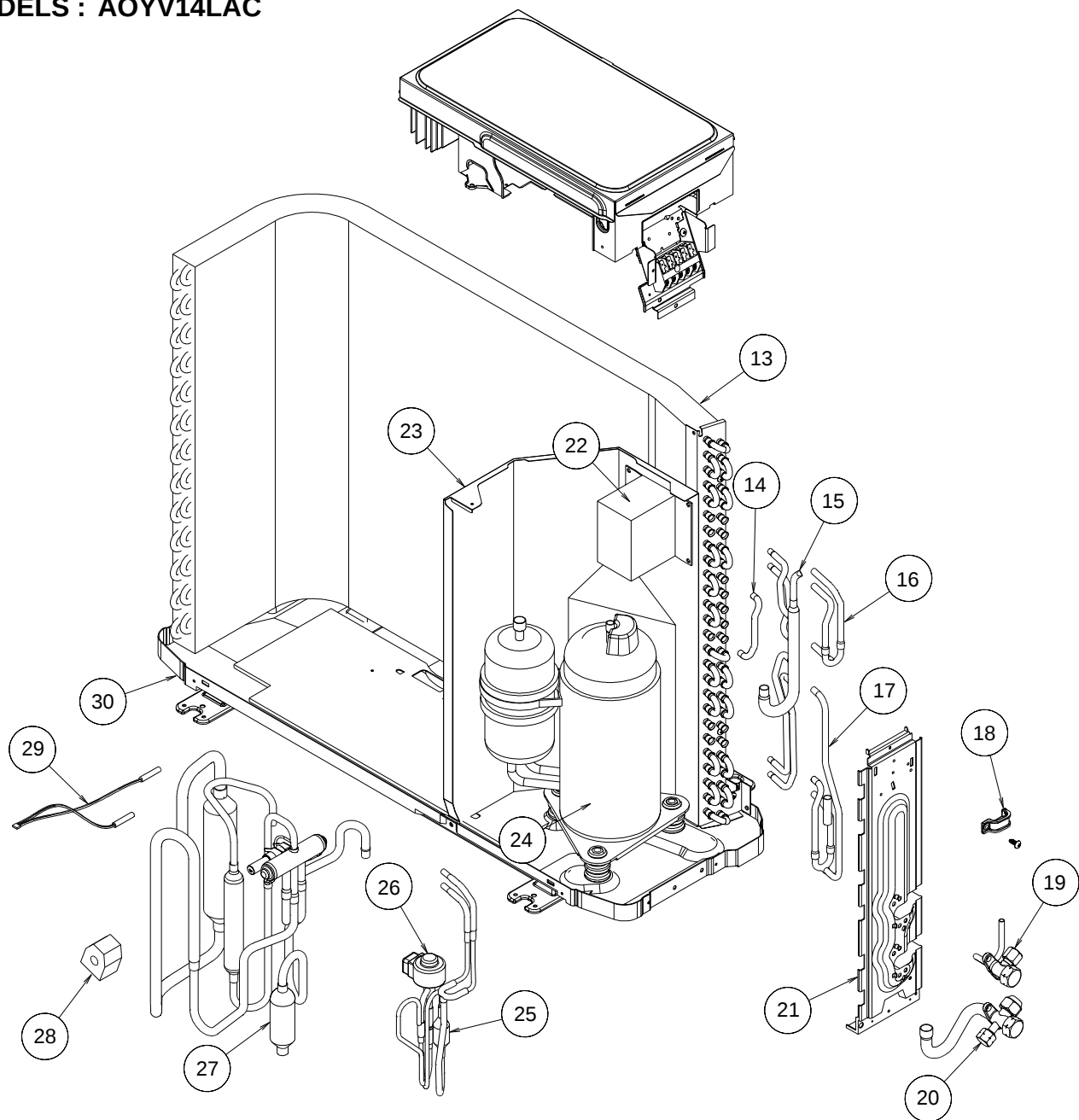
**MODELS : AOYV09LAC
AOYV12LAC**

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MODELS : AOYV14LAC

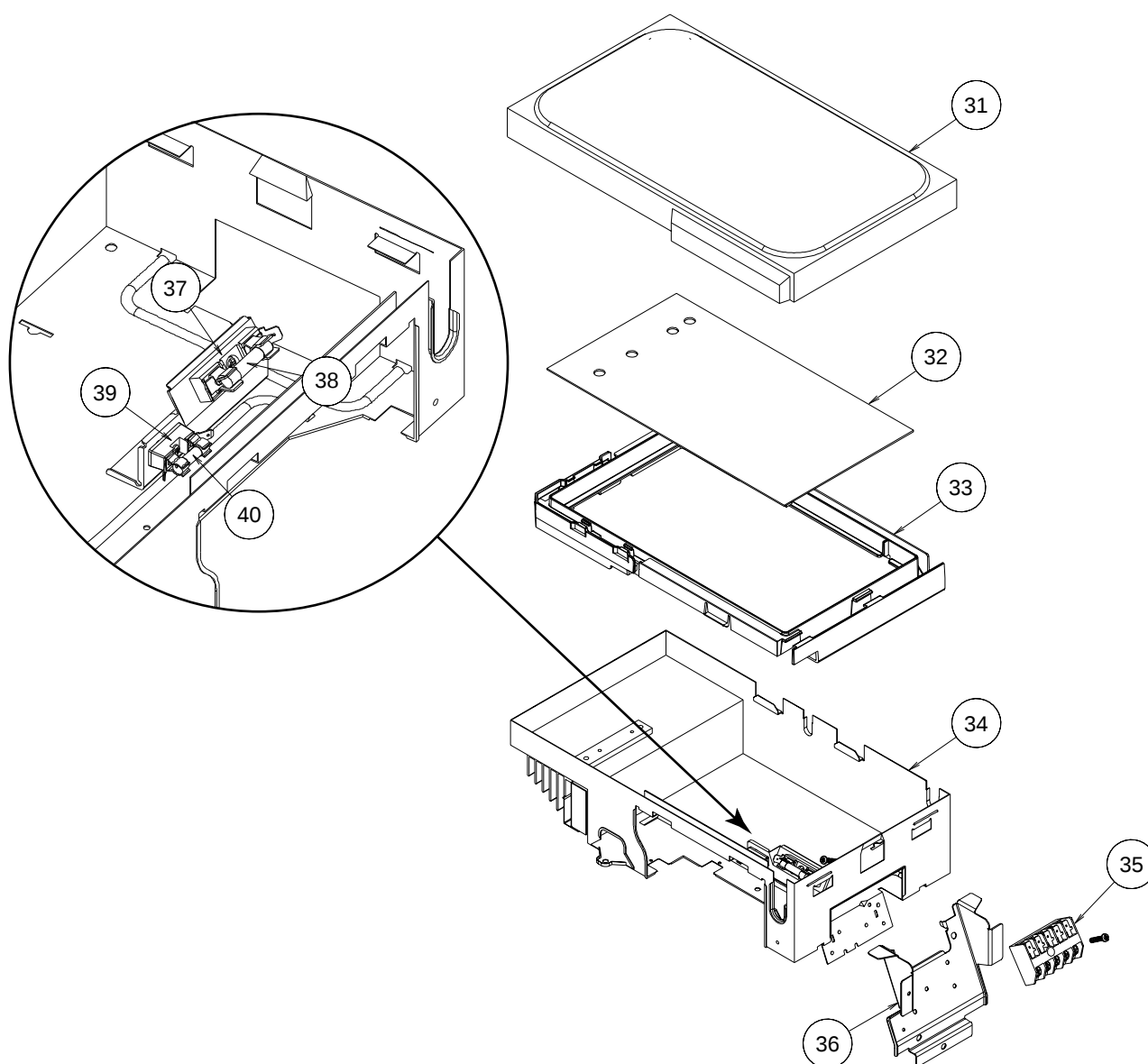
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MODELS : AOYV14LAC



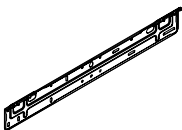
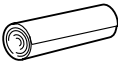
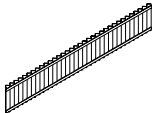
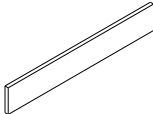
Ref No.	Description	Parts No.					Q'ty
		AOYV14LAC	-	-	-	-	
13	CONDENSER ASSY	9311382065	-	-	-	-	
14	JOINT E	9309495005	-	-	-	-	
15	ENTRANCE PIPE ASSY	9310812013	-	-	-	-	
16	JOINT PIPE ASSY A	9309488007	-	-	-	-	
17	JOINT PIPE ASSY B	9311287018	-	-	-	-	
18	CORD CLAMP	9307271014	-	-	-	-	
19	2-WAY VALVE ASSY	9313064013	-	-	-	-	
20	3-WAY VALVE ASSY	9315159014	-	-	-	-	
21	BRACKET (VALVE)	9308870025	-	-	-	-	
22	REACTOR ASSY	9900354015	-	-	-	-	
23	SEPARATER ASSY	9312971015	-	-	-	-	
24	COMPRESSOR ASSY	9313763022	-	-	-	-	
25	PULSE MOTOR VALVE ALL ASSY	9311641018	-	-	-	-	
26	COIL (EXPANSION VALVE)	9900057039	-	-	-	-	
27	VALVE (4-WAY) ASSY	9316475014	-	-	-	-	
28	SOLENOID	9970033018	-	-	-	-	
29	THERMISTOR ASSY (DISCHARGE, PIPE)	9900148027	-	-	-	-	
30	BASE ASSY PAINTED	9308869081	-	-	-	-	

MODELS : AOYV14LAC

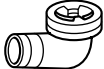
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STANDARD ACCESSORIES

INDOOR UNIT

Name and Shape	Q'ty	Use	Part No.
Bracket panel 	1	For indoor unit installation	9316272019
Remote control unit AR-RAC1E 	1	Use for air conditioner operation	9316397019
Battery (penlight) 	2	For remote control unit	0600185527
Cloth tape 	1	For indoor unit installation	9310519004
Remote control unit holder 	1	Use as remote control unit holder	9305642045
Tpping screw (big) ($\phi 4 \times 25$) 	9	For wall hook bracket and body installation	0700076046
Tpping screw (small) ($\phi 3 \times 12$) 	2	For remote control unit holder installation	0700019036
Electric filter UTR-FC03-2 	1	With 2 sheets	9312832002
Ion deodrant filter UTR-FC03-3 	1	With 2 sheets	9312833009

OUTDOOR UNIT

Name and Shape	Q'ty	Use	Part No.	
			AOYV09/12LAC	AOYV14LAC
Drain pipe assy 	1	For outdoor unit drain piping work	9303029022	9303029015

