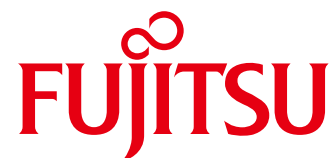


SPLIT TYPE
ROOM AIR CONDITIONER
WALL MOUNTED TYPE



SERVICE MANUAL



Indoor unit	Outdoor unit
ASYG07LLCE	AOYG07LLCE
ASYG09LLCE	AOYG09LLCE

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SPECIFICATIONS

ELECTRICAL DATA

INDOOR UNIT		ASYG07LLCE	ASYG09LLCE
OUTDOOR UNIT		AOYG07LLCE	AOYG09LLCE
POWER SOURCE		230 V 50 Hz Single phase	
Cooling	CAPACITY	2.00 kW	2.50 kW
	POWER CONSUMPTION	0.47 kW	0.73 kW
	EER	4.26 kW/kW	3.42 kW/kW
	RUNNING CURRENT	2.6 A	3.5 A
	MAXIMUM CURRENT	6.0 A	6.0 A
	MOISTURE REMOVAL	1.0 L/h	1.3 L/h
Heating	CAPACITY	2.70 kW	3.00 kW
	POWER CONSUMPTION	0.62 kW	0.74 kW
	COP	4.35 kW/kW	4.05 kW/kW
	RUNNING CURRENT	3.0 A	3.5 A
	MAXIMUM CURRENT	7.5 A	7.5 A

DIMENSIONS

INDOOR UNIT H x W x D	262 x 820 x 206 mm
OUTDOOR UNIT H x W x D	535 x 663 x 293 mm

WEIGHT

INDOOR UNIT Net / Shipping	7.0 kg / 9.0 kg
OUTDOOR UNIT Net / Shipping	24 kg / 27 kg

FAN MOTOR AND FAN REVOLUTION

INDOOR UNIT'S Discrimination		MFD-12BYW
OUTDOOR UNIT'S Discrimination		MFE-22AVAL
INDOOR UNIT Cooling	High	1,320 rpm
	Medium	1,120 rpm
	Low	840 rpm
	Quiet	700 rpm
INDOOR UNIT Heating	High	1,360 rpm
	Medium	1,120 rpm
	Low	900 rpm
	Quiet	700 rpm
OUTDOOR UNIT	Cooling	730 rpm
	Heating	650 rpm

AIRFLOW

INDOOR UNIT Cooling	High	720 m ³ /h
	Medium	600 m ³ /h
	Low	420 m ³ /h
	Quiet	325 m ³ /h
INDOOR UNIT Heating	High	740 m ³ /h
	Medium	600 m ³ /h
	Low	450 m ³ /h
	Quiet	325 m ³ /h
OUTDOOR UNIT	Cooling	1,670 m ³ /h
	Heating	1,470 m ³ /h

NOISE LEVEL

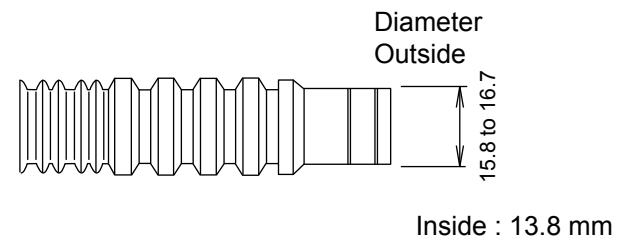
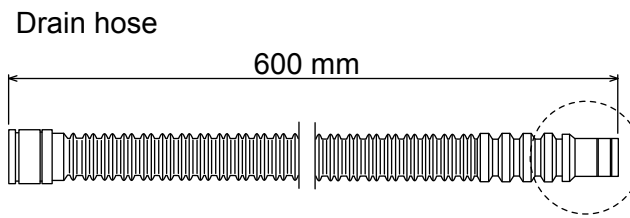
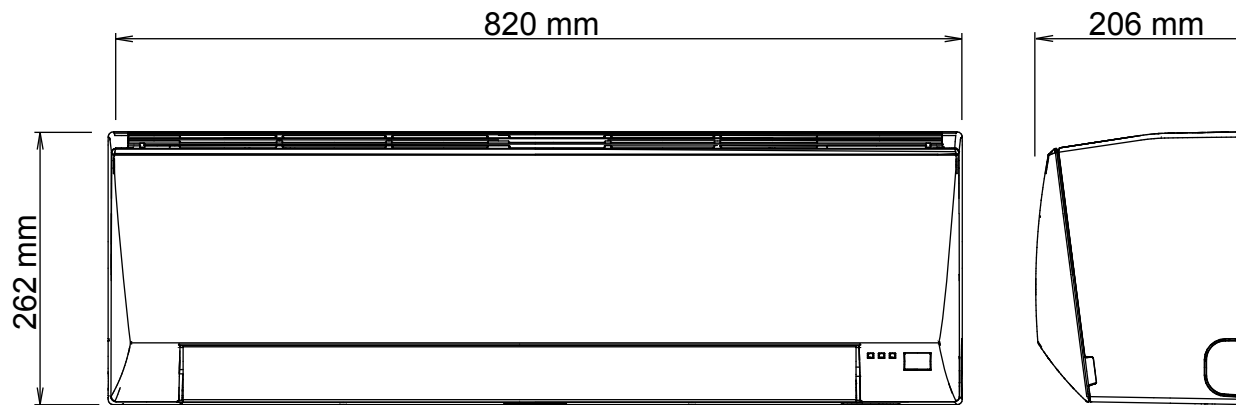
INDOOR UNIT Cooling	High	43 dB
	Medium	38 dB
	Low	33 dB
INDOOR UNIT Heating	High	43 dB
	Medium	38 dB
	Low	33 dB
OUTDOOR UNIT	Cooling	47 dB
	Heating	48 dB

COMPRESSOR AND REFRIGERANT

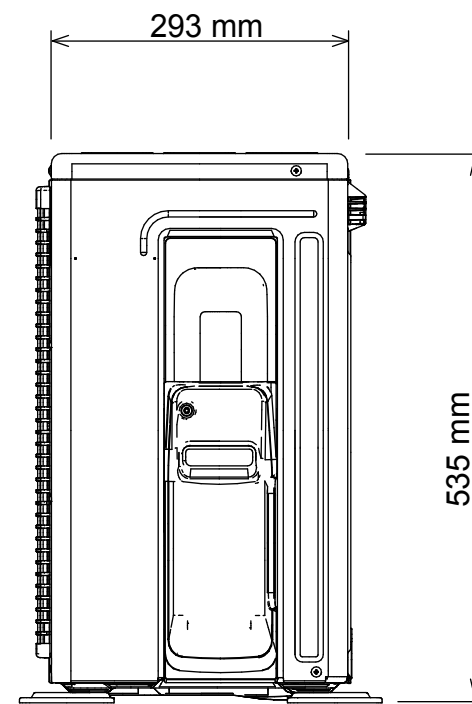
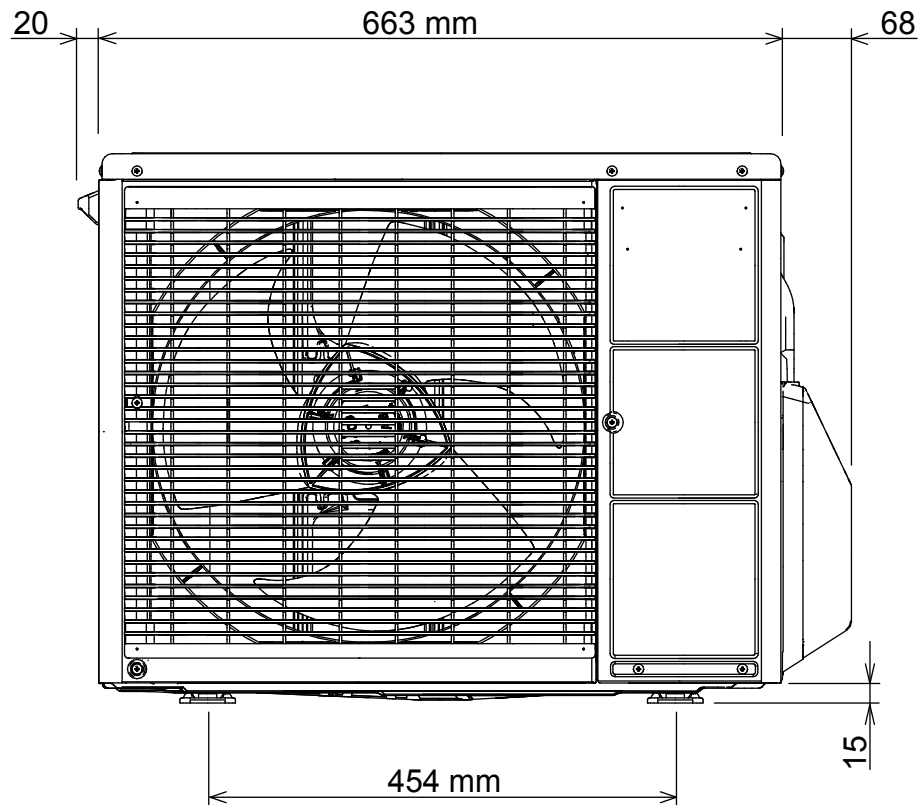
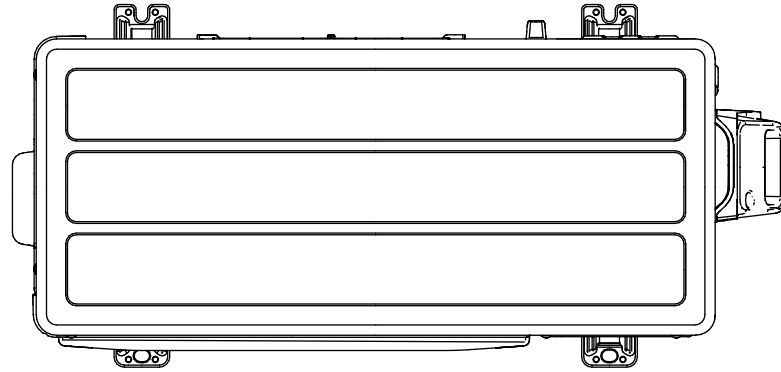
COMPRESSOR TYPE	Hermetic type, 4 pole, 3 phase, DC inverter motor, Rotary	
DISCRIMINATION	ASM89D10UFZB	
WEIGHT (with oil)	6.0 kg	
PRECHARGED REFRIGERANT	650 g	
REFRIGERANT TYPE	R410A	
FULL CHARGE	Pipe length 15 m	650 g
	20 m	750 g
ADDITIONAL CHARGE	20 g/m	
MAXIMUM PIPING HEIGHT	15 m	

DIMENSIONS

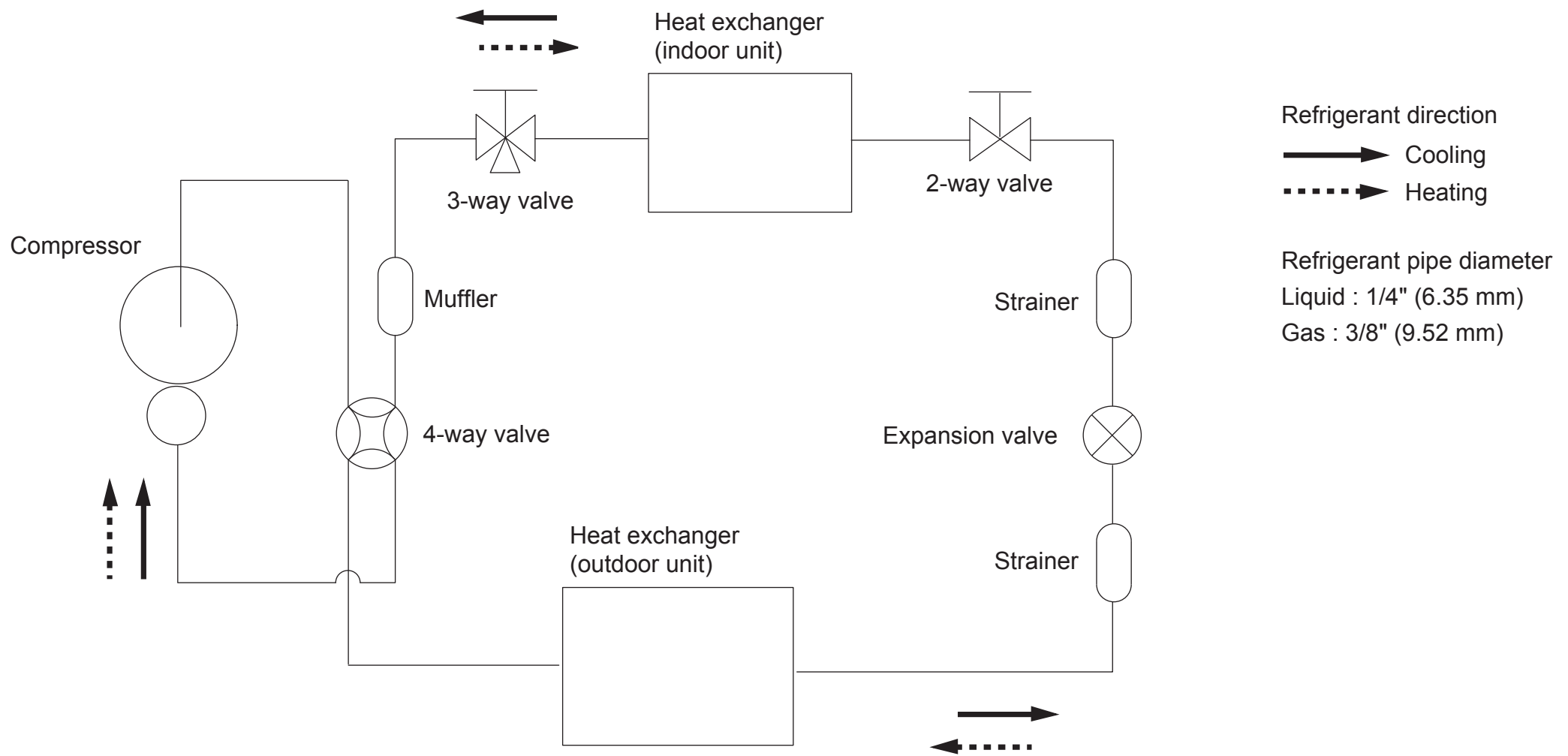
INDOOR UNIT



OUTDOOR UNIT



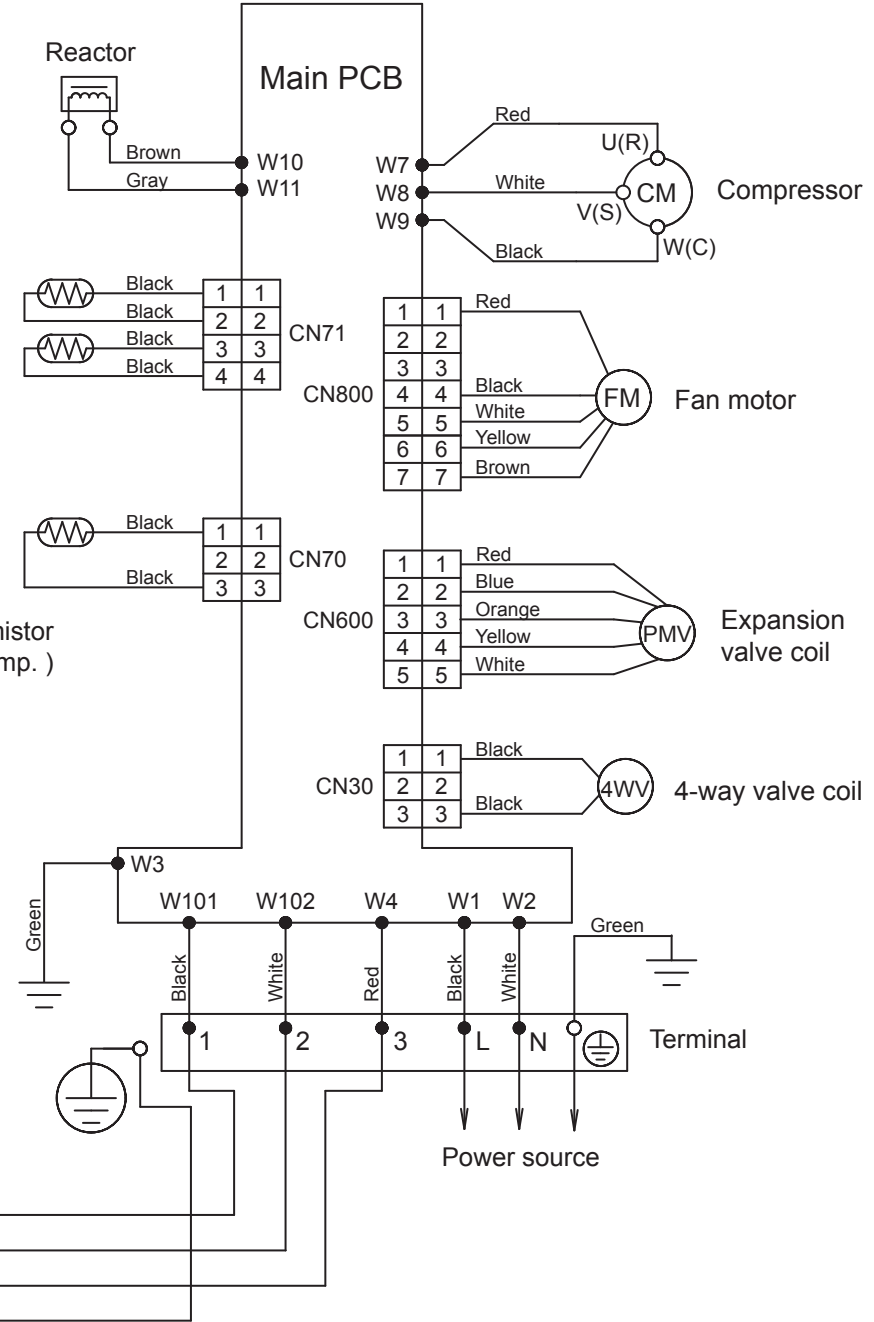
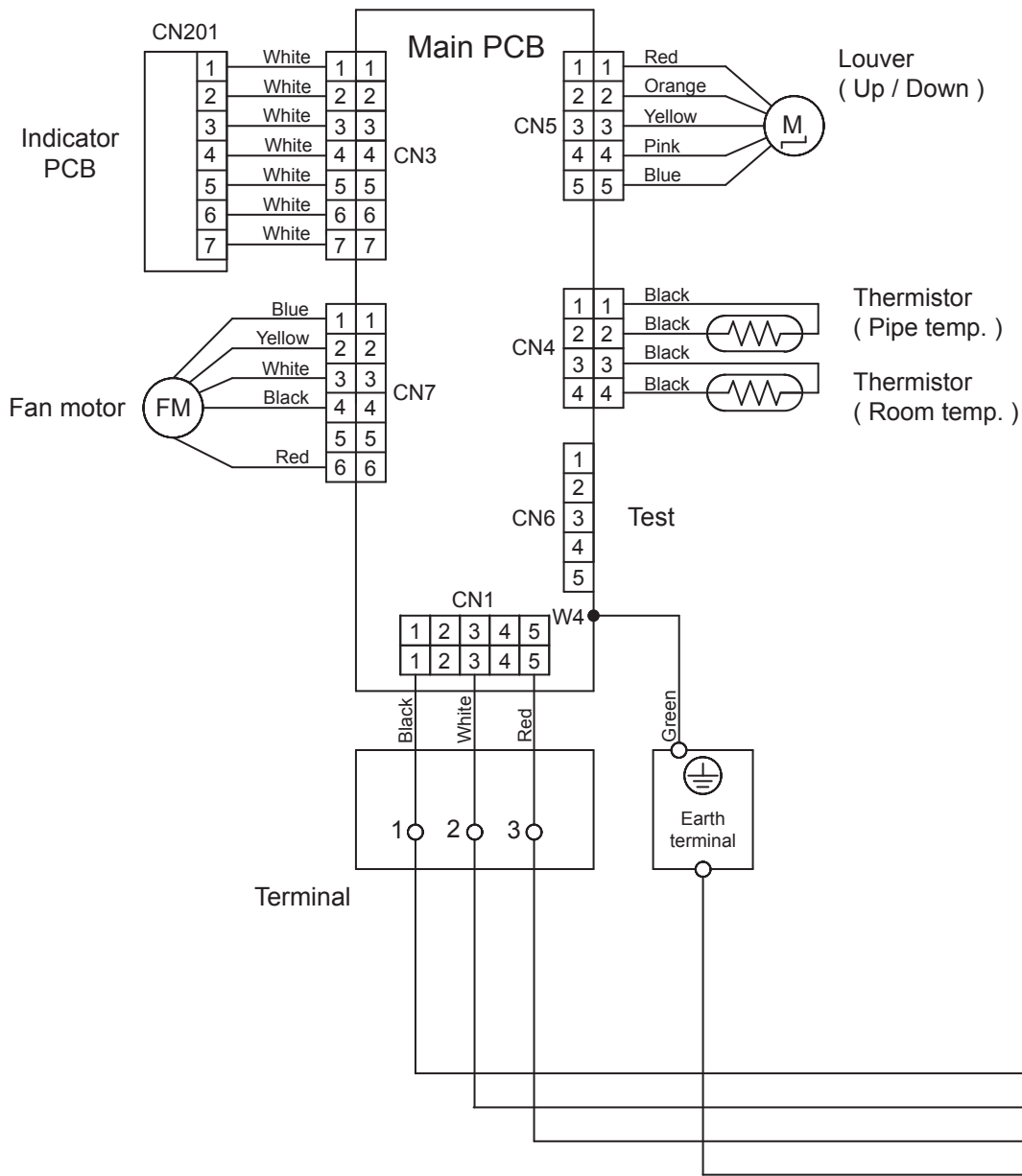
REFRIGERANT SYSTEM DIAGRAM



CIRCUIT DIAGRAM

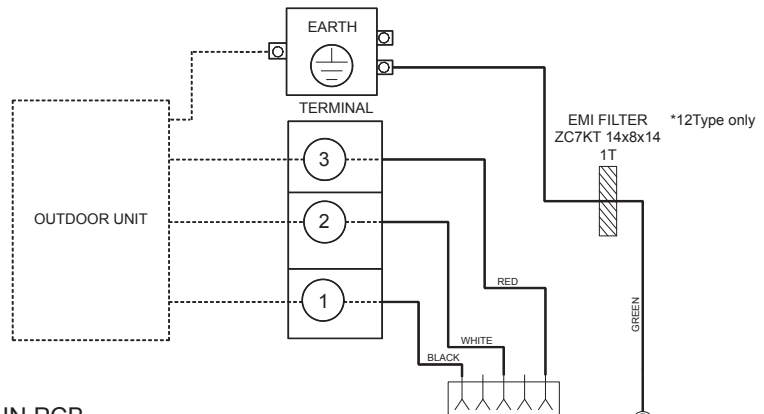
OUTDOOR UNIT

INDOOR UNIT



PCB CIRCUIT DIAGRAM

CONTROL UNIT
 ASYG07LLCE : EZ-0131HHSE
 ASYG09LLCE : EZ-0131KHSE



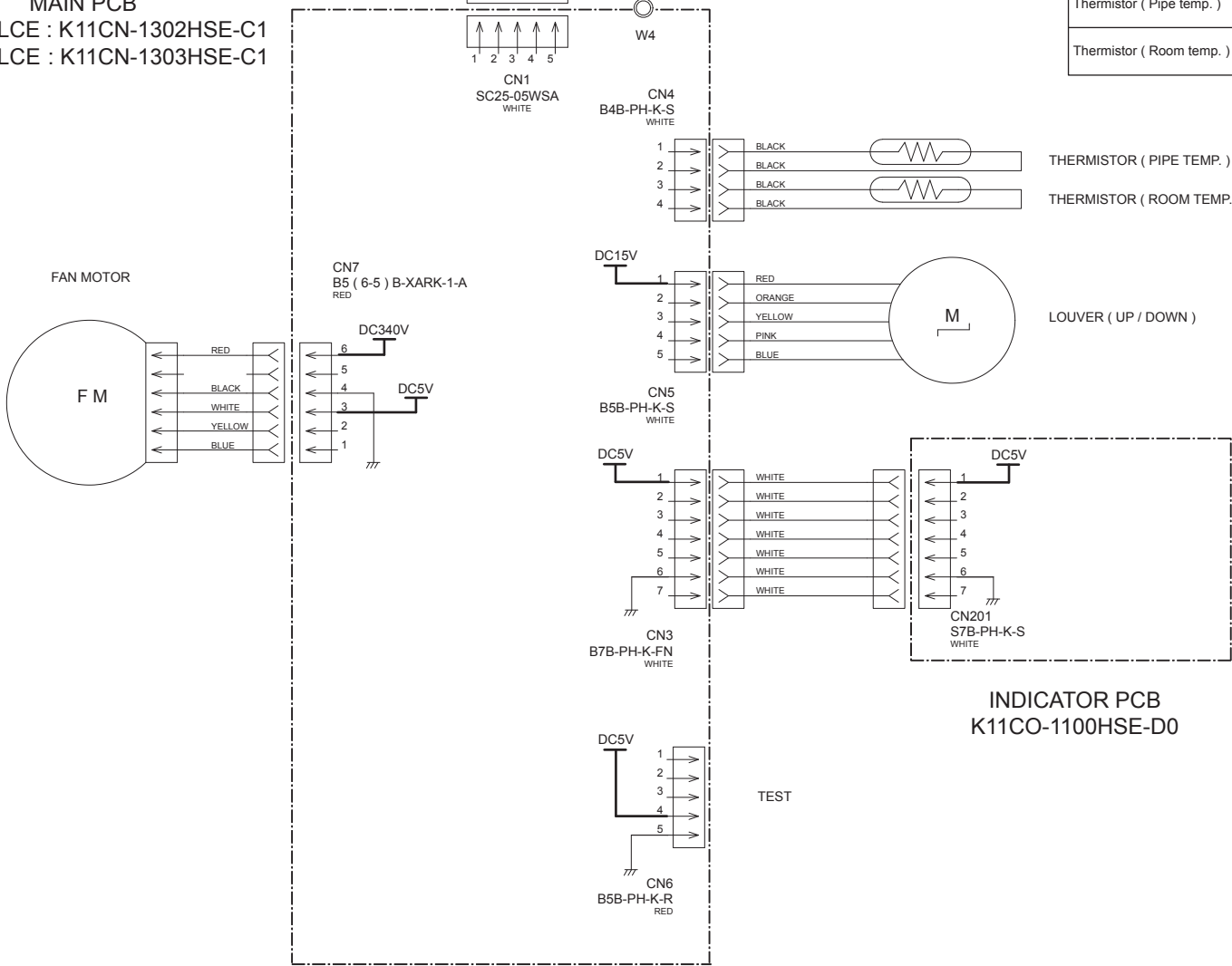
MAIN PCB
 ASYG07LLCE : K11CN-1302HSE-C1
 ASYG09LLCE : K11CN-1303HSE-C1

CN4
 Thermistor Characteristics.

Thermistor	Temperature		
	(0°C)	(20°C)	(30°C)
Thermistor (Pipe temp.)	176.0 k Ω 1.1 V	62.9 k Ω 2.2 V	39.6 k Ω 2.8 V
Thermistor (Room temp.)	33.6 k Ω 1.1 V	12.5 k Ω 2.2 V	8.0 k Ω 2.8 V

CN7

Pin No.	Terminal code	Function of terminal	Lead wire color
6	Vm	Motor power voltage input	Red
5	—	—	—
4	GND	GND	Black
3	Vcc	Control power voltage input	White
2	Vsp	Speed control voltage input	Yellow
1	FG	Revolution pulse output	Blue

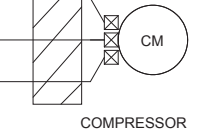


I NVERTER ASSEMBLY
 AOYG07LLCE : EZ-0131MHUE
 AOYG09LLCE : EZ-0131PHUE

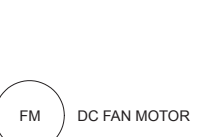
Compressor
Winding resistance

U-V	1.30 Ω (20°C)
V-W	
U-W	

EMI FILTER
ESD-R-16C e.t.c.
2 TURNS



4-WAY VALVE COIL
DC Resistance 1320 Ω ± 10% (20°C)



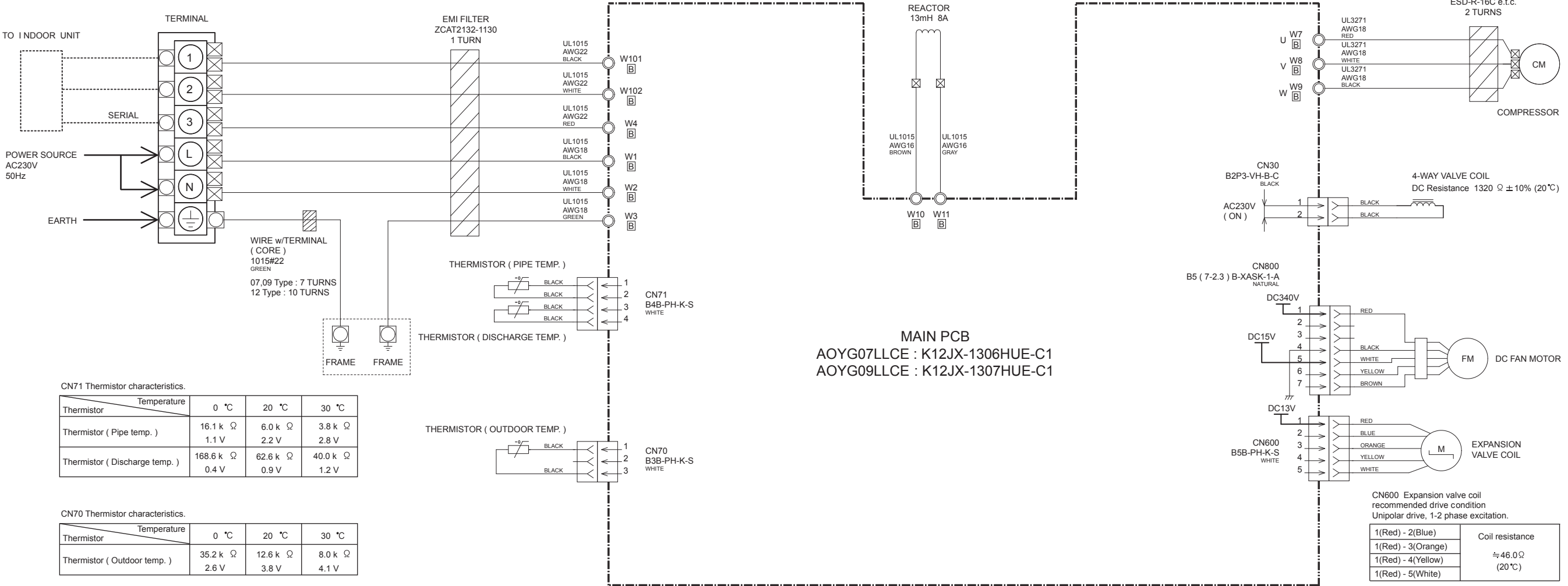
CN600 Expansion valve coil recommended drive condition
Unipolar drive, 1-2 phase excitation.

1(Red) - 2(Blue)	Coil resistance ≈ 46.0 Ω (20°C)
1(Red) - 3(Orange)	
1(Red) - 4(Yellow)	
1(Red) - 5(White)	

CN800 DC Fan motor

Pin No.	Terminal code	Function of terminal	Lead wire color
1	Vm	Motor power voltage input	Red
2	—	—	—
3	—	—	—
4	GND	GND	Black
5	Vcc	Control power voltage input	White
6	Vsp	Speed control voltage input	Yellow
7	FG	Revolution pulse output	Brown

MAIN PCB
 AOYG07LLCE : K12JX-1306HUE-C1
 AOYG09LLCE : K12JX-1307HUE-C1



WIRE w/TERMINAL
(CORE)
1015#22
GREEN
07,09 Type : 7 TURNS
12 Type : 10 TURNS

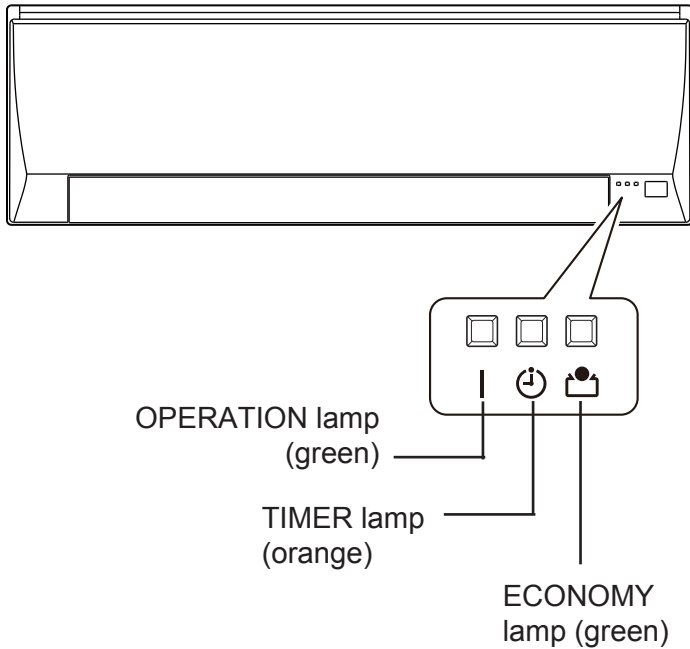
CN71 Thermistor characteristics.

Thermistor	Temperature	0 °C	20 °C	30 °C
Thermistor (Pipe temp.)		16.1 k Ω	6.0 k Ω	3.8 k Ω
		1.1 V	2.2 V	2.8 V
Thermistor (Discharge temp.)		168.6 k Ω	62.6 k Ω	40.0 k Ω
		0.4 V	0.9 V	1.2 V

CN70 Thermistor characteristics.

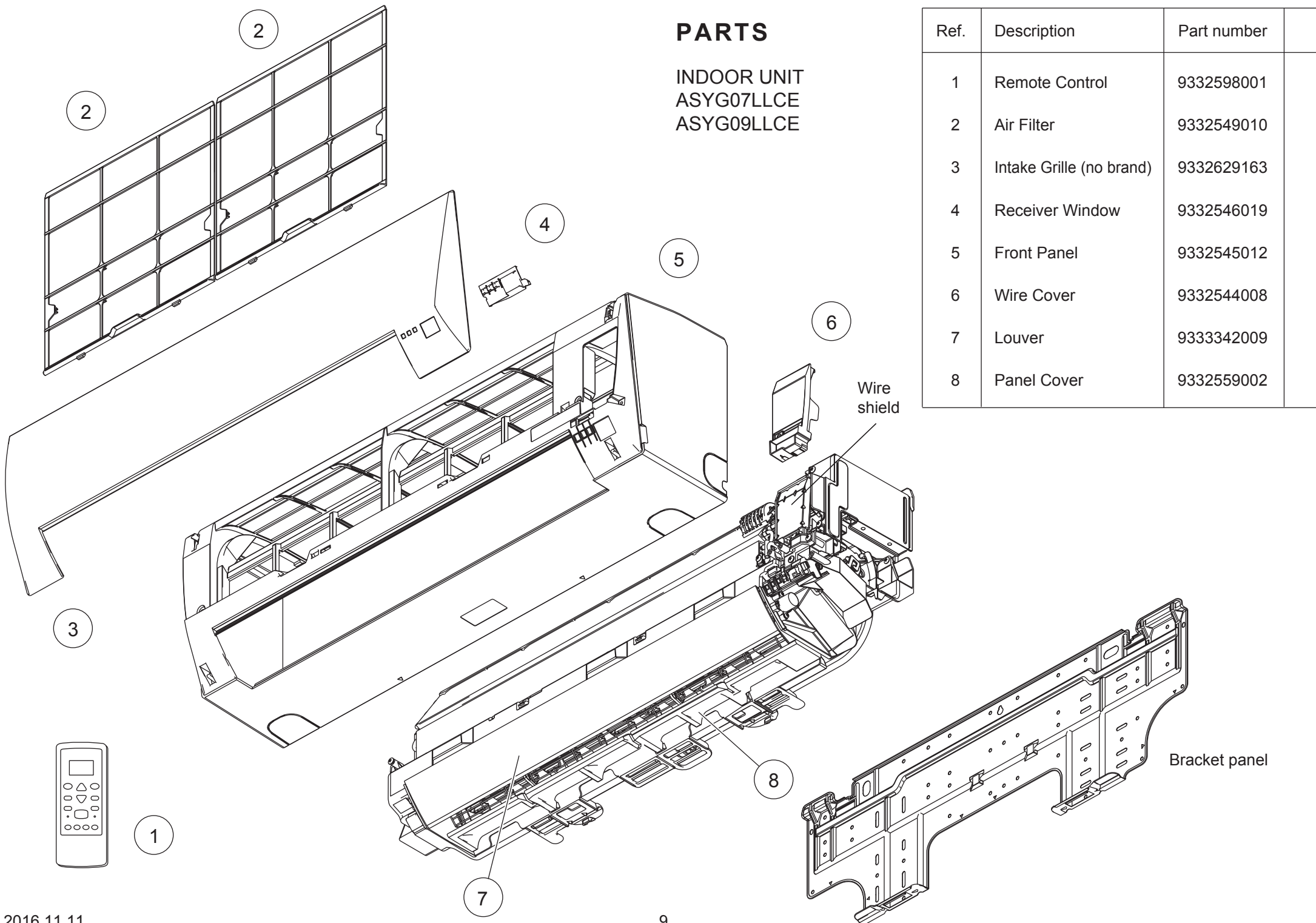
Thermistor	Temperature	0 °C	20 °C	30 °C
Thermistor (Outdoor temp.)		35.2 k Ω	12.6 k Ω	8.0 k Ω
		2.6 V	3.8 V	4.1 V

ERROR DETECTION



	OPERATION	TIMER	ECONOMY
Serial communication error	1 flash	1 flash	Rapid flash (0.1s on / 0.1s off)
Indoor unit PCB model information error	3	2	
Manual auto switch error	3	5	
Room temp. sensor error	4	1	
Indoor unit Heat Ex. Middle temp.sensor error	4	2	
Indoor unit fan motor error	5	1	
Indoor unit error	5	15	
Outdoor unit main PCB model information error or communication error	6	2	
Inverter error	6	3	
Active filter error, PFC circuit error	6	4	
Trip terminal L error	6	5	
Display PCB microcomputers communication error	6	10	
Discharge temp. sensor error	7	1	
Outdoor unit Heat Ex. liquid temp. sensor error	7	3	
Outdoor temp. sensor error	7	4	
Current sensor error	8	4	
Trip detection	9	4	
Compressor rotor position detection error	9	5	
4-way valve error	9	9	
Discharge temp. error	10	1	

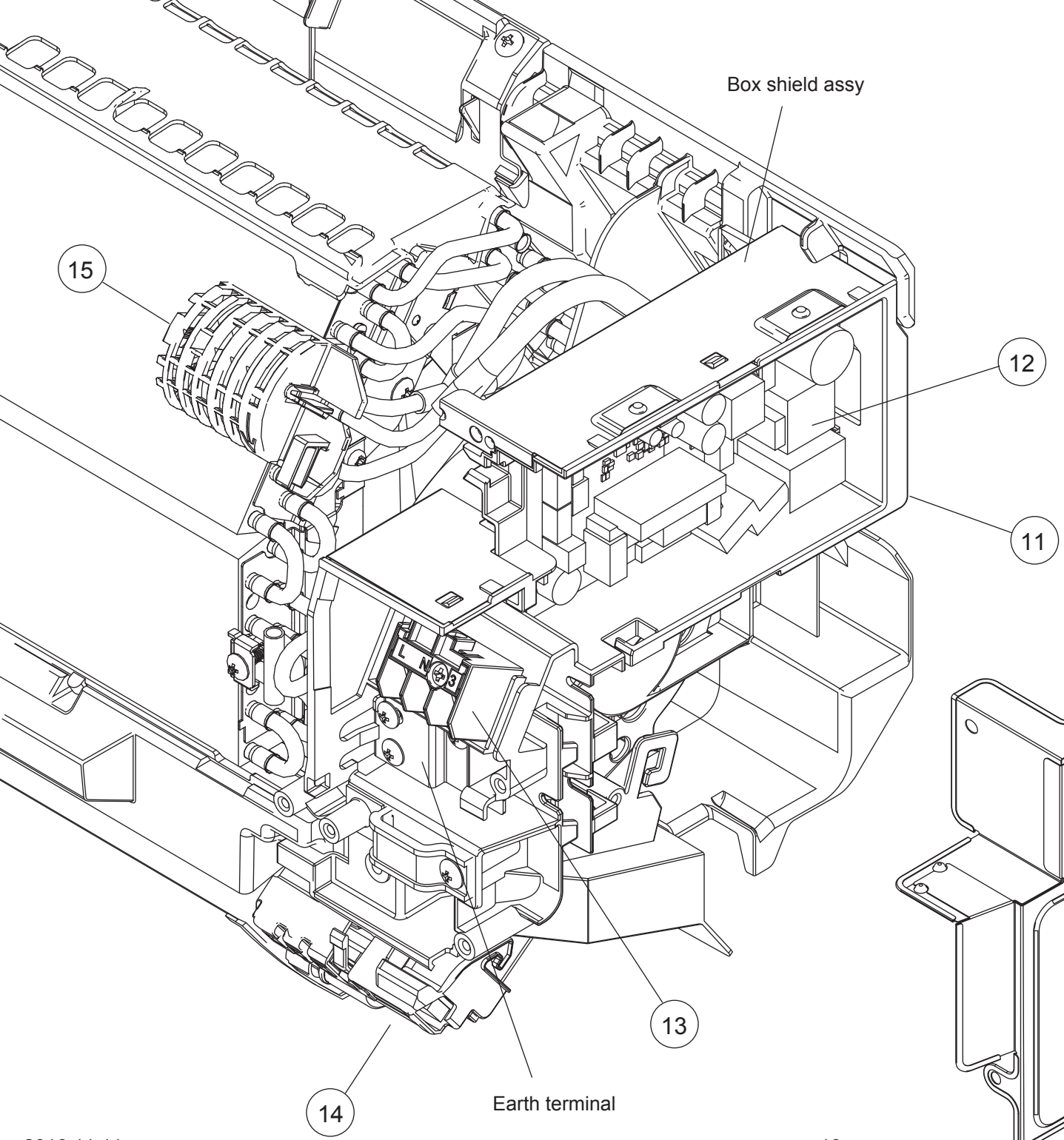
(0.5s on / 0.5s off)



PARTS

INDOOR UNIT
 ASYG07LLCE
 ASYG09LLCE

Ref.	Description	Part number
1	Remote Control	9332598001
2	Air Filter	9332549010
3	Intake Grille (no brand)	9332629163
4	Receiver Window	9332546019
5	Front Panel	9332545012
6	Wire Cover	9332544008
7	Louver	9333342009
8	Panel Cover	9332559002



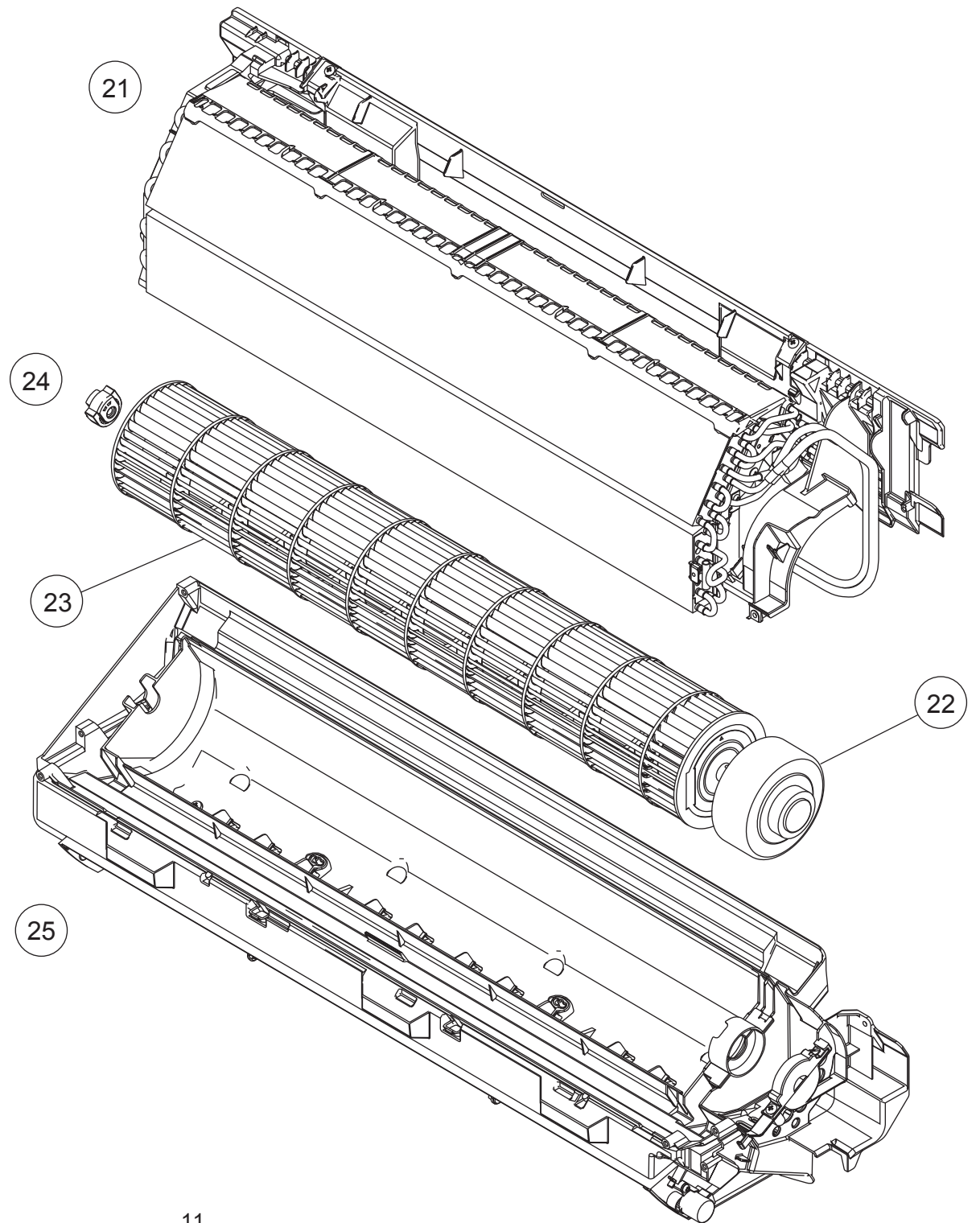
Ref.	Description	Part number
11	Control Box	9332542004
12	Main PCB (ASYG07LLCE)	9709170175
12	Main PCB (ASYG09LLCE)	9709170182
13	Terminal	9900720001
14	Display Assy	9709173015
15	Room Thermistor Holder	9316895003
--	Thermistor Assy	9900930011

Cover shield

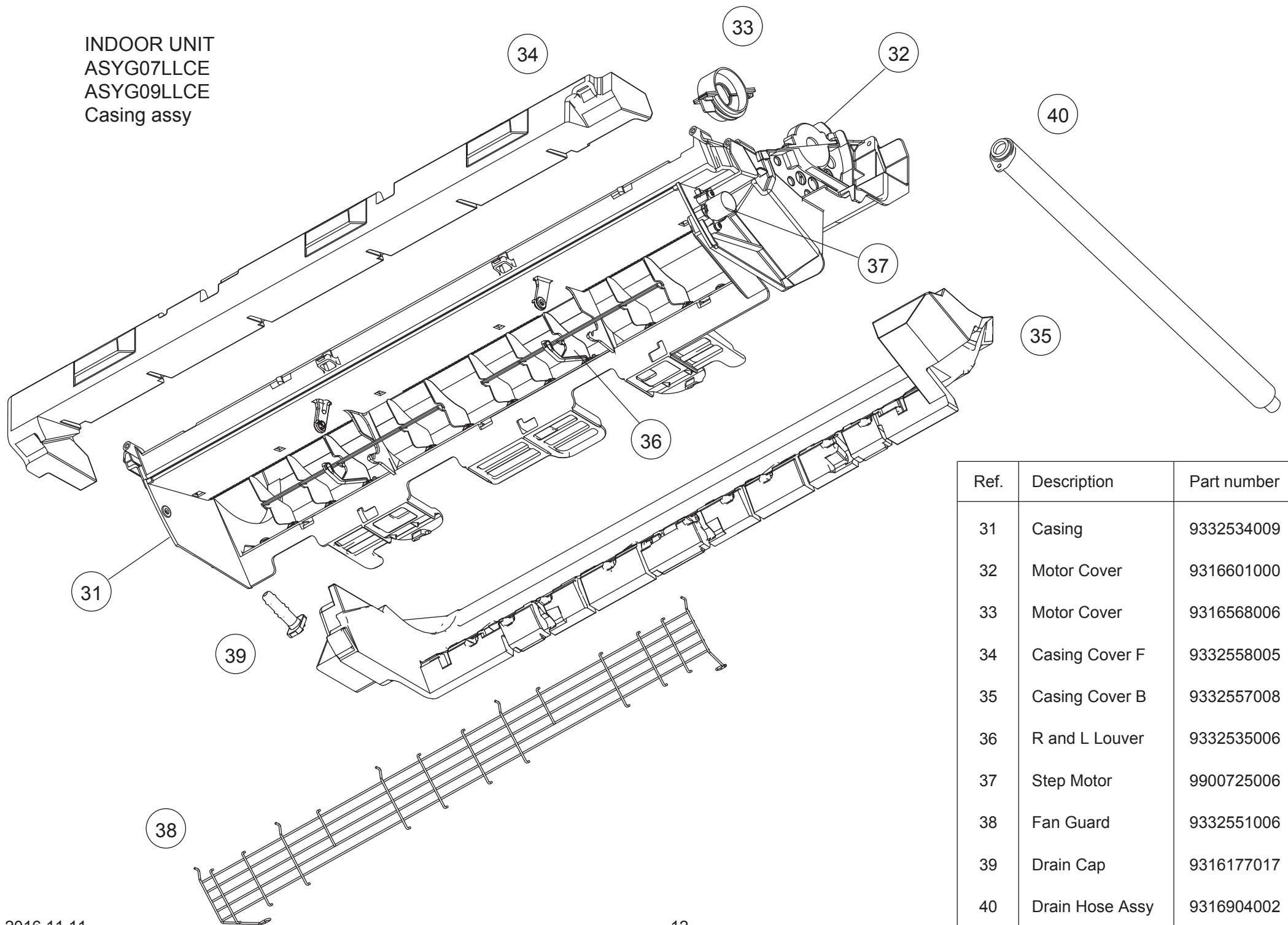
INDOOR UNIT
ASYG07LLCE
ASYG09LLCE
Control box

INDOOR UNIT
 ASYG07LLCE
 ASYG09LLCE
 Evaporator
 Fan

Ref.	Description	Part number
21	Evaporator Total Assy	9316893191
22	Fan Motor	9603180003
23	Crossflow Fan Assy	9316830004
24	Bearing C Assy	9306628017
25	Casing Assy	9332613018



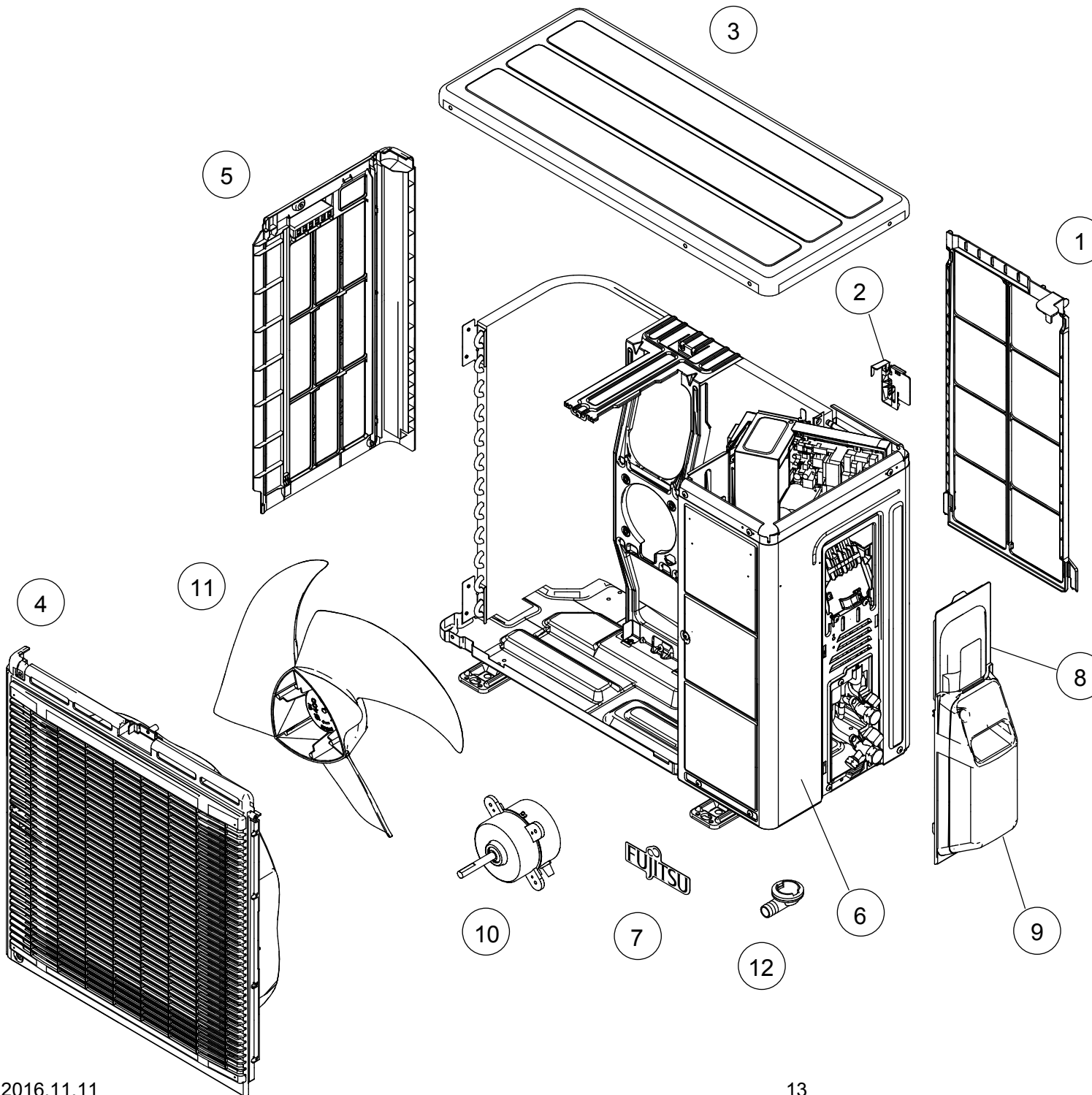
INDOOR UNIT
 ASYG07LLCE
 ASYG09LLCE
 Casing assy



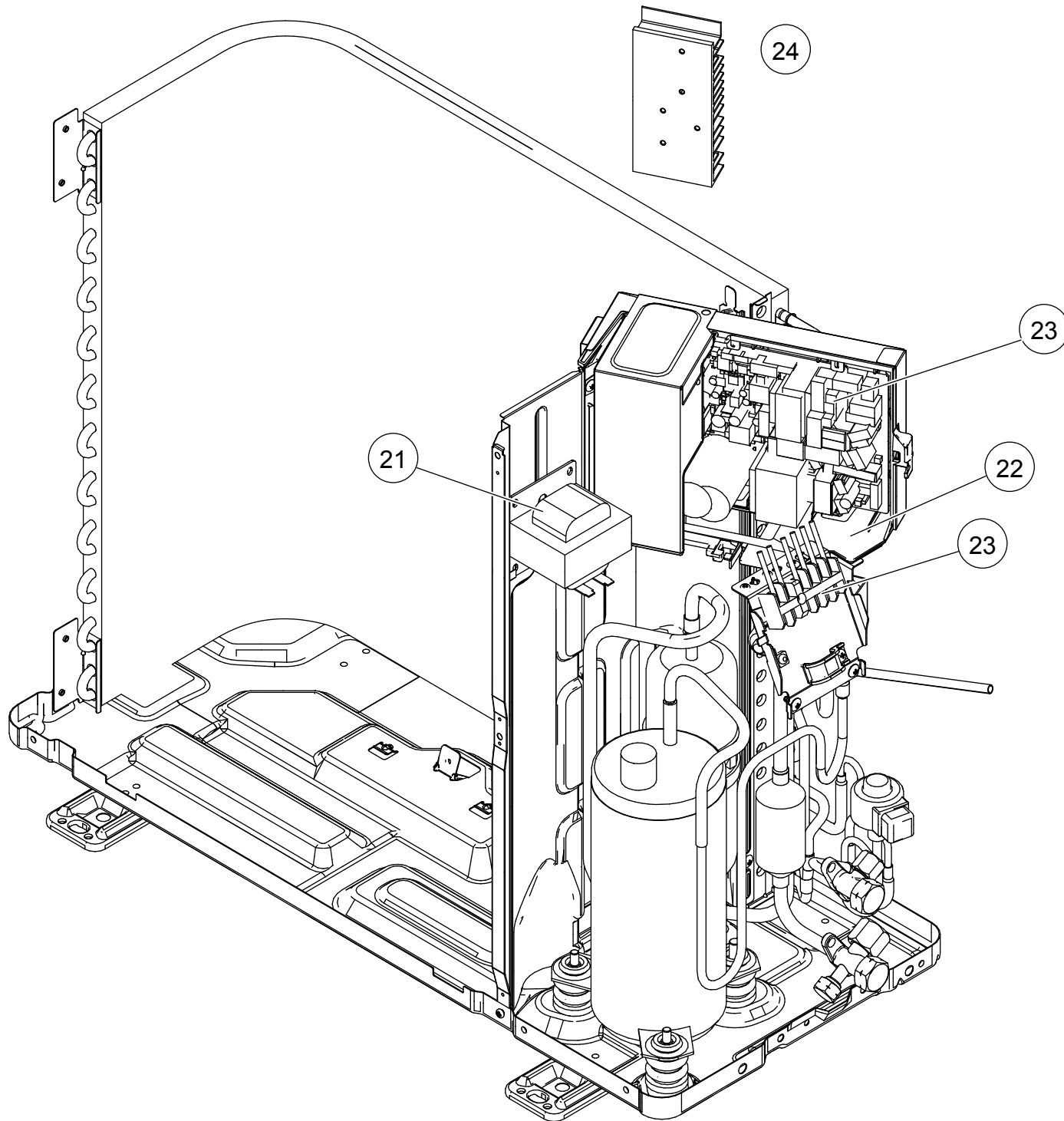
Ref.	Description	Part number
31	Casing	9332534009
32	Motor Cover	9316601000
33	Motor Cover	9316568006
34	Casing Cover F	9332558005
35	Casing Cover B	9332557008
36	R and L Louver	9332535006
37	Step Motor	9900725006
38	Fan Guard	9332551006
39	Drain Cap	9316177017
40	Drain Hose Assy	9316904002

PARTS

OUTDOOR UNIT
AOYG07LLCE
AOYG09LLCE



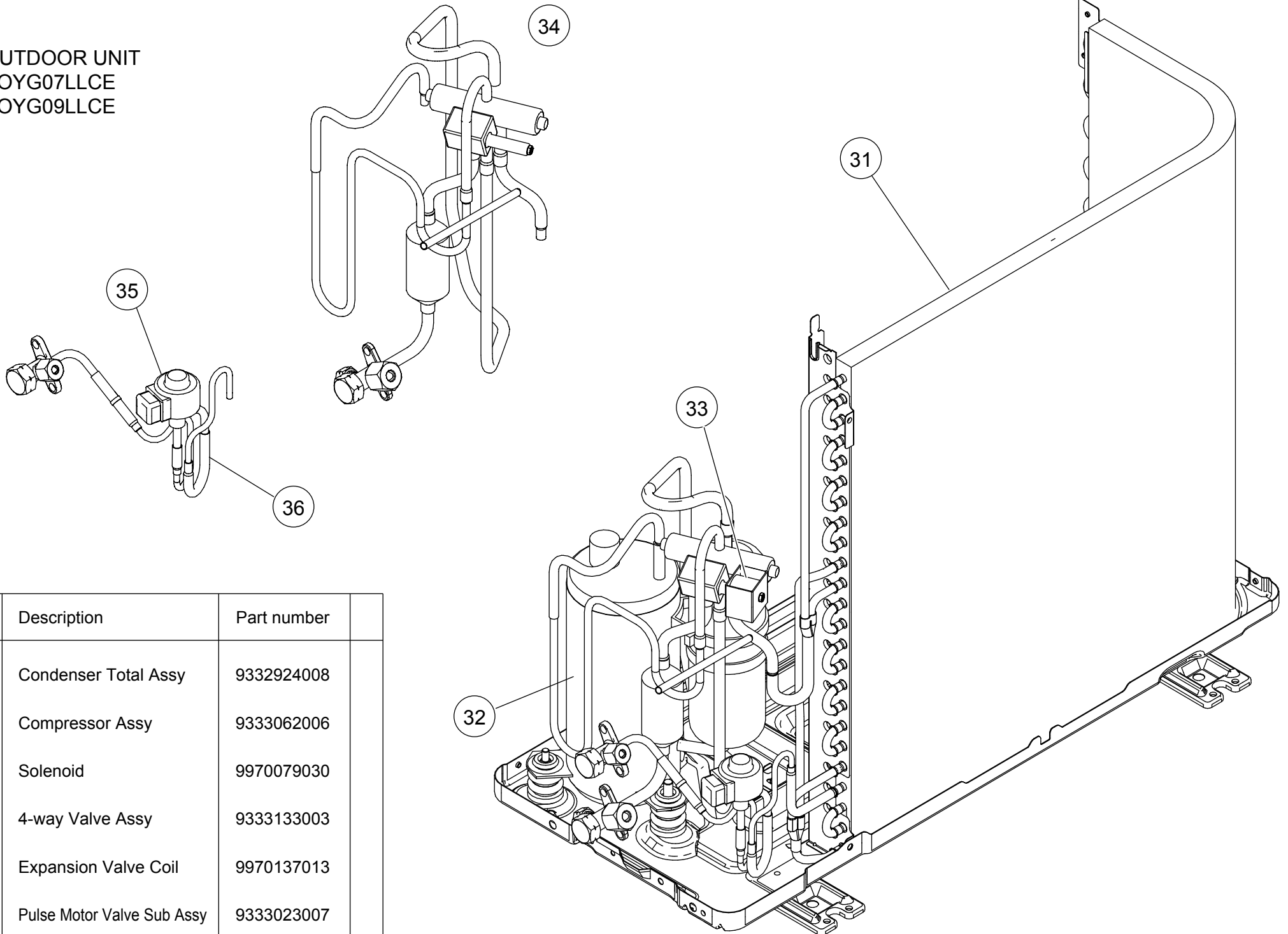
Ref.	Description	Part number
1	Protective Net	9332855005
2	Thermistor Holder	9332505009
3	Top Panel Assy	9332977004
4	Front Panel Assy	9332965001
5	Cabinet Left Assy	9332962000
6	Cabinet Right Assy	9332963007
7	Emblem	9319396019
8	Switch Cover A Assy	9332964011
9	Switch Cover B	9332843002
10	Fan Motor	9603074012
11	Propeller Fan	9309909014
12	Drain Assy	9332574005



OUTDOOR UNIT
 AOYG07LLCE
 AOYG09LLCE

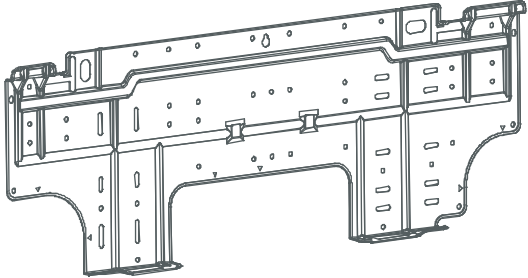

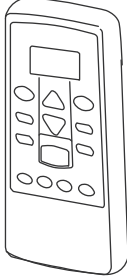
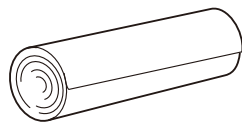

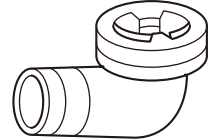
Ref.	Description	Part number
21	Reactor Assy	9900787028
22	PCB Holder	9332506013
23	Main PCB (Service unit) (07)	9709680490
23	Main PCB (Service unit) (09)	9709680506
24	Heat Sink B	9332522006
--	Thermistor Assy (AOYG07LLCE)	9900901011
--	Thermistor Assy (AOYG09LLCE)	9900719029
--	Outdoor Thermistor	9900880019

OUTDOOR UNIT
 AOYG07LLCE
 AOYG09LLCE



Ref.	Description	Part number
31	Condenser Total Assy	9332924008
32	Compressor Assy	9333062006
33	Solenoid	9970079030
34	4-way Valve Assy	9333133003
35	Expansion Valve Coil	9970137013
36	Pulse Motor Valve Sub Assy	9333023007

ACCESSORIES

Name and Shape	Part number	Name and Shape	Part number
Wall hook bracket 	9332556001	Battery (penlight) 	0600185541
Remote control 	9332598001	Cloth tape 	9310519004
		Tapping screw (big) (ϕ 4 x 25) 	0700076046
		Drain pipe assy 	9332574005

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