

SERVICE MANUAL



Indoor unit	Outdoor unit
AUXG09KVLA	AOYG09KBTB
AUXG12KVLA	AOYG12KBTB
AUXG14KVLA	AOYG14KBTB
AUXG18KVLA	AOYG18KBTB
AUXG22KVLA	AOYG22KBTB
UTG-UFYF-W	

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Specifications (Indoor unit)

Type				Cassette			
				Inverter heat pump			
Model name				AUXG09KVLA	AUXG12KVLA	AUXG14KVLA	
Power supply				230 V ~ 50 Hz			
Power supply intake				Outdoor unit			
Available voltage range				198—264 V			
Capacity	Cooling	Rated	kW	2.50	3.50	4.30	
			Btu/h	8,500	11,900	14,700	
		Min.—Max.	kW	0.90—3.20	0.90—4.40	0.90—5.40	
		Btu/h	3,100—10,900	3,100—15,000	3,100—18,400		
	Heating	Rated	kW	3.20	4.10	5.00	
			Btu/h	10,900	13,400	17,000	
Min.—Max.		kW	0.90—4.70	0.90—5.70	0.90—6.50		
	Btu/h	3,100—16,000	3,100—19,400	3,100—22,200			
Input power	Cooling	Rated	kW	0.55	0.93	1.28	
				Max.	1.82	2.24	2.35
	Heating	Rated	0.79	1.08	1.32		
			Max.	1.82	2.24	2.35	
Current	Cooling	Rated	A	2.9	4.1	5.6	
	Heating			4.0	4.8	5.8	
Power factor	Cooling			82.5	98.6	99.4	
	Heating			85.9	97.8	99.0	
EER	Cooling			4.57	3.76	3.36	
COP	Heating			4.05	3.80	3.79	
Moisture removal			L/h (pints/h)	0.6 (1.1)	1.2 (2.1)	1.5 (2.6)	
Maximum operating current *1	Cooling			7.9	9.7	10.2	
	Heating			7.9	9.7	10.2	
Fan	Airflow rate	Cooling	HIGH	m ³ /h	540	600	680
			MED		490	530	580
			LOW		440	470	490
			QUIET		390	410	410
		Heating	HIGH		540	600	800
			MED		490	530	680
			LOW		440	470	580
			QUIET		390	410	450
	Type × Q'ty			Turbo × 1			
	Motor output			W			
			54				
Sound pressure level *2	Cooling	HIGH	dB (A)	33	37	38	
		MED		31	34	34	
		LOW		29	30	30	
		QUIET		27	27	27	
	Heating	HIGH		34	37	43	
		MED		32	34	38	
		LOW		29	31	34	
		QUIET		27	29	30	
Heat exchanger type	Dimensions (H × W × D)		mm	210 × 1,310 × 13.3			
				210 × 1,250 × 13.3			
	Fin pitch		1.2				
	Rows × Stages		2 × 10				
	Pipe type		Copper tube				
Fin type		Aluminum					
Dimensions (H × W × D)	Net		mm	245 × 570 × 570			
	Gross			265 × 730 × 625			
Weight	Net		kg	15			
	Gross			19			
Connection pipe	Size	Liquid	mm (in)	Ø 6.35 (Ø1/4)			
		Gas		Ø9.52 (Ø3/8)			
Method		Flare					
Operation range	Cooling	°C		18 to 32			
		%RH		80 or less			
Heating		°C		16 to 30			
Cassette grille (Grid type: Option)	Material		Polystyrene				
	Color		White				
			Approximate color of Munsell 9PB 9.1/0.2				
	Dimensions (H × W × D)	Net	mm	49 × 620 × 620			
		Gross		120 × 765 × 755			
Weight	Net	kg	2.3				
	Gross		4.5				
Remote control (Option)				Wired remote controller, Wireless remote controller, Mobile app*3 (FGLair™)			
Drain hose	Material		PVC				
	Size		mm				
		VP25 [Ø25(I.D.),Ø32(O.D.)]					

NOTES:

- Specifications are based on the following conditions:
 - Cooling: Indoor temperature of 27 °CDB/19 °CWB, and outdoor temperature of 35 °CDB/24 °CWB.
 - Heating: Indoor temperature of 20 °CDB/15 °CWB, and outdoor temperature of 7 °CDB/6 °CWB.
 - Pipe length: 5 m, Height difference: 0 m. (Between outdoor unit and indoor unit.)
- Protective function might work when using it outside the operation range.
- *1: Maximum operating current is the total current of the indoor unit and the outdoor unit.
- *2: Sound pressure level:
 - Measured values in manufacturer's anechoic chamber.
 - Because of the surrounding sound environment, the sound levels measured in actual installation conditions might be higher than the specified values here.
- *3: Available on Google Play™ store or on App Store®. Optional WLAN adapter is also required. For details, refer to the setting manual.

Specifications for ErP Lot10						
Model name		AUXG09KVLA		AUXG12KVLA	AUXG14KVLA	
Energy efficiency class	Cooling	A ⁺⁺				
	Heating (Average)	A [*]				
P _{design}	Cooling	kW	2.5 (35°C)	3.5 (35°C)	4.3 (35°C)	
	Heating (Average)		2.6 (-10°C)	3.4 (-10°C)	3.8 (-10°C)	
SEER	Cooling	kWh/kWh	6.70	6.60	6.50	
SCOP	Heating (Average)		4.40	4.30	4.40	
Annual energy consumption	QCE	kWh/a	131	186	231	
	QHE (Average)		826	1,106	1,208	
Sound power level	Cooling	HIGH	dB (A)	46	49	50
	Heating			47	49	55

Type				Cassette					
				Inverter heat pump					
Model name				AUXG18KVLA		AUXG22KVLA			
Power supply				230 V ~ 50 Hz					
Power supply intake				Outdoor unit					
Available voltage range				198—264 V					
Capacity	Cooling	Rated	kW	5.20		6.00			
			Btu/h	17,700		20,500			
		Min.—Max.	kW	0.90—5.90		0.90—6.70			
	Heating	Rated	kW	6.00		7.00			
			Btu/h	20,500		23,900			
		Min.—Max.	kW	0.90—7.50		0.90—8.00			
				Btu/h		3,100—25,600			
Input power	Cooling	Rated	kW	1.60		1.82			
		Max.		2.79		2.90			
	Heating	Rated		1.66		1.87			
		Max.		2.79		2.90			
Current	Cooling	Rated	A	7.0		8.0			
	Heating			7.3		8.2			
Power factor	Cooling			99.4		98.9			
	Heating			98.9		99.2			
EER	Cooling			3.25		3.30			
COP	Heating			3.61		3.74			
Moisture removal			L/h (pints/h)	2.2 (3.9)		2.6 (4.6)			
Maximum operating current *1		Cooling	A	12.1		12.6			
		Heating		12.1		12.6			
Fan	Airflow rate	Cooling	m ³ /h	HIGH	680		830		
				MED	580		740		
				LOW	490		600		
				QUIET	410		450		
		Heating		HIGH	800		860		
				MED	680		760		
				LOW	580		700		
				QUIET	450		530		
	Type × Q'ty				Turbo × 1				
	Motor output		W		54				
Sound pressure level *2		Cooling	dB (A)	HIGH	38		44		
				MED	34		42		
				LOW	30		36		
				QUIET	26		30		
		Heating		HIGH	43		45		
				MED	38		43		
				LOW	34		40		
				QUIET	30		33		
Heat exchanger type		Dimensions (H × W × D)		mm	210 × 1,310 × 13.3		210 × 1,360 × 13.3		
		210 × 1,250 × 13.3			210 × 1,295 × 13.3		210 × 1,235 × 13.3		
		Fin pitch				1.2		1.45	
		Rows × Stages				2 × 10		3 × 10	
		Pipe type				Copper tube			
Fin type				Aluminum					
Dimensions (H × W × D)		Net		mm	245 × 570 × 570				
		Gross			265 × 730 × 625				
Weight		Net		kg	15		16		
		Gross			19		20		
Connection pipe		Size	Liquid	mm (in)	Ø 6.35 (Ø1/4)				
			Gas		Ø12.70 (Ø1/2)				
		Method				Flare			
Operation range		Cooling	°C		18 to 32				
			%RH		80 or less				
		Heating	°C		16 to 30				
Cassette grille (Grid type: Option)		Material		Polystyrene					
		Color		White					
		Approximate color of Munsell 9PB 9.1/0.2							
		Dimensions (H × W × D)	Net	mm	49 × 620 × 620				
			Gross		120 × 765 × 755				
Weight	Net	kg	2.3						
	Gross		4.5						
Remote control (Option)				Wired remote controller, Wireless remote controller, Mobile app*3 (FGLair™)					
Drain hose		Material		PVC					
		Size		mm					
				VP25 [Ø25(I.D.),Ø32(O.D.)]					

NOTES:

- Specifications are based on the following conditions:
 - Cooling: Indoor temperature of 27 °CDB/19 °CWB, and outdoor temperature of 35 °CDB/24 °CWB.
 - Heating: Indoor temperature of 20 °CDB/15 °CWB, and outdoor temperature of 7 °CDB/6 °CWB.
 - Pipe length: 5 m, Height difference: 0 m. (Between outdoor unit and indoor unit.)
- Protective function might work when using it outside the operation range.
- *1: Maximum operating current is the total current of the indoor unit and the outdoor unit.
- *2: Sound pressure level:
 - Measured values in manufacturer's anechoic chamber.
 - Because of the surrounding sound environment, the sound levels measured in actual installation conditions might be higher than the specified values here.
- *3: Available on Google Play™ store or on App Store®. Optional WLAN adapter is also required. For details, refer to the setting manual.

Specifications for ErP Lot10				
Model name			AUXG18KVLA	AUXG22KVLA
Energy efficiency class	Cooling		A ⁺⁺	
	Heating (Average)		A ⁺	
Pdesign	Cooling	kW	5.2 (35°C)	6.0 (35°C)
	Heating (Average)		4.4 (-10°C)	4.8 (-10°C)
SEER	Cooling	kWh/kWh	6.60	6.60
SCOP	Heating (Average)		4.20	4.30
Annual energy consumption	QCE		275	318
	QHE (Average)		1,466	1,562
Sound power level	Cooling	HIGH	dB (A)	50
	Heating			55

Specifications (Outdoor unit)

Type				Inverter heat pump		
Model name				AOYG09KBTB	AOYG12KBTB	AOYG14KBTB
Power supply				230 V ~ 50 Hz		
Available voltage range				198—264 V		
Starting current				4.0	4.8	5.8
Fan	Airflow rate	Cooling	m ³ /h	1,480	1,580	1,670
		Heating		1,410	1,520	1,580
	Type × Q'ty	Propeller fan × 1				
Motor output				W		
Sound pressure level *1		Cooling	dB (A)	46	47	49
		Heating		46	47	49
Sound power level		Cooling	dB (A)	59	61	62
		Heating		59	61	62
Heat exchanger type	Dimensions (H × W × D)		mm	504 × 881 × 18.19		
	Fin pitch			504 × 851 × 18.19		
	Rows × Stages		1.3			
	Pipe type		2 × 24			
	Fin type		Type (Material)	Copper		
			Surface treatment	Aluminum PC fin		
Compressor	Type × Q'ty	W		DC rotary × 1	DC Twin rotary × 1	
	Motor output			900	810	900
Refrigerant	Type (Global warming potential)		R32 (675)			
	Charge	g		850		
Refrigerant oil	Type		RB68A	FW68S		
	Amount	cm ³		340	350	
Enclosure	Material			Steel sheet		
	Color			Beige Approximate color of Munsell 10YR 7.5/1.0		
Dimensions (H × W × D)	Net		mm	542 × 799 × 290		
	Gross			602 × 940 × 375		
Weight	Net		kg	32	33	
	Gross			35	37	
Connection pipe	Size	Liquid	mm (in)	Ø 6.35 (Ø 1/4)		
		Gas		Ø 9.52 (Ø 3/8)		
	Method			Flare		
	Pre-charge length			15		
	Max. length			20	25	
Max. height difference			15	20		
Operation range		Cooling	°C	-15 to 46		
		Heating		-15 to 24		
Drain hose	Material			PP		
	Size			mm Ø 13.0 (I. D.), Ø 16.0 to Ø 16.8 (O. D.)		
NOTES:						
<ul style="list-style-type: none"> • Specifications are based on the following conditions: <ul style="list-style-type: none"> – Cooling: Indoor temperature of 27 °CDB/19 °CWB, and outdoor temperature of 35 °CDB/24 °CWB. – Heating: Indoor temperature of 20 °CDB/15 °CWB, and outdoor temperature of 7 °CDB/6 °CWB. – Pipe length: 5 m, Height difference: 0 m. • Protective function might work when using it outside the operation range. • *1: Sound pressure level <ul style="list-style-type: none"> – Measured values in manufacturer's anechoic chamber. – Because of the surrounding sound environment, the sound levels measured in actual installation conditions might be higher than the specified values here. 						

Type				Inverter heat pump			
Model name				AOYG18KBTB		AOYG22KBTB	
Power supply				230 V ~ 50 Hz			
Available voltage range				198—264 V			
Starting current				A		7.1	
Fan	Airflow rate	Cooling	m ³ /h	2,160		2,240	
		Heating		1,830		1,960	
	Type × Q'ty	Propeller fan × 1					
Motor output				W			
Sound pressure level *1				Cooling	dB (A)	50	
						Heating	51
Sound power level				Cooling	dB (A)		50
						Heating	51
Heat exchanger type				Dimensions (H × W × D)	mm		588 × 881 × 18.19
						Fin pitch	588 × 851 × 18.19
				1.3			
Rows × Stages				2 × 28		2 × 28	
Pipe type				Copper			
Fin type				Type (Material)	Corrugate (Aluminum)		
				Surface treatment	*PC fin*		
Compressor				Type × Q'ty	DC Twin rotary × 1		
				Motor output	900		1,060
Refrigerant				Type (Global warming potential)	R32 (675)		
				Charge	g		1,020
Refrigerant oil				Type	FW68S		RmM68AF
				Amount	cm ³		350
Enclosure				Material	Steel sheet		
				Color	Beige		
				Approximate color of Munsell 10YR 7.5/1.0			
Dimensions (H × W × D)	Net		mm	632 × 799 × 290			
	Gross			692 × 940 × 375			
Weight	Net		kg	36		38	
	Gross			40		42	
Connection pipe	Size	Liquid	mm (in)	Ø 6.35 (Ø 1/4)			
		Gas		Ø 12.70 (Ø 1/2)			
	Method		Flare				
	Pre-charge length		m	20			
	Max. length			30			
Max. height difference		20		25			
Operation range				Cooling	°C		
				Heating	-15 to 46		
				-15 to 24			
Drain hose				Material	PP		
				Size	mm		
				Ø 13.0 (I. D.), Ø 16.0 to Ø 16.8 (O. D.)			

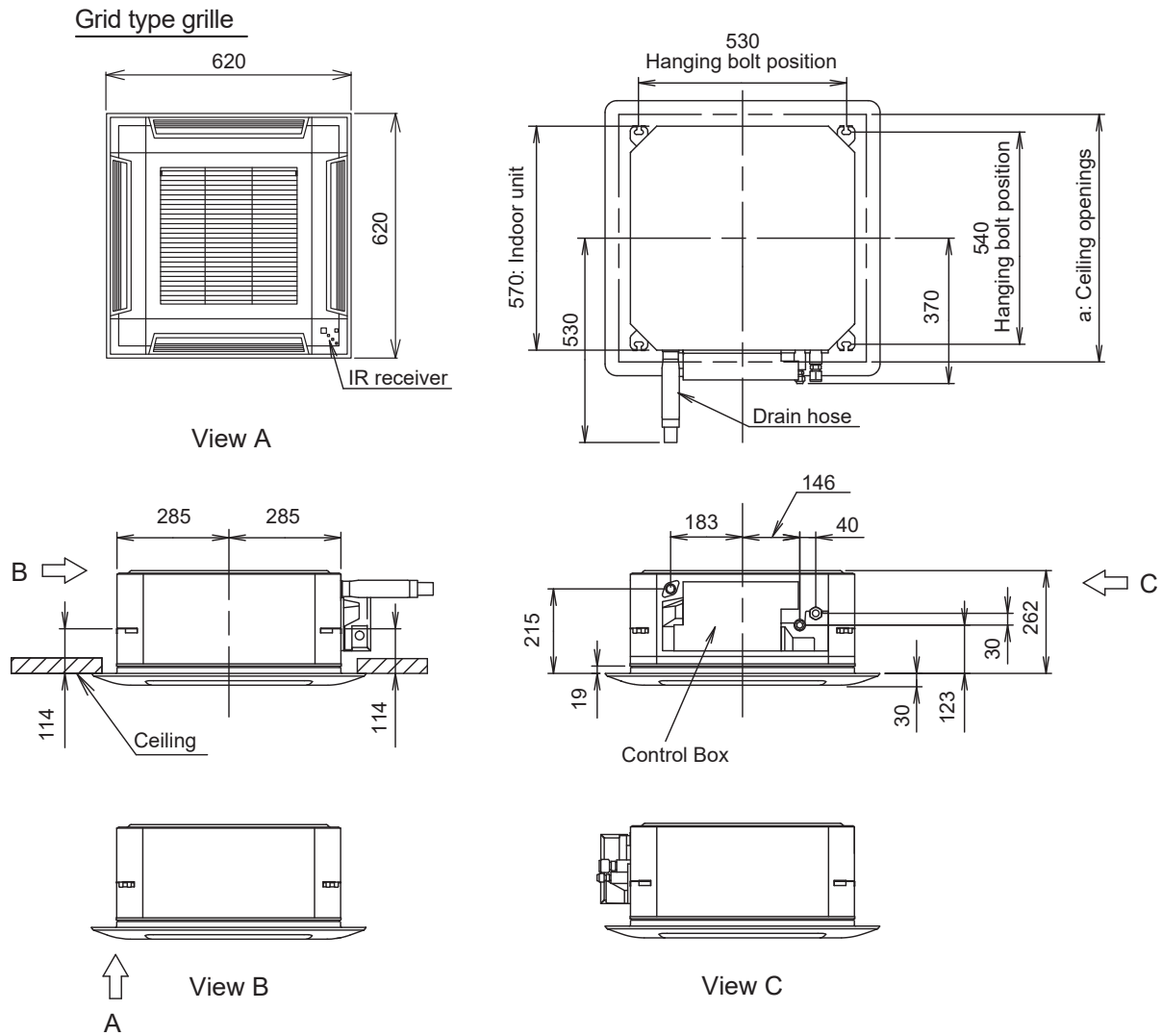
NOTES:

- Specifications are based on the following conditions:
 - Cooling: Indoor temperature of 27 °CDB/19 °CWB, and outdoor temperature of 35 °CDB/24 °CWB.
 - Heating: Indoor temperature of 20 °CDB/15 °CWB, and outdoor temperature of 7 °CDB/6 °CWB.
 - Pipe length: 5 m, Height difference: 0 m.
- Protective function might work when using it outside the operation range.
- *1: Sound pressure level
 - Measured values in manufacturer's anechoic chamber.
 - Because of the surrounding sound environment, the sound levels measured in actual installation conditions might be higher than the specified values here.

Dimensions

Models: AUXG09KVLA, AUXG12KVLA, AUXG14KVLA, AUXG18KVLA, and AUXG22KVLA

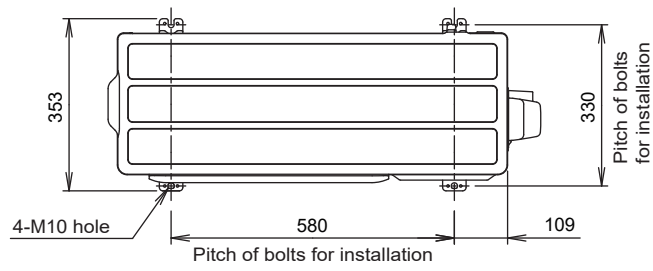
Unit: mm



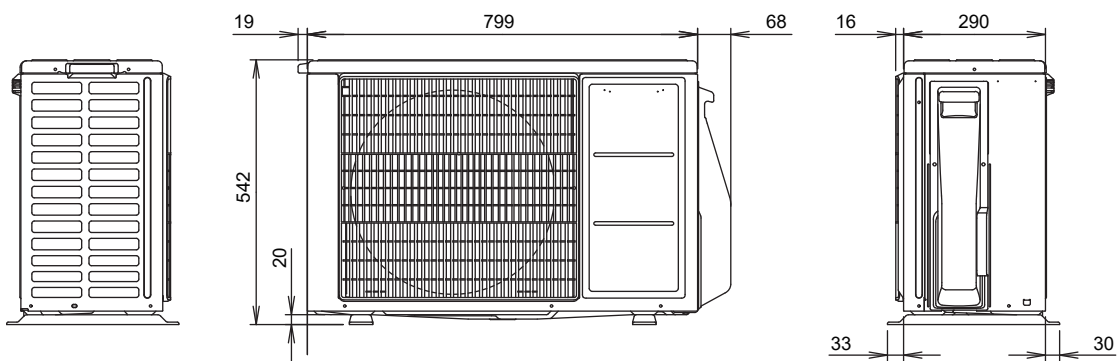
a: Ceiling openings		
Cassette grille (Option [Grid type])	mm	580 to 610

Models: AOYG09KBTB, AOYG12KBTB, and AOYG14KBTB

Unit: mm



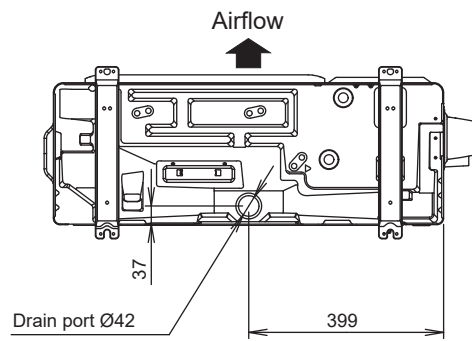
Top view



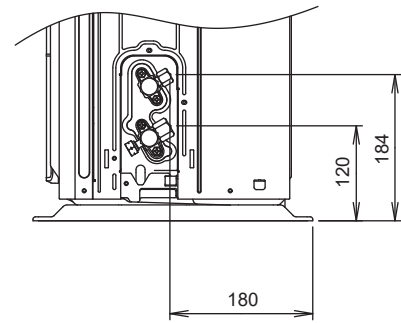
Side view

Front view

Side view



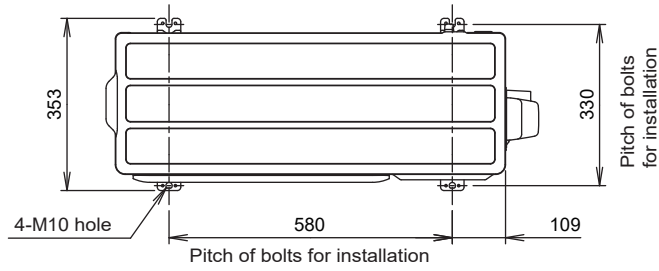
Bottom view



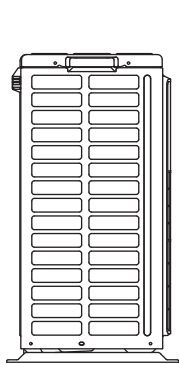
Side view (Valve part)

Models: AOYG18KBTB and AOYG22KBTB

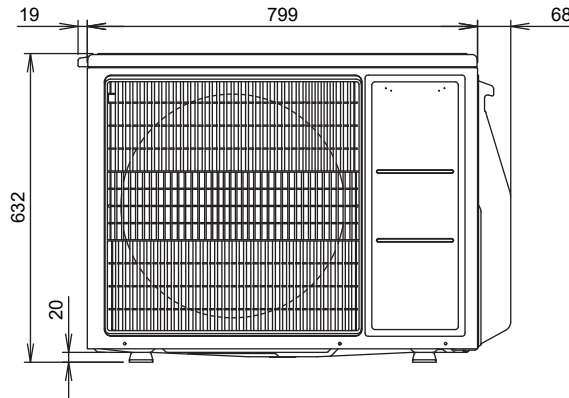
Unit: mm



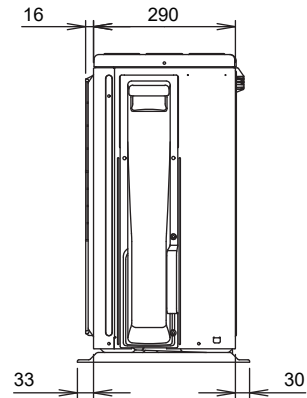
Top view



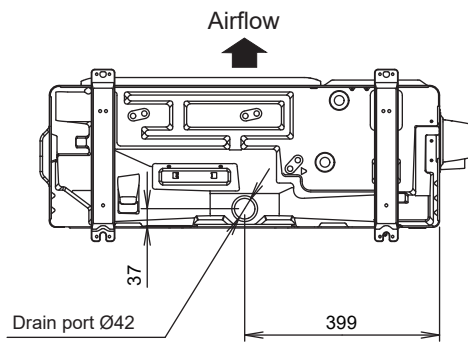
Side view



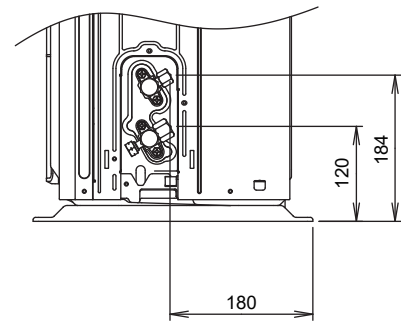
Front view



Side view



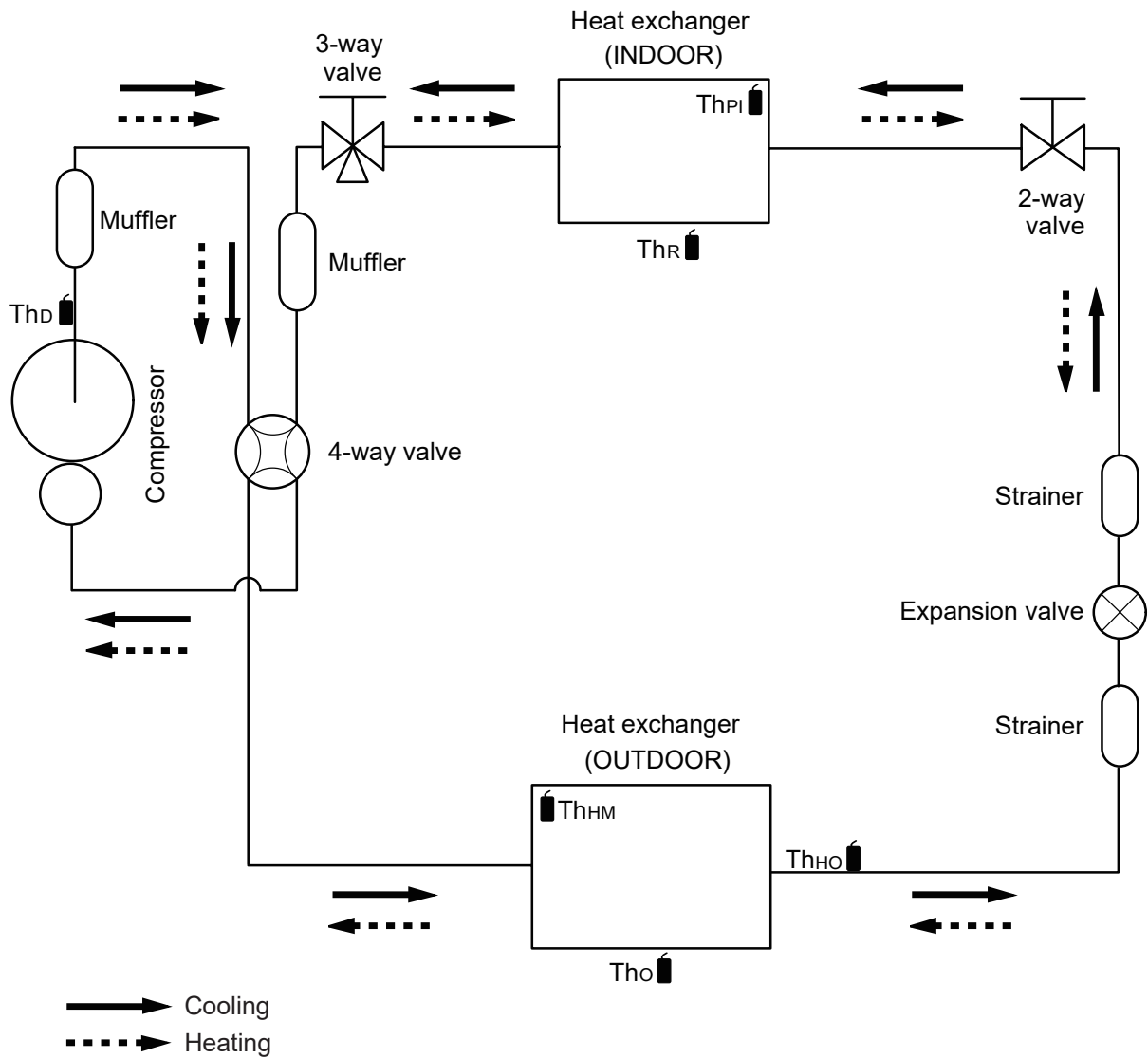
Bottom view



Side view (Valve part)

Refrigerant circuit

Models: AOYG09KBTB, AOYG12KBTB, and AOYG14KBTB



Th_D : Thermistor (Discharge temperature)

Th_O : Thermistor (Outdoor temperature)

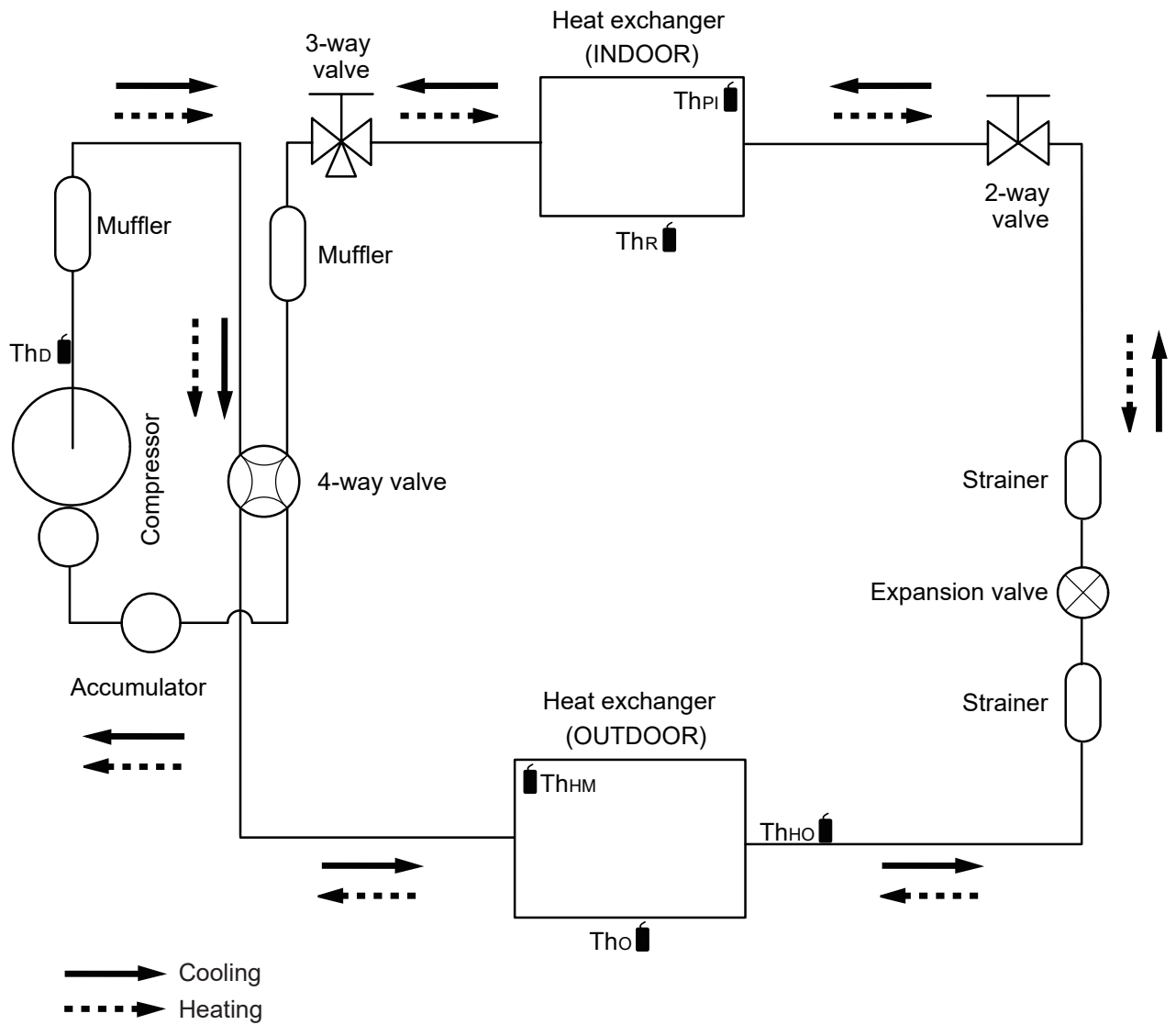
Th_{HO} : Thermistor (Heat exchanger out temperature)

Th_{HM} : Thermistor (Heat exchanger middle temperature)

Th_R : Thermistor (Room temperature)

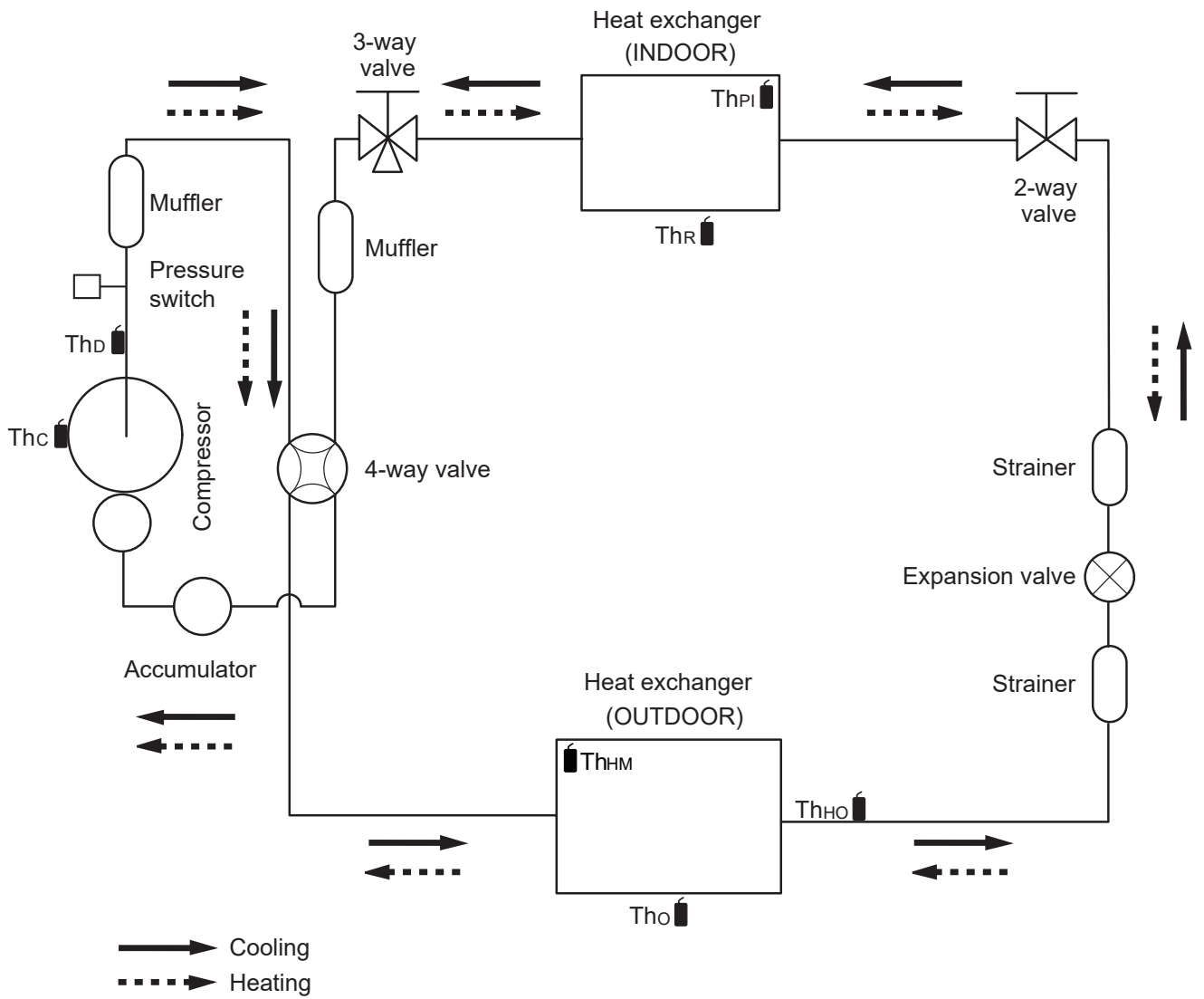
Th_{PI} : Thermistor (Pipe temperature)

Model: AOYG18KBTB



- Th_D : Thermistor (Discharge temperature)
- Th_O : Thermistor (Outdoor temperature)
- Th_{HO} : Thermistor (Heat exchanger out temperature)
- Th_{HM} : Thermistor (Heat exchanger middle temperature)
- Th_R : Thermistor (Room temperature)
- Th_{PI} : Thermistor (Pipe temperature)

Model: AOYG22KBTB



- Th_c : Thermistor (Compressor temperature)
- Th_d : Thermistor (Discharge temperature)
- Th_o : Thermistor (Outdoor temperature)
- Th_{HO} : Thermistor (Heat exchanger out temperature)
- Th_{HM} : Thermistor (Heat exchanger middle temperature)
- Th_R : Thermistor (Room temperature)
- Th_{PI} : Thermistor (Pipe temperature)

INDOOR PRINTED CIRCUIT BOARD CIRCUIT DIAGRAM

Models : AUXG09KVLA
AUXG12KVLA
AUXG14KVLA
AUXG18KVLA
AUXG22KVLA
UTG-UFYF-W

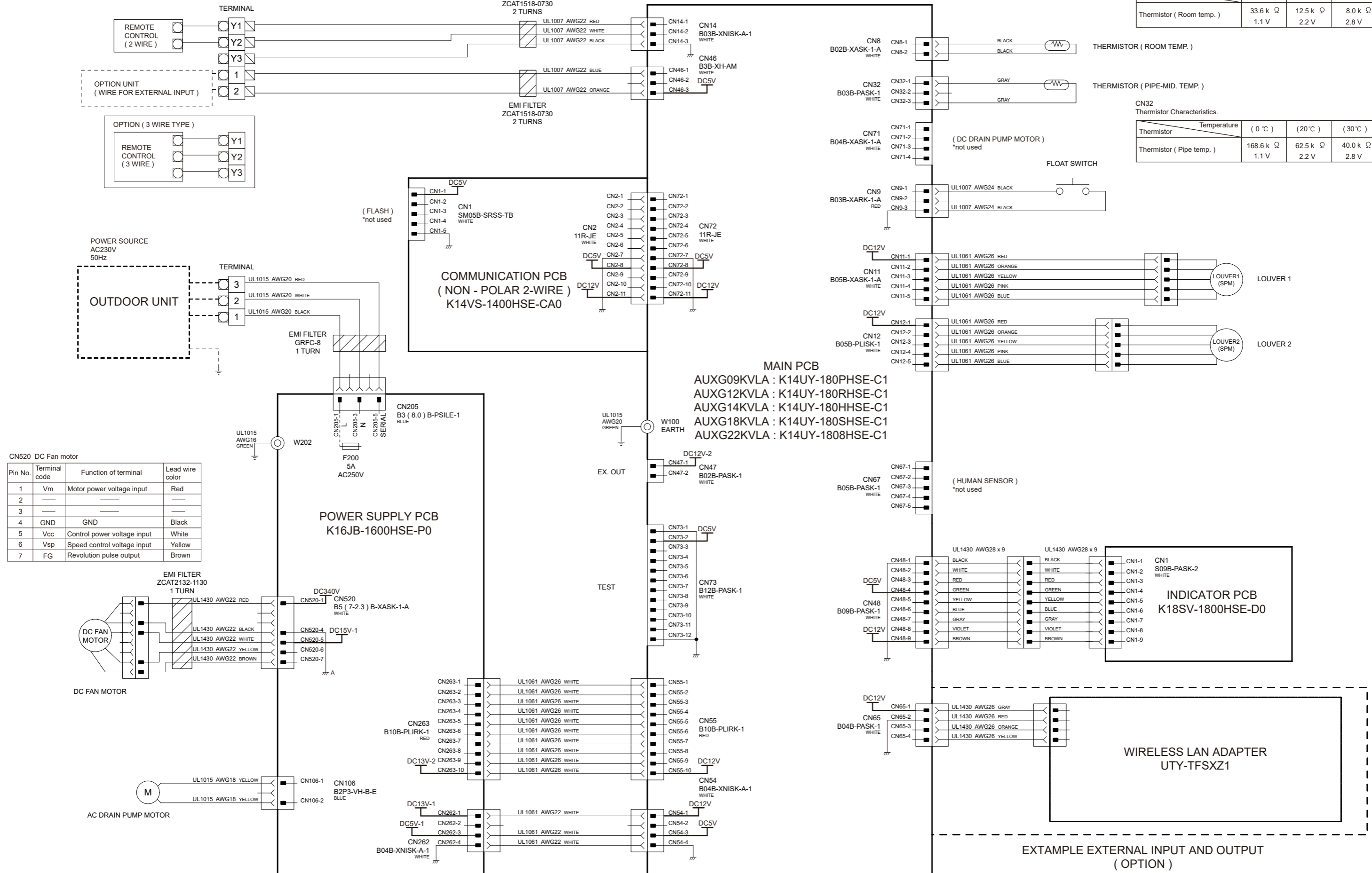
CONTROL UNIT
AUXG09KVLA : EZ-0181RHSE
AUXG12KVLA : EZ-0181SHSE
AUXG14KVLA : EZ-0181CHSE
AUXG18KVLA : EZ-0181THSE
AUXG22KVLA : EZ-01810HSE

CN8
Thermistor Characteristics.

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

CN32
Thermistor Characteristics.

Thermistor	Temperature	(0 °C)	(20 °C)	(30 °C)
Thermistor (Pipe temp.)		168.6 k Ω	62.5 k Ω	40.0 k Ω
		1.1 V	2.2 V	2.8 V



CN520 DC Fan motor

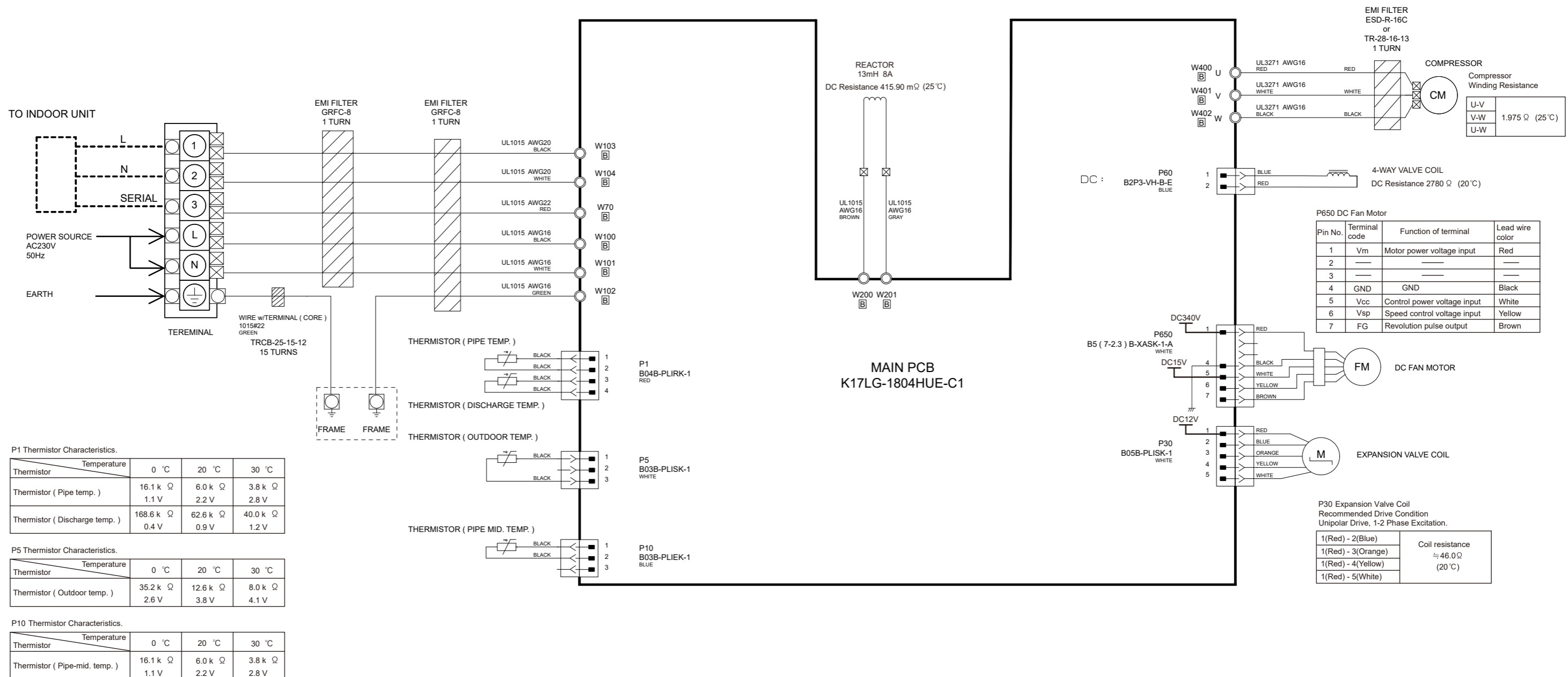
Pin No.	Terminal code	Function of terminal	Lead wire color
1	Vm	Motor power voltage input	Red
2	---	---	---
3	---	---	---
4	GND	GND	Black
5	Vcc	Control power voltage input	White
6	Vsp	Speed control voltage input	Yellow
7	FG	Revolution pulse output	Brown

EXTAMPLE EXTERNAL INPUT AND OUTPUT
(OPTION)

OUTDOOR PRINTED CIRCUIT BOARD CIRCUIT DIAGRAM

Model : AOYG09KBTB

INVERTER ASSEMBLY EZ-018RHUE



P1 Thermistor Characteristics.

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

P5 Thermistor Characteristics.

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

P10 Thermistor Characteristics.

Thermistor	Temperature	0 °C	20 °C	30 °C
Thermistor (Pipe-mid. temp.)	Resistance	16.1 k Ω	6.0 k Ω	3.8 k Ω
	Voltage	1.1 V	2.2 V	2.8 V

P650 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

P30 Expansion Valve Coil
Recommended Drive Condition
Unipolar Drive, 1-2 Phase Excitation.

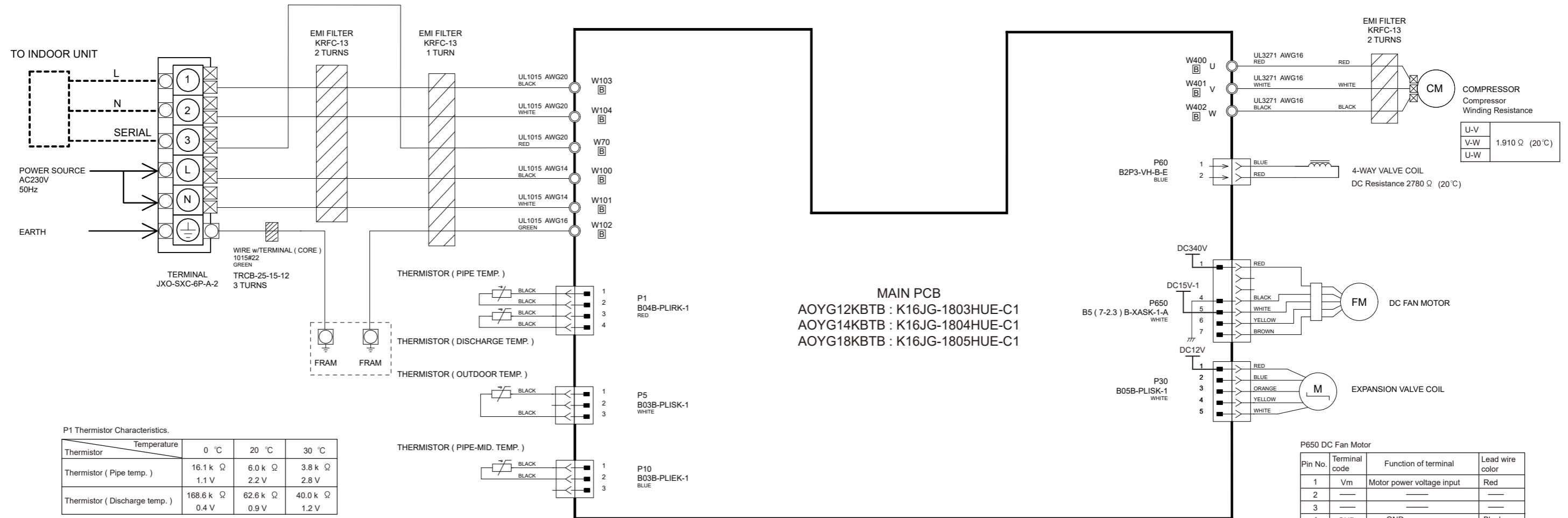
1(Red) - 2(Blue)	Coil resistance ≒ 46.0 Ω (20°C)
1(Red) - 3(Orange)	
1(Red) - 4(Yellow)	
1(Red) - 5(White)	

Compressor Winding Resistance

U-V	1.975 Ω (25°C)
V-W	
U-W	

Models : AOYG12KBTB
 AOYG14KBTB
 AOYG18KBTB

INVERTER ASSEMBLY
 AOYG12KBTB : EZ-018SHUE
 AOYG14KBTB : EZ-018THUE
 AOYG18KBTB : EZ-018THUE



P1 Thermistor Characteristics.

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

P5 Thermistor Characteristics.

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

P10 Thermistor Characteristics.

Thermistor	Temperature	0 °C	20 °C	30 °C
Thermistor (Pipe-mid. temp.)	Resistance	16.1 k Ω	6.0 k Ω	3.8 k Ω
	Voltage	1.1 V	2.2 V	2.8 V

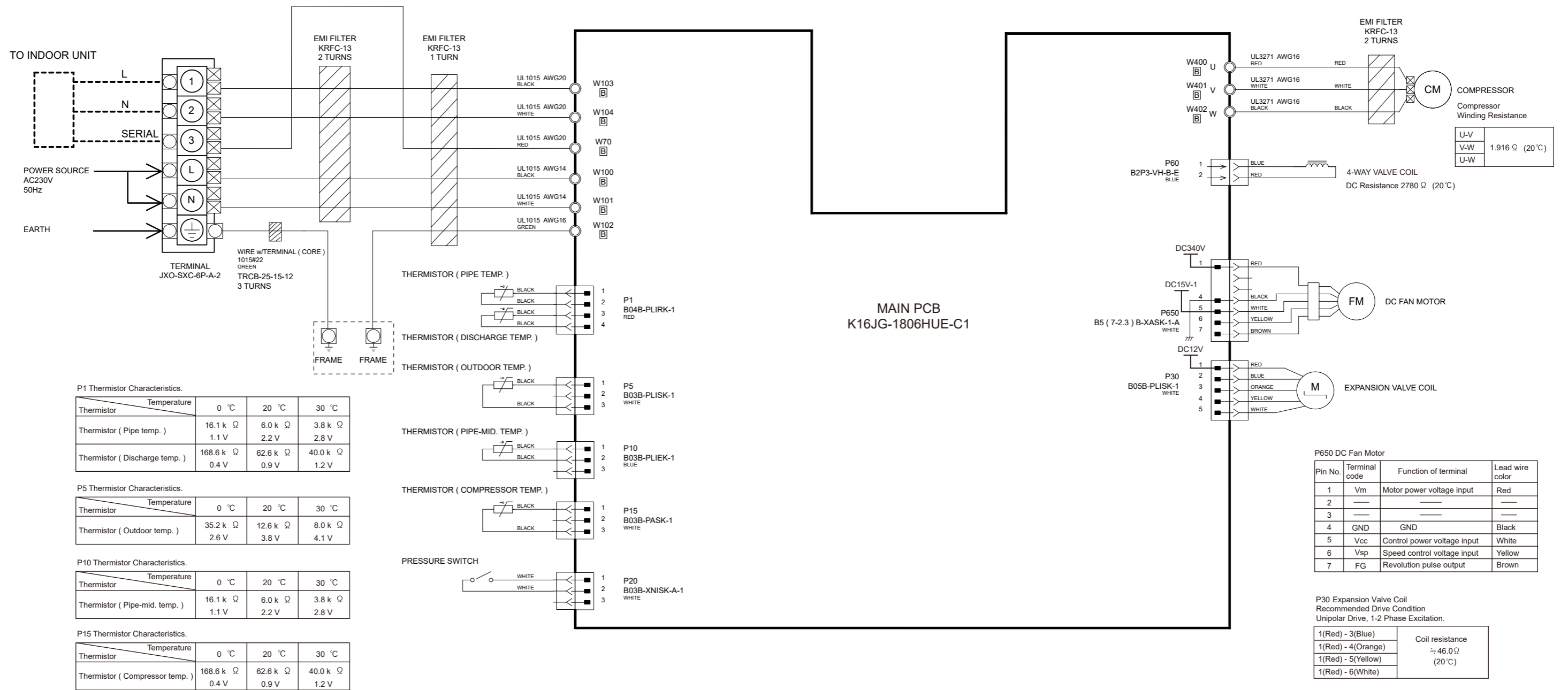
P650 DC Fan Motor

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

P30 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)	

INVERTER ASSEMBLY
EZ-0118YHUE



Error codes

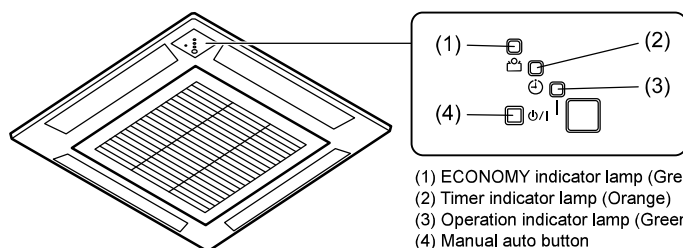
If you use a wireless remote controller, the lamp on the photo detector unit will output error codes by way of blinking patterns. If you use a wired remote controller, error codes will appear on the remote control display. Refer to the lamp blinking patterns and error codes in the table. An error display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

Error display			Error code	Description
OPERATION lamp (green)	TIMER lamp (orange)	ECONOMY lamp (green)		
●(1)	●(1)	◇	11	Serial communication error
●(1)	●(2)	◇	12	• Wired remote controller communication error • Server room control communication error
●(1)	●(5)	◇	15	Check run unfinished Automatic airflow adjustment error
●(1)	●(6)	◇	16	Peripheral unit transmission PCB connection error
●(1)	●(8)	◇	18	External communication error
●(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 secondary unit) [Simultaneous Multi] • Connection unit number error (indoor unit or branch unit) [Flexible Multi]
●(2)	●(6)	◇	26	Indoor unit address setting error
●(2)	●(7)	◇	27	Primary unit, secondary unit setup error [Simultaneous Multi]
●(2)	●(9)	◇	29	Connection unit number error in wired remote controller system
●(3)	●(1)	◇	31	Power supply interruption error
●(3)	●(2)	◇	32	Indoor unit PCB model information error
●(3)	●(3)	◇	33	Indoor unit motor electricity consumption detection error
●(3)	●(5)	◇	35	Manual auto switch error
●(3)	●(9)	◇	39	Indoor unit power supply error for fan motor
●(3)	●(10)	◇	3A	Indoor unit communication circuit (wired remote controller) error
●(4)	●(1)	◇	41	Room temp. sensor error
●(4)	●(2)	◇	42	Indoor unit heat ex. middle temp. sensor error
●(4)	●(4)	◇	44	Human sensor error
●(5)	●(1)	◇	51	Indoor unit fan motor error
●(5)	●(3)	◇	53	Drain pump error
●(5)	●(4)	◇	54	Electric air cleaner reverse VDD error
●(5)	●(5)	◇	55	Filter set error
●(5)	●(7)	◇	57	Damper error
●(5)	●(8)	◇	58	Intake grille error
●(5)	●(9)	◇	59	Indoor unit fan motor 2 error (Left side fan)
●(5)	●(10)	◇	5A	Indoor unit fan motor 3 error (Right side fan)
●(5)	●(15)	◇	5U	Indoor unit error

Error display			Error code	Description
OPERATION lamp (green)	TIMER lamp (orange)	ECONOMY lamp (green)		
●(6)	●(1)	◇	61	Outdoor unit reverse/missing phase and wiring 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)	●(8)	◇	68	Outdoor unit rush current limiting resistor temp. rise error
●(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 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]

Display mode ● : 0.5s ON / 0.5s OFF
◇ : 0.1s ON / 0.1s OFF
() : Number of flashing

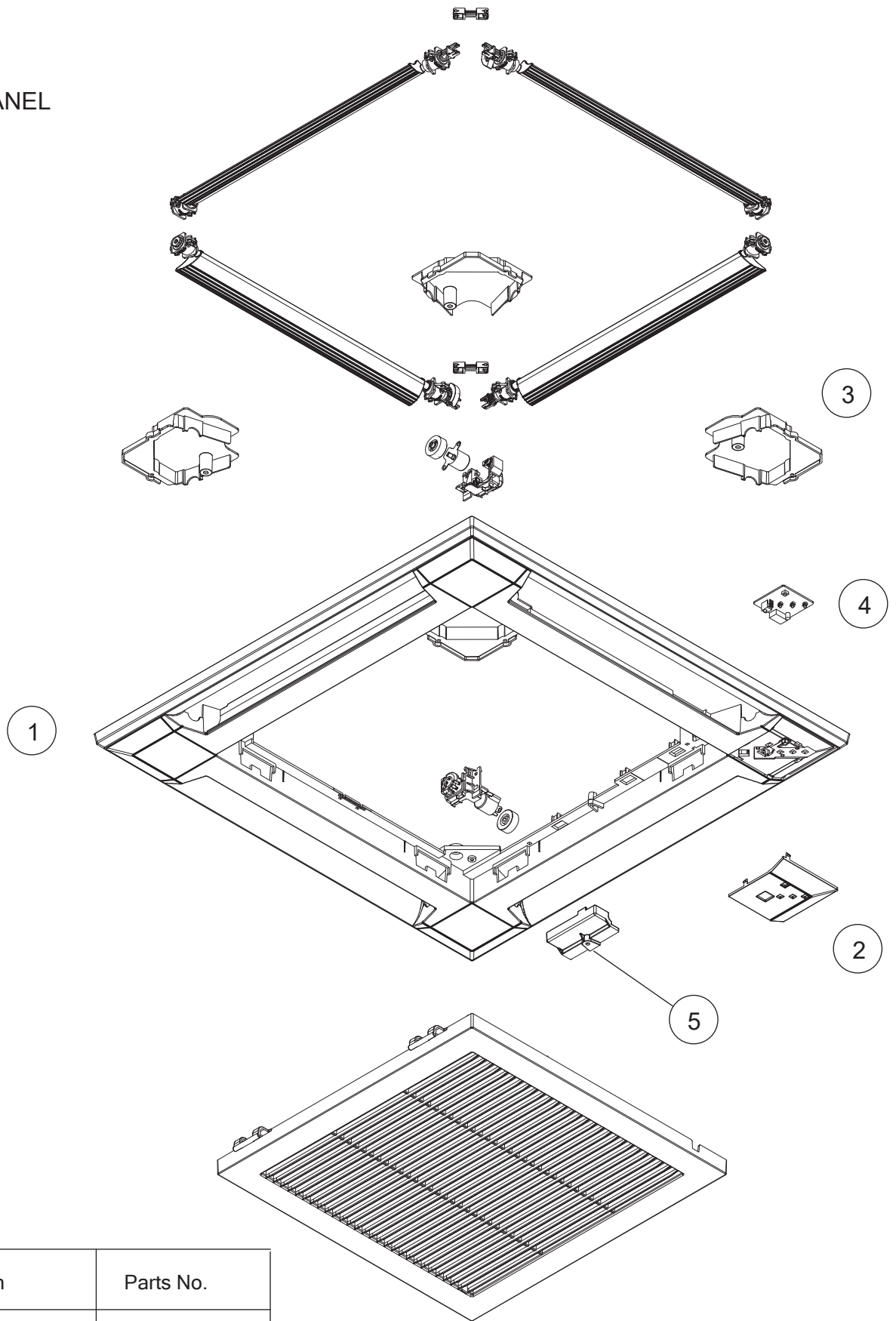
■ Error display on the indoor unit



- (1) ECONOMY indicator lamp (Green)
(2) Timer indicator lamp (Orange)
(3) Operation indicator lamp (Green)
(4) Manual auto button

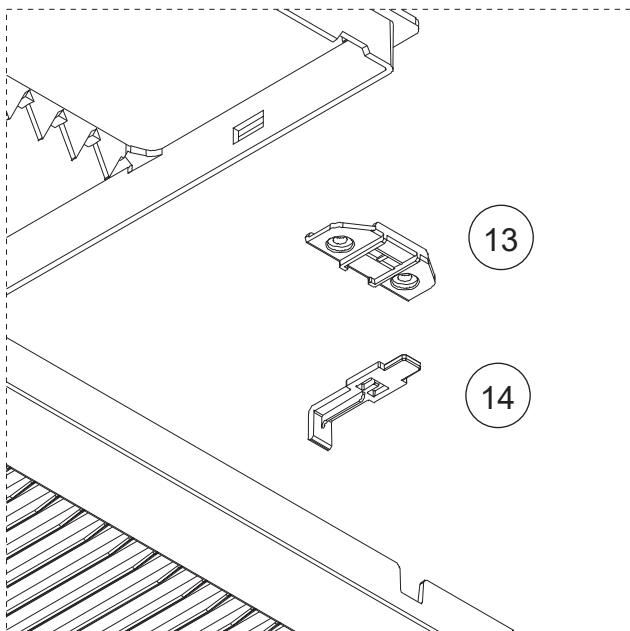
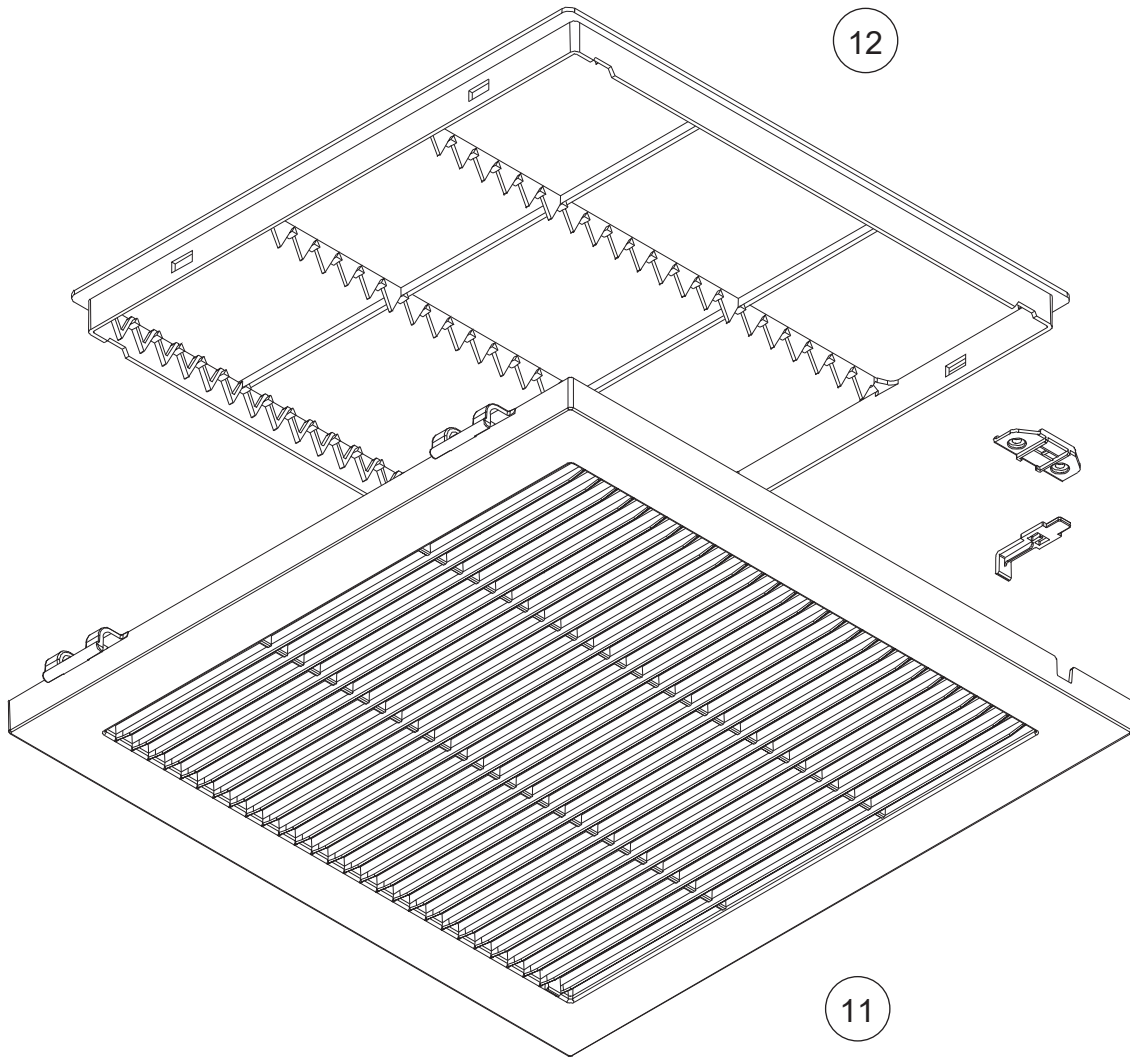
Parts

DECORATION PANEL
UTG-UFYF-W



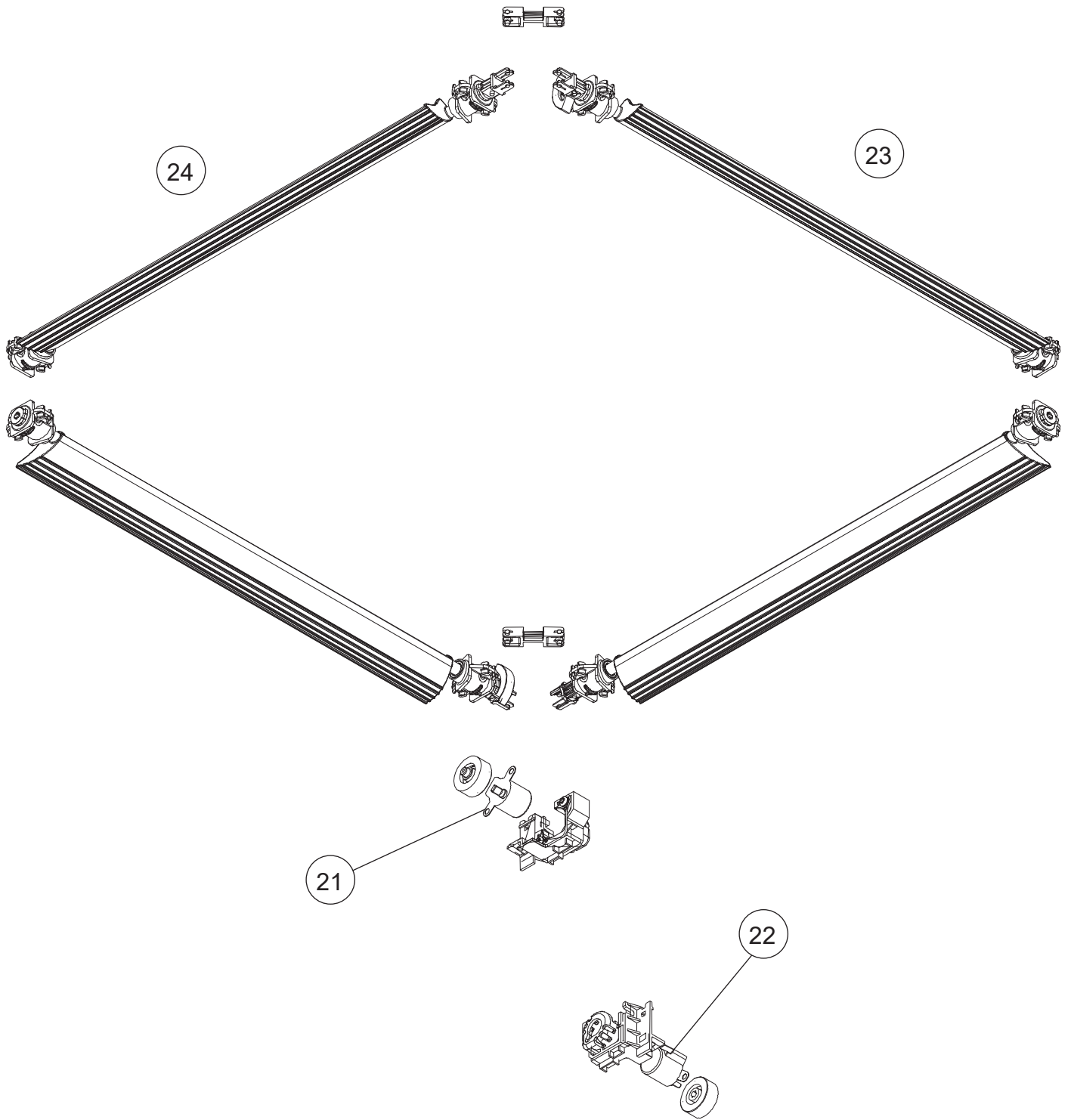
Ref	Description	Parts No.
1	Decoration Panel without Insulations	9382821005
2	Display panel assy	9383100031
3	Panel Cover without Insulations	9375530013
4	Indicator PCB	9711310002
5	Connector Cover	9375549015

DECORATION PANEL
 UTG-UFYF-W
 Intake grille assy



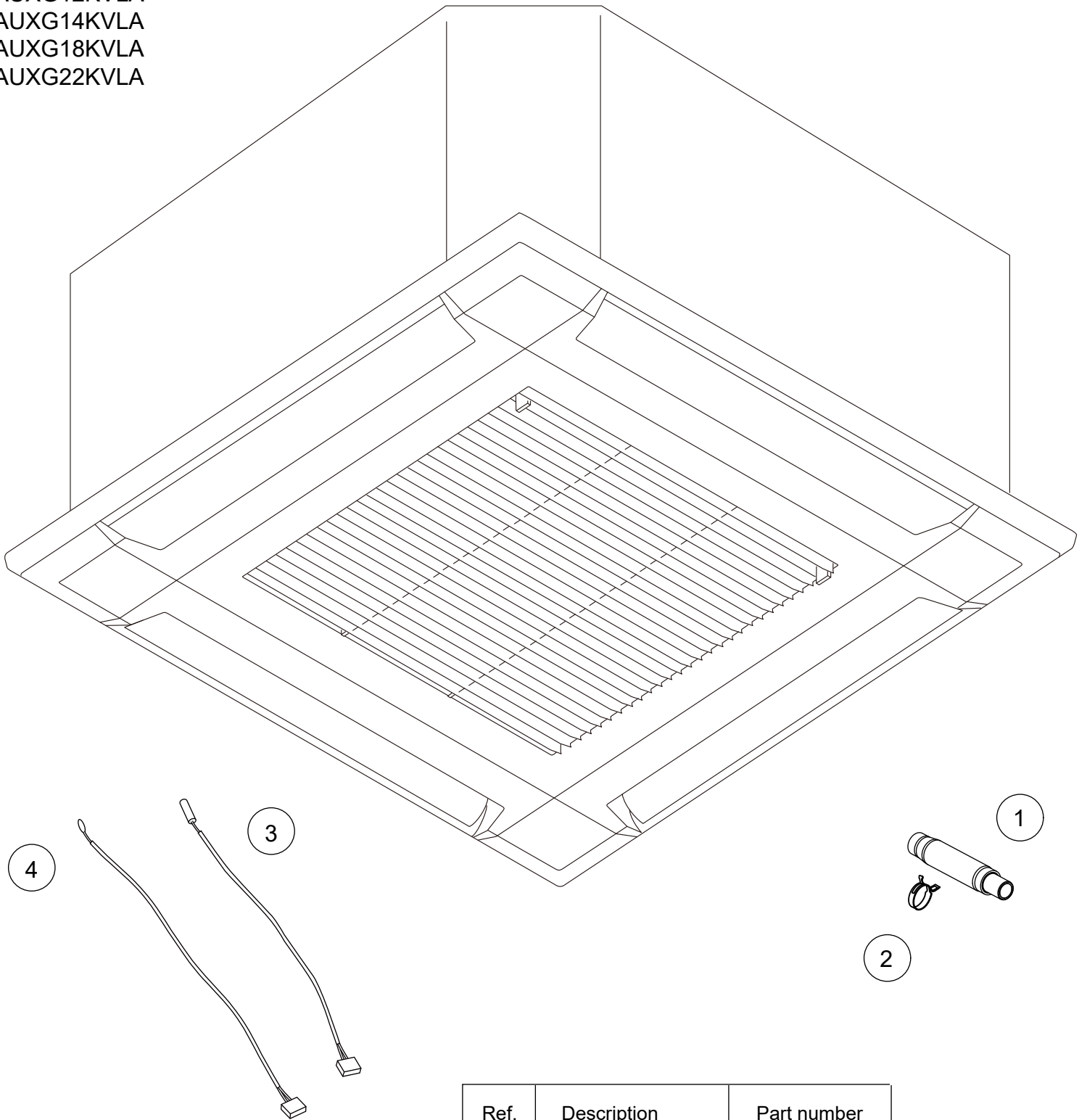
Ref	Description	Parts No.
11	Intake grille	9382863005
12	Long Life Filter	9375533014
13	Hook bracket	9375546014
14	Grille hook	9375532031

DECORATION PANEL
UTG-UFYF-W



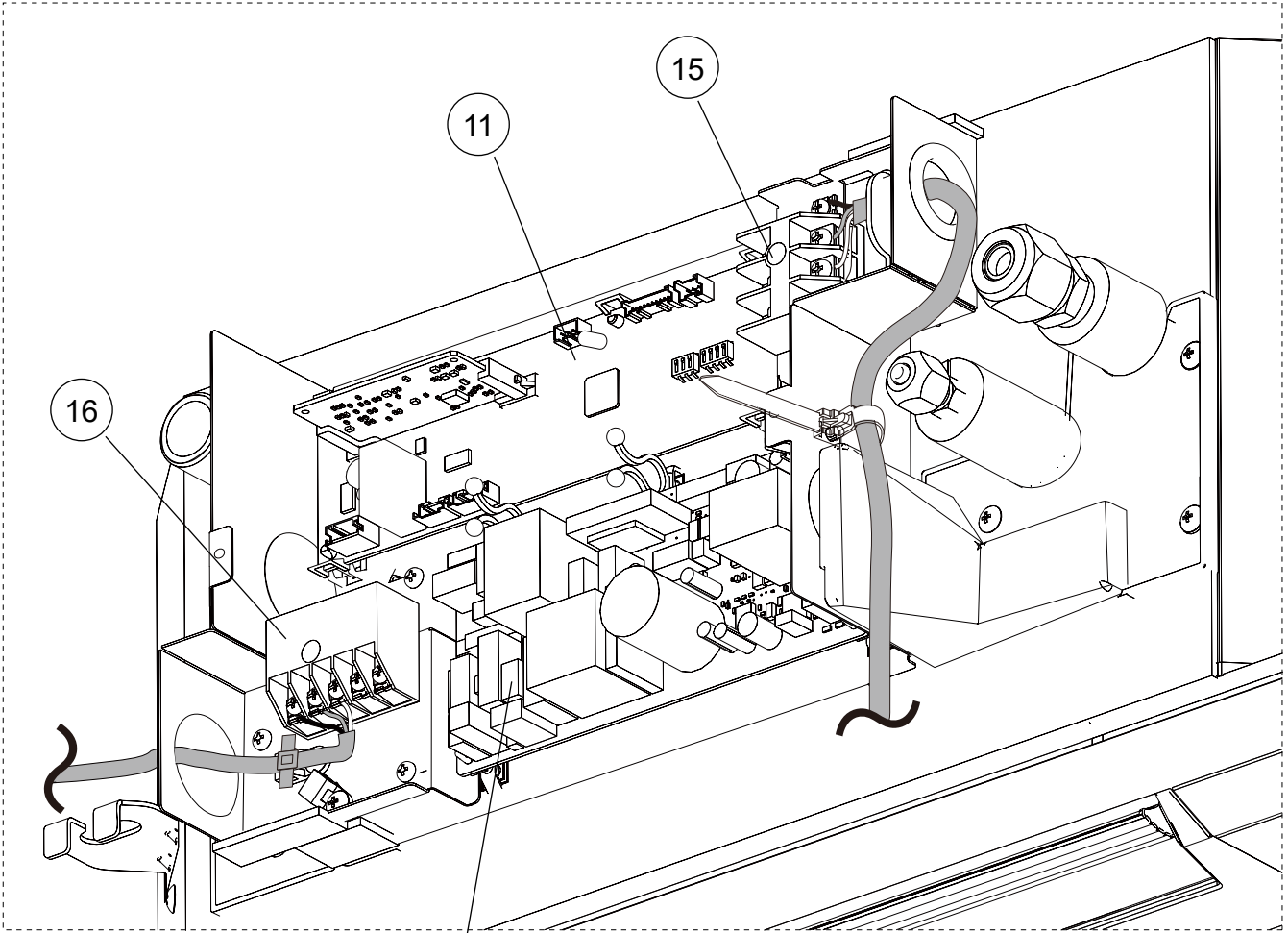
Ref	Description	Parts No.
21	Step Motor (White connector)	9900139070
22	Step Motor (Red connector)	9900139087
23	Flap assy A	9375727048
24	Flap assy B	9377759047

INDOOR UNIT
 AUXG09KVLA
 AUXG12KVLA
 AUXG14KVLA
 AUXG18KVLA
 AUXG22KVLA

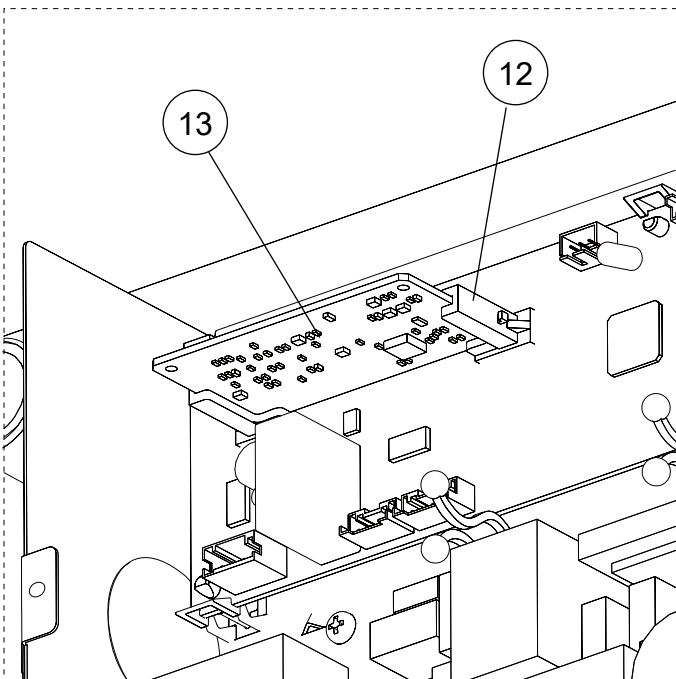


Ref.	Description	Part number
1	Drain hose	9379665001
2	Hose band	9379757010
3	Pipe Thermistor	9900942038
4	Room Thermistor	9900826000

INDOOR UNIT
 AUXG09KVLA
 AUXG12KVLA
 AUXG14KVLA
 AUXG18KVLA
 AUXG22KVLA



14

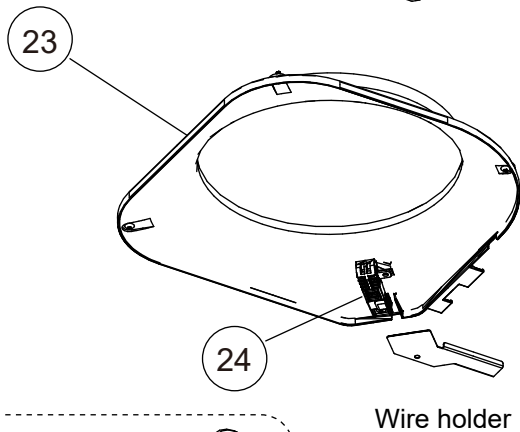
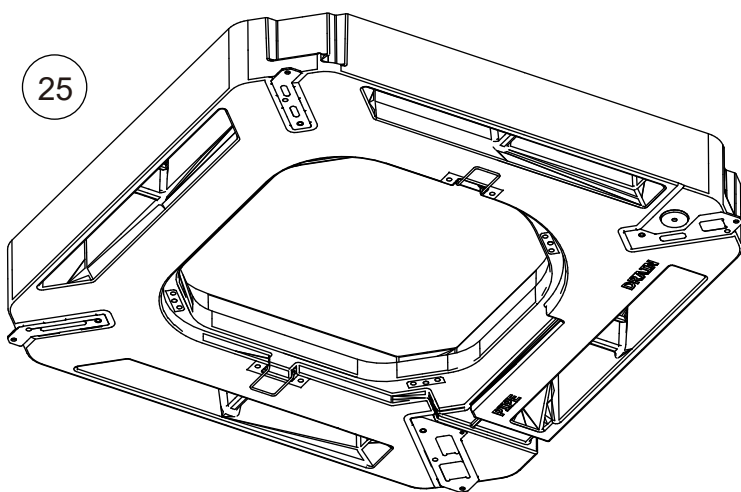
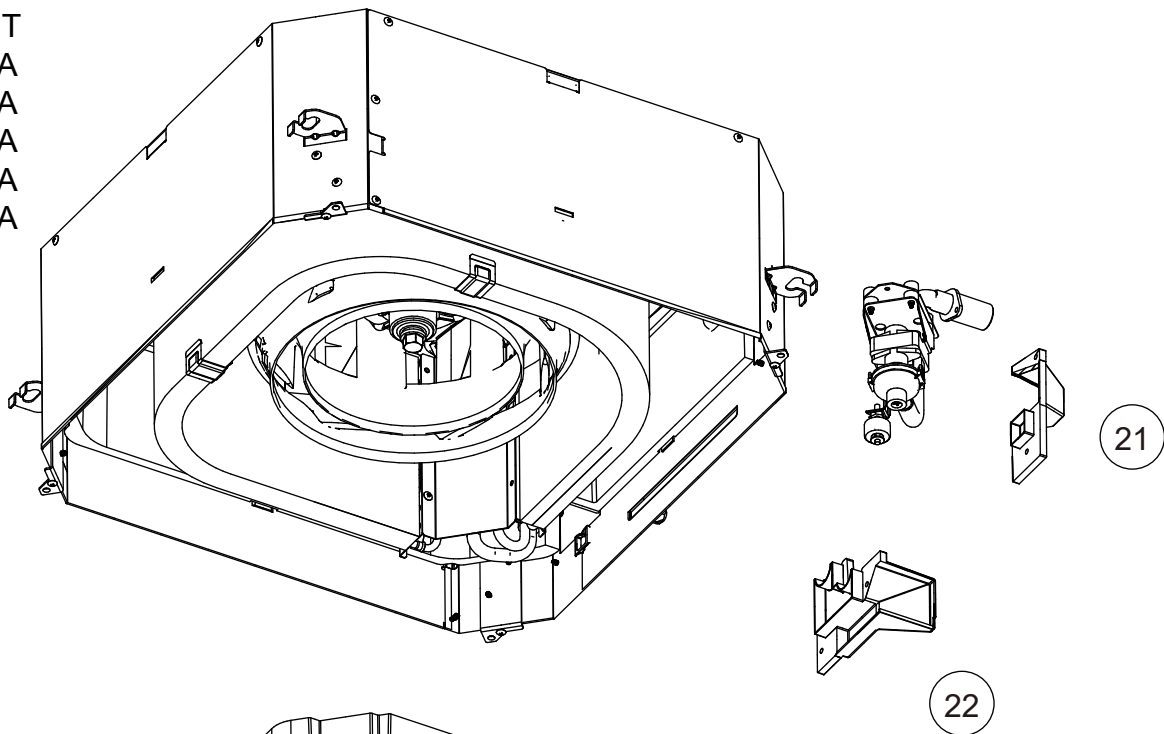


12

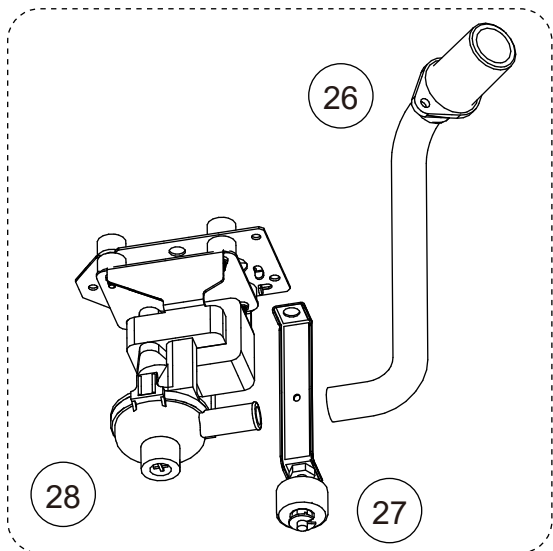
13

Ref.	Description	Part number
11	Main PCB (AUXG09KVLA)	9710995743
11	Main PCB (AUXG12KVLA)	9710995750
11	Main PCB (AUXG14KVLA)	9710995705
11	Main PCB (AUXG18KVLA)	9710995767
11	Main PCB (AUXG22KVLA)	9710995613
12	Holder	0600063023
13	Communication PCB	9710019005
14	Power supply PCB	9710661006
15	Terminal	9900568009
16	Terminal	9900896003

INDOOR UNIT
 AUXG09KVLA
 AUXG12KVLA
 AUXG14KVLA
 AUXG18KVLA
 AUXG22KVLA

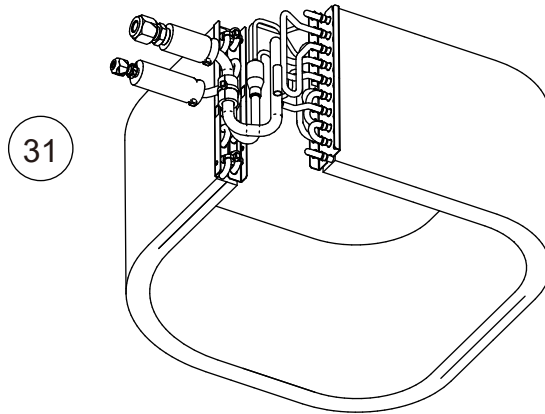
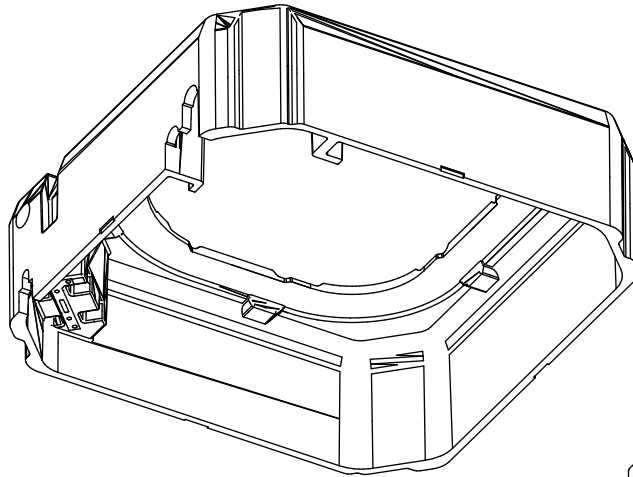
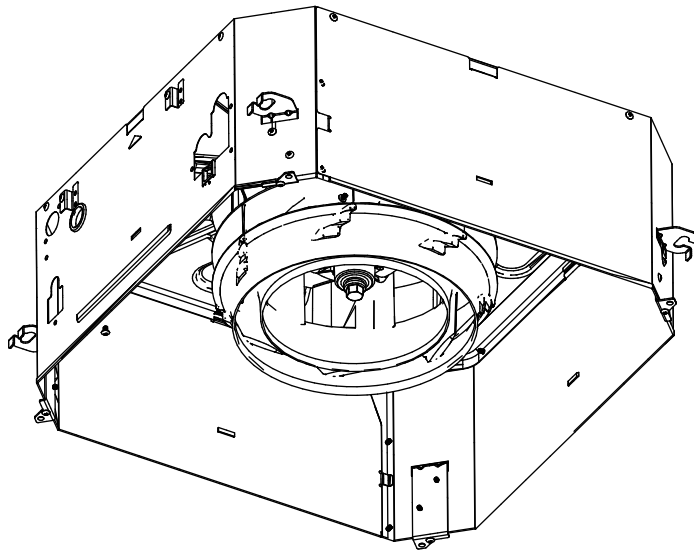


Wire holder

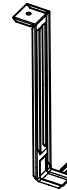


Ref.	Description	Part number
21	Wire cover	9375516017
22	Pipe cover	9375515010
23	Bellmouth	9375503017
24	Thermistor holder	9375477011
25	Drain pan sub assy (09,12,14,18)	9377765024
25	Drain pan sub assy (22)	9377765017
26	Drain port sub assy	9375718015
27	Float switch sub assy	9375721046
28	Drain pump sub assy	9375717025

INDOOR UNIT
 AUXG09KVLA
 AUXG12KVLA
 AUXG14KVLA
 AUXG18KVLA
 AUXG22KVLA



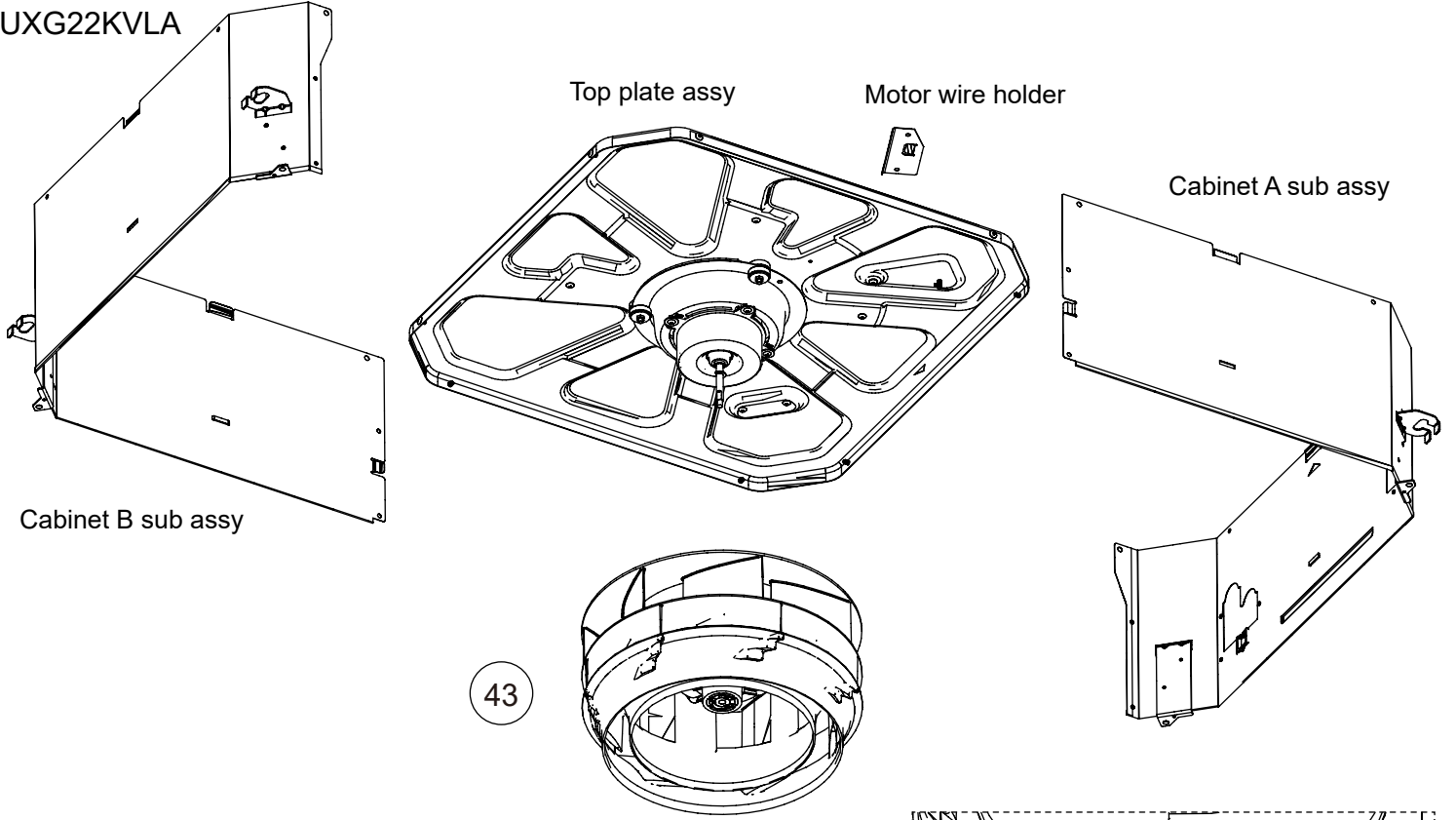
Separate wall



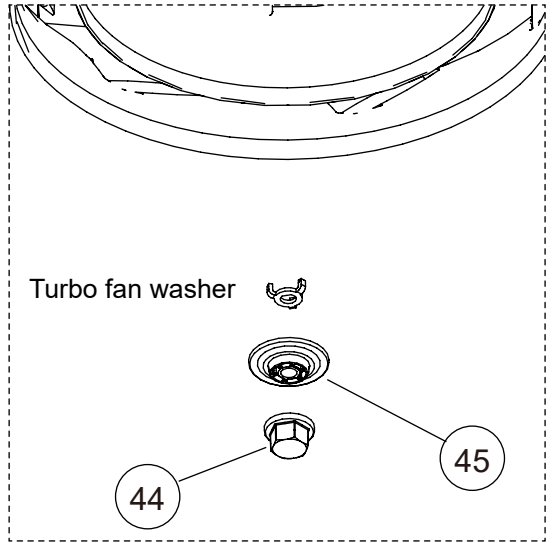
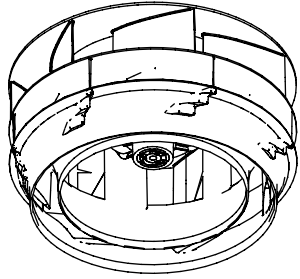
Evaporator holder 2 row

Ref.	Description	Part number
31	Evaporator total assy (AUXG09, 12KVLA)	9377914101
31	Evaporator total assy (AUXG14KVLA)	9377914118
31	Evaporator total assy (AUXG18KVLA)	9377914125
31	Evaporator total assy (AUXG22KVLA)	9377914149
32	Insulation box sub assy (09,12,14,18)	9377764065
32	Insulation box sub assy (22)	9377764058

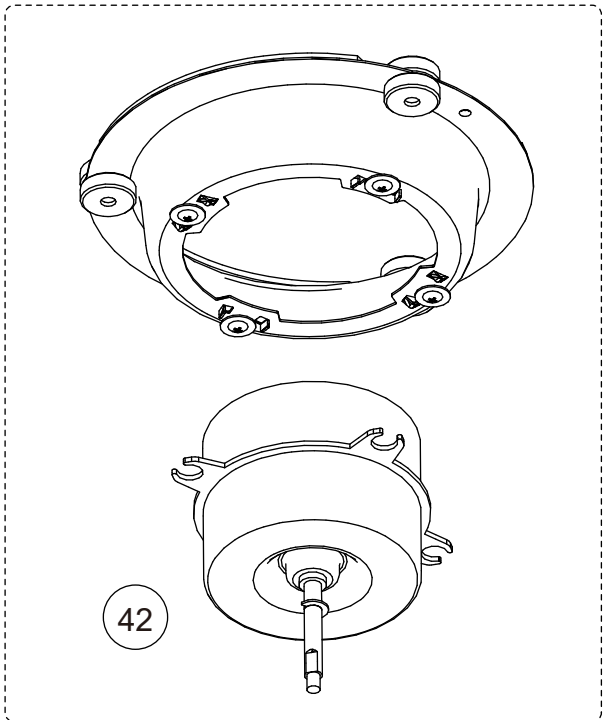
INDOOR UNIT
 AUXG09KVLA
 AUXG12KVLA
 AUXG14KVLA
 AUXG18KVLA
 AUXG22KVLA



43

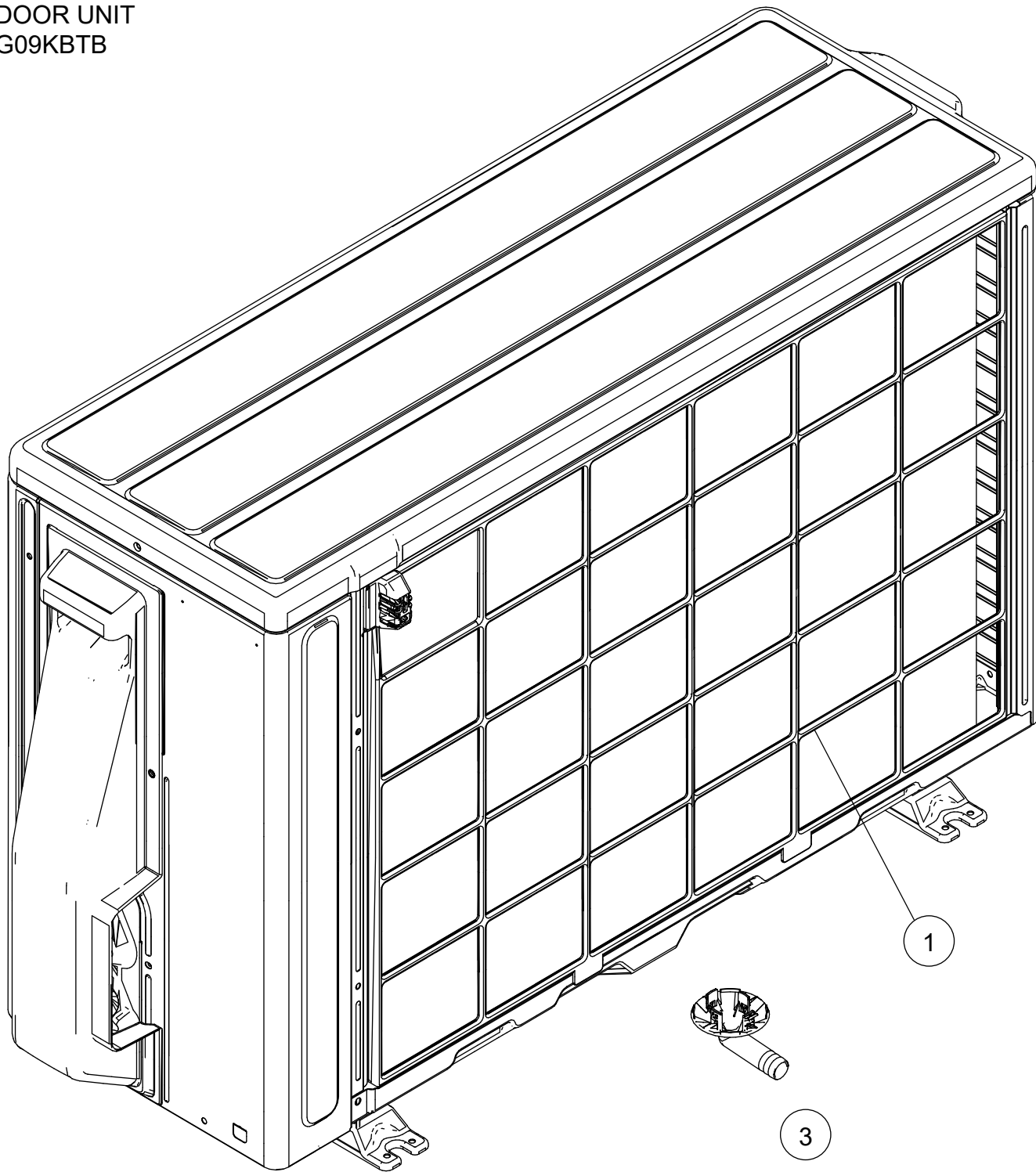


41



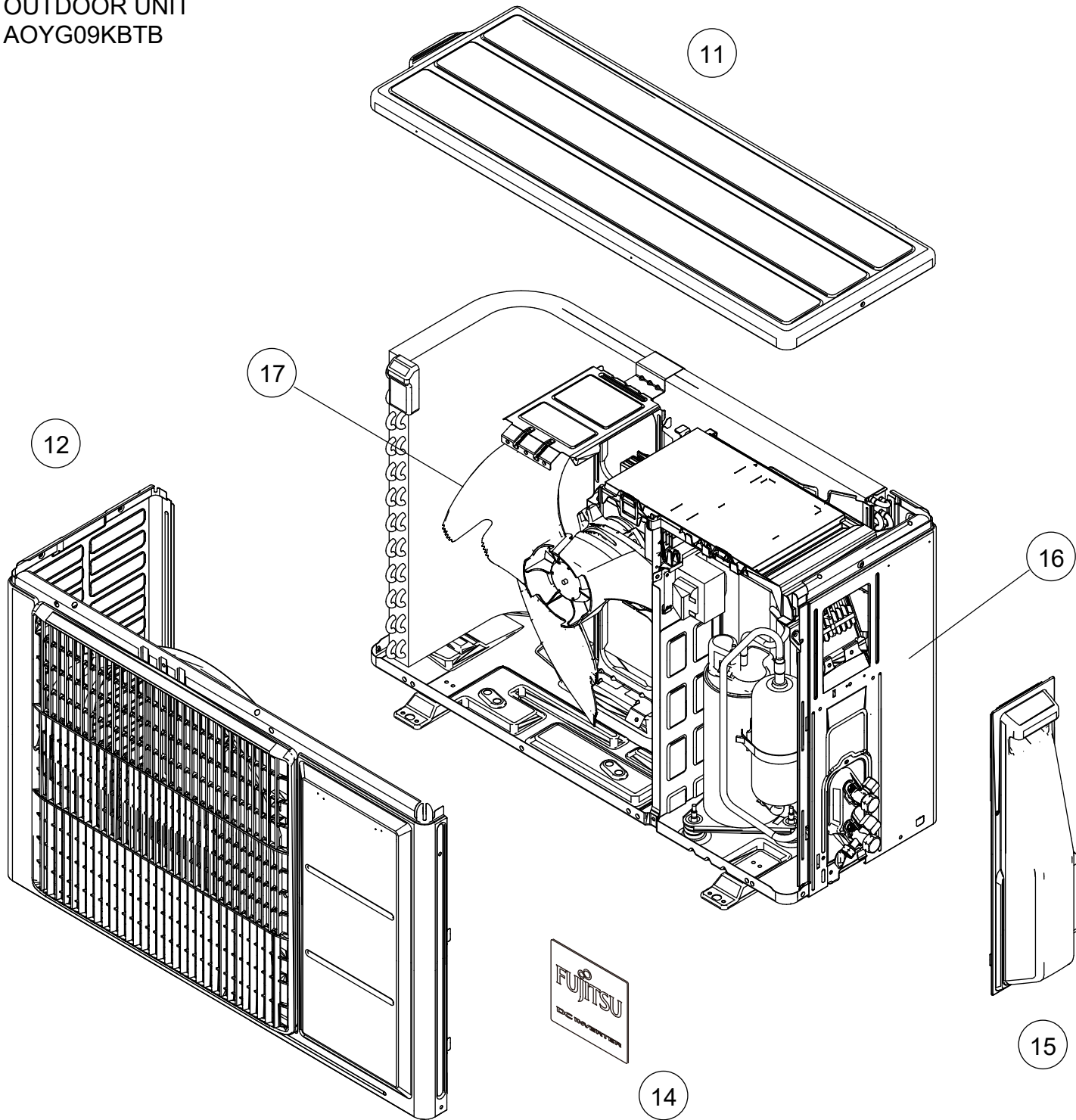
Ref.	Description	Part number
41	Fan motor sub assy	9375719012
42	Fan motor	9602436019
43	2 stage turbo fan assy	9375480011
44	Shaft cap	9377807014
45	Washer cover	9377811011

OUTDOOR UNIT
AOYG09KBTB

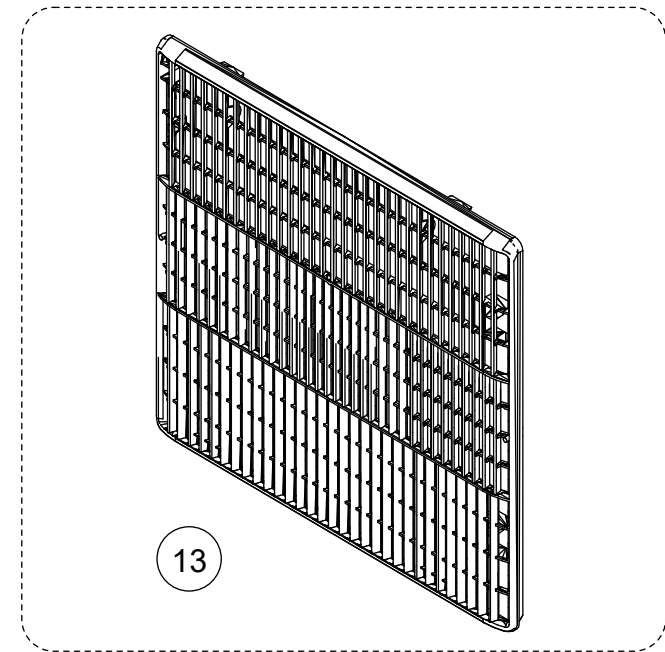


Ref.	Description	Part number
1	Protective net assy	9322811011
2	Outdoor thermistor	9900565060
3	Drain pipe	9322144003

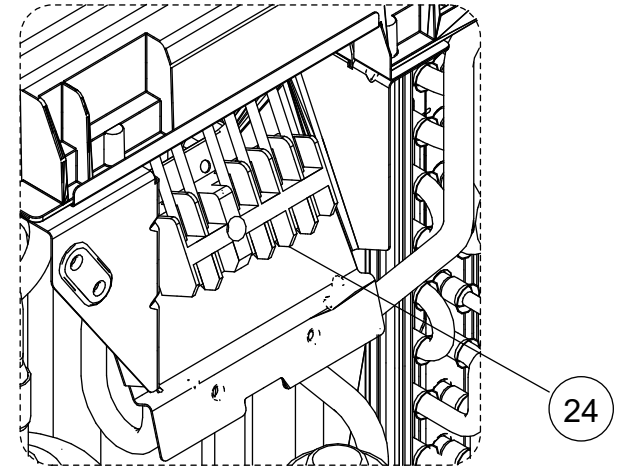
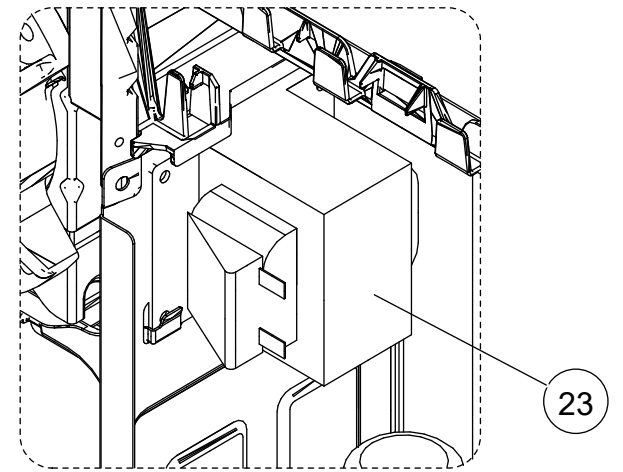
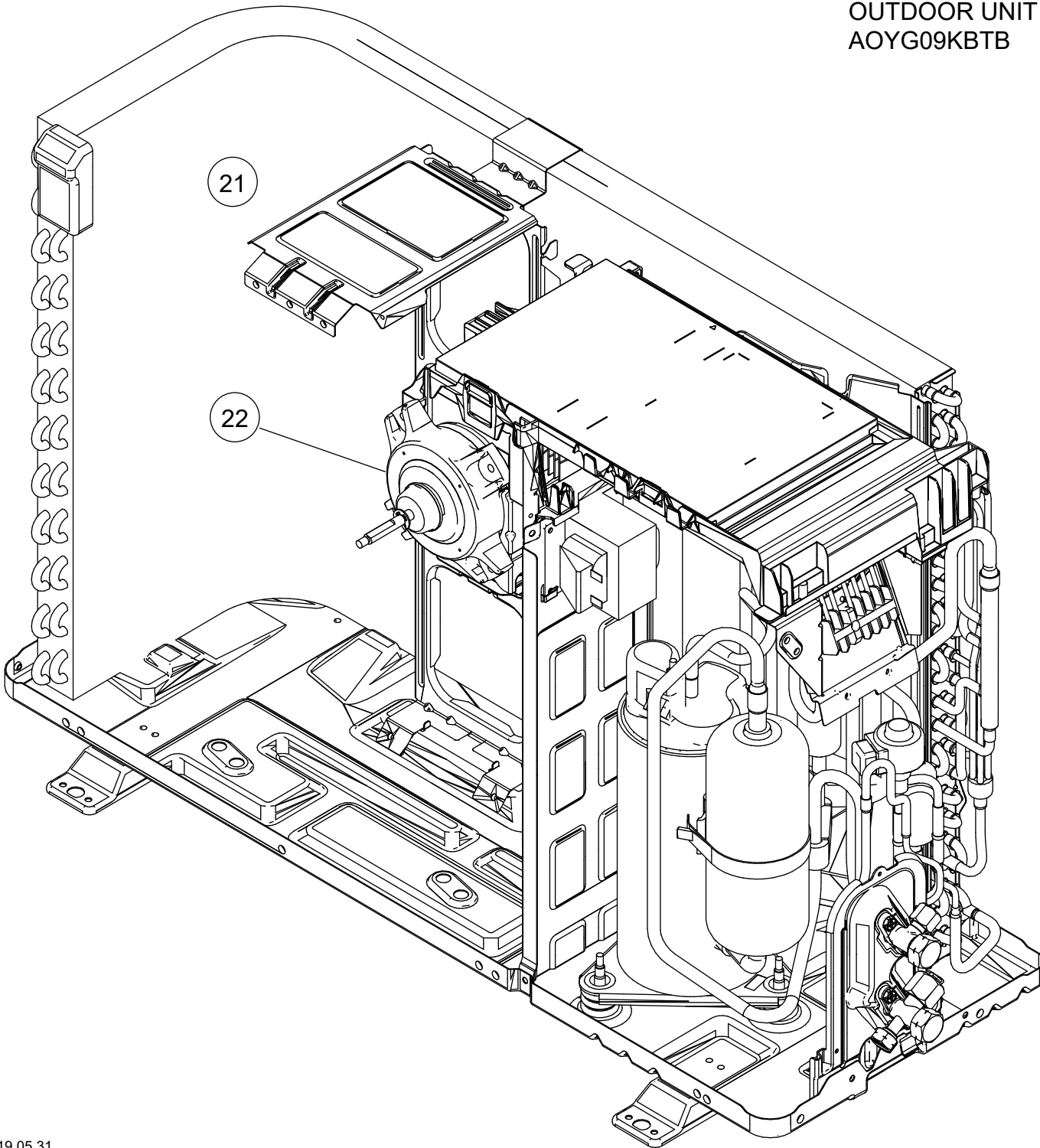
OUTDOOR UNIT
AOYG09KBTB



Ref.	Description	Part number
11	Top panel assy	9322556028
12	Front panel assy	9322555014
13	Blow grille	9322135001
14	Emblem	9319151007
15	Switch cover assy	9322570000
16	Cabinet right assy	9322552020
17	Propeller fan	9322136008

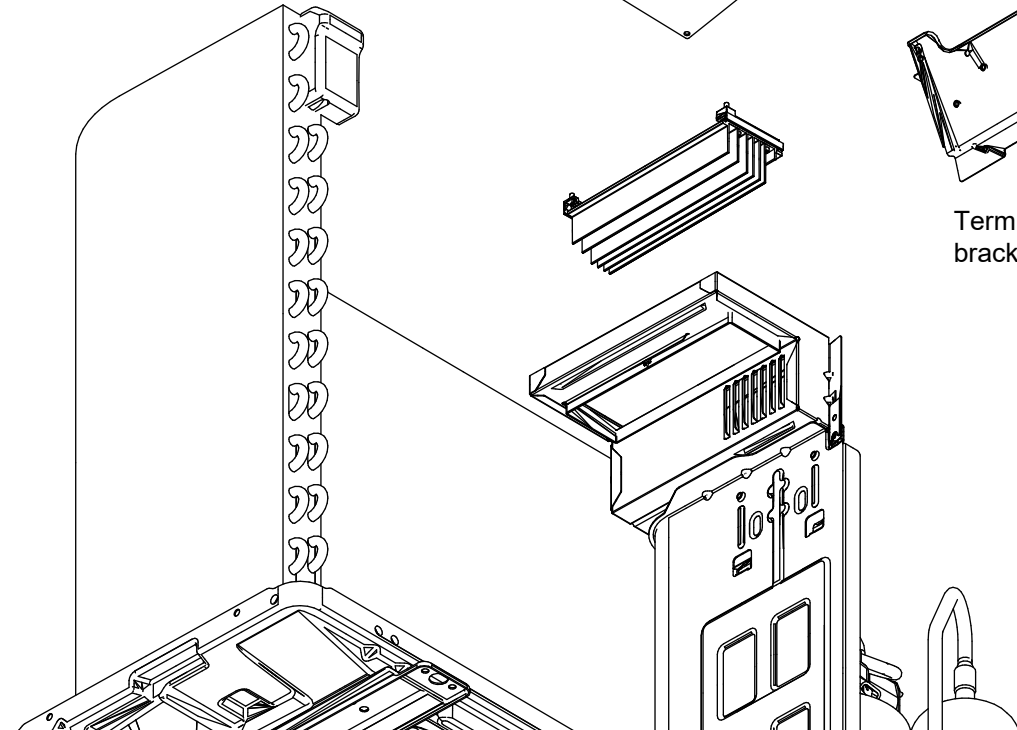
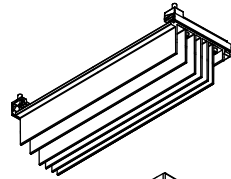
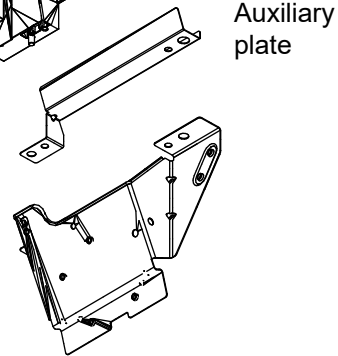
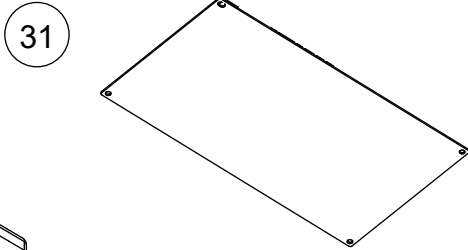
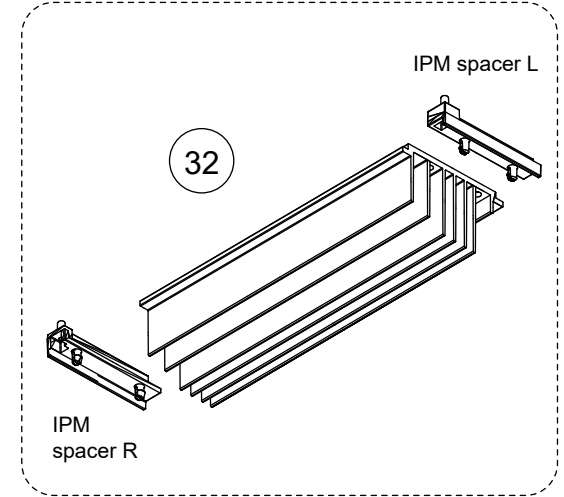
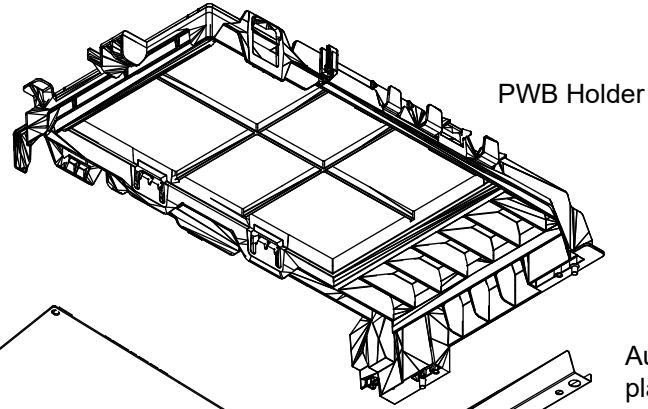
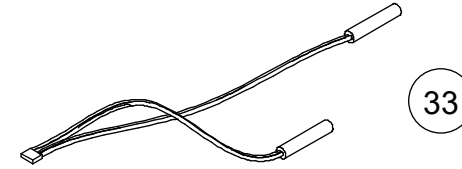
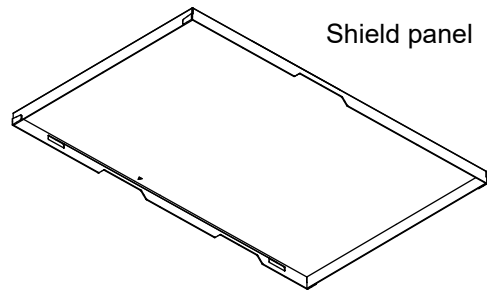


OUTDOOR UNIT
AOYG09KBTB



Ref.	Description	Part number
21	Motor bracket assy	9322553010
22	Brushless motor	9603657017
23	Reactor assy	9900583019
24	Terminal	9900435028

OUTDOOR UNIT
AOYG09KBTB

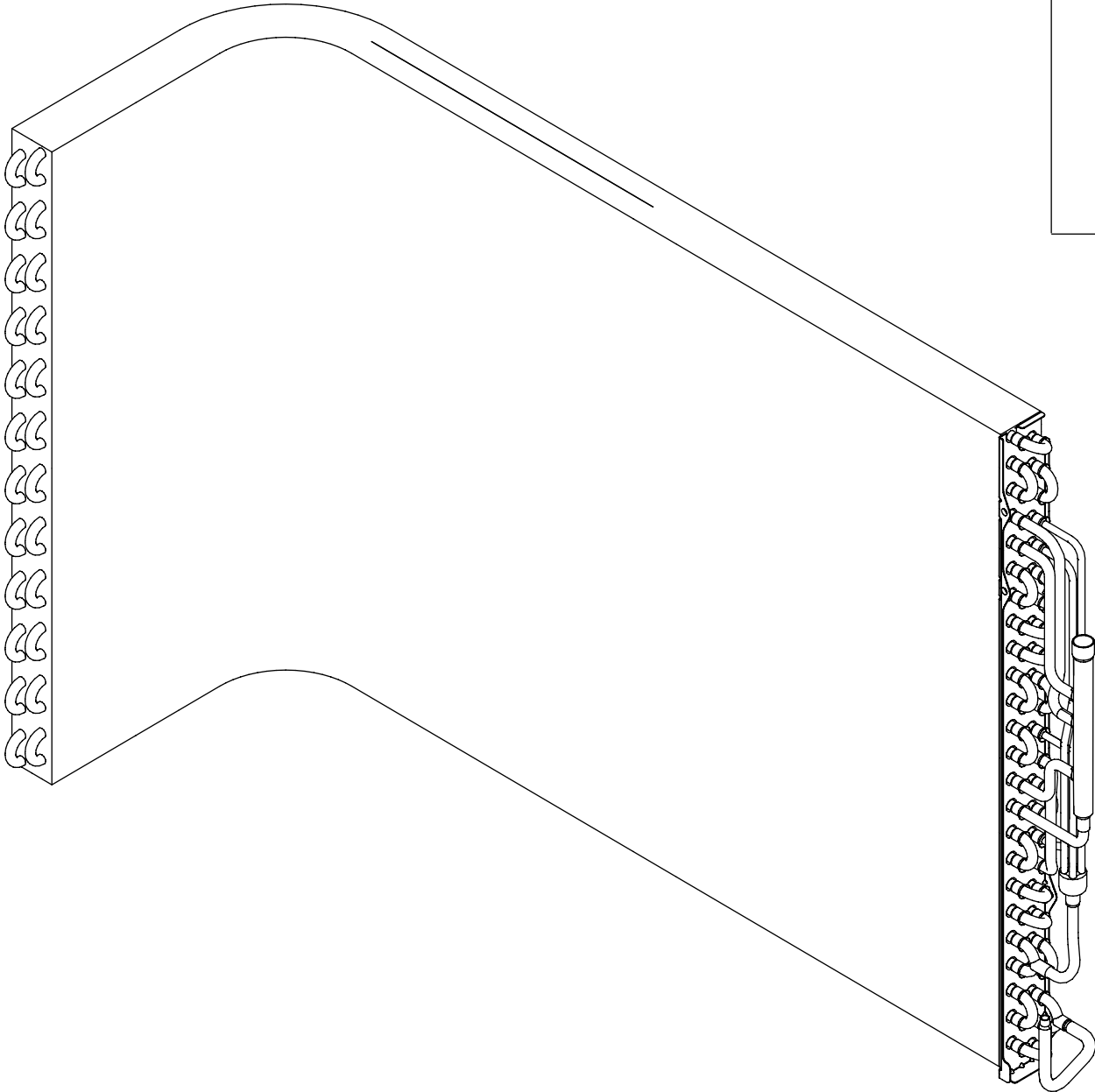
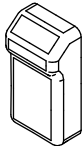


Ref.	Description	Part number
31	Main PCB	9710924194
32	Heatsink	9322418005
33	Thermistor assy	9900727062
---	Heat exchanger thermistor	9900984014

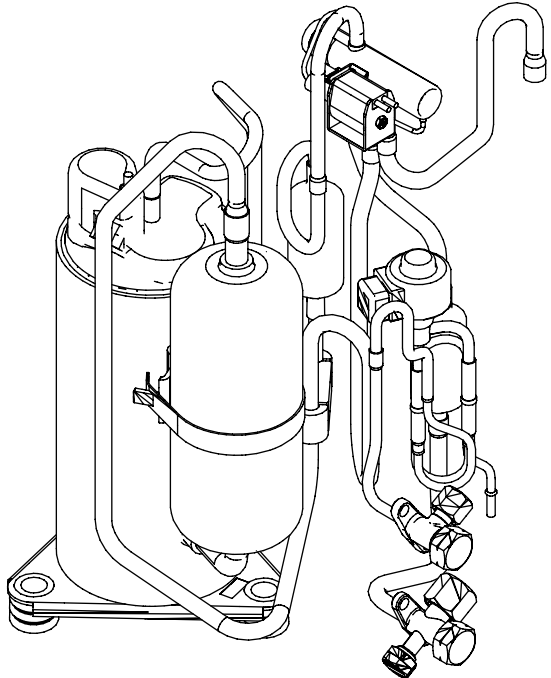
OUTDOOR UNIT
AOYG09KBTB

41

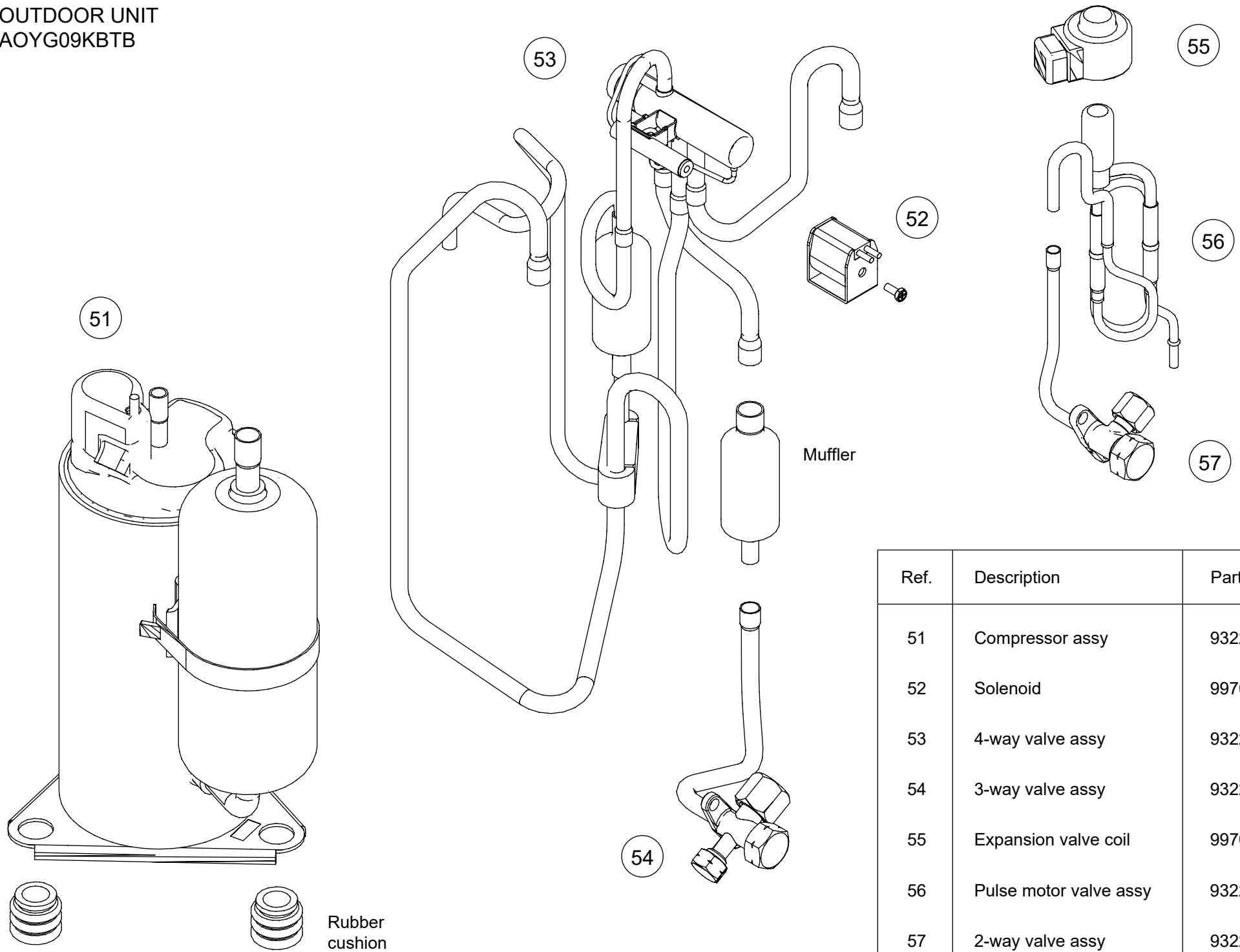
Hair pin
cushion



Ref.	Description	Part number
41	Condenser total assy	9322275004
-	S-insulator B	9322535009
-	S-insulator F	9322536006
-	S-insulator H	9322537003
-	S-insulator V	9323045002

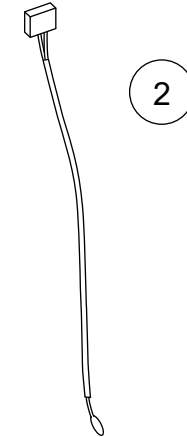
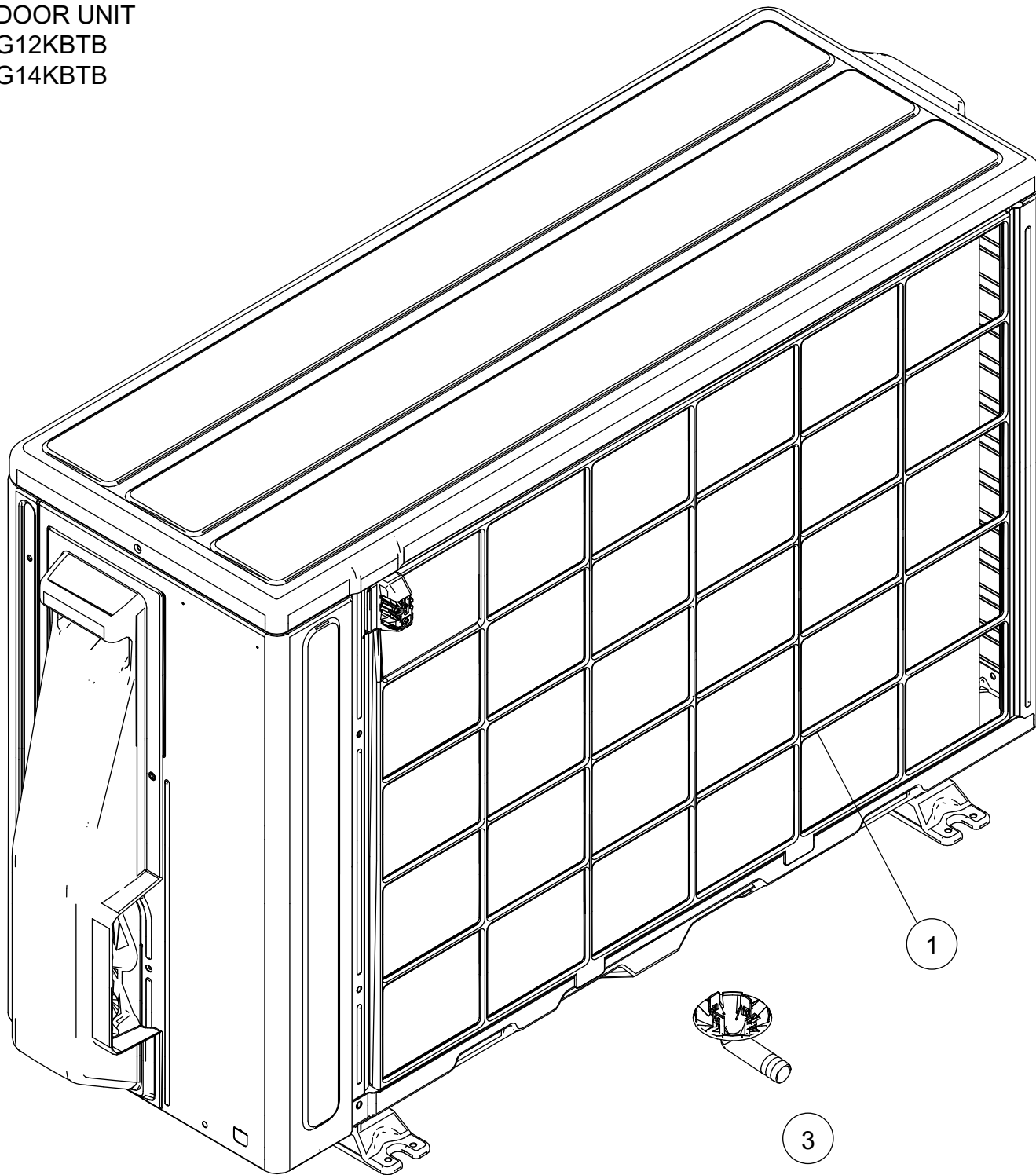


OUTDOOR UNIT
AOYG09KBTB



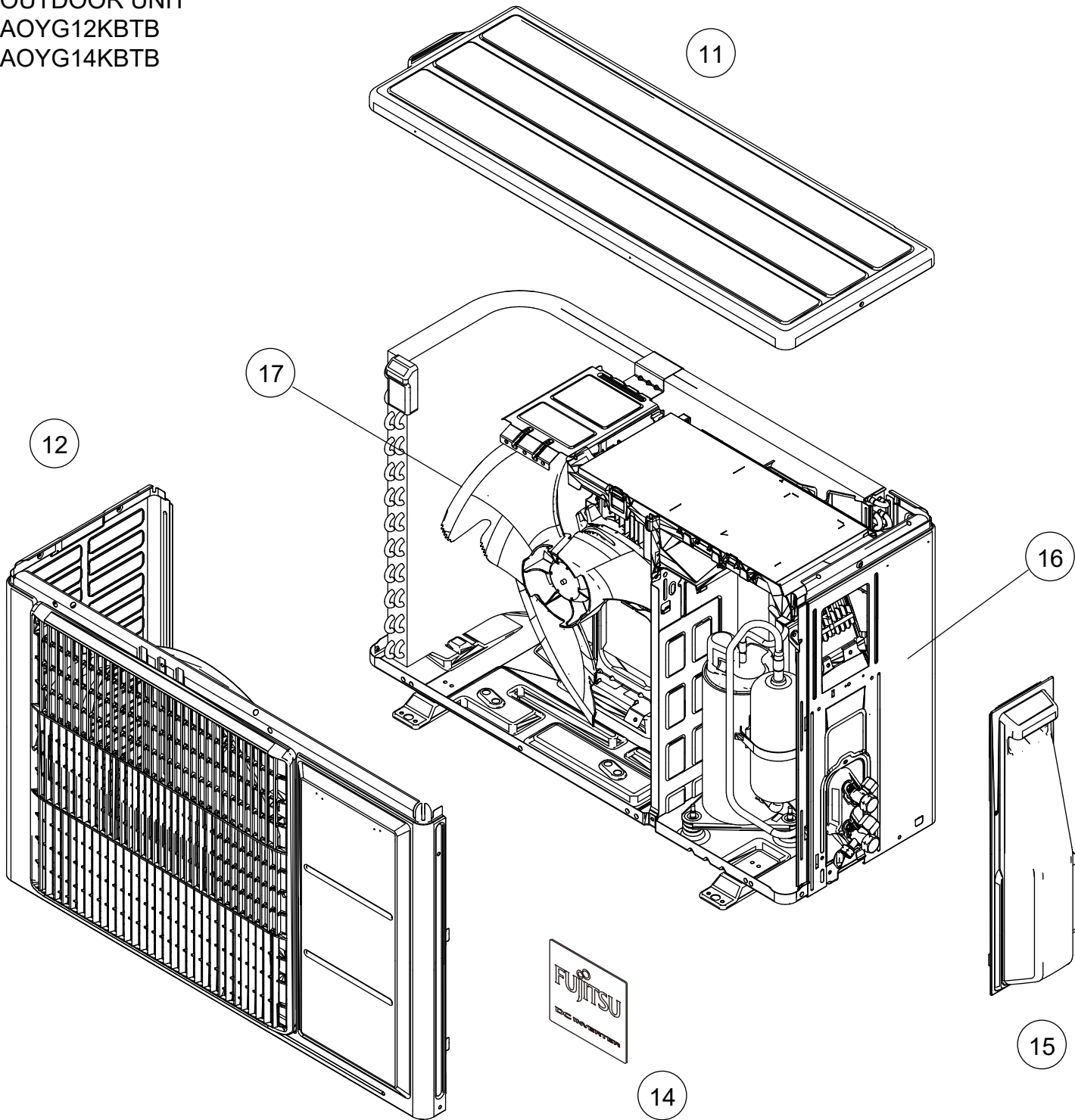
Ref.	Description	Part number
51	Compressor assy	9322427007
52	Solenoid	9970195006
53	4-way valve assy	9322444004
54	3-way valve assy	9322475008
55	Expansion valve coil	9970173028
56	Pulse motor valve assy	9322463029
57	2-way valve assy	9322474001

OUTDOOR UNIT
 AOYG12KBTB
 AOYG14KBTB

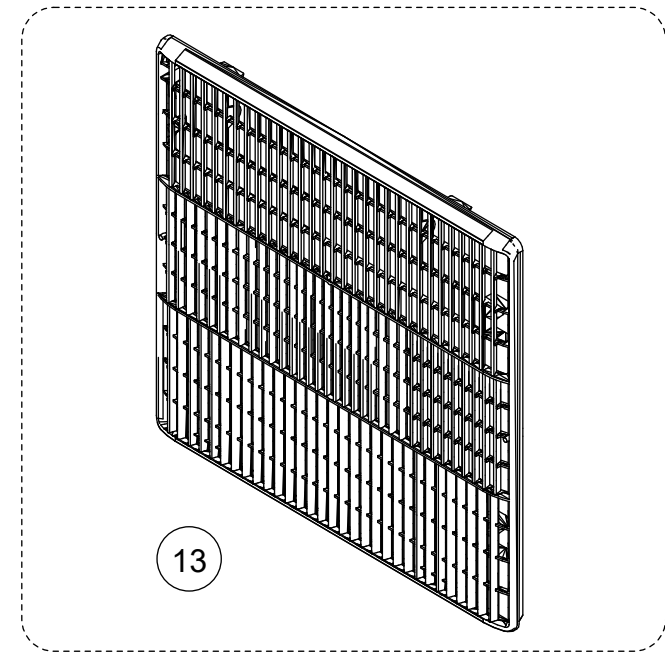


Ref.	Description	Part number
1	Protective net assy	9322811011
2	Outdoor thermistor	9900565060
3	Drain pipe	9322144003

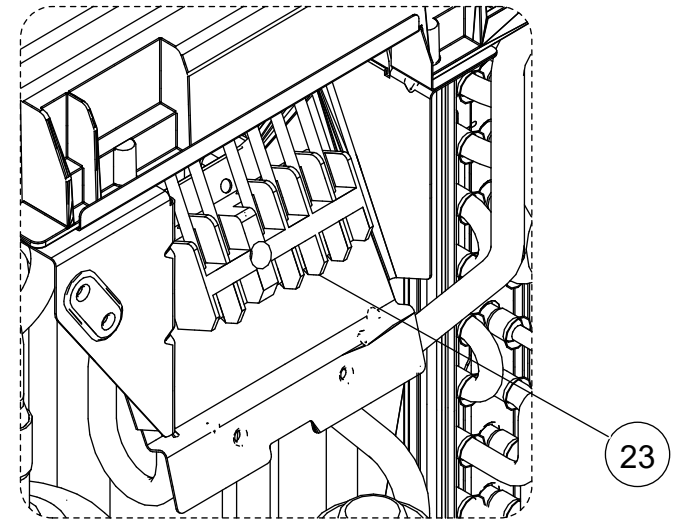
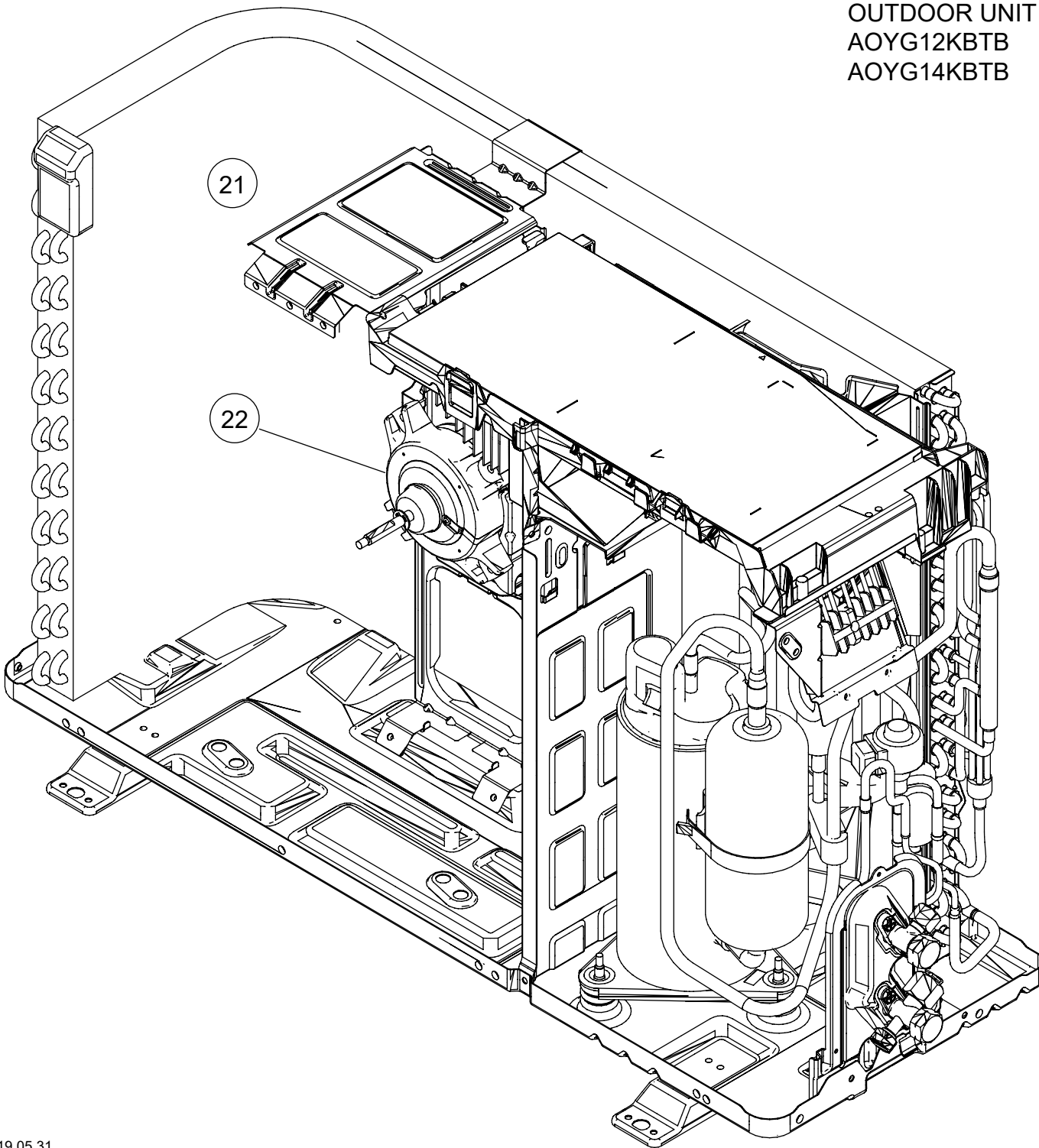
OUTDOOR UNIT
 AOYG12KBTB
 AOYG14KBTB



Ref.	Description	Part number
11	Top panel assy	9322556028
12	Front panel assy	9322555014
13	Blow grille	9322135001
14	Emblem	9319151007
15	Switch cover assy	9322570000
16	Cabinet right assy	9322552020
17	Propeller fan	9322136008

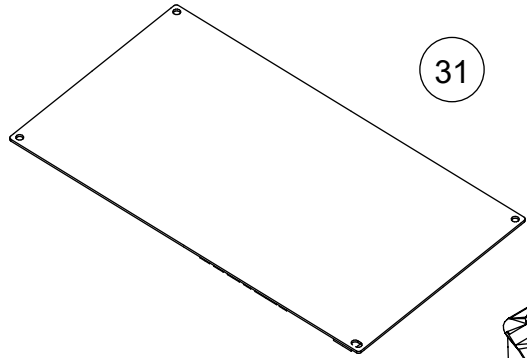


OUTDOOR UNIT
 AOYG12KBTB
 AOYG14KBTB

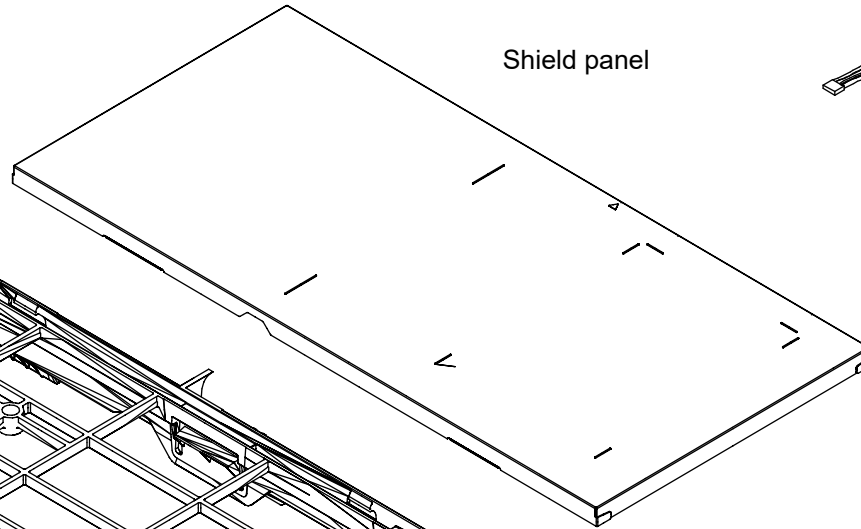


Ref.	Description	Part number
21	Motor bracket assy	9322553010
22	Brushless motor	9603657017
23	Terminal	9900435028

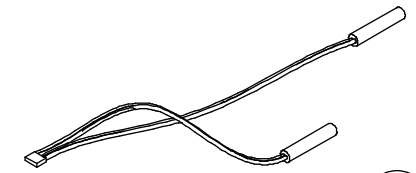
OUTDOOR UNIT
 AOYG12KBTB
 AOYG14KBTB



31

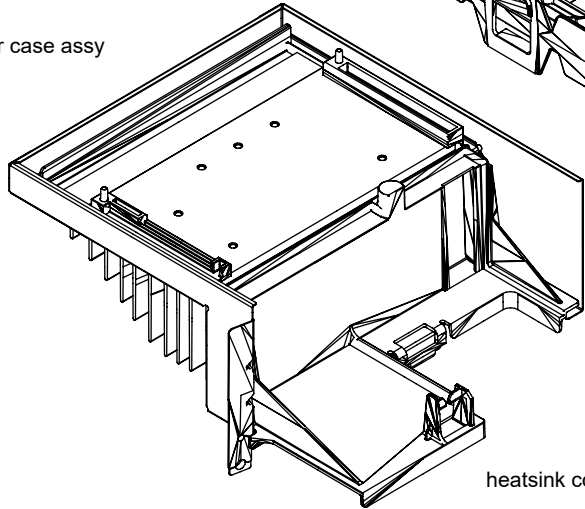


Shield panel

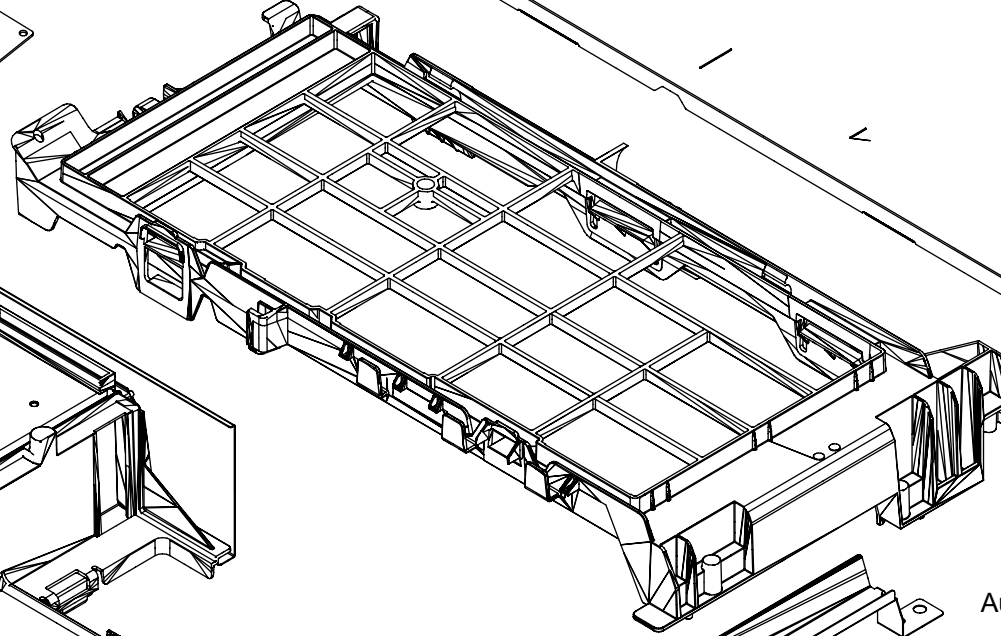


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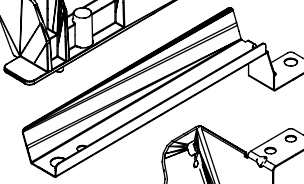
Inverter case assy



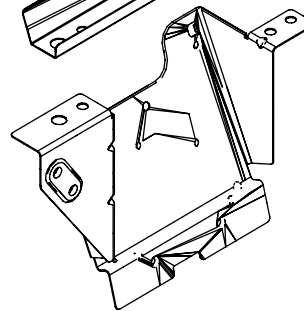
heatsink cover



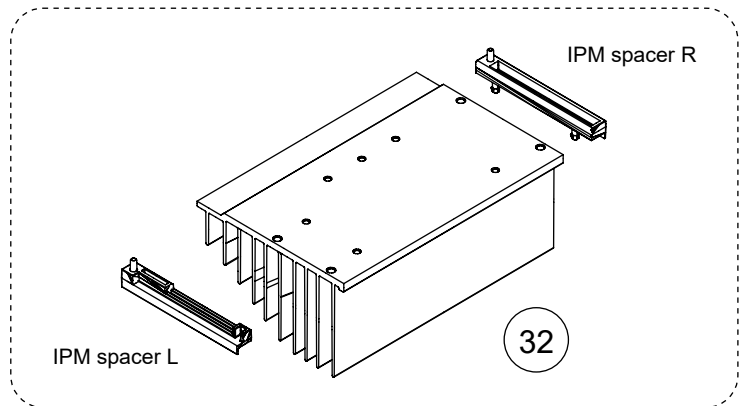
PWB Holder



Auxiliary plate



Terminal bracket assy



32

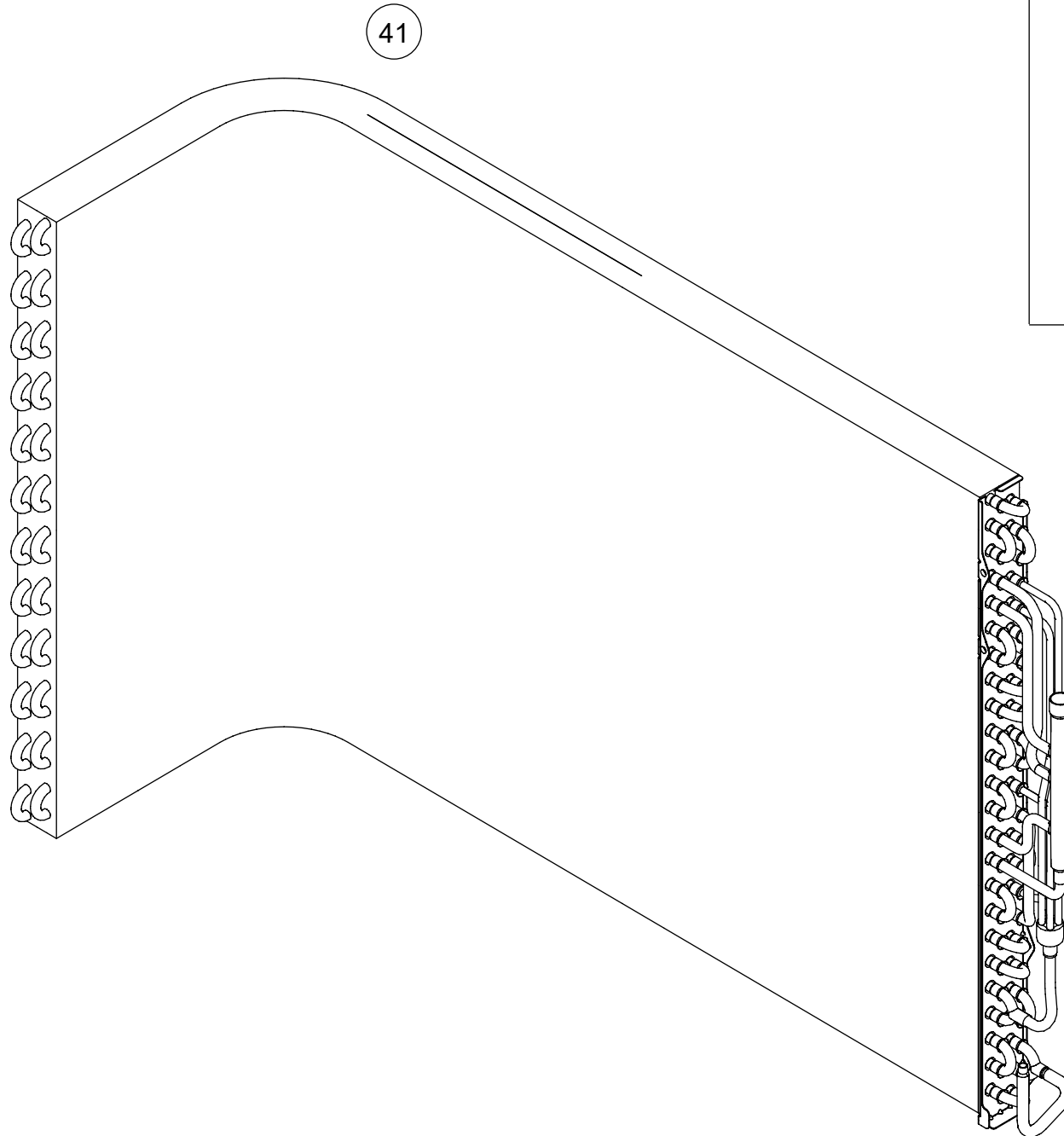
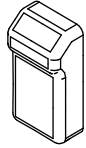
IPM spacer R

IPM spacer L

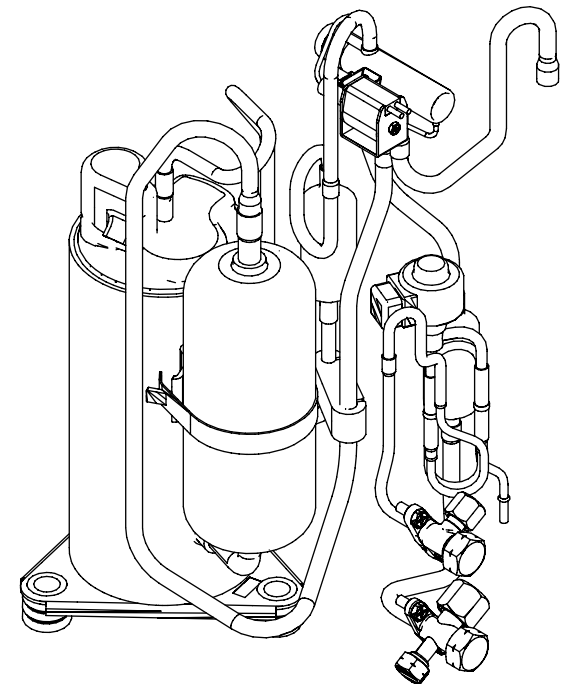
Ref.	Description	Part number
31	Main PCB (12)	9710802065
31	Main PCB (14)	9710802072
32	Heatsink	9322420015
33	Thermistor assy	9900565060
---	Heat exchanger thermistor	9900727062

OUTDOOR UNIT
 AOYG12KBTB
 AOYG14KBTB

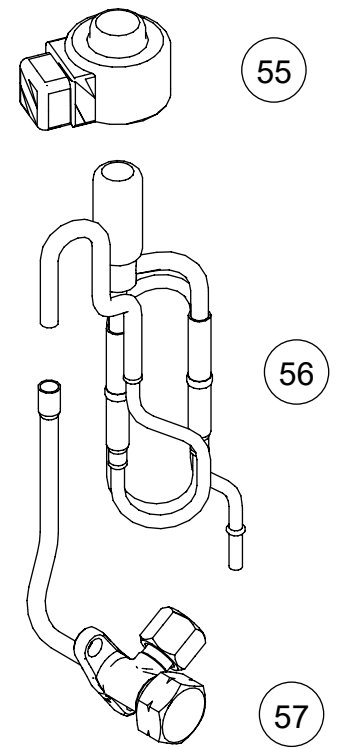
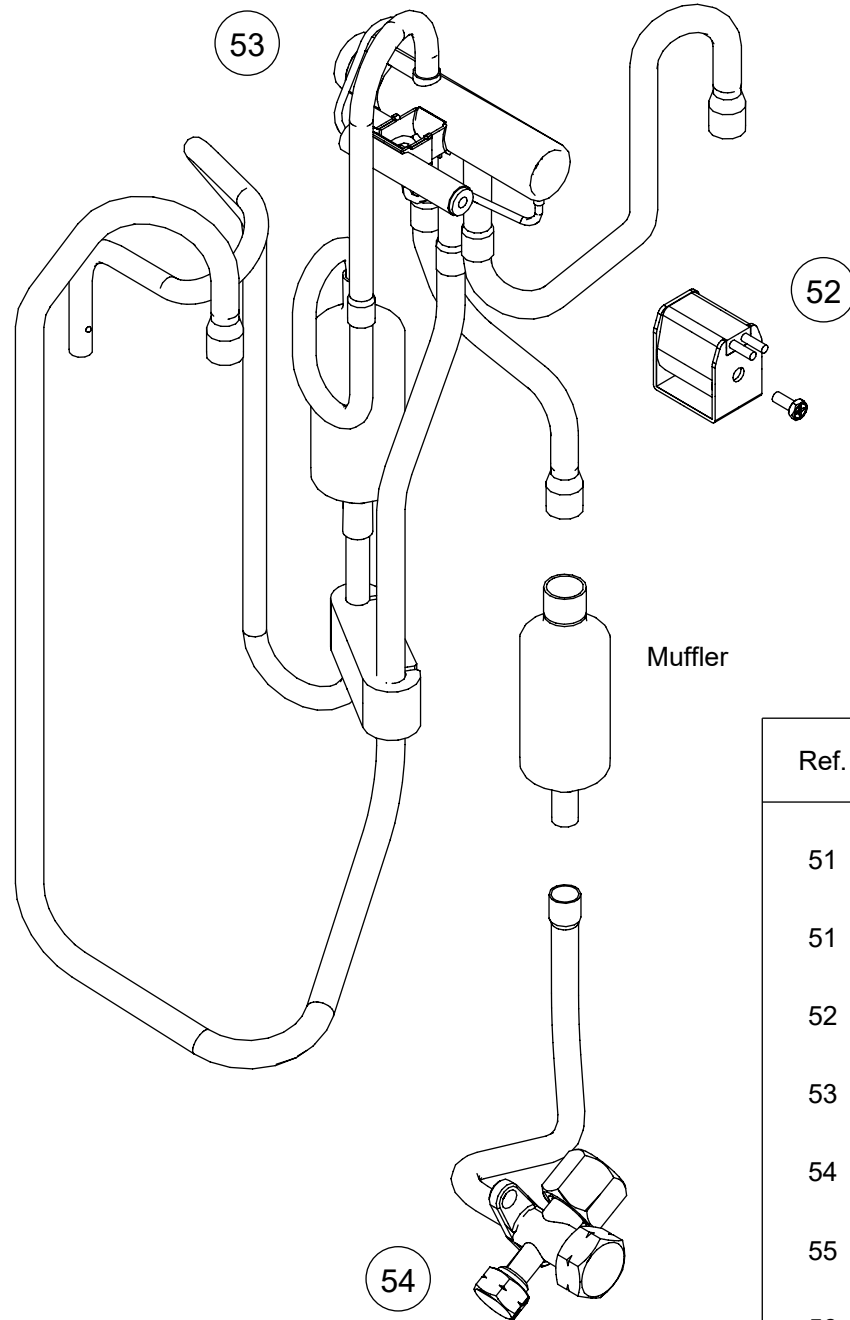
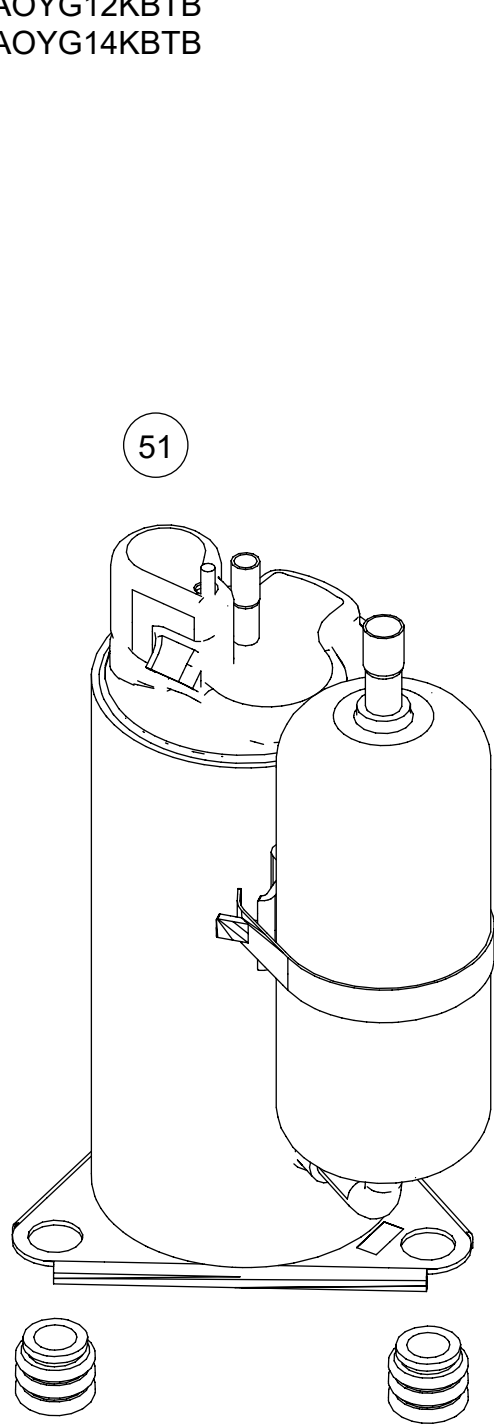
Hair pin
 cushion



Ref.	Description	Part number
41	Condenser total assy	9322275004
-	S-insulator B	9322535009
-	S-insulator F	9322536006
-	S-insulator H	9322537003
-	S-insulator V	9323045002



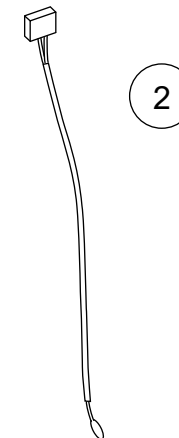
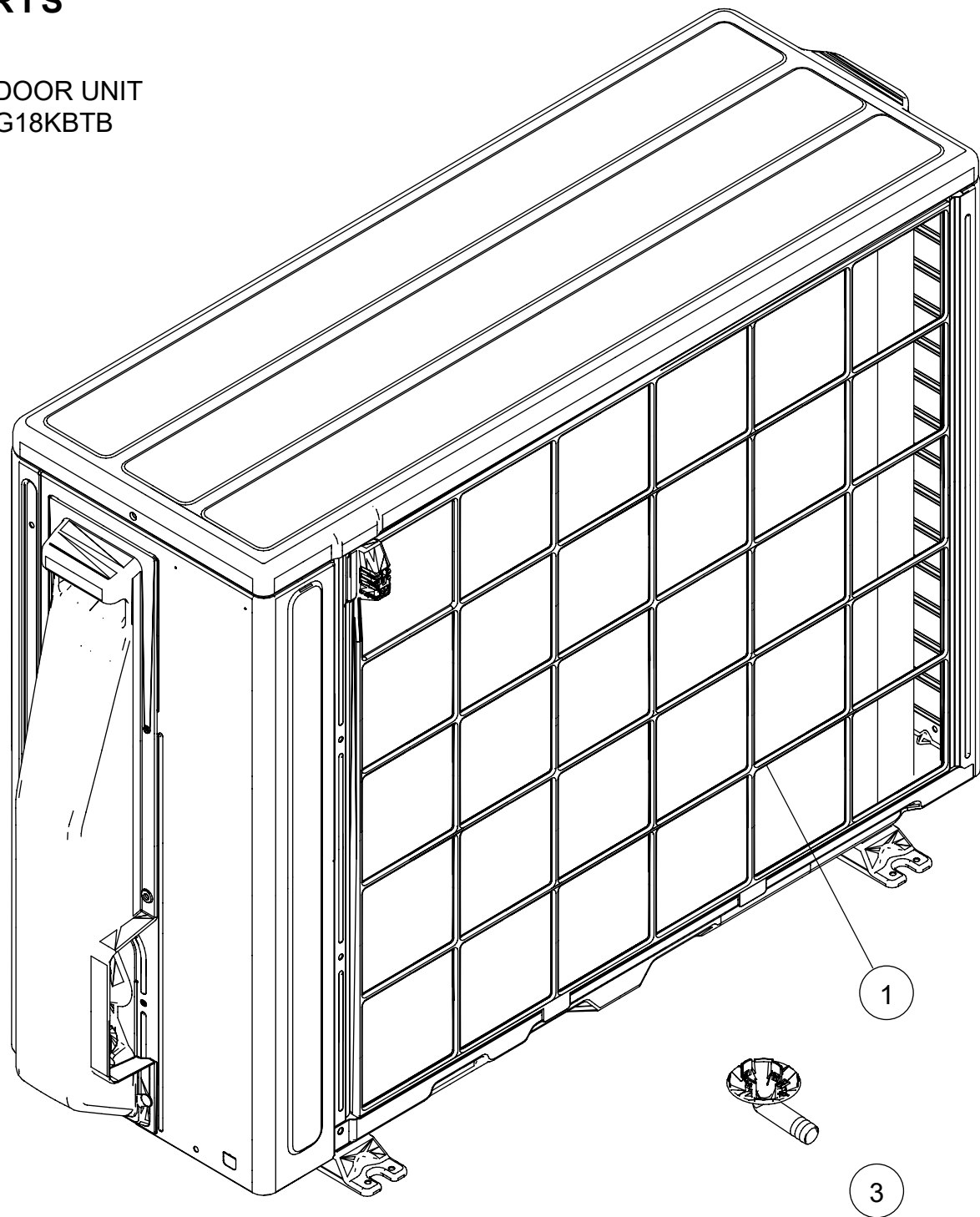
OUTDOOR UNIT
 AOYG12KBTB
 AOYG14KBTB



Ref.	Description	Part number
51	Compressor assy (12)	9322431004
51	Compressor assy (14)	9322433008
52	Solenoid	9970195006
53	4-way valve assy	9322445001
54	3-way valve assy	9322475008
55	Expansion valve coil	9970173028
56	Pulse motor valve assy	9322463029
57	2-way valve assy	9322474001

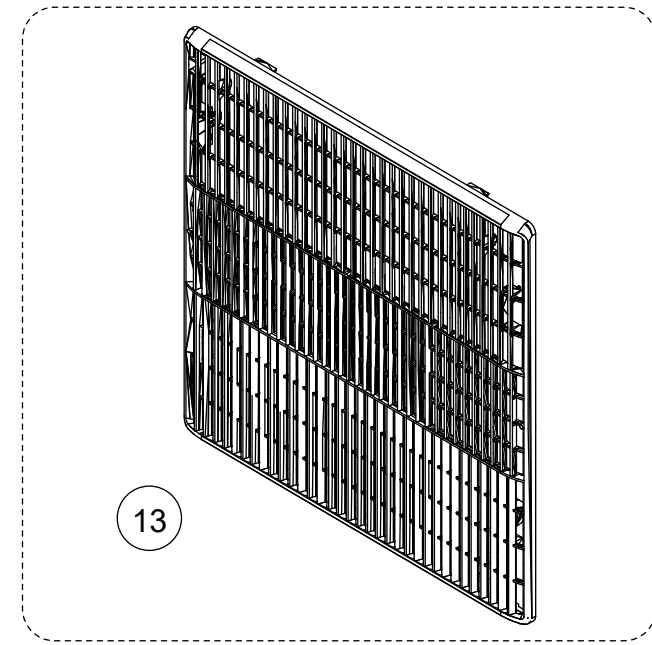
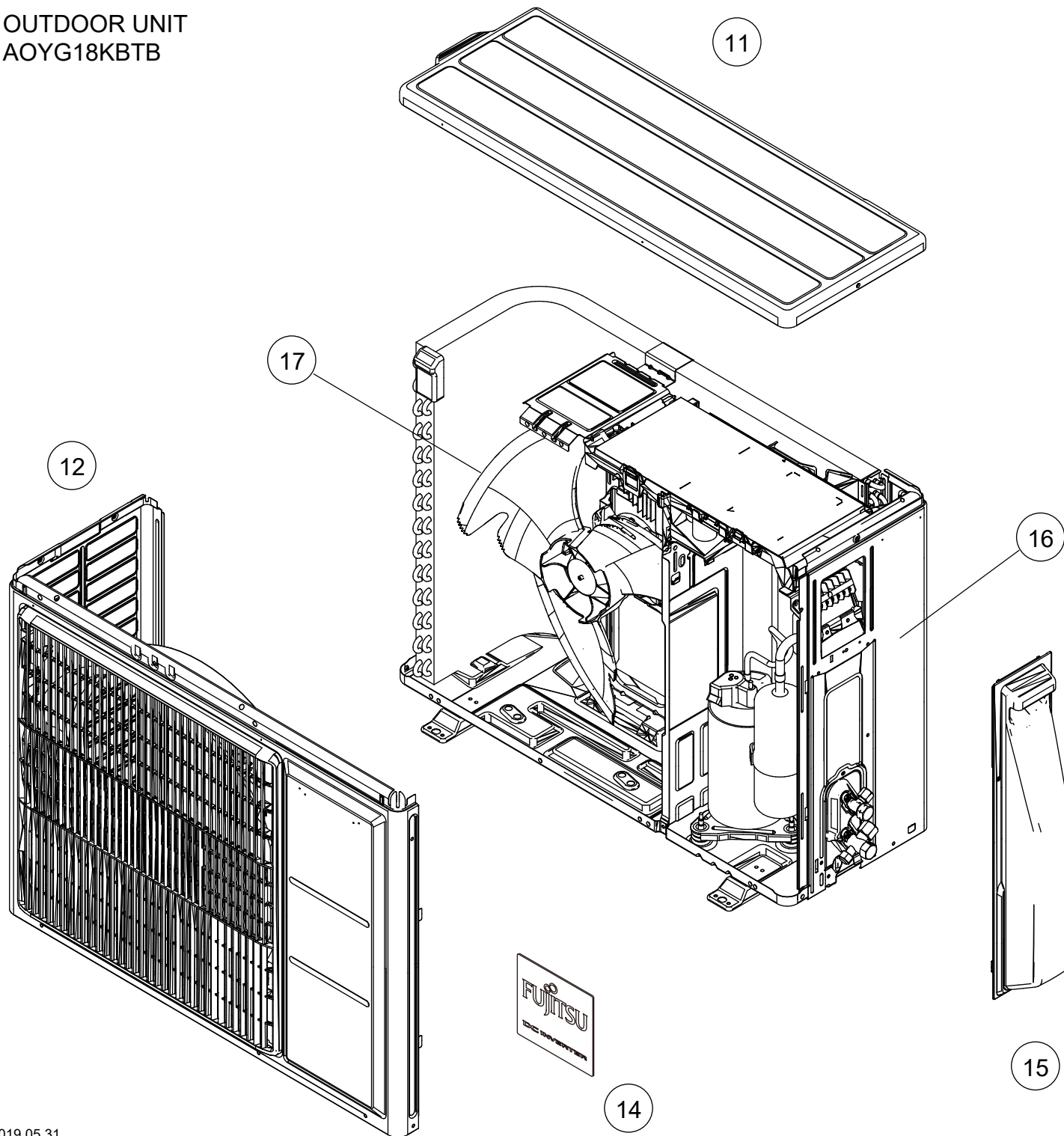
PARTS

OUTDOOR UNIT
AOYG18KBTB



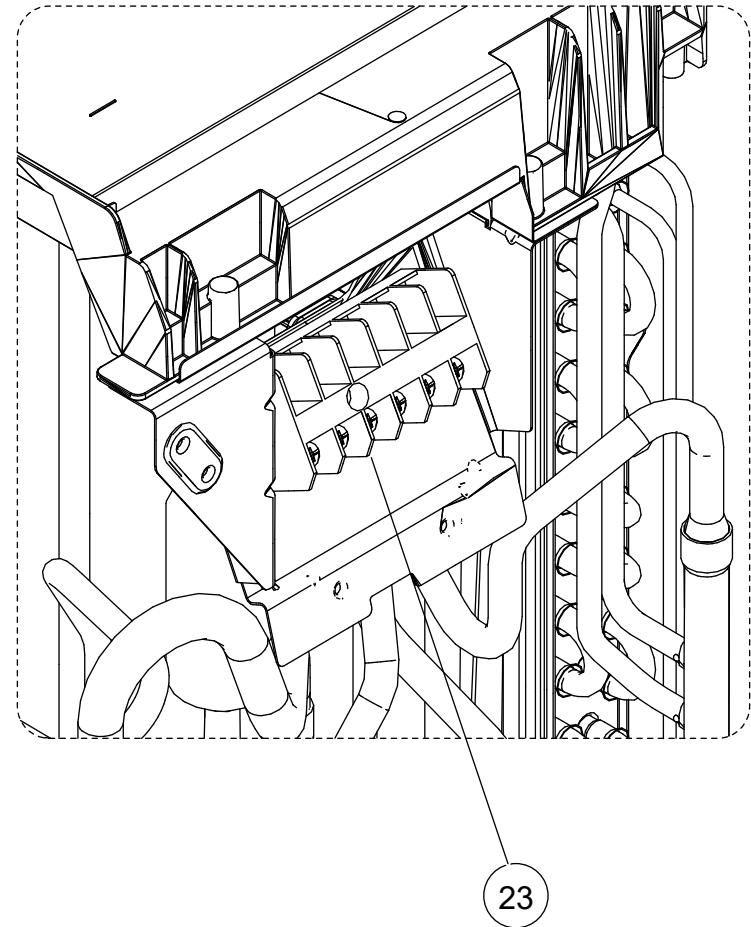
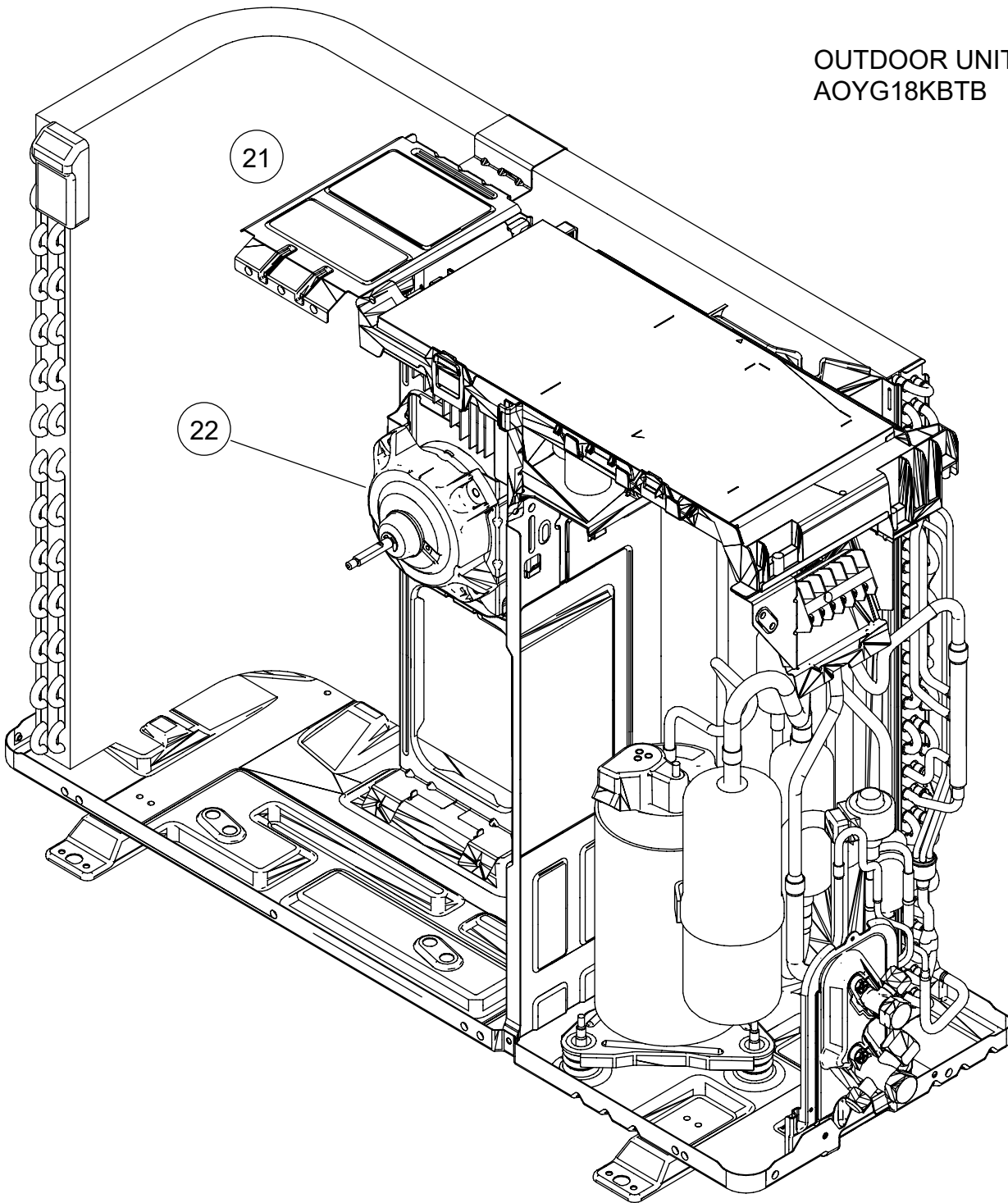
Ref.	Description	Part number
1	Protective net assy	9322811028
2	Outdoor thermistor	9900565060
3	Drain pipe	9322144003

OUTDOOR UNIT
AOYG18KBTB



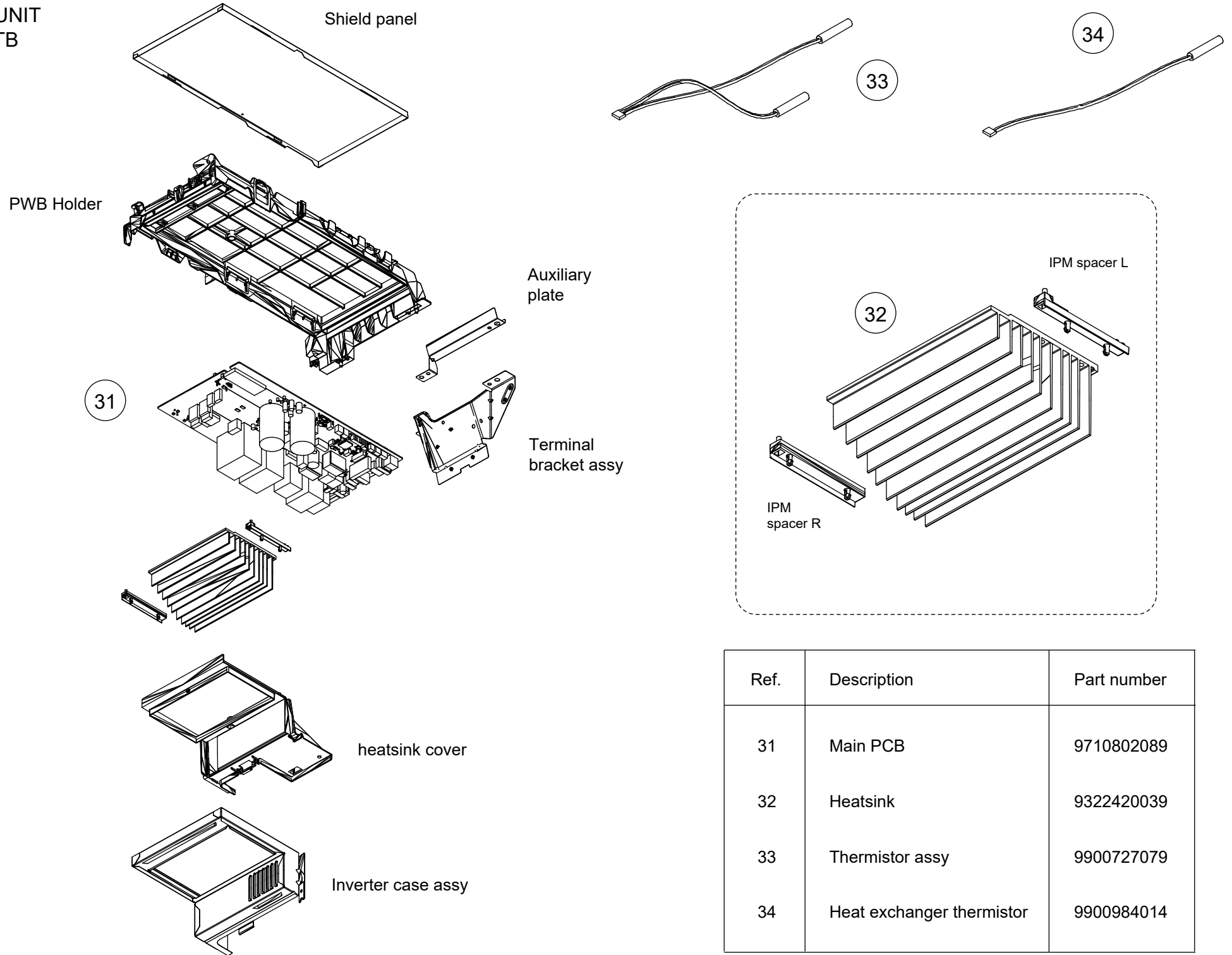
Ref.	Description	Part number
11	Top panel assy	9322556028
12	Front panel assy	9322555021
13	Blow grille	9322149008
14	Emblem	9319151007
15	Switch cover assy	9322570024
16	Cabinet right assy	9322552099
17	Propeller fan	9322150004

OUTDOOR UNIT
AOYG18KBTB



Ref.	Description	Part number
21	Motor bracket assy	9322553027
22	Brushless motor	9603601003
23	Terminal	9900435028

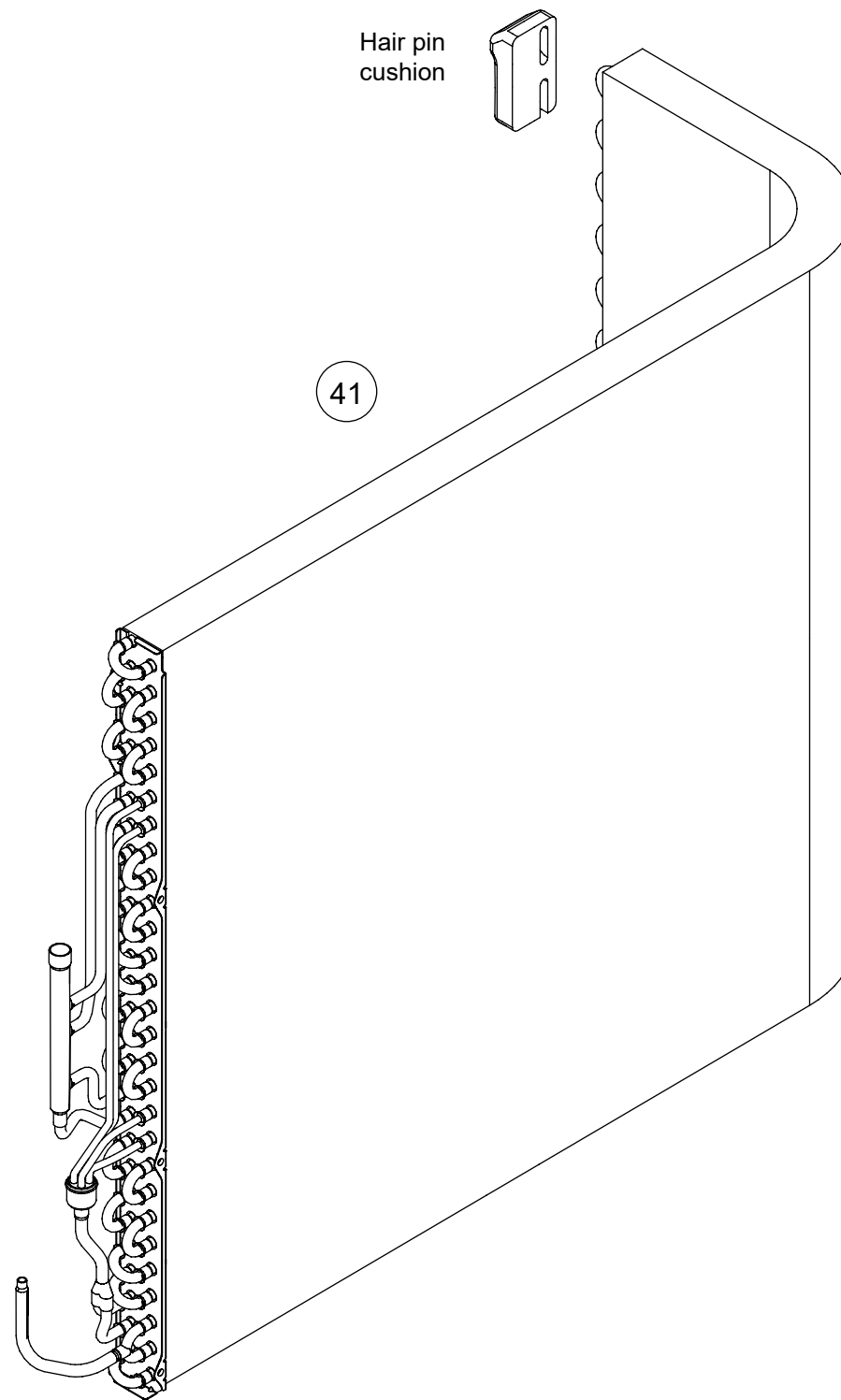
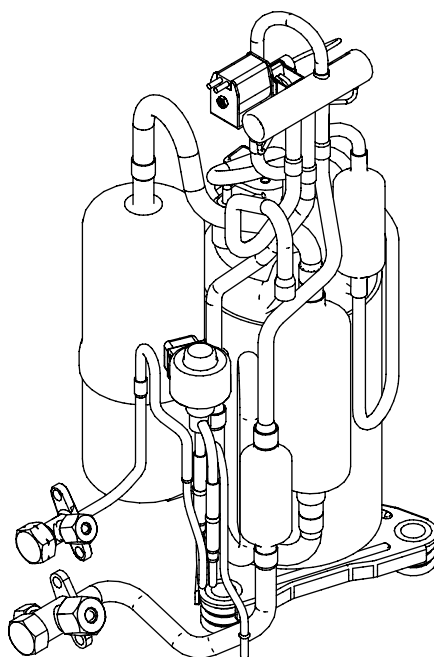
OUTDOOR UNIT
AOYG18KBTB



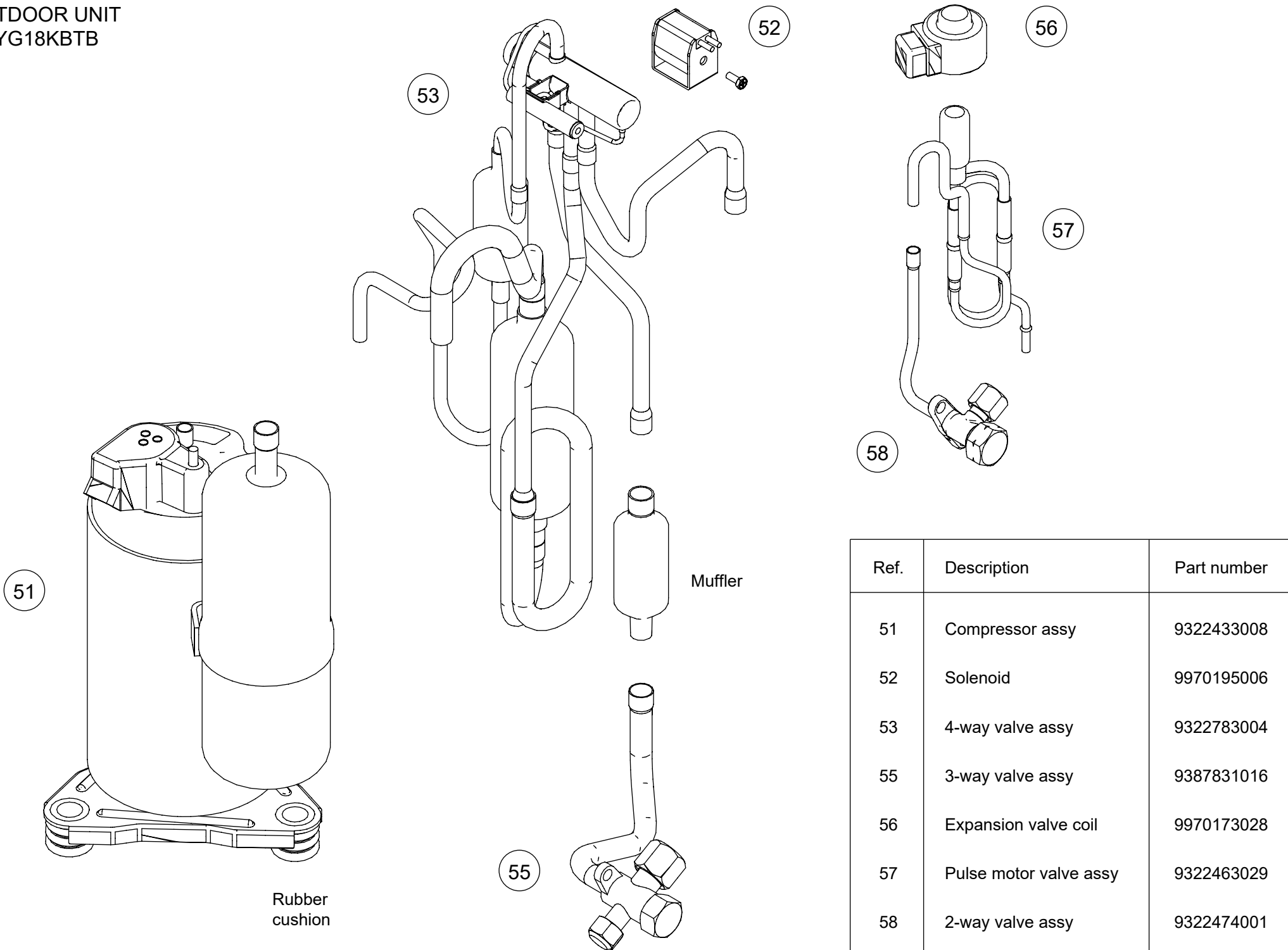
Ref.	Description	Part number
31	Main PCB	9710802089
32	Heatsink	9322420039
33	Thermistor assy	9900727079
34	Heat exchanger thermistor	9900984014

OUTDOOR UNIT
AOYG18KBTB

Ref.	Description	Part number
41	Condenser total assy	9317089616
-	S-insulator B	9322500007
-	S-insulator F	9322847003
-	S-insulator H	9322501004
-	S-insulator V	9323045002

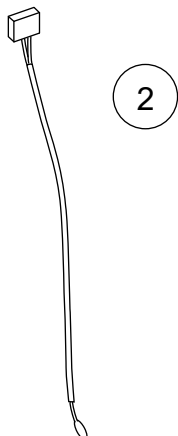
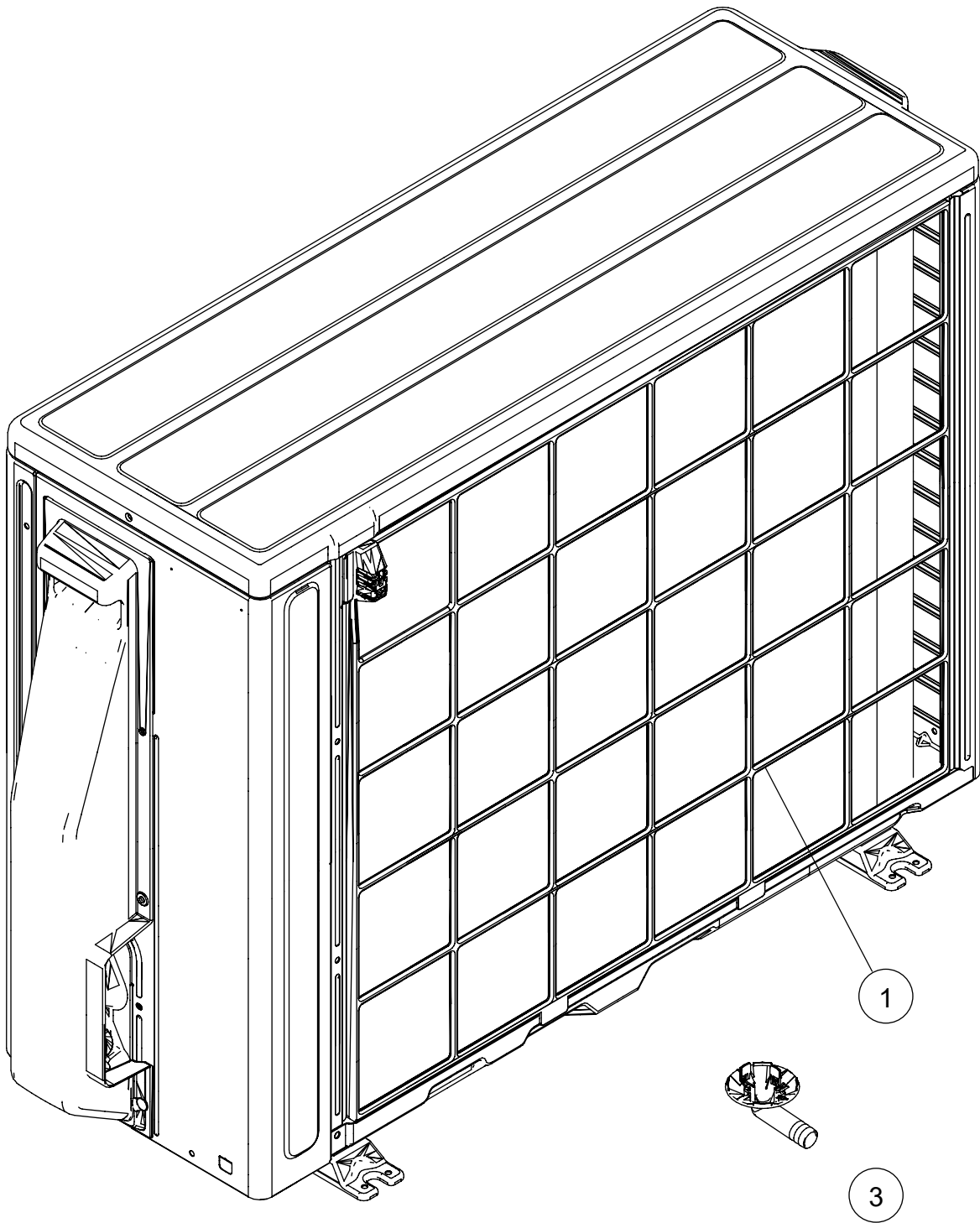


OUTDOOR UNIT
AOYG18KBTB



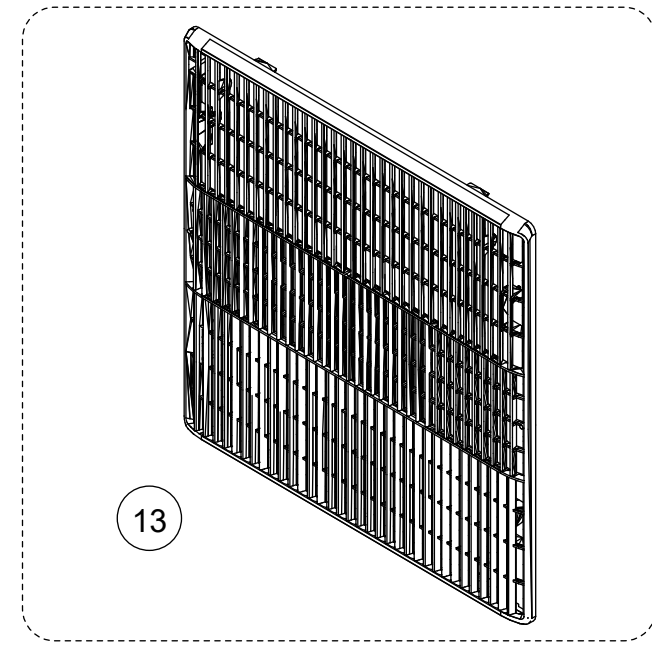
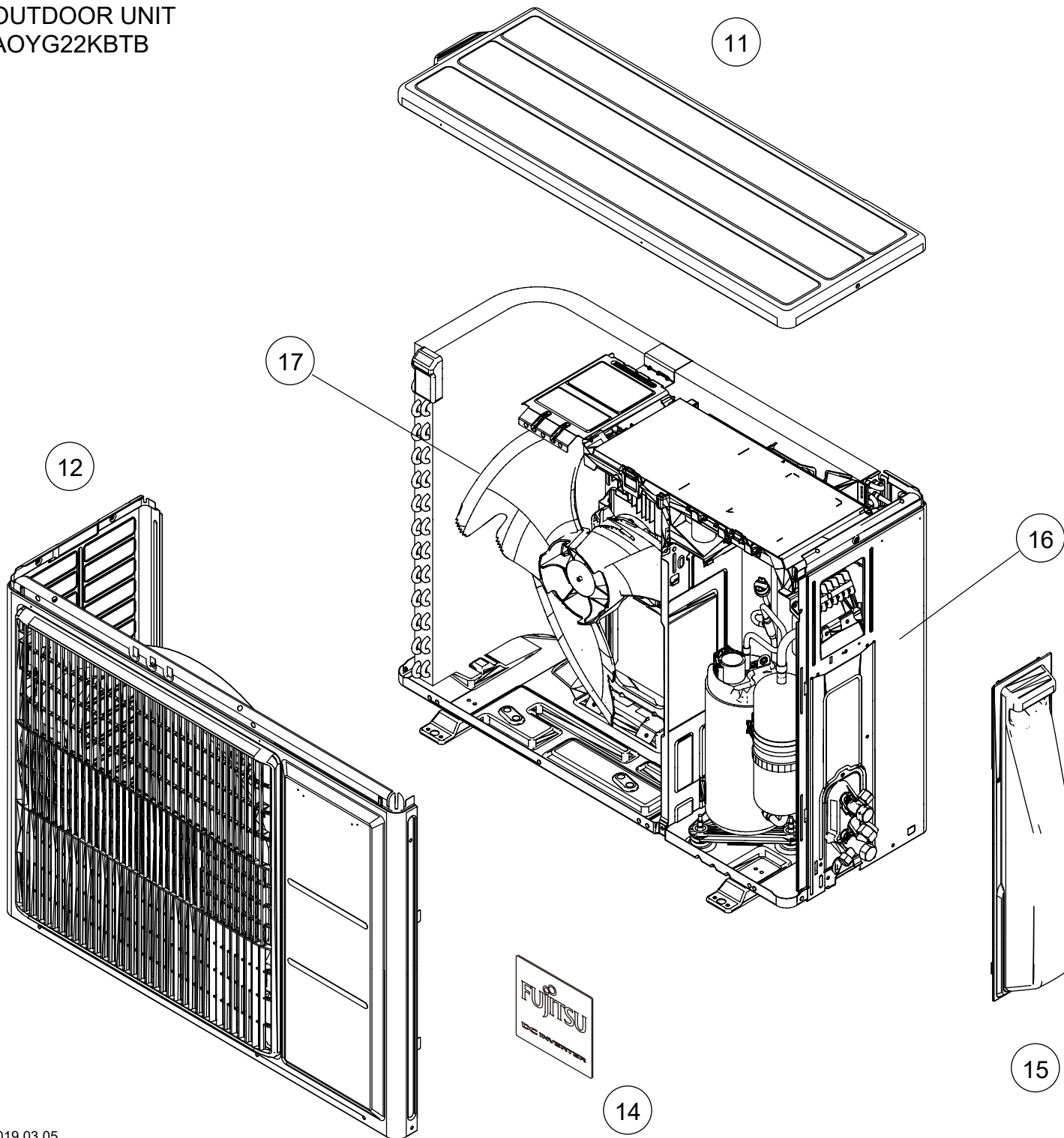
Ref.	Description	Part number
51	Compressor assy	9322433008
52	Solenoid	9970195006
53	4-way valve assy	9322783004
55	3-way valve assy	9387831016
56	Expansion valve coil	9970173028
57	Pulse motor valve assy	9322463029
58	2-way valve assy	9322474001

OUTDOOR UNIT
AOYG22KBTB



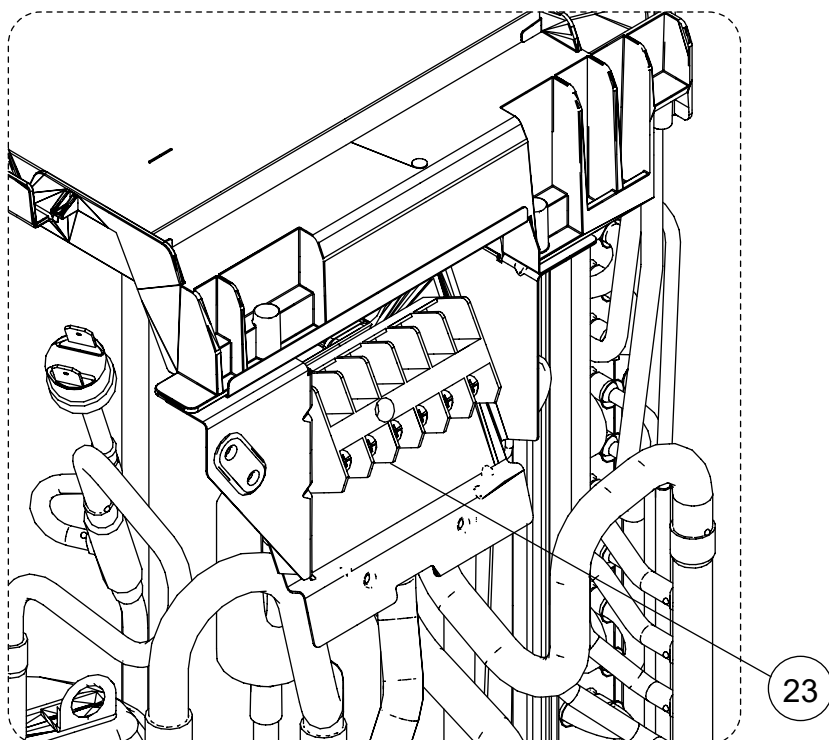
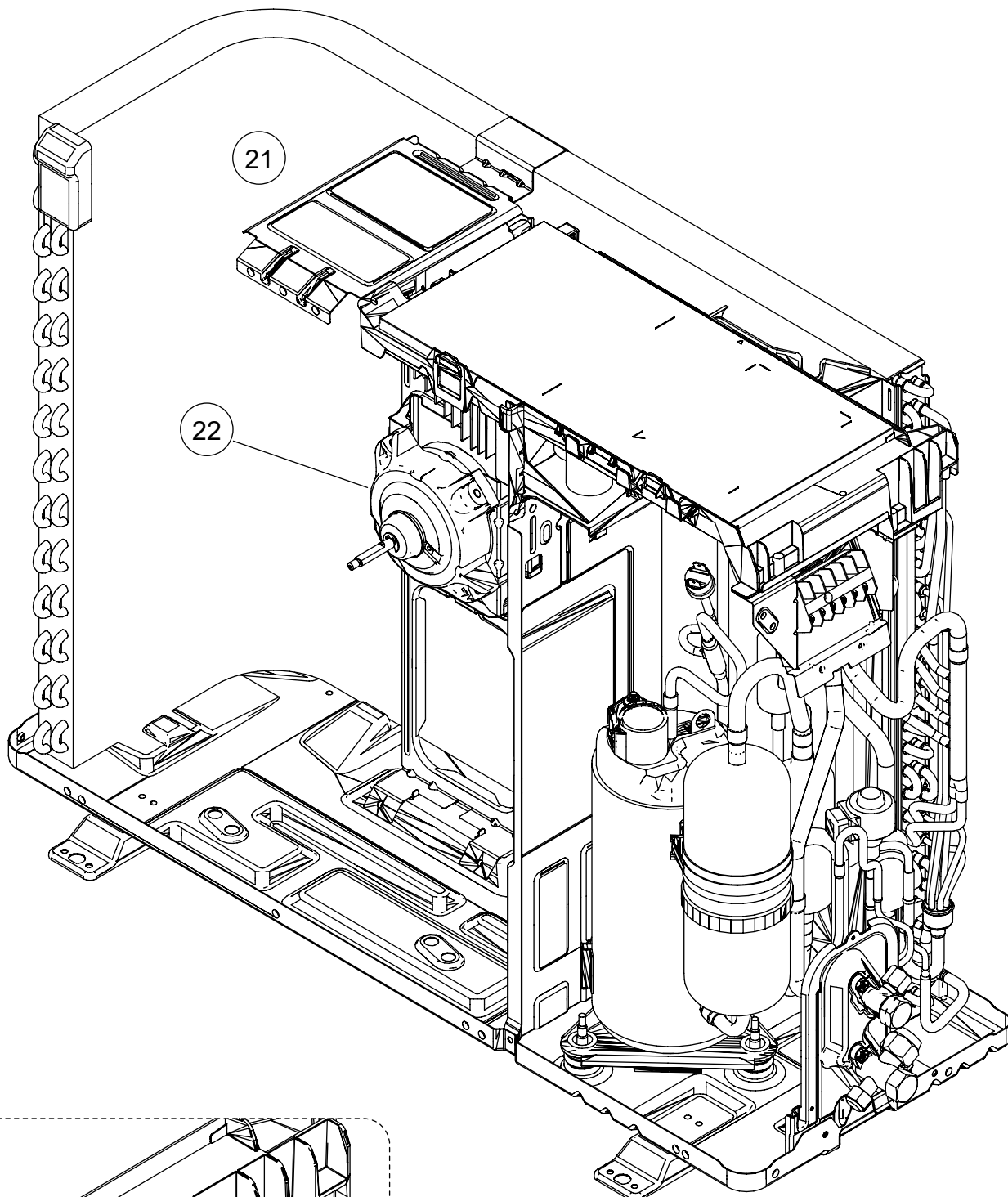
Ref.	Description	Part number
1	Protective net assy	9322811028
2	Outdoor thermistor	9900565060
3	Drain pipe	9322144003

OUTDOOR UNIT
AOYG22KBTB



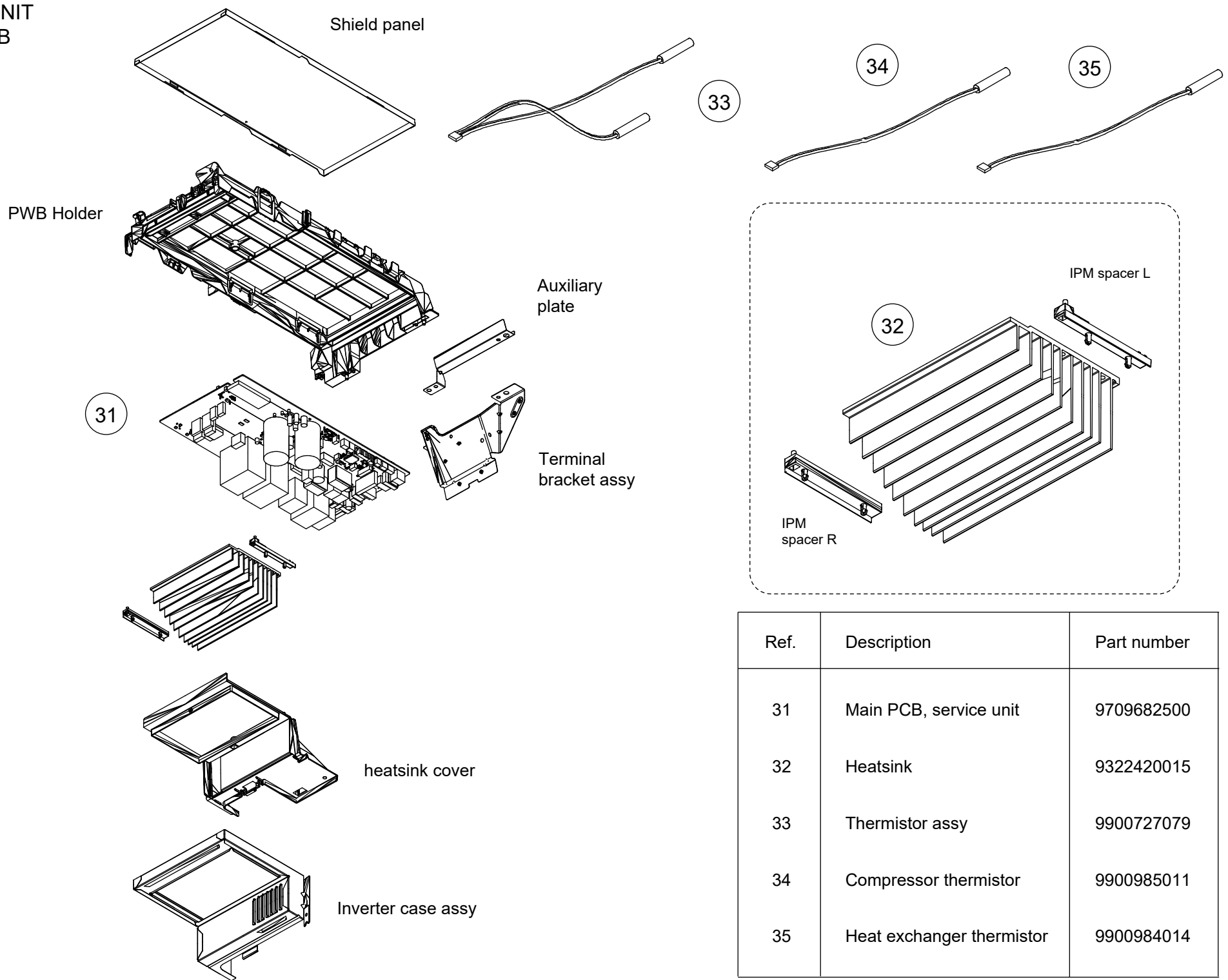
Ref.	Description	Part number
11	Top panel assy	9322556028
12	Front panel assy	9322555021
13	Blow grille	9322149008
14	Emblem	9319151007
15	Switch cover assy	9322570024
16	Cabinet right assy	9322552099
17	Propeller fan	9322150004

OUTDOOR UNIT
AOYG22KBTB



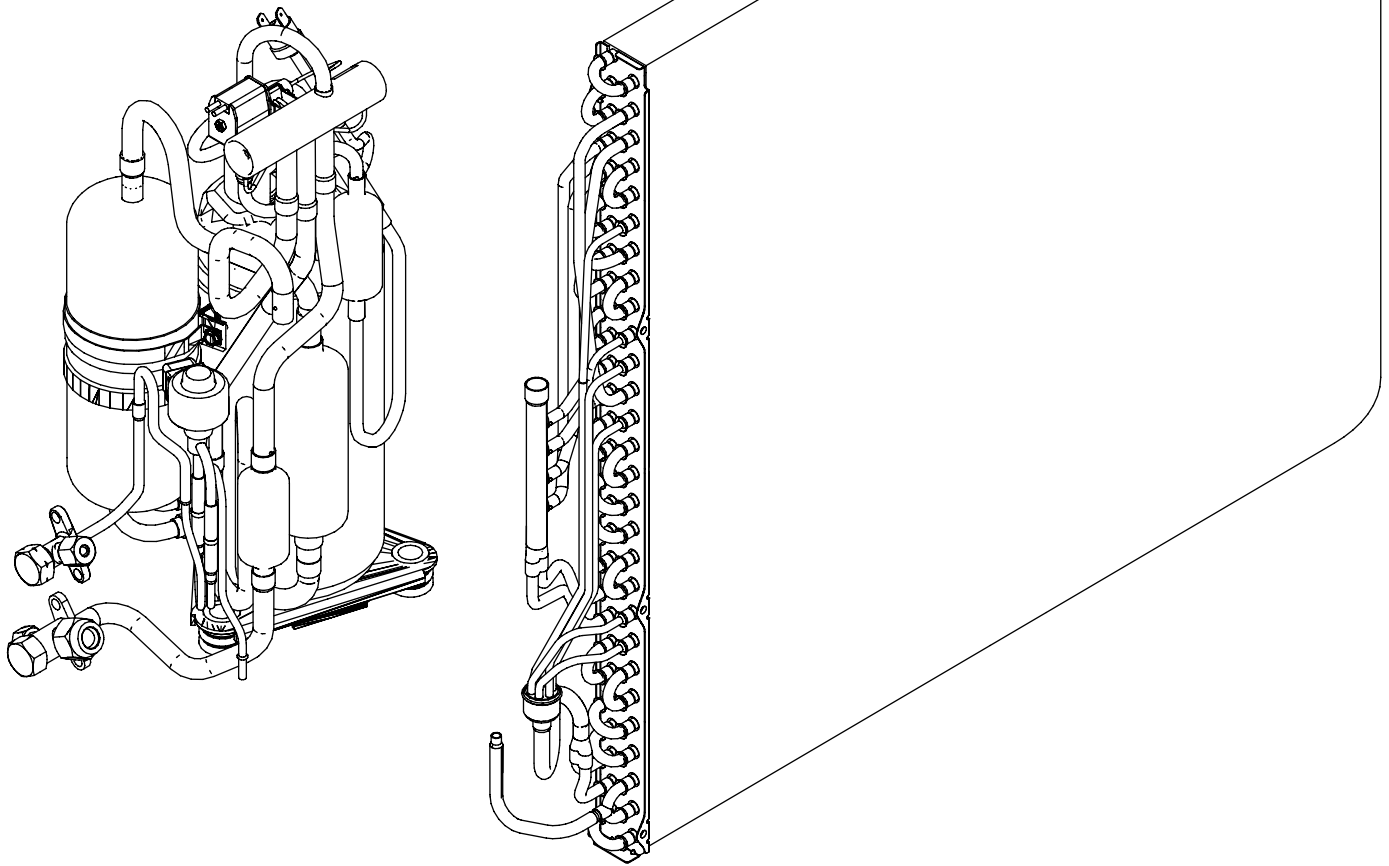
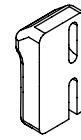
Ref.	Description	Part number
21	Motor bracket assy	9322553027
22	Brushless motor	9603601003
23	Terminal	9900435028

OUTDOOR UNIT
AOYG22KBTB



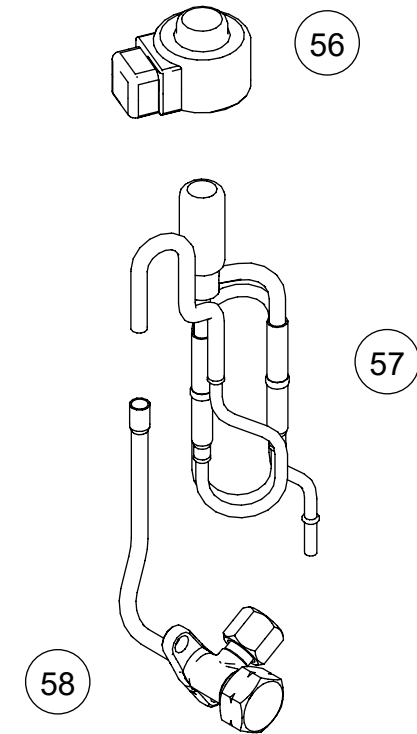
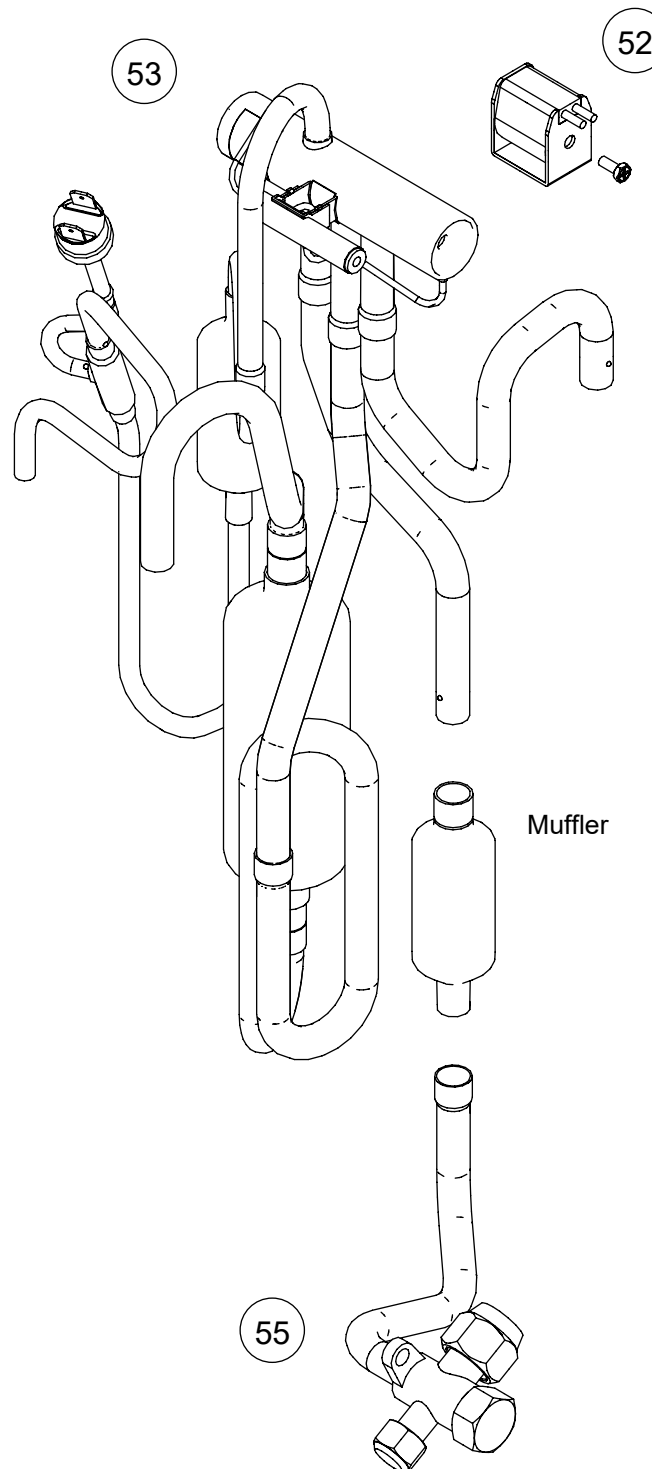
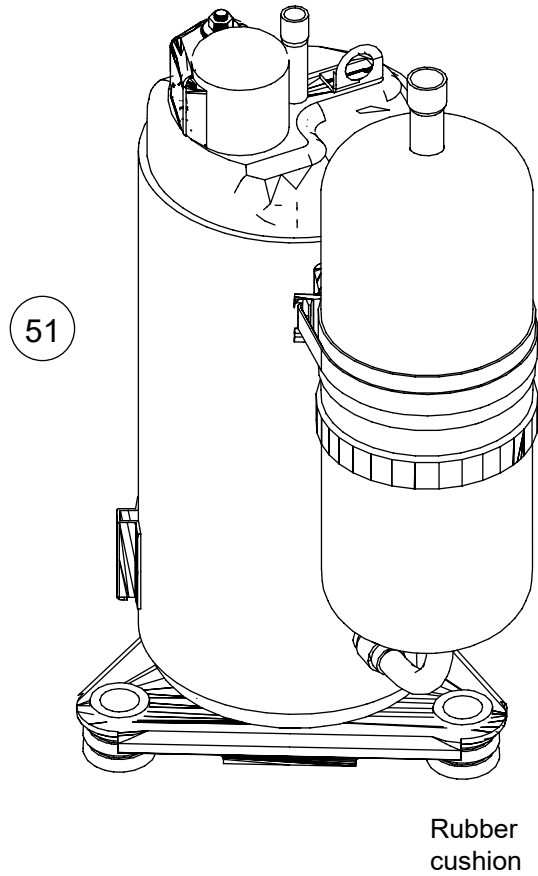
Ref.	Description	Part number
31	Main PCB, service unit	9709682500
32	Heatsink	9322420015
33	Thermistor assy	9900727079
34	Compressor thermistor	9900985011
35	Heat exchanger thermistor	9900984014

Hair pin
cushion



Ref.	Description	Part number
41	Condenser total assy	9317089654
-	S-insulator B	9322503008
-	S-insulator F	9322847003
-	S-insulator H	9322501004
-	S-insulator V	9323045002
-	S-insulator K	9322824004


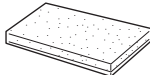
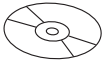



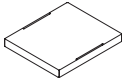
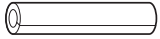




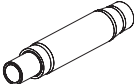
OUTDOOR UNIT
AOYG22KBTB





Ref.	Description	Part number
51	Compressor	9810521002
52	Solenoid	9970195006
53	4-way valve assy	9383129018
55	3-way valve assy	9387831016
56	Expansion valve coil	9970173028
57	Pulse motor valve assy	9322463029
58	2-way valve assy	9322474001

Accessories

Models: AUXG09KVLA, AUXG12KVLA, AUXG14KVLA, AUXG18KVLA, and AUXG22KVLA

Part name	Exterior	Q'ty	Part name	Exterior	Q'ty
Operating manual		1	Drain hose insulation		1
Operating manual (CD-ROM)		1	Hose band		1
Installation manual		1	Coupler heat insulation (large)		1
Template (Carton top)		1	Coupler heat insulation (small)		1
M10 nut A (with flange)		4	Cable tie		2
M10 nut B (with spring lock washer)		4	Wire crammer		1
Drain hose		1			

**Models: AOYG09KBTB, AOYG12KBTB, AOYG14KBTB,
AOYG18KBTB, and AOYG22KBTB**

Part name	Exterior	Q'ty	Part name	Exterior	Q'ty
Installation manual		1	Drain pipe		1

1903G4809