

AIR CONDITIONER

Duct type

SERVICE MANUAL

INDOOR



RDG24KMLA
RDG30KMLA
RDG36KMLA
RDG45KMLA

OUTDOOR



ROG24KATA



ROG30KATA
ROG36KATA



ROG45KATA

Notices:

- Product specifications and design are subject to change without notice for future improvement.
- For further details, please check with our authorized dealer.

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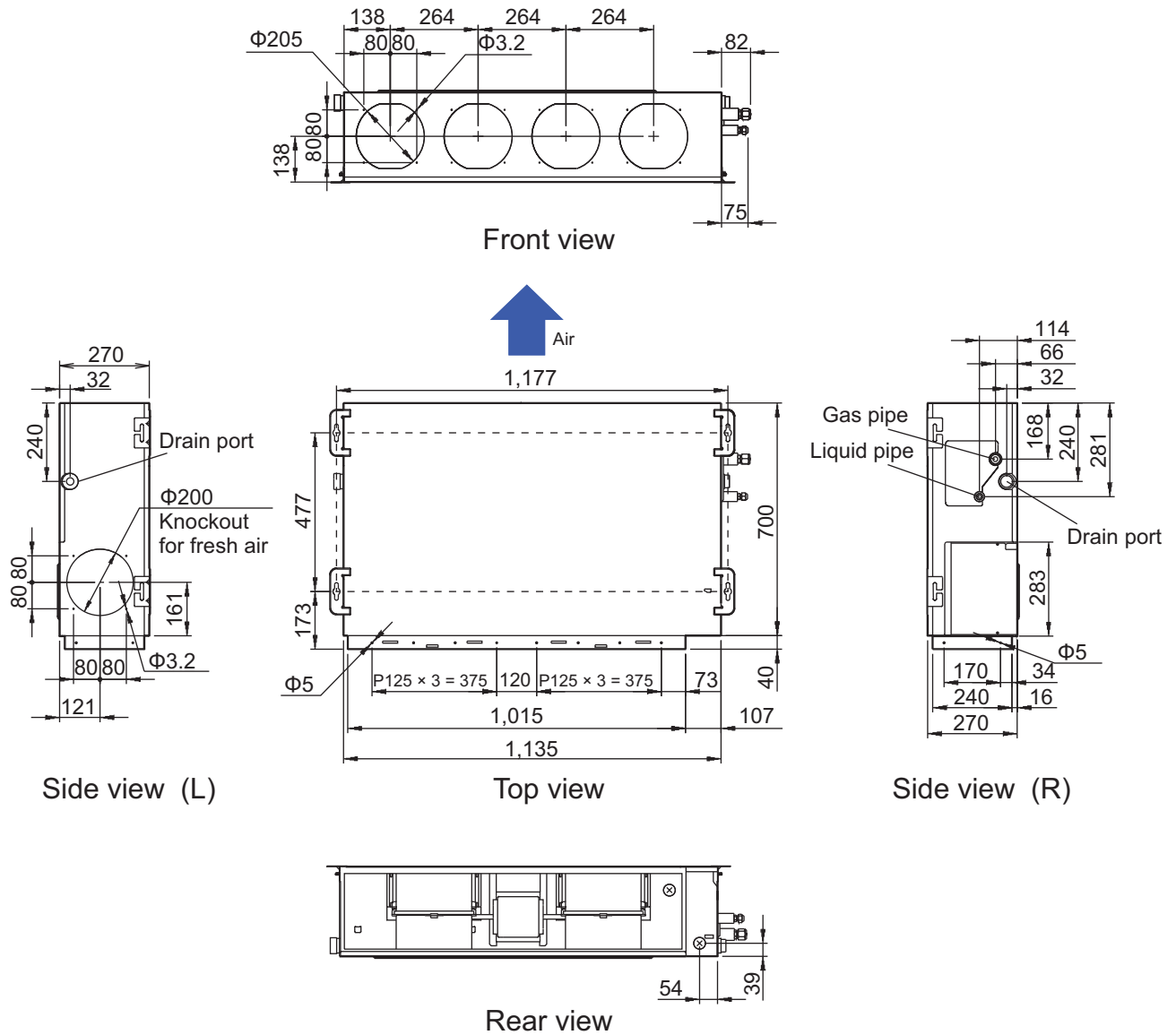
1. GENERAL INFORMATION

2. Dimensions

2-1. Indoor unit

■ Models: RDG24KMLA, RDG30KMLA, RDG36KMLA, and RDG45KMLA

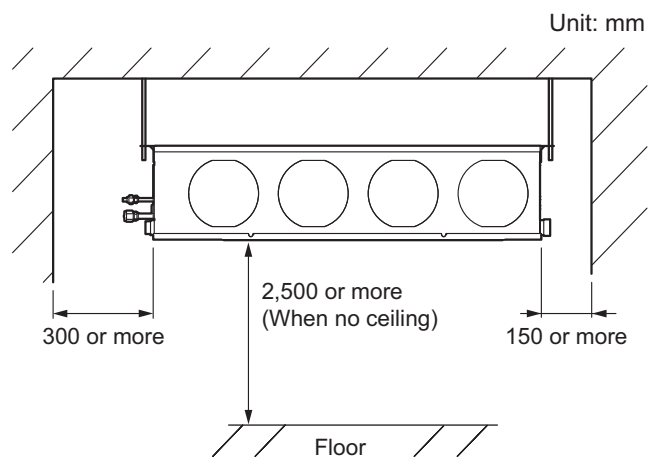
Unit: mm



■ Installation space requirement

Provide sufficient installation space for product safety.

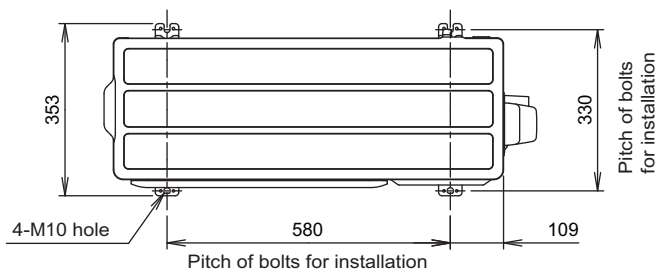
● Models: RDG24KMLA, RDG30KMLA, RDG36KMLA, and RDG45KMLA



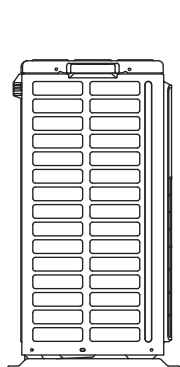
2-2. Outdoor unit

■ Model: ROG24KATA

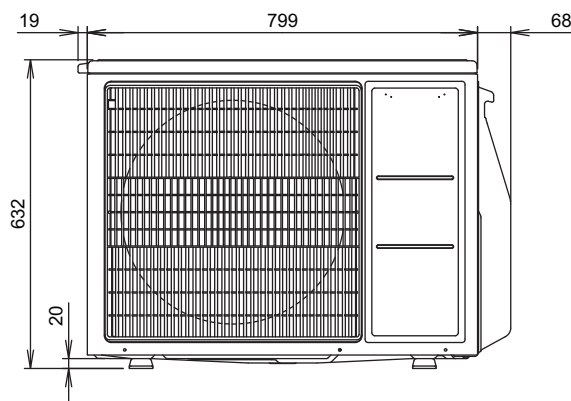
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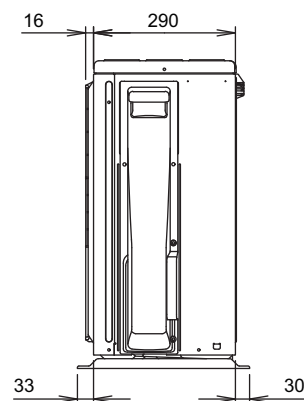
Top view



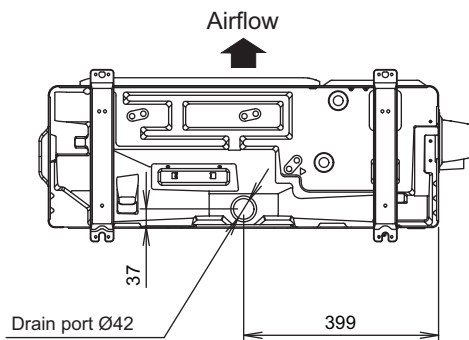
Side view



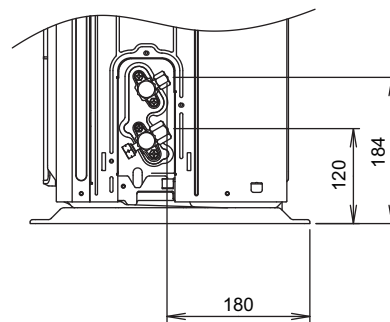
Front view



Side view



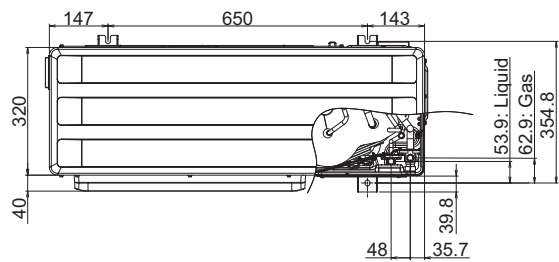
Bottom view



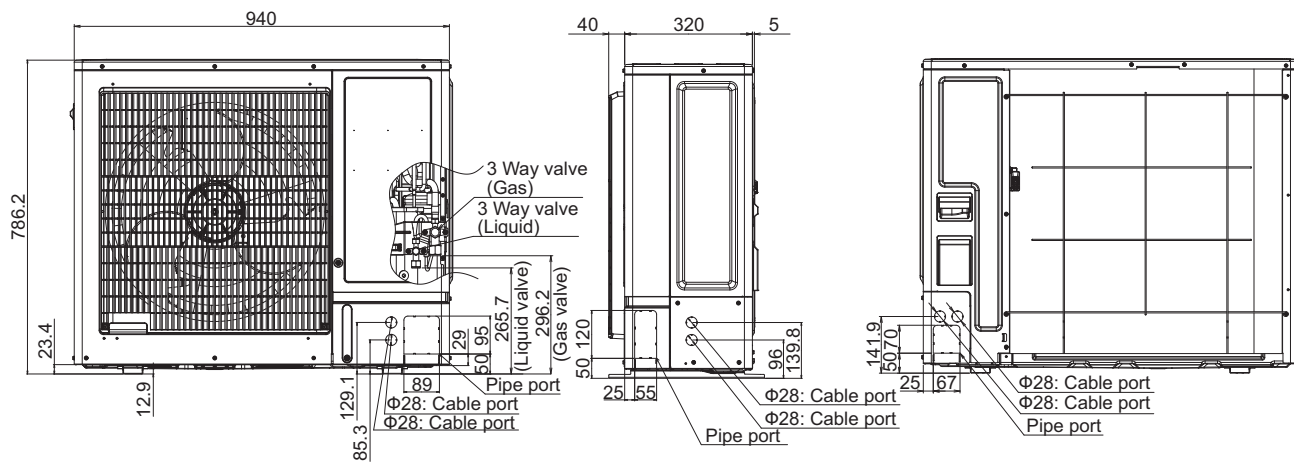
Side view (Valve part)

Models: ROG30KATA and ROG36KATA

Unit: mm



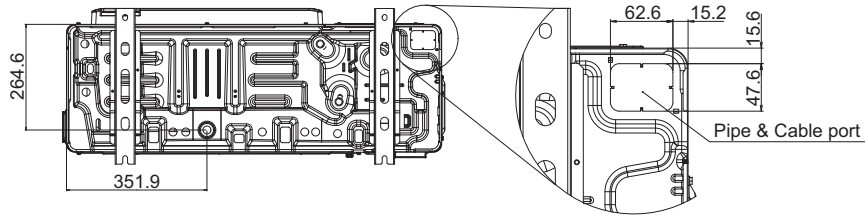
Top view



Front view

Side view

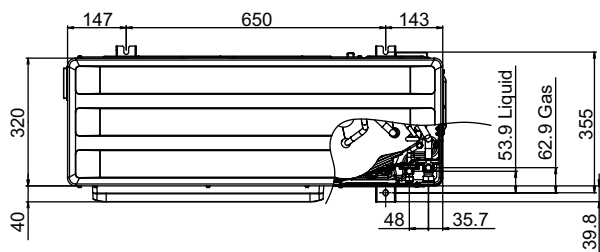
Rear view



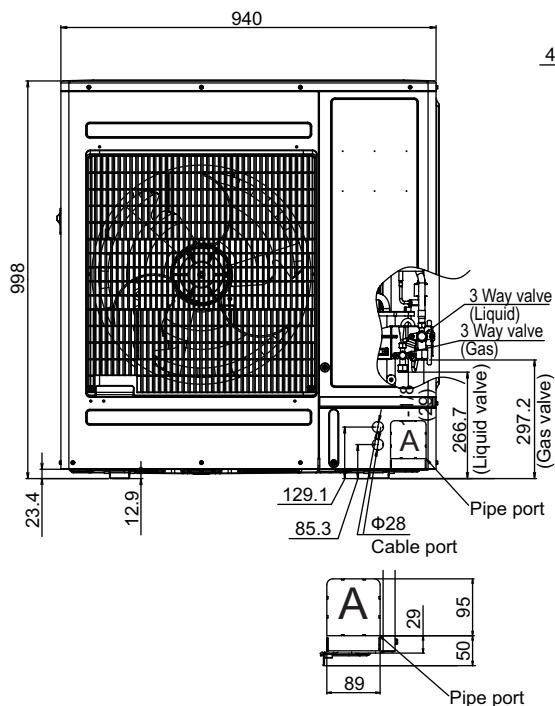
Bottom view

Model: ROG45KATA

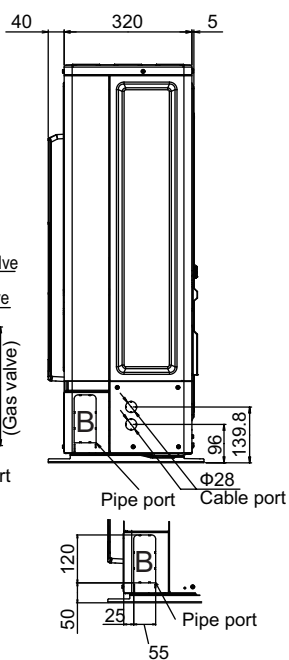
Unit: mm



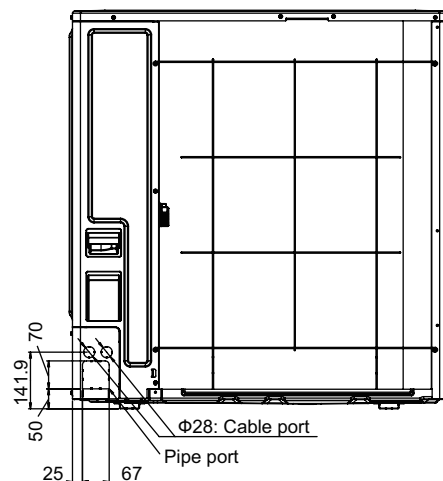
Top view



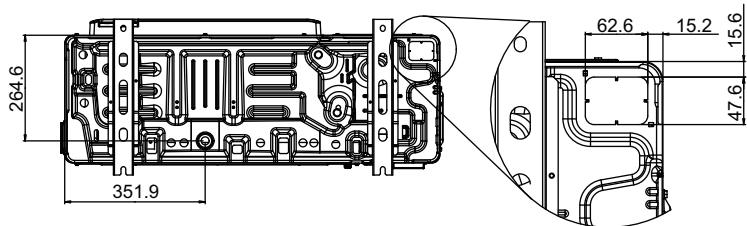
Front view



Side view



Rear view



Bottom view

Pipe & Cable port

2. TECHNICAL DATA AND PARTS LIST

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2. TECHNICAL DATA AND PARTS LIST

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1. Precautions

When you start servicing, pay attention to the following points. For detailed precautions, refer to the installation manual of the products.

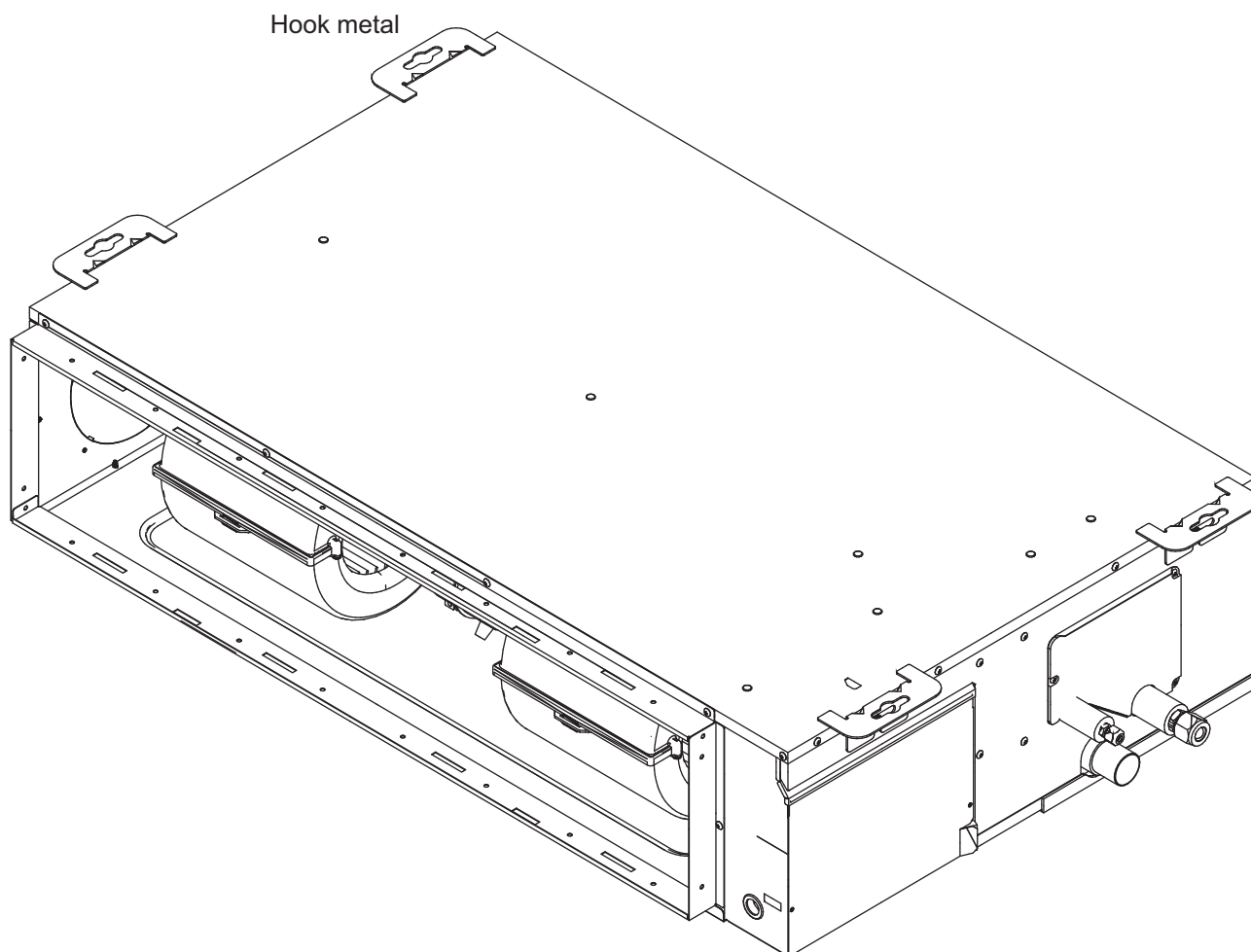
⚠ CAUTION

- Service personnel
 - Any person who is involved with working on or breaking into a refrigerant circuit should hold a current valid certificate from an industry-accredited assessment authority, which authorizes their competence to handle refrigerants safely in accordance with an industry recognized assessment specification.
 - Servicing shall only be performed as recommended by the equipment manufacturer. Maintenance and repair requiring the assistance of other skilled personnel shall be carried out under the supervision of the person competent in the use of flammable refrigerants.
 - Servicing shall be performed only as recommended by the manufacturer.
 - Work
 - Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimized. When repairing the refrigerant system, refer to the precautions written in the installation manual of the products before you start servicing.
 - Work shall be undertaken under a controlled procedure so as to minimize the risk of a flammable gas or vapor being present while the work is being performed.
 - All maintenance staff and others working in the local area shall be instructed on the nature of work being carried out.
 - Work in confined spaces shall be avoided.
 - The area around the workspace shall be sectioned off.
 - Ensure that the conditions within the area have been made safe by control of flammable material.
 - Electric shock may occur. After turning off the power, always wait 5 minutes before touching electrical components.
 - Do not touch the fins of the heat exchanger. Touching the heat exchanger fins could result in damage to the fins or personal injury such as skin rupture.
 - Do not place any other electrical products or household belongings under the product.
 - Condensation dripping from the product might get them wet, and may cause damage or malfunction to the property.
 - Checking for presence of refrigerant
 - The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially flammable atmospheres.
 - Ensure that the leak detection equipment being used is suitable for use with flammable refrigerants, i.e. non-sparking, adequately sealed or intrinsically safe.
-
- Service parts information and design are subject to change without notice for product improvement.
 - For the latest information of the service parts, refer to our Service Portal.
<https://fujitsu-general.force.com/portal/>
 - Precise figure of the service parts listed in this manual may differ from the actual service parts.

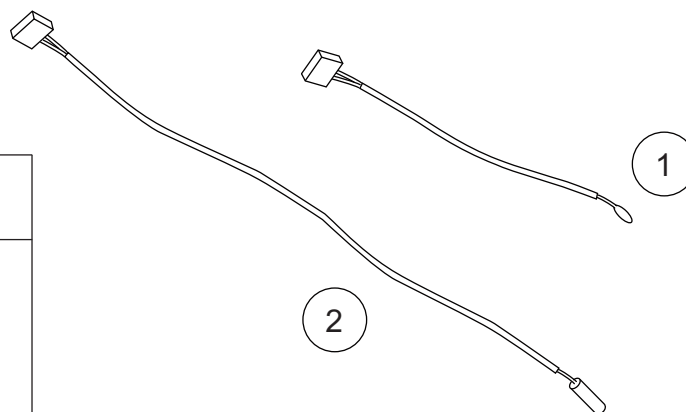
2. Indoor unit parts list

2-1. Models: RDG24KMLA, RDG30KMLA, RDG36KMLA, and RDG45KMLA

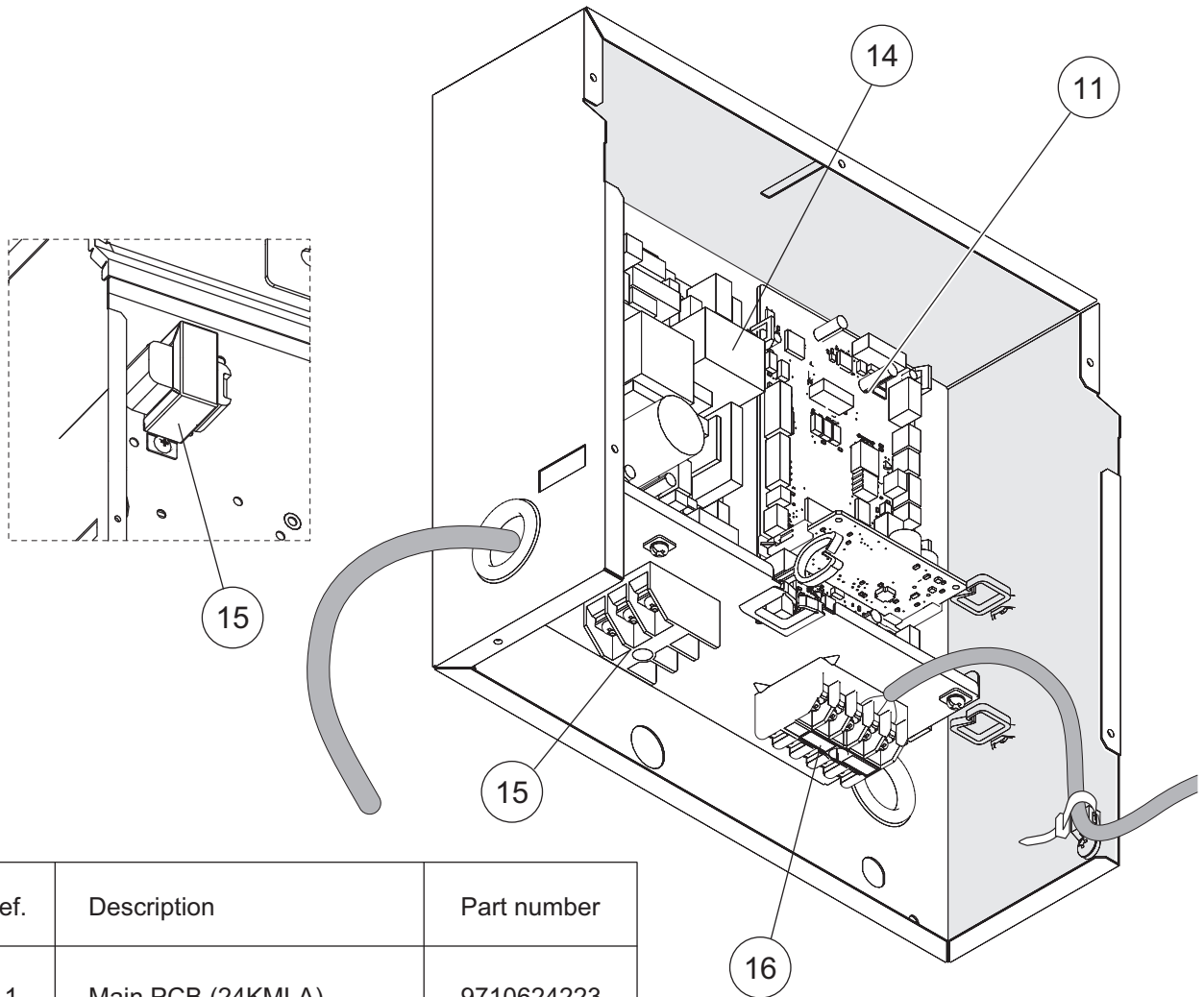
■ Thermistors



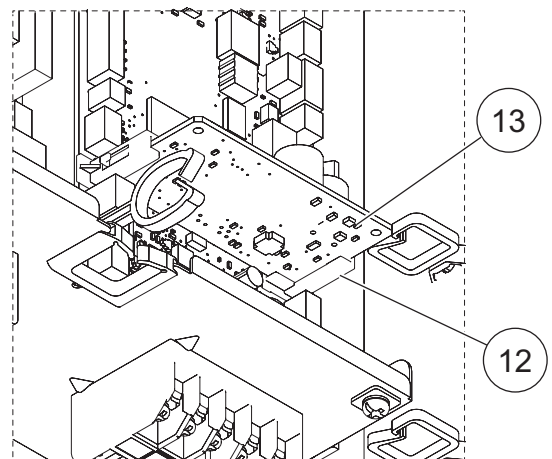
Ref.	Description	Part number
1	Room thermistor	9900826048
2	Pipe thermistor	9900942045



■ Main PC board



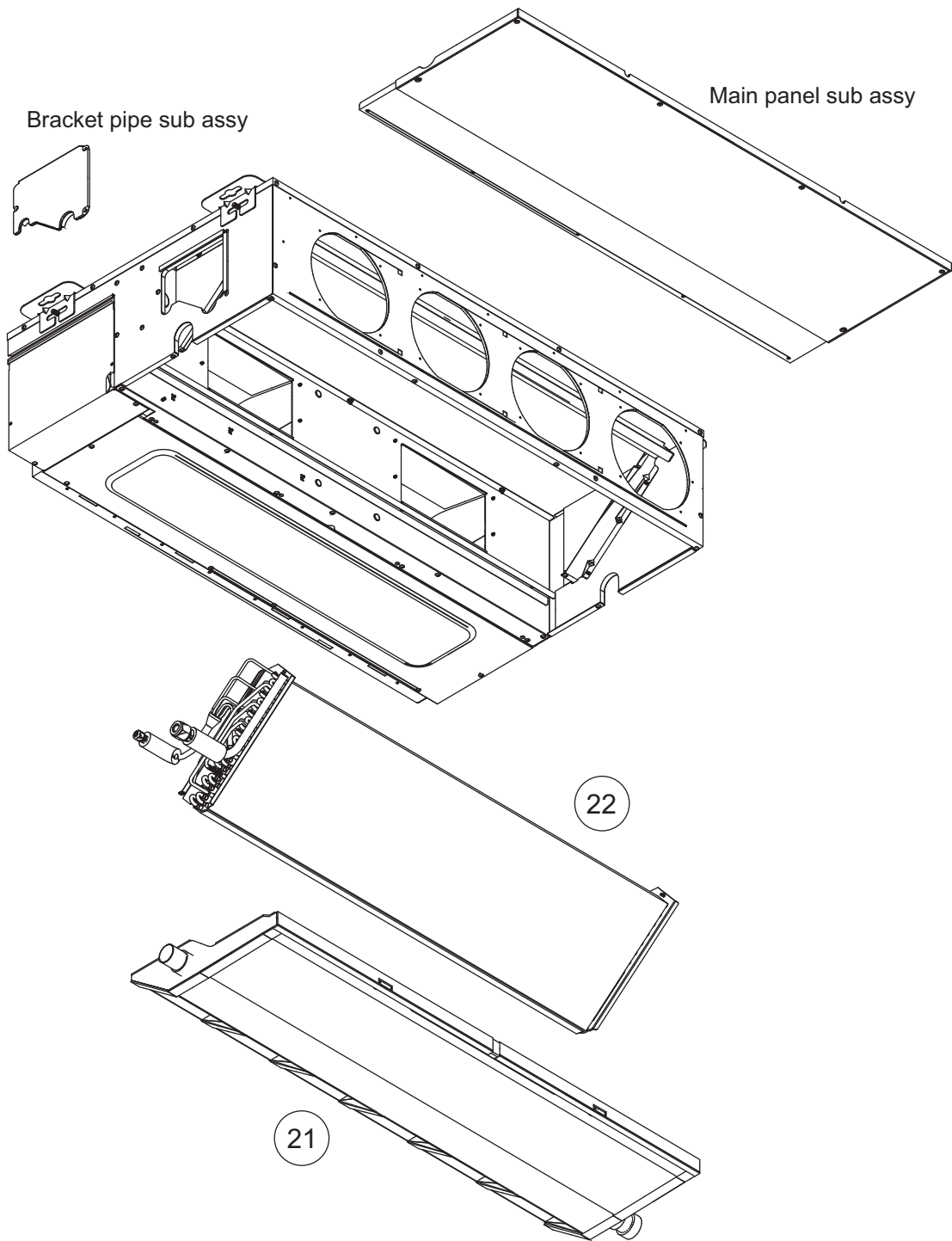
Ref.	Description	Part number
11	Main PCB (24KMLA)	9710624223
11	Main PCB (30KMLA)	9710624230
11	Main PCB (36KMLA)	9710624247
11	Main PCB (45KMLA)	9710624254
12	Holder	0600063023
13	Communication PCB	9710019005
14	Power supply PCB	9710661013
15	Terminal 3P	9306489045
16	Terminal 5P	9900896003
17	Reactor assy	9707457049



Evaporator

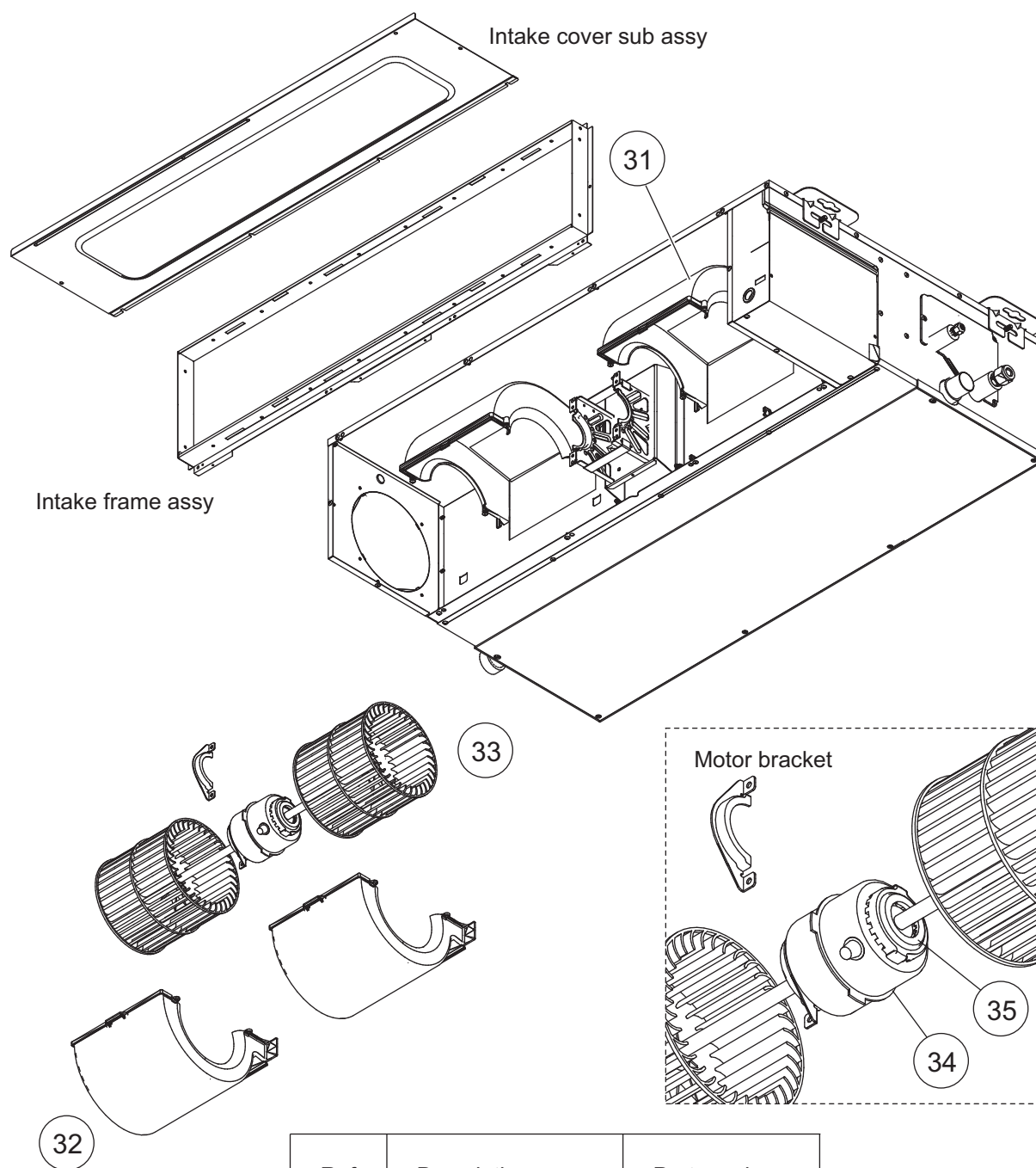
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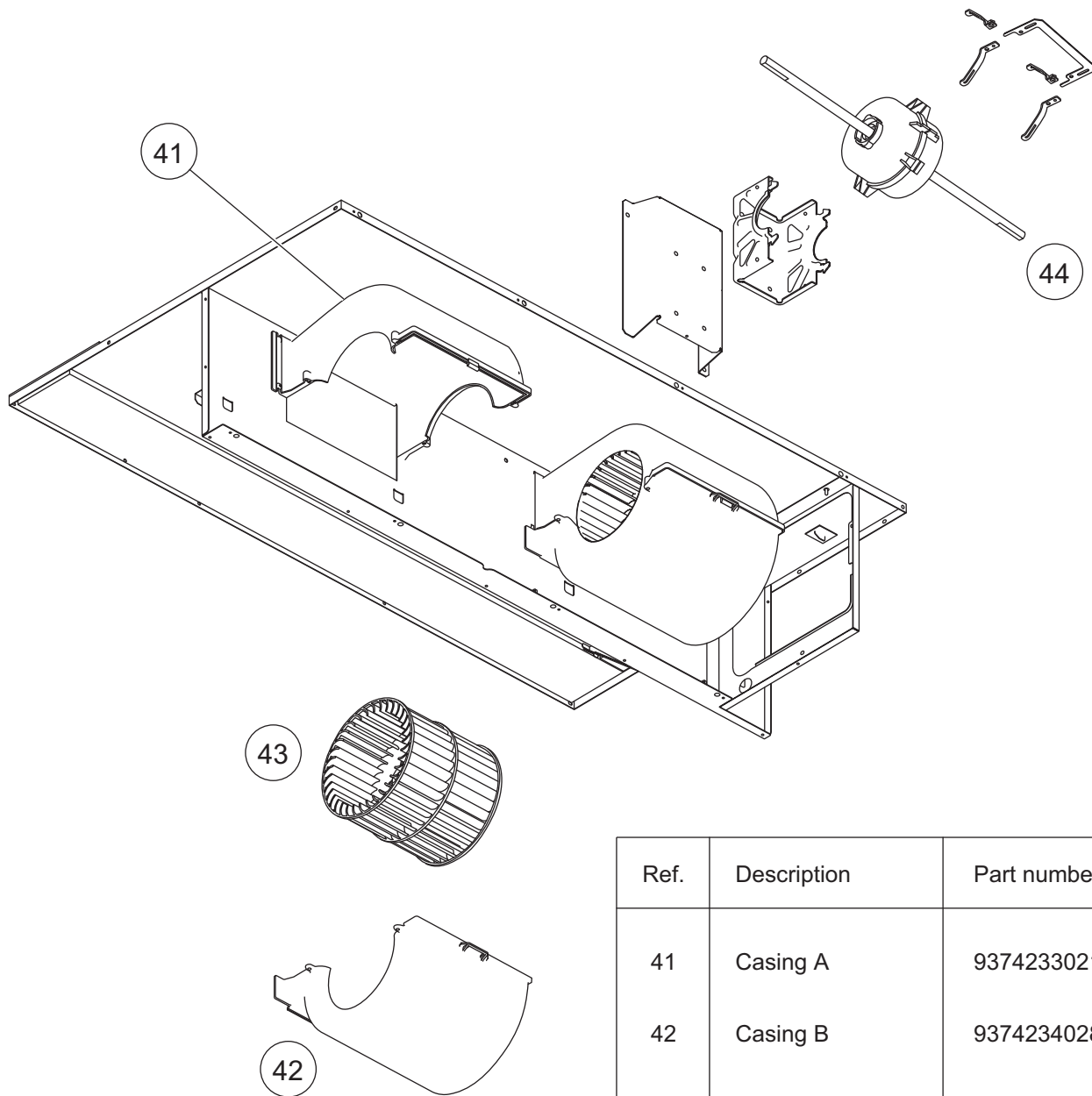
Ref.	Description	Part number
21	Drain pan sub assy	9374513017
22	Evaporator Total Assy (24KMLA)	9374517978
22	Evaporator Total Assy (30, 36KMLA)	9383816048
22	Evaporator Total Assy (45KMLA)	9383816031

■ Casing and fan (for 24 model)



Ref.	Description	Part number
31	Casing A	9374233021
32	Casing B	9374234028
33	Sirocco fan assy	9356531060
34	Fan motor assy	9380718031
35	Rubber	9385102002

■ Casing and fan (for 30, 36, and 45 models)

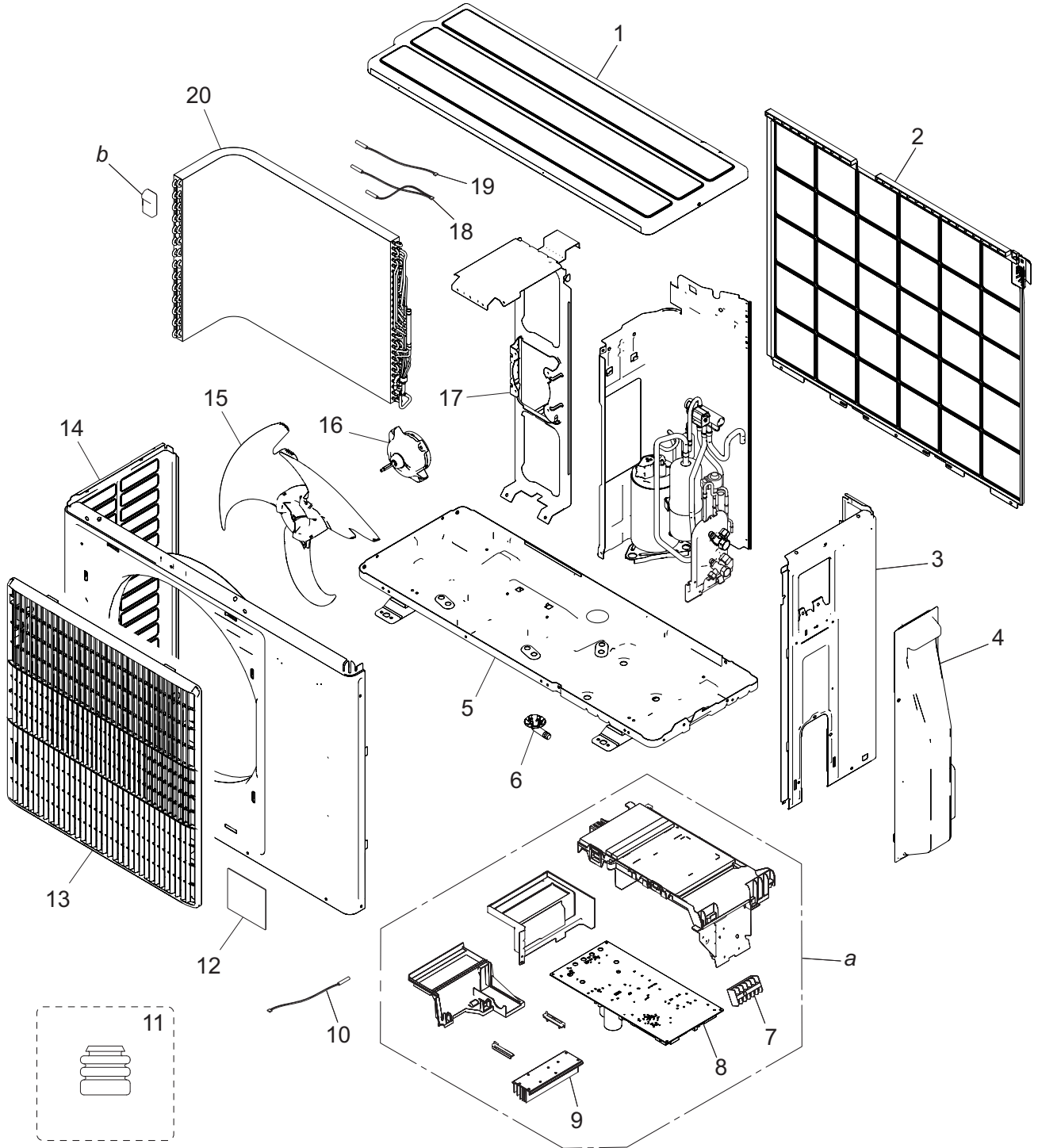


Ref.	Description	Part number
41	Casing A	9374233021
42	Casing B	9374234028
43	Sirocco Fan Assy	9356531046
44	Fan Motor	9603213015

3. Outdoor unit parts list

3-1. Model: ROG24KATA

■ Exterior parts and Chassis

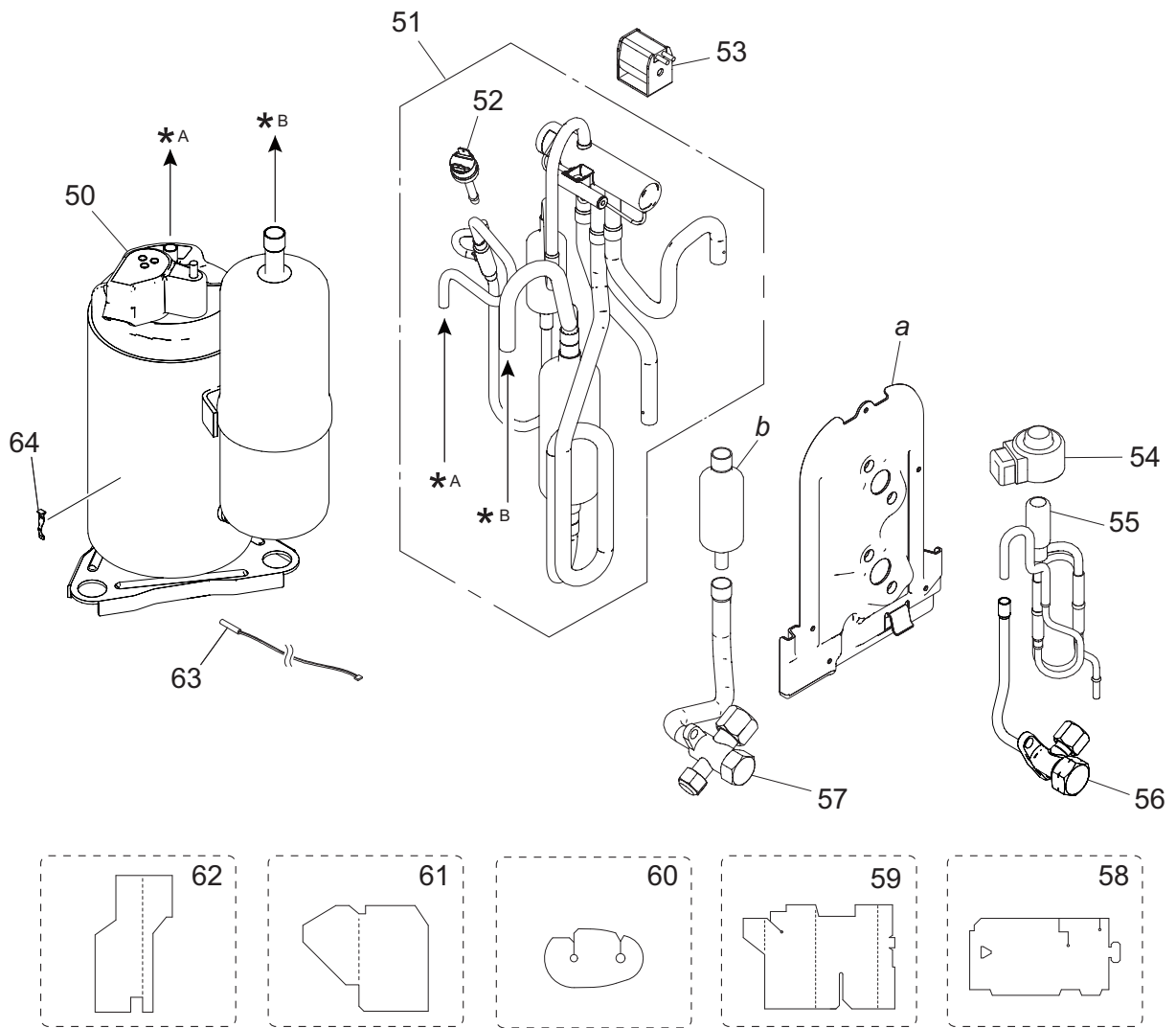


TECHNICAL DATA AND PARTS LIST

TECHNICAL DATA AND PARTS LIST

Item no.	Part no.	Part name	Service part
1	9322556028	Top panel assy	◆
2	9322811028	Protective net assy	◆
3	9322552099	Cabinet right assy	◆
4	9322570024	Switch cover assy	◆
5	9322314024	Base assy	◆
6	9322144003	Drain pipe	◆
7	9900435028	Terminal	◆
8	9709685297	Main PCB (Service) (for 22 model)	◆
	9709685303	Main PCB (Service) (for 24 model)	◆
9	9322420039	Heat sink	◆
10	9900565060	Thermistor assy (Outdoor temp.)	◆
11	9322386007	Cushion rubber	◆
12	9319151007	Emblem	◆
13	9322149008	Blow grille	◆
14	9322555021	Front panel assy	◆
15	9322150004	Propeller fan	◆
16	9603601003	Brushless motor	◆
17	9322553027	Motor bracket assy	◆
18	9900984014	Heat exchanger thermistor	◆
19	9900727079	Thermistor assy	◆
20	9323834194	Heat exchanger unit (for 22 model)	◆
	9323834330	Heat exchanger unit (for 24 model)	◆
<i>a</i>	—	Inverter assy	—
<i>b</i>	—	Hair pin cushion	—

Compressor



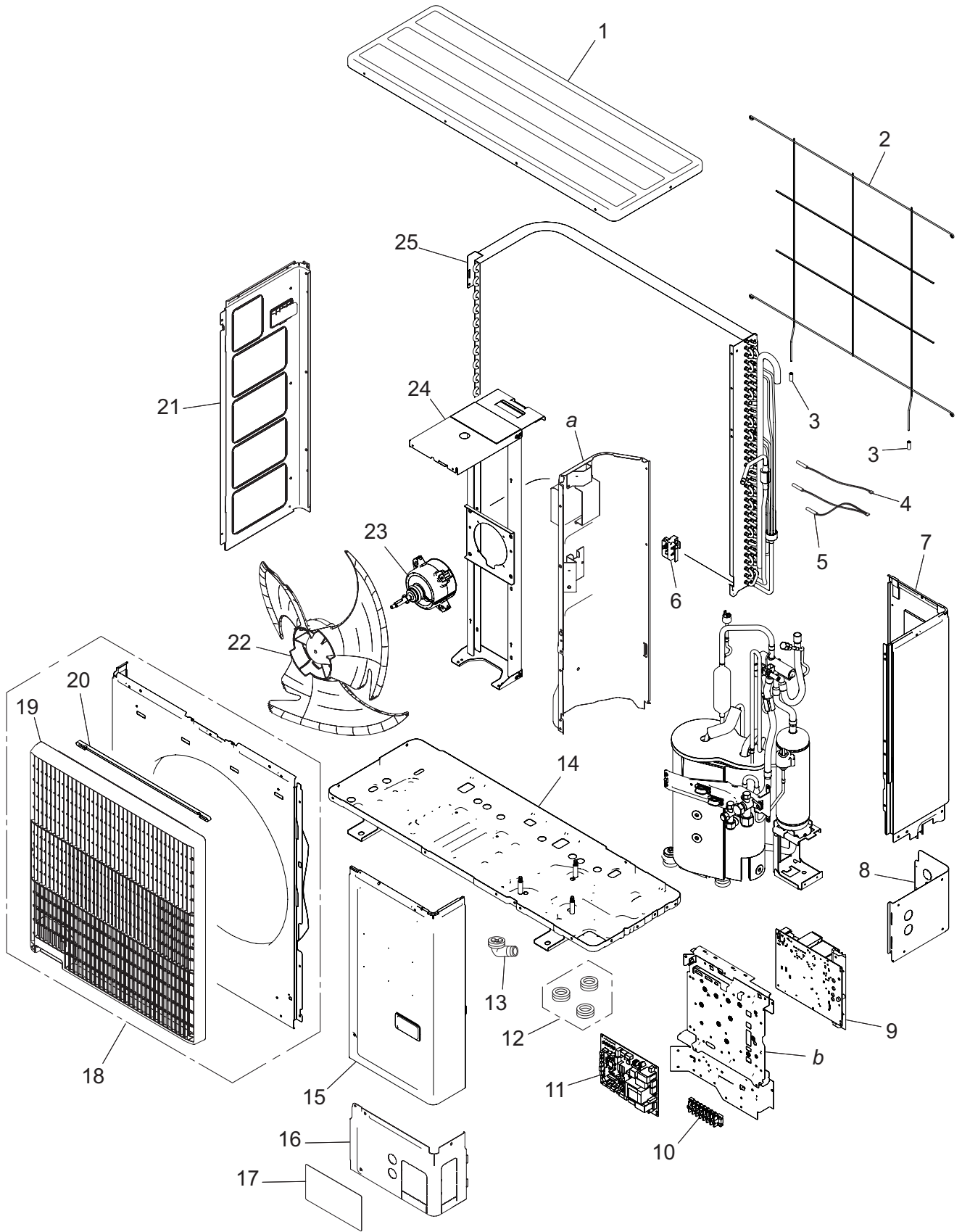
Item no.	Part no.	Part name	Service part
50	9322433008	Compressor (for 22 model)	◆
	9810521002	Compressor (for 24 model)	◆
51	9322783028	4-way valve assy (for 22 model)	◆
	9383129032	4-way valve assy (for 24 model)	◆
52	9900186029	Pressure switch (only for 24 model)	◆
53	9970110160	Solenoid	◆
54	9970173028	Expansion valve coil	◆
55	9322463029	Pulse motor valve assy	◆
56	9322474001	2-way valve assy	◆
57	9387831016	3-way valve assy	◆
58	9322500007	S-insulator B (for 22 model)	◆
	9322503008	S-insulator B (for 24 model)	◆
59	9322847003	S-insulator F	◆
60	9322501004	S-insulator H	◆
61	9323045002	S-insulator V	◆
62	9322824004	S-insulator K (only for 24 model)	◆
63	9900985011	Thermistor (Compressor temp.) (only for 24 model)	◆
64	9810028006	Thermistor stopper (only for 24 model)	◆
<i>a</i>	—	Valve bracket	—
<i>b</i>	—	Muffler	—

3-2. Models: ROG30KATA and ROG36KATA

■ Exterior parts and chassis

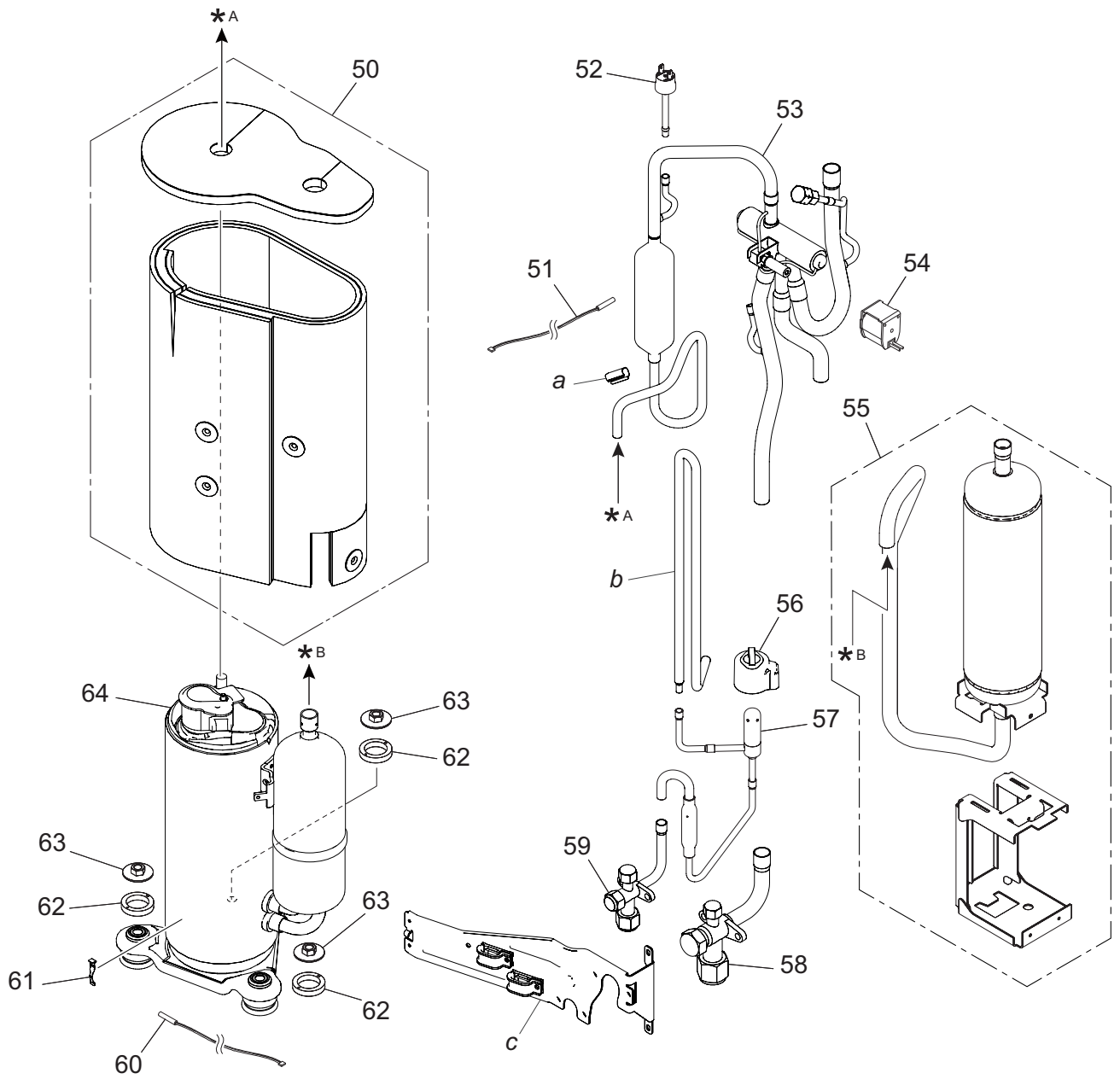
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AND PARTS LIST

TECHNICAL DATA
AND PARTS LIST



Item no.	Part no.	Part name	Service part
1	9383880001	Top panel assy	◆
2	9383779008	Protective net	◆
3	9375361013	Net rubber	◆
4	9900984038	Thermistor (Heat exchanger)	◆
5	9900727154	Thermistor assy	◆
6	9383607004	Thermo holder	◆
7	9383874000	Right panel sub assy	◆
8	9383879005	Rear pipe cover	◆
9	9709684108	Inverter PCB	◆
10	9900203061	Terminal	◆
11	9711431042	Main PCB (Service) (for 30 model)	◆
	9711431059	Main PCB (Service) (for 36 model)	◆
12	313166024302	Drain cap	◆
13	9303029015	Drain assy	◆
14	9350255009	Base assy (Service)	◆
15	9383876004	Service panel sub assy	◆
16	9383878008	Front pipe cover	◆
17	9351355005	Emblem rear	◆
18	9383863004	Front panel assy	◆
19	9383604003	Blow grille	◆
20	9383689000	Blow grille insulation	◆
21	9383882005	Left panel sub assy	◆
22	9383336003	Propeller fan	◆
23	9603732011	Brushless motor	◆
24	9383862007	Motor bracket assy	◆
25	9374420612	Condenser sub assy	◆
—	9711332004	Wire with terminal (Power wire L)	◆
—	9711332011	Wire with terminal (Power wire N)	◆
—	9711205001	Wire with connector (P350 on Main PCB—P351 on Inverter PCB)	◆
—	9711203007	Wire with connector (P660 on Main PCB—P662 on Inverter PCB)	◆
—	9711204004	Wire with connector (P661 on Main PCB—P663 on Inverter PCB)	◆
—	9711214003	Wire with connector (Pressure switch)	◆
—	9711213006	Wire with connector (P770 on Inverter PCB [for Pressure switch])	◆
—	9711212009	Wire with connector (P650 on Inverter PCB—Fan motor)	◆
—	9711206015	Wire with terminal (P400 [U], P401 [V], P402 [W] on Inverter PCB— Compressor)	◆
<i>a</i>	—	Separate wall assy	—
<i>b</i>	—	Control box unit	—

Compressor



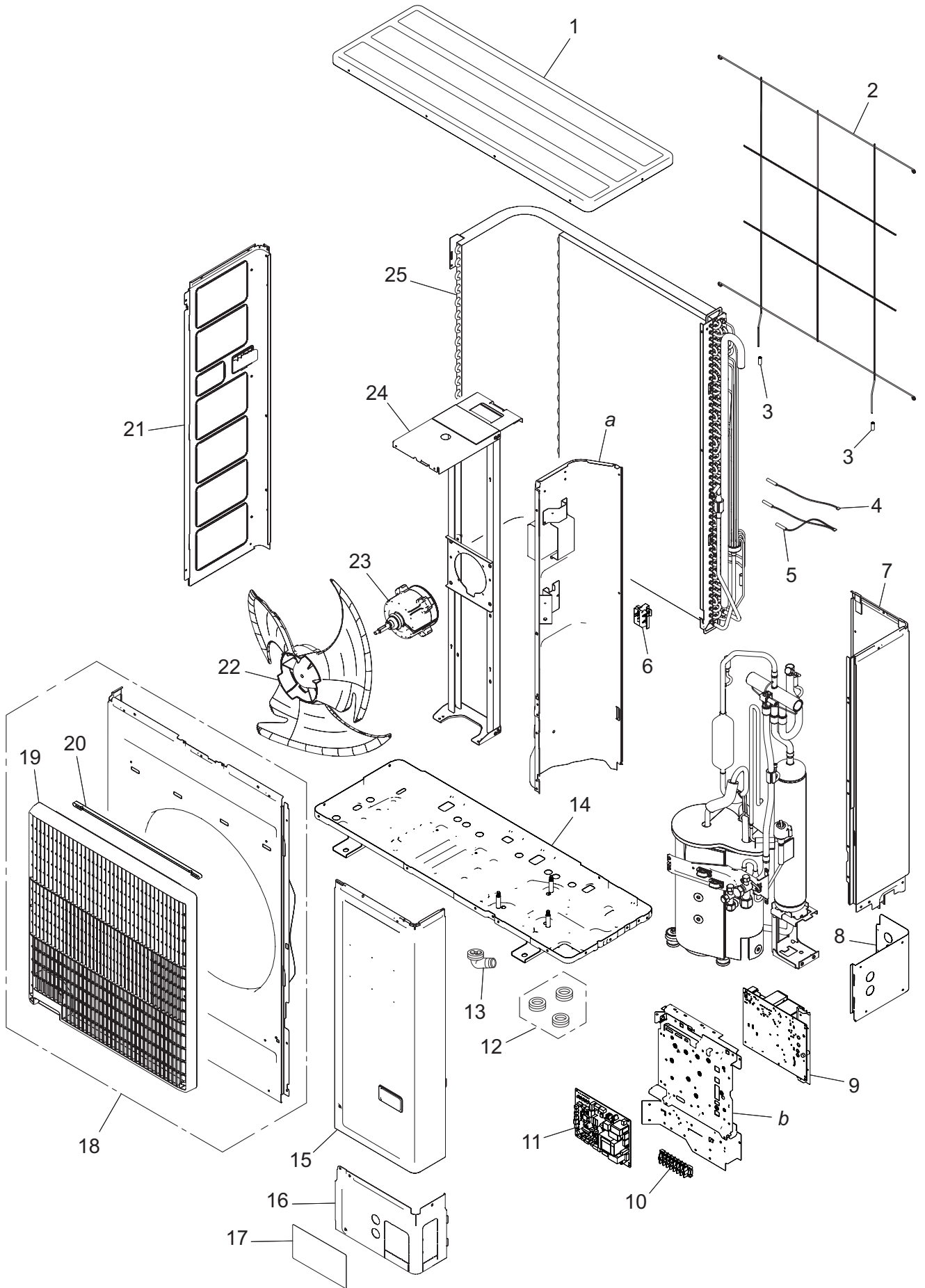
Item no.	Part no.	Part name	Service part
50	9383858000	Sound insulation unit	◆
51	9900565091	Thermistor (Outdoor temp.)	◆
52	9900186029	Pressure switch	◆
53	9374425648	4-way valve assy	◆
54	9970194016	Solenoid	◆
55	9384848017	Accumulator assy (service)	◆
56	9970209000	Expansion valve coil	◆
57	9370947328	Expansion valve assy	◆
58	9379079013	3-way valve assy	◆
59	9377958037	3-way valve assy	◆
60	9900985035	Thermistor (Compressor)	◆
61	9810028006	Thermistor stopper	◆
62	9379179072	Rubber washer E	◆
63	9377973016	Special nut	◆
64	9383821004	Compressor assy	◆
a	—	Thermostat holder	—
b	—	Joint pipe D	—
c	—	Wiring fixation unit	—

3-3. Model: ROG45KATA

■ Exterior parts and chassis

TECHNICAL DATA
AND PARTS LIST

TECHNICAL DATA
AND PARTS LIST

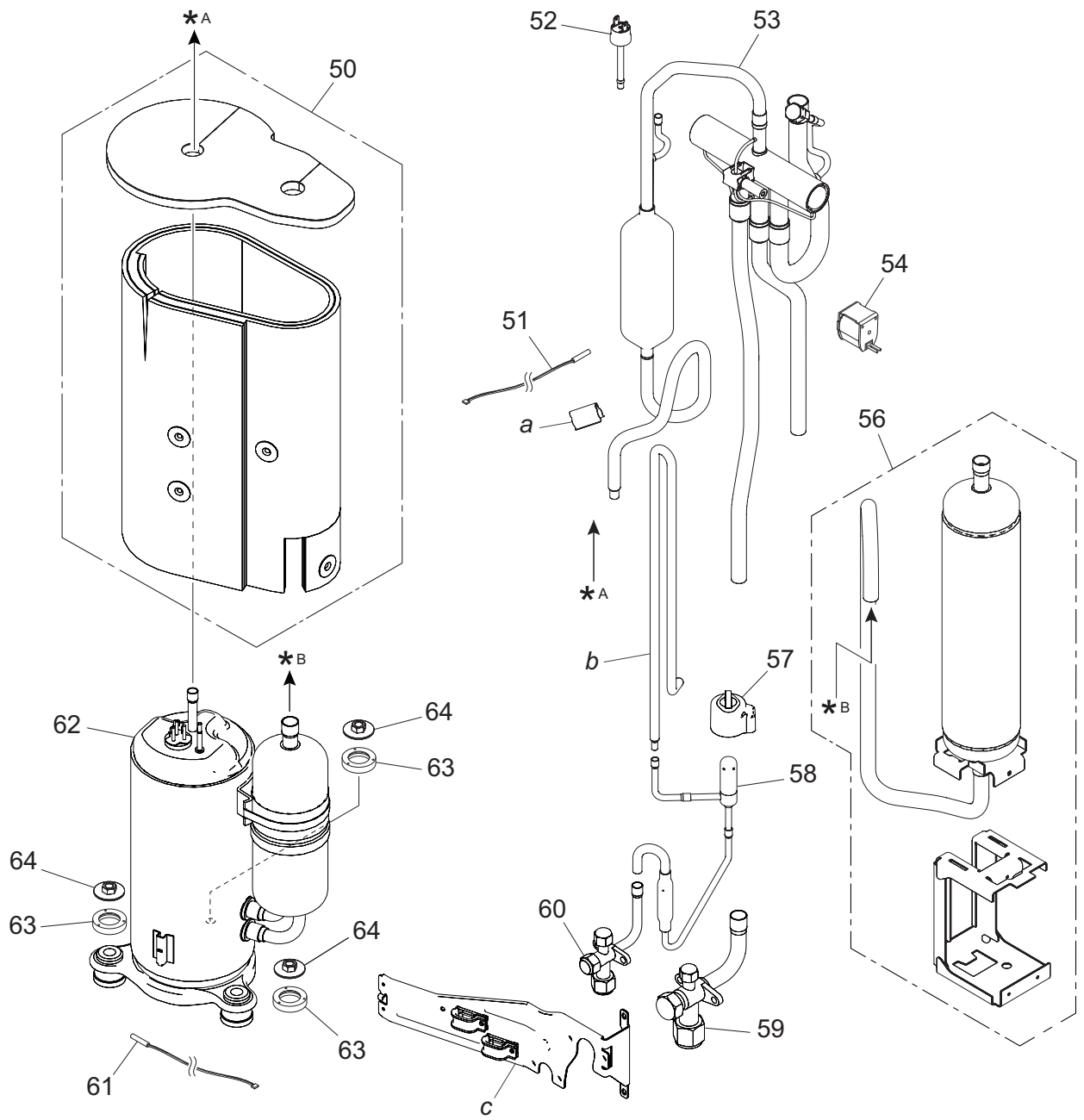


Item no.	Part no.	Part name	Service part
1	9383880001	Top panel assy	◆
2	9381013005	Protective net	◆
3	9375361013	Net rubber	◆
4	9900984038	Thermistor (Heat exchanger)	◆
5	9900727154	Thermistor assy	◆
6	9383607004	Thermo holder	◆
7	9383874017	Right panel sub assy	◆
8	9383879005	Rear pipe cover	◆
9	9709684122	Inverter PCB (for 45 model)	◆
	9709684115	Inverter PCB (for 54 model)	◆
10	9900203061	Terminal	◆
11	9711431066	Main PCB (Service) (for 45 model)	◆
	9711431158	Main PCB (Service) (for 54 model)	◆
12	313166024302	Drain cap	◆
13	9303029015	Drain assy	◆
14	9350255009	Base assy (Service)	◆
15	9383876011	Service panel sub assy	◆
16	9383878008	Front pipe cover	◆
17	9351355005	Emblem rear	◆
18	9383863011	Front panel assy	◆
19	9383604003	Blow grille	◆
20	9383689000	Blow grille insulation	◆
21	9383882012	Left panel sub assy	◆
22	9383336003	Propeller fan	◆
23	9603733018	Brushless motor	◆
24	9383862021	Motor bracket assy	◆
25	9374420636	Condenser sub assy	◆
—	9711332004	Wire with terminal (Power wire L)	◆
—	9711332011	Wire with terminal (Power wire N)	◆
—	9711205001	Wire with connector (P350 on Main PCB—P351 on Inverter PCB)	◆
—	9711203007	Wire with connector (P660 on Main PCB—P662 on Inverter PCB)	◆
—	9711204004	Wire with connector (P661 on Main PCB—P663 on Inverter PCB)	◆
—	9711214003	Wire with connector (Pressure switch)	◆
—	9711213006	Wire with connector (P770 on Inverter PCB [for Pressure switch])	◆
—	9711212009	Wire with connector (P650 on Inverter PCB—Fan motor)	◆
—	9711206008	Wire with terminal (P400 [U], P401 [V], P402 [W] on Inverter PCB— Compressor)	◆
<i>a</i>	—	Separate wall assy	—
<i>b</i>	—	Control box unit	—

Compressor

TECHNICAL DATA
AND PARTS LIST

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AND PARTS LIST






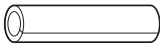

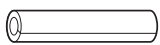
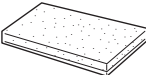





Item no.	Part no.	Part name	Service part
50	9383858017	Sound insulation unit	◆
51	9900565091	Thermistor (Outdoor temp.)	◆
52	9900186029	Pressure switch	◆
53	9374425662	4-way valve assy (for 45 model)	◆
	9374425655	4-way valve assy (for 54 model)	◆
54	9970194016	Solenoid	◆
56	9384848024	Accumulator assy (Service)	◆
57	9970209000	Expansion valve coil	◆
58	9370947311	Expansion valve assy	◆
59	9379079013	3-way valve assy	◆
60	9377958037	3-way valve assy	◆
61	9900985028	Thermistor (Compressor)	◆
62	9383851032	Compressor (for 45 model)	◆
	9383851018	Compressor (for 54 model)	◆
63	9379179089	Rubber washer F	◆
64	9377973016	Special nut	◆
<i>a</i>	—	Thermistor spring	—
<i>b</i>	—	Joint pipe D	—
<i>c</i>	—	Wiring fixation unit	—

4. Accessories



4-1. Indoor unit

■ Models: RDG24KMLA, RDG30KMLA, RDG36KMLA, and RDG45KMLA





Part name	Exterior	Q'ty	Part name	Exterior	Q'ty
Operating manual		1	Cable tie (medium)		1
Operating manual (CD-ROM)		1	Cable tie (small)		1
Installation manual		1	Coupler heat insulation (large)		1
Hanger		4	Coupler heat insulation (small)		1
Drain hose insulation		1	M10 nut A (with flange)		4
Cable tie (large)		1	M10 nut B (with spring lock washer)		4

4-2. Outdoor unit

■ Model: ROG24KATA

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

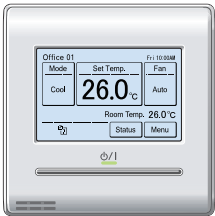
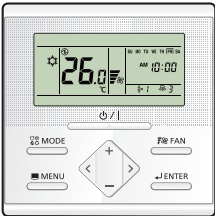
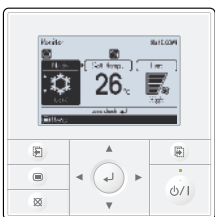
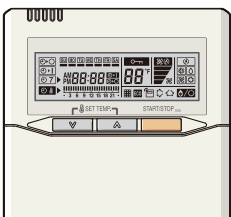

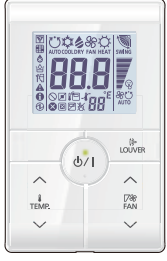
■ Models: ROG30KATA, ROG36KATA, and ROG45KATA


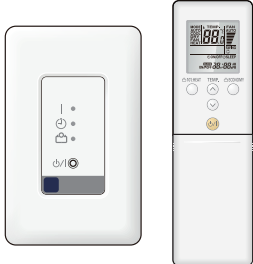
Part name	Exterior	Q'ty	Part name	Exterior	Q'ty
Installation manual		1	Drain cap		3
Drain pipe		1	One-touch bush		2

5. Optional parts

5-1. Indoor unit


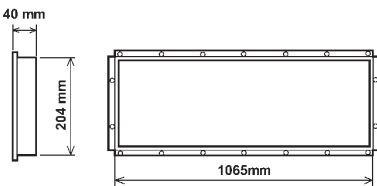
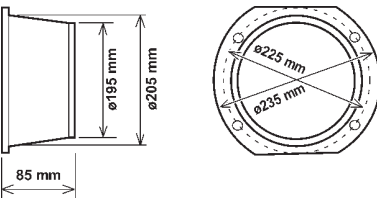
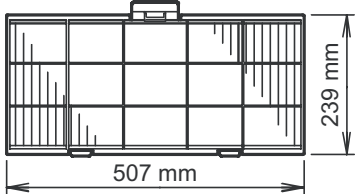

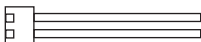
■ Controllers





Exterior	Part name	Model name	Summary
	Wired remote controller	UTU-RNRYZ*	Easy finger touch operation with LCD panel. Backlit LCD enables easy operation in a dark room. Wire type: Non-polar 2-wire
	Wired remote controller	UTU-RLRY	High visibility and easy operation. Room temperature can be accurately controlled using the built-in thermo sensor. Wire type: Non-polar 2-wire
	Wired remote controller	UTU-RVNYM	Large and full-dot liquid crystal screen, wide and large keys easy to press, user-intuitive arrow key. Wire type: Polar 3-wire
	Wired remote controller	UTU-RNNYM	Room temperature can be controlled by detecting the temperature accurately with built-in thermo sensor. Wire type: Polar 3-wire
	Simple remote controller	UTU-RSRY	Compact remote controller concentrates on the basic functions such as Start/Stop, fan control, temperature setting, and operation mode. Wire type: Non-polar 2-wire
	Simple remote controller	UTU-RHRY	Compact remote controller concentrates on the basic functions such as Start/Stop, fan control, and temperature setting. Wire type: Non-polar 2-wire

Exterior	Part name	Model name	Summary
	Simple remote controller	UTY-RSNYM	Compact remote controller concentrates on the basic functions such as Start/Stop, fan control, temperature setting, and operation mode. Wire type: Polar 3-wire
	IR receiver kit with wireless remote controller	UTY-LBTYM	Unit control is performed by wireless remote controller.

NOTE: Available functions may differ by the remote controller. For details, refer to the operation manual.

Others

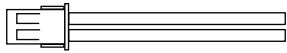
Exterior	Part name	Model name	Summary
	Remote sensor unit	UTY-XSZX	Thermo-sensor for sensing the temperature of arbitrary place in the room.
	Square flange	UTD-SF045T	Both the Square flange and the Round flange can be selected.
	Round flange	UTD-RF204	Round flange is used when the fresh-air duct is installed.
	Long-life filter	UTD-LF25NA	Long-life filter can be mounted to the indoor unit.
	Drain pump unit	UTZ-PX1NBA	Optional drain lift up mechanism allows more flexible installation.
	External connect kit	UTY-XWZXZG	Use to connect with various peripheral devices and air conditioner PCB. For control output port.

Exterior	Part name	Model name	Summary
	Wireless LAN adapter	UTY-TFSXZ1	Remotely manage an air conditioning system using mobile devices such as smartphones and tablets. For connection indoor unit with UART interface.
	Modbus converter	UTY-VMSX	For connection between indoor unit with UART interface and a Modbus open network.
	KNX converter	UTY-VKSX	For connection between indoor unit with UART interface and a KNX open network.
	External switch controller	UTY-TERX	Air conditioner switching can be controlled by connecting other external sensor switches.

NOTE: Combined use of following optional parts and Wireless LAN adapter (UTY-TFSXZ1) is not allowed.

- Modbus converter
- KNX converter

5-2. Outdoor unit

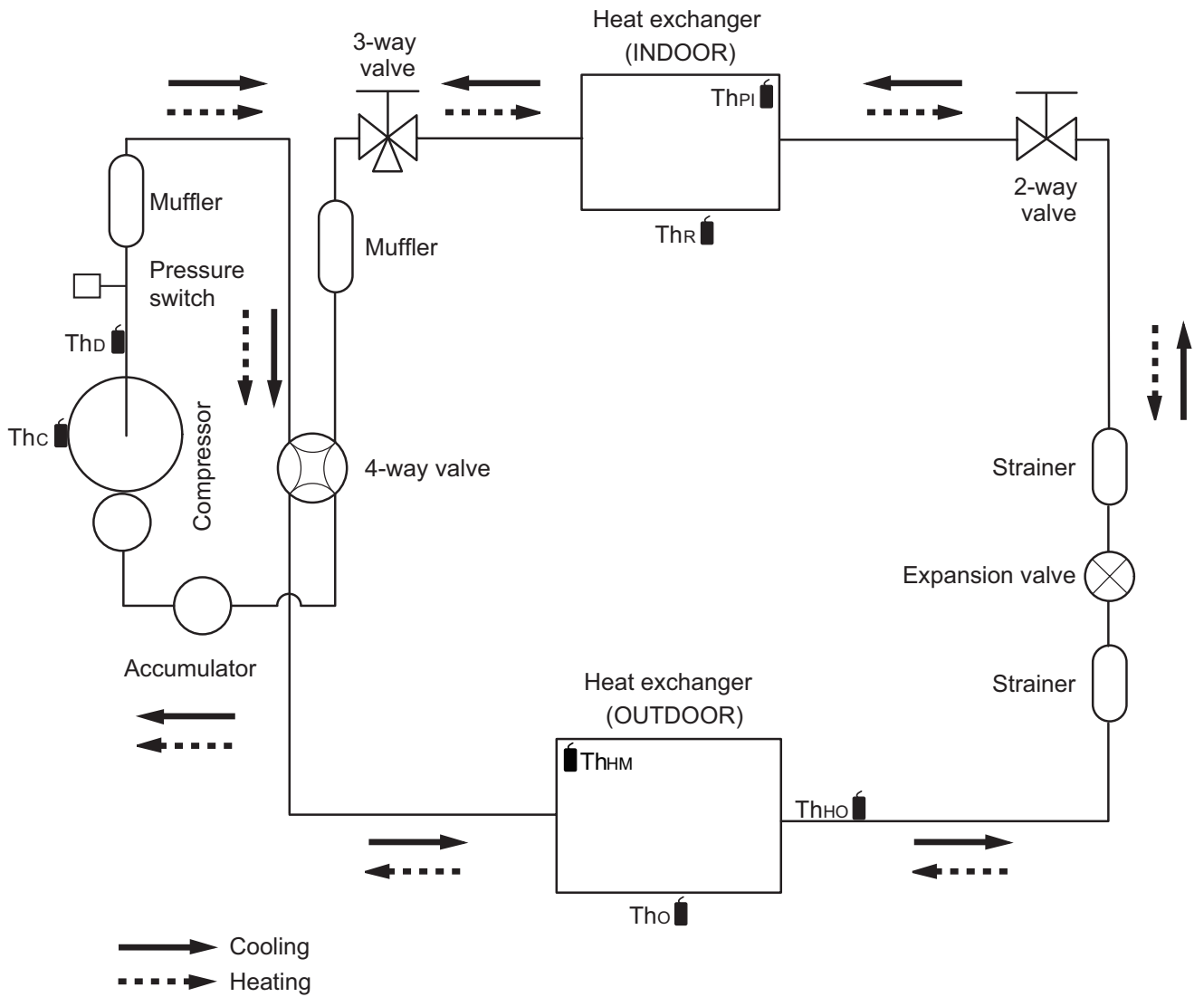
Exterior	Part name	Model name	Summary
	External connect kit	UTY-XWZXZ3	Use to operate the external input and output functions of outdoor unit.

6. Refrigerant system diagrams

6-1. Model: ROG24KATA

TECHNICAL DATA
AND PARTS LIST

TECHNICAL DATA
AND PARTS LIST

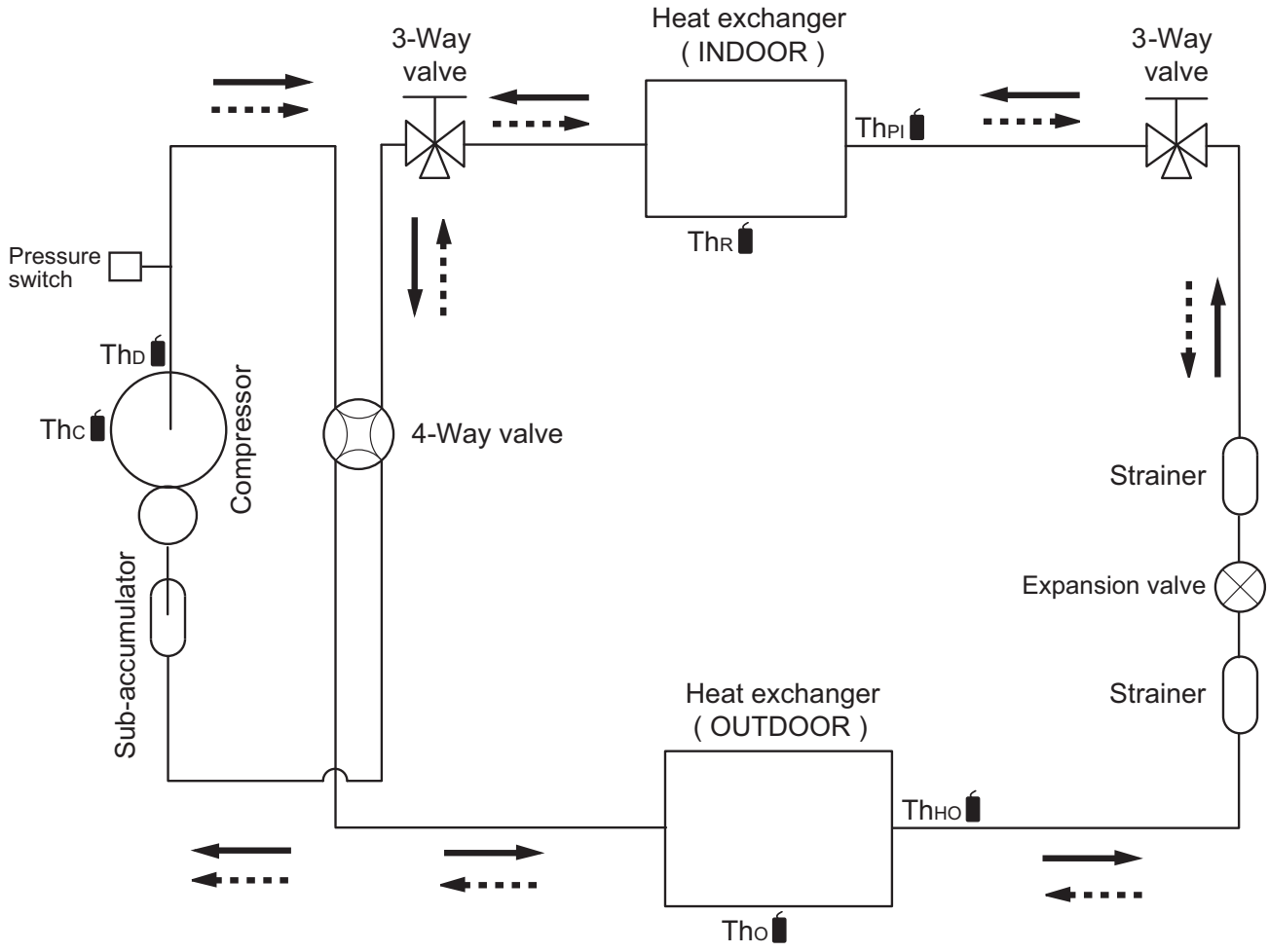


- Thc : Thermistor (Compressor temperature)
- ThD : Thermistor (Discharge temperature)
- ThO : Thermistor (Outdoor temperature)
- ThHO : Thermistor (Heat exchanger out temperature)
- ThHM : Thermistor (Heat exchanger middle temperature)
- ThR : Thermistor (Room temperature)
- ThPI : Thermistor (Pipe temperature)

6-2. Models: ROG30KATA, ROG36KATA, and ROG45KATA

TECHNICAL DATA
AND PARTS LIST

TECHNICAL DATA
AND PARTS LIST



—→ : Cooling
- - - -> : Heating

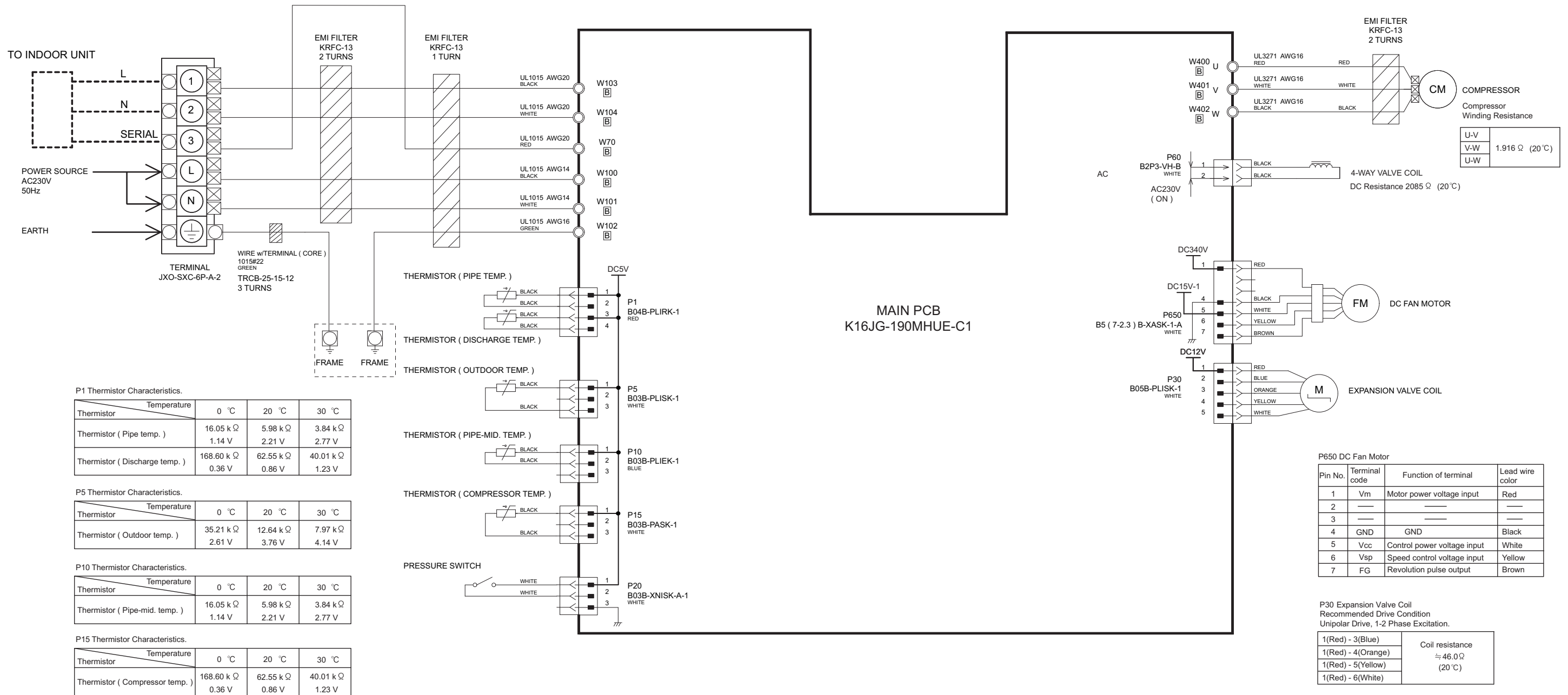
- Th_c : Thermistor (Compressor temperature)
- Th_d : Thermistor (Discharge temperature)
- Th_o : Thermistor (Outdoor temperature)
- Th_{HO} : Thermistor (Heat Exchanger Out temperature)
- Th_R : Thermistor (Room temperature)
- Th_{PI} : Thermistor (Pipe temperature)

7-2. Model: ROG24KATA

INVERTER ASSEMBLY EZ-019FHUE

TECHNICAL DATA
AND PARTS LIST

TECHNICAL DATA
AND PARTS LIST



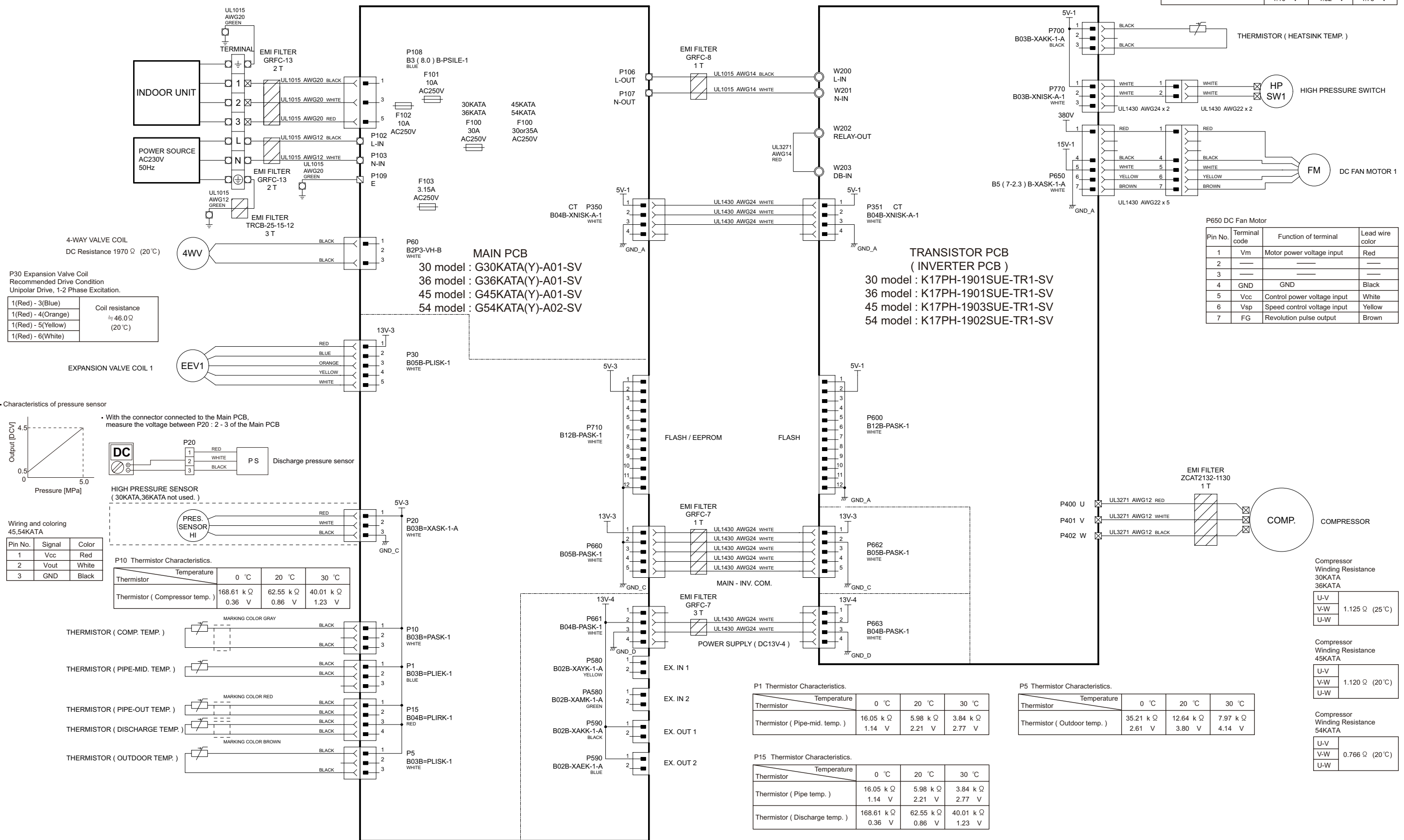
7-3. Models: ROG30KATA, ROG36KATA, and ROG45KATA

INVERTER ASSEMBLY

30 model : EZ-0190DHUE 45 model : EZ-0192HUE
 36 model : EZ-0190DHUE 54 model : EZ-01907HUE

P700 Thermistor Characteristics.

Thermistor	Temperature	0 °C	20 °C	30 °C
Thermistor		0.33 k Ω	0.12 k Ω	0.08 k Ω
Thermistor (Heatsink temp.)		4.10 V	4.62 V	4.75 V



TECHNICAL DATA AND PARTS LIST

TECHNICAL DATA AND PARTS LIST