

AIR CONDITIONER

**Duct type**

# SERVICE MANUAL

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INDOOR



RDG22KMLA  
RDG22KMLB

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OUTDOOR



ROG22KATA

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**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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## 2. TECHNICAL DATA AND PARTS LIST



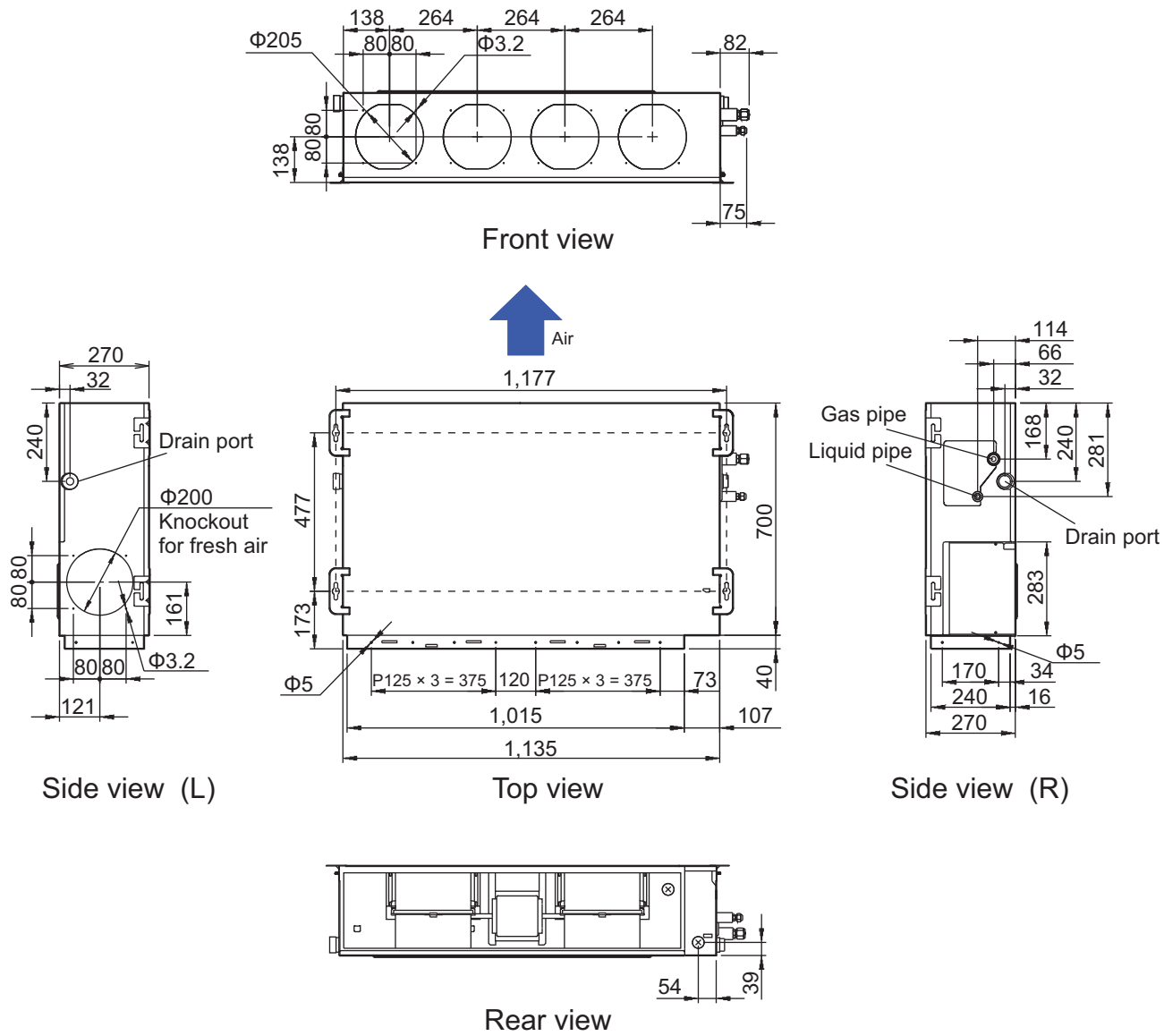
## **1. GENERAL INFORMATION**

## 2. Dimensions

### 2-1. Indoor unit

#### ■ Model: RDG22KMLA and RDG22KMLB

Unit: mm

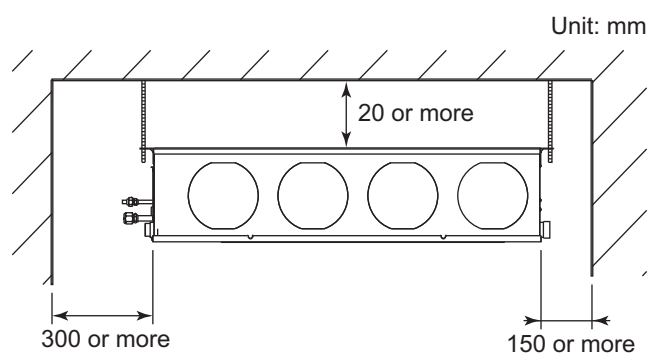


## ■ Installation space requirement

Provide sufficient installation space for product safety. **NOTE:**

The detailed component shape depends on the model.

### ● Model: RDG22KMLA and RDG22KMLB



## ■ Maintenance space requirement

For future maintenance and service access, provide sufficient maintenance space.

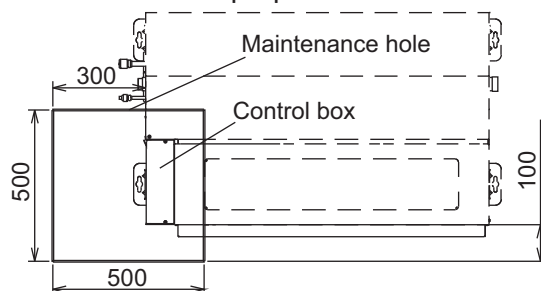
### NOTES:

- Do not place any wiring or illumination in the maintenance space, as they will impede service.
- The detailed component shape depends on the model.

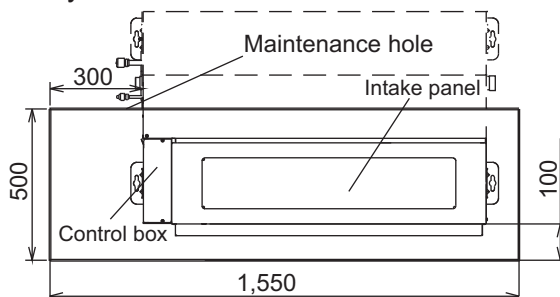
## ● Model: RDG22KMLA and RDG22KMLB

Unit: mm

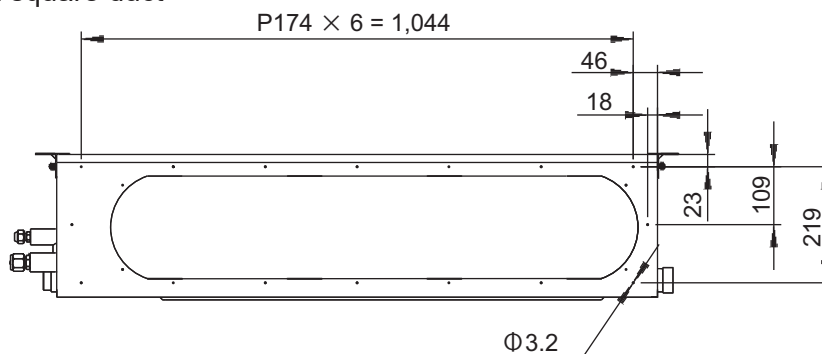
- Provide a service access for maintenance purposes.



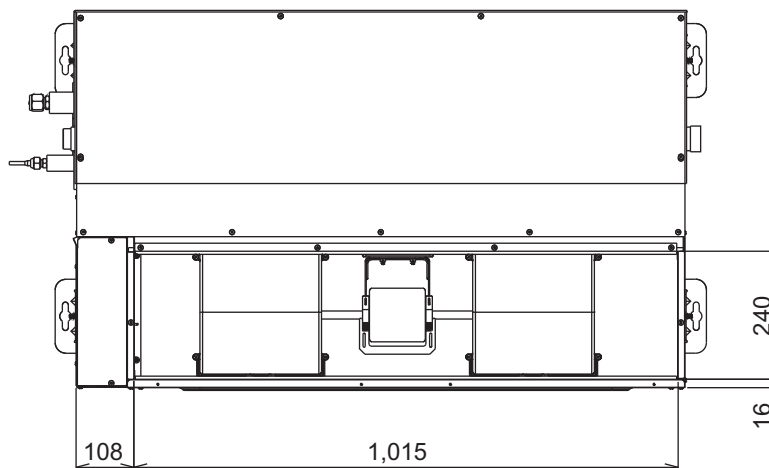
- The service access necessary for fan units and filter maintenance.



- When using a square duct



- Bottom air intake hole

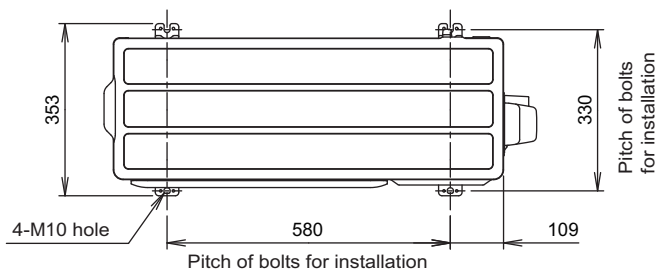




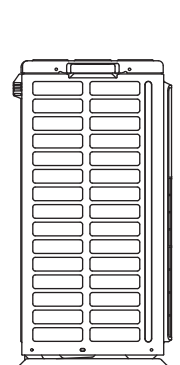
## 2-2. Outdoor unit

### ■ Model: ROG22KATA

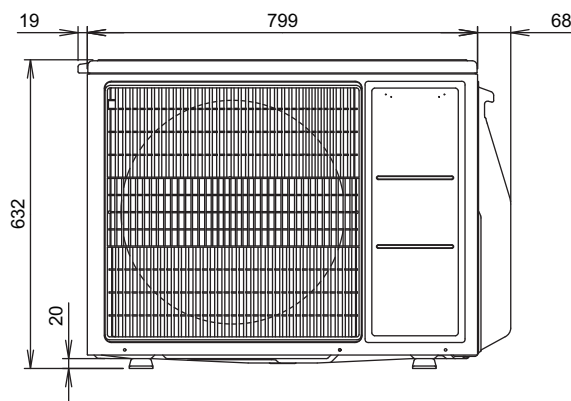
Unit: mm



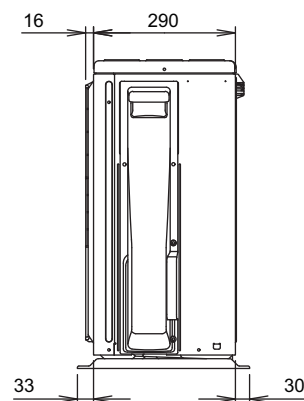
Top view



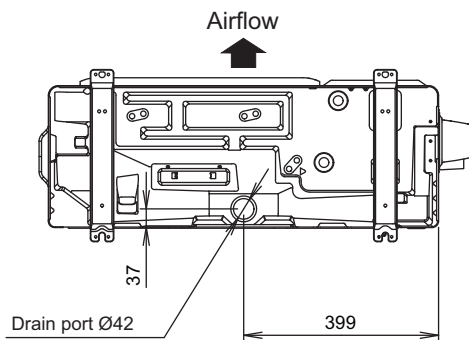
Side view



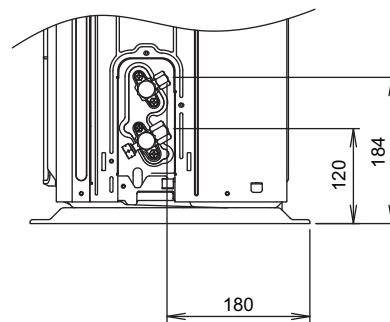
Front view



Side view



Bottom view



Side view (Valve part)



## **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

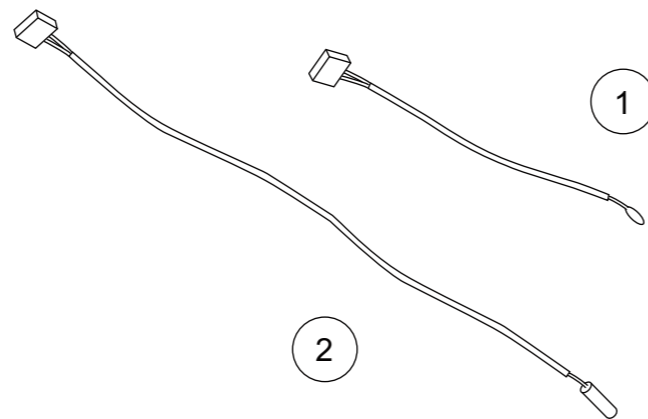
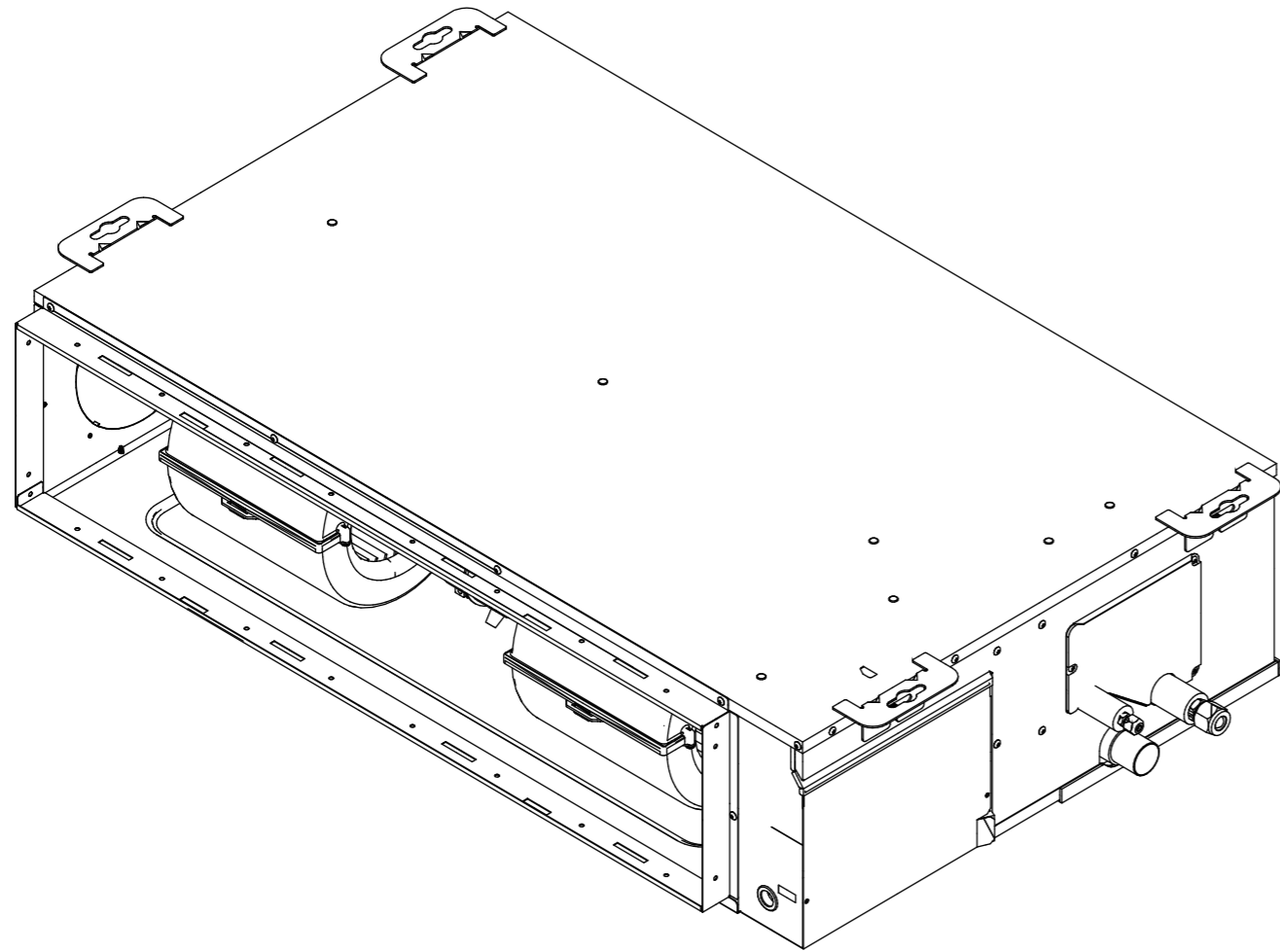
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- Service personnel
    - Any person who is involved with working on or breaking into a refrigerant circuit should hold a current valid certificate from an industry-accredited assessment authority, which authorizes their competence to handle refrigerants 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.
  - 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.

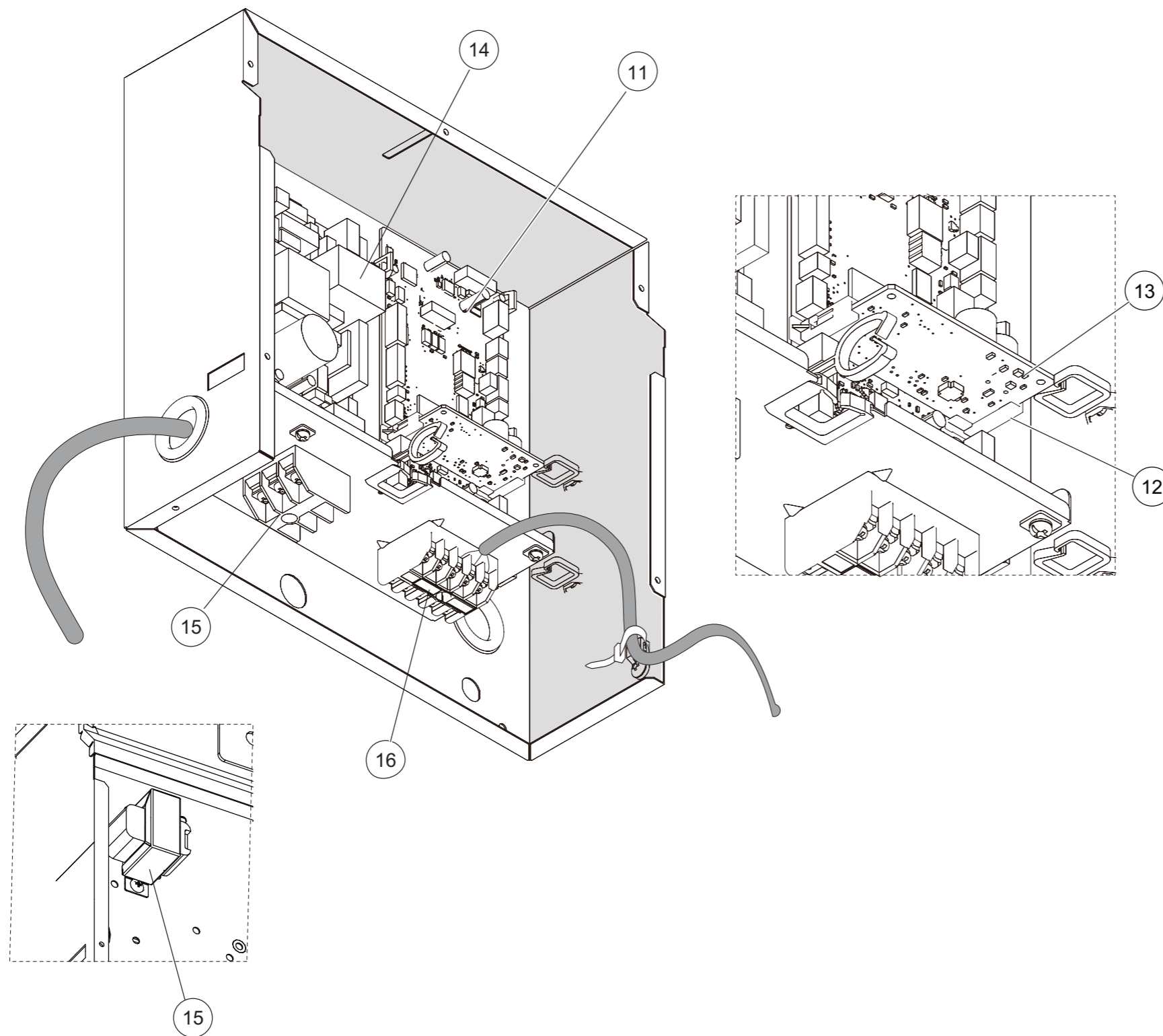
## 2. Indoor unit parts list

### 2-1. Model: RDG22KMLA and RDG22KMLB

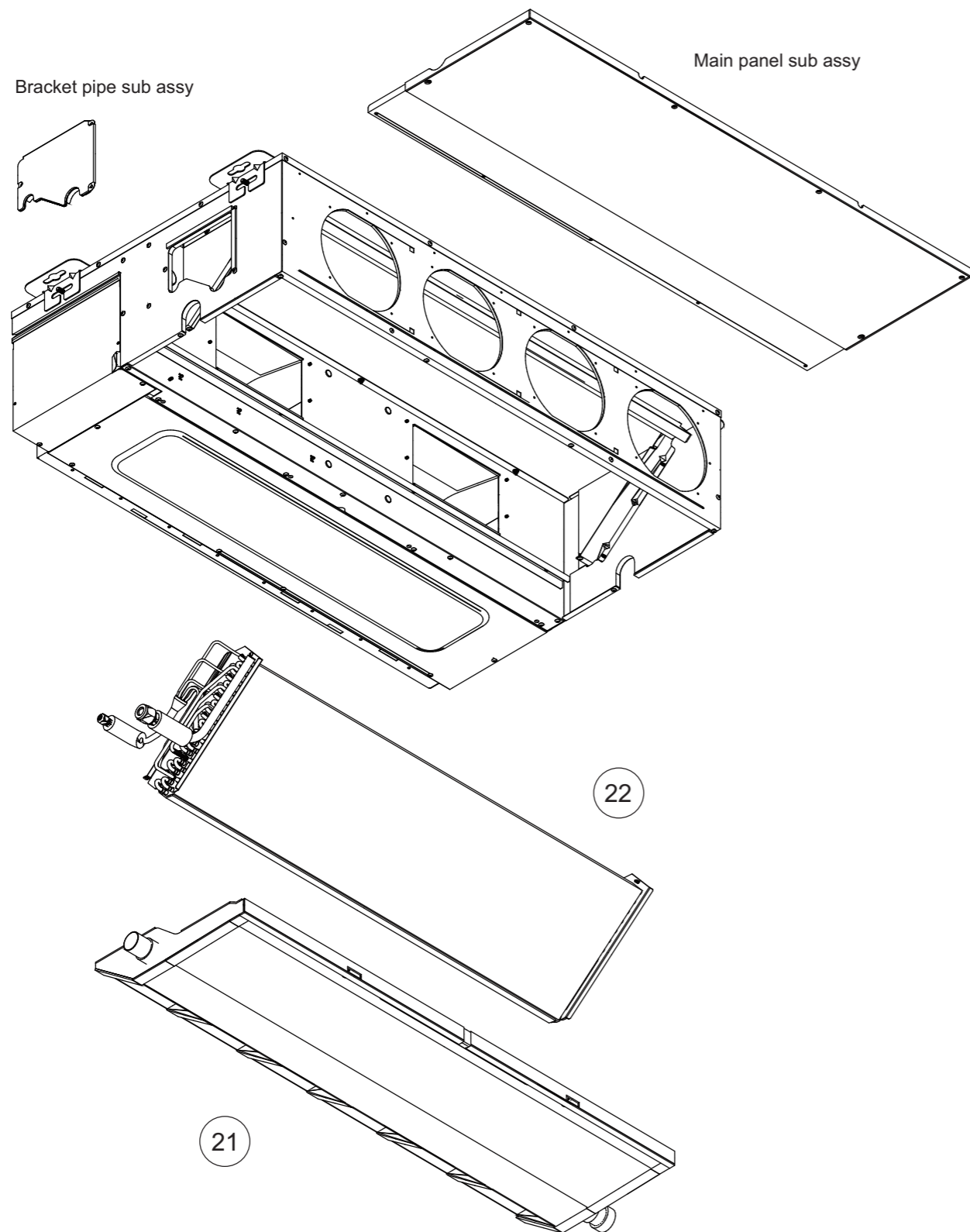
Hook metal



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

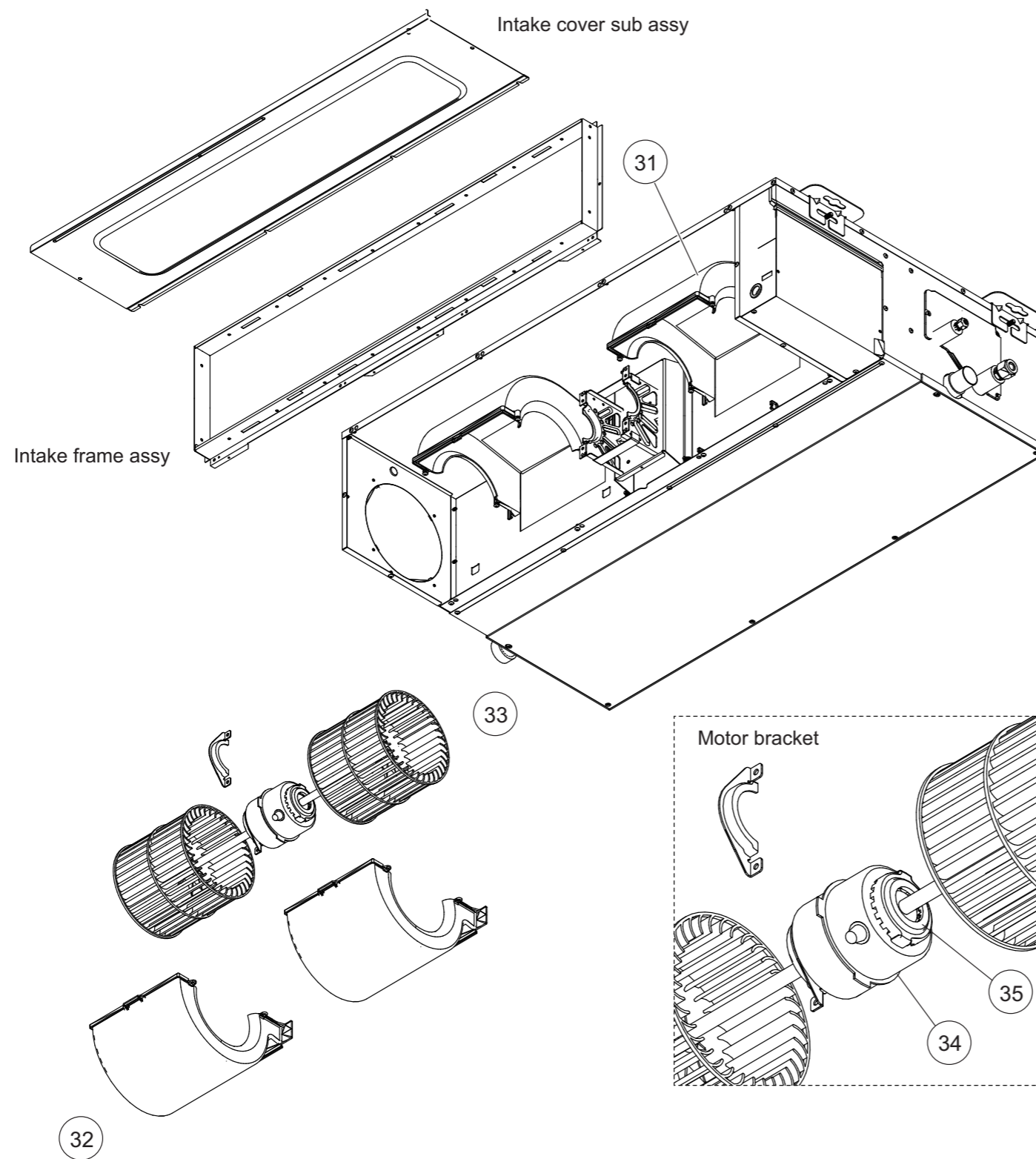


Ref.	Description	Part number
11	Main PCB	9710624124
12	Holder	0600063023
13	Communication PCB	9710019005
14	Power supply PCB	9710661013
15	Terminal 3P	9306489045
16	Terminal 5P	9900896003
17	Reactor assy	9707457049



Ref.	Description	Part number
21	Drain pan sub assy	9374513017
22	Evaporator Total Assy	9374517978



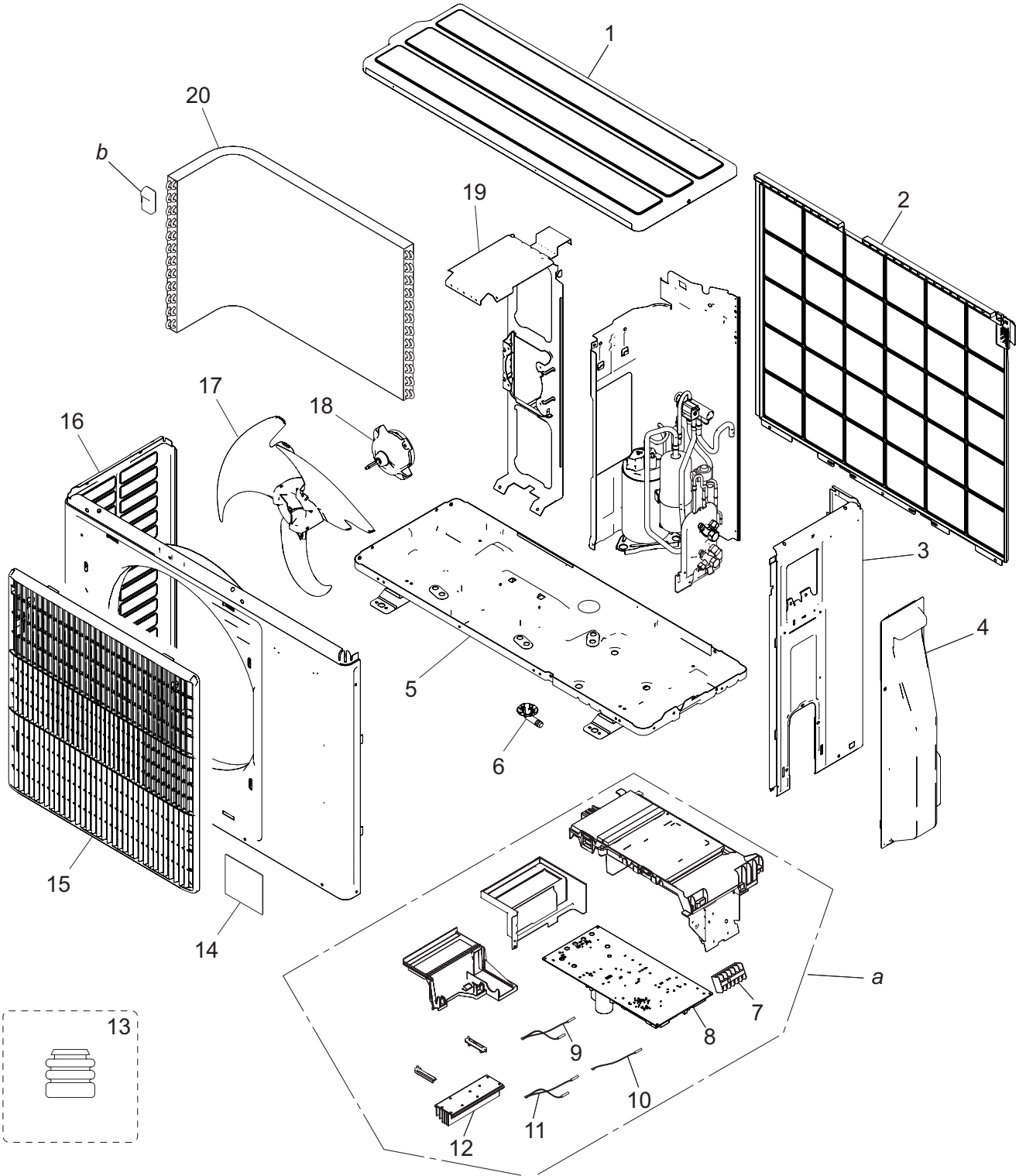


Ref.	Description	Part number
31	Casing A	9374233021
32	Casing B	9374234028
33	Sirocco fan assy	9356531060
34	Fan motor assy	9380718031
35	Rubber	9385102002

# 3. Outdoor unit parts list

## 3-1. Model: ROG22KATA

### ■ Exterior parts and Chassis

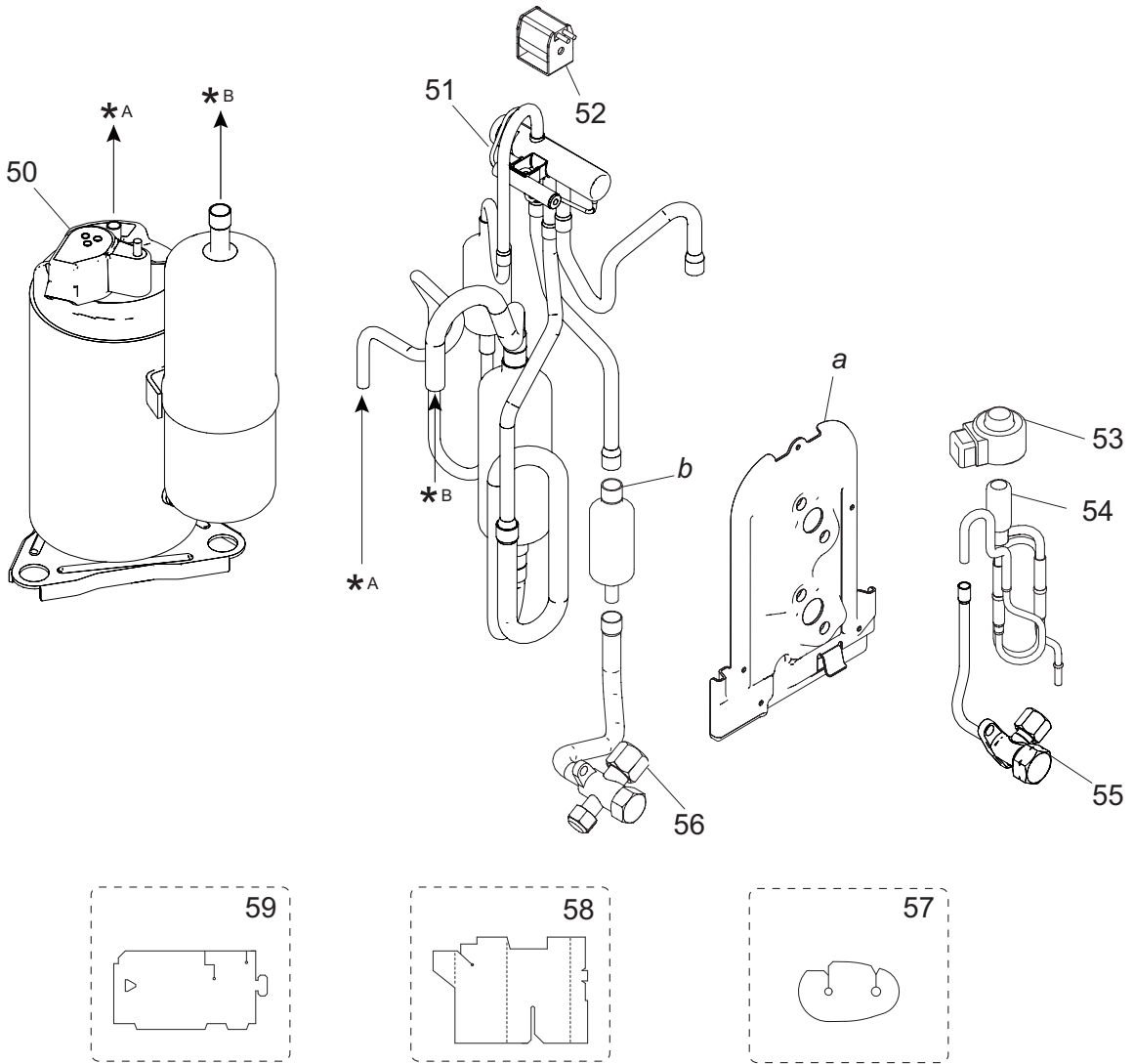


Item no.	Part no.	Part name	Service part
1	9322556028	Top panel assy	◆
2	9322811028	Protective net assy	◆
3	9322552099	Cabinet right assy	◆
4	9322570024	Switch cover assy	◆
5	9322314024	Base assy	◆
6	9322144003	Drain pipe	◆
7	9900435028	Terminal	◆
8	9709685297	Main PCB (Service)	◆
9	9900727079	Thermistor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

# Compressor

TECHNICAL DATA  
AND PARTS LIST

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AND PARTS LIST






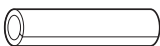
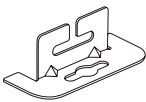

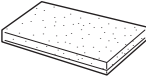





Item no.	Part no.	Part name	Service part
50	9810523006	Compressor	◆
51	9322783028	4-way valve assy	◆
52	9970110160	Solenoid	◆
53	9970173028	Expansion valve coil	◆
54	9322463029	Pulse motor valve assy	◆
55	9322474001	2-way valve assy	◆
56	9387831016	3-way valve assy	◆
57	9322501004	S-insulator H	◆
58	9322847003	S-insulator F	◆
59	9322500007	S-insulator B	◆
<i>a</i>	—	Valve bracket	—
<i>b</i>	—	Muffler	—

## 4. Accessories


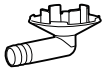
### 4-1. Indoor unit

#### ■ Model: RDG22KMLA and RDG22KMLB

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

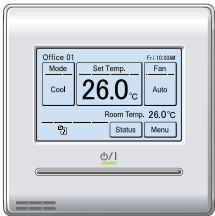
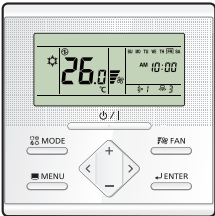
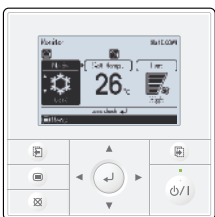
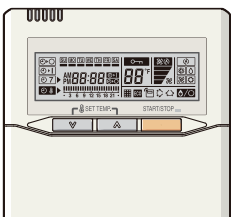

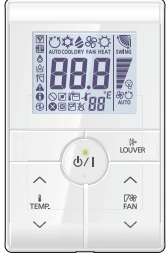
#### ■ Model: ROG22KATA


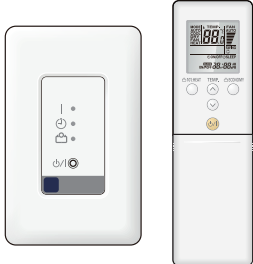
Part name	Exterior	Q'ty	Part name	Exterior	Q'ty
Installation manual		1	Drain pipe		1

## 5. Optional parts

### 5-1. Indoor unit


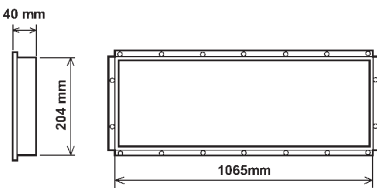
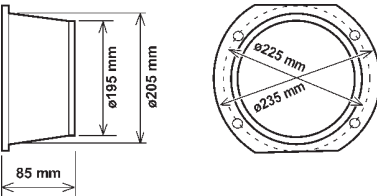


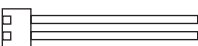
#### ■ Controllers

Exterior	Part name	Model name	Summary
	Wired remote controller	UTY-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	UTY-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	UTY-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	UTY-RNNYM	Room temperature can be controlled by detecting the temperature accurately with built-in thermo sensor. Wire type: Polar 3-wire
	Simple remote controller	UTY-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	UTY-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.



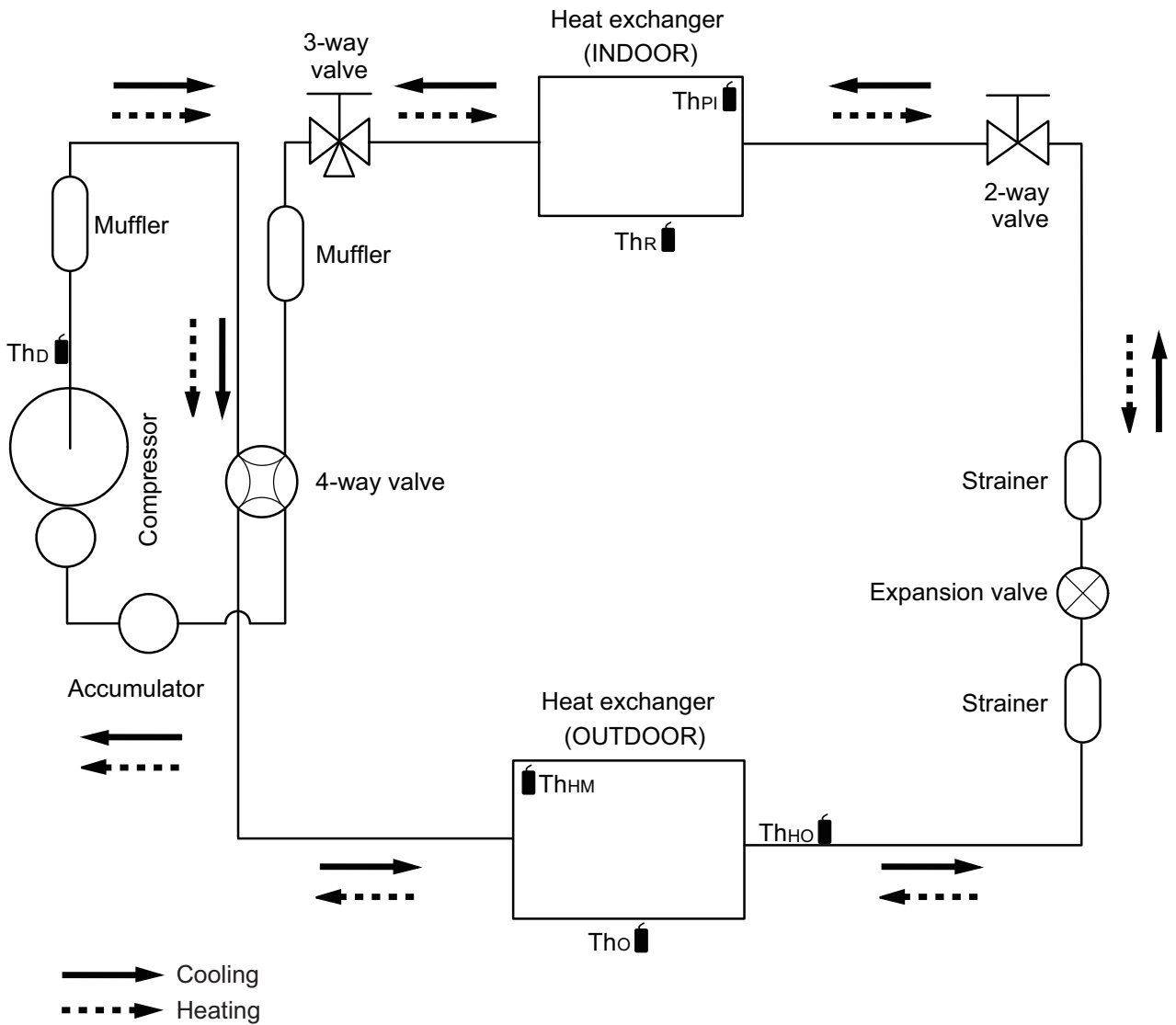
Exterior	Part name	Model name	Summary
	Wireless LAN adapter	UTY-TFSXZ1	Remotely manage an air conditioning system using mobile devices such as smartphones and tablets. For connection indoor unit with UART interface.
	Modbus converter	UTY-VMSX	For connection between indoor unit with UART interface and 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

# 6. Refrigerant system diagrams

## 6-1. Model: ROG22KATA



- Th<sub>D</sub> : Thermistor (Discharge temperature)
- Th<sub>O</sub> : Thermistor (Outdoor temperature)
- Th<sub>HO</sub> : Thermistor (Heat exchanger out temperature)
- Th<sub>HM</sub> : Thermistor (Heat exchanger middle temperature)
- Th<sub>R</sub> : Thermistor (Room temperature)
- Th<sub>PI</sub> : Thermistor (Pipe temperature)

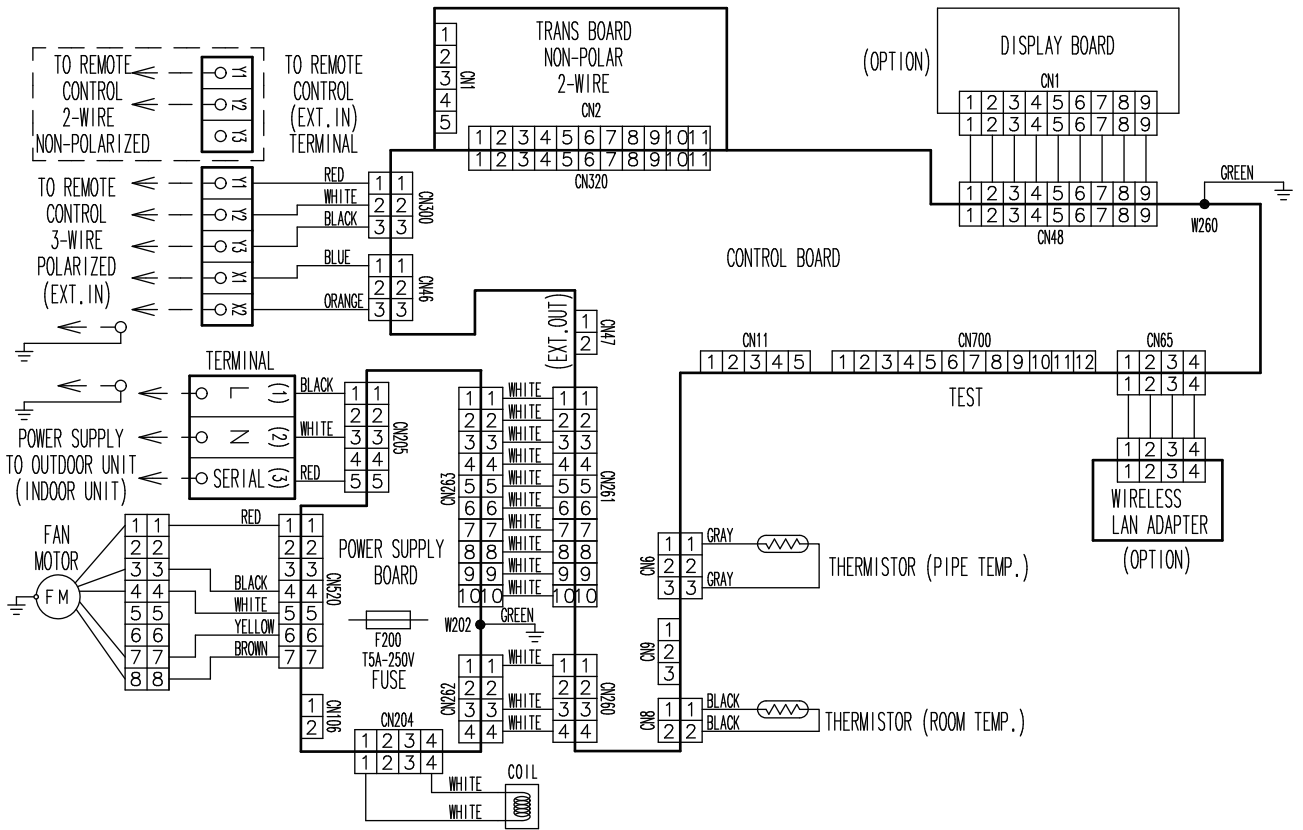
TECHNICAL DATA AND PARTS LIST

TECHNICAL DATA AND PARTS LIST

# 7. Wiring diagrams

## 7-1. Indoor unit

### Model: RDG22KMLA and RDG22KMLB

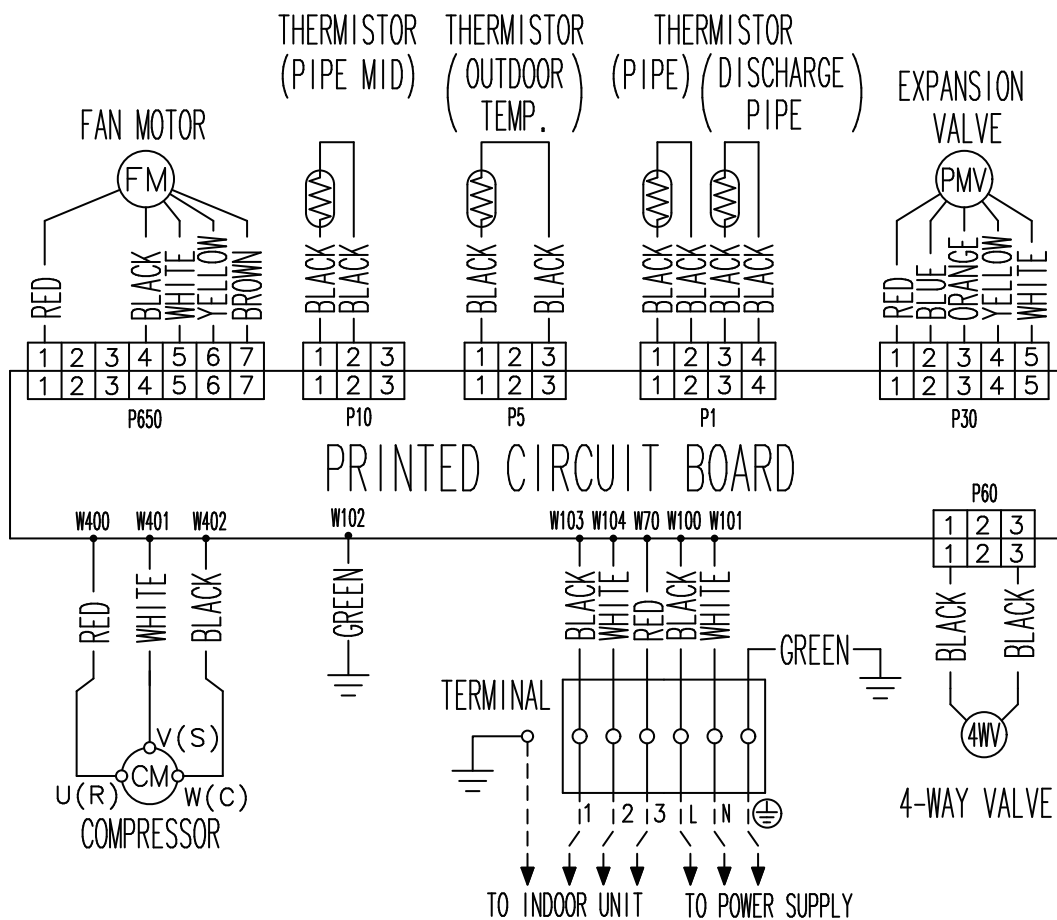


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AND PARTS LIST

TECHNICAL DATA  
AND PARTS LIST

## 7-2. Outdoor unit

### Model: ROG22KATA





# 8-2. Model: ROG22KATA

TECHNICAL DATA AND PARTS LIST

TECHNICAL DATA AND PARTS LIST

