

AIR CONDITIONER

**Wall mounted type**

# SERVICE MANUAL

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INDOOR



RSG30KMTA  
RSG36KMTA

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OUTDOOR



ROG30KMTA  
ROG36KMTA

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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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## **1. GENERAL INFORMATION**

# CONTENTS

## 1. GENERAL INFORMATION

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# 1. Specifications

## 1-1. Indoor units

Type				Wall mounted		
				Inverter heat pump		
Model name				RSG30KMTA	RSG36KMTA	
Power supply				230 V ~ 50 Hz		
Power supply intake				Outdoor unit		
Available voltage range				198—264 V		
Capacity	Cooling	Rated	kW	8.0	9.4	
			Btu/h	27,300	32,100	
		Min.—Max.	kW	2.9—9.0	2.9—10.0	
	Heating	Rated	Btu/h	9,900—30,700	9,900—34,100	
			kW	8.8	10.1	
		Min.—Max.	kW	2.2—11.0	2.7—11.2	
Input power	Cooling	Rated	kW	2.33	3.16	
			Min.—Max.	0.54—3.86	0.54—4.30	
		Heating	Rated	kW	2.20	2.73
	Min.—Max.			0.48—4.23	0.48—4.30	
	Fan		HIGH	W		62.0
		MED			36.5	
LOW		21.0				
QUIET		11.5				
Current	Cooling	Rated	A	10.2	13.9	
	Heating			9.7	12.0	
EER	Cooling	kW/kW		3.43	2.97	
COP	Heating			4.00	3.70	
Sensible capacity	Cooling	kW		6.15	6.70	
Power factor	Heating			%	99	99
Moisture removal			L/h (pints/h)	2.6 (4.6)	3.8 (6.7)	
Maximum operating current*1	Cooling			21.0	21.5	
	Heating			21.0	21.5	
Fan	Cooling	Airflow rate	m <sup>3</sup> /h	HIGH	1,330	
				MED	1,100	
				LOW	920	
				QUIET	720	
				Heating	HIGH	1,330
	MED	1,100				
	LOW	920				
	QUIET	720				
	Type × Q'ty			Sirocco fan × 1		
	Motor output			W	61	
Sound pressure level*2	Cooling		dB (A)	HIGH	50	
				MED	44	
				LOW	40	
				QUIET	33	
				Heating		dB (A)
	MED	44				
	LOW	39				
	QUIET	33				
	Heat exchanger	Dimensions (H × W × D)				
		Fin pitch		Main: 1.2, Sub: 1.4		
Rows × Stages		Main: 3 × 28, Sub1: 1 × 4, Sub2: 1 × 6				
Pipe type		Copper tube				
Fin type		Aluminum				
Material		Polystyrene				
Enclosure	Color		White Approximate color of Munsell N 9.25/			
	Net	mm	340 × 1,150 × 280			
Gross	405 × 1,270 × 450					
Weight	Net	kg	18.5			
	Gross		24.5			
Connection pipe	Size	Liquid	mm (in)	Ø 9.52 (Ø 3/8)		
		Gas		Ø 15.88 (Ø 5/8)		
	Method		Flare			
Drain hose	Material		PVC			
	Size		mm			
Operation range	Cooling			°C	18 to 32	
				%RH	80 or less	
	Heating			°C	16 to 30	
Remote controller				Wireless or Mobile app (FGLair*3) (Wired [option])		

### 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: 5.0 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. For details, refer to the setting manual.

Specifications for ErP Lot 10				
Model name			RSG30KMTA	RSG36KMTA
Energy efficiency class	Cooling		A++	A++
	Heating (Average)		A+	A+
Pdesign	Cooling	kW	8.00	9.40
	Heating (Average)		6.50	7.10
SEER	Cooling	kWh/kWh	6.67	6.14
SCOP	Heating (Average)		4.54	4.52
Annual energy consumption	QCE		419	535
	QHE (Average)		2,001	2,198
Sound power level	Cooling	HIGH	dB (A)	65
	Heating			65



# 1-2. Outdoor units

Type				Inverter heat pump	
Model name				ROG30KMTA	ROG36KMTA
Power supply				230 V ~ 50 Hz	
Power supply intake				Outdoor unit	
Available voltage range				198—264 V	
Starting current				10.2	13.9
Fan	Airflow rate	Cooling	m <sup>3</sup> /h	3,750	
		Heating		3,750	
	Type × Q'ty			Propeller × 1	
	Motor output		W	100	
Sound pressure level*1	Cooling	dB (A)	53	55	
	Heating		55	55	
Sound power level	Cooling	dB (A)	68	70	
	Heating		69	70	
Heat exchanger type	Dimensions (H × W × D)		mm	Main1: 756 × 905 × 18.19	
				Main2: 756 × 905 × 18.19	
	Fin pitch			1.45	
	Rows × Stages			1 × 36	
	Pipe type			Copper	
	Fin	Type (Material)		Aluminum	
	Surface treatment		Blue fin		
Compressor	Type × Q'ty		DC Twin rotary × 1		
	Motor output	W	1,500		
Refrigerant	Type (Global warming potential)		R32 (675)		
	Factory charge	g	1,900		
Refrigerant oil	Type		FW68D		
	Amount	cm <sup>3</sup>	600		
Enclosure	Material		Steel sheet		
	Color		Beige		
			Approximate color of Munsell 10YR 7.5/1.0		
Dimensions (H × W × D)	Net	mm	788 × 940 × 320		
	Gross		966 × 1,027 × 445		
Weight	Net	kg	52		
	Gross		60		
Connection pipe	Size	Liquid	mm (in)	Ø9.52 (3/8)	
		Gas		Ø15.88 (5/8)	
	Method			Flare	
	Pre-charge length		m	30	
	Max. length			50	
	Max. height difference			30	
Operation range	Cooling	°C	-15 to 46		
	Heating		-15 to 24		
Drain hose	Material		LDPE		
	Size	mm	Ø13.0 (I. D.), Ø16.0 to Ø16.7 (O. D.)		

**NOTES:**

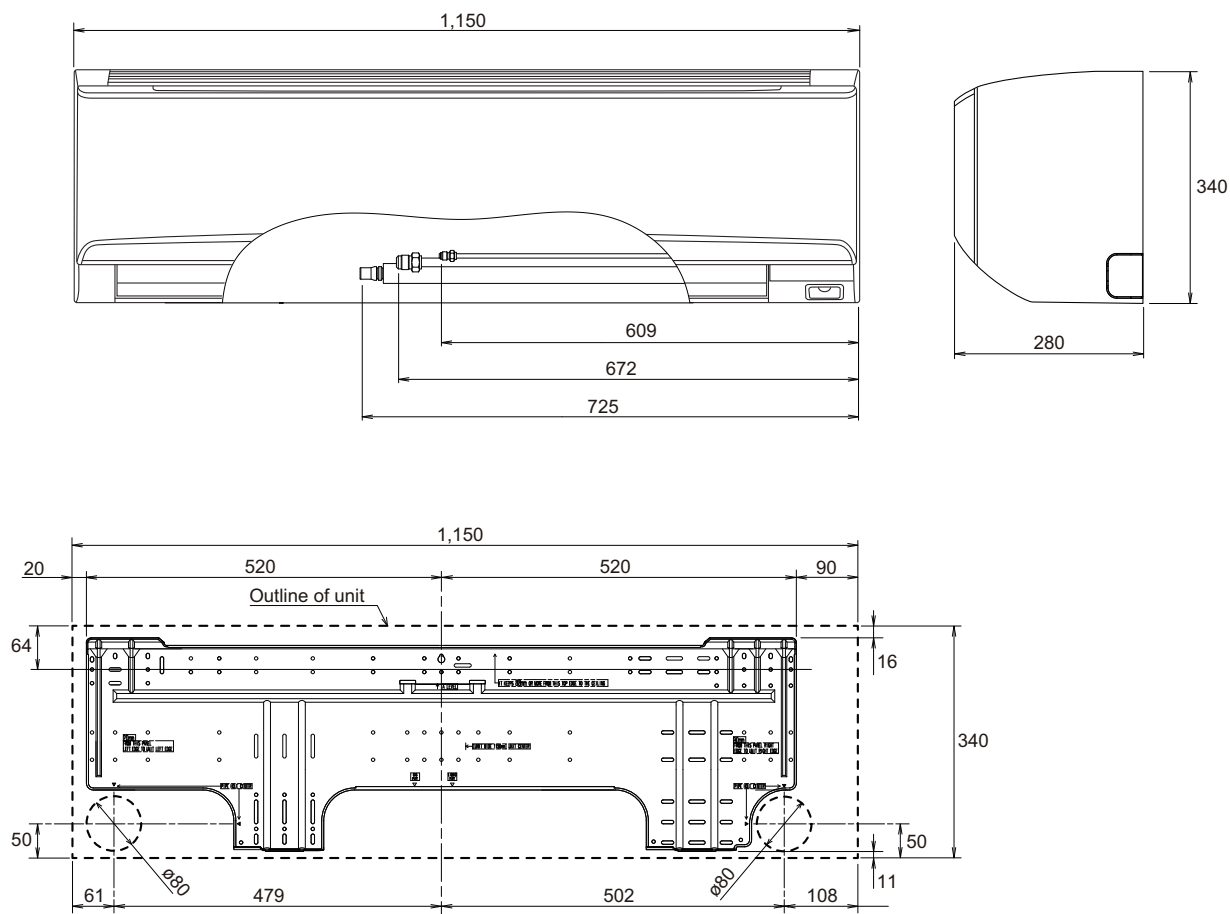
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  - Pipe length: 5.0 m, Height difference: 0 m. (Between outdoor unit and indoor unit.)
- Protective function might work when using it outside the operation range.
- \*1: Sound pressure level
  - Measured values in manufacturer's anechoic chamber.
  - Because of the surrounding sound environment, the sound levels measured in actual installation conditions might be higher than the specified values here.

## 2. Dimensions

### 2-1. Indoor unit

#### ■ Models: RSG30KMTA and RSG36KMTA

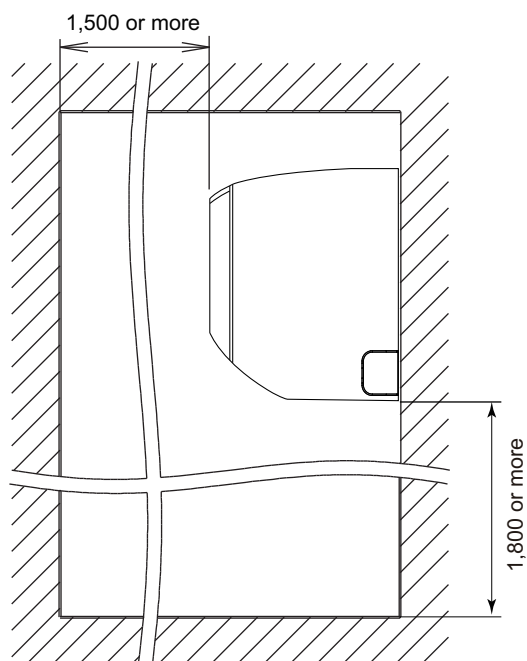
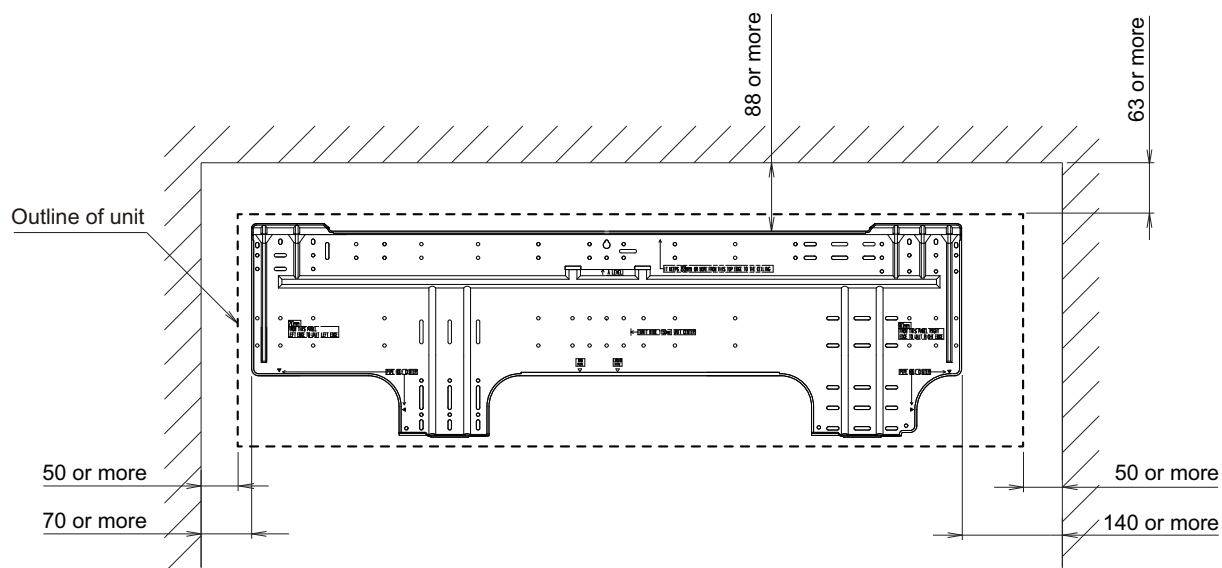
Unit: mm



## ● Installation space requirement

Provide sufficient installation space for product safety.

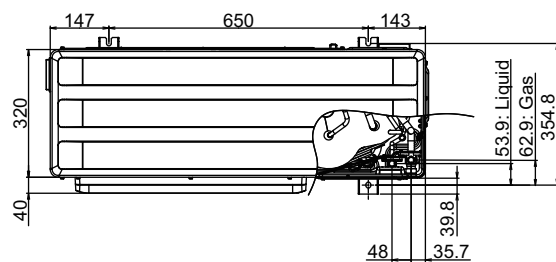
Unit: mm



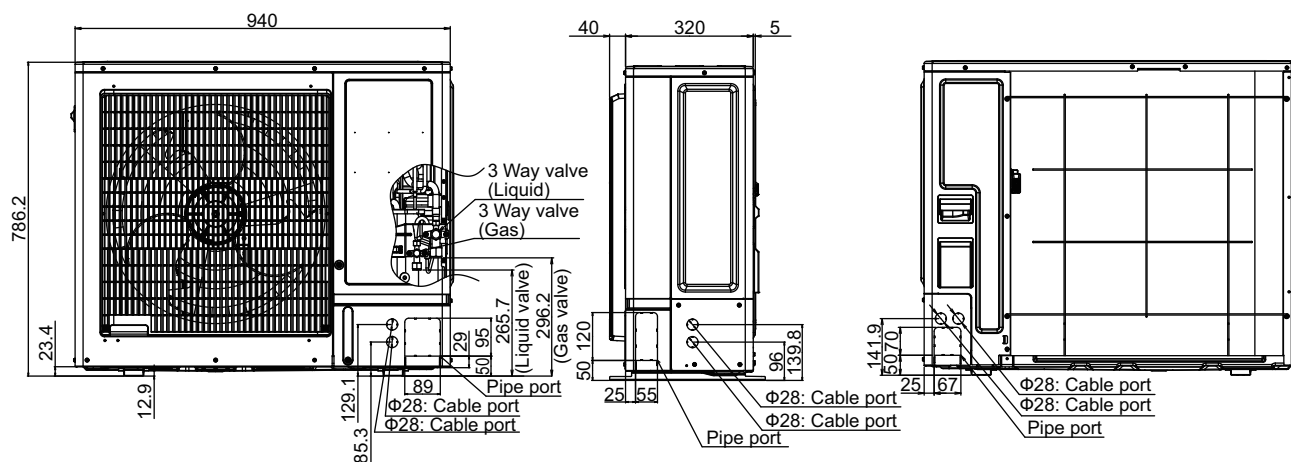
## 2-2. Outdoor unit

### Models: ROG30KMTA and ROG36KMTA

Unit: mm



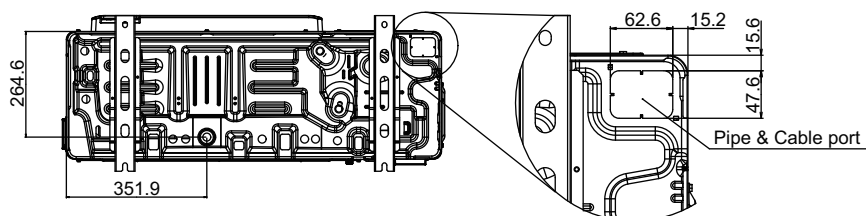
Top view



Front view

Side view

Rear view



Bottom view

## **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.

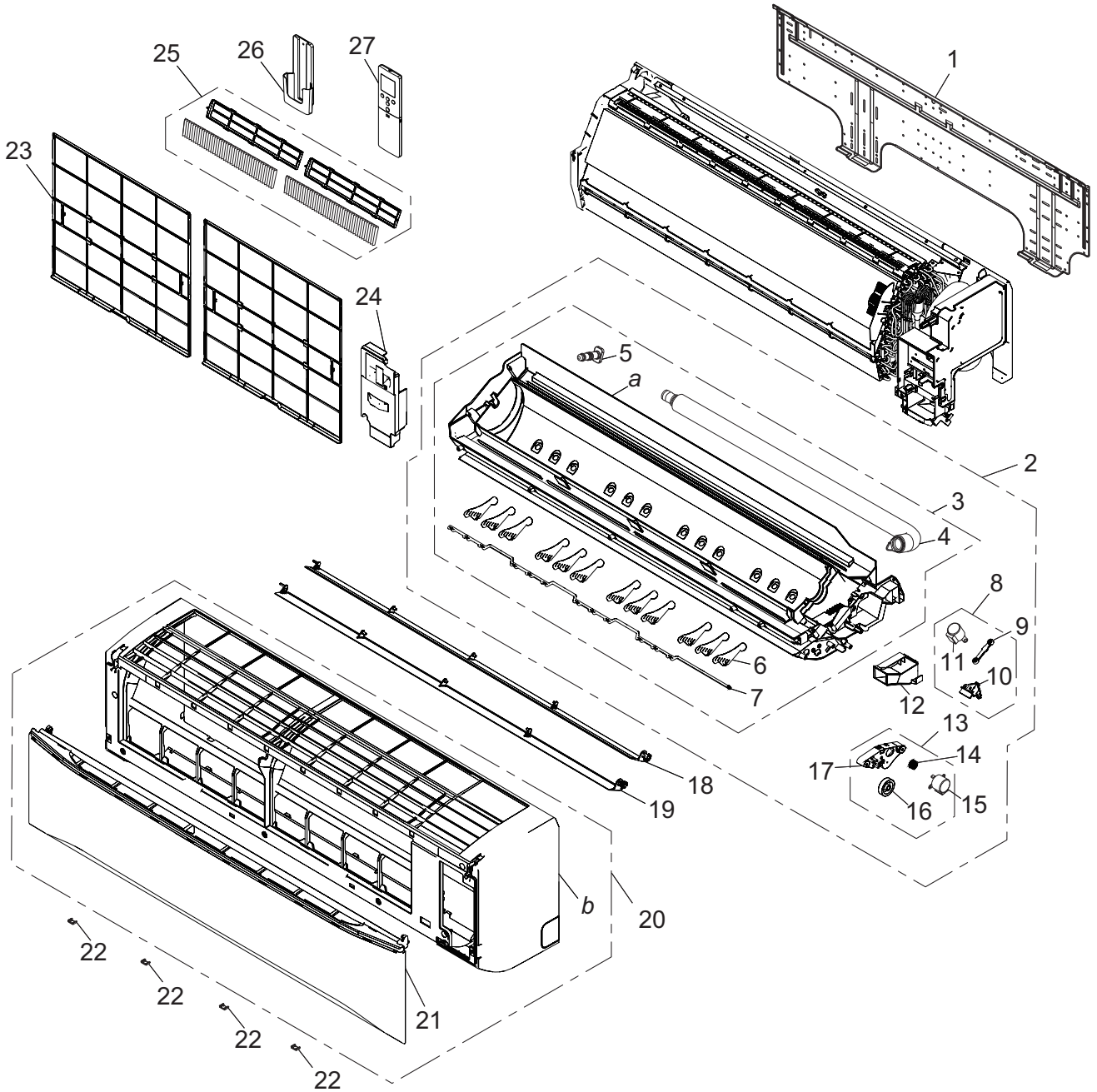
## ⚠ CAUTION

- 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: RSG30KMTA and RSG36KMTA

#### ■ Exterior parts



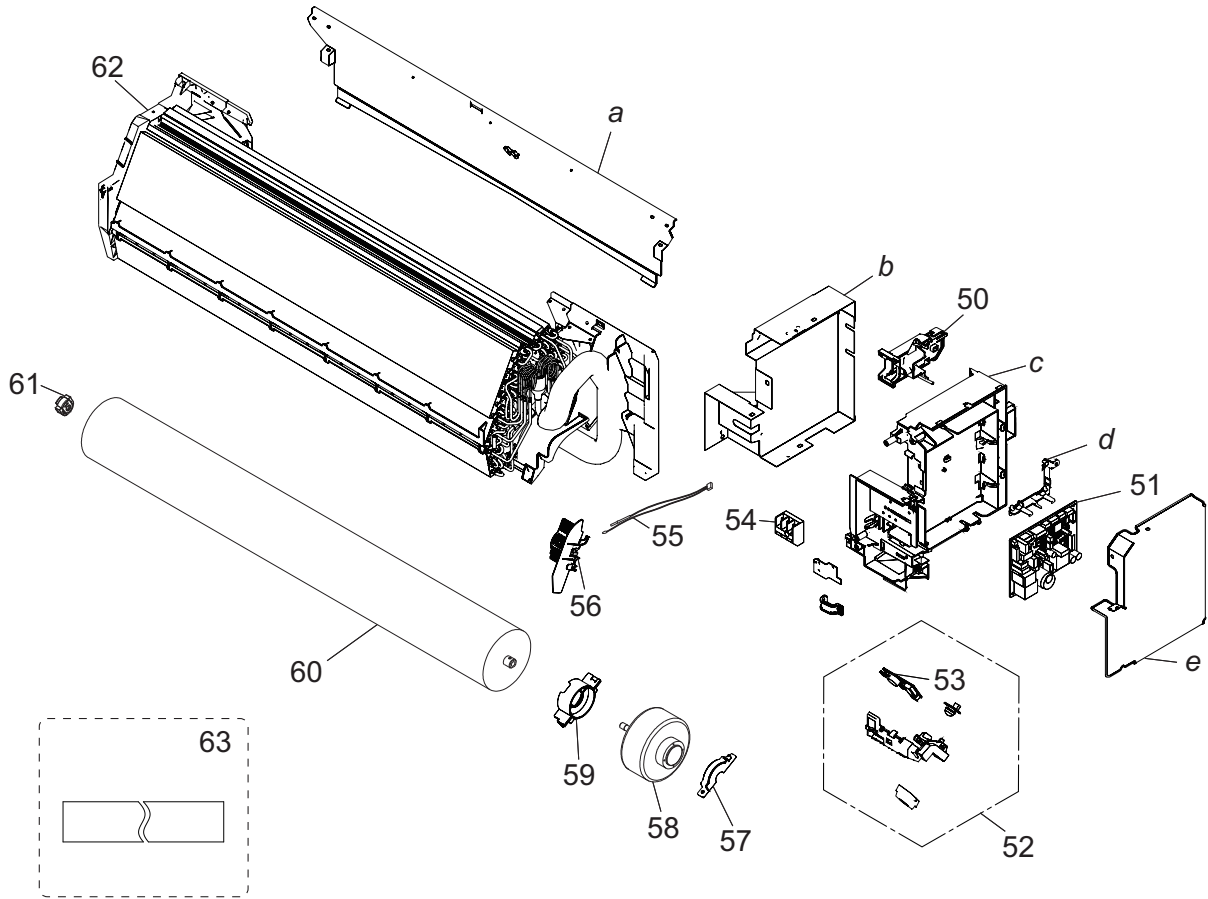


Item no.	Part no.	Part name	Service part
1	9386990004	Bracket panel	◆
2	9387059021	Casing total assy	◆
3	9387060010	Casing assy	◆
4	9387056006	Drain hose assy	◆
5	9316177017	Drain cap	◆
6	9386968003	R and L louver	◆
7	9386969000	Joint B	◆
8	9387063004	Link holder assy	◆
9	9386972000	Link A	◆
10	9315007018	Link holder	◆
11	9900139186	Step motor	◆
12	9386997003	Cable guide	◆
13	9387062007	Gear cover assy	◆
14	9309994003	Gear A	◆
15	9900384234	Step motor	◆
16	9317648004	Louver gear	◆
17	9386970006	Gear cover A	◆
18	9386958004	Louver U	◆
19	9386959001	Louver Z	◆
20	9387072204	Front panel total assy	◆
21	9382114022	Intake grille assy	◆
22	9386986007	Screw cap	◆
23	9386960007	Air filter	◆
24	9387074017	Wire cover assy	◆
25	9315212016	Air clean filter assy	◆
26	9318912005	Remote controller holder	◆
27	9383712005	Remote controller	◆
a	—	Casing	—
b	—	Front panel	—

# Evaporator and control

TECHNICAL DATA  
AND PARTS LIST

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AND PARTS LIST

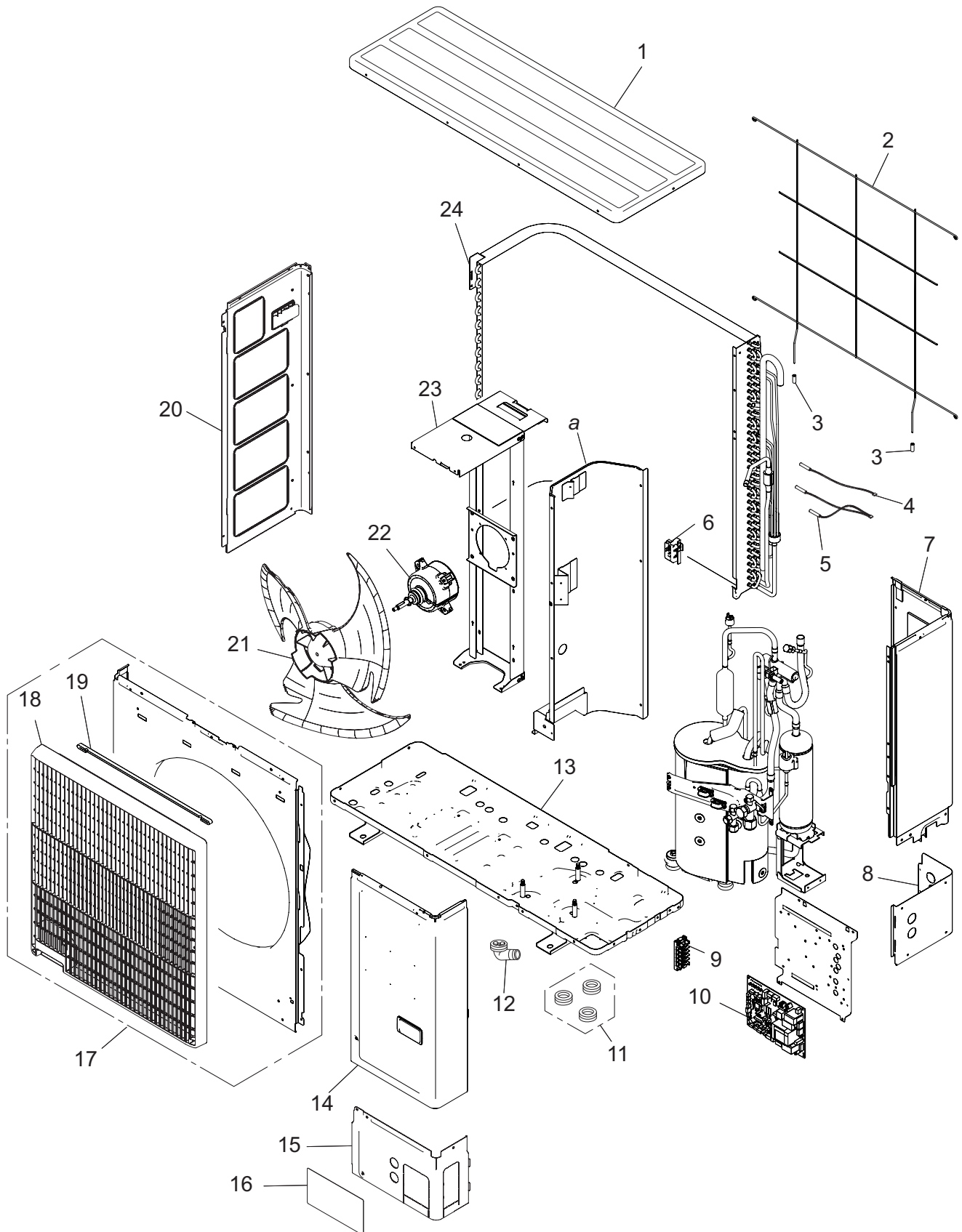


Item no.	Part no.	Part name	Service part
50	9383765025	WLAN adapter holder assy	◆
51	9711141385	Main PCB (For 30 model)	◆
	9711141378	Main PCB (For 36 model)	◆
52	9711146045	Display assy	◆
53	9711147035	Indicator PCB	◆
54	9306489045	Terminal	◆
55	9900627027	Thermistor assy	◆
56	9386988001	Room thermistor holder	◆
57	9316568006	Motor cover	◆
58	9603458010	Brushless motor	◆
59	9316601000	Motor cover	◆
60	9387055009	Crossflow fan assy	◆
61	9306628017	Bearing C assy	◆
62	9387064070	Evaporator total assy	◆
63	9361756007	Insulation(drain)-T	◆
<i>a</i>	—	Rear panel	—
<i>b</i>	—	Box shield assy	—
<i>c</i>	—	Control box	—
<i>d</i>	—	PCB holder A	—
<i>e</i>	—	Control cover	—

### 3. Outdoor unit parts list

#### 3-1. Models: ROG30KMTA and ROG36KMTA

##### ■ Exterior parts and chassis

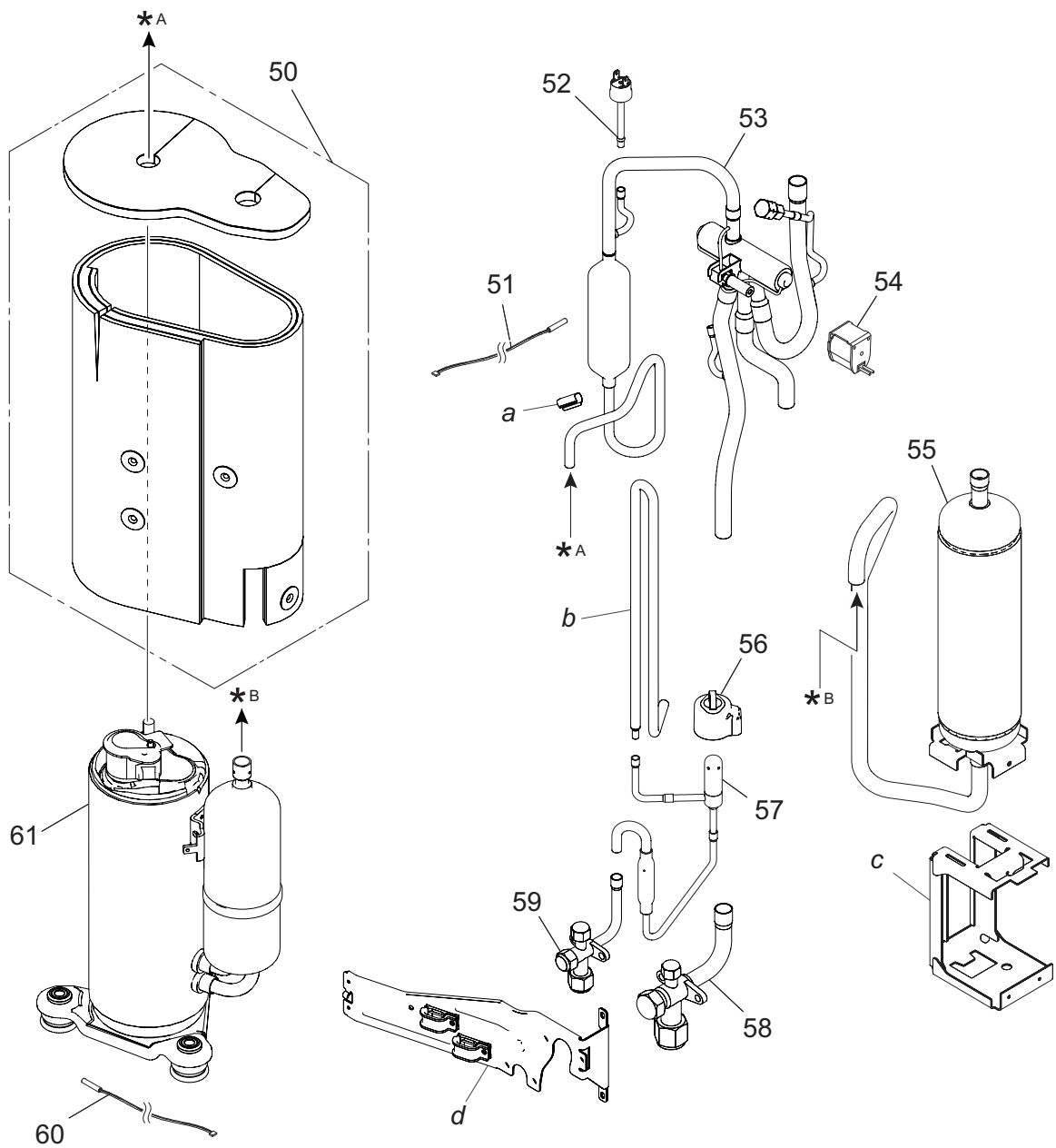


Item no.	Part no.	Part name	Service part
1	9383880001	Top panel assy	◆
2	9383779008	Protective net	◆
3	9375361013	Net rubber	◆
4	9900984038	Thermistor (Heat exchanger)	◆
5	9900727154	Thermistor assy	◆
6	9383607004	Thermo holder	◆
7	9383874000	Right panel sub assy	◆
8	9383879005	Rear pipe cover	◆
9	9900203061	Terminal	◆
10	9711431165	Main PCB (Service) (for 30 model)	◆
	9711431172	Main PCB (Service) (for 36 model)	◆
11	313166024302	Drain cap	◆
12	9303029015	Drain assy	◆
13	9383871009	Base assy	◆
14	9383876004	Service panel sub assy	◆
15	9383878008	Front pipe cover	◆
16	9318046014	Emblem rear	◆
17	9383863004	Front panel assy	◆
18	9383604003	Blow grille	◆
19	9383689000	Blow grille insulation	◆
20	9383882005	Left panel sub assy	◆
21	9383336003	Propeller fan	◆
22	9603732011	Brushless motor	◆
23	9383862007	Motor bracket assy	◆
24	9374420612	Condenser sub assy	◆
a	—	Separate wall assy	—

# Compressor

TECHNICAL DATA  
AND PARTS LIST

TECHNICAL DATA  
AND PARTS LIST





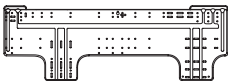




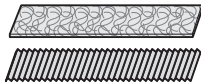

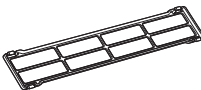


Item no.	Part no.	Part name	Service part
50	9383858000	Sound insulation unit	◆
51	9900565091	Thermistor (Outdoor temp.)	◆
52	9900186029	Pressure switch	◆
53	9374425648	4-way valve assy	◆
54	9970194016	Solenoid	◆
55	9375250140	Accumulator assy	◆
56	9970209000	Expansion valve coil	◆
57	9370947328	Expansion valve assy	◆
58	9379079013	3-way valve assy	◆
59	9377958037	3-way valve assy	◆
60	9900985035	Thermistor (Compressor)	◆
61	9383851001	Compressor assy	◆
<i>a</i>	—	Thermostat holder	—
<i>b</i>	—	Joint pipe D	—
<i>c</i>	—	Accumulator holder A	—
<i>d</i>	—	Wiring fixation unit	—

## 4. Accessories





### 4-1. Indoor unit

#### ■ Models: RSG30KMTA and RSG36KMTA

Part name	Exterior	Q'ty	Part name	Exterior	Q'ty
Operating manual		1	Drain hose insulation		1
Installation manual		1	Cloth tape		1
Wall hook bracket		1	Tapping screw (large)		8
Remote controller		1	Tapping screw (small)		2
Battery		2	Air cleaning filters		1
Remote controller holder		1	Filter holder		2

### 4-2. Outdoor unit

#### ■ Models: ROG30KMTA and ROG36KMTA

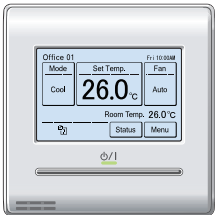
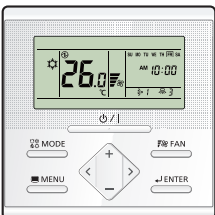

Part name	Exterior	Q'ty	Part name	Exterior	Q'ty
Installation manual		1	Drain cap		3
Drain pipe		1	One-touch bush		2



## 5. Optional parts

### 5-1. Indoor unit



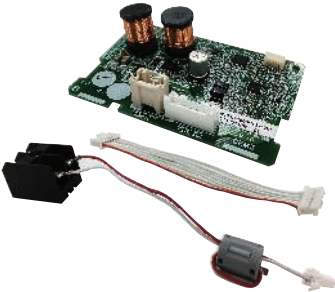

#### ■ Controllers

Exterior	Part name	Model name	Summary
	Wired remote controller	UTY-RNRXZ*	Easy finger touch operation with LCD panel. Backlit LCD enables easy operation in a dark room. Wire type: Non-polar 2-wire Optional communication kit is necessary for installation.
	Wired remote controller	UTY-RLRX	High visibility and easy operation. Room temperature can be accurately controlled using the built-in thermo sensor. Wire type: Non-polar 2-wire Optional communication kit is necessary for installation.
	Simple remote controller	UTY-RSRX	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 Optional communication kit is necessary for installation.

#### NOTES:

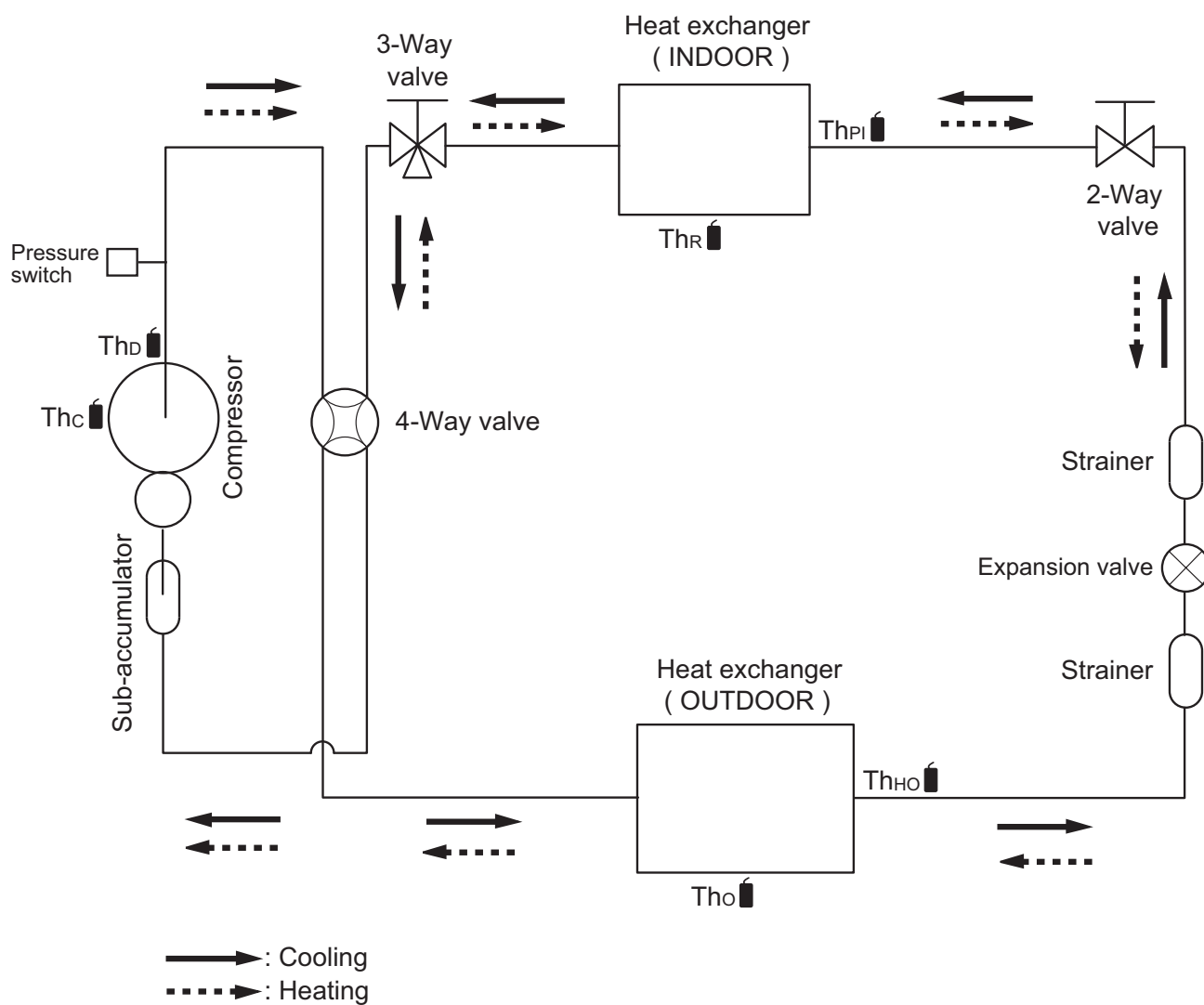
- Available functions may differ by the remote controller. For details, refer to the operation manual.
- When using a Wireless LAN adapter, group controlling system of the wired remote controller is prohibited.


## Others

Exterior	Part name	Model name	Summary
	External connect kit	UTY-XWZXZ5	Required when external device is connected.
	External input and output PCB	UTY-XCSXZ2	Use to connect with external devices and air conditioner PCB. Optional External connect kit is necessary for installation.
	Communication kit	UTY-TWRXZ2	Use to connect Non-polar 2-core wired remote controller.
	Wireless LAN adapter	UTY-TFSXF2	Remotely manage an air conditioning system using mobile devices such as smartphones and tablets.


## 6. Refrigerant system diagrams

### 6-1. Models: ROG30KMTA and ROG36KMTA





Thc  : Thermistor (Compressor temperature)

ThD  : Thermistor (Discharge temperature)

Tho  : Thermistor (Outdoor temperature)

ThHo  : Thermistor (Heat Exchanger Out temperature)

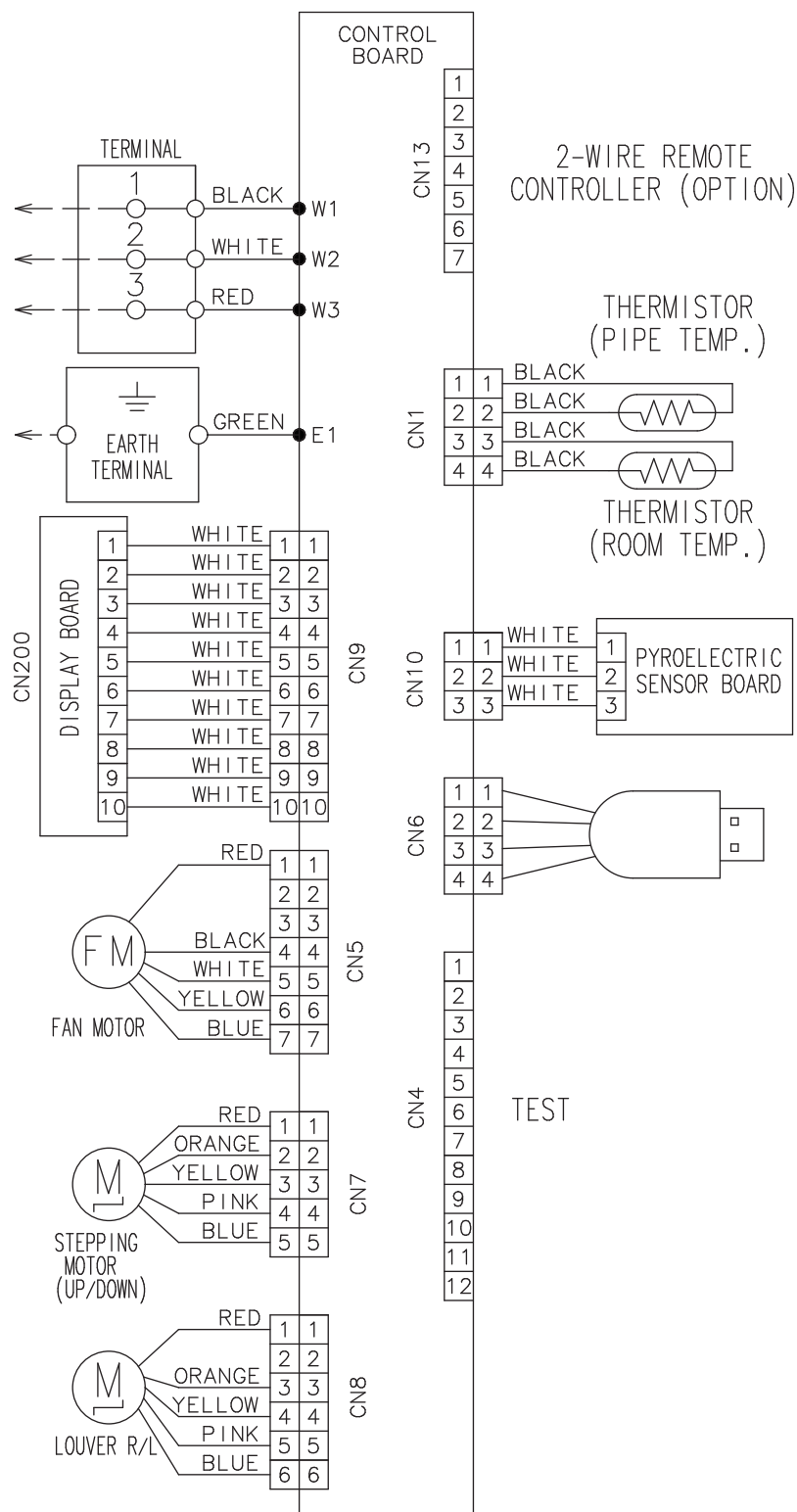
ThR  : Thermistor (Room temperature)

ThPi  : Thermistor (Pipe temperature)

# 7. Wiring diagrams

## 7-1. Indoor unit

### Models: RSG30KMTA and RSG36KMTA

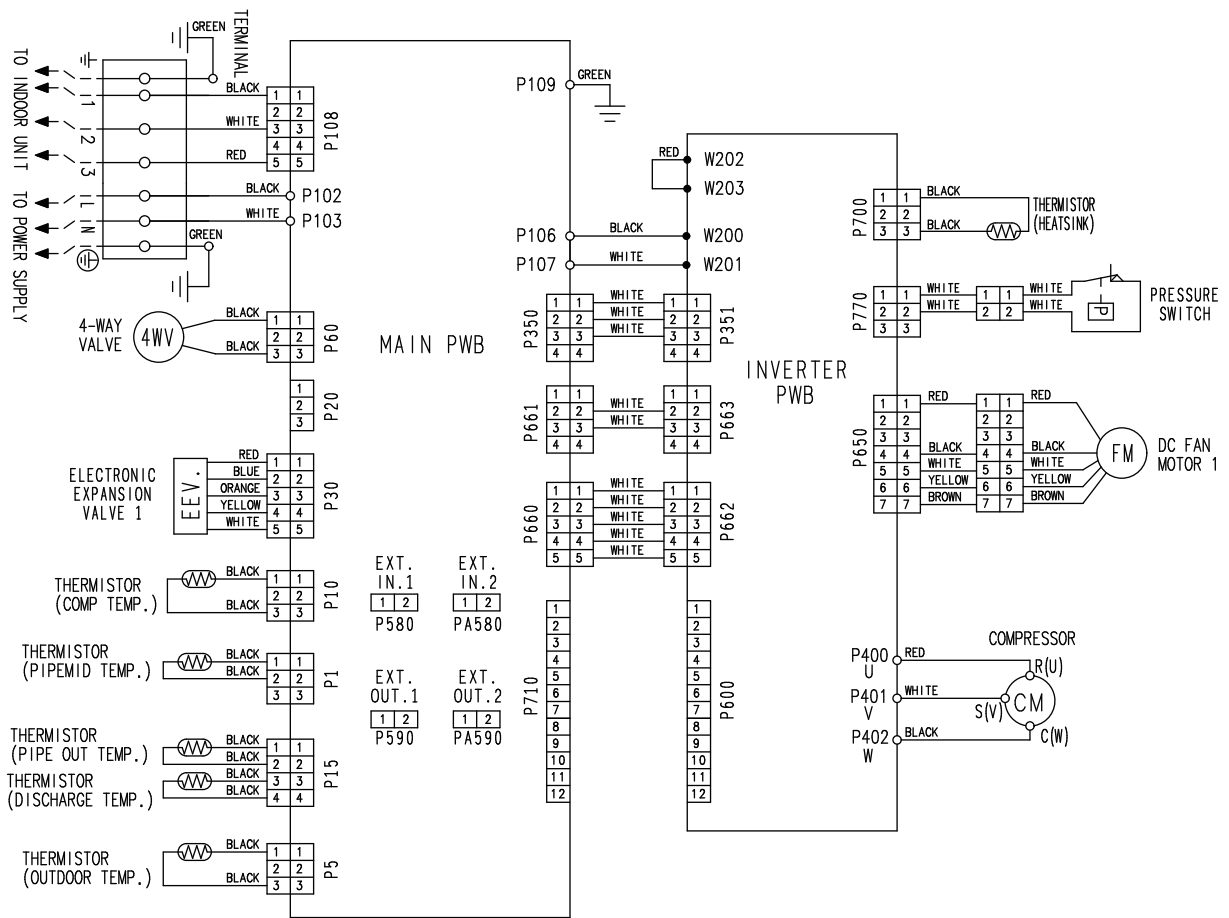


# 7-2. Outdoor unit

## Models: ROG30KMTA and ROG36KMTA

TECHNICAL DATA  
AND PARTS LIST

TECHNICAL DATA  
AND PARTS LIST



## 8. PC board diagrams

# 8-1. Models: RSG30KMTA and RSG36KMTA

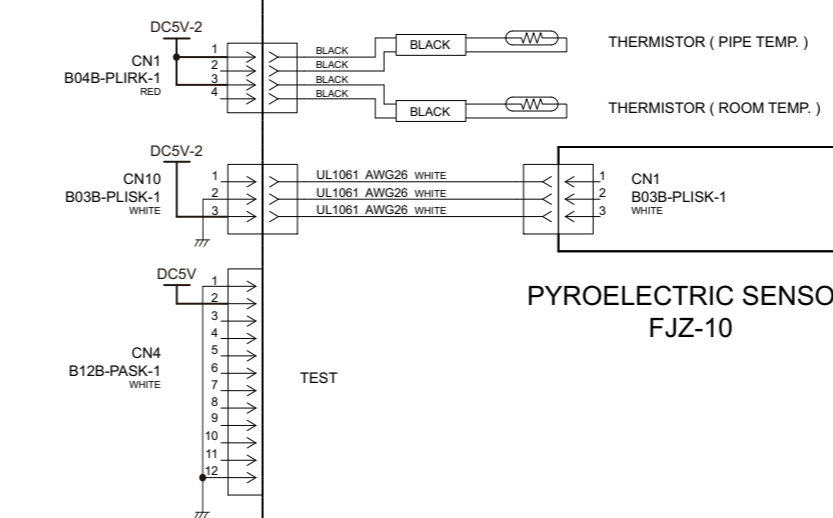
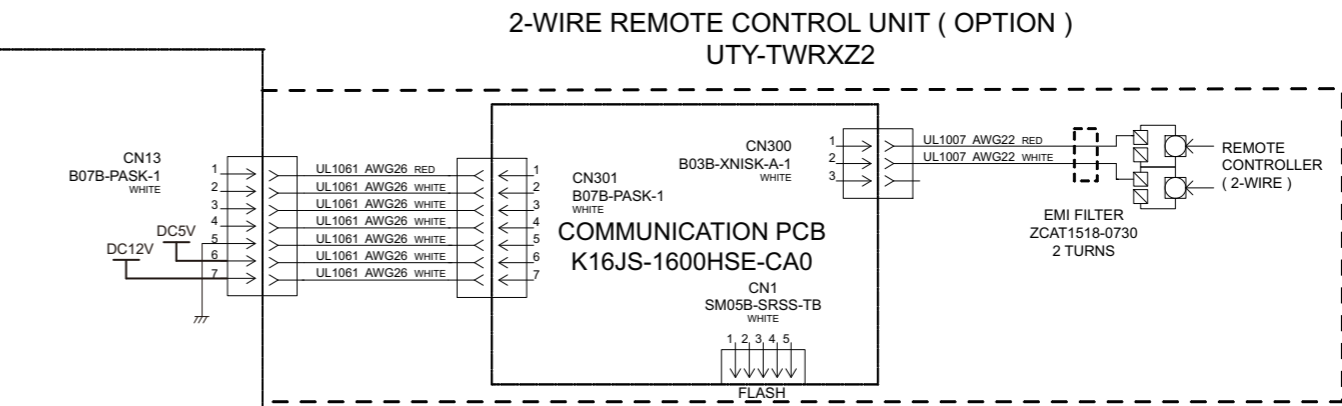
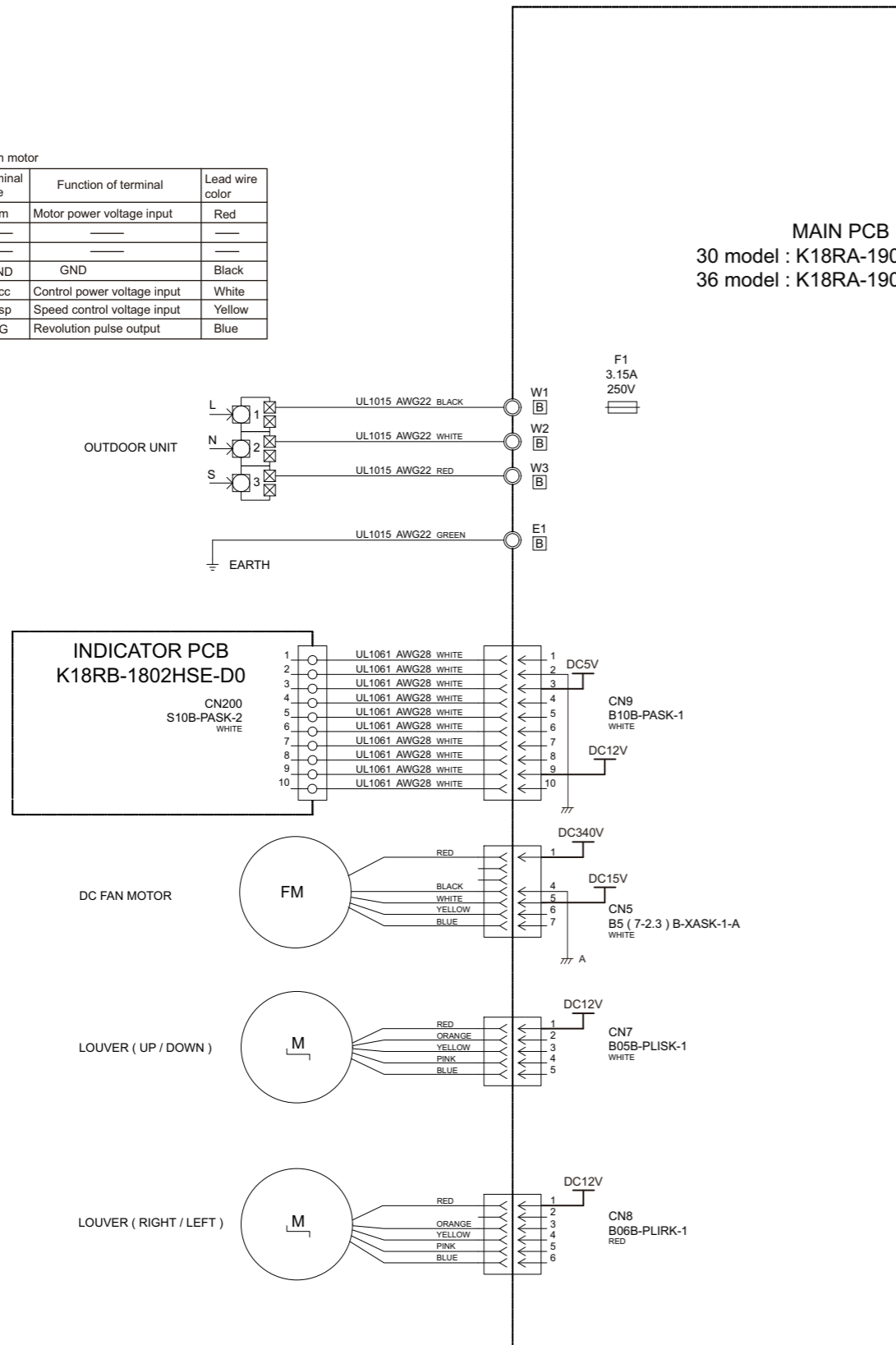
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CONTROL UNIT  
30 model : EZ-01909HSE  
36 model : EZ-0190AHSE

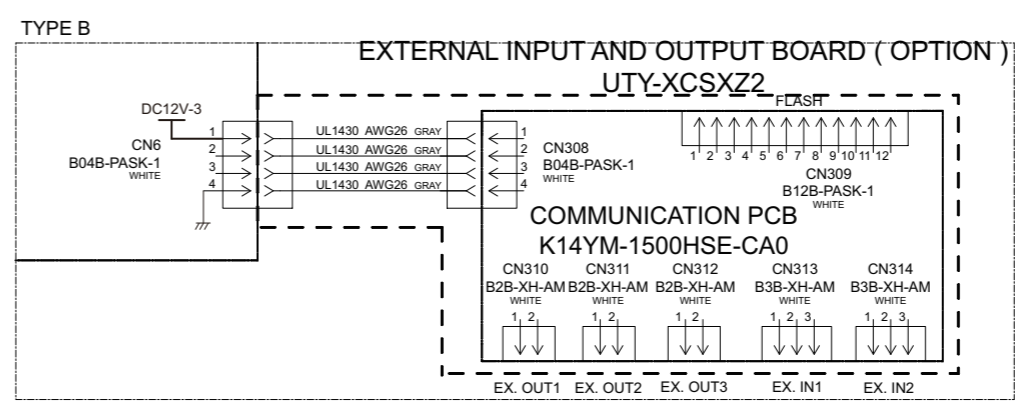
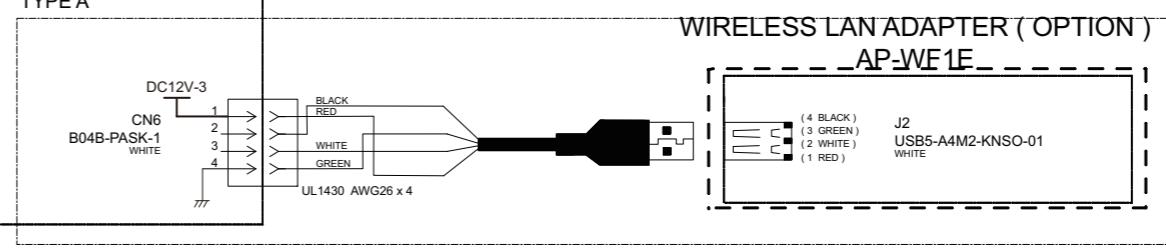
CN5 DC Fan motor

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	Blue



CN1 Thermistor Characteristics.

Thermistor	Temperature	( 0°C )	( 20°C )	( 30°C )
Thermistor ( Pipe temp. )	Resistance	176.03 k Ω	62.91 k Ω	39.57 k Ω
	Voltage	1.10 V	2.21 V	2.79 V
Thermistor ( Room temp. )	Resistance	33.62 k Ω	12.54 k Ω	8.04 k Ω
	Voltage	1.15 V	2.22 V	2.77 V



# 8-2. Models: ROG30KMTA and ROG36KMTA

INVERTER ASSEMBLY  
 30 model : EZ-0190DHUE  
 36 model : EZ-01915HUE

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