



Refrigerant
R410A
INVERTER

AIR CONDITIONER

Cassette type

DESIGN & TECHNICAL MANUAL

INDOOR



AUYG18LVLB
AUYG24LVLA

OUTDOOR



AOYG18LBCB



AOYG24LBCB

FUJITSU GENERAL LIMITED

DR_AU012EF_01
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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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Part 1. INDOOR UNIT

CASSETTE TYPE:
AUYG18LVLB
AUYG24LVLA

1. Specifications

Type				Cassette		
			Inverter heat pump			
Model name			AUYG18LVLB		AUYG24LVLA	
Power supply			230 V ~ 50 Hz			
Available voltage range			198–264 V			
Capacity	Cooling	Rated	kW	5.20	6.80	
			Btu/h	17,700	23,200	
		Min.—Max.	kW	0.90 - 5.90	0.90 - 8.00	
			Btu/h	3,100 - 20,100	3,100 - 27,300	
	Heating	Rated	kW	6.00	8.00	
			Btu/h	20,500	27,300	
		Min.—Max.	kW	0.90 - 7.50	0.90 - 9.10	
			Btu/h	3,100 - 25,600	3,100 - 31,000	
Input power	Cooling	Rated	kW	1.62	2.21	
				2.04	2.85	
	Heating	Rated		1.66	2.26	
				2.83	3.19	
Current	Cooling	Rated	A	7.2	9.7	
	Heating			7.4	9.9	
Power factor	Cooling	%		97.8	99.1	
	Heating			97.5	99.3	
EER	Cooling	kW/kW		3.21	3.08	
COP	Heating			3.61	3.54	
Moisture removal			L/h (pints/h)	2.2 (3.9)	2.7 (4.8)	
Maximum operating current *1		Cooling	A	11.5	14.7	
				13.5	15.7	
Fan	Airflow rate	Cooling	m³/h	680	930	
				580	830	
				490	600	
				410	450	
		Heating		800	930	
				680	860	
				580	700	
				450	530	
Type × Q'ty			Turbo × 1			
Motor output				54		
Sound pressure level *2	Cooling	HIGH	dB (A)	38	49	
				34	44	
				30	36	
				26	30	
		LOW		43	49	
				38	45	
				34	40	
				30	33	
	Heating	HIGH		50	59	
				55	61	
Sound power level	Cooling	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	
	Heating	Fin pitch		1.2	1.45	
		Rows × Stages		2 × 10	3 × 10	
		Pipe type		Copper tube		
Heat exchanger type		Fin type		Aluminum		
Dimensions (H × W × D)	Net			245 × 570 × 570		
	Gross	265 × 730 × 625				
Weight	Net			15	16	
	Gross	18		19		
Connection pipe	Size	Liquid	Ø 6.35 (Ø 1 / 4 in.)			
			Ø 12.70 (Ø 1/2 in.)			
	Method		Ø 15.88 (Ø 5/8 in.)			
Cassette grille (Option)	Operation range		Flare			
		Cooling	°C	18 to 32		
			%RH	80 or less		
		Heating	°C	16 to 30		
		Material			Hi-PS	
	Cassette grille (Option)	Color			White Approximate color of Munsell N 9.25 /	
		Dimensions (H × W × D)	Net	49 × 700 × 700		
		Gross		120 × 765 × 755		
		Weight	Net	2.6		
		Gross	kg	4.5		
Drain hose	Remote controller			Wireless [Wired (option)]		
	Material			PVC		
	Size			VP25 [Ø25(I.D.), Ø32(O.D.)]		

NOTES:

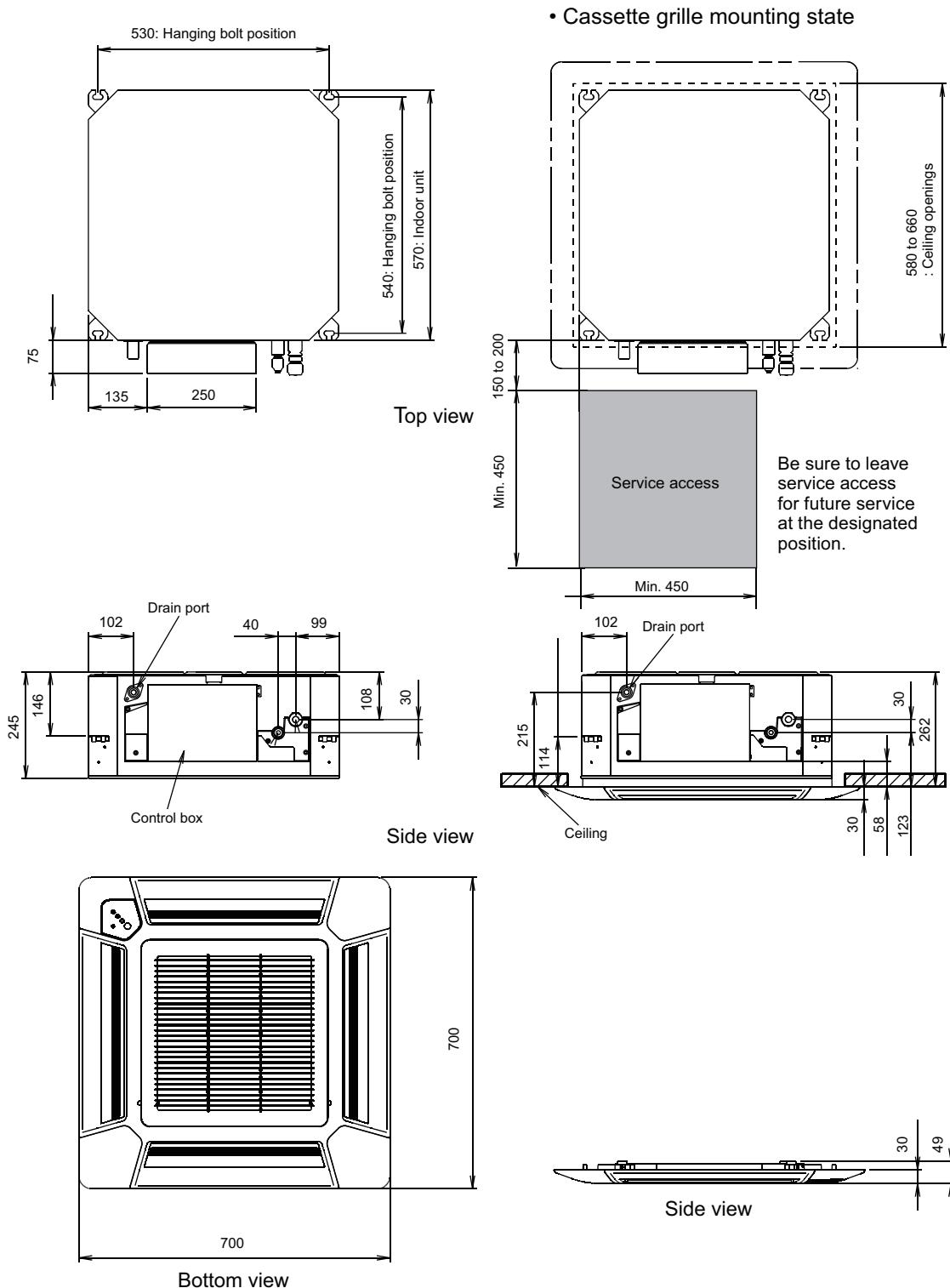
- Specifications are based on the following conditions:
 - Cooling: Indoor temperature of 27 °CDB/19 °CWB, and outdoor temperature of 35 °CDB/24 °CWB.
 - Heating: Indoor temperature of 20 °CDB/15 °CWB, and outdoor temperature of 7 °CDB/6 °CWB.
 - Pipe length: 5 m, Height difference: 0 m. (Between outdoor unit and indoor unit.)
 - Protective function might work when using it outside the operation range.
 - *1: Maximum current:
 - The maximum value when operated within the operation range.
 - The total current of indoor unit and 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.

Model name			AUYG18LVLB	AUYG24LV/LA
Energy efficiency class	Cooling		A ⁺⁺	A ⁺
	Heating (Average)		A ⁺	A
Pdesign	Cooling	kW	5.2 (35°C)	6.8 (35°C)
	Heating (Average)		5.2 (-10°C)	6.0 (-10°C)
SEER	Cooling	kWh/kWh	6.20	5.60
SCOP	Heating (Average)		4.20	3.90
Annual energy consumption	QCE	kWh/a	293	425
	QHE (Average)		1,732	2,151

2. Dimensions

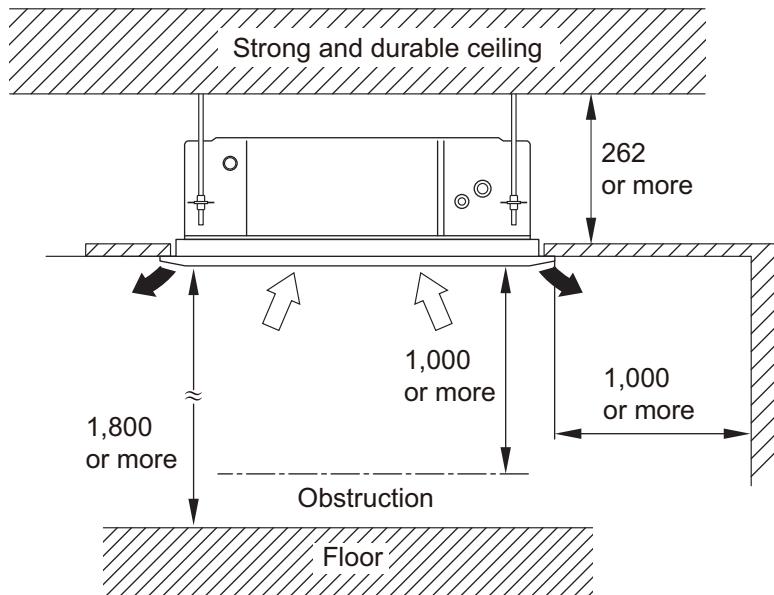
2-1. Models: AUYG18LVLB and AUYG24LVLA

Unit: mm



2-2. Installation space requirement

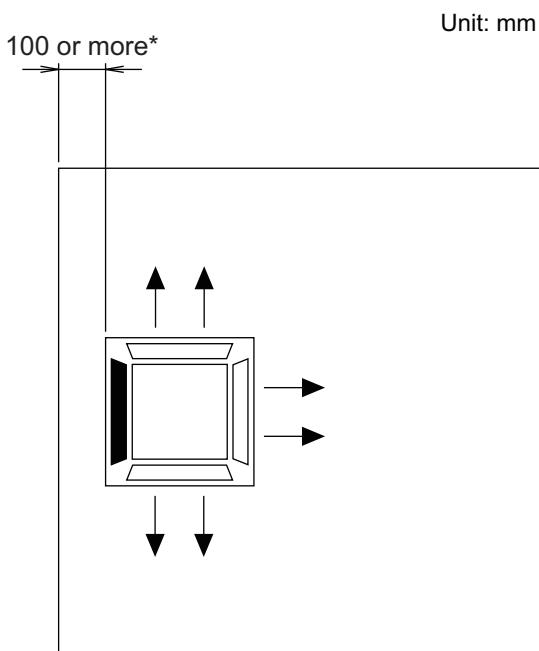
Unit: mm



Maximum height from floor to ceiling (Unit: mm)

Standard	2,700
High ceiling	3,000

3-way direction setting:

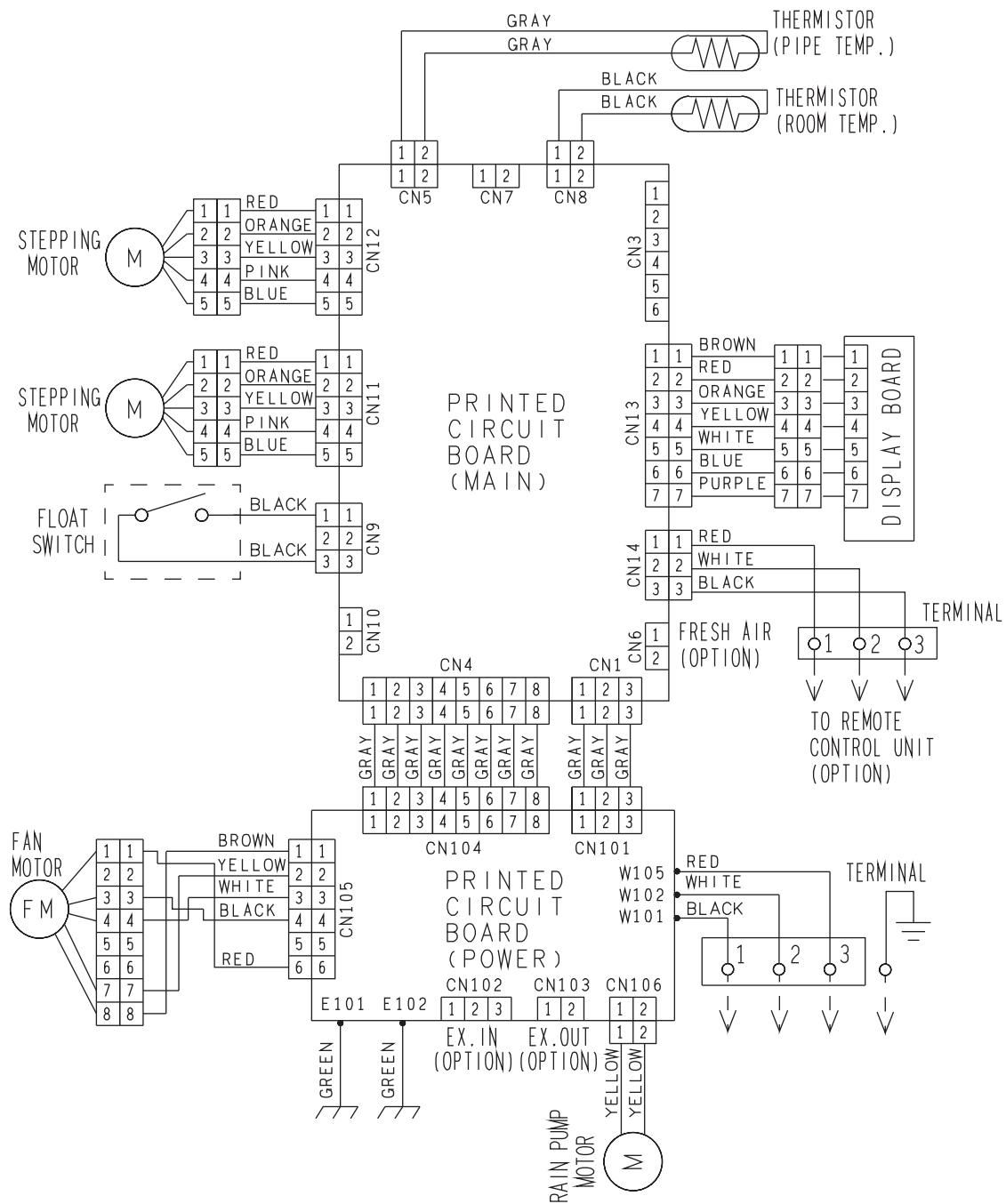


NOTES:

- To set "3-direction", optional Air outlet shutter plate (UTR-YDZB) must be installed, and the "outlet-direction" need to be switched to "3-way" by remote controller.
- *When installing the indoor unit, be careful about the maintenance space.
- The ceiling height cannot be set in the 3-way outlet mode. Therefore, ceiling height setting change by function setting 20 is prohibited. For details, refer to "[Contents of function setting](#)" on page 29.

3. Wiring diagram

3-1. Models: AUYG18LVLB and AUYG24LVLA



4. Capacity table

Capacity tables show each of following values calculated based on the outdoor temperature and the indoor temperature, under given Airflow Rate (AFR):

For cooling capacity: Total Capacity (TC), Sensible Heat Capacity (SHC), and Input Power (IP)

For heating capacity: Total Capacity (TC) and Input Power (IP)

4-1. Cooling capacity

■ Model: AUYG18LV/LB

AFR	m³/h			Indoor temperature																		
	18			21			23			25			27			29			32			
	°CDB			°CWB			°CDB			°CWB			°CDB			°CWB			°CDB			
	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	
	KW			KW			KW			KW			KW			KW			KW			
Outdoor temperature	-10	4.45	3.17	0.44	4.96	3.18	0.44	5.13	3.46	0.44	5.47	3.47	0.45	5.64	3.75	0.45	5.97	3.74	0.46	6.31	3.98	0.46
	0	4.35	3.11	0.51	4.85	3.13	0.52	5.01	3.40	0.52	5.34	3.41	0.52	5.51	3.69	0.53	5.84	3.67	0.53	6.17	3.91	0.54
	5	4.23	3.06	0.63	4.71	3.08	0.64	4.87	3.35	0.64	5.19	3.36	0.65	5.35	3.63	0.65	5.67	3.62	0.66	6.00	3.85	0.66
	10	4.09	3.00	0.74	4.56	3.02	0.75	4.71	3.28	0.76	5.02	3.29	0.76	5.18	3.56	0.77	5.49	3.54	0.78	5.80	3.78	0.78
	15	4.10	3.01	0.65	4.57	3.03	0.66	4.72	3.29	0.66	5.04	3.30	0.67	5.19	3.57	0.67	5.50	3.55	0.68	5.82	3.78	0.69
	20	4.68	3.13	1.36	5.22	3.15	1.38	5.40	3.42	1.39	5.75	3.44	1.40	5.93	3.71	1.41	6.29	3.70	1.42	6.64	3.94	1.44
	25	4.50	3.13	1.43	5.01	3.15	1.45	5.18	3.42	1.46	5.52	3.44	1.47	5.69	3.71	1.48	6.03	3.70	1.49	6.37	3.94	1.51
	30	4.30	3.12	1.50	4.79	3.14	1.52	4.95	3.42	1.53	5.28	3.43	1.54	5.44	3.70	1.55	5.77	3.69	1.57	6.09	3.93	1.58
	35	4.11	3.12	1.56	4.58	3.14	1.59	4.73	3.42	1.60	5.04	3.43	1.61	5.20	3.70	1.62	5.51	3.69	1.64	5.82	3.93	1.65
	40	3.59	2.80	1.43	4.00	2.82	1.45	4.13	3.06	1.46	4.40	3.07	1.47	4.54	3.32	1.48	4.81	3.31	1.49	5.09	3.52	1.51
	46	2.58	2.41	1.08	2.87	2.43	1.10	2.97	2.64	1.10	3.17	2.65	1.11	3.27	2.86	1.12	3.46	2.85	1.13	3.66	3.03	1.14

■ Model: AUYG24LV/LA

AFR	m³/h			Indoor temperature																		
	18			21			23			25			27			29			32			
	°CDB			°CWB			°CDB			°CWB			°CDB			°CWB			°CDB			
	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	
	KW			KW			KW			KW			KW			KW			KW			
Outdoor temperature	-10	5.62	4.52	0.60	6.26	4.54	0.60	6.47	4.94	0.61	6.90	4.95	0.61	7.11	5.35	0.62	7.54	5.33	0.62	7.96	5.68	0.63
	0	5.52	4.47	0.64	6.15	4.49	0.65	6.36	4.89	0.66	6.78	4.90	0.66	6.99	5.29	0.67	7.41	5.27	0.67	7.83	5.62	0.68
	5	5.33	4.37	0.78	5.94	4.40	0.79	6.14	4.78	0.80	6.55	4.80	0.80	6.75	5.18	0.81	7.15	5.16	0.82	7.56	5.50	0.82
	10	5.12	4.26	0.91	5.71	4.29	0.92	5.90	4.66	0.93	6.29	4.68	0.94	6.49	5.05	0.94	6.87	5.03	0.95	7.26	5.36	0.96
	15	5.25	4.33	0.76	5.85	4.35	0.77	6.05	4.73	0.78	6.45	4.75	0.79	6.65	5.13	0.79	7.05	5.11	0.80	7.44	5.44	0.81
	20	6.08	4.56	1.52	6.78	4.58	1.55	7.01	4.98	1.56	7.47	5.00	1.57	7.70	5.40	1.58	8.16	5.38	1.60	8.62	5.73	1.61
	25	5.85	4.43	1.73	6.51	4.46	1.75	6.73	4.85	1.76	7.18	4.86	1.78	7.40	5.25	1.79	7.84	5.23	1.81	8.29	5.57	1.83
	30	5.61	4.31	1.93	6.25	4.34	1.96	6.46	4.72	1.97	6.89	4.73	1.99	7.10	5.11	2.00	7.53	5.09	2.02	7.95	5.42	2.04
	35	5.37	4.19	2.13	5.98	4.21	2.17	6.19	4.58	2.18	6.60	4.59	2.20	6.80	4.96	2.21	7.21	4.94	2.23	7.62	5.26	2.25
	40	5.22	4.31	2.10	5.81	4.34	2.14	6.01	4.72	2.15	6.41	4.73	2.17	6.61	5.11	2.18	7.00	5.09	2.20	7.40	5.42	2.22
	46	3.74	3.58	1.59	4.17	3.60	1.61	4.31	3.91	1.62	4.60	3.92	1.64	4.74	4.24	1.65	5.02	4.22	1.66	5.31	4.50	1.68

4-2. Heating capacity

NOTE: Values mentioned in the table are calculated based on the maximum capacity.

■ Model: AUYG18LVLB

AFR		m³/h		Indoor temperature								
Outdoor temperature	°CDB	16		18		20		22		24		
		°CWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kW		kW		kW		kW		kW	
-15	-16	5.01	2.50	4.89	2.55	4.77	2.60	4.65	2.65	4.53	2.71	
-10	-11	5.76	2.61	5.62	2.67	5.49	2.72	5.35	2.77	5.21	2.83	
-5	-7	6.49	2.69	6.34	2.74	6.18	2.80	6.03	2.83	5.87	2.83	
0	-2	7.35	2.72	7.18	2.77	7.00	2.83	6.83	2.83	6.65	2.83	
5	3	7.73	2.51	7.54	2.56	7.36	2.61	7.18	2.66	6.99	2.71	
7	6	7.87	2.42	7.69	2.47	7.50	2.52	7.31	2.57	7.12	2.62	
10	8	8.12	2.43	7.92	2.48	7.73	2.53	7.54	2.58	7.34	2.63	
15	10	7.79	2.13	7.61	2.17	7.42	2.22	7.23	2.26	7.05	2.31	
20	15	7.17	1.64	7.00	1.67	6.83	1.71	6.66	1.74	6.49	1.77	
24	18	7.39	1.65	7.21	1.68	7.03	1.71	6.86	1.75	6.68	1.78	

■ Model: AUYG24LVLA

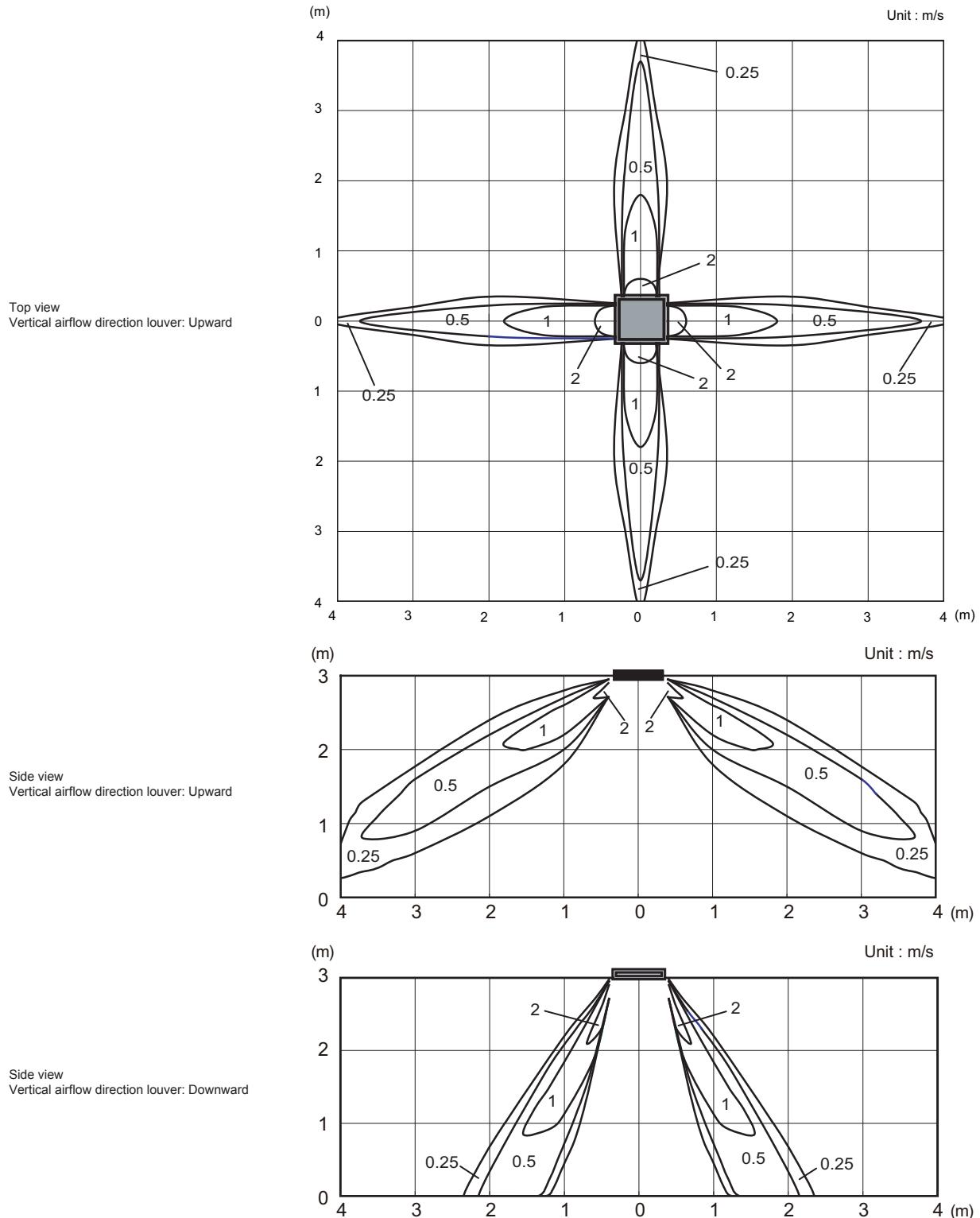
AFR		m³/h		Indoor temperature								
Outdoor temperature	°CDB	16		18		20		22		24		
		°CWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kW		kW		kW		kW		kW	
-15	-16	6.15	2.84	6.01	2.90	5.86	2.96	5.72	3.01	5.57	3.07	
-10	-11	6.92	3.03	6.75	3.09	6.59	3.15	6.42	3.22	6.26	3.28	
-5	-7	7.64	3.02	7.45	3.08	7.27	3.14	7.09	3.20	6.91	3.27	
0	-2	8.59	3.00	8.38	3.06	8.18	3.12	7.97	3.18	7.77	3.25	
5	3	9.28	2.77	9.06	2.83	8.84	2.89	8.62	2.95	8.40	3.01	
7	6	9.55	2.69	9.33	2.74	9.10	2.80	8.87	2.86	8.64	2.91	
10	8	9.87	2.69	9.63	2.75	9.40	2.80	9.16	2.86	8.93	2.92	
15	10	8.97	2.07	8.76	2.12	8.54	2.16	8.33	2.20	8.11	2.25	
20	15	8.23	1.63	8.03	1.66	7.84	1.69	7.64	1.73	7.45	1.76	
24	18	8.52	1.62	8.32	1.66	8.12	1.69	7.92	1.73	7.71	1.76	

5. Fan performance

5-1. Air velocity distributions

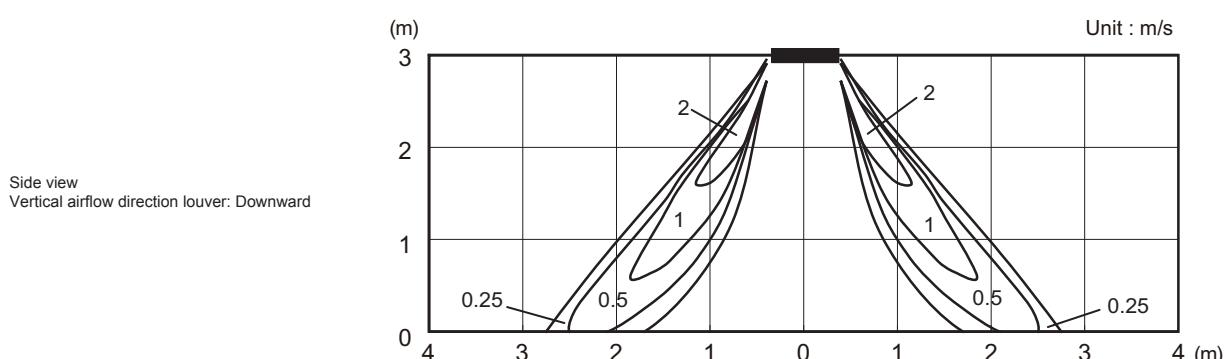
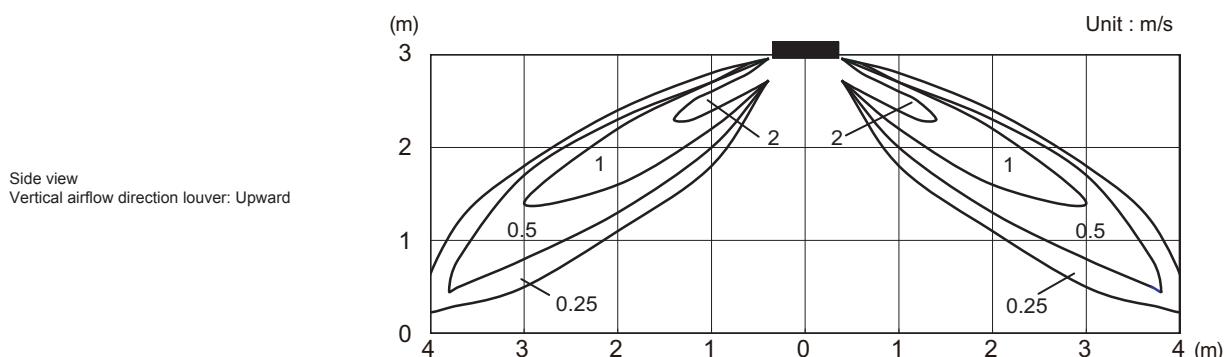
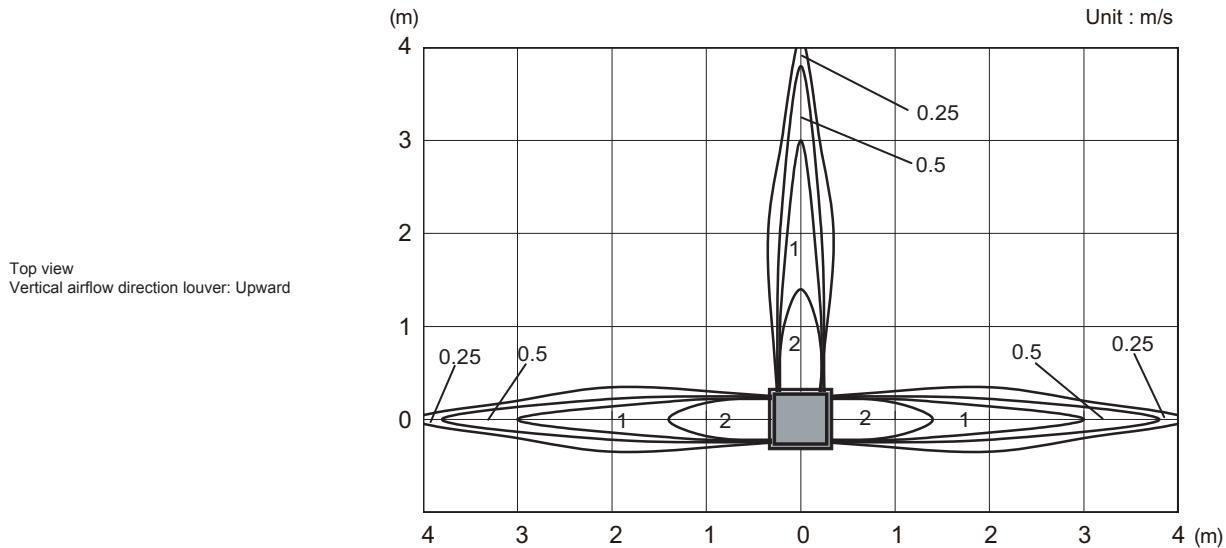
■ Model: AUYG18LV/LB

Measuring conditions	Fan speed	Operation mode	Ceiling mode
	HIGH	FAN	STANDARD



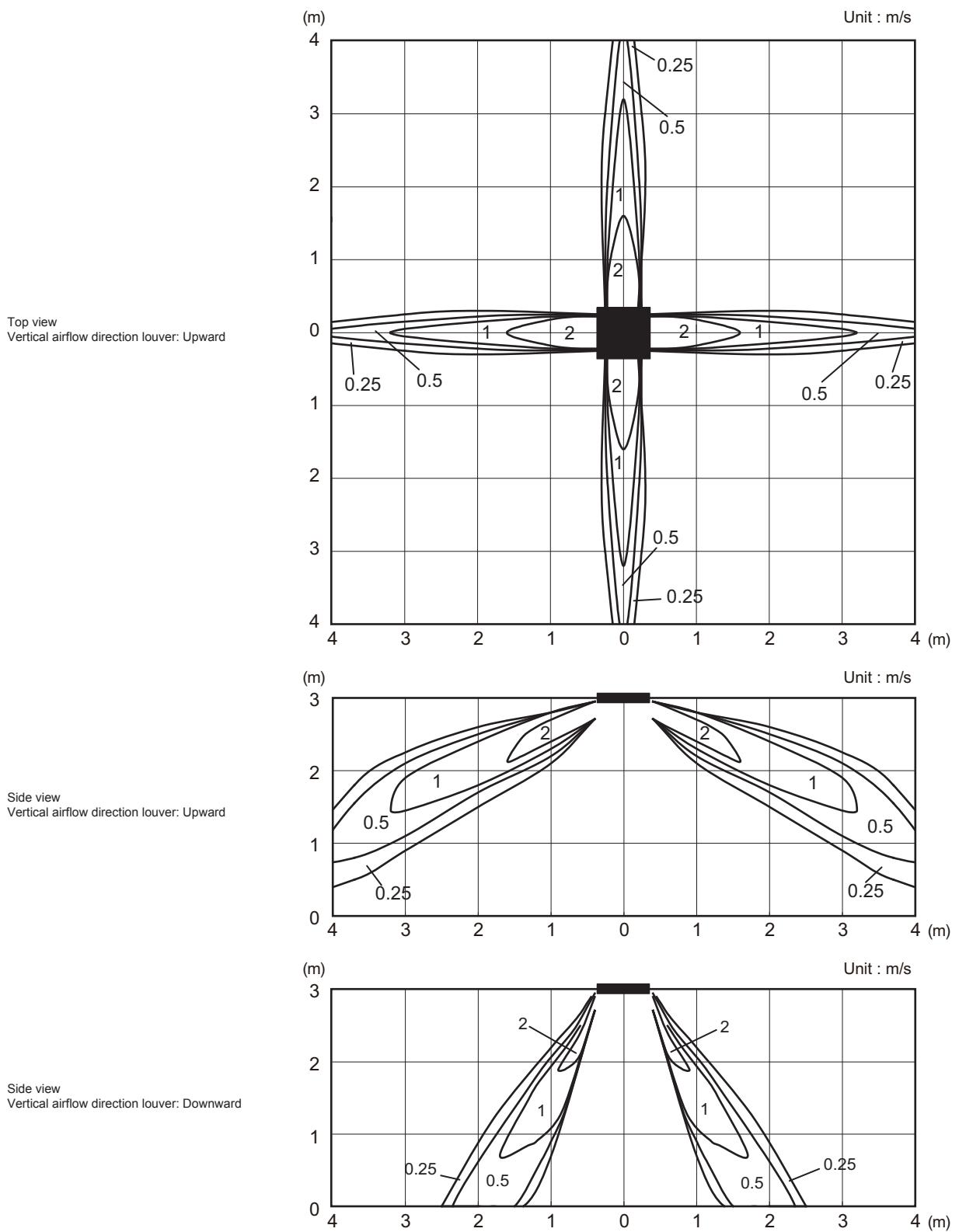
■ Model: AUYG18LVLB

Measuring conditions	Fan speed HIGH	Operation mode FAN	Ceiling mode STANDARD
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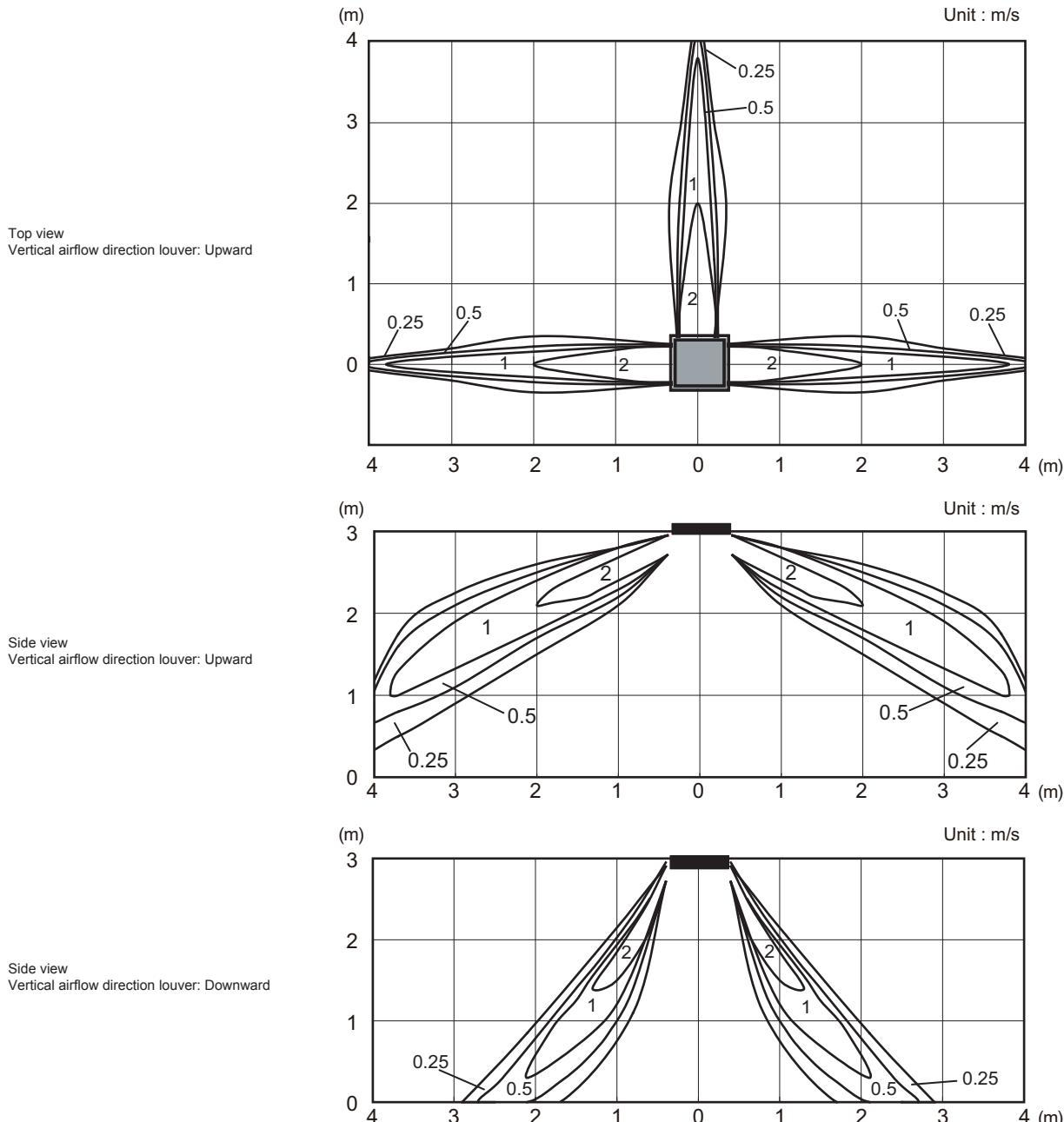
■ Model: AUYG24LVLA

Measuring conditions	Fan speed	Operation mode	Ceiling mode
	HIGH	FAN	STANDARD



■ Model: AUYG24LVLA

Measuring conditions	Fan speed HIGH	Operation mode FAN	Ceiling mode STANDARD
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5-2. Airflow

■ Model: AUYG18LVBL

● Cooling

Fan speed	Airflow	
HIGH	m ³ /h	680
	l/s	189
	CFM	400
MED	m ³ /h	580
	l/s	161
	CFM	341
LOW	m ³ /h	490
	l/s	136
	CFM	288
QUIET	m ³ /h	410
	l/s	114
	CFM	241

● Heating

Fan speed	Airflow	
HIGH	m ³ /h	800
	l/s	222
	CFM	471
MED	m ³ /h	680
	l/s	189
	CFM	400
LOW	m ³ /h	580
	l/s	161
	CFM	341
QUIET	m ³ /h	450
	l/s	125
	CFM	265

■ Model: AUYG24LVLA**● Cooling**

Fan speed	Airflow	
HIGH	m ³ /h	930
	l/s	258
	CFM	547
MED	m ³ /h	830
	l/s	231
	CFM	488
LOW	m ³ /h	600
	l/s	167
	CFM	353
QUIET	m ³ /h	450
	l/s	125
	CFM	265

● Heating

Fan speed	Airflow	
HIGH	m ³ /h	930
	l/s	258
	CFM	547
MED	m ³ /h	860
	l/s	239
	CFM	506
LOW	m ³ /h	700
	l/s	194
	CFM	412
QUIET	m ³ /h	530
	l/s	147
	CFM	312

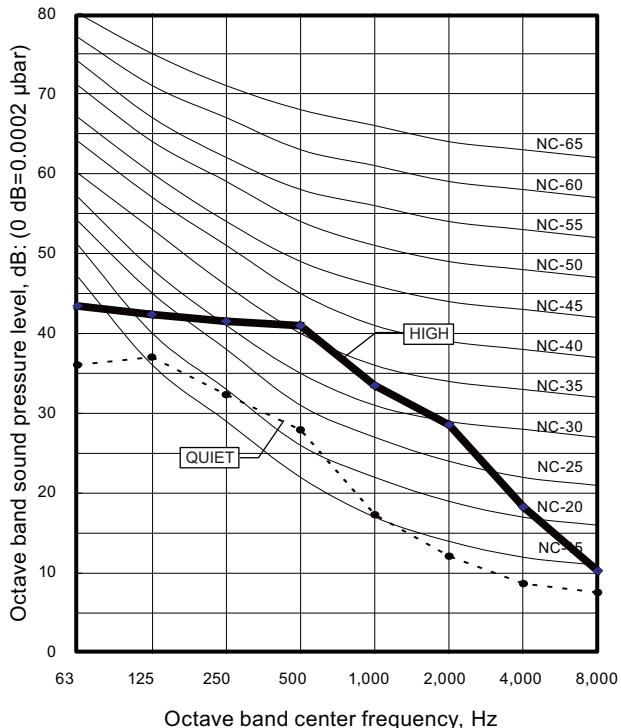
6. Operation noise (sound pressure)

6-1. Noise level curve

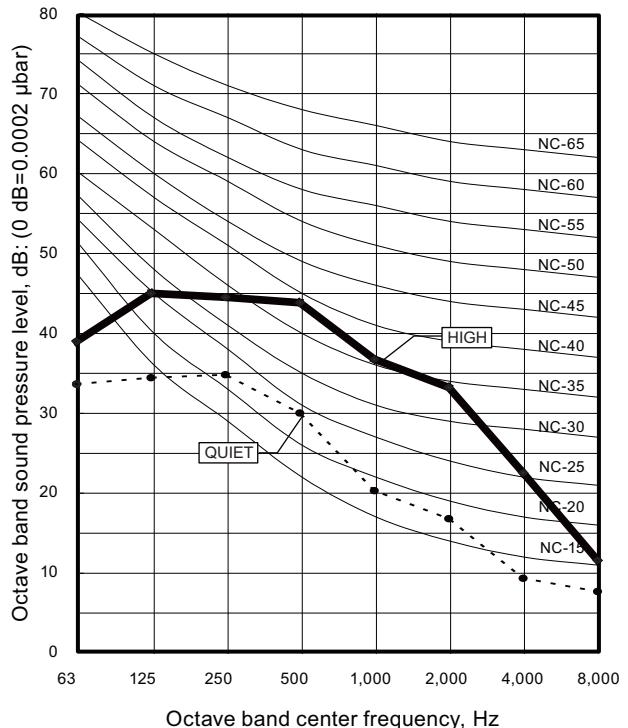
Measuring conditions	Ceiling height	Outlet directions
	Standard	4-way air outlet

■ Model: AUYG18LV/LB

● Cooling

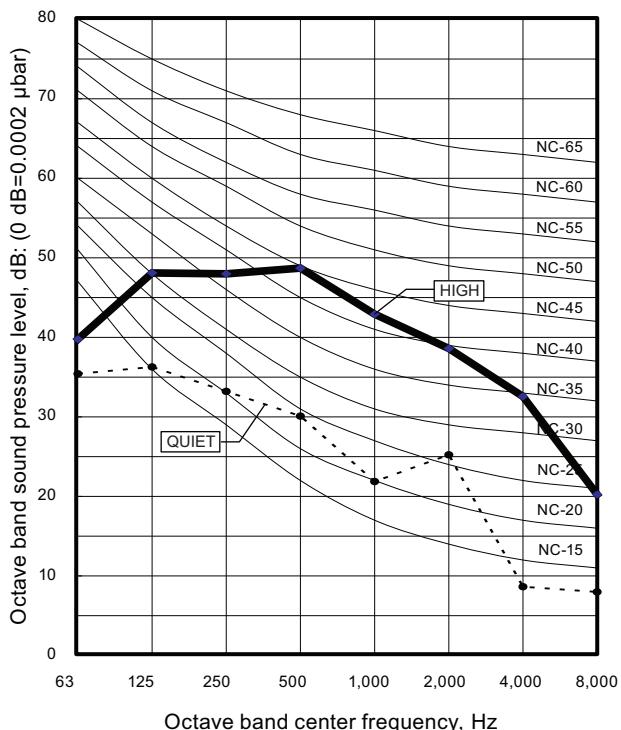


● Heating

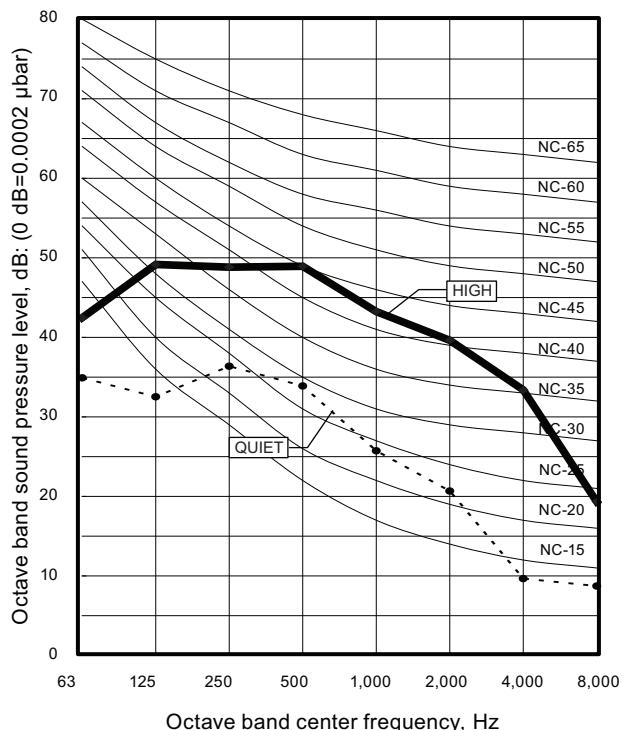


■ Model: AUYG24LV/LA

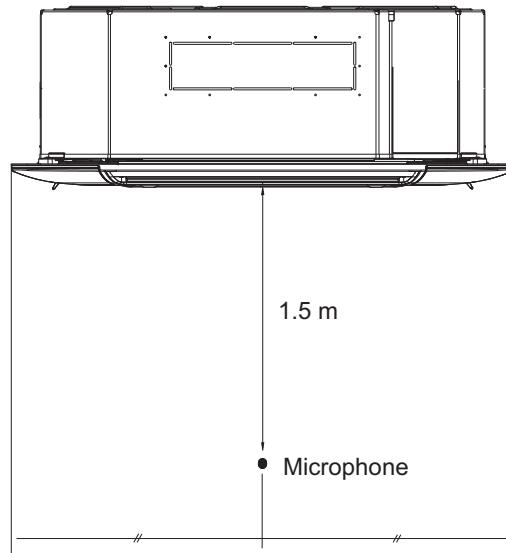
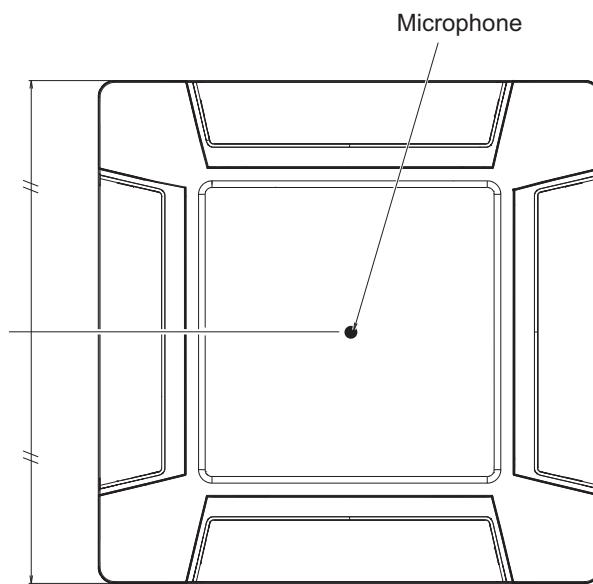
● Cooling



● Heating



6-2. Sound level check point



7. Safety devices

Type of protection	Protection form	Model
		AUYG18LVLB,AUYG24LVLA
Circuit protection	Current fuse (PCB*)	250 V, 3.15 A
Fan motor protection	Thermal protection program	Activate 100 ± 10 °C Fan motor stop
		Reset 95 ± 10 °C Fan motor restart

*PCB: Printed Circuit Board

8. External input and output

Connector	Input	Output	Remarks
CN102	Control input (Operation/Stop)	—	See external input/output settings for details.
CN103	—	Operation status output	
CN6	—	Fresh-air control output	

8-1. External input

- “Operation/Stop” mode or “Forced stop” mode can be selected with function setting of indoor unit.
- A twisted pair cable (22AWG) should be used. Maximum length of cable is 150 m.
- The wire connection should be separate from the power cable line.

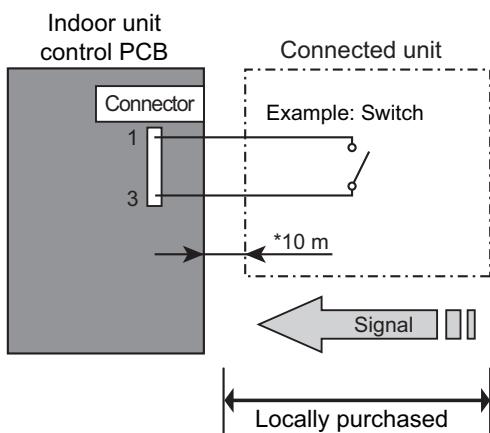
■ Control input (Operation/Stop or Forced stop)

The air conditioner can be remotely operated by means of the following on-site work.

Unit operation is started at the following contents by adding the contact input of a commercial on/off switch to a connector on the external control PCB and turning it on.

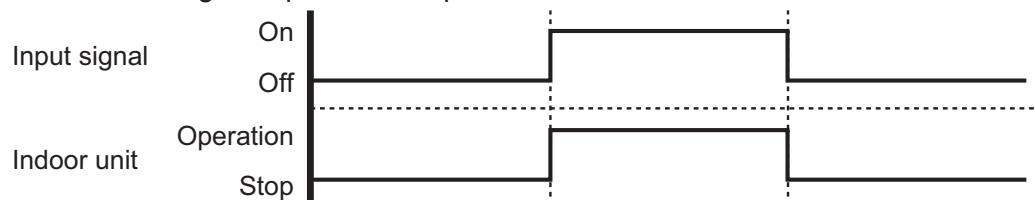
Unit operation	Initial setting after power is on	Starting mode other than initial setting
Operation mode	Auto changeover	Mode at previous operation
Set temperature	24 °C	Temperature at previous operation
Airflow mode	AUTO	Mode at previous operation
Air direction (swing)	Standard air direction (swing OFF)	Air direction at previous operation

● Circuit diagram example

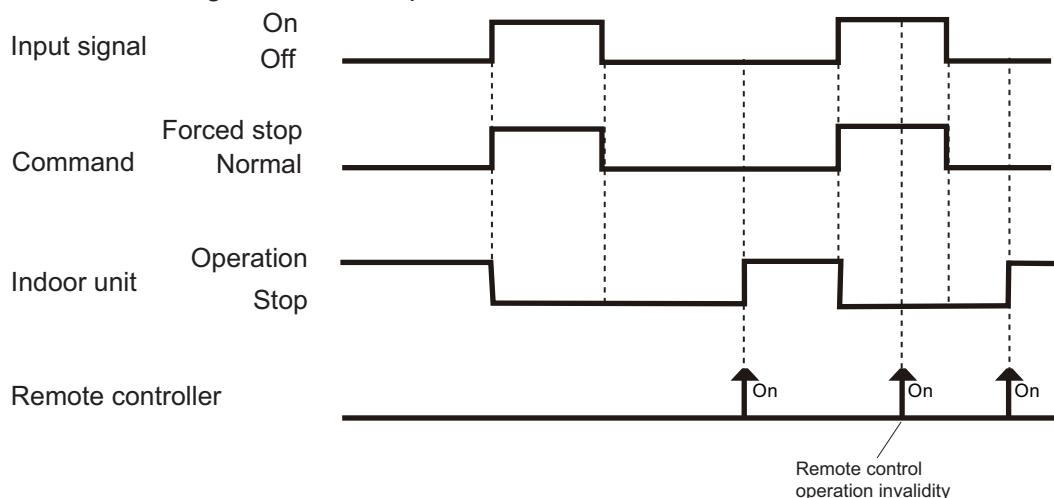


- Contact capacity: DC 24 V or more, 10 mA or more.
- *: Make the distance from the PCB to the connected unit within 10 m.
- Use non-polar relays and switches.

- When function setting is "Operation/Stop" mode



- When function setting is "Forced stop" mode



● Optional part

Part name	Model name	Exterior
External connect kit	UTY-XWZX	External input wire

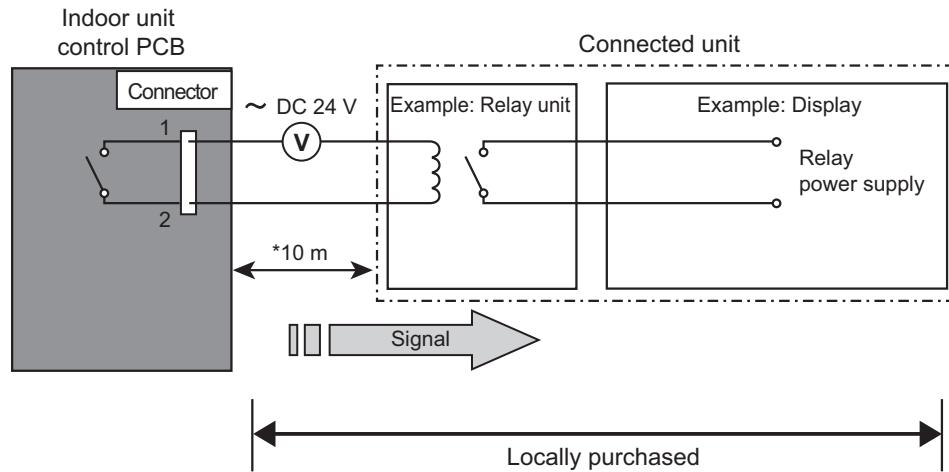
8-2. External output

With using external output function, operating status of this product can be transmitted to the external device, and also, this product can be inter-connected with the external device.

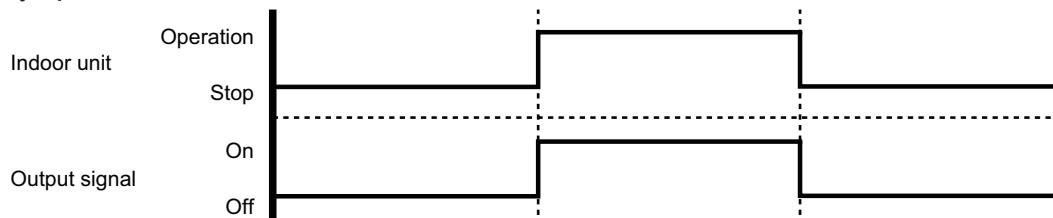
■ Operation status output

Air conditioner operation status signal can be output.

● Circuit diagram example



- *: Make the distance from the PCB to the connected unit within 10 m.
- Relay spec: Max. DC 24 V, 10 mA to less than 500 mA.



● Optional part

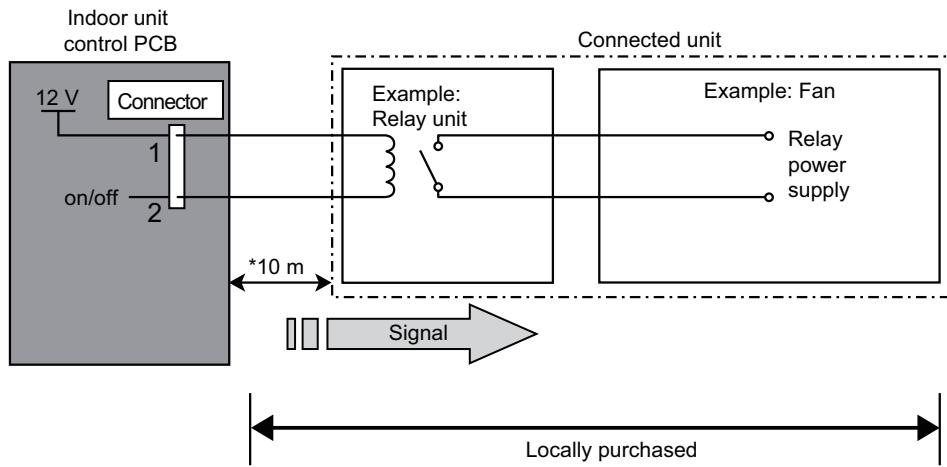
Part name	Model name	Exterior
External connect kit	UTY-XWZX	External output wire

8-3. Fresh-air control output

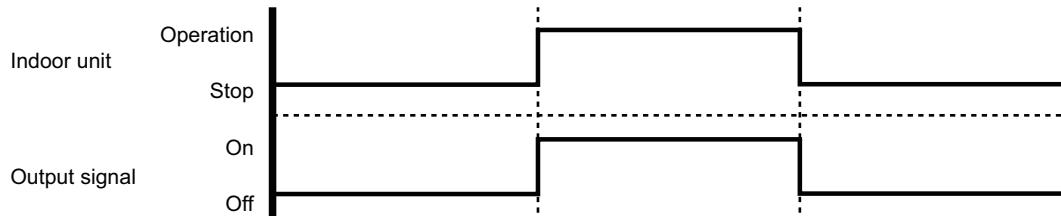
Signal linked to the indoor unit fan on can be output.

NOTE: In cold-air prevention control operation, the signal becomes off.

● Circuit diagram example



- *: Make the distance from the PCB to the connected unit within 10 m.
- Relay spec: Rated DC 12 V, 50 mA or less.



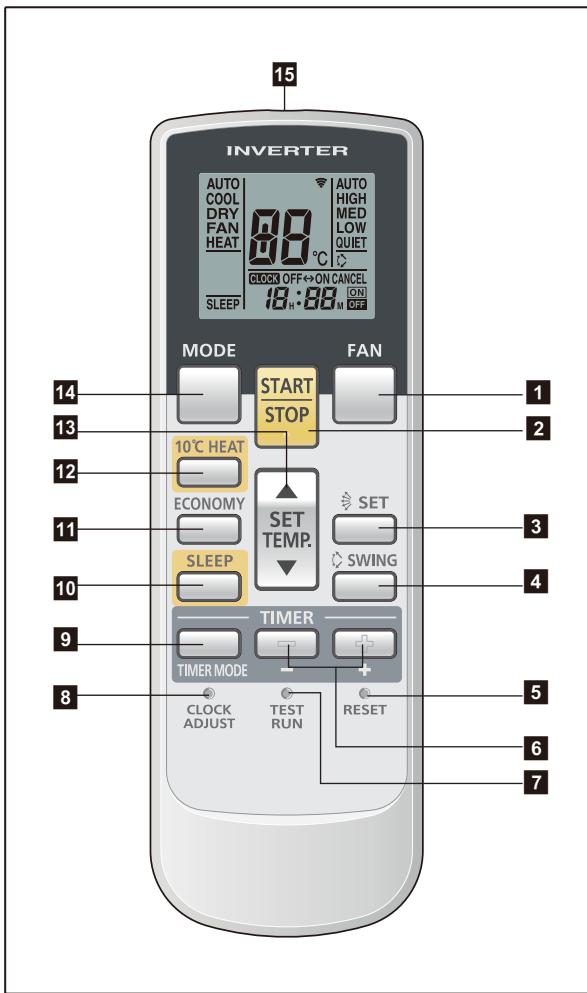
● Optional part

Model name	Exterior
UTZ-VXAA	Fresh-air output wire

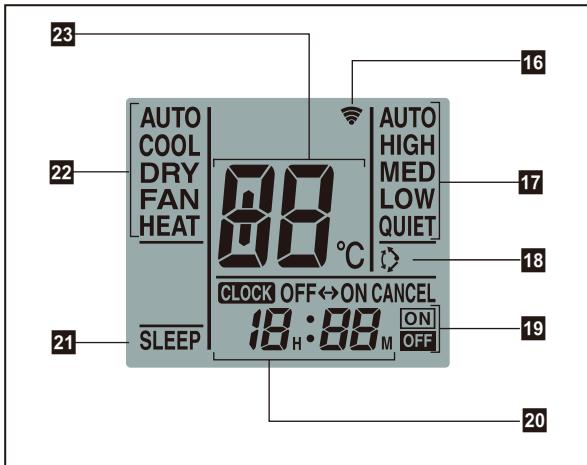
NOTE: This wire is included in both Fresh air intake kit.

9. Remote controller

9-1. Overview



Display panel



1 FAN button

Selects the fan speed (AUTO, HIGH, MED, LOW, and QUIET).

2 START/STOP button

Starts and stops operation.

3 SET button (vertical)

Adjusts the vertical airflow direction.

4 SWING button

Sets the automatic swing operation and selects swing mode (Up/down, Left/right, Up/down/left/right, and Stop swing).

5 RESET button

Used when replacing batteries.

6 Timer set (- / +) button

Sets the current time and on-off time.

7 TEST RUN button

Only used for the initial test in the unit installation.

8 CLOCK ADJUST button

Used for adjusting the clock.

9 TIMER MODE button

Selects the timer mode (off timer, on timer, program timer, and timer reset).

10 SLEEP button

Pressed to select sleep timer.

11 ECONOMY button

12 10 °C HEAT button

13 SET TEMP. (temperature) (▲ / ▼) button

- Sets desired temperature.
- Sets remote controller custom code.

14 MODE button

- Switches operation mode (AUTO, COOL, DRY, FAN, and HEAT).
- Starts/ends the remote controller custom code (max. 4 types) change.

15 Signal transmitter

16 Signal transmit indicator

17 Fan speed indicator

18 Swing indicator

19 Timer mode indicator

20 Clock indicator

21 Sleep indicator

22 Operating mode indicator

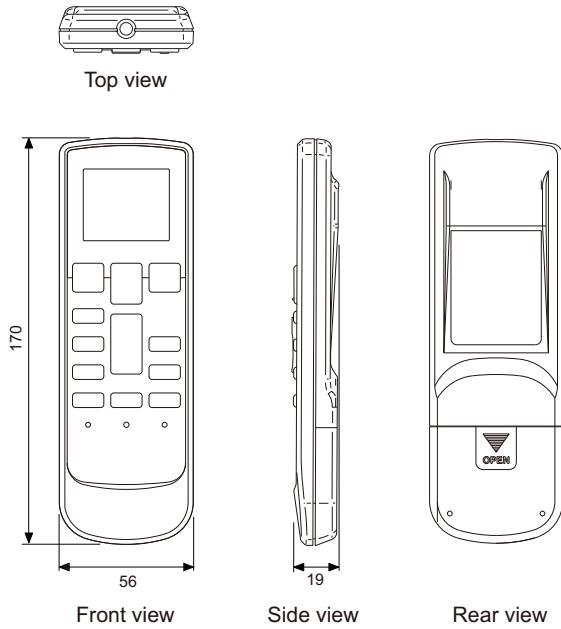
23 Temperature indicator

NOTE: Functions may differ by type of the indoor unit. For details, refer to the operation manual.

9-2. Specifications

● Controller

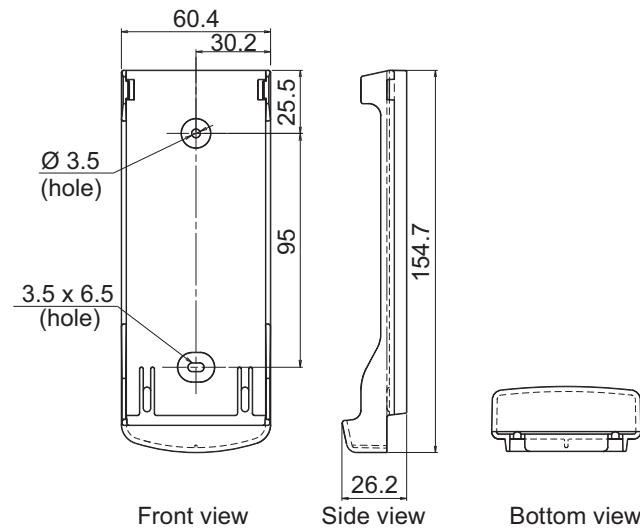
Unit: mm



Size (H × W × D)	mm	170 × 56 × 19
Weight	g	85 (without batteries)

● Holder

Unit: mm



Size (H × W × D)	mm	154.7 × 60.4 × 26.2
Weight	g	28

10. Function settings

To adjust the functions of this product according to the installation environment, various types of function settings are available.

NOTE: Incorrect settings can cause a product malfunction.

10-1. Function settings on indoor unit

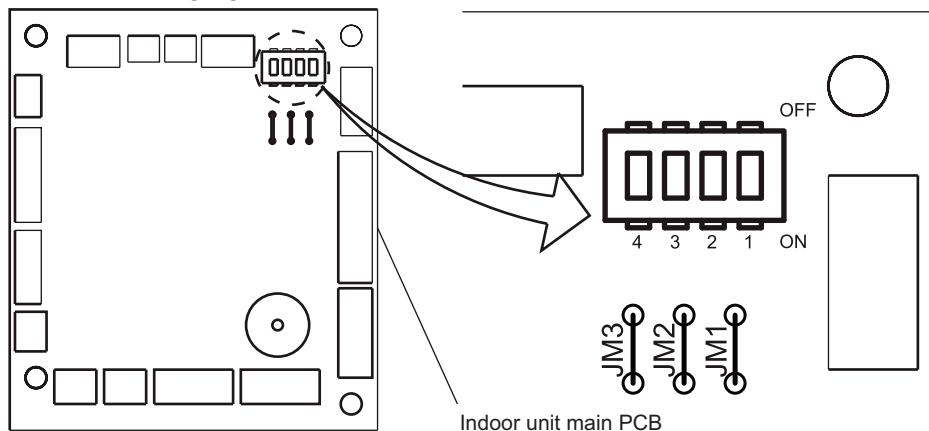
By using some components on the PC board, you can change the function settings.

Related components on the PC board and the applicable settings

Component	Setting content
DIP switch	Remote controller address setting
Jumper wire	Setting prohibited

■ Component location

Components on the indoor unit main PC board used for the function settings are located as shown in the following figure.



■ DIP switch setting

- **Remote controller address setting**

When operating a number of indoor units by using a wired remote controller, DIP switch setting for assigning unit number to each indoor unit is required.

DIP switches are normally set to make the unit number 00.

Remote controller address	DIP switch number				Factory setting
	1	2	3	4	
00	OFF	OFF	OFF	OFF	♦
01	ON	OFF	OFF	OFF	
02	OFF	ON	OFF	OFF	
03	ON	ON	OFF	OFF	
04	OFF	OFF	ON	OFF	
05	ON	OFF	ON	OFF	
06	OFF	ON	ON	OFF	
07	ON	ON	ON	OFF	
08	OFF	OFF	OFF	ON	
09	ON	OFF	OFF	ON	
10	OFF	ON	OFF	ON	
11	ON	ON	OFF	ON	
12	OFF	OFF	ON	ON	
13	ON	OFF	ON	ON	
14	OFF	ON	ON	ON	
15	ON	ON	ON	ON	

10-2. Function settings by using remote controller

Some function settings can be changed on the remote controller. After confirming the setting procedure and the content of each function setting, select appropriate functions for your installation environment.

■ Setting procedure by using wireless remote controller

The function number and the associated setting value are displayed on the LCD of the remote controller. Follow the instructions written in the local setup procedure supplied with the remote controller, and select appropriate setting according to the installation environment.

Before connecting the power supply of the indoor unit, reconfirm following items:

- Piping air tight test and vacuuming have been performed firmly.
- There is no wiring mistake.

Then, connect the power supply of indoor unit.

Entering function setting mode:

While pressing the FAN button and SET TEMP. (▲) button simultaneously, press the RESET button to enter the function setting mode.

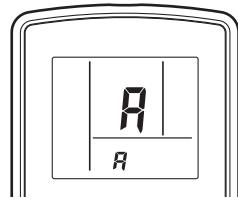
STEP 1: Setting the remote controller custom code

Use the following steps to select the custom code of the remote controller. (Note that the air conditioner cannot receive a custom code if the air conditioner has not been set for the custom code.)

The custom codes that are set through this process are applicable only to the signal in the function setting.

For details on how to set the custom codes through the normal process, refer to "Custom code setting for wireless remote controller" on page 32.

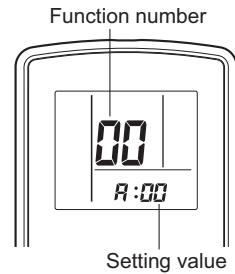
1. Press the SET TEMP. (\blacktriangle) (\blacktriangledown) buttons to change the custom code between $\text{A} \rightarrow \text{B} \rightarrow \text{C} \rightarrow \text{D}$. Match the code on the display to the air conditioner custom code. (Initially set to A .) If the custom code does not need to be selected, press the MODE button, and proceed to **STEP 2**.
2. Press the TIMER MODE button and check that the indoor unit can receive signals at the displayed custom code.
3. Press the MODE button to accept the custom code, and proceed to **STEP 2**.
4. After completing the function setting, be sure to disconnect the power supply and then reconnect it.

**NOTES:**

- The air conditioner custom code is set to “ A ” prior to shipment.
- The remote controller resets to custom code “ A ” when the batteries on the remote controller are replaced. If you use a custom code other than code “ A ”, reset the custom code after replacing the batteries.
- If you do not know the air conditioner custom code setting, try each of the custom codes ($\text{A} \rightarrow \text{B} \rightarrow \text{C} \rightarrow \text{D}$) until you find the code that operates the air conditioner.

STEP 2: Selecting the function number and setting value

1. Press the SET TEMP. (\blacktriangle) (\blacktriangledown) buttons to select the function number. To switch between the left and right digits, press the MODE button.
2. Press the FAN button to proceed the setting value. To return the function number selection, press the FAN button again.
3. Press the SET TEMP. (\blacktriangle) (\blacktriangledown) buttons to select the setting value. To switch between the left and right digits, press the MODE button.
4. Press the TIMER MODE button, and START/STOP button, in the order listed to confirm the settings.
5. Press the RESET button to cancel the function setting mode.
6. After completing the function setting, be sure to disconnect the power supply and then reconnect it.



⚠ CAUTION

After disconnecting the power supply, wait 30 seconds or more before reconnecting it. The function setting will not become active unless the power supply is disconnected and then reconnected.

■ Contents of function setting

Each function setting listed in this section is adjustable in accordance with the installation environment.

NOTE: Setting will not be changed if invalid numbers or setting values are selected.

● Function setting list

	Function no.	Functions
1)	11	Filter sign
2)	20	Ceiling height
3)	22	Outlet directions
4)	30	Room temperature sensor control for cooling
5)	31	Room temperature sensor control for heating
6)	40	Auto restart
7)	42	Room temperature sensor switching
8)	44	Remote controller custom code
9)	46	External input control
10)	49	Indoor unit fan control for energy saving for cooling

1) Filter sign

Select appropriate intervals for displaying the filter sign on the indoor unit according to the estimated amount of dust in the air of the room.

If the indication is not required, select "No indication" (03).

Function number	Setting value	Setting description	Factory setting
11	00	Standard (2,500 hours)	
	01	Long interval (4,400 hours)	
	02	Short interval (1,250 hours)	
	03	No indication	◆

2) Ceiling height

Select the appropriate ceiling height according to the place of installation.

Function number	Setting value	Setting description	Factory setting
20	00	Standard	◆
	01	High ceiling	

For the specific height for each setting value, refer to "Installation space" in Chapter 2. "[Dimensions](#)" on page 4.

In case of cassette type models:

The ceiling height values are for the 4-way outlet. Do not change this setting in the 3-way outlet mode.

3) Outlet directions

Select the appropriate number of outlet directions according to the installation conditions.

Function number	Setting value	Setting description	Factory setting
22	00	4-way	◆
	01	3-way	

4) Room temperature sensor control for cooling

Depending on the installed environment, correction of the room temperature sensor may be required. Select the appropriate control setting according to the installed environment.

Function number	Setting value	Setting description	Factory setting
30	00	Standard	◆
	01	Slightly lower control	
	02	Lower control	
	03	Higher control	

5) Room temperature sensor control for heating

Depending on the installed environment, correction of the room temperature sensor may be required. Select the appropriate control setting according to the installed environment.

Function number	Setting value	Setting description	Factory setting
31	00	Standard	◆
	01	Lower control	
	02	Slightly higher control	
	03	Higher control	

6) Auto restart

Enables or disables automatic restart after a power interruption.

Function number	Setting value	Setting description	Factory setting
40	00	Enable	◆
	01	Disable	

NOTE: Auto restart is an emergency function such as for power outage etc. Do not attempt to use this function in normal operation. Be sure to operate the unit by remote controller or external device.

7) Room temperature sensor switching

(Only for wired remote controller)

When using the wired remote controller temperature sensor, change the setting to "Both" (01).

Function number	Setting value	Setting description	Factory setting
42	00	Indoor unit	◆
	01	Both	

00: Sensor on the indoor unit is active.

01: Sensors on both indoor unit and wired remote controller are active.

NOTE: Remote controller sensor must be turned on by using the remote controller.

8) Remote controller custom code

(Only for wireless remote controller)

The indoor unit custom code can be changed. Select the appropriate custom code.

Function number	Setting value	Setting description	Factory setting
44	00	A	◆
	01	B	
	02	C	
	03	D	

9) External input control

"Operation/Stop" mode or "Forced stop" mode can be selected.

Function number	Setting value	Setting description	Factory setting
46	00	Operation/Stop mode	◆
	01	(Setting prohibited)	
	02	Forced stop mode	

10) Indoor unit fan control for energy saving for cooling

Enables or disables the power-saving function by controlling the indoor unit fan rotation when the outdoor unit is stopped during cooling operation.

Function number	Setting value	Setting description	Factory setting
49	00	Disable	
	01	Enable	◆

00: When the outdoor unit is stopped, the indoor unit fan operates continuously following the setting on the remote controller.

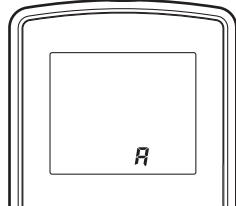
01: When the outdoor unit is stopped, the indoor unit fan operates intermittently at a very low speed.

■ Custom code setting for wireless remote controller

To interconnect the air conditioner and the wireless remote controller, assignment of the custom code for the wireless remote controller is required.

NOTE: Air conditioner cannot receive a custom code if the air conditioner has not been set for the custom code.

1. Press the START/STOP button until only the clock is displayed on the remote controller display.
2. Press the MODE button for at least 5 seconds to display the current custom code. (Initially set to A .)



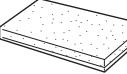
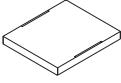
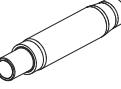
3. Press the SET TEMP. (\blacktriangle or \blacktriangledown) button to change the custom code between $\text{A} \rightarrow \text{B} \rightarrow \text{C} \rightarrow \text{D}$. Match the code on the display to the air conditioner custom code.
4. Press the MODE button again to return to the clock indicator. The custom code will be changed.

NOTES:

- If no button is pressed within 30 seconds after the custom code is displayed, the system returns to the original clock indicator. In this case, start again from step 1.
- The air conditioner custom code is set to A prior to shipment. To change the custom code, contact your retailer.
- The remote controller resets to custom code A when the batteries in the remote controller are replaced. If you use a custom code other than code A , reset the appropriate custom code after replacing the batteries. If you do not know the assigned code for the air conditioner, try each of the custom code ($\text{A} \rightarrow \text{B} \rightarrow \text{C} \rightarrow \text{D}$) until you find the code which operates the air conditioner.

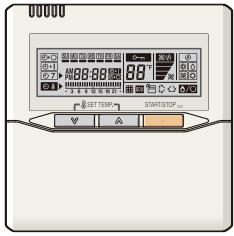
11. Accessories

11-1. Models: AUYG18LVLB and AUYG24LVLA

Part name	Exterior	Q'ty	Part name	Exterior	Q'ty
Operating manual		1	Hose band		1
Installation manual		1	Drain hose insulation		1
Coupler heat insulation (Large)		1	Remote controller		1
Coupler heat insulation (Small)		1	Battery		2
Special nut A (Large flange)		4	Remote controller holder		1
Special nut B (Small flange)		4	Tapping screw		2
Template (Carton top)		1	Cable tie		2
Drain hose		1	Wire clamper		1

12. Optional parts

12-1. Controllers

Exterior	Part name	Model name	Summary
	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-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

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

12-2. Cassette grille

Exterior	Part name	Model name	Summary
	Cassette grille	UTG-UFYD-W	The form of grille discharges wind away from the ceiling making it difficult to leave dirt marks.

12-3. Others

Exterior	Part name	Model name	Summary
	External connect kit	UTY-XWZX	Use to connect with various peripheral devices and air conditioner PCB.
	Air outlet shutter plate	UTR-YDZB	Installed at the air outlet when 3-directions mode is performed.
	Fresh-air intake kit	UTZ-VXAA	By attaching Fresh-air intake kit to the indoor unit, it can be taken in fresh air of up to 10% of "high" air volume of the indoor unit.
	Insulation for high humidity	UTZ-KXGC	Install when the under-roof condition is expected to be the humidity of over 80% and the temperature of over 30 °C.

Part 2. OUTDOOR UNIT

SINGLE TYPE:

AOYG18LBCB

AOYG24LBCB

1. Specifications

Type				Inverter heat pump		
Model name				AOYG18LBCB	AOYG24LBCB	
Power supply				230 V ~ 50 Hz		
Available voltage range				198–264 V		
Starting current		A		7.4	9.9	
Fan	Airflow rate	Cooling	m ³ /h	2,380	2,850	
		Heating		2,080	2,700	
Type × Q'ty				Propeller × 1		
Motor output				49		
Sound pressure level *1		Cooling	dB (A)	50	53	
		Heating		50	54	
Sound power level		Cooling	dB (A)	62	66	
		Heating		65	66	
Heat exchanger type		Dimensions (H × W × D)	mm	588 × 881 × 18.19	672 × 881 × 18.19	
		Fin pitch		588 × 851 × 18.19	672 × 851 × 18.19	
		Rows × Stages		1.3		
		Pipe type		Copper		
		Fin type	Type (Material)	Corrugate (Aluminum)		
			Surface treatment	Corrosion resistance		
Compressor	Type × Q'ty			Twin rotary × 1		
	Motor output		W	900	1,200	
Refrigerant		Type (Global warming potential)		R410A		
		Charge	g	1,200	1,500	
Refrigerant oil		Type		FV50S		
		Amount	cm ³	400	550	
Enclosure		Material		Steel sheet		
		Color		Beige		
				Approximate color of Munsell 10YR 7.5/1.0		
Dimensions (H × W × D)	Net		mm	632 × 799 × 290	716 × 820 × 315	
	Gross			692 × 940 × 375	776 × 961 × 450	
Weight	Net		kg	36	42	
	Gross			40	47	
Connection pipe	Size	Liquid	mm (in)	Ø 6.35 (Ø 1/4)	Ø 6.35 (Ø 1/4)	
		Gas		Ø 12.70 (Ø 1/2)	Ø 15.88 (Ø 5/8)	
	Method			Flare		
Operation range		Cooling	°C	-10 to 46		
		Heating		-15 to 24		
Drain hose		Material		PP+LLDPE		
		Size	mm	Ø 13.0 (I. D.), Ø 16.0 to Ø 16.8 (O. D.)		

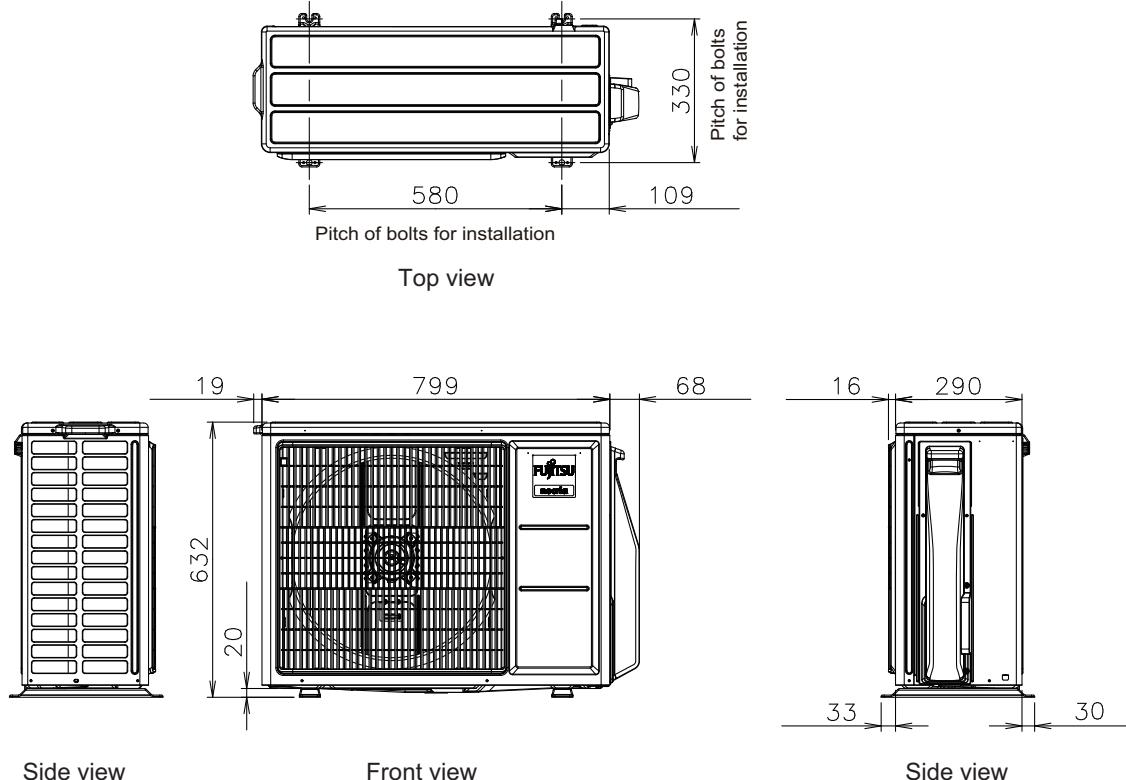
NOTES:

- 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.

2. Dimensions

2-1. Model: AOYG18LBCB

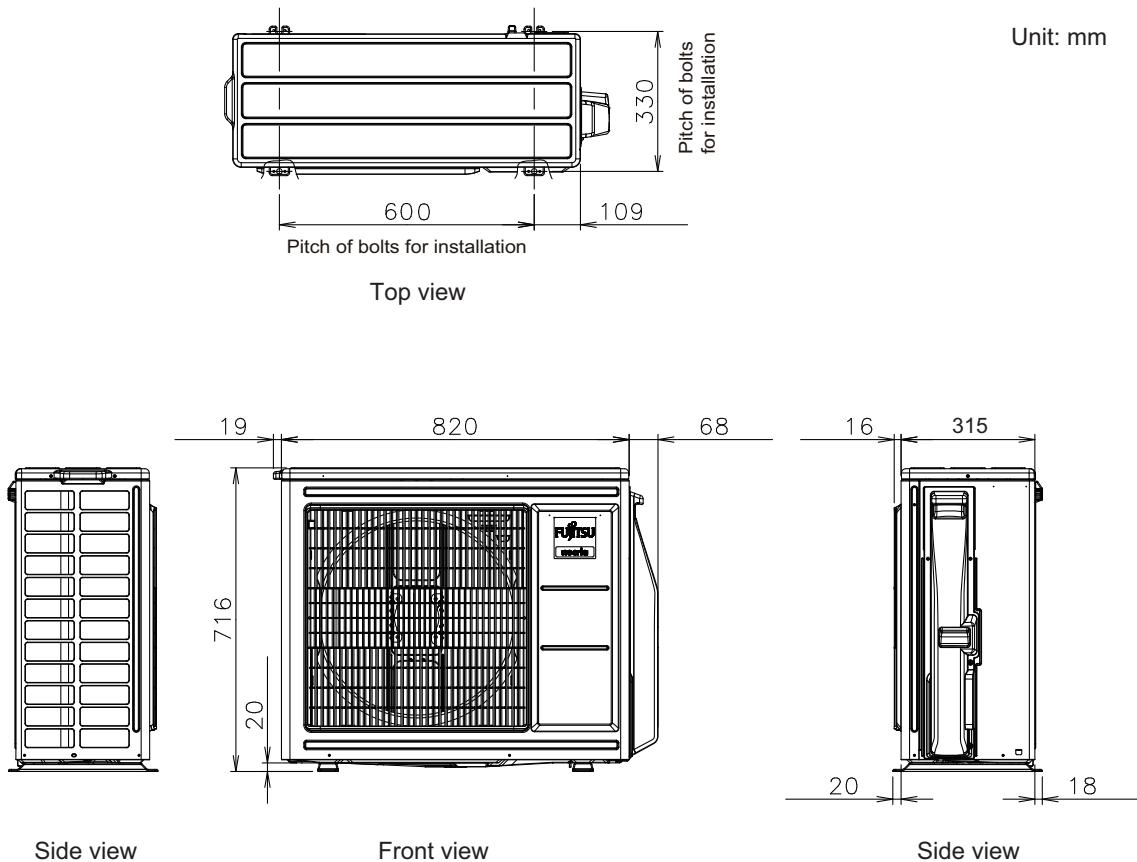
Unit: mm



OUTDOOR UNIT
AOYG18-24LBCB

2-2. Model: AOYG24LBCB

Unit: mm



3. Installation space

3-1. Models: AOYG18LBCB and AOYG24LBCB

■ Space requirement

Provide sufficient installation space for product safety.

⚠ CAUTION

Keep the space shown in the installation examples.

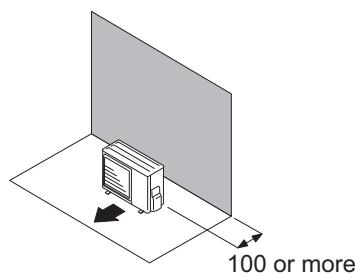
If the installation is not performed accordingly, it could cause a short circuit and result in a lack of operating performance.

● Single outdoor unit installation

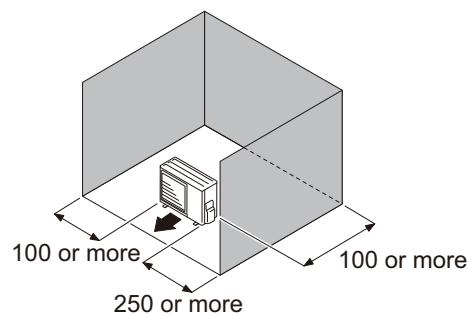
- When the upper space is open:

Unit: mm

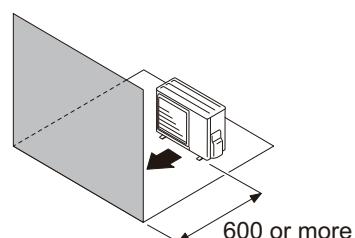
Obstacles at rear only



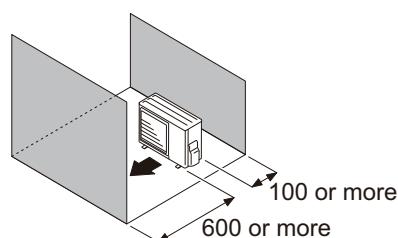
Obstacles at rear and sides



Obstacles at front



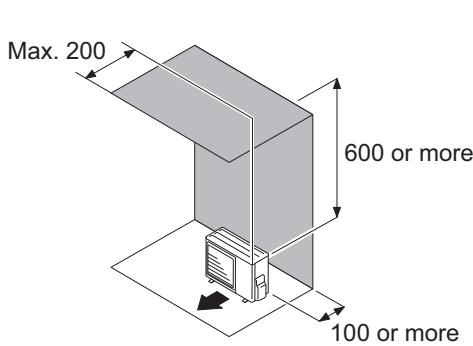
Obstacles at front and rear



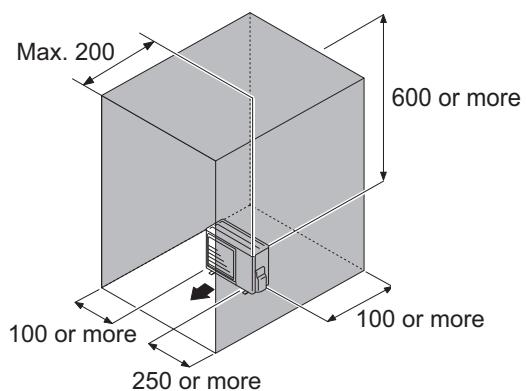
- When there is an obstruction in the upper space:

Unit: mm

Obstacles at rear and above



Obstacles at rear, sides, and above

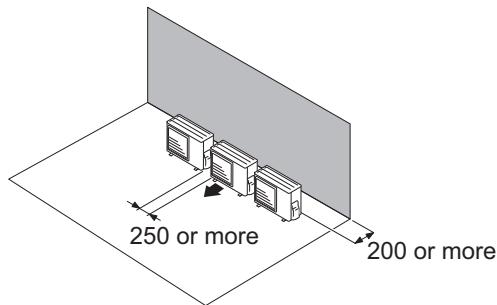


● Multiple outdoor unit installation

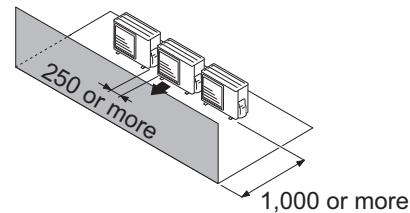
- Provide at least 250 mm of space between the outdoor units if multiple units are installed.
- When routing the piping from the side of an outdoor unit, provide space for piping.
- No more than 3 units must be installed side by side.
When 3 units or more are arranged in a line, provide the space as shown in the following example “**When an obstruction in the upper space:**”.
- When the upper space is open:**

Unit: mm

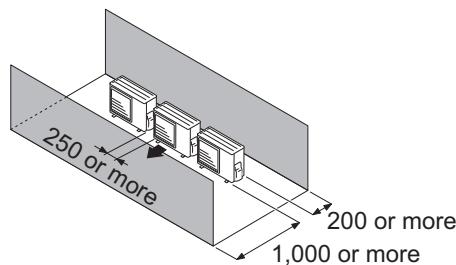
Obstacles at rear only



Obstacles at front only



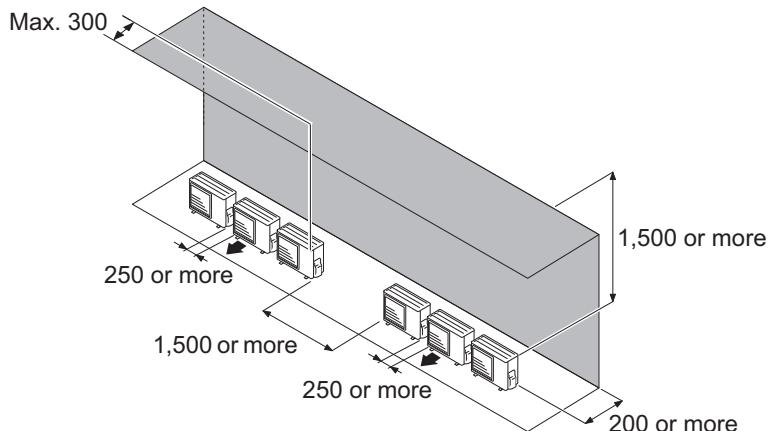
Obstacles at front and rear



- When an obstruction in the upper space:**

Unit: mm

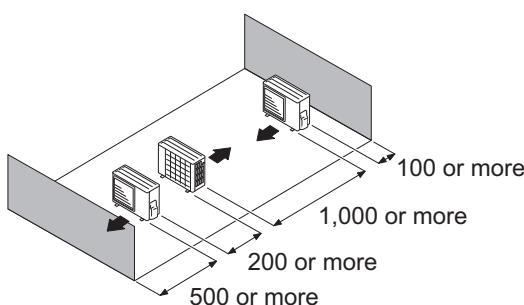
Obstacles at rear and above.



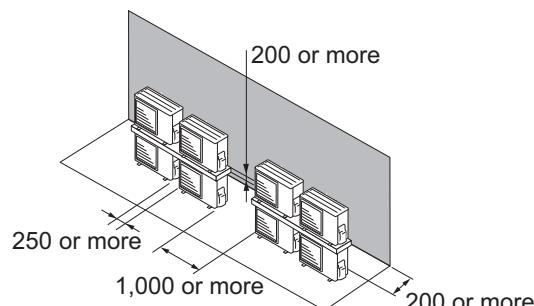
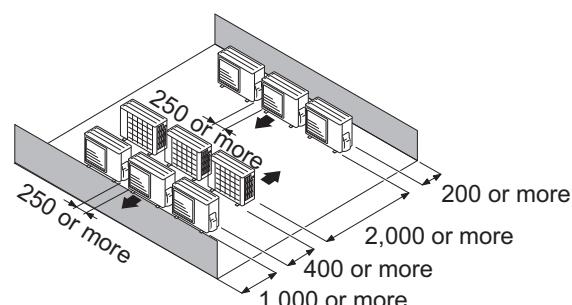
● Outdoor units installation in multi-row

Unit: mm

Single parallel unit arrangement



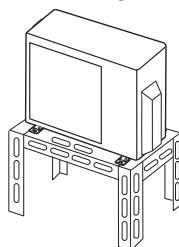
Multiple parallel unit arrangement

**NOTES:**

- If the space is larger than stated above, the condition will be the same as when there is no obstacle.
- When installing the outdoor unit, be sure to open the front and left side to obtain better operation efficiency.

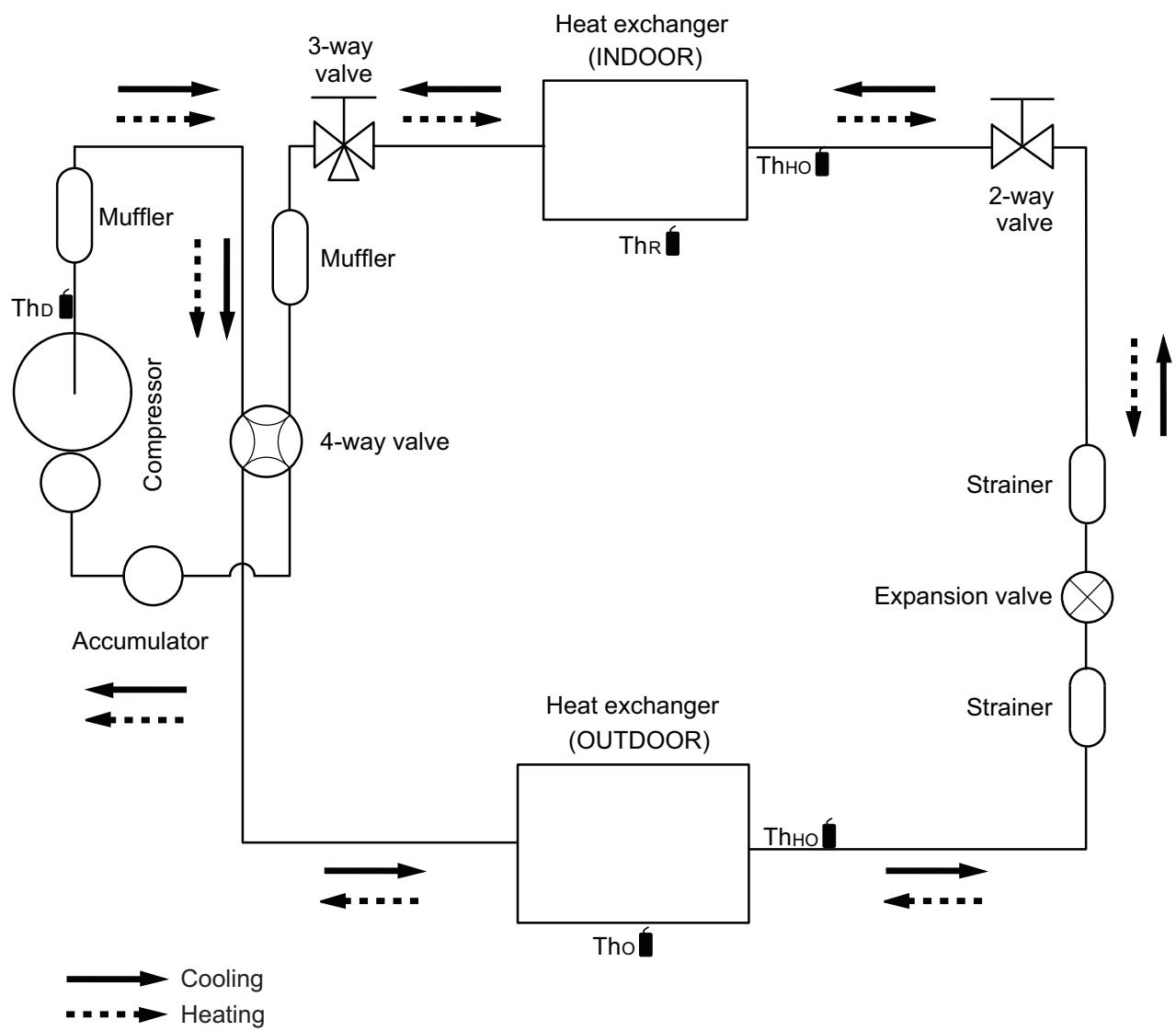
△ CAUTION

- Do not install the outdoor unit in two-stage where the drain water could freeze. Otherwise the drainage from the upper unit may form ice and cause a malfunction of the lower unit.
- When the outdoor temperature is 0 °C or less, do not use the accessory drain pipe and drain cap. If the drain pipe and drain cap are used, the drain water in the pipe may freeze in extremely cold climate. (For reverse cycle model only.)
- In area with heavy snowfall, if the inlet and outlet of the outdoor unit is blocked with snow, it might become difficult to get warm, and it is likely to cause product malfunction. Construct a canopy and a pedestal, or place the unit on a high stand that is locally installed.



4. Refrigerant circuit

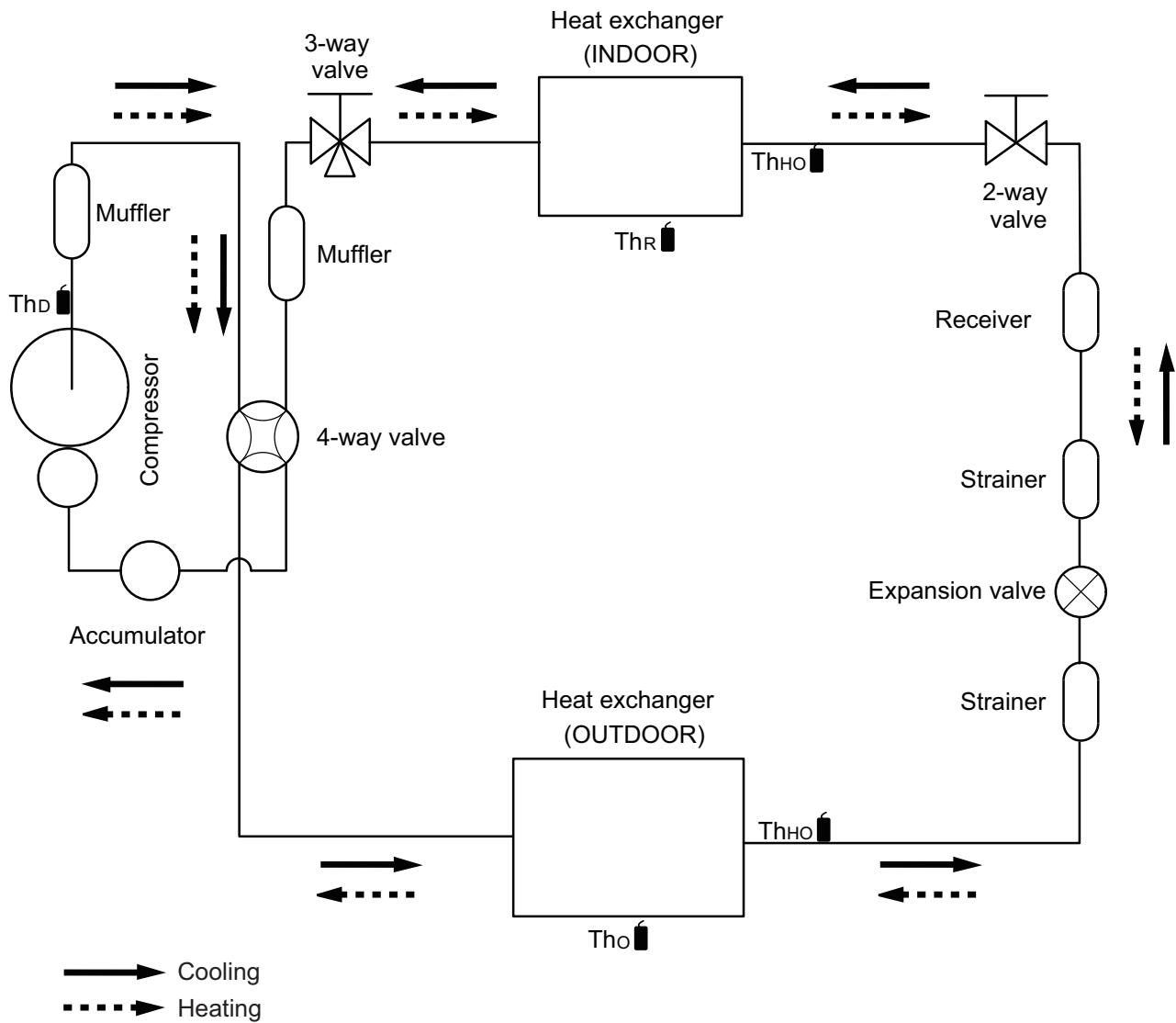
4-1. Model: AOYG18LBCB



OUTDOOR UNIT
AOYG18-24LBCB

4-2. Model: AOYG24LBCB

OUTDOOR UNIT
AOYG18-24LBCB



\rightarrow Cooling

$\cdots\cdots\rightarrow$ Heating

$\text{ThD} \blacksquare$: Thermistor (Discharge temperature)

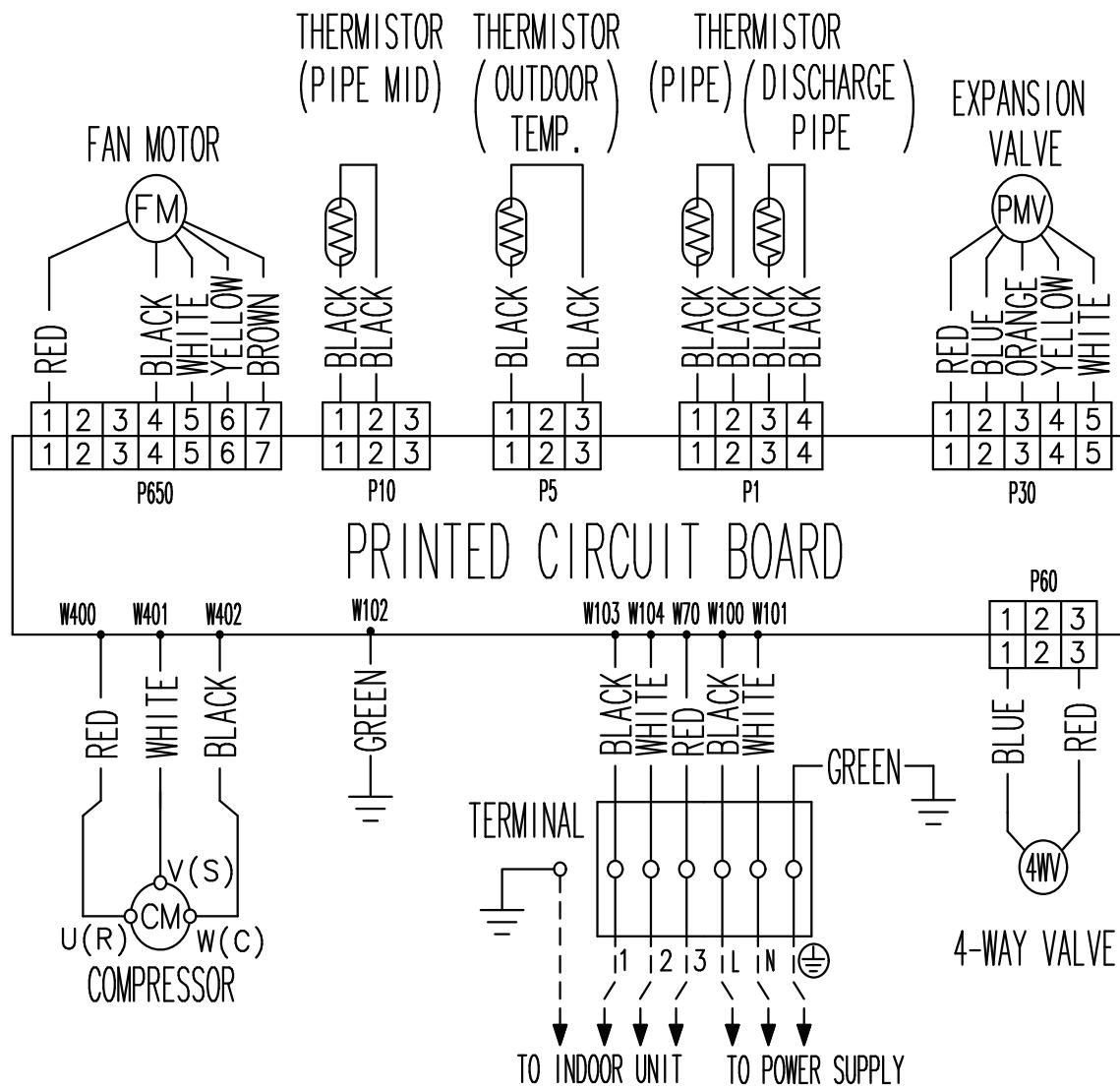
$\text{Tho} \blacksquare$: Thermistor (Outdoor temperature)

$\text{ThHO} \blacksquare$: Thermistor (Heat exchanger out temperature)

$\text{ThR} \blacksquare$: Thermistor (Room temperature)

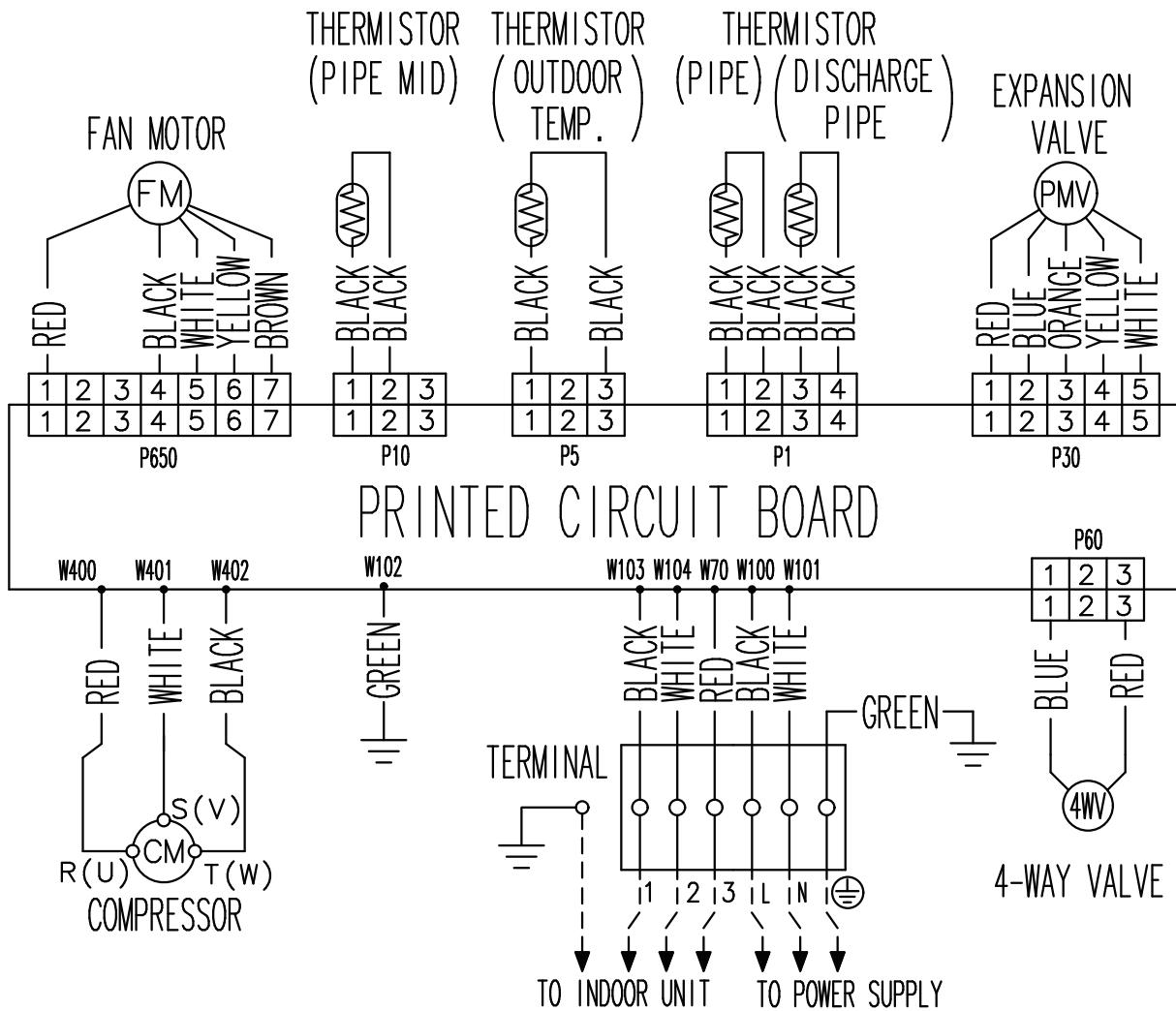
5. Wiring diagrams

5-1. Model: AOYG18LBCB



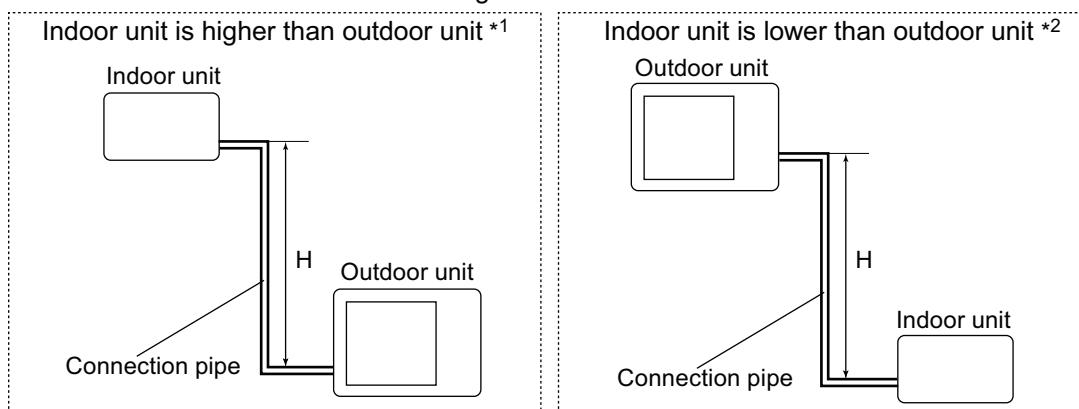
5-2. Model: AOYG24LBCB

OUTDOOR UNIT
AOYG18-24LBCB



6. Capacity compensation rate for pipe length and height difference

Height difference H



OUTDOOR UNIT
AOYG18-24LBCB

6-1. Model: AOYG18LBCB

NOTE: Values mentioned in the table are calculated based on the maximum capacity.

COOLING			Pipe length (m)					
			5	7.5	10	15	20	25
Height difference H (m)	Indoor unit is higher than outdoor unit *1	15	—	—	—	0.953	0.950	0.947
		10	—	—	0.983	0.968	0.966	0.962
		7.5	—	0.988	0.987	0.972	0.970	0.966
		5	0.992	0.992	0.991	0.976	0.974	0.970
	Indoor unit is lower than outdoor unit *2	0	1.000	1.000	0.999	0.984	0.982	0.978
		-5	1.000	1.000	0.999	0.984	0.982	0.978
		-7.5	—	1.000	0.999	0.984	0.982	0.978
		-10	—	—	0.999	0.984	0.982	0.978
		-15	—	—	—	0.984	0.982	0.978

HEATING			Pipe length (m)					
			5	7.5	10	15	20	25
Height difference H (m)	Indoor unit is higher than outdoor unit *1	15	—	—	—	0.920	0.894	0.867
		10	—	—	0.982	0.920	0.894	0.867
		7.5	—	1.000	0.982	0.920	0.894	0.867
		5	1.000	1.000	0.982	0.920	0.894	0.867
	Indoor unit is lower than outdoor unit *2	0	1.000	1.000	0.982	0.920	0.894	0.867
		-5	0.995	0.995	0.977	0.916	0.889	0.862
		-7.5	—	0.993	0.975	0.913	0.887	0.860
		-10	—	—	0.972	0.911	0.885	0.858
		-15	—	—	—	0.902	0.876	0.849

6-2. Model: AOYG24LBCB

NOTE: Values mentioned in the table are calculated based on the maximum capacity.

COOLING			Pipe length (m)							
			5	7.5	10	15	20	25	30	
Height difference H (m)	Indoor unit is higher than outdoor unit *1	20	—	—	—	—	0.963	0.961	0.959	
		10	—	—	0.984	0.981	0.979	0.977	0.975	
		7.5	—	0.988	0.988	0.985	0.983	0.981	0.979	
		5	0.992	0.992	0.992	0.989	0.987	0.985	0.983	
	Indoor unit is lower than outdoor unit *2	0	1.000	1.000	1.000	0.997	0.995	0.993	0.991	
Height difference H (m)		-5	1.000	1.000	1.000	0.997	0.995	0.993	0.991	
		-7.5	—	1.000	1.000	0.997	0.995	0.993	0.991	
		-10	—	—	1.000	0.997	0.995	0.993	0.991	
		-20	—	—	—	—	0.995	0.993	0.991	

HEATING			Pipe length (m)							
			5	7.5	10	15	20	25	30	
Height difference H (m)	Indoor unit is higher than outdoor unit *1	20	—	—	—	—	0.927	0.893	0.863	
		10	—	—	0.992	0.952	0.927	0.893	0.863	
		7.5	—	—	0.992	0.952	0.927	0.893	0.863	
		5	1.000	—	0.992	0.952	0.927	0.893	0.863	
	Indoor unit is lower than outdoor unit *2	0	1.000	1.000	0.992	0.952	0.927	0.893	0.863	
Height difference H (m)		-5	0.995	0.995	0.987	0.947	0.922	0.888	0.859	
		-7.5	—	0.993	0.984	0.945	0.920	0.886	0.857	
		-10	—	—	0.982	0.943	0.917	0.884	0.855	
		-20	—	—	—	—	0.908	0.875	0.846	

7. Additional charge calculation

7-1. Model: AOYG18LBCB

Refrigerant type	R410A		
Refrigerant amount	g	1,200	

■ Refrigerant charge

Total pipe length	m	15 or less	20	25 (Max.)	20 g/m
Additional charge	g	0	100	200	

7-2. Model: AOYG24LBCB

Refrigerant type	R410A		
Refrigerant amount	g	1,500	

■ Refrigerant charge

Total pipe length	m	15 or less	20	25	30 (Max.)	20 g/m
Additional charge	g	0	100	200	300	

8. Airflow

8-1. Model: AOYG18LBCB

● Cooling

m ³ /h	2,380
l/s	661
CFM	1,401

● Heating

m ³ /h	2,080
l/s	578
CFM	1,224

8-2. Model: AOYG24LBCB

● Cooling

m ³ /h	2,850
l/s	792
CFM	1,677

● Heating

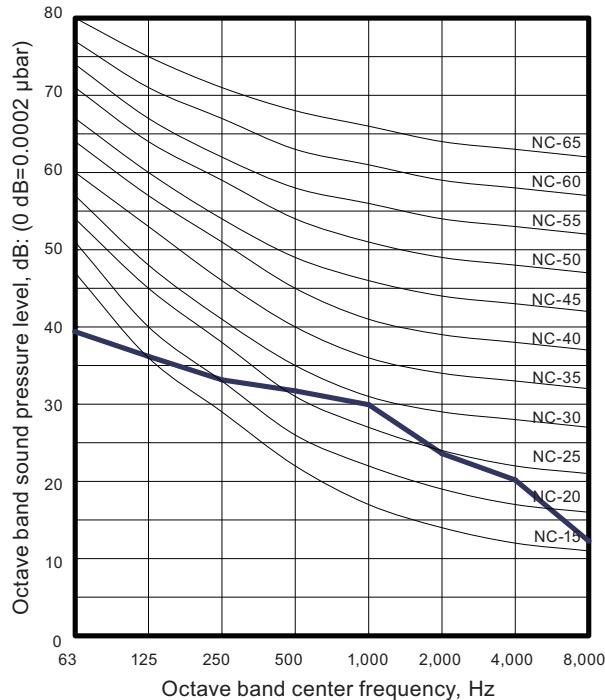
m ³ /h	2,700
l/s	750
CFM	1,589

9. Operation noise (sound pressure)

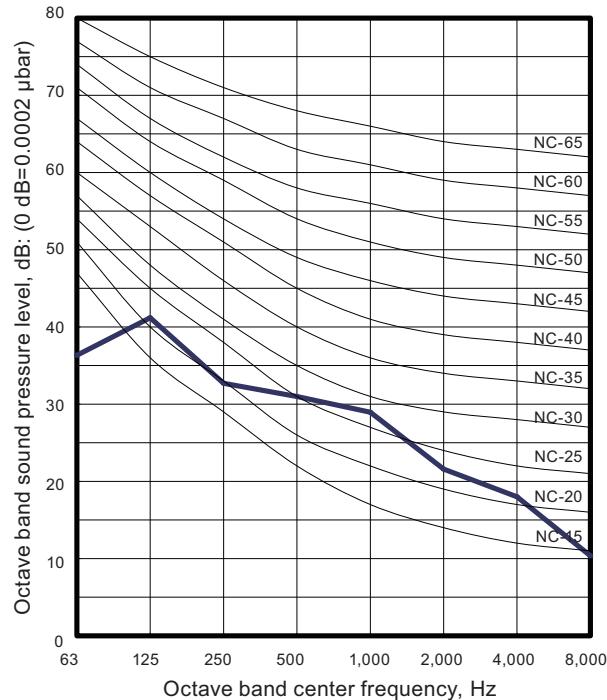
9-1. Noise level curve

■ Model: AOYG18LBCB

● Cooling



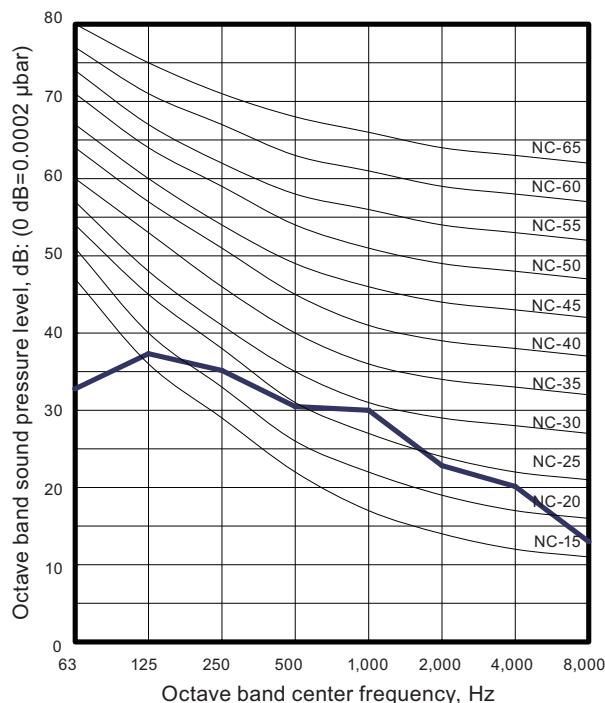
● Heating



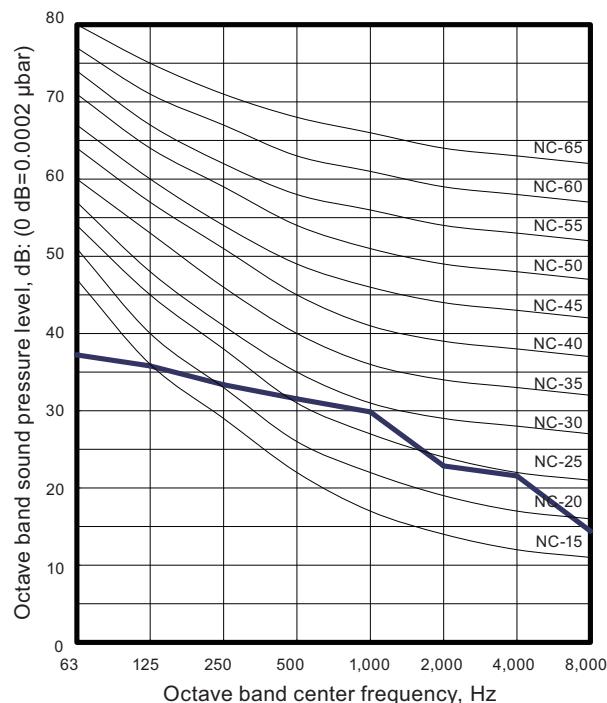
OUTDOOR UNIT
AOYG18-24LBCB

■ Model: AOYG24LBCB

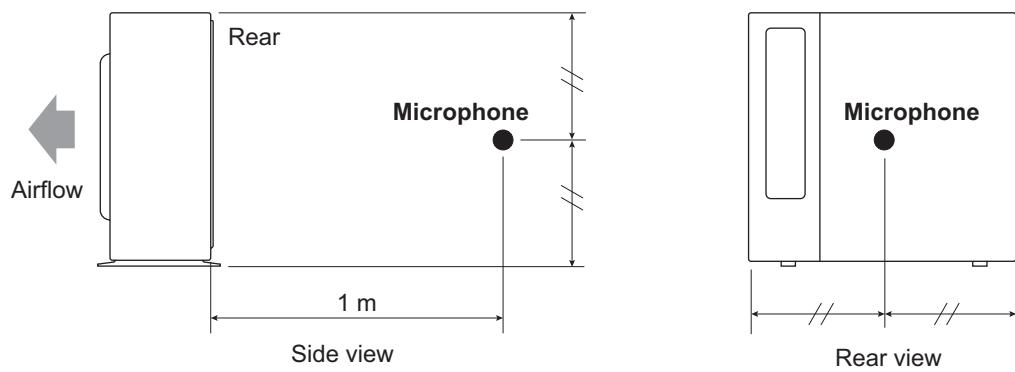
● Cooling



● Heating



9-2. Sound level check point



NOTE: Detailed shape of the actual outdoor unit might be slightly different from the one illustrated above.

10. Electrical characteristics

Model name			AOYG18LBCB	AOYG24LBCB
Power supply	Voltage	V	230 ~	
	Frequency	Hz	50	
Max operating current *1		A	13.5	15.7
Starting current		A	7.4	9.9
Wiring spec. *2	Circuit breaker current	A	20	
	Power cable	mm ²	2.5	
	Connection cable *3	Cross-sectional area Limited wiring length	mm ²	1.5
		m	26	31

*1: Maximum operating current is the total current of the indoor unit and the outdoor unit.

*2: Selected sample based on Japan Electrotechnical Standards and Codes Committee E0005. As the regulations of wire size and circuit breaker differ in each country or region, select appropriate devices complied to the regional standard.

*3: Limit voltage drop to less than 2%. If voltage drop is 2% or more, increase cable conductor size.

11. Safety devices

Type of protection	Protection form	Model	
		AOYG18LBCB	AOYG24LBCB
Circuit protection	Current fuse (Main PCB)	250 V, 25 A	250 V, 25 A
		250 V, 5 A	250 V, 5 A
		250 V, 3.15 A	250 V, 3.15 A
Fan motor protection	Terminal protection program	Activate 125±10 °C Fan motor stop	125±10 °C Fan motor stop
		Reset 120±10 °C Fan motor restart	120±10 °C Fan motor restart
Compressor protection	Terminal protection program (Discharge temp.)	Activate 115 °C Compressor stop	110 °C Compressor stop
		Reset After 3 minutes Compressor restart	After 3 minutes Compressor restart

12. Accessories

12-1. Models: AOYG18LBCB and AOYG24LBCB

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

OUTDOOR UNIT
AOYG18-24LBCB