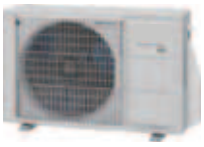
FUJITSU

REFRIGERANT R32
INVERTER

AIR CONDITIONER

Wall mounted type

DESIGN & TECHNICAL MANUAL

INDOOR		
	ASYG18KLCA ASYG24KLCA	
OUTDOOR		
	AOYG18KLTA	AOYG24KLTA

FUJITSU GENERAL LIMITED

DR_AS069EF_03
2018.03.28

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

WALL MOUNTED TYPE:
ASYG18KLCA
ASYG24KLCA

WALL MOUNTED
ASYG18, 24KLCA

1. Specifications

Type					Wall mounted	
					Inverter heat pump	
Model name					ASYG18KLCA	ASYG24KLCA
Power supply					230 V ~ 50 Hz	
Available voltage range					198—264 V	
Capacity		Cooling	Rated	kW	5.20	7.10
				Btu/h	17,700	24,200
			Min.—Max.	kW	0.9—5.5	0.9—7.7
				Btu/h	3,000—18,700	3,000—26,200
		Heating	Rated	kW	6.30	8.00
				Btu/h	21,400	27,200
			Min.—Max.	kW	0.6—7.6	0.9—9.0
				Btu/h	2,000—22,500	3,000—30,700
Input power		Cooling	Rated	kW	1.685	2.42
			Min.—Max.		0.14—2.09	0.18—2.74
		Heating	Rated		1.800	2.225
			Min.—Max.		0.10—1.93	0.15—2.66
		Fan	HIGH	W	32	57
			MED		25	34
			LOW		16	17
			QUIET		10	10
Current		Cooling	Rated	A	7.5	10.9
		Heating			8.0	10.4
EER		Cooling		kW/kW	3.09	2.93
COP		Heating			3.50	3.60
Sensible capacity		Cooling		kW	3.93	4.92
Power factor		Cooling		%	98.0	
		Heating			98.0	
Moisture removal				L/h (pints/h)	1.9 (3.3)	3.1 (5.5)
Maximum operating current *1		Cooling		A	9.5	13.5
		Heating			13.5	17.5
Fan	Airflow rate	Cooling	HIGH	m^3/h	865	1,040
			MED		780	880
			LOW		665	685
			QUIET		555	555
		Heating	HIGH		995	1,040
			MED		810	800
			LOW		700	680
			QUIET		590	580
	Type × Q'ty				Cross flow fan × 1	
	Motor output			W	61	
Sound pressure level *2		Cooling	HIGH	dB (A)	47	51
			MED		44	45
			LOW		40	38
			QUIET		35	33
		Heating	HIGH		50	52
			MED		45	45
			LOW		41	41
			QUIET		37	37
Heat exchanger type		Dimensions (H × W × D)		mm	Main: 384 × 630 × 20.0 Sub: 126 × 630 × 13.30	Main: 384 × 630 × 20.0 Sub1: 84 × 630 × 13.30 Sub2: 126 × 630 × 13.30
		Fin pitch			Man: 1.1, Sub: 1.4	Man: 1.1, Sub1: 1.4, Sub2: 1.4
		Rows × Stages			Main: 2 × 24, Sub: 1 × 6	Main: 2 × 24, Sub1: 1 × 4, Sub2: 1 × 6
		Pipe type			Copper tube	
		Fin type			Aluminum	
Enclosure		Material			Polystyrene	
		Color			White Approximate color of Munsell N 9.25/	
Dimensions (H × W × D)		Net		mm	293 × 790 × 249	
		Gross			320 × 840 × 375	
Weight		Net		kg	9.5	10.0
		Gross			12.0	12.5
Connection pipe		Size	Liquid	mm (in)	Ø 6.35 (Ø 1/4)	Ø 6.35 (Ø 1/4)
			Gas		Ø 9.52 (Ø 3/8)	Ø 12.70 (Ø 1/2)
		Method			Flare	
Drain hose		Material			PP+HDPE	
		Size		mm	Ø 13.8 (I.D.), Ø 15.8 to Ø 16.7 (O.D.)	
Operation range		Cooling		°C	18 to 32	
				%RH	80 or less	
		Heating		°C	16 to 30	
Remote controller type					Wireless	

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 is maximum value when operated within the operation range.
- *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.

WALL MOUNTED
ASYG18, 24KLCA

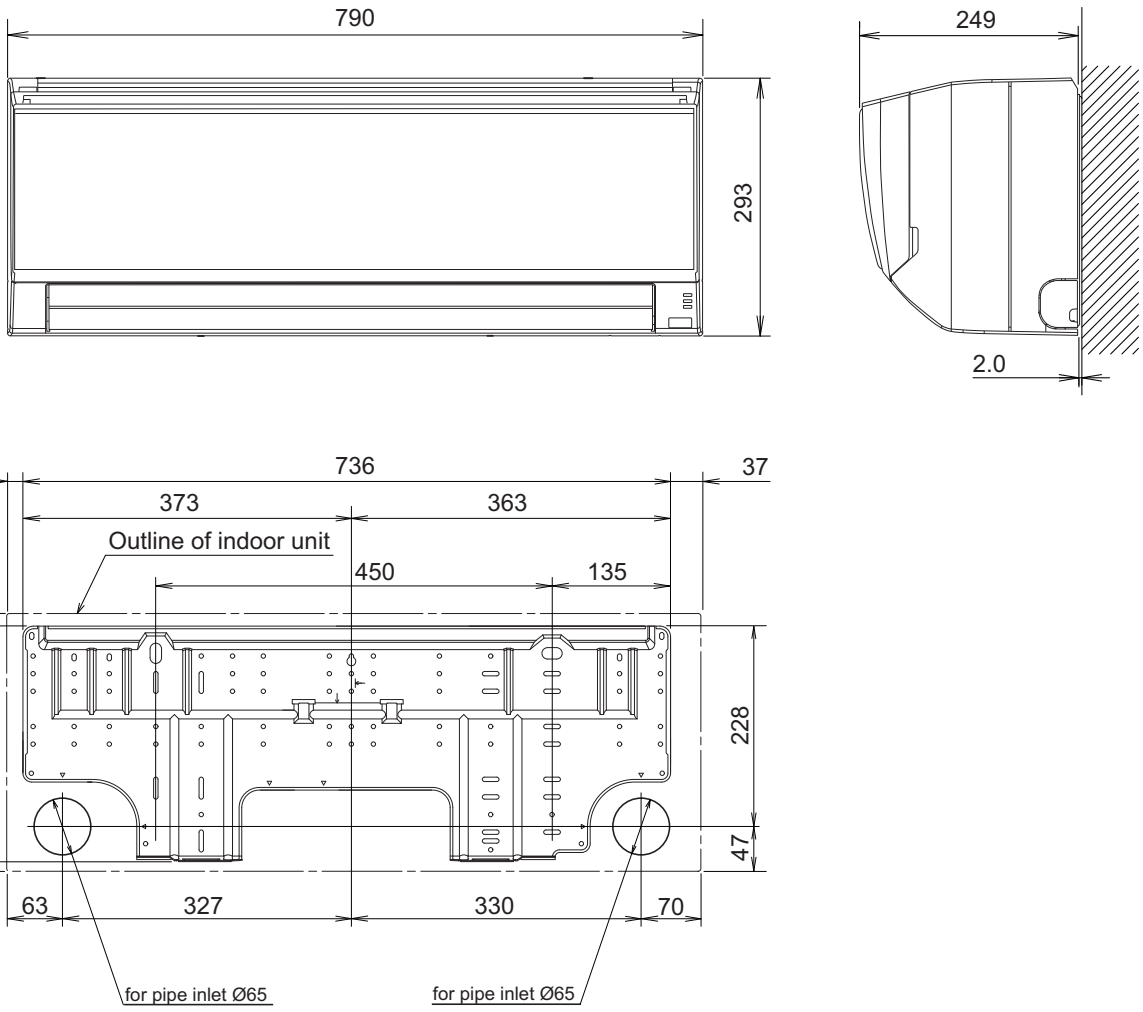
Model name				ASYG18KLCA	ASYG24KLCA
Energy efficiency class	Cooling			A^{++}	
	Heating (Average)			A^{+}	
Pdesign	Cooling		kW	5.2 (35 °C)	7.1 (35 °C)
	Heating (Average)			4.8 (-10 °C)	7.1 (-10 °C)
SEER	Cooling		kWh/kWh	7.20	7.10
SCOP	Heating (Average)			4.30	4.00
Annual energy consumption	QCE		kWh/a	253	350
	QHE (Average)			1,563	2,485
Sound power level	Cooling	HIGH	dB (A)	60	64
	Heating			65	65

WALL MOUNTED
ASYG18, 24KLCA

2. Dimensions

2-1. Models: ASYG18KLCA and ASYG24KLCA

Unit: mm

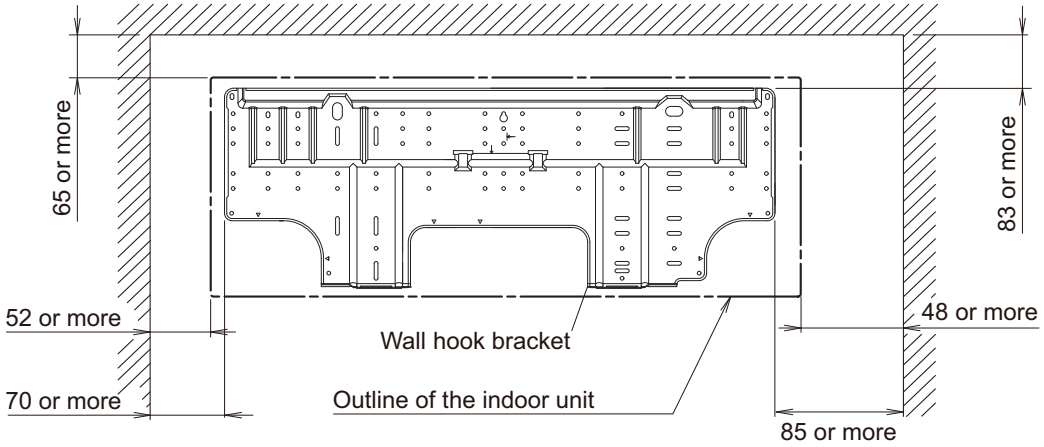


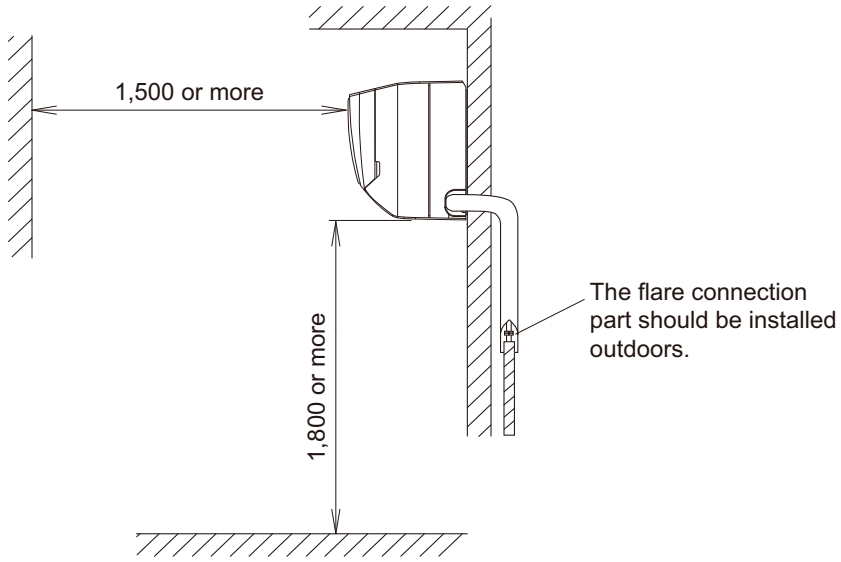
WALL MOUNTED
ASYG18, 24KLCA

■ Installation space requirement

Provide sufficient installation space for product safety.

Unit: mm

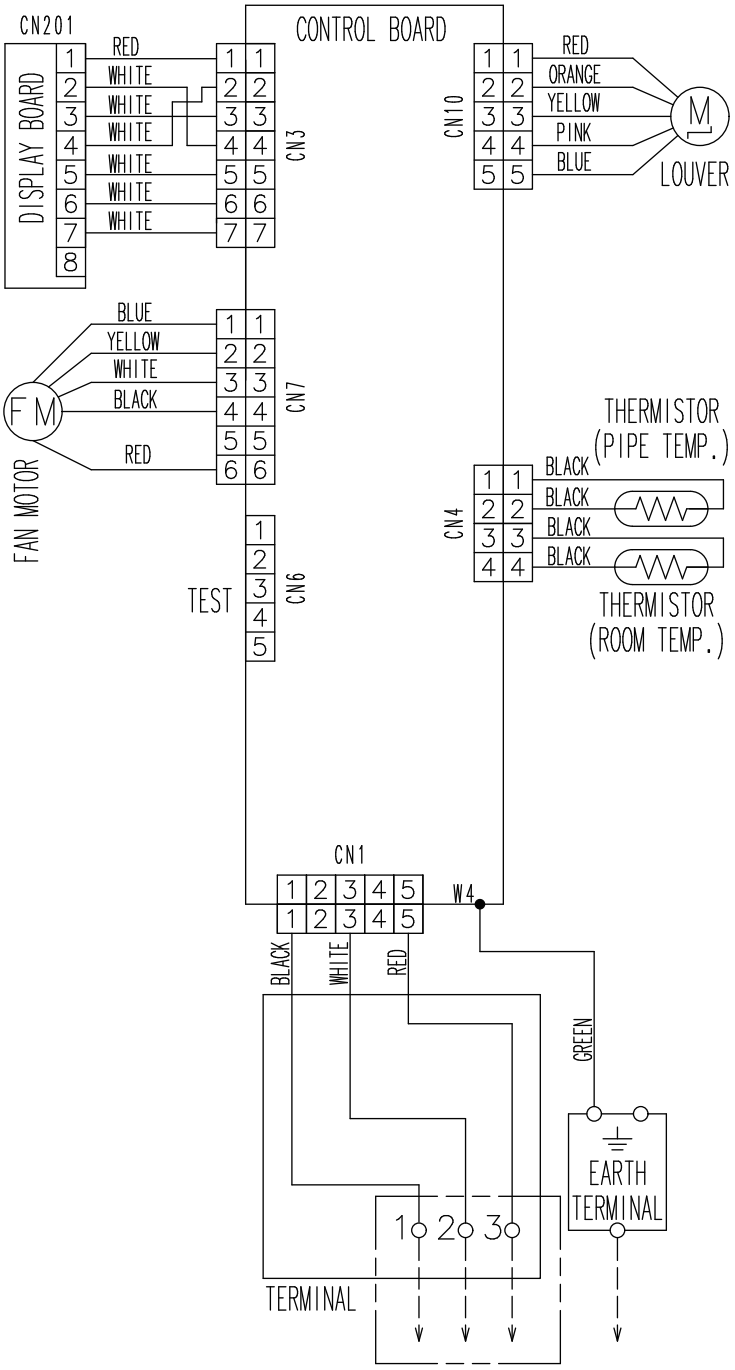




WALL MOUNTED
ASYG18, 24KLCA

3. Wiring diagrams

3-1. Models: ASYG18KLCA and ASYG24KLCA



WALL MOUNTED
ASYG18, 24KLCA

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: ASYG18KLCA

AFR	m^3/h	865

		Indoor temperature																				
	°CDB	18			21			23			25			27			29			32		
	°CWB	12			15			16			18			19			21			23		
Outdoor temperature	°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		
	-10	3.20	2.79	1.99	3.51	3.05	2.01	3.61	3.15	2.03	3.84	3.35	2.05	3.96	3.45	2.07	4.22	3.68	2.09	4.50	3.92	2.11
	-5	2.94	2.69	1.99	3.22	2.94	2.01	3.31	3.03	2.03	3.52	3.22	2.05	3.63	3.32	2.07	3.87	3.54	2.09	4.13	3.77	2.11
	0	2.67	2.59	1.99	2.93	2.83	2.01	3.02	2.91	2.03	3.21	3.10	2.05	3.31	3.20	2.07	3.52	3.41	2.09	3.76	3.63	2.11
	5	3.49	2.96	1.95	3.82	3.24	1.97	3.93	3.34	1.99	4.18	3.55	2.02	4.31	3.66	2.04	4.60	3.90	2.06	4.90	4.16	2.08
	10	3.24	2.85	1.98	3.54	3.11	2.00	3.65	3.21	2.02	3.88	3.41	2.04	4.00	3.52	2.06	4.26	3.75	2.08	4.55	4.00	2.10
	15	4.80	3.47	1.19	5.25	3.80	1.20	5.41	3.91	1.22	5.75	4.16	1.23	5.93	4.29	1.24	6.32	4.57	1.25	6.74	4.87	1.26
	20	4.61	3.39	1.34	5.05	3.71	1.36	5.20	3.82	1.37	5.53	4.06	1.39	5.70	4.19	1.40	6.08	4.46	1.41	6.48	4.76	1.43
	25	4.58	3.36	1.33	5.01	3.68	1.35	5.16	3.79	1.36	5.49	4.03	1.37	5.66	4.16	1.39	6.03	4.43	1.40	6.43	4.72	1.41
	30	4.39	3.27	1.47	4.81	3.58	1.49	4.95	3.69	1.51	5.27	3.92	1.52	5.43	4.04	1.54	5.78	4.31	1.55	6.17	4.59	1.57
	35	4.21	3.18	1.62	4.60	3.48	1.63	4.74	3.59	1.65	5.04	3.81	1.67	5.20	3.93	1.69	5.54	4.19	1.70	5.91	4.46	1.72
	40	3.55	2.98	1.34	3.88	3.26	1.35	4.00	3.36	1.37	4.25	3.57	1.38	4.39	3.68	1.39	4.67	3.92	1.41	4.98	4.18	1.42
	46	2.47	2.47	0.98	2.70	2.70	0.99	2.78	2.78	1.00	2.96	2.96	1.01	3.05	3.05	1.02	3.25	3.25	1.03	3.46	3.46	1.04

■ Model: ASYG24KLCA

AFR	m^3/h	1,040

		Indoor temperature																				
	°CDB	18			21			23			25			27			29			32		
	°CWB	12			15			16			18			19			21			23		
Outdoor temperature	°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		
	-10	6.01	4.00	2.32	6.58	4.38	2.34	6.78	4.51	2.37	7.21	4.80	2.39	7.43	4.94	2.41	7.92	5.27	2.44	8.44	5.62	2.46
	-5	5.57	3.82	2.48	6.10	4.18	2.50	6.29	4.30	2.53	6.69	4.58	2.55	6.89	4.72	2.58	7.34	5.03	2.61	7.83	5.36	2.63
	0	5.14	3.64	2.64	5.62	3.98	2.66	5.79	4.10	2.69	6.16	4.36	2.72	6.35	4.49	2.75	6.77	4.79	2.77	7.21	5.11	2.80
	5	5.96	4.02	2.31	6.53	4.40	2.34	6.73	4.54	2.36	7.15	4.83	2.38	7.37	4.97	2.41	7.86	5.30	2.43	8.38	5.65	2.46
	10	5.63	3.95	2.46	6.16	4.32	2.48	6.35	4.45	2.51	6.75	4.73	2.53	6.96	4.88	2.56	7.42	5.20	2.59	7.91	5.54	2.61
	15	6.65	4.40	1.61	7.27	4.81	1.62	7.50	4.96	1.64	7.97	5.27	1.66	8.22	5.43	1.67	8.76	5.79	1.69	9.33	6.17	1.71
	20	6.45	4.29	1.81	7.06	4.69	1.83	7.28	4.83	1.85	7.74	5.14	1.87	7.98	5.30	1.89	8.50	5.65	1.90	9.06	6.02	1.92
	25	6.31	4.23	1.92	6.91	4.62	1.94	7.12	4.76	1.96	7.57	5.07	1.98	7.81	5.22	2.00	8.32	5.57	2.02	8.87	5.93	2.04
	30	6.03	4.10	2.12	6.60	4.49	2.14	6.80	4.63	2.17	7.23	4.92	2.19	7.45	5.07	2.21	7.94	5.40	2.23	8.47	5.76	2.25
	35	5.74	3.98	2.32	6.28	4.36	2.35	6.48	4.49	2.37	6.89	4.77	2.40	7.10	4.92	2.42	7.57	5.24	2.44	8.07	5.59	2.47
	40	5.33	3.85	2.09	5.84	4.21	2.11	6.02	4.34	2.14	6.40	4.61	2.16	6.59	4.75	2.18	7.03	5.07	2.20	7.49	5.40	2.22
	46	3.98	3.31	1.59	4.35	3.62	1.61	4.49	3.73	1.63	4.77	3.97	1.64	4.92	4.09	1.66	5.24	4.36	1.68	5.59	4.65	1.69

WALL MOUNTED
ASYG18, 24KLCA

4-2. Heating capacity

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

■ Model: ASYG18KLCA

AFR	m^3/h	995

			Indoor temperature									
			16		18		20		22		24	
	°CDB	°CWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kW		kW		kW		kW		kW	
Outdoor temperature	-15	-16	4.29	1.49	4.18	1.52	4.07	1.55	3.96	1.58	3.85	1.61
	-10	-11	4.97	1.60	4.84	1.63	4.71	1.65	4.58	1.70	4.45	1.73
	-5	-7	5.74	1.73	5.59	1.77	5.44	1.77	5.29	1.84	5.14	1.87
	0	-2	6.67	1.88	6.49	1.92	6.32	1.93	6.14	2.00	5.97	2.04
	5	3	7.41	2.01	7.21	2.05	7.02	2.09	6.83	2.13	6.63	2.17
	7	6	8.09	2.09	7.88	2.13	7.67	2.18	7.46	2.22	7.25	2.26
	10	8	8.47	2.17	8.25	2.21	8.03	2.24	7.81	2.31	7.59	2.35
	15	10	8.46	2.00	8.24	2.04	8.02	2.09	7.80	2.12	7.57	2.16
	20	15	7.85	1.56	7.64	1.59	7.44	1.63	7.23	1.66	7.03	1.69
	24	18	8.24	1.55	8.03	1.59	7.81	1.62	7.59	1.65	7.38	1.68

■ Model: ASYG24KLCA

AFR	m^3/h	1,040

			Indoor temperature									
			16		18		20		22		24	
	°CDB	°CWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kW		kW		kW		kW		kW	
Outdoor temperature	-15	-16	6.90	2.74	6.72	2.79	6.54	2.85	6.36	2.90	6.18	2.96
	-10	-11	7.98	3.08	7.77	3.14	7.56	3.14	7.35	3.27	7.14	3.33
	-5	-7	8.79	3.25	8.56	3.31	8.33	3.40	8.10	3.45	7.87	3.51
	0	-2	9.20	3.16	8.96	3.22	8.72	3.31	8.48	3.35	8.24	3.42
	5	3	9.53	2.89	9.28	2.95	9.03	3.01	8.78	3.07	8.53	3.13
	7	6	9.50	2.55	9.25	2.60	9.00	2.66	8.75	2.71	8.50	2.76
	10	8	9.54	2.45	9.29	2.50	9.04	2.59	8.79	2.60	8.54	2.65
	15	10	9.60	2.24	9.35	2.29	9.10	2.38	8.84	2.38	8.59	2.43
	20	15	9.66	2.04	9.41	2.08	9.16	2.17	8.90	2.16	8.65	2.20
	24	18	9.71	1.87	9.46	1.91	9.20	1.95	8.95	1.99	8.70	2.03

WALL MOUNTED
ASYG18, 24KLCA

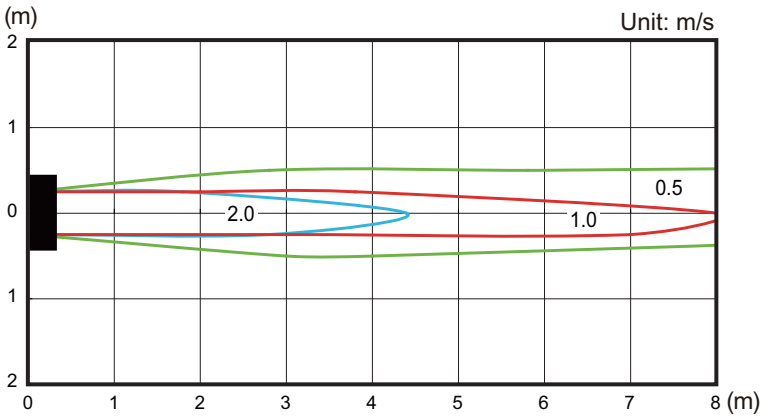
5. Fan performance

5-1. Air velocity distributions

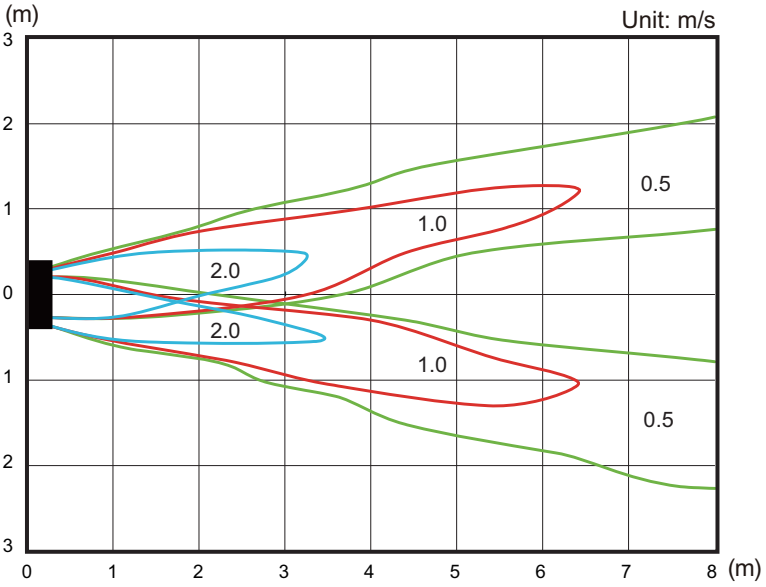
■ Model: ASYG18KLCA

Measuring conditions	Fan speed	Operation mode
	HIGH	FAN

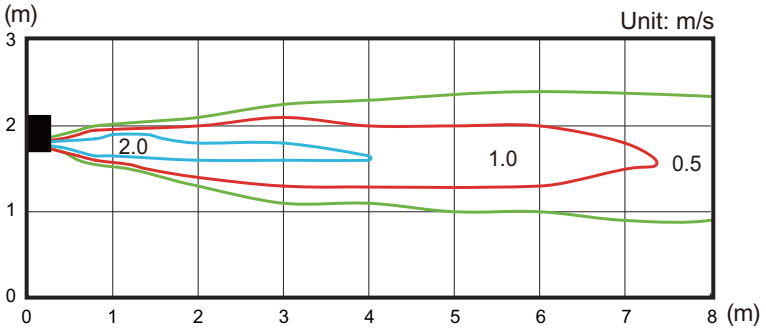
Top view
Vertical airflow direction louver: Up
Horizontal airflow direction louver: Center



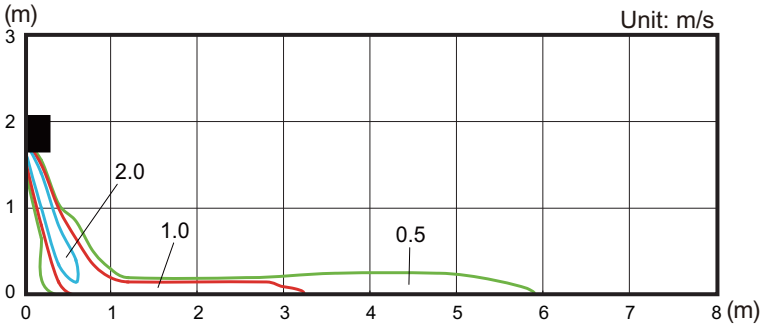
Top view
Vertical airflow direction louver: Up
Horizontal airflow direction louver: Left & Right



Side view
Vertical airflow direction louver: Up
Horizontal airflow direction louver: Center



Side view
Vertical airflow direction louver: Down
Horizontal airflow direction louver: Center

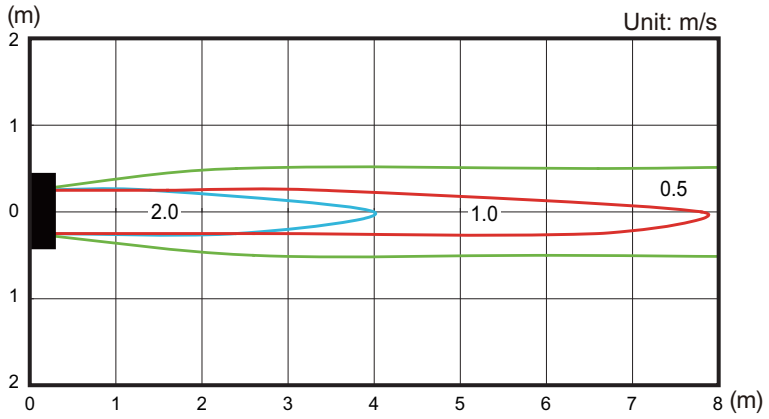


WALL MOUNTED
ASYG18, 24KLCA

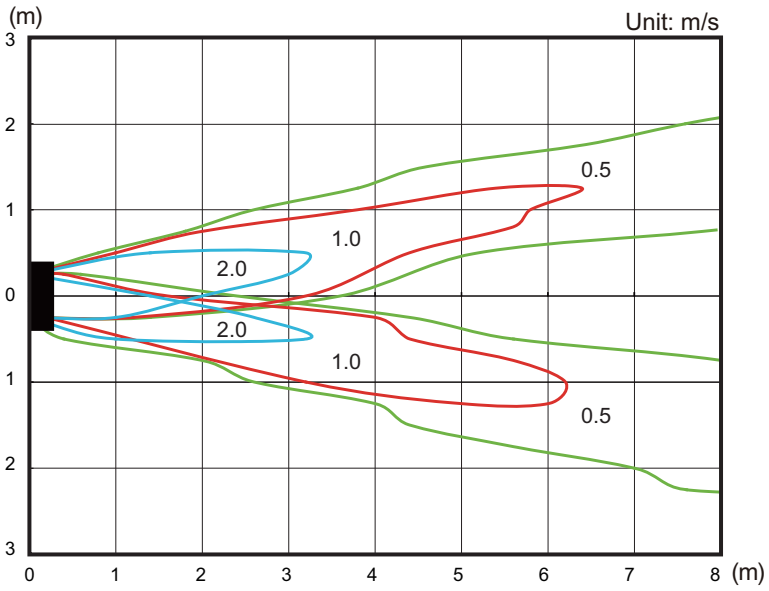
■ Model: ASYG24KLCA

Measuring conditions	Fan speed	Operation mode
	HIGH	FAN

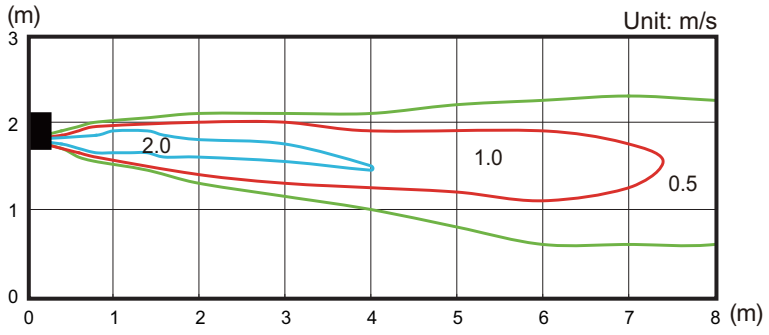
Top view
Vertical airflow direction louver: Up
Horizontal airflow direction louver: Center



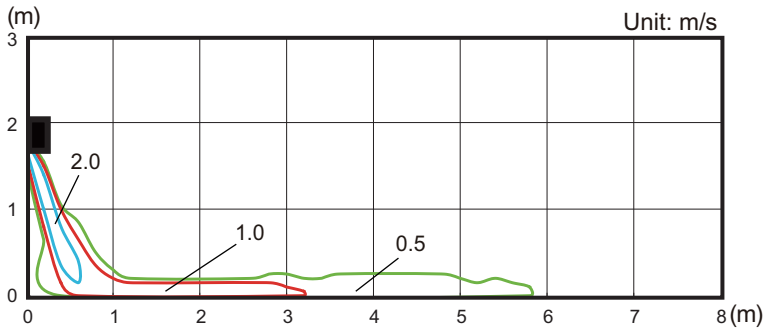
Top view
Vertical airflow direction louver: Up
Horizontal airflow direction louver: Left & Right



Side view
Vertical airflow direction louver: Up
Horizontal airflow direction louver: Center



Side view
Vertical airflow direction louver: Down
Horizontal airflow direction louver: Center



WALL MOUNTED
ASYG18, 24KLCA

5-2. Airflow

■ Model: ASYG18KLCA

● Cooling

Fan speed	Airflow	
HIGH	m^3/h	865
	l/s	240
	CFM	509
MED	m^3/h	780
	l/s	217
	CFM	459
LOW	m^3/h	665
	l/s	185
	CFM	391
QUIET	m^3/h	555
	l/s	154
	CFM	327

● Heating

Fan speed	Airflow	
HIGH	m^3/h	995
	l/s	276
	CFM	586
MED	m^3/h	810
	l/s	225
	CFM	477
LOW	m^3/h	700
	l/s	194
	CFM	412
QUIET	m^3/h	590
	l/s	164
	CFM	347

WALL MOUNTED
ASYG18, 24KLCA

■ Model: ASYG24KLCA

● Cooling

Fan speed	Airflow	
HIGH	m^3/h	1,040
	l/s	288
	CFM	609
MED	m^3/h	880
	l/s	244
	CFM	518
LOW	m^3/h	685
	l/s	190
	CFM	403
QUIET	m^3/h	555
	l/s	154
	CFM	327

● Heating

Fan speed	Airflow	
HIGH	m^3/h	1,040
	l/s	288
	CFM	609
MED	m^3/h	800
	l/s	222
	CFM	471
LOW	m^3/h	680
	l/s	189
	CFM	400
QUIET	m^3/h	580
	l/s	161
	CFM	341

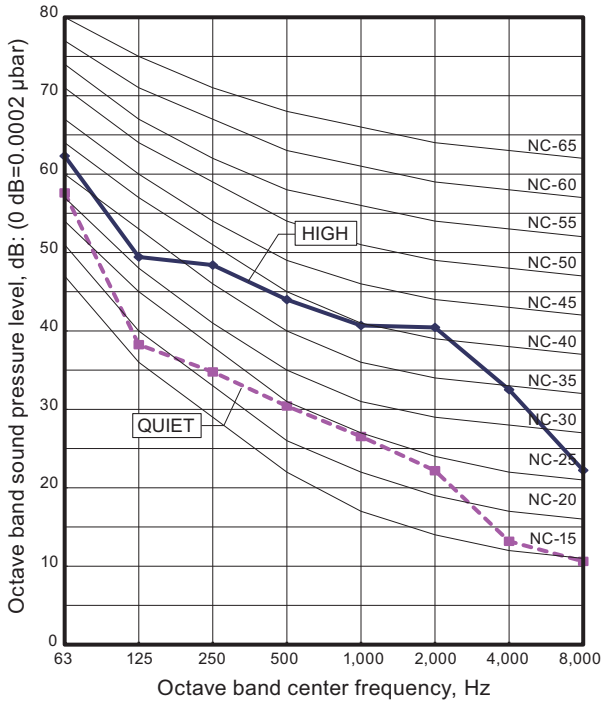
WALL MOUNTED
ASYG18, 24KLCA

6. Operation noise (sound pressure)

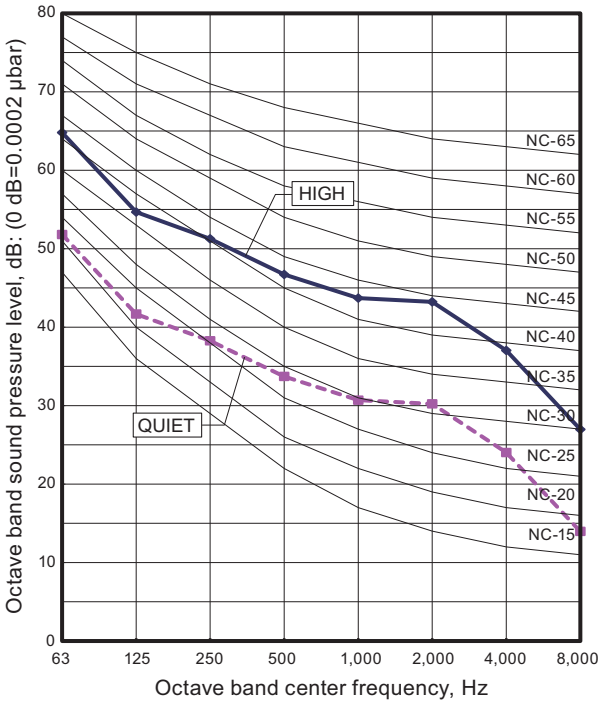
6-1. Noise level curve

■ Model: ASYG18KLCA

● Cooling

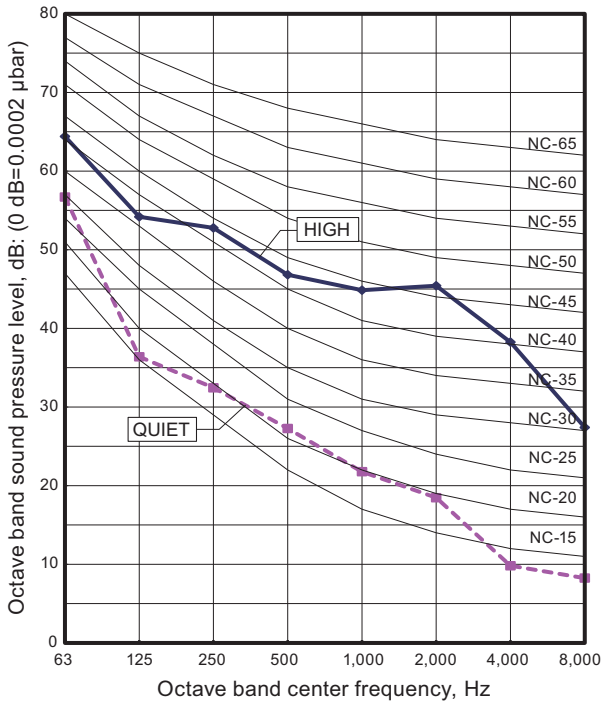


● Heating

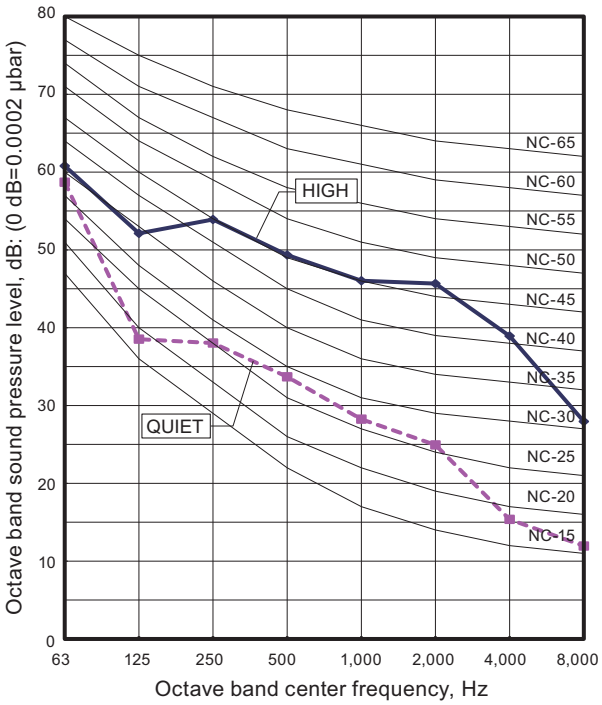


■ Model: ASYG24KLCA

● Cooling

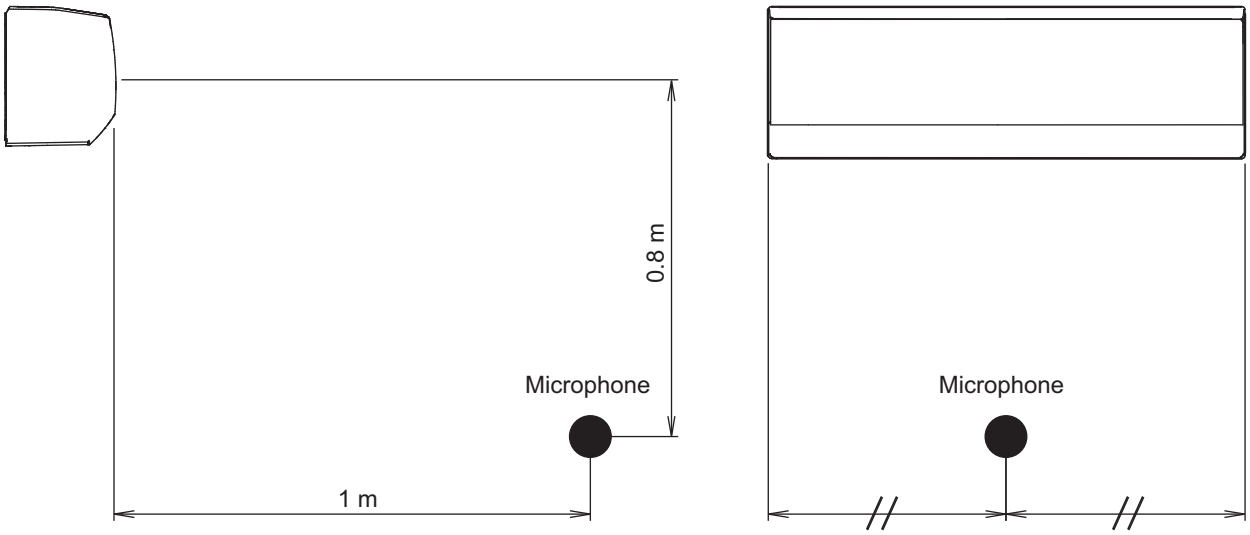


● Heating



WALL MOUNTED
ASYG18, 24KLCA

6-2. Sound level check point



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

WALL MOUNTED
ASYG18, 24KLCA

7. Safety devices

Type of protection	Protection form		Model	
			ASYG18KLCA	ASYG24KLCA
Circuit protection	Current fuse (PCB*)		250 V, 3.15 A	
Fan motor protection	Thermistor protection	Activate	150±15 °C Fan motor stop	
		Reset	120±15 °C Fan motor restart	

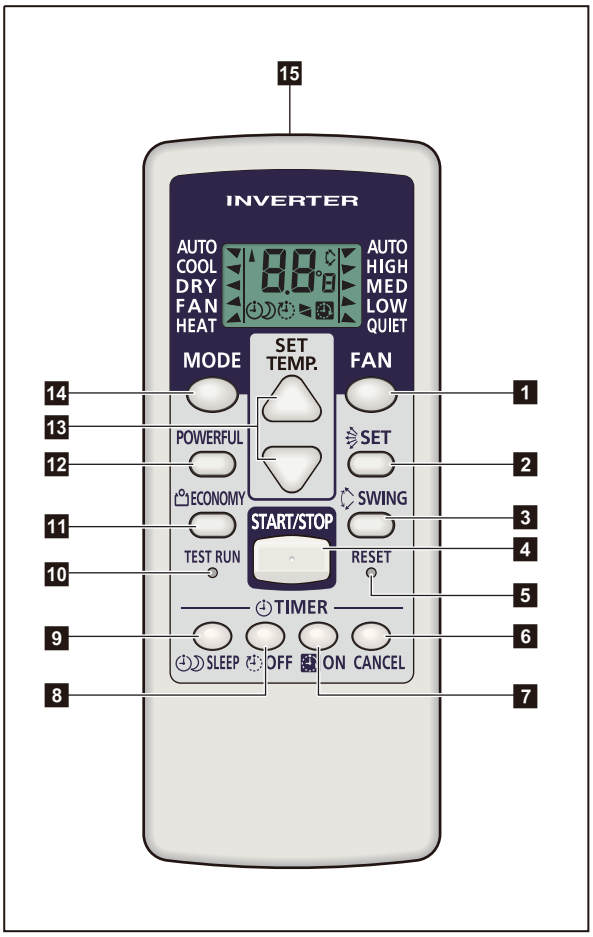
*PCB: Printed Circuit Board

WALL MOUNTED
ASYG18, 24KLCA

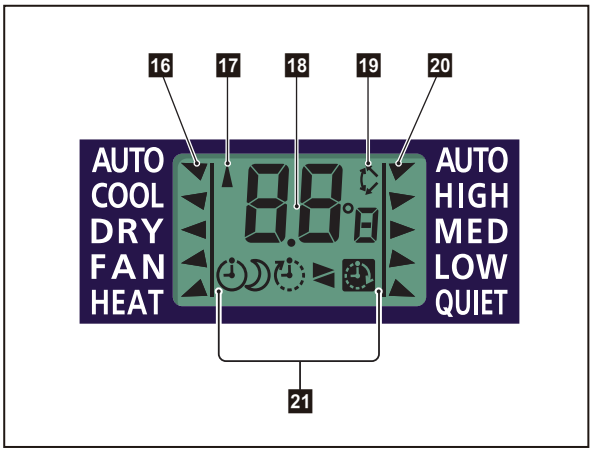
8. Remote controller

8-1. Wireless remote controller

■ Overview



Display panel



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

1 FAN button

2 SET button

3 SWING button

4 START/STOP button

5 RESET button

6 TIMER CANCEL button

7 ON TIMER button

8 OFF TIMER button

9 SLEEP TIMER button

10 TEST RUN button

- Used only when installing the air conditioner, and should not be used under normal conditions, as it will cause the indoor unit's thermostat malfunction.
- If this button is pressed during normal operation, the indoor unit will switch to test operation mode, and the operation indicator lamp and the timer indicator lamp on the indoor unit will begin to flash simultaneously.
- To stop the test operation mode, press the START/STOP button. Then, the air conditioner stops the operation.

11 ECONOMY button

12 POWERFUL 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 Operating mode indicator

17 Signal transmit indicator

18 Temperature and time indicator

- Displays set temperature.
- In timer setting, it displays the timer time. After finishing the timer setting, set temperature will reappear.

19 Swing indicator

20 Fan speed indicator

21 Timer mode indicator

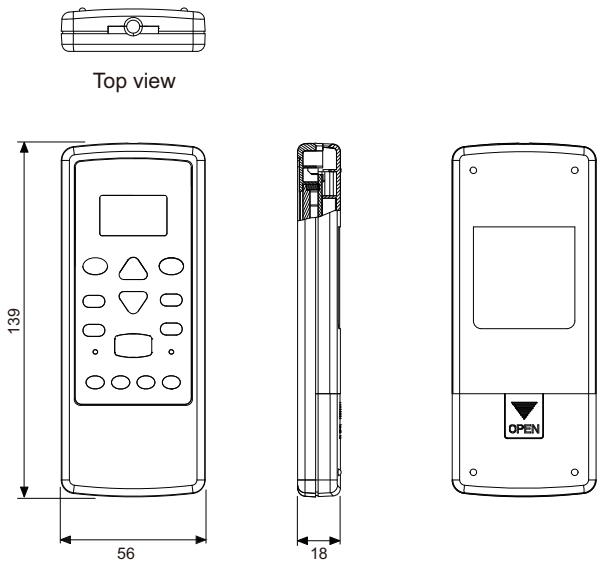
- Sleep timer
- OFF timer
- OFF-ON timer
- ON-OFF timer
- ON timer

WALL MOUNTED
ASYG18, 24KLCA

■ Specifications

● Controller

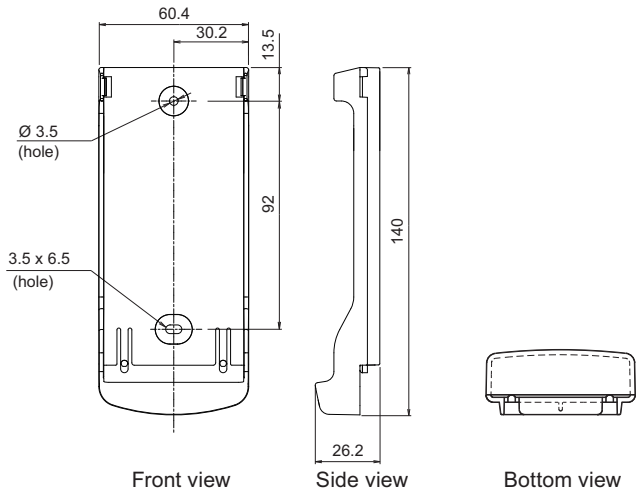
Unit: mm



Size (H × W × D)	mm	139 × 56 × 18
Weight	g	70 (without batteries)

● Holder

Unit: mm



Size (H × W × D)	mm	140 × 60.4 × 26.2
Weight	g	25

WALL MOUNTED
ASYG18, 24KLCA

9. 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.

9-1. 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.

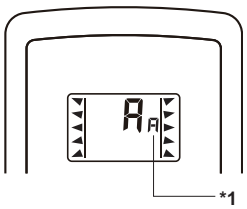
STEP 1: Setting the remote controller custom code

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 22.

1. Press the SET TEMP. (▲) (▼) buttons to change the custom code between A →b →C →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 MODE button to accept the custom code, and proceed to **STEP 2**.



***1:** Small A is displayed on the right of the custom code during the function setting.

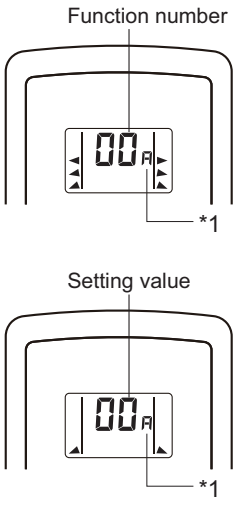
NOTES:

- 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 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 (A →b →C →d) until you find the code that operates the air conditioner.

WALL MOUNTED
ASYG18, 24KLCA

STEP 2: Selecting the function number and setting value

1. Press the SET TEMP. (▲) (▼) 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. (▲) (▼) buttons to select the setting value. To switch between the left and right digits, press the MODE button.
4. Press the SLEEP button, then after you hear the beep emitted from the indoor unit, the START/STOP button in the order 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.



***1:** Small A is displayed on the right of the custom code during the function setting.

⚠ CAUTION

After disconnect 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.

WALL MOUNTED
ASYG18, 24KLCA

■ 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)	30/31	Room temperature control for indoor unit sensor
3)	40	Auto restart
4)	44	Remote controller custom code
5)	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 (400 hours)	
	01	Long interval (1,000 hours)	
	02	Short interval (200 hours)	
	03	No indication	♦

2) Room temperature control for indoor unit sensor

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

The temperature correction values show the difference from the Standard setting "00" (manufacturer's recommended value).

Function number		Setting value	Setting description		Factory setting
30 (For cooling)	31 (For heating)	00	Standard setting		♦
		01	No correction 0.0 °C		
		02	-0.5 °C	More cooling Less heating	
		03	-1.0 °C		
		04	-1.5 °C		
		05	-2.0 °C		
		06	-2.5 °C		
		07	-3.0 °C		
		08	-3.5 °C		
		09	-4.0 °C		
		10	+0.5 °C	Less cooling More heating	
		11	+1.0 °C		
		12	+1.5 °C		
		13	+2.0 °C		
		14	+2.5 °C		
		15	+3.0 °C		
		16	+3.5 °C		
		17	+4.0 °C		

WALL MOUNTED
ASYG18, 24KLCA

3) 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.

4) 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	

5) 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.

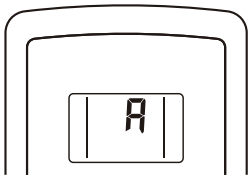
WALL MOUNTED
ASYG18, 24KLCA

9-2. 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 MODE button for at least 5 seconds to display the current custom code. (Initially set to A.)



2. Press the SET TEMP. (▲ or ▼) button to change the custom code between A →b →C →d. Match the code on the display to the air conditioner custom code.
3. Press the MODE button again. The custom code will be changed.

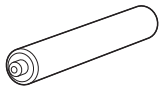
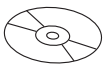
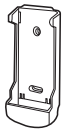
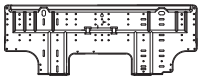
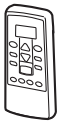
NOTES:

- 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 (A →b →C →d) until you find the code which operates the air conditioner.

WALL MOUNTED
ASYG18, 24KLCA

10. Accessories

10-1. Models: ASYG18KLCA and ASYG24KLCA

Part name	Exterior	Q'ty	Part name	Exterior	Q'ty
Operating manual		1	Battery		2
Operating manual (CD-ROM)		1	Remote controller holder		1
Installation manual		1	Cloth tape		1
Wall hook bracket		1	Tapping screw (large)		5
Remote controller		1	Tapping screw (small)		2

WALL MOUNTED
ASYG18, 24KLCA

Part 2. OUTDOOR UNIT

SINGLE TYPE:

AOYG18KLTA
AOYG24KLTA

1. Specifications

Type				Inverter heat pump	
Model name				**AOYG18KLTA**	**AOYG24KLTA**
Power supply				230 V ~ 50 Hz	
Available voltage range				198—264 V	
Starting current			A	8.0	10.9
Fan	Airflow rate	Cooling	m^3/h	1,830	2,885
		Heating		2,265	3,030
	Type × Q'ty			Propeller fan × 1	
	Motor output		W	23	49
Sound pressure level *1		Cooling	dB (A)	50	55
		Heating		56	57
Sound power level		Cooling	dB (A)	61	65
		Heating		66	67
Heat exchanger type		Dimensions (H × W × D)	mm	Main1: 504 × 881 × 18.19 Main2: 504 × 851 × 18.19	Main1: 588 × 881 × 18.19 Main2: 588 × 851 × 18.19
		Fin pitch		1.3	
		Rows × Stages		Main1: 1 × 24 Main2: 1 × 24	Main1: 1 × 28 Main2: 1 × 28
		Pipe type		Copper	
		Fin type	Type (Material)	Aluminum	
			Surface treatment	PC fin	
Compressor	Type × Q'ty			Twin rotary × 1	
	Motor output		W	900	1,060
Refrigerant		Type (Global warming potential)		R32 (675)	
		Charge	g	850	1,100
Refrigerant oil		Type		FW68S	RmM68AF
		Amount	cm^3	350	400
Enclosure		Material		Steel sheet	
		Color		Beige Approximate color of Munsell 10YR 7.5/1.0	
Dimensions (H × W × D)	Net		mm	542 × 799 × 290	632 × 799 × 290
	Gross			602 × 940 × 375	692 × 940 × 375
Weight	Net		kg	33	38
	Gross			36	42
Connection pipe	Size	Liquid	mm (in)	Ø 6.35 (Ø 1/4)	
		Gas		Ø 9.52 (Ø 3/8)	Ø 12.70 (Ø 1/2)
	Method			Flare	
	Pre-charge length		m	15	
	Max. length			25	30
	Max. height difference			20	25
Operation range		Cooling	°C	-10 to 46	
		Heating		-15 to 24	
Drain pipe		Material		PP+HDPE	
		Size	mm	Ø 13.0 (I. D.), Ø 16.0 to Ø 16.8 (O. D.)	

NOTES:

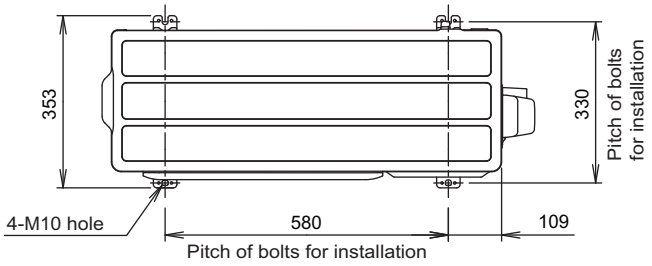
- Specifications are based on the following conditions:
  - Cooling: Indoor temperature of 27 °CDB/19 °CWB, and outdoor temperature of 35 °CDB/24 °CWB
  - Heating: Indoor temperature of 20 °CDB/15 °CWB, and outdoor temperature of 7 °CDB/6 °CWB
  - Pipe length: 5 m, Height difference: 0 m (Between outdoor 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.

OUTDOOR UNIT
AOYG18, 24KLTA

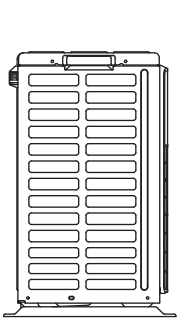
2. Dimensions

2-1. Model: AOYG18KLTA

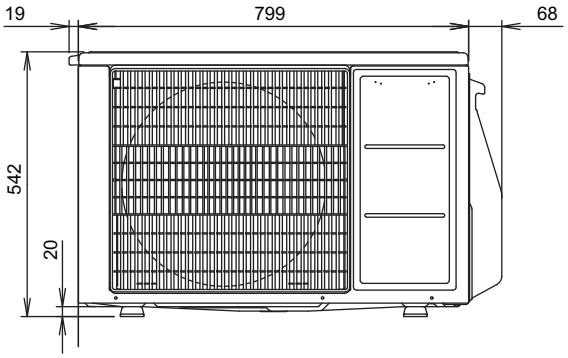
Unit: mm



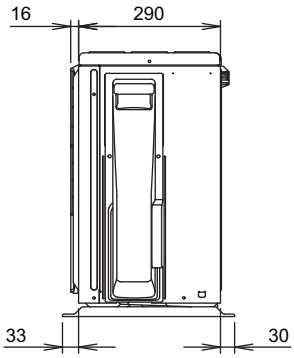
Top view



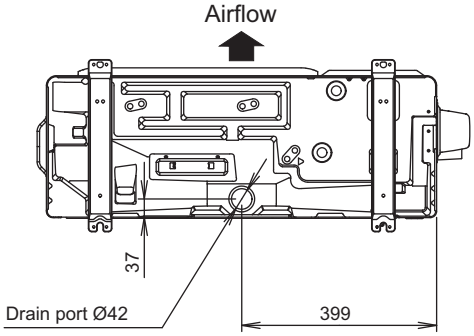
Side view



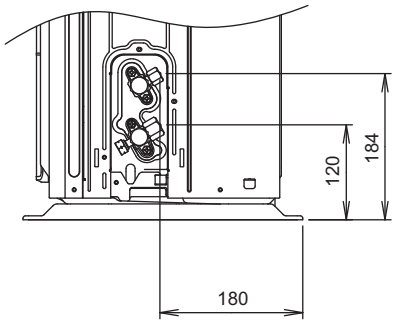
Front view



Side view



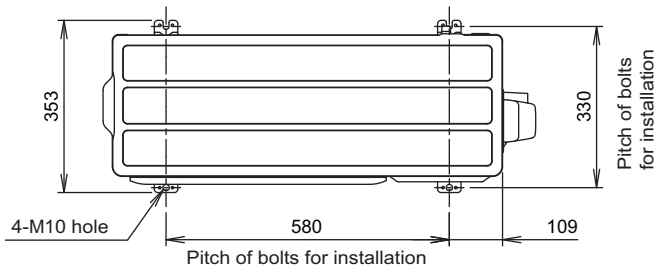
Bottom view



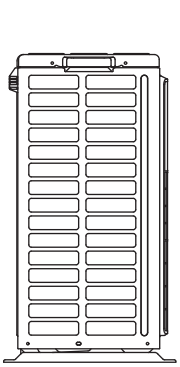
Side view (Valve part)

2-2. Model: AOYG24KLTA

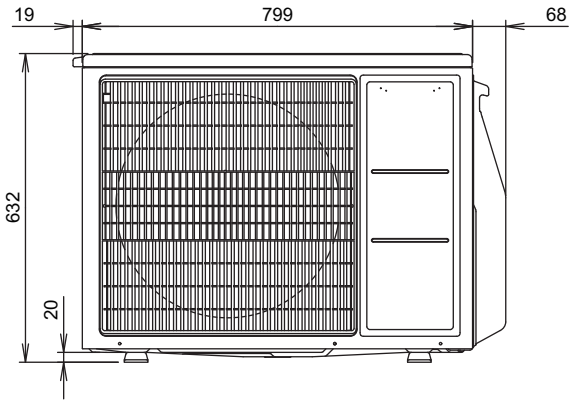
Unit: mm



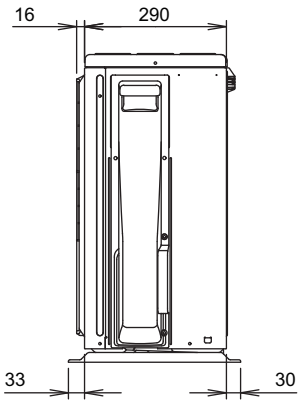
Top view



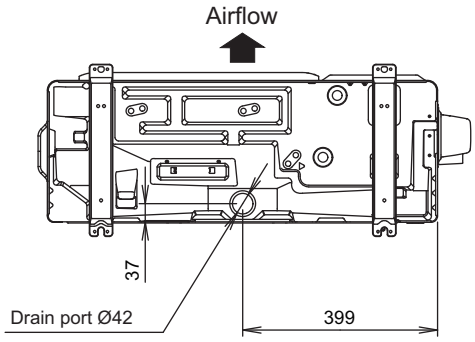
Side view



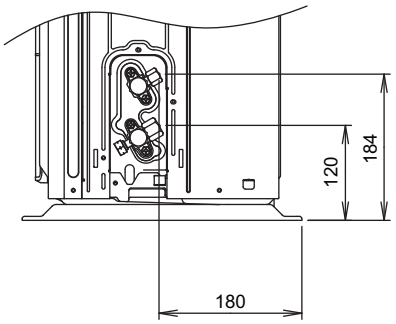
Front view



Side view



Bottom view



Side view (Valve part)

OUTDOOR UNIT
AOYG18, 24KLTA

3. Installation space

3-1. Models: AOYG18KLTA and AOYG24KLTA

■ Space requirement

Provide sufficient installation space for product safety.

⚠ CAUTION

Keep the space shown in the installation examples.

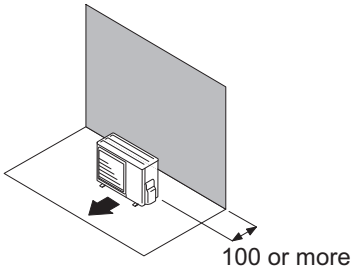
If the installation is not performed accordingly, it could cause a short circuit and result in a lack of operating performance.

● Single outdoor unit installation

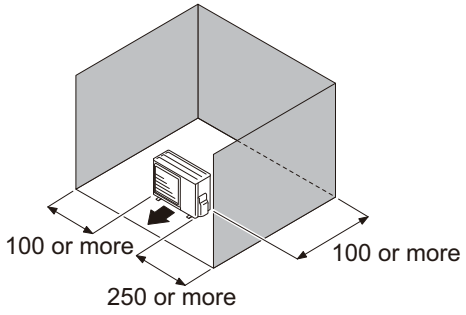
- **When the upper space is open:**

Unit: mm

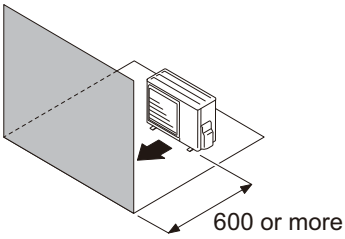
Obstacles at rear only



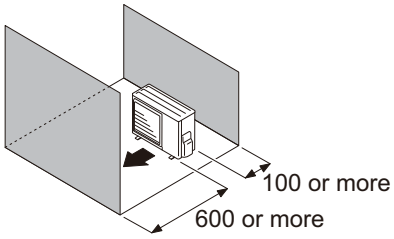
Obstacles at rear and sides



Obstacles at front



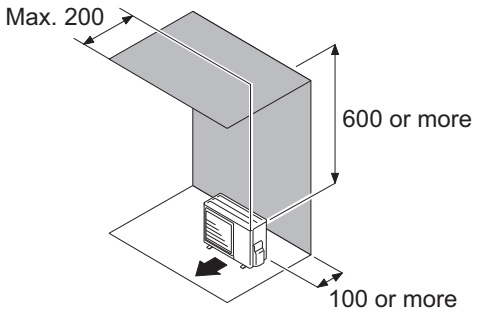
Obstacles at front and rear



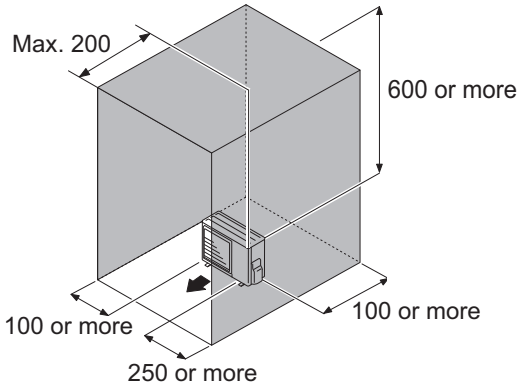
- **When there is an obstruction in the upper space:**

Unit: mm

Obstacles at rear and above



Obstacles at rear, sides, and above



OUTDOOR UNIT
AOYG18, 24KLTA

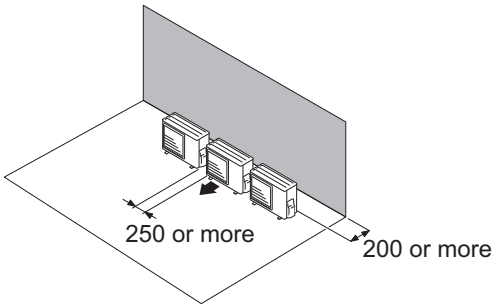
● Multiple outdoor unit installation

- 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:**".

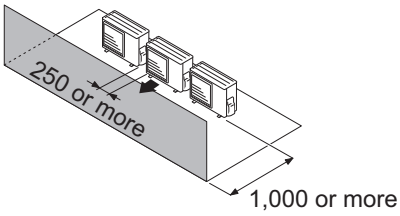
- **When the upper space is open:**

Unit: mm

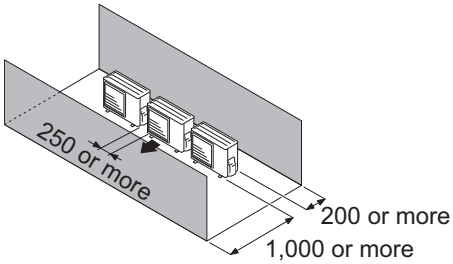
Obstacles at rear only



Obstacles at front only



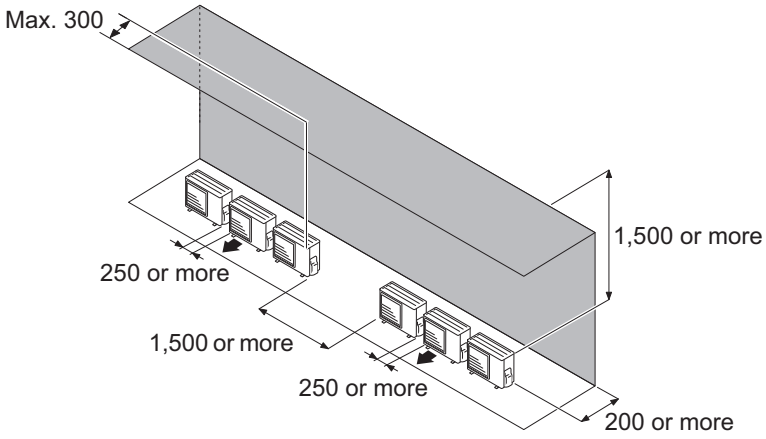
Obstacles at front and rear



- **When an obstruction in the upper space:**

Unit: mm

Obstacles at rear and above.

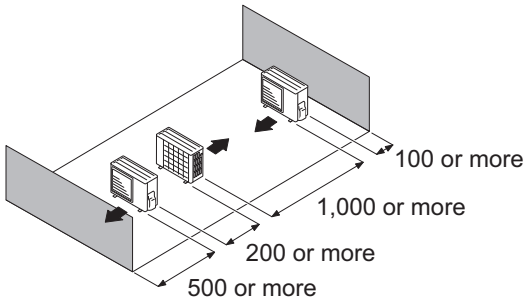


OUTDOOR UNIT
AOYG18, 24KLTA

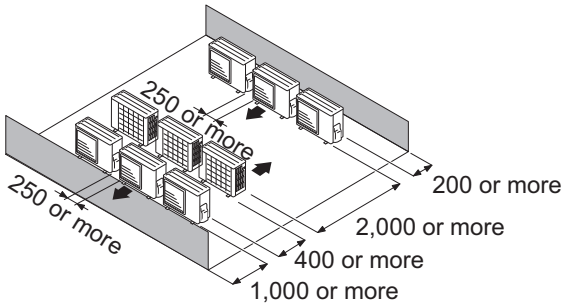
● Outdoor units installation in multi-row

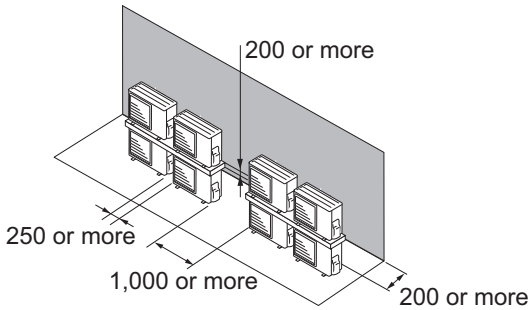
Unit: mm

Single parallel unit arrangement



Multiple parallel unit arrangement



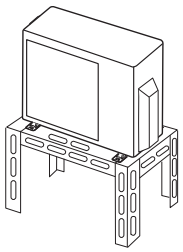


NOTES:

- 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

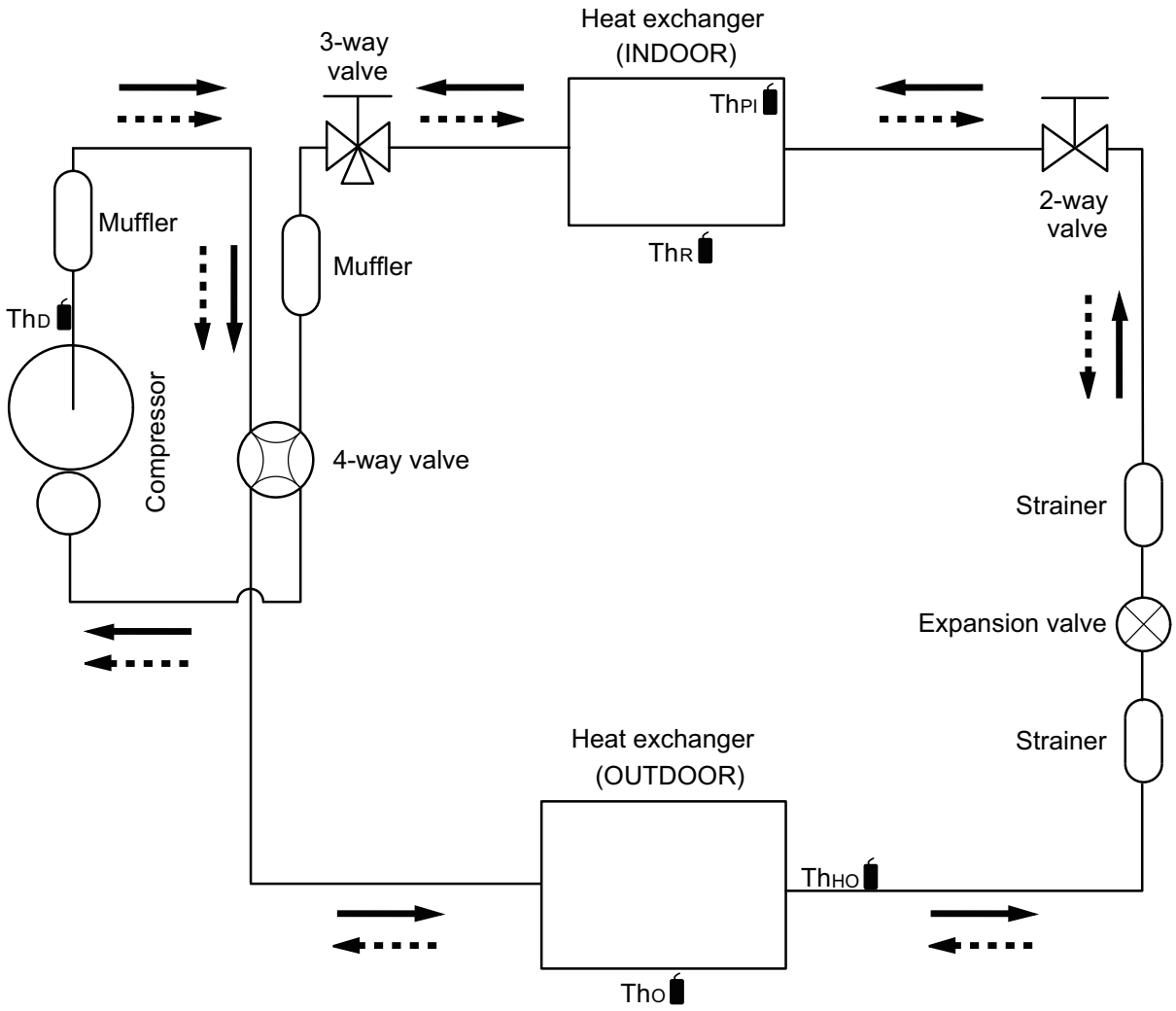
- Do not install the outdoor unit in two-stage where the drain water could freeze. Otherwise the drainage from the upper unit may form ice and cause a malfunction of the lower unit.
- When the outdoor temperature is 0 °C or less, do not use the accessory drain pipe and drain cap. If the drain pipe and 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.



OUTDOOR UNIT
AOYG18, 24KLTA

4. Refrigerant circuit

4-1. Model: AOYG18KLTA



ThD : Thermistor (Discharge temperature)

ThO : Thermistor (Outdoor temperature)

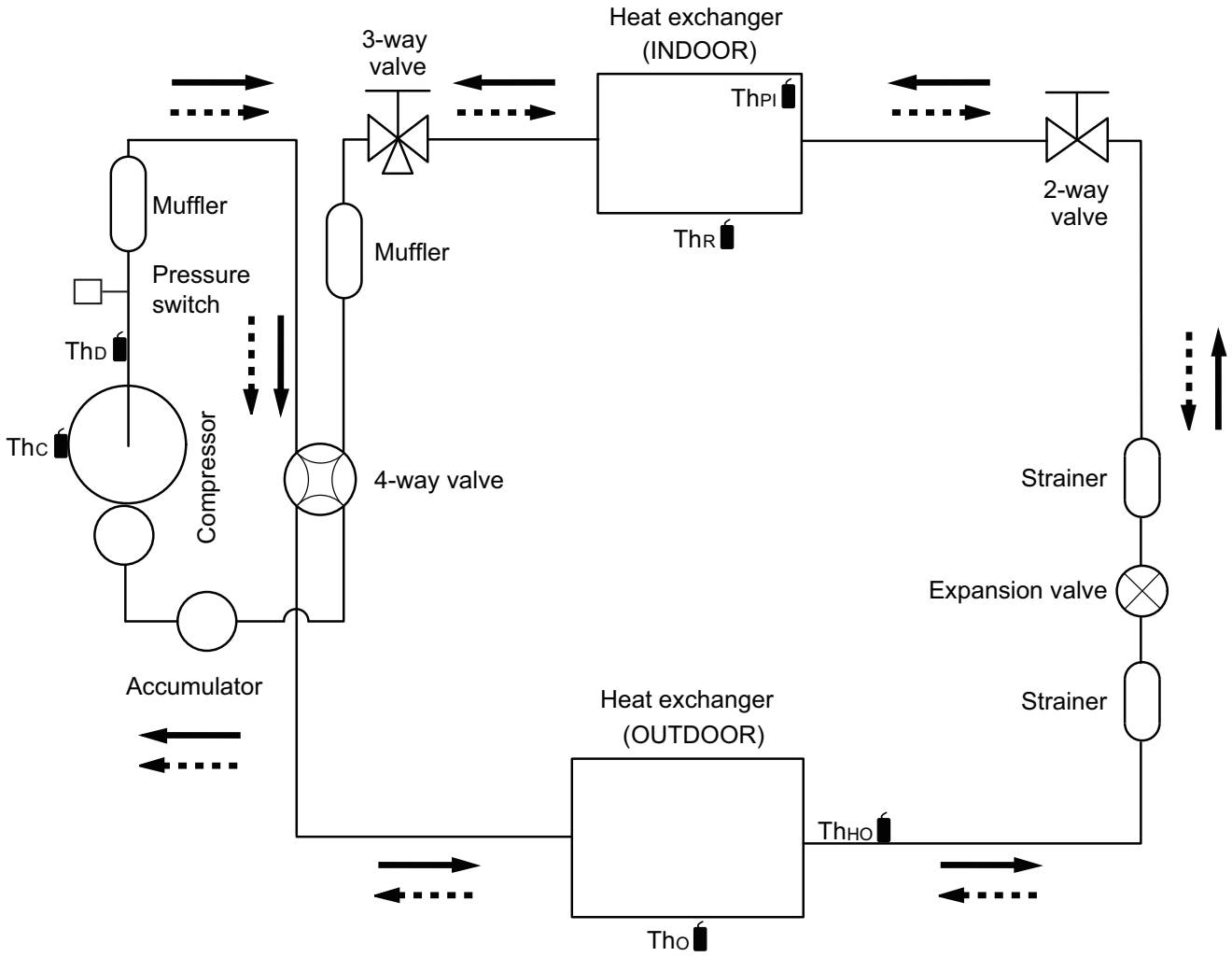
ThHO: Thermistor (Heat exchanger out temperature)

ThR : Thermistor (Room temperature)

ThPI : Thermistor (Pipe temperature)

OUTDOOR UNIT
AOYG18, 24KLTA

4-2. Model: AOYG24KLTA



ThC : Thermistor (Compressor temperature)

ThD : Thermistor (Discharge temperature)

ThO : Thermistor (Outdoor temperature)

ThHO : Thermistor (Heat exchanger out temperature)

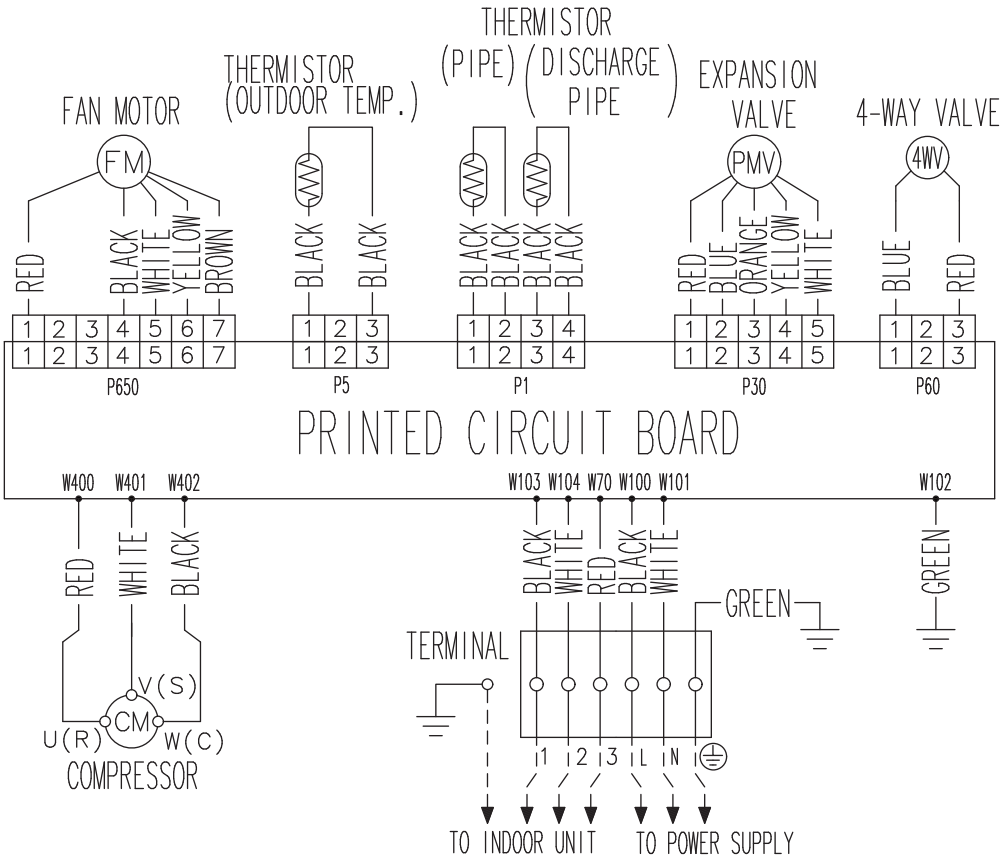
ThR : Thermistor (Room temperature)

ThPI : Thermistor (Pipe temperature)

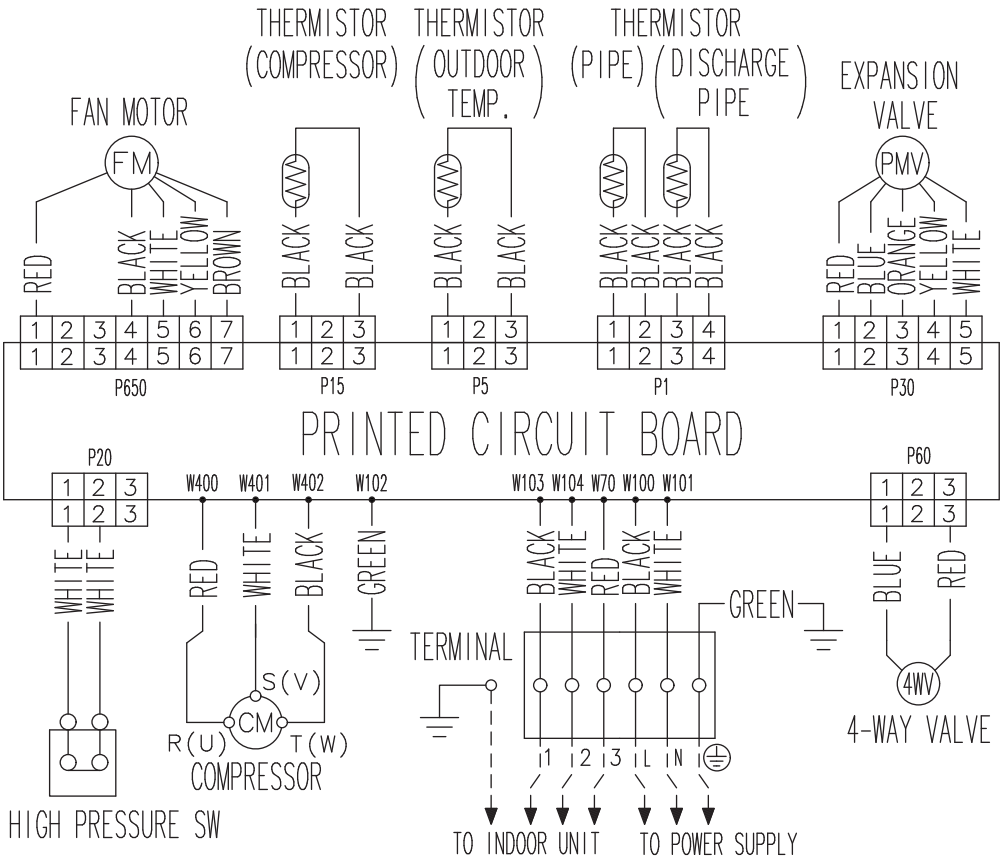
OUTDOOR UNIT
AOYG18, 24KLTA

5. Wiring diagrams

5-1. Model: AOYG18KLTA

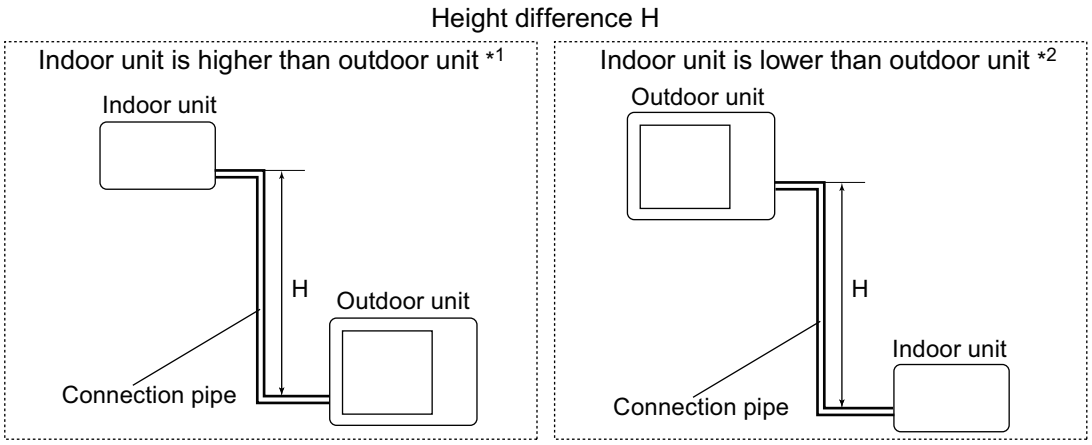


5-2. Model: AOYG24KLTA



OUTDOOR UNIT
AOYG18, 24KLTA

6. Capacity compensation rate for pipe length and height difference



6-1. Model: AOYG18KLTA

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	20	—	—	—	—	0.872	0.848
		15	—	—	—	0.904	0.879	0.854
		10	—	—	0.951	0.919	0.893	0.868
		7.5	—	0.972	0.955	0.923	0.897	0.872
		5	0.992	0.975	0.959	0.925	0.901	0.876
		0	1.000	0.983	0.967	0.933	0.908	0.883
	Indoor unit is lower than outdoor unit *2	-5	1.000	0.983	0.967	0.933	0.908	0.883
		-7.5	—	0.983	0.967	0.933	0.908	0.883
		-10	—	—	0.967	0.933	0.908	0.883
		-15	—	—	—	0.933	0.908	0.883
		-20	—	—	—	—	0.908	0.883

HEATING			Pipe length (m)					
			5	7.5	10	15	20	25
Height difference H (m)	Indoor unit is higher than outdoor unit *1	20	—	—	—	—	0.863	0.857
		15	—	—	—	0.869	0.863	0.857
		10	—	—	0.934	0.869	0.863	0.857
		7.5	—	0.967	0.934	0.869	0.863	0.857
		5	1.000	0.967	0.934	0.869	0.863	0.857
		0	1.000	0.967	0.934	0.869	0.863	0.857
	Indoor unit is lower than outdoor unit *2	-5	0.995	0.962	0.930	0.864	0.859	0.853
		-7.5	—	0.960	0.928	0.862	0.856	0.850
		-10	—	—	0.926	0.860	0.854	0.848
		-15	—	—	—	0.852	0.846	0.840
		-20	—	—	—	—	0.842	0.836

6-2. Model: AOYG24KLTA

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	25	—	—	—	—	—	0.893	0.877
		20	—	—	—	—	0.917	0.900	0.885
		10	—	—	0.966	0.947	0.932	0.914	0.899
		7.5	—	0.979	0.970	0.951	0.936	0.918	0.903
		5	0.992	0.983	0.974	0.955	0.939	0.922	0.906
		0	1.000	0.991	0.981	0.963	0.946	0.930	0.914
	Indoor unit is lower than outdoor unit *2	-5	1.000	0.991	0.981	0.963	0.946	0.930	0.914
		-7.5	—	0.991	0.981	0.963	0.946	0.930	0.914
		-10	—	—	0.981	0.963	0.946	0.930	0.914
		-20	—	—	—	—	0.946	0.930	0.914
		-25	—	—	—	—	—	0.930	0.914

HEATING			Pipe length (m)						
			5	7.5	10	15	20	25	30
Height difference H (m)	Indoor unit is higher than outdoor unit *1	25	—	—	—	—	—	0.871	0.855
		20	—	—	—	—	0.887	0.871	0.855
		10	—	—	0.952	0.903	0.887	0.871	0.855
		7.5	—	0.976	0.952	0.903	0.887	0.871	0.855
		5	1.000	0.976	0.952	0.903	0.887	0.871	0.855
		0	1.000	0.976	0.952	0.903	0.887	0.871	0.855
	Indoor unit is lower than outdoor unit *2	-5	0.995	0.971	0.947	0.899	0.883	0.866	0.850
		-7.5	—	0.969	0.945	0.897	0.881	0.865	0.849
		-10	—	—	0.942	0.894	0.879	0.863	0.847
		-20	—	—	—	—	0.869	0.854	0.838
		-25	—	—	—	—	—	0.850	0.834

OUTDOOR UNIT
AOYG18, 24KLTA

7. Additional charge calculation

7-1. Model: AOYG18KLTA

Refrigerant type		R32
Refrigerant amount	g	850

■ Refrigerant charge

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

7-2. Model: AOYG24KLTA

Refrigerant type		R32
Refrigerant amount	g	1,100

■ Refrigerant charge

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

OUTDOOR UNIT
AOYG18, 24KLTA

8. Airflow

8-1. Model: AOYG18KLTA

● Cooling

m^3/h	1,830
l/s	508
CFM	1,077

● Heating

m^3/h	2,265
l/s	629
CFM	1,333

8-2. Model: AOYG24KLTA

● Cooling

m^3/h	2,885
l/s	801
CFM	1,698

● Heating

m^3/h	3,030
l/s	842
CFM	1,783

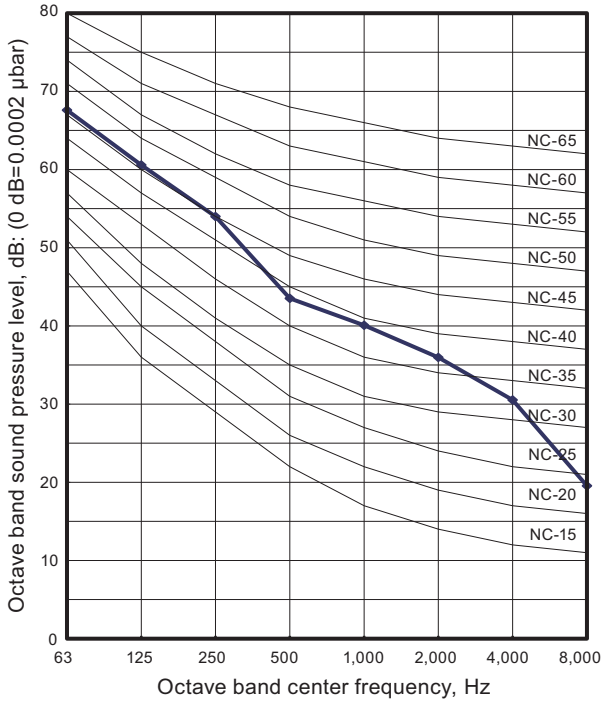
OUTDOOR UNIT
AOYG18, 24KLTA

9. Operation noise (sound pressure)

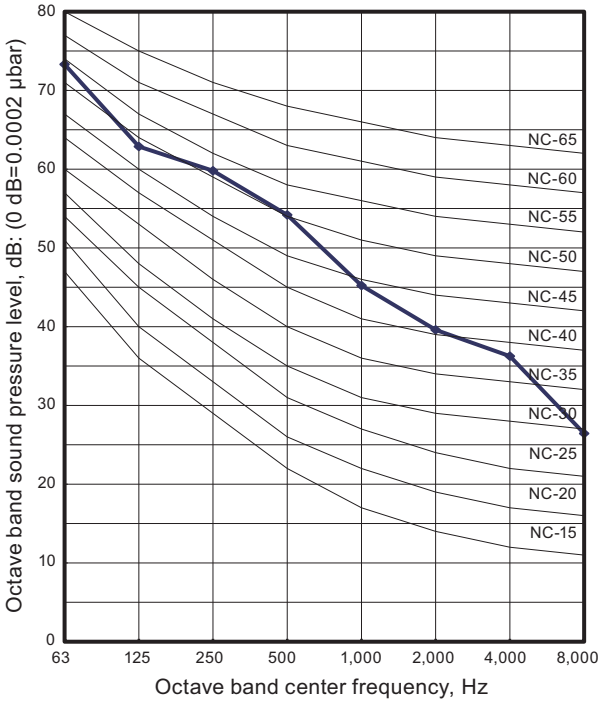
9-1. Noise level curve

■ Model: AOYG18KLTA

● Cooling

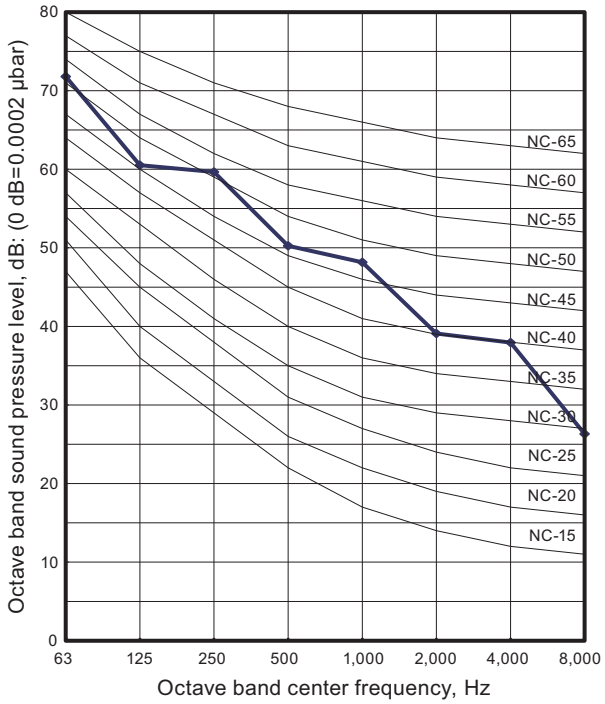


● Heating

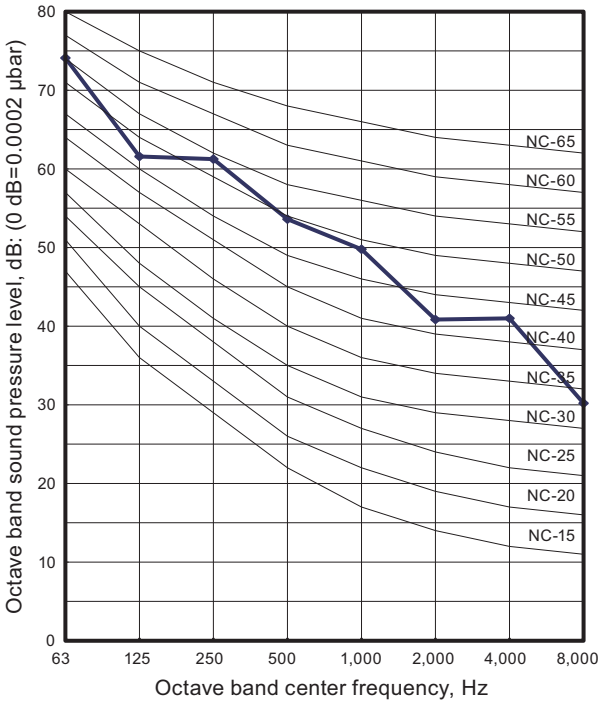


■ Model: AOYG24KLTA

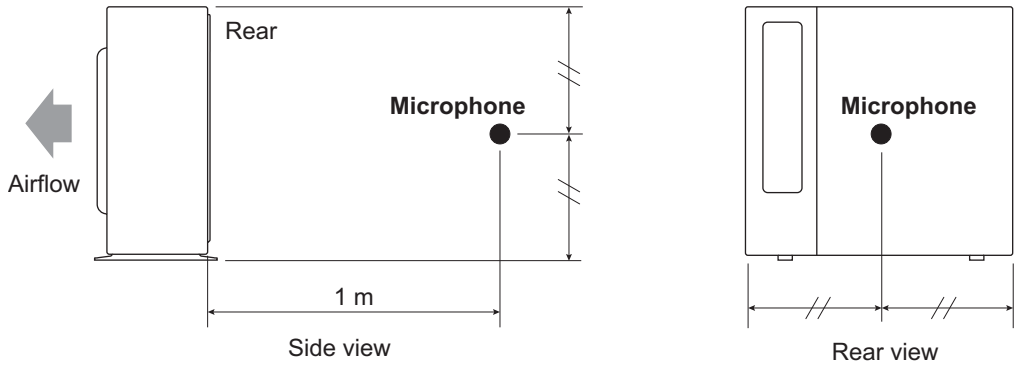
● Cooling



● Heating



9-2. Sound level check point



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

OUTDOOR UNIT
AOYG18, 24KLTA

10. Electrical characteristics

Model name				AOYG18KLTA	AOYG24KLTA
Power supply	Voltage		V	230 ~	
	Frequency		Hz	50	
Max operating current *1			A	13.5	17.5
Starting current			A	8.0	10.9
Wiring spec. *2	Circuit breaker current		A	15	20
	Power cable		mm^2	1.5	
	Connection cable *3	Cross-sectional area	mm^2	1.5	
		Limited wiring length	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.

OUTDOOR UNIT
AOYG18, 24KLTA

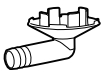
11. Safety devices

Type of protection	Protection form		Model	
			AOYG18KLTA	AOYG24KLTA
Circuit protection	Current fuse (Main PCB)		250 V, 20 A	250 V, 25 A
			250 V, 5 A	
			—	250 V, 3.15 A
Fan motor protection	Terminal protection program	Activate	100±15 °C Fan motor stop	125±10 °C Fan motor stop
		Reset	95±10 °C Fan motor restart	120±10 °C Fan motor restart
Compressor protection	Terminal protection program (Discharge temp.)	Activate	110 °C Compressor stop	115 °C Compressor stop
		Reset	After 7 minutes Compressor restart	After 3 minutes Compressor restart

12. Accessories

12-1. Models: AOYG18KLTA and AOYG24KLTA

OUTDOOR UNIT
AOYG18, 24KLTA

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