FUJITSU

REFRIGERANT R32
INVERTER

AIR CONDITIONER

Wall mounted type

DESIGN & TECHNICAL MANUAL

INDOOR



ASYG07KMCC
ASYG09KMCC
ASYG12KMCC
ASYG14KMCC

OUTDOOR



AOYG07KMCC
AOYG09KMCC
AOYG12KMCC



AOYG14KMCC

FUJITSU GENERAL LIMITED

DR_AS120EF_02
2021.01.29

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

Trademarks

FGLair™ is trademark of Fujitsu General Limited in the United States, other countries or both.

Google Play™ is trademark of Google Inc.

App Store® is a service mark of Apple Inc., registered in the U.S. and other countries.

Copyright © 2020, 2021 Fujitsu General Limited. All rights reserved.

CONTENTS

Part 1. INDOOR UNIT 1

1. Specifications 2

2. Dimensions 4

2-1. Models: ASYG07KMCC, ASYG09KMCC, ASYG12KMCC, and ASYG14KMCC 4

3. Wiring diagrams 6

3-1. Models: ASYG07KMCC, ASYG09KMCC, ASYG12KMCC, and ASYG14KMCC 6

4. Capacity table 7

4-1. Cooling capacity 7

4-2. Heating capacity 9

5. Fan performance 10

5-1. Air velocity distributions 10

5-2. Airflow 12

6. Operation noise (sound pressure) 16

6-1. Noise level curve 16

6-2. Sound level check point 18

7. Safety devices 19

8. External input and output 20

8-1. External input 20

8-2. External output 23

9. Group connection 25

9-1. Precautions on creating a group connection 25

9-2. Remote controller address setting procedure for wireless remote controllers 26

10. Remote controller 27

10-1.Wireless remote controller 27

11. Function settings 29

11-1.Function settings by using remote controller 29

11-2.Custom code setting for wireless remote controller 35

12. Accessories 36

12-1.Models: ASYG07KMCC, ASYG09KMCC, ASYG12KMCC, and ASYG14KMCC 36

13. Optional parts 37

13-1.Controllers 37

13-2.Others 38

CONTENTS (continued)

Part 2. OUTDOOR UNIT 39

1. Specifications 40

2. Dimensions 41

2-1. Models: AOYG07KMCC, AOYG09KMCC, and AOYG12KMCC 41

2-2. Model: AOYG14KMCC 42

3. Installation space 43

3-1. Models: AOYG07KMCC, AOYG09KMCC, AOYG12KMCC, and AOYG14KMCC 43

4. Refrigerant circuit 46

4-1. Models: AOYG07KMCC, AOYG09KMCC, and AOYG12KMCC 46

4-2. Model: AOYG14KMCC 47

5. Wiring diagrams 48

5-1. Models: AOYG07KMCC, AOYG09KMCC, AOYG12KMCC, and AOYG14KMCC 48

6. Capacity compensation rate for pipe length and height difference 49

6-1. Models: AOYG07KMCC and AOYG09KMCC 49

6-2. Model: AOYG12KMCC 50

6-3. Model: AOYG14KMCC 50

7. Additional charge calculation 51

7-1. Models: AOYG07KMCC and AOYG09KMCC 51

7-2. Model: AOYG12KMCC 51

7-3. Model: AOYG14KMCC 51

8. Airflow 52

8-1. Model: AOYG07KMCC 52

8-2. Model: AOYG09KMCC 52

8-3. Model: AOYG12KMCC 52

8-4. Model: AOYG14KMCC 53

9. Operation noise (sound pressure) 54

9-1. Noise level curve 54

9-2. Sound level check point 56

10. Electrical characteristics 57

11. Safety devices 58

12. Accessories 59

12-1.Models: AOYG07KMCC, AOYG09KMCC, AOYG12KMCC, and AOYG14KMCC 59

Part 1. INDOOR UNIT

WALL MOUNTED TYPE:

ASYG07KMCC
ASYG09KMCC
ASYG12KMCC
ASYG14KMCC

WALL MOUNTED
ASYG07-14KMCC

1. Specifications

Type					Wall mounted			
					Inverter heat pump			
Model name					ASYG07KMCC	ASYG09KMCC	ASYG12KMCC	ASYG14KMCC
Power supply					230 V ~ 50 Hz			
Available voltage range					198—264 V			
Capacity		Cooling	Rated	kW	2.00	2.50	3.40	4.20
				Btu/h	6,800	8,500	11,600	14,300
			Min.—Max.	kW	0.9—3.0	0.9—3.2	0.9—3.9	0.9—4.4
				Btu/h	3,100—10,200	3,100—10,900	3,100—13,300	3,100—15,000
		Heating	Rated	kW	2.50	2.80	4.00	5.40
				Btu/h	8,500	9,500	13,600	18,400
			Min.—Max.	kW	0.9—3.4	0.9—4.0	0.9—5.3	0.9—6.0
				Btu/h	3,100—11,600	3,100—13,600	3,100—18,000	3,100—20,500
Input power		Cooling	Rated	kW	0.450	0.630	0.935	1.220
			Min.—Max.		0.25—1.17	0.25—1.21	0.25—1.27	0.25—1.40
		Heating	Rated		0.555	0.620	0.960	1.410
			Min.—Max.		0.25—1.21	0.25—1.26	0.25—1.52	0.25—1.73
		Fan	HIGH	W	22.1	26.5	26.5	33.6
			MED		15.1	16.0	16.0	20.0
			LOW		10.0	10.0	6.4	11.8
			QUIET		6.4	6.4	4.8	7.1
Current		Cooling	Rated	A	2.6	3.4	4.8	5.8
		Heating			3.0	3.4	5.1	6.8
EER		Cooling		kW/kW	4.43	3.97	3.65	3.44
COP		Heating			4.52	4.52	4.17	3.83
Sensible capacity		Cooling		kW	1.2	1.6	2.2	3.2
Power factor		Cooling		%	75	81	88	88
		Heating			80	79	87	87
Moisture removal				L/h (pints/h)	1.0 (1.8)	1.3 (2.3)	1.8 (3.2)	2.1 (3.7)
Maximum operating current *1		Cooling		A	6.5	6.5	6.5	6.5
		Heating			9.0	9.0	9.0	9.0
Fan	Airflow rate	Cooling	HIGH	m^3/h	650	700	700	770
			MED		540	560	560	600
			LOW		430	430	430	450
			QUIET		270	270	270	280
		Heating	HIGH		720	750	780	820
			MED		580	610	640	660
			LOW		460	470	520	520
			QUIET		330	330	330	340
	Type × Q'ty				Crossflow fan × 1			
	Motor output			W	27			
Sound pressure level *2		Cooling	HIGH	dB (A)	38	40	40	43
			MED		33	34	35	36
			LOW		29	29	30	30
			QUIET		20	20	20	20
		Heating	HIGH		41	42	42	44
			MED		35	36	38	39
			LOW		31	31	33	33
			QUIET		22	22	22	24
Heat exchanger type		Dimensions (H × W × D)		mm	Main1: 210 × 670 × 26.6 Main2: 112 × 670 × 20			Main1: 210 × 670 × 26.6 Main2: 112 × 670 × 20 Sub: 84 × 670 × 13.3
		Fin pitch			Man1: 1.2, Main2: 1.1			Man1: 1.2, Main2: 1.1, Sub: 1.4
		Rows × Stages			Main1: 2 × 10, Main2: 2 × 7			Main1: 2 × 10, Main2: 2 × 7, Sub: 1 × 4
		Pipe type			Copper tube			
		Fin type			Aluminum			
Enclosure		Material			Polystyrene			
		Color			White + Pearl white (painted) Approximate color of Munsell N 9.25/			
Dimensions (H × W × D)		Net		mm	270 × 834 × 222			
		Gross			277 × 914 × 332			
Weight		Net		kg	10.0			
		Gross			12.5			13.0
Connection pipe		Size	Liquid	mm (in)	Ø 6.35 (Ø 1/4)			
			Gas		Ø 9.52 (Ø 3/8)			
		Method			Flare			
Drain hose		Material			PP+LLDPE			
		Tip diameter		mm	Ø 11.8 (I.D.), Ø 15.0 to Ø 16.8 (O.D.)			
Operation range		Cooling		°C	18 to 32			
				%RH	80 or less			
		Heating		°C	16 to 30			
Remote controller type					Wireless (Wired, Mobile app*3 [FGLair™] [option])			

NOTES:

- Specifications are based on the following conditions:
  - Cooling: Indoor temperature of 27 °CDB/19 °CWB, and outdoor temperature of 35 °CDB/24 °CWB.
  - Heating: Indoor temperature of 20 °CDB/15 °CWB, and outdoor temperature of 7 °CDB/6 °CWB.
  - Pipe length: 5 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.
- *3: Available on Google Play™ store or on App Store®. Optional WLAN adapter is also required. For details, refer to the setting manual.

WALL MOUNTED
ASYG07-14KMCC

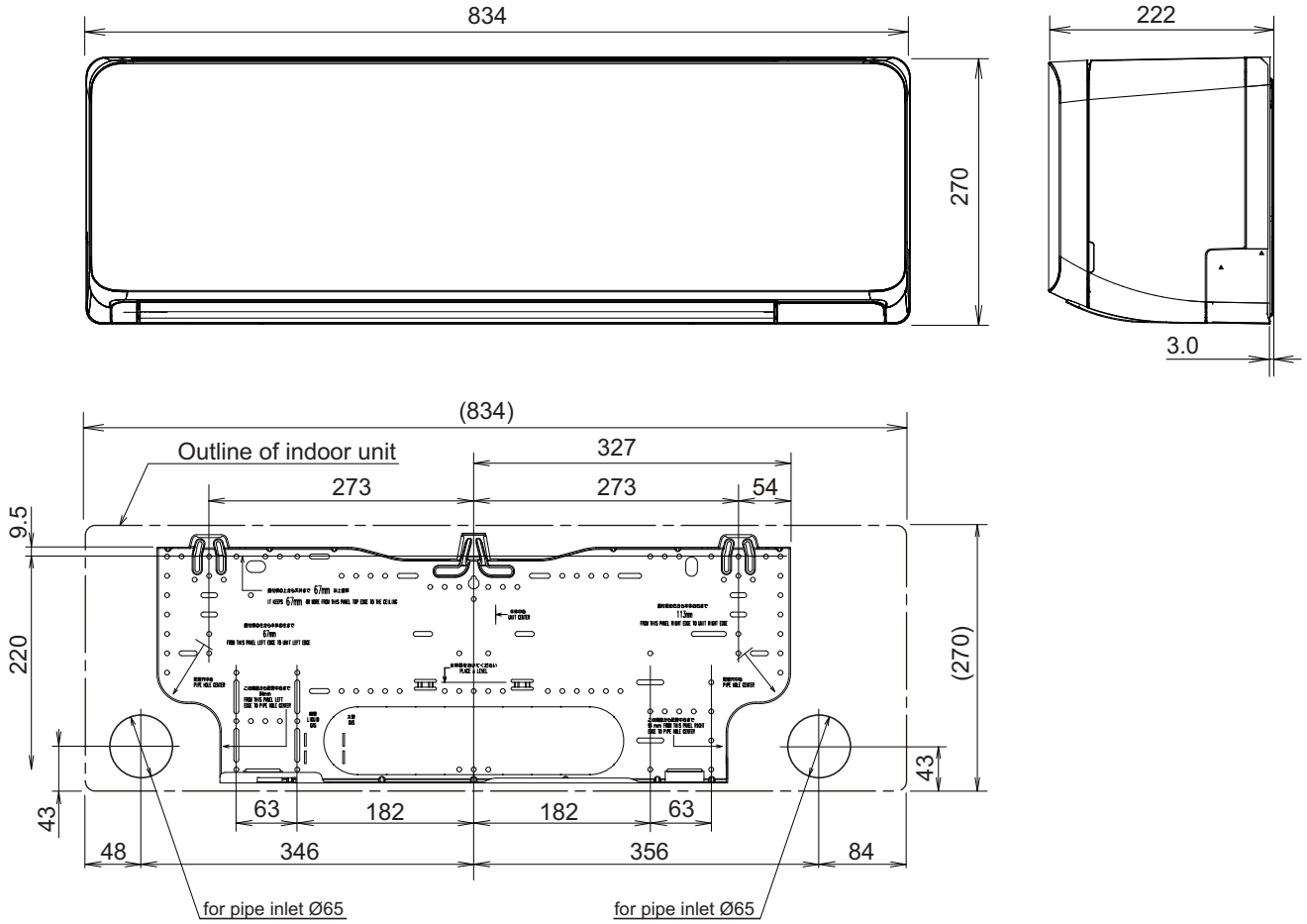
Specifications for Lot10							
Model name				**ASYG07KMCC**	**ASYG09KMCC**	**ASYG12KMCC**	**ASYG14KMCC**
Energy efficiency class	Cooling			A^{++}			
	Heating (Average)			A^{+}			
Pdesign	Cooling		kW	2.0 (35 °C)	2.5 (35 °C)	3.4 (35 °C)	4.2 (35 °C)
	Heating (Average)			2.3 (-10 °C)	2.4 (-10 °C)	2.5 (-10 °C)	4.0 (-10 °C)
SEER	Cooling		kWh/kWh	7.4	7.4	7.3	6.9
SCOP	Heating (Average)			4.1	4.1	4.4	4.1
Annual energy consumption	QCE		kWh/a	95	118	163	213
	QHE (Average)			785	819	795	1,367
Sound power level	Cooling	HIGH	dB (A)	54	55	55	57
	Heating			56	57	58	59

WALL MOUNTED
ASYG07-14KMCC

2. Dimensions

2-1. Models: ASYG07KMCC, ASYG09KMCC, ASYG12KMCC, and ASYG14KMCC

Unit: mm

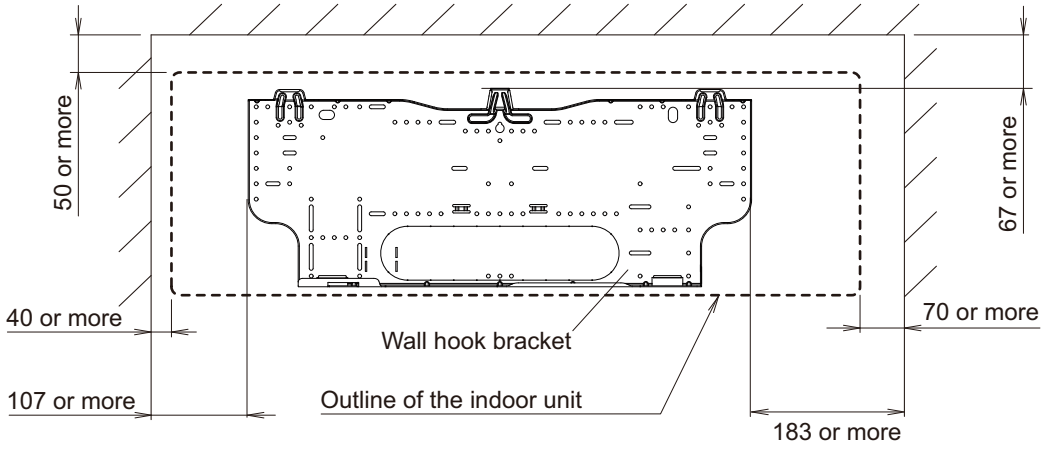


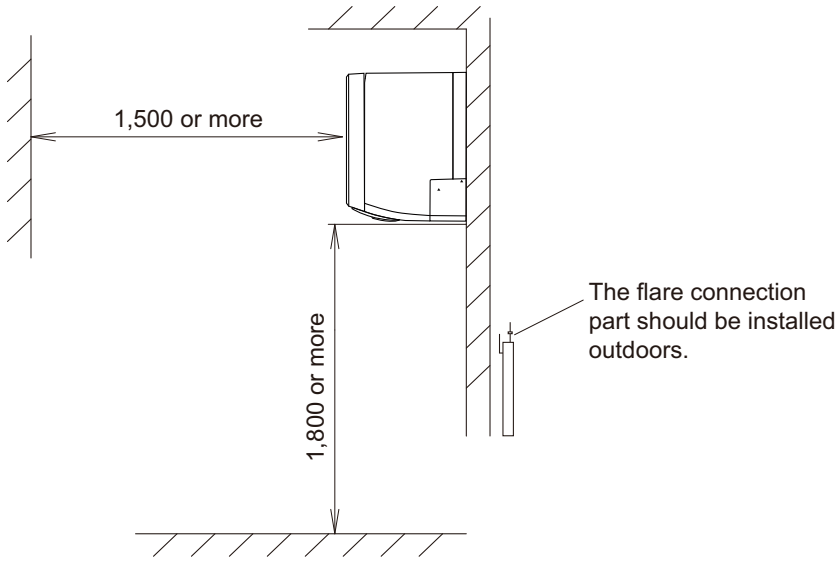
WALL MOUNTED
ASYG07-14KMCC

■ Installation space requirement

Provide sufficient installation space for product safety.

Unit: mm

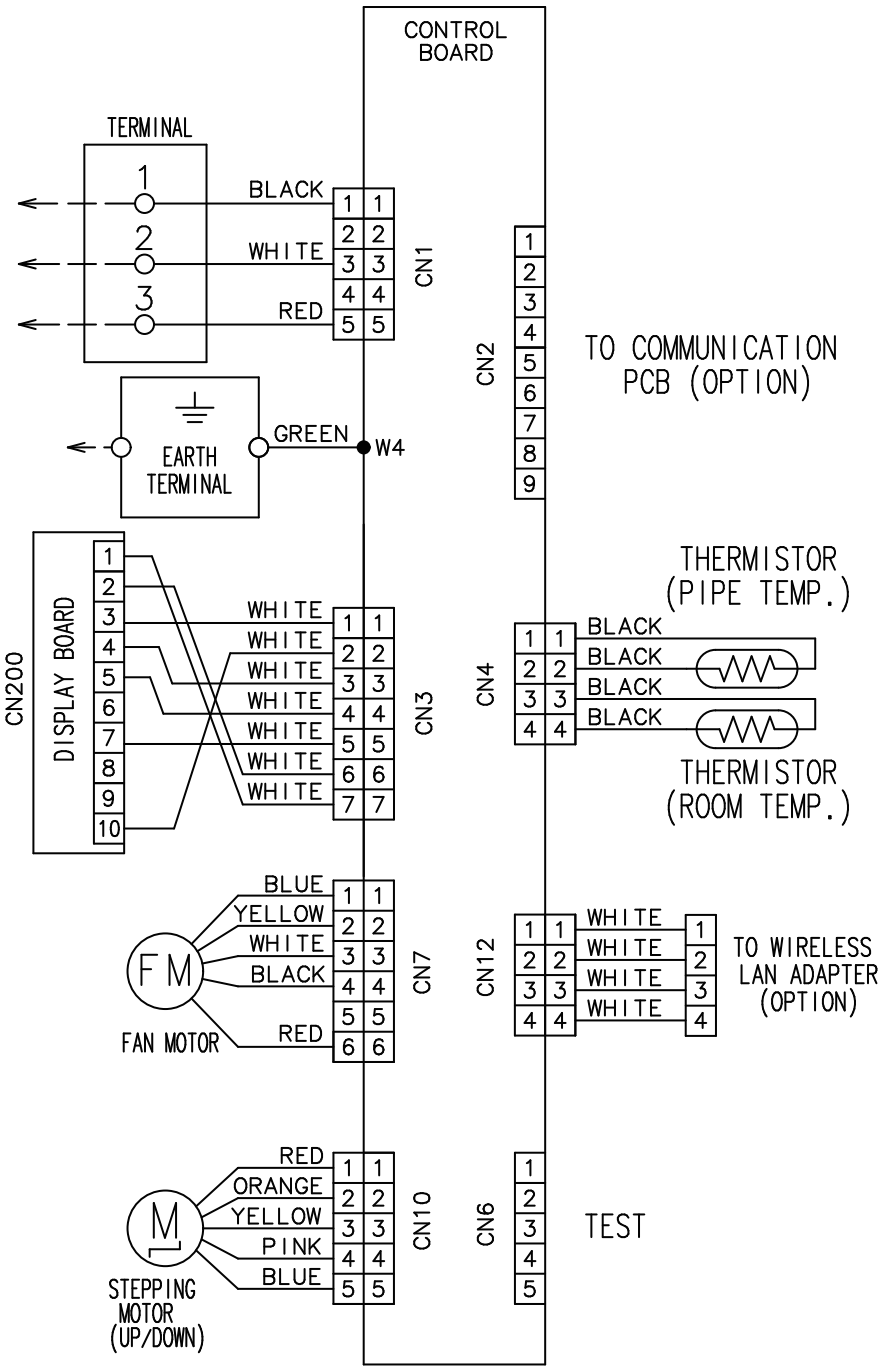




WALL MOUNTED
ASYG07-14KMCC

3. Wiring diagrams

3-1. Models: ASYG07KMCC, ASYG09KMCC, ASYG12KMCC, and ASYG14KMCC



WALL MOUNTED
ASYG07-14KMCC

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: ASYG07KMCC

AFR	m^3/h	650

		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	2.07	1.20	0.25	2.25	1.25	0.25	2.37	1.28	0.25	2.49	1.31	0.25	2.55	1.35	0.25	2.73	1.37	0.24	2.91	1.42	0.24
	0	2.02	1.17	0.29	2.19	1.22	0.28	2.31	1.25	0.28	2.43	1.28	0.28	2.48	1.31	0.28	2.66	1.34	0.27	2.84	1.38	0.27
	5	1.91	1.14	0.38	2.07	1.19	0.38	2.18	1.21	0.38	2.29	1.24	0.37	2.34	1.28	0.38	2.51	1.30	0.37	2.68	1.34	0.37
	10	1.96	1.13	0.36	2.13	1.17	0.36	2.24	1.20	0.35	2.36	1.23	0.35	2.41	1.27	0.35	2.58	1.29	0.35	2.75	1.33	0.34
	15	1.92	1.14	0.36	2.08	1.18	0.35	2.20	1.21	0.35	2.31	1.24	0.35	2.36	1.27	0.35	2.53	1.29	0.34	2.70	1.34	0.34
	20	1.86	1.13	0.37	2.02	1.18	0.36	2.13	1.20	0.36	2.24	1.23	0.36	2.29	1.27	0.36	2.46	1.29	0.35	2.62	1.33	0.35
	25	1.80	1.12	0.39	1.95	1.16	0.38	2.06	1.19	0.38	2.16	1.22	0.38	2.21	1.25	0.38	2.37	1.28	0.37	2.53	1.32	0.37
	30	1.72	1.10	0.42	1.87	1.14	0.41	1.97	1.17	0.41	2.07	1.20	0.41	2.11	1.23	0.41	2.27	1.25	0.40	2.42	1.30	0.40
	35	1.63	1.07	0.46	1.77	1.11	0.45	1.86	1.14	0.45	1.96	1.17	0.45	2.00	1.20	0.45	2.15	1.22	0.44	2.29	1.26	0.44
	40	1.52	1.03	0.51	1.66	1.07	0.50	1.75	1.10	0.50	1.83	1.13	0.50	1.87	1.16	0.50	2.01	1.18	0.49	2.14	1.22	0.49
	46	1.39	0.98	0.59	1.51	1.02	0.58	1.59	1.04	0.58	1.67	1.07	0.57	1.70	1.10	0.58	1.83	1.12	0.57	1.95	1.15	0.56

■ Model: ASYG09KMCC

AFR	m^3/h	700

		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	2.59	1.60	0.36	2.82	1.66	0.35	2.97	1.70	0.35	3.12	1.74	0.35	3.18	1.79	0.35	3.42	1.83	0.34	3.64	1.89	0.34
	0	2.52	1.56	0.40	2.74	1.62	0.40	2.89	1.66	0.39	3.04	1.70	0.39	3.10	1.75	0.39	3.33	1.78	0.38	3.55	1.84	0.38
	5	2.38	1.52	0.54	2.59	1.58	0.53	2.73	1.62	0.53	2.87	1.66	0.52	2.93	1.71	0.53	3.14	1.73	0.52	3.35	1.79	0.51
	10	2.45	1.51	0.50	2.66	1.57	0.50	2.80	1.60	0.50	2.95	1.64	0.49	3.01	1.69	0.50	3.23	1.72	0.49	3.44	1.78	0.48
	15	2.40	1.51	0.50	2.61	1.57	0.50	2.74	1.61	0.49	2.88	1.65	0.49	2.95	1.70	0.49	3.16	1.73	0.48	3.37	1.78	0.48
	20	2.33	1.51	0.51	2.53	1.57	0.51	2.67	1.61	0.50	2.80	1.64	0.50	2.86	1.69	0.50	3.07	1.72	0.49	3.27	1.78	0.49
	25	2.25	1.49	0.54	2.44	1.55	0.53	2.57	1.59	0.53	2.70	1.63	0.53	2.76	1.67	0.53	2.96	1.70	0.52	3.16	1.76	0.51
	30	2.15	1.47	0.58	2.33	1.52	0.58	2.46	1.56	0.57	2.58	1.60	0.57	2.64	1.64	0.57	2.83	1.67	0.56	3.02	1.73	0.56
	35	2.03	1.43	0.64	2.21	1.48	0.63	2.33	1.52	0.63	2.45	1.56	0.63	2.50	1.60	0.63	2.68	1.63	0.62	2.86	1.68	0.61
	40	1.91	1.38	0.71	2.07	1.43	0.71	2.18	1.47	0.70	2.29	1.50	0.70	2.34	1.54	0.70	2.51	1.57	0.69	2.68	1.62	0.68
	46	1.73	1.31	0.82	1.88	1.36	0.81	1.98	1.39	0.81	2.08	1.42	0.80	2.13	1.46	0.81	2.28	1.49	0.79	2.44	1.54	0.78

■ Model: ASYG12KMCC

AFR	m^3/h	700

		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	3.45	2.30	0.54	3.75	2.37	0.54	3.94	2.42	0.53	4.14	2.46	0.53	4.26	2.52	0.53	4.53	2.56	0.53	4.82	2.63	0.52
	0	3.22	2.20	0.70	3.50	2.27	0.69	3.68	2.32	0.69	3.86	2.36	0.69	3.97	2.41	0.68	4.22	2.45	0.68	4.50	2.52	0.68
	5	3.06	2.15	0.81	3.32	2.21	0.81	3.49	2.26	0.80	3.66	2.30	0.80	3.77	2.35	0.79	4.01	2.39	0.79	4.27	2.45	0.79
	10	3.35	2.31	0.61	3.63	2.38	0.61	3.82	2.43	0.60	4.01	2.47	0.60	4.12	2.53	0.59	4.38	2.57	0.60	4.67	2.64	0.59
	15	3.27	2.23	0.67	3.55	2.30	0.67	3.73	2.34	0.66	3.92	2.39	0.66	4.03	2.44	0.65	4.28	2.48	0.65	4.56	2.55	0.65
	20	3.17	2.16	0.73	3.44	2.22	0.73	3.62	2.27	0.73	3.80	2.31	0.72	3.91	2.36	0.71	4.16	2.40	0.72	4.43	2.47	0.71
	25	3.06	2.10	0.80	3.31	2.16	0.80	3.49	2.20	0.79	3.66	2.25	0.79	3.76	2.30	0.78	4.00	2.33	0.78	4.26	2.40	0.78
	30	2.92	2.05	0.88	3.17	2.11	0.87	3.33	2.15	0.87	3.49	2.19	0.87	3.59	2.24	0.86	3.82	2.28	0.86	4.07	2.34	0.85
	35	2.76	2.01	0.96	2.99	2.07	0.95	3.15	2.11	0.95	3.30	2.15	0.95	3.40	2.20	0.94	3.62	2.24	0.94	3.85	2.30	0.93
	40	2.58	1.98	1.05	2.80	2.04	1.04	2.95	2.08	1.04	3.09	2.12	1.03	3.18	2.17	1.02	3.38	2.21	1.02	3.60	2.27	1.01
	46	2.34	1.97	1.16	2.54	2.03	1.15	2.67	2.07	1.15	2.80	2.11	1.14	2.88	2.15	1.13	3.07	2.19	1.13	3.26	2.25	1.12

WALL MOUNTED
ASYG07-14KMCC

■ Model: ASYG14KMCC

AFR	m^3/h	770

		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	3.77	3.49	0.67	4.11	3.62	0.66	4.34	3.70	0.66	4.57	3.79	0.65	4.85	3.86	0.65	5.03	3.95	0.65	5.37	4.08	0.64
	0	3.59	3.39	0.88	3.92	3.51	0.88	4.14	3.60	0.87	4.35	3.68	0.87	4.62	3.74	0.86	4.79	3.84	0.86	5.12	3.96	0.85
	5	3.50	3.34	0.99	3.82	3.46	0.99	4.04	3.54	0.98	4.25	3.62	0.98	4.51	3.69	0.96	4.67	3.78	0.97	4.99	3.90	0.96
	10	3.64	3.40	0.63	3.97	3.52	0.62	4.19	3.60	0.62	4.41	3.68	0.62	4.68	3.75	0.61	4.85	3.84	0.61	5.19	3.97	0.61
	15	3.65	3.33	0.78	3.99	3.45	0.78	4.21	3.53	0.77	4.43	3.61	0.77	4.70	3.67	0.76	4.88	3.77	0.76	5.21	3.89	0.76
	20	3.62	3.25	0.92	3.96	3.36	0.92	4.18	3.44	0.91	4.40	3.52	0.91	4.67	3.58	0.90	4.84	3.67	0.90	5.17	3.79	0.89
	25	3.55	3.15	1.05	3.87	3.26	1.04	4.09	3.33	1.04	4.31	3.41	1.03	4.57	3.47	1.02	4.74	3.56	1.02	5.06	3.67	1.01
	30	3.43	3.03	1.16	3.74	3.14	1.15	3.95	3.21	1.15	4.16	3.28	1.14	4.42	3.34	1.13	4.58	3.43	1.13	4.89	3.54	1.12
	35	3.26	2.90	1.26	3.56	3.00	1.25	3.76	3.07	1.24	3.96	3.14	1.23	4.20	3.20	1.22	4.35	3.28	1.22	4.65	3.39	1.21
	40	3.05	2.75	1.34	3.33	2.85	1.33	3.51	2.92	1.32	3.70	2.98	1.31	3.93	3.04	1.30	4.07	3.12	1.30	4.35	3.21	1.29
	46	2.73	2.55	1.41	2.98	2.65	1.40	3.15	2.71	1.40	3.31	2.77	1.39	3.52	2.82	1.37	3.65	2.89	1.37	3.90	2.98	1.36

WALL MOUNTED
ASYG07-14KMCC

4-2. Heating capacity

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

■ Model: ASYG07KMCC

AFR	m^3/h	720

			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	1.85	0.95	1.83	0.97	1.81	0.98	1.80	1.02	1.78	1.04
	-10	-11	2.22	1.00	2.20	1.02	2.17	1.03	2.16	1.07	2.14	1.10
	-5	-7	2.59	1.05	2.57	1.07	2.53	1.09	2.52	1.12	2.50	1.15
	0	-2	2.96	1.10	2.93	1.13	2.89	1.14	2.88	1.18	2.86	1.21
	5	3	3.33	1.15	3.30	1.18	3.26	1.19	3.24	1.23	3.21	1.26
	7	6	3.48	1.17	3.45	1.20	3.40	1.21	3.39	1.25	3.36	1.28
	10	8	3.70	1.20	3.67	1.23	3.62	1.24	3.60	1.29	3.57	1.32
	15	10	3.68	1.11	3.64	1.14	3.59	1.15	3.58	1.19	3.55	1.22
	20	15	3.87	1.06	3.84	1.09	3.78	1.10	3.77	1.14	3.74	1.17
	24	18	4.03	1.02	3.99	1.05	3.94	1.06	3.92	1.10	3.89	1.12

■ Model: ASYG09KMCC

AFR	m^3/h	750

			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	2.14	0.99	2.13	1.02	2.12	1.02	2.12	1.06	2.11	1.09
	-10	-11	2.57	1.04	2.56	1.07	2.55	1.08	2.55	1.12	2.54	1.15
	-5	-7	3.00	1.09	2.99	1.12	2.98	1.13	2.97	1.18	2.96	1.20
	0	-2	3.43	1.15	3.42	1.17	3.40	1.19	3.40	1.23	3.39	1.26
	5	3	3.86	1.20	3.85	1.23	3.83	1.24	3.83	1.29	3.81	1.32
	7	6	4.04	1.22	4.02	1.25	4.00	1.26	4.00	1.31	3.98	1.34
	10	8	4.29	1.25	4.28	1.28	4.26	1.29	4.25	1.34	4.24	1.37
	15	10	4.43	1.26	4.42	1.29	4.39	1.30	4.39	1.35	4.37	1.38
	20	15	4.85	1.27	4.83	1.30	4.80	1.31	4.80	1.36	4.78	1.39
	24	18	5.18	1.28	5.16	1.31	5.13	1.32	5.13	1.37	5.11	1.40

■ Model: ASYG12KMCC

AFR	m^3/h	780

			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	2.88	1.19	2.86	1.22	2.82	1.23	2.81	1.28	2.78	1.31
	-10	-11	3.46	1.25	3.43	1.28	3.38	1.30	3.37	1.35	3.34	1.38
	-5	-7	4.04	1.32	4.00	1.35	3.94	1.36	3.93	1.41	3.89	1.44
	0	-2	4.62	1.38	4.57	1.41	4.51	1.43	4.49	1.48	4.45	1.51
	5	3	5.19	1.44	5.15	1.48	5.07	1.49	5.05	1.55	5.01	1.58
	7	6	5.42	1.47	5.38	1.50	5.30	1.52	5.28	1.58	5.23	1.61
	10	8	5.77	1.51	5.72	1.54	5.64	1.56	5.62	1.62	5.57	1.65
	15	10	5.73	1.40	5.68	1.43	5.60	1.45	5.58	1.50	5.53	1.53
	20	15	6.04	1.34	5.98	1.37	5.90	1.38	5.88	1.43	5.82	1.47
	24	18	6.28	1.29	6.23	1.32	6.14	1.33	6.12	1.38	6.06	1.41

■ Model: ASYG14KMCC

AFR	m^3/h	820

			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	3.26	1.36	3.23	1.39	3.19	1.40	3.18	1.45	3.15	1.49
	-10	-11	3.92	1.43	3.88	1.46	3.83	1.48	3.81	1.53	3.78	1.57
	-5	-7	4.57	1.50	4.53	1.54	4.47	1.55	4.45	1.61	4.41	1.64
	0	-2	5.23	1.57	5.18	1.61	5.11	1.63	5.09	1.69	5.04	1.72
	5	3	5.88	1.64	5.83	1.68	5.74	1.70	5.72	1.76	5.67	1.80
	7	6	6.14	1.67	6.09	1.71	6.00	1.73	5.98	1.79	5.92	1.83
	10	8	6.53	1.72	6.48	1.76	6.38	1.77	6.36	1.84	6.30	1.88
	15	10	6.49	1.59	6.43	1.63	6.34	1.65	6.32	1.71	6.26	1.75
	20	15	6.84	1.52	6.77	1.56	6.68	1.57	6.65	1.63	6.59	1.67
	24	18	7.11	1.47	7.05	1.50	6.95	1.52	6.92	1.57	6.86	1.61

WALL MOUNTED
ASYG07-14KMCC

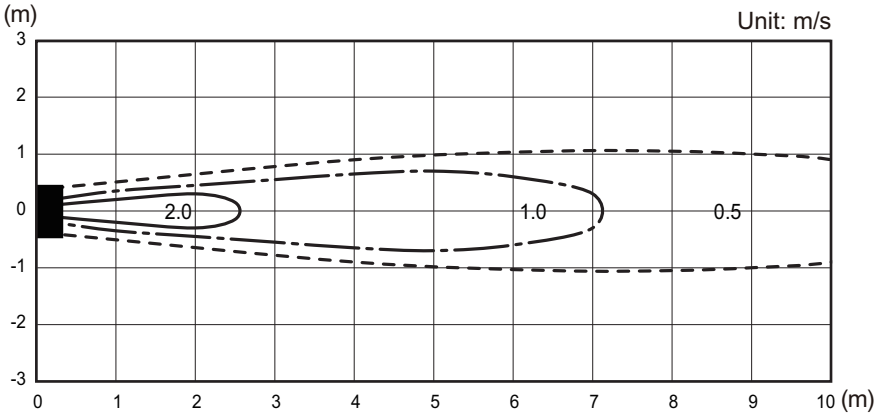
5. Fan performance

5-1. Air velocity distributions

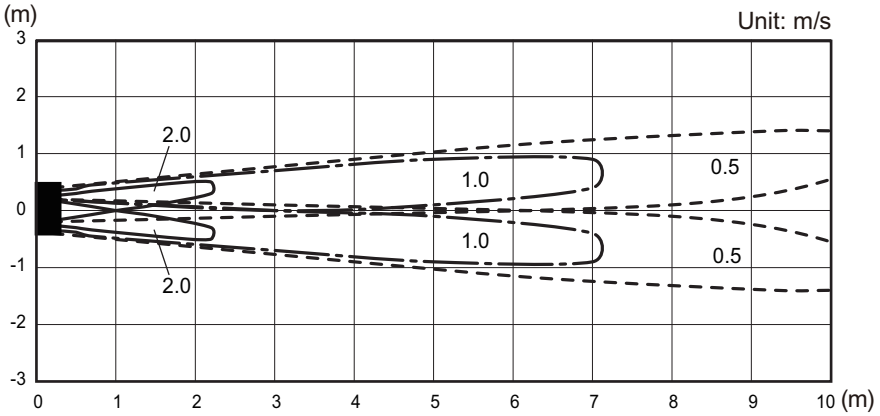
■ Models: ASYG07KMCC, ASYG09KMCC, and ASYG12KMCC

Measuring conditions	Fan speed	Operation mode
	HIGH	FAN

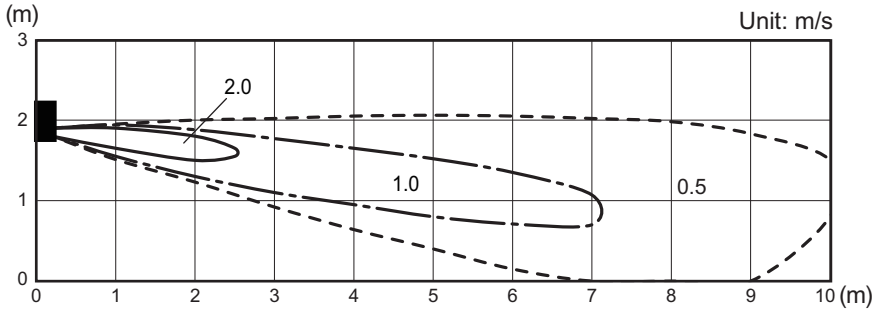
Top view
Vertical airflow direction louver: Up
Horizontal airflow direction louver: Center



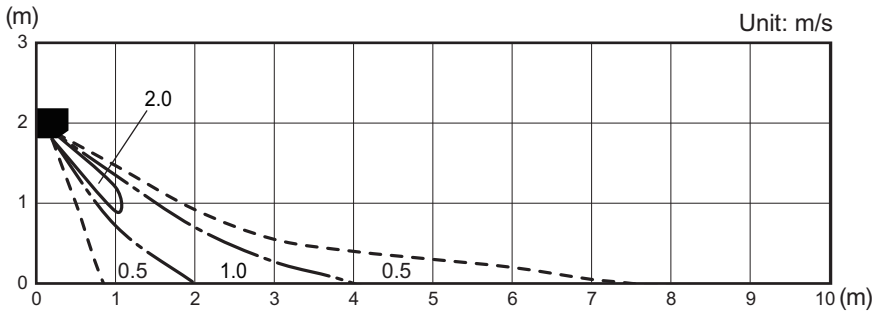
Top view
Vertical airflow direction louver: Up
Horizontal airflow direction louver: Left & Right



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



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

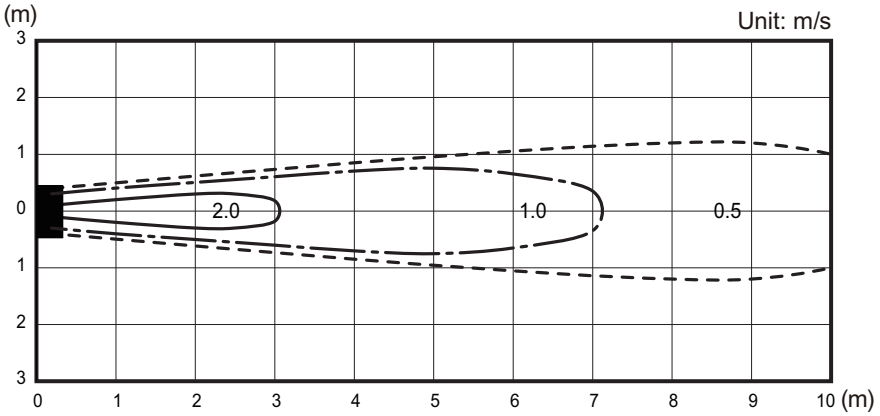


WALL MOUNTED
ASYG07-14KMCC

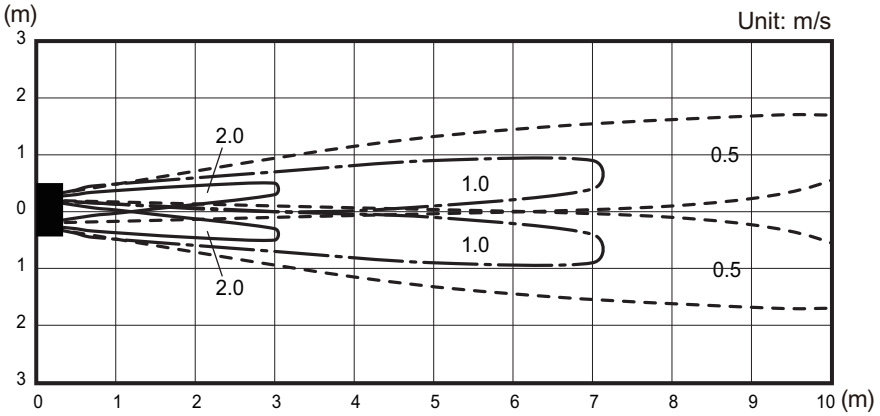
■ Model: ASYG14KMCC

Measuring conditions	Fan speed	Operation mode
	HIGH	FAN

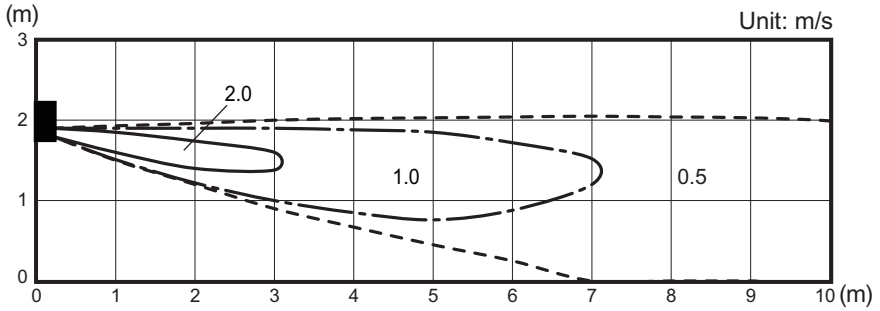
Top view
Vertical airflow direction louver: Up
Horizontal airflow direction louver: Center



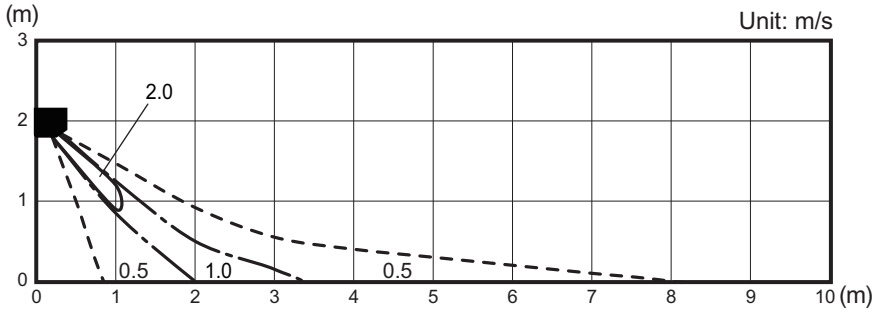
Top view
Vertical airflow direction louver: Up
Horizontal airflow direction louver: Left & Right



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
ASYG07-14KMCC

5-2. Airflow

■ Model: ASYG07KMCC

● Cooling

Fan speed	Airflow	
HIGH	m^3/h	650
	l/s	181
	CFM	383
MED	m^3/h	540
	l/s	150
	CFM	318
LOW	m^3/h	430
	l/s	119
	CFM	253
QUIET	m^3/h	270
	l/s	75
	CFM	159

● Heating

Fan speed	Airflow	
HIGH	m^3/h	720
	l/s	200
	CFM	424
MED	m^3/h	580
	l/s	161
	CFM	341
LOW	m^3/h	460
	l/s	128
	CFM	271
QUIET	m^3/h	330
	l/s	92
	CFM	194

WALL MOUNTED
ASYG07-14KMCC

■ Model: ASYG09KMCC

● Cooling

Fan speed	Airflow	
HIGH	m^3/h	700
	l/s	194
	CFM	412
MED	m^3/h	560
	l/s	156
	CFM	330
LOW	m^3/h	430
	l/s	119
	CFM	253
QUIET	m^3/h	270
	l/s	75
	CFM	159

● Heating

Fan speed	Airflow	
HIGH	m^3/h	750
	l/s	208
	CFM	441
MED	m^3/h	610
	l/s	169
	CFM	359
LOW	m^3/h	470
	l/s	131
	CFM	277
QUIET	m^3/h	330
	l/s	92
	CFM	194

WALL MOUNTED
ASYG07-14KMCC

■ Model: ASYG12KMCC

● Cooling

Fan speed	Airflow	
HIGH	m^3/h	700
	l/s	194
	CFM	412
MED	m^3/h	560
	l/s	156
	CFM	330
LOW	m^3/h	430
	l/s	119
	CFM	253
QUIET	m^3/h	270
	l/s	75
	CFM	159

● Heating

Fan speed	Airflow	
HIGH	m^3/h	780
	l/s	217
	CFM	459
MED	m^3/h	640
	l/s	178
	CFM	377
LOW	m^3/h	520
	l/s	144
	CFM	306
QUIET	m^3/h	330
	l/s	92
	CFM	194

WALL MOUNTED
ASYG07-14KMCC

■ Model: ASYG14KMCC

● Cooling

Fan speed	Airflow	
HIGH	m^3/h	770
	l/s	214
	CFM	453
MED	m^3/h	600
	l/s	167
	CFM	353
LOW	m^3/h	450
	l/s	125
	CFM	265
QUIET	m^3/h	280
	l/s	78
	CFM	165

● Heating

Fan speed	Airflow	
HIGH	m^3/h	820
	l/s	228
	CFM	483
MED	m^3/h	660
	l/s	183
	CFM	388
LOW	m^3/h	520
	l/s	144
	CFM	306
QUIET	m^3/h	340
	l/s	94
	CFM	200

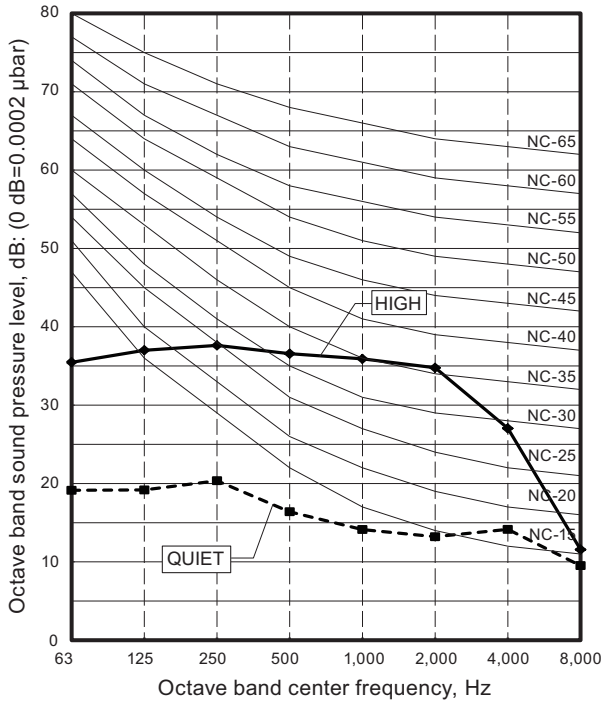
WALL MOUNTED
ASYG07-14KMCC

6. Operation noise (sound pressure)

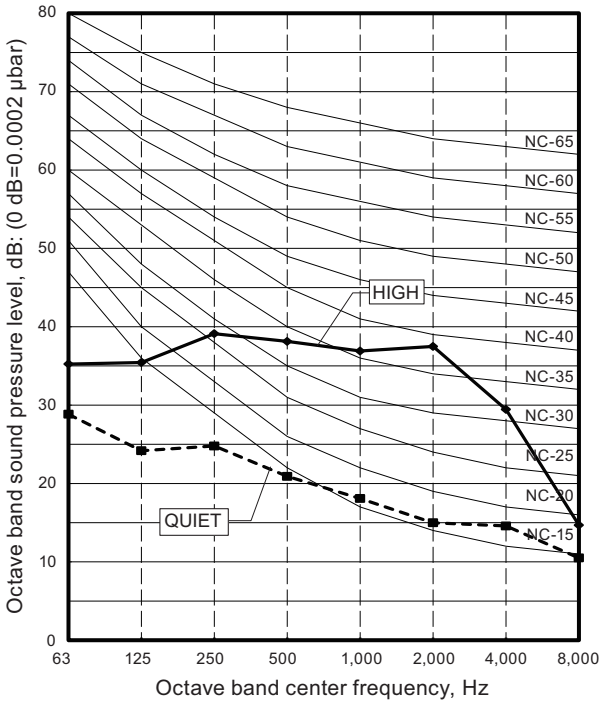
6-1. Noise level curve

■ Model: ASYG07KMCC

● Cooling

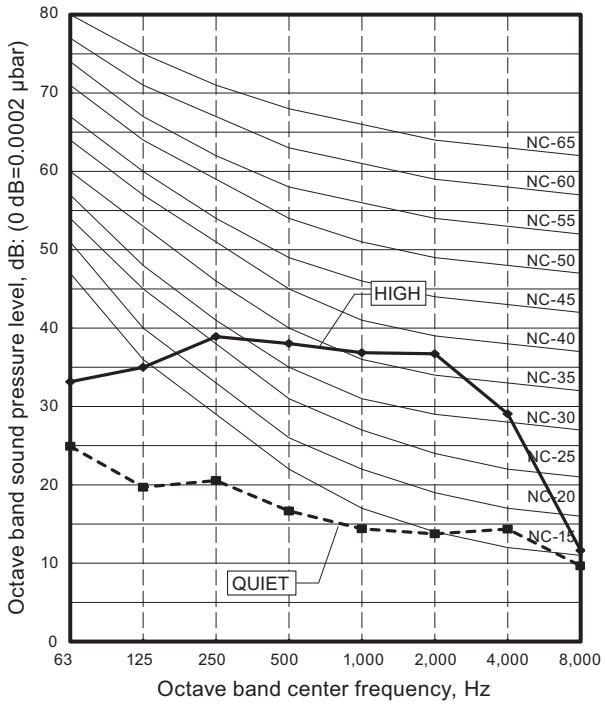


● Heating

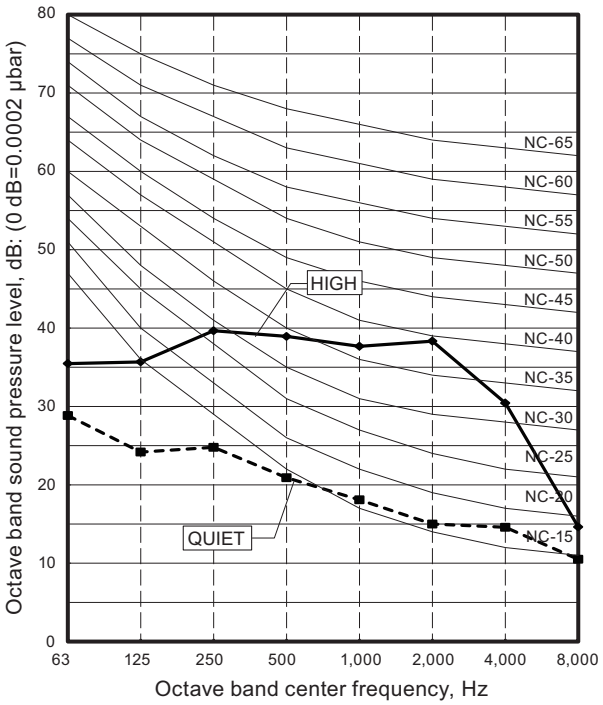


■ Model: ASYG09KMCC

● Cooling



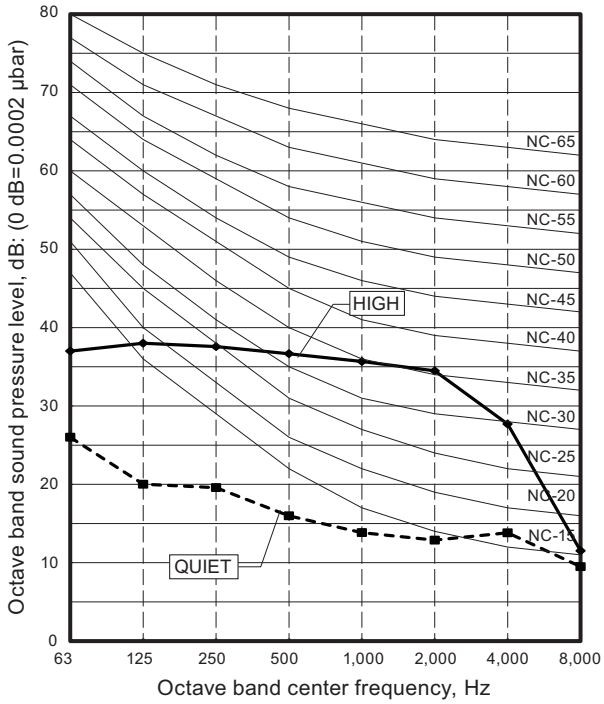
● Heating



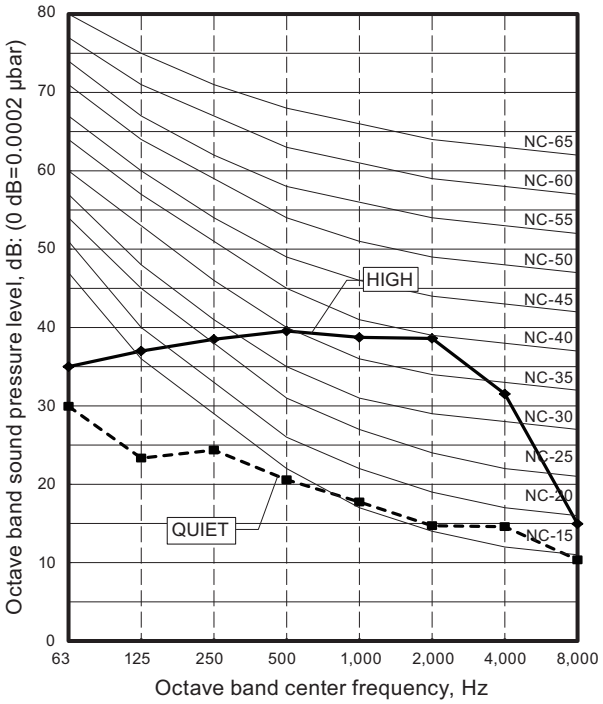
WALL MOUNTED
ASYG07-14KMCC

■ Model: ASYG12KMCC

● Cooling

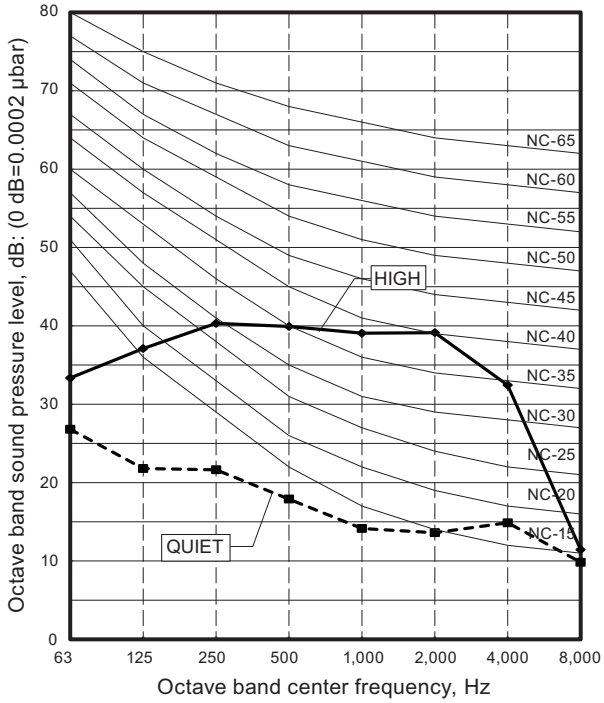


● Heating

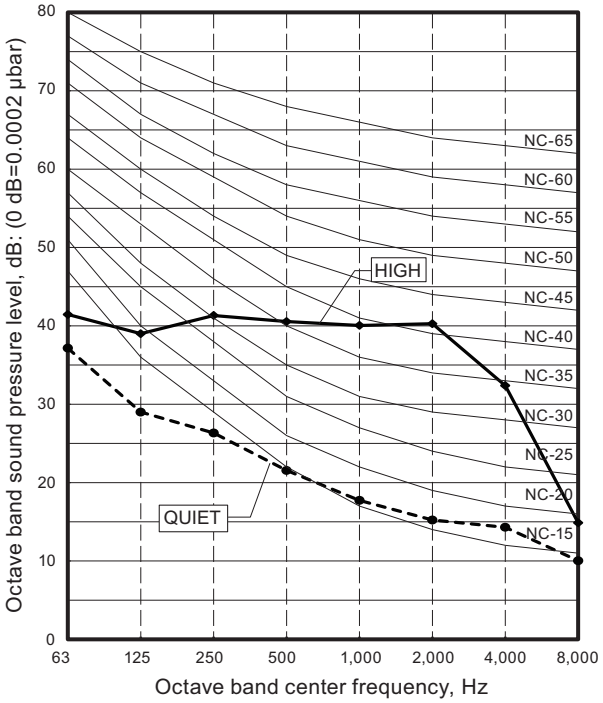


■ Model: ASYG14KMCC

● Cooling

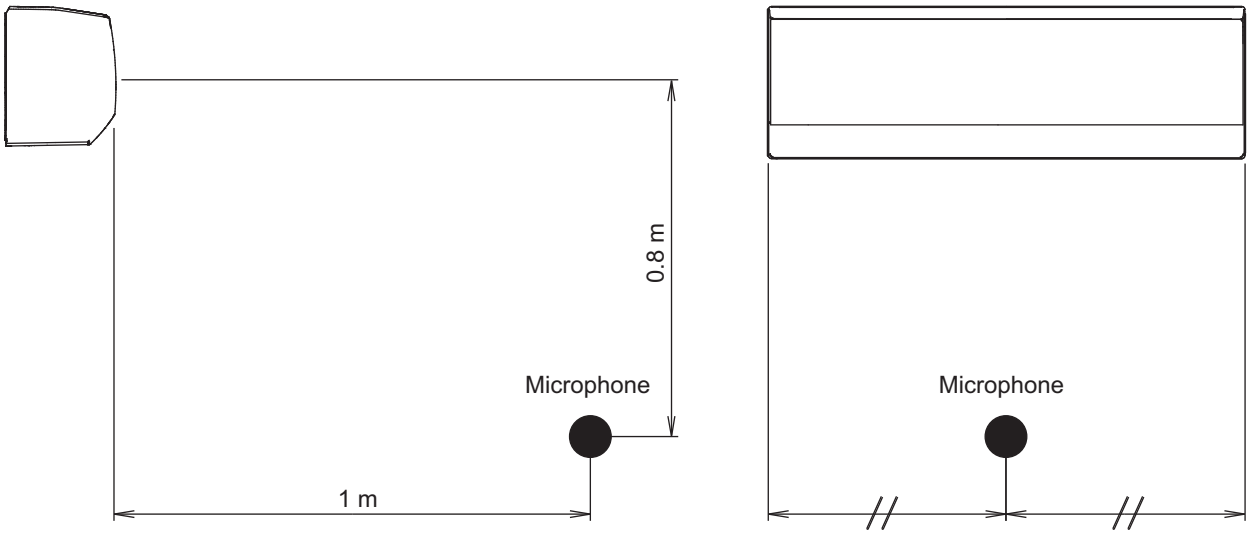


● Heating



WALL MOUNTED
ASYG07-14KMCC

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
ASYG07-14KMCC

7. Safety devices

Type of protection	Protection form		Model		
			ASYG07KMCC	ASYG09KMCC	ASYG12KMCC
Circuit protection	Current fuse (PCB*)		250 V, 3.15 A		
Fan motor protection	Thermal protection	Activate	170^{+25}_{-30}°C Fan motor stop		
		Reset	145^{+25}_{-30}°C Fan motor restart		

Type of protection	Protection form		Model
			ASYG14KMCC
Circuit protection	Current fuse (PCB*)		250 V, 3.15 A
Fan motor protection	Thermal protection	Activate	170^{+25}_{-30}°C Fan motor stop
		Reset	145^{+25}_{-30}°C Fan motor restart

*PCB: Printed Circuit Board

WALL MOUNTED
ASYG07-14KMCC

8. External input and output

With using external input and output functions, this product can be operated inter-connectedly with an external device.

Connector	Input	Output	Remarks
CNA01	Control input	—	See external input/output settings for details.
CNB01	—	Operation status output	
CNB02	—	Error status output	

8-1. External input

With using external input function, some functions on this product can be controlled from an external device.

- “Operation/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)

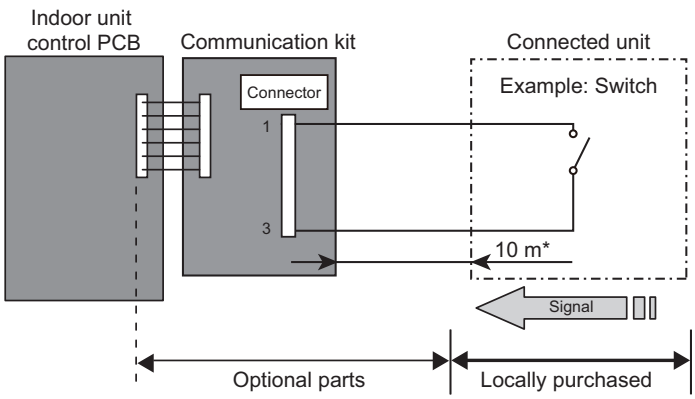
The air conditioner can be remotely operated by means of the following on-site work.

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

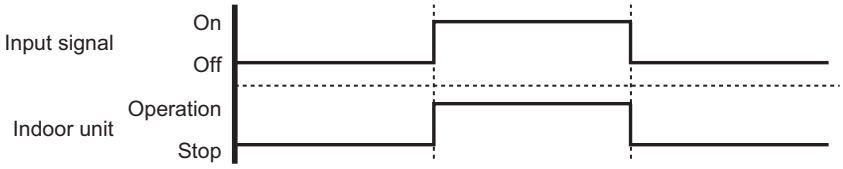
WALL MOUNTED
ASYG07-14KMCC

- **Circuit diagram example**

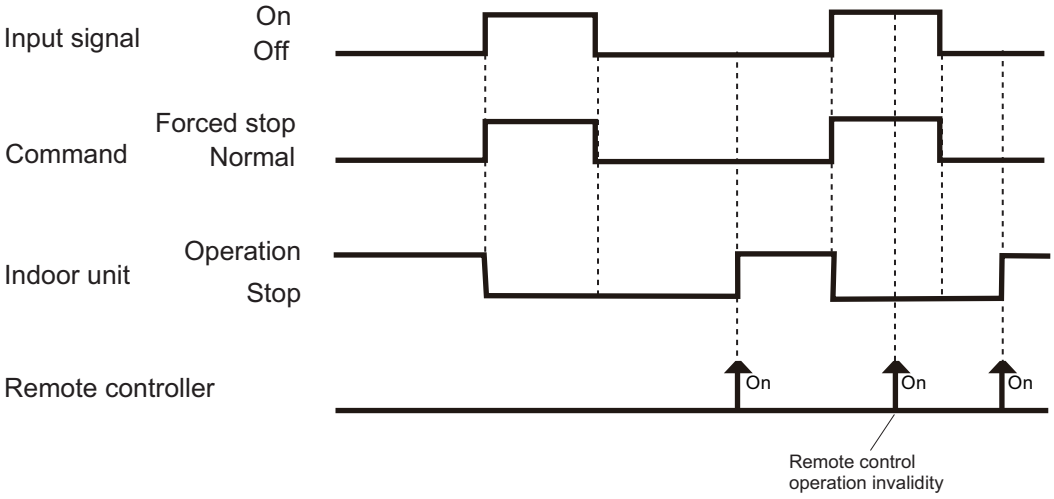


- Contact capacity: DC 24 V or more, 10 mA or more.
- *: Make the distance from the PCB to the connected unit within 10 m.
- Use non-polar relays and switches.

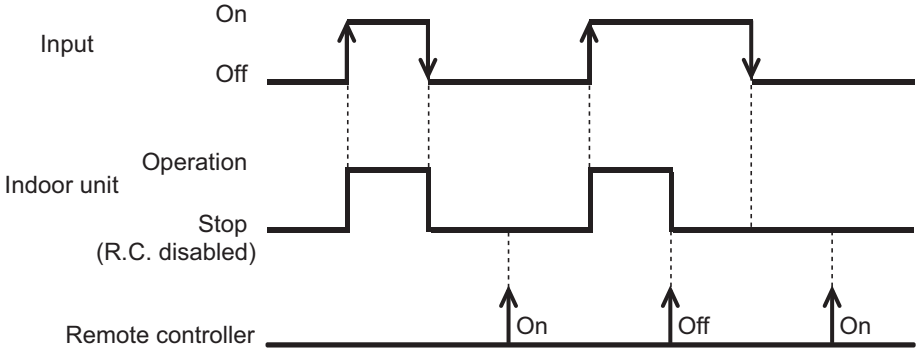
– When function setting is “Operation/Stop” mode



– When function setting is “Forced stop” mode



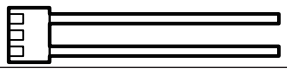
– When function setting is "Operation/Stop" mode 2



NOTE: When "Operation/Stop" mode 2 function is used with forming a remote controller group, connect the same equipment to each indoor unit within the group.

WALL MOUNTED
ASYG07-14KMCC

- **Optional part**

Part name	Model name	Exterior
External connect kit	UTY-XWZXZ5	External input wire 
Communication kit	UTY-TWBXF2	

* For operating the external function, the wall mounted type requires the communication kit in addition to the wire (UTY-XWZXZ5).

WALL MOUNTED
ASYG07-14KMCC

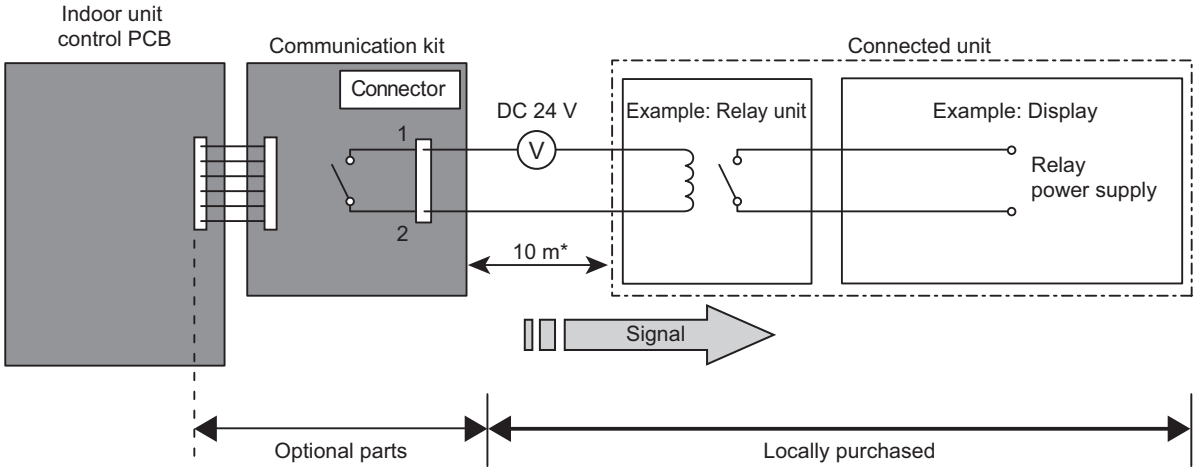
8-2. External output

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.

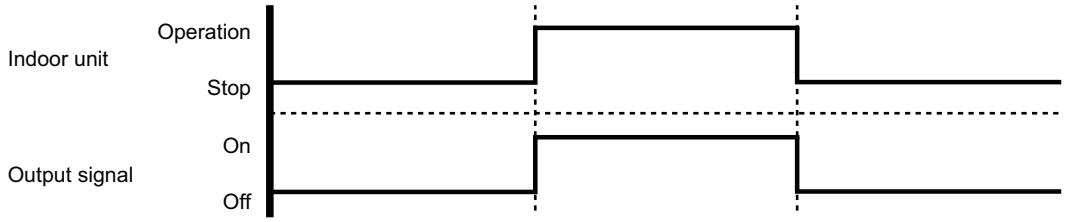
■ Operation status output

Air conditioner operation status signal can be output.

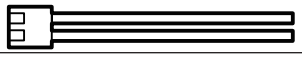
- **Circuit diagram example:**



– *: 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-XWZXZ5	External output wire 
Communication kit	UTY-TWBXF2	

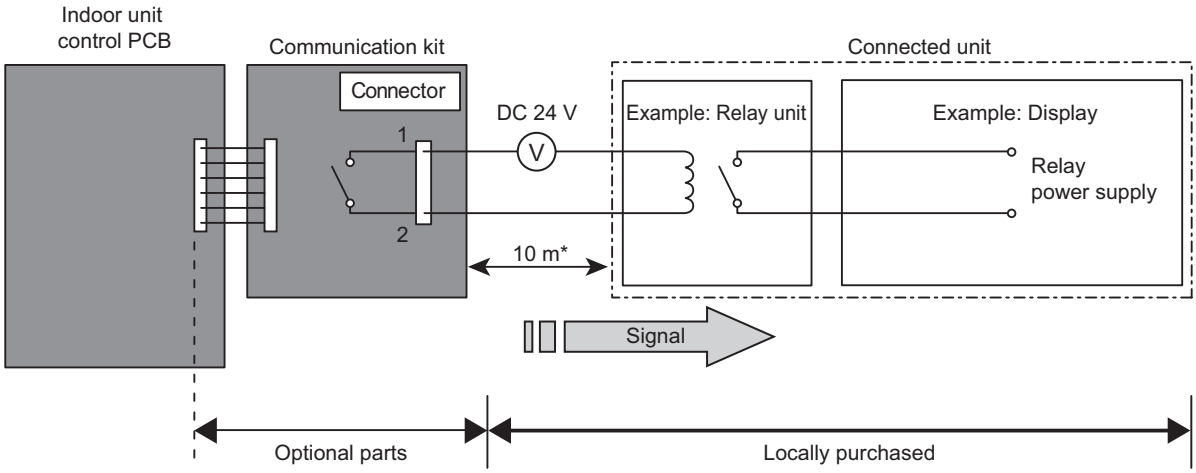
* For operating the external function, the wall mounted type requires the communication kit in addition to the wire (UTY-XWZXZ5).

WALL MOUNTED
ASYG07-14KMCC

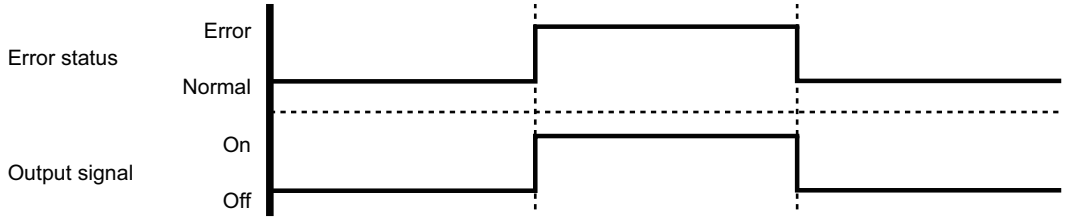
■ Error status output

Air conditioner error status signal can be output.

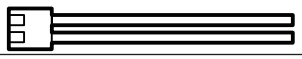
- **Circuit diagram example:**



– *: 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-XWZXZ5	External output wire 
Communication kit	UTY-TWBXF2	

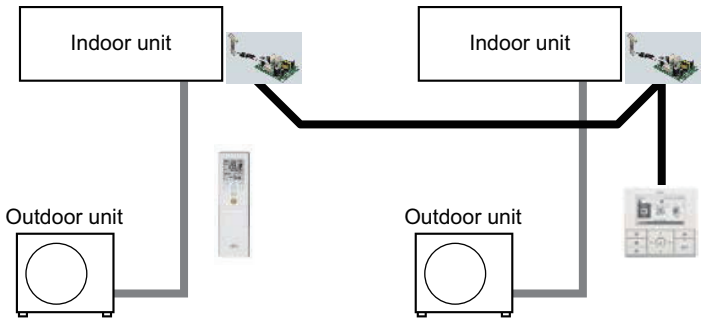
* For operating the external function, the wall mounted type requires the communication kit in addition to the wire (UTY-XWZXZ5).

WALL MOUNTED
ASYG07-14KMCC

9. Group connection

Wiring regulation on the remote controllers in the multi-split systems are reviewed and allowed for group connection.

Example of group connection



*Exterior of each device shown above might be different from the actual one.

NOTES:

- Group connection is applicable for models that are produced in 2013 or later in following products:
  - KM/KG/LT/LU/LM/LF series in wall mounted type
  - Floor type
- Up to 16 indoor units can be controlled by using one wired remote controller.

9-1. Precautions on creating a group connection

Take precautions on items described in this section when creating a group connection.

- **Maximum wiring length of the remote controller cable:** 300 m
  Even if the maximum wiring length of the product itself is specified as longer than 300 m, the maximum length of the remote controller cable will be 300 m if the system is group-connected.
  When total wiring length is longer than 100 m, the cable diameter needs to be changed as follows:

Total wiring length of remote controller cable Unit: m	Cross section of cable Unit: mm^2
100 or less	0.3—0.8
100—200	0.5—0.8
200—300	0.8

WALL MOUNTED
ASYG07-14KMCC

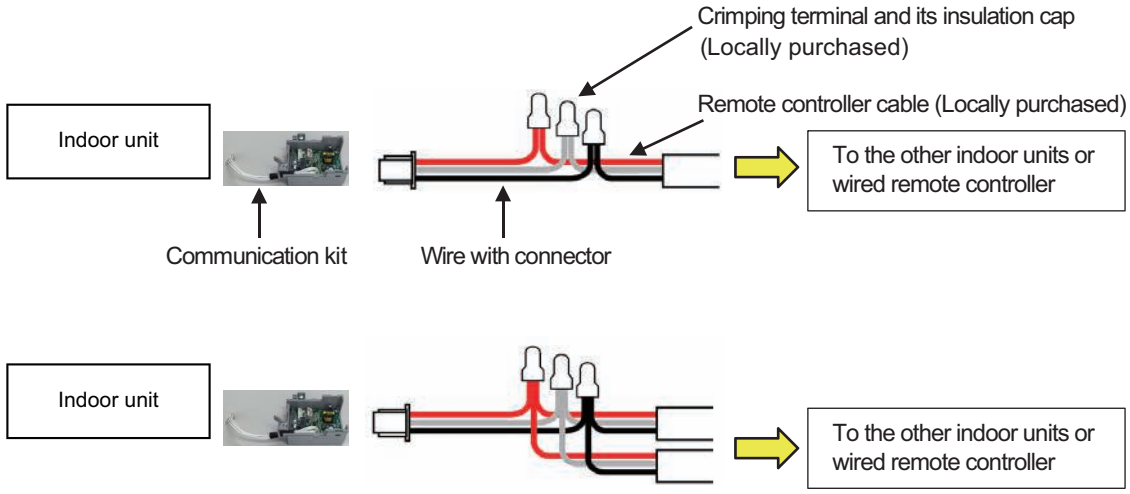
- **Required parts for group connection**
  - Optional part:

Indoor unit type	Communication kit
Wall mounted	UTY-TWBXF
	UTY-XWZXZ5
	UTY-TWBXF2

As for the optional parts, refer to Chapter 13-2. "Others" on page 38.

  - Service part: Wire with connector (Service part no. 9705932012)

Wiring example for multiple remote control or group control:



NOTES:

- Conceal the wirings of the group connection inside of the wall or by means of trunking at the thickness of 1-mm or more to prevent electrical shocks when getting in touch with the cables under certain circumstances.
- When using the Communication kit for wall mounted type, store the crimping terminals inside the Communication kit.
- In the wireless remote controllers for the group connection, its remote controller address can be set by its own. For the details, refer to following section “Remote controller address setting procedure for wireless remote controllers”.
  An error is displayed immediately just turning on the power to effect the settings of the group connection. However the error will automatically disappear when the subsequent function setting is completed.
- Bundle the wires with a cable tie to prevent external pressures apply on the crimping terminals. (Ensure that the tensile strength for the splicing position is 10 N or above.)

9-2. Remote controller address setting procedure for wireless remote controllers

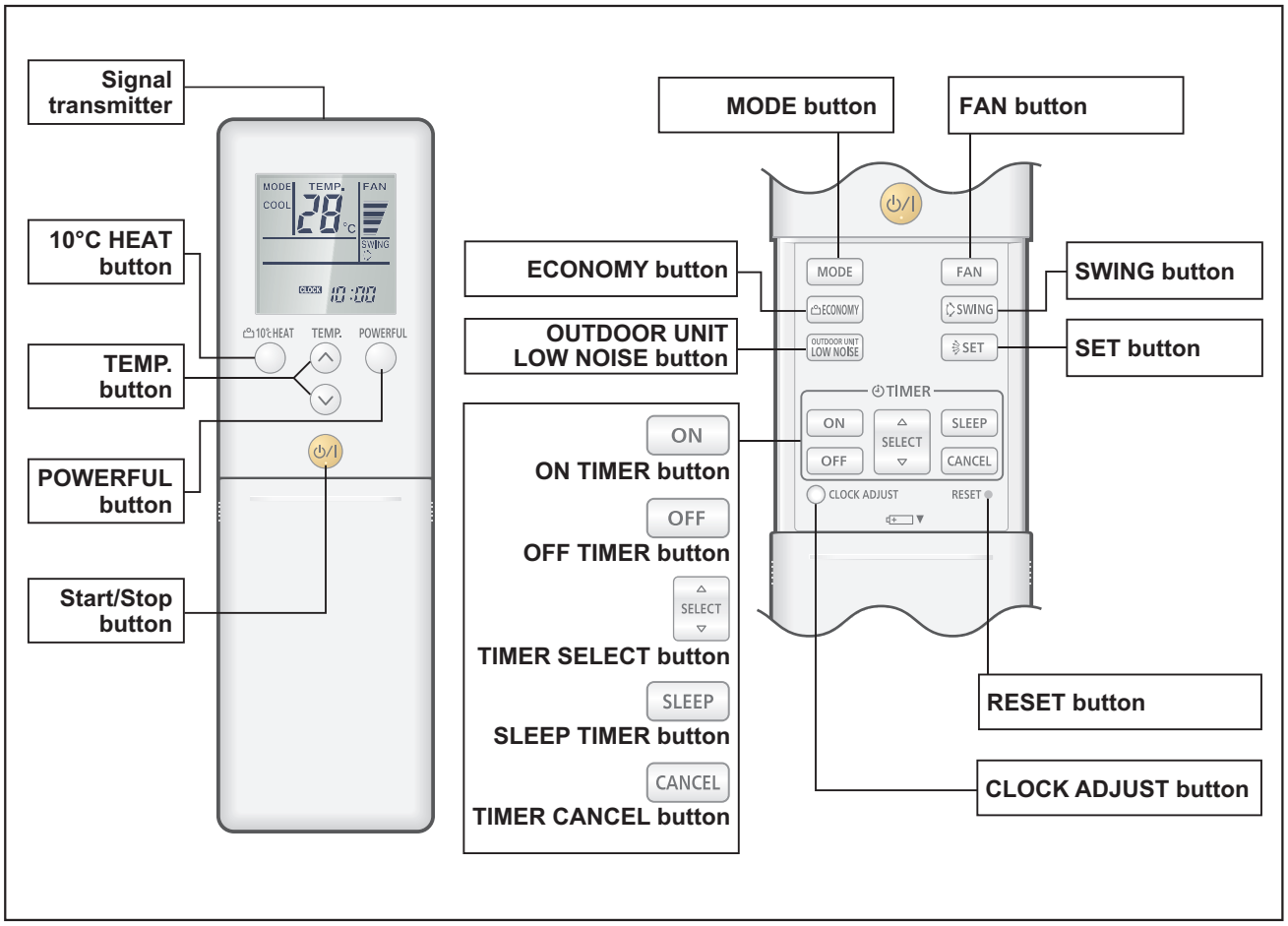
1. Enter the function setting mode of the wireless remote controller. For details, refer to "Function settings " on page 29.
2. Select the function number “00” (Remote controller address setting), and then select any of the number (Setting value) from 00 to 15. (Factory setting: 00)

WALL MOUNTED
ASYG07-14KMCC

10. Remote controller

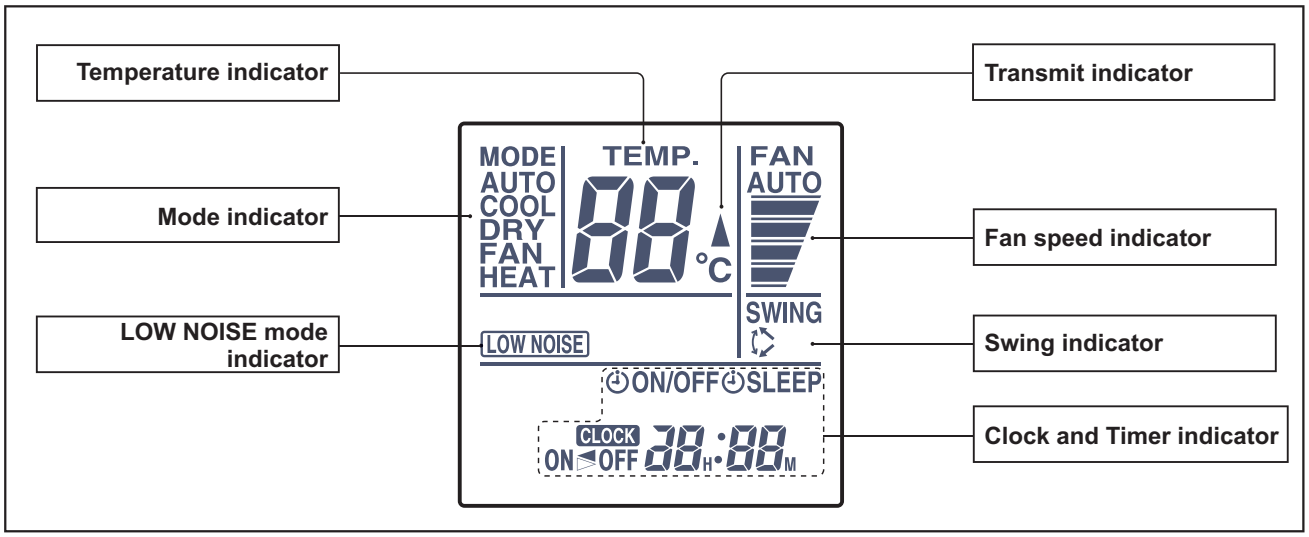
10-1. Wireless remote controller

■ Overview



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

Display panel



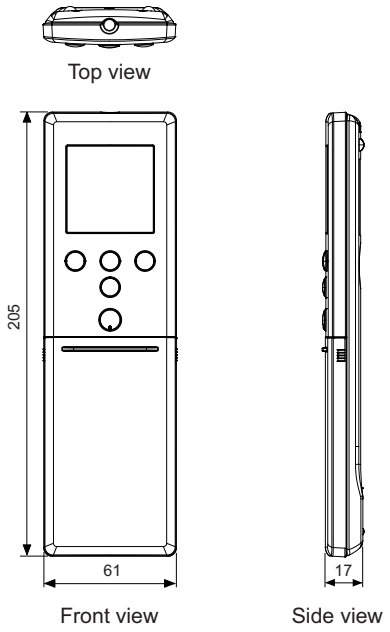
To facilitate explanation, the accompanying illustration has been drawn to show all possible indicators; in actual operation, however, the display will only show those indicators appropriate to the current operation.

WALL MOUNTED
ASYG07-14KMCC

■ Specifications

● Controller

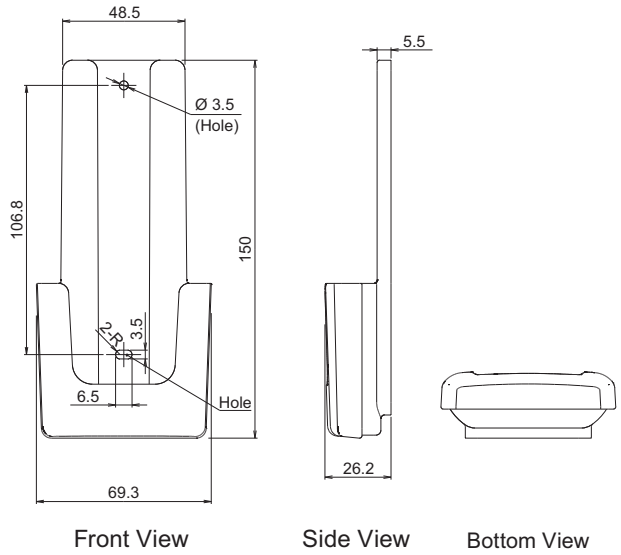
Unit: mm



Size (H × W × D)	mm	205 × 61 × 17
Weight	g	124 (without batteries)

● Holder

Unit: mm



Size (H × W × D)	mm	150 × 69.3 × 26.2
Weight	g	27

WALL MOUNTED
ASYG07-14KMCC

11. 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.

11-1. 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 the indoor unit.

Entering function setting mode:

While pressing the POWERFUL button and TEMP. (∧) button simultaneously, press the RESET button to enter the function setting mode.

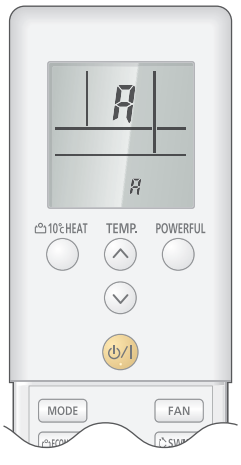
STEP 1: Setting the remote controller custom code

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 35.

1. Press the 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 10 °C HEAT button, and proceed to **STEP 2**.
2. Press the MODE button and check that the indoor unit can receive signals at the displayed custom code.
3. Press the 10 °C HEAT 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.



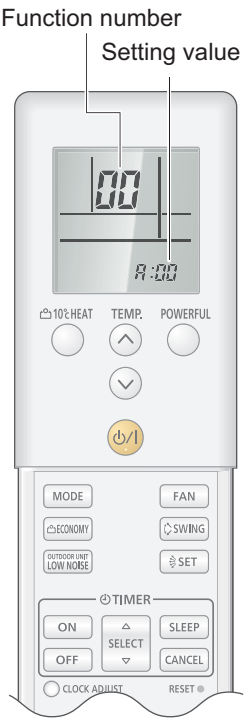
WALL MOUNTED
ASYG07-14KMCC

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

STEP 2: Selecting the function number and setting value

1. Press the TEMP. (∧) (∨) buttons to select the function number. To switch between the left and right digits, press the 10 °C HEAT button.
2. Press the POWERFUL button to proceed the setting value. To return the function number selection, press the POWERFUL button again.
3. Press the TEMP. (∧) (∨) buttons to select the setting value. To switch between the left and right digits, press the 10 °C HEAT button.
4. Press the 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.

WALL MOUNTED
ASYG07-14KMCC

■ 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)	00	Remote controller address setting
2)	11	Filter sign
3)	30/31	Room temperature control for indoor unit sensor
4)	35/36	Room temperature control for wired remote controller sensor
5)	40	Auto restart
6)	42	Room temperature sensor switching
7)	44	Remote controller custom code
8)	46	External input control
9)	48	Room temperature sensor switching (Aux.)
10)	49	Indoor unit fan control for energy saving for cooling

1) Remote controller address setting

NOTE: This setting is configurable only by wireless remote controller, but not configurable by Polar 3-wired remote controller.

Multiple indoor units can be operated by using one wired remote controller.

Set the unit number of each indoor unit.

Function number	Setting value	Setting description	Factory setting
00	00	Unit no. 0	♦
	01	Unit no. 1	
	02	Unit no. 2	
	03	Unit no. 3	
	04	Unit no. 4	
	05	Unit no. 5	
	06	Unit no. 6	
	07	Unit no. 7	
	08	Unit no. 8	
	09	Unit no. 9	
	10	Unit no. 10	
	11	Unit no. 11	
	12	Unit no. 12	
	13	Unit no. 13	
	14	Unit no. 14	
	15	Unit no. 15	

NOTES:

- When connecting Polar 3-wired remote controller, set the remote controller address in the order of 0, 1, 2, ..., and 15.
- When different type of indoor units (such as wall mounted type and cassette type, cassette type and duct type, or other combinations) are connected using group control system, some functions may no longer be available.

WALL MOUNTED
ASYG07-14KMCC

2) 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	♦

3) 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 of the room temperature sensor is corrected as follows:

Corrected temp. = Temp. of the room temp. sensor - Correction temp. value

Example of correction:

When the temperature of the room temp. sensor is 26°C and the setting value is “03” (-1.0°C), corrected temp. will be 27°C (26°C - [-1.0°C]).

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
ASYG07-14KMCC

4) Room temperature control for wired remote controller sensor

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

To change this setting, set Function 42 to Both “01”.

Ensure that the Thermo Sensor icon is displayed on the remote controller screen.

Function number		Setting value	Setting description		Factory setting
35 (For cooling)	36 (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		

5) 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.

6) Room temperature sensor switching

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.

WALL MOUNTED
ASYG07-14KMCC

7) 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	

8) 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 1	♦
	01	(Setting prohibited)	
	02	Forced stop mode	
	03	Operation/Stop mode 2	

9) Room temperature sensor switching (Aux.)

To use the temperature sensor on the wired remote controller only, change the setting to "Wired remote controller" (01).

This function will only work if the function setting 42 is set at "Both" (01).

When the setting value is set to "Both" (00), more suitable control of the room temperature is possible by setting function setting 30 and 31 too.

Function number	Setting value	Setting description	Factory setting
48	00	Both	♦
	01	Wired remote controller	

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	
	02	Remote controller	

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.

02: Enable or disable this function by remote controller setting.

NOTES:

- As the factory setting, this setting is initially activated.
- Set to "00" or "01" when connecting a remote controller that cannot set the Fan control for energy saving function or connecting a network converter.
  To confirm if the remote controller has this setting, refer to the operating manual of each remote controller.

WALL MOUNTED
ASYG07-14KMCC

11-2. 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 signal if the air conditioner has not been set for the custom code.

When 2 or more air conditioners are installed in a room, and the remote controller is operating an air conditioner other than the one you wish to set, change the custom code of the remote controller to operate only the air conditioner you wish to set. (4 selections possible.)

Confirm the setting of the remote controller custom code and the function setting. If these do not match, the remote controller cannot be used to operate for the air conditioner.

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 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.)
4. Press the MODE button again to return to the clock display. The custom code will be changed.



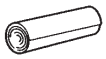
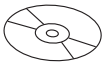
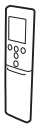
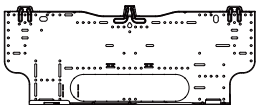
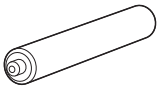
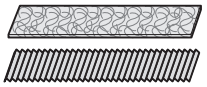
NOTES:

- 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.
- 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
ASYG07-14KMCC

12. Accessories

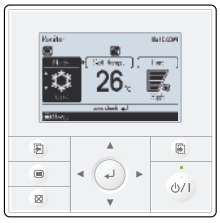
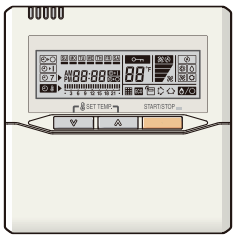
12-1. Models: ASYG07KMCC, ASYG09KMCC, ASYG12KMCC, and ASYG14KMCC

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

WALL MOUNTED
ASYG07-14KMCC

13. Optional parts

13-1. 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 Optional communication kit is necessary for installation.
	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 Optional communication kit is necessary for installation.
	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 Optional communication kit is necessary for installation.

NOTES:

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

WALL MOUNTED
ASYG07-14KMCC

13-2. Others

Exterior	Part name	Model name	Summary
	External connect kit	UTY-XWZXZ5	Required when external device is connected.
	Communication kit	UTY-TWBXF2	Use to connect with optional devices and air conditioner PCB. Optional External connect kit is necessary for installation.
	Wireless LAN adapter	UTY-TFSXW1	Remotely manage an air conditioning system using mobile devices such as smartphones and tablets.
	Modbus converter	UTY-VMSX	For connection between indoor unit with UART interface and a Modbus open network.
	KNX converter	UTY-VKSX	For connection between indoor unit with UART interface and a KNX open network.
	Network converter	UTY-VTGX	This converter is required when connecting single split system to VRF network system.
	Network converter (AC power supply)	UTY-VTGXV	This converter is required when connecting single split system to VRF network system.
	External switch controller	UTY-TERX	Air conditioner switching can be controlled by connecting other external sensor switches.

Part 2. OUTDOOR UNIT

SINGLE TYPE:

AOYG07KMCC
AOYG09KMCC
AOYG12KMCC
AOYG14KMCC

1. Specifications

Type				Inverter heat pump			
Model name				**AOYG07KMCC**	**AOYG09KMCC**	**AOYG12KMCC**	**AOYG14KMCC**
Power supply				230 V ~ 50 Hz			
Available voltage range				198—264 V			
Starting current			A	3.0	3.4	5.1	6.8
Fan	Airflow rate	Cooling	m^3/h	1,650	1,650	1,700	1,680
		Heating		1,450	1,450	1,470	1,580
	Type × Q'ty			Propeller fan × 1			
	Motor output		W	23			
Sound pressure level *1		Cooling	dB (A)	46		50	
		Heating		46		50	
Sound power level		Cooling	dB (A)	61		65	
		Heating		61	62	65	66
Heat exchanger type		Dimensions (H × W × D)	mm	504 × 650 × 18.2		504 × 630 × 36.4	504 × 881 × 36.4
		Fin pitch		1.3			
		Rows × Stages		1 × 24		2 × 24	
		Pipe type		Copper			
		Fin type	Type (Material)	Corrugate (Aluminum)			
			Surface treatment	Corrosion resistance			
Compressor	Type × Q'ty			DC rotary × 1			
	Motor output		W	550			900
Refrigerant		Type (Global warming potential)		R32 (675)			
		Charge	g	600		700	850
Refrigerant oil		Type		RB74AF			RB68A
		Amount	cm^3	240			340
Enclosure		Material		Steel sheet			
		Color		Beige Approximate color of Munsell 10YR 7.5/1.0			
Dimensions (H × W × D)	Net		mm	541 × 663 × 290			542 × 799 × 290
	Gross			602 × 804 × 375			602 × 940 × 375
Weight	Net		kg	22		24	31
	Gross			25		27	35
Connection pipe	Size	Liquid	mm (in)	Ø 6.35 (Ø 1/4)			
		Gas		Ø 9.52 (Ø 3/8)			
	Method			Flare			
	Pre-charge length		m	15			
	Max. length			20			
	Max. height difference			15			
Operation range		Cooling	°C	-10 to 46			
		Heating		-15 to 24			
Drain hose		Material		PP			
		Tip diameter	mm	Ø 13.0 (I. D.), Ø 16.0 to Ø 16.8 (O. D.)			

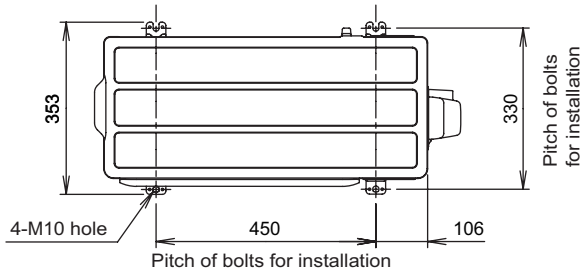
NOTES:

- 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.

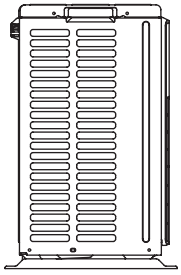
2. Dimensions

2-1. Models: AOYG07KMCC, AOYG09KMCC, and AOYG12KMCC

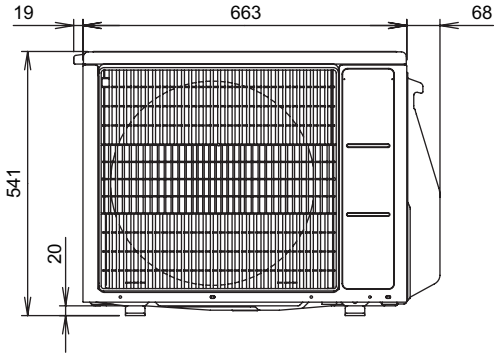
Unit: mm



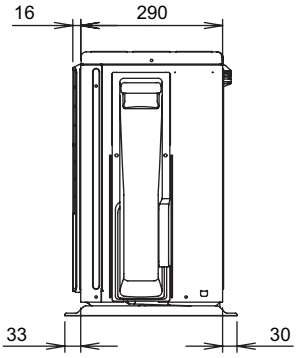
Top view



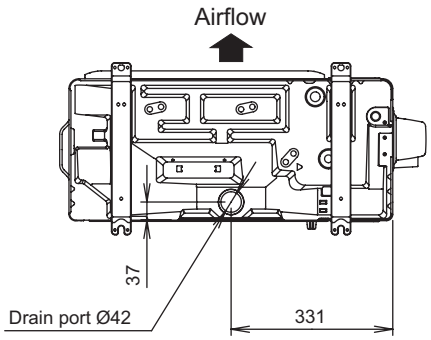
Side view



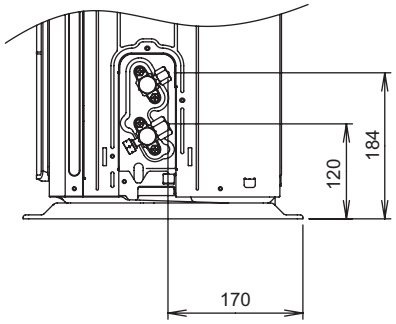
Front view



Side view



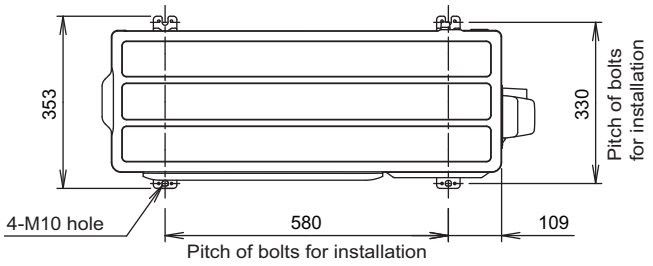
Bottom view



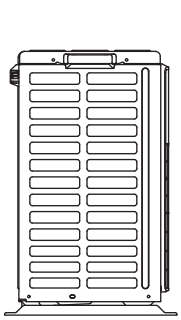
Side view (Valve part)

2-2. Model: AOYG14KMCC

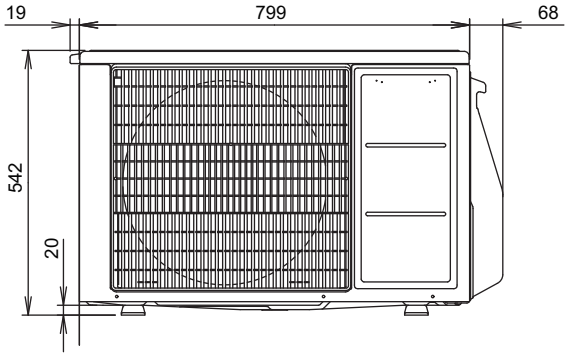
Unit: mm



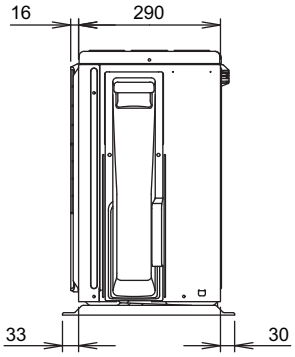
Top view



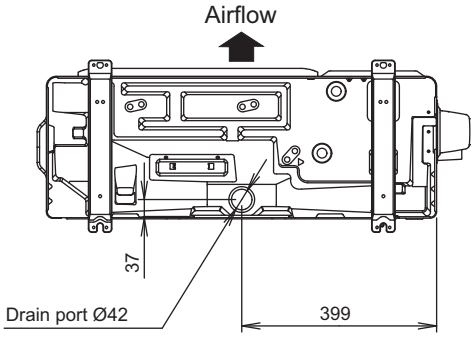
Side view



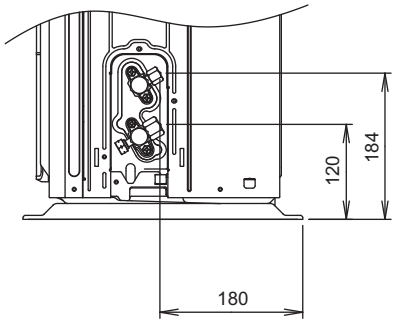
Front view



Side view



Bottom view



Side view (Valve part)

OUTDOOR UNIT
AOYG07-14KMCC

3. Installation space

3-1. Models: AOYG07KMCC, AOYG09KMCC, AOYG12KMCC, and AOYG14KMCC

■ Space requirement

Provide sufficient installation space for product safety.

⚠ CAUTION

Keep the space shown in the installation examples.

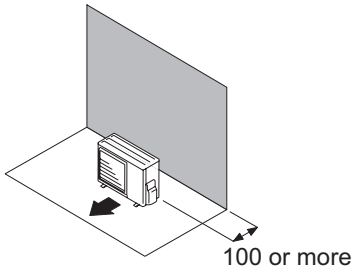
If the installation is not performed accordingly, it could cause a short circuit and result in a lack of operating performance.

● Single outdoor unit installation

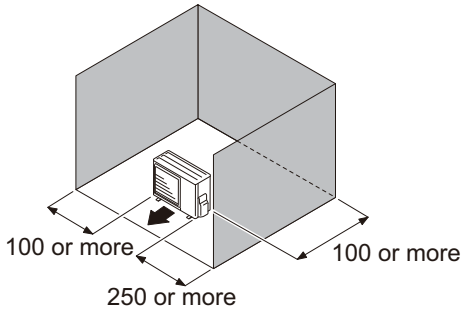
- **When the upper space is open:**

Unit: mm

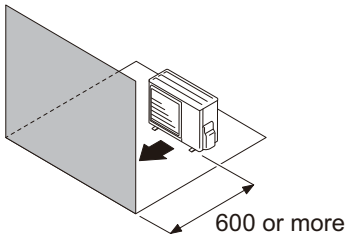
Obstacles at rear only



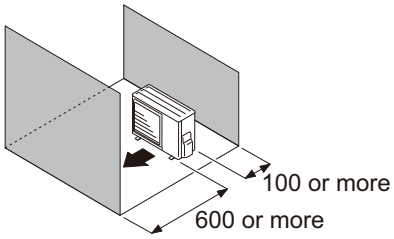
Obstacles at rear and sides



Obstacles at front



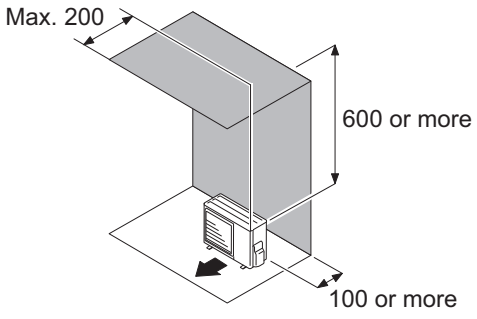
Obstacles at front and rear



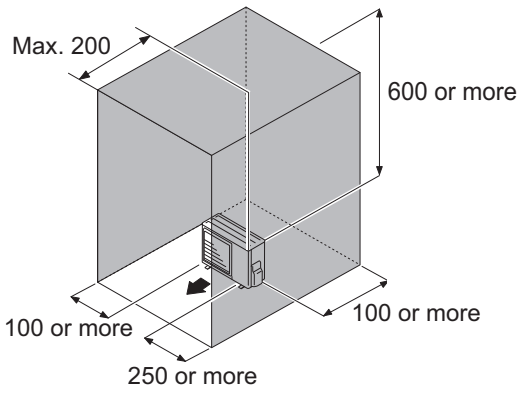
- **When an obstruction in the upper space:**

Unit: mm

Obstacles at rear and above



Obstacles at rear, sides, and above



OUTDOOR UNIT
AOYG07-14KMCC

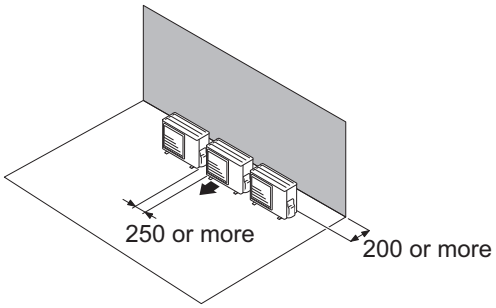
● Multiple outdoor unit installation

- 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 4 units or more are arranged in a line, provide the space as shown in the following example "**When an obstruction in the upper space:**".

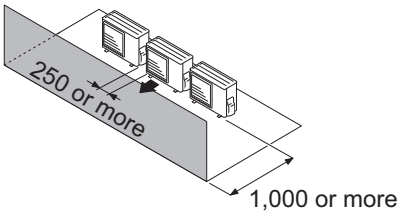
- **When the upper space is open:**

Unit: mm

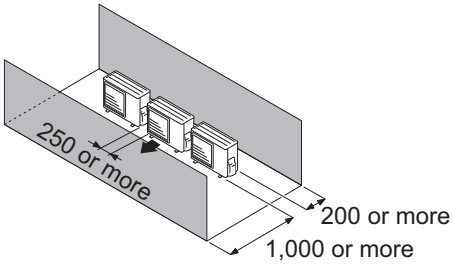
Obstacles at rear only



Obstacles at front only



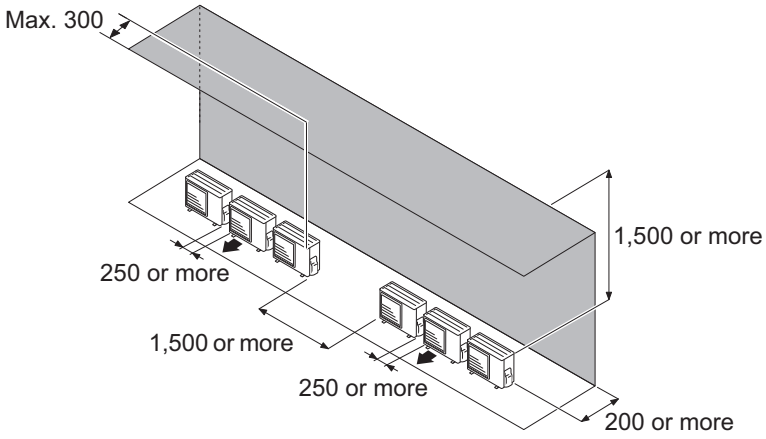
Obstacles at front and rear



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

Unit: mm

Obstacles at rear and above.

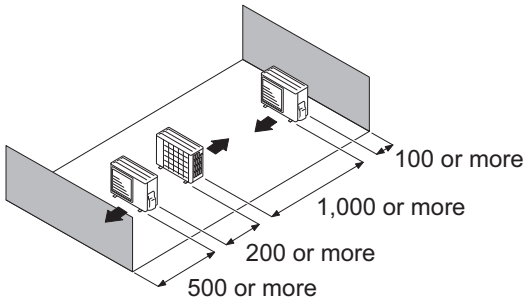


OUTDOOR UNIT
AOYG07-14KMCC

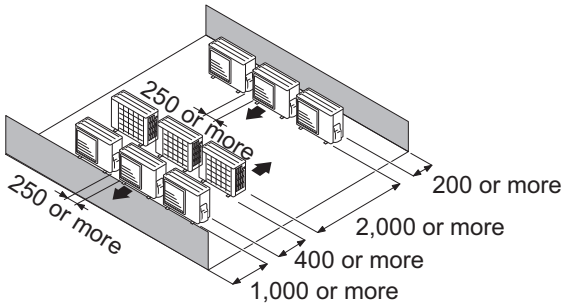
● Outdoor units installation in multi-row

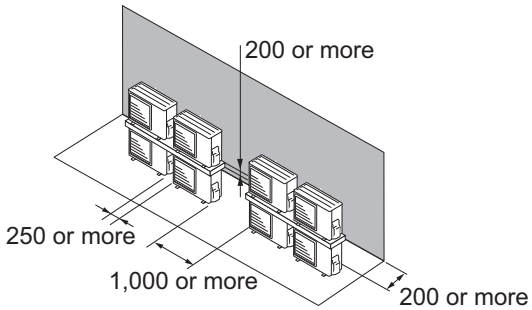
Unit: mm

Single parallel unit arrangement



Multiple parallel unit arrangement



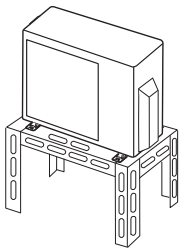


NOTES:

- 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

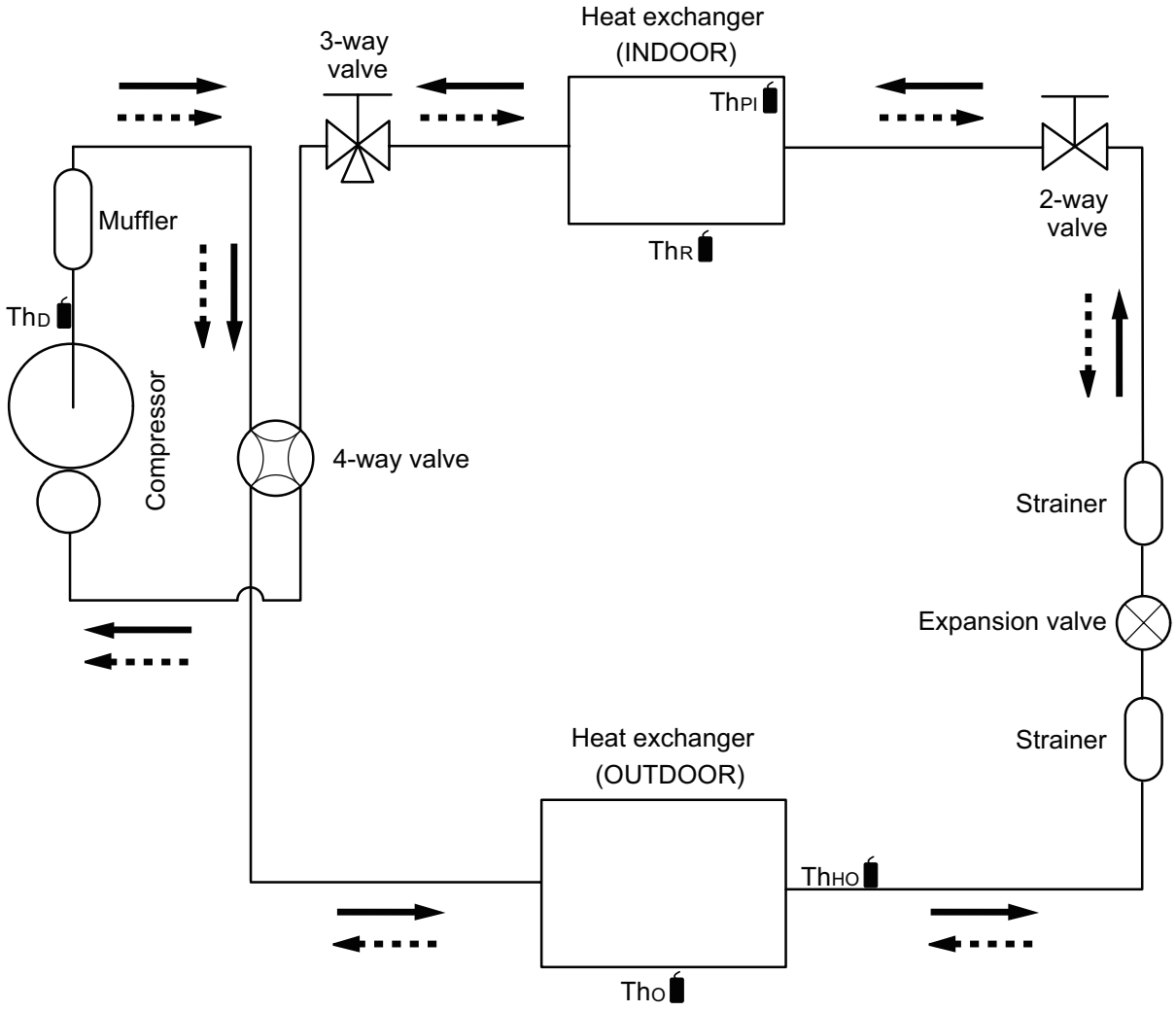
- Do not install the outdoor unit in two-stage where the drain water could freeze. Otherwise the drainage from the upper unit may form ice and cause a malfunction of the lower unit.
- When the outdoor temperature is 0 °C or less, do not use the accessory drain pipe and drain cap. If the drain pipe and 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
AOYG07-14KMCC

4. Refrigerant circuit

4-1. Models: AOYG07KMCC, AOYG09KMCC, and AOYG12KMCC



ThD : Thermistor (Discharge temperature)

ThO : Thermistor (Outdoor temperature)

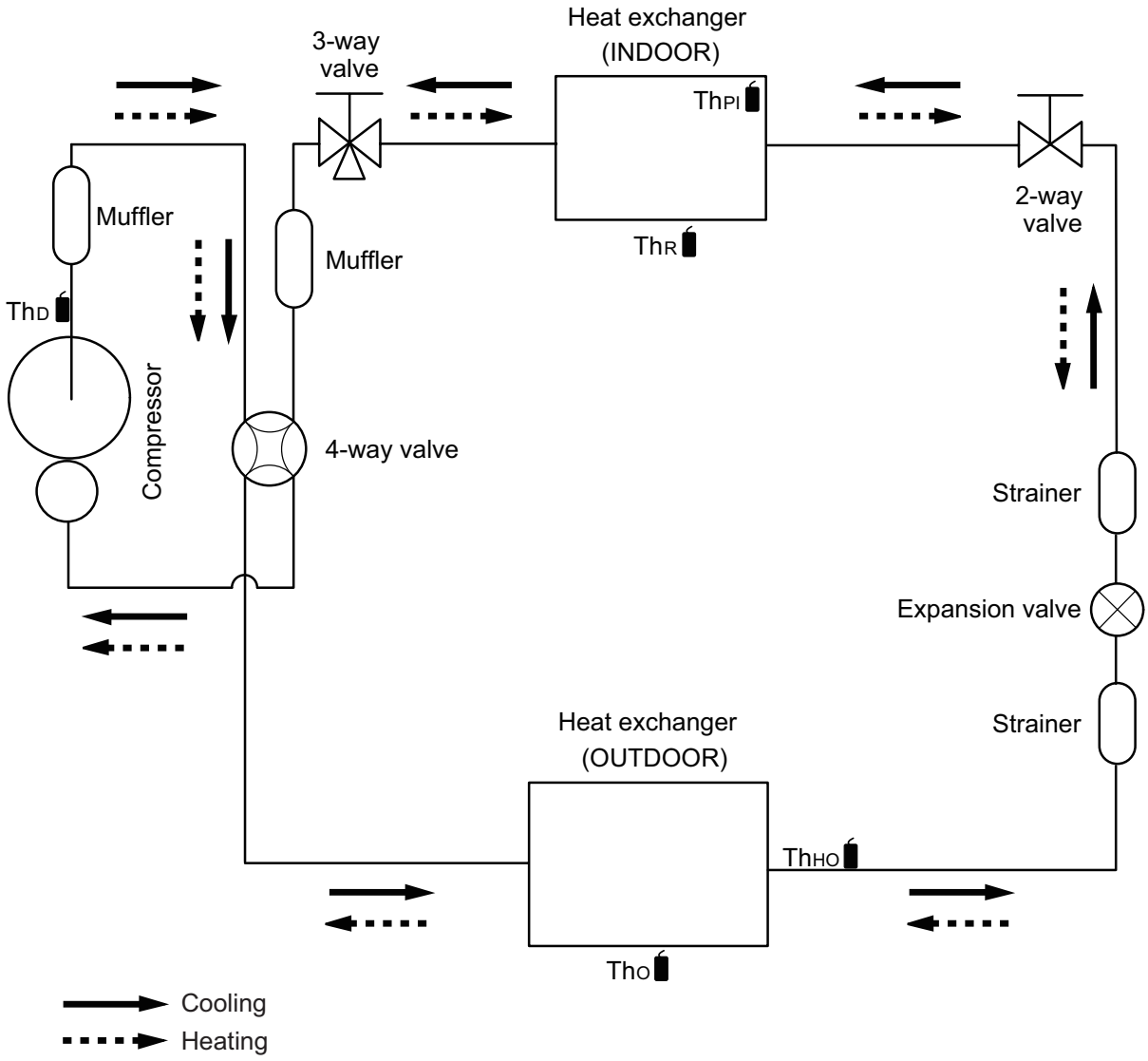
ThHO: Thermistor (Heat exchanger out temperature)

ThR : Thermistor (Room temperature)

ThPI : Thermistor (Pipe temperature)

OUTDOOR UNIT
AOYG07-14KMCC

4-2. Model: AOYG14KMCC



ThD : Thermistor (Discharge temperature)

ThO : Thermistor (Outdoor temperature)

ThHO: Thermistor (Heat exchanger out temperature)

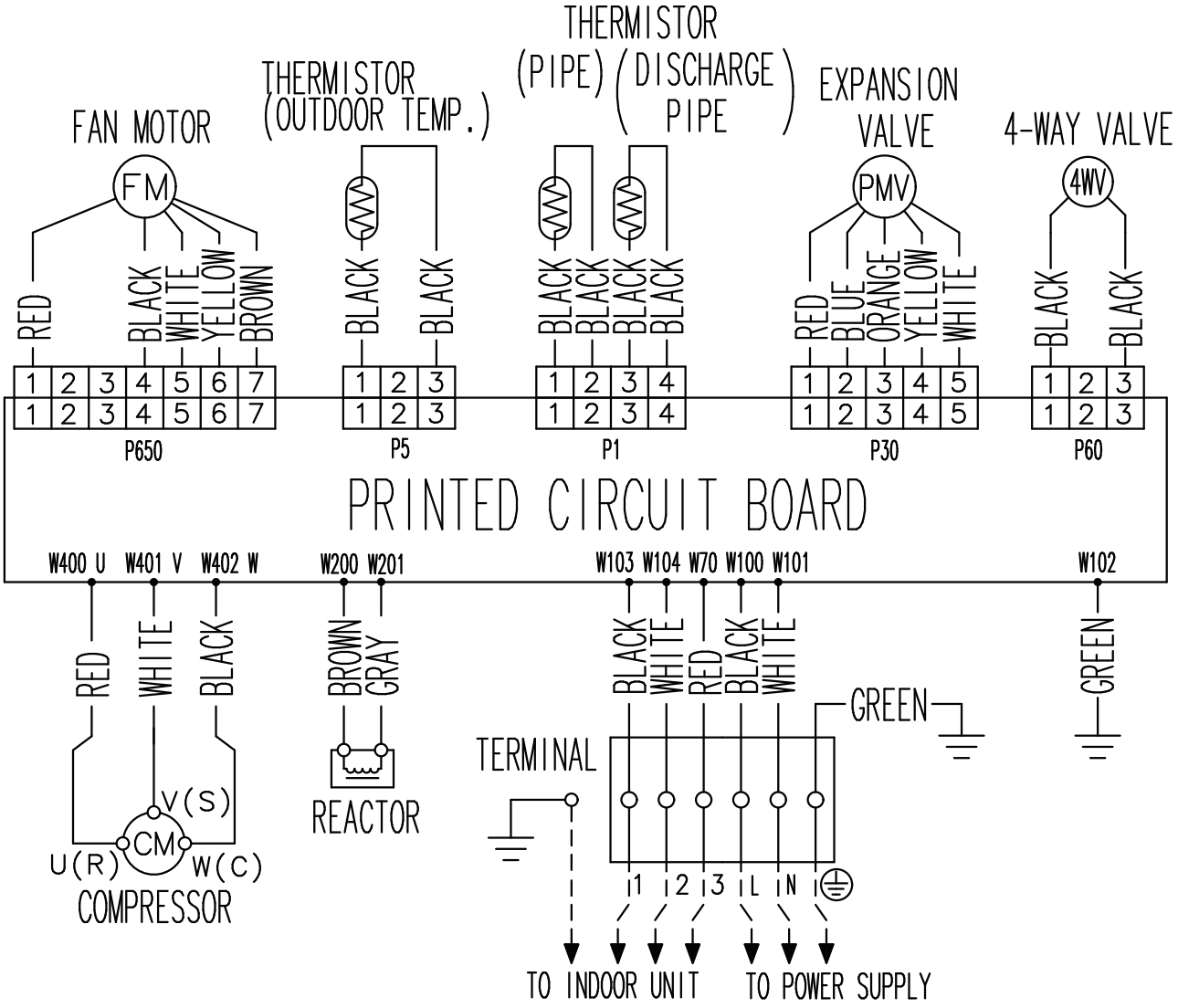
ThR : Thermistor (Room temperature)

ThPI : Thermistor (Pipe temperature)

OUTDOOR UNIT
AOYG07-14KMCC

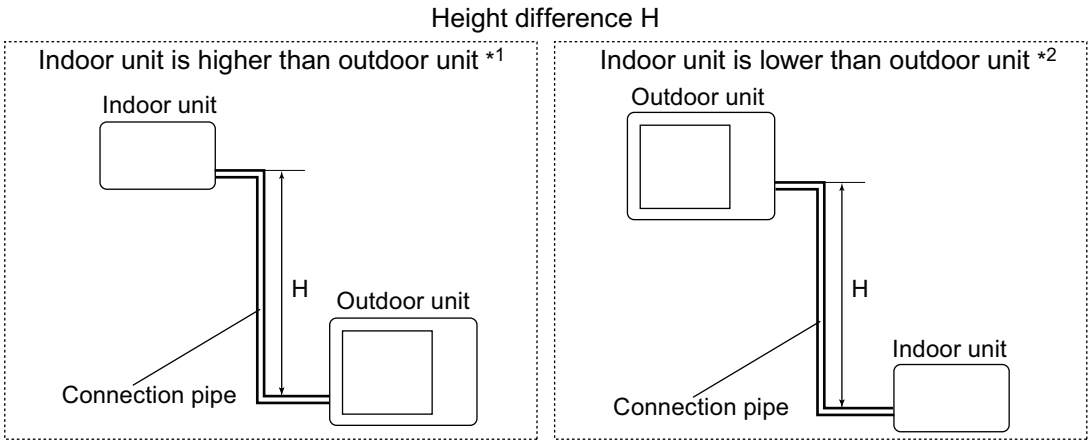
5. Wiring diagrams

5-1. Models: AOYG07KMCC, AOYG09KMCC, AOYG12KMCC, and AOYG14KMCC



OUTDOOR UNIT
AOYG07-14KMCC

6. Capacity compensation rate for pipe length and height difference



6-1. Models: AOYG07KMCC and AOYG09KMCC

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

COOLING			Pipe length (m)				
			5	7.5	10	15	20
Height difference H (m)	Indoor unit is higher than outdoor unit *1	15	—	—	—	0.872	0.910
		10	—	—	0.961	0.886	0.925
		7.5	—	0.979	0.965	0.890	0.929
		5	0.992	0.983	0.969	0.893	0.933
		0	1.000	0.991	0.976	0.901	0.940
	Indoor unit is lower than outdoor unit *2	-5	1.000	0.991	0.976	0.901	0.940
		-7.5	—	0.991	0.976	0.901	0.940
		-10	—	—	0.976	0.901	0.940
		-15	—	—	—	0.901	0.940

HEATING			Pipe length (m)				
			5	7.5	10	15	20
Height difference H (m)	Indoor unit is higher than outdoor unit *1	15	—	—	—	0.832	0.822
		10	—	—	0.917	0.832	0.822
		7.5	—	0.961	0.917	0.832	0.822
		5	1.000	0.961	0.917	0.832	0.822
		0	1.000	0.961	0.917	0.832	0.822
	Indoor unit is lower than outdoor unit *2	-5	0.955	0.956	0.912	0.828	0.818
		-7.5	—	0.954	0.910	0.826	0.816
		-10	—	—	0.908	0.824	0.814
		-15	—	—	—	0.815	0.805

6-2. Model: AOYG12KMCC

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

COOLING			Pipe length (m)				
			5	7.5	10	15	20
Height difference H (m)	Indoor unit is higher than outdoor unit *1	15	—	—	—	0.858	0.868
		10	—	—	0.929	0.872	0.882
		7.5	—	0.960	0.933	0.876	0.885
		5	0.992	0.964	0.937	0.879	0.889
		0	1.000	0.972	0.944	0.887	0.896
	Indoor unit is lower than outdoor unit *2	-5	1.000	0.972	0.944	0.887	0.896
		-7.5	—	0.972	0.944	0.887	0.896
		-10	—	—	0.944	0.887	0.896
		-15	—	—	—	0.887	0.896

HEATING			Pipe length (m)				
			5	7.5	10	15	20
Height difference H (m)	Indoor unit is higher than outdoor unit *1	15	—	—	—	0.896	0.879
		10	—	—	0.968	0.890	0.879
		7.5	—	0.994	0.968	0.896	0.879
		5	1.000	0.994	0.968	0.896	0.879
		0	1.000	0.994	0.968	0.896	0.879
	Indoor unit is lower than outdoor unit *2	-5	0.995	0.989	0.963	0.891	0.875
		-7.5	—	0.987	0.961	0.889	0.873
		-10	—	—	0.959	0.887	0.871
		-15	—	—	—	0.878	0.862

6-3. Model: AOYG14KMCC

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

COOLING			Pipe length (m)				
			5	7.5	10	15	20
Height difference H (m)	Indoor unit is higher than outdoor unit *1	15	—	—	—	0.893	0.909
		10	—	—	0.955	0.908	0.924
		7.5	—	0.975	0.959	0.912	0.928
		5	0.992	0.979	0.963	0.916	0.931
		0	1.000	0.987	0.970	0.923	0.939
	Indoor unit is lower than outdoor unit *2	-5	1.000	0.987	0.970	0.923	0.939
		-7.5	—	0.987	0.970	0.923	0.939
		-10	—	—	0.970	0.923	0.939
		-15	—	—	—	0.923	0.939

HEATING			Pipe length (m)				
			5	7.5	10	15	20
Height difference H (m)	Indoor unit is higher than outdoor unit *1	15	—	—	—	0.956	0.938
		10	—	—	1.004	0.956	0.938
		7.5	—	1.013	1.004	0.956	0.938
		5	1.000	1.013	1.004	0.956	0.938
		0	1.000	1.013	1.004	0.956	0.938
	Indoor unit is lower than outdoor unit *2	-5	0.995	1.008	0.999	0.951	0.938
		-7.5	—	1.005	0.997	0.948	0.931
		-10	—	—	0.994	0.946	0.929
		-15	—	—	—	0.937	0.919

OUTDOOR UNIT
AOYG07-14KMCC

7. Additional charge calculation

7-1. Models: AOYG07KMCC and AOYG09KMCC

Refrigerant type		R32
Refrigerant amount	g	600

■ Refrigerant charge

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

7-2. Model: AOYG12KMCC

Refrigerant type		R32
Refrigerant amount	g	700

■ Refrigerant charge

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

7-3. Model: AOYG14KMCC

Refrigerant type		R32
Refrigerant amount	g	850

■ Refrigerant charge

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

OUTDOOR UNIT
AOYG07-14KMCC

8. Airflow

8-1. Model: AOYG07KMCC

● Cooling

m^3/h	1,650
l/s	458
CFM	971

● Heating

m^3/h	1,450
l/s	403
CFM	853

8-2. Model: AOYG09KMCC

● Cooling

m^3/h	1,650
l/s	458
CFM	971

● Heating

m^3/h	1,450
l/s	403
CFM	853

8-3. Model: AOYG12KMCC

● Cooling

m^3/h	1,700
l/s	472
CFM	1,001

● Heating

m^3/h	1,470
l/s	408
CFM	865

8-4. Model: AOYG14KMCC

OUTDOOR UNIT
AOYG07-14KMCC

● Cooling

m^3/h	1,680
l/s	467
CFM	989

● Heating

m^3/h	1,580
l/s	439
CFM	930

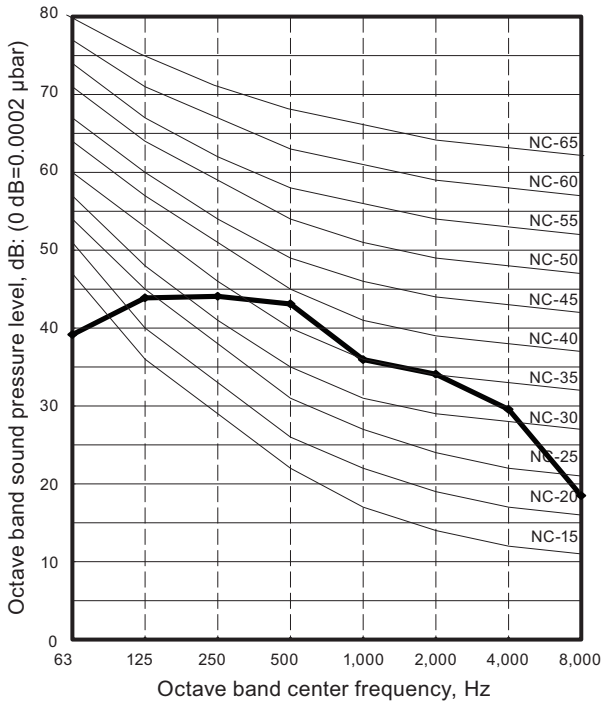
OUTDOOR UNIT
AOYG07-14KMCC

9. Operation noise (sound pressure)

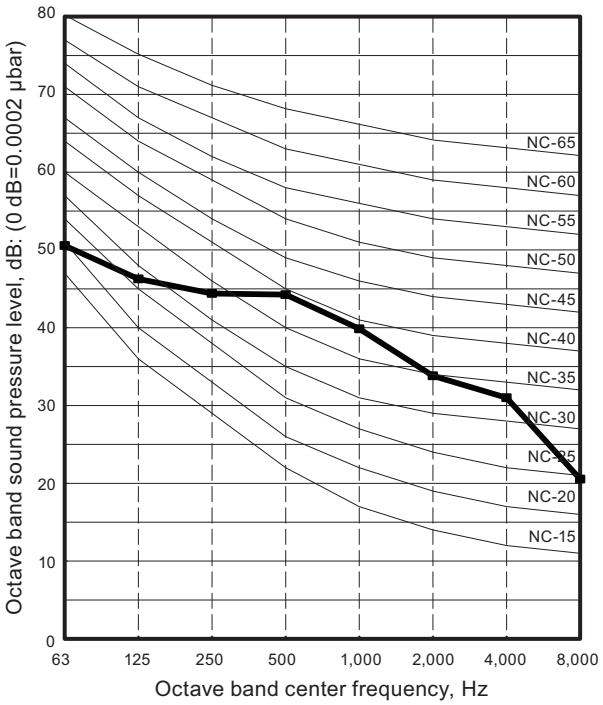
9-1. Noise level curve

■ Model: AOYG07KMCC

● Cooling

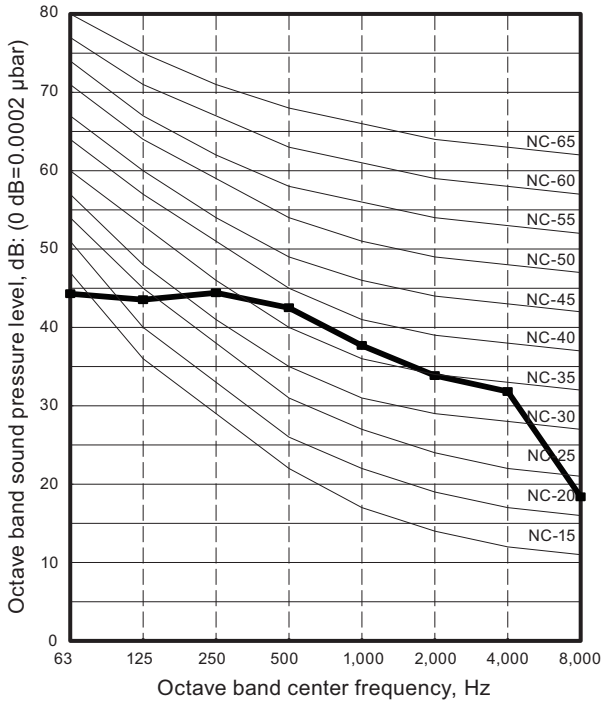


● Heating

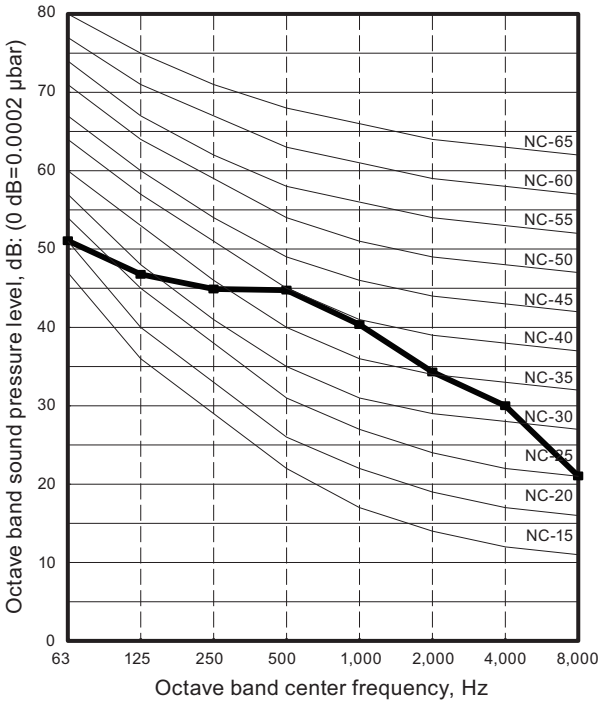


■ Model: AOYG09KMCC

● Cooling



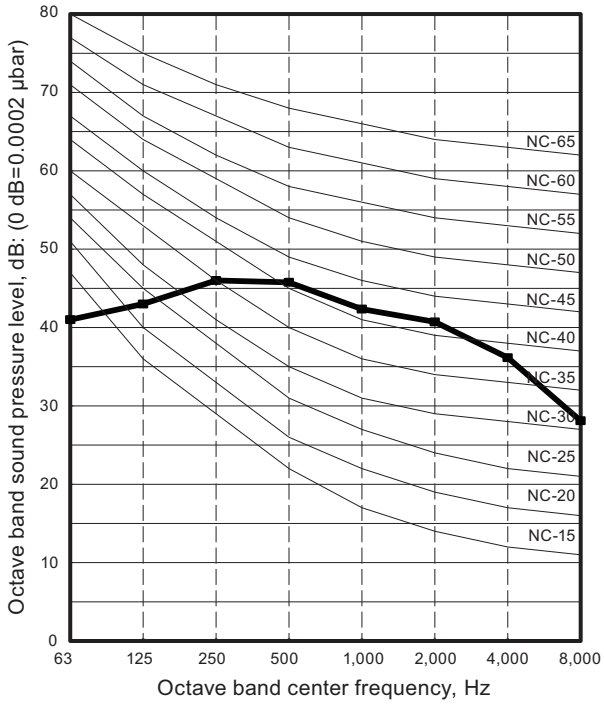
● Heating



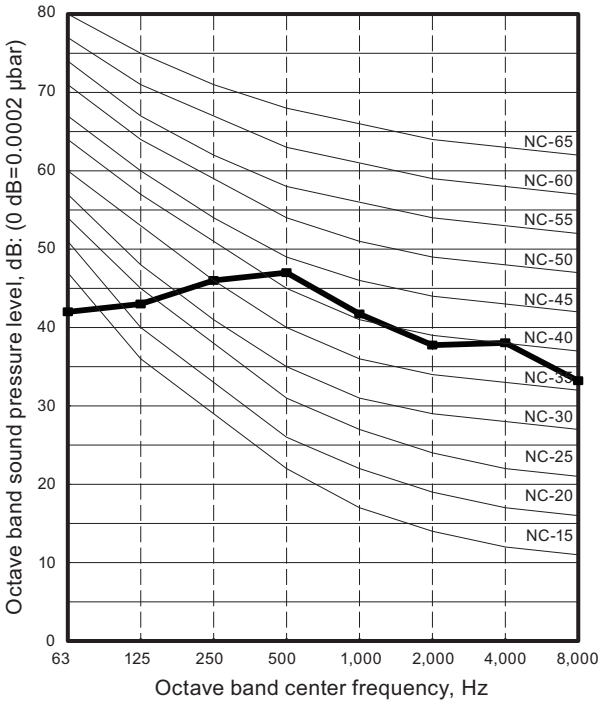
OUTDOOR UNIT
AOYG07-14KMCC

■ Model: AOYG12KMCC

● Cooling

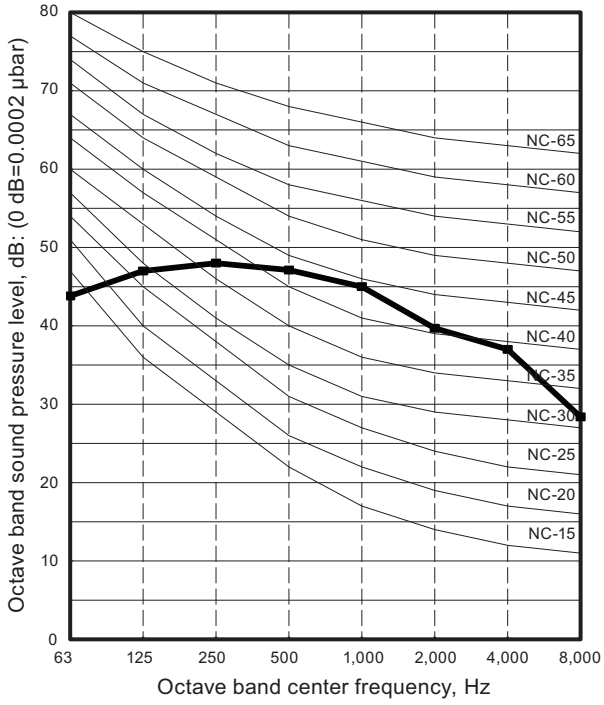


● Heating

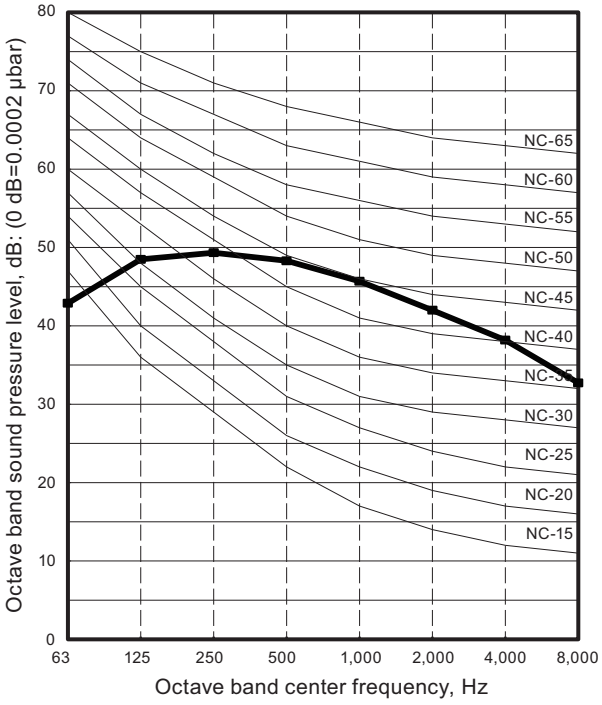


■ Model: AOYG14KMCC

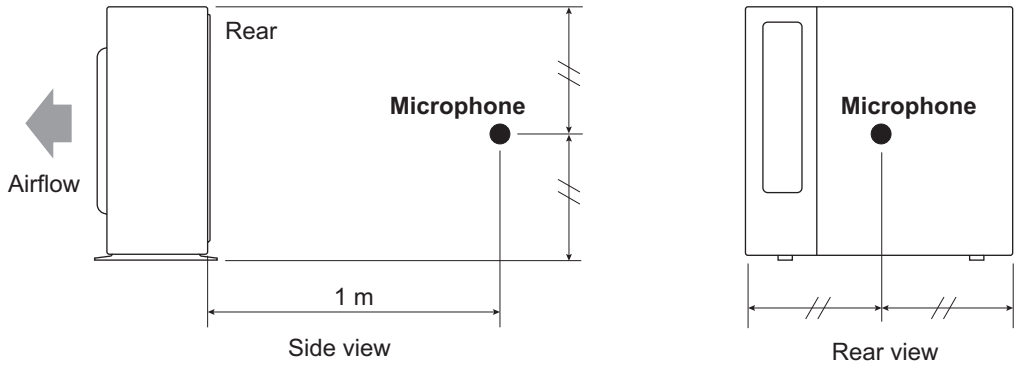
● Cooling



● 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
AOYG07-14KMCC

10. Electrical characteristics

Model name				AOYG07KMCC	AOYG09KMCC	AOYG12KMCC	AOYG14KMCC
Power supply	Voltage		V	230 ~			
	Frequency		Hz	50			
Max operating current *1			A	9.0			
Starting current			A	3.0	3.4	5.1	6.8
Wiring spec. *2	Circuit breaker current		A	15			
	Power cable		mm^2	1.5			
	Connection cable *3	Cross-sectional area	mm^2	1.5			
		Limited wiring length	m	21			

*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	
			AOYG07KMCC	AOYG09KMCC
Circuit protection	Current fuse (Main PCB)		250 V, 20 A	
			250 V, 5 A	
Fan motor protection	Thermal protection	Activate	100±15 °C Fan motor stop	
		Reset	95±10 °C Fan motor restart	
Compressor protection	Terminal protection program (Discharge temp.)	Activate	110 °C Compressor stop	
		Reset	After 7 minutes Compressor restart	

Type of protection	Protection form		Model	
			AOYG12KMCC	AOYG14KMCC
Circuit protection	Current fuse (Main PCB)		250 V, 20 A	
			250 V, 5 A	
Fan motor protection	Thermal protection	Activate	100±15 °C Fan motor stop	
		Reset	95±10 °C Fan motor restart	
Compressor protection	Terminal protection program (Discharge temp.)	Activate	110 °C Compressor stop	
		Reset	After 7 minutes Compressor restart	

12. Accessories

12-1. Models: AOYG07KMCC, AOYG09KMCC, AOYG12KMCC, and AOYG14KMCC

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

OUTDOOR UNIT
AOYG07-14KMCC