AIRSTAGE

AIR CONDITIONER

Cassette type

FUJITSU

REFRIGERANT R32

INVERTER

DESIGN & TECHNICAL MANUAL

INDOOR	 AUXG09KVLA AUXG12KVLA AUXG14KVLA AUXG18KVLA AUXG22KVLA		
OUTDOOR	 AOEG09KATA AOEG12KATA	 AOEG14KATA AOEG18KATA	 AOEG22KATA

FUJITSU GENERAL LIMITED

DR_AU027ES_02
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Part 1. INDOOR UNIT

CASSETTE TYPE:

AUXG09KVLA
AUXG12KVLA
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AUXG22KVLA

CASSETTE TYPE
AUXG09-22KVLA

1. Specifications

Type					Cassette		
					Inverter heat pump		
Model name					AUXG09KVLA	AUXG12KVLA	AUXG14KVLA
Power supply					230 V ~ 50 Hz		
Power supply intake					Outdoor unit		
Available voltage range					198—264 V		
Capacity		Cooling	Rated	kW	2.50	3.50	4.30
				Btu/h	8,500	11,900	14,700
			Min.—Max.	kW	0.90—2.70	0.90—3.70	0.90—4.50
				Btu/h	3,100—9,200	3,100—12,600	3,100—15,300
		Heating	Rated	kW	3.20	4.10	5.00
				Btu/h	10,900	13,400	17,000
			Min.—Max.	kW	0.90—3.90	0.90—4.40	0.90—5.30
				Btu/h	3,100—13,300	3,100—15,000	3,100—18,000
Input power		Cooling	Rated	kW	0.68	1.09	1.37
			Max.		1.59	1.78	2.12
		Heating	Rated		0.88	1.17	1.42
			Max.		1.59	1.78	2.12
Current		Cooling	Rated	A	3.4	5.2	6.4
		Heating			4.4	5.8	6.6
Power factor		Cooling		%	87.0	91.1	93.1
		Heating			87.0	87.7	93.5
EER		Cooling		kW/kW	3.68	3.21	3.14
COP		Heating			3.64	3.50	3.52
Moisture removal				L/h (pints/h)	0.6 (1.1)	1.2 (2.1)	1.5 (2.6)
Maximum operating current *1		Cooling		A	6.9	7.7	9.2
		Heating			6.9	7.7	9.2
Fan	Airflow rate	Cooling	HIGH	m^3/h	540	600	680
			MED		490	530	580
			LOW		440	470	490
			QUIET		390	410	410
		Heating	HIGH		540	600	800
			MED		490	530	680
			LOW		440	470	580
			QUIET		390	410	450
	Type × Q'ty				Turbo × 1		
	Motor output			W	54		
Sound pressure level *2		Cooling	HIGH	dB (A)	33	37	38
			MED		31	34	34
			LOW		29	30	30
			QUIET		27	27	27
		Heating	HIGH		34	37	43
			MED		32	34	38
			LOW		29	31	34
			QUIET		27	29	30
Heat exchanger type		Dimensions (H × W × D)		mm	Main 1: 210 × 1,310 × 13.3 Main 2: 210 × 1,250 × 13.3		
		Fin pitch			Main 1: 1.2 Main 2: 1.2		
		Rows × Stages			Main 1: 1 × 10 Main 2: 1 × 10		
		Pipe type			Copper tube		
		Fin type			Aluminum		
Dimensions (H × W × D)		Net		mm	245 × 570 × 570		
		Gross			265 × 730 × 625		
Weight		Net		kg	15		
		Gross			19		
Connection pipe		Size	Liquid	mm (in)	Ø 6.35 (Ø 1/4)		
			Gas		Ø 9.52 (Ø 3/8)		
		Method			Flare		
Operation range		Cooling		°C	18 to 32		
				%RH	80 or less		
		Heating		°C	16 to 30		
Cassette grille (Grid type: Option)		Material			Polystyrene		
		Color			White Approximate color of Munsell 9PB 9.1/0.2		
		Dimensions (H × W × D)	Net	mm	49 × 620 × 620		
			Gross		120 × 765 × 755		
		Weight	Net	kg	2.3		
			Gross		4.5		
Remote control (Option)					Wired remote controller, Wireless remote controller, Mobile app*3 (FGLair™)		
Drain hose		Material			PVC		
		Size		mm	VP25 [Ø 25 (I.D.), Ø 32 (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: 5.0 m, Height difference: 0 m. (Between outdoor unit and indoor unit.)
- Protective function might work when using it outside the operation range.
- *1: Maximum operating current is the total current of the indoor unit and the outdoor unit.
- *2: Sound pressure level:
  - Measured values in manufacturer's anechoic chamber.
  - Because of the surrounding sound environment, the sound levels measured in actual installation conditions might be higher than the specified values here.
- *3: Available on Google Play™ store or on App Store®. Optional WLAN adapter is also required. For details, refer to the setting manual.

CASSETTE TYPE
AUXG09-22KVLA

Specifications for ErP Lot10						
Model name				**AUXG09KVLA**	**AUXG12KVLA**	**AUXG14KVLA**
Energy efficiency class	Cooling			A^{++}		
	Heating (Average)			A^{+}		
Pdesign	Cooling		kW	2.5 (35°C)	3.5 (35°C)	4.3 (35°C)
	Heating (Average)			2.3 (-10°C)	2.8 (-10°C)	3.2 (-10°C)
SEER	Cooling		kWh/kWh	6.20	6.10	6.10
SCOP	Heating (Average)			4.00	4.00	4.00
Annual energy consumption	QCE		kWh/a	141	201	247
	QHE (Average)			804	979	1,120
Sound power level	Cooling	HIGH	dB (A)	46	49	50
	Heating			47	49	55

CASSETTE TYPE
AUXG09-22KVLA

Type					Cassette	
					Inverter heat pump	
Model name					AUXG18KVLA	AUXG22KVLA
Power supply					230 V ~ 50 Hz	
Power supply intake					Outdoor unit	
Available voltage range					198—264 V	
Capacity		Cooling	Rated	kW	5.20	6.00
				Btu/h	17,700	20,500
			Min.—Max.	kW	0.90—5.40	0.90—6.30
				Btu/h	3,100—18,400	3,100—21,400
		Heating	Rated	kW	6.00	7.00
				Btu/h	20,500	23,900
			Min.—Max.	kW	0.90—6.30	0.90—7.40
				Btu/h	3,100—21,400	3,100—25,200
Input power		Cooling	Rated	kW	1.69	1.95
			Max.		2.33	2.67
		Heating	Rated		1.72	2.00
			Max.		2.33	2.67
Current		Cooling	Rated	A	7.8	8.6
		Heating			7.9	8.8
Power factor		Cooling		%	94.2	98.6
		Heating			94.7	98.8
EER		Cooling		kW/kW	3.08	3.08
COP		Heating			3.49	3.50
Moisture removal				L/h (pints/h)	2.2 (3.9)	2.6 (4.6)
Maximum operating current *1		Cooling		A	10.1	11.6
		Heating			10.1	11.6
Fan	Airflow rate	Cooling	HIGH	m^3/h	680	830
			MED		580	740
			LOW		490	600
			QUIET		410	450
		Heating	HIGH		800	860
			MED		680	760
			LOW		580	700
			QUIET		450	530
	Type × Q'ty				Turbo × 1	
	Motor output			W	54	
Sound pressure level *2		Cooling	HIGH	dB (A)	38	44
			MED		34	42
			LOW		30	36
			QUIET		26	30
		Heating	HIGH		43	45
			MED		38	43
			LOW		34	40
			QUIET		30	33
Heat exchanger type		Dimensions (H × W × D)		mm	Main 1: 210 × 1,310 × 13.3 Main 2: 210 × 1,250 × 13.3	Main 1: 210 × 1,360 × 13.3 Main 2: 210 × 1,295 × 13.3 Main 3: 210 × 1,235 × 13.3
		Fin pitch			Main 1: 1.2 Main 2: 1.2	Main 1: 1.45 Main 2: 1.45 Main 2: 1.45
		Rows × Stages			Main 1: 1 × 10 Main 2: 1 × 10	Main 1: 1 × 10 Main 2: 1 × 10 Main 3: 1 × 10
		Pipe type			Copper tube	
		Fin type			Aluminum	
Dimensions (H × W × D)		Net		mm	245 × 570 × 570	
		Gross			265 × 730 × 625	
Weight		Net		kg	15	16
		Gross			19	20
Connection pipe		Size	Liquid	mm (in)	Ø 6.35 (Ø 1/4)	
			Gas		Ø 12.70 (Ø 1/2)	
		Method			Flare	
Operation range		Cooling		°C	18 to 32	
				%RH	80 or less	
		Heating		°C	16 to 30	
Cassette grille (Grid type: Option)		Material			Polystyrene	
		Color			White Approximate color of Munsell 9PB 9.1/0.2	
		Dimensions (H × W × D)	Net	mm	49 × 620 × 620	
			Gross		120 × 765 × 755	
		Weight	Net	kg	2.3	
			Gross		4.5	
Remote control (Option)					Wired remote controller, Wireless remote controller, Mobile app*3 (FGLair™)	
Drain hose		Material			PVC	
		Size		mm	VP25 [Ø 25(I.D.), Ø 32(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: 5.0 m, Height difference: 0 m. (Between outdoor unit and indoor unit.)
- Protective function might work when using it outside the operation range.
- *1: Maximum operating current is the total current of the indoor unit and the outdoor unit.
- *2: Sound pressure level:
  - Measured values in manufacturer's anechoic chamber.
  - Because of the surrounding sound environment, the sound levels measured in actual installation conditions might be higher than the specified values here.
- *3: Available on Google Play™ store or on App Store®. Optional WLAN adapter is also required. For details, refer to the setting manual.

CASSETTE TYPE
AUXG09-22KVLA

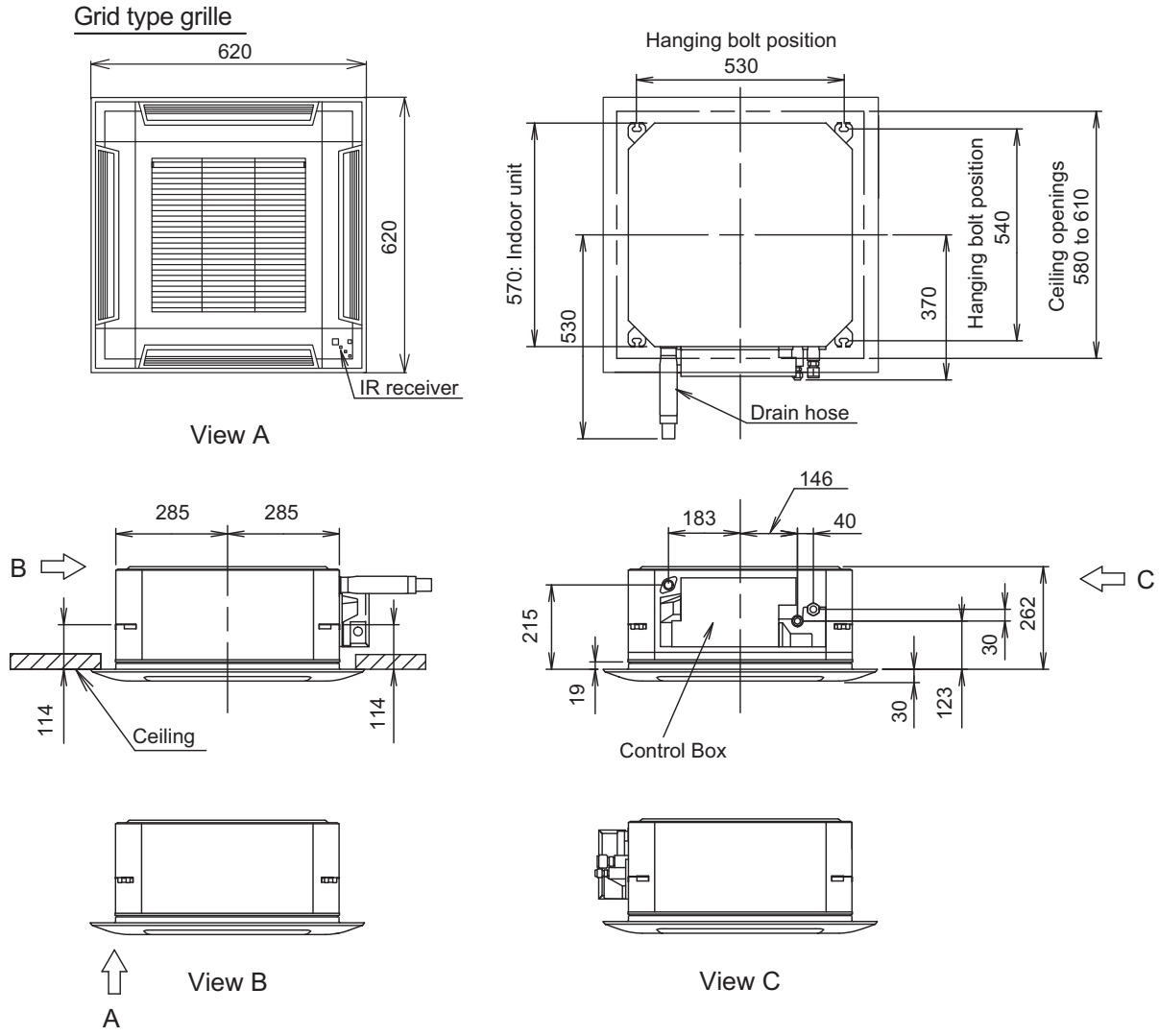
Specifications for ErP Lot10					
Model name				**AUXG18KVLA**	**AUXG22KVLA**
Energy efficiency class	Cooling			A^{++}	
	Heating (Average)			A	
Pdesign	Cooling		kW	5.2 (35°C)	6.0 (35°C)
	Heating (Average)			3.8 (-10°C)	4.4 (-10°C)
SEER	Cooling		kWh/kWh	6.10	6.10
SCOP	Heating (Average)			3.90	3.90
Annual energy consumption	QCE		kWh/a	298	344
	QHE (Average)			1,362	1,578
Sound power level	Cooling	HIGH	dB (A)	50	56
	Heating			55	57

CASSETTE TYPE
AUXG09-22KVLA

2. Dimensions

2-1. Models: AUXG09KVLA, AUXG12KVLA, AUXG14KVLA, AUXG18KVLA, and AUXG22KVLA

Unit: mm

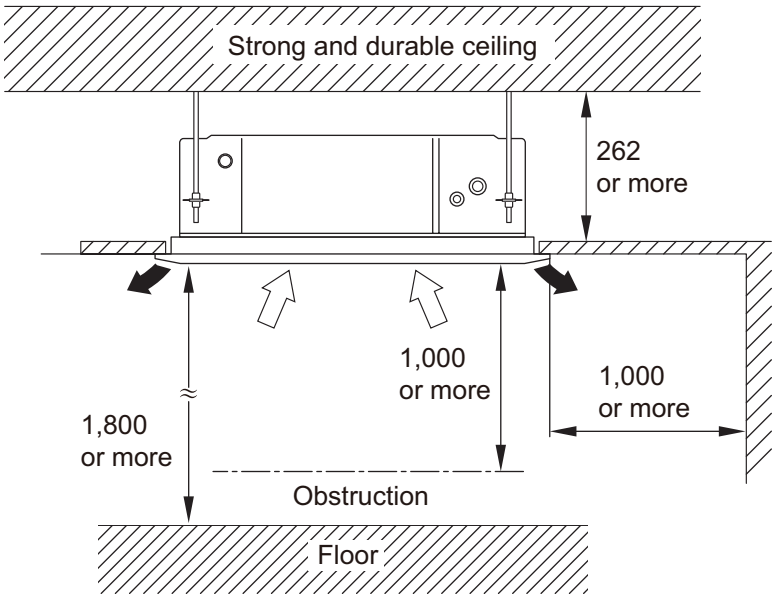


a: Ceiling openings		
Cassette grille (Option [Grid type])	mm	580 to 610

CASSETTE TYPE
AUXG09-22KVLA

2-2. Installation space requirement

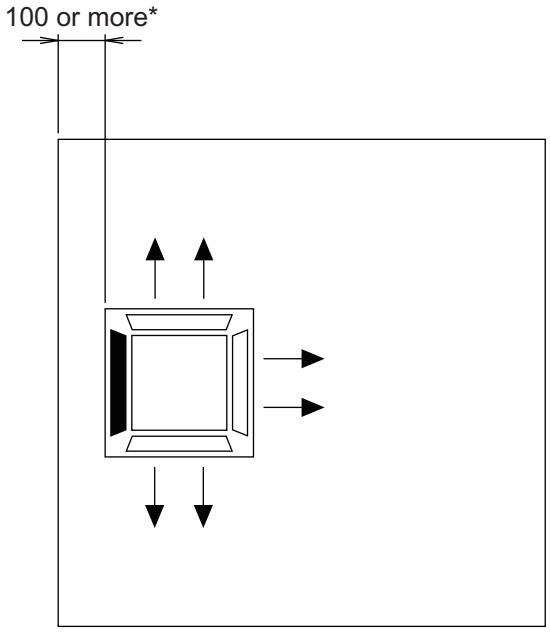
Unit: mm



Maximum height from floor to ceiling (Unit: mm)	
Standard	2,700
High ceiling	3,000

● 3-way direction setting

Unit: mm



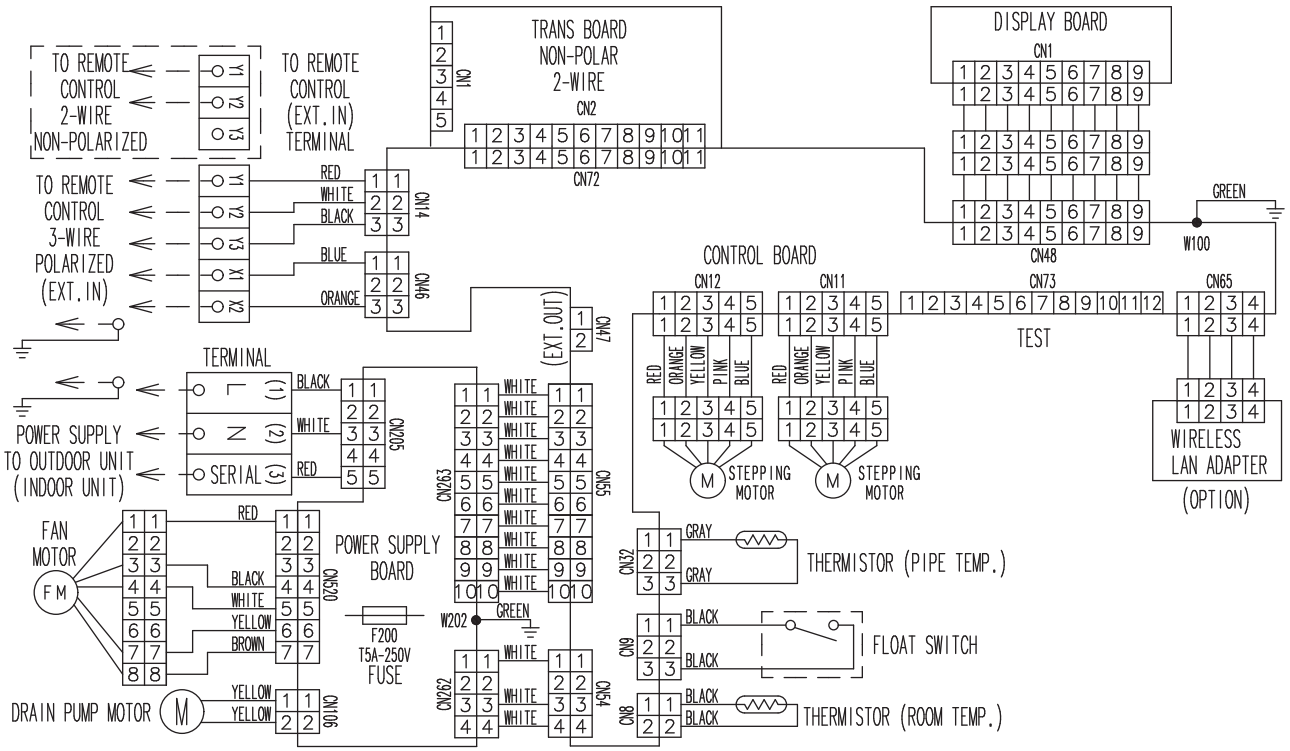
NOTES:

- To set “3-direction”, optional Air Outlet Shutter Plate (UTR-YDZB) must be installed, and the “outlet-direction” need to be switched to “3-way” by remote controller.
  *When installing the indoor unit, be careful about the maintenance space.
- In 3-way outlet mode, changing of ceiling height setting by function setting 20 is prohibited. (Ceiling height setting [function setting 20] is allowed to be changed only in 4-way outlet mode.)

CASSETTE TYPE
AUXG09-22KVLA

3. Wiring diagram

3-1. Models: AUXG09KVLA, AUXG12KVLA, AUXG14KVLA, AUXG18KVLA, and AUXG22KVLA



CASSETTE TYPE
AUXG09-22KVLA

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: AUXG09KVLA

AFR	m^3/h	540

		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	1.89	1.57	0.60	2.10	1.58	0.61	2.17	1.72	0.61	2.32	1.72	0.62	2.39	1.86	0.62	2.53	1.85	0.63	2.68	1.97	0.63
	0	2.01	1.60	0.47	2.24	1.60	0.48	2.32	1.74	0.48	2.47	1.75	0.49	2.55	1.89	0.49	2.70	1.88	0.49	2.86	2.01	0.50
	5	2.04	1.65	0.54	2.27	1.66	0.55	2.35	1.80	0.55	2.50	1.81	0.56	2.58	1.95	0.56	2.73	1.94	0.57	2.89	2.07	0.57
	10	2.14	1.69	0.51	2.38	1.70	0.52	2.47	1.85	0.52	2.63	1.85	0.53	2.71	2.00	0.53	2.87	1.99	0.54	3.04	2.12	0.54
	15	2.08	1.66	0.57	2.31	1.67	0.58	2.39	1.82	0.58	2.55	1.82	0.59	2.63	1.97	0.59	2.79	1.96	0.60	2.95	2.09	0.60
	20	2.22	1.74	0.43	2.47	1.75	0.44	2.56	1.90	0.44	2.73	1.91	0.45	2.81	2.06	0.45	2.98	2.05	0.45	3.15	2.19	0.46
	25	2.13	1.75	0.51	2.38	1.76	0.52	2.46	1.91	0.52	2.62	1.92	0.53	2.70	2.07	0.53	2.86	2.06	0.54	3.02	2.20	0.54
	30	2.05	1.76	0.59	2.29	1.77	0.60	2.37	1.92	0.60	2.52	1.93	0.61	2.60	2.08	0.61	2.76	2.07	0.62	2.91	2.21	0.62
	35	1.98	1.76	0.66	2.20	1.77	0.67	2.28	1.93	0.67	2.43	1.94	0.68	2.50	2.09	0.68	2.65	2.08	0.69	2.80	2.22	0.69
	40	1.90	1.76	0.72	2.11	1.77	0.74	2.18	1.93	0.74	2.33	1.94	0.75	2.40	2.09	0.75	2.54	2.08	0.76	2.69	2.22	0.77
	46	1.81	1.76	0.79	2.02	1.77	0.80	2.08	1.92	0.81	2.22	1.93	0.82	2.29	2.08	0.82	2.43	2.07	0.83	2.56	2.21	0.84

■ Model: AUXG12KVLA

AFR	m^3/h	600

		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	2.88	2.43	0.70	3.20	2.45	0.72	3.31	2.66	0.72	3.53	2.67	0.73	3.64	2.88	0.73	3.86	2.87	0.74	4.08	3.06	0.74
	0	2.91	2.45	0.66	3.24	2.46	0.67	3.35	2.68	0.67	3.57	2.69	0.68	3.68	2.90	0.68	3.90	2.89	0.69	4.12	3.08	0.69
	5	2.92	2.45	0.81	3.25	2.46	0.82	3.36	2.68	0.83	3.58	2.69	0.84	3.69	2.90	0.84	3.91	2.89	0.85	4.13	3.08	0.86
	10	3.13	2.53	0.55	3.48	2.55	0.56	3.60	2.77	0.56	3.84	2.78	0.57	3.96	3.00	0.57	4.20	2.99	0.58	4.44	3.18	0.58
	15	3.00	2.48	0.65	3.34	2.50	0.66	3.46	2.71	0.66	3.69	2.72	0.67	3.80	2.94	0.67	4.03	2.93	0.68	4.26	3.12	0.68
	20	2.99	2.50	0.67	3.34	2.51	0.68	3.45	2.73	0.68	3.68	2.74	0.69	3.79	2.96	0.69	4.02	2.95	0.70	4.24	3.14	0.70
	25	2.92	2.41	0.80	3.25	2.43	0.81	3.36	2.64	0.82	3.58	2.65	0.83	3.69	2.86	0.83	3.91	2.85	0.84	4.13	3.03	0.85
	30	2.84	2.34	0.93	3.16	2.35	0.94	3.27	2.56	0.95	3.48	2.57	0.96	3.59	2.77	0.96	3.81	2.76	0.97	4.02	2.94	0.98
	35	2.77	2.26	1.05	3.08	2.28	1.07	3.19	2.47	1.07	3.40	2.48	1.08	3.50	2.68	1.09	3.71	2.67	1.10	3.92	2.84	1.11
	40	2.48	2.26	1.03	2.76	2.28	1.05	2.86	2.47	1.05	3.05	2.48	1.06	3.14	2.68	1.07	3.33	2.67	1.08	3.52	2.84	1.09
	46	2.19	2.14	1.09	2.44	2.15	1.11	2.52	2.34	1.11	2.69	2.34	1.12	2.77	2.53	1.13	2.94	2.52	1.14	3.10	2.68	1.15

■ Model: AUXG14KVLA

AFR	m^3/h	680

		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	3.60	2.89	0.72	4.01	2.91	0.74	4.15	3.17	0.74	4.42	3.18	0.75	4.56	3.43	0.75	4.83	3.42	0.76	5.11	3.64	0.77
	0	3.44	2.77	0.90	3.84	2.78	0.91	3.97	3.03	0.92	4.23	3.04	0.93	4.36	3.28	0.93	4.62	3.27	0.94	4.88	3.48	0.95
	5	3.34	2.69	0.98	3.72	2.71	1.00	3.85	2.94	1.00	4.10	2.95	1.01	4.23	3.19	1.02	4.48	3.18	1.03	4.74	3.38	1.04
	10	3.39	2.66	0.97	3.78	2.67	0.99	3.90	2.91	0.99	4.16	2.92	1.00	4.29	3.15	1.01	4.55	3.14	1.02	4.80	3.34	1.03
	15	3.44	2.75	0.97	3.83	2.77	0.99	3.96	3.01	0.99	4.22	3.02	1.00	4.35	3.26	1.01	4.61	3.25	1.02	4.87	3.46	1.03
	20	3.89	3.01	0.90	4.33	3.03	0.91	4.48	3.30	0.92	4.77	3.31	0.93	4.92	3.57	0.93	5.22	3.56	0.94	5.51	3.79	0.95
	25	3.72	2.93	1.04	4.14	2.95	1.06	4.29	3.20	1.06	4.57	3.21	1.07	4.71	3.47	1.08	4.99	3.46	1.09	5.28	3.68	1.10
	30	3.56	2.85	1.19	3.96	2.87	1.21	4.10	3.12	1.21	4.37	3.13	1.22	4.50	3.38	1.23	4.77	3.37	1.24	5.04	3.59	1.25
	35	3.40	2.77	1.32	3.78	2.78	1.34	3.91	3.03	1.35	4.17	3.04	1.36	4.30	3.28	1.37	4.56	3.27	1.38	4.82	3.48	1.40
	40	2.68	2.52	1.01	2.98	2.54	1.03	3.08	2.76	1.03	3.29	2.77	1.04	3.39	2.99	1.05	3.59	2.98	1.06	3.80	3.17	1.07
	46	2.11	2.11	0.84	2.35	2.27	0.85	2.43	2.43	0.86	2.59	2.47	0.87	2.67	2.67	0.87	2.83	2.66	0.88	2.99	2.83	0.89

CASSETTE TYPE
AUXG09-22KVLA

■ Model: AUXG18KVLA

AFR	m^3/h	680

		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	4.15	3.24	0.57	4.62	3.26	0.58	4.78	3.54	0.58	5.09	3.56	0.59	5.25	3.84	0.59	5.57	3.82	0.60	5.88	4.07	0.60
	0	3.99	3.21	0.74	4.44	3.23	0.75	4.60	3.51	0.76	4.90	3.52	0.77	5.05	3.80	0.77	5.35	3.78	0.78	5.66	4.03	0.79
	5	3.91	3.18	0.88	4.36	3.20	0.89	4.50	3.48	0.90	4.80	3.49	0.91	4.95	3.77	0.91	5.25	3.75	0.92	5.54	4.00	0.93
	10	4.05	3.24	0.67	4.51	3.26	0.68	4.67	3.54	0.68	4.98	3.56	0.69	5.13	3.84	0.69	5.44	3.82	0.70	5.75	4.07	0.70
	15	3.92	3.20	0.72	4.36	3.22	0.74	4.51	3.50	0.74	4.81	3.51	0.75	4.96	3.79	0.75	5.26	3.77	0.76	5.56	4.02	0.77
	20	4.27	3.12	0.98	4.76	3.14	1.00	4.92	3.42	1.00	5.25	3.43	1.01	5.41	3.70	1.02	5.73	3.69	1.03	6.06	3.93	1.04
	25	4.22	3.12	1.20	4.70	3.14	1.22	4.86	3.42	1.22	5.18	3.43	1.23	5.34	3.70	1.24	5.66	3.69	1.25	5.98	3.93	1.26
	30	4.16	3.12	1.42	4.64	3.14	1.44	4.80	3.42	1.45	5.11	3.43	1.46	5.27	3.70	1.47	5.59	3.69	1.48	5.90	3.93	1.50
	35	4.11	3.12	1.63	4.58	3.14	1.66	4.73	3.42	1.66	5.04	3.43	1.68	5.20	3.70	1.69	5.51	3.69	1.71	5.82	3.93	1.72
	40	3.49	2.89	1.26	3.89	2.91	1.28	4.02	3.17	1.29	4.29	3.18	1.30	4.42	3.43	1.31	4.69	3.42	1.32	4.95	3.64	1.34
	46	2.45	2.45	0.98	2.73	2.54	1.00	2.82	2.76	1.00	3.01	2.77	1.01	3.10	2.99	1.02	3.29	2.98	1.03	3.47	3.17	1.04

■ Model: AUXG22KVLA

AFR	m^3/h	830

		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	4.61	3.32	0.77	5.13	3.34	0.78	5.31	3.63	0.79	5.66	3.64	0.80	5.83	3.93	0.80	6.18	3.91	0.81	6.53	4.17	0.82
	0	4.71	3.43	0.79	5.24	3.45	0.80	5.42	3.75	0.81	5.78	3.76	0.82	5.96	4.06	0.82	6.32	4.04	0.83	6.68	4.31	0.84
	5	4.77	3.52	0.86	5.32	3.54	0.87	5.50	3.85	0.88	5.86	3.86	0.89	6.04	4.17	0.89	6.40	4.15	0.90	6.76	4.42	0.91
	10	4.74	3.51	0.84	5.28	3.53	0.85	5.46	3.84	0.86	5.82	3.85	0.87	6.00	4.16	0.87	6.36	4.14	0.88	6.72	4.41	0.89
	15	4.59	3.45	0.83	5.11	3.47	0.84	5.29	3.78	0.85	5.64	3.79	0.86	5.81	4.09	0.86	6.16	4.07	0.87	6.51	4.34	0.88
	20	5.24	3.59	1.25	5.83	3.61	1.27	6.03	3.92	1.28	6.43	3.94	1.29	6.63	4.25	1.30	7.03	4.23	1.31	7.43	4.51	1.33
	25	5.07	3.58	1.47	5.65	3.60	1.49	5.84	3.91	1.50	6.23	3.93	1.51	6.42	4.24	1.52	6.81	4.22	1.54	7.19	4.50	1.55
	30	4.91	3.57	1.68	5.46	3.59	1.71	5.65	3.90	1.71	6.02	3.92	1.73	6.21	4.23	1.74	6.58	4.21	1.76	6.96	4.49	1.77
	35	4.74	3.56	1.88	5.28	3.58	1.91	5.46	3.90	1.92	5.82	3.91	1.94	6.00	4.22	1.95	6.36	4.20	1.97	6.72	4.48	1.99
	40	3.52	3.12	1.27	3.92	3.14	1.29	4.06	3.42	1.30	4.33	3.43	1.31	4.46	3.70	1.32	4.73	3.69	1.33	5.00	3.93	1.35
	46	2.58	2.54	0.97	2.87	2.56	0.99	2.97	2.78	0.99	3.16	2.79	1.00	3.26	3.01	1.01	3.46	3.00	1.02	3.65	3.19	1.03

CASSETTE TYPE
AUXG09-22KVLA

4-2. Heating capacity

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

■ Model: AUXG09KVLA

AFR	m^3/h	540

			Indoor temperature									
		°CDB	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	2.10	0.79	2.05	0.80	2.00	0.82	1.95	0.84	1.90	0.85
	-10	-11	2.47	0.84	2.41	0.85	2.35	0.87	2.29	0.89	2.23	0.90
	-5	-7	2.84	0.88	2.77	0.90	2.70	0.92	2.63	0.94	2.57	0.96
	0	-2	3.44	1.04	3.36	1.06	3.28	1.08	3.20	1.10	3.12	1.12
	5	3	3.91	1.13	3.81	1.16	3.72	1.18	3.63	1.20	3.53	1.23
	7	6	4.10	1.17	4.00	1.20	3.90	1.22	3.80	1.24	3.71	1.27
	10	8	4.20	1.18	4.10	1.21	4.00	1.23	3.90	1.25	3.80	1.28
	15	10	4.48	1.21	4.38	1.23	4.27	1.26	4.16	1.29	4.06	1.30
	20	15	4.45	1.03	4.35	1.05	4.24	1.07	4.13	1.09	4.03	1.11
	24	18	4.47	0.92	4.37	0.94	4.26	0.96	4.15	0.98	4.05	0.99

■ Model: AUXG12KVLA

AFR	m^3/h	600

			Indoor temperature									
		°CDB	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	2.59	0.91	2.53	0.93	2.47	0.95	2.41	0.97	2.35	0.99
	-10	-11	2.87	0.95	2.80	0.97	2.73	0.99	2.66	1.01	2.59	1.03
	-5	-7	3.24	0.98	3.17	1.00	3.09	1.02	3.01	1.04	2.94	1.06
	0	-2	3.85	1.15	3.76	1.18	3.67	1.20	3.58	1.22	3.49	1.25
	5	3	4.40	1.28	4.29	1.30	4.19	1.33	4.09	1.36	3.98	1.38
	7	6	4.62	1.32	4.51	1.35	4.40	1.38	4.29	1.41	4.18	1.44
	10	8	4.78	1.27	4.66	1.29	4.55	1.32	4.44	1.35	4.32	1.37
	15	10	5.04	1.17	4.92	1.20	4.80	1.22	4.68	1.24	4.56	1.26
	20	15	4.87	1.23	4.76	1.25	4.64	1.28	4.52	1.31	4.41	1.32
	24	18	5.04	1.11	4.92	1.14	4.80	1.16	4.68	1.18	4.56	1.20

■ Model: AUXG14KVLA

AFR	m^3/h	800

			Indoor temperature									
		°CDB	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	3.15	1.13	3.08	1.16	3.00	1.18	2.93	1.20	2.85	1.23
	-10	-11	3.66	1.21	3.58	1.23	3.49	1.26	3.40	1.29	3.32	1.31
	-5	-7	4.22	1.30	4.12	1.32	4.02	1.35	3.92	1.38	3.82	1.40
	0	-2	5.15	1.56	5.02	1.59	4.90	1.62	4.78	1.65	4.66	1.68
	5	3	5.42	1.66	5.29	1.70	5.16	1.73	5.03	1.76	4.90	1.80
	7	6	5.57	1.54	5.43	1.57	5.30	1.60	5.17	1.63	5.04	1.66
	10	8	5.74	1.56	5.61	1.59	5.47	1.62	5.33	1.65	5.20	1.68
	15	10	5.87	1.45	5.73	1.48	5.59	1.51	5.45	1.54	5.31	1.56
	20	15	5.44	1.13	5.31	1.16	5.18	1.18	5.05	1.20	4.92	1.22
	24	18	5.75	1.14	5.62	1.17	5.48	1.19	5.34	1.21	5.21	1.23

■ Model: AUXG18KVLA

AFR	m^3/h	800

			Indoor temperature									
		°CDB	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	3.86	1.16	3.77	1.19	3.68	1.21	3.59	1.23	3.50	1.26
	-10	-11	4.39	1.24	4.28	1.26	4.18	1.29	4.08	1.32	3.97	1.34
	-5	-7	4.91	1.32	4.80	1.35	4.68	1.38	4.56	1.41	4.45	1.44
	0	-2	5.93	1.61	5.79	1.65	5.65	1.68	5.51	1.71	5.37	1.75
	5	3	6.36	1.71	6.21	1.74	6.06	1.78	5.91	1.82	5.76	1.85
	7	6	6.62	1.76	6.46	1.79	6.30	1.83	6.14	1.87	5.99	1.90
	10	8	6.98	1.79	6.82	1.82	6.65	1.86	6.48	1.90	6.32	1.93
	15	10	7.59	1.82	7.41	1.86	7.23	1.90	7.05	1.94	6.87	1.97
	20	15	6.95	1.50	6.79	1.53	6.62	1.56	6.45	1.59	6.29	1.61
	24	18	6.89	1.51	6.72	1.54	6.56	1.57	6.40	1.60	6.23	1.63

CASSETTE TYPE
AUXG09-22KVLA

■ Model: AUXG22KVLA

AFR	m^3/h	860

			Indoor temperature									
		°CDB	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	4.01	1.63	3.92	1.67	3.82	1.70	3.72	1.73	3.63	1.77
	-10	-11	4.86	1.79	4.75	1.82	4.63	1.86	4.51	1.90	4.40	1.93
	-5	-7	5.70	1.94	5.57	1.98	5.43	2.02	5.29	2.06	5.16	2.10
	0	-2	6.69	2.14	6.53	2.19	6.37	2.23	6.21	2.27	6.05	2.32
	5	3	7.34	2.14	7.16	2.19	6.99	2.23	6.82	2.27	6.64	2.32
	7	6	7.67	2.14	7.48	2.19	7.30	2.23	7.12	2.27	6.94	2.32
	10	8	7.84	2.13	7.66	2.18	7.47	2.22	7.28	2.26	7.10	2.31
	15	10	7.49	2.00	7.31	2.04	7.13	2.08	6.95	2.12	6.77	2.15
	20	15	7.04	1.74	6.87	1.77	6.70	1.81	6.53	1.85	6.37	1.87
	24	18	7.32	1.50	7.14	1.53	6.97	1.56	6.80	1.59	6.62	1.62

CASSETTE TYPE
AUXG09-22KVLA

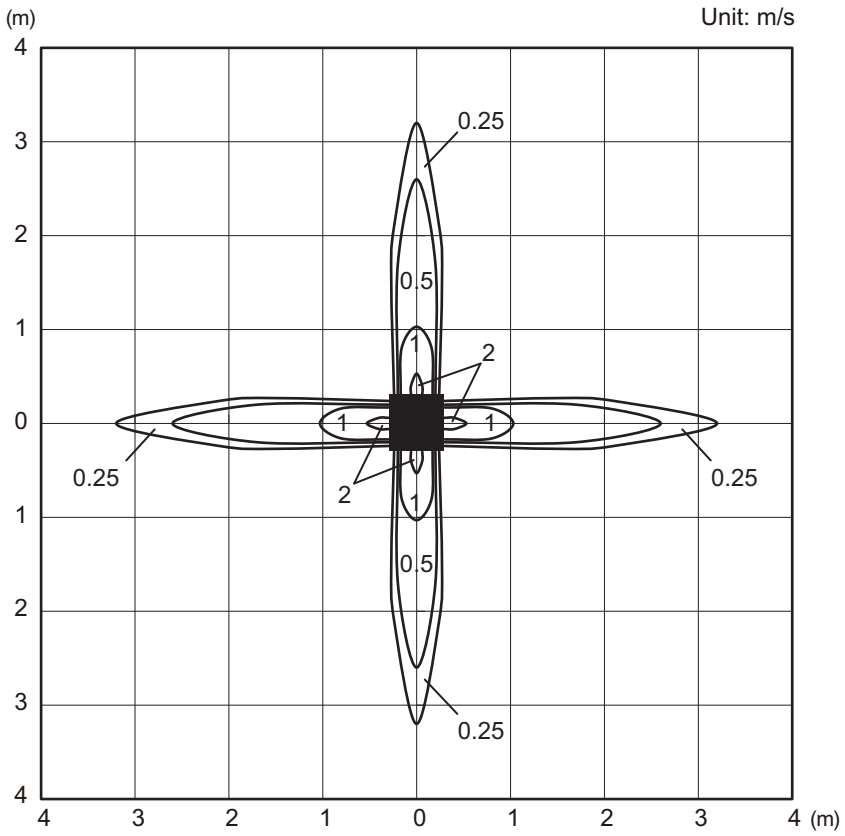
5. Fan performance

5-1. Air velocity distributions

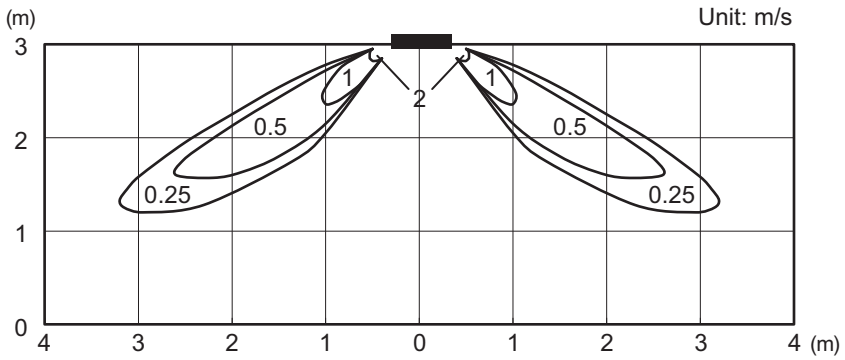
■ Model: AUXG09KVLA (4-way air outlet)

Measuring conditions	Fan speed	Operation mode	Ceiling mode
	HIGH	FAN	STANDARD

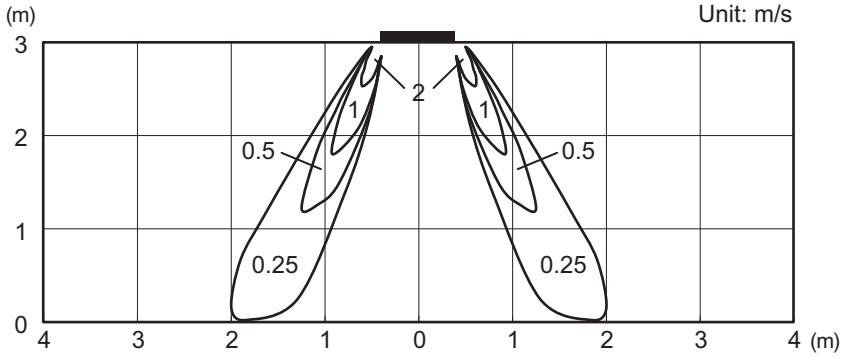
Top view
Horizontal louver: Upward



Side view
Horizontal louver: Upward



Side view
Horizontal louver: Downward

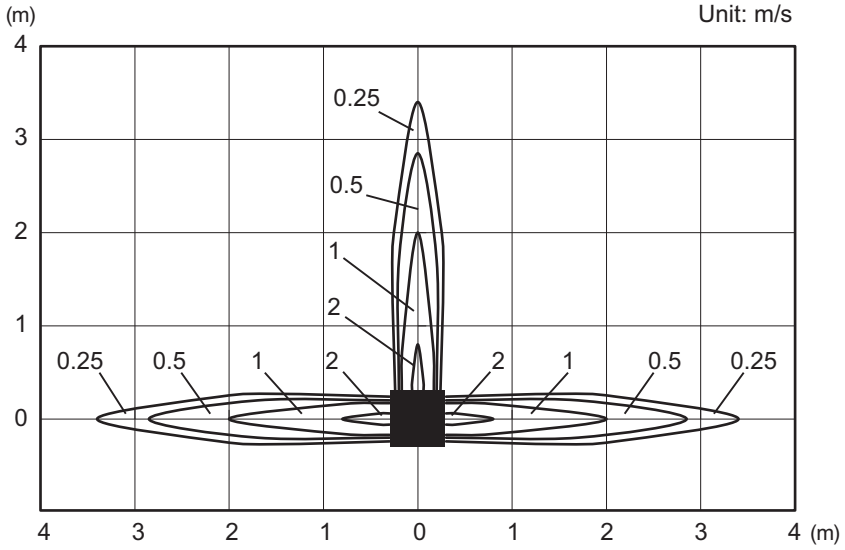


CASSETTE TYPE
AUXG09-22KVLA

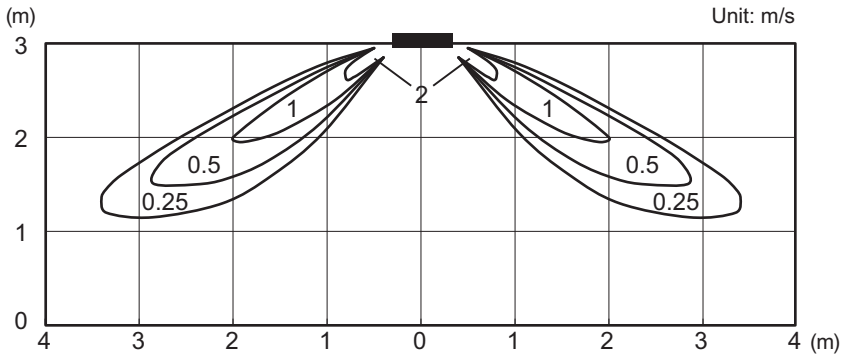
■ Model: AUXG09KVLA (3-way air outlet)

Measuring conditions	Fan speed	Operation mode	Ceiling mode
	HIGH	FAN	STANDARD

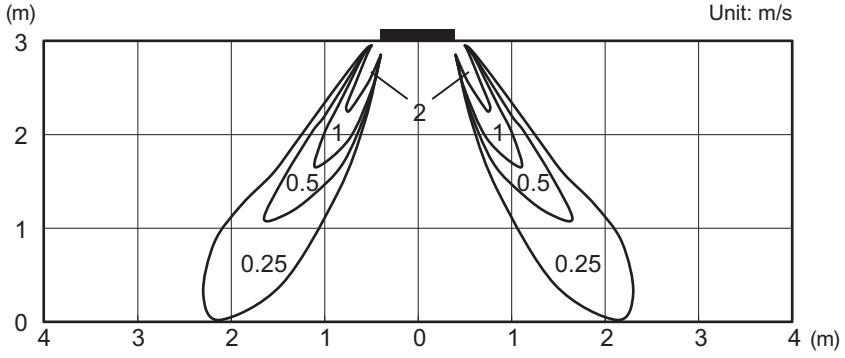
Top view
Horizontal louver: Upward



Side view
Horizontal louver: Upward



Side view
Horizontal louver: Downward

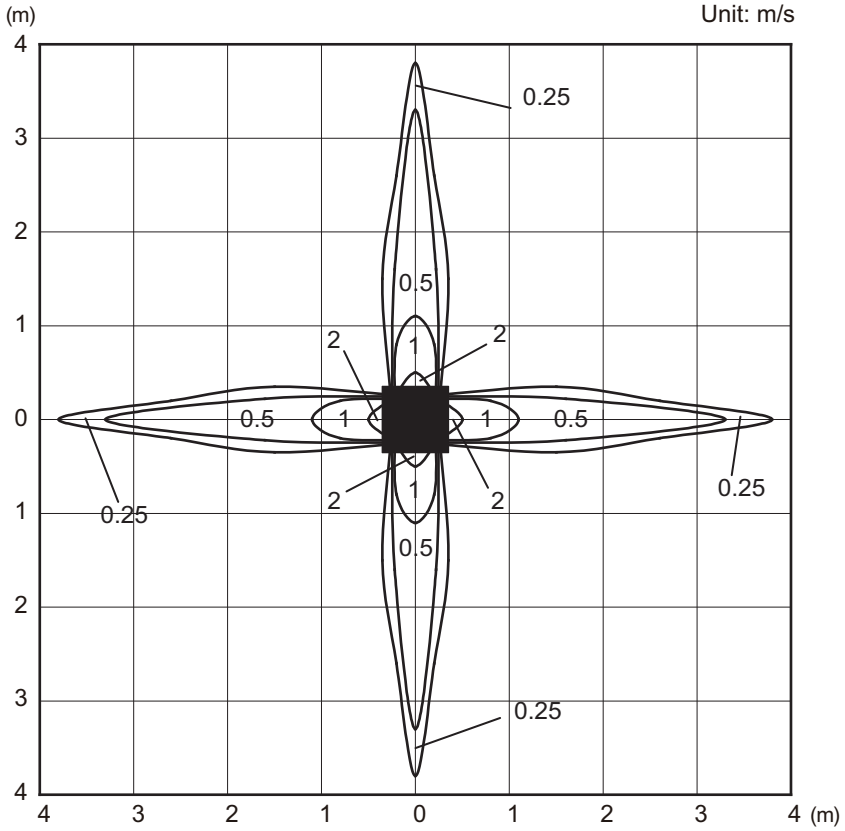


CASSETTE TYPE
AUXG09-22KVLA

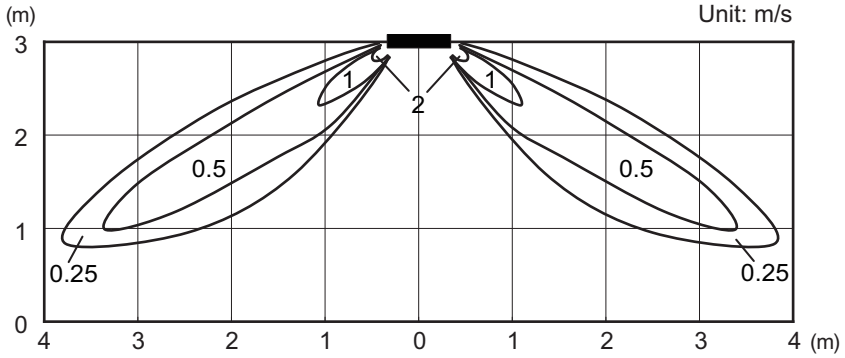
■ Model: AUXG12KVLA (4-way air outlet)

Measuring conditions	Fan speed	Operation mode	Ceiling mode
	HIGH	FAN	STANDARD

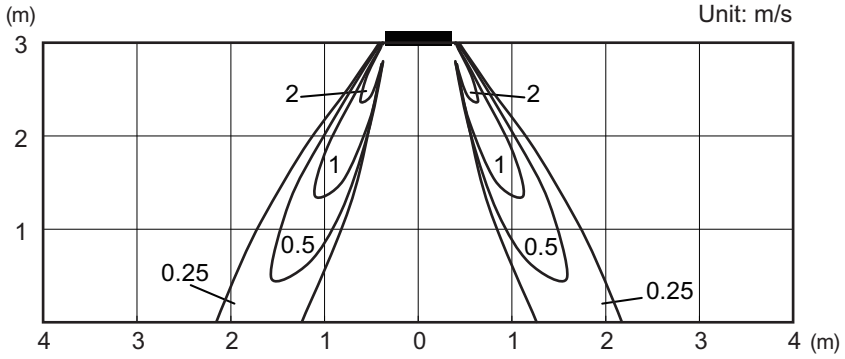
Top view
Horizontal louver: Upward



Side view
Horizontal louver: Upward



Side view
Horizontal louver: Downward

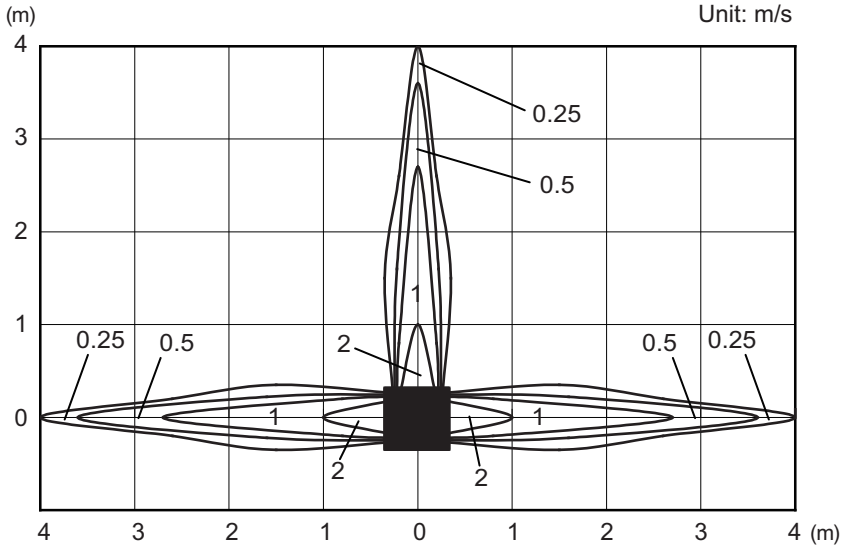


CASSETTE TYPE
AUXG09-22KVLA

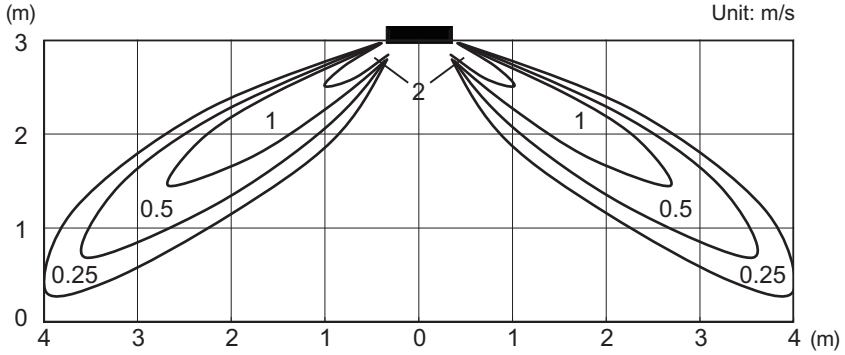
■ Model: AUXG12KVLA (3-way air outlet)

Measuring conditions	Fan speed	Operation mode	Ceiling mode
	HIGH	FAN	STANDARD

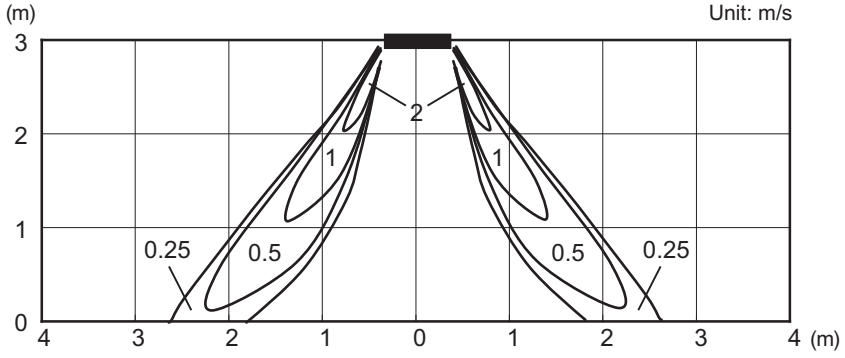
Top view
Horizontal louver: Upward



Side view
Horizontal louver: Upward



Side view
Horizontal louver: Downward

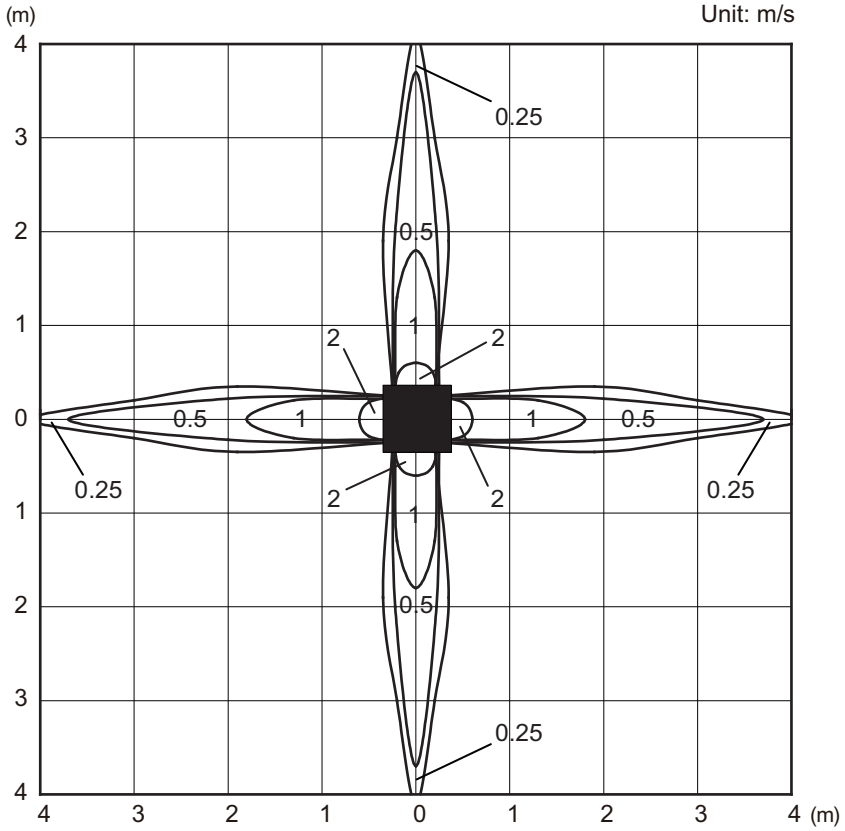


CASSETTE TYPE
AUXG09-22KVLA

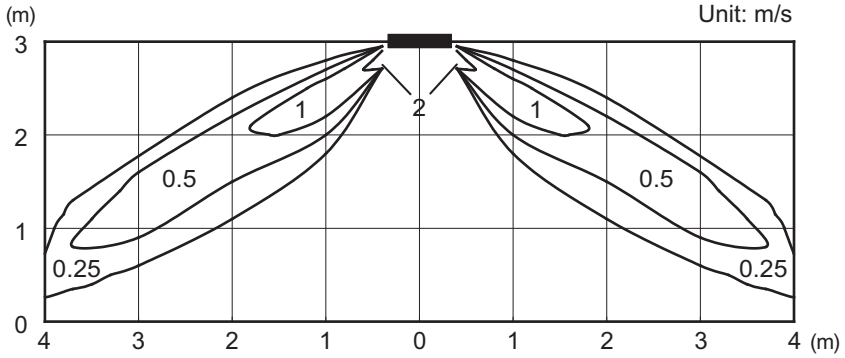
■ Model: AUXG14KVLA (4-way air outlet)

Measuring conditions	Fan speed	Operation mode	Ceiling mode
	HIGH	FAN	STANDARD

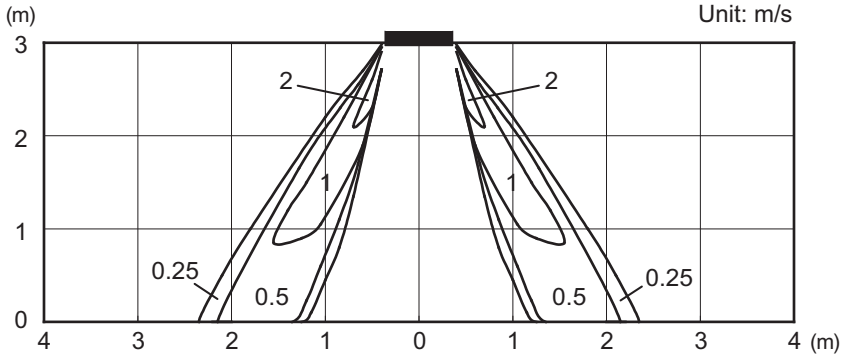
Top view
Horizontal louver: Upward



Side view
Horizontal louver: Upward



Side view
Horizontal louver: Downward

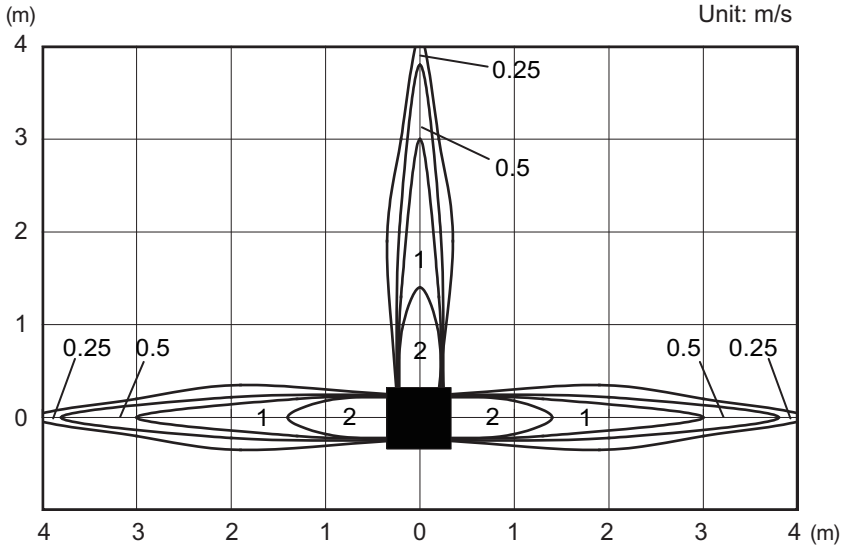


CASSETTE TYPE
AUXG09-22KVLA

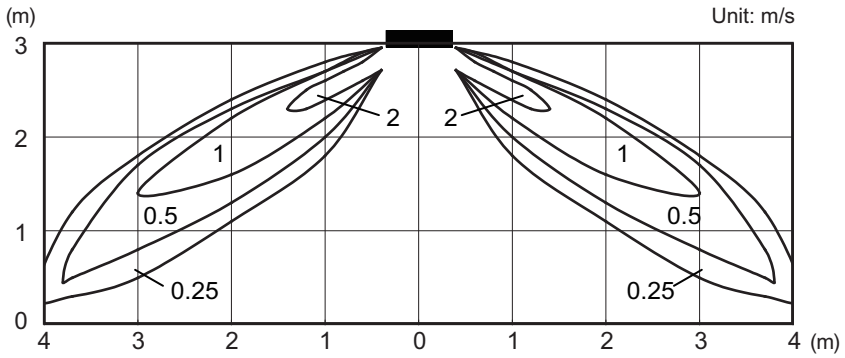
■ Model: AUXG14KVLA (3-way air outlet)

Measuring conditions	Fan speed	Operation mode	Ceiling mode
	HIGH	FAN	STANDARD

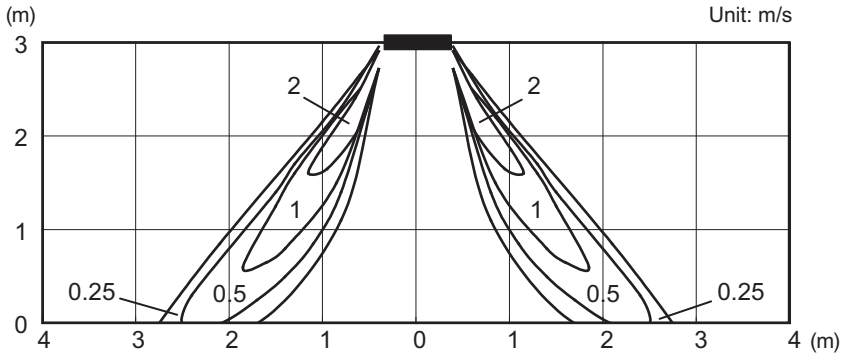
Top view
Horizontal louver: Upward



Side view
Horizontal louver: Upward



Side view
Horizontal louver: Downward

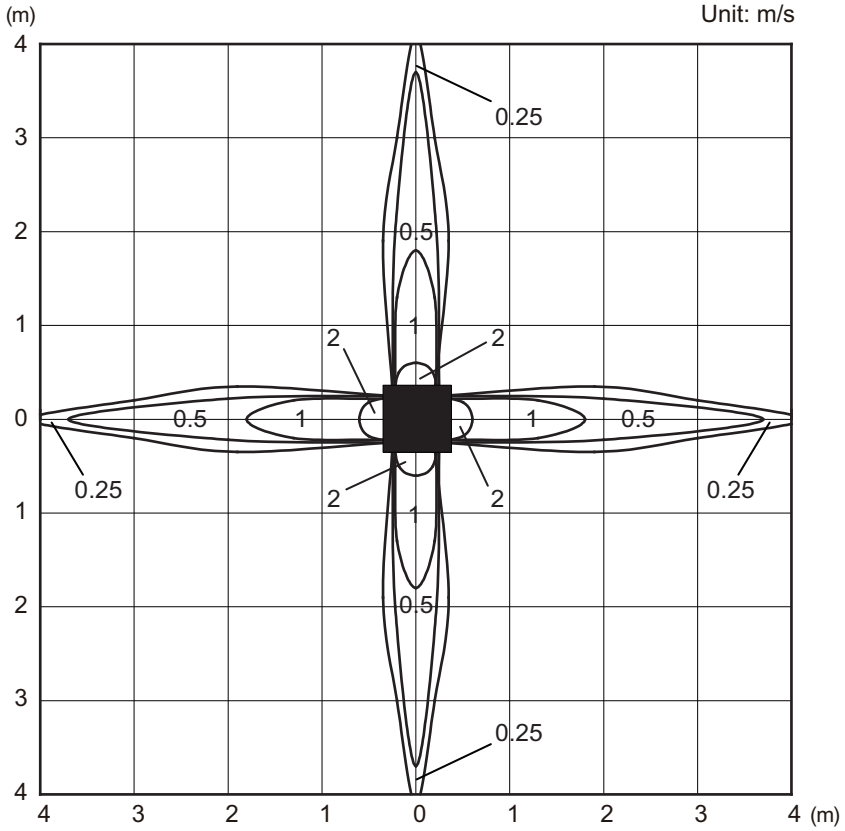


CASSETTE TYPE
AUXG09-22KVLA

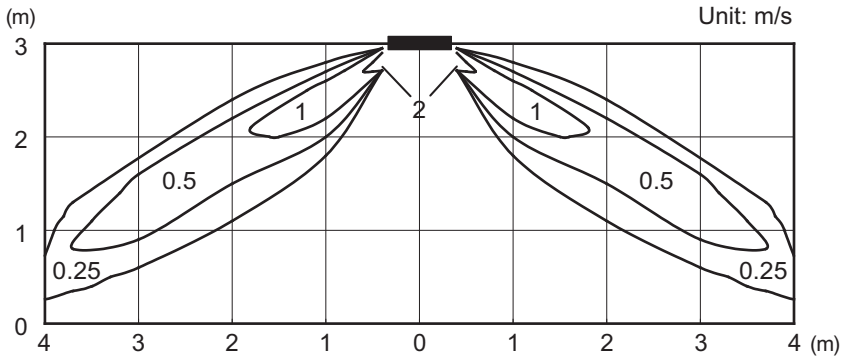
■ Model: AUXG18KVLA (4-way air outlet)

Measuring conditions	Fan speed	Operation mode	Ceiling mode
	HIGH	FAN	STANDARD

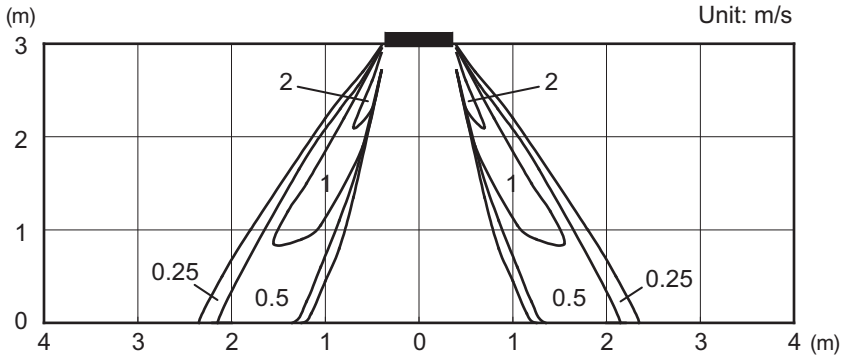
Top view
Horizontal louver: Up



Side view
Horizontal louver: Up



Side view
Horizontal louver: Down

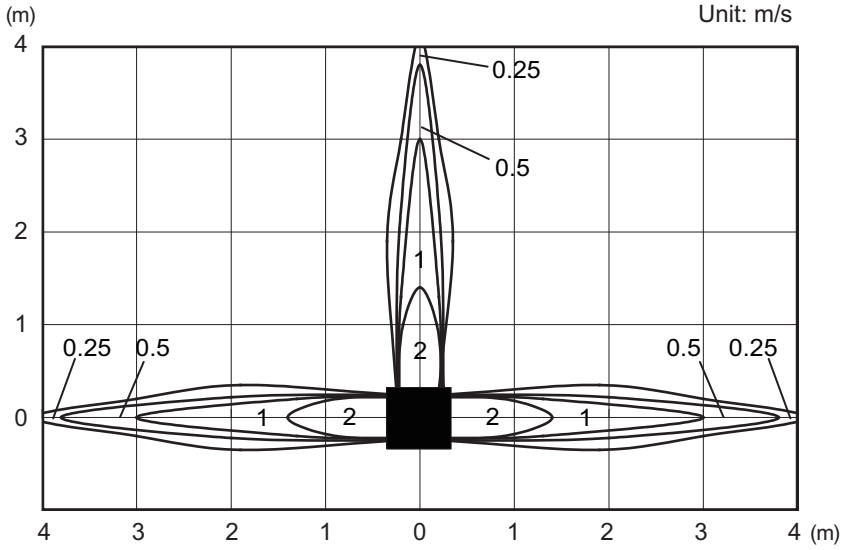


CASSETTE TYPE
AUXG09-22KVLA

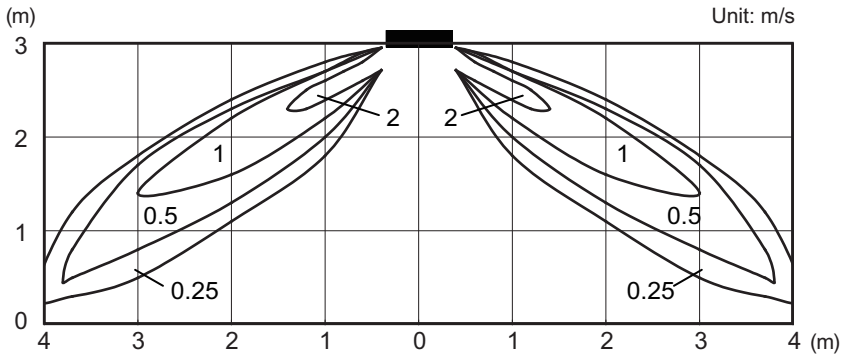
■ Model: AUXG18KVLA (3-way air outlet)

Measuring conditions	Fan speed	Operation mode	Ceiling mode
	HIGH	FAN	STANDARD

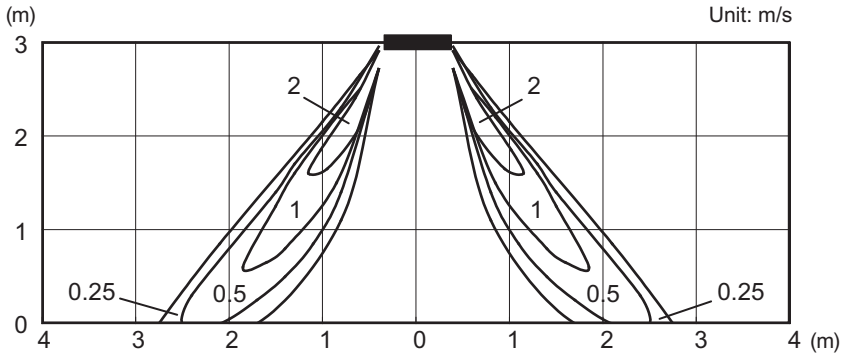
Top view
Horizontal louver: Upward



Side view
Horizontal louver: Upward



Side view
Horizontal louver: Downward

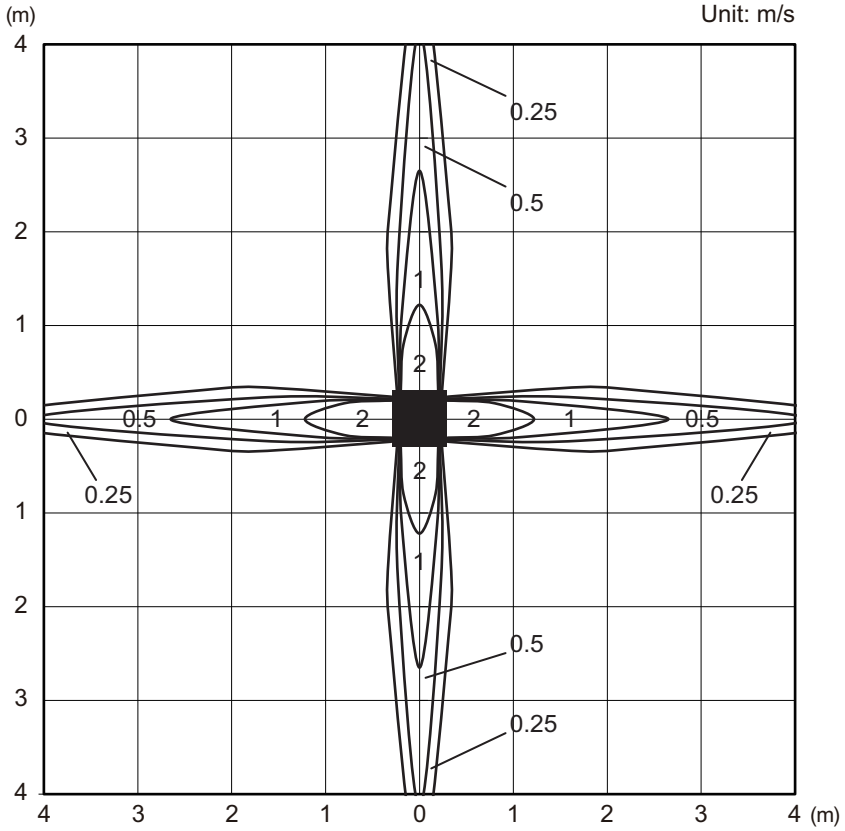


CASSETTE TYPE
AUXG09-22KVLA

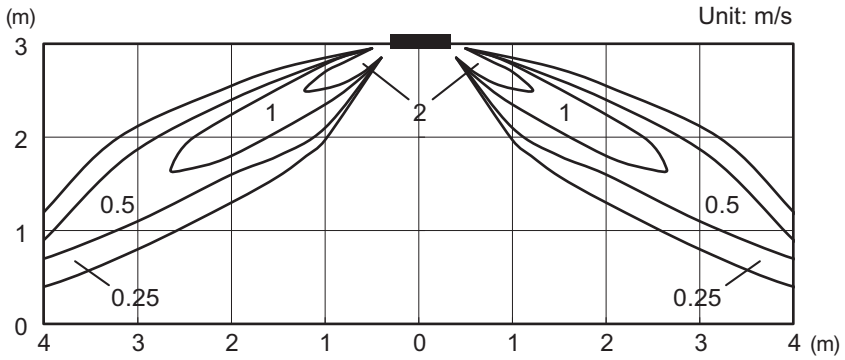
■ Model: AUXG22KVLA (4-way air outlet)

Measuring conditions	Fan speed	Operation mode	Ceiling mode
	HIGH	FAN	STANDARD

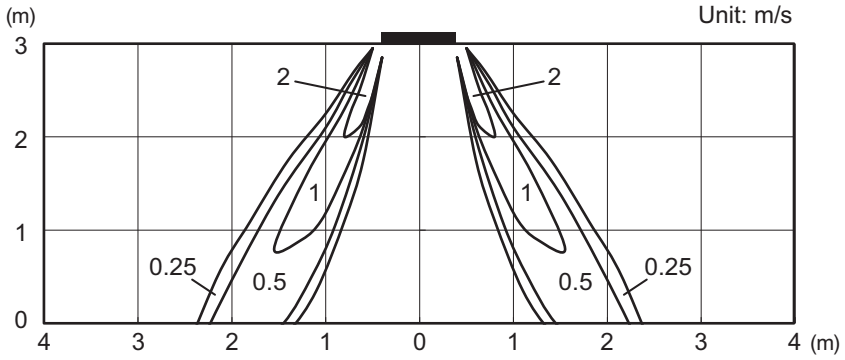
Top view
Horizontal louver: Up



Side view
Horizontal louver: Up



Side view
Horizontal louver: Down

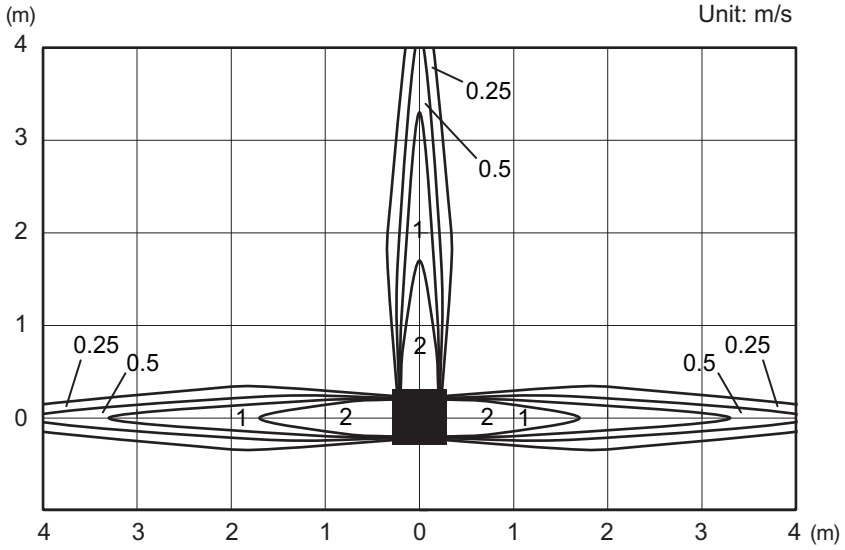


CASSETTE TYPE
AUXG09-22KVLA

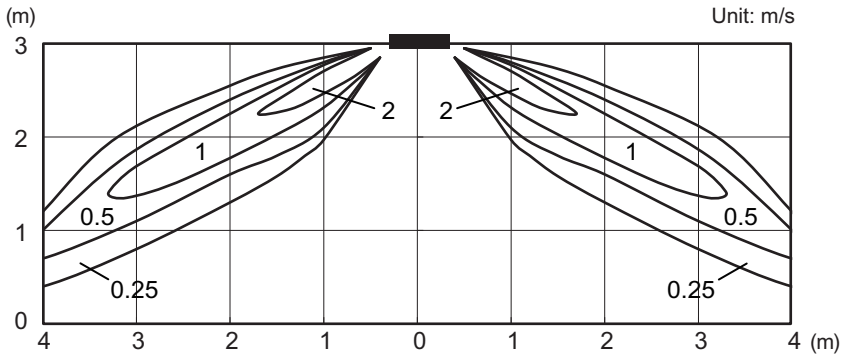
■ Model: AUXG22KVLA (3-way air outlet)

Measuring conditions	Fan speed	Operation mode	Ceiling mode
	HIGH	FAN	STANDARD

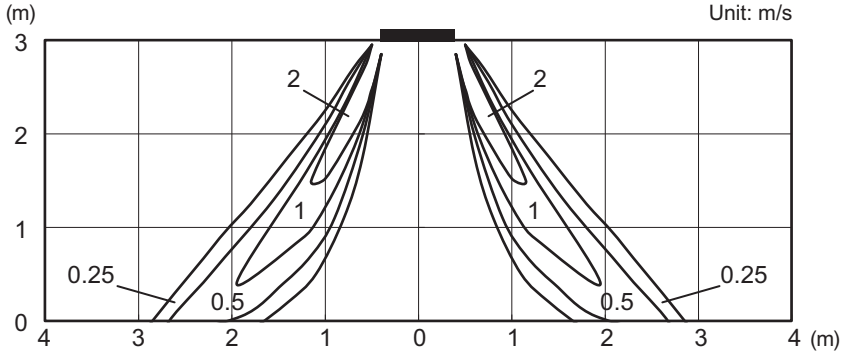
Top view
Horizontal louver: Upward



Side view
Horizontal louver: Upward



Side view
Horizontal louver: Downward



CASSETTE TYPE
AUXG09-22KVLA

5-2. Airflow

■ Model: AUXG09KVLA

● Cooling

Fan speed	Airflow	
HIGH	m^3/h	540
	l/s	150
	CFM	318
MED	m^3/h	490
	l/s	136
	CFM	288
LOW	m^3/h	440
	l/s	122
	CFM	259
QUIET	m^3/h	390
	l/s	108
	CFM	230

● Heating

Fan speed	Airflow	
HIGH	m^3/h	540
	l/s	150
	CFM	318
MED	m^3/h	490
	l/s	136
	CFM	288
LOW	m^3/h	440
	l/s	122
	CFM	259
QUIET	m^3/h	390
	l/s	108
	CFM	230

CASSETTE TYPE
AUXG09-22KVLA

■ Model: AUXG12KVLA

● Cooling

Fan speed	Airflow	
HIGH	m^3/h	600
	l/s	167
	CFM	353
MED	m^3/h	530
	l/s	147
	CFM	312
LOW	m^3/h	470
	l/s	131
	CFM	277
QUIET	m^3/h	410
	l/s	114
	CFM	241

● Heating

Fan speed	Airflow	
HIGH	m^3/h	600
	l/s	167
	CFM	353
MED	m^3/h	530
	l/s	147
	CFM	312
LOW	m^3/h	470
	l/s	131
	CFM	277
QUIET	m^3/h	410
	l/s	114
	CFM	241

CASSETTE TYPE
AUXG09-22KVLA

■ Model: AUXG14KVLA

● Cooling

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

● Heating

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

CASSETTE TYPE
AUXG09-22KVLA

■ Model: AUXG18KVLA

● Cooling

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

● Heating

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

CASSETTE TYPE
AUXG09-22KVLA

■ Model: AUXG22KVLA

● Cooling

Fan speed	Airflow	
HIGH	m^3/h	830
	l/s	231
	CFM	489
MED	m^3/h	740
	l/s	206
	CFM	436
LOW	m^3/h	600
	l/s	167
	CFM	353
QUIET	m^3/h	450
	l/s	125
	CFM	265

● Heating

Fan speed	Airflow	
HIGH	m^3/h	860
	l/s	239
	CFM	506
MED	m^3/h	760
	l/s	211
	CFM	477
LOW	m^3/h	700
	l/s	194
	CFM	412
QUIET	m^3/h	530
	l/s	147
	CFM	312

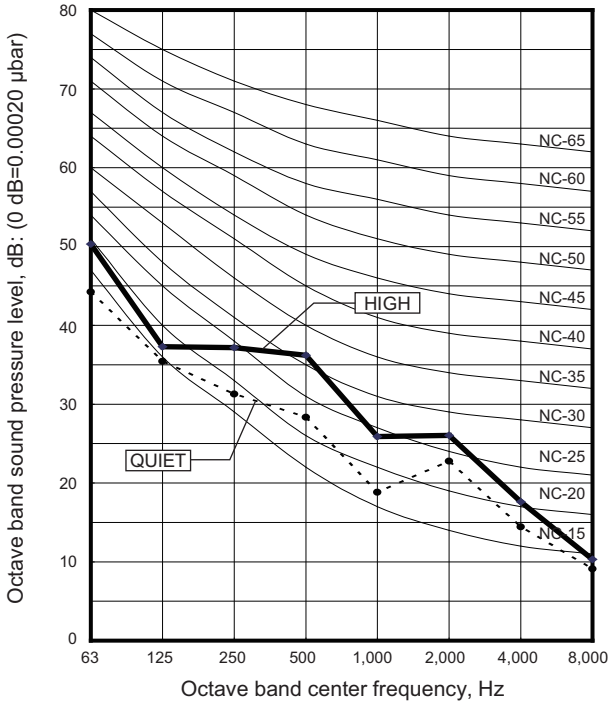
CASSETTE TYPE
AUXG09-22KVLA

6. Operation noise (sound pressure)

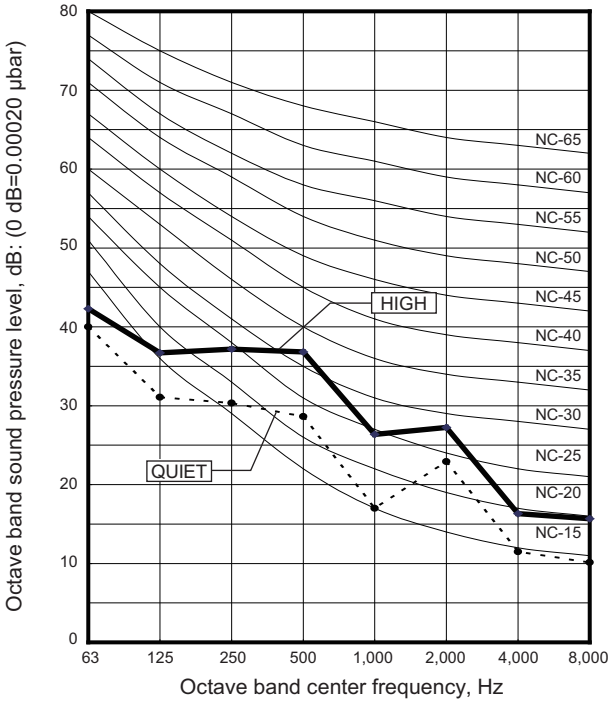
6-1. Noise level curve

■ Model: AUXG09KVLA

● Cooling

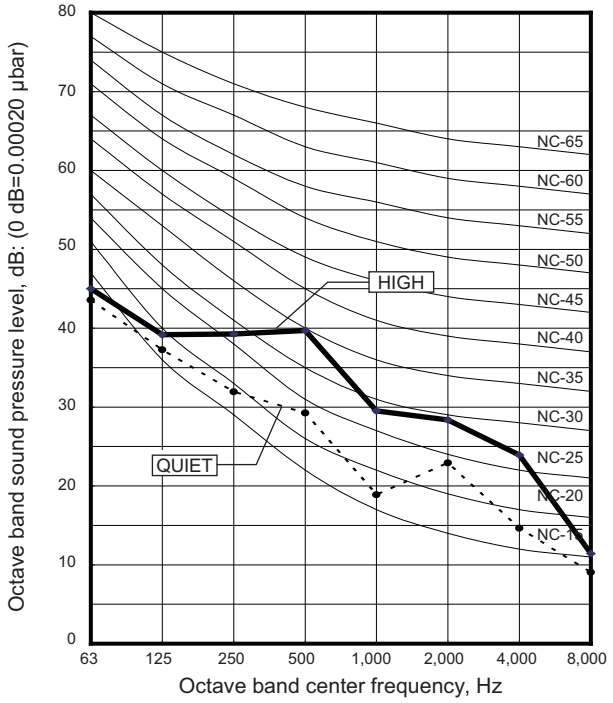


● Heating

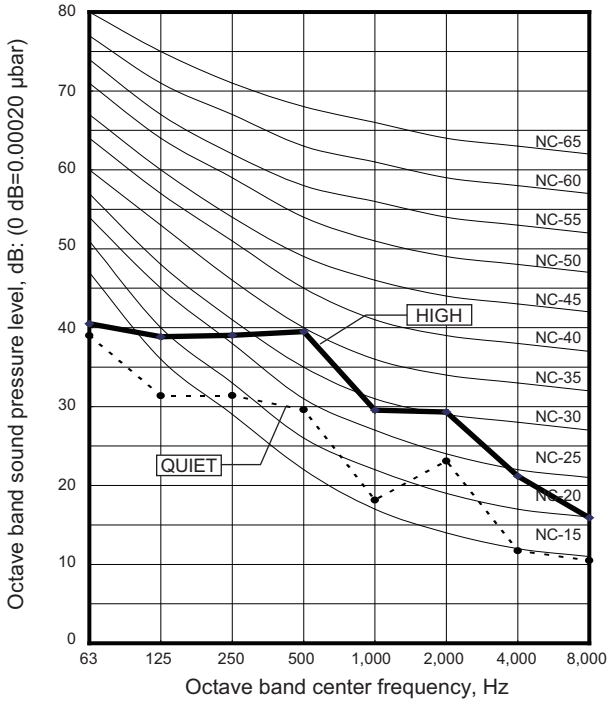


■ Model: AUXG12KVLA

● Cooling



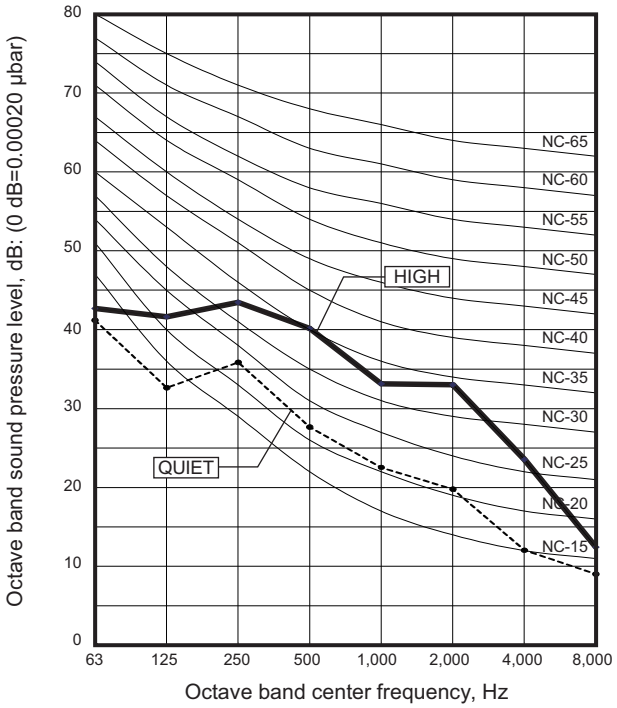
● Heating



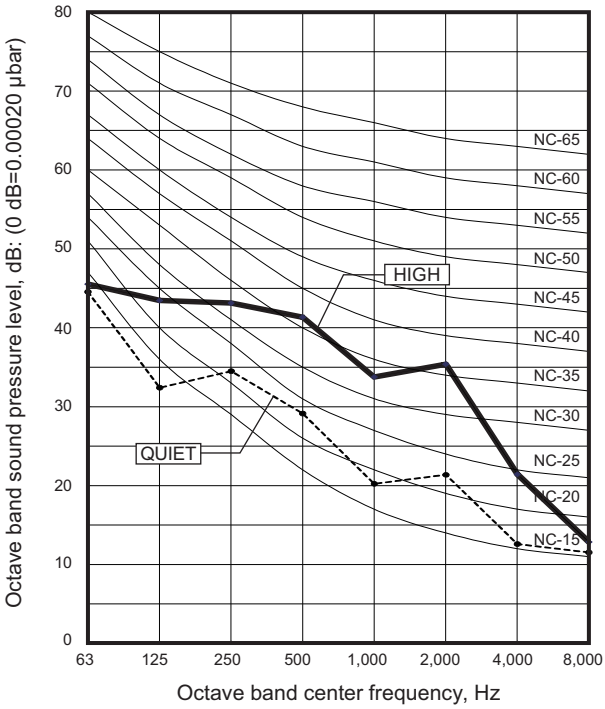
CASSETTE TYPE
AUXG09-22KVLA

■ Model: AUXG14KVLA

● Cooling

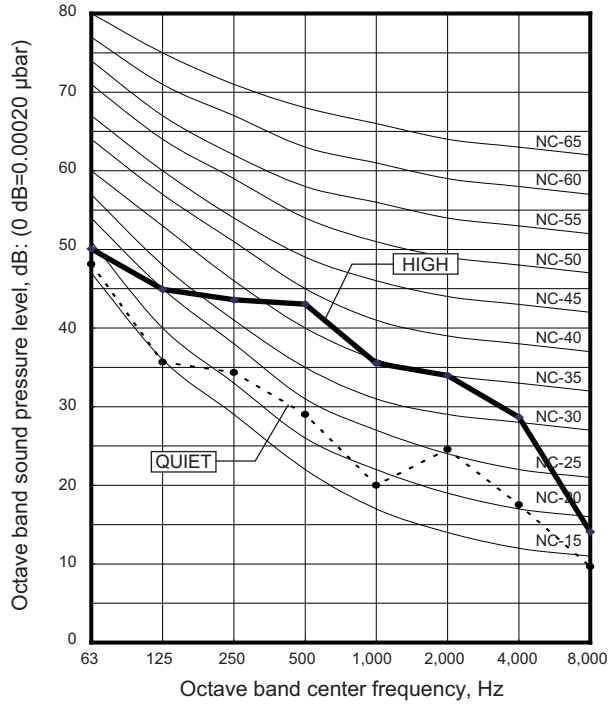


● Heating

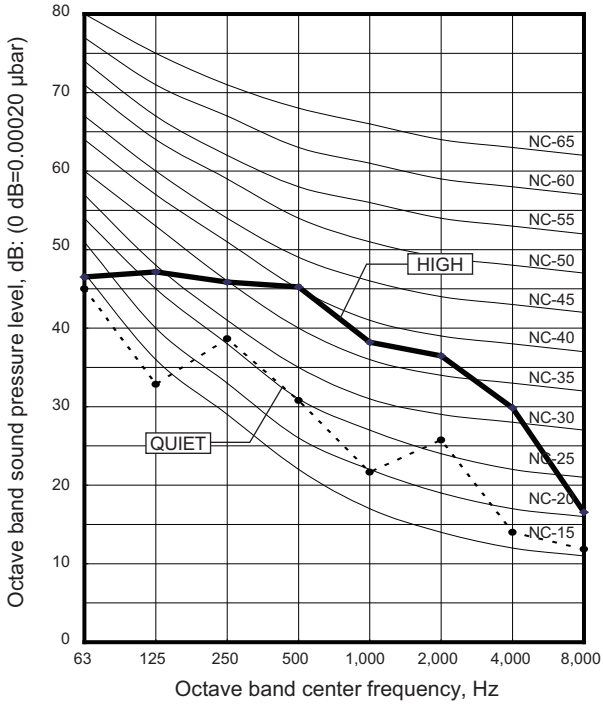


■ Model: AUXG18KVLA

● Cooling



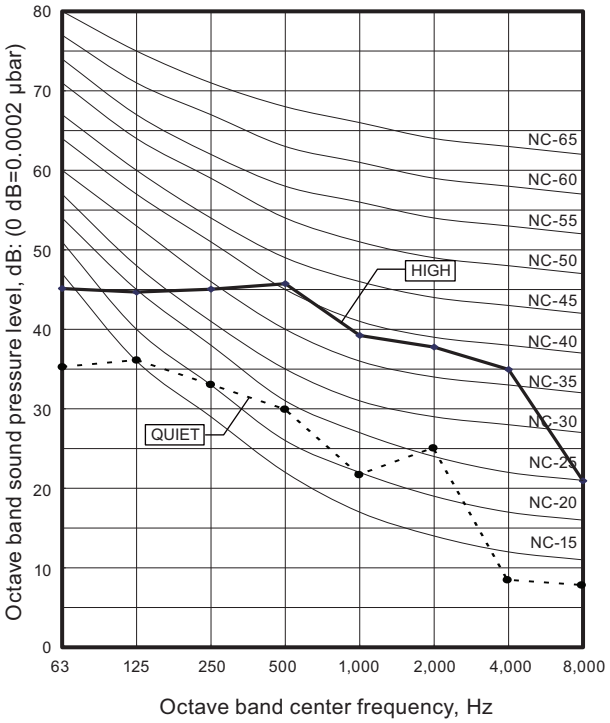
● Heating



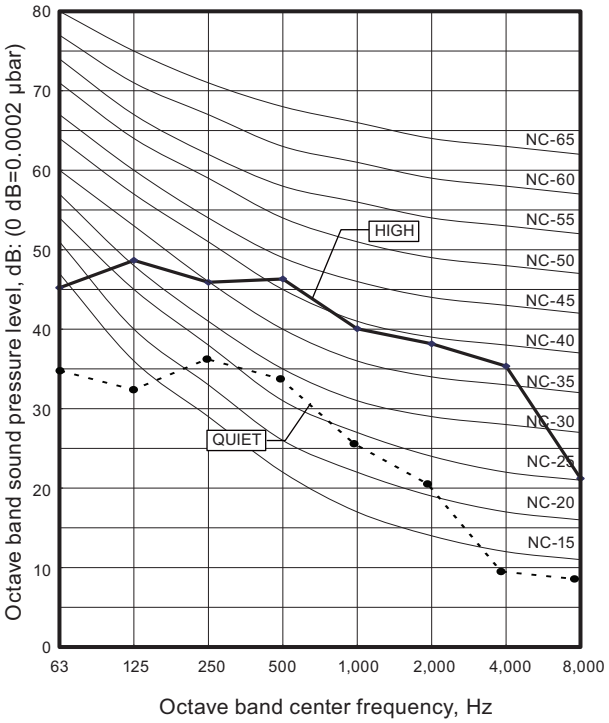
CASSETTE TYPE
AUXG09-22KVLA

■ Model: AUXG22KVLA

● Cooling

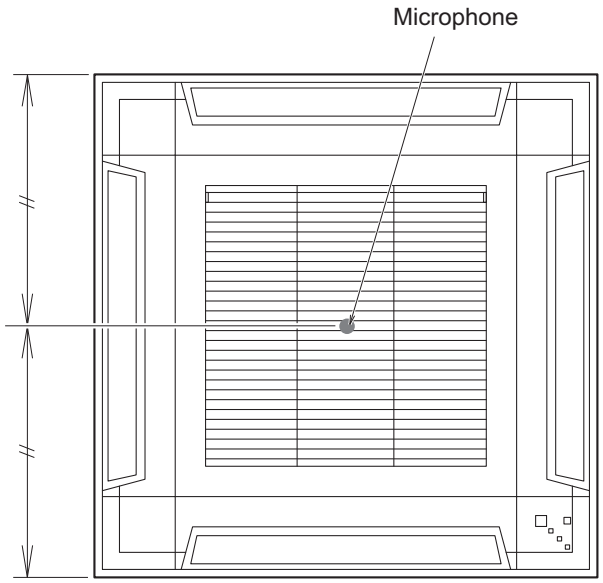


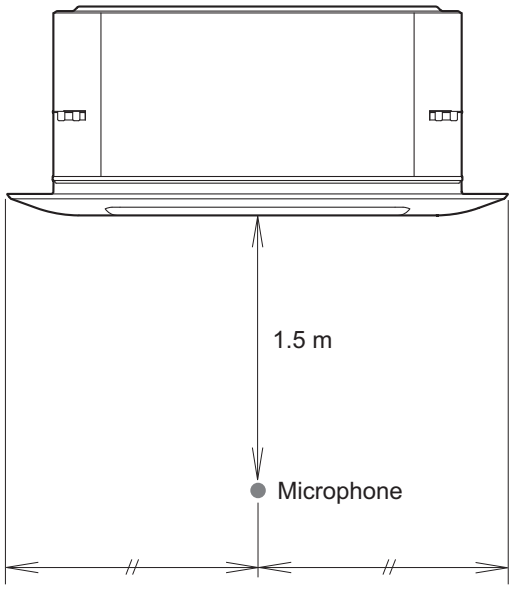
● Heating



CASSETTE TYPE
AUXG09-22KVLA

6-2. Sound level check point





CASSETTE TYPE
AUXG09-22KVLA

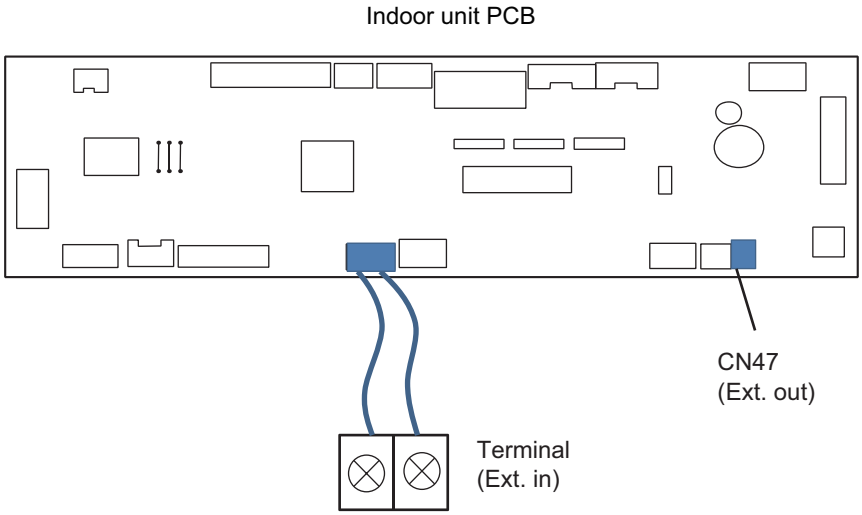
7. Safety devices

Type of protection	Protection form		Model
			AUXG09KVLA, AUXG12KVLA, AUXG14KVLA, AUXG18KVLA, and AUXG22KVLA
Circuit protection	Current fuse (PCB*)		250 V, 5 A
Fan motor protection	Thermal protection program	Activate	100 ± 10 °C Fan motor stop
		Reset	95 ± 10 °C Fan motor restart

*PCB: Printed Circuit Board

CASSETTE TYPE
AUXG09-22KVLA

8. External input and output

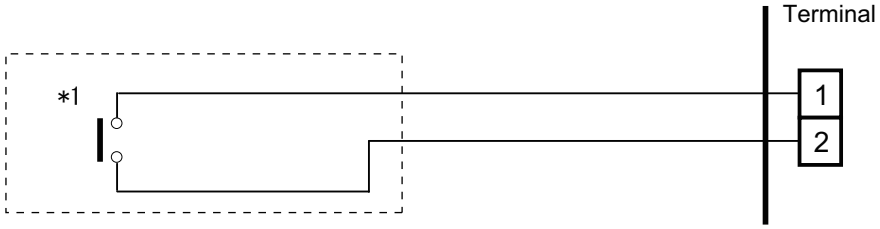


External input and output		Connector	Input select	Input signal	External connect kit (Optional parts)
External input	Operation/Stop Forced stop	Terminal	Dry contact	Edge	—
External output	Operation status	CN47	—	—	UTY-XWZXZG
	Error status				
	Indoor unit fan operation status				
	External heater output				

8-1. External input

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

Indoor unit functions such as Operation/Stop can be done by using indoor unit terminals.



*1: The switch can be used on the following condition: DC 12 V to 24 V, 1 mA to 15 mA.

CASSETTE TYPE
AUXG09-22KVLA

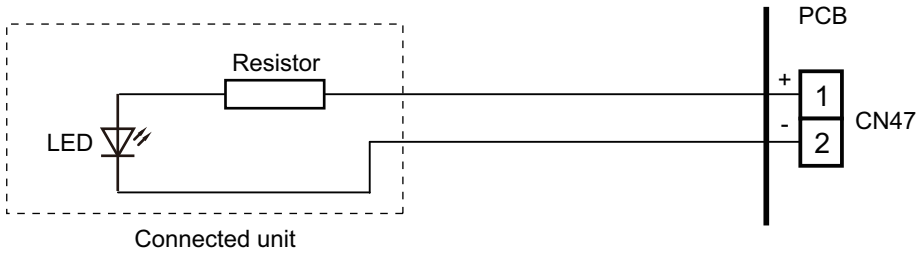
8-2. External output

Use an external output cable with appropriate external dimension, depending on the number of cables to be installed.

- A twisted pair cable (22AWG) should be used. Maximum length of cable is 25 m.
- Output voltage: High DC 12 V ± 2 V, Low 0 V.
- Permissible current: 50 mA
- For details, refer to "Combination of external input and output" on page 35.

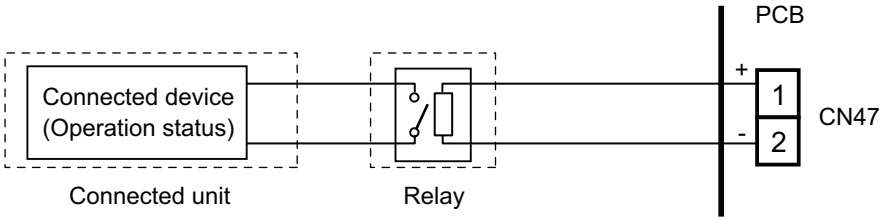
● When indicator, etc. are connected directly

Example: Function setting 60 is set to "00"



● When connecting with a device equipped with a power supply

Example: Function setting 60 is set to "00"



CASSETTE TYPE
AUXG09-22KVLA

8-3. Combination of external input and output

By combining the function setting of the indoor unit, you can select various combinations of functions.

Combination examples of external input and output are as follows:

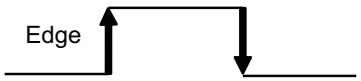
Mode	Function setting	External input	External output
		Terminal	CN47
0	60—00	Operation/Stop	
1—8	60—01 to 60—08	(Setting prohibited)	
9	60—09	Operation/Stop	Error status
10	60—10	Operation/Stop	Indoor unit fan operation status
11	60—11	Operation/Stop	External heater output

NOTE: Input of Operation/Stop depends on the setting of function setting 46.

- 00: Operation/Stop mode 1 (Remote controller enabled)
- 01: (Setting prohibited)
- 02: Forced stop
- 03: Operation/Stop mode 2 (Remote controller disabled)

■ Input signal type

- Indoor unit
  Input signal type is only "Edge".



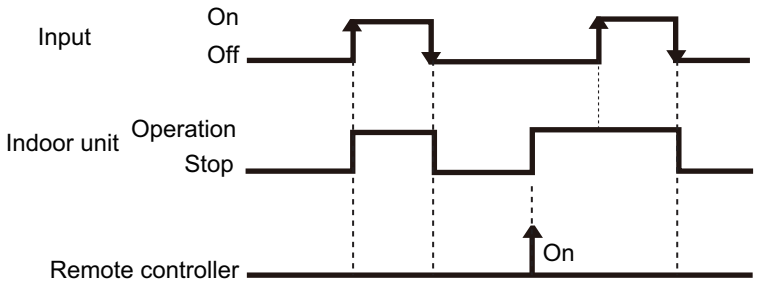
CASSETTE TYPE
AUXG09-22KVLA

8-4. Details of function

■ Control input function

- **When function setting is "Operation/Stop" mode 1**

Function setting	External input	Input signal	Command
46—00	Terminal	Off → On	Operation
		On → Off	Stop

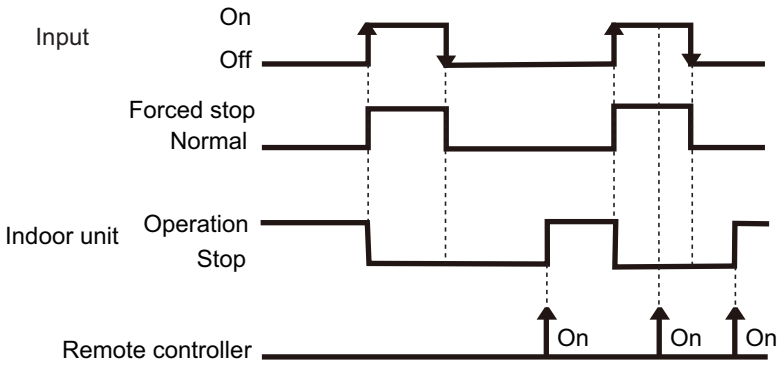


NOTES:

- The last command has priority.
- The indoor units within the same remote controller group operates in the same mode.

- **When function setting is "Forced stop" mode**

Function setting	External input	Input signal	Command
46—02	Terminal	Off → On	Forced stop
		On → Off	Normal



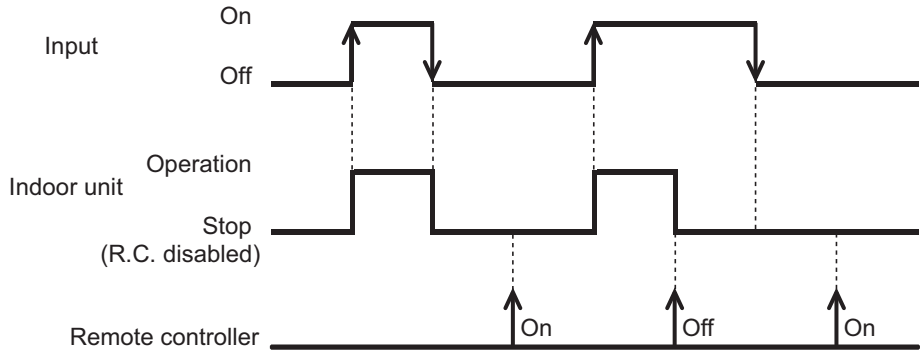
NOTES:

- When the forced stop is triggered, indoor unit stops and Operation/Stop operation by the remote controller is restricted.
- When forced stop function is used with forming a remote controller group, connect the same equipment to each indoor unit within the group.

CASSETTE TYPE
AUXG09-22KVLA

- **When function setting is "Operation/Stop" mode 2**

Function setting	External input	Input signal	Command
46—03	Terminal	Off → On	Operation
		On → Off	Stop (Remote controller disabled)

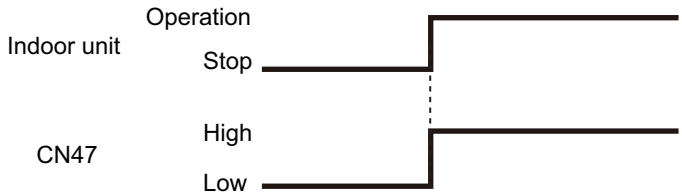


NOTE: When "Operation/Stop" mode 2 function is used with forming a remote controller group, connect the same equipment to each indoor unit within the group.

■ Control output function

Function setting	External output	Output signal	Command
60—00	CN47	Low → High	Operation
		High → Low	Stop

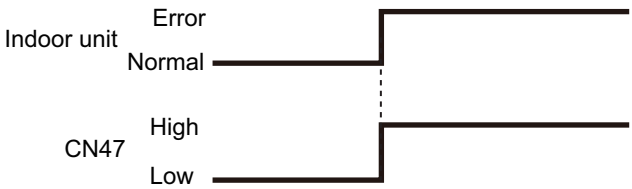
The output is low when the unit is stopped.



■ Error status

Function setting	External output	Output signal	Command
60—09	CN47	Low → High	Error
		High → Low	Normal

The output is ON when an error is generated for the indoor unit.

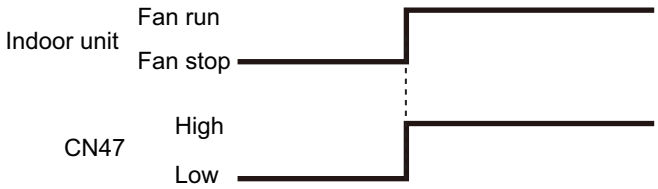


CASSETTE TYPE
AUXG09-22KVLA

■ Indoor unit fan operation status

Function setting	External output	Output signal	Command
60—10	CN47	Low → High	Fan run
		High → Low	Fan stop

Output signal	Condition
On	The indoor unit fan is operating.
Low → High	
Off	The fan is stopped or during cold air prevention. During thermostat off when in dry mode operation.
High → Low	



■ External heater output

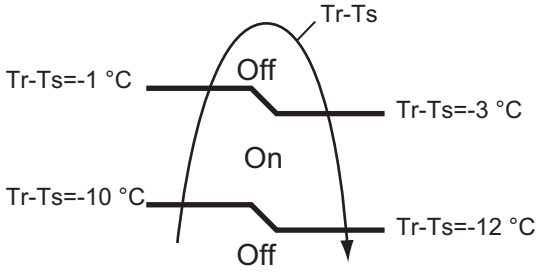
Function setting	External output	Output signal	Command
60—11	CN47	Low → High	Heater on
		High → Low	Heater off

Output signal	Condition
Low → High	Heater turns on as shown in diagram of heating temperature
Off → On	
High → Low	Heater turns off as shown in diagram of heating temperature • Other than Heating mode • Error occurred • Forced thermo off • Fan stop protection
On → Off	

Specifications of the signal output performance are as shown as follows:

Example When set temperature (Ts) is set at 22 °C;

- And room temperature (Tr) increase above 12 °C, signal output is on.
- And Tr increase above 21 °C, signal output is off.
- And Tr decrease below 19 °C, signal output is on.
- And Tr decrease below 10 °C, signal output is off.



The output also turns off in defrost operation.

CASSETTE TYPE
AUXG09-22KVLA

9. Function settings

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

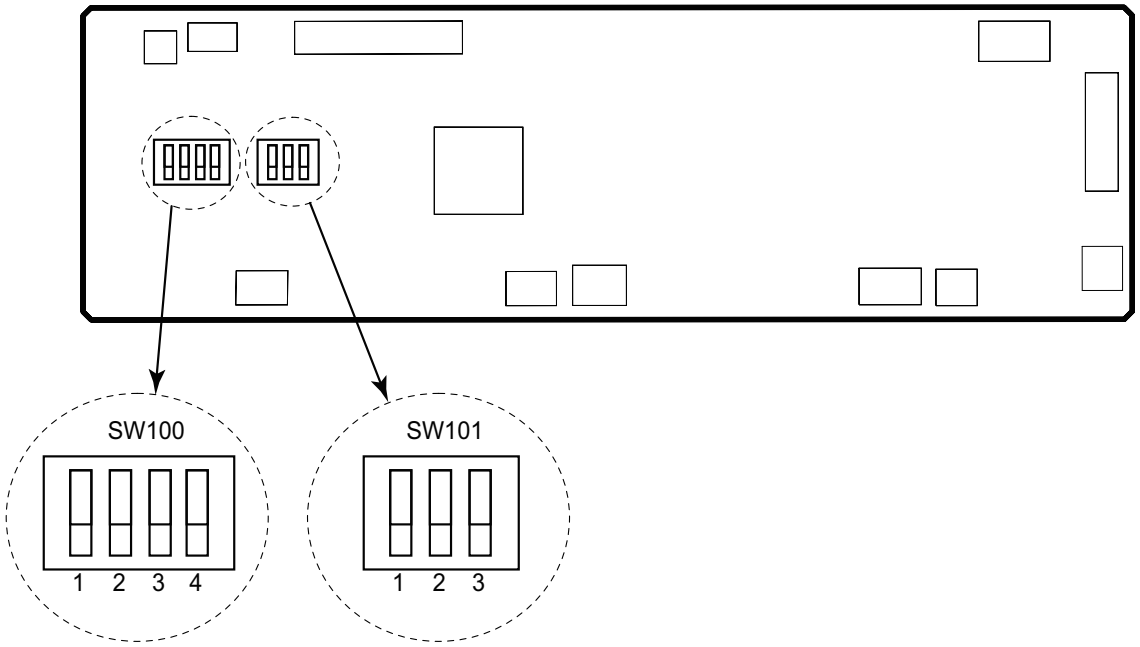
NOTE: Incorrect settings can cause a product malfunction.

9-1. Function settings on indoor unit

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

■ Component location

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



CASSETTE TYPE
AUXG09-22KVLA

■ DIP switch setting

- **SW100: Remote controller address setting**

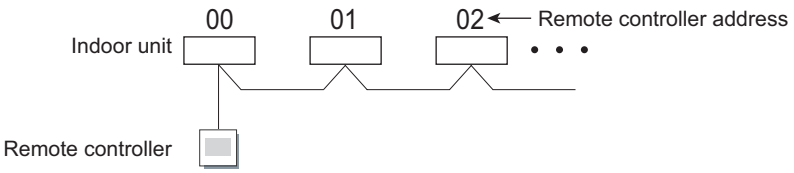
  NOTE: Because this setting is normally done automatically when 2-core wired remote controller is installed, setting is unnecessary.

Multiple indoor units can be operated by using one wired remote controller.
Set the unit number of each indoor unit.

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

NOTES:

- When connecting Polar 3-core 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.



- **SW101: Setting change prohibited**

CASSETTE TYPE
AUXG09-22KVLA

9-2. Function settings by using remote controller

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

■ Setting procedure by using remote controller

Remote controller is not attached for this product. For details of the installing remote controller, refer to following information.

- Overview information: Operating manual of the remote controller
- Setting procedure: Installation manual of the remote controller

■ Contents of function setting

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

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

● Function setting list

	Function no.	Functions
1)	11	Filter sign
2)	20	Ceiling height
3)	22	Outlet directions
4)	30/31	Room temperature control for indoor unit sensor
5)	35/36	Room temperature control for wired remote controller sensor
6)	40	Auto restart
7)	42	Room temperature sensor switching
8)	44	Remote controller custom code
9)	46	External input control
10)	48	Room temperature sensor switching (Aux.)
11)	49	Indoor unit fan control for energy saving for cooling
12)	60	Switching functions for external output terminal

1) Filter sign

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

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

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

CASSETTE TYPE
AUXG09-22KVLA

2) Ceiling height (For Compact cassette type only)

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

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

For the specific height for each setting value, refer to “Installation space” in Chapter 2. "Dimensions" on page 6.

In case of cassette type models:

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

9,000 Btu/h model cannot be installed in high ceiling.Do not change this setting.

3) Outlet directions (For Compact cassette type only)

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

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

4) Room temperature 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		

CASSETTE TYPE
AUXG09-22KVLA

5) 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		

6) Auto restart

Enables or disables automatic restart after a power interruption.

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

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

7) Room temperature sensor switching

(Only for wired remote controller)

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

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

00: Sensor on the indoor unit is active.

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

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

CASSETTE TYPE
AUXG09-22KVLA

8) Remote controller custom code

(Only for wireless remote controller)

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

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

9) External input control

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

Function number	Setting value	Setting description	Factory setting
46	00	Operation/Stop mode 1	♦
	01	(Setting prohibited)	
	02	Forced stop mode	
	03	Operation/Stop mode 2	

10) 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	

11) 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.

CASSETTE TYPE
AUXG09-22KVLA

12) Switching functions for external output terminal

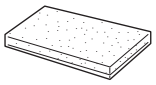
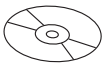
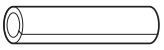
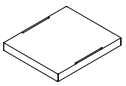
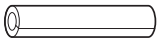
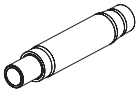
Functions of the external output terminal can be switched. For details, refer to “External input and output”.

Function number	Setting value	Setting description	Factory setting
60	00	Operation status	♦
	01—08	(Setting prohibited)	
	09	Error status	
	10	Indoor unit fan operation status	
	11	External heater	

CASSETTE TYPE
AUXG09-22KVLA

10. Accessories

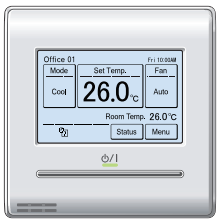
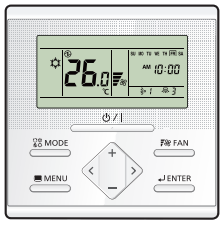
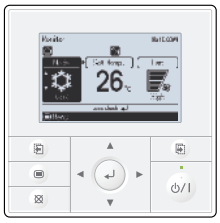
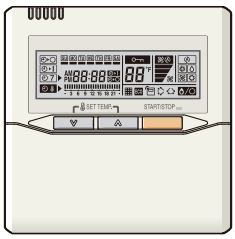
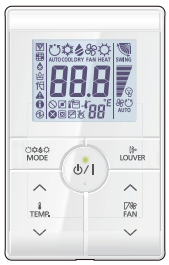
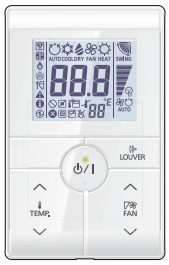
10-1. Models: AUXG09KVLA, AUXG12KVLA, AUXG14KVLA, AUXG18KVLA, and AUXG22KVLA

Part name	Exterior	Q'ty	Part name	Exterior	Q'ty
Operating manual		1	Drain hose insulation		1
Operating manual (CD-ROM)		1	Hose band		1
Installation manual		1	Coupler heat insulation (large)		1
Template (Carton top)		1	Coupler heat insulation (small)		1
M10 nut A (with flange)		4	Cable tie		2
M10 nut B (with spring lock washer)		4	Wire cramper		1
Drain hose		1			

CASSETTE TYPE
AUXG09-22KVLA

11. Optional parts

11-1. Controllers

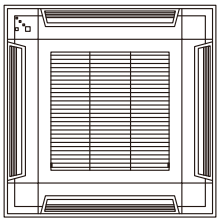
Exterior	Part name	Model name	Summary
	Wired Remote Controller	UTY-RNRYZ*	Easy finger touch operation with LCD panel. Backlit LCD enables easy operation in a dark room. Wire type: Non-polar 2-wire
	Wired Remote Controller	UTY-RLRY	High visibility and easy operation. Room temperature can be accurately controlled using the thermo sensor. Wire type: Non-polar 2-wire
	Wired Remote Controller	UTY-RVNYM	Large and full-dot liquid crystal screen, wide and large keys easy to press, user-intuitive arrow key. Wire type: Polar 3-wire
	Wired Remote Controller	UTY-RNNYM	Room temperature can be controlled by detecting the temperature accurately with thermo sensor. Wire type: Polar 3-wire
	Simple Remote Controller	UTY-RSRY	Compact remote controller concentrates on the basic functions such as Start/Stop, fan control, temperature setting, and operation mode. Wire type: Non-polar 2-wire
	Simple Remote Controller	UTY-RHRY	Compact remote controller concentrates on the basic functions such as Start/Stop, fan control, and temperature setting. Wire type: Non-polar 2-wire
	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

CASSETTE TYPE
AUXG09-22KVLA

Exterior	Part name	Model name	Summary
	Wireless Remote Controller	UTY-LNTY	Unit control is performed by Wireless Remote Controller.

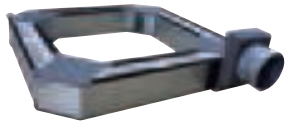
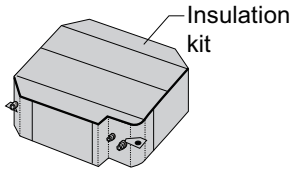
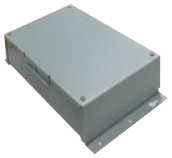
NOTE: Available functions may differ by the remote controller. For details, refer to the operation manual.

11-2. Cassette grille

Exterior	Part name	Model name	Summary
	Cassette Grille	UTG-UFYF-W	This cassette grille can be installed appropriately on the grid type ceiling common in the office.

CASSETTE TYPE
AUXG09-22KVLA

11-3. Others

Exterior	Part name	Model name	Summary
	External Connect Kit	UTY-XWZXZG	Use to connect with various peripheral devices and air conditioner PCB. For control output port.
	Air Outlet Shutter Plate	UTR-YDZB	Installed at the air outlet when 3-directions mode is performed.
	Fresh Air Intake Kit	UTZ-VXAA	By attaching Fresh Air Intake Kit to the indoor unit, it can be taken in fresh air of up to 10% of “high” air volume of the indoor unit.
	Insulation Kit for High Humidity	UTZ-KXGC	Install when the under-roof condition is expected to be the humidity of over 80% and the temperature of over 30 °C.
	WLAN Adapter	UTY-TFSXZ1	Remotely manage an air conditioning system using mobile devices such as smartphones and tablets. For connection indoor unit with UART interface. Appropriate application for each region is required to use this option. For details, contact FGL sales company.
	Modbus Converter	UTY-VMSX	For connection between indoor unit with UART interface and a Modbus open network.
	KNX Convertor	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.

NOTE: Combined use of following optional parts and WLAN Adapter (UTY-TFSXZ1) is not allowed.

- Modbus Converter
- KNX Convertor

CASSETTE TYPE
AUXG09-22KVLA

Part 2. OUTDOOR UNIT

SINGLE TYPE:

AOEG09KATA
AOEG12KATA
AOEG14KATA
AOEG18KATA
AOEG22KATA

OUTDOOR UNIT
AOEG09-22KATA

1. Specifications

Type				Inverter heat pump		
Model name				**AOEG09KATA**	**AOEG12KATA**	**AOEG14KATA**
Power supply				230 V ~ 50 Hz		
Available voltage range				198—264 V		
Starting current			A	4.4	5.8	6.6
Fan	Airflow rate	Cooling	m^3/h	1,610	1,630	1,670
		Heating		1,550	1,410	1,580
	Type × Q'ty			Propeller fan × 1		
	Motor output		W	23		
Sound pressure level *1		Cooling	dB (A)	47	49	50
		Heating		48	50	51
Sound power level		Cooling	dB (A)	60	62	63
		Heating		60	62	63
Heat exchanger type		Dimensions (H × W × D)	mm	504 × 650 × 18.19	Main 1: 504 × 630 × 18.19 Main 2: 504 × 630 × 18.19	Main 1: 504 × 881 × 18.19 Main 2: 504 × 851 × 18.19
		Fin pitch		1.3	Main 1: 1.3 Main 2: 1.3	
		Rows × Stages		1 × 24	Main 1: 1 × 24 Main 2: 1 × 24	
		Pipe type		Copper		
		Fin type	Type (Material)	Aluminum		
			Surface treatment	PC fin		
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	23	25	32
	Gross			27	29	36
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			15		20
	Max. height difference			15		
Operation range		Cooling	°C	-10 to 46		
		Heating		-15 to 24		
Drain hose		Material		PP		
		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: 5.0 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.

OUTDOOR UNIT
AOEG09-22KATA

Type				Inverter heat pump	
Model name				**AOEG18KATA**	**AOEG22KATA**
Power supply				230 V ~ 50 Hz	
Available voltage range				198—264 V	
Starting current			A	7.9	8.8
Fan	Airflow rate	Cooling	m^3/h	1,710	2,240
		Heating		1,840	2,240
	Type × Q'ty			Propeller fan × 1	
	Motor output		W	23	49
Sound pressure level *1		Cooling	dB (A)	51	52
		Heating		52	53
Sound power level		Cooling	dB (A)	63	64
		Heating		64	65
Heat exchanger type		Dimensions (H × W × D)	mm	Main 1: 504 × 881 × 18.19 Main 2: 504 × 851 × 18.19	Main 1: 588 × 881 × 18.19 Main 2: 588 × 851 × 18.19
		Fin pitch		Main 1: 1.3 Main 2: 1.3	
		Rows × Stages		Main 1: 1 × 24 Main 2: 1 × 24	Main 1: 1 × 28 Main 2: 1 × 28
		Pipe type		Copper	
		Fin type	Type (Material)	Aluminum	
			Surface treatment	PC fin	
Compressor	Type × Q'ty			DC rotary × 1	DC twin rotary × 1
	Motor output		W	900	
Refrigerant		Type (Global warming potential)		R32 (675)	
		Charge	g	900	1,100
Refrigerant oil		Type		RB68A	FW68S
		Amount	cm^3	340	350
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	36
	Gross			36	40
Connection pipe	Size	Liquid	mm (in)	Ø 6.35 (Ø 1/4)	
		Gas		Ø 12.70 (Ø 1/2)	
	Method			Flare	
	Pre-charge length		m	15	
	Max. length			20	25
	Max. height difference			15	20
Operation range		Cooling	°C	-10 to 46	
		Heating		-15 to 24	
Drain hose		Material		PP	
		Size	mm	Ø 13.0 (I. D.), Ø 16.0 to Ø 16.8 (O. D.)	

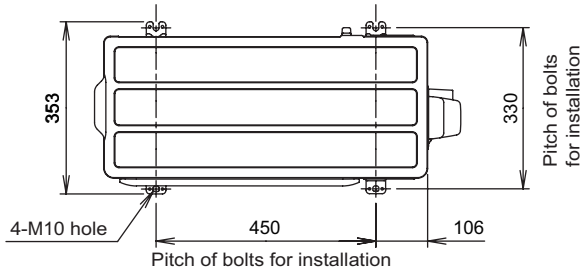
NOTES:

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

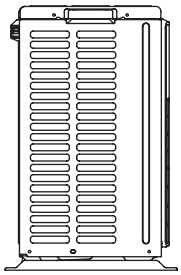
2. Dimensions

2-1. Models: AOEG09KATA and AOEG12KATA

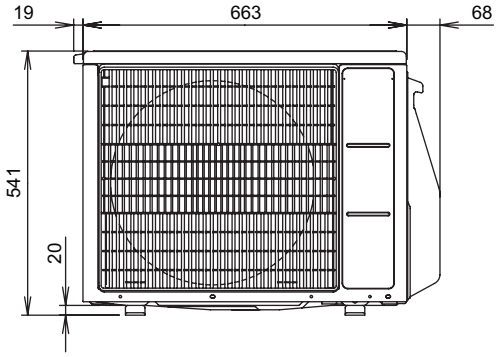
Unit: mm



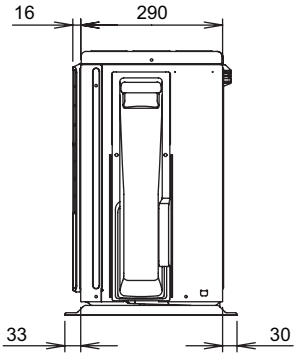
Top view



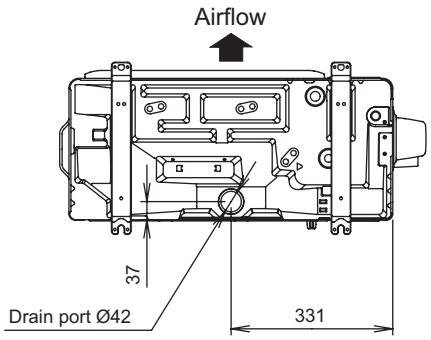
Side view



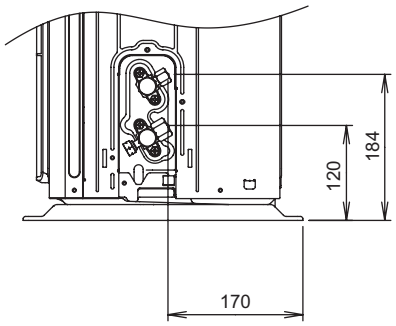
Front view



Side view



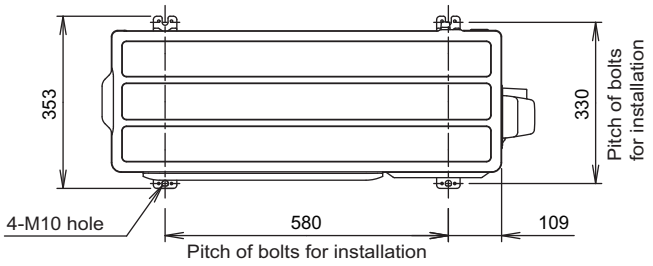
Bottom view



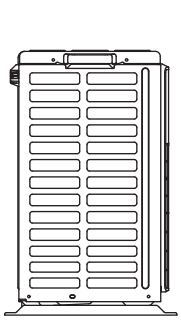
Side view (Valve part)

2-2. Models: AOEG14KATA and AOEG18KATA

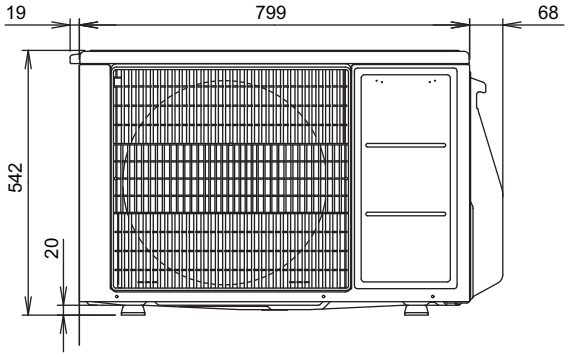
Unit: mm



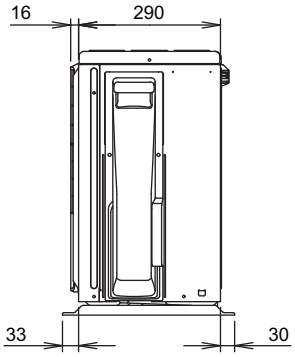
Top view



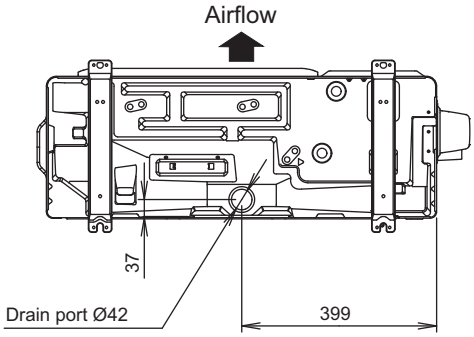
Side view



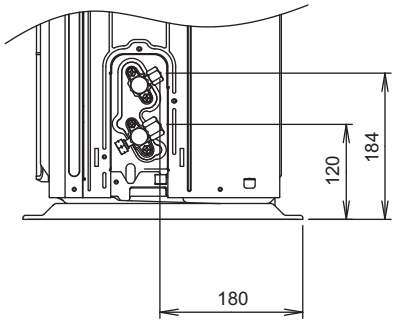
Front view



Side view



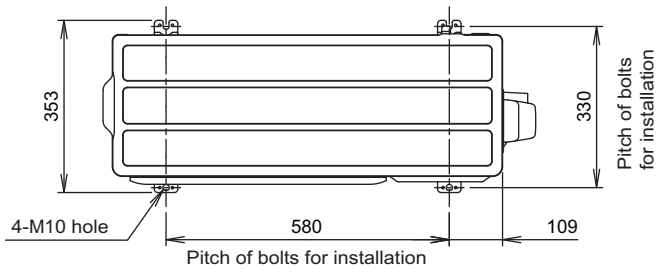
Bottom view



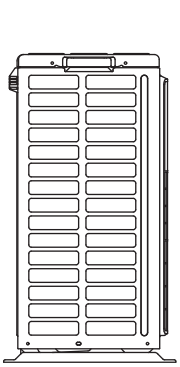
Side view (Valve part)

2-3. Models: AOEG22KATA

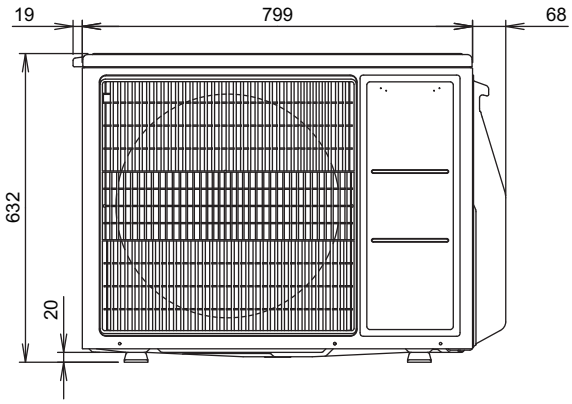
Unit: mm



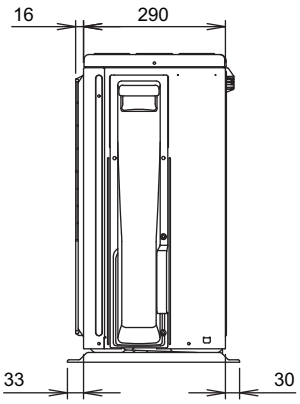
Top view



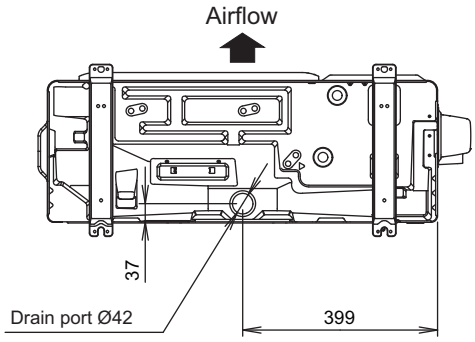
Side view



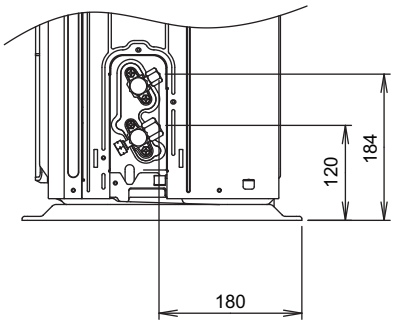
Front view



Side view



Bottom view



Side view (Valve part)

OUTDOOR UNIT
AOEG09-22KATA

3. Installation space

3-1. Models: AOEG09KATA, AOEG12KATA, AOEG14KATA, AOEG18KATA, and AOEG22KATA

■ Space requirement

Provide sufficient installation space for product safety.

⚠ CAUTION

Keep the space shown in the installation examples.

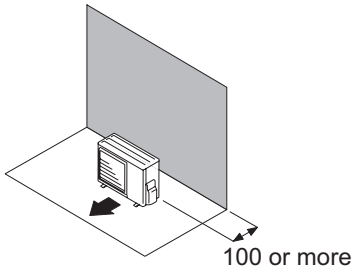
If the installation is not performed accordingly, it could cause a short circuit and result in a lack of operating performance.

● Single outdoor unit installation

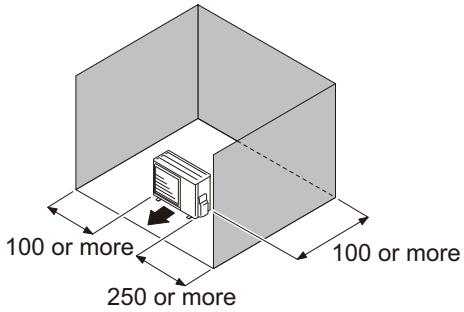
- **When the upper space is open:**

Unit: mm

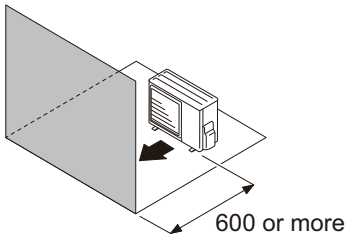
Obstacles at rear only



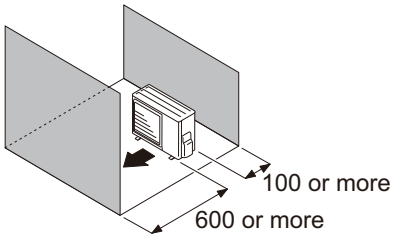
Obstacles at rear and sides



Obstacles at front



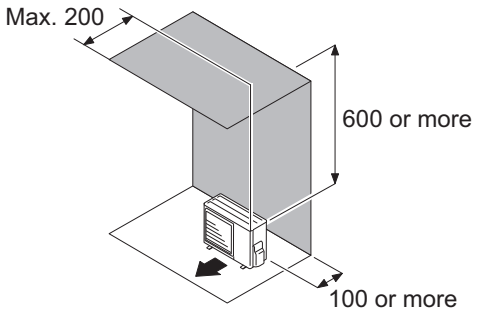
Obstacles at front and rear



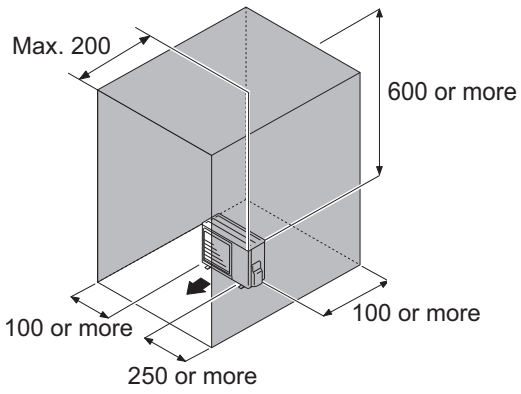
- **When an obstruction in the upper space:**

Unit: mm

Obstacles at rear and above



Obstacles at rear, sides, and above



OUTDOOR UNIT
AOEG09-22KATA

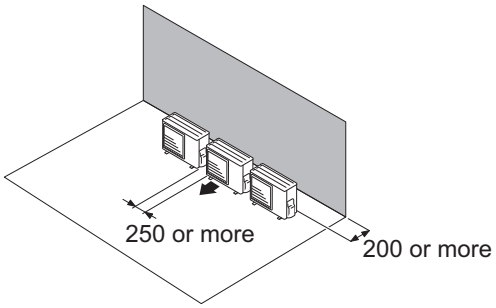
● Multiple outdoor unit installation

- 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:**".

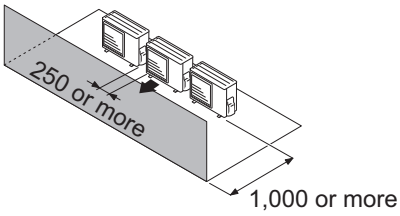
- **When the upper space is open:**

Unit: mm

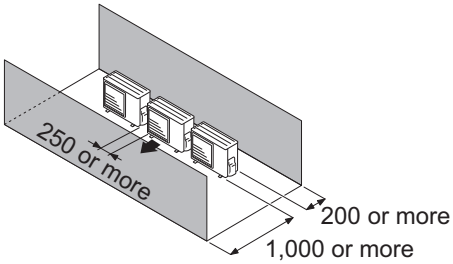
Obstacles at rear only



Obstacles at front only



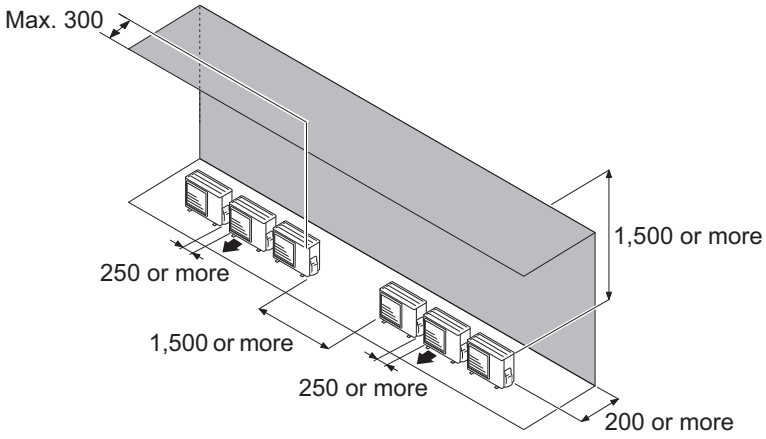
Obstacles at front and rear



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

Unit: mm

Obstacles at rear and above.

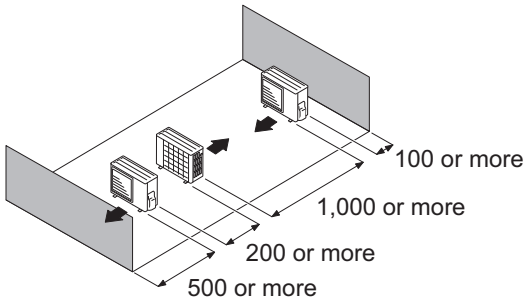


OUTDOOR UNIT
AOEG09-22KATA

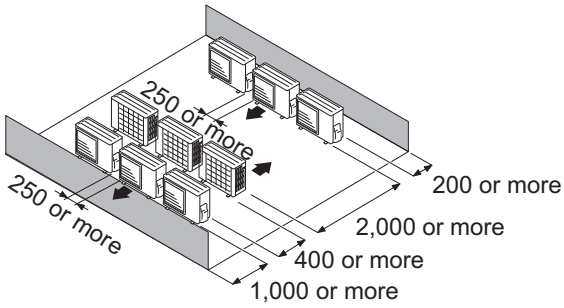
● Outdoor units installation in multi-row

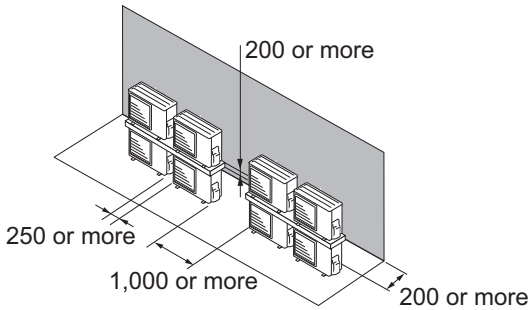
Unit: mm

Single parallel unit arrangement



Multiple parallel unit arrangement



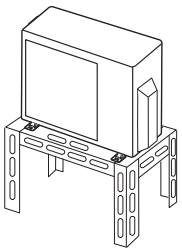


NOTES:

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

⚠ CAUTION

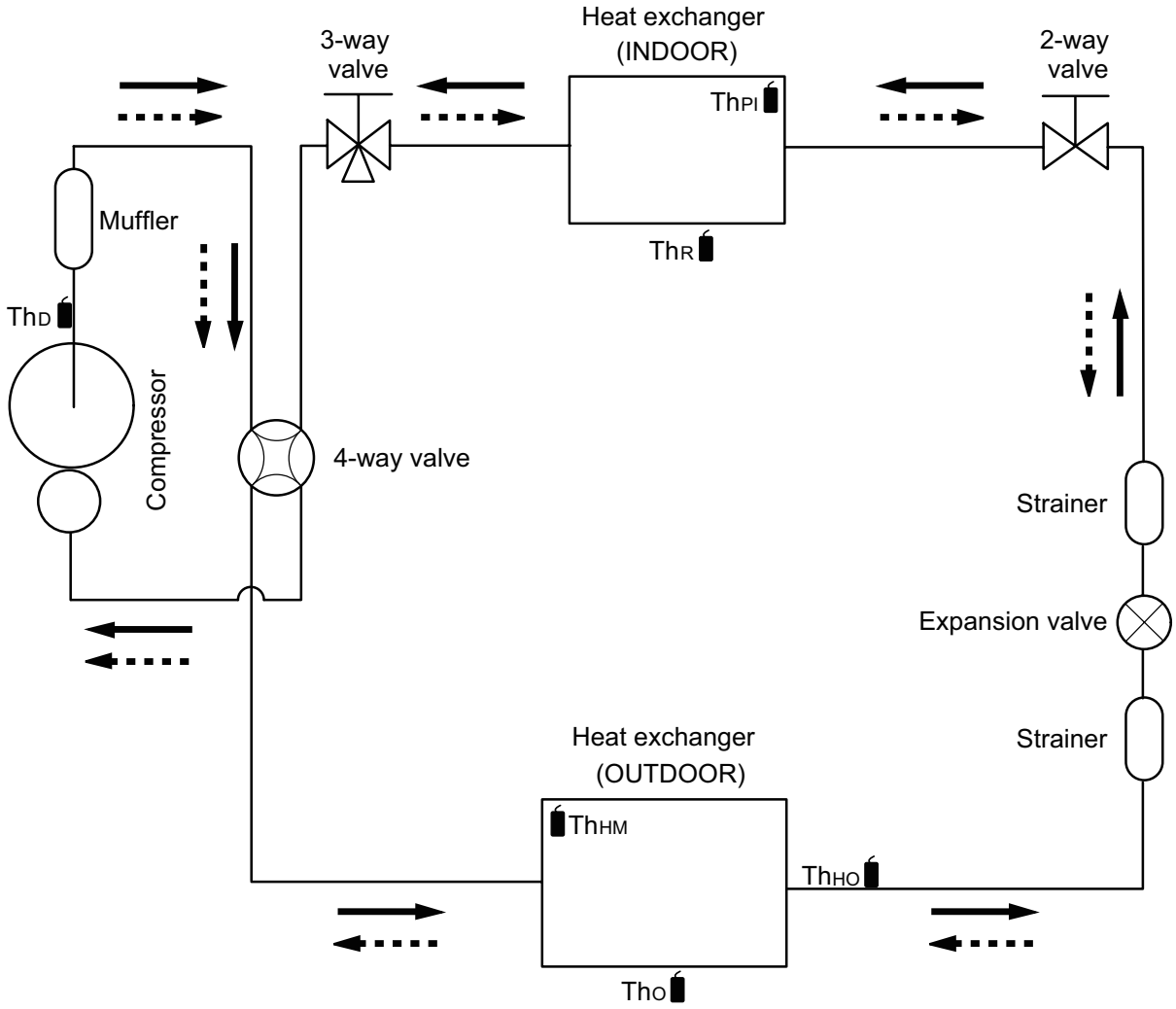
- Do not install the outdoor unit in two-stage where the drain water could freeze. Otherwise the drainage from the upper unit may form ice and cause a malfunction of the lower unit.
- When the outdoor temperature is 0 °C or less, do not use the accessory drain pipe and drain cap. If the drain pipe and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



4. Refrigerant circuit

4-1. Models: AOEG09KATA and AOEG12KATA

OUTDOOR UNIT
AOEG09-22KATA



ThD : Thermistor (Discharge temperature)

ThO : Thermistor (Outdoor temperature)

ThHO: Thermistor (Heat exchanger out temperature)

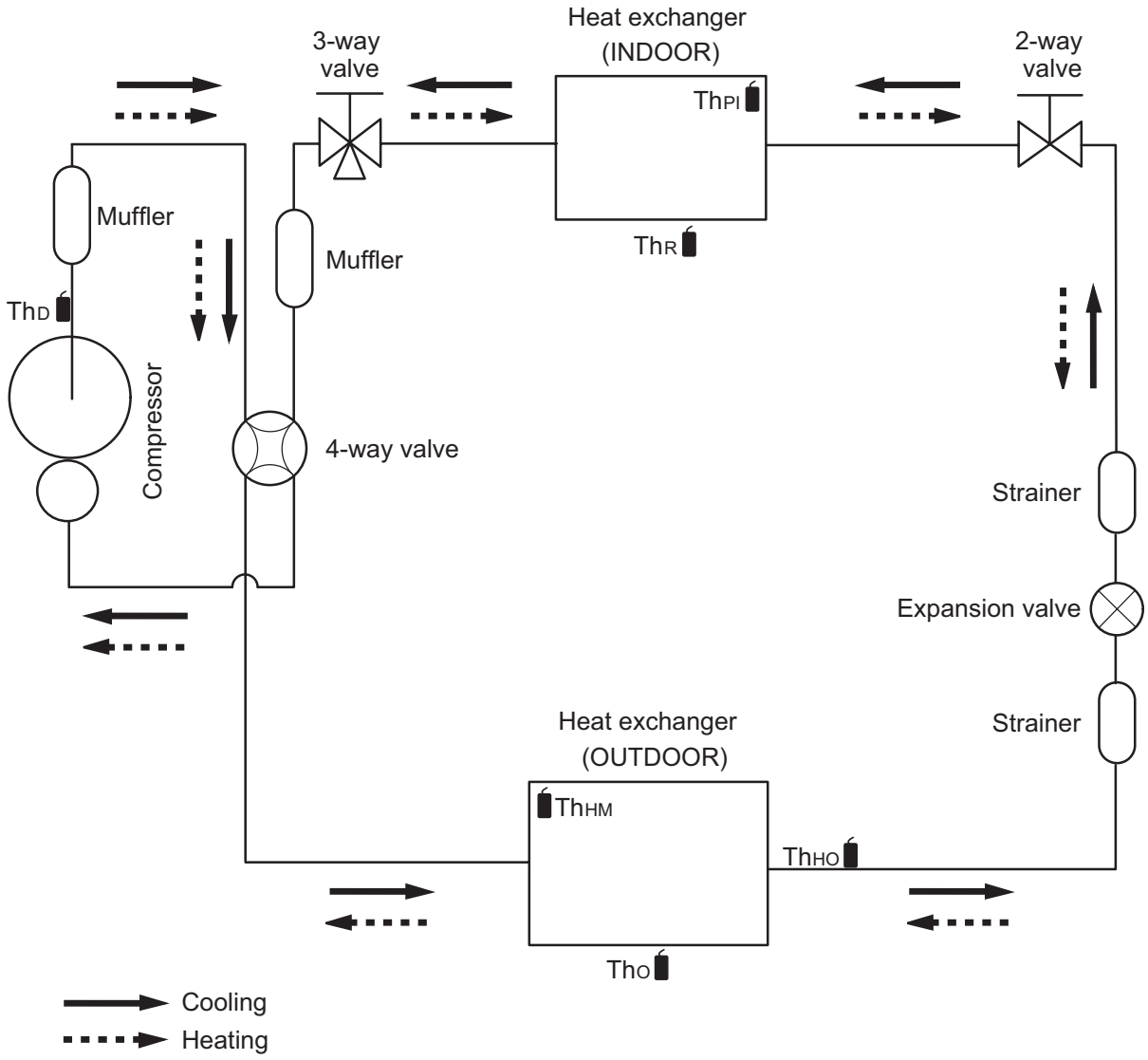
ThHM: Thermistor (Heat exchanger middle temperature)

ThR : Thermistor (Room temperature)

ThPI : Thermistor (Pipe temperature)

OUTDOOR UNIT
AOEG09-22KATA

4-2. Models: AOEG14KATA and AOEG18KATA



ThD : Thermistor (Discharge temperature)

ThHM: Thermistor (Heat exchanger middle temperature)

ThO : Thermistor (Outdoor temperature)

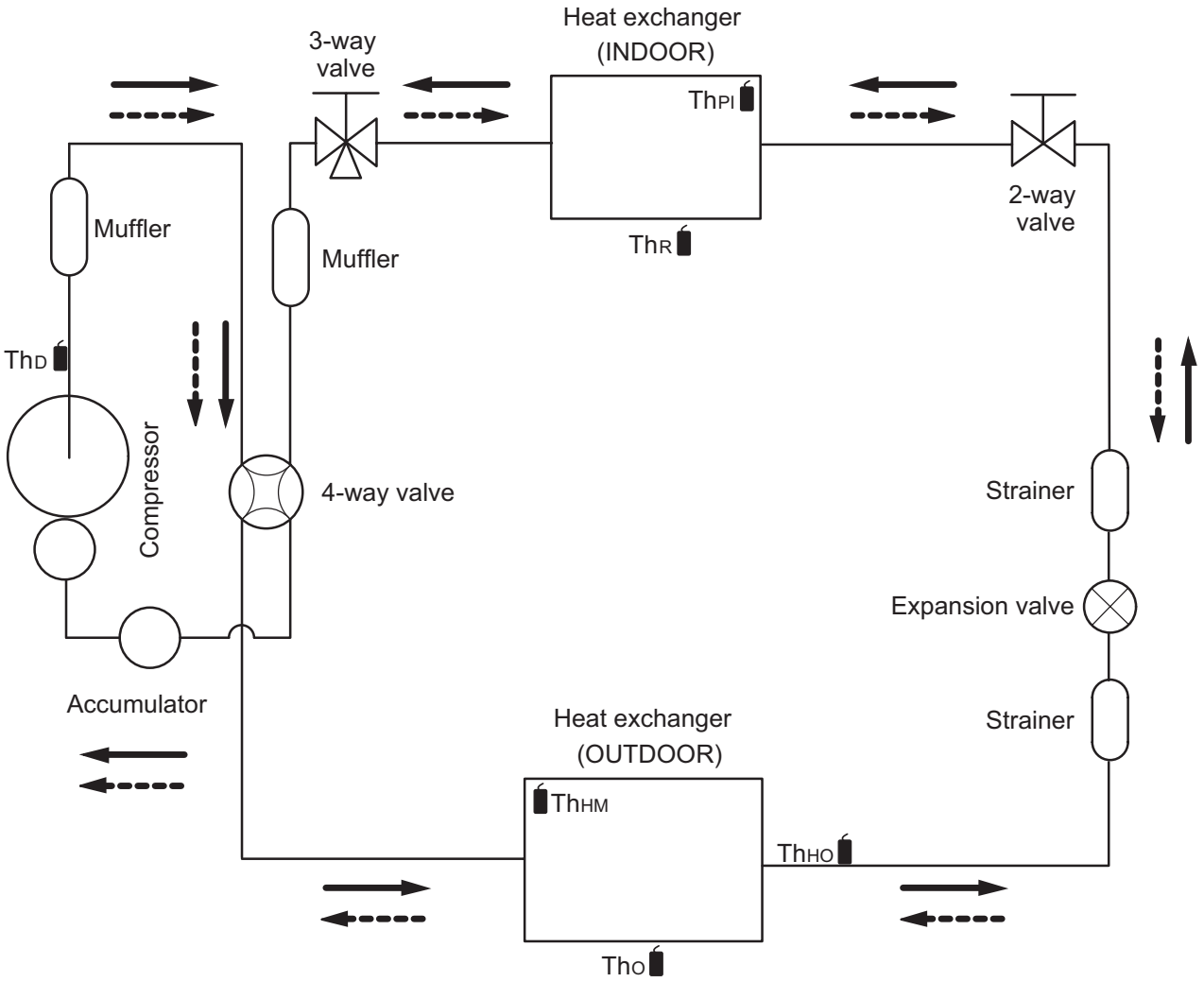
ThHO: Thermistor (Heat exchanger out temperature)

ThPI : Thermistor (Pipe temperature)

ThR : Thermistor (Room temperature)

OUTDOOR UNIT
AOEG09-22KATA

4-3. Model: AOEG22KATA



ThD : Thermistor (Discharge temperature)

ThHM: Thermistor (Heat exchanger middle temperature)

ThO : Thermistor (Outdoor temperature)

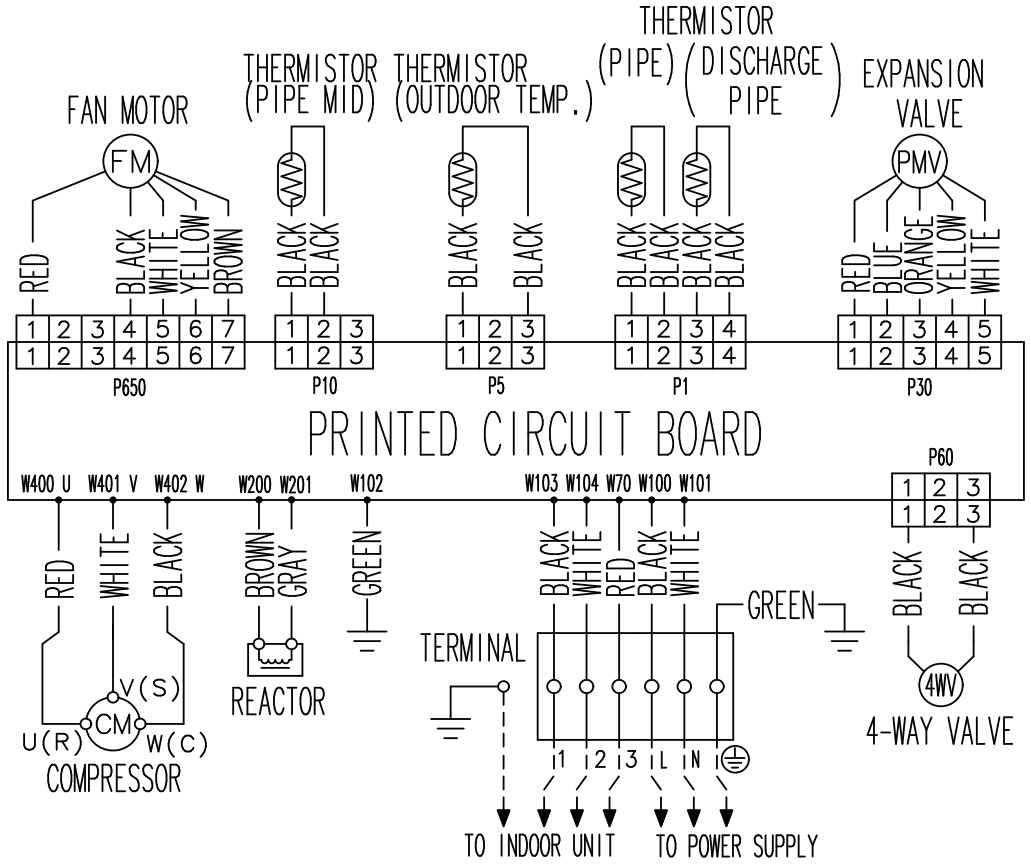
ThHO: Thermistor (Heat exchanger out temperature)

ThPI : Thermistor (Pipe temperature)

ThR : Thermistor (Room temperature)

5. Wiring diagrams

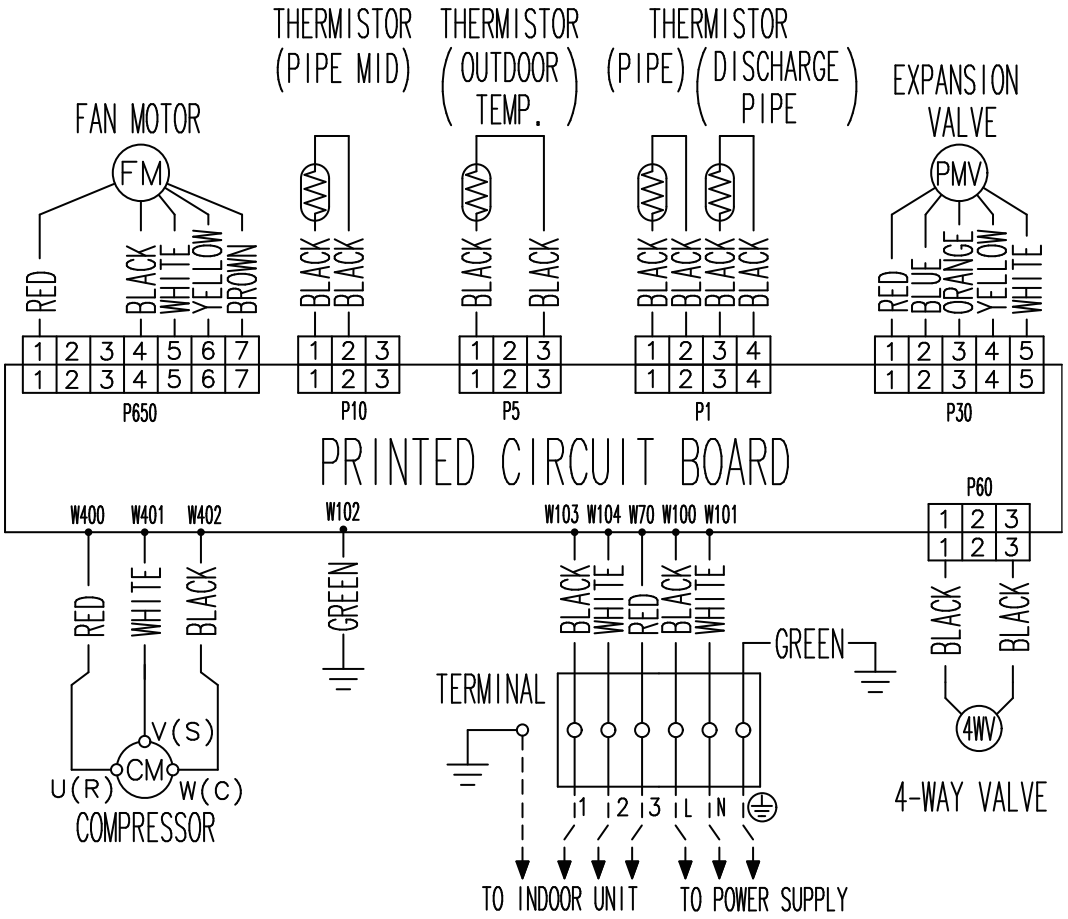
5-1. Models: AOEG09KATA, AOEG12KATA, AOEG14KATA, and AOEG18KATA



OUTDOOR UNIT
AOEG09-22KATA

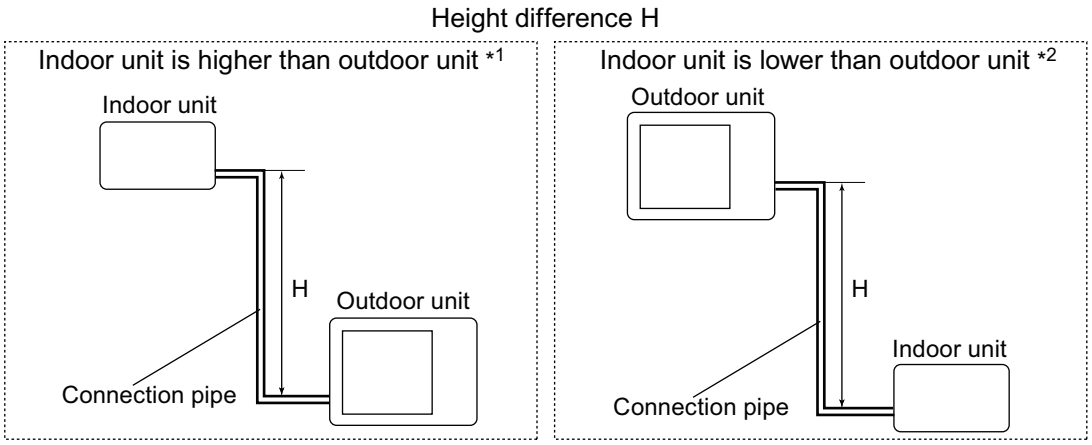
OUTDOOR UNIT
AOEG09-22KATA

5-2. Model: AOEG22KATA



OUTDOOR UNIT
AOEG09-22KATA

6. Capacity compensation rate for pipe length and height difference



6-1. Model: AOEG09KATA

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

COOLING			Pipe length (m)			
			5	7.5	10	15
Height difference H (m)	Indoor unit is higher than outdoor unit *1	15	—	—	—	0.903
		10	—	—	0.964	0.918
		7.5	—	0.988	0.968	0.922
		5	0.992	0.992	0.972	0.925
		0	1.000	1.000	0.980	0.933
	Indoor unit is lower than outdoor unit *2	-5	1.000	1.000	0.980	0.933
		-7.5	—	1.000	0.980	0.933
		-10	—	—	0.980	0.933
		-15	—	—	—	0.933

HEATING			Pipe length (m)			
			5	7.5	10	15
Height difference H (m)	Indoor unit is higher than outdoor unit *1	15	—	—	—	0.943
		10	—	—	1.010	0.943
		7.5	—	1.000	1.010	0.943
		5	1.000	1.000	1.010	0.943
		0	1.000	1.000	1.010	0.943
	Indoor unit is lower than outdoor unit *2	-5	0.995	0.995	1.005	0.939
		-7.5	—	0.993	1.002	0.936
		-10	—	—	0.999	0.934
		-15	—	—	—	0.925

OUTDOOR UNIT AOEG09-22KATA

6-2. Model: AOEG12KATA

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

COOLING			Pipe length (m)			
			5	7.5	10	15
Height difference H (m)	Indoor unit is higher than outdoor unit *1	15	—	—	—	0.903
		10	—	—	0.964	0.918
		7.5	—	0.988	0.968	0.922
		5	0.992	0.992	0.972	0.925
		0	1.000	1.000	0.980	0.933
	Indoor unit is lower than outdoor unit *2	-5	1.000	1.000	0.980	0.933
		-7.5	—	1.000	0.980	0.933
		-10	—	—	0.980	0.933
		-15	—	—	—	0.933

HEATING			Pipe length (m)			
			5	7.5	10	15
Height difference H (m)	Indoor unit is higher than outdoor unit *1	15	—	—	—	0.943
		10	—	—	1.010	0.943
		7.5	—	1.000	1.010	0.943
		5	1.000	1.000	1.010	0.943
		0	1.000	1.000	1.010	0.943
	Indoor unit is lower than outdoor unit *2	-5	0.995	0.995	1.005	0.939
		-7.5	—	0.993	1.002	0.936
		-10	—	—	0.999	0.934
		-15	—	—	—	0.925

6-3. Model: AOEG14KATA

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	—	—	—	0.953	0.950
		10	—	—	0.983	0.968	0.966
		7.5	—	0.988	0.987	0.972	0.970
		5	0.992	0.992	0.991	0.976	0.974
		0	1.000	1.000	0.999	0.984	0.982
	Indoor unit is lower than outdoor unit *2	-5	1.000	1.000	0.999	0.984	0.982
		-7.5	—	1.000	0.999	0.984	0.982
		-10	—	—	0.999	0.984	0.982
		-15	—	—	—	0.984	0.982

HEATING			Pipe length (m)				
			5	7.5	10	15	20
Height difference H (m)	Indoor unit is higher than outdoor unit *1	15	—	—	—	0.918	0.891
		10	—	—	0.981	0.918	0.891
		7.5	—	1.000	0.981	0.918	0.891
		5	1.000	1.000	0.981	0.918	0.891
		0	1.000	1.000	0.981	0.918	0.891
	Indoor unit is lower than outdoor unit *2	-5	0.995	0.995	0.976	0.914	0.886
		-7.5	—	0.993	0.974	0.912	0.884
		-10	—	—	0.972	0.909	0.882
		-15	—	—	—	0.900	0.873

6-4. Model: AOEG18KATA

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	—	—	—	0.953	0.950
		10	—	—	0.983	0.968	0.966
		7.5	—	0.988	0.987	0.972	0.970
		5	0.992	0.992	0.991	0.976	0.974
		0	1.000	1.000	0.999	0.984	0.982
	Indoor unit is lower than outdoor unit *2	-5	1.000	1.000	0.999	0.984	0.982
		-7.5	—	1.000	0.999	0.984	0.982
		-10	—	—	0.999	0.984	0.982
		-15	—	—	—	0.984	0.982

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

6-5. Model: AOEG22KATA

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	—	—	—	—	0.932	0.930
		15	—	—	—	0.953	0.950	0.947
		10	—	—	0.983	0.968	0.966	0.962
		7.5	—	0.988	0.987	0.972	0.970	0.966
		5	0.992	0.992	0.991	0.976	0.974	0.970
		0	1.000	1.000	0.999	0.984	0.982	0.978
	Indoor unit is lower than outdoor unit *2	-5	1.000	1.000	0.999	0.984	0.982	0.978
		-7.5	—	1.000	0.999	0.984	0.982	0.978
		-10	—	—	0.999	0.984	0.982	0.978
		-15	—	—	—	0.984	0.982	0.978
		-20	—	—	—	—	0.982	0.978

HEATING			Pipe length (m)					
			5	7.5	10	15	20	25
Height difference H (m)	Indoor unit is higher than outdoor unit *1	20	—	—	—	—	0.894	0.867
		15	—	—	—	0.920	0.894	0.867
		10	—	—	0.982	0.920	0.894	0.867
		7.5	—	1.000	0.982	0.920	0.894	0.867
		5	1.000	1.000	0.982	0.920	0.894	0.867
		0	1.000	1.000	0.982	0.920	0.894	0.867
	Indoor unit is lower than outdoor unit *2	-5	0.995	0.995	0.977	0.916	0.889	0.862
		-7.5	—	0.993	0.975	0.913	0.887	0.860
		-10	—	—	0.972	0.911	0.885	0.858
		-15	—	—	—	0.902	0.876	0.849
		-20	—	—	—	—	0.863	0.834

OUTDOOR UNIT
AOEG09-22KATA

7. Additional charge calculation

7-1. Model: AOEG09KATA

Refrigerant type		R32
Refrigerant amount	g	600

■ Refrigerant charge

Total pipe length	m	15 (Max.)	0 g/m
Additional charge	g	0	

NOTE: There is no additional refrigerant charge in this model. (Chargeless system)

7-2. Model: AOEG12KATA

Refrigerant type		R32
Refrigerant amount	g	700

■ Refrigerant charge

Total pipe length	m	15 (Max.)	0 g/m
Additional charge	g	0	

NOTE: There is no additional refrigerant charge in this model. (Chargeless system)

7-3. Model: AOEG14KATA

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	

7-4. Model: AOEG18KATA

Refrigerant type		R32
Refrigerant amount	g	900

■ Refrigerant charge

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

7-5. Model: AOEG22KATA

OUTDOOR UNIT
AOEG09-22KATA

Refrigerant type		R32
Refrigerant amount	g	1,100

■ Refrigerant charge

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

OUTDOOR UNIT
AOEG09-22KATA

8. Airflow

8-1. Model: AOEG09KATA

● Cooling

m^3/h	1,610
l/s	447
CFM	948

● Heating

m^3/h	1,550
l/s	431
CFM	912

8-2. Model: AOEG12KATA

● Cooling

m^3/h	1,630
l/s	453
CFM	959

● Heating

m^3/h	1,410
l/s	392
CFM	830

8-3. Model: AOEG14KATA

● Cooling

m^3/h	1,670
l/s	464
CFM	983

● Heating

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

OUTDOOR UNIT
AOEG09-22KATA

8-4. Model: AOEG18KATA

● Cooling

m^3/h	1,710
l/s	475
CFM	1,007

● Heating

m^3/h	1,840
l/s	511
CFM	1,083

8-5. Model: AOEG22KATA

● Cooling

m^3/h	2,240
l/s	622
CFM	1,318

● Heating

m^3/h	2,240
l/s	622
CFM	1,318

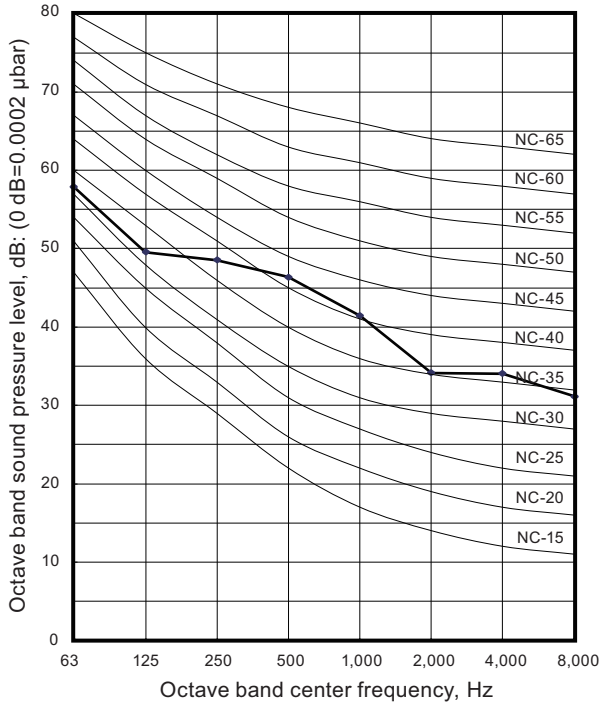
OUTDOOR UNIT
AOEG09-22KATA

9. Operation noise (sound pressure)

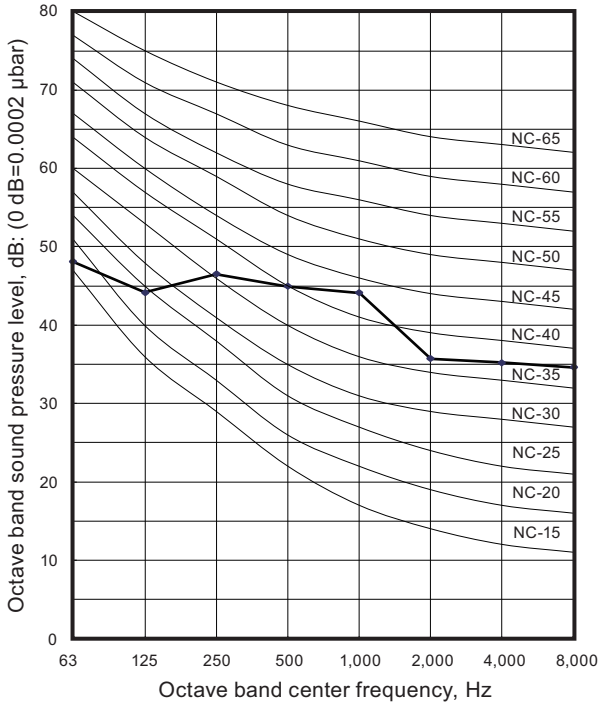
9-1. Noise level curve

■ Model: AOEG09KATA

● Cooling

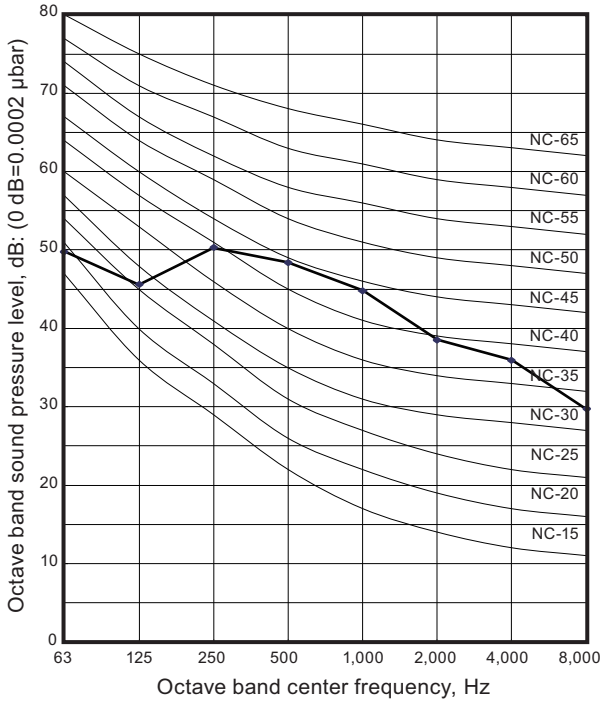


● Heating

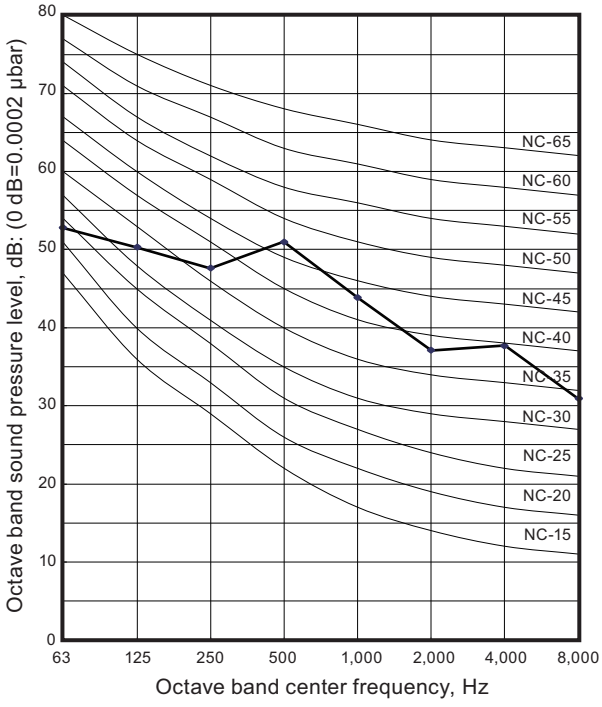


■ Model: AOEG12KATA

● Cooling



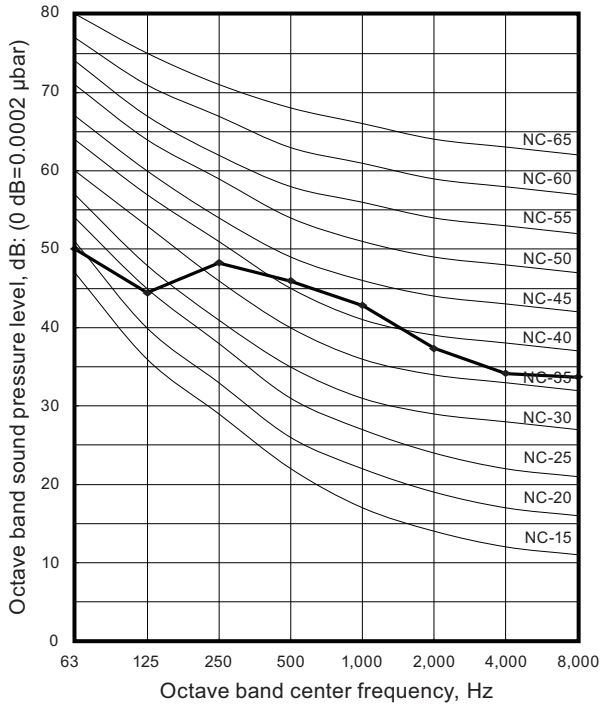
● Heating



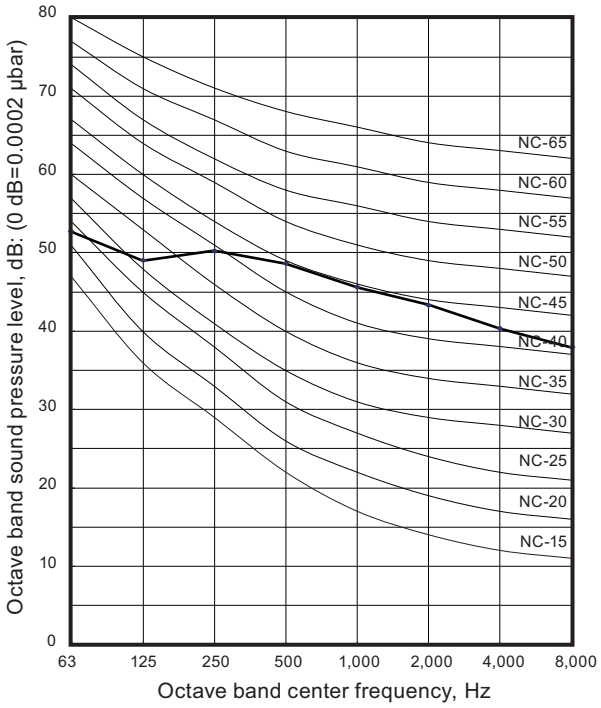
OUTDOOR UNIT
AOEG09-22KATA

■ Model: AOEG14KATA

● Cooling

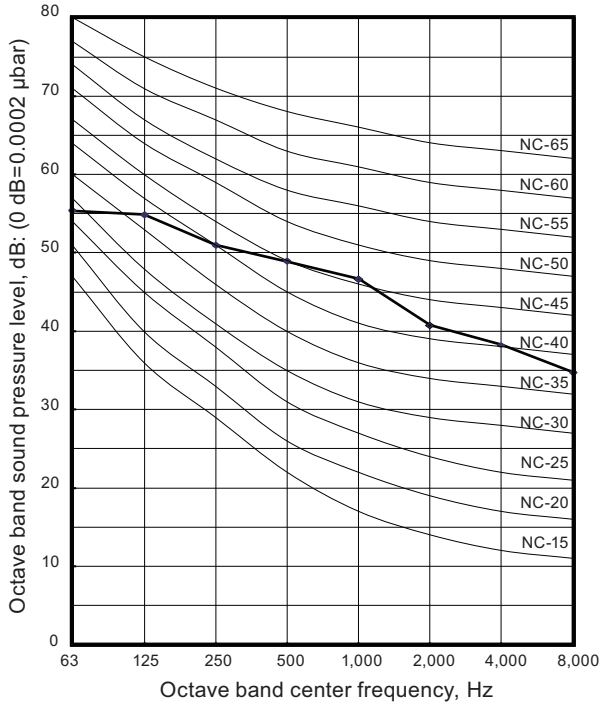


● Heating

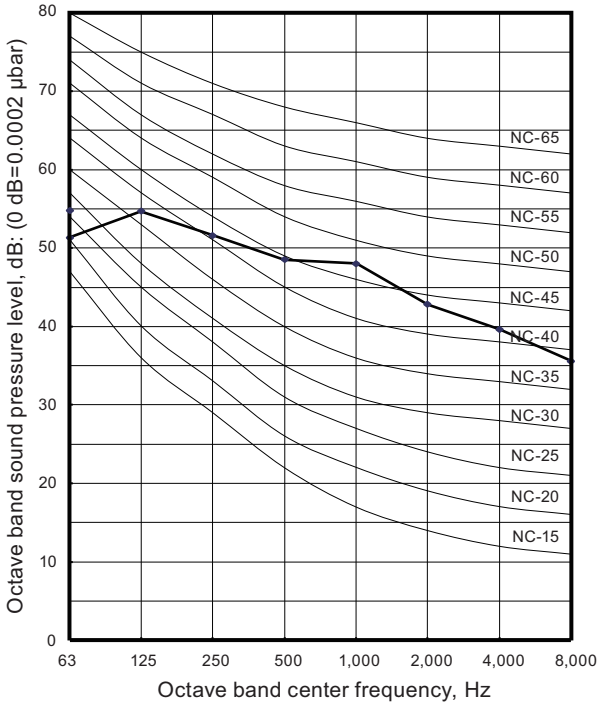


■ Model: AOEG18KATA

● Cooling



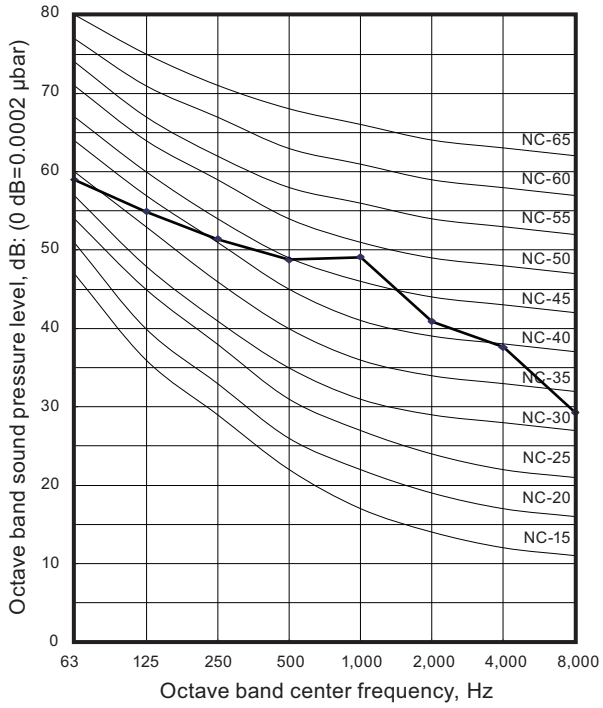
● Heating



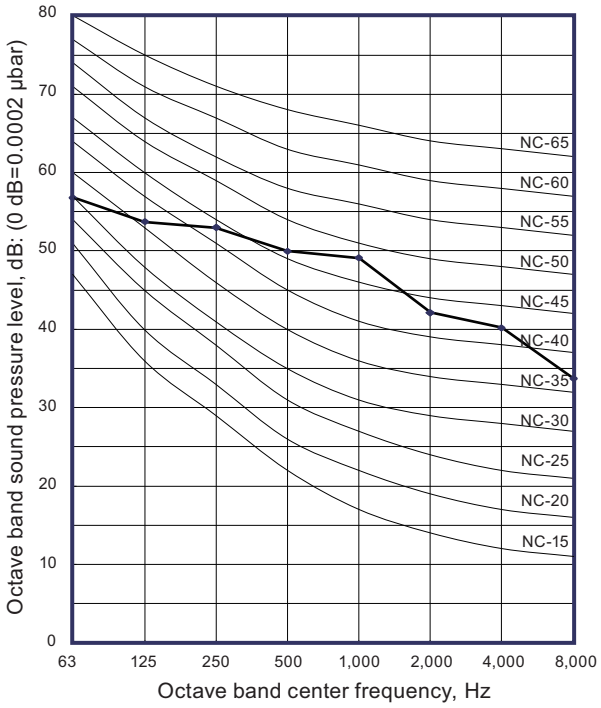
OUTDOOR UNIT
AOEG09-22KATA

■ Model: AOEG22KATA

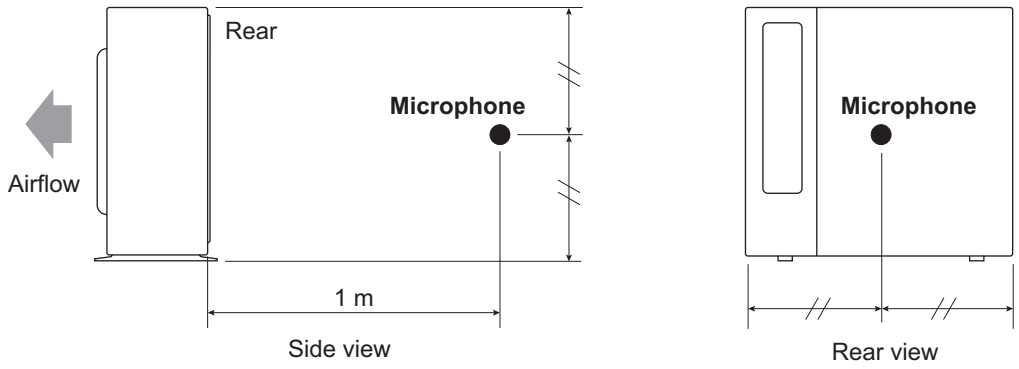
● Cooling



● Heating



9-2. Sound level check point



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

10. Electrical characteristics

Model name				AOEG09KATA	AOEG12KATA	AOEG14KATA
Power supply	Voltage		V	230 ~		
	Frequency		Hz	50 Hz		
Max operating current *1			A	6.9	7.7	9.2
Starting current			A	4.4	5.8	6.6
Wiring spec. *2	Circuit breaker current		A	10		13
	Power cable		mm^2	1.5		
	Connection cable *3	Cross-sectional area	mm^2	1.5		
		Limited wiring length	m	16		21

Model name				AOEG18KATA	AOEG22KATA
Power supply	Voltage		V	230 ~	
	Frequency		Hz	50 Hz	
Max operating current *1			A	10.1	11.6
Starting current			A	7.9	8.8
Wiring spec. *2	Circuit breaker current		A	13	16
	Power cable		mm^2	1.5	
	Connection cable *3	Cross-sectional area	mm^2	1.5	
		Limited wiring length	m	21	26

*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
AOEG09-22KATA

11. Safety devices

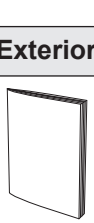
Type of protection	Protection form		Model		
			AOEG09KATA	AOEG12KATA	AOEG14KATA
Circuit protection	Current fuse (Main PCB)		250 V, 20 A		
			250 V, 5 A		
Fan motor protection	Terminal protection program	Activate	127 ±5 °C Fan motor stop		
		Reset	95 °C or less Fan motor restart		
Compressor protection	Terminal protection program (Discharge temp.)	Activate	110 °C Compressor stop		
		Reset	After 7 minutes Compressor restart		
	Thermal protection program (Outdoor temp.)	Activate	-20 °C Compressor stop		
		Reset	-15 °C Compressor restart		

Type of protection	Protection form		Model	
			AOEG18KATA	AOEG22KATA
Circuit protection	Current fuse (Main PCB)		250 V, 20 A	250 V, 25 A
			250 V, 5 A	
Fan motor protection	Terminal protection program	Activate	127 ±5 °C Fan motor stop	125 ±10 °C Fan motor stop
		Reset	95 °C or less Fan motor restart	120 ±10 °C Fan motor restart
Compressor protection	Terminal protection program (Discharge temp.)	Activate	110 °C Compressor stop	
		Reset	After 7 minutes Compressor restart	
	Thermal protection program (Outdoor temp.)	Activate	-20 °C Compressor stop	
		Reset	-15 °C Compressor restart	

12. Accessories

12-1. Models: AOEG09KATA, AOEG12KATA, AOEG14KATA, AOEG18KATA, and AOEG22KATA

OUTDOOR UNIT
AOEG09-22KATA

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