AIRSTAGE

AIR CONDITIONER

Duct type

FUJITSU

REFRIGERANT R32

INVERTER

DESIGN & TECHNICAL MANUAL

INDOOR

AMUH12KUAS
AMUH18KUAS
AMUH24KUAS

AMUH30KUAS
AMUH36KUAS
AMUH48KUAS

OUTDOOR

AOUH12KUAS1
AOUH18KUAS1

AOUH24KUAS1

AOUH30KUAS1
AOUH36KUAS1
AOUH48KUAS1

FUJITSU GENERAL LIMITED

DR_AR109ES_02
2025.08.25

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

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Part 1. INDOOR UNIT

DUCT TYPE:

AMUH12KUAS
AMUH18KUAS
AMUH24KUAS
AMUH30KUAS
AMUH36KUAS
AMUH48KUAS

DUCT AMUH12-48KUAS

1. Specifications

Type					Duct		
					Inverter, Heat pump		
Model name					AMUH12KUAS	AMUH18KUAS	AMUH24KUAS
Power supply intake					Outdoor unit		
System power supply		Voltage		V	208/230		
		Frequency		Hz	60		
		Available voltage range		V	187—253		
Indoor unit power supply (from outdoor unit)				V	208/230		
Capacity	Cooling		Rated	kW	3.52	5.28	7.03
				Btu/h	12,000	18,000	24,000
			Min.—Max.	kW	0.91—4.00	0.91—5.89	1.58—8.21
				Btu/h	3,100—13,600	3,100—20,100	5,400—28,000
	Heating	47°FDB (Outdoor temp.)	Rated	kW	4.69	6.33	7.91
				Btu/h	16,000	21,600	27,000
			Min.—Max.	kW	0.99—5.22	0.91—7.03	1.58—9.38
				Btu/h	3,400—17,800	3,100—24,000	5,400—32,000
		17°FDB (Outdoor temp.)*1	Rated	kW	3.11	4.72	5.33
				Btu/h	10,600	16,100	18,200
			Max.	kW	4.95	5.73	7.83
				Btu/h	16,900	19,500	26,700
		5°FDB (Outdoor temp.)*2	Rated	kW	4.72	5.07	7.21
				Btu/h	16,100	17,300	24,600
			Max.	kW	4.72	5.07	7.21
				Btu/h	16,100	17,300	24,600
Input power	Cooling		Rated	kW	0.92	1.48	2.03
			Max.		1.47	2.14	3.32
	Heating	47°FDB (Outdoor temp.)	Rated		1.36	1.91	2.15
			Max.		1.90	2.81	3.34
		17°FDB (Outdoor temp.)*1	Rated		1.17	1.62	1.82
			Max.		2.16	2.32	3.36
		5°FDB (Outdoor temp.)*2	Rated		2.29	2.12	3.37
			Max.		2.29	2.12	3.37
	Fan		HIGH	W	132.0	155.5	186.1
			MED		72.1	89.2	118.7
			LOW		51.2	68.3	64.9
			QUIET		36.4	48.4	39.5
Current		Cooling	Rated	A	4.1	6.6	9.1
		Heating			6.1	8.4	9.6
EER2		Cooling		Btu/hW	13.0	12.2	11.8
COP2		Heating		kW/kW	3.46	3.32	3.68
SEER2		Cooling		Btu/hW	19.9	19.2	17.7
HSPF2		Heating			10.3	10.5	10.1
Power factor		Cooling		%	97.6	97.5	97.0
		Heating			96.9	98.9	97.4
Moisture removal				pints/h (L/h)	1.29 (2.7)	2.37 (5.0)	3.08 (6.5)
Maximum operating current*3		Cooling		A	10.2	12.2	15.9
		Heating			11.7	14.8	15.9
Fan	Airflow rate	Cooling	HIGH	CFM (m^3/h)	500 (850)	600 (1,019)	750 (1,275)
			MED		400 (680)	494 (840)	636 (1,080)
			LOW		350 (595)	430 (730)	518 (880)
			QUIET		300 (510)	371 (630)	400 (680)
		Heating	HIGH		500 (850)	600 (1,019)	750 (1,275)
			MED		400 (680)	494 (840)	636 (1,080)
			LOW		350 (595)	430 (730)	518 (880)
			QUIET		300 (510)	371 (630)	400 (680)
	Type × Qty				Sirocco fan × 1		
	Motor output			W	132	156	186
Static pressure range				inWG (Pa)	0.08 to 0.80 (20 to 200)		
Sound pressure level*4		Cooling	HIGH	dB (A)	42	44	42
			MED		38	39	38
			LOW		35	36	
			QUIET		31	33	29
		Heating	HIGH		41	43	42
			MED		36	39	38
			LOW		33	36	34
			QUIET		30	33	28
Heat exchanger type		Dimensions (H × W × D)		in (mm)	Main: 9-15/16 × 16 × 1-1/4 (252 × 406 × 32) Sub: 9-15/16 × 16 × 1-1/4 (252 × 406 × 32)	Main: 11-9/16 × 16 × 1-7/8 (294 × 406 × 48) Sub: 11-9/16 × 16 × 1-7/8 (294 × 406 × 48)	Main: 13-1/4 × 16 × 1-7/8 (336 × 406 × 48) Sub: 13-1/4 × 16 × 1-7/8 (336 × 406 × 48)
		Fin pitch		FPI	Main: 16 Sub: 16		
		Rows × Stages			Main: 2 × 12 Sub: 2 × 12	Main: 3 × 14 Sub: 3 × 14	Main: 3 × 16 Sub: 3 × 16
		Pipe type			Copper tube		
		Fin type			Aluminum		
Enclosure		Material			Steel sheet		
		Color			—		
Dimensions (H × W × D)	Net			in (mm)	43 × 17-1/2 × 21 (1,092 × 444 × 533)		
	Gross				45 × 19-3/4 × 26-3/4 (1,143 × 502 × 679)		
Weight	Net			lb (kg)	101 (45.8)	107 (48.5)	110 (49.9)
	Gross				112 (50.8)	118 (53.5)	121 (54.9)
Connection pipe	Size	Liquid		in (mm)	Ø1/4 (Ø6.35)		
		Gas			Ø3/8 (Ø9.52)	Ø1/2 (Ø12.70)	
	Method				Flare		
Drain port	Material				Polyvinyl chloride		
	Tip diameter			in (mm)	I.D.: Ø3/4 (Ø19)		
Operation range		Cooling		°F (°C)	64 to 90 (18 to 32)		
				%RH	80 or less		
		Heating		°F (°C)	60 to 86 (16 to 30)		

DUCT
AMUH12-48KUAS

Type	Duct		
	Inverter, Heat pump		
Model name	**AMUH12KUAS**	**AMUH18KUAS**	**AMUH24KUAS**
Remote controller type (Option)	Wired, Wireless, Mobile app*5 *6 (AIRSTAGE Mobile)		

NOTES:

- Specifications are based on the following conditions:
  - Cooling: Indoor temperature of 80°FDB/67°FWB (26.67°CDB/19.44°CWB), and outdoor temperature of 95°FDB/75°FWB (35°CDB/23.9°CWB).
  - Heating: Indoor temperature of 70°FDB/60°FWB (21.11°CDB/15.56°CWB), and outdoor temperature of 47°FDB/43°FWB (8.33°CDB/6.11°CWB).
  - *1: Heating (17°F): Indoor temperature of 70°FDB/60°FWB (21.11°CDB/15.56°CWB), and outdoor temperature of 17°FDB/15°FWB (-8.33°CDB/-9.44°CWB).
  - *2: Heating (5°F): Indoor temperature of 70°FDB/60°FWB (21.11°CDB/15.56°CWB), and outdoor temperature of 5°FDB/4°FWB (-15.0°CDB/-15.56°CWB).
  - Test conditions are based on AHRI 210/240 2023.
    - Capacity test condition: Static pressure 0.58 inWG (145 Pa)
  - Pipe length: 25 ft (7.5 m), Height difference: 0 ft (0 m). (Between outdoor unit and indoor unit.)
  - Standard static pressure: 0.58 inWG (145 Pa)
- Protective function might work when using it outside the operation range.
- *3: Maximum current:
  - The maximum value when operated within the operation range.
  - The total current of indoor unit and outdoor unit.
- *4: 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.
- *5: Available on Google Play™ store or on App Store®. Optional WLAN Adapter is also required. For details, refer to the setting manual.
- *6: The firmware update function is not available for this product.

DUCT AMUH12-48KUAS

Type					Duct		
					Inverter, Heat pump		
Model name					AMUH30KUAS	AMUH36KUAS	AMUH48KUAS
Power supply intake					Outdoor unit		
System power supply		Voltage		V	208/230		
		Frequency		Hz	60		
		Available voltage range		V	187—253		
Indoor unit power supply (from outdoor unit)				V	208/230		
Capacity	Cooling		Rated	kW	8.79	10.55	13.34
				Btu/h	30,000	36,000	45,500
			Min.—Max.	kW	2.81—10.26	2.81—11.43	4.51—14.36
				Btu/h	9,600—35,000	9,600—39,000	15,400—48,000
	Heating	47°FDB (Outdoor temp.)	Rated	kW	9.38	11.14	14.65
				Btu/h	32,000	38,000	51,000
			Min.—Max.	kW	2.70—11.14	2.70—12.60	4.69—16.12
				Btu/h	9,200—38,000	9,200—43,000	16,000—55,000
		17°FDB (Outdoor temp.)*1	Rated	kW	6.51	8.03	10.90
				Btu/h	22,200	27,400	37,200
			Max.	kW	9.34	10.31	13.20
				Btu/h	31,900	35,200	45,000
		5°FDB (Outdoor temp.)*2	Rated	kW	8.62	9.38	12.02
				Btu/h	29,400	32,000	41,000
			Max.	kW	8.62	9.38	12.02
				Btu/h	29,400	32,000	41,000
Input power	Cooling		Rated	kW	2.56	3.40	4.78
			Max.		3.27	4.23	5.35
	Heating	47°FDB (Outdoor temp.)	Rated		2.44	3.18	4.37
			Max.		3.94	4.27	5.30
		17°FDB (Outdoor temp.)*1	Rated		2.20	2.82	3.65
			Max.		3.95	4.29	5.36
		5°FDB (Outdoor temp.)*2	Rated		3.95	4.30	5.36
			Max.		3.95	4.30	5.36
	Fan		HIGH	W	254.1	354.5	624.2
			MED		146.9	192.7	273.8
			LOW		103.6	115.6	152.3
			QUIET		79.9	64.3	105.1
Current		Cooling	Rated	A	11.2	14.9	21.1
		Heating			10.9	14.4	19.8
EER2		Cooling		Btu/hW	11.7	10.6	9.5
COP2		Heating		kW/kW	3.84	3.50	3.42
SEER2		Cooling		Btu/hW	19.0	17.6	17.0
HSPF2		Heating			10.0	9.8	9.6
Power factor		Cooling		%	99.4	99.2	98.7
		Heating			97.3	96.0	96.0
Moisture removal				pints/h (L/h)	3.47 (7.3)	3.82 (8.1)	4.70 (9.9)
Maximum operating current*3		Cooling		A	19.8	20.8	25.0
		Heating			19.8	20.8	25.0
Fan	Airflow rate	Cooling	HIGH	CFM (m^3/h)	1,000 (1,699)	1,207 (2,050)	1,600 (2,718)
			MED		800 (1,360)	965 (1,640)	1,201 (2,040)
			LOW		700 (1,190)	783 (1,330)	971 (1,650)
			QUIET		630 (1,070)		842 (1,430)
		Heating	HIGH		1,000 (1,699)	1,207 (2,050)	1,600 (2,718)
			MED		800 (1,360)	965 (1,640)	1,201 (2,040)
			LOW		700 (1,190)	783 (1,330)	971 (1,650)
			QUIET		630 (1,070)		842 (1,430)
	Type × Qty				Sirocco fan × 1		
	Motor output			W	254	355	624
Static pressure range				inWG (Pa)	0.2 to 0.8 (50 to 200)		
Sound pressure level*4		Cooling	HIGH	dB (A)	42	44	49
			MED		37	39	44
			LOW		35	36	37
			QUIET		32	31	34
		Heating	HIGH		43	46	51
			MED		38	41	44
			LOW		36		39
			QUIET		33	31	36
Heat exchanger type		Dimensions (H × W × D)		in (mm)	Main: 19-13/16 × 16 × 1- 7/8 (504 × 406 × 48) Sub: 19-13/16 × 16 × 1- 7/8 (504 × 406 × 48)		
		Fin pitch		FPI	Main: 16 Sub: 16		
		Rows × Stages			Main: 3 × 24 Sub: 3 × 24		
		Pipe type			Copper tube		
		Fin type			Aluminum		
Enclosure		Material			Steel sheet		
		Color			—		
Dimensions (H × W × D)	Net			in (mm)	48 × 21 × 21 (1,219 × 533 × 533)		
	Gross				52 × 23 × 26-3/4 (1,321 × 584 × 679)		
Weight	Net			lb (kg)	137 (62.1)		
	Gross				150 (68.0)		
Connection pipe	Size	Liquid		in (mm)	Ø3/8 (Ø9.52)		
		Gas			Ø5/8 (Ø15.88)		
	Method				Flare		
Drain port	Material				Polyvinyl chloride		
	Tip diameter			in (mm)	I.D.: Ø3/4 (Ø19)		
Operation range		Cooling		°F (°C)	64 to 90 (18 to 32)		
				%RH	80 or less		
		Heating		°F (°C)	60 to 86 (16 to 30)		
Remote controller type (Option)					Wired, Wireless, Mobile app*5 *6 (AIRSTAGE Mobile)		

DUCT
AMUH12-48KUAS

Type	Duct		
	Inverter, Heat pump		
Model name	AMUH30KUAS	AMUH36KUAS	AMUH48KUAS

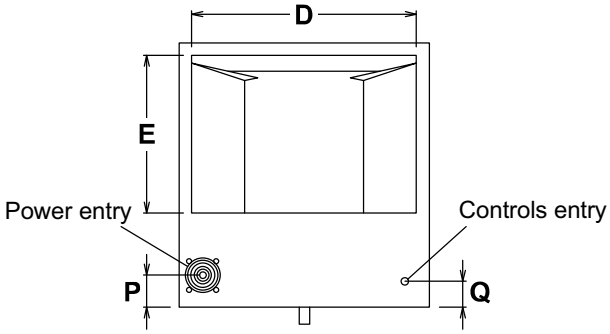
NOTES:

- Specifications are based on the following conditions:
  - Cooling: Indoor temperature of 80°FDB/67°FWB (26.67°CDB/19.44°CWB), and outdoor temperature of 95°FDB/75°FWB (35°CDB/23.9°CWB).
  - Heating: Indoor temperature of 70°FDB/60°FWB (21.11°CDB/15.56°CWB), and outdoor temperature of 47°FDB/43°FWB (8.33°CDB/6.11°CWB).
  - *1: Heating (17°F): Indoor temperature of 70°FDB/60°FWB (21.11°CDB/15.56°CWB), and outdoor temperature of 17°FDB/15°FWB (-8.33°CDB/-9.44°CWB).
  - *2: Heating (5°F): Indoor temperature of 70°FDB/60°FWB (21.11°CDB/15.56°CWB), and outdoor temperature of 5°FDB/4°FWB (-15.0°CDB/-15.56°CWB).
  - Test conditions are based on AHRI 210/240 2023.
    - Capacity test condition: Static pressure 0.58 inWG (145 Pa)
  - Pipe length: 25 ft (7.5 m), Height difference: 0 ft (0 m). (Between outdoor unit and indoor unit.)
  - Standard static pressure: 0.58 inWG (145 Pa)
- Protective function might work when using it outside the operation range.
- *3: Maximum current:
  - The maximum value when operated within the operation range.
  - The total current of indoor unit and outdoor unit.
- *4: 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.
- *5: Available on Google Play™ store or on App Store®. Optional WLAN Adapter is also required. For details, refer to the setting manual.
- *6: The firmware update function is not available for this product.

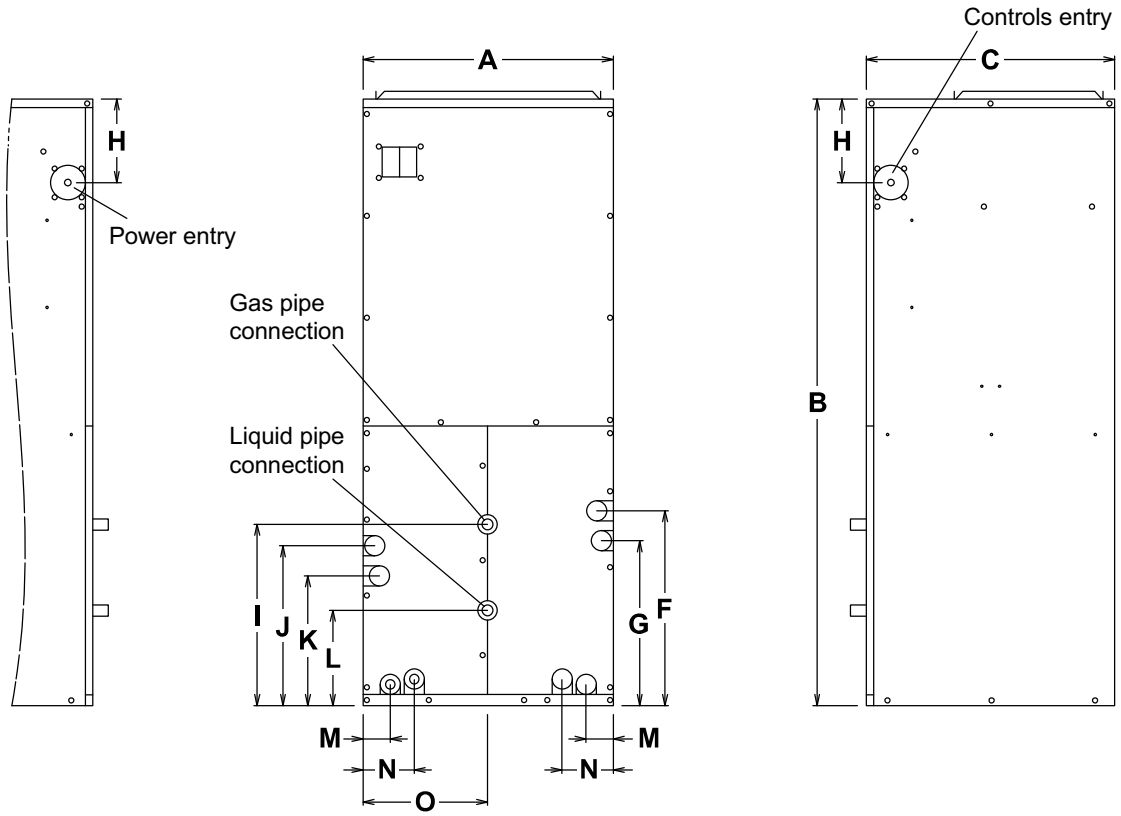
DUCT
AMUH12-48KUAS

2. Dimensions

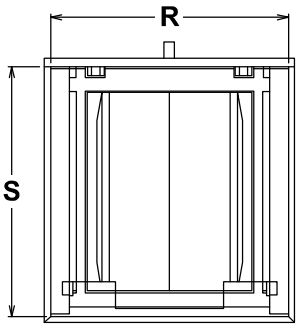
2-1. Models: AMUH12KUAS, AMUH18KUAS, AMUH24KUAS, AMUH30KUAS, AMUH36KUAS, and AMUH48KUAS



Top



Left side **Front** **Right side**



Bottom

DUCT
AMUH12-48KUAS

Unit: in (mm)

	AMUH12KUAS AMUH18KUAS AMUH24KUAS	**AMUH30KUAS AMUH36KUAS AMUH48KUAS**
A	17.50 (444.5)	21.00 (533.4)
B	43.00 (1092.2)	48.00 (1219.2)
C	21.00 (533.4)	21.00 (533.4)
D	15.63 (397.0)	19.00 (482.6)
E	12.50 (318.5)	12.50 (318.5)
F	13.50 (342.9)	15.39 (390.9)
G	11.00 (279.4)	13.00 (330.2)
H	6.75 (171.5)	6.75 (171.5)
I	10.74 (272.8)	14.09 (357.9)
J	11.00 (279.4)	12.38 (314.5)
K	10.75 (273.1)	10.30 (261.6)
L	7.74 (196.6)	11.06 (280.9)
M	1.50 (38.1)	2.30 (58.42)
N	2.00 (50.8)	4.35 (110.5)
O	7.47 (189.7)	9.35 (237.5)
P	5.00 (127.0)	5.00 (127.0)
Q	2.12 (53.8)	2.00 (50.8)
R	16.10 (408.9)	19.90 (505.5)
S	20.20 (513.1)	20.80 (528.3)

DUCT
AMUH12-48KUAS

2-2. Installation space requirement

- **Location**

  Access for servicing is an important factor in the location of any indoor unit.

  Provide a minimum of 30 inches in front of the product to access the control box, heating elements, fan unit, and air filters.

  This access may be provided by a closet door or by locating the product so that a wall or partition is not less than 30 inches from the front access. Panel location is usually predetermined.

  Check with the owner's or dealer's installation plans. If the location has not been decided, consider the following in choosing a suitable location.

  – Select a location with adequate structural support, space for maintenance access, clearance for return, and supply duct connections.
  – Normal operating sound levels may be objectionable if the indoor unit is placed directly over or under some rooms such as bedrooms, study, etc.
  – Take caution to locate the unit so that supply and return air ducts are about the same length causing even air distribution of supply and return air to and from the living spaces.
  – Locate the product at a place where:
    - the following wiring easily performable and can avoid any wiring damage.
      – Power supply wiring to the main electrical panel
      – Remote controller wiring
    - the refrigerant pipe from the heat exchanger the condenser easily performable.
    - the condensate piping to an available drain easily performable. Be sure to the piping so as not to obstruct access to the air filter.
  – Installing the heat exchanger in a draw-through application will cause a negative pressure in the condensate drain system.
    To prevent condensate from being drawn into the fan unit, it is recommended to trap the primary (Main) and secondary (Overflow) drain piping. Capping is necessary if there is no secondary drain.
  – The draw-through installation in a non-conditioned space such as an attic or garage will cause the exterior surface of the cabinet to condensate.
    The installer must provide protection such as a full-size auxiliary drain pan on all units installed in a non-conditioned space to prevent damage from condensation runoff.

    Some states, cities, and counties require additional insulation to be installed on the exterior casing of the indoor unit to prevent sweating.

    Refer to the state, city, county, or local code for insulation requirements to ensure the installation complies.

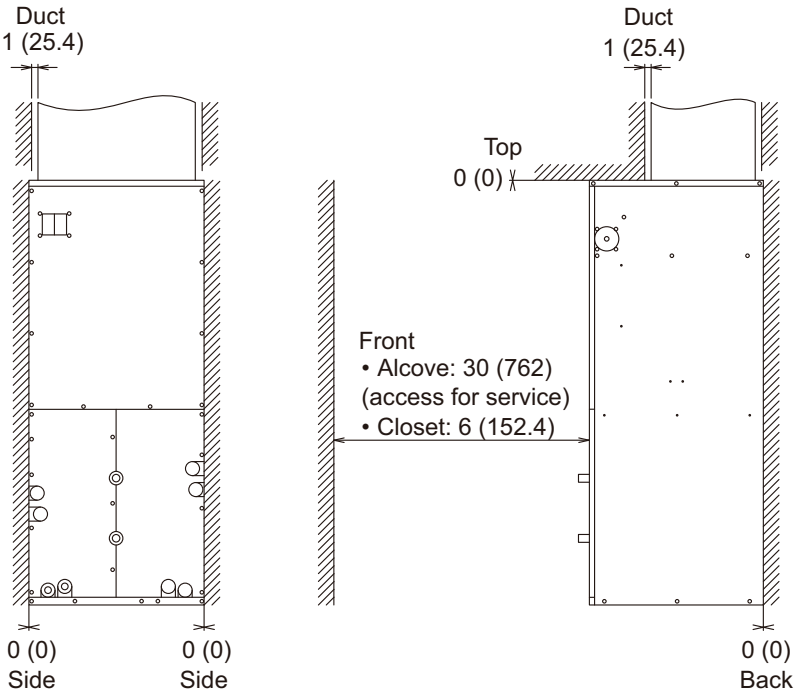
    In an indoor unit installation in non-conditioned spaces, it is recommended to insulate the exterior of the entire cabinet, including the front access panel with 1-inch thick fiberglass with the vapor barrier on the outside.

DUCT
AMUH12-48KUAS

NOTES:

- Provide maintenance access for inspection purpose.
- Do not place any wiring or illumination in the maintenance space, as they will impede service.

Unit: in (mm)



- **Return air**
  For the indoor unit to work properly, a closet or alcove must have a certain total free area opening for the return air.

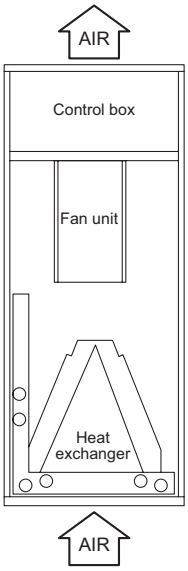
Model name	Return air requirements
AMUH12KUAS AMUH18KUAS AMUH24KUAS	• Minimum 200 in^2 free area opening • Use return grille or heat exchanger cabinet
AMUH30KUAS AMUH36KUAS AMUH48KUAS	• Minimum 250 in^2 free area opening • Use return grille or heat exchanger cabinet, or any return grille with a minimum 250 in^2 free area opening

DUCT
AMUH12-48KUAS

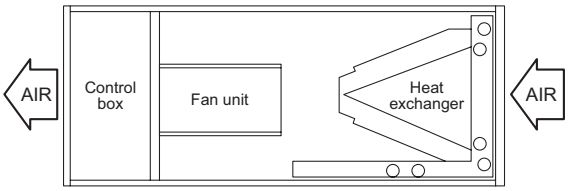
2-3. Installation orientation patterns

This product has four installation orientations. Depending on the installation environment and conditions, choose the suitable orientation.

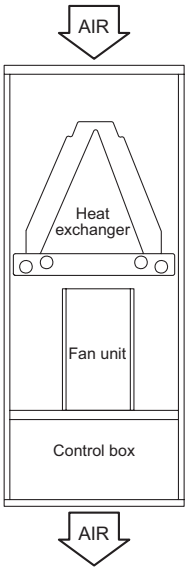
- **Pattern A: Vertical installation, air intake port at the bottom**



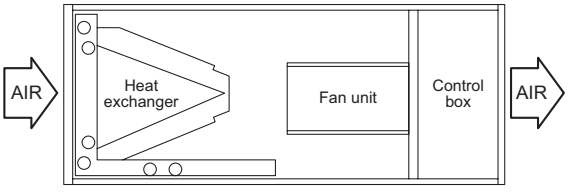
- **Pattern B: Horizontal installation, air intake port at the right**



- **Pattern C: Vertical installation, air intake port at the top**
  Reversing the heat exchanger and reattaching the thermistor are required.

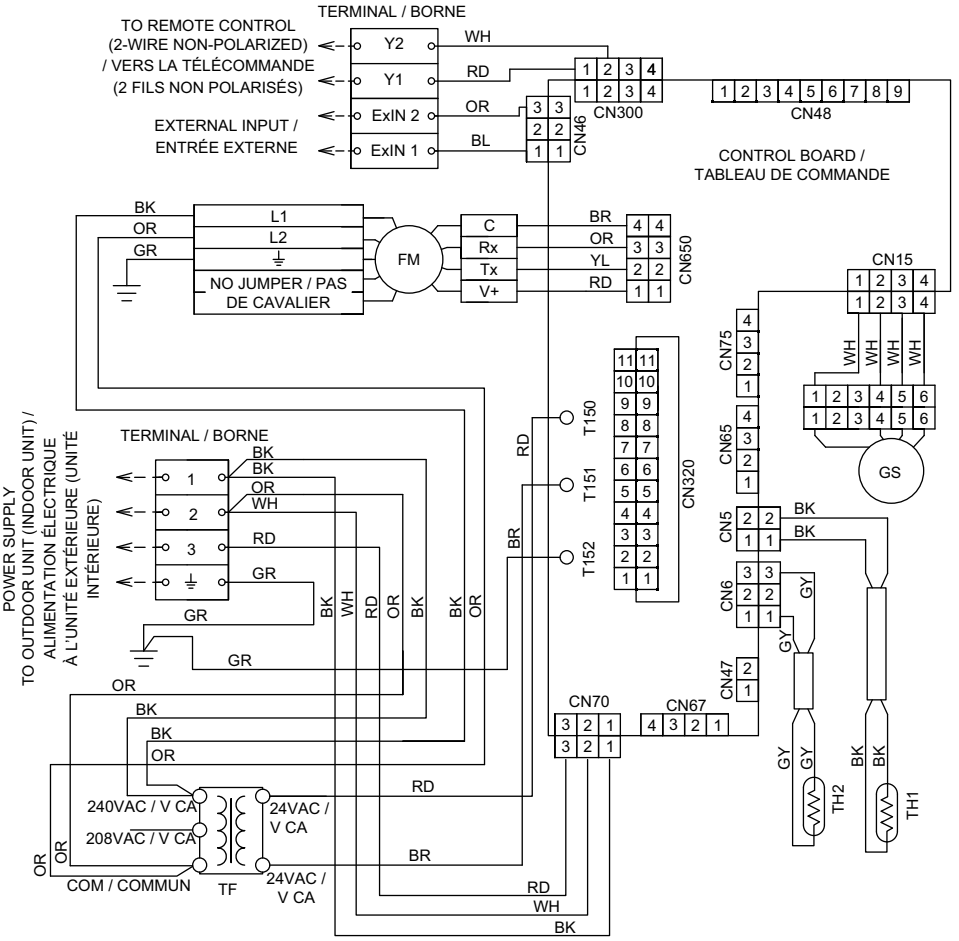


- **Pattern D: Horizontal installation, air intake port at the left**
  Reversing the heat exchanger and reattaching the thermistor are required.



3. Wiring diagrams

3-1. Models: AMUH12KUAS, AMUH18KUAS, AMUH24KUAS, AMUH30KUAS, AMUH36KUAS, and AMUH48KUAS



	LEGEND / LÉGENDE
WH	WHITE / BLANC
GY	GRAY / GRIS
OR	ORANGE
YL	YELLOW / JAUNE
BL	BLUE / BLEU
BR	BROWN / MARRON
RD	RED / ROUGE
GR	GREEN / VERT
BK	BLACK / NOIR
FM	FAN MOTOR / MOTEUR DE VENTILATEUR
TF	TRANSFORMER / TRANSFORMATEUR
GS	GAS SENSOR / CAPTEUR DE GAZ
TH1	THERMISTOR(ROOM TEMPERATURE.)/THERMISTANCE (TEMPÉRATURE PIÈCE)
TH2	THERMISTOR（PIPE TEMPERATURE）/THERMISTANCE (TEMPÉRATURE DU TUYAU)
CN47	EXTERNAL OUTPUT / SORTIE EXTERNE
CN48	IR RECEIVER / RÉCEPTEUR IR
CN65	EXTERNAL COMMON 2 / EXTERNE COMMUN 2
CN67	HEATER / CHAUFFAGE
CN75	EXTERNAL COMMON1 / EXTERNE COMMUN 1
CN320	COMMUNICATION PCB / PCB DE COMMUNICATION

DUCT
AMUH12-48KUAS

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. Compensation coefficient depending on the airflow direction

To take the effects depending on the airflow direction of the Multi position air handling unit type indoor unit, the capacity of indoor units should be corrected by compensation coefficient shown in the table below.

Airflow direction	Vertical upflow	Horizontal left flow (right to left)	Horizontal right flow (left to right)	Vertical downflow
Cooling	1.00	0.96	0.96	1.00
Heating	1.00	0.97	0.97	0.97

4-2. Cooling capacity

■ Model: AMUH12KUAS

AFR	CFM	500

		Indoor temperature																	
	°FDB	64			70			75			80			85			90		
	°FWB	54			60			63			67			71			73		
	°FDB	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP
		kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW
Outdoor temperature	-5	10.54	8.31	0.44	11.72	9.40	0.44	12.14	9.89	0.44	13.32	10.61	0.45	14.19	11.32	0.45	14.92	11.72	0.45
	5	10.45	8.24	0.45	11.62	9.32	0.45	12.04	9.81	0.46	13.20	10.51	0.46	14.06	11.22	0.48	14.79	11.62	0.48
	14	10.37	8.18	0.46	11.53	9.24	0.46	11.94	9.73	0.46	13.10	10.43	0.48	13.96	11.14	0.48	14.67	11.53	0.48
	32	10.20	8.03	0.47	11.36	9.09	0.47	11.74	9.61	0.49	12.90	10.28	0.49	13.68	10.95	0.50	14.47	11.32	0.50
	41	10.13	7.91	0.49	11.26	8.94	0.49	11.67	9.43	0.50	12.83	10.10	0.50	13.58	10.77	0.51	14.37	11.11	0.51
	50	10.03	7.69	0.50	11.19	8.70	0.50	11.57	9.19	0.51	12.73	9.86	0.51	13.48	10.53	0.52	14.23	10.86	0.52
	59	9.96	7.08	0.51	11.09	8.00	0.52	11.46	8.45	0.52	12.62	9.03	0.52	13.38	9.65	0.52	14.13	9.98	0.52
	67	11.23	7.82	0.63	12.52	8.67	0.64	12.93	9.52	0.64	14.23	10.01	0.65	15.08	10.22	0.65	15.93	11.37	0.66
	77	10.68	7.54	0.71	11.91	8.37	0.73	12.32	9.22	0.73	13.55	9.68	0.74	14.33	9.89	0.75	15.15	11.01	0.76
	87	10.10	7.24	0.81	11.26	8.03	0.82	11.64	8.86	0.82	12.80	9.28	0.83	13.55	9.49	0.83	14.33	10.58	0.84
	95	9.49	6.97	0.89	10.58	7.73	0.90	10.92	8.52	0.91	12.00	8.93	0.92	12.73	9.16	0.93	13.31	10.16	0.94
	104	8.02	6.42	0.96	8.91	7.15	0.98	9.21	7.88	0.99	10.13	8.24	1.00	10.75	8.46	1.02	11.36	9.40	1.03
	115	7.37	5.99	0.77	8.22	6.60	0.78	8.50	7.30	0.79	9.35	7.67	0.80	9.90	7.82	0.81	10.48	9.01	0.82
	122	6.97	5.67	0.77	7.78	6.24	0.78	8.04	6.91	0.79	8.85	7.26	0.80	9.36	7.39	0.81	9.91	8.52	0.82

AFR	m^3/h	850

		Indoor temperature																	
	°CDB	17.8			21.1			23.9			26.7			29.4			32.2		
	°CWB	12.2			15.6			17.2			19.4			21.7			22.8		
	°CDB	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP
		kW			kW			kW			kW			kW			kW		
Outdoor temperature	-20.6	3.09	2.44	0.44	3.44	2.75	0.44	3.56	2.90	0.44	3.90	3.11	0.45	4.16	3.32	0.45	4.37	3.43	0.45
	-15.0	3.06	2.42	0.45	3.41	2.73	0.45	3.53	2.87	0.46	3.87	3.08	0.46	4.12	3.29	0.48	4.33	3.41	0.48
	-10.0	3.04	2.40	0.46	3.38	2.71	0.46	3.50	2.85	0.46	3.84	3.06	0.48	4.09	3.26	0.48	4.30	3.38	0.48
	0.0	2.99	2.35	0.47	3.33	2.67	0.47	3.44	2.82	0.49	3.78	3.01	0.49	4.01	3.21	0.50	4.24	3.32	0.50
	5.0	2.97	2.32	0.49	3.30	2.62	0.49	3.42	2.76	0.50	3.76	2.96	0.50	3.98	3.16	0.51	4.21	3.25	0.51
	10.0	2.94	2.26	0.50	3.28	2.55	0.50	3.39	2.69	0.51	3.73	2.89	0.51	3.95	3.08	0.52	4.17	3.18	0.52
	15.0	2.92	2.08	0.51	3.25	2.34	0.52	3.36	2.48	0.52	3.70	2.65	0.52	3.92	2.83	0.52	4.14	2.92	0.52
	19.4	3.29	2.29	0.63	3.67	2.54	0.64	3.79	2.79	0.64	4.17	2.93	0.65	4.42	3.00	0.65	4.67	3.33	0.66
	25.0	3.13	2.21	0.71	3.49	2.45	0.73	3.61	2.70	0.73	3.97	2.83	0.74	4.20	2.90	0.75	4.44	3.23	0.76
	30.0	2.96	2.12	0.81	3.30	2.35	0.82	3.41	2.59	0.82	3.75	2.72	0.83	3.97	2.78	0.83	4.20	3.10	0.84
	35.0	2.78	2.04	0.89	3.10	2.26	0.90	3.20	2.50	0.91	3.52	2.62	0.92	3.73	2.68	0.93	3.90	2.98	0.94
	40.0	2.35	1.88	0.96	2.61	2.09	0.98	2.70	2.31	0.99	2.97	2.42	1.00	3.15	2.48	1.02	3.33	2.75	1.03
	46.1	2.16	1.76	0.77	2.41	1.93	0.78	2.49	2.14	0.79	2.74	2.25	0.80	2.90	2.29	0.81	3.07	2.64	0.82
	50.0	2.04	1.66	0.77	2.28	1.83	0.78	2.36	2.02	0.79	2.59	2.13	0.80	2.74	2.17	0.81	2.91	2.50	0.82

DUCT
AMUH12-48KUAS

■ Model: AMUH18KUAS

AFR	CFM	600

		Indoor temperature																	
	°FDB	64			70			75			80			85			90		
	°FWB	54			60			63			67			71			73		
Outdoor temperature	°FDB	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP
		kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW
	-5	16.31	12.73	0.70	18.15	12.81	0.72	18.80	13.94	0.72	20.64	15.08	0.73	21.87	15.02	0.73	23.13	16.01	0.73
	5	16.04	12.51	0.73	17.88	12.61	0.73	18.46	13.69	0.74	20.30	14.86	0.74	21.53	14.79	0.76	22.72	15.73	0.76
	14	15.80	12.32	0.72	17.61	12.39	0.74	18.19	13.47	0.74	20.00	14.61	0.75	21.19	14.54	0.75	22.38	15.50	0.77
	32	15.29	11.93	0.74	17.06	12.01	0.75	17.64	13.07	0.75	19.38	14.15	0.76	20.54	14.09	0.78	21.70	15.03	0.78
	41	15.05	11.74	0.75	16.79	11.82	0.76	17.33	12.85	0.76	19.07	13.93	0.77	20.20	13.84	0.79	21.36	14.80	0.79
	50	14.81	11.57	0.76	16.48	11.63	0.77	17.06	12.63	0.77	18.73	13.67	0.78	19.86	13.62	0.80	20.98	14.49	0.81
	59	14.57	11.35	0.76	16.21	11.38	0.77	16.79	12.43	0.78	18.43	13.45	0.79	19.55	13.39	0.79	20.64	14.26	0.81
	67	16.72	13.06	1.10	18.63	13.13	1.11	19.28	14.30	1.12	21.19	15.47	1.13	22.45	15.43	1.14	23.71	16.40	1.15
	77	15.97	12.44	1.19	17.78	12.49	1.21	18.39	13.58	1.21	20.20	14.72	1.23	21.43	14.70	1.24	22.62	15.63	1.25
	87	15.12	11.80	1.33	16.86	11.88	1.35	17.44	12.91	1.35	19.14	13.99	1.37	20.30	13.93	1.39	21.43	14.84	1.40
	95	14.23	11.13	1.43	15.83	11.15	1.45	16.38	12.15	1.46	18.00	13.15	1.48	19.07	13.10	1.49	20.17	13.97	1.51
	104	12.49	9.71	1.54	13.92	9.80	1.56	14.40	10.67	1.57	15.80	11.53	1.59	16.75	11.48	1.62	17.71	12.25	1.63
	115	10.48	8.86	1.27	11.67	8.89	1.29	12.08	9.69	1.30	13.27	10.52	1.32	14.06	10.46	1.33	14.84	11.10	1.34
	122	9.20	7.77	1.27	10.25	7.81	1.29	10.61	8.51	1.30	11.66	9.24	1.32	12.35	9.18	1.33	13.04	9.75	1.34

AFR	m^3/h	1,019

		Indoor temperature																	
	°CDB	17.8			21.1			23.9			26.7			29.4			32.2		
	°CWB	12.2			15.6			17.2			19.4			21.7			22.8		
Outdoor temperature	°CDB	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP
		kW			kW			kW			kW			kW			kW		
	-20.6	4.78	3.73	0.70	5.32	3.76	0.72	5.51	4.08	0.72	6.05	4.42	0.73	6.41	4.40	0.73	6.78	4.69	0.73
	-15.0	4.70	3.67	0.73	5.24	3.70	0.73	5.41	4.01	0.74	5.95	4.35	0.74	6.31	4.34	0.76	6.66	4.61	0.76
	-10.0	4.63	3.61	0.72	5.16	3.63	0.74	5.33	3.95	0.74	5.86	4.28	0.75	6.21	4.26	0.75	6.56	4.54	0.77
	0.0	4.48	3.50	0.74	5.00	3.52	0.75	5.17	3.83	0.75	5.68	4.15	0.76	6.02	4.13	0.78	6.36	4.40	0.78
	5.0	4.41	3.44	0.75	4.92	3.46	0.76	5.08	3.77	0.76	5.59	4.08	0.77	5.92	4.06	0.79	6.26	4.34	0.79
	10.0	4.34	3.39	0.76	4.83	3.41	0.77	5.00	3.70	0.77	5.49	4.01	0.78	5.82	3.99	0.80	6.15	4.25	0.81
	15.0	4.27	3.33	0.76	4.75	3.33	0.77	4.92	3.64	0.78	5.40	3.94	0.79	5.73	3.92	0.79	6.05	4.18	0.81
	19.4	4.90	3.83	1.10	5.46	3.85	1.11	5.65	4.19	1.12	6.21	4.53	1.13	6.58	4.52	1.14	6.95	4.81	1.15
	25.0	4.68	3.65	1.19	5.21	3.66	1.21	5.39	3.98	1.21	5.92	4.32	1.23	6.28	4.31	1.24	6.63	4.58	1.25
	30.0	4.43	3.46	1.33	4.94	3.48	1.35	5.11	3.78	1.35	5.61	4.10	1.37	5.95	4.08	1.39	6.28	4.35	1.40
	35.0	4.17	3.26	1.43	4.64	3.27	1.45	4.80	3.56	1.46	5.28	3.86	1.48	5.59	3.84	1.49	5.91	4.09	1.51
	40.0	3.66	2.85	1.54	4.08	2.87	1.56	4.22	3.13	1.57	4.63	3.38	1.59	4.91	3.37	1.62	5.19	3.59	1.63
	46.1	3.07	2.59	1.27	3.42	2.61	1.29	3.54	2.84	1.30	3.89	3.08	1.32	4.12	3.06	1.33	4.35	3.25	1.34
	50.0	2.70	2.28	1.27	3.00	2.29	1.29	3.11	2.50	1.30	3.42	2.71	1.32	3.62	2.69	1.33	3.82	2.86	1.34

DUCT
AMUH12-48KUAS

■ Model: AMUH24KUAS

AFR	CFM	750

		Indoor temperature																	
	°FDB	64			70			75			80			85			90		
	°FWB	54			60			63			67			71			73		
Outdoor temperature	°FDB	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP
		kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW
	-5	19.18	14.23	1.67	21.36	14.30	1.69	22.83	15.58	1.70	24.26	16.83	1.72	25.73	16.79	1.74	27.19	17.87	1.76
	5	19.14	14.19	1.67	21.33	14.24	1.69	22.76	15.52	1.71	24.23	16.80	1.72	25.66	16.74	1.75	27.13	17.82	1.77
	14	19.11	14.14	1.65	21.26	14.24	1.68	22.72	15.52	1.70	24.16	16.77	1.72	25.63	16.71	1.73	27.06	17.79	1.76
	32	19.04	14.13	1.66	21.19	14.19	1.68	22.66	15.45	1.69	24.09	16.67	1.72	25.56	16.61	1.74	26.99	17.69	1.76
	41	19.01	14.04	1.65	21.16	14.12	1.67	22.59	15.39	1.70	24.06	16.64	1.71	25.49	16.57	1.73	26.92	17.65	1.75
	50	18.97	14.00	1.64	21.12	14.09	1.68	22.55	15.35	1.70	23.99	16.61	1.71	25.42	16.54	1.72	26.89	17.62	1.74
	59	19.72	14.29	1.46	21.94	14.33	1.47	23.44	15.62	1.49	24.94	16.86	1.51	26.44	16.80	1.53	27.95	17.92	1.55
	67	21.60	15.22	1.53	24.09	15.34	1.55	25.73	16.69	1.56	27.37	18.05	1.58	29.00	17.98	1.59	30.64	19.16	1.61
	77	20.92	14.96	1.65	23.30	15.02	1.67	24.91	16.40	1.69	26.48	17.72	1.72	28.08	17.68	1.73	29.65	18.83	1.76
	87	20.30	14.75	1.76	22.59	14.77	1.79	24.16	16.13	1.80	25.69	17.42	1.83	27.23	17.36	1.84	28.76	18.47	1.86
	95	18.97	14.14	1.96	21.12	14.20	1.99	22.55	15.51	2.01	24.00	16.78	2.03	25.42	16.67	2.05	26.85	17.78	2.07
	104	17.61	13.55	2.16	19.62	13.65	2.19	20.98	14.89	2.21	22.32	16.08	2.23	23.65	16.05	2.26	25.01	17.12	2.29
	115	15.63	12.86	2.36	17.44	12.99	2.40	18.60	14.11	2.41	19.82	15.28	2.45	20.98	15.19	2.46	22.18	16.18	2.50
	122	14.37	11.83	2.50	16.04	11.95	2.54	17.10	12.98	2.55	18.23	14.06	2.59	19.30	13.98	2.60	20.40	14.89	2.64

AFR	m^3/h	1,275

		Indoor temperature																	
	°CDB	17.8			21.1			23.9			26.7			29.4			32.2		
	°CWB	12.2			15.6			17.2			19.4			21.7			22.8		
Outdoor temperature	°CDB	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP
		kW			kW			kW			kW			kW			kW		
	-20.6	5.62	4.17	1.67	6.26	4.19	1.69	6.69	4.56	1.70	7.11	4.93	1.72	7.54	4.92	1.74	7.97	5.24	1.76
	-15.0	5.61	4.16	1.67	6.25	4.17	1.69	6.67	4.55	1.71	7.10	4.92	1.72	7.52	4.90	1.75	7.95	5.22	1.77
	-10.0	5.60	4.14	1.65	6.23	4.17	1.68	6.66	4.55	1.70	7.08	4.91	1.72	7.51	4.89	1.73	7.93	5.21	1.76
	0.0	5.58	4.14	1.66	6.21	4.16	1.68	6.64	4.53	1.69	7.06	4.89	1.72	7.49	4.87	1.74	7.91	5.18	1.76
	5.0	5.57	4.11	1.65	6.20	4.14	1.67	6.62	4.51	1.70	7.05	4.88	1.71	7.47	4.86	1.73	7.89	5.17	1.75
	10.0	5.56	4.10	1.64	6.19	4.13	1.68	6.61	4.50	1.70	7.03	4.87	1.71	7.45	4.85	1.72	7.88	5.16	1.74
	15.0	5.78	4.19	1.46	6.43	4.20	1.47	6.87	4.58	1.49	7.31	4.94	1.51	7.75	4.92	1.53	8.19	5.25	1.55
	19.4	6.33	4.46	1.53	7.06	4.50	1.55	7.54	4.89	1.56	8.02	5.29	1.58	8.50	5.27	1.59	8.98	5.61	1.61
	25.0	6.13	4.38	1.65	6.83	4.40	1.67	7.30	4.81	1.69	7.76	5.19	1.72	8.23	5.18	1.73	8.69	5.52	1.76
	30.0	5.95	4.32	1.76	6.62	4.33	1.79	7.08	4.73	1.80	7.53	5.11	1.83	7.98	5.09	1.84	8.43	5.42	1.86
	35.0	5.56	4.14	1.96	6.19	4.16	1.99	6.61	4.55	2.01	7.03	4.91	2.03	7.45	4.89	2.05	7.87	5.21	2.07
	40.0	5.16	3.97	2.16	5.75	4.00	2.19	6.15	4.36	2.21	6.54	4.71	2.23	6.93	4.70	2.26	7.33	5.02	2.29
	46.1	4.58	3.77	2.36	5.11	3.81	2.40	5.45	4.14	2.41	5.81	4.48	2.45	6.15	4.45	2.46	6.50	4.74	2.50
	50.0	4.21	3.47	2.50	4.70	3.50	2.54	5.01	3.80	2.55	5.34	4.12	2.59	5.66	4.10	2.60	5.98	4.36	2.64

DUCT
AMUH12-48KUAS

■ Model: AMUH30KUAS

AFR	CFM	1,000

		Indoor temperature																	
	°FDB	64			70			75			80			85			90		
	°FWB	54			60			63			67			71			73		
Outdoor temperature	°FDB	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP
		kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW
	-5	25.49	19.77	1.90	28.42	19.93	1.89	30.33	21.67	1.86	32.28	23.46	1.84	34.22	23.36	1.86	36.13	24.84	1.87
	5	25.35	19.70	1.79	28.25	19.86	1.80	30.16	21.63	1.84	32.11	23.39	1.85	34.02	23.27	1.86	35.93	24.80	1.88
	14	25.22	19.64	1.78	28.08	19.76	1.81	29.99	21.50	1.83	31.94	23.33	1.85	33.85	23.22	1.86	35.76	24.67	1.88
	32	24.98	19.57	1.80	27.77	19.64	1.83	29.69	21.44	1.85	31.60	23.20	1.86	33.51	23.10	1.89	35.38	24.62	1.90
	41	24.81	19.54	1.79	27.64	19.61	1.82	29.55	21.40	1.84	31.43	23.13	1.86	33.34	23.05	1.87	35.18	24.52	1.90
	50	24.70	19.46	1.81	27.54	19.63	1.83	29.41	21.33	1.84	31.26	23.06	1.87	33.13	22.99	1.89	35.04	24.51	1.91
	59	25.18	19.70	1.71	28.08	19.90	1.75	29.99	21.66	1.76	31.90	23.42	1.77	33.81	23.32	1.79	35.73	24.83	1.81
	67	27.09	20.29	1.92	30.16	20.40	1.95	32.24	22.22	1.98	34.29	24.02	2.00	36.34	23.93	2.00	38.39	25.49	2.03
	77	26.07	19.87	2.11	29.04	19.97	2.13	31.02	21.76	2.15	33.00	23.53	2.18	34.97	23.48	2.20	36.95	24.95	2.22
	87	25.15	19.50	2.27	27.98	19.61	2.31	29.89	21.34	2.33	31.80	23.09	2.36	33.71	23.00	2.38	35.62	24.53	2.39
	95	23.71	18.90	2.47	26.41	19.00	2.52	28.18	20.67	2.53	30.00	22.40	2.56	31.80	22.29	2.59	33.61	23.78	2.62
	104	22.25	18.24	2.67	24.77	18.40	2.69	26.48	20.03	2.73	28.18	21.66	2.76	29.89	21.55	2.79	31.53	22.96	2.82
	115	20.51	17.48	2.91	22.83	17.61	2.95	24.40	19.20	2.98	25.97	20.77	3.02	27.50	20.64	3.04	29.07	22.03	3.07
	122	19.39	16.53	3.04	21.58	16.65	3.09	23.06	18.15	3.11	24.55	19.63	3.16	26.00	19.51	3.19	27.48	20.82	3.21

AFR	m^3/h	1,699

		Indoor temperature																	
	°CDB	17.8			21.1			23.9			26.7			29.4			32.2		
	°CWB	12.2			15.6			17.2			19.4			21.7			22.8		
Outdoor temperature	°CDB	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP
		kW			kW			kW			kW			kW			kW		
	-20.6	7.47	5.79	1.90	8.33	5.84	1.89	8.89	6.35	1.86	9.46	6.88	1.84	10.03	6.85	1.86	10.59	7.28	1.87
	-15.0	7.43	5.78	1.79	8.28	5.82	1.80	8.84	6.34	1.84	9.41	6.86	1.85	9.97	6.82	1.86	10.53	7.27	1.88
	-10.0	7.39	5.76	1.78	8.23	5.79	1.81	8.79	6.30	1.83	9.36	6.84	1.85	9.92	6.80	1.86	10.48	7.23	1.88
	0.0	7.32	5.73	1.80	8.14	5.76	1.83	8.70	6.28	1.85	9.26	6.80	1.86	9.82	6.77	1.89	10.37	7.22	1.90
	5.0	7.27	5.72	1.79	8.10	5.75	1.82	8.66	6.27	1.84	9.21	6.78	1.86	9.77	6.76	1.87	10.31	7.19	1.90
	10.0	7.24	5.71	1.81	8.07	5.75	1.83	8.62	6.25	1.84	9.16	6.76	1.87	9.71	6.74	1.89	10.27	7.18	1.91
	15.0	7.38	5.78	1.71	8.23	5.83	1.75	8.79	6.35	1.76	9.35	6.87	1.77	9.91	6.84	1.79	10.47	7.28	1.81
	19.4	7.94	5.95	1.92	8.84	5.98	1.95	9.45	6.51	1.98	10.05	7.04	2.00	10.65	7.01	2.00	11.25	7.47	2.03
	25.0	7.64	5.82	2.11	8.51	5.85	2.13	9.09	6.38	2.15	9.67	6.89	2.18	10.25	6.88	2.20	10.83	7.31	2.22
	30.0	7.37	5.71	2.27	8.20	5.75	2.31	8.76	6.25	2.33	9.32	6.77	2.36	9.88	6.74	2.38	10.44	7.19	2.39
	35.0	6.95	5.54	2.47	7.74	5.57	2.52	8.26	6.06	2.53	8.79	6.56	2.56	9.32	6.53	2.59	9.85	6.97	2.62
	40.0	6.52	5.34	2.67	7.26	5.39	2.69	7.76	5.87	2.73	8.26	6.35	2.76	8.76	6.32	2.79	9.24	6.73	2.82
	46.1	6.01	5.12	2.91	6.69	5.16	2.95	7.15	5.63	2.98	7.61	6.09	3.02	8.06	6.05	3.04	8.52	6.46	3.07
	50.0	5.68	4.84	3.04	6.32	4.88	3.09	6.76	5.32	3.11	7.19	5.75	3.16	7.62	5.72	3.19	8.05	6.10	3.21

DUCT
AMUH12-48KUAS

■ Model: AMUH36KUAS

AFR	CFM	1,207

		Indoor temperature																	
	°FDB	64			70			75			80			85			90		
	°FWB	54			60			63			67			71			73		
Outdoor temperature	°FDB	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP
		kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW
	-5	29.41	25.33	2.19	32.76	25.44	2.21	34.97	25.97	2.22	37.19	28.08	2.25	39.44	28.01	2.27	41.66	29.79	2.29
	5	29.24	23.71	2.20	32.55	23.76	2.21	34.77	25.87	2.23	36.99	27.99	2.26	39.21	27.91	2.28	41.42	29.69	2.30
	14	29.07	23.55	2.18	32.38	23.72	2.21	34.56	25.83	2.24	36.78	27.91	2.27	39.00	27.81	2.29	41.18	29.62	2.30
	32	28.76	23.47	2.21	32.04	23.58	2.24	34.22	25.69	2.26	36.41	27.78	2.29	38.59	27.64	2.32	40.81	29.47	2.34
	41	28.59	23.35	2.22	31.87	23.49	2.25	34.05	25.59	2.28	36.20	27.68	2.30	38.39	27.60	2.32	40.57	29.38	2.35
	50	28.46	23.28	2.22	31.70	23.41	2.26	33.85	25.50	2.28	36.03	27.61	2.30	38.15	27.45	2.31	40.33	29.28	2.34
	59	28.49	23.38	2.21	31.73	23.52	2.24	33.88	25.60	2.27	36.07	27.68	2.29	38.25	27.60	2.32	40.40	29.38	2.34
	67	32.89	25.08	2.60	36.65	25.26	2.64	39.17	27.53	2.65	41.63	29.76	2.68	44.15	29.65	2.71	46.64	31.58	2.73
	77	31.49	24.51	2.84	35.11	24.70	2.88	37.50	26.92	2.91	39.89	29.08	2.94	42.28	29.00	2.96	44.70	30.89	3.00
	87	30.27	24.07	3.04	33.71	24.16	3.08	36.00	26.35	3.11	38.32	28.50	3.15	40.60	28.36	3.17	42.89	30.21	3.21
	95	28.46	23.15	3.28	31.70	23.28	3.33	33.81	25.36	3.37	36.00	27.47	3.40	38.15	27.34	3.44	40.30	29.14	3.47
	104	26.61	22.32	3.53	29.65	22.46	3.58	31.66	24.47	3.62	33.68	26.45	3.65	35.73	26.35	3.68	37.74	28.09	3.73
	115	22.08	20.63	3.23	24.60	20.76	3.27	26.27	22.60	3.29	27.98	24.47	3.34	29.62	24.35	3.36	31.32	25.94	3.40
	122	19.20	17.94	3.04	21.40	18.06	3.08	22.85	19.66	3.10	24.34	21.29	3.14	25.76	21.18	3.16	27.24	22.56	3.20

AFR	m^3/h	2,050

		Indoor temperature																	
	°CDB	17.8			21.1			23.9			26.7			29.4			32.2		
	°CWB	12.2			15.6			17.2			19.4			21.7			22.8		
Outdoor temperature	°CDB	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP
		kW			kW			kW			kW			kW			kW		
	-20.6	8.62	7.42	2.19	9.60	7.45	2.21	10.25	7.61	2.22	10.90	8.23	2.25	11.56	8.21	2.27	12.21	8.73	2.29
	-15.0	8.57	6.95	2.20	9.54	6.96	2.21	10.19	7.58	2.23	10.84	8.20	2.26	11.49	8.18	2.28	12.14	8.70	2.30
	-10.0	8.52	6.90	2.18	9.49	6.95	2.21	10.13	7.57	2.24	10.78	8.18	2.27	11.43	8.15	2.29	12.07	8.68	2.30
	0.0	8.43	6.88	2.21	9.39	6.91	2.24	10.03	7.53	2.26	10.67	8.14	2.29	11.31	8.10	2.32	11.96	8.64	2.34
	5.0	8.38	6.84	2.22	9.34	6.89	2.25	9.98	7.50	2.28	10.61	8.11	2.30	11.25	8.09	2.32	11.89	8.61	2.35
	10.0	8.34	6.82	2.22	9.29	6.86	2.26	9.92	7.47	2.28	10.56	8.09	2.30	11.18	8.04	2.31	11.82	8.58	2.34
	15.0	8.35	6.85	2.21	9.30	6.89	2.24	9.93	7.50	2.27	10.57	8.11	2.29	11.21	8.09	2.32	11.84	8.61	2.34
	19.4	9.64	7.35	2.60	10.74	7.40	2.64	11.48	8.07	2.65	12.20	8.72	2.68	12.94	8.69	2.71	13.67	9.26	2.73
	25.0	9.23	7.18	2.84	10.29	7.24	2.88	10.99	7.89	2.91	11.69	8.52	2.94	12.39	8.50	2.96	13.10	9.05	3.00
	30.0	8.87	7.05	3.04	9.88	7.08	3.08	10.55	7.72	3.11	11.23	8.35	3.15	11.90	8.31	3.17	12.57	8.85	3.21
	35.0	8.34	6.78	3.28	9.29	6.82	3.33	9.91	7.43	3.37	10.55	8.05	3.40	11.18	8.01	3.44	11.81	8.54	3.47
	40.0	7.80	6.54	3.53	8.69	6.58	3.58	9.28	7.17	3.62	9.87	7.75	3.65	10.47	7.72	3.68	11.06	8.23	3.73
	46.1	6.47	6.04	3.23	7.21	6.09	3.27	7.70	6.62	3.29	8.20	7.17	3.34	8.68	7.14	3.36	9.18	7.60	3.40
	50.0	5.63	5.26	3.04	6.27	5.29	3.08	6.70	5.76	3.10	7.13	6.24	3.14	7.55	6.21	3.16	7.98	6.61	3.20

DUCT
AMUH12-48KUAS

■ Model: AMUH48KUAS

AFR	CFM	1,600

		Indoor temperature																	
	°FDB	64			70			75			80			85			90		
	°FWB	54			60			63			67			71			73		
Outdoor temperature	°FDB	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP
		kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW	kBtu		kW
	-5	30.29	26.42	2.47	33.76	26.56	2.51	36.05	28.95	2.54	38.36	31.30	2.55	40.64	31.19	2.58	42.93	33.23	2.61
	5	29.95	26.14	2.52	33.36	26.24	2.57	35.66	28.63	2.59	37.93	30.95	2.61	40.20	30.85	2.64	42.47	32.85	2.66
	14	29.65	24.60	2.58	33.03	24.73	2.63	35.30	26.95	2.66	37.54	29.16	2.67	39.81	29.05	2.71	42.05	30.95	2.74
	32	29.05	23.86	2.67	32.36	24.00	2.73	34.57	26.14	2.76	36.78	28.25	2.78	38.98	28.14	2.81	41.16	29.97	2.82
	41	28.76	23.89	2.74	32.04	24.04	2.78	34.22	26.18	2.81	36.39	28.28	2.84	38.57	28.18	2.87	40.77	30.04	2.91
	50	28.42	23.93	2.80	31.69	24.10	2.84	33.84	26.21	2.88	36.01	28.35	2.90	38.15	28.25	2.94	40.32	30.10	2.96
	59	28.13	23.65	2.85	31.33	23.75	2.89	33.48	25.90	2.93	35.62	28.00	2.95	37.77	27.90	2.98	39.89	29.72	3.00
	67	40.17	32.74	3.45	44.78	32.92	3.51	47.81	35.86	3.54	50.85	38.81	3.58	53.92	38.67	3.60	56.95	41.16	3.65
	77	38.61	31.54	3.88	43.05	31.72	3.93	45.99	34.56	3.98	48.93	37.37	4.01	51.84	37.23	4.06	54.78	39.65	4.10
	87	37.30	29.72	4.24	41.55	29.86	4.31	44.37	32.53	4.35	47.23	35.20	4.39	50.05	35.06	4.44	52.87	37.37	4.49
	95	35.94	29.05	4.62	40.05	29.23	4.69	42.77	31.86	4.74	45.50	34.44	4.78	48.24	34.32	4.83	50.99	36.57	4.88
	104	34.66	28.81	4.99	38.59	28.95	5.06	41.20	31.51	5.11	43.81	34.07	5.17	46.49	33.97	5.22	49.10	36.18	5.27
	115	23.72	21.94	3.82	26.42	22.04	3.88	28.21	24.00	3.91	30.00	25.93	3.94	31.82	25.86	4.00	33.61	27.54	4.03
	122	19.41	17.94	3.34	21.62	18.04	3.40	23.08	19.65	3.43	24.55	21.23	3.46	26.04	21.16	3.50	27.51	22.53	3.53

AFR	m^3/h	2,718

		Indoor temperature																	
	°CDB	17.8			21.1			23.9			26.7			29.4			32.2		
	°CWB	12.2			15.6			17.2			19.4			21.7			22.8		
Outdoor temperature	°CDB	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP
		kW			kW			kW			kW			kW			kW		
	-20.6	8.88	7.74	2.47	9.89	7.78	2.51	10.56	8.48	2.54	11.24	9.17	2.55	11.91	9.14	2.58	12.58	9.74	2.61
	-15.0	8.78	7.66	2.52	9.78	7.69	2.57	10.45	8.39	2.59	11.12	9.07	2.61	11.78	9.04	2.64	12.45	9.63	2.66
	-10.0	8.69	7.21	2.58	9.68	7.25	2.63	10.35	7.90	2.66	11.00	8.55	2.67	11.67	8.51	2.71	12.33	9.07	2.74
	0.0	8.51	6.99	2.67	9.48	7.03	2.73	10.13	7.66	2.76	10.78	8.28	2.78	11.42	8.25	2.81	12.06	8.78	2.82
	5.0	8.43	7.00	2.74	9.39	7.04	2.78	10.03	7.67	2.81	10.67	8.29	2.84	11.30	8.26	2.87	11.95	8.80	2.91
	10.0	8.33	7.01	2.80	9.29	7.06	2.84	9.92	7.68	2.88	10.55	8.31	2.90	11.18	8.28	2.94	11.82	8.82	2.96
	15.0	8.24	6.93	2.85	9.18	6.96	2.89	9.81	7.59	2.93	10.44	8.21	2.95	11.07	8.18	2.98	11.69	8.71	3.00
	19.4	11.77	9.59	3.45	13.12	9.65	3.51	14.01	10.51	3.54	14.90	11.37	3.58	15.80	11.33	3.60	16.69	12.06	3.65
	25.0	11.32	9.25	3.88	12.62	9.30	3.93	13.48	10.13	3.98	14.34	10.95	4.01	15.19	10.91	4.06	16.06	11.62	4.10
	30.0	10.93	8.71	4.24	12.18	8.75	4.31	13.00	9.53	4.35	13.84	10.31	4.39	14.67	10.27	4.44	15.50	10.95	4.49
	35.0	10.53	8.51	4.62	11.74	8.57	4.69	12.53	9.34	4.74	13.34	10.10	4.78	14.14	10.06	4.83	14.94	10.72	4.88
	40.0	10.16	8.44	4.99	11.31	8.48	5.06	12.07	9.23	5.11	12.84	9.99	5.17	13.62	9.95	5.22	14.39	10.60	5.27
	46.1	6.95	6.43	3.82	7.74	6.46	3.88	8.27	7.03	3.91	8.79	7.60	3.94	9.33	7.58	4.00	9.85	8.07	4.03
	50.0	5.69	5.26	3.34	6.34	5.29	3.40	6.76	5.76	3.43	7.19	6.22	3.46	7.63	6.20	3.50	8.06	6.60	3.53

DUCT
AMUH12-48KUAS

4-3. Heating capacity

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

■ Model: AMUH12KUAS

AFR	CFM	500

			Indoor temperature									
		°FDB	60		65		70		72		75	
	°FDB	°FWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kBtu	kW	kBtu	kW	kBtu	kW	kBtu	kW	kBtu	kW
Outdoor temperature	-5	-7	15.24	2.19	14.88	2.25	14.52	2.24	14.17	2.33	13.79	2.38
	5	3	16.90	2.25	16.52	2.30	16.10	2.29	15.46	2.38	15.28	2.43
	14	12	17.50	2.08	17.11	2.12	16.69	2.22	16.17	2.20	15.84	2.24
	17	15	17.74	1.98	17.33	2.02	16.90	2.16	16.46	2.11	16.06	2.16
	23	19	18.14	1.82	17.72	1.86	17.27	2.04	16.84	1.93	16.42	1.98
	32	28	18.34	1.76	17.92	1.80	17.47	1.98	17.05	1.88	16.60	1.92
	41	37	18.57	1.71	18.12	1.75	17.68	1.93	17.23	1.81	16.78	1.85
	47	43	18.69	1.62	18.25	1.65	17.80	1.90	17.36	1.72	16.91	1.75
	50	47	20.62	1.61	20.12	1.65	19.62	1.89	19.14	1.71	18.66	1.73
	59	50	21.37	1.42	20.87	1.46	20.37	1.67	19.87	1.51	19.34	1.54

AFR	m^3/h	850

			Indoor temperature									
		°CDB	15.6		18.3		21.1		22.0		23.9	
	°CDB	°CWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kW		kW		kW		kW		kW	
Outdoor temperature	-20.6	-21.7	4.47	2.19	4.36	2.25	4.25	2.24	4.15	2.33	4.04	2.38
	-15.0	-16.1	4.95	2.25	4.84	2.30	4.72	2.29	4.53	2.38	4.48	2.43
	-10.0	-11.1	5.13	2.08	5.01	2.12	4.89	2.22	4.74	2.20	4.64	2.24
	-8.3	-9.4	5.20	1.98	5.08	2.02	4.95	2.16	4.83	2.11	4.71	2.16
	-5.0	-7.2	5.32	1.82	5.19	1.86	5.06	2.04	4.93	1.93	4.81	1.98
	0.0	-2.2	5.37	1.76	5.25	1.80	5.12	1.98	5.00	1.88	4.87	1.92
	5.0	2.8	5.44	1.71	5.31	1.75	5.18	1.93	5.05	1.81	4.92	1.85
	8.3	6.1	5.48	1.62	5.35	1.65	5.22	1.90	5.09	1.72	4.95	1.75
	10.0	8.3	6.04	1.61	5.90	1.65	5.75	1.89	5.61	1.71	5.47	1.73
	15.0	10.0	6.26	1.42	6.12	1.46	5.97	1.67	5.82	1.51	5.67	1.54

■ Model: AMUH18KUAS

AFR	CFM	600

			Indoor temperature									
		°FDB	60		65		70		72		75	
	°FDB	°FWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kBtu	kW	kBtu	kW	kBtu	kW	kBtu	kW	kBtu	kW
Outdoor temperature	-5	-7	15.30	1.89	14.95	1.93	14.57	1.97	14.23	2.01	13.85	2.05
	5	3	17.85	2.03	17.44	2.07	17.30	2.12	16.61	2.16	16.16	2.20
	14	12	19.85	2.17	19.37	2.22	19.02	2.27	18.44	2.32	17.96	2.35
	17	15	20.51	2.22	20.03	2.27	19.50	2.32	19.06	2.37	18.54	2.41
	23	19	21.89	2.33	21.34	2.38	20.82	2.42	20.30	2.47	19.79	2.52
	32	28	23.86	2.46	23.31	2.51	22.72	2.56	22.17	2.61	21.62	2.66
	41	37	25.22	2.59	24.60	2.65	23.99	2.71	23.41	2.76	22.79	2.82
	47	43	25.22	2.71	24.60	2.76	24.00	2.81	23.41	2.87	22.79	2.92
	50	47	25.22	2.66	24.60	2.72	23.99	2.77	23.41	2.83	22.79	2.88
	59	50	24.81	2.04	24.23	2.07	23.65	2.13	23.07	2.17	22.45	2.20

AFR	m^3/h	1,019

			Indoor temperature									
		°CDB	15.6		18.3		21.1		22.0		23.9	
	°CDB	°CWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kW		kW		kW		kW		kW	
Outdoor temperature	-20.6	-21.7	4.48	1.89	4.38	1.93	4.27	1.97	4.17	2.01	4.06	2.05
	-15.0	-16.1	5.23	2.03	5.11	2.07	5.07	2.12	4.87	2.16	4.74	2.20
	-10.0	-11.1	5.82	2.17	5.68	2.22	5.58	2.27	5.40	2.32	5.26	2.35
	-8.3	-9.4	6.01	2.22	5.87	2.27	5.73	2.32	5.59	2.37	5.43	2.41
	-5.0	-7.2	6.42	2.33	6.25	2.38	6.10	2.42	5.95	2.47	5.80	2.52
	0.0	-2.2	6.99	2.46	6.83	2.51	6.66	2.56	6.50	2.61	6.33	2.66
	5.0	2.8	7.39	2.59	7.21	2.65	7.03	2.71	6.86	2.76	6.68	2.82
	8.3	6.1	7.39	2.71	7.21	2.76	7.03	2.81	6.86	2.87	6.68	2.92
	10.0	8.3	7.39	2.66	7.21	2.72	7.03	2.77	6.86	2.83	6.68	2.88
	15.0	10.0	7.27	2.04	7.10	2.07	6.93	2.13	6.76	2.17	6.58	2.20

DUCT
AMUH12-48KUAS

■ Model: AMUH24KUAS

AFR	CFM	750

		Indoor temperature									
		°FDB	60		65		70		72		75	
	°FDB	°FWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kBtu	kW	kBtu	kW	kBtu	kW	kBtu	kW	kBtu	kW
Outdoor temperature	-5	-7	22.97	3.18	22.43	3.25	21.86	3.37	21.33	3.38	20.80	3.46
	5	3	25.85	3.23	25.21	3.30	24.60	3.37	23.96	3.43	23.36	3.49
	14	12	27.49	3.23	26.82	3.29	26.19	3.36	25.52	3.43	24.86	3.49
	17	15	28.06	3.24	27.40	3.30	26.70	3.36	26.07	3.43	25.36	3.49
	23	19	29.17	3.23	28.48	3.30	27.78	3.36	27.08	3.43	26.42	3.49
	32	28	30.85	3.21	30.13	3.29	29.37	3.35	28.64	3.41	27.92	3.48
	41	37	32.50	3.20	31.75	3.29	30.96	3.34	30.20	3.42	29.41	3.47
	47	43	33.61	3.21	32.82	3.26	32.00	3.34	31.19	3.40	30.40	3.47
	50	47	34.46	3.22	33.64	3.28	32.82	3.34	32.01	3.41	31.15	3.49
	59	50	34.77	3.09	33.95	3.17	33.10	3.23	32.28	3.30	31.46	3.34

AFR	m^3/h	1,275

		Indoor temperature									
		°CDB	15.6		18.3		21.1		22.0		23.9	
	°CDB	°CWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kW		kW		kW		kW		kW	
Outdoor temperature	-20.6	-21.7	6.73	3.18	6.57	3.25	6.41	3.37	6.25	3.38	6.10	3.46
	-15.0	-16.1	7.57	3.23	7.39	3.30	7.21	3.37	7.02	3.43	6.85	3.49
	-10.0	-11.1	8.06	3.23	7.86	3.29	7.68	3.36	7.48	3.43	7.28	3.49
	-8.3	-9.4	8.22	3.24	8.03	3.30	7.83	3.36	7.64	3.43	7.43	3.49
	-5.0	-7.2	8.55	3.23	8.35	3.30	8.14	3.36	7.94	3.43	7.74	3.49
	0.0	-2.2	9.04	3.21	8.83	3.29	8.61	3.35	8.39	3.41	8.18	3.48
	5.0	2.8	9.52	3.20	9.30	3.29	9.07	3.34	8.85	3.42	8.62	3.47
	8.3	6.1	9.85	3.21	9.62	3.26	9.38	3.34	9.14	3.40	8.91	3.47
	10.0	8.3	10.10	3.22	9.86	3.28	9.62	3.34	9.38	3.41	9.13	3.49
	15.0	10.0	10.19	3.09	9.95	3.17	9.70	3.23	9.46	3.30	9.22	3.34

■ Model: AMUH30KUAS

AFR	CFM	1,000

		Indoor temperature									
		°FDB	60		65		70		72		75	
	°FDB	°FWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kBtu	kW	kBtu	kW	kBtu	kW	kBtu	kW	kBtu	kW
Outdoor temperature	-5	-7	26.47	3.66	25.83	3.73	25.19	3.81	24.61	3.89	23.97	3.96
	5	3	30.88	3.79	30.13	3.87	29.40	3.95	28.70	4.03	27.94	4.11
	14	12	32.81	3.80	32.03	3.88	31.26	3.95	30.44	4.03	29.66	4.11
	17	15	33.47	3.80	32.69	3.87	31.90	3.95	31.11	4.03	30.30	4.10
	23	19	34.78	3.78	33.94	3.87	33.10	3.95	32.30	4.03	31.49	4.10
	32	28	36.71	3.79	35.85	3.87	34.95	3.94	34.08	4.02	33.22	4.11
	41	37	38.65	3.79	37.72	3.86	36.79	3.94	35.90	4.02	34.97	4.09
	47	43	39.89	3.78	38.97	3.86	38.00	3.94	37.06	4.02	36.10	4.10
	50	47	40.58	3.77	39.59	3.86	38.64	3.94	37.65	4.01	36.70	4.09
	59	50	37.72	3.13	36.83	3.20	35.92	3.26	35.06	3.32	34.15	3.38

AFR	m^3/h	1,699

		Indoor temperature									
		°CDB	15.6		18.3		21.1		22.0		23.9	
	°CDB	°CWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kW		kW		kW		kW		kW	
Outdoor temperature	-20.6	-21.7	7.76	3.66	7.57	3.73	7.38	3.81	7.21	3.89	7.02	3.96
	-15.0	-16.1	9.05	3.79	8.83	3.87	8.62	3.95	8.41	4.03	8.19	4.11
	-10.0	-11.1	9.62	3.80	9.39	3.88	9.16	3.95	8.92	4.03	8.69	4.11
	-8.3	-9.4	9.81	3.80	9.58	3.87	9.34	3.95	9.12	4.03	8.88	4.10
	-5.0	-7.2	10.19	3.78	9.95	3.87	9.70	3.95	9.47	4.03	9.23	4.10
	0.0	-2.2	10.76	3.79	10.51	3.87	10.24	3.94	9.99	4.02	9.73	4.11
	5.0	2.8	11.33	3.79	11.05	3.86	10.78	3.94	10.52	4.02	10.25	4.09
	8.3	6.1	11.69	3.78	11.42	3.86	11.14	3.94	10.86	4.02	10.58	4.10
	10.0	8.3	11.89	3.77	11.60	3.86	11.32	3.94	11.03	4.01	10.76	4.09
	15.0	10.0	11.05	3.13	10.80	3.20	10.53	3.26	10.28	3.32	10.01	3.38

DUCT
AMUH12-48KUAS

■ Model: AMUH36KUAS

AFR	CFM	1,207

		Indoor temperature									
		°FDB	60		65		70		72		75	
	°FDB	°FWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kBtu	kW	kBtu	kW	kBtu	kW	kBtu	kW	kBtu	kW
Outdoor temperature	-5	-7	29.26	3.78	28.56	3.85	27.85	3.96	27.15	4.00	26.48	4.09
	5	3	33.59	4.12	32.78	4.21	32.00	4.30	31.20	4.38	30.39	4.48
	14	12	36.07	4.12	35.24	4.20	34.36	4.29	33.53	4.37	32.62	4.46
	17	15	36.90	4.12	36.03	4.20	35.20	4.29	34.30	4.37	33.39	4.46
	23	19	38.56	4.13	37.62	4.21	36.72	4.29	35.75	4.38	34.85	4.47
	32	28	41.04	4.11	40.08	4.19	39.08	4.28	38.08	4.36	37.12	4.44
	41	37	43.53	4.09	42.50	4.19	41.44	4.27	40.44	4.36	39.38	4.44
	47	43	45.18	4.09	44.08	4.17	43.00	4.27	41.90	4.34	40.88	4.44
	50	47	45.96	4.12	44.88	4.21	43.79	4.29	42.68	4.37	41.56	4.48
	59	50	40.35	3.09	39.40	3.16	38.42	3.22	37.44	3.28	36.50	3.33

AFR	m^3/h	2,050

		Indoor temperature									
		°CDB	15.6		18.3		21.1		22.0		23.9	
	°CDB	°CWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kW		kW		kW		kW		kW	
Outdoor temperature	-20.6	-21.7	8.58	3.78	8.37	3.85	8.16	3.96	7.96	4.00	7.76	4.09
	-15.0	-16.1	9.84	4.12	9.61	4.21	9.38	4.30	9.14	4.38	8.91	4.48
	-10.0	-11.1	10.57	4.12	10.33	4.20	10.07	4.29	9.83	4.37	9.56	4.46
	-8.3	-9.4	10.82	4.12	10.56	4.20	10.31	4.29	10.05	4.37	9.79	4.46
	-5.0	-7.2	11.30	4.13	11.03	4.21	10.76	4.29	10.48	4.38	10.21	4.47
	0.0	-2.2	12.03	4.11	11.75	4.19	11.45	4.28	11.16	4.36	10.88	4.44
	5.0	2.8	12.76	4.09	12.46	4.19	12.14	4.27	11.85	4.36	11.54	4.44
	8.3	6.1	13.24	4.09	12.92	4.17	12.60	4.27	12.28	4.34	11.98	4.44
	10.0	8.3	13.47	4.12	13.15	4.21	12.84	4.29	12.51	4.37	12.18	4.48
	15.0	10.0	11.82	3.09	11.55	3.16	11.26	3.22	10.97	3.28	10.70	3.33

■ Model: AMUH48KUAS

AFR	CFM	1,600

		Indoor temperature									
		°FDB	60		65		70		72		75	
	°FDB	°FWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kBtu	kW	kBtu	kW	kBtu	kW	kBtu	kW	kBtu	kW
Outdoor temperature	-5	-7	39.86	5.27	38.89	5.33	37.96	5.36	36.99	5.42	36.06	5.48
	5	3	43.03	5.27	42.02	5.33	41.00	5.36	39.97	5.42	38.96	5.48
	14	12	46.22	5.27	45.12	5.33	44.01	5.36	42.91	5.42	41.81	5.48
	17	15	47.27	5.27	46.15	5.33	45.00	5.36	43.88	5.42	42.76	5.48
	23	19	49.39	5.27	48.20	5.33	47.02	5.36	45.86	5.42	44.67	5.48
	32	28	52.51	5.27	51.26	5.33	50.02	5.36	48.74	5.42	47.53	5.48
	41	37	55.70	5.24	54.35	5.29	53.02	5.32	51.70	5.38	50.37	5.44
	47	43	57.77	5.21	56.37	5.27	55.00	5.30	53.64	5.36	52.24	5.42
	50	47	58.51	5.07	57.10	5.12	55.71	5.15	54.30	5.21	52.92	5.26
	59	50	60.71	4.63	59.24	4.68	57.80	4.71	56.37	4.76	54.90	4.79

AFR	m^3/h	2,718

		Indoor temperature									
		°CDB	15.6		18.3		21.1		22.0		23.9	
	°CDB	°CWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kW		kW		kW		kW		kW	
Outdoor temperature	-20.6	-21.7	11.68	5.27	11.40	5.33	11.12	5.36	10.84	5.42	10.57	5.48
	-15.0	-16.1	12.61	5.27	12.32	5.33	12.02	5.36	11.71	5.42	11.42	5.48
	-10.0	-11.1	13.55	5.27	13.22	5.33	12.90	5.36	12.58	5.42	12.25	5.48
	-8.3	-9.4	13.85	5.27	13.53	5.33	13.20	5.36	12.86	5.42	12.53	5.48
	-5.0	-7.2	14.48	5.27	14.13	5.33	13.78	5.36	13.44	5.42	13.09	5.48
	0.0	-2.2	15.39	5.27	15.02	5.33	14.66	5.36	14.28	5.42	13.93	5.48
	5.0	2.8	16.32	5.24	15.93	5.29	15.54	5.32	15.15	5.38	14.76	5.44
	8.3	6.1	16.93	5.21	16.52	5.27	16.12	5.30	15.72	5.36	15.31	5.42
	10.0	8.3	17.15	5.07	16.73	5.12	16.33	5.15	15.91	5.21	15.51	5.26
	15.0	10.0	17.79	4.63	17.36	4.68	16.94	4.71	16.52	4.76	16.09	4.79

DUCT
AMUH12-48KUAS

5. Fan performance

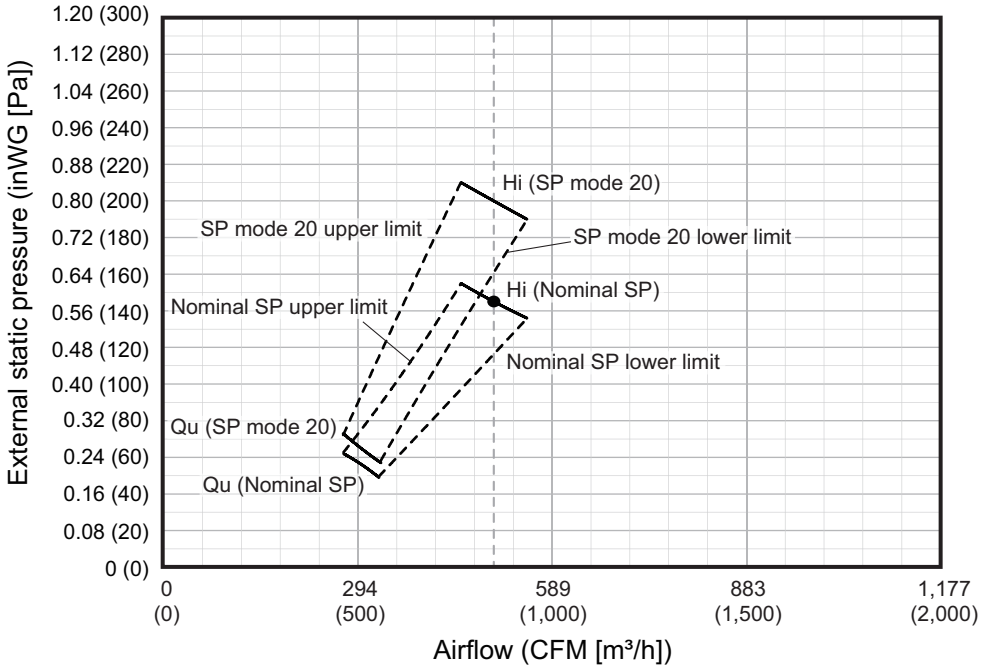
NOTE: Airflow and capacity/outlet temperature curve data are measured based on the same conditions mentioned in "Specifications".

5-1. Fan performance curve

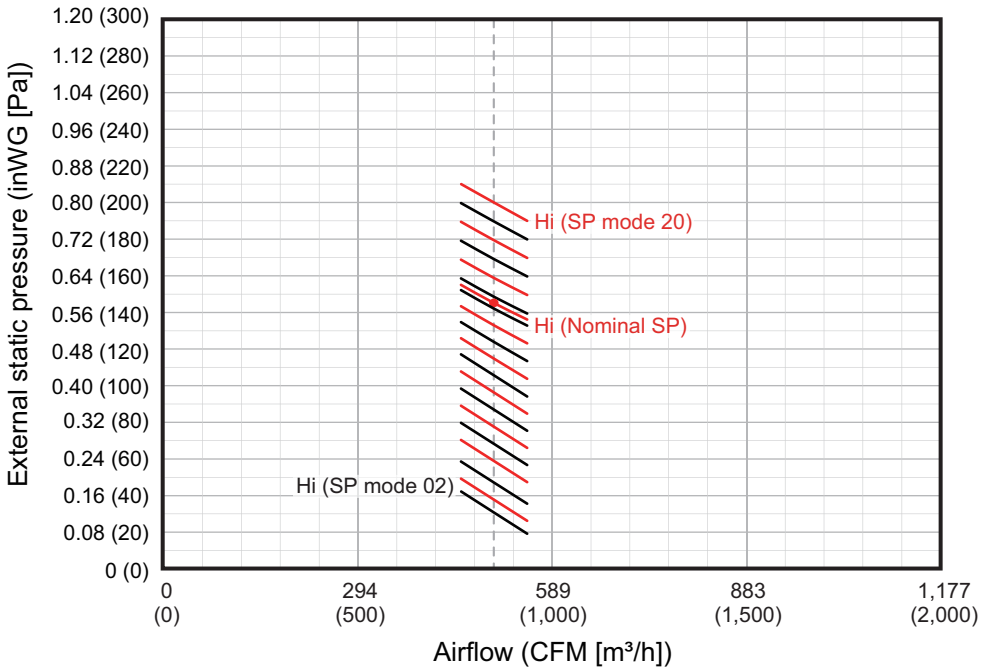
■ Model: AMUH12KUAS

Upflow

Fan performance curve 1



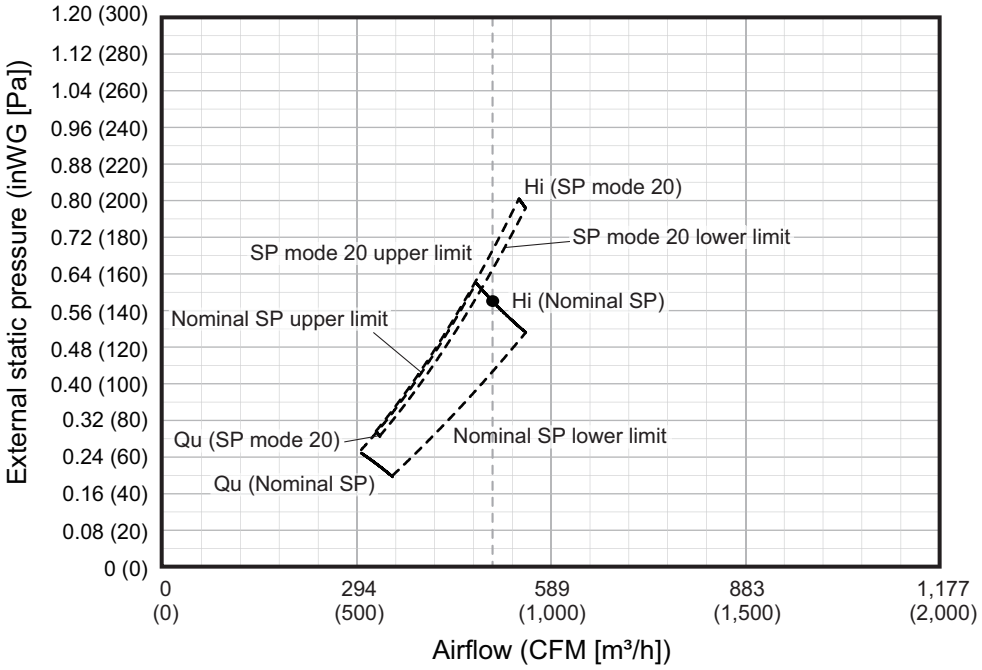
Fan performance curve 2
(For function setting by remote controller)



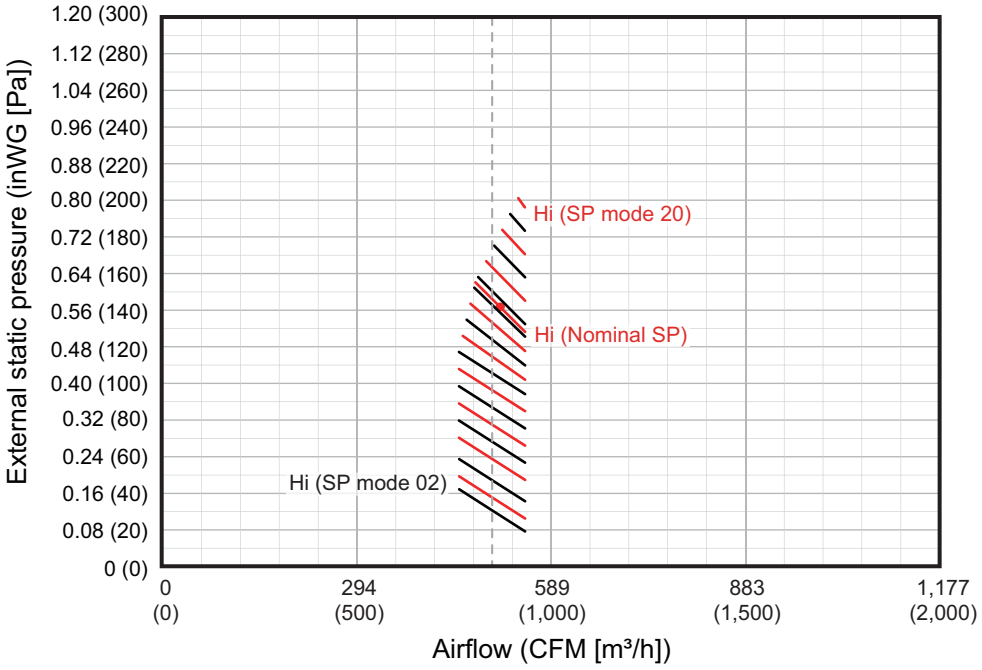
DUCT
AMUH12-48KUAS

Downflow

Fan performance curve 1

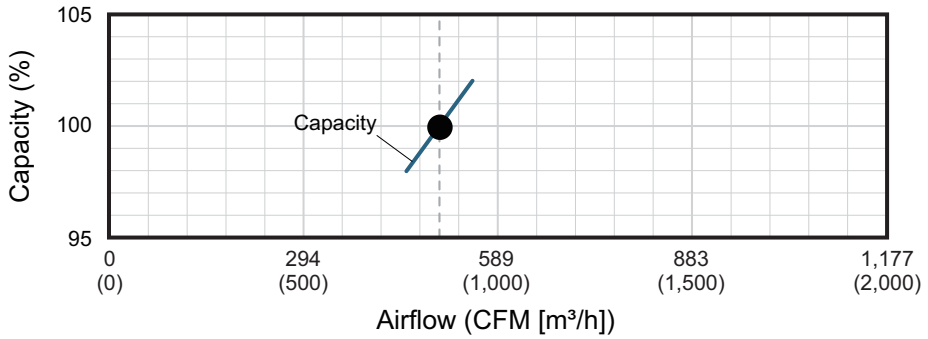


Fan performance curve 2
(For function setting by remote controller)

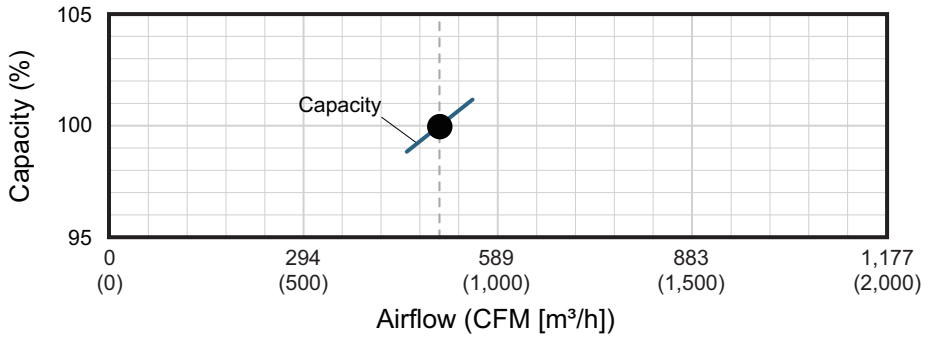


DUCT
AMUH12-48KUAS

Cooling



Heating

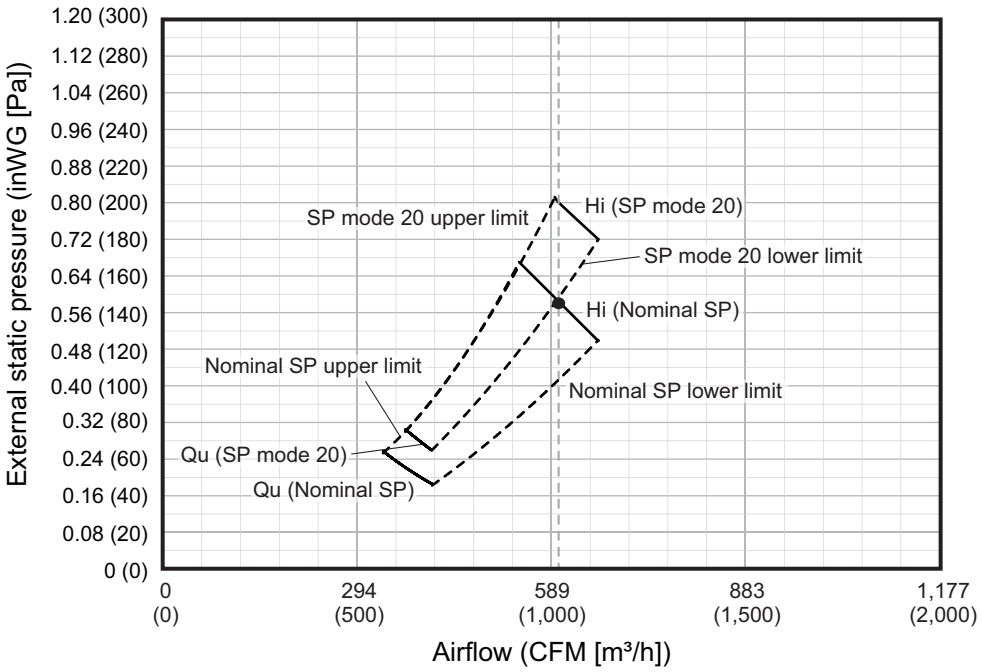


DUCT
AMUH12-48KUAS

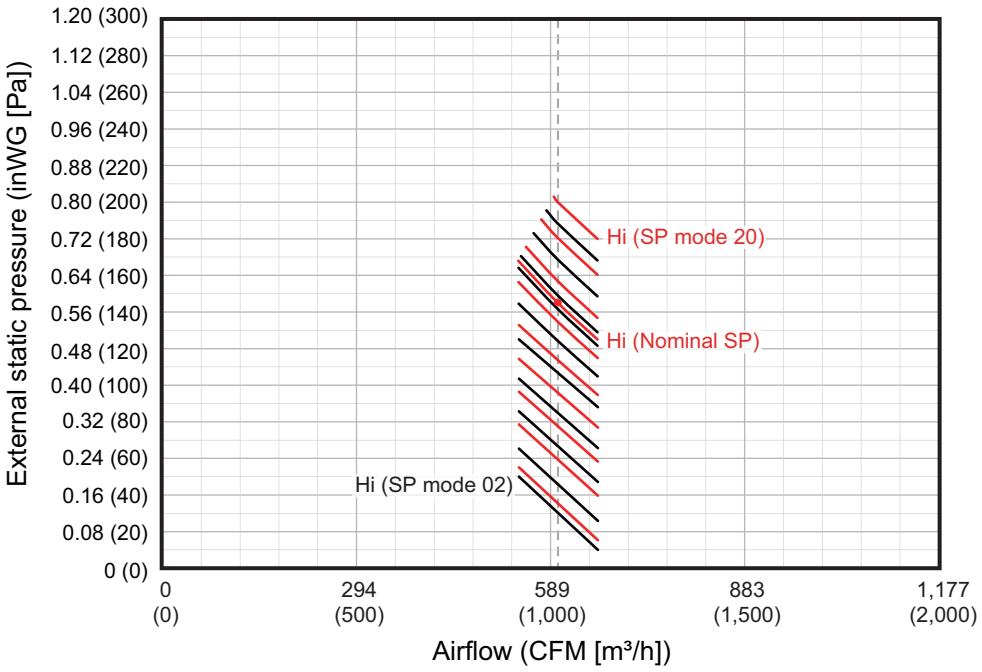
■ Model: AMUH18KUAS

Upflow

Fan performance curve 1



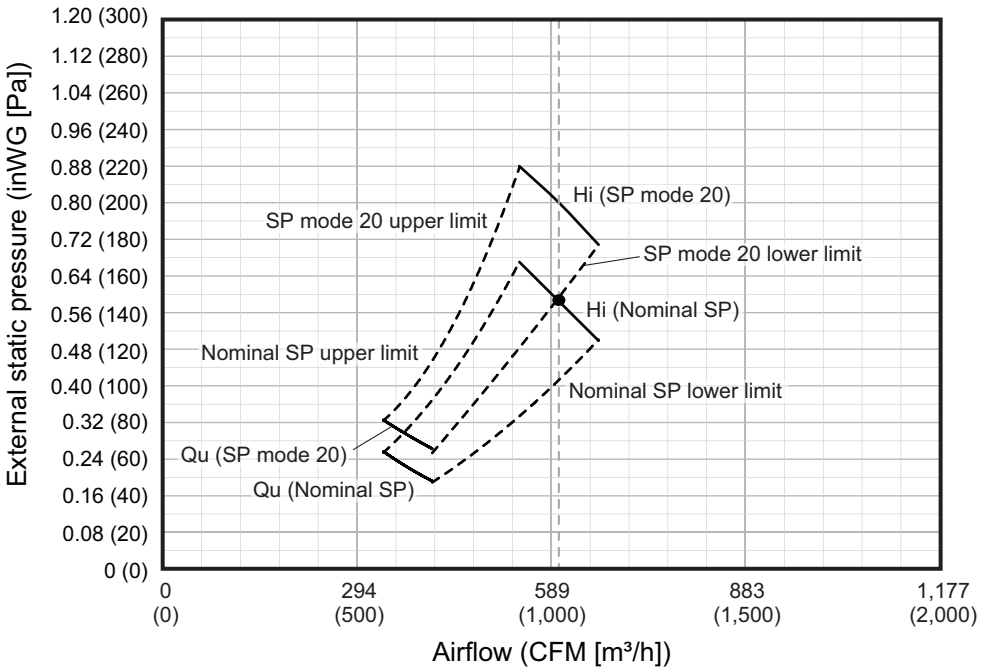
Fan performance curve 2
(For function setting by remote controller)



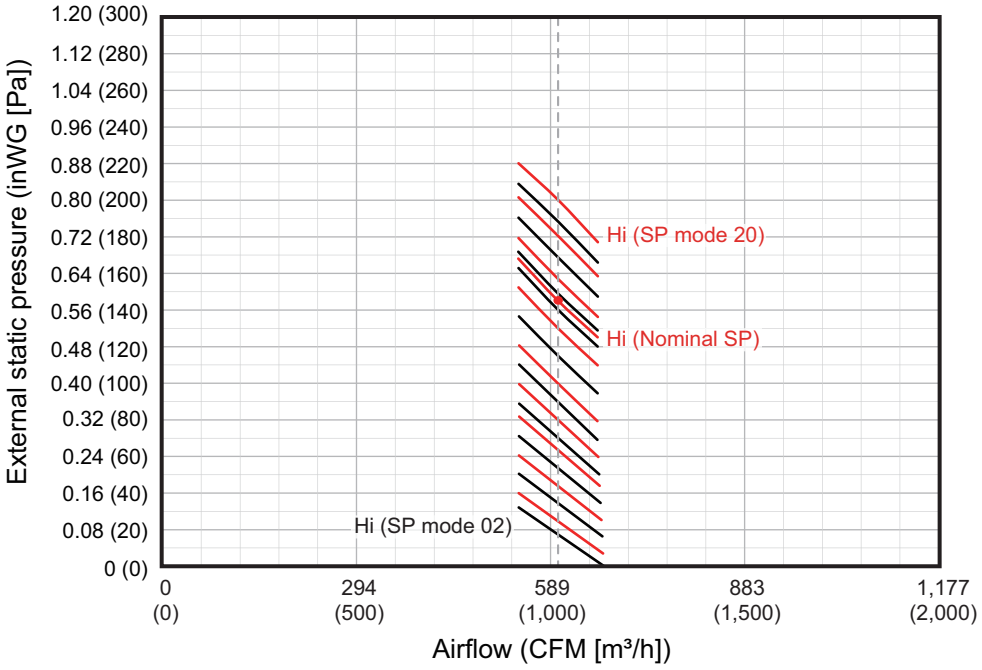
DUCT
AMUH12-48KUAS

Downflow

Fan performance curve 1

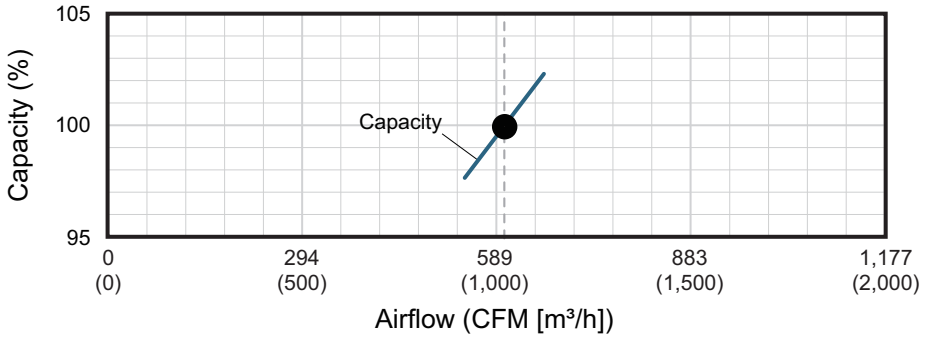


Fan performance curve 2
(For function setting by remote controller)

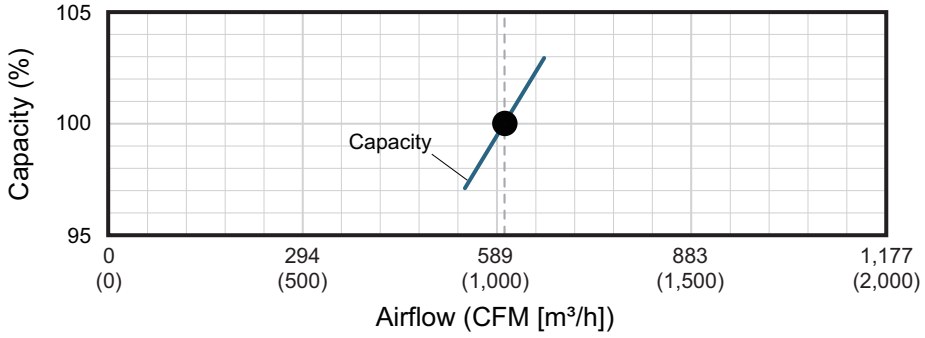


DUCT
AMUH12-48KUAS

Cooling



Heating

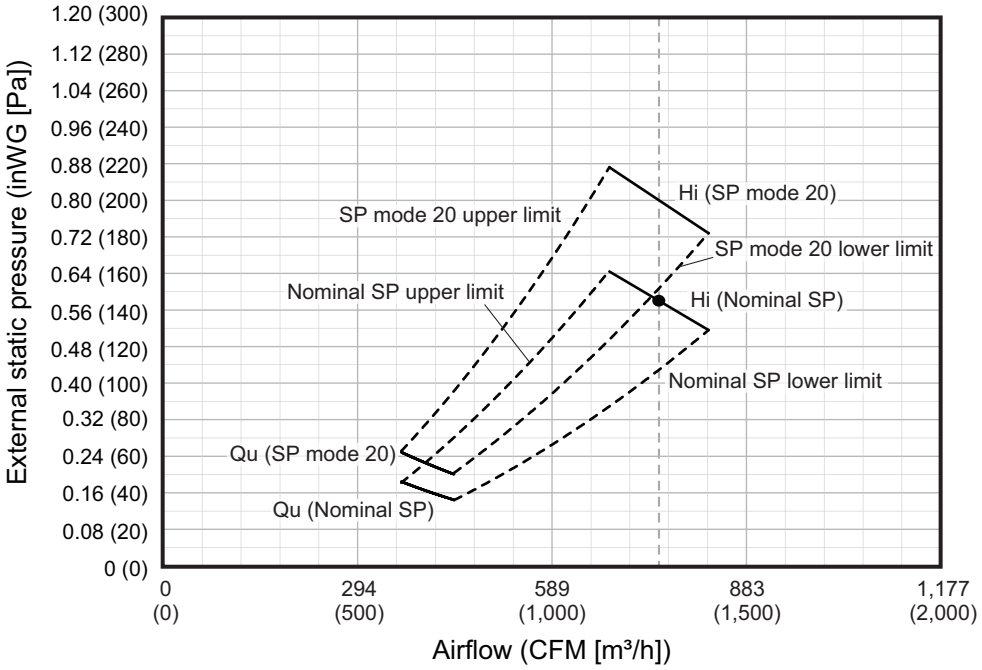


DUCT
AMUH12-48KUAS

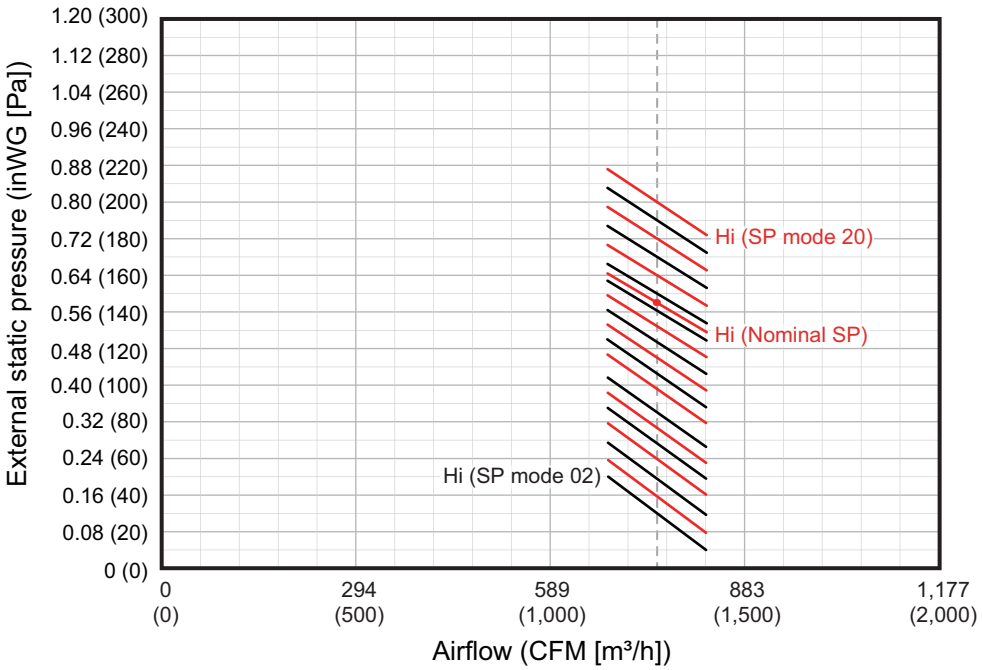
■ Model: AMUH24KUAS

Upflow

Fan performance curve 1



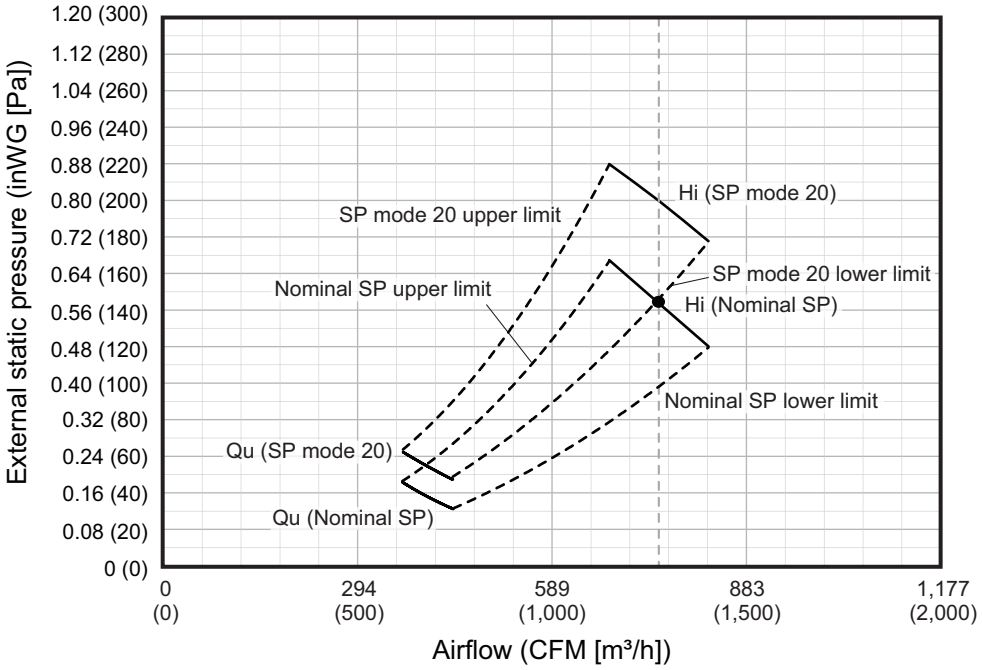
Fan performance curve 2
(For function setting by remote controller)



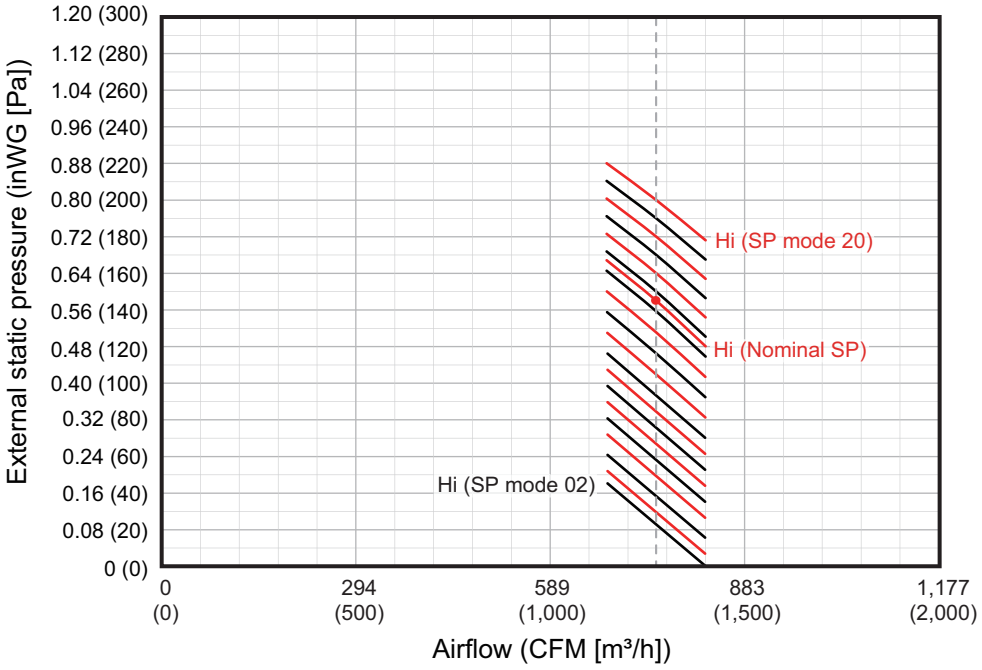
DUCT
AMUH12-48KUAS

Downflow

Fan performance curve 1

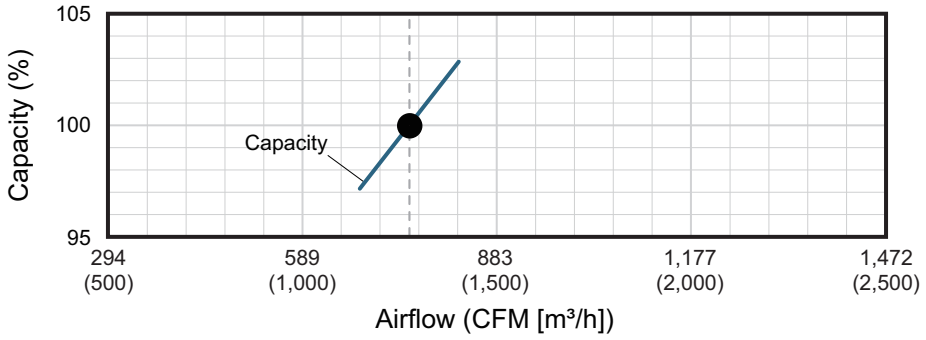


Fan performance curve 2
(For function setting by remote controller)

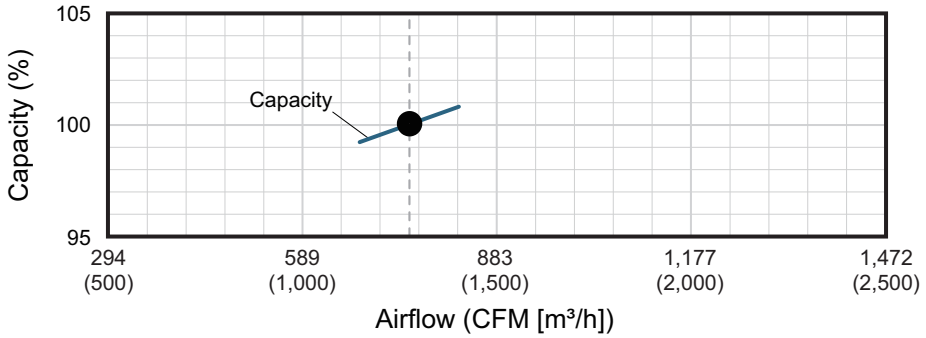


DUCT
AMUH12-48KUAS

Cooling



Heating

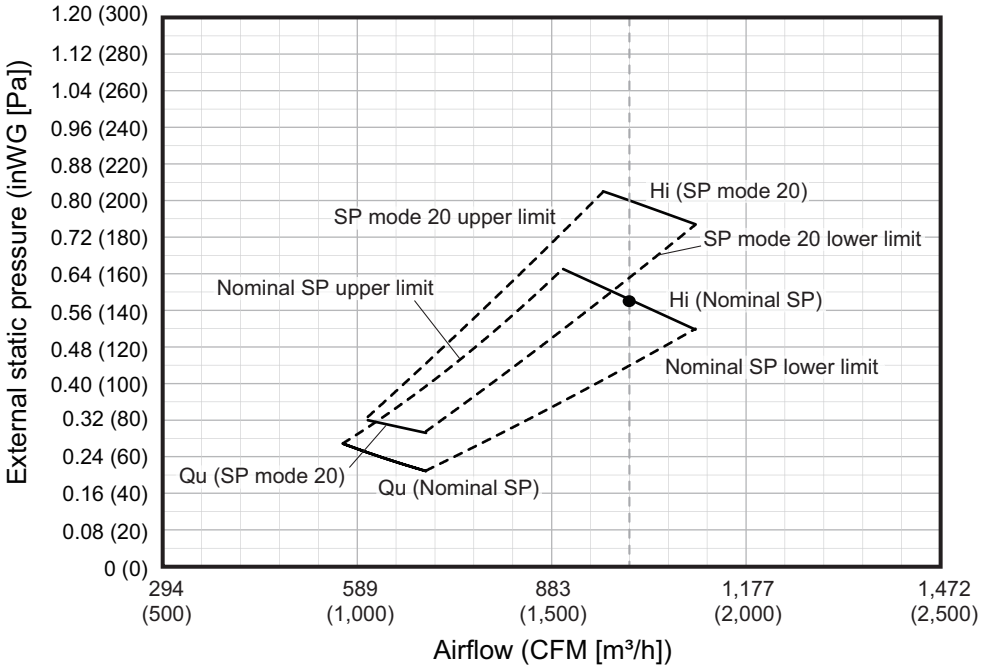


DUCT
AMUH12-48KUAS

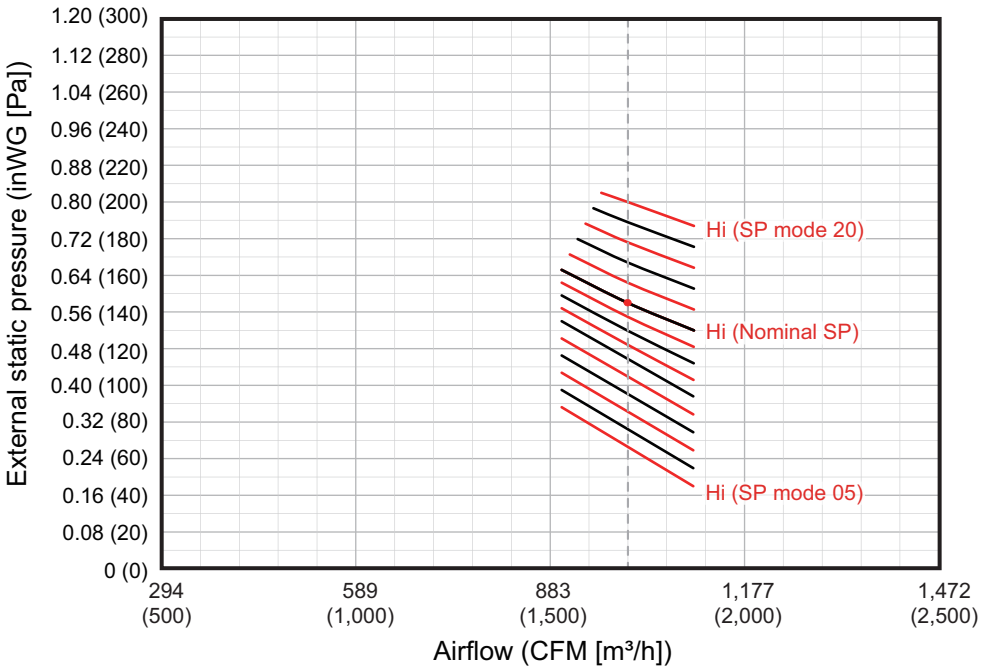
■ Model: AMUH30KUAS

Upflow

Fan performance curve 1



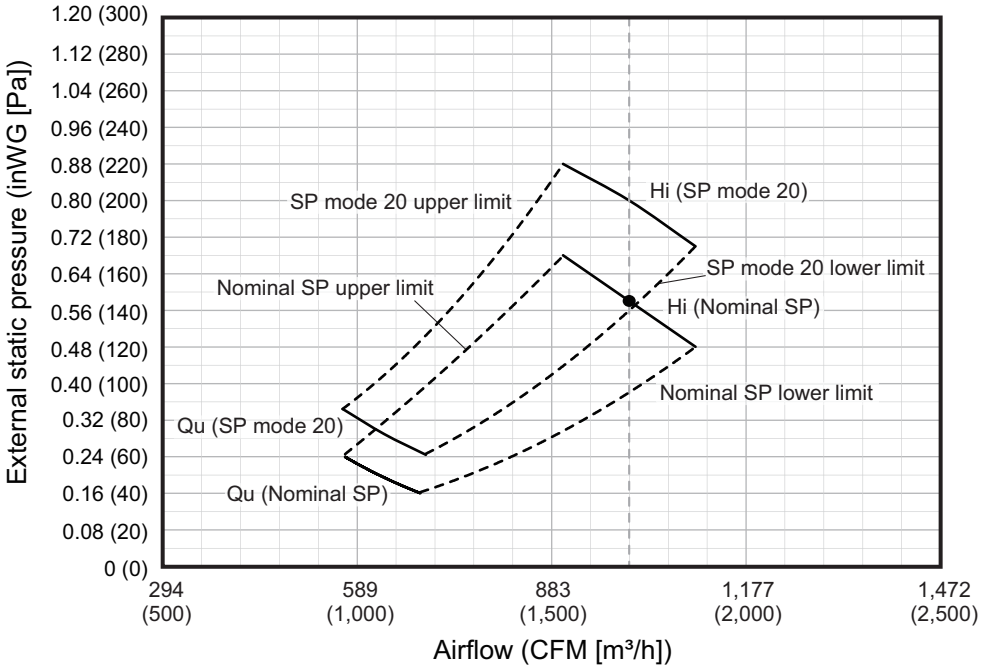
Fan performance curve 2
(For function setting by remote controller)



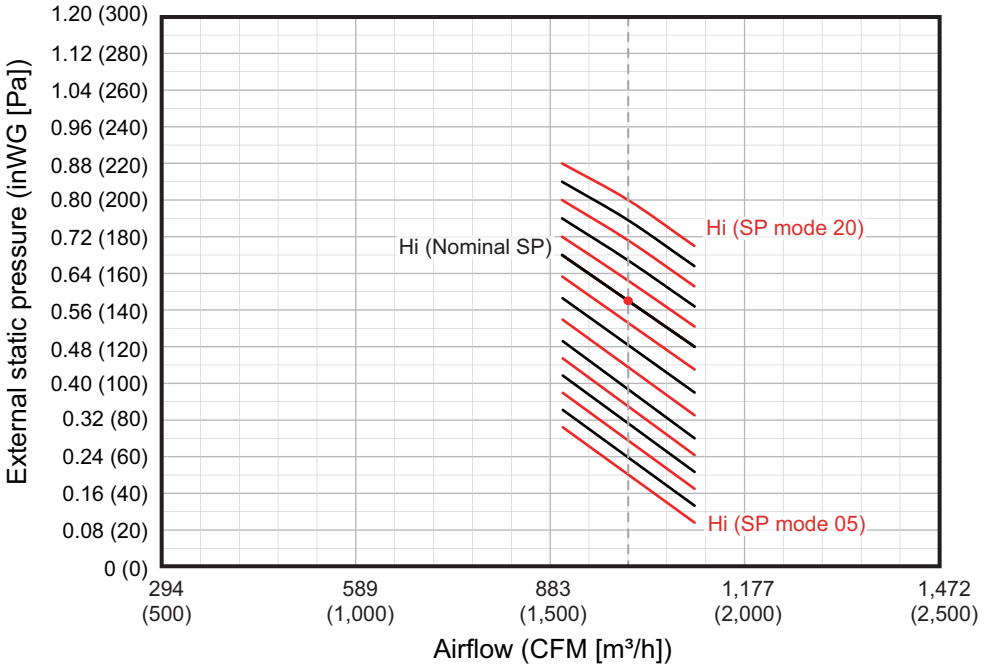
DUCT
AMUH12-48KUAS

Downflow

Fan performance curve 1

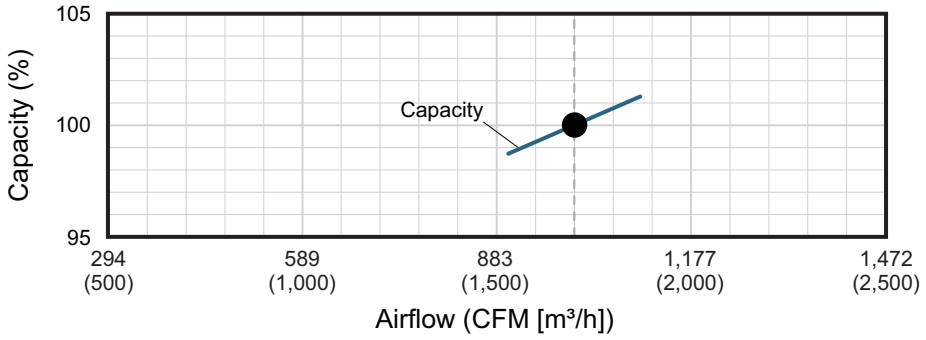


Fan performance curve 2
(For function setting by remote controller)

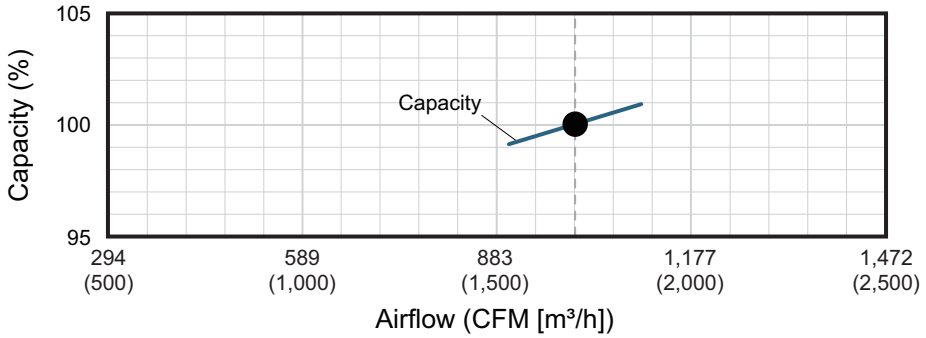


DUCT
AMUH12-48KUAS

Cooling



Heating

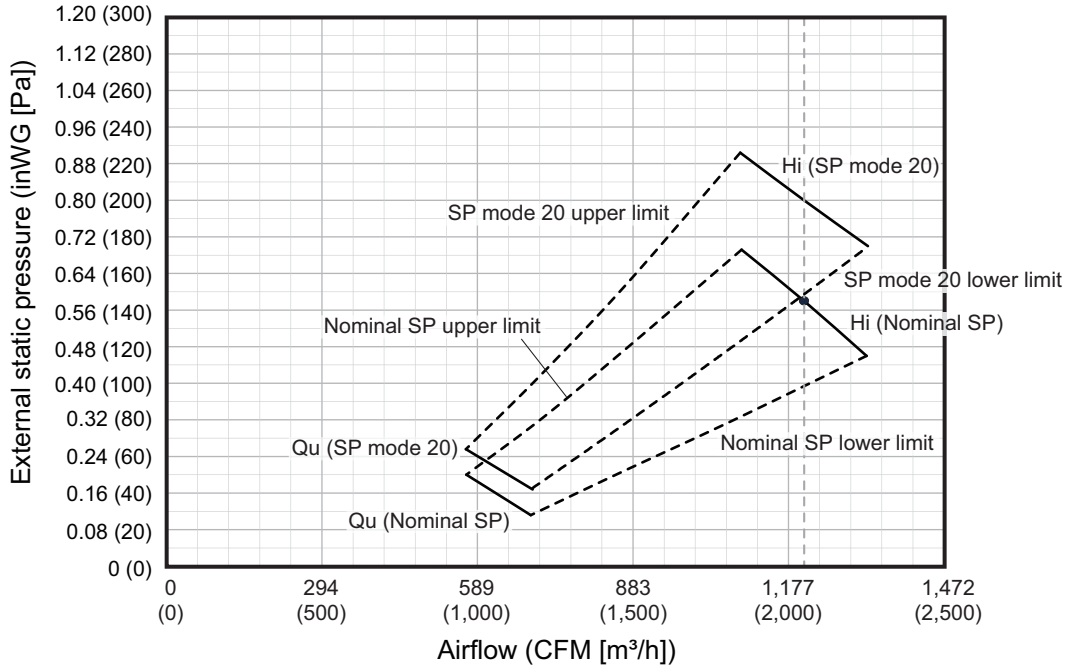


DUCT
AMUH12-48KUAS

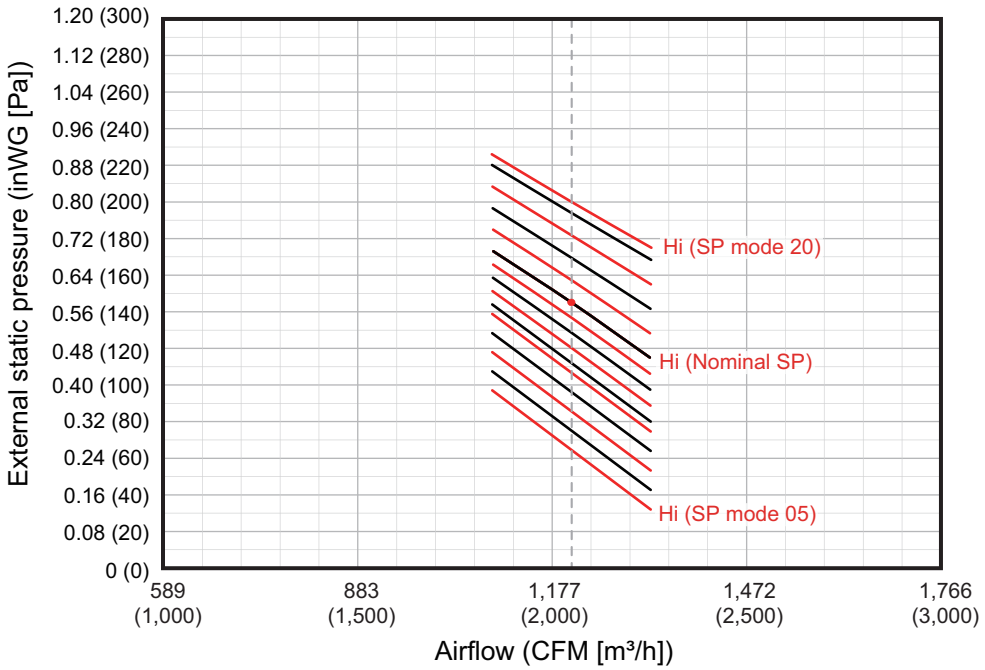
■ Model: AMUH36KUAS

Upflow

Fan performance curve 1



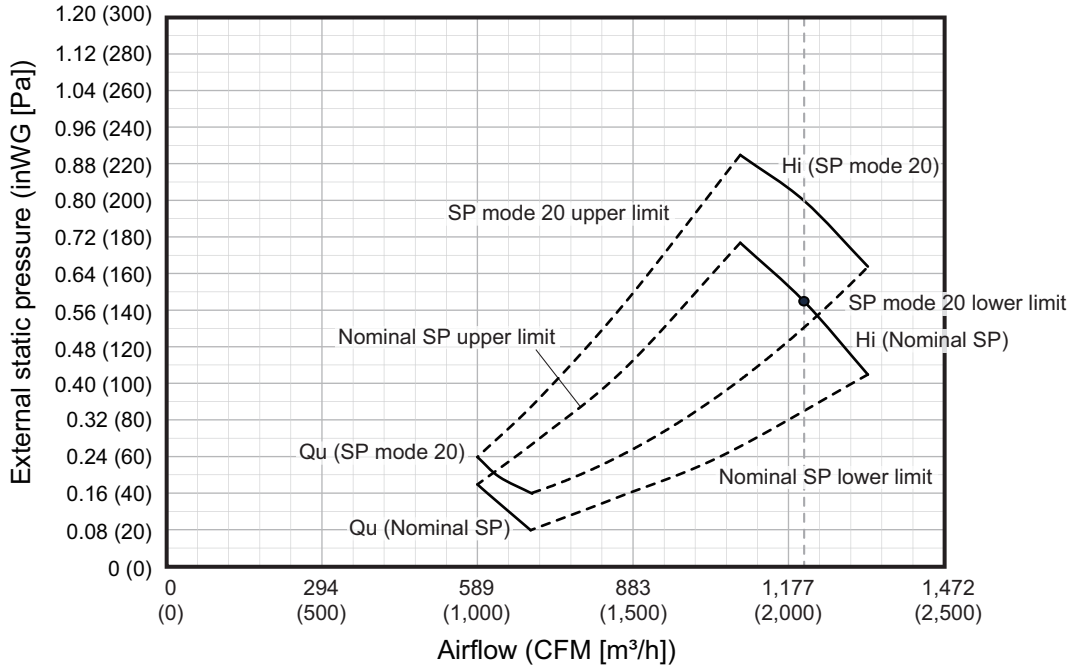
Fan performance curve 2
(For function setting by remote controller)



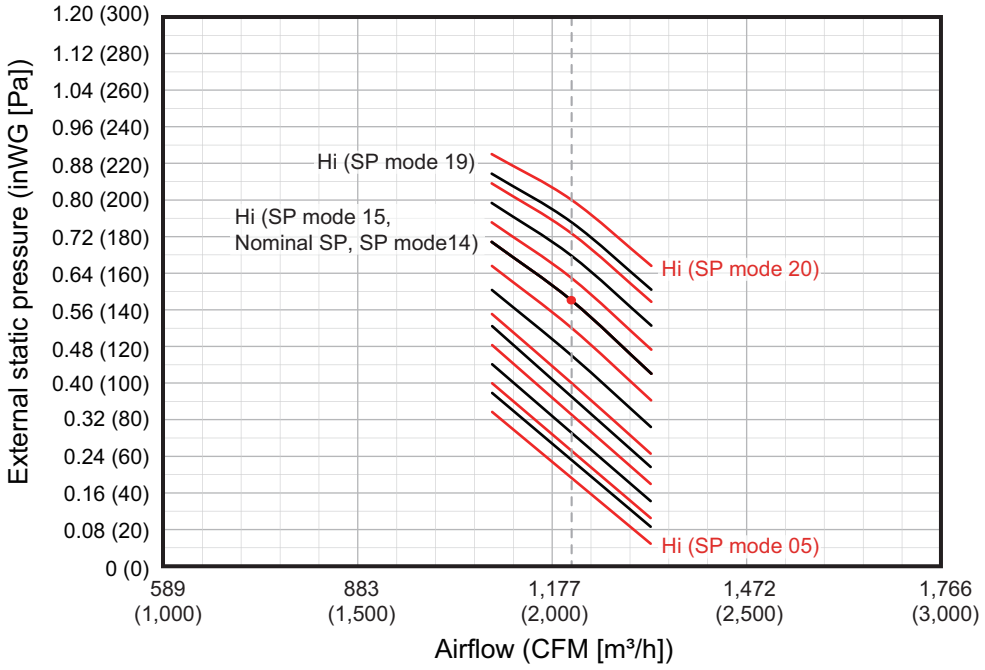
DUCT
AMUH12-48KUAS

Downflow

Fan performance curve 1

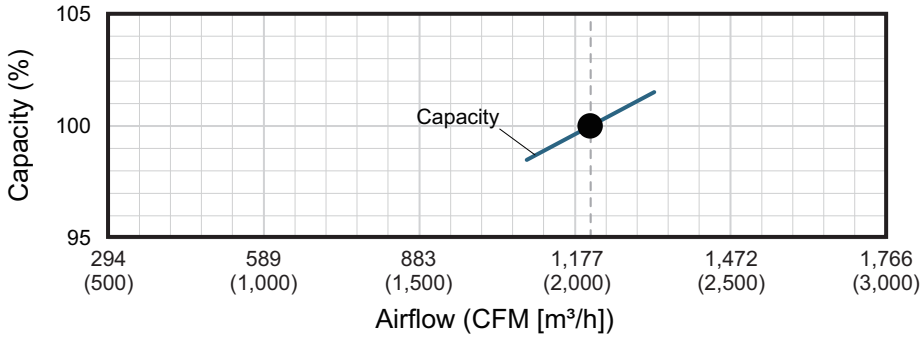


Fan performance curve 2
(For function setting by remote controller)

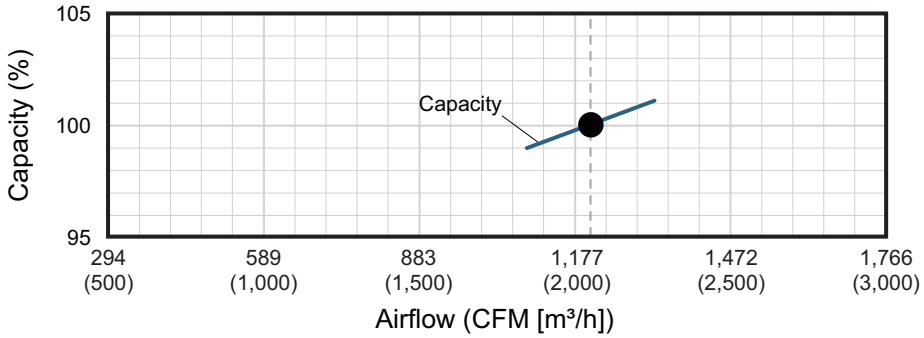


DUCT
AMUH12-48KUAS

Cooling



Heating

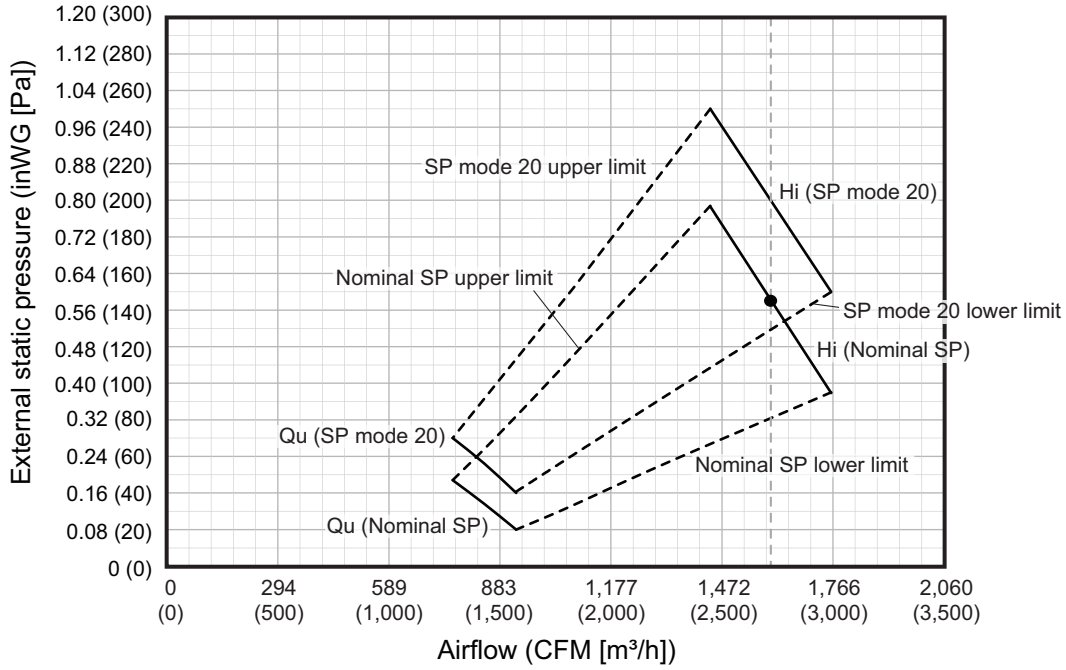


DUCT
AMUH12-48KUAS

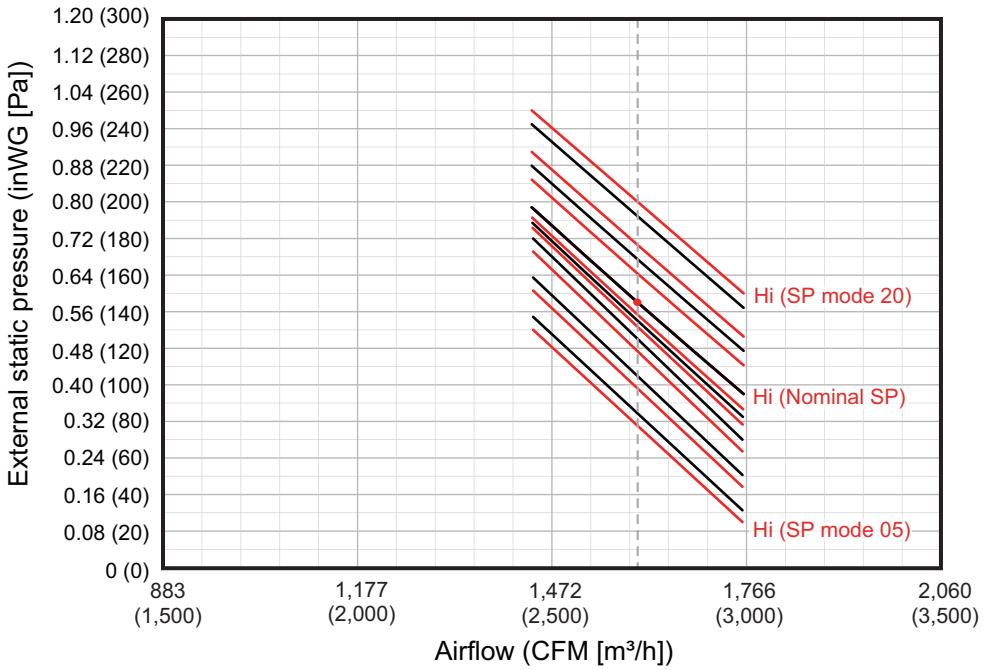
■ Model: AMUH48KUAS

Upflow

Fan performance curve 1



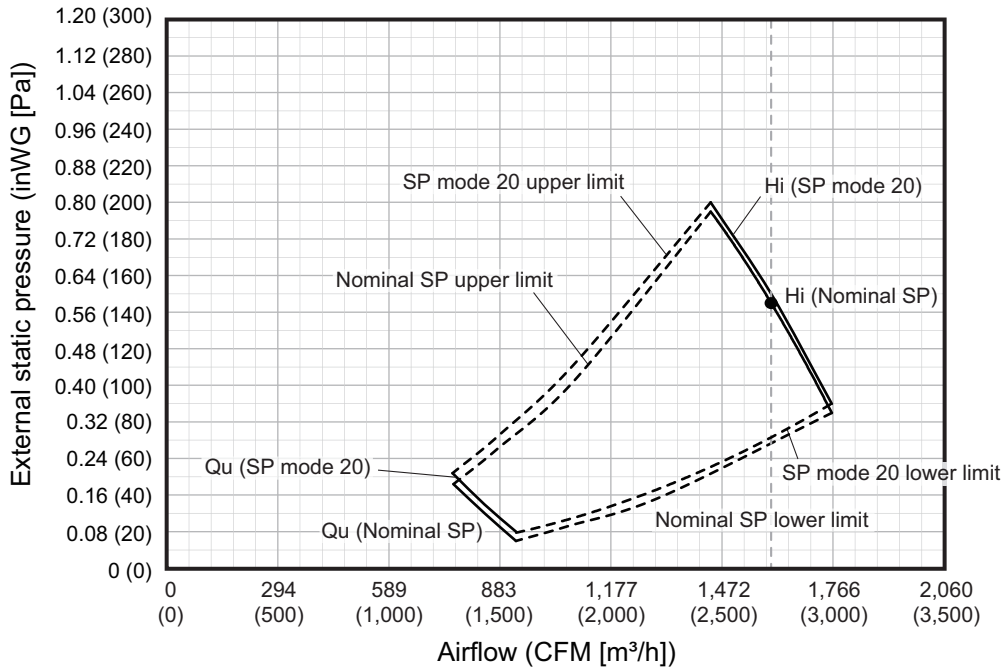
Fan performance curve 2
(For function setting by remote controller)



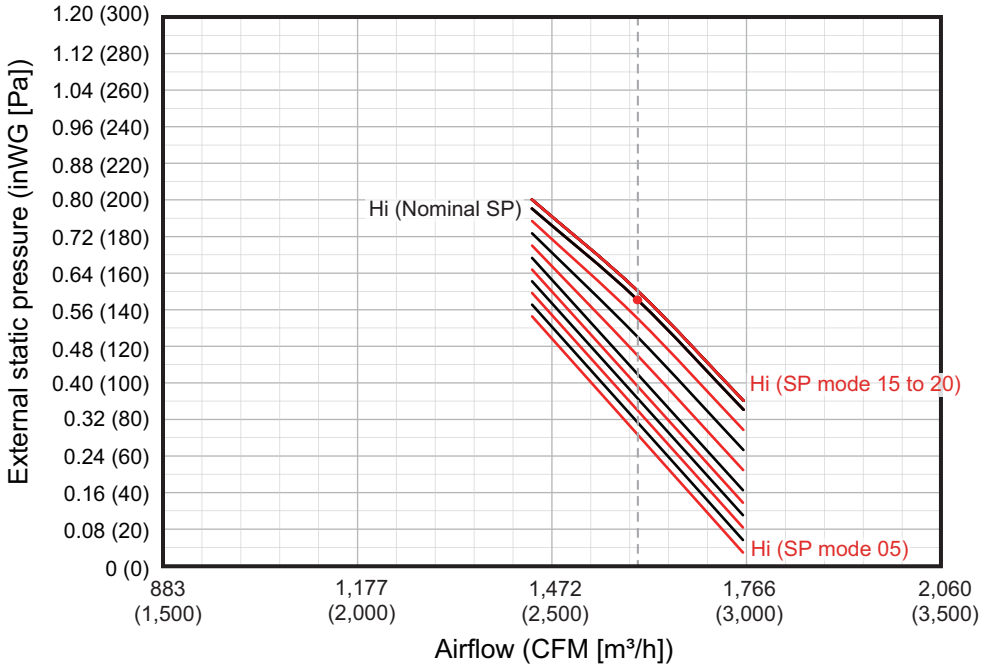
DUCT
AMUH12-48KUAS

Downflow

Fan performance curve 1

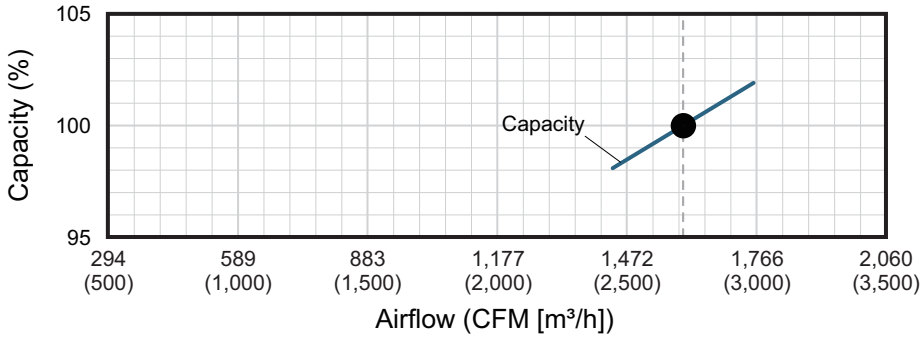


Fan performance curve 2
(For function setting by remote controller)

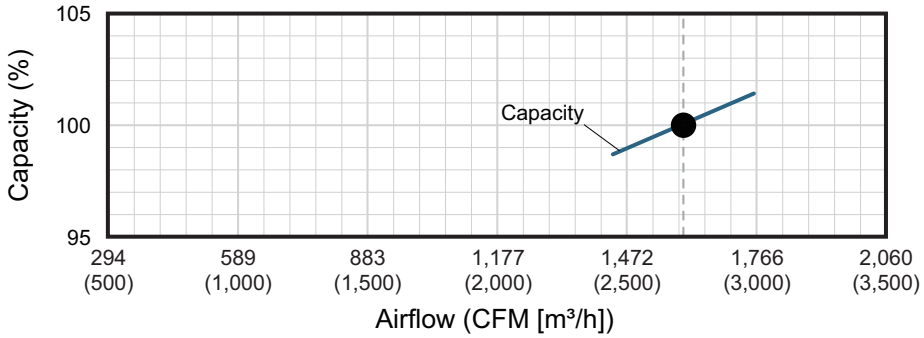


DUCT
AMUH12-48KUAS

Cooling



Heating



DUCT
AMUH12-48KUAS

5-2. Airflow

■ Model: AMUH12KUAS

● Cooling

Fan speed	Airflow	
HIGH	m^3/h	850
	l/s	236
	CFM	500
MED	m^3/h	680
	l/s	189
	CFM	400
LOW	m^3/h	595
	l/s	165
	CFM	350
QUIET	m^3/h	510
	l/s	142
	CFM	300

● Heating

Fan speed	Airflow	
HIGH	m^3/h	850
	l/s	236
	CFM	500
MED	m^3/h	680
	l/s	189
	CFM	400
LOW	m^3/h	595
	l/s	165
	CFM	350
QUIET	m^3/h	510
	l/s	142
	CFM	300

DUCT
AMUH12-48KUAS

■ Model: AMUH18KUAS

● Cooling

Fan speed	Airflow	
HIGH	m^3/h	1,019
	l/s	283
	CFM	600
MED	m^3/h	840
	l/s	233
	CFM	494
LOW	m^3/h	730
	l/s	203
	CFM	430
QUIET	m^3/h	630
	l/s	175
	CFM	371

● Heating

Fan speed	Airflow	
HIGH	m^3/h	1,019
	l/s	283
	CFM	600
MED	m^3/h	840
	l/s	233
	CFM	494
LOW	m^3/h	730
	l/s	203
	CFM	430
QUIET	m^3/h	630
	l/s	175
	CFM	371

DUCT
AMUH12-48KUAS

■ Model: AMUH24KUAS

● Cooling

Fan speed	Airflow	
HIGH	m^3/h	1,275
	l/s	354
	CFM	750
MED	m^3/h	1,080
	l/s	300
	CFM	636
LOW	m^3/h	880
	l/s	244
	CFM	518
QUIET	m^3/h	680
	l/s	189
	CFM	400

● Heating

Fan speed	Airflow	
HIGH	m^3/h	1,275
	l/s	354
	CFM	750
MED	m^3/h	1,080
	l/s	300
	CFM	636
LOW	m^3/h	880
	l/s	244
	CFM	518
QUIET	m^3/h	680
	l/s	189
	CFM	400

DUCT
AMUH12-48KUAS

■ Model: AMUH30KUAS

● Cooling

Fan speed	Airflow	
HIGH	m^3/h	1,699
	l/s	472
	CFM	1,000
MED	m^3/h	1,360
	l/s	378
	CFM	800
LOW	m^3/h	1,190
	l/s	331
	CFM	700
QUIET	m^3/h	1,070
	l/s	297
	CFM	630

● Heating

Fan speed	Airflow	
HIGH	m^3/h	1,699
	l/s	472
	CFM	1,000
MED	m^3/h	1,360
	l/s	378
	CFM	800
LOW	m^3/h	1,190
	l/s	331
	CFM	700
QUIET	m^3/h	1,070
	l/s	297
	CFM	630

DUCT
AMUH12-48KUAS

■ Model: AMUH36KUAS

● Cooling

Fan speed	Airflow	
HIGH	m^3/h	2,050
	l/s	569
	CFM	1,207
MED	m^3/h	1,640
	l/s	456
	CFM	965
LOW	m^3/h	1,330
	l/s	369
	CFM	783
QUIET	m^3/h	1,070
	l/s	297
	CFM	630

● Heating

Fan speed	Airflow	
HIGH	m^3/h	2,050
	l/s	569
	CFM	1,207
MED	m^3/h	1,640
	l/s	456
	CFM	965
LOW	m^3/h	1,330
	l/s	369
	CFM	783
QUIET	m^3/h	1,070
	l/s	297
	CFM	630

DUCT
AMUH12-48KUAS

■ Model: AMUH48KUAS

● Cooling

Fan speed	Airflow	
HIGH	m^3/h	2,718
	l/s	755
	CFM	1,600
MED	m^3/h	2,040
	l/s	567
	CFM	1,201
LOW	m^3/h	1,650
	l/s	458
	CFM	971
QUIET	m^3/h	1,430
	l/s	397
	CFM	842

● Heating

Fan speed	Airflow	
HIGH	m^3/h	2,718
	l/s	755
	CFM	1,600
MED	m^3/h	2,040
	l/s	567
	CFM	1,201
LOW	m^3/h	1,650
	l/s	458
	CFM	971
QUIET	m^3/h	1,430
	l/s	397
	CFM	842

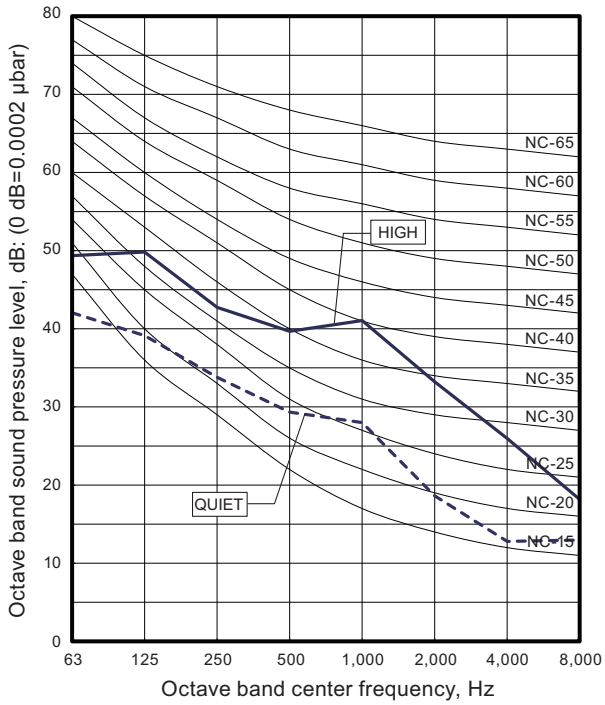
DUCT
AMUH12-48KUAS

6. Operation noise (sound pressure)

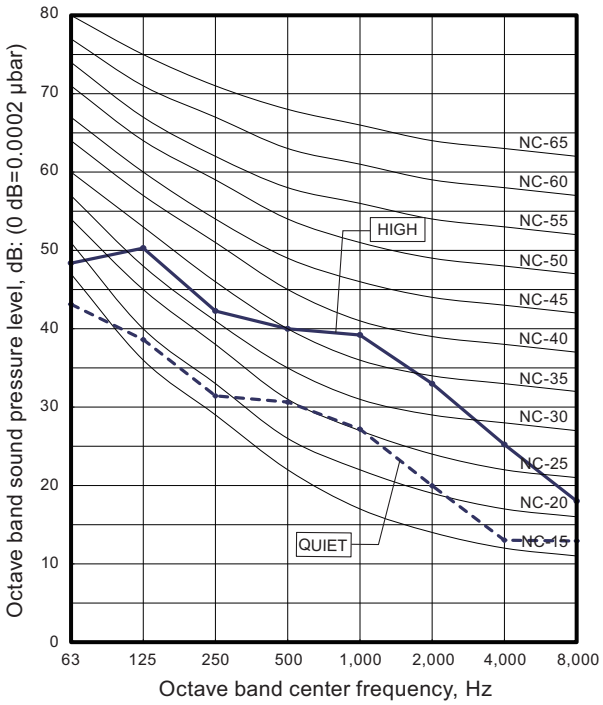
6-1. Noise level curve

■ Model: AMUH12KUAS

● Cooling

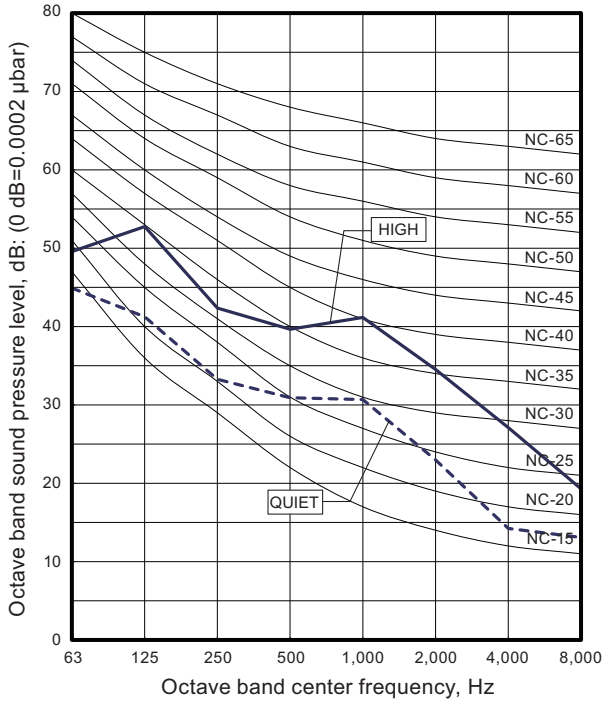


● Heating

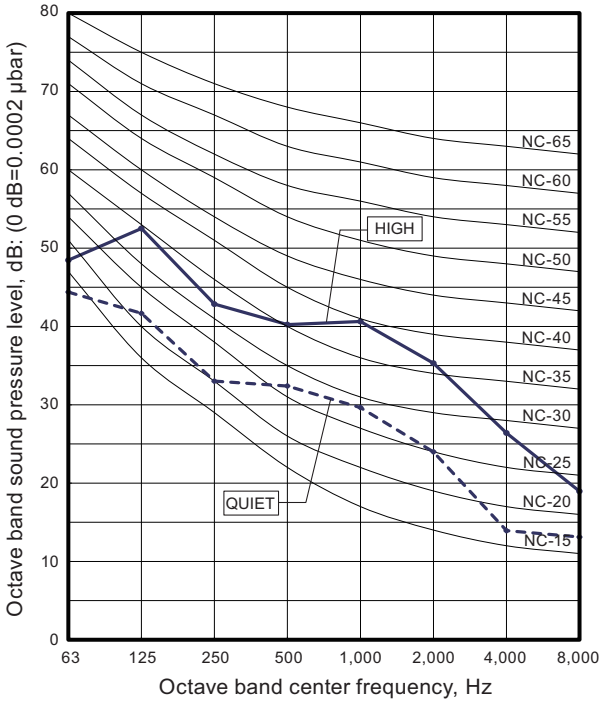


■ Model: AMUH18KUAS

● Cooling



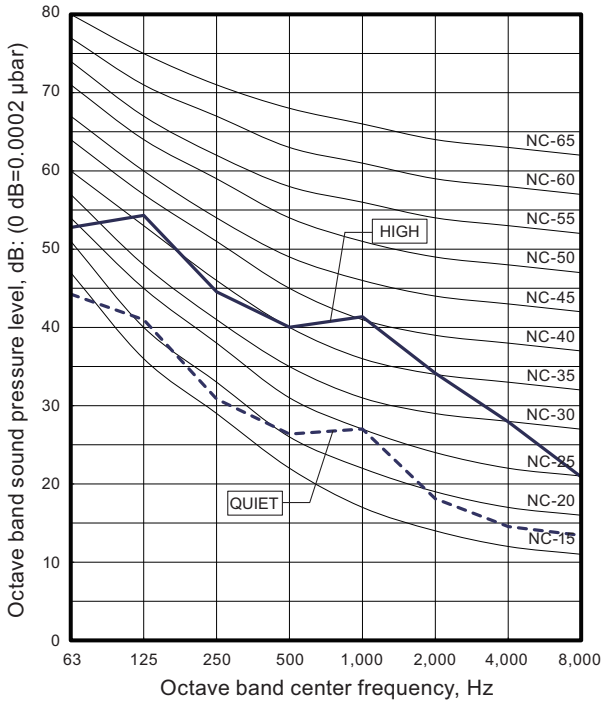
● Heating



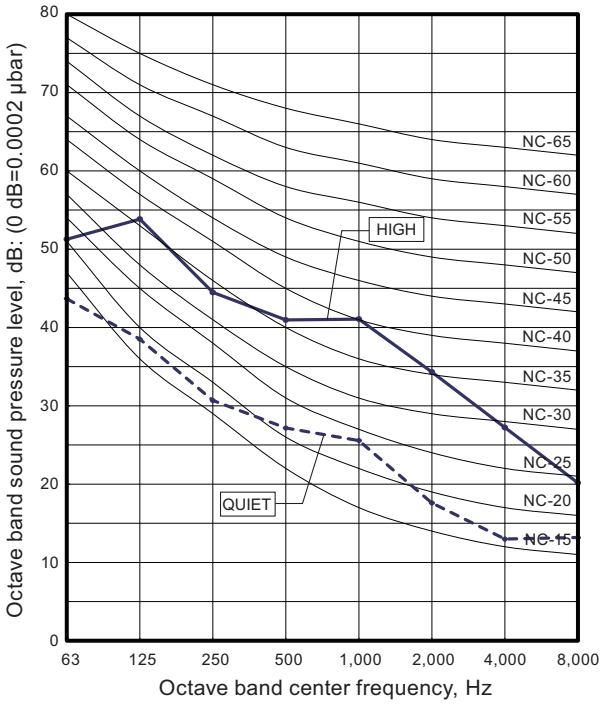
DUCT
AMUH12-48KUAS

■ Model: AMUH24KUAS

● Cooling

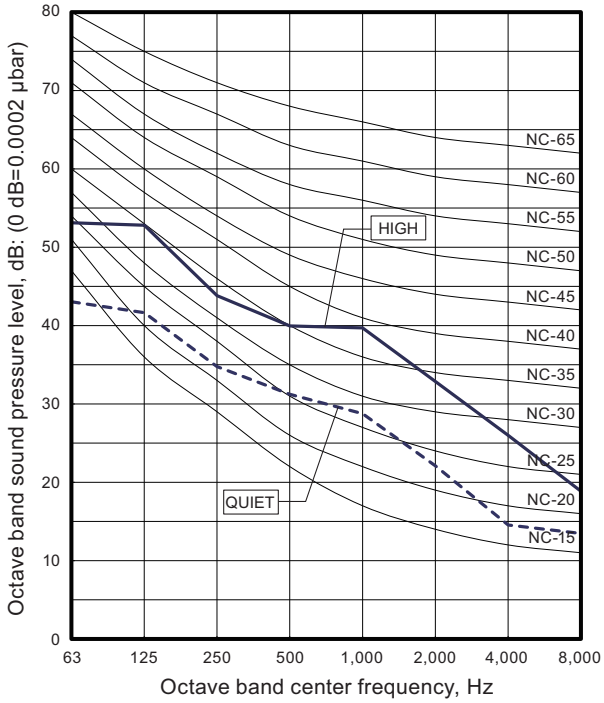


● Heating

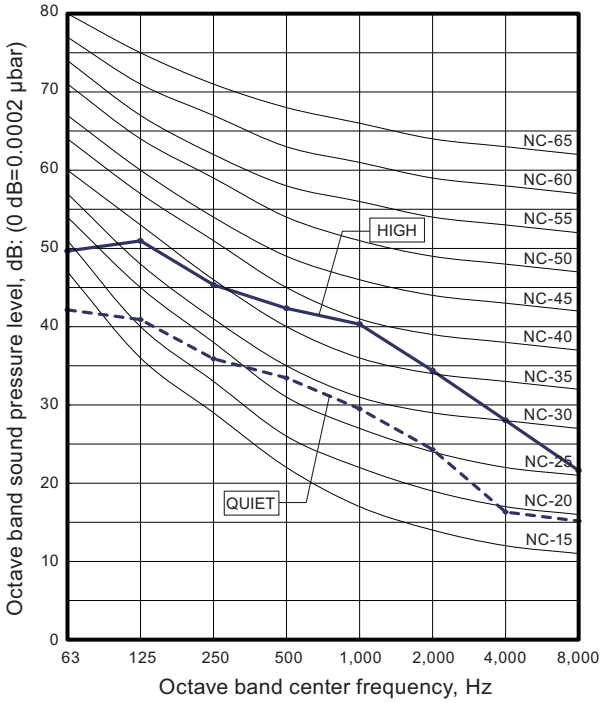


■ Model: AMUH30KUAS

● Cooling



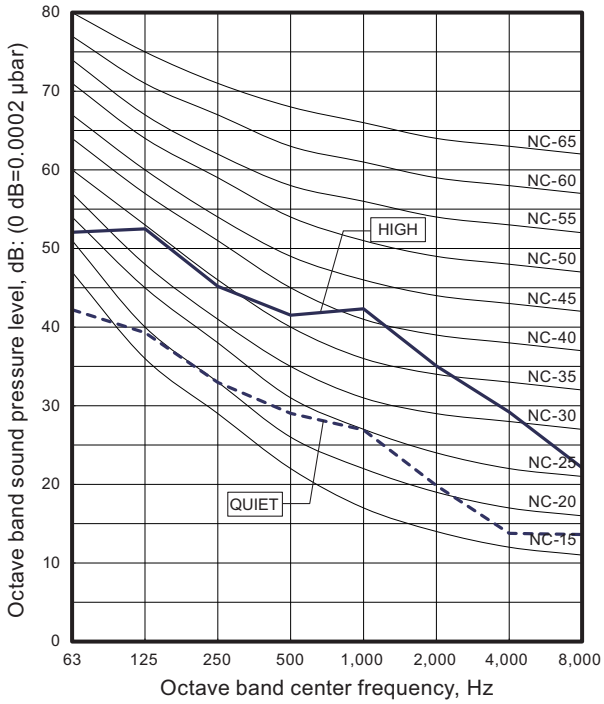
● Heating



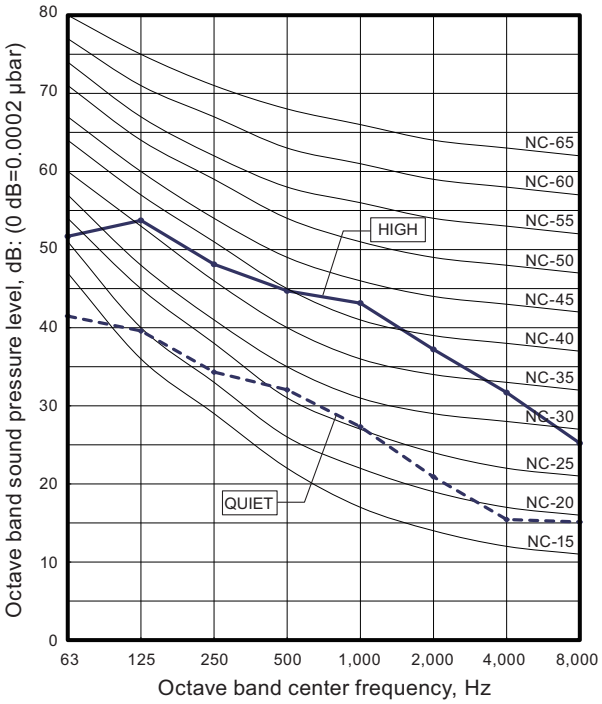
DUCT
AMUH12-48KUAS

■ Model: AMUH36KUAS

● Cooling

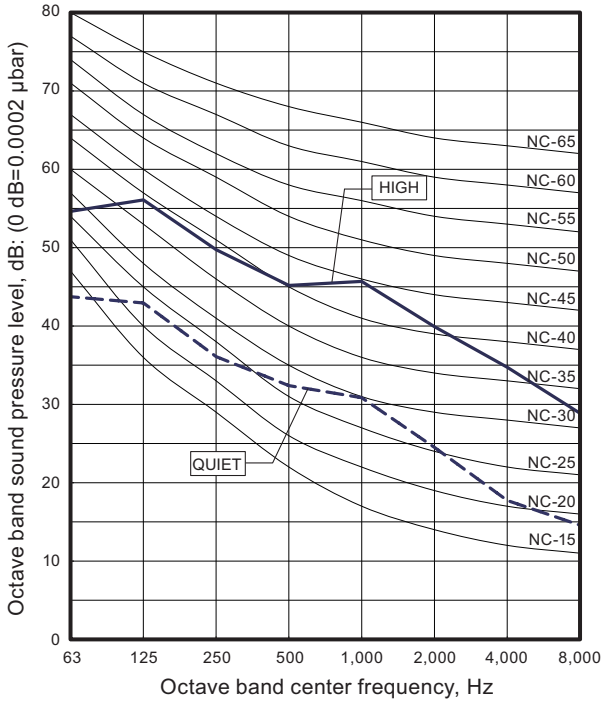


● Heating

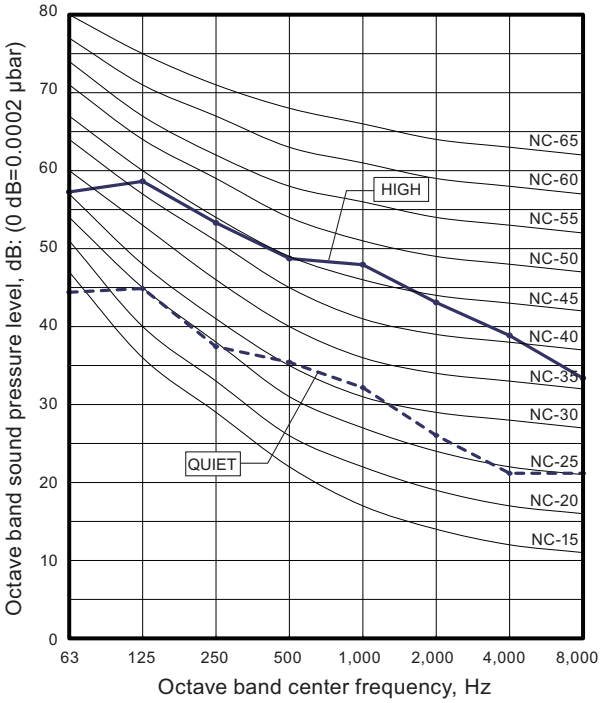


■ Model: AMUH48KUAS

● Cooling



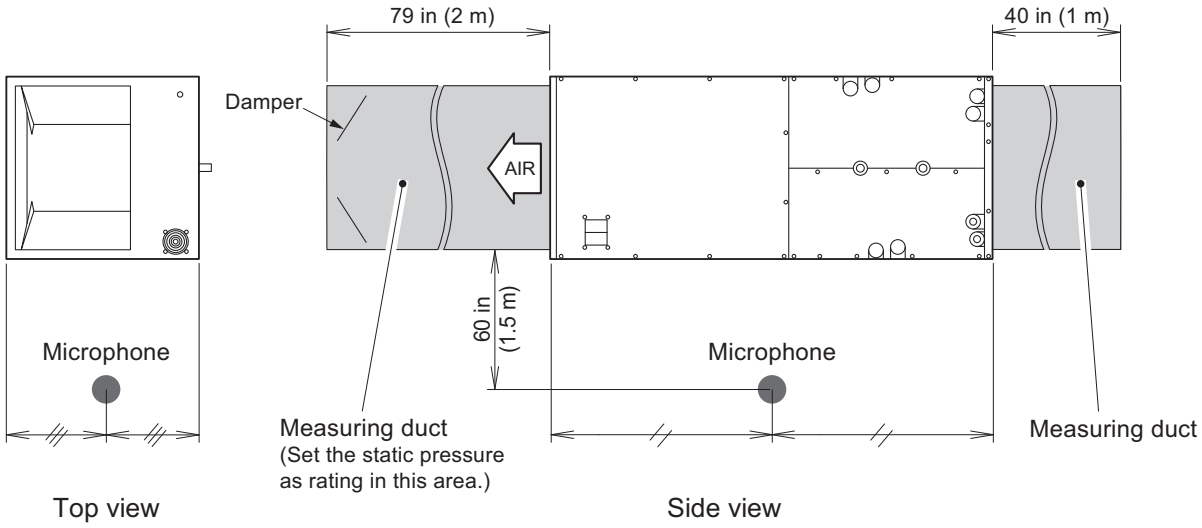
● Heating



DUCT
AMUH12-48KUAS

6-2. Sound level check point

The measurement points are illustrated in the installation orientation pattern B.



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

DUCT
AMUH12-48KUAS

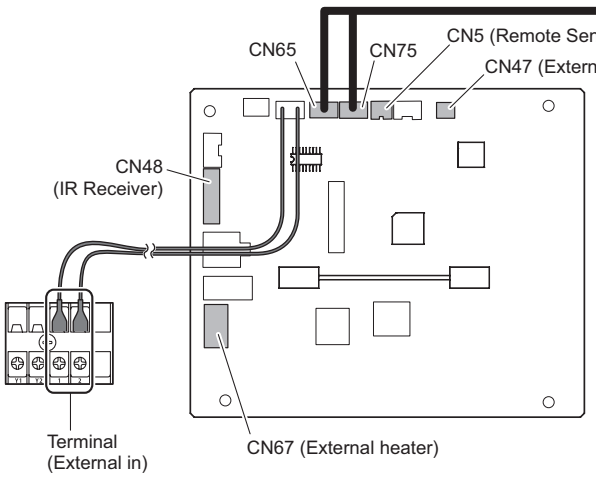
7. Safety devices

Type of protection	Protection form	Model
		AMUH12-48KUAS
Circuit protection	Current fuse (PCB*)	250 V, 3.15 A

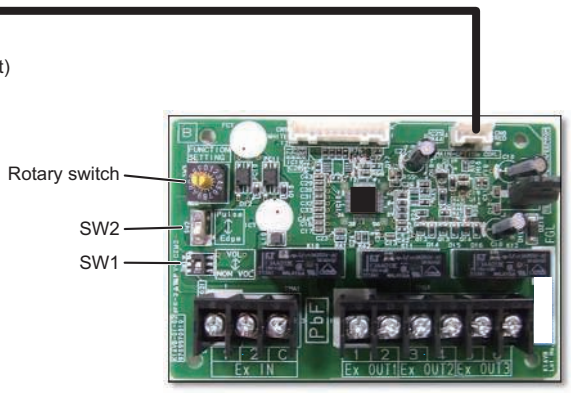
*PCB: Printed Circuit Board

DUCT
AMUH12-48KUAS

8. External input and output



Indoor unit PCB



External Input and Output PCB

Connecting point		Input/Output	Function	Input select	Input signal
Indoor unit	Terminal	Input	Operation/Stop	Dry contact	Edge
			Forced stop		
	CN47	Output	Operation/Stop	—	—
			Error status		
			Indoor unit fan operation status		
			Cooling thermostat On		
			Heating thermostat On		
	CN47/CN67		External heater output		
External Input and Output PCB (UTY-XCSX)	Ex IN 1/2	Input	Operation/Stop	Dry contact/Apply voltage	Edge/Pulse
	Ex IN 1		Forced thermostat off		Edge
	Ex OUT 1 Ex OUT 2 Ex OUT 3	Output	Operation/Stop	—	—
			Error status		
			Indoor unit fan operation status		
			External heater output		
			Cooling high/low output		
			Heating thermostat On		

NOTE: For details of the switching function, refer to "Setting of external input and output" on page 55.

DUCT
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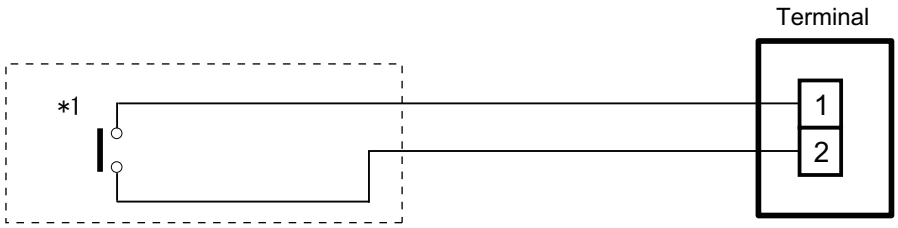
8-1. External input

- “Operation/Stop” mode or “Forced stop” mode can be selected with function setting of indoor unit.
- A twisted pair cable (22 AWG) should be used. Maximum length of cable is 492 ft (150 m).
- Use an external input and output cable with appropriate external dimension, depending on the number of cables to be installed.
- The wire connection should be separate from the power cable line.

■ Indoor unit

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

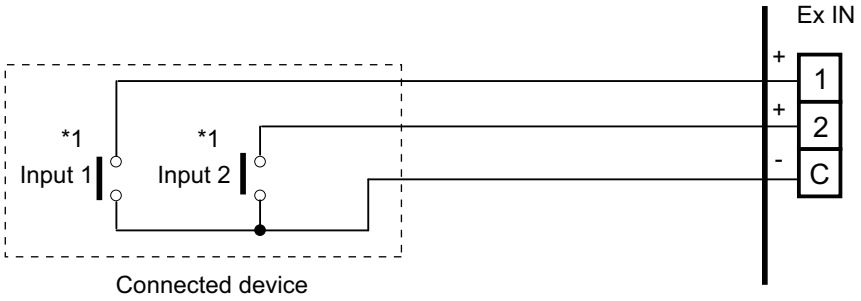


*1: The switch can be used on the following condition: DC 12 V to 24 V, 1 mA to 15 mA.

■ External Input and Output PCB

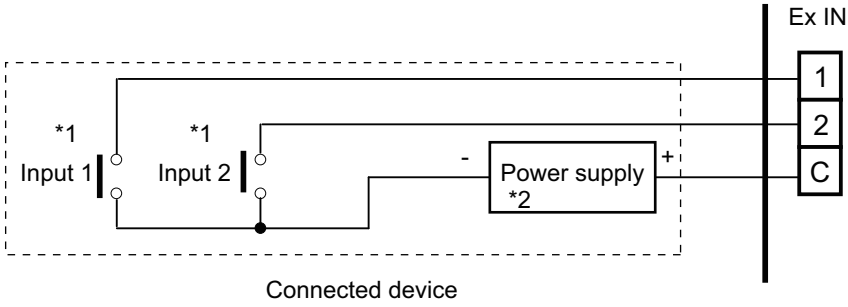
The indoor unit Operation/Stop can be set by using the input terminal on the PCB.

- **Input select**
  Use either one of these types of terminal according to the application. (Both types of terminal cannot be used simultaneously.)
  – **Dry contact**
  In case of internal power supply, set the slide switch of SW1 to "NON VOL" side.



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

  – **Apply voltage**
  In case of external power supply, set the slide switch of SW1 to “VOL” side.



*1: The switches can be used on the following condition: DC 12 V to 24 V, 1 mA to 15 mA.
*2: Make the power supply DC 12 V to 24 V, 10 mA or more.

DUCT
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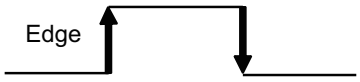
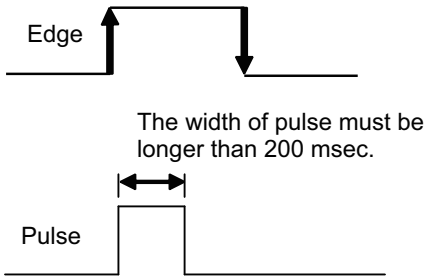
■ Input signal type

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



- **External Input and Output PCB**
  The input signal type can be selected.
  Signal type (edge or pulse) can be switched by the DIP switch 2 (SW2) on the External Input and Output PCB.



NOTE: The input signal supports the following switch type:
- Edge: Alternate type switch
- Pulse: Momentary type switch

DUCT
AMUH12-48KUAS

8-2. External output

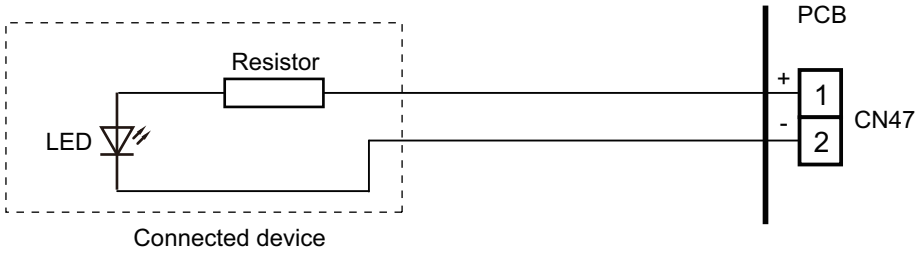
Use an external output cable with appropriate external dimension, depending on the number of cables to be installed.

■ Indoor unit

- A twisted pair cable (22 AWG) should be used. Maximum length of cable is 82 ft (25 m).
- Output voltage: High DC 12 V ±2 V, Low 0 V.
- Permissible current: 50 mA
- For details, refer to "Setting of external input and output" on page 55.

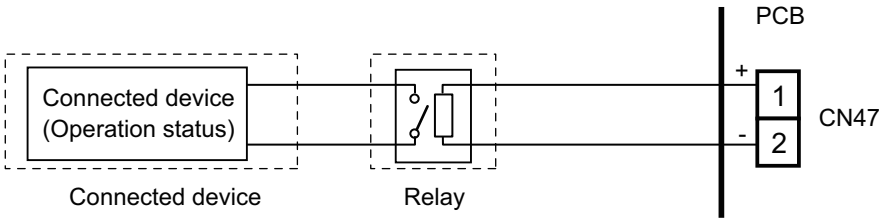
- **When indicator, etc. are connected directly**

Example: Function setting number 60 is set to "00"



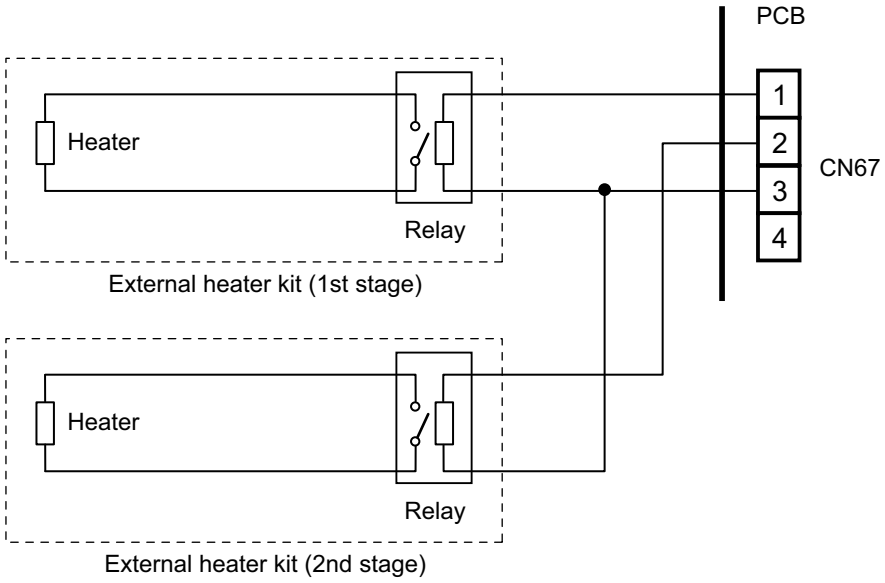
- **When connecting with a device equipped with a power supply**

Example: Function setting number 60 is set to "00"



- **When connecting with an external heater**

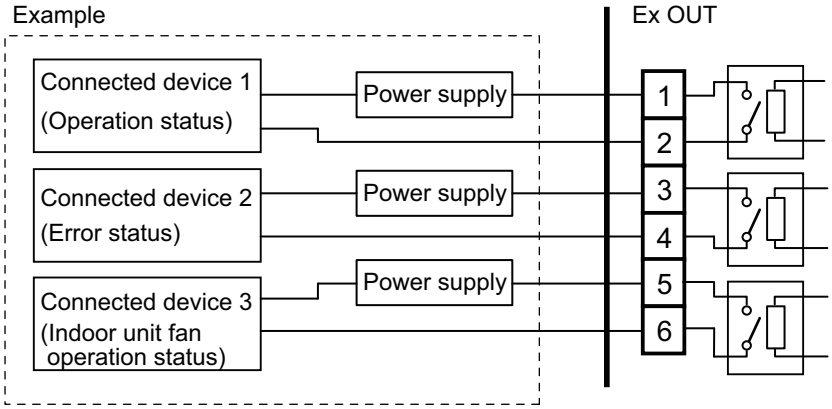
Output voltage:	Heater on: AC 24 V ±25% Heater off: Open
Permissible current:	500 mA



DUCT
AMUH12-48KUAS

■ External Input and Output PCB

- A twisted pair cable (22 AWG) should be used.
- Permissible voltage and current: DC 5 V to 30 V/3 A, AC 30 V to 250 V/3 A
- For details, refer to "Setting of external input and output" on page 55.



DUCT
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8-3. Setting of external input and output

- **Indoor unit**

Input		
Connecting point	**Function setting number 46**	**Function**
Terminal	00	Operation/Stop mode 1
	01	(Setting prohibited)
	02	Forced stop mode
	03	Operation/Stop mode 2

Output		
Connecting point	**Function setting number 60**	**Function**
CN47	00	Operation/Stop
	01—04	Cooling thermostat On
	05	Heating thermostat On
	06	Operation/Stop
	07—08	Cooling thermostat On
	09	Error status
	10	Indoor unit fan operation status
CN47/CN67 or CN47*	11	External heater output

*: CN47/CN67 for Multi position air handling unit type, and CN47 for the other type of units.

DUCT AMUH12-48KUAS

- **External Input and Output PCB**

Switch setting		Ex IN		Ex OUT		
Rotary switch	**SW2**	**1**	**2**	**1**	**2**	**3**
1	Edge	Operation/Stop	Not available	Operation/Stop	Error status	Indoor unit fan operation status
	Pulse	Operation	Stop			
2	Edge*1	Forced thermostat off	Not available	Error status	Indoor unit fan operation status	External heater output
3		Mechanical cooling off	Not available	Error status	Indoor unit fan operation status	External heater output
4		Forced thermostat off	Not available	Error status	Operation/Stop	External heater output
5		Mechanical cooling on*2	Not available	Cooling high/low output	Operation/Stop	External heater output
6		Mechanical cooling on*2	Not available	Error status	Operation/Stop	Cooling high/low output
7		Forced thermostat off	Not available	Error status	Indoor unit fan operation status	External heater output
8		Forced thermostat off	Not available	Error status	Indoor unit fan operation status	Heating thermostat on
9		Mechanical cooling off	Not available	Error status	Heating thermostat on	External heater output
A		Forced thermostat off	Not available	Heating thermostat on	Operation/Stop	External heater output
B		Forced thermostat off	Not available	Operation/Stop	Indoor unit fan operation status	External heater output
C		Forced thermostat off	Not available	Operation/Stop	Error status	External heater output
D		Forced thermostat off	Not available	Operation/Stop	Indoor unit fan operation status	Error status

NOTES:

- When the rotary switch is selected to “1", the operation of the terminal input of the indoor unit and the External Input and Output PCB input are the same. The operation content depends on the setting of function setting number 46.
- *1: The external input other than “Operation/Stop” is available only when the SW2 is set to “Edge”.
- *2: The external input of “Mechanical cooling on” is available only when the function setting number 60 is set to “03” or “04”.

DUCT
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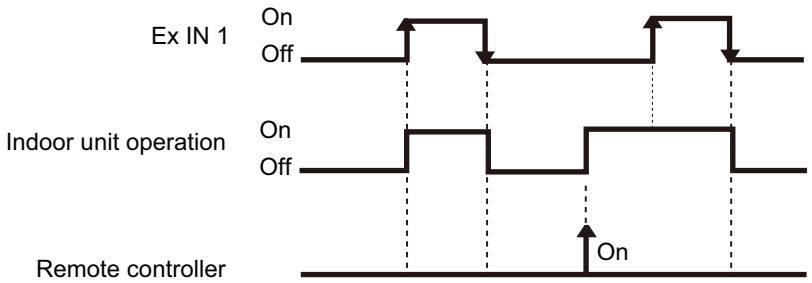
8-4. Details of control input function

■ Operation/Stop mode 1

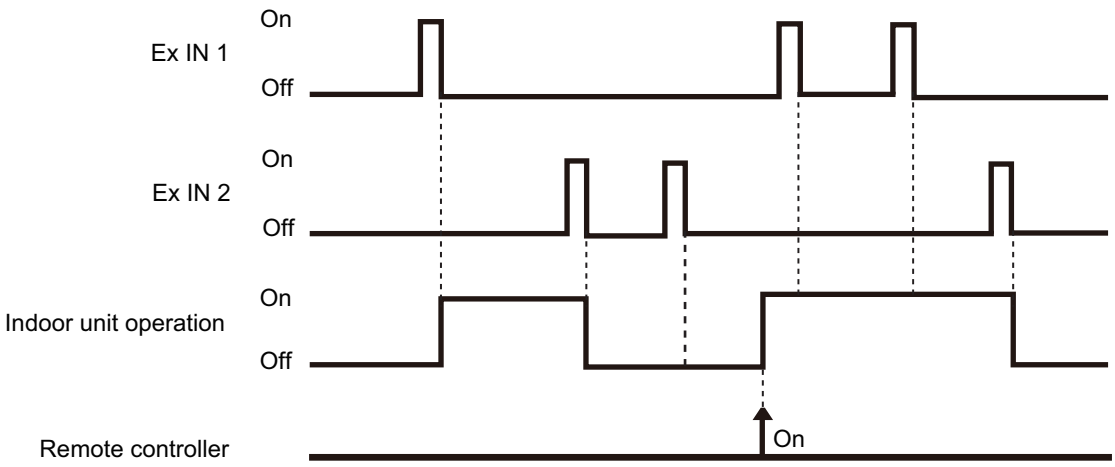
- **In the case of "Edge" input**

Function setting	External Input and Output PCB		External input		Input signal	Command
	Rotary switch	SW2				
46-00	—		Input of indoor unit	Terminal	Off → On	Operation
					On → Off	Stop
	1	Edge	External Input and Output PCB	Ex IN 1	Off → On	Operation
					On → Off	Stop



- **In the case of "Pulse" input**

Function setting	External Input and Output PCB		External input		Input signal	Command
	Rotary switch	SW2				
46-00	1	Pulse	External Input and Output PCB	Ex IN 1	Pulse	Operation
				Ex IN 2		Stop



NOTES:

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

DUCT
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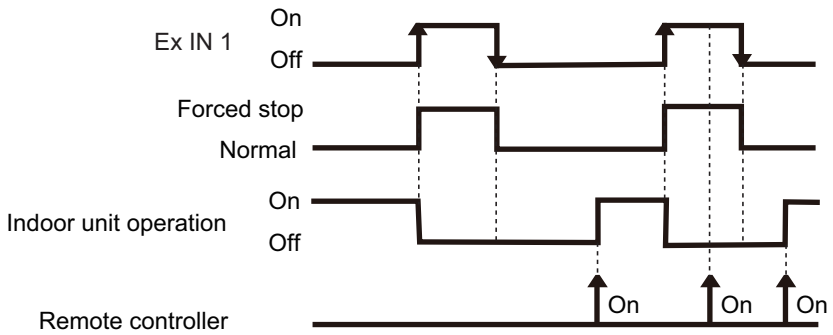
■ Forced stop

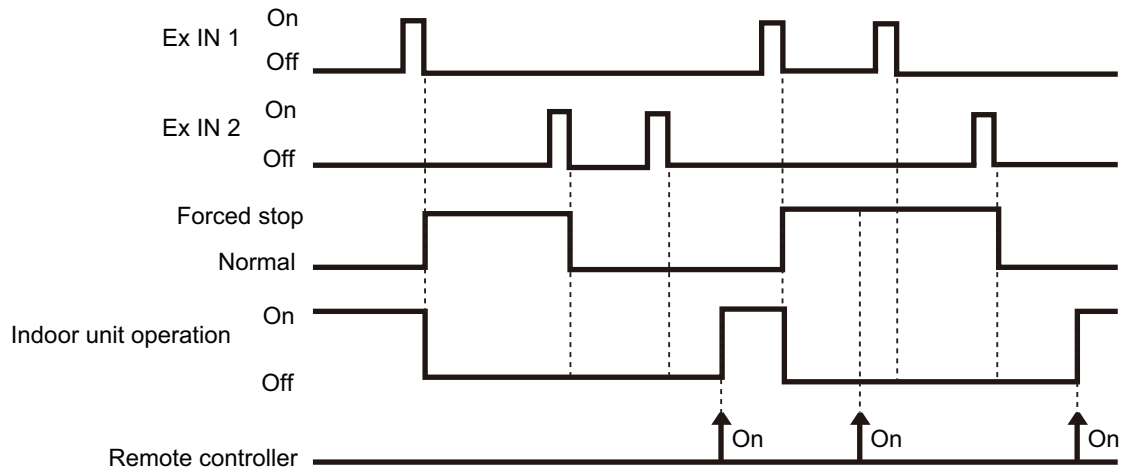
- **In the case of "Edge" input**

Function setting	External Input and Output PCB		External input		Input signal	Command
	Rotary switch	SW2				
46-02	—		Input of indoor unit	Terminal	Off → On	Forced stop (R.C. disabled)
					On → Off	Normal (R.C. enabled)
	1	Edge	External Input and Output PCB	Ex IN 1	Off → On	Forced stop (R.C. disabled)
					On → Off	Normal (R.C. enabled)



- **In the case of "Pulse" input**

Function setting	External Input and Output PCB		External input		Input signal	Command
	Rotary switch	SW2				
46-02	1	Pulse	External Input and Output PCB	Ex IN 1	Pulse	Forced stop (R.C. disabled)
				Ex IN 2		Normal (R.C. enabled)



NOTES:

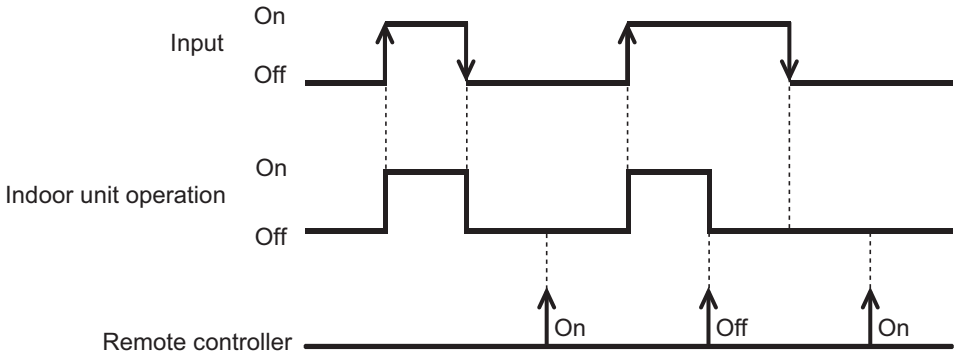
- When the forced stop is triggered, indoor unit stops and Operation/Stop operation by the remote controller is restricted.
- When forced stop function is used with forming a remote controller group, connect the same equipment to each indoor unit within the group.

DUCT
AMUH12-48KUAS

■ Operation/Stop mode 2

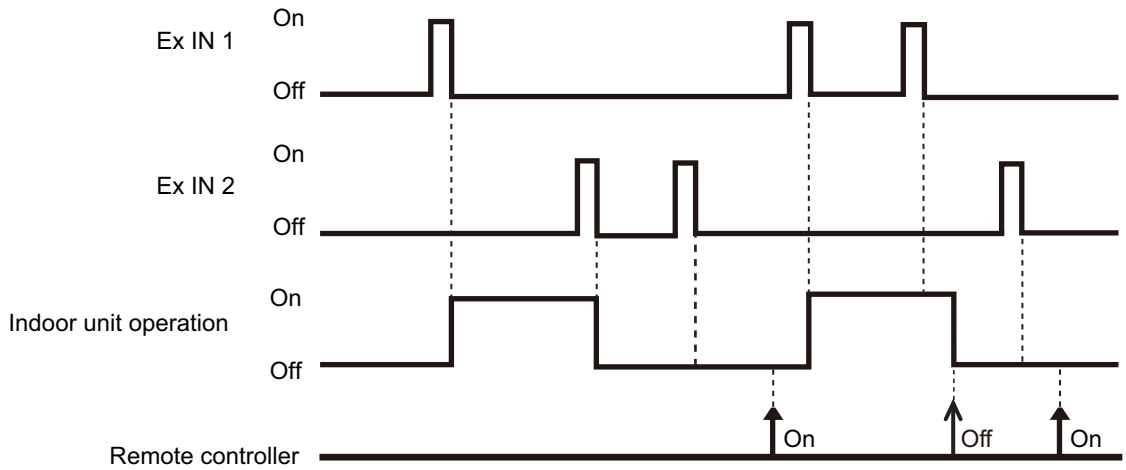
- **In the case of "Edge" input**

Function setting	External Input and Output PCB		External input		Input signal	Command
	Rotary switch	SW2				
46-03	—		Input of indoor unit	Terminal	Off → On	Operation (R.C. enabled)
					On → Off	Stop (R.C. disabled)
	1	Edge	External Input and Output PCB	Ex IN 1	Off → On	Operation (R.C. enabled)
					On → Off	Stop (R.C. disabled)



- **In the case of "Pulse" input**

Function setting	External Input and Output PCB		External input		Input signal	Command
	Rotary switch	SW2				
46-03	1	Pulse	External Input and Output PCB	Ex IN 1	Pulse	Operation (R.C. enabled)
				Ex IN 2		Stop (R.C. disabled)

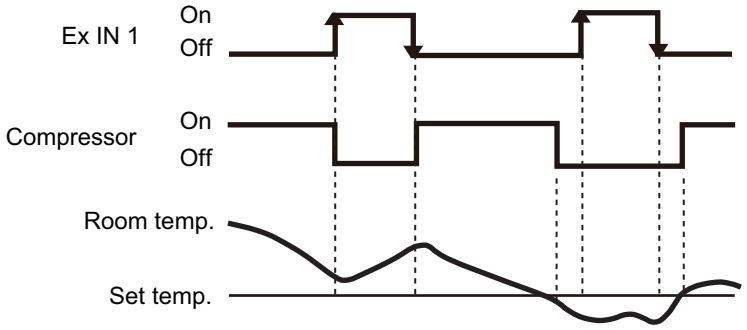


NOTE: When "Operation/Stop" mode 2 function is used with forming a remote controller group, connect the same equipment to each indoor unit within the group.

DUCT
AMUH12-48KUAS

■ Forced thermostat off

External Input and Output PCB Rotary switch	External input		Input signal	Command
2, B, C, D	External Input and Output PCB	Ex IN 1	Off → On	Thermostat off
			On → Off	Normal operation
4, 7, 8, A	External Input and Output PCB	Ex IN 1	Off → On	Thermostat off
			On → Off	Normal operation



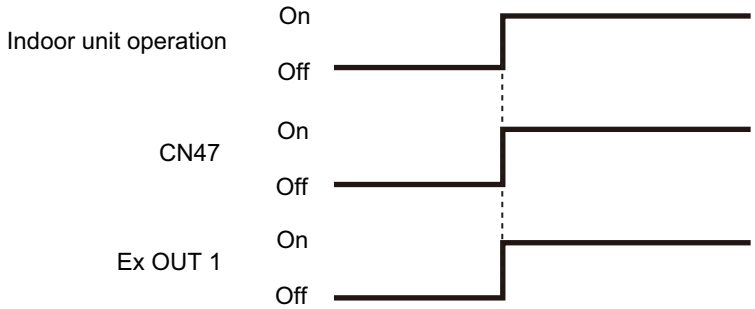
DUCT
AMUH12-48KUAS

8-5. Details of control output function

■ Operation status

Function setting	External Input and Output PCB Rotary switch	External output		Output signal	Status
60-00 60-06	—	Output of indoor unit	CN47	Off → On	Operation
				On → Off	Stop
—	1, B, C, D	External Input and Output PCB	Ex OUT 1	Off → On	Operation
				On → Off	Stop

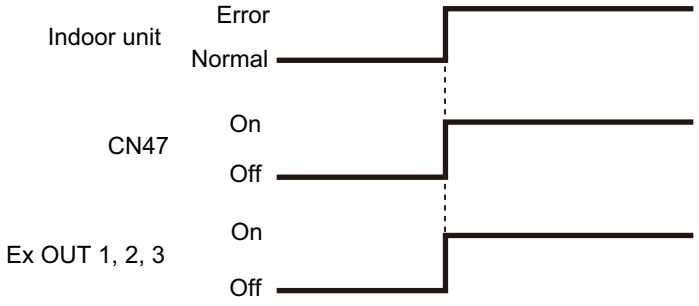
The output is low when the unit is stopped.



■ Error status

Function setting	External Input and Output PCB Rotary switch	External output		Output signal	Status
60-09	—	Output of indoor unit	CN47	Off → On	Error
				On → Off	Normal
—	2, 3, 4, 6, 7, 8, 9	External Input and Output PCB	Ex OUT 1	Off → On	Error
				On → Off	Normal
—	1, C	External Input and Output PCB	Ex OUT 2	Off → On	Error
				On → Off	Normal
—	D	External Input and Output PCB	Ex OUT 3	Off → On	Error
				On → Off	Normal

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



DUCT
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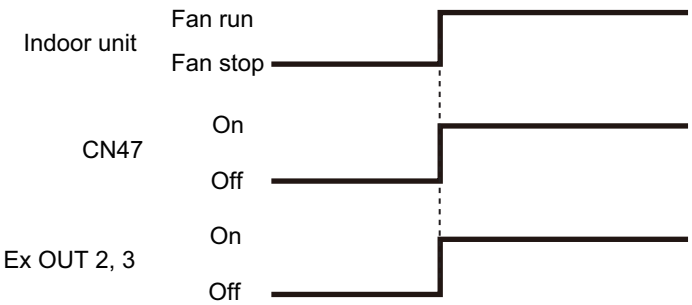
■ Indoor unit fan operation status

Function setting	External Input and Output PCB Rotary switch	External output		Output signal	Status
60-10	—	Output of indoor unit	CN47	Off → On	Fan run
				On → Off	Fan stop
—	2, 3, 7, 8, B, D	External Input and Output PCB	Ex OUT 2	Off → On	Fan run
				On → Off	Fan stop
—	1	External Input and Output PCB	Ex OUT 3	Off → On	Fan run
				On → Off	Fan stop

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



DUCT
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■ External heater output

Control	Primary heater	Auxiliary heater	Function setting	
			Indoor unit	Wired R. C.
			Control switching external heaters No. 61	Sensor activation*2
Auxiliary heater control 1	Heat pump	External device*1	61-00	—
Auxiliary heater control 2	Heat pump	External device	61-01	—
Heat pump prohibition control	External device	None	61-02	On (Enabled)
Auxiliary heater control by outdoor temperature 1	Heat pump	External device	61-03	On (Enabled)
Auxiliary heater control by outdoor temperature 2	Heat Pump	External device	61-04	On (Enabled)
Auxiliary heater control by outdoor temperature 3	Heat Pump	External device	61-05	On (Enabled)
Auxiliary heat pump control	External device	Heat pump	61-06	On (Enabled)
Auxiliary heat pump control by outdoor temperature 1	External device	Heat pump	61-07	On (Enabled)
Auxiliary heat pump control by outdoor temperature 2	External device	Heat pump	61-08	On (Enabled)
Auxiliary heat pump control by outdoor temperature 3	External device	Heat pump	61-09	On (Enabled)
Auxiliary heater control by outdoor temperature 4	External device	Heat pump	61-10	On (Enabled)

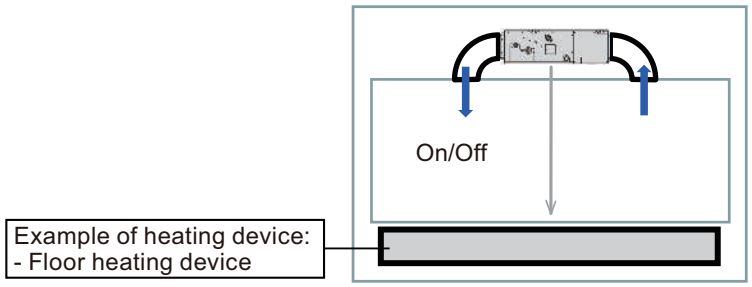
NOTES:

- After turning off the heater, 3 minutes of standby time is required by next power-on of the heater.
- For items marked "—" in the table, any of validate or invalidate of the setting are acceptable.
- *1: External device means Hot water, Electrical heater, etc.
- *2: Sensor activation:
  - Setting change from the factory setting is required.
  - Indoor unit fan setting will be on for safety reason without sensor activation of wired remote controller.

DUCT
AMUH12-48KUAS

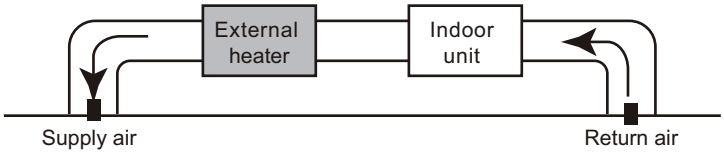
● Installation configuration of individual connection

External heating device is installed individually. (No use of indoor unit fan)

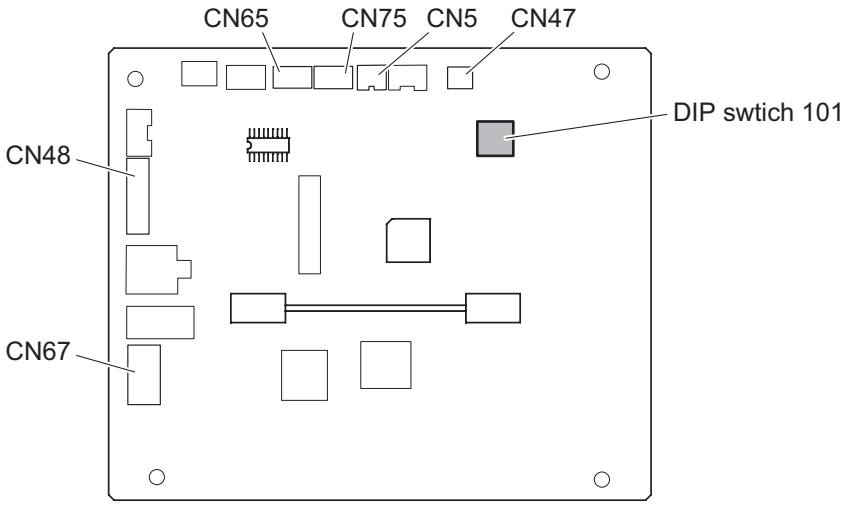


⚠ WARNING

- **DIP Switch 101-3 must be in the ON position when ducted electric heat application is being used.** DIP switch 101-3 is set in the OFF position by default from the factory. When DIP switch 101-3 is in the ON position and ducted electric heat application is not being used, cold draft occurs due to fan delay off operation.



Operation			Condition
Heater off	DIP-SW101-3 Indoor unit fan setting for external heater	On Enabled	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off • Fan stop protection
	DIP-SW101-3 Indoor unit fan setting for external heater	Off Disabled	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off

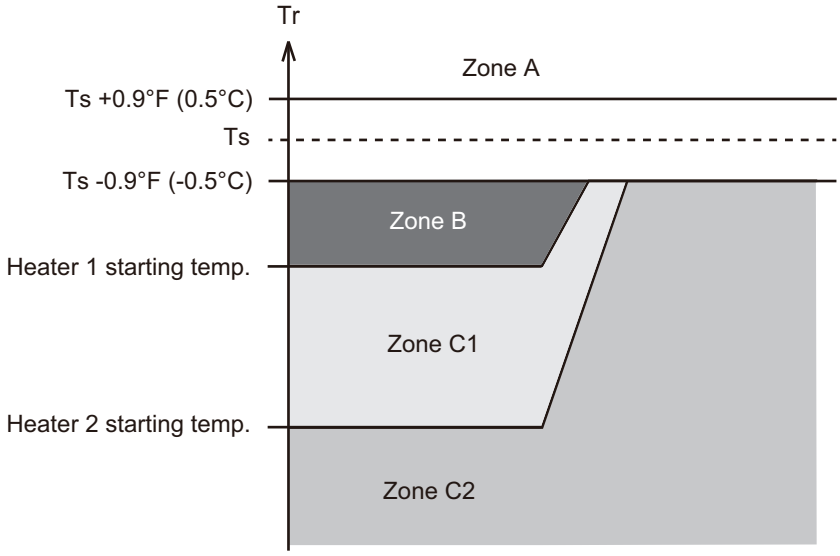


- Design and install an external heater appropriately, with consideration for its protection and local codes.
- Inappropriate designing and installation of external heater may cause a fire by emitted heat from the external heater.
- Fujitsu General Ltd. is not responsible for inappropriate designing or installation of external heating device.

DUCT
AMUH12-48KUAS

● Auxiliary equipment control by room temperature

Auxiliary equipment control is switchable by room temperature. Auxiliary equipment switching is performed for each room temperature divided to following 3 zones.



Ts: Setting temperature
Tr: Room temperature

Zone	Application	When temperature dropping		When temperature rising	
		Primary	Auxiliary	Primary	Auxiliary
A	Both of primary and auxiliary equipment is unnecessary.	Off	Off	Off	Off
B	Primary heater only.When room temperature stays in zone B for a long time, auxiliary equipment also operates.	On	Off*1*2	—	—
C1	Auxiliary equipment 1 operates. When the room temperature stays in zone C1 for a long time, auxiliary equipment 2 also operates.	On	On*3	—	—
C2	All of the auxiliary equipment operates.	On	On*4	On	On*4

*1: When the setting value of the function number 60 is “11”, only the auxiliary equipment 1 is turned on.

*2: For standby time for auxiliary equipment operation, refer to the function number 71 in "Contents of function setting" on page 92.

*3: For standby time for auxiliary equipment 2 operation, refer to the function number 78 in "Contents of function setting" on page 92.

*4: When the function number 61 is set to “00”, auxiliary equipment operates according to the following conditions.

- Ts - Tr > 21.6 °F (-12.0 °C): Auxiliary equipment turn off.
- Ts - Tr > 18.0 °F (-10.0 °C): Auxiliary equipment turn on.

DUCT
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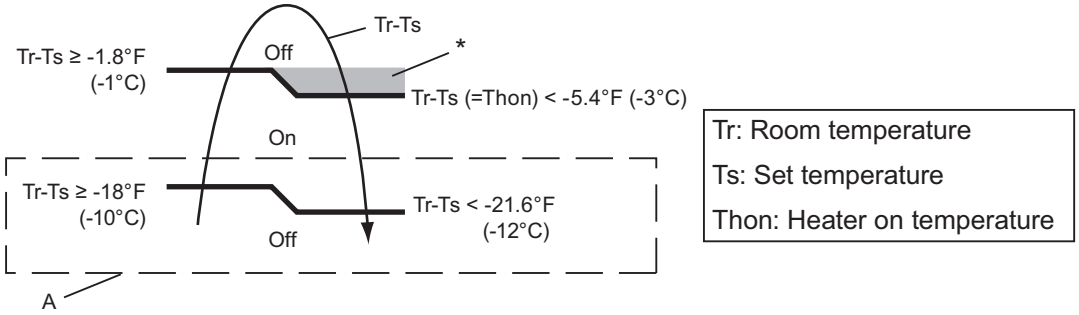
● Auxiliary heater control 1

Operation	Condition
Heater on	Heater is on as shown in following diagram of heating temperature.
Heater off	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off • Fan stop protection

- Temperature of heater on (Thon): Adjustable by function number 62 (Operating temperature switching of external heaters).
- All control temperatures will shift by adjusting “Thon”.

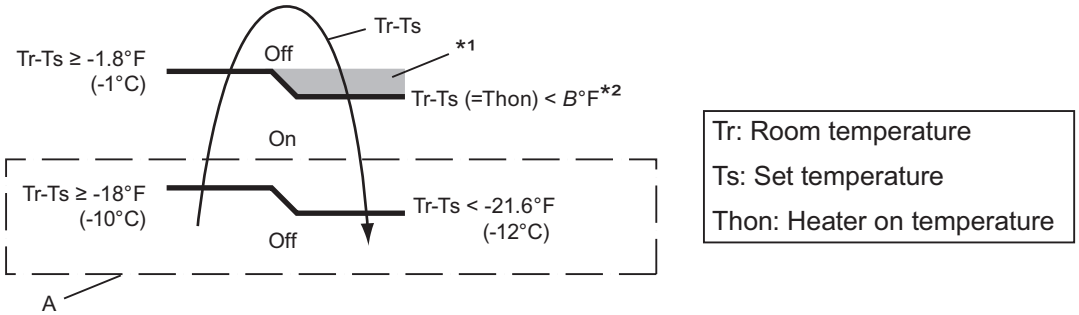
- **Heater 1**



*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to the function number 71.

Example: When set temperature (Ts) is 72°F (22°C) (Factory setting),
– and room temperature (Tr) increases above 53.6°F (12°C), signal output is on.
– and room temperature (Tr) increases above 69.8°F (21°C), signal output is off.
– and room temperature (Tr) decreases below 66.2°F (19°C), signal output is on.
– and room temperature (Tr) decreases below 50°F (10°C), signal output is off.

- **Heater 2**



*1: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to the function number 78.

*2: For details of the threshold setting, refer to the function number 77.

Example: When set temperature (Ts) is 72°F (22°C) (Factory setting),
– and room temperature (Tr) increases above 53.6°F (12°C), signal output is on.
– and room temperature (Tr) increases above 69.8°F (21°C), signal output is off.
– and room temperature (Tr) decreases below 66.2°F (19°C), signal output is on.
– and room temperature (Tr) decreases below 50°F (10°C), signal output is off.

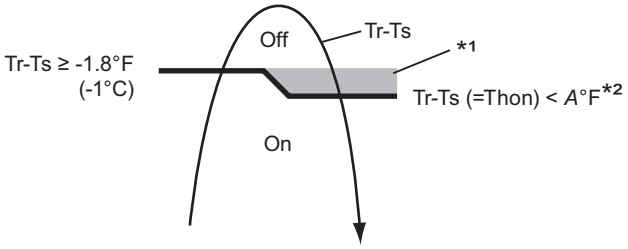
DUCT
AMUH12-48KUAS

● Auxiliary heater control 2

Control that excludes “A” from "Auxiliary heater control 1" on page 66.

Operation	Condition
Heater on	Heater is on as shown in following diagram of heating temperature.
Heater off	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off • Fan stop protection

- Temperature of heater on (Thon): Adjustable by function number 62 (Operating temperature switching of external heaters).
- All control temperatures will shift by adjusting “Thon”.
- **Heater 1**

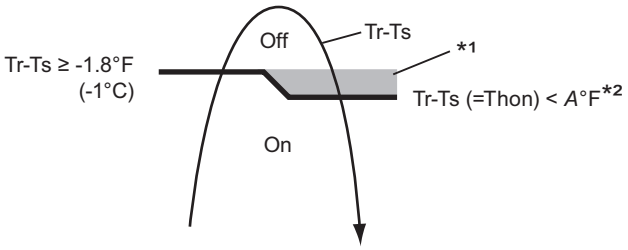


Tr: Room temperature
Ts: Set temperature
Thon: Heater on temperature

*1: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to the function number 71.

*2: For details of the threshold setting, refer to the function number 62.

- **Heater 2**



Tr: Room temperature
Ts: Set temperature
Thon: Heater on temperature

*1: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to the function number 78.

*2: For details of the threshold setting, refer to function number 77.

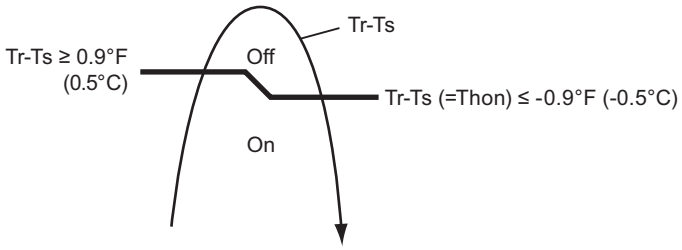
DUCT
AMUH12-48KUAS

● Heat pump prohibition control

Perform heating by external heater only. Indoor unit is continuous thermostat off.

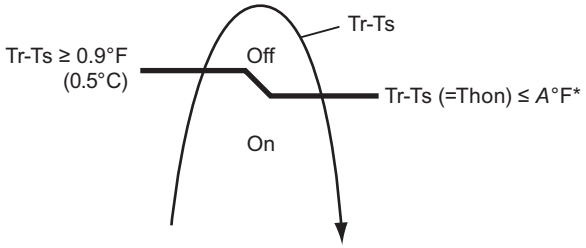
Operation			Condition
Heater on			Heater is on as shown in following diagram of heating temperature.
Heater off	DIP-SW101-3 Indoor unit fan setting for external heater	On Enabled	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off • Fan stop protection
	DIP-SW101-3 Indoor unit fan setting for external heater	Off Disabled	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off

- Temperature of heater on (Thon): Adjustable by function number 62 (Operating temperature switching of external heaters).
- All control temperatures will shift by adjusting “Thon”.
- **Heater 1**



Tr: Room temperature
Ts: Set temperature
Thon: Heater on temperature

- **Heater 2**

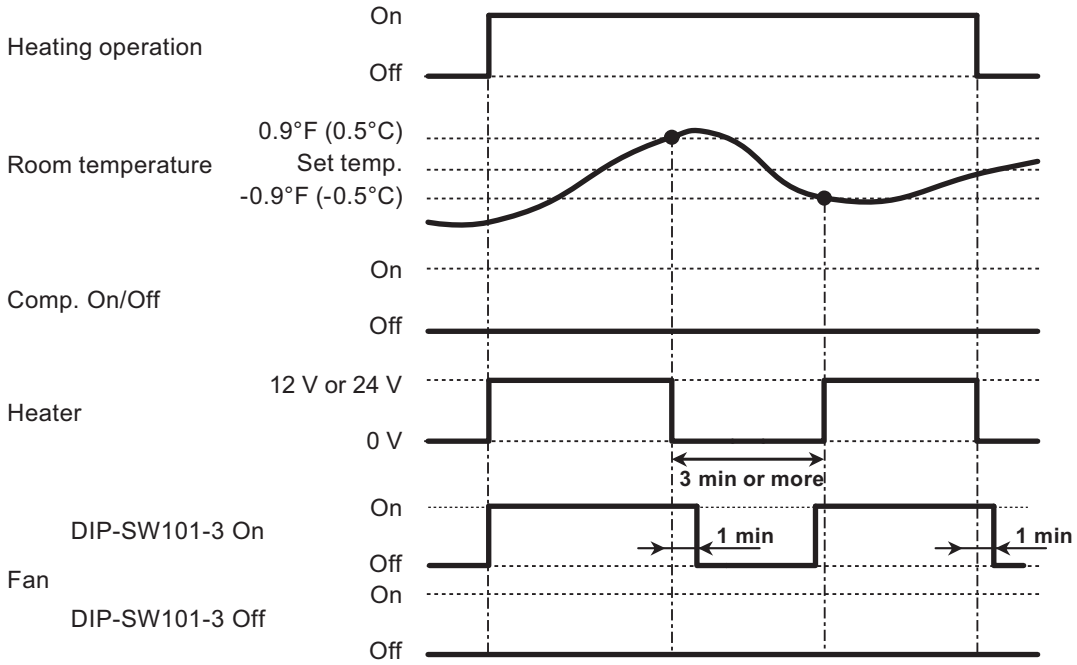


Tr: Room temperature
Ts: Set temperature
Thon: Heater on temperature

*: For details of the threshold setting, refer to the function number 77.

DUCT
AMUH12-48KUAS

- **Operation status**



NOTE: In following operations, compressor will be on.

- Other than heating
- Test run

DUCT
AMUH12-48KUAS

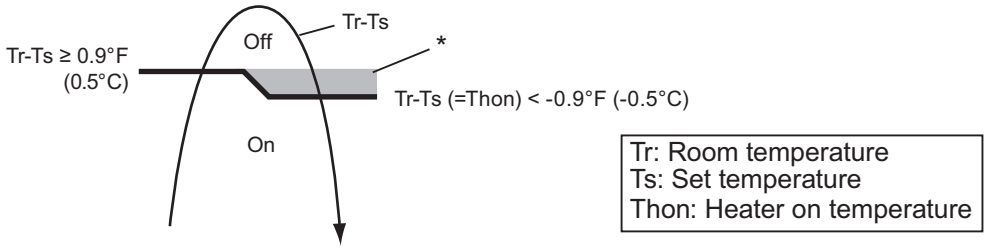
● Auxiliary heater control by outdoor temperature 1

This control selects heat pump or external heater according to the outdoor temperature. When outdoor temperature is high, the heating is performed by using heat pump only.

Operation			Condition
Heater on			Heater is on as shown in following diagram of heating temperature.
Heater off	DIP-SW101-3 Indoor unit fan setting for external heater	On Enabled	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off • Heat pump only zone • Fan stop protection
	DIP-SW101-3 Indoor unit fan setting for external heater	Off Disabled	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off • Heat pump only zone

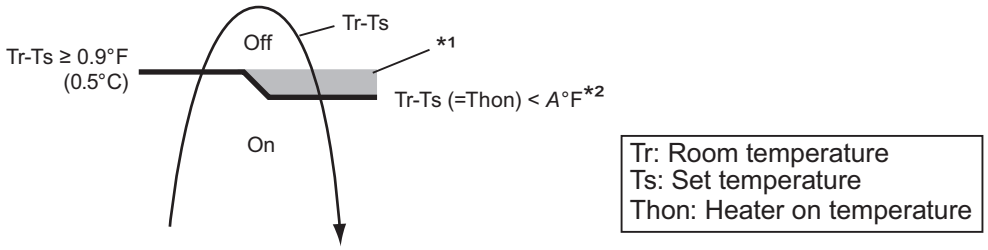
- Temperature of heater on (Thon): Adjustable by function number 62 (Operating temperature switching of external heaters).
- All control temperatures will shift by adjusting “Thon”.
- Outdoor temperature zone boundary A and B: Adjustable individually by function setting number 66 and 67.

- **External heater output**
  - **Heater 1**



*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to the function number 71.

  - **Heater 2**

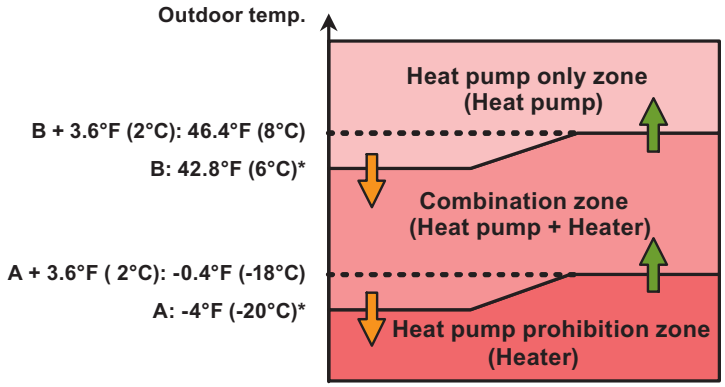


*1: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to the function number 71.

*2: For details of the threshold setting, refer to the function number 77.

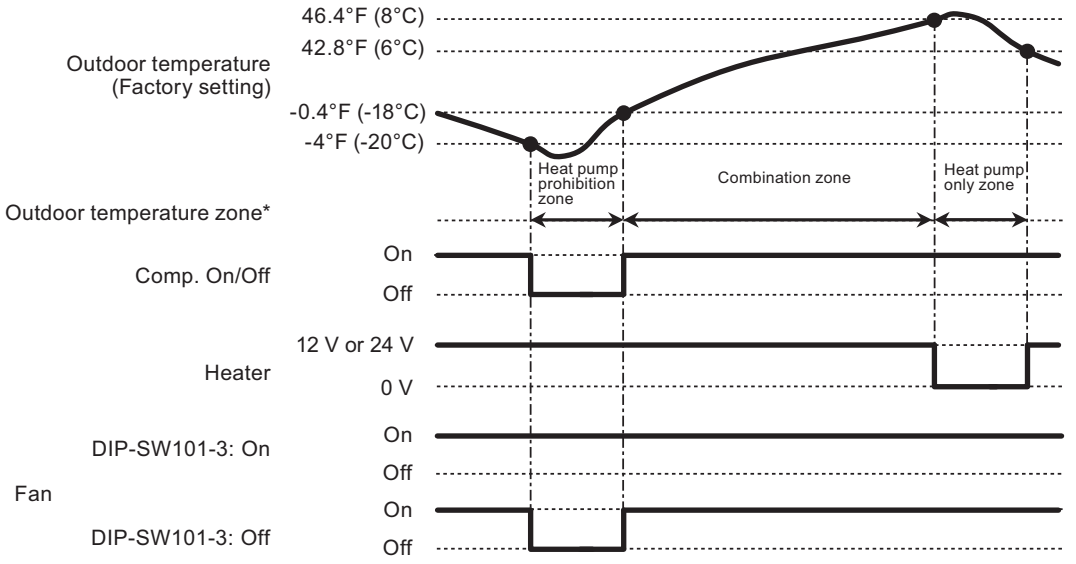
DUCT
AMUH12-48KUAS

- **Outdoor temperature zone**



*: Adjustable by function setting 66 and 67

- **Operation status**



*: The outdoor temperature zone transition from one to another will stay in that zone for minimum of 30 min.

NOTE: In following operations, compressor will be on in heat pump prohibition zone.

- Other than heating
- Test run

DUCT
AMUH12-48KUAS

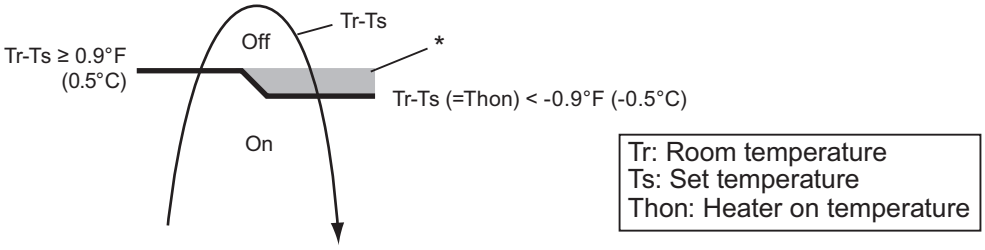
● Auxiliary heater control by outdoor temperature 2

This control selects heat pump or external heater according to the outdoor temperature. Even when outdoor temperature is high, the heating is performed by using both of heat pump and external heater.

Operation			Condition
Heater on			Heater is on as shown in following diagram of heating temperature.
Heater off	DIP-SW101-3 Indoor unit fan setting for external heater	On Enabled	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off • Fan stop protection
	DIP-SW101-3 Indoor unit fan setting for external heater	Off Disabled	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off

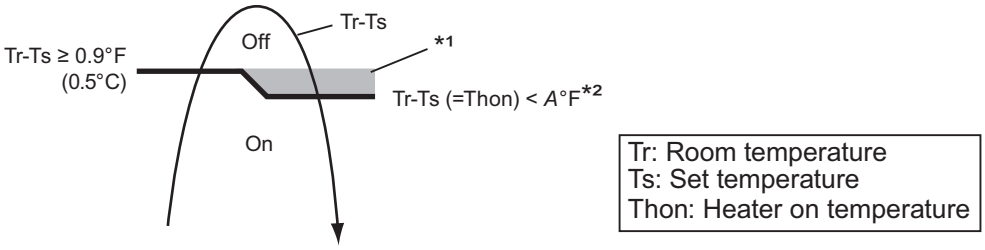
- Temperature of heater on (Thon): Adjustable by function number 62 (Operating temperature switching of external heaters).
- All control temperatures will shift by adjusting “Thon”.
- Outdoor temperature zone boundary A: Adjustable by function setting number 66.

- **External heater output**
  - **Heater 1**



*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to the function number 71.

  - **Heater 2**

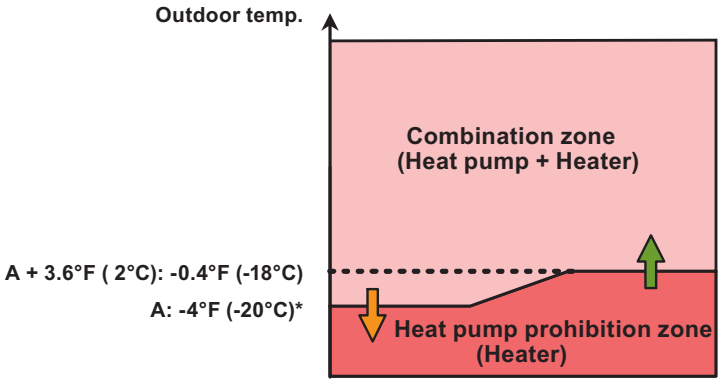


*1: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to the function number 71.

*2: For details of the threshold setting, refer to the function number 77.

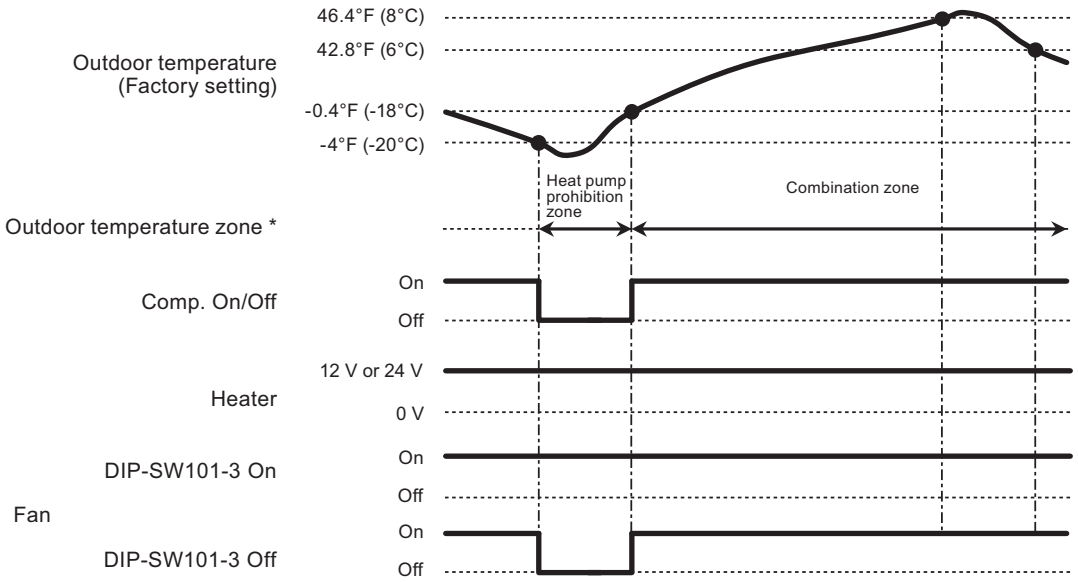
DUCT
AMUH12-48KUAS

- **Outdoor temperature zone**



*: Adjustable by function setting 66

- **Operation status**



* The outdoor temperature zone transition from one to another will stay in that zone for minimum of 30 min.

NOTE: In following operations, compressor will be on in heat pump prohibition zone.

- Other than heating
- Test run

DUCT
AMUH12-48KUAS

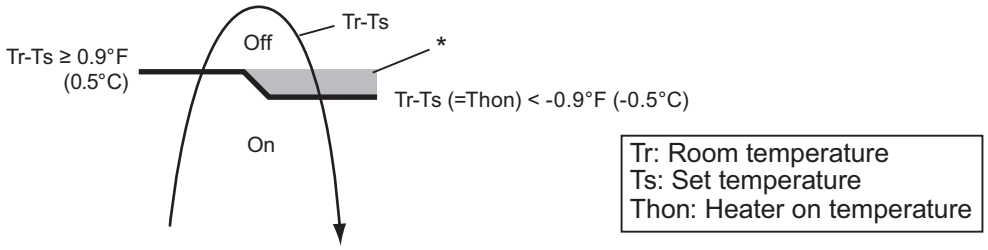
● Auxiliary heater control by outdoor temperature 3

This control selects heat pump or external heater according to the outdoor temperature. Even when outdoor temperature is high, the heating is performed by using both of heat pump and external heater.

Operation			Condition
Heater on			Heater is on as shown in following diagram of heating temperature.
Heater off	DIP-SW101-3 Indoor unit fan setting for external heater	On Enabled	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off • Fan stop protection
	DIP-SW101-3 Indoor unit fan setting for external heater	Off Disabled	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off

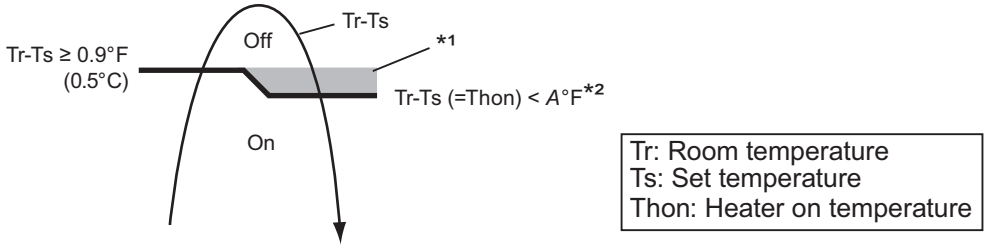
- Temperature of heater on (Thon): Adjustable by function number 62 (Operating temperature switching of external heaters).
- All control temperatures will shift by adjusting “Thon”.
- Outdoor temperature zone boundary B: Adjustable by function setting number 67.

- **External heater output**
  - **Heater 1**



*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to the function number 71.

  - **Heater 2**

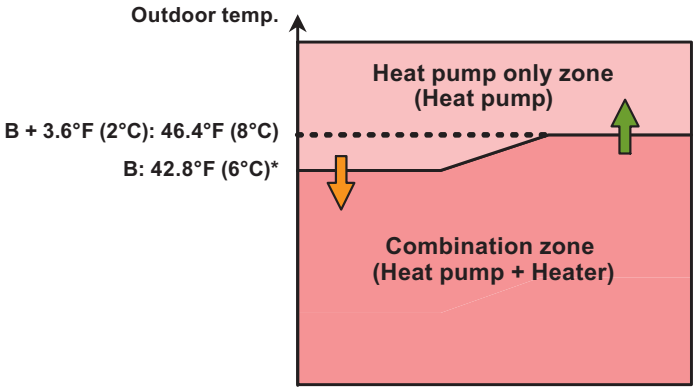


*1: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to the function number 71.

*2: For details of the threshold setting, refer to function number 77 for indoor unit.

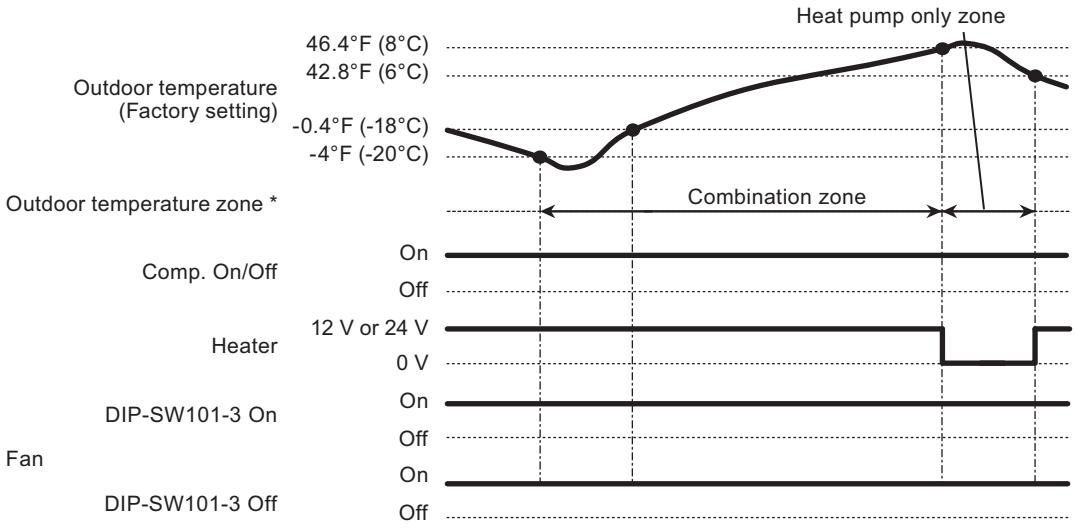
DUCT
AMUH12-48KUAS

- **Outdoor temperature zone**



*: Adjustable by function setting 67

- **Operation status**



*: The outdoor temperature zone transition from one to another will stay in that zone for minimum of 30 min.

NOTE: In following operations, compressor will be on in heat pump prohibition zone.

- Other than heating
- Test run

DUCT
AMUH12-48KUAS

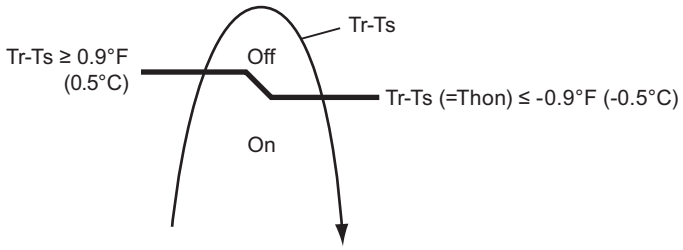
● Auxiliary heat pump control

- **External heater output**

Operation			Condition
Heater on			Heater is on as shown in following diagram of heating temperature.
Heater off	DIP-SW101-3 Indoor unit fan setting for external heater	On Enabled	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off • Fan stop protection
	DIP-SW101-3 Indoor unit fan setting for external heater	Off Disabled	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off

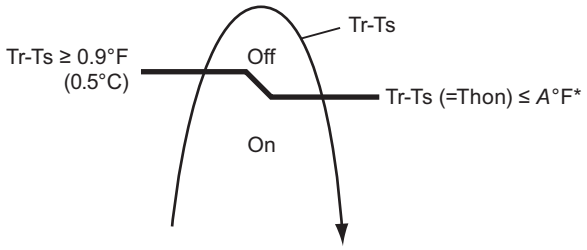
– Temperature of heater on (Thon): Set temperature (Ts) -0.9°F (-0.5°C)
– Temperature of heater off: Set temperature (Ts) +0.9°F (+0.5°C)

– **Heater 1**



Tr: Room temperature
Ts: Set temperature
Thon: Heater on temperature

– **Heater 2**

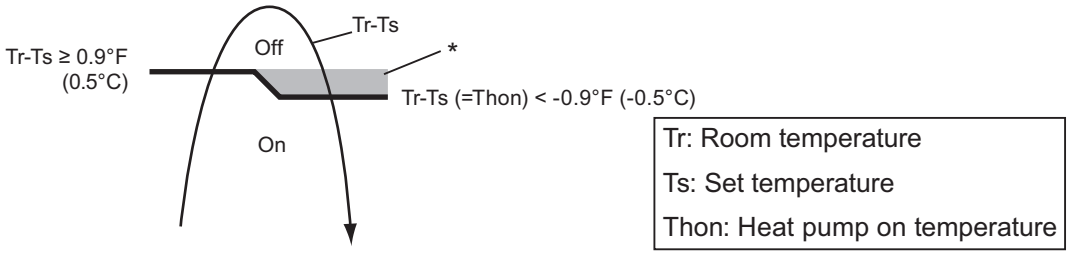


Tr: Room temperature
Ts: Set temperature
Thon: Heater on temperature

*: For details of the threshold setting, refer to the function number 77.

DUCT
AMUH12-48KUAS

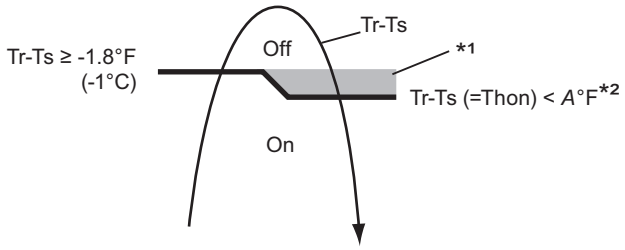
- **Auxiliary heat pump On/Off**
  - Temperature of heat pump on (Thon): Adjustable by function number 62 (Operating temperature switching of heat pump).
  - All control temperatures will shift by adjusting “Thon”.
  - **Heater 1**



Tr: Room temperature
Ts: Set temperature
Thon: Heat pump on temperature

*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to the function number 71.

  - **Heater 2**



Tr: Room temperature
Ts: Set temperature
Thon: Heater on temperature

*1: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to the function number 71.

*2: For details of the threshold setting, refer to the function number 77.

DUCT
AMUH12-48KUAS

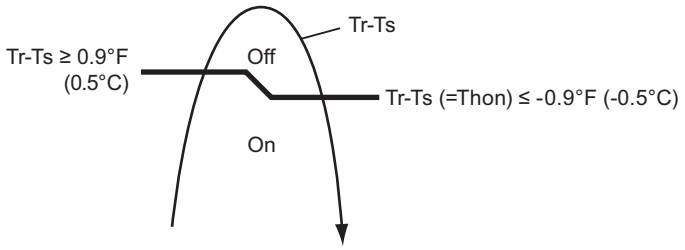
● Auxiliary heat pump control by outdoor temperature 1

- **External heater output**

Operation			Condition
Heater on			Heater is on as shown in following diagram of heating temperature.
Heater off	DIP-SW101-3 Indoor unit fan setting for external heater	On Enabled	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off • Fan stop protection
	DIP-SW101-3 Indoor unit fan setting for external heater	Off Disabled	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off

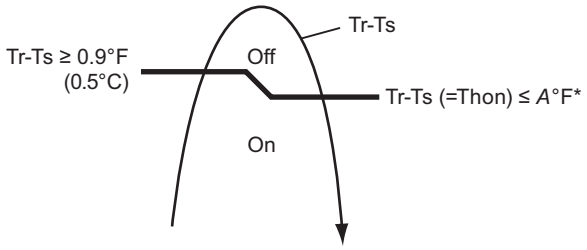
– Temperature of heater on (Thon): Set temperature (Ts) -0.9°F (-0.5°C)
– Temperature of heater off: Set temperature (Ts) +0.9°F (+0.5°C)

– **Heater 1**



Tr: Room temperature
Ts: Set temperature
Thon: Heater on temperature

– **Heater 2**

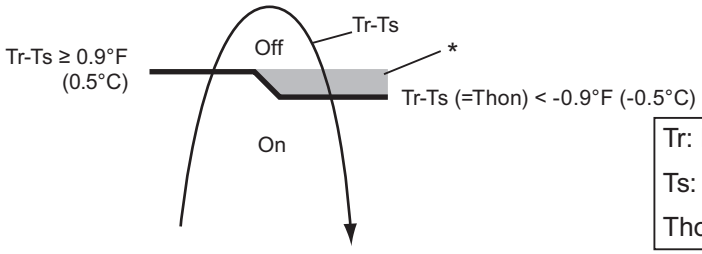


Tr: Room temperature
Ts: Set temperature
Thon: Heater on temperature

*: For details of the threshold setting, refer to the function number 77.

DUCT AMUH12-48KUAS

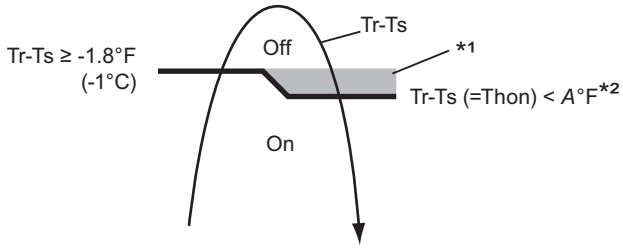
- **Auxiliary heat pump On/Off**
  - Temperature of heat pump on (Thon): Adjustable by function number 62 (Operating temperature switching of heat pump).
  - All control temperatures will shift by adjusting “Thon”.
  - **Heater 1**



Tr: Room temperature
Ts: Set temperature
Thon: Heat pump on temperature

*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to the function number 71.

  - **Heater 2**

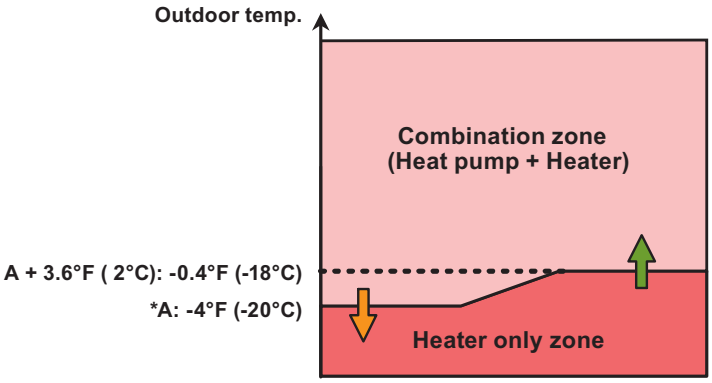


Tr: Room temperature
Ts: Set temperature
Thon: Heater on temperature

*1: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to the function number 71.

*2: For details of the threshold setting, refer to function number 77.

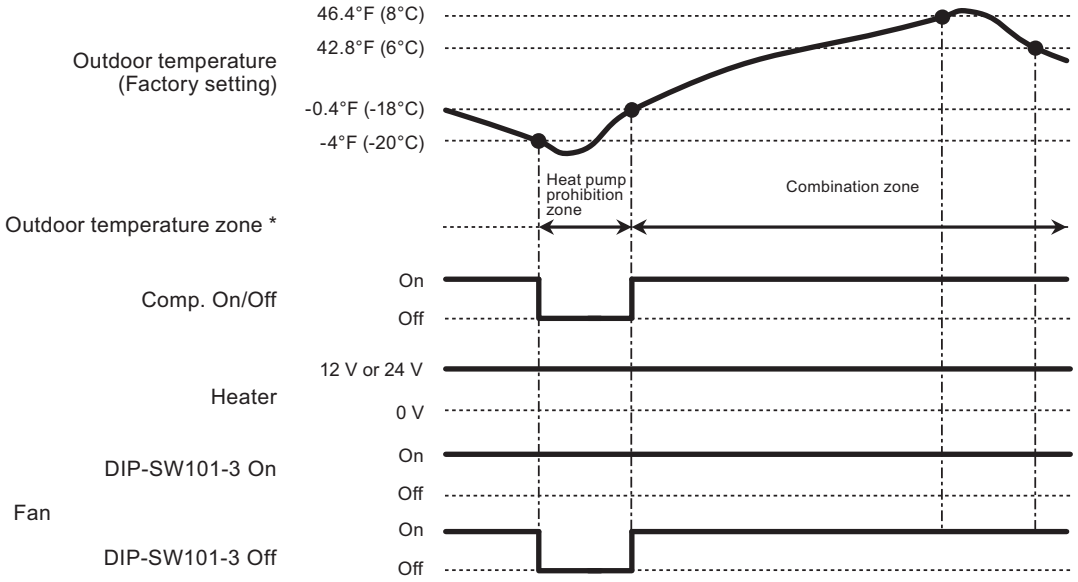
- **Outdoor temperature zone**



*: Adjustable by function setting 66

DUCT
AMUH12-48KUAS

- **Operation status**



* The outdoor temperature zone transition from one to another will stay in that zone for minimum of 30 min.

NOTE: In following operations, compressor will be on in heat pump prohibition zone.

- Other than heating
- Test run

DUCT
AMUH12-48KUAS

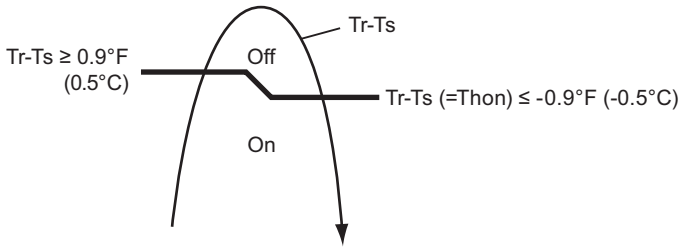
● Auxiliary heat pump control by outdoor temperature 2

- **External heater output**

Operation			Condition
Heater on			Heater is on as shown in following diagram of heating temperature.
Heater off	DIP-SW101-3 Indoor unit fan setting for external heater	On Enabled	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off • Fan stop protection
	DIP-SW101-3 Indoor unit fan setting for external heater	Off Disabled	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off

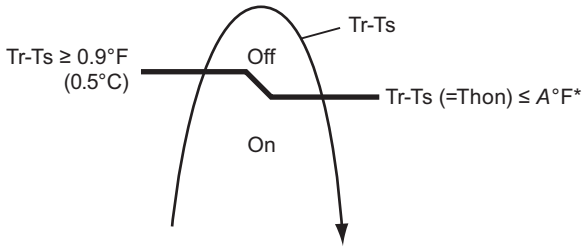
– Temperature of heater on (Thon): Set temperature (Ts) -0.9°F (-0.5°C)
– Temperature of heater off: Set temperature (Ts) +0.9°F (+0.5°C)

– **Heater 1**



Tr: Room temperature
Ts: Set temperature
Thon: Heater on temperature

– **Heater 2**

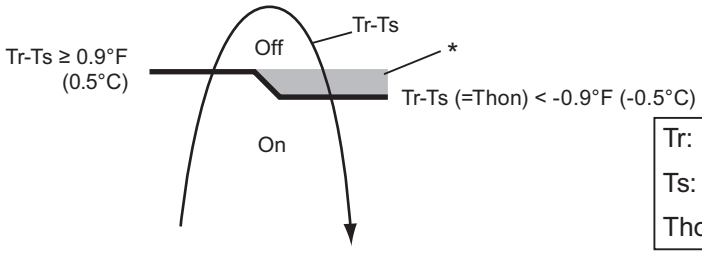


Tr: Room temperature
Ts: Set temperature
Thon: Heater on temperature

*: For details of the threshold setting, refer to the function number 77.

DUCT AMUH12-48KUAS

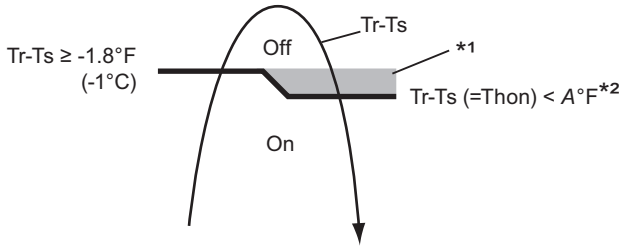
- **Auxiliary heat pump On/Off**
  - Temperature of heat pump on (Thon): Adjustable by function number 62 (Operating temperature switching of heat pump).
  - All control temperatures will shift by adjusting “Thon”.
  - **Heater 1**



Tr: Room temperature
Ts: Set temperature
Thon: Heat pump on temperature

*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to the function number 71.

  - **Heater 2**

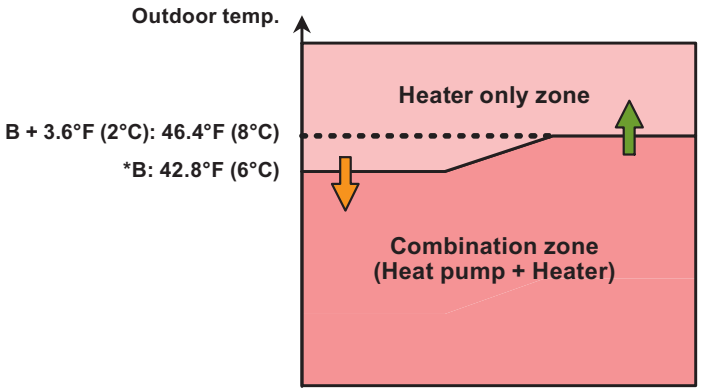


Tr: Room temperature
Ts: Set temperature
Thon: Heater on temperature

*1: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to the function number 71.

*2: For details of the threshold setting, refer to the function number 77.

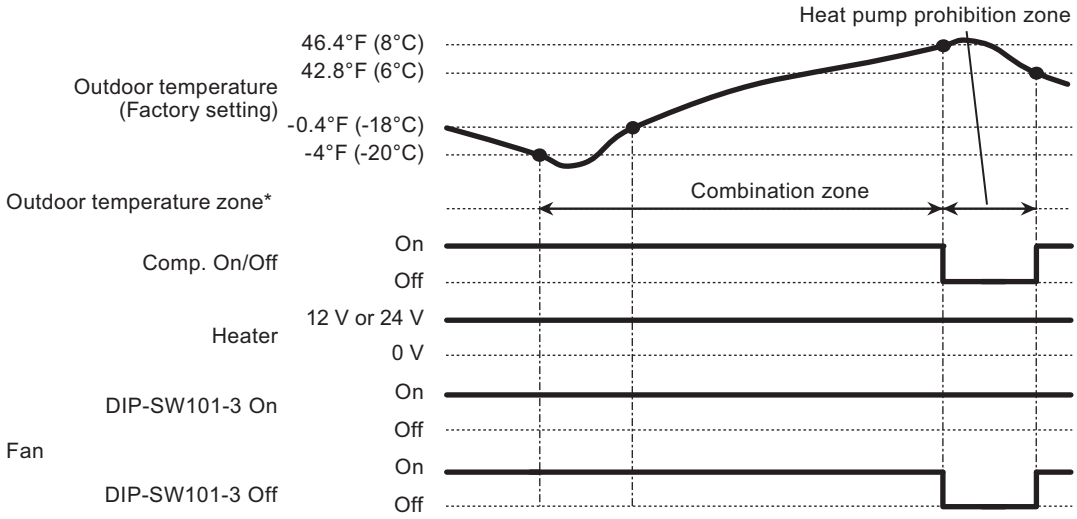
- **Outdoor temperature zone**



*: Adjustable by function setting 67

DUCT
AMUH12-48KUAS

- **Operation status**



*: The outdoor temperature zone transition from one to another will stay in that zone for minimum of 30 min.

NOTE: In following operations, compressor will be on in heat pump prohibition zone.

- Other than heating
- Test run

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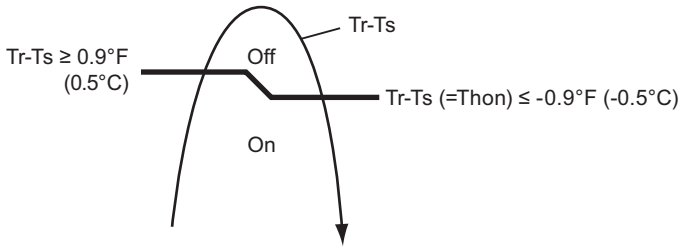
● Auxiliary heat pump control by outdoor temperature 3

- **External heater output**

Operation			Condition
Heater on			Heater is on as shown in following diagram of heating temperature.
Heater off	DIP-SW101-3 Indoor unit fan setting for external heater	On Enabled	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off • Fan stop protection
	DIP-SW101-3 Indoor unit fan setting for external heater	Off Disabled	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off

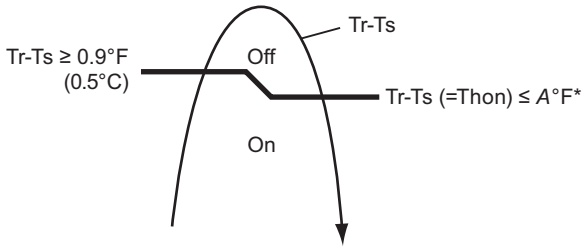
– Temperature of heater on (Thon): Set temperature (Ts) -0.9°F (-0.5°C)
– Temperature of heater off: Set temperature (Ts) +0.9°F (+0.5°C)

– **Heater 1**



Tr: Room temperature
Ts: Set temperature
Thon: Heater on temperature

– **Heater 2**



Tr: Room temperature
Ts: Set temperature
Thon: Heater on temperature

*: For details of the threshold setting, refer to the function number 77.

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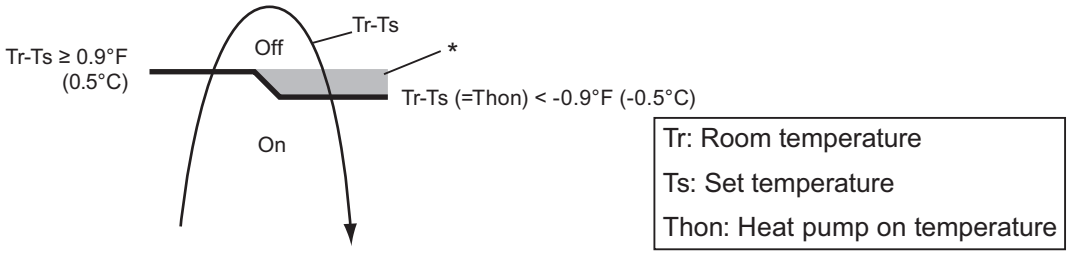
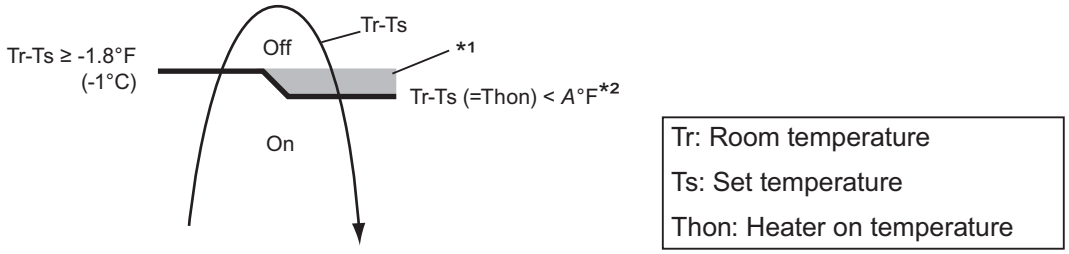
- **Auxiliary heat pump On/Off**
  - Temperature of heat pump on (Thon): Adjustable by function number 62 (Operating temperature switching of heat pump).
  - All control temperatures will shift by adjusting “Thon”.
  - **Heater 1**



*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to the function number 71.

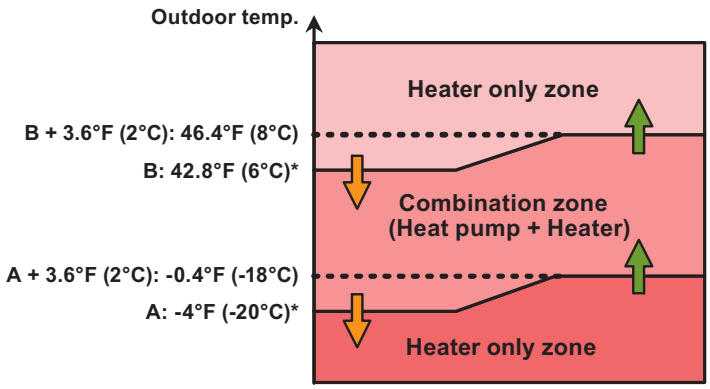
  - **Heater 2**



*1: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to the function number 71.

*2: For details of the threshold setting, refer to the function number 77.

- **Outdoor temperature zone**



*: Adjustable by function setting 66 and 67

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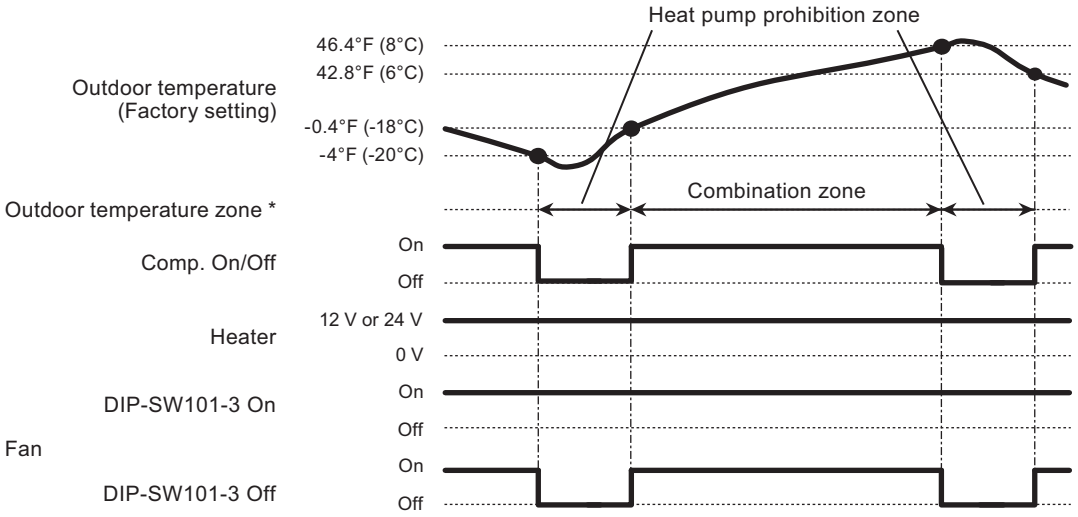
- **Operation status**



* The outdoor temperature zone transition from one to another will stay in that zone for minimum of 30 min.

NOTE: In following operations, compressor will be on in heat pump prohibition zone.

- Other than heating
- Test run

DUCT AMUH12-48KUAS

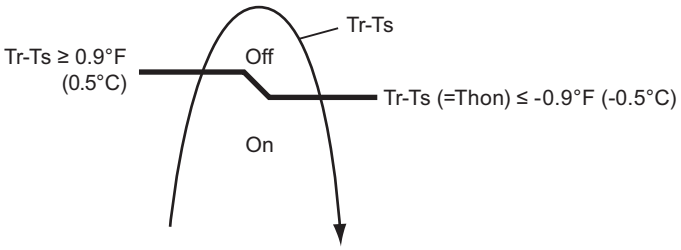
● Auxiliary heater control by outdoor temperature 4

- **External heater output**

Operation			Condition
Heater on			Heater is on as shown in following diagram of heating temperature.
Heater off	DIP-SW101-3 Indoor unit fan setting for external heater	On Enabled	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off • Fan stop protection
	DIP-SW101-3 Indoor unit fan setting for external heater	Off Disabled	• Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off

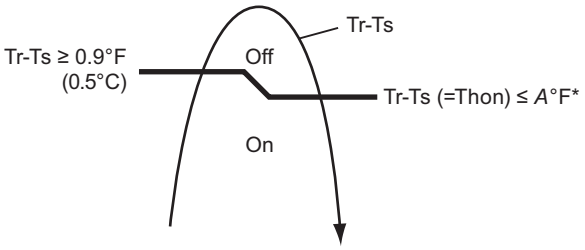
– Temperature of heater on (Thon): Set temperature (Ts) -0.9°F (-0.5°C)
– Temperature of heater off: Set temperature (Ts) +0.9°F (+0.5°C)

– **Heater 1**



Tr: Room temperature
Ts: Set temperature
Thon: Heater on temperature

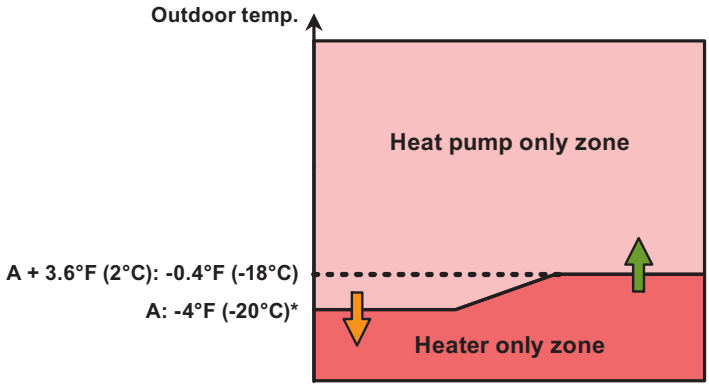
– **Heater 2**



Tr: Room temperature
Ts: Set temperature
Thon: Heater on temperature

*: For details of the threshold setting, refer to the function number 77.

- **Outdoor temperature zone**



*: Adjustable by function setting 66

DUCT
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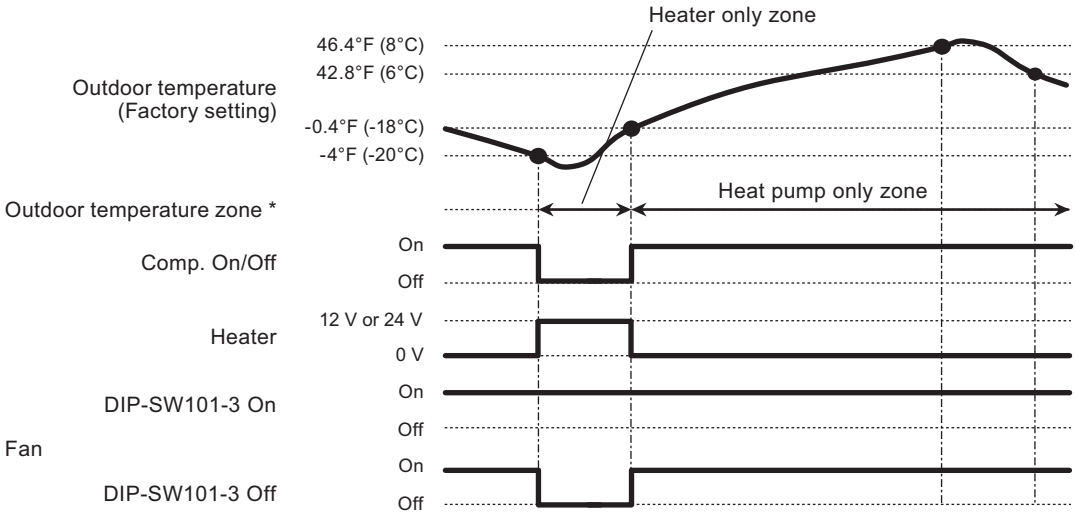
- **Operation status**



* The outdoor temperature zone transition from one to another will stay in that zone for minimum of 30 min.

NOTE: In following operations, compressor will be on in heat pump prohibition zone.

- Other than heating
- Test run

DUCT
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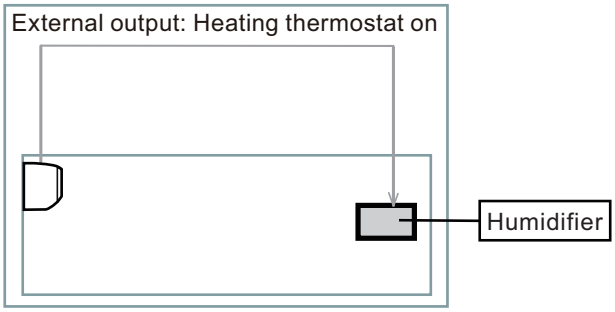
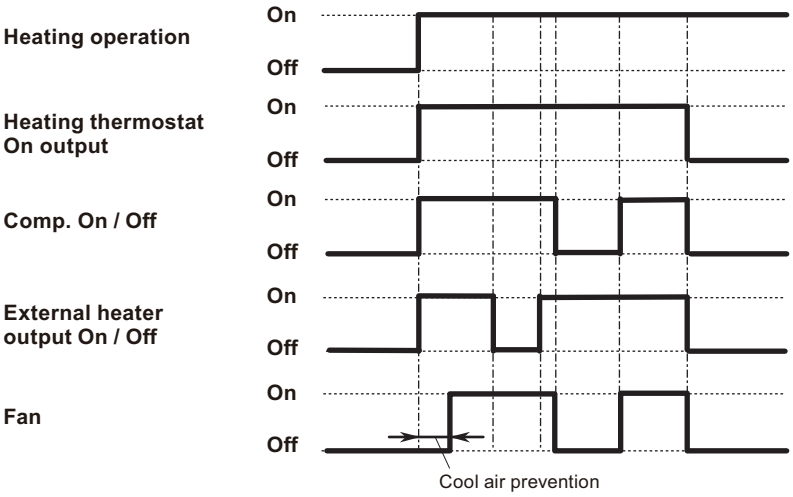
■ Heating thermostat on for humidifier

Situation	Indoor unit				
	Mode	Function setting	Rotary SW	External output	
		Heating thermostat on no. 60		Heating thermostat on	Indoor unit fan operation status
Example of individual connection	5	60-05	7	CN47	Not used
	6	60-06	8	Output 3	
	7	60-07	9	Output 2	
	8	60-08	A	Output 1	

- **Example of individual connection**



- **Operation status**
  The heating thermostat output for CN47, Output 1, Output 2, or Output 3 will be on when comp on or external heater on.
  The heating thermostat output will be off when comp off and external heater off.



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9. Group connection

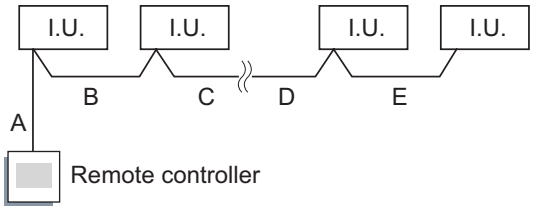
NOTE: Group control cannot be used together with WLAN Adapter.

Installation procedure for group control system:

A number of indoor units can be operated at the same time using a single remote controller.

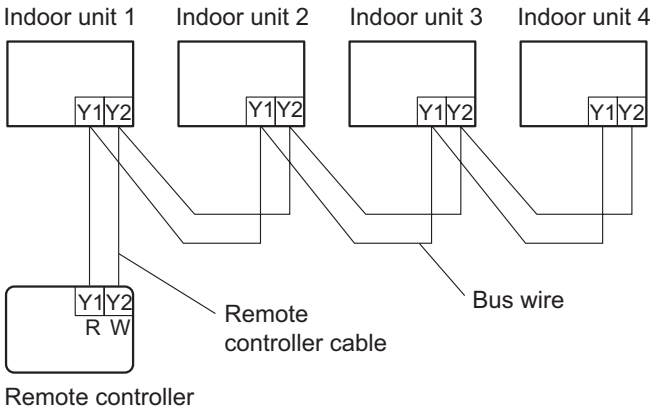
NOTE: When different type of indoor units (such as wall-mounted type and cassette type, cassette type and duct type, or other combinations) are connected using group control system, some functions may no longer be available.

1. Connect up to 16 indoor units in a system.



A, B, C, D, E: Remote controller cable		
Wiring length limitation	UTY-RVRU	A + B + C + D + E ≤ 76.5 yd (70 m)
	Other than UTY-RVRU	A + B + C + D + E ≤ 546.8 yd (500 m)

Example of wiring method



2. Automatic address setting
   After the remote controller connection in the system, the automatic address setting runs in the initial starting up. Do not change the remote controller address for the indoor unit.

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10. Function settings

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

NOTE: Incorrect settings can cause a product malfunction.

10-1. Function settings on indoor unit (setting by DIP switch)

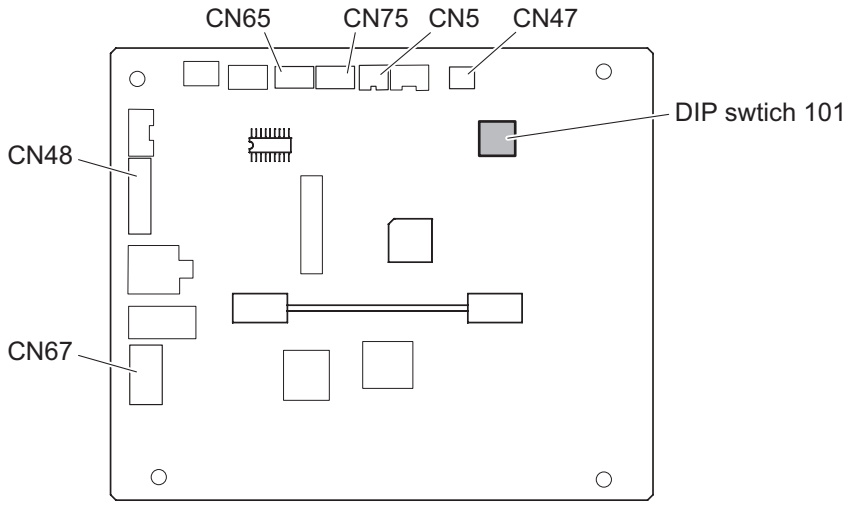
By using some components on the PCB, you can change the function settings.

Related components on the PCB and the applicable settings

Component		Setting content
DIP switch101	1	Setting change prohibited
	2	Setting change prohibited
	3	Fan delay setting

● Component location

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



● DIP switch setting

- **Switch 1: Setting change prohibited (SW101)**
- **Switch 2: Setting change prohibited (SW101)**
- **Switch 3: Fan delay setting (SW101)**
  When the indoor unit is stopped while operating in conjunction with auxiliary heater, the indoor unit fan operation will continue for 1 minute.

Switch 3	Fan delay	Factory setting
ON	Enabled	♦
OFF	Disabled	

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10-2. Function settings by using remote controller

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

■ Setting procedure by using 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)	26	Static pressure
3)	30/31	Room temperature control for indoor unit sensor
4)	35/36	Room temperature control for wired remote controller sensor
5)	40	Auto restart
6)	42	Room temperature sensor switching
7)	43	Cold air prevention
8)	46	External input control
9)	48	Room temperature sensor switching (Aux.)
10)	49	Indoor unit fan control for energy saving for cooling
11)	60	Switching functions for external output terminal
12)	61	Control switching of external heaters
13)	62	Operating temperature switching of external heaters
14)	66	Outdoor temperature zone boundary temperature A
15)	67	Outdoor temperature zone boundary temperature B
16)	71	Standby time for auxiliary equipment operation
17)	72	Heat pump backup setting
18)	73	Emergency heat for external output terminal
19)	74	Fan delay time
20)	75	External heater use in defrosting
21)	77	Operating temperature switching of external heaters (External heater 2)
22)	78	Standby time for auxiliary equipment operation (External heater 2)
23)	81	Safety measures setting for refrigerant leakage
24)	91	Airflow adjustment setting for downflow installation
25)	94	Fixed operation mode switching

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1) Filter sign

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

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

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

2) Static pressure

Select the appropriate static pressure according to the installation conditions.

Function number	Setting value	Setting description	Factory setting
26	02	0.08 inWG (20 Pa)	
	03	0.12 inWG (30 Pa)	
	04	0.16 inWG (40 Pa)	
	05	0.20 inWG (50 Pa)	
	06	0.24 inWG (60 Pa)	
	07	0.28 inWG (70 Pa)	
	08	0.32 inWG (80 Pa)	
	09	0.36 inWG (90 Pa)	
	10	0.40 inWG (100 Pa)	
	11	0.44 inWG (110 Pa)	
	12	0.48 inWG (120 Pa)	
	13	0.52 inWG (130 Pa)	
	14	0.56 inWG (140 Pa)	
	15	0.60 inWG (150 Pa)	
	16	0.64 inWG (160 Pa)	
	17	0.68 inWG (170 Pa)	
	18	0.72 inWG (180 Pa)	
	19	0.76 inWG (190 Pa)	
	20	0.80 inWG (200 Pa)	
	31	Standard: 0.58 inWG (145 Pa)	♦

NOTE: Range of static pressure is different by model.

Type name	Setting of static pressure range
12-24 models	0.08 to 0.80 inWG (20 to 200 Pa)
30-48 models	0.20 to 0.80 inWG (50 to 200 Pa)

For details, refer to "Fan performance curve" on page 21.

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3) Room temperature control for indoor unit sensor

NOTE: If the remote sensor unit option is selected, perform this setting.

Depending on the installed environment, correction of the room temperature sensor may be required. Select the appropriate control setting according to the installed environment.
The temperature of the room temperature sensor is corrected as follows:

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

Example of correction:

When the temperature of the room temp. sensor is 78°F and the setting value is “03” (-2°F), the corrected temp. will be 80°F (78°F - [-2°F]).

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°F (0.0°C)		
		02	-1°F (-0.5°C)	More cooling Less heating	
		03	-2°F (-1.0°C)		
		04	-3°F (-1.5°C)		
		05	-4°F (-2.0°C)		
		06	-5°F (-2.5°C)		
		07	-6°F (-3.0°C)		
		08	-7°F (-3.5°C)		
		09	-8°F (-4.0°C)		
		10	+1°F (+0.5°C)	Less cooling More heating	
		11	+2°F (+1.0°C)		
		12	+3°F (+1.5°C)		
		13	+4°F (+2.0°C)		
		14	+5°F (+2.5°C)		
		15	+6°F (+3.0°C)		
		16	+7°F (+3.5°C)		
		17	+8°F (+4.0°C)		

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4) Room temperature control for wired remote controller sensor

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

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

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

Function number		Setting value	Setting description		Factory setting
35 (For cooling)	36 (For heating)	00	Standard setting		♦
		01	No correction 0.0°F (0.0°C)		
		02	-1°F (-0.5°C)	More cooling Less heating	
		03	-2°F (-1.0°C)		
		04	-3°F (-1.5°C)		
		05	-4°F (-2.0°C)		
		06	-5°F (-2.5°C)		
		07	-6°F (-3.0°C)		
		08	-7°F (-3.5°C)		
		09	-8°F (-4.0°C)		
		10	+1°F (+0.5°C)	Less cooling More heating	
		11	+2°F (+1.0°C)		
		12	+3°F (+1.5°C)		
		13	+4°F (+2.0°C)		
		14	+5°F (+2.5°C)		
		15	+6°F (+3.0°C)		
		16	+7°F (+3.5°C)		
		17	+8°F (+4.0°C)		

5) Auto restart

Enables or disables automatic restart after a power interruption.

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

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

6) Room temperature sensor switching

(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.

NOTES:

- Remote controller sensor must be turned on by using the remote controller.
- When using the remote sensor unit, set to “00” or set to “01” and then select “indoor unit sensor” from wired remote controller.

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7) Cold air prevention

This setting is to disable the cold air prevention function during heating operation. When disabled, the fan setting will always follow the setting on the remote controller. (Excluding defrost mode)

Function number	Setting value	Setting description	Factory setting
43	00	Enable	♦
	01	Disable	

8) External input control

“Operation/Stop” mode or “Forced stop” mode can be selected.

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

9) Room temperature sensor switching (Aux.)

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

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

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

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

10) Indoor unit fan control for energy saving for cooling

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

Function number	Setting value	Setting description	Factory setting
49	00	Disable	
	01	Enable	
	02	Remote controller	♦

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

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

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

NOTE: 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.

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11) 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—04	Cooling thermostat On	
	05	Heating operation	
	06	Operation/Stop	
	07—08	Cooling thermostat On	
	09	Error status	
	10	Fresh air control	
	11	External heater	

12) Control switching of external heaters

Sets the control method for external heater to be used.

For details, refer to “External heater output” in "Details of control output function" on page 61.

Function number	Setting value	Setting description	Factory setting
61	00	Auxiliary heater control 1	♦
	01	Auxiliary heater control 2	
	02	Heat pump prohibition control	
	03	Auxiliary heater control by outdoor temperature 1	
	04	Auxiliary heater control by outdoor temperature 2	
	05	Auxiliary heater control by outdoor temperature 3	
	06	Auxiliary heat pump control	
	07	Auxiliary heat pump control by outdoor temperature 1	
	08	Auxiliary heat pump control by outdoor temperature 2	
	09	Auxiliary heat pump control by outdoor temperature 3	
	10	Auxiliary heater control by outdoor temperature 4	

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13) Operating temperature switching of external heaters

Sets the temperature conditions when the external heater is ON.

For details, refer to “External heater output” in "Details of control output function" on page 61.

Function number	Setting value	Setting description				Factory setting
		Setting value of function 61:				
		00		01 to 09		
		Heater: On	Heater: Off	Heater: On	Heater: Off	
62	00	-5.4 °F (-3 °C)	-1.8 °F (-1 °C)	-0.9 °F (-0.5 °C)	0.9 °F (0.5 °C)	♦
	01	-3.6 °F (-2 °C)	-1.8 °F (-1 °C)	-1.8 °F (-1 °C)	0.9 °F (0.5 °C)	
	02	-3.6 °F (-2 °C)	-1.8 °F (-1 °C)	-3.6 °F (-2 °C)	0.9 °F (0.5 °C)	
	03	-5.4 °F (-3 °C)	-1.8 °F (-1 °C)	-5.4 °F (-3 °C)	0.9 °F (0.5 °C)	
	04	-7.2 °F (-4 °C)	-1.8 °F (-1 °C)	-7.2 °F (-4 °C)	0.9 °F (0.5 °C)	
	05	-9.0 °F (-5 °C)	-1.8 °F (-1 °C)	-9.0 °F (-5 °C)	0.9 °F (0.5 °C)	
	06	-5.4 °F (-3 °C)	-0.9 °F (-0.5 °C)	-0.9 °F (-0.5 °C)	0 °F (0 °C)	
	07	-3.6 °F (-2 °C)	-0.9 °F (-0.5 °C)	-1.8 °F (-1 °C)	0 °F (0 °C)	
	08	-3.6 °F (-2 °C)	-0.9 °F (-0.5 °C)	-3.6 °F (-2 °C)	0 °F (0 °C)	
	09	-5.4 °F (-3 °C)	-0.9 °F (-0.5 °C)	-5.4 °F (-3 °C)	0 °F (0 °C)	
	10	-7.2 °F (-4 °C)	-0.9 °F (-0.5 °C)	-7.2 °F (-4 °C)	0 °F (0 °C)	
	11	-9.0 °F (-5 °C)	-0.9 °F (-0.5 °C)	-9.0 °F (-5 °C)	0 °F (0 °C)	
	12	-5.4 °F (-3 °C)	0 °F (0 °C)	-0.9 °F (-0.5 °C)	-0.9 °F (-0.5 °C)	
	13	-3.6 °F (-2 °C)	0 °F (0 °C)	-1.8 °F (-1 °C)	-0.9 °F (-0.5 °C)	
	14	-3.6 °F (-2 °C)	0 °F (0 °C)	-3.6 °F (-2 °C)	-0.9 °F (-0.5 °C)	
	15	-5.4 °F (-3 °C)	0 °F (0 °C)	-5.4 °F (-3 °C)	-0.9 °F (-0.5 °C)	
	16	-7.2 °F (-4 °C)	0 °F (0 °C)	-7.2 °F (-4 °C)	-0.9 °F (-0.5 °C)	
	17	-9.0 °F (-5 °C)	0 °F (0 °C)	-9.0 °F (-5 °C)	-0.9 °F (-0.5 °C)	

14) Outdoor temperature zone boundary temperature A

Setting required if changing of the outdoor temperature setting for heat pump prohibition zone is required when auxiliary heater control by outdoor temperature 1 and 2 are performed on the indoor unit.

For details, refer to “External heater output” in "Details of control output function" on page 61.

Function number	Setting value	Setting description	Factory setting
66	00	-4.0°F (-20°C)	♦
	01	-0.4°F (-18°C)	
	02	3.2°F (-16°C)	
	03	6.8°F (-14°C)	
	04	10.4°F (-12°C)	
	05	14.0°F (-10°C)	
	06	17.6°F (-8°C)	
	07	21.2°F (-6°C)	
	08	24.8°F (-4°C)	

DUCT AMUH12-48KUAS

15) Outdoor temperature zone boundary temperature B

Setting required if changing of the outdoor temperature setting for heat pump only zone is required when auxiliary heater control by outdoor temperature 1 and 3 is performed on the indoor unit.

For details, refer to “External heater output” in "Details of control output function" on page 61.

Function number	Setting value	Setting description	Factory setting
67	00	42.8°F (6°C)	♦
	01	14.0°F (-10°C)	
	02	17.6°F (-8°C)	
	03	21.2°F (-6°C)	
	04	24.8°F (-4°C)	
	05	28.4°F (-2°C)	
	06	32.0°F (0°C)	
	07	35.6°F (2°C)	
	08	39.2°F (4°C)	
	09	42.8°F (6°C)	
	10	46.4°F (8°C)	
	11	50.0°F (10°C)	
	12	53.6°F (12°C)	
	13	57.2°F (14°C)	
	14	60.8°F (16°C)	
	15	64.4°F (18°C)	

16) Standby time for auxiliary equipment operation

Sets the standby time until the auxiliary equipment operation starts during primary equipment operation.

For details, refer to "Details of control output function" on page 61.

Function number	Setting value	Setting description	Factory setting
71	00	Disable	♦
	01	1 minute	
	02	2 minutes	
	•	•	
	•	•	
	•	•	
	98	98 minutes	
	99	99 minutes	

17) Heat pump backup setting

Enables or disables the heat pump backup operation.

Function number	Setting value	Setting description	Factory setting
72	00	Disable	♦
	01	Enable	

18) Emergency heat for external output terminal

Enables or disables emergency heat input.

Function number	Setting value	Setting description	Factory setting
73	00	Disable	♦
	01	Enable	

NOTE: When this function is used, IR Receiver Unit or Wired Remote Controller is necessary.

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19) Fan delay time

Sets the fan delay time when the heater is turned off.

Function number	Setting value	Setting description	Factory setting
74	00	1 minute	♦
	01	50 seconds	
	02	40 seconds	
	03	30 seconds	

20) External heater use in defrosting

Enables or disables external heater use in defrosting.

NOTE: Inappropriate heater selection may cause cold air in defrosting.

Function number	Setting value	Setting description	Factory setting
75	00	Disable	♦
	01	Enable	

21) Operating temperature switching of external heaters (External heater 2)

Sets the temperature conditions when the external heater is on.

For details of the control method, refer to "External output" on page 53.

Function number	Setting value	Setting description	Factory setting
77	00	Setting 0	♦
	01	Setting 1	
	02	Setting 2	
	03	Setting 3	
	04	Setting 4	

For the temperature conditions, refer to the table below.

Heater 2 on/off temperature			
		Set value of function no. 61	
		00	01 to 99
Setting value of function no. 77	00	0°F (0°C)	0°F (0°C)
	01		1°F (0.5°C)
	02		2°F (1.0°C)
	03		3°F (1.5°C)
	04		4°F (2.0°C)

22) Standby time for auxiliary equipment operation (External heater 2)

Sets the standby time until the auxiliary equipment operation starts during primary equipment operation.

Function number	Setting value	Setting description	Factory setting
78	00	Disabled	♦
	01	1 minute	
	02	2 minutes	
	•	•	
	•	•	
	•	•	
	98	98 minutes	
	99	99 minutes	

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23) Safety measures setting for refrigerant leakage

Sets the safety measures operation in case of refrigerant leakage.

Function number	Setting value	Setting description	Factory setting
81	00	No safety measures	♦
	01	Air circulation	

To activate the safety measures operation for the indoor unit in case of refrigerant leakage, set the setting value to “01” (Air circulation). When the indoor unit detects refrigerant leakage or the refrigerant leakage sensor failure, the indoor unit operates as follows.

- The indoor unit operates the fan at high speed to diffuse the refrigerant, according to *UL60335-2-40*.

NOTE: Remote controller cannot stop this fan operation for safety reasons.

- The indoor unit stops cooling or heating operation. Also, Forced cooling operation is not allowed.
- The indoor unit or remote controller indicates error code 45 or A8.

24) Airflow adjustment setting for downflow installation

Corrects the airflow volume in downflow installation.

NOTE: Ensure that this setting is configured correctly in the downflow installation. An improper set-up might reduce the airflow volume, leading to decreased performance and condensation water leakage.

Function number	Setting value	Setting description	Factory setting
91	00	Up, left, or right flow	♦
	01	Downflow	

25) Fixed operation mode switching

Sets the operation mode to heat pump, heating only, or cooling only.

Function number	Setting value	Setting description	Factory setting
94	00	Heat pump	♦
	01	Heating only	
	02	Cooling only	

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AMUH12-48KUAS

11. Accessories

11-1. Models: AMUH12KUAS, AMUH18KUAS, AMUH24KUAS, AMUH30KUAS, AMUH36KUAS, and AMUH48KUAS

Part name	Exterior	Qty	Part name	Exterior	Qty
Operation manual		1	Cable tie (Medium)		2
Installation manual		1	Cable tie (Small)		6

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12. Optional parts

12-1. Controllers

Exterior	Part name	Model name	Summary
	Wired Remote Controller (Touch Panel)	UTY-RVRU	Remote controller that provides the functions you need in a sleek design that uniquely transforms itself to blend with any interior. Connecting point: Terminal block (Y1 and Y2)
	Wired Remote Controller (Touch Panel)	UTY-RNRUZ∗	Easy finger touch operation with LCD panel. Backlit LCD enables easy operation in a dark room. Connecting point: Terminal block (Y1 and Y2)
	Simple Remote Controller	UTY-RSRY	Compact remote controller concentrates on the basic functions such as Start/ Stop, fan control, temperature setting, and operation mode. Connecting point: Terminal block (Y1 and Y2)
	Simple Remote Controller	UTY-RHRY	Compact remote controller concentrates on the basic functions such as Start/ Stop, fan control, and temperature setting. Connecting point: Terminal block (Y1 and Y2)
	IR Receiver Kit with Wireless Remote Controller	UTY-LBTUM	Unit control is performed by Wireless Remote Controller Connecting point: CN48 on Main PCB

NOTES:

- Available functions may differ by the remote controller. For details, refer to the operation manual.
- When using the group controlling system of the Wired Remote Controller, using WLAN Adapter is prohibited.

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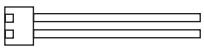
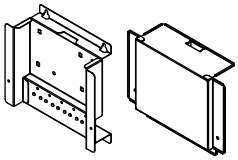
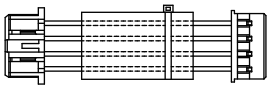
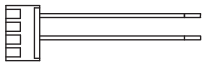
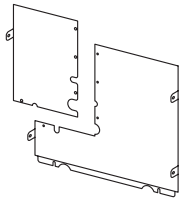
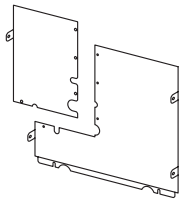
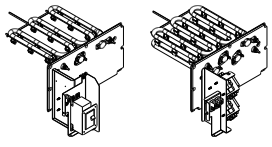
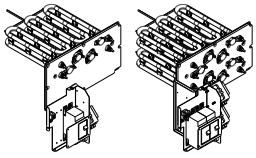
12-2. Others

Exterior	Part name	Model name	Summary
	Remote Sensor Unit	UTY-XSZXZ∗	Thermo-sensor for sensing the temperature of arbitrary place in the room. Connecting point: CN5 on Main PCB
	External Connect Kit	UTY-XWZXZG	Use to connect with various peripheral devices and air conditioner PCB. For control output port. Connecting point: CN47 on Main PCB
	External Input and Output PCB	UTY-XCSX	Use to connect with external devices and air conditioner PCB. Connecting point: CN65 on Main PCB
	External Input and Output PCB Box	UTZ-GXRA	For installing the External input and output PCB.
	Wire Kit	UTY-XWZXZJ	Use to connect with External Input and Output PCB and Indoor unit PCB. Connecting point:
	Wire Kit	UTY-XWZXZK	Use to connect with an external heater. (For 1-stage heater) Connecting point: CN67 on Main PCB
	Wire Kit	UTY-XWZXZP	Use to connect with an external heater. (For 2-stage heater) Connecting point: CN67 on Main PCB
	Downflow Conversion Kit	UTD-DFMSB1	Use to offer additional heating capacity. (For 12, 18, and 24 models)
	Downflow Conversion Kit	UTD-DFMMB1	Use to offer additional heating capacity. (For 30, 36, and 48 models)
	Heater Kit	UTZ-EU02MSA UTZ-EU03MSA UTZ-EU04MSA UTZ-EU04MSB2 UTZ-EU06MSB2 UTZ-EU08MSB2	Use to offer additional heating capacity. (For 12, 18, and 24 models) Connecting point:
	Heater Kit	UTZ-EU08MMA UTZ-EU10MMB2 UTZ-EU12MMB2 UTZ-EU16MMB2	Use to offer additional heating capacity. (For 30, 36, and 48 models) Connecting point:

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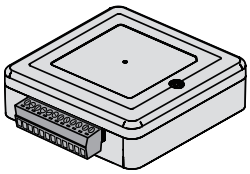
Exterior	Part name	Model name	Summary
	WLAN Adapter	UTY-TFSXJ∗	Remotely manage an air conditioning system using mobile devices such as smartphones and tablets. For connection indoor unit with UART interface. Appropriate application for each region is required to use this option. For details, contact FGL sales company. Connecting point: CN75 on Main PCB
	Modbus Converter	UTY-VMSX	For connection between indoor unit with UART interface and a Modbus open network. Connecting point: CN65 or CN75 on Main PCB
	Thermostat Converter	UTY-TTRXZ∗	This converter can control Fujitsu General products using a third-party thermostat controller. Connecting point: Terminal block (Y1 and Y2)
	Network Converter	UTY-VTGX	This converter is required when connecting single split system to VRF network system. Connecting point: Terminal block (Y1 and Y2)
	External Switch Controller	UTY-TERX	Air conditioner switching can be controlled by connecting other external sensor switches. Connecting point: Terminal block (Y1 and Y2)

NOTE: Combined use of following optional parts and WLAN Adapter (UTY-TFSXJ4) is not allowed.

- External Input and Output PCB (UTY-XCSX)
- Modbus Converter

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AMUH12-48KUAS

Part 2. OUTDOOR UNIT

SINGLE TYPE:

AOUH12KUAS1
AOUH18KUAS1
AOUH24KUAS1
AOUH30KUAS1
AOUH36KUAS1
AOUH48KUAS1

1. Specifications

1-1. Models: AOUH12KUAS1 and AOUH18KUAS1

OUTDOOR UNIT
AOUH12-48KUAS1

Type				Inverter, Heat pump	
Model name				**AOUH12KUAS1**	**AOUH18KUAS1**
Power supply				208/230 V~ 60 Hz	
Power supply intake				Outdoor unit	
Available voltage range				187—253 V	
Starting current			A	6.1	8.4
Fan	Airflow rate	Cooling	CFM (m^3/h)	1,171 (1,990)	1,318 (2,240)
		Heating		1,089 (1,850)	1,154 (1,960)
	Type × Qty			Propeller fan × 1	
	Motor output		W	49	
Sound pressure level*1		Cooling	dB (A)	48	52
		Heating		49	55
Heat exchanger type		Dimensions (H × W × D)	in (mm)	Main 1: 23-1/8 × 34-11/16 × 11/16 (588 × 881 × 18.19) Main 2: 23-1/8 × 33-1/2 × 11/16 (588 × 851 × 18.19)	
		Fin pitch	FPI	Main 1: 20 Main 2: 20	
		Rows × Stages		Main 1: 1 × 28 Main 2: 1 × 28	
		Pipe type		Copper tube	
		Fin type	Type (Material)	Aluminum	
			Surface treatment	PC fin	
Compressor		Type		DC twin rotary	
		Motor output	W	900	1,030
Refrigerant		Type		R32	
		Charge	lb oz	2 lb 4 oz	2 lb 12 oz
			g	1,020	1,250
Refrigerant oil		Type		RmM68AF	
		Amount	in^3 (cm^3)	24.4 (400)	
Enclosure		Material		Steel sheet	
		Color		Beige Approximate color of Munsell 10YR 7.5/1.0	
Dimensions (H × W × D)		Net	in (mm)	24-7/8 × 31-7/16 × 11-7/16 (632 × 799 × 290)	
		Gross		27-1/4 × 37 × 14-3/4 (692 × 940 × 375)	
Weight		Net	lb (kg)	84 (38)	
		Gross		93 (42)	
Connection pipe	Size	Liquid	in (mm)	Ø1/4 (Ø6.35)	
		Gas		Ø3/8 (Ø9.52)	Ø1/2 (Ø12.70)
	Method			Flare	
	Pre-charge length		ft (m)	66 (20)	
	Min. length			16 (5)	
	Max. length			98 (30)	
	Max. height difference			49 (15)	
Operation range		Cooling	°F (°C)	-5 to 122*2 (-21 to 50*2)	
		Heating		-5 to 75 (-21 to 24)	
Drain hose		Material		Low-density polyethylene	
		Tip diameter	in (mm)	Ø1/2 (Ø13.0) (I.D.), Ø5/8 to Ø11/16 (Ø16.0 to Ø16.7) (O.D.)	

NOTES:

- Specifications are based on the following conditions:
  - Cooling: Indoor temperature of 80°FDB (26.67°CDB)/67°FWB (19.44°CWB), and outdoor temperature of 95°FDB (35°CDB)/75°FWB (23.9°CWB).
  - Heating: Indoor temperature of 70°FDB (21.11°CDB)/59°FWB (15°CWB), and outdoor temperature of 47°FDB (8.33°CDB)/43°FWB (6.11°CWB).
  - Pipe length: 25 ft (7.5 m), Height difference: 0 ft (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 semi-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: Suction temperature of the outdoor unit

1-2. Model: AOUH24KUAS1

Type				Inverter, Heat pump
Model name				**AOUH24KUAS1**
Power supply				208/230 V~ 60 Hz
Power supply intake				Outdoor unit
Available voltage range				187—253 V
Starting current			A	9.8
Fan	Airflow rate	Cooling	CFM (m^3/h)	2,187 (3,715)
		Heating		2,187 (3,715)
	Type × Qty			Propeller fan × 1
	Motor output		W	100
Sound pressure level*1		Cooling	dB (A)	52
		Heating		54
Heat exchanger type		Dimensions (H × W × D)	in (mm)	Main 1: 29-3/4 × 35-5/8 × 11/16 (756 × 905 × 18.19) Main 2: 29-3/4 × 35-5/8 × 11/16 (756 × 905 × 18.19)
		Fin pitch	FPI	Main 1: 18 Main 2: 18
		Rows × Stages		Main 1: 1 × 36 Main 2: 1 × 36
		Pipe type		Copper tube
		Fin type	Type (Material)	Aluminum
			Surface treatment	Blue fin
Compressor		Type		DC twin rotary
		Motor output	W	1,360
Refrigerant		Type		R32
		Charge	lb oz	3 lb 5 oz
			g	1,500
Refrigerant oil		Type		RmM68AF
		Amount	in^3 (cm^3)	48.8 (800)
Enclosure		Material		Steel sheet
		Color		Beige Approximate color of Munsell 10YR 7.5/1.0
Dimensions (H × W × D)		Net	in (mm)	31 × 37 × 12-5/8 (788 × 940 × 320)
		Gross		38-1/16 × 40-7/16 × 17-1/2 (966 × 1,027 × 445)
Weight		Net	lb (kg)	115 (52)
		Gross		132 (60)
Connection pipe	Size	Liquid	in (mm)	Ø1/4 (Ø6.35)
		Gas		Ø1/2 (Ø12.70)
	Method			Flare
	Pre-charge length		ft (m)	66 (20)
	Min. length			16 (5)
	Max. length			164 (50)
	Max. height difference			98 (30)
Operation range		Cooling	°F (°C)	-5 to 122*2 (-21 to 50*2)
		Heating		-5 to 75 (-21 to 24)
Drain hose		Material		Low-density polyethylene
		Tip diameter	in (mm)	Ø1/2 (Ø13.0) (I.D.), Ø5/8 to Ø11/16 (Ø16.0 to Ø16.7) (O.D.)

NOTES:

- Specifications are based on the following conditions:
  - Cooling: Indoor temperature of 80°FDB (26.67°CDB)/67°FWB (19.44°CWB), and outdoor temperature of 95°FDB (35°CDB)/75°FWB (23.9°CWB).
  - Heating: Indoor temperature of 70°FDB (21.11°CDB)/59°FWB (15°CWB), and outdoor temperature of 47°FDB (8.33°CDB)/43°FWB (6.11°CWB).
  - Pipe length: 25 ft (7.5 m), Height difference: 0 ft (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 semi-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: Suction temperature of the outdoor unit

1-3. Models: AOUH30KUAS1, AOUH36KUAS1, and AOUH48KUAS1

Type				Inverter, Heat pump		
Model name				**AOUH30KUAS1**	**AOUH36KUAS1**	**AOUH48KUAS1**
Power supply				208/230 V~ 60 Hz		
Power supply intake				Outdoor unit		
Available voltage range				187—253 V		
Starting current			A	11.2	14.9	21.1
Fan	Airflow rate	Cooling	CFM (m^3/h)	2,301 (3,910)	2,502 (4,250)	2,619 (4,450)
		Heating		2,219 (3,770)	2,431 (4,130)	2,619 (4,450)
	Type × Qty			Propeller fan × 1		
	Motor output		W	120		
Sound pressure level*2		Cooling	dB (A)	53	54	57
		Heating		55	56	59
Heat exchanger type		Dimensions (H × W × D)	in (mm)	Main 1: 38-1/16 × 35-5/8 × 11/16 (966 × 905 × 18.19) Main 2: 38-1/16 × 35-5/8 × 11/16 (966 × 905 × 18.19)		Main 1: 38-1/16 × 35-5/8 × 11/16 (966 × 905 × 18.19) Main 2: 38-1/16 × 35-5/8 × 11/16 (966 × 905 × 18.19) Sub: 38-1/16 × 21-3/8 × 11/16 (966 × 543 × 18.19)
		Fin pitch	FPI	Main 1: 18 Main 2: 18		Main 1: 18 Main 2: 18 Sub: 18
		Rows × Stages		Main 1: 1 × 46 Main 2: 1 × 46		Main 1: 1 × 46 Main 2: 1 × 46 Sub: 1 × 46
		Pipe type		Copper tube		
		Fin type	Type (Material)	Aluminum		
			Surface treatment	Blue fin		
Compressor		Type		DC twin rotary		
		Motor output	W	1,830		2,550
Refrigerant		Type		R32		
		Charge	lb oz	4 lb 7 oz		5 lb 15 oz
			g	2,000		2,700
Refrigerant oil		Type		RmM68AF		
		Amount	in^3 (cm^3)	48.8 (800)		70.2 (1,150)
Enclosure		Material		Steel sheet		
		Color		Beige Approximate color of Munsell 10YR 7.5/1.0		
Dimensions (H × W × D)		Net	in (mm)	39-5/16 × 37 × 12-5/8 (998 × 940 × 320)		
		Gross		46-5/16 × 40-7/16 × 17-1/2 (1,176 × 1,027 × 445)		
Weight		Net	lb (kg)	137 (62)		157 (71)
		Gross		157 (71)		176 (80)
Connection pipe	Size	Liquid	in (mm)	Ø3/8 (Ø9.52)		
		Gas		Ø5/8 (Ø15.88)		
	Method			Flare		
	Pre-charge length		ft (m)	66 (20)		98 (30)
	Min. length			16 (5)		
	Max. length			164 (50)		246 (75)
	Max. height difference			98 (30)		
Operation range		Cooling	°F (°C)	-5 to 122*2 (-21 to 50*2)		
		Heating		-5 to 75 (-21 to 24)		
Drain hose		Material		Low-density polyethylene		
		Tip diameter	in (mm)	Ø1/2 (Ø13.0) (I.D.), Ø5/8 to Ø11/16 (Ø16.0 to Ø16.7) (O.D.)		

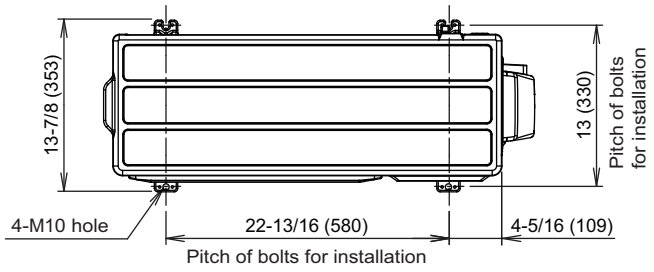
NOTES:

- Specifications are based on the following conditions:
  - Cooling: Indoor temperature of 80°FDB (26.67°CDB)/67°FWB (19.44°CWB), and outdoor temperature of 95°FDB (35°CDB)/75°FWB (23.9°CWB).
  - Heating: Indoor temperature of 70°FDB (21.11°CDB)/59°FWB (15°CWB), and outdoor temperature of 47°FDB (8.33°CDB)/43°FWB (6.11°CWB).
  - Pipe length: 25 ft (7.5 m), Height difference: 0 ft (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 semi-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: Suction temperature of the outdoor unit

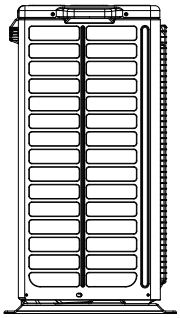
2. Dimensions

2-1. Models: AOUH12KUAS1 and AOUH18KUAS1

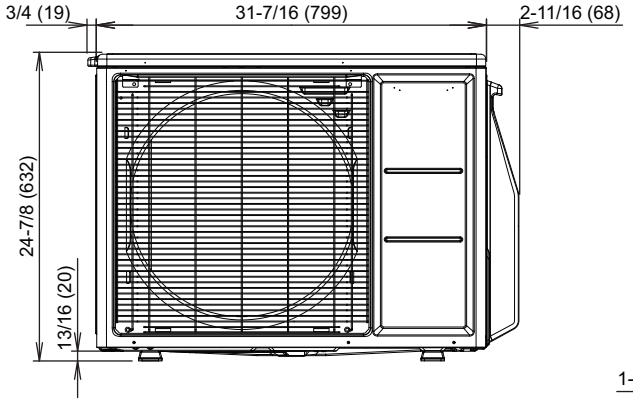
Unit: in (mm)



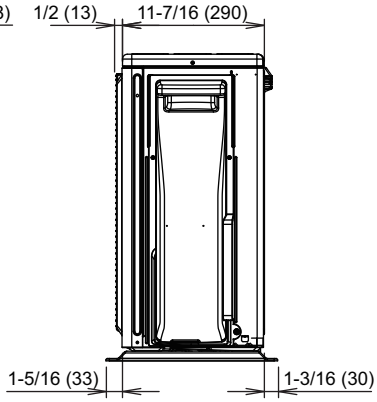
Top view



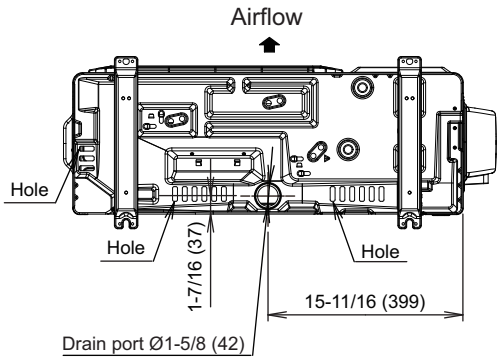
Side view



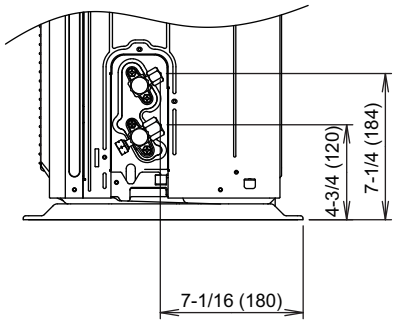
Front view



Side view



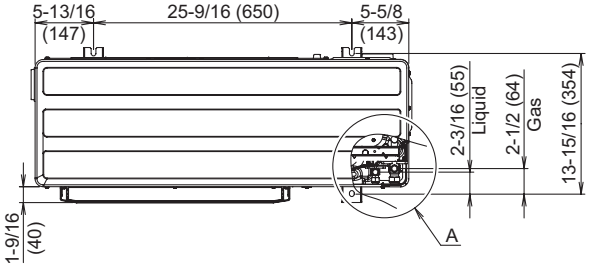
Bottom view



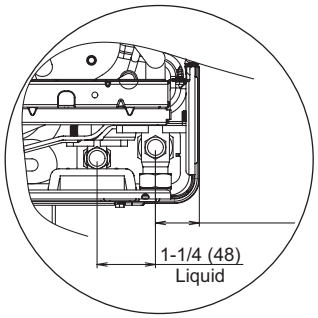
Side view (Valve part)

2-2. Model: AOUH24KUAS1

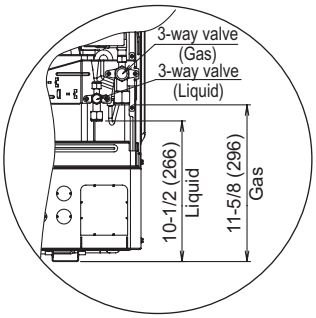
Unit: in (mm)



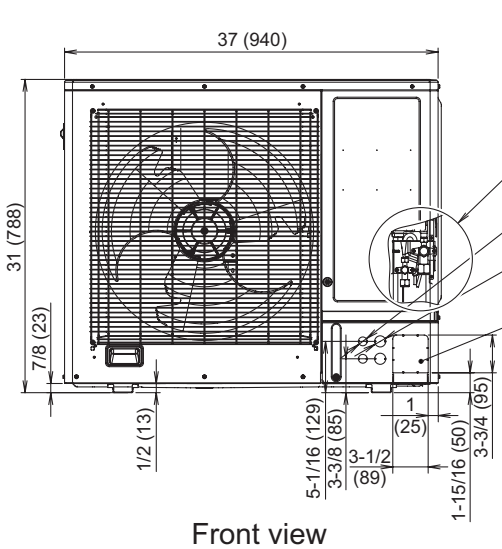
Top view



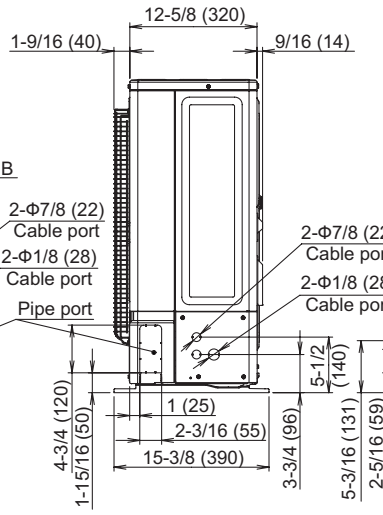
Detail A



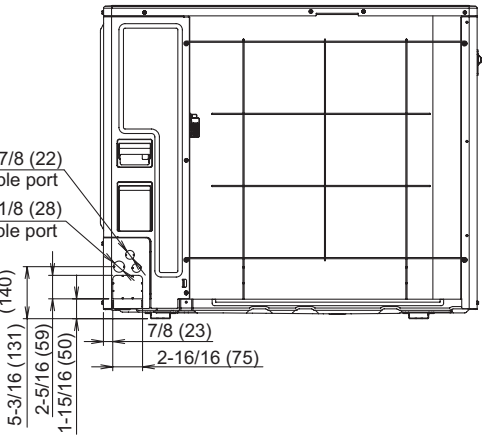
Detail B



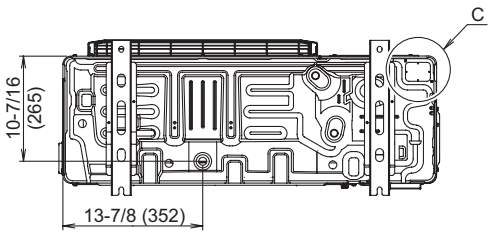
Front view



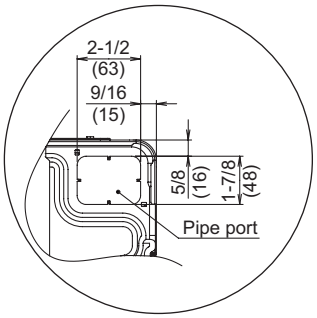
Side view



Rear view



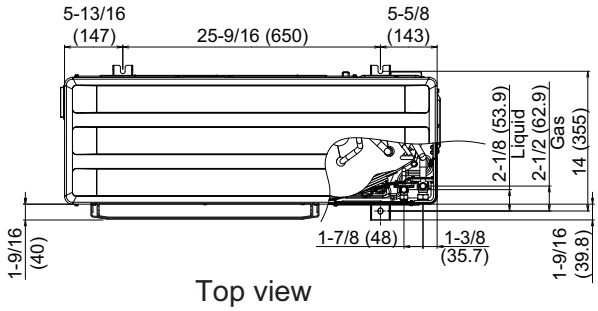
Bottom view



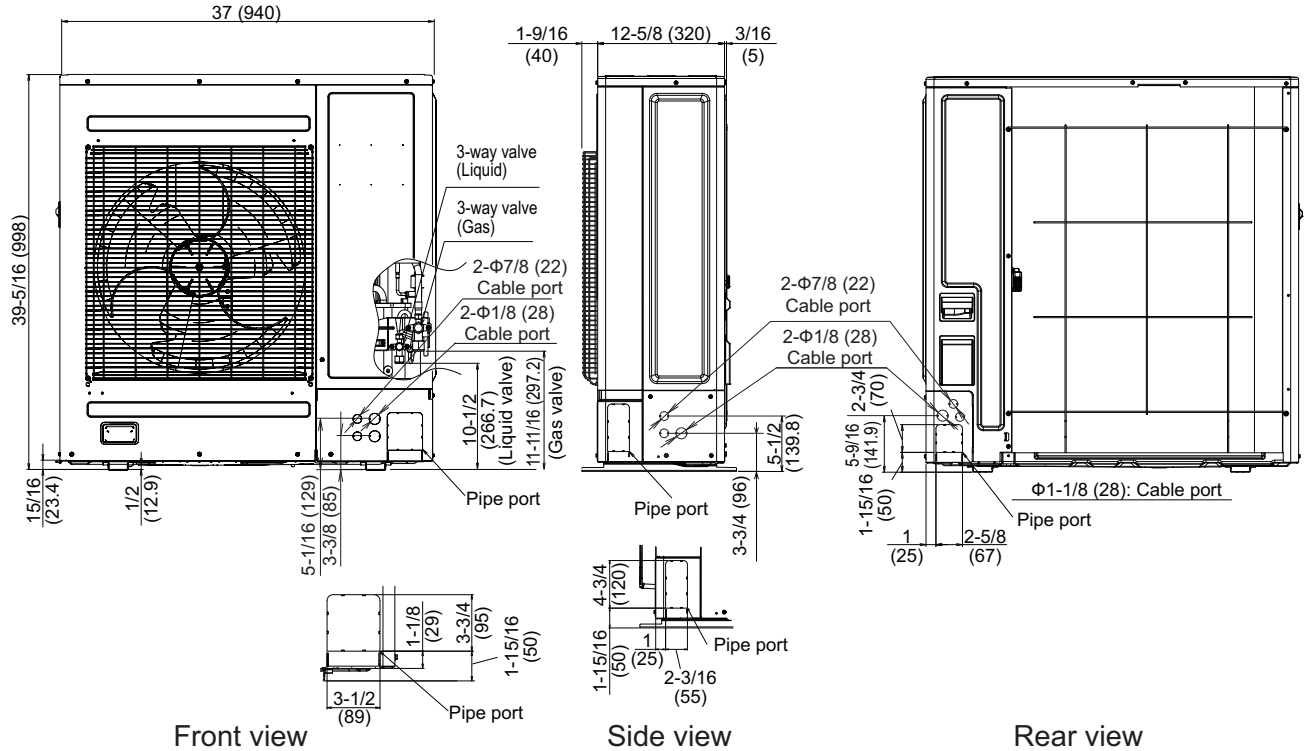
Detail C

2-3. Models: AOUH30KUAS1, AOUH36KUAS1, and AOUH48KUAS1

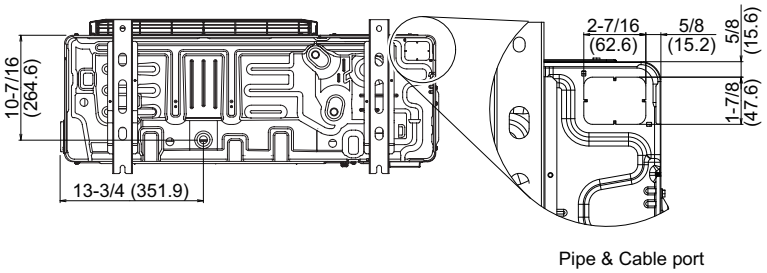
Unit: in (mm)



Top view



Front view Side view Rear view



Bottom view

OUTDOOR UNIT
AOUH12-48KUAS1

3. Installation space

3-1. Models: AOUH12KUAS1 and AOUH18KUAS1

■ Space requirement

Provide sufficient installation space for product safety.

⚠ CAUTION

Keep the space shown in the installation examples.

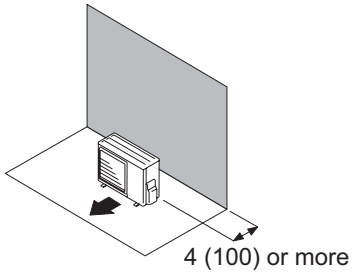
If the installation is not performed accordingly, it could cause a short circuit and result in a lack of operating performance.

● Single outdoor unit installation

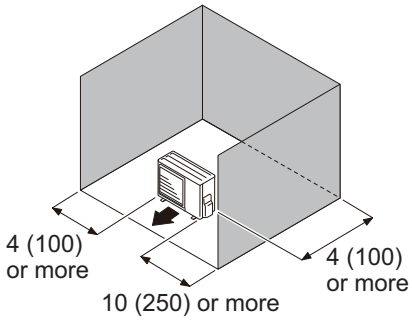
- **When the upper space is open:**

Unit: in (mm)

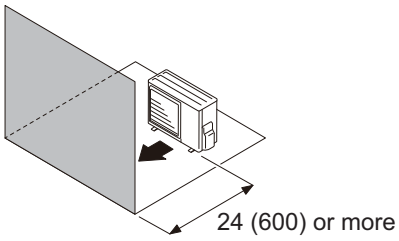
Obstacles at rear only



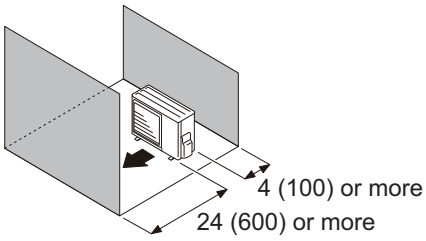
Obstacles at rear and sides



Obstacles at front



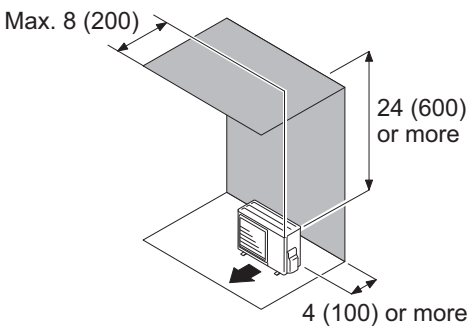
Obstacles at front and rear



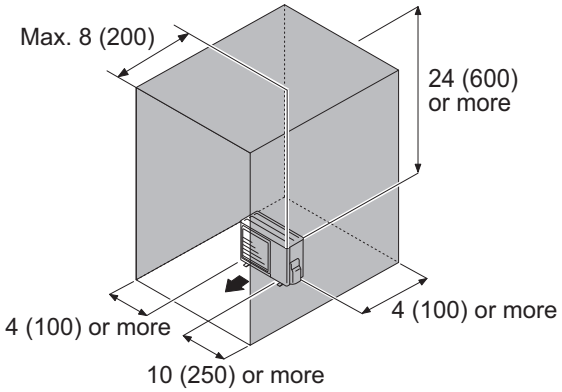
- **When an obstruction in the upper space:**

Unit: in (mm)

Obstacles at rear and above



Obstacles at rear, sides, and above



OUTDOOR UNIT
AOUH12-48KUAS1

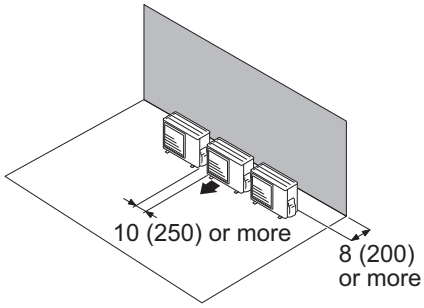
● Multiple outdoor unit installation

- Provide at least 10 in (250 mm) of space between the outdoor units if multiple units are installed.
- When routing the piping from the side of an outdoor unit, provide space for piping.
- No more than 3 units must be installed side by side.
  When 4 units or more are arranged in a line, provide the space as shown in the following example "**When an obstruction in the upper space:**".

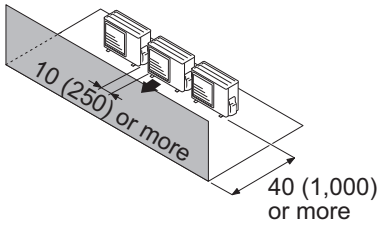
- **When the upper space is open:**

Unit: in (mm)

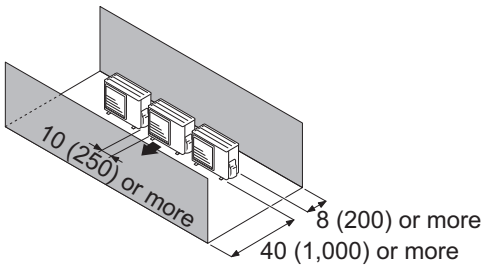
Obstacles at rear only



Obstacles at front only



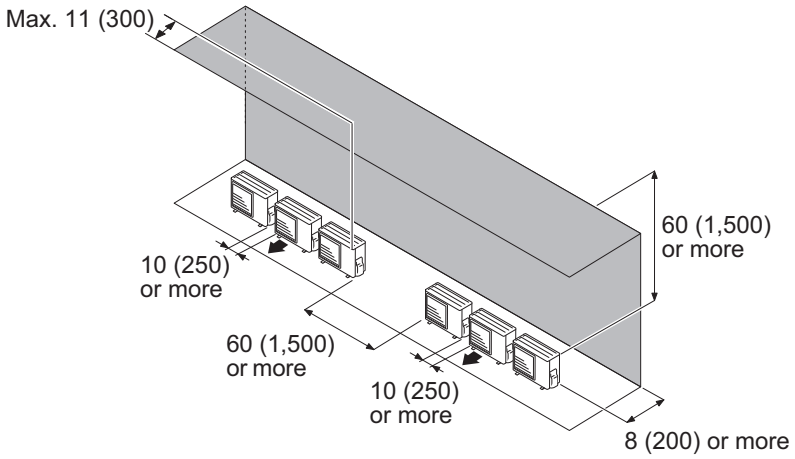
Obstacles at front and rear



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

Unit: in (mm)

Obstacles at rear and above.

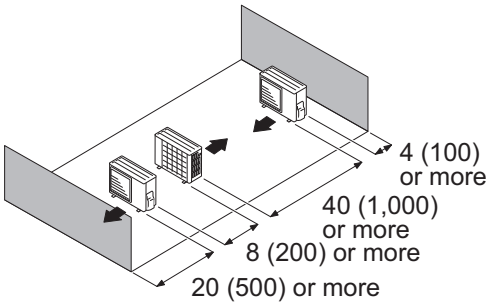


OUTDOOR UNIT
AOUH12-48KUAS1

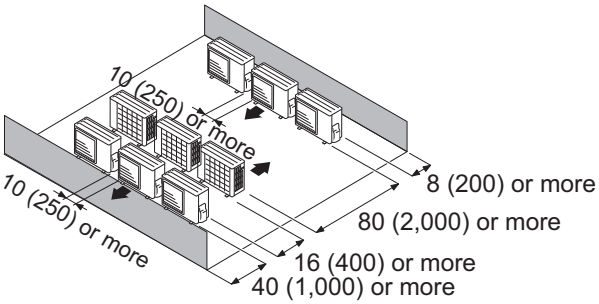
● Outdoor units installation in multi-row

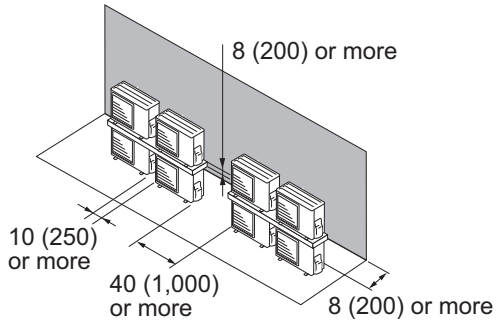
Unit: in (mm)

Single parallel unit arrangement



Multiple parallel unit arrangement



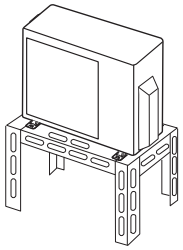


NOTES:

- 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 32 °F (0 °C) or less, do not use the accessory drain pipe and drain cap. If the drain pipe and drain cap are used, the drain water in the pipe may freeze in extremely cold climate. (For reverse cycle model only.)
- In area with heavy snowfall, if the inlet and outlet of the outdoor unit is blocked with snow, it might become difficult to get warm, and it is likely to cause product malfunction. Construct a canopy and a pedestal, or place the unit on a high stand that is locally installed.



OUTDOOR UNIT
AOUH12-48KUAS1

3-2. Models: AOUH24KUAS1, AOUH30KUAS1, AOUH36KUAS1, and AOUH48KUAS1

■ Space requirement

Provide sufficient installation space for product safety.

⚠ CAUTION

Keep the space shown in the installation examples.

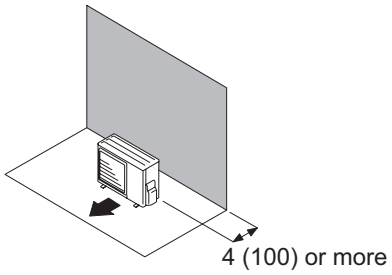
If the installation is not performed accordingly, it could cause a short circuit and result in a lack of operating performance.

● Single outdoor unit installation

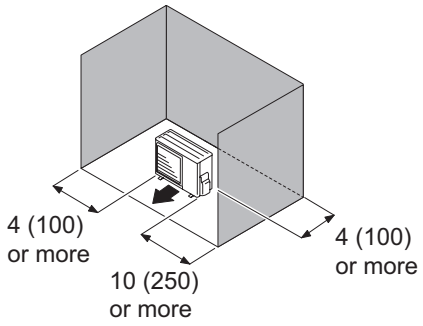
- **When the upper space is open:**

Unit: in (mm)

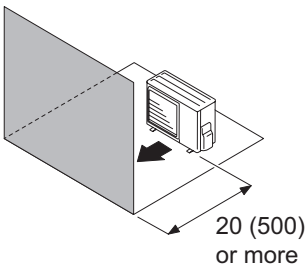
When there are obstacles at the rear only.



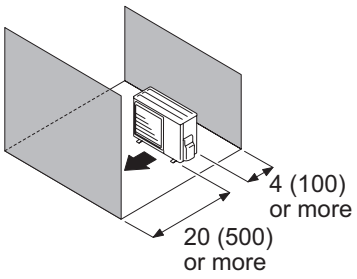
When there are obstacles at the rear and sides.



When there are obstacles at the front only.



When there are obstacles at the front and rear.

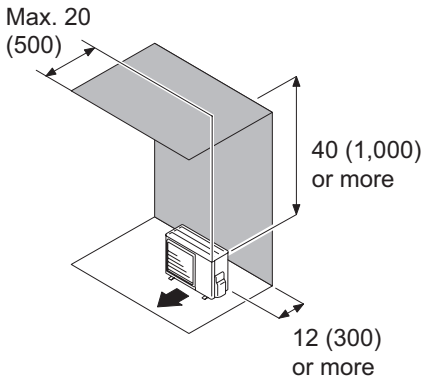


OUTDOOR UNIT
AOUH12-48KUAS1

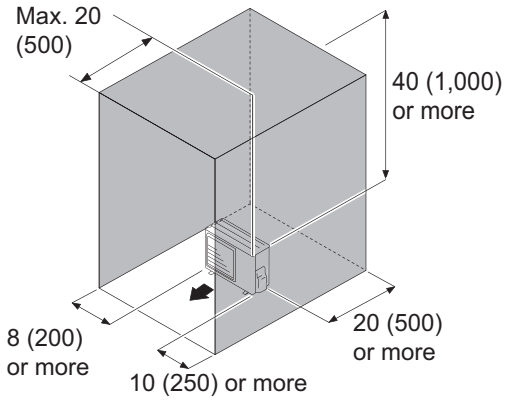
- **When an obstruction in the upper space:**

Unit: in (mm)

When there are obstacles at the rear and above.



When there are obstacles at the rear, sides, and above.



OUTDOOR UNIT
AOUH12-48KUAS1

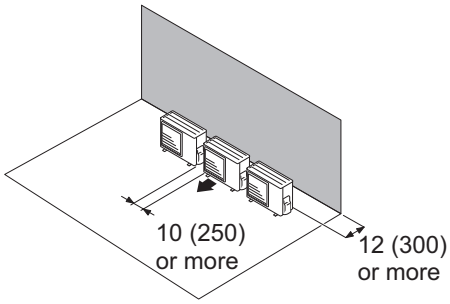
● Multiple outdoor unit installation

- Provide at least 250 mm of space between the outdoor units if multiple units are installed.
- When routing the piping from the side of an outdoor unit, provide space for piping.
- No more than 3 units must be installed side by side.
  When 4 units or more are arranged in a line, provide the space as shown in the following example "**When an obstruction in the upper space:**".

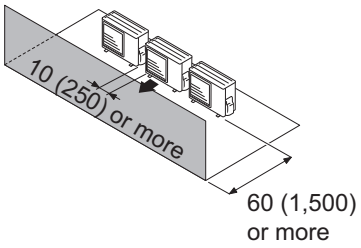
- **When the upper space is open:**

Unit: in (mm)

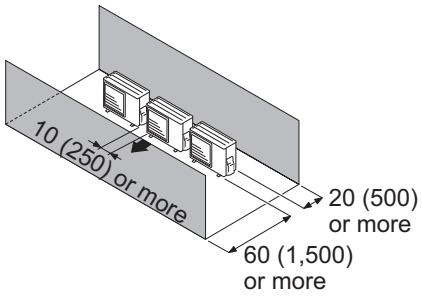
When there are obstacles at the rear only.



When there are obstacles at the front only.



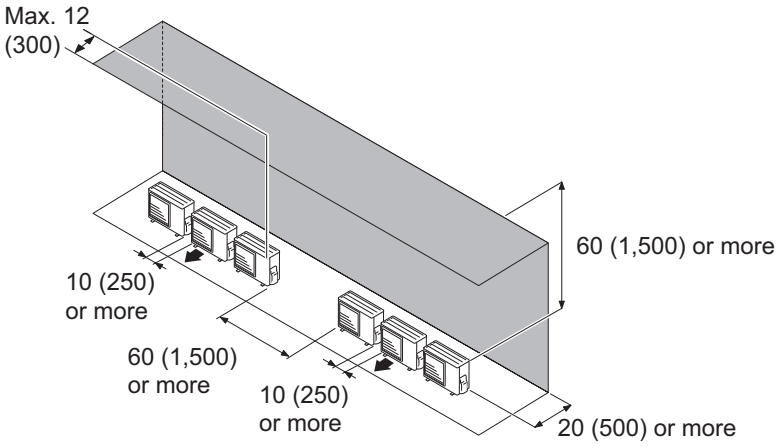
When there are obstacles at the front and rear.



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

Unit: in (mm)

When there are obstacles at the rear and above.

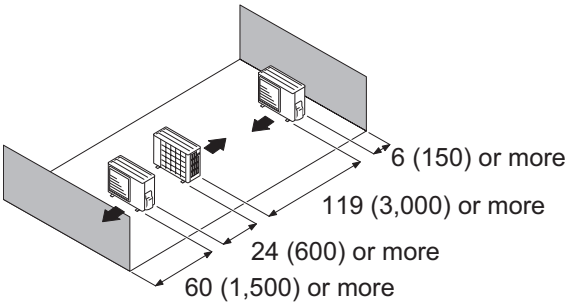


OUTDOOR UNIT
AOUH12-48KUAS1

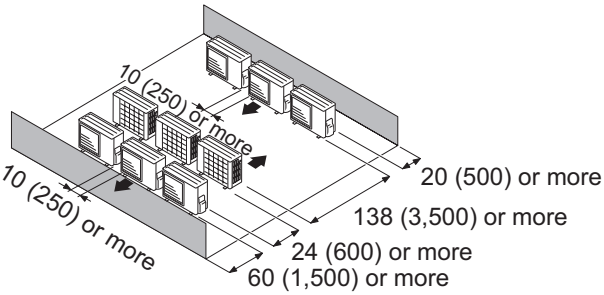
● Outdoor unit installation in multi-row

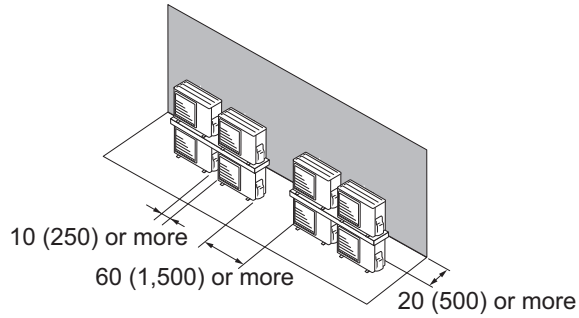
Unit: in (mm)

Single parallel unit arrangement



Multiple parallel unit arrangement



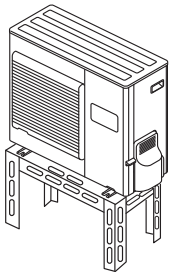


NOTES:

- If the space is larger than stated above, the condition will be the same as when there is no obstacle.
- Height above the floor level should be 2 in (50 mm) or more.
- When installing the outdoor unit, be sure to open the front and left side to obtain better operation efficiency.

⚠ CAUTION

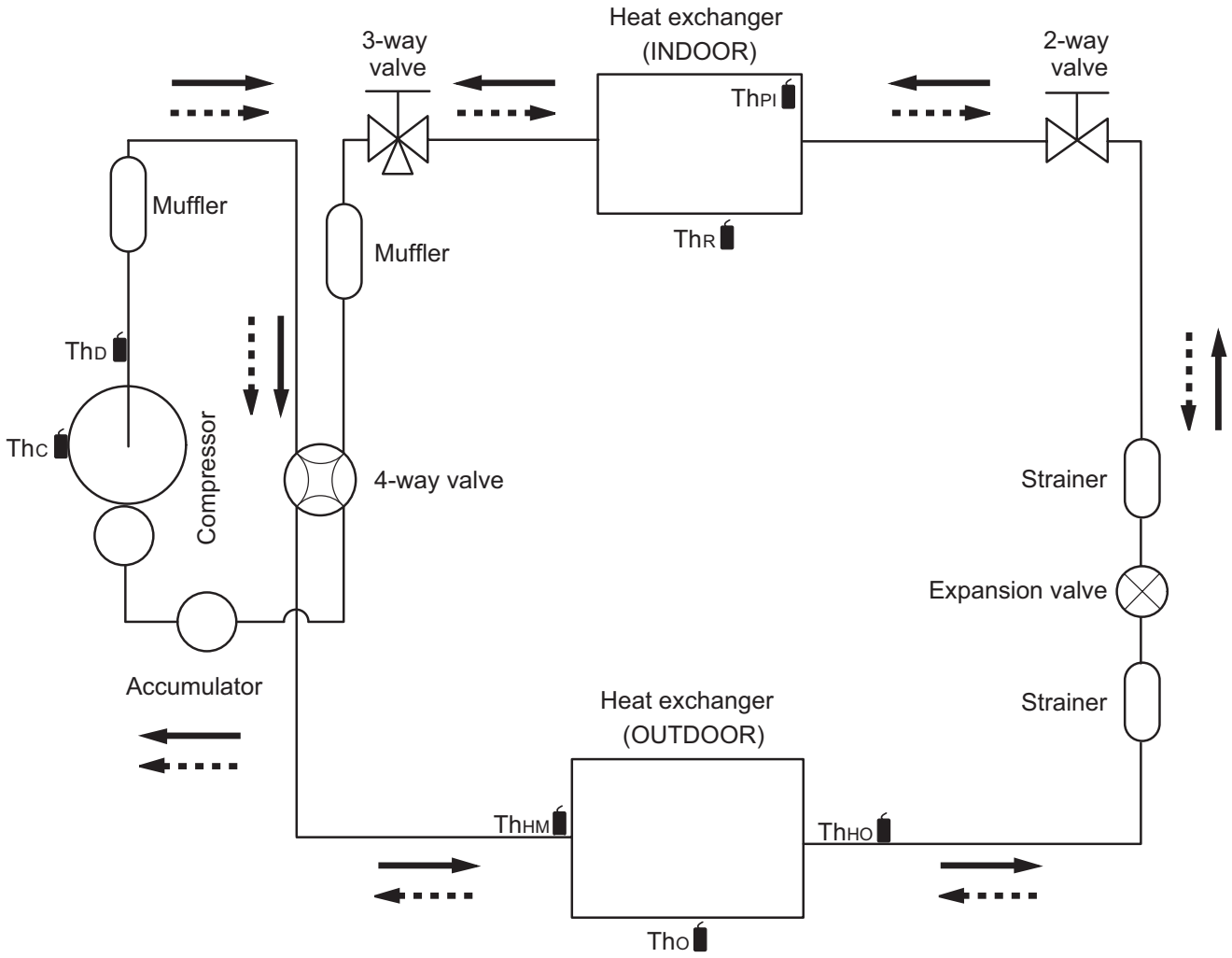
- Do not install the outdoor unit in two-stage where the drain water could freeze. Otherwise the drainage from the upper unit may form ice and cause a malfunction of the lower unit.
- When the outdoor temperature is 32 °F (0 °C) or less, do not use the accessory drain pipe and drain cap. If the drain pipe and drain cap are used, the drain water in the pipe may freeze in extremely cold climate. (For reverse cycle model only.)
- In area with heavy snowfall, if the inlet and outlet of the outdoor unit is blocked with snow, it might become difficult to get warm, and it is likely to cause product malfunction. Construct a canopy and a pedestal, or place the unit on a high stand that is locally installed.



OUTDOOR UNIT
AOUH12-48KUAS1

4. Refrigerant circuit

4-1. Models: AOUH12KUAS1 and AOUH18KUAS1



ThC : Thermistor (Compressor temperature)

ThD : Thermistor (Discharge temperature)

ThHM : Thermistor (Heat exchanger middle temperature)

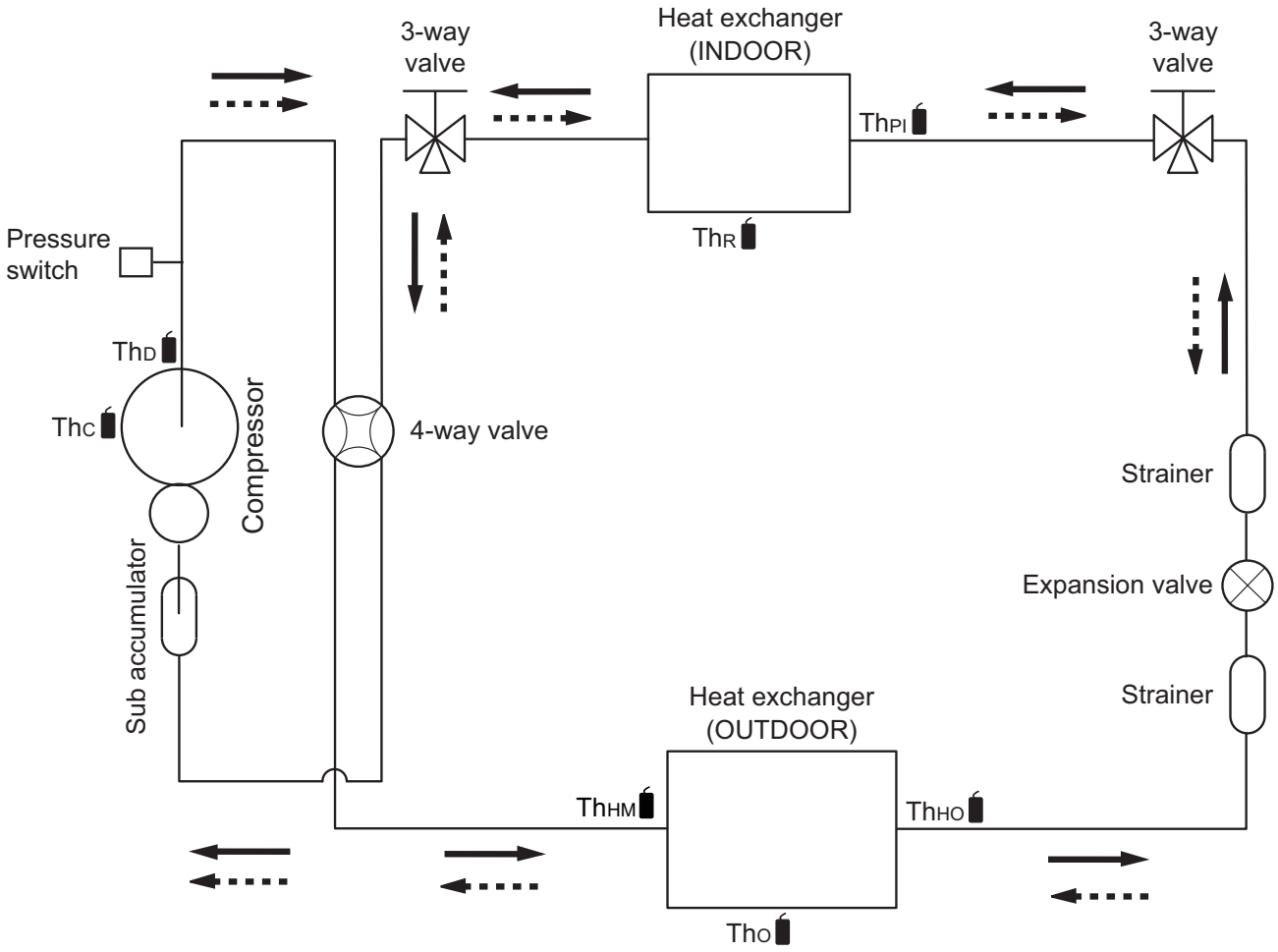
ThO : Thermistor (Outdoor temperature)

ThHO : Thermistor (Heat exchanger out temperature)

ThPI : Thermistor (Pipe temperature)

ThR : Thermistor (Room temperature)

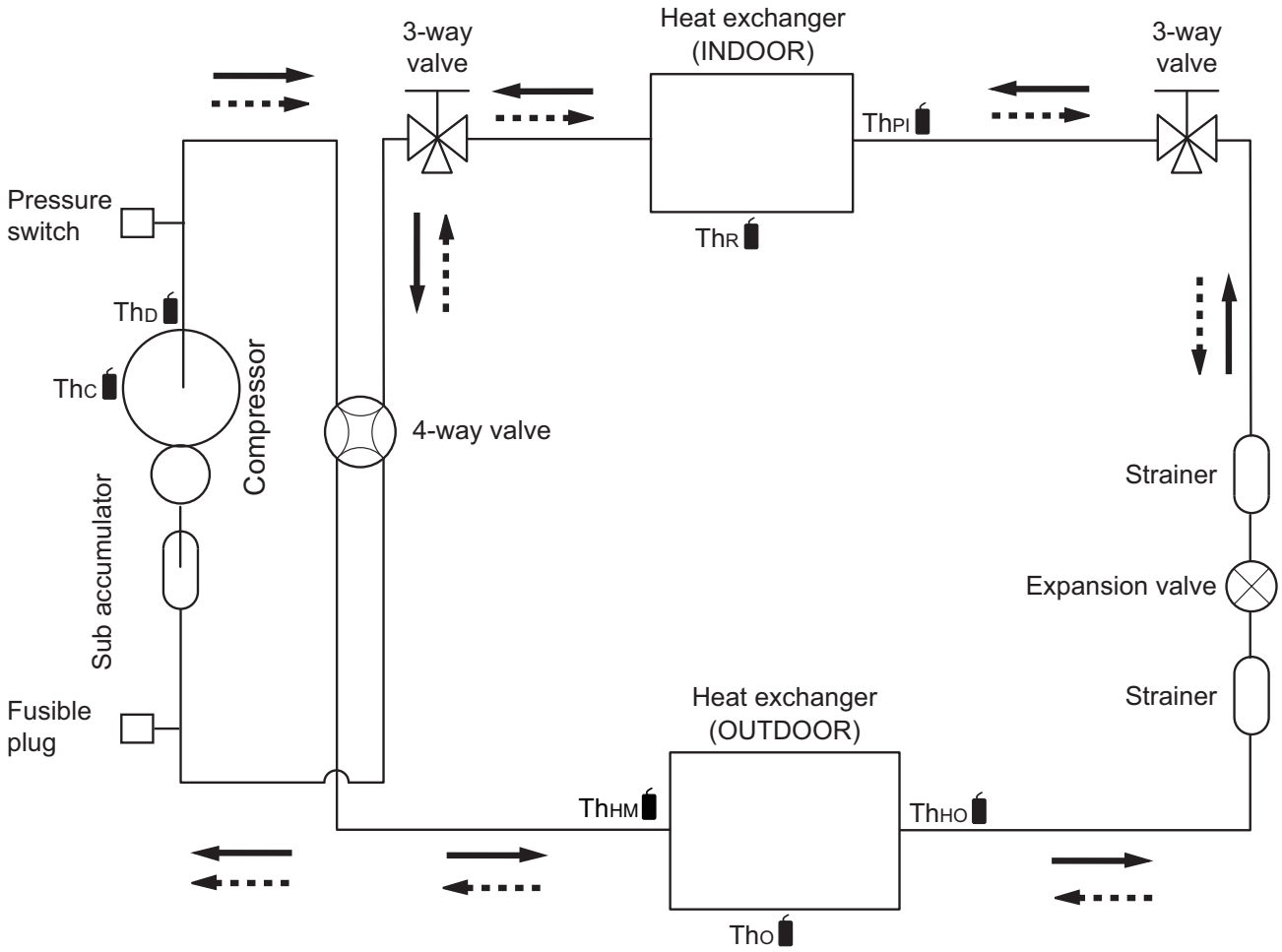
4-2. Models: AOUH24KUAS1, AOUH30KUAS1, and AOUH36KUAS1



: Cooling
: Heating

ThC : Thermistor (Compressor temperature)
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)

4-3. Model: AOUH48KUAS1

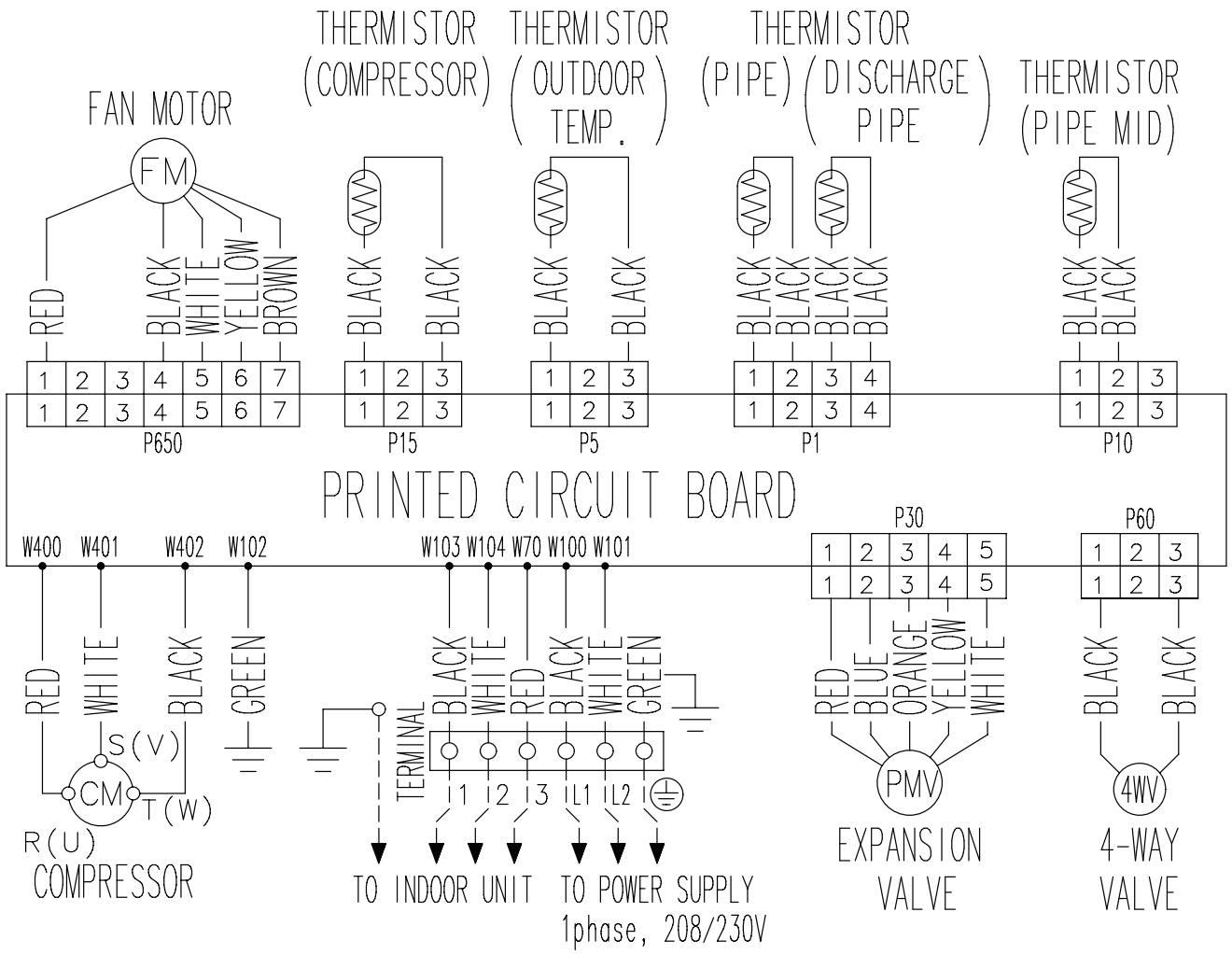


: Cooling
: Heating

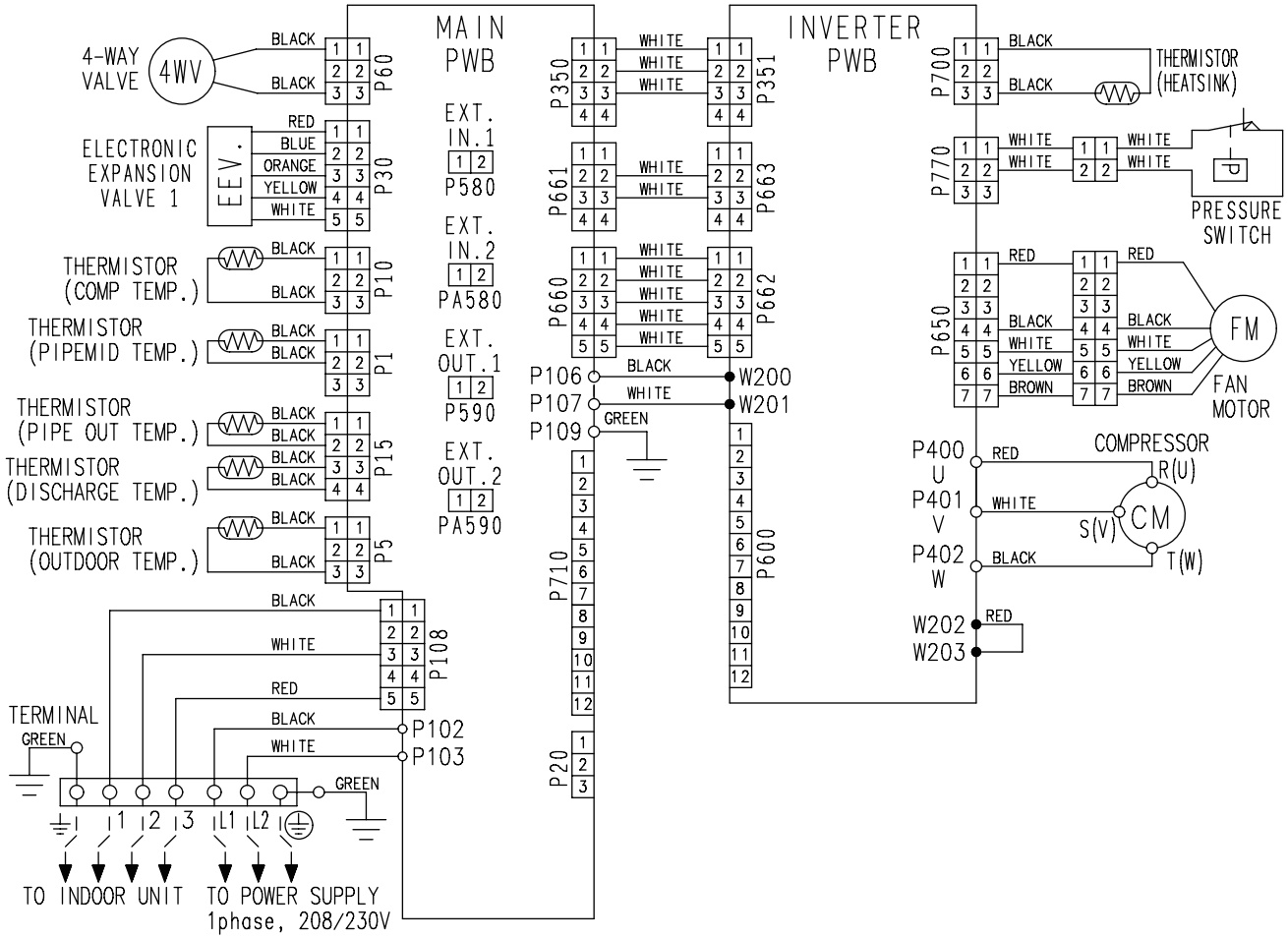
ThC : Thermistor (Compressor temperature)
ThD : Thermistor (Discharge temperature)
ThHM : Thermistor (Heat exchanger middle temperature)
ThO : Thermistor (Outdoor temperature)
ThHO : Thermistor (Heat exchanger out temperature)
ThPI : Thermistor (Pipe temperature)
ThR : Thermistor (Room temperature)

5. Wiring diagrams

5-1. Models: AOUH12KUAS1 and AOUH18KUAS1

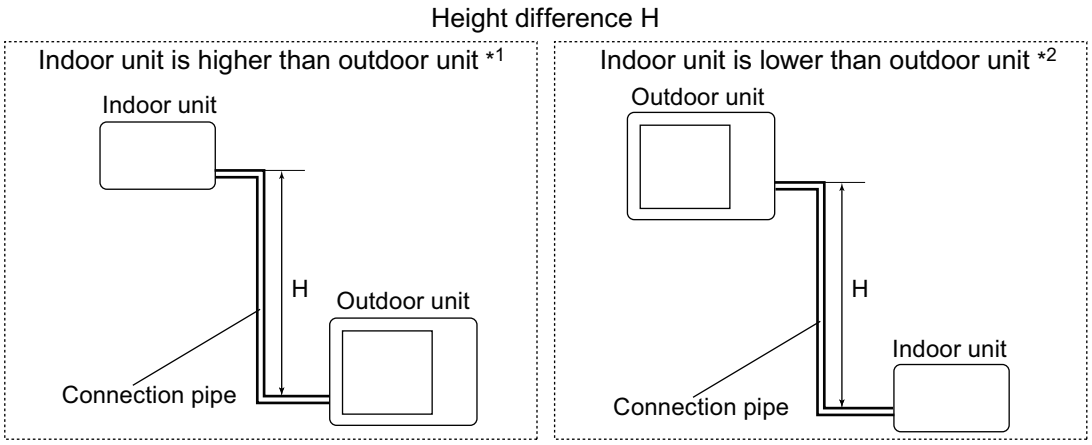


5-2. Models: AOUH24KUAS1, AOUH30KUAS1, AOUH36KUAS1, and AOUH48KUAS1



OUTDOOR UNIT
AOUH12-48KUAS1

6. Capacity compensation rate for pipe length and height difference



6-1. Model: AOUH12KUAS1

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

COOLING		Pipe length								
		m		5	7.5	10	15	20	25	30
			ft	16	25	33	49	66	82	98
Height difference H	Indoor unit is higher than outdoor unit *1	15	49	—	—	—	0.877	0.815	0.811	0.807
		10	33	—	—	0.956	0.891	0.828	0.824	0.820
		7.5	25	—	0.988	0.960	0.895	0.832	0.828	0.824
		5	16	1.017	0.992	0.964	0.899	0.834	0.831	0.827
		0	0	1.025	1.000	0.971	0.906	0.841	0.837	0.833
	Indoor unit is lower than outdoor unit *2	-5	-16	1.025	1.000	0.971	0.906	0.841	0.837	0.833
		-7.5	-25	—	1.000	0.971	0.906	0.841	0.837	0.833
		-10	-33	—	—	0.971	0.906	0.841	0.837	0.833
		-15	-49	—	—	—	0.906	0.841	0.837	0.833

HEATING		Pipe length								
		m		5	7.5	10	15	20	25	30
			ft	16	25	33	49	66	82	98
Height difference H	Indoor unit is higher than outdoor unit *1	15	49	—	—	—	0.933	0.885	0.877	0.869
		10	33	—	—	0.981	0.933	0.885	0.877	0.869
		7.5	25	—	1.000	0.981	0.933	0.885	0.877	0.869
		5	16	1.017	1.000	0.981	0.933	0.885	0.877	0.869
		0	0	1.017	1.000	0.981	0.933	0.885	0.877	0.869
	Indoor unit is lower than outdoor unit *2	-5	-16	1.012	0.995	0.976	0.928	0.880	0.872	0.864
		-7.5	-25	—	0.993	0.974	0.926	0.878	0.870	0.862
		-10	-33	—	—	0.971	0.923	0.876	0.868	0.861
		-15	-49	—	—	—	0.914	0.867	0.859	0.851

6-2. Model: AOUH18KUAS1

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

COOLING		Pipe length							
		m		5	7.5	10	15	20	25	30
			ft	16	25	33	49	66	82	98
Height difference H	Indoor unit is higher than outdoor unit *1	15	49	—	—	—	0.951	0.950	0.947	0.941
		10	33	—	—	0.979	0.967	0.966	0.962	0.956
		7.5	25	—	0.988	0.983	0.971	0.970	0.966	0.960
		5	16	0.994	0.992	0.987	0.975	0.974	0.970	0.964
		0	0	1.002	1.000	0.995	0.983	0.982	0.978	0.972
	Indoor unit is lower than outdoor unit *2	-5	-16	1.002	1.000	0.995	0.983	0.982	0.978	0.972
		-7.5	-25	—	1.000	0.995	0.983	0.982	0.978	0.972
		-10	-33	—	—	0.995	0.983	0.982	0.978	0.972
		-15	-49	—	—	—	0.983	0.982	0.978	0.972

HEATING		Pipe length							
		m		5	7.5	10	15	20	25	30
			ft	16	25	33	49	66	82	98
Height difference H	Indoor unit is higher than outdoor unit *1	15	49	—	—	—	0.994	0.979	0.949	0.919
		10	33	—	—	1.012	0.994	0.979	0.949	0.919
		7.5	25	—	1.000	1.012	0.994	0.979	0.949	0.919
		5	16	0.969	1.000	1.012	0.994	0.979	0.949	0.919
		0	0	0.969	1.000	1.012	0.994	0.979	0.949	0.919
	Indoor unit is lower than outdoor unit *2	-5	-16	0.964	0.995	1.007	0.989	0.974	0.944	0.915
		-7.5	-25	—	0.993	1.004	0.986	0.972	0.942	0.911
		-10	-33	—	—	1.002	0.984	0.969	0.940	0.909
		-15	-49	—	—	—	0.974	0.959	0.930	0.899

6-3. Models: AOUH24KUAS1, AOUH30KUAS1, and AOUH36KUAS1

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

COOLING		Pipe length								
		m		5	7.5	10	20	30	40	50
			ft	16	24	32	65	98	131	164
Height difference H	Indoor unit is higher than outdoor unit *1	30	98	—	—	—	—	0.913	0.899	0.881
		20	65	—	—	—	0.941	0.929	0.914	0.896
		10	32	—	—	0.974	0.957	0.944	0.930	0.911
		7.5	24	—	0.988	0.978	0.960	0.948	0.934	0.914
		5	16	0.998	0.992	0.982	0.964	0.952	0.938	0.919
		0	0	1.000	1.000	0.989	0.972	0.960	0.945	0.926
	Indoor unit is lower than outdoor unit *2	-5	-16	1.000	1.000	0.989	0.972	0.960	0.945	0.926
		-7.5	-24	—	1.000	0.989	0.972	0.960	0.945	0.926
		-10	-32	—	—	0.989	0.972	0.960	0.945	0.926
		-20	-65	—	—	—	0.972	0.960	0.945	0.926
		-30	-98	—	—	—	—	0.960	0.945	0.926

HEATING		Pipe length								
		m		5	7.5	10	20	30	40	50
			ft	16	24	32	65	98	131	164
Height difference H	Indoor unit is higher than outdoor unit *1	30	98	—	—	—	—	0.939	0.922	0.907
		20	65	—	—	—	0.963	0.939	0.922	0.907
		10	32	—	—	0.999	0.963	0.939	0.922	0.907
		7.5	24	—	1.000	0.999	0.963	0.939	0.922	0.907
		5	16	1.000	1.000	0.999	0.963	0.939	0.922	0.907
		0	0	1.000	1.000	0.999	0.963	0.939	0.922	0.907
	Indoor unit is lower than outdoor unit *2	-5	-16	1.000	0.995	0.995	0.958	0.934	0.917	0.903
		-7.5	-24	—	0.983	0.992	0.955	0.932	0.915	0.900
		-10	-32	—	—	0.990	0.953	0.929	0.912	0.898
		-20	-65	—	—	—	0.943	0.920	0.903	0.889
		-30	-98	—	—	—	—	0.911	0.894	0.880

6-4. Model: AOUH48KUAS1

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

COOLING		Pipe length										
		m		5	7.5	10	20	30	40	50	60	75
			ft	16	24	32	65	98	131	164	196	246
Height difference H	Indoor unit is higher than outdoor unit *1	30	98	—	—	—	—	0.900	0.879	0.858	0.837	0.803
		20	65	—	—	—	0.937	0.915	0.894	0.872	0.851	0.816
		10	32	—	—	0.973	0.952	0.931	0.908	0.887	0.865	0.830
		7.5	24	—	0.988	0.977	0.956	0.934	0.913	0.891	0.869	0.833
		5	16	0.992	0.992	0.981	0.960	0.938	0.916	0.894	0.873	0.836
		0	0	1.000	1.000	0.989	0.967	0.945	0.923	0.901	0.879	0.843
	Indoor unit is lower than outdoor unit *2	-5	-16	1.000	1.000	0.989	0.967	0.945	0.923	0.901	0.879	0.843
		-7.5	-24	—	1.000	0.989	0.967	0.945	0.923	0.901	0.879	0.843
		-10	-32	—	—	0.989	0.967	0.945	0.923	0.901	0.879	0.843
		-20	-65	—	—	—	0.967	0.945	0.923	0.901	0.879	0.843
		-30	-98	—	—	—	—	0.945	0.923	0.901	0.879	0.843

HEATING		Pipe length										
		m		5	7.5	10	20	30	40	50	60	75
			ft	16	24	32	65	98	131	164	196	246
Height difference H	Indoor unit is higher than outdoor unit *1	30	98	—	—	—	—	0.978	0.968	0.958	0.948	0.935
		20	65	—	—	—	0.988	0.978	0.968	0.958	0.948	0.935
		10	32	—	—	0.998	0.988	0.978	0.968	0.958	0.948	0.935
		7.5	24	—	1.000	0.998	0.988	0.978	0.968	0.958	0.948	0.935
		5	16	1.000	1.000	0.998	0.988	0.978	0.968	0.958	0.948	0.935
		0	0	1.000	1.000	0.998	0.988	0.978	0.968	0.958	0.948	0.935
	Indoor unit is lower than outdoor unit *2	-5	-16	0.995	0.995	0.993	0.983	0.973	0.963	0.953	0.943	0.930
		-7.5	-24	—	0.993	0.990	0.980	0.970	0.960	0.950	0.940	0.928
		-10	-32	—	—	0.988	0.978	0.968	0.958	0.948	0.938	0.926
		-20	-65	—	—	—	0.968	0.958	0.948	0.938	0.929	0.916
		-30	-98	—	—	—	—	0.948	0.939	0.929	0.919	0.907

OUTDOOR UNIT
AOUH12-48KUAS1

7. Additional charge calculation

7-1. Model: AOUH12KUAS1

Refrigerant type		R32
Factory charge amount	lb oz	2 lb 4 oz
	g	1,020

■ Refrigerant charge

Total pipe length	ft	66 or less	82	98 (Max.)	0.22 oz/ft (20 g/m)
	m	20 or less	25	30 (Max.)	
Additional charge amount	oz	0	3.5	7	
	g	0	100	200	

7-2. Model: AOUH18KUAS1

Refrigerant type		R32
Factory charge amount	lb oz	2 lb 12 oz
	g	1,250

■ Refrigerant charge

Total pipe length	ft	66 or less	82	98 (Max.)	0.22 oz/ft (20 g/m)
	m	20 or less	25	30 (Max.)	
Additional charge amount	oz	0	3.5	7	
	g	0	100	200	

7-3. Model: AOUH24KUAS1

Refrigerant type		R32
Factory charge amount	lb oz	3 lb 5 oz
	g	1,500

■ Refrigerant charge

Total pipe length	ft	65 or less	82	98	114	131	147	164 (Max.)	0.22 oz/ft (20 g/m)
	m	20 or less	25	30	35	40	45	50 (Max.)	
Additional charge amount	oz	0	3.5	7	10.5	14	17.5	21	
	g	0	100	200	300	400	500	600	

OUTDOOR UNIT
AOUH12-48KUAS1

7-4. Model: AOUH30KUAS1

Refrigerant type		R32
Factory charge amount	lb oz	4 lb 7 oz
	g	2,000

■ Refrigerant charge

Total pipe length	ft	66 or less	82	98	114	131	147	164 (Max.)	0.43 oz/ft (40 g/m)
	m	20 or less	25	30	35	40	45	50 (Max.)	
Additional charge amount	oz	0	7	14	21	28	35	42	
	g	0	200	400	600	800	1,000	1,200	

7-5. Model: AOUH36KUAS1

Refrigerant type		R32
Factory charge amount	lb oz	4 lb 7 oz
	g	2,000

■ Refrigerant charge

Total pipe length	ft	66 or less	82	98	114	131	147	164 (Max.)	0.43 oz/ft (40 g/m)
	m	20 or less	25	30	35	40	45	50 (Max.)	
Additional charge amount	oz	0	7	14	21	28	35	42	
	g	0	200	400	600	800	1,000	1,200	

7-6. Model: AOUH48KUAS1

Refrigerant type		R32
Factory charge amount	lb oz	5 lb 15 oz
	g	2,700

■ Refrigerant charge

Total pipe length	ft	98 or less	131	164	196	246 (Max.)	0.43 oz/ft (40 g/m)
	m	30 or less	40	50	60	75 (Max.)	
Additional charge amount	oz	0	14	28	42	63	
	g	0	400	800	1,200	1,800	

OUTDOOR UNIT
AOUH12-48KUAS1

8. Airflow

8-1. Model: AOUH12KUAS1

● Cooling

m^3/h	1,990
l/s	553
CFM	1,171

● Heating

m^3/h	1,850
l/s	514
CFM	1,089

8-2. Model: AOUH18KUAS1

● Cooling

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

● Heating

m^3/h	1,960
l/s	544
CFM	1,154

8-3. Model: AOUH24KUAS1

● Cooling

m^3/h	3,715
l/s	1,032
CFM	2,187

● Heating

m^3/h	3,715
l/s	1,032
CFM	2,187

OUTDOOR UNIT
AOUH12-48KUAS1

8-4. Model: AOUH30KUAS1

● Cooling

m^3/h	3,910
l/s	1,086
CFM	2,301

● Heating

m^3/h	3,770
l/s	1,047
CFM	2,219

8-5. Model: AOUH36KUAS1

● Cooling

m^3/h	4,250
l/s	1,181
CFM	2,502

● Heating

m^3/h	4,130
l/s	1,147
CFM	2,431

8-6. Model: AOUH48KUAS1

● Cooling

m^3/h	4,450
l/s	1,236
CFM	2,619

● Heating

m^3/h	4,450
l/s	1,236
CFM	2,619

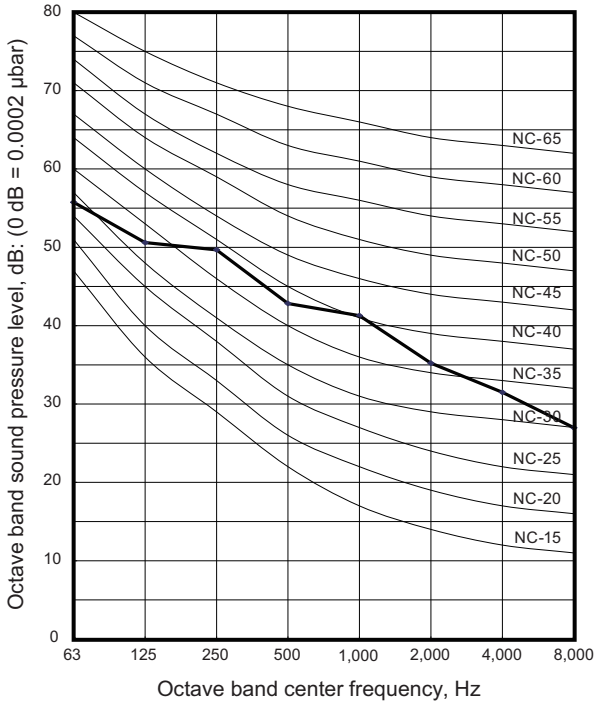
OUTDOOR UNIT
AOUH12-48KUAS1

9. Operation noise (sound pressure)

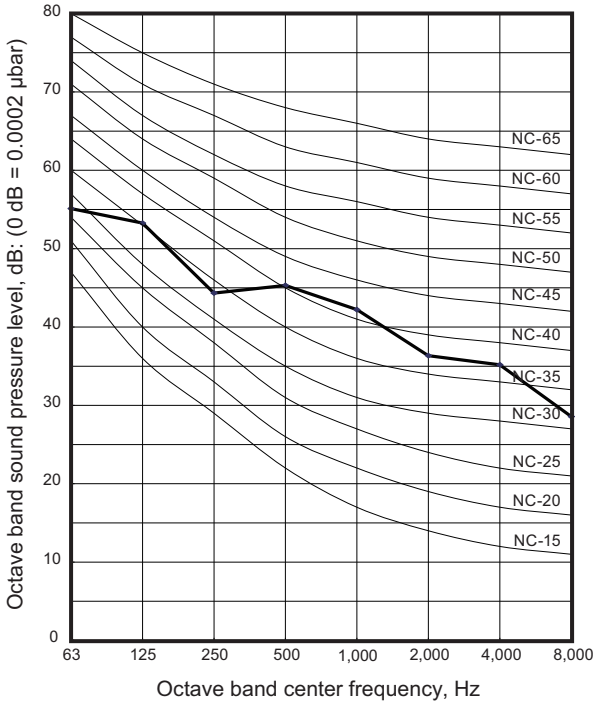
9-1. Noise level curve

■ Model: AOUH12KUAS1

● Cooling

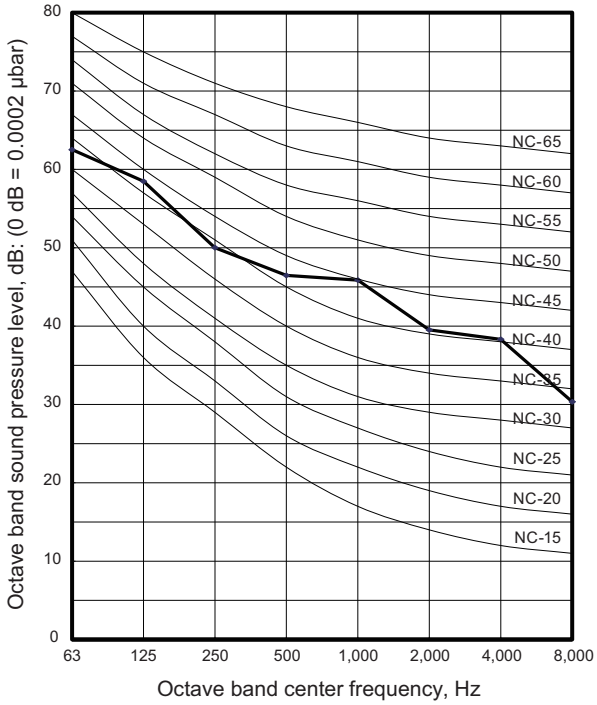


● Heating

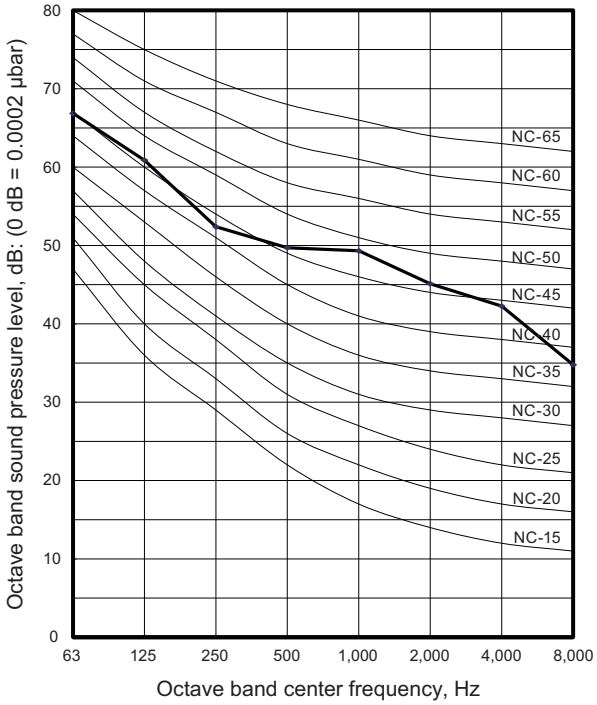


■ Model: AOUH18KUAS1

● Cooling



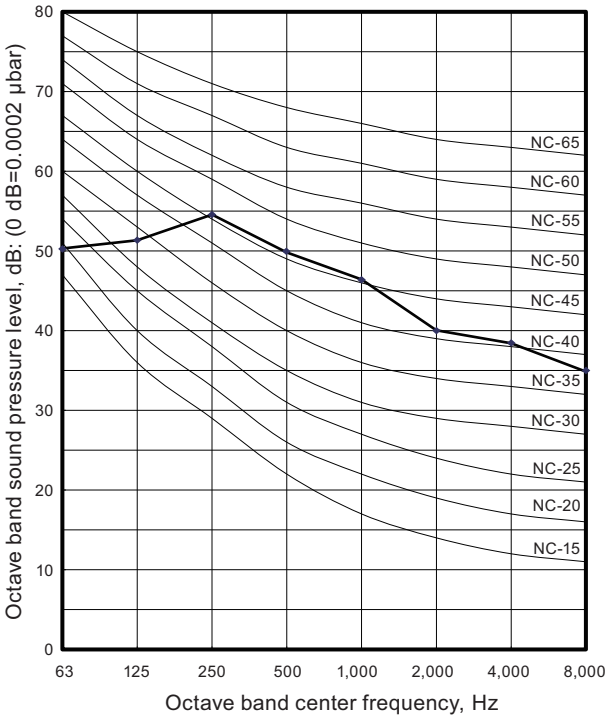
● Heating



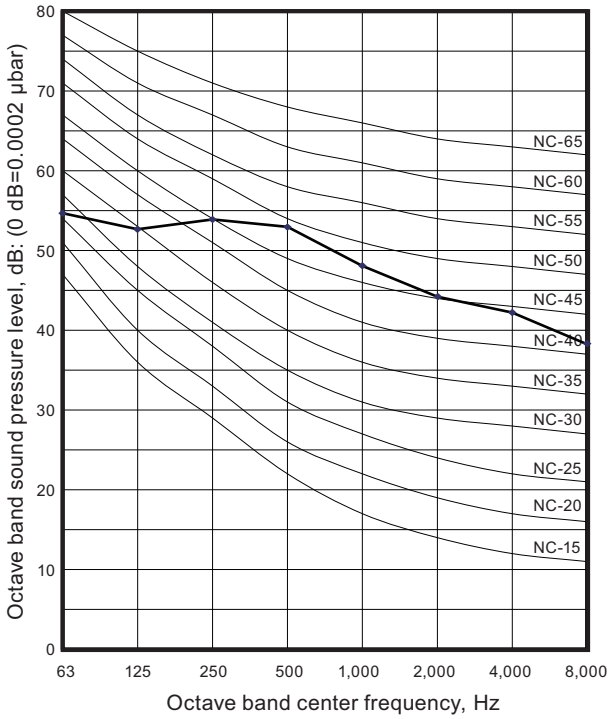
OUTDOOR UNIT
AOUH12-48KUAS1

■ Model: AOUH24KUAS1

● Cooling

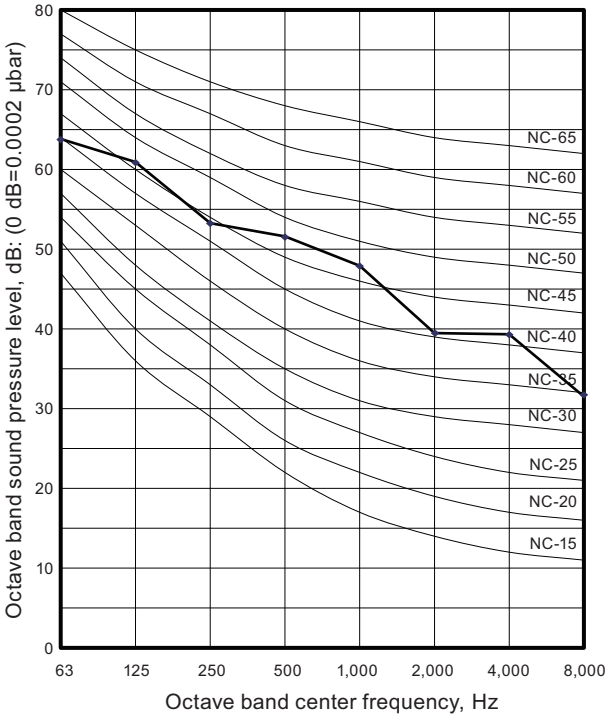


● Heating

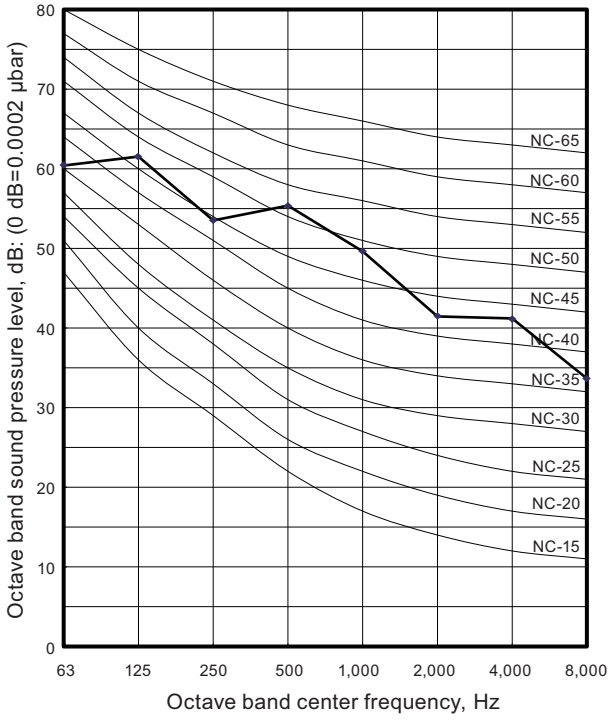


■ Model: AOUH30KUAS1

● Cooling



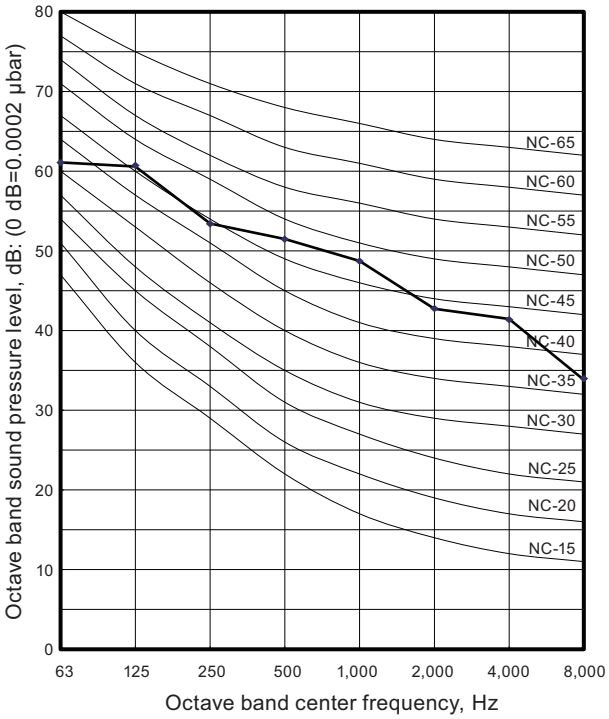
● Heating



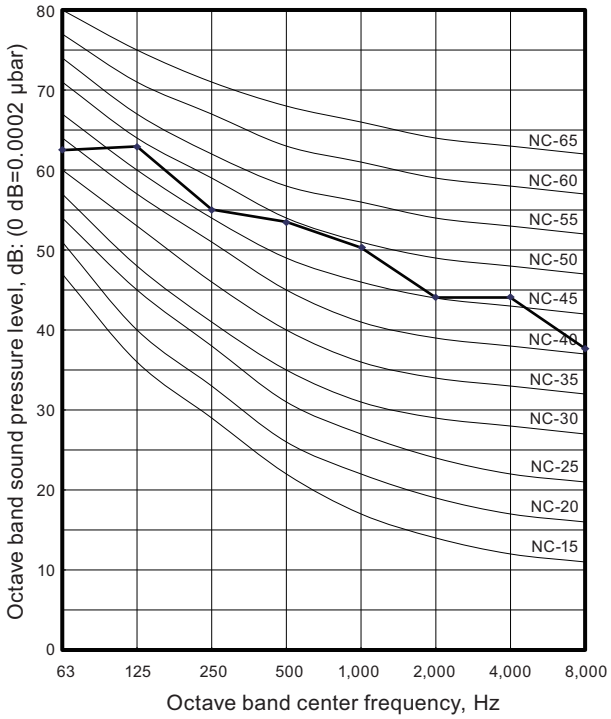
OUTDOOR UNIT
AOUH12-48KUAS1

■ Model: AOUH36KUAS1

● Cooling

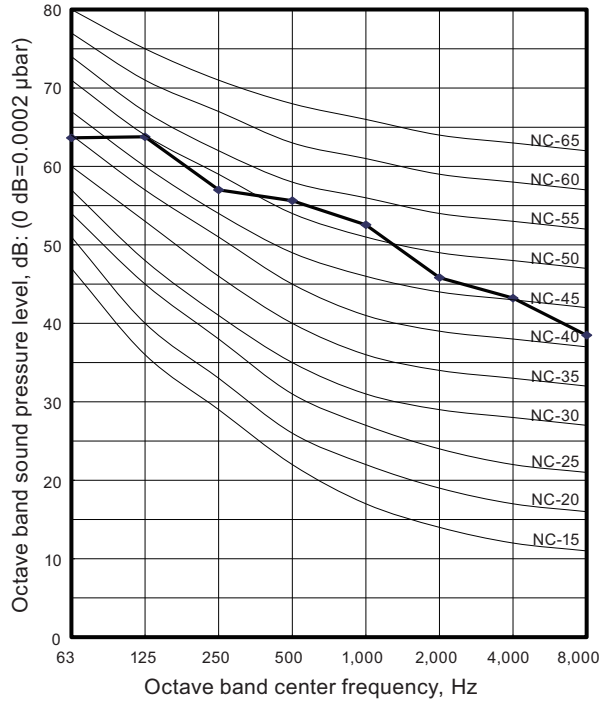


● Heating

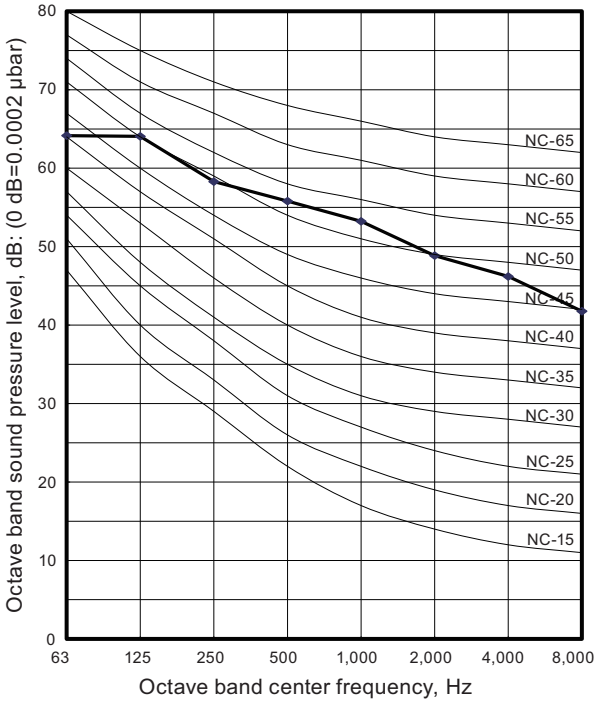


■ Model: AOUH48KUAS1

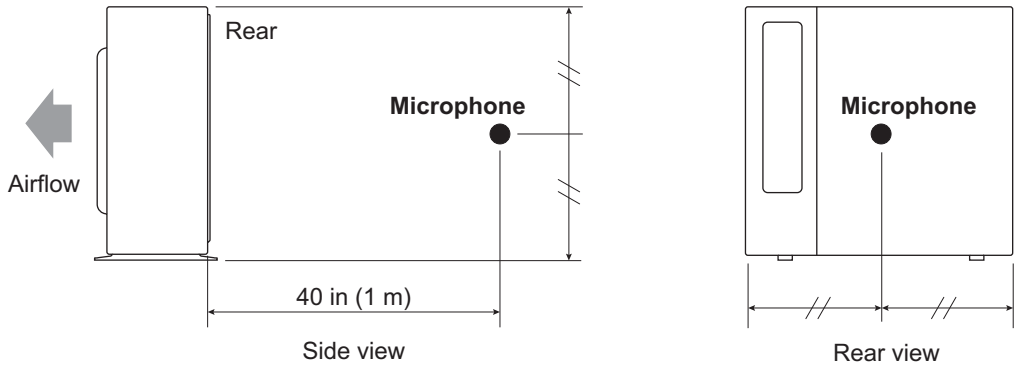
● Cooling



● 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				AOUH12KUAS1	AOUH18KUAS1
Power supply	Voltage		V	208/230	
	Frequency		Hz	60	
MCA*1			A	14.2	17.9
Starting current			A	6.1	8.4
Wiring spec.*2	MAX. CKT. BKR*3		A	15	20
	Power cable		AWG	14	12
	Connection cable*3	Size	AWG	14	
		Limited wiring length	ft (m)	102 (31)	

Model name				AOUH24KUAS1	AOUH30KUAS1
Power supply	Voltage		V	208/230	
	Frequency		Hz	60	
MCA *1			A	19.2	23.7
Starting current			A	9.8	11.2
Wiring spec.*2	MAX. CKT. BKR*3		A	20	25
	Power cable		AWG	12	
	Connection cable*4	Size	AWG	14	
		Limited wiring length	ft (m)	167 (51)	

Model name				AOUH36KUAS1	AOUH48KUAS1
Power supply	Voltage		V	208/230	
	Frequency		Hz	60	
MCA*1			A	24.9	29.9
Starting current			A	14.9	21.1
Wiring spec.*2	MAX. CKT. BKR*3		A	25	30
	Power cable		AWG	12	10
	Connection cable*4	Size	AWG	14	
		Limited wiring length	ft (m)	167 (51)	249 (76)

NOTES:

- *1: Minimum Circuit Ampacity (Calculation based on UL60335-2-40)
- *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: Maximum Circuit Breaker
- *4: Limit voltage drop to less than 2%. If voltage drop is 2% or more, increase cable conductor size.

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11. Safety devices

Type of protection	Protection form		Model	
			AOUH12KUAS1	AOUH18KUAS1
Circuit protection	Current fuse (PCB*)		250 V, 25 A	
			250 V, 5 A	
Fan motor protection	Thermal protection program	Activate	257 ±18°F (125 ±10°C) Fan motor stop	
		Reset	248 ±18°F (120 ±10°C) Fan motor restart	
Compressor protection	Thermal protection program (Compressor temp.)	Activate	226°F (108°C) Compressor stop	
		Reset	After 3 minutes, and 176°F (80°C) or less Compressor restart	
	Thermal protection program (Discharge temp.)	Activate	230°F (110°C) Compressor stop	
		Reset	After 7 minutes Compressor restart	
	Thermal protection program (Outdoor temp.) (Only in COOL and DRY mode)	Activate	-13°F (-25°C) Compressor stop	
		Reset	-4°F (-20°C) Compressor restart	

Type of protection	Protection form		Model	
			AOUH24KUAS1	AOUH30KUAS1
Circuit protection	Current fuse (PCB*)		250 V, 30 A or 35.5 A	
			250 V, 3.15 A	
			250 V, 10 A × 2	
Fan motor protection	Thermal protection program	Activate	251.6 ±16.2°F (122 ±9°C) Fan motor stop	302 ±27°F (150 ±15°C) Fan motor stop
		Reset	240.8 $^{+18.0}_{-16.2}$°F (116 $^{+10}_{-9}$°C) Fan motor restart	248 ±27°F (120 ±15°C) Fan motor restart
Compressor protection	Thermal protection program (Compressor temp.)	Activate	226°F (108°C) Compressor stop	
		Reset	After 3 minutes, and 176°F (80°C) or less Compressor restart	
	Thermal protection program (Discharge temp.)	Activate	230°F (110°C) Compressor stop	
		Reset	After 7 minutes Compressor restart	
	Thermal protection program (Outdoor temp.) (Only in COOL and DRY mode)	Activate	-13°F (-25°C) Compressor stop	
		Reset	-4°F (-20°C) Compressor restart	

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Type of protection	Protection form		Model	
			AOUH36KUAS1	AOUH48KUAS1
Circuit protection	Current fuse (PCB*)		250 V, 30 A or 35.5 A	
			250 V, 3.15 A	
			250 V, 10 A × 2	
Fan motor protection	Thermal protection program	Activate	302 ±27°F (150 ±15°C) Fan motor stop	
		Reset	248 ±27°F (120 ±15°C) Fan motor restart	
Compressor protection	Thermal protection program (Compressor temp.)	Activate	226°F (108°C) Compressor stop	
		Reset	After 3 minutes, and 176 °F (80°C) or less Compressor restart	
	Thermal protection program (Discharge temp.)	Activate	230°F (110°C) Compressor stop	
		Reset	After 7 minutes Compressor restart	
	Thermal protection program (Outdoor temp.) (Only in COOL and DRY mode)	Activate	-13°F (-25°C) Compressor stop	
		Reset	-4°F (-20°C) Compressor restart	

*PCB: Printed Circuit Board

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AOUH12-48KUAS1

12. External input and output (for 24–48 models)

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

Connector	Input	Output	Remarks
P580	Low noise mode	—	See external input/output settings for details.
PA580	Peak cut mode	—	
P590	—	Error status	
PA590	—	Compressor status	

12-1. External input

With using external input function, on/off status of “Low noise mode” and “Peak cut mode” can be specified by the external signal.

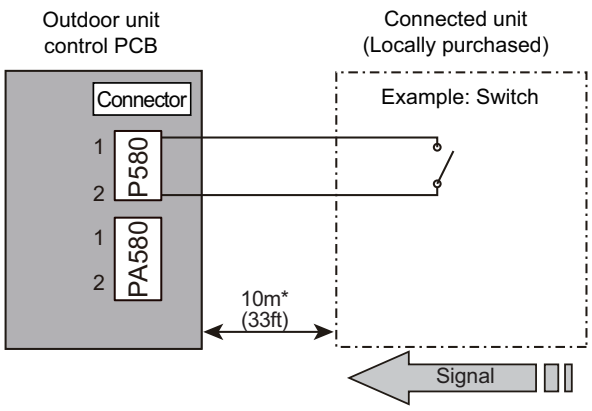
■ Low noise mode

In following condition, the operating noise of the outdoor unit reduces comparing from the one in normal operating condition:

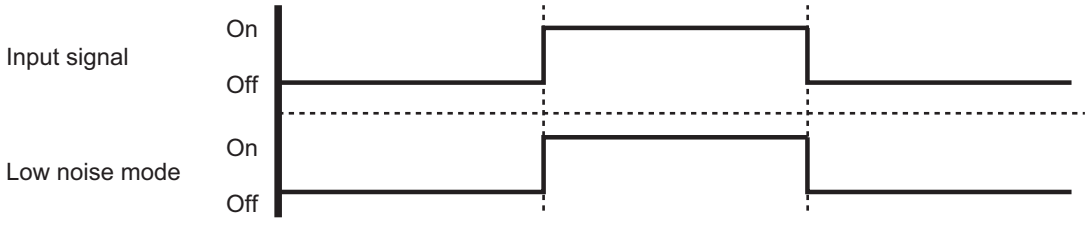
The air conditioner is set to the “Low noise mode” when closing the contact input of a commercial timer or on/off switch to a connector on the control PCB of the outdoor unit.

NOTE: Product performance may drop depending on some conditions such as the outdoor temperature.

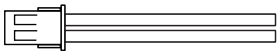
- **Circuit diagram example**



- Contact capacity: DC 24 V or more, 10 mA or more.
- *: Make the distance from the PCB to the connected unit within 33 ft (10 m).
- Construct a circuit as shown in this figure with using optional parts mentioned below.
- Input signal: On in “Low noise mode”
- Input signal: Off in normal operation
- To set the level of “Low noise mode,” refer to "Low noise mode" on page 147 (under “Local setting procedure”.)



- **Optional part**

Part name	Model name	Exterior
External Connect Kit	UTY-XWZXZ3	External input wire 

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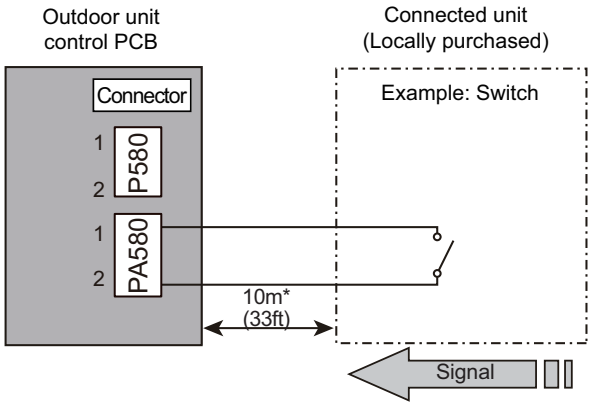
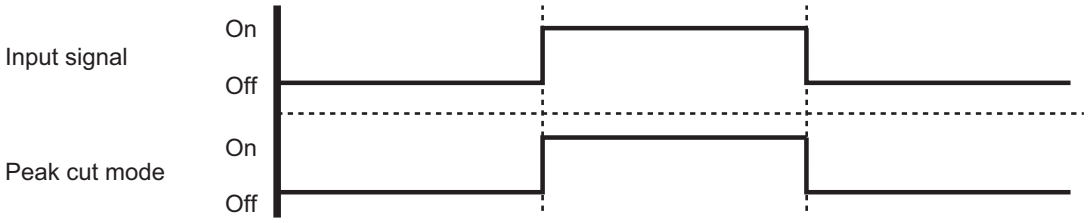
■ Peak cut mode

By performing following on-site work, operation that suppresses the current value can be enabled:
The air conditioner is set to the “Peak cut mode” when closing the contact input of a commercial timer or on/off switch to a connector on the control PCB of the outdoor unit.

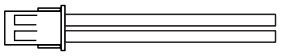
- **Circuit diagram example**



- Contact capacity: DC 24 V or more, 10 mA or more.
- *: Make the distance from the PCB to the connected unit within 33 ft (10 m).
- Construct a circuit as shown in this figure with using optional parts mentioned below.
- Input signal: On in “Peak cut mode”
- Input signal: Off in normal operation
- To set the level of “Peak cut mode,” refer to "Peak cut mode" on page 148 (under “Local setting procedure”.)



- **Optional part**

Part name	Model name	Exterior
External Connect Kit	UTY-XWZXZ3	External input wire 

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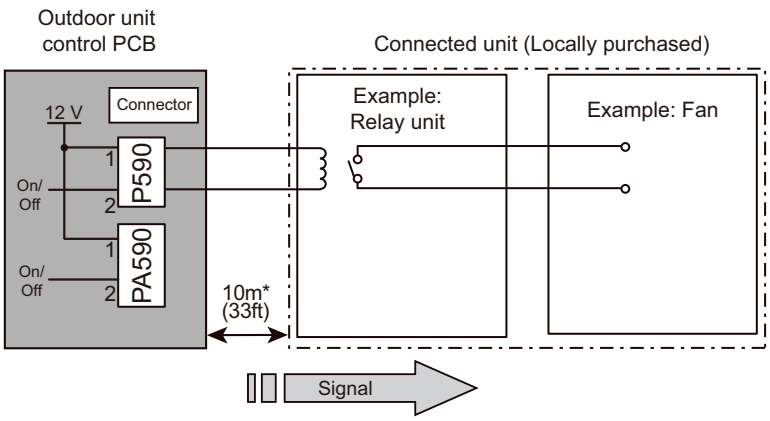
12-2. External output

With using external output function, some status signals are transmitted to the control PCB, and the related LED lamp indicates the status of this product.

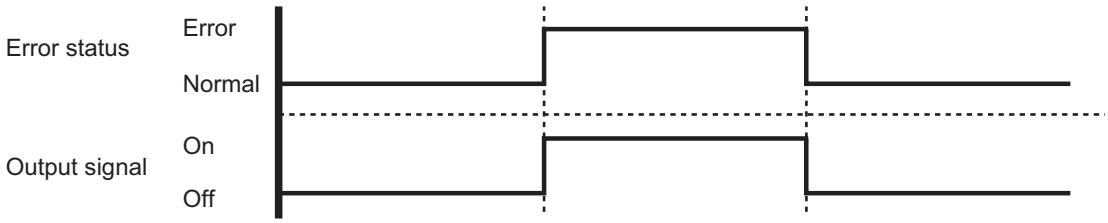
■ Error status output

Signal on air conditioner error status is generated when a malfunction occurs.

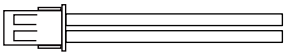
- **Circuit diagram example**



- Output voltage (Vcc): DC 12 V 50 mA or less
- *: Make the distance from the PCB to the connected unit within 33 ft (10 m).



- **Optional part**

Part name	Model name	Exterior
External Connect Kit	UTY-XWZXZ3	External output wire 

OUTDOOR UNIT
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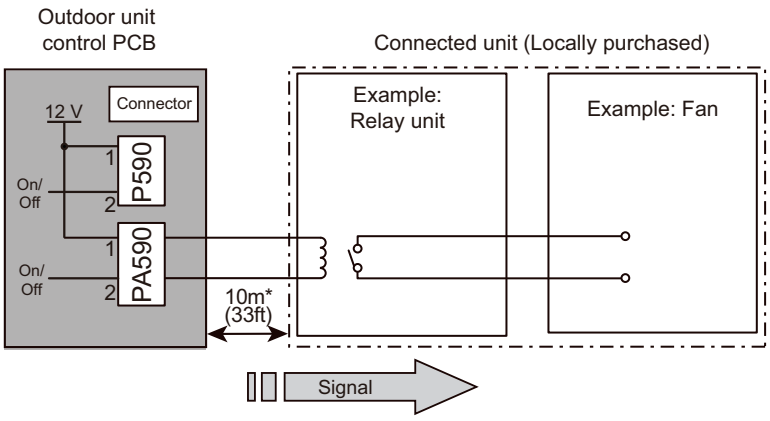
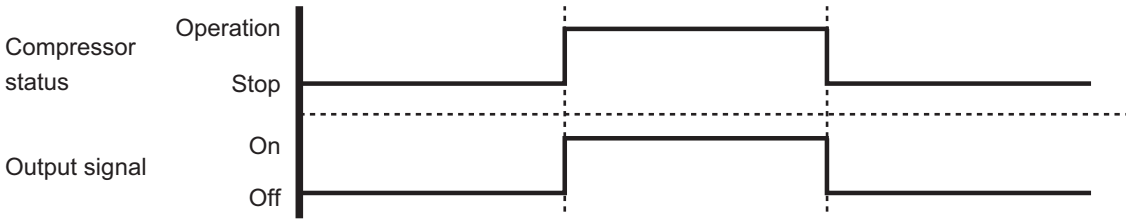
■ Compressor status output

Signal on compressor operation status is generated when the compressor is running.

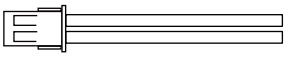
- **Circuit diagram example**



- Output voltage (Vcc): DC 12 V 50 mA or less
- *: Make the distance from the PCB to the connected unit within 33 ft (10 m).



- **Optional part**

Part name	Model name	Exterior
External Connect Kit	UTY-XWZXZ3	External output wire 

OUTDOOR UNIT
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13. Function settings (for 24–48 models)

Perform appropriate function setting locally according to the installation environment.

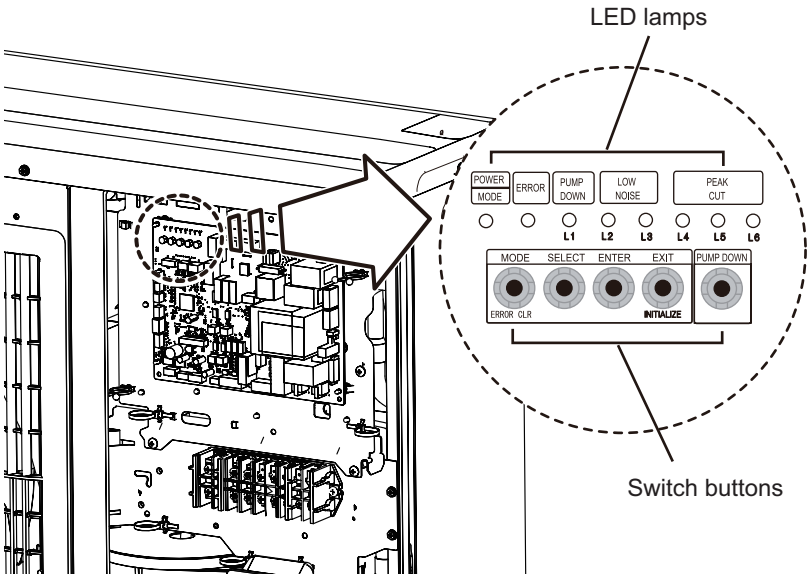
NOTE: Incorrect settings can cause a product malfunction.

⚠ CAUTION

- Before setting up the switch buttons, discharge the static electricity from your body.
- Never touch the terminals or the patterns on the parts that are mounted on the PCB.

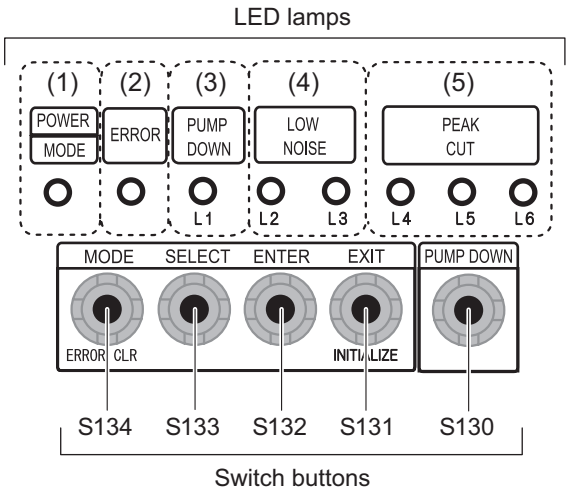
13-1. Control PCB and switch buttons location

Control PCB of the outdoor unit is located as shown in the following figure.



OUTDOOR UNIT
AOUH12-48KUAS1

■ Switch buttons and the functions



LED lamp			Function or operation method
(1)	POWER/MODE	Green	Lights on while power on. Blinks to show the local setting on the outdoor unit or the error code.
(2)	ERROR	Red	Blinks during error operation.
(3)	PUMP DOWN (L1)	Orange	Lights on during pump down operation.
(4)	LOW NOISE MODE (L2 and L3)	Orange	Lights on during “Low noise mode” when local setting is activated. (Light pattern of L2 and L3 indicates the low noise level.)
(5)	PEAK CUT MODE (L4, L5, and L6)	Orange	Lights on during “Peak cut mode” when local setting is activated. (Light pattern of L4, L5, and L6 indicates the peak cut level.)

Switch button		Function or operation method
S134	MODE	Switches between “Local setting” and “Error code display”.
S133	SELECT	Switches between the individual “Local settings” and the “Error code displays”.
S132	ENTER	Switches between the individual “Local settings” and the “Error code displays”.
S131	EXIT	Returns to “Operation status display”.
S130	PUMP DOWN	Starts the pump down operation.

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13-2. Local setting procedure

NOTE: Before performing the function setting, be sure to stop the operation of the air conditioner.

■ Low noise mode

1. Press the MODE switch button (S134) for 3 seconds or more to switch to “Local setting mode”.
2. After confirming the LED lamp of POWER/MODE blinks 9 times, press the ENTER switch button (S132).

POWER / MODE	ERROR	PUMP DOWN (L1)	LOW NOISE (L2)	LOW NOISE (L3)	PEAK CUT (L4)	PEAK CUT (L5)	PEAK CUT (L6)
Blinks (9 times)	○	○	○	○	○	○	○

Sign “ ○ ”: Lights off

3. Press the SELECT switch button (S133), and adjust the LED lamp as shown below. Then the LED lamp indicates the current setting.

	LOW NOISE (L2)	LOW NOISE (L3)
LOW NOISE MODE	○	Blink

4. Press the ENTER switch button (S132).

	LOW NOISE (L2)	LOW NOISE (L3)
LOW NOISE MODE	○	●

Sign “ ● ”: Lights on

5. Press the SELECT switch button (S133), and adjust the LED lamps as shown below.

	PEAK CUT (L4)	PEAK CUT (L5)	PEAK CUT (L6)
MODE 1: Low	○	○	Blink
MODE 2: Lower	○	Blink	○

6. Press the ENTER switch button (S132) and fix it.

	PEAK CUT (L4)	PEAK CUT (L5)	PEAK CUT (L6)
MODE 1: Low	○	○	●
MODE 2: Lower	○	●	○

7. To return to “Operating status display (Normal operation)”, press the EXIT switch button (S131).

In case of missing how many times you pressed the SELECT and ENTER switch buttons:

1. To return to “Operation status display (Normal operation)”, press the EXIT switch button once.
2. Restart from the beginning of setting procedure.

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■ Peak cut mode

1. Press the MODE switch button (S134) for 3 seconds or more to switch to “Local setting mode”.
2. After confirming the LED lamp of POWER/MODE blinks 9 times, press the ENTER switch button (S132).

POWER / MODE	ERROR	PUMP DOWN (L1)	LOW NOISE (L2)	LOW NOISE (L3)	PEAK CUT (L4)	PEAK CUT (L5)	PEAK CUT (L6)
Blinks (9 times)	○	○	○	○	○	○	○

Sign “ ○ ”: Lights off

3. Press the SELECT switch button (S133), and adjust the LED lamp as shown below. Then the LED lamp indicates the current setting.

	LOW NOISE (L2)	LOW NOISE (L3)
PEAK CUT MODE	Blink	○

4. Press the ENTER switch button (S132).

	LOW NOISE (L2)	LOW NOISE (L3)
PEAK CUT MODE	●	○

Sign “ ● ”: Lights on

5. Press the SELECT switch button (S133), and adjust the LED lamps as shown below.

	PEAK CUT (L4)	PEAK CUT (L5)	PEAK CUT (L6)
0 % of rated input ratio	○	○	Blink
50 % of rated input ratio	○	Blink	○
75 % of rated input ratio	○	Blink	Blink
100 % of rated input ratio	Blink	○	○

6. Press the ENTER switch button (S132) and fix it.

	PEAK CUT (L4)	PEAK CUT (L5)	PEAK CUT (L6)
0 % of rated input ratio	○	○	●
50 % of rated input ratio	○	●	○
75 % of rated input ratio	○	●	●
100 % of rated input ratio	●	○	○

7. To return to “Operating status display (Normal operation)”, press the EXIT switch button (S131).

NOTE: When pressed number is lost during setting, you must redo the setting procedure. Return to “Operation status display (Normal operation)” by pressing the EXIT switch button once, and restart from the beginning of the setting procedure.

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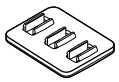
AOUH12-48KUAS1

14. Accessories

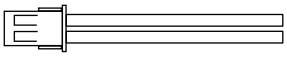
14-1. Models: AOUH12KUAS1 and AOUH18KUAS1

Part name	Exterior	Qty	Part name	Exterior	Qty
Installation manual		1	Cable tie		2
Drain pipe		1	Protection label		1
Drain cap		5			

14-2. Models: AOUH24KUAS1, AOUH30KUAS1, AOUH36KUAS1, and AOUH48KUAS1

Part name	Exterior	Qty	Part name	Exterior	Qty
Installation manual		1	Drain pipe		1
Protection label		1	Drain cap		3

15. Optional parts (for 24–48 models)

Exterior	Part name	Model name	Summary
	External Connect Kit	UTY-XWZXZ3	Use to operate the external input and output functions of outdoor unit. (for 24–48 models)

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