

AIR CONDITIONER

**Duct type**

## DESIGN & TECHNICAL MANUAL

*For Cold Climate Region*

INDOOR



AMUG30LMAS  
AMUG36LMAS  
AMUG48LMAS

OUTDOOR



AOUH30LUAH1



AOUH36LMAH1  
AOUH48LMAH1

**FUJITSU GENERAL LIMITED**

**Notices:**

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

**Trademarks**

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

Google Play™ is trademark of Google LLC.

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

# CONTENTS

---

<b>Part 1. INDOOR UNIT</b>	<b>1</b>
<hr/>	
<b>1. Specifications</b>	<b>2</b>
<b>2. Dimensions</b>	<b>4</b>
2-1. Models: AMUG30LMAS, AMUG36LMAS, and AMUG48LMAS	4
2-2. Installation space requirement	5
<b>3. Wiring diagram</b>	<b>7</b>
3-1. Models: AMUG30LMAS, AMUG36LMAS, and AMUG48LMAS	7
<b>4. Capacity table</b>	<b>8</b>
4-1. Cooling capacity	8
4-2. Heating capacity	11
<b>5. Fan performance</b>	<b>13</b>
5-1. Fan performance curve	13
5-2. Airflow	15
<b>6. Operation noise (sound pressure)</b>	<b>18</b>
6-1. Noise level curve	18
<b>7. External input and output</b>	<b>20</b>
7-1. External input	21
7-2. External output	23
7-3. Setting of external input and output	24
7-4. Details of control input function	26
7-5. Details of control output function	30
<b>8. Function settings</b>	<b>52</b>
8-1. Function settings on indoor unit	52
8-2. Function settings by using remote controller	53
<b>9. Accessories</b>	<b>61</b>
9-1. Models: AMUG30LMAS, AMUG36LMAS, and AMUG48LMAS	61
<b>10. Optional parts</b>	<b>62</b>
10-1. Controllers	62
10-2. Others	63

## CONTENTS (continued)

---

### Part 2. OUTDOOR UNIT .....65

---

<b>1. Specifications .....</b>	<b>66</b>
<b>2. Dimensions .....</b>	<b>68</b>
2-1. Model: AOUH30LUAH1 .....	68
2-2. Model: AOUH36LMAH1 .....	69
2-3. Model: AOUH48LMAH1 .....	70
<b>3. Installation space .....</b>	<b>71</b>
3-1. Model: AOUH30LUAH1 .....	71
3-2. Models: AOUH36LMAH1 and AOUH48LMAH1 .....	75
<b>4. Refrigerant circuit .....</b>	<b>79</b>
4-1. Models: AOUH30LUAH1, AOUH36LMAH1, and AOUH48LMAH1 .....	79
<b>5. Wiring diagrams .....</b>	<b>80</b>
5-1. Model: AOUH30LUAH1 .....	80
5-2. Models: AOUH36LMAH1 and AOUH48LMAH1 .....	80
<b>6. Capacity compensation rate for pipe length and height difference.....</b>	<b>81</b>
6-1. Models: AOUH30LUAH1, AOUH36LMAH1, and AOUH48LMAH1 .....	81
<b>7. Additional charge calculation .....</b>	<b>82</b>
7-1. Model: AOUH30LUAH1 .....	82
7-2. Models: AOUH36LMAH1 and AOUH48LMAH1 .....	82
<b>8. Airflow .....</b>	<b>83</b>
8-1. Model: AOUH30LUAH1 .....	83
8-2. Model: AOUH36LMAH1 .....	83
8-3. Model: AOUH48LMAH1 .....	83
<b>9. Operation noise (sound pressure).....</b>	<b>84</b>
9-1. Noise level curve.....	84
9-2. Sound level check point .....	85
<b>10. Electrical characteristics .....</b>	<b>86</b>
<b>11. Safety devices .....</b>	<b>87</b>
<b>12. Function settings .....</b>	<b>88</b>
12-1.Control PCB and switch buttons location .....	88
12-2.Local setting procedure.....	90
<b>13. Accessories .....</b>	<b>95</b>



# **Part 1. INDOOR UNIT**

---

**DUCT TYPE:**

**AMUG30LMAS**

**AMUG36LMAS**

**AMUG48LMAS**

# 1. Specifications

Type				Duct			
				Inverter, Heat pump			
Model name				AMUG30LMAS	AMUG36LMAS	AMUG48LMAS	
Power supply				208/230 V ~ 60 Hz			
Power supply intake				Outdoor unit			
Available voltage range				187—253 V			
Capacity	Cooling		Rated	kW	8.38	9.67	13.33
				Btu/h	28,600	33,000	45,500
			Min.—Max.	kW	2.81—10.26	3.81—11.43	3.81—14.65
				Btu/h	9,600—35,000	13,000—39,000	13,000—50,000
	Heating	47 °FDB (Outdoor temp.)	Rated	kW	9.38	11.13	14.95
				Btu/h	32,000	38,000	51,000
			Min.—Max.	kW	2.70—11.43	4.40—15.24	4.40—16.12
				Btu/h	9,200—39,000	15,000—52,000	15,000—55,000
		17 °FDB (Outdoor temp.)* <sup>1</sup>	Rated	kW	6.33	7.50	10.08
				Btu/h	21,600	25,600	34,400
			Max.	kW	10.18	13.15	14.95
				Btu/h	34,730	44,880	51,000
5 °FDB (Outdoor temp.)* <sup>2</sup>			Rated	kW	9.67	12.31	14.95
				Btu/h	33,000	42,000	51,000
			Max.	kW	9.67	12.31	14.95
				Btu/h	33,000	42,000	51,000
Input power	Cooling	Rated	kW	2.44	3.00	5.17	
		Min.—Max.		0.44—3.40	0.85—3.66	0.85—6.00	
	Heating	47 °FDB (Outdoor temp.)		Rated	2.71	2.96	4.22
				Min.—Max.	0.60—4.17	0.90—4.96	0.90—5.41
		17 °FDB (Outdoor temp.)* <sup>1</sup>	Rated	2.18	2.50	3.58	
			Max.	5.00	5.89	6.52	
		5 °FDB (Outdoor temp.)* <sup>2</sup>	Rated	5.50	6.70	7.80	
			Max.	5.50	6.70	7.80	
	Fan	HIGH	W	136.3	204.3	412.4	
		MED		96.3	63.4	118.2	
		LOW		57.7	42.1	73.1	
		QUIET		22.7	31.0	38.5	
Current		Cooling	A	11.0	13.4	22.9	
		Heating		12.1	13.2	18.8	
EER2		Cooling	Btu/hW	11.7	11.0	8.80	
COP2		Heating	kW/kW	3.46	3.76	3.54	
SEER2		Cooling	Btu/hW	18.8	17.1	16.6	
HSPF2		Heating		9.7	10.4	10.0	
Power factor		Cooling	%	96.4	97.3	98.2	
		Heating		97.4	97.5	97.6	
Moisture removal			pints/h (L/h)	6.8 (3.2)	6.6 (3.1)	9.3 (4.4)	
Maximum operating current* <sup>3</sup>		Cooling	A	19.8	23.9	28.9	
		Heating		26.8	32.9	35.9	
Fan	Airflow rate	Cooling	CFM (m <sup>3</sup> /h)	870 (1,478)	1,200 (2,039)	1,640 (2,786)	
				730 (1,240)	740 (1,257)	1,020 (1,733)	
				590 (1,002)		820 (1,393)	
				310 (527)	490 (833)	590 (1,002)	
		Heating		870 (1,478)	1,200 (2,039)	1,640 (2,786)	
				730 (1,240)	740 (1,257)	1,020 (1,733)	
				590 (1,002)		820 (1,393)	
				310 (527)	490 (833)	590 (1,002)	
	Type × Qty			Sirocco fan × 1			
	Static pressure range			inWG (Pa)	0.08 to 1 (20 to 250)		
Sound pressure level* <sup>4</sup>	Cooling		dB (A)	42	41	48	
				MED	37	30	36
				LOW	33	27	31
				QUIET	28	24	25
	Heating			HIGH	39	40	47
				MED	36	35	37
				LOW	32	28	32
				QUIET	25	26	29
Heat exchanger type		Dimensions (H × W × D)		in (mm)	16 × 17-1/8 × 1-1/2 (406 × 435 × 38)	32 × 17-1/8 × 1-1/2 (813 × 435 × 38)	
		Fin pitch		FPI	16	15	
		Rows × Stages			2 × 48	2 × 64	
		Pipe type			Aluminum		
		Fin type			Aluminum		
Enclosure		Material			Steel		
		Color			—		
Dimensions (H × W × D)	Net			in (mm)	42-1/2 × 21 × 21-11/16 (1,080 × 533 × 551)	57 × 21 × 21-11/16 (1,448 × 533 × 551)	
	Gross				42-3/4 × 24 × 25-5/16 (1,086 × 610 × 643)	57-1/8 × 23 × 26-1/2 (1,451 × 584 × 673)	
Weight	Net			lb (kg)	104 (47.0)	132 (60.0)	
	Gross				116 (52.5)	146 (66.0)	
Connection pipe	Size	Liquid	in (mm)	Ø 3/8 (Ø 9.52)			
	Gas	Ø 5/8 (Ø 15.88)					
	Method			Flare			
	Tip diameter			in (mm)	Ø 3/4 (19) [O.D.]		
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 (Option)				Wired, Wireless, Mobile app* <sup>5</sup> [FGLair™]			

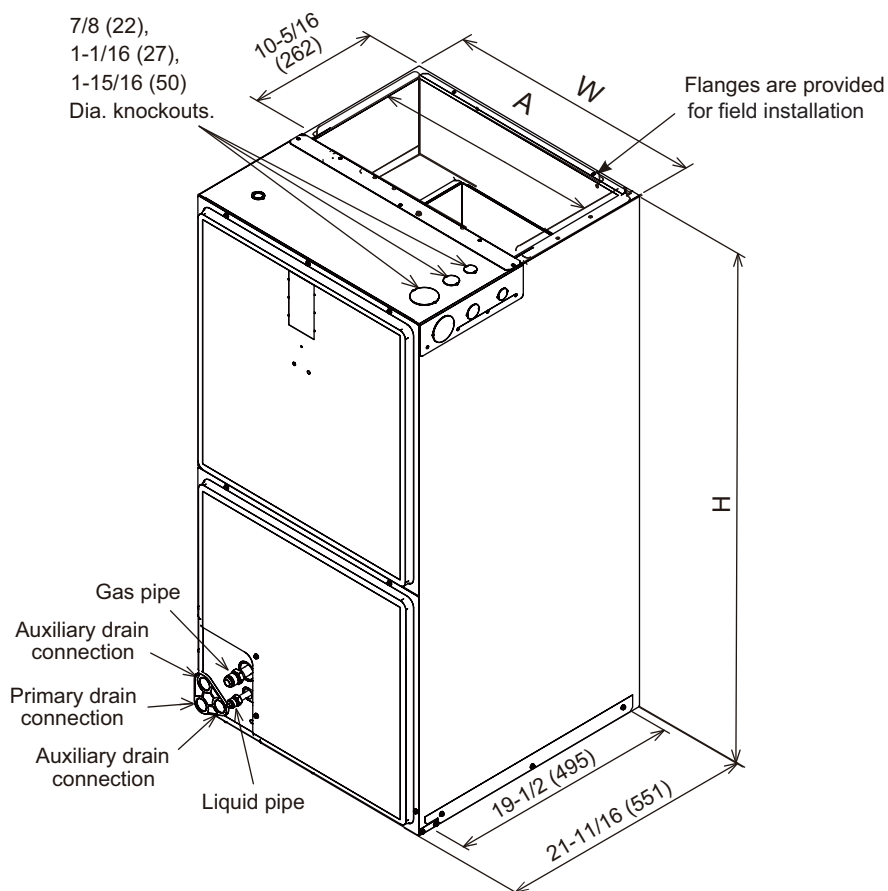
Type	Duct		
	Inverter, Heat pump		
Model name	AMUG30LMAS	AMUG36LMAS	AMUG48LMAS
<b>NOTES:</b> <ul style="list-style-type: none"> <li>Specifications are based on the following conditions: <ul style="list-style-type: none"> <li>Cooling: Indoor temperature of 80°FDB/67°FWB (26.67°CDB/19.44°CWB), and outdoor temperature of 95°FDB/75°FWB (35°CDB/23.9°CWB).</li> <li>Heating: Indoor temperature of 70°FDB/59°FWB (21.11°CDB/15°CWB), and outdoor temperature of 47°FDB/43°FWB (8.33°CDB/6.11°CWB).</li> <li>*1: Heating (17°F): Indoor temperature of 70°FDB (21.11°CDB) /60°FWB (15.56°CWB), and outdoor temperature of 17°FDB (-8.33°CDB) /15°FWB (-9.44°CWB).</li> <li>*2: Heating (5°F): Indoor temperature of 70°FDB (21.11°CDB) /60°FWB (15.56°CWB), and outdoor temperature of 5°FDB (-15.0°CDB) /4°FWB (-15.56°CWB).</li> <li>Test conditions are based on AHRI 210/240 2023.</li> <li>Pipe length: 24 ft 7 in (7.5 m), Height difference: 0 ft (0 m). (Between outdoor unit and indoor unit.)</li> <li>Standard static pressure: 0.18 in.WG (45 Pa): 24 model, 0.23 in.WG (58 Pa): 30, and 36 model, 0.28 in.WG (70 Pa): 48 model</li> </ul> </li> <li>Protective function might work when using it outside the operation range.</li> <li>*3: Maximum current: <ul style="list-style-type: none"> <li>The maximum value when operated within the operation range.</li> <li>The total current of indoor unit and outdoor unit.</li> </ul> </li> <li>*4: Sound pressure level: <ul style="list-style-type: none"> <li>Measured values in manufacturer's anechoic chamber.</li> <li>Because of the surrounding sound environment, the sound levels measured in actual installation conditions might be higher than the specified values here.</li> </ul> </li> <li>*5: Available on Google Play™ store or on App Store®. Optional WLAN adapter is also required. For details, refer to the setting manual.</li> </ul>			

M condition								
Model name				AMUG30LMAS	AMUG36LMAS	AMUG48LMAS		
Capacity	Cooling		Rated	kW	8.38	9.67	13.33	
				Btu/h	28,600	33,000	45,500	
			Min.—Max.	kW	2.81—10.26	3.81—11.43	3.81—14.65	
				Btu/h	9,600—35,000	13,000—39,000	13,000—50,000	
	Heating	47 °FDB (Outdoor temp.)	Rated	kW	9.38	11.13	14.95	
				Btu/h	32,000	38,000	51,000	
			Min.—Max.	kW	2.70—11.43	4.40—15.24	4.40—16.12	
				Btu/h	9,200—39,000	15,000—52,000	15,000—55,000	
		17 °FDB (Outdoor temp.)*	Rated	kW	6.33	7.50	10.08	
				Btu/h	21,600	25,600	34,400	
			Max.	kW	10.18	13.15	14.95	
				Btu/h	34,730	44,880	51,000	
Input power	Cooling		Rated	kW	2.39	2.87	5.00	
					Min.—Max.	0.44—3.40	0.85—3.66	0.85—6.00
	Heating	47 °FDB (Outdoor temp.)	Rated		2.58	2.85	4.13	
					Min.—Max.	0.60—4.17	0.90—4.96	0.90—5.41
			17 °FDB (Outdoor temp.)*		Rated	2.09	2.50	3.58
						Max.	5.00	5.89
	Fan			HIGH	W	136.3	204.3	412.4
						MED	96.3	63.4
			LOW			57.7	42.1	73.1
			QUIET			22.7	31.0	38.5
	Current		Cooling	A		10.7	12.8	22.2
						Heating	11.4	12.7
EER		Cooling	Btu/hW		12.0	11.5	9.10	
			Heating		kW/kW	3.64	3.90	3.62
SEER		Cooling	Btu/hW		19.1	17.3	16.3	
					Heating	10.5	11.0	10.2
HSPF		Cooling		%	97.1	97.5	97.9	
					Heating	98.4	97.6	97.6
<b>NOTE:</b> Specifications are based on the following conditions:								
<ul style="list-style-type: none"><li>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).</li><li>Heating: Indoor temperature of 70°FDB/59°FWB (21.11°CDB/15°CWB), and outdoor temperature of 47°FDB/43°FWB (8.33°CDB/6.11°CWB).</li><li>*: Heating (17°F): Indoor temperature of 70°FDB (21.11°CDB) /60°FWB (15.56°CWB), and outdoor temperature of 17°FDB (-8.33°CDB) /15°FWB (-9.44°CWB).</li><li>Test conditions are based on AHRI 210/240 2017.</li><li>Pipe length: 24 ft 7 in (7.5 m), Height difference: 0 ft (0 m). (Between outdoor unit and indoor unit.)</li><li>Standard static pressure: 0.18 in.WG (45 Pa): 24 model, 0.23 in.WG (58 Pa): 30, and 36 model, 0.28 in.WG (70 Pa): 48 model</li></ul>								

## 2. Dimensions

### 2-1. Models: AMUG30LMAS, AMUG36LMAS, and AMUG48LMAS

Unit: in (mm)



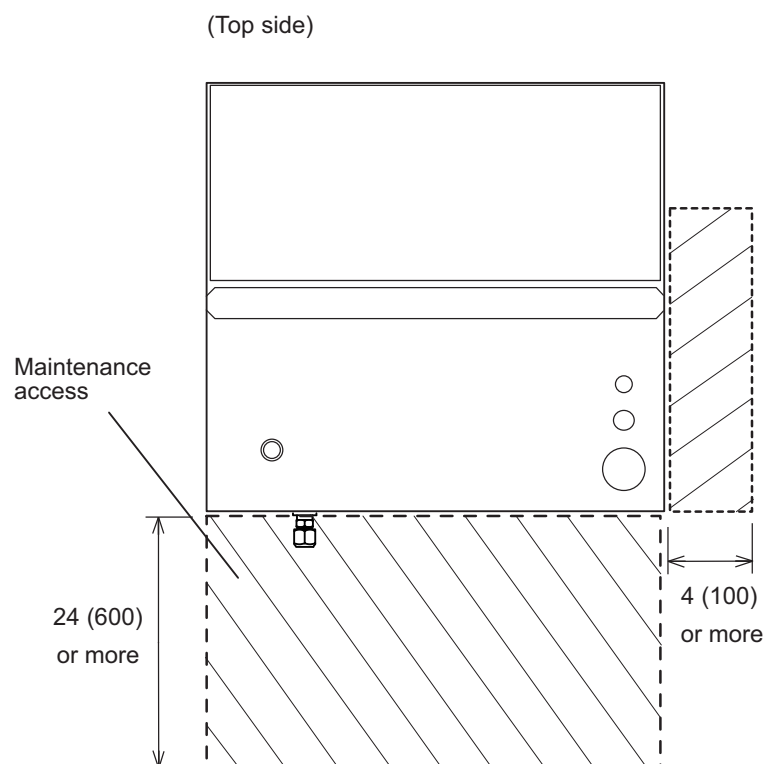
Model	Dimension		
	A (Supply duct)	W (Unit width)	H (Unit height)
AMUG30LMAS	19-1/2 (495)	21 (533)	42-1/2 (1,080)
AMUG36LMAS AMUG48LMAS	19-1/2 (495)	21 (533)	57 (1,448)

Model	Return air opening	
	Width	Depth/Length
AMUG30LMAS AMUG36LMAS AMUG48LMAS	19-3/8 (492)	19-3/4 (502)

## 2-2. Installation space requirement

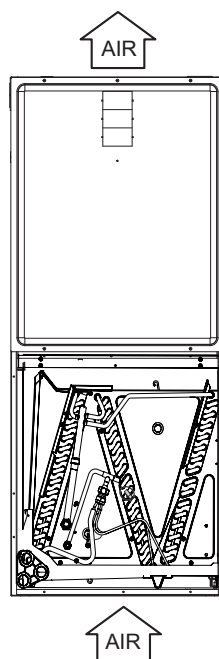
Provide sufficient installation space for product safety.

Unit: in (mm)

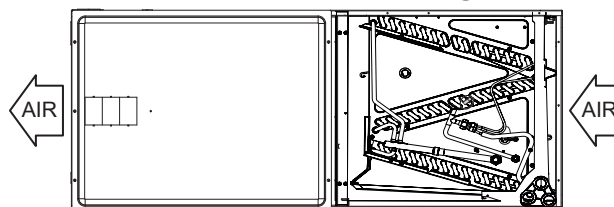


For installation method, the following 4 patterns

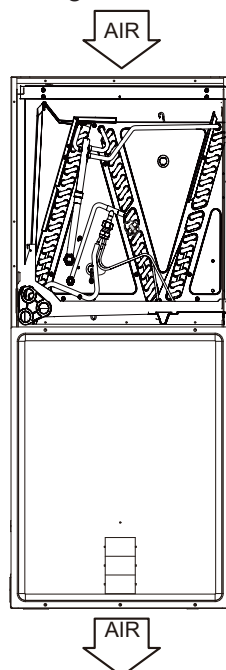
- **Pattern A: Vertical installation, air intake port at the bottom**



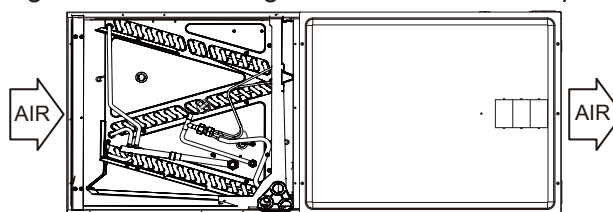
- **Pattern B: Horizontal installation, air intake port at the right**



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

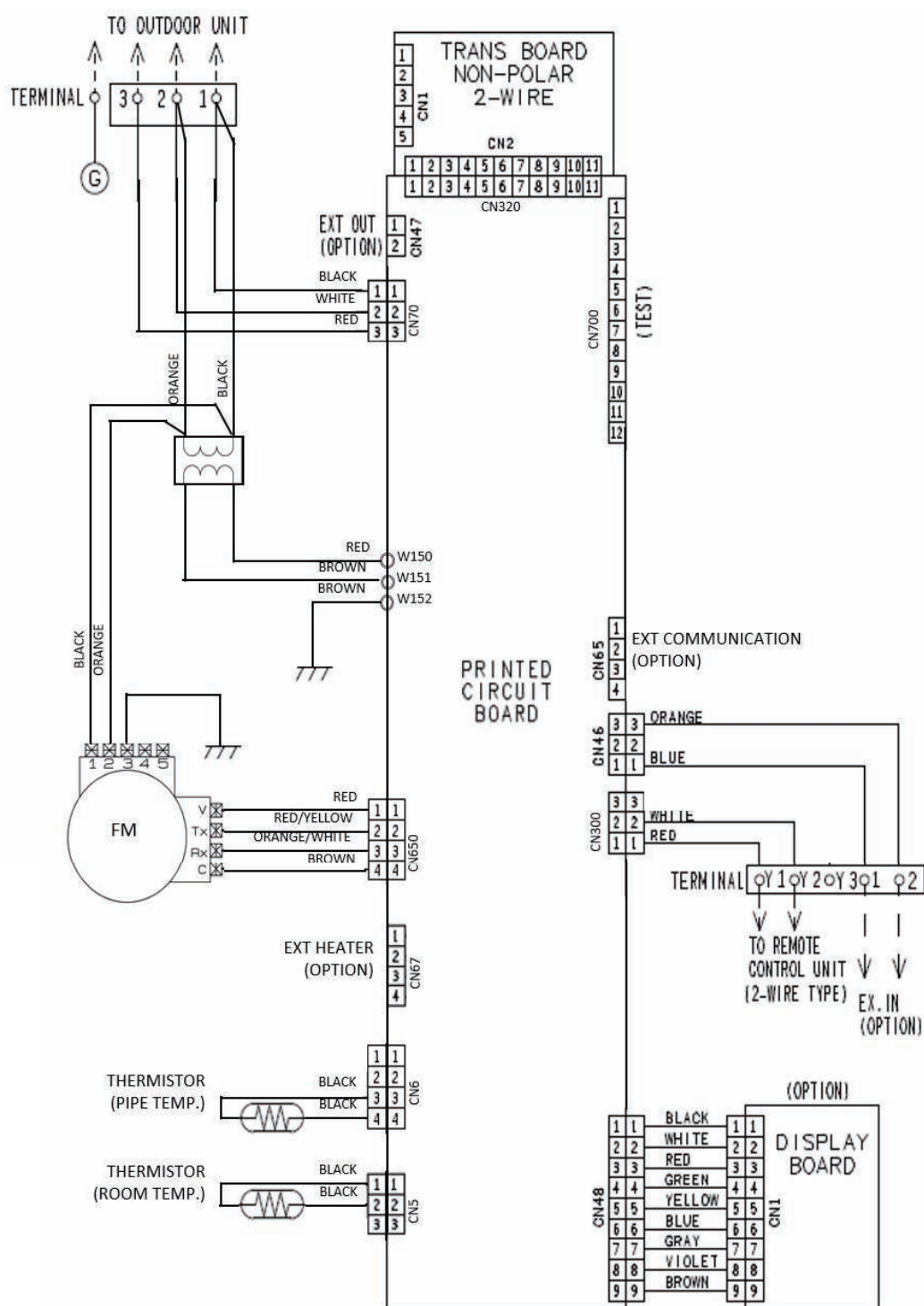


- **Pattern D: Horizontal installation, air intake port at the left**  
Reversing the heat exchanger and reattaching the thermistor are required



### 3. Wiring diagram

#### 3-1. Models: AMUG30LMAS, AMUG36LMAS, and AMUG48LMAS



## 4. Capacity table

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

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

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

### 4-1. Cooling capacity

#### ■ Model: AMUG30LMAS

AFR				CFM										870							
Outdoor temperature	Indoor temperature																				
	°FDB			64			70			75			80			85			90		
	°FWB			54			60			63			67			71			73		
	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP	TC	SHC	IP			
	kBtu/h		kW	kBtu/h		kW	kBtu/h		kW	kBtu/h		kW	kBtu/h		kW	kBtu/h		kW			
-5	24.97	18.03	0.40	26.05	18.80	0.42	27.85	20.11	0.44	29.69	21.43	0.46	34.74	25.08	0.46	37.27	26.90	0.46			
5	24.43	17.80	0.88	25.07	18.27	0.94	26.60	19.38	0.98	29.03	21.16	1.00	32.24	23.49	1.02	36.45	26.57	1.02			
14	23.33	18.14	1.16	25.01	18.65	1.26	26.64	19.55	1.32	28.45	20.92	1.37	30.38	22.57	1.41	32.56	24.74	1.44			
32	21.89	18.25	1.37	24.25	18.81	1.53	25.91	19.49	1.65	27.27	20.43	1.77	28.28	21.41	1.88	29.02	22.67	1.98			
41	21.28	18.17	1.32	23.76	18.74	1.48	25.42	19.38	1.62	26.68	20.18	1.75	27.50	21.02	1.88	27.97	22.05	2.01			
50	24.92	19.86	0.76	27.96	20.51	0.86	29.94	21.17	0.94	31.39	21.95	1.02	32.27	22.80	1.10	32.65	23.79	1.18			
59	23.78	19.58	0.91	26.75	20.24	1.01	28.69	20.90	1.09	30.07	21.59	1.18	30.90	22.44	1.26	31.21	23.36	1.35			
67	25.53	20.61	1.38	28.77	21.32	1.50	30.88	22.03	1.60	32.41	22.71	1.70	33.33	23.68	1.81	33.71	24.66	1.92			
77	24.35	20.23	1.71	27.44	20.97	1.81	29.50	21.71	1.89	31.05	22.34	1.97	32.06	23.48	2.05	32.59	24.54	2.14			
87	23.44	19.81	1.99	26.37	20.57	2.06	28.41	21.37	2.11	30.04	21.97	2.17	31.21	23.35	2.22	32.01	24.58	2.27			
95	22.17	19.23	2.31	24.86	20.01	2.34	26.86	20.89	2.37	28.60	21.49	2.39	30.03	23.22	2.40	31.27	24.71	2.41			
104	20.73	18.46	2.61	23.07	19.27	2.62	25.04	20.28	2.63	27.00	20.88	2.64	28.88	23.12	2.65	30.81	25.03	2.66			
115	18.80	16.09	2.92	20.45	17.51	2.93	22.46	19.23	2.94	25.04	20.14	2.95	28.08	23.40	2.96	31.78	26.14	2.96			

AFR			m³/h									1,478								
Outdoor temperature	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			
	-20.6	7.32	5.28	0.40	7.63	5.51	0.42	8.16	5.89	0.44	8.70	6.28	0.46	10.18	7.35	0.46	10.92	7.88	0.46	
	-15	7.16	5.22	0.88	7.35	5.35	0.94	7.80	5.68	0.98	8.51	6.20	1.00	9.45	6.89	1.02	10.68	7.79	1.02	
	-10	6.84	5.32	1.16	7.33	5.46	1.26	7.81	5.73	1.32	8.34	6.13	1.37	8.90	6.61	1.41	9.54	7.25	1.44	
	0	6.41	5.35	1.37	7.11	5.51	1.53	7.60	5.71	1.65	7.99	5.99	1.77	8.29	6.27	1.88	8.51	6.64	1.98	
	5	6.24	5.33	1.32	6.96	5.49	1.48	7.45	5.68	1.62	7.82	5.91	1.75	8.06	6.16	1.88	8.20	6.46	2.01	
10	7.30	5.82	0.76	8.19	6.01	0.86	8.78	6.21	0.94	9.20	6.43	1.02	9.46	6.68	1.10	9.57	6.97	1.18		
15	6.97	5.74	0.91	7.84	5.93	1.01	8.41	6.13	1.09	8.81	6.33	1.18	9.06	6.58	1.26	9.15	6.85	1.35		
19.4	7.48	6.04	1.38	8.43	6.25	1.50	9.05	6.46	1.60	9.50	6.66	1.70	9.77	6.94	1.81	9.88	7.23	1.92		
25	7.14	5.93	1.71	8.04	6.15	1.81	8.65	6.36	1.89	9.10	6.55	1.97	9.40	6.88	2.05	9.55	7.19	2.14		
30	6.87	5.81	1.99	7.73	6.03	2.06	8.33	6.26	2.11	8.80	6.44	2.17	9.15	6.84	2.22	9.38	7.20	2.27		
35	6.50	5.63	2.31	7.29	5.86	2.34	7.87	6.12	2.37	8.38	6.30	2.39	8.80	6.80	2.40	9.16	7.24	2.41		
40	6.08	5.41	2.61	6.76	5.65	2.62	7.34	5.94	2.63	7.91	6.12	2.64	8.46	6.78	2.65	9.03	7.33	2.66		
46.1	5.51	4.72	2.92	5.99	5.13	2.93	6.58	5.64	2.94	7.34	5.90	2.95	8.23	6.86	2.96	9.31	7.66	2.96		



# Model: AMUG36LMAS

AFR	CFM	1,200
-----	-----	-------

		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/h			kW			kBtu/h			kW			kBtu/h			kW		
	-5	25.43	18.52	0.99	30.25	20.48	1.01	34.32	22.38	1.06	38.42	24.58	1.14	42.16	26.80	1.22	46.23	29.41	1.35
	5	25.43	18.52	1.09	30.25	20.48	1.11	34.32	22.38	1.16	38.42	24.58	1.25	42.16	26.80	1.34	46.23	29.41	1.48
	14	25.43	18.52	1.17	30.25	20.48	1.19	34.32	22.38	1.25	38.42	24.58	1.34	42.16	26.80	1.45	46.23	29.41	1.60
	32	24.22	18.35	1.43	30.10	22.01	1.45	34.53	24.18	1.50	38.42	24.58	1.59	41.57	29.08	1.67	42.36	27.81	1.81
	41	24.06	18.43	1.56	30.21	22.48	1.59	34.66	24.70	1.64	38.42	24.58	1.73	41.37	29.71	1.80	41.22	27.39	1.93
	50	24.16	18.65	1.70	30.38	22.80	1.74	34.79	25.07	1.79	38.42	24.58	1.88	41.21	30.04	1.94	41.21	27.22	2.05
	59	23.81	18.71	1.87	29.77	22.64	1.91	33.97	24.71	1.96	37.33	24.22	2.06	39.88	29.63	2.11	39.03	26.80	2.22
	67	23.71	18.83	2.01	29.29	22.42	2.06	33.27	24.27	2.13	36.38	23.90	2.21	38.73	29.05	2.27	38.01	26.67	2.37
	77	23.85	19.03	2.24	28.81	21.75	2.30	32.38	23.30	2.38	35.17	23.30	2.47	37.31	27.73	2.52	37.16	26.53	2.60
	87	24.38	19.52	2.41	28.52	21.20	2.50	31.65	22.41	2.59	34.08	22.98	2.67	36.07	26.49	2.73	36.85	26.92	2.79
	95	25.27	20.19	2.60	28.34	20.37	2.73	30.72	21.21	2.82	33.00	22.66	2.87	34.85	24.75	2.94	36.75	27.49	2.96
	104	25.85	21.17	2.85	27.58	19.46	2.97	29.39	19.60	3.10	30.89	22.28	3.17	32.51	22.57	3.26	36.51	28.68	3.25
115	27.47	22.87	3.15	26.94	17.83	3.31	27.57	16.95	3.47	28.31	21.83	3.55	29.68	18.87	3.64	36.95	30.71	3.60	

AFR	m <sup>3</sup> /h	2,039
-----	-------------------	-------

	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	7.45	5.43	0.99	8.87	6.00	1.01	10.06	6.56	1.06	11.26	7.20	1.14	12.36	7.85	1.22	13.55	8.62	1.35
	-15	7.45	5.43	1.09	8.87	6.00	1.11	10.06	6.56	1.16	11.26	7.20	1.25	12.36	7.85	1.34	13.55	8.62	1.48
	-10	7.45	5.43	1.17	8.87	6.00	1.19	10.06	6.56	1.25	11.26	7.20	1.34	12.36	7.85	1.45	13.55	8.62	1.60
	0	7.10	5.38	1.43	8.82	6.45	1.45	10.12	7.09	1.50	11.26	7.20	1.59	12.18	8.52	1.67	12.42	8.15	1.81
	5	7.05	5.40	1.56	8.85	6.59	1.59	10.16	7.24	1.64	11.26	7.20	1.73	12.13	8.71	1.80	12.08	8.03	1.93
	10	7.08	5.47	1.70	8.90	6.68	1.74	10.20	7.35	1.79	11.26	7.20	1.88	12.08	8.80	1.94	12.08	7.98	2.05
	15	6.98	5.48	1.87	8.72	6.64	1.91	9.96	7.24	1.96	10.94	7.10	2.06	11.69	8.68	2.11	11.44	7.86	2.22
	19.4	6.95	5.52	2.01	8.58	6.57	2.06	9.75	7.11	2.13	10.66	7.01	2.21	11.35	8.51	2.27	11.14	7.82	2.37
	25	6.99	5.58	2.24	8.44	6.37	2.30	9.49	6.83	2.38	10.31	6.83	2.47	10.93	8.13	2.52	10.89	7.77	2.60
	30	7.14	5.72	2.41	8.36	6.21	2.50	9.28	6.57	2.59	9.99	6.73	2.67	10.57	7.76	2.73	10.80	7.89	2.79
	35	7.41	5.92	2.60	8.31	5.97	2.73	9.00	6.22	2.82	9.67	6.64	2.87	10.21	7.25	2.94	10.77	8.06	2.96
	40	7.58	6.20	2.85	8.08	5.70	2.97	8.61	5.74	3.10	9.05	6.53	3.17	9.53	6.61	3.26	10.70	8.41	3.25
46.1	8.05	6.70	3.15	7.90	5.23	3.31	8.08	4.97	3.47	8.30	6.40	3.55	8.70	5.53	3.64	10.83	9.00	3.60	

# Model: AMUG48LMAS

AFR	CFM	1,640
-----	-----	-------

		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/h		kW	kBtu/h		kW	kBtu/h		kW	kBtu/h		kW	kBtu/h		kW	kBtu/h		kW
	-5	33.86	27.74	1.74	40.27	30.68	1.78	45.69	33.56	1.87	51.18	36.80	2.00	56.18	40.15	2.16	61.57	44.04	2.38
	5	33.86	27.74	1.91	40.27	30.68	1.96	45.69	33.56	2.05	51.18	36.80	2.20	56.18	40.15	2.37	61.57	44.04	2.62
	14	33.86	27.74	2.07	40.27	30.68	2.11	45.69	33.56	2.22	51.18	36.80	2.38	56.18	40.15	2.56	61.57	44.04	2.83
	32	32.25	27.49	2.54	40.13	32.94	2.58	46.01	36.22	2.67	51.18	36.80	2.82	55.43	43.55	2.97	56.45	41.67	3.21
	41	32.06	27.63	2.80	40.25	33.68	2.85	46.19	36.98	2.94	51.18	36.80	3.09	55.14	44.49	3.22	54.95	41.01	3.45
	50	32.16	27.92	3.05	40.45	34.14	3.11	46.33	44.96	3.21	51.18	36.80	3.35	54.87	44.96	3.47	54.87	40.75	3.68
	59	31.90	27.96	3.35	39.87	33.89	3.43	45.53	36.95	3.53	50.04	36.22	3.68	53.44	44.31	3.79	52.30	40.09	3.98
	67	31.94	28.14	3.62	39.49	33.48	3.72	44.84	36.29	3.83	49.04	35.71	3.98	52.23	43.42	4.08	51.24	39.85	4.25
	77	32.46	28.60	3.94	39.15	32.73	4.06	44.00	35.05	4.20	47.77	35.05	4.34	50.70	41.74	4.44	50.51	39.93	4.57
	87	33.33	29.55	4.30	39.01	32.08	4.44	43.29	33.90	4.60	46.64	34.80	4.75	49.33	40.07	4.86	50.37	40.75	4.95
95	34.87	30.82	4.52	39.06	31.08	4.75	42.37	32.34	4.90	45.50	34.58	5.00	48.05	37.75	5.13	50.68	41.93	5.16	
104	35.62	32.18	4.84	38.02	29.57	5.06	40.49	29.78	5.27	42.58	33.86	5.41	44.81	34.27	5.54	50.32	43.56	5.53	
115	37.87	34.56	5.24	37.14	26.93	5.51	38.02	25.57	5.77	39.02	32.98	5.91	40.93	28.50	6.06	50.90	46.40	5.99	

AFR	m <sup>3</sup> /h	2,786
-----	-------------------	-------

	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	9.92	8.13	1.74	11.80	8.99	1.78	13.39	9.84	1.87	15.00	10.79	2.00	16.47	11.77	2.16	18.04	12.91	2.38
	-15	9.92	8.13	1.91	11.80	8.99	1.96	13.39	9.84	2.05	15.00	10.79	2.20	16.47	11.77	2.37	18.04	12.91	2.62
	-10	9.92	8.13	2.07	11.80	8.99	2.11	13.39	9.84	2.22	15.00	10.79	2.38	16.47	11.77	2.56	18.04	12.91	2.83
	0	9.45	8.06	2.54	11.76	9.66	2.58	13.48	10.61	2.67	15.00	10.79	2.82	16.24	12.76	2.97	16.54	12.21	3.21
	5	9.40	8.10	2.80	11.80	9.87	2.85	13.54	10.84	2.94	15.00	10.79	3.09	16.16	13.04	3.22	16.10	12.02	3.45
	10	9.43	8.18	3.05	11.86	10.01	3.11	13.58	13.18	3.21	15.00	10.79	3.35	16.08	13.18	3.47	16.08	11.94	3.68
	15	9.35	8.19	3.35	11.69	9.93	3.43	13.34	10.83	3.53	14.67	10.62	3.68	15.66	12.99	3.79	15.33	11.75	3.98
	19.4	9.36	8.25	3.62	11.57	9.81	3.72	13.14	10.64	3.83	14.37	10.46	3.98	15.31	12.73	4.08	15.02	11.68	4.25
	25	9.51	8.38	3.94	11.48	9.59	4.06	12.90	10.27	4.20	14.00	10.27	4.34	14.86	12.23	4.44	14.80	11.70	4.57
	30	9.77	8.66	4.30	11.43	9.40	4.44	12.69	9.94	4.60	13.67	10.20	4.75	14.46	11.74	4.86	14.76	11.94	4.95
	35	10.22	9.03	4.52	11.45	9.11	4.75	12.42	9.48	4.90	13.34	10.13	5.00	14.08	11.06	5.13	14.85	12.29	5.16
	40	10.44	9.43	4.84	11.14	8.67	5.06	11.87	8.73	5.27	12.48	9.92	5.41	13.13	10.04	5.54	14.75	12.77	5.53
46.1	11.10	10.13	5.24	10.89	7.89	5.51	11.14	7.49	5.77	11.43	9.67	5.91	11.99	8.35	6.06	14.92	13.60	5.99	

## 4-2. Heating capacity

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

### ■ Model: AMUG30LMAS

AFR	CFM	870
-----	-----	-----

			Indoor temperature									
		°FDB	60		65		70		72		75	
Outdoor temperature	°FDB	°FWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW
	-15	-17	27.05	5.40	26.49	5.41	26.00	5.41	26.00	5.81	25.90	5.88
	-5	-7	30.18	5.44	29.55	5.46	29.00	5.46	29.00	5.86	28.89	5.93
	5	3	34.61	5.47	32.99	5.47	33.00	5.50	33.65	5.84	35.05	5.96
	14	12	33.23	5.22	33.45	5.36	34.29	5.41	33.96	5.61	34.14	5.74
	17	15	33.65	5.24	33.88	5.38	34.73	5.43	34.39	5.63	34.58	5.76
	23	19	34.51	4.87	35.46	4.99	35.58	5.11	35.50	5.20	34.96	5.31
	32	28	36.47	4.45	37.26	4.52	36.86	4.63	36.66	4.67	35.73	4.74
	41	37	38.98	4.11	38.89	4.12	38.15	4.15	37.50	4.17	36.48	4.19
47	43	40.95	4.25	39.98	4.23	39.00	4.17	38.03	4.20	37.05	4.19	
50	47	43.10	4.35	41.57	4.32	40.60	4.19	39.24	4.25	38.31	4.21	
59	50	44.94	4.29	41.66	4.17	40.65	3.87	38.49	3.98	37.89	3.90	

AFR	m <sup>3</sup> /h	1,478
-----	-------------------	-------

			Indoor temperature									
		°CDB	15.6		18.3		21.1		22.2		23.9	
Outdoor temperature	°CDB	°CWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kW		kW		kW		kW		kW	
	-26.1	-27.0	7.93	5.40	7.76	5.41	7.62	5.41	7.62	5.81	7.59	5.88
	-20.6	-21.7	8.84	5.44	8.66	5.46	8.50	5.46	8.50	5.86	8.47	5.93
	-15	-16.1	10.14	5.47	9.67	5.47	9.67	5.50	9.86	5.84	10.27	5.96
	-10	-11.1	9.74	5.22	9.80	5.36	10.05	5.41	9.95	5.61	10.01	5.74
	-8.3	-9.4	9.86	5.24	9.93	5.38	10.18	5.43	10.08	5.63	10.13	5.76
	-5	-7.2	10.12	4.87	10.39	4.99	10.43	5.11	10.40	5.20	10.25	5.31
	0	-2.2	10.69	4.45	10.92	4.52	10.80	4.63	10.74	4.67	10.47	4.74
	5	2.8	11.43	4.11	11.40	4.12	11.18	4.15	10.99	4.17	10.69	4.19
8.3	6.1	12.00	4.25	11.72	4.23	11.43	4.17	11.15	4.20	10.86	4.19	
10	8.3	12.63	4.35	12.18	4.32	11.90	4.19	11.50	4.25	11.23	4.21	
15	10	13.17	4.29	12.21	4.17	11.91	3.87	11.28	3.98	11.11	3.90	

### ■ Model: AMUG36LMAS

AFR	CFM	1,200
-----	-----	-------

			Indoor temperature									
		°FDB	60		65		70		72		75	
Outdoor temperature	°FDB	°FWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW
	-15	-17	36.54	6.27	34.46	6.33	32.00	6.59	31.55	6.64	31.92	6.86
	-5	-7	43.40	6.32	40.92	6.38	38.00	6.65	37.46	6.69	37.91	6.91
	5	3	42.17	6.53	42.61	6.56	42.00	6.70	41.39	6.76	40.22	6.91
	14	12	40.83	6.55	43.70	6.55	44.15	6.67	43.74	6.72	42.22	6.85
	17	15	41.50	6.63	44.42	6.63	44.88	6.74	44.46	6.80	42.92	6.93
	23	19	42.57	6.24	45.44	6.22	46.29	6.31	46.21	6.37	45.24	6.52
	32	28	47.00	5.59	47.77	5.56	48.44	5.66	48.77	5.73	49.10	5.88
	41	37	53.75	4.94	50.69	4.89	50.58	5.01	51.46	5.10	53.71	5.28
47	43	59.27	4.87	52.85	4.82	52.00	4.96	53.30	5.06	57.12	5.28	
50	47	64.15	4.84	55.52	4.78	54.13	4.95	55.72	5.06	60.56	5.31	
59	50	72.09	4.41	57.13	4.34	54.20	4.57	56.46	4.69	64.04	5.02	

AFR	m <sup>3</sup> /h	2,039
-----	-------------------	-------

			Indoor temperature									
		°CDB	15.6		18.3		21.1		22.2		23.9	
Outdoor temperature	°CDB	°CWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kW		kW		kW		kW		kW	
	-26.1	-27.0	10.71	6.27	10.10	6.33	9.38	6.59	9.25	6.64	9.36	6.86
	-20.6	-21.7	12.72	6.32	11.99	6.38	11.14	6.65	10.98	6.69	11.11	6.91
	-15	-16.1	12.36	6.53	12.49	6.56	12.31	6.70	12.13	6.76	11.79	6.91
	-10	-11.1	11.97	6.55	12.81	6.55	12.94	6.67	12.82	6.72	12.37	6.85
	-8.3	-9.4	12.16	6.63	13.02	6.63	13.15	6.74	13.03	6.80	12.58	6.93
	-5	-7.2	12.48	6.24	13.32	6.22	13.57	6.31	13.54	6.37	13.26	6.52
	0	-2.2	13.77	5.59	14.00	5.56	14.20	5.66	14.29	5.73	14.39	5.88
	5	2.8	15.75	4.94	14.86	4.89	14.83	5.01	15.08	5.10	15.74	5.28
8.3	6.1	17.37	4.87	15.49	4.82	15.24	4.96	15.62	5.06	16.74	5.28	
10	8.3	18.80	4.84	16.27	4.78	15.87	4.95	16.33	5.06	17.75	5.31	
15	10	21.13	4.41	16.74	4.34	15.88	4.57	16.55	4.69	18.77	5.02	

# Model: AMUG48LMAS

AFR	CFM	1,640
-----	-----	-------

			Indoor temperature									
		°FDB	60		65		70		72		75	
Outdoor temperature	°FDB	°FWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW
	-15	-17	44.56	7.30	42.02	7.37	39.00	7.68	38.51	7.75	38.96	7.98
	-5	-7	51.99	7.36	49.03	7.43	45.50	7.74	44.93	7.81	45.45	8.04
	5	3	51.25	7.59	51.76	7.64	51.00	7.80	50.24	7.87	48.81	8.04
	14	12	46.92	7.61	50.14	7.61	51.00	7.75	50.18	7.81	48.46	7.96
	17	15	46.92	7.70	50.14	7.70	51.00	7.83	50.18	7.90	48.46	8.05
	23	19	47.66	7.17	50.83	7.14	51.80	7.25	51.71	7.31	50.62	7.48
	32	28	51.73	6.28	51.96	6.24	53.00	6.36	53.04	6.43	53.39	6.60
	41	37	57.71	5.39	54.17	5.34	54.20	5.47	55.04	5.56	57.43	5.76
47	43	62.68	5.31	55.87	5.25	55.00	5.41	56.36	5.52	60.39	5.77	
50	47	67.62	5.37	58.81	5.30	57.26	5.48	59.05	5.60	64.20	5.89	
59	50	75.63	4.46	60.92	4.38	57.32	4.61	60.20	4.74	68.28	5.07	

AFR	m³/h	2,786
-----	------	-------

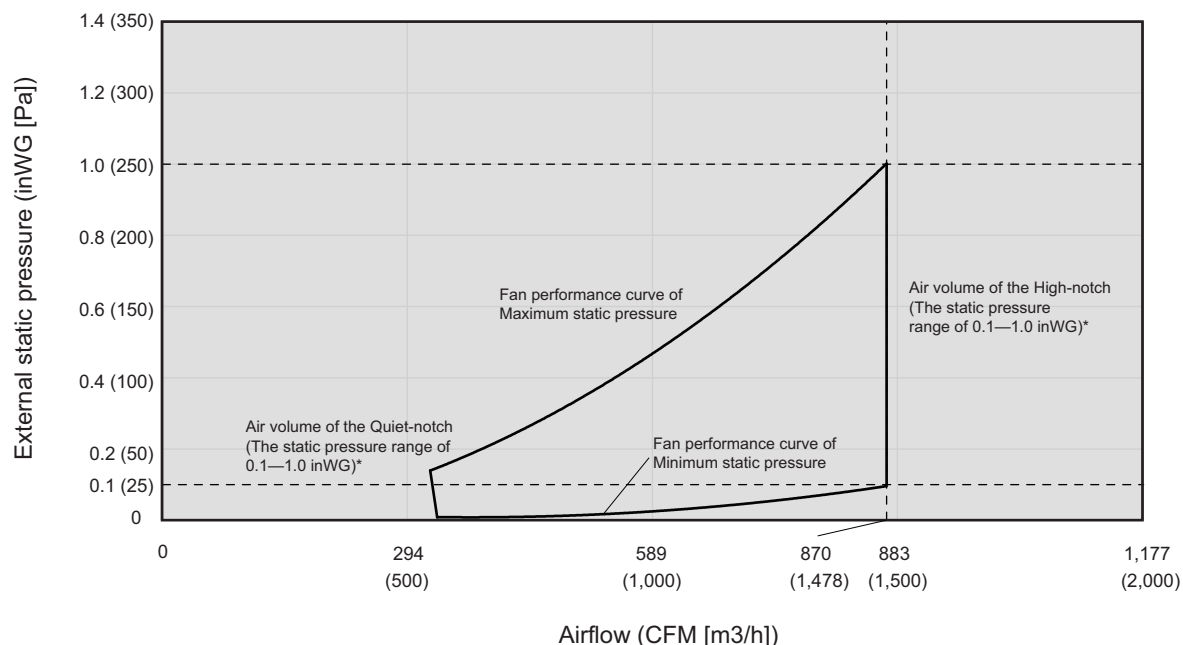
			Indoor temperature									
			15.6		18.3		21.1		22.2		23.9	
Outdoor temperature	°CDB	°CWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
			kW		kW		kW		kW		kW	
	-26.1	-27.0	13.06	7.30	12.32	7.37	11.43	7.68	11.29	7.75	11.42	7.98
	-20.6	-21.7	15.24	7.36	14.37	7.43	13.34	7.74	13.17	7.81	13.32	8.04
	-15	-16.1	15.02	7.59	15.17	7.64	14.95	7.80	14.72	7.87	14.31	8.04
	-10	-11.1	13.75	7.61	14.70	7.61	14.95	7.75	14.71	7.81	14.20	7.96
	-8.3	-9.4	13.75	7.70	14.70	7.70	14.95	7.83	14.71	7.90	14.20	8.05
	-5	-7.2	13.97	7.17	14.90	7.14	15.18	7.25	15.16	7.31	14.84	7.48
	0	-2.2	15.16	6.28	15.23	6.24	15.53	6.36	15.54	6.43	15.65	6.60
	5	2.8	16.92	5.39	15.88	5.34	15.89	5.47	16.13	5.56	16.83	5.76
8.3	6.1	18.37	5.31	16.37	5.25	16.12	5.41	16.52	5.52	17.70	5.77	
10	8.3	19.82	5.37	17.24	5.30	16.78	5.48	17.31	5.60	18.82	5.89	
15	10	22.17	4.46	17.85	4.38	16.80	4.61	17.64	4.74	20.01	5.07	

## 5. Fan performance

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

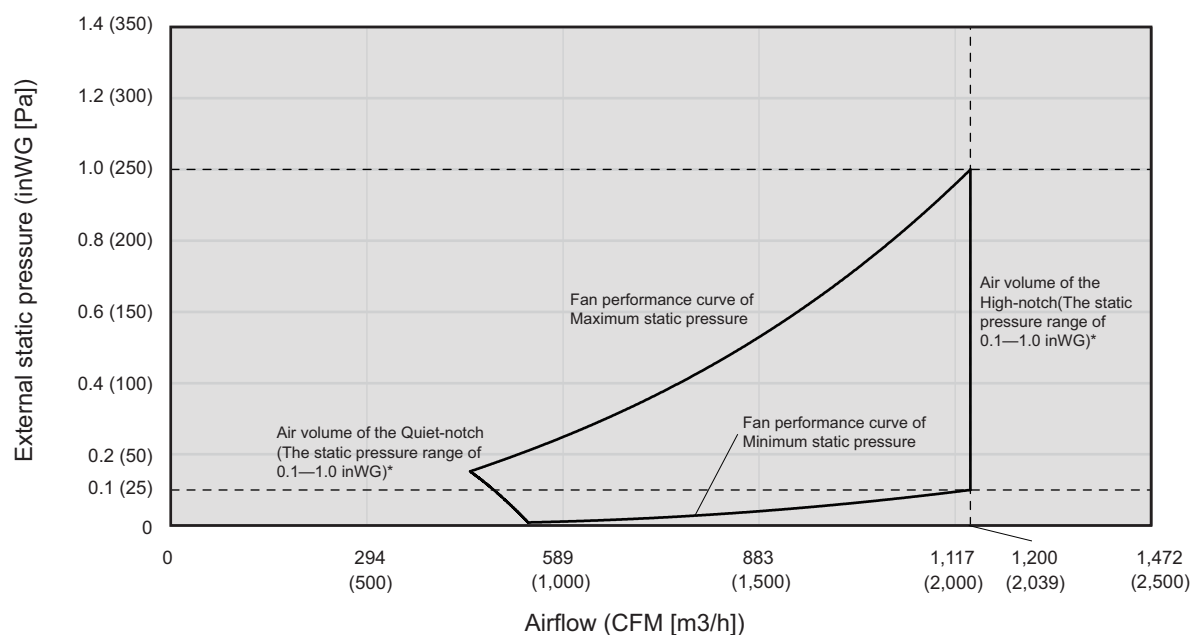
### 5-1. Fan performance curve

#### ■ Model: AMUG30LMAS



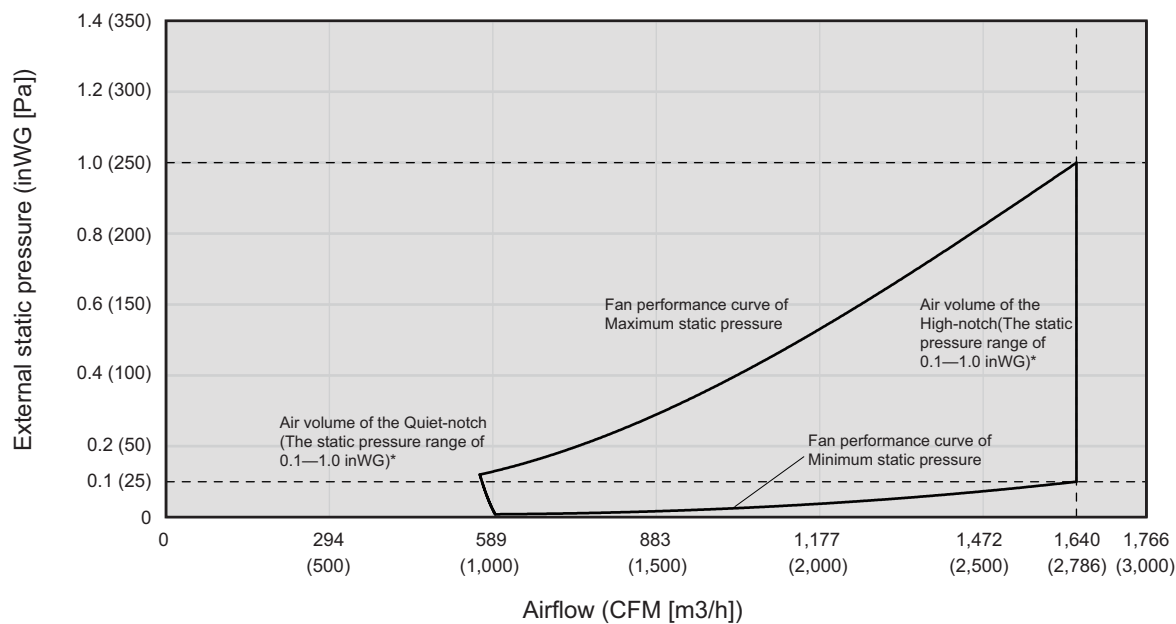
\*: The air volume is automatically adjusted near the target air volume by the function of automatic air volume adjustment. (Within the SP range of 0.1—1.0 inWG)

#### ■ Model: AMUG36LMAS



\*: The air volume is automatically adjusted near the target air volume by the function of automatic air volume adjustment. (Within the SP range of 0.1—1.0 inWG)

## Model: AMUG48LMAS



\*: The air volume is automatically adjusted near the target air volume by the function of automatic air volume adjustment. (Within the SP range of 0.1—1.0 inWG)

## 5-2. Airflow

### ■ Model: AMUG30LMAS

#### ● Cooling

Fan speed	Airflow	
HIGH	m <sup>3</sup> /h	1,478
	l/s	411
	CFM	870
MED	m <sup>3</sup> /h	1,240
	l/s	345
	CFM	730
LOW	m <sup>3</sup> /h	1,002
	l/s	278
	CFM	590
QUIET	m <sup>3</sup> /h	527
	l/s	146
	CFM	310

#### ● Heating

Fan speed	Airflow	
HIGH	m <sup>3</sup> /h	1,478
	l/s	411
	CFM	870
MED	m <sup>3</sup> /h	1,240
	l/s	345
	CFM	730
LOW	m <sup>3</sup> /h	1,002
	l/s	278
	CFM	590
QUIET	m <sup>3</sup> /h	527
	l/s	146
	CFM	310

## ■ Model: AMUG36LMAS

### ● Cooling

Fan speed	Airflow	
HIGH	m <sup>3</sup> /h	2,039
	l/s	566
	CFM	1,200
MED	m <sup>3</sup> /h	1,257
	l/s	349
	CFM	740
LOW	m <sup>3</sup> /h	1,002
	l/s	278
	CFM	590
QUIET	m <sup>3</sup> /h	833
	l/s	231
	CFM	490

### ● Heating

Fan speed	Airflow	
HIGH	m <sup>3</sup> /h	2,039
	l/s	566
	CFM	1,200
MED	m <sup>3</sup> /h	1,257
	l/s	349
	CFM	740
LOW	m <sup>3</sup> /h	1,002
	l/s	278
	CFM	590
QUIET	m <sup>3</sup> /h	833
	l/s	231
	CFM	490



## ■ Model: AMUG48LMAS

### ● Cooling

Fan speed	Airflow	
HIGH	m <sup>3</sup> /h	2,786
	l/s	774
	CFM	1,640
MED	m <sup>3</sup> /h	1,733
	l/s	481
	CFM	1,020
LOW	m <sup>3</sup> /h	1,393
	l/s	387
	CFM	820
QUIET	m <sup>3</sup> /h	1,002
	l/s	278
	CFM	590

### ● Heating

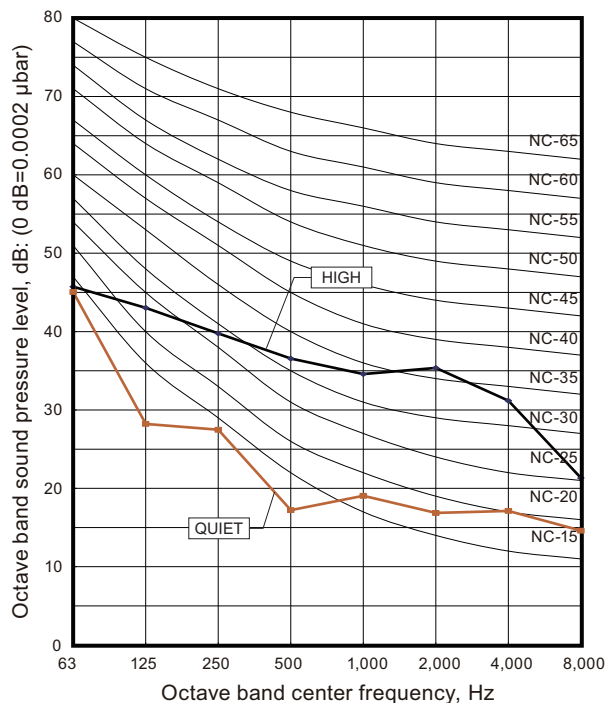
Fan speed	Airflow	
HIGH	m <sup>3</sup> /h	2,786
	l/s	774
	CFM	1,640
MED	m <sup>3</sup> /h	1,733
	l/s	481
	CFM	1,020
LOW	m <sup>3</sup> /h	1,393
	l/s	387
	CFM	820
QUIET	m <sup>3</sup> /h	1,002
	l/s	278
	CFM	590

## 6. Operation noise (sound pressure)

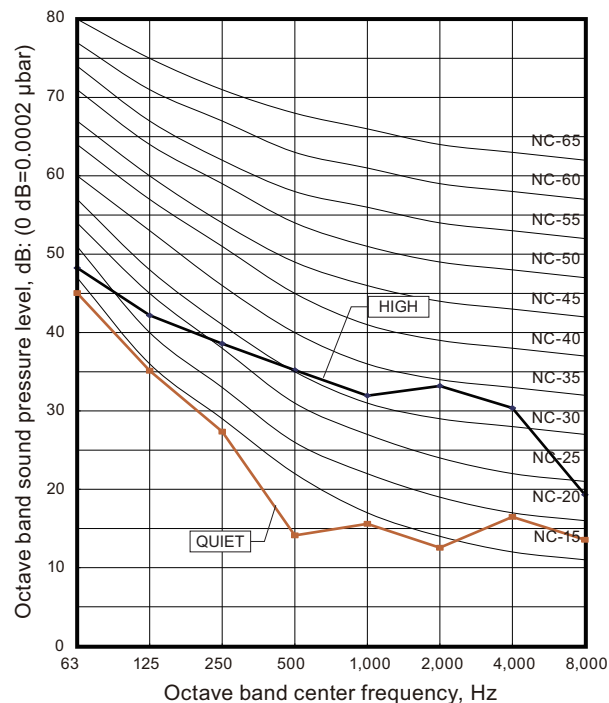
### 6-1. Noise level curve

#### ■ Model: AMUG30LMAS

##### ● Cooling

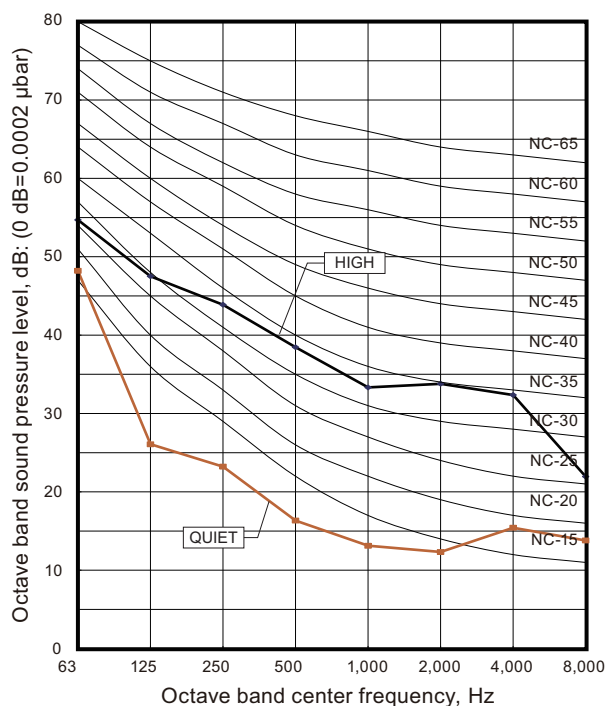


##### ● Heating

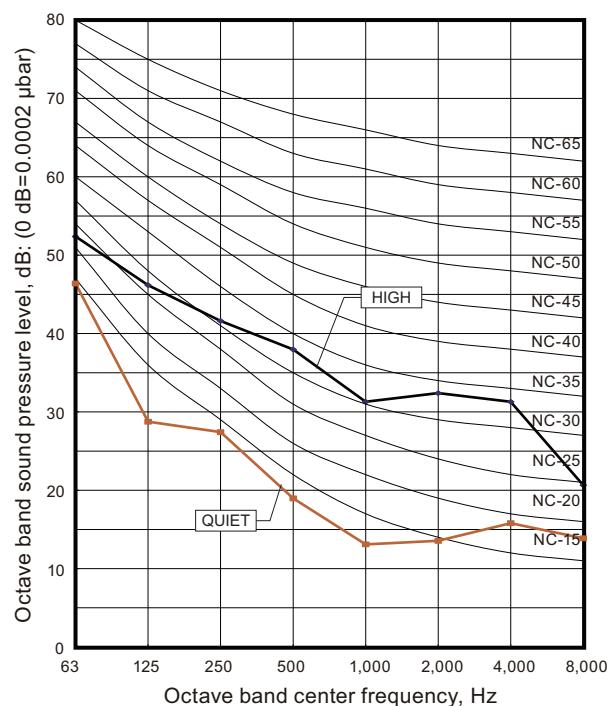


#### ■ Model: AMUG36LMAS

##### ● Cooling

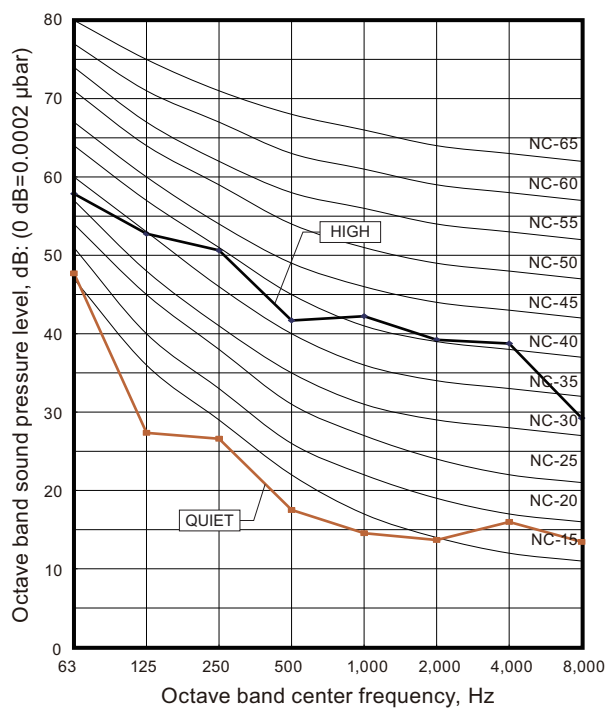


##### ● Heating

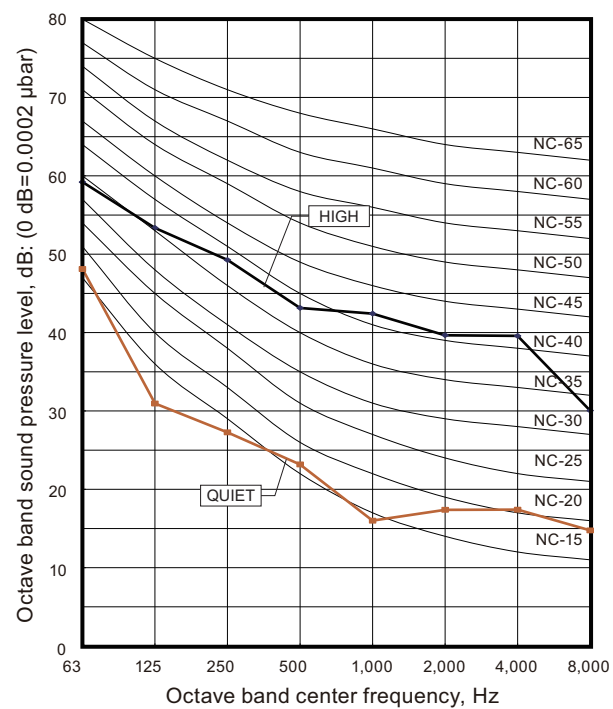


# Model: AMUG48LMAS

## Cooling



## Heating



## 7. External input and output

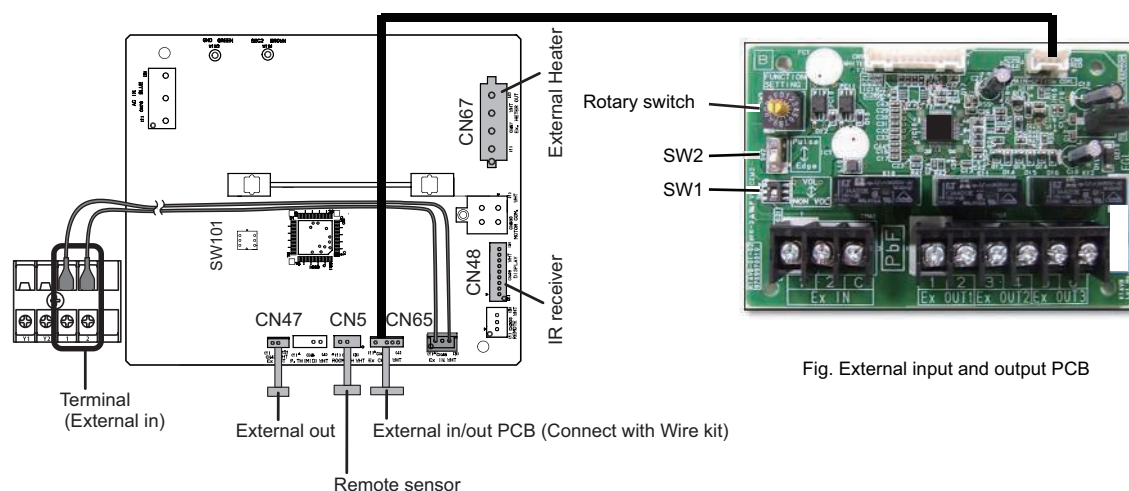


Fig. External input and output PCB

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		
			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		

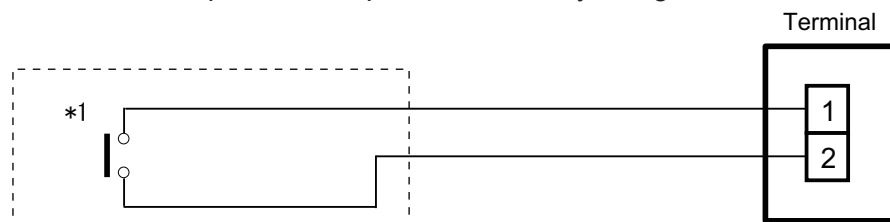
**NOTE:** For details of the switching function, refer to ["Setting of external input and output"](#) on page 24.

## 7-1. 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

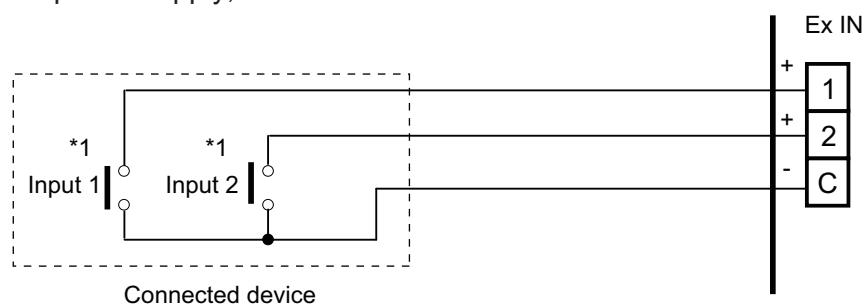
The indoor unit Operation/Stop can be set by using the input terminal on the PCB.

#### Input select

Use either one of these types of terminal according to the application. (Both types of terminal cannot be used simultaneously.)

##### – Dry contact

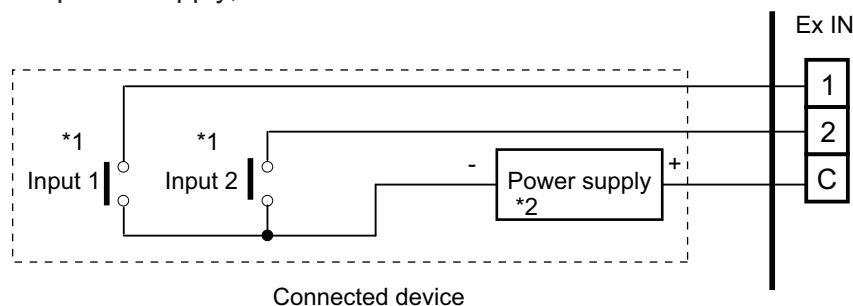
In case of internal power supply, set the slide switch of SW1 to “NON VOL” side.



\*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.



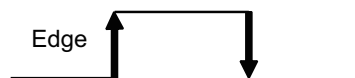
\*1: The switches can be used on the following condition: DC 12 V to 24 V, 1 mA to 15 mA.

\*2: Make the power supply DC 12 V to 24 V, 10 mA or more.

## ■ Input signal type

- **Indoor unit**

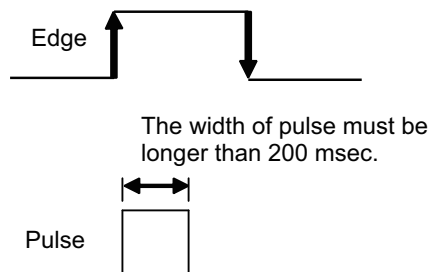
Input signal type is only "Edge".



- **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

## 7-2. External output

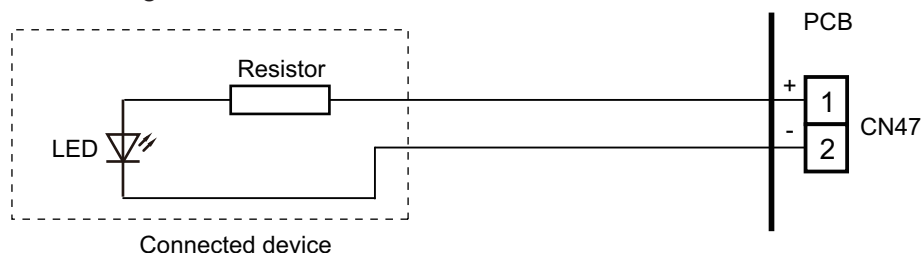
Use an external output cable with appropriate external dimension, depending on the number of cables to be installed.

### 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  $\pm$  2 V, Low 0 V.
- Permissible current: 50 mA
- For details, refer to ["Setting of external input and output"](#) on page 24.

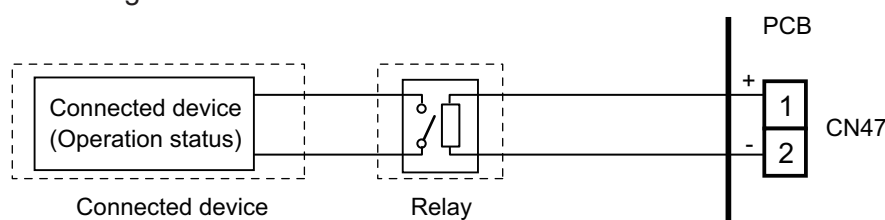
#### When indicator, etc. are connected directly

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



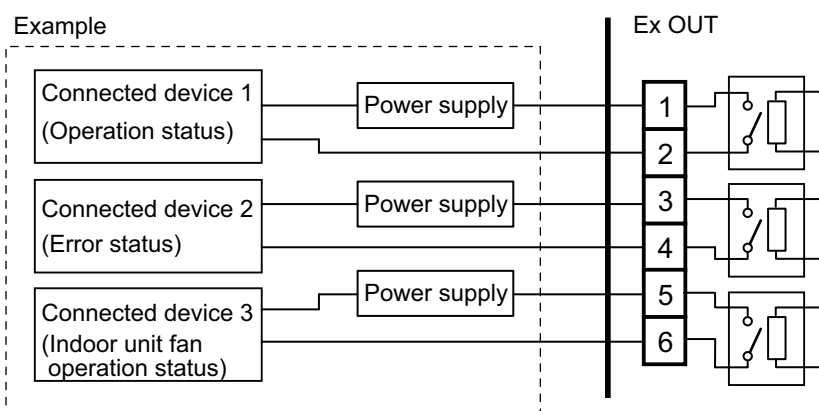
#### When connecting with a device equipped with a power supply

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



### 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 24.



## 7-3. Setting of external input and output

- Indoor unit

Input		
Connection 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		
Connection 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
	11	External heater output



# • 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:

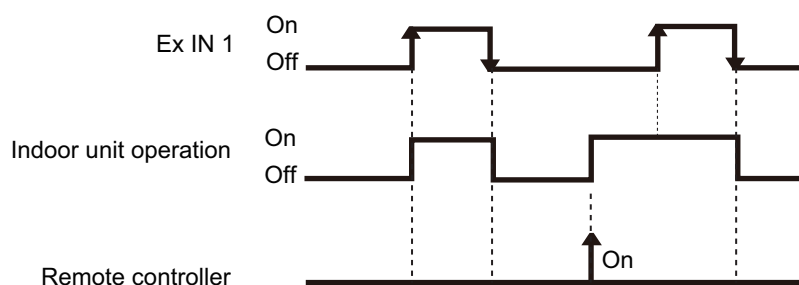
- When the rotary switch is selected to "1", the operation of the terminal block input of the indoor unit and the External Input and Output PCB input are the same. The operation content depends on the setting of function setting number 46.
- \*1: The external input other than "Operation/Stop" is available 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".

## 7-4. Details of control input function

### ■ Operation/Stop mode 1

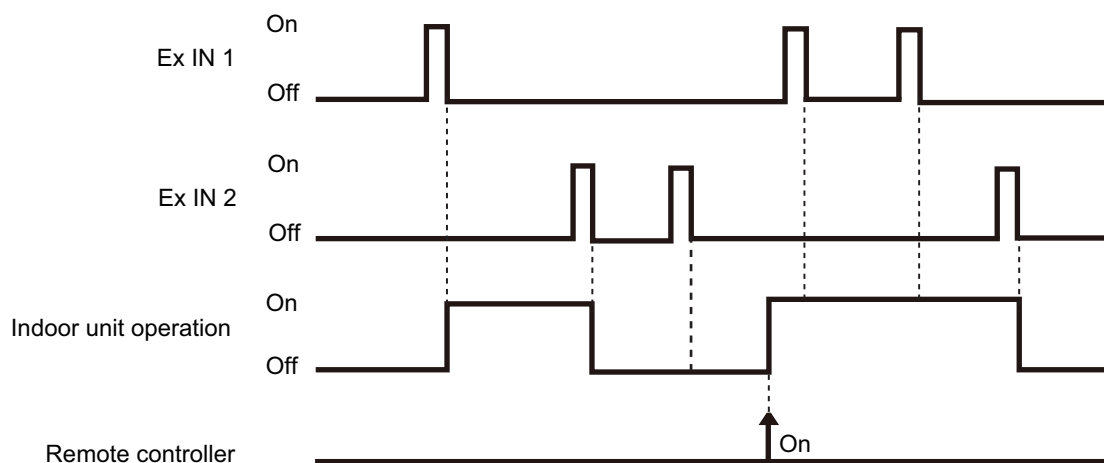
- In the case of "Edge" input

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
	—		Input of indoor unit	Terminal	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



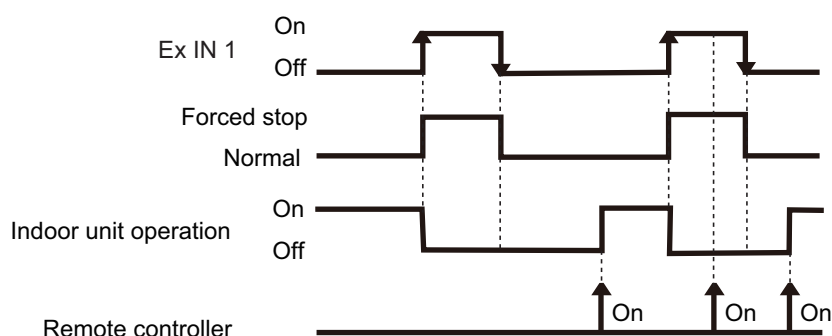
#### NOTES:

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

## ■ Forced stop

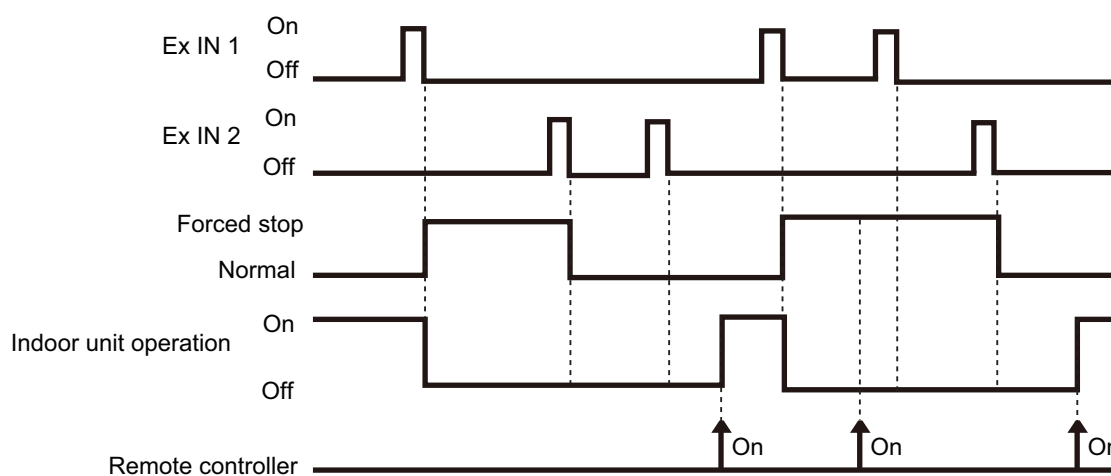
- In the case of "Edge" input

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)



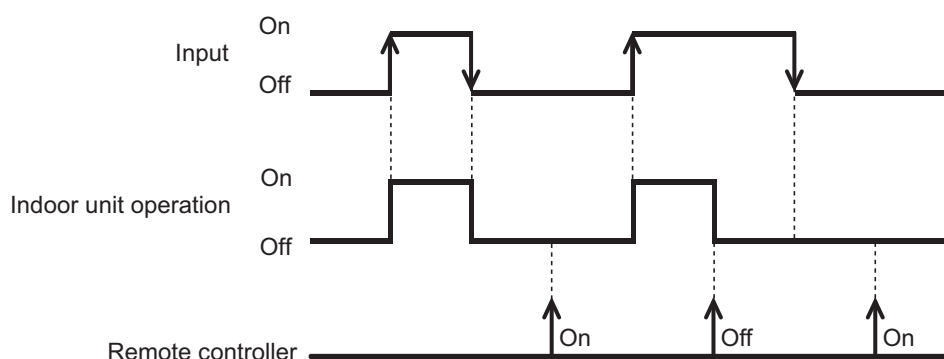
### NOTES:

- 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.

## ■ Operation/Stop mode 2

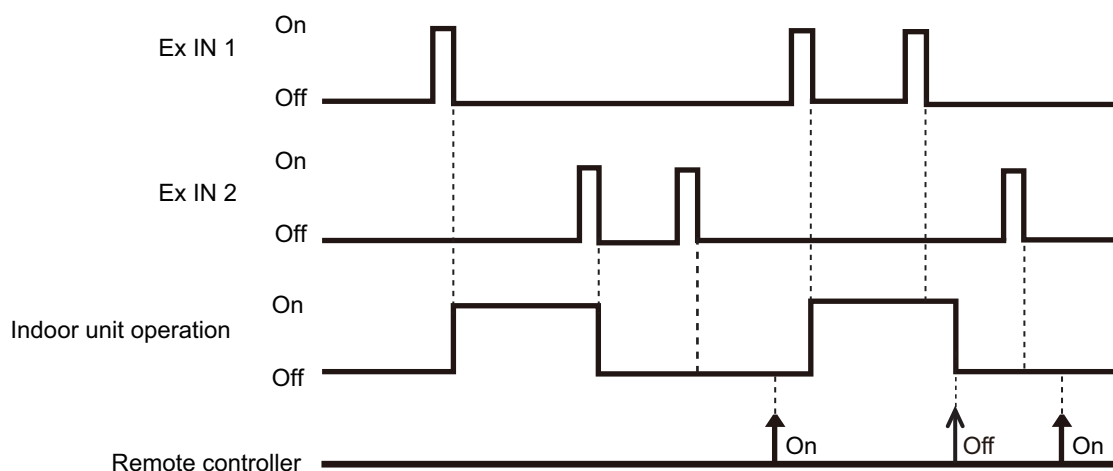
- In the case of "Edge" input

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

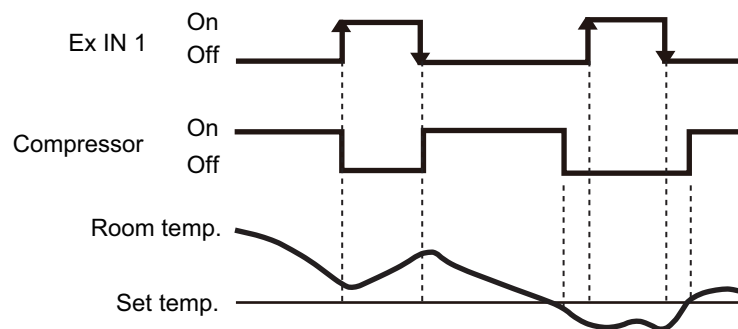
Function setting	External Input and Output PCB		External input		Input signal	Command
	Rotary switch	SW2				
46-03	1	Pulse	External Input and Output PCB	Ex IN 1	Pulse	Operation (R.C. enabled)
				Ex IN 2		Stop (R.C. disabled)



**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.

## ■ Forced thermostat off

External Input and Output PCB	External input		Input signal	Command
Rotary switch				
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

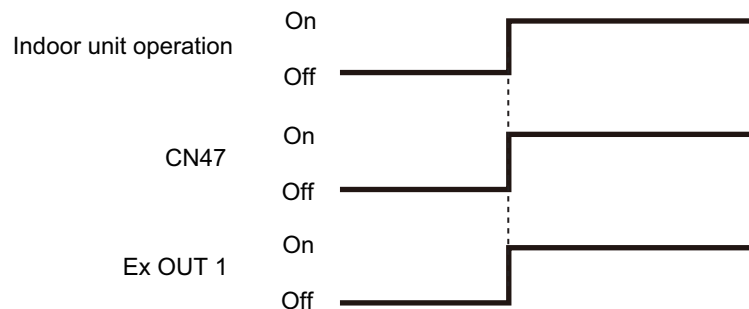


## 7-5. Details of control output function

### ■ Operation status

Function setting	External Input and Output PCB	External output		Output signal	Status
	Rotary switch				
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

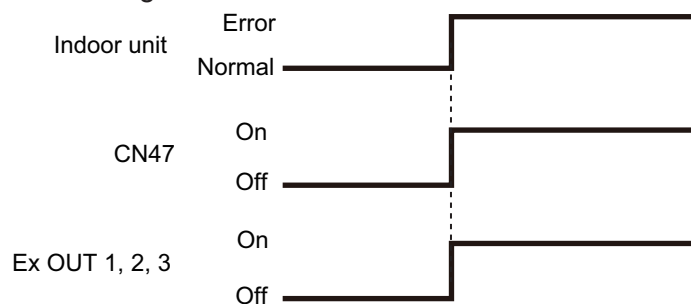
The output is low when the unit is stopped.



### ■ Error status

Function setting	External Input and Output PCB	External output		Output signal	Status
	Rotary switch				
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

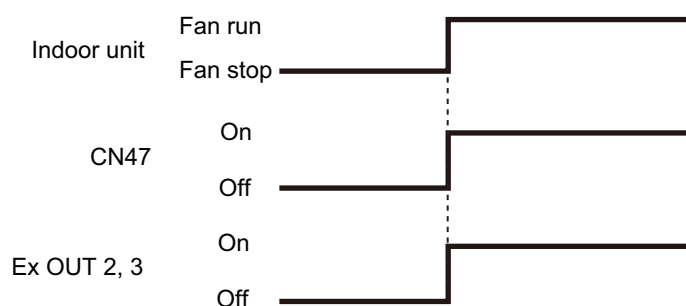
The output is on when an error is generated for the indoor unit.



## Indoor unit fan operation status

Function setting	External Input and Output PCB	External output		Output signal	Status
	Rotary switch				
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.



## ■ External heater output

Control	Primary heater	Auxiliary heater	Function setting
			Indoor unit
			Control switching external heaters No. 61
Auxiliary heater control 1	Heat pump	External device*	61-00
Auxiliary heater control 2	Heat pump	External device	61-01
Heat pump prohibition control	External device	None	61-02
Auxiliary heater control by outdoor temperature 1	Heat pump	External device	61-03
Auxiliary heater control by outdoor temperature 2	Heat Pump	External device	61-04
Auxiliary heater control by outdoor temperature 3	Heat Pump	External device	61-05
Auxiliary heat pump control	External device	Heat pump	61-06
Auxiliary heat pump control by outdoor temperature 1	External device	Heat pump	61-07
Auxiliary heat pump control by outdoor temperature 2	External device	Heat pump	61-08
Auxiliary heat pump control by outdoor temperature 3	External device	Heat pump	61-09

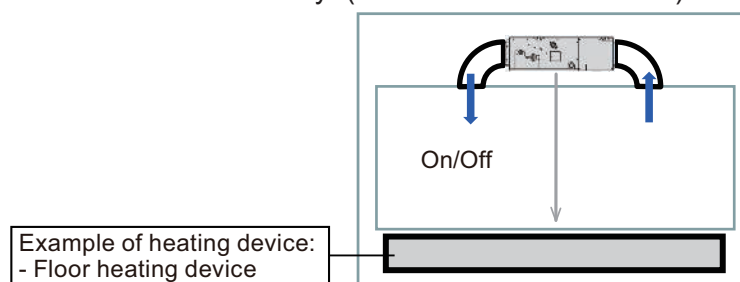
### NOTES:

- 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.
- \*: External device means Hot water, Electrical heater, etc.



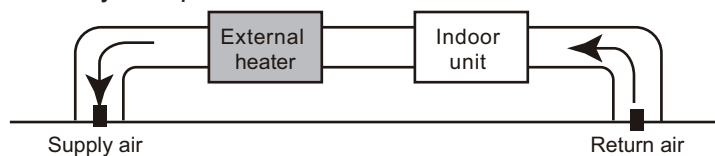
## ● Installation configuration of individual connection

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

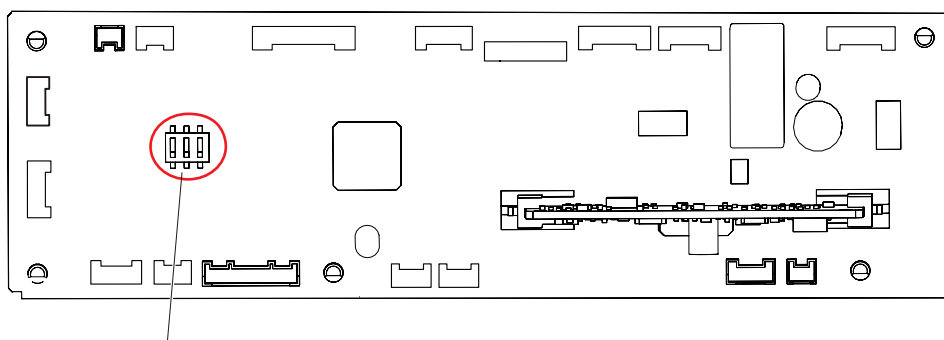
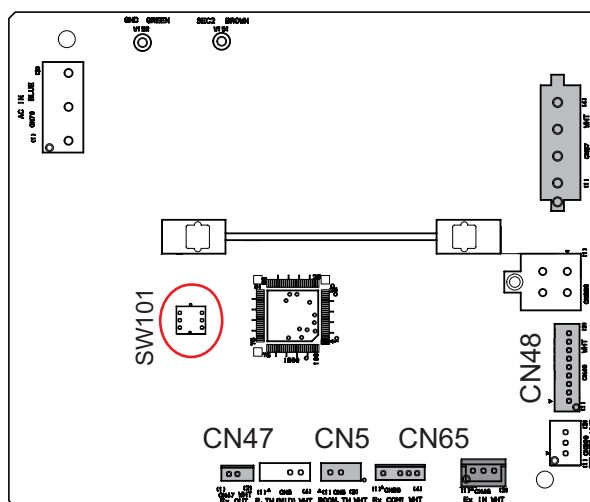


**⚠ WARNING**

- **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	On	<ul style="list-style-type: none"> <li>• Heater is off as shown in following diagram of heating temperature.</li> </ul>
	Indoor unit fan setting for external heater	Enabled	<ul style="list-style-type: none"> <li>• Other than heating mode</li> <li>• Error occurred</li> <li>• Forced thermostat off</li> <li>• Fan stop protection</li> </ul>
Heater off	DIP-SW101-3	Off	<ul style="list-style-type: none"> <li>• Heater is off as shown in following diagram of heating temperature.</li> </ul>
	Indoor unit fan setting for external heater	Disabled	<ul style="list-style-type: none"> <li>• Other than heating mode</li> <li>• Error occurred</li> <li>• Forced thermostat off</li> </ul>

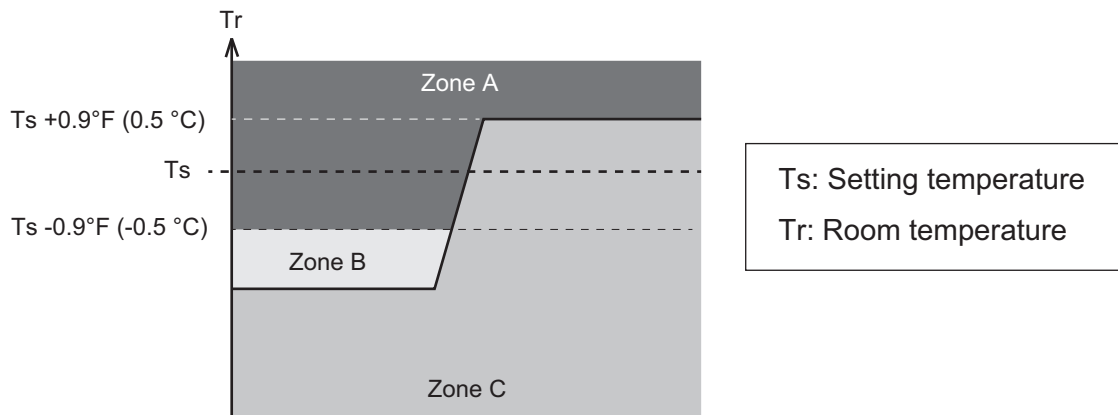


DIP switch 101

- Design and install external heater appropriately with considering its protection.
- 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.

## ● 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.



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	—	—
C	Auxiliary equipment also operates.	On	On*2	On	On*2

\*1: For standby time for auxiliary equipment operation, refer to indoor unit function number 71 "[Contents of function setting](#)" on page 53.

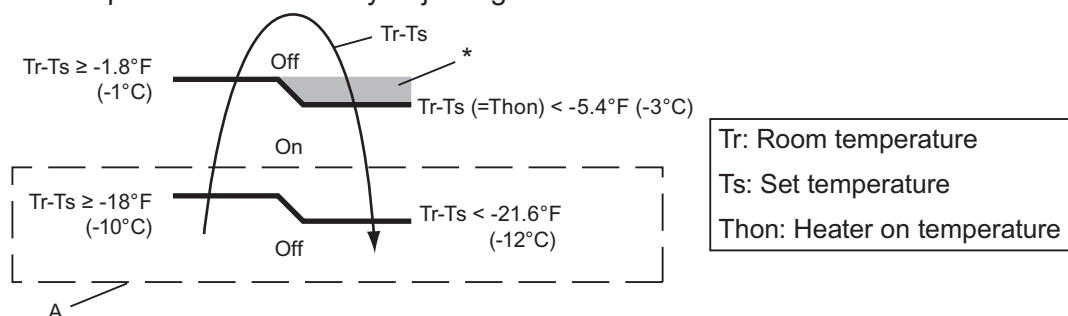
\*2: When indoor unit function number 61 is set to "00", auxiliary equipment operates according to the following conditions.

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

## ● Auxiliary heater control 1

Operation	Condition
Heater on	Heater is on as shown in following diagram of heating temperature.
Heater off	<ul style="list-style-type: none"> <li>Heater is off as shown in following diagram of heating temperature.</li> <li>Other than heating mode</li> <li>Error occurred</li> <li>Forced thermostat off</li> <li>Fan stop protection</li> </ul>

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



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

**Example:** When set temperature (Ts) is 72°F (22°C) (Factory setting),

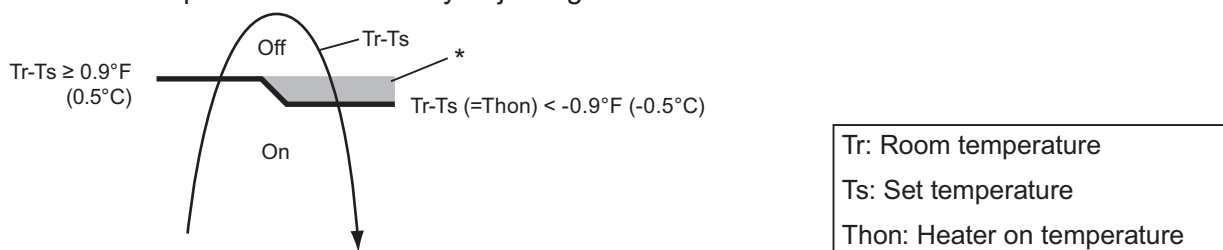
- and room temperature (Tr) increases above 53.6°F (12°C), signal output is on.
- and room temperature (Tr) increases above 69.8°F (21°C), signal output is off.
- and room temperature (Tr) decreases below 66.2°F (19°C), signal output is on.
- and room temperature (Tr) decreases below 50°F (10°C), signal output is off.

## ● Auxiliary heater control 2

Control that excludes "A" from ["Auxiliary heater control 1"](#) on page 36.

Operation	Condition
Heater on	Heater is on as shown in following diagram of heating temperature.
Heater off	<ul style="list-style-type: none"> <li>Heater is off as shown in following diagram of heating temperature.</li> <li>Other than heating mode</li> <li>Error occurred</li> <li>Forced thermostat off</li> <li>Fan stop protection</li> </ul>

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



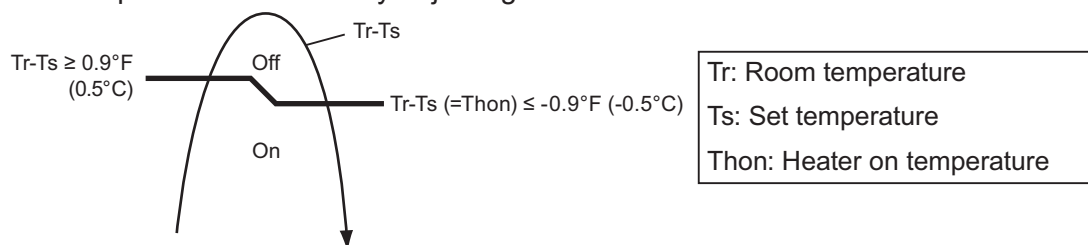
\*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to function number 71.

## ● Heat pump prohibition control

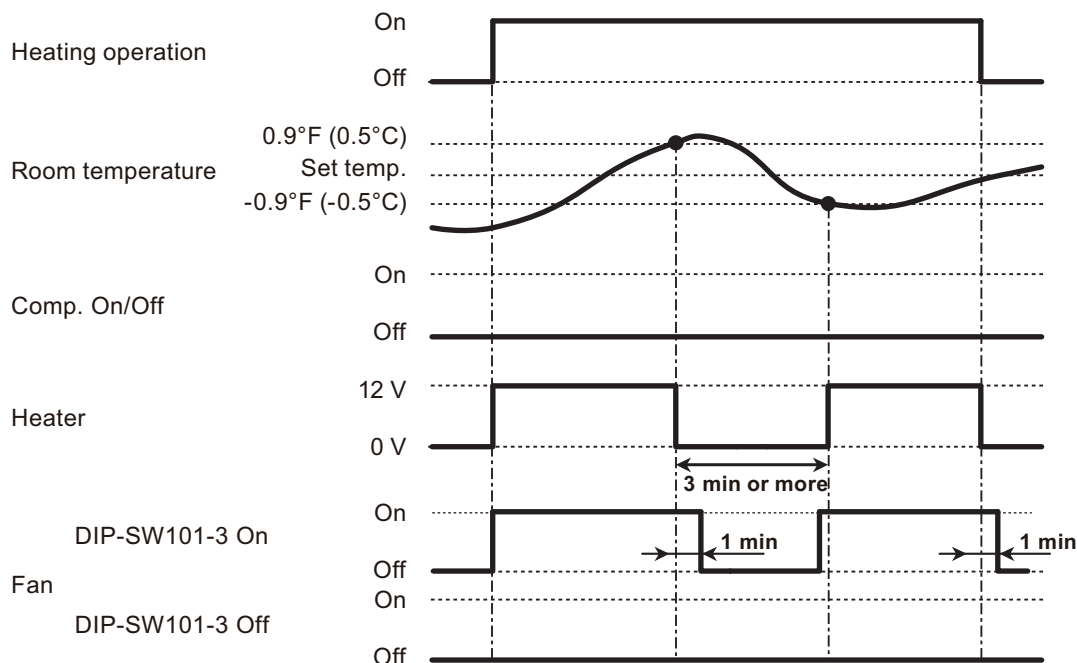
Perform heating by external heater only. Indoor unit is continuous thermostat off.

Operation			Condition
Heater on			Heater is on as shown in following diagram of heating temperature.
Heater off	DIP-SW101-3 On Indoor unit fan setting for external heater	On Enabled	<ul style="list-style-type: none"> <li>Heater is off as shown in following diagram of heating temperature.</li> <li>Other than heating mode</li> <li>Error occurred</li> <li>Forced thermostat off</li> <li>Fan stop protection</li> </ul>
	DIP-SW101-3 Off Indoor unit fan setting for external heater	Off Disabled	<ul style="list-style-type: none"> <li>Heater is off as shown in following diagram of heating temperature.</li> <li>Other than heating mode</li> <li>Error occurred</li> <li>Forced thermostat off</li> </ul>

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



### • Operation status



**NOTE:** In following operations, compressor will be on.

- Other than heating
- Test run

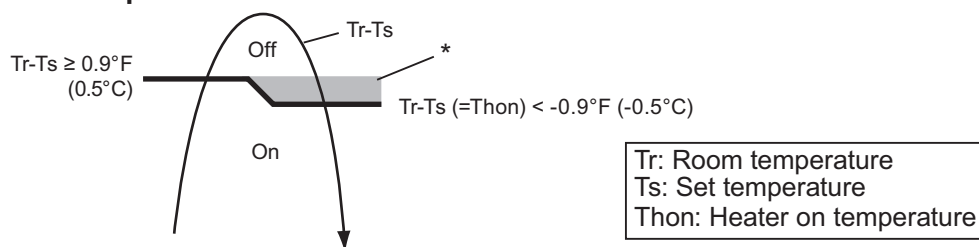
## ● Auxiliary heater control by outdoor temperature 1

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 On	On	<ul style="list-style-type: none"> <li>Heater is off as shown in following diagram of heating temperature.</li> <li>Other than heating mode</li> <li>Error occurred</li> <li>Forced thermostat off</li> <li>Heat pump only zone</li> <li>Fan stop protection</li> </ul>
	DIP-SW101-3 Indoor unit fan setting for external heater	Enabled	
Heater off	DIP-SW101-3 Off	Off	<ul style="list-style-type: none"> <li>Heater is off as shown in following diagram of heating temperature.</li> <li>Other than heating mode</li> <li>Error occurred</li> <li>Forced thermostat off</li> <li>Heat pump only zone</li> </ul>
	DIP-SW101-3 Indoor unit fan setting for external heater	Disabled	

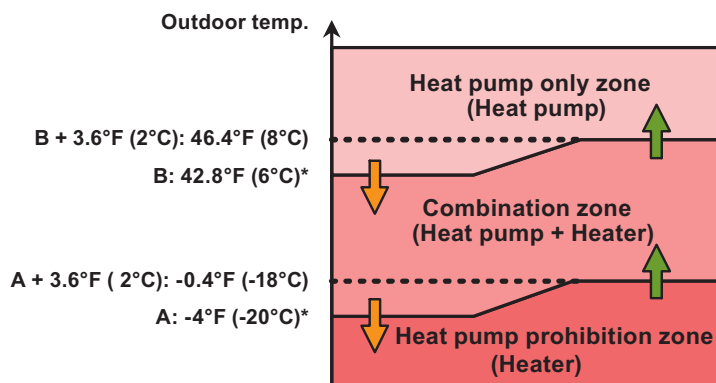
- Temperature of heater on (Thon): Adjustable by function number 62 (Operating temperature switching of external heaters).
- All control temperatures will shift by adjusting "Thon".
- Outdoor temperature zone boundary A and B: Adjustable individually by function setting number 66 and 67.

### • External heater output



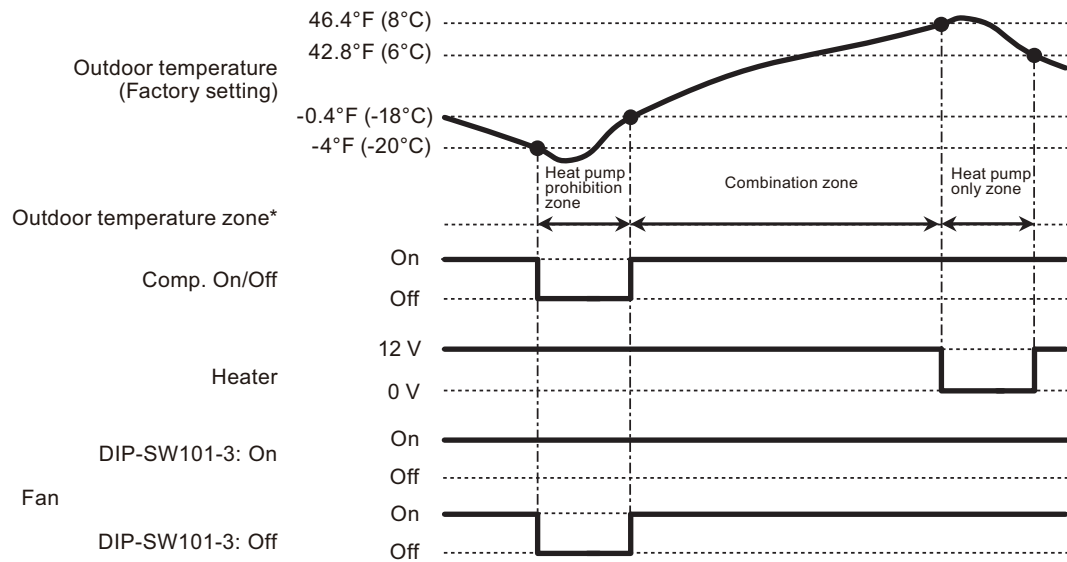
\*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to function number 71.

### • 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

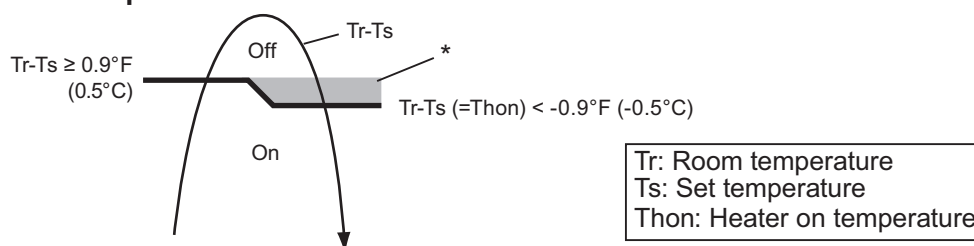
## ● Auxiliary heater control by outdoor temperature 2

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	<ul style="list-style-type: none"> <li>• Heater is off as shown in following diagram of heating temperature.</li> <li>• Other than heating mode</li> <li>• Error occurred</li> <li>• Forced thermostat off</li> <li>• Fan stop protection</li> </ul>
	DIP-SW101-3 Indoor unit fan setting for external heater	Off  Disabled	<ul style="list-style-type: none"> <li>• Heater is off as shown in following diagram of heating temperature.</li> <li>• Other than heating mode</li> <li>• Error occurred</li> <li>• Forced thermostat off</li> </ul>

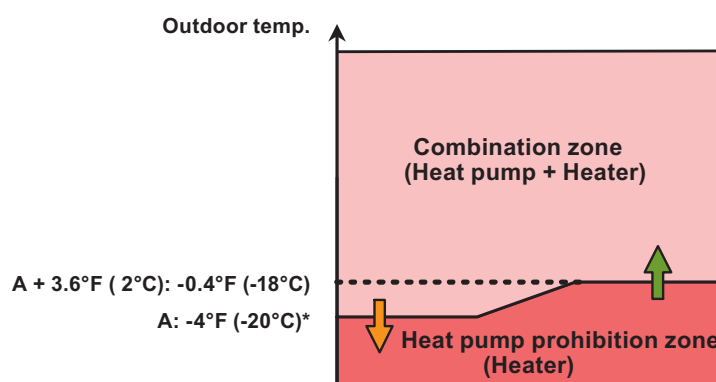
- Temperature of heater on (Thon): Adjustable by function number 62 (Operating temperature switching of external heaters).
- All control temperatures will shift by adjusting "Thon".
- Outdoor temperature zone boundary A: Adjustable by function setting number 66.

### • External heater output



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

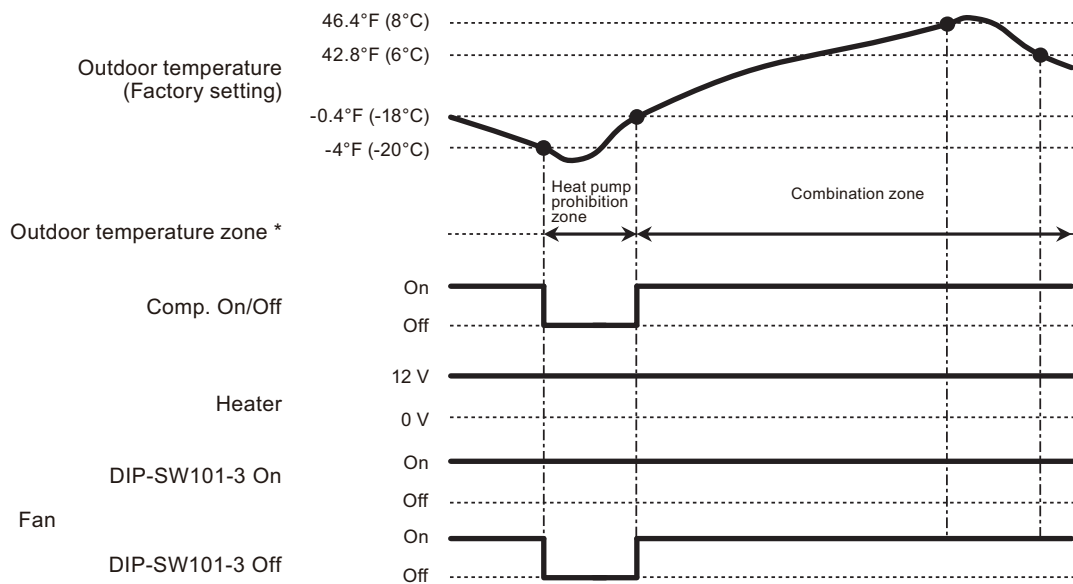
### • Outdoor temperature zone



\*: 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

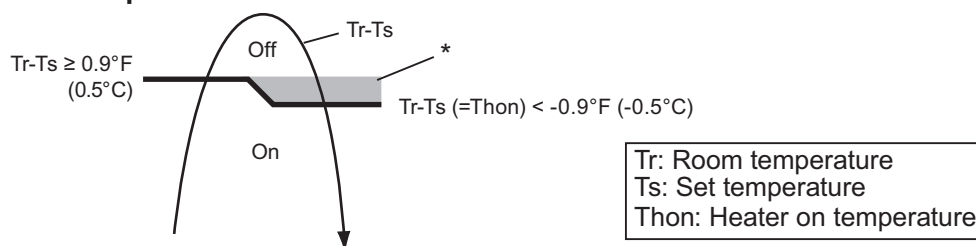
## ● Auxiliary heater control by outdoor temperature 3

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	On	<ul style="list-style-type: none"> <li>Heater is off as shown in following diagram of heating temperature.</li> <li>Other than heating mode</li> <li>Error occurred</li> <li>Forced thermostat off</li> <li>Fan stop protection</li> </ul>
	Indoor unit fan setting for external heater	Enabled	
	DIP-SW101-3	Off	<ul style="list-style-type: none"> <li>Heater is off as shown in following diagram of heating temperature.</li> <li>Other than heating mode</li> <li>Error occurred</li> <li>Forced thermostat off</li> </ul>
	Indoor unit fan setting for external heater	Disabled	

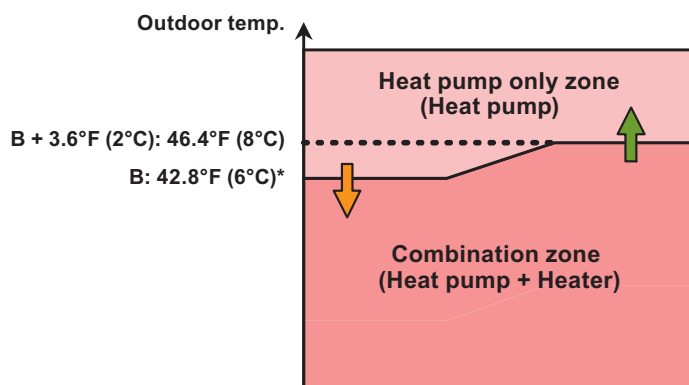
- Temperature of heater on (Thon): Adjustable by function number 62 (Operating temperature switching of external heaters).
- All control temperatures will shift by adjusting "Thon".
- Outdoor temperature zone boundary B: Adjustable by function setting number 67.

### • External heater output



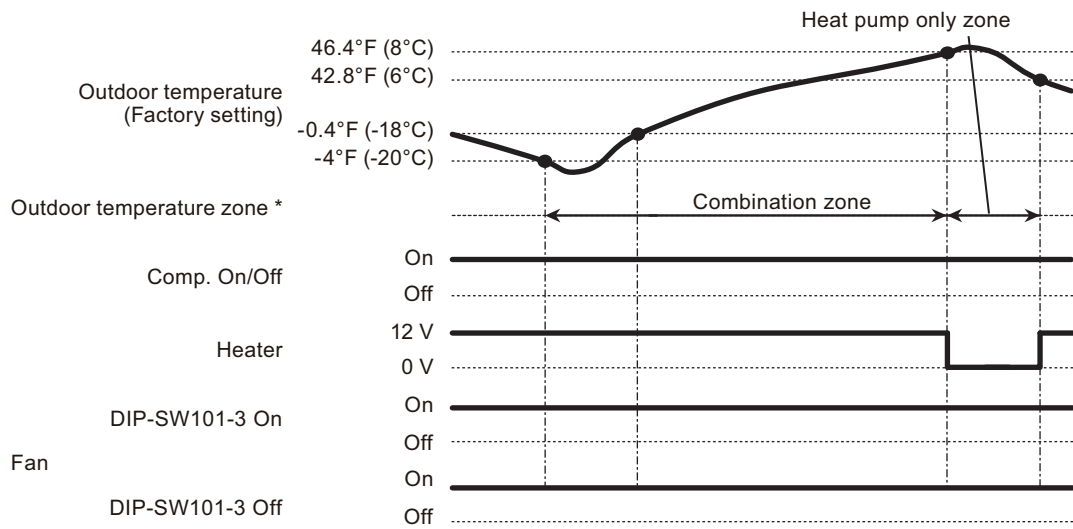
\*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to function number 71.

### • 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.

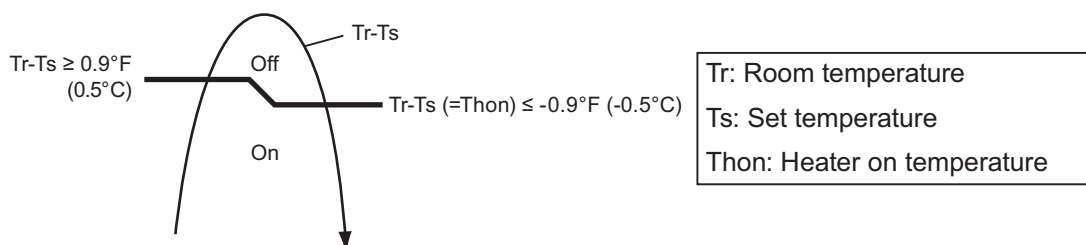
- Other than heating
- Test run

## ● Auxiliary heat pump control

### • External heater output

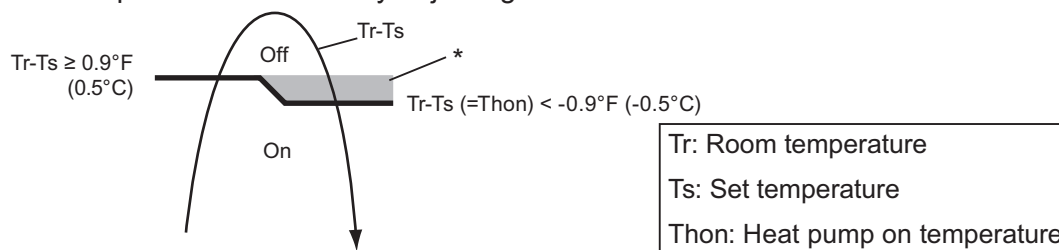
Operation			Condition
Heater on			Heater is on as shown in following diagram of heating temperature.
Heater off	DIP-SW101-3	On	<ul style="list-style-type: none"> <li>Heater is off as shown in following diagram of heating temperature.</li> <li>Other than heating mode</li> <li>Error occurred</li> <li>Forced thermostat off</li> <li>Fan stop protection</li> </ul>
	Indoor unit fan setting for external heater	Enabled	
	DIP-SW101-3	Off	<ul style="list-style-type: none"> <li>Heater is off as shown in following diagram of heating temperature.</li> <li>Other than heating mode</li> <li>Error occurred</li> <li>Forced thermostat off</li> </ul>
	Indoor unit fan setting for external heater	Disabled	

- Temperature of heater on (Thon): Set temperature (Ts)  $-0.9^{\circ}\text{F}$  ( $-0.5^{\circ}\text{C}$ )
- Temperature of heater off: Set temperature (Ts)  $+0.9^{\circ}\text{F}$  ( $+0.5^{\circ}\text{C}$ )



### • 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”.



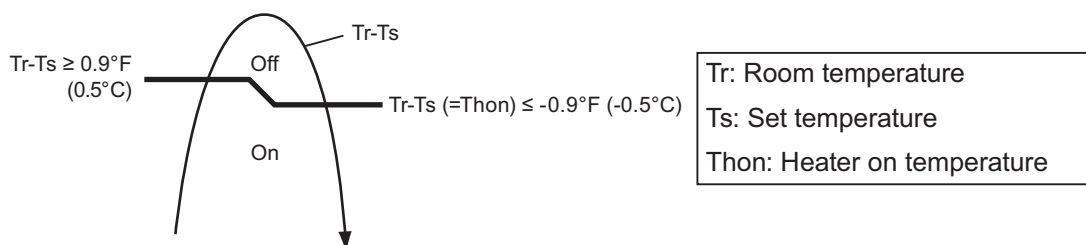
\*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to function number 71.

## ● Auxiliary heat pump control by outdoor temperature 1

### • External heater output

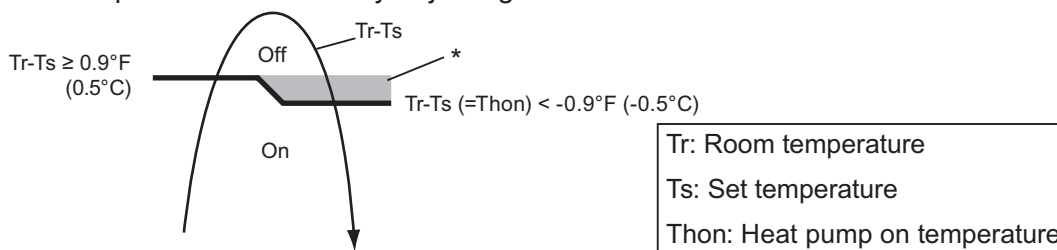
Operation			Condition
Heater on			Heater is on as shown in following diagram of heating temperature.
Heater off	DIP-SW101-3 Indoor unit fan setting for external heater	On  Enabled	<ul style="list-style-type: none"> <li>• Heater is off as shown in following diagram of heating temperature.</li> <li>• Other than heating mode</li> <li>• Error occurred</li> <li>• Forced thermostat off</li> <li>• Fan stop protection</li> </ul>
	DIP-SW101-3 Indoor unit fan setting for external heater	Off  Disabled	<ul style="list-style-type: none"> <li>• Heater is off as shown in following diagram of heating temperature.</li> <li>• Other than heating mode</li> <li>• Error occurred</li> <li>• Forced thermostat off</li> </ul>

- Temperature of heater on (Thon): Set temperature (Ts)  $-0.9^{\circ}\text{F}$  ( $-0.5^{\circ}\text{C}$ )
- Temperature of heater off: Set temperature (Ts)  $+0.9^{\circ}\text{F}$  ( $+0.5^{\circ}\text{C}$ )



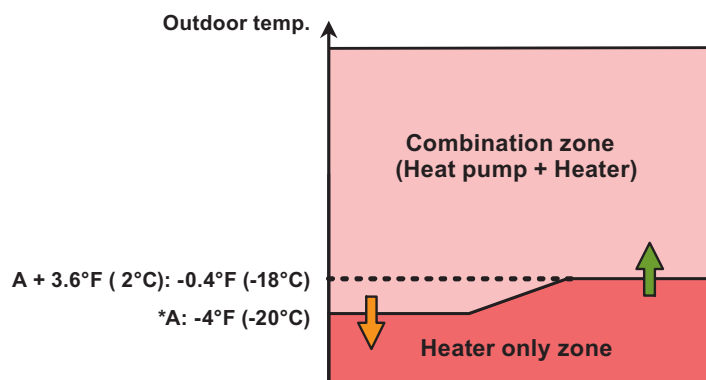
### • Auxiliary heat pump On/Off

- 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”.



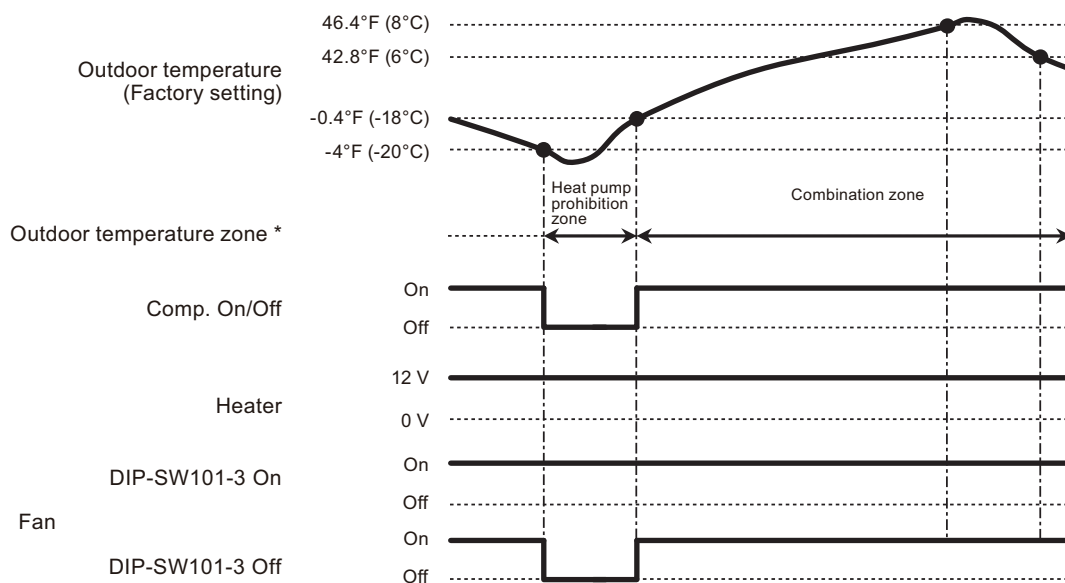
\*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to function number 71.

- 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.

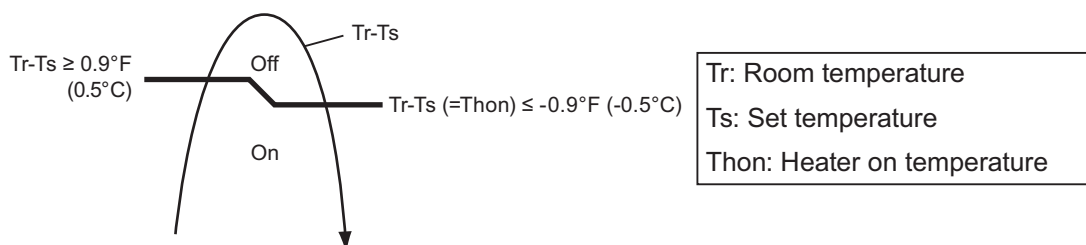
- Other than heating
- Test run

## ● Auxiliary heat pump control by outdoor temperature 2

### • External heater output

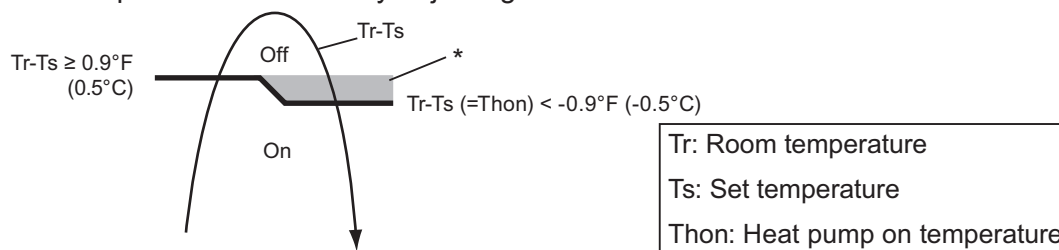
Operation			Condition
Heater on			Heater is on as shown in following diagram of heating temperature.
Heater off	DIP-SW101-3	On	<ul style="list-style-type: none"> <li>Heater is off as shown in following diagram of heating temperature.</li> <li>Other than heating mode</li> <li>Error occurred</li> <li>Forced thermostat off</li> <li>Fan stop protection</li> </ul>
	Indoor unit fan setting for external heater	Enabled	
	DIP-SW101-3	Off	<ul style="list-style-type: none"> <li>Heater is off as shown in following diagram of heating temperature.</li> <li>Other than heating mode</li> <li>Error occurred</li> <li>Forced thermostat off</li> </ul>
	Indoor unit fan setting for external heater	Disabled	

- Temperature of heater on (Thon): Set temperature (Ts)  $-0.9^{\circ}\text{F}$  ( $-0.5^{\circ}\text{C}$ )
- Temperature of heater off: Set temperature (Ts)  $+0.9^{\circ}\text{F}$  ( $+0.5^{\circ}\text{C}$ )



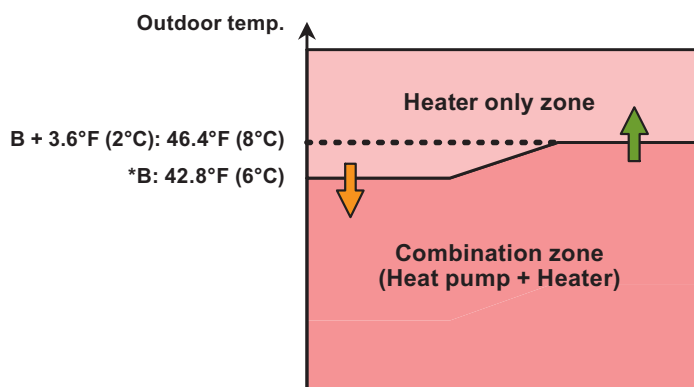
### • Auxiliary heat pump On/Off

- 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”.



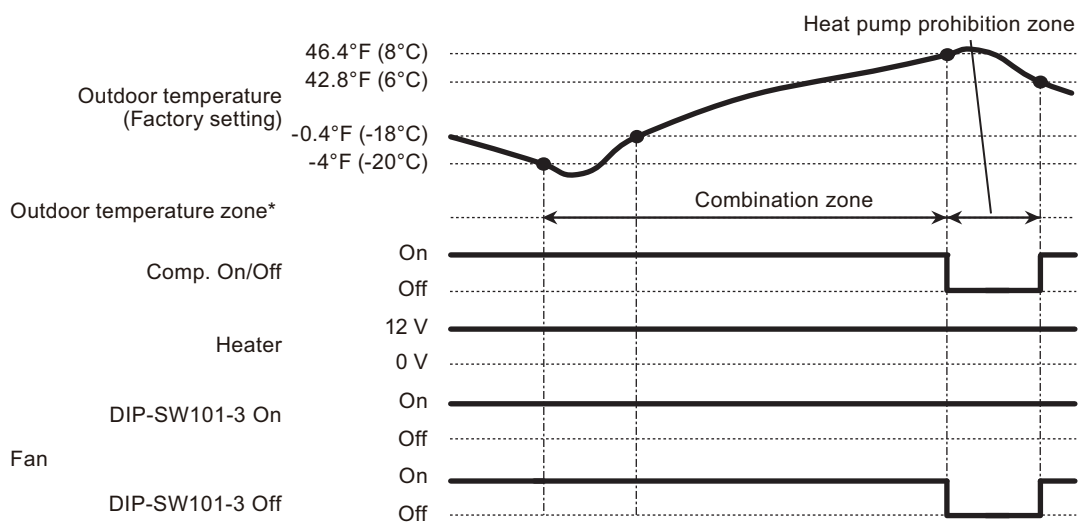
\*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to function number 71.

- 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

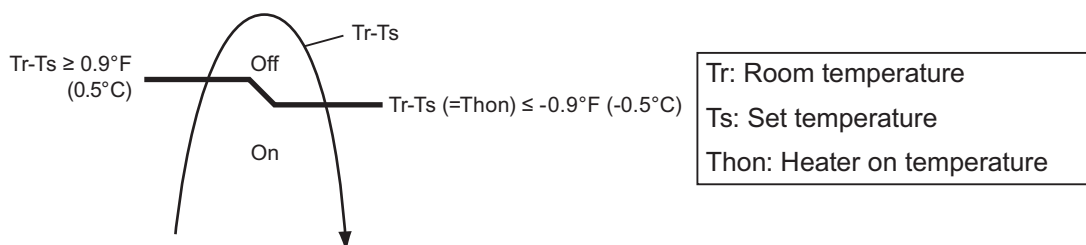


## ● Auxiliary heat pump control by outdoor temperature 3

### • External heater output

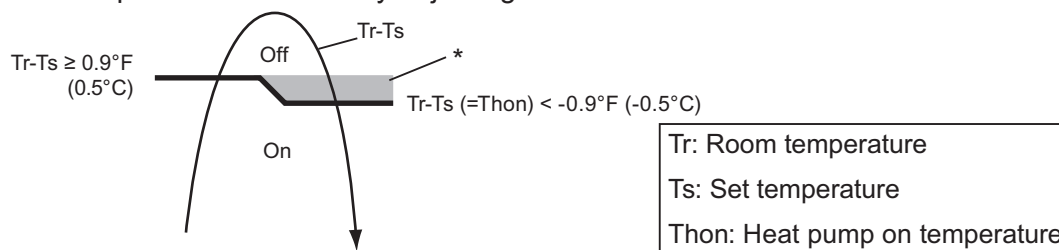
Operation			Condition
Heater on			Heater is on as shown in following diagram of heating temperature.
Heater off	DIP-SW101-3	On	<ul style="list-style-type: none"> <li>Heater is off as shown in following diagram of heating temperature.</li> <li>Other than heating mode</li> <li>Error occurred</li> <li>Forced thermostat off</li> <li>Fan stop protection</li> </ul>
	Indoor unit fan setting for external heater	Enabled	
	DIP-SW101-3	Off	<ul style="list-style-type: none"> <li>Heater is off as shown in following diagram of heating temperature.</li> <li>Other than heating mode</li> <li>Error occurred</li> <li>Forced thermostat off</li> </ul>
	Indoor unit fan setting for external heater	Disabled	

- 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)



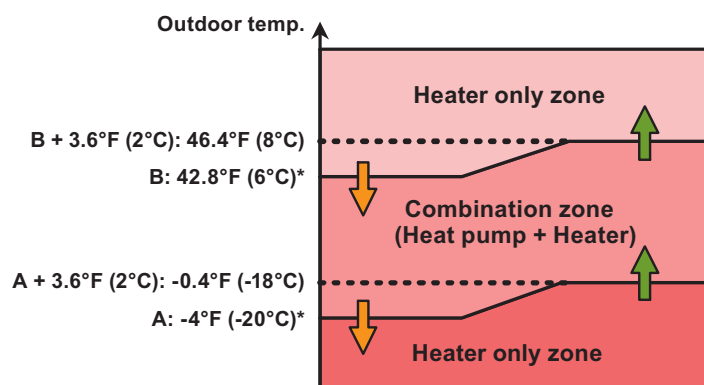
### • Auxiliary heat pump On/Off

- 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”.



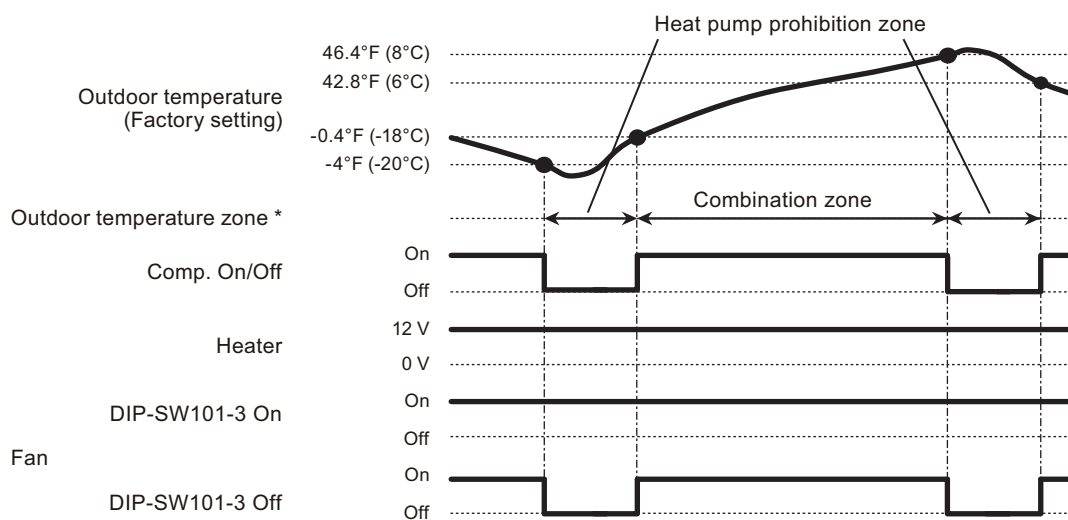
\*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to function number 71.

- 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.

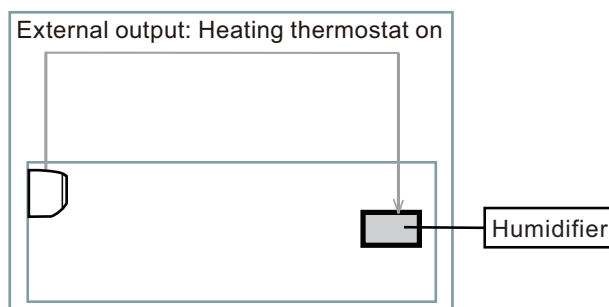
**NOTE:** In following operations, compressor will be on in heat pump prohibition zone.

- Other than heating
- Test run

## ■ 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	

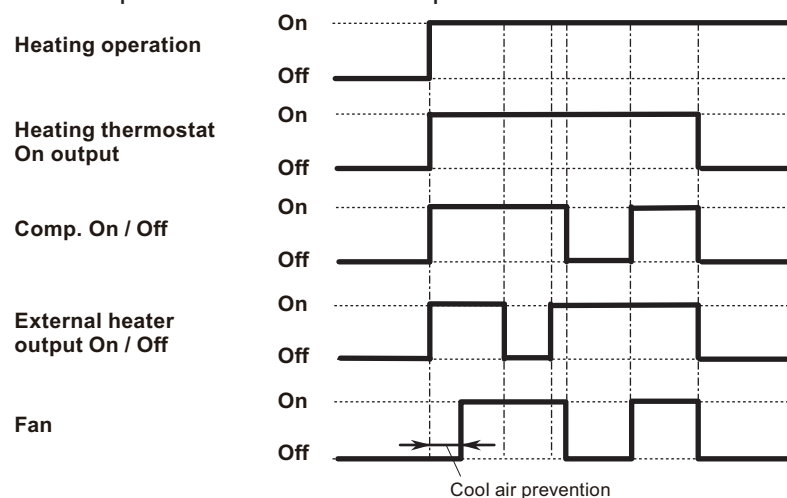
### • Example of individual connection



### • 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.



## 8. 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.

### 8-1. Function settings on indoor unit

#### ■ Models: AMUG30LMAS, AMUG36LMAS, and AMUG48LMAS

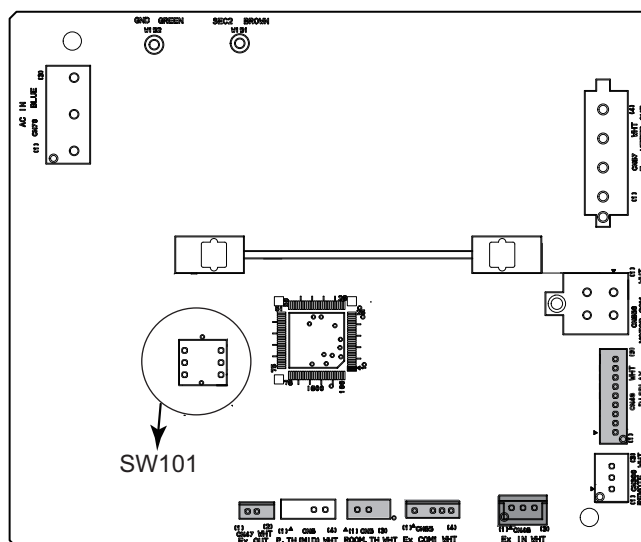
By using some components on the PCB, you can change the function settings.

**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	

## 8-2. 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)	30/31	Room temperature control for indoor unit sensor
3)	35/36	Room temperature control for wired remote controller sensor
4)	40	Auto restart
5)	42	Room temperature sensor switching
6)	43	Cold air prevention
7)	46	External input control
8)	48	Room temperature sensor switching (Aux.)
9)	49	Indoor unit fan control for energy saving for cooling
10)	60	Switching functions for external output terminal
11)	61	Control switching of external heaters
12)	62	Operating temperature switching of external heaters
13)	66	Outdoor temperature zone boundary temperature A
14)	67	Outdoor temperature zone boundary temperature B
15)	71	Standby time for auxiliary equipment operation
16)	72	Heat pump backup setting
17)	73	Emergency heat for external output terminal
18)	74	Fan delay time
19)	75	External heater use in defrosting
20)	92	Airflow adjustment for operation mode
21)	93	Airflow adjustment at heater only operation

#### 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) 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)	

### 3) 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)	

### 4) 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.

### 5) Room temperature sensor switching

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

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

00: Sensor on the indoor unit is active.

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

#### 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.

## 6) 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	

## 7) 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)	

## 8) 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	

## 9) 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.



## 10) 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	Indoor unit fan operation status	
	11	External heater	

## 11) 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 30.

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	

## 12) 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 30.

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)	

## 13) 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 30.

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)	

**14) 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 30.

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)	

**15) 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 30.

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

**16) Heat pump backup setting**

Enables or disables the heat pump backup instruction from the outdoor unit.

This function will be usable provided that the corresponding outdoor unit is connected.

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

**17) 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 is necessary.

**18) 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	

**19) 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	

**20) Airflow adjustment for operation mode**

Strong or weak airflow can be set by  $\pm 10\%$ .

Since the airflow volume by motor has the upper limit and lower limit, up-down adjustment may not be performed depending on the models or settings even if this setting is performed.

Function number	Setting value	Setting description		Factory setting
		Cooling setting	Heating setting	
92	00	Standard (no change)	Standard (no change)	◆
	01	Standard (no change)	+10% up	
	02	Standard (no change)	-10% down	
	03	+10% up	Standard (no change)	
	04	+10% up	+10% up	
	05	+10% up	-10% down	
	06	-10% down	Standard (no change)	
	07	-10% down	+10% up	
	08	-10% down	-10% down	








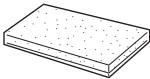

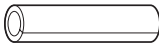

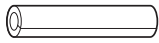
**21) Airflow adjustment at heater only operation**

By selecting the heater output in the table below at heater only operation, this function adjusts the airflow volume according to the heater output to prevent cold air feeling.

Function number	Setting value	Setting description	Factory setting
		Heater output range	
93	00	No heater	◆
	01	0 — 3.4 kW (Min. CFM)	
	02	3.4 — 6.8 kW (350 CFM)	
	03	6.8 — 10.4 kW (710 CFM)	
	04	10.4 — 13.7 kW (1,070 CFM)	
	05	13.7 — 17.1 kW (1,410 CFM)	


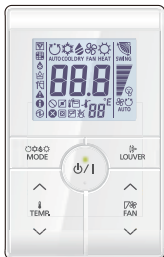
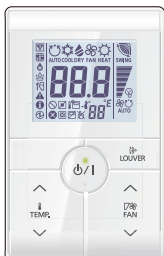
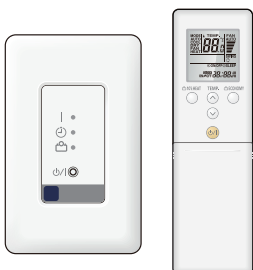
## 9. Accessories

### 9-1. Models: AMUG30LMAS, AMUG36LMAS, and AMUG48LMAS

Part name	Exterior	Qty	Part name	Exterior	Qty
Operation manual		1	Cable tie (large)		4
Installation manual (indoor unit)		1	Cable tie (medium)		1
Rail		2	Cable tie (small)		1
Duct flanges		2	Drain hose insulation		1
Drain cap		2	Coupler heat insulation (large)		1
Self-tapping screw		16	Coupler heat insulation (small)		1

## 10. Optional parts


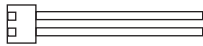

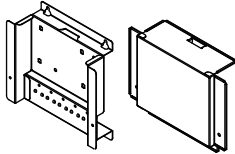
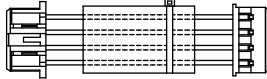


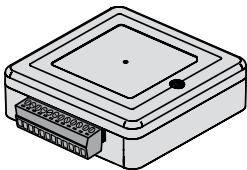


### 10-1. Controllers

Exterior	Part name	Model name	Summary
	Wired Remote Controller	UTY-RNRUZ*	Easy finger touch operation with LCD panel. Backlit LCD enables easy operation in a dark room. Wire type: Non-polar 2-wire
	Simple Remote Controller	UTY-RSRY	Compact remote controller concentrates on the basic functions such as Start/Stop, fan control, temperature setting, and operation mode. Wire type: Non-polar 2-wire
	Simple Remote Controller	UTY-RHRY	Compact remote controller concentrates on the basic functions such as Start/Stop, fan control, and temperature setting. Wire type: Non-polar 2-wire
	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.

## 10-2. Others

Exterior	Part name	Model name	Summary
	Remote Sensor Unit	UTY-XSZX	Thermo-sensor for sensing the temperature of arbitrary place in the room.
	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.  Optional External Connect Kit is necessary for installation. 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.
	WLAN Adapter	UTY-TFSXZ2	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: CN65 on Main PCB
	Modbus Converter	UTY-VMSX	For connection between indoor unit with UART interface and a Modbus open network. Connecting point: CN65 on Main PCB
	Thermostat Converter	UTY-TTRX	This converter can control Fujitsu General products using a third-party thermostat controller.
	Network Converter	UTY-VTGX	This converter is required when connecting single split system to VRF network system. Use the terminal for wired remote controller.
	External Switch Controller	UTY-TERX	Air conditioner switching can be controlled by connecting other external sensor switches. Use the terminal for wired remote controller.

**NOTE:** Combined use of following optional parts and WLAN Adapter is not allowed.

- External Input and Output PCB
- Modbus Converter
- Thermostat Converter



# **Part 2. OUTDOOR UNIT**

---

**SINGLE TYPE:**

**AOUH30LUAH1**

**AOUH36LMAH1**

**AOUH48LMAH1**

# 1. Specifications

Type				Inverter heat pump
Model name				AOUH30LUAH1
Power supply				208/230 V ~ 60 Hz
Power supply intake				Outdoor unit
Available voltage range				187—253 V
Starting current				11.4
Fan	Airflow rate	Cooling	CFM (m <sup>3</sup> /h)	2,590 (4,400)
		Heating		2,590 (4,400)
	Type × Q'ty			Propeller × 1
	Motor output		W	111
Sound pressure level *		Cooling	dB (A)	52
		Heating		53
Heat exchanger type		Dimensions (H × W × D)	in (mm)	38-1/16 × 36-5/16 × 2-3/16 (966 × 922 × 55)
		Fin pitch	FPI	18
		Rows × Stages		3 × 46
		Pipe type		Copper
		Fin	Type (Material)	Aluminum
			Surface treatment	PC Fin
Compressor	Type × Q'ty			DC twin rotary × 1
	Motor output	W		2,440
Refrigerant		Type		R410A
		Charge	lb oz	7 lb 8 oz
			g	3,400
Refrigerant oil		Type		POE (RB68)
		Amount	in <sup>3</sup> (cm <sup>3</sup> )	70.2 (1,150)
Enclosure		Material		Steel
		Color		Beige
				Approximate color of Munsell 10YR 7.5/1.0
Dimensions (H × W × D)	Net	in (mm)		39-5/16 × 38-3/16 × 14-9/16 (998 × 970 × 370)
	Gross	in (mm)		45-3/4 × 41-7/8 × 18-13/16 (1,162 × 1,064 × 478)
Weight	Net	lb (kg)		187 (85)
	Gross			209 (95)
Connection pipe	Size	Liquid	in (mm)	Ø 3/8 (Ø 9.52)
		Gas		Ø 5/8 (Ø 15.88)
	Method			Flare
	Pre-charge length			98 (30)
	Max. length		ft (m)	246 (75)
	Max. height difference			98 (30)
Operation range		Cooling	°F (°C)	-5 to 115 (-21 to 46)
		Heating		-15 to 75 (-26 to 24)
Drain hose	Material			LDPE
	Size	in (mm)		Ø1/2 (13.0) [I.D.], Ø5/8 to Ø11/16 (16.0 to 16.7) [O.D.]
<b>NOTES:</b> <ul style="list-style-type: none"> <li>Specifications are based on the following conditions: <ul style="list-style-type: none"> <li>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).</li> <li>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).</li> <li>Pipe length: 24 ft 6 in (7.5 m), Height difference: 0 ft (0 m). (Between outdoor unit and indoor unit.)</li> </ul> </li> <li>Protective function might work when using it outside the operation range.</li> <li>*: Sound pressure level <ul style="list-style-type: none"> <li>Measured values in manufacturer's anechoic chamber.</li> <li>Because of the surrounding sound environment, the sound levels measured in actual installation conditions might be higher than the specified values here.</li> </ul> </li> </ul>				

OUTDOOR UNIT  
AOUH30LUAH1,  
AOUH36-48LMAH1

OUTDOOR UNIT  
AOUH30LUAH1,  
AOUH36-48LMAH1

Type				Inverter heat pump	
Model name				AOUH36LMAH1	AOUH48LMAH1
Power supply				208/230 V ~ 60 Hz	
Power supply intake				Outdoor unit	
Available voltage range				187—253 V	
Starting current			A	12.8	22.2
Fan	Airflow rate	Cooling	CFM (m³/h)	3,767 (6,400)	4,297 (7,300)
		Heating		3,649 (6,200)	
	Type × Q'ty			Propeller × 1	
	Motor output		W	111	
Sound pressure level *		Cooling	dB (A)	52	54
		Heating		53	54
Heat exchanger type		Dimensions (H × W × D)	in (mm)	51-1/4 × 36-13/16 × 1-9/16 (1,302 × 935 × 39.9)	
		Fin pitch	FPI	18	
		Rows × Stages		3 × 62	
		Pipe type		Copper	
		Fin	Type (Material)	Aluminum	
			Surface treatment	Blue Fin	
Compressor	Type × Q'ty		DC twin rotary × 1		
	Motor output		W	3,750	
Refrigerant		Type	R410A		
		Charge	lb oz	10 lb 9 oz	
			g	4,800	
Refrigerant oil		Type	POE (RB68)		
		Amount	in³ (cm³)	94.6 (1,550)	
Enclosure		Material	Steel		
		Color	Beige		
		Approximate color of Munsell 10YR 7.5/1.0			
Dimensions (H × W × D)	Net		in (mm)	52-1/2 × 38-3/16 × 14-9/16 (1,334 × 970 × 370)	
	Gross		in (mm)	59-5/16 × 41-7/8 × 18-13/16 (1,506 × 1,064 × 478)	
Weight	Net		lb (kg)	236 (107)	
	Gross			260 (118)	
Connection pipe	Size	Liquid	in (mm)	Ø 3/8 (Ø 9.52)	
		Gas		Ø 5/8 (Ø 15.88)	
	Method			Flare	
	Pre-charge length		ft (m)	98 (30)	
	Max. length			246 (75)	
	Max. height difference			98 (30)	
Operation range		Cooling	°F (°C)	-5 to 115 (-21 to 46)	
		Heating		-15 to 75 (-26 to 24)	
Drain hose	Material		LDPE		
	Size		in (mm)	Ø1/2 (13.0) [I.D.], Ø5/8 to Ø11/16 (16.0 to 16.7) [O.D.]	
NOTES:					
<ul style="list-style-type: none"><li>Specifications are based on the following conditions:<ul style="list-style-type: none"><li>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).</li><li>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).</li><li>Pipe length: 24 ft 6 in (7.5 m), Height difference: 0 ft (0 m). (Between outdoor unit and indoor unit.)</li></ul></li><li>Protective function might work when using it outside the operation range.</li><li>*: Sound pressure level<ul style="list-style-type: none"><li>Measured values in manufacturer's anechoic chamber.</li><li>Because of the surrounding sound environment, the sound levels measured in actual installation conditions might be higher than the specified values here.</li></ul></li></ul>					

OUTDOOR UNIT  
AOUH30LUAH1,  
AOUH36-48LMAH1

OUTDOOR UNIT  
AOUH30LUAH1,  
AOUH36-48LMAH1

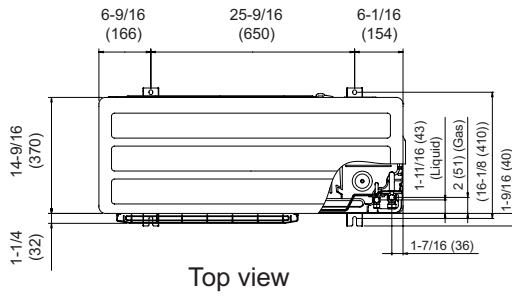


## 2-2. Model: AOUH36LMAH1

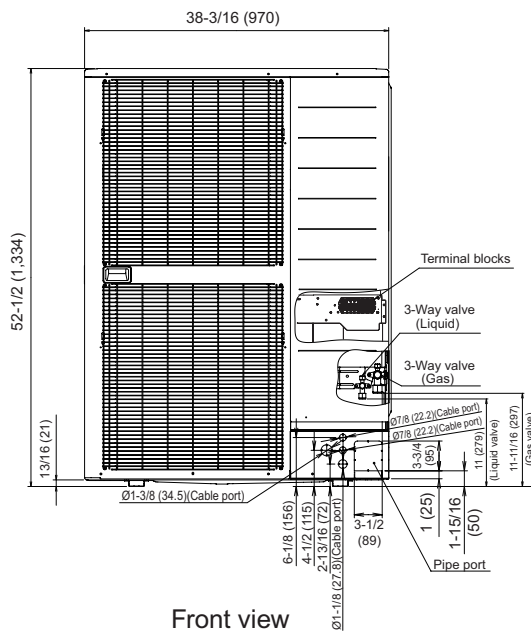
Unit: in (mm)

OUTDOOR UNIT  
AOUH30LUAH1,  
AOUH36-48LMAH1

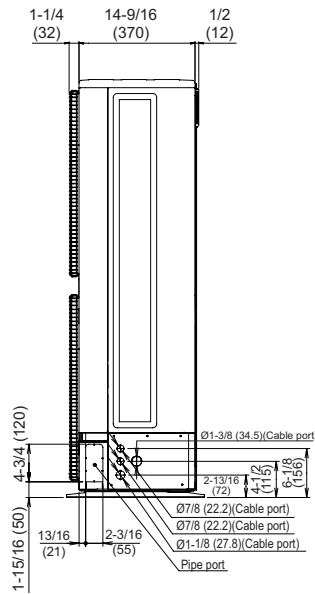
OUTDOOR UNIT  
AOUH30LUAH1,  
AOUH36-48LMAH1



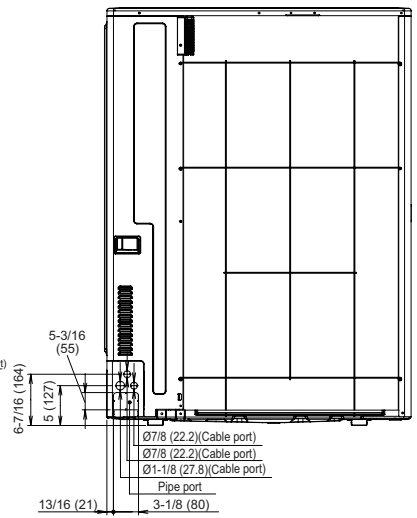
Top view



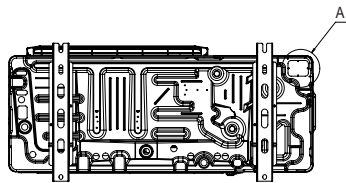
Front view



Side view

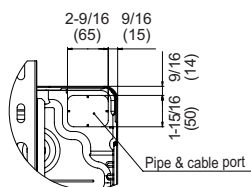


Rear view



Bottom view

Detail A

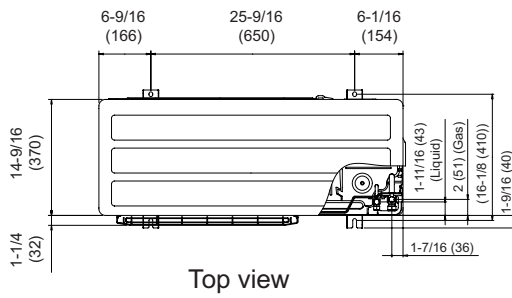


## 2-3. Model: AOUH48LMAH1

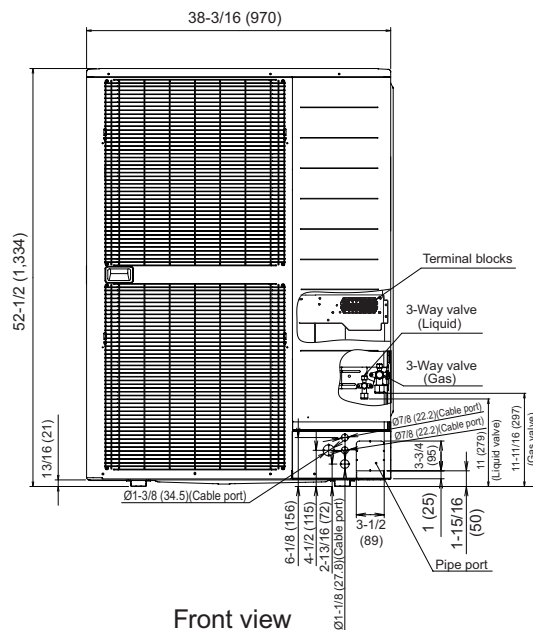
Unit: in (mm)

OUTDOOR UNIT  
AOUH30LUAH1,  
AOUH36-48LMAH1

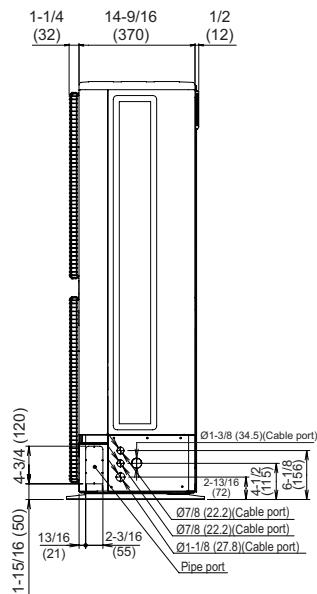
OUTDOOR UNIT  
AOUH30LUAH1,  
AOUH36-48LMAH1



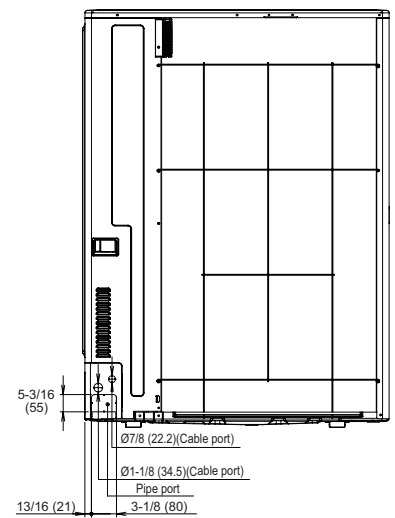
Top view



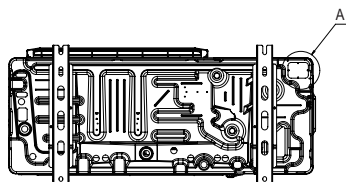
Front view



Side view

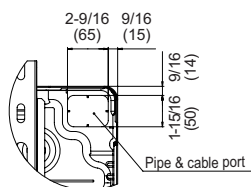


Rear view



Bottom view

Detail A

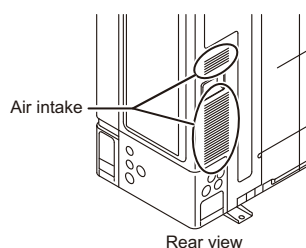


## 3. Installation space

### 3-1. Model: AOUH30LUAH1

#### ⚠ CAUTION

- The installation space shown in the following examples is based on an ambient temperature under cooling operation of 95°FDB (35°CDB) at the air intake of the outdoor unit. Provide more space around the air intake than shown in the examples if the ambient temperature exceeds 95°FDB (35°CDB) or if the thermal load of all of the outdoor units exceeds the capacity.
  - Consider the transportation route, installation space, maintenance space, and access, and install the unit in a location with sufficient space for the refrigerant pipe.
  - Observe the installation space specifications that are shown in the figures. Provide the same space for the air intake at the rear of the outdoor unit.
- If the installation is not performed according to the specifications, it could cause a short circuit and result in a lack of operating performance. As a result, the outdoor unit might easily be stopped by high-pressure protection.



- Installation methods not shown in the following examples are not recommended. Performance may drop significantly.

## ■ Space requirement

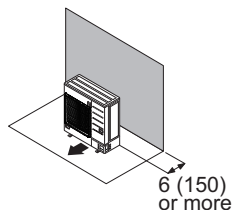
Provide sufficient installation space for product safety.

### ● Single outdoor unit installation

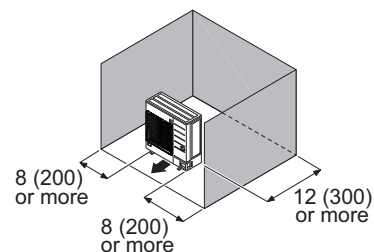
- When the upper space is open:

Unit: in (mm)

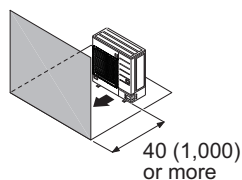
When there are obstacles at the rear only.



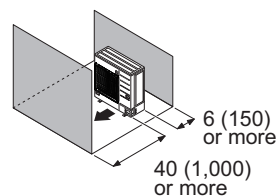
When there are obstacles at the rear and sides.



When there are obstacles at the front only.



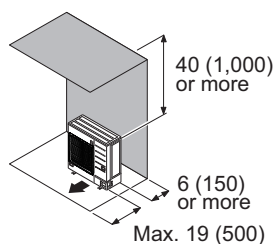
When there are obstacles at the front and rear.



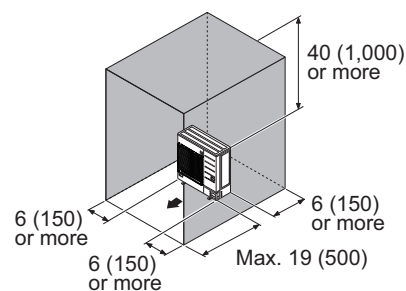
- When there is an obstruction in the upper space:

Unit: in (mm)

When there are obstacles at the rear and above.



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





## ● Multiple outdoor unit installation

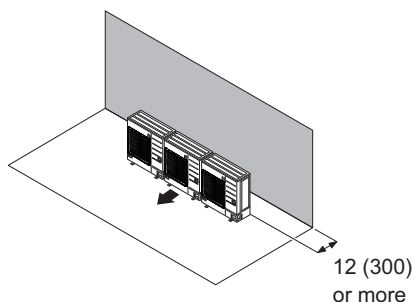
### NOTES:

- 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 the piping.
- No more than 3 units must be installed side by side.  
When 3 units or more are arranged in a line, provide the space as shown in the following example when an obstruction is present also in the upward area.

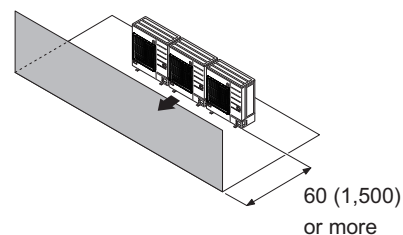
- **When the upper space is open:**

Unit: in (mm)

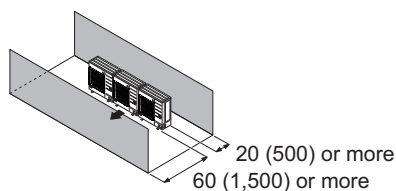
When there are obstacles at the rear only.



When there are obstacles at the front only.



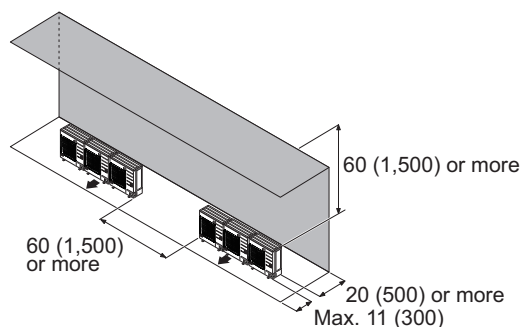
When there are obstacles at the front and rear.



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

Unit: in (mm)

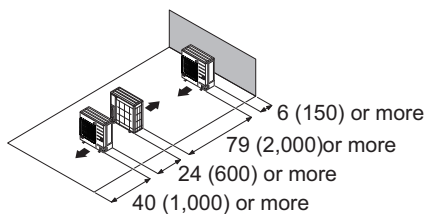
When there are obstacles at the rear and above.



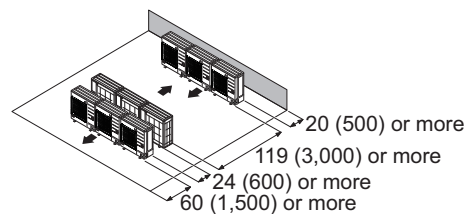
## ● Outdoor unit installation in multi-row

Unit: in (mm)

Single parallel unit arrangement



Multiple parallel unit arrangement



### NOTES:

- Above settings are not recommended for cooling at low outdoor temperatures.
- 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.

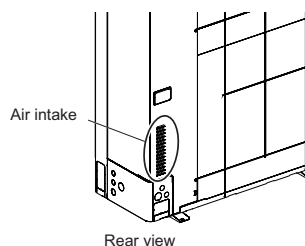
OUTDOOR UNIT  
AOUH30LUAH1,  
AOUH36-48LMAH1

OUTDOOR UNIT  
AOUH30LUAH1,  
AOUH36-48LMAH1

## 3-2. Models: AOUH36LMAH1 and AOUH48LMAH1

### ⚠ CAUTION

- The installation space shown in the following examples is based on an ambient temperature under cooling operation of 95°FDB (35°CDB) at the air intake of the outdoor unit. Provide more space around the air intake than shown in the examples if the ambient temperature exceeds 95°FDB (35°CDB) or if the thermal load of all of the outdoor units exceeds the capacity.
  - Consider the transportation route, installation space, maintenance space, and access, and install the unit in a location with sufficient space for the refrigerant pipe.
  - Observe the installation space specifications that are shown in the figures. Provide the same space for the air intake at the rear of the outdoor unit.
- If the installation is not performed according to the specifications, it could cause a short circuit and result in a lack of operating performance. As a result, the outdoor unit might easily be stopped by high-pressure protection.



- Installation methods not shown in the following examples are not recommended. Performance may drop significantly.

## ■ Space requirement

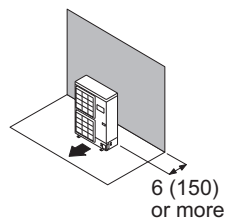
Provide sufficient installation space for product safety.

### ● Single outdoor unit installation

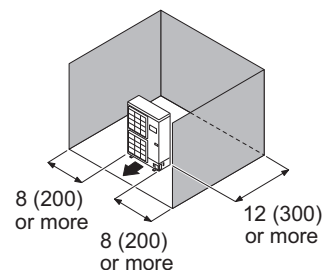
- When the upper space is open:

Unit: in (mm)

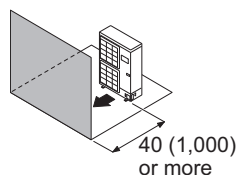
When there are obstacles at the rear only.



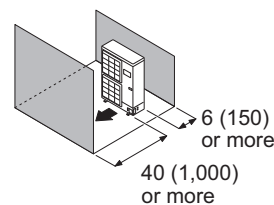
When there are obstacles at the rear and sides.



When there are obstacles at the front only.



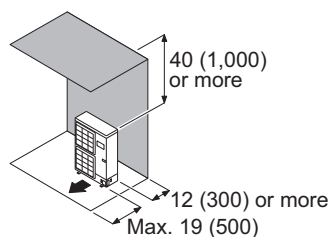
When there are obstacles at the front and rear.



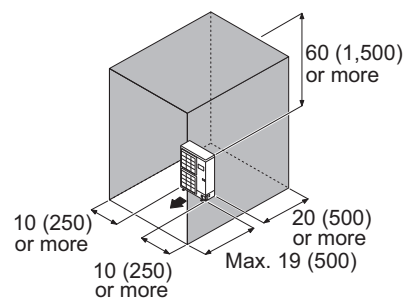
- When there is an obstruction in the upper space:

Unit: in (mm)

When there are obstacles at the rear and above.



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



## ● Multiple outdoor unit installation

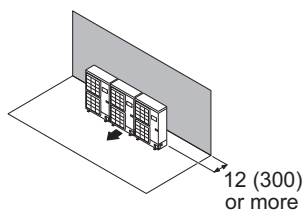
### NOTES:

- 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 the piping.
- No more than 3 units must be installed side by side.  
When 3 units or more are arranged in a line, provide the space as shown in the following example when an obstruction is present also in the upward area.

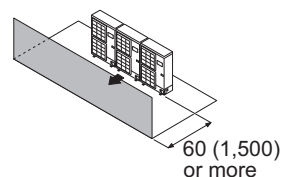
- **When the upper space is open:**

Unit: in (mm)

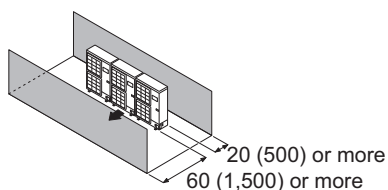
When there are obstacles at the rear only.



When there are obstacles at the front only.



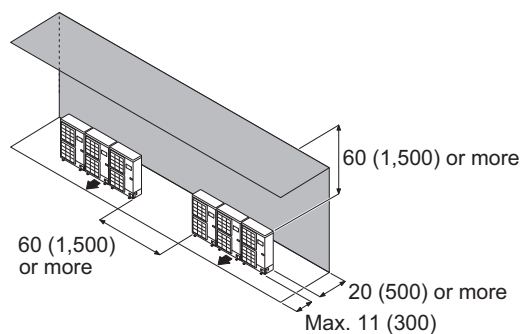
When there are obstacles at the front and rear.



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

Unit: in (mm)

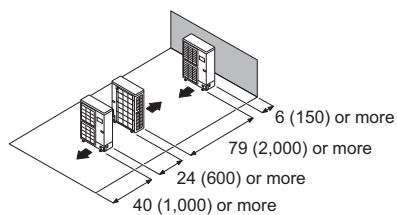
When there are obstacles at the rear and above.



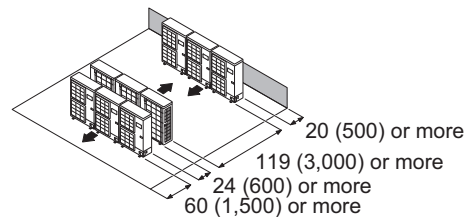
## ● Outdoor unit installation in multi-row

Unit: in (mm)

Single parallel unit arrangement



Multiple parallel unit arrangement



### NOTES:

- Above settings are not recommended for cooling at low outdoor temperatures.
- 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.

OUTDOOR UNIT  
AOUH30LUAH1,  
AOUH36-48LMAH1

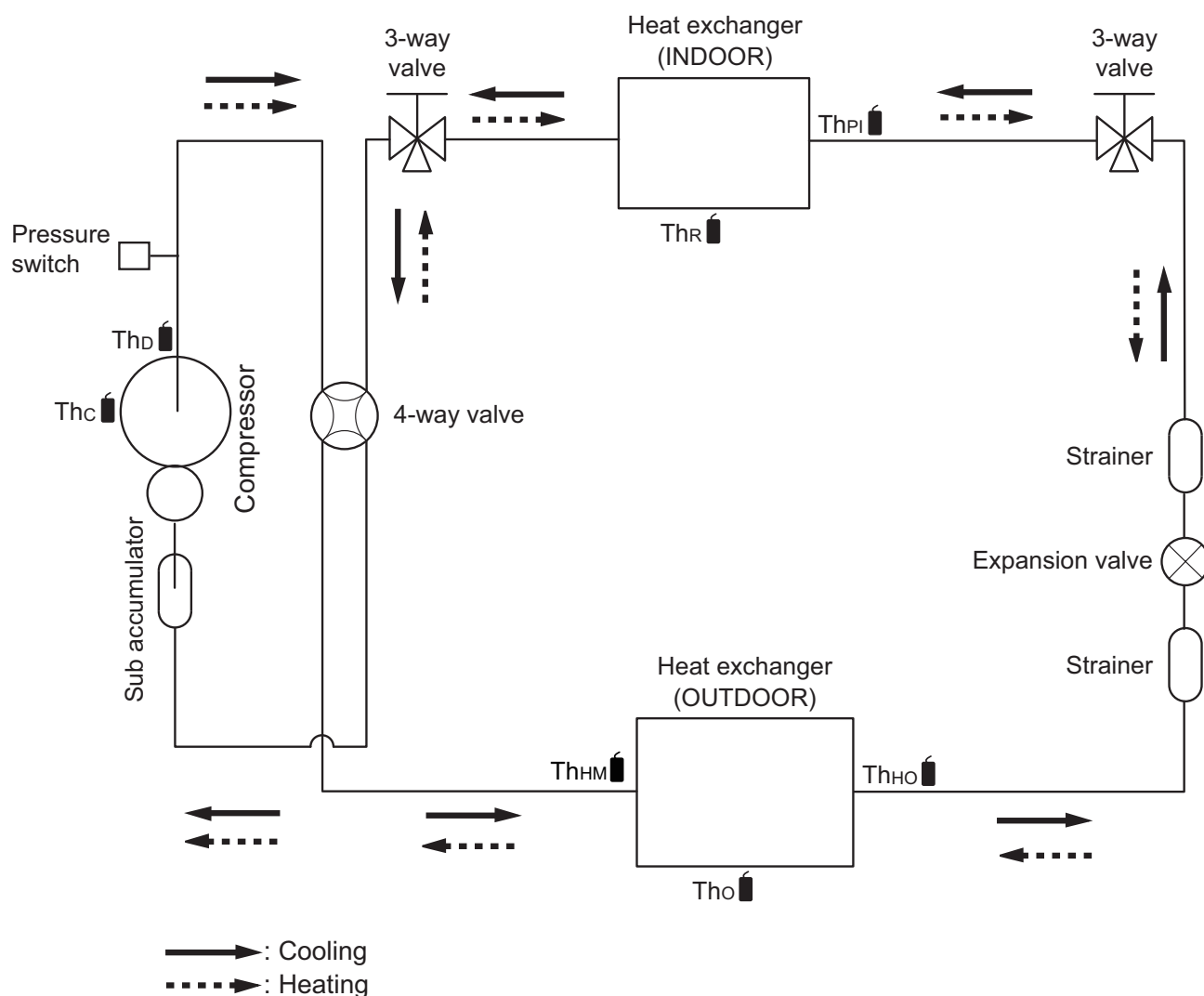
OUTDOOR UNIT  
AOUH30LUAH1,  
AOUH36-48LMAH1

## 4. Refrigerant circuit

### 4-1. Models: AOUH30LUAH1, AOUH36LMAH1, and AOUH48LMAH1

OUTDOOR UNIT  
AOUH30LUAH1,  
AOUH36-48LMAH1

OUTDOOR UNIT  
AOUH30LUAH1,  
AOUH36-48LMAH1



Thc : Thermistor (Compressor temperature)

ThD : Thermistor (Discharge temperature)

ThHM : Thermistor (Heat exchanger middle temperature)

Tho : Thermistor (Outdoor temperature)

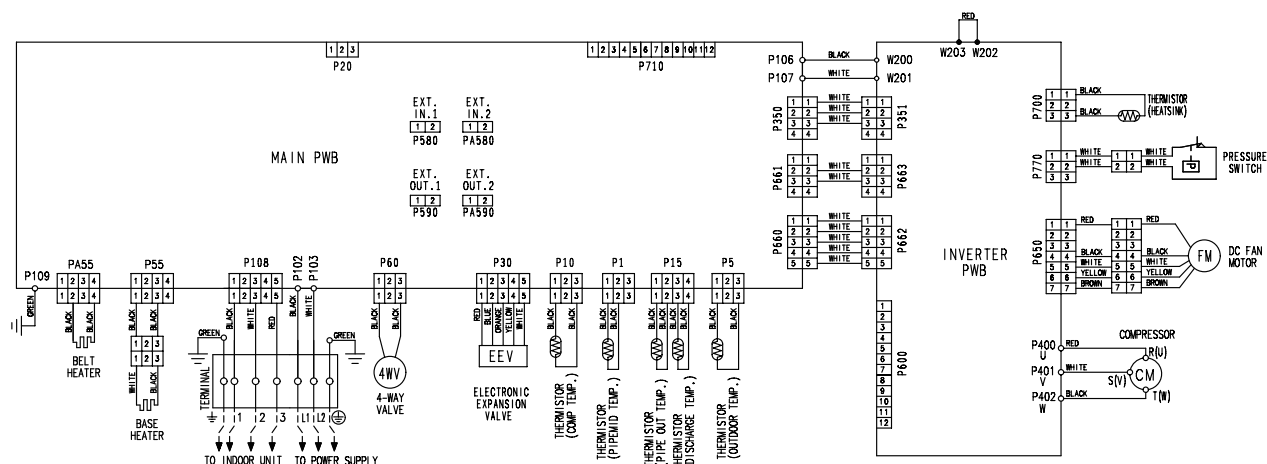
ThHO : Thermistor (Heat exchanger out temperature)

ThPI : Thermistor (Pipe temperature)

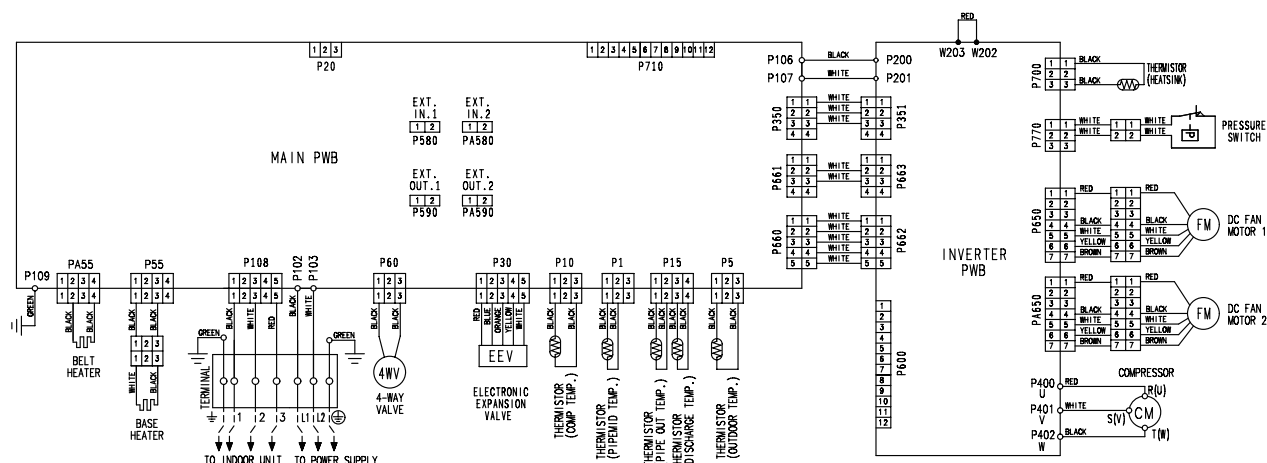
ThR : Thermistor (Room temperature)

## 5. Wiring diagrams

### 5-1. Model: AOUE30LUAH1

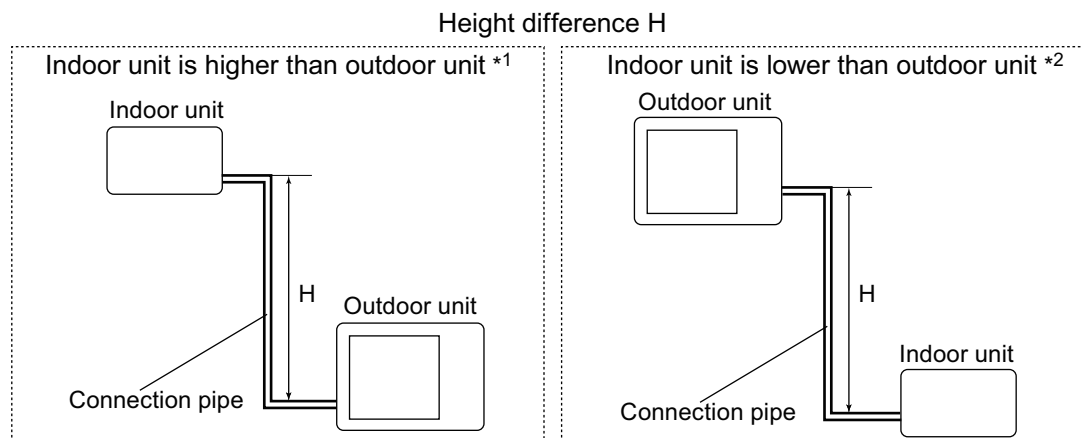


### 5-2. Models: AOUE36LMAH1 and AOUE48LMAH1





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



### 6-1. Models: AOUH30LUAH1, AOUH36LMAH1, and AOUH48LMAH1

**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	—	—	—	—	0.879	0.847	0.814	0.782	0.743
		20	65	—	—	—	0.927	0.894	0.861	0.828	0.795	0.755
		10	32	—	—	0.975	0.942	0.909	0.875	0.842	0.808	0.768
		7.5	24	—	0.988	0.979	0.946	0.912	0.879	0.845	0.811	0.771
		5	16	0.992	0.992	0.983	0.950	0.916	0.882	0.848	0.815	0.774
	Indoor unit is lower than outdoor unit *2	0	0	1.000	1.000	0.991	0.957	0.923	0.889	0.855	0.821	0.780
		-5	-16	1.000	1.000	0.991	0.957	0.923	0.889	0.855	0.821	0.780
		-7.5	-24	—	1.000	0.991	0.957	0.923	0.889	0.855	0.821	0.780
		-10	-32	—	—	0.991	0.957	0.923	0.889	0.855	0.821	0.780
		-20	-65	—	—	—	0.957	0.923	0.889	0.855	0.821	0.780
		-30	-98	—	—	—	—	0.923	0.889	0.855	0.821	0.780

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
	Indoor unit is lower than outdoor unit *2	0	0	1.000	1.000	0.998	0.988	0.978	0.968	0.958	0.948	0.935
		-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

## 7. Additional charge calculation

### 7-1. Model: AOUH30LUAH1

Refrigerant type		R410A
Refrigerant amount	lb oz	7 lb 8 oz
	g	3,400

#### ■ 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	oz	0	14.1	28.2	42.3	63.5	
	g	0	400	800	1,200	1,800	

### 7-2. Models: AOUH36LMAH1 and AOUH48LMAH1

Refrigerant type		R410A
Refrigerant amount	lb oz	10 lb 9 oz
	g	4,800

#### ■ 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	oz	0	14.1	28.2	42.3	63.5	
	g	0	400	800	1,200	1,800	

## 8. Airflow

### 8-1. Model: AOUH30LUAH1

#### ● Cooling

m <sup>3</sup> /h	4,400
l/s	1,222
CFM	2,590

#### ● Heating

m <sup>3</sup> /h	4,400
l/s	1,222
CFM	2,590

### 8-2. Model: AOUH36LMAH1

#### ● Cooling

m <sup>3</sup> /h	6,400
l/s	1,778
CFM	3,767

#### ● Heating

m <sup>3</sup> /h	6,200
l/s	1,722
CFM	3,649

### 8-3. Model: AOUH48LMAH1

#### ● Cooling

m <sup>3</sup> /h	7,300
l/s	2,028
CFM	4,297

#### ● Heating

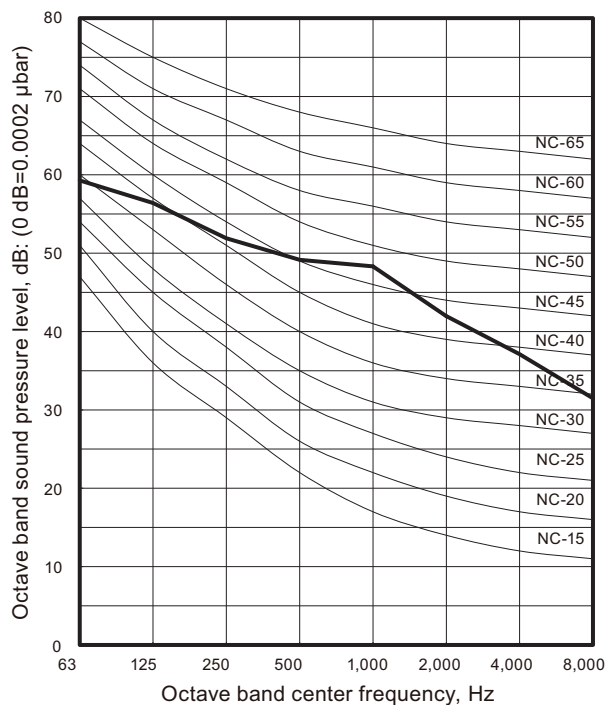
m <sup>3</sup> /h	6,200
l/s	1,722
CFM	3,749

## 9. Operation noise (sound pressure)

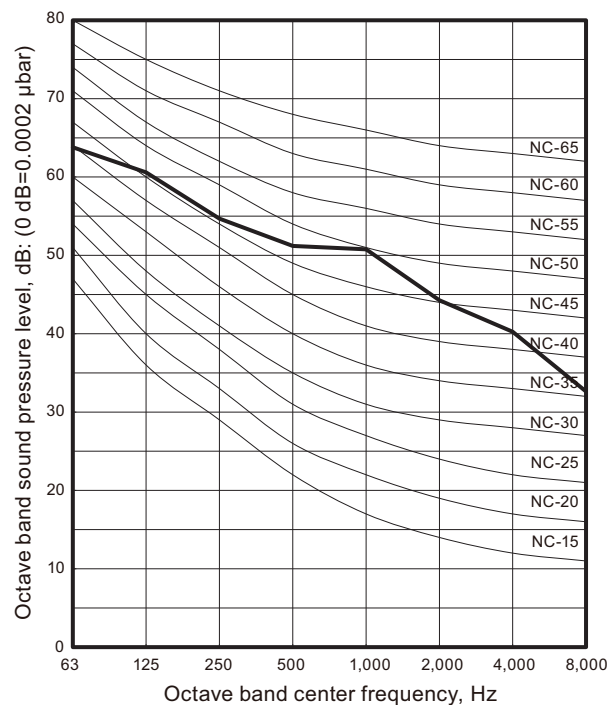
### 9-1. Noise level curve

#### ■ Model: AOUH30LUAH1

##### ● Cooling

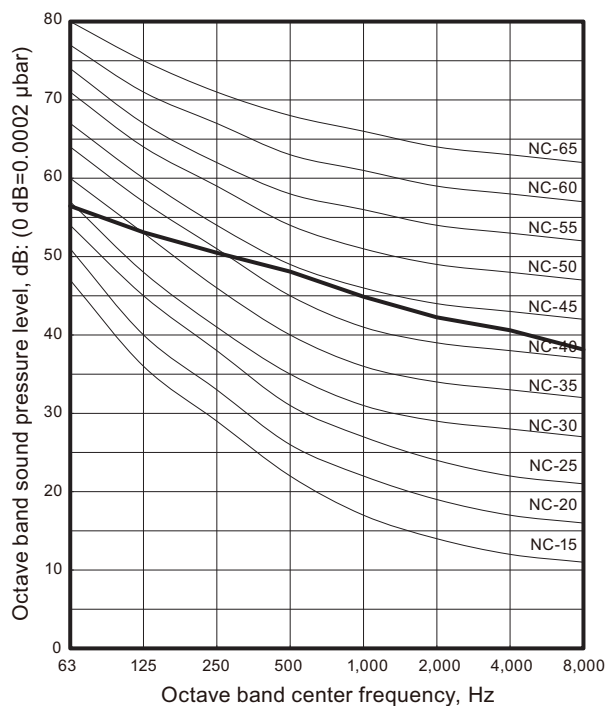


##### ● Heating

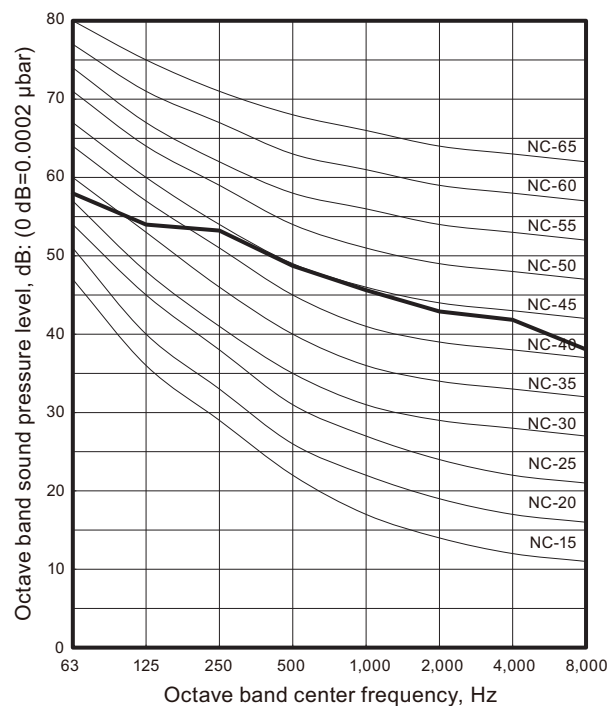


#### ■ Model: AOUH36LMAH1

##### ● Cooling

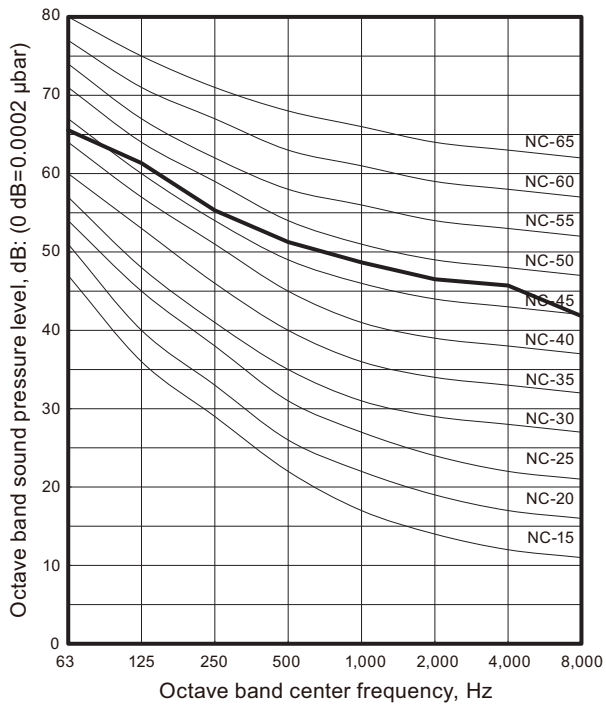


##### ● Heating

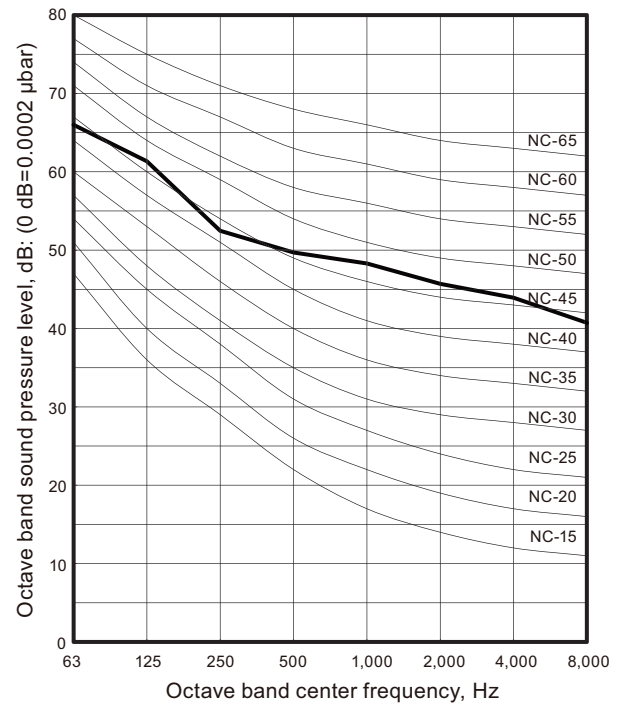


# Model: AOUH48LMAH1

## Cooling



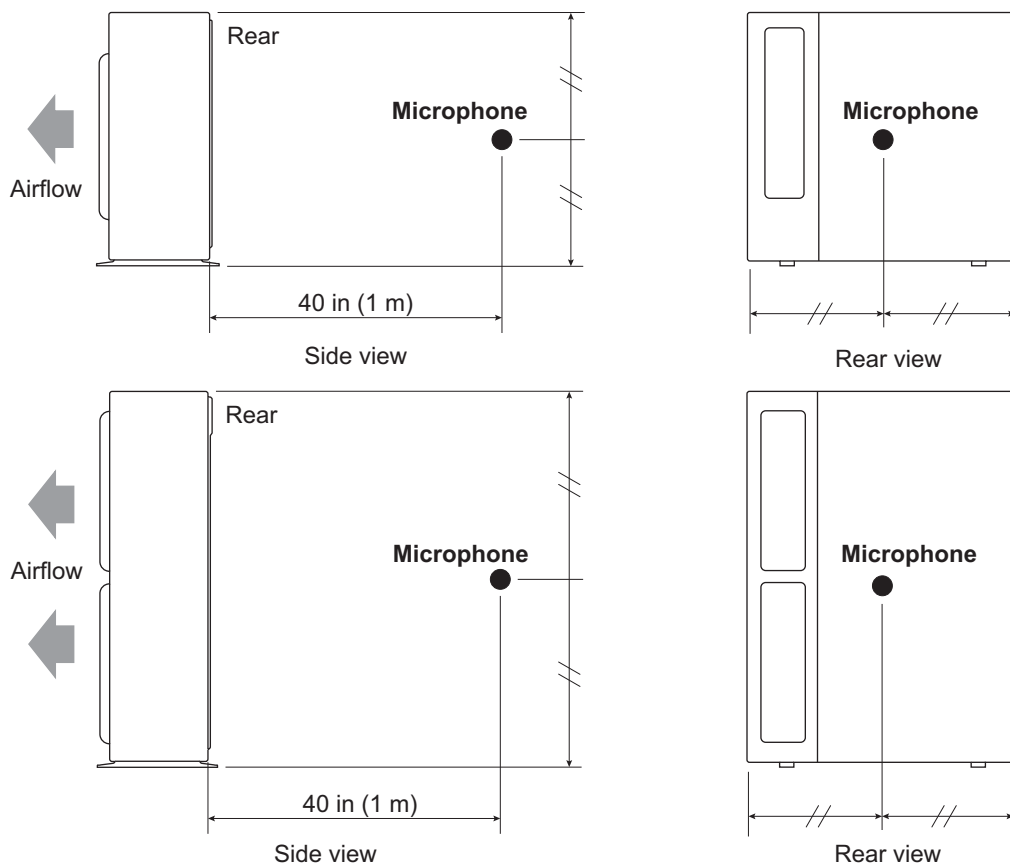
## Heating



OUTDOOR UNIT  
AOUH30LUAH1,  
AOUH36-48LMAH1

OUTDOOR UNIT  
AOUH30LUAH1,  
AOUH36-48LMAH1

## 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

Item		Unit	Model name	
			AOUH30LUAH1	
Power supply	Voltage	V	208/230 ~	
	Frequency	Hz	60	
MCA *1		A	31.9	
Starting current		A	11.4	
Wiring spec. *2	MAX. CKT. BKR *3		A	35
	Power cable		AWG	8
	Connection cable *4	Size	AWG	14
		Limited wiring length	ft (m)	249 (76)

Item		Unit	Model name	
			AOUH36LMAH1	AOUH48LMAH1
Power supply	Voltage	V	208/230 ~	
	Frequency	Hz	60	
MCA *1		A	38.7	42.4
Starting current		A	12.8	22.2
Wiring spec. *2	MAX. CKT. BKR *3		A	40
	Power cable		AWG	8
	Connection cable *4	Size	AWG	14
		Limited wiring length	ft (m)	249 (76)

\*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.

# 11. Safety devices

Type of protection	Protection form		Model
			AOUH30LUAH1
Fuse (Main PCB)			AC 250 V, 3.15 A AC 250 V, 10 A
Fuse (Main PCB)			AC 500 V, 35 A
Fan motor protection	Thermal protection	Activate	239±27 °F (115±15 °C) Fan motor stop
		Reset	158 °F (70 °C) Fan motor restart
Compressor protector	Over current protection		—
	Temperature protection	Activate	226.4 °F (108 °C) Compressor stop
		Reset	176 °F (80 °C) Compressor restart
	Thermal protection program (Discharge temp.)	Activate	230 °F (110 °C) Compressor stop
		Reset	After 3 minutes and 230 °F (110 °C) less than Compressor restart
	High pressure protection		Activate
Reset			464 psi (3.2 MPa)

Type of protection	Protection form		Model	
			AOUH36LMAH1	AOUH48LMAH1
Fuse (Main PCB)			AC 250 V, 3.15 A AC 250 V, 10 A	
Fuse (Main PCB)			AC 500 V, 40 A	AC 500 V, 45 A
Fan motor protection	Thermal protection	Activate	302±27 °F (150±15 °C) Fan motor stop	
		Reset	248±27 °F (120±15 °C) Fan motor restart	
Compressor protector	Over current protection		—	
	Temperature protection	Activate	230 °F (110 °C) Compressor stop	
		Reset	176 °F (80 °C) Compressor restart	
	Thermal protection program (Discharge temp.)	Activate	230 °F (110 °C) Compressor stop	
		Reset	After 3 minutes and 230 °F (110 °C) less than Compressor restart	
	High pressure protection		Activate	609 psi (4.2 MPa)
		Reset	464 psi (3.2 MPa)	

OUTDOOR UNIT  
AOUH30LUAH1,  
AOUH36-48LMAH1

OUTDOOR UNIT  
AOUH30LUAH1,  
AOUH36-48LMAH1

## 12. Function settings

Perform appropriate function setting locally according to the installation environment.

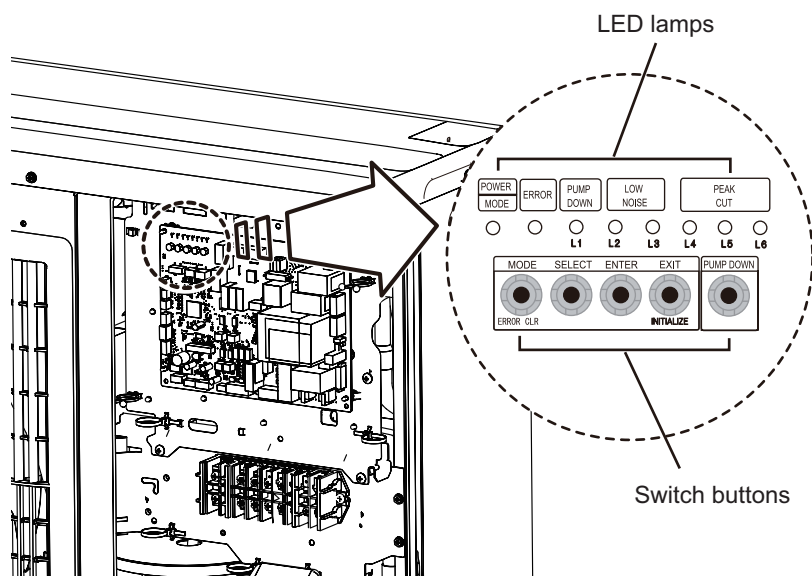
**NOTE:** Incorrect settings can cause a product malfunction.

### ⚠ 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.

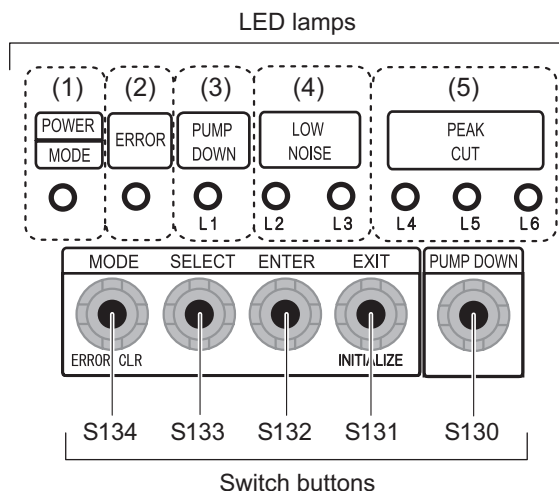
### 12-1. Control PCB and switch buttons location

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





## 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.

## 12-2. 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) (L3)		PEAK CUT (L4) (L5) (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 MODE	LOW NOISE (L2) (L3)	
	○	Blink

4. Press the ENTER switch button (S132).

LOW NOISE MOD E	LOW NOISE (L2) (L3)	
	○	●

Sign "●": Lights on

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

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

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

	PEAK CUT (L4) (L5) (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.

## ■ 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) (L3)		PEAK CUT (L4) (L5) (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.

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

4. Press the ENTER switch button (S132).

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

Sign "●": Lights on

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

	PEAK CUT		
	(L4)	(L5)	(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)	(L5)	(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.

## Maximum circuit breaker

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) (L3)		PEAK CUT (L4) (L5) (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.

	PUMP DOWN (L1)	LOW NOISE (L2) (L3)	
Maximum circuit breaker	Blink	Blink	○

4. Press the ENTER switch button (S132).

	PUMP DOWN (L1)	LOW NOISE (L2) (L3)	
Maximum circuit breaker	●	○	○

Sign "●": Lights on

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

		PEAK CUT (L4) (L5) (L6)		
Mode 1	Standard	○	○	Blink
Mode 2	Depends on the model*	○	Blink	○

\* Refer to the breaker capacity label.

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

		PEAK CUT (L4) (L5) (L6)		
Mode 1	Standard	○	○	●
Mode 2	Depends on the model	○	●	○

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

- 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.
- Check the breaker capacity label after changing the setting.



## ■ Base pan heater forced off

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) (L3)		PEAK CUT (L4) (L5) (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.

	PUMP DOWN (L1)	LOW NOISE (L2) (L3)	
Base pan heater forced off	Blink	○	Blink

4. Press the ENTER switch button (S132).

	PUMP DOWN (L1)	LOW NOISE (L2) (L3)	
Base pan heater forced off	●	○	●

Sign "●": Lights on

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

		PEAK CUT (L4) (L5) (L6)		
Mode 1	Forced off	○	○	Blink
Mode 2	ON	○	Blink	○


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

		PEAK CUT (L4) (L5) (L6)		
Mode 1	Forced off	○	○	●
Mode 2	ON	○	●	○

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.

13. Accessories

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

OUTDOOR UNIT  
AOUH30LUAH1,  
AOUH36-48LMAH1

OUTDOOR UNIT  
AOUH30LUAH1,  
AOUH36-48LMAH1