

AIR CONDITIONER

REFRIGERANT **R410A**

INVERTER

Duct type

DESIGN & TECHNICAL MANUAL

For Extra Cold Climate Area

INDOOR



RHMVZ3021SNAUNJ
RHMVZ3621MNAUAJ
RHMVZ4821SNAUAJ

OUTDOOR



RD16AZ30AJHUA



RD16AZ36AJHUA
RD16AZ48AJHUA

Notices:

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

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Part 1. INDOOR UNIT

DUCT TYPE:

RHMVZ3021SNAUNJ

RHMVZ3621MNAUAJ

RHMVZ4821SNAUAJ

1. Specifications

Type				Duct					
				Inverter, Heat pump					
Model name				RHMVZ3021SNAUNJ	RHMVZ3621MNAUAJ	RHMVZ4821SNAUAJ			
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.)*1	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.)*2		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		
			Rated		2.71	2.96	4.22		
	Heating	47 °FDB (Outdoor temp.)	Min.—Max.	0.60—4.17	0.90—4.96	0.90—5.41			
			Rated	2.18	2.50	3.58			
			Max.	5.00	5.89	6.52			
		17 °FDB (Outdoor temp.)*1	Rated	5.50	6.70	7.80			
			Max.	5.50	6.70	7.80			
			5 °FDB (Outdoor temp.)*2	HIGH	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				
Fan		Rated	W	11.0	13.4	22.9			
		Heating		12.1	13.2	18.8			
		Cooling		11.7	11.0	8.80			
		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*3	Cooling	A	19.8	23.9	28.9
Heating	26.8	32.9	35.9						
Fan	Airflow rate	Cooling	CFM (m³/h)	HIGH	870 (1,478)	1,200 (2,039)	1,640 (2,786)		
				MED	730 (1,240)	740 (1,257)	1,020 (1,733)		
				LOW	590 (1,002)				
				QUIET	310 (527)	490 (833)	590 (1,002)		
		Heating	HIGH	870 (1,478)	1,200 (2,039)	1,640 (2,786)			
			MED	730 (1,240)	740 (1,257)	1,020 (1,733)			
			LOW	590 (1,002)					
			QUIET	310 (527)	490 (833)	590 (1,002)			
			Type × Qty				Sirocco fan × 1		
			Static pressure range				inWG (Pa)		
Sound pressure level*4	Cooling		dB (A)	HIGH	42	41	48		
				MED	37	30	36		
				LOW	33	27	31		
				QUIET	28	24	25		
	Heating			dB (A)	HIGH	39	40	47	
					MED	36	35	37	
					LOW	32	28	32	
					QUIET	25	26	29	
Evaporator coil 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					
Drain port	Tip diameter		in (mm)	Ø 3/4 (19) [O.D.]					
Operation range	Cooling		°F (°C)	64 to 90 (18 to 32)					
				Heating		°F (°C)	80 or less	—	—
							60 to 86 (16 to 30)		

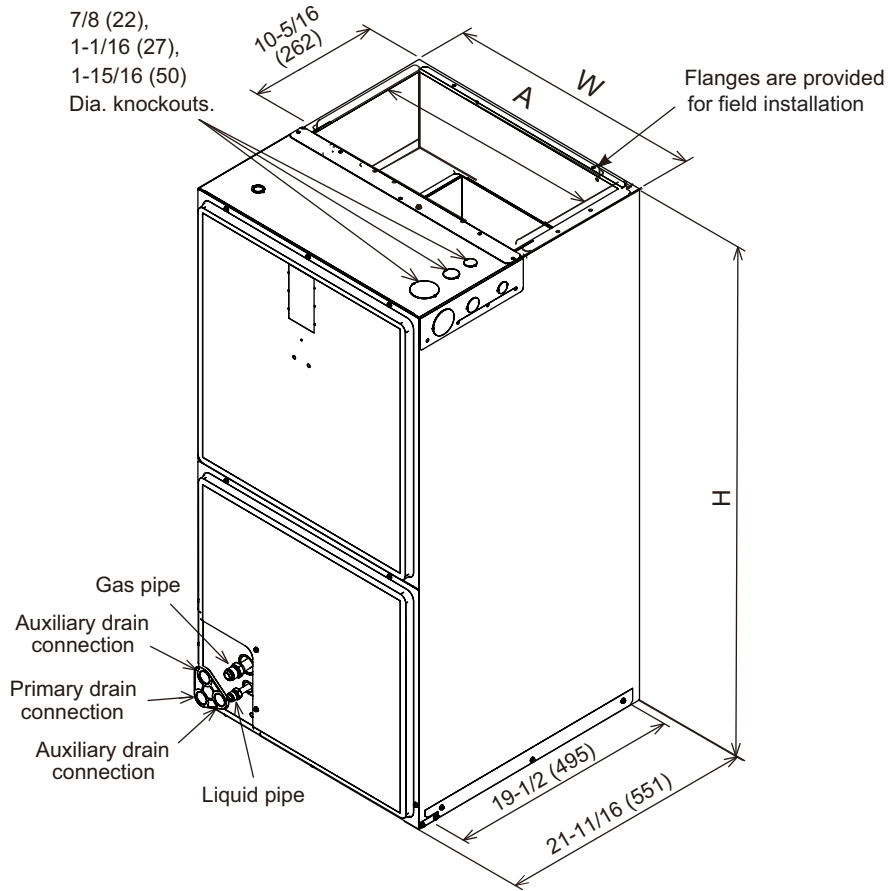
Type	Duct		
	Inverter, Heat pump		
Model name	RHMVZ3021SNAUNJ	RHMVZ3621MNAUAJ	RHMVZ4821SNAUAJ
NOTES:			
<ul style="list-style-type: none"> Specifications are based on the following conditions: <ul style="list-style-type: none"> Cooling: Indoor temperature of 80°FDB/67°FWB (26.67°CDB/19.44°CWB), and outdoor temperature of 95°FDB/75°FWB (35°CDB/23.9°CWB). Heating: Indoor temperature of 70°FDB/59°FWB (21.11°CDB/15°CWB), and outdoor temperature of 47°FDB/43°FWB (8.33°CDB/6.11°CWB). *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). *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). Test conditions are based on AHRI 210/240 2023. Pipe length: 24 ft 7 in (7.5 m), Height difference: 0 ft (0 m). (Between outdoor unit and indoor unit.) 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 Protective function might work when using it outside the operation range. *3: Maximum current: <ul style="list-style-type: none"> The maximum value when operated within the operation range. The total current of indoor unit and outdoor unit. *4: Sound pressure level: <ul style="list-style-type: none"> Measured values in manufacturer's anechoic chamber. Because of the surrounding sound environment, the sound levels measured in actual installation conditions might be higher than the specified values here. 			

M condition								
Model name				RHMVZ3021SNAUNJ	RHMVZ3621MNAUAJ	RHMVZ4821SNAUAJ		
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	
	17 °FDB (Outdoor temp.)*		Btu/h	9,200—39,000	15,000—52,000	15,000—55,000		
			Rated	kW	6.33	7.50	10.08	
			Btu/h	21,600	25,600	34,400		
	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	kW	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	kW	2.09	2.50	3.58	
Max.			5.00	5.89	6.52			
Fan	HIGH MED LOW QUIET	W	136.3	204.3	412.4			
			96.3	63.4	118.2			
			57.7	42.1	73.1			
			22.7	31.0	38.5			
			10.7	12.8	22.2			
Current	Cooling	Rated	A	11.4	12.7	18.4		
	Heating		12.8	12.7	18.4			
EER	Cooling	Btu/hW	12.0	11.5	9.10			
COP	Heating	kW/kW	3.64	3.90	3.62			
SEER	Cooling	Btu/hW	19.1	17.3	16.3			
HSPF	Heating		10.5	11.0	10.2			
Power factor	Cooling	%	97.1	97.5	97.9			
	Heating		98.4	97.6	97.6			
NOTE: Specifications are based on the following conditions:								
<ul style="list-style-type: none"> Cooling: Indoor temperature of 80°FDB/67°FWB (26.67°CDB/19.44°CWB), and outdoor temperature of 95°FDB/75°FWB (35°CDB/23.9°CWB). Heating: Indoor temperature of 70°FDB/59°FWB (21.11°CDB/15°CWB), and outdoor temperature of 47°FDB/43°FWB (8.33°CDB/6.11°CWB). *: 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). Test conditions are based on AHRI 210/240 2017. Pipe length: 24 ft 7 in (7.5 m), Height difference: 0 ft (0 m). (Between outdoor unit and indoor unit.) 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 								

2. Dimensions

2-1. Models: RHMVZ3021SNAUNJ, RHMVZ3621MNAUAJ, and RHMVZ4821SNAUAJ

Unit: in (mm)



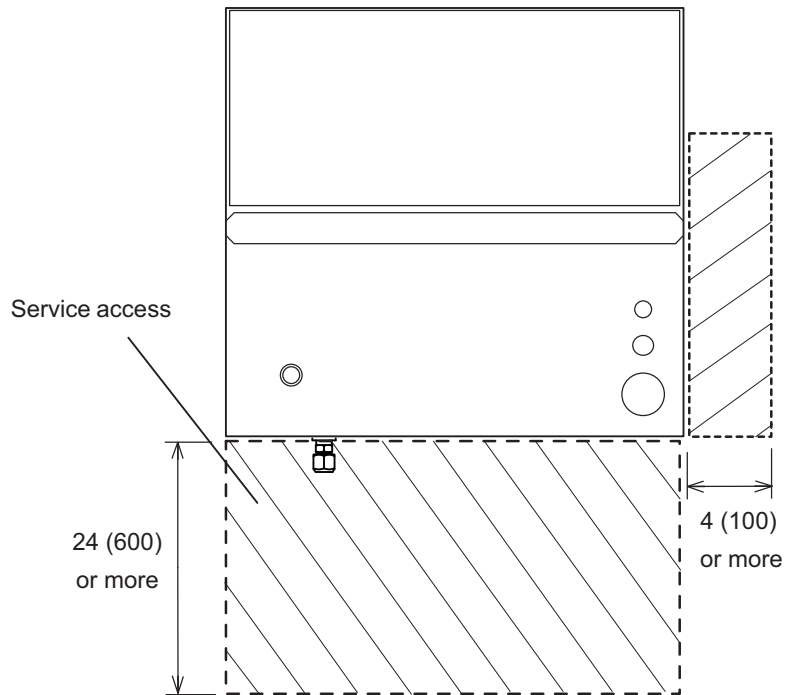
Model	Dimension		
	A (Supply duct)	W (Unit width)	H (Unit height)
RHMVZ3021SNAUNJ	19-1/2 (495)	21 (533)	42-1/2 (1,080)
RHMVZ3621MNAUAJ	19-1/2 (495)	21 (533)	57 (1,448)
RHMVZ4821SNAUAJ			

Model	Return air opening	
	Width	Depth/Length
RHMVZ3021SNAUNJ	19-3/8 (492)	19-3/4 (502)
RHMVZ3621MNAUAJ		
RHMVZ4821SNAUAJ		

2-2. Installation space requirement

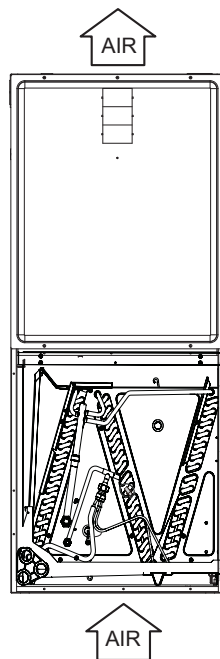
Provide sufficient installation space for product safety.

(Top side)

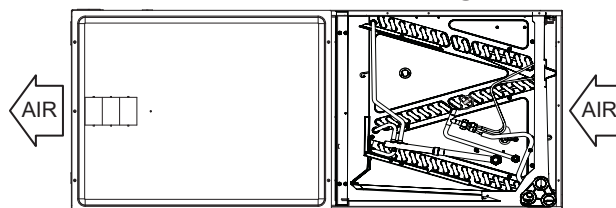


For installation method, the following 4 patterns

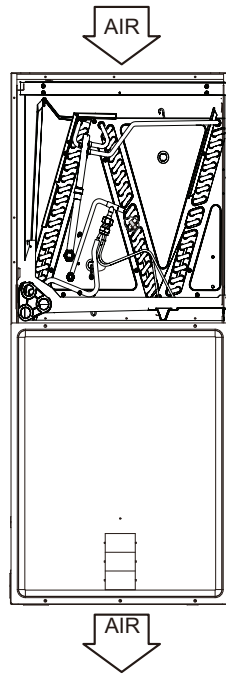
- **Pattern A: Vertical installation, air intake port at the bottom**



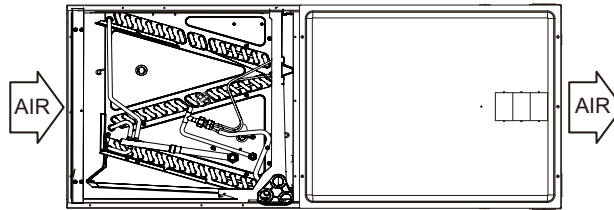
- **Pattern B: Horizontal installation, air intake port at the right**



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

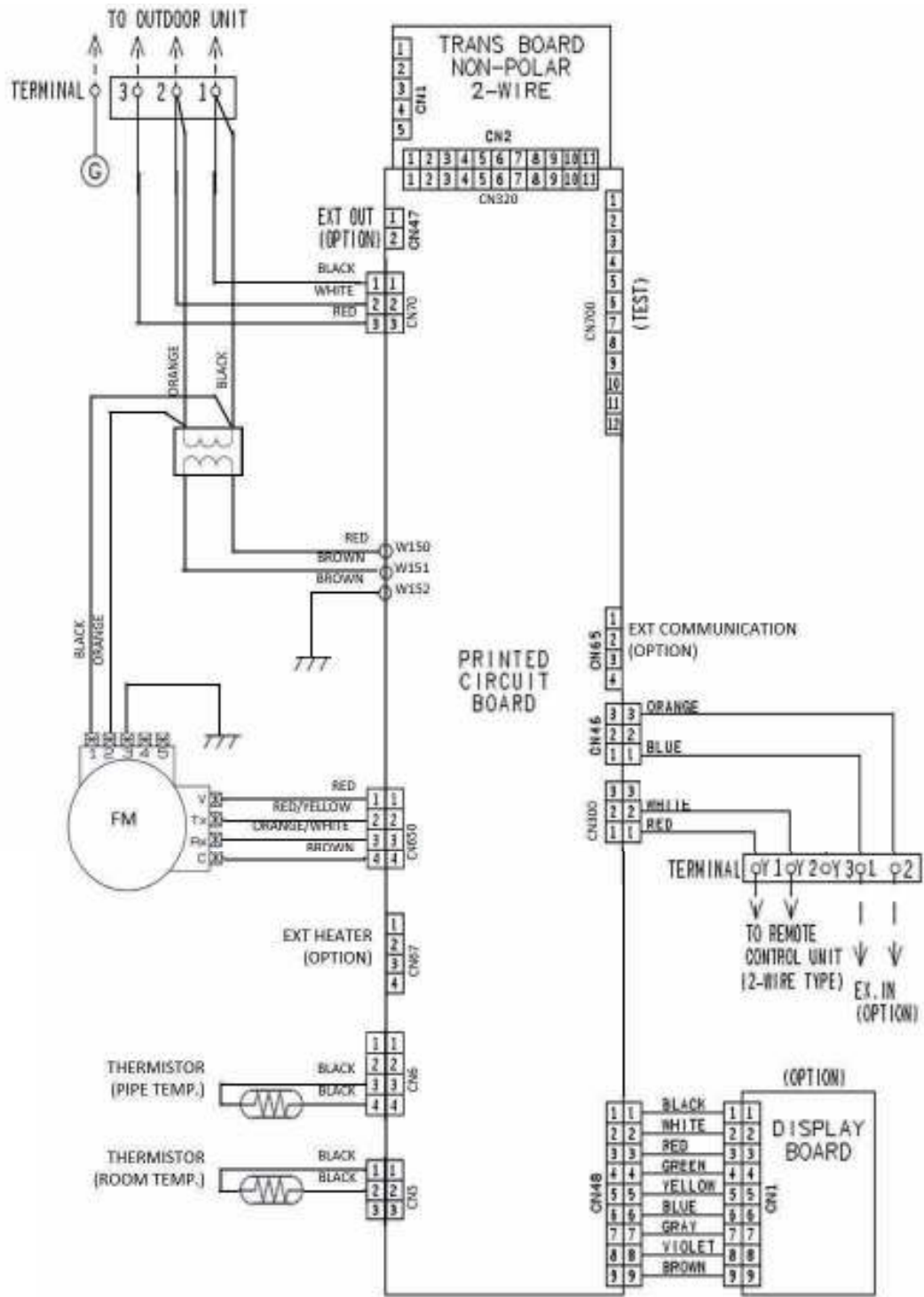


- **Pattern D: Horizontal installation, air intake port at the left**
Reversing the evaporator coil and reattaching the thermistor are required



3. Wiring diagram

3-1. Models: RHMVZ3021SNAUNJ, RHMVZ3621MNAUAJ, and RHMVZ4821SNAUAJ



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: RHMVZ3021SNAUNJ

AFR	CFM	870
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		Indoor temperature																	
		64			70			75			80			85			90		
		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	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
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		Indoor temperature																	
		17.8			21.1			23.9			26.7			29.4			32.2		
		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		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: RHMVZ3621MNAUAJ

AFR	CFM	1,200
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		Indoor temperature																	
		64			70			75			80			85			90		
		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
	°FWB	kBTu/h			kBTu/h			kBTu/h			kBTu/h			kBTu/h			kBTu/h		
		kW			kW			kW			kW			kW			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	m³/h	2,039
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		Indoor temperature																	
		17.8			21.1			23.9			26.7			29.4			32.2		
		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
	°CWB	kW			kW			kW			kW			kW			kW		
		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: RHMVZ4821SNAUAJ

AFR	CFM	1,640
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		Indoor temperature																	
		64			70			75			80			85			90		
		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
	°FWB	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	m³/h	2,786
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		Indoor temperature																	
		17.8			21.1			23.9			26.7			29.4			32.2		
		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
	°CWB	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: RHMVZ3021SNAUNJ

AFR	CFM	870
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Outdoor temperature		Indoor temperature											
		°FDB		60		65		70		72		75	
		°FDB	°FWB	TC kBtu/h	IP kW	TC kBtu/h	IP kW	TC kBtu/h	IP kW	TC kBtu/h	IP kW	TC kBtu/h	IP kW
-15	-17	27.05	4.92	26.49	4.93	26.00	4.93	26.00	4.93	26.00	5.30	25.90	5.36
-5	-7	30.18	4.96	29.55	4.97	29.00	4.97	29.00	4.97	29.00	5.34	28.89	5.40
5	3	34.61	4.98	32.99	4.98	33.00	5.01	33.00	5.01	33.65	5.32	35.05	5.43
14	12	33.23	4.80	33.45	4.93	34.29	4.98	34.29	4.98	33.96	5.16	34.14	5.28
17	21	33.65	4.82	33.88	4.95	34.73	5.00	34.73	5.00	34.39	5.18	34.58	5.30
23	19	34.51	4.77	35.46	4.88	35.58	5.00	35.58	5.00	35.50	5.09	34.96	5.19
32	28	36.47	4.77	37.26	4.85	36.86	4.96	36.86	4.96	36.66	5.00	35.73	5.08
41	37	38.98	4.11	38.89	4.12	38.15	4.14	38.15	4.14	37.50	4.17	36.48	4.19
47	43	40.95	4.25	39.98	4.23	39.00	4.17	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	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	40.65	3.87	38.49	3.98	37.89	3.90

AFR	m ³ /h	1,478
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Outdoor temperature		Indoor temperature											
		°CDB		15.6		18.3		21.1		22.2		23.9	
		°CDB	°CWB	TC kW	IP	TC kW	IP	TC kW	IP	TC kW	IP	TC kW	IP
-26.1	-27.0	7.93	4.92	7.76	4.93	7.62	4.93	7.62	4.93	7.62	5.30	7.59	5.36
-20.6	-21.7	8.84	4.96	8.66	4.97	8.50	4.97	8.50	4.97	8.50	5.34	8.47	5.40
-15	-16.1	10.14	4.98	9.67	4.98	9.67	5.01	9.67	5.01	9.86	5.32	10.27	5.43
-10	-11.1	9.74	4.80	9.80	4.93	10.05	4.98	10.05	4.98	9.95	5.16	10.01	5.28
-8.3	-6.1	9.86	4.82	9.93	4.95	10.18	5.00	10.18	5.00	10.08	5.18	10.13	5.30
-5	-7.2	10.12	4.77	10.39	4.88	10.43	5.00	10.43	5.00	10.40	5.09	10.25	5.19
0	-2.2	10.69	4.77	10.92	4.85	10.80	4.96	10.80	4.96	10.74	5.00	10.47	5.08
5	2.8	11.43	4.11	11.40	4.12	11.18	4.14	11.18	4.14	10.99	4.17	10.69	4.19
8.3	6.1	12.00	4.25	11.72	4.23	11.43	4.17	11.43	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	11.90	4.19	11.50	4.25	11.23	4.21
15	10	13.17	4.29	12.21	4.17	11.91	3.87	11.91	3.87	11.28	3.98	11.11	3.90

■ Model: RHMVZ3621MNAUJ

AFR	CFM	1,200
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Outdoor temperature		Indoor temperature											
		°FDB		60		65		70		72		75	
		°FDB	°FWB	TC kBtu/h	IP kW	TC kBtu/h	IP kW	TC kBtu/h	IP kW	TC kBtu/h	IP kW	TC kBtu/h	IP kW
-15	-17	36.54	5.47	34.46	5.53	32.00	5.75	31.55	5.80	31.92	5.98	31.92	5.98
-5	-7	43.40	5.52	40.92	5.57	38.00	5.80	37.46	5.84	37.91	6.03	37.91	6.03
5	3	42.17	5.70	42.61	5.73	42.00	5.85	41.39	5.90	40.22	6.03	40.22	6.03
14	12	40.83	5.72	43.70	5.72	44.15	5.82	43.74	5.87	42.22	5.98	42.22	5.98
17	21	41.50	5.78	44.42	5.78	44.88	5.89	44.46	5.93	42.92	6.05	42.92	6.05
23	19	42.57	5.82	45.44	5.80	46.29	5.88	46.21	5.94	45.24	6.07	45.24	6.07
32	28	47.00	5.78	47.77	5.75	48.44	5.86	48.77	5.92	49.10	6.08	49.10	6.08
41	37	53.75	4.94	50.69	4.89	50.58	5.01	51.46	5.10	53.71	5.28	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	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	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	64.04	5.02

AFR	m ³ /h	2,039
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Outdoor temperature		Indoor temperature											
		°CDB		15.6		18.3		21.1		22.2		23.9	
		°CDB	°CWB	TC kW	IP	TC kW	IP	TC kW	IP	TC kW	IP	TC kW	IP
-26.1	-27.0	10.71	5.47	10.10	5.53	9.38	5.75	9.25	5.80	9.36	5.98	9.36	5.98
-20.6	-21.7	12.72	5.52	11.99	5.57	11.14	5.80	10.98	5.84	11.11	6.03	11.11	6.03
-15	-16.1	12.36	5.70	12.49	5.73	12.31	5.85	12.13	5.90	11.79	6.03	11.79	6.03
-10	-11.1	11.97	5.72	12.81	5.72	12.94	5.82	12.82	5.87	12.37	5.98	12.37	5.98
-8.3	-6.1	12.16	5.78	13.02	5.78	13.15	5.89	13.03	5.93	12.58	6.05	12.58	6.05
-5	-7.2	12.48	5.82	13.32	5.80	13.57	5.88	13.54	5.94	13.26	6.07	13.26	6.07
0	-2.2	13.77	5.78	14.00	5.75	14.20	5.86	14.29	5.92	14.39	6.08	14.39	6.08
5	2.8	15.75	4.94	14.86	4.89	14.83	5.01	15.08	5.10	15.74	5.28	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	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	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	18.77	5.02

Model: RHMVZ4821SNAUJ

AFR	CFM	1,640
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		Indoor temperature											
		°FDB		60		65		70		72		75	
		°FDB	°FWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
Outdoor temperature			kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	
	-15	-17	44.56	5.98	42.02	6.04	39.00	6.29	38.51	6.34	38.96	6.53	
	-5	-7	51.99	6.03	49.03	6.09	45.50	6.34	44.93	6.40	45.45	6.59	
	5	3	51.25	6.21	51.76	6.25	51.00	6.39	50.24	6.44	48.81	6.59	
	14	12	46.92	6.23	50.14	6.23	51.00	6.34	50.18	6.39	48.46	6.52	
	17	21	46.92	6.41	50.14	6.41	51.00	6.52	50.18	6.57	48.46	6.70	
	23	19	47.66	6.32	50.83	6.30	51.80	6.39	51.71	6.45	50.62	6.59	
	32	28	51.73	6.35	51.96	6.32	53.00	6.43	53.04	6.50	53.39	6.68	
	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
-----	------	-------

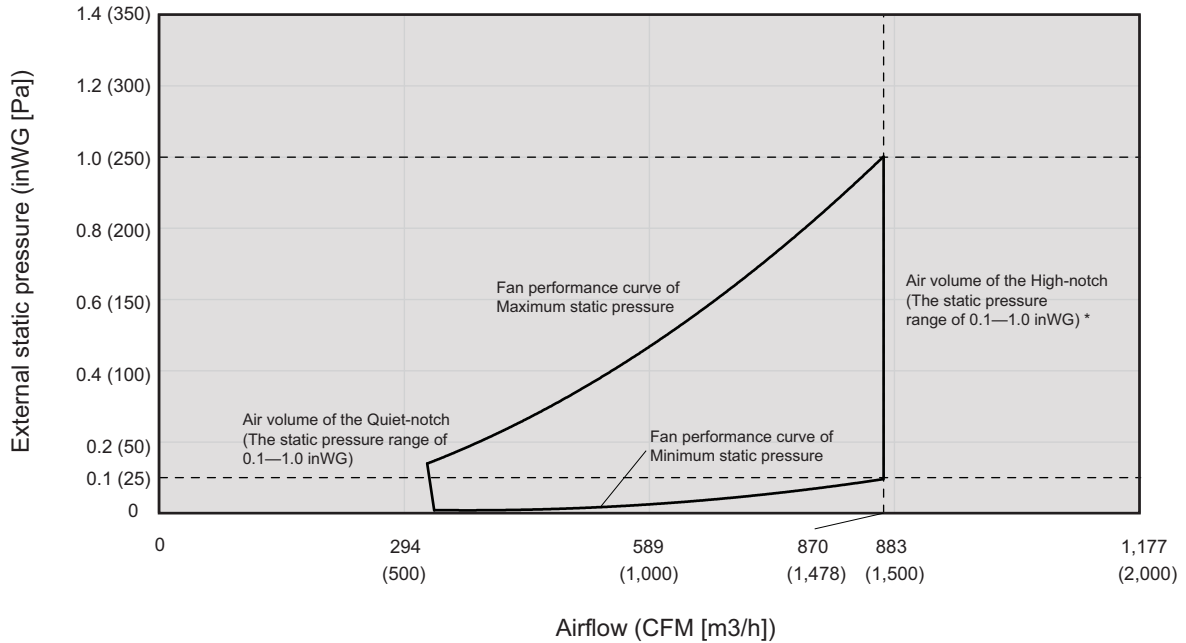
		Indoor temperature											
		°CDB		15.6		18.3		21.1		22.2		23.9	
		°CDB	°CWB	TC	IP	TC	IP	TC	IP	TC	IP	TC	IP
Outdoor temperature			kW		kW		kW		kW		kW		
	-26.1	-27.0	13.06	5.98	12.32	6.04	11.43	6.29	11.29	6.34	11.42	6.53	
	-20.6	-21.7	15.24	6.03	14.37	6.09	13.34	6.34	13.17	6.40	13.32	6.59	
	-15	-16.1	15.02	6.21	15.17	6.25	14.95	6.39	14.72	6.44	14.31	6.59	
	-10	-11.1	13.75	6.23	14.70	6.23	14.95	6.34	14.71	6.39	14.20	6.52	
	-8.3	-6.1	13.75	6.41	14.70	6.41	14.95	6.52	14.71	6.57	14.20	6.70	
	-5	-7.2	13.97	6.32	14.90	6.30	15.18	6.39	15.16	6.45	14.84	6.59	
	0	-2.2	15.16	6.35	15.23	6.32	15.53	6.43	15.54	6.50	15.65	6.68	
	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".

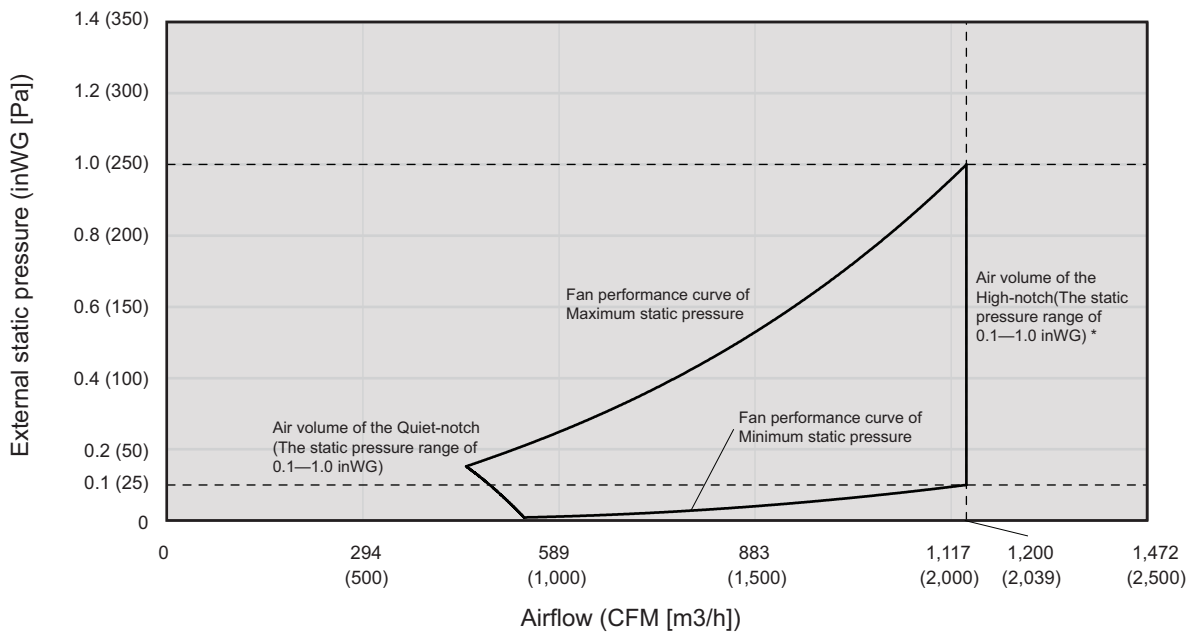
5-1. Fan performance curve

■ Model: RHMVZ3021SNAUNJ



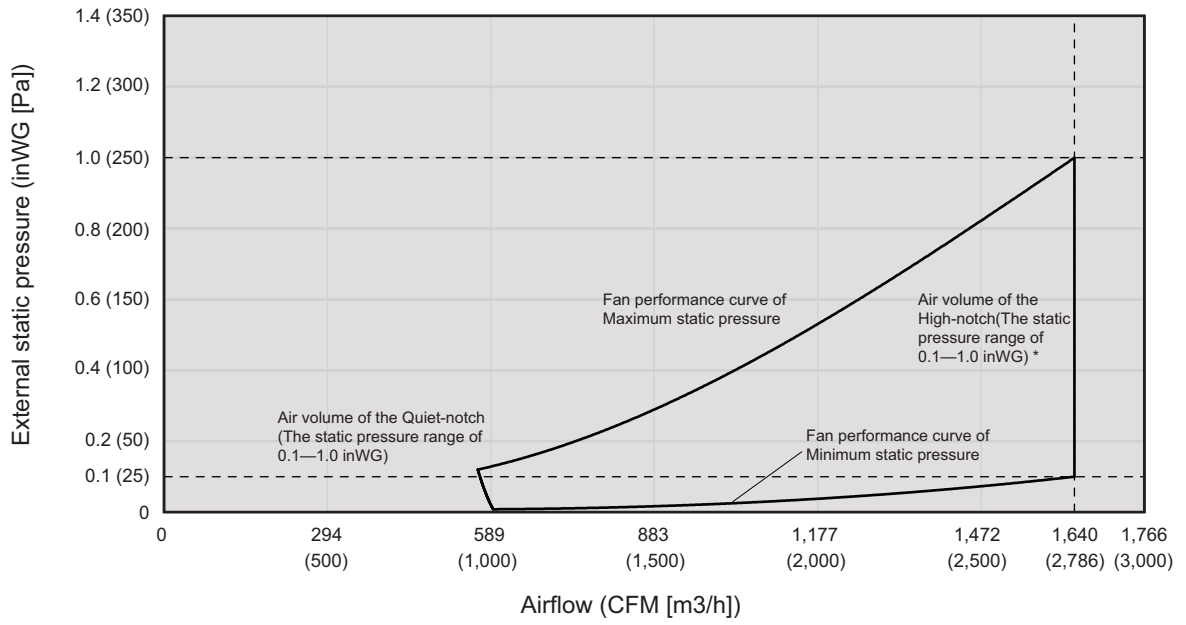
*: The air volume is automatically adjusted near the target air volume by the function of automatic air volume adjustment. (Within the SP range of 0.1—1.0 inWG)

■ Model: RHMVZ3621MNAUAJ



*: 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: RHMVZ4821SNAUAJ



*: 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: RHMVZ3021SNAUNJ

● Cooling

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

● Heating

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

■ Model: RHMVZ3621MNAUAJ

● Cooling

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

● Heating

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

■ Model: RHMVZ4821SNAUAJ

● Cooling

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

● Heating

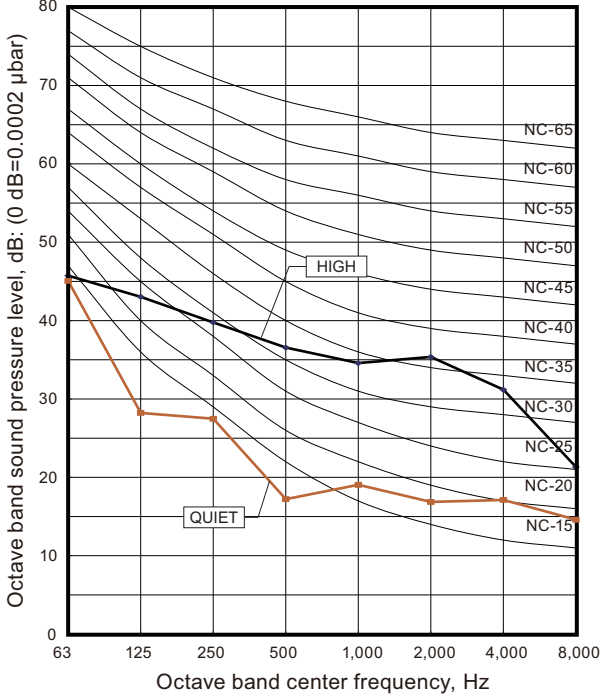
Fan speed	Airflow	
HIGH	m ³ /h	2,786
	l/s	774
	CFM	1,640
MED	m ³ /h	1,733
	l/s	481
	CFM	1,020
LOW	m ³ /h	1,393
	l/s	387
	CFM	820
QUIET	m ³ /h	1,002
	l/s	278
	CFM	590

6. Operation noise (sound pressure)

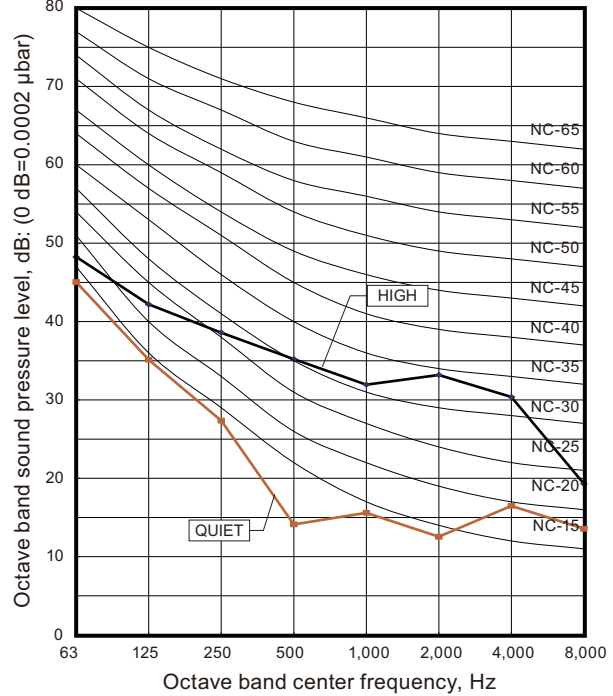
6-1. Noise level curve

Model: RHMVZ3021SNAUNJ

● Cooling

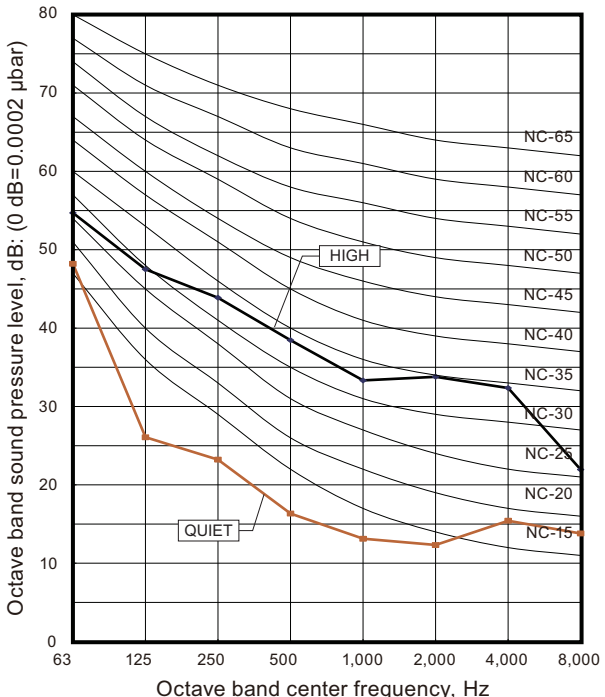


● Heating

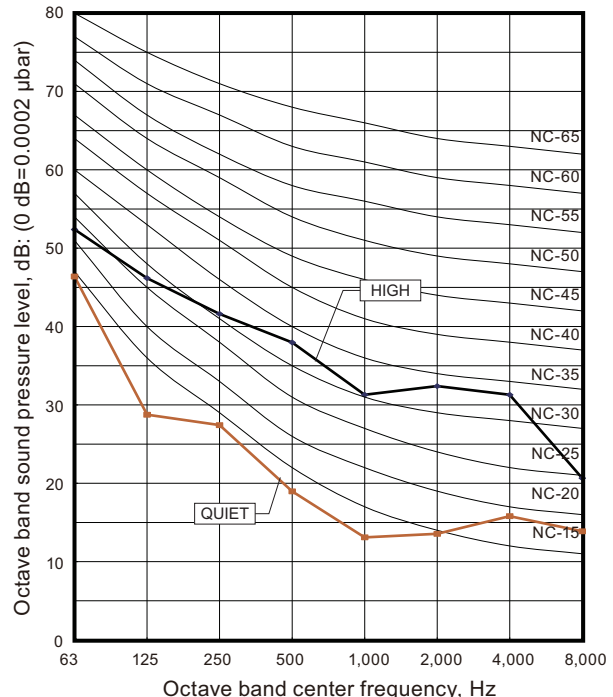


Model: RHMVZ3621MNAUAJ

● Cooling

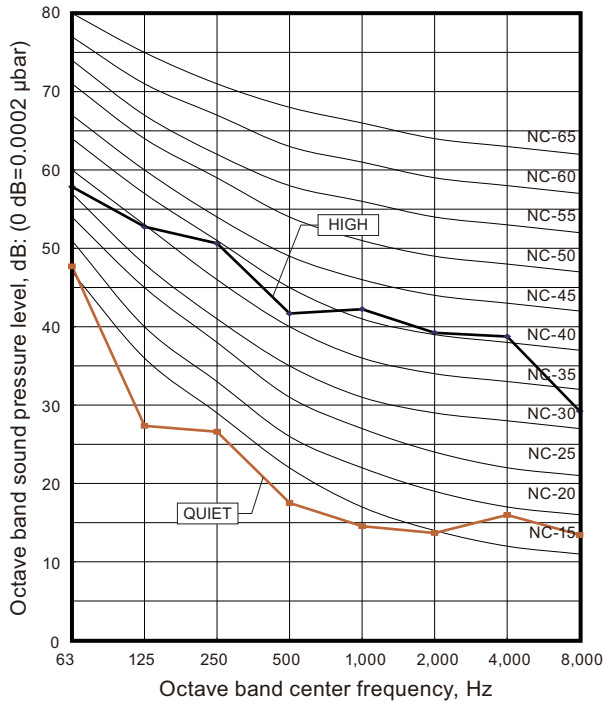


● Heating

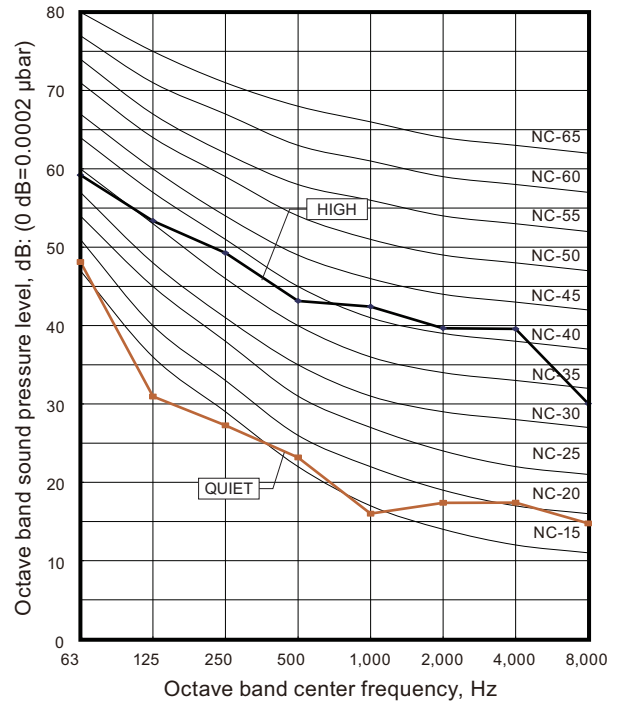


Model: RHMVZ4821SNAUJ

● Cooling



● Heating



7. External input and output

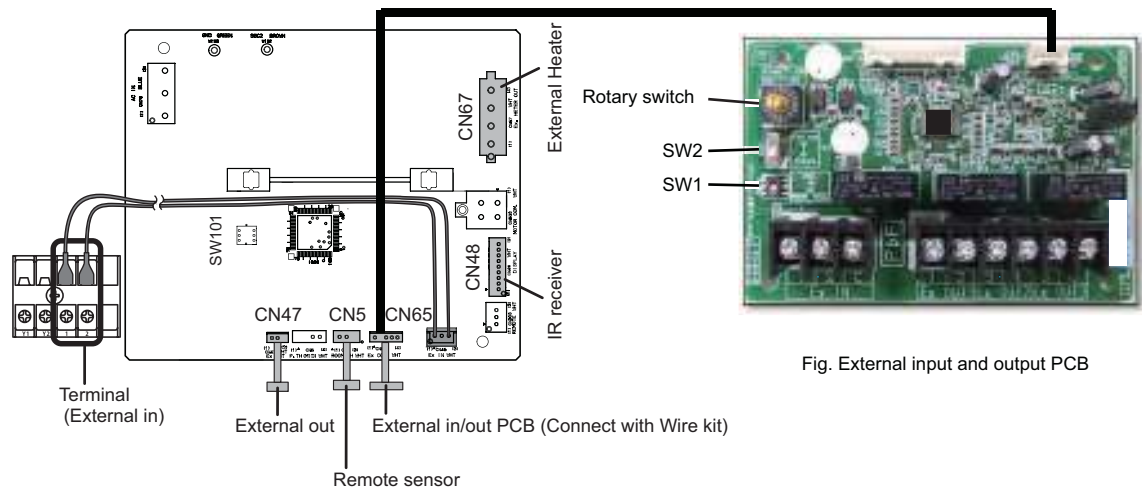


Fig. External input and output PCB

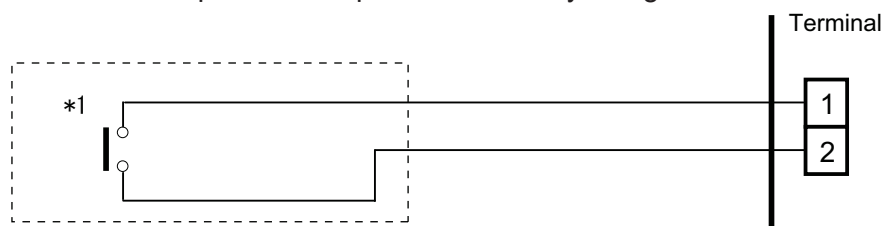
PCB	External input	External output	Connector	Input select	Input signal	External connect kit (Optional parts)
Indoor unit	Operation/Stop Forced stop	—	Terminal	Dry contact	Edge	—
	—	Operation status	CN47	—	—	RXXWZXZG
		Error status				
		Indoor unit fan operation status				
—	External heater output	CN47 CN67	—	—	—	
External input and output (RXXCSX)	Operation/Stop	—	Input 1/ Input 2	Dry contact/ Apply voltage	Edge/ Pulse	—
	Forced thermostat off		Input 1		Edge	
	—	Operation status	Output 1 Output 2 Output 3	—	—	—
		Error status				
Indoor unit fan operation status						
—	External heater output	—	—	—	—	

7-1. External input

- “Operation/Stop” mode or "Forced stop" mode can be selected with function setting of indoor unit.
- A twisted pair cable (22AWG) should be used. Maximum length of cable is 492 ft (150 m).
- 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 terminals.



*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

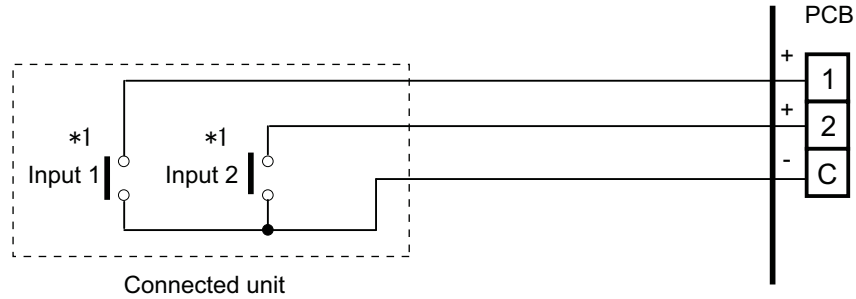
The indoor unit Operation/Stop can be set by using the input terminal on the PCB.

Input select

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

- Dry contact

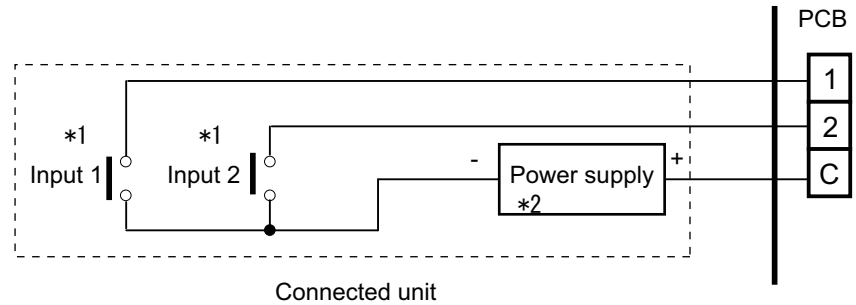
In case of internal power supply, set the slide switch of SW1 to "NON VOL" side.



*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.

7-2. External output

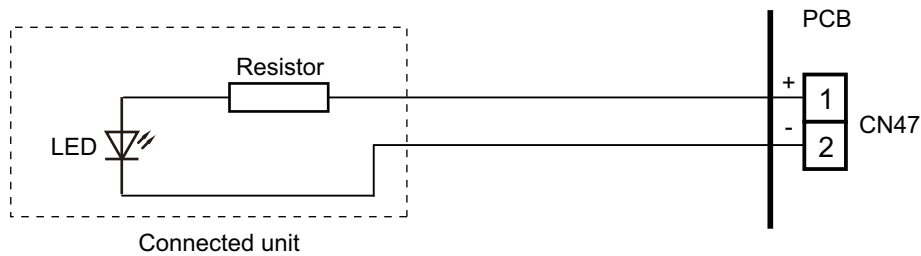
Use an external output cable with appropriate external dimension, depending on the number of cables to be installed.

Indoor unit

- A twisted pair cable (22AWG) should be used. Maximum length of cable is 82 ft (25 m).
- Output voltage: High DC 12 V ± 2 V, Low 0 V.
- Permissible current: 50 mA
- For details, refer to Chapter 7-3. ["Combination of external input and output"](#) on page 24.

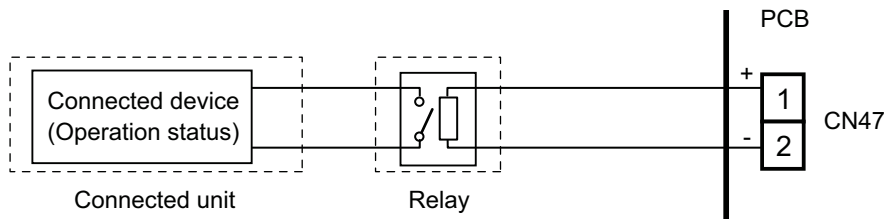
When indicator, etc. are connected directly

Example: Function setting 60 is set to "00"



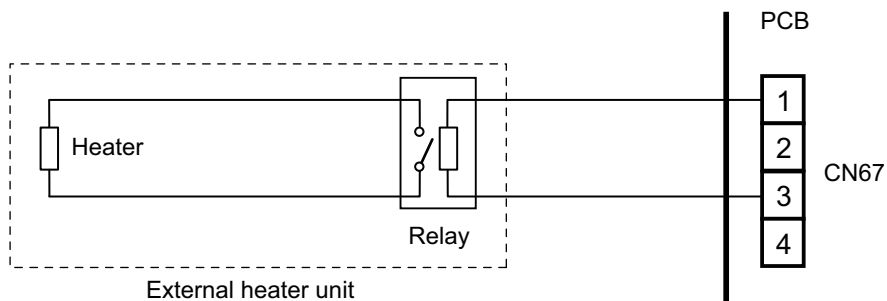
When connecting with a device equipped with a power supply

Example: Function setting 60 is set to "00"



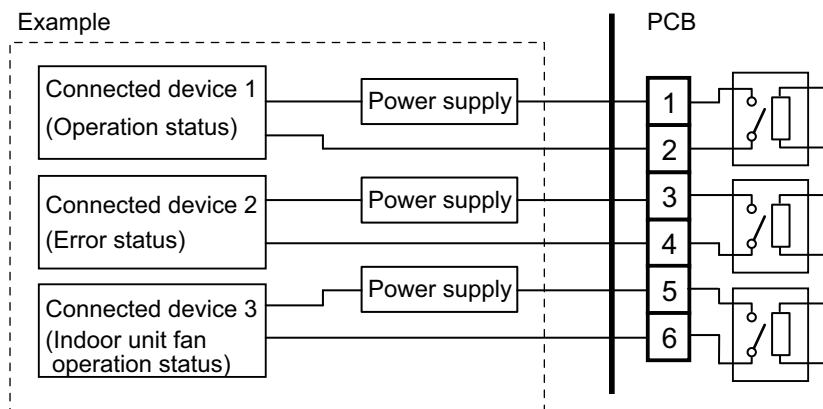
When connecting with a external heater

Output voltage:	Heater ON: AC24V±25% Heater OFF: Open
Permissible current:	500mA



External input and output PCB

- A twisted pair cable (22AWG) 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 Chapter 7-3. "[Combination of external input and output](#)" on page 24.



7-3. Combination of external input and output

By combining the function setting of the indoor unit and rotary switch setting of the External input and output PCB, you can select various combinations of functions.

Combination examples of external input and output are as follows:

Mode	Function setting	External input and output PCB (Rotary SW)	External input			
			Indoor unit Input	External input and output PCB		
			Terminal	Input 1	Input 2	Signal type
0-1	60-00	1	Operation/Stop (Function setting 46-00) or Forced stop (Function setting 46-02)	Operation/Stop	Not available	Edge
				Operation	Stop	Pulse
0-2	60-00	2		Forced Thermostat OFF	Not available	Edge
1	60-01	3		Mechanical cooling Off		
2	60-02	4		Forced thermostat Off		
3	60-03	5		Mechanical cooling On		
4	60-04	6		Mechanical cooling On		
5	60-05	7		Forced thermostat Off		
6	60-06	8		Forced thermostat Off		
7	60-07	9		Mechanical cooling Off		
8	60-08	A		Forced thermostat Off		
9	60-09	B		Forced Thermostat OFF		
10	60-10	C	Forced Thermostat OFF			
11	60-11	D	Forced Thermostat OFF			
12	60-12	D	Forced Thermostat OFF			

Mode	Function setting	External input and output PCB (Rotary SW)	External output			
			Indoor unit Output	External input and output PCB		
			CN47	Output 1	Output 2	Output 3
0-1	60-00	1	Operation/Stop	Operation/Stop	Error status	Indoor unit fan operation status
0-2	60-00	2	Operation/Stop	Error status	Indoor unit fan operation status	External heater output
1	60-01	3	Cooling thermostat On	Error status	Indoor unit fan operation status	External heater output
2	60-02	4	Cooling thermostat On	Error status	Remote controller output	External heater output
3	60-03	5	Cooling thermostat On	Cooling high/low output	Remote controller output	External heater output
4	60-04	6	Cooling thermostat On	Error status	Remote controller output	Cooling high/low output
5	60-05	7	Heating thermostat On	Error status	Indoor unit fan operation status	External heater output
6	60-06	8	Operation/Stop	Error status	Indoor unit fan operation status	Heating thermostat On
7	60-07	9	Cooling thermostat On	Error status	Heating thermostat On	External heater output
8	60-08	A	Cooling thermostat On	Heating thermostat On	Remote controller output	External heater output
9	60-09	B	Error status	Operation/Stop	Indoor unit fan operation status	External heater output
10	60-10	C	Indoor unit fan operation status	Operation/Stop	Error status	External heater output
11	60-11	D	External heater output	Operation/Stop	Indoor unit fan operation status	Error status
12	60-12	D	Setpoint Attainment status	Operation/Stop	Indoor unit fan operation status	Error status

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

00: Operation/Stop mode 1 (Remote controller enabled)

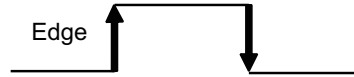
01: (Setting prohibited)

02: Forced stop

03: Operation/Stop mode 2 (Remote controller disabled)

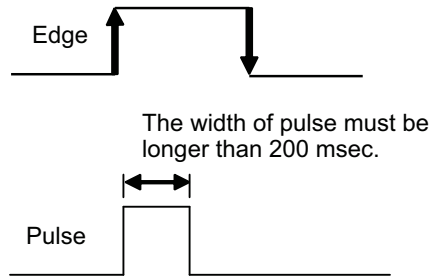
■ Input signal type

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



- 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.



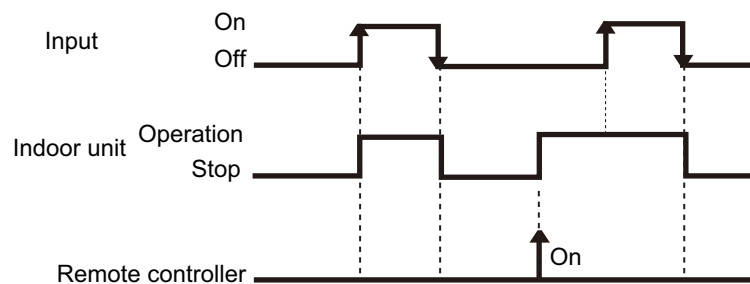
7-4. Details of function

■ Control input function

● When function setting is "Operation/Stop" mode 1

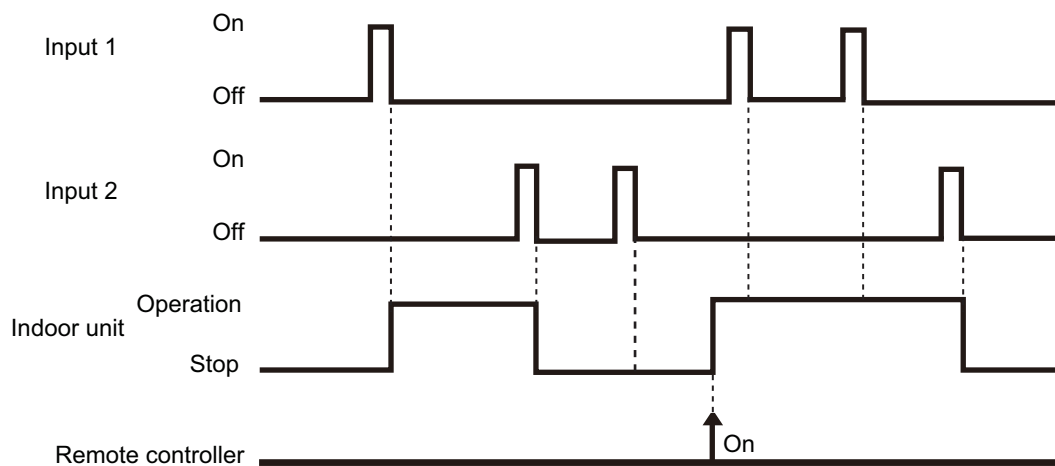
- In the case of "Edge" input

Function setting /	Rotary SW of External input and output PCB	External input		Input signal	Command
46-00	-	Input of indoor unit	Terminal	Off → On	Operation
				On → Off	Stop
	60-00 / 1	External input and output PCB	Input 1	Off → On	Operation
				On → Off	Stop



- In the case of "Pulse" input

Function setting /	Rotary SW of External input and output PCB	External input		Input signal	Command
46-00	60-00 / 1	External input and output PCB	Input 1	Pulse	Operation
			Input 2	Pulse	Stop



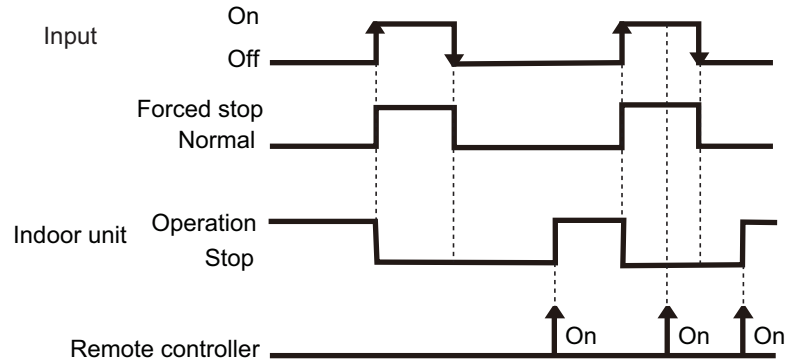
NOTES:

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

● When function setting is "Forced stop" mode

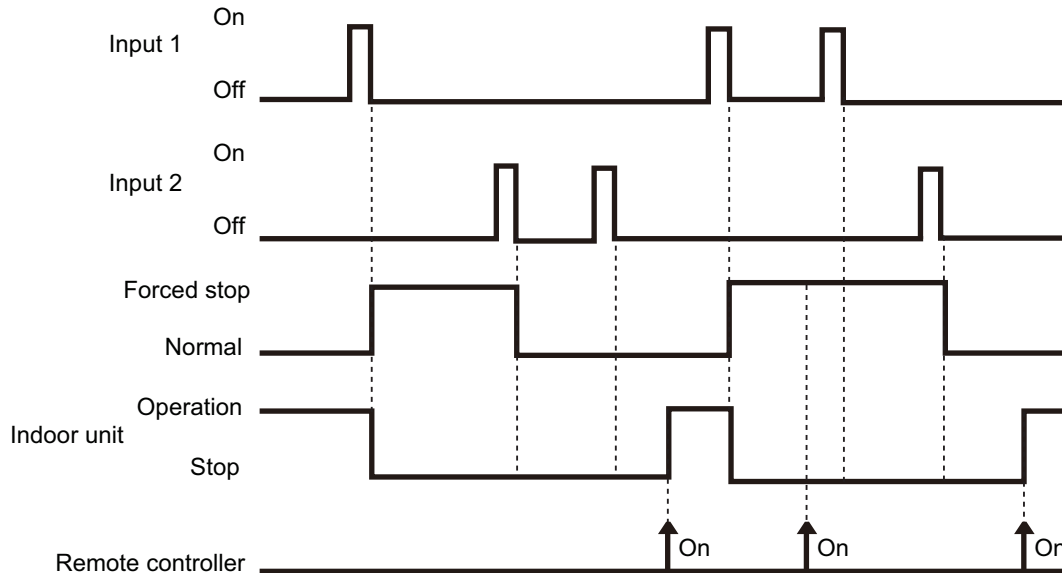
- In the case of "Edge" input

Function setting /	Rotary SW of External input and output PCB	External input		Input signal	Command
46-02	-	Input of indoor unit	Terminal	Off → On	Forced stop
				On → Off	Normal
	60-00 / 1	External input and output PCB	Input 1	Off → On	Forced stop
				On → Off	Normal



- In the case of "Pulse" input

Function setting /	Rotary SW of External input and output PCB	External input		Input signal	Command
46-02	60-00 / 1	External input and output PCB	Input 1	Pulse	Forced stop
			Input 2	Pulse	Normal



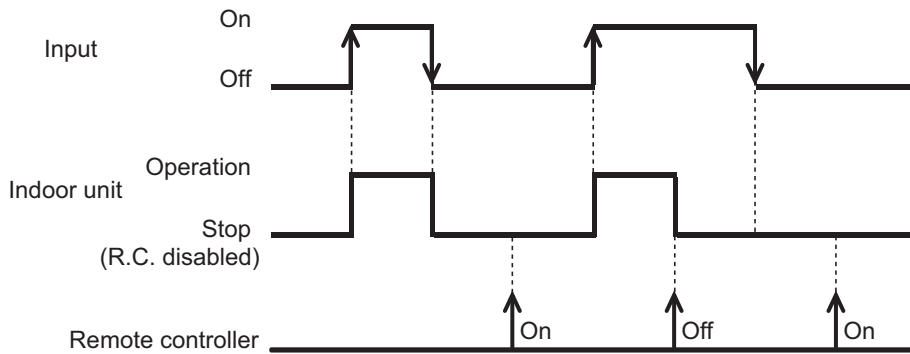
NOTES:

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

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

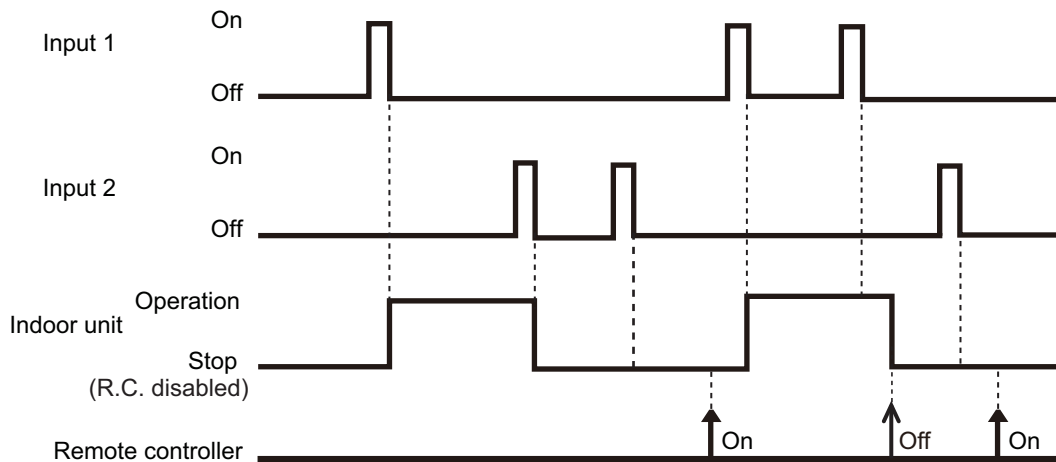
- In the case of "Edge" input

Function setting /	Rotary SW of External input and output PCB	External input		Input signal	Command
46-03	-	Input of indoor unit	Terminal	Off → On	Operation
				On → Off	Stop (Remote controller disabled)
	60-00 / 1	External input and output PCB	Input 1	Off → On	Operation
				On → Off	Stop (Remote controller disabled)



- In the case of "Pulse" input

Function setting /	Rotary SW of External input and output PCB	External input		Input signal	Command
46-03	60-00 / 1	External input and output PCB	Input 1	Pulse	Operation
			Input 2	Pulse	Stop (Remote controller disabled)

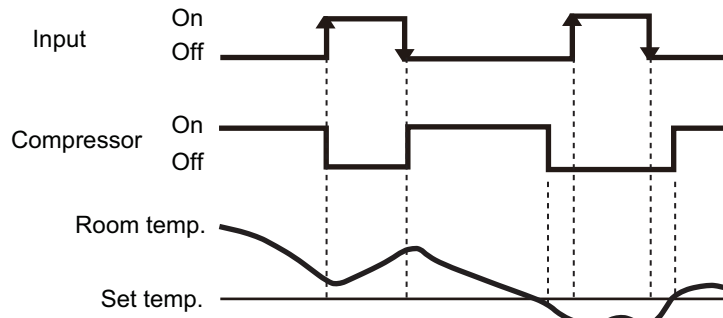


NOTES:

- 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 function

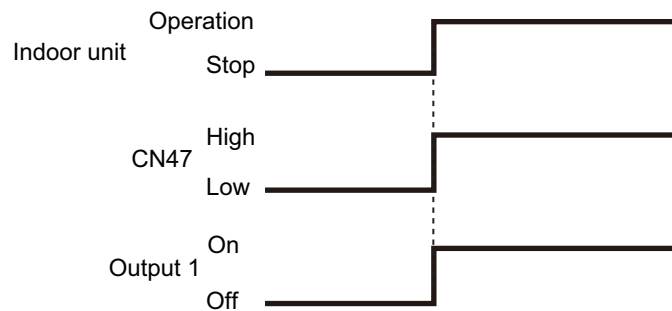
Function setting /	Rotary SW of External input and output PCB	External input		Input signal	Command
60-00 / 2 60-02 / 4 60-05 / 7 60-06 / 8 60-08 / A 60-09 / B 60-10 / C 60-11 / D		External input and output PCB	Input 1	Off → On	Thermostat off
				On → Off	Normal operation



■ Control output function

Function setting /	Rotary SW of External input and output PCB	External output		Output signal	Command
60-00 / 1, 2 60-06 / 8		Output of indoor unit	CN47	Low → High	Operation
				High → Low	Stop
60-00 / 1 60-09 / B 60-10 / C 60-11 / D		External input and output PCB	Output 1	Off → On	Operation
				On → Off	Stop

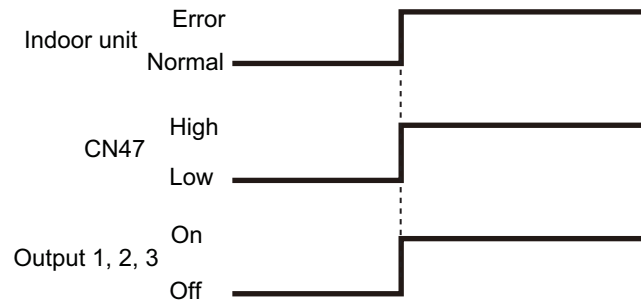
The output is low when the unit is stopped.



■ Error status

Function setting / Rotary SW of External input and output PCB	External output	Output signal	Command		
60-09 / B	Output of indoor unit	Low → High	Error		
		High → Low	Normal		
60-00 / 2 60-01 / 3 60-02 / 4 60-04 / 6 60-05 / 7 60-06 / 8 60-07 / 9	External input and output PCB	Output 1	Off → On	Error	
			On → Off	Normal	
		Output 2	Off → On	Error	
			On → Off	Normal	
		60-00 / 1 60-10 / C	Output 3	Off → On	Error
				On → Off	Normal
60-11 / D					

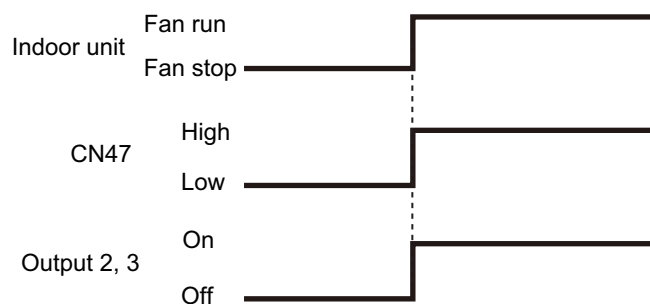
The output is ON when an error is generated for the indoor unit.



Indoor unit fan operation status

Function setting / Rotary SW of External input and output PCB	External output		Output signal	Command
60-10 / C	Output of indoor unit	CN47	Low → High	Fan run
			High → Low	Fan stop
60-00 / 2 60-01 / 3 60-05 / 7 60-06 / 8 60-09 / B 60-11 / D	External input and output PCB	Output 2	Off → On	Fan run
			On → Off	Fan stop
		Output 3	Off → On	Fan run
			On → Off	Fan stop
60-00 / 1				

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



■ External heater output

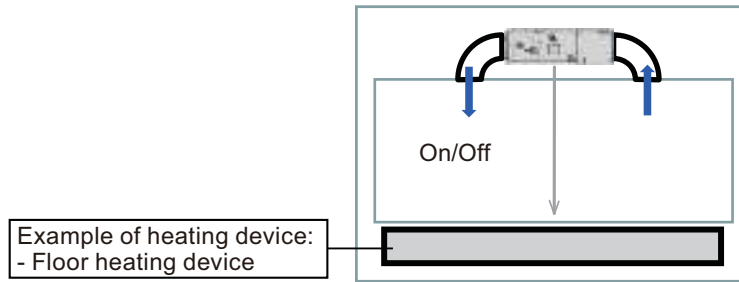
Control	Primary heater	Auxiliary heater	Function setting	
			Indoor unit	Wired R. C.
			Control switching external heaters No. 61	Sensor activation*2
Auxiliary heater control 1	Heat pump	External device*1	61-00	—
Auxiliary heater control 2	Heat pump	External device	61-01	—
Heat pump prohibition control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

NOTES:

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

● Installation configuration of individual connection

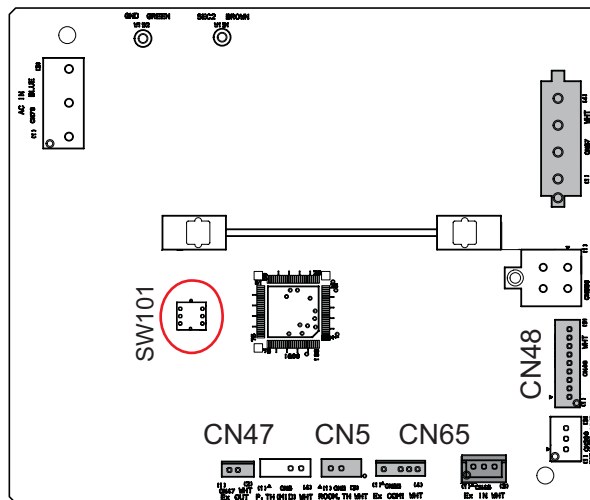
External heating device is installed individually. (No use of indoor unit fan)



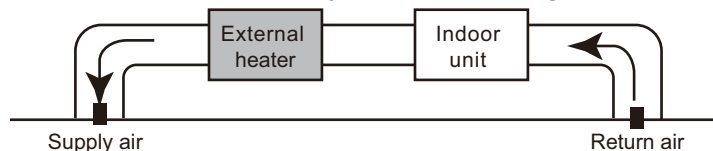
⚠ WARNING

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



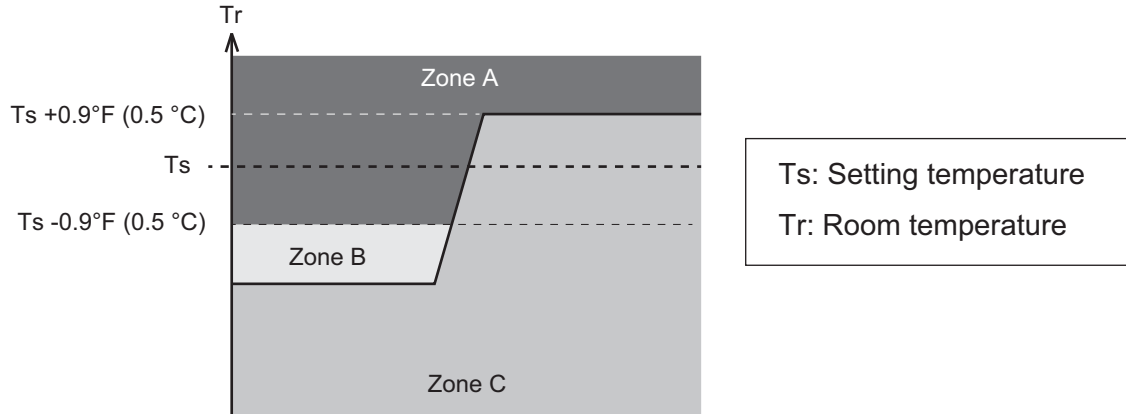
- Design and install external heater appropriately with considering its protection.



- Inappropriate designing and installation of external heater may cause a fire by emitted heat from the external heater.

● 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.

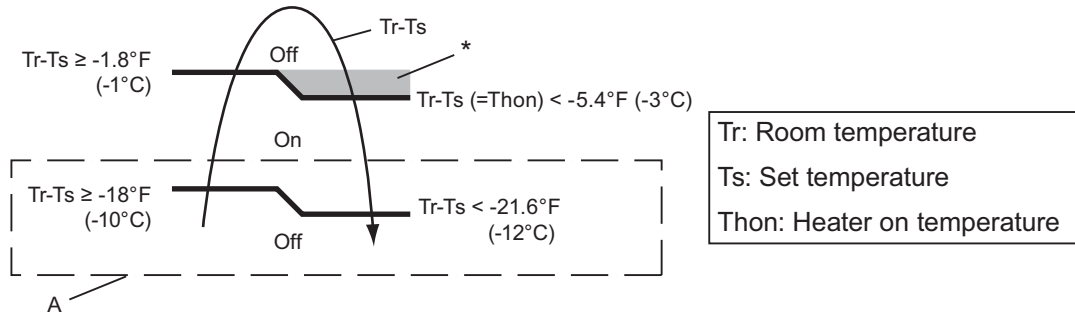
*2: When indoor unit function number 61 is set to "00", auxiliary equipment operates according to the following conditions.

- $T_s - T_r > 21.6^\circ\text{F}$ (-12.0 °C): Auxiliary equipment turn off.
- $T_s - T_r > 18.0^\circ\text{F}$ (-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"> • Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off • Fan stop protection

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



*: 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),

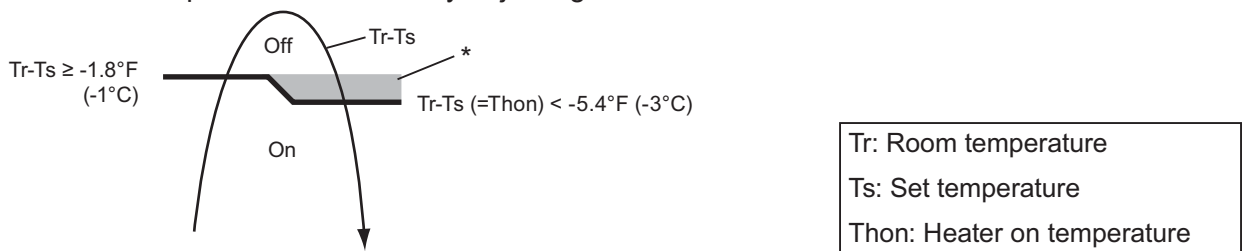
- and room temperature (Tr) increases above 53.6°F (12°C), signal output is on.
- and room temperature (Tr) increases above 69.8°F (21°C), signal output is off.
- and room temperature (Tr) decreases below 66.2°F (19°C), signal output is on.
- and room temperature (Tr) decreases below 50°F (10°C), signal 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"> • Heater is off as shown in following diagram of heating temperature. • Other than heating mode • Error occurred • Forced thermostat off • Fan stop protection

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



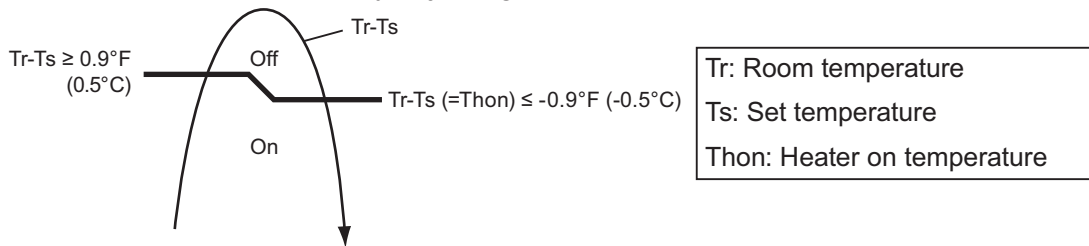
*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to function number 71.

● Heat pump prohibition control

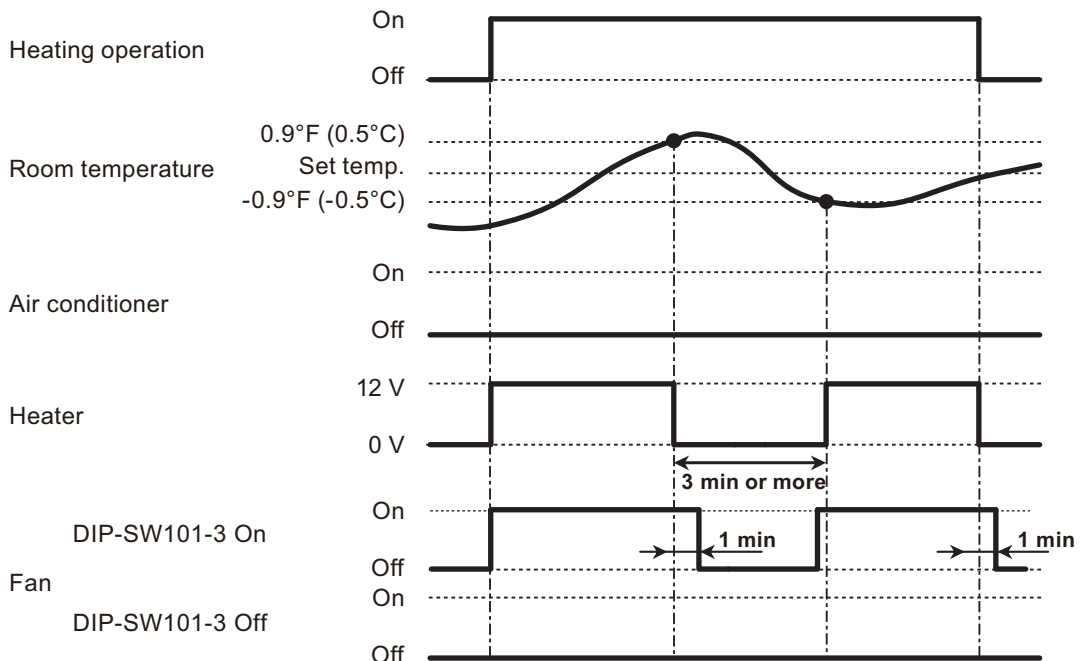
Perform heating by external heater only. Indoor unit is continuous thermostat off.

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

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



• Operation status



NOTE: In following operations, compressor will be on.

- Other than heating
- Test run

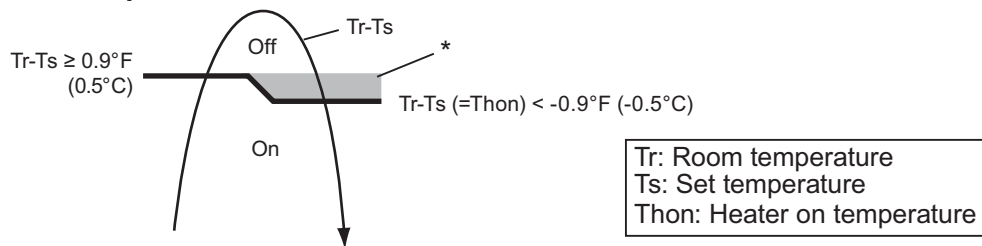
● Auxiliary heater control by outdoor temperature 1

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 Indoor unit fan setting for external heater	On Enabled
	DIP-SW101-3 Indoor unit fan setting for external heater	Off Disabled

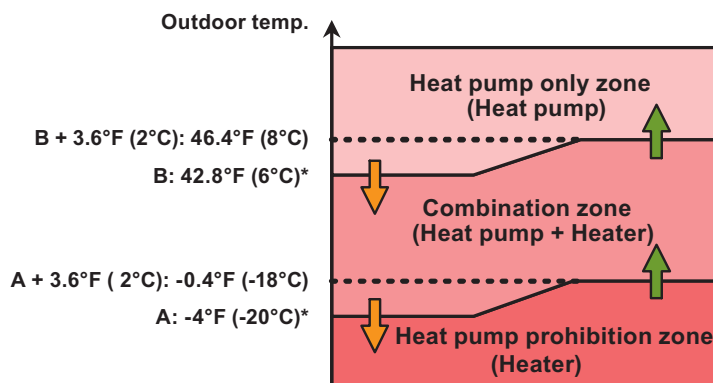
- Temperature of heater on (Thon): Adjustable by function number 62 (Operating temperature switching of external heaters).
- All control temperatures will shift by adjusting "Thon".
- Outdoor temperature zone boundary A and B: Adjustable individually by function setting number 66 and 67.

• External heater output



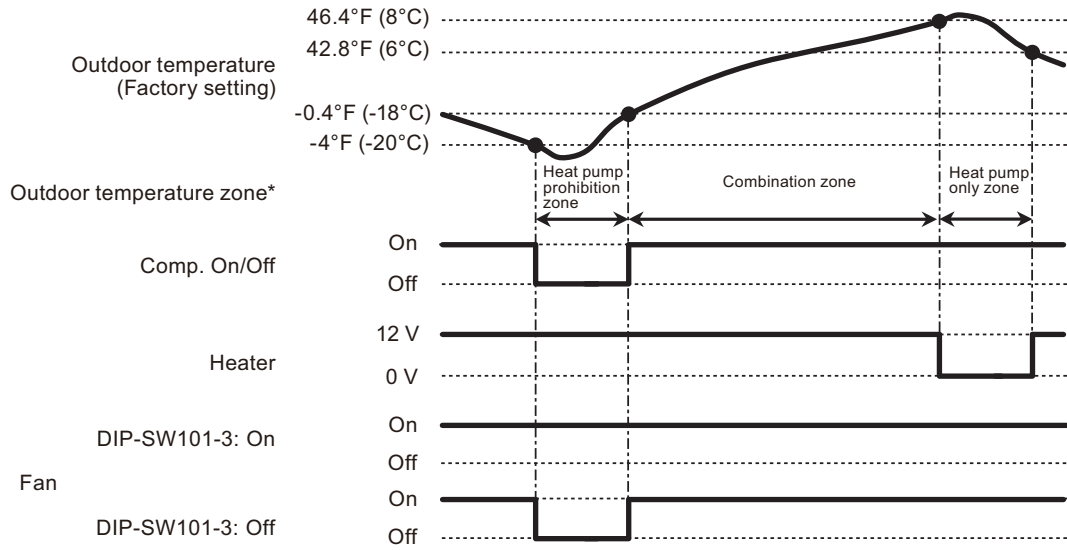
*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to function number 71.

• 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

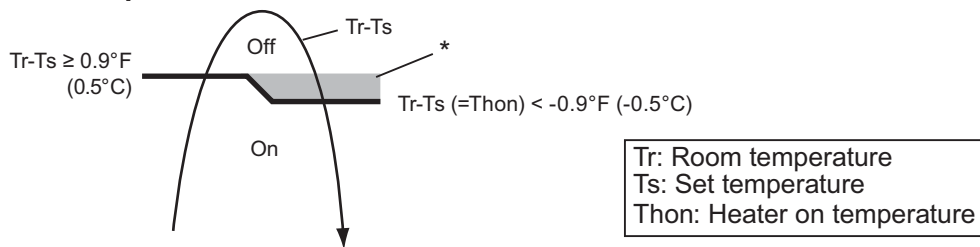
● Auxiliary heater control by outdoor temperature 2

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

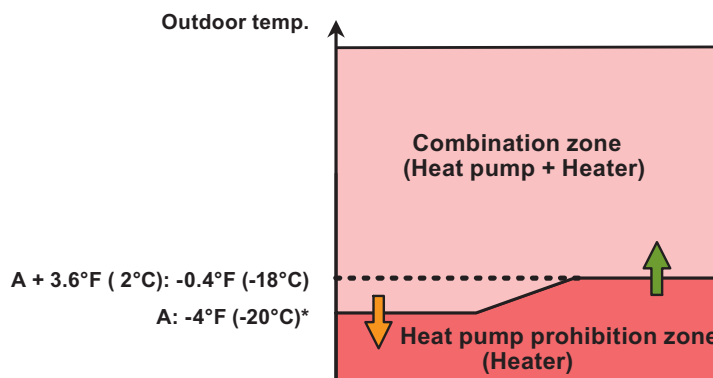
- Temperature of heater on (Thon): Adjustable by function number 62 (Operating temperature switching of external heaters).
- All control temperatures will shift by adjusting “Thon”.
- Outdoor temperature zone boundary A: Adjustable by function setting number 66.

• External heater output



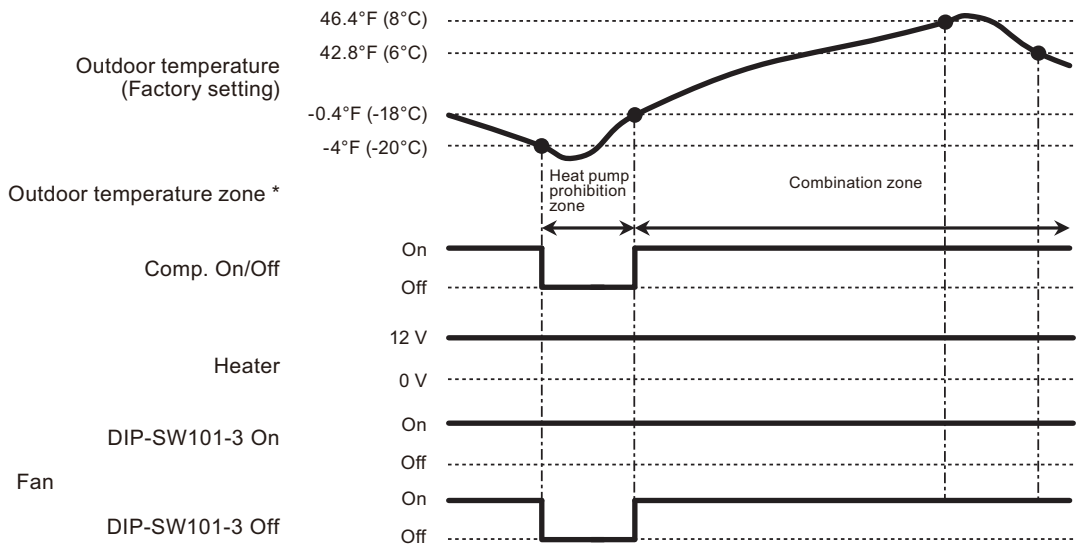
*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to function number 71.

• 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

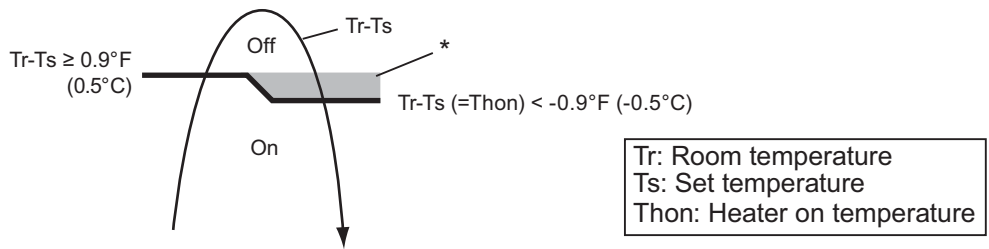
● Auxiliary heater control by outdoor temperature 3

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

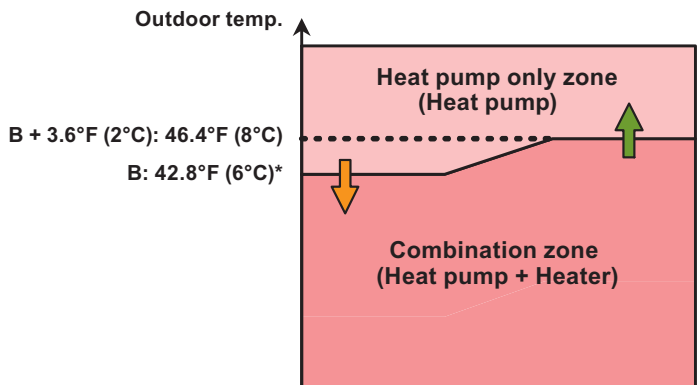
- Temperature of heater on (Thon): Adjustable by function number 62 (Operating temperature switching of external heaters).
- All control temperatures will shift by adjusting “Thon”.
- Outdoor temperature zone boundary B: Adjustable by function setting number 67.

• External heater output



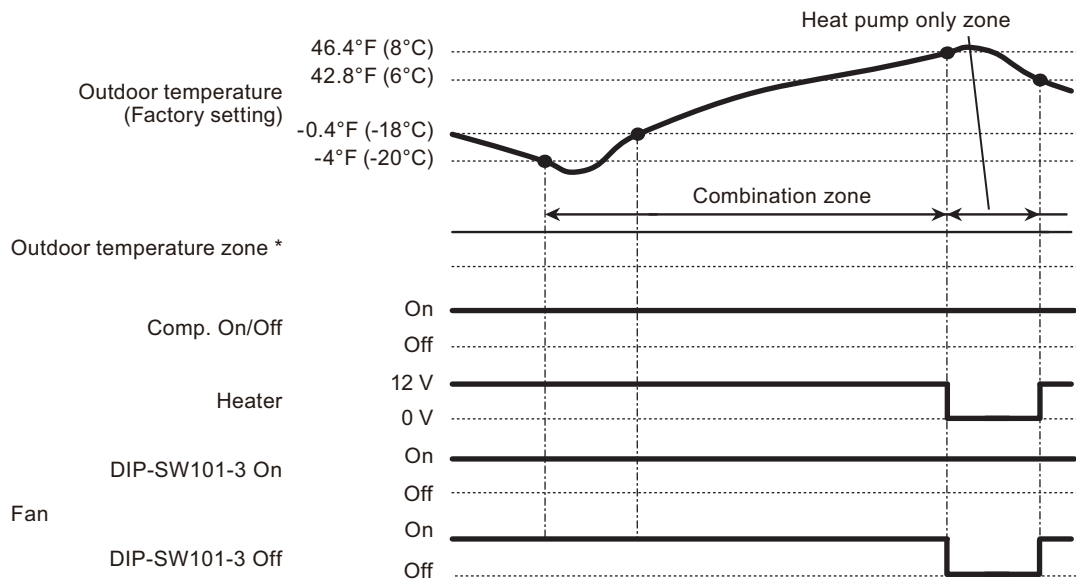
*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to function number 71.

• 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.

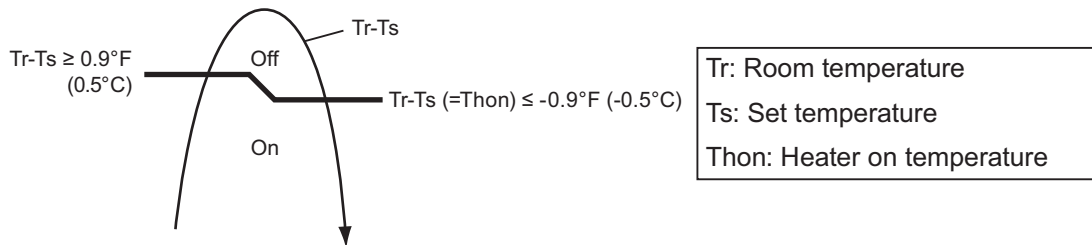
- Other than heating
- Test run

● Auxiliary heat pump control

• External heater output

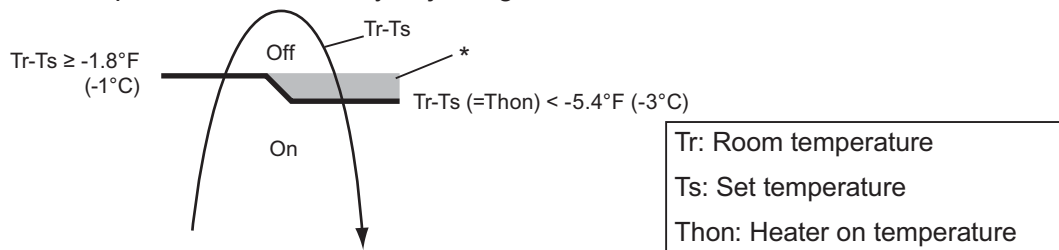
Operation			Condition
Heater on			Heater is on as shown in following diagram of heating temperature.
Heater off	DIP-SW101-3 Indoor unit fan setting for external heater	On Enabled	<ul style="list-style-type: none"> • Heater is off as shown in following diagram of heating temperature. • Other than heating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

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



• Auxiliary heat pump On/Off

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



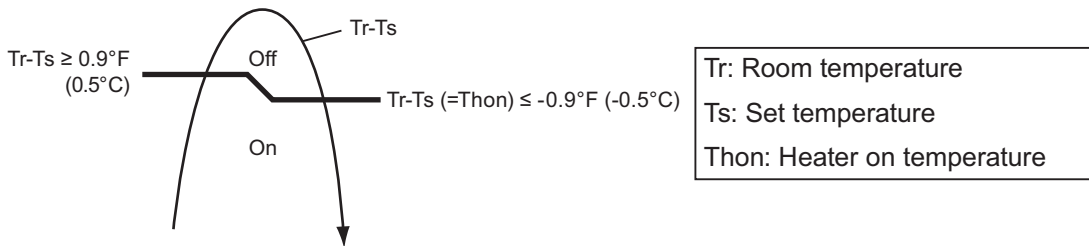
*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to function number 71.

● Auxiliary heat pump control by outdoor temperature 1

• External heater output

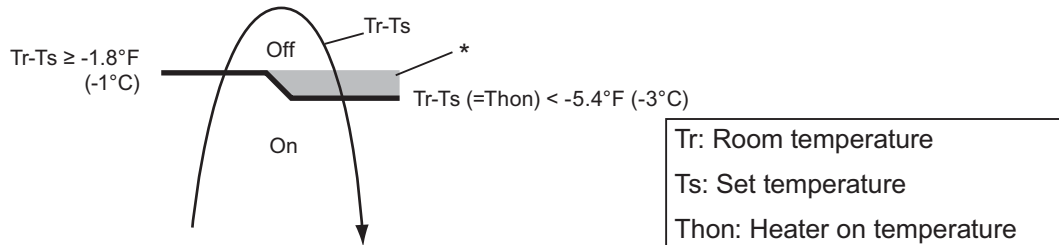
Operation		Condition
Heater on		Heater is on as shown in following diagram of heating temperature.
Heater off	DIP-SW101-3 On Indoor unit fan setting for external heater Enabled	<ul style="list-style-type: none"> • Heater is off as shown in following diagram of heating temperature. • Other than heating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

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



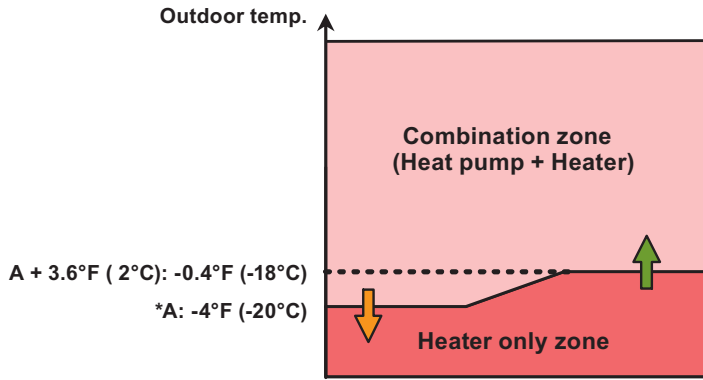
• Auxiliary heat pump On/Off

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



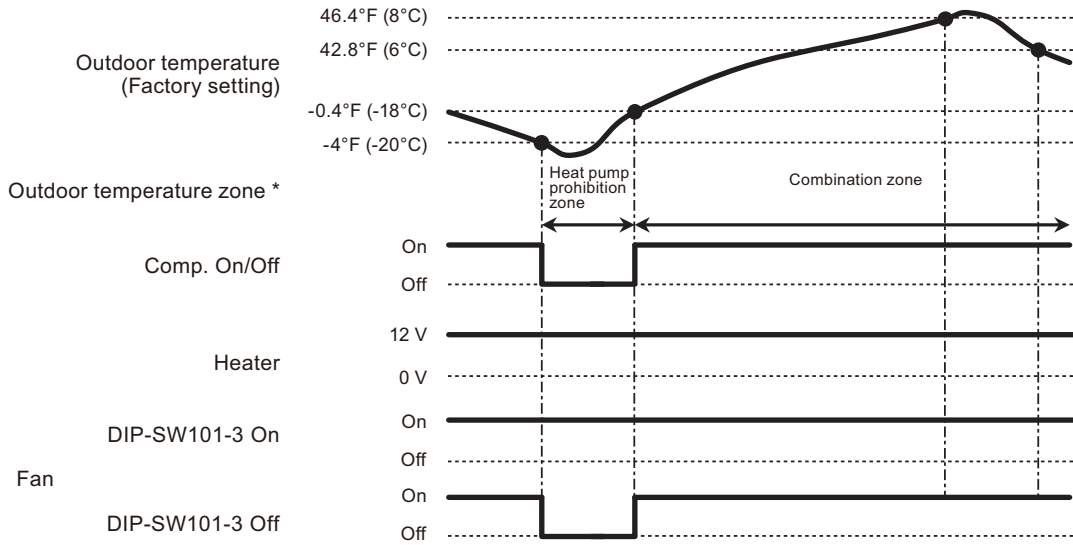
*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to function number 71.

• 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.

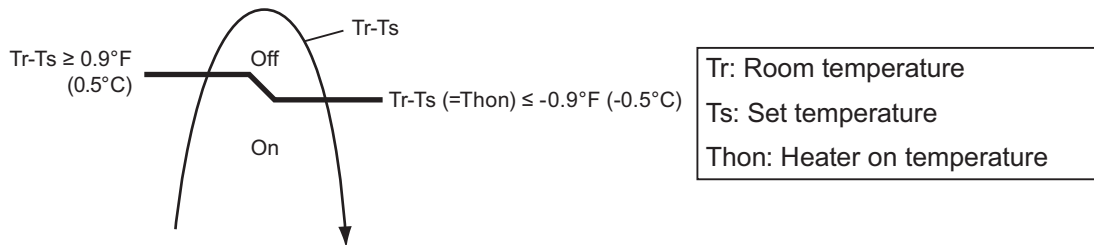
- Other than heating
- Test run

● Auxiliary heat pump control by outdoor temperature 2

• External heater output

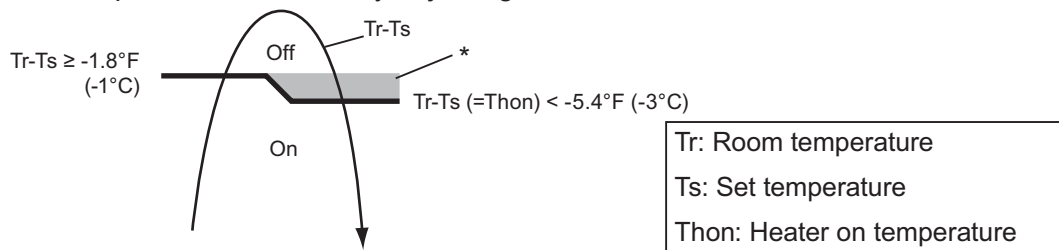
Operation			Condition
Heater on			Heater is on as shown in following diagram of heating temperature.
Heater off	DIP-SW101-3 Indoor unit fan setting for external heater	On Enabled	<ul style="list-style-type: none"> • Heater is off as shown in following diagram of heating temperature. • Other than heating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

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



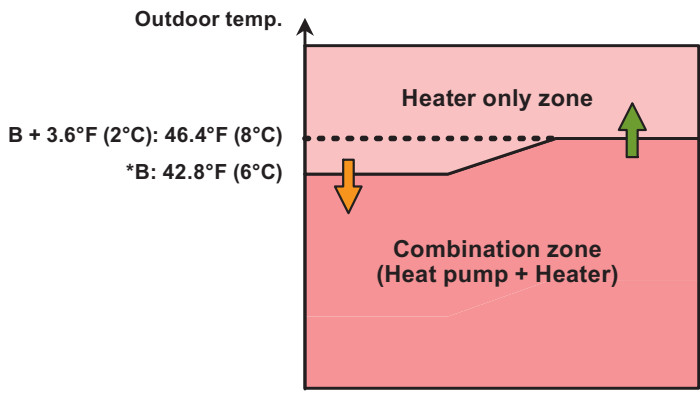
• Auxiliary heat pump On/Off

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



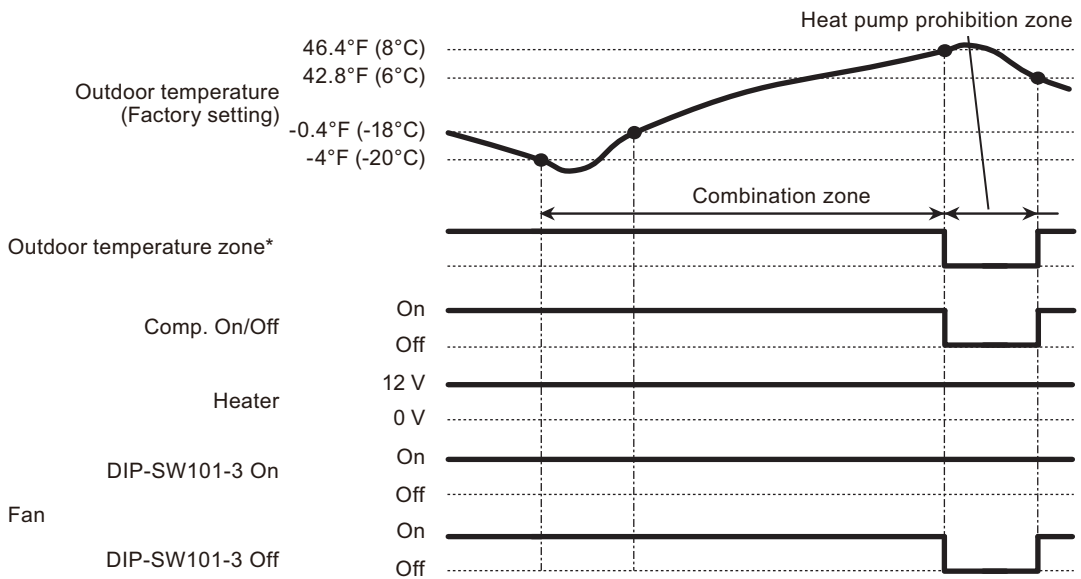
*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to function number 71.

• 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.

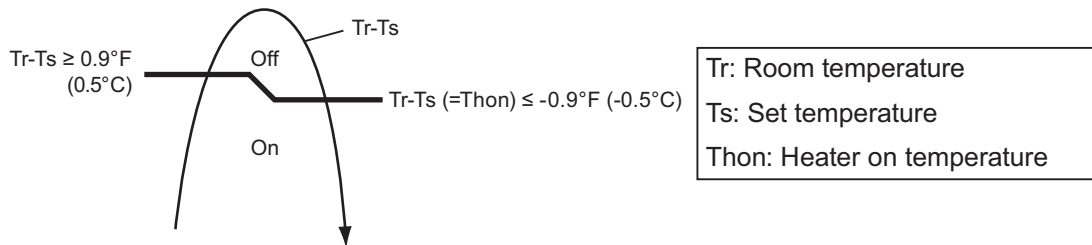
- Other than heating
- Test run

● Auxiliary heat pump control by outdoor temperature 3

• External heater output

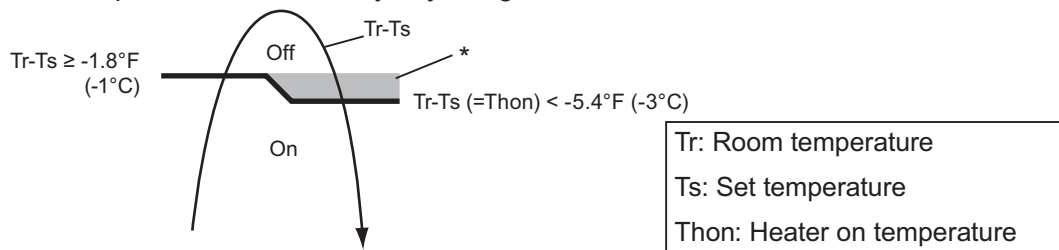
Operation			Condition
Heater on			Heater is on as shown in following diagram of heating temperature.
Heater off	DIP-SW101-3 Indoor unit fan setting for external heater	On Enabled	<ul style="list-style-type: none"> • Heater is off as shown in following diagram of heating temperature. • Other than heating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

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



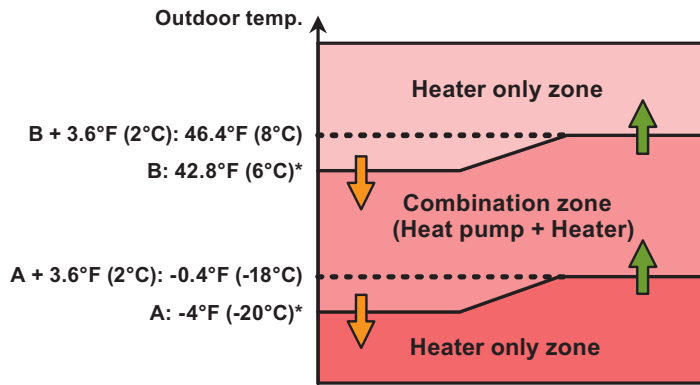
• Auxiliary heat pump On/Off

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



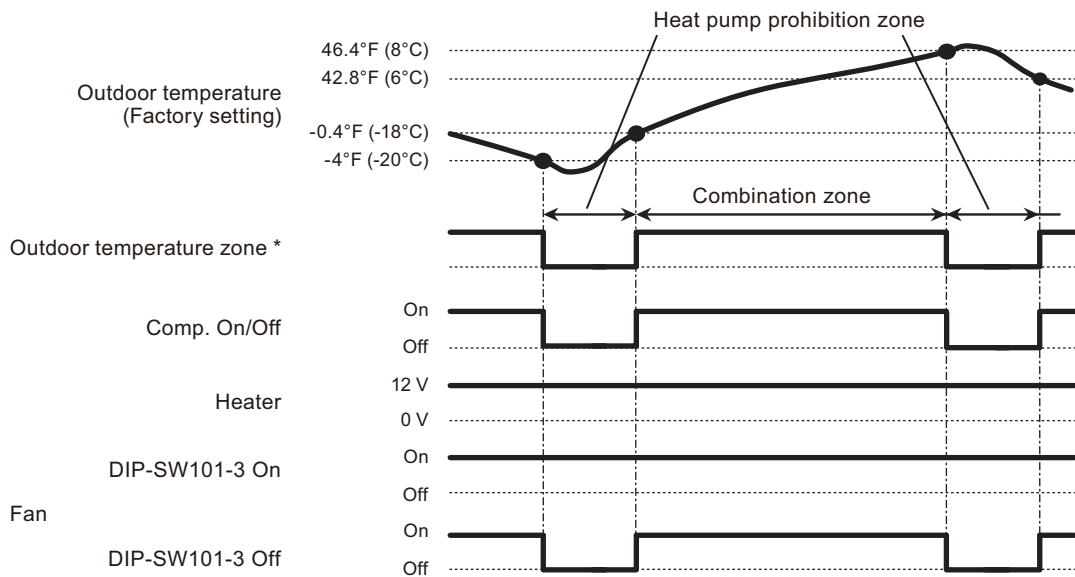
*: When room temperature stays in this zone for a specific time, auxiliary heater is turned on. For details, refer to function number 71.

• 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.

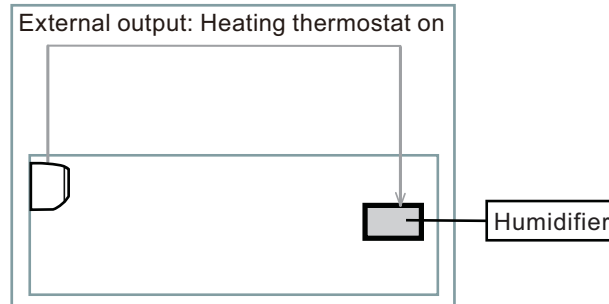
NOTE: In following operations, compressor will be on in heat pump prohibition zone.

- 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	Output3	
	7	60-07	9	Output2	
	8	60-08	A	Output1	

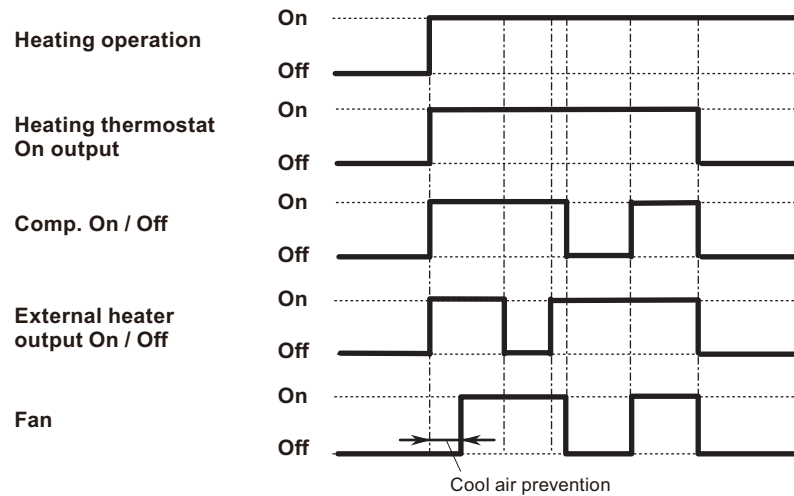
- **Example of individual connection**



- **Operation status**

The heating thermostat output for CN47, Output1, Output2, and Output3 will be on when comp on or external heater on.

The heating thermostat output will be off when comp off and external heater off.



8-2. 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:

$$\text{Corrected temp.} = \text{Temp. of the room temp. sensor} - \text{Correction temp. value}$$

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.

NOTE: Remote controller sensor must be turned on by using the 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	◆
	01	(Setting prohibited)	
	02	Forced stop mode	
	03	Operation/Stop mode 2	

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.

NOTES:

- As the factory setting, this setting is initially invalidated.
- 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 Chapter 7-4. "[Details of function](#)" on page 27.

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 Chapter 7-4. ["Details of function"](#) on page 27.

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 Chapter 7-4. ["Details of function"](#) on page 27.

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 is performed on the indoor unit. For details, refer to "External heater output" in Chapter 7-4. ["Details of function"](#) on page 27.

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 Chapter 7-4. ["Details of function"](#) on page 27.

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	








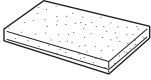

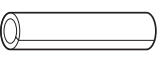

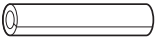
21) Airflow adjustment at heater only operation

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)	


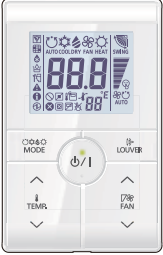
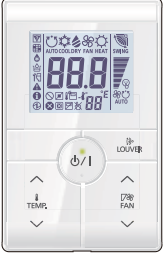

9. Accessories

9-1. Models: RHMVZ3021SNAUNJ, RHMVZ3621MNAUAJ, and RHMVZ4821SNAUAJ

Part name	Exterior	Q'ty	Part name	Exterior	Q'ty
Operating 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
Screw		16	Coupler heat insulation (small)		1


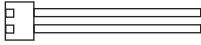

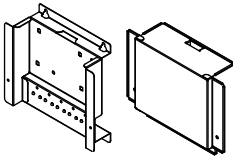
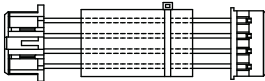
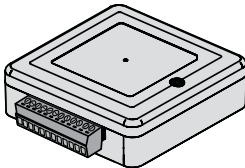
10. Optional parts

10-1. Controllers

Exterior	Part name	Model name	Summary
	Wired Remote Controller	RXRNRUZ*	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	RXRSRY	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	RXRHRY	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	RXLBTUM	Unit control is performed by Wireless Remote Controller

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

10-2. Others

Exterior	Part name	Model name	Summary
	Remote Sensor Unit	RXXSZX	Thermo-sensor for sensing the temperature of arbitrary place in the room.
	External Connect Kit	RXXWZXZG	Use to connect with various peripheral devices and air conditioner PCB. For control output port.
	External Input and Output PCB	RXXCSX	Use to connect with external devices and air conditioner PCB.
	External Input and Output PCB Box	RXGXRA	For installing the External input and output PCB.
	Wire Kit	RXXWZXZJ	Use to connect with external input and output PCB and Indoor unit PCB.
	Thermostat Converter	RXTRX	This converter can control products using a third-party thermostat controller.

Part 2. OUTDOOR UNIT

SINGLE TYPE:

RD16AZ30AJHUA

RD16AZ36AJHUA

RD16AZ48AJHUA

1. Specifications

OUTDOOR UNIT
RD16AZ30-48AJHUA

OUTDOOR UNIT
RD16AZ30-48AJHUA

Type				Inverter heat pump
Model name				RD16AZ30AJHUA
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 ³ /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
Condenser coil 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 ³ (cm ³)	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		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:

- Specifications are based on the following conditions:
 - Cooling: Indoor temperature of 80 °FDB (26.67 °CDB) / 67 °FWB (19.44 °CWB), and outdoor temperature of 95 °FDB (35 °CDB) / 75 °FWB (23.9 °CWB).
 - Heating: Indoor temperature of 70 °FDB (21.11 °CDB) / 59 °FWB (15 °CWB), and outdoor temperature of 47 °FDB (8.33 °CDB) / 43 °FWB (6.11 °CWB).
 - Pipe length: 24 ft 6 in (7.5 m), Height difference: 0 ft (0 m). (Between outdoor unit and indoor unit.)
- Protective function might work when using it outside the operation range.
- *: Sound pressure level
 - Measured values in manufacturer's anechoic chamber.
 - Because of the surrounding sound environment, the sound levels measured in actual installation conditions might be higher than the specified values here.

Type			Inverter heat pump	
Model name			RD16AZ36AJHUA	RD16AZ48AJHUA
Power supply			208/230 V ~ 60 Hz	
Power supply intake			Outdoor unit	
Available voltage range			187—253 V	
Starting current			A	
			12.8	
Fan	Airflow rate	Cooling	3,767 (6,400)	
		Heating	4,297 (7,300)	
	Type × Q'ty		3,649 (6,200)	
Motor output			Propeller × 1	
			111	
Sound pressure level *	Cooling	dB (A)	52	
	Heating		54	
Condenser coil 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	in ³ (cm ³)	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)	
		Gas	Ø 3/8 (Ø 9.52)	
			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:

- Specifications are based on the following conditions:
 - Cooling: Indoor temperature of 80 °FDB (26.67 °CDB) / 67 °FWB (19.44 °CWB), and outdoor temperature of 95 °FDB (35 °CDB) / 75 °FWB (23.9 °CWB).
 - Heating: Indoor temperature of 70 °FDB (21.11 °CDB) / 59 °FWB (15 °CWB), and outdoor temperature of 47 °FDB (8.33 °CDB) / 43 °FWB (6.11 °CWB).
 - Pipe length: 24 ft 6 in (7.5 m), Height difference: 0 ft (0 m). (Between outdoor unit and indoor unit.)
- Protective function might work when using it outside the operation range.
- *: Sound pressure level
 - Measured values in manufacturer's anechoic chamber.
 - Because of the surrounding sound environment, the sound levels measured in actual installation conditions might be higher than the specified values here.

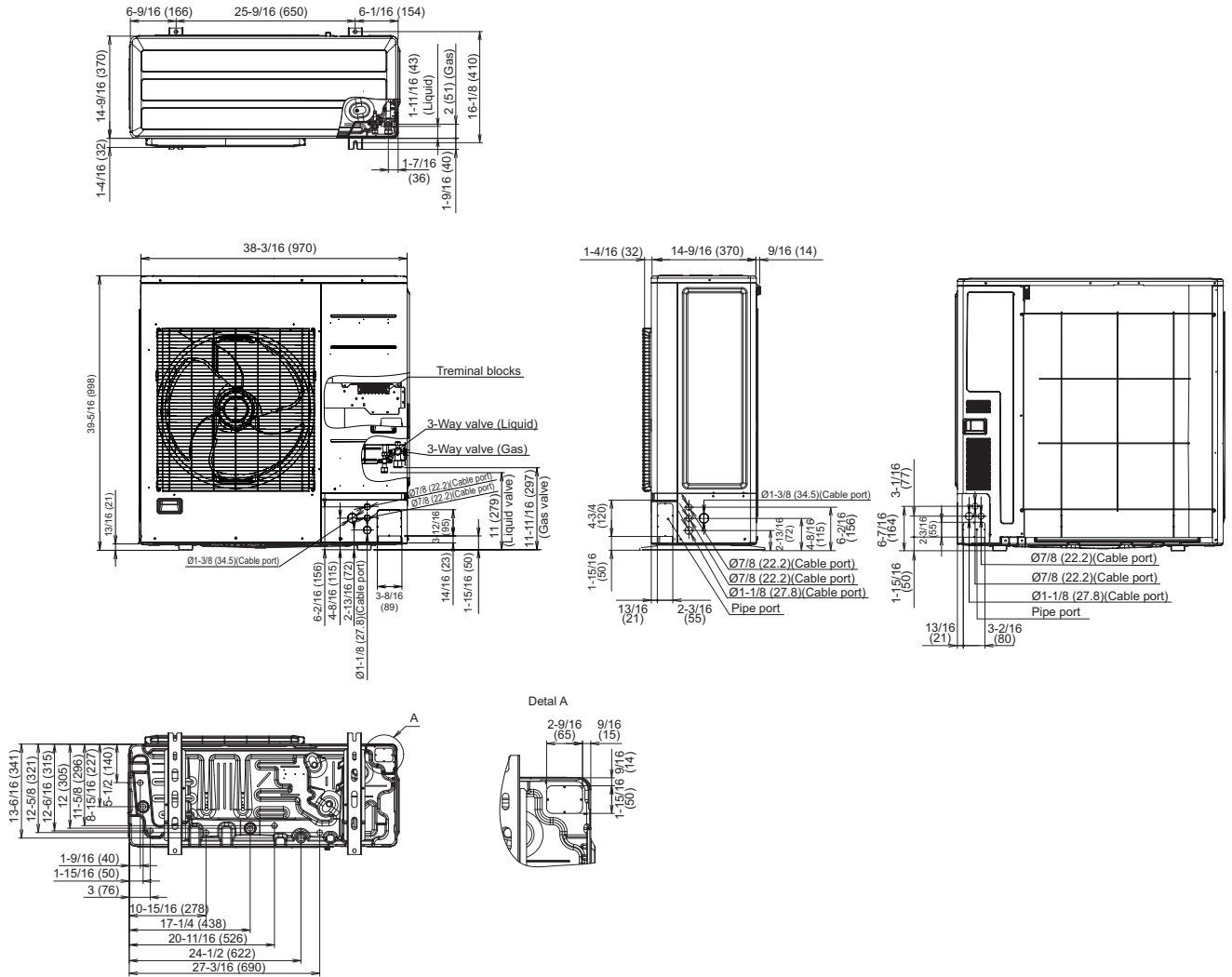
2. Dimensions

2-1. Model: RD16AZ30AJHUA

Unit: in (mm)

OUTDOOR UNIT
RD16AZ30-48AJHUA

OUTDOOR UNIT
RD16AZ30-48AJHUA

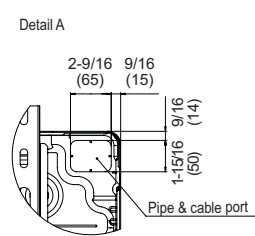
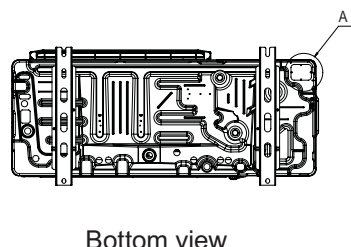
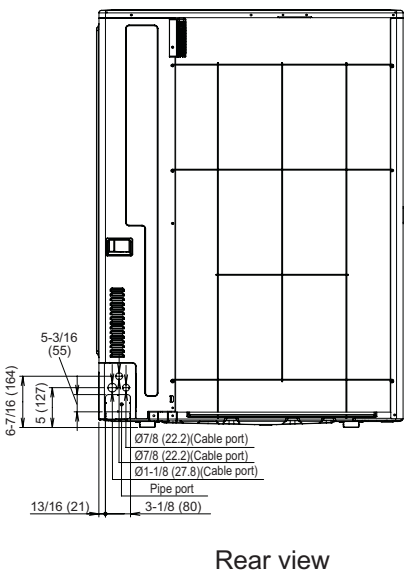
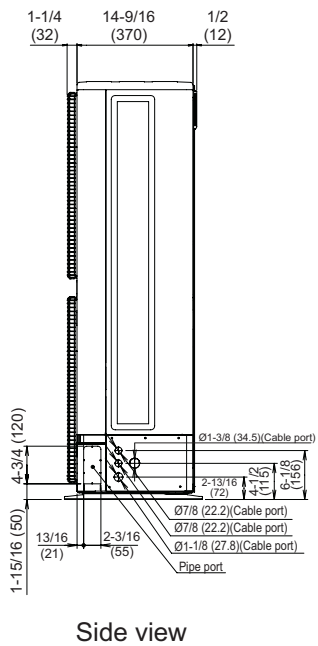
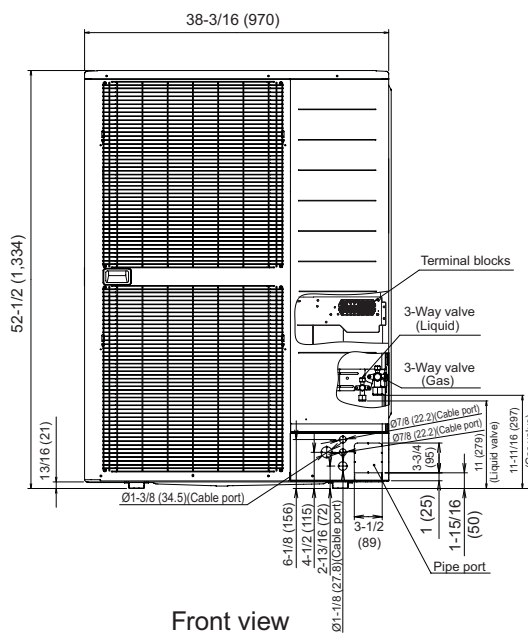
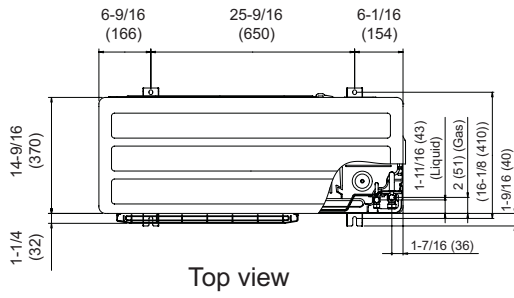


2-2. Model: RD16AZ36AJHUA

Unit: in (mm)

OUTDOOR UNIT
RD16AZ30-48AJHUA

OUTDOOR UNIT
RD16AZ30-48AJHUA



Bottom view

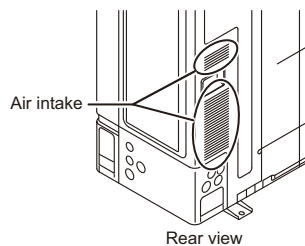
Detail A

3. Installation space

3-1. Model: RD16AZ30AJHUA

⚠ 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

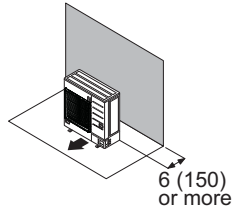
Provide sufficient installation space for product safety.

● Single outdoor unit installation

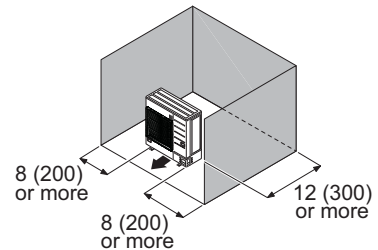
- When the upper space is open:

Unit: in (mm)

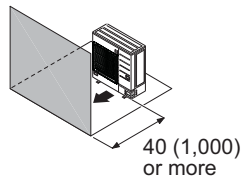
When there are obstacles at the rear only.



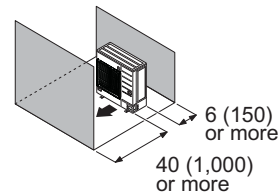
When there are obstacles at the rear and sides.



When there are obstacles at the front only.



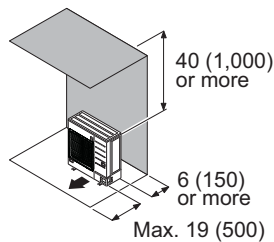
When there are obstacles at the front and rear.



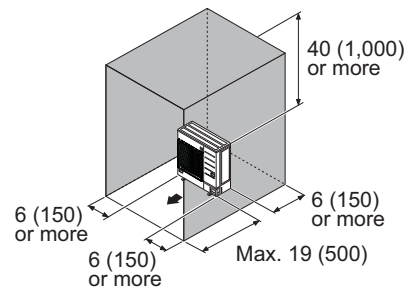
- When there is an obstruction in the upper space:

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:

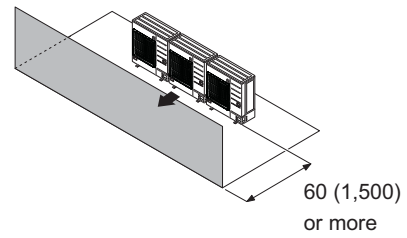
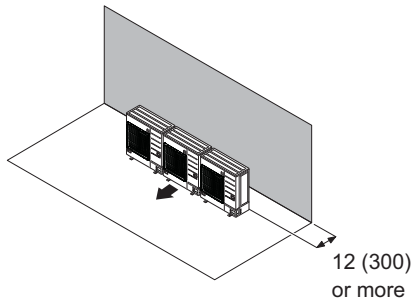
- Provide at least 10 in (250 mm) of space between the outdoor units if multiple units are installed.
- When routing the piping from the side of an outdoor unit, provide space for the piping.
- No more than 3 units must be installed side by side. When 3 units or more are arranged in a line, provide the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

• When the upper space is open:

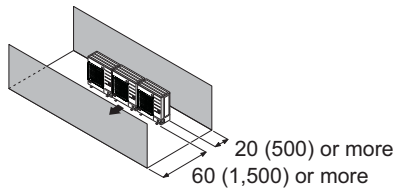
Unit: in (mm)

When there are obstacles at the rear only.

When there are obstacles at the front only.



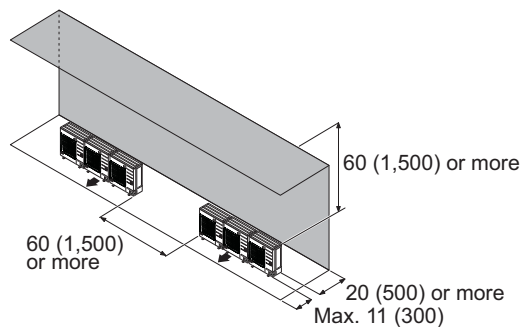
When there are obstacles at the front and rear.



• When there is an obstruction in the upper space:

Unit: in (mm)

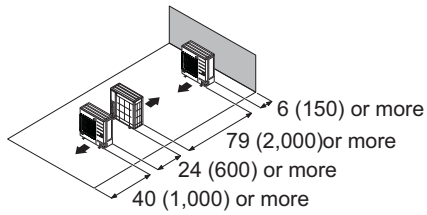
When there are obstacles at the rear and above.



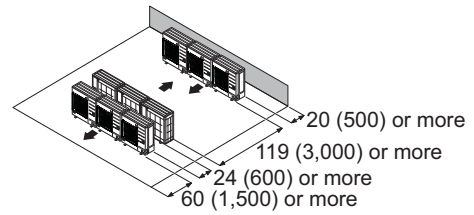
● Outdoor unit installation in multi-row

Unit: in (mm)

Single parallel unit arrangement



Multiple parallel unit arrangement



NOTES:

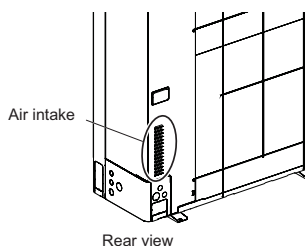
- Above settings are not recommended for cooling at low outdoor temperatures.
- If the space is larger than stated above, the condition will be the same as when there is no obstacle.
- When installing the outdoor unit, be sure to open the front and left side to obtain better operation efficiency.

3-2. Models: RD16AZ36AJHUA and RD16AZ48AJHUA

⚠ 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

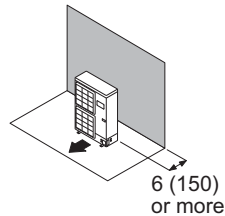
Provide sufficient installation space for product safety.

● Single outdoor unit installation

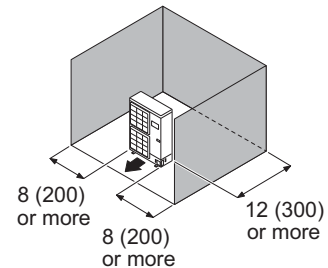
- When the upper space is open:

Unit: in (mm)

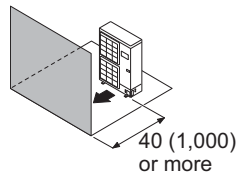
When there are obstacles at the rear only.



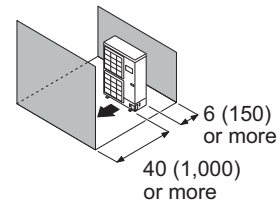
When there are obstacles at the rear and sides.



When there are obstacles at the front only.



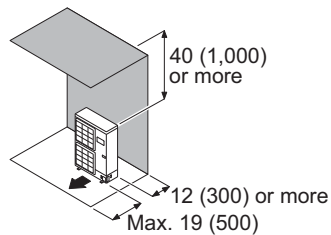
When there are obstacles at the front and rear.



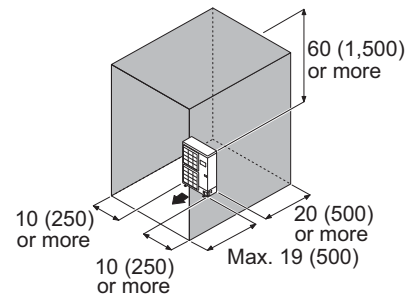
- When there is an obstruction in the upper space:

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

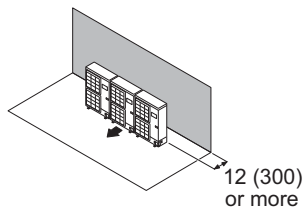
NOTES:

- 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.

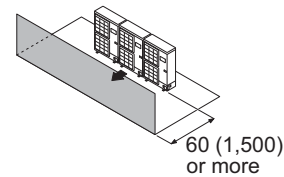
• When the upper space is open:

Unit: in (mm)

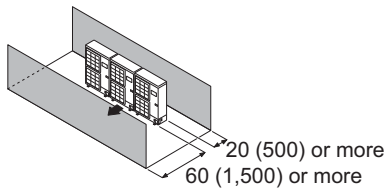
When there are obstacles at the rear only.



When there are obstacles at the front only.



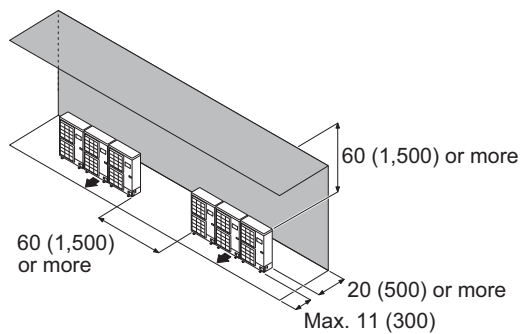
When there are obstacles at the front and rear.



• When there is an obstruction in the upper space:

Unit: in (mm)

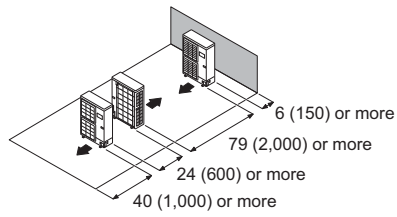
When there are obstacles at the rear and above.



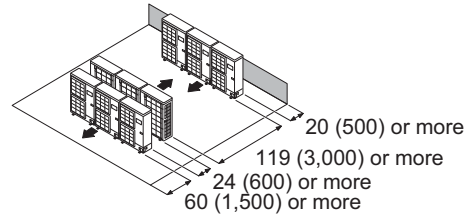
● Outdoor unit installation in multi-row

Unit: in (mm)

Single parallel unit arrangement



Multiple parallel unit arrangement

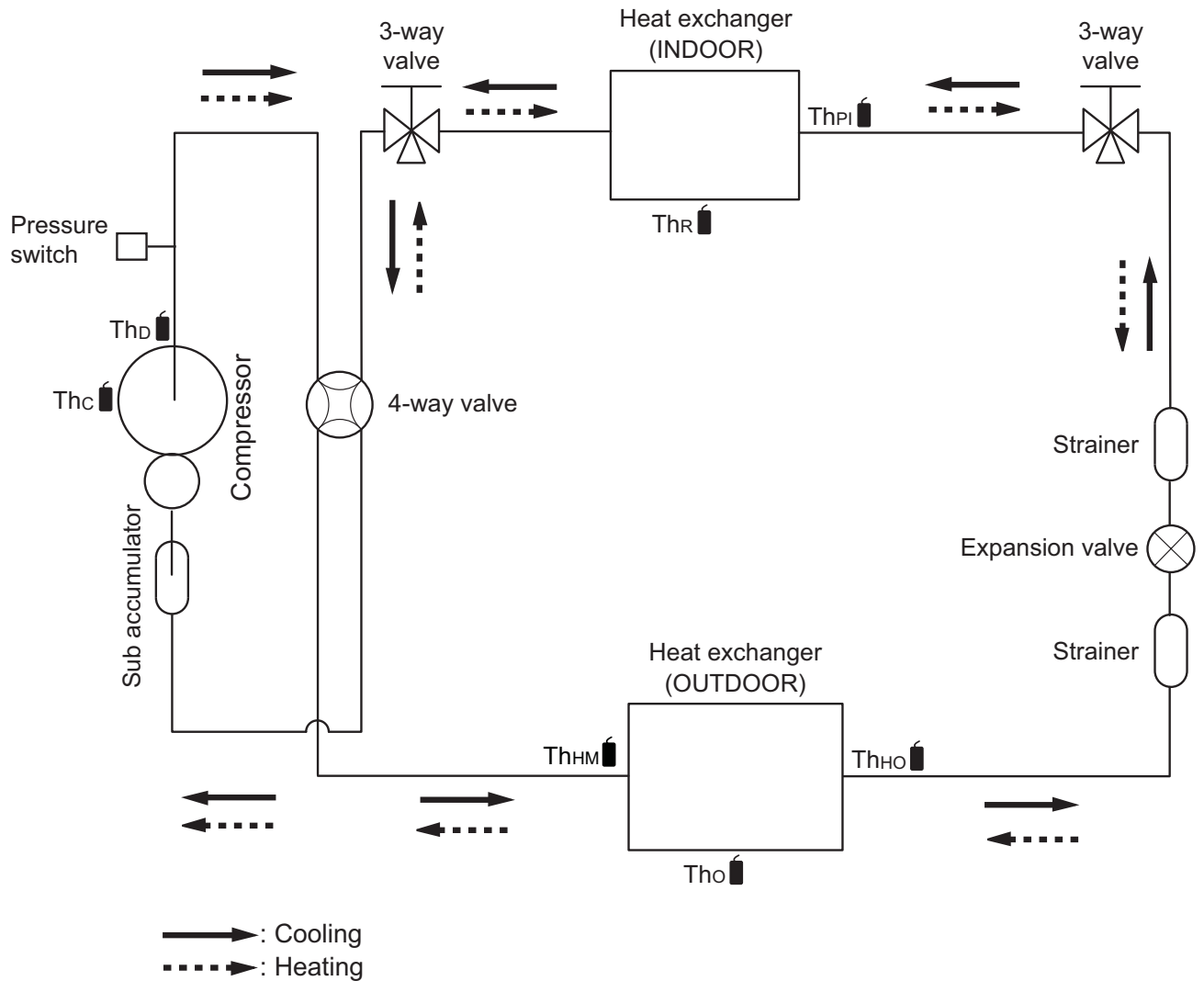


NOTES:

- 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.

4. Refrigerant circuit

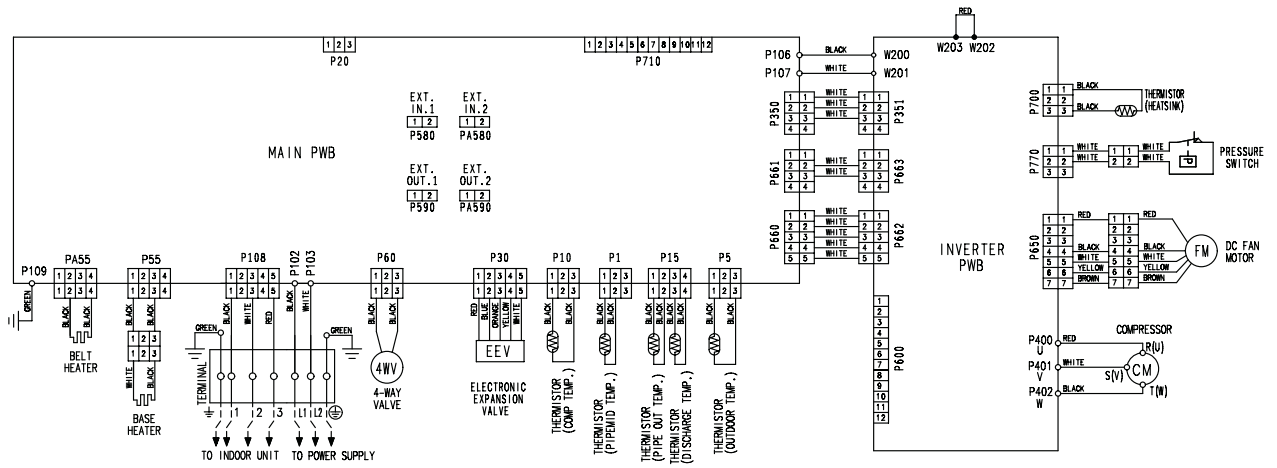
4-1. Models: RD16AZ30AJHUA, RD16AZ36AJHUA, and RD16AZ48AJHUA



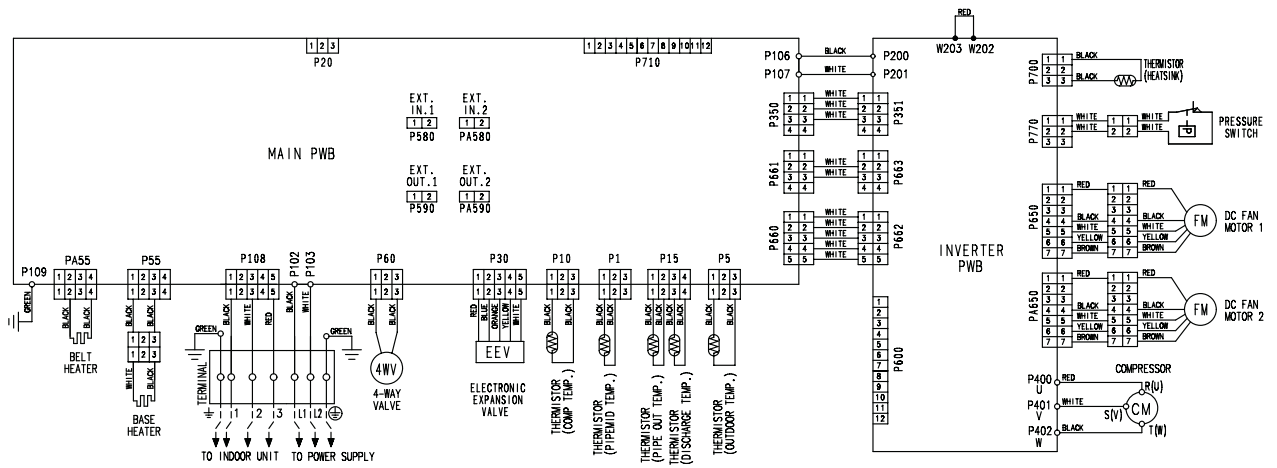
- Th_c : Thermistor (Compressor temperature)
- Th_d : Thermistor (Discharge temperature)
- Th_m : Thermistor (Heat exchanger middle temperature)
- Th_o : Thermistor (Outdoor temperature)
- Th_o : Thermistor (Heat exchanger out temperature)
- Th_{pi} : Thermistor (Pipe temperature)
- Th_r : Thermistor (Room temperature)

5. Wiring diagrams

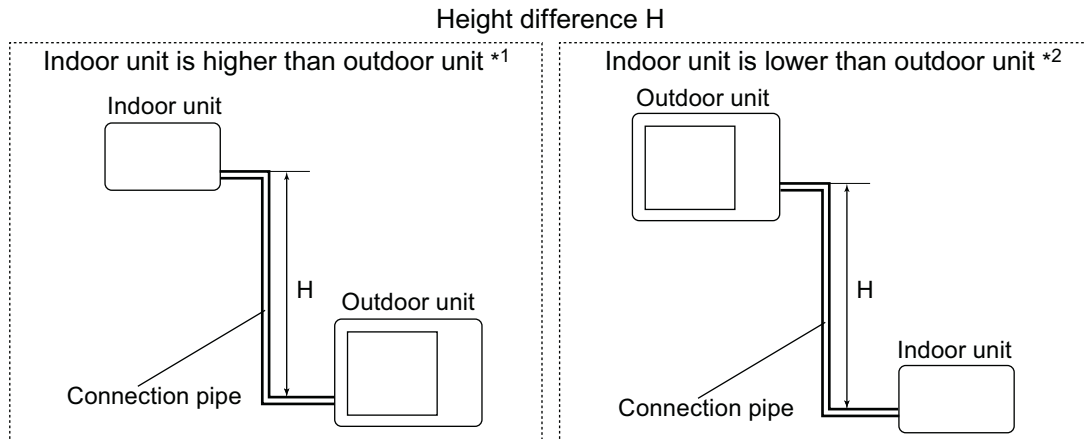
5-1. Model: RD16AZ30AJHUA



5-2. Models: RD16AZ36AJHUA and RD16AZ48AJHUA



6. Capacity compensation rate for pipe length and height difference



6-1. Models: RD16AZ30AJHUA, RD16AZ36AJHUA, and RD16AZ48AJHUA

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

COOLING		Pipe length										
		m	ft	5	7.5	10	20	30	40	50	60	75
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	ft	5	7.5	10	20	30	40	50	60	75
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: RD16AZ30AJHUA

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: RD16AZ36AJHUA and RD16AZ48AJHUA

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: RD16AZ30AJHUA

● Cooling

m ³ /h	4,400
l/s	1,222
CFM	2,590

● Heating

m ³ /h	4,400
l/s	1,222
CFM	2,590

8-2. Model: RD16AZ36AJHUA

● Cooling

m ³ /h	6,400
l/s	1,778
CFM	3,767

● Heating

m ³ /h	6,200
l/s	1,722
CFM	3,649

8-3. Model: RD16AZ48AJHUA

● Cooling

m ³ /h	7,300
l/s	2,028
CFM	4,297

● Heating

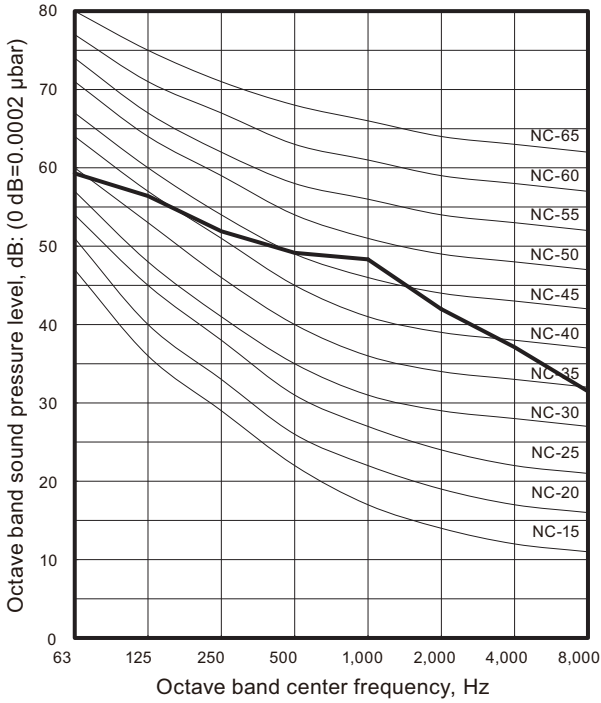
m ³ /h	6,200
l/s	1,722
CFM	3,749

9. Operation noise (sound pressure)

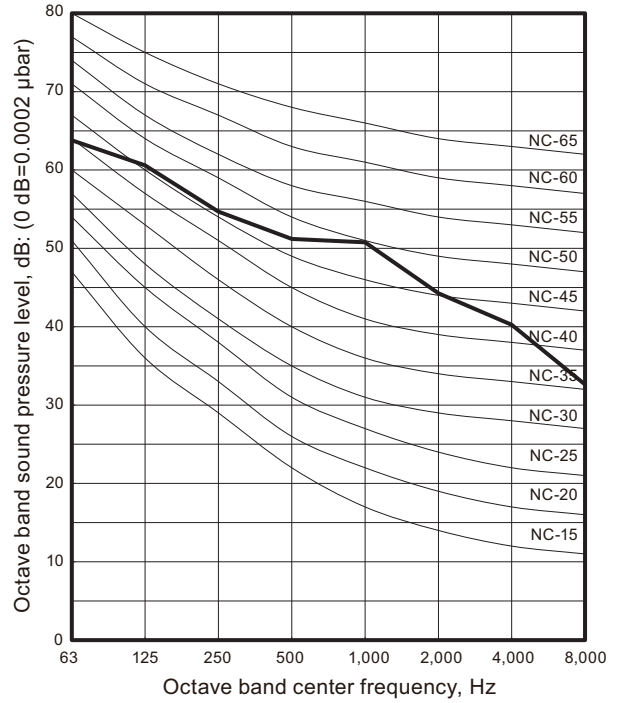
9-1. Noise level curve

Model: RD16AZ30AJHUA

Cooling

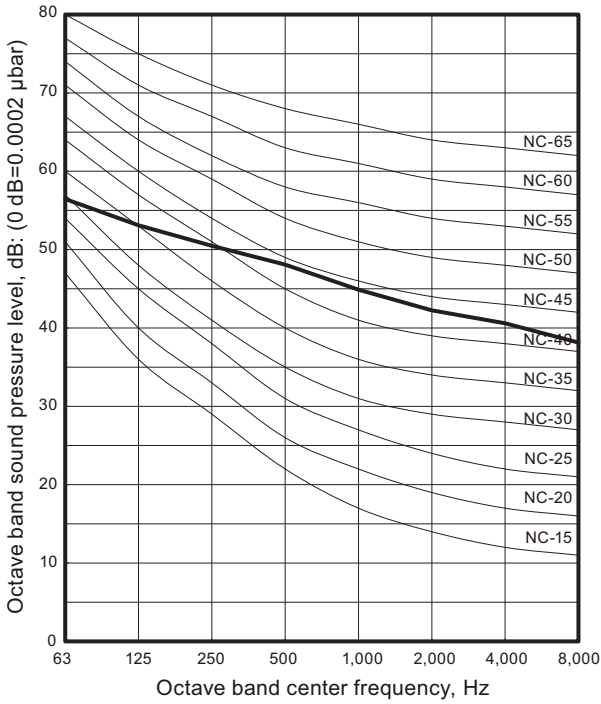


Heating

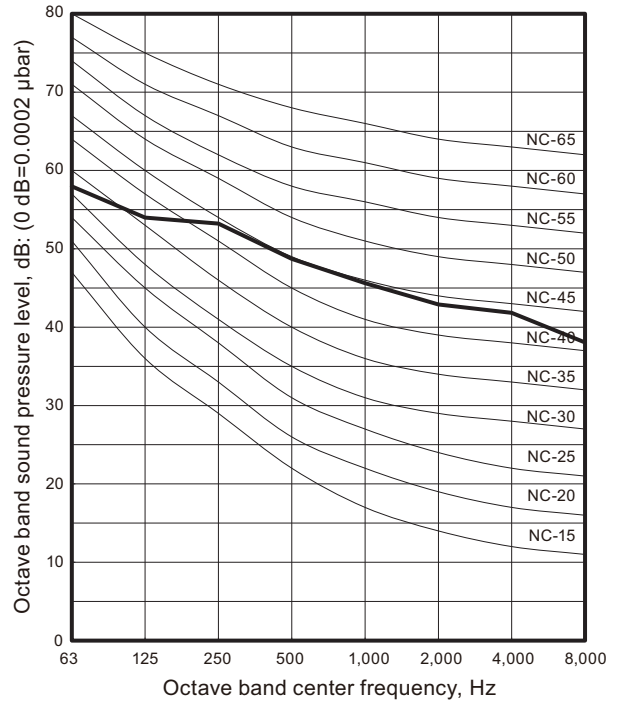


Model: RD16AZ36AJHUA

Cooling



Heating



OUTDOOR UNIT
RD16AZ30-48AJHUA

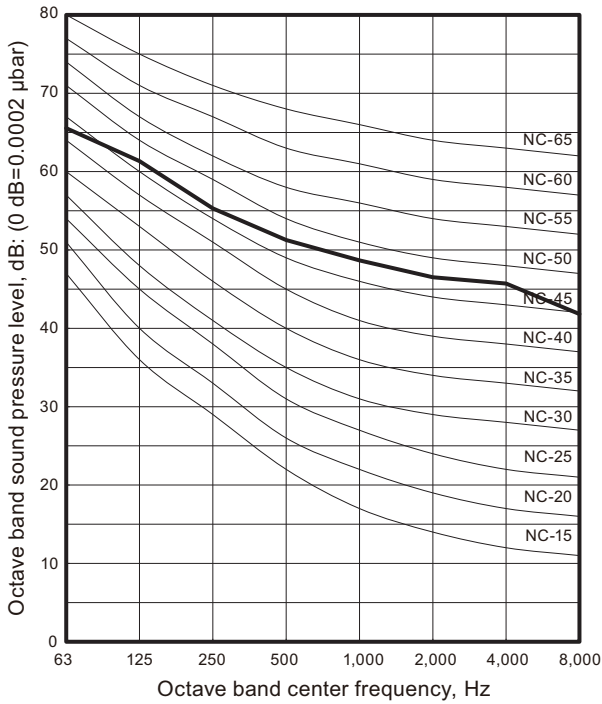
OUTDOOR UNIT
RD16AZ30-48AJHUA

Model: RD16AZ48AJHUA

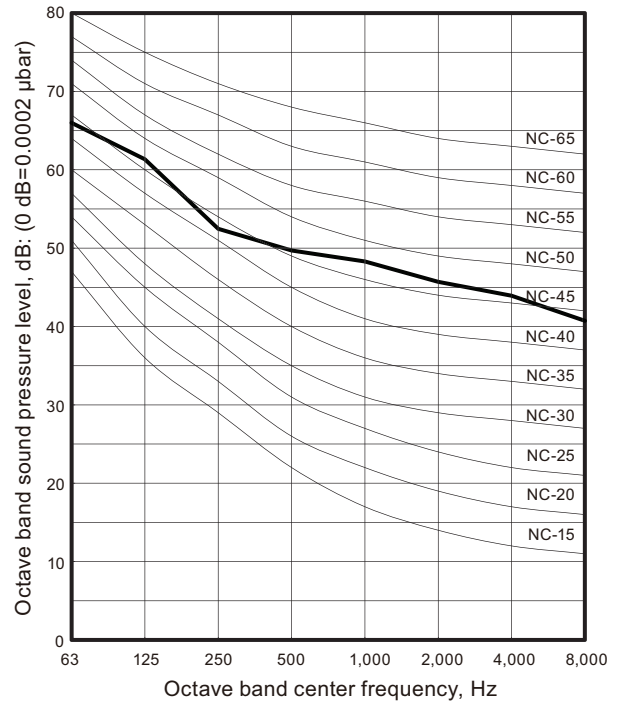
OUTDOOR UNIT
RD16AZ30-48AJHUA

OUTDOOR UNIT
RD16AZ30-48AJHUA

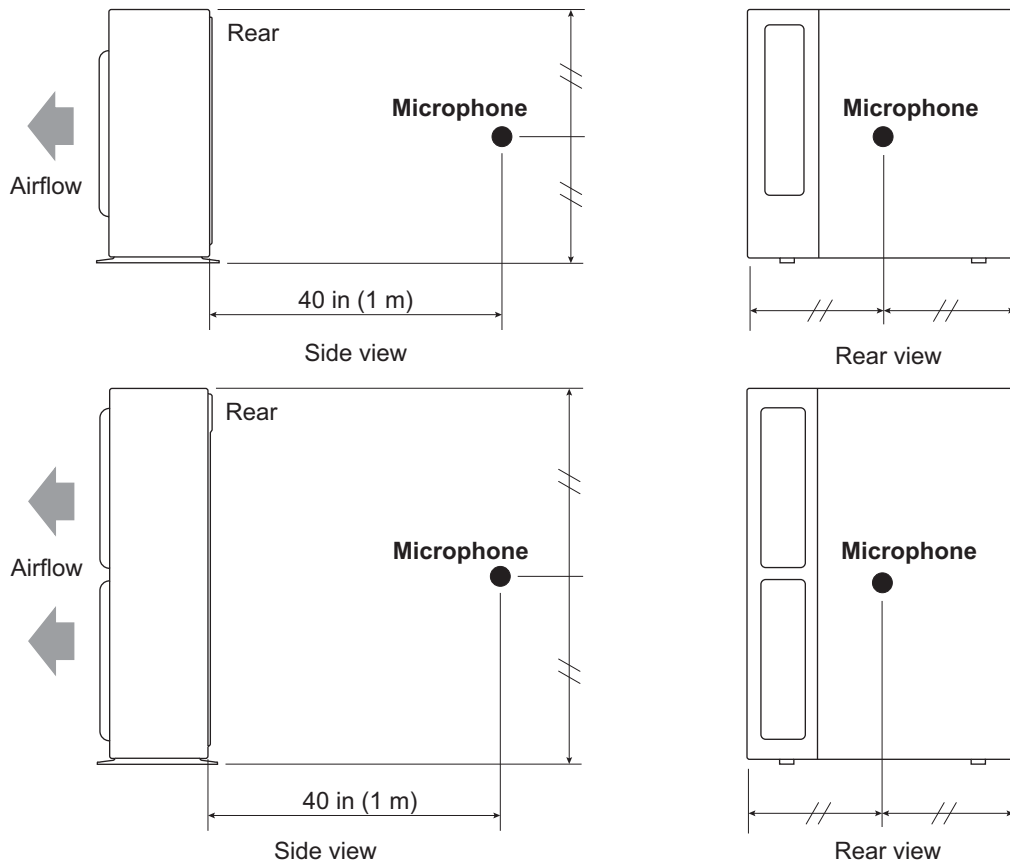
● Cooling



● Heating



9-2. Sound level check point



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

10. Electrical characteristics

Item		Unit	Model name		
			RD16AZ30AJHUA		
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	Select an appropriate cable following local electrical codes.	
	Connection cable *4	Size	AWG	Select an appropriate cable following local electrical codes.	
		Limited wiring length	ft (m)	249 (76)	

Item		Unit	Model name		
			RD16AZ36AJHUA	RD16AZ48AJHUA	
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	45
	Power cable		AWG	Select an appropriate cable following local electrical codes.	Select an appropriate cable following local electrical codes.
	Connection cable *4	Size	AWG	Select an appropriate cable following local electrical codes.	
		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

OUTDOOR UNIT
RD16AZ30-48AJHUA

OUTDOOR UNIT
RD16AZ30-48AJHUA

Type of protection	Protection form		Model	
			RD16AZ30AJHUA	
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		609 psi (4.2 MPa)	
	Reset		464 psi (3.2 MPa)	

Type of protection	Protection form		Model	
			RD16AZ36AJHUA	RD16AZ48AJHUA
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)	

12. Function settings

Perform appropriate function setting locally according to the installation environment.

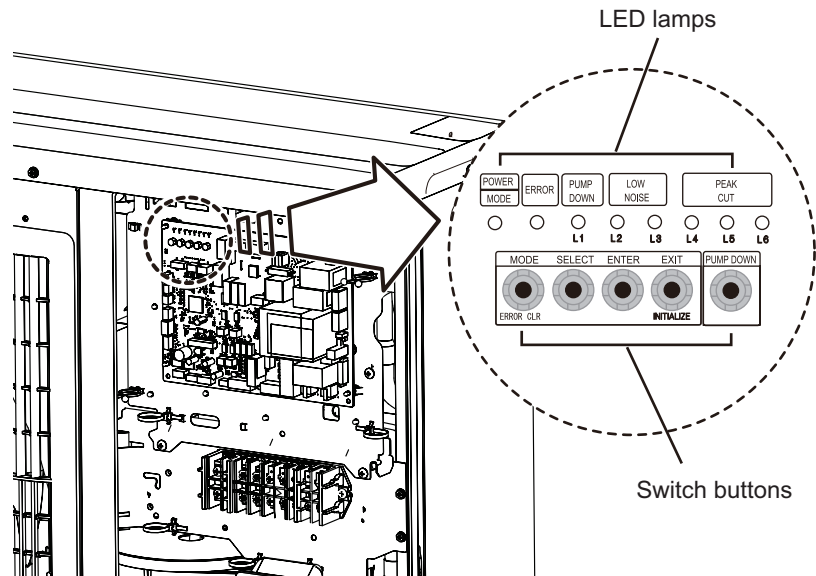
NOTE: Incorrect settings can cause a product malfunction.

⚠ CAUTION

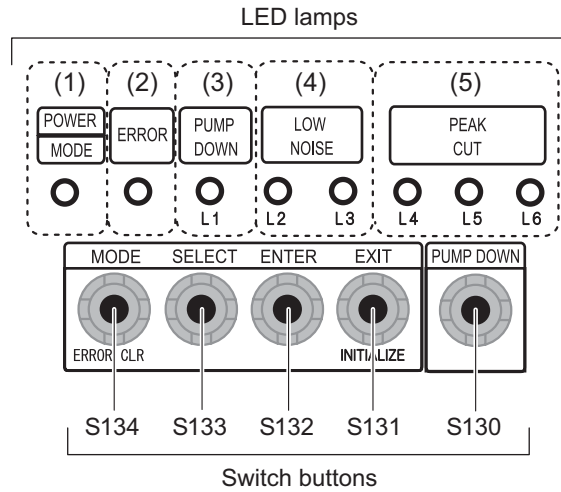
- Before setting up the switch buttons, discharge the static electricity from your body.
- Never touch the terminals or the patterns on the parts that are mounted on the PCB.

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.

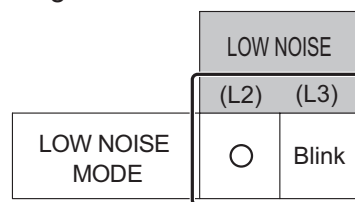
Low noise mode

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).

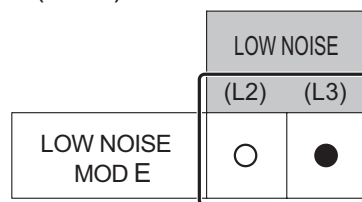
POWER MODE	ERROR	PUMP DOWN (L1)	LOW NOISE (L2) (L3)		PEAK CUT (L4) (L5) (L6)		
Blinks (9 times)	○	○	○	○	○	○	○

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.

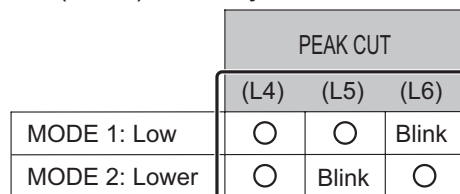


4. Press the ENTER switch button (S132).

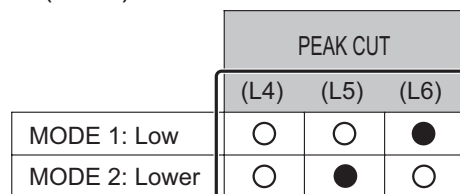


Sign "●": Lights on

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



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



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.

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

■ 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		PEAK CUT		
			(L2)	(L3)	(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	
		(L2)	(L3)
PEAK CUT MODE	Blink	○	

4. Press the ENTER switch button (S132).

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

Sign “●”: Lights on

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

	PEAK CUT		
	(L4)	(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		PEAK CUT		
			(L2)	(L3)	(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.

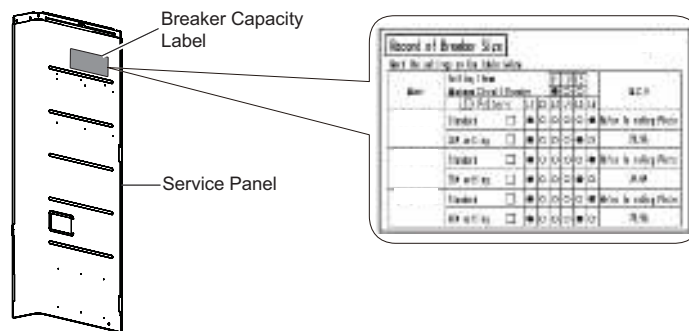
6. Press the ENTER switch button (S132) and fix it.

		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).

NOTES:

- 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
RD16AZ30-48AJHUA

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