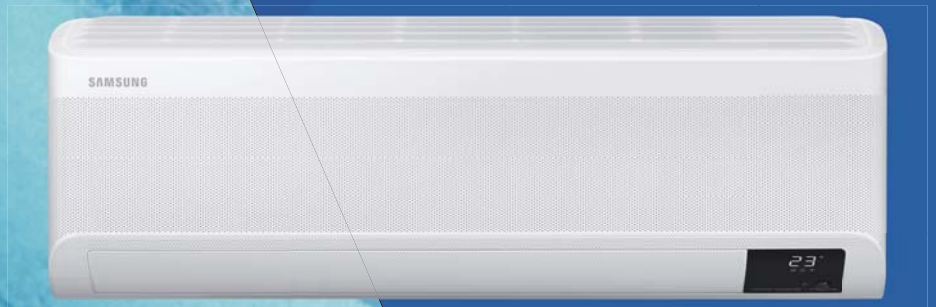


**SAMSUNG**

# RAC

# Technical Data Book

RAC for North America  
(INV, R410A, 60Hz, HP)



Model : AR\*\*TSF\*BWKNCV (Indoor Unit)  
AR\*\*TSF\*\*WKXCV (Outdoor Unit)

# History

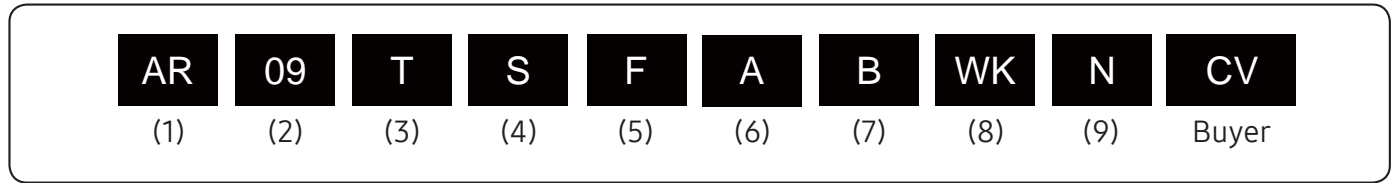
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Version	Modification	Date	Remark
Ver.1.0	Released RAC for North America (Wind-Free 2.0, Quantum 2.0, Max Heat 2.0)	19.12.20	
Ver.1.1	Updated Model Name including US Code	20.01.29	
Ver.1.2	Updated the power data (MCA/MOP) in specification pages	20.02.14	
Ver.1.3	Updated the capacity table pages	20.03.26	
Ver.1.4	Updated the capacity table pages	20.04.08	
Ver.1.5	Updated the capacity table pages	20.05.14	

# Nomenclature

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## Model Name



### (1) Classification

<b>AR</b>	RAC
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### (2) Capacity

x1000 Btu/h
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### (3) Year

<b>T</b>	2020
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### (4) Product Type

<b>S</b>	INVERTER HP R410A
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### (5) Characteristics

<b>C</b>	Motion Detect Sensor +Wi-Fi + Tri-care Filter
<b>E</b>	Wi-Fi + Tri-care Filter
<b>F</b>	Wi-Fi
<b>H</b>	-

### (6) Design Segment

<b>A</b>	Wind-Free™ 2.0
<b>Y</b>	Quantum 2.0

### (7) Version

A-Z (1 digit)
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### (8) Color





<b>WK</b>	DA White
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### (9) Set

<b>N</b>	Indoor Unit
<b>X</b>	Outdoor Unit
/	Set

# Line-up

## Indoor Unit




Model Type	Design	Image	
Max Heat 2.0 Wind-Free™ 2.0	Wind-Free		
Quantum 2.0	-		

Model Type	Design	Capacity (kBtu/h)			
		9	12	18	24
Max Heat 2.0	Wind-Free	●	●	●	●
Wind-Free™ 2.0		●	●	●	●
Quantum 2.0	-	●	●	●	●

\* The Wind-Free™ unit delivers an air current that is under 0.15 m/s while in Wind-Free™ mode. Air velocity that is below 0.15 m/s is considered "still air" as defined by ASHRAE 55-2013 (American Society of Heating, Refrigerating, and Air-Conditioning Engineers).

# Line-up

## Outdoor Unit

Model Type	Design	Capacity (kW)			
		9	12	18	24
Max Heat 2.0	Wind-Free				
Wind-Free™ 2.0					
Quantum 2.0	-				

\* The Wind-Free™ unit delivers an air current that is under 0.15 m/s while in Wind-Free™ mode. Air velocity that is below 0.15 m/s is considered "still air" as defined by ASHRAE 55-2013 (American Society of Heating, Refrigerating, and Air-Conditioning Engineers).

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# 1. Specification

## Quantum 2.0

Model Name	Indoor Unit		AR09TSFYBWKNCV	AR12TSFYBWKNCV	AR18TSFYBWKNCV	AR24TSFYBWKNCV		
	Outdoor Unit		AR09TSFYBWKXCXV	AR12TSFYBWKXCXV	AR18TSFYBWKXCXV	AR24TSFYBWKXCXV		
US Code	Indoor Unit		RNS09YBT	RNS12YBT	RNS18YBT	RNS24YBT		
	Outdoor Unit		RXS09YBT	RXS12YBT	RXS18YBT	RXS24YBT		
Mode			-	HEAT PUMP	HEAT PUMP	HEAT PUMP		
Performance	Capacity (Min/Std/Max)	Cooling	kW	0.88 / 2.64 / 3.52	0.88 / 3.52 / 4.25	1.61 / 5.28 / 6.45	2.58 / 6.45 / 8.5	
			Btu/h	3,000 / 9,000 / 12,000	3,000 / 12,000 / 14,500	5,500 / 18,000 / 22,000	8,800 / 22,000 / 29,000	
			US RT	0.25 / 0.75 / 1.0	0.25 / 1.0 / 1.21	0.46 / 1.5 / 1.83	0.73 / 1.83 / 2.42	
		Heating	kW	0.66 / 3.22 / 5.57	0.76 / 3.52 / 5.86	1.17 / 6.15 / 7.18	2.2 / 7.03 / 11.72	
			Btu/h	2,250 / 11,000 / 19,000	2,600 / 12,000 / 20,000	4,000 / 21,000 / 24,500	7,500 / 24,000 / 40,000	
			US RT	0.19 / 0.92 / 1.58	0.22 / 1.0 / 1.67	0.33 / 1.75 / 2.04	0.62 / 2 / 3.33	
Power	Power Input (Min/Std/Max)	Cooling	kW	0.18 / 0.65 / 1.15	0.18 / 1.0 / 1.33	0.3 / 1.63 / 1.98	0.52 / 2.1 / 3.0	
		Heating	kW	0.15 / 0.87 / 2.05	0.16 / 0.96 / 2.1	0.27 / 1.85 / 2.0	0.48 / 2.29 / 4.3	
	Current Input (Min/Std/Max)	Cooling	A	1.2 / 3.1 / 5.4	1.2 / 4.8 / 6.2	2.0 / 7.4 / 9.2	2.7 / 9.8 / 13.5	
		Heating	A	1.0 / 4.2 / 9.1	1.1 / 4.6 / 9.3	2.2 / 8.2 / 9.0	2.6 / 10.5 / 18.9	
Current	MCA	A	12	12.5	16	20		
		MOP	A	20	20	25	30	
Efficiency	EER	Cooling	(Btu/h)/W	13.95	12.05	11.05	10.50	
	COP	Heating	W/W	3.75	3.65	3.35	3.07	
	SEER (Cooling Energy Grade)		(Btu/h)/W	23.5	21.5	20.0	18.0	
	HSPF (Heating Energy Grade)		(Btu/h)/W	12.0	12.0	11.0	9.0	
Piping Connections	Liquid Pipe	Type		Flare connection	Flare connection	Flare connection	Flare connection	
		Ø, mm (inch)		6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	
	Gas Pipe	Type		Flare connection	Flare connection	Flare connection	Flare connection	
		Ø, mm (inch)		9.52 (3/8)	9.52 (3/8)	12.7 (1/2)	15.88 (5/8)	
	Heat Insulation			-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
	Installation Limitation	Max. Length (Outdoor to indoor)	m		20	20	30	30
ft				66	66	98	98	
Max. Height (Between ID/OD)		m		15	15	20	20	
		ft		49	49	66	66	
Wiring connections	Communication	Min. Remark	mm <sup>2</sup>	0.75	0.75	0.75	0.75	
	Power Supply			-	Outdoor unit powers indoor unit	Outdoor unit powers indoor unit	Outdoor unit powers indoor unit	
Refrigerant	Type			-	R410A	R410A	R410A	
	Factory Charging			kg	1	1.3	1.8	
				lbs	2.2	2.87	3.97	
Indoor Unit	Power Supply		Ø, #, V, Hz	1, 2, 208-230, 60	1, 2, 208-230, 60	1, 2, 208-230, 60	1, 2, 208-230, 60	
	Heat Exchanger		Type	-	F&T	F&T	F&T	
	Material	Fin		-	Al	Al	Al	
		Tube		-	Cu	Cu	Cu	
		Fin Treatment		-	Green Hydrophile	Green Hydrophile	Green Hydrophile	Green Hydrophile
	Fan	Type			-	Cross Flow	Cross Flow	Cross Flow
		Quantity			EA	1	1	1
		Air Flow Rate	Cooling (T/H/M/L)	CMM	10.5 / 10 / 9.5 / 8.5	10.9 / 10.5 / 9.5 / 8.5	16.5 / 15.8 / 14.4 / 13	18.6 / 17.2 / 15.1 / 13
				CFM	370.8 / 353.15 / 335.49 / 300.17	384.93 / 370.8 / 335.49 / 300.17	582.69 / 557.97 / 508.53 / 459.09	656.85 / 607.41 / 533.25 / 459.09
	Heating (T/H/M/L)	CMM	11.4 / 10.9 / 10.5 / 9.5	11.9 / 11.4 / 10.5 / 9.5	16.5 / 15.8 / 14.4 / 13	18.6 / 17.2 / 15.1 / 13		
		CFM	402.59 / 384.93 / 370.8 / 335.49	420.24 / 402.59 / 370.8 / 335.49	582.69 / 557.97 / 508.53 / 459.09	656.85 / 607.41 / 533.25 / 459.09		
	Fan Motor		Type		-	BLDC	BLDC	BLDC
	Output			W x n	27 x 1	27 x 1	27 x 1	27 x 1
	Drain		Drain Pipe	Ø, mm	16.3, 550	16.3, 550	16.3, 550	16.3, 550
	Sound	Sound Pressure Level	H / Silent	dB(A)	37 / 20	38 / 20	41 / 28	45 / 30
			Net Weight		kg	9.1	9.1	11.5
	External Dimension			lbs	20.1	20.1	25.4	25.4
		Shipping Weight		kg	10.4	10.4	13.1	13.2
				lbs	22.9	22.9	28.9	29.1
		Net Dimensions (WxHxD)		mm	820 x 299 x 215	820 x 299 x 215	1,055 x 299 x 215	1,055 x 299 x 215
inch				32.3 x 11.8 x 8.5	32.3 x 11.8 x 8.5	41.5 x 11.8 x 8.5	41.5 x 11.8 x 8.5	
Shipping Dimensions (WxHxD)		mm	880 x 290 x 375	880 x 290 x 375	1,115 x 290 x 375	1,115 x 290 x 375		
		inch	34.6 x 11.4 x 14.8	34.6 x 11.4 x 14.8	43.9 x 11.4 x 14.8	43.9 x 11.4 x 14.8		
Casing		Material		-	HIPS	HIPS	HIPS	
Control System	Infrared remote control			-	Included	Included	Included	
	Wired remote control			-	MWR-WE13UN MWR-WG00UN MWR-SH11UN	MWR-WE13UN MWR-WG00UN MWR-SH11UN	MWR-WE13UN MWR-WG00UN MWR-SH11UN	
Drain Pump	Drain Pump			-	-	-	-	
	Max. lifting Height / Displacement		mm / Liter/h	-	-	-	-	
Additional Accessories	Drain Pump	External Model		-	-	-	-	
		Internal Model		-	-	-	-	
		Max. lifting Height / Displacement	mm / Liter/h	-	-	-	-	

# 1. Specification

## Quantum 2.0

	Indoor Unit		AR09TSFYBWKNCV	AR12TSFYBWKNCV	AR18TSFYBWKNCV	AR24TSFYBWKNCV		
	Model Name	Outdoor Unit	AR09TSFYBWKXCV	AR12TSFYBWKXCV	AR18TSFYBWKXCV	AR24TSFYBWKXCV		
Indoor Unit	US Code	Indoor Unit	RNS09YBT	RNS12YBT	RNS18YBT	RNS24YBT		
		Outdoor Unit	RXS09YBT	RXS12YBT	RXS18YBT	RXS24YBT		
	Additional Accessories	Easy Filter Plus	-	Removable / Washable	Removable / Washable	Removable / Washable	Removable / Washable	
		Tri-Care Filter	-	-	-	-	-	
	Motion Detect Sensor	-	-	-	-	-		
	Wi-Fi	-	○	○	○	○		
Outdoor Unit	Power Supply		Ø, #, V, Hz	1, 2, 208-230, 60	1, 2, 208-230, 60	1, 2, 208-230, 60	1, 2, 208-230, 60	
	Heat Exchanger	Type	-	F&T	F&T	F&T	F&T	
		Material	Fin	-	Al	Al	Al	Al
			Tube	-	Cu	Cu	Cu	Cu
		Fin Treatment	-	Anti-Corrosion	Anti-Corrosion	Anti-Corrosion	Anti-Corrosion	
	Compressor	Model Name			KTN130D42UFR	KTN130D42UFR	UG9TK3150FE4	UG8TH8265FEW
		Type		-	BLDC ROTARY	BLDC ROTARY	BLDC ROTARY	BLDC ROTARY
		Output		kW	4.09	4.09	4.57	7.29
		Oil	Type	-	POE	POE	POE	POE
	Initial charge		cc	350	350	500	700	
	Fan	Type		-	Propeller	Propeller	Propeller	Propeller
		Discharge direction		-	Front	Front	Front	Front
		Quantity		EA	1	1	1	1
		Air Flow Rate		CMM	45	45	50	67
				CFM	1,589	1,589	1,766	2,365
	Fan Motor	Type		-	BLDC	BLDC	BLDC	BLDC
		Output		W x n	40 x1	40 x1	40 x1	125 x1
	Sound	Sound Pressure Level	Cooling	dB(A)	45	46	51	56
	External Dimension	Net Weight		kg	31.7	31.7	39.5	55.6
				lbs	69.9	69.9	87.1	122.6
		Shipping Weight		kg	33.9	33.9	42.6	59.2
				lbs	74.7	74.7	93.9	130.5
		Net Dimensions (WxHxD)		mm	790 x 548 x 285	790 x 548 x 285	880 x 658 x 310	880 x 798 x 310
				inch	31.1 x 21.6 x 11.2	31.1 x 21.6 x 11.2	34.6 x 25.1 x 12.2	34.6 x 31.4 x 12.2
	Shipping Dimensions (WxHxD)		mm	913 x 622 x 371	913 x 622 x 371	1,023 x 724 x 413	1,023 x 896 x 413	
			inch	35.9 x 24.5 x 14.6	35.9 x 24.5 x 14.6	40.3 x 28.5 x 16.3	40.3 x 35.3 x 16.3	
Casing	Material	Body	-	EGI Steel Plate / PP	EGI Steel Plate / PP	EGI Steel Plate / PP	EGI Steel Plate / PP	
Operating Temp. Range	Cooling		°F	14.0-114.8	14.0-114.8	14.0-114.8	14.0-114.8	
	Heating		°F	-5.1- 75.2	-5.1- 75.2	-5.1- 75.2	-5.1- 75.2	

### NOTE

- Specifications may be subject to change without prior notice.
- 1) Nominal cooling capacities are based on;
    - Indoor temperature: 27°C DB, 19°C WB (80°F DB/67°F WB)
    - Outdoor temperature: 35°C DB, 24°C WB (95°F DB/75°F WB), Equivalent refrigerant piping: 5m (16.4ft), Level differences: 0 m (0ft).
  - 2) Nominal heating capacities are based on;
    - Indoor temperature: 20°C DB, 15°C WB (68°F DB/59°F WB)
    - Outdoor temperature: 7°C DB, 6°C WB (44.6°F DB/42.8°F WB), Equivalent refrigerant piping: 5m (16.4ft), Level differences: 0 m (0ft).
  - 3) Sound pressure was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.
  - 4) These products contain R410A which is fluorinated greenhouse gas.
    - \* The Wind-Free™ unit delivers an air current that is under 0.15 m/s while in Wind-Free™ mode. Air velocity that is below 0.15 m/s is considered “still air” as defined by ASHRAE 55-2013 (American Society of Heating, Refrigerating, and Air-Conditioning Engineers).



# 1. Specification

## Wind-Free™ 2.0

Model Name	Indoor Unit		AR09TSFABWKNCV	AR12TSFABWKNCV	AR18TSFABWKNCV	AR24TSFABWKNCV		
	Outdoor Unit		AR09TSFABWKXCVCV	AR12TSFABWKXCVCV	AR18TSFABWKXCVCV	AR24TSFABWKXCVCV		
US Code	Indoor Unit		RNS09ABT	RNS12ABT	RNS18ABT	RNS24ABT		
	Outdoor Unit		RXS09ABT	RXS12ABT	RXS18ABT	RXS24ABT		
Mode			-	HEAT PUMP	HEAT PUMP	HEAT PUMP		
Performance	Capacity (Min/Std/Max)	Cooling	kW	0.88 / 2.64 / 3.81	0.88 / 3.52 / 4.4	2.2 / 5.28 / 7	2.58 / 6.15 / 9.29	
			Btu/h	3,000 / 9,000 / 13,000	3,000 / 12,000 / 15,000	7,500 / 18,000 / 23,884	8,800 / 21,000 / 31,700	
			US RT	0.25 / 0.75 / 1.08	0.25 / 1 / 1.25	0.62 / 1.5 / 1.99	0.73 / 1.75 / 2.64	
		Heating	kW	0.7 / 3.22 / 6.15	0.76 / 3.52 / 6.3	2.05 / 6.04 / 10.84	2.2 / 8.06 / 12.02	
			Btu/h	2,400 / 11,000 / 21,000	2,600 / 12,000 / 21,500	7,000 / 20,600 / 37,000	7,500 / 27,500 / 41,000	
			US RT	0.2 / 0.92 / 1.75	0.22 / 1.0 / 1.79	0.58 / 1.72 / 3.08	0.62 / 2.29 / 3.42	
Power	Power Input (Min/Std/Max)	Cooling	kW	0.15 / 0.58 / 1.1	0.15 / 0.89 / 1.35	0.47 / 1.39 / 2.55	0.52 / 1.68 / 3.1	
		Heating	kW	0.15 / 0.73 / 2.2	0.16 / 0.83 / 2.2	0.38 / 1.63 / 3.9	0.5 / 2.4 / 4.3	
	Current Input (Min/Std/Max)	Cooling	A	1.0 / 2.8 / 5.2	1.0 / 4.2 / 6.3	2.5 / 6.2 / 11.2	2.7 / 7.6 / 13.7	
		Heating	A	1.0 / 3.4 / 9.8	1.1 / 3.8 / 9.8	2.3 / 7.3 / 17.1	2.6 / 10.7 / 18.9	
	Current	MCA	A	12	12.5	19	20	
		MOP	A	20	20	30	30	
Efficiency	EER	Cooling	(Btu/h)/W	15.50	13.50	13.00	12.50	
	COP	Heating	W/W	4.40	4.25	3.70	3.36	
	SEER (Cooling Energy Grade)		(Btu/h)/W	24.5	23.0	21.0	20.0	
	HSPF (Heating Energy Grade)		(Btu/h)/W	12.5	12.5	10.0	10.0	
	Liquid Pipe		Type	Flare connection	Flare connection	Flare connection	Flare connection	
		Ø, mm (inch)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)		
Gas Pipe		Type	Flare connection	Flare connection	Flare connection	Flare connection		
		Ø, mm (inch)	9.52 (3/8)	9.52 (3/8)	12.7 (1/2)	15.88 (5/8)		
Heat Insulation			-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes		
Piping Connections	Installation Limitation	Max. Length (Outdoor to indoor)	m	20	20	30	30	
		Max. Height (Between ID/OD)	ft	66	66	98	98	
		Max. Length (Outdoor to indoor)	m	15	15	20	20	
		Max. Height (Between ID/OD)	ft	49	49	66	66	
Wiring connections	Communication	Min.	mm <sup>2</sup>	0.75	0.75	0.75	0.75	
	Power Supply	Remark	-	F1, F2	F1, F2	F1, F2	F1, F2	
Refrigerant	Type		-	Outdoor unit powers indoor unit	Outdoor unit powers indoor unit	Outdoor unit powers indoor unit	Outdoor unit powers indoor unit	
	Factory Charging		kg	1.15	1.15	1.8	2.5	
			lbs	2.54	2.54	3.97	5.51	
Indoor Unit	Power Supply		Ø, #, V, Hz	1, 2, 208-230, 60	1, 2, 208-230, 60	1, 2, 208-230, 60	1, 2, 208-230, 60	
	Heat Exchanger	Type		-	F&T	F&T	F&T	
		Material	Fin	-	Al	Al	Al	Al
			Tube	-	Cu	Cu	Cu	Cu
	Fin Treatment			-	Green Hydrophile	Green Hydrophile	Green Hydrophile	
	Fan	Type		-	Cross Flow	Cross Flow	Cross Flow	
		Quantity		EA	1	1	1	1
			Air Flow Rate	Cooling (T/H/M/L)	CMM	11.1 / 10.1 / 8.6 / 7.1	12.1 / 10.6 / 9.1 / 7.1	16.4 / 15.1 / 13.2 / 11.3
		Heating (T/H/M/L)		CFM	391.99 / 356.68 / 303.71 / 250.73	427.31 / 374.34 / 321.36 / 250.73	579.16 / 533.25 / 466.15 / 399.06	713.36 / 621.54 / 512.06 / 399.06
	Fan Motor	Type		-	BLDC	BLDC	BLDC	
Output		W x n		27 x 1	27 x 1	27 x 1		
Drain	Drain Pipe		Ø, mm	16.3, 550	16.3, 550	16.3, 550		
Sound	Sound Pressure Level	H / Silent		dB(A)	38 / 22	39 / 22	42 / 25	
External Dimension	Net Weight		kg	10.6	10.6	12.5	12.5	
			lbs	23.4	23.4	27.6	27.6	
	Shipping Weight		kg	12.0	12.0	14.3	14.3	
			lbs	26.5	26.5	31.5	31.5	
	Net Dimensions (WxHxD)		mm	889 x 299 x 215	889 x 299 x 215	1,055 x 299 x 215	1,055 x 299 x 215	
			inch	35.0 x 11.8 x 8.5	35.0 x 11.8 x 8.5	41.5 x 11.8 x 8.5	41.5 x 11.8 x 8.5	
Shipping Dimensions (WxHxD)		mm	950 x 290 x 375	950 x 290 x 375	1,115 x 290 x 375	1,115 x 290 x 375		
		inch	37.4 x 11.4 x 14.8	37.4 x 11.4 x 14.8	43.9 x 11.4 x 14.8	43.9 x 11.4 x 14.8		
Casing	Material		-	HIPS	HIPS	HIPS		
Control System	Infrared remote control		-	Included	Included	Included		
	Wired remote control		-	MWR-WE13UN MWR-WG00UN MWR-SH11UN	MWR-WE13UN MWR-WG00UN MWR-SH11UN	MWR-WE13UN MWR-WG00UN MWR-SH11UN		
Drain Pump	Drain Pump		-	-	-	-		
	Max. lifting Height / Displacement		mm / Liter/h	-	-	-		
Additional Accessories	Drain Pump	External Model		-	-	-		
		Internal Model		-	-	-		
		Max. lifting Height / Displacement		mm / Liter/h	-	-	-	

# 1. Specification

## Wind-Free™ 2.0

	Model Name		Indoor Unit	AR09TSFABWKNCV	AR12TSFABWKNCV	AR18TSFABWKNCV	AR24TSFABWKNCV		
	Outdoor Unit		AR09TSFABWKXCV	AR12TSFABWKXCV	AR18TSFABWKXCV	AR24TSFABWKXCV			
Indoor Unit	US Code		Indoor Unit	RNS09ABT	RNS12ABT	RNS18ABT	RNS24ABT		
	Outdoor Unit			RXS09ABT	RXS12ABT	RXS18ABT	RXS24ABT		
	Additional Accessories		Easy Filter Plus	-	Removable / Washable	Removable / Washable	Removable / Washable	Removable / Washable	
			Tri-Care Filter	-	-	-	-	-	
		Motion Detect Sensor	-	-	-	-	-		
		Wi-Fi	-	○	○	○	○		
Outdoor Unit	Power Supply		Ø, #, V, Hz	1, 2, 208-230, 60	1, 2, 208-230, 60	1, 2, 208-230, 60	1, 2, 208-230, 60		
			Type	-	F&T	F&T	F&T	F&T	
	Heat Exchanger	Material	Fin	-	Al	Al	Al	Al	
			Tube	-	Cu	Cu	Cu	Cu	
		Fin Treatment		-	Anti-Corrosion	Anti-Corrosion	Anti-Corrosion	Anti-Corrosion	
	Compressor		Model Name		KTN130D42UFR	KTN130D42UFR	UG8TH8265FEW	UG8TH8265FJW	
			Type	-	BLDC ROTARY	BLDC ROTARY	BLDC ROTARY	BLDC ROTARY	
			Output	kW	4.09	4.09	7.29	7.29	
	Oil	Type	Initial charge	cc	350	350	700	700	
					-	POE	POE	POE	POE
	Fan	Type			-	Propeller	Propeller	Propeller	Propeller
			Discharge direction		-	Front	Front	Front	Front
		Quantity		EA	1	1	1	1	
		Air Flow Rate		CMM	45	45	63	80	
			CFM	1,589	1,589	2,225	2,825		
	Fan Motor	Type		-	BLDC	BLDC	BLDC	BLDC	
		Output		W x n	40 x 1	40 x 1	125 x 1	125 x 1	
	Sound	Sound Pressure Level	Cooling	dB(A)	45	46	51	56	
					-	32.1	32.1	55.6	68.2
	External Dimension	Net Weight		kg	32.1	32.1	55.6	68.2	
				lbs	70.8	70.8	122.6	150.4	
		Shipping Weight			kg	34.2	34.2	59.2	73.5
					lbs	75.4	75.4	130.5	162.0
Net Dimensions (WxHxD)		mm	790 x 548 x 285	790 x 548 x 285	880 x 798 x 310	940 x 998 x 330			
		inch	31.1 x 21.6 x 11.2	31.1 x 21.6 x 11.2	34.6 x 31.4 x 12.2	37.0 x 39.3 x 13.0			
Shipping Dimensions (WxHxD)			mm	913 x 622 x 371	913 x 622 x 371	1,023 x 896 x 413	995 x 1,096 x 426		
			inch	35.9 x 24.5 x 14.6	35.9 x 24.5 x 14.6	40.3 x 35.3 x 16.3	36.2 x 43.1 x 16.8		
Casing	Material	Body	-	EGI Steel Plate / PP	EGI Steel Plate / PP	EGI Steel Plate / PP	EGI Steel Plate / PP		
Operating Temp. Range	Cooling		°F	14.0~114.8	14.0~114.8	14.0~114.8	14.0~114.8		
	Heating		°F	-5.1~75.2	-5.1~75.2	-5.1~75.2	-5.1~75.2		

### NOTE

- Specifications may be subject to change without prior notice.
- 1) Nominal cooling capacities are based on;
    - Indoor temperature: 27°C DB, 19°C WB (80°F DB/67°F WB)
    - Outdoor temperature: 35°C DB, 24°C WB (95°F DB/75°F WB), Equivalent refrigerant piping: 5m (16.4ft), Level differences: 0 m (0ft).
  - 2) Nominal heating capacities are based on;
    - Indoor temperature: 20°C DB, 15°C WB (68°F DB/59°F WB)
    - Outdoor temperature: 7°C DB, 6°C WB (44.6°F DB/42.8°F WB), Equivalent refrigerant piping: 5m (16.4ft), Level differences: 0 m (0ft).
  - 3) Sound pressure was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.
  - 4) These products contain R410A which is fluorinated greenhouse gas.
    - \* The Wind-Free™ unit delivers an air current that is under 0.15 m/s while in Wind-Free™ mode. Air velocity that is below 0.15 m/s is considered “still air” as defined by ASHRAE 55-2013 (American Society of Heating, Refrigerating, and Air-Conditioning Engineers).

# 1. Specification

## Max Heat 2.0

Model Name	Indoor Unit		AR09TSFABWKNCV	AR12TSFABWKNCV	AR18TSFABWKNCV	AR24TSFABWKNCV		
	Outdoor Unit		AR09TSFACWKXCVCV	AR12TSFACWKXCVCV	AR18TSFACWKXCVCV	AR24TSFACWKXCVCV		
US Code	Indoor Unit		RNS09ABT	RNS12ABT	RNS18ABT	RNS24ABT		
	Outdoor Unit		RXS09ACT	RXS12ACT	RXS18ACT	RXS24ACT		
Mode			-	HEAT PUMP	HEAT PUMP	HEAT PUMP		
Performance	Capacity (Min/Std/Max)	Cooling	kW	0.88 / 2.64 / 3.81	0.88 / 3.52 / 4.4	2.2 / 5.28 / 7	2.58 / 6.15 / 9.29	
			Btu/h	3,000 / 9,000 / 13,000	3,000 / 12,000 / 15,000	7,500 / 18,000 / 23,884	8,800 / 21,000 / 31,700	
			US RT	0.25 / 0.75 / 1.08	0.25 / 1.0 / 1.25	0.62 / 1.5 / 1.99	0.73 / 1.75 / 2.64	
		Heating	kW	0.7 / 3.22 / 6.15	0.76 / 3.52 / 6.3	2.05 / 6.04 / 10.84	2.2 / 8.06 / 12.02	
			Btu/h	2,400 / 11,000 / 21,000	2,600 / 12,000 / 21,500	7,000 / 20,600 / 37,000	7,500 / 27,500 / 41,000	
			US RT	0.2 / 0.92 / 1.75	0.22 / 1.0 / 1.79	0.58 / 1.72 / 3.08	0.62 / 2.29 / 3.42	
Power	Power Input (Min/Std/Max)	Cooling	kW	0.15 / 0.58 / 1.1	0.15 / 0.89 / 1.35	0.47 / 1.39 / 2.55	0.52 / 1.68 / 3.1	
		Heating	kW	0.15 / 0.73 / 2.2	0.16 / 0.83 / 2.2	0.38 / 1.63 / 3.9	0.5 / 2.4 / 4.3	
	Current Input (Min/Std/Max)	Cooling	A	1.0 / 2.8 / 5.2	1.0 / 4.2 / 6.3	2.5 / 6.2 / 11.2	2.7 / 7.6 / 13.7	
		Heating	A	1.0 / 3.4 / 9.8	1.1 / 3.8 / 9.8	2.3 / 7.3 / 17.1	2.6 / 10.7 / 18.9	
	Current	MCA	A	12	12.5	19	20	
		MOP	A	20	20	30	30	
Efficiency	EER	Cooling	(Btu/h)/W	15.50	13.50	13.00	12.50	
	COP	Heating	W/W	4.40	4.25	3.70	3.36	
	SEER (Cooling Energy Grade)		(Btu/h)/W	24.5	23.0	21.0	20.0	
	HSPF (Heating Energy Grade)		(Btu/h)/W	12.5	12.5	10.0	10.0	
	Piping Connections		Type	Flare connection	Flare connection	Flare connection	Flare connection	
Liquid Pipe	Φ, mm (inch)		6.35 (1/4)	6.35 (1/4)	6.35 (1/4)	6.35 (1/4)		
	Type		Flare connection	Flare connection	Flare connection	Flare connection		
Gas Pipe	Φ, mm (inch)		9.52 (3/8)	9.52 (3/8)	12.7 (1/2)	15.88 (5/8)		
	Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	
Installation Limitation	Max. Length (Outdoor to indoor)	m	20	20	30	30		
		ft	66	66	98	98		
	Max. Height (Between ID/OD)	m	15	15	20	20		
		ft	49	49	66	66		
Wiring connections	Communication	Min.	mm <sup>2</sup>	0.75	0.75	0.75	0.75	
	Power Supply	Remark	-	F1, F2	F1, F2	F1, F2	F1, F2	
Refrigerant	Type	-	-	Outdoor unit powers indoor unit	Outdoor unit powers indoor unit	Outdoor unit powers indoor unit	Outdoor unit powers indoor unit	
	Factory Charging	kg	1.15	1.15	1.8	2.5		
		lbs	2.54	2.54	3.97	5.51		
Indoor Unit	Power Supply		Ø, #, V, Hz	1, 2, 208-230, 60	1, 2, 208-230, 60	1, 2, 208-230, 60	1, 2, 208-230, 60	
	Heat Exchanger	Type	-	F&T	F&T	F&T	F&T	
		Material	Fin	-	Al	Al	Al	Al
			Tube	-	Cu	Cu	Cu	Cu
	Fin Treatment		-	Green Hydrophile	Green Hydrophile	Green Hydrophile	Green Hydrophile	
	Fan	Type	-	Cross Flow	Cross Flow	Cross Flow	Cross Flow	
		Quantity	EA	1	1	1	1	
			Air Flow Rate	Cooling (T/H/M/L)	CMM	11.1 / 10.1 / 8.6 / 7.1	12.1 / 10.6 / 9.1 / 7.1	16.4 / 15.1 / 13.2 / 11.3
		CFM		391.99 / 356.68 / 303.71 / 250.73	427.31 / 374.34 / 321.36 / 250.73	579.16 / 533.25 / 466.15 / 399.06	713.36 / 621.54 / 512.06 / 399.06	
	Heating (T/H/M/L)	CMM	12.1 / 11.1 / 9.6 / 8.1	13.1 / 11.6 / 10.1 / 8.1	17 / 15.7 / 13.9 / 12	20.2 / 17.6 / 14.5 / 11.3		
CFM		427.31 / 391.99 / 339.02 / 286.05	462.62 / 409.65 / 356.68 / 286.05	600.35 / 554.44 / 490.87 / 423.78	713.36 / 621.54 / 512.06 / 399.06			
Fan Motor	Type	-	BLDC	BLDC	BLDC	BLDC		
	Output	W x n	27 x 1	27 x 1	27 x 1	27 x 1		
Drain	Drain Pipe	Φ, mm	16.3, 550	16.3, 550	16.3, 550	16.3, 550		
Sound	Sound Pressure Level	H / Silent	dB(A)	38 / 22	39 / 22	42 / 25	47 / 28	
		External Dimension		kg	10.6	10.6	12.5	12.5
Net Weight			lbs	23.4	23.4	27.6	27.6	
	Shipping Weight			kg	12.0	12.0	14.3	14.3
				lbs	26.5	26.5	31.5	31.5
	Net Dimensions (WxHxD)			mm	889 x 299 x 215	889 x 299 x 215	1,055 x 299 x 215	1,055 x 299 x 215
				inch	35.0 x 11.8 x 8.5	35.0 x 11.8 x 8.5	41.5 x 11.8 x 8.5	41.5 x 11.8 x 8.5
	Shipping Dimensions (WxHxD)			mm	950 x 290 x 375	950 x 290 x 375	1,115 x 290 x 375	1,115 x 290 x 375
		inch	37.4 x 11.4 x 14.8	37.4 x 11.4 x 14.8	43.9 x 11.4 x 14.8	43.9 x 11.4 x 14.8		
Casing	Material	-	HIPS	HIPS	HIPS	HIPS		
Control System	Infrared remote control		-	Included	Included	Included	Included	
	Wired remote control		-	MWR-WE13UN MWR-WG00UN MWR-SH11UN	MWR-WE13UN MWR-WG00UN MWR-SH11UN	MWR-WE13UN MWR-WG00UN MWR-SH11UN	MWR-WE13UN MWR-WG00UN MWR-SH11UN	
Drain Pump	Drain Pump		-	-	-	-		
	Max. lifting Height / Displacement		mm / Liter/h	-	-	-	-	
Additional Accessories	Drain Pump	External Model	-	-	-	-		
		Internal Model	-	-	-	-		
		Max. lifting Height / Displacement	mm / Liter/h	-	-	-	-	

# 1. Specification

## Max Heat 2.0

	Model Name		Indoor Unit	AR09TSFABWKNCV	AR12TSFABWKNCV	AR18TSFABWKNCV	AR24TSFABWKNCV			
	Outdoor Unit		AR09TSFACWKXCV	AR12TSFACWKXCV	AR18TSFACWKXCV	AR24TSFACWKXCV				
Indoor Unit	US Code		Indoor Unit	RNS09ABT	RNS12ABT	RNS18ABT	RNS24ABT			
	Outdoor Unit			RXS09ACT	RXS12ACT	RXS18ACT	RXS24ACT			
	Additional Accessories		Easy Filter Plus	-	Removable / Washable	Removable / Washable	Removable / Washable	Removable / Washable		
			Tri-Care Filter	-	-	-	-	-		
		Motion Detect Sensor	-	-	-	-	-			
		Wi-Fi	-	○	○	○	○			
Outdoor Unit	Power Supply		Ø, #, V, Hz	1, 2, 208-230, 60	1, 2, 208-230, 60	1, 2, 208-230, 60	1, 2, 208-230, 60			
	Heat Exchanger		Type	-	F&T	F&T	F&T	F&T		
			Material	-	Al	Al	Al	Al		
			Fin Tube	-	Cu	Cu	Cu	Cu		
			Fin Treatment	-	Anti-Corrosion	Anti-Corrosion	Anti-Corrosion	Anti-Corrosion		
			Compressor	Model Name	KTN130D42UFR	KTN130D42UFR	UG8TH8265FEW	UG8TH8265FJW		
				Type	-	BLDC ROTARY	BLDC ROTARY	BLDC ROTARY		
				Output	kW	4.09	4.09	7.29	7.29	
				Oil	Type	-	POE	POE	POE	
				Initial charge	cc	350	350	700	700	
				Fan	Type	-	Propeller	Propeller	Propeller	
					Discharge direction	-	Front	Front	Front	
					Quantity	EA	1	1	1	
					Air Flow Rate	CMM	45	45	63	80
						CFM	1,589	1,589	2,225	2,825
				Fan Motor	Type	-	BLDC	BLDC	BLDC	
					Output	W x n	40 x 1	40 x 1	125 x 1	
				Sound	Sound Pressure Level	dB(A)	45	46	51	56
					Net Weight	kg	32.1	32.1	55.6	68.2
						lbs	70.8	70.8	122.6	150.4
					Shipping Weight	kg	34.2	34.2	59.2	73.5
						lbs	75.4	75.4	130.5	162.0
				Net Dimensions (WxHxD)	mm	790 x 548 x 285	790 x 548 x 285	880 x 798 x 310	940 x 998 x 330	
					inch	31.1 x 21.6 x 11.2	31.1 x 21.6 x 11.2	34.6 x 31.4 x 12.2	37.0 x 39.3 x 13.0	
				Shipping Dimensions (WxHxD)	mm	913 x 622 x 371	913 x 622 x 371	1,023 x 896 x 413	995 x 1,096 x 426	
					inch	35.9 x 24.5 x 14.6	35.9 x 24.5 x 14.6	40.3 x 35.3 x 16.3	36.2 x 43.1 x 16.8	
			Casing	Material	-	EGl Steel Plate / PP	EGl Steel Plate / PP	EGl Steel Plate / PP	EGl Steel Plate / PP	
				Body	-	EGl Steel Plate / PP	EGl Steel Plate / PP	EGl Steel Plate / PP	EGl Steel Plate / PP	
			Operating Temp. Range	Cooling	°F	-0.4-114.8	-0.4-114.8	-0.4-114.8	-0.4-114.8	
				Heating	°F	-13.0-75.2	-13.0-75.2	-13.0-75.2	-13.0-75.2	

### NOTE

- Specifications may be subject to change without prior notice.
- 1) Nominal cooling capacities are based on;
    - Indoor temperature: 27°C DB, 19°C WB (80°F DB/67°F WB)
    - Outdoor temperature: 35°C DB, 24°C WB (95°F DB/75°F WB), Equivalent refrigerant piping: 5m (16.4ft), Level differences: 0 m (0ft).
  - 2) Nominal heating capacities are based on;
    - Indoor temperature: 20°C DB, 15°C WB (68°F DB/59°F WB)
    - Outdoor temperature: 7°C DB, 6°C WB (44.6°F DB/42.8°F WB), Equivalent refrigerant piping: 5m (16.4ft), Level differences: 0 m (0ft).
  - 3) Sound pressure was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.
  - 4) These products contain R410A which is fluorinated greenhouse gas.
    - \* The Wind-Free™ unit delivers an air current that is under 0.15 m/s while in Wind-Free™ mode. Air velocity that is below 0.15 m/s is considered “still air” as defined by ASHRAE 55-2013 (American Society of Heating, Refrigerating, and Air-Conditioning Engineers).

# 2. Capacity Table

## Quantum 2.0

### RNS09YBT+RXS09YBT (AR09TSFYBWKNCV+AR09TSFYBWKXCV)

#### Cooling

TC : Total Capacity, SHC : Sensible Heat Capacity, PI : Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																							
	64 / 53			68 / 57			72 / 61			77 / 64			80 / 67			82 / 70			86 / 72			90 / 75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
14	9.6	8.0	0.4	10.1	8.4	0.5	10.6	8.8	0.6	11.3	9.3	0.7	11.8	9.5	0.7	12.2	9.7	0.7	13.1	10.1	0.7	14.2	10.5	0.7
32	9.3	7.8	0.3	9.9	8.3	0.4	10.5	8.7	0.5	11.2	9.2	0.6	11.8	9.5	0.6	12.2	9.7	0.6	13.1	10.1	0.6	14.3	10.6	0.6
50	9.7	8.2	0.3	10.3	8.6	0.4	10.9	9.1	0.5	11.8	9.6	0.6	12.3	9.9	0.6	12.8	10.1	0.6	13.7	10.5	0.6	14.9	11.0	0.6
68	10.2	8.5	0.3	10.8	8.9	0.5	11.3	9.3	0.6	12.1	9.8	0.7	12.7	10.1	0.7	13.1	10.3	0.7	14.1	10.7	0.7	15.1	11.3	0.7
85	10.4	8.6	0.4	11.0	9.1	0.6	11.5	9.5	0.8	12.3	10.0	0.9	12.9	10.3	0.9	13.3	10.5	0.9	14.2	10.9	0.9	15.3	11.4	0.9
95	10.0	8.3	0.5	10.6	8.8	0.7	11.1	9.2	0.9	11.9	9.7	1.0	12.5	10.0	1.0	12.8	10.1	1.0	13.7	10.5	1.1	14.8	11.0	1.0
104	9.4	7.8	0.6	9.9	8.2	0.8	10.4	8.6	1.0	11.1	9.0	1.1	11.6	9.3	1.2	12.0	9.5	1.2	12.8	9.9	1.2	13.9	10.3	1.2
110	8.7	7.2	0.7	9.2	7.7	0.9	9.7	8.0	1.1	10.3	8.4	1.2	10.8	8.7	1.3	11.2	8.9	1.3	12.0	9.2	1.3	13.0	9.7	1.3
115	8.0	6.6	0.7	8.4	7.0	1.0	8.9	7.4	1.1	9.5	7.8	1.3	10.0	8.0	1.3	10.3	8.2	1.4	11.1	8.6	1.4	12.1	9.0	1.4

#### Heating

TC : Total Capacity, PI : Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB)											
	60		64		68		70		72		75	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-5.08	8.3	1.0	8.0	1.0	8.0	1.0	8.1	1.1	8.3	1.2	8.6	1.4
0	9.7	1.3	9.4	1.2	9.3	1.3	9.4	1.3	9.5	1.4	9.7	1.6
5	10.9	1.5	10.6	1.4	10.5	1.5	10.5	1.5	10.5	1.6	10.5	1.8
14	12.5	1.6	12.3	1.6	12.1	1.6	12.0	1.7	11.9	1.8	11.7	2.0
23	13.5	1.6	13.4	1.6	13.2	1.6	13.0	1.7	12.8	1.8	12.4	1.9
32	14.1	1.5	14.1	1.5	13.9	1.5	13.7	1.6	13.4	1.6	12.8	1.8
41	14.3	1.3	14.5	1.3	14.4	1.3	14.1	1.4	13.7	1.5	13.0	1.6
47	14.3	1.1	14.7	1.1	14.5	1.2	11.0	0.9	13.9	1.3	13.0	1.5
55	14.1	1.0	14.7	1.0	14.7	1.1	14.4	1.1	14.0	1.2	13.1	1.3
65	13.8	0.9	14.7	0.9	14.9	1.0	14.7	1.1	14.2	1.1	13.2	1.2
75.2	13.5	1.0	14.8	1.1	15.2	1.1	15.0	1.2	14.6	1.2	13.6	1.4

#### NOTE

- The performance table shows the average value of each conditions.

# 2. Capacity Table

## Quantum 2.0

### RNS12YBT+RXS12YBT (AR12TSFYBWKNCV+AR12TSFYBWKXCV)

#### Cooling

TC : Total Capacity, SHC : Sensible Heat Capacity, PI : Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																							
	64 / 53			68 / 57			72 / 61			77 / 64			80 / 67			82 / 70			86 / 72			90 / 75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
14	10.9	8.7	0.5	11.0	9.1	0.6	11.3	9.5	0.7	12.2	10.0	0.8	12.8	10.3	0.8	13.3	10.5	0.8	14.3	11.0	0.8	15.3	11.4	0.8
32	10.8	8.7	0.3	10.9	9.1	0.4	11.4	9.5	0.5	12.3	10.1	0.6	13.0	10.4	0.6	13.5	10.7	0.7	14.6	11.1	0.7	15.7	11.6	0.6
50	11.3	9.2	0.3	11.5	9.6	0.4	12.0	10.1	0.5	13.0	10.6	0.6	13.7	11.0	0.7	14.2	11.2	0.7	15.3	11.7	0.7	16.5	12.3	0.7
68	12.0	9.7	0.4	12.1	10.1	0.6	12.7	10.6	0.7	13.6	11.1	0.8	14.3	11.4	0.8	14.9	11.8	0.9	16.0	12.3	0.9	17.2	12.8	0.8
85	12.1	9.8	0.6	12.3	10.2	0.8	12.8	10.7	0.9	13.7	11.2	1.0	14.5	11.6	1.1	14.9	11.8	1.1	16.1	12.3	1.1	17.2	12.8	1.1
95	11.8	9.5	0.7	12.0	9.9	0.9	12.4	10.4	1.0	13.3	10.9	1.2	12.0	9.6	1.0	14.5	11.5	1.3	15.6	11.9	1.3	16.7	12.5	1.2
104	11.2	9.0	0.8	11.3	9.4	1.0	11.7	9.8	1.2	12.6	10.3	1.3	13.2	10.6	1.4	13.7	10.9	1.4	14.8	11.3	1.4	15.8	11.8	1.4
110	10.5	8.4	0.8	10.6	8.8	1.1	11.0	9.2	1.2	11.8	9.7	1.4	12.5	10.0	1.5	12.9	10.2	1.5	13.9	10.7	1.5	15.0	11.2	1.5
115	9.8	7.9	0.9	9.9	8.2	1.1	10.2	8.6	1.3	11.0	9.1	1.5	11.7	9.4	1.6	12.1	9.6	1.6	13.1	10.0	1.6	14.1	10.5	1.6

#### Heating

TC : Total Capacity, PI : Power Input

Outdoor temperature (°F, DB)	Indoor Temperature (°F, DB)											
	60		64		68		70		72		75	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-5.08	10.6	1.1	10.3	1.0	10.3	1.1	10.4	1.1	10.6	1.2	11.0	1.5
0	11.3	1.4	11.0	1.3	10.9	1.3	10.9	1.4	11.0	1.5	11.3	1.7
5	12.0	1.6	11.7	1.5	11.5	1.5	11.5	1.6	11.5	1.7	11.6	1.9
14	13.2	1.7	13.0	1.7	12.8	1.7	12.7	1.8	12.5	1.9	12.3	2.1
23	14.4	1.7	14.3	1.7	14.1	1.7	13.9	1.8	13.6	1.9	13.2	2.1
32	15.5	1.6	15.5	1.6	15.3	1.6	15.0	1.7	14.7	1.8	14.0	1.9
41	16.2	1.4	16.5	1.4	16.2	1.4	16.0	1.5	15.6	1.6	14.8	1.7
47	16.5	1.2	16.9	1.2	16.7	1.3	12.0	1.0	16.0	1.4	15.1	1.6
55	16.5	1.1	17.2	1.1	17.1	1.2	16.9	1.2	16.4	1.3	15.4	1.4
65	15.9	1.0	16.9	1.0	17.1	1.1	16.8	1.2	16.4	1.2	15.3	1.3
75.2	14.4	1.1	15.8	1.1	16.2	1.2	16.0	1.3	15.6	1.4	14.5	1.5

#### NOTE

- The performance table shows the average value of each conditions.

# 2. Capacity Table

## Quantum 2.0

### RNS18YBT+RXS18YBT (AR18TSFYBWKNCV+AR18TSFYBWKXCV)

#### Cooling

TC : Total Capacity, SHC : Sensible Heat Capacity, PI : Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																							
	64 / 53			68 / 57			72 / 61			77 / 64			80 / 67			82 / 70			86 / 72			90 / 75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
14	14.0	11.9	0.8	14.8	12.3	0.8	15.6	12.8	0.9	16.6	13.5	0.9	17.4	13.9	0.9	17.9	14.2	0.9	19.2	14.9	0.9	20.8	15.5	0.9
32	14.2	12.1	0.9	15.1	12.6	0.9	16.0	13.2	0.9	17.1	13.9	0.9	18.0	14.4	0.9	18.6	14.7	0.9	20.0	15.4	0.9	21.7	16.1	0.9
50	15.0	12.9	1.0	16.0	13.4	1.0	17.0	14.0	1.1	18.2	14.8	1.1	19.0	15.3	1.1	19.7	15.6	1.1	21.1	16.3	1.1	22.9	17.0	1.1
68	15.9	13.5	1.3	16.9	14.1	1.3	17.8	14.6	1.3	19.1	15.4	1.3	19.9	15.9	1.4	20.5	16.3	1.4	22.0	17.0	1.4	23.8	17.7	1.4
85	16.0	13.6	1.6	16.9	14.1	1.6	17.8	14.6	1.6	19.0	15.4	1.6	19.9	15.9	1.7	20.5	16.3	1.7	21.9	16.9	1.7	23.7	17.6	1.7
95	15.5	13.1	1.8	16.4	13.6	1.8	17.2	14.2	1.8	18.4	14.9	1.8	18.0	14.4	1.6	19.8	15.7	1.9	21.2	16.4	1.9	22.9	17.0	1.9
104	14.5	12.4	1.9	15.4	12.8	2.0	16.2	13.3	2.0	17.3	14.0	2.0	18.1	14.5	2.1	18.6	14.8	2.1	20.0	15.4	2.1	21.6	16.1	2.1
110	13.6	11.6	2.1	14.4	12.0	2.1	15.2	12.5	2.1	16.2	13.2	2.2	17.0	13.6	2.2	17.5	13.9	2.2	18.8	14.5	2.2	20.4	15.2	2.2
115	12.6	10.8	2.2	13.4	11.2	2.2	14.2	11.7	2.2	15.1	12.3	2.3	15.8	12.7	2.3	16.4	13.0	2.3	17.6	13.6	2.3	19.2	14.2	2.3

#### Heating

TC : Total Capacity, PI : Power Input

Outdoor temperature (°F, DB)	Indoor Temperature (°F, DB)											
	60		64		68		70		72		75	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-5.08	18.2	0.8	12.8	0.7	10.6	0.8	10.7	0.8	11.5	0.9	14.3	1.1
0	19.0	0.9	14.3	0.8	12.4	0.9	12.4	1.0	13.1	1.1	15.4	1.3
5	19.8	1.0	15.9	1.0	14.1	1.0	14.1	1.1	14.6	1.2	16.4	1.5
14	20.3	1.9	17.7	1.8	16.4	1.9	16.3	2.0	16.5	2.1	17.4	2.3
23	20.2	2.1	18.9	2.0	18.1	2.1	17.9	2.2	17.8	2.3	17.9	2.5
32	19.5	1.9	19.7	1.9	19.4	1.9	19.1	2.0	18.8	2.1	18.1	2.3
41	18.6	1.6	20.2	1.7	20.5	1.8	20.2	1.9	19.6	1.9	18.2	2.1
47	18.0	1.6	20.6	1.7	21.3	1.8	21.0	1.9	20.2	2.0	18.3	2.2
55	17.2	2.0	21.1	2.1	22.4	2.3	22.1	2.4	21.2	2.5	18.6	2.7
65	16.6	3.4	22.2	3.6	24.3	3.9	24.0	4.0	22.8	4.1	19.4	4.4
75.2	16.5	6.4	23.9	6.8	26.9	7.1	26.6	7.2	25.3	7.4	21.1	7.7

#### NOTE

- The performance table shows the average value of each conditions.

## 2. Capacity Table

### Quantum 2.0

#### RNS24YBT+RXS24YBT (AR24TSFYBWKNCV+AR24TSFYBWKXCV)

#### Cooling

TC : Total Capacity, SHC : Sensible Heat Capacity, PI : Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																							
	64 / 53			68 / 57			72 / 61			77 / 64			80 / 67			82 / 70			86 / 72			90 / 75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
14	19.3	11.8	4.2	23.3	19.4	4.4	25.5	22.7	4.7	27.0	23.1	5.0	27.9	22.3	5.1	28.3	22.1	5.1	30.2	22.3	5.2	33.5	25.1	5.1
32	19.7	12.3	1.3	23.8	19.9	1.7	26.1	23.2	1.9	27.7	23.7	2.2	28.7	22.9	2.3	29.1	22.7	2.4	31.1	23.0	2.4	34.5	25.8	2.3
50	20.6	13.0	0.6	24.7	20.7	0.9	27.1	24.0	1.2	28.7	24.4	1.5	29.7	23.7	1.6	30.1	23.5	1.6	32.1	23.7	1.7	35.4	26.5	1.6
68	21.1	13.4	1.0	25.2	21.0	1.3	27.5	24.3	1.6	29.1	24.7	1.9	30.0	23.9	2.1	30.4	23.7	2.1	32.3	23.9	2.1	35.6	26.7	2.1
85	20.4	12.7	1.7	24.4	20.3	2.1	26.6	23.5	2.4	28.1	23.9	2.7	28.9	23.1	2.8	29.3	22.8	2.9	31.0	23.0	2.9	34.2	25.7	2.8
95	19.2	11.7	2.0	23.1	19.2	2.3	25.2	22.4	2.7	26.6	22.7	3.0	22.0	17.6	2.1	27.7	21.5	3.2	29.3	21.7	3.2	32.4	24.3	3.2
104	17.4	10.2	2.0	21.2	17.6	2.4	23.3	20.8	2.7	24.5	21.0	3.1	25.1	20.1	3.2	25.4	19.8	3.3	27.0	19.9	3.3	29.9	22.5	3.2
110	15.8	8.8	1.8	19.5	16.3	2.2	21.5	19.4	2.6	22.6	19.5	2.9	23.2	18.6	3.1	23.5	18.3	3.1	25.0	18.3	3.2	27.9	20.9	3.1
115	14.2	7.5	1.5	17.8	14.9	1.9	19.8	18.0	2.3	20.8	18.1	2.7	21.3	17.1	2.8	21.6	16.8	2.9	23.0	16.8	2.9	25.8	19.3	2.8

#### Heating

TC : Total Capacity, PI : Power Input

Outdoor temperature (°F, DB)	Indoor Temperature (°F, DB)											
	60		64		68		70		72		75	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-5.08	21.3	2.3	20.0	2.2	20.0	2.2	20.4	2.4	21.1	2.6	22.6	3.0
0	22.4	3.3	21.1	3.1	20.9	3.2	21.2	3.3	21.6	3.5	22.7	3.9
5	23.5	3.9	22.3	3.7	21.9	3.8	22.0	4.0	22.3	4.1	23.0	4.5
14	25.6	4.2	24.6	4.1	24.0	4.2	23.9	4.4	23.8	4.5	23.8	4.9
23	27.6	3.9	26.8	3.8	26.2	3.9	25.8	4.1	25.5	4.3	24.9	4.6
32	29.2	3.1	28.9	3.1	28.3	3.2	27.8	3.4	27.2	3.6	26.1	3.9
41	30.4	2.3	30.6	2.3	27.5	2.4	29.6	2.6	28.8	2.7	27.3	3.1
47	30.9	1.7	31.4	1.8	31.1	1.9	30.5	2.1	29.7	2.2	27.9	2.5
55	30.9	1.3	32.1	1.3	32.0	1.5	31.5	1.6	30.6	1.8	28.5	2.1
65	30.0	1.3	32.0	1.4	32.4	1.6	31.9	1.7	31.0	1.9	28.7	2.2
75.2	27.6	2.5	30.7	2.6	31.7	2.8	31.3	2.9	30.4	3.1	27.9	3.3

#### NOTE

- The performance table shows the average value of each conditions.



# 2. Capacity Table

## Wind-Free™ 2.0

### RNS09ABT+RXS09ABT (AR09TSFABWKNCV+AR09TSFABWKXCV)

#### Cooling

TC : Total Capacity, SHC : Sensible Heat Capacity, PI : Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																							
	64 / 53			68 / 57			72 / 61			77 / 64			80 / 67			82 / 70			86 / 72			90 / 75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
14	8.1	8.0	0.4	8.4	8.4	0.5	8.8	8.8	0.6	9.4	9.3	0.7	9.9	9.5	0.7	10.3	9.7	0.7	11.1	10.1	0.7	12.1	10.5	0.7
32	8.5	7.8	0.3	8.7	8.3	0.4	9.2	8.7	0.5	9.9	9.2	0.6	10.5	9.5	0.6	10.9	9.7	0.6	11.8	10.1	0.6	12.7	10.6	0.6
50	9.3	8.2	0.3	9.6	8.6	0.4	10.1	9.1	0.5	10.9	9.6	0.6	11.4	9.9	0.6	11.8	10.1	0.6	12.7	10.5	0.6	13.7	11.0	0.6
68	10.1	8.6	0.3	10.4	9.1	0.5	10.9	9.5	0.6	11.6	10.0	0.7	12.2	10.3	0.7	12.6	10.5	0.7	13.5	11.0	0.7	14.5	11.5	0.7
85	10.2	8.6	0.4	10.5	9.1	0.6	11.0	9.5	0.8	11.7	10.0	0.9	12.3	10.3	0.9	12.7	10.5	0.9	13.6	10.9	0.9	14.6	11.4	0.9
95	9.9	8.3	0.5	10.1	8.8	0.7	10.6	9.2	0.9	11.3	9.7	1.0	9.0	7.2	0.6	12.2	10.1	1.0	13.1	10.5	1.1	14.1	11.0	1.0
104	9.2	7.8	0.6	9.4	8.2	0.8	9.8	8.6	1.0	10.5	9.0	1.1	11.0	9.3	1.2	11.4	9.5	1.2	12.2	9.9	1.2	13.2	10.3	1.2
110	8.5	7.2	0.7	8.7	7.7	0.9	9.0	8.0	1.1	9.7	8.4	1.2	10.2	8.7	1.3	10.6	8.9	1.3	11.4	9.2	1.3	12.3	9.7	1.3
115	7.7	6.6	0.7	7.9	7.0	1.0	8.2	7.4	1.1	8.9	7.8	1.3	9.4	8.0	1.3	9.7	8.2	1.4	10.5	8.6	1.4	11.4	9.0	1.4

#### Heating

TC : Total Capacity, PI : Power Input

Outdoor temperature (°F, DB)	Indoor Temperature (°F, DB)											
	60		64		68		70		72		75	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-5.08	11.2	1.4	10.1	1.4	9.5	1.4	9.5	1.5	9.5	1.6	9.9	1.8
0	12.2	1.5	11.2	1.5	10.7	1.5	10.6	1.6	10.6	1.7	10.9	1.9
5	13.2	1.6	12.3	1.6	11.8	1.6	11.7	1.7	11.7	1.8	11.8	1.9
14	14.3	1.6	13.7	1.6	13.3	1.7	13.1	1.7	13.0	1.8	12.9	2.0
23	14.9	1.6	14.6	1.6	14.3	1.6	14.1	1.7	13.9	1.7	13.6	1.9
32	15.2	1.5	15.1	1.5	14.9	1.5	14.7	1.6	14.4	1.6	14.0	1.8
41	15.1	1.3	15.3	1.3	15.2	1.4	15.0	1.4	14.7	1.5	14.0	1.6
47	14.9	1.2	15.3	1.2	15.3	1.3	11.0	0.7	14.7	1.4	14.0	1.5
55	14.4	1.1	15.2	1.1	15.3	1.1	15.1	1.2	14.7	1.2	13.8	1.4
65	13.8	0.9	14.9	0.9	15.2	1.0	15.0	1.0	14.5	1.1	13.4	1.2
75.2	13.0	0.8	14.6	0.9	15.1	0.9	14.9	1.0	14.4	1.0	13.1	1.1

#### NOTE

- The performance table shows the average value of each conditions.

## 2. Capacity Table

### Wind-Free™ 2.0

#### RNS12ABT+RXS12ABT (AR12TSFABWKNCV+AR12TSFABWKXCV)

#### Cooling

TC : Total Capacity, SHC : Sensible Heat Capacity, PI : Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																							
	64 / 53			68 / 57			72 / 61			77 / 64			80 / 67			82 / 70			86 / 72			90 / 75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
14	9.8	8.0	0.5	11.6	9.7	0.6	12.6	10.6	0.8	13.3	11.1	0.9	13.8	11.3	0.9	14.0	11.4	0.9	14.8	11.7	0.9	16.4	12.5	0.9
32	10.4	8.5	0.5	12.2	10.2	0.6	13.3	11.1	0.7	14.0	11.7	0.8	14.5	11.9	0.8	14.7	11.9	0.8	15.6	12.3	0.8	17.2	13.1	0.8
50	10.3	8.5	0.4	12.2	10.2	0.5	13.3	11.1	0.6	14.1	11.7	0.7	14.5	11.9	0.8	14.8	12.0	0.8	15.7	12.4	0.8	17.3	13.2	0.7
68	10.0	8.2	0.3	11.8	9.9	0.5	12.9	10.8	0.6	13.7	11.4	0.7	14.2	11.6	0.7	14.4	11.7	0.8	15.3	12.1	0.8	16.9	12.9	0.7
85	9.5	7.8	0.4	11.4	9.5	0.5	12.4	10.4	0.7	13.2	11.0	0.8	13.6	11.2	0.8	13.8	11.2	0.9	14.7	11.6	0.9	16.3	12.4	0.8
95	9.3	7.6	0.5	11.1	9.3	0.7	12.2	10.2	0.8	12.9	10.7	0.9	12.0	9.6	0.9	13.5	11.0	1.0	14.4	11.3	1.0	15.9	12.1	1.0
104	9.1	7.5	0.6	10.9	9.1	0.8	12.0	10.0	1.0	12.6	10.5	1.1	13.0	10.7	1.2	13.2	10.8	1.2	14.1	11.1	1.2	15.6	11.9	1.2
110	9.1	7.4	0.8	10.9	9.0	1.0	11.9	10.0	1.1	12.5	10.4	1.3	12.9	10.6	1.4	13.1	10.7	1.4	13.9	11.0	1.4	15.4	11.7	1.4
115	9.1	7.4	0.9	10.8	9.0	1.1	11.8	9.9	1.3	12.5	10.4	1.4	12.8	10.5	1.5	13.0	10.6	1.5	13.8	10.9	1.6	15.3	11.7	1.6

#### Heating

TC : Total Capacity, PI : Power Input

Outdoor temperature (°F, DB)	Indoor Temperature (°F, DB)											
	60		64		68		70		72		75	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-5.08	12.5	1.6	11.2	1.5	10.6	1.6	10.5	1.6	10.6	1.7	11.0	1.9
0	13.6	1.7	12.5	1.7	11.9	1.7	11.8	1.8	11.8	1.9	12.1	2.1
5	14.7	1.9	13.7	1.8	13.2	1.9	13.1	1.9	13.0	2.0	13.2	2.2
14	16.2	2.0	15.5	1.9	15.0	2.0	14.8	2.1	14.7	2.2	14.6	2.4
23	17.1	1.9	16.7	1.9	16.4	2.0	16.2	2.1	15.9	2.2	15.6	2.4
32	17.6	1.8	17.6	1.8	17.3	1.9	17.1	2.0	16.8	2.1	16.2	2.3
41	17.7	1.7	18.0	1.7	17.9	1.8	17.6	1.8	17.3	1.9	16.5	2.1
47	17.5	1.5	18.1	1.6	18.1	1.7	12.0	0.8	17.4	1.8	16.5	2.0
55	17.1	1.4	18.0	1.4	18.1	1.5	17.9	1.6	17.4	1.6	16.3	1.8
65	16.3	1.2	17.6	1.2	17.9	1.3	17.6	1.4	17.1	1.5	15.9	1.6
75.2	15.1	1.1	16.9	1.1	17.4	1.2	17.2	1.3	16.6	1.3	15.2	1.5

#### NOTE

- The performance table shows the average value of each conditions.

# 2. Capacity Table

## Wind-Free™ 2.0

### RNS18ABT+RXS18ABT (AR18TSFABWKNCV+AR18TSFABWKXCV)

#### Cooling

TC : Total Capacity, SHC : Sensible Heat Capacity, PI : Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																							
	64 / 53			68 / 57			72 / 61			77 / 64			80 / 67			82 / 70			86 / 72			90 / 75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
14	15.3	12.5	0.6	15.6	13.0	0.8	16.3	13.8	0.9	17.6	14.8	1.1	18.8	15.6	1.1	19.3	15.9	1.2	20.8	16.7	1.2	22.5	17.3	1.1
32	17.1	14.1	0.6	17.6	14.7	0.8	18.4	15.5	1.0	19.9	16.7	1.1	21.2	17.6	1.2	21.8	17.9	1.2	23.5	18.8	1.3	25.3	19.5	1.2
50	19.3	15.9	0.8	19.9	16.6	1.0	20.8	17.5	1.2	22.4	18.7	1.4	23.8	19.7	1.5	24.4	20.0	1.5	26.2	21.0	1.6	28.1	21.7	1.5
68	21.1	17.3	1.1	21.6	18.0	1.4	22.6	18.9	1.6	24.2	20.2	1.8	25.6	21.2	1.9	26.2	21.5	2.0	28.1	22.5	2.0	30.1	23.3	1.9
85	21.5	17.6	1.4	22.0	18.3	1.7	22.9	19.2	2.0	24.5	20.5	2.2	25.9	21.4	2.3	26.5	21.8	2.4	28.4	22.8	2.4	30.4	23.5	2.3
95	20.9	17.1	1.5	21.3	17.8	1.8	22.2	18.7	2.1	23.8	19.9	2.4	18.0	14.4	1.4	25.8	21.2	2.6	27.6	22.1	2.6	29.6	22.9	2.5
104	19.6	16.0	1.5	20.1	16.7	1.9	20.9	17.6	2.2	22.4	18.8	2.5	23.7	19.7	2.7	24.3	20.0	2.7	26.1	20.9	2.7	28.1	21.7	2.7
110	18.4	15.0	1.5	18.8	15.6	1.9	19.5	16.5	2.2	21.0	17.7	2.6	22.3	18.6	2.7	22.9	18.9	2.8	24.7	19.8	2.8	26.6	20.5	2.7
115	17.1	13.9	1.5	17.4	14.5	1.9	18.2	15.3	2.3	19.6	16.5	2.6	20.9	17.4	2.8	21.4	17.7	2.8	23.1	18.5	2.8	25.0	19.2	2.8

#### Heating

TC : Total Capacity, PI : Power Input

Outdoor temperature (°F, DB)	Indoor Temperature (°F, DB)											
	60		64		68		70		72		75	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-5.08	16.6	2.4	15.5	2.2	15.4	2.3	15.8	2.4	16.3	2.6	17.6	2.9
0	17.7	2.6	16.7	2.4	16.4	2.5	16.6	2.6	17.0	2.8	17.9	3.1
5	18.7	2.7	17.8	2.6	17.4	2.7	17.5	2.8	17.7	2.9	18.3	3.2
14	20.4	2.8	19.6	2.7	19.2	2.8	19.0	2.9	19.0	3.0	19.0	3.3
23	21.8	2.8	21.3	2.7	20.8	2.8	20.6	2.9	20.3	3.0	19.7	3.3
32	23.1	2.6	23.0	2.6	22.5	2.7	22.1	2.8	21.6	2.9	20.6	3.2
41	24.1	2.5	24.5	2.5	27.5	2.4	23.7	2.7	23.0	2.8	21.6	3.1
47	24.7	2.3	25.4	2.4	25.2	2.5	24.7	2.6	24.0	2.7	22.4	3.0
55	25.4	2.2	26.6	2.2	26.6	2.4	26.1	2.5	25.3	2.6	23.5	2.8
65	26.0	2.1	28.0	2.1	28.4	2.3	28.0	2.4	27.1	2.5	25.0	2.8
75.2	26.5	2.1	29.3	2.2	30.2	2.4	29.9	2.5	29.1	2.6	26.8	2.8

#### NOTE

- The performance table shows the average value of each conditions.

# 2. Capacity Table

## Wind-Free™ 2.0

### RNS24ABT+RXS24ABT (AR24TSFABWKNCV+AR24TSFABWKXCV)

#### Cooling

TC : Total Capacity, SHC : Sensible Heat Capacity, PI : Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																							
	64 / 53			68 / 57			72 / 61			77 / 64			80 / 67			82 / 70			86 / 72			90 / 75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
14	21.2	18.1	0.6	22.1	18.5	0.9	23.3	17.5	1.0	25.1	19.2	1.2	26.6	21.3	1.3	27.3	22.1	1.3	29.4	23.7	1.4	32.0	23.4	1.3
32	21.3	18.3	0.7	22.4	18.8	1.0	23.6	17.8	1.2	25.5	19.5	1.4	27.1	21.7	1.5	27.8	22.5	1.5	30.0	24.1	1.6	32.5	23.8	1.5
50	22.5	18.0	1.1	23.6	19.7	1.4	24.9	18.8	1.6	26.7	20.5	1.9	28.3	22.7	2.0	29.0	23.5	2.0	31.2	25.1	2.0	33.8	24.8	2.0
68	23.6	20.0	1.5	24.7	20.5	1.8	25.9	19.5	2.1	27.7	21.3	2.4	29.3	23.4	2.5	30.0	24.2	2.6	32.1	25.8	2.6	34.6	25.5	2.5
85	23.5	20.3	1.8	24.5	20.3	2.2	25.6	19.3	2.5	27.4	21.0	2.8	28.9	23.1	2.9	29.5	23.9	3.0	31.6	25.4	3.0	34.0	25.1	2.9
95	22.5	18.5	1.8	23.5	19.5	2.2	24.6	18.4	2.6	26.2	20.1	2.9	21.0	16.8	1.7	28.3	22.9	3.1	30.3	24.4	3.1	32.6	24.0	3.0
104	20.9	17.5	1.7	21.7	18.1	2.2	22.8	17.0	2.5	24.4	18.6	2.8	25.7	20.6	3.0	26.3	21.3	3.0	28.2	22.8	3.1	30.5	22.4	3.0
110	19.3	15.4	1.6	20.1	16.8	2.0	21.1	15.7	2.4	22.6	17.2	2.7	24.0	19.2	2.9	24.5	19.9	3.0	26.4	21.4	3.0	28.6	21.0	2.9
115	18.7	15.2	1.4	18.5	15.4	1.9	19.4	14.3	2.3	20.8	15.8	2.6	22.1	17.7	2.8	22.7	18.5	2.8	24.5	19.9	2.9	26.6	19.5	2.8

#### Heating

TC : Total Capacity, PI : Power Input

Outdoor temperature (°F, DB)	Indoor Temperature (°F, DB)											
	60		64		68		70		72		75	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-5.08	19.5	2.7	18.2	2.5	18.1	2.6	18.5	2.7	19.2	2.9	20.7	3.3
0	21.4	2.9	20.1	2.8	19.9	2.9	20.1	3.0	20.5	3.2	21.6	3.5
5	23.1	3.1	21.9	3.0	21.5	3.0	21.6	3.2	21.8	3.3	22.5	3.7
14	25.9	3.2	24.9	3.1	24.4	3.2	24.2	3.4	24.1	3.5	24.0	3.9
23	28.2	3.3	27.6	3.2	26.9	3.3	26.6	3.4	26.2	3.6	25.5	3.9
32	30.0	3.2	29.9	3.1	29.3	3.3	28.8	3.4	28.1	3.5	26.9	3.9
41	31.4	3.0	31.8	3.0	27.5	2.4	30.7	3.3	29.9	3.5	28.2	3.8
47	32.0	2.9	32.8	3.0	32.5	3.1	31.9	3.2	31.0	3.4	29.1	3.7
55	32.5	2.8	34.0	2.9	33.9	3.0	33.3	3.2	32.3	3.3	30.1	3.6
65	32.5	2.7	34.9	2.8	35.3	3.0	34.8	3.2	33.8	3.3	31.2	3.7
75.2	31.9	2.8	35.3	3.0	36.4	3.2	36.0	3.3	35.0	3.5	32.2	3.8

#### NOTE

- The performance table shows the average value of each conditions.

# 2. Capacity Table

## Max Heat 2.0

RNS09ABT+RXS09ACT (AR09TSFABWKNCV+AR09TSFACWKXCV)

### Cooling

TC : Total Capacity, SHC : Sensible Heat Capacity, PI : Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																							
	64 / 53			68 / 57			72 / 61			77 / 64			80 / 67			82 / 70			86 / 72			90 / 75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
-0.4	8.6	8.8	0.5	8.8	9.2	0.6	9.1	9.6	0.7	9.7	10.0	0.8	10.2	10.2	0.8	10.5	10.4	0.8	11.3	10.7	0.9	12.1	11.2	0.9
32	8.5	7.8	0.3	8.7	8.3	0.4	9.2	8.7	0.5	9.9	9.2	0.6	10.5	9.5	0.6	10.9	9.7	0.6	11.8	10.1	0.6	12.7	10.6	0.6
50	9.3	8.2	0.3	9.6	8.6	0.4	10.1	9.1	0.5	10.9	9.6	0.6	11.4	9.9	0.6	11.8	10.1	0.6	12.7	10.5	0.6	13.7	11.0	0.6
68	10.1	8.6	0.3	10.4	9.1	0.5	10.9	9.5	0.6	11.6	10.0	0.7	12.2	10.3	0.7	12.6	10.5	0.7	13.5	11.0	0.7	14.5	11.5	0.7
85	10.2	8.6	0.4	10.5	9.1	0.6	11.0	9.5	0.8	11.7	10.0	0.9	12.3	10.3	0.9	12.7	10.5	0.9	13.6	10.9	0.9	14.6	11.4	0.9
95	9.9	8.3	0.5	10.1	8.8	0.7	10.6	9.2	0.9	11.3	9.7	1.0	9.0	7.2	0.6	12.2	10.1	1.0	13.1	10.5	1.1	14.1	11.0	1.0
104	9.2	7.8	0.6	9.4	8.2	0.8	9.8	8.6	1.0	10.5	9.0	1.1	11.0	9.3	1.2	11.4	9.5	1.2	12.2	9.9	1.2	13.2	10.3	1.2
110	8.5	7.2	0.7	8.7	7.7	0.9	9.0	8.0	1.1	9.7	8.4	1.2	10.2	8.7	1.3	10.6	8.9	1.3	11.4	9.2	1.3	12.3	9.7	1.3
115	7.7	6.6	0.7	7.9	7.0	1.0	8.2	7.4	1.1	8.9	7.8	1.3	9.4	8.0	1.3	9.7	8.2	1.4	10.5	8.6	1.4	11.4	9.0	1.4

### Heating

TC : Total Capacity, PI : Power Input

Outdoor temperature (°F, DB)	Indoor Temperature (°F, DB)											
	60		64		68		70		72		75	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-13	9.1	1.1	7.8	1.0	7.2	1.0	7.2	1.1	7.3	1.2	7.9	1.3
-5	10.9	1.3	9.8	1.2	9.2	1.3	9.2	1.3	9.3	1.4	9.7	1.6
0	12.0	1.5	11.0	1.4	10.5	1.4	10.4	1.5	10.5	1.6	10.7	1.7
5	13.2	1.6	12.3	1.6	11.8	1.6	11.7	1.7	11.7	1.7	11.8	1.9
14	14.3	1.6	13.7	1.6	13.3	1.7	13.1	1.7	13.0	1.8	12.9	2.0
23	14.9	1.6	14.6	1.6	14.3	1.6	14.1	1.7	13.9	1.8	13.6	1.9
32	15.2	1.5	15.1	1.5	14.9	1.5	14.7	1.6	14.4	1.6	14.0	1.8
41	15.1	1.3	15.3	1.3	15.2	1.4	15.0	1.4	14.7	1.5	14.0	1.6
47	14.9	1.2	15.3	1.2	15.3	1.2	11.0	0.7	14.7	1.4	14.0	1.5
55	14.4	1.0	15.2	1.0	15.3	1.1	15.1	1.2	14.7	1.2	13.8	1.3
65	13.8	0.9	14.9	0.9	15.2	1.0	15.0	1.0	14.5	1.1	13.4	1.2
75.2	13.0	0.8	14.6	0.9	15.1	0.9	14.9	1.0	14.4	1.0	13.1	1.1

### NOTE

- The performance table shows the average value of each conditions.

# 2. Capacity Table

## Max Heat 2.0

### RNS12ABT+RXS12ACT (AR12TSFABWKNCV+AR12TSFACWKXCV)

#### Cooling

TC : Total Capacity, SHC : Sensible Heat Capacity, PI : Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																							
	64 / 53			68 / 57			72 / 61			77 / 64			80 / 67			82 / 70			86 / 72			90 / 75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
-0.4	9.0	7.1	0.5	10.5	8.7	0.6	11.5	9.6	0.7	12.1	10.1	0.8	12.5	10.3	0.9	12.7	10.4	0.9	13.5	10.7	0.9	15.1	11.4	0.9
32	10.4	8.5	0.5	12.2	10.2	0.6	13.3	11.1	0.7	14.0	11.7	0.8	14.5	11.9	0.8	14.7	11.9	0.8	15.6	12.3	0.8	17.2	13.1	0.8
50	10.3	8.5	0.4	12.2	10.2	0.5	13.3	11.1	0.6	14.1	11.7	0.7	14.5	11.9	0.8	14.8	12.0	0.8	15.7	12.4	0.8	17.3	13.2	0.7
68	10.0	8.2	0.3	11.8	9.9	0.5	12.9	10.8	0.6	13.7	11.4	0.7	14.2	11.6	0.7	14.4	11.7	0.8	15.3	12.1	0.8	16.9	12.9	0.7
85	9.5	7.8	0.4	11.4	9.5	0.5	12.4	10.4	0.7	13.2	11.0	0.8	13.6	11.2	0.8	13.8	11.2	0.9	14.7	11.6	0.9	16.3	12.4	0.8
95	9.3	7.6	0.5	11.1	9.3	0.7	12.2	10.2	0.8	12.9	10.7	0.9	12.0	9.6	0.9	13.5	11.0	1.0	14.4	11.3	1.0	15.9	12.1	1.0
104	9.1	7.5	0.6	10.9	9.1	0.8	12.0	10.0	1.0	12.6	10.5	1.1	13.0	10.7	1.2	13.2	10.8	1.2	14.1	11.1	1.2	15.6	11.9	1.2
110	9.1	7.4	0.8	10.9	9.0	1.0	11.9	10.0	1.1	12.5	10.4	1.3	12.9	10.6	1.4	13.1	10.7	1.4	13.9	11.0	1.4	15.4	11.7	1.4
115	9.1	7.4	0.9	10.8	9.0	1.1	11.8	9.9	1.3	12.5	10.4	1.4	12.8	10.5	1.5	13.0	10.6	1.5	13.8	10.9	1.6	15.3	11.7	1.6

#### Heating

TC : Total Capacity, PI : Power Input

Outdoor temperature (°F, DB)	Indoor Temperature (°F, DB)											
	60		64		68		70		72		75	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-13	10.2	1.2	8.7	1.1	8.0	1.1	8.0	1.2	8.2	1.3	8.9	1.5
-5	12.2	1.5	10.9	1.4	10.3	1.5	10.3	1.5	10.4	1.6	10.8	1.8
0	13.5	1.7	12.3	1.6	11.8	1.7	11.7	1.7	11.7	1.8	12.0	2.0
5	14.7	1.9	13.7	1.8	13.2	1.9	13.1	1.9	13.0	2.0	13.2	2.2
14	16.2	2.0	15.5	1.9	15.0	2.0	14.8	2.1	14.7	2.2	14.6	2.4
23	17.1	1.9	16.7	1.9	16.4	2.0	16.2	2.1	15.9	2.2	15.6	2.4
32	17.6	1.8	17.6	1.8	17.3	1.9	17.1	2.0	16.8	2.1	16.2	2.3
41	17.7	1.7	18.0	1.7	17.9	1.8	17.6	1.8	17.3	1.9	16.5	2.1
47	17.5	1.5	18.1	1.6	18.1	1.7	12.0	0.8	17.4	1.8	16.5	2.0
55	17.1	1.4	18.0	1.4	18.1	1.5	17.9	1.6	17.4	1.6	16.3	1.8
65	16.3	1.2	17.6	1.2	17.9	1.3	17.6	1.4	17.1	1.5	15.9	1.6
75.2	15.1	1.1	16.9	1.1	17.4	1.2	17.2	1.3	16.6	1.3	15.2	1.5

#### NOTE

- The performance table shows the average value of each conditions.

# 2. Capacity Table

## Max Heat 2.0

RNS18ABT+RXS18ACT (AR18TSFABWKNCV+AR18TSFACWKXCV)

### Cooling

TC : Total Capacity, SHC : Sensible Heat Capacity, PI : Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																							
	64 / 53			68 / 57			72 / 61			77 / 64			80 / 67			82 / 70			86 / 72			90 / 75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
-0.4	14.6	11.9	0.8	14.8	12.3	1.0	15.4	12.9	1.1	16.5	13.9	1.2	17.5	14.6	1.3	17.9	14.8	1.3	19.3	15.5	1.4	20.8	16.0	1.3
32	17.1	14.1	0.6	17.6	14.7	0.8	18.4	15.5	1.0	19.9	16.7	1.1	21.2	17.6	1.2	21.8	17.9	1.2	23.5	18.8	1.3	25.3	19.5	1.2
50	19.3	15.9	0.8	19.9	16.6	1.0	20.8	17.5	1.2	22.4	18.7	1.4	23.8	19.7	1.5	24.4	20.0	1.5	26.2	21.0	1.6	28.1	21.7	1.5
68	21.1	17.3	1.1	21.6	18.0	1.4	22.6	18.9	1.6	24.2	20.2	1.8	25.6	21.2	1.9	26.2	21.5	2.0	28.1	22.5	2.0	30.1	23.3	1.9
85	21.5	17.6	1.4	22.0	18.3	1.7	22.9	19.2	2.0	24.5	20.5	2.2	25.9	21.4	2.3	26.5	21.8	2.4	28.4	22.8	2.4	30.4	23.5	2.3
95	20.9	17.1	1.5	21.3	17.8	1.8	22.2	18.7	2.1	23.8	19.9	2.4	18.0	14.4	1.4	25.8	21.2	2.6	27.6	22.1	2.6	29.6	22.9	2.5
104	19.6	16.0	1.5	20.1	16.7	1.9	20.9	17.6	2.2	22.4	18.8	2.5	23.7	19.7	2.7	24.3	20.0	2.7	26.1	20.9	2.7	28.1	21.7	2.7
110	18.4	15.0	1.5	18.8	15.6	1.9	19.5	16.5	2.2	21.0	17.7	2.6	22.3	18.6	2.7	22.9	18.9	2.8	24.7	19.8	2.8	26.6	20.5	2.7
115	17.1	13.9	1.5	17.4	14.5	1.9	18.2	15.3	2.3	19.6	16.5	2.6	20.9	17.4	2.8	21.4	17.7	2.8	23.1	18.5	2.8	25.0	19.2	2.8

### Heating

TC : Total Capacity, PI : Power Input

Outdoor temperature (°F, DB)	Indoor Temperature (°F, DB)											
	60		64		68		70		72		75	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-13	14.5	2.1	12.8	1.9	12.3	2.0	12.5	2.1	13.0	2.2	14.2	2.6
-5	19.7	2.8	18.2	2.7	17.6	2.7	17.7	2.8	17.9	3.0	18.7	3.3
0	22.1	3.1	20.8	3.0	20.2	3.1	20.1	3.2	20.3	3.3	20.7	3.7
5	24.0	3.3	22.8	3.2	22.2	3.3	22.1	3.4	22.1	3.6	22.3	3.9
14	26.2	3.5	25.4	3.4	24.8	3.5	24.5	3.6	24.3	3.8	24.1	4.1
23	27.2	3.4	26.7	3.4	26.2	3.5	25.9	3.6	25.5	3.8	24.8	4.1
32	27.3	3.2	27.2	3.2	26.8	3.3	26.4	3.4	25.9	3.6	24.8	3.9
41	26.8	2.9	27.3	2.9	27.0	3.1	26.6	3.2	25.9	3.3	24.6	3.6
47	26.4	2.7	27.2	2.7	27.1	2.9	20.6	1.6	26.0	3.1	24.4	3.4
55	25.9	2.4	27.2	2.5	27.3	2.6	26.9	2.7	26.1	2.9	24.3	3.2
65	25.7	2.2	27.8	2.2	28.2	2.4	27.8	2.5	27.0	2.7	24.9	2.9
75.2	26.6	2.1	29.4	2.2	30.2	2.3	29.9	2.4	29.0	2.6	26.7	2.8

### NOTE

- The performance table shows the average value of each conditions.

# 2. Capacity Table

## Max Heat 2.0

### RNS24ABT+RXS24ACT (AR24TSFABWKNCV+AR24TSFACWKXCV)

#### Cooling

TC : Total Capacity, SHC : Sensible Heat Capacity, PI : Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																							
	64 / 53			68 / 57			72 / 61			77 / 64			80 / 67			82 / 70			86 / 72			90 / 75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
-0.4	22.5	23.8	0.9	23.4	19.4	1.1	24.5	18.4	1.3	26.1	20.1	1.4	27.6	22.1	1.5	28.2	22.9	1.5	30.3	24.4	1.6	32.8	24.1	1.5
32	21.3	23.1	0.7	22.4	18.8	1.0	23.6	17.8	1.2	25.5	19.5	1.4	27.1	21.7	1.5	27.8	22.5	1.5	30.0	24.1	1.6	32.5	23.8	1.5
50	22.5	24.1	1.1	23.6	19.7	1.4	24.9	18.8	1.6	26.7	20.5	1.9	28.3	22.7	2.0	29.0	23.5	2.0	31.2	25.1	2.0	33.8	24.8	2.0
68	23.6	24.9	1.5	24.7	20.5	1.8	25.9	19.5	2.1	27.7	21.3	2.4	29.3	23.4	2.5	30.0	24.2	2.6	32.1	25.8	2.6	34.6	25.5	2.5
85	23.5	24.7	1.8	24.5	20.3	2.2	25.6	19.3	2.5	27.4	21.0	2.8	28.9	23.1	2.9	29.5	23.9	3.0	31.6	25.4	3.0	34.0	25.1	2.9
95	22.5	23.9	1.8	23.5	19.5	2.2	24.6	18.4	2.6	26.2	20.1	2.9	21.0	16.8	1.7	28.3	22.9	3.1	30.3	24.4	3.1	32.6	24.0	3.0
104	20.9	22.6	1.7	21.7	18.1	2.2	22.8	17.0	2.5	24.4	18.6	2.8	25.7	20.6	3.0	26.3	21.3	3.0	28.2	22.8	3.1	30.5	22.4	3.0
110	19.3	21.3	1.6	20.1	16.8	2.0	21.1	15.7	2.4	22.6	17.2	2.7	24.0	19.2	2.9	24.5	19.9	3.0	26.4	21.4	3.0	28.6	21.0	2.9
115	17.7	19.9	1.4	18.5	15.4	1.9	19.4	14.3	2.3	20.8	15.8	2.6	22.1	17.7	2.8	22.7	18.5	2.8	24.5	19.9	2.9	26.6	19.5	2.8

#### Heating

TC : Total Capacity, PI : Power Input

Outdoor temperature (°F, DB)	Indoor Temperature (°F, DB)											
	60		64		68		70		72		75	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-13	15.8	2.5	14.4	2.3	14.3	2.4	14.6	2.5	15.3	2.7	16.7	3.1
-5	22.6	3.5	21.3	3.3	21.0	3.4	21.2	3.5	21.5	3.7	22.4	4.1
0	25.6	3.8	24.4	3.7	24.0	3.8	24.0	3.9	24.2	4.1	24.7	4.5
5	27.7	4.0	26.6	3.9	26.2	4.0	26.1	4.1	26.1	4.3	26.3	4.7
14	29.7	4.0	28.9	3.9	28.4	4.0	28.2	4.2	27.9	4.3	27.5	4.7
23	30.0	3.7	29.6	3.7	29.0	3.8	28.7	3.9	28.2	4.1	27.3	4.5
32	29.2	3.2	29.2	3.2	27.5	2.4	28.3	3.5	27.7	3.7	26.4	4.0
41	28.0	2.7	28.6	2.7	28.3	2.9	27.8	3.0	27.0	3.2	25.3	3.5
47	27.4	2.4	28.3	2.5	28.2	2.6	27.7	2.8	26.8	2.9	24.9	3.3
55	27.1	2.2	28.6	2.2	28.7	2.4	28.2	2.5	27.2	2.7	25.1	3.1
65	28.2	2.2	30.5	2.3	31.0	2.5	30.6	2.6	29.6	2.8	27.1	3.1
75.2	32.1	2.8	35.3	3.0	36.3	3.2	35.9	3.3	34.9	3.5	32.3	3.8

#### NOTE

- The performance table shows the average value of each conditions.

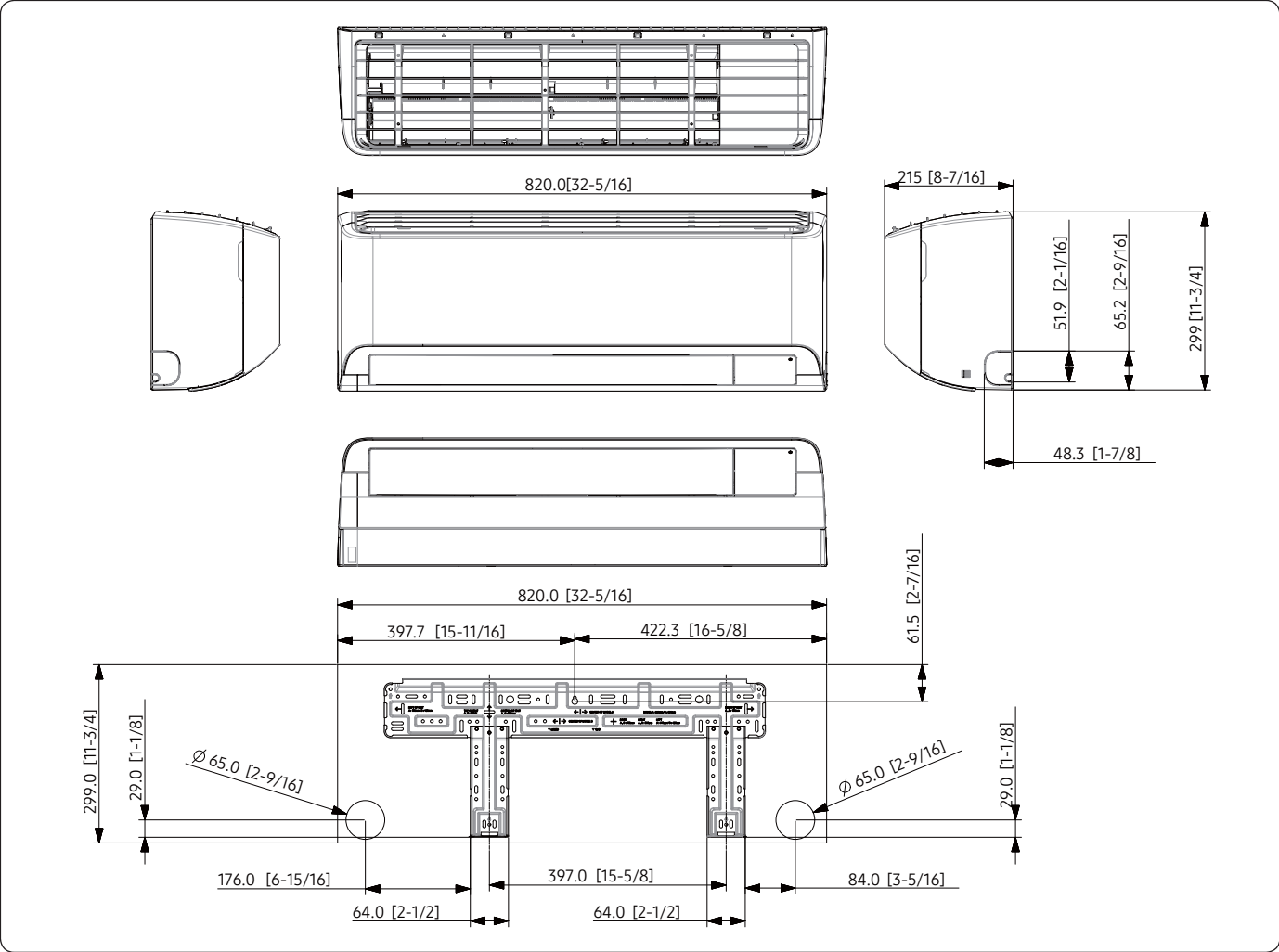


# 3. Dimensional Drawing

## Indoor units

Quantum 2.0 : RNS09YBT (AR09TSFYBWKNVCV), RNS12YBT (AR12TSFYBWKNVCV)

Unit: mm (inches)

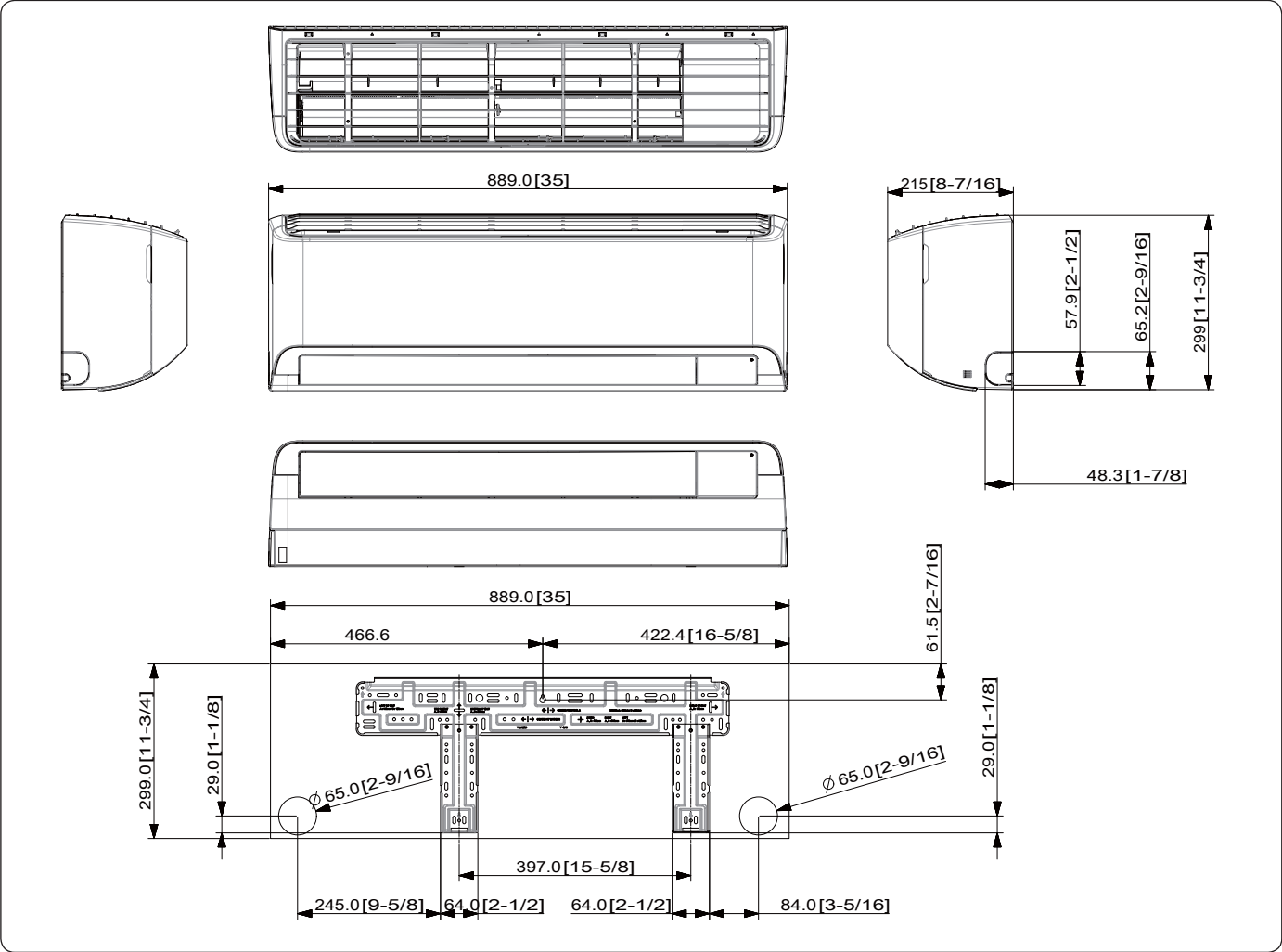


# 3. Dimensional Drawing

## Indoor units

Wind-Free™ 2.0 : RNS09ABT (AR09TSFABWKNCV), RNS12ABT (AR12TSFABWKNCV)

Unit: mm (inches)

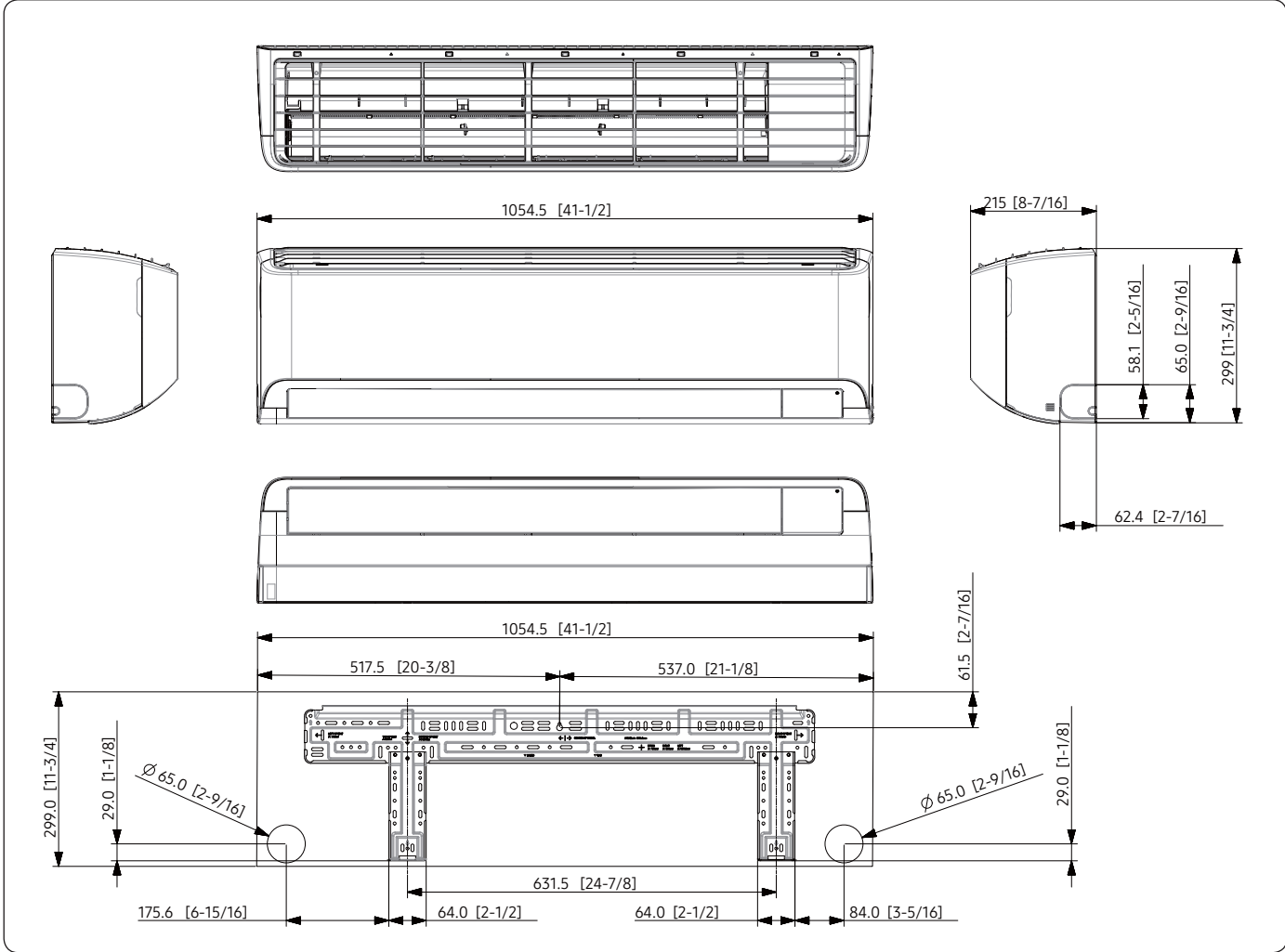


# 3. Dimensional Drawing

## Indoor units

Quantum 2.0 : RNS18YBT (AR18TSFYBWKNCV), RNS24YBT (AR24TSFYBWKNCV)  
 Wind-Free™ 2.0 : RNS18ABT (AR18TSFABWKNCV), RNS24ABT (AR24TSFABWKNCV)

Unit: mm (inches)

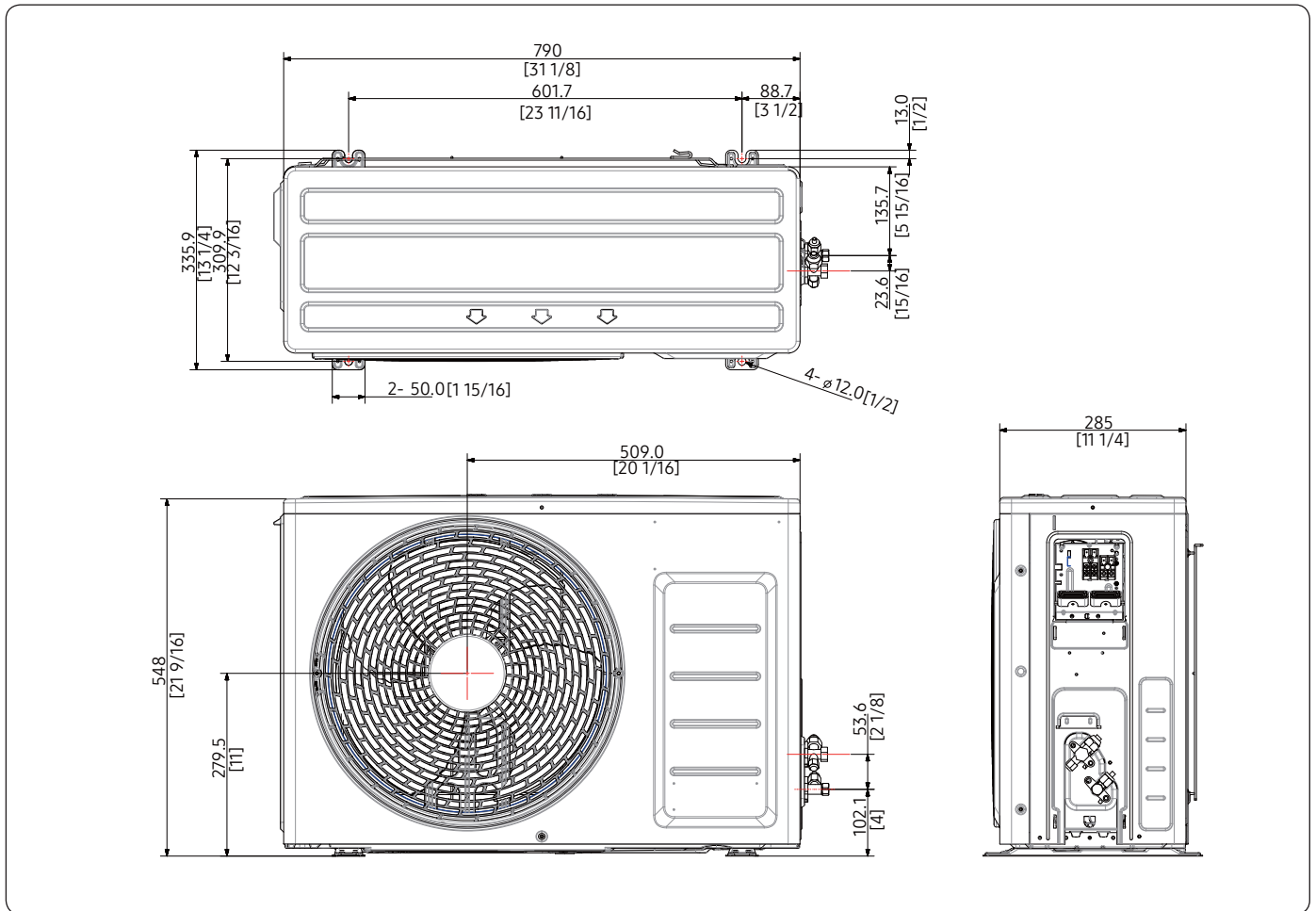


# 3. Dimensional Drawing

## Outdoor units

Quantum 2.0 : RXS09YBT (AR09TSFYBWKXCV), RXS12YBT (AR12TSFYBWKXCV)  
Max Heat 2.0 : RXS09ACT (AR09TSFACWKXCV), RXS12ACT (AR12TSFACWKXCV)  
Wind-Free™ 2.0 : RXS09ABT (AR09TSFABWKXCV), RXS12ABT (AR12TSFABWKXCV)

Unit: mm (inches)

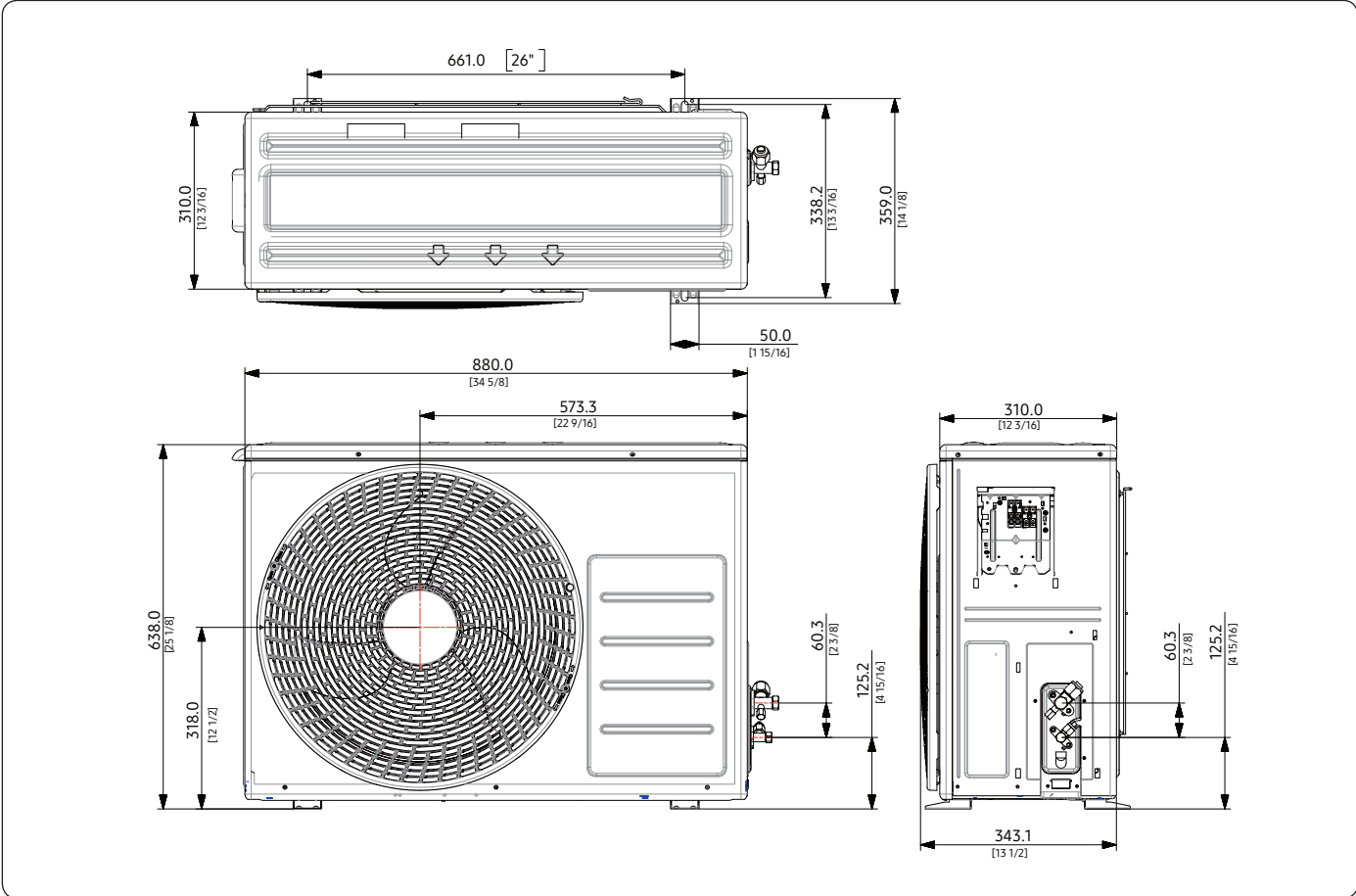


# 3. Dimensional Drawing

## Outdoor units

Quantum 2.0 : RXS18YBT (AR18TSFYBWKXCV)

Unit: mm (inches)

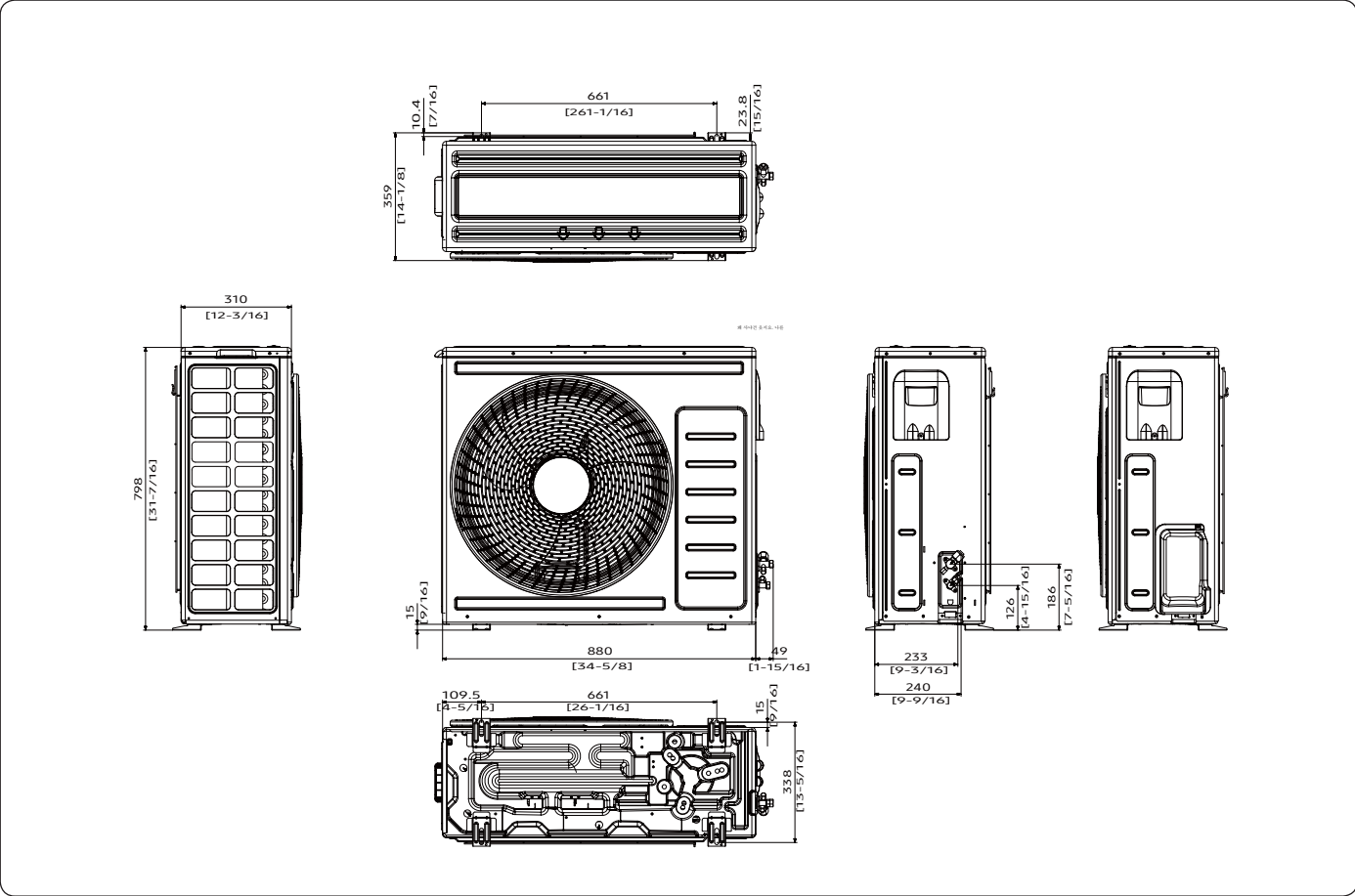


# 3. Dimensional Drawing

## Outdoor units

Quantum 2.0 : RXS24YBT (AR24TSFYBWKXCV)  
 Max Heat 2.0 : RXS18ACT (AR18TSFACWKXCV)  
 Wind-Free™ 2.0 : RXS18ABT (AR18TSFABWKXCV)

Unit: mm (inches)

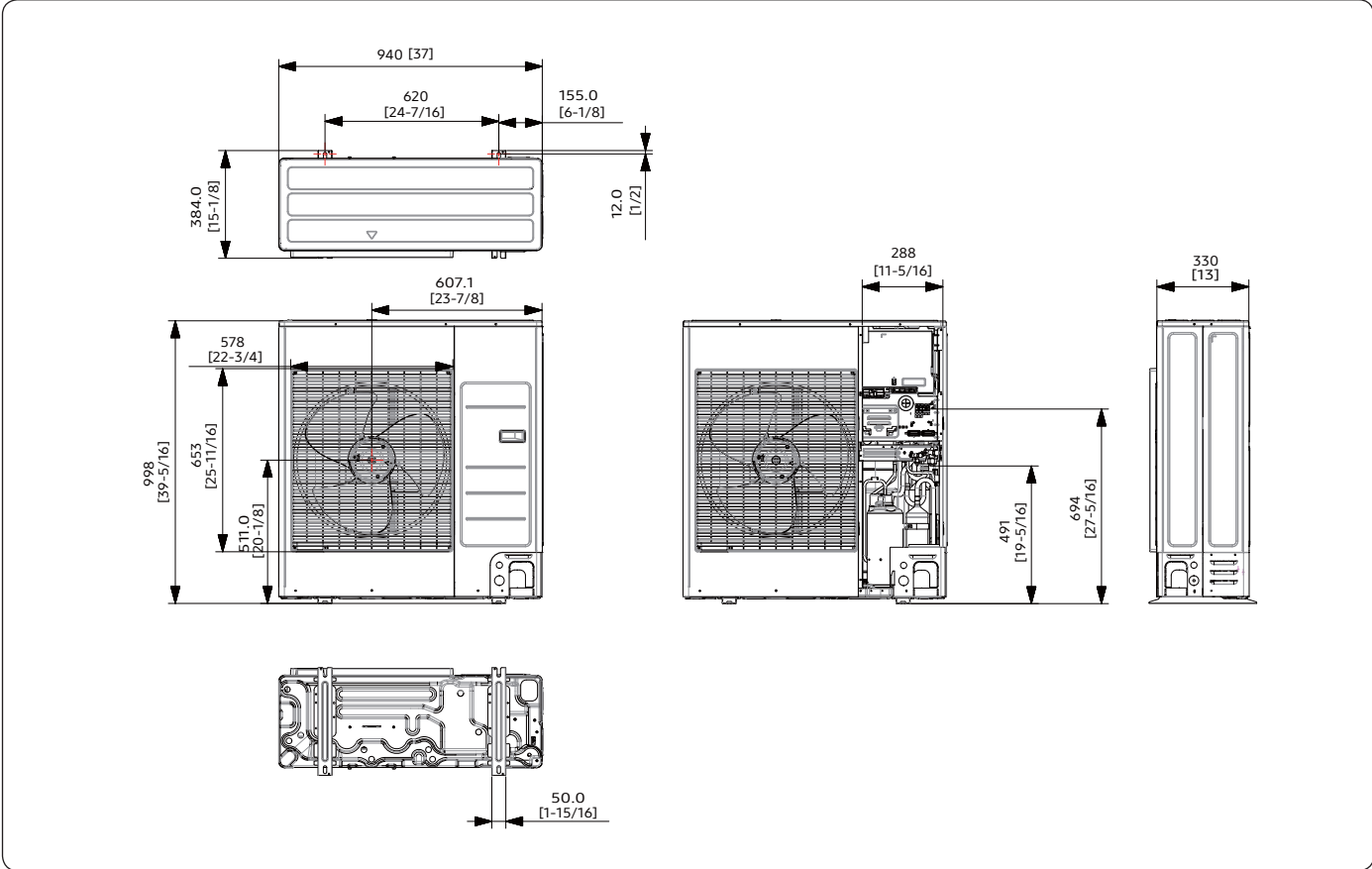


# 3. Dimensional Drawing

## Outdoor units

Max Heat 2.0 : RXS24ACT (AR24TSFACWKXCV)  
Wind-Free™ 2.0 : RXS24ABT (AR24TSFABWKXCV)

Unit: mm (inches)

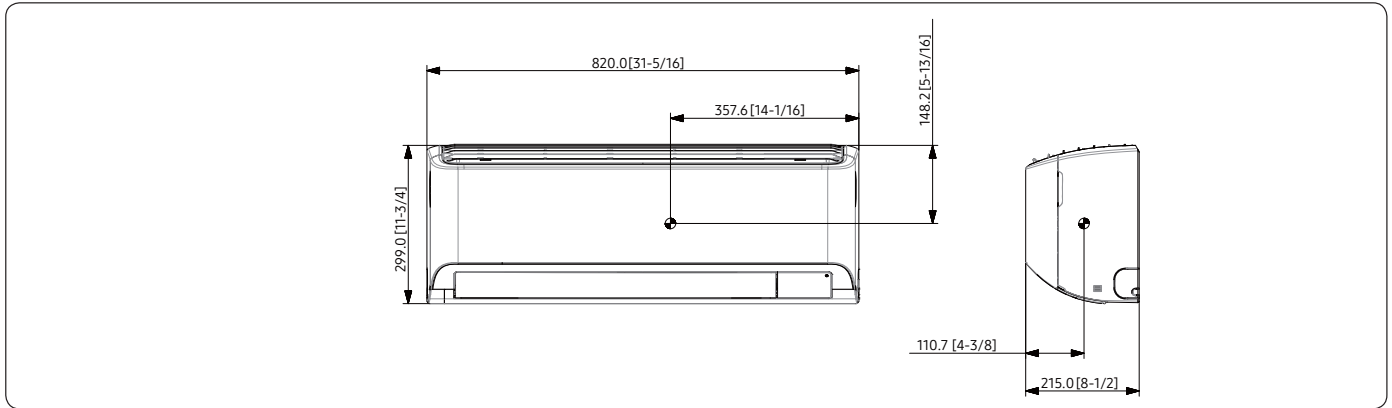


# 4. Center of Gravity

## Indoor units

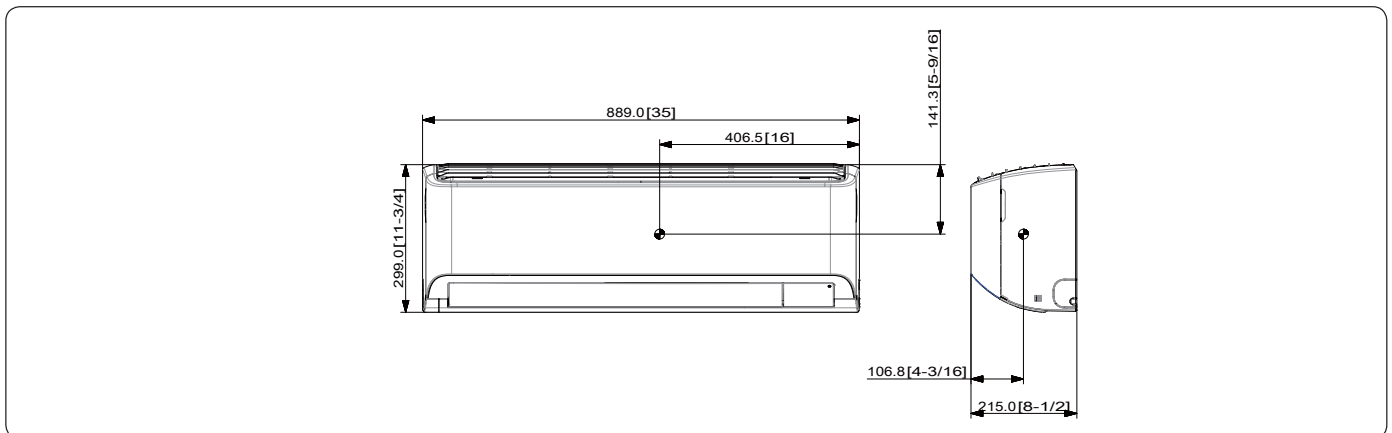
Quantum 2.0 : RNS09YBT (AR09TSFYBWKNCV), RNS12YBT (AR12TSFYBWKNCV)

Unit: mm (inches)



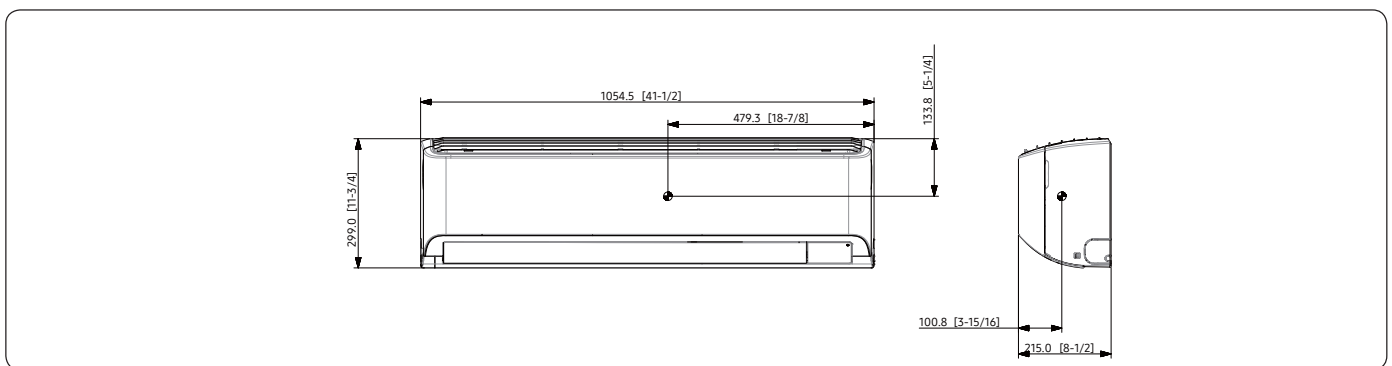
Max Heat 2.0 / Wind-Free™ 2.0 : RNS09ABT (AR09TSFABWKNCV), RNS12ABT (AR12TSFABWKNCV)

Unit: mm (inches)



Quantum 2.0 : RNS18YBT (AR18TSFYBWKNCV), RNS24YBT (AR24TSFYBWKNCV)  
 Max Heat 2.0 / Wind-Free™ 2.0 : RNS18ABT (AR18TSFABWKNCV), RNS24ABT (AR24TSFABWKNCV)

Unit: mm (inches)



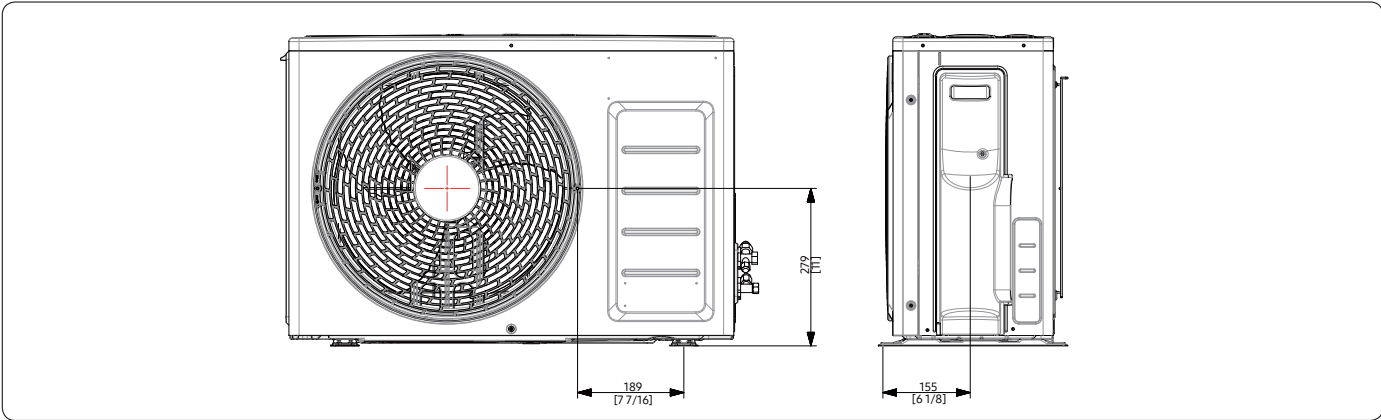


# 4. Center of Gravity

## Outdoor units

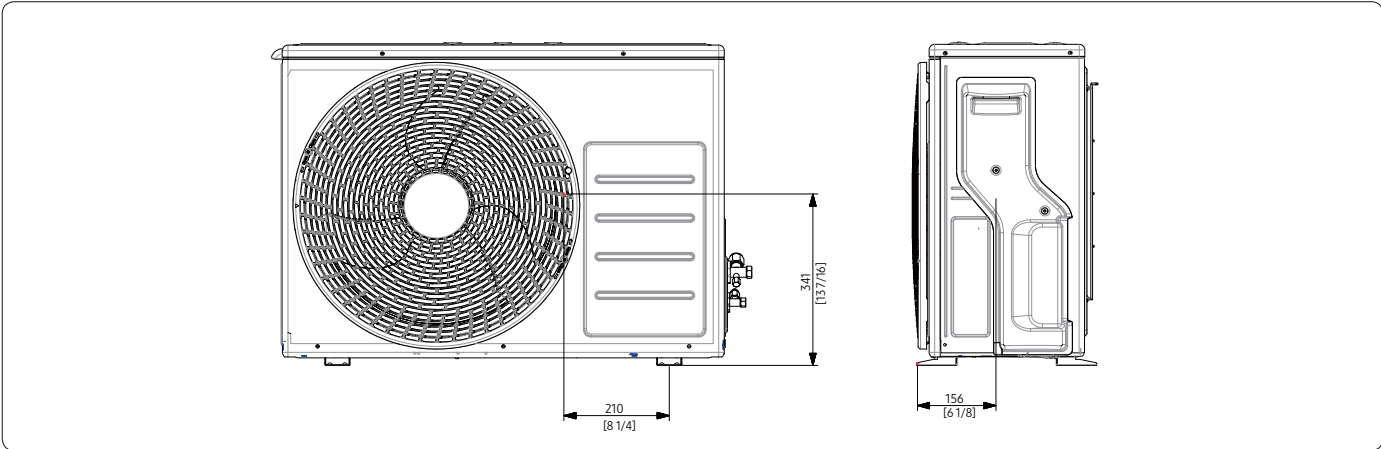
Quantum 2.0 : RXS09YBT (AR09TSFYBWKXCV), RXS12YBT (AR12TSFYBWKXCV)  
Max Heat 2.0 : RXS09ACT (AR09TSFACWKXCV), RXS12ACT (AR12TSFACWKXCV)  
Wind-Free™ 2.0 : RXS09ABT (AR09TSFABWKXCV), RXS12ABT (AR12TSFABWKXCV)

Unit: mm (inches)



Quantum 2.0 : RXS18YBT (AR18TSFYBWKXCV)

Unit: mm (inches)

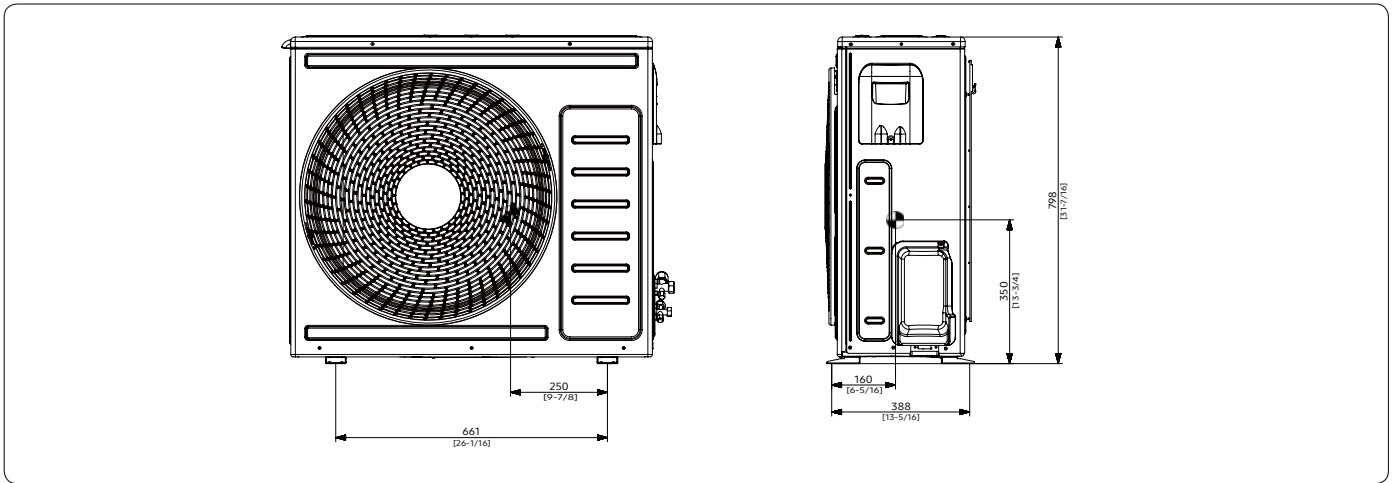


# 4. Center of Gravity

## Outdoor units

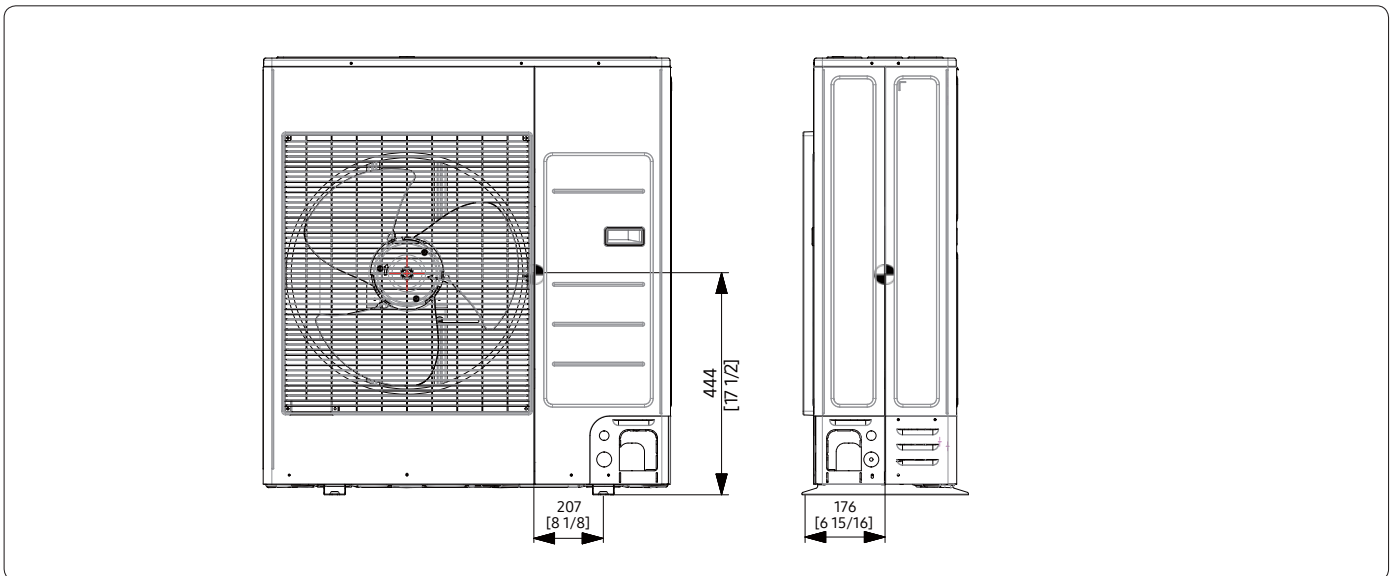
Quantum 2.0 : RXS24YBT (AR24TSFYBWKXCV)  
Max Heat 2.0 : RXS18ACT (AR18TSFACWKXCV)  
Wind-Free™ 2.0 : RXS18ABT (AR18TSFABWKXCV)

Unit: mm (inches)



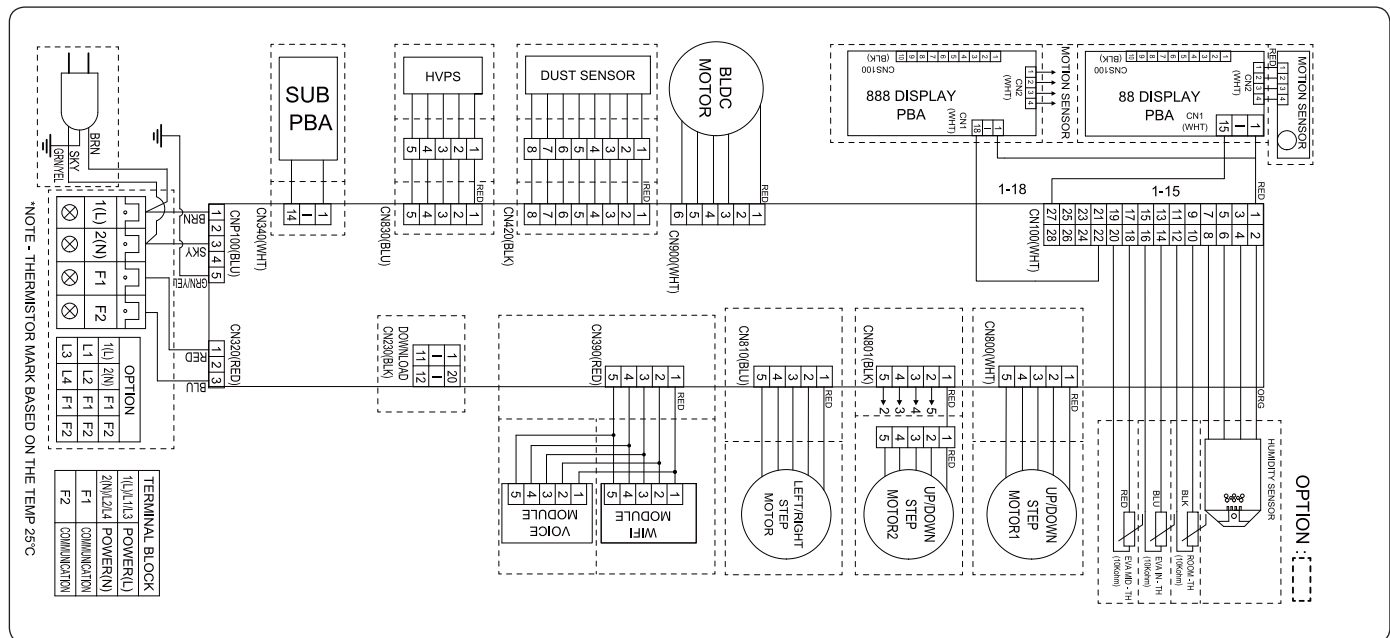
Max Heat 2.0 : RXS24ACT (AR24TSFACWKXCV)  
Wind-Free™ 2.0 : RXS24ABT (AR24TSFABWKXCV)

Unit: mm (inches)



# 5. Electrical Wiring Diagram

## Indoor units



MOTION SENSOR	SENSOR(MOTION)	DISPLAY	Printed circuit board(DISPLAY BOARD)	DUST SNEOR	SENSOR(DUST)
ROOM TH	Thermistor(Room Temp. 10Kohm)	BLDC	Motor(BLDC FAN MOTOR)	HVPS	LOAD(HOVP MODULE)
EVA MID - TH	Thermistor(EVA MID Temp. 10Kohm)	UP/DOWN STEP MOTOR1	Motor(STEP MOTOR)	WIFI MODULE	LOAD(WIFI MODULE)
EVA IN -TH	Thermistor(EVA IN Temp. 10Kohm)	UP/DOWN STEP MOTOR2	Motor(STEP MOTOR)	SUB PBA	Printed circuit board(SUB BOARD)
HUMIDITY SENSOR	SENSOR(HUMIDITY)	LEFT/RIGHT STEP MOTOR	SENSOR(HUMIDITY)		

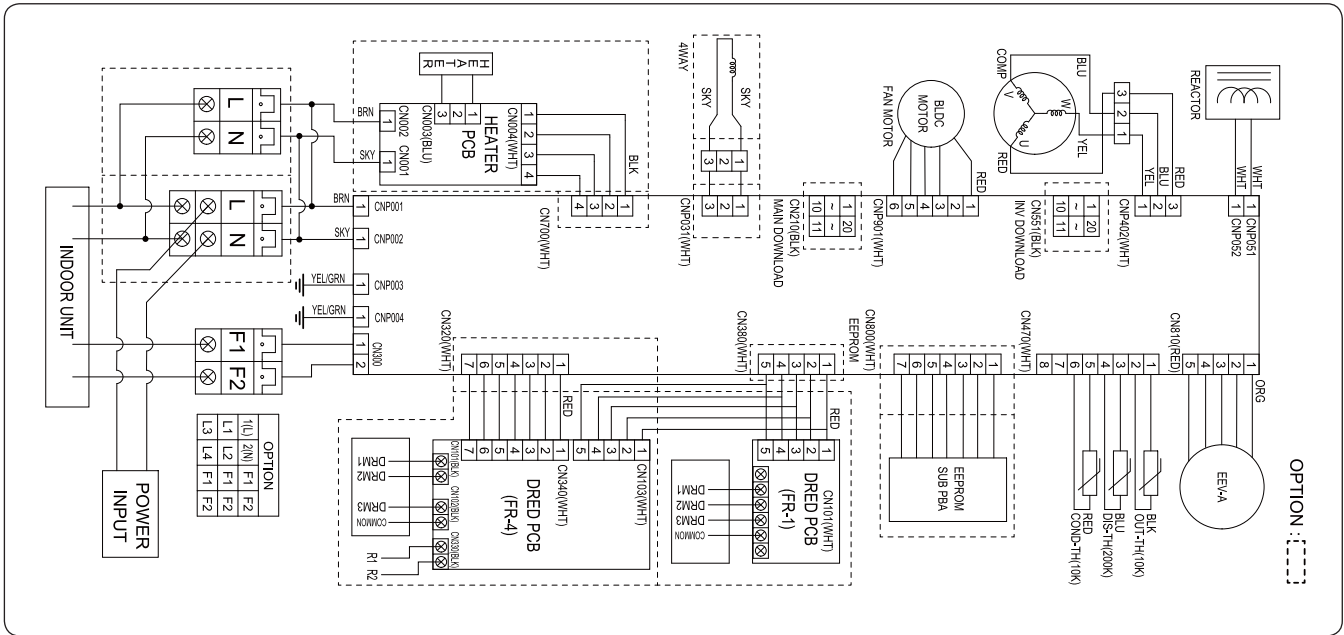
### NOTE

- This wiring diagram applies only to the indoor unit.
- Colors BLK : black, BRN : brown, SKY-BLU : sky-blue, GRN/YEL : green/yellow, RED : red, YEL : yellow, ORG : orange, BLU : blue, WHT:white
- : Protective earth(screw)

# 5. Electrical Wiring Diagram

## Outdoor units

Quantum 2.0 : RXS09YBT (AR09TSFYBWKXCV), RXS12YBT (AR12TSFYBWKXCV), RXS18YBT (AR18TSFYBWKXCV)  
 Max Heat 2.0 : RXS09ACT (AR09TSFACWKXCV), RXS12ACT (AR12TSFACWKXCV)  
 Wind-Free™ 2.0 : RXS09ABT (AR09TSFABWKXCV), RXS12ABT (AR12TSFABWKXCV)



DRED	Printed circuit board(DRED PCB)	DIS-TH	Thermistor(Discharge Temp._200Kohm)
REACTOR	REACTOR	OUT-TH	Thermistor(AmbientTemp._10Kohm)
EEPROM	Printed circuit board(EEPROM PCB)	COND-TH	Thermistor(Cond Out Temp._10Kohm)
COMP	COMPRESSOR	BLDC	Motor(BLDC FAN Motor)
HEATER	Printed circuit board(HEATER PCB)	EEV-A	Electronic expansion valve A
4-WAY VALVE	4-WAY VALVE		

### NOTE

- This wiring diagram applies only to the outdoor unit.
- Colors BLK : black, BRN : brown, SKY-BLU : sky-blue, GRN/YEL : green/yellow, RED : red, YEL : yellow, ORG : orange, BLU : blue, WHT:white
- Protective earth(screw)

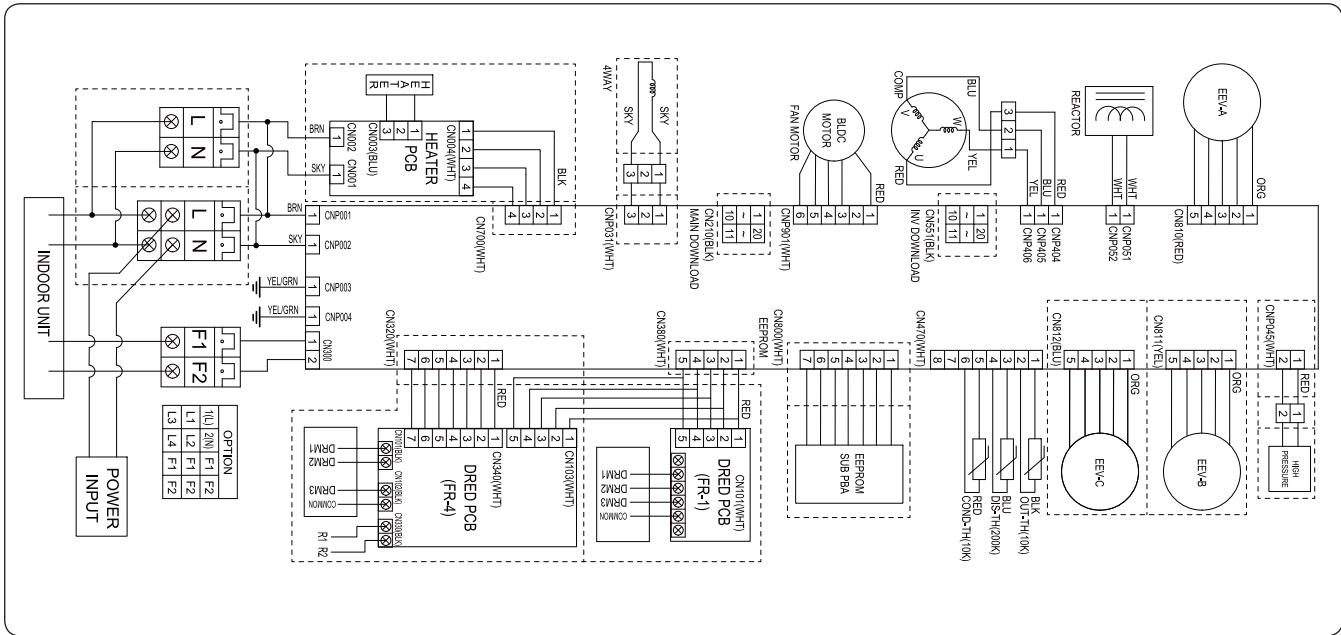
# 5. Electrical Wiring Diagram

## Outdoor units

Quantum 2.0 : RXS24YBT (AR24TSFYBWKXCV)

Max Heat 2.0 : RXS18ACT (AR18TSFACWKXCV), RXS24ACT (AR24TSFACWKXCV)

Wind-Free™ 2.0 : RXS18ABT (AR18TSFABWKXCV), RXS24ABT (AR24TSFABWKXCV)



DRED	Printed circuit board(DRED PCB)	DIS-TH	Thermistor (Discharge Temp_200Kohm)	EEV-C	Electronic expansion valve C
REACTOR	REACTOR	OUT-TH	Thermistor (AmbientTemp_10Kohm)	EEV-A	Electronic expansion valve A
EEPROM	Printed circuit board(EEPROM PCB)	COND-TH	Thermistor (Cond Out Temp_10Kohm)	EEV-B	Electronic expansion valve B
COMP	COMPRESSOR	BLDC	Motor(BLDC FAN Motor)	HIGH PRESSURE	PRESSURE SWITCH
HEATER	Printed circuit board(HEATER PCB)	4-WAY VALVE	4WAY VALVE		

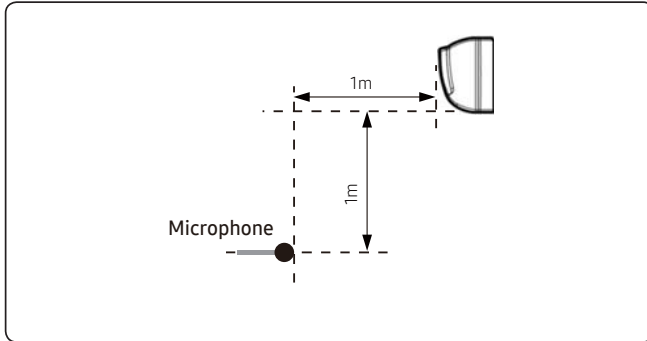
### NOTE

- This wiring diagram applies only to the outdoor unit.
- Colors BLK : black, BRN : brown, SKY-BLU : sky-blue, GRN/YEL : green/yellow, RED : red, YEL : yellow, ORG : orange, BLU : blue, WHT:white
- Protective earth(screw)

# 6. Sound Data

## Indoor units : Quantum 2.0

### Sound Pressure level

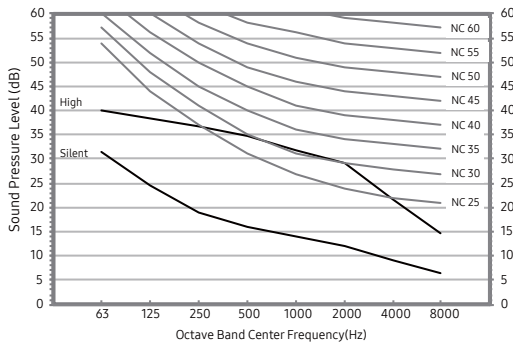


Unit: dB(A)

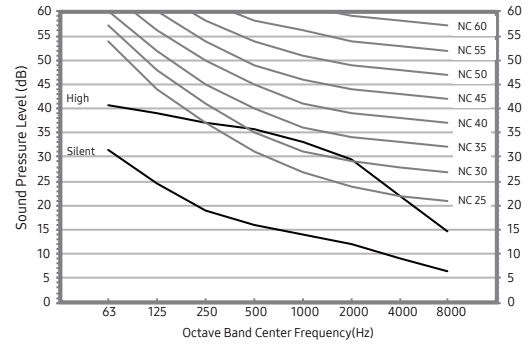
Model	Cooling	
	High	Silent
RNS09YBT (AR09TSFYBWKNVCV)	37	20
RNS12YBT (AR12TSFYBWKNVCV)	38	20
RNS18YBT (AR18TSFYBWKNVCV)	41	28
RNS24YBT (AR24TSFYBWKNVCV)	45	30

- NC Curve

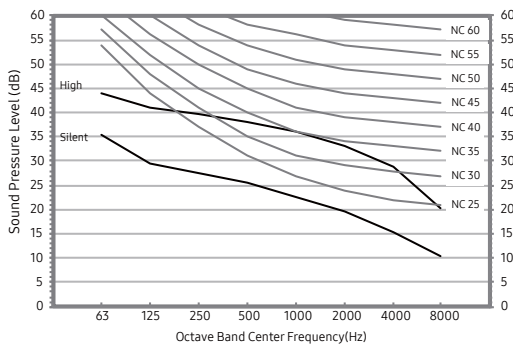
1) RNS09YBT (AR09TSFYBWKNVCV)



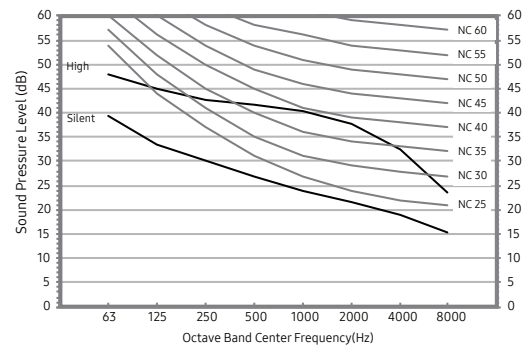
2) RNS12YBT (AR12TSFYBWKNVCV)



3) RNS18YBT (AR18TSFYBWKNVCV)



4) RNS24YBT (AR24TSFYBWKNVCV)



### NOTE

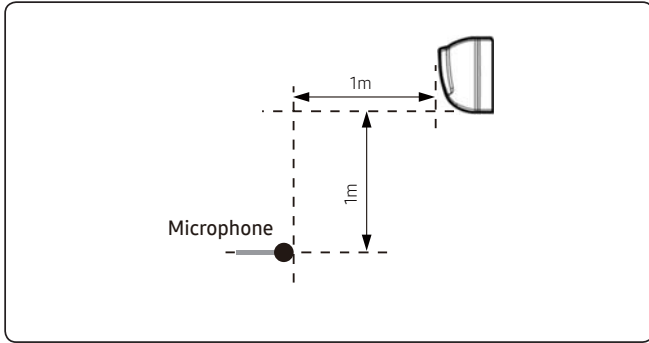
- Specifications may be subject to change without prior notice.
- Sound pressure Level
  - Sound pressure level is obtained in an anechoic room.
  - Sound pressure level is a relative value, depending on the distance and acoustic environment.
  - Sound pressure level may differ depending on operation condition.
  - dBA = A weighted sound pressure level
  - Reference acoustic pressure 0 dB = 20μPa

# 6. Sound Data

Indoor units :Max Heat 2.0 / Wind-Free™ 2.0

## Sound Pressure level

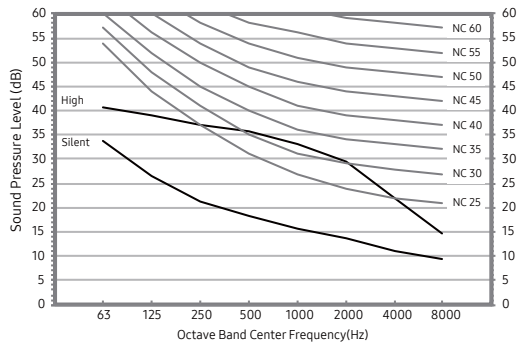
Unit: dB(A)



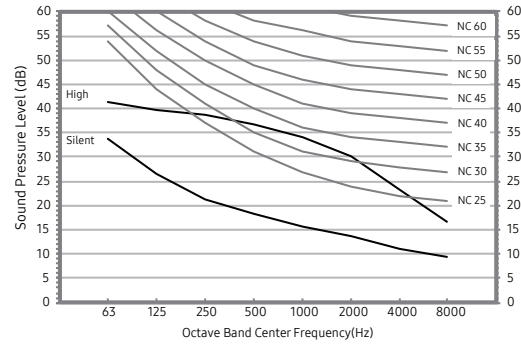
Model	Cooling	
	High	Silent
RNS09ABT (AR09TSFABWKNCV)	38	22
RNS12ABT (AR12TSFABWKNCV)	39	22
RNS18ABT (AR18TSFABWKNCV)	42	25
RNS24ABT (AR24TSFABWKNCV)	47	28

- NC Curve

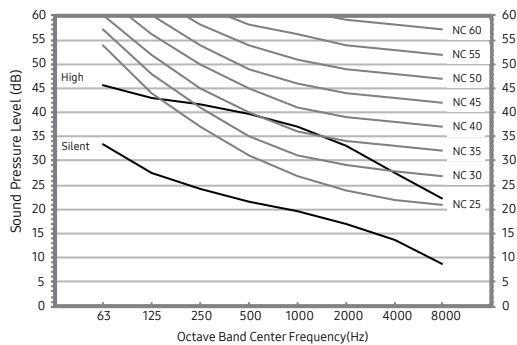
1) RNS09ABT (AR09TSFABWKNCV)



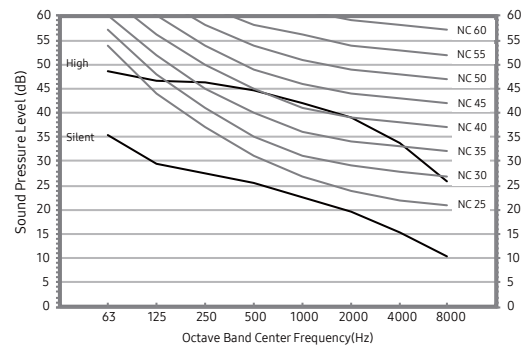
2) RNS12ABT (AR12TSFABWKNCV)



3) RNS18ABT (AR18TSFABWKNCV)



4) RNS24ABT (AR24TSFABWKNCV)



**NOTE**

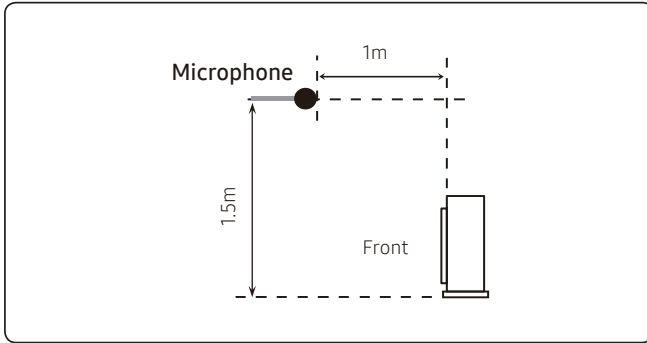
- Specifications may be subject to change without prior notice.
- Sound pressure Level
  - Sound pressure level is obtained in an anechoic room.
  - Sound pressure level is a relative value, depending on the distance and acoustic environment.
  - Sound pressure level may differ depending on operation condition.
  - dBA = A weighted sound pressure level
  - Reference acoustic pressure 0 dB = 20μPa

# 6. Sound Data

## Outdoor units : Quantum 2.0

### Sound Pressure level

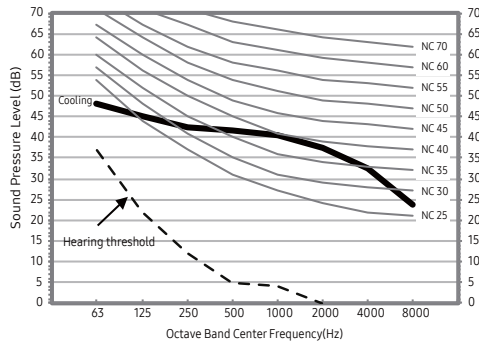
Unit: dB(A)



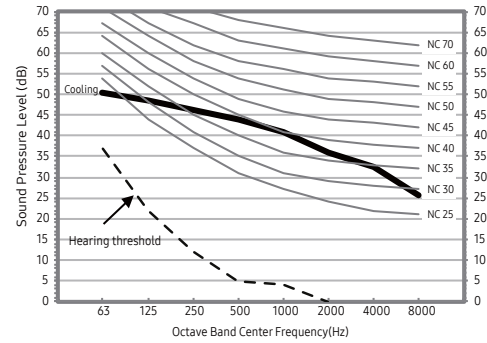
Model	Cooling
RXS09YBT (AR09TSFYBWKXCV)	45
RXS12YBT (AR12TSFYBWKXCV)	46
RXS18YBT (AR18TSFYBWKXCV)	51
RXS24YBT (AR24TSFYBWKXCV)	56

- NC Curve

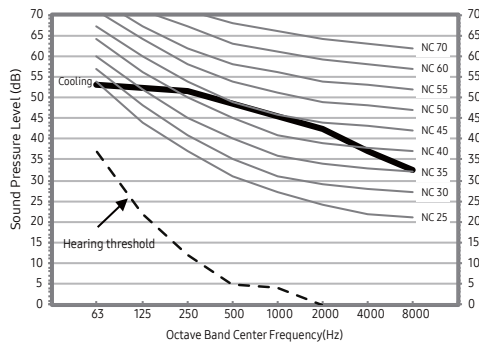
1) RXS09YBT (AR09TSFYBWKXCV)



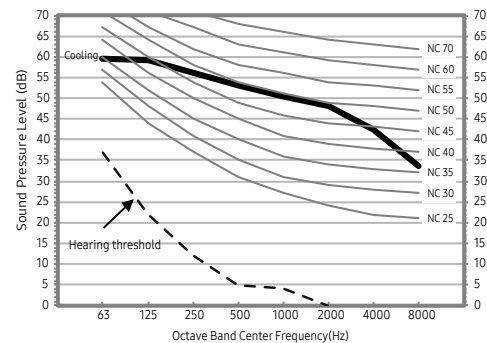
2) RXS12YBT (AR12TSFYBWKXCV)



3) RXS18YBT (AR18TSFYBWKXCV)



4) RXS24YBT (AR24TSFYBWKXCV)



### NOTE

- Specifications may be subject to change without prior notice.
- Sound pressure Level
  - Sound pressure level is obtained in an anechoic room.
  - Sound pressure level is a relative value, depending on the distance and acoustic environment.
  - Sound pressure level may differ depending on operation condition.
  - dBA = A weighted sound pressure level
  - Reference acoustic pressure 0 dB = 20μPa

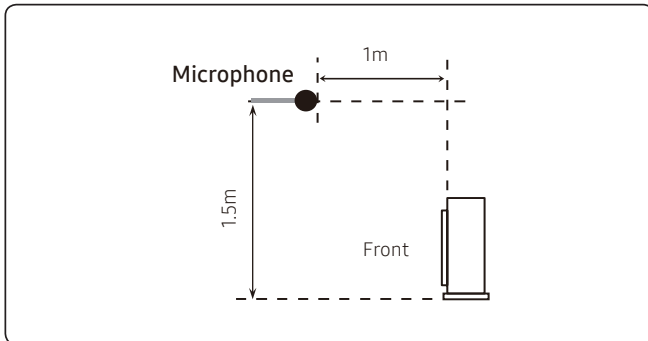


# 6. Sound Data

## Outdoor units : Wind-Free™ 2.0

### Sound Pressure level

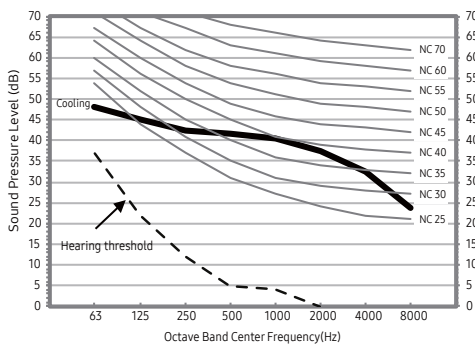
Unit: dB(A)



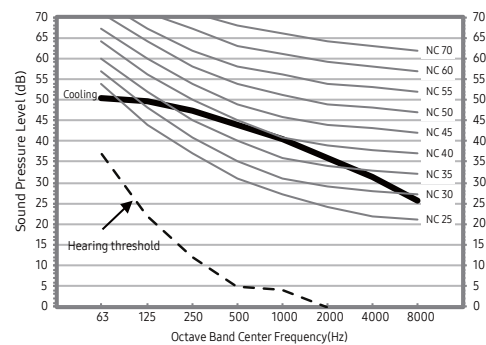
Model	Cooling
RXS09ABT (AR09TSFABWKXCV)	45
RXS12ABT (AR12TSFABWKXCV)	46
RXS18ABT (AR18TSFABWKXCV)	51
RXS24ABT (AR24TSFABWKXCV)	56

- NC Curve

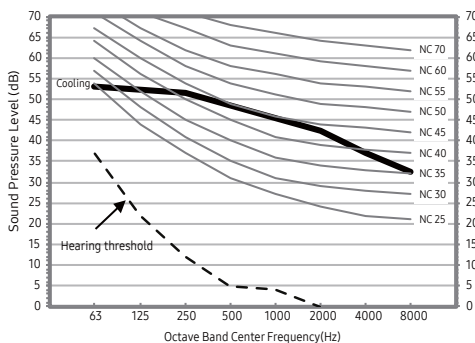
1) RXS09ABT (AR09TSFABWKXCV)



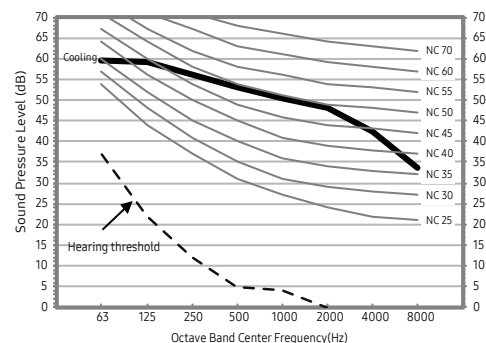
2) RXS12ABT (AR12TSFABWKXCV)



3) RXS18ABT (AR18TSFABWKXCV)



4) RXS24ABT (AR24TSFABWKXCV)



### NOTE

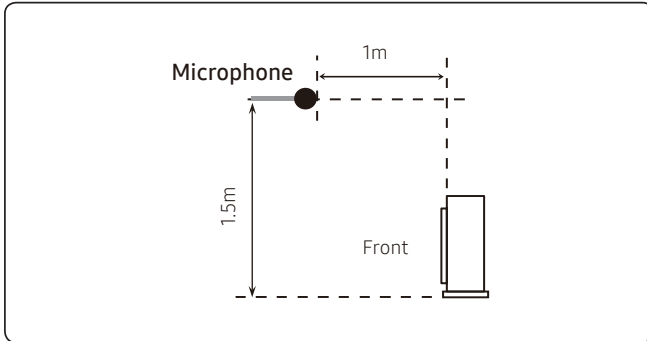
- Specifications may be subject to change without prior notice.
- Sound pressure Level
  - Sound pressure level is obtained in an anechoic room.
  - Sound pressure level is a relative value, depending on the distance and acoustic environment.
  - Sound pressure level may differ depending on operation condition.
  - dBA = A weighted sound pressure level
  - Reference acoustic pressure 0 dB = 20μPa

# 6. Sound Data

## Outdoor units : Max Heat 2.0

### Sound Pressure level

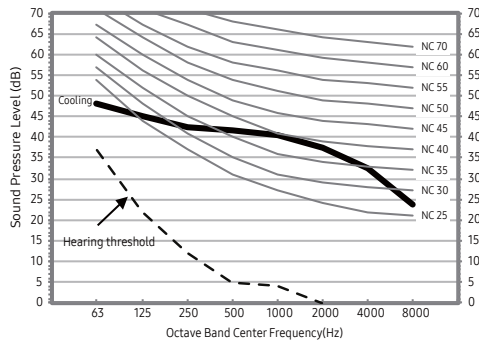
Unit: dB(A)



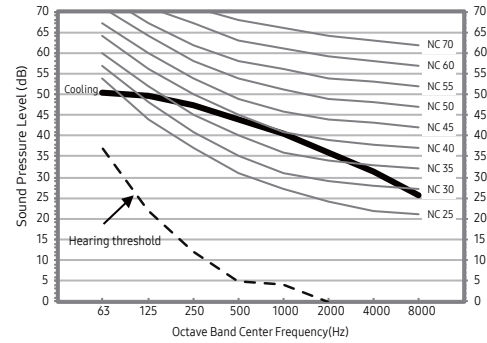
Model	Cooling
RXS09ACT (AR09TSFACWKXCV)	45
RXS12ACT (AR12TSFACWKXCV)	46
RXS18ACT (AR18TSFACWKXCV)	51
RXS24ACT (AR24TSFACWKXCV)	56

- NC Curve

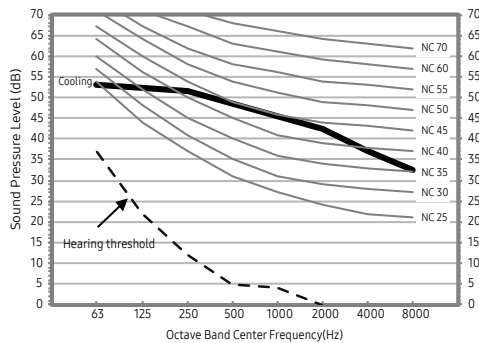
1) RXS09ACT (AR09TSFACWKXCV)



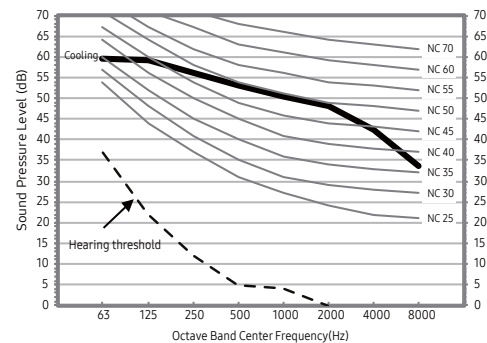
2) RXS12ACT (AR12TSFACWKXCV)



3) RXS18ACT (AR18TSFACWKXCV)



4) RXS24ACT (AR24TSFACWKXCV)



### NOTE

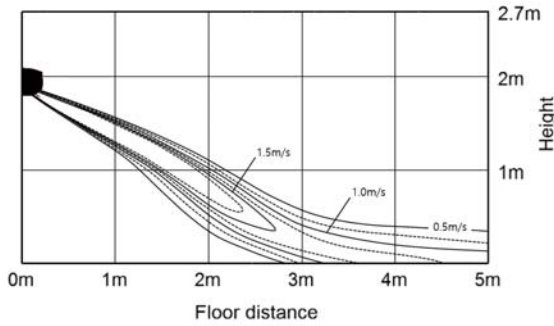
- Specifications may be subject to change without prior notice.
- Sound pressure Level
  - Sound pressure level is obtained in an anechoic room.
  - Sound pressure level is a relative value, depending on the distance and acoustic environment.
  - Sound pressure level may differ depending on operation condition.
  - dBA = A weighted sound pressure level
  - Reference acoustic pressure 0 dB = 20μPa

# 7. Temperature and air flow distribution

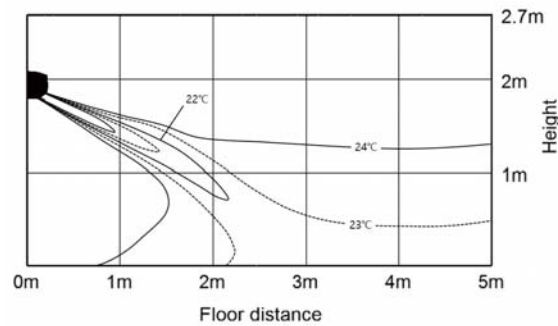
## Quantum 2.0

### RNS09YBT (AR09TSFYBWKNCV)

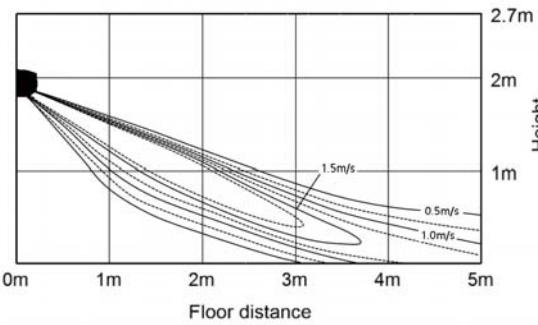
- Cooling air velocity distribution  
(Discharge angle : 20 degree)



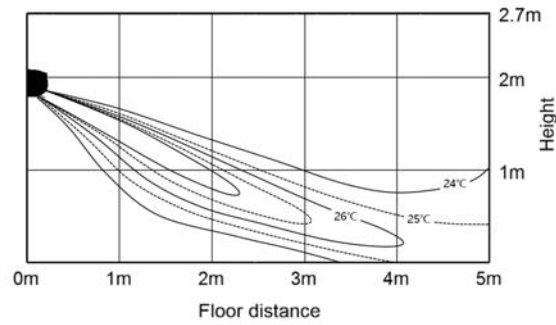
- Cooling Temperature distribution  
(Discharge angle : 20 degree)



- Heating air velocity distribution  
(Discharge angle : 30 degree)

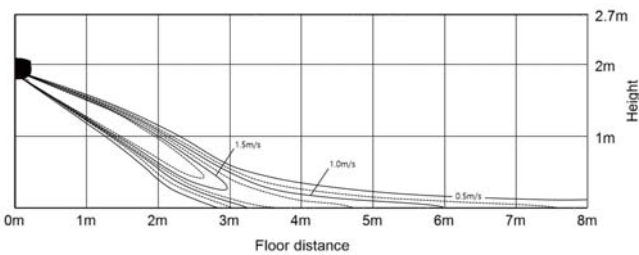


- Heating Temperature distribution  
(Discharge angle : 30 degree)

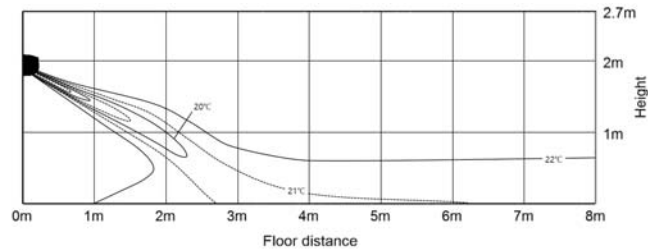


### RNS12YBT (AR12TSFYBWKNCV)

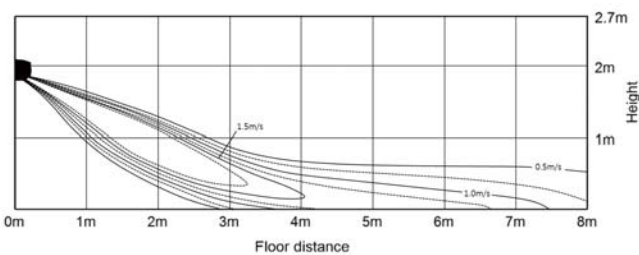
- Cooling air velocity distribution  
(Discharge angle : 20 degree)



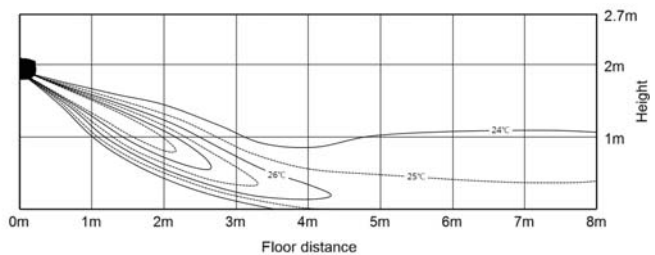
- Cooling Temperature distribution  
(Discharge angle : 20 degree)



- Heating air velocity distribution  
(Discharge angle : 30 degree)



- Heating Temperature distribution  
(Discharge angle : 30 degree)



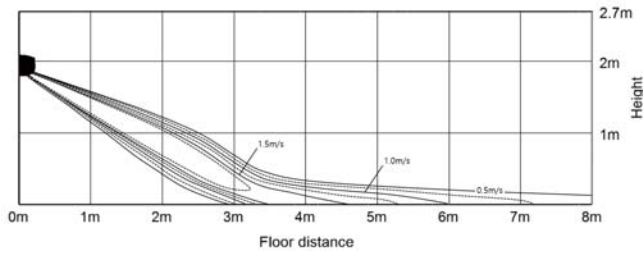
# 7. Temperature and air flow distribution

## Quantum 2.0

### RNS18YBT (AR18TSFYBWKNVCV)

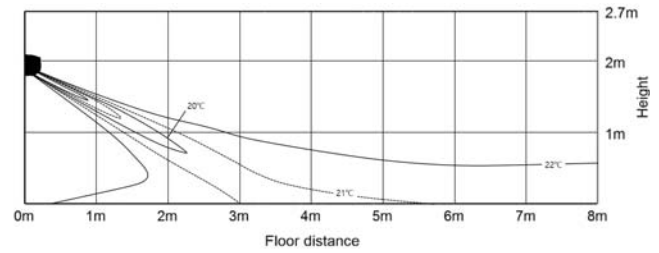
- Cooling air velocity distribution

(Discharge angle : 20 degree)



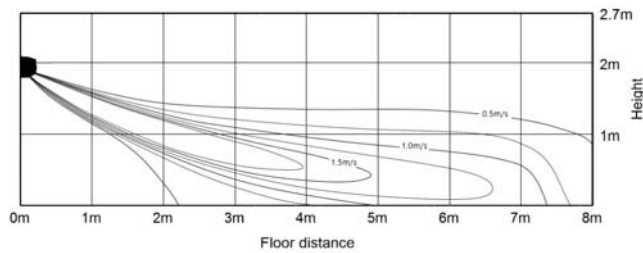
- Cooling Temperature distribution

(Discharge angle : 20 degree)



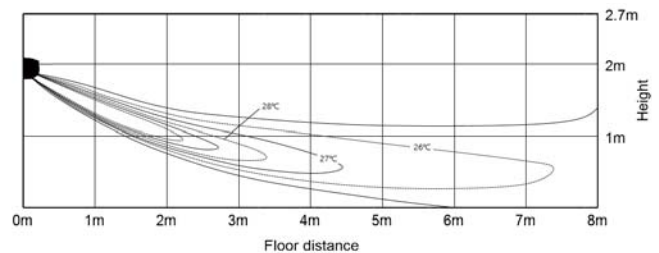
- Heating air velocity distribution

(Discharge angle : 30 degree)



- Heating Temperature distribution

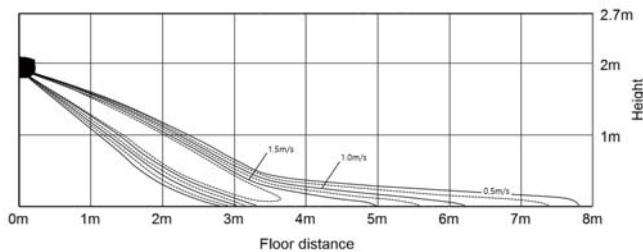
(Discharge angle : 30 degree)



### RNS24YBT (AR24TSFYBWKNVCV)

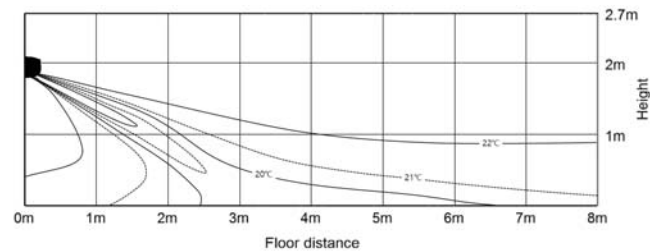
- Cooling air velocity distribution

(Discharge angle : 20 degree)



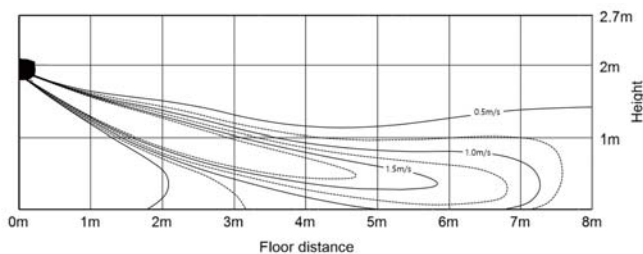
- Cooling Temperature distribution

(Discharge angle : 20 degree)



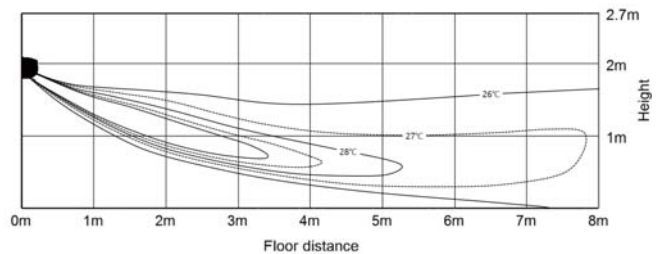
- Heating air velocity distribution

(Discharge angle : 30 degree)



- Heating Temperature distribution

(Discharge angle : 30 degree)

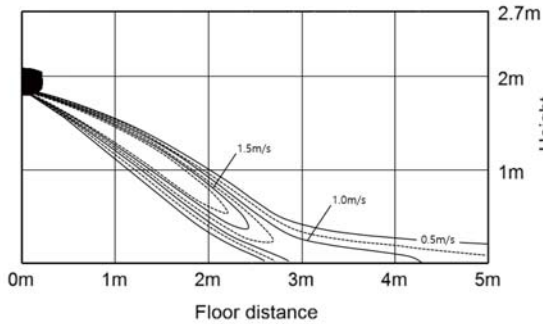


# 7. Temperature and air flow distribution

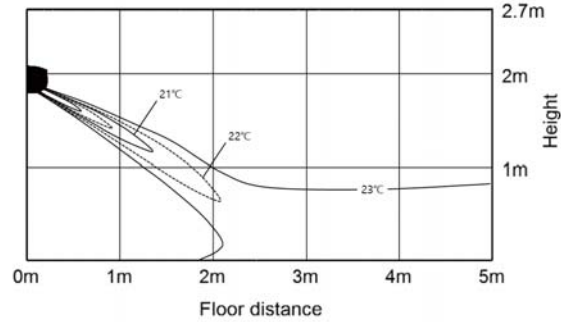
## Max Heat 2.0 / Wind-Free™ 2.0

### RNS09ABT (AR09TSFABWKNCV)

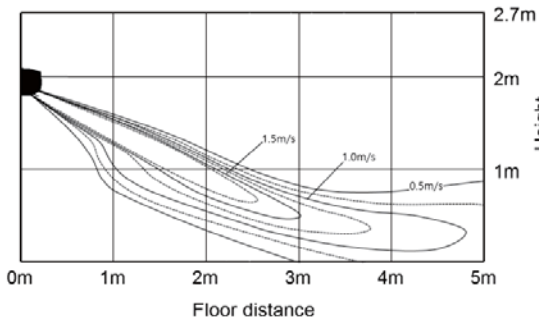
- Cooling air velocity distribution  
(Discharge angle : 20 degree)



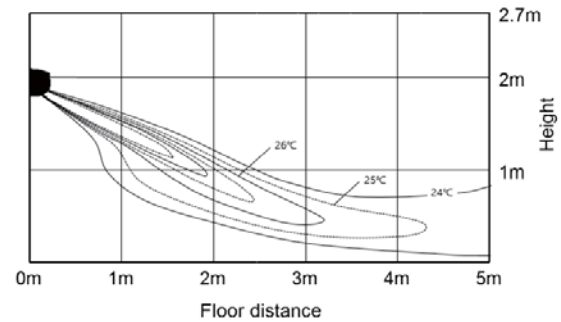
- Cooling Temperature distribution  
(Discharge angle : 20 degree)



- Heating air velocity distribution  
(Discharge angle : 30 degree)

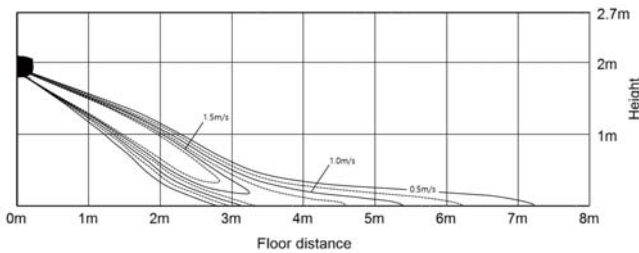


- Heating Temperature distribution  
(Discharge angle : 30 degree)

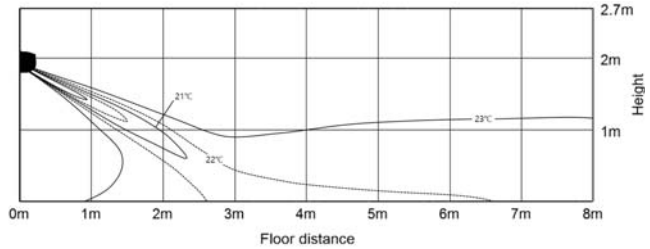


### RNS12ABT (AR12TSFABWKNCV)

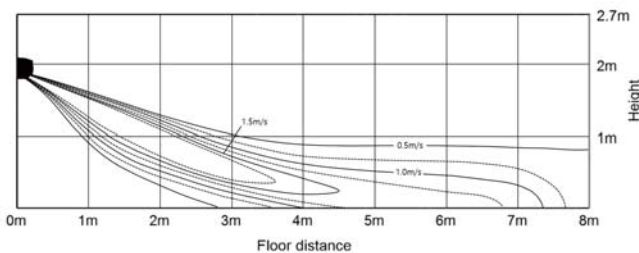
- Cooling air velocity distribution  
(Discharge angle : 20 degree)



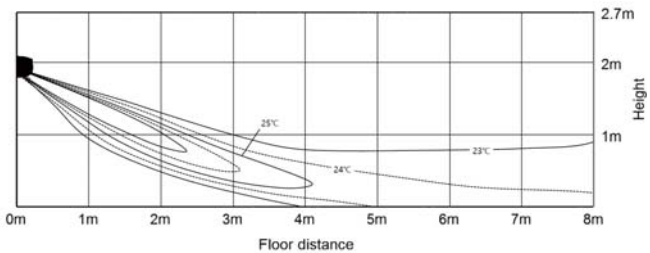
- Cooling Temperature distribution  
(Discharge angle : 20 degree)



- Heating air velocity distribution  
(Discharge angle : 30 degree)



- Heating Temperature distribution  
(Discharge angle : 30 degree)



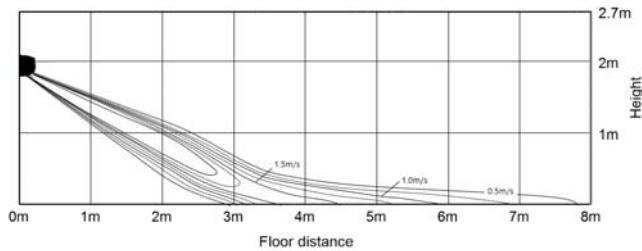
# 7. Temperature and air flow distribution

## Max Heat 2.0 / Wind-Free™ 2.0

### RNS18ABT (AR18TSFABWKNCV)

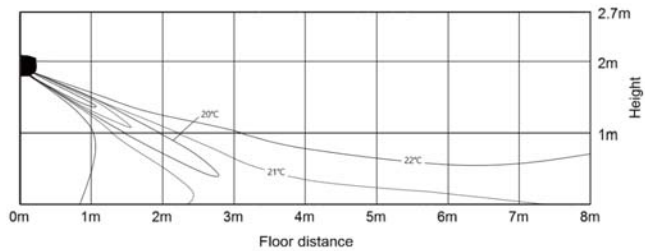
- Cooling air velocity distribution

(Discharge angle : 20 degree)



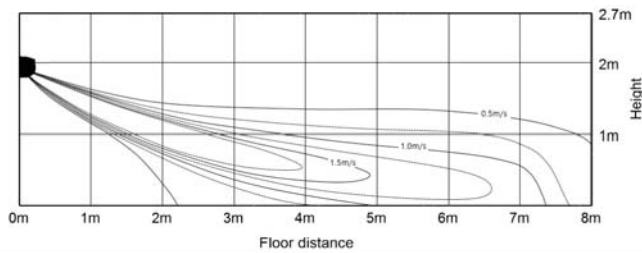
- Cooling Temperature distribution

(Discharge angle : 20 degree)



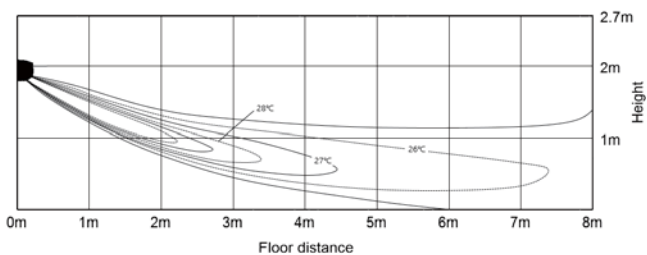
- Heating air velocity distribution

(Discharge angle : 30 degree)



- Heating Temperature distribution

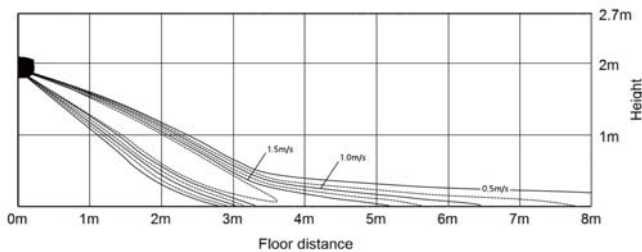
(Discharge angle : 30 degree)



### RNS24ABT (AR24TSFABWKNCV)

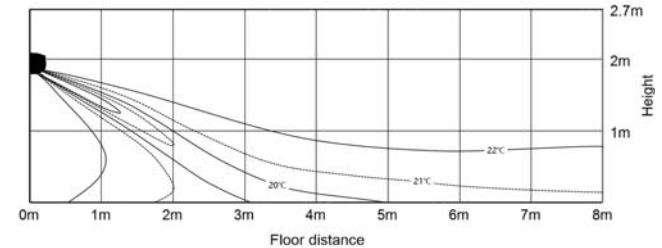
- Cooling air velocity distribution

(Discharge angle : 20 degree)



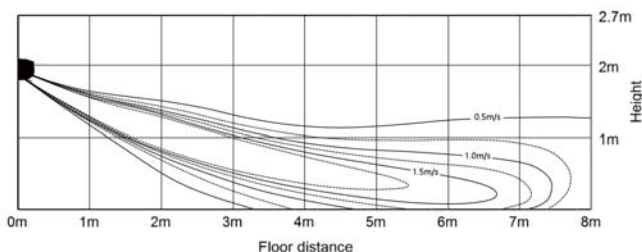
- Cooling Temperature distribution

(Discharge angle : 20 degree)



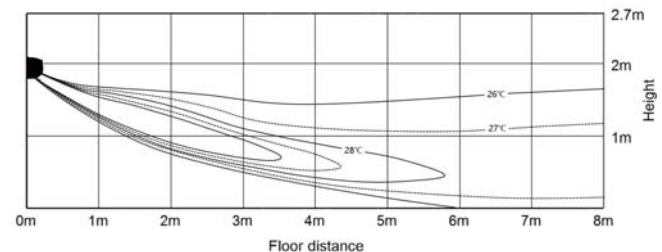
- Heating air velocity distribution

(Discharge angle : 30 degree)

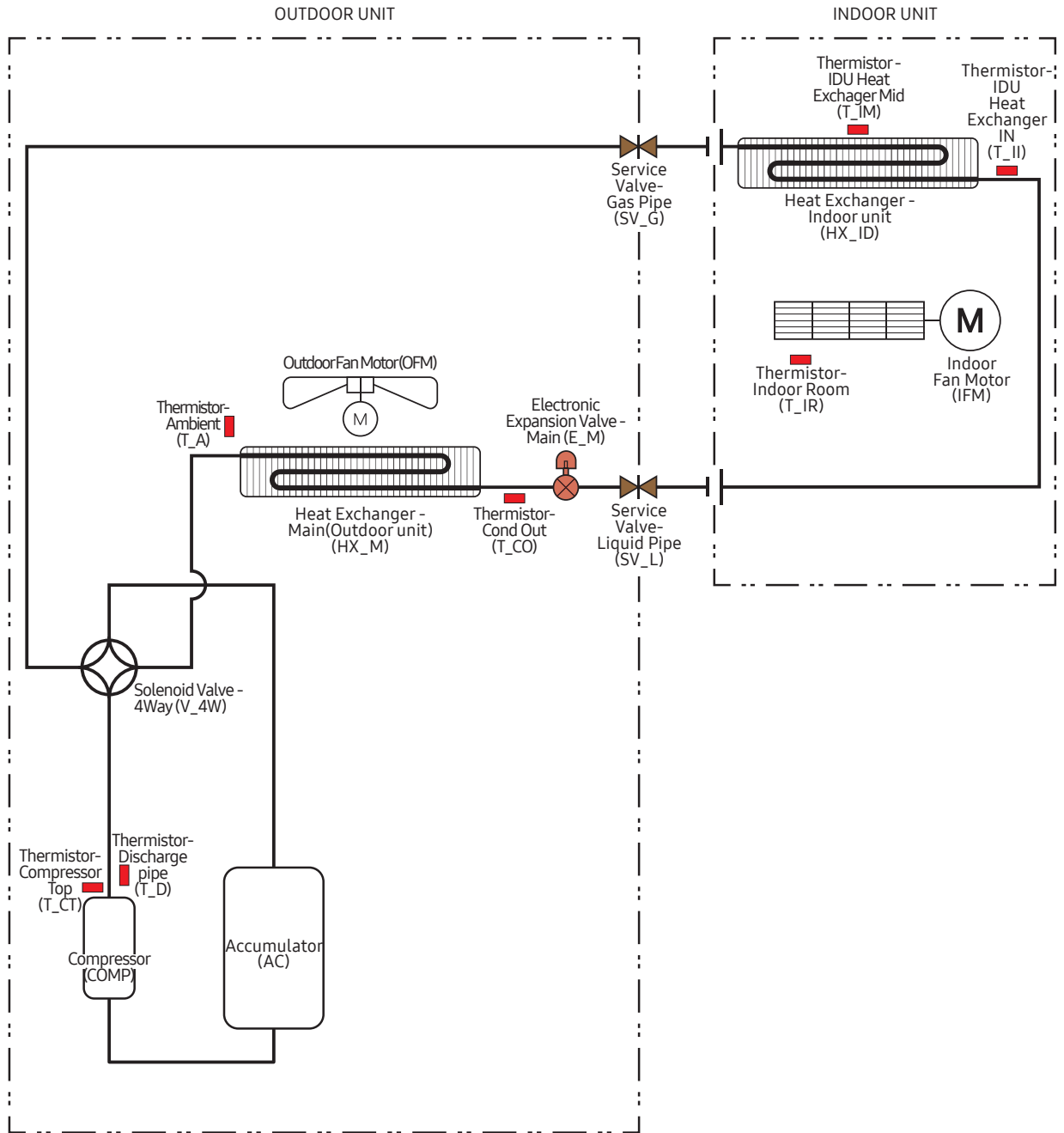


- Heating Temperature distribution

(Discharge angle : 30 degree)



# 8. Piping Diagram

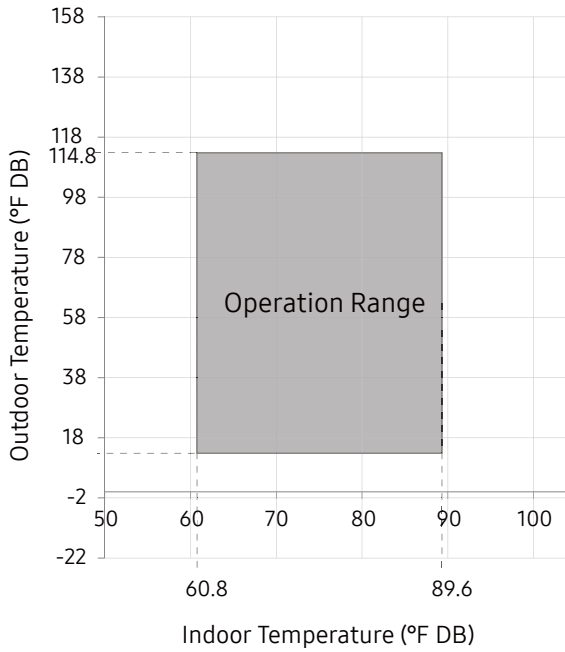


# 9. Operation Limit

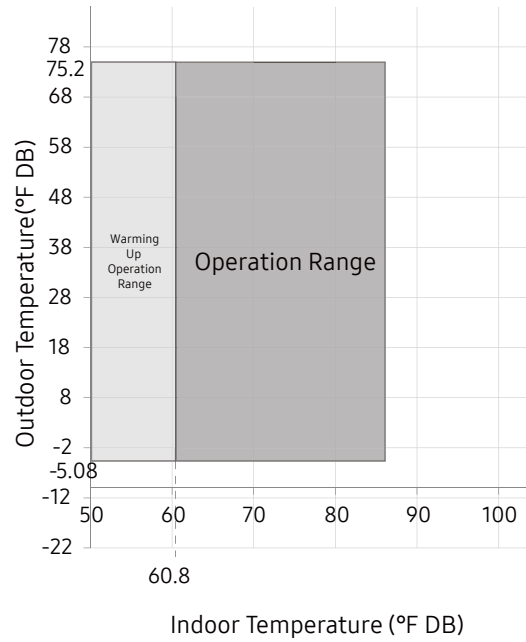
Quantum 2.0 : RNS\*\*YBT+RXS\*\*YBT (AR\*\*TSFYBWKNCV+AR\*\*TSFYBWKXCV)

Wind-Free™ 2.0 : RNS\*\*ABT+RXS\*\*ABT (AR\*\*TSFABWKNCV+AR\*\*TSFABWKXCV)

Cooling

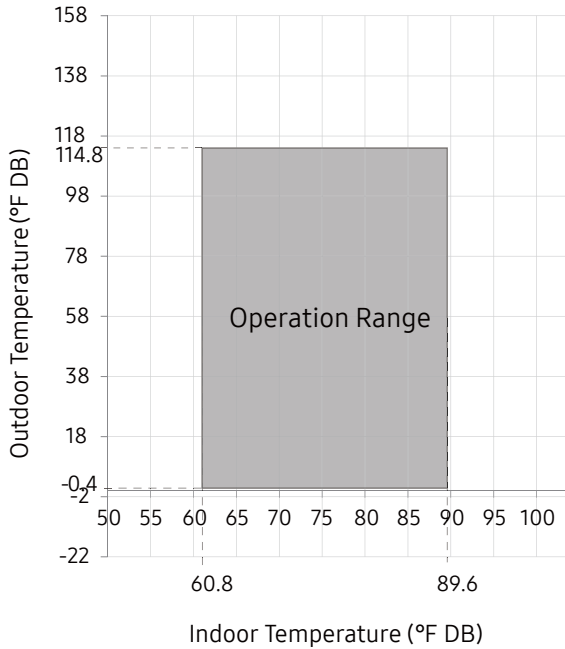


Heating

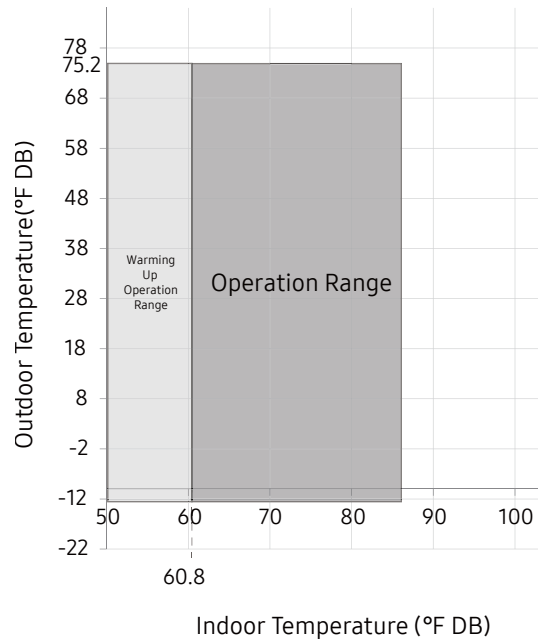


Max Heat 2.0 : RNS\*\*ABT+RXS\*\*ACT (AR\*\*TSFABWKNCV+AR\*\*TSFACWKXCV)

Cooling



Heating





# 10. Capacity Correction


## Outdoor units

Quantum 2.0 : RNS09YBT+RXS09YBT (AR09TSFYBWKNCV+AR09TSFYBWKXCV),  
RNS12YBT+RXS12YBT (AR12TSFYBWKNCV+AR12TSFYBWKXCV)

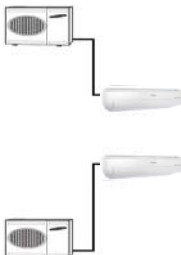
Max Heat 2.0 : RNS09ABT+RXS09ACT (AR09TSFABWKNCV+AR09TSFACWKXCV),  
RNS12ABT+RXS12ACT (AR12TSFABWKNCV+AR12TSFACWKXCV)

Wind-Free™ 2.0 : RNS09ABT+RXS09ABT (AR09TSFABWKNCV+AR09TSFABWKXCV),  
RNS12ABT+RXS12ABT (AR12TSFABWKNCV+AR12TSFABWKXCV)

### Cooling

		Pipe Length (ft)					
		16	33	41	49	66	
	Level Difference (m)	49	-	-	-	0.92	0.9
		33	-	0.95	0.94	0.93	0.91
		23	-	0.96	0.95	0.94	0.92
		16	0.99	0.97	0.96	0.95	0.93
		0	1	0.98	0.97	0.96	0.94
		-16	0.99	0.97	0.96	0.95	0.93
		-23	-	0.96	0.95	0.94	0.92
		-33	-	0.95	0.94	0.93	0.91
		-49	-	-	-	0.92	0.9

### Heating

		Pipe Length (ft)					
		16	33	41	49	66	
	Level Difference (m)	49	-	-	-	0.92	0.9
		33	-	0.95	0.94	0.93	0.91
		23	-	0.96	0.95	0.94	0.92
		16	0.99	0.97	0.96	0.95	0.93
		0	1	0.98	0.97	0.96	0.94
		-16	0.99	0.97	0.96	0.95	0.93
		-23	-	0.96	0.95	0.94	0.92
		-33	-	0.95	0.94	0.93	0.91
		-49	-	-	-	0.92	0.9

# 10. Capacity Correction

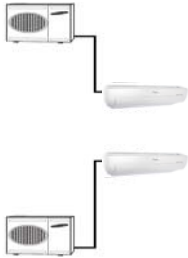
## Outdoor units

Quantum 2.0 : RNS18YBT+RXS18YBT (AR18TSFYBWKNCV+AR18TSFYBWKXCV),  
 RNS24YBT+RXS24YBT (AR24TSFYBWKNCV+AR24TSFYBWKXCV)

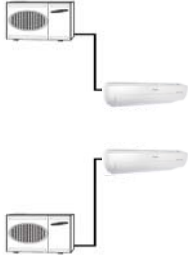
Max Heat 2.0 : RNS18ABT+RXS18ACT (AR18TSFABWKNCV+AR18TSFACWKXCV),  
 RNS24ABT+RXS24ACT (AR24TSFABWKNCV+AR24TSFACWKXCV)

Wind-Free™ 2.0 : RNS18ABT+RXS18ABT (AR18TSFABWKNCV+AR18TSFABWKXCV),  
 RNS24ABT+RXS24ABT (AR24TSFABWKNCV+AR24TSFABWKXCV)

### Cooling

		Pipe Length (ft)							
		16	33	41	49	66	82	98	
	Level Difference (ft)	66	-	-	-	-	-	0.87	0.85
		49	-	-	-	0.92	0.9	0.88	0.86
		33	-	0.95	0.94	0.93	0.91	0.89	0.87
		23	-	0.96	0.95	0.94	0.92	0.9	0.88
		16	0.99	0.97	0.96	0.95	0.93	0.91	0.89
		0	1	0.98	0.97	0.96	0.94	0.92	0.9
		-16	0.99	0.97	0.96	0.95	0.93	0.91	0.89
		-23	-	0.96	0.95	0.94	0.92	0.9	0.88
		-33	-	0.95	0.94	0.93	0.91	0.89	0.87
		-49	-	-	-	0.92	0.9	0.88	0.86
		-66	-	-	-	-	-	0.87	0.85

### Heating

		Pipe Length (ft)							
		16	33	41	49	66	82	98	
	Level Difference (ft)	66	-	-	-	-	-	0.87	0.85
		49	-	-	-	0.92	0.9	0.88	0.86
		33	-	0.95	0.94	0.93	0.91	0.89	0.87
		23	-	0.96	0.95	0.94	0.92	0.9	0.88
		16	0.99	0.97	0.96	0.95	0.93	0.91	0.89
		0	1	0.98	0.97	0.96	0.94	0.92	0.9
		-16	0.99	0.97	0.96	0.95	0.93	0.91	0.89
		-23	-	0.96	0.95	0.94	0.92	0.9	0.88
		-33	-	0.95	0.94	0.93	0.91	0.89	0.87
		-49	-	-	-	0.92	0.9	0.88	0.86
		-66	-	-	-	-	-	0.87	0.85

# 11. Installation

## Viewing the typical installation

A typical installation will be similar to the one shown below.

Unit : ft (m)

Model	Pipe length			Pipe height
	Minimum	Maximum	Standard for factory charge	Maximum
**09***** **12*****	9.8 (3)	65.6 (20)	24.6 (7.5)	49.2 (15)
**18***** **24*****	9.8 (3)	98.4 (30)	24.6 (7.5)	65.6 (20)

**CAUTION**

Make a U-trap (A) on the pipe (which is connected to the indoor unit) at outer wall and cut the bottom part of the insulation (about 10 mm) to prevent rainwater from getting inside through the insulation.

Cut insulation to have rainwater drained

# 11. Installation

## Choosing the installation location

If using a multi system, install as described in the installation manual supplied with the outdoor unit.

### WARNING

- Verify that a dedicated circuit breaker and a disconnect switch of the appropriate sizes for the air conditioner are preinstalled and available for use.
- Verify that the voltage and frequency of the power supply comply with the rated voltage as defined on the unit name plate.
- Verify that a suitable grounding connection is available.
- Do not install this appliance in an environment containing hazardous substances or close to equipment that releases open flames.
- Do not install this appliance near a heater or flammable material.

### CAUTION

- The manufacturer shall not be responsible for damage occurring as a result of the wrong voltage being applied to this air conditioner.
- The indoor and outdoor units must be installed in compliance with minimum clearances to ensure that both units are accessible from both sides and can be maintained or repaired. Insufficient clearance may reduce product performance, generate excessive noise, and reduce the life of some unit components.

### IMPORTANT

- Any changes or modifications to the installation described in this manual that are not expressly approved by the manufacturer could void the manufacturer's warranty.

To determine where to locate the indoor and outdoor units, you must survey the entire site and consider many variables. The goal is to select locations that comply with all safety precautions while also minimizing the total effort involved.

## Indoor unit location requirements

### WARNING

- Do not install the unit in a humid, oily, or dusty location or in a location exposed to direct sunlight, water, or rain.
- Make sure that the wall can support the unit weight.

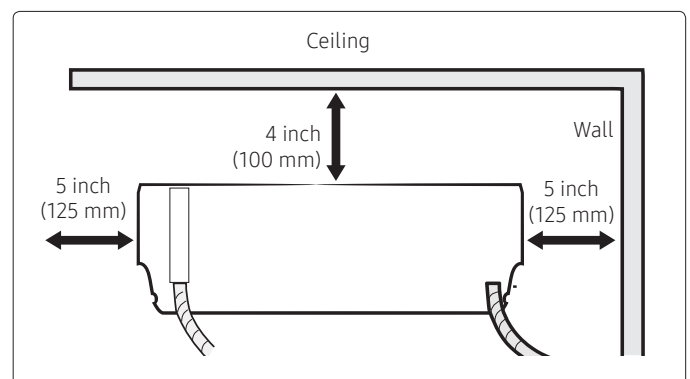
Examine the area that the customer wants to be air conditioned. Consider the following:

- What wall location will meet minimum clearances and provide optimal product performance?
- Will the wall provide adequate support for the unit weight (wall with stud construction or concrete)? If applicable, where are the studs?
- Where will you place the wall penetration for routing the piping bundle (consisting of power and communication cables, refrigerant pipes, and the drain hose) through the wall to the outdoor unit? Will the hole intersect any plumbing or wires in the wall?
- Is the location as close as possible to where the outdoor unit will be installed, to minimize the length of piping and cables?
- Will the condensate drain inside the room, through the wall penetration to the outdoor unit, or be connected to a condensate pump?

### NOTE

- This manual covers a typical gravity-drain installation where the drain hose is routed to the outdoor unit through a hole in the wall.

## Minimum clearances for the indoor unit



# 11. Installation

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## Outdoor unit location requirements

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Examine the area where the outdoor unit could be located. Consider the following:

- What location will meet minimum clearances and provide optimal product performance?
- Is there an existing level and hard foundation, such as a concrete pad, that will support the unit weight and produce minimal vibration? Installation on uneven ground may result in abnormal vibrations, noise, or problems with the unit.
- Does the unit need to be mounted on the wall?
- Where are the dedicated circuit breaker and disconnect switch located? How will you connect them to the unit?
- How will you route the piping bundle from the indoor unit? Is the location as close as possible to where the indoor unit will be installed, to minimize the length of piping and cables?
- Will the unit be sheltered from the wind? In a high-wind area, you may need to build a protective fence around the unit.
- Where will the condensate drain?

### **WARNING**

- The drain location must allow condensate to drain properly and prevent ice from forming on the unit in winter. If a block of ice falls from the unit, it may result in death, serious injury, or property damage. Improper or inadequate draining may result in water overflowing and property damage.

### **CAUTION**

- Do not connect the drain hose to existing waste pipes as odors may arise.

## Installation on an exterior wall

If the outdoor unit must be installed on an exterior wall, you will need an L-bracket to support the unit. This bracket is not included with the unit.

### **WARNING**

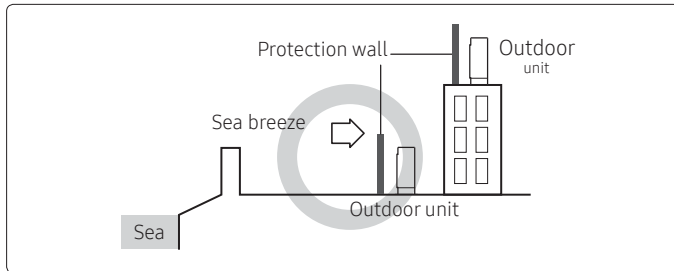
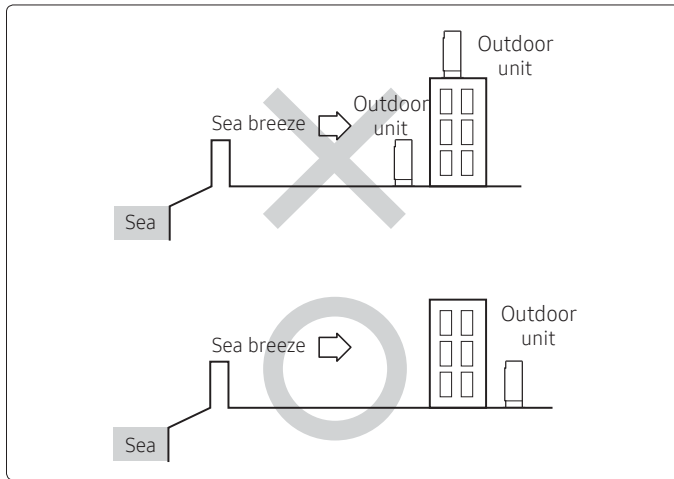
- The wall must be capable of supporting the weight of both the L-bracket and the outdoor unit. If the unit falls, it may result in crushing, electric shock, fire, or explosion that could cause death, severe personal injury, or property damage.

## Installation Guide at the seashore

Make sure to follow below guides when installing at the seashore.

- 1 Do not install the product in a place where it is directly exposed to sea water and sea breeze.
  - Make sure to install the product behind a structure (such as building) that can block sea breeze.
  - Even when it is inevitable to install the product in seashore, make sure that product is not directly exposed to sea breeze by installing a protection wall.
- 2 Consider that the salinity particles clinging to the external panels should be sufficiently washed out.
- 3 Because the residual water at the bottom of the outdoor unit significantly promotes corrosion, make sure that the slope does not disturb drainage.
  - Keep the floor level so that rain does not accumulate.
  - Be careful not to block the drain hole due to foreign substance.
- 4 When product is installed in seashore, periodically clean it with water to remove attached salinity.
- 5 Make sure to install the product in a place that provides smooth water drainage. Especially, ensure that the base part has good drainage.
- 6 If the product is damaged during the installation or maintenance, make sure to repair it.
- 7 Check the condition of the product periodically.
  - Check the installation site every 3 months and perform anti-corrosion treatment such as R-Pro supplied by SAMSUNG (Code : MOK-220SA) or commercial water repellent grease and wax, etc., based on the product condition.
  - When the product is to be shut down for a long period of time, such as off-peak hours, take appropriate measures like covering the product.
- 8 If the product installed within 1640.4 ft (500 m) of seashore, special anti-corrosion treatment is required.
  - ※ Please contact your local SAMSUNG representative for further details.

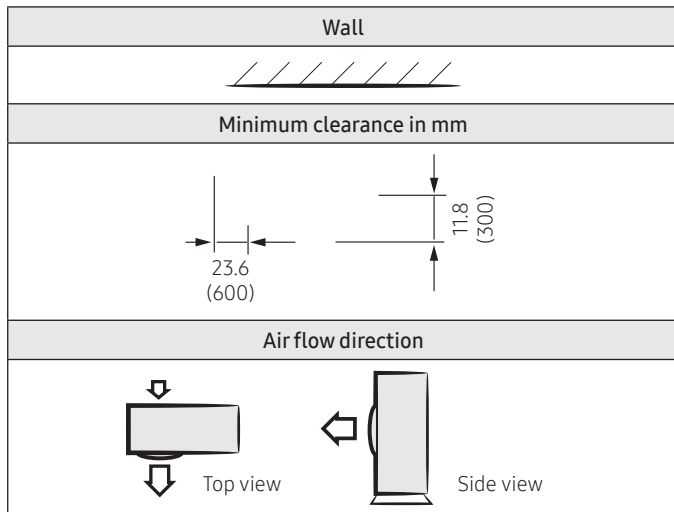
# 11. Installation



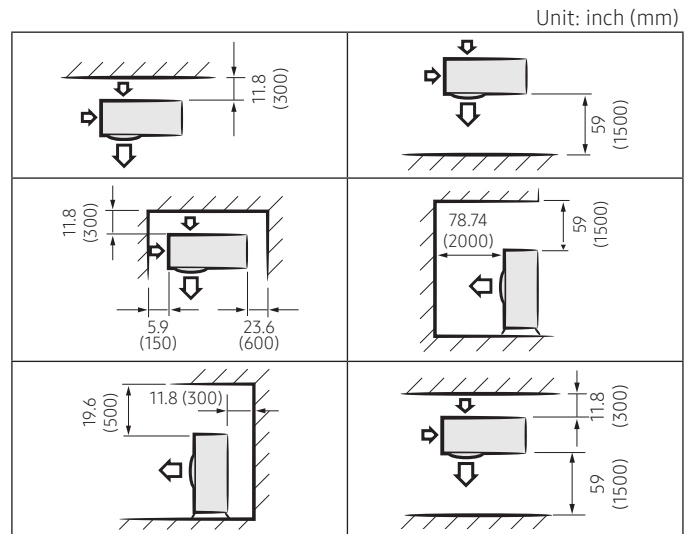
- Protection wall should be constructed with a solid material that can block the sea breeze and the height and width of the wall should be 1.5 times larger than the size of the outdoor unit. (You must secure more than 2296.6 ft (700 mm) of space between the protection wall and the outdoor unit for air circulation.)

## Minimum clearances for the outdoor unit

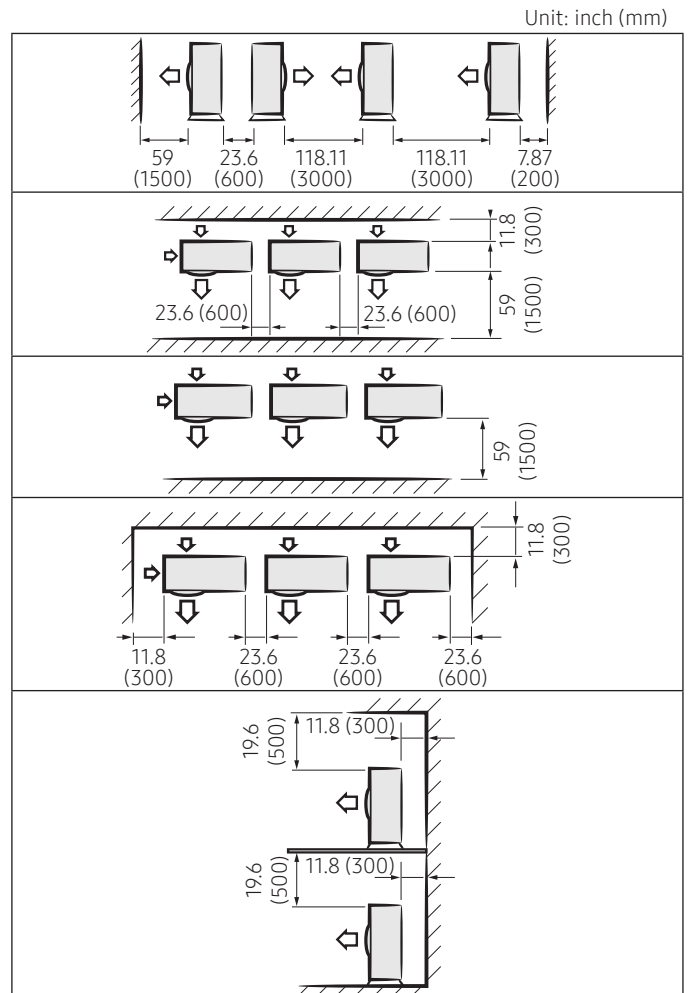
Legends:



## Examples for installing one outdoor unit:



## Examples for installing multiple outdoor units:



# 11. Installation

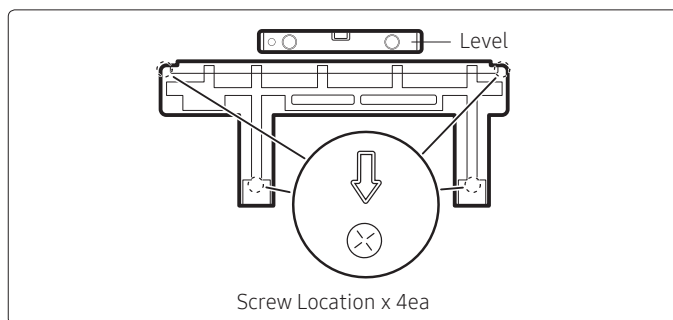
## Indoor Unit Installation

### Attaching the mounting bracket to the wall

- 1 Hold the mounting bracket against the wall at the selected installation position making sure that the screw holes align with the center of the studs in the wall. If the screw locations do not align with the studs, use wall anchors.

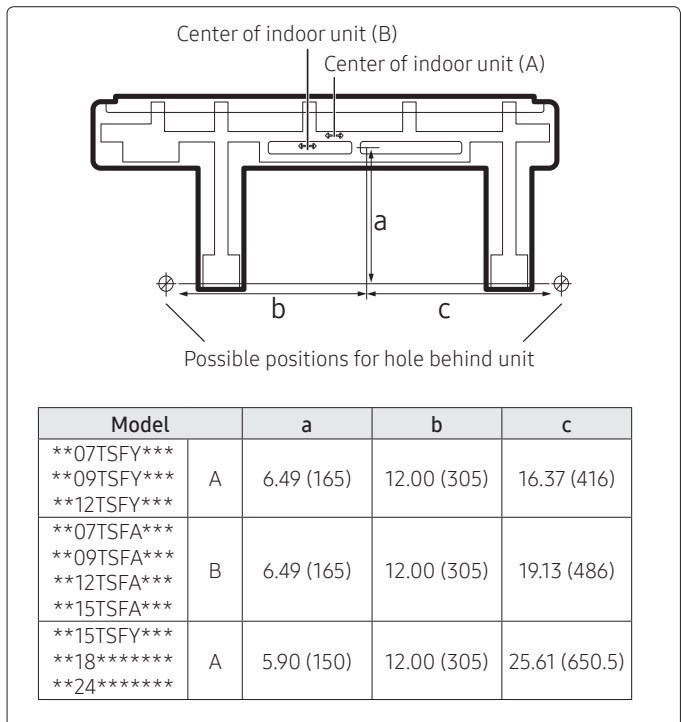
#### ⚠ CAUTION

- The recommended best practice is to attach the mounting bracket directly to the studs in the wall. If you did not find a suitable location with studs (Refer to the page 52), or if the wall is concrete, you must use wall anchors of a suitable type and weight capacity, and install them according to the manufacturer's instructions. Failure to do so may cause the material surrounding the joints to crumble over time and the screws to be loosened and stripped. This may result in the unit falling from the wall, which could cause physical injury or equipment damage.
- 2 Using a level, make sure that the mounting bracket is level, then mark the location of the screw holes on the wall.
  - 3 If using wall anchors, install them at the screw hole positions, following the manufacturer's instructions.
  - 4 Using six field-supplied mounting screws and anchors (if applicable), attach the bracket to the wall.



### Drilling the wall penetration

- 1 Determine the position of the hole through which the piping bundle (consisting of power and communication cables, refrigerant pipes, and the drain hose) will pass. Consider the following:
  - The hole inner diameter must be 2.5 inches (65 mm).
  - The recommended hole location is behind the unit so that the hole and the piping bundle will not be visible in the room. The minimum distances between the hole and the mounting bracket are:

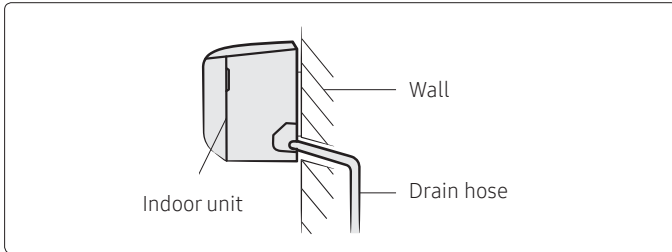


- If the hole cannot be positioned behind the unit, find a position as close to the unit as possible. The piping bundle that exits the unit and extends to the hole will need to be attached to the wall and will be visible inside the room.
- In relation to the bracket shown above, the unit is shipped with the drain hose connection on the right, the drain hose exits the unit on the left, and the refrigerant pipes are bent to exit on the left. Thus, positioning the hole to the left requires the least effort. If you position the hole to the right or below the unit, you will need to move the drain hose connection to the left and bend the pipes so that the hose and pipes exit to the right or bottom.

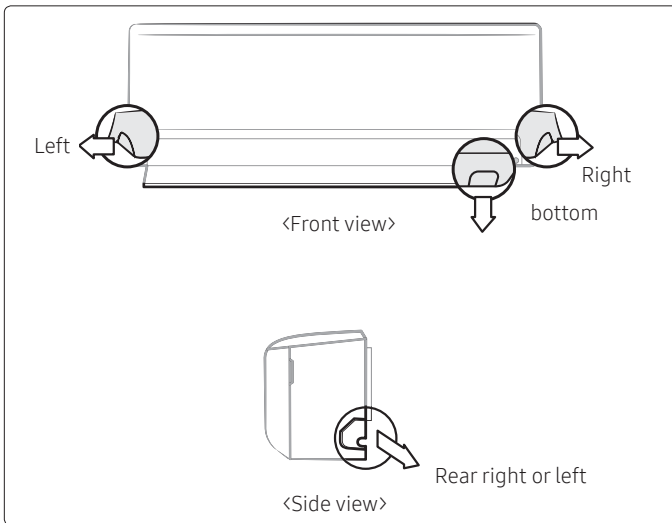
# 11. Installation

## Indoor Unit Installation

- Use a standard 2-5-inch (65-mm) hole saw to drill one hole at the selected location, at a 15° downward angle so that the drain hose will drain properly.



- Based on the hole location, determine where the piping bundle (drain hose, refrigerant pipes, and cables) will exit the unit.



### NOTE

- The left, right, or bottom exit will only be used if the hole is not positioned behind the unit.

## Connecting the power and communication cables

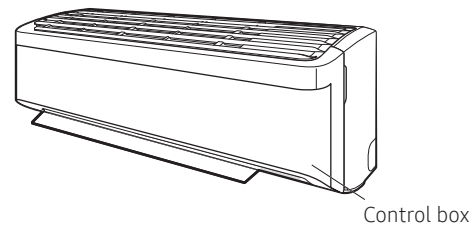
If using a multi system, install as described in the installation manual supplied with the outdoor unit.

### WARNING

- Do not modify the power cable in any way. Doing so may cause electric shock or fire due to poor connection, poor insulation, or current limit override. Make sure to comply with the technical standards of electrical installations and the wiring regulations in the local area.
- This appliance must be properly grounded. Do not ground the appliance to a gas pipe, plastic water pipe, or telephone line. Failure to comply may result in electric shock, fire, and explosion.

- Connect each wire to its corresponding terminal number.

Cable	Terminals
Power cable	L1, L2, ground
Communication cable	F1, F2



Before connecting				
	Correct	Upside down	Damaged	Non-circular
After connecting				
	Correct (Front view)	Correct (Side view)	Upside down	Non-fitted

<Circular terminal>



# 11. Installation

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## Indoor Unit Installation

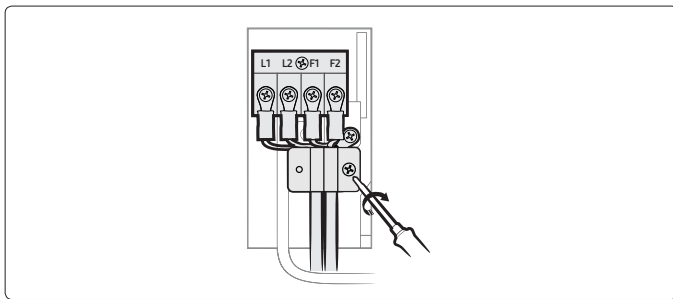
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### CAUTION

- Connect the wires firmly so that wires cannot be pulled out. Loose wires can cause the connection to overheat.  
Each circular terminal must match the size of its corresponding screw in the terminal block.

### CAUTION

- For the terminal block wiring, use a wire with a ring terminal socket only. Regular wires without a ring terminal socket may become a hazard as the connections may loosen during operation.
- 2 Tighten the terminal block screw.



- 3 You determined the exit position for the piping bundle. If using the left, right, or bottom exits, pass the cables through the selected knockout.

### NOTE

- Power supply cords of parts of appliances for outdoor use shall not be lighter than polychloroprene sheathed flexible cord. (Code designation IEC: 60245 IEC66/ CENELEC: H07RN-F, IEC: 60245 IEC57 CENELEC: H05RN-F, IEC: 60227 IEC53: H05VV-F)
- Power & Communication cable shall not exceed 98.42ft (30 m).

# 11. Installation

## Outdoor Unit Installation

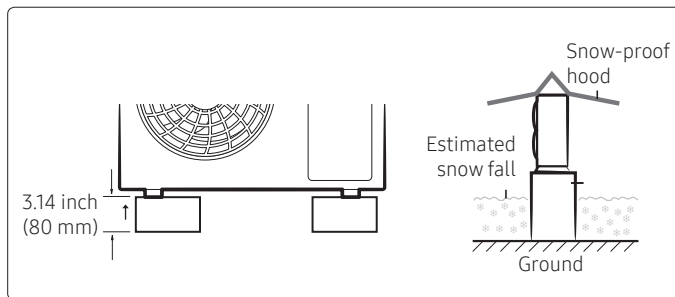
If using a multi system, install as described in the installation manual supplied with the outdoor unit.

### Mounting the outdoor unit

To promote proper condensate draining, the recommended installation of the outdoor unit is elevated above the ground on a mounting bracket attached to a concrete pad.

In areas where snowfall occurs, the unit must be mounted above the snow line to allow for proper heating. Snow cannot be allowed to collect on top of the unit. For promoting natural drainage in a heavy snow fall area:

- Make space more 3.14 inch (80 mm) between the bottom of the outdoor unit and the ground for installation. (Ensure that the drained water runs off correctly and safely.)
- Allow enough separation distance between the product and the ground.



### On the ground

- 1 Place the outdoor unit in the selected installation location, ensuring proper clearances and with the arrow on top of the unit pointing away from the wall.
- 2 Clip the rubber feet to the tabs to minimize sound and vibration to the structure.

Model	X	Y
**09*****	1.66 (507)	0.96 (292)
**12*****	2.17 (660)	1.12 (340)
**18*****	2.03 (620)	1.18 (360)

Unit: inch (mm)

- 3 Level the unit, then use anchor bolts to secure it at the four mounting points.
- 4 For installations in locations that require seismic or hurricane tie downs, comply with local codes.
- 5 If the selected location is exposed to strong winds, install a protective fence around the unit so that the fan can operate correctly.

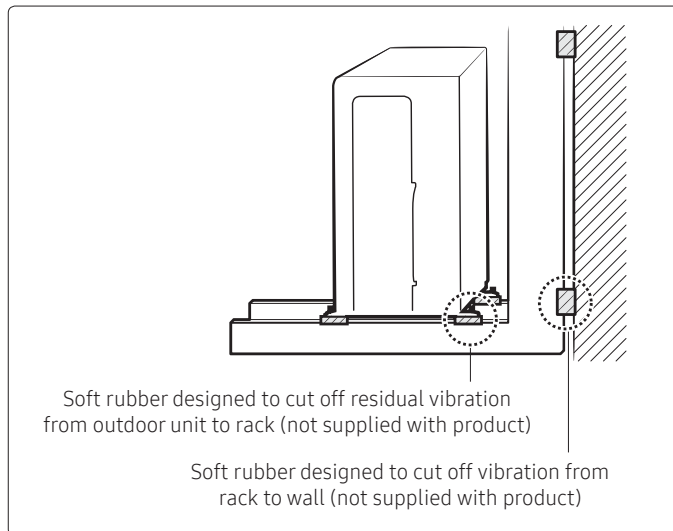
# 11. Installation

## Outdoor Unit Installation

### On a wall

#### **WARNING**

- The unit must be properly secured to the wall. If the unit falls, it may result in crushing, electric shock, fire, or explosion that could cause death, severe personal injury, or property damage.
- 1 At the selected installation location attach the L-bracket to the wall as follows:
    - Install the bracket as close to the wall as possible.
    - Insert rubber isolators between the bracket and the wall to minimize sound and vibration to the structure. Do not fully compress the isolators.



- Make sure that the bracket is level.
  - Use suitable bolts/washers and lock washers.
- 2 Place the outdoor unit on the bracket, ensuring proper clearances and with the arrow on top of the unit pointing away from the wall.
  - 3 Clip the rubber feet to the tabs to minimize sound and vibration to the structure.
  - 4 Level the unit, then use anchor bolts to secure it at the four mounting points.
  - 5 For installations in locations that require seismic or hurricane tie downs, comply with local codes.



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