

SUBMITTAL DATA SHEET

24 RT (H,Y)VAHR288B31S (Consists of one (H,Y)VAHR120B31S, one (H,Y)VAHR096B31S, and one (H,Y)VAHR072B31S module.)

Job Name:

Location:

Purchaser:

Order No.:

Engineer:

Submitted To:

For:

Ref:

Approval:

Construction:

Submitted By:

Date:

Unit Designation:

Schedule No.:

Model No.:

FEATURES:

- Three-pipe system for ductless and ducted applications
- Inverter-driven scroll compressor
- Air source simultaneous cooling and heating with change-over box
- Long refrigerant piping lengths – up to 3,280 feet total pipe run

ACCESSORIES:

- Change-over box (required for a heat recovery system): for details see Change-over box Submittals
- Piping Kit: for details see Pipe Accessories Submittal
- Hail/Snow Protection Hood: for details see Snow/Hail Guards Kit Submittal

NOTES:

*1 Rating Conditions are based on the AHRI 1230 test standard.

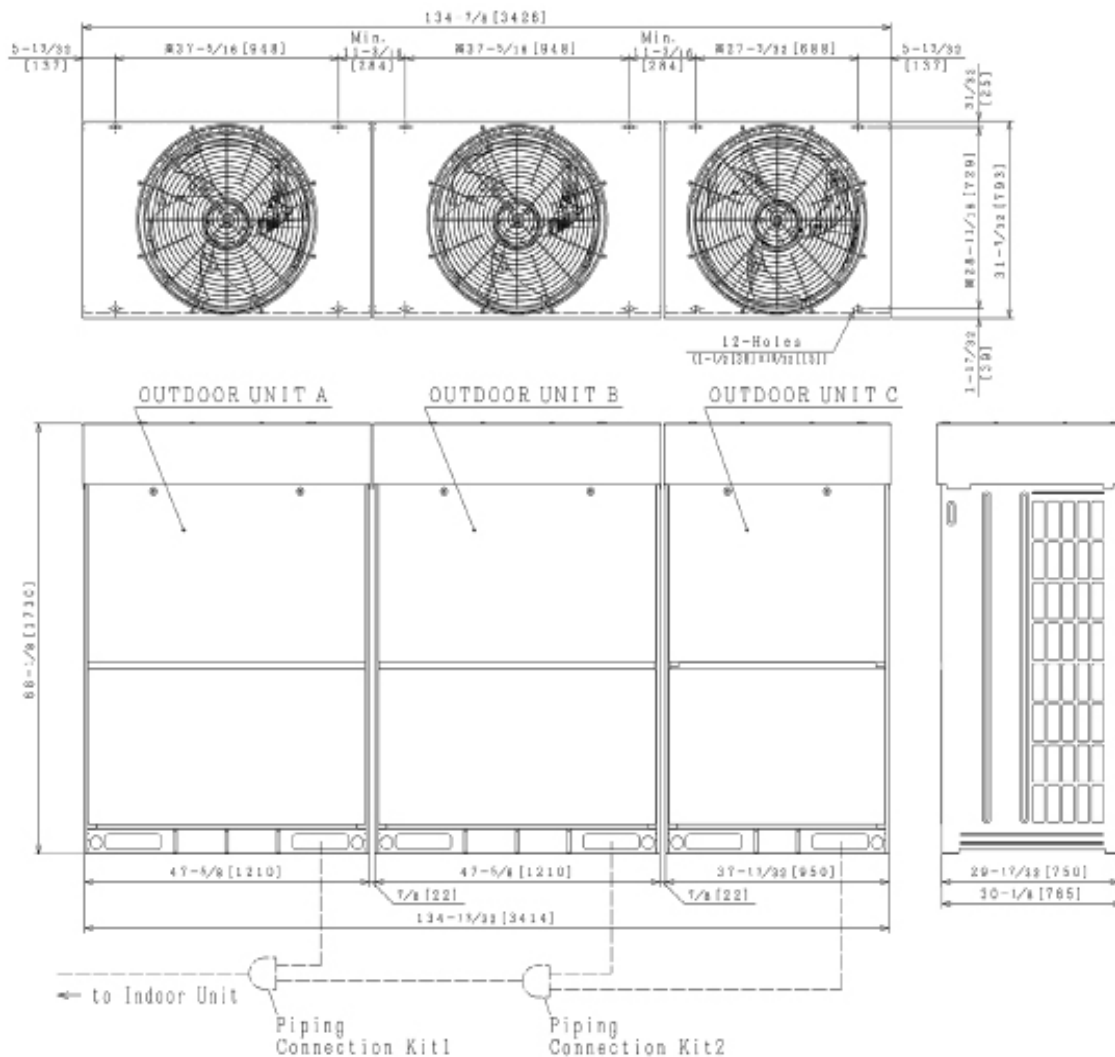
*2 Operation under harsh weather requires additional accessories.

*3 External static pressure can be changed to 0.24in.W.G.(60Pa).

Category	Type	Triple Units
	Ton	24RT (10RT+8RT+6RT)
Model (combination)		(H,Y)VAHR288B31S
Model (individual)	Unit A	(H,Y)VAHR120B31S
	Unit B	(H,Y)VAHR096B31S
	Unit C	(H,Y)VAHR072B31S
	Unit D	-
Power Supply		208/230V/ 3PH 60Hz
Cooling *1	Capacity	Btu/h (kW) 274000 (80.4)
	EER	Btu/Wh (W/W) 10.00 (2.93)
	Power input	kW 27.40
	Current input	A (208V/230V) 84.5 76.4
Cooling Operating Range *2	IEER	Btu/Wh (W/W) 18.60 (5.46)
	Indoor	F WB (°C WB) 59(15)~73(23)
	Outdoor	F DB (°C DB) 14(-10)~118(48)*1,*2
	Capacity	Btu/h (kW) 308000 (90.3)
Heating High *1	COP	W/W 3.70
	Power input	kW 24.42
	Current input	A (208V/230V) 75.3 68.1
	Capacity	Btu/h (kW) 216000 (63.4)
Heating Low *1	COP	W/W 2.42
	Indoor	F DB (°C DB) 59(15)~80(27)
	Outdoor	F WB (°C WB) -4(-20)~59(15)
	Capacity	Btu/h (kW) 25.20 (7.39)
Cooling and Heating	SCHE	Btu/Wh (W/W) 25.20 (7.39)
Cabinet Color (Munsell Code)		2.5Y 8/2
Outer Dimensions	Height	in (mm) 68-1/8 (1730)
	Width	in (mm) 134-7/8 (3426)
	Depth	in (mm) 31-7/32 (793)
Package Dimensions	Height	in (mm) - -
	Width	in (mm) - -
	Depth	in (mm) - -
Weight	Net	lbs (kg) 2002 (908)
	Gross	lbs (kg) 2163 (981)
Connection Ratio	Total Indoor Unit Capacity	% 135 - 65
	Max. (Recommendation) indoor units/system	64 (38)
Heat Exchanger	Type	Multi-Pass Cross-Finned Tube
	Material	Anti-corrosion/Cu-Al
Compressor	Type	Inverter
	Fix Speed	DA65PHD x 3
	Motor Output(Pole)	kW (Pole) E655DH x 2
	Start Method	6.0(6)+4.4(2) 4.8(6)+4.4(2)
	Operation Range	% inverter 6~100
	Refrigeration Oil Type	FVC68D
Crank Case Heater	W x Q'ty	40.8 (230V) x 10
Fan	Type	Propeller Fan
	Motor Output(Pole)	kW (Pole) 1.2(10) x 2+0.75(8)
	Quantity	Q'ty 3
	Air Flow Rate	cfm (m³/min) 7413+6884 (210+195)
	External static pressure *3	in.WG (Pa) +6178 +175
	Drive	0 (0) Direct-drive
Electrical	Min Circuit Amps	A -
	Recommended Fuse/Breaker Size	A -
	Maximum Fuse Size	A -
	Type-Qty	AWG18-2
Control	Maximum length	Ft (m) 3.280 (1000)
Sound Pressure Level	Cooling (Night-Shift)	dB(A) 67 (62)
	Heating	dB(A) 67
Protection devices	Cycle	High pressure switch at 4.15 (601psi)
	Inverter	Over-current protection
	Compressor	Over-heat protection
	PCB	Over-current protection
Refrigerant	Type-Qty	- R410A
	Charge amount	lb (kg) 20.9+18.7 (9.5+8.5)
Refrigeration Oil	Charge amount	gal/Unit (L/Unit) +16.1 +7.3
	Charge amount	2.1+2.1+1.6 (7.9+7.9)
Defrost Method		Reversed Refrigerant cycle +6.0
Main Refrigerant Piping (Heat Recovery)	Gas Line (High/Low)	in (mm) 1-5/8 (41.28)
	Gas Line (High/Low)	in (mm) 1-3/8 (34.93)
	Liquid Line	in (mm) 3/4 (19.05)

System Dimensions

Heat Recovery Type Model:
(H,Y)VAHR288B31S



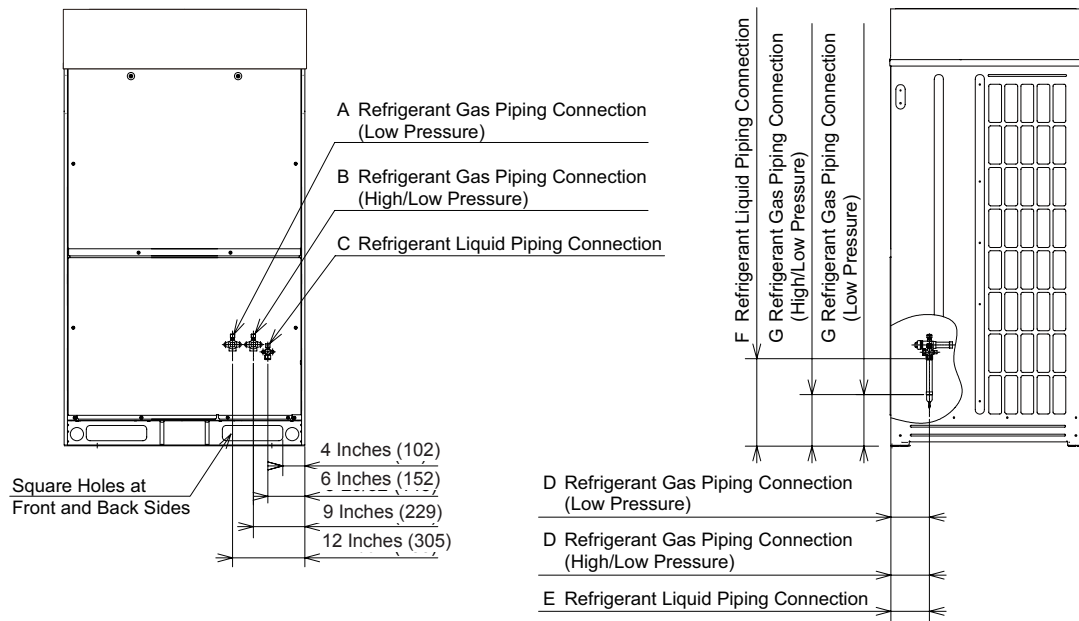
NOTES:

1. Make sure that the outdoor unit A is placed on the indoor unit side.
Arrange the outdoor units according to the capacity. A&B&C.
2. Check "Installation Manual" for the piping connection kit and piping connection size.
3. This drawing shows that there is 1/8 inch [22mm] clearance between the base units.
In case of the outdoor unit with "Snow Protection Hood (Optional Parts)" or "Air Outlet Duct (Field-Supplied)", the clearance between the base units of more than 1-31/32 inch [50mm] is required.
4. The dimensions marked with * indicates the mounting pitch dimension for anchor bolts.
5. The width of outer dimension and anchor bolt mounting position are changed by clearance between the base units.

Outdoor Unit Model	Combination of Base Unit Models		
	OUTDOOR UNIT A	OUTDOOR UNIT B	OUTDOOR UNIT C
(H, Y) VAHR288B31S	(H, Y) VAHR120B31S	(H, Y) VAHR096B31S	(H, Y) VAHR072B31S
(H, Y) VAHR288B41S	(H, Y) VAHR120B41S	(H, Y) VAHR096B41S	(H, Y) VAHR072B41S
(H, Y) VAHR312B31S	(H, Y) VAHR120B31S	(H, Y) VAHR120B31S	(H, Y) VAHR072B31S
(H, Y) VAHR312B41S	(H, Y) VAHR120B41S	(H, Y) VAHR120B41S	(H, Y) VAHR072B41S

Piping Connection Dimensions

Unit: inch (mm)



Model Type	Field Piping (*)					A	B	C	D	E	F	G
	Heat Recovery System		Heat Pump System		Liquid							
	Low Pressure Gas	High/ Low Pressure Gas	Low Pressure Gas	High/ Low Pressure Gas								
72	1-1/8 (28.58)	7/8 (22.2)	-	1-1/8 (28.58)	1/2 (12.7)	7/8 (22.2)	7/8 (22.2)	3/8 (9.52)	5-29/32 (150)	5-29/32 (150)	13-3/8 (340)	8-1/16 (205)
96	1-1/8 (28.58)	7/8 (22.2)	-	1-1/8 (28.58)	1/2 (12.7)	1 (25.4)	1 (25.4)	1/2 (12.7)	6-11/16 (170)	6-11/16 (170)	12-25/32 (325)	7-7/8 (200)
120	1-1/8 (28.58)	7/8 (22.2)	-	1-1/8 (28.58)	1/2 (12.7)	1 (25.4)	1 (25.4)	1/2 (12.7)	6-11/16 (170)	6-11/16 (170)	12-25/32 (325)	7-7/8 (200)

*Using the accessory pipe (refer to Table 3.6 "Factory-Supplied Accessories"), combine the piping size.

Figure 6.2 Refrigerant Piping Connection



version 201606