

# SUBMITTAL DATA SHEET

14 RT (H,Y)VAHP168B31S (Consists of one (H,Y)VAHP096B31S and one (H,Y)VAHP072B31S module.)

<b>Job Name:</b>		<b>Location:</b>	
<b>Purchaser:</b>		<b>Order No.:</b>	
<b>Engineer:</b>			
<b>Submitted To:</b>	<b>For:</b>	<b>Ref:</b>	<b>Approval:</b>
			<b>Construction:</b>
<b>Submitted By:</b>		<b>Date:</b>	
<b>Unit Designation:</b>		<b>Schedule No.:</b>	<b>Model No.:</b>

## FEATURES:

- Two-pipe system for ductless and ducted applications
- Inverter-driven scroll compressor
- Long refrigerant piping lengths – up to 3,280 feet total pipe run

## ACCESSORIES:

- Piping Kit: for details see Pipe Accessories Submittal
- Hail/Snow Protection Hood: for details see Snow/Hail Guards Kit Submittal

## NOTES:

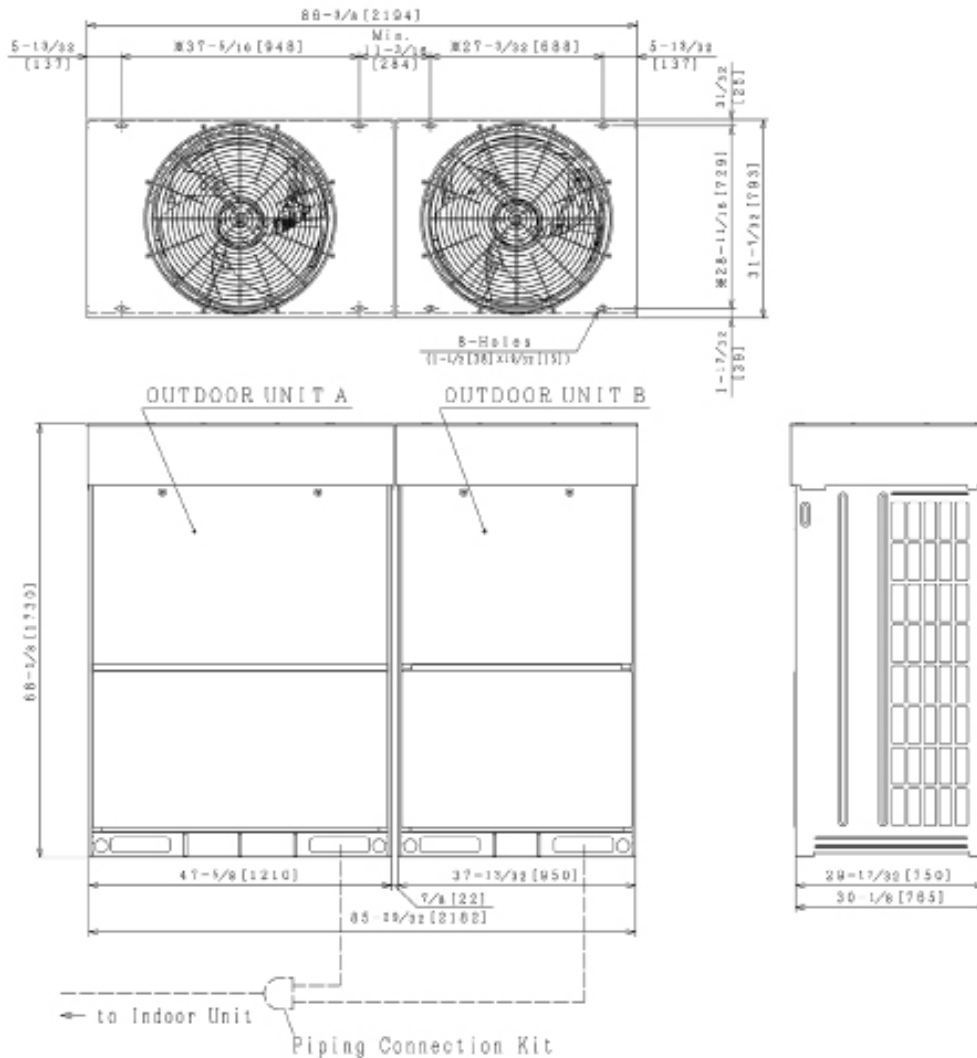
- \*1 Rating Conditions are based on the AHRI 1230 test standard.
- \*2 Operation under harsh weather requires additional accessories.
- \*3 External static pressure can be changed to 0.24in.W.G.(60Pa).

Category	Type		Twin Units	
	Ton		14RT (8RT+6RT)	
Model (combination)			(H,Y)VAHP168B31S	
Model (individual)	Unit A		(H,Y)VAHP096B31S	
	Unit B		(H,Y)VAHP072B31S	
	Unit C		-	
	Unit D		-	
Power Supply			208/230V/ 3PH 60Hz	
Cooling *1	Capacity	Btu/h (kW)	160000	(46.9)
	EER	Btu/Wh (W/W)	11.40	(3.34)
	Power input	kW	14.04	
	Current input	A (208V/230V)	43.3	39.2
Cooling Operating Range *2	IEER	Btu/Wh (W/W)	19.70	(5.78)
	Indoor	F DB (°C WB)	59(15)~73(23)	
Heating High *1	Outdoor	F DB (°C DB)	14(-10)~118(48)*1,*2	
	Capacity	Btu/h (kW)	178000	(52.2)
Heating Low *1	COP	W/W	3.69	
	Power input	kW	14.15	
	Current input	A (208V/230V)	43.6	39.5
Heating Operating Range *2	Capacity	Btu/h (kW)	129000	(37.8)
	Indoor	F DB (°C DB)	59(15)~80(27)	
Cabinet Color (Munsell Code)	Outdoor	F DB (°C WB)	-4(-20)~59(15)	
			2.5Y 8/2	
Outer Dimensions	Height	in (mm)	68-1/8	(1730)
	Width	in (mm)	86-3/8	(2194)
	Depth	in (mm)	31-7/32	(793)
Package Dimensions	Height	in (mm)	-	-
	Width	in (mm)	-	-
	Depth	in (mm)	-	-
Weight	Net	lbs (kg)	1270	(576)
	Gross	lbs (kg)	1374	(623)
Connection Ratio	Total Indoor Unit Capacity	%	140 - 65	
	Max. (Recommendation) indoor units/system		39 (32)	
Heat Exchanger	Type		Multi-Pass Cross-Finned Tube	
	Material		Anti-corrosion/Cu-Al	
Compressor	Type	Inverter	DA65PHD x 2	
	Fix Speed		E655DH x 1	
	Motor Output (Pole)	kW (Pole)	4.8(6)+4.4(2)	7.26(6)
	Start Method		inverter	
	Operation Range	%	9~100	
Crank Case Heater	Refrigeration Oil Type		FVC68D	
Fan	W x Q'ty		40.8 (230V) x 6	
	Type		Propeller Fan	
	Motor Output (Pole)	kW (Pole)	1.2(10)+0.75(8)	
	Quantity	Q'ty	2	
	Air Flow Rate	cfm (m <sup>3</sup> /min)	6884+6178	(195+175)
Electrical	External static pressure *3	in.WG (Pa)	0 (0)	
	Drive		Direct-drive	
Control	Min Circuit Amps	A	-	
	Recommended Fuse/Breaker Size	A	-	
	Maximum Fuse Size	A	-	
Sound Pressure Level	Type-Qty		AWG18-2	
	Maximum length	Ft (m)	3,280 (1000)	
Protection devices	Cooling (Night-Shift)	dB(A)	65	(60)
	Heating	dB(A)	65	
	Cycle		High pressure switch at 4.15 (601psi)	
	Inverter		Over-current protection Over-heat protection	
Refrigerant	Compressor		Over-heat protection	
	PCB		Over-current protection	
Refrigeration Oil	Type-Qty		R410A	
	Charge amount	lb (kg)	18.7+16.1	(8.5+7.3)
Defrost Method	Charge amount	gal/Unit (L/Unit)	2.1+1.6	(7.9+6.0)
	Gas Line (High/Low)	in (mm)	1-3/8	(34.93)
Main Refrigerant Piping (Heat Pump)	Liquid Line	in (mm)	3/4	(19.05)

# System Dimensions

Heat Pump Type

Model: (H,Y)VAHP168B31S



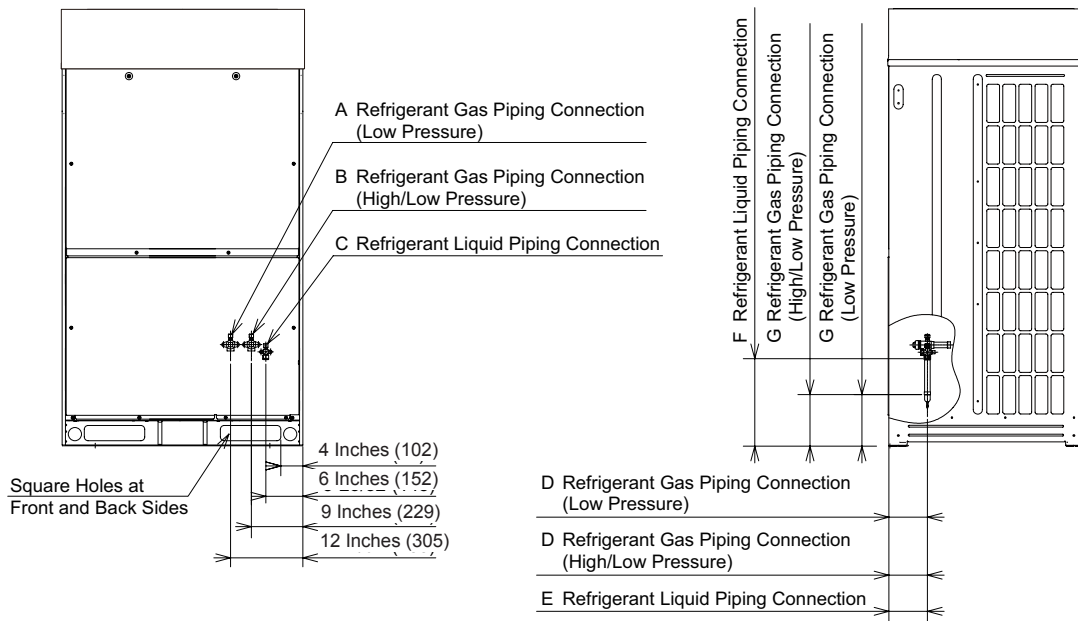
**NOTES:**

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.
2. Check "Installation Manual" for the piping connection kit and piping connection size.
3. This drawing shows that there is 7/8 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 M 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
(H, Y) VAHP168B31S	(H, Y) VAHP096B31S	(H, Y) VAHP072B31S
(H, Y) VAHP168B41S	(H, Y) VAHP096B41S	(H, Y) VAHP072B41S

# 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 201702