

# SUBMITTAL DATA SHEET

14 RT (H,Y)VAHP168B41S (Consists of one (H,Y)VAHP096B41S and one (H,Y)VAHP072B41S 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>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 shown as below with piping length 24 feet 7-3/16 inch, piping height 0 feet.
  - Cooling  
Indoor Air Inlet Temperature: 80 DB, 67F WB  
Outdoor Air Inlet Temperature: 95F DB
  - Heating  
Indoor Air Inlet Temperature: 70 F DB  
Outdoor Air Inlet Temperature: 47F DB, 43F WB
2. Rating Conditions are based on the AHRI 1230 test standard.
3. For more details, please refer to Engineering manual "Operation range" section.
4. For more details, please refer to Engineering manual "Operation range" section.
5. External static pressure can be changed via DSW setting 0.24 in.W.G. (60Pa).

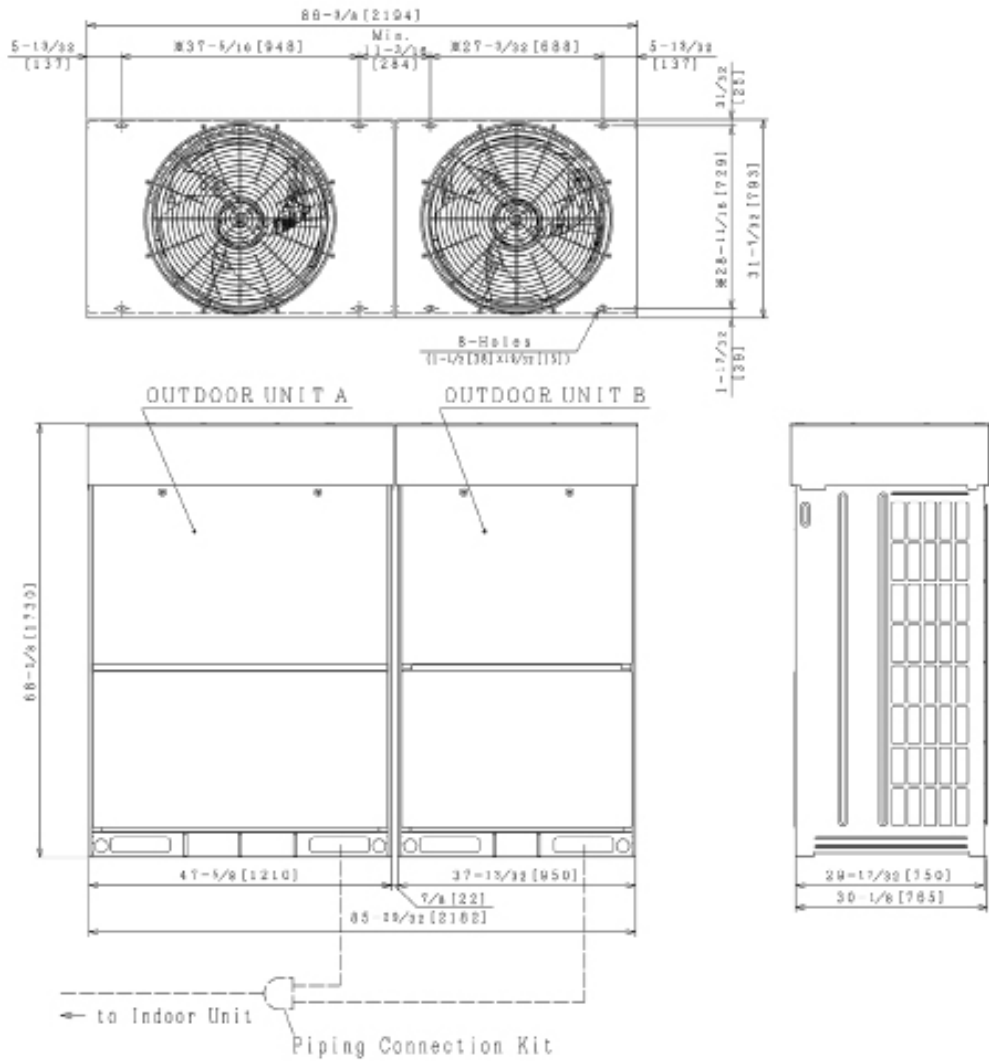
Category		Ton		14RT (8RT+6RT)		
Model (combination)				(H,Y)VAHP168B41S		
Model (individual)		Unit A		(H,Y)VAHP096B41S		
		Unit B		(H,Y)VAHP072B41S		
		Unit C		-		
		Unit D		-		
Power Supply				460V/ 3PH 60Hz		
Capacity (Nominal) <sup>1</sup>	Cooling	Capacity (Nominal)	Btu/h (kW)	168,000	(49.2)	
		Power input	kW	13.69		
		Current input	A	19.1		
	Heating	Capacity (Nominal)	Btu/h (kW)	189,000	(55.4)	
		Power input	kW	13.26		
		Current input	A	19.4		
Efficiency Ratings <sup>2</sup>	Cooling	Capacity (Rated)	Btu/h (kW)	160,000	(46.9)	
		EER	Btu/Wh (W/W)	10.80	(3.17)	
		IEER	Btu/Wh (Wh/Wh)	19.40	(5.69)	
	Heating	Capacity (Rated)	Btu/h (kW)	178,000	(52.2)	
		COP	W/W	3.51		
		Capacity	Btu/h (kW)	129,000	(37.8)	
				COP		
				2.16		
Cooling Operating Range	Indoor	°F WB (°C WB)		59(15)~73(23)		
	Outdoor <sup>3</sup>	°F DB (°C DB)		14(-10)~118(48)		
Heating Operating Range	Indoor	°F DB (°C DB)		59(15)~80(27)		
	Outdoor <sup>4</sup>	°F WB (°C WB)		-4(-20)~59(15)		
Cabinet Color (Munsell Code)				2.5Y 8/2		
Outer Dimensions (H x W x D)		in		(68-1/8 x 37-7/8 x 31- 7/32) x 2		
Package Dimensions (H x W x D)		in		(74-1/4 x 40-5/8 x 34-1/32) x 2		
Weight	Net	lbs	(kg)	1402	(636)	
	Gross	lbs	(kg)	1506	(683)	
Total Indoor Unit Capacity				140 - 65		
Connection Ratio		Max. (Recommendation) indoor units/system		39(32)		
Heat Exchanger	Type			Multi-Pass Cross-Finned Tube		
	Material			Cu-Al (Anti-corrosion)		
Compressor	Type	Inverter	-	DA65PHD×2		
		Fixed Speed	-	DA65PHC×1		
	Motor Output (Pole)	kW (Pole)		4.8(6)+4.4(2) 7.26(6)		
	Start Method			inverter		
	Operation Range	%		9~100		
	Refrigeration Oil Type			FVC68D		
Crank Case Heater		W×Qty		40.8(230V)×6		
Fan	Type			Propeller Fan		
	Motor Output (Pole)	kW (Pole)		0.66(8)+0.49(8)		
	Quantity	Qty		2		
	Air Flow Rate	cfm	(m <sup>3</sup> /min)	6884+6178	(195+175)	
	External static pressure <sup>5</sup>	in.WG	(Pa)	0 (0)		
Drive				Direct-drive		
Electrical	Min Circuit Amps	A		-		
	Recommended Fuse/Breaker Size	A		-		
	Maximum Fuse Size	A		-		
Sound Pressure Level	Cooling (Night-Shift)	dB(A)		65	(60)	
	Heating	dB(A)		65		
Protection devices	Cycle			High pressure switch at 60.1psi (4.15MPa)		
	Inverter			Over-current protection		
	Compressor			Over-heat protection		
	PCB			Over-current protection		
Refrigerant	Type			R410A		
	Charge amount	lbs	(kg)	18.7+16.1	(8.5+7.3)	
Refrigeration Oil	Charge amount	gal/Unit	(ℓ/Unit)	2.1+1.6	(7.9+6.0)	
Defrost Method				Reversed Refrigerant cycle		
Main Refrigerant Piping (Heat Pump)	High/Low Pressure Gas Line	in	(mm)	1-3/8	(34.93)	
	Liquid Line	in	(mm)	3/4	(19.05)	

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# System Dimensions

Heat Pump Type

Model: (H,Y)VAHP168B41S



**NOTES:**

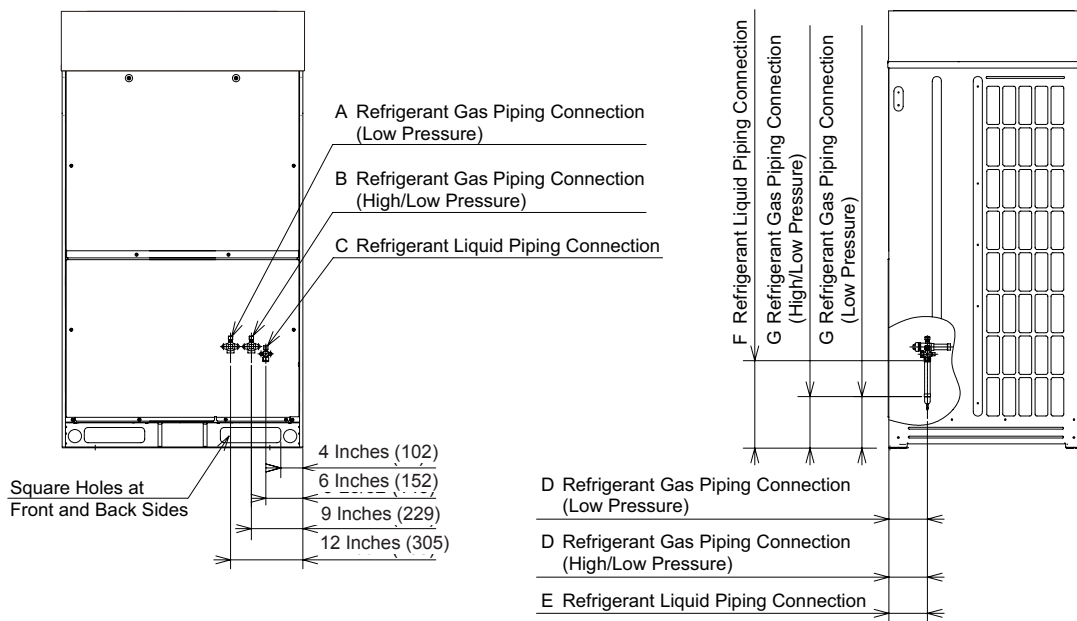
1. Make sure that the outdoor unit A is placed on the indoor unit side. Arrange the outdoor units according to the capacity, A&B.
2. Check "Installation Manual" for the piping connection kit and piping connection size.
3. This drawing shows that there is 7/8 inch [22mm] clearance between the base units. 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  $\mathbb{M}$  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

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# 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

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