

SUBMITTAL DATA SHEET

30 RT (H,Y)VAHR360B41S (Consists of one (H,Y)VAHR120B41S, one (H,Y)VAHR096B41S and two (H,Y)VAHR072B41S modules.)

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:

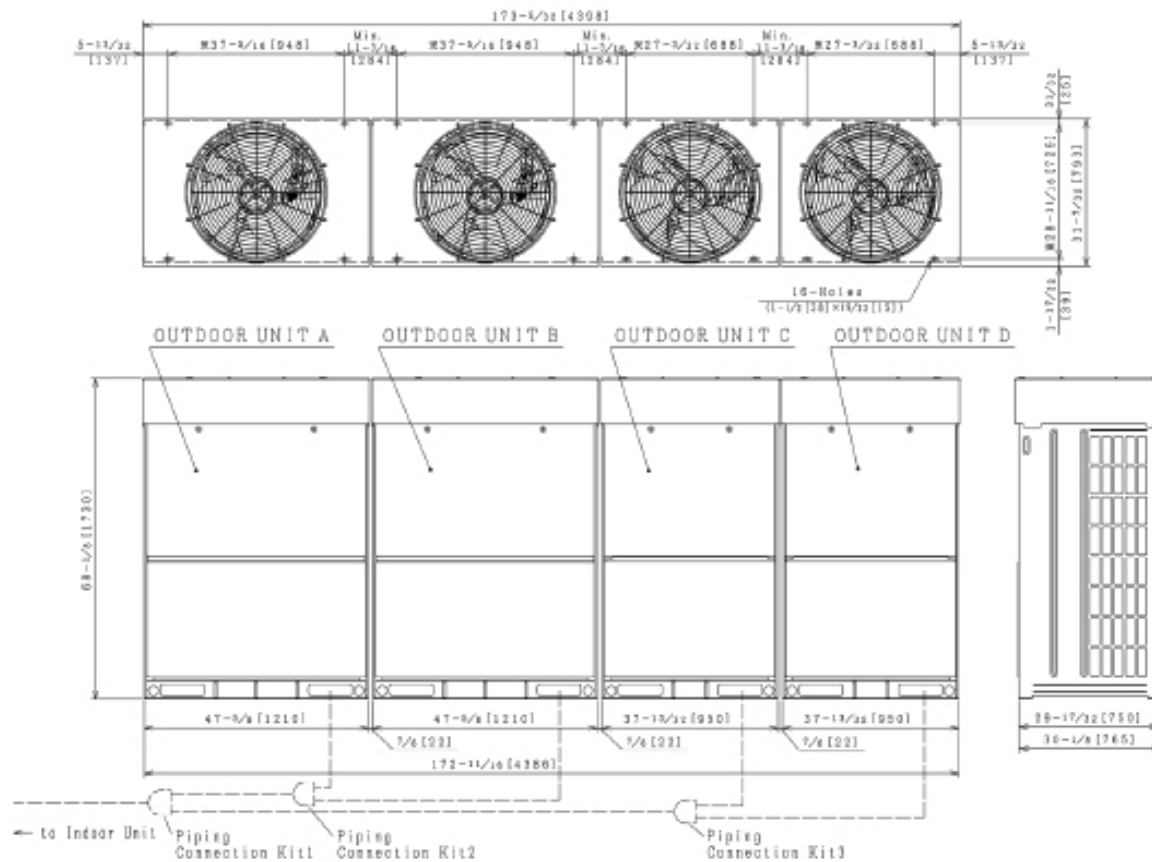
- Rating Conditions are shown as below with piping length 24 feet 7-3/16 inch, piping height 0 feet.
Cooling
Indoor Air Inlet Temperature: 80 DB, 67F WB
Outdoor Air Inlet Temperature: 95F DB
Heating
Indoor Air Inlet Temperature: 70 F DB
Outdoor Air Inlet Temperature: 47F DB, 43F WB
- Rating Conditions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

Category		Ton		30RT (10RT+10RT+10RT)	
Model (combination)				(H,Y)VAHR360B41LM	
Model (individual)		Unit A		(H,Y)VAHR120B41S	
		Unit B		(H,Y)VAHR120B41S	
		Unit C		(H,Y)VAHR120B41S	
		Unit D		-	
Power Supply				460V/ 3PH 60Hz	
Capacity (Nominal) ¹	Cooling	Capacity (Nominal)		Btu/h	(kW)
		Power input		kW	
		Current input		A	
	Heating	Capacity (Nominal)		Btu/h	(kW)
		Power input		kW	
		Current input		A	
Efficiency Ratings ²	Cooling	Capacity (Rated)		Btu/h	(kW)
		EER		Btu/Wh	(W/W)
		IEER		Btu/Wh	(Wh/Wh)
	Heating	Capacity (Rated)		Btu/h	(kW)
		COP		W/W	
	High	Capacity		Btu/h	(kW)
	Low	COP		W/W	
Cooling Operating Range	Indoor	°F WB (°C WB)		59(15)~73(23)	
	Outdoor ³	°F DB (°C DB)		14(-10)~118(48)	
Heating Operating Range	Indoor	°F DB (°C DB)		59(15)~80(27)	
	Outdoor ⁴	°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 3	
Package Dimensions (H x W x D)				in (74-1/4 x 40-5/8 x 34-1/32) x 3	
Weight	Net			lbs	(kg)
	Gross			lbs	(kg)
Connection Ratio	Total Indoor Unit Capacity				%
	Max. (Recommendation) indoor units/system			64 (38)	
Heat Exchanger	Type			Multi-Pass Cross-Finned Tube	
	Material			Cu-Al (Anti-corrosion)	
Compressor	Type	Inverter			DA65PHD×3
		Fixed Speed			DA65PHC×3
	Motor Output (Pole)		kW (Pole)		6.0(6)+4.4(2) 6.0(6)+4.4(2) 6.0(6)+4.4(2)
	Start Method				inverter
	Operation Range		%		5~100
	Refrigeration Oil Type				FVC68D
Crank Case Heater		W×Q'ty		40.8 (230V) ×12	
Fan	Type				Propeller Fan
	Motor Output (Pole)		kW (Pole)		0.91(8)×3
	Quantity		Q'ty		3
	Air Flow Rate		cfm	(m³/min)	7413+7413 (210+210 +7413
	External static pressure ⁵		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)		69 (62)
	Heating		dB(A)		69
Protection devices	Cycle				High pressure switch at 601psi (4.15MPa)
	Inverter				Over-current protection
	Compressor				Over-heat protection
	PCB				Over-current protection
Refrigerant	Type				R410A
	Charge amount		lbs	(kg)	20.9+20.9 (9.5+9.5 +20.9
Refrigeration Oil	Charge amount		gal/Unit	(l/Unit)	2.1+2.1+2.1 (7.9+7.9 +7.9)
Defrost Method				Reversed Refrigerant cycle	
Main Refrigerant Piping (Heat Pump)	High/Low Pressure Gas Line		in	(mm)	1-5/8 (41.28)
	Liquid Line		in	(mm)	3/4 (19.05)

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System Dimensions

Heat Recovery Type Model:
(H,Y)VAHR360B41S



Outdoor Unit Model	Combination of Base Unit Models			
	OUTDOOR UNIT A	OUTDOOR UNIT B	OUTDOOR UNIT C	OUTDOOR UNIT D
(H, Y) VAHR360B31S	(H, Y) VAHR096B31S	(H, Y) VAHR096B31S	(H, Y) VAHR072B31S	(H, Y) VAHR072B31S
(H, Y) VAHR360B41S	(H, Y) VAHR096B41S	(H, Y) VAHR096B41S	(H, Y) VAHR072B41S	(H, Y) VAHR072B41S
(H, Y) VAHR360B31S	(H, Y) VAHR120B31S	(H, Y) VAHR096B31S	(H, Y) VAHR072B31S	(H, Y) VAHR072B31S
(H, Y) VAHR360B41S	(H, Y) VAHR120B41S	(H, Y) VAHR096B41S	(H, Y) VAHR072B41S	(H, Y) VAHR072B41S

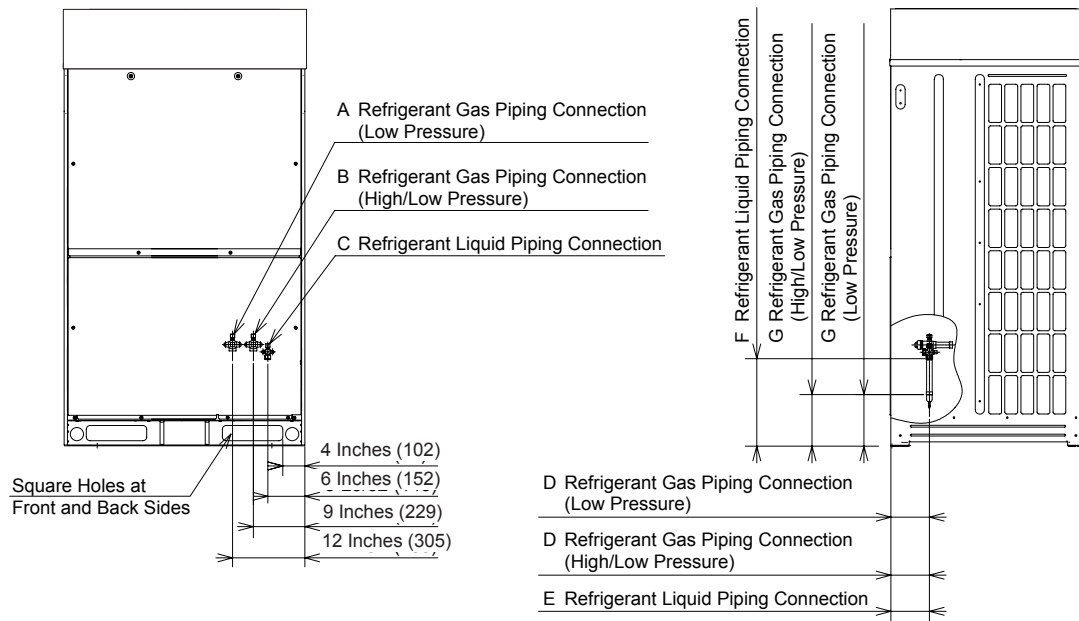
NOTES:

- 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&D.
- Check "Installation Manual" for the piping connection kit and piping connection size.
- 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.
- The dimensions marked with M indicates the mounting pitch dimension for anchor bolts.
- The width of outer dimension and anchor bolt mounting position are changed by clearance between the base units.

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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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