

## SUBMITTAL DATA SHEET

(H,Y)VAHR408B52S Consists of two (H,Y)VAHR144B52S module and one (H,Y)VAHR120B52S module



Job Name:	Location:
Purchaser:	Order No.:
Engineer:	Construction:
Submitted To:	Approval:
Submitted By:	Date:
Unit Designation:	Schedule No.:

### FEATURES:

(Heat Recovery 575V)

- All Inverter Compressors deliver conditions and provide comfortable individual zone control.
- Large-capacity single outdoor modules (up to 16 Ton) increase flexibility, space and weight savings, and reduce piping and electrical connections.
- Design flexibility with long piping lengths up to 3,280 ft. total and up to 360 ft. vertical distance between Outdoor Units and Indoor Units
- Provide efficient heating down to -13°F and cooling down to 23°F ambient air temperature. (Cooling down to 23°F as standard and down to -10°F with accessories installed)
- Space efficient and lightweight – provides flexibility in system layout and installation
- Maintenance friendly design of Outdoor Unit – all components accessible from the front

**ACCESSORIES:** (for detailed information, see VRF Engineering Manual and separate documentation for each accessory)

- Piping Kit
- Snow Protection Hood
- Protection Net
- Pipe Adapter
- Low Ambient Kit

			34 Ton
Model	575V, 3PH, 60Hz		(H,Y)VAHR408B52S
Unit Combination	575V, 3PH, 60Hz	Unit A	(H,Y)VAHR144B52S
		Unit B	(H,Y)VAHR144B52S
		Unit C	(H,Y)VAHR120B52S
Nominal Capacity	Cooling	Btu/h	408,000
	Heating	Btu/h	459,000
Performance *1 (Non-duct / Duct)	Rated Cooling Capacity	Btu/h	380,000
	EER	Btu/Wh	9.5 / 9.5
	IEER	Btu/Wh	19.3 / 19.2
	Rated Heating Capacity	Btu/h	435,000
	COP	W/W	3.34 / 3.37
	SCHE	Btu/Wh	28.9 / 26.3
	Sound Pressure *3	dB(A)	69
Operating *2 Temperature Range	Cooling	°F DB [°C DB]	23 ~ 122 [-5 ~ 50]
	Heating	°F WB [°C WB]	-13 ~ 59 [-25 ~ 15]
Refrigerant	Type		R410A
	Factory Charge Amount (Unit A + Unit B + Unit C)	lb. [kg]	23.6+23.6+21.8 [10.7+10.7+9.9]
Refrigerant Piping	Liquid Pipe	in. [mm]	3/4 [19.05]
	High/Low Pressure Gas Pipe	in. [mm]	1-1/8 [28.58]
	Low Pressure Gas Pipe	in. [mm]	1-5/8 [41.28]
Connection *2 Ratio	Connection Ratio Range	%	130(150) - 55
	Number of Indoor Units (Recommended / Maximum)	Qty.	30 / 64
Electrical	Minimum Circuit Amps, MCA (Unit A + Unit B + Unit C)	A	24+24+19
	Maximum Overcurrent Protection, MOP (Unit A + Unit B + Unit C)	A	30+30+25
Compressor	Compressor Type		Inverter
	Operation Range	%	2 ~ 100
Fan	Fan Type		Propeller Fan x6
	Airflow Rate (Unit A + Unit B + Unit C)	cfm [m³/min]	9037+9037+9037 [256+256+256]
	External Static Pressure	in. WG [Pa]	0 ~ 0.32 [0 ~ 80]
Unit	Dimensions (H x W x D)	in. [mm]	66-1/4 x 147-7/16 x 30-1/2 [1683 x 3745 x 774]
	Weight (Unit A + Unit B + Unit C)	lb. [kg]	737+737+734 [334+334+333]

### NOTES:

\*1. Capacity and efficiency ratings are based on the AHRI 1230 test standard.

\*2. For more details, refer to the engineering manual.

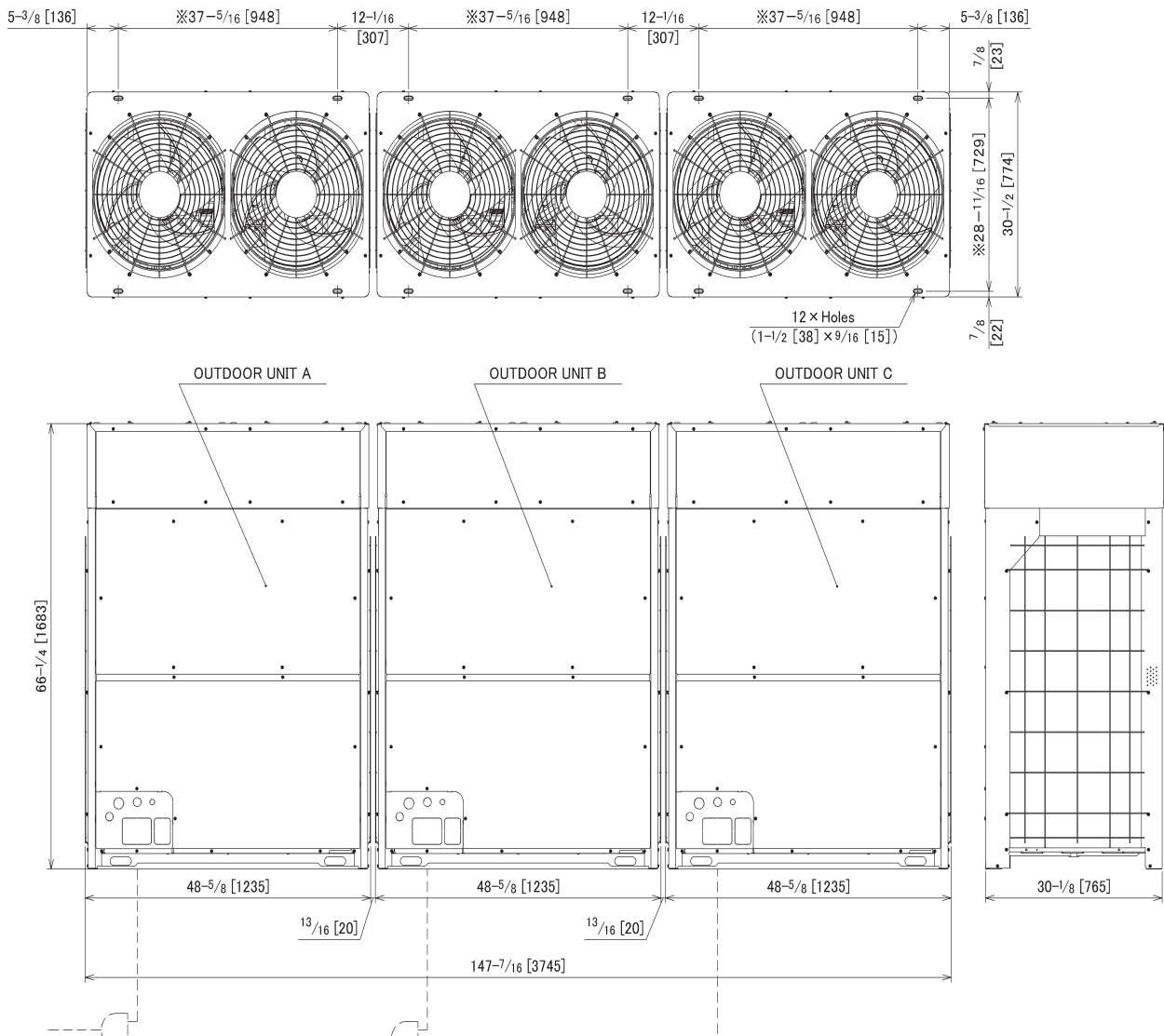
\*3. Sound pressure: 3.3 ft. [1 m] from the air outlet side, 4.9 ft. [1.5 m] from floor level.

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# System Dimensions

Heat Recovery Model: (H,Y)VAHR408B52S

Unit: inch (mm)



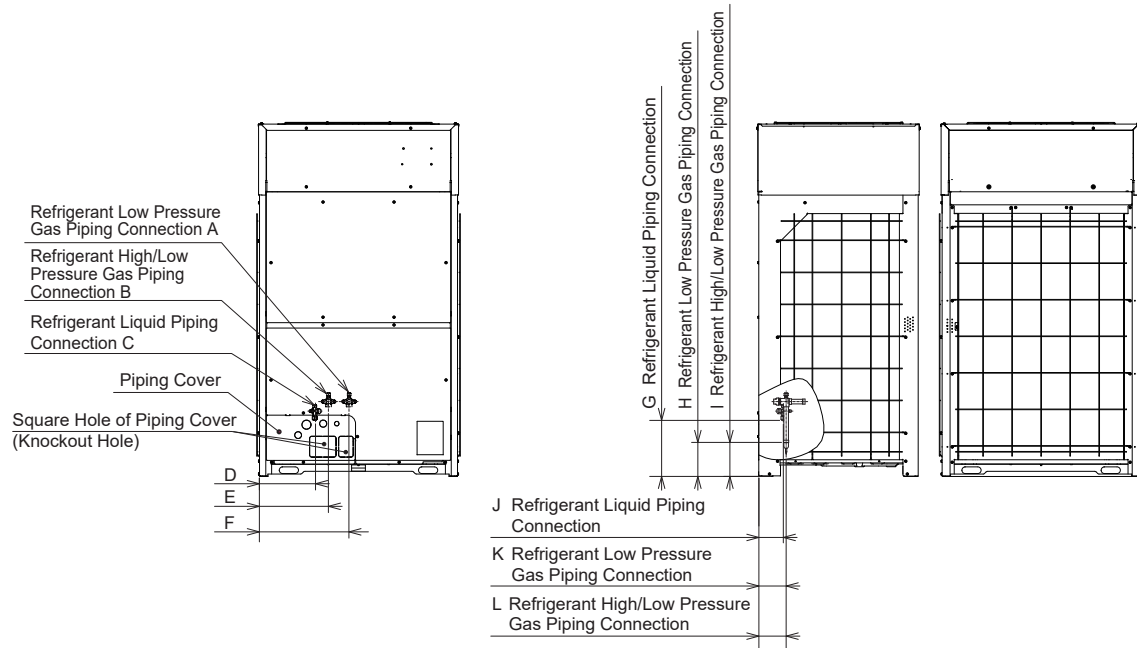
Outdoor Unit Model	Combination of Base Unit Models		
	OUTDOOR UNIT A	OUTDOOR UNIT B	OUTDOOR UNIT C
(H, Y) VAHR408B52S	(H, Y) VAHR144B52S	(H, Y) VAHR144B52S	(H, Y) VAHR120B52S

## NOTES:

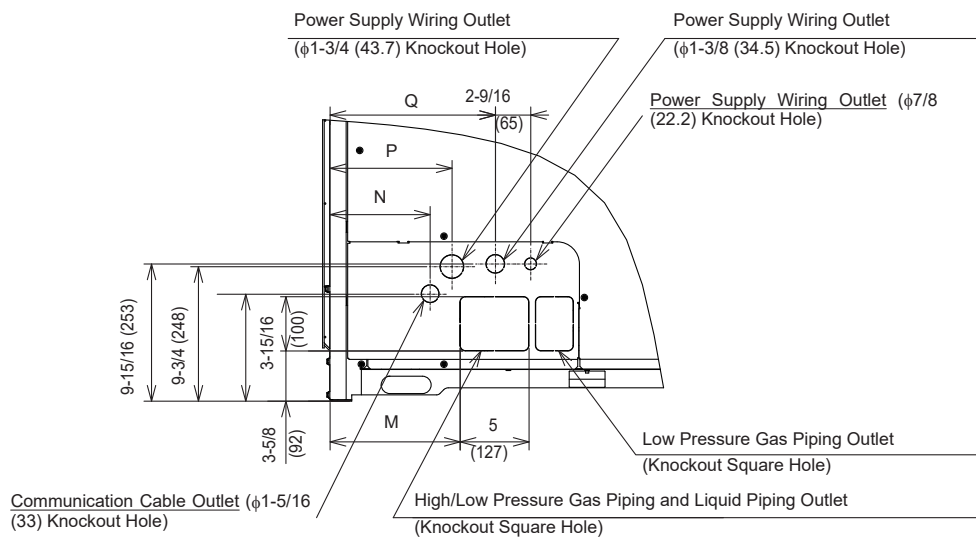
- Outdoor unit A is the Main unit and outdoor unit B and C are the Sub unit. The Main unit is closest in piping to the indoor unit.
- If outdoor modules have different capacities, the largest capacity unit is outdoor unit A (Main), outdoor unit B (Sub) is the next smallest capacity and outdoor unit C (Sub) is the smallest capacity.  $A \geq B \geq C$ .
- Piping connection kits and piping sizes are identified in the "Installation Manual".
- The dimensions marked with "\*" indicate the mounting pitch dimensions for anchor bolts.
- This drawing shows that there is 13/16 inch [20mm] clearance between the outdoor units. If Snow Protection Hoods are installed on the outdoor units, 2 inch [50mm] minimum clearance is required.
- Modifications to the anchoring locations for the outdoor units are required for applications with clearances greater than 13/16 inch [20mm] between outdoor modules.
- "Dimensional Drawing of Base Unit" are used for dimensions of piping and wiring outlets.

# Piping Connection Dimensions

Unit: inch (mm)



## Detail of Piping Cover



## Refrigerant Piping Connection and Wiring Outlet

Model	Gas		Liquid	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q
	Low Pressure	High/Low Pressure																	
72	φ7/8 (22.2)	φ3/4 (19.05)	φ1/2 (12.7)	φ7/8 (22.2)	φ7/8 (22.2)	φ3/8 (9.52)	10-3/8 (264)	13-1/16 (331)	16-5/16 (414)	10-9/16 (268)	6-7/16 (163)	6-7/16 (163)	4-5/8 (117)	5-3/16 (131)	5-3/16 (131)	9-7/16 (240)	7-5/16 (185)	8-7/8 (225)	12 (305)
96	φ7/8 (22.2)	φ3/4 (19.05)	φ1/2 (12.7)																
120	φ1-1/8 (28.58)	φ7/8 (22.2)	φ1/2 (12.7)	φ1 (25.4)	φ7/8 (22.2)	φ1/2 (12.7)	6-7/8 (174)	9-7/16 (239)	12-11/16 (322)	10-3/8 (263)	6-5/16 (160)	6-7/16 (163)	4-7/16 (112)	5-1/8 (130)	5-3/16 (131)	5-13/16 (147)	3-5/8 (92)	5-3/16 (132)	8-3/8 (212)
144	φ1-1/8 (28.58)	φ7/8 (22.2)	φ5/8 (15.88)																
168	φ1-1/8 (28.58)	φ7/8 (22.2)	φ5/8 (15.88)																
192	φ1-1/8 (28.58)	φ7/8 (22.2)	φ5/8 (15.88)	φ1-1/8 (28.58)	φ7/8 (22.2)	φ5/8 (15.88)	6-15/16 (177)	9-7/16 (239)	12-11/16 (322)	10-3/16 (259)	6-5/16 (160)	6-7/16 (163)	5-3/16 (132)	6 (152)	6 (153)	5-13/16 (147)	3-5/8 (92)	5-3/16 (132)	8-3/8 (212)



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