

SUBMITTAL DATA SHEET

10 RT (H,Y)VAHP120B31S (Consists of one (H,Y)VAHP120B31S module.)

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

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:

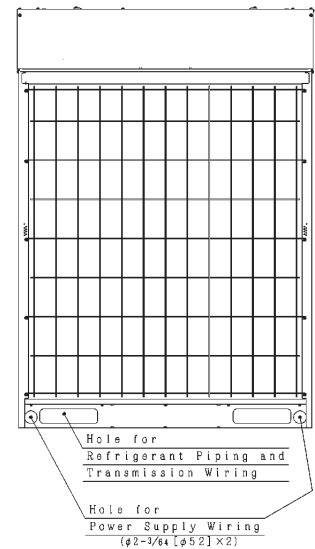
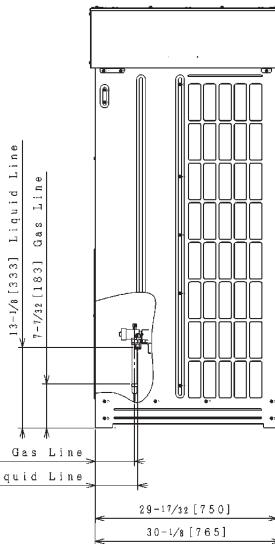
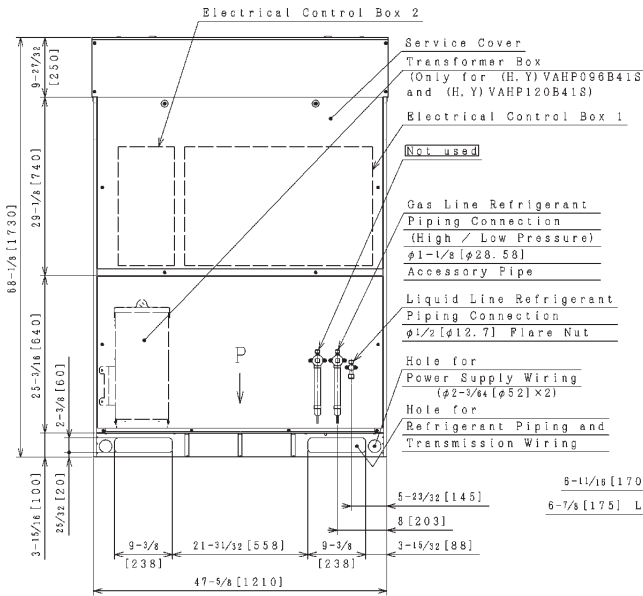
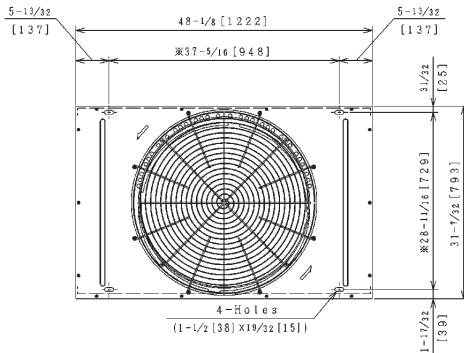
- *1 Rating Conditions are based on the AHRI 1230 test standard.
- *2 Operation under harsh weather requires additional accessories.
- *3 External static pressure can be changed to 0.24in.W.G.(60Pa).

Category	Type			Single Unit
	Ton			10RT
Model (combination)				(H,Y)VAHP120B31S
Model (individual)	Unit A			-
	Unit B			-
	Unit C			-
	Unit D			-
Power Supply				208/230V/ 3PH 60Hz
Cooling *1	Capacity	Btu/h	(kW)	114000 (33.4)
	EER	Btu/Wh	(W/W)	11.60 (3.40)
	Power input	kW		9.93
	Current input	A (208V/230V)		30.3 27.4
Cooling Operating Range *2	IEER	Btu/Wh	(W/W)	20.80 (6.10)
	Indoor	F WB	(°C WB)	59(15)~73(23)
Heating High *1	Outdoor	F DB	(°C DB)	14(-10)~118(48)*1,*2
	Capacity	Btu/h	(kW)	129000 (37.8)
	COP	W/W		3.74
Heating Low *1	Power input	kW		10.12
	Current input	A (208V/230V)		31.2 28.2
	Capacity	Btu/h	(kW)	89000 (26.1)
Heating Operating Range *2	COP	W/W		2.36
	Indoor	F DB	(°C DB)	59(15)~80(27)
	Outdoor	F WB	(°C WB)	-4(-20)~59(15)
Cabinet Color (Munsell Code)				2.5Y 8/2
Outer Dimensions	Height	in	(mm)	68-1/8 (1730)
	Width	in	(mm)	48-1/8 (1222)
	Depth	in	(mm)	31-7/32 (793)
Package Dimensions	Height	in	(mm)	74-1/4 (1886)
	Width	in	(mm)	50-7/8 (1292)
	Depth	in	(mm)	34-1/32 (864)
Weight	Net	lbs	(kg)	732 (332)
	Gross	lbs	(kg)	789 (358)
Connection Ratio	Tota Indoor Unit Capacity	%		130 - 60
	Max. (Recommendation) indoor units/system			25 (16)
Heat Exchanger	Type			Multi-Pass Cross-Finned Tube
	Material			Anti-corrosion/Cu-Al
Compressor	Type	Inverter	DA65PHD × 1	
	Fix Speed		E655DH × 1	
	Motor Output(Pole)	kW(Pole)	6.0(6)+4.4(2)	
	Start Method		inverter	
	Operation Range		15~100	
Crank Case Heater	Refrigeration Oil Type		FVC88D	
	W × Q'ty			40.8 (230V) × 4
Fan	Type			Propeller Fan
	Motor Output(Pole)	kW(Pole)	1.2(10)	
	Quantity	Q'ty		1
	Air Flow Rate	cfm	(m ³ /min)	7413 (210)
	External static pressure *3	in.WG	(Pa)	0 (0)
Electrical	Drive			Direct-drive
	Min Circuit Amps	A		56/50
	Recommended Fuse/Breaker Size	A		80/70
	Maximum Fuse Size	A		80/70
Control	Type-Qty			AWG18-2
	Maximum length	Ft	(m)	3,280(1000)
Sound Pressure Level	Cooling (Night-Shift)	dB(A)		64 (57)
	Heating	dB(A)		64
Protection devices	Cycle			High pressure switch at 4.15 (601psi)
	Inverter			Over-current protection Over-heat protection
	Compressor			Over-heat protection
	PCB			Over-current protection
Refrigerant	Type-Qty	-		R410A
	Charge amount	lb	(kg)	20.9 (9.5)
Refrigeration Oil	Charge amount	gal/Unit	(L/Unit)	2.1 (7.9)
Defrost Method			Reversed Refrigerant cycle	
Main Refrigerant Piping (Heat Pump)	Gas Line (High/Low)	in	(mm)	1-1/8 (28.58)
	Liquid Line	in	(mm)	1/2 (12.7)

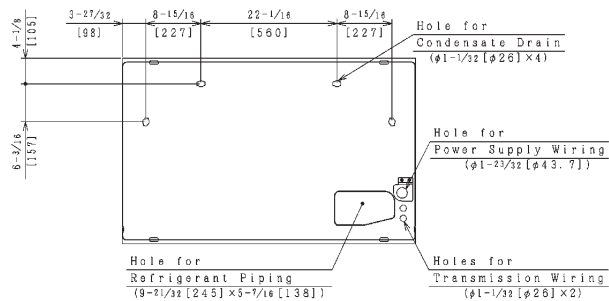
System Dimensions

Heat Pump Type

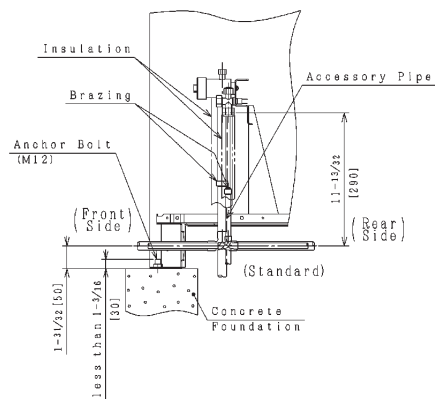
Model: (H,Y)VAHP120B31S



Viewed from P



Field Installation (Example)

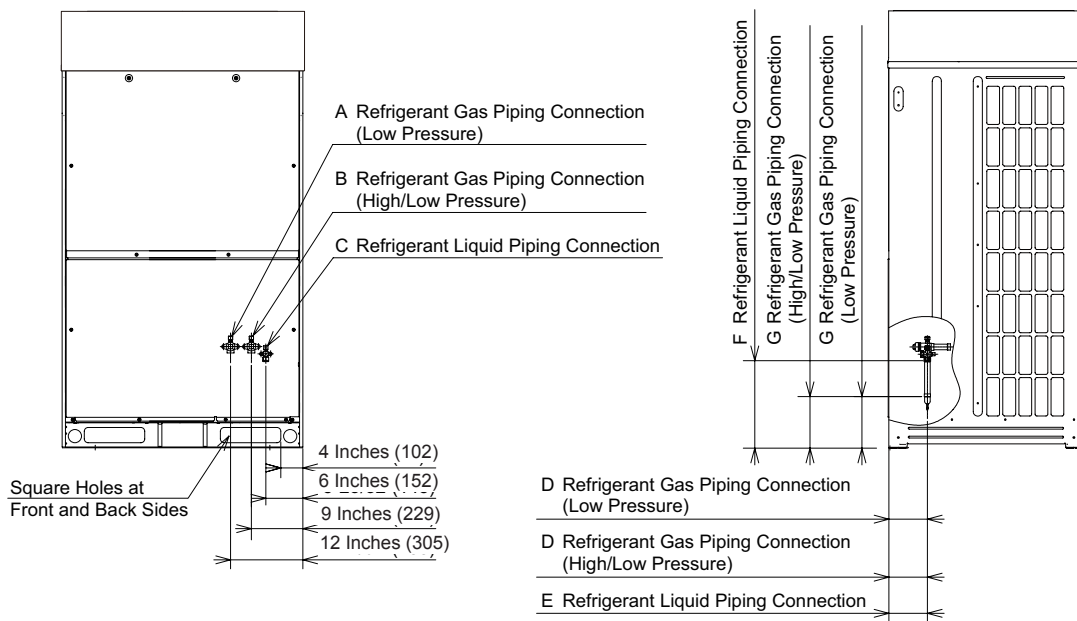


NOTES:

1. Drain water is discharged from the unit during the operation.
 - Ⓞ Choose a place where well drainage is available. Provide a groove for drain.
 - Ⓞ Do not provide an upward slope from the unit to avoid reverse flow of the drain.
 - Provide a second drainpan under the outdoor unit, to collect drain water securely.
 - Ⓞ Do not use the drain boss (optional) in a cold area.
 - (Drain water in the drain pipe may be frozen and the drain pipe may crack.)
2. The dimensions marked with ※ indicates the mounting pitch dimension for anchor bolts.

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