

Submittal Data Sheet

(H,Y)VAHP168B31CW

(Consists of one (H,Y)VAHP072B31CW & one (H,Y)VAHP096B31CW)

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

FEATURES

- Defrosting interval can be extended up to a maximum of 250 minutes
- Automatic selection of either all-cool or all-heat operation up to 50 zones
- 60%-110% connectable capacity
- Extreme performance provides more than 95% heating output at -4°F and 80% heating capacity at -13°F
- Connects to VRF indoor units; Controlled via H-Link II Controls Network

ACCESSORIES

- Drain Adaptor, DBS-TP10A
- Protection Net (Rear), PN-TP10BB
- Protection Net (Left), PN-TP10L
- Protection Net (Right), PN-TP10R
- Hail/Snow Protection Hood (Right), ASG-TP20RS2
- Hail/Snow Protection Hood (Left), ASG-TP20LS2
- Hail/Snow Protection Hood (Upper), ASG-TP20FBS1
- Hail/Snow Protection Hood (Rear), ASG-TP20BBS1
- Toppling Prevention Tool, ASG-SW20A

Note:

1. Rating conditions are shown below with Piping length 24ft 7 3/16 in, piping lift 0 ft.
Cooling: Indoor Air Inlet Temp: 80DB, 67°F WB
Outdoor Air Inlet Temp: 95°F DB
Heating: Indoor Air Inlet Temp: 70°F DB
Outdoor Air Inlet Temp: 47°F 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. External static pressure can be changed via DSW setting 0.24 in. W.G. (60Pa)

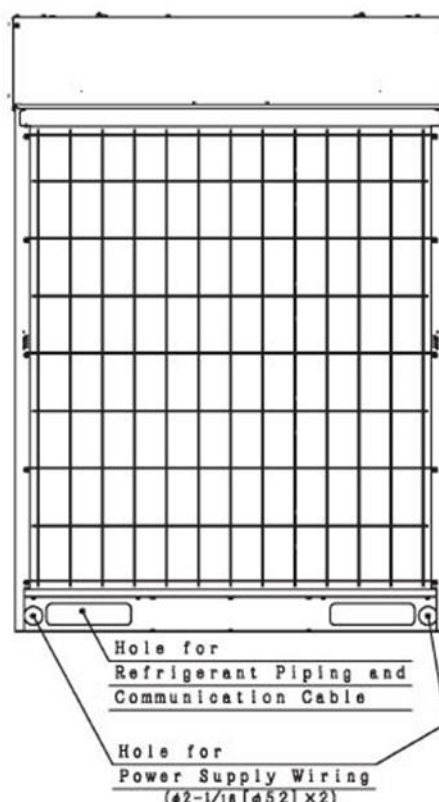
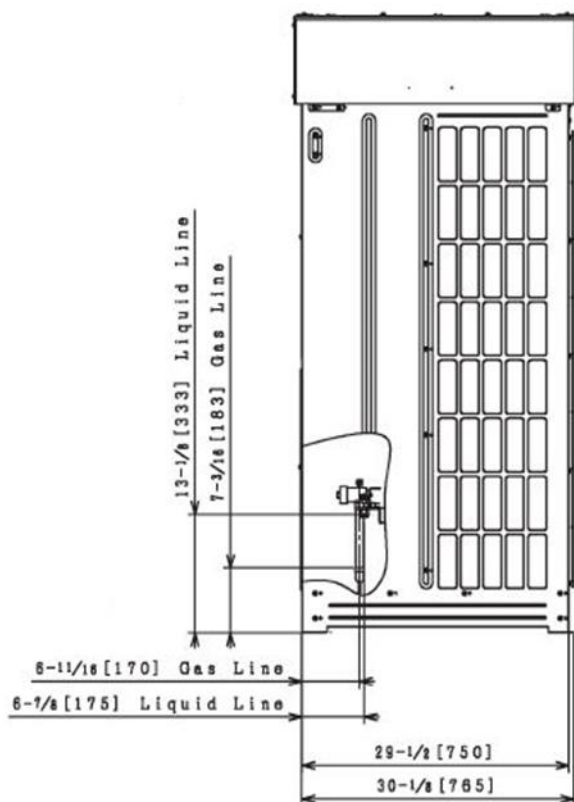
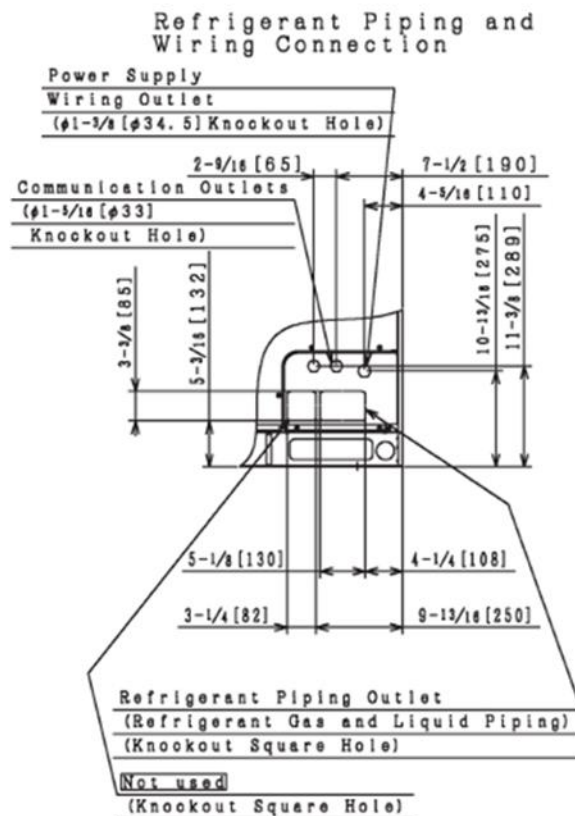
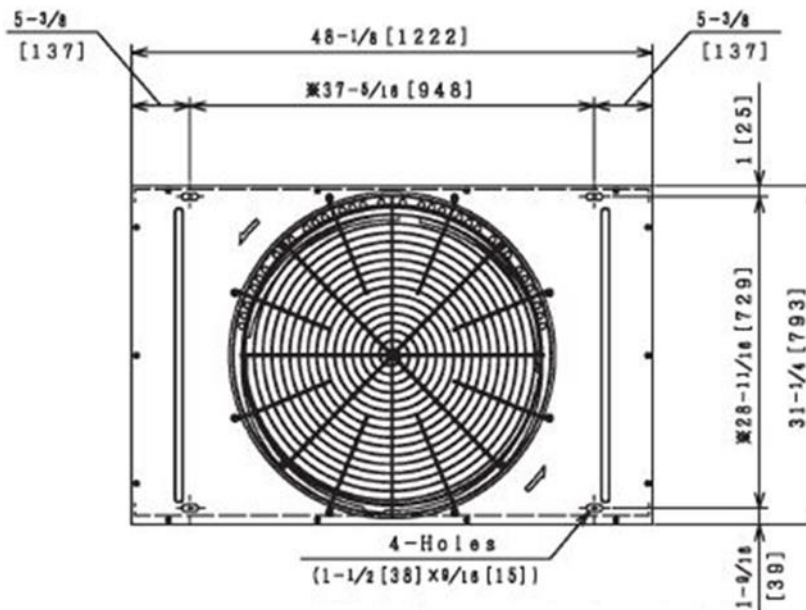
Category		Ton			14RT (8RT+6RT)			
Model (combination)					(H,Y)VAHP168B31CW			
Model (individual)		Unit A			(H,Y)VAHP096B31CW			
		Unit B			(H,Y)VAHP072B31CW			
		Unit C			-			
Power Supply					208/230V/ 3PH 60Hz			
Capacity (Nominal) *1	Cooling	Capacity (Nominal)		Btu/h	(kW)	168,000	(49.2)	
		Power input		kW		15.50		
		Current input		A (208/230V)		44.0 / 42.0		
	Heating	Capacity (Nominal)		Btu/h	(kW)	189,000	(55.4)	
		Power Input		kW		13.59		
		Current Input		A (208/230V)		38.9 / 36.8		
Efficiency Ratings *2	Cooling	Capacity (Rated)		Btu/h	(kW)	160,000	(46.9)	
		EER		Btu/Wh	(W/W)	12.30	(3.61)	
		IEER		Btu/Wh	(Wh/Wh)	18.50	(5.43)	
	Heating	Capacity (Rated)		Btu/h	(kW)	178,000	(52.2)	
		COP		W/W		3.80		
	Heating	Capacity		Btu/h	(kW)	151,000	(44.3)	
		COP		W/W		2.33		
	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 *3		°F WB (°C WB)		-13(-25)~59(15)		
Cabinet Color (Munsell Code)				-		2.5Y 8/2		
Outer Dimensions (H x W x D)				in		(68-1/8 x 48-1/8 x 31-1/4) x2		
Package Dimensions (H x W x D)				in		-		
Weight		Net		lbs	(kg)	1398	(634)	
		Gross		lbs	(kg)	1513	(686)	
Connection Ratio		Total Indoor Unit Capacity			%		110 - 60	
		Max. (Recommendation) indoor units/system					30 (18)	
Heat Exchanger		Type		-		Multi-Pass Cross-Finned Tube		
		Material		-		Cu-Al (Anti-corrosion)		
Compressor		Type	Inverter		-		EK655DHDx2	
			Fixed Speed		-		EK655DHx2	
		Motor Output (Pole)		kW (Pole)		3.2(4)+3.0(2) 3.2(4)+3.0(2)		
		Start Method		-		inverter		
		Operation Range		%		7~100		
		Refrigeration Oil Type		-		FVC68D		
		Crank Case Heater		WxQ'ty		40.8 (230V) x12		
Fan		Type		-		Propeller Fan		
		Motor Output (Pole)		kW (Pole)		0.66(8)x2		
		Quantity		Q'ty		2		
		Airflow Rate		cfm	(m³/min)	6884+6884	(195+195)	
		External Static Pressure *4		in.WG	(Pa)	0 (0)		
		Drive		-		Direct-drive		
Electrical		Min Circuit Amps		A		-		
		Max Overcurrent Protective Device		A		-		
		Maximum Fuse Size		A		-		
Sound Pressure Level		Cooling (Night-Shift)		dB (A)		63	(59)	
		Heating		dB (A)		64		
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)	17.0+17.0	(7.7+7.7)	
Refrigeration Oil		Charge Amount		gal/Unit	(L/Unit)	2.1+2.1	(7.9+7.9)	
Defrost Method				-		Reversed Refrigerant cycle Hot Gas Bypass		
Main Refrigerant Piping (Heat Pump)		Gas Line		in	(mm)	1-1/8	(28.58)	
		Liquid Line		in	(mm)	5/8	(15.88)	

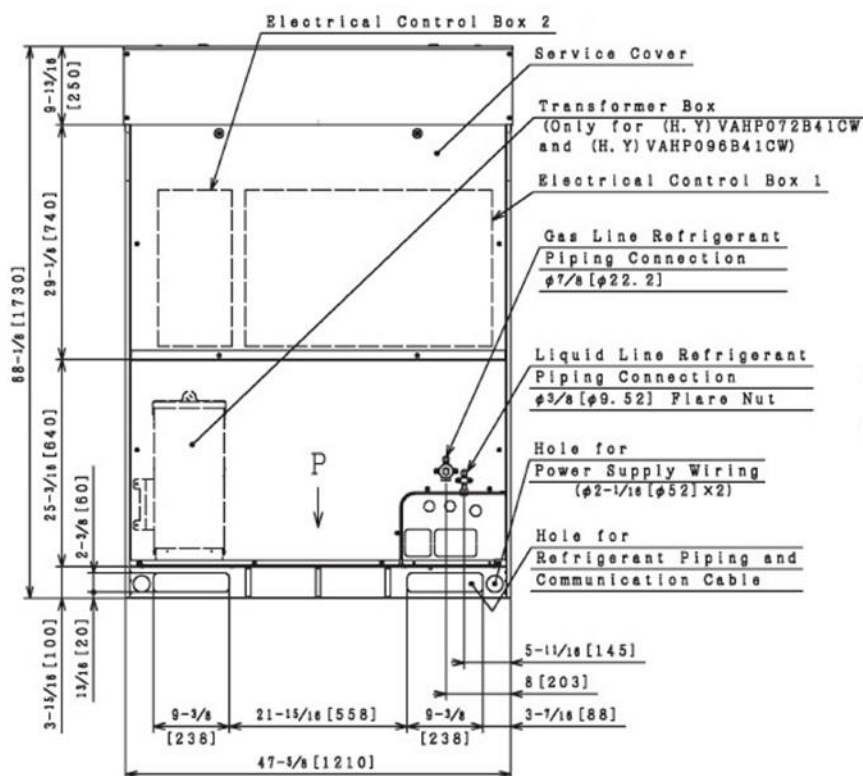
System Dimensions

Heat Pump Type

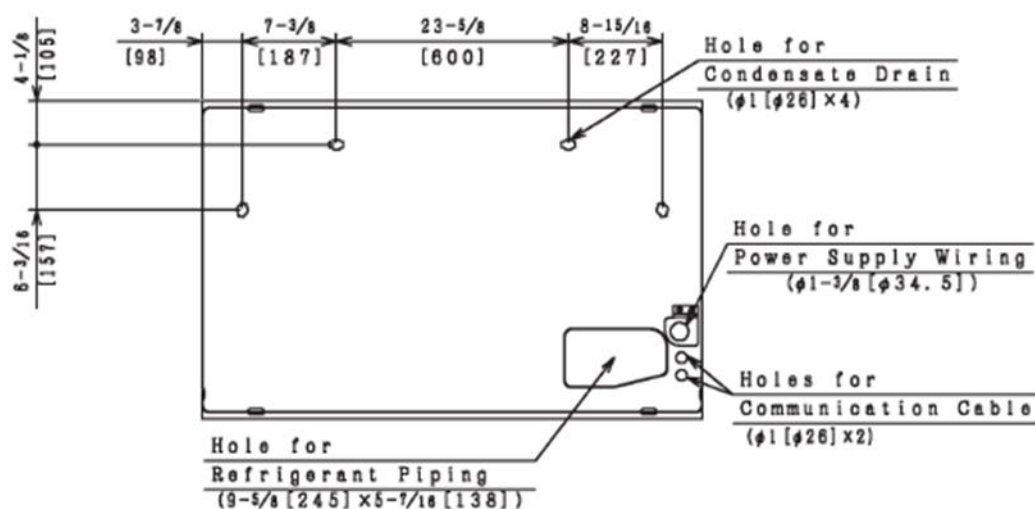
Model: (H,Y) VAHP072B(3,4)1CW and (H,Y)VAHP096B(3,4)1CW

inch(mm)





Viewed from P



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 drain pan 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.)

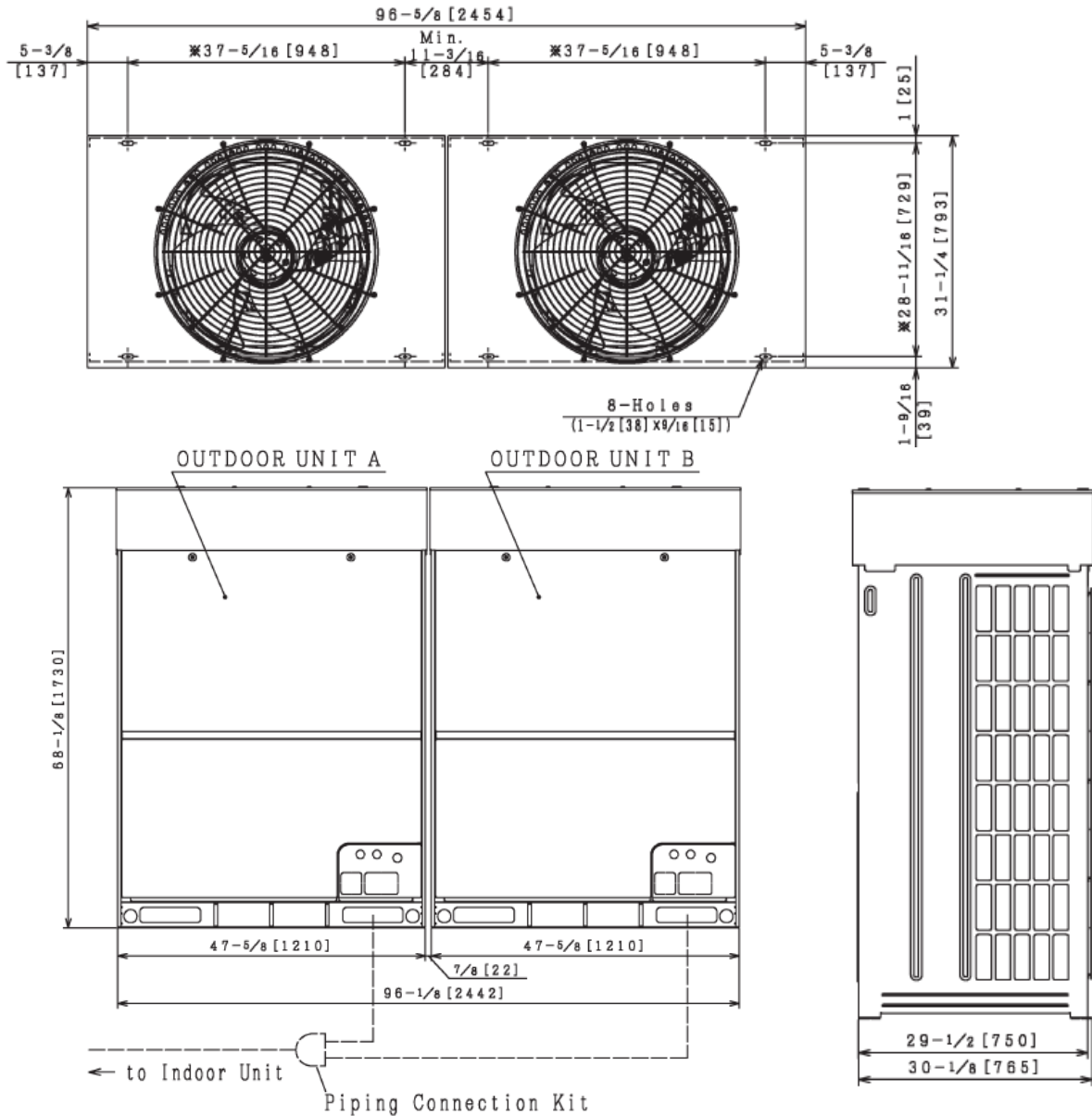
The dimensions marked with \varnothing indicates the mounting pitch dimension for the anchor bolts

System Dimensions

Heat Pump Type

inch (mm)

Model: (H,Y) VAHP144B(3,4)1CW, (H,Y)VAHP168B(3,4)1CW and (H,Y)VAHP192B(3,4)1CW



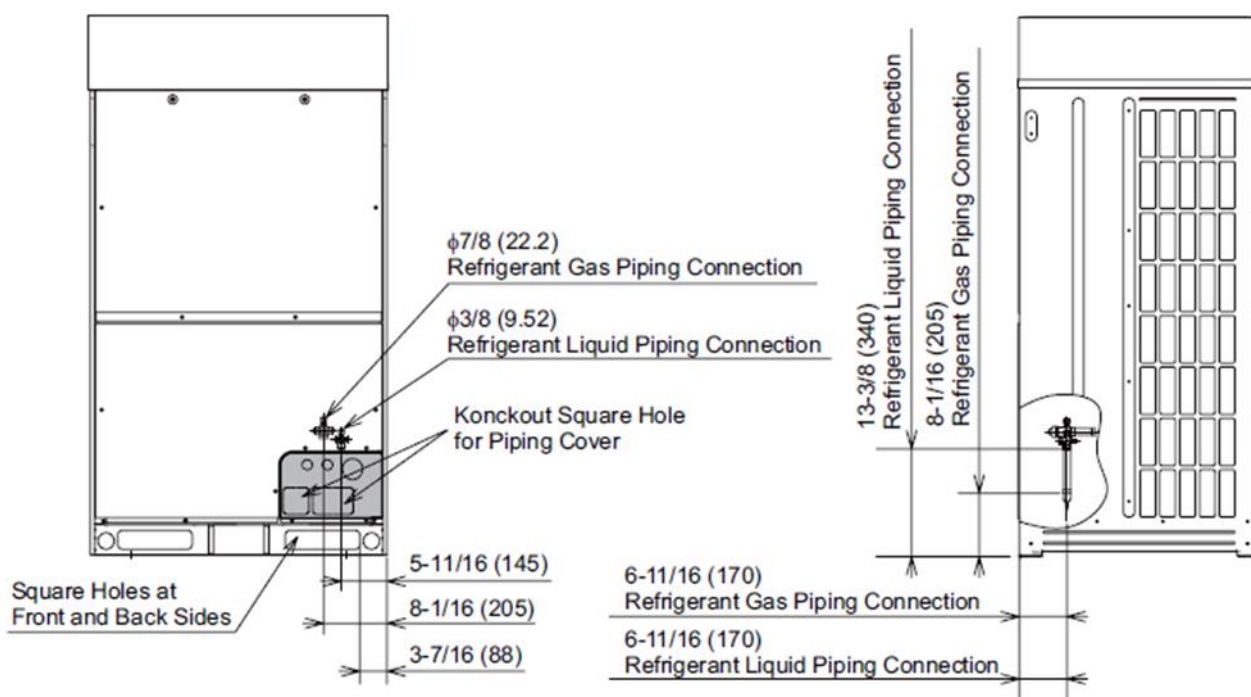
Outdoor Unit Model	Combination of Base Unit Models	
	OUTDOOR UNIT A	OUTDOOR UNIT B
(H,Y)VAHP144B31CW	(H,Y)VAHP072B31CW	(H,Y)VAHP072B31CW
(H,Y)VAHP144B41CW	(H,Y)VAHP072B41CW	(H,Y)VAHP072B41CW
(H,Y)VAHP168B31CW	(H,Y)VAHP096B31CW	(H,Y)VAHP072B31CW
(H,Y)VAHP168B41CW	(H,Y)VAHP096B41CW	(H,Y)VAHP072B41CW
(H,Y)VAHP192B31CW	(H,Y)VAHP096B31CW	(H,Y)VAHP096B31CW
(H,Y)VAHP192B41CW	(H,Y)VAHP096B41CW	(H,Y)VAHP096B41CW

Notes:

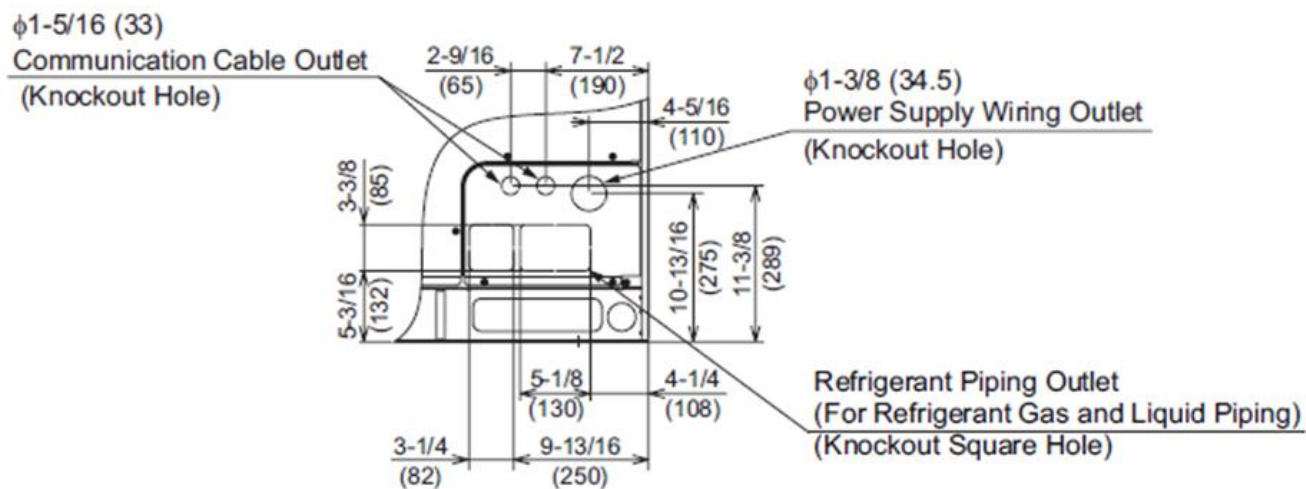
1. Make sure that the outdoor unit A is placed on the indoor unit side. Arrange the outdoor units according to the capacity. A≥B.
2. Check "Installation Manual" for the piping connection kit and piping connection size.
3. This drawing shows that there is a 7/8 in (22mm) clearance between the base units. In case of the outdoor unit with "Snow Protection Hood (optional part)" or "Air Outlet Duct (field-supplied)", the clearance between the base units of more than 1 15/16 in (50 mm) is required.
4. The dimensions marked with \varnothing 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.

Piping Connection Dimensions

inch (mm)



< Detail of Piping Cover >



Field Piping (*)	
Gas	Liquid
7/8 (22.2)	3/8 (9.52)

(*): Using the accessory pipe, combine the piping size.

