

Submittal Data Sheet

(H,Y)VAHP144B31CW

(Consists of two (H,Y)VAHP072B31CW module)

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%-130% 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)

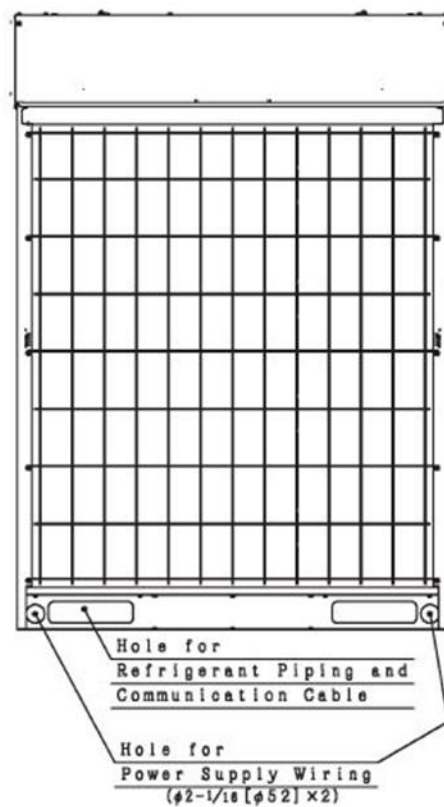
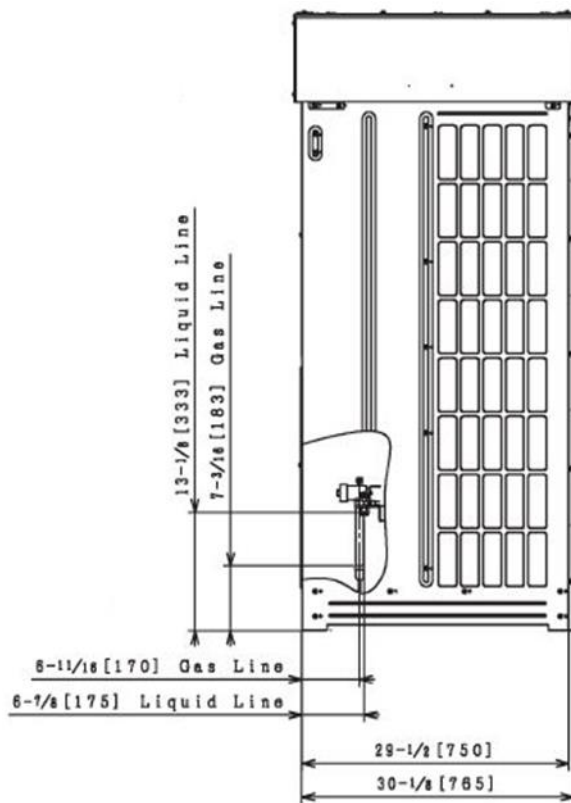
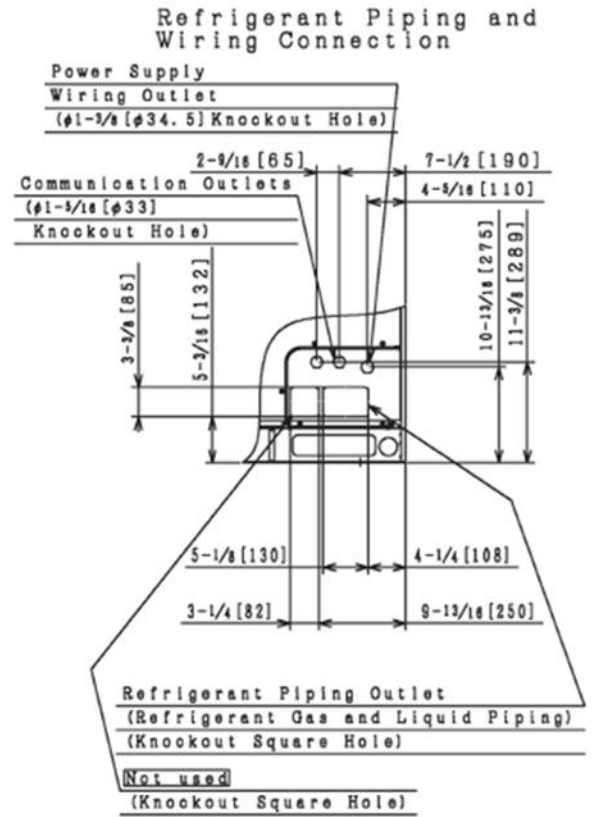
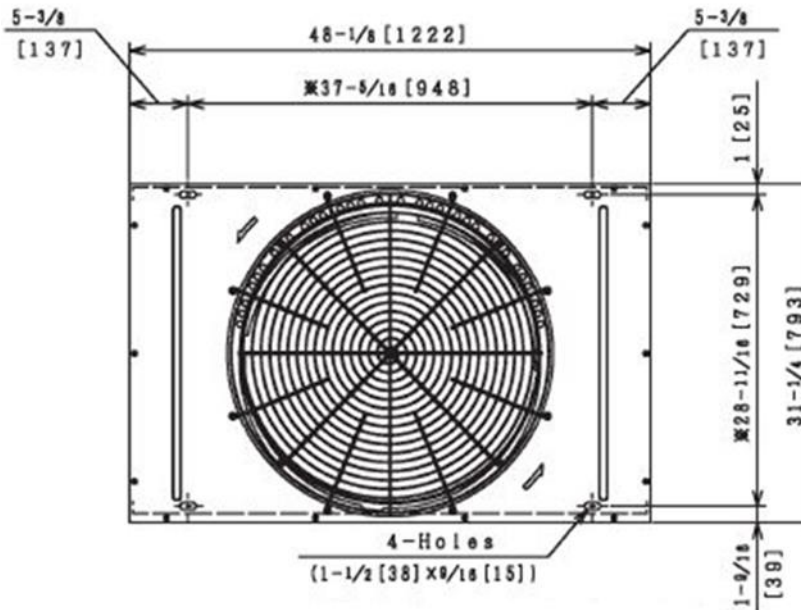
Category		Ton		12RT (6RT+6RT)	
Model (combination)				(H,Y)VAHP144B31CW	
Model (individual)		Unit A		(H,Y)VAHP072B31CW	
		Unit B		(H,Y)VAHP072B31CW	
		Unit C		-	
Power Supply				208/230V/ 3PH 60Hz	
Capacity (Nominal) *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	144,000 (42.2)
		Power input	kW		11.77
		Current input	A (208/230V)		33.6 / 32.2
	Heating	Capacity (Nominal)	Btu/h	(kW)	162,000 (47.5)
		Power Input	kW		11.02
		Current Input	A (208/230V)		31.6 / 30.0
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h	(kW)	138,000 (40.5)
		EER	Btu/Wh	(W/W)	12.80 (3.75)
		IEER	Btu/Wh	(Wh/Wh)	17.60 (5.16)
	Heating High	Capacity (Rated)	Btu/h	(kW)	154,000 (45.2)
		COP	W/W		3.99
	Heating Low	Capacity	Btu/h	(kW)	129,000 (37.8)
		COP	W/W		2.50
	Cooling Operating Range		Indoor	°F WB (°C WB)	
		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		%		130 - 60
	Max. (Recommendation) indoor units/system				31(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		W×Q'ty		40.8 (230V) ×12
	Fan	Type	-		Propeller Fan
Motor Output (Pole)		kW (Pole)		0.66(8)×2	
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	
				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)

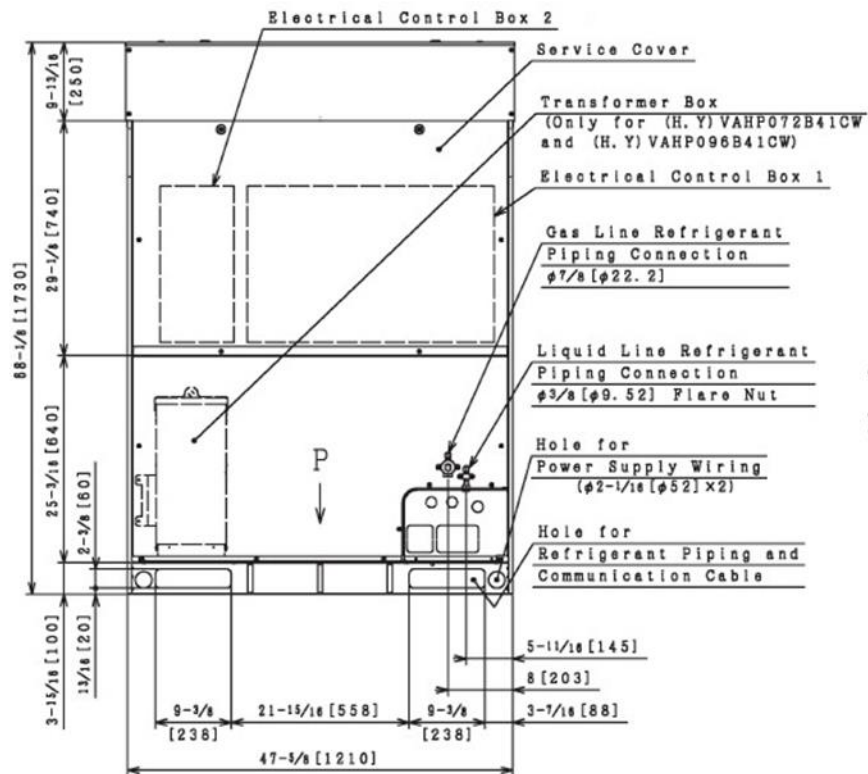
System Dimensions

Heat Pump Type

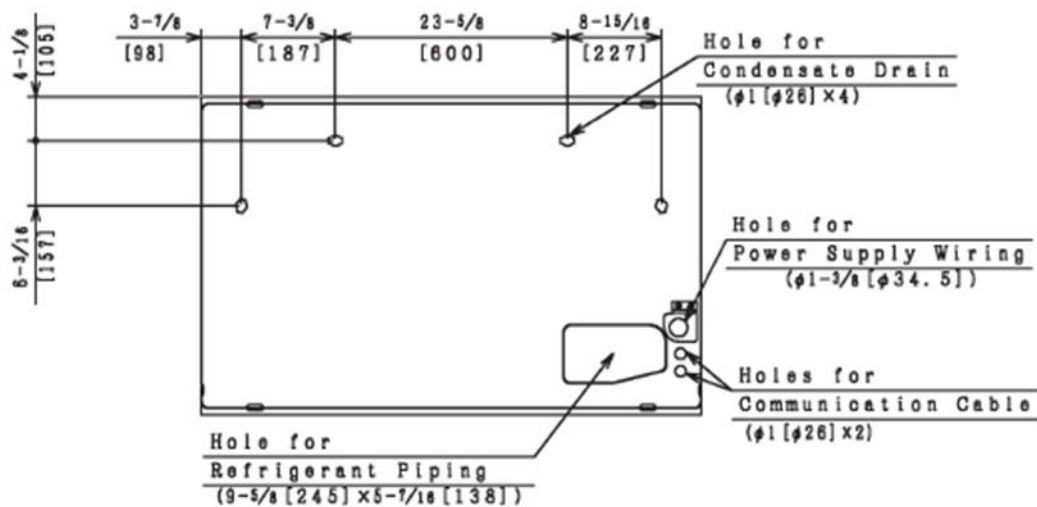
Model: (H,Y)VAHP072B(3,4)1CW and (H,Y)VAHP096B(3,4)1CW

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.)

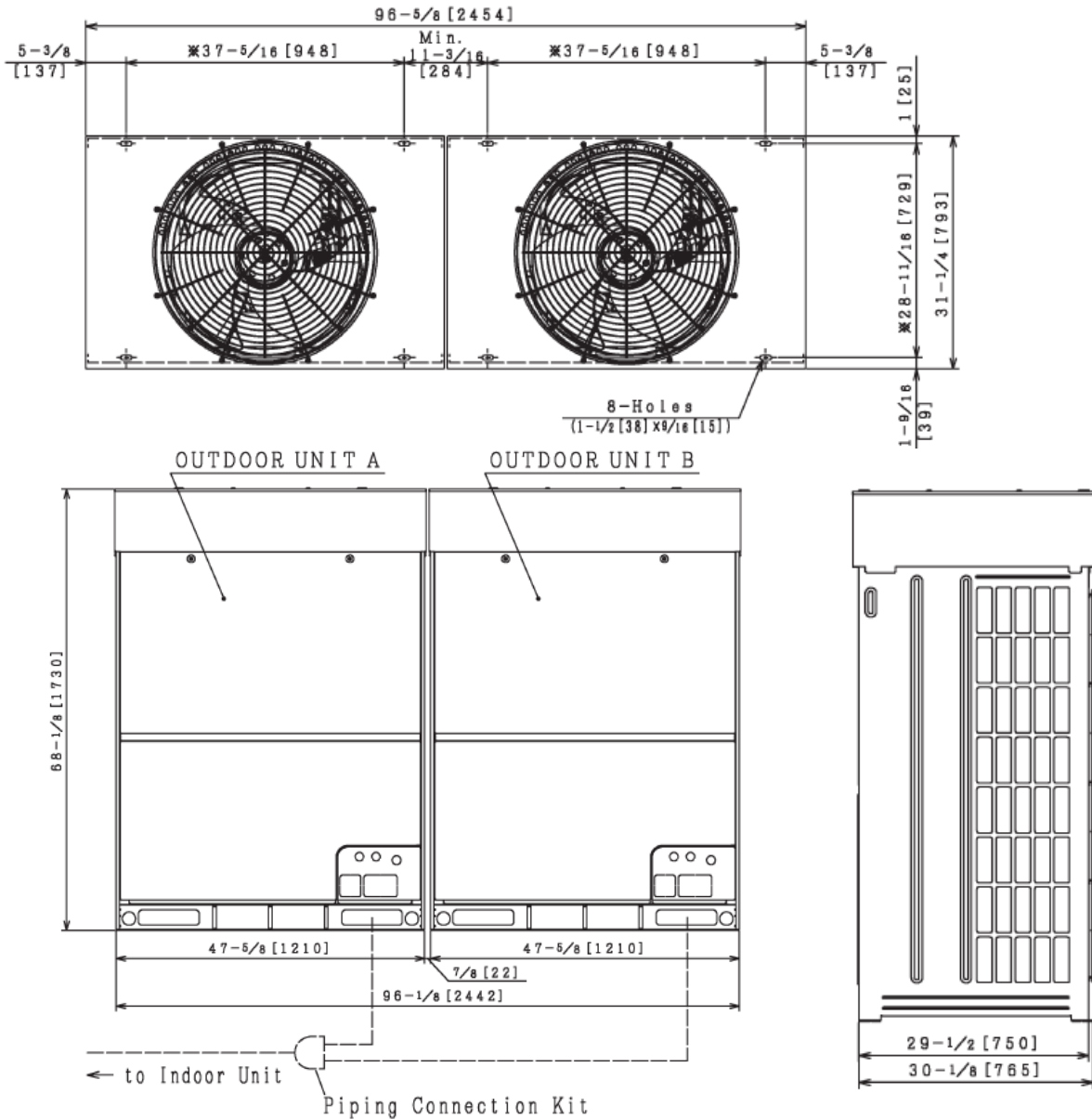
The dimensions marked with \varnothing indicates the mounting pitch dimension for the anchor bolts

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



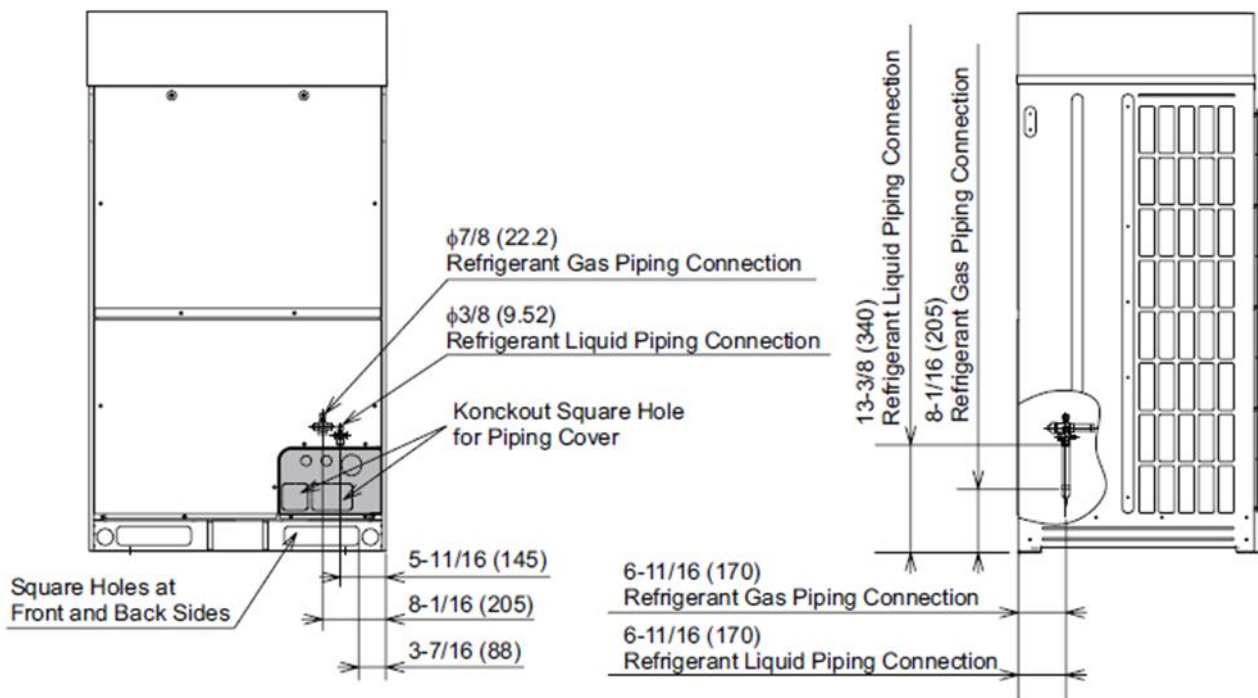
Outdoor Unit Model	Combination of Base Unit Models	
	OUTDOOR UNIT A	OUTDOOR UNIT B
(H,Y)VAHP144B31CW	(H,Y)VAHP072B31CW	(H,Y)VAHP072B31CW
(H,Y)VAHP144B41CW	(H,Y)VAHP072B41CW	(H,Y)VAHP072B41CW
(H,Y)VAHP168B31CW	(H,Y)VAHP096B31CW	(H,Y)VAHP072B31CW
(H,Y)VAHP168B41CW	(H,Y)VAHP096B41CW	(H,Y)VAHP072B41CW
(H,Y)VAHP192B31CW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

Notes:

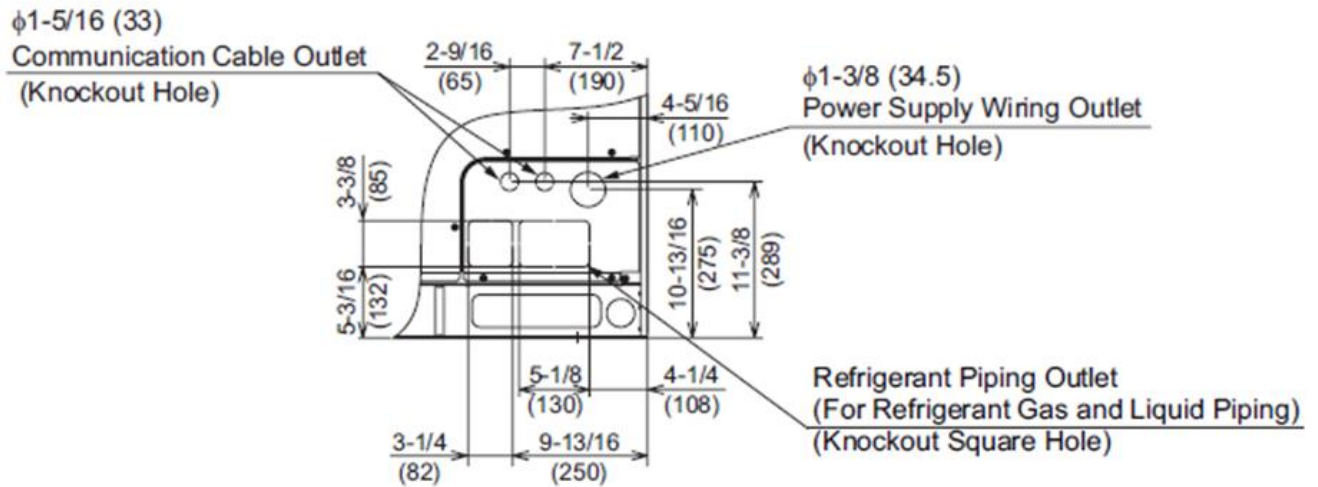
1. Make sure that the outdoor unit A is placed on the indoor unit side. Arrange the outdoor units according to the capacity. A≥B.
2. Check "Installation Manual" for the piping connection kit and piping connection size.
3. This drawing shows that there is a 7/8 in (22mm) clearance between the base units.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

