

SUBMITTAL DATA SHEET

6 RT (Y,H)VAHP072B32S

Consists of one (Y,H)VAHP072B32S module.

Job Name:

Location:

Purchaser:

Order No.:

Engineer:

Submitted To:

For:

Ref:

Approval:

Construction:

Submitted By:

Date:

Unit Designation:

Schedule No.:

Model No.:

(Heat Pump 208/230V)

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

Category		Ton			6RT	
Model (Combination)					(H,Y)VAHP072B32S	
Model (Individual)		Unit A			-	
		Unit B			-	
		Unit C			-	
Power Supply					208/230V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	72,000	(21.1)
	Heating	Capacity (Nominal)	Btu/h	(kW)	81,000	(23.7)
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h	(kW)	69,000	(20.2)
		EER	Btu/Wh	(W/W)	14.9	(4.37)
		IEER	Btu/Wh	(Wh/Wh)	26.5	(7.77)
	Heating	Capacity (Rated)	Btu/h	(kW)	77,000	(22.6)
		47°F Ambient COP	W/W			4.25
	Heating	Capacity	Btu/h	(kW)	56,000	(16.4)
17°F Ambient	COP	W/W			2.60	
Operating Range *3	Cooling	Indoor	°F WB (°C WB)		59(15) ~ 73(23)	
		Outdoor	°F DB (°C DB)		23(-5) ~ 122(50)	
		Outdoor (with Snow Protection Hood)	°F DB (°C DB)		14(-23) ~ 109(43)	
		Outdoor (with Cooling Damper Kit)	°F DB (°C DB)		-10(-20) ~ 109(43)	
		Indoor	°F DB (°C DB)		59(15) ~ 80(27)	
	Outdoor	°F WB (°C WB)		-13(-25) ~ 59(15)		
	Cabinet Color (Munsell Code)	-			2.5Y 8/2	
Outer Dimensions	Height x Width x Depth		in	66-1/4 x 38-3/8 x 30-1/2		
			mm	1683 x 975 x 774		
Weight	Net		lbs	(kg)	516	(234)
	Gross		lbs	(kg)	556	(252)
Connection Ratio	Standard (Extended)		%		70-130(150)	
	Max. (Recommended) Indoor Units/System			Q'ty	15 (8)	
Heat Exchanger	Type		-		Multi-Pass Cross-Finned Tube	
	Material		-		Cu-Al (Anti-corrosion)	
Compressor	Type	Inverter 1	-		DC80PHD×1	
		Inverter 2	-		-	
	Motor Output (Pole)		kW (Pole)		7.4(6)	
	Start Method		-		inverter	
	Operation Range		%		11 ~ 100	
	Refrigeration Oil Type		-		FVC68D	
Crank Case Heater			W×Q'ty		34.2 (230V) ×3	
Fan	Type		-		Propeller Fan	
	Motor Output (Pole)		kW (Pole)		0.42(8)	
	Quantity		Q'ty		1	
	Airflow Rate		cfm	(m³/min)	6,707	(190)
	External Static Pressure *4		in.W.G.	(Pa)	0-0.32	(0-80)
Electrical	Drive		-		Direct-drive	
	Min Circuit Amps		A		29/26	
	Maximum Overcurrent Protective Device		A		40	
Sound Pressure Level	Maximum Fuse Size		A		40	
	Cooling		dB (A)		60	
Protection Devices	Heating		dB (A)		60	
	Cycle		-		High pressure switch at 601psi (4.15MPa)	
	Inverter		-		Over-current protection	
	Compressor		-		Over-heat protection	
	PCB		-		Over-current protection	
Refrigerant	Type		-		R410A	
	Factory Charge Amount		lbs	(kg)	16.1	(7.2)
Refrigeration Oil	Factory Charge Amount		gal/Unit	(L/Unit)	1.6	(6.0)
Defrost Method			-		Reversed Refrigerant Cycle	
Main Refrigerant Piping (Heat Pump)	Gas Line		in	(mm)	7/8	(22.2)
	Liquid Line		in	(mm)	1/2	(12.7)

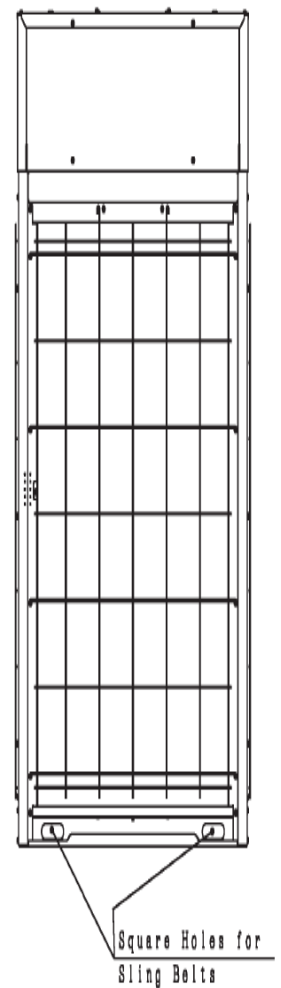
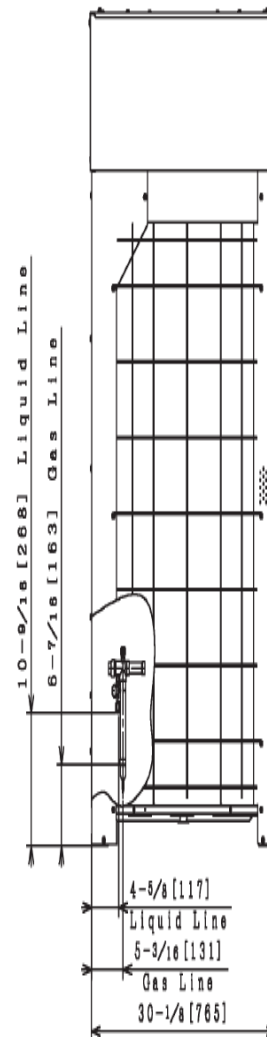
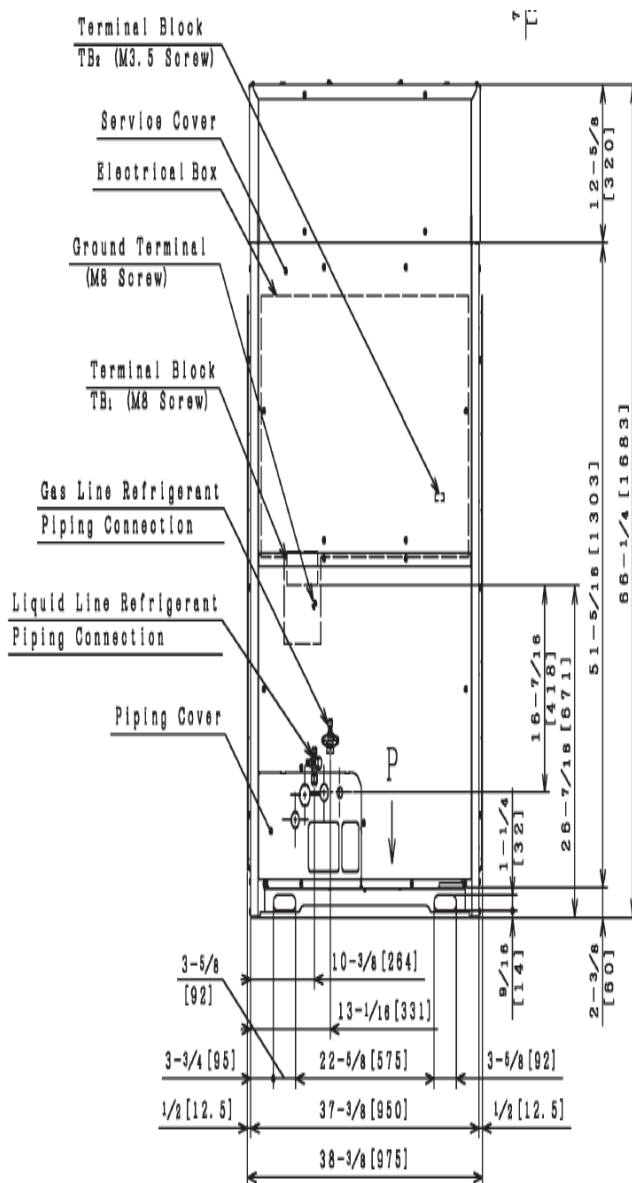
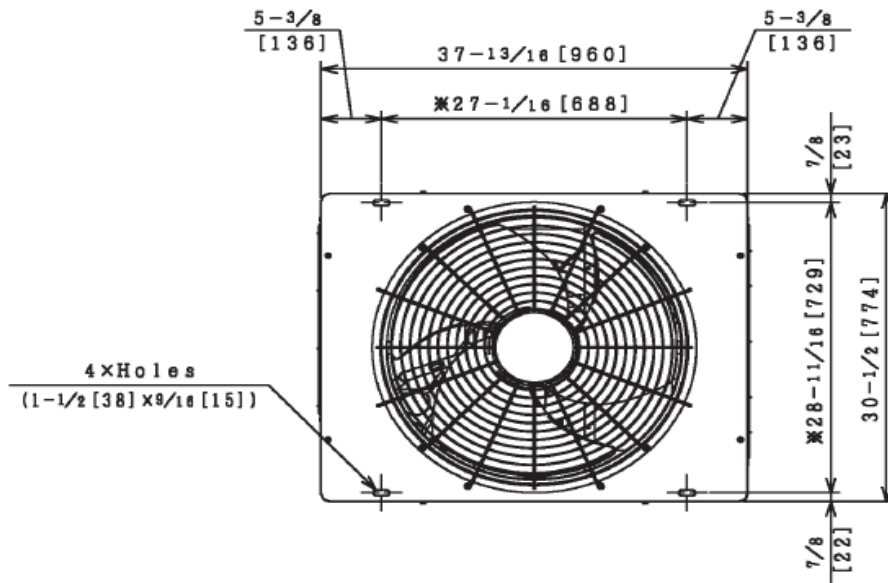
NOTES:

1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

version 201806

System Dimensions

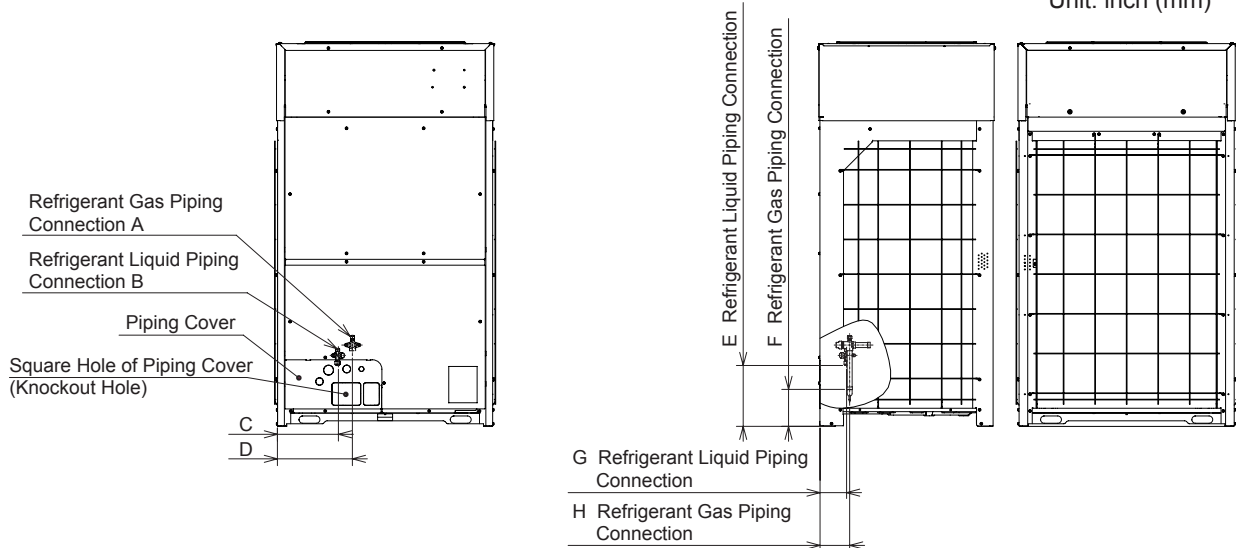
Heat Pump Model: (Y,H)VAHP072B32S



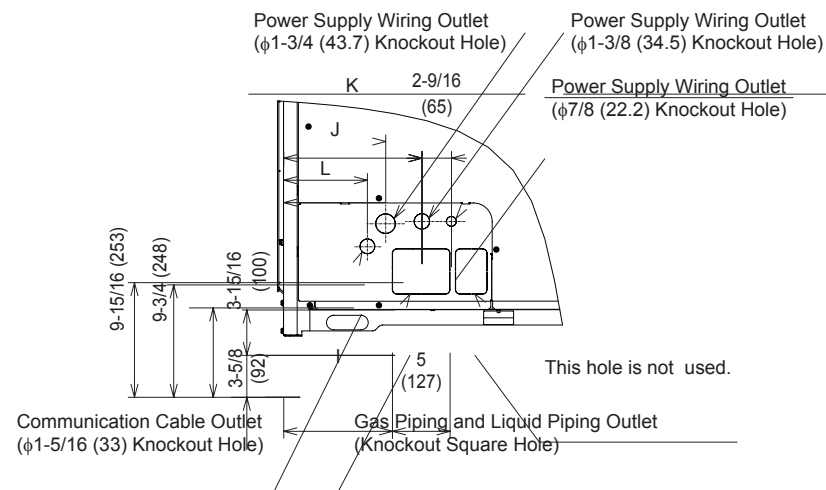
version 201806

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201806

SUBMITTAL DATA SHEET

8 RT (Y,H)VAHP096B32S

Consists of one (Y,H)VAHP096B32S module.

Job Name:

Location:

Purchaser:

Order No.:

Engineer:

Submitted To:

For:

Ref:

Approval:

Construction:

Submitted By:

Date:

Unit Designation:

Schedule No.:

Model No.:

(Heat Pump 208/230V)

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°F ambient air temperature. (Cooling down to 23°F as standard and down to -4°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
- Drain Adapter

Category		Ton		8RT	
Model (Combination)				(H,Y)VAHP096B32S	
Model (Individual)		Unit A			-
		Unit B			-
		Unit C			-
Power Supply				208/230V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	96,000 (28.1)
	Heating	Capacity (Nominal)	Btu/h	(kW)	108,000 (31.7)
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h	(kW)	92,000 (27.0)
		EER	Btu/Wh	(W/W)	12.4 (3.63)
		IEER	Btu/Wh	(Wh/Wh)	23.9 (7.02)
	Heating	Capacity (Rated)	Btu/h	(kW)	103,000 (30.2)
		COP	W/W		3.77
	Heating	Capacity	Btu/h	(kW)	76,000 (22.3)
17°F Ambient	COP	W/W		2.40	
Operating Range *3	Cooling	Indoor	°F WB (°C WB)		59(15) ~ 73(23)
		Outdoor	°F DB (°C DB)		23(-5) ~ 122(50)
		Outdoor (with Snow Protection Hood)	°F DB (°C DB)		14(-23) ~ 109(43)
		Outdoor (with Cooling Damper Kit)	°F DB (°C DB)		-10(-20) ~ 109(43)
	Heating	Indoor	°F DB (°C DB)		59(15) ~ 80(27)
		Outdoor	°F WB (°C WB)		-13(-25) ~ 59(15)
Cabinet Color (Munsell Code)				2.5Y 8/2	
Outer Dimensions	Height x Width x Depth	in	66-1/4 x 48-5/8 x 30-1/2		
		mm	1683 x 1235 x 774		
Weight	Net	lbs	(kg)	591	(268)
	Gross	lbs	(kg)	635	(288)
Connection Ratio	Standard (Extended)		%	65-130(150)	
	Max. (Recommended) Indoor Units/System		Q'ty	20 (8)	
Heat Exchanger	Type		-	Multi-Pass Cross-Finned Tube	
	Material		-	Cu-Al (Anti-corrosion)	
Compressor	Type	Inverter 1	-	DC80PHD×1	
		Inverter 2	-	-	
	Motor Output (Pole)		kW (Pole)	9.5(6)	
	Start Method		-	inverter	
	Operation Range		%	11 ~ 100	
	Refrigeration Oil Type		-	FVC68D	
Crank Case Heater			W×Q'ty	34.2 (230V) ×3	
Fan	Type		-	Propeller Fan	
	Motor Output (Pole)		kW (Pole)	0.33(8) × 2	
	Quantity		Q'ty	2	
	Airflow Rate		cfm (m³/min)	8,437 (239)	
	External Static Pressure *4		in.W.G. (Pa)	0-0.32 (0-80)	
Electrical	Drive		-	Direct-drive	
	Min Circuit Amps		A	39/35	
	Maximum Overcurrent Protective Device		A	50	
Sound Pressure Level	Maximum Fuse Size		A	50	
	Cooling	dB (A)		63	
Protection Devices	Heating	dB (A)		63	
	Cycle	-		High pressure switch at 601psi (4.15MPa)	
	Inverter	-		Over-current protection	
	Compressor	-		Over-heat protection	
	PCB	-		Over-heat protection	
Refrigerant	Type	-		R410A	
	Factory Charge Amount	lbs (kg)	18.7 (8.9)		
Refrigeration Oil	Factory Charge Amount	gal/Unit (L/Unit)	1.8 (6.9)		
Defrost Method				-	
Main Refrigerant Piping (Heat Pump)	Gas Line	in (mm)	7/8 (22.2)		
	Liquid Line	in (mm)	1/2 (12.7)		

NOTES:

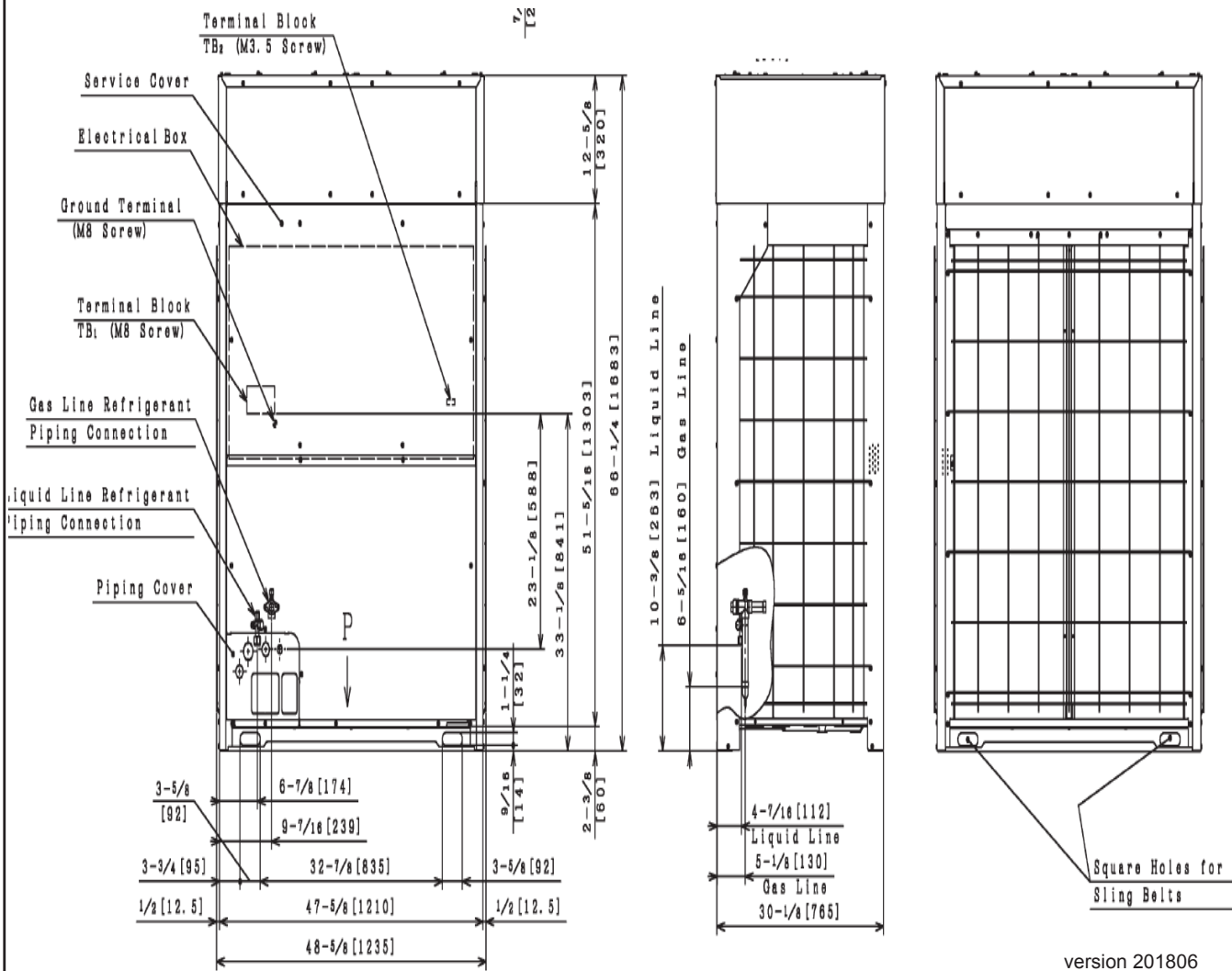
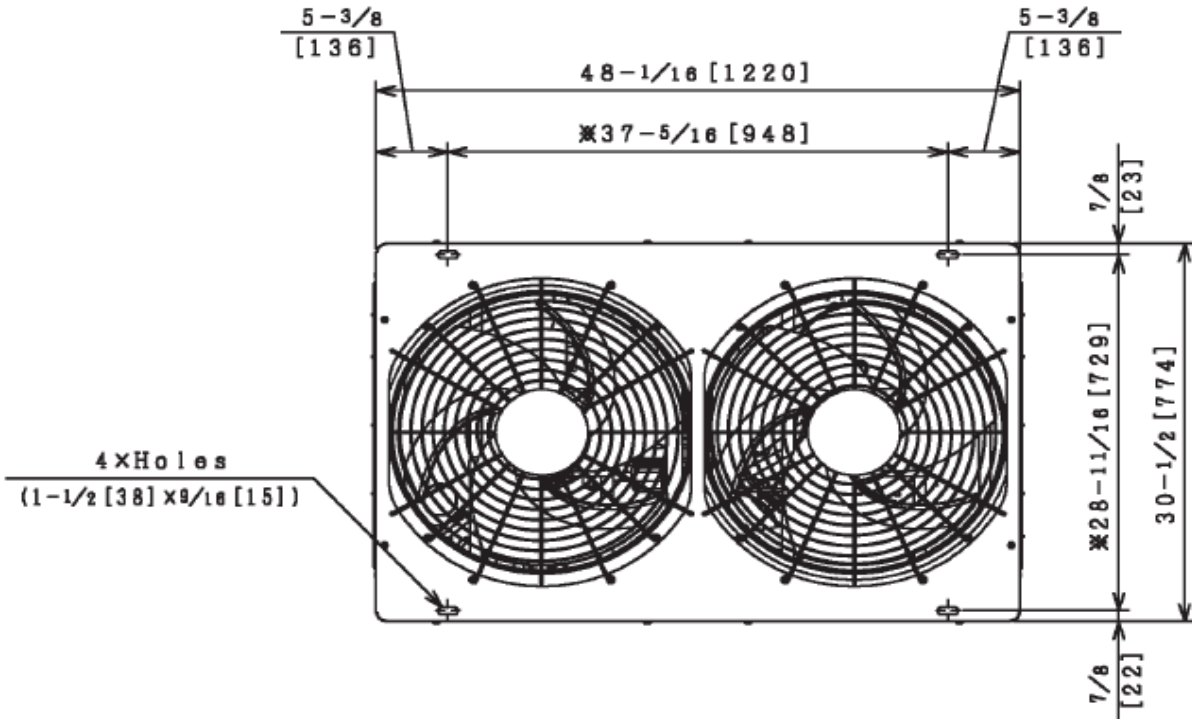
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

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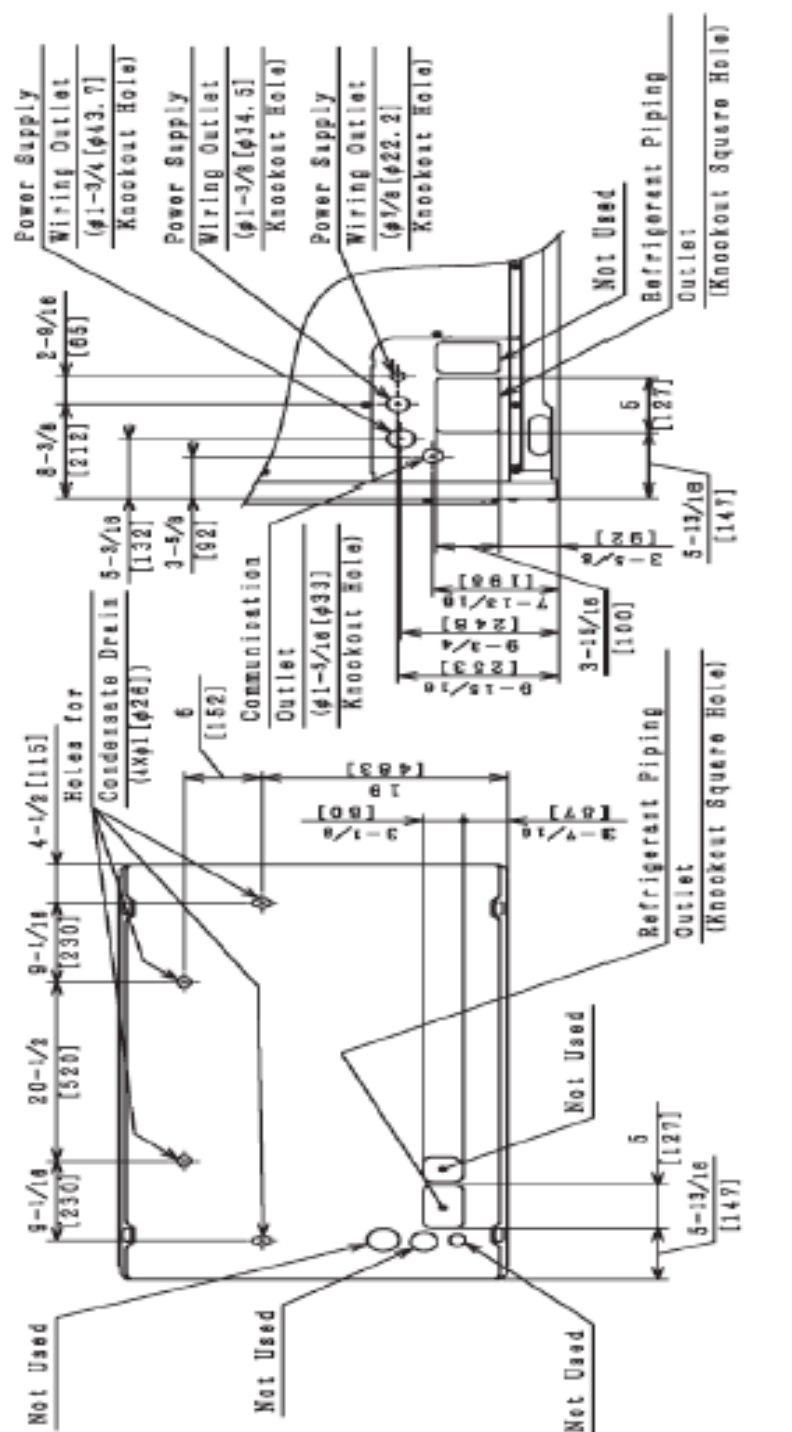
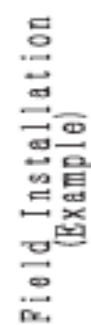
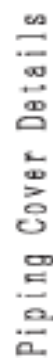
System Dimensions

Heat Pump Model: (Y,H)VAHP096B32S

Unit: inch (mm)



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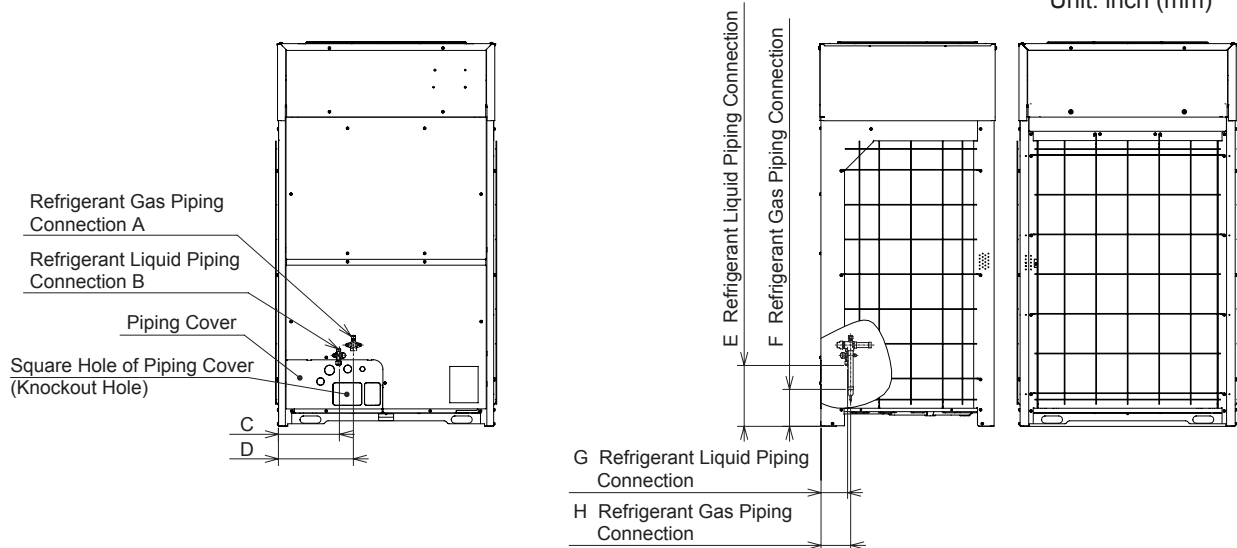


NOTES:

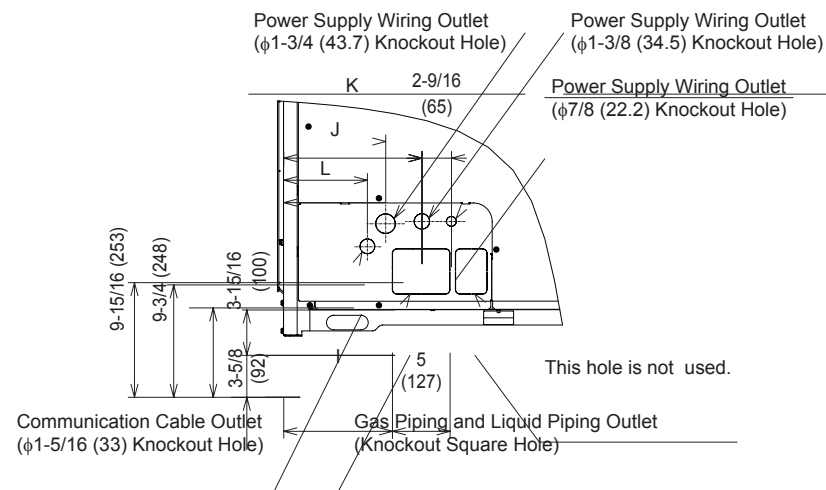
1. Condensation is produced by the outdoor coil during heating and defrost operation.
 - 1) Locate the unit where the system can be properly drained.
 - 2) Condensate pipe must be installed in accordance with local and national codes.
 - 3) Ensure the drain is sloped downward away from the outdoor for proper drainage.
 - 4) When the outdoor unit is installed indoors, it may be necessary to provide a secondary drain pan, condensate pump or optional drain boss for condensate management.
 - 5) Do not use the drain boss (optional) in locations where the drain line may freeze.
2. The dimensions marked with "x" indicate the mounting pitch dimensions for anchor bolts.

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201806

SUBMITTAL DATA SHEET

10 RT (Y,H)VAHP120B32S

Consists of one (Y,H)VAHP120B32S module.

Job Name:

Location:

Purchaser:

Order No.:

Engineer:

Submitted To:

For:

Ref:

Approval:

Construction:

Submitted By:

Date:

Unit Designation:

Schedule No.:

Model No.:

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

(Heat Pump 208/230V)

Category	Ton		10RT	
Model (Combination)			(H,Y)VAHP120B32S	
Model (Individual)	Unit A			-
	Unit B			-
	Unit C			-
Power Supply			208/230V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h (kW)	120,000 (35.2)
	Heating	Capacity (Nominal)	Btu/h (kW)	135,000 (39.6)
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h (kW)	114,000 (33.4)
		EER	Btu/Wh (W/W)	12.7 (3.73)
		IEER	Btu/Wh (Wh/Wh)	24.4 (7.14)
		Capacity (Rated)	Btu/h (kW)	129,000 (37.8)
	Heating	47°F Ambient COP	W/W	3.84
		17°F Ambient COP	Btu/h (kW)	92,000 (27.0)
		W/W		2.37
Operating Range *3	Cooling	Indoor	°F WB (°C WB)	59(15) ~ 73(23)
		Outdoor	°F DB (°C DB)	23(-5) ~ 122(50)
		Outdoor (with Snow Protection Hood)	°F DB (°C DB)	14(-23) ~ 109(43)
		Outdoor (with Cooling Damper Kit)	°F DB (°C DB)	-10(-20) ~ 109(43)
	Heating	Indoor	°F DB (°C DB)	59(15) ~ 80(27)
		Outdoor	°F WB (°C WB)	-13(-25) ~ 59(15)
Cabinet Color (Munsell Code)			2.5Y 8/2	
Outer Dimensions	Height x Width x Depth		in	66-1/4 x 48-5/8 x 30-1/2
			mm	1683 x 1235 x 774
Weight	Net		lbs (kg)	721 (327)
	Gross		lbs (kg)	765 (347)
Connection Ratio	Standard (Extended)		%	60-130(150)
	Max. (Recommended) Indoor Units/System		Q'ty	26 (8)
Heat Exchanger	Type		-	Multi-Pass Cross-Finned Tube
	Material		-	Cu-Al (Anti-corrosion)
Compressor	Type	Inverter 1	-	-
		Inverter 2	-	-
	Motor Output (Pole)		kW (Pole)	5.4(6)×2
	Start Method		-	inverter
	Operation Range		%	11 ~ 100
	Refrigeration Oil Type		-	FVC68D
Crank Case Heater			W×Q'ty	34.2 (230V) ×6
	Type		-	Propeller Fan
Fan	Motor Output (Pole)		kW (Pole)	0.39(8) × 2
	Quantity		Q'ty	2
	Airflow Rate		cfm (m³/min)	9,037 (256)
	External Static Pressure *4		in.W.G. (Pa)	0-0.32 (0-80)
Electrical	Drive		-	Direct-drive
	Min Circuit Amps		A	46/42
	Maximum Overcurrent Protective Device		A	60
	Maximum Fuse Size		A	60
Sound Pressure Level	Cooling		dB (A)	63
	Heating		dB (A)	63
Protection Devices	Cycle		-	High pressure switch at 601psi (4.15MPa)
	Inverter		-	Over-current protection
	Compressor		-	Over-heat protection
	PCB		-	Over-heat protection
Refrigerant	Type		-	R410A
	Factory Charge Amount		lbs (kg)	20.9 (9.9)
Refrigeration Oil	Factory Charge Amount		gal/Unit (L/Unit)	2.1 (7.9)
Defrost Method			-	Reversed Refrigerant Cycle
Main Refrigerant Piping (Heat Pump)	Gas Line		in (mm)	1-1/8 (28.58)
	Liquid Line		in (mm)	1/2 (12.7)

NOTES:

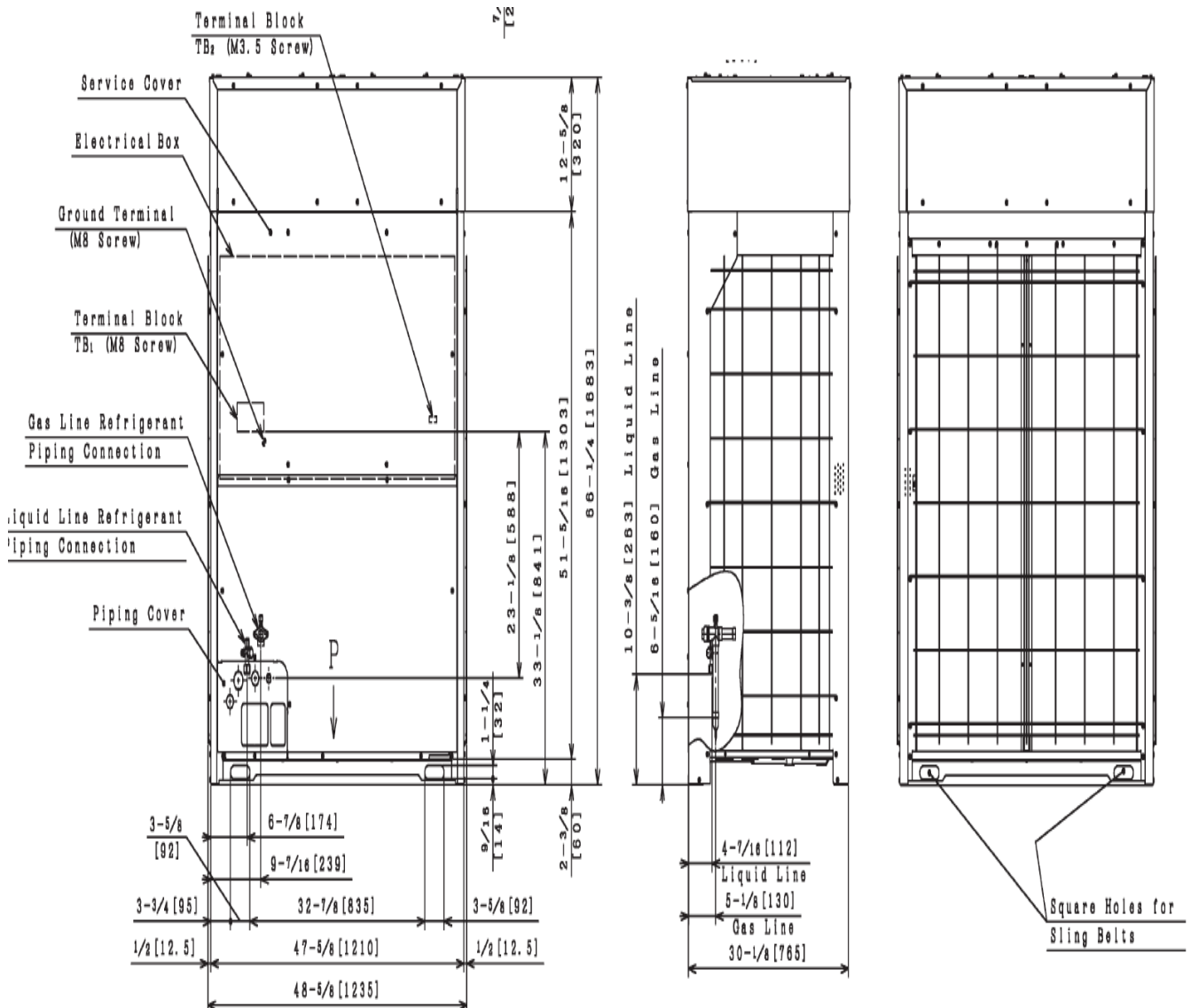
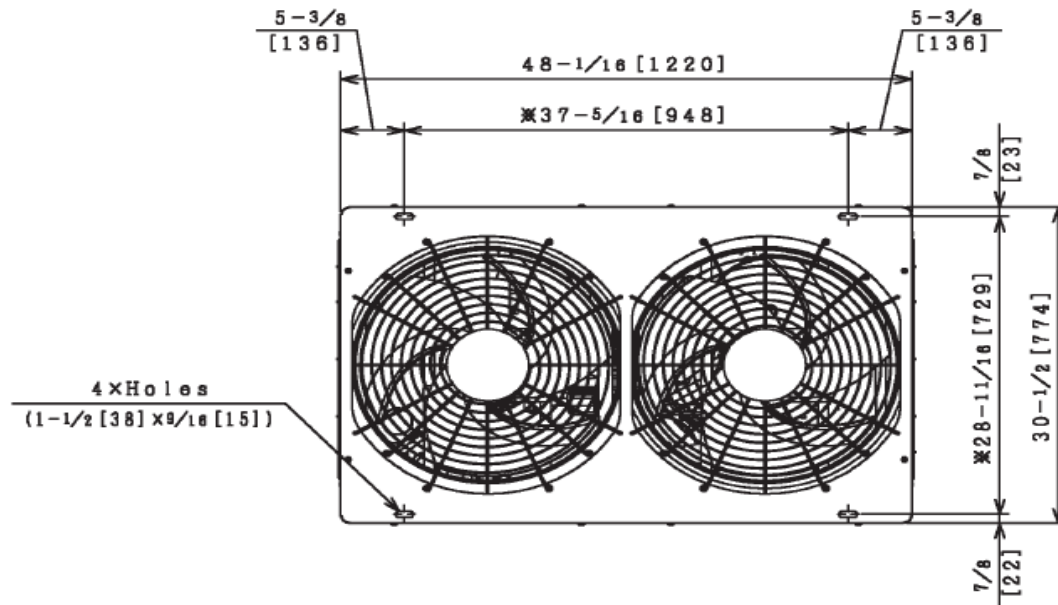
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

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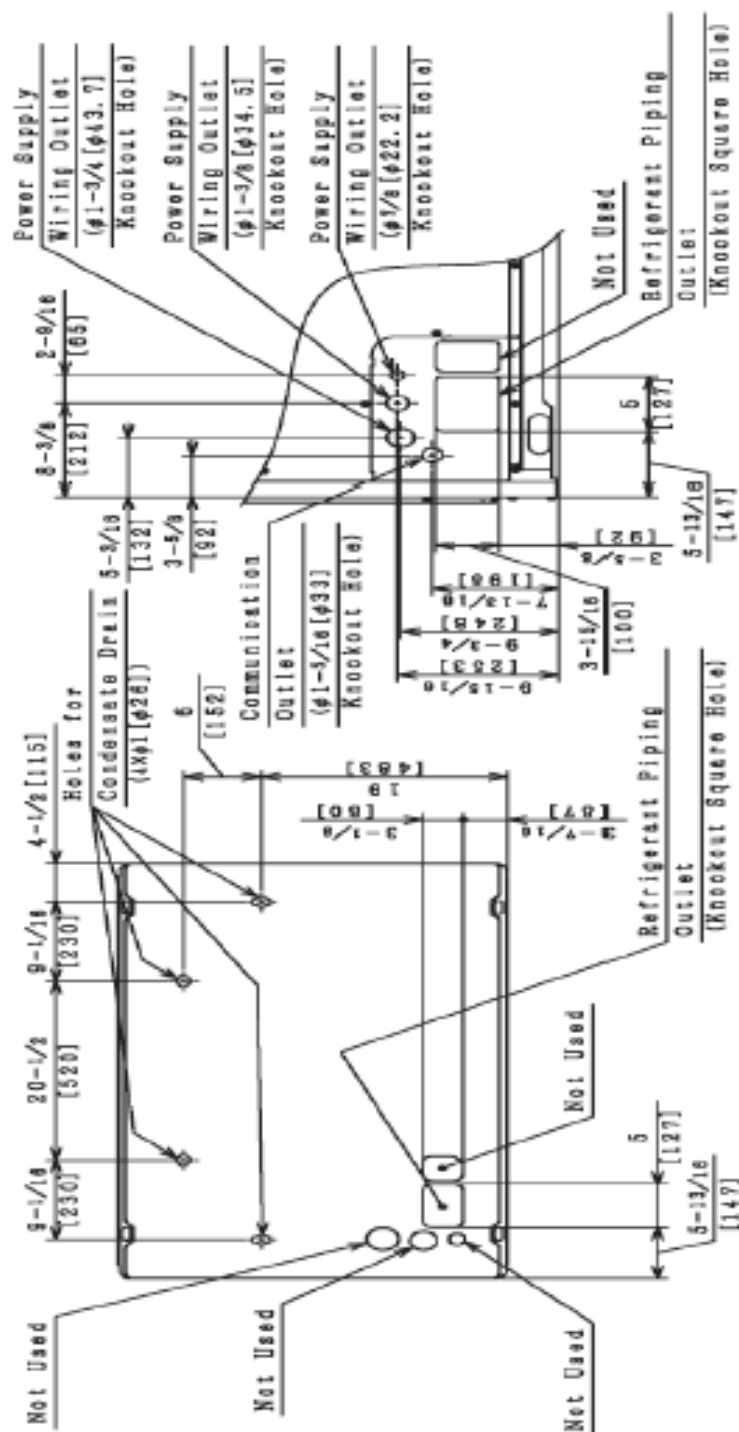
System Dimensions

inch (mm)

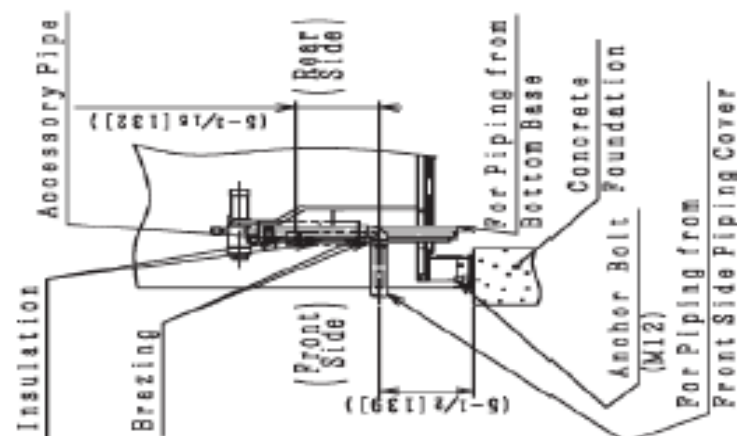
Heat Pump Model: (Y,H)VAHP120B32S



Viewed from P



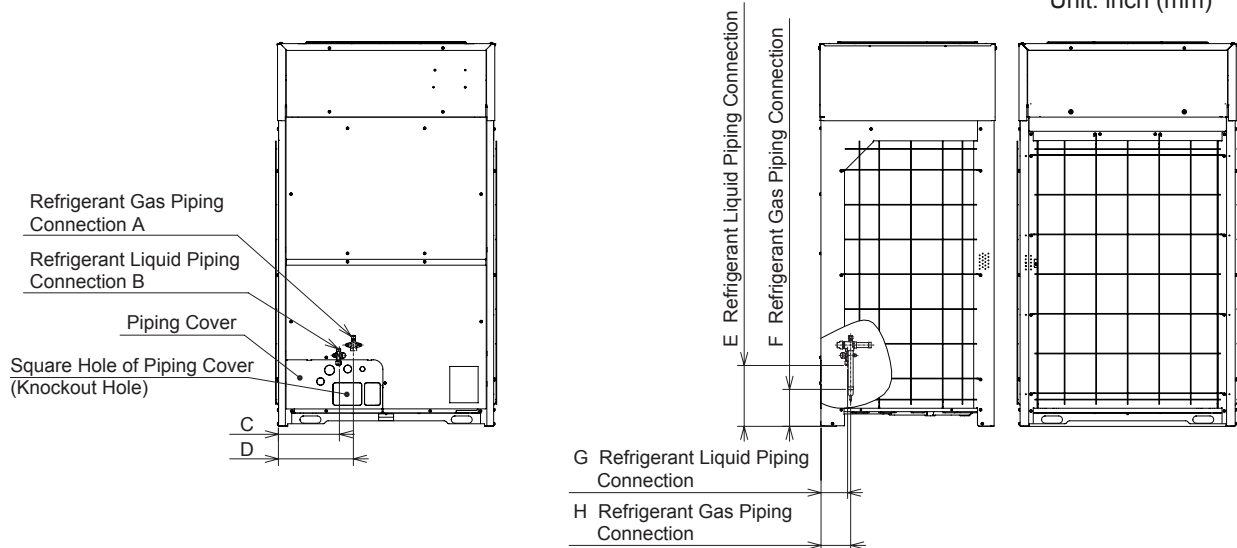
Piping Cover Details

Field Installation
(Example)**NOTES:**

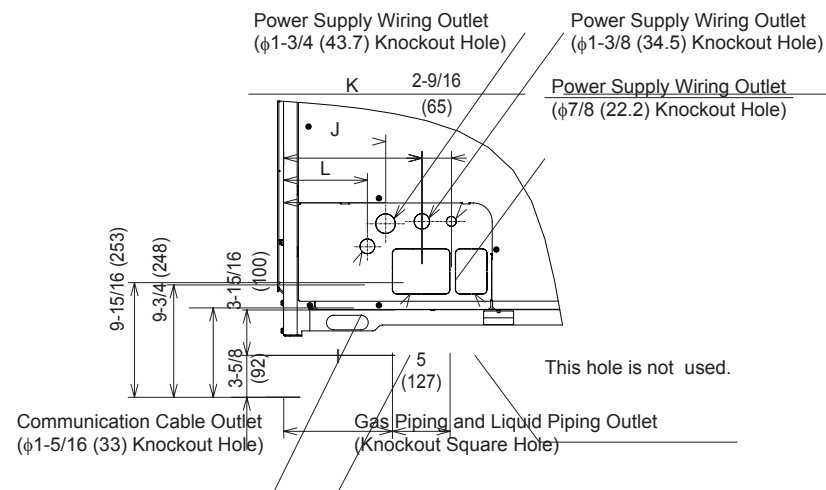
1. Condensation is produced by the outdoor coil during heating and defrost operation.
 - 1) Locate the unit where the system can be properly drained.
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 - 3) Ensure the drain is sloped downward away from the outdoor for proper drainage.
 - 4) When the outdoor unit is installed indoors, it may be necessary to provide a secondary drain pan, condensate pump or optional drain boss for condensate management.
 - 5) Do not use the drain boss (optional) in locations where the drain line may freeze.
2. The dimensions marked with "x" indicate the mounting pitch dimensions for anchor bolts.

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201806

SUBMITTAL DATA SHEET

12 RT (Y,H)VAHP144B32S (Consists of one (Y,H)VAHP144B32S module.)

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

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

(Heat Pump 208/230V)

Category		Ton			12RT	
Model (Combination)					(H,Y)VAHP144B32S	
Model (Individual)		Unit A			-	
		Unit B			-	
		Unit C			-	
Power Supply					208/230V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	144,000	(42.2)
	Heating	Capacity (Nominal)	Btu/h	(kW)	162,000	(47.5)
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h	(kW)	138,000	(40.4)
		EER	Btu/Wh	(W/W)	10.9	(3.18)
		IEER	Btu/Wh	(Wh/Wh)	23.9	(6.99)
	Heating	Capacity (Rated)	Btu/h	(kW)	154,000	(45.1)
		COP	W/W			3.42
		COP	W/W			2.12
Operating Range *3	Cooling	Indoor	°F WB (°C WB)		59(15) ~ 73(23)	
		Outdoor	°F DB (°C DB)		23(-5) ~ 122(50)	
		Outdoor (with Snow Protection Hood)	°F DB (°C DB)		14(-23) ~ 109(43)	
		Outdoor (with Cooling Damper Kit)	°F DB (°C DB)		-10(-20) ~ 109(43)	
	Heating	Indoor	°F DB (°C DB)		59(15) ~ 80(27)	
		Outdoor	°F WB (°C WB)		-13(-25) ~ 59(15)	
Cabinet Color (Munsell Code)				- 2.5Y 8/2		
Outer Dimensions	Height x Width x Depth		in	66-1/4x 48-5/8 x 30-1/2		
			mm	1683 x 1235 x 774		
Weight	Net		lbs	(kg)	723	(328)
	Gross		lbs	(kg)	767	(348)
Connection Ratio	Standard (Extended)			%	55-130(150)	
	Max. (Recommended) Indoor Units/System			Q'ty	26 (10)	
Heat Exchanger	Type			-	Multi-Pass Cross-Finned Tube	
	Material			-	Cu-Al (Anti-corrosion)	
Compressor	Type	Inverter 1	-		AA50PHD×2	
		Inverter 2	-		-	
	Motor Output (Pole)		kW (Pole)	6.4(6)×2		
	Start Method		-	inverter		
	Operation Range		%	11 ~ 100		
Crank Case Heater	Refrigeration Oil Type			-	FVC68D	
	W×Q'ty			34.2 (230V) ×6		
Fan	Type		-	Propeller Fan		
	Motor Output (Pole)		kW (Pole)	0.39(8) × 2		
	Quantity		Q'ty	2		
	Airflow Rate		cfm (m³/min)	9,037	(256)	
	External Static Pressure *4		in.W.G. (Pa)	0-0.32	(0-80)	
Electrical	Drive		-	Direct-drive		
	Min Circuit Amps		A	58/52		
	Maximum Overcurrent Protective Device		A	70		
	Maximum Fuse Size		A	70		
Sound Pressure Level	Cooling		dB (A)	65		
	Heating		dB (A)	65		
Protection Devices	Cycle		-	High pressure switch at 601psi (4.15MPa)		
	Inverter		-	Over-current protection		
	Compressor		-	Over-heat protection		
	PCB		-	Over-heat protection		
Refrigerant	Type		-	R410A		
	Factory Charge Amount		lbs (kg)	23.6	(10.7)	
Refrigeration Oil	Factory Charge Amount		gal/Unit (L/Unit)	2.1	(7.9)	
Defrost Method				-	Reversed Refrigerant Cycle	
Main Refrigerant Piping (Heat Pump)	Gas Line		in (mm)	1-1/8	(28.58)	
	Liquid Line		in (mm)	5/8	(15.88)	

NOTES:

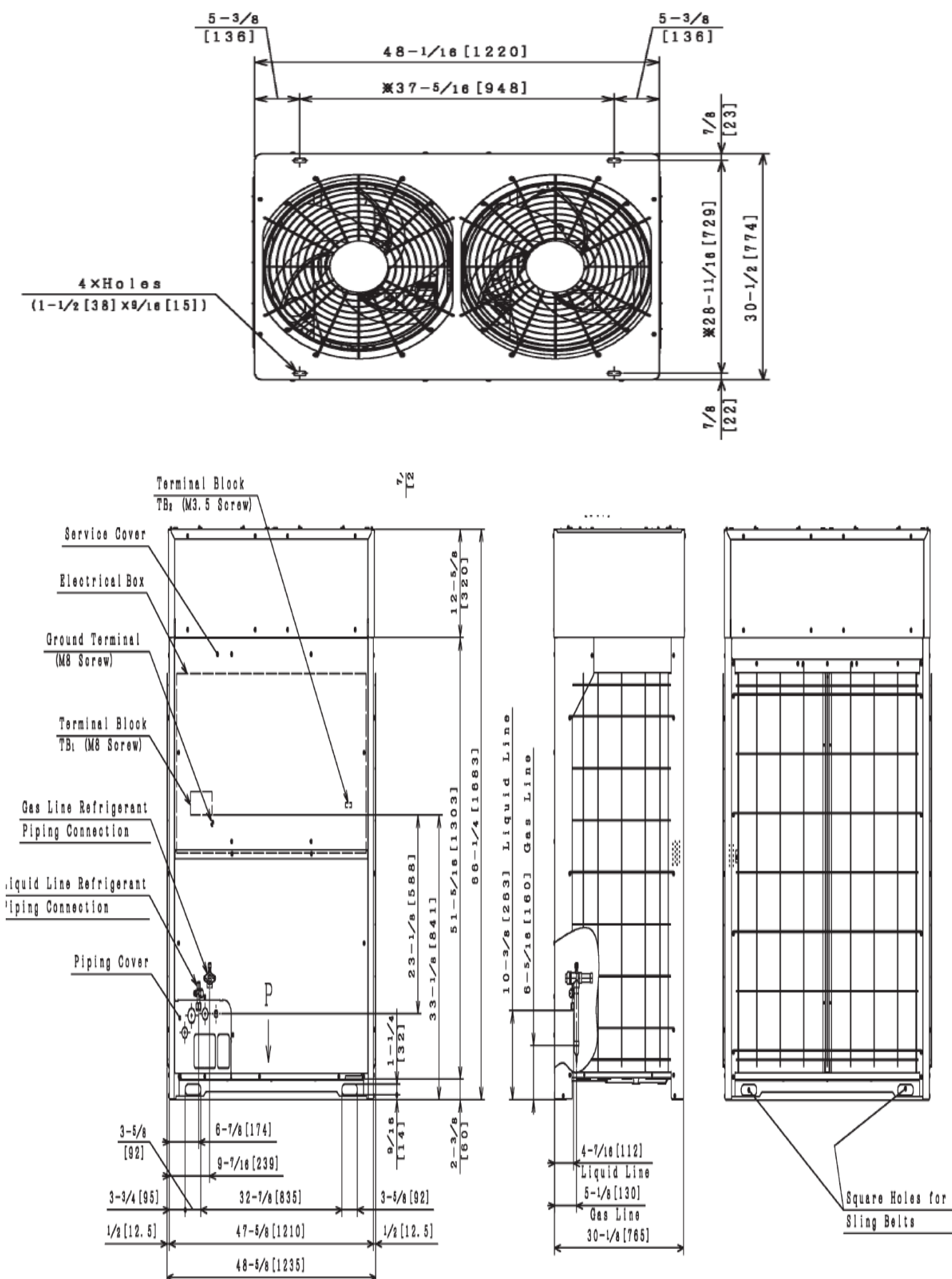
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

version 201806

System Dimensions

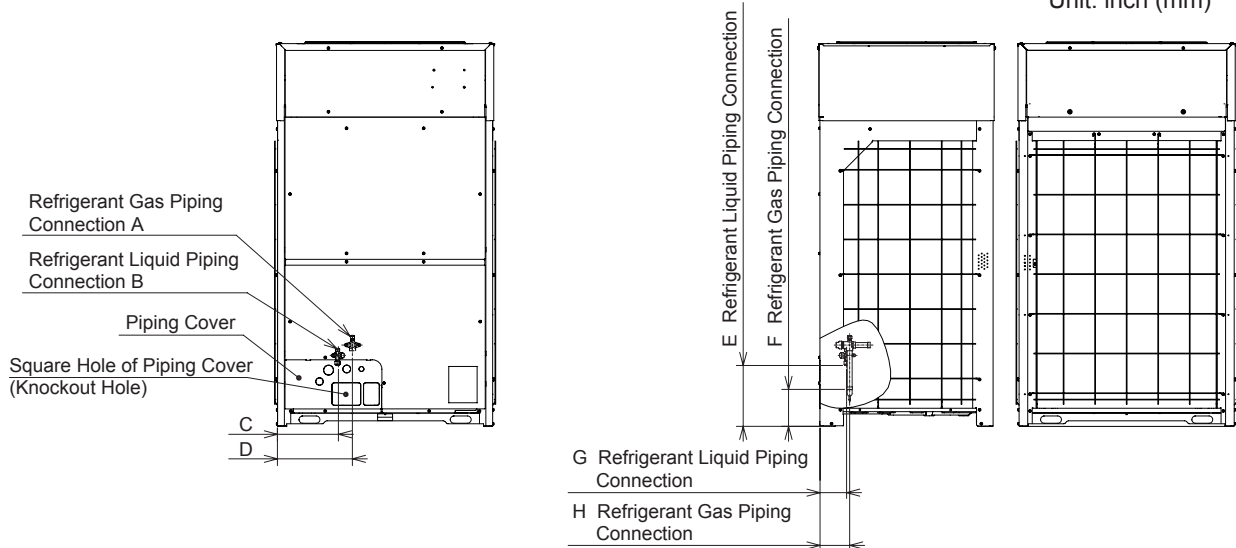
Heat Pump Model: (Y,H)VAHP144B32S

inch (mm)

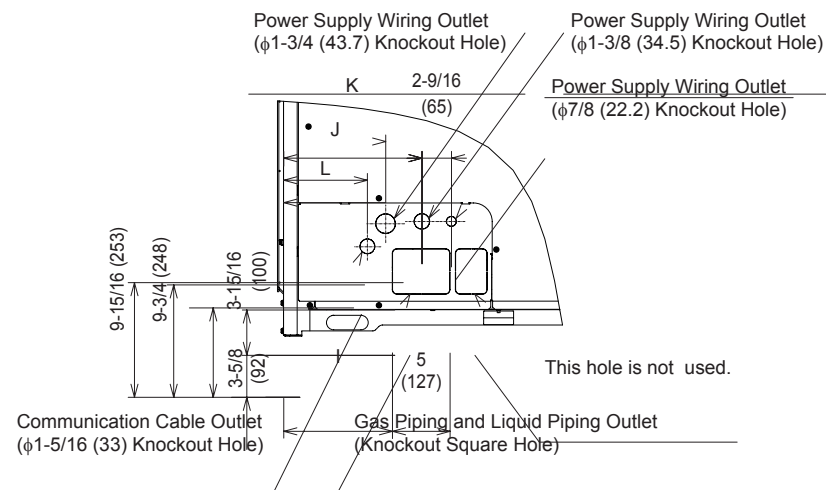


Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201806

SUBMITTAL DATA SHEET

14 RT (Y,H)VAHP168B32S

Consists of one (Y,H)VAHP168B32S module.

Job Name:

Location:

Purchaser:

Order No.:

Engineer:

Submitted To:

For:

Ref:

Approval:

Construction:

Submitted By:

Date:

Unit Designation:

Schedule No.:

Model No.:

(Heat Pump 208/230V)

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

Category	Ton		14RT	
Model (Combination)			(H,Y)VAHP168B32S	
Model (Individual)	Unit A		-	
	Unit B		-	
	Unit C		-	
Power Supply			208/230V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h (kW)	168,000 (49.2)
	Heating	Capacity (Nominal)	Btu/h (kW)	189,000 (55.4)
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h (kW)	160,000 (46.9)
		EER	Btu/Wh (W/W)	11.6 (3.40)
		IEER	Btu/Wh (Wh/Wh)	23.4 (6.86)
	Heating	Capacity (Rated)	Btu/h (kW)	180,000 (52.8)
		47°F Ambient COP	W/W	3.65
	Heating	Capacity	Btu/h (kW)	124,000 (36.3)
17°F Ambient COP	W/W	2.16		
Operating Range *3	Cooling	Indoor	°F WB (°C WB) 59(15) ~ 73(23)	
		Outdoor	°F DB (°C DB) 23(-5) ~ 122(50)	
		Outdoor (with Snow Protection Hood)	°F DB (°C DB) 14(-23) ~ 109(43)	
		Outdoor (with Cooling Damper Kit)	°F DB (°C DB) -10(-20) ~ 109(43)	
	Heating	Indoor	°F DB (°C DB) 59(15) ~ 80(27)	
		Outdoor	°F WB (°C WB) -13(-25) ~ 59(15)	
Cabinet Color (Munsell Code)			- 2.5Y 8/2	
Outer Dimensions	Height x Width x Depth		in	66-1/4x 64 x 30-1/2
			mm	1683 x 1625 x 774
Weight	Net	lbs (kg)	849 (385)	
	Gross	lbs (kg)	900 (408)	
Connection Ratio	Standard (Extended)		% 55-130(150)	
	Max. (Recommended) Indoor Units/System		Q'ty 36 (12)	
Heat Exchanger	Type		- Multi-Pass Cross-Finned Tube	
	Material		- Cu-Al (Anti-corrosion)	
Compressor	Type	Inverter 1	- DC80PHD×2	
		Inverter 2	-	
	Motor Output (Pole)	kW (Pole)	7.1(6)×2	
	Start Method	-	inverter	
	Operation Range	%	11 ~ 100	
	Refrigeration Oil Type	-	FVC68D	
Crank Case Heater			W×Q'ty 34.2 (230V) ×6	
Fan	Type	-	Propeller Fan	
	Motor Output (Pole)	kW (Pole)	0.48(8) × 2	
	Quantity	Q'ty	2	
	Airflow Rate	cfm (m³/min)	11,614 (329)	
	External Static Pressure *4	in.W.G. (Pa)	0-0.32 (0-80)	
	Drive	-	Direct-drive	
Electrical	Min Circuit Amps		A 65/59	
	Maximum Overcurrent Protective Device		A 80	
	Maximum Fuse Size		A 80	
Sound Pressure Level	Cooling	dB (A)	64	
	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	
	Factory Charge Amount		lbs (kg) 24.9 (11.3)	
Refrigeration Oil	Factory Charge Amount		gal/Unit (L/Unit) 2.2 (8.4)	
Defrost Method			- Reversed Refrigerant Cycle	
Main Refrigerant Piping (Heat Pump)	Gas Line	in (mm)	1-1/8 (28.58)	
	Liquid Line	in (mm)	5/8 (15.88)	

NOTES:

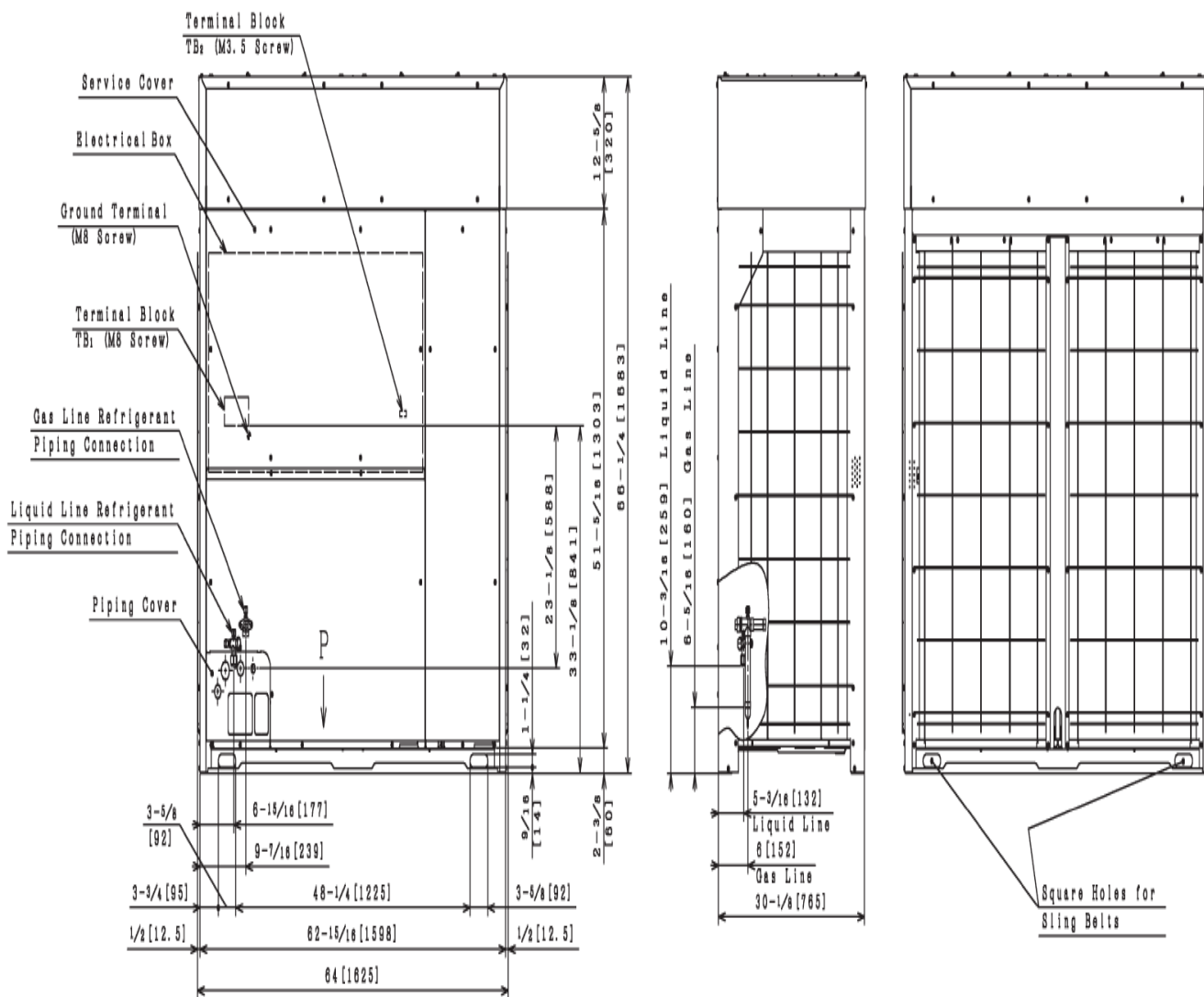
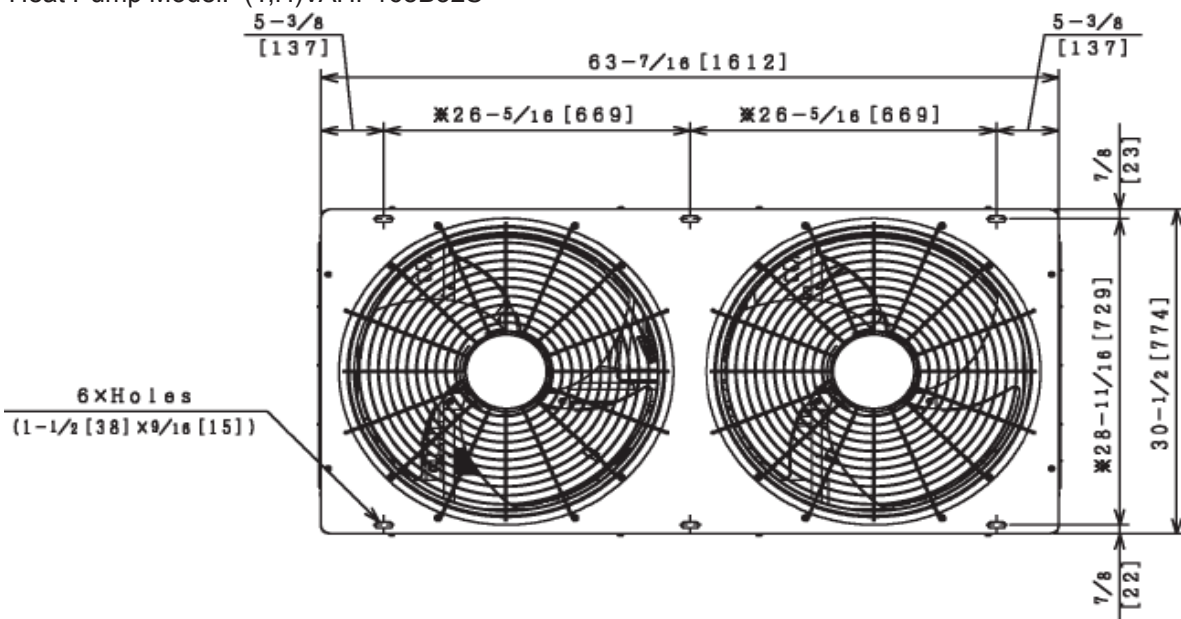
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

version 201806

System Dimensions

Heat Pump Model: (Y,H)VAHP168B32S

inch (mm)



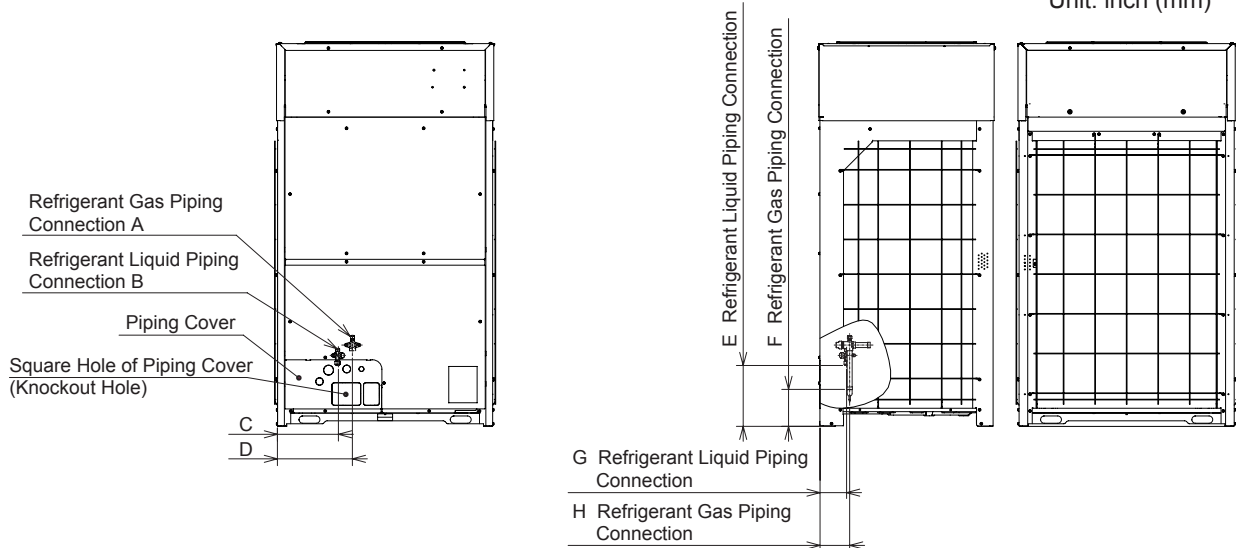
Viewed from P



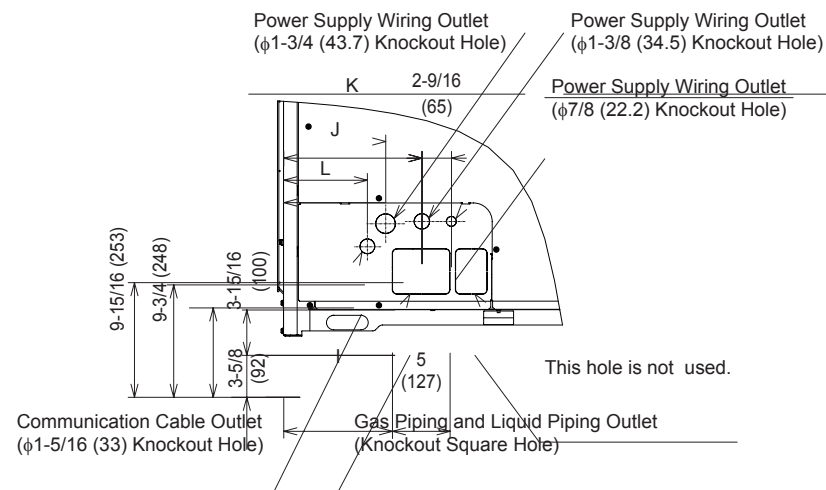
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subject to change.

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201806

SUBMITTAL DATA SHEET

16 RT (Y,H)VAHP192B32S (Consists of one (Y,H)VAHP192B32S module.)

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

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

(Heat Pump 208/230V)							
Category		Ton			16RT		
Model (Combination)					(H,Y)VAHP192B32S		
Model (Individual)		Unit A			-		
		Unit B			-		
		Unit C			-		
Power Supply					208/230V/ 3PH 60Hz		
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	192,000	(56.3)	
	Heating	Capacity (Nominal)	Btu/h	(kW)	216,000	(63.3)	
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h	(kW)	184,000	(53.9)	
		EER	Btu/Wh	(W/W)	10.6	(3.11)	
		IEER	Btu/Wh	(Wh/Wh)	21.4	(6.27)	
	Heating	Capacity (Rated)	Btu/h	(kW)	206,000	(60.4)	
		47°F Ambient COP	W/W			3.32	
		17°F Ambient COP	W/W			2.05	
Operating Range *3	Cooling	Indoor	°F WB (°C WB)		59(15) ~ 73(23)		
		Outdoor	°F DB (°C DB)		23(-5) ~ 122(50)		
		Outdoor (with Snow Protection Hood)	°F DB (°C DB)		14(-23) ~ 109(43)		
		Outdoor (with Cooling Damper Kit)	°F DB (°C DB)		-10(-20) ~ 109(43)		
	Heating	Indoor	°F DB (°C DB)		59(15) ~ 80(27)		
		Outdoor	°F WB (°C WB)		-13(-25) ~ 59(15)		
Cabinet Color (Munsell Code)				-			
				2.5Y 8/2			
Outer Dimensions	Height x Width x Depth	in		66-1/4 x 64 x 30-1/2			
		mm		1683 x 1625 x 774			
Weight	Net	lbs	(kg)	849	(385)		
	Gross	lbs	(kg)	900	(408)		
Connection Ratio	Standard (Extended)		%		55-130(150)		
	Max. (Recommended) Indoor Units/System		Q'ty		40 (14)		
Heat Exchanger	Type		-		Multi-Pass Cross-Finned Tube		
	Material		-		Cu-Al (Anti-corrosion)		
Compressor	Type	Inverter 1	-		DC80PHD×2		
		Inverter 2	-		-		
	Motor Output (Pole)		kW (Pole)		9.1(6)×2		
	Start Method		-		inverter		
	Operation Range		%		11 ~ 100		
	Refrigeration Oil Type		-		FVC68D		
Crank Case Heater			W×Q'ty		34.2 (230V) ×6		
Fan	Type		-		Propeller Fan		
	Motor Output (Pole)		kW (Pole)		0.56(8) × 2		
	Quantity		Q'ty		2		
	Airflow Rate	cfm	(m³/min)	12,284	(348)		
	External Static Pressure *4	in.W.G.	(Pa)	0-0.32	(0-80)		
	Drive		-		Direct-drive		
Electrical	Min Circuit Amps		A		76/68		
	Maximum Overcurrent Protective Device		A		90		
	Maximum Fuse Size		A		90		
Sound Pressure Level	Cooling	dB (A)		66			
	Heating	dB (A)		66			
Protection Devices	Cycle	-		High pressure switch at 601psi (4.15MPa)			
	Inverter	-		Over-current protection			
	Compressor	-		Over-heat protection			
	PCB	-		Over-heat protection			
Refrigerant	Type	-		R410A			
	Factory Charge Amount	lbs	(kg)	25.6	(11.6)		
Refrigeration Oil	Factory Charge Amount		gal/Unit	(L/Unit)	2.2	(8.4)	
Defrost Method			-		Reversed Refrigerant Cycle		
Main Refrigerant Piping (Heat Pump)	Gas Line	in	(mm)	1-1/8	(28.58)		
	Liquid Line	in	(mm)	5/8	(15.88)		

NOTES:

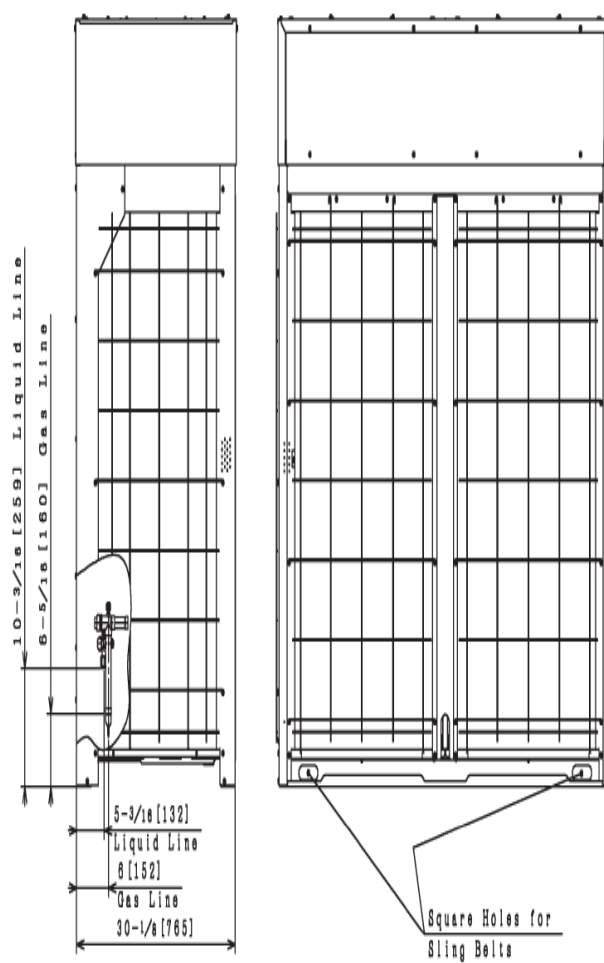
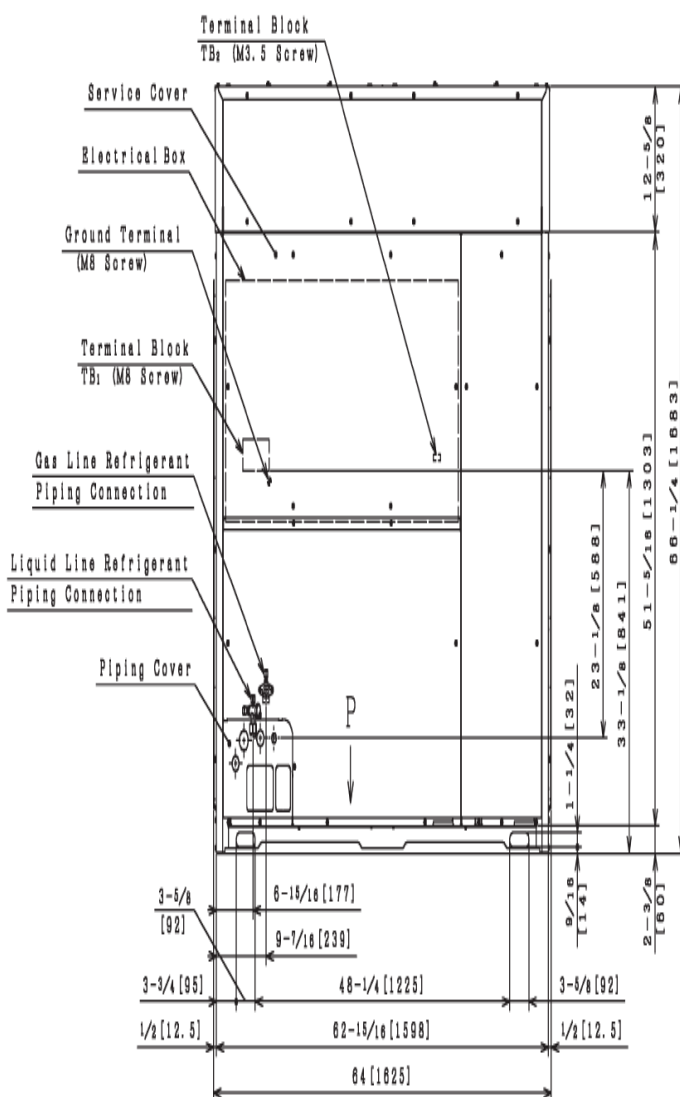
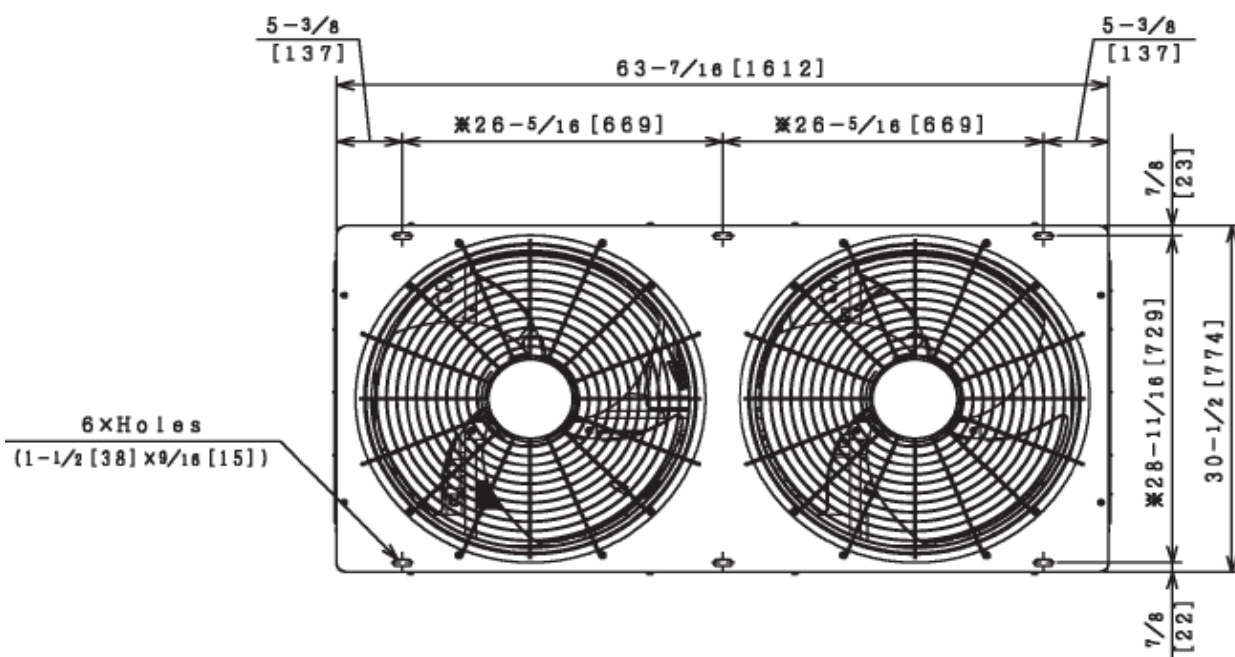
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

version 201806

System Dimensions

Heat Pump Model: (Y,H)VAHP192B32S

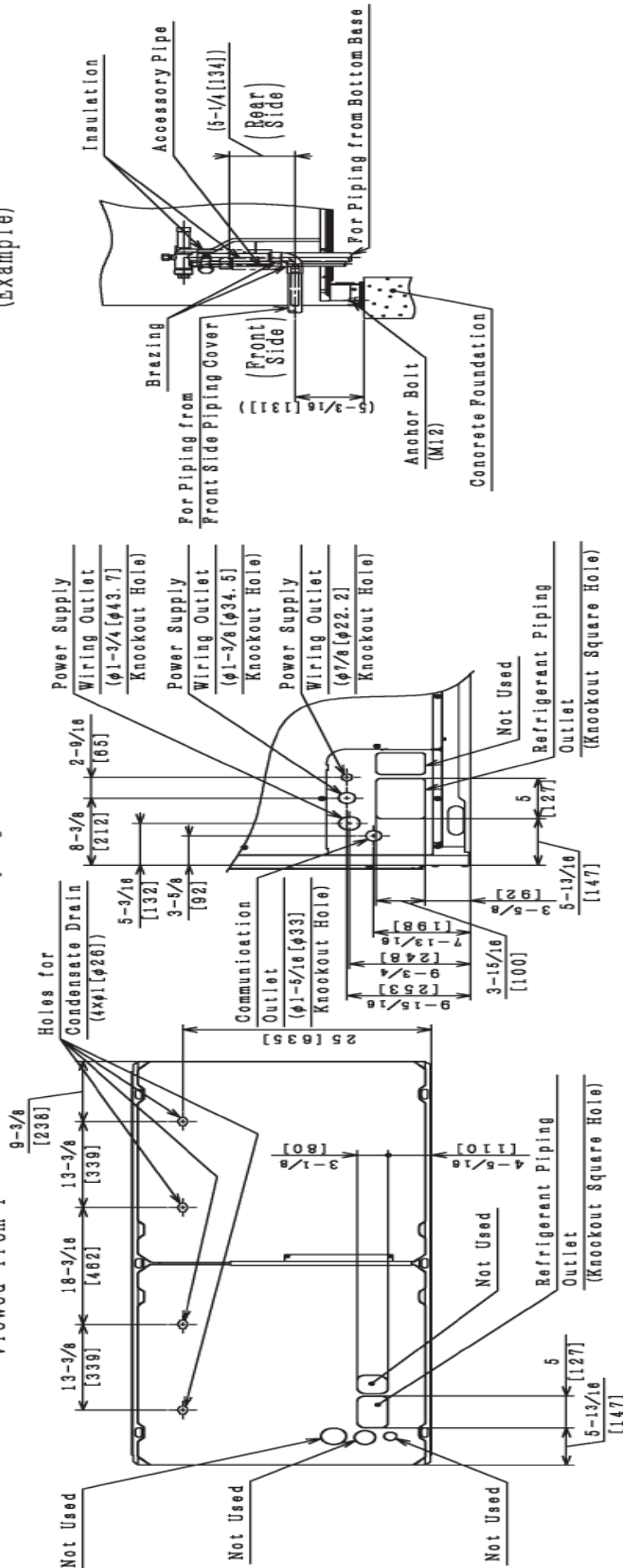
inch (mm)



Field Installation (Example)

Piping Cover Details

Viewed from P

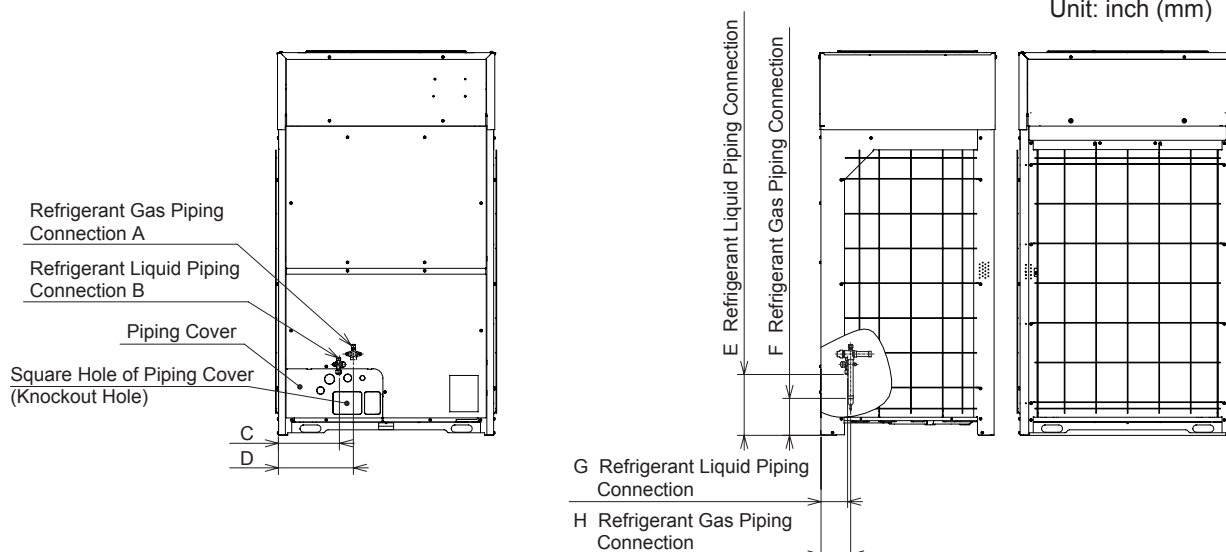


NOTES:

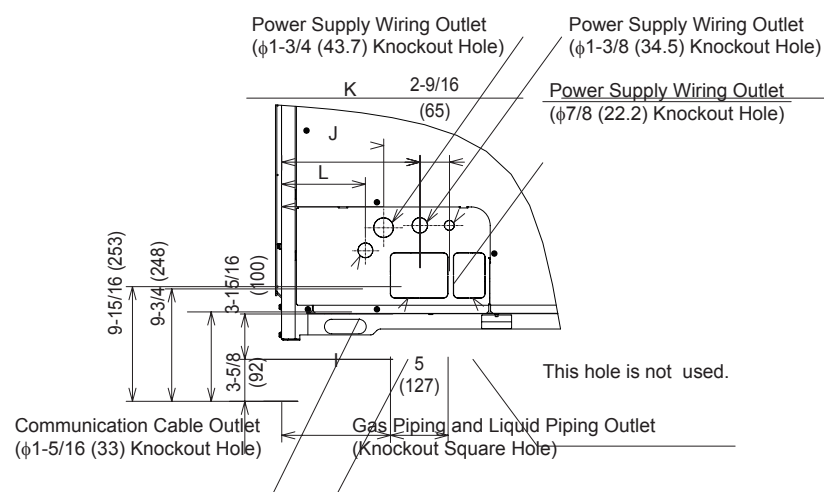
1. Drain water is discharged from the unit during the operation.
 - ① Choose a place where well drainage is available. Provide a groove for drain.
 - ② Do not provide an upward slope from the unit to avoid reverse flow of the drain.
 - Provide a second drainpan under the outdoor unit, to collect drain water securely.
 - ③ 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)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201806

SUBMITTAL DATA SHEET

18 RT (Y,H)VAHP216B32S Consists of one (Y,H)VAHP144B32S and one (Y,H)VAHP072B32S module.

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

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

(Heat Pump 208/230V)						
Category		Ton		18RT (12RT+6RT)		
Model (Combination)				(H,Y)VAHP216B32S		
Model (Individual)		Unit A		(H,Y)VAHP144B32S		
		Unit B		(H,Y)VAHP072B32S		
		Unit C		-		
Power Supply				208/230V/ 3PH 60Hz		
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	216,000	(63.3)
	Heating	Capacity (Nominal)	Btu/h	(kW)	243,000	(71.2)
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h	(kW)	206,000	(60.4)
		EER	Btu/Wh	(W/W)	10.9	(3.18)
	Heating	Capacity (Rated)	Btu/h	(kW)	232,000	(68.0)
		COP		W/W	3.82	
	47°F Ambient	Capacity	Btu/h	(kW)	164,000	(48.1)
	17°F Ambient	COP		W/W	2.32	
Operating Range *3	Cooling	Indoor	°F WB (°C WB)		59(15) ~ 73(23)	
		Outdoor	°F DB (°C DB)		23(-5) ~ 122(50)	
		Outdoor (with Snow Protection Hood)	°F DB (°C DB)		14(-23) ~ 109(43)	
		Outdoor (with Cooling Damper Kit)	°F DB (°C DB)		-10(-20) ~ 109(43)	
	Heating	Indoor	°F DB (°C DB)		59(15) ~ 80(27)	
		Outdoor	°F WB (°C WB)		-13(-25) ~ 59(15)	
			-		2.5Y 8/2	
Cabinet Color (Munsell Code)				-		
Outer Dimensions		Height x Width x Depth	in mm	(66-1/4x 48-5/8x 30-1/2+(66-1/4 x 38-3/8 x 30-1/2) (1683 x 1235 x 774)+(1683 x 975 x 774)		
Weight	Net		lbs (kg)	723+516 (328+234)		
	Gross		lbs (kg)	767+556 (348+252)		
Connection Ratio	Standard (Extended)		%		60-130(150)	
	Max. (Recommended) Indoor Units/System		Q'ty		46 (18)	
Heat Exchanger	Type		-		Multi-Pass Cross-Finned Tube	
	Material		-		Cu-Al (Anti-corrosion)	
Compressor	Type	Inverter 1	-		DC80PHD×1	
		Inverter 2	-		AA50PHD×2	
	Motor Output (Pole)		kW (Pole)	6.4(6)×2+7.4(6)		
	Start Method		-		inverter	
	Operation Range		%		11 ~ 100	
Refrigeration Oil Type		-		FVC68D		
Crank Case Heater			W×Q'ty	34.2 (230V) ×9		
Fan	Type		-		Propeller Fan	
	Motor Output (Pole)		kW (Pole)	(0.39(8)×2)+0.42(8)		
	Quantity		Q'ty		3	
	Airflow Rate		cfm (m³/min)	9,037 +6,707 (256+190)		
	External Static Pressure *4		in.W.G. (Pa)	0-0.32 (0-80)		
Electrical	Drive		-		Direct-drive	
	Min Circuit Amps		A		58+29/52+26	
	Maximum Overcurrent Protective Device		A		70+40	
	Maximum Fuse Size		A		70+40	
Sound Pressure Level	Cooling		dB (A)		66	
	Heating		dB (A)		66	
Protection Devices	Cycle		-		High pressure switch at 601psi (4.15MPa)	
	Inverter		-		Over-current protection	
	Compressor		-		Over-heat protection	
	PCB		-		Over-heat protection	
Refrigerant	Type		-		R410A	
	Factory Charge Amount		lbs (kg)	23.6+16.1 (10.7+7.2)		
Refrigeration Oil	Factory Charge Amount		gal/Unit (L/Unit)	2.1+1.6 (7.9+6.0)		
Defrost Method				-		
Main Refrigerant Piping (Heat Pump)	Gas Line		in (mm)	1-1/8 (28.58)		
	Liquid Line		in (mm)	3/4 (19.05)		

NOTES:

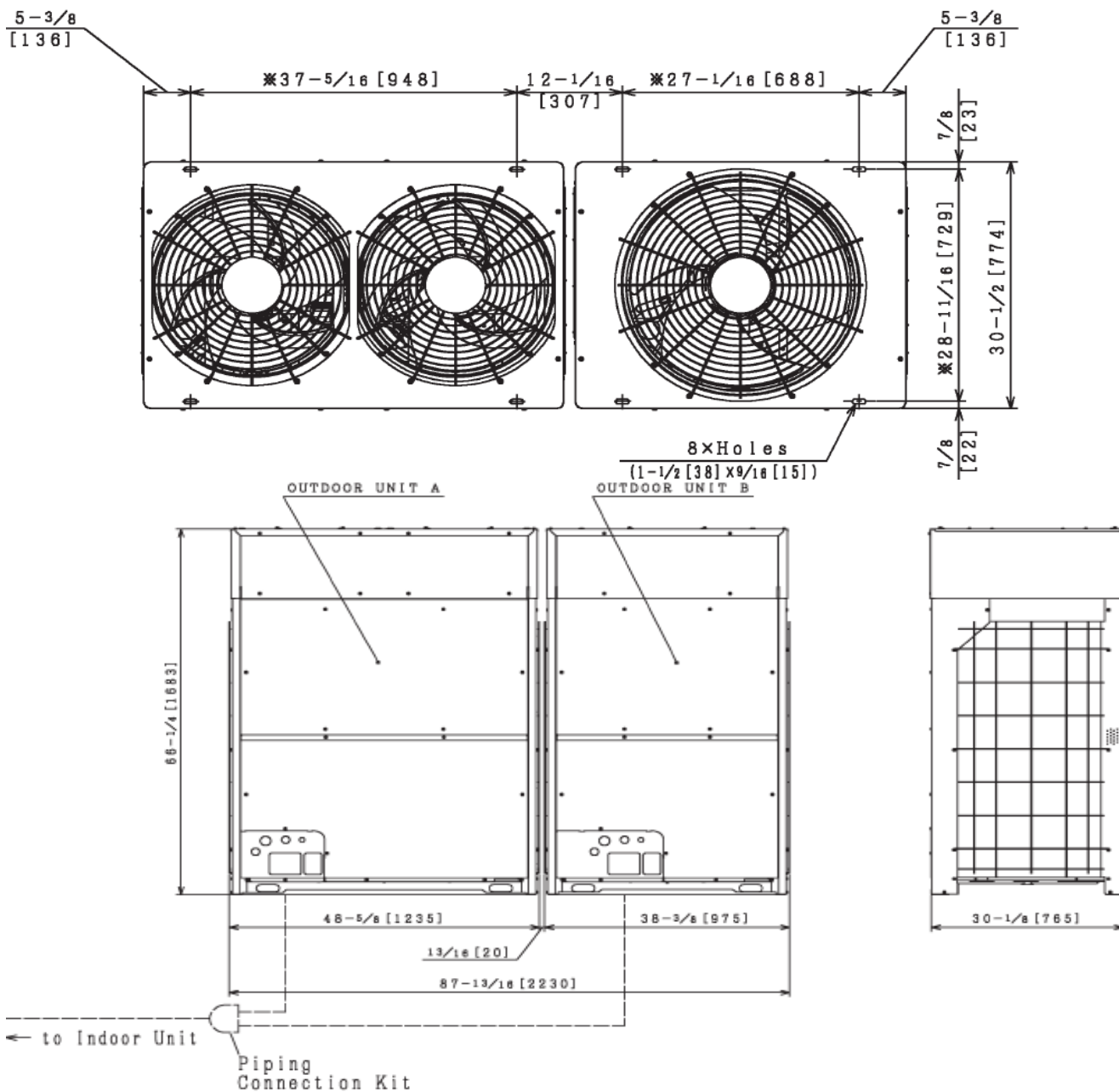
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

version 201806

System Dimensions

Heat Pump Model: (Y,H)VAHP216B32S

inch (mm)



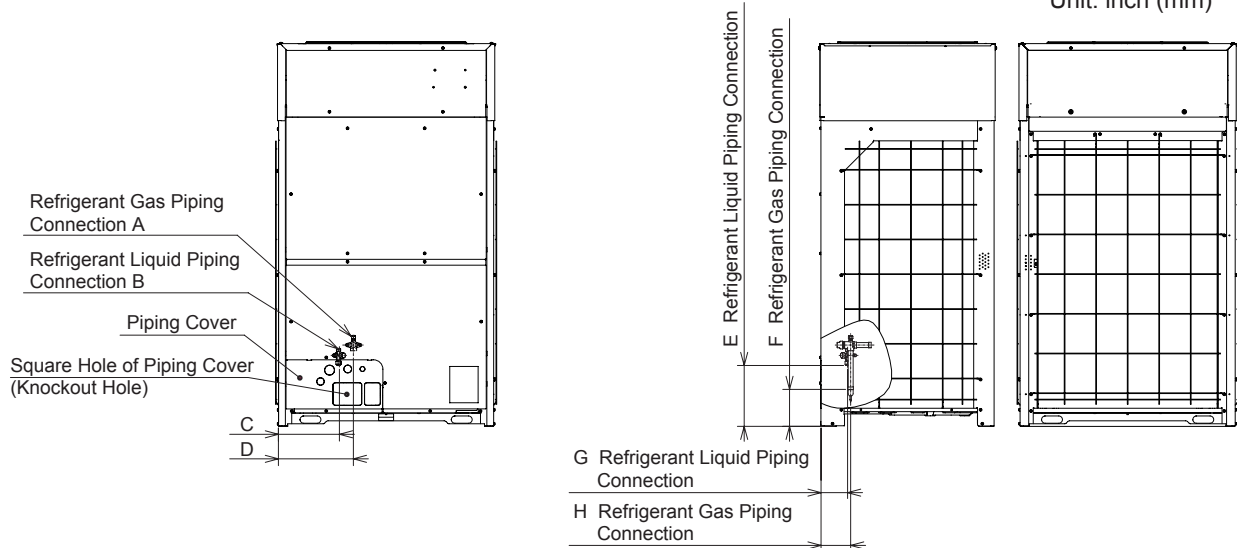
NOTES :

1. Make sure that the outdoor unit A is placed on the indoor unit side.
Arrange the outdoor units according to the capacity, $A \geq B$.
2. Check "Installation Manual" for the piping connection kit and piping connection size.
3. Check "Dimensional Drawing" for the dimension of piping outlet and wiring outlet.
3. This drawing shows that there is $13/16$ inch [20mm] clearance between the base units.
In case of the outdoor unit with "Snow Protection Hood (Optional Parts)", the clearance between the base units of more than $1-15/16$ inch [50mm] is required.
4. The dimensions marked with * 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.

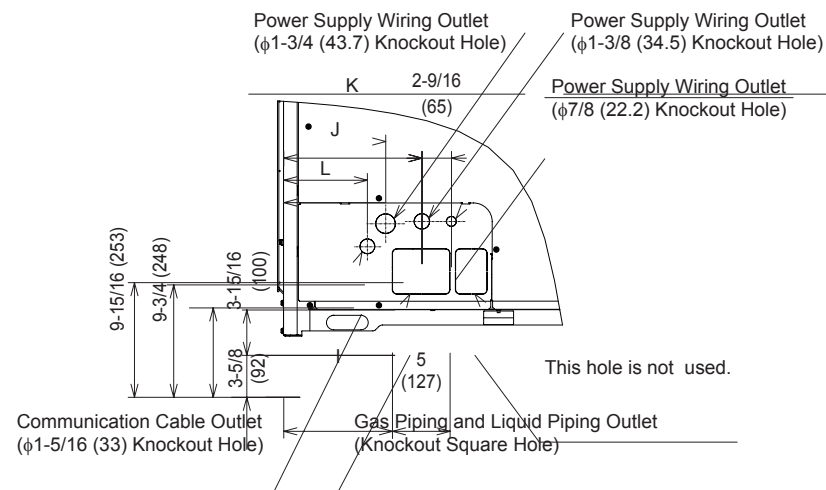
Outdoor Unit Model	Combination of Base Unit Models	
	OUTDOOR UNIT A	OUTDOOR UNIT B
(H. Y) VAHP216B32S	(H. Y) VAHP144B32S	(H. Y) VAHP072B32S
(H. Y) VAHP216B42S	(H. Y) VAHP144B42S	(H. Y) VAHP072B42S

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201806

SUBMITTAL DATA SHEET

20 RT (Y,H)VAHP240B32S

Consists of two (Y,H)VAHP120B32S modules.

Job Name:

Location:

Purchaser:

Order No.:

Engineer:

Submitted To:

For:

Ref:

Approval:

Construction:

Submitted By:

Date:

Unit Designation:

Schedule No.:

Model No.:

(Heat Pump 208/230V)

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

Category		Ton		20RT (10RT+10RT)	
Model (Combination)				(H,Y)VAHP240B32S	
Model (Individual)	Unit A			(H,Y)VAHP120B32S	
	Unit B			(H,Y)VAHP120B32S	
	Unit C				
Power Supply				208/230V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h (kW)	240,000	(70.3)
	Heating	Capacity (Nominal)	Btu/h (kW)	270,000	(79.1)
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h (kW)	228,000	(66.8)
		EER	Btu/Wh (W/W)	11.1	(3.24)
		IEER	Btu/Wh (Wh/Wh)	20.8	(6.09)
	Heating	Capacity (Rated)	Btu/h (kW)	258,000	(75.6)
	47°F Ambient	COP	W/W	3.67	
	Heating	Capacity	Btu/h (kW)	178,000	(52.2)
Operating Range *3	Heating	COP	W/W	2.35	
	Cooling	Indoor	°F WB (°C WB)	59(15) ~ 73(23)	
		Outdoor	°F DB (°C DB)	23(-5) ~ 122(50)	
		Outdoor (with Snow Protection Hood)	°F DB (°C DB)	14(-23) ~ 109(43)	
		Outdoor (with Cooling Damper Kit)	°F DB (°C DB)	-10(-20) ~ 109(43)	
	Heating	Indoor	°F DB (°C DB)	59(15) ~ 80(27)	
Cabinet Color (Munsell Code)	Height x Width x Depth	Indoor	°F WB (°C WB)	-13(-25) ~ 59(15)	
		Outdoor	°F WB (°C WB)	-13(-25) ~ 59(15)	
Outer Dimensions	Height x Width x Depth			2.5Y 8/2	
Weight	Net	in	(66-1/4 x 48-5/8 x 30-1/2) x 2		
		mm	(1683 x 1235 x 774) x 2		
Connection Ratio	Standard (Extended)	lbs	(kg)	721 x 2	(327*2)
		lbs	(kg)	765 x 2	(347*2)
Heat Exchanger	Type			60-130(150)	
				52 (18)	
Compressor	Material			Multi-Pass Cross-Finned Tube	
				Cu-Al (Anti-corrosion)	
Crank Case Heater	Type			AA50PHD×4	
Fan	Inverter 1				
Electrical	Inverter 2				
Sound Pressure Level	Motor Output (Pole)			(5.4(6)×2) × 2	
Protection Devices	Start Method			inverter	
Refrigerant	Operation Range			11 ~ 100	
Refrigeration Oil	Refrigeration Oil Type			FVC68D	
Main Refrigerant Piping (Heat Pump)	Type			34.2 (230V) ×12	
				Propeller Fan	
Defrost Method	Motor Output (Pole)			(0.39(8)×2) × 2	
Liquid Line	Quantity			4	
Gas Line	Airflow Rate			9,037 × 2 (256×2)	
Reversed Refrigerant Cycle	External Static Pressure *4			0-0.32 (0-80)	
Min Circuit Amps	in.W.G.			Direct-drive	
Maximum Overcurrent Protective Device	Drive				
Maximum Fuse Size	Min Circuit Amps			46 × 2/42 × 2	
Cooling	Maximum Overcurrent Protective Device			60 × 2	
Heating	Maximum Fuse Size			60 × 2	
Cycle	Cooling			66	
Inverter	Heating			66	
Compressor	Cycle			High pressure switch at 601psi (4.15MPa)	
PCB	Inverter			Over-current protection	
Type	Compressor			Over-heat protection	
Factory Charge Amount	PCB			Over-current protection	
gal/Unit	Type			R410A	
L/Unit	Factory Charge Amount			20.9 × 2 (9.9×2)	
Reversed Refrigerant Cycle	Factory Charge Amount			2.1 × 2 (7.9×2)	
1-3/8	Defrost Method			Reversed Refrigerant Cycle	
3/4	Main Refrigerant Piping (Heat Pump)				

NOTES:

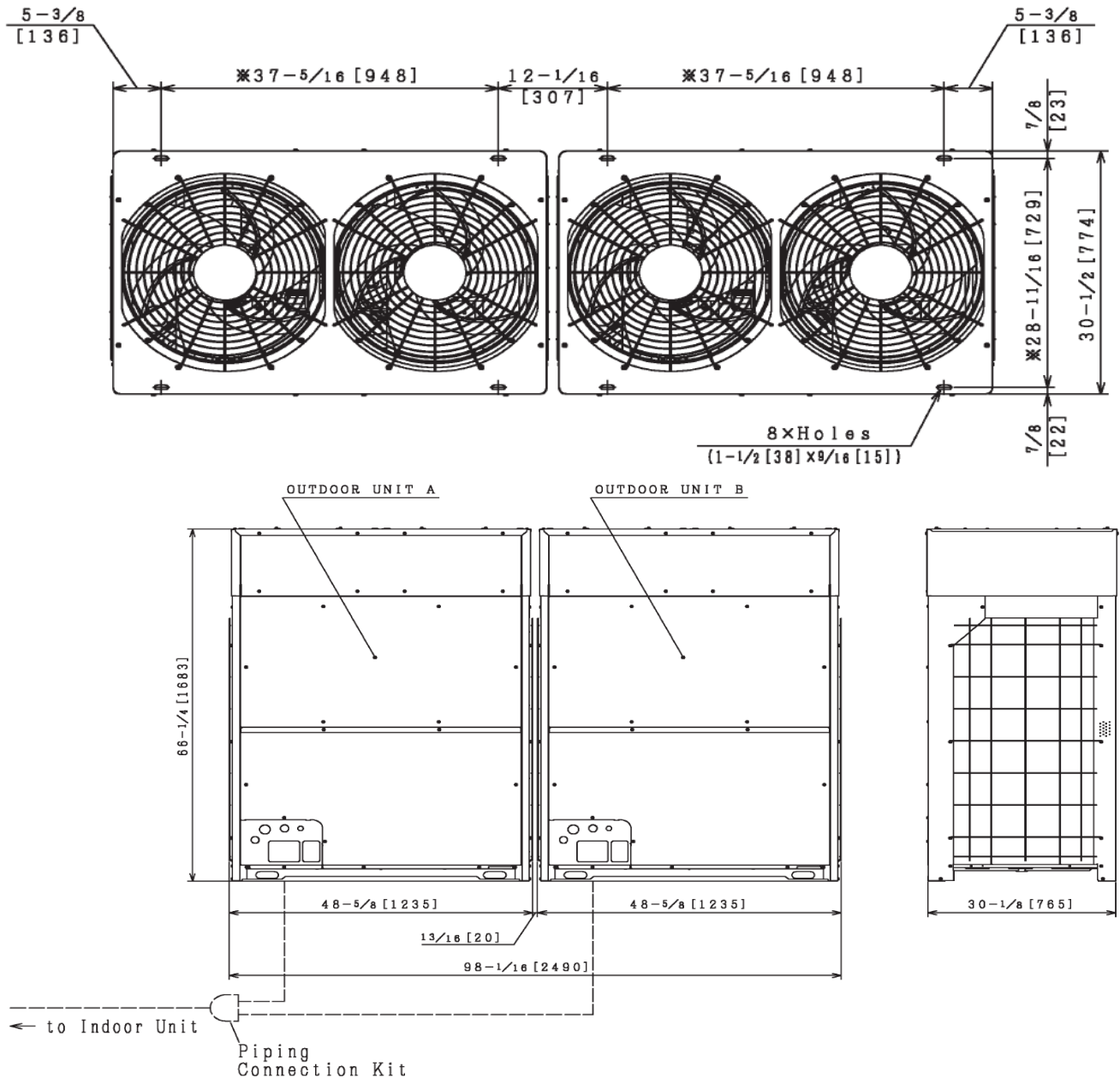
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

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System Dimensions

Heat Pump Model: (Y,H)VAHP240B32S

inch (mm)



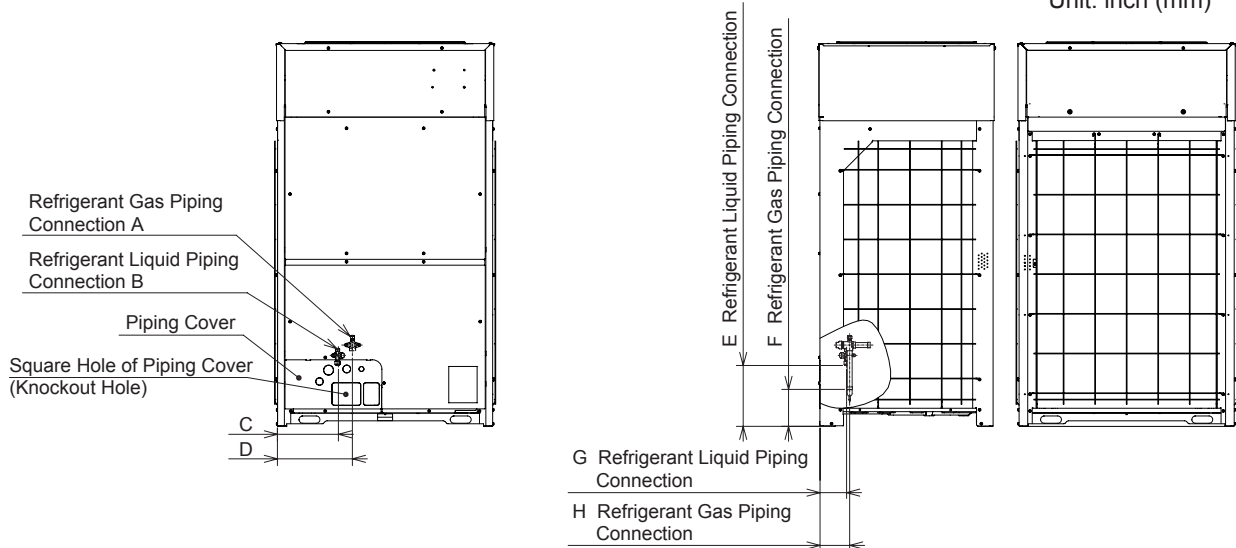
NOTES:

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. Check "Dimensional Drawing" for the dimension of piping outlet and wiring outlet.
3. This drawing shows that there is 13/16 inch [20mm] clearance between the base units.
In case of the outdoor unit with "Snow Protection Hood (Optional Parts)", the clearance between the base units of more than 1-15/16 inch [50mm] is required.
4. The dimensions marked with ※ 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.

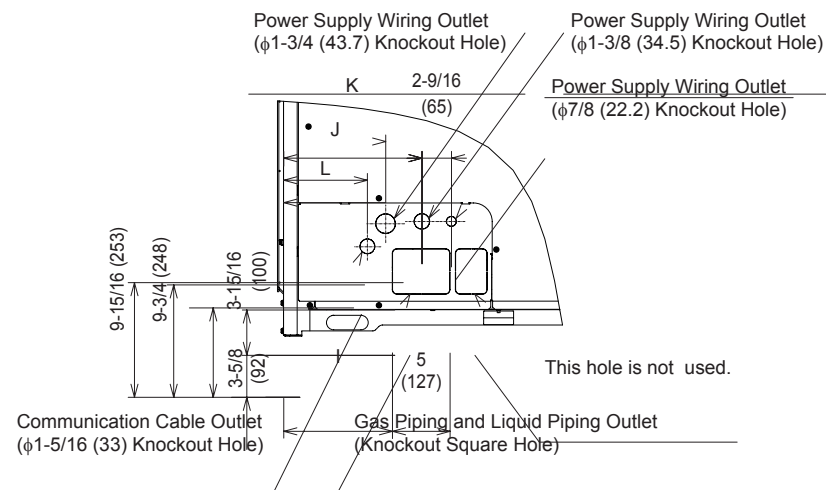
Outdoor Unit Model	Combination of Base Unit Models	
	OUTDOOR UNIT A	OUTDOOR UNIT B
(H, Y) VAHP240B32S	(H, Y) VAHP120B32S	(H, Y) VAHP120B32S
(H, Y) VAHP240B42S	(H, Y) VAHP120B42S	(H, Y) VAHP120B42S
(H, Y) VAHP264B32S	(H, Y) VAHP144B32S	(H, Y) VAHP120B32S
(H, Y) VAHP264B42S	(H, Y) VAHP144B42S	(H, Y) VAHP120B42S
(H, Y) VAHP288B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S
(H, Y) VAHP288B42S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201806

SUBMITTAL DATA SHEET

22 RT (Y,H)VAHP264B32S

Consists of one (Y,H)VAHP144B32S and one (Y,H)VAHP120B32S module.

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

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

(Heat Pump 208/230V)

Category	Ton		22RT (10RT+10RT)	
Model (Combination)			(H,Y)VAHP264B32S	
Model (Individual)	Unit A			(H,Y)VAHP144B32S
	Unit B			(H,Y)VAHP120B32S
	Unit C			-
Power Supply			208/230V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h (kW)	240,000 (77.4)
	Heating	Capacity (Nominal)	Btu/h (kW)	270,000 (87.0)
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h (kW)	252,000 (73.9)
		EER	Btu/Wh (W/W)	10.5 (3.08)
		IEER	Btu/Wh (Wh/Wh)	20.8 (6.10)
	Heating	Capacity (Rated)	Btu/h (kW)	283,000 (83.0)
		COP	W/W	3.56
		Capacity	Btu/h (kW)	196,000 (57.5)
Operating Range *3	Cooling	Indoor	°F WB (°C WB)	59(15) ~ 73(23)
		Outdoor	°F DB (°C DB)	23(-5) ~ 122(50)
		Outdoor (with Snow Protection Hood)	°F DB (°C DB)	14(-23) ~ 109(43)
	Heating	Outdoor (with Cooling Damper Kit)	°F DB (°C DB)	-10(-20) ~ 109(43)
		Indoor	°F DB (°C DB)	59(15) ~ 80(27)
		Outdoor	°F WB (°C WB)	-13(-25) ~ 59(15)
Cabinet Color (Munsell Code)			- 2.5Y 8/2	
Outer Dimensions	Height x Width x Depth		in	(66-1/4 x 48-5/8 x 30-1/2) x 2
			mm	(1683 x 1235 x 774) x 2
Weight	Net	lbs (kg)	723 + 721	(328+327)
	Gross	lbs (kg)	767 + 765	(348+347)
Connection Ratio	Standard (Extended)			55-130(150)
Heat Exchanger	Max. (Recommended) Indoor Units/System			56 (20)
	Type			Multi-Pass Cross-Finned Tube
Compressor	Material			Cu-Al (Anti-corrosion)
	Type			AA50PHD×4
Crank Case Heater	Motor Output (Pole)	kW (Pole)	(6.4(6)×2)+(5.4(6) × 2)	
	Start Method			inverter
	Operation Range			11 ~ 100
	Refrigeration Oil Type			FVC68D
Fan	W×Q×ty			34.2 (230V) ×12
	Type			Propeller Fan
	Motor Output (Pole)	kW (Pole)	(0.39(8)×2) × 2	
	Quantity			4
Electrical	Airflow Rate	cfm (m³/min)	9.037 × 2	(256×2)
	External Static Pressure *4	in.W.G. (Pa)	0-0.32	(0-80)
Sound Pressure Level	Drive			Direct-drive
	Min Circuit Amps	A	58+46/52+42	
	Maximum Overcurrent Protective Device	A	70+60	
Protection Devices	Maximum Fuse Size	A	70+60	
	Cycle			High pressure switch at 601psi (4.15MPa)
	Inverter			Over-current protection
Refrigerant	Compressor			Over-heat protection
	PCB			Over-heat protection
	Type			Over-current protection
Refrigerant	Factory Charge Amount	lbs (kg)	23.6+20.9	(10.7+9.9)
	Defrost Method	gal/Unit (L/Unit)	2.1 × 2	(7.9×2)
Main Refrigerant Piping (Heat Pump)	Gas Line	in (mm)	1-3/8	(34.93)
	Liquid Line	in (mm)	3/4	(19.05)

NOTES:

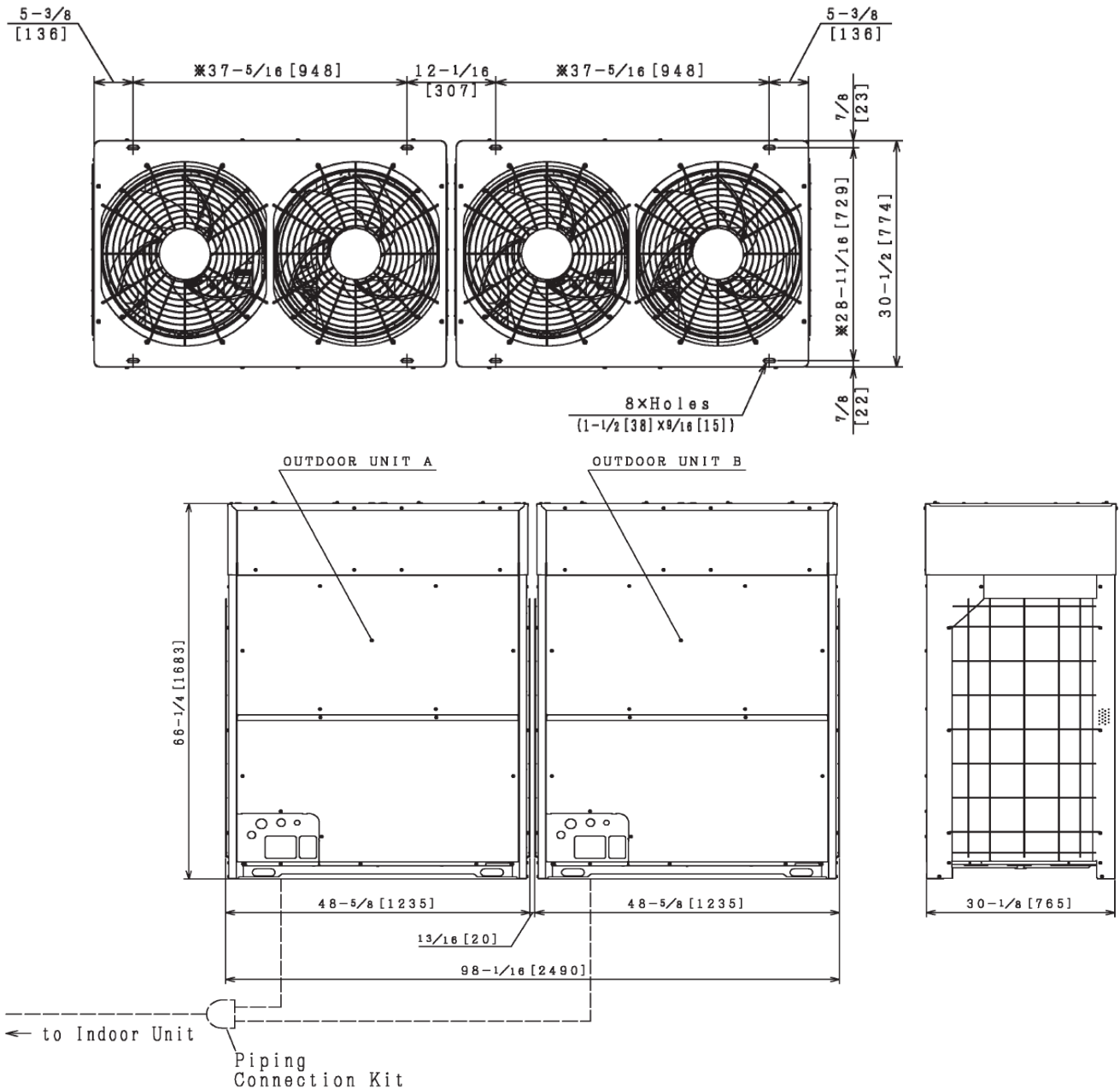
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

version 201806

System Dimensions

Heat Pump Model: (Y,H)VAHP264B32S

inch (mm)



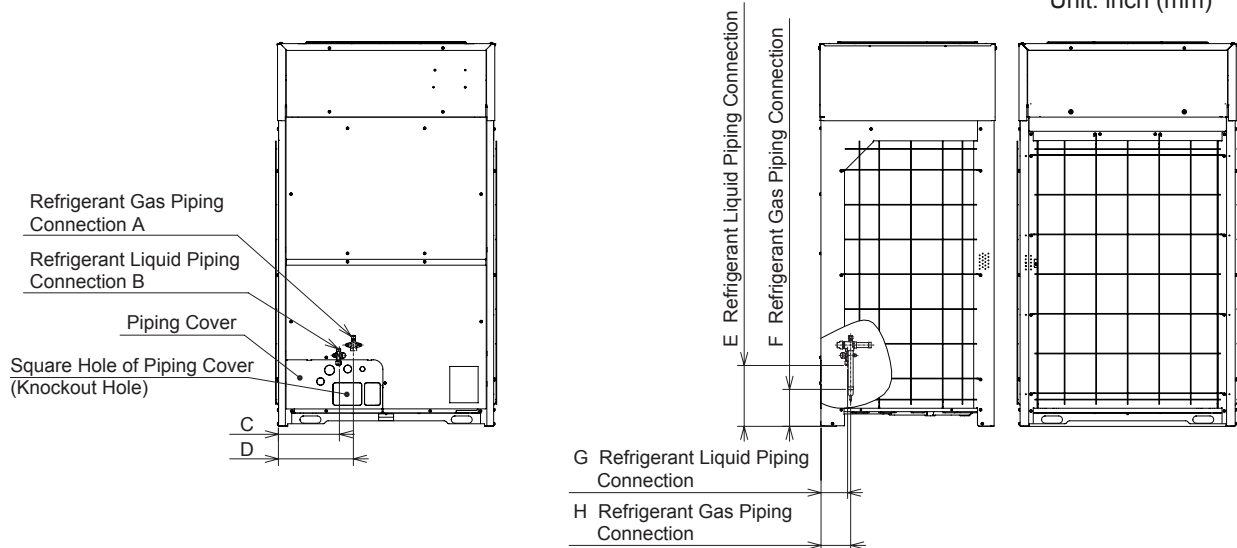
NOTES:

- Make sure that the outdoor unit A is placed on the indoor unit side.
Arrange the outdoor units according to the capacity, A≥B.
- Check "Installation Manual" for the piping connection kit and piping connection size.
- Check "Dimensional Drawing" for the dimension of piping outlet and wiring outlet.
- This drawing shows that there is $13\frac{1}{16}$ inch [20mm] clearance between the base units.
In case of the outdoor unit with "Snow Protection Hood (Optional Parts)", the clearance between the base units of more than $1\frac{15}{16}$ inch [50mm] is required.
- The dimensions marked with ※ 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.

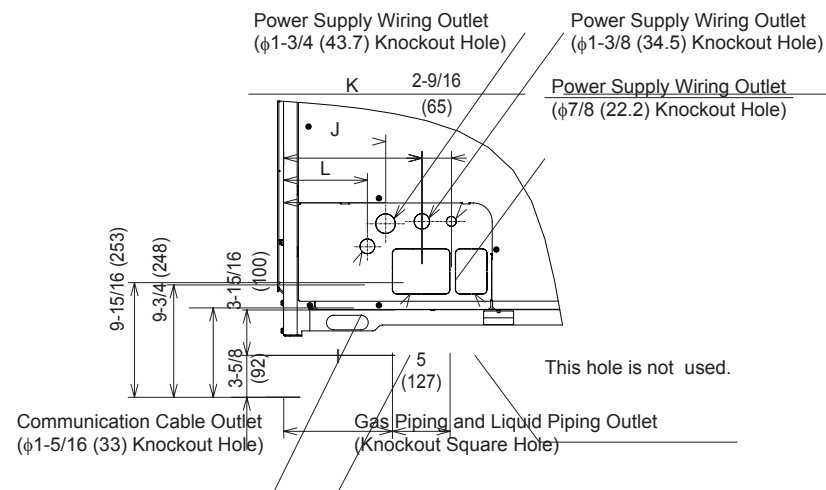
Outdoor Unit Model	Combination of Base Unit Models	
	OUTDOOR UNIT A	OUTDOOR UNIT B
(H, Y) VAHP240B32S	(H, Y) VAHP120B32S	(H, Y) VAHP120B32S
(H, Y) VAHP240B42S	(H, Y) VAHP120B42S	(H, Y) VAHP120B42S
(H, Y) VAHP264B32S	(H, Y) VAHP144B32S	(H, Y) VAHP120B32S
(H, Y) VAHP264B42S	(H, Y) VAHP144B42S	(H, Y) VAHP120B42S
(H, Y) VAHP288B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S
(H, Y) VAHP288B42S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201806

SUBMITTAL DATA SHEET

24 RT (Y,H)VAHP288B32S

Consists of two (Y,H)VAHP144B32S modules.

Job Name:

Location:

Purchaser:

Order No.:

Engineer:

Submitted To:

For:

Ref:

Approval:

Construction:

Submitted By:

Date:

Unit Designation:

Schedule No.:

Model No.:

(Heat Pump 208/230V)

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

Category		Ton		24RT (12RT+12RT)	
Model (Combination)				(H,Y)VAHP288B32S	
Model (Individual)		Unit A		(H,Y)VAHP144B32S	
		Unit B		(H,Y)VAHP144B32S	
		Unit C		-	
Power Supply				208/230V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h (kW)	288,000 (84.4)	
	Heating	Capacity (Nominal)	Btu/h (kW)	324,000 (95.0)	
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h (kW)	276,000 (80.9)	
		EER	Btu/Wh (W/W)	9.5 (2.78)	
		IEER	Btu/Wh (Wh/Wh)	19.4 (5.69)	
	Heating	Capacity (Rated)	Btu/h (kW)	308,000 (90.3)	
	47°F Ambient	COP	W/W	3.42	
	Heating	Capacity	Btu/h (kW)	214,000 (62.7)	
	17°F Ambient	COP	W/W	2.21	
Operating Range *3	Cooling	Indoor	°F WB (°C WB)		59(15) ~ 73(23)
		Outdoor	°F DB (°C DB)		23(-5) ~ 122(50)
		Outdoor (with Snow Protection Hood)	°F DB (°C DB)		14(-23) ~ 109(43)
		Outdoor (with Cooling Damper Kit)	°F DB (°C DB)		-10(-20) ~ 109(43)
	Heating	Indoor	°F DB (°C DB)		59(15) ~ 80(27)
		Outdoor	°F WB (°C WB)		-13(-25) ~ 59(15)
Cabinet Color (Munsell Code)			2.5Y 8/2		
Outer Dimensions	Height x Width x Depth	in	(66-1/4 x 48-5/8 x 30-1/2)X2		
		mm	(1683 x 1235 x 774) x 2		
Weight	Net	lbs (kg)	723 x 2 (328x2)		
	Gross	lbs (kg)	767 x 2 (348x2)		
Connection Ratio	Standard (Extended)		%	55-130(150)	
	Max. (Recommended) Indoor Units/System		Q'ty	59 (20)	
Heat Exchanger	Type			-	Multi-Pass Cross-Finned Tube
	Material			-	Cu-Al (Anti-corrosion)
Compressor	Type	Inverter 1	-	AA50PHDx4	
		Inverter 2	-	-	
	Motor Output (Pole)	kW (Pole)		(6.4(6)x2) x 2	
	Start Method			-	inverter
	Operation Range			%	11 ~ 100
	Refrigeration Oil Type			-	FVC68D
Crank Case Heater		WxQ'ty		34.2 (230V) x12	
Fan	Type			-	Propeller Fan
	Motor Output (Pole)	kW (Pole)		(0.39(8)x2) x 2	
	Quantity	Q'ty		4	
	Airflow Rate	cfm (m³/min)	9,037 x 2 (256x2)		
	External Static Pressure *4	in.W.G. (Pa)	0-0.32 (0-80)		
Electrical	Drive			-	Direct-drive
	Min Circuit Amps	A		58 x 2/52 x 2	
	Maximum Overcurrent Protective Device	A		70 x 2	
	Maximum Fuse Size	A		70 x 2	
Sound Pressure Level	Cooling	dB (A)		68	
	Heating	dB (A)		68	
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
	Factory Charge Amount	lbs (kg)	23.6 x 2 (10.7x2)		
Refrigeration Oil	Factory Charge Amount	gal/Unit (L/Unit)	2.1 x 2 (7.9x2)		
Defrost Method				-	Reversed Refrigerant Cycle
Main Refrigerant Piping (Heat Pump)	Gas Line	in (mm)	1-3/8 (34.93)		
	Liquid Line	in (mm)	3/4 (19.05)		

NOTES:

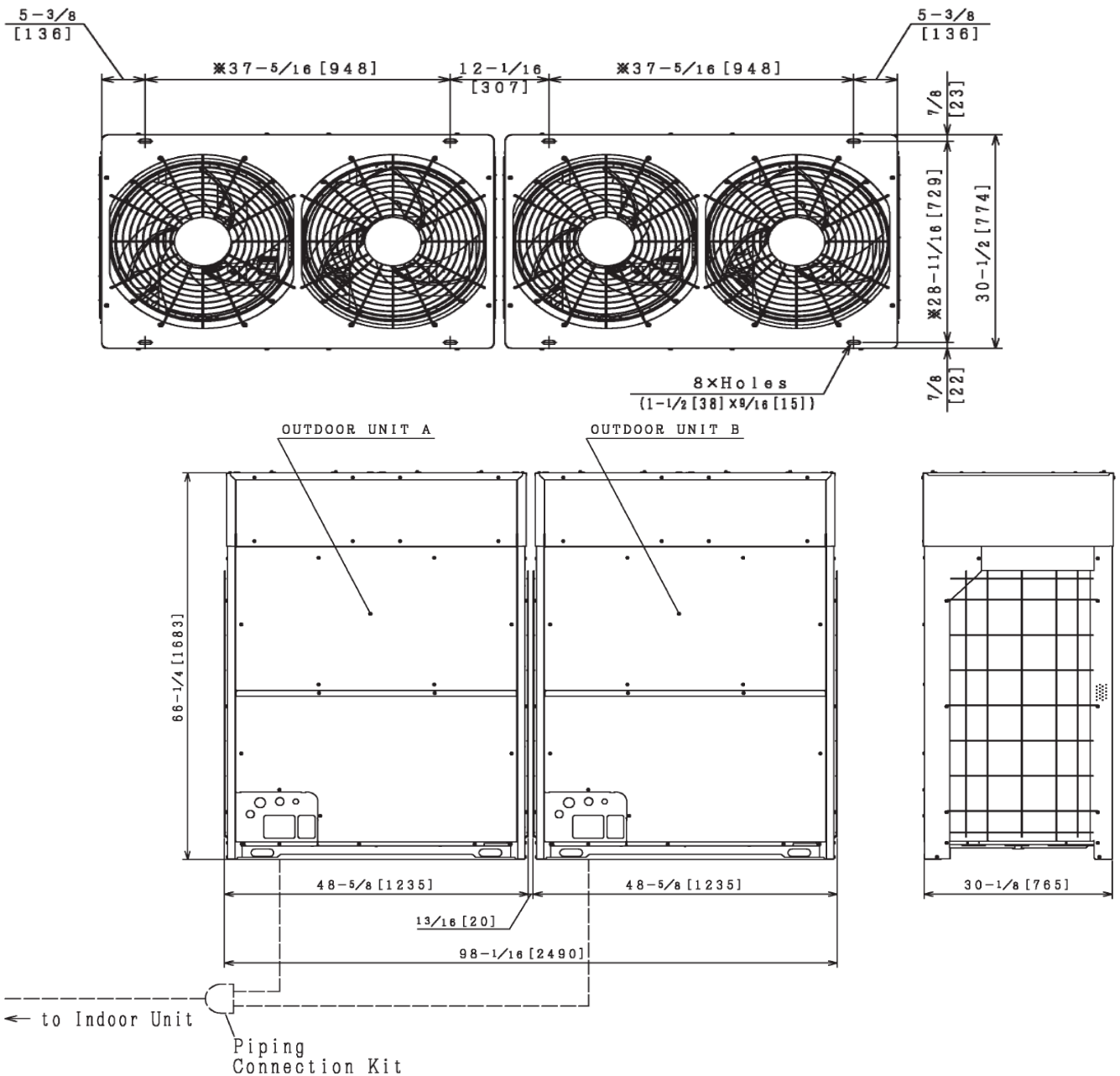
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

version 201806

System Dimensions

Heat Pump Model: (Y,H)VAHP288B32S

inch (mm)



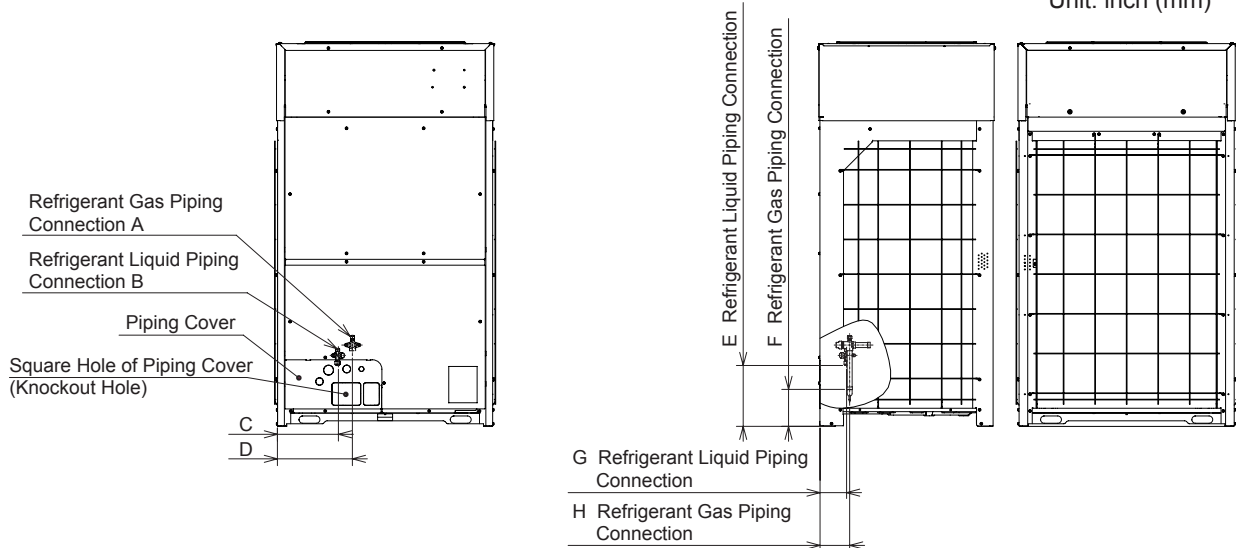
NOTES:

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. Check "Dimensional Drawing" for the dimension of piping outlet and wiring outlet.
3. This drawing shows that there is 13/16 inch [20mm] clearance between the base units.
In case of the outdoor unit with "Snow Protection Hood (Optional Parts)", the clearance between the base units of more than 1-15/16 inch [50mm] is required.
4. The dimensions marked with ※ 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.

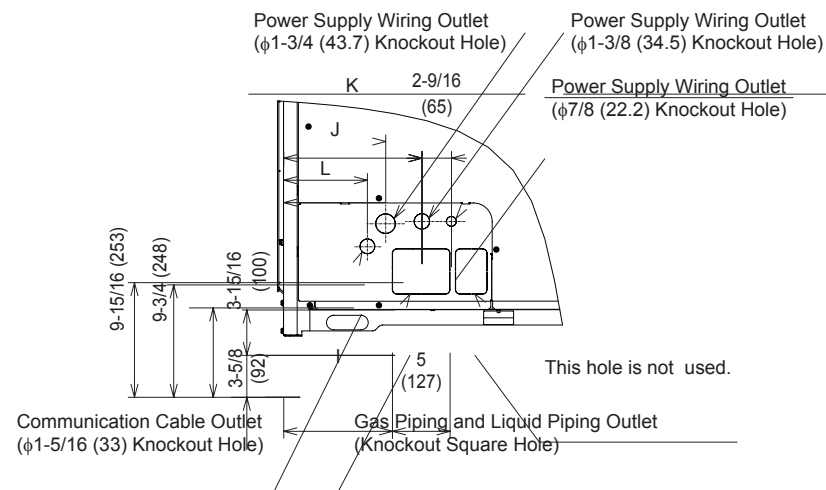
Outdoor Unit Model	Combination of Base Unit Models	
	OUTDOOR UNIT A	OUTDOOR UNIT B
(H, Y) VAHP240B32S	(H, Y) VAHP120B32S	(H, Y) VAHP120B32S
(H, Y) VAHP240B42S	(H, Y) VAHP120B42S	(H, Y) VAHP120B42S
(H, Y) VAHP264B32S	(H, Y) VAHP144B32S	(H, Y) VAHP120B32S
(H, Y) VAHP264B42S	(H, Y) VAHP144B42S	(H, Y) VAHP120B42S
(H, Y) VAHP288B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S
(H, Y) VAHP288B32S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201806

SUBMITTAL DATA SHEET

26 RT (Y,H)VAHP312B32S Consists of one (Y,H)VAHP168B32S and one (Y,H)VAHP144B32S module.

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

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

(Heat Pump 208/230V)

Category		Ton			26RT (14RT+12RT)	
Model (Combination)					(H,Y)VAHP312B32S	
Model (Individual)		Unit A		(H,Y)VAHP168B32S		
		Unit B		(H,Y)VAHP144B32S		
		Unit C		-		
Power Supply					208/230V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	312,000	(91.4)
	Heating	Capacity (Nominal)	Btu/h	(kW)	351,000	(102.9)
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h	(kW)	298,000	(87.3)
		EER	Btu/Wh	(W/W)	9.7	(2.83)
		IEER	Btu/Wh	(Wh/Wh)	20.3	(5.96)
		Capacity (Rated)	Btu/h	(kW)	334,000	(97.9)
	Heating	47°F Ambient	COP	W/W		3.37
	Heating	17°F Ambient	Capacity	Btu/h	(kW)	232,000 (68.0)
	Heating	17°F Ambient	COP	W/W		2.05
	Operating Range *3	Cooling	Indoor	°F WB (°C WB)		59(15) ~ 73(23)
Outdoor			°F DB (°C DB)		23(-5) ~ 122(50)	
Outdoor (with Snow Protection Hood)			°F DB (°C DB)		14(-23) ~ 109(43)	
Outdoor (with Cooling Damper Kit)			°F DB (°C DB)		-10(-20) ~ 109(43)	
Heating		Indoor	°F DB (°C DB)		59(15) ~ 80(27)	
		Outdoor	°F WB (°C WB)		-13(-25) ~ 59(15)	
Cabinet Color (Munsell Code)					- 2.5Y 8/2	
Outer Dimensions	Height x Width x Depth		in	(66-1/4 x 64 x 30-1/2)+ (66-1/4 x 48-5/8 x 30-1/2)		
			mm	(1683 x 1625 x 774) + (1683 x 1235 x 774)		
Weight	Net		lbs	(kg)	849+723	(385+328)
	Gross		lbs	(kg)	900+767	(408+348)
Connection Ratio	Standard (Extended)			%	55-130(150)	
	Max. (Recommended) Indoor Units/System			Q'ty	64 (22)	
Heat Exchanger	Type			-	Multi-Pass Cross-Finned Tube	
	Material			-	Cu-Al (Anti-corrosion)	
Compressor	Type	Inverter 1	-		DC80PHD×2	
		Inverter 2	-		AA50PHD×2	
	Motor Output (Pole)	kW (Pole)		(7.1(6)×2)+(6.4(6)×2)		
	Start Method	-		inverter		
	Operation Range	%		11 ~ 100		
Crank Case Heater	Refrigeration Oil Type			-	FVC68D	
				W×Q'ty	34.2 (230V) ×12	
Fan	Type			-	Propeller Fan	
	Motor Output (Pole)			kW (Pole)	(0.48(8)×2)+(0.39(8)×2)	
	Quantity			Q'ty	4	
	Airflow Rate			cfm (m³/min)	11,614 +9,037 (329+256)	
	External Static Pressure *4			in.W.G. (Pa)	0-0.32 (0-80)	
Electrical	Drive			-	Direct-drive	
	Min Circuit Amps			A	65+58/59+52	
	Maximum Overcurrent Protective Device			A	80+70	
	Maximum Fuse Size			A	80+70	
Sound Pressure Level	Cooling			dB (A)	68	
	Heating			dB (A)	68	
Protection Devices	Cycle			-	High pressure switch at 601psi (4.15 MPa)	
	Inverter			-	Over-current protection	
	Compressor			-	Over-heat protection	
	PCB			-	Over-current protection	
Refrigerant	Type			-	R410A	
	Factory Charge Amount			lbs (kg)	24.9+23.6 (11.3+10.7)	
Refrigeration Oil	Factory Charge Amount			gal/Unit (L/Unit)	2.2+2.1 (8.4+7.9)	
Defrost Method					- Reversed Refrigerant Cycle	
Main Refrigerant Piping (Heat Pump)	Gas Line	in (mm)		1-3/8 (34.93)		
	Liquid Line	in (mm)		3/4 (19.05)		

NOTES:

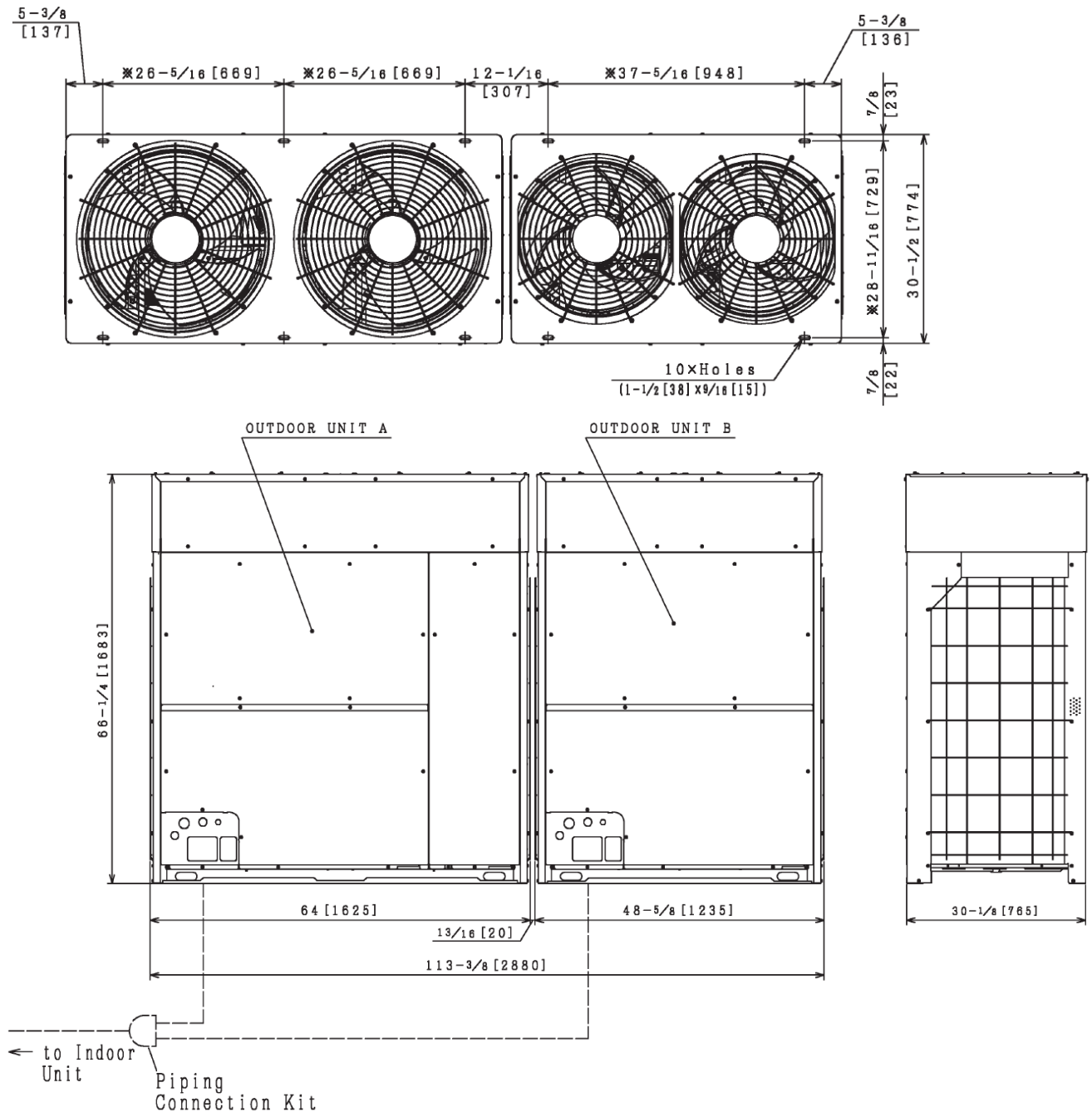
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

version 201806

System Dimensions

Heat Pump Model: (Y,H)VAHP312B32S

inch (mm)



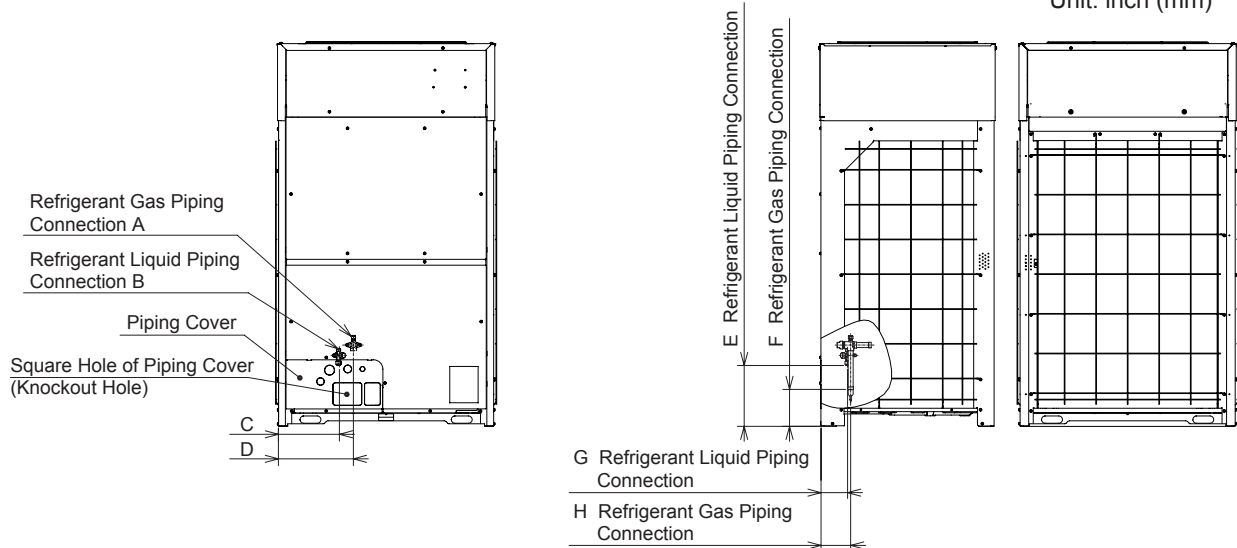
NOTES:

1. Make sure that the outdoor unit A is placed on the indoor unit side.
Arrange the outdoor units according to the capacity. $A \geq B$.
2. Check "Installation Manual" for the piping connection kit and piping connection size.
3. Check "Dimensional Drawing" for the dimension of piping outlet and wiring outlet.
3. This drawing shows that there is 13/16 inch [20mm] clearance between the base units.
In case of the outdoor unit with "Snow Protection Hood (Optional Parts)", the clearance between the base units of more than 1-15/16 inch [50mm] is required.
4. The dimensions marked with ※ 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.

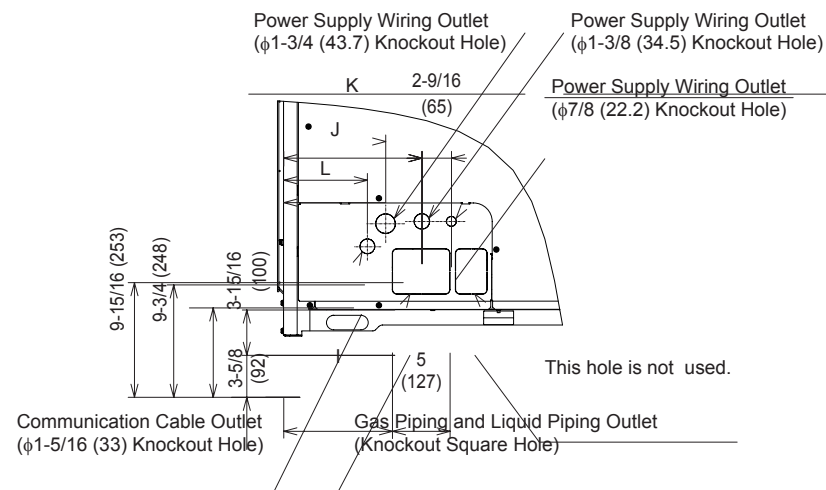
Outdoor Unit Model	Combination of Base Unit Models	
	OUTDOOR UNIT A	OUTDOOR UNIT B
(H, Y) VAHP312B32S	(H, Y) VAHP168B32S	(H, Y) VAHP144B32S
(H, Y) VAHP312B42S	(H, Y) VAHP168B42S	(H, Y) VAHP144B42S
(H, Y) VAHP336B32S	(H, Y) VAHP192B32S	(H, Y) VAHP144B32S
(H, Y) VAHP336B42S	(H, Y) VAHP192B42S	(H, Y) VAHP144B42S

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201806

SUBMITTAL DATA SHEET

28 RT (Y,H)VAHP336B32S Consists of one (Y,H)VAHP192B32S and one (Y,H)VAHP144B32S module.

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

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

(Heat Pump 208/230V)

Category		Ton			28RT (16RT+12RT)	
Model (Combination)					(H,Y)VAHP336B32S	
Model (Individual)		Unit A			(H,Y)VAHP192B32S	
		Unit B			(H,Y)VAHP144B32S	
		Unit C			-	
Power Supply					208/230V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	336,000	(98.5)
	Heating	Capacity (Nominal)	Btu/h	(kW)	378,000	(110.8)
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h	(kW)	320,000	(93.8)
		EER	Btu/Wh	(W/W)	9.5	(2.78)
		IEER	Btu/Wh	(Wh/Wh)	20.8	(6.09)
	Heating	Capacity (Rated)	Btu/h	(kW)	360,000	(105.5)
	47°F Ambient	COP	W/W		3.27	
	Heating	Capacity	Btu/h	(kW)	250,000	(73.3)
17°F Ambient	COP	W/W		2.31		
Operating Range *3	Cooling	Indoor	°F WB (°C WB)		59(15) ~ 73(23)	
		Outdoor	°F DB (°C DB)		23(-5) ~ 122(50)	
		Outdoor (with Snow Protection Hood)	°F DB (°C DB)		14(-23) ~ 109(43)	
		Outdoor (with Cooling Damper Kit)	°F DB (°C DB)		-10(-20) ~ 109(43)	
	Heating	Indoor	°F DB (°C DB)		59(15) ~ 80(27)	
		Outdoor	°F WB (°C WB)		-13(-25) ~ 59(15)	
Cabinet Color (Munsell Code)		-			2.5Y 8/2	
Outer Dimensions	Height x Width x Depth		in mm	(66-1/4 x 64 x 30-1/2)+(66-1/4 x 48 -5/8 x 30-1/2) (1683 x1625 x 774)+(1683 x1235 x 774)		
Weight	Net		lbs	(kg)	849+723	(385+328)
	Gross		lbs	(kg)	900+767	(408+348)
Connection Ratio	Standard (Extended)		%		55-130(150)	
	Max. (Recommended) Indoor Units/System		Q'ty		64 (24)	
Heat Exchanger	Type		-		Multi-Pass Cross-Finned Tube	
	Material		-		Cu-Al (Anti-corrosion)	
Compressor	Type	Inverter 1	-		DC80PHD×2	
		Inverter 2	-		AA50PHD×2	
	Motor Output (Pole)		kW (Pole)		(9.1(6)×2)+(6.4(6) ×2)	
	Start Method		-		inverter	
	Operation Range		%		11 ~ 100	
	Refrigeration Oil Type		-		FVC68D	
Crank Case Heater			W×Q'ty		34.2 (230V) ×12	
Fan	Type		-		Propeller Fan	
	Motor Output (Pole)		kW (Pole)		(0.56(8)×2)+(0.39(8) ×2)	
	Quantity		Q'ty		4	
	Airflow Rate		cfm	(m³/min)	12,284 +9,037	(348+256)
	External Static Pressure *4		in.W.G.	(Pa)	0-0.32	(0-80)
Electrical	Drive		-		Direct-drive	
	Min Circuit Amps		A		76+58/68+52	
	Maximum Overcurrent Protective Device		A		90+70	
	Maximum Fuse Size		A		90+70	
Sound Pressure Level	Cooling			dB (A)	69	
	Heating			dB (A)	69	
Protection Devices	Cycle			-	High pressure switch at 601psi (4.15 MPa)	
	Inverter			-	Over-current protection	
	Compressor			-	Over-heat protection	
	PCB			-	Over-current protection	
Refrigerant	Type		-		R410A	
	Factory Charge Amount		lbs	(kg)	25.6+23.6	(11.6+10.7)
Refrigeration Oil	Factory Charge Amount		gal/Unit	(L/Unit)	2.2+2.1	(8.4+7.9)
Defrost Method			-		Reversed Refrigerant Cycle	
Main Refrigerant Piping (Heat Pump)	Gas Line			in (mm)	1-3/8	(34.93)
	Liquid Line			in (mm)	3/4	(19.05)

NOTES:

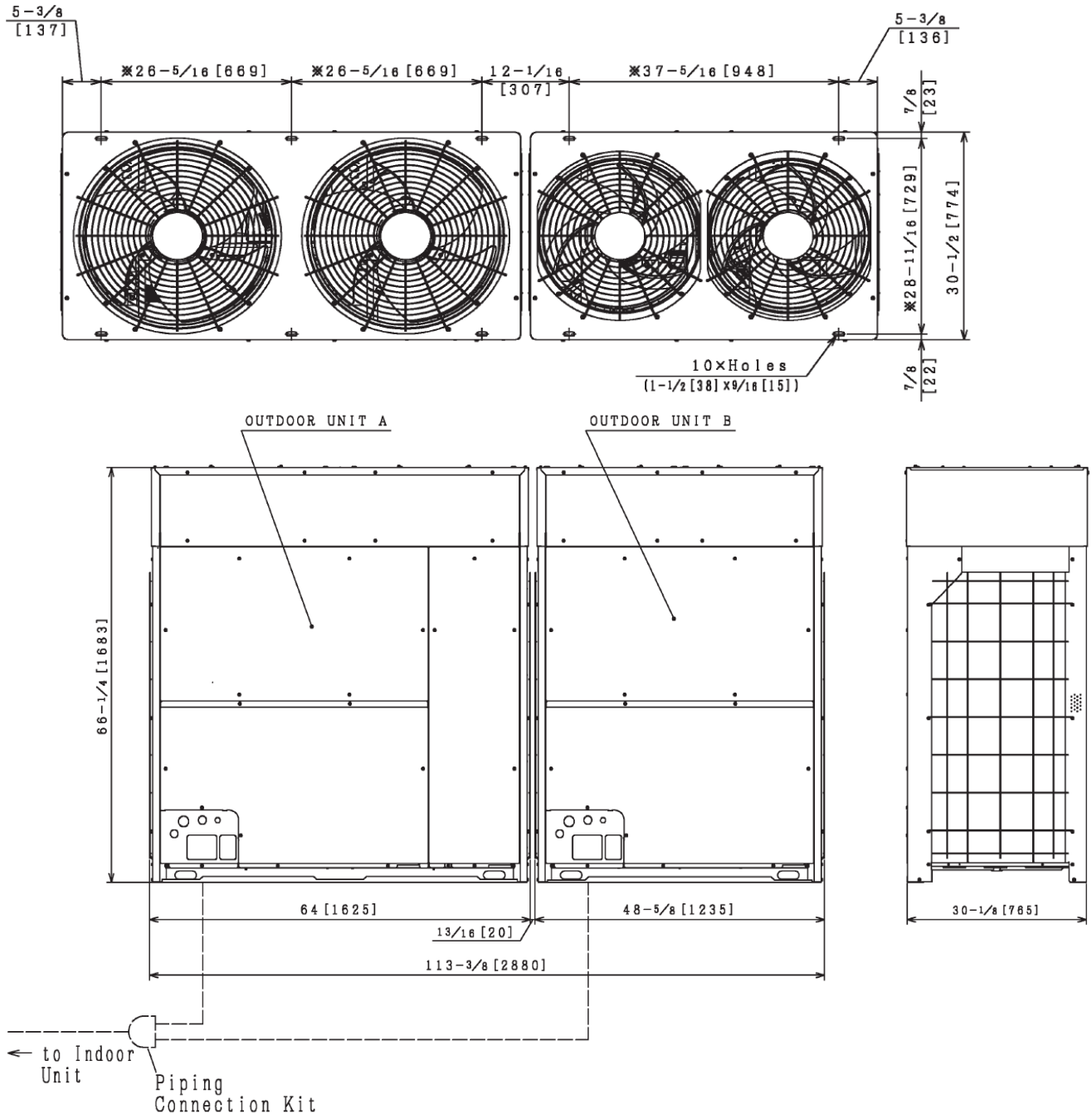
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

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System Dimensions

Heat Pump Model: (Y,H)VAHP336B32S

inch (mm)



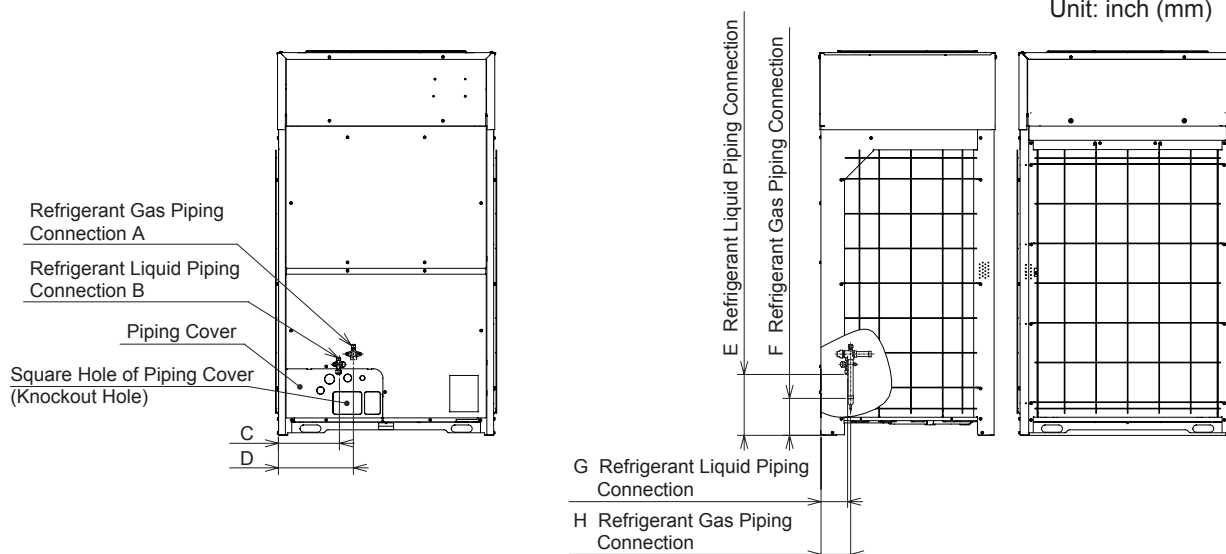
NOTES:

- Make sure that the outdoor unit A is placed on the indoor unit side. Arrange the outdoor units according to the capacity. A ≥ B.
- Check "Installation Manual" for the piping connection kit and piping connection size.
- Check "Dimensional Drawing" for the dimension of piping outlet and wiring outlet.
- This drawing shows that there is $13\frac{1}{16}$ inch [20mm] clearance between the base units. In case of the outdoor unit with "Snow Protection Hood (Optional Parts)", the clearance between the base units of more than $1\frac{15}{16}$ inch [50mm] is required.
- The dimensions marked with ※ 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.

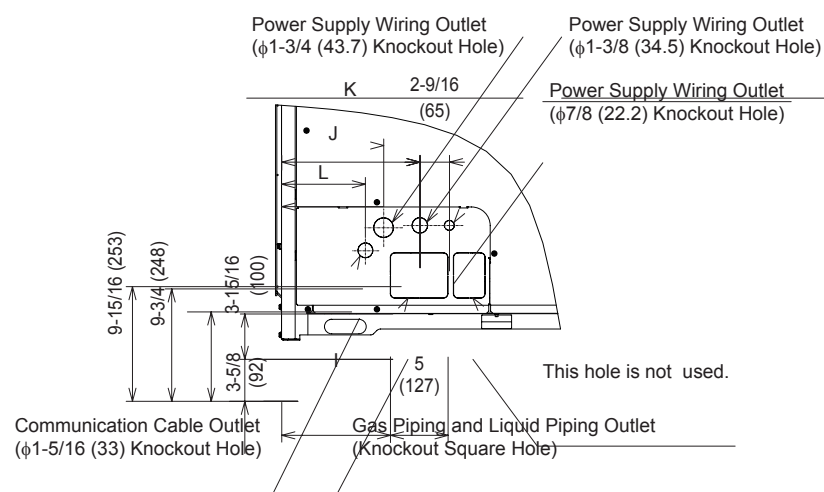
Outdoor Unit Model	Combination of Base Unit Models	
	OUTDOOR UNIT A	OUTDOOR UNIT B
(H, Y) VAHP312B32S	(H, Y) VAHP168B32S	(H, Y) VAHP144B32S
(H, Y) VAHP312B42S	(H, Y) VAHP168B42S	(H, Y) VAHP144B42S
(H, Y) VAHP336B32S	(H, Y) VAHP192B32S	(H, Y) VAHP144B32S
(H, Y) VAHP336B42S	(H, Y) VAHP192B42S	(H, Y) VAHP144B42S

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



Model	Gas	Liquid	A	B	C	D	E	F	G	H	I	J	K	L
72	$\phi 7/8$ (22.2)	$\phi 1/2$ (12.7)	$\phi 7/8$ (22.2)	$\phi 3/8$ (9.52)	10-3/8 (264)	13-1/16 (331)	10-9/16 (268)	6-7/16 (163)	4-5/8 (117)	5-3/16 (131)	9-7/16 (240)	8-7/8 (225)	12 (305)	7-5/16 (185)
96	$\phi 7/8$ (22.2)	$\phi 1/2$ (12.7)												
120	$\phi 1-1/8$ (28.58)	$\phi 1/2$ (12.7)	$\phi 1$ (25.4)	$\phi 1/2$ (12.7)	6-7/8 (174)	9-7/16 (239)	10-3/8 (263)	6-5/16 (160)	4-7/16 (112)	5-1/8 (130)	5-13/16 (147)	5-3/16 (132)	8-3/8 (212)	3-5/8 (92)
144	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)												
168	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)	6-15/16 (177)	9-7/16 (239)	10-3/16 (259)	6-5/16 (160)	5-3/16 (132)	6 (152)	5-13/16 (147)	5-3/16 (132)	8-3/8 (212)	3-5/8 (92)
192	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)												

Refrigerant Piping Connection and Wiring Outlet



version 201806

SUBMITTAL DATA SHEET

30 RT (Y,H)VAHP360B32S Consists of one (Y,H)VAHP192B32S and one (Y,H)VAHP168B32S module.

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

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

(Heat Pump 208/230V)

Category	Ton		30RT (16RT+14RT)		
Model (Combination)		(H,Y)VAHP360B32S			
Model (Individual)	Unit A		(H,Y)VAHP192B32S		
	Unit B		(H,Y)VAHP168B32S		
	Unit C		-		
Power Supply		208/230V/ 3PH 60Hz			
Capacity *1	Cooling	Capacity (Nominal)	Btu/h (kW)	360,000 (105.5)	
	Heating	Capacity (Nominal)	Btu/h (kW)	405,000 (118.7)	
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h (kW)	344,000 (100.8)	
		EER	Btu/Wh (W/W)	9.5 (2.78)	
		IEER	Btu/Wh (Wh/Wh)	19.8 (5.81)	
	Heating	Capacity (Rated)	Btu/h (kW)	386,000 (113.1)	
	47°F Ambient	COP	W/W	3.27	
	Heating	Capacity	Btu/h (kW)	262,000 (76.8)	
17°F Ambient	COP	W/W	2.05		
Operating Range *3	Cooling	Indoor	°F WB (°C WB) 59(15) ~ 73(23)		
		Outdoor	°F DB (°C DB) 23(-5) ~ 122(50)		
		Outdoor (with Snow Protection Hood)	°F DB (°C DB) 14(-23) ~ 109(43)		
		Outdoor (with Cooling Damper Kit)	°F DB (°C DB) -10(-20) ~ 109(43)		
	Heating	Indoor	°F DB (°C DB) 59(15) ~ 80(27)		
		Outdoor	°F WB (°C WB) -13(-25) ~ 59(15)		
Cabinet Color (Munsell Code)		-		2.5Y 8/2	
Outer Dimensions	Height x Width x Depth		in	(66-1/4 x 64 x 30-1/2) x 2	
			mm	(1683 x 1625 x 774) x 2	
Weight	Net	lbs (kg)	849 x 2 (385x2)		
	Gross	lbs (kg)	900 x 2 (408x2)		
Connection Ratio	Standard (Extended)		%	55-130(150)	
	Max. (Recommended) Indoor Units/System		Q'ty	64 (28)	
Heat Exchanger	Type	-		Multi-Pass Cross-Finned Tube	
	Material	-		Cu-Al (Anti-corrosion)	
Compressor	Type	Inverter 1	-		DC80PHDx4
		Inverter 2	-		-
	Motor Output (Pole)	kW (Pole)	(9.1(6)x2)+(7.1(6) x 2)		
	Start Method	inverter			
	Operation Range	%	11 ~ 100		
	Refrigeration Oil Type	- FVC68D			
Crank Case Heater	-		WxQ'ty	34.2 (230V) x12	
Fan	Type	-		Propeller Fan	
	Motor Output (Pole)	kW (Pole)	(0.56(8)x2) +(0.48(8) x 2)		
	Quantity	Q'ty		4	
	Airflow Rate	cfm (m³/min)	12,284 +11,614 (348+329)		
	External Static Pressure *4	in.W.G. (Pa)	0-0.32 (0-80)		
	Drive	-		Direct-drive	
Electrical	Min Circuit Amps	A		76+65/68+59	
	Maximum Overcurrent Protective Device	A		90+80	
	Maximum Fuse Size	A		90+80	
Sound Pressure Level	Cooling	dB (A)		68	
	Heating	dB (A)		68	
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	
	Factory Charge Amount	lbs (kg)	25.6+24.9 (11.6+11.3)		
Refrigeration Oil	Factory Charge Amount	gal/Unit (L/Unit)	2.2 x 2 (8.4x2)		
Defrost Method		-		Reversed Refrigerant Cycle	
Main Refrigerant Piping (Heat Pump)	Gas Line	in (mm)	1-3/8 (34.93)		
	Liquid Line	in (mm)	3/4 (19.05)		

NOTES:

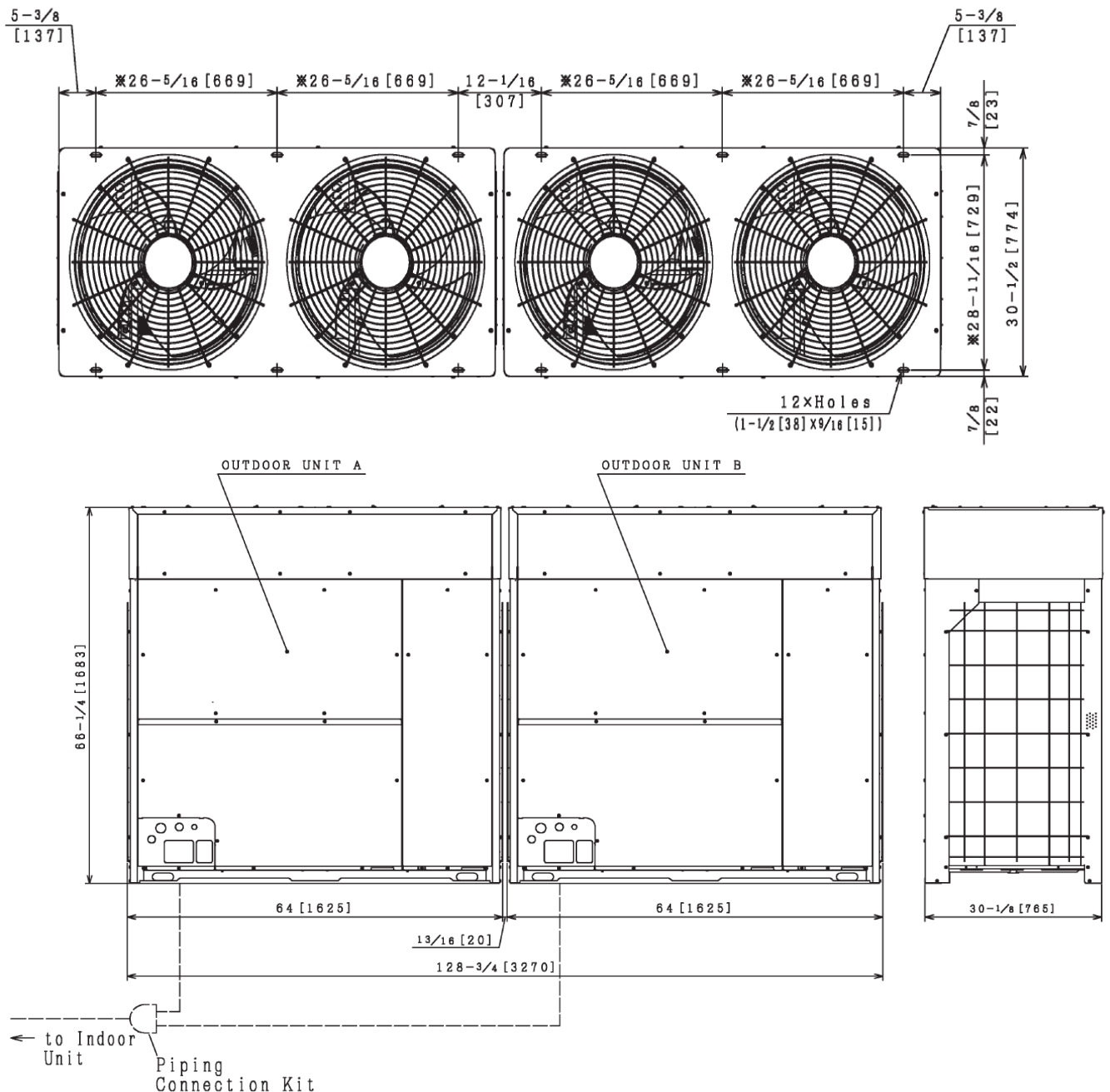
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

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System Dimensions

Heat Pump Model: (Y,H)VAHP360B32S

inch (mm)



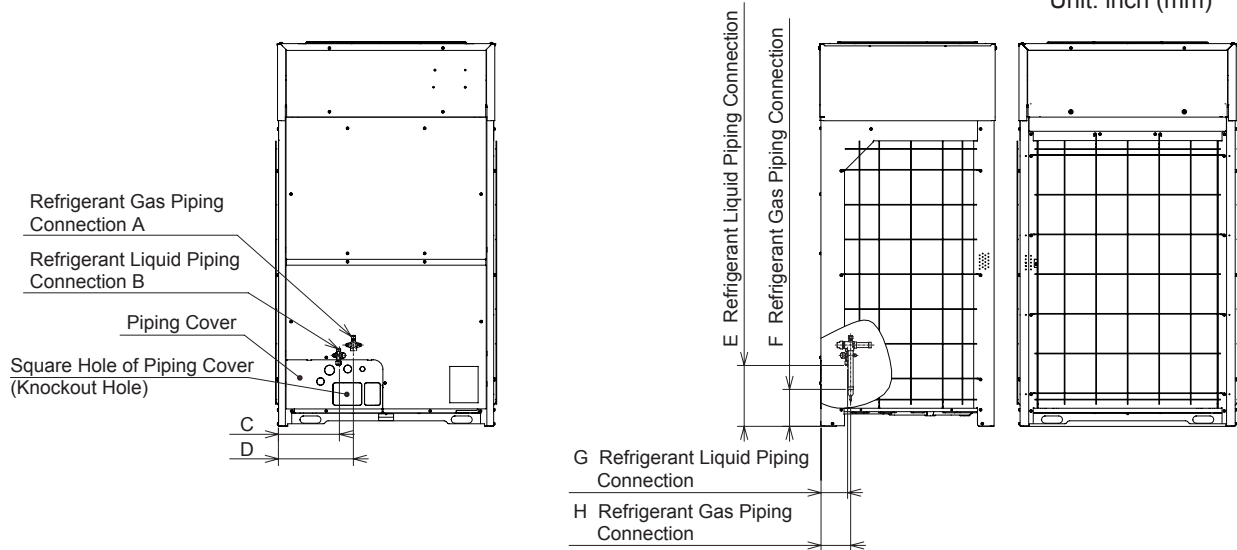
NOTES:

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. Check "Dimensional Drawing" for the dimension of piping outlet and wiring outlet.
3. This drawing shows that there is 13/16 inch [20mm] clearance between the base units.
In case of the outdoor unit with "Snow Protection Hood (Optional Parts)", the clearance between the base units of more than 1-15/16 inch [50mm] is required.
4. The dimensions marked with * 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.

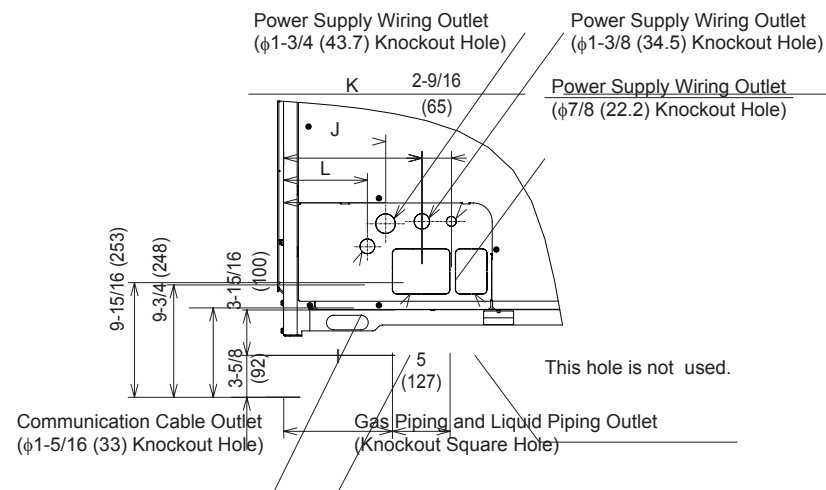
Outdoor Unit Model	Combination of Base Unit Models	
	OUTDOOR UNIT A	OUTDOOR UNIT B
(H, Y) VAHP360B32S	(H, Y) VAHP192B32S	(H, Y) VAHP168B32S
(H, Y) VAHP360B42S	(H, Y) VAHP192B42S	(H, Y) VAHP168B42S

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201806

SUBMITTAL DATA SHEET

32 RT (Y,H)VAHP384B32S Consists of one (Y,H)VAHP144B32S and two (Y,H)VAHP120B32S modules.

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

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

(Heat Pump 208/230V)						
Category		Ton			32RT (12RT+10RT+10RT)	
Model (Combination)					(H,Y)VAHP384B32S	
Model (Individual)	Unit A					(H,Y)VAHP144B32S
	Unit B					(H,Y)VAHP120B32S
	Unit C					(H,Y)VAHP120B32S
Power Supply					208/230V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	384,000	(112.5)
	Heating	Capacity (Nominal)	Btu/h	(kW)	432,000	(126.6)
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h	(kW)	366,000	(107.3)
		EER	Btu/Wh	(W/W)	9.6	(2.81)
		IEER	Btu/Wh	(Wh/Wh)	19.6	(5.75)
	Heating	Capacity (Rated)	Btu/h	(kW)	410,000	(120.2)
		COP	W/W			3.37
	47°F Ambient	Capacity	Btu/h	(kW)	276,000	(80.9)
17°F Ambient	COP	W/W			2.20	
Operating Range *3	Cooling	Indoor	°F WB (°C WB)		59(15) ~ 73(23)	
		Outdoor	°F DB (°C DB)		23(-5) ~ 122(50)	
		Outdoor (with Snow Protection Hood)	°F DB (°C DB)		14(-23) ~ 109(43)	
		Outdoor (with Cooling Damper Kit)	°F DB (°C DB)		-10(-20) ~ 109(43)	
	Heating	Indoor	°F DB (°C DB)		59(15) ~ 80(27)	
		Outdoor	°F WB (°C WB)		-13(-25) ~ 59(15)	
		Cabinet Color (Munsell Code)				2.5Y 8/2
Outer Dimensions	Height x Width x Depth	in	(66-1/4 x 48-5/8 x 30-1/2) X 3			
		mm	(1683 x 1235 x 774) x 3			
Weight	Net	lbs	(kg)	723+721 x 2 (328+327×2)		
	Gross	lbs	(kg)	767+766 x 2 (348+347×2)		
Connection Ratio	Standard (Extended)				55-130(150)	
	Max. (Recommended) Indoor Units/System		Q'ty		64 (30)	
Heat Exchanger	Type			Multi-Pass Cross-Finned Tube		
	Material			Cu-Al (Anti-corrosion)		
Compressor	Type	Inverter 1			AA50PHD×6	
		Inverter 2			-	
	Motor Output (Pole)	kW (Pole)		(6.4(6)×2)+(5.4(6)×2) × 2		
	Start Method			inverter		
	Operation Range			11 ~ 100		
	Refrigeration Oil Type			FVC68D		
Crank Case Heater		W×Q'ty		34.2 (230V) ×18		
Fan	Type			Propeller Fan		
	Motor Output (Pole)	kW (Pole)		(0.39(6)×2) × 3		
	Quantity	Q'ty		6		
	Airflow Rate	cfm	(m³/min)	9,037 × 3 (256×3)		
	External Static Pressure *4	in.W.G.	(Pa)	0-0.32 (0-80)		
	Drive			Direct-drive		
Electrical	Min Circuit Amps	A		58+46 × 2/52+42 × 2		
	Maximum Overcurrent Protective Device	A		70+60 × 2		
	Maximum Fuse Size	A		70+60 × 2		
Sound Pressure Level	Cooling	dB (A)		69		
	Heating	dB (A)		69		
Protection Devices	Cycle			High pressure switch at 601psi(4.15MPa)		
	Inverter			Over-current protection		
	Compressor			Over-heat protection		
	PCB			Over-heat protection		
Refrigerant	Type			R410A		
	Factory Charge Amount	lbs	(kg)	23.6 (10.7) +20.9 × 2 (+9.9×2)		
Refrigeration Oil	Factory Charge Amount	gal/Unit	(L/Unit)	2.1 × 3 (7.9×3)		
Defrost Method				Reversed Refrigerant Cycle		
Main Refrigerant Piping (Heat Pump)	Gas Line	in	(mm)	1-5/8 (41.28)		
	Liquid Line	in	(mm)	3/4 (19.05)		

NOTES:

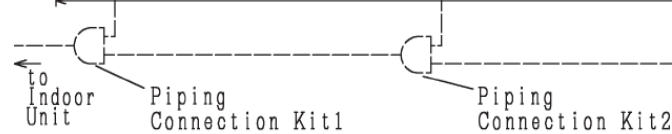
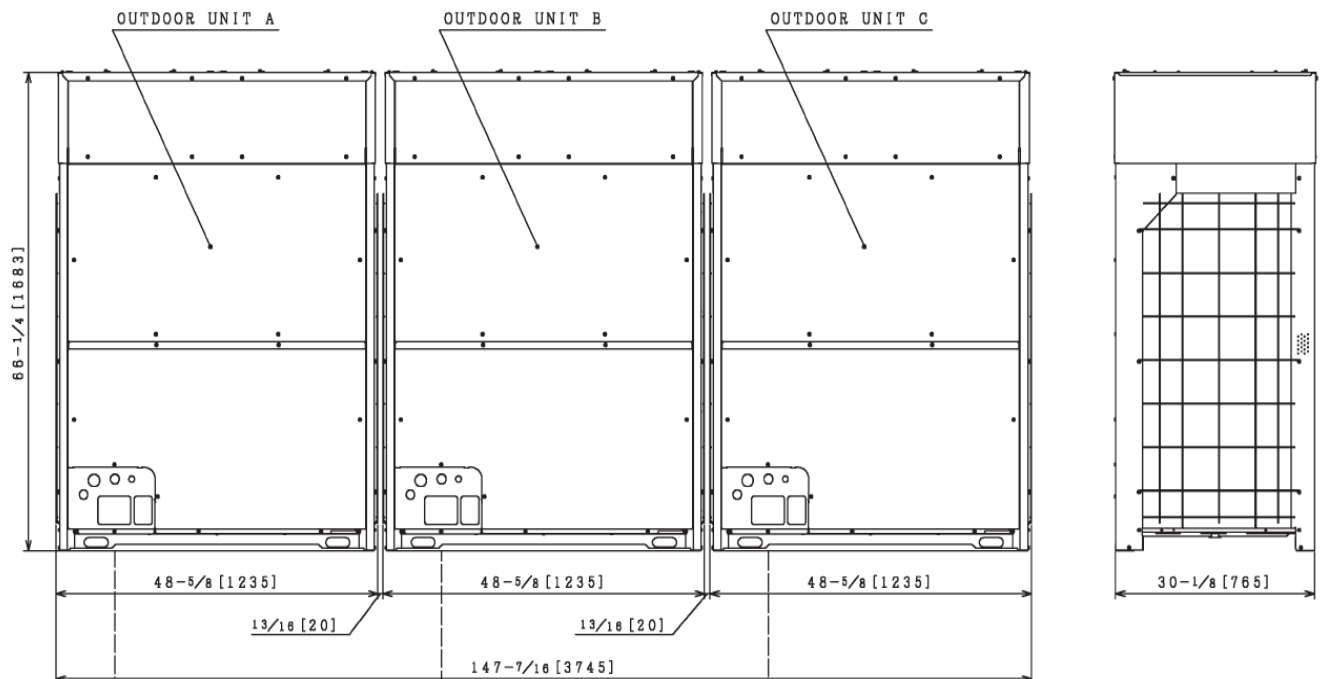
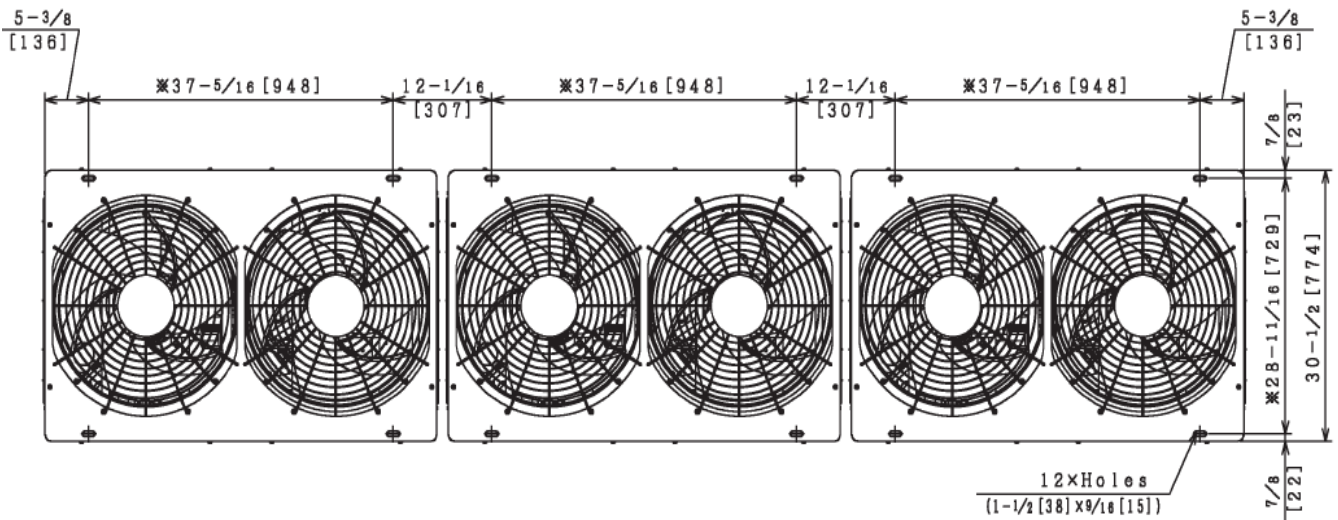
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

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System Dimensions

Heat Pump Model: (Y,H)VAHP384B32S

inch (mm)



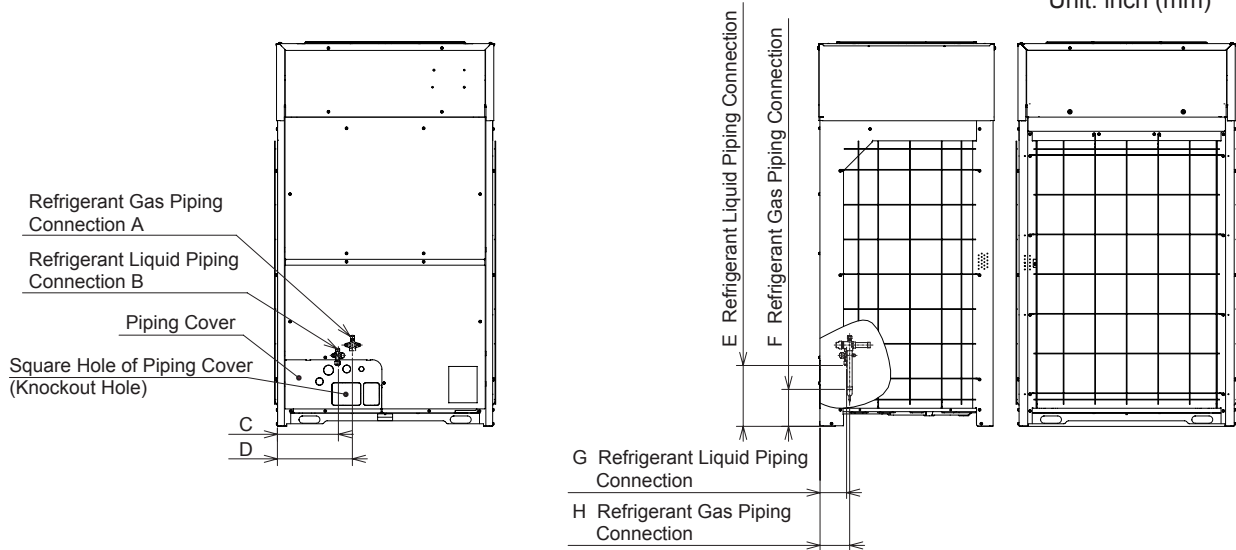
NOTES:

1. Make sure that the outdoor unit A is placed on the indoor unit side.
Arrange the outdoor units according to the capacity, $A \geq B \geq C$.
2. Check "Installation Manual" for the piping connection kit and piping connection size.
3. Check "Dimensional Drawing" for the dimension of piping outlet and wiring outlet.
3. This drawing shows that there is 13/16 inch [20mm] clearance between the base units.
In case of the outdoor unit with "Snow Protection Hood (Optional Parts)", the clearance between the base units of more than 1-15/16 inch [50mm] is required.
4. The dimensions marked with ※ 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.

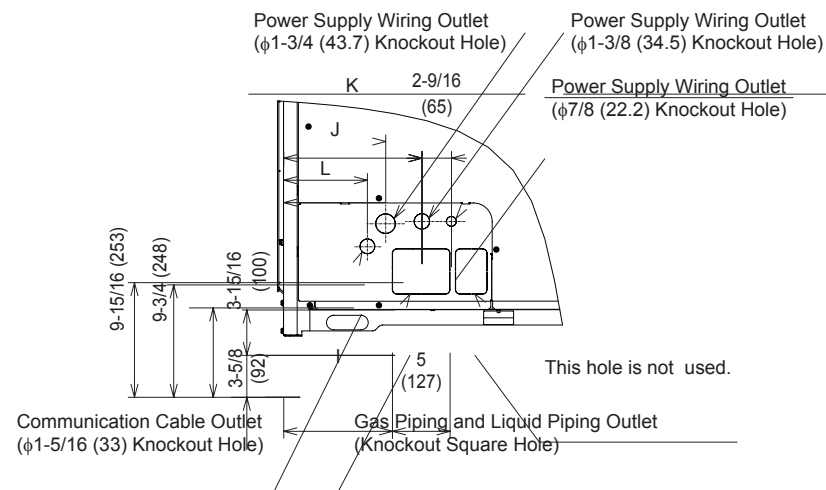
Outdoor Unit Model	Combination of Base Unit Models		
	OUTDOOR UNIT A	OUTDOOR UNIT B	OUTDOOR UNIT C
(H, Y) VAHP384B32S	(H, Y) VAHP144B32S	(H, Y) VAHP120B32S	(H, Y) VAHP120B32S
(H, Y) VAHP384B42S	(H, Y) VAHP144B42S	(H, Y) VAHP120B42S	(H, Y) VAHP120B42S
(H, Y) VAHP408B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S	(H, Y) VAHP120B32S
(H, Y) VAHP408B42S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S	(H, Y) VAHP120B42S
(H, Y) VAHP432B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S
(H, Y) VAHP432B42S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201806

SUBMITTAL DATA SHEET

34 RT (Y,H)VAHP408B32S Consists of two (Y,H)VAHP144B32S and one (Y,H)VAHP120B32S module.

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

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

(Heat Pump 208/230V)

Category		Ton			34RT (12RT+12RT+10RT)	
Model (Combination)						(H,Y)VAHP408B32S
Model (Individual)		Unit A			(H,Y)VAHP144B32S	
		Unit B			(H,Y)VAHP144B32S	
		Unit C			(H,Y)VAHP120B32S	
Power Supply					208/230V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	408,000	(119.5)
	Heating	Capacity (Nominal)	Btu/h	(kW)	459,000	(134.5)
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h	(kW)	380,000	(111.4)
		EER	Btu/Wh	(W/W)	9.5	(2.78)
		IEER	Btu/Wh	(Wh/Wh)	19.3	(5.67)
	Heating 47°F Ambient	Capacity (Rated)	Btu/h	(kW)	435,000	(127.5)
		COP	W/W			3.34
		Heating 17°F Ambient	Capacity	Btu/h	(kW)	288,000
COP			W/W			2.08
Operating Range *3	Cooling	Indoor	°F WB (°C WB)		59(15) ~ 73(23)	
		Outdoor	°F DB (°C DB)		23(-5) ~ 122(50)	
		Outdoor (with Snow Protection Hood)	°F DB (°C DB)		14(-23) ~ 109(43)	
		Outdoor (with Cooling Damper Kit)	°F DB (°C DB)		-10(-20) ~ 109(43)	
	Heating	Indoor	°F DB (°C DB)		59(15) ~ 80(27)	
		Outdoor	°F WB (°C WB)		-13(-25) ~ 59(15)	
Cabinet Color (Munsell Code)				-		2.5Y 8/2
Outer Dimensions	Height x Width x Depth	in		(66-1/4 x 48-5/8 x 30-1/2)×3		
		mm		(1683 x 1235 x 774) x 3		
Weight	Net	lbs		(kg)	723 × 2 + 721 (328×2+327)	
	Gross	lbs		(kg)	767 × 2 + 765(348×2+347)	
Connection Ratio	Standard (Extended)			%	55-130(150)	
	Max. (Recommended) Indoor Units/System			Q'ty	64 (30)	
Heat Exchanger	Type	-			Multi-Pass Cross-Finned Tube	
	Material	-			Cu-Al (Anti-corrosion)	
Compressor	Type	Inverter 1	-		AA50PHD×6	
		Inverter 2	-		-	
	Motor Output (Pole)	kW (Pole)		(6.4(6)×2) × 2 + (5.4(6) × 2)		
	Start Method	-		inverter		
	Operation Range	%		11 ~ 100		
	Refrigeration Oil Type	-		FVC68D		
Crank Case Heater		W×Q'ty		34.2 (230V) × 18		
Fan	Type	-		Propeller Fan		
	Motor Output (Pole)	kW (Pole)		(0.39(8)×2) × 3		
	Quantity	Q'ty		6		
	Airflow Rate	cfm	(m³/min)	9,037 × 3 (256×3)		
	External Static Pressure *4	in.W.G.	(Pa)	0-0.32 (0-80)		
	Drive	-		Direct-drive		
Electrical	Min Circuit Amps	A		58 × 2 + 46/52 × 2 + 42		
	Maximum Overcurrent Protective Device	A		70 × 2 + 60		
	Maximum Fuse Size	A		70 × 2 + 60		
Sound Pressure Level	Cooling	dB (A)		69		
	Heating	dB (A)		69		
Protection Devices	Cycle	-		High pressure switch at 601psi (4.15MPa)		
	Inverter	-		Over-current protection		
	Compressor	-		Over-heat protection		
	PCB	-		Over-heat protection		
Refrigerant	Type	-		R410A		
	Factory Charge Amount	lbs	(kg)	23.6 × 2 + 20.9 (10.7×2 + 9.9)		
Refrigeration Oil	Factory Charge Amount	gal/Unit	(L/Unit)	2.1 × 3 (7.9×3)		
Defrost Method		-		Reversed Refrigerant Cycle		
Main Refrigerant Piping (Heat Pump)	Gas Line	in	(mm)	1-5/8 (41.28)		
	Liquid Line	in	(mm)	3/4 (19.05)		

NOTES:

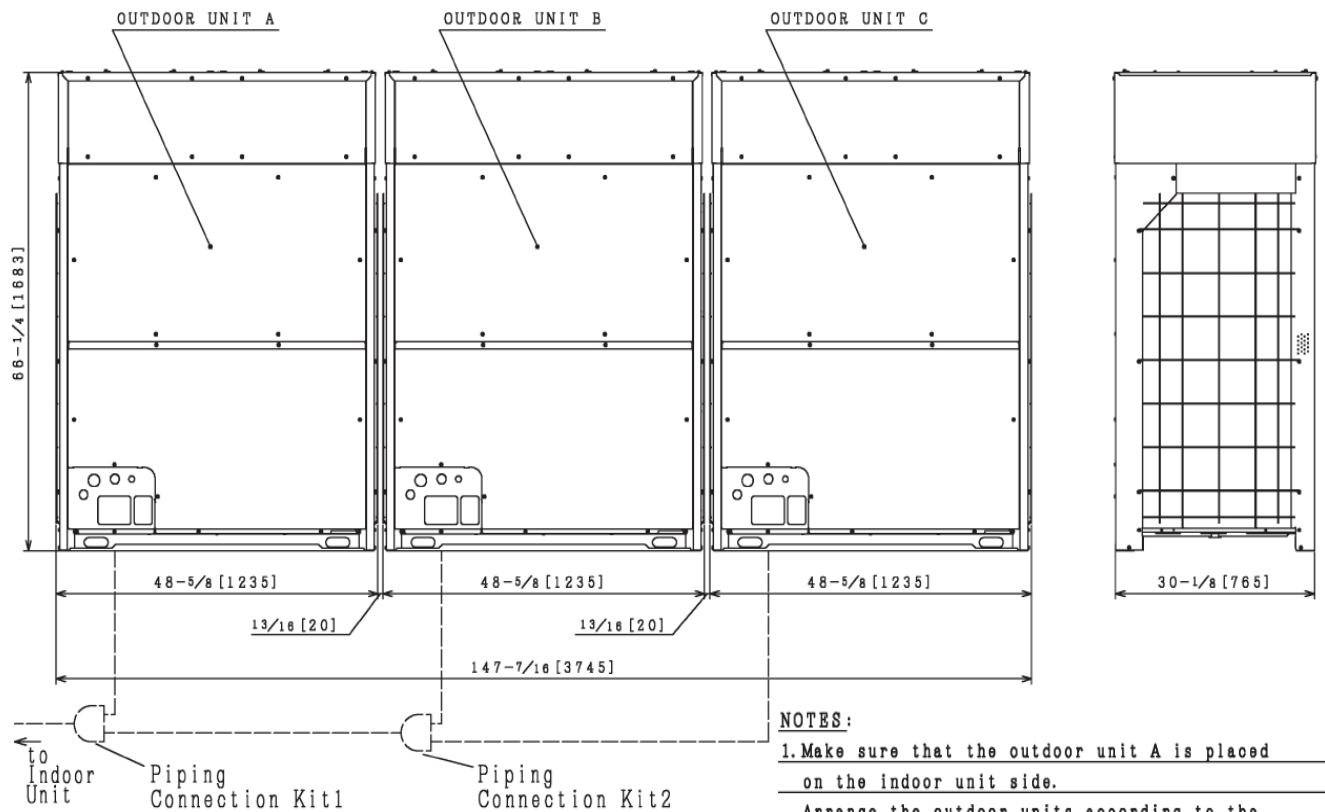
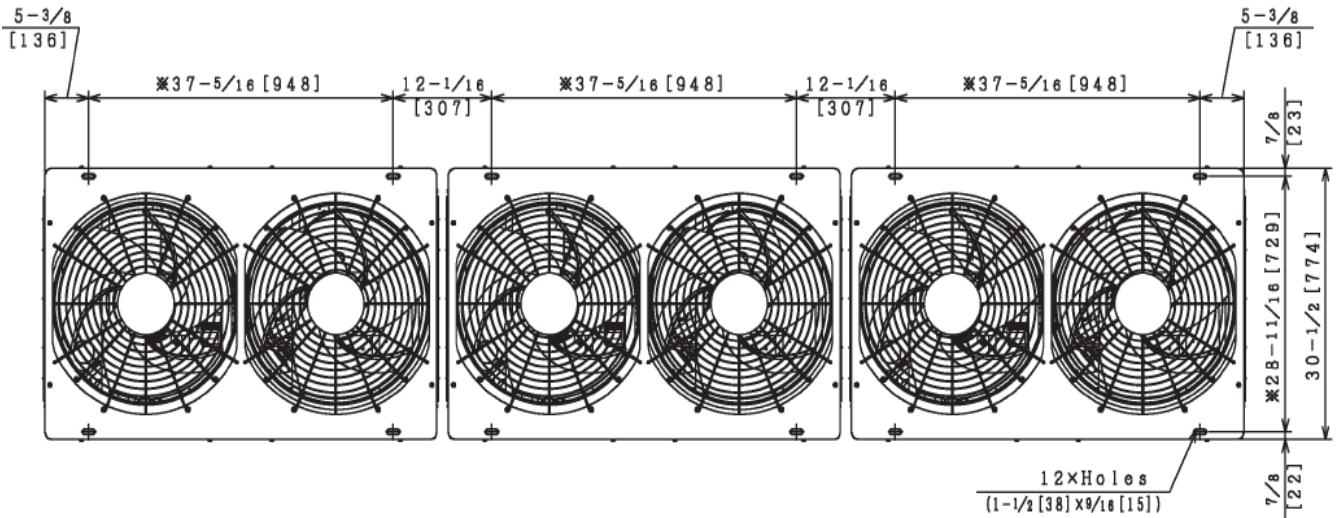
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

version 201806

System Dimensions

Heat Pump Model: (Y,H)VAHP408B32S

inch (mm)



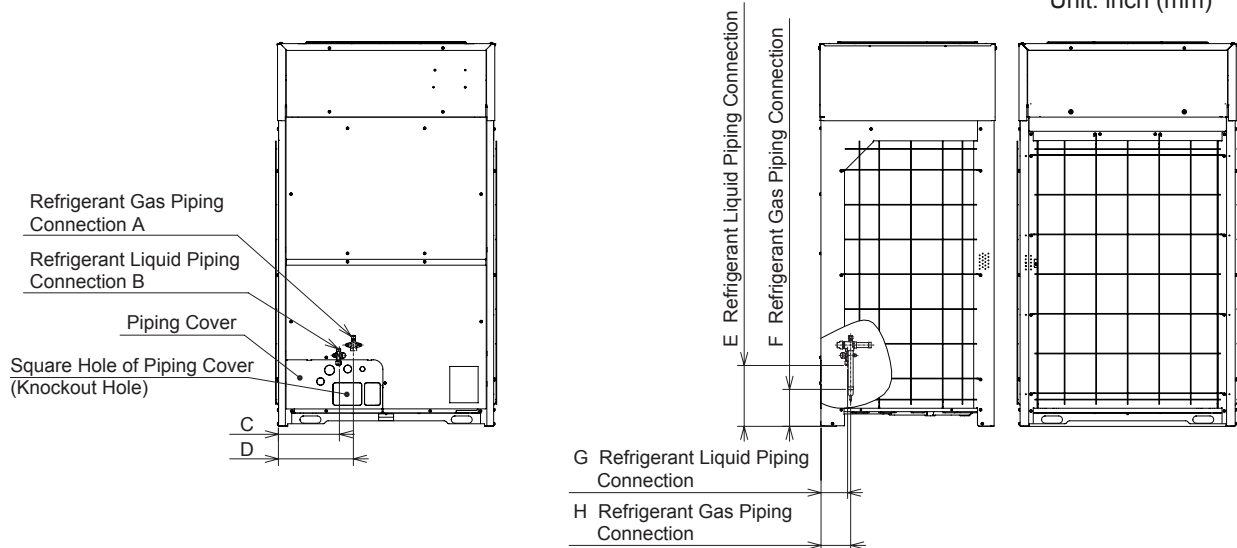
NOTES:

1. Make sure that the outdoor unit A is placed on the indoor unit side.
Arrange the outdoor units according to the capacity, $A \geq B \geq C$.
2. Check "Installation Manual" for the piping connection kit and piping connection size.
3. Check "Dimensional Drawing" for the dimension of piping outlet and wiring outlet.
3. This drawing shows that there is 13/16 inch [20mm] clearance between the base units.
In case of the outdoor unit with "Snow Protection Hood (Optional Parts)", the clearance between the base units of more than 1-15/16 inch [50mm] is required.
4. The dimensions marked with * 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.

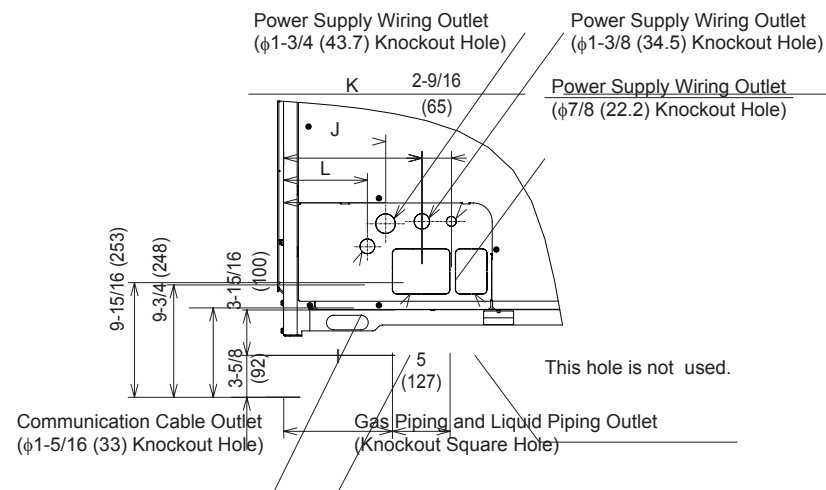
Outdoor Unit Model	Combination of Base Unit Models		
	OUTDOOR UNIT A	OUTDOOR UNIT B	OUTDOOR UNIT C
(H, Y) VAHP384B32S	(H, Y) VAHP144B32S	(H, Y) VAHP120B32S	(H, Y) VAHP120B32S
(H, Y) VAHP384B42S	(H, Y) VAHP144B42S	(H, Y) VAHP120B42S	(H, Y) VAHP120B42S
(H, Y) VAHP408B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S	(H, Y) VAHP120B32S
(H, Y) VAHP408B42S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S	(H, Y) VAHP120B42S
(H, Y) VAHP432B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S
(H, Y) VAHP432B42S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201806

SUBMITTAL DATA SHEET

36 RT (Y,H)VAHP432B32S

Consists of three (Y,H)VAHP144B32S modules.

Job Name:

Location:

Purchaser:

Order No.:

Engineer:

Submitted To:

For:

Ref:

Approval:

Construction:

Submitted By:

Date:

Unit Designation:

Schedule No.:

Model No.:

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

(Heat Pump 208/230V)

Category		Ton			36RT (12RT+12RT+12RT)	
Model (Combination)					(H,Y)VAHP432B32S	
Model (Individual)		Unit A			(H,Y)VAHP144B32S	
		Unit B			(H,Y)VAHP144B32S	
		Unit C			(H,Y)VAHP144B32S	
Power Supply					208/230V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	432,000	(126.6)
	Heating	Capacity (Nominal)	Btu/h	(kW)	486,000	(142.4)
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h	(kW)	400,000	(117.2)
		EER	Btu/Wh	(W/W)	9.5	(2.78)
		IEER	Btu/Wh	(Wh/Wh)	19.5	(5.72)
	Heating 47°F Ambient	Capacity (Rated) COP	W/W		460,000	(134.8) 3.21
	Heating 17°F Ambient	Capacity COP	Btu/h	(kW)	300,000	(87.9)
			W/W		2.05	
Operating Range *3	Cooling	Indoor	°F WB (°C WB)		59(15) ~ 73(23)	
		Outdoor	°F DB (°C DB)		23(-5) ~ 122(50)	
		Outdoor (with Snow Protection Hood)	°F DB (°C DB)		14(-23) ~ 109(43)	
		Outdoor (with Cooling Damper Kit)	°F DB (°C DB)		-10(-20) ~ 109(43)	
	Heating	Indoor	°F DB (°C DB)		59(15) ~ 80(27)	
		Outdoor	°F WB (°C WB)		-13(-25) ~ 59(15)	
Cabinet Color (Munsell Code)					- 2.5Y 8/2	
Outer Dimensions	Height x Width x Depth		in	(66-1/4 x 48-5/8 x 30-1/2)x3		
			mm	(1683 x 1235 x 774) x 3		
Weight	Net		lbs	(kg)	723 x 3	(328x3)
	Gross		lbs	(kg)	767 x 3	(348x3)
Connection Ratio	Standard (Extended)			%	55-135(150)	
	Max. (Recommended) Indoor Units/System			Q'ty	64 (30)	
Heat Exchanger	Type			-	Multi-Pass Cross-Finned Tube	
	Material			-	Cu-Al (Anti-corrosion)	
Compressor	Type	Inverter 1	-		AA50PHD×6	
		Inverter 2	-		-	
	Motor Output (Pole)		kW (Pole)	(6.4(6) × 2) × 3		
	Start Method		-	inverter		
	Operation Range		%	11 ~ 100		
	Refrigeration Oil Type		-	FVC68D		
Crank Case Heater			W×Q'ty	34.2 (230V) × 18		
Fan	Type	-		Propeller Fan		
	Motor Output (Pole)	kW (Pole)		(0.39(8)×2) × 3		
	Quantity	Q'ty		6		
	Airflow Rate	cfm	(m³/min)	9,037×3	(256×3)	
	External Static Pressure *4	in.W.G.	(Pa)	0-0.32	(0-80)	
Electrical	Drive	-		Direct-drive		
	Min Circuit Amps	A		58 × 3/52 × 3		
	Maximum Overcurrent Protective Device	A		70 × 3		
	Maximum Fuse Size	A		70 × 3		
Sound Pressure Level	Cooling	dB (A)		70		
	Heating	dB (A)		70		
Protection Devices	Cycle	-		High pressure switch at 601psi (4.15 MPa)		
	Inverter	-		Over-current protection		
	Compressor	-		Over-heat protection		
	PCB	-		Over-current protection		
Refrigerant	Type	-		R410A		
	Factory Charge Amount	lbs	(kg)	23.6 × 3	(10.7 × 3)	
Refrigeration Oil	Factory Charge Amount	gal/Unit	(L/Unit)	2.1 × 3	(7.9 × 3)	
Defrost Method					- Reversed Refrigerant Cycle	
Main Refrigerant Piping (Heat Pump)	Gas Line	in	(mm)	1-5/8	(41.28)	
	Liquid Line	in	(mm)	3/4	(19.05)	

NOTES:

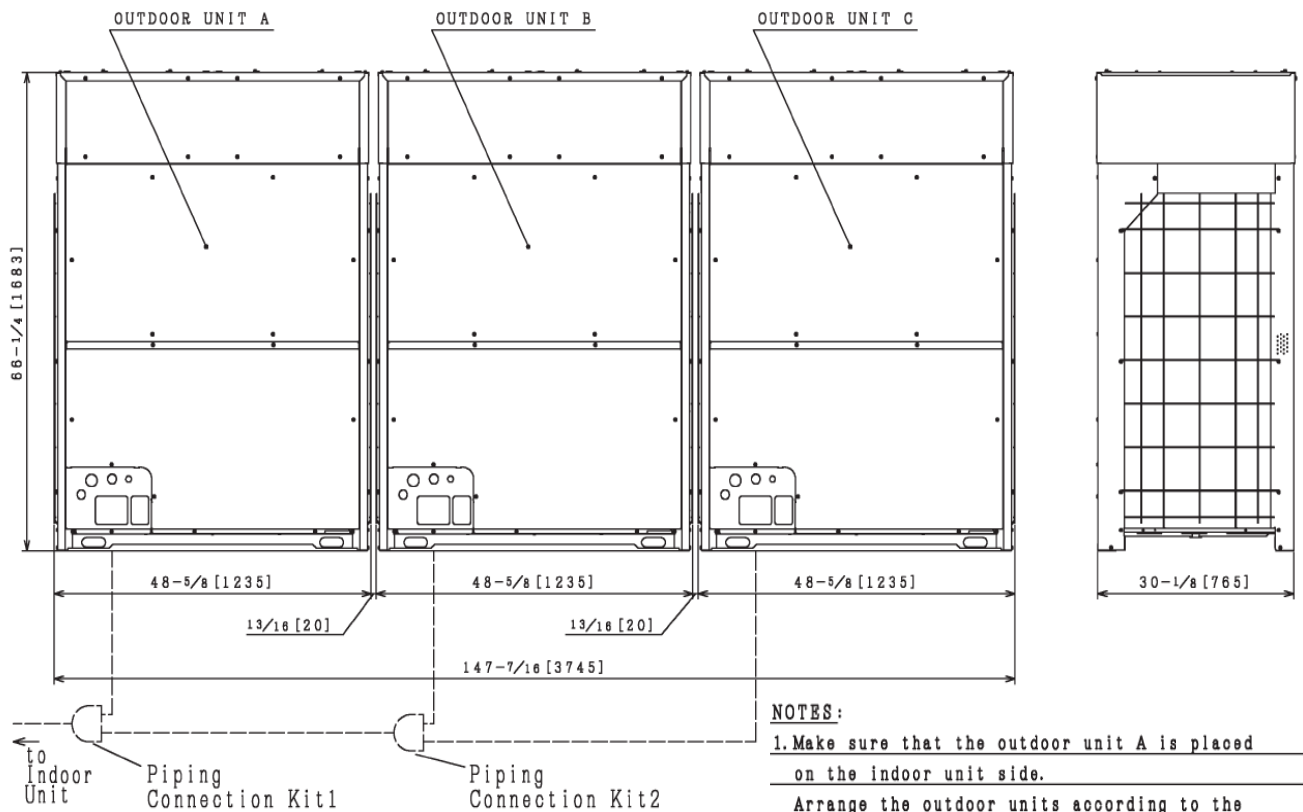
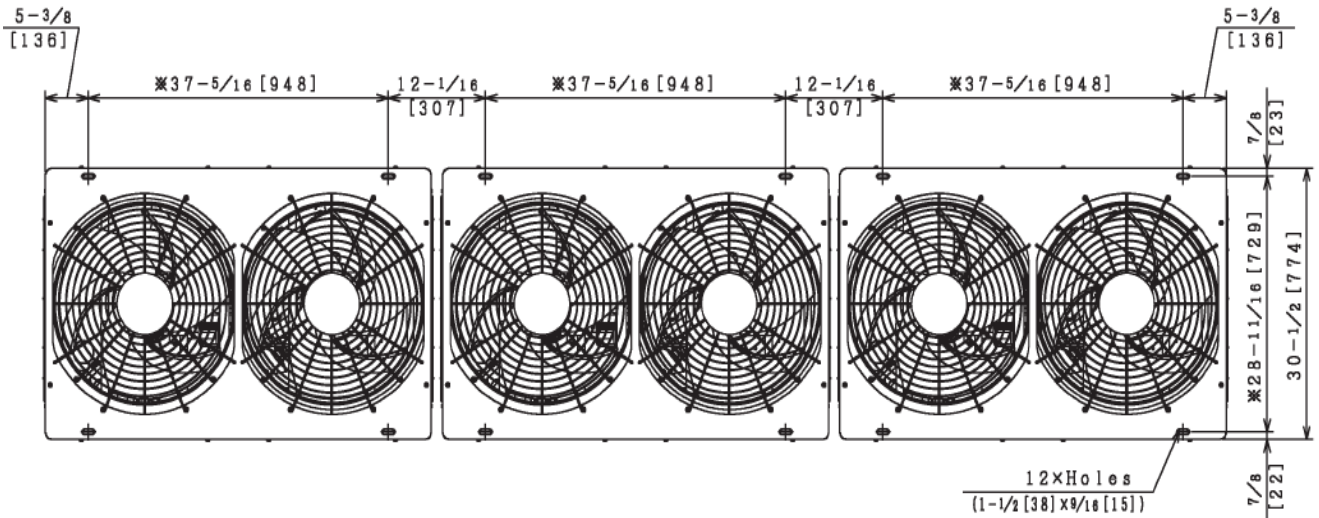
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

version 201806

System Dimensions

Heat Pump Model: (Y,H)VAHP432B32S

inch (mm)



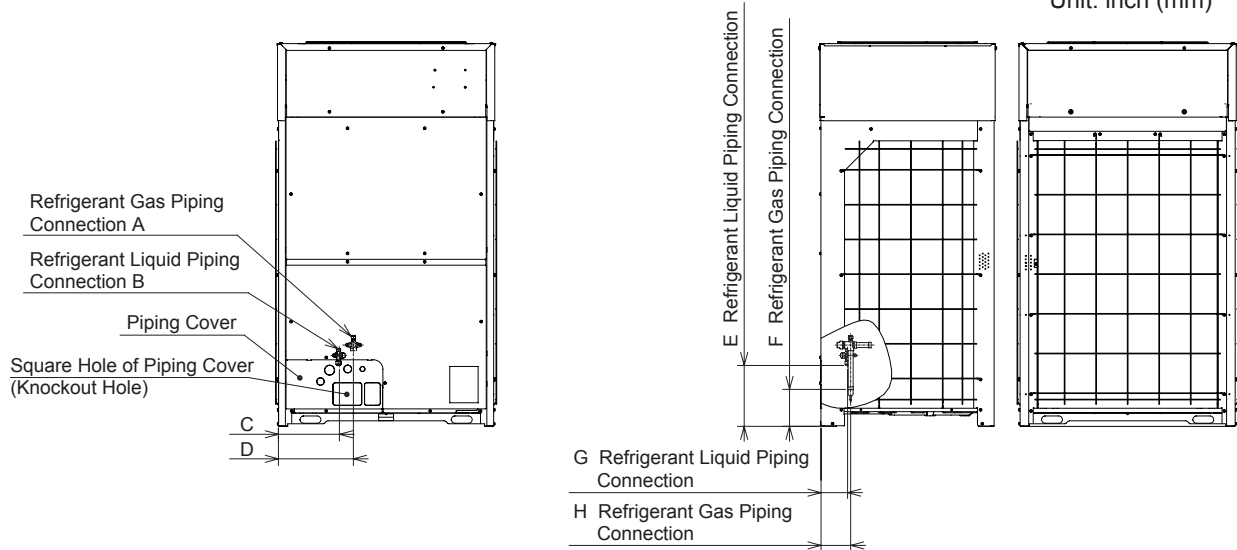
NOTES:

1. Make sure that the outdoor unit A is placed on the indoor unit side. Arrange the outdoor units according to the capacity, $A \geq B \geq C$.
2. Check "Installation Manual" for the piping connection kit and piping connection size.
3. Check "Dimensional Drawing" for the dimension of piping outlet and wiring outlet.
3. This drawing shows that there is 13/16 inch [20mm] clearance between the base units. In case of the outdoor unit with "Snow Protection Hood (Optional Parts)", the clearance between the base units of more than 1-15/16 inch [50mm] is required.
4. The dimensions marked with * 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.

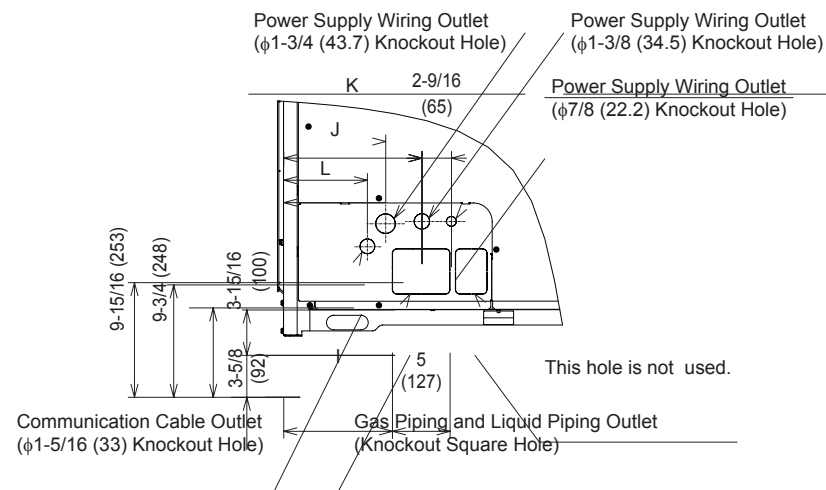
Outdoor Unit Model	Combination of Base Unit Models		
	OUTDOOR UNIT A	OUTDOOR UNIT B	OUTDOOR UNIT C
(H, Y) VAHP384B32S	(H, Y) VAHP144B32S	(H, Y) VAHP120B32S	(H, Y) VAHP120B32S
(H, Y) VAHP384B42S	(H, Y) VAHP144B42S	(H, Y) VAHP120B42S	(H, Y) VAHP120B42S
(H, Y) VAHP408B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S	(H, Y) VAHP120B32S
(H, Y) VAHP408B42S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S	(H, Y) VAHP120B42S
(H, Y) VAHP432B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S
(H, Y) VAHP432B42S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201806

SUBMITTAL DATA SHEET

(Y,H)VAHP072B42S

Consists of one (Y,H)VAHP072B42S module.

Job Name:

Location:

Purchaser:

Order No.:

Engineer:

Submitted To:

For:

Ref:

Approval:

Construction:

Submitted By:

Date:

Unit Designation:

Schedule No.:

Model No.:

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

(Heat Pump 460V)

Category		Ton		6RT		
Model (Combination)				(H,Y)VAHP072B42S		
Model (Individual)		Unit A			-	
		Unit B			-	
		Unit C			-	
Power Supply				460V/ 3PH 60Hz		
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	72,000	(21.1)
	Heating	Capacity (Nominal)	Btu/h	(kW)	81,000	(23.7)
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h	(kW)	69,000	(20.2)
		EER	Btu/Wh	(W/Wh)	14.9	(4.37)
		IEER	Btu/Wh	(Wh/Wh)	26.5	(7.77)
	Heating High	Capacity (Rated)	Btu/h	(kW)	77,000	(22.6)
		COP	W/W		4.25	
	Heating Low	Capacity	Btu/h	(kW)	56,000	(16.4)
		COP	W/W		2.60	
Operating Range *3	Cooling	Indoor	°F WB (°C WB)		59(15) ~ 73(23)	
		Outdoor	°F DB (°C DB)		23(-5) ~ 122(50)	
		Outdoor (with Snow Protection Hood)	°F DB (°C DB)		14(-23) ~ 109(43)	
	Heating	Outdoor (with Cooling Damper Kit)	°F DB (°C DB)		-10(-20) ~ 109(43)	
		Indoor	°F DB (°C DB)		59(15) ~ 80(27)	
		Outdoor	°F WB (°C WB)		-13(-25) ~ 59(15)	
Cabinet Color (Munsell Code)			-		2.5Y 8/2	
Outer Dimensions	Height x Width x Depth		in		66-1/4 x 38-3/8 x 30-1/2	
			mm		1683 x 975 x 774	
Weight	Net	lbs (kg)		523	(237)	
	Gross	lbs (kg)		562	(255)	
Connection Ratio	Standard (Extended)		%		130(150) - 70	
	Max. (Recommended) Indoor Units/System		Q'ty		15 (8)	
Heat Exchanger	Type	-		Multi-Pass Cross-Finned Tube		
	Material	-		Cu-Al (Anti-corrosion)		
Compressor	Type	Inverter 1	-		DC80PHD×1	
		Inverter 2	-		-	
	Motor Output (Pole)	kW (Pole)		7.4(6)		
	Start Method	-		inverter		
	Operation Range	%		11 ~ 100		
Crank Case Heater	Refrigeration Oil Type	-		FVC68D		
		W×Q'ty		34.2 (230V) ×3		
Fan	Type	-		Propeller Fan		
	Motor Output (Pole)	kW (Pole)		0.42(8)		
	Quantity	Q'ty		1		
	Airflow Rate	cfm	(m³/min)	6,707	(190)	
	External Static Pressure *4	in.W.G.	(Pa)	0-0.32	(0-80)	
Electrical	Drive	-		Direct-drive		
	Min Circuit Amps	A		15		
	Maximum Overcurrent Protective Device	A		20		
Sound Pressure Level	Maximum Fuse Size	A		20		
	Cooling	dB (A)		60		
	Heating	dB (A)		60		
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		
	Factory Charge Amount	lbs	(kg)	16.1	(7.2)	
Refrigeration Oil	Factory Charge Amount	gal/Unit	(L/Unit)	1.6	(6.0)	
Defrost Method			-		Reversed Refrigerant Cycle	
Main Refrigerant Piping (Heat Pump)	Gas Line	in	(mm)	7/8	(22.2)	
	Liquid Line	in	(mm)	1/2	(12.7)	

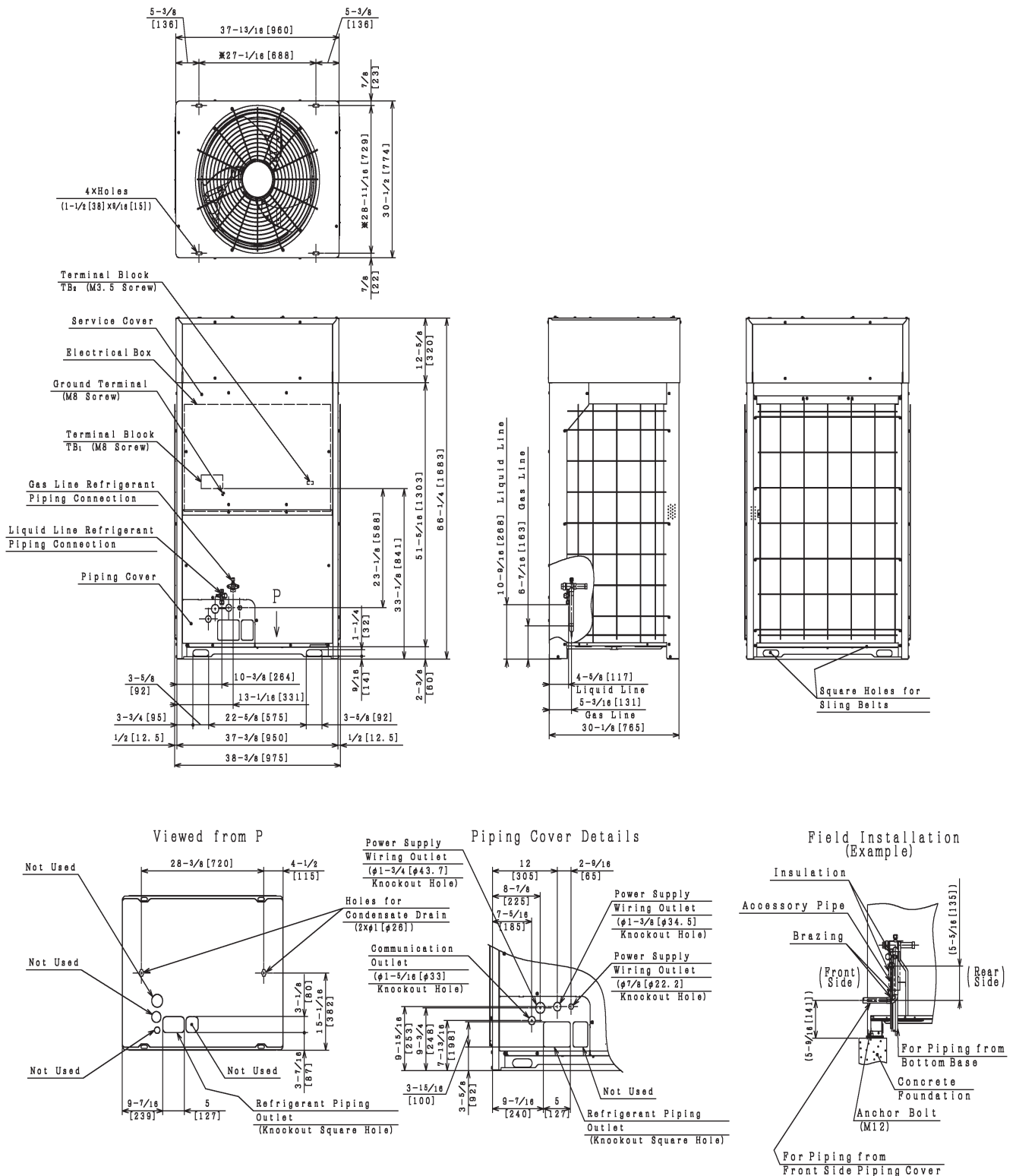
NOTES:

1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

version 201804

System Dimensions

Heat Pump Model: (Y,H)VAHP072B42S



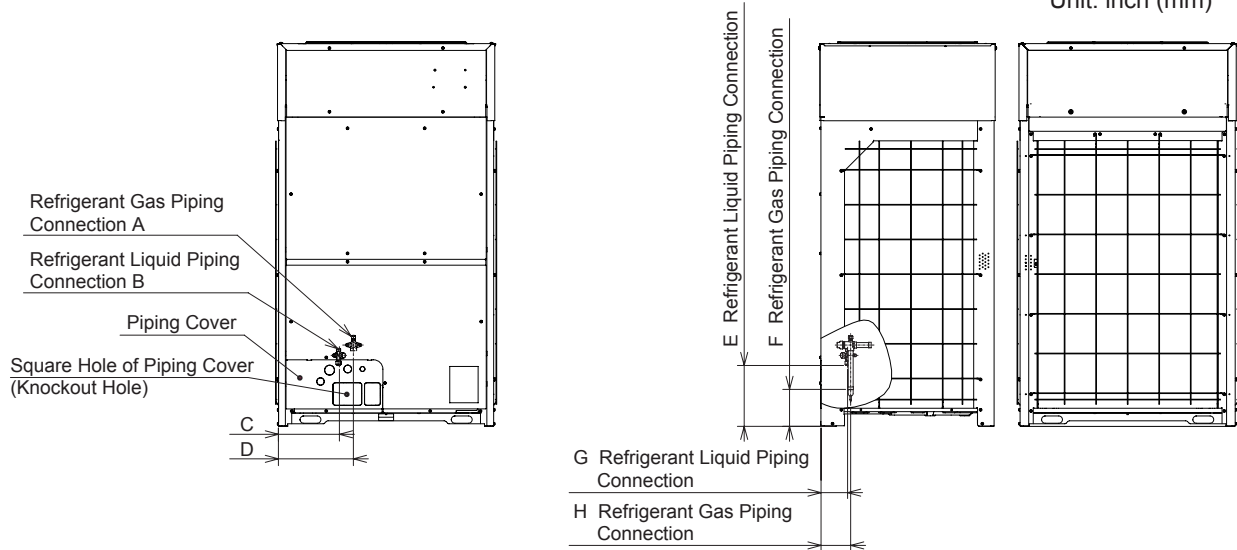
NOTES :

1. Drain water is discharged from the unit during the operation.
- ① Choose a place where well drainage is available. Provide a groove for drain.
 - ② 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.
 - ③ 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.

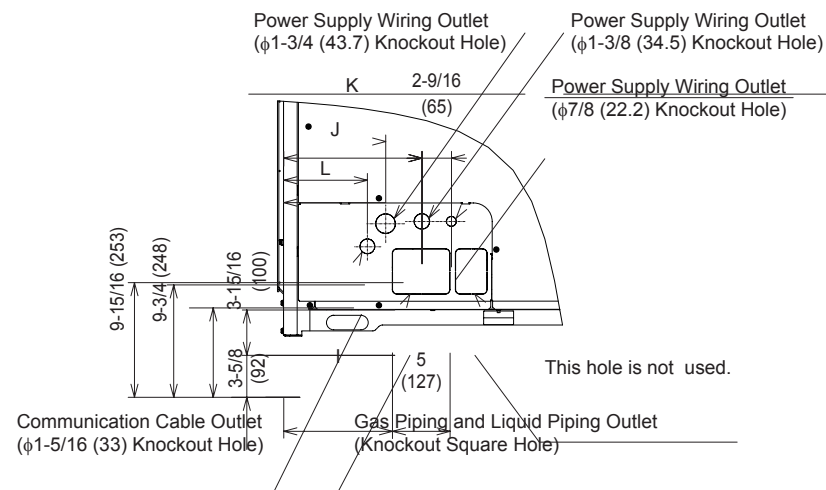
version 201804

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201804

SUBMITTAL DATA SHEET

(Y,H)VAHP096B42S

Consists of one (Y,H)VAHP096B42S module.

Job Name:

Location:

Purchaser:

Order No.:

Engineer:

Submitted To:

For:

Ref:

Approval:

Construction:

Submitted By:

Date:

Unit Designation:

Schedule No.:

Model No.:

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

(Heat Pump 460V)

Category		Ton		8RT	
Model (Combination)				(H,Y)VAHP096B42S	
Model (Individual)		Unit A		-	
		Unit B		-	
		Unit C		-	
Power Supply				460V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h (kW)	96,000	(28.1)
	Heating	Capacity (Nominal)	Btu/h (kW)	108,000	(31.7)
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h (kW)	92,000	(27.0)
		EER	Btu/Wh (W/W)	12.4	(3.63)
	Heating	IIEER	Btu/Wh (Wh/Wh)	23.9	(7.02)
		Capacity (Rated)	Btu/h (kW)	103,000	(30.2)
	High	COP	W/W	3.77	
	Low	Capacity	Btu/h (kW)	76,000	(22.3)
	COP	W/W	2.40		
Operating Range *3	Cooling	Indoor	°F WB (°C WB)		59(15) ~ 73(23)
		Outdoor	°F DB (°C DB)		23(-5) ~ 122(50)
		Outdoor (with Snow Protection Hood)	°F DB (°C DB)		14(-23) ~ 109(43)
		Outdoor (with Cooling Damper Kit)	°F DB (°C DB)		-10(-20) ~ 109(43)
	Heating	Indoor	°F DB (°C DB)		59(15) ~ 80(27)
		Outdoor	°F WB (°C WB)		-13(-25) ~ 59(15)
Cabinet Color (Munsell Code)			-	2.5Y 8/2	
Outer Dimensions	Height x Width x Depth		in	66-1/4 x 48-5/8 x 30-1/2	
			mm	1683 x 1235 x 774	
Weight	Net	lbs	(kg)	604	(274)
	Gross	lbs	(kg)	648	(294)
Connection Ratio	Standard (Extended)		%	130(150) - 65	
	Max. (Recommended) Indoor Units/System		Q'ty	20 (8)	
Heat Exchanger	Type		-	Multi-Pass Cross-Finned Tube	
	Material		-	Cu-Al (Anti-corrosion)	
Compressor	Type	Inverter 1	-	DC80PHD×1	
		Inverter 2	-	-	
	Motor Output (Pole)		kW (Pole)	9.5(6)	
	Start Method		-	inverter	
	Operation Range		%	11 ~ 100	
Refrigeration Oil Type			-	FVC68D	
Crank Case Heater			W×Q'ty	34.2 (230V) ×3	
Fan	Type		-	Propeller Fan	
	Motor Output (Pole)		kW (Pole)	0.33(8) × 2	
	Quantity		Q'ty	2	
	Airflow Rate		cfm (m³/min)	8,437	(239)
Electrical	External Static Pressure *4		in.W.G. (Pa)	0-0.32	(0-80)
	Drive		-	Direct-drive	
	Min Circuit Amps		A	22	
Sound Pressure Level	Maximum Overcurrent Protective Device		A	30	
	Maximum Fuse Size		A	25	
	Cooling	dB (A)		63	
Protection Devices	Heating	dB (A)		63	
	Cycle	-		High pressure switch at 601psi (4.15MPa)	
	Inverter	-		Over-current protection	
Refrigerant	Compressor	-		Over-heat protection	
	PCB	-		Over-current protection	
	Type	-		R410A	
Refrigeration Oil	Factory Charge Amount		lbs (kg)	18.7	(8.9)
	Factory Charge Amount		gal/Unit (L/Unit)	1.8	(6.9)
Defrost Method			-	Reversed Refrigerant Cycle	
Main Refrigerant Piping (Heat Pump)	Gas Line	in (mm)	7/8	(22.2)	
	Liquid Line	in (mm)	1/2	(12.7)	

NOTES:

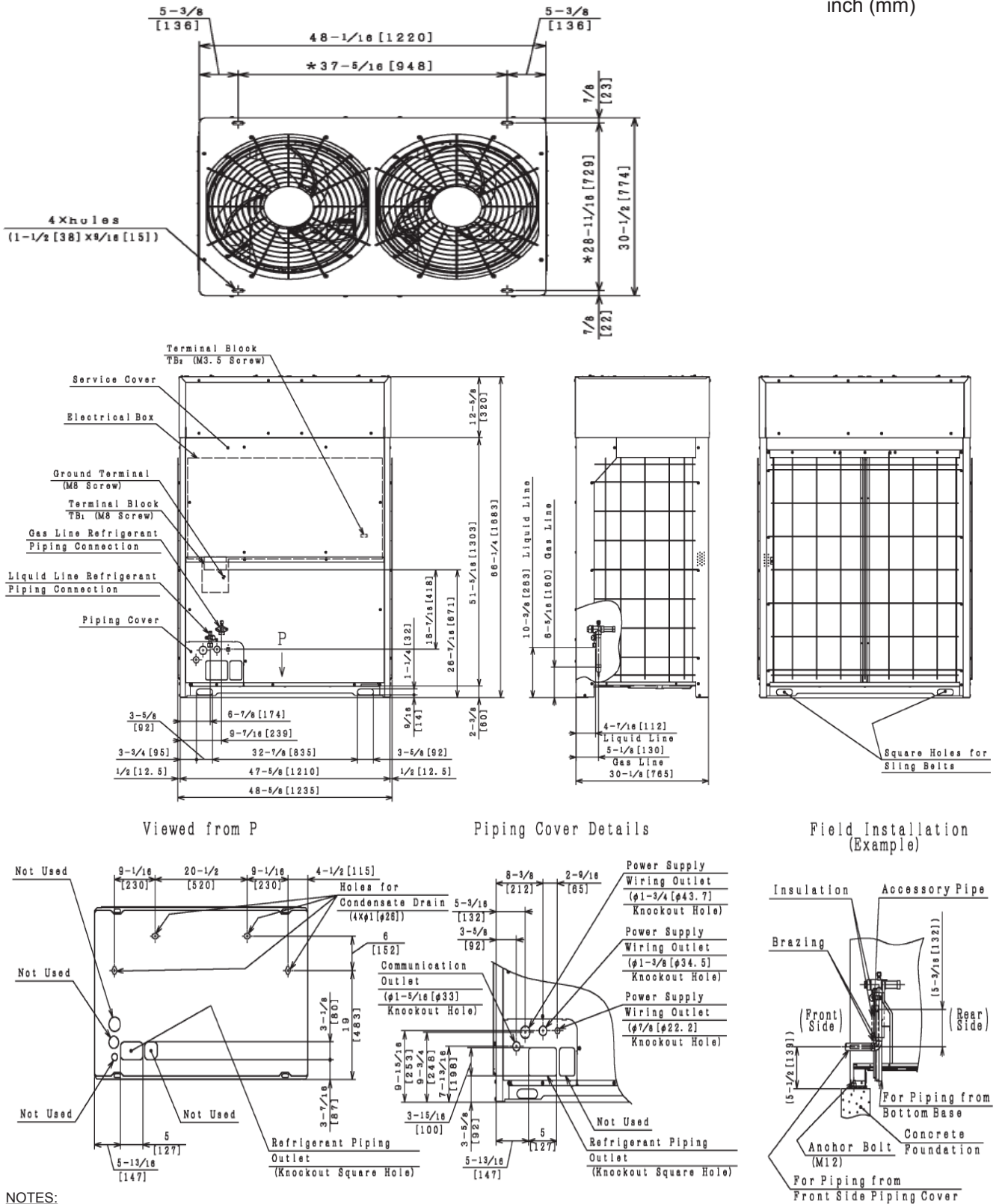
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

version 201804

System Dimensions

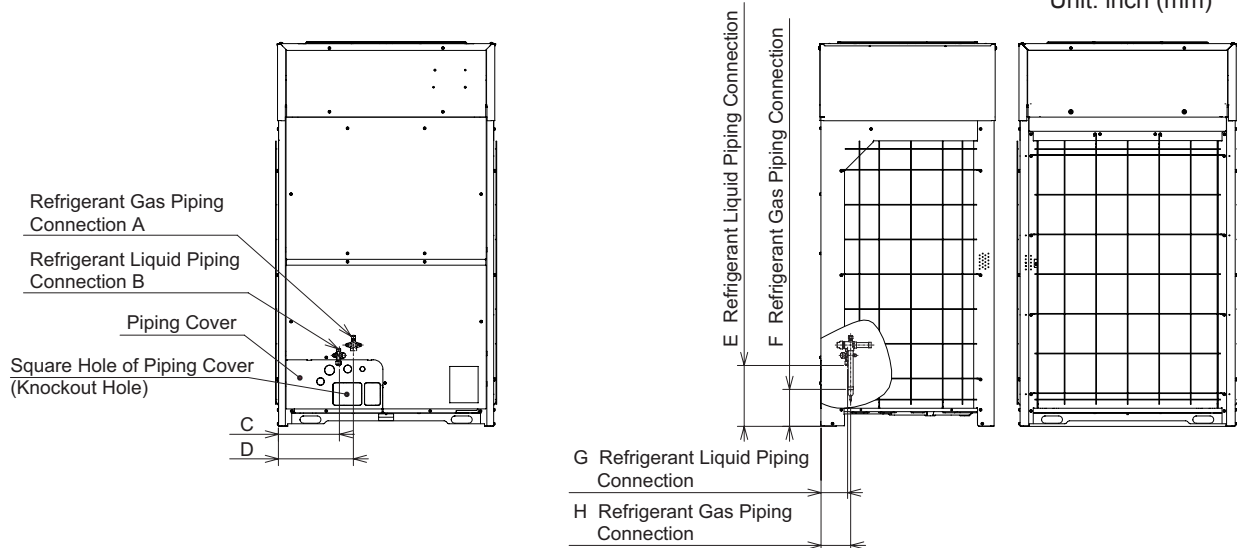
Heat Pump Model: (H,Y) VAHP096B42S

inch (mm)

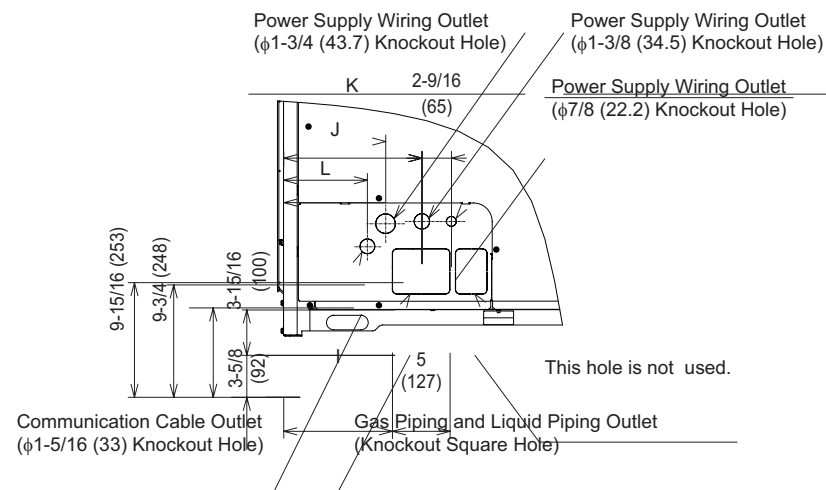


Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201804

SUBMITTAL DATA SHEET

(Y,H)VAHP120B42S

Consists of one (Y,H)VAHP120B42S module.

Job Name:

Location:

Purchaser:

Order No.:

Engineer:

Submitted To:

For:

Ref:

Approval:

Construction:

Submitted By:

Date:

Unit Designation:

Schedule No.:

Model No.:

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

(Heat Pump 460V)

Category	Ton		10RT
Model (Combination)			(H,Y)VAHP120B42S
Model (Individual)	Unit A		
	Unit B		
	Unit C		
Power Supply			460V/ 3PH 60Hz
Capacity *1	Cooling	Capacity (Nominal)	Btu/h (kW) 120,000 (35.2)
	Heating	Capacity (Nominal)	Btu/h (kW) 135,000 (39.6)
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h (kW) 114,000 (33.4)
		EER	Btu/Wh (W/W) 12.7 (3.73)
		IEER	Btu/Wh (W/h/Wh) 24.4 (7.14)
		Capacity (Rated)	Btu/h (kW) 129,000 (37.8)
	Heating High	COP	W/W 3.84
	Heating Low	Capacity	Btu/h (kW) 92,000 (27.0)
	Heating Low	COP	W/W 2.37
		Capacity	Btu/h (kW) 92,000 (27.0)
Operating Range *3	Cooling	Indoor	°F WB (°C WB) 59(15) ~ 73(23)
		Outdoor	°F DB (°C DB) 23(-5) ~ 122(50)
		Outdoor (with Snow Protection Hood)	°F DB (°C DB) 14(-23) ~ 109(43)
		Outdoor (with Cooling Damper Kit)	°F DB (°C DB) -10(-20) ~ 109(43)
	Heating	Indoor	°F DB (°C DB) 59(15) ~ 80(27)
		Outdoor	°F WB (°C WB) -13(-25) ~ 59(15)
		Indoor	°F WB (°C WB) 59(15) ~ 80(27)
		Outdoor	°F WB (°C WB) -13(-25) ~ 59(15)
Cabinet Color (Munsell Code)			2.5Y 8/2
Outer Dimensions	Height x Width x Depth	in	66-1/4 x 48-5/8 x 30-1/2
		mm	1683 x 1235 x 774
Weight	Net	lbs (kg)	725 (329)
	Gross	lbs (kg)	770 (349)
Connection Ratio	Standard (Extended)	%	130(150) - 60
	Max. (Recommended) Indoor Units/System	Q'ty	26 (8)
Heat Exchanger	Type	Multi-Pass Cross-Finned Tube	
	Material	Cu-Al (Anti-corrosion)	
Compressor	Type	Inverter 1	AA50PHD*2
		Inverter 2	-
	Motor Output (Pole)	kW (Pole)	5.4(6)*2
	Start Method	Inverter	
	Operation Range	%	11 ~ 100
	Refrigeration Oil Type	FVC68D	
Crank Case Heater		W*Q'ty	34.2 (230V) *6
	Type	Propeller Fan	
Fan	Motor Output (Pole)	kW (Pole)	0.39(8) * 2
	Quantity	Q'ty	2
	Airflow Rate	cfm (m³/min)	9,037 (256)
	External Static Pressure *4	in.W.G. (Pa)	0-0.32 (0-80)
	Drive	Direct-drive	
Electrical	Min Circuit Amps	A	24
	Maximum Overcurrent Protective Device	A	30
	Maximum Fuse Size	A	30
Sound Pressure Level	Cooling	dB (A)	63
	Heating	dB (A)	63
Protection Devices	Cycle	High pressure switch at 601psi (4.15MPa)	
	Inverter	Over-current protection	
	Compressor	Over-heat protection	
	PCB	Over-heat protection	
	Refrigerant	Over-current protection	
Refrigerant	Type	R410A	
	Factory Charge Amount	lbs (kg)	20.9 (9.9)
Refrigeration Oil	Factory Charge Amount	gal/Unit (L/Unit)	2.1 (7.9)
Defrost Method	Reversed Refrigerant Cycle		
Main Refrigerant	Gas Line	in (mm)	1-1/8 (28.58)
Piping (Heat Pump)	Liquid Line	in (mm)	1/2 (12.7)

NOTES:

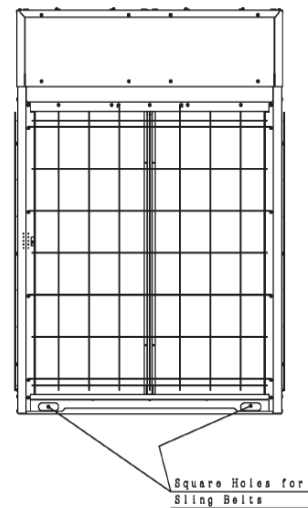
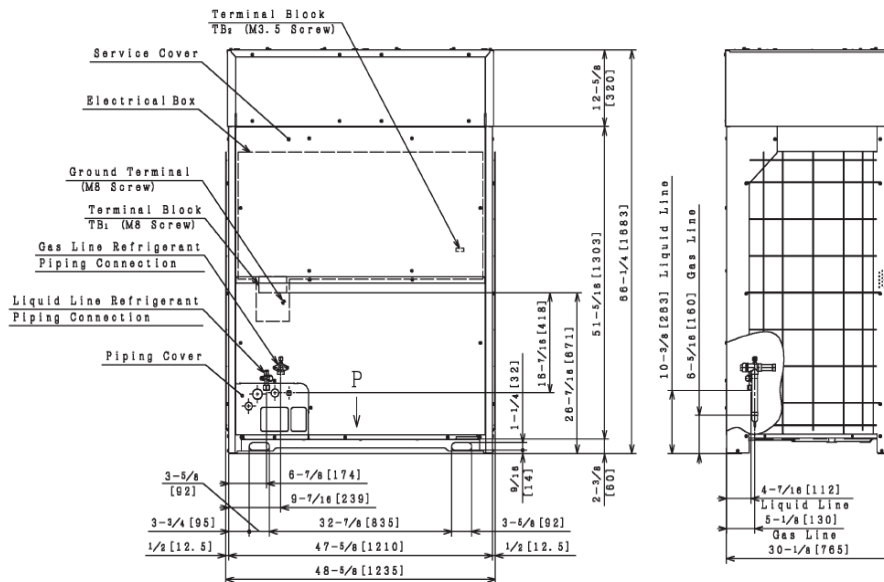
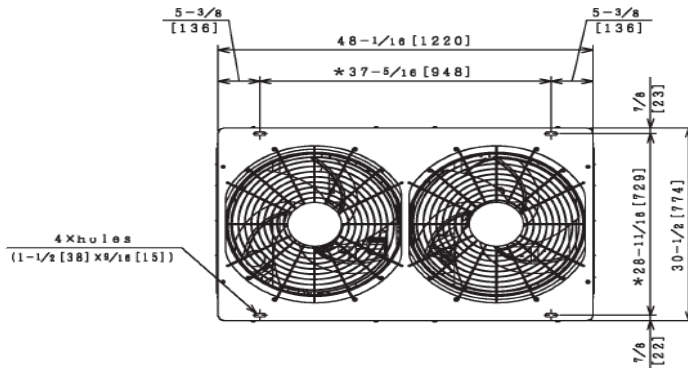
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

version 201804

System Dimensions

Heat Pump Model: (H,Y) VAHP120B42S

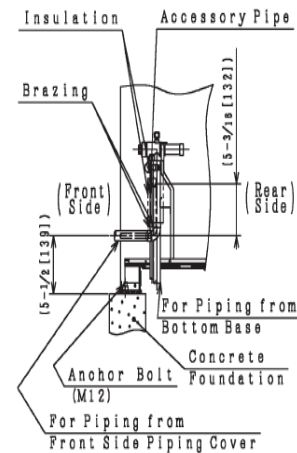
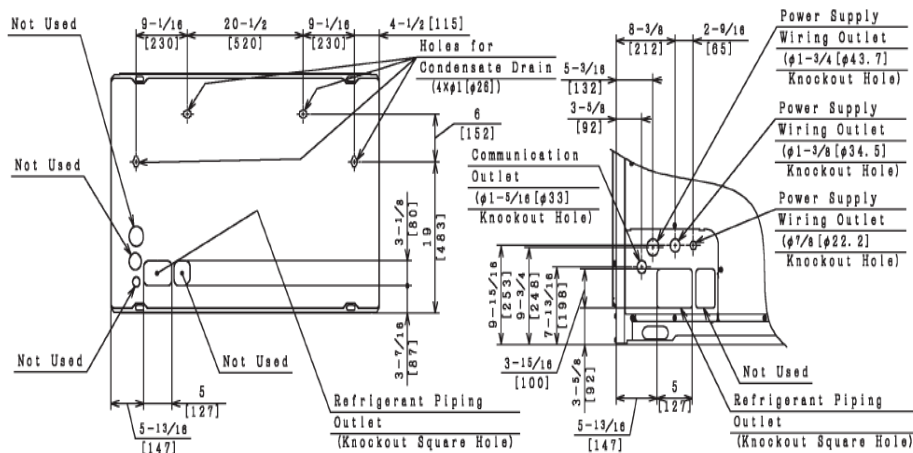
inch (mm)



Viewed from P

Piping Cover Details

Field Installation (Example)

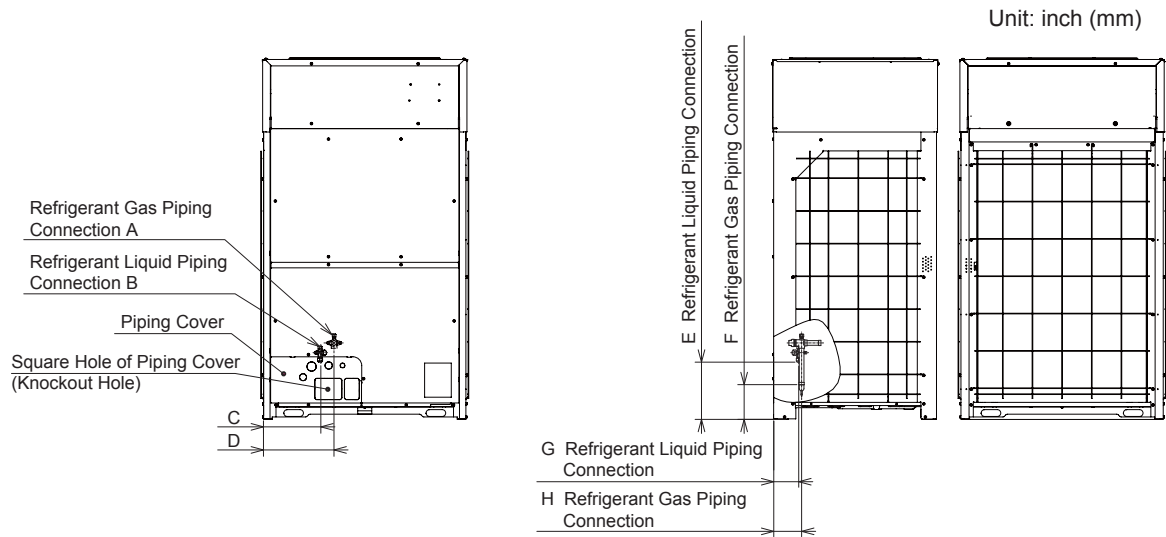


NOTES:

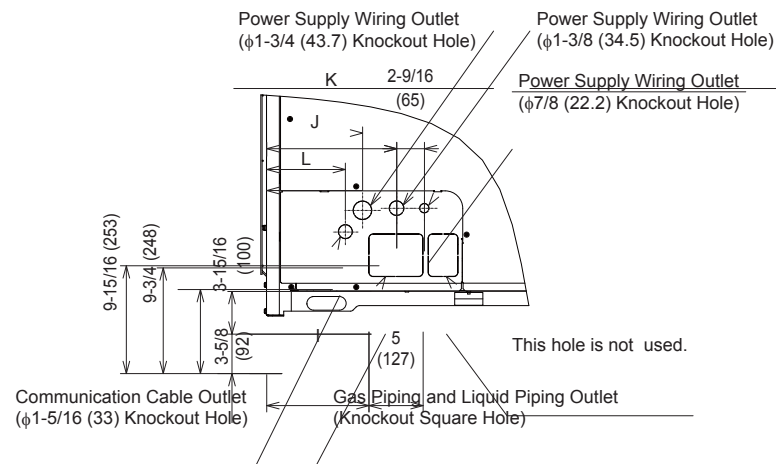
- Condensation is produced by the outdoor coil during heating and defrost operation.
 - 1) Locate the unit where the system can be properly drained.
 - 2) Condensate pipe must be installed in accordance with local and national codes.
 - 3) Ensure the drain is sloped downward away from the outdoor for proper drainage.
 - 4) When the outdoor unit is installed indoors, it may be necessary to provide a secondary drain pan, condensate pump or optional drain boss for condensate management.
 - 5) Do not use the drain boss (optional) in locations where the drain line may freeze.
- The dimensions marked with " * " indicate the mounting pitch dimensions for anchor bolts.

version 201804

Piping Connection Dimensions



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201804

SUBMITTAL DATA SHEET

(Y,H)VAHP144B42S

Consists of one (Y,H)VAHP144B42S module.

Job Name:

Location:

Purchaser:

Order No.:

Engineer:

Submitted To:

For:

Ref:

Approval:

Construction:

Submitted By:

Date:

Unit Designation:

Schedule No.:

Model No.:

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

(Heat Pump 460V)

Category	Ton		12RT	
Model (Combination)			(H,Y)VAHP144B42S	
Model (Individual)	Unit A			-
	Unit B			-
	Unit C			-
Power Supply			460V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h (kW)	144,000 (42.2)
	Heating	Capacity (Nominal)	Btu/h (kW)	162,000 (47.5)
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h (kW)	138,000 (40.4)
		EER	Btu/Wh (W/W)	10.9 (3.18)
		IEER	Btu/Wh (Wh/Wh)	23.9 (6.99)
	Heating	Capacity (Rated)	Btu/h (kW)	154,000 (45.1)
	High	COP	W/W	3.42
	Low	COP	W/W	2.12
Operating Range *3	Cooling	Indoor	°F WB (°C WB)	59(15) ~ 73(23)
		Outdoor	°F DB (°C DB)	23(-5) ~ 122(50)
		Outdoor (with Snow Protection Hood)	°F DB (°C DB)	14(-23) ~ 109(43)
	Heating	Outdoor (with Cooling Damper Kit)	°F DB (°C DB)	-10(-20) ~ 109(43)
		Indoor	°F DB (°C DB)	59(15) ~ 80(27)
		Outdoor	°F WB (°C WB)	-13(-25) ~ 59(15)
Cabinet Color (Munsell Code)			2.5Y 8/2	
Outer Dimensions	Height x Width x Depth	in	66-1/4 x 48-5/8 x 30-1/2	
		mm	1683 x 1235 x 774	
Weight	Net	lbs (kg)	728 (330)	
	Gross	lbs (kg)	772 (350)	
Connection Ratio	Standard (Extended)	%	130(150) - 55	
	Max. (Recommended) Indoor Units/System	Q'ty	26 (10)	
Heat Exchanger	Type	Multi-Pass Cross-Finned Tube		
	Material	Cu-Al (Anti-corrosion)		
Compressor	Type	Inverter 1		
		Inverter 2		
	Motor Output (Pole)	kW (Pole)	6.4(6)×2	
	Start Method	inverter		
	Operation Range	%	11 ~ 100	
	Refrigeration Oil Type	FVC68D		
Crank Case Heater		W×Q'ty	34.2 (230V) ×6	
	Type	Propeller Fan		
Fan	Motor Output (Pole)	kW (Pole)	0.39(8) × 2	
	Quantity	Q'ty	2	
	Airflow Rate	cfm (m³/min)	9,037 (256)	
	External Static Pressure *4	in.W.G. (Pa)	0-0.32 (0-80)	
Electrical	Drive	Direct-drive		
	Min Circuit Amps	A	30	
	Maximum Overcurrent Protective Device	A	35	
	Maximum Fuse Size	A	35	
Sound Pressure Level	Cooling	dB (A)	65	
	Heating	dB (A)	65	
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		
	Factory Charge Amount	lbs (kg)	23.6 (10.7)	
Refrigeration Oil	Factory Charge Amount	gal/Unit (L/Unit)	2.1 (7.9)	
Defrost Method			Reversed Refrigerant Cycle	
Main Refrigerant Piping (Heat Pump)	Gas Line	in (mm)	1-1/8 (28.58)	
	Liquid Line	in (mm)	5/8 (15.88)	

NOTES:

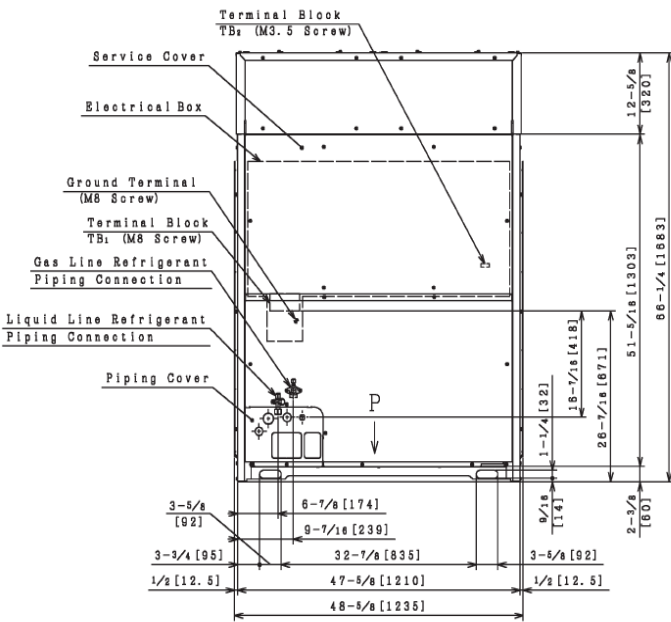
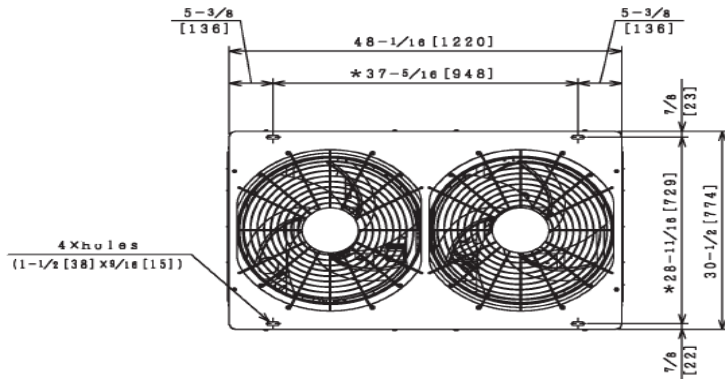
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

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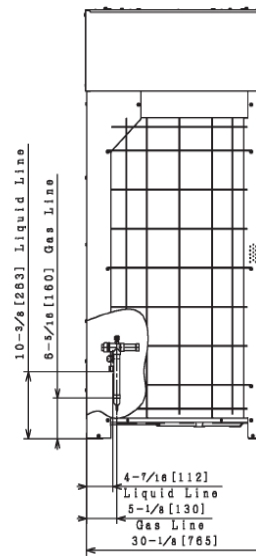
System Dimensions

Heat Pump Model: (H,Y) VAHP144B42S

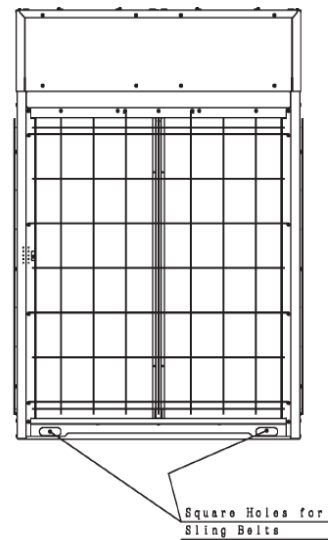
inch (mm)



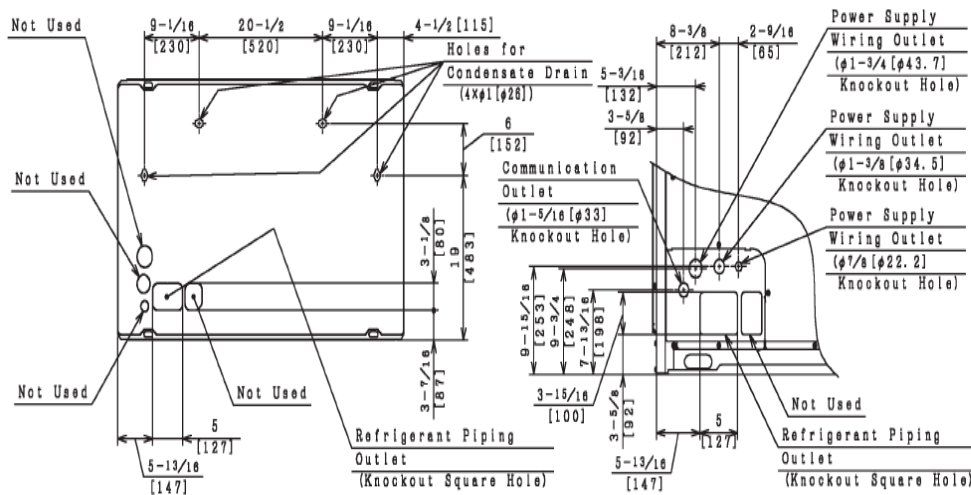
Viewed from P



Piping Cover Details

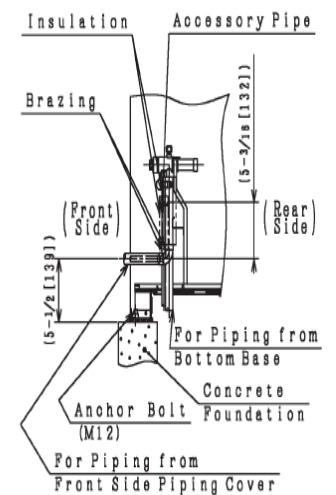


Field Installation (Example)



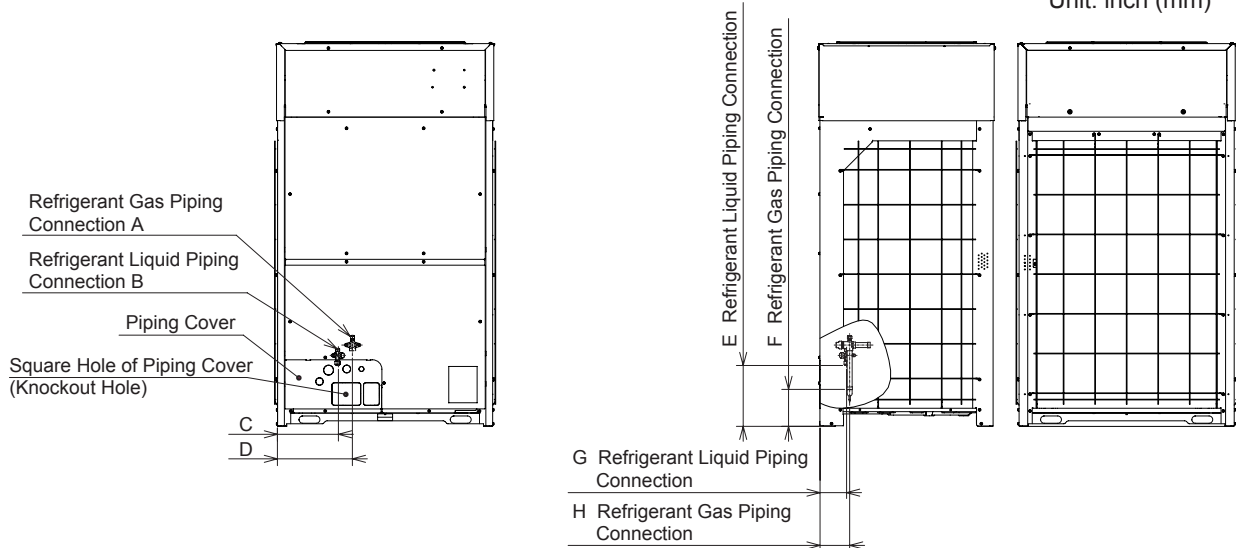
NOTES:

1. Condensation is produced by the outdoor coil during heating and defrost operation.
 - 1) Locate the unit where the system can be properly drained.
 - 2) Condensate pipe must be installed in accordance with local and national codes.
 - 3) Ensure the drain is sloped downward away from the outdoor for proper drainage.
 - 4) When the outdoor unit is installed indoors, it may be necessary to provide a secondary drain pan, condensate pump or optional drain boss for condensate management.
 - 5) Do not use the drain boss (optional) in locations where the drain line may freeze.
2. The dimensions marked with " * " indicate the mounting pitch dimensions for anchor bolts.

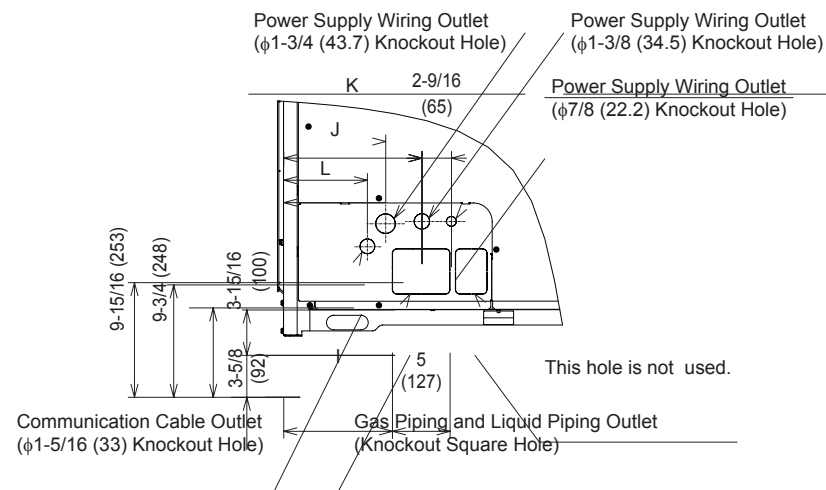


Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201804

Product Model: (Y,H)VAHP144B42S

SUBMITTAL DATA SHEET

(Y,H)VAHP168B42S

Consists of one (Y,H)VAHP168B42S module.

Job Name:

Location:

Purchaser:

Order No.:

Engineer:

Submitted To:

For:

Ref:

Approval:

Construction:

Submitted By:

Date:

Unit Designation:

Schedule No.:

Model No.:

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

(Heat Pump 460V)

Category	Ton		14RT	
Model (Combination)			(H,Y)VAHP168B42S	
Model (Individual)	Unit A			-
	Unit B			-
	Unit C			-
Power Supply			460V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h (kW)	168,000 (49.2)
	Heating	Capacity (Nominal)	Btu/h (kW)	189,000 (55.4)
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h (kW)	160,000 (46.9)
		EER	Btu/Wh (W/W)	11.6 (3.40)
		IEER	Btu/Wh (Wh/Wh)	23.4 (6.86)
	Heating	Capacity (Rated)	Btu/h (kW)	180,000 (52.8)
	High	COP	W/W	3.65
	Low	COP	W/W	2.16
Operating Range *3	Cooling	Indoor	°F WB (°C WB)	59(15) ~ 73(23)
		Outdoor	°F DB (°C DB)	23(-5) ~ 122(50)
		Outdoor (with Snow Protection Hood)	°F DB (°C DB)	14(-23) ~ 109(43)
	Heating	Outdoor (with Cooling Damper Kit)	°F DB (°C DB)	-10(-20) ~ 109(43)
		Indoor	°F DB (°C DB)	59(15) ~ 80(27)
		Outdoor	°F WB (°C WB)	-13(-25) ~ 59(15)
Cabinet Color (Munsell Code)			2.5Y 8/2	
Outer Dimensions	Height x Width x Depth	in	66-1/4 x 64 x 30-1/2	
		mm	1683 x 1625 x 774	
Weight	Net	lbs (kg)	849 (385)	
	Gross	lbs (kg)	900 (408)	
Connection Ratio	Standard (Extended)	%	130(150) - 55	
	Max. (Recommended) Indoor Units/System	Q'ty	36 (12)	
Heat Exchanger	Type	Multi-Pass Cross-Finned Tube		
	Material	Cu-Al (Anti-corrosion)		
Compressor	Type	Inverter 1		
		Inverter 2		
	Motor Output (Pole)	kW (Pole)	7.1(6)×2	
	Start Method	inverter		
	Operation Range	%	11 ~ 100	
	Refrigeration Oil Type	FVC68D		
Crank Case Heater		W×Q'ty	34.2 (230V) ×6	
Fan	Type	Propeller Fan		
	Motor Output (Pole)	kW (Pole)	0.48(8) × 2	
	Quantity	Q'ty	2	
	Airflow Rate	cfm (m³/min)	11,614 (329)	
	External Static Pressure *4	in.W.G. (Pa)	0-0.32 (0-80)	
	Drive	Direct-drive		
Electrical	Min Circuit Amps	A	34	
	Maximum Overcurrent Protective Device	A	40	
	Maximum Fuse Size	A	40	
Sound Pressure Level	Cooling	dB (A)	64	
	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		
	Factory Charge Amount	lbs (kg)	24.9 (11.3)	
Refrigeration Oil	Factory Charge Amount	gal/Unit (L/Unit)	2.2 (8.4)	
Defrost Method			Reversed Refrigerant Cycle	
Main Refrigerant Piping (Heat Pump)	Gas Line	in (mm)	1-1/8 (28.58)	
	Liquid Line	in (mm)	5/8 (15.88)	

NOTES:

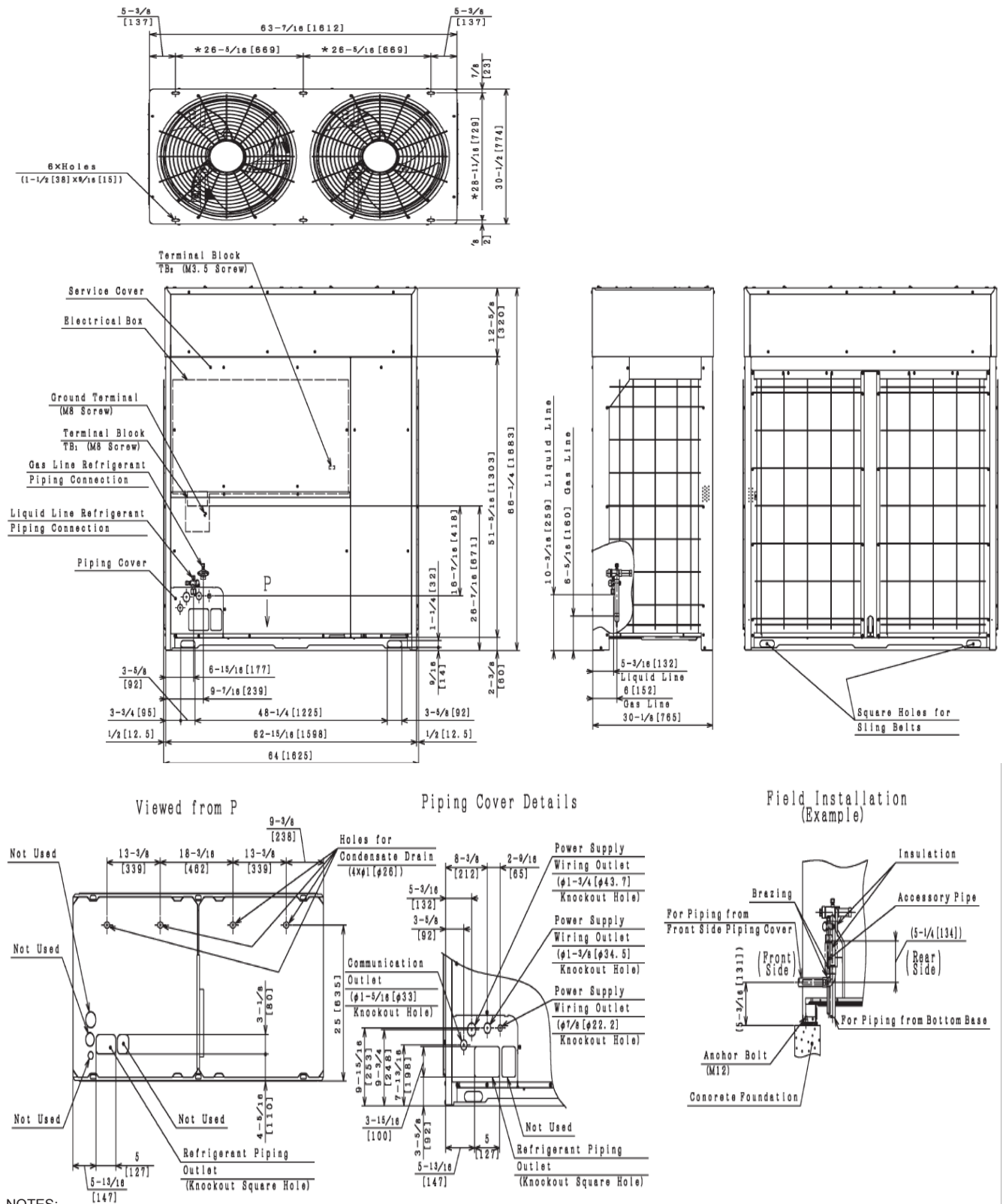
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

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System Dimensions

Heat Pump Model: (Y,H)VAHP168B42S

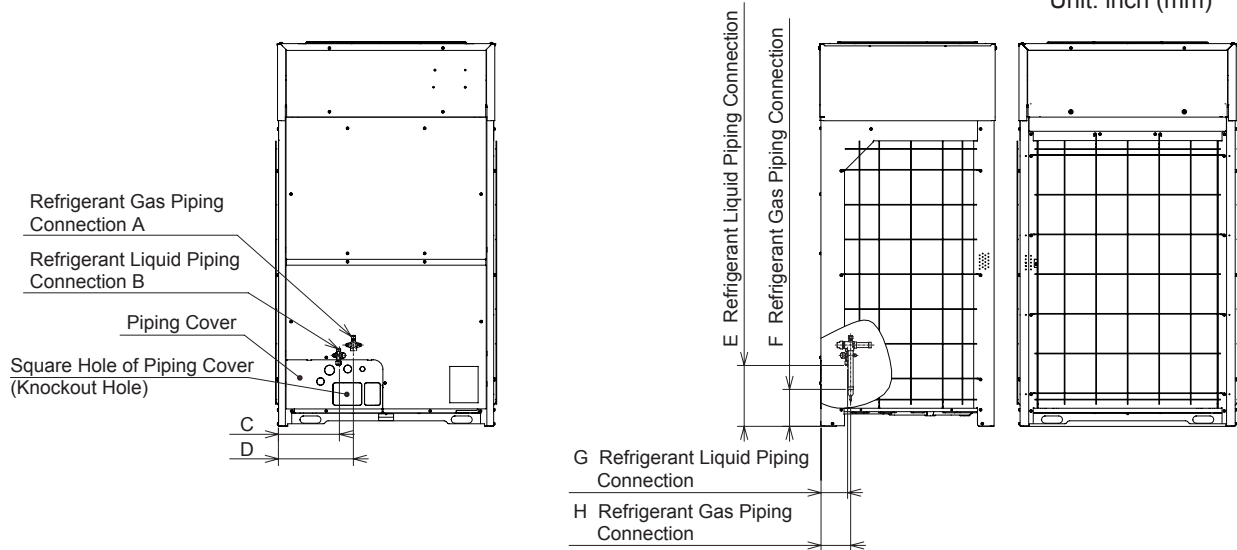
Unit: inch (mm)



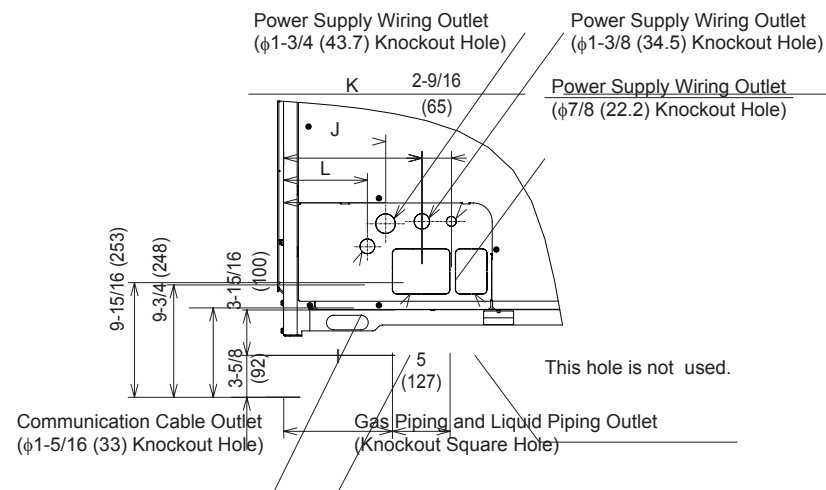
1. Condensation is produced by the outdoor coil during heating and defrost operation.
 - 1) Locate the unit where the system can be properly drained.
 - 2) Condensate pipe must be installed in accordance with local and national codes.
 - 3) Ensure the drain is sloped downward away from the outdoor for proper drainage.
 - 4) When the outdoor unit is installed indoors, it may be necessary to provide a secondary drain pan, condensate pump or optional drain boss for condensate management.
 - 5) Do not use the drain boss (optional) in locations where the drain line may freeze.
2. The dimensions marked with " * " indicate the mounting pitch dimensions for anchor bolts.

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201804

SUBMITTAL DATA SHEET

(Y,H)VAHP192B42S

Consists of one (Y,H)VAHP192B42S module.

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

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

(Heat Pump 460V)

Category	Ton		16RT	
Model (Combination)			(H,Y)VAHP192B42S	
Model (Individual)	Unit A			-
	Unit B			-
	Unit C			-
Power Supply			460V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h (kW)	192,000 (56.3)
	Heating	Capacity (Nominal)	Btu/h (kW)	216,000 (63.3)
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h (kW)	184,000 (53.9)
		EER	Btu/Wh (W/W)	10.6 (3.11)
		IEER	Btu/Wh (Wh/Wh)	21.4 (6.27)
	Heating	Capacity (Rated)	Btu/h (kW)	206,000 (60.4)
	High	COP	W/W	3.32
	Low	COP	W/W	2.05
Operating Range *3	Cooling	Indoor	°F WB (°C WB)	59(15) ~ 73(23)
		Outdoor	°F DB (°C DB)	23(-5) ~ 122(50)
		Outdoor (with Snow Protection Hood)	°F DB (°C DB)	14(-23) ~ 109(43)
	Heating	Outdoor (with Cooling Damper Kit)	°F DB (°C DB)	-10(-20) ~ 109(43)
		Indoor	°F DB (°C DB)	59(15) ~ 80(27)
		Outdoor	°F WB (°C WB)	-13(-25) ~ 59(15)
Cabinet Color (Munsell Code)			2.5Y 8/2	
Outer Dimensions	Height x Width x Depth	in	66-1/4 x 64 x 30-1/2	
		mm	1683 x 1625 x 774	
Weight	Net	lbs (kg)	849 (385)	
	Gross	lbs (kg)	900 (408)	
Connection Ratio	Standard (Extended)	%	130(150) - 55	
	Max. (Recommended) Indoor Units/System	Q'ty	40 (14)	
Heat Exchanger	Type	Multi-Pass Cross-Finned Tube		
	Material	Cu-Al (Anti-corrosion)		
Compressor	Type	Inverter 1		
		Inverter 2		
	Motor Output (Pole)	kW (Pole)	9.1(6)×2	
	Start Method	inverter		
	Operation Range	%	11 ~ 100	
	Refrigeration Oil Type	FVC68D		
Crank Case Heater		W×Q'ty	34.2 (230V) ×6	
Fan	Type	Propeller Fan		
	Motor Output (Pole)	kW (Pole)	0.56(8) × 2	
	Quantity	Q'ty	2	
	Airflow Rate	cfm (m³/min)	12,284 (348)	
	External Static Pressure *4	in.W.G. (Pa)	0-0.32 (0-80)	
Electrical	Drive	Direct-drive		
	Min Circuit Amps	A	39	
	Maximum Overcurrent Protective Device	A	50	
	Maximum Fuse Size	A	50	
Sound Pressure Level	Cooling	dB (A)	66	
	Heating	dB (A)	66	
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		
	Factory Charge Amount	lbs (kg)	25.6 (11.6)	
Refrigeration Oil	Factory Charge Amount	gal/Unit (L/Unit)	2.2 (8.4)	
Defrost Method			Reversed Refrigerant Cycle	
Main Refrigerant Piping (Heat Pump)	Gas Line	in (mm)	1-1/8 (28.58)	
	Liquid Line	in (mm)	5/8 (15.88)	

NOTES:

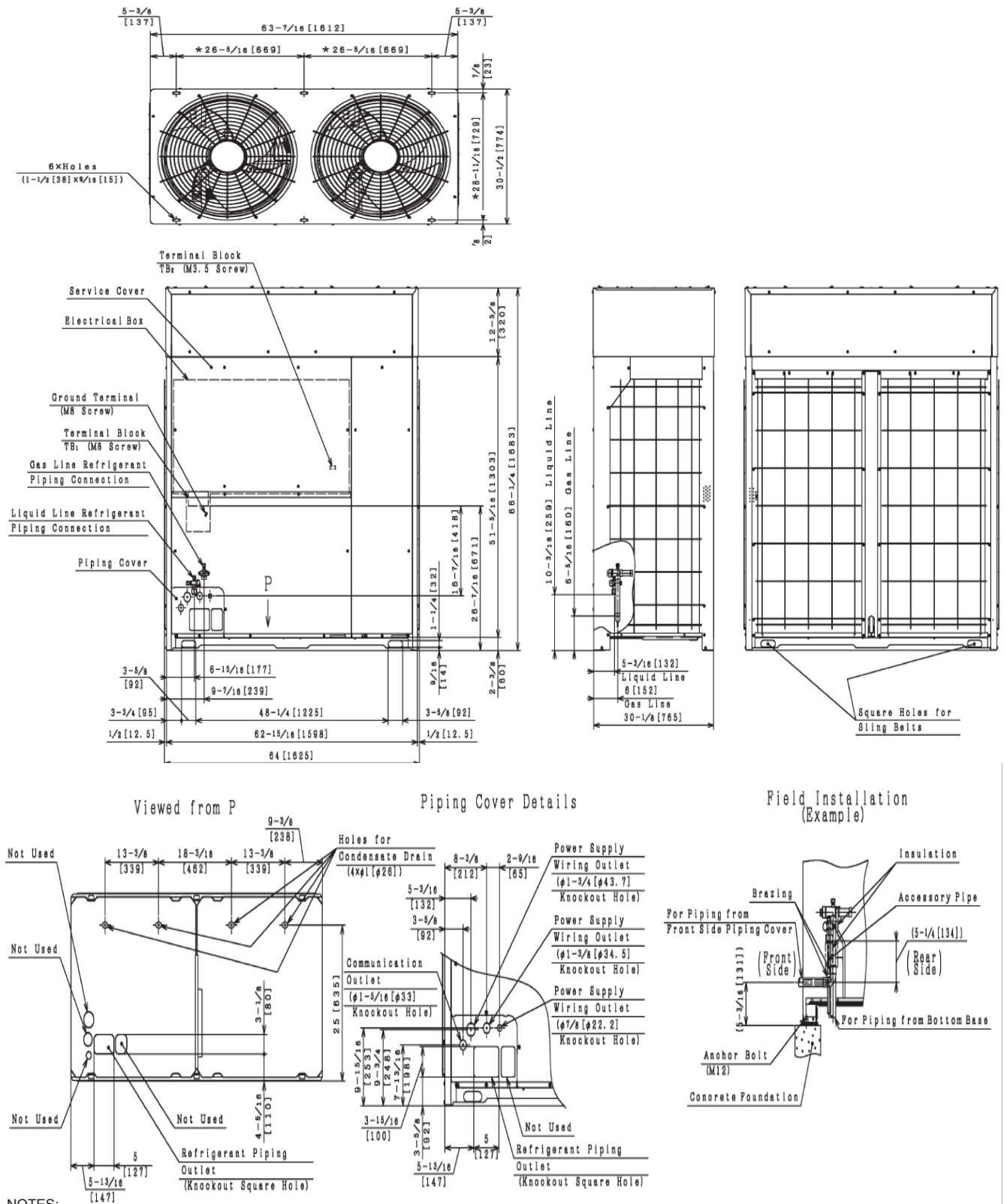
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

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System Dimensions

Heat Pump Model: (Y,H)VAHP192B42S

Unit: inch (mm)



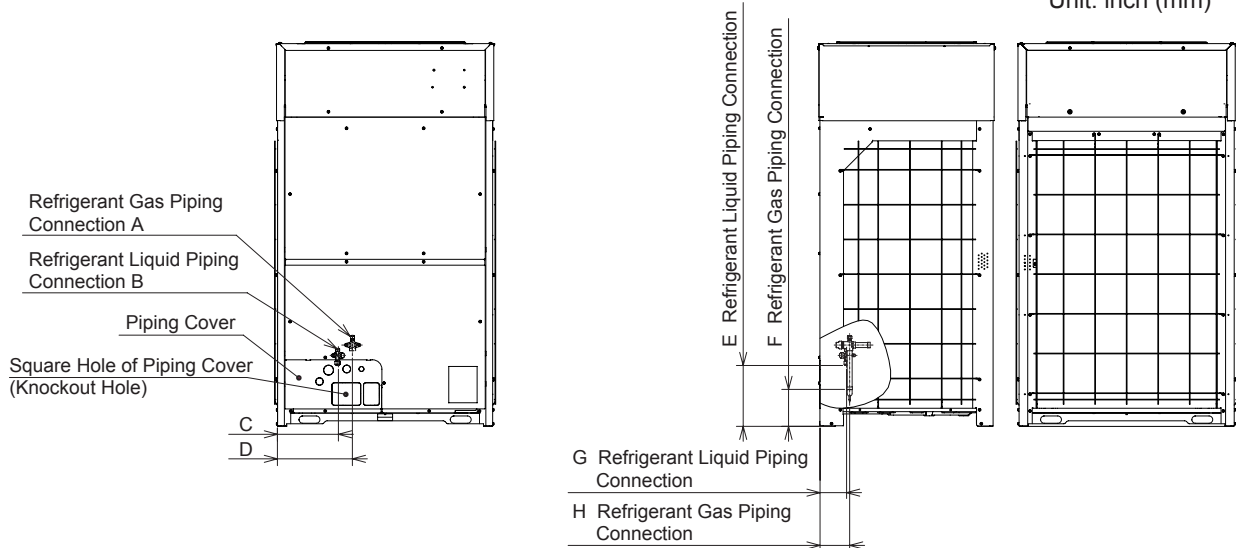
NOTES:

- Condensation is produced by the outdoor coil during heating and defrost operation.
 - 1) Locate the unit where the system can be properly drained.
 - 2) Condensate pipe must be installed in accordance with local and national codes.
 - 3) Ensure the drain is sloped downward away from the outdoor for proper drainage.
 - 4) When the outdoor unit is installed indoors, it may be necessary to provide a secondary drain pan, condensate pump or optional drain boss for condensate management.
 - 5) Do not use the drain boss (optional) in locations where the drain line may freeze.
- The dimensions marked with "*" indicate the mounting pitch dimensions for anchor bolts.

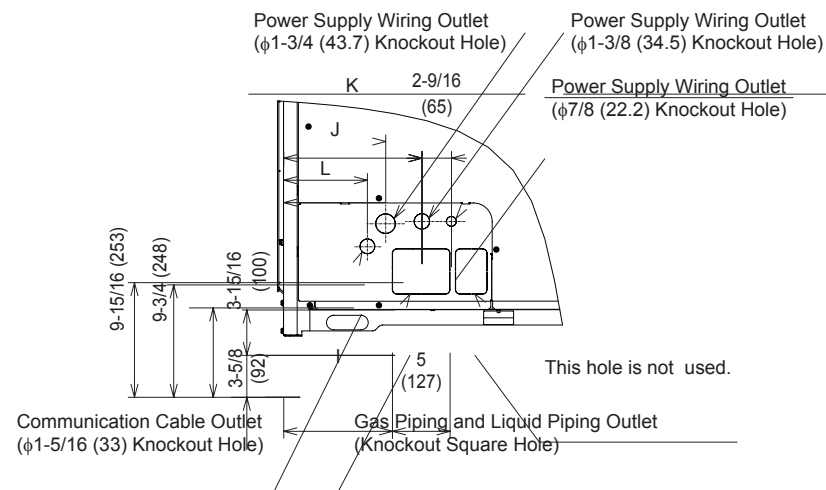
version 201804

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201804

SUBMITTAL DATA SHEET

(Y,H)VAHP216B42S

Consists of one (Y,H)VAHP144B42S and one (Y,H)VAHP072B42S module.

Job Name:

Location:

Purchaser:

Order No.:

Engineer:

Submitted To:

For:

Ref:

Approval:

Construction:

Submitted By:

Date:

Unit Designation:

Schedule No.:

Model No.:

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

(Heat Pump 460V)

Category	Ton		18RT (12RT+6RT)	
Model (Combination)			(H,Y)VAHP216B42S	
Model (Individual)	Unit A			(H,Y)VAHP144B42S
	Unit B			(H,Y)VAHP072B42S
	Unit C			-
Power Supply			460V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h (kW)	216,000 (63.3)
	Heating	Capacity (Nominal)	Btu/h (kW)	243,000 (71.2)
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h (kW)	206,000 (60.4)
		EER	Btu/Wh (W/W)	10.9 (3.18)
		IEER	Btu/Wh (Wh/Wh)	20.9 (6.12)
	Heating	Capacity (Rated)	Btu/h (kW)	232,000 (68.0)
	High COP		W/W	3.82
	Heating Low COP		W/W	2.32
Operating Range *3	Cooling	Indoor	°F WB (°C WB)	59(15) ~ 73(23)
		Outdoor	°F DB (°C DB)	23(-5) ~ 122(50)
		Outdoor (with Snow Protection Hood)	°F DB (°C DB)	14(-23) ~ 109(43)
	Heating	Outdoor (with Cooling Damper Kit)	°F DB (°C DB)	-10(-20) ~ 109(43)
		Indoor	°F DB (°C DB)	59(15) ~ 80(27)
		Outdoor	°F WB (°C WB)	-13(-20) ~ 59(15)
Cabinet Color (Munsell Code)			- 2.5Y 8/2	
Outer Dimensions	Height x Width x Depth	in	(66-1/4x 48-5/8 x30-1/2)+(66-1/4x 38-3/8 x30-1/2)	
		mm	(1683 x 1235 x 774)+(1683 x 975 x 774)	
Weight	Net	lbs (kg)	728+523 (330+237)	
	Gross	lbs (kg)	772+562 (350+255)	
Connection Ratio	Standard (Extended)	%	130(150) - 60	
Heat Exchanger	Max. (Recommended) Indoor Units/System	Qty	46 (18)	
	Type	-	Multi-Pass Cross-Finned Tube	
	Material	-	Cu-Al (Anti-corrosion)	
	Type	-	DC80PHD×1	
Compressor	Inverter 2	-	AA50PHD×2	
	Motor Output (Pole)	kW (Pole)	6.4(6)×2+7.4(6)	
	Start Method	-	inverter	
	Operation Range	%	11 ~ 100	
Crank Case Heater	Refrigeration Oil Type	-	FVC68D	
	W×Qty		34.2 (230V) ×9	
Fan	Type	-	Propeller Fan	
	Motor Output (Pole)	kW (Pole)	(0.39(8)×2)+0.42(8)	
	Quantity	Qty	3	
	Airflow Rate	cfm (m³/min)	9,037 +6,707 (256+190)	
Electrical	External Static Pressure *4	in.W.G. (Pa)	0-0.32 (0-80)	
	Drive	-	Direct-drive	
	Min Circuit Amps	A	30+15	
	Maximum Overcurrent Protective Device	A	35+20	
Sound Pressure Level	Maximum Fuse Size	A	35+20	
	Cooling	dB (A)	66	
Protection Devices	Heating	dB (A)	66	
	Cycle	-	High pressure switch at 601psi (4.15MPa)	
	Inverter	-	Over-current protection	
	Compressor	-	Over-heat protection	
Refrigerant	PCB	-	Over-heat protection	
	Type	-	R410A	
Refrigeration Oil	Factory Charge Amount	lbs (kg)	23.6+16.1 (10.7+7.2)	
	gal/Unit (L/Unit)		2.1+1.6 (7.9+6.0)	
Defrost Method			Reversed Refrigerant Cycle	
Main Refrigerant Piping (Heat Pump)	Gas Line	in (mm)	1-1/8 (28.58)	
	Liquid Line	in (mm)	3/4 (19.05)	

NOTES:

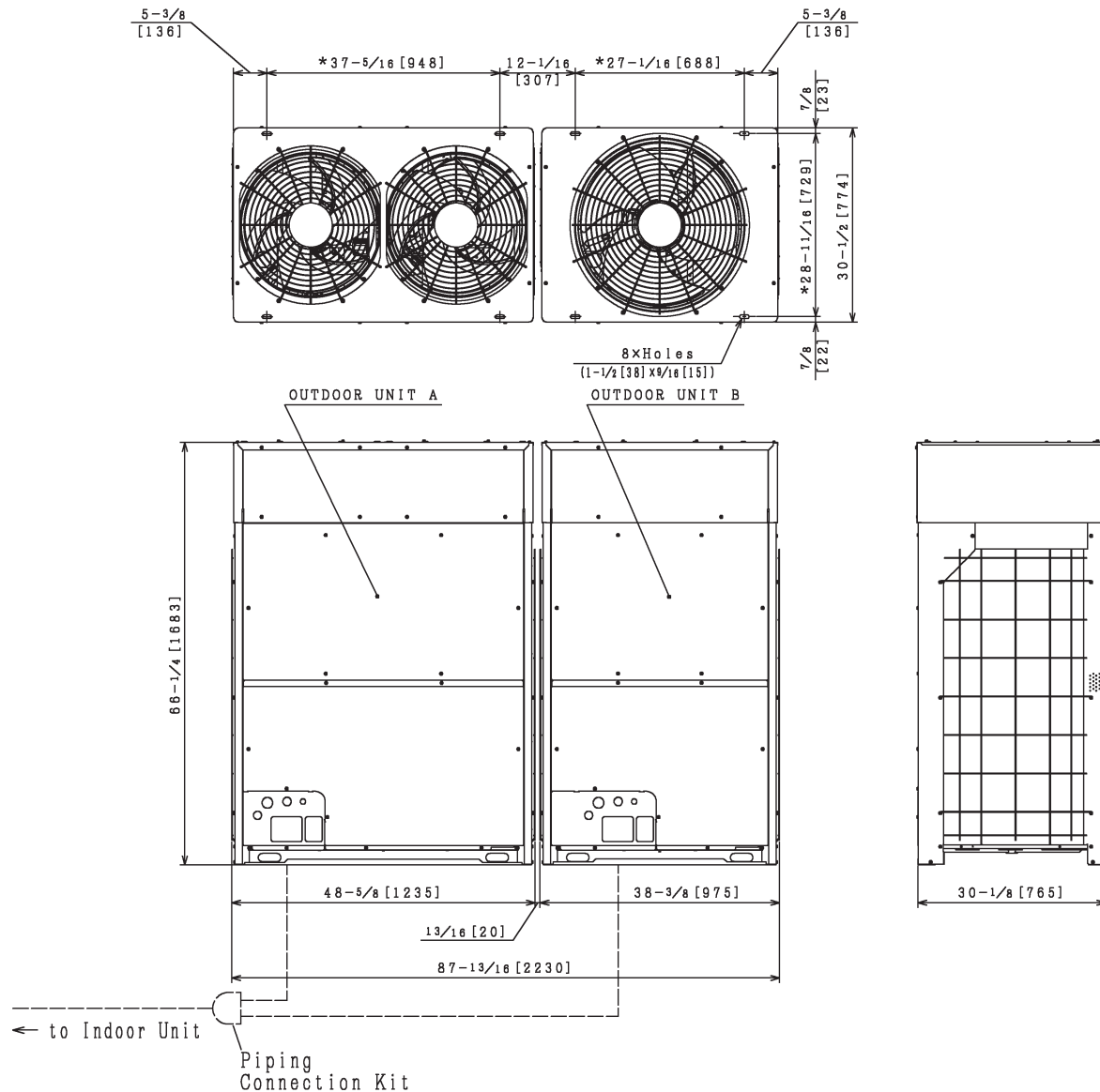
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

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System Dimensions

Heat Pump Model: (Y,H)VAHP216B42S

Unit: inch (mm)



NOTES:

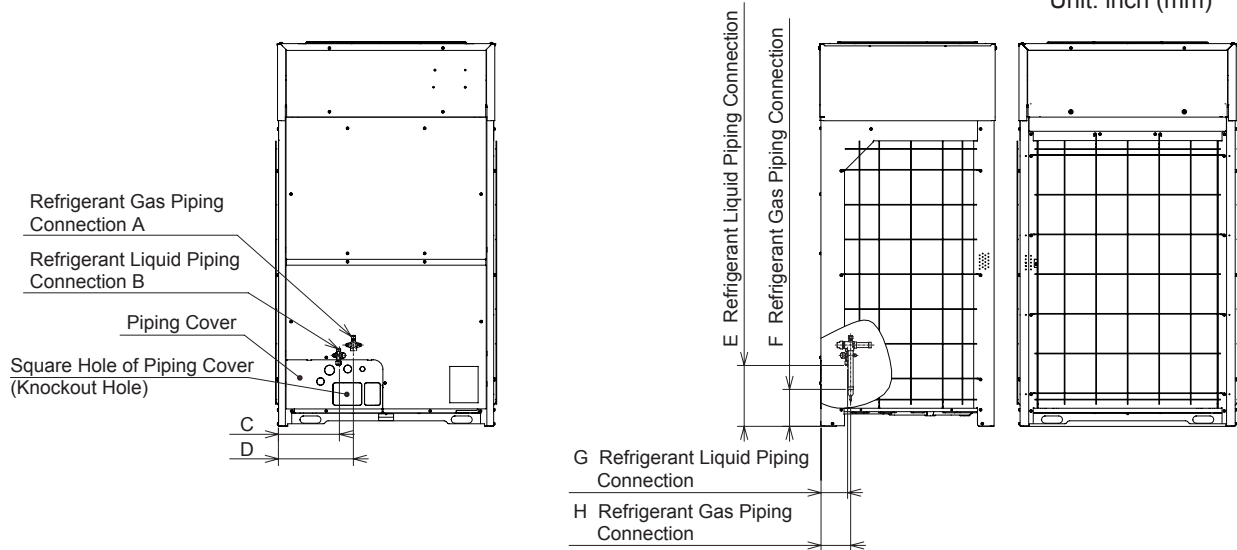
- Make sure that the outdoor unit A is placed on the indoor unit side.
Arrange the outdoor units according to the capacity, $A \geq B$.
- Check "Installation Manual" for the piping connection kit and piping connection size.
- Check "Dimensional Drawing" for the dimension of piping outlet and wiring outlet.
- This drawing shows that there is $13\frac{1}{16}$ inch [20mm] clearance between the base units.
In case of the outdoor unit with "Snow Protection Hood (Optional Parts)", the clearance between the base units of more than $1\frac{15}{16}$ inch [50mm] is required.
- The dimensions marked with * 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.

Outdoor Unit Model	Combination of Base Unit Models	
	OUTDOOR UNIT A	OUTDOOR UNIT B
(H, Y) VAHP216B32S	(H, Y) VAHP144B32S	(H, Y) VAHP072B32S
(H, Y) VAHP216B42S	(H, Y) VAHP144B42S	(H, Y) VAHP072B42S

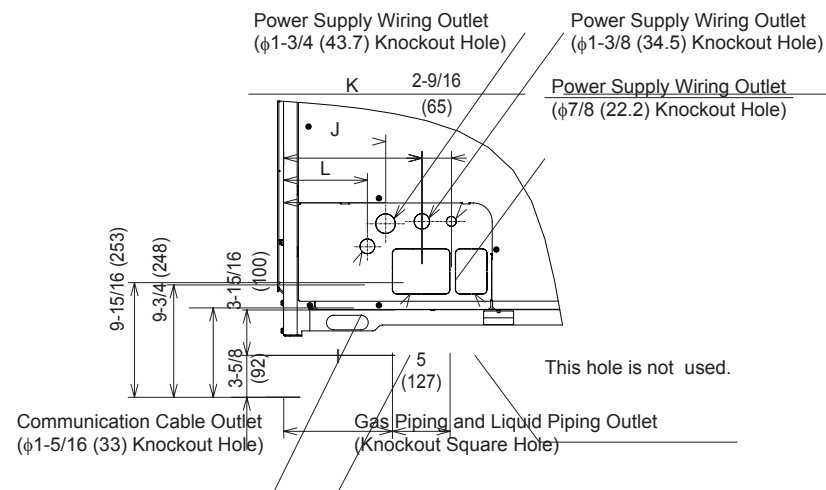
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Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201804

SUBMITTAL DATA SHEET

(Y,H)VAHP240B42S Job

Consists of two (Y,H)VAHP120B42S modules.

Name:

Location:

Purchaser:

Order No.:

Engineer:

Submitted To:

For:

Ref:

Approval:

Construction:

Submitted By:

Date:

Unit Designation:

Schedule No.:

Model No.:

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

(Heat Pump 460V)

Category	Ton		20RT (10RT+10RT)	
Model (Combination)			(H,Y)VAHP240B42S	
Model (Individual)	Unit A		(H,Y)VAHP120B42S	
	Unit B		(H,Y)VAHP120B42S	
	Unit C		-	
Power Supply			460V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h (kW)	240,000 (70.3)
	Heating	Capacity (Nominal)	Btu/h (kW)	270,000 (79.1)
Efficiency Ratings *2	Cooling	Capacity (Rated)	Btu/h (kW)	228,000 (66.9)
		EER	(W/W)	10.6 (3.11)
		IEER	(Wh/Wh)	21.0 (6.16)
	Heating	Capacity (Rated)	Btu/h (kW)	258,000 (75.7)
		COP	W/W	3.51
		Capacity	Btu/h (kW)	178,000 (52.2)
Operating Range *3	Cooling	Indoor	°F WB (°C WB)	59(15) ~ 73(23)
		Outdoor	°F DB (°C DB)	23(-5) ~ 122(50)
		Outdoor (with Snow Protection Hood)	°F DB (°C DB)	14(-23) ~ 109(43)
	Heating	Outdoor (with Cooling Damper Kit)	°F DB (°C DB)	-10(-20) ~ 109(43)
		Indoor	°F DB (°C DB)	59(15) ~ 80(27)
		Outdoor	°F WB (°C WB)	-13(-25) ~ 59(15)
Cabinet Color (Munsell Code)			2.5Y 8/2	
Outer Dimensions	Height x Width x Depth		in	(66-3/16 x 48-5/8 x 30-1/2) x 2
			mm	(1683 x 1235 x 774) x 2
Weight	Net	lbs (kg)	725 x 2	(329x2)
	Gross	lbs (kg)	770 x 2	(349x2)
Connection Ratio	Standard (Extended)	%	130(150) - 80	
	Max. (Recommended) Indoor Units/System	Q'ty	52 (18)	
Heat Exchanger	Type	-	Multi-Pass Cross-Finned Tube	
	Material	-	Cu-Al (Anti-corrosion)	
Compressor	Type	Inverter 1	-	AA50PHD×4
		Inverter 2	-	-
	Motor Output (Pole)	kW (Pole)	(5.4(6)×2) × 2	
	Start Method	-	inverter	
	Operation Range	%	11 ~ 100	
Crank Case Heater	Refrigeration Oil Type	-	FVC68D	
	W×Q'ty	-	34.2 (230V) × 12	
Fan	Type	-	Propeller Fan	
	Motor Output (Pole)	kW (Pole)	(0.39(8)×2) × 2	
	Quantity	Q'ty	4	
	Airflow Rate	cfm (m³/min)	9,037 × 2 (256×2)	
	External Static Pressure *4	in. W.G. (Pa)	0-0.32 (0-80)	
Electrical	Drive	-	Direct-drive	
	Min Circuit Amps	A	24 × 2	
	Maximum Overcurrent Protective Device	A	30 × 2	
	Maximum Fuse Size	A	30 × 2	
Sound Pressure Level	Cooling	dB (A)	66	
	Heating	dB (A)	66	
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	
	Factory Charge Amount	lbs (kg)	20.9 × 2 (9.9×2)	
Refrigeration Oil	Factory Charge Amount	gal/Unit (L/Unit)	2.1 × 2 (7.9×2)	
Defrost Method			Reversed Refrigerant Cycle	
Main Refrigerant Piping (Heat Pump)	Gas Line	in (mm)	1-3/8 (34.93)	
	Liquid Line	in (mm)	3/4 (19.05)	

NOTES:

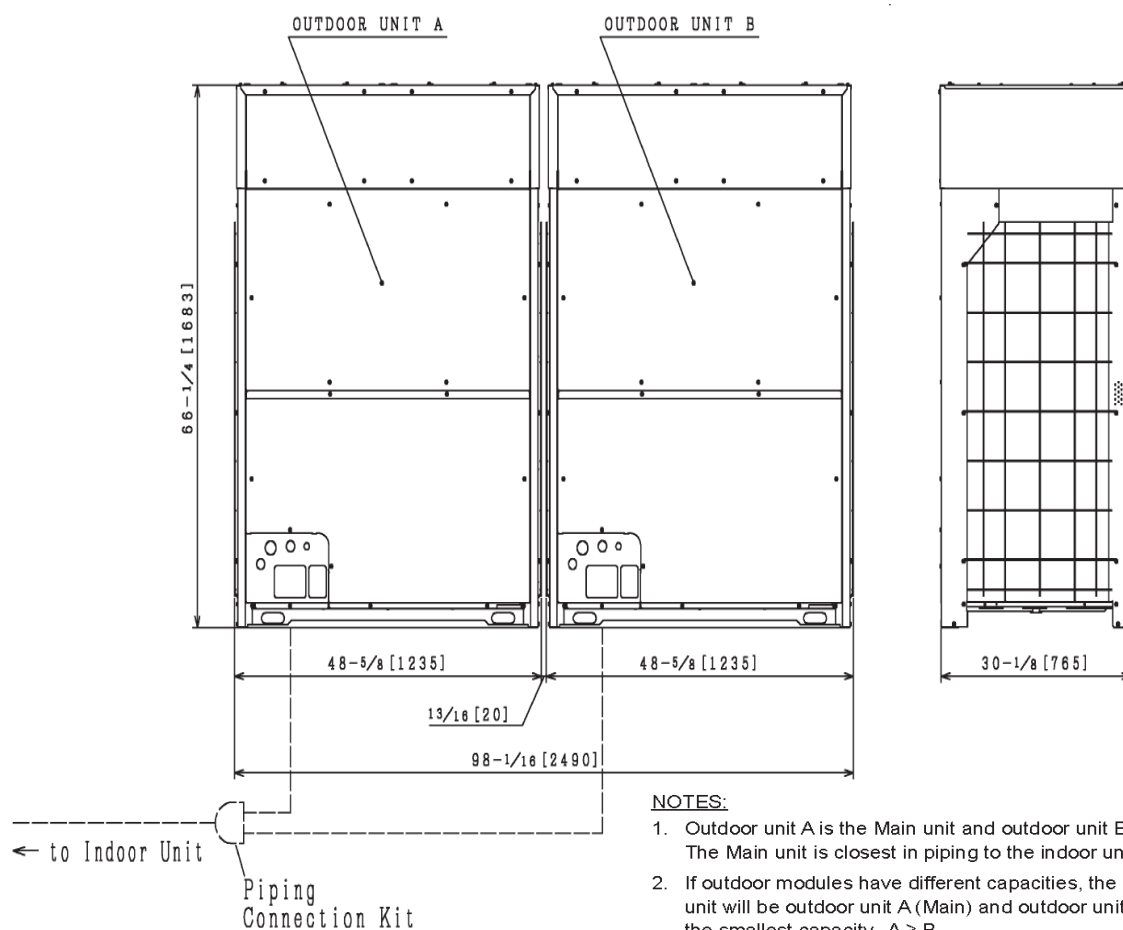
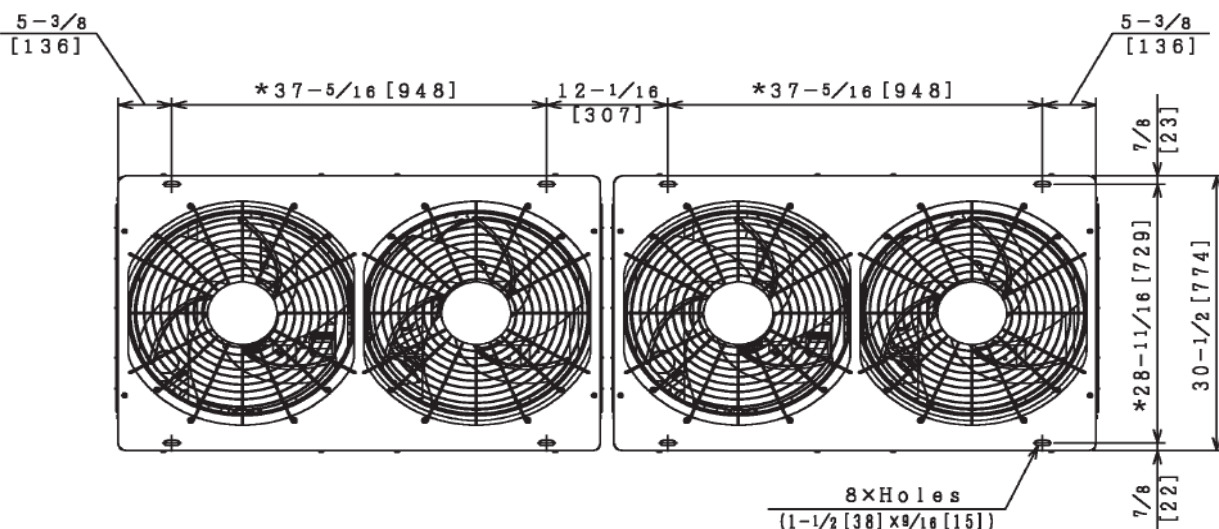
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

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System Dimensions

Heat Pump Model: (Y,H)VAHP240B42S

Unit: inch (mm)



NOTES:

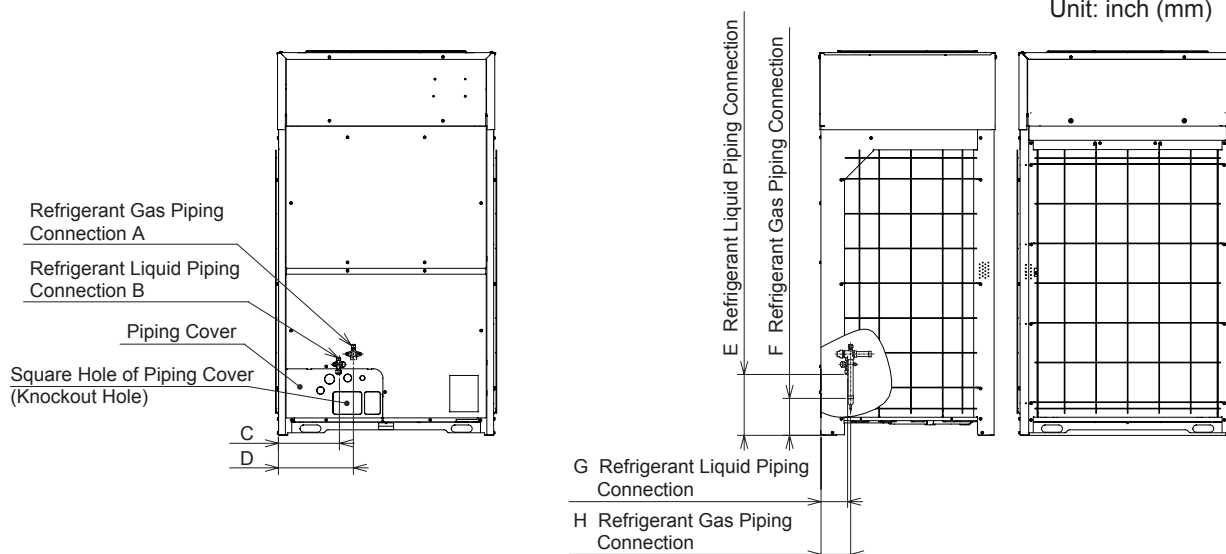
1. Outdoor unit A is the Main unit and outdoor unit B is the Sub unit. The Main unit is closest in piping to the indoor unit.
2. If outdoor modules have different capacities, the largest capacity unit will be outdoor unit A (Main) and outdoor unit B (Sub) will be the smallest capacity. $A \geq B$.
3. Piping connection kits and piping sizes are identified in the "Installation Manual".
4. The dimensions marked with " * " indicate the mounting pitch dimensions for anchor bolts.
5. 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.
6. Modifications to the anchoring locations for the outdoor units are required for applications with clearances greater than 13/16 inch [20mm] between outdoor modules.
7. "Dimensional Drawing of Base Unit" are used for dimensions of piping and wiring outlets.

Outdoor Unit Model	Combination of Base Unit Models	
	OUTDOOR UNIT A	OUTDOOR UNIT B
(H, Y) VAHP240B32S	(H, Y) VAHP120B32S	(H, Y) VAHP120B32S
(H, Y) VAHP240B42S	(H, Y) VAHP120B42S	(H, Y) VAHP120B42S
(H, Y) VAHP264B32S	(H, Y) VAHP144B32S	(H, Y) VAHP120B32S
(H, Y) VAHP264B42S	(H, Y) VAHP144B42S	(H, Y) VAHP120B42S
(H, Y) VAHP288B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S
(H, Y) VAHP288B32S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S

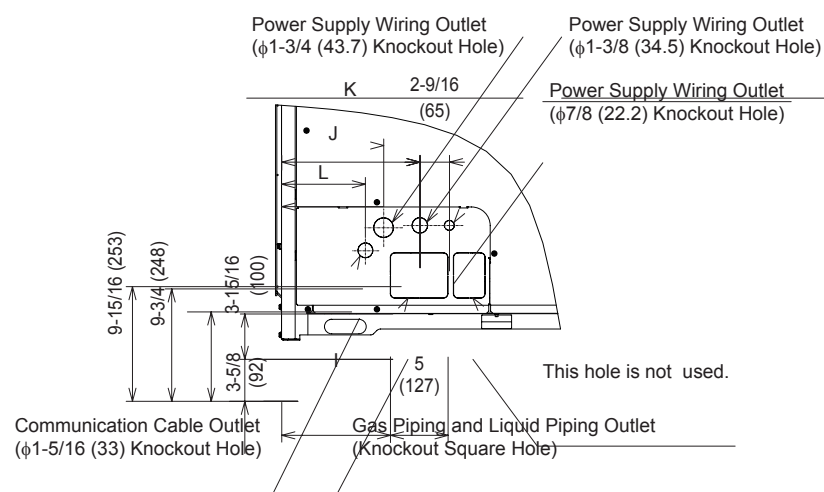
version 201804

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201804

SUBMITTAL DATA SHEET

(Y,H)VAHP264B42S

Consists of one (Y,H)VAHP144B42S and one (Y,H)VAHP120B42S module.

Job Name:			Location:		
Purchaser:			Order No.:		
Engineer:					
Submitted To:		For:	Ref:	Approval:	
				Construction:	
Submitted By:			Date:		
Unit Designation:			Schedule No.:		Model No.:
			(Heat Pump 460V)		

(Heat Pump 460V)

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

NOTES:

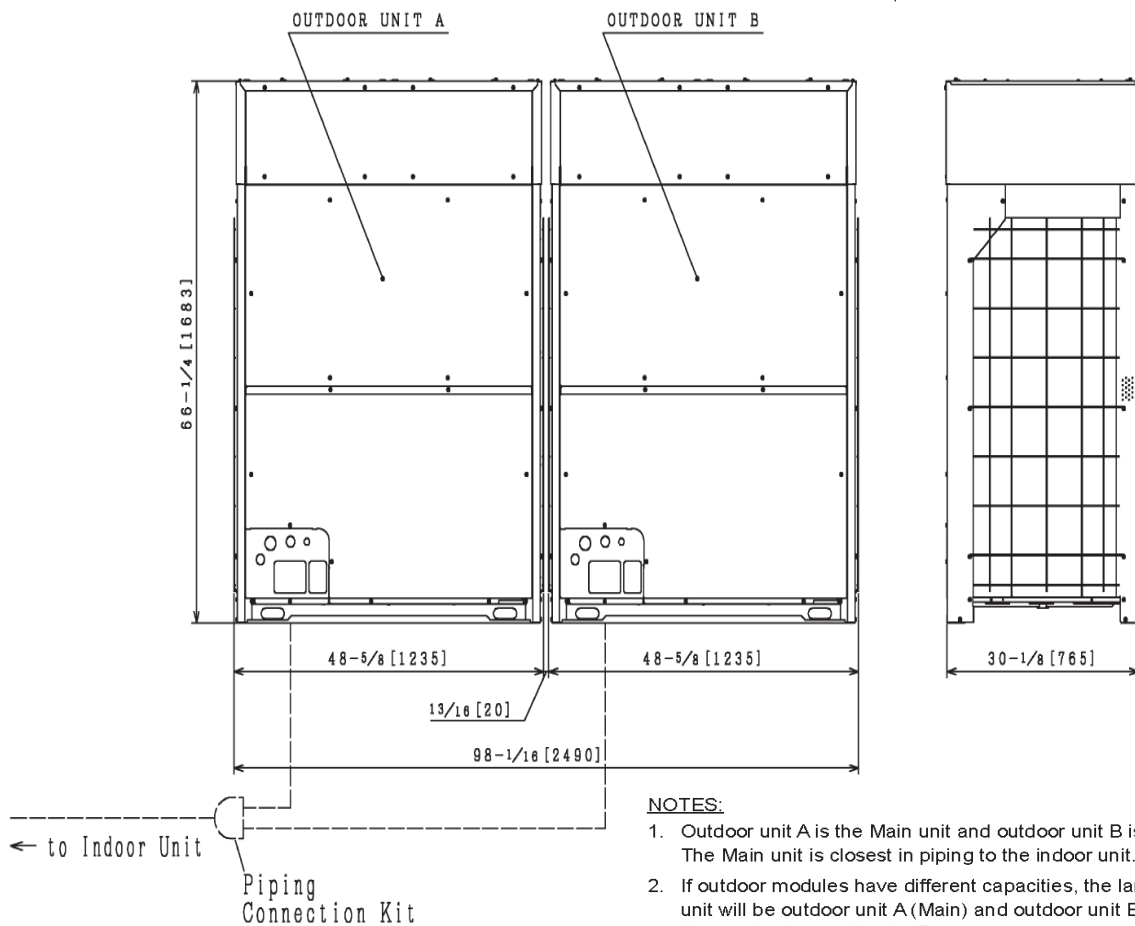
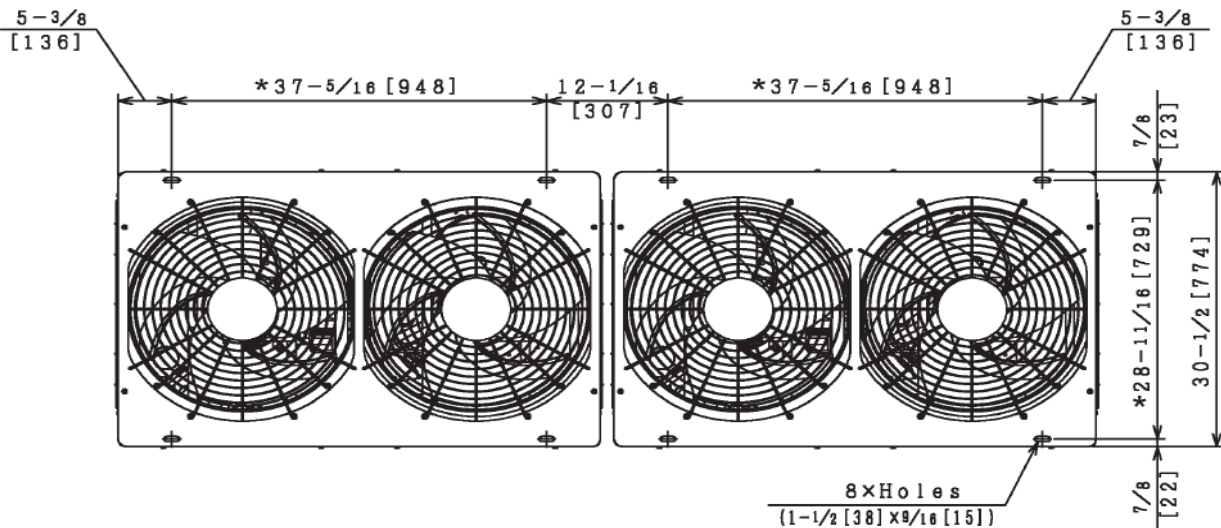
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

Category	Ton		22RT (12RT+10RT)	
Model (Combination)			(H,Y)VAHP264B42S	
Model (Individual)	Unit A			(H,Y)VAHP144B42S
	Unit B			(H,Y)VAHP120B42S
	Unit C			-
Power Supply			460V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h (kW)	264,000 (77.4)
	Heating	Capacity (Nominal)	Btu/h (kW)	297,000 (87.0)
Efficiency Rating*2	Cooling	Capacity (Rated)	Btu/h (kW)	252,000 (73.9)
		EER	Btu/Wh (W/W)	10.0 (2.93)
		IEER	Btu/Wh (Wh/Wh)	21.1 (6.18)
	Heating	Capacity (Rated)	Btu/h (kW)	282,000 (82.6)
	High	COP	W/W	3.70
	Heating	Capacity	Btu/h (kW)	196,000 (57.4)
	Low	COP	W/W	2.26
Operating Range *3	Indoor			°F WB (°C WB) 59(15) ~ 73(23)
	Outdoor			°F DB (°C DB) 23(-5) ~ 122(50)
	Outdoor (with Snow Protection Hood)			°F DB (°C DB) 14(-23) ~ 109(43)
	Outdoor (with Damper Kit)			°F DB (°C DB) -10(-20) ~ 109(43)
Heating Operating Range	Indoor			°F DB (°C DB) 59(15) ~ 80(27)
	Outdoor			°F WB (°C WB) -13(-25) ~ 59(15)
Cabinet Color (Munsell Code)			2.5Y 8/2	
Outer Dimensions	Height x Width x Depth	in	(66-1/4 x 48-5/8 x 30-1/2) x 2	
		mm	(1683 x 1235 x 774) x 2	
Weight	Net	lbs (kg)	728+725 (330+329)	
	Gross	lbs (kg)	772+770 (350+349)	
Connection Ratio	Standard (Extended)			% 130(150) - 55
	Max. (Recommended) Indoor Units/System			Q'ty 56 (20)
Heat Exchanger	Type			- Multi-Pass Cross-Finned Tube
	Material			- Cu-Al (Anti-corrosion)
Compressor	Type	Inverter 1		
		Inverter 2		
	Motor Output (Pole)			kW (Pole) (6.4(6)×2)+(5.4(6)×2)
	Start Method			- inverter
	Operation Range			% 11 ~ 100
	Refrigeration Oil Type			- FVC68D
Crank Case Heater			W×Q'ty	34.2 (230V) ×12
Fan	Type			- Propeller Fan
	Motor Output (Pole)			kW (Pole) (0.39(8)×2) × 2
	Quantity			Q'ty 4
	Airflow Rate	cfm (m³/min)	9,037 × 2 (256×2)	
	External Static Pressure *4	in.W.G. (Pa)	0-0.32 (0-80)	
	Drive			- Direct-drive
Electrical	Min Circuit Amps			A 30+24
	Maximum Overcurrent Protective Device			A 35+30
	Maximum Fuse Size			A 35+30
Sound Pressure Level	Cooling			dB (A) 67
	Heating			dB (A) 67
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
	Factory Charge Amount	lbs (kg)	23.6+20.9 (10.7+9.9)	
Refrigeration Oil	Factory Charge Amount	gal/Unit (L/Unit)	2.1 × 2 (7.9×2)	
Defrost Method			- Reversed Refrigerant Cycle	
Main Refrigerant Piping (Heat Recovery)	Gas Line	in (mm)	1-3/8 (34.93)	
	Liquid Line	in (mm)	3/4 (19.05)	

System Dimensions

Heat Pump Model: (Y,H)VAHP264B42S

Unit: inch (mm)



NOTES:

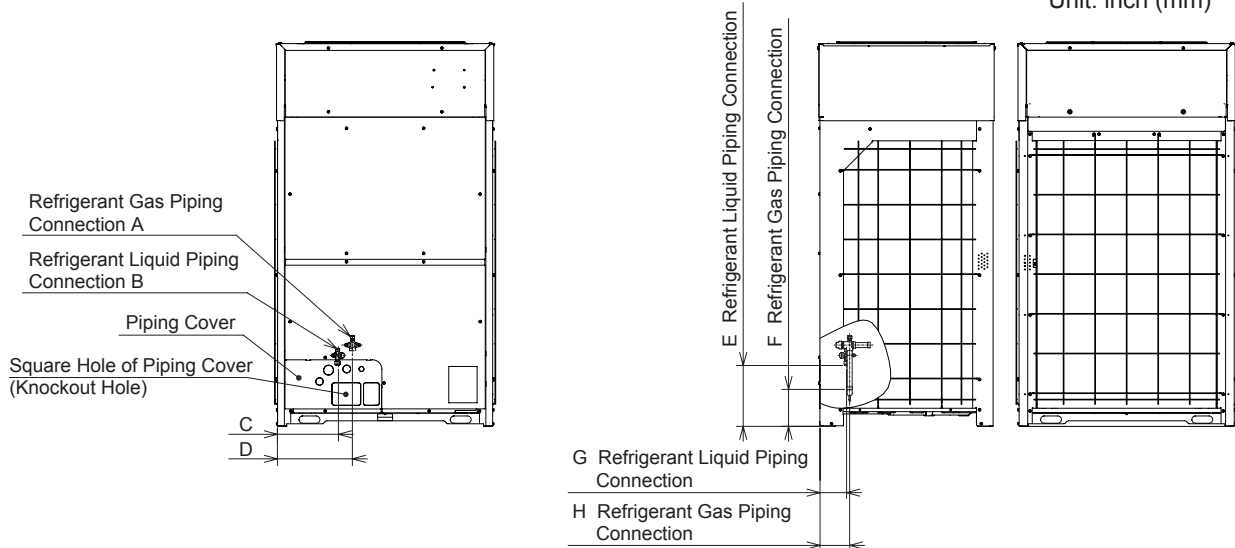
- Outdoor unit A is the Main unit and outdoor unit B is the Sub unit. The Main unit is closest in piping to the indoor unit.
- If outdoor modules have different capacities, the largest capacity unit will be outdoor unit A (Main) and outdoor unit B (Sub) will be the smallest capacity. $A \geq B$.
- Piping 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.

Outdoor Unit Model	Combination of Base Unit Models	
	OUTDOOR UNIT A	OUTDOOR UNIT B
(H, Y) VAHP240B32S	(H, Y) VAHP120B32S	(H, Y) VAHP120B32S
(H, Y) VAHP240B42S	(H, Y) VAHP120B42S	(H, Y) VAHP120B42S
(H, Y) VAHP264B32S	(H, Y) VAHP144B32S	(H, Y) VAHP120B32S
(H, Y) VAHP264B42S	(H, Y) VAHP144B42S	(H, Y) VAHP120B42S
(H, Y) VAHP288B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S
(H, Y) VAHP288B32S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S

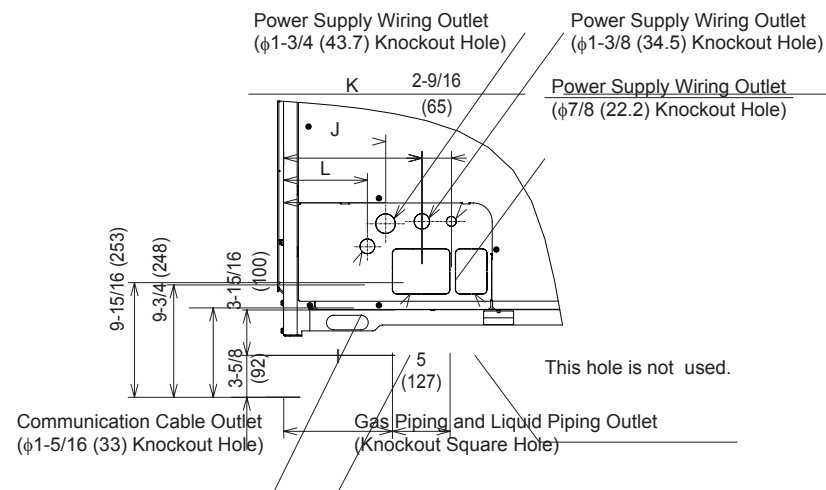
version 201804

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201804

SUBMITTAL DATA SHEET

(Y,H)VAHP288B42S

Consists of two (Y,H)VAHP144B42S modules.

Job Name:			Location:		
Purchaser:			Order No.:		
Engineer:					
Submitted To:		For:	Ref:	Approval:	
Submitted By:		Date:			
Unit Designation:			Schedule No.:		Model No.:
(Heat Pump 460V)					

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

NOTES:

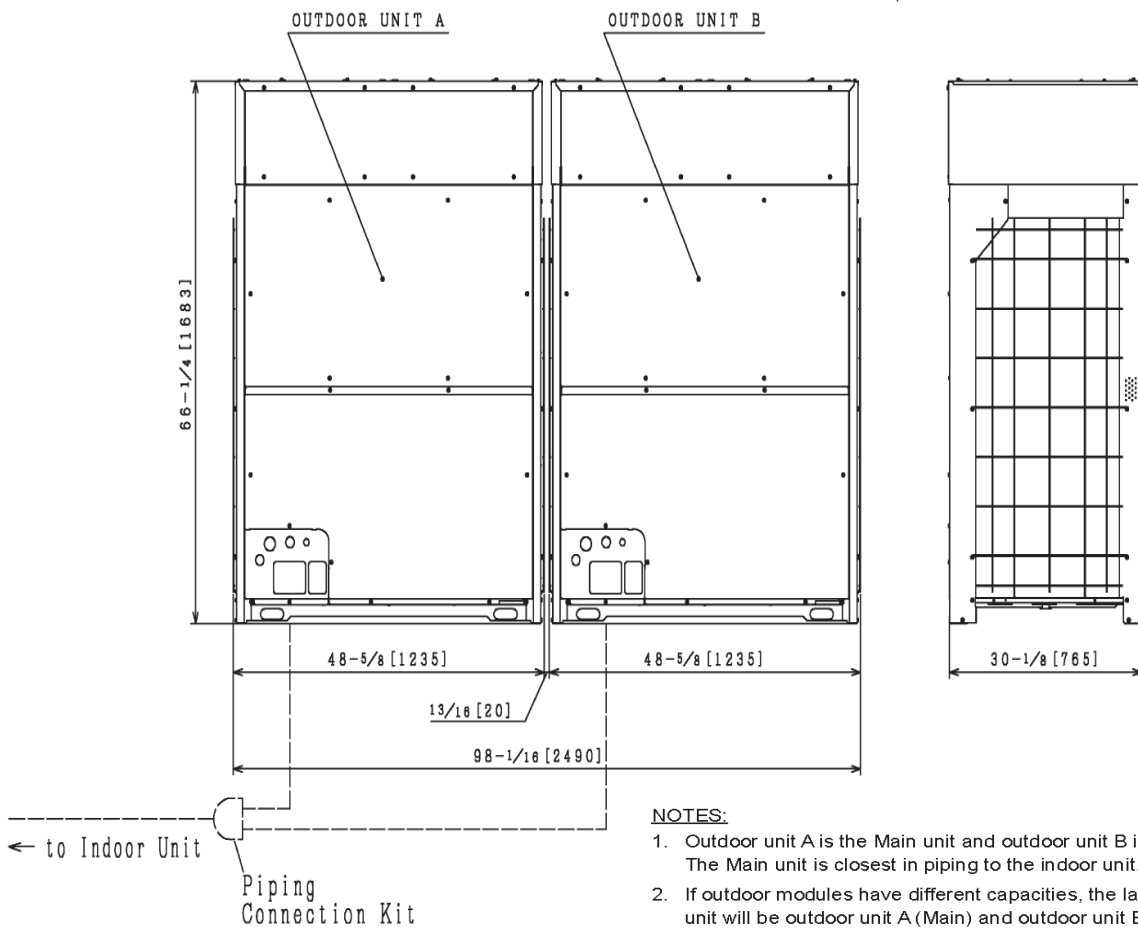
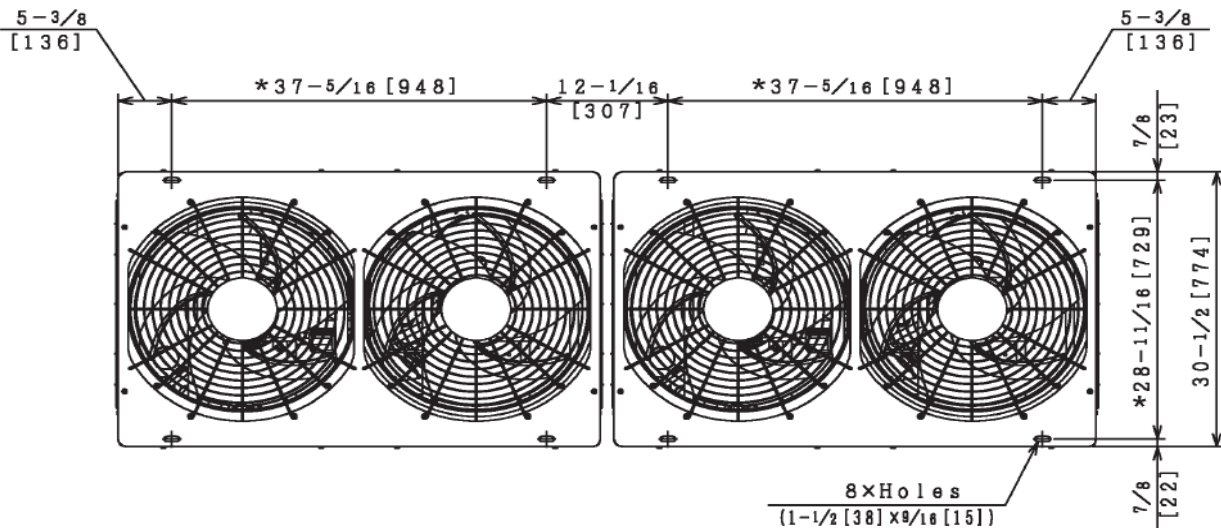
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

Category	Ton		24RT (12RT+12RT)	
Model (Combination)			(H,Y)VAHP288B42S	
Model (Individual)	Unit A		(H,Y)VAHP144B42S	
	Unit B		(H,Y)VAHP144B42S	
	Unit C		-	
Power Supply			460V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h (kW)	288,000 (84.4)
	Heating	Capacity (Nominal)	Btu/h (kW)	324,000 (95.0)
Efficiency Rating*2	Cooling	Capacity (Rated)	Btu/h (kW)	276,000 (80.9)
		EER	Btu/Wh (W/W)	9.5 (2.78)
		IEER	Btu/Wh (Wh/Wh)	19.4 (5.69)
		Capacity (Rated)	Btu/h (kW)	308,000 (90.3)
	Heating High	COP	W/W	3.42
		Capacity	Btu/h (kW)	214,000 (62.7)
	Heating Low	COP	W/W	2.21
		Capacity	Btu/h (kW)	214,000 (62.7)
Operating Range *3	Indoor	°F WB (°C WB)	59(15) ~ 73(23)	
	Outdoor	°F DB (°C DB)	23(-5) ~ 122(50)	
	Outdoor (with Snow Protection Hood)	°F DB (°C DB)	14(-23) ~ 109(43)	
	Outdoor (with Damper Kit)	°F DB (°C DB)	-10(-20) ~ 109(43)	
Heating Operating Range	Indoor	°F DB (°C DB)	59(15) ~ 80(27)	
	Outdoor	°F WB (°C WB)	-13(-25) ~ 59(15)	
Cabinet Color (Munsell Code)			2.5Y 8/2	
Outer Dimensions	Height x Width x Depth		in (66-1/4 x 48-5/8 x 30-1/2) x 2	
			mm (1683 x 1235 x 774) x 2	
Weight	Net	lbs (kg)	728 x 2 (330 x 2)	
	Gross	lbs (kg)	772 x 2 (350 x 2)	
Connection Ratio	Standard (Extended)	%	130(150) - 55	
	Max. (Recommended) Indoor Units/System	Q'ty	56 (20)	
Heat Exchanger	Type	-	Multi-Pass Cross-Finned Tube	
	Material	-	Cu-Al (Anti-corrosion)	
Compressor	Type	Inverter 1	-	AA50PHD×4
		Inverter 2	-	-
	Motor Output (Pole)		kW (Pole)	(6.4(6) × 2) x 2
	Start Method		-	inverter
	Operation Range		%	11 ~ 100
	Refrigeration Oil Type		-	FVC68D
Crank Case Heater			W×Q'ty	34.2 (230V) ×12
Fan	Type	-	Propeller Fan	
	Motor Output (Pole)	kW (Pole)	(0.39(8) × 2) × 2	
	Quantity	Q'ty	4	
	Airflow Rate	cfm (m ³ /min)	9,037 × 2 (256×2)	
	External Static Pressure *4	in.W.G. (Pa)	0-0.32 (0-80)	
	Drive	-	Direct-drive	
Electrical	Min Circuit Amps	A	30 x 2	
	Maximum Overcurrent Protective Device	A	35 x 2	
	Maximum Fuse Size	A	35 x 2	
Sound Pressure Level	Cooling	dB (A)	68	
	Heating	dB (A)	68	
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	
	Factory Charge Amount	lbs (kg)	23.6 x 2 (10.7 x 2)	
Refrigeration Oil	Factory Charge Amount	gal/Unit (L/Unit)	2.1 x 2 (7.9×2)	
Defrost Method			-	Reversed Refrigerant Cycle
Main Refrigerant Piping (Heat Recovery)	Gas Line	in (mm)	1-3/8 (34.93)	
	Liquid Line	in (mm)	3/4 (19.05)	

System Dimensions

Heat Pump Model: (Y,H)VAHP288B42S

Unit: inch (mm)



NOTES:

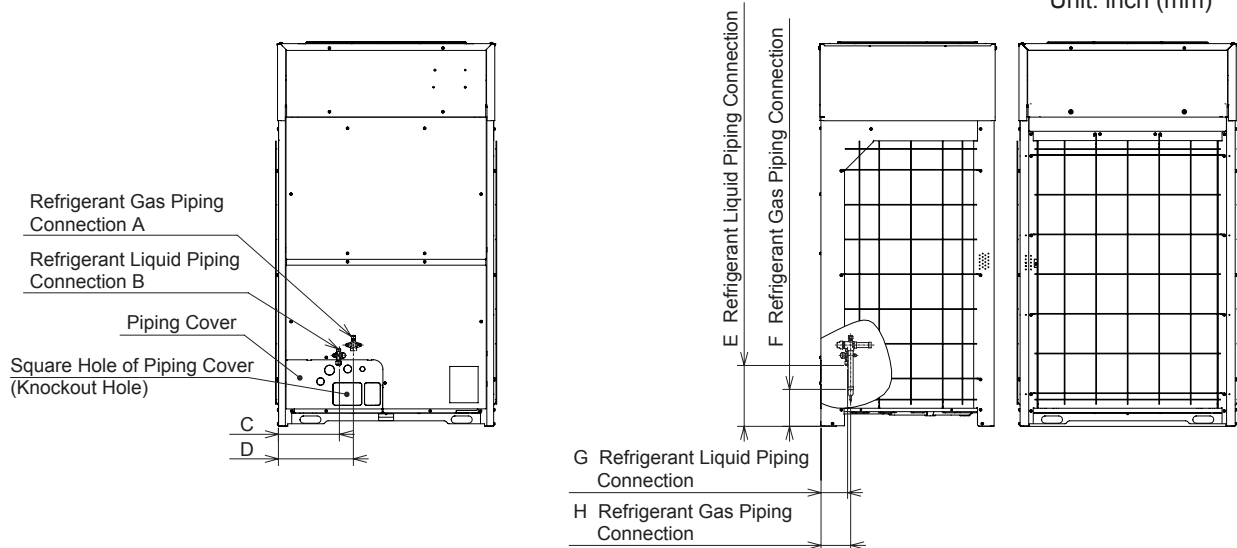
- Outdoor unit A is the Main unit and outdoor unit B is the Sub unit. The Main unit is closest in piping to the indoor unit.
- If outdoor modules have different capacities, the largest capacity unit will be outdoor unit A (Main) and outdoor unit B (Sub) will be the smallest capacity. $A \geq B$.
- Piping 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.

Outdoor Unit Model	Combination of Base Unit Models	
	OUTDOOR UNIT A	OUTDOOR UNIT B
(H, Y) VAHP240B32S	(H, Y) VAHP120B32S	(H, Y) VAHP120B32S
(H, Y) VAHP240B42S	(H, Y) VAHP120B42S	(H, Y) VAHP120B42S
(H, Y) VAHP264B32S	(H, Y) VAHP144B32S	(H, Y) VAHP120B32S
(H, Y) VAHP264B42S	(H, Y) VAHP144B42S	(H, Y) VAHP120B42S
(H, Y) VAHP288B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S
(H, Y) VAHP288B32S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S

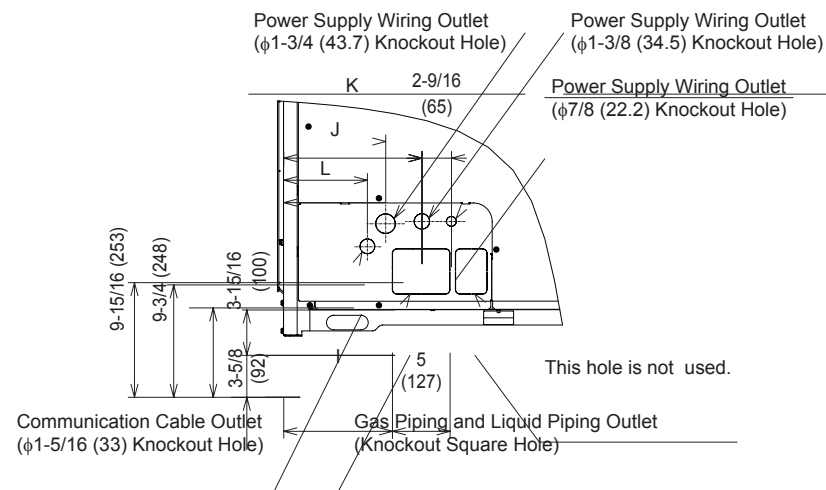
version 201804

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



Model	Gas	Liquid	A	B	C	D	E	F	G	H	I	J	K	L
72	$\phi 7/8$ (22.2)	$\phi 1/2$ (12.7)	$\phi 7/8$ (22.2)	$\phi 3/8$ (9.52)	10-3/8 (264)	13-1/16 (331)	10-9/16 (268)	6-7/16 (163)	4-5/8 (117)	5-3/16 (131)	9-7/16 (240)	8-7/8 (225)	12 (305)	7-5/16 (185)
96	$\phi 7/8$ (22.2)	$\phi 1/2$ (12.7)												
120	$\phi 1-1/8$ (28.58)	$\phi 1/2$ (12.7)	$\phi 1$ (25.4)	$\phi 1/2$ (12.7)	6-7/8 (174)	9-7/16 (239)	10-3/8 (263)	6-5/16 (160)	4-7/16 (112)	5-1/8 (130)	5-13/16 (147)	5-3/16 (132)	8-3/8 (212)	3-5/8 (92)
144	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)												
168	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)	6-15/16 (177)	9-7/16 (239)	10-3/16 (259)	6-5/16 (160)	5-3/16 (132)	6 (152)	5-13/16 (147)	5-3/16 (132)	8-3/8 (212)	3-5/8 (92)
192	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)												

Refrigerant Piping Connection and Wiring Outlet



version 201804

SUBMITTAL DATA SHEET

26 RT (Y,H)VAHP312B42S

Consists of one (Y,H)VAHP168B42S and one (Y,H)VAHP144B42S module.

Job Name:

Location:

Purchaser:

Order No.:

Engineer:

Submitted To:

For:

Ref:

Approval:

Construction:

Submitted By:

Date:

Unit Designation:

Schedule No.:

Model No.:

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

NOTES:

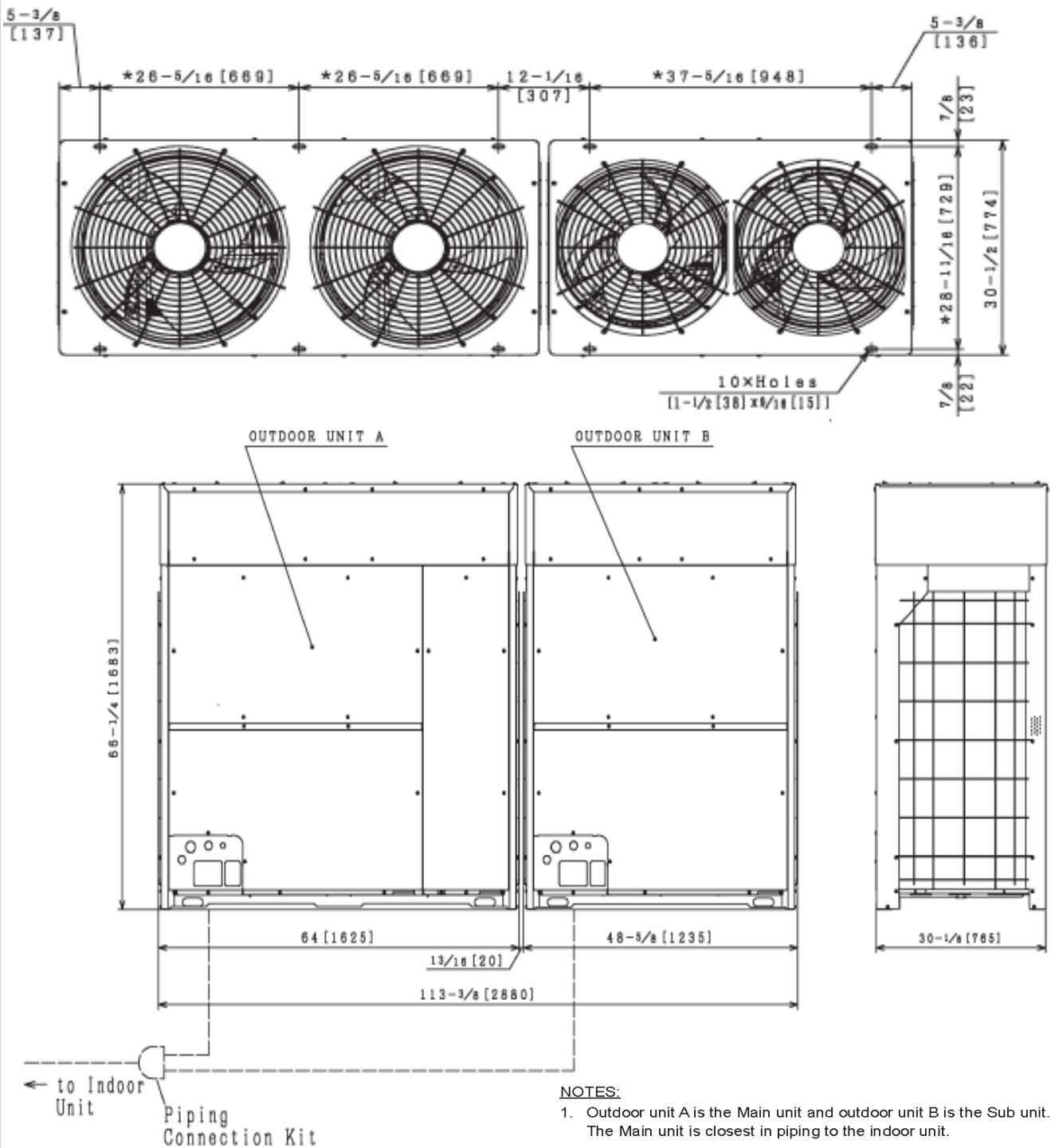
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

Category	Ton		26RT (14RT+12RT)	
Model (Combination)			(H,Y)VAHP312B42S	
Model (Individual)	Unit A			(H,Y)VAHP168B42S
	Unit B			(H,Y)VAHP144B42S
	Unit C			-
Power Supply			460V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h (kW)	312,000 (91.4)
	Heating	Capacity (Nominal)	Btu/h (kW)	351,000 (102.9)
Efficiency Rating*2	Cooling	Capacity (Rated)	Btu/h (kW)	298,000 (87.3)
		EER	Btu/Wh (W/W)	9.7 (2.83)
		IEER	Btu/Wh (Wh/Wh)	20.3 (5.96)
		Capacity (Rated)	Btu/h (kW)	334,000 (97.9)
	Heating	COP	W/W	3.37
		Capacity	Btu/h (kW)	232,000 (68.0)
	Low	COP	W/W	2.05
		Capacity	Btu/h (kW)	232,000 (68.0)
Operating Range *3	Indoor	°F WB (°C WB)		59(15) ~ 73(23)
	Outdoor	°F DB (°C DB)		23(-5) ~ 122(50)
	Outdoor (with Snow Protection Hood)	°F DB (°C DB)		14(-23) ~ 109(43)
	Outdoor (with Damper Kit)	°F DB (°C DB)		-10(-20) ~ 109(43)
Heating Operating Range	Indoor	°F DB (°C DB)		59(15) ~ 80(27)
	Outdoor	°F WB (°C WB)		-13(-25) ~ 59(15)
Cabinet Color (Munsell Code)			2.5Y 8/2	
Outer Dimensions	Height x Width x Depth	in	(66-1/4 x 64 x 30-1/2) + (66-1/4 x 48-5/8 x 30-1/2)	
		mm	(1683 x 1625 x 774) + (1683 x 1235 x 774)	
Weight	Net	lbs	(kg)	849 +728 (385 +330)
	Gross	lbs	(kg)	900 +772 (408 + 350)
Connection Ratio	Standard (Extended)	%		130(150) - 55
	Max. (Recommended) Indoor Units/System	Q'ty		64 (22)
Heat Exchanger	Type	-		Multi-Pass Cross-Finned Tube
	Material	-		Cu-Al (Anti-corrosion)
Compressor	Type	Inverter 1	-	
		Inverter 2	-	
	Motor Output (Pole)	kW (Pole)		(7.1(6)×2)+(6.4(6) × 2)
	Start Method	inverter		
	Operation Range	%		11 ~ 100
	Refrigeration Oil Type	-		FVC68D
Crank Case Heater	W×Q'ty		34.2 (230V) ×12	
Fan	Type	-		Propeller Fan
	Motor Output (Pole)	kW (Pole)		(0.48(8)×2)+(0.39(8) × 2)
	Quantity	Q'ty		4
	Airflow Rate	cfm	(m³/min)	11,614 +9,037 (329+256)
	External Static Pressure *4	in.W.G. (Pa)		0-0.32 (0-80)
	Drive	-		Direct-drive
Electrical	Min Circuit Amps	A		34+30
	Maximum Overcurrent Protective Device	A		40+35
	Maximum Fuse Size	A		40+35
Sound Pressure Level	Cooling	dB (A)		68
	Heating	dB (A)		68
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
Refrigeration Oil	Factory Charge Amount	lbs	(kg)	24.9+23.6 (11.3+10.7)
	Factory Charge Amount	gal/Unit	(L/Unit)	2.2+2.1 (8.4+7.9)
Defrost Method	-		Reversed Refrigerant Cycle	
Main Refrigerant Piping (Heat Recovery)	Gas Line	in	(mm)	1-3/8 (34.93)
	Liquid Line	in	(mm)	3/4 (19.05)

System Dimensions

Heat Pump Model: (Y,H)VAHP312B42S

Unit: inch (mm)



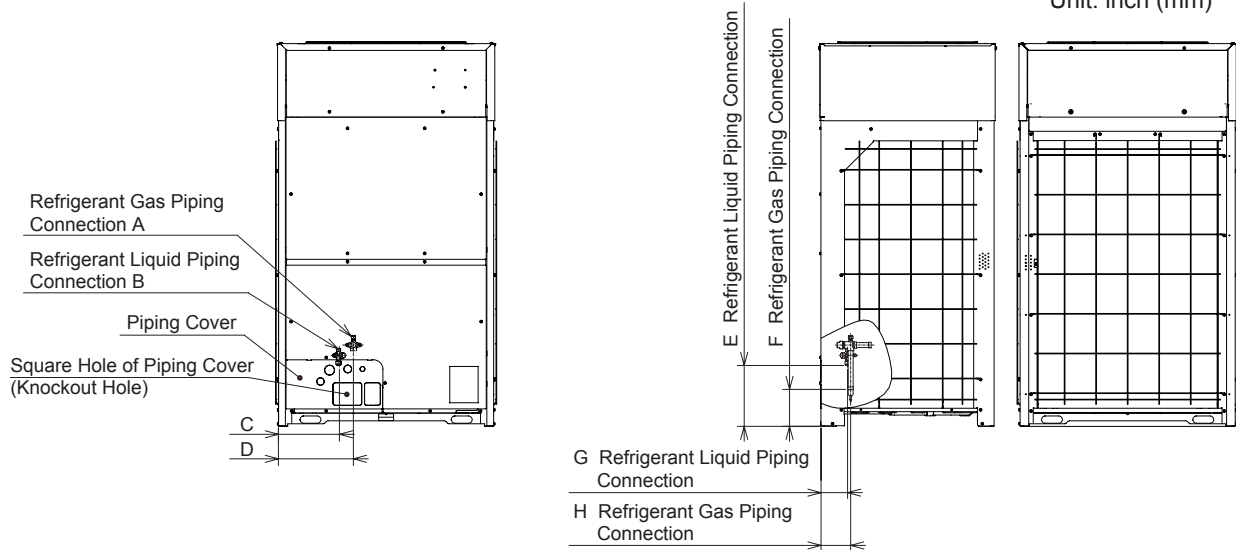
NOTES:

- Outdoor unit A is the Main unit and outdoor unit B is the Sub unit. The Main unit is closest in piping to the indoor unit.
- If outdoor modules have different capacities, the largest capacity unit will be outdoor unit A (Main) and outdoor unit B (Sub) will be the smallest capacity. $A \geq B$.
- 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 $13\frac{1}{16}$ 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 $13\frac{1}{16}$ inch [20mm] between outdoor modules.
- "Dimensional Drawing of Base Unit" are used for dimensions of piping and wiring outlets.

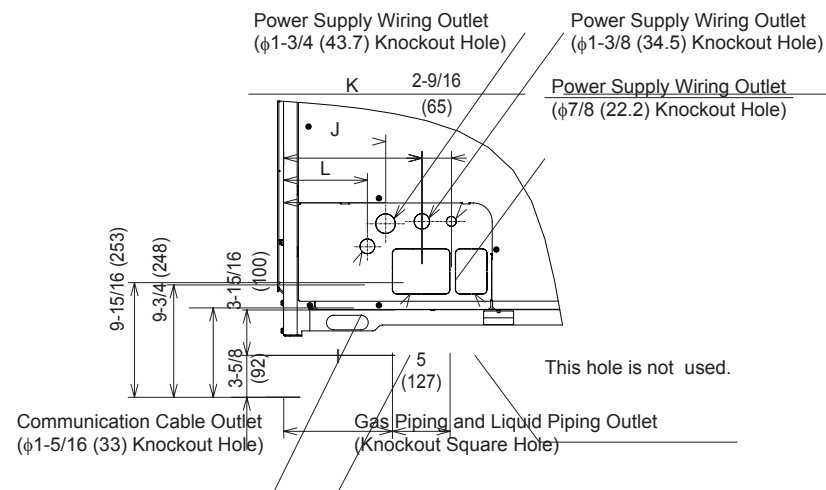
Outdoor Unit Model	Combination of Base Unit Models	
	OUTDOOR UNIT A	OUTDOOR UNIT B
(H, Y) VAHP312B32S	(H, Y) VAHP168B32S	(H, Y) VAHP144B32S
(H, Y) VAHP312B42S	(H, Y) VAHP168B42S	(H, Y) VAHP144B42S
(H, Y) VAHP336B32S	(H, Y) VAHP192B32S	(H, Y) VAHP144B32S
(H, Y) VAHP336B42S	(H, Y) VAHP192B42S	(H, Y) VAHP144B42S

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



Model	Gas	Liquid	A	B	C	D	E	F	G	H	I	J	K	L
72	$\phi 7/8$ (22.2)	$\phi 1/2$ (12.7)	$\phi 7/8$ (22.2)	$\phi 3/8$ (9.52)	10-3/8 (264)	13-1/16 (331)	10-9/16 (268)	6-7/16 (163)	4-5/8 (117)	5-3/16 (131)	9-7/16 (240)	8-7/8 (225)	12 (305)	7-5/16 (185)
96	$\phi 7/8$ (22.2)	$\phi 1/2$ (12.7)												
120	$\phi 1-1/8$ (28.58)	$\phi 1/2$ (12.7)	$\phi 1$ (25.4)	$\phi 1/2$ (12.7)	6-7/8 (174)	9-7/16 (239)	10-3/8 (263)	6-5/16 (160)	4-7/16 (112)	5-1/8 (130)	5-13/16 (147)	5-3/16 (132)	8-3/8 (212)	3-5/8 (92)
144	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)												
168	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)	6-15/16 (177)	9-7/16 (239)	10-3/16 (259)	6-5/16 (160)	5-3/16 (132)	6 (152)	5-13/16 (147)	5-3/16 (132)	8-3/8 (212)	3-5/8 (92)
192	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)												

Refrigerant Piping Connection and Wiring Outlet



version 201804

SUBMITTAL DATA SHEET

(Y,H)VAHP336B42S

Consists of one (Y,H)VAHP192B42S and one (Y,H)VAHP144B42S module.

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

(Heat Pump 460V)

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced piping and electrical connections
- Design flexibility with long pipe lengths up to 3,280 ft. total and up to 360 ft. vertical distance between Outdoor Units and Indoor Units
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

NOTES:

1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

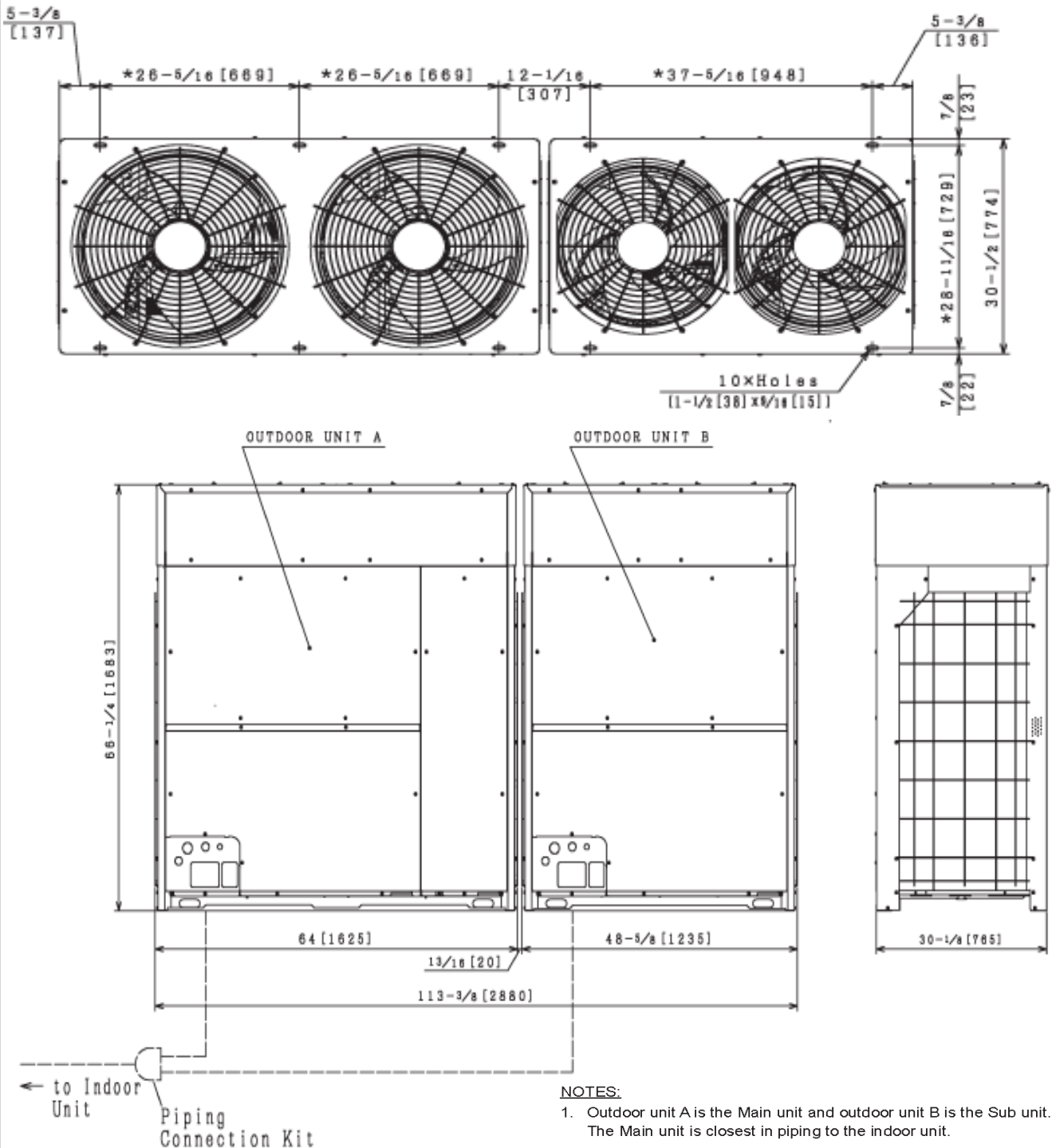
Category		Ton			28RT (16RT+12RT)	
Model (Combination)					(H,Y)VAHP336B42S	
Model (Individual)		Unit A			(H,Y)VAHP192B42S	
		Unit B			(H,Y)VAHP144B42S	
		Unit C			-	
Power Supply					460V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	336,000	(98.5)
	Heating	Capacity (Nominal)	Btu/h	(kW)	378,000	(110.8)
Efficiency Rating*2	Cooling	Capacity (Rated)	Btu/h	(kW)	320,000	(93.8)
		EER	Btu/Wh	(W/W)	9.5	(2.78)
		IEER	Btu/Wh	(Wh/Wh)	20.8	(6.09)
		Heating	Capacity (Rated)	Btu/h	(kW)	360,000
	High	COP	W/W		3.27	
	Heating	Capacity	Btu/h	(kW)	250,000	(73.3)
	Low	COP	W/W		2.31	
Operating Range *3	Indoor				°F WB (°C WB)	
	Outdoor				°F DB (°C DB)	
	Outdoor (with Snow Protection Hood)				°F DB (°C DB)	
	Outdoor (with Damper Kit)				°F DB (°C DB)	
Heating Operating Range	Indoor				°F DB (°C DB)	
	Outdoor				°F WB (°C WB)	
Cabinet Color (Munsell Code)					- 2.5Y 8/2	
Outer Dimensions	Height x Width x Depth		in	(66-1/4 x 64 x 30-1/2) + (66-1/4 x 48-5/8 x 30-1/2)		
			mm	(1683 x 1625 x 774) + (1683 x 1235 x 774)		
Weight	Net		lbs	(kg)	849 +728	(385 +330)
	Gross		lbs	(kg)	900 +772	(408 +350)
Connection Ratio	Standard (Extended)		%		130(150) - 55	
	Max. (Recommended) Indoor Units/System		Q'ty		64 (24)	
Heat Exchanger	Type		-		Multi-Pass Cross-Finned Tube	
	Material		-		Cu-Al (Anti-corrosion)	
Compressor	Type	Inverter 1	-		DC80PHD x 2	
		Inverter 2	-		AA50PHD x 2	
	Motor Output (Pole)		kW (Pole)		(9.1(6)×2)+(6.4(6)×2)	
	Start Method		-		inverter	
	Operation Range		%		11 ~ 100	
	Refrigeration Oil Type		-		FVC68D	
Crank Case Heater			W×Q'ty		34.2 (230V) ×12	
Fan	Type		-		Propeller Fan	
	Motor Output (Pole)		kW (Pole)		(0.56(8)×2)+(0.39(8)×2)	
	Quantity		Q'ty		4	
	Airflow Rate		cfm	(m³/min)	12,284 +9,037	(348+256)
	External Static Pressure *4		in.W.G.	(Pa)	0-0.32 (0-80)	
Electrical	Drive		-		Direct-drive	
	Min Circuit Amps		A		39+30	
	Maximum Overcurrent Protective Device		A		50+35	
	Maximum Fuse Size		A		50+35	
Sound Pressure Level	Cooling		dB (A)		69	
	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	
	Factory Charge Amount		lbs	(kg)	25.6+23.6	(11.6+10.7)
Refrigeration Oil	Factory Charge Amount		gal/Unit	(L/Unit)	2.2+ 2.1	(8.4+7.9)
Defrost Method			-		Reversed Refrigerant Cycle	
Main Refrigerant	Gas Line		in	(mm)	1-3/8	(34.93)
Piping (Heat Recovery)	Liquid Line		in	(mm)	3/4	(19.05)

version 201804

System Dimensions

Heat Pump Model: (Y,H)VAHP336B42S

Unit: inch (mm)



NOTES:

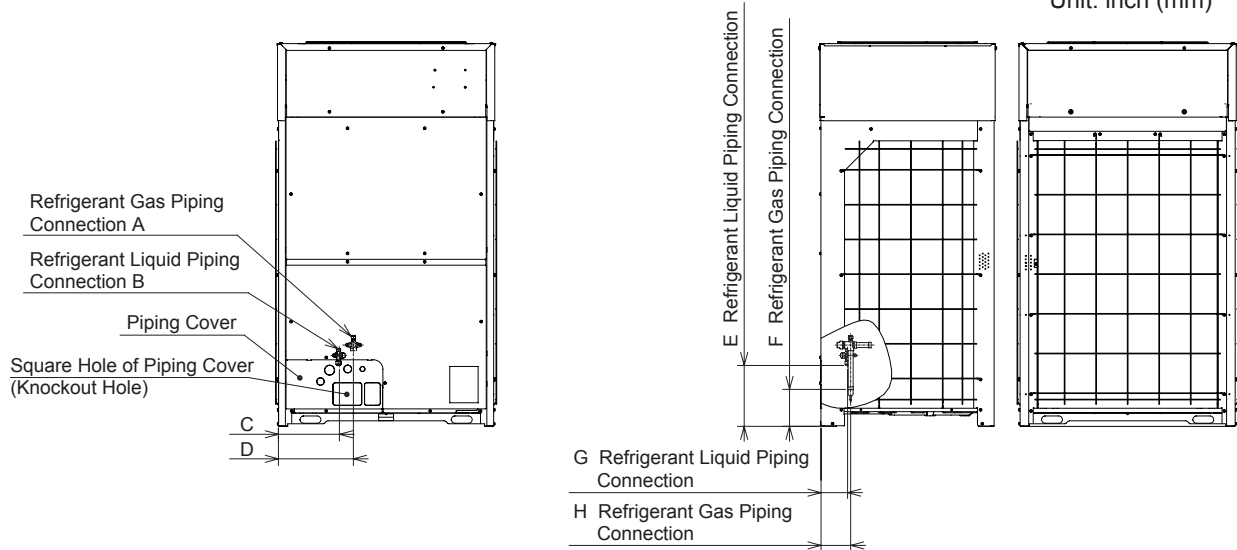
- Outdoor unit A is the Main unit and outdoor unit B is the Sub unit. The Main unit is closest in piping to the indoor unit.
- If outdoor modules have different capacities, the largest capacity unit will be outdoor unit A (Main) and outdoor unit B (Sub) will be the smallest capacity. $A \geq B$.
- Piping 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.

Outdoor Unit Model	Combination of Base Unit Models	
	OUTDOOR UNIT A	OUTDOOR UNIT B
(H, Y) VAHP312B32S	(H, Y) VAHP168B32S	(H, Y) VAHP144B32S
(H, Y) VAHP312B42S	(H, Y) VAHP168B42S	(H, Y) VAHP144B42S
(H, Y) VAHP336B32S	(H, Y) VAHP192B32S	(H, Y) VAHP144B32S
(H, Y) VAHP336B42S	(H, Y) VAHP192B42S	(H, Y) VAHP144B42S

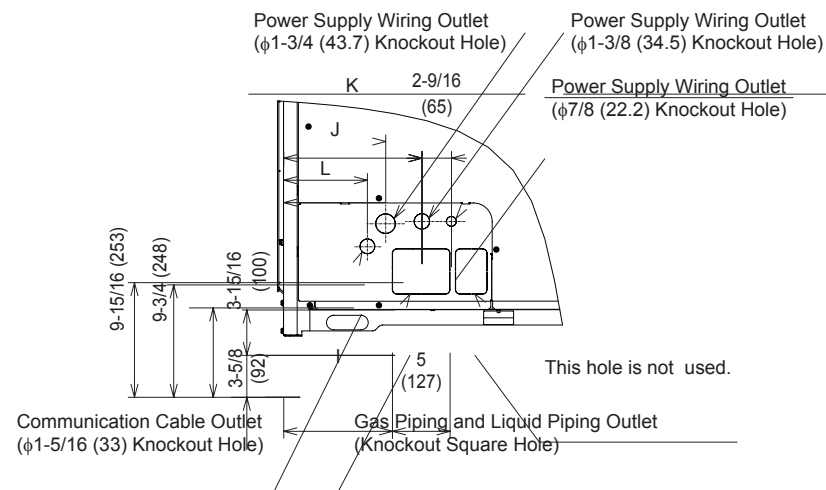
version 201804

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



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

Refrigerant Piping Connection and Wiring Outlet



version 201804

SUBMITTAL DATA SHEET

(Y,H)VAHP360B42S

Consists of one (Y,H)VAHP192B42S and one (Y,H)VAHP168B42S module.

Job Name:

Location:

Purchaser:

Order No.:

Engineer:

Submitted To:

For:

Ref:

Approval:

Construction:

Submitted By:

Date:

Unit Designation:

Schedule No.:

Model No.:

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

NOTES:

1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

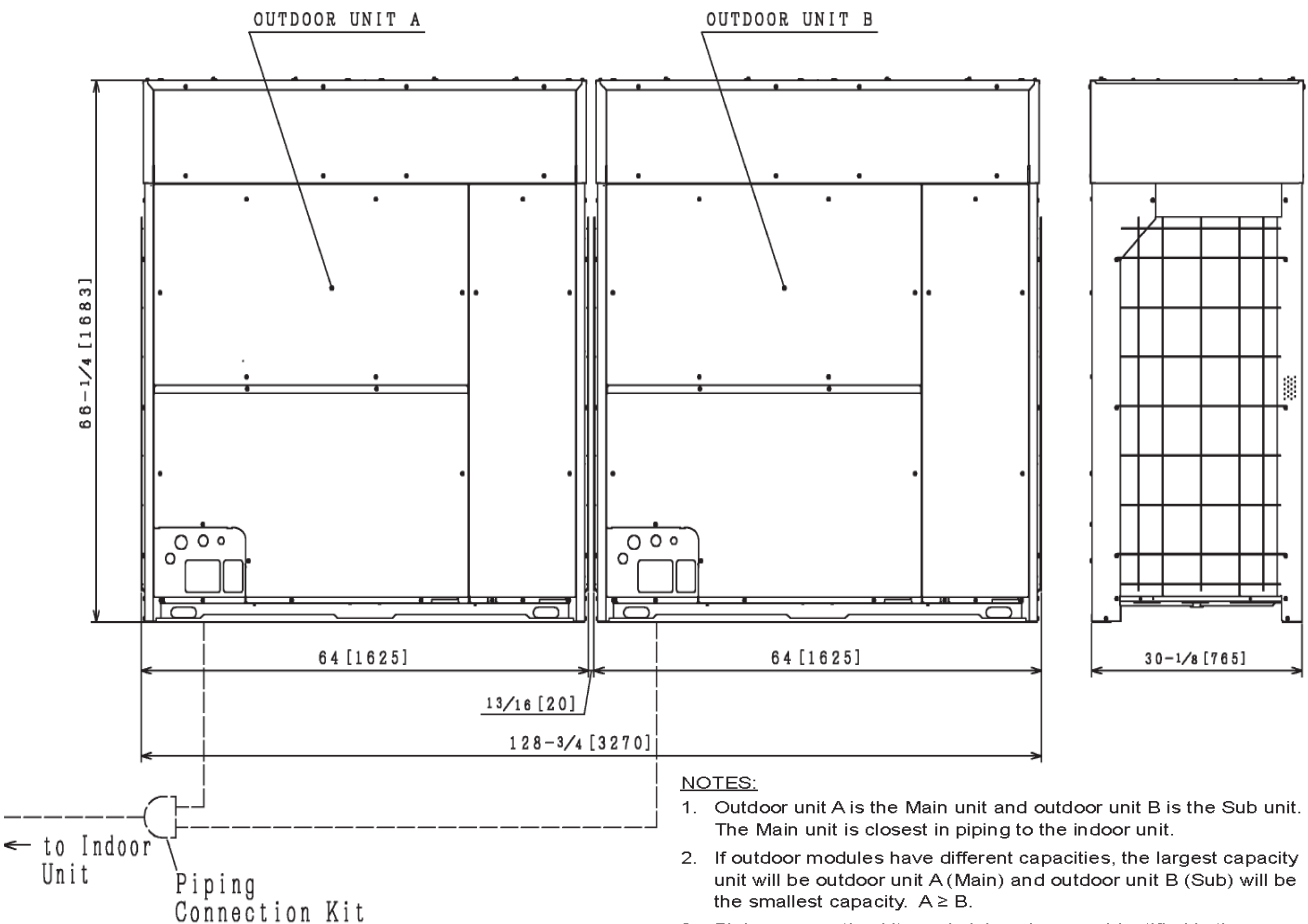
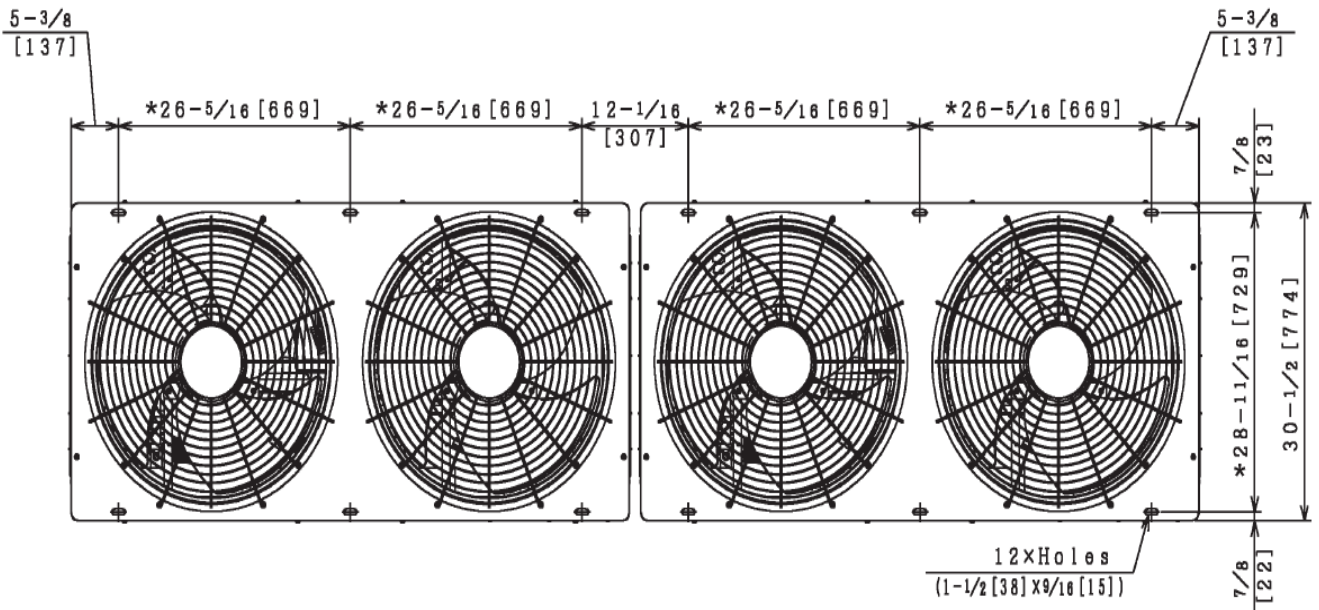
(Heat Pump 460V)

Category		Ton		30RT (16RT+14RT)		
Model (Combination)				(H,Y)VAHP360B42S		
Model (Individual)		Unit A		(H,Y)VAHP192B42S		
		Unit B		(H,Y)VAHP168B42S		
		Unit C		-		
Power Supply				460V/ 3PH 60Hz		
Capacity *1	Cooling	Capacity (Nominal)	360,000	(105.5)		
	Heating	Capacity (Nominal)	405,000	(118.7)		
Efficiency Ratings *2	Cooling	Capacity (Rated)	344,000	(100.8)		
		EER	9.5	(2.78)		
		IEER	19.8	(5.81)		
		Capacity (Rated)	386,000	(113.1)		
	High	COP	3.27			
	Heating	Capacity	262,000	(76.8)		
Low	COP	2.05				
Operating Range *3	Cooling	Indoor	59(15) ~ 73(23)			
		Outdoor	23(-5) ~ 122(50)			
		Outdoor (with Snow Protection Hood)	14(-23) ~ 109(43)			
		Outdoor (with Cooling Damper Kit)	-10(-20) ~ 109(43)			
	Heating	Indoor	59(15) ~ 80(27)			
		Outdoor	-13(-25) ~ 59(15)			
Cabinet Color (Munsell Code)				2.5Y 8/2		
Outer Dimensions	Height x Width x Depth		(66-1/4 x 64 x 30-1/2) x 2			
			(1683 x 1625 x 774) x 2			
Weight	Net	849 x 2		(385x2)		
	Gross	900 x 2		(408x2)		
Connection Ratio	Standard (Extended)		130(150) - 55			
	Max. (Recommended) Indoor Units/System		64 (28)			
Heat Exchanger	Type		Multi-Pass Cross-Finned Tube			
	Material		Cu-Al (Anti-corrosion)			
Compressor	Type	Inverter 1	DC80PHD×4			
		Inverter 2	-			
	Motor Output (Pole)		(9.1(6)×2)+(7.1(6)×2)			
	Start Method		inverter			
	Operation Range		11 ~ 100			
	Refrigeration Oil Type		FVC68D			
Crank Case Heater			34.2 (230V) ×12			
Fan	Type	Propeller Fan				
	Motor Output (Pole)	(0.56(8)×2)+(0.48(8)×2)				
	Quantity	4				
	Airflow Rate	12,284 +11,614		(348+329)		
	External Static Pressure *4	0-0.32		(0-80)		
Electrical	Drive		Direct-drive			
	Min Circuit Amps		39+34			
	Maximum Overcurrent Protective Device		50+40			
	Maximum Fuse Size		50+40			
Sound Pressure Level	Cooling		68			
	Heating		68			
Protection Devices	Cycle	High pressure switch at 601psi (4.15MPa)				
	Inverter	Over-current protection Over-heat protection				
	Compressor	Over-heat protection				
	PCB	Over-current protection				
Refrigerant	Type		R410A			
	Factory Charge Amount		25.6+24.9	(11.6+11.3)		
Refrigeration Oil	Factory Charge Amount		2.2 x 2	(8.4x2)		
Defrost Method			Reversed Refrigerant Cycle			
Main Refrigerant Piping (Heat Pump)	Gas Line		1-3/8	(34.93)		
	Liquid Line		3/4	(19.05)		

System Dimensions

Heat Pump Model: (Y,H)VAHP360B42S

Unit: inch (mm)



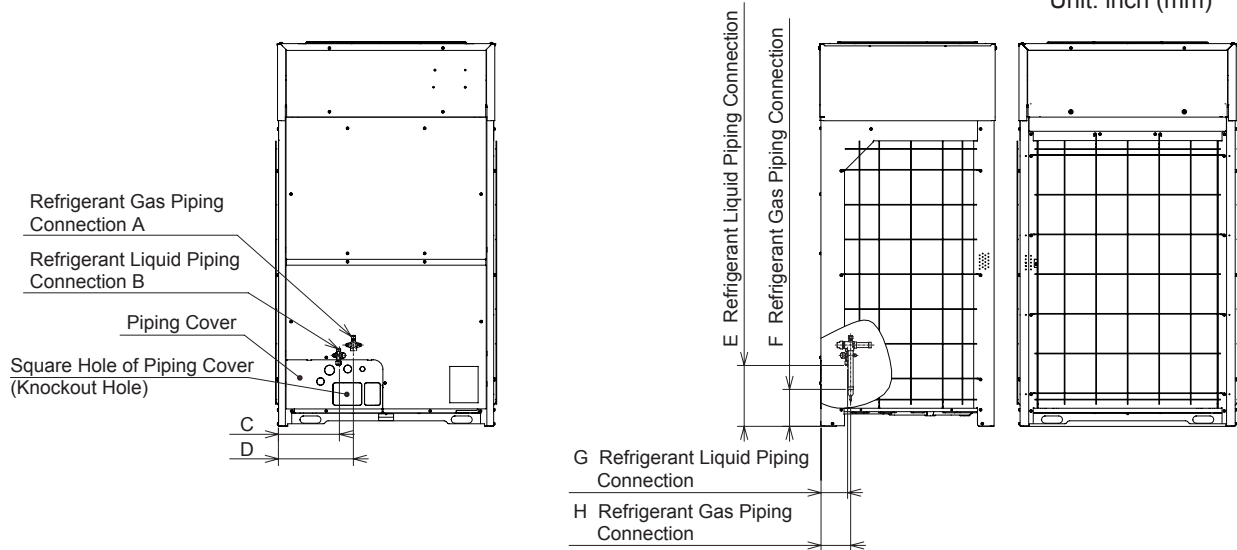
NOTES:

- Outdoor unit A is the Main unit and outdoor unit B is the Sub unit. The Main unit is closest in piping to the indoor unit.
- If outdoor modules have different capacities, the largest capacity unit will be outdoor unit A (Main) and outdoor unit B (Sub) will be the smallest capacity. $A \geq B$.
- 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.

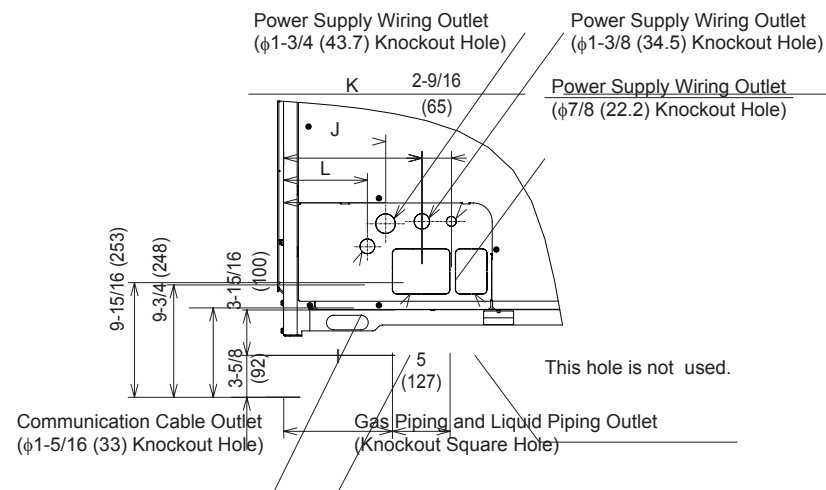
Outdoor Unit Model	Combination of Base Unit Models	
	OUTDOOR UNIT A	OUTDOOR UNIT B
(H, Y) VAHP360B32S	(H, Y) VAHP192B32S	(H, Y) VAHP168B32S
(H, Y) VAHP360B42S	(H, Y) VAHP192B42S	(H, Y) VAHP168B42S

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



Model	Gas	Liquid	A	B	C	D	E	F	G	H	I	J	K	L
72	$\phi 7/8$ (22.2)	$\phi 1/2$ (12.7)	$\phi 7/8$ (22.2)	$\phi 3/8$ (9.52)	10-3/8 (264)	13-1/16 (331)	10-9/16 (268)	6-7/16 (163)	4-5/8 (117)	5-3/16 (131)	9-7/16 (240)	8-7/8 (225)	12 (305)	7-5/16 (185)
96	$\phi 7/8$ (22.2)	$\phi 1/2$ (12.7)												
120	$\phi 1-1/8$ (28.58)	$\phi 1/2$ (12.7)	$\phi 1$ (25.4)	$\phi 1/2$ (12.7)	6-7/8 (174)	9-7/16 (239)	10-3/8 (263)	6-5/16 (160)	4-7/16 (112)	5-1/8 (130)	5-13/16 (147)	5-3/16 (132)	8-3/8 (212)	3-5/8 (92)
144	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)												
168	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)	6-15/16 (177)	9-7/16 (239)	10-3/16 (259)	6-5/16 (160)	5-3/16 (132)	6 (152)	5-13/16 (147)	5-3/16 (132)	8-3/8 (212)	3-5/8 (92)
192	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)												

Refrigerant Piping Connection and Wiring Outlet



version 201804

SUBMITTAL DATA SHEET

(Y,H)VAHP384B42S

Consists of one (Y,H)VAHP144B42S and two (Y,H)VAHP120B42S module.

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

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

NOTES:

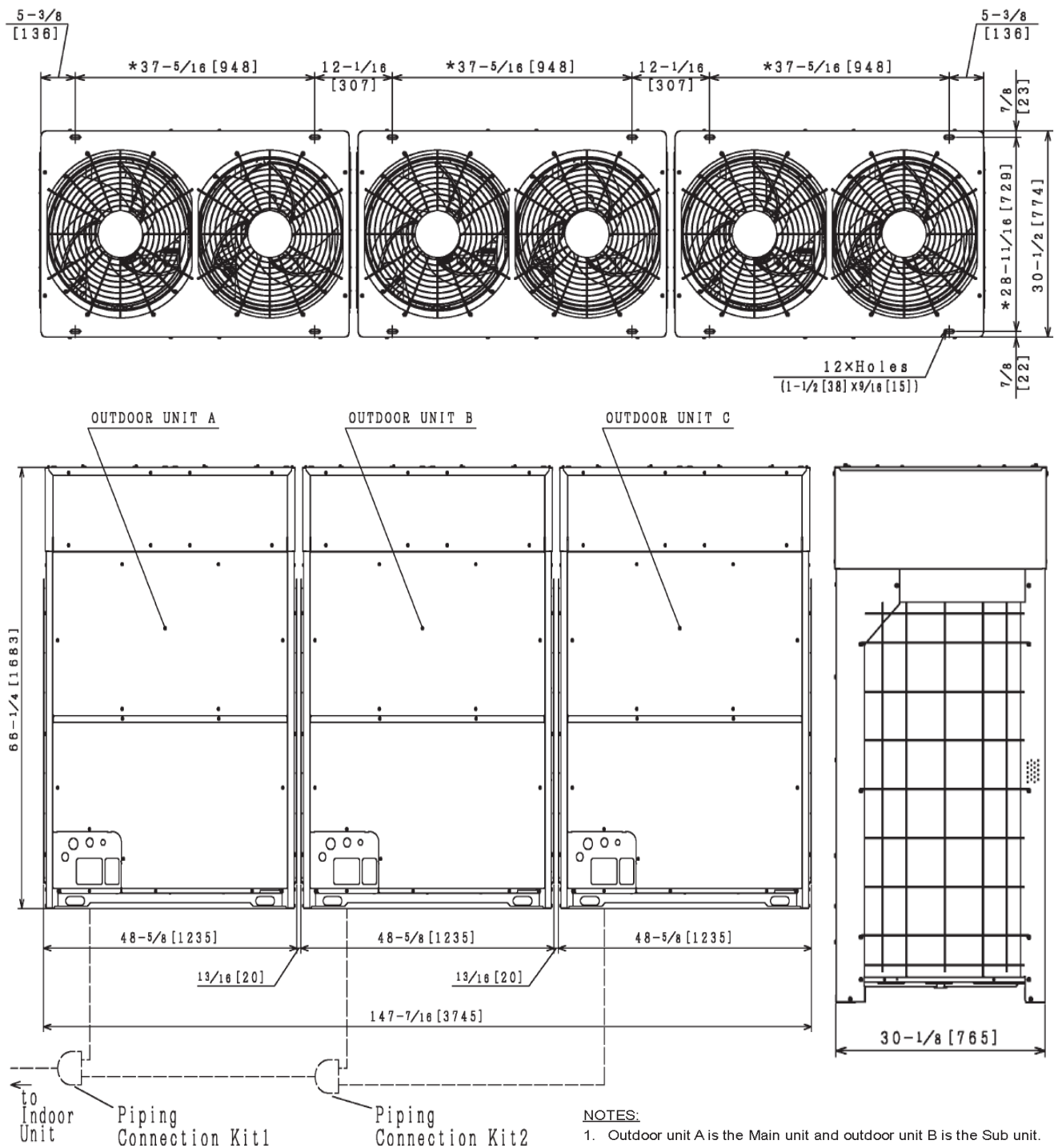
1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

Heat Pump 460V)				
Category		Ton 32RT (12RT+10RT+10RT)		
Model (Combination)		(H,Y)VAHP384B42S		
Model (Individual)		Unit A (H,Y)VAHP144B42S		
		Unit B (H,Y)VAHP120B42S		
		Unit C (H,Y)VAHP120B42S		
Power Supply		460V/ 3PH 60Hz		
Capacity *1	Cooling	Capacity (Nominal)	384,000	(112.5)
	Heating	Capacity (Nominal)	432,000	(126.6)
Efficiency Ratings *2	Cooling	Capacity (Rated)	366,000	(107.3)
		EER	9.6	(2.81)
		IEER	19.6	(5.75)
		Capacity (Rated)	410,000	(120.2)
	Heating	COP	3.37	
	High	Capacity	276,000	(80.9)
	Low	COP	2.20	
Operating Range *3	Cooling	Indoor	59(15) ~ 73(23)	
		Outdoor	23(-5) ~ 122(50)	
		Outdoor (with Snow Protection Hood)	14(-23) ~ 109(43)	
		Outdoor (with Cooling Damper Kit)	-10(-20) ~ 109(43)	
	Heating	Indoor	59(15) ~ 80(27)	
		Outdoor	-13(-25) ~ 59(15)	
Cabinet Color (Munsell Code)			2.5Y 8/2	
Outer Dimensions	Height x Width x Depth		(66-1/4 x 48-5/8 x 30-1/2) x 3	
			(1683 x 1235 x 774) x 3	
Weight	Net		728+725 × 2 (330+329×2)	
	Gross		772+770 × 2 (350+349×2)	
Connection Ratio	Standard (Extended)		130(150) - 55	
	Max. (Recommended) Indoor Units/System		64 (30)	
Heat Exchanger	Type		Multi-Pass Cross-Finned Tube	
	Material		Cu-Al (Anti-corrosion)	
Compressor	Type	Inverter 1	AA50PHD×6	
		Inverter 2	-	
	Motor Output (Pole)		(6.4(6)×2)+(5.4(6) × 2) × 2	
	Start Method		inverter	
	Operation Range		11 ~ 100	
	Refrigeration Oil Type		FVC68D	
Crank Case Heater			34.2 (230V) ×18	
Fan	Type		Propeller Fan	
	Motor Output (Pole)		(0.39(8)×2) × 3	
	Quantity		6	
	Airflow Rate		9,037 × 3	(256×3)
	External Static Pressure *4		0-0.32	(0-80)
Electrical	Drive		Direct-drive	
	Min Circuit Amps		30+24 × 2	
	Maximum Overcurrent Protective Device		35+30 × 2	
Sound Pressure Level	Maximum Fuse Size		35+30 × 2	
	Cooling	69		
Protection Devices	Heating		69	
	Cycle	High pressure switch at 601psi (4.15MPa)		
	Inverter	Over-current protection		
	Compressor	Over-heat protection		
Refrigerant	PCB		Over-current protection	
	Type	R410A		
Refrigerant	Factory Charge Amount		23.6 +20.9 × 2	(10.7 +9.9×2)
	Refrigeration Oil		2.1 × 3 (7.9×3)	
Defrost Method			Reversed Refrigerant Cycle	
Main Refrigerant	Gas Line	1-5/8 (41.28)		
Piping (Heat Pump)	Liquid Line	3/4 (19.05)		

System Dimensions

Heat Pump Model: (Y,H)VAHP360B42S

Unit: inch (mm)



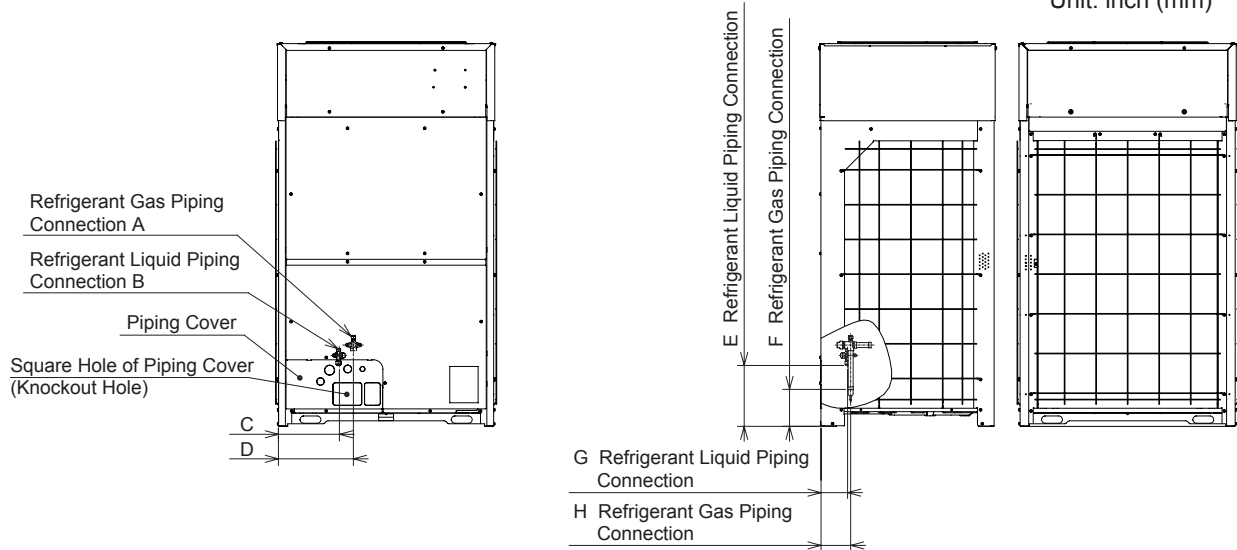
NOTES:

- Outdoor unit A is the Main unit and outdoor unit B is the Sub unit. The Main unit is closest in piping to the indoor unit.
- If outdoor modules have different capacities, the largest capacity unit will be outdoor unit A (Main) and outdoor unit B (Sub) will be the smallest capacity. $A \geq B$.
- 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.

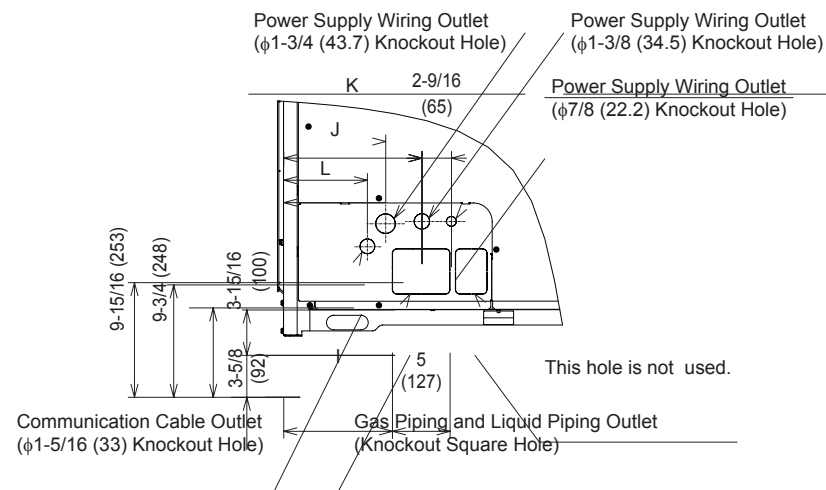
Outdoor Unit Model	Combination of Base Unit Models		
	OUTDOOR UNIT A	OUTDOOR UNIT B	OUTDOOR UNIT C
(H, Y) VAHP384B32S	(H, Y) VAHP144B32S	(H, Y) VAHP120B32S	(H, Y) VAHP120B32S
(H, Y) VAHP384B42S	(H, Y) VAHP144B42S	(H, Y) VAHP120B42S	(H, Y) VAHP120B42S
(H, Y) VAHP408B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S	(H, Y) VAHP120B32S
(H, Y) VAHP408B42S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S	(H, Y) VAHP120B42S
(H, Y) VAHP432B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S
(H, Y) VAHP432B42S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



Model	Gas	Liquid	A	B	C	D	E	F	G	H	I	J	K	L
72	$\phi 7/8$ (22.2)	$\phi 1/2$ (12.7)	$\phi 7/8$ (22.2)	$\phi 3/8$ (9.52)	10-3/8 (264)	13-1/16 (331)	10-9/16 (268)	6-7/16 (163)	4-5/8 (117)	5-3/16 (131)	9-7/16 (240)	8-7/8 (225)	12 (305)	7-5/16 (185)
96	$\phi 7/8$ (22.2)	$\phi 1/2$ (12.7)												
120	$\phi 1-1/8$ (28.58)	$\phi 1/2$ (12.7)	$\phi 1$ (25.4)	$\phi 1/2$ (12.7)	6-7/8 (174)	9-7/16 (239)	10-3/8 (263)	6-5/16 (160)	4-7/16 (112)	5-1/8 (130)	5-13/16 (147)	5-3/16 (132)	8-3/8 (212)	3-5/8 (92)
144	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)												
168	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)	6-15/16 (177)	9-7/16 (239)	10-3/16 (259)	6-5/16 (160)	5-3/16 (132)	6 (152)	5-13/16 (147)	5-3/16 (132)	8-3/8 (212)	3-5/8 (92)
192	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)												

Refrigerant Piping Connection and Wiring Outlet



version 201804

SUBMITTAL DATA SHEET

(Y,H)VAHP384B42S

Consists of two (Y,H)VAHP144B42S and one (Y,H)VAHP120B42S module.

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

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

NOTES:

1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

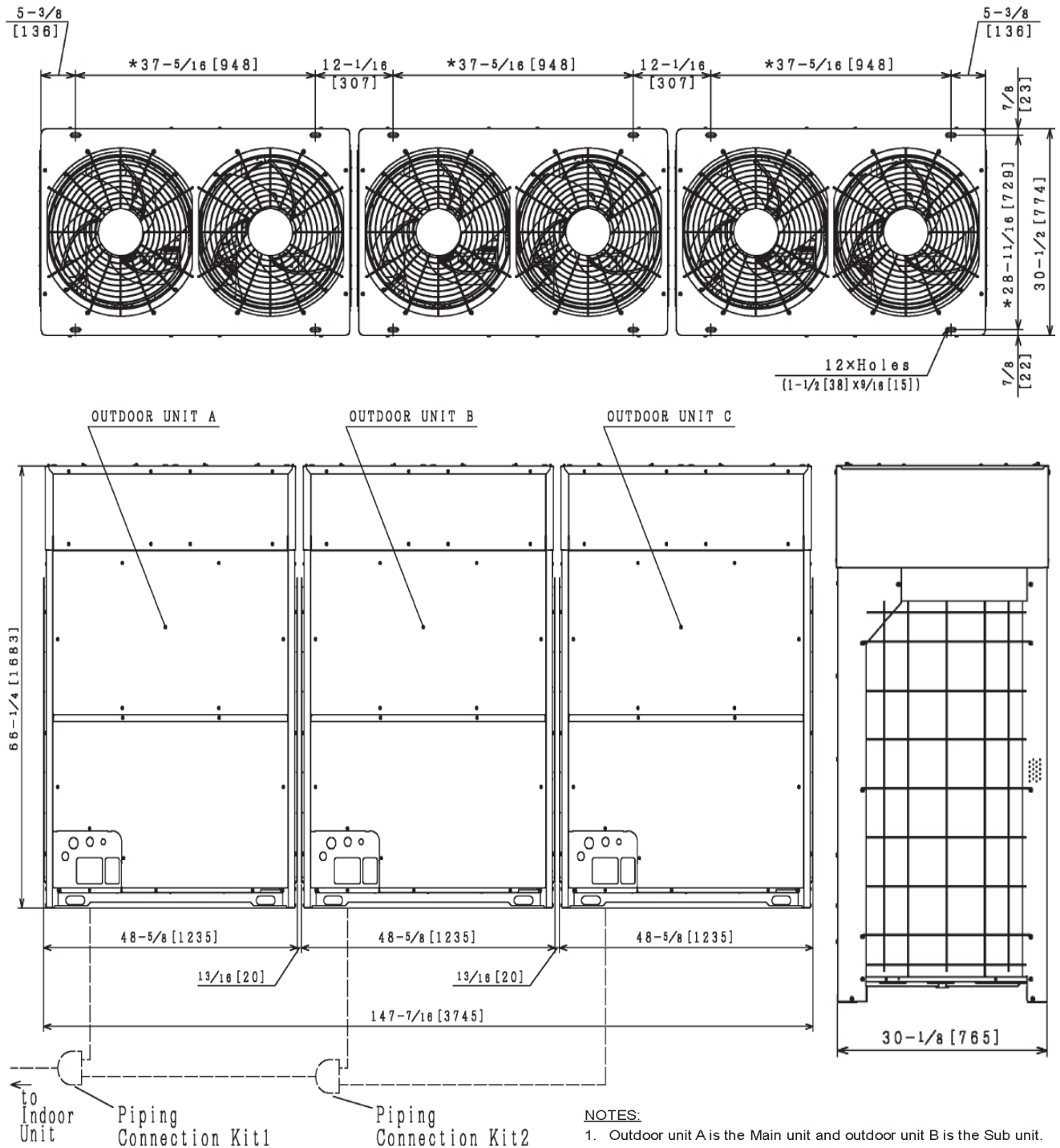
Heat Pump 460V)				
Category		Ton34RT (12RT+12RT+10RT)		
Model (Combination)		(H,Y)VAHP408B42S		
Model (Individual)	Unit A		(H,Y)VAHP144B42S	
	Unit B		(H,Y)VAHP144B42S	
	Unit C		(H,Y)VAHP120B42S	
Power Supply		460V/ 3PH 60Hz		
Capacity *1	Cooling	Capacity (Nominal)	408,000	(119.5)
	Heating	Capacity (Nominal)	459,000	(134.5)
Efficiency Ratings *2	Cooling	Capacity (Rated)	380,000	(111.4)
		EER	9.5	(2.78)
		IEER	19.3	(5.67)
		Capacity (Rated)	435,000	(127.5)
	High	COP3.34		
	Heating	Capacity	288,000	(84.4)
Low	COP2.08			
Operating Range *3	Cooling	Indoor	59(15) ~ 73(23)	
		Outdoor	23(-5) ~ 122(50)	
		Outdoor (with Snow Protection Hood)	14(-23) ~ 109(43)	
		Outdoor (with Cooling Damper Kit)	-10(-20) ~ 109(43)	
	Heating	Indoor	59(15) ~ 80(27)	
		Outdoor	-13(-25) ~ 59(15)	
Cabinet Color (Munsell Code)			2.5Y 8/2	
Outer Dimensions	Height x Width x Depth		(66-1/4 x 48-5/8 x 30-1/2) x 3	
			(1683 x 1235 x 774) x 3	
Weight	Net		728 x 2+725 (330x2+329)	
	Gross		772 x 2+770 (350x2+349)	
Connection Ratio	Standard (Extended)		130(150) - 55	
	Max. (Recommended) Indoor Units/System		64 (30)	
Heat Exchanger	Type		Multi-Pass Cross-Finned Tube	
	Material		Cu-Al (Anti-corrosion)	
Compressor	Type	Inverter 1	AA50PHDx6	
		Inverter 2	-	
	Motor Output (Pole)		(6.4(6)x2) x 2+ (5.4(6) x 2)	
	Start Method		inverter	
	Operation Range		11 ~ 100	
	Refrigeration Oil Type		FVC68D	
Crank Case Heater			34.2 (230V) x18	
Fan	Type		Propeller Fan	
	Motor Output (Pole)		(0.39(8)x2) x 3	
	Quantity		6	
	Airflow Rate		9,037 x 3	(256x3)
	External Static Pressure *4		0-0.32	(0-80)
Electrical	Drive		Direct-drive	
	Min Circuit Amps		30 x 2+24	
	Maximum Overcurrent Protective Device		35 x 2+30	
	Maximum Fuse Size		35 x 2+30	
Sound Pressure Level	Cooling		69	
	Heating		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	
	Factory Charge Amount		23.6 x 2 +20.9	(10.7x2 +9.9)
Refrigeration Oil	Factory Charge Amount		2.1 x 3	(7.9x3)
Defrost Method			Reversed Refrigerant Cycle	
Main Refrigerant	Gas Line		1-5/8	(41.28)
Piping (Heat Pump)	Liquid Line		3/4	(19.05)

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System Dimensions

Heat Pump Model: (Y,H)VAHP408B42S

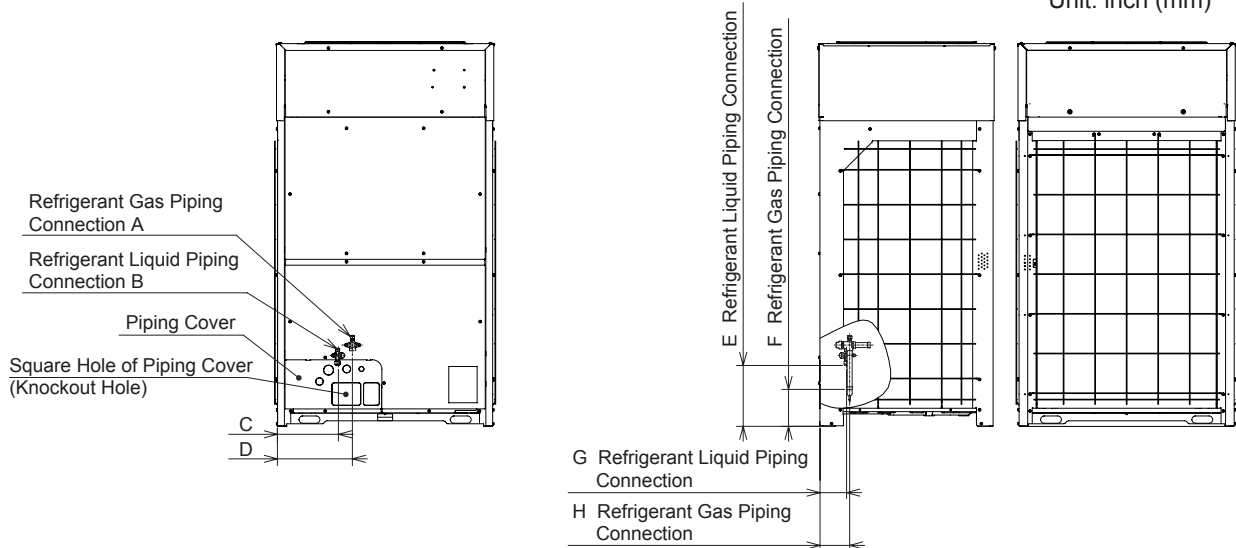
Unit: inch (mm)



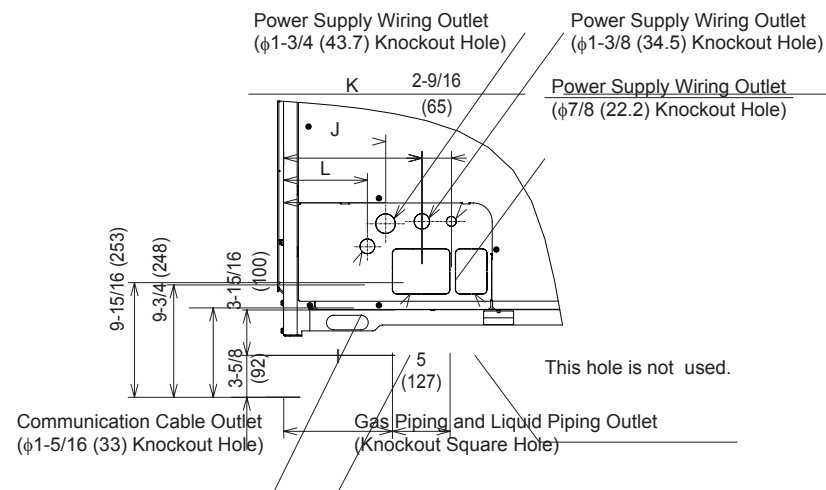
Outdoor Unit Model	Combination of Base Unit Models		
	OUTDOOR UNIT A	OUTDOOR UNIT B	OUTDOOR UNIT C
(H, Y) VAHP384B32S	(H, Y) VAHP144B32S	(H, Y) VAHP120B32S	(H, Y) VAHP120B32S
(H, Y) VAHP384B42S	(H, Y) VAHP144B42S	(H, Y) VAHP120B42S	(H, Y) VAHP120B42S
(H, Y) VAHP408B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S	(H, Y) VAHP120B32S
(H, Y) VAHP408B42S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S	(H, Y) VAHP120B42S
(H, Y) VAHP432B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S
(H, Y) VAHP432B42S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S

Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



Model	Gas	Liquid	A	B	C	D	E	F	G	H	I	J	K	L
72	$\phi 7/8$ (22.2)	$\phi 1/2$ (12.7)	$\phi 7/8$ (22.2)	$\phi 3/8$ (9.52)	10-3/8 (264)	13-1/16 (331)	10-9/16 (268)	6-7/16 (163)	4-5/8 (117)	5-3/16 (131)	9-7/16 (240)	8-7/8 (225)	12 (305)	7-5/16 (185)
96	$\phi 7/8$ (22.2)	$\phi 1/2$ (12.7)												
120	$\phi 1-1/8$ (28.58)	$\phi 1/2$ (12.7)	$\phi 1$ (25.4)	$\phi 1/2$ (12.7)	6-7/8 (174)	9-7/16 (239)	10-3/8 (263)	6-5/16 (160)	4-7/16 (112)	5-1/8 (130)	5-13/16 (147)	5-3/16 (132)	8-3/8 (212)	3-5/8 (92)
144	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)												
168	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)	6-15/16 (177)	9-7/16 (239)	10-3/16 (259)	6-5/16 (160)	5-3/16 (132)	6 (152)	5-13/16 (147)	5-3/16 (132)	8-3/8 (212)	3-5/8 (92)
192	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)												

Refrigerant Piping Connection and Wiring Outlet



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SUBMITTAL DATA SHEET

(Y,H)VAHP384B42S

Consists of two (Y,H)VAHP144B42S and one (Y,H)VAHP120B42S module.

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

FEATURES:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced 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
- Can provide efficient heating and cooling down to -10°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
- Drain Adapter

NOTES:

1. Rating Conditions are based on the AHRI 1230 test standard.
2. Efficiency ratings are based on the AHRI 1230 test standard.
3. For more details, please refer to the Engineering manual "Operation range" section.
4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

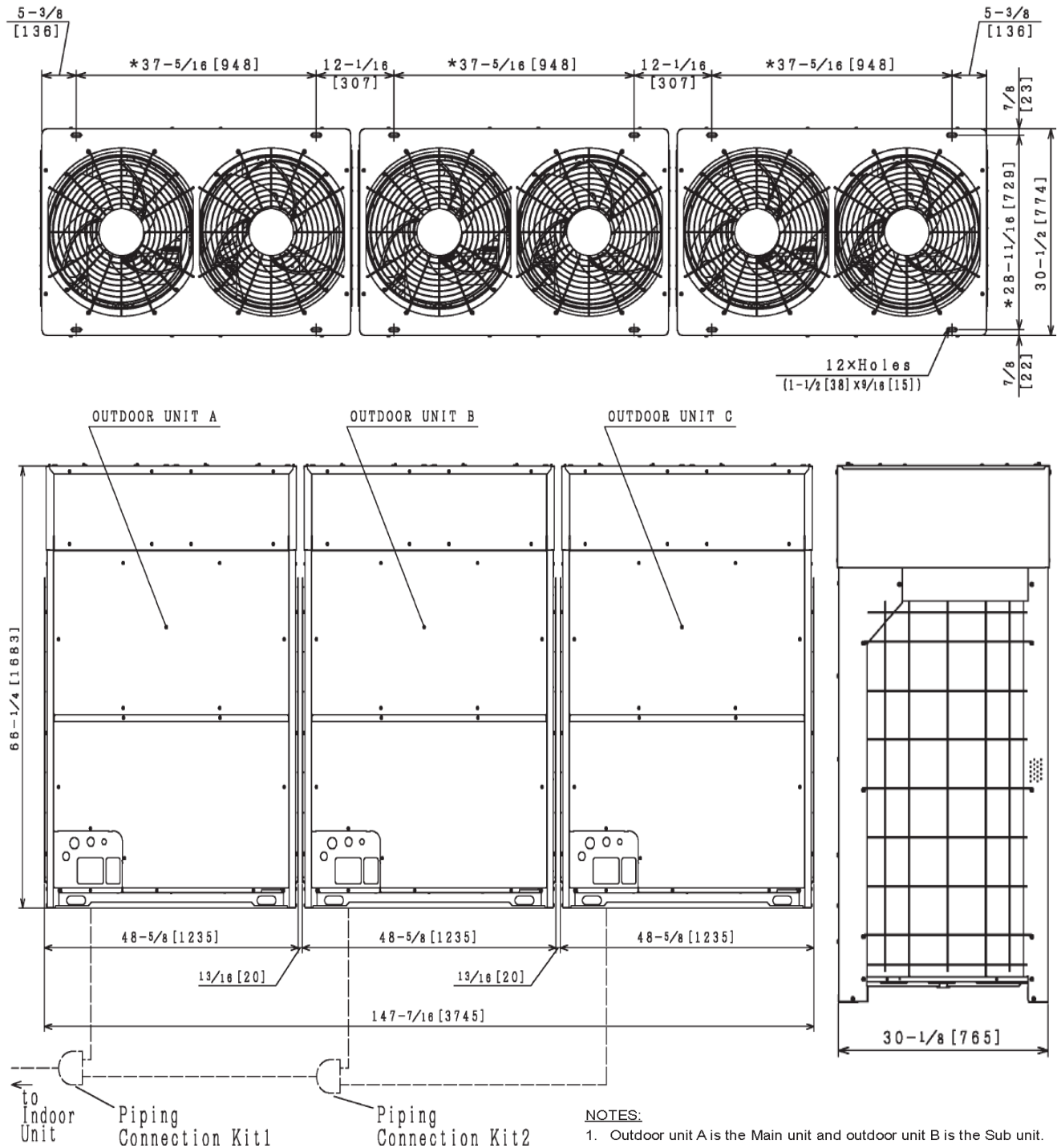
(Heat Pump 460V)

Category		Ton		36RT (12RT+12RT+12RT)	
Model (Combination)				(H,Y)VAHP432B42S	
Model (Individual)		Unit A		(H,Y)VAHP144B42S	
		Unit B		(H,Y)VAHP144B42S	
		Unit C		(H,Y)VAHP144B42S	
Power Supply				460V/ 3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	432,000	(126.6)	
	Heating	Capacity (Nominal)	486,000	(142.4)	
Efficiency Ratings *2	Cooling	Capacity (Rated)	400,000	(117.2)	
		EER	9.5	(2.78)	
		IEER	19.5	(5.72)	
	Heating	Capacity (Rated)	460,000	(134.8)	
		COP	3.21		
	Heating Low	Capacity	300,000	(87.9)	
		COP	2.05		
Operating Range *3	Cooling	Indoor	59(15) ~ 73(23)		
		Outdoor	23(-5) ~ 122(50)		
		Outdoor (with Snow Protection Hood)	14(-23) ~ 109(43)		
		Outdoor (with Cooling Damper Kit)	-10(-20) ~ 109(43)		
	Heating	Indoor	59(15) ~ 80(27)		
		Outdoor	-13(-25) ~ 59(15)		
Cabinet Color (Munsell Code)				2.5Y 8/2	
Outer Dimensions	Height x Width x Depth		(66-1/4 x 48-5/8 x 30-1/2) x 3		
			(1683 x 1235 x 765) x 3		
Weight	Net	728 x 3		(330x3)	
	Gross	772 x 3		(350x3)	
Connection Ratio	Standard (Extended)		135(150) - 55		
	Max. (Recommended) Indoor Units/System		64 (30)		
Heat Exchanger	Type		Multi-Pass Cross-Finned Tube		
	Material		Cu-Al (Anti-corrosion)		
Compressor	Type	Inverter 1	AA50PHD×6		
		Inverter 2	-		
	Motor Output (Pole)		(6.4(6)×2)×3		
	Start Method		inverter		
	Operation Range		11 ~ 100		
		Refrigeration Oil Type		FVC68D	
Crank Case Heater			34.2 (230V) ×18		
Fan	Type		Propeller Fan		
	Motor Output (Pole)		(0.39(8)×2) ×3		
	Quantity		6		
	Airflow Rate		9,037×3	(256×3)	
	External Static Pressure *4		0-0.32	(0-80)	
Drive			Direct-drive		
Electrical	Min Circuit Amps		30 × 3		
	Maximum Overcurrent Protective Device		35 × 3		
	Maximum Fuse Size		35 × 3		
Sound Pressure Level	Cooling		70		
	Heating		70		
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		
	Factory Charge Amount		23.6×3	(10.7×3)	
Refrigeration Oil	Factory Charge Amount		2.1×3	(7.9×3)	
Defrost Method			Reversed Refrigerant Cycle		
Main Refrigerant Piping (Heat Pump)	Gas Line		1-5/8	(41.28)	
	Liquid Line		3/4	(19.05)	

System Dimensions

Heat Pump Model: (Y,H)VAHP432B42S

Unit: inch (mm)



NOTES:

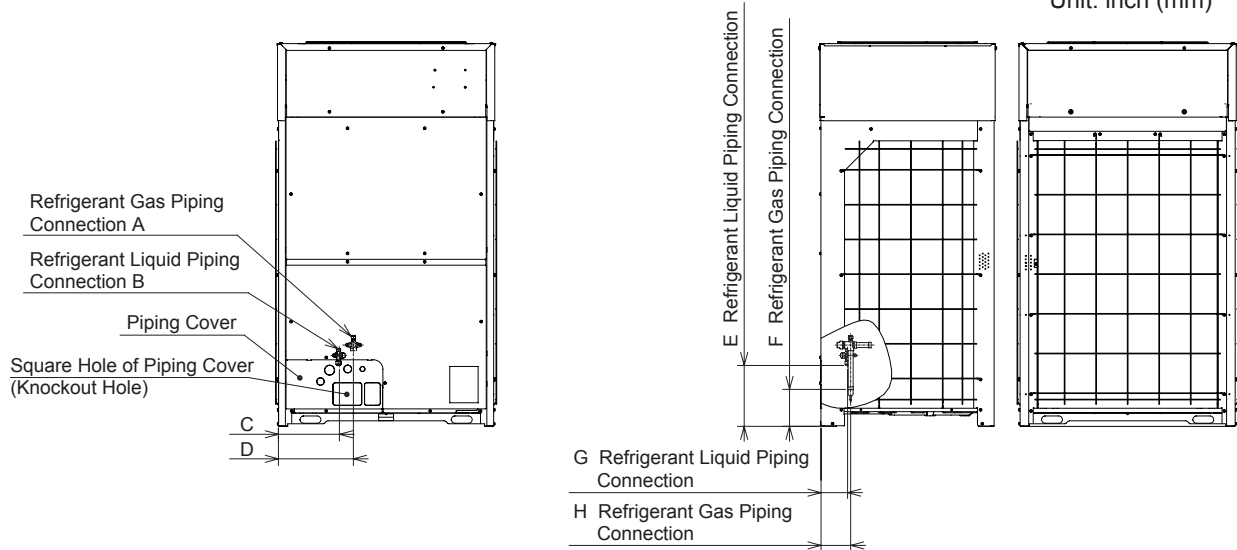
- Outdoor unit A is the Main unit and outdoor unit B is the Sub unit. The Main unit is closest in piping to the indoor unit.
- If outdoor modules have different capacities, the largest capacity unit will be outdoor unit A (Main) and outdoor unit B (Sub) will be the smallest capacity. $A \geq B$.
- Piping 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.

Outdoor Unit Model	Combination of Base Unit Models		
	OUTDOOR UNIT A	OUTDOOR UNIT B	OUTDOOR UNIT C
(H, Y) VAHP384B32S	(H, Y) VAHP144B32S	(H, Y) VAHP120B32S	(H, Y) VAHP120B32S
(H, Y) VAHP384B42S	(H, Y) VAHP144B42S	(H, Y) VAHP120B42S	(H, Y) VAHP120B42S
(H, Y) VAHP408B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S	(H, Y) VAHP120B32S
(H, Y) VAHP408B42S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S	(H, Y) VAHP120B42S
(H, Y) VAHP432B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S	(H, Y) VAHP144B32S
(H, Y) VAHP432B42S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S	(H, Y) VAHP144B42S

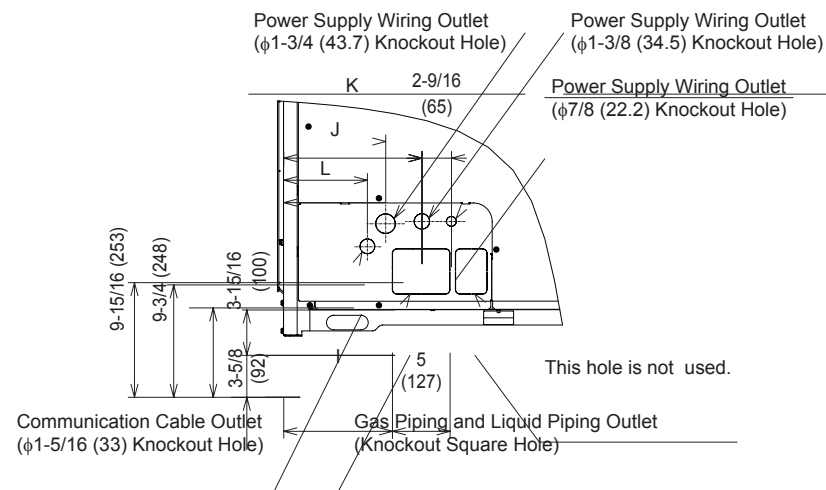
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Piping Connection Dimensions

Unit: inch (mm)



Detail of Piping Cover



Model	Gas	Liquid	A	B	C	D	E	F	G	H	I	J	K	L
72	$\phi 7/8$ (22.2)	$\phi 1/2$ (12.7)	$\phi 7/8$ (22.2)	$\phi 3/8$ (9.52)	10-3/8 (264)	13-1/16 (331)	10-9/16 (268)	6-7/16 (163)	4-5/8 (117)	5-3/16 (131)	9-7/16 (240)	8-7/8 (225)	12 (305)	7-5/16 (185)
96	$\phi 7/8$ (22.2)	$\phi 1/2$ (12.7)												
120	$\phi 1-1/8$ (28.58)	$\phi 1/2$ (12.7)	$\phi 1$ (25.4)	$\phi 1/2$ (12.7)	6-7/8 (174)	9-7/16 (239)	10-3/8 (263)	6-5/16 (160)	4-7/16 (112)	5-1/8 (130)	5-13/16 (147)	5-3/16 (132)	8-3/8 (212)	3-5/8 (92)
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192	$\phi 1-1/8$ (28.58)	$\phi 5/8$ (15.88)												

Refrigerant Piping Connection and Wiring Outlet



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