

		SU	BMITTAL DATA SHE	ET
6 RT (Y,H)VAHP072	B32S		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

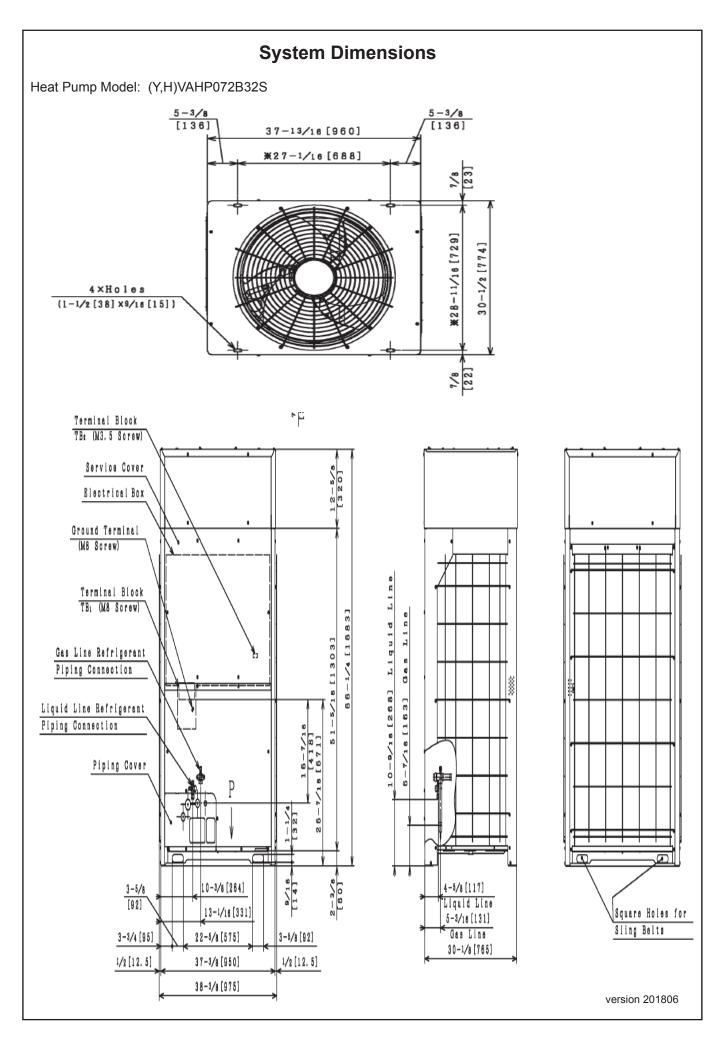
ACCESSORIES: (for detailed information, see VRF Engineering Manual and separate documentation for each accessory)

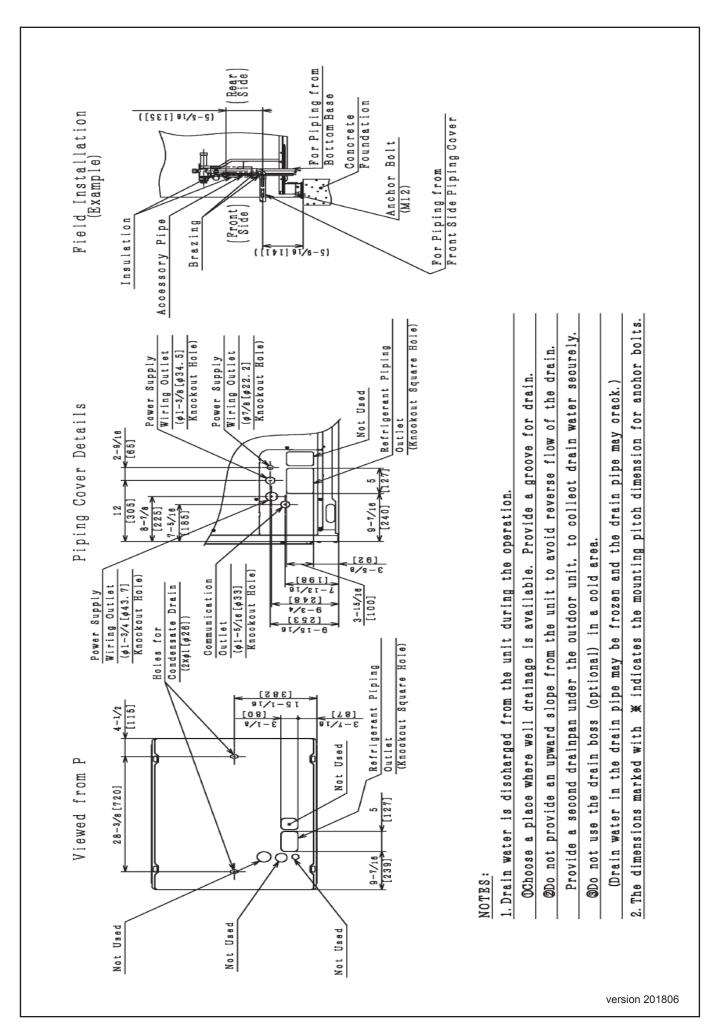
- Piping Kit
- Snow Protection Hood
- Protection Net
- Drain Adapter

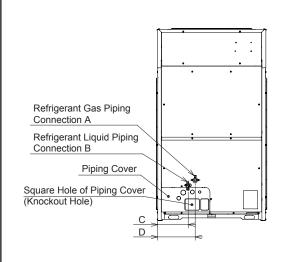
Category		Ton			6F	RT
Model (Combination)					(H,Y)VAHF	072B32S
		Unit A				-
Model (Individual)		Unit B				
		Unit C				-
Power Supply		11.			208/230V/	3PH 60Hz
	Cooling	Capacity (Nominal)	Btu/h	(kW)	72,000	(21.1)
Capacity *1	Heating	Capacity (Nominal)	Btu/h	(kW)	81,000	(23.7)
	Cooling	Capacity (Rated)	Btu/h	(kW)	69,000	(20.2)
		FFR .	Btu/Wh	(W/W)	14.9	(4.37)
		IEER	Btu/Wh	(Wh/Wh)	26.5	(7.77)
Efficiency Ratings *2	Heating	Capacity (Rated)	Btu/h	(kW)	77.000	(22.6)
	47°F Ambient	COP (Natica)	W		4.2	( -,
	Heating	Capacity	Btu/h	(kW)	56,000	(16.4)
	17°F Ambient	COP	W/W		2.6	
	17 F AIIIDIEIIL	Indoor	• • •		59(15) ~	
			°F WB (		,	. ,
		Outdoor	°F DB (	(C DB)	23(-5) ~	122(50)
Operating Range *3	Cooling	Outdoor (with Snow Protection Hood)	°F DB	(°C DB)	14(-23) ~	109(43)
Operating Nange 0		Outdoor (with Cooling Damper Kit)	°F DB	(°C DB)	-10(-20) ~	~ 109(43)
		Indoor	°F DB (	°C DR)	59(15) ~	80(27)
	Heating	Outdoor	°F WB (		-13(-25)	
Cabinet Color (Munse	II Code)	Cutacoi	I WB (	- C WB)	2.5Y	
			in		66-1/4 x 38-3	
Outer Dimensions	Height x Widt	h x Depth	mm		1683 x 975 x	
	Net		lbs	(ka)	516	(234)
Weight	Gross		lbs	(kg)	556	(252)
		4dd)		(kg) %	000	,
Connection Ratio	Standard (Ex	,	,		70-130	. ,
	Max. (Recom	mended) Indoor Units/System		Q'ty	15 Multi-Pas	
Heat Evelopeer	Туре			-	Finned	
Heat Exchanger	Material				Cu-Al (Anti-	
	matorial	Inverter 1			DC80F	
	Туре	Inverter 2			20001	-
	Motor Output		kW (	Pole)	7.4	(6)
Compressor	Start Method	(i dic)	K** (	-	inve	. ,
	Operation Ra	ngo		%	11 ~	
	Refrigeration	0		70	FVC	
Crank Case Heater	Reingeration	Oil Type	10/~	Q'ty	34.2 (23	
Clarik Case neater	T		VV^	Qty		
	Туре	(5.1.)		-	Propell	
	Motor Output	(Pole)		Pole)	0.42	
Fan	Quantity Airflow Rate		cfm	'ty	6,707	(190)
		c Pressure *4	in.W.G.	(m³/min) (Pa)	0-0.32	(0-80)
	Drive	CTTC33diC 4	111.77.0.	(1 4)	Direct	, ,
	Min Circuit Ar	mne		A		/26
Electrical		ercurrent Protective Device		Α	4	
Lioundi	Maximum Fu			A A	4	-
Sound Pressure	Cooling	30 OIL0		(A)	6	
Level				(A)	6	-
Level	Heating		ав	(A)	High pressi	
	Cycle			-	at 601psi (	
Protection Devices	Inverter			-	Over-current	t protection
					Over-heat	
	Compressor			-	Over-heat	
	PCB			-	Over-curren	
Refrigerant	Туре			-	R41	
	Factory Char		lbs	(kg)	16.1	(7.2)
Refrigeration Oil	Factory Char	ge Amount	gal/Unit	(L/Unit)	1.6	(6.0)
Defrost Method				-	Reversed Refr	
Main Refrigerant	Gas Line		in	(mm)	7/8	(22.2)
Piping (Heat Pump)	Liquid Line		in	(mm)	1/2	(12.7)

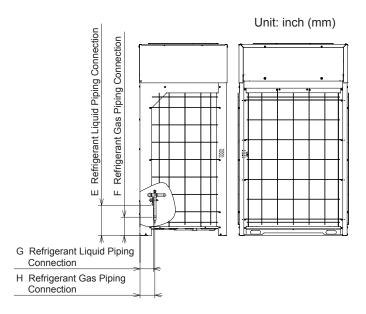
#### NOTES:

- 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.
- External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

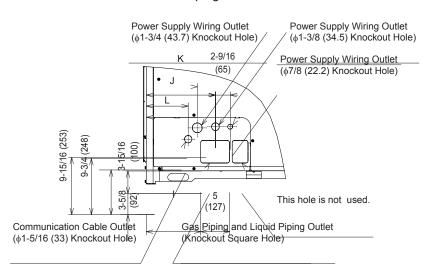








### **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	E	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

### Refrigerant Piping Connection and Wiring Outlet







		SUE	BMITTAL DATA SHEE	T	
8 RT (Y,H)VAHP096	B32S		Consists of one (Y,H)V	AHP096B32S 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 208/2	30//)	

### **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

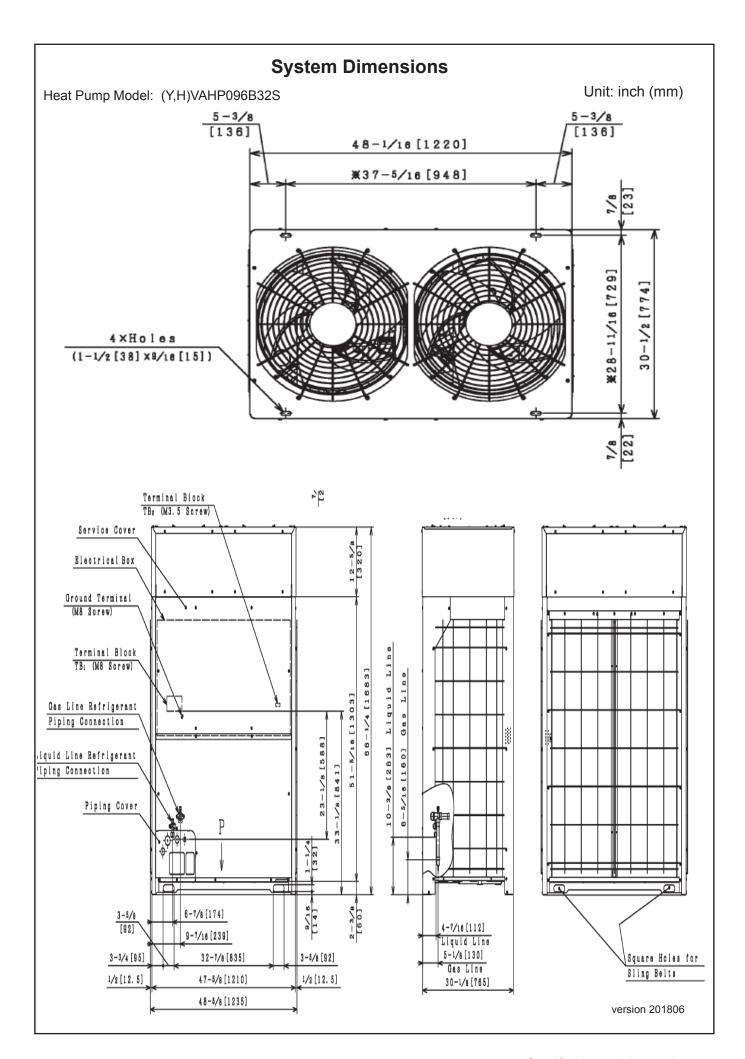
ACCESSORIES: (for detailed information, see VRF Engineering Manual and separate documentation for each accessory)

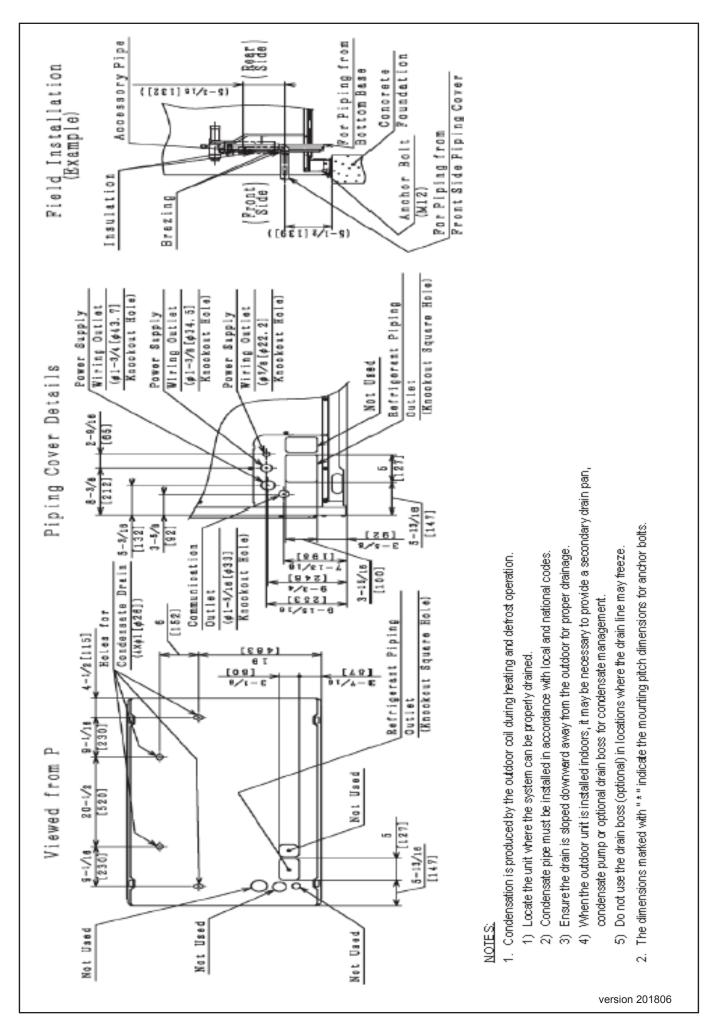
- Piping Kit
- Snow Protection Hood
- Protection Net
- Drain Adapter

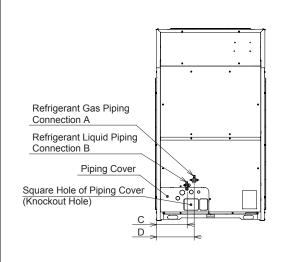
Category		Ton			8F	RT
Model (Combination)					(H,Y)VAHF	P096B32S
		Unit A				-
Model (Individual)		Unit B				-
		Unit C				-
Power Supply		1			208/230V/	3PH 60Hz
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	96,000	(28.1)
Сараску і	Heating	Capacity (Nominal)	Btu/h	(kW)	108,000	(31.7)
	Cooling	Capacity (Rated)	Btu/h	(kW)	92,000	(27.0)
		EER	Btu/Wh	(W/W)	12.4	(3.63)
Efficiency Ratings *2		IEER	Btu/Wh	(Wh/Wh)	23.9	(7.02)
Emoiency realings 2	Heating	Capacity (Rated)	Btu/h	(kW)	103,000	(30.2)
	47°F Ambient	COP	1	/W	3.	
	Heating	Capacity	Btu/h	(kW)	76,000	(22.3)
	17°F Ambient	COP		/W	2.4	
		Indoor	°F WB (		59(15) ~	
		Outdoor	°F DB (	(°C DB)	23(-5) ~	122(50)
	Cooling	Outdoor (with Snow Protection Hood)	°F DB	(°C DB)	14(-23) ~	109(43)
Operating Range *3		Outdoor				
		(with Cooling Damper Kit)	°F DB	°C DB)	-10(-20) -	~ 109(43)
		Indoor	°F DB (	°C DD)	59(15) ~	90/27)
	Heating	Outdoor	°F WB (		-13(-25)	
Cabinet Color (Munse	II Codo)	Outdoor	F WB (	C WB)	2.5Y	
Cabinet Color (Murise	ii Code)		in	<del></del>	66-1/4 x 48-5	
Outer Dimensions	Height x Widt	h x Depth	mm		1683 x 1235	
	Net		lbs	(kg)	591	(268)
Weight	Gross		lbs	(kg)	635	(288)
	Standard (Ex	tended)		(ng)	65-130	. ,
Connection Ratio		mended) Indoor Units/System		Q'ty	20	. ,
		monaca) macor ormare jotom			Multi-Pas	
Heat Exchanger	Туре			-	Finned	Tube
-	Material			-	Cu-Al (Anti-	-corrosion)
	Туре	Inverter 1		-	DC80F	PHD×1
		Inverter 2		-		-
Compressor	Motor Output	(Pole)	kW (	Pole)	9.5	i(6)
	Start Method			-	inve	
	Operation Ra		(	%	11 ~	
	Refrigeration	Oil Type		-	FVC	000
Crank Case Heater			W×	Q'ty	34.2 (23	
	Туре			-	Propell	
	Motor Output	(Pole)		Pole)	0.33(	8)×2
Fan	Quantity		_ u	'ty	- 1	<u> </u>
Fan	Airflow Rate		cfm	(m³/min)	8,437	(239)
	External Stati	c Pressure *4	in.W.G.	(Pa)	0-0.32	(0-80)
	Drive		1		Direct	, ,
	Min Circuit Ar	nps		A	3	9/35
Electrical	Maximum Ov	ercurrent Protective Device		A	5	0
	Maximum Fus	se Size		A	5	0
Sound Pressure	Cooling			(A)	6	
Level	Heating		dB	(A)	6	
	Cycle			-	High press	
	-				at 601psi ( Over-current	
Protection Devices	Inverter			-	Over-heat	
	Compressor		1	-	Over-heat	
	PCB		1	-	Over-curren	t protection
	Туре			-	R41	
Refrigerant	Factory Charg	ge Amount	lbs	(kg)	18.7	(8.9)
Refrigeration Oil	Factory Charg		gal/Unit	(L/Unit)	1.8	(6.9)
Defrost Method	, , ,,			-	Reversed Refr	. ,
	01:		in	(mm)	7/8	(22.2)
Main Refrigerant	Gas Line		111	(111111)	110	(22.2)

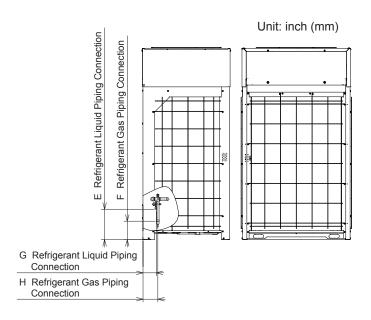
#### NOTES:

- 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.
- External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

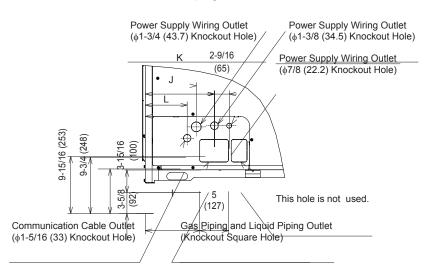








### **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	Е	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

### Refrigerant Piping Connection and Wiring Outlet







		SUB	MITTAL DATA SHEE	iT .	
10 RT (Y,H)VAHP12	20B32S		Consists of one (Y,H)V	AHP120B32S 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)

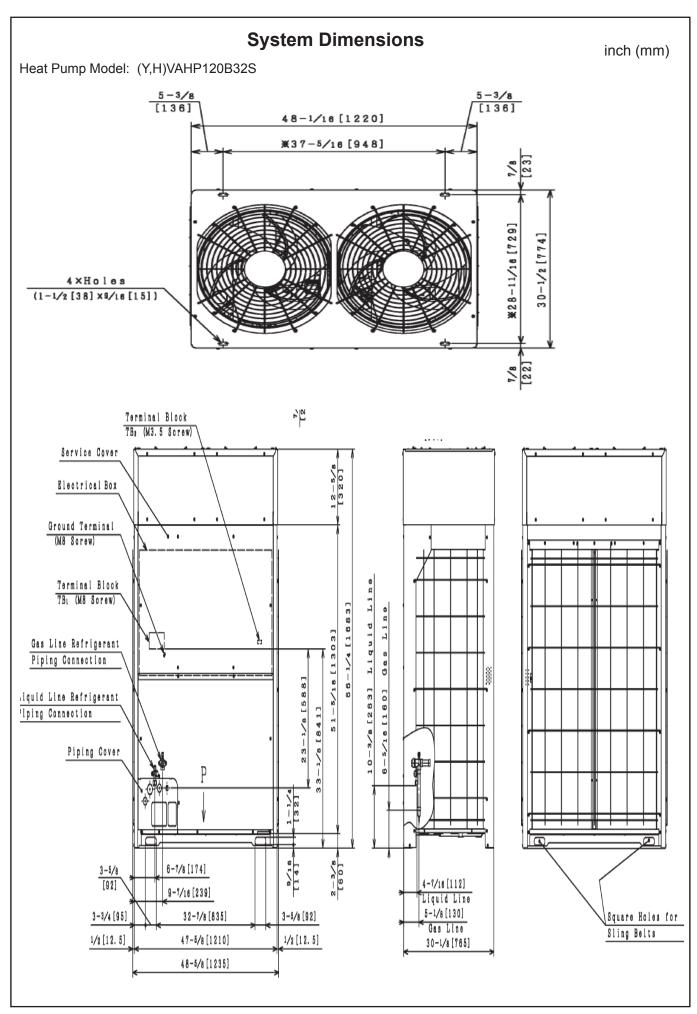
- Piping Kit
- Snow Protection Hood
- Protection Net
- Drain Adapter

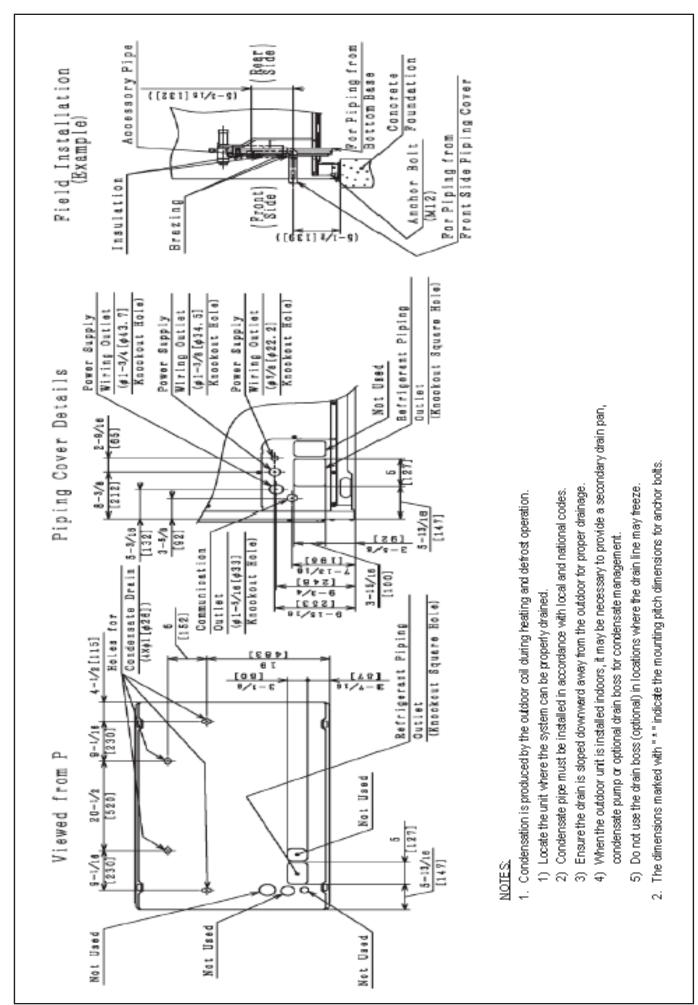
1.1001.	٩٠٠٠١٦		
ory		Ton	•

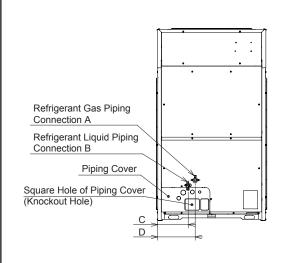
Category		Ton			10	
Model (Combination)		I .			(H,Y)VAHF	P120B32S
		Unit A				-
Model (Individual)		Unit B				-
		Unit C				-
Power Supply					208/230V/	3PH 60Hz
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	120,000	(35.2)
Capacity 1	Heating	Capacity (Nominal)	Btu/h	(kW)	135,000	(39.6)
	Cooling	Capacity (Rated)	Btu/h	(kW)	114,000	(33.4)
		EER	Btu/Wh	(W/W)	12.7	(3.73)
C#:-: +0		IEER	Btu/Wh	(Wh/Wh)	24.4	(7.14)
Efficiency Ratings *2	Heating	Capacity (Rated)	Btu/h	(kW)	129,000	(37.8)
	47°F Ambient	COP	W	W	3.8	84
	Heating	Capacity	Btu/h	(kW)	92,000	(27.0)
	17°F Ambient	COP	W	W	2.3	37
		Indoor	°F WB (	°C WB)	59(15) ~	73(23)
		Outdoor	°F DB (	(°C DB)	23(-5) ~	122(50)
	Cooling	Outdoor (with Snow Protection Hood)	°F DB (	(°C DB)	14(-23) ~	109(43)
Operating Range *3		Outdoor (with Cooling Damper Kit)	°F DB (	(°C DB)	-10(-20)	~ 109(43)
		Indoor	°F DB (	°C DR)	59(15) ~	- 80(27)
	Heating	Outdoor	°F WB (		-13(-25)	
Cabinet Color (Munse	ell Code)		. ***	-	2.5Y	
			in		66-1/4 x 48-5	
Outer Dimensions	Height x Widt	h x Depth	mm		1683 x 1235	
	Net		lbs	(kg)	721	(327)
Weight	Gross		lbs	(kg)	765	(347)
	Standard (Ex	tended)		%	60-130	. ,
Connection Ratio		mended) Indoor Units/System		Q'ty	26	
		menada) mader dimerojetem			Multi-Pas	
Heat Exchanger	Туре			-	Finned	
-	Material			-	Cu-Al (Anti-	-corrosion)
	T	Inverter 1		-	AA50F	PHD×2
	Туре	Inverter 2		-		-
Compressor	Motor Output	(Pole)	kW (	Pole)	5.4(6	6)×2
Compressor	Start Method			-	inve	erter
	Operation Ra	nge		%	11 ~	100
	Refrigeration	Oil Type		-	FVC	68D
Crank Case Heater			W×	Q'ty	34.2 (23	30V) ×6
	Туре			-	Propell	er Fan
	Motor Output	(Pole)	kW (	Pole)	0.39(	8)×2
	Quantity		Q	'ty	2	2
Fan	Airflow Rate		cfm	(m³/min)	9,037	(256)
	External Stati	c Pressure *4	in.W.G.	(Pa)	0-0.32	(0-80)
	Drive			-	Direct	. ,
	Min Circuit Ar	mps		A		6/42
Electrical	Maximum Ov	ercurrent Protective Device		A	6	
	Maximum Fus			A	6	0
Sound Pressure	Cooling		dB	(A)	6	3
Level	Heating			(A)	6	3
	Cycle			-	High press at 601psi (	
Protection Devices	Inverter			-	Over-current Over-heat	t protection protection
	Compressor			-	Over-heat	protection
	PCB			-	Over-curren	
	Туре			-	R41	10A
Refrigerant	Factory Charg	ge Amount	lbs	(kg)	20.9	(9.9)
	Factory Charg	ge Amount	gal/Unit	(L/Unit)	2.1	(7.9)
Refrigeration Oil				·		
				-	Reversed Refr	rigerant Cycl
Refrigeration Oil Defrost Method Main Refrigerant	Gas Line		in	- (mm)	Reversed Refr 1-1/8	rigerant Cycl (28.58)

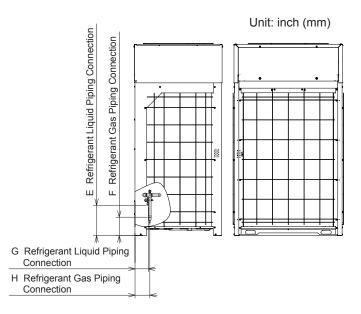
### NOTES:

- 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).

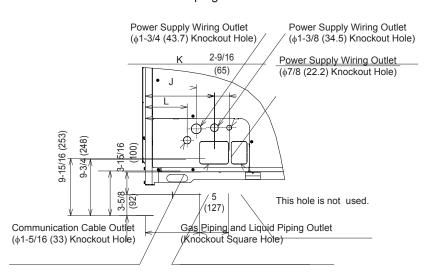








### **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	Е	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

### Refrigerant Piping Connection and Wiring Outlet







		SUB	MITTAL DATA SHE	ET	
12 RT (Y,H)VAHP144	B32S	(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

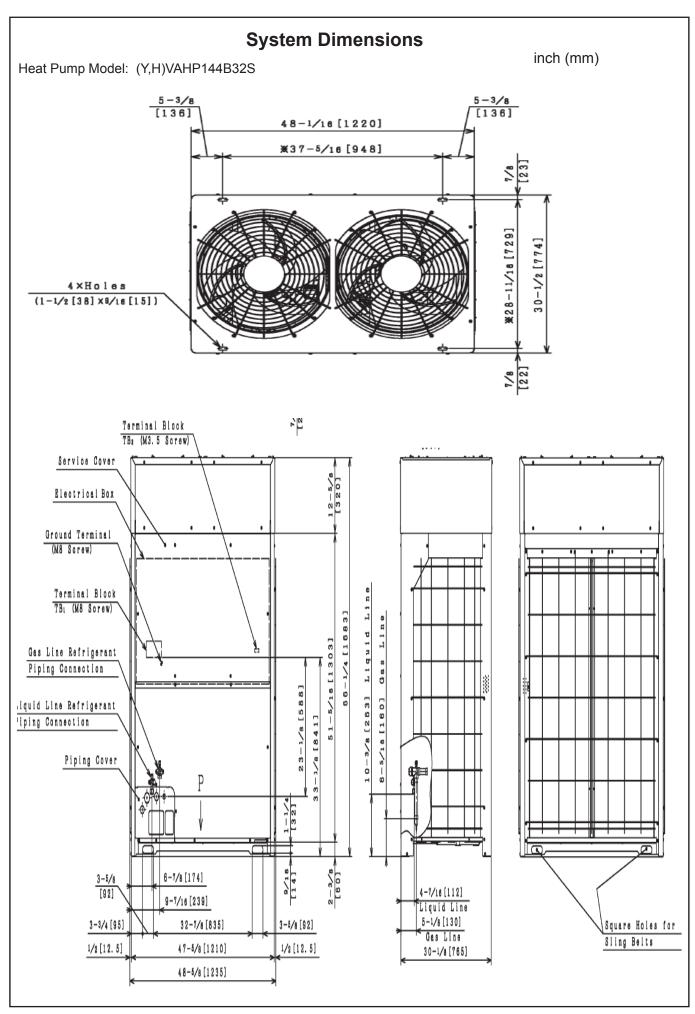
ACCESSORIES: (for detailed information, see VRF Engineering Manual and separate documentation for each accessory)

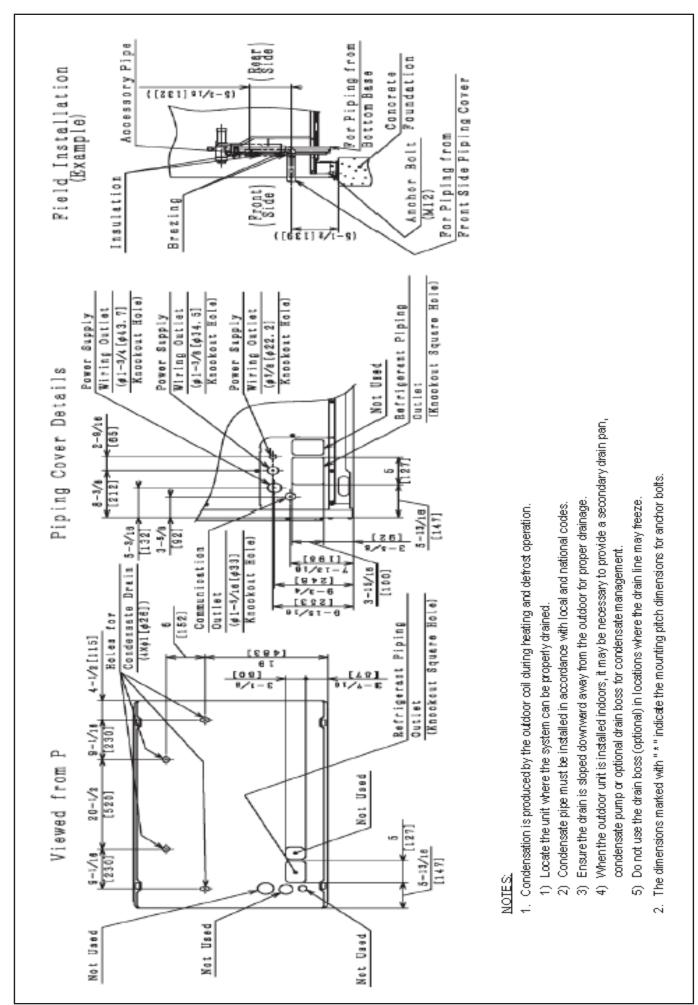
- Piping Kit
- Snow Protection Hood
- Protection Net
- Drain Adapter

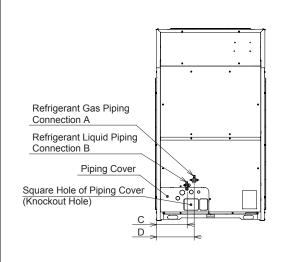
(Heat Pur	np 208	/230V)				
Category	<u> </u>	Ton			121	RT
Model (Combination)		Unit A			(H,Y)VAHF	144B32S
Model (Individual)						
Model (Individual)		Unit B				•
Dawes Const.		Unit C			208/230V/	ODLI COLI-
Power Supply	0 "		D. //	4110		
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	144,000	(42.2)
	Heating	Capacity (Nominal)	Btu/h	(kW)	162,000	(47.5)
	Cooling	Capacity (Rated)	Btu/h	(kW)	138,000	(40.4)
		EER	Btu/Wh	(W/W)	10.9	(3.18)
Efficiency Ratings *2		IEER	Btu/Wh	(Wh/Wh)	23.9	(6.99)
, ,	Heating	Capacity (Rated)	Btu/h	(kW)	154,000	(45.1)
	47°F Ambient	COP		/W	3.4	.=
	Heating	Capacity	Btu/h	(kW)	110,000	(32.2)
	17°F Ambient	COP	W	/W	2.	12
		Indoor	°F WB (	°C WB)	59(15) ~	73(23)
		Outdoor	°F DB (	(°C DB)	23(-5) ~	122(50)
	Cooling	Outdoor	05.00	(00 DD)	14/ 22)	100/42)
O	Cooling	(with Snow Protection Hood)	°F DB (	(-C DB)	14(-23) ~	109(43)
Operating Range *3		Outdoor	0		407.000	100/10)
		(with Cooling Damper Kit)	°F DB (	(°C DB)	-10(-20) -	- 109(43)
		Indoor	°F DB (	(°C DB)	59(15) ~	80(27)
	Heating	Outdoor	°F WB (		-13(-25)	~ 59(15)
Cabinet Color (Munse	ell Code)	•		-	2.5Y	
			in		66-1/4x 48-5/	8 x 30-1/2
Outer Dimensions	Height x Widt	h x Depth	mm		1683 x 1235	
	Net		lbs	(kg)	723	(328)
Weight	Gross		lbs	(kg)	767	(348)
	Standard (Ex	tonded)		(kg) %	55-130	
Connection Ratio				Q'ty	26 (	
	Max. (Recom	mended) Indoor Units/System		Qty	Zo ( Multi-Pas	
Heat Exchanger	Туре			-	Finned	
rical Exchange	Material			-	Cu-Al (Anti-	
		Inverter 1		-	AA50P	
	Туре	Inverter 2			701001	
	Motor Output		kW (	Dolo)	6.4(6	31×2
Compressor	Start Method	(Fole)	KVV (	r ole)	inve	,
	Operation Ra		,	-	11 ~	
			,	%		
	Refrigeration	Oil Type		-	FVC	
Crank Case Heater			W×	Q'ty	34.2 (23	,
	Туре			-	Propell	
	Motor Output	(Pole)	kW (		0.39(8	3)×2
	Quantity		Q	'ty	2	2
Fan	Airflow Rate		cfm	(m³/min)	9,037	(256)
				, ,		
	External Stati	ic Pressure *4	in.W.G.	(Pa)	0-0.32	(0-80)
	Drive				Direct	-drive
	Min Circuit Ar	mps		A	5	8/52
Electrical	Maximum Ov	ercurrent Protective Device		A	7	0
	Maximum Fu	se Size		A	7	0
Sound Pressure	Cooling		dB	(A)	6	5
Level	Heating		dB	(A)	6	5
	0			_	High press	ure switch
	Cycle				at 601psi (	
Protection Devices	Inverter			_	Over-current	
1 TOLECTION DEVICES					Over-heat	
	Compressor			-	Over-heat	
	PCB			-	Over-curren	
	Туре			-	R41	I0A
Refrigerant	Factory Char	ge Amount	Ibs	(kg)	23.6	(10.7)
Refrigeration Oil	Factory Char	ge Amount	gal/Unit	(L/Unit)	2.1	(7.9)
Defrost Method					Reversed Refr	. ,
Main Refrigerant	Gas Line		in	(mm)	1-1/8	(28.58)
	Liquid Line		in	(mm)	5/8	(15.88)

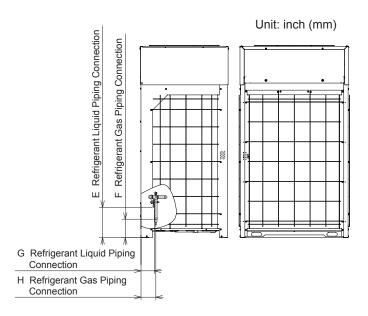
### NOTES:

- 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.
- External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

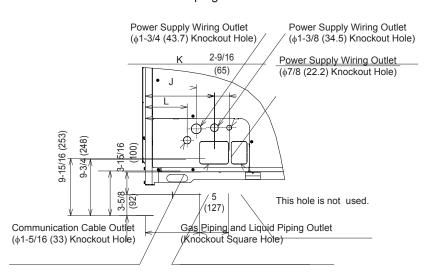








### **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	Е	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

### Refrigerant Piping Connection and Wiring Outlet







		SUE	MITTAL DATA SHEE	iT .	
14 RT (Y,H)VAHP16	8B32S		Consists of one (Y,H)V	AHP168B32S 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 208/2	30\/)	

### **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
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- Space efficient and lightweight provides flexibility in system layout and installation
- Maintenance friendly design of Outdoor Unit – all components accessible from the front

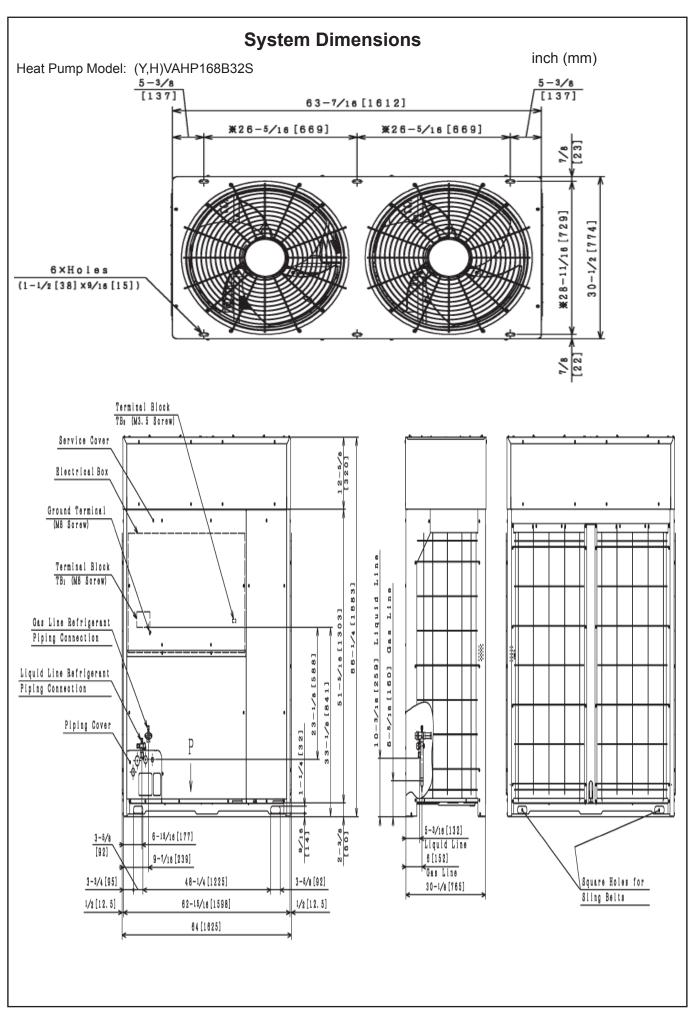
**ACCESSORIES:** (for detailed information, see VRF Engineering Manual and separate documentation for each accessory)

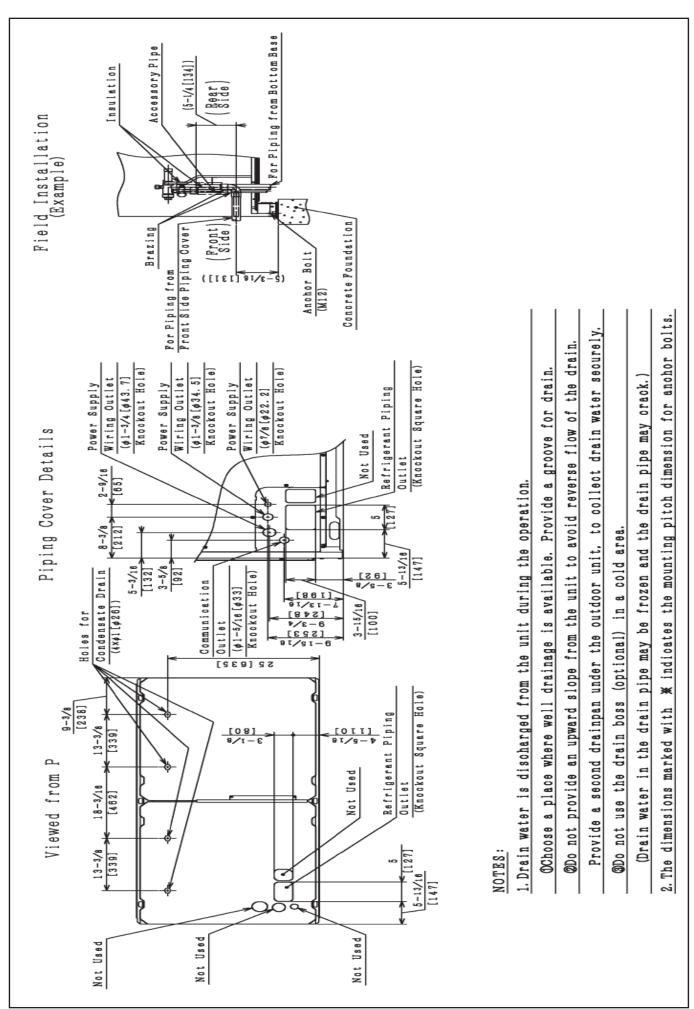
- Piping Kit
- Snow Protection Hood
- Protection Net
- Drain Adapter

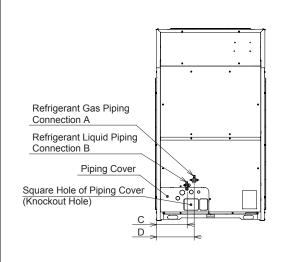
Category  Model (Combination)  Model (Individual)				_			
Model (Individual)		Ton			14	RT	
					(H,Y)VAHF	P168B32S	
		Unit A				-	
Davis Com 1		Unit B					
		Unit C					
Power Supply		T-	1		208/230V/		
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	168,000	(49.2)	
	Heating	Capacity (Nominal)	Btu/h	(kW)	189,000	(55.4)	
	Cooling	Capacity (Rated)	Btu/h	(kW)	160,000	(46.9)	
		EER	Btu/Wh	(W/W)	11.6	(3.40)	
Efficiency Ratings *2		IEER	Btu/Wh Btu/h	(Wh/Wh)	23.4 180,000	(6.86)	
	Heating	Capacity (Rated)		(kW)	180,000 (52.8) 3.65		
	47°F Ambient		Btu/h	W			
	Heating 17°F Ambient	Capacity COP	Btu/n W	(kW)	124,000	(36.3)	
	17 F Ambient	Indoor		•	59(15) ~		
			°F WB (				
		Outdoor	°F DB (	-C DB)	23(-5) ~	122(50)	
Operating Range *3	Cooling	Outdoor (with Snow Protection Hood)	°F DB (	°C DB)	14(-23) ~	109(43)	
, ,		Outdoor (with Cooling Damper Kit)	°F DB (		-10(-20)		
	Heating	Indoor	°F DB (		59(15) ~		
	_	Outdoor	°F WB (	°C WB)	-13(-25)		
Cabinet Color (Munsel	II Code)		-	-	2.5Y		
Outer Dimensions	Height x Widt	th x Depth	in		66-1/4x 64 x		
	_	•	mm 		1683 x 1625		
Weight	Net		lbs	(kg)	849	(385)	
-	Gross		lbs	(kg)	900	(408)	
Connection Ratio	Standard (Ex		9	6	55-130(150)		
	мах. (Recom	mended) Indoor Units/System		Q'ty	36 (12) Multi-Pass Cross-		
Heat Exchanger Type				-	Finned Tube		
	Material				Cu-Al (Anti-		
		Inverter 1			DC80F		
	Туре	Inverter 2		-			
	Motor Output		kW (	Pole)	7.1(	6)×2	
Compressor	Start Method	. 7	(	-	inve		
ŀ	Operation Ra	inge	0	%	11 ~		
	Refrigeration			-	FVC		
Crank Case Heater			W×	Q'ty	34.2 (23		
	Туре			-	Propell		
	Motor Output	(Pole)	kW (	Pole)	0.48(		
	Quantity			'ty			
Fan	Airflow Rate		cfm	(m³/min)	11,614	(329)	
ł	External Stati	ic Pressure *4	in.W.G.	(Pa)	0-0.32	(0-80)	
ŀ	Drive			- '	Direct	. ,	
	Min Circuit Ar	mps	,	Α		5/59	
		ercurrent Protective Device		Α.	8		
	Maximum Fu			A	8		
Sound Pressure	Cooling		dB	(A)	6	4	
Level	Heating		dB		6	4	
	Cycle			-	High press at 601psi	(4.15MPa)	
	Inverter			-	Over-curren Over-heat	protection	
r Totection Devices	Compressor			-	Over-heat		
F TOLECTION DEVICES				-	Over-curren		
F TOLECTION DEVICES	PCB		1	-	R4°	10A	
Refrigerant	PCB Type	go Amount	lhe	(ka)	24.0	(11.3)	
Refrigerant	PCB	ge Amount	Ibs	(kg)	24.9	(11.3)	
Refrigerant	PCB Type		lbs gal/Unit	(kg) (L/Unit)	24.9	(11.3)	
Refrigerant	PCB Type Factory Charg					(8.4)	
Refrigerant Oil	PCB Type Factory Charg				2.2	(8.4)	

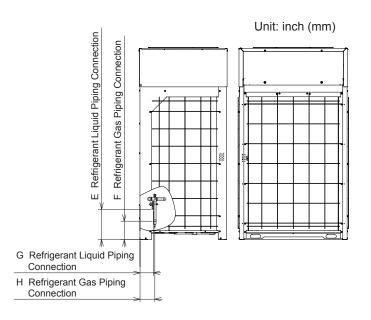
### NOTES:

- 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.
- External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

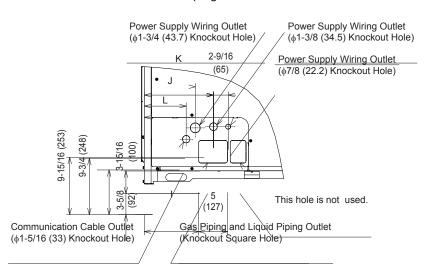








### **Detail of Piping Cover**



Model	Gas	Liquid	А	В	С	D	Е	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

### Refrigerant Piping Connection and Wiring Outlet







		SUB	MITTAL DATA SHEE	ĒΤ	
16 RT (Y,H)VAHP192	2B32S	(Consists	of one (Y,H)VAHP192B32S r	module.)	
Job Name:			Location:		
Purchaser:			Order No.:		
Engineer:					
Submitted To:	For:	Ref:	Approval:	Construction:	
Submitted By:			Date:		
Unit Designation:			Schedule No.:	Model No.:	

### **FEATURES**:

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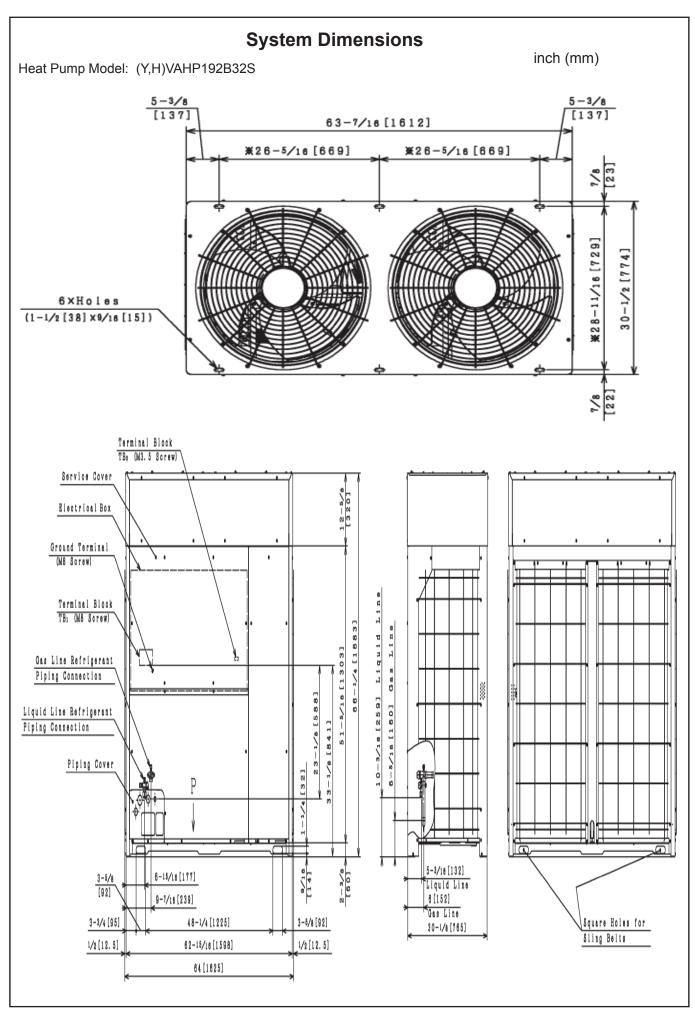
ACCESSORIES: (for detailed information, see VRF Engineering Manual and separate documentation for each accessory)

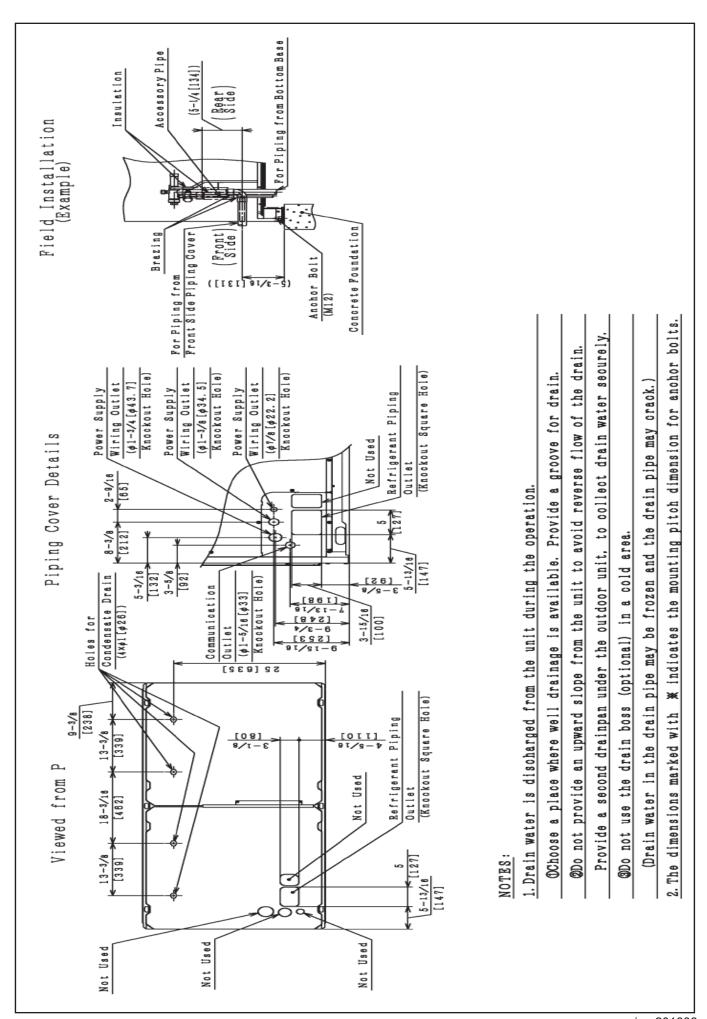
- Piping Kit
- Snow Protection Hood
- Protection Net
- Drain Adapter

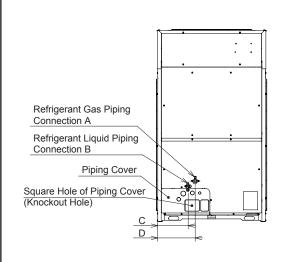
Category		Ton			161	RT	
Model (Combination)					(U V)\/AUF	11000000	
Model (Combination)		Unit A			(H,Y)VAHF	1928325	
Model (Individual)		Unit B			16RT  (H,Y)VAHP192B32S  208/230V1 3PH 60Hz 192,000 (56.3) 216,000 (63.3) 184,000 (53.9) 10.6 (3.11) 21.4 (6.27) 206,000 (60.4) 3.32 140,000 (41.0) 2.05 59(15) ~ 73(23) 23(-5) ~ 122(50) 14(-23) ~ 109(43) -10(-20) ~		
,		Unit C			-		
Power Supply					208/230V/	3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	192,000	(56.3)	
Capacity 1	Heating	Capacity (Nominal)	Btu/h	(kW)	216,000	(63.3)	
	Cooling	Capacity (Rated)	Btu/h	(kW)		, ,	
		EER	Btu/Wh	(W/W)			
Efficiency Ratings *2		IEER	Btu/Wh	(Wh/Wh)			
	Heating 47°F Ambient	Capacity (Rated)	Btu/h W	(kW)		. ,	
	Heating	Capacity	Btu/h	(kW)			
	17°F Ambient	COP		/W	208/230V/ 3PH 60Hz 208/230V/ 3PH 60Hz 192,000 (63.3) 216,000 (63.3) 184,000 (53.9) 10.6 (3.11) 21.4 (6.27) 206,000 (60.4) 3.32 140,000 (41.0) 2.05 59(15) ~ 73(23) 23(-5) ~ 122(50) 14(-23) ~ 109(43)  -10(-20) ~ 109(43)  -10(-20) ~ 109(43)  59(15) ~ 80(27) -13(-25) ~ 59(15) 2.5Y 8/2 66-1/4 x 64 x 30·1/2 1883 x 1825 x 774 849 (385) 900 (408) 55-130(150) 40 (14) Multi-Pass Cross- Finned Tube Cu-Al (Anti-corrosion) DC80PH0×2 - 9.1(6)×2 inverter 11 ~ 100 FVC68B 34.2 (230V) ×6 Propeller Fan 0.56(8) x 2 2 12.284 (348) 0-0.32 (0-80) T6/68		
	TT T TURBOR	Indoor	°F WB (				
		Outdoor		(°C DB)			
0 " 0 *0	Cooling	Outdoor (with Snow Protection Hood)	°F DB (				
Operating Range *3		Outdoor (with Cooling Damper Kit)	°F DB (	(°C DB)	-10(-20)	~ 109(43)	
	Heating	Indoor	°F DB (	(°C DB)	59(15) ~	80(27)	
	3	Outdoor	°F WB (	°C WB)	-13(-25)	~ 59(15)	
Cabinet Color (Munse	II Code)						
Outer Dimensions	Height x Widt	th x Depth	in				
		·	mm lbs				
Weight	Net Gross		lbs	(kg) (kg)			
	Standard (Ex	tended)		(kg) %	(H,Y)VAHP192B32		
Connection Ratio		mended) Indoor Units/System		Q'ty	(H,Y)VAHP192B3		
				-	(H,Y)VAHP192B32:		
Heat Exchanger	Туре			-			
	Material	T		-	40 (14) Multi-Pass Cross- Finned Tube Cu-Al (Anti-corrosion)		
	Туре	Inverter 1 Inverter 2		-	DC80F	HD×2	
	Motor Output		kW (	Pole)	0.1/6	- 3)×2	
Compressor	Start Method	. (i oic)	K** (	-		,	
	Operation Ra	inge		%	_		
	Refrigeration	Oil Type		-	FVC	68D	
Crank Case Heater			W×	Q'ty	34.2 (23	30V) ×6	
	Туре			-	Propell	er Fan	
	Motor Output	(Pole)		Pole)			
_	Quantity		Q	'ty	- 2	2	
Fan	Airflow Rate		cfm	(m³/min)			
		ic Pressure *4	in.W.G.	(Pa)			
	Drive	mne		-			
Electrical	Min Circuit A	rercurrent Protective Device		A A			
Licotrical	Maximum Fu			A A	-	-	
Sound Pressure	Cooling	00 0120		(A)			
Level	Heating			(A)			
	Cycle			-			
Protection Devices	Inverter			-	Over-heat	protection	
	Compressor			-			
	PCB Type			-		_	
Refrigerant	Type Factory Char	ge Amount	Ibs	(kg)		(11.6)	
Refrigeration Oil			gal/Unit	(L/Unit)			
Defrost Method	Factory Char	ge Amount	yairUnit	(L/Unit)		(- /	
Main Refrigerant	Gas Line		in	(mm)		(28.58)	
	OUS LINE		111	(111111)	1-1/0	(20.00)	

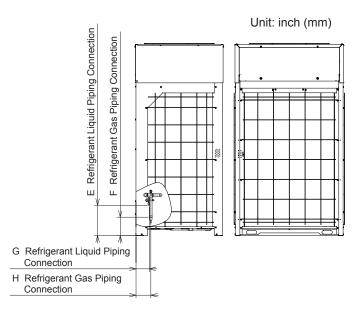
### NOTES:

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

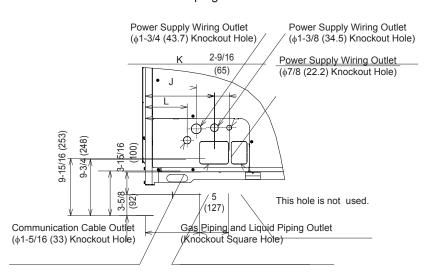








### **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	Е	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

### Refrigerant Piping Connection and Wiring Outlet







		SUB	MITTAL DATA SHEE	T
18 RT (Y,H)VAHP216	6B32S	Consists	of one (Y,H)VAHP144B32S ar	nd 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

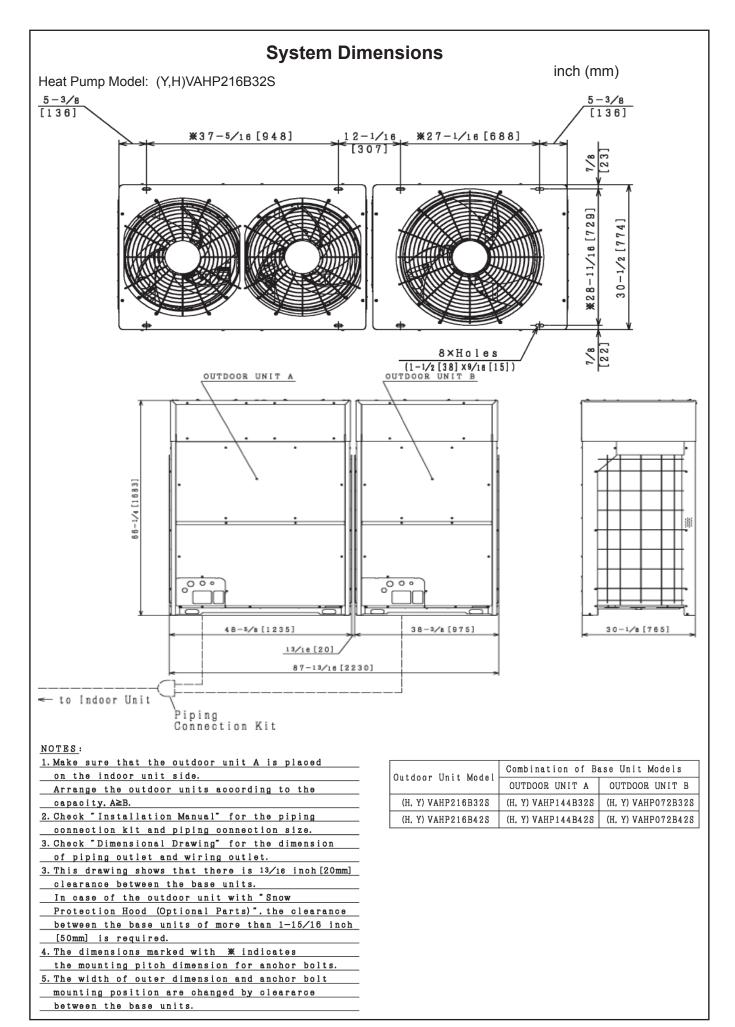
ACCESSORIES: (for detailed information, see VRF Engineering Manual and separate documentation for each accessory)

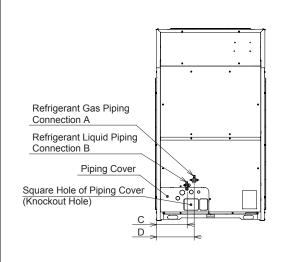
- Piping Kit
- Snow Protection Hood
- Protection Net
- Drain Adapter

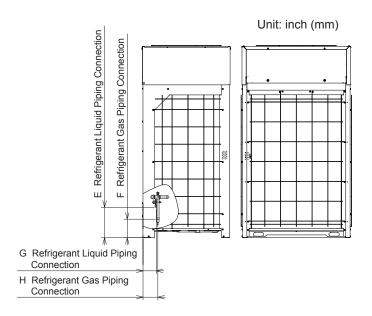
Category		Ton					18	RT	
,							(12RT	+6RT)	
Model (Combination)							(H,Y)VAH	P216B32S	
		Unit A					(H,Y)VAHI	P144B32S	
Model (Individual)		Unit B					(H,Y)VAHF	P072B32S	
		Unit C						-	
Power Supply									
Capacity *1	Cooling	Capacity (No			Btu/h	(kW)	216,000	(63.3)	
	Heating	Capacity (No			Btu/h	(kW)		, ,	
	Cooling	Capacity (Ra	ted)		Btu/h	(kW)			
		EER			Btu/Wh	(W/W)			
Efficiency Ratings *2		IEER			Btu/Wh	(Wh/Wh)		, ,	
	Heating 47°F Ambient	Capacity (Ra	tea)		Btu/h	(kW) /W			
	Heating				Btu/h	(kW)		(H,Y)VAHP216B32S (H,Y)VAHP14B32S (H,Y)VAHP14B32S (H,Y)VAHP072B32S  208/230V/ 3PH 60H2 216,000	
	17°F Ambient	Capacity			Biu/II W				
	17 F AIIIDIEIIL	Indoor					_		
		Outdoor				°C WB)			
		Outdoor			FUBI	(CDB)	20(-0)	122(50)	
Operating Range *3	Cooling	(with Snow P	rotection	Hood)	°F DB (	(°C DB)	14(-23) ~	109(43)	
		(with Cooling	Damner	- Kit)	°F DB (	(°C DB)	-10(-20)	~ 109(43)	
		Indoor	Sampe	· utj	°F DB (	°C DB)	23(-5) ~ 122(50)  14(-23) ~ 109(43)  -10(-20) ~ 109(43)  59(15) ~ 80(27) -13(-25) ~ 59(15)  2.5Y 8/2  66-1/4 × 38-3/8 × 30- 975 × 774)  723+516   (328+234) 767+556   (348+252) 60-130(150)  46 (18)  Multi-Pass Cross- Fined Tube  Cu-Al (Anti-corrosion)  DC80PHD×1  AASOPHD×2  6.4(6)×2+7.4(6) inverter  11 ~ 100  FVC68D		
	Heating	Outdoor			°F WB (				
Cabinet Color (Munse	II Code)	Guidooli				-			
·			in	(66 1/4	v 48 5/8v	30 1/2+			
Outer Dimensions	Height x Widt	h x Depth	mm					5-3/0 X 30-	
	Net		1	(1000 %	lbs	(kg)		(328+234)	
Weight	Gross				lbs	(kg)	767+556		
O	Standard (Ex	tended)				%	60-130		
Connection Ratio	Max. (Recom	mended) Indo	or Units	/System		Q'ty	46	(18)	
	Туре					_			
Heat Exchanger									
	Material					-			
	Туре	Inverter 1 Inverter 2				-			
	Motor Output				LAM (	Pole)	60-130(150) 46 (18) Multi-Pass Cross- Finned Tube Cu-Al (Anti-corrosion) DC80PHD×1 AA50PHD×2 6.4(6)×2+7.4(6)		
Compressor	Start Method	(FUIE)			KVV (	rule)		AHP144B32S AHP072B32S  OV 3PH 60Hz  (68.3) (68.4) (68.3) (68.4) (	
	Operation Ra	nne				%			
	Refrigeration					-			
Crank Case Heater	rtomgoration	O 1, po			W×	Q'ty			
	Туре								
	Motor Output	(Pole)			kW (	Pole)			
	Quantity	( /			,	'ty		3	
Fan	-						9.037		
	Airflow Rate				cfm	(m³/min)	+6,707	(256+190)	
	External Stati	c Pressure *4			in.W.G.	(Pa)	0-0.32	(0-80)	
	Drive					-			
-	Min Circuit A					A			
Electrical		ercurrent Prot	ective D	evice		A			
	Maximum Fu	se Size				A			
Sound Pressure	Cooling					(A)		-	
Level	Heating				dB	(A)			
	Cycle					-			
Protection Devices	Inverter					-	Over-curren	t protection	
	Compressor					-			
	PCB					-			
	Туре					-			
Refrigerant	Factory Char	ge Amount			lbs	(kg)	23.6+16.1	34.2 (230V) ×9 Propeller Fan (0.39(8)×2)·0.42(8) 3 9.037 +66,707 0-0.32 (0-80) Direct-drive 58+29/52+26 70+40 70+40 66 66 High pressure switch at 601psi (4.15MPa) Over-current protection Over-heat protection Over-heat protection Over-current protection Qver-heat protection Qver-heat protection (10.7+7.2) 2.1+1.6 (7.9+6.0) Reversed Refrigerant Cycle 1-1/8 (28.58)	
Refrigeration Oil	Factory Char	ge Amount			gal/Unit	(L/Unit)	2.1+1.6	(7.9+6.0)	
Defrost Method	. stary strian	,			J=	- (= = :()			
					H				
Main Refrigerant	Gas Line				in	(mm)	1-1/8	(28.58)	

### NOTES:

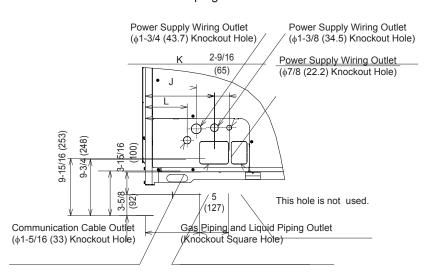
- 1. Rating Conditions are based on the AHRI 1230 test standard.
- 2. Efficiency ratings are based on the AHRI 1230 test standard.
- 3. For more details, please refer to the Engineering manual "Operation range" section.
- External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).







### **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	E	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

### Refrigerant Piping Connection and Wiring Outlet







		SUB	MITTAL DATA SHEE	т	
20 RT (Y,H)VAHP2	40B32S		Consists of two (Y,H)VA	.HP120B32S 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 208/2)	30V)	

### **FEATURES**:

- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
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- Maintenance friendly design of Outdoor Unit – all components accessible from the front

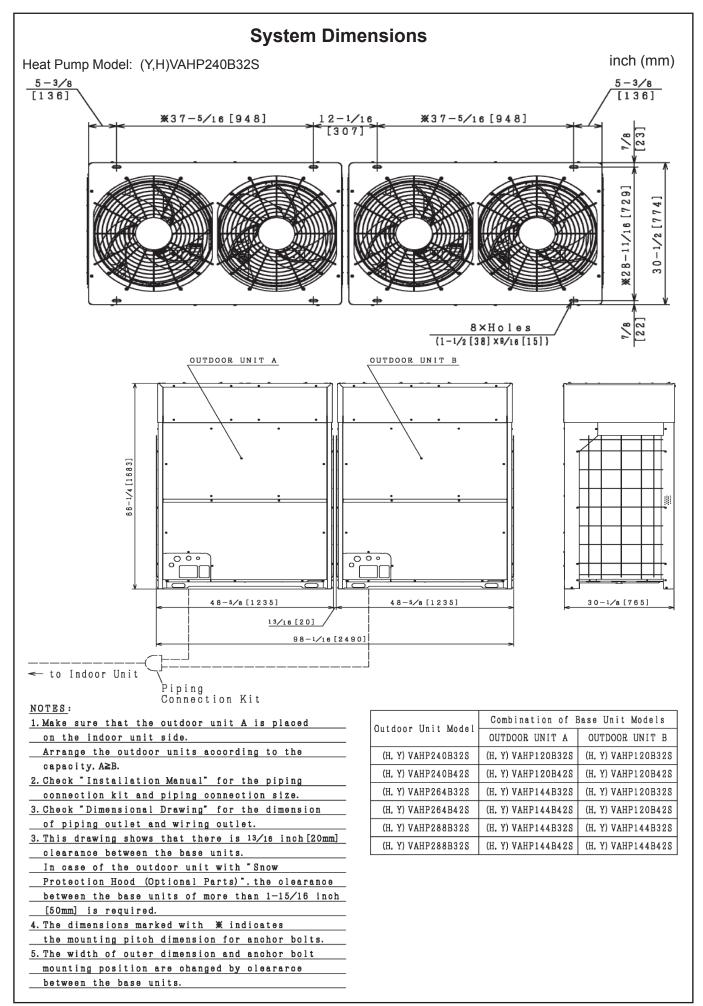
ACCESSORIES: (for detailed information, see VRF Engineering Manual and separate documentation for each accessory)

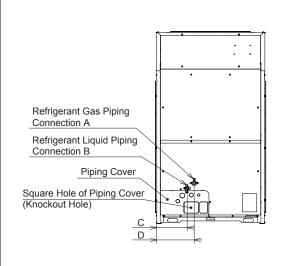
- Piping Kit
- Snow Protection Hood
- Protection Net
- Drain Adapter

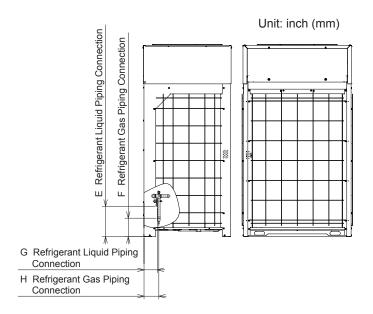
(Heat Pur	11P 200	72001)					
Category		Ton					
Model (Combination)		Unit A			,		
Model (Individual)		Unit B					
woder (marviduar)		Unit C			(11,1)	1200323	
Power Supply		OTHE C			208/230\//	3PH 60Hz	
	Cooling	Capacity (Nominal)	Btu/h	(kW)			
Capacity *1	Heating	Capacity (Nominal)	Btu/h	(kW)			
	Cooling	Capacity (Rated)	Btu/h	(kW)			
		EER	Btu/Wh	(W/W)			
		IFFR	Btu/Wh	(Wh/Wh)			
Efficiency Ratings *2	Heating	Capacity (Rated)	Btu/h	(kW)	258.000		
	47°F Ambient	COP		w`´			
	Heating	Capacity	Btu/h	(kW)	178,000	(52.2)	
	17°F Ambient	COP	W	/W	2.3	35	
		Indoor	°F WB	(°C WB)	59(15) ~	73(23)	
		Outdoor	°F DB	(°C DB)	23(-5) ~	122(50)	
	Cooling	Outdoor	0c. p.p.	00 pp)	14/ 22)	100/42\	
Operating Pange *3	Cooling	(with Snow Protection Hood)	L DB	(°C DB)	14(-23) ~	109(43)	
Operating Range *3		Outdoor	0E DB	(°C DB)	(10RT+10RT) (H,Y)VAHP120B32S (H,Y)VAHP120B32S (H,Y)VAHP120B32S (H,Y)VAHP120B32S (H,Y)VAHP120B32S (H,Y)VAHP120B32S (H,Y)VAHP120B32S (H,Y)VAHP120B32S (H,Y)VAHP120B32S (2000 (70.3) 270.000 (79.1) 228.000 (66.8) 11.1 (3.24) 20.8 (6.09) 259.000 (75.6) 3.67 178.000 (52.2) 2.35 59(15) ~ 73(23) 23(-5) ~ 122(50) 14(-23) ~ 109(43) -10(-20) ~ 109(43) -59(15) ~ 80(27) -13(-25) ~ 59(15) 2.5Y 8/2 8-5/8 × 30-1/2) × 2 235 × 774) × 2 721 × 2 (327×2) 765 × 2 (347×2) 60-130(150) 52 (18) Multi-Pass Cross-Finned Tube Cu-Al (Anti-corrosion) AA50PHD×4 - (5.4(6)×2) × 2 inverter 11 ~ 100 FVC8BD 34.2 (230V) × 12 Propeller Fan (0.39(8)×2) × 2 4 9,037 × 2 (256×2) 0-0.32 (0-80) Direct-drive 46 × 2/42 × 2 60 × 2 66 High pressure switch at 601psi (4.15MPa) Over-current protection Over-heat protection Over-heat protection Over-current protection Over-current protection Over-current protection	100(43)	
		(with Cooling Damper Kit)					
	Heating	Indoor		(°C DB)			
	Ů	Outdoor	°F WB (°C WB)				
Cabinet Color (Munse	II Code)		ļ	-	(H,Y)VAHP240B32S (H,Y)VAHP120B32S (H,Y)VAHP120B32S (H,Y)VAHP120B32S (H,Y)VAHP120B32S 240,000 (70.3) 270,000 (79.1) 228,000 (66.8) 11.1 (3.24) 2.8 (6.09) 258,000 (75.6) 3.67 178,000 (52.2) 2.35 59(15) ~ 73(23) 23(5) ~ 122(50) 14(-23) ~ 109(43) -10(-20) ~ 109(43) -59(15) ~ 80(27) -13(-25) ~ 59(15) 2.57 8/2 3-5/8 x 30.1/2) x 2 335 x 774) x 2 721 x 2 (327 x 2) 765 x 2 (347 x 2) 60-130(150) 52 (18) Multi-Pass Cross-Finned Tube Cu-Al (Anti-corrosion) AA50PHD x 4 (5.4(6) x 2) x 2 inverter 11 ~ 100 FVC68D 34.2 (230V) x 12 Propeller Fan (0.39(8) x 2) x 2 4 9,037 x 2 (256 x 2) 0-0.32 (0.80) Direct-drive 46 x 2/42 x 2 60		
Outer Dimensions	Height x Widt	th x Depth	in				
	_	· r ·	mm				
Weight	Net		lbs	(kg)			
	Gross		lbs	(kg)			
Connection Ratio	Standard (Ex			%	(10RT+10RT) (H,Y)VAHP240832S (H,Y)VAHP120B32S (H,Y)VAHP120B32S (H,Y)VAHP120B32S (H,Y)VAHP120B32S (H,Y)VAHP120B32S (H,Y)VAHP120B32S (H,Y)VAHP120B32S (H,Y)VAHP120B32S (H,Y)VAHP120B32S (G,Y,Z,Z,Z,Z,Z,Z,Z,Z,Z,Z,Z,Z,Z,Z,Z,Z,Z,Z,	` '	
	Max. (Recom	mended) Indoor Units/System		Q'ty			
Heat Exchanger	Туре		-		(10RT+10RT) (H,Y)VAHP120B32S (H,Y)VAHP120B32S (H,Y)VAHP120B32S 240,000 (70.3) 270,000 (79.1) 228,000 (66.8) 11.1 (3.24) 20.8 (6.09) 258,000 (75.6) 3.67 178,000 (75.2) 2.35 59(15) ~ 73(23) 23(.5) ~ 122(50) 14(-23) ~ 109(43) -10(-20) ~ 109(43) 59(15) ~ 80(27) -13(-25) ~ 59(15) 2.5Y 8/2 3.5/8 × 30.1/2) × 2 353 × 774) × 2 721 × 2 (327×2) 60-130(150) 52 (18) Multi-Pass Cross-Finned Tube Cu-Al (Anti-corrosion) AA50PHD×4 - (5.4(6)×2) × 2 inverter 11 ~ 100 FVC68D 34.2 (230V) × 12 Propeller Fan (0.39(8)×2) × 2 4 9,037 × 2 (256×2) 60 × 2 60 × 2 60 × 2 60 × 2 66 66 High pressure switch at 601psi (4.15MPa) Over-current protection Over-heat protection Over-heat protection Over-current protection R410A 20.9 × 2 (9.9×2) 2.1 × 2 (7.9×2) 2.1 × 2 (7.9×2) 2.1 × 2 (7.9×2) 2.1 × 2 (7.9×2) 2.1 × 2 (7.9×2) 2.1 × 2 (7.9×2) Reversed Refrigerant Cycre L3/8 (34.93)		
	Material			-			
		Inverter 1		-	8-5/8 x 30-1/2) x 2 235 x 774) x 2 721 x 2 (327 x 2) 765 x 2 (347 x 2) 60-130(150) 52 (18) Multi-Pass Cross- Finned Tube Cu-Al (Anti-corrosion) AA50PHD x 4 - (5.4(6) x 2) x 2 inverter 11 x - 100 FVC68D		
	Туре	Inverter 2	1	-	-		
Compressor	Motor Output	(Pole)	kW	(Pole)	(5.4(6)	×2)×2	
Compressor	Start Method			-			
	Operation Ra			%			
	Refrigeration	Oil Type					
Crank Case Heater			W>	Q'ty			
	Туре			-			
	Motor Output	(Pole)		(Pole)			
_	Quantity		C	)'ty	4	1	
Fan	Airflow Rate		cfm	(m³/min)	9,037×2	(256×2)	
		ic Pressure *4	in.W.G.	(Pa)			
	Drive			-	Direct	-drive	
	Min Circuit A			A			
Electrical		ercurrent Protective Device		A			
	Maximum Fu	se Size		A			
Sound Pressure Level	Cooling			(A)			
revei	Heating		dB	(A)	v	•	
	Cycle			-			
Protection Devices	Inverter		1				
Frotection Devices							
	Compressor		1	-			
				-			
	PCB		1	-	R41	UA	
Refrigerant	Туре	ge Amount	lhe	(ka)	20 0 ~ 2	(Q Q × 2)	
	Type Factory Char		lbs	(kg)			
Refrigeration Oil	Туре		lbs gal/Unit	(kg) (L/Unit)	2.1×2	(7.9×2)	
Refrigeration Oil Defrost Method	Type Factory Char Factory Char		gal/Unit	(L/Unit)	2.1×2 Reversed Refr	(7.9×2) igerant Cycle	
Refrigeration Oil	Type Factory Char				2.1×2 Reversed Refr 1-3/8	(7.9×2) igerant Cycle (34.93)	

### NOTES:

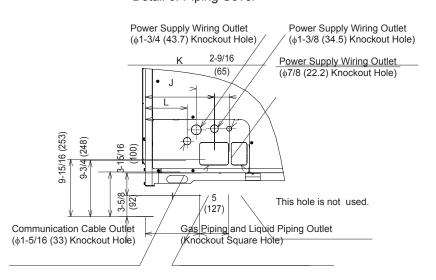
- 1. Rating Conditions are based on the AHRI 1230 test standard.
- 2. Efficiency ratings are based on the AHRI 1230 test standard.
- 3. For more details, please refer to the Engineering manual "Operation range" section.
- External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).







### **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	Е	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

### Refrigerant Piping Connection and Wiring Outlet







		SUB	MITTAL DATA SHEE	ET .			
22 RT (Y,H)VAHP26	4B32S	Consists of one (Y,H)VAHP144B32S and one (Y,H)VAHP120B32S mo					
Job Name:			Location:				
Purchaser:			Order No.:				
Engineer:							
Submitted To:	For:	Ref:	Approval:	Construction:			
Submitted By:			Date:				
Unit Designation:			Schedule No.:	Model No.:			
			(Heat Pump 208/2	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
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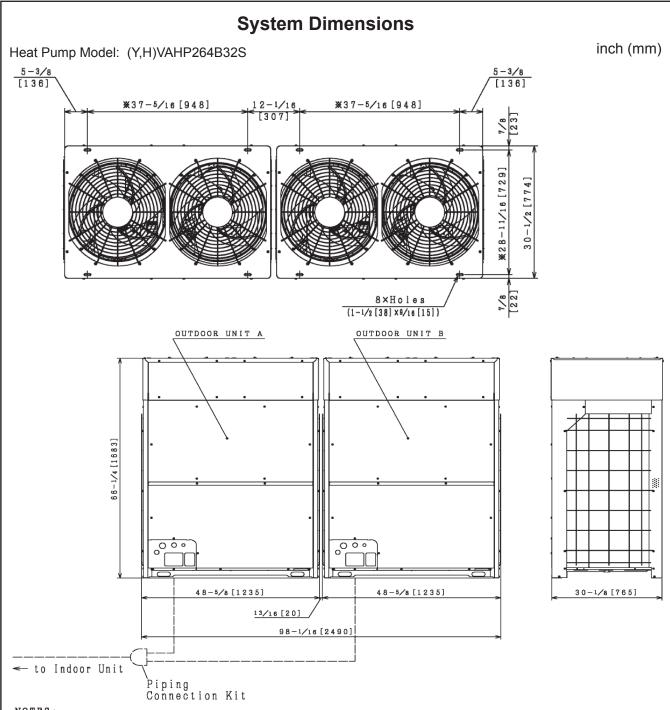
ACCESSORIES: (for detailed information, see VRF Engineering Manual and separate documentation for each accessory)

- Piping Kit
- Snow Protection Hood
- Protection Net
- Drain Adapter

Category		Ton			(1007)			
Model (Combinetics)					(10RT+	. ,		
Model (Combination)				(H,Y)VAHF				
Madal (ladicidesal)		Unit A	(H,Y)VAHP144B32S					
Model (Individual)		Unit B			(H,Y)VAHP120B32S			
D 0 1		Unit C			0001000111			
Power Supply	T	I			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)		
	Cooling	Capacity (Rated)	Btu/h	(kW)	252,000	(73.9)		
		EER	Btu/Wh	(W/W)	10.5	(3.08)		
Efficiency Ratings *2		IEER	Btu/Wh	(Wh/Wh)	20.8	(6.10)		
, , , ,	Heating	Capacity (Rated)	Btu/h	(kW)	283,000	(83.0)		
	47°F Ambient	COP		/W	3.			
	Heating	Capacity	Btu/h	(kW)	196,000	(57.5)		
	17°F Ambient	COP		/W	2.:			
		Indoor		(°C WB)	59(15) ~			
		Outdoor	°F DB	(°C DB)	23(-5) ~	122(50)		
	Cooling	Outdoor	°F DB	(°C DB)	14(-23) ~	109(43)		
Operating Range *3	Ů	(with Snow Protection Hood)	. 55	( 0 00)	,	( -,		
		Outdoor (with Cooling Damper Kit)		(°C DB)	-10(-20)			
	Heating	Indoor		(°C DB)	59(15) ~			
	_	Outdoor	°F WB	(°C WB)	-13(-25)			
Cabinet Color (Munse	ell Code)			-	2.5Y	8/2		
Outer Dimensions	Height x Widt	h y Denth	in	(66-1/4 x 48	3-5/8 x 30-1/2	!) x 2		
Outer Dimensions	ricigitt x vvidi	ar x Bepar	mm	(1683 x	1235 x 774) x	2		
Weight	Net		lbs	(kg)	723 + 721	(328+32		
vveignt	Gross		lbs	(kg)	767 + 765	(348+34)		
Connection Ratio	Standard (Ex	tended)		%	55-130(150)			
Connection Natio	Max. (Recom	mended) Indoor Units/System		Q'ty	56 (	20)		
	Туре			_	Multi-Pas			
Heat Exchanger					Finned			
	Material	le		-	Cu-Al (Anti-corrosion)			
	Туре	Inverter 1		-	AA50PHD×4			
		Inverter 2			-			
Compressor	Motor Output	(Pole)	kW (	Pole)	(6.4(6)×2)+(5.4(6) x 2			
	Start Method			-	inverter 11 ~ 100			
	Operation Ra			%				
	Refrigeration	Oil Type		-	FVC68D			
Crank Case Heater	1		W×	Q'ty	34.2 (230V) ×12			
	Туре			-	Propeller Fan			
	Motor Output	(Pole)		Pole)	(0.39(8)×2) × 2			
	Quantity		C	)'ty	4			
Fan	Airflow Rate		cfm	(m³/min)	9,037×2	(256×2)		
	External Stati	ic Pressure *4	in.W.G.	(Pa)	0-0.32	(0-80)		
	Drive			-	Direct	-drive		
	Min Circuit A	mps		A	58+46/52+42			
Electrical	Maximum Ov	ercurrent Protective Device		A	70-	+60		
	Maximum Fu	se Size		A	70+60			
Sound Pressure	Cooling		dB	(A)	6	7		
Level	Heating		dB	(A)	6	•		
	Cycle			-	High pressure switch at 601psi (4.15MPa)			
Protection Devices	Inverter		-	Over-curren Over-heat	protection			
	Compressor		-	Over-heat protection				
	PCB		-	Over-curren				
	Туре			-	R4	10A		
Refrigerant	Factory Char	ge Amount	lbs	(kg)	23.6+20.9	(10.7+9.		
	Factory Char	ge Amount	gal/Unit	(L/Unit)	2.1×2	(7.9×2)		
Refrigeration Oil	, , , , , , , , , , , , , , , , , , , ,	•	+	/				
Defrost Method				-	Reversed Refr	igerant Cycle		
	Gas Line		in	(mm)	Reversed Refi	igerant Cycle (34.93)		

#### NOTES:

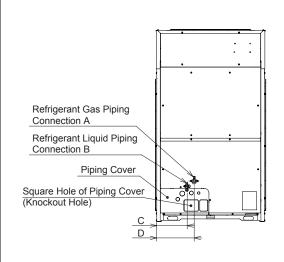
- 1. Rating Conditions are based on the AHRI 1230 test standard.
- 2. Efficiency ratings are based on the AHRI 1230 test standard.
- 3. For more details, please refer to the Engineering manual "Operation range" section.
- External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

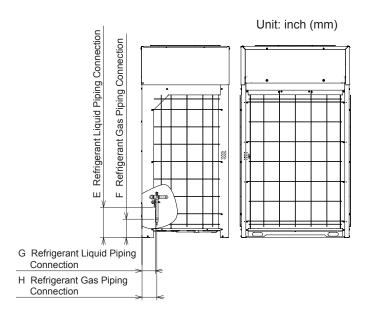


#### NOTES:

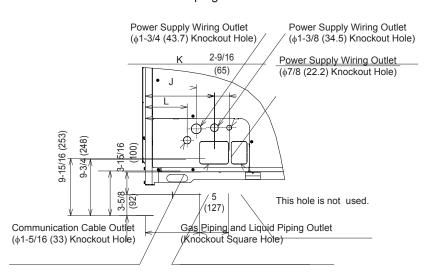
- 1. Make sure that the outdoor unit A is placed
  - on the indoor unit side.
- Arrange the outdoor units according to the capacity. A≥B.
- 2. Check "Installation Manual" for the piping connection kit and piping connection size.
- 3. Check "Dimensional Drawing" for the dimension
- of piping outlet and 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 cleararce
- between the base units.

Outdoor Unit Model	Combination of E	Base Unit Models
Outdoor Onit Model	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





### **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	Е	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

### Refrigerant Piping Connection and Wiring Outlet







SUBMITTAL DATA SHEET												
24 RT (Y,H)VAHP28	8B32S		Consists of two (Y,H)VA	.HP144B32S 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 208/21	30//)								

### **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

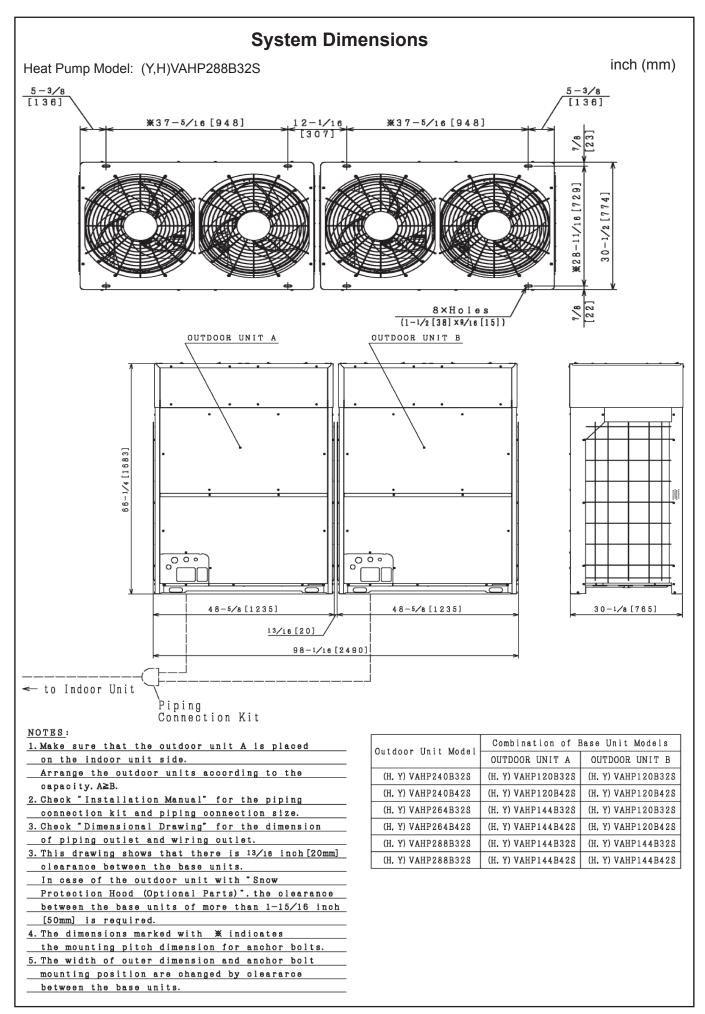
ACCESSORIES: (for detailed information, see VRF Engineering Manual and separate documentation for each accessory)

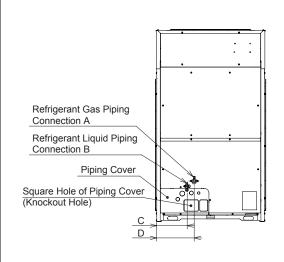
- Piping Kit
- Snow Protection Hood
- Protection Net
- Drain Adapter

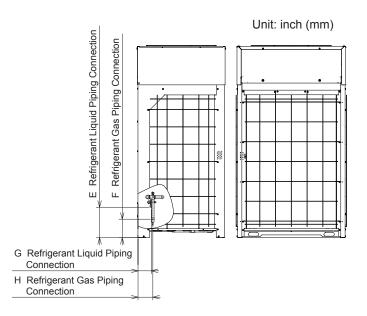
Category	24RT						
				(12RT+12RT)			
Model (Combination)				(H,Y)VAHP288B32S			
		Unit A			(H,Y)VAHP144B32S		
Model (Individual)		Unit B			(H,Y)VAH	P144B32S	
		Unit C				-	
Power Supply					208/230V/	3PH 60Hz	
	Cooling	Capacity (Nominal)	Btu/h	(kW)	288,000	(84.4)	
Capacity *1	Heating	Capacity (Nominal)	Btu/h	(kW)	324,000	(95.0)	
	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)	
Efficiency Ratings *2	Heating	Capacity (Rated)	Btu/h	(kW)	308,000	(90.3)	
	47°F Ambient		W.	w		42	
	Heating	Capacity	Btu/h	(kW)	214,000	(62.7)	
	17°F Ambient	' '	W	. ,	2.	, ,	
		Indoor	°F WB (	°C WB)	59(15)		
		Outdoor	°F DB (		23(-5) ~		
		Outdoor					
Operating Range *3	Cooling	(with Snow Protection Hood)	°F DB (	(°C DB)	14(-23) ~	109(43)	
		(with Cooling Damper Kit)	°F DB (	(°C DB)	-10(-20)	~ 109(43)	
	Heating	Indoor	°F DB (	(°C DB)	59(15) ~		
	ricating	Outdoor	°F WB (	°C WB)	-13(-25)	~ 59(15)	
Cabinet Color (Munse	ell Code)			-	2.5	′ 8/2	
Outer Dimensions	Height x Widt	th y Denth	in		48-5/8 x 30-		
Outer Dimensions	_	ar x Bepar	mm	(1683 x	1235 x 774)	x 2	
Weight	Net		lbs	(kg)	723×2	(328×2)	
vveigni	Gross		lbs	(kg)	767×2	(348×2)	
Connection Ratio	Standard (Ex	tended)	9	%	55-130(150)		
Connection Ratio	Max. (Recom	mended) Indoor Units/System		Q'ty	59	(20)	
	Туре			-	Multi-Pas	s Cross-	
Heat Exchanger					Finned		
	Material			-	Cu-Al (Anti		
	Туре	Inverter 1		-	AA50F	PHD×4	
		Inverter 2		-		-	
Compressor	Motor Output	(Pole)	kW (	Pole)	(6.4(6)		
	Start Method			-	inve		
	Operation Ra		9	%	11 ~ 100		
	Refrigeration	Oil Type		-	FVC68D		
Crank Case Heater			W×	Q'ty	34.2 (23		
	Туре			-	Propeller Fan		
	Motor Output	(Pole)	,	Pole)	(0.39(8)×2) × 2		
	Quantity		Q'ty			4	
Fan	Airflow Rate		cfm	(m³/min)	9,037×2	(256×2)	
	External Stati	ic Pressure *4	in.W.G.	(Pa)	0-0.32	(0-80)	
	Drive		-		Direct-drive		
	Min Circuit A	mps	,	A	58	× 2/52 × 2	
Electrical	Maximum Ov	ercurrent Protective Device	,	A		×2	
	Maximum Fu	se Size	,	A	70×2		
Sound Pressure	Cooling		dB	(A)	6	i8	
Level	Heating		dB	(A)		i8	
	Cycle			-	High press		
Destanting Design	Inverter			_	at 601psi Over-curren	t protection	
Protection Devices				-	Over-heat		
	Compressor			-	Over-heat protection		
	PCB			-	Over-current protection		
	Туре			-	R4	10A	
Refrigerant	ge Amount	lbs	(kg)	23.6×2	(10.7×2)		
Refrigeration Oil	Factory Char	ge Amount	gal/Unit	(L/Unit)	2.1×2	(7.9×2)	
Defrost Method					Reversed Ref	rigerant Cycle	
Main Refrigerant Piping (Heat Pump)	Gas Line		in	(mm)	1-3/8	(34.93)	

### NOTES:

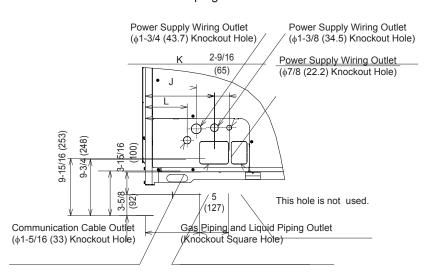
- 1. Rating Conditions are based on the AHRI 1230 test standard.
- 2. Efficiency ratings are based on the AHRI 1230 test standard.
- 3. For more details, please refer to the Engineering manual "Operation range" section.
- 4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).







### **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	Е	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

### Refrigerant Piping Connection and Wiring Outlet







SUB	MITTAL DATA SHEE	Т
Consists	of one (Y,H)VAHP168B32S a	and one (Y,H)VAHP144B32S module
	Location:	
	Order No.:	
Ref:	Approval:	Construction:
	Date:	
	Schedule No.:	Model No.:
	Consists	Order No.:  Ref: Approval:  Date:

### **FEATURES**:

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- Maintenance friendly design of Outdoor Unit – all components accessible from the front

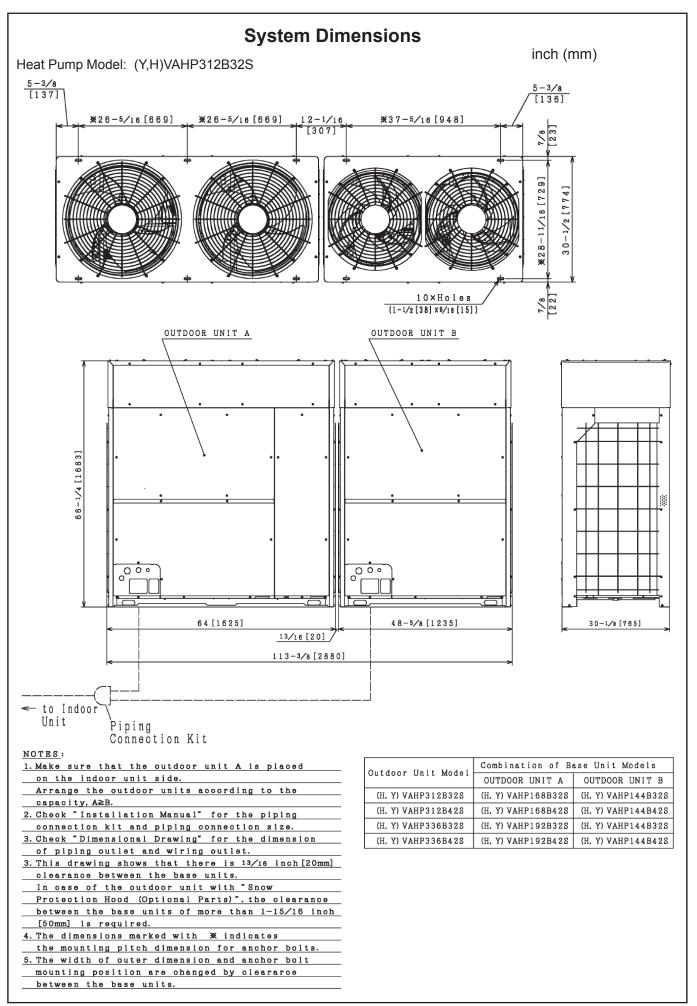
ACCESSORIES: (for detailed information, see VRF Engineering Manual and separate documentation for each accessory)

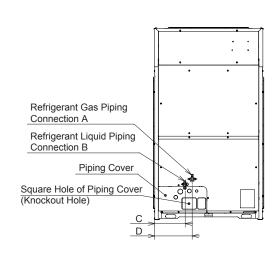
- Piping Kit
- Snow Protection Hood
- Protection Net
- Drain Adapter

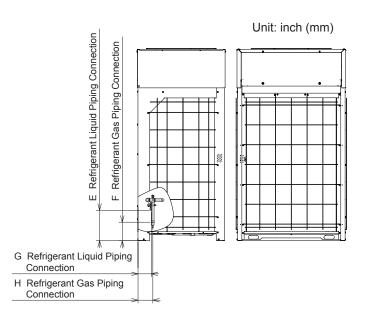
Category		Ton						RT
								+12RT)
Model (Combination)					P312B32S			
		Unit A		(H,Y)VAHP168B32S				
Model (Individual)		Unit B					(H,Y)VAH	P144B32S
		Unit C						-
Power Supply	,					,		3PH 60Hz
Capacity *1	Cooling	Capacity (No			Btu/h	(kW)	312,000	(91.4)
	Heating	Capacity (No	ominal)		Btu/h	(kW)	351,000	(102.9)
	Cooling	Capacity (Ra	ated)		Btu/h	(kW)	298,000	(87.3)
		EER			Btu/Wh	(W/W)	9.7	(2.83)
Efficiency Ratings *2		IEER			Btu/Wh	(Wh/Wh)	20.3	(5.96)
Ellicitity Radings 2	Heating	Capacity (Ra	ated)		Btu/h	(kW)	334,000	(97.9)
	47°F Ambien	nt COP				W		37
	Heating	Capacity			Btu/h	(kW)	232,000	(68.0)
	17°F Ambien	COP			W	/W	2.	05
		Indoor			°F WB (	°C WB)	59(15)	~ 73(23)
		Outdoor			°F DB (	(°C DB)	23(-5) ~	122(50)
	Cooling	Outdoor					14/ 221	100/42\
Operating Bong - +0	Cooling	(with Snow Protection Hood)			-F DB (	(°C DB)	14(-23) ~	109(43)
Operating Range *3		Outdoor			0	00 D=:	10/ 001	- 100/401
		(with Cooling	g Damp	er Kit)	°F DB (	(°C DB)	-10(-20)	~ 109(43)
		Indoor			°F DB (	(°C DB)	59(15)	~ 80(27)
	Heating	Outdoor			°F WB (			~ 59(15)
Cabinet Color (Muns	ell Code)					-		/ 8/2
			in	(66-1/4 x	64 x 30-	1/2)+ (66	-1/4 x 48-5/	8 x 30-1/2
Outer Dimensions	Height x Wid	Ith x Depth	mm				383 x 1235	
	Net			,	lbs	(kg)	849+723	
Weight	Gross				lbs	(kg)	900+767	(408+348
	Standard (Ex	ktended)				6		0(150)
Connection Ratio	,	nmended) Inc	loor Un	its/System		Q'ty		(22)
								ss Cross-
Heat Exchanger	Туре					-		d Tube
•	Material			-	Cu-Al (Ant	i-corrosion)		
	T	Inverter 1				-	DC80	PHD×2
	Туре	Inverter 2				-	AA50F	PHD×2
_	Motor Outpu	t (Pole)			kW (	Pole)	(7.1(6)×2)+	(6.4(6)×2)
Compressor	Start Method	ı			-		inve	erter
	Operation Ra					11 ~ 100		
	Refrigeration							68D
Crank Case Heater	. 3	. ,,,			W×	Q'ty		80V) ×12
	Туре					-		ler Fan
	Motor Outpu	t (Pole)			kW (	Pole)	(0.48(8)×2)+	
	Quantity	/				'tv	, .,., -,	4
Fan						Ĺ	11,614	
	Airflow Rate				cfm	(m <sup>3</sup> /min)	+9,037	(329+256
	External Sta	tic Pressure *	4		in.W.G.	(Pa)	0-0.32	(0-80)
	Drive					· · · · · ·		t-drive
	Min Circuit A	mps				Α		+58/59+52
Electrical		vercurrent Pro	otective	Device		Α .		+70
	Maximum Fu			01.00		Α		+70
Sound Pressure	Cooling					(A)		88
Level	Heating					(A)		18
					ub.	(/1)		sure switch
	Cycle					-	at 601psi (4	
Protection Devices	Inverter					-	Over-currer	nt protection
Stocker, Devices								protection
	Compressor					-		protection
	PCB					-	Over-currer	
<b>5</b>	Туре					-	R4	10A
Refrigerant	Factory Cha	rge Amount			lbs	(kg)	24.9+23.6	(11.3+10.7
Refrigeration Oil	Factory Cha	rge Amount			gal/Unit	(L/Unit)	2.2+2.1	(8.4+7.9)
		Charge Pariount					Reversed Ret	frinerant Cvc
Defrost Method			ie.			-	11010100011101	ngorant Oyo
Defrost Method Main Refrigerant	Gas Line				in	(mm)	1-3/8	(34.93)

### NOTES:

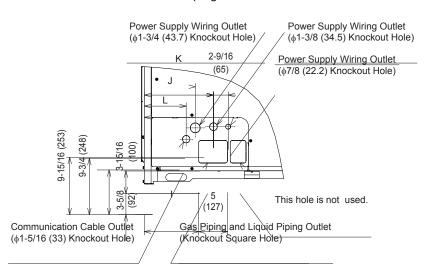
- 1. Rating Conditions are based on the AHRI 1230 test standard.
- 2. Efficiency ratings are based on the AHRI 1230 test standard.
- For more details, please refer to the Engineering manual "Operation range" section.
- 4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).







## Detail of Piping Cover



Model	Gas	Liquid	А	В	С	D	Е	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

## Refrigerant Piping Connection and Wiring Outlet







		SUB	MITTAL DATA SHEE	T
28 RT (Y,H)VAHP33	86B32S	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.:
·			(Heat Pump 208/2	30//)

### **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

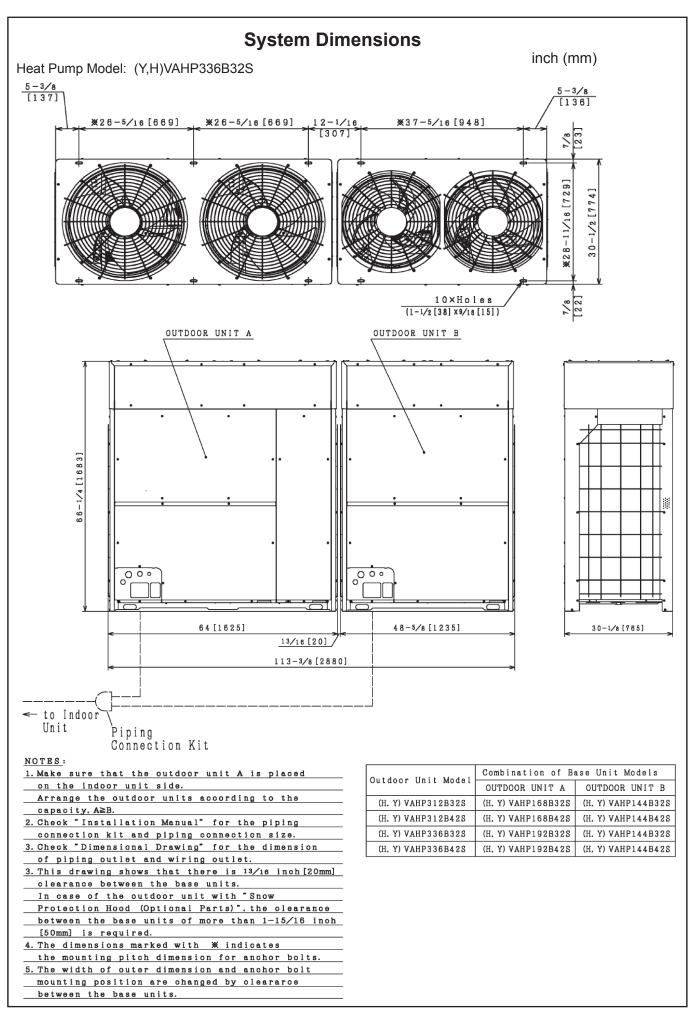
**ACCESSORIES:** (for detailed information, see VRF Engineering Manual and separate documentation for each accessory)

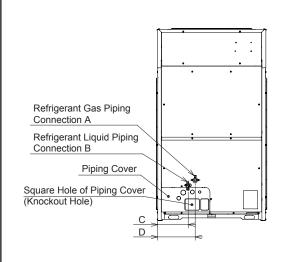
- Piping Kit
- Snow Protection Hood
- Protection Net
- Drain Adapter

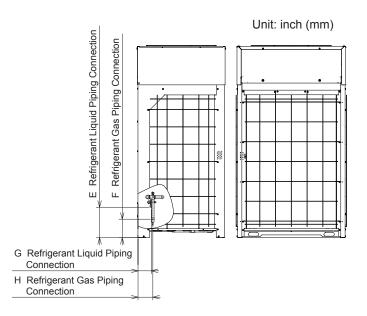
Category		Ton					RT	
						(16RT-		
Model (Combination)		1				(H,Y)VAH		
		Unit A					P192B32S	
Model (Individual)		Unit B				(H,Y)VAH	P144B32S	
		Unit C					-	
Power Supply							3PH 60Hz	
Capacity *1	Cooling	Capacity (Nominal)		Btu/h	(kW)	336,000	(98.5)	
	Heating	Capacity (Nominal)		Btu/h	(kW)	378,000	(110.8)	
	Cooling	Capacity (Rated)		Btu/h	(kW)	320,000	(93.8)	
		EER		Btu/Wh	(W/W)	9.5	(2.78)	
Efficiency Ratings *2		IEER		Btu/Wh	(Wh/Wh)	20.8	(6.09)	
Elliciency Rauligs 2	Heating	Capacity (Rated)		Btu/h (kW)		360,000	(105.5)	
	47°F Ambient	COP		٧	//W		27	
	Heating	Capacity	-	Btu/h	(kW)	250,000	(73.3)	
	17°F Ambient	COP		٧	//W	2.	31	
		Indoor		°F WB	(°C WB)	59(15)	~ 73(23)	
		Outdoor		°F DB	(°C DB)	23(-5) ~	122(50)	
Operating Range *3	Cooling	Outdoor (with Snow Protection Hood)	,		(°C DB)	14(-23) ~		
Operating range 5		Outdoor (with Cooling Damper Kit)		°F DB	(°C DB)	-10(-20)	~ 109(43)	
	Heating	Indoor			(°C DB)	59(15)		
	ŭ	Outdoor	°F WB	(°C WB)	, ,	~ 59(15)		
Cabinet Color (Munse	ell Code)				-		/ 8/2	
Outer Dimensions	Height x Wid		in			2)+(66-1/4 x		
- Cutor Dimonolono	rioigne x viid	n	nm	(168	3 x1625 x 7	74)+(1683 x1	235 x 774)	
Weight	Net			lbs	(kg)	849+723	(385+328	
TTOIGHT	Gross			lbs	(kg)	900+767	(408+348	
Connection Ratio	Standard (Ex	tended)			%	55-13	0(150)	
Connection Natio	Max. (Recom	mended) Indoor Units/System	n		Q'ty		(24)	
	Туре					Multi-Pas		
Heat Exchanger						Finned		
	Material				-		-corrosion)	
	Туре	Inverter 1			-		PHD×2	
		Inverter 2			-		PHD×2	
Compressor	Motor Output	(Pole)		kW	(Pole)	(9.1(6)×2)+		
	Start Method	Method			-		erter	
		peration Range %				11 ~ 100		
	Refrigeration	Oil Type			-		68D	
Crank Case Heater				W:	Q'ty	34.2 (23		
	Туре				-	Propel	ler Fan	
	Motor Output	(Pole)		kW	(Pole)	(0.56(8)×2)+	$(0.39(8) \times 2$	
	Quantity			(	Q'ty		4	
Fan	Airflow Rate			cfm	(m³/min)	12,284 +9,037	(348+256	
		ic Pressure *4	_	in.W.G.	(Pa)			
	Drive		_		-		t-drive	
	Min Circuit A		_		A		+58/68+52	
Electrical		rercurrent Protective Device			A		+70	
	Maximum Fu	se Size	_		A		+70	
Sound Pressure	Cooling		_		3 (A)		9	
Level	Heating			dE	3 (A)		9	
	Cycle				-	High press at 601psi ( Over-curre	4.15 MPa)	
Protection Devices	Inverter		J		-	Over-heat		
	Compressor		T		-	Over-heat		
	PCB				-	Over-currer	nt protection	
					-	R4	10A	
	Туре							
Refrigerant	Type Factory Char	ge Amount		lbs	(kg)	25.6+23.6	(11.6+10.7	
Refrigerant Refrigeration Oil			-	lbs gal/Unit	(kg) (L/Unit)	25.6+23.6 2.2+2.1		
	Factory Char						(11.6+10.7 (8.4+7.9) rigerant Cycl	
Refrigeration Oil	Factory Char					2.2+2.1	(8.4+7.9)	

### NOTES:

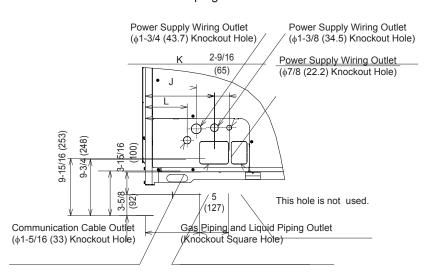
- 1. Rating Conditions are based on the AHRI 1230 test standard.
- 2. Efficiency ratings are based on the AHRI 1230 test standard.
- 3. For more details, please refer to the Engineering manual "Operation range" section.
- 4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).







## **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	E	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

## Refrigerant Piping Connection and Wiring Outlet







		SUB	MITTAL DATA SHEE	Т
30 RT (Y,H)VAHP36	60B32S	Consists	of one (Y,H)VAHP192B32S a	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.:
			(Heat Pump 208/2)	30V)

### **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

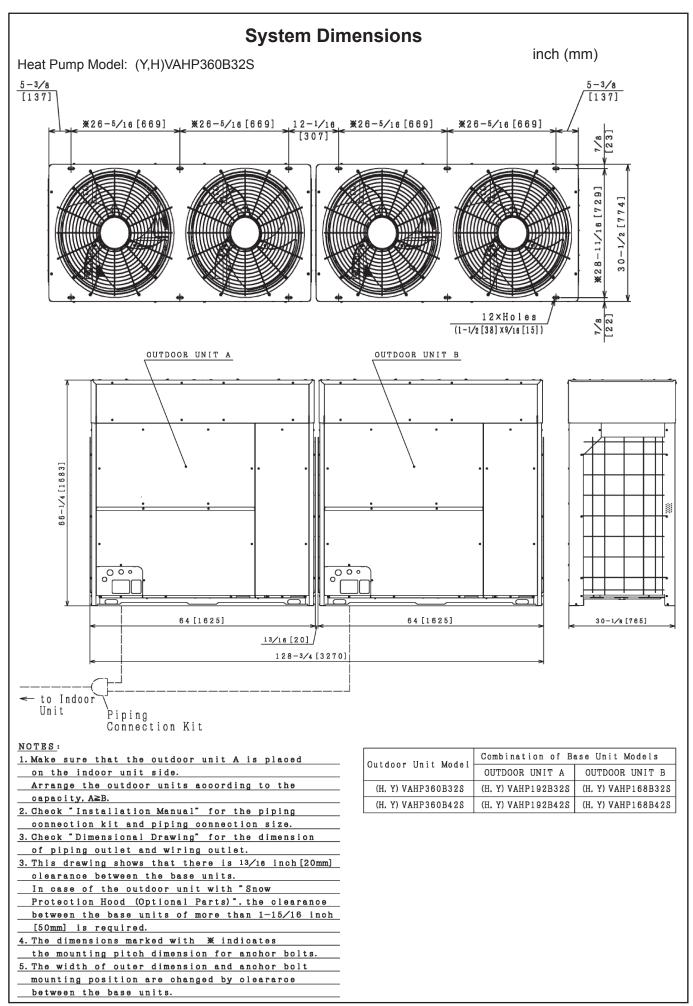
ACCESSORIES: (for detailed information, see VRF Engineering Manual and separate documentation for each accessory)

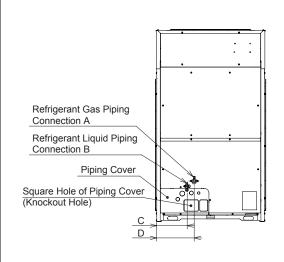
- Piping Kit
- Snow Protection Hood
- Protection Net
- Drain Adapter

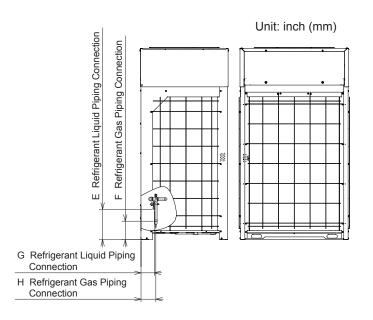
Category		Ton			30		
Madal (Oa. 11 m. 1					(16RT+		
Model (Combination)		I 1 - 14 A			(H,Y)VAHF		
Mandal (Individual)		Unit A Unit B			(H,Y)VAHF		
Model (Individual)					(H,Y)VAHF	2168B32S	
		Unit C				-	
Power Supply	0 "	lo " au : n	D	a	208/230V/		
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	360,000	(105.5)	
	Heating	Capacity (Nominal)	Btu/h	(kW)	405,000	(118.7)	
	Cooling	Capacity (Rated)	Btu/h	(kW)	344,000	(100.8)	
		EER	Btu/Wh	(W/W)	9.5	(2.78)	
Efficiency Ratings *2		IEER	Btu/Wh	(Wh/Wh)	19.8	(5.81)	
	Heating	Capacity (Rated)	Btu/h	(kW)	386,000	(113.1)	
	47°F Ambient	COP		/W	3.	-	
	Heating	Capacity	Btu/h	(kW)	262,000	(76.8)	
	17°F Ambient	COP		/W	2.		
		Indoor	°F WB (	°C WB)	59(15) ~	. ,	
		Outdoor	°F DB	(°C DB)	23(-5) ~	122(50)	
Operating Range *3	Cooling	Outdoor (with Snow Protection Hood)	°F DB	(°C DB)	14(-23) ~	109(43)	
Operating Natige 3		Outdoor (with Cooling Damper Kit)	°F DB	(°C DB)	-10(-20)	~ 109(43)	
	Heating	Indoor	°F DB	(°C DB)	59(15) ~		
	3	Outdoor	°F WB (	°C WB)	-13(-25)	~ 59(15)	
Cabinet Color (Munse	ell Code)			-	2.5Y	/ 8/2	
Outer Dimensions	Height x Widt	h y Denth	in		(66-1/4 x 64 x	x 30-1/2) x	
Outer Difficusions	i ieigiit x widt	II v nehili	mm		(1683 x 1625	x 774) x 2	
18/-:	Net		lbs	(kg)	849×2	(385×2)	
Weight	Gross		lbs	(kg)	900×2	(408×2)	
0 " 0 "	Standard (Ex	tended)		%	55-130	0(150)	
Connection Ratio	Max. (Recom	mended) Indoor Units/System		Q'ty	64	(28)	
				-	Multi-Pas	s Cross-	
Heat Exchanger	Туре			-	Finned	d Tube	
	Material			-	Cu-Al (Anti-	-corrosion)	
	Туре	Inverter 1		-	DC80F	PHD×4	
	Type	Inverter 2		-		-	
Compressor	Motor Output	(Pole)	kW (	Pole)	(9.1(6)×2)+	(7.1(6)×2)	
Compressor	Start Method			-	inverter		
	Operation Ra	nge	%		11 ~ 100		
	Refrigeration	Oil Type		-	FVC	68D	
Crank Case Heater			W×	Q'ty	34.2 (23	0V) ×12	
	Туре			-	Propel		
	Motor Output	(Pole)	kW (	Pole)	(0.56(8)×2)+		
	Quantity	· ·		'ty		4	
Fan	Airflow Rate		cfm	(m³/min)	12,284 +11.614	(348+329	
	External Stati	c Pressure *4	in.W.G.	(Pa)	0-0.32	(0-80)	
	Drive			- (/	Direct		
	Min Circuit A	mns		A		+65/68+59	
Electrical		ercurrent Protective Device		A	90-		
	Maximum Fu			A		+80	
Sound Pressure	Cooling			(A)		88	
Level	Heating			(A)		88	
	Cycle			-	High press at 601psi		
Protection Devices	Inverter			-	Over-curren Over-heat	t protection protection	
	Compressor	·		-	Over-heat	protection	
	PCB	·		-	Over-curren		
Refrigerant	Туре			-	R4		
	Factory Char		lbs	(kg)	25.6+24.9	(11.6+11.3	
Refrigeration Oil	Factory Char	ge Amount	gal/Unit	(L/Unit)	2.2×2	(8.4×2)	
					Reversed Refi	rigoropt Cycl	
Defrost Method				-			
	Gas Line Liquid Line		in	(mm)	1-3/8	(34.93) (19.05)	

#### NOTES:

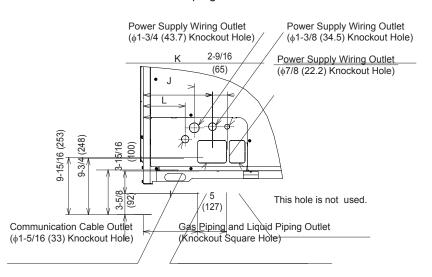
- 1. Rating Conditions are based on the AHRI 1230 test standard.
- 2. Efficiency ratings are based on the AHRI 1230 test standard.
- 3. For more details, please refer to the Engineering manual "Operation range" section.
- External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).







## Detail of Piping Cover



Model	Gas	Liquid	А	В	С	D	Е	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

## Refrigerant Piping Connection and Wiring Outlet







	SUE	MITTAL DATA SHEE	T
32 RT (Y,H)VAHP384B32S	Consist	s of one (Y,H)VAHP144B32S a	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
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- Space efficient and lightweight provides flexibility in system layout and installation
- Maintenance friendly design of Outdoor Unit – all components accessible from the front

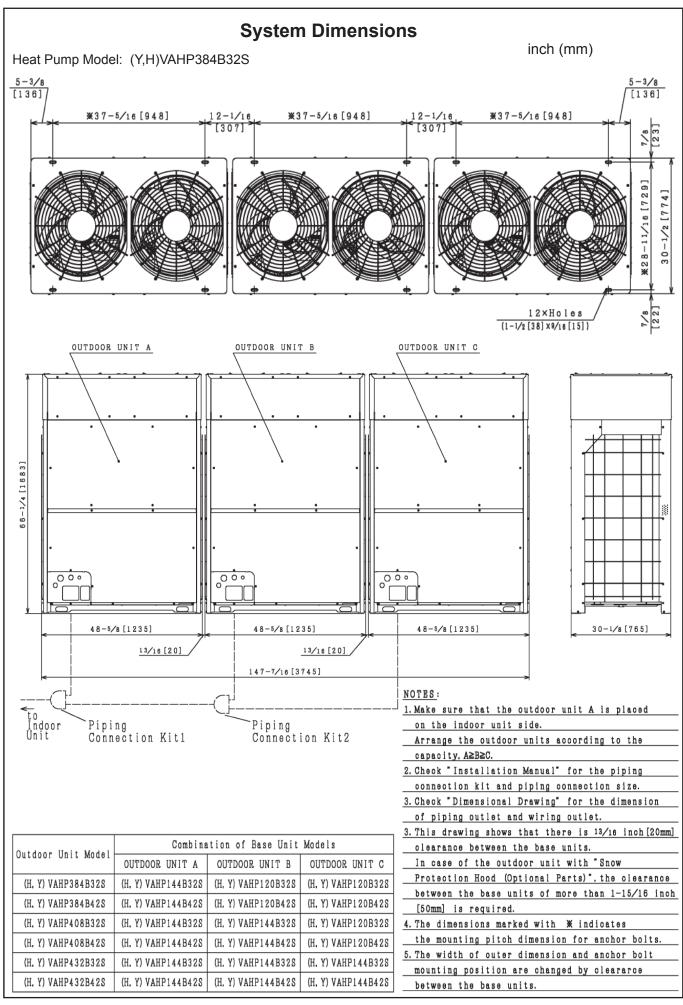
ACCESSORIES: (for detailed information, see VRF Engineering Manual and separate documentation for each accessory)

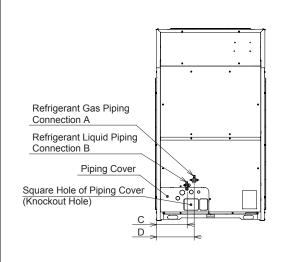
- Piping Kit
- Snow Protection Hood
- Protection Net
- Drain Adapter

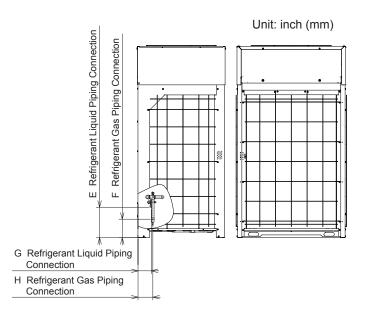
(Heat Pur	11P 200	1230 V )					
Category		Ton				RT	
					(12RT+10I		
Model (Combination)		lu s a			(H,Y)VAH		
Mandal (Individual)		Unit A			(H,Y)VAH		
Model (Individual)		Unit B			(H,Y)VAHP120B32S		
Davis Oversty		Unit C			(H,Y)VAHP120B32S 208/230V/ 3PH 60Hz		
Power Supply	Cooling	Capacity (Nominal)	Btu/h	(kW)	384.000		
Capacity *1	Heating	Capacity (Nominal)	Btu/h	(kW)	432,000	(112.5)	
	Cooling	Capacity (Rated)	Btu/h	(kW)	366,000	(120.0)	
	Cooling	EER	Btu/Mh	(W/W)	9.6	(2.81)	
		IEER	Btu/Wh	(Wh/Wh)	19.6	(5.75)	
Efficiency Ratings *2	Heating	Capacity (Rated)	Btu/h	(kW)	410,000	(120.2)	
	47°F Ambient	COP		/W		37	
	Heating	Capacity	Btu/h	(kW)	276,000	(80.9)	
	17°F Ambient	COP	W		2.		
	T T T T T T T T T T T T T T T T T T T	Indoor	°F WB (		59(15)		
		Outdoor	°F DB (		23(-5) ~		
		Outdoor					
Operating Range *3	Cooling	(with Snow Protection Hood)	°F DB (	(°C DB)	14(-23) ~	109(43)	
		Outdoor	°F DB (	°C DB)	-10(-20)	~ 109(43)	
		(with Cooling Damper Kit) Indoor					
	Heating		°F DB (		59(15) ~		
0.1: 10.1 01		Outdoor	°F WB (	°C WB)		~ 59(15)	
Cabinet Color (Munse	ell Code)		in	- (00.4/4	2.51 48-5/8 x 30-1	8/2	
Outer Dimensions	Height x Widt	h x Depth					
	Net		mm lbs		235 x 774) x		
Weight	Gross		lbs	(kg)	723+721 × 2		
	Standard (Ex	tondad\		(kg)	767+765 × 2 (348+347×2 55-130(150)		
Connection Ratio		mended) Indoor Units/System		Q'ty		(30)	
		inended) indoor onits/system		Qty	Multi-Pas		
Heat Exchanger	Туре			-	Finned		
	Material			-	Cu-Al (Anti	-corrosion)	
	Туре	Inverter 1		-	AA50F	PHD×6	
	туре	Inverter 2		-		-	
Compressor	Motor Output	(Pole)	kW (Pole)		(6.4(6)×2)+(	5.4(6) × 2) ×	
Compressor	Start Method		-		inve		
	Operation Ra	nge	%		11 ~ 100		
	Refrigeration	Oil Type		-	FVC	68D	
Crank Case Heater			W×	Q'ty	34.2 (23		
	Туре			-	Propel	er Fan	
	Motor Output	(Pole)	kW (	Pole)	(0.39(8)	×2) ×3	
	Quantity		Q	'ty		3	
Fan	Airflow Rate		cfm	(m³/min)	9,037×3	(256×3)	
	External Stati	ic Pressure *4	in.W.G.	(Pa)	0-0.32	(0-80)	
	Drive			-	Direct	-drive	
	Min Circuit A	mps		Ą	58+46×	2/52+42 × 2	
Electrical	Maximum Ov	ercurrent Protective Device		A	70+6	0×2	
	Maximum Fu	se Size		Ą	70+6	0×2	
Sound Pressure	Cooling		dB	(A)	6	9	
Level	Heating		dB	(A)	6	-	
	Cycle			-	High press at 601psi(4	.15MPa)	
Protection Devices	Inverter			-	Over-curren Over-heat		
	Compressor			-	Over-heat		
	PCB			-	Over-curren	t protection	
	Туре			-	R4	10A	
Refrigerant	Factory Char	ge Amount	lbs	(kg)	23.6 +20.9×2	(10.7 +9.9×2)	
Refrigeration Oil	Factory Char	ne Amount	gal/Unit	(L/Unit)	2.1×3	(7.9×3)	
Defrost Method	actory char	ye Amodiil	gairont	(L/Ullit)	2.1 × 3 Reversed Ref		
Main Refrigerant	Gas Line		in	(mm)	1-5/8	(41.28)	
	Jas LIIIE		111	(111111)	1-3/0	(41.20)	
Piping (Heat Pump)	Liquid Line		in	(mm)	3/4	(19.05)	

#### NOTES:

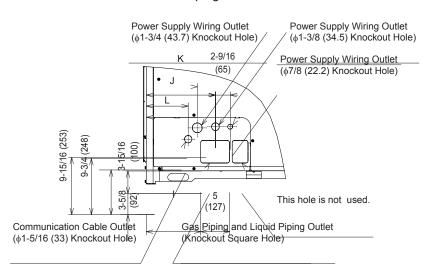
- 1. Rating Conditions are based on the AHRI 1230 test standard.
- 2. Efficiency ratings are based on the AHRI 1230 test standard.
- 3. For more details, please refer to the Engineering manual "Operation range" section.
- 4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).







## **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	Е	F	G	Н	I	J	K	L
72	φ7/8 (22.2)	φ1/2 (12.7)	φ7/8 (22.2)	ф3/8 (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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

## Refrigerant Piping Connection and Wiring Outlet







		SUB	MITTAL DATA SHEE	T
34 RT (Y,H)VAHP408	3B32S	Consists	of two (Y,H)VAHP144B32S an	d 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
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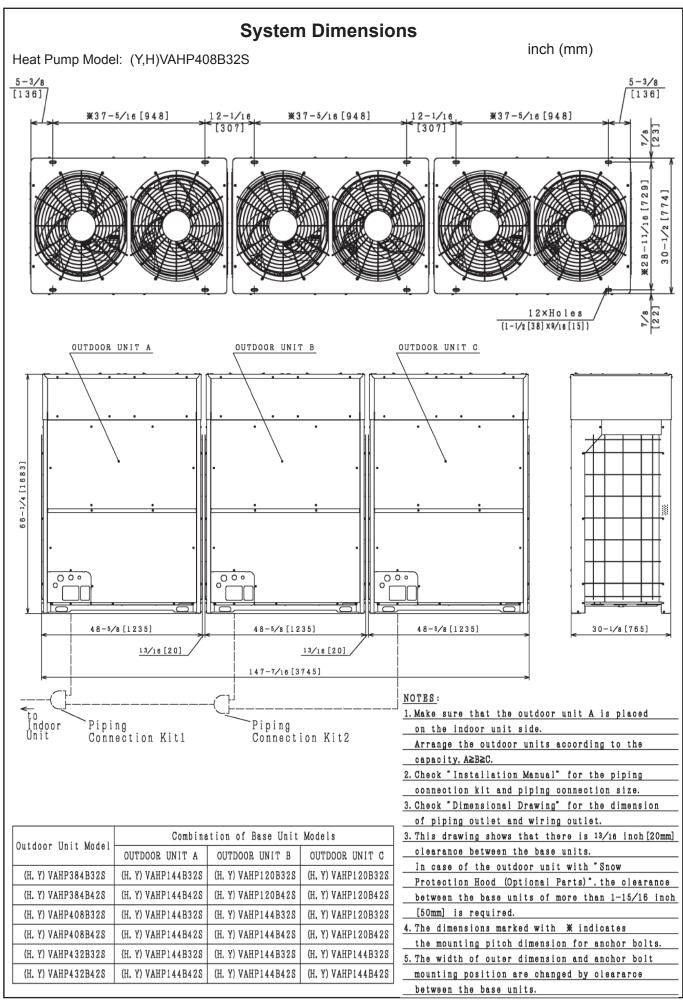
ACCESSORIES: (for detailed information, see VRF Engineering Manual and separate documentation for each accessory)

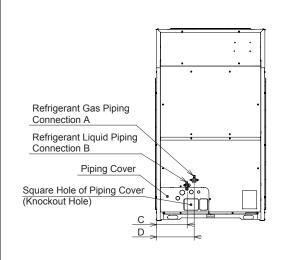
- Piping Kit
- Snow Protection Hood
- Protection Net
- Drain Adapter

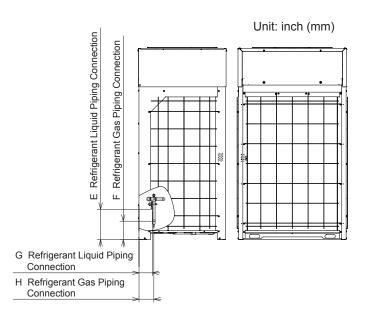
Category		Ton			341	RT
odlogory		1011				
Model (Combination)		Į.			(H,Y)VAHF	9408B32S
		Unit A			459,000 (134.5 380,000 (111.4 9.5 (2.78) 1) 19.3 (5.67) 435,000 (127.5 3.34 288,000 (84.4) 2.08 59(15) ~ 73(23) 23(-5) ~ 122(50) 14(-23) ~ 109(43) -10(-20) ~ 109(43) -10(-20) ~ 109(43) -10(-20) ~ 109(43) -10(-20) ~ 59(15) 2.5Y 8/2 (66-1/4 x 48-5/8 x 30-1/1 (1683 x 1235 x 774) x. 723 x 2+721 (328 x 2+3 767 x 2+765 (348 x 2+3 76 x 2+765 (348	
Model (Individual)		Unit B			(H,Y)VAHF	P144B32S
		Unit C			(H,Y)VAHF	P120B32S
Power Supply						
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	408,000	(119.5)
Oupacity 1	Heating	Capacity (Nominal)	Btu/h	(kW)		(134.5)
	Cooling	Capacity (Rated)	Btu/h	(kW)		(111.4)
		EER	Btu/Wh	(W/W)	9.5	(2.78)
Efficiency Ratings *2		IEER	Btu/Wh	(Wh/Wh)		(5.67)
Linciency Ratings 2	Heating	Capacity (Rated)	Btu/h	(kW)	435,000	(127.5)
	47°F Ambient	COP	W	/W		34
	Heating	Capacity	Btu/h	(kW)	288,000	(84.4)
	17°F Ambient	COP	W	/W	2.0	08
		Indoor	°F WB (	(°C WB)	59(15) ~	73(23)
		Outdoor		(°C DB)		
	Cooling	Outdoor		(°C DB)	•	
Operating Range *3		(with Snow Protection Hood)	. 55	( 0 00)	(==)	()
		Outdoor (with Cooling Damper Kit)	°F DB	(°C DB)	-10(-20) -	~ 109(43)
	Hootin -	Indoor	°F DB	(°C DB)	59(15) ~	80(27)
	Heating	Outdoor	°F WB (		-13(-25)	~ 59(15)
Cabinet Color (Munse	ell Code)			-		
			in			
Outer Dimensions	Height x Widt	th x Depth	mm			
	Net		lbs	(kg)		
Weight	Gross		lbs	(kg)	767 × 2+765 348×2+34	
		4dd)			767 × 2+765 348×2+347 55-130(150) 64 (30)	
Connection Ratio	Standard (Ex			%	(66-1/4 x 48-5/8 x 30-1/2 (1683 x 1235 x 774) x 3 723 x 2+721 (328×2+32) 767 x 2+765 (348×2+347 55-130(150) 64 (30) Multi-Pass Cross- Finned Tube Cu-Al (Anti-corrosion) AASOPHD×6	
	Max. (Recom	mended) Indoor Units/System		Q'ty		
Heat Exchanger	Туре			-	-13(-25) - 59(15) 2.5Y 8/2 (66-1/4 x 48-5/8 x 30-1/2) (1683 x 1235 x 774) x 3 723 x 2+721 (328-2x-32) 767 x 2+765 [348-2+347 55-130(150) 64 (30) Multi-Pass Cross- Fined Tube Cu-Al (Anti-corrosion) AA50PHD×6 -(6.4(6)×2) x 2+(5.4(6) x 2 inverter 11 ~ 100 FVC8BD	
meat Exchange	Material					-13(-25) ~ 59(15) 2-5Y 8/2 -1/4 x 48-5/8 x 30-1/2 83 x 1235 x 774) x 3 3x 2+721   (328×2+32 x 2+765   348×2+34 x 55-130(150) 64 (30) Multi-Pass Cross- Finned Tube cu-Al (Anti-corrosion) AA50PHD×6 -10(6) x 2) x 2+(5.4(6) x 2 inverter 11 ~ 100 FVC88D 34.2 (230V) x 18
	Waterial	Inverter 1		-		Cu-Al (Anti-corrosion)
	Туре	Inverter 2			AAJUI	TID^U
	Motor Output		LAM (	Pole)	(6.4(6)×2)×2	- - (E 4(C) > '
Compressor	Start Method	(Fole)	KVV (	rule)		
				-		
	Operation Ra		,	%		
	Refrigeration	Oil Type		-		
Crank Case Heater			W×	Q'ty	,	,
	Туре			-		
	Motor Output	(Pole)		Pole)	(0.39(8)	×2) × 3
	Quantity		Q	ty	6	3
Fan	Airflow Rate		cfm	(m³/min)	9,037×3	(256×3)
	F. 4 1 Ct -1	- D	:- W.C	` ′		
		ic Pressure *4	in.W.G.	(Pa)		, ,
	Drive			-		
	Min Circuit A	r -		A		
Electrical		ercurrent Protective Device		A		
	Maximum Fu	se Size		A		
Sound Pressure	Cooling			(A)		
Level	Heating		dB	(A)		
	Cycle			-		
Drotostian Davida	Inverter					
Protection Devices	Compressor			-		
	PCB			-		
			-	-		
Refrigerant	Туре					10A (10.7×2
	Factory Char	-	lbs	(kg)	+20.9	+9.9)
Refrigeration Oil	Factory Char	ge Amount	gal/Unit	(L/Unit)	2.1×3	(7.9×3)
			1	-	Reversed Refr	rigerant Cycl
Defrost Method			<u> </u>			
	Gas Line		in	(mm)	1-5/8	(41.28)

#### NOTES:

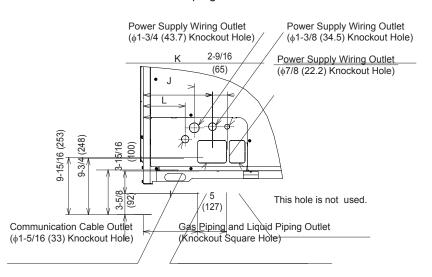
- 1. Rating Conditions are based on the AHRI 1230 test standard.
- 2. Efficiency ratings are based on the AHRI 1230 test standard.
- 3. For more details, please refer to the Engineering manual "Operation range" section.
- External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).







## Detail of Piping Cover



Model	Gas	Liquid	Α	В	С	D	Е	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

## Refrigerant Piping Connection and Wiring Outlet







		SUB	MITTAL DATA SHEE	т	
36 RT (Y,H)VAHP43	2B32S		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.:	
			(Heat Pump 208/2	30V)	

### **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

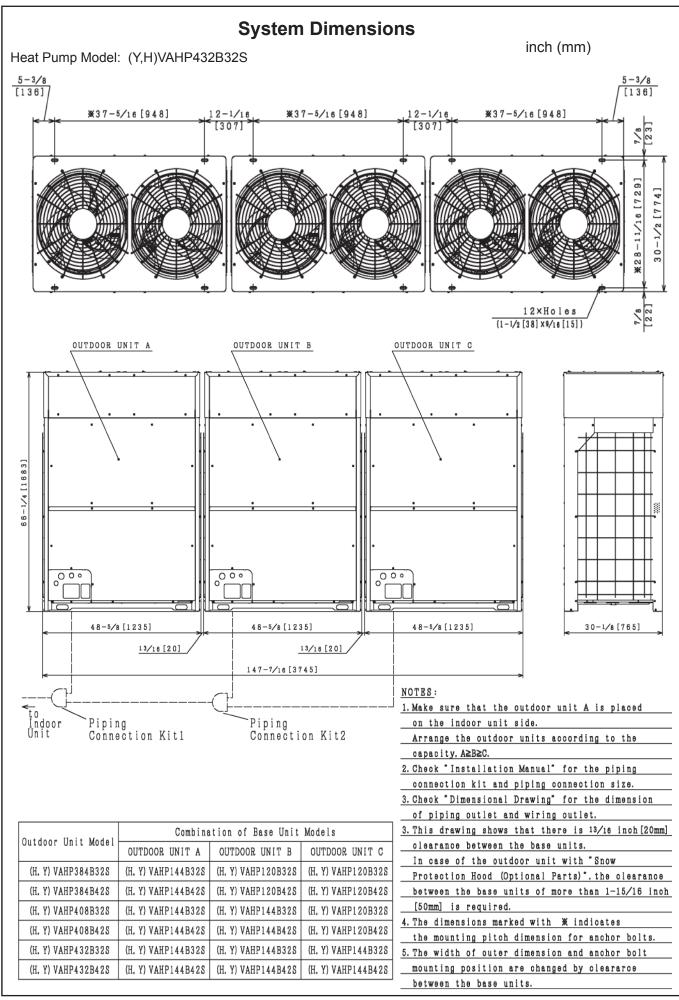
ACCESSORIES: (for detailed information, see VRF Engineering Manual and separate documentation for each accessory)

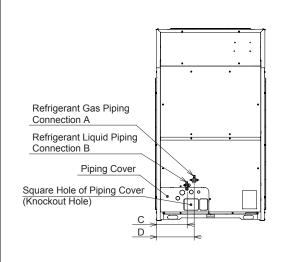
- Piping Kit
- Snow Protection Hood
- Protection Net
- Drain Adapter

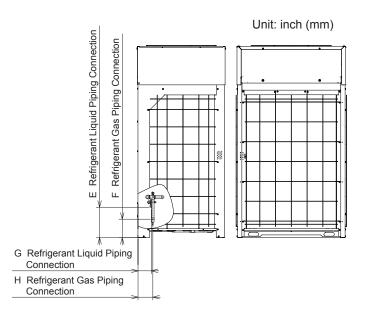
Category		Ton					
Model (Combination)					486,000 (142.4 400,000 (117.2 400,000 (117.2 9.5 (2.78) 19.5 (5.72) 460,000 (134.8 3.21 300,000 (87.9) 2.05 59(15) ~ 73(23) 23(-5) ~ 122(50) 14(-23) ~ 109(43) -10(-20) ~ 109(43) 59(15) ~ 80(27) -13(-25) ~ 80(27) -13(-25) ~ 80(27) -13(-25) ~ 80(27) -13(-25) ~ 80(27) -13(-25) ~ 80(27) -13(-25) ~ 59(15) 2.5 ∀ 8/2 (66-1/4 x 48-5/8 x 30-1.7 723 × 3 (328×3 767 × 3 (348×3 55-135(150) 64 (30) Multi-Pass Cross-Finned Tube Cu-Al (Anti-corrosion AA50PHD×6		
		Unit A					
Model (Individual)		Unit B			(H,Y)VAHF	144B32S	
		Unit C			(H,Y)VAHF	144B32S	
Power Supply					208/230V/	3PH 60Hz	
0:	Cooling	Capacity (Nominal)	Btu/h	(kW)	432,000	R1+12RT) P432B32S P144B32S P14	
Capacity *1	Heating	Capacity (Nominal)	Btu/h	(kW)	486.000	(142.4)	
	Cooling	Capacity (Rated)	Btu/h	(kW)			
		FFR	Btu/Wh	(W/W)	,	RT+12RT) IP432B32S IP144B32S P144B32S P144B32S P144B32S (3 P160H26 (1142.4) (117.2) (13.4) (142.4) (117.2) (13.4) (12.5) (13.4)	
		IEER	Btu/Wh	(Wh/Wh)			
Efficiency Ratings *2	Heating	Capacity (Rated)	Btu/h	(kW)			
	47°F Ambient	COP (Nateu)	W				
	Heating	Capacity	Btu/h (kW				
	17°F Ambient	COP	W				
		Indoor	°F WB (			RT+12RT) IP432B32S IP144B32S IP145B3 I	
		Outdoor	°F DB (	(°C DB)	23(-5) ~	122(50)	
	Cooling	Outdoor	°E DB	°C DB)	14(-23) ~	100(43)	
Operating Range *3	ocog	(with Snow Protection Hood)	1 00 1	(CDB)	486,000 (142.4) 400,000 (117.2) 9.5 (2.78) 19.5 (5.72) 460,000 (134.8) 3.21 300,000 (87.9) 2.05 59(15) ~ 73(23) 23(-5) ~ 122(50) 14(-23) ~ 109(43) -10(-20) ~ 109(43) -10(-20) ~ 109(43) 59(15) ~ 80(27) -13(-25) ~ 59(15) 2.5Y 8/2 (66-1/4 × 48-5/8 × 30-1/2 (1883 × 1235 × 774) × 3 723 × 3 (328×3) 767 × 3 (348×3) 55-135(150) 64 (30) Multi-Pass Cross-Finned Tube Cu-Al (Anti-corrosion) AA50PHD×6 -(6.4(6) × 2) × 3 inverter 11 ~ 100 FVC68D 34.2 (230V) × 18 Propeller Fan (0.39(8)×2 × 3 6 9,037×3 (256×3) 0-0.32 (0-80) Direct-drive 58 × 3/52 × 3 70 × 3		
operating Manye 3		Outdoor	0F DE	0C DE;	10/ 20\	100/431	
		(with Cooling Damper Kit)	-F DB (	(°C DB)	-10(-20) -	109(43)	
		Indoor	°F DB (	°C DB)	59(15) ~	80(27)	
	Heating	Outdoor	°F WB (				
Cabinet Color (Munse	ell Code)		1 110	-			
Cabillot Color (mariot	0000)		in	1			
Outer Dimensions Height x V		h x Depth	mm				
	Net		Ibs	(1)			
Weight				(kg)			
	Gross		lbs	(kg)		, ,	
Connection Ratio	Standard (Ex		Ç	%		TT+12RT) 432B32S 432B32S 144B32S 145B7 167B7 1	
	Max. (Recom	mended) Indoor Units/System		Q'ty		12RT+12RT+12RT) H, Y)VAHP432B32S H, Y)VAHP144B32S H, Y)VAHP14B32S H, Y)VAH	
	Туре			_	300,000 (87.9) 2.05 59(15) ~ 73(23) 23(-5) ~ 122(50) 14(-23) ~ 109(43) -10(-20) ~ 109(43) -10(-20) ~ 109(43) 59(15) ~ 80(27) -13(-25) ~ 59(15) 2.5Y 8/2 (66-1/4 × 48-5/8 × 30-1/2 (1683 × 1235 × 774) × 3 723 × 3 (328×3) 767 × 3 (348×3) 55-135(150) 64 (30) Multi-Pass Cross-Fined Tube Cu-Al (Anti-corrosion) AA50PHD × 6 - (6.4(6) × 2) × 3 inverter 11 ~ 100 FVC68D 34.2 (230V) × 18 Propeller Fan (0.39(8)×2  × 3 6 9,037×3 (256×3) 0-0.32 (0-80) Direct-drive 58 × 3/52 × 3		
Heat Exchanger							
	Material			-		Finned Tube I-Al (Anti-corrosion)	
	Type	Inverter 1		-	AA50P		
	. , , , ,	Inverter 2		-	-	3.21  0	
Compressor	Motor Output	(Pole)	kW (	Pole)	(6.4(6)		
Compressor	Start Method			-			
	Operation Ra	inge	%		11 ~ 100		
	Refrigeration			-	FVC	68D	
Crank Case Heater			Wx	Q'ty			
Oranii Oaco Ficator	Туре			-			
		(Dolo)	LAA/ /	Pole)			
	Motor Output	(Pole)	,		, ,		
F	Quantity		Q	'ty	- 6	,	
Fan	Airflow Rate		cfm	(m³/min)	9,037×3	(256×3)	
	External Stati	ic Pressure *4	in.W.G.	(Pa)	0-0.32	(0-80)	
	Drive			- (/			
	Min Circuit A	mne		<u>-</u> А			
Electrical		ercurrent Protective Device		Α			
Licoultai				Α		-	
	Maximum Fu	SE OIZE				-	
Od D				(A)			
	Cooling				-	-	
	Heating		dB	(**)			
				-			
Level	Heating				at 601psi (4 Over-curre	1.15 MPa) nt protection	
Level	Heating Cycle				at 601psi (4 Over-curre Over-heat	1.15 MPa) nt protection protection	
Level	Heating Cycle Inverter Compressor				at 601psi (4 Over-currer Over-heat Over-heat	1.15 MPa) nt protection protection protection	
Level	Heating Cycle Inverter				at 601psi (4 Over-currer Over-heat Over-heat	1.15 MPa) nt protection protection protection t protection	
Sound Pressure Level  Protection Devices  Refrigerant	Heating Cycle Inverter Compressor PCB	ge Amount		- - -	at 601psi (4 Over-currer Over-heat Over-heat Over-curren	4.15 MPa) nt protection protection protection t protection 0A	
Protection Devices	Heating Cycle Inverter Compressor PCB Type			- - - -	at 601psi (4 Over-currer Over-heat Over-heat Over-curren R41 23.6 × 3	i.15 MPa) int protection protection protection t protection 0A (10.7×3	
Level Protection Devices Refrigerant Refrigeration Oil	Heating Cycle Inverter Compressor PCB Type Factory Chan		lbs	- - - - - (kg)	at 601psi (4 Over-currer Over-heat Over-curren R41 23.6 × 3 2.1 × 3	i.15 MPa) th protection protection protection th protection th protection 0A (10.7×3)	
Protection Devices  Refrigerant	Heating Cycle Inverter Compressor PCB Type Factory Chan		lbs	- - - - - (kg)	at 601psi (4 Over-currer Over-heat Over-heat Over-curren R41 23.6 × 3 2.1 × 3 Reversed Refr	i.15 MPa) Int protection protection protection t protection (10.7 × 3) (7.9 × 3) igerant Cyc	

#### NOTES:

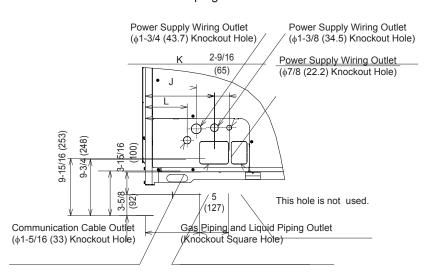
- 1. Rating Conditions are based on the AHRI 1230 test standard.
- 2. Efficiency ratings are based on the AHRI 1230 test standard.
- 3. For more details, please refer to the Engineering manual "Operation range" section.
- External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).







## **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	E	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

## Refrigerant Piping Connection and Wiring Outlet







		SUB	MITTAL DATA SHEET		
(Y,H)VAHP072B42S			Consists of one (Y,H)VAHI	P072B42S 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 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)

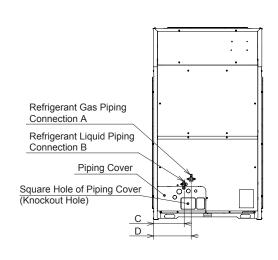
- Piping Kit
- Snow Protection Hood
- Protection Net
- Drain Adapter

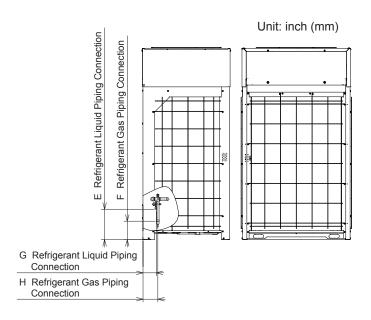
Category		Ton	6RT			
Model (Combination)					(Η <b>Υ</b> )\/ΔΗ	#P072B42S
Woder (Combination)		Unit A			(11,1)	1 0120420
Model (Individual)		Unit B			(H,Y)VAHP072B42	
woder (murriduar)						_
D 0 1		Unit C			4001// 0	-
Power Supply						
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)		
	Heating	Capacity (Nominal)	Btu/h	(kW)		
	Cooling	Capacity (Rated)	Btu/h	(kW)	69,000	(20.2)
		EER	Btu/Wh	(W/W)	(H,Y)VAHP072B42S	
Efficiency Ratings *2		IEER	Btu/Wh	(Wh/Wh)	26.5	Y)VAHP072B42S
Ellicieticy Ratifigs 2	Heating	Capacity (Rated)	Btu/h	(kW)	77,000	(22.6)
	High	COP	W	/W	4.	25
	Heating	Capacity	Btu/h	(kW)	56,000	(16.4)
	Low	COP	W	/W	2.	60
		Indoor	°F WB	(°C WB)	59(15)	~ 73(23)
		Outdoor		(°C DB)		
		Outdoor	1 00	( C DD)	20(-0)	122(00)
	Cooling	(with Snow Protection Hood)	°F DB	(°C DB)	14(-23) ~	109(43)
Operating Range *3		,				
		Outdoor (with Cooling Damper Kit)		(°C DB)		
	Heating	Indoor		(°C DB)		
		Outdoor	°F WB	(°C WB)	-13(-25)	~ 59(15)
Cabinet Color (Muns	ell Code)			-	2.5\	/ 8/2
			in		66-1/4 x 38-3	/8 x 30-1/2
Outer Dimensions	Height x Wie	dth x Depth	mm		1683 x 97	5 x 774
	Net		lbs	(kg)	523	PH 60Hz (21.1) (23.7) (20.2) (4.37) (7.77) (22.6) 25 (16.4) 60 - 73(23) 122(50) - 109(43) - 80(27) - 109(43) - 80(27) (25.5) - 70 (8) 85 x 30-1/2 (25.5) (25.5) - 70 (8) 85 x Cross-d Tube - 100 (8) 80 (27) (25.5) (27) (25.5) (27) (25.5) (27) (26.5) (27) (27) (27) (28) (28) (28) (29) (29) (30) (40) (40) (50) (60) (7) (7) (7) (8) (8) (8) (9) (9) (9) (9) (9) (10) (10) (10) (10) (10) (10) (10) (10
Weight	Gross		lbs	(kg)	562	H 60Hz (21.1) (23.7) (20.2) (4.37) (7.77) (22.6) (5) (16.4) (10.73) (17.77) (17.73) (17.77) (17.73) (17.77) (1
	Standard (E	xtended)		%		H 60Hz (21.1) (22.1) (23.7) (20.2) (4.37) (7.77) (22.6) (5) (16.4) (0) (173(23) (22(50) (109(43) (22(50) (109(43) (22(50) (109(43) (25(5) (25(
Connection Ratio		mmended) Indoor Units/System		Q'ty		H 60Hz (21.1) (22.1) (23.7) (20.2) (4.37) (7.77) (22.6) 5 (16.4) 0 73(23) 22(50) 109(43) 80(27) -59(15) 8/2 8 x 30-1/2 x 774 (237) (255) 0) - 70 (256) 6) 6) ter 1000 880 (190) (0-80) drive ii (4.15MPa) protection rorotection protection rorotection protection (7.2) (6.0)
						H 60Hz (21.1) (22.1) (23.7) (20.2) (4.37) (7.77) (22.6) 5 (16.4) 0 73(23) 22(50) 109(43) 80(27) -59(15) 8/2 8 x 30-1/2 x 774 (237) (255) 0) - 70 88) 6 Cross-Tube corrosion) HD×1 6) ter 100 88D (0-80) drive ii (4.15MPa) protection rorotection protection protection protection protection (7.2) (6.0)
Heat Exchanger	Type			-		072B42S  H 60Hz (21.1) (23.7) (20.2) (4.37) (7.77) (22.6)  5 (16.4) 0 73(23) 22(50) 109(43) 109(43) 80(27) -59(15) 87/2 3 x 30-1/2 x 774 (237) (255) 0 3 x 30-1/2 x 774 (237) (256) 87/2 88/2 87/2 88/2 88/2 88/2 88/2 88/2
•	Material			-	Cu-Al (Ant	i-corrosion)
	_	Inverter 1		-		
	Type	Inverter 2		_		-
	Motor Outpu		kW (	Pole)	7.4	1(6)
Compressor	Start Metho			-		
	Operation R			%		
				-		
Crank Case Heater	Refrigeration	ii Oii Type		Q'ty		
Crank Case Heater	I=		VV×	Qty		
	Туре					
	Motor Outpu	it (Pole)		Pole)	0.4	2(8)
	Quantity		Q	'ty		1
Fan	Airflow Rate		cfm	(m³/min)	6,707	(190)
	External Sta	tic Pressure *4	in.W.G.	(Pa)	0-0.32	(0-80)
	Drive			-	Direc	t-drive
	Min Circuit A	Amps		A	1	5
Electrical	Maximum O	vercurrent Protective Device		A	2	20
	Maximum F	use Size		A	2	20
Sound Pressure	Cooling		dB	(A)	6	60
Level	Heating			(A)	6	60
	Cycle			-	Multi-Pass Cross- Finned Tube Cu-Al (Anti-corrosion) DC80PHD×1	
Protection Devices	Inverter			-	Over-currer	nt protection
	Compressor	-		-		
	PCB		1	_		
	Туре					
Refrigerant		irge Amount	lbs	(kg)		
	-					` '
Refrigeration Oil	Factory Cha	irge Amount	gal/Unit	(L/Unit)		. ,
Defrost Method	1			-	Reversed Re	rngerant Cycle

#### NOTES:

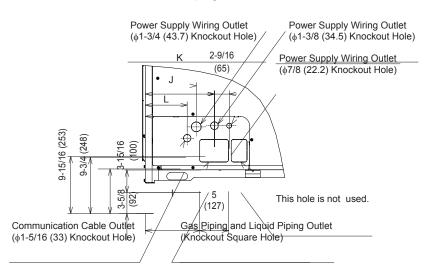
- 1. Rating Conditions are based on the AHRI 1230 test standard.
- 2. Efficiency ratings are based on the AHRI 1230 test standard.
- 3. For more details, please refer to the Engineering manual "Operation range" section.
- External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

#### **System Dimensions** Heat Pump Model: (Y,H)VAHP072B42S 37-13/18[960] **₩27-1/16**[688] 7/8 30-1/2[774] 4×Holes (1-1/2 [38] ×9/18 [15]) 7/8 Service Cover Electrical Box Ground Terminal (M8 Screw) 10-9/16 [268] Liquid Line Terminal Block TB: (M8 Screw) 66-1/4 [1683] Gas Line Refrigerant Piping Connection Gas Liquid Line Refrigerant Piping Connection 6-7/16 [163] 1/8 [841] Piping Cover 1-1/4 10-3/8 [264] 4-5/8 [117] Liquid Line 5-3/16[131] Gas Line 13-1/16 [331] Sling Belts 3-3/4 [95] 22-5/8 [575] 3-5/8 [92] 30-1/8 [765] 1/2[12.5] 1/2[12.5] 37-3/8 [950] 38-3/8[975] Piping Cover Details Field Installation (Example) Viewed from P Power Supply Wiring Outlet (\$\phi 1 - 3/4 \text{ (\$\phi 4 3. 7)}\$ Knockout Hole) 28-3/8[720] 4-1/2 [115] Not Used Insulation [305] Power Supply (5-5/16 [135] Holes for [225] Wiring Outlet (\$\phi 1 - 3/8 [\phi 3 4.5] Knockout Hole) Accessory Pipe Condensate Drain (2x#1[#26]) 7-5/16 Brazing Communication Power Supply Not Used Outlet (\$\phi 1-5/18[\$\phi 33] Wiring Outlet (\$\phi^7/8[\phi22.2] Knockout Hole) (Rear) (Front Side Knockout Hole) b For Piping from Bottom Base Not Used Not Used Concrete Foundation Not Used Refrigerant Piping 9-7/16 Anchor Bolt <del>|<</del> [127] Refrigerant Piping Outlet (Knockout Square Hole) (Knockout Square Hole) For Piping from Front Side Piping Cover NOTES: 1. Drain water is discharged from the unit during the operation. Ochoose a place where well drainage is available. Provide a groove for drain. @Do not provide an upward slope from the unit to avoid reverse flow of the drain. Provide a second drainpan under the outdoor unit, to collect drain water securely. @Do not use the drain boss (optional) in a cold area. (Drain water in the drain pipe may be frozen and the drain pipe may crack.) $\underline{\text{2. The dimensions marked with } \text{ } \text{\# indicates the mounting pitch dimension for anchor bolts.}}$ version 201804





## Detail of Piping Cover



Model	Gas	Liquid	Α	В	С	D	E	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

Refrigerant Piping Connection and Wiring Outlet







		SUBN	IITTAL DATA SHEET		
(Y,H)VAHP096B42S			Consists of one (Y,H)VAHP0	096B42S 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 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

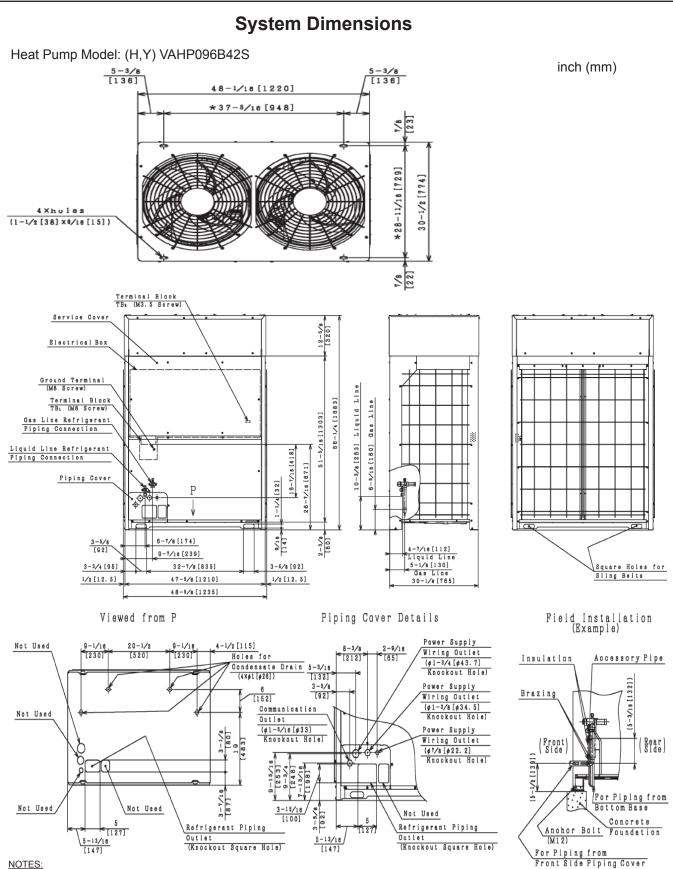
ACCESSORIES: (for detailed information, see VRF Engineering Manual and separate documentation for each accessory)

- Piping Kit
- Snow Protection Hood
- Protection Net
- Drain Adapter

Category		Ton			18	RT	
Model (Combination)				, i	(H,Y)VAH	P096B42S	
		Unit A				-	
Model (Individual)		Unit B				-	
		Unit C				-	
Power Supply							
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	96,000		
	Heating	Capacity (Nominal)	Btu/h	(kW)	108,000	PO96B42S	
	Cooling	Capacity (Rated)	Btu/h	(kW)	92,000	HP096B42S	
		EER IEER	Btu/Wh Btu/Wh	(W/W) (Wh/Wh)			
Efficiency Ratings *2	Heating		Btu/vvn	(kW)			
	High	Capacity (Rated) COP		/W		, ,	
	Heating	Capacity	Btu/h	(kW)			
	Low	COP		/W	-,		
	2011	Indoor		(°C WB)			
		Outdoor		(°C DB)			
		Outdoor		` ′			
	Cooling	(with Snow Protection Hood)	°F DB (°C DB)		14(-23) ~	109(43)	
Operating Range *3		Outdoor	0= ==	00.00	(7) 12.4 (3.63) (7) 23.9 (7.02) (103,000 (30.2) (22.3) (23.5) ~ 122(50) (14(-23) ~ 109(43) (-10(-20) ~ 109(43) (-10(-2		
	L	(with Cooling Damper Kit)	"F DB	(°C DB)			
	Heating	Indoor	°F DB	(°C DB)	59(15)	~ 80(27)	
	Heating	Outdoor		(°C WB)		(31.7) (27.0) (36.3) (36.3) (7.02) (36.3) (7.02) (30.2) (40.4) (50.2) (40.4) (50.2) (50.4) (60.4) (6	
Cabinet Color (Munse	ell Code)			-	2.5	′ 8/2	
			in		66-1/4 x 48	3-5/8 x 30-1	
Outer Dimensions	Height x W	idth x Depth	mm		1693 v 1	HP096B42S	
Weight	Net		lbs	(kg)			
- 3	Gross		lbs	(kg)			
Connection Ratio	Standard (I		,	%		P096B42S  P096B42S  (28.1) (31.7) (27.0) (3.63) (7.02) (3.63) (7.02) (3.63) (7.02) (7.7) (22.3) (109(43)  - 109(43)  - 80(27) - 59(15) (8/2) 3-5/8 x 30-1 (274) (294) (0) - 65 (8) (8) (8) (8) (100 (8) (100 (100 (100 (100 (100 (100 (100 (10	
	Max. (Reco	mmended) Indoor Units/System		Q'ty		(274) (294) (150) - 65 0 (8) ass Cross- ed Tube htti-corrosion) DPHD×1	
Heat Exchanger	Туре			-	Finned Tube Cu-Al (Anti-corrosion)		
ricat Excitatiget	Material			-			
	_	Inverter 1		-			
	Туре	Inverter 2		-	-		
Comprosor	Motor Outp	ut (Pole)	kW (	Pole)	9.5	(6)	
Compressor	Start Metho	od		-	inve	erter	
	Operation I	Range	9.	%	11 ~	100	
	Refrigeration	on Oil Type		-			
Crank Case Heater			W×	Q'ty		,	
	Туре			-	Propel	ler Fan	
	Motor Outp	out (Pole)	,	Pole)	0.33(	8)×2	
_	Quantity		Q	'ty	:	2	
Fan	Airflow Rat	e	cfm	(m³/min)	8,437	(239)	
		atic Pressure *4	in.W.G.	(Pa)			
	Drive			-			
	Min Circuit			Ą	-	-	
Electrical		Overcurrent Protective Device		Α		-	
015	Maximum F	-use Size		A (A)			
Sound Pressure Level	Cooling			(A)			
20701	Heating			(A)			
	Cycle			-	at 601psi	(4.15MPa)	
Protection Devices	Inverter			-	Over-currer	nt protection	
	Compresso	A.F.					
	PCB	л		-			
				-		-	
Refrigerant	Type Factory Ch	arge Amount	lbs	(kg)	18.7		
	-						
Refrigeration Oil	Factory Ch	arge Amount	gal/Unit	(L/Unit)	1.8	(/	
Defrost Method	01:			(			
Main Refrigerant							
Piping (Heat Pump)							

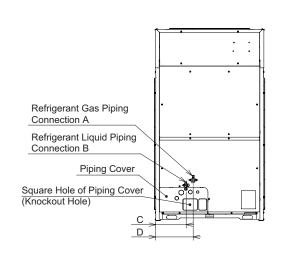
#### NOTES:

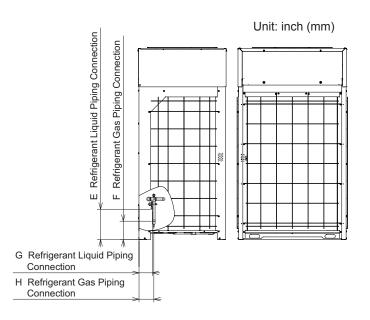
- 1. Rating Conditions are based on the AHRI 1230 test standard.
- 2. Efficiency ratings are based on the AHRI 1230 test standard.
- 3. For more details, please refer to the Engineering manual "Operation range" section.
- External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).



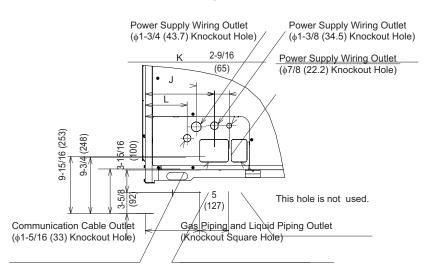
#### NOTES:

- 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.





## **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	E	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

Refrigerant Piping Connection and Wiring Outlet







		SUBI	MITTAL DATA SHEET		
(Y,H)VAHP120B42S			Consists of one (Y,H)VAH	HP120B42S 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 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

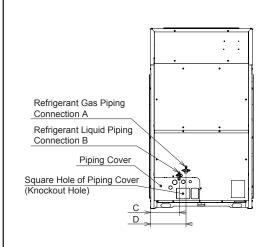
Category		Ton			10	RT		
Model (Combination)					(H,Y)VAHI	P120B42S		
,		Unit A						
Model (Individual)		Unit B						
		Unit C			-			
Power Supply					460V/ 3F			
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	120,000	(35.2)		
	Heating	Capacity (Nominal)	Btu/h	(kW)	135,000	(39.6)		
	Cooling	Capacity (Rated) EER	Btu/h Btu/Wh	(kW)	114,000	(33.4)		
				(W/W)	12.7	(3.73)		
Efficiency Ratings *2	Heating	IEER Capacity (Rated)	Btu/Wh Btu/h	(Wh/Wh) (kW)	24.4 129,000	(7.14)		
	High	COP	W/W		129,000			
	Heating	Capacity	Btu/h	(kW)	92,000	(27.0)		
	Low	COP		/W	92,000			
	LOW	Indoor		(°C WB)	59(15) -			
		Outdoor			23(-5) ~			
		Outdoor	°F DB (°C DB)					
Operating Range *3	Cooling	(with Snow Protection Hood) Outdoor	°F DB	(°C DB)	14(-23) ~			
		(with Cooling Damper Kit)	°F DB (°C DB)		-10(-20)	~ 109(43)		
		Indoor	°F DR	(°C DB)	59(15) ~	~ 80(27)		
	Heating	Outdoor		(°C WB)	-13(-25)			
Cabinet Color (Muns	ell Code)			-		8/2		
			in		66-1/4 x 48-5/8			
Outer Dimensions	Height x W	idth x Depth						
	_		mm		1683 x 123	5 x 774		
Weight	Net		lbs	(kg)	725	(329)		
vveigni	Gross		lbs	(kg)	770	(349)		
Connection Ratio	Standard (	Extended)	9	%	130(15	60) - 60		
Connection Ratio	Max. (Rec	ommended) Indoor Units/System		Q'ty	26			
	Туре			-	Multi-Pas			
Heat Exchanger	Material			_	Cu-Al (Anti	d Tube		
		Inverter 1		-	AA50F			
	Туре	Inverter 2		_	701301			
	Motor Out		kW (	Pole)	5.4(	6)×2		
Compressor	Start Meth			-	inve			
	Operation			%		100		
		on Oil Type			FVC	:68D		
Crank Case Heater			W×	Q'ty	34.2 (23	30V) ×6		
	Туре			-	Propell	ler Fan		
	Motor Outp	out (Pole)	kW (	Pole)	0.39(	8)×2		
	Quantity		Q	'ty	2	2		
Fan	Airflow Rat	te	cfm	(m³/min)	9,037	(256)		
	External S	tatic Pressure *4	in.W.G.	(Pa)	0-0.32	(0-80)		
	Drive			-	Direct			
	Min Circuit			4	2			
Electrical		Overcurrent Protective Device		4	3	-		
	Maximum	Fuse Size		Α	3	-		
Sound Pressure	Cooling			(A)		3		
Level	Heating		dB	(A)	6 High press			
	Cycle		1	-		(4.15MPa)		
Protection Devices	Inverter			-	Over-curren			
	Compress	or		-		protection		
	PCB			-	Over-curren	nt protection		
	Туре			-	R41	10A		
Refrigerant		narge Amount	Ibs	(kg)	20.9	(9.9)		
Refrigeration Oil	Factory Ch	narge Amount	gal/Unit	(L/Unit)	2.1	(7.9)		
Defrost Method				-	Reversed Ref	rigerant Cyc		
Main Refrigerant	Gas Line		in	(mm)	1-1/8	(28.58)		
Piping (Heat Pump)								

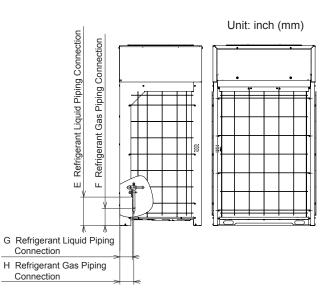
#### NOTES:

- 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.
- External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

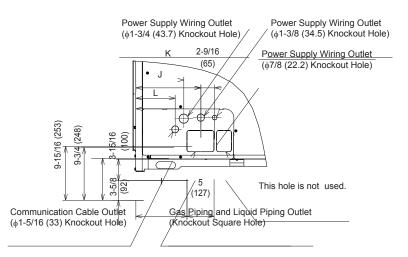
#### **System Dimensions** Heat Pump Model: (H,Y) VAHP120B42S inch (mm) 5-3/8 [136] 48-1/18[1220] \*37-5/16 [948] 7/8 \*28-11/18 [729] 30-1/2[774] (1-1/2 [38] ×9/18 [15]) 7/8 Terminal Blook TB<sub>2</sub> (M3.5 Sorew) Service Cover Ground Terminal (M8 Screw) 10-3/8 [283] Liquid Line Terminal Block TB: (M8 Screw) Gas Line Refrigerant Piping Connection Gas Liquid Line Refrigerant Piping Connection 6-5/18 [160] Piping Cover 6-7/8[174] 4-7/16[112] Liquid Line 5-1/8[130] Gas Line 9-7/16 [239] 32-7/8[835] 3-6/8 [92] 1/2[12.5] 47-5/8[1210] 1/2[12.5] 30-1/8[765] 48-5/8[1235] Viewed from P Piping Cover Details Field\_Installation (Example) Power Supply Not Used 20-1/2 4-1/2[115] 8-3/8 2-9/16 Wiring Outlet [230] [520] [230] Holes for [212] (\$1-3/4 [\$43.7] Accessory Pipe Insulation Condensate Drain 5-3/18 Knockout Hole) (4×¢1[¢26]) [132] 3-5/8 [5-3/18 [132] Power Supply Brazing Wiring Outlet [152] (\$1-3/8 [\$34.5] Communication Not Used Knockout Hole) Outlet (\$1-5/16 [\$33] Power Supply (Front Side Knockout Hole) Wiring Outlet Rear Side (\$7/8 [\$22.2] Knockout Hole) For Piping from Not Used Not Used Bottom Base Not Used Concrete Refrigerant Piping Refrigerant Piping Anchor Bolt Foundation [127] 5-13/18 Outlet Outlet (M12) (Knockout Square Hole) (Knockout Square Hole) Front Side Piping Cover 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.





#### **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	Е	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

Refrigerant Piping Connection and Wiring Outlet







		SUB	MITTAL DATA SHEET		
(Y,H)VAHP144B42S			Consists of one (Y,H)VAHI	P144B42S 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 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

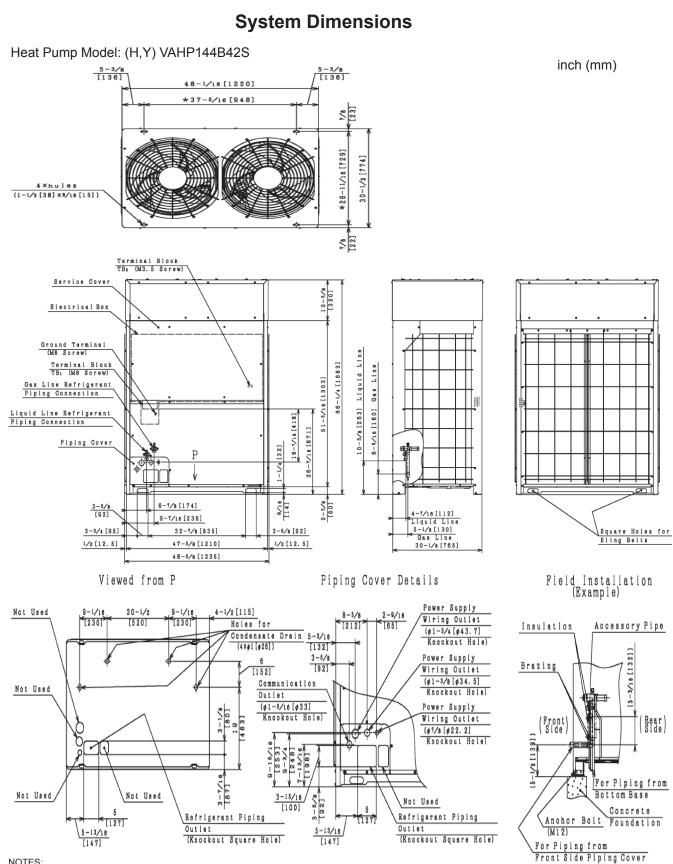
ACCESSORIES: (for detailed information, see VRF Engineering Manual and separate documentation for each accessory)

- Piping Kit
- Snow Protection Hood
- Protection Net
- Drain Adapter

Category		Ton			12	RT	
Model (Combination)					(H,Y)VAH	P144B42S	
, , , , , , , , , , , , , , , , , , , ,		Unit A				-	
Model (Individual)		Unit B			-		
		Unit C				-	
Power Supply					460V/ 3PH 60Hz		
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	144,000	(42.2)	
Oupdoity 1	Heating	Capacity (Nominal)	Btu/h	(kW)	162,000	(47.5)	
	Cooling	Capacity (Rated)	Btu/h	(kW)	138,000	(40.4)	
		EER	Btu/Wh	(W/W)	10.9	(3.18)	
Efficiency Ratings *2		IEER	Btu/Wh	(Wh/Wh)	23.9	(6.99)	
	Heating	Capacity (Rated)	Btu/h	(kW)	154,000	(45.1)	
	High	COP		/W		42	
	Heating	Capacity	Btu/h	(kW)	110,000	(32.2)	
	Low	COP		/W		12	
		Indoor		(°C WB)		~ 73(23)	
		Outdoor	°F DB	(°C DB)	23(-5) ~	122(50)	
	Cooling	Outdoor (with Snow Protection Hood)	°F DB (°C DB)		14(-23) ~	109(43)	
Operating Range *3		<u>'</u>	` '				
		Outdoor (with Cooling Damper Kit)	°F DB (°C DB)			~ 109(43)	
	Heating	Indoor		(°C DB)		~ 80(27)	
	_	Outdoor	°F WB	(°C WB)		~ 59(15)	
Cabinet Color (Munse	ell Code)			-	2.5	/ 8/2	
			in		66-1/4 x 48	-5/8 x 30-1	
Outer Dimensions	Height x W	idth x Depth	mm		1683 x 1	235 x 774	
	NI=4			(1)	728		
Weight	Net Gross		lbs lbs	(kg)	772	(330)	
	Standard (	Extended)		(kg) %		50) - 55	
Connection Ratio		ommended) Indoor Units/System		Q'ty		(10)	
		offinended) indoor offits/system				ss Cross-	
Heat Exchanger	Type			-		d Tube	
node Exonango	Material			-		i-corrosion)	
	Туре	Inverter 1		-	AA50I	PHD×2	
	Турс	Inverter 2		-		-	
Compressor	Motor Outp	out (Pole)	kW (	Pole)	6.4(6)×2		
Comprocool	Start Metho			-		erter	
	Operation	•	9	%		- 100	
	Refrigeration	on Oil Type		-		C68D	
Crank Case Heater			W×	Q'ty		30V) ×6	
	Туре			-		ler Fan	
	Motor Outp	out (Pole)	,	Pole)	0.39(	(8)×2	
Fan	Quantity		Q	'ty		2	
ran	Airflow Rat	е	cfm	(m³/min)	9,037	(256)	
	External St	atic Pressure *4	in.W.G.	(Pa)	0-0.32	(0-80)	
	Drive					t-drive	
	Min Circuit			Ą		30	
Electrical		Overcurrent Protective Device		A		35	
	Maximum I	use Size		Ą		35	
Sound Pressure	Cooling			(A)		35	
Level	Heating		dB	(A)		35	
	Cycle			-	at 601psi	sure switch (4.15MPa)	
Protection Devices	Inverter			-	Over-currer Over-heat	nt protection protection	
	Compresso	or		-	Over-heat	protection	
	PCB			-	Over-curre	nt protection	
Refrigerant	Туре			- I		10A	
rvemgerani	Factory Ch	arge Amount	lbs	(kg)	23.6	(10.7)	
Refrigeration Oil	Factory Ch	arge Amount	gal/Unit	(L/Unit)	2.1	(7.9)	
Defrost Method				-	Reversed Re		
Main Refrigerant	Gas Line		in	(mm)	1-1/8	(28.58)	
	Liquid Line		in	(mm)	5/8	(15.88)	

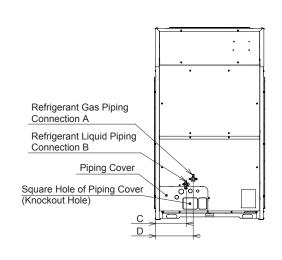
## NOTES:

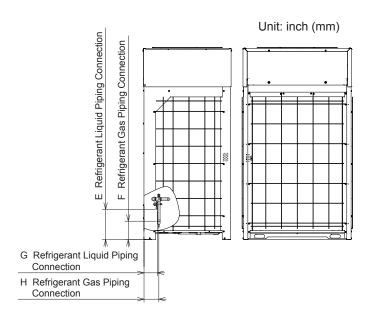
- 1. Rating Conditions are based on the AHRI 1230 test standard.
- 2. Efficiency ratings are based on the AHRI 1230 test standard.
- 3. For more details, please refer to the Engineering manual "Operation range" section.
- 4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).



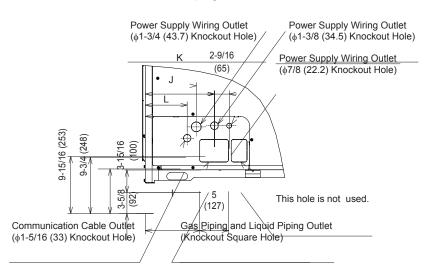
#### NOTES:

- 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.
  - 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.





## Detail of Piping Cover



Model	Gas	Liquid	Α	В	С	D	Е	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

Refrigerant Piping Connection and Wiring Outlet







		SUB	MITTAL DATA SHEET		
(Y,H)VAHP168B42S			Consists of one (Y,H)VAHI	P168B42S 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)	<u> </u>	

### **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

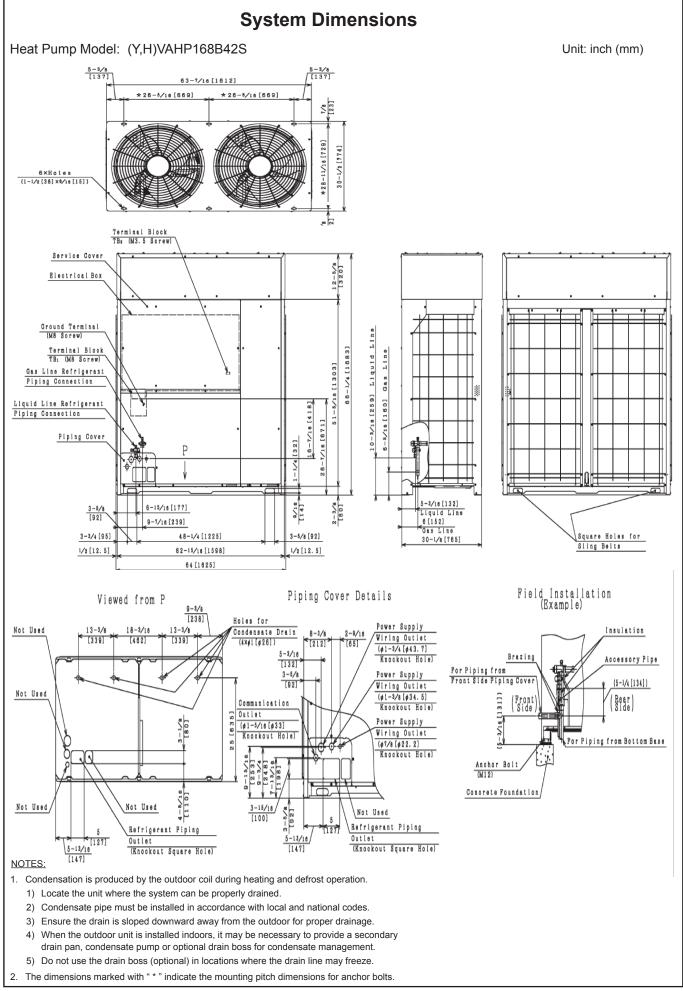
ACCESSORIES: (for detailed information, see VRF Engineering Manual and separate documentation for each accessory)

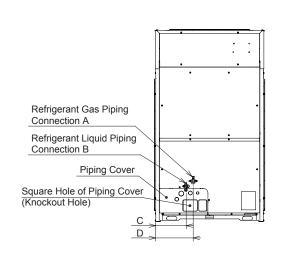
- Piping Kit
- Snow Protection Hood
- Protection Net
- Drain Adapter

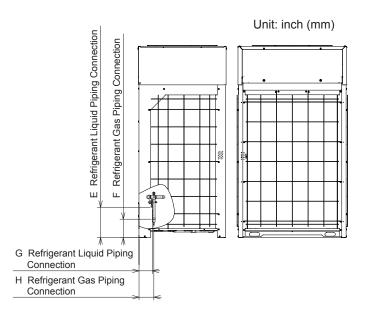
Category		Ton			14	RT	
Model (Combination)					(H,Y)VAH	P168B42S	
,		Unit A			,		
Model (Individual)		Unit B					
		Unit C					
Power Supply					460V/ 3PH 60Hz		
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	168,000	(49.2)	
Сарасну і	Heating	Capacity (Nominal)	Btu/h	(kW)	189,000	(55.4)	
	Cooling	Capacity (Rated)	Btu/h	(kW)	160,000	(46.9)	
		EER	Btu/Wh	(W/W)	11.6	(3.40)	
Efficiency Ratings *2		IEER	Btu/Wh	(Wh/Wh)	23.4	(6.86)	
Elliciency Rauligs 2	Heating	Capacity (Rated)	Btu/h	(kW)	180,000	(52.8)	
	High	COP	W	/W	3.	65	
	Heating	Capacity	Btu/h (kW)		124,000	(36.3)	
	Low	COP	W	/W	2.	16	
		Indoor	°F WB	(°C WB)	59(15)	- 73(23)	
		Outdoor	°F DB	(°C DB)	23(-5) ~	122(50)	
	Cooling	Outdoor			14(-23) ~	100(42)	
Operating Range *3	Cooming	(with Snow Protection Hood)	FUB	(°C DB)	14(-25)	103(43)	
operating range o		Outdoor (with Cooling Damper Kit)	°F DB	(°C DB)	-10(-20)	~ 109(43)	
		Indoor	°F DB	(°C DB)	59(15)	- 80(27)	
	Heating	Outdoor		(°C WB)		~ 59(15)	
Cabinet Color (Munse	ell Code)			-		8/2	
	,		in		66-/14 x 6		
Outer Dimensions	Height x W	idth x Depth	-				
	_		mm		1683 x 1	625 x 774	
\A/=:=b4	Net		lbs	(kg)	849	(385)	
Weight	Gross		lbs	(kg)	900	(408)	
Connection Datie	Standard (	Extended)	9	%	130(15	0) - 55	
Connection Ratio	Max. (Reco	ommended) Indoor Units/System		Q'ty	36	(12)	
	Туре				Multi-Pas		
Heat Exchanger [					Finned		
	Material	Ta		-	Cu-Al (Anti		
	Туре	Inverter 1		-	DC80F	PHD×2	
		Inverter 2		-			
Compressor	Motor Outp		kW (	Pole)	7.1(		
	Start Meth			-	inve		
	Operation		,	%		100	
	Refrigeration	on Oil Type		-	FVC		
Crank Case Heater	-		W×	Q'ty		30V) ×6	
	Туре			-	Propel		
	Motor Outp	out (Pole)	,	Pole)	0.48(		
F	Quantity		Q	'ty	- 2	<u> </u>	
Fan	Airflow Rat	е	cfm	(m³/min)	11,614	(329)	
	External St	atic Pressure *4	in.W.G.	(Pa)	0-0.32	(0-80)	
	Drive			-	Direct	-drive	
	Min Circuit	<u> </u>		Ą		4	
Electrical		Overcurrent Protective Device		Ą		0	
	Maximum	use Size		Ą	4	-	
Sound Pressure	Cooling			(A)	6		
Level	Heating		dB	(A)		4	
	Cycle			-	High press		
	-				Over-currer	(4.15MPa)	
Protection Devices	Inverter			-	Over-heat		
	Compress	or		-	Over-heat		
	PCB			-	Over-currer		
	Туре			-	R4	I0A	
Refrigerant		arge Amount	lbs	(kg)	24.9	(11.3)	
Refrigeration Oil	Factory Ch	arge Amount	gal/Unit	(L/Unit)	2.2	(8.4)	
	. actory or	argo , arrount	ganonii	- (2/01110)	Reversed Ref		
Defrost Method Main Refrigerant	Gas Line		in	(mm)	1-1/8	(28.58)	

#### NOTES:

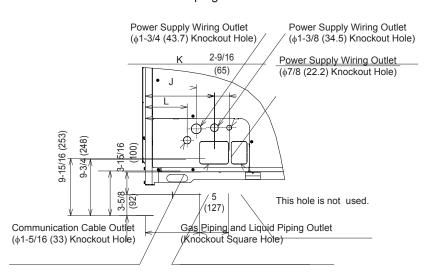
- 1. Rating Conditions are based on the AHRI 1230 test standard.
- 2. Efficiency ratings are based on the AHRI 1230 test standard.
- 3. For more details, please refer to the Engineering manual "Operation range" section.
- External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).







## **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	Е	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

Refrigerant Piping Connection and Wiring Outlet







		SUB	MITTAL DATA SHEET		
(Y,H)VAHP192B42S			Consists of one (Y,H)VAHI	P192B42S 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 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

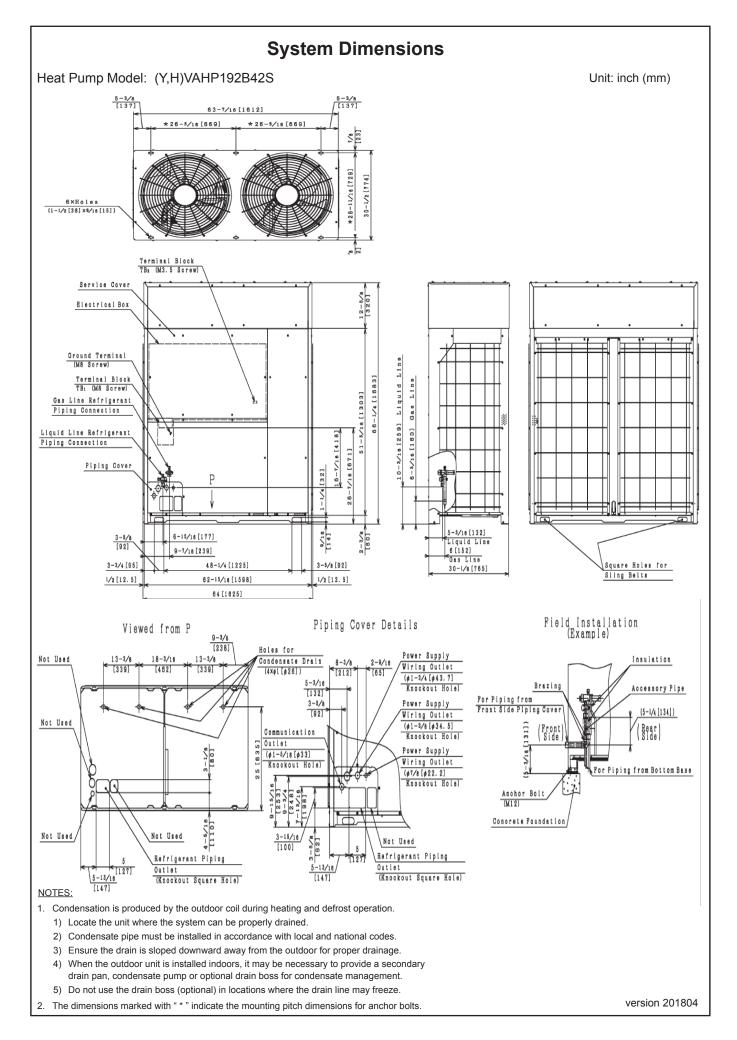
ACCESSORIES: (for detailed information, see VRF Engineering Manual and separate documentation for each accessory)

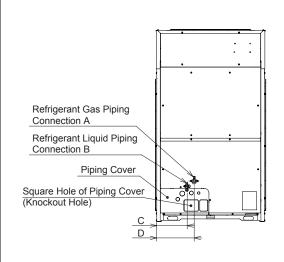
- Piping Kit
- Snow Protection Hood
- Protection Net
- Drain Adapter

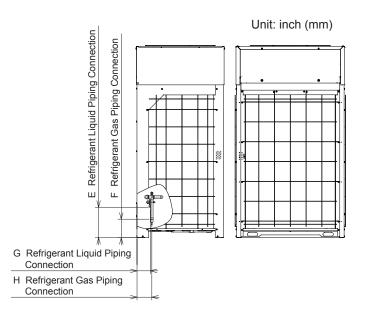
Category		Ton			16	RT	
Model (Combination)					(H,Y)VAH	P192B42S	
,		Unit A			,		
Model (Individual)		Unit B				-	
		Unit C					
Power Supply					460V/ 3PH 60Hz		
Capacity *1	Cooling	Capacity (Nominal)	Btu/h	(kW)	192,000	(56.3)	
Сарасну і	Heating	Capacity (Nominal)	Btu/h	(kW)	216,000	(63.3)	
	Cooling	Capacity (Rated)	Btu/h	(kW)	184,000	(53.9)	
		EER	Btu/Wh	(W/W)	10.6	(3.11)	
Efficiency Ratings *2		IEER	Btu/Wh	(Wh/Wh)	21.4	(6.27)	
Elliciency Rauligs 2	Heating	Capacity (Rated)	Btu/h	(kW)	206,000	(60.4)	
	High	COP	W	/W	3.	32	
	Heating	Capacity	Btu/h	(kW)	140,000	(41.0)	
	Low	COP	W	/W	2.	05	
		Indoor	°F WB	(°C WB)	59(15)	~ 73(23)	
		Outdoor	°F DB	(°C DB)	23(-5) ~	122(50)	
	Cooling	Outdoor	0F DD	0C DD)	14(-23) ~	100/42)	
Operating Range *3	Cooming	(with Snow Protection Hood)	FUB	(°C DB)	14(-25)	103(43)	
operating range o		Outdoor (with Cooling Damper Kit)	°F DB	(°C DB)	-10(-20)	~ 109(43)	
		Indoor	°F DB	(°C DB)	59(15)	~ 80(27)	
	Heating	Outdoor		(°C WB)		~ 59(15)	
Cabinet Color (Munse	ell Code)			-		′ 8/2	
	,		in		66-1/4 x 64		
Outer Dimensions	Height x W	idth x Depth	-				
	_		mm		1683 x 1	625 x 774	
\A/=:=b4	Net		lbs	(kg)	849	(385)	
Weight	Gross		lbs	(kg)	900	(408)	
Connection Datie	Standard (	Extended)	9	%	130(15	0) - 55	
Connection Ratio	Max. (Reco	ommended) Indoor Units/System		Q'ty	40	(14)	
	Туре				Multi-Pas		
Heat Exchanger					Finned		
	Material	Ta		-	Cu-Al (Anti		
	Туре	Inverter 1		-	DC80F	PHD×2	
		Inverter 2		-			
Compressor	Motor Outp		kW (	Pole)	9.1(		
	Start Meth			-	inve		
	Operation		,	%		100	
	Refrigeration	on Oil Type		-	FVC		
Crank Case Heater	-		W×	Q'ty		30V) ×6	
	Туре			-	Propel		
	Motor Outp	out (Pole)	,	Pole)	0.56(		
F	Quantity		Q	'ty	- 2	4	
Fan	Airflow Rat	е	cfm	(m³/min)	12,284	(348)	
	External St	atic Pressure *4	in.W.G.	(Pa)	0-0.32	(0-80)	
	Drive			- ]	Direct		
	Min Circuit	<u> </u>		Ą		9	
Electrical		Overcurrent Protective Device		A		0	
	Maximum	use Size		Ą		0	
Sound Pressure	Cooling			(A)	6		
Level	Heating		dB	(A)		6	
	Cycle			-	High press		
	-				Over-currer	(4.15MPa) nt protection	
Protection Devices	Inverter			-	Over-heat		
	Compress	or		-	Over-heat		
	PCB			-	Over-currer	nt protection	
	Туре			-	R4	10A	
Refrigerant	Factory Ch	arge Amount	lbs	(kg)	25.6	(11.6)	
Refrigeration Oil	Factory Ch	arge Amount	gal/Unit	(L/Unit)	2.2	(8.4)	
			32 Ot	- ( 3)	Reversed Ref		
Defrost Method							
Defrost Method Main Refrigerant	Gas Line		in	(mm)	1-1/8	(28.58)	

#### NOTES:

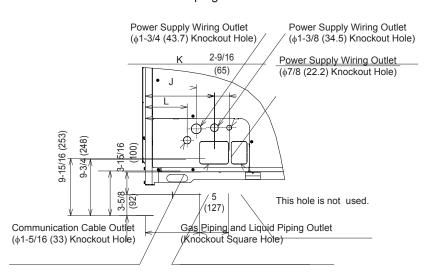
- 1. Rating Conditions are based on the AHRI 1230 test standard.
- 2. Efficiency ratings are based on the AHRI 1230 test standard.
- 3. For more details, please refer to the Engineering manual "Operation range" section.
- External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).







## **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	E	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

## Refrigerant Piping Connection and Wiring Outlet







		SUBI	MITTAL DATA SHEET	Г
(Y,H)VAHP216B42S		Consists o	of one (Y,H)VAHP144B42S and	d 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.:
			(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

Category		Ton				18			
Madal (Cambination)						(12RT			
Model (Combination)		Unit A				(H,Y)VAHI (H,Y)VAHI			
Model (Individual)		Unit B				(H,Y)VAH			
woder (marviduar)		Unit C				(II,I)VAIII	- 0720423		
Power Supply		OTHE O				460V/ 3F	PH 60Hz		
	Cooling	Capacity (Nomina	)	Btu/h	(kW)	216,000	(63.3)		
Capacity *1	Heating	Capacity (Nominal		Btu/h	(kW)	243,000	(71.2)		
	Cooling	Capacity (Rated)	,	Btu/h	(kW)	206,000	(60.4)		
	_	EER		Btu/Wh	(W/W)	10.9	(3.18)		
⊏#:-: +0		IEER		Btu/Wh	(Wh/Wh)	20.9	(6.12)		
Efficiency Ratings *2	Heating	Capacity (Rated)		Btu/h	(kW)	232,000	(68.0)		
	High	COP		W	/W	3.8	82		
	Heating	Capacity		Btu/h	(kW)	164,000	(48.1)		
	Low	COP			/W	2.3	32		
		Indoor			(°C WB)	59(15) ~			
		Outdoor		°F DB	(°C DB)	23(-5) ~	122(50)		
Operating Range *3	Cooling	Outdoor (with Snow Protect	°F DB	(°C DB)	14(-23) ~	109(43)			
Operating Range 3		Outdoor (with Cooling Dam	per Kit)	°F DB	(°C DB)	-10(-20) ·	~ 109(43)		
	Hooti	Indoor		°F DB	(°C DB)	59(15) ~			
	Heating	Outdoor			(°C WB)	-13(-20)	~ 59(15)		
Cabinet Color (Munse	ell Code)					2.5Y	′ 8/2		
			in	(66-1/4x	48-5/8 x30-	-1/2)+(66-1/4x 38-3/8 x30-1/2			
Outer Dimensions	Height x W	idth x Depth	mm			)+(1683 x 975 >			
Weight	Net			lbs	(kg)	728+523	(330+237		
vveignt	Gross			lbs	(kg)	772+562	(350+255		
Connection Ratio	Standard (	Extended)		9	%		60) - 60		
Connection Ratio	Max. (Reco	ommended) Indoor U	nits/System		Q'ty	46 (			
	Туре				-	Multi-Pas			
Heat Exchanger	Material				_	Finned			
	Material	laurata 1			-	Cu-Al (Anti			
	Туре	Inverter 1 Inverter 2			-	DC80F AA50F			
	Motor Out			k\// /	Pole)	6.4(6)×2			
Compressor	Start Meth	, ,		KVV (	-	inverter			
	Operation				%	11 ~ 100			
	•	on Oil Type			-				
Crank Case Heater	rteingerati	on on type		W×	Q'ty	FVC68D 34.2 (230V) ×9			
Oranii Gado Francis	Туре				-	Propeller Fan			
	Motor Out	out (Pole)		kW (	Pole)	(0.39(8)×2)+0.42(8)			
	Quantity	()			'ty	(0.00(0)			
Fan	Airflow Rat	e		cfm	(m³/min)	9,037 +6,707	(256+190		
	External St	atic Pressure *4		in.W.G.	(Pa)	0-0.32	(0-80)		
	Drive				- (/	Direct			
	Min Circuit	Amps			A	30+	+15		
Electrical	Maximum	Overcurrent Protectiv	e Device		A	35+	+20		
	Maximum				A	35+			
Sound Pressure	Cooling			dB	(A)	6	6		
Level	Heating				(A)	6	-		
	Cycle				-		(4.15MPa)		
Protection Devices	Inverter				-	Over-heat	protection		
	Compress	Or .		-	-	Over-heat			
	PCB			-	-	Over-currer R4			
Refrigerant	Type Factory Ch	arge Amount		Ibs	(kg)	23.6+16.1	(10.7+7.2		
Defriesseties Oil	-								
Refrigeration Oil	ractory Cr	arge Amount		gal/Unit	(L/Unit)	2.1+1.6	(7.9+6.0)		
Defrost Method	Coo Lin-			in	- (mm)	Reversed Ref			
Main Refrigerant Piping (Heat Pump)	Gas Line Liquid Line			in in	(mm) (mm)	1-1/8 3/4	(28.58)		
					(11/0117)	U/-T	(10.00)		

#### 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.
- External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

# **System Dimensions** Heat Pump Model: (Y,H)VAHP216B42S Unit: inch (mm) $\frac{5-3/8}{[136]}$ 5-3/8 [136] \*37-5/16[948] 7/8 \*28-11/16 [729] 7/8 OUTDOOR UNIT A OUTDOOR UNIT B 66-1/4[1683] 000 000 48-5/8[1235] 38-3/8[975] 30-1/8[765] 13/16[20] 87-13/16[2230] ← to Indoor Unit Piping Connection Kit

#### NOTES:

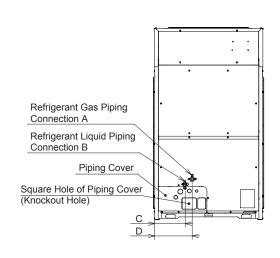
1. Make sure that the outdoor unit A is placed
on the indoor unit side.
Arrange the outdoor units according to the
capacity, A≧B.
2. Check "Installation Manual" for the piping
connection kit and piping connection size.
3. Check "Dimensional Drawing" for the dimension
of piping outlet and wiring outlet.
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

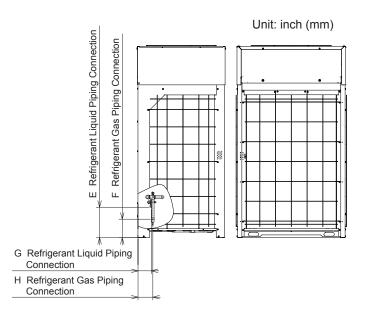
mounting position are changed by cleararce

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

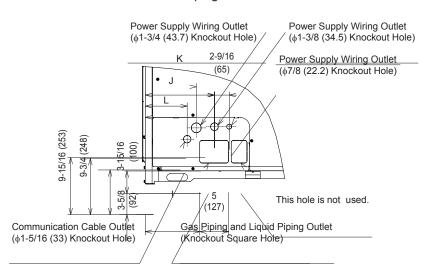
version 201804

between the base units.





### **Detail of Piping Cover**



Model	Gas	Liquid	А	В	С	D	Е	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

### Refrigerant Piping Connection and Wiring Outlet







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:										
(Y,H)VAHP240B425	S <b>Job</b>		Consists of two (Y,H)VA	HP120B42S modules.						
Name:			Location:							
Purchaser:			Order No.:							
Engineer:										
Submitted To:	For:	Ref:	Approval:	Construction:						
Submitted By:			Date:							
Unit Designation:			Schedule No.:	Model No.:						
			(Heat Dump 460\/)							

### **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

leat Pump		Ton			20	RT	
Outegory		1011				+10RT)	
Model (Combination)		•			(H,Y)VAHP	240B42S	
		Unit A			(H,Y)VAHP	120B42S	
Model (Individual)		Unit B			(H,Y)VAHP	120B42S	
		Unit C			-		
Power Supply					460V/ 3PH	60Hz	
	Cooling	Capacity (Nominal)	Btu/h	(kW)	240,000	(70.3)	
Capacity *1	Heating	Capacity (Nominal)	Btu/h	(kW)	270,000	(79.1)	
	Cooling	Capacity (Rated)	Btu/h	(kW)	228,000	(66.9)	
		EER	Btu/Wh	(W/W)	10.6	(3.11)	
Efficiency Ratings *2		IEER	Btu/Wh	(Wh/Wh)	21.0	(6.16)	
Ellicieticy Ratings 2	Heating	Capacity (Rated)	Btu/h	(kW)	258,000	(75.7)	
	High	COP	W/		3.51		
	Heating	Capacity	Btu/h	(kW)	178,000	(52.2)	
	Low	COP	W/	•	2.27		
		Indoor	°F WB (		59(15) ~ 73		
		Outdoor	°F DB (	°C DB)	23(-5) ~ 12	2(50)	
Operating Range *3	Cooling	Outdoor (with Snow Protection Hood)	°F DB (	°C DB)	14(-23) ~ 1	09(43)	
		Outdoor (with Cooling Damper Kit)	°F DB (		-10(-20) ~ 1		
	Heating	Indoor	°F DB (		59(15) ~ 80		
	5	Outdoor	°F WB (	°C WB)	-13(-25) ~ 5	9(15)	
Cabinet Color (Muns	ell Code)		-		2.5Y 8/2		
Outer Dimensions	Hoight '*	lidth y Donth	in	(66-3/1	6 x 48-5/8 x 30	-1/2) x 2	
Outer Dimensions	Ů	nt x Width x Depth		<u> </u>	x 1235 x 774)		
Weight	Net		lbs	(kg)	725×2	(329×2)	
	Gross	- · · ·	lbs	(kg)	770×2	(349×2)	
Connection Ratio	Standard (		9		130(150) - (	60	
	Max. (Rec	ommended) Indoor Units/System		Q'ty	52 (18)		
Heat Exchanger	Туре		-		Multi-Pass C	ross-Finned ube	
	Material		-		Cu-Al (Anti-	corrosion)	
	_	Inverter 1	-		AA50F	PHD×4	
	Туре	Inverter 2	-		-		
Compressor	Motor Outp	out (Pole)	kW (F	Pole)	(5.4(6)×2)×2		
Compressor	Start Metho	od	-		inve		
	Operation I		%	,		100	
	Refrigeration	on Oil Type	-			68D	
Crank Case Heater			W×0	ג'ty		0V) ×12	
	Туре		-			ler Fan	
	Motor Outp	out (Pole)	kW (F		(0.39(8	)×2) ×2	
_	Quantity		Q'	ty	4	1	
Fan	Airflow Rat		cfm	(m³/min)	9,037×2	(256×2)	
		atic Pressure *4	in.W.G.	(Pa)	0-0.32	(0-80)	
	Drive Min Circuit	A	- A		Direct		
Electrical		<u>'</u>				×2 ×2	
LICCUICAI	Maximum (	Overcurrent Protective Device	A			×2 ×2	
Sound Pressure	Cooling	USC SIZE	dB (			6	
Level	Heating		dB (	` '	6		
	Cycle		-	( )	High pressu at 601psi (4	re switch	
Protection Devices	Inverter		-		Over-curren Over-heat p	t protection	
	Compresso	DF .	-		Over-heat p	rotection	
	PCB		-		Over-curren		
	Туре		-		R4	10A	
Refrigerant	Factory Ch	arge Amount	lbs	(kg)	20.9×2	(9.9×2)	
Refrigeration Oil	Factory Ch	arge Amount	gal/Unit	(L/Unit)	2.1×2	(7.9×2)	
Defrost Method	-	·	-		Reversed Re		
				(	1-3/8	(34.93)	
Main Refrigerant Piping (Heat Pump)	Gas Line		in in	(mm)	3/4	(19.05)	

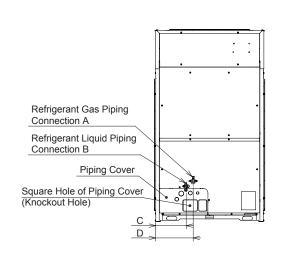
#### NOTES:

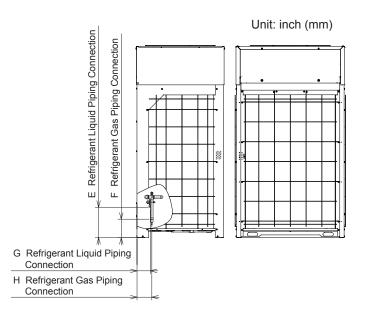
- 1. Rating Conditions are based on the AHRI 1230 test standard.
- 2. Efficiency ratings are based on the AHRI 1230 test standard.
- For more details, please refer to the Engineering manual "Operation range" section.
- 4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

# **System Dimensions** Heat Pump Model: (Y,H)VAHP240B42S Unit: inch (mm) 5-3/8 [136] 5 - 3/8[136] \*37-5/16 [948] 12-1/16 \*37-5/16 [948] [307] 22] 8×Holes (1-1/2 [38] ×9/16 [15]) OUTDOOR UNIT A OUTDOOR UNIT B 0000 000 48-5/8[1235] 48-5/8[1235] 30-1/8[765] 13/16[20] 98-1/16[2490] NOTES: 1. Outdoor unit A is the Main unit and outdoor unit B is the Sub unit. ← to Indoor Unit The Main unit is closest in piping to the indoor unit. 2. If outdoor modules have different capacities, the largest capacity Piping unit will be outdoor unit A (Main) and outdoor unit B (Sub) will be Connection Kit the smallest capacity. $A \ge B$ .

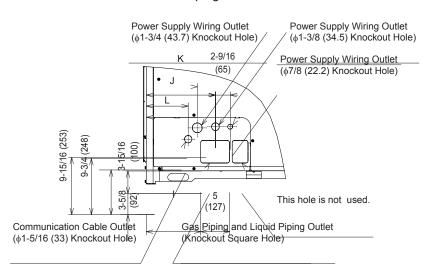
Outdoor Unit Model	Combination of Base Unit Models								
Outdoor out model	OUTDOOR UNIT A	OUTDOOR UNIT B							
(H. Y) VAHP240B32S	(H. Y) VAHP120B32S	(H. Y) VAHP120B32S							
(H, Y) VAHP240B42S	(H, Y) VAHP120B42S	(H, Y) VAHP120B42S							
(H, Y) VAHP264B32S	(H. Y) VAHP144B32S	(H, Y) VAHP120B32S							
(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 kits and piping sizes are identified in the "Installation Manual".
- 4. 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.
- 7. "Dimensional Drawing of Base Unit" are used for dimensions of piping and wiring outlets.





### **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	Е	F	G	Н	I	J	K	L
72	φ7/8 (22.2)	φ1/2 (12.7)	φ7/8 (22.2)	ф3/8 (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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

Refrigerant Piping Connection and Wiring Outlet







		SUB	MITTAL D	ATA SI	HEET					
(Y,H)VA	MP264B42S	Consists	of one (Y,H)VA	\HP144B4	12S and one (Y,F	H)VAHF	120B	42S m	odule.	
Job Nan	ne:		Locatio	n:						
Purchas	ser:		Order N	lo.:						
Enginee	er:									
Submitt	ed To: For:	Ref:	Approv	al:	С	onstru	ction:			
Submitt	ed By:		Date:							
Unit Des	signation:		Schedu	le No.:	N	lodel N	0.:			
			(Heat P	ump 460V	<u>'</u> )					
FEATU		ivor	Category		Ton				PRT +10RT)	
	nverter Compressors del imum efficiency at part lo		Model (Combination)		To a c			(H,Y)VAH	P264B42S	
conc	litions and provide comfortional zone control		Model (Individual)		Unit A Unit B Unit C				P144B42S P120B42S	
	e capacity single outdoo	nr.	Power Supply	Caslina	Conneit (Naminal)	D4/b	(1440)		PH 60Hz	
- 0	ules (up to 16 Ton) for in		Capacity *1	Cooling Heating	Capacity (Nominal) Capacity (Nominal)	Btu/h Btu/h	(kW)	264,000 297,000	(77.4) (87.0)	
	pility, space and weight			Cooling	Capacity (Rated)	Btu/h	(kW)	252,000	(73.9)	
	reduced piping and elec	•			EER IEER	Btu/Wh Btu/Wh	(W/W) (Wh/Wh)	10.0 21.1	(2.93)	
conr	nections gn flexibility with long pi		Efficiency Rating*2	Heating High	Capacity (Rated) COP	Btu/h			(82.6)	
	ths up to 3,280 ft. total a			Heating Low	Capacity COP	Btu/h W	(kW) W	196,000	(57.4)	
•	60 ft. vertical distance be	•		Indoor		_	(°C WB)	59(15) ~ 73(23) 23(-5) ~ 122(50)		
Outo	loor Units and Indoor Ur	nits	Operating Range *3	Outdoor (with Sr	now Protection Hood)		(°C DB) (°C DB)	23(-5) ~ 122(50) 14(-23) ~ 109(43)		
• Can	provide efficient heating	and		Outdoor (with Da			(°C DB)	-10(-20)	~ 109(43)	
cooli	ing down to -10°F ambie	nt air	Heating Operating Range	Indoor			(°C DB) (°C WB)		~ 80(27) ~ 59(15)	
temp	perature. (Cooling down	to 23°F	Cabinet Color (Munsell C	Outdoor ode)		FWB	- ( <u>C WB)</u>		Y 8/2	
as st	tandard and down to -10	∘F with	Outer Dimensions	Height x Width >	c Depth	in	_ `	4 x 48-5/8 x 3	,	
	essories installed)			Net	<u> </u>	mm lbs	(1683 x (kg)	(1235 x 774) 728+725	(330+329)	
	ce efficient and lightweig		Weight	Gross		lbs	(kg)	772+770	(350+349)	
•	ides flexibility in system	layout	Connection Ratio	Standard (Exten	nded) ended) Indoor Units/System		% I'ty		50) - 55 (20)	
	installation			Type	ended) indoor Offits/System		- ·	Multi-Pa	ss Cross-	
•	tenance friendly design		Heat Exchanger	Material			-		d Tube ti-corrosion)	
	loor Unit – all componer	its		Туре	Inverter 1		-		PHD×4	
acce	essible from the front			Motor Output (P	Inverter 2	F/V/	Pole)	(C 4(C)v2))	- (E 4/6) × 2)	
4005	000DIE0- //	1	Compressor	Start Method	ole)	KVV (	-		+(5.4(6)×2) erter	
	SSORIES: (for detaile			Operation Rang		(	%		~ 100	
	tion, see VRF Engineeri and separate document		Crank Case Heater	Refrigeration Oi	Пуре	W×	- Q'ty		C68D 30V) ×12	
	and separate document	lation		Туре			-	Prope	ller Fan	
	• ,			Motor Output (P Quantity	ole)		(Pole) I'tv	_ ` `	3)×2) × 2 4	
<ul><li>Pipin</li></ul>	g Kit		Fan	Airflow Rate		cfm	(m³/min)	9,037×2	(256×2)	
<ul><li>Snov</li></ul>	v Protection Hood			External Static F	Pressure *4	in.W.G.	(Pa)	0-0.32	(0-80)	
• Prote	ection Net			Drive Min Circuit Amp	S		- A		t-drive +24	
• Drain	n Adapter		Electrical	Maximum Overd	current Protective Device		A		+30	
	·		Sound Pressure	Maximum Fuse Cooling	Size		(A)		i+30 37	
NOTES:			Level	Heating			(A)	67 67		
_	Conditions are based on the 1230 test standard.			Cycle			-	at 601psi	sure switch (4.15MPa)	
AHRI	ncy ratings are based on the 1230 test standard.		Protection Devices	Inverter Compressor			-	Over-heat	nt protection t protection t protection	
	ore details, please refer to the	ıo"		PCB			-	Over-curre	nt protection	
engine section	eering manual "Operation rang n.	je	Refrigerant	Type Factory Charge	Amount	lbs	- (kg)	R4 23.6+20.9	10A (10.7+9.9)	
chang	al static pressure can be ed via DSW setting 0.32 in. W	.G.	Refrigeration Oil Defrost Method	Factory Charge		gal/Unit		2.1×2	(7.9×2) frigerant Cycle	
(80 Pa	1).		Maia Dafrianana	Gas Line		in	(mm)	1-3/8	(34.93)	

(19.05)

Liquid Line

Main Refrigerant Piping (Heat Recovery)

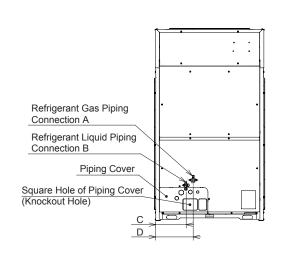
(mm)

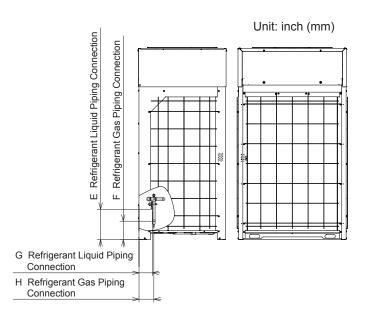
in

# **System Dimensions** Heat Pump Model: (Y,H)VAHP264B42S Unit: inch (mm) 5-3/8 [136] 5-3/8 [136] 12-1/16 \*37-5/16 [948] \*37-5/16 [948] [307] 22] 8×Holes (1-1/2 [38] ×9/16 [15]) OUTDOOR UNIT A OUTDOOR UNIT B 66-1/4[1683] 000 48-5/8[1235] 48-5/8[1235] 30-1/8[765] 13/16 [20] 98-1/16[2490] NOTES: Outdoor unit A is the Main unit and outdoor unit B is the Sub unit. ← to Indoor Unit The Main unit is closest in piping to the indoor unit. Piping 2. If outdoor modules have different capacities, the largest capacity unit will be outdoor unit A (Main) and outdoor unit B (Sub) will be Connection Kit the smallest capacity. $A \ge B$ . 3. Piping connection kits and piping sizes are identified in the

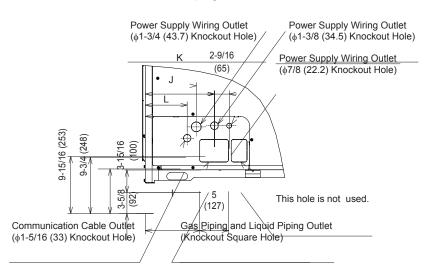
Outdoor Unit Model	Combination of Base Unit Models								
Outdoor out model	OUTDOOR UNIT A	OUTDOOR UNIT B							
(H. Y) VAHP240B32S	(H. Y) VAHP120B32S	(H. Y) VAHP120B32S							
(H, Y) VAHP240B42S	(H, Y) VAHP120B42S	(H, Y) VAHP120B42S							
(H, Y) VAHP264B32S	(H. Y) VAHP144B32S	(H, Y) VAHP120B32S							
(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							

- "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.





### **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	Е	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

Refrigerant Piping Connection and Wiring Outlet







	Efficiency is our motto	333 377	
SUB	MITTAL DATA SH	IEET	
(Y,H)VAHP288B42S	Consists of two (Y	H)VAHP144B42S 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 460V)		
FEATURES:	Category	Ton	24RT (12RT+12RT)
<ul> <li>All Inverter Compressors deliver</li> </ul>	Model (Combination)		(H,Y)VAHP288B42
maximum efficiency at part load		Unit A	(H,Y)VAHP144B42
conditions and provide comfortable	Model (Individual)	Unit B	(H,Y)VAHP144B42
•	Power Supply	Unit C	- 460V/ 3PH 60Hz
individual zone control	. Siroi Suppiy		100 17 01 11 00112

- 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

- 1. Rating Conditions are based on the AHRI 1230 test standard.
- 2. Efficiency ratings are based on the AHRI 1230 test standard.
- 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).

Schedule N	0.:	Mod	lel No.:				
(Heat Pump	460V)						
Category	,	Ton			24	RT	
					(12RT+	-12RT)	
Model (Combination)					(H,Y)VAH	P288B42S	
		Unit A				P144B42S	
Model (Individual)		Unit B			(H,Y)VAH	P144B42S	
Power Supply		Unit C			- 460V/ 3PH 60Hz		
т омст опррту	Cooling	Capacity (Nominal)	Btu/h	(kW)	288,000	(84.4)	
Capacity *1	Heating	Capacity (Nominal)	Btu/h	(kW)	324,000	(95.0)	
	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)	
Efficiency Rating*2	Heating	Capacity (Rated)	Btu/h	(kW)	308,000	(90.3)	
Emoichey Raung 2	High	COP		W	3.4		
	Heating	Capacity	Btu/h	(kW)	214,000	(62.7)	
	Low	COP	_	W	2.5		
	Indoor			(°C WB)		~ 73(23)	
Operating Range *3	Outdoor	hann Dantastian Hand)		(°C DB)	23(-5) ~		
		Snow Protection Hood)		(°C DB) (°C DB)	14(-23) ~	~ 109(43)	
	Outdoor (with D Indoor	amper Kit)		(°C DB)	, ,	~ 80(27)	
Heating Operating Range	Outdoor			(°C WB)	-13(-25)		
Cabinet Color (Munsell Co			1 110	-		Y 8/2	
	ľ	D #-	in	(66-1/-	4 x 48-5/8 x 3		
Outer Dimensions	Height x Width	x Deptn	mm	(1683)	(1235 x 774)	x 2	
Weight	Net		lbs	(kg)	728 x 2	(330 x 2)	
vveigni	Gross		lbs	(kg)	772 x 2	(350 x 2)	
Connection Ratio	Standard (Exte	nded)	-	%	130(15	50) - 55	
- Connection Natio	Max. (Recomm	ended) Indoor Units/System	C	l'ty	56 (20) Multi-Pass Cross-		
Heat Frehanne	Туре			-			
Heat Exchanger	Material		-	Cu-Al (Anti	d Tube		
		Inverter 1		-		PHD×4	
	Туре	Inverter 2		-		_	
0	Motor Output (F	Pole)	kW	Pole)	(6.4(6)	× 2) x 2	
Compressor	Start Method			-	inve	erter	
	Operation Rang	ge	-	%	11 -	~ 100	
	Refrigeration O	il Type		-	FVC	68D	
Crank Case Heater	1		W×	Q'ty		80V) ×12	
	Туре			-		ler Fan	
	Motor Output (F	Pole)		Pole)		) × 2) × 2	
Fan	Quantity			l'ty	•	4	
	Airflow Rate	D +4	cfm	(m³/min)	9,037×2	(256×2)	
	External Static	Pressure *4	in.W.G.	(Pa)	0-0.32	(0-80)	
	Drive			-		t-drive	
Electrical	Min Circuit Amp	current Protective Device		A A		x 2 x 2	
Liectrical	Maximum Fuse			A		x 2	
Sound Pressure	Cooling	, GIZC		(A)		8	
Level	Heating			(A)		i8	
	_			( -)		sure switch	
	Cycle			-		(4.15MPa)	
Protection Devices	Inverter			-		nt protection protection	
	Compressor			_		protection	
	PCB			-		nt protection	
Defriencest	Туре			-		10A	
Refrigerant	Factory Charge	e Amount	lbs	(kg)	23.6 x 2	(10.7 x 2)	
Refrigeration Oil	Factory Charge	e Amount	gal/Unit	(L/Unit)	2.1×2	(7.9×2)	
Defrost Method				-	Reversed Ref	rigerant Cycle	
Main Refrigerant	Gas Line	-	in	(mm)	1-3/8	(34.93)	
Piping (Heat Recovery)	Liquid Line		in	(mm)	3/4	(19.05)	
	1 .		1	I	·		

### **System Dimensions** Heat Pump Model: (Y,H)VAHP288B42S Unit: inch (mm) 5-3/8 [136] 5 - 3/8[136] 12-1/16 \*37-5/16 [948] \*37-5/16 [948] [307] 2 2 8×Holes (1-1/2 [38] ×9/16 [15]) OUTDOOR UNIT A OUTDOOR UNIT B 000 000 48-5/8[1235] 48-5/8[1235] 30-1/8[765] 13/16 [20] 98-1/16[2490] 1. Outdoor unit A is the Main unit and outdoor unit B is the Sub unit. ← to Indoor Unit The Main unit is closest in piping to the indoor unit. Piping 2. If outdoor modules have different capacities, the largest capacity Connection Kit unit will be outdoor unit A (Main) and outdoor unit B (Sub) will be the smallest capacity. $A \ge B$ . 3. Piping connection kits and piping sizes are identified in the Combination of Base Unit Models "Installation Manual". Outdoor Unit Model OUTDOOR UNIT A OUTDOOR UNIT B 4. The dimensions marked with " \* " indicate the mounting pitch dimensions for anchor bolts. (H, Y) VAHP240B32S (H. Y) VAHP120B32S (H. Y) VAHP120B32S 5. This drawing shows that there is 13/16 inch [20mm] clearance (H, Y) VAHP240B42S (H, Y) VAHP120B42S (H, Y) VAHP120B42S between the outdoor units. If Snow Protection Hoods are installed

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.

6. Modifications to the anchoring locations for the outdoor units are

on the outdoor units, 2 inch [50mm] minimum clearance is required.

(H, Y) VAHP144B32S

(H, Y) VAHP144B42S

(H, Y) VAHP144B32S

(H. Y) VAHP144B42S

(H, Y) VAHP264B32S

(H, Y) VAHP264B42S

(H, Y) VAHP288B32S

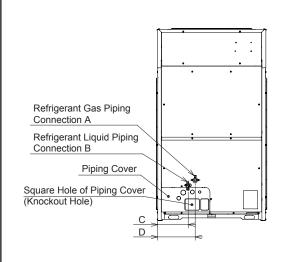
(H. Y) VAHP288B32S

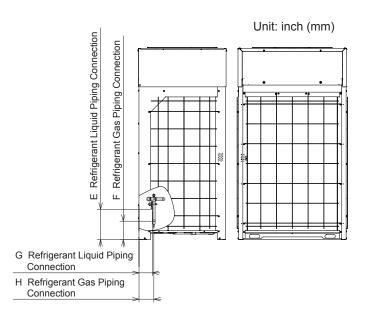
(H, Y) VAHP120B32S

(H, Y) VAHP120B42S

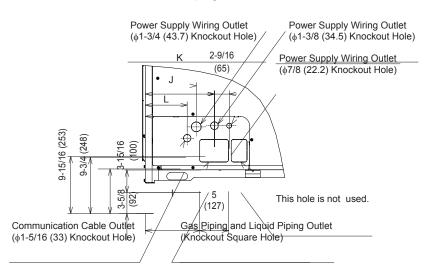
(H, Y) VAHP144B32S

(H. Y) VAHP144B42S





### **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	Е	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

### Refrigerant Piping Connection and Wiring Outlet







<b>ZONING</b> Efficiency is our motto					305 8	377 2	873	
SUBM	ITTAL DA	TA SHE	ET					
26 RT (Y,H)VAHP312B42S Consists of	of one (Y,H)VAH	IP168B42	S and one	e (Y H)\/	/AHP1	44R4	2S mod	lule
Job Name:	, ,		J 41101 5111	( ,,, ,, ,				
	Location:							
Purchaser:	Order No.:							
Engineer:								
Submitted To: For: Ref:	Approval:			Cons	tructi	on:		
Submitted By:	Date:							
Unit Designation:	Schedule N	No.:		Mode	el No.:			
(Heat Pump 460V)	Category		Ton				26	RT
<u>FEATURES</u> :							(14RT+	
<ul> <li>All Inverter Compressors deliver</li> </ul>	Model (Combination)		Unit A					P312B42S P168B42S
maximum efficiency at part load	Model (Individual)		Unit B				(H,Y)VAHI	
conditions and provide comfortable	Power Supply		Unit C				460V/ 3F	PH 60Hz
individual zone control	Capacity *1	Cooling	Capacity (Nomir		Btu/h	(kW)	312,000	(91.4)
<ul> <li>Large capacity single outdoor</li> </ul>	- Сараску 1	Heating Cooling	Capacity (Nomir Capacity (Rated	,	Btu/h Btu/h	(kW)	351,000 298,000	(102.9)
modules (up to 16 Ton) for increased		Cooming	EER (Nation	/	Btu/Wh	(W/W)	9.7	(2.83)
flexibility, space and weight savings,		Heating	IEER Capacity (Rated	١	Btu/Wh Btu/h	(Wh/Wh) (kW)	20.3 334,000	(5.96)
and reduced piping and electrical connections	Efficiency Rating*2	High	COP (Nated	)		/W	3.3	
		Heating Low	Capacity		Btu/h	(kW) /W	232,000	(68.0)
<ul> <li>Design flexibility with long piping lengths up to 3,280 ft. total and up</li> </ul>		Indoor	COF		<u> </u>	(°C WB)		73(23)
to 360 ft. vertical distance between	Operating Range *3	Outdoor			°F DB (°C DB)		23(-5) ~	122(50)
Outdoor Units and Indoor Units		Outdoor (with Sno Outdoor (with Dar		od)		(°C DB) (°C DB)	14(-23) ~ -10(-20)	109(43) ~ 109(43)
Can provide efficient heating and	Heating Operating Range	Indoor	iipci ratį		°F DB	(°C DB)	59(15)	80(27)
cooling down to -10°F ambient air	Cabinet Color (Munsell Co	Outdoor			°F WB	(°C WB) -	-13(-25)	~ 59(15) / 8/2
temperature. (Cooling down to 23°F	Outer Dimensions	Height x Width x	Depth in				4 x 48-5/8 x	30-1/2)
as standard and down to -10°F with		Net	mm	(1683 x 16	25 x 774) lbs	+ (1683 x	1235 x 774 849 +728	(385 +330)
accessories installed)	Weight	Gross			lbs	(kg)	900 +772	(408 + 350)
<ul> <li>Space efficient and lightweight –</li> </ul>	Connection Ratio	Standard (Extend Max. (Recommer		e/Svetem		% Q'ty	130(15 64	,
provides flexibility in system layout		Туре	idea) indeer emil	are yetem		-	Multi-Pa:	s Cross-
and installation	Heat Exchanger	Material				_	Cu-Al (Anti	d Tube -corrosion)
Maintenance friendly design of		Туре	Inverter 1			-		PHD x 2
Outdoor Unit – all components accessible from the front	Compressor	Motor Output (Po	Inverter 2 le)		kW	(Pole)		PHD × 2 (6.4(6) × 2)
accessible from the from	Compressor	Start Method				-	inve	
<b>ACCESSORIES:</b> (for detailed		Operation Range Refrigeration Oil				% -	FVC	~ 100 68D
information, see VRF Engineering Manual	Crank Case Heater	T			W×	Q'ty		0V) ×12
and separate documentation for each		Type Motor Output (Po	le)		kW	(Pole)	Propel (0.48(8)×2)+	(0.39(8)×2)
accessory)	Fan	Quantity				)'ty		1
Piping Kit		Airflow Rate			cfm	(m³/min)	11,614 +9,037	(329+256)
Snow Protection Hood		External Static P	ressure *4		in.W.G.	(Pa)	0-0.32	(0-80)
Protection Net		Drive				-	Direct	
Drain Adapter	Electrical	Min Circuit Amps Maximum Overci	urrent Protective	Device		4 4	34+ 40+	
	Count Division	Maximum Fuse S	ize		_	4	40+	
NOTES	Sound Pressure Level	Cooling Heating			dB dB		6	
NOTES:		Cycle				_	High press at 601psi	
Rating Conditions are based on the AHRI     1230 test standard.	Protection Devices	Inverter				_	Over-curren	protection
1230 test standard. 2. Efficiency ratings are based on the AHRI	2011000	Compressor				-	Over-heat Over-heat	
1230 test standard.		PCB				-	Over-curren	t protection

1-3/8

R410A

24.9+23.6 (11.3+10.7)

2.2+2.1 (8.4+7.9)

eversed Refrigerant Cycle

(34.93)

(19.05)

(kg)

(L/Unit)

(mm)

(mm)

gal/Unit

in

in

3. For more details, please refer to the Engineering manual "Operation range"

4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

Refrigerant

Refrigeration Oil

Defrost Method

Main Refrigerant

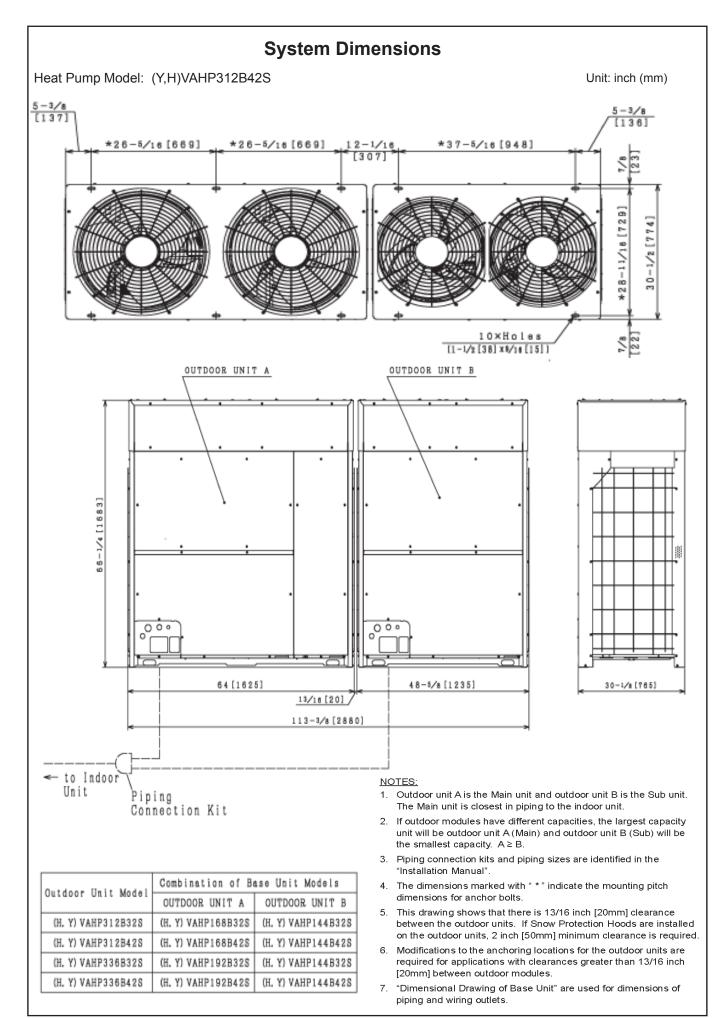
Piping (Heat Recovery)

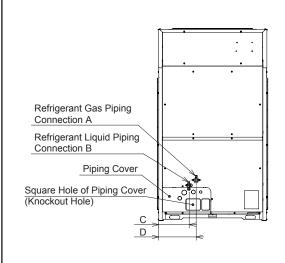
Type
Factory Charge Amount

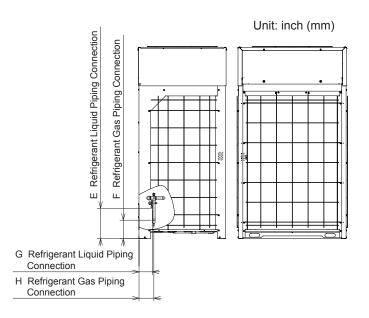
Factory Charge Amount

Gas Line

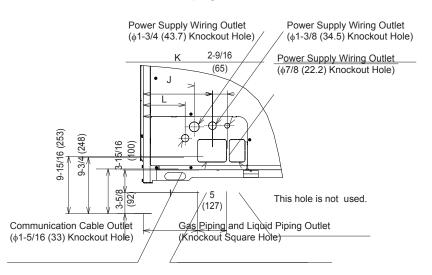
Liquid Line







### **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	Е	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

Refrigerant Piping Connection and Wiring Outlet







	<b>LUNINU</b> Efficiency is our motto					305 877 2873				
SUBN	IITTAL DA	TA SHE	EET							
(Y,H)VAHP336B42S Consists of <b>Job Name:</b>	of one (Y,H)VAH	IP192B42	2S and on	e (Y,H)V	⁄AHP1	44B4	2S mod	dule.		
Purchaser:	Order No.:									
Engineer:	Order No									
Submitted To: For: Ref:	Approval:			Cons	tructi	on:				
	Date:			Colls	ucu	on.				
Submitted By: Unit Designation:	Schedule I	lo i		Mode	el No.:					
(Heat Pump 460V)	Scriedule i	NO		WIOUE	i NO					
FEATURES:	Category		Ton					BRT +12RT)		
	Model (Combination)						,	P336B42S		
All Inverter Compressors deliver	Model (Individual)		Unit A Unit B					P192B42S P144B42S		
maximum efficiency at part loa			Unit C					-		
conditions and provide comfortable individual zone control	Power Supply	Cooling	Capacity (Nomi	inal\	Btu/h	(kW)	460V/ 3 336,000	PH 60Hz (98.5)		
	Capacity *1	Heating	Capacity (Nomi		Btu/h	(kW)	378,000	(110.8)		
<ul> <li>Large capacity single outdoor modules (up to 16 Ton) for increased</li> </ul>		Cooling	Capacity (Rate	d)	Btu/h	(kW)	320,000	(93.8)		
flexibilit , space and weight savings,			EER IEER		Btu/Wh Btu/Wh	(W/W) (Wh/Wh)	9.5 20.8	(2.78)		
and reduced piping and electrical	Efficiency Rating*2	Heating	Capacity (Rate	d)	Btu/h	(kW)	360,000	(105.5)		
connections		High Heating	COP Capacity		Btu/h	/W (kW)	250,000	(73.3)		
Design flexibility with long pipin		Low	COP		W	W	2.	31		
lengths up to 3,280 ft. total and up		Indoor				(°C WB)		~ 73(23) · 122(50)		
to 360 ft. vertical distance between	Operating Range *3	Outdoor Outdoor (with S	Snow Protection Ho	ood)		(°C DB) (°C DB)	. ,	~ 109(43)		
Outdoor Units and Indoor Units		Outdoor (with D				(°C DB)		~ 109(43)		
<ul> <li>Can provide efficient heating and</li> </ul>	Heating Operating Range	Indoor Outdoor				(°C DB) (°C WB)	59(15) ~ 80(27) -13(-25) ~ 59(15)			
cooling down to -10°F ambient air	Cabinet Color (Munsell Co	ode)	1 :-	(66.4/4 × 6		-	2.5Y 8/2 1/4 x 48-5/8 x30-1/2)			
temperature. (Cooling down to 23°F	Outer Dimensions	Height x Width x Denth				<u> </u>	3 x 1235 x 774)			
as standard and down to -10°F with	Weight	Net		lbs	(kg)	849 +728	,			
accessories installed)	0 " 5"	Gross Standard (Exte	ended)		lbs	(kg) %	900 +772	(408 + 350) 50) - 55		
Space efficient and lightweight –  Travides flexibility is system by and the state of the s	Connection Ratio	Max. (Recomm	nended) Indoor Uni	its/System	C	)'ty		(24)		
provides flexibility in system layout and installation	Heat Exchanger	Туре				-		ss Cross- d Tube		
Maintenance friendly design of		Material	Inverter 1			-		ti-corrosion) PHD x 2		
Outdoor Unit – all components		Туре	Inverter 2			-		PHD × 2		
accessible from the front	Compressor	Motor Output (F Start Method	Pole)		kW	(Pole)		+(6.4(6)×2)		
acceptate from the from		Operation Rang	ge			%		erter ~ 100		
<b>ACCESSORIES</b> : (for detailed	0	Refrigeration O	il Type		10/	-		C68D		
information, see VRF Engineering Manual	Crank Case Heater	Туре			VV×	Q'ty -		30V) ×12 ller Fan		
and separate documentation for each		Motor Output (F	Pole)			(Pole)	(0.56(8)×2)	+(0.39(8)×2)		
accessory)	Fan	Quantity Airflow Rate			cfm	(m³/min)	12,284	(348+256)		
<ul><li>Piping Kit</li></ul>						(,	+9,037			
<ul> <li>Snow Protection Hood</li> </ul>		External Static  Drive	Pressure *4		in.W.G.	(Pa)	0-0.32	(0-80)		
<ul><li>Protection Net</li></ul>		Min Circuit Am	ıps			<u> </u>		t-drive +30		
Drain Adapter	Electrical		rcurrent Protective	Device		4	50+	+35		
	Sound Pressure	Maximum Fuse Cooling	Size		_	(A)		+35 i9		
NOTES:	Level	Heating				(A)		9		
NOTES:		Cycle				-	at 601psi	sure switch (4.15MPa)		
<ol> <li>Rating Conditions are based on the AHR 1230 test standard.</li> </ol>	Protection Devices	Inverter			-	-		nt protection protection		
2. Efficiency ratings are based on the AHRI		Compressor				-	Over-heat	protection		
1230 test standard.	Define t	PCB Type					nt protection 10A			
3. For more details, please refer to the	Refrigerant	Factory Charge			lbs (kg) 2		25.6+23.6	(11.6+10.7)		
Engineering manual "Operation range"	Refrigeration Oil	Factory Charg	e Amount		gal/Unit	(L/Unit)	2 2+ 2 1	(8.4+7.9)		

version 201804 Specifications subject to change.

1-3/8

2.2+ 2.1 (8.4+7.9)

eversed Refrigerant Cycle

(34.93)

(19.05)

gal/Unit (L/Unit)

(mm)

(mm)

4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

section.

Factory Charge Amount

Gas Line

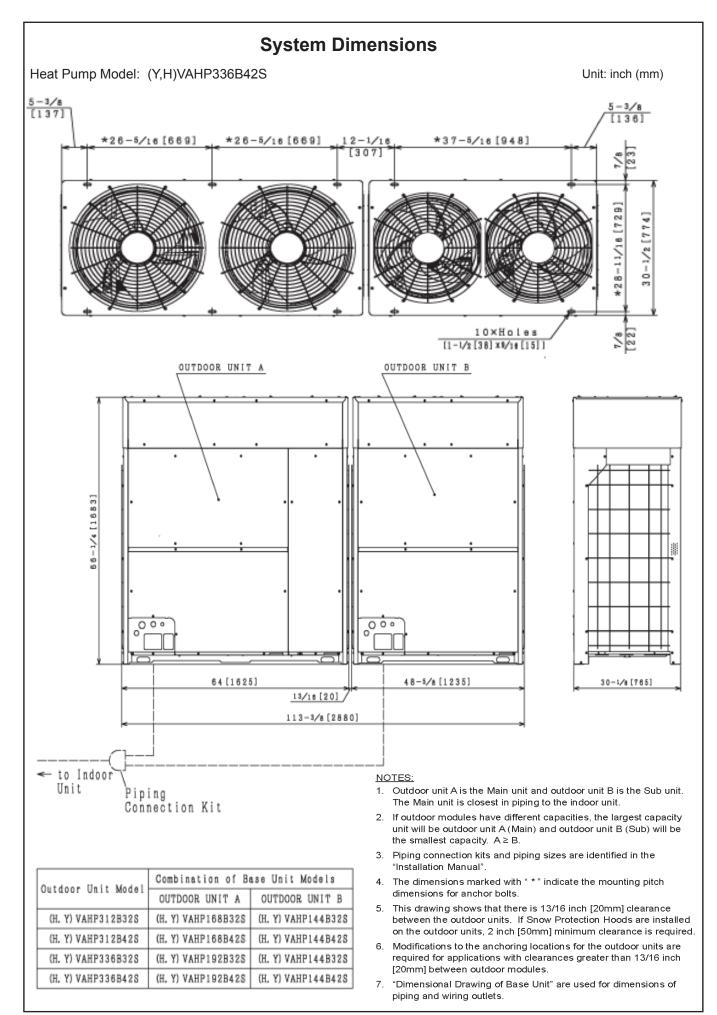
Liquid Line

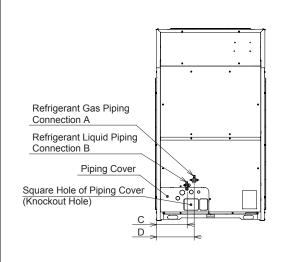
Refrigeration Oil

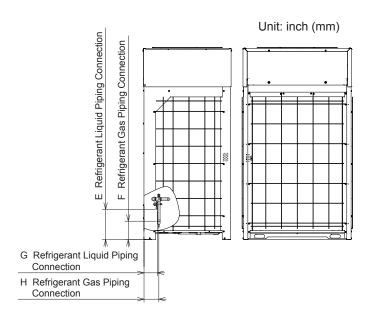
Defrost Method

Main Refrigerant

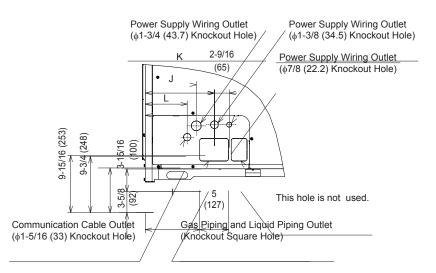
Piping (Heat Recovery)







### **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	Е	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8			
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	1	, .	1	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

Refrigerant Piping Connection and Wiring Outlet







### **SUBMITTAL DATA SHEET**

(Y,H)VAHP360B42S		Consis	ts of one (Y,H)VAHP192B42S a	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**:

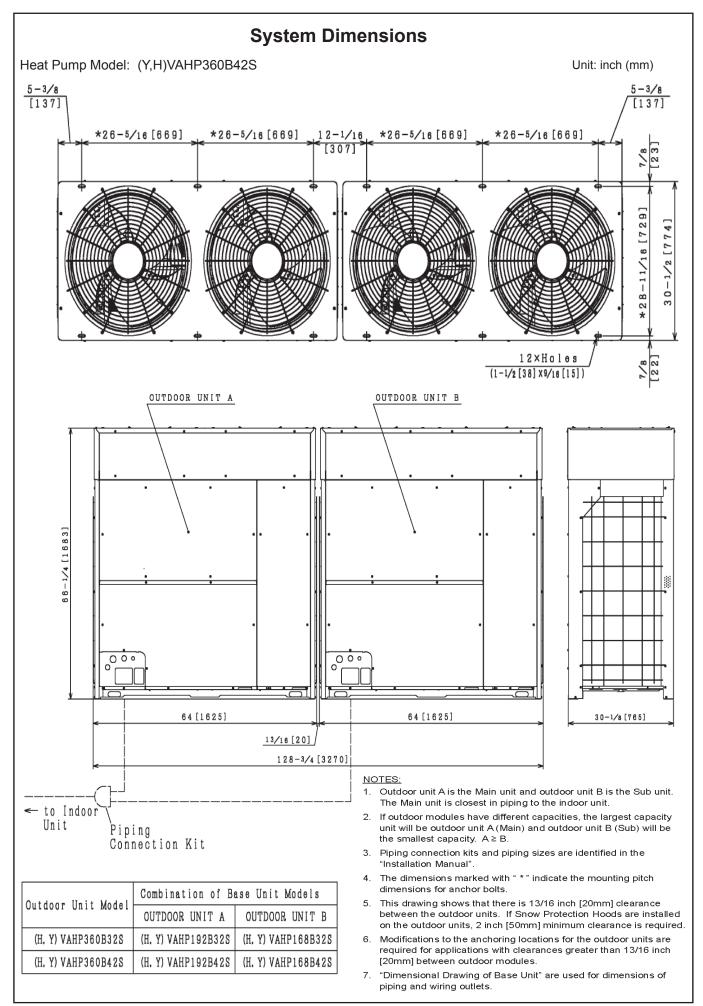
- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced piping and electrical connections
- Design flexibility 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

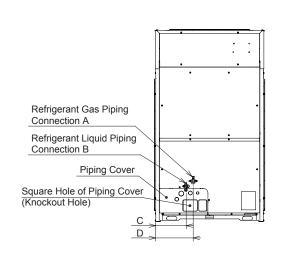
**ACCESSORIES:** (for detailed information, see VRF Engineering Manual and separate documentation for each accessory)

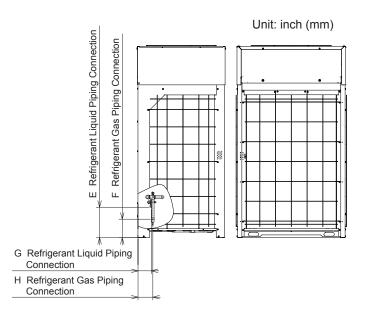
- Piping Kit
- Snow Protection Hood
- Protection Net
- Drain Adapter

- 1. Rating Conditions are based on the AHRI 1230 test standard.
- 2. Efficiency ratings are based on the AHRI 1230 test standard.
- 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).

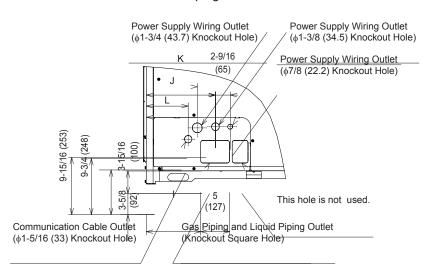
at Pump 460V	/	T		DT
Category		Ton		RT
Model (Combination)				+14RT) P360B42S
Model (Combination)		Unit A		P192B42S
Model (Individual)		Unit B	,	P168B42S
Model (Marvidda)		Unit C	(11,1) \$7 41	-
Power Supply			460V/ 3	PH 60Hz
	Cooling	Capacity (Nominal)	360,000	(105.5)
Capacity *1	Heating	Capacity (Nominal)	405,000	(118.7)
	Cooling	Capacity (Rated)	344,000	(100.8)
		EER	9.5	(2.78)
Efficiency Ratings *2		IEER	19.8	(5.81)
	Heating	Capacity (Rated)	386,000	(113.1)
	High	COP		27
	Heating	Capacity	262,000	(76.8)
	Low	COP Indoor		05
		Outdoor	23(-5) ~	~ 73(23)
		Outdoor	23(-5) ~	122(50)
Operating Range *3	Cooling	(with Snow Protection Hood)	14(-23) ~	109(43)
		Outdoor (with Cooling Damper Kit)	-10(-20)	~ 109(43)
		Indoor	59(15)	~ 80(27)
	Heating	Outdoor		~ 59(15)
Cabinet Color (Muns	ell Code)		• •	7 8/2
, , ,	,		(66-1/4 x 64 x	
Outer Dimensions	Height x W	lidth x Depth	(1683 x 1625	
	Net		849×2	(385×2)
Weight	Gross		900×2	(408×2)
O	Standard (	Extended)		50) - 55
Connection Ratio	Max. (Reco	ommended) Indoor Units/System	64	(28)
	Туре			ss Cross-
Heat Exchanger				d Tube
	Material	Investor 4		i-corrosion)
	Type	Inverter 1 Inverter 2	DC60i	PHD×4
	Motor Outp		(9.1(6)×2)+	·(7.1(6) × 2)
Compressor	Start Metho			erter
	Operation			100
		on Oil Type		C68D
Crank Case Heater			34.2 (23	30V) ×12
	Туре		Propel	ler Fan
	Motor Outp	out (Pole)	(0.56(8)×2)	$+(0.48(8) \times 2)$
_	Quantity			4
Fan	Airflow Rat	e	12,284 +11,614	(348+329
	External St	atic Pressure *4	0-0.32	(0-80)
	Drive		Direc	t-drive
	Min Circuit	-	39	+34
Electrical		Overcurrent Protective Device		+40
	Maximum I	Fuse Size		+40
Sound Pressure	Cooling			88
Level	Heating			sure switch
	Cycle			(4.15MPa)
Protection Devices	Inverter		Over-currer	nt protection protection
	Compresso	or		protection
	PCB			nt protection
	Туре			10A
Refrigerant				(11.6+11.
Refrigeration Oil	Factory Ch	arge Amount	2.2×2	(8.4×2)
Defrost Method			Reversed Re	frigerant Cycl
Main Refrigerant	Gas Line		1-3/8	(34.93)
Piping (Heat Pump)	Liquid Line		3/4	(19.05)







### **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	Е	F	G	Н	I	J	K	L	
72	φ7/8 (22.2)	φ1/2 (12.7)	φ7/8 (22.2)	ф3/8 (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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8	
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)		- 1	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

### Refrigerant Piping Connection and Wiring Outlet







### 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: Model No.: **Unit Designation:** Schedule No.:

### **FEATURES**:

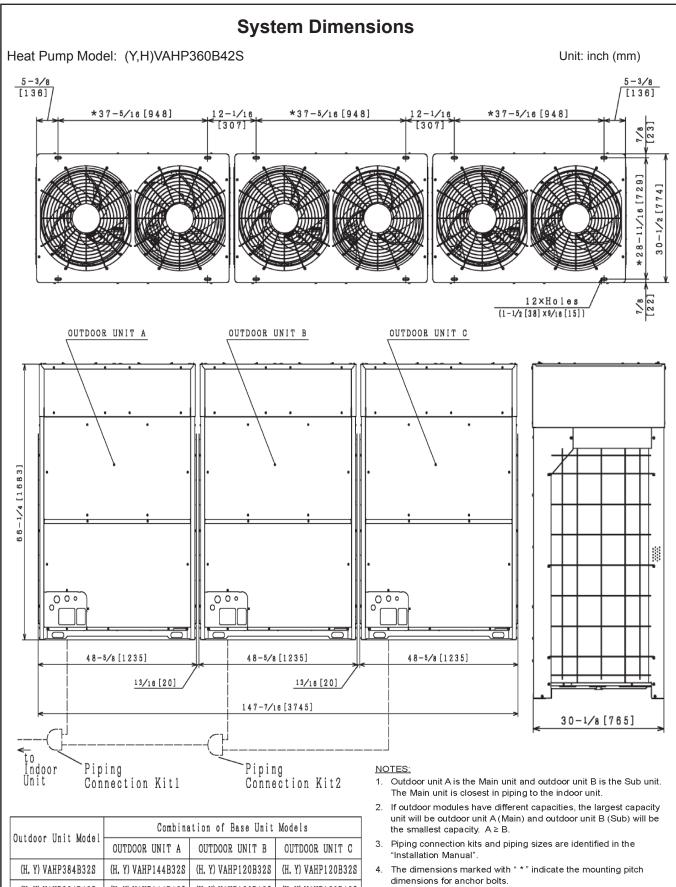
- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced piping and electrical connections
- Design flexibility 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

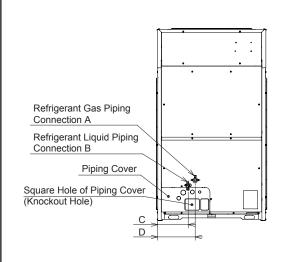
- 1. Rating Conditions are based on the AHRI 1230 test standard.
- 2. Efficiency ratings are based on the AHRI 1230 test standard.
- For more details, please refer to the Engineering manual "Operation range" section.
- 4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

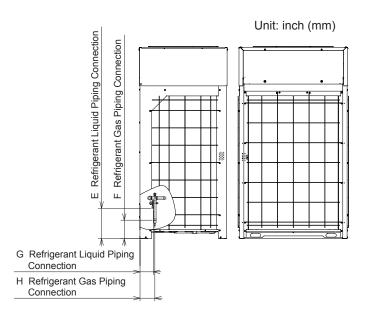
nedule No		Woder No.				
Heat Pump 460	OV)					
Category		Ton	32	RT		
			(12RT+10	RT+10RT)		
Model (Combination)			(H,Y)VAH	P384B42S		
		Unit A	(H,Y)VAHP144B42S			
Model (Individual)		Unit B	(H,Y)VAHP120B42S			
		Unit C	(H,Y)VAH	P120B42S		
Power Supply			1	PH 60Hz		
Capacity *1	Cooling	Capacity (Nominal)	384,000	(112.5)		
	Heating	Capacity (Nominal)	432,000	(126.6)		
	Cooling	Capacity (Rated)	366,000	(107.3)		
		EER	9.6	(2.81)		
Efficiency Ratings *2		IEER	19.6	(5.75)		
	Heating	Capacity (Rated)	410,000	(120.2)		
	High Heating	COP Capacity	276,000	(90.0)		
	Low	COP		(80.9)		
	LOW	Indoor		~ 73(23)		
		Outdoor	23(-5) ~			
		Outdoor	23(-3)	122(50)		
	Cooling	(with Snow Protection Hood)	14(-23) ~	109(43)		
Operating Range *3		Outdoor				
		(with Cooling Damper Kit)	-10(-20)	~ 109(43)		
		Indoor	59(15)	~ 80(27)		
	Heating	Outdoor		~ 59(15)		
Cabinet Color (Muns	ell Code)	-		/ 8/2		
			(66-1/4 x 48-5/	8 x 30-1/2) x 3		
Outer Dimensions	Height x Wid	dth x Depth	(1683 x 1235 x 774) x 3			
			(1683 x 1235)	(774) x 3		
Weight	Net		728+725×2	(330+329×2		
vvoigni	Gross		772+770×2	(350+349×2		
Connection Ratio	Standard (E	· · · · · · · · · · · · · · · · · · ·	130(15	50) - 55		
	Max. (Recor	nmended) Indoor Units/System		(30)		
Heat Evahanger	Туре			ss Cross-		
Heat Exchanger	Material			d Tube i-corrosion)		
		Inverter 1		PHD×6		
	Туре	Inverter 2		-		
_	Motor Outpu		(6.4(6)×2)+(	5.4(6)×2)×2		
Compressor	Start Method	. ,		erter		
	Operation R	ange	11 ~	100		
	Refrigeration	n Oil Type	FVC	68D		
Crank Case Heater			34.2 (23	30V) ×18		
	Туре		Propel	ler Fan		
	Motor Outpu	it (Pole)	(0.39(8	)×2) ×3		
	Quantity		(	6		
Fan	Airflow Rate		9,037×3	(256×3)		
		tic Pressure *4	0-0.32	(0-80)		
				t-drive		
	Drive			24×2		
E	Min Circuit A	-		35+30×2		
Electrical	Min Circuit A Maximum O	vercurrent Protective Device	35+3			
	Min Circuit A Maximum O Maximum Fi	vercurrent Protective Device	35+3 35+3	30×2		
Sound Pressure	Min Circuit A Maximum O Maximum Fi Cooling	vercurrent Protective Device	35+3 35+3	80 × 2 89		
Sound Pressure	Min Circuit A Maximum O Maximum Fi Cooling Heating	vercurrent Protective Device	35+3 35+3 6	30 × 2 69		
	Min Circuit A Maximum O Maximum Fi Cooling	vercurrent Protective Device	35+3 35+3 6 High press	80 × 2 89 89 Sure switch		
Sound Pressure Level	Min Circuit A Maximum O Maximum Fi Cooling Heating Cycle	vercurrent Protective Device	35+3 35+3 6 6 High press at 601psi Over-currer	80 × 2 89 89 sure switch (4.15MPa) nt protection		
Sound Pressure Level	Min Circuit A Maximum O Maximum Fi Cooling Heating Cycle Inverter	vercurrent Protective Device use Size	35+3 35+3 6 6 High press at 601psi Over-currer Over-heat	80 × 2 89 99 Sure switch (4.15MPa) nt protection protection		
Sound Pressure Level	Min Circuit A Maximum O Maximum Fr Cooling Heating Cycle Inverter Compressor	vercurrent Protective Device use Size	35+3 35+3 6 6 High press at 601psi Over-currer Over-heat Over-heat	80 × 2 89 sure switch (4.15MPa) at protection protection protection		
Sound Pressure	Min Circuit A Maximum O Maximum Fi Cooling Heating Cycle Inverter Compressor PCB	vercurrent Protective Device use Size	35+3 35+3 6 6 High press at 601psi Over-currer Over-heat Over-heat	80 × 2 89 89 sure switch (4.15MPa) nt protection protection protection nt protection		
Sound Pressure Level  Protection Devices	Min Circuit A Maximum O Maximum Fr Cooling Heating Cycle Inverter Compressor	vercurrent Protective Device use Size	35+3 35+3 6 6 6 High press at 601psi Over-currer Over-heat Over-heat Over-currer	50 × 2 59 59 Sure switch (4.15MPa) and protection protection protection protection t protection		
Sound Pressure Level	Min Circuit A Maximum O Maximum Fi Cooling Heating Cycle Inverter Compressor PCB	vercurrent Protective Device use Size	35+3 35+3 6 6 High press at 601psi Over-currer Over-heat Over-currer R4 23.6	90 × 2 99 99 sure switch (4.15MPa) nt protection protection protection nt protection 10A (10.7		
Sound Pressure Level  Protection Devices  Refrigerant	Min Circuit A Maximum O Maximum Fi Cooling Heating Cycle Inverter Compressor PCB Type Factory Cha	vercurrent Protective Device use Size	35+3 35+3 6 6 6 High press at 601psi Over-currer Over-heat Over-currer R4 23.6 +20.9 × 2	80 × 2 99 99 Sure switch (4.15MPa) at protection protection protection to protection 10A (10.7 +9.9×2)		
Sound Pressure Level  Protection Devices  Refrigerant  Refrigeration Oil	Min Circuit A Maximum O Maximum Fi Cooling Heating Cycle Inverter Compressor PCB Type Factory Cha	vercurrent Protective Device use Size	35+3 35+3 6 6 6 High press at 601psi Over-currer Over-heat Over-currer R4 23.6 +20.9 × 2 2.1 × 3	80 × 2 89 89 89 89 80 × 2 89 80 × 2 89 80 × 2 80 × 2		
Sound Pressure Level  Protection Devices  Refrigerant	Min Circuit A Maximum O Maximum Fi Cooling Heating Cycle Inverter Compressor PCB Type Factory Cha	vercurrent Protective Device use Size	35+3 35+3 6 6 6 High press at 601psi Over-currer Over-heat Over-currer R4 23.6 +20.9 × 2 2.1 × 3	80 × 2 99 99 Soure switch (4.15MPa) at protection protection protection protection 10A (10.7 +9.9×2)		



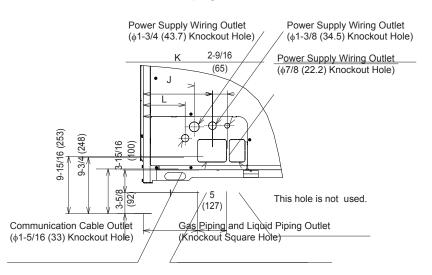
Outdoor Unit Model	Combina	Combination of Base Unit Models								
Odidoor Ollit Model	OUTDOOR UNIT A	OUTDOOR UNIT B	OUTDOOR UNIT C							
(H, Y) VAHP384B32S	(H, Y) VAHP144B32S	(H, Y) VAHP120B32S	(H, Y) VAHP120B32S							
(H. Y) VAHP384B42S	(H. Y) VAHP144B42S	(H. Y) VAHP120B42S	(H. Y) VAHP120B42S							
(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) VAHP144B42\$	(H, Y) VAHP144B42S	(H. Y) VAHP144B42S							

- 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.
- 7. "Dimensional Drawing of Base Unit" are used for dimensions of piping and wiring outlets.





### **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	Е	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

Refrigerant Piping Connection and Wiring Outlet







SUBM	ITTAL	<b>DATA</b>	SHE	ET
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(Y,H)VAHP384B42S		Consis	ts of two (Y,H)VAHP144B42S a	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**:

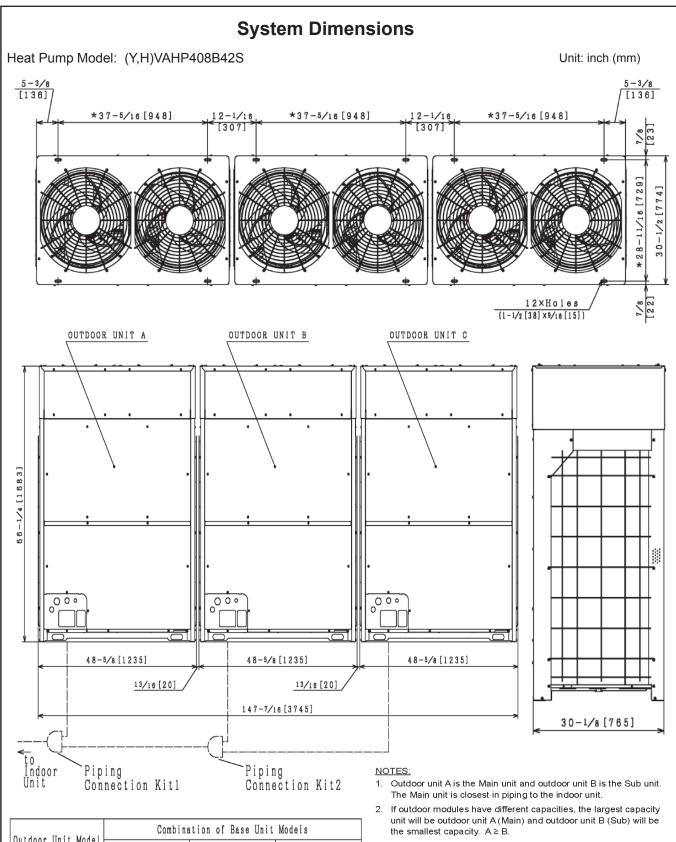
- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced piping and electrical connections
- Design flexibility 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

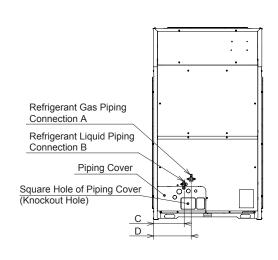
- 1. Rating Conditions are based on the AHRI 1230 test standard.
- 2. Efficiency ratings are based on the AHRI 1230 test standard.
- For more details, please refer to the Engineering manual "Operation range" section.
- 4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

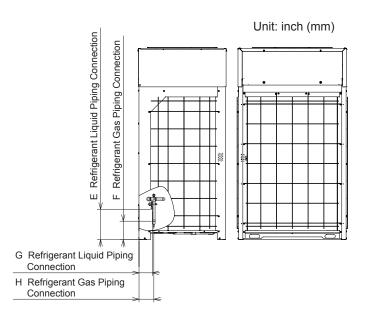
hedule No.:		Model No.	.:			
leat Pump 460	)V)					
Category		Ton	341	RT		
			(12RT+12			
Model (Combination)		11-4 A	(H,Y)VAHI			
Model (Individual)		Unit A Unit B	(H,Y)VAHI (H,Y)VAHI			
Model (Marviddar)		Unit C	(H,Y)VAH			
Power Supply		ornic o	460V/ 3F			
	Cooling	Capacity (Nominal)	408,000	(119.5)		
Capacity *1	Heating	Capacity (Nominal)	459,000	(134.5)		
	Cooling	Capacity (Rated)	380,000	(111.4)		
		EER	9.5	(2.78)		
Efficiency Ratings *2		IEER	19.3	(5.67)		
3.	Heating	Capacity (Rated)	435,000	(127.5)		
	High	COP	3.0			
	Heating Low	Capacity	288,000	(84.4)		
	LOW	Indoor	59(15) ~			
		Outdoor	23(-5) ~			
		Outdoor				
0	Cooling	(with Snow Protection Hood)	14(-23) ~	109(43)		
Operating Range *3		Outdoor	407.00	100(10)		
		(with Cooling Damper Kit)	-10(-20)	~ 109(43)		
	Heating	Indoor	59(15) ~	80(27)		
	ricating	Outdoor	-13(-25)	~ 59(15)		
Cabinet Color (Munse	ell Code)		2.5Y	8/2		
			(66-1/4 x 48-5/8 x 30-1/2) x 3			
Outer Dimensions	Height x Wid	Ith x Depth	(1683 x 1235 x	774) x 3		
	Net		728 × 2+725			
Weight	Gross		772×2+770			
	Standard (Ex	rtended)	130(15	· ·		
Connection Ratio		nmended) Indoor Units/System	64 (	-		
Heat Exchanger		mineriaea, maeer eriner eyetem	Multi-Pas			
	Туре		Finned	Tube		
	Material		Cu-Al (Anti			
	Туре	Inverter 1	AA50F	'HD×6		
	•	Inverter 2				
Compressor	Motor Outpu		(6.4(6)×2)×2			
	Start Method		inve			
	Operation Ra Refrigeration		11 ~ FVC			
Crank Case Heater	rteingeration	ТОПТУРЕ	34.2 (23			
Oranic Gade Ficater	Туре		Propell			
	Motor Outpu	t (Pole)				
	Quantity	· v · =/	(0.39(8)×2) ×3 6			
Fan	·			·		
	Airflow Rate		9,037×3	(256×3)		
	External Stat	tic Pressure *4	0-0.32	(0-80)		
	Drive		Direct			
	Min Circuit A	<u> </u>	30×			
Electrical		vercurrent Protective Device	35×:			
	Maximum Fu	ise Size	35 × 1			
Sound Pressure	Cooling		6			
Level	Heating		6 High press			
	Cycle			(4.15MPa)		
Protection Devices	Inverter		Over-curren	t protection		
FIOLECTION DEVICES			Over-heat			
	Compressor		Over-heat	•		
	PCB		Over-curren	•		
Refrigerant	Туре		R41			
Reingerant	Factory Char	rge Amount	23.6×2 +20.9	(10.7×2 +9.9)		
Refrigeration Oil	Factory Char	rae Amount	2.1×3	(7.9×3)		
Defrost Method	I actory Cilai	190 / MIDUIL	Reversed Ref	· ,		
			voideu ivei	Joranic Oyolo		
Main Refrigerant	Gas Line		1-5/8	(41.28)		



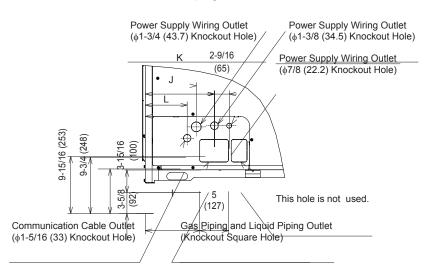
Outdoor Unit Model	Combination of Base Unit Models								
Outdoor out Model	OUTDOOR UNIT A	OUTDOOR UNIT B	OUTDOOR UNIT C						
(H, Y) VAHP384B32S	(H, Y) VAHP144B32S	(H, Y) VAHP120B32S	(H, Y) VAHP120B32S						
(H. Y) VAHP384B42S	(H. Y) VAHP144B42S	(H. Y) VAHP120B42S	(H. Y) VAHP120B42S						
(H, Y) VAHP408B32S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

- 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.
- 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.
- 7. "Dimensional Drawing of Base Unit" are used for dimensions of piping and wiring outlets.





### **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	Е	F	G	Н	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	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

### Refrigerant Piping Connection and Wiring Outlet







### **SUBMITTAL DATA SHEET**

(Y,H)VAHP384B42S		Consi	sts of two (Y,H)VAHP144B42S a	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**:

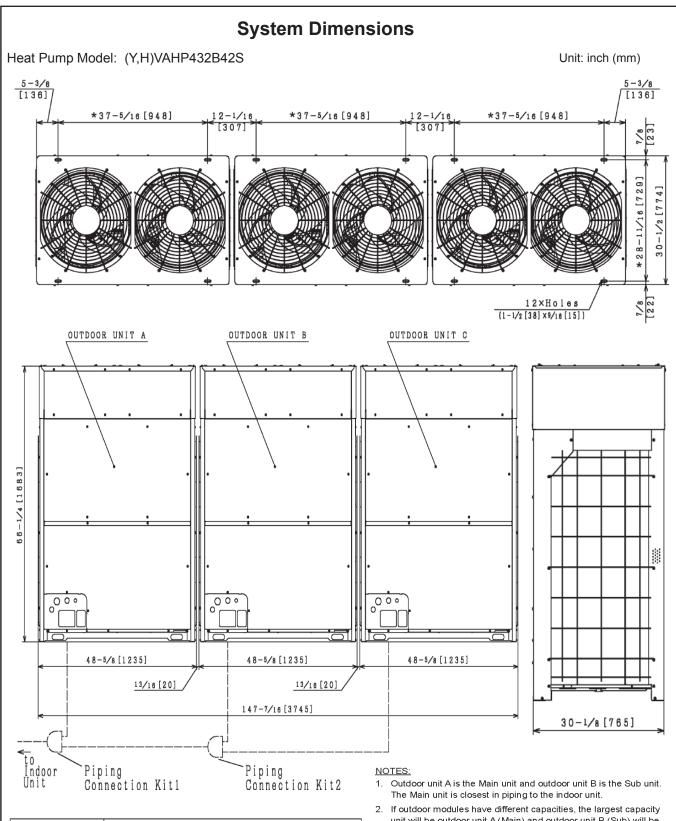
- All Inverter Compressors deliver maximum efficiency at part load conditions and provide comfortable individual zone control
- Large capacity single outdoor modules (up to 16 Ton) for increased flexibility, space and weight savings, and reduced piping and electrical connections
- Design flexibility 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

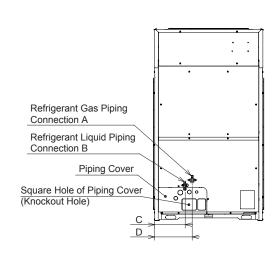
- 1. Rating Conditions are based on the AHRI 1230 test standard.
- 2. Efficiency ratings are based on the AHRI 1230 test standard.
- For more details, please refer to the Engineering manual "Operation range" section.
- 4. External static pressure can be changed via DSW setting 0.32 in. W.G. (80 Pa).

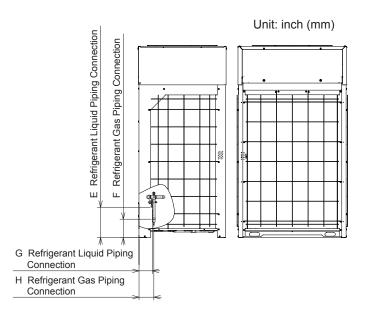
illedule No		Model No				
Heat Pump 460	OV)					
Category	•	Ton	36	RT		
			(12RT+12	RT+12RT)		
Model (Combination)			(H,Y)VAH	P432B42S		
		Unit A		P144B42S		
Model (Individual)		Unit B	(H,Y)VAHP144B42S			
Davis Over to		Unit C		P144B42S		
Power Supply	Caalina	Canacity (Naminal)	1	PH 60Hz		
Capacity *1	Cooling Heating	Capacity (Nominal) Capacity (Nominal)	432,000 486,000	(126.6) (142.4)		
	Cooling	Capacity (Norminal)  Capacity (Rated)	400,000	(117.2)		
	Cooming	EER	9.5	(2.78)		
		IEER	19.5	(5.72)		
Efficiency Ratings *2	Heating	Capacity (Rated)	460,000	(134.8)		
	High	COP	3.	21		
	Heating	Capacity	300,000	(87.9)		
	Low	COP	2.	05		
		Indoor	59(15)	~ 73(23)		
		Outdoor	23(-5) ~	122(50)		
Operating Range *3	Cooling	Outdoor (with Snow Protection Hood)	14(-23) ~	109(43)		
		Outdoor	-10(-20)	~ 109(43)		
		(with Cooling Damper Kit) Indoor	, ,			
	Heating	Outdoor		~ 80(27) ~ 59(15)		
Cabinet Color (Muns	all Code)	Odidooi		~ 59(15) / 8/2		
Cabilict Color (Maris	cii Oode)					
Outer Dimensions	Height x W	idth x Depth	(66-1/4 x 48-5 (1683 x 123	35 x 765) x 3		
\\/aiaht	Net		728×3	(330×3)		
Weight	Gross		772×3	(350×3)		
Connection Ratio	Standard (E	Extended)	135(15	50) - 55		
Connection Natio	Max. (Reco	mmended) Indoor Units/System		(30)		
Heat Exchanger	Туре			ss Cross-		
	Material			d Tube i-corrosion)		
		Inverter 1	AA50PHD×6			
	Туре	Inverter 2				
Campraga,	Motor Outp	ut (Pole)	(6.4(6	)×2)×3		
Compressor	Start Metho	od	inve	erter		
	Operation F	Range	11 ~	100		
	Refrigeration	on Oil Type	FVC	68D		
Crank Case Heater				80V) ×18		
	Туре			ler Fan		
	Motor Outp	ut (Pole)	, , ,	)×2) ×3		
Fan	Quantity			3 I		
raii	Airflow Rate	e	9,037×3	(256×3)		
	External St	atic Pressure *4	0-0.32	(0-80)		
	Drive			t-drive		
	Min Circuit	Amps		×3		
Electrical		Overcurrent Protective Device	35	×3		
	Maximum F	use Size	35	×3		
Sound Pressure	Cooling			0		
Level	Heating			0		
	Cycle			sure switch (4.15MPa)		
	Invant			t protection		
Protection Devices	Inverter			protection		
	Compresso	r		protection		
	PCB			nt protection		
Refrigerant	Type Factory Cha	arge Amount	23.6×3	10A (10.7×3)		
Petrigeration Oil				(7.9×3)		
Refrigeration Oil Defrost Method	I actory Ch	arge Amount	2.1×3	rigerant Cycle		
Main Refrigerant	Gas Line		1-5/8	(41.28)		
Piping (Heat Pump)	Liquid Line		3/4	(19.05)		
riping (near runip)	ILIQUIU LITIE					



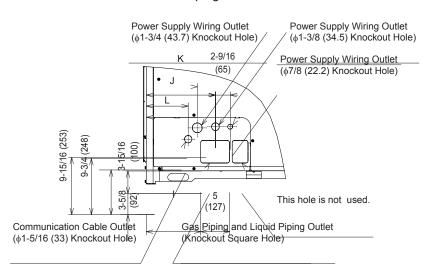
Outdoor Unit Model	Combination of Base Unit Models								
Outdoor out Model	OUTDOOR UNIT A	OUTDOOR UNIT B	OUTDOOR UNIT C						
(H, Y) VAHP384B32S	(H, Y) VAHP144B32S	(H, Y) VAHP120B32S	(H, Y) VAHP120B32S						
(H. Y) VAHP384B42S	(H. Y) VAHP144B42S	(H. Y) VAHP120B42S	(H. Y) VAHP120B42S						
(H, Y) VAHP408B32S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

- 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 ≥ 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.
- 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.





### **Detail of Piping Cover**



Model	Gas	Liquid	Α	В	С	D	Е	F	G	Н	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)												
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144	φ1-1/8 (28.58)	φ5/8 (15.88)												
168	φ1-1/8 (28.58)	φ5/8 (15.88)	φ1-1/8	φ5/8	6-15/16	9-7/16	10-3/16	6-5/16	5-3/16	6	5-13/16	5-3/16	8-3/8	3-5/8
192	φ1-1/8 (28.58)	φ5/8 (15.88)	(28.58)	(15.88)	(177)	(239)	(259)	(160)	(132)	(152)	(147)	(132)	(212)	(92)

### Refrigerant Piping Connection and Wiring Outlet



