

Heat recovery outdoor units

208/230V | 460V | 575V | 6-16 Ton Systems

6-16 Ton Systems	Type	Single Unit Systems					
	Tonnage	6 Ton	8 Ton	10 Ton	12 Ton	14 Ton	16 Ton
Model #	208/230V, 3PH, 60Hz	HVAHR072B32S	HVAHR096B32S	HVAHR120B32S	HVAHR144B32S	HVAHR168B32S	HVAHR192B32S
	460V, 3PH, 60Hz	HVAHR072B42S	HVAHR096B42S	HVAHR120B42S	HVAHR144B42S	HVAHR168B42S	HVAHR192B42S
	575V, 3PH, 60Hz	HVAHR072B52S	HVAHR096B52S	HVAHR120B52S	HVAHR144B52S	HVAHR168B52S	HVAHR192B52S

Nominal Capacity	Cooling	Btu/h	72,000	96,000	120,000	144,000	168,000	192,000
	Heating	Btu/h	81,000	108,000	135,000	162,000	189,000	216,000
Performance ² (Non-duct / Duct)	Rated Cooling Capacity ¹	Btu/h	69,000	92,000	114,000	138,000	160,000	184,000
	EER	Btu/Wh	14.9 / 12.2	12.4 / 12.4	12.7 / 12.4	10.9 / 11.2	11.6 / 11.8	10.6 / 11.1
	IEER	Btu/Wh	26.5 / 21.1	23.9 / 22.1	24.4 / 21.7	23.9 / 21.2	23.4 / 21.4	21.4 / 20.8
	Rated Heating Capacity ¹	Btu/h	77,000	103,000	129,000	154,000	180,000	206,000
	COP	W/W	4.25 / 3.54	3.77 / 3.65	3.84 / 3.55	3.42 / 3.4	3.65 / 3.56	3.32 / 3.38
	SCHE	Btu/Wh	26.7 / 24.3	30.3 / 27.5	29.9 / 27.2	30.9 / 28.1	30.7 / 27.9	32.2 / 29.3
	Sound Pressure	dB(A)	60	63	63	65	64	66
Operating ⁴ Temperature Range	Cooling ³	°F DB (°C DB) 23 ~ 122 (-5 ~ 50)						
	Heating	°F WB (°C WB) -13 ~ 59 (-25 ~ 15)						
Refrigerant	Type		R410A					
	Factory Charge Amount	lb. (kg)	15.9 (7.2)	19.6 (8.9)	21.8 (9.9)	23.6 (10.7)	24.9 (11.3)	25.6 (11.6)
Refrigerant Piping	Liquid Pipe	in. (mm)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	5/8 (15.88)	5/8 (15.88)	5/8 (15.88)
	High/Low Pressure Gas Pipe	in. (mm)	3/4 (19.05)	3/4 (19.05)	7/8 (22.2)	7/8 (22.2)	7/8 (22.2)	7/8 (22.2)
	Low Pressure Gas Pipe	in. (mm)	7/8 (22.2)	7/8 (22.2)	1-1/8 (28.58)	1-1/8 (28.58)	1-1/8 (28.58)	1-1/8 (28.58)
Connection Ratio	Connection Ratio Range ⁵	%	70 ~ 130(150)	65 ~ 130(150)	60 ~ 130(150)	55 ~ 130(150)		
	Number of Indoor Units (Recommended / Maximum)	Qty.	8 / 15	8 / 20	8 / 26	10 / 26	12 / 36	14 / 40
Electrical	Minimum Circuit Amps, MCA (208V/230V/460V/575V)	A	29 / 26 / 15 / 12	39 / 35 / 22 / 16	46 / 42 / 24 / 19	58 / 52 / 30 / 24	65 / 59 / 34 / 27	76 / 68 / 39 / 32
	Maximum Overcurrent Protection, MOP (208V/230V/460V/575V)	A	40 / 40 / 20 / 15	50 / 50 / 30 / 25	60 / 60 / 30 / 25	70 / 70 / 35 / 30	80 / 80 / 40 / 35	90 / 90 / 50 / 40
Compressor	Compressor Type		Inverter					
	Operation Range	%	10 ~ 100	8 ~ 100	7 ~ 100	6 ~ 100	5 ~ 100	
Fan	Fan Type		Propeller Fan x1		Propeller Fan x2			
	Airflow Rate	cfm (m³/min)	6707 (190)	8437 (239)	9037 (256)		11614 (329)	12284 (348)
	External Static Pressure ⁶	in. WG (Pa)	0 ~ 0.32 (0 ~ 80)					
Unit	Dimensions (H x W x D)	in. (mm)	66-1/4 x 38-3/8 x 30-1/2 (1683 x 975 x 774)	66-1/4 x 48-5/8 x 30-1/2 (1683 x 1235 x 774)			66-1/4 x 64 x 30-1/2 (1683 x 1625 x 774)	
	Weight (208/230V/460V/575V)	lb. (kg)	527 / 534 / 534 (239 / 242 / 242)	598 / 611 / 611 (271 / 277 / 277)	730 / 734 / 734 (331 / 333 / 333)	732 / 737 / 737 (332 / 334 / 334)	860 / 860 / 860 (390 / 390 / 390)	

NOTES:

- Nominal capacity conditions are based on AHRI standard. Visit www.ahrinet.org for more information.
- Efficiency ratings are based on the AHRI 1230 test standard.
- Extended cooling operating temperature range down to 14 °F DB (-10 °C DB) with snow protection hood, and down to -10 °F DB (-23 °C DB) with low ambient kit. However, upper limit temperature for cooling operation is restricted up to 109 °F DB (43 °C DB).
- For details, refer to Engineering Manual.
- For details, refer to Engineering Manual.
- External static pressure can be changed by DSW setting.

Heat recovery outdoor units

208/230V | 460V | 575V | 18-22 Ton Systems

18-22 Ton Systems	Type		Double Module Systems		
	Tonnage		18 Ton	20 Ton	22 Ton
Model #	208/230V, 3PH, 60Hz		HVAHR216B32S	HVAHR240B32S	HVAHR264B32S
	460V, 3PH, 60Hz		HVAHR216B42S	HVAHR240B42S	HVAHR264B42S
	575V, 3PH, 60Hz		HVAHR216B52S	HVAHR240B52S	HVAHR264B52S
Unit Combination	208/230V, 3PH, 60Hz	Unit A	HVAHR144B32S	HVAHR120B32S	HVAHR144B32S
		Unit B	HVAHR072B32S	HVAHR120B32S	HVAHR120B32S
	460V, 3PH, 60Hz	Unit A	HVAHR144B42S	HVAHR120B42S	HVAHR144B42S
		Unit B	HVAHR072B42S	HVAHR120B42S	HVAHR120B42S
	575V, 3PH, 60Hz	Unit A	HVAHR144B52S	HVAHR120B52S	HVAHR144B52S
		Unit B	HVAHR072B52S	HVAHR120B52S	HVAHR120B52S
Nominal Capacity	Cooling	Btu/h	216,000	240,000	264,000
	Heating	Btu/h	243,000	270,000	297,000
Performance ² (Non-duct / Duct)	Rated Cooling Capacity ¹	Btu/h	206,000	228,000	252,000
	EER	Btu/Wh	10.9 / 11.2	11.1 / 10.6	10.0 / 10.5
	IEER	Btu/Wh	20.9 / 20.7	20.8 / 21.0	21.1 / 20.8
	Rated Heating Capacity ¹	Btu/h	232,000	258,000	282,000
	COP	W/W	3.82 / 3.51	3.67 / 3.51	3.70 / 3.56
	SCHE	Btu/Wh	29.4 / 26.7	29.0 / 26.4	30.1 / 27.4
	Sound Pressure	dB(A)	66		67
Operating ⁴ Temperature Range	Cooling ³	°F DB (°C DB) 23 ~ 122 (-5 ~ 50)			
	Heating	°F WB (°C WB) -13 ~ 59 (-25 ~ 15)			
Refrigerant	Type	R410A			
	Factory Charge Amount	lb. (kg)	23.6+15.9 (10.7+7.2)	21.8+21.8 (9.9+9.9)	23.6+21.8 (10.7+9.9)
Refrigerant Piping	Liquid Pipe	in. (mm)	3/4 (19.05)	3/4 (19.05)	3/4 (19.05)
	High/Low Pressure Gas Pipe	in. (mm)	7/8 (22.2)	1-1/8 (28.58)	1-1/8 (28.58)
	Low Pressure Gas Pipe	in. (mm)	1-1/8 (28.58)	1-3/8 (34.93)	1-3/8 (34.93)
Connection Ratio	Connection Ratio Range ⁵	% 60 - 130 (150)			55 - 130 (150)
	Number of Indoor Units (Recommended / Maximum)	Qty.	18 / 46	18 / 52	20 / 56
Electrical	Minimum Circuit Amps, MCA (Unit A + Unit B) (208V/230V/460V/575V)	A	58+29 / 52+26 / 30+15 / 24+12	46+46 / 42+42 / 24+24 / 19+19	58+46 / 52+42 / 30+24 / 24+19
	Maximum Overcurrent Protection, MOP (Unit A + Unit B) (208V/230V/460V/575V)	A	70+40 / 70+40 / 35+20 / 30+15	60+60 / 60+60 / 30+30 / 25+25	70+60 / 70+60 / 35+30 / 30+25
Compressor	Compressor Type	Inverter			
	Operation Range	%	4 ~ 100		3 ~ 100
Fan	Fan Type	Propeller Fan x3		Propeller Fan x4	
	Airflow Rate	cfm (m³/min)	9037+6707 (256+190)		9037+9037 (256+256)
	External Static Pressure ⁶	in. WG (Pa)	0 ~ 0.32 (0 ~ 80)		
Unit	Dimensions (H x W x D)	in. (mm)	66-1/4 x 87-13/16 x 30-1/2 (1683 x 2230 x 774)	66-1/4 x 98-1/16 x 30-1/2 (1683 x 2490 x 774)	
	Weight (Unit A + Unit B) (208,230V/460V/575V)	lb. (kg)	732+527 / 737+534 / 737+534 (332+239 / 334+242 / 334+242)	730+730 / 734+734 / 734+734 (331+331 / 333+333 / 333+333)	732+730 / 737+734 / 737+734 (332+331 / 334+333 / 334+333)

NOTES:

1. Nominal capacity conditions are based on AHRI standard. Visit www.ahrinet.org for more information.
2. Efficiency ratings are based on the AHRI 1230 test standard.

3. Extended cooling operating temperature range down to 14 °F DB (-10 °C DB) with snow protection hood, and down to -10 °F DB (-23 °C DB) with low ambient kit. However, upper limit temperature for cooling operation is restricted up to 109 °F DB (43 °C DB).

4. For details, refer to Engineering Manual.
5. For details, refer to Engineering Manual.
6. External static pressure can be changed by DSW setting.

Heat recovery outdoor units

208/230V | 460V | 575V | 24-26 Ton Systems

24-26 Ton Systems	Type		Double Module Systems	
	Tonnage		24 Ton	26 Ton
Model #	208/230V, 3PH, 60Hz		HVAHR288B32S	HVAHR312B32S
	460V, 3PH, 60Hz		HVAHR288B42S	HVAHR312B42S
	575V, 3PH, 60Hz		HVAHR288B52S	HVAHR312B52S
Unit Combination	208/230V, 3PH, 60Hz	Unit A	HVAHR144B32S	HVAHR168B32S
		Unit B	HVAHR144B32S	HVAHR144B32S
	460V, 3PH, 60Hz	Unit A	HVAHR144B42S	HVAHR168B42S
		Unit B	HVAHR144B42S	HVAHR144B42S
	575V, 3PH, 60Hz	Unit A	HVAHR144B52S	HVAHR168B52S
		Unit B	HVAHR144B52S	HVAHR144B52S
Nominal Capacity	Cooling	Btu/h	288,000	312,000
	Heating	Btu/h	324,000	351,000
Performance ² (Non-duct / Duct)	Rated Cooling Capacity ¹	Btu/h	276,000	298,000
	EER	Btu/Wh	9.5 / 9.9	9.7 / 10.0
	IEER	Btu/Wh	19.4 / 20.7	20.3 / 19.5
	Rated Heating Capacity ¹	Btu/h	308,000	334,000
	COP	W/W	3.42 / 3.42	3.37 / 3.31
	SCHE	Btu/Wh	30.7 / 27.9	27.2 / 24.7
	Sound Pressure	dB(A)	68	
Operating ⁴ Temperature Range	Cooling ³	°F DB (°C DB)	23 ~ 122 (-5 ~ 50)	
	Heating	°F WB (°C WB)	-13 ~ 59 (-25 ~ 15)	
Refrigerant	Type		R410A	
	Factory Charge Amount	lb. (kg)	23.6+23.6 (10.7+10.7)	24.9+23.6 (11.3+10.7)
Refrigerant Piping	Liquid Pipe	in. (mm)	3/4 (19.05)	3/4 (19.05)
	High/Low Pressure Gas Pipe	in. (mm)	1-1/8 (28.58)	1-1/8 (28.58)
	Low Pressure Gas Pipe	in. (mm)	1-3/8 (34.93)	1-3/8 (34.93)
Connection Ratio	Connection Ratio Range ⁵	%	55 - 130(150)	
	Number of Indoor Units (Recommended / Maximum)	Qty.	20 / 59	22 / 64
Electrical	Minimum Circuit Amps, MCA (Unit A + Unit B) (208V/230V/460V/575V)	A	58+58 / 52+52 / 30+30 / 24+24	65+58 / 59+52 / 34+30 / 27+24
	Maximum Overcurrent Protection, MOP (Unit A + Unit B) (208V/230V/460V/575V)	A	70+70 / 70+70 / 35+35 / 30+30	80+70 / 80+70 / 40+35 / 35+30
Compressor	Compressor Type		Inverter	
	Operation Range	%	3 ~ 100	
Fan	Fan Type		Propeller Fan x4	
	Airflow Rate	cfm (m ³ /min)	9037+9037 (256+256)	11614+9037 (329+256)
	External Static Pressure ⁶	in. WG (Pa)	0 ~ 0.32 (0 ~ 80)	
Unit	Dimensions (H x W x D)	in. (mm)	66-1/4 x 98-1/16 x 30-1/2 (1683 x 2490 x 774)	66-1/4 x 113-3/8 x 30-1/2 (1683 x 2880 x 774)
	Weight (Unit A + Unit B) (208,230V/460V/575V)	lb. (kg)	732+732 / 737+737 / 737+737 (332+332 / 334+334 / 334+334)	860+732 / 860+737 / 860+737 (390+332 / 390+334 / 390+334)

NOTES:

- Nominal capacity conditions are based on AHRI standard. Visit www.ahrinet.org for more information.
- Efficiency ratings are based on the AHRI 1230 test standard.
- Extended cooling operating temperature range down to 14°F DB (-10°C DB) with snow protection hood, and down to -10°F DB (-23°C DB) with low ambient kit. However, upper limit temperature for cooling operation is restricted up to 109°F DB (43°C DB).
- For details, refer to Engineering Manual.
- For details, refer to Engineering Manual.
- External static pressure can be changed by DSW setting.

Heat recovery outdoor units

208/230V | 460V | 575V | 28-30 Ton Systems

28-30 Ton Systems	Type		Double Module Systems	
	Tonnage		28 Ton	30 Ton
Model #	208/230V, 3PH, 60Hz		HVAHR336B32S	HVAHR360B32S
	460V, 3PH, 60Hz		HVAHR336B42S	HVAHR360B42S
	575V, 3PH, 60Hz		HVAHR336B52S	HVAHR360B52S
Unit Combination	208/230V, 3PH, 60Hz	Unit A	HVAHR192B32S	HVAHR192B32S
		Unit B	HVAHR144B32S	HVAHR168B32S
	460V, 3PH, 60Hz	Unit A	HVAHR192B42S	HVAHR192B42S
		Unit B	HVAHR144B42S	HVAHR168B42S
	575V, 3PH, 60Hz	Unit A	HVAHR192B52S	HVAHR192B52S
		Unit B	HVAHR144B52S	HVAHR168B52S
Nominal Capacity	Cooling	Btu/h	336,000	360,000
	Heating	Btu/h	378,000	405,000
Performance ² (Non-duct / Duct)	Rated Cooling Capacity ¹	Btu/h	320,000	344,000
	EER	Btu/Wh	9.5 / 9.8	9.5 / 10.2
	IEER	Btu/Wh	20.8 / 19.1	19.8 / 19.5
	Rated Heating Capacity ¹	Btu/h	360,000	382,000
	COP	W/W	3.27 / 3.32	3.27 / 3.20
	SCHE	Btu/Wh	27.8 / 25.3	26.6 / 24.2
	Sound Pressure	dB(A)	69	68
Operating ⁴ Temperature Range	Cooling ³	°F DB (°C DB)	23 ~ 122 (-5 ~ 50)	
	Heating	°F WB (°C WB)	-13 ~ 59 (-25 ~ 15)	
Refrigerant	Type		R410A	
	Factory Charge Amount	lb. (kg)	25.6+23.6 (11.6+10.7)	25.6+24.9 (11.6+11.3)
Refrigerant Piping	Liquid Pipe	in. (mm)	3/4 (19.05)	3/4 (19.05)
	High/Low Pressure Gas Pipe	in. (mm)	1-1/8 (28.58)	1-1/8 (28.58)
	Low Pressure Gas Pipe	in. (mm)	1-3/8 (34.93)	1-3/8 (34.93)
Connection Ratio	Connection Ratio Range ⁵	%	55 - 130(150)	
	Number of Indoor Units (Recommended / Maximum)	Qty.	24/64	28/64
Electrical	Minimum Circuit Amps, MCA (Unit A + Unit B) (208V/230V/460V/575V)	A	76+58 / 68+52 / 39+30 / 32+24	76+65 / 68+59 / 39+34 / 32+27
	Maximum Overcurrent Protection, MOP (Unit A + Unit B) (208V/230V/460V/575V)	A	90+70 / 90+70 / 50+35 / 40+30	90+80 / 90+80 / 50+40 / 40+35
Compressor	Compressor Type		Inverter	
	Operation Range	%	3 ~ 100	
Fan	Fan Type		Propeller Fan x4	
	Airflow Rate	cfm (m ³ /min)	12284+9037 (348+256)	12284+11614 (348+329)
	External Static Pressure ⁶	in. WG (Pa)	0 ~ 0.32 (0 ~ 80)	
Unit	Dimensions (H x W x D)	in. (mm)	66-1/4 x 113-3/8 x 30-1/2 (1683 x 2880 x 774)	66-1/4 x 128-3/4 x 30-1/2 (1683 x 3270 x 774)
	Weight (Unit A + Unit B) (208,230V/460V/575V)	lb. (kg)	860+732 / 860+737 / 860+737 (390+332 / 390+334 / 390+334)	860+860 / 860+860 / 860+860 (390+390 / 390+390 / 390+390)

NOTES:

- Nominal capacity conditions are based on AHRI standard. Visit www.ahrinet.org for more information.
- Efficiency ratings are based on the AHRI 1230 test standard.

- Extended cooling operating temperature range down to 14°F DB (-10°C DB) with snow protection hood, and down to -10°F DB (-23°C DB) with low ambient kit. However, upper limit temperature for cooling operation is restricted up to 109°F DB (43°C DB).

- For details, refer to Engineering Manual.
- For details, refer to Engineering Manual.
- External static pressure can be changed by DSW setting.

Heat recovery outdoor units

208/230V | 460V | 575V | 32-36 Ton Systems

32-36 Ton Systems	Type		Triple Module Systems		
	Tonnage		32 Ton	34 Ton	36 Ton
Model #	208/230V, 3PH, 60Hz		HVAHR384B32S	HVAHR408B32S	HVAHR432B32S
	460V, 3PH, 60Hz		HVAHR384B42S	HVAHR408B42S	HVAHR432B42S
	575V, 3PH, 60Hz		HVAHR384B52S	HVAHR408B52S	HVAHR432B52S
Unit Combination	208/230V, 3PH, 60Hz	Unit A	HVAHR144B32S	HVAHR144B32S	HVAHR144B32S
		Unit B	HVAHR120B32S	HVAHR144B32S	HVAHR144B32S
		Unit C	HVAHR120B32S	HVAHR120B32S	HVAHR144B32S
	460V, 3PH, 60Hz	Unit A	HVAHR144B42S	HVAHR144B42S	HVAHR144B42S
		Unit B	HVAHR120B42S	HVAHR144B42S	HVAHR144B42S
		Unit C	HVAHR120B42S	HVAHR120B42S	HVAHR144B42S
	575V, 3PH, 60Hz	Unit A	HVAHR144B52S	HVAHR144B52S	HVAHR144B52S
		Unit B	HVAHR120B52S	HVAHR144B52S	HVAHR144B52S
		Unit C	HVAHR120B52S	HVAHR120B52S	HVAHR144B52S
Nominal Capacity	Cooling	Btu/h	384,000	408,000	432,000
	Heating	Btu/h	432,000	459,000	486,000
Performance ² (Non-duct / Duct)	Rated Cooling Capacity ¹	Btu/h	366,000	380,000	400,000
	EER	Btu/Wh	9.6 / 9.5	9.5 / 9.5	9.5 / 9.6
	IEER	Btu/Wh	19.6 / 18.6	19.3 / 19.2	19.5 / 19.0
	Rated Heating Capacity ¹	Btu/h	410,000	435,000	460,000
	COP	W/W	3.37 / 3.33	3.34 / 3.37	3.21 / 3.35
	SCHE	Btu/Wh	28.6 / 26.0	28.9 / 26.3	30.1 / 27.4
	Sound Pressure	dB(A)	69		70
Operating ⁴ Temperature Range	Cooling ³	°F DB (°C DB)	23 ~ 122 (-5 ~ 50)		
	Heating	°F WB (°C WB)	-13 ~ 59 (-25 ~ 15)		
Refrigerant	Type		R410A		
	Factory Charge Amount	lb. (kg)	23.6+21.8+21.8 (10.7+9.9+9.9)	23.6+23.6+21.8 (10.7+10.7+9.9)	23.6+23.6+23.6 (10.7+10.7+10.7)
Refrigerant Piping	Liquid Pipe	in. (mm)	3/4 (19.05)	3/4 (19.05)	3/4 (19.05)
	High/Low Pressure Gas Pipe	in. (mm)	1-1/8 (28.58)	1-1/8 (28.58)	1-1/8 (28.58)
	Low Pressure Gas Pipe	in. (mm)	1-5/8 (41.28)	1-5/8 (41.28)	1-5/8 (41.28)
Connection Ratio	Connection Ratio Range ⁵	%	55 - 130(150)		
	Number of Indoor Units (Recommended / Maximum)	Qty.	30 / 64		
Electrical	Minimum Circuit Amps, MCA (Unit A + Unit B + Unit C) (208V/230V/460V/575V)	A	58+46+46 / 52+42+42 / 30+24+24 / 24+19+19	58+58+46 / 52+52+42 / 30+30+24 / 24+24+19	58+58+58 / 52+52+52 / 30+30+30 / 24+24+24
	Maximum Overcurrent Protection, MOP (Unit A + Unit B + Unit C) (208V/230V/460V/575V)	A	70+60+60 / 70+60+60 / 35+30+30 / 30+25+25	70+70+60 / 70+70+60 / 35+35+30 / 30+30+25	70+70+70 / 70+70+70 / 35+35+35 / 30+30+30
Compressor	Compressor Type		Inverter		
	Operation Range	%	2 ~ 100		
Fan	Fan Type		Propeller Fan x6		
	Airflow Rate	cfm (m ³ /min)	9037+9037+9037 (256+256+256)		
	External Static Pressure ⁶	in. WG (Pa)	0 ~ 0.32 (0 ~ 80)		
Unit	Dimensions (H x W x D)	in. (mm)	66-1/4 x 147-7/16 x 30-1/2 (1683 x 3745 x 774)		
	Weight (Unit A + Unit B + Unit C) (208,230V/460V/575V)	lb. (kg)	732+730+730 / 737+734+734 / 737+734+734 (332+331+331 / 334+333+333 / 334+333+333)	732+732+730 / 737+737+734 / 737+737+734 (332+332+331 / 334+334+333 / 334+334+333)	732+732+732 / 737+737+737 / 737+737+737 (332+332+332 / 334+334+334 / 334+334+334)

NOTES:

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- Efficiency ratings are based on the AHRI 1230 test standard.

- Extended cooling operating temperature range down to 14°F DB (-10°C DB) with snow protection hood, and down to -10°F DB (-23°C DB) with low ambient kit. However, upper limit temperature for cooling operation is restricted up to 109°F DB (43°C DB).

- For details, refer to Engineering Manual.
- For details, refer to Engineering Manual.
- External static pressure can be changed by DSW setting.

Universal Heat Recovery Outdoor Units

208/230V | 460V | 575V | 6-12 Ton Systems

6-16 Ton Systems	Type		Single Unit Systems							
	Tonnage		6 Ton		8 Ton		10 Ton		12 Ton	
Model #	208/230V, 3PH, 60Hz		HVAHR072B33CW		HVAHR096B33CW		HVAHR120B33CW		HVAHR144B33CW	
	460V, 3PH, 60Hz		HVAHR072B43CW		HVAHR096B43CW		HVAHR120B43CW		HVAHR144B43CW	
	575V, 3PH, 60Hz		HVAHR072B53CW		HVAHR096B53CW		HVAHR120B53CW		HVAHR144B53CW	
			Heat-Pump	Heat Recovery	Heat-Pump	Heat Recovery	Heat-Pump	Heat Recovery	Heat-Pump	Heat Recovery
Nominal Capacity	Cooling	Btu/h	72,000		96,000		120,000		144,000	
	Heating	Btu/h	81,000		108,000		135,000		162,000	
Performance ² (Non-duct / Duct)	Rated Cooling Capacity ¹	Btu/h	69,000		92,000		114,000		138,000	
	EER	Btu/Wh	12.1 / 11.4		11.5 / 11.4		10.8 / 11.5		10 / 11.6	
	IEER	Btu/Wh	19.8 / 16.0		20.4 / 16.4		21 / 17.5		19.6 / 17	
	Rated Heating Capacity ¹	Btu/h	77,000		103,000		129,000		154,000	
	COP	W/W	3.89 / 3.65		3.88 / 3.42		3.7 / 3.37		3.62 / 3.41	
	SCHE	Btu/Wh	25.3 / 23.6		25.2 / 21.3		24.0 / 23.6		23.5 / 23.9	
	Sound Pressure ⁴	dB(A)		64		65		66		67
	Operating Temperature Range	Cooling	°F DB (°C DB)		23 ~ 122 (-5 ~ 50)					
Heating		°F WB (°C WB)		-22 (-30)~61 (16)						
Refrigerant	Type		R410A							
	Factory Charge Amount	lb. (kg)	20.1 (9.1)		20.1 (9.1)		22.5(10.2)		22.5(10.2)	
Refrigerant Piping	Liquid Pipe	in. (mm)	3/8 (9.52)		3/8 (9.52)		1/2 (12.7)		1/2 (12.7)	
	High/Low Pressure Gas Pipe	in. (mm)	3/4 (19.05)		3/4 (19.05)		7/8 (22.2)		7/8 (22.2)	
	Low Pressure Gas Pipe	in. (mm)	7/8 (22.2)		7/8 (22.2)		1-1/8 (28.58)		1-1/8 (28.58)	
Connection Ratio	Connection Ratio Range ⁵	%	70-200%		70-200%		50-200%		50-200%	
	Number of Indoor Units (Recommended / Maximum)	Qty.	15 (8)		20 (8)		26 (8)		26 (10)	
Electrical	Minimum Circuit Amps, MCA									
	208/230V	A	70/70		90/80		125/110		150/125	
	460V	A	24.5		31		41.5		48.5	
	575V	A	19.5		25		33.5		39	
	Maximum Overcurrent Protection, MOP									
	208/230V	A	70/70		90/80		125/110		150/125	
	460V	A	35		40		60		70	
	575V	A	25		35		45		50	
Compressor	Compressor Type		AA55PHDK-A1Y2 ×2		AA55PHDK-A1Y2 ×2		DA80PHDK-A1Y2 ×2		DA80PHDK-A1Y2 ×2	
	Operation Range	%	5 - 100		4 - 100		5 - 100		4 - 100	
Fan	Fan Type		Propeller Fan		Propeller Fan					
	Airflow Rate	cfm (m³/min)	8296 (235)		8754 (248)		12955 (367)		13449 (381)	
	External Static Pressure ⁶	in. WG (Pa)	0 ~ 0.32 (0 ~ 80)							
Unit	Dimensions (H x W x D)	in. (mm)								
			69-1/2 (1765)		69-1/2 (1765)		69-1/2 (1765)		69-1/2 (1765)	
			48-5/8 (1235)		48-5/8 (1235)		64 (1625)		64 (1625)	
			30-1/2 (775)		30-1/2 (775)		30-1/2 (775)		30-1/2 (775)	
	Weight (Unit only)	lb. (kg)	754 (342)		754 (342)		891 (404)		891 (404)	

NOTES:

- The cooling and heating performances are the values when combined with our specified indoor units. Cooling: 80°F (26.7°C)DB/67°F (19.4°C)WB indoor side, 95°F (35.0°C)DB outdoor side, Heating: 70°F (21.1°C)DB indoor side, 47°F (8.3°C)DB/43°F (6.1°C)WB outdoor side. Piping Length: 24ft. 7-3/16 in. (7.5m) Piping Lift: 0ft. (0m)
- The electric characteristics show values of single outdoor unit.
- The configuring outdoor unit cannot be combined other than shown in the table.
- The operating sound is based on the following conditions. 3.3ft. (1m) from the unit service cover surface, and 4.9ft. (1.5m) from floor level. The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.
- The dimensions show values when a space between outdoor units is 13/16in.(20mm).
- In the case of setting low ambient temperature at cooling operation, the minimum capacity of connectable indoor unit should be 18MBH.

Universal Heat Recovery Outdoor Units

208/230V | 460V | 575V | 14-24 Ton Systems

32-36 Ton Systems	Type		Double Module System											
	Tonnage		14 Ton		16 Ton		18 Ton		20 Ton		22 Ton		24 Ton	
Model #	208/230V, 3PH, 60Hz		HVAHR168B33CW	HVAHR192B33CW	HVAHR216B33CW	HVAHR240B33CW	HVAHR264B33CW	HVAHR288B33CW						
	UNIT COMBINATION		HVAHR96B33CW	HVAHR96B33CW	HVAHR120B33CW	HVAHR120B33CW	HVAHR144B33CW	HVAHR144B33CW						
			HVAHR72B33CW	HVAHR96B33CW	HVAHR96B33CW	HVAHR120B33CW	HVAHR120B33CW	HVAHR144B33CW						
	460V, 3PH, 60Hz		HVAHR168B43CW	HVAHR192B43CW	HVAHR216B43CW	HVAHR240B43CW	HVAHR264B43CW	HVAHR288B43CW						
	UNIT COMBINATION		HVAHR96B43CW	HVAHR96B43CW	HVAHR120B43CW	HVAHR120B43CW	HVAHR144B43CW	HVAHR144B43CW						
			HVAHR72B43CW	HVAHR96B43CW	HVAHR96B43CW	HVAHR120B43CW	HVAHR120B43CW	HVAHR144B43CW						
	575V, 3PH, 60Hz		HVAHR168B53CW	HVAHR192B53CW	HVAHR216B53CW	HVAHR240B53CW	HVAHR264B53CW	HVAHR288B53CW						
	UNIT COMBINATION		HVAHR96B53CW	HVAHR96B53CW	HVAHR120B53CW	HVAHR120B53CW	HVAHR144B53CW	HVAHR144B53CW						
		HVAHR72B53CW	HVAHR96B53CW	HVAHR96B53CW	HVAHR120B53CW	HVAHR120B53CW	HVAHR144B53CW							
Nominal Capacity	Cooling	Btu/h	168,000	192,000	216,000	240,000	264,000	288,000						
	Heating	Btu/h	189,000	216,000	243,000	270,000	297,000	324,000						
Performance ² (Non-duct / Duct)	Rated Cooling Capacity ¹	Btu/h	160,000	184,000	206,000	228,000	252,000	276,000						
	EER	Btu/Wh	11.5 / 10.9	10.6 / 11	10.5 / 10.7	10.5 / 10.5	10.1 / 10.6	9.7 / 10.9						
	IEER	Btu/Wh	19.9 / 14.8	16.2 / 14.6	17.7 / 14.4	18.8 / 15.3	19.3 / 16.6	19.1 / 16.4						
	Rated Heating Capacity ¹	Btu/h	180,000	206,000	232,000	258,000	282,000	308,000						
	COP	W/W	3.95 / 3.36	3.97 / 3.29	4.02 / 3.38	3.82 / 3.24	3.81 / 3.2	3.78 / 3.2						
	SCHE	Btu/Wh	25.7 / 18.3	25.8 / 16.3	26.1 / 21.2	24.8 / 21.8	24.7 / 20.5	24.6 / 20.5						
	Sound Pressure	dB(A)	68	69	69	69	69	69						
Operating ⁴ Temperature Range	Cooling ³	°F DB (°C DB)	23 (-5)-122 (50)	23 (-5)-122 (50)	23 (-5)-122 (50)	23 (-5)-122 (50)	23 (-5)-122 (50)	23 (-5)-122 (50)						
	Heating	°F WB (°C WB)	0	-22 (-30)-61 (16)	-22 (-30)-61 (16)	-22 (-30)-61 (16)	-22 (-30)-61 (16)	-22 (-30)-61 (16)						
Refrigerant	Type		R410A	R410A	R410A	R410A	R410A	R410A						
	Factory Charge Amount	lb. (kg)	20.1 (9.1) ×2	20.1 (9.1) ×2	22.5(10.2) + 20.1 (9.1)	22.5(10.2)×2	22.5(10.2) + 22.5(10.2)	22.5(10.2)×2						
Refrigerant Piping	Liquid Pipe	in. (mm)	5/8 (15.88)	5/8 (15.88)	5/8 (15.88)	3/4 (19.05)	3/4 (19.05)	3/4 (19.05)						
	High/Low Pressure Gas Pipe	in. (mm)	7/8 (22.2)	7/8 (22.2)	7/8 (22.2)	1-1/8 (28.58)	1-1/8 (28.58)	1-1/8 (28.58)						
	Low Pressure Gas Pipe	in. (mm)	1-1/8 (28.58)	1-1/8 (28.58)	1-1/8 (28.58)	1-3/8 (34.93)	1-3/8 (34.93)	1-3/8 (34.93)						
Connection Ratio	Connection Ratio Range ⁵	%	50-200%	50-200%	50-200%	50-200%	50-200%	50-200%						
	Number of Indoor Units (Recommended / Maximum)	Qty.	36 (12)	40 (14)	46 (18)	52 (18)	56 (20)	59 (20)						
Electrical	Minimum Circuit Amps, MCA	A												
	208/230V		90/80 + 70/70	90/80 + 90/80	125/110 + 90/80	125/110 + 125/110	150/125 + 125/110	150/125 + 150/125						
	460V		31 + 24.5	31 + 31	41.5 + 31	41.5 + 41.5	48.5 + 41.5	48.5 + 48.5						
	575V		25 + 19.5	25 + 25	33.5 + 25	33.5 + 33.5	39 + 33.5	39 + 39						
	Maximum Overcurrent Protection, MOP	A												
	208/230V		90/80 + 70/70	90/80 + 90/80	125/110 + 90/80	125/110 + 125/110	150/125 + 125/110	150/125 + 150/125						
	460V		40 + 35	40 + 40	60 + 40	60 + 60	70 + 60	70 + 70						
	575V		35 + 25	35 + 35	45 + 35	45 + 45	50 + 45	50 + 50						
Compressor	Compressor Type		AA55PHDK-A1Y2 ×4	AA55PHDK-A1Y2 ×4	DA80PHDK-A1Y2 ×2	DA80PHDK-A1Y2 ×4	DA80PHDK-A1Y2 ×4	DA80PHDK-A1Y2 ×4						
	Operation Range	%	2 ~ 100	2 ~ 100	2 ~ 100	3 ~ 100	3 ~ 100	2 ~ 100						
Fan	Fan Type		Propeller Fan											
	Airflow Rate	cfm (m³/min)	8754 (248) + 8296 (235)	8296 (235) + 8296 (235)	12955 (367) + 8296 (235)	12955 (367) + 12955 (367)	13449 (381) + 12955 (367)	13449 (381) + 13449 (381)						
	External Static Pressure ⁶	in. WG (Pa)	0-0.32 (0-80)	0-0.32 (0-80)	0-0.32 (0-80)	0-0.32 (0-80)	0-0.32 (0-80)	0-0.32 (0-80)						
Unit	Dimensions (H x W x D)	in. (mm)	69-1/2 (1765)	69-1/2 (1765)	69-1/2 (1765)	69-1/2 (1765)	69-1/2 (1765)	69-1/2 (1765)						
			99-1/16 (2490)	99-1/16 (2490)	113-3/8 (2880)	128-3/4 (3270)	128-3/4 (3270)	128-3/4 (3270)						
			30-1/2 (775)	30-1/2 (775)	30-1/2 (775)	30-1/2 (775)	30-1/2 (775)	30-1/2 (775)						
	Net Weight (Unit Only)	lb. (kg)	754 (342) ×2	754 (342) ×2	891 (404) + 754 (342)	891 (404) ×2	891 (404) ×2	891 (404) ×2						

NOTES:

- The cooling and heating performances are the values when combined with our specified indoor units. Cooling: 80°F (26.7°C)DB/67°F (19.4°C) WB indoor side, 95°F (35.0°C)DB outdoor side, Heating: 70°F (21.1°C)DB indoor side, 47°F (8.3°C)DB/43°F (6.1°C)WB outdoor side. Piping Length: 24ft. 7-3/16 in. (7.5m) Piping Lift: 0ft. (0m)
- The electric characteristics show values of single outdoor unit.
- The configuring outdoor unit cannot be combined other than shown in the table.
- The operating sound is based on the following conditions. 3.3ft. (1m) from the unit service cover surface, and 4.9ft. (1.5m) from floor level. The above data was measured in an anechoic chamber so that reflected sound should be taken into consideration in the field.
- The dimensions show values when a space between outdoor units is 13/16in.(20mm).
- In the case of setting low ambient temperature at cooling operation, the minimum capacity of connectable indoor unit should be 18MBH.

Heat pump outdoor units

208/230V | 460V | 575V | 6-16 Ton Systems

6-16 Ton Systems	Type		Single Unit Systems					
	Tonnage		6 Ton	8 Ton	10 Ton	12 Ton	14 Ton	16 Ton
Model #	208/230V, 3PH, 60Hz		HVAHP072B32S	HVAHP096B32S	HVAHP120B32S	HVAHP144B32S	HVAHP168B32S	HVAHP192B32S
	460V, 3PH, 60Hz		HVAHP072B42S	HVAHP096B42S	HVAHP120B42S	HVAHP144B42S	HVAHP168B42S	HVAHP192B42S
	575V, 3PH, 60Hz		HVAHP072B52S	HVAHP096B52S	HVAHP120B52S	HVAHP144B52S	HVAHP168B52S	HVAHP192B52S
Nominal Capacity	Cooling	Btu/h	72,000	96,000	120,000	144,000	168,000	192,000
	Heating	Btu/h	81,000	108,000	135,000	162,000	189,000	216,000
Performance ² (Non-duct / Duct)	Rated Cooling Capacity ¹	Btu/h	69,000	92,000	114,000	138,000	160,000	184,000
	EER	Btu/Wh	14.9 / 12.2	12.4 / 12.4	12.7 / 12.4	10.9 / 11.2	11.6 / 11.8	10.6 / 11.1
	IEER	Btu/Wh	26.5 / 21.1	23.9 / 22.1	24.4 / 21.7	23.9 / 21.2	23.4 / 21.4	21.4 / 20.8
	Rated Heating Capacity ¹	Btu/h	77,000	103,000	129,000	154,000	180,000	206,000
	COP	W/W	4.25 / 3.54	3.77 / 3.65	3.84 / 3.55	3.42 / 3.4	3.65 / 3.56	3.32 / 3.38
	Sound Pressure	dB(A)	60	63	63	65	64	66
Operating ⁴ Temperature Range	Cooling ³	°F DB (°C DB) 23 ~ 122 (-5 ~ 50)						
	Heating	°F WB (°C WB) -13 ~ 59 (-25 ~ 15)						
Refrigerant	Type	R410A						
	Factory Charge Amount	lb. (kg)	15.9 (7.2)	19.6 (8.9)	21.8 (9.9)	23.6 (10.7)	24.9 (11.3)	25.6 (11.6)
Refrigerant Piping	Liquid Pipe	in. (mm)	1/2 (12.7)	1/2 (12.7)	1/2 (12.7)	5/8 (15.88)	5/8 (15.88)	5/8 (15.88)
	Gas Pipe	in. (mm)	7/8 (22.2)	7/8 (22.2)	1-1/8 (28.58)	1-1/8 (28.58)	1-1/8 (28.58)	1-1/8 (28.58)
Connection Ratio	Connection Ratio Range ⁵	%	70 - 130 (150)	65 - 130(150)	60 - 130(150)	55 - 130(150)		
	Number of Indoor Units (Recommended / Maximum)	Qty.	8 / 15	8 / 20	8 / 26	10 / 26	12 / 36	14 / 40
Electrical	Minimum Circuit Amps, MCA (208V/230V/460V/575V)	A	29 / 26 / 15 / 12	39 / 35 / 22 / 16	46 / 42 / 24 / 19	58 / 52 / 30 / 24	65 / 59 / 34 / 27	76 / 68 / 39 / 32
	Maximum Overcurrent Protection, MOP (208V/230V/460V/575V)	A	40 / 40 / 20 / 15	50 / 50 / 30 / 25	60 / 60 / 30 / 25	70 / 70 / 35 / 30	80 / 80 / 40 / 35	90 / 90 / 50 / 40
Compressor	Compressor Type	Inverter						
	Operation Range	%	10 ~ 100	8 ~ 100	7 ~ 100	6 ~ 100	5 ~ 100	
Fan	Fan Type	Propeller Fan x1		Propeller Fan x2				
	Airflow Rate	cfm (m³/min)	6707 (190)	8437 (239)	9037 (256)		11614 (329)	12284 (348)
	External Static Pressure ⁶	in. WG (Pa)	0 ~ 0.32 (0 ~ 80)					
Unit	Dimensions (H x W x D)	in. (mm)	66-1/4 x 38-3/8 x 30-1/2 (1683 x 975 x 774)		66-1/4 x 48-5/8 x 30-1/2 (1683 x 1235 x 774)		66-1/4 x 64 x 30-1/2 (1683 x 1625 x 774)	
	Weight (208,230V/460V/575V)	lb. (kg)	516 / 523 / 523 (234 / 237 / 237)	591 / 604 / 604 (268 / 274 / 274)	721 / 725 / 725 (327 / 329 / 329)	723 / 728 / 728 (328 / 330 / 330)	849 / 849 / 849 (385 / 385 / 385)	

NOTES:

- Nominal capacity conditions are based on AHRI standard. Visit www.ahrinet.org for more information.
- Efficiency ratings are based on the AHRI 1230 test standard.

- Extended cooling operating temperature range down to 14 °F DB (-10 °C DB) with snow protection hood, and down to -10 °F DB (-23 °C DB) with low ambient kit. However, upper limit temperature for cooling operation is restricted up to 109 °F DB (43 °C DB).

- For details, refer to Engineering Manual.
- For details, refer to Engineering Manual.
- External static pressure can be changed by DSW setting.

Heat pump outdoor units

208/230V | 460V | 575V | 18-22 Ton Systems

18-22 Ton Systems	Type		Double Module Systems		
	Tonnage		18 Ton	20 Ton	22 Ton
Model #	208/230V, 3PH, 60Hz		HVAHP216B32S	HVAHP240B32S	HVAHP264B32S
	460V, 3PH, 60Hz		HVAHP216B42S	HVAHP240B42S	HVAHP264B42S
	575V, 3PH, 60Hz		HVAHP216B52S	HVAHP240B52S	HVAHP264B52S
Unit Combination	208/230V, 3PH, 60Hz	Unit A	HVAHP144B32S	HVAHP120B32S	HVAHP144B32S
		Unit B	HVAHP072B32S	HVAHP120B32S	HVAHP120B32S
	460V, 3PH, 60Hz	Unit A	HVAHP144B42S	HVAHP120B42S	HVAHP144B42S
		Unit B	HVAHP072B42S	HVAHP120B42S	HVAHP120B42S
	575V, 3PH, 60Hz	Unit A	HVAHP144B52S	HVAHP120B52S	HVAHP144B52S
		Unit B	HVAHP072B52S	HVAHP120B52S	HVAHP120B52S
Nominal Capacity	Cooling	Btu/h	216,000	240,000	264,000
	Heating	Btu/h	243,000	270,000	297,000
Performance ² (Non-duct / Duct)	Rated Cooling Capacity ¹	Btu/h	206,000	228,000	252,000
	EER	Btu/Wh	10.9 / 11.2	11.1 / 10.6	10.0 / 10.5
	IEER	Btu/Wh	20.9 / 20.7	20.8 / 21.0	21.1 / 20.8
	Rated Heating Capacity ¹	Btu/h	232,000	258,000	282,000
	COP	W/W	3.82 / 3.51	3.67 / 3.51	3.70 / 3.56
	Sound Pressure	dB(A)	66		67
Operating ⁴ Temperature Range	Cooling ³	°F DB (°C DB)	23 ~ 122 (-5 ~ 50)		
	Heating	°F WB (°C WB)	-13 ~ 59 (-25 ~ 15)		
Refrigerant	Type	R410A			
	Factory Charge Amount	lb. (kg)	23.6+15.9 (10.7+7.2)	21.8+21.8 (9.9+9.9)	23.6+21.8 (10.7+9.9)
Refrigerant Piping	Liquid Pipe	in. (mm)	3/4 (19.05)	3/4 (19.05)	3/4 (19.05)
	Gas Pipe	in. (mm)	1-1/8 (28.58)	1-3/8 (34.93)	1-3/8 (34.93)
Connection Ratio	Connection Ratio Range ⁵	%	60 - 130(150)		55 - 130(150)
	Number of Indoor Units (Recommended / Maximum)	Qty.	18 / 46	18 / 52	20 / 56
Electrical	Minimum Circuit Amps, MCA (Unit A + Unit B) (208V/230V/460V/575V)	A	58+29 / 52+26 / 30+15 / 24+12	46+46 / 42+42 / 24+24 / 19+19	58+46 / 52+42 / 30+24 / 24+19
	Maximum Overcurrent Protection, MOP (Unit A + Unit B) (208V/230V/460V/575V)	A	70+40 / 70+40 / 35+20 / 30+15	60+60 / 60+60 / 30+30 / 25+25	70+60 / 70+60 / 35+30 / 30+25
Compressor	Compressor Type	Inverter			
	Operation Range	%	4 ~ 100		3 ~ 100
Fan	Fan Type		Propeller Fan x3	Propeller Fan x4	
	Airflow Rate	cfm (m³/min)	9037+6707 (256+190)	9037+9037 (256+256)	
	External Static Pressure ⁶	in. WG (Pa)	0 ~ 0.32 (0 ~ 80)		
Unit	Dimensions (H x W x D)	in. (mm)	66-1/4 x 87-13/16 x 30-1/2 (1683 x 2230 x 774)	66-1/4 x 98-1/16 x 30-1/2 (1683 x 2490 x 774)	
	Weight (Unit A + Unit B) (208,230V/460V/575V)	lb. (kg)	723+516 / 728+523 / 728+523 (328+234 / 330+237 / 330+237)	721+721 / 725+725 / 725+725 (327+327 / 329+329 / 329+329)	723+721 / 728+725 / 728+725 (328+327 / 330+329 / 330+329)

NOTES:

- Nominal capacity conditions are based on AHRI standard. Visit www.ahrinet.org for more information.
- Efficiency ratings are based on the AHRI 1230 test standard.
- Extended cooling operating temperature range down to 14 °F DB (-10 °C DB) with snow protection hood, and down to -10 °F DB (-23 °C DB) with low ambient kit. However, upper limit temperature for cooling operation is restricted up to 109 °F DB (43 °C DB).
- For details, refer to Engineering Manual.
- For details, refer to Engineering Manual.
- External static pressure can be changed by DSW setting.

Heat pump outdoor units

208/230V | 460V | 575V | 24-26 Ton Systems

24-26 Ton Systems	Type		Double Module Systems	
	Tonnage		24 Ton	26 Ton
Model #	208/230V, 3PH, 60Hz		HVAHP288B32S	HVAHP312B32S
	460V, 3PH, 60Hz		HVAHP288B42S	HVAHP312B42S
	575V, 3PH, 60Hz		HVAHP288B52S	HVAHP312B52S
Unit Combination	208/230V, 3PH, 60Hz	Unit A	HVAHP144B32S	HVAHP168B32S
		Unit B	HVAHP144B32S	HVAHP144B32S
	460V, 3PH, 60Hz	Unit A	HVAHP144B42S	HVAHP168B42S
		Unit B	HVAHP144B42S	HVAHP144B42S
	575V, 3PH, 60Hz	Unit A	HVAHP144B52S	HVAHP168B52S
		Unit B	HVAHP144B52S	HVAHP144B52S
Nominal Capacity	Cooling	Btu/h	288,000	312,000
	Heating	Btu/h	324,000	351,000
Performance ² (Non-duct / Duct)	Rated Cooling Capacity ¹	Btu/h	276,000	298,000
	EER	Btu/Wh	9.5 / 9.9	9.7 / 10.0
	IEER	Btu/Wh	19.4 / 20.7	20.3 / 19.5
	Rated Heating Capacity ¹	Btu/h	308,000	334,000
	COP	W/W	3.42 / 3.42	3.37 / 3.31
	Sound Pressure	dB(A)	68	
Operating ⁴ Temperature Range	Cooling ³	oF DB (°C DB)	23 ~ 122 (-5 ~ 50)	
	Heating	oF WB (°C WB)	-13 ~ 59 (-25 ~ 15)	
Refrigerant	Type		R410A	
	Factory Charge Amount	lb. (kg)	23.6+23.6 (10.7+10.7)	24.9+23.6 (11.3+10.7)
Refrigerant Piping	Liquid Pipe	in. (mm)	3/4 (19.05)	3/4 (19.05)
	Gas Pipe	in. (mm)	1-3/8 (34.93)	1-3/8 (34.93)
Connection Ratio	Connection Ratio Range ⁵	%	55 - 130(150)	
	Number of Indoor Units (Recommended / Maximum)	Qty.	20 / 59	22 / 64
Electrical	Minimum Circuit Amps, MCA (Unit A + Unit B) (208V/230V/460V/575V)"	A	58+58 / 52+52 / 30+30 / 24+24	65+58 / 59+52 / 34+30 / 27+24
	Maximum Overcurrent Protection, MOP (Unit A + Unit B) (208V/230V/460V/575V)	A	70+70 / 70+70 / 35+35 / 30+30	80+70 / 80+70 / 40+35 / 35+30
Compressor	Compressor Type		Inverter	
	Operation Range	%	3 ~ 100	
Fan	Fan Type		Propeller Fan x4	
	Airflow Rate	cfm (m ³ /min)	9037+9037 (256+256)	11614+9037 (329+256)
	External Static Pressure ⁶	in. WG (Pa)	0 ~ 0.32 (0 ~ 80)	
Unit	Dimensions (H x W x D)	in. (mm)	66-1/4 x 98-1/16 x 30-1/2 (1683 x 2490 x 774)	66-1/4 x 113-3/8 x 30-1/2 (1683 x 2880 x 774)
	Weight (Unit A + Unit B) (208,230V/460V/575V)	lb. (kg)	723+723 / 728+728 / 728+728 (328+328 / 330+330 / 330+330)	849+723 / 849+728 / 849+728 (385+328 / 385+330 / 385+330)

NOTES:

- Nominal capacity conditions are based on AHRI standard. Visit www.ahrinet.org for more information.
- Efficiency ratings are based on the AHRI 1230 test standard.
- Extended cooling operating temperature range down to 14 °F DB (-10 °C DB) with snow protection hood, and down to -10 °F DB (-23 °C DB) with low ambient kit. However, upper limit temperature for cooling operation is restricted up to 109 °F DB (43 °C DB).
- For details, refer to Engineering Manual.
- For details, refer to Engineering Manual.
- External static pressure can be changed by DSW setting.

Heat pump outdoor units

208/230V | 460V | 575V | 28-30 Ton Systems

28-30 Ton Systems	Type		Double Module Systems	
	Tonnage		28 Ton	30 Ton
Model #	208/230V, 3PH, 60Hz		HVAHP336B32S	HVAHP360B32S
	460V, 3PH, 60Hz		HVAHP336B42S	HVAHP360B42S
	575V, 3PH, 60Hz		HVAHP336B52S	HVAHP360B52S
Unit Combination	208/230V, 3PH, 60Hz	Unit A	HVAHP192B32S	HVAHP192B32S
		Unit B	HVAHP144B32S	HVAHP168B32S
	460V, 3PH, 60Hz	Unit A	HVAHP192B42S	HVAHP192B42S
		Unit B	HVAHP144B42S	HVAHP168B42S
	575V, 3PH, 60Hz	Unit A	HVAHP192B52S	HVAHP192B52S
		Unit B	HVAHP144B52S	HVAHP168B52S
Nominal Capacity	Cooling	Btu/h	336,000	360,000
	Heating	Btu/h	378,000	405,000
Performance ² (Non-duct / Duct)	Rated Cooling Capacity ¹	Btu/h	320,000	344,000
	EER	Btu/Wh	9.5 / 9.8	9.5 / 10.2
	IEER	Btu/Wh	20.8 / 19.1	19.8 / 19.5
	Rated Heating Capacity ¹	Btu/h	360,000	382,000
	COP	W/W	3.27 / 3.32	3.27 / 3.20
	Sound Pressure	dB(A)s	69	68
Operating ⁴ Temperature Range	Cooling ³	°F DB (°C DB)	23 ~ 122 (-5 ~ 50)	
	Heating	°F WB (°C WB)	-13 ~ 59 (-25 ~ 15)	
Refrigerant	Type		R410A	
	Factory Charge Amount	lb. (kg)	25.6+23.6 (11.6+10.7)	25.6+24.9 (11.6+11.3)
Refrigerant Piping	Liquid Pipe	in. (mm)	3/4 (19.05)	3/4 (19.05)
	Gas Pipe	in. (mm)	1-3/8 (34.93)	1-3/8 (34.93)
Connection Ratio	Connection Ratio Range ⁵	%	55 - 130(150)	
	Number of Indoor Units (Recommended / Maximum)	Qty.	24 / 64	28 / 64
Electrical	Minimum Circuit Amps, MCA (Unit A + Unit B) (208V/230V/460V/575V)	A	76+58 / 68+52 / 39+30 / 32+24	76+65 / 68+59 / 39+34 / 32+27
	Maximum Overcurrent Protection, MOP (Unit A + Unit B) (208V/230V/460V/575V)	A	90+70 / 90+70 / 50+35 / 40+30	90+80 / 90+80 / 50+40 / 40+35
Compressor	Compressor Type		Inverter	
	Operation Range	%	3 ~ 100	
Fan	Fan Type		Propeller Fan x4	
	Airflow Rate	cfm (m ³ /min)	12284+9037 (348+256)	12284+11614 (348+329)
	External Static Pressure ⁶	in. WG (Pa)	0 ~ 0.32 (0 ~ 80)	
Unit	Dimensions (H x W x D)	in. (mm)	66-1/4 x 113-3/8 x 30-1/2 (1683 x 2880 x 774)	66-1/4 x 128-3/4 x 30-1/2 (1683 x 3270 x 774)
	Weight (Unit A + Unit B) (208,230V/460V/575V)	lb. (kg)	849+723 / 849+728 / 849+728 (385+328 / 385+330 / 385+330)	849+849 / 849+849 / 849+849 (385+385 / 385+385 / 385+385)

NOTES:

- Nominal capacity conditions are based on AHRI standard. Visit www.ahrinet.org for more information.
- Efficiency ratings are based on the AHRI 1230 test standard.
- Extended cooling operating temperature range down to 14 °F DB (-10 °C DB) with snow protection hood, and down to -10 °F DB (-23 °C DB) with low ambient kit. However, upper limit temperature for cooling operation is restricted up to 109 °F DB (43 °C DB).
- For details, refer to Engineering Manual.
- For details, refer to Engineering Manual.
- External static pressure can be changed by DSW setting.

Heat pump outdoor units

208/230V | 460V | 575V | 32-36 Ton Systems

32-36 Ton Systems	Type		Triple Module Systems		
	Tonnage		32 Ton	34 Ton	36 Ton
Model #	208/230V, 3PH, 60Hz		HVAHP384B32S	HVAHP408B32S	HVAHP432B32S
	460V, 3PH, 60Hz		HVAHP384B42S	HVAHP408B42S	HVAHP432B42S
	575V, 3PH, 60Hz		HVAHP384B52S	HVAHP408B52S	HVAHP432B52S
Unit Combination	208/230V, 3PH, 60Hz	Unit A	HVAHP144B32S	HVAHP144B32S	HVAHP144B32S
		Unit B	HVAHP120B32S	HVAHP144B32S	HVAHP144B32S
		Unit C	HVAHP120B32S	HVAHP120B32S	HVAHP144B32S
	460V, 3PH, 60Hz	Unit A	HVAHP144B42S	HVAHP144B42S	HVAHP144B42S
		Unit B	HVAHP120B42S	HVAHP144B42S	HVAHP144B42S
		Unit C	HVAHP120B42S	HVAHP120B42S	HVAHP144B42S
	575V, 3PH, 60Hz	Unit A	HVAHP144B52S	HVAHP144B52S	HVAHP144B52S
		Unit B	HVAHP120B52S	HVAHP144B52S	HVAHP144B52S
		Unit C	HVAHP120B52S	HVAHP120B52S	HVAHP144B52S
Nominal Capacity	Cooling	Btu/h	384,000	408,000	432,000
	Heating	Btu/h	432,000	459,000	486,000
Performance ² (Non-duct / Duct)	Rated Cooling Capacity ¹	Btu/h	366,000	380,000	400,000
	EER	Btu/Wh	9.6 / 9.5	9.5 / 9.5	9.5 / 9.6
	IEER	Btu/Wh	19.6 / 18.6	19.3 / 19.2	19.5 / 19.0
	Rated Heating Capacity ¹	Btu/h	410,000	435,000	460,000
	COP	W/W	3.37 / 3.33	3.34 / 3.37	3.21 / 3.35
	Sound Pressure	dB(A)	69		70
Operating ⁴ Temperature Range	Cooling ³	°F DB (°C DB)	23 ~ 122 (-5 ~ 50)		
	Heating	°F WB (°C WB)	-13 ~ 59 (-25 ~ 15)		
Refrigerant	Type		R410A		
	Factory Charge Amount	lb. (kg)	23.6+21.8+21.8 (10.7+9.9+9.9)	23.6+23.6+21.8 (10.7+10.7+9.9)	23.6+23.6+23.6 (10.7+10.7+10.7)
Refrigerant Piping	Liquid Pipe	in. (mm)	3/4 (19.05)	3/4 (19.05)	3/4 (19.05)
	Gas Pipe	in. (mm)	1-5/8 (41.28)	1-5/8 (41.28)	1-5/8 (41.28)
Connection Ratio	Connection Ratio Range ⁵	%	55 - 130(150)		
	Number of Indoor Units (Recommended / Maximum)	Qty.	30 / 64		
Electrical	Minimum Circuit Amps, MCA (Unit A + Unit B + Unit C) (208V/230V/460V/575V)	A	58+46+46 / 52+42+42 / 30+24+24 / 24+19+19	58+58+46 / 52+52+42 / 30+30+24 / 24+24+19	58+58+58 / 52+52+52 / 30+30+30 / 24+24+24
	Maximum Overcurrent Protection, MOP (Unit A + Unit B + Unit C) (208V/230V/460V/575V)	A	70+60+60 / 70+60+60 / 35+30+30 / 30+25+25	70+70+60 / 70+70+60 / 35+35+30 / 30+30+25	70+70+70 / 70+70+70 / 35+35+35 / 30+30+30
Compressor	Compressor Type		Inverter		
	Operation Range	%	2 ~ 100		
Fan	Fan Type		Propeller Fan x6		
	Airflow Rate	cfm (m ³ /min)	9037+9037+9037 (256+256+256)		
	External Static Pressure ⁶	in. WG (Pa)	0 ~ 0.32 (0 ~ 80)		
Unit	Dimensions (H x W x D)	in. (mm)	66-1/4 x 147-7/16 x 30-1/2 (1683 x 3745 x 774)		
	Weight (Unit A + Unit B + Unit C) (208,230V/460V/575V)	lb. (kg)	723+721+721 / 728+725+725 / (328+327+327 / 330+329+329 / 330+329+329)	723+723+721 / 728+728+725 / 728+728+725 / (328+328+327 / 330+330+329 / 330+330+329)	723+723+723 / 728+728+728 / 728+728+728 / (328+328+328 / 330+330+330 / 330+330+330)

NOTES:

- Nominal capacity conditions are based on AHRI standard. Visit www.ahrinet.org for more information.
- Efficiency ratings are based on the AHRI 1230 test standard.

- Extended cooling operating temperature range down to 14 °F DB (-10 °C DB) with snow protection hood, and down to -10 °F DB (-23 °C DB) with low ambient kit. However, upper limit temperature for cooling operation is restricted up to 109 °F DB (43 °C DB).

- For details, refer to Engineering Manual.
- For details, refer to Engineering Manual.
- External static pressure can be changed by DSW setting.

OUTDOOR UNITS

Mini VRF heat pump outdoor units 208/230V HP | 3-, 4- & 5-Ton Systems



3-, 4- and 5-Ton Systems	Type				Mini VRF Outdoor Units					
	Tonnage				3 Ton ⁵		4 Ton ⁵		5 Ton	
Model #					HVAHP036B21S		HVAHP048B21S		HVAHP060B21S	
Power Supply					208/230V/ 1PH 60Hz		208/230V/ 1PH 60Hz		208/230V/ 1PH 60Hz	
Capacity (Nominal) ¹	Cooling	Capacity (Nominal)	Btu/h	(kW)	36,000	(10.6)	48,000	(14.1)	60,000	(17.6)
		Power input	kW		2.53		3.78		5.05	
		Current input	A		12.3 / 11.1		18.6 / 16.9		24.8 / 22.4	
	Heating	Capacity (Nominal)	Btu/h	(kW)	40,000	11.7	54,000	15.8	64,000	18.7
		Power input	kW		2.40		4.00		4.40	
		Current input	A		11.8 / 10.6		19.6 / 17.7		21.7 / 19.6	
Efficiency Ratings ²	Cooling (for Non-ducted and Ducted)	Capacity (Rated)	Btu/h		36,000	36,000	48,000	48,000	60,000	55,000
		EER	Btu/Wh		12.2	9.7	16.7	13.1	16.7	13.8
		EER2	Btu/Wh		12.8	10.3	16.7	12.5	16.7	13.2
		SEER	Btu/Wh		16.8	16	24.1	18.4	23.5	18.7
		SEER2	Btu/Wh		20.3	17.5	23.1	18.1	22.2	18.5
	Heating (for Non-ducted and Ducted)	Rated Capacity	Btu/h		40,000	40,000	54,000	54,000	64,000	64,000
		COP	W/W		5.12	3.9	4.56	3.86	3.9	3.3
		COP2	Btu/Wh		5.12	3.9	4.56	3.86	3.9	3.3
		HSPF	W/W		12.1	11	11.7	11.8	12.8	11
		HSPF2	Btu/Wh		10.5	9.1	9.8	10	10.8	9.5
Cooling Operating Range ³		Outdoor	°F DB (°C DB)	23 (-5) - 118 (48)		23 (-5) - 118 (48)		23 (-5) - 118 (48)		
Heating Operating Range ³		Outdoor	°F WB (°C WB)	-4 (-20) - 59 (15)		-4 (-20) - 59 (15)		-4 (-20) - 59 (15)		
Outer Dimensions	Height		in (mm)	54-5/16	(1380)	54-5/16	(1380)	54-5/16	(1380)	
	Width		in (mm)	37-3/8	(950)	37-3/8	(950)	37-3/8	(950)	
	Depth		in (mm)	14-9/16	(370)	14-9/16	(370)	14-9/16	(370)	
Weight	Net		lbs (kg)	249	(113)	249	(113)	249	(113)	
Connection Ratio	Total Indoor Unit Capacity		%	60-130		60-130		60-105		
	Max. (Recommendation) indoor units/system			6		8		8		
Compressor	Type	—		HA36PHD-A1S2		HA36PHD-A1S2		A36PHD-A1S2		
	Motor Output (Pole)	— / —		3PH / 6		3PH / 6		3PH / 6		
	Operation Range	%		10 - 100		10 - 100		10 - 100		
	Refrigeration Oil Type	-		FVC68D		FVC68D		FVC68D		
Fan	Type	-		Propeller Fan		Propeller Fan		Propeller Fan		
	Motor Output	W		58 + 58		58 + 58		58 + 58		
	Quantity	Q'ty		2						
	Air Flow Rate	cfm	(m ³ /min)	3177	(90)	3530	(100)	3530	(100)	
Electrical	Min Circuit Amps		A	31		31		31		
	Max. Overcurrent Protective Device		A	40						
Sound Pressure Level ⁴	Cooling (Night-Shift)		dB(A)	51	(44)	52	(46)	53	(46)	
	Heating		dB(A)	52		54		56		
Refrigerant	Type		-		R410A					
	Charge amount		lbs (kg)	7.9	(3.6)	7.9	(3.6)	7.9	(3.6)	
Main Refrigerant Piping	Gas Line		in (mm)	5/8	(15.88)	5/8	(15.88)	5/8	(15.88)	
	Liquid Line		in (mm)	3/8	(9.52)	3/8	(9.52)	3/8	(9.52)	

NOTES:

- Nominal capacity conditions are based on AHRI standard. Visit www.ahrinet.org for more information.
- Efficiency ratings are based on the AHRI 210/240 test standard.
- There are some exceptions and notes for cooling and cooling operation ranges. For details, refer to Section 2.12 "Operation Range".

- Measurement Point: 3.3 ft. (1m) from the air outlet side, 4.9 ft. (1.5m) from floor level. The operation sound is measured in an anechoic chamber. However, the actual operation sound may appear louder or with an echo because of surrounding environmental noise. Be sure to check environmental conditions before installation. The sound of the air inlet side may be 3dB higher than that of the air outlet side.
- Unit is ENERGY STAR certified.