



Product Catalog

Variable Refrigerant Flow (VRF) System Air Source Heat Pump and Heat Recovery Outdoor Units

Models:

(HP, 208-230 V)

4TVH0072C300NA
4TVH0096C300NA
4TVH0120C300NA
4TVH0144C300NA
4TVH0168C300NA
4TVH0192C300NA
4TVHL072C300NA
4TVHL096C300NA

(HP, 460 V)

4TVH0072C400NA
4TVH0096C400NA
4TVH0120C400NA
4TVH0144C400NA
4TVH0168C400NA
4TVH0192C400NA
4TVHL072C400NA
4TVHL096C400NA

(HR, 208-230 V)

4TVR0072C300NA
4TVR0096C300NA
4TVR0120C300NA
4TVR0144C300NA
4TVR0168C300NA
4TVR0192C300NA
4TVRL072C300NA
4TVRL096C300NA

(HR, 208-230 V)

4TVR0072C400NA
4TVR0096C400NA
4TVR0120C400NA
4TVR0144C400NA
4TVR0168C400NA
4TVR0192C400NA
4TVRL072C400NA
4TVRL096C400NA





Introduction

Trane® variable refrigerant flow (VRF) systems are efficient, effective, reliable heating and cooling solutions that you can trust. VRF is well suited for historic buildings without existing ductwork, as well as schools and mid-rise office buildings with multiple interior spaces and diverse occupancy rates. When VRF is the right solution for your application, Trane will help you ensure that it is the best solution.

Trane VRF systems are designed for exceptional energy efficiency, offering industry-leading performance up to 40.00 IEER and 34.50 SCHE. Trane VRF systems utilize inverter compressors (some model feature dual compressors) with vapor injection for improved performance and comfort.

Systems are available for both heat pump and simultaneous heating and cooling operation. Both feature individual zone control to provide individual occupant comfort. The simultaneous heating and cooling models offer the ability to heat and cool adjacent zones, intelligently exchanging energy between them through strategically located mode control units.

Indoor units are available in a wide variety of configurations and capacities, allowing architects the flexibility to satisfy almost any design requirement.

Trane offers a complete line-up of controls to complete your VRF installation. These range from easy to use individual zone controls to centralized systems for building monitoring and control, as well as optional BACnet® connectivity for centralized Trane Tracer™ integration.

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Revision History

Revisions include the following:

- Changing the model number description major development sequence (9th digit) to "C".



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System Features

- Individual modules are available as standard heat pump or simultaneous heating and cooling (heat recovery) configuration; units can be combined as double or triple modules for larger capacity requirements.
- Asymmetric scroll is designed to minimize frictional loss.
- 100% full heating capacity at -13°F (-25°C).
- Dual inverter compressors are designed to equally share load for higher reliability.
- Improved flash injection system increases refrigerant flow rate resulting in superior heating performance.
- Intercooler uses a plate heat exchanger for improved heating and cooling efficiency.
- 8,400 RPM (maximum speed) compressors assures quick start cooling and heating performance.
- Auto oil balancing eliminates the need for an oil balancing pipe.
- Compressor inverter drives are liquid cooled for improved reliability.
- Longer pipe lengths are the result of large oil storage capacity and low oil circulation rate.
- Total harmonic distortion is reduced through adaptive sine wave control.
- Refrigerant pump down and pump out facilitates maintenance and repair.
- Automatic refrigerant balancing between indoor units optimize refrigerant distribution for better comfort and performance.
- Optional quiet operation mode for reduced sound levels at night.
- Auto snow blowing function removes accumulated snow when conditions require it.
- Intelligent defrost cycle minimizes defrost occurrence based on actual conditions.
- Special hydrophilic heat exchanger coating minimizes frost build up on the outdoor coils and facilitates the defrost cycle.
- Anti-corrosion finish provides added protection in harsh environments.
- Multiple options of mode control units are light and compact. Distributed installation flexibility provides superior performance during simultaneous heating and cooling operation.
- VRF systems feature self-diagnosis, including system monitoring and error code reporting.



Model Number Description

Digit 1 — Refrigerant

4 = R410A

Digit 2 — Brand name

T = Trane

Digit 3 — System type

V = Variable Refrigerant Flow

Digit 4 — Functional type

H = Heat pump, DC inverter (VRF)

R = Heat recovery (three pipe), DC inverter

Digit 5 — Special application

0 = Standard

Digit 6, 7, 8 — Nominal capacity (Btu/h x 1,000)

072 = 72,000 Btu/h (VRF)

096 = 96,000 Btu/h (VRF)

120 = 120,000 Btu/h (VRF)

144 = 144,000 Btu/h (VRF)

168 = 168,000 Btu/h (VRF)

192 = 192,000 Btu/h (VRF)

Digit 9 — Major development sequence

C = Third development sequence

Digit 10 — Electric power supply characteristics

3 = 208–230/60/1

4 = 460/60/3

Digit 11 — Coil fin protection

0 = Standard

Digit 12 — Miscellaneous digit

0 = Not currently used

Digit 13 — Region of sale

N = North America (UL or ETL)

Digit 14 — Minor design sequence

A = First design sequence

B = Second design sequence

C = Third design sequence

D = Fourth design sequence



System Combination Line-Up

Table 1. Outdoor unit combinations: 6–24 ton capacity











Capacity		6 ton	8 ton	10 ton	12 ton	14 ton	16 ton	18 ton	20 ton	22 ton	24 ton
Outdoor unit combination number		4TV*0072	4TV*0096	4TV*0120	4TV*0144	4TV*0168	4TV*0192	4TV*0216	4TV*0240	4TV*0264	4TV*0288
Total number of individual outdoor units		1	1	1	1	1	1	2	2	2	2
Combined outdoor unit	4TV*0072	1						1	1	1	
	4TV*0096		1								
	4TV*0120			1							
	4TV*0144				1			1			2
	4TV*0168					1			1		
	4TV*0192						1			1	
Nominal Capacity	Cooling (Btu/h)	72000	96000	120000	144000	168000	192000	216000	240000	264000	288000
	Heating (Btu/h)	81000	108000	135000	162000	189000	216000	243000	270000	297000	324000
Rated Capacity	Cooling (Btu/h)	69000	92000	114000	138000	160000	184000	206000	228000	252000	276000
	Heating (Btu/h)	77000	103000	129000	154000	180000	206000	230000	258000	282000	308000
Total capacity of connected indoor units (cooling)	Minimum (Btu/h)	36000	48000	60000	72000	84000	96000	108000	120000	132000	144000
	Maximum (Btu/h)	93600	124800	156000	187200	218400	249600	280800	312000	343200	374400
Maximum quantity of connectable indoor units		12	16	20	25	29	33	37	41	45	49

Table 2. Outdoor unit combinations: 26–44 ton capacity

Capacity		26 ton	28 ton	30 ton	32 ton	34 ton	36 ton	38 ton	40 ton	42 ton	44 ton
Model name for Combination		4TV* 0312	4TV* 0336	4TV* 0360	4TV* 0384	4TV* 0408	4TV* 0432	4TV* 0456	4TV* 0480	4TV* 0504	4TV* 0528
Total number of individual outdoor units		2	2	2	2	3	3	3	3	3	3
Combined outdoor unit	4TV*0072					1					
	4TV*0096										
	4TV*0120							1			
	4TV*0144	1				1	3		1		
	4TV*0168	1	2	1				2	2	3	2
	4TV*0192			1	2	1					1
Nominal capacity	Cooling (Btu/h)	312000	336000	360000	384000	408000	432000	456000	480000	504000	528000
	Heating (Btu/h)	351000	378000	405000	432000	459000	486000	513000	540000	567000	594000
Rated capacity	Cooling (Btu/h)	298000	320000	344000	366000	390000	415000	435000	455000	480000	500000
	Heating (Btu/h)	334000	360000	386000	410000	435000	460000	490000	510000	535000	560000
Total capacity of indoor units (cooling)	Minimum (Btu/h)	156000	168000	180000	192000	204000	216000	228000	240000	252000	264000
	Maximum (Btu/h)	405600	436800	468000	499200	530400	561600	592800	624000	655200	686400
Maximum quantity of connectable indoor units		54	58	62	64	64	64	64	64	64	64



Products

Application Matrix

Type		Capacity (MBH)																				
		5	6	7/ 7.5	9/ 9.5	12	15	18	20	24	27	30	32	36	42	48	54	60	72	76	96	
High wall unit (12-24 MBH)						X		X						X								
											X											
Circular cassette unit								X						X								
											X			X								
4-way cassette unit								X						X								
											X			X								
Mid static (concealed) unit								X						X								
											X			X								
Convertible air handler (9-18 MBH)														X								
														X								

Controls

Zone Controllers

Type	Figure	Model Number
Wireless remote control <ul style="list-style-type: none"> • Mode: heat/cool/auto/off • Fan: auto/high/med/low • Service indicator Note: Requires the use of a duct signal receiver when used with a 4MUD ducted product.		TVCTRLTRDH00UT
Wired remote control <ul style="list-style-type: none"> • Mode: heat/cool/auto/off • Fan: auto/high/med/low • Programmable • Service indicator 		TVCTRLTWRWD02T

Centralized Control Systems

Type	Model Number
VRF touch screen control	TVCTRLTCMA300T

Integrated System Management

Type	Model Number
VRF power meter interface (PIM)	TVCTRLTIMB16A0

Building Management System Gateways

Type	Model Number
VRF system controller+BACnet® Note: This controller enables BACnet integration.	TVCTRLSCBB17A0

Interface Modules

Type	Model Number
VRF external contact interface module/auxiliary heat module	TVCTRLTIMB14A0

Sensors

Type	Model Number
VRF external room temperature sensor	TVCTRLTRWTA000



Products

Commissioning Utility Kits

Type	Model Number
VRF Technician Utilities Tool (TUT)	TVCTRLTMC0300

Accessories

Family	Description	Model Number
Indoor Y-joints	51 MBH and below	4YDK1509B0051A
	52-136 MBH	4YDK2512B0138A
	137-154 MBH	4YDK2812B0160A
	155-240 MBH	4YDK2815B0240A
	241-336 MBH	4YDK3419B0336A
	337-461 MBH	4YDK4119B0468A
	Above 461	4YDK4422B0999A
Indoor Y-points for heat recover (high-pressure gas)	76 MBH and below	4YDK1500B0080A
	77-240 MBH	4YDK2500B0240A
	241-461 MBH	4YDK3100B0468A
	Above 461	4YDK3800B0999A
Distribution headers	154 MBH and below (max. number of connections: 4)	4HJK2512B0159A
	240 MBH and below (max. number of connections: 8)	4HJK3115B0241A
	Above 240 MBH (max. number of connections: 8)	4HJK3819B0998A
Outdoor Y-joints	456 MBH and below	4TDK3819B0000A
	Above 456 MBH	4TDK4422B0999A
Outdoor Y-joints for heat recovery (high-pressure gas)	456 MBH and below	4TDK3100B0000A
	Above 456 MBH	4TDK3800B0999A
AHU kits	24-30 MBH	4EEVAKA40K1025
	48-60 MBH	4EEVAKA40K1050
	72-90 MBH	4EEVAKA64K1075
	96-119 MBH	4EEVAKA64K1100
Mode control units (MCUs) for simultaneous heating and cooling applications	Maximum connectable IDUs: 6 (maximum capacity of IDUs: 216 MBH)	4MCUTV6A548B
	Maximum connectable IDUs: 4 (maximum capacity of IDUs: 216 MBH)	4MCUTV4A548B
	Maximum connectable IDUs: 2 (maximum capacity of IDUs: 108 MBH)	4MCUTV2A548B
	Maximum connectable IDUs: 1 (maximum capacity of IDUs: 54 MBH)	4MCUTV1A548B
Pressure differential module (for high-rise applications)	Pressure Differential Module 6/8/10 Ton	MXD-A12K2A
	Pressure Differential Module 12/14/16 Ton	MXD-A38K2A
Hail guards	4TVH/R0072	TVRGARD001A
	4TVH/R00096-192	TVRGARD002A
	4TVH0036/48/53	TVRGARD003A
Wind baffles	4TVH/R0072	TVRWINDSNOW001
	4TVH/R00096-192	TVRWINDSNOW002
Low ambient cooling to -13F	4TVH/R0072	PROCOOLK01AA
	4TVH/R00096-192	PROCOOLK02AA



Product Specifications

Table 3. 208–230 V heat pump single modules: 6–10 ton capacity

Model name				4TVH0072C300NA		4TVH0096C300NA		4TVH0120C300NA	
Power supply				208-230/60/3		208-230/60/3		208-230/60/3	
Nominal tons				6.0		8.0		10.0	
System type				Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted
Performance	Capacity (nominal) ¹	Cooling	Btu/h	72,000	72,000	96,000	96,000	120,000	120,000
		Heating	Btu/h	81,000	81,000	108,000	108,000	135,000	135,000
	Capacity (rated) ²	Cooling	Btu/h	69,000	69,000	92,000	92,000	114,000	114,000
		High temp heating	Btu/h	77,000	77,000	103,000	103,000	129,000	129,000
		Low temp heating	Btu/h	51,000	51,000	67,000	67,000	84,000	84,000
	AHRI -1230 efficiency ratings ²	EER	-	11.50	14.60	11.60	15.00	11.90	13.10
		IEER	-	22.50	33.00	23.00	38.20	23.00	28.70
		COP @ 47°F	-	3.46	4.35	3.60	4.46	3.54	3.97
		COP @ 17°F	-	2.49	2.80	2.47	2.90	2.58	2.62
		SCHE	-	-	-	-	-	-	-
Power	MCA		A	28		37.8		43.0	
	MOP		A	35		50		50	
	SCCR		kA	5		5		5	
Compressor	Type (qty)		-	SSC scroll (1)		SSC scroll (2)		SSC scroll (2)	
	Model name		-	DS-GB052FBVASG		DS-GB052FBVASG x 2		DS-GB052FBVASG x 2	
	Oil	Type	-	PVE		PVE		PVE	
		Initial charge	fl. oz.	131.9		209.6		209.6	
Fan	Type (qty)		-	Propeller (1)		Propeller (2)		Propeller (2)	
	Output (each)		W	630		620		620	
	Airflow rate		CFM	7,240		9,180		9,180	
	External static pressure		in. WG	0.31		0.31		0.31	
Piping connections	Liquid pipe		dia. in.	3/8 braze		3/8 braze		1/2 braze	
	Gas pipe		dia. in.	3/4 braze		7/8 braze		1-1/8 braze	
	High pressure gas pipe (for HR)		dia. in.	N/A		N/A		N/A	
	Installation limits	Max length ³	ft	656		656		656	
		Max height ⁴	ft	361		361		361	
Indoor unit connections	Number of connectable IDUs		-	12		16		20	
	Total capacity (cooling)		Btu/h	36,000 - 93,600		48,000 - 124,800		60,000 - 156,000	
Refrigerant	Type		-	R410A		R410A		R410A	
	Factory charge		lbs.	12.1		16.3		16.3	

Table 3. 208–230 V heat pump single modules: 6–10 ton capacity (continued)

Model name			4TVH0072C300NA	4TVH0096C300NA	4TVH0120C300NA
Power supply			208-230/60/3		
Nominal tons			6.0		
System type			Ducted	Non-ducted	Ducted
Sound ⁵	Sound pressure	dB(A)	60		61
	Sound power	dB(A)	77		81
External dimensions	Net weight	lbs.	425		624
	Shipping weight	lbs.	461		666
	Net dimensions (WxHxD)	in.	34-5/8 x 66-3/4 x 30-1/8		51 x 66-3/4 x 30-1/8
	Shipping dimensions (WxHxD)	in.	37-3/8 x 75-1/4 x 32-3/4		53-5/8 x 75-1/4 x 32-3/4
Operating temp range	Cooling	°F	23 – 120 standard (-13 to 120, see footnote 6)		23 – 120 standard (-13 to 120, see footnote 6)
	Heating	°F	-13 – 75		-13 – 75

Notes:

- Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
- Rated per AHRI-1230 Standard conditions
- Actual length (equivalent length in parenthesis)
- If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
- Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
- 13°F cooling with low ambient cooling kit.



Product Specifications

Table 4. 208–230 V heat pump single modules: 12–16 ton capacity

Model name				4TVH0144C300NA		4TVH0168C300NA		4TVH0192C300NA	
Power supply				208-230/60/3		208-230/60/3		208-230/60/3	
Nominal tons				12.0		14.0		16.0	
System type				Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted
Performance	Capacity (nominal) ¹	Cooling	Btu/h	144,000	144,000	168,000	168,000	192,000	192,000
		Heating	Btu/h	162,000	162,000	189,000	189,000	216,000	216,000
	Capacity (rated) ²	Cooling	Btu/h	138,000	138,000	160,000	160,000	184,000	184,000
		High temp heating	Btu/h	154,000	154,000	180,000	180,000	206,000	206,000
		Low temp heating	Btu/h	100,000	100,000	118,000	118,000	134,000	134,000
	AHRI -1230 efficiency ratings ²	EER	-	11.70	12.00	10.60	10.90	10.60	10.60
		IEER	-	21.60	26.50	20.80	24.50	21.00	23.00
		COP @ 47°F	-	3.54	3.81	3.21	3.65	3.20	3.50
		COP @ 17°F	-	2.42	2.55	2.25	2.50	2.20	2.45
		SCHE	-	-	-	-	-	-	-
Power	MCA		A	52.6		66.0		73.0	
	MOP		A	70		80		90	
	SCCR		kA	5		5		5	
Compressor	Type (qty)		-	SSC scroll (2)		SSC scroll (2)		SSC scroll (2)	
	Model name		-	DS-GB052FBVASG x 2		DS-GB052FBVASG x 2		DS4GJ5066EVASG x 2	
	Oil	Type	-	PVE		PVE		PVE	
		Initial charge	fl. oz.	209.6		209.6		209.6	
Fan	Type (qty)		-	Propeller (2)		Propeller (2)		Propeller (2)	
	Output (each)		W	620		620		620	
	Airflow rate		CFM	9,535		10,950		10,950	
	External static pressure		in. WG	0.31		0.31		0.31	
Piping connections	Liquid pipe		dia. in.	1/2 braze		5/8 braze		5/8 braze	
	Gas pipe		dia. in.	1-1/8 braze		1-1/8 braze		1-1/8 braze	
	High pressure gas pipe (for HR)		dia. in.	N/A		N/A		N/A	
	Installation limits	Max length ³	ft	656		656		656	
		Max height ⁴	ft	361		361		361	
Indoor unit connections	Number of connectable IDUs		-	25		29		33	
	Total capacity (cooling)		Btu/h	72,000–187,200		84,000–218,400		96,000–249,600	
Refrigerant	Type		-	R410A		R410A		R410A	
	Factory charge		lbs.	19.2		24.3		24.3	
Sound ⁵	Sound pressure		dB(A)	62		63		64	
	Sound power		dB(A)	83		85		86	

Table 4. 208–230 V heat pump single modules: 12–16 ton capacity (continued)

Model name			4TVH0144C300NA	4TVH0168C300NA	4TVH0192C300NA
Power supply			208-230/60/3		208-230/60/3
Nominal tons			12.0		14.0
System type			Ducted	Non-ducted	Ducted
					Ducted
External dimensions	Net weight	lbs.	657		717
	Shipping weight	lbs.	699		754
	Net dimensions (WxHxD)	in.	51 x 66-3/4 x 30-1/8		51 x 66-3/4 x 30-1/8
	Shipping dimensions (WxHxD)	in.	53-5/8 x 75-3/8 x 32-3/4		53-5/8 x 75-3/8 x 32-3/4
Operating temp range	Cooling	°F	23 – 120 standard (-13 to 120, see footnote 6)		23 – 120 standard (-13 to 120, see footnote 6)
	Heating	°F	-13 – 75		-13 – 75

Notes:

1. Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - **Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - **Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
2. Rated per AHRI-1230 Standard conditions
3. Actual length (equivalent length in parenthesis)
4. If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
5. Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
6. -13°F cooling with low ambient cooling kit.



Product Specifications

Table 5. 208-230 V heat pump dual modules: 18–24 ton capacity

Model name				4TVH0216C300NA		4TVH0240C300NA		4TVH0264C300NA		4TVH0288C300NA		
Individual Models				4TVH0072C300NA + 4TVH0144C300NA		4TVH0072C300NA + 4TVH0168C300NA		4TVH0072C300NA + 4TVH0192C300NA		2x 4TVH0144C300NA		
Power supply				208-230/60/3		208-230/60/3		208-230/60/3		208-230/60/3		
Nominal tons				18.0		20.0		22.0		24.0		
System type				Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted	
Performance	Capacity (nominal) ¹	Cooling	Bt-u/h	216,000	216,000	240,000	240,000	264,000	264,000	288,000	288,000	
		Heating	Bt-u/h	243,000	243,000	270,000	270,000	297,000	297,000	324,000	324,000	
	Capacity (rated) ²	Cooling	Bt-u/h	206,000	206,000	228,000	228,000	252,000	252,000	276,000	276,000	
		High temp heating	Bt-u/h	230,000	230,000	258,000	258,000	282,000	282,000	308,000	308,000	
		Low temp heating	Bt-u/h	150,000	150,000	168,000	168,000	184,000	184,000	200,000	200,000	
	AHRI -1230 efficiency ratings ²	EER	-	10.60	10.80	10.60	10.60	10.10	10.10	10.00	12.00	
		IEER	-	20.50	22.40	20.10	22.00	19.60	21.90	21.60	22.00	
		COP @ 47° F	-	3.34	3.63	3.20	3.51	3.20	33.50	3.32	3.58	
		COP @ 17° F	-	2.31	2.52	2.40	2.38	2.17	2.31	2.35	2.48	
		SCHE	-	-	-	-	-	-	-	-	-	
	Power	MCA	A		Each individual outdoor unit requires a separate electrical connection. Refer to the electrical data for each individual outdoor unit.							
		MOP	A									
		SCCR	kA									
Compressor	Type (qty)	-		SSC scroll (3)		SSC scroll (3)		SSC scroll (3)		SSC scroll (4)		
	Model name	-		DS-GB052FBVASG x 3		DS-GB052FBVASG x 3		DS-GB052FBVASG x 1 + DS4GJ5066EVASG x 2		DS-GB052FBVASG x 4		
	Oil	Type	-		PVE		PVE		PVE		PVE	
		Initial charge	fl. oz.	341.5		341.5		341.5		419.2		
Fan	Type (qty)	-		Propeller (3)		Propeller (3)		Propeller (3)		Propeller (4)		
	Output (each)	W	630 + (620 x 2)		630 + (620 x 2)		630 + (620 x 2)		(620 x 2) + (620 x 2)			
	Airflow rate	CF-M	7,240 + 9,535		7,240 + 10,950		7,240 + 10,950		9,535 x 2			
	External static pressure	in. WG	0.31		0.31		0.31		0.31			

Table 5. 208-230 V heat pump dual modules: 18–24 ton capacity (continued)

Model name			4TVH0216C300NA	4TVH0240C300NA	4TVH0264C300NA	4TVH0288C300NA			
Individual Models			4TVH0072C300NA + 4TVH0144C300NA	4TVH0072C300NA + 4TVH0168C300NA	4TVH0072C300NA + 4TVH0192C300NA	2x 4TVH0144C300NA			
Power supply			208-230/60/3	208-230/60/3	208-230/60/3	208-230/60/3			
Nominal tons			18.0	20.0	22.0	24.0			
System type			Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted	
Piping connections	Liquid pipe	dia. in.	5/8 braze	5/8 braze	3/4 braze	3/4 braze			
	Gas pipe	dia. in.	1-1/8 braze	1-1/8 braze	1-3/8 braze	1-3/8 braze			
	High pressure gas pipe (for HR)	dia. in.	N/A	N/A	N/A	N/A			
	Installation limits	Max length ³	ft	656	656	656	656		
		Max height ⁴	ft	361	361	361	361		
Indoor unit connections	Number of connectable IDUs	-	37	41	45	49			
	Total capacity (cooling)	Bt-u/h	108,000 - 280,800	120,000 - 312,000	132,000 - 343,200	144,000 - 374,400			
Refrigerant	Type	-	R410A	R410A	R410A	R410A			
	Factory charge	lbs.	31.3	36.4	36.4	38.4			
Sound ⁵	Sound pressure	dB (A)	64	65	65	65			
	Sound power	dB (A)	84	86	87	86			



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Table 5. 208-230 V heat pump dual modules: 18–24 ton capacity (continued)

Model name			4TVH0216C300NA	4TVH0240C300NA	4TVH0264C300NA	4TVH0288C300NA			
Individual Models			4TVH0072C300NA + 4TVH0144C300NA	4TVH0072C300NA + 4TVH0168C300NA	4TVH0072C300NA + 4TVH0192C300NA	2x 4TVH0144C300NA			
Power supply			208-230/60/3	208-230/60/3	208-230/60/3	208-230/60/3			
Nominal tons			18.0	20.0	22.0	24.0			
System type			Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted	
External dimensions	Net weight	lbs.	425 + 657		425 + 716		425 + 734		657 x 2
	Shipping weight	lbs.	461 + 699		461 + 754		461 + 772		699 x 2
	Net dimensions (WxHxD)	in.	34-5/8 x 66-3/4 x 30-1/8 + 51 x 66-3/4 x 30-1/8		34-5/8 x 66-3/4 x 30-1/8 + 51 x 66-3/4 x 30-1/8		34-5/8 x 66-3/4 x 30-1/8 + 51 x 66-3/4 x 30-1/8		(51 x 66-3/4 x 30-1/8) x 2
	Shipping dimensions (WxHxD)	in.	37-3/8 x 75-1/4 x 32-3/4 + 53-5/8 x 75-1/4 x 32-3/4		37-3/8 x 75-1/4 x 32-3/4 + 53-5/8 x 75-1/4 x 32-3/4		37-3/8 x 75-1/4 x 32-3/4 + 53-5/8 x 75-1/4 x 32-3/4		(53-5/8 x 75-1/4 x 32-3/4) x 2
Operating temp range	Cooling	°F	23 — 120 standard (-13 to 120, see footnote 6)		23 — 120 standard (-13 to 120, see footnote 6)		23 — 120 standard (-13 to 120, see footnote 6)		23 — 120 standard (-13 to 120, see footnote 6)
	Heating	°F	-13 — 75		-13 — 75		-13 — 75		-13 — 75

Notes:

- Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
- Rated per AHRI-1230 Standard conditions
- Actual length (equivalent length in parenthesis)
- If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
- Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
- 13°F cooling with low ambient cooling kit.

Table 6. 208-230 V heat pump dual modules: 26–32 ton capacity

Model name				4TVH0312C300NA		4TVH0336C300NA		4TVH0360C300NA		4TVH0384C300NA		
Individual Models				4TVH0144C300NA + 4TVH0168C300NA		2x 4TVH0168C300NA		4TVH0168C300NA + 4TVH0192C300NA		2x 4TVH0192C300NA		
Power supply				208-230/60/3		208-230/60/3		208-230/60/3		208-230/60/3		
Nominal tons				26.0		28.0		30.0		32.0		
System type				Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted	
Performance	Capacity (nominal) ¹	Cooling	Bt-u/h	312,000	312,000	336,000	336,000	360,000	288,000	384,000	384,000	
		Heating	Bt-u/h	351,000	351,000	378,000	378,000	405,000	405,000	432,000	432,000	
	Capacity (rated) ²	Cooling	Bt-u/h	298,000	298,000	320,000	320,000	344,000	344,000	366,000	366,000	
		High temp heating	Bt-u/h	334,000	334,000	360,000	360,000	386,000	386,000	410,000	410,000	
		Low temp heating	Bt-u/h	218,000	218,000	234,000	234,000	250,000	250,000	268,000	268,000	
	AHRI-1230 efficiency ratings ²	EER	-	9.90	9.90	9.80	9.80	9.70	9.70	9.70	9.70	
		IEER	-	20.10	20.40	19.40	20.30	18.90	20.00	18.50	19.50	
		COP @ 47° F	-	3.20	3.24	3.20	3.20	3.20	3.20	3.20	3.20	
		COP @ 17° F	-	2.41	2.46	2.38	2.43	2.38	2.42	2.42	2.41	
		SCHE	-	-	-	-	-	-	-	-	-	
	Power	MCA	A		Each individual outdoor unit requires a separate electrical connection. Refer to the electrical data for each individual outdoor unit.							
		MOP	A									
SCCR		kA										
Compressor	Type (qty)	-		SSC scroll (4)		SSC scroll (4)		SSC scroll (4)		SSC scroll (4)		
	Model name	-		DS-GB052FBVASG x 4		DS-GB052FBVASG x 4		DS-GB052FBVASG x 2 + DS4GJ5066EVASG x 2		DS4GJ5066EVASG x 4		
	Oil	Type	-		PVE		PVE		PVE		PVE	
		Initial charge	fl. oz.	419.2		419.2		419.2		419.2		
Fan	Type (qty)	-		Propeller (4)		Propeller (4)		Propeller (4)		Propeller (4)		
	Output (each)	W	(620 x 2) + (620 X 2)		(620 x 2) + (620 X 2)		(620 x 2) + (620 X 2)		(620 x 2) + (620 X 2)			
	Airflow rate	CF-M	9535 + 10,950		10,950 x 2		10,950 x 2		10,950 x 2			
	External static pressure	in. WG	0.31		0.31		0.31		0.31			



Product Specifications

Table 6. 208-230 V heat pump dual modules: 26–32 ton capacity (continued)

Model name			4TVH0312C300NA	4TVH0336C300NA	4TVH0360C300NA	4TVH0384C300NA	
Individual Models			4TVH0144C300NA + 4TVH0168C300NA	2x 4TVH0168C300NA	4TVH0168C300NA + 4TVH0192C300NA	2x 4TVH0192C300NA	
Power supply			208-230/60/3	208-230/60/3	208-230/60/3	208-230/60/3	
Nominal tons			26.0	28.0	30.0	32.0	
System type			Ducted	Non-ducted	Ducted	Non-ducted	
Piping connections	Liquid pipe	dia. in.	3/4 braze	3/4 braze	3/4 braze	3/4 braze	
	Gas pipe	dia. in.	1-3/8 braze	1-3/8 braze	1-5/8 braze	1-5/8 braze	
	High pressure gas pipe (for HR)	dia. in.	N/A	N/A	N/A	N/A	
	Installation limits	Max length ³	ft	656	656	656	656
		Max height ⁴	ft	361	361	361	361
Indoor unit connections	Number of connectable IDUs	-	54	58	62	64	
	Total capacity (cooling)	Bt-u/h	156,000 - 405,600	168,000 - 436,800	180,000 - 468,000	192,000 - 499,200	
Refrigerant	Type	-	R410A	R410A	R410A	R410A	
	Factory charge	lbs.	43.4	48.5	48.5	48.5	
Sound ⁵	Sound pressure	dB (A)	66	66	66	67	
	Sound power	dB (A)	87	88	87	88	
External dimensions	Net weight	lbs.	657 + 717	717 x 2	717 + 734	734 x 2	
	Shipping weight	lbs.	699 + 754	754 x 2	754 + 772	772 x 2	
	Net dimensions (WxHxD)	in.	(51 x 66-3/4 x 30-1/8) x 2	(51 x 66-3/4 x 30-1/8) x 2	(51 x 66-3/4 x 30-1/8) x 2	(51 x 66-3/4 x 30-1/8) x 2	
	Shipping dimensions (WxHxD)	in.	(53-5/8 x 75-1/4 x 32-3/4) x 2	(53-5/8 x 75-1/4 x 32-3/4) x 2	(53-5/8 x 75-1/4 x 32-3/4) x 2	((53-5/8 x 75-1/4 x 32-3/4) x 2)	

Table 6. 208-230 V heat pump dual modules: 26–32 ton capacity (continued)

Model name			4TVH0312C300NA	4TVH0336C300NA	4TVH0360C300NA	4TVH0384C300NA		
Individual Models			4TVH0144C300NA + 4TVH0168C300NA	2x 4TVH0168C300NA	4TVH0168C300NA + 4TVH0192C300NA	2x 4TVH0192C300NA		
Power supply			208-230/60/3	208-230/60/3	208-230/60/3	208-230/60/3		
Nominal tons			26.0	28.0	30.0	32.0		
System type			Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted
Operating temp range	Cooling	°F	23 – 120 standard (-13 to 120, see footnote 6)	23 – 120 standard (-13 to 120, see footnote 6)	23 – 120 standard (-13 to 120, see footnote 6)	23 – 120 standard (-13 to 120, see footnote 6)	23 – 120 standard (-13 to 120, see footnote 6)	
	Heating	°F	-13 – 75	-13 – 75	-13 – 75	-13 – 75	-13 – 75	

Notes:

- Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
- Rated per AHRI-1230 Standard conditions
- Actual length (equivalent length in parenthesis)
- If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
- Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
- 13°F cooling with low ambient cooling kit.



Product Specifications

Table 7. 208 – 230 V heat pump triple modules: 34–38 ton capacity

Model name				4TVH0408C300NA		4TVH0432C300NA		4TVH0456C300NA	
Individual Models				4TVH0072C300NA + 4TVH0144C300NA + 4TVH0192C300NA		3x 4TVH0144C300NA		4TVH0120C300NA + 2x 4TVH0168C300NA	
Power supply				208-230/60/3		208-230/60/3		208-230/60/3	
Nominal tons				34.0		36.0		38.0	
System type				Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted
Performance	Capacity (nominal) ¹	Cooling	Btu/h	408,000	408,000	432,000	432,000	456,000	456,000
		Heating	Btu/h	459,000	459,000	486,000	486,000	513,000	513,000
	Capacity (rated) ²	Cooling	Btu/h	390,000	390,000	415,000	415,000	435,000	435,000
		High temp heating	Btu/h	435,000	435,000	460,000	460,000	490,000	490,000
		Low temp heating	Btu/h	284,000	284,000	300,000	300,000	320,000	320,000
	AHRI -1230 efficiency ratings ²	EER	-	9.80	9.80	9.60	9.60	9.70	9.70
		IEER	-	17.80	19.10	17.00	19.10	16.60	19.00
		COP @ 47° F	-	3.20	3.20	3.20	3.20	3.22	3.23
		COP @ 17° F	-	2.36	2.36	2.28	2.33	2.17	2.27
		SCHE	-	-	-	-	-	-	-
Power	MCA		A	Each individual outdoor unit requires a separate electrical connection. Refer to the electrical data for each individual outdoor unit.					
	MOP		A						
	SCCR		kA						
Compressor	Type (qty)		-	SSC scroll (5)		SSC scroll (6)		SSC scroll (6)	
	Model name		-	DS-GB052FBVASG x 3 + DS4GJ5066EVASG x 2		DS-GB052FBVASG x 6		DS-GB052FBVASG x 6	
	Oil	Type	-	PVE		PVE		PVE	
		Initial charge	fl. oz.	551.1		628.8		628.8	
Fan	Type (qty)		-	Propeller (6)		Propeller (6)		Propeller (6)	
	Output (each)		W	630 + (620 x 2) + (620 X 2)		(620 x 2) + (620 x 2) + (620 X 2)		(620 x 2) + (620 x 2) + (620 X 2)	
	Airflow rate		CFM	7,240 + 9,535 + 10,950		9,535 x 3		9,180 + (10,950 x 2)	
	External static pressure		in. WG	0.31		0.31		0.31	
Piping connections	Liquid pipe		dia. in.	3/4 braze		3/4 braze		3/4 braze	
	Gas pipe		dia. in.	1-5/8 braze		1-5/8 braze		1-5/8 braze	
	High pressure gas pipe (for HR)		dia. in.	N/A		N/A		N/A	
	Installation limits	Max length ³	ft	656		656		656	
		Max height ⁴	ft	361		361		361	

Table 7. 208 – 230 V heat pump triple modules: 34–38 ton capacity (continued)

Model name			4TVH0408C300NA	4TVH0432C300NA	4TVH0456C300NA	
Individual Models			4TVH0072C300NA + 4TVH0144C300NA + 4TVH0192C300NA	3x 4TVH0144C300NA	4TVH0120C300NA + 2x 4TVH0168C300NA	
Power supply			208-230/60/3	208-230/60/3	208-230/60/3	
Nominal tons			34.0	36.0	38.0	
System type			Ducted	Non-ducted	Ducted	Non-ducted
Indoor unit connections	Number of connectable IDUs	-	64	64	64	
	Total capacity (cooling)	Btu/h	204,000 - 530,400	216,000 - 561,600	228,000 - 592,800	
Refrigerant	Type	-	R410A	R410A	R410A	
	Factory charge	lbs.	55.6	57.5	64.8	
Sound ⁵	Sound pressure	dB(A)	67	67	67	
	Sound power	dB(A)	88	88	89	
External dimensions	Net weight	lbs.	425 + 657 + 734	657 x 3	624 + (717 x 2)	
	Shipping weight	lbs.	461 + 699 + 772	699 x 3	666 + (754 x 2)	
	Net dimensions (WxHxD)	in.	34-5/8 x 66-3/4 x 1/8 + (51 x 66-3/4 x 30-1/8) x 2	(51 x 66-3/4 x 30-1/8) x 3	(51 x 66-3/4 x 30-1/8) x 3	
	Shipping dimensions (WxHxD)	in.	37-3/8 x 75-1/4 x 32-3/4 + (53-5/8 x 75-1/4 x 32-3/4) x 2	(53-5/8 x 75-1/4 x 32-3/4 x 3	(53-5/8 x 75-1/4 x 32-3/4 x 3	
Operating temp range	Cooling	°F	23 – 120 standard (-13 to 120, see footnote 6)	23 – 120 standard (-13 to 120, see footnote 6)	23 – 120 standard (-13 to 120, see footnote 6)	
	Heating	°F	-13 – 75	-13 – 75	-13 – 75	

Notes:

- Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
- Rated per AHRI-1230 Standard conditions
- Actual length (equivalent length in parenthesis)
- If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
- Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
- 13°F cooling with low ambient cooling kit.



Product Specifications

Table 8. 208–230 V heat pump triple modules: 40–44 ton capacity

Model name				4TVH0480C300NA		4TVH0504C300NA		4TVH0528C300NA	
Individual Models				4TVH0144C300NA + 2x 4TVH0168C300NA		3x 4TVH0168C300NA		2x 4TVH0168C300NA + 4TVH0192C300NA	
Power supply				208-230/60/3		208-230/60/3		208-230/60/3	
Nominal tons				40.0		42.0		44.0	
System type				Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted
Performance	Capacity (nominal) ¹	Cooling	Btu/h	480,000	480,000	504,000	504,000	528,000	528,000
		Heating	Btu/h	540,000	540,000	567,000	567,000	594,000	594,000
	Capacity (rated) ²	Cooling	Btu/h	455,000	455,000	480,000	480,000	500,000	500,000
		High temp heating	Btu/h	510,000	510,000	535,000	535,000	560,000	560,000
		Low temp heating	Btu/h	332,000	332,000	348,000	348,000	364,000	364,000
	AHRI -1230 efficiency ratings ²	EER	-	9.60	9.60	9.60	9.60	9.50	9.50
		IEER	-	16.60	18.60	16.40	18.40	16.00	18.00
		COP @ 47° F	-	3.21	3.21	3.21	3.21	3.20	3.20
		COP @ 17° F	-	2.13	2.23	2.11	2.21	2.10	2.05
		SCHE	-	-	-	-	-	-	-
Power	MCA		A	Each individual outdoor unit requires a separate electrical connection. Refer to the electrical data for each individual outdoor unit.					
	MOP		A						
	SCCR		kA						
Compressor	Type (qty)		-	SSC scroll (6)		SSC scroll (6)		SSC scroll (6)	
	Model name		-	DS-GB052FBVASG x 6		DS-GB052FBVASG x 6		DS-GB052FBVASG x 4 + DS4GJ5066EVASG x 2	
	Oil	Type	-	PVE		PVE		PVE	
		Initial charge	fl. oz.	628.8		628.8		628.8	
Fan	Type (qty)		-	Propeller (6)		Propeller (6)		Propeller (6)	
	Output (each)		W	(620 x 2) + (620 x 2) + (620 X 2)		(620 x 2) + (620 x 2) + (620 X 2)		(620 x 2) + (620 x 2) + (620 X 2)	
	Airflow rate		CFM	9,535 + (10,950 x 2)		10,950 x 3		10,950 x 3	
	External static pressure		in. WG	0.31		0.31		0.31	
Piping connections	Liquid pipe		dia. in.	3/4 braze		3/4 braze		3/4 braze	
	Gas pipe		dia. in.	1-5/8 braze		1-5/8 braze		1-5/8 braze	
	High pressure gas pipe (for HR)		dia. in.	N/A		N/A		N/A	
	Installation limits	Max length ³	ft	656		656		656	
		Max height ⁴	ft	361		361		361	

Table 8. 208–230 V heat pump triple modules: 40–44 ton capacity (continued)

Model name			4TVH0480C300NA	4TVH0504C300NA	4TVH0528C300NA	
Individual Models			4TVH0144C300NA + 2x 4TVH0168C300NA	3x 4TVH0168C300NA	2x 4TVH0168C300NA + 4TVH0192C300NA	
Power supply			208-230/60/3			
Nominal tons			40.0			
System type			Ducted	Non-ducted	Ducted	Non-ducted
Indoor unit connections	Number of connectable IDUs	-	64		64	
	Total capacity (cooling)	Btu/h	240,000 - 624,000		252,000 - 655,200	
Refrigerant	Type	-	R410A		R410A	
	Factory charge	lbs.	67.9		72.8	
Sound ⁵	Sound pressure	dB(A)	67		68	
	Sound power	dB(A)	89		90	
External dimensions	Net weight	lbs.	657 + (717 x 2)		717 x 3	
	Shipping weight	lbs.	699 + (754 x 2)		754 x 3	
	Net dimensions (WxHxD)	in.	(51 x 66-3/4 x 30-1/8) x 3		(51 x 66-3/4 x 30-1/8) x 3	
	Shipping dimensions (WxHxD)	in.	(53-5/8 x 75-1/4 x 32-3/4) x 3		(53-5/8 x 75-1/4 x 32-3/4) x 3	
Operating temp range	Cooling	°F	23 — 120 standard (-13 to 120, see footnote 6)		23 — 120 standard (-13 to 120, see footnote 6)	
	Heating	°F	-13 - 75		-13 - 75	

Notes:

- Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
- Rated per AHRI-1230 Standard conditions
- Actual length (equivalent length in parenthesis)
- If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
- Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
- 13°F cooling with low ambient cooling kit.



Product Specifications

Table 9. 208–230 V heat recovery single modules: 6–10 ton capacity

Model name				4TVR0072C300NA		4TVR0096C300NA		4TVR0120C300NA	
Power supply				208–230/60/3		208–230/60/3		208–230/60/3	
Nominal tons				6.0		8.0		10.0	
System type				Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted
Performance	Capacity (nominal) ¹	Cooling	Btu/h	72,000	72,000	96,000	96,000	120,000	120,000
		Heating	Btu/h	81,000	81,000	108,000	108,000	135,000	135,000
	Capacity (rated) ²	Cooling	Btu/h	69,000	69,000	92,000	92,000	114,000	114,000
		High temp heating	Btu/h	77,000	77,000	103,000	103,000	129,000	129,000
		Low temp heating	Btu/h	51,000	51,000	67,000	67,000	84,000	84,000
	AHRI -1230 efficiency ratings ²	EER	-	11.50	14.60	11.60	15.00	11.90	13.10
		IEER	-	22.50	33.00	23.00	38.20	23.00	28.70
		COP @ 47°F	-	3.46	4.32	3.60	4.46	3.54	3.97
		COP @ 17°F	-	2.49	2.80	2.47	2.90	2.58	2.62
		SCHE	-	27.00	29.00	27.50	34.10	26.50	32.00
Power	MCA		A	28		37.8		43.0	
	MOP		A	35		50		50	
	SCCR		kA	5		5		5	
Compressor	TYPE (qty)		-	SSC scroll (1)		SSC scroll (2)		SSC scroll (2)	
	Model name		-	DS-GB052FBVASG		DS-GB052FBVASG x 2		DS-GB052FBVASG x 2	
	OIL	Type	-	PVE		PVE		PVE	
		Initial charge	fl. oz.	131.9		209.6		209.6	
Fan	Type (qty)		-	Propeller (1)		Propeller (2)		Propeller (2)	
	Output (each)		W	630		620		620	
	Airflow rate		CFM	7,240		9,180		9,180	
	External static pressure		in. WG	0.31		0.31		0.31	
Piping connections	Liquid pipe		dia. in.	3/8 braze		3/8 braze		1/2 braze	
	Gas pipe		dia. in.	3/4 braze		7/8 braze		1-1/8 braze	
	High pressure gas pipe (for HR)		dia. in.	5/8 braze		3/4 braze		7/8 braze	
	Installation limits	Max length ³	ft	656		656		656	
		Max height ⁴	ft	361		361		361	

Table 9. 208–230 V heat recovery single modules: 6–10 ton capacity (continued)

Model name			4TVR0072C300NA	4TVR0096C300NA	4TVR0120C300NA
Power supply			208–230/60/3		
Nominal tons			6.0		
System type			Ducted	Non-ducted	Ducted
Indoor unit connections	Number of connectable IDUs	-	12		16
	Total capacity (cooling)	Btu/h	36,000 – 93,600		48,000 – 124,800
Refrigerant	Type	-	R410A		R410A
	Factory charge	lbs.	12.1		16.3
Sound ⁵	Sound pressure	dB(A)	60.0		61.0
	Sound power	dB(A)	77		81
External dimensions	Net weight	lbs.	430		637
	Shipping weight	lbs.	465		679
	Net dimensions (WxHxD)	in.	34-5/8 x 66-3/4 x 30-1/8		51 x 66-3/4 x 30-1/8
	Shipping dimensions (WxHxD)	in.	37.32 x 75.28 x 32.76		53-5/8 x 75-1/4 x 32-3/4
Operating temp range	Cooling ⁶	°F	5 – 120 (-13 to 120, see footnote 7)		5 – 120 (-13 to 120, see footnote 7)
	Heating	°F	-13 - 75		-13 - 75

Notes:

- Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
- Rated per AHRI-1230 Standard conditions
- Actual length (equivalent length in parenthesis)
- If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
- Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
- Cooling operation between 23°F and 5°F requires twin porting of the applicable indoor units.
- 13°F cooling with low ambient cooling kit.



Product Specifications

Table 10. 208–230 V heat recovery single modules: 12–16 ton capacity

Model name			4TVR0144C300NA	4TVR0168C300NA	4TVR0192C300NA				
Power supply			208–230/60/3						
Nominal tons			12.0		14.0				
System type			Ducted	Non-ducted	Ducted				
					Ducted				
Performance	Capacity (nominal) ¹	Cooling	Btu/h	144,000	144,000	168,000	168,000	192,000	192,000
		Heating	Btu/h	162,000	162,000	189,000	189,000	216,000	216,000
	Capacity (rated) ²	Cooling	Btu/h	138,000	138,000	160,000	160,000	184,000	184,000
		High temp heating	Btu/h	154,000	154,000	180,000	180,000	206,000	206,000
		Low temp heating	Btu/h	100,000	100,000	118,000	118,000	134,000	134,000
	AHRI -1230 efficiency ratings ²	EER	-	11.70	12.00	10.60	10.90	10.60	10.60
		IEER	-	21.60	26.50	20.80	24.50	21.00	23.00
		COP @ 47°F	-	3.54	3.81	3.21	3.65	3.20	3.50
		COP @ 17°F	-	2.42	2.55	2.25	2.50	2.20	2.45
		SCHE	-	26.00	27.50	25.00	26.50	23.50	26.00
Power	MCA		A	52.6	66.0	73.0A			
	MOP		A	70	80	90			
	SCCR		kA	5	5	5			
Compressor	TYPE (qty)		-	SSC scroll (2)	SSC scroll (2)	SSC scroll (2)			
	Model name		-	DS-GB052FBVASG x 2	DS-GB052FAVBSG	DS4GJ5066EVASG			
	OIL	Type	-	PVE	PVE	PVE			
		Initial charge	fl. oz.	209.6	209.6	209.6			
Fan	Type (qty)		-	Propeller (2)	Propeller (2)	Propeller (2)			
	Output (each)		W	620	620	620			
	Airflow rate		CFM	9,535	10,950	10,950			
	External static pressure		in. WG	0.31	0.31	0.31			
Piping connections	Liquid pipe		dia. in.	1/2 braze	5/8 braze	5/8 braze			
	Gas pipe		dia. in.	1-1/8 braze	1-1/8 braze	1-1/8 braze			
	High pressure gas pipe (for HR)		dia. in.	7/8 braze	7/8 braze	1-1/8 braze			
	Installation limits	Max length ³	ft	656	656	656			
		Max height ⁴	ft	361	361	361			
Indoor unit connections	Number of connectable IDUs		-	25	29	33			
	Total capacity (cooling)		Btu/h	72,000 – 187,200	84,000 – 218,400	96,000 – 249,600			

Table 10. 208–230 V heat recovery single modules: 12–16 ton capacity (continued)

Model name			4TVR0144C300NA	4TVR0168C300NA	4TVR0192C300NA
Power supply			208–230/60/3		
Nominal tons			12.0		
System type			Ducted	Non-ducted	Ducted
Refrigerant	Type	-	R410A		R410A
	Factory charge	lbs.	19.2	24.3	24.3
Sound ⁵	Sound pressure	dB(A)	62.0	63.0	64.0
	Sound power	dB(A)	83	85	86
External dimensions	Net weight	lbs.	672	732	750
	Shipping weight	lbs.	714	770	788
	Net dimensions (WxHxD)	in.	51 x 66-3/4 x 30-1/8	51 x 66-3/4 x 30-1/8	51 x 66-3/4 x 30-1/8
	Shipping dimensions (WxHxD)	in.	53-5/8 x 75-1/4 x 32-3/4	53-5/8 x 75-1/4 x 32-3/4	53-5/8 x 75-1/4 x 32-3/4
Operating temp range	Cooling ⁶	°F	5 – 120 (-13 to 120, see footnote 7)	5 – 120 (-13 to 120, see footnote 7)	5 – 120 (-13 to 120, see footnote 7)
	Heating	°F	-13 - 75	-13 - 75	-13 - 75

Notes:

- Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
- Rated per AHRI-1230 Standard conditions
- Actual length (equivalent length in parenthesis)
- If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
- Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
- Cooling operation between 23°F and 5°F requires twin porting of the applicable indoor units.
- 13°F cooling with low ambient cooling kit.



Product Specifications

Table 11. 208–230 V heat recovery dual modules: 18–24 ton capacity

Model name				4TVR0216C300NA		4TVR0240C300NA		4TVR0264C300NA		4TVR0288C300NA		
Individual Models				4TVR0072C300NA + 4TVR0144C300NA		4TVR0072C300NA + 4TVR0168C300NA		4TVR0072C300NA + 4TVR0192C300NA		2x 4TVR0144C300NA		
Power supply				208–230/60/3		208–230/60/3		208–230/60/3		208–230/60/3		
Nominal tons				18.0		20.0		22.0		24.0		
System type				Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted	
Performance	Capacity (nominal) ¹	Cooling	Bt-u/h	216,000	216,000	240,000	240,000	264,000	264,000	288,000	288,000	
		Heating	Bt-u/h	243,000	243,000	270,000	270,000	297,000	297,000	324,000	324,000	
	Capacity (rated) ²	Cooling	Bt-u/h	206,000	206,000	228,000	228,000	252,000	252,000	276,000	276,000	
		High temp heating	Bt-u/h	230,000	230,000	258,000	258,000	282,000	282,000	308,000	308,000	
		Low temp heating	Bt-u/h	150,000	150,000	168,000	168,000	184,000	184,000	200,000	200,000	
	AHRI -1230 efficiency ratings ²	EER	-	10.60	10.80	10.60	10.60	10.10	10.10	10.00	12.00	
		IEER	-	20.50	23.40	20.10	22.00	19.60	21.90	21.60	22.00	
		COP @ 47° F	-	3.34	3.63	3.20	3.51	3.20	3.35	3.32	3.58	
		COP @ 17° F	-	2.31	2.52	2.40	2.38	2.17	2.31	2.36	2.48	
		SCHE	-	20.50	23.40	20.50	23.50	20.50	23.50	21.50	23.50	
	Power	MCA	A	Each individual outdoor unit requires a separate electrical connection. Refer to the electrical data for each individual outdoor unit.								
		MOP	A									
		SCCR	kA									
Compressor	Type (qty)	-	SSC scroll (3)		SSC scroll (3)		SSC scroll (3)		SSC scroll (4)			
	Model name	-	DS-GB052FBVASG x 3		DS-GB052FBVASG x 3		DS-GB052FBVASG x 1 + DS4GJ5066EVASG X 2		DS-GB052FBVASG x 4			
	Oil	Type	-	PVE		PVE		PVE		PVE		
		Initial charge	fl. oz.	341.5		341.5		341.5		419.2		
Fan	Type (qty)	-	Propeller (3)		Propeller (3)		Propeller (3)		Propeller (4)			
	Output (each)	W	630 + (620 x 2)		630 + (620 x 2)		630 + (620 x 2)		(620 x 2) + (620 X 2)			
	Airflow rate	CF-M	7,240 + 9,535		7,240 + 10,950		7,240 + 10,950		9,352 x 2			
	External static pressure	in. WG	0.31		0.31		0.31		0.31			

Table 11. 208–230 V heat recovery dual modules: 18–24 ton capacity (continued)

Model name			4TVR0216C300NA	4TVR0240C300NA	4TVR0264C300NA	4TVR0288C300NA		
Individual Models			4TVR0072C300NA + 4TVR0144C300NA	4TVR0072C300NA + 4TVR0168C300NA	4TVR0072C300NA + 4TVR0192C300NA	2x 4TVR0144C300NA		
Power supply			208–230/60/3	208–230/60/3	208–230/60/3	208–230/60/3		
Nominal tons			18.0	20.0	22.0	24.0		
System type			Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted
Piping connections	Liquid pipe	dia. in.	5/8 braze	5/8 braze	5/8 braze	3/4 braze		
	Gas pipe	dia. in.	1-1/8 braze	1-1/8 braze	1-1/8 braze	1-3/8 braze		
	High pressure gas pipe (for HR)	dia. in.	1-1/8 braze	1-1/8 braze	1-1/8 braze	1-1/8 braze		
	Installation limits	Max length ³	ft	656	656	656	656	
		Max height ⁴	ft	361	361	361	361	
Indoor unit connections	Number of connectable IDUs	-	37	41	45	49		
	Total capacity (cooling)	Btu/h	108,000 – 280,800	120,000 – 312,000	132,000 – 343,200	144,000 – 374,400		
Refrigerant	Type	-	R410A	R410A	R410A	R410A		
	Factory charge	lbs.	31.3	36.4	36.4	38.4		
Sound ⁵	Sound pressure	dB (A)	64	65	65	65		
	Sound power	dB (A)	84	86	87	86		
External dimensions	Net weight	lbs.	430 + 672	430 + 732	430 + 750	672 x 2		
	Shipping weight	lbs.	465 + 714	465 + 770	465 + 788	714 x 2		
	Net dimensions (WxHxD)	in.	34-5/8 x 66-3/4 x 30-1/8 + 51 x 66-3/4 x 30-1/8	34-5/8 x 66-3/4 x 30-1/8 + 51 x 66-3/4 x 30-1/8	34-5/8 x 66-3/4 x 30-1/8 + 51 x 66-3/4 x 30-1/8	(51 x 66-3/4 x 30-1/8) x 2		
	Shipping dimensions (WxHxD)	in.	37-3/8 x 75-1/4 x 32-3/4 + 53-5/8 x 75-1/4 x 32-3/4	37-3/8 x 75-1/4 x 32-3/4 + 53-5/8 x 75-1/4 x 32-3/4	37-3/8 x 75-1/4 x 32-3/4 + 53-5/8 x 75-1/4 x 32-3/4	(53-5/8 x 75-1/4 x 32-3/4) x 2		



Product Specifications

Table 11. 208–230 V heat recovery dual modules: 18–24 ton capacity (continued)

Model name			4TVR0216C300NA	4TVR0240C300NA	4TVR0264C300NA	4TVR0288C300NA		
Individual Models			4TVR0072C300NA + 4TVR0144C300NA	4TVR0072C300NA + 4TVR0168C300NA	4TVR0072C300NA + 4TVR0192C300NA	2x 4TVR0144C300NA		
Power supply			208–230/60/3	208–230/60/3	208–230/60/3	208–230/60/3		
Nominal tons			18.0	20.0	22.0	24.0		
System type			Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted
Operating temp range	Cooling ⁶	°F	5 – 120 (-13 to 120, see footnote 7)	5 – 120 (-13 to 120, see footnote 7)	5 – 120 (-13 to 120, see footnote 7)	5 – 120 (-13 to 120, see footnote 7)	5 – 120 (-13 to 120, see footnote 7)	
	Heating	°F	-13 - 75	-13 - 75	-13 - 75	-13 - 75	-13 - 75	

Notes:

- Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
- Rated per AHRI-1230 Standard conditions
- Actual length (equivalent length in parenthesis)
- If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
- Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
- Cooling operation between 23°F and 5°F requires twin porting of the applicable indoor units.
- 13°F cooling with low ambient cooling kit.

Table 12. 208–230 V heat recovery dual modules: 26–32 ton capacity

Model name				4TVR0312C300NA		4TVR0336C300NA		4TVR0360C300NA		4TVR0384C300NA		
Individual Models				4TVR0144C300NA + 4TVR0168C300NA		2x 4TVR0168C300NA		4TVR0168C300NA + 4TVR0192C300NA		2x 4TVR0192C300NA		
Power supply				208–230/60/3		208–230/60/3		208–230/60/3		208–230/60/3		
Nominal tons				26.0		28.0		30.0		32.0		
System type				Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted	
Performance	Capacity (nominal) ¹	Cooling	Bt-u/h	312,000	312,000	336,000	336,000	360,000	288,000	384,000	384,000	
		Heating	Bt-u/h	351,000	351,000	378,000	378,000	405,000	405,000	432,000	432,000	
	Capacity (rated) ²	Cooling	Bt-u/h	298,000	298,000	320,000	320,000	344,000	344,000	366,000	366,000	
		High temp heating	Bt-u/h	334,000	334,000	360,000	360,000	386,000	386,000	410,000	410,000	
		Low temp heating	Bt-u/h	218,000	218,000	234,000	234,000	250,000	250,000	268,000	268,000	
	AHRI -1230 efficiency ratings ²	EER	-	9.90	9.90	9.80	9.80	9.70	9.70	9.70	9.70	
		IEER	-	20.10	20.40	19.40	20.30	18.90	20.00	18.50	19.50	
		COP @ 47° F	-	3.20	3.24	3.20	3.20	3.20	3.20	3.20	3.20	
		COP @ 17° F	-	2.41	2.46	2.38	2.43	2.38	2.42	2.42	2.41	
		SCHE	-	20.50	23.50	20.50	23.10	19.70	22.40	19.00	22.00	
	Power	MCA	A		Each individual outdoor unit requires a separate electrical connection. Refer to the electrical data for each individual outdoor unit.							
		MOP	A									
SCCR		kA										
Compressor	Type (qty)	-		SSC scroll (4)		SSC scroll (4)		SSC scroll (4)		SSC scroll (4)		
	Model name	-		DS-GB052FBVASG x 4		DS-GB052FBVASG x 4		DS-GB052FBVASG x 2 + DS4GJ5066EVASG X 2		DS4GJ5066EVASG X 4		
	Oil	Type	-		PVE		PVE		PVE		PVE	
		Initial charge	fl. oz.	419.2		419.2		419.2		419.2		
Fan	Type (qty)	-		Propeller (4)		Propeller (4)		Propeller (4)		Propeller (4)		
	Output (each)	W	(620 x 2) + (620 X 2)		(620 x 2) + (620 X 2)		(620 x 2) + (620 X 2)		(620 x 2) + (620 X 2)			
	Airflow rate	CF-M	9,535 + 10,950		10,950 x 2		10,950 x 2		10,950 x 2			
	External static pressure	in. WG	0.31		0.31		0.31		0.31			



Product Specifications

Table 12. 208–230 V heat recovery dual modules: 26–32 ton capacity (continued)

Model name			4TVR0312C300NA	4TVR0336C300NA	4TVR0360C300NA	4TVR0384C300NA	
Individual Models			4TVR0144C300NA + 4TVR0168C300NA	2x 4TVR0168C300NA	4TVR0168C300NA + 4TVR0192C300NA	2x 4TVR0192C300NA	
Power supply			208–230/60/3	208–230/60/3	208–230/60/3	208–230/60/3	
Nominal tons			26.0	28.0	30.0	32.0	
System type			Ducted	Non-ducted	Ducted	Non-ducted	
Piping connections	Liquid pipe	dia. in.	3/4 braze	3/4 braze	3/4 braze	3/4 braze	
	Gas pipe	dia. in.	1-3/8 braze	1-3/8 braze	1-5/8 braze	1-5/8 braze	
	High pressure gas pipe (for HR)	dia. in.	1-1/8 braze	1-1/8 braze	1-3/8 braze	1-3/8 braze	
	Installation limits	Max length ^{h3}	ft	656	656	656	656
		Max height ^{h4}	ft	361	361	361	361
Indoor unit connections	Number of connectable IDUs	-	54	58	62	64	
	Total capacity (cooling)	Bt-u/h	156,000 – 405,600	168,000 – 436,800	180,000 – 468,000	192,000 – 499,200	
Refrigerant	Type	-	R410A	R410A	R410A	R410A	
	Factory charge	lbs.	43.4	48.5	48.5	48.5	
Sound ⁵	Sound pressure	dB (A)	66	66	66	66	
	Sound power	dB (A)	97	88	87	88	
External dimensions	Net weight	lbs.	672 + 732	732 x 2	732 + 750	750 x 2	
	Shipping weight	lbs.	714 + 770	770 x 2	770 + 788	788 x 2	
	Net dimensions (WxHxD)	in.	(51 x 66-3/4 x 30-1/8) x 2	(51 x 66-3/4 x 30-1/8) x 2	(51 x 66-3/4 x 30-1/8) x 2	(51 x 66-3/4 x 30-1/8) x 2	
	Shipping dimensions (WxHxD)	in.	(53-5/8 x 75-1/4 x 32-3/4) x 2	(53-5/8 x 75-1/4 x 32-3/4) x 2	(53-5/8 x 75-1/4 x 32-3/4) x 2	(53-5/8 x 75-1/4 x 32-3/4) x 2	

Table 12. 208–230 V heat recovery dual modules: 26–32 ton capacity (continued)

Model name			4TVR0312C300NA	4TVR0336C300NA	4TVR0360C300NA	4TVR0384C300NA		
Individual Models			4TVR0144C300NA + 4TVR0168C300NA	2x 4TVR0168C300NA	4TVR0168C300NA + 4TVR0192C300NA	2x 4TVR0192C300NA		
Power supply			208–230/60/3	208–230/60/3	208–230/60/3	208–230/60/3		
Nominal tons			26.0	28.0	30.0	32.0		
System type			Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted
Operating temp range	Cooling ⁶	°F	5 – 120 (-13 to 120, see footnote 7)	5 – 120 (-13 to 120, see footnote 7)	5 – 120 (-13 to 120, see footnote 7)	5 – 120 (-13 to 120, see footnote 7)	5 – 120 (-13 to 120, see footnote 7)	
	Heating	°F	-13 - 75	-13 - 75	-13 - 75	-13 - 75	-13 - 75	

Notes:

- Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
- Rated per AHRI-1230 Standard conditions
- Actual length (equivalent length in parenthesis)
- If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
- Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
- Cooling operation between 23°F and 5°F requires twin porting of the applicable indoor units.
- 13°F cooling with low ambient cooling kit.



Product Specifications

Table 13. 208–230 V heat recovery triple module: 34–38 ton capacity

Model name				4TVR040C300NA		4TVR0432C300NA		4TVR0456C300NA	
Power supply				208–230/60/3		208–230/60/3		208–230/60/3	
Nominal tons				34.0		36.0		38.0	
System type				Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted
Individual Models				4TVR0072C300NA + 4TVR0144C300NA + 4TVR0192C300NA		3x 4TVR0144C300NA		4TVR0120C300NA + 2x 4TVR0168C300NA	
Performance	Capacity (nominal) ¹	Cooling	Btu/h	408,000	408,000	432,000	432,000	456,000	456,000
		Heating	Btu/h	459,000	459,000	486,000	486,000	513,000	513,000
	Capacity (rated) ²	Cooling	Btu/h	390,000	390,000	415,000	415,000	435,000	435,000
		High temp heating	Btu/h	435,000	435,000	460,000	460,000	490,000	490,000
		Low temp heating	Btu/h	284,000	284,000	300,000	300,000	320,000	320,000
	AHRI -1230 efficiency ratings ²	EER	-	9.80	9.80	9.60	9.60	9.70	9.70
		IEER	-	17.80	19.10	17.00	19.10	16.50	19.00
		COP @ 47°F	-	3.20	3.20	3.20	3.20	3.22	3.23
		COP @ 17°F	-	2.36	2.36	2.28	2.33	2.17	2.27
		SCHE	-	19.00	22.00	17.00	21.50	19.00	21.50
Power	MCA		A	Each individual outdoor unit requires a separate electrical connection. Refer to the electrical data for each individual outdoor unit.					
	MOP		A						
	SCCR		kA						
Compressor	Type (qty)		-	SSC scroll (5)		SSC scroll (6)		SSC scroll (6)	
	Model name		-	DS-GB052FBVASG x 3 + DS4GJ5066EVASG x 2		DS-GB052FBVASG x 6		DS-GB052FBVASG x 6	
	Oil	Type	-	PVE		PVE		PVE	
Initial charge		fl. oz.	551.1		628.8		628.8		
Fan	Type (qty)		-	Propeller (5)		Propeller (6)		Propeller (6)	
	Output (each)		W	630 + (620 x 2) + (620 X 2)		(620 x 2) + (620 x 2) + (620 X 2)		(620 x 2) + (620 x 2) + (620 X 2)	
	Airflow rate		CFM	7,240 + 9,535 + 10,950		9,535 X 3		9,180 + (10,950 x 2)	
	External static pressure		in. WG	0.31		0.31		0.31	
Piping connections	Liquid pipe		dia. in.	3/4 braze		3/4 braze		3/4 braze	
	Gas pipe		dia. in.	1-5/8 braze		1-5/8 braze		1-5/8 braze	
	High pressure gas pipe (for HR)		Ø in.	1-3/8 braze		1-3/8 braze		1-3/8 braze	
	Installation limits	Max length ³	ft	656		656		656	

Table 13. 208–230 V heat recovery triple module: 34–38 ton capacity (continued)

Model name			4TVR040C300NA	4TVR0432C300NA	4TVR0456C300NA			
Power supply			208–230/60/3					
Nominal tons			34.0					
System type			Ducted	Non-ducted	Ducted	Non-ducted		
Individual Models			4TVR0072C300NA + 4TVR0144C300NA + 4TVR0192C300NA		3x 4TVR0144C300NA		4TVR0120C300NA + 2x 4TVR0168C300NA	
Max height ⁴	ft		361		361		361	
Indoor unit connections	Number of connectable IDUs	-	64		64		64	
	Total capacity (cooling)	Btu/h	216,000 – 561,600		216,000 – 561,600		228,000 – 592,800	
Refrigerant	Type	-	R410A		R410A		R410A	
	Factory charge	lbs.	55.6		57.5		64.8	
Sound ⁵	Sound pressure	dB(A)	67		67		67	
	Sound power	dB(A)	88		88		89	
External dimensions	Net weight	lbs.	430 + 672 + 750		672 x 3		637 + (732 x 2)	
	Shipping weight	lbs.	465 + 714 + 788		714 x 3		679 + (770 x 2)	
	Net dimensions (WxHxD)	in.	34-5/8 x 66-3/4 x 30-1/8 + (51 x 66-3/4 x 30-1/8) x2		(51 x 66-3/4 x 30-1/8) x 3		(51 x 66-3/4 x 30-1/8) x 3	
	Shipping dimensions (WxHxD)	in.	37.32 x 75.28 x 32.76 + (53-5/8 x 75-1/4 x 32-3/4) x2		(53-5/8 x 75-1/4 x 32-3/4) x 3		(53-5/8 x 75-1/4 x 32-3/4) x 3	
Operating temp range	Cooling ⁶	°F	5 – 120 (-13 to 120, see footnote 7)		5 – 120 (-13 to 120, see footnote 7)		5 – 120 (-13 to 120, see footnote 7)	
	Heating	°F	-13 - 75		-13 - 75		-13 - 75	

Notes:

- Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
- Rated per AHRI-1230 Standard conditions
- Actual length (equivalent length in parenthesis)
- If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
- Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
- Cooling operation between 23°F and 5°F requires twin porting of the applicable indoor units.
- 13°F cooling with low ambient cooling kit.



Product Specifications

Table 14. 208–230 V heat recovery triple module: 40–54 ton capacity

Model name			4TVR0480C300NA		4TVR0504C300NA		4TVR0528C300NA		
Individual Models			4TVR0144C300NA + 2x 4TVR0168C300NA		3x 4TVR0168C300NA		2x 4TVR0168C300NA + 4TVR0192C300NA		
Power supply			208–230/60/3		208–230/60/3		208–230/60/3		
Nominal tons			40.0		42.0		44.0		
System type			Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted	
Performance	Capacity (nominal) ¹	Cooling	Btu/h	480,000	480,000	504,000	504,000	528,000	528,000
		Heating	Btu/h	540,000	540,000	567,000	567,000	594,000	594,000
	Capacity (rated) ²	Cooling	Btu/h	455,000	455,000	480,000	480,000	500,000	500,000
		High temp heating	Btu/h	510,000	510,000	535,000	535,000	560,000	560,000
		Low temp heating	Btu/h	332,000	332,000	348,000	348,000	364,000	364,000
	AHRI -1230 efficiency ratings ²	EER	-	9.60	9.60	9.60	9.60	9.50	9.50
		IEER	-	16.60	18.60	16.40	18.40	16.00	18.00
		COP @ 47°F	-	3.21	3.21	3.21	3.21	3.20	3.20
		COP @ 17°F	-	2.13	2.23	2.11	2.21	2.10	2.05
		SCHE	-	19.00	21.50	19.00	20.00	18.50	19.00
Power	MCA		A	Each individual outdoor unit requires a separate electrical connection. Refer to the electrical data for each individual outdoor unit.					
	MOP		A						
	SCCR		kA						
Compressor	Type (qty)		-	SSC scroll (6)		SSC scroll (6)		SSC scroll (6)	
	Model name		-	DS-GB052FBVASG x 6		DS-GB052FBVASG x 6		DS-GB052FBVASG x 4 + DS4GJ5066EVASG x 2	
	Oil	Type	-	PVE		PVE		PVE	
		Initial charge	fl. oz.	628.8		628.8		628.8	
Fan	Type (qty)		-	Propeller (6)		Propeller (6)		Propeller (6)	
	Output (each)		W	(620 x 2) + (620 x 2) + (620 X 2)		(620 x 2) + (620 x 2) + (620 X 2)		(620 x 2) + (620 x 2) + (620 X 2)	
	Airflow rate		CFM	9,535 + (10,950 x 2)		10,950 x 3		10,950 x 3	
	External static pressure		in. WG	0.31		0.31		0.31	
Piping connections	Liquid pipe		dia. in.	3/4 braze		3/4 braze		3/4 braze	
	Gas pipe		dia. in.	1-5/8 braze		1-5/8 braze		1-5/8 braze	
	High pressure gas pipe (for HR)		Ø in.	1-3/8 braze		1-3/8 braze		1-3/8 braze	
	Installation limits	Max length ³	ft	656		656		656	
		Max height ⁴	ft	361		361		361	

Table 14. 208–230 V heat recovery triple module: 40–54 ton capacity (continued)

Model name			4TVR0480C300NA	4TVR0504C300NA	4TVR0528C300NA	
Individual Models			4TVR0144C300NA + 2x 4TVR0168C300NA	3x 4TVR0168C300NA	2x 4TVR0168C300NA+ 4TVR0192C300NA	
Power supply			208–230/60/3			
Nominal tons			40.0			
System type			Ducted	Non-ducted	Ducted	Non-ducted
Indoor unit connections	Number of connectable IDUs	-	64		64	
	Total capacity (cooling)	Btu/h	240,000 – 624,000		252,000 – 655,200	
Refrigerant	Type	-	R410A		R410A	
	Factory charge	lbs.	67.7		72.8	
Sound ⁵	Sound pressure	dB(A)	67		68	
	Sound power	dB(A)	89		90	
External dimensions	Net weight	lbs.	672 + (732 x 2)		732 x 3	
	Shipping weight	lbs.	714 + (770 x 2)		770 x 3	
	Net dimensions (WxHxD)	in.	(51 x 66-3/4 x 30-1/8) x 3		(51 x 66-3/4 x 30-1/8) x 3	
	Shipping dimensions (WxHxD)	in.	(53-5/8 x 75-1/4 x 32-3/4) x 3		(53-5/8 x 75-1/4 x 32-3/4) x 3	
Operating temp range	Cooling ⁶	°F	5 – 120 (-13 to 120, see footnote 7)		5 – 120 (-13 to 120, see footnote 7)	
	Heating	°F	-13 - 75		-13 - 75	

Notes:

- Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
- Rated per AHRI-1230 Standard conditions
- Actual length (equivalent length in parenthesis)
- If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
- Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
- Cooling operation between 23°F and 5°F requires twin porting of the applicable indoor units.
- 13°F cooling with low ambient cooling kit.



Product Specifications

Table 15. 460 V heat pump single module: 6–10 ton capacity

Model name				4TVH0072C400NA		4TVH0096C400NA		4TVH0120C400NA	
Power supply				460/60/3		460/60/3		460/60/3	
Nominal tons				6.0		8.0		10.0	
System type				Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted
Performance	Capacity (nominal) ¹	Cooling	Btu/h	72,000	72,000	96,000	96,000	120,000	120,000
		Heating	Btu/h	81,000	81,000	108,000	108,000	135,000	135,000
	Capacity (rated) ²	Cooling	Btu/h	69,000	69,000	92,000	92,000	114,000	114,000
		High temp heating	Btu/h	77,000	77,000	103,000	103,000	129,000	129,000
		Low temp heating	Btu/h	51,000	51,000	67,000	67,000	84,000	84,000
	AHRI -1230 efficiency ratings ²	EER	-	11.50	14.60	11.60	13.90	11.10	12.40
		IEER	-	22.50	33.00	22.40	31.00	21.20	28.70
		COP @ 47°F	-	3.46	4.35	3.60	4.23	3.54	3.97
		COP @ 17°F	-	2.49	2.75	2.47	2.81	2.58	2.53
		SCHE	-	-	-	-	-	-	-
Power	MCA		A	16.4		19.0		21.7	
	MOP		A	20		25		30	
	SCCR		kA	5		5		5	
Compressor	Type (qty)		-	SSC scroll (1)		SSC scroll (1)		SSC scroll (1)	
	Model name		-	DS-GB052FAVBBSG		DS-GB066FAVBBSG		DS-GB066FAVBBSG	
	Oil	Type	-	PVE		PVE		PVE	
		Initial charge	fl. oz.	131.9		131.9		131.9	
Fan	Type (qty)		-	Propeller (1)		Propeller (2)		Propeller (2)	
	Output (each)		W	630		620		620	
	Airflow rate		CFM	7,240		9,180		9,180	
	External static pressure		in. WG	0.31		0.31		0.31	
Piping connections	Liquid pipe		dia. in.	3/8 braze		3/8 braze		1/2 braze	
	Gas pipe		dia. in.	3/4 braze		7/8 braze		1-1/8 braze	
	High pressure gas pipe (for HR)		dia. in.	N/A		N/A		N/A	
	Installation limits	Max length ³	ft	656		656		656	
		Max height ⁴	ft	361		361		361	

Table 15. 460 V heat pump single module: 6–10 ton capacity (continued)

Model name			4TVH0072C400NA	4TVH0096C400NA	4TVH0120C400NA
Power supply			460/60/3		
Nominal tons			6.0		
System type			Ducted	Non-ducted	Ducted
Indoor unit connections	Number of connectable IDUs	-	12		16
	Total capacity (cooling)	Btu/h	36,000 – 93,600		48,000 – 124,800
Refrigerant	Type	-	R410A		R410A
	Factory charge	lbs.	12.1		16.3
Sound ⁵	Sound pressure	dB(A)	60.0		61.0
	Sound power	dB(A)	77		81
External dimensions	Net weight	lbs.	437		540
	Shipping weight	lbs.	472		582
	Net dimensions (WxHxD)	in.	34-5/8 x 66-3/4 x 30-1/8		51 x 66-3/4 x 30-1/8
	Shipping dimensions (WxHxD)	in.	37-3/8 x 75-1/4 x 32-3/4		53-5/8 x 75-1/4 x 32-3/4
Operating temp range	Cooling	°F	23 – 120 (-13 to 120, see footnote 6)		23 – 120 (-13 to 120, see footnote 6)
	Heating	°F	-13 - 75		-13 - 75

Notes:

1. Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - **Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - **Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
2. Rated per AHRI-1230 Standard conditions
3. Actual length (equivalent length in parenthesis)
4. If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
5. Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
6. -13°F cooling with low ambient cooling kit.



Product Specifications

Table 16. 460 V heat pump single module: 12–16 ton capacity

Model name			4TVH0144C400NA		4TVH0168C400NA		4TVH0192C400NA		
Power supply			460/60/3		460/60/3		460/60/3		
Nominal tons			12.0		14.0		16.0		
System type			Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted	
Performance	Capacity (nominal) ¹	Cooling	Btu/h	144,000	144,000	168,000	168,000	192,000	192,000
		Heating	Btu/h	162,000	162,000	189,000	189,000	216,000	216,000
	Capacity (rated) ²	Cooling	Btu/h	138,000	138,000	160,000	160,000	184,000	184,000
		High temp heating	Btu/h	154,000	154,000	180,000	180,000	206,000	206,000
		Low temp heating	Btu/h	100,000	100,000	118,000	118,000	134,000	134,000
	AHRI -1230 efficiency ratings ²	EER	-	11.70	12.00	10.60	10.90	10.60	10.60
		IEER	-	21.60	26.50	20.80	24.50	21.00	23.00
		COP @ 47°F	-	3.54	3.81	3.21	3.65	3.20	3.50
		COP @ 17°F	-	2.42	2.55	2.25	2.50	2.20	2.45
		SCHE	-	-	-	-	-	-	-
Power	MCA		A	28.7		33.0		37.0	
	MOP		A	40		40		50	
	SCCR		kA	5		5		5	
Compressor	Type (qty)		-	SSC scroll (2)		SSC scroll (2)		SSC scroll (2)	
	Model name		-	DS-GB052FAVBSG		DS-GB052FAVBSG		DS-GB066FAVBSG	
	Oil	Type	-	PVE		PVE		PVE	
		Initial charge	fl. oz.	209.6		209.6		209.6	
Fan	Type (qty)		-	Propeller (2)		Propeller (2)		Propeller (2)	
	Output (each)		W	620		620		620	
	Airflow rate		CFM	9,535		10,950		10,950	
	External static pressure		in. WG	0.31		0.31		0.31	
Piping connections	Liquid pipe		dia. in.	1/2 braze		5/8 braze		5/8 braze	
	Gas pipe		dia. in.	1-1/8 braze		1-1/8 braze		1-1/8 braze	
	High pressure gas pipe (for HR)		dia. in.	N/A		N/A		N/A	
	Installation limits	Max length ³	ft	656		656		656	
		Max height ⁴	ft	361		361		361	
Indoor unit connections	Number of connectable IDUs		-	25		29		33	
	Total capacity (cooling)		Btu/h	72,000 – 187,200		84,000 – 218,400		96,000 – 249,600	

Table 16. 460 V heat pump single module: 12–16 ton capacity (continued)

Model name			4TVH0144C400NA	4TVH0168C400NA	4TVH0192C400NA	
Power supply			460/60/3			
Nominal tons			12.0			
System type			Ducted	Non-ducted	Ducted	Non-ducted
Refrigerant	Type	-	R410A		R410A	
	Factory charge	lbs.	19.2	24.3	24.3	
Sound ⁵	Sound pressure	dB(A)	62.0	63.0	64.0	
	Sound power	dB(A)	83	85	86	
External dimensions	Net weight	lbs.	672	719	737	
	Shipping weight	lbs.	714	757	774	
	Net dimensions (WxHxD)	in.	51 x 66-3/4 x 30-1/8	51 x 66-3/4 x 30-1/8	51 x 66-3/4 x 30-1/8	
	Shipping dimensions (WxHxD)	in.	53-5/8 x 75-1/4 x 32-3/4	53-5/8 x 75-1/4 x 32-3/4	53-5/8 x 75-1/4 x 32-3/4	
Operating temp range	Cooling	°F	23 – 120 (-13 to 120, see footnote 6)	23 – 120 (-13 to 120, see footnote 6)	23 – 120 (-13 to 120, see footnote 6)	
	Heating	°F	-13 - 75		-13 - 75	

Notes:

- Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
- Rated per AHRI-1230 Standard conditions
- Actual length (equivalent length in parenthesis)
- If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
- Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
- 13°F cooling with low ambient cooling kit.



Product Specifications

Table 17. 460 V heat pump dual module: 18–24 ton capacity

Model name			4TVH0216C400NA		4TVH0240C400NA		4TVH0264C400NA		4TVH0288C400NA			
Individual Models			4TVH0072C400NA + 4TVH0144C400NA		4TVH0072C400NA + 4TVH0168C400NA		4TVH0072C400NA + 4TVH0192C400NA		2x 4TVH0144C400NA			
Power supply			460/60/3		460/60/3		460/60/3		460/60/3			
Nominal tons			18.0		20.0		22.0		24.0			
System type			Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted		
Performance	Capacity (nominal) ¹	Cooling	Bt-u/h	216,000	216,000	240,000	240,000	264,000	264,000	288,000	288,000	
		Heating	Bt-u/h	243,000	243,000	270,000	270,000	297,000	297,000	324,000	324,000	
	Capacity (rated) ²	Cooling	Bt-u/h	206,000	206,000	228,000	228,000	252,000	252,000	276,000	276,000	
		High temp heating	Bt-u/h	230,000	230,000	258,000	258,000	282,000	282,000	308,000	308,000	
		Low temp heating	Bt-u/h	150,000	150,000	168,000	168,000	184,000	184,000	200,000	200,000	
	AHRI -1230 efficiency ratings ²	EER	-	10.60	10.80	10.60	10.60	10.10	10.10	10.00	12.00	
		IEER	-	20.50	22.40	20.10	22.00	19.60	21.90	21.60	22.00	
		COP @ 47° F	-	3.34	3.63	3.20	3.51	3.20	33.50	3.32	3.58	
		COP @ 17° F	-	2.31	2.52	2.40	2.38	2.17	2.31	2.35	2.48	
		SCHE	-	-	-	-	-	-	-	-	-	
	Power	MCA	A	Each individual outdoor unit requires a separate electrical connection. Refer to the electrical data for each individual outdoor unit.								
		MOP	A									
SCCR		kA										
Compressor	Type (qty)	-	SSC scroll (3)		SSC scroll (3)		SSC scroll (3)		SSC scroll (4)			
	Model name	-	DS-GB052FAVBSG x 3		DS-GB052FAVBSG x 3		DS-GB052FAVBSG x 1 + DS-GB066FAVBSG x 2		DS-GB052FAVBSG x 4			
	Oil	Type	-	PVE		PVE		PVE		PVE		
		Initial charge	fl. oz.	341.5		341.5		341.5		419.2		
Fan	Type (qty)	-	Propeller (3)		Propeller (3)		Propeller (3)		Propeller (4)			
	Output (each)	W	630 + (620 x 2)		630 + (620 x 2)		630 + (620 x 2)		(620 x 2) + (620 X 2)			
	Airflow rate	CF-M	7,240 + 9,535		7,240 + 10,950		7,240 + 10,950		9535 x 2			
	External static pressure	in. WG	0.31		0.31		0.31		0.31			

Table 17. 460 V heat pump dual module: 18–24 ton capacity (continued)

Model name			4TVH0216C400NA	4TVH0240C400NA	4TVH0264C400NA	4TVH0288C400NA	
Individual Models			4TVH0072C400NA + 4TVH0144C400NA	4TVH0072C400NA + 4TVH0168C400NA	4TVH0072C400NA + 4TVH0192C400NA	2x 4TVH0144C400NA	
Power supply			460/60/3	460/60/3	460/60/3	460/60/3	
Nominal tons			18.0	20.0	22.0	24.0	
System type			Ducted	Non-ducted	Ducted	Non-ducted	
Piping connections	Liquid pipe	dia. in.	5/8 braze	5/8 braze	3/4 braze	3/4 braze	
	Gas pipe	dia. in.	1-1/8 braze	1-1/8 braze	1-3/8 braze	1-3/8 braze	
	High pressure gas pipe (for HR)	dia. in.	N/A	N/A	N/A	N/A	
	Installation limits	Max length ³	ft	656	656	656	656
		Max height ⁴	ft	361	361	361	361
Indoor unit connections	Number of connectable IDUs	-	37	41	45	49	
	Total capacity (cooling)	Btu/h	108,000 – 280,800	120,000 – 312,000	132,000 – 343,200	144,000 – 374,400	
Refrigerant	Type	-	R410A	R410A	R410A	R410A	
	Factory charge	lbs.	31.3	36.4	36.4	38.4	
Sound ⁵	Sound pressure	dB (A)	64	65	65	65	
	Sound power	dB (A)	84	86	87	86	
External dimensions	Net weight	lbs.	425 + 657	425 + 716	425 + 734	657 x 2	
	Shipping weight	lbs.	461 + 699	461 + 754	461 + 772	699 x 2	
	Net dimensions (WxHxD)	in.	34-5/8 x 66-3/4 x 30-1/8 + 51 x 66-3/4 x 30-1/8	34-5/8 x 66-3/4 x 30-1/8 + 51 x 66-3/4 x 30-1/8	34-5/8 x 66-3/4 x 30-1/8 + 51 x 66-3/4 x 30-1/8	(51 x 66-3/4 x 30-1/8) x 2	
	Shipping dimensions (WxHxD)	in.	37.32 x 75.28 x 32.76 + 53-5/8 x 75-1/4 x 32-3/4	37.32 x 75.28 x 32.76 + 53-5/8 x 75-1/4 x 32-3/4	37.32 x 75.28 x 32.76 + 53-5/8 x 75-1/4 x 32-3/4	(53-5/8 x 75-1/4 x 32-3/4) x 2	



Product Specifications

Table 17. 460 V heat pump dual module: 18–24 ton capacity (continued)

Model name			4TVH0216C400NA	4TVH0240C400NA	4TVH0264C400NA	4TVH0288C400NA		
Individual Models			4TVH0072C400NA + 4TVH0144C400NA	4TVH0072C400NA + 4TVH0168C400NA	4TVH0072C400NA + 4TVH0192C400NA	2x 4TVH0144C400NA		
Power supply			460/60/3	460/60/3	460/60/3	460/60/3		
Nominal tons			18.0	20.0	22.0	24.0		
System type			Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted
Operating temp range	Cooling	°F	23 – 120 (-13 to 120, see footnote 6)	23 – 120 (-13 to 120, see footnote 6)	23 – 120 (-13 to 120, see footnote 6)	23 – 120 (-13 to 120, see footnote 6)	23 – 120 (-13 to 120, see footnote 6)	
	Heating	°F	-13 - 75	-13 - 75	-13 - 75	-13 - 75	-13 - 75	

Notes:

- Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
- Rated per AHRI-1230 Standard conditions
- Actual length (equivalent length in parenthesis)
- If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
- Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
- 13°F cooling with low ambient cooling kit.

Table 18. 460 V heat pump dual module: 26–32 ton capacity

Model name				4TVH0312C400NA		4TVH0336C400NA		4TVH0360C400NA		4TVH0384C400NA		
Individual Models				4TVH0144C400NA + 4TVH0168C400NA		2x 4TVH0168C400NA		4TVH0168C400NA + 4TVH0192C400NA		2x 4TVH0192C400NA		
Power supply				460/60/3		460/60/3		460/60/3		460/60/3		
Nominal tons				26.0		28.0		30.0		32.0		
System type				Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted	
Performance	Capacity (nominal) ¹	Cooling	Bt-u/h	312,000	312,000	336,000	336,000	360,000	288,000	384,000	384,000	
		Heating	Bt-u/h	351,000	351,000	378,000	378,000	405,000	405,000	432,000	432,000	
	Capacity (rated) ²	Cooling	Bt-u/h	298,000	298,000	320,000	320,000	344,000	344,000	366,000	366,000	
		High temp heating	Bt-u/h	334,000	334,000	360,000	360,000	386,000	386,000	410,000	410,000	
		Low temp heating	Bt-u/h	218,000	218,000	234,000	234,000	250,000	250,000	268,000	268,000	
	AHRI -1230 efficiency ratings ²	EER	-	9.90	9.90	9.80	9.80	9.70	9.70	9.70	9.70	
		IEER	-	20.10	20.40	19.40	20.30	18.90	20.00	18.50	19.50	
		COP @ 47° F	-	3.20	3.24	3.20	3.20	3.20	3.20	3.20	3.20	
		COP @ 17° F	-	2.41	2.46	2.38	2.43	2.38	2.42	2.42	2.41	
		SCHE	-	-	-	-	-	-	-	-	-	
	Power	MCA	A		Each individual outdoor unit requires a separate electrical connection. Refer to the electrical data for each individual outdoor unit.							
		MOP	A									
SCCR		kA										
Compressor	Type (qty)	-		SSC scroll (4)		SSC scroll (4)		SSC scroll (4)		SSC scroll (4)		
	Model name	-		DS-GB052FAVBSG x 4		DS-GB052FAVBSG x 4		DS-GB052FAVBSG x 2 + DS-GB066FAVBSG x 2		DS-GB066FAVBSG x 4		
	Oil	Type	-		PVE		PVE		PVE		PVE	
		Initial charge	fl. oz.	419.2		419.2		419.2		419.2		
Fan	Type (qty)	-		Propeller (4)		Propeller (4)		Propeller (4)		Propeller (4)		
	Output (each)	W	(620 x 2) + (620 X 2)		(620 x 2) + (620 X 2)		(620 x 2) + (620 X 2)		(620 x 2) + (620 X 2)			
	Airflow rate	CF-M	9535 + 10,950		10,950 x 2		10,950 x 2		10,950 x 2			
	External static pressure	in. WG	0.31		0.31		0.31		0.31			



Product Specifications

Table 18. 460 V heat pump dual module: 26–32 ton capacity (continued)

Model name			4TVH0312C400NA	4TVH0336C400NA	4TVH0360C400NA	4TVH0384C400NA	
Individual Models			4TVH0144C400NA + 4TVH0168C400NA	2x 4TVH0168C400NA	4TVH0168C400NA + 4TVH0192C400NA	2x 4TVH0192C400NA	
Power supply			460/60/3	460/60/3	460/60/3	460/60/3	
Nominal tons			26.0	28.0	30.0	32.0	
System type			Ducted	Non-ducted	Ducted	Non-ducted	
Piping connections	Liquid pipe	dia. in.	3/4 braze	3/4 braze	3/4 braze	3/4 braze	
	Gas pipe	dia. in.	1-3/8 braze	1-3/8 braze	1-5/8 braze	1-5/8 braze	
	High pressure gas pipe (for HR)	dia. in.	N/A	N/A	N/A	N/A	
	Installation limits	Max length ³	ft	656	656	656	656
		Max height ⁴	ft	361	361	361	361
Indoor unit connections	Number of connectable IDUs	-	54	58	62	64	
	Total capacity (cooling)	Bt-u/h	156,000 – 405,600	168,000 – 436,800	180,000 – 468,000	192,000 – 499,200	
Refrigerant	Type	-	R410A	R410A	R410A	R410A	
	Factory charge	lbs.	43.4	48.5	48.5	48.5	
Sound ⁵	Sound pressure	dB (A)	66	66	66	67	
	Sound power	dB (A)	87	88	87	88	
External dimensions	Net weight	lbs.	657 + 717	717 x 2	717 + 734	734 x 2	
	Shipping weight	lbs.	699 + 754	754 x 2	754 + 772	772 x 2	
	Net dimensions (WxHxD)	in.	(51 x 66-3/4 x 30-1/8) x 2	(51 x 66-3/4 x 30-1/8) x 2	(51 x 66-3/4 x 30-1/8) x 2	(51 x 66-3/4 x 30-1/8) x 2	
	Shipping dimensions (WxHxD)	in.					
Operating temp range	Cooling	°F	(53-5/8 x 75-1/4 x 32-3/4) x 2	(53-5/8 x 75-1/4 x 32-3/4) x 2	(53-5/8 x 75-1/4 x 32-3/4) x 2	(53-5/8 x 75-1/4 x 32-3/4) x 2	

Table 18. 460 V heat pump dual module: 26–32 ton capacity (continued)

Model name			4TVH0312C400NA	4TVH0336C400NA	4TVH0360C400NA	4TVH0384C400NA		
Individual Models			4TVH0144C400NA + 4TVH0168C400NA	2x 4TVH0168C400NA	4TVH0168C400NA + 4TVH0192C400NA	2x 4TVH0192C400NA		
Power supply			460/60/3	460/60/3	460/60/3	460/60/3		
Nominal tons			26.0	28.0	30.0	32.0		
System type			Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted
Operating Range	Heating	°F						
	Cooling	°F	23 – 120 (-13 to 120, see footnote 6)	23 – 120 (-13 to 120, see footnote 6)	23 – 120 (-13 to 120, see footnote 6)	23 – 120 (-13 to 120, see footnote 6)	23 – 120 (-13 to 120, see footnote 6)	23 – 120 (-13 to 120, see footnote 6)
	Heating	°F	-13 – 75	-13 – 75	-13 – 75	-13 – 75	-13 – 75	

Notes:

- Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
- Rated per AHRI-1230 Standard conditions
- Actual length (equivalent length in parenthesis)
- If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
- Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
- 13°F cooling with low ambient cooling kit.



Product Specifications

Table 19. 460 V heat pump triple module: 34–38 ton capacity

Model name				4TVH0408C400NA		4TVH0432C400NA		4TVH0456C400NA			
Individual Models				4TVH0072C400NA + 4TVH0144C400NA + 4TVH0192C400NA		3x 4TVH0144C400NA		4TVH0120C400NA + 2x 4TVH0168C400NA			
Power supply				460/60/3		460/60/3		460/60/3			
Nominal tons				34.0		36.0		38.0			
System type				Ducted		Non-ducted		Ducted		Non-ducted	
Performance	Capacity (nominal) ¹	Cooling	Btu/h	408,000	408,000	432,000	432,000	456,000	456,000		
		Heating	Btu/h	459,000	459,000	486,000	486,000	513,000	513,000		
	Capacity (rated) ²	Cooling	Btu/h	390,000	390,000	415,000	415,000	435,000	435,000		
		High temp heating	Btu/h	435,000	435,000	460,000	460,000	490,000	490,000		
		Low temp heating	Btu/h	284,000	284,000	300,000	300,000	320,000	320,000		
	AHRI -1230 efficiency ratings ²	EER	-	9.80	9.80	9.60	9.60	9.70	9.70		
		IEER	-	17.80	19.10	17.00	19.10	16.60	19.00		
		COP @ 47°F	-	3.20	3.20	3.20	3.20	3.22	3.23		
		COP @ 17°F	-	2.36	2.36	2.28	2.33	2.17	2.27		
		SCHE	-	-	-	-	-	-	-		
Power	MCA		A	Each individual outdoor unit requires a separate electrical connection. Refer to the electrical data for each individual outdoor unit.							
	MOP		A								
	SCCR		kA								
Compressor	Type (qty)		-	SSC scroll (5)		SSC scroll (6)		SSC scroll (5)			
	Model name		-	DS-GB052FAVBSG x 3 + DS-GB066FAVBSG x 2		DS-GB052FAVBSG x 6		DS-GB052FAVBSG x 4 + DS-GB066FAVBSG x 1			
	Oil	Type	-	PVE		PVE		PVE			
		Initial charge	fl. oz.	551.1		628.8		551.1			
Fan	Type (qty)		-	Propeller (6)		Propeller (6)		Propeller (6)			
	Output (each)		W	630 + (620 x 2) + (620 X 2)		(620 x 2) + (620 x 2) + (620 X 2)		(620 x 2) + (620 x 2) + (620 X 2)			
	Airflow rate		CFM	7,240 + 9,535 + 10,950		9,535 x 3		9,180 + (10,950 x 2)			
	External static pressure		in. WG	0.31		0.31		0.31			
Piping connections	Liquid pipe		dia. in.	3/4 braze		3/4 braze		3/4 braze			
	Gas pipe		dia. in.	1-5/8 braze		1-5/8 braze		1-5/8 braze			
	High pressure gas pipe (for HR)		dia. in.	N/A		N/A		N/A			
	Installation limits	Max length ³	ft	656		656		656			
		Max height ⁴	ft	361		361		361			

Table 19. 460 V heat pump triple module: 34–38 ton capacity (continued)

Model name			4TVH0408C400NA	4TVH0432C400NA	4TVH0456C400NA	
Individual Models			4TVH0072C400NA + 4TVH0144C400NA + 4TVH0192C400NA	3x 4TVH0144C400NA	4TVH0120C400NA + 2x 4TVH0168C400NA	
Power supply			460/60/3	460/60/3	460/60/3	
Nominal tons			34.0	36.0	38.0	
System type			Ducted	Non-ducted	Ducted	Non-ducted
Indoor unit connections	Number of connectable IDUs	-	64	64	64	
	Total capacity (cooling)	Btu/h	204,000 – 530,400	216,000 – 561,600	228,000 – 592,800	
Refrigerant	Type	-	R410A	R410A	R410A	
	Factory charge	lbs.	55.6	57.5	64.8	
Sound ⁵	Sound pressure	dB(A)	67	67	67	
	Sound power	dB(A)	88	88	89	
External dimensions	Net weight	lbs.	425 + 657 + 734	657 x 3	624 + (717 x 2)	
	Shipping weight	lbs.	461 + 699 + 772	699 x 3	666 + (754 x 2)	
	Net dimensions (WxHxD)	in.	34-5/8 x 66-3/4 x 30-1/8 + (51 x 66-3/4 x 30-1/8) x 2	(51 x 66-3/4 x 30-1/8) x 3	(51 x 66-3/4 x 30-1/8) x 3	
	Shipping dimensions (WxHxD)	in.	37-3/8 x 75-1/4 x 32-3/4 + (53-5/8 x 75-1/4 x 32-3/4) x 2	(53-5/8 x 75-1/4 x 32-3/4) x 3	(53-5/8 x 75-1/4 x 32-3/4) x 3	
Operating temp range	Cooling	°F	23 – 120 (-13 to 120, see footnote 6)	23 – 120 (-13 to 120, see footnote 6)	23 – 120 (-13 to 120, see footnote 6)	
	Heating	°F	-13 – 75	-13 – 75	-13 – 75	

Notes:

- Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
- Rated per AHRI-1230 Standard conditions
- Actual length (equivalent length in parenthesis)
- If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
- Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
- 13°F cooling with low ambient cooling kit.



Product Specifications

Table 20. 460 V heat pump triple modules: 40–44 ton capacity

Model name			4TVH0480C400NA		4TVH0504C400NA		4TVH0528C400NA			
Individual Models			4TVH0144C400NA + 2x 4TVH0168C400NA		3x 4TVH0168C400NA		2x 4TVH0168C400NA + 4TVH0192C400NA			
Power supply			460/60/3		460/60/3		460/60/3			
Nominal tons			40.0		42.0		44.0			
System type			Ducted		Non-ducted		Ducted		Non-ducted	
Performance	Capacity (nominal) ¹	Cooling	Btu/h	480,000	480,000	504,000	504,000	528,000	528,000	
		Heating	Btu/h	540,000	540,000	567,000	567,000	594,000	594,000	
	Capacity (rated) ²	Cooling	Btu/h	455,000	455,000	480,000	480,000	500,000	500,000	
		High temp heating	Btu/h	510,000	510,000	535,000	535,000	560,000	560,000	
		Low temp heating	Btu/h	332,000	332,000	348,000	348,000	364,000	364,000	
	AHRI -1230 efficiency ratings ²	EER	-	9.60	9.60	9.60	9.60	9.50	9.50	
		IEER	-	16.60	18.60	16.40	18.40	16.00	18.00	
		COP @ 47°F	-	3.21	3.21	3.21	3.21	3.20	3.20	
		COP @ 17°F	-	2.13	2.23	2.11	2.21	2.10	2.05	
		SCHE	-	-	-	-	-	-	-	
Power	MCA		A	Each individual outdoor unit requires a separate electrical connection. Refer to the electrical data for each individual outdoor unit.						
	MOP		A							
	SCCR		kA							
Compressor	Type (qty)		-	SSC scroll (6)		SSC scroll (6)		SSC scroll (6)		
	Model name		-	DS-GB052FAVBBSG x 6		DS-GB052FAVBBSG x 6		DS-GB052FAVBBSG x 4 +DS-GB066FAVBBSG x 2		
	Oil	Type	-	PVE		PVE		PVE		
		Initial charge	fl. oz.	628.8		628.8		628.8		
Fan	Type (qty)		-	Propeller (6)		Propeller (6)		Propeller (6)		
	Output (each)		W	(620 x 2) + (620 x 2) + (620 X 2)		(620 x 2) + (620 x 2) + (620 X 2)		(620 x 2) + (620 x 2) + (620 X 2)		
	Airflow rate		CFM	9,535 + (10,950 x 2)		10,950 x 3		10,950 x 3		
	External static pressure		in. WG	0.31		0.31		0.31		
Piping connections	Liquid pipe		dia. in.	3/4 braze		3/4 braze		3/4 braze		
	Gas pipe		dia. in.	1-5/8 braze		1-5/8 braze		1-5/8 braze		
	High pressure gas pipe (for HR)		dia. in.	N/A		N/A		N/A		
	Installation limits	Max length ³	ft	656		656		656		
		Max height ⁴	ft	361		361		361		

Table 20. 460 V heat pump triple modules: 40–44 ton capacity (continued)

Model name			4TVH0480C400NA	4TVH0504C400NA	4TVH0528C400NA	
Individual Models			4TVH0144C400NA + 2x 4TVH0168C400NA	3x 4TVH0168C400NA	2x 4TVH0168C400NA + 4TVH0192C400NA	
Power supply			460/60/3			
Nominal tons			40.0			
System type			Ducted	Non-ducted	Ducted	Non-ducted
Indoor unit connections	Number of connectable IDUs	-	64		64	
	Total capacity (cooling)	Btu/h	240,000 – 624,000		252,000 – 655,200	
Refrigerant	Type	-	R410A		R410A	
	Factory charge	lbs.	67.9		72.8	
Sound ⁵	Sound pressure	dB(A)	67		68	
	Sound power	dB(A)	89		90	
External dimensions	Net weight	lbs.	657 + (717 x 2)		717 x 3	
	Shipping weight	lbs.	699 + (754 x 2)		754 x 3	
	Net dimensions (WxHxD)	in.	(51 x 66-3/4 x 30-1/8) x 3		(51 x 66-3/4 x 30-1/8) x 3	
	Shipping dimensions (WxHxD)	in.	(53-5/8 x 75-1/4 x 32-3/4) x 3		(53-5/8 x 75-1/4 x 32-3/4) x 3	
Operating temp range	Cooling	°F	23 – 120 (-13 to 120, see footnote 6)		23 – 120 (-13 to 120, see footnote 6)	
	Heating	°F	-13 – 75		-13 – 75	

Notes:

- Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
- Rated per AHRI-1230 Standard conditions
- Actual length (equivalent length in parenthesis)
- If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
- Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
- 13°F cooling with low ambient cooling kit.



Product Specifications

Table 21. 460 V heat recovery single: 6–10 ton capacity

Model name				4TVR0072C400NA		4TVR0096C400NA		4TVR0120C400NA	
Power supply				460/60/3		460/60/3		460/60/3	
Nominal tons				6.0		8.0		10.0	
System type				Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted
Performance	Capacity (nominal) ¹	Cooling	Btu/h	72,000	72,000	96,000	96,000	120,000	120,000
		Heating	Btu/h	81,000	81,000	108,000	108,000	135,000	135,000
	Capacity (rated) ²	Cooling	Btu/h	69,000	69,000	92,000	92,000	114,000	114,000
		High temp heating	Btu/h	77,000	77,000	103,000	103,000	129,000	129,000
		Low temp heating	Btu/h	51,000	51,000	67,000	67,000	84,000	84,000
	AHRI -1230 efficiency ratings ²	EER	-	11.50	14.60	11.60	13.90	11.10	12.40
		IEER	-	22.50	33.00	22.40	31.00	21.20	28.70
		COP @ 47°F	-	3.46	4.35	3.60	4.23	3.54	3.97
		COP @ 17°F	-	2.49	2.75	2.47	2.81	2.58	2.53
		SCHE	-	27.00	29.00	27.50	31.50	26.50	30.00
Power	MCA		A	16.4		19.0		21.7	
	MOP		A	20		25		30	
	SCCR		kA	5		5		5	
Compressor	Type (qty)		-	SSC scroll (1)		SSC scroll (1)		SSC scroll (1)	
	Model name		-	DS-GB052FAVB SG		DS-GB066FAVB SG		DS-GB066FAVB SG	
	Oil	Type	-	PVE		PVE		PVE	
		Initial charge	fl. oz.	131.9		131.9		131.9	
Fan	Type (qty)		-	Propeller (1)		Propeller (2)		Propeller (2)	
	Output (each)		W	630		620		620	
	Airflow rate		CFM	7,240		9,180		9,180	
	External static pressure		in. WG	0.31		0.31		0.31	
Piping connections	Liquid pipe		dia. in.	3/8 braze		3/8 braze		1/2 braze	
	Gas pipe		dia. in.	3/4 braze		7/8 braze		1-1/8 braze	
	High pressure gas pipe (for HR)		dia. in.	5/8 braze		3/4 braze		7/8 braze	
	Installation limits	Max length ³	ft	656		656		656	
		Max height ⁴	ft	361		361		361	

Table 21. 460 V heat recovery single: 6–10 ton capacity (continued)

Model name			4TVR0072C400NA	4TVR0096C400NA	4TVR0120C400NA
Power supply			460/60/3		
Nominal tons			6.0		
System type			Ducted	Non-ducted	Ducted
Indoor unit connections	Number of connectable IDUs	-	12		16
	Total capacity (cooling)	Btu/h	36,000 – 93,600		48,000 – 124,800
Refrigerant	Type	-	R410A		R410A
	Factory charge	lbs.	12.1		16.3
Sound ⁵	Sound pressure	dB(A)	60.0		61.0
	Sound power	dB(A)	81		81
External dimensions	Net weight	lbs.	445		553
	Shipping weight	lbs.	481		595
	Net dimensions (WxHxD)	in.	34-5/8 x 66-3/4 x 30-1/8		51 x 66-3/4 x 30-1/8
	Shipping dimensions (WxHxD)	in.	37.32 x 75.28 x 32.76		53-5/8 x 75-1/4 x 32-3/4
Operating temp range	Cooling ⁶	°F	5 – 120 (-13 to 120, see footnote 7)		5 – 120 (-13 to 120, see footnote 7)
	Heating	°F	-13 - 75		-13 - 75

Notes:

- Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
- Rated per AHRI-1230 Standard conditions
- Actual length (equivalent length in parenthesis)
- If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
- Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
- Refer to the ""Outdoor Unit Operation Limits," p. 68 section of this document.
- 13°F cooling with low ambient cooling kit.



Product Specifications

Table 22. 460 V heat recovery single modules: 12–16 ton capacity

Model name				4TVR0144C400NA		4TVR0168C400NA		4TVR0192C400NA	
Power supply				460/60/3		460/60/3		460/60/3	
Nominal tons				12.0		14.0		16.0	
System type				Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted
Performance	Capacity (nominal) ¹	Cooling	Btu/h	144,000	144,000	168,000	168,000	192,000	192,000
		Heating	Btu/h	162,000	162,000	189,000	189,000	216,000	216,000
	Capacity (rated) ²	Cooling	Btu/h	138,000	138,000	160,000	160,000	184,000	184,000
		High temp heating	Btu/h	154,000	154,000	180,000	180,000	206,000	206,000
		Low temp heating	Btu/h	100,000	100,000	118,000	118,000	134,000	134,000
	AHRI -1230 efficiency ratings ²	EER	-	11.70	12.00	10.60	10.90	10.60	10.60
		IEER	-	21.60	26.50	20.80	24.50	21.00	23.00
		COP @ 47°F	-	3.54	3.81	3.21	3.65	3.20	3.50
		COP @ 17°F	-	2.42	2.55	2.25	2.50	2.20	2.45
		SCHE	-	26.00	27.50	25.00	26.50	23.50	26.00
Power	MCA		A	28.7		33.0		37.0	
	MOP		A	40		40		50	
	SCCR		kA	5		5		5	
Compressor	Type (qty)		-	SSC scroll (2)		SSC scroll (2)		SSC scroll (2)	
	Model name		-	DS-GB052FAVBSG		DS-GB052FAVBSG		DS-GB066FAVBSG	
	Oil	Type	-	PVE		PVE		PVE	
		Initial charge	fl. oz.	209.6		209.6		209.6	
Fan	Type (qty)		-	Propeller (2)		Propeller (2)		Propeller (2)	
	Output (each)		W	620		620		620	
	Airflow rate		CFM	9,535		10,950		10,950	
	External static pressure		in. WG	0.31		0.31		0.31	
Piping connections	Liquid pipe		dia. in.	1/2 braze		5/8 braze		5/8 braze	
	Gas pipe		dia. in.	1-1/8 braze		1-1/8 braze		1-1/8 braze	
	High pressure gas pipe (for HR)		dia. in.	7/8 braze		7/8 braze		1-1/8 braze	
	Installation limits	Max length ³	ft	656		656		656	
		Max height ⁴	ft	361		361		361	

Table 22. 460 V heat recovery single modules: 12–16 ton capacity (continued)

Model name			4TVR0144C400NA	4TVR0168C400NA	4TVR0192C400NA	
Power supply			460/60/3			
Nominal tons			12.0			
System type			Ducted	Non-ducted	Ducted	Non-ducted
Indoor unit connections	Number of connectable IDUs	-	25		29	
	Total capacity (cooling)	Btu/h	72,000 – 187,200		84,000 – 218,400	
Refrigerant	Type	-	R410A		R410A	
	Factory charge	lbs.	19.2		24.3	
Sound ⁵	Sound pressure	dB(A)	62.0		63.0	
	Sound power	dB(A)	83		85	
External dimensions	Net weight	lbs.	692		736	
	Shipping weight	lbs.	734		772	
	Net dimensions (WxHxD)	in.	51 x 66-3/4 x 30-1/8		51 x 66-3/4 x 30-1/8	
	Shipping dimensions (WxHxD)	in.	53-5/8 x 75-1/4 x 32-3/4		53-5/8 x 75-1/4 x 32-3/4	
Operating temp range	Cooling ⁶	°F	5 – 120 (-13 to 120, see footnote 7)		5 – 120 (-13 to 120, see footnote 7)	
	Heating	°F	-13 - 75		-13 - 75	

Notes:

- Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
- Rated per AHRI-1230 Standard conditions
- Actual length (equivalent length in parenthesis)
- If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
- Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
- Refer to the ""Outdoor Unit Operation Limits," p. 68 section of this document.
- 13°F cooling with low ambient cooling kit.



Product Specifications

Table 23. 460 V heat recovery dual modules: 18–24 ton capacity

Model name				4TVR0216C400NA		4TVR0240C400NA		4TVR0264C400NA		4TVR0288C400NA		
Individual Models				4TVR0072C400NA + 4TVR0144C400NA		4TVR0072C400NA + 4TVR0168C400NA		4TVR0072C400NA + 4TVR0192C400NA		2x 4TVH0144C400NA		
Power supply				460/60/3		460/60/3		460/60/3		460/60/3		
Nominal tons				18.0		20.0		22.0		24.0		
System type				Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted	
Performance	Capacity (nominal) ¹	Cooling	Bt-u/h	216,000	216,000	240,000	240,000	264,000	264,000	288,000	288,000	
		Heating	Bt-u/h	243,000	243,000	270,000	270,000	297,000	297,000	324,000	324,000	
	Capacity (rated) ²	Cooling	Bt-u/h	206,000	206,000	228,000	228,000	252,000	252,000	276,000	276,000	
		High temp heating	Bt-u/h	230,000	230,000	258,000	258,000	282,000	282,000	308,000	308,000	
		Low temp heating	Bt-u/h	150,000	150,000	168,000	168,000	184,000	184,000	200,000	200,000	
	AHRI -1230 efficiency ratings ²	EER	-	10.60	10.80	10.60	10.60	10.10	10.10	10.00	12.00	
		IEER	-	20.50	23.40	20.10	22.00	19.60	21.90	21.60	22.00	
		COP @ 47° F	-	3.34	3.63	3.20	3.51	3.20	3.35	3.32	3.58	
		COP @ 17° F	-	2.31	2.52	2.40	2.38	2.17	2.31	2.36	2.48	
		SCHE	-	20.50	23.40	20.50	23.50	20.50	23.50	21.50	23.50	
	Power	MCA	A	Each individual outdoor unit requires a separate electrical connection. Refer to the electrical data for each individual outdoor unit.								
		MOP	A									
SCCR		kA										
Compressor	Type (qty)	-	SSC scroll (3)		SSC scroll (3)		SSC scroll (3)		SSC scroll (4)			
	Model name	-	DS-GB052FAVBSG x 3		DS-GB052FAVBSG x 3		DS-GB052FAVBSG x 1 + DS-GB066FAVBSG X 2		DS-GB052FAVBSG x 4			
	Oil	Type	PVE		PVE		PVE		PVE			
	Initial charge	fl. oz.										
Fan	Type (qty)	-	Propeller (3)		Propeller (3)		Propeller (3)		Propeller (4)			
	Output (each)	W	630 + (620 x 2)		630 + (620 x 2)		630 + (620 x 2)		(620 x 2) + (620 X 2)			
	Airflow rate	CF-M	7,240 + 9,535		7,240 + 10,950		7,240 + 10,950		9,352 x 2			
	External static pressure	in. WG	0.31		0.31		0.31		0.31			

Table 23. 460 V heat recovery dual modules: 18–24 ton capacity (continued)

Model name			4TVR0216C400NA	4TVR0240C400NA	4TVR0264C400NA	4TVR0288C400NA		
Individual Models			4TVR0072C400NA + 4TVR0144C400NA	4TVR0072C400NA + 4TVR0168C400NA	4TVR0072C400NA + 4TVR0192C400NA	2x 4TVH0144C400NA		
Power supply			460/60/3	460/60/3	460/60/3	460/60/3		
Nominal tons			18.0	20.0	22.0	24.0		
System type			Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted
Piping connections	Liquid pipe	dia. in.	5/8 braze	5/8 braze	5/8 braze	3/4 braze		
	Gas pipe	dia. in.	1-1/8 braze	1-1/8 braze	1-1/8 braze	1-3/8 braze		
	High pressure gas pipe (for HR)	dia. in.	1-1/8 braze	1-1/8 braze	1-1/8 braze	1-1/8 braze		
	Installation limits	Max length ³	ft	656	656	656	656	
		Max height ⁴	ft	361	361	361	361	
Indoor unit connections	Number of connectable IDUs	-	37	41	45	49		
	Total capacity (cooling)	Bt-u/h	108,000 – 280,800	120,000 – 312,000	132,000 – 343,200	144,000 – 374,400		
Refrigerant	Type	-	R410A	R410A	R410A	R410A		
	Factory charge	lbs.	31.3	36.4	36.4	38.4		
Sound ⁵	Sound pressure	dB (A)	64	65	65	65		
	Sound power	dB (A)	84	86	87	86		
External dimensions	Net weight	lbs.	430 + 672	430 + 732	430 + 750	672 x 2		
	Shipping weight	lbs.	465 + 714	465 + 770	465 + 788	714 x 2		
	Net dimensions (WxHxD)	in.	(34-5/8 x 66-3/4 x 30-1/8) + (51 x 66-3/4 x 30-1/8)	(34-5/8 x 66-3/4 x 30-1/8) + (51 x 66-3/4 x 30-1/8)	(34-5/8 x 66-3/4 x 30-1/8) + (51 x 66-3/4 x 30-1/8)	(51 x 66-3/4 x 30-1/8) x 2		



Product Specifications

Table 23. 460 V heat recovery dual modules: 18–24 ton capacity (continued)

Model name			4TVR0216C400NA	4TVR0240C400NA	4TVR0264C400NA	4TVR0288C400NA		
Individual Models			4TVR0072C400NA + 4TVR0144C400NA	4TVR0072C400NA + 4TVR0168C400NA	4TVR0072C400NA + 4TVR0192C400NA	2x 4TVH0144C400NA		
Power supply			460/60/3	460/60/3	460/60/3	460/60/3		
Nominal tons			18.0	20.0	22.0	24.0		
System type			Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted
	Shipping dimensions (WxHxD)	in.						
Operating temp range	Cooling ⁶	°F	5 – 120 (-13 to 120, see footnote 7)	5 – 120 (-13 to 120, see footnote 7)	5 – 120 (-13 to 120, see footnote 7)	5 – 120 (-13 to 120, see footnote 7)	5 – 120 (-13 to 120, see footnote 7)	
	Heating	°F	-13 - 75	-13 - 75	-13 - 75	-13 - 75	-13 - 75	

Notes:

- Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
- Rated per AHRI-1230 Standard conditions
- Actual length (equivalent length in parenthesis)
- If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
- Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
- Refer to the "Outdoor Unit Operation Limits," p. 68 section of this document.
- 13°F cooling with low ambient cooling kit.

Table 24. 460 V heat recovery dual modules: 26–32 ton capacity

Model name				4TVR0312C400NA		4TVR0336C400NA		4TVR0360C400NA		4TVR0384C400NA		
Individual Models				4TVR0144C400NA + 4TVR0168C400NA		2x 4TVR0168C400NA		4TVR0144C400NA + 4TVR0192C400NA		2x 4TVR0192C400NA		
Power supply				460/60/3		460/60/3		460/60/3		460/60/3		
Nominal tons				26.0		28.0		30.0		32.0		
System type				Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted	
Performance	Capacity (nominal) ¹	Cooling	Bt-u/h	312,000	312,000	336,000	336,000	360,000	288,000	384,000	384,000	
		Heating	Bt-u/h	351,000	351,000	378,000	378,000	405,000	405,000	432,000	432,000	
	Capacity (rated) ²	Cooling	Bt-u/h	298,000	298,000	320,000	320,000	344,000	344,000	366,000	366,000	
		High temp heating	Bt-u/h	334,000	334,000	360,000	360,000	386,000	386,000	410,000	410,000	
		Low temp heating	Bt-u/h	218,000	218,000	234,000	234,000	250,000	250,000	268,000	268,000	
	AHRI -1230 efficiency ratings ²	EER	-	9.90	9.90	9.80	9.80	9.70	9.70	9.70	9.70	
		IEER	-	20.10	20.40	19.40	20.30	18.90	20.00	18.50	19.50	
		COP @ 47° F	-	3.20	3.24	3.20	3.20	3.20	3.20	3.20	3.20	
		COP @ 17° F	-	2.41	2.46	2.38	2.43	2.38	2.42	2.42	2.41	
		SCHE	-	20.50	23.50	20.50	23.10	19.70	22.40	19.00	22.00	
	Power	MCA	A	Each individual outdoor unit requires a separate electrical connection. Refer to the electrical data for each individual outdoor unit.								
		MOP	A									
		SCCR	kA									
Compressor	Type (qty)	-	SSC scroll (4)		SSC scroll (4)		SSC scroll (4)		SSC scroll (4)			
	Model name	-	DS-GB052FAVBSG x 4		DS-GB052FAVBSG x 4		DS-GB052FAVBSG x 2 + DS-GB066FAVBSG X 2		DS-GB066FAVBSG X 4			
	Oil	Type	-	PVE		PVE		PVE		PVE		
		Initial charge	fl. oz.									
Fan	Type (qty)	-	Propeller (4)		Propeller (4)		Propeller (4)		Propeller (4)			
	Output (each)	W	(620 x 2) + (620 X 2)		(620 x 2) + (620 X 2)		(620 x 2) + (620 X 2)		(620 x 2) + (620 X 2)			
	Airflow rate	CF-M	9,535 + 10,950		10,950 x 2		10,950 x 2		10,950 x 2			
	External static pressure	in. WG	0.31		0.31		0.31		0.31			



Product Specifications

Table 24. 460 V heat recovery dual modules: 26–32 ton capacity (continued)

Model name			4TVR0312C400NA	4TVR0336C400NA	4TVR0360C400NA	4TVR0384C400NA	
Individual Models			4TVR0144C400NA + 4TVR0168C400NA	2x 4TVR0168C400NA	4TVR0144C400NA + 4TVR0192C400NA	2x 4TVR0192C400NA	
Power supply			460/60/3	460/60/3	460/60/3	460/60/3	
Nominal tons			26.0	28.0	30.0	32.0	
System type			Ducted	Non-ducted	Ducted	Non-ducted	
Piping connections	Liquid pipe	dia. in.	3/4 braze	3/4 braze	3/4 braze	3/4 braze	
	Gas pipe	dia. in.	1-3/8 braze	1-3/8 braze	1-5/8 braze	1-5/8 braze	
	High pressure gas pipe (for HR)	dia. in.	1-1/8 braze	1-1/8 braze	1-3/8 braze	1-3/8 braze	
	Installation limits	Max length ^{h3}	ft	656	656	656	656
		Max height ^{ht4}	ft	361	361	361	361
Indoor unit connections	Number of connectable IDUs	-	54	58	62	64	
	Total capacity (cooling)	Btu/h	156,000 – 405,600	168,000 – 436,800	180,000 – 468,000	192,000 – 499,200	
Refrigerant	Type	-	R410A	R410A	R410A	R410A	
	Factory charge	lbs.	43.4	48.5	48.5	48.5	
Sound ⁵	Sound pressure	dB (A)	66	66	66	66	
	Sound power	dB (A)	97	88	87	88	
External dimensions	Net weight	lbs.	672 + 732	732 x 2	732 + 750	750 x 2	
	Shipping weight	lbs.	714 + 770	770 x 2	770 + 788	788 x 2	
	Net dimensions (WxHxD)	in.	(51 x 66-3/4 x 30-1/8) x 2	(51 x 66-3/4 x 30-1/8) x 2	(51 x 66-3/4 x 30-1/8) x 2	(51 x 66-3/4 x 30-1/8) x 2	

Table 24. 460 V heat recovery dual modules: 26–32 ton capacity (continued)

Model name			4TVR0312C400NA	4TVR0336C400NA	4TVR0360C400NA	4TVR0384C400NA		
Individual Models			4TVR0144C400NA + 4TVR0168C400NA	2x 4TVR0168C400NA	4TVR0144C400NA + 4TVR0192C400NA	2x 4TVR0192C400NA		
Power supply			460/60/3	460/60/3	460/60/3	460/60/3		
Nominal tons			26.0	28.0	30.0	32.0		
System type			Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted
	Shipping dimensions (WxHxD)	in.						
Operating temp range	Cooling ⁶	°F	5 – 120 (-13 to 120, see footnote 7)	5 – 120 (-13 to 120, see footnote 7)	5 – 120 (-13 to 120, see footnote 7)	5 – 120 (-13 to 120, see footnote 7)	5 – 120 (-13 to 120, see footnote 7)	
	HEATING	°F	-13 - 75	-13 - 75	-13 - 75	-13 - 75	-13 - 75	

Notes:

1. Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - **Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - **Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
2. Rated per AHRI-1230 Standard conditions
3. Actual length (equivalent length in parenthesis)
4. If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
5. Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
6. Refer to the "Outdoor Unit Operation Limits," p. 68 section of this document.
7. -13°F cooling with low ambient cooling kit.



Product Specifications

Table 25. 460 V heat recovery triple module: 34–38 ton capacity

Model name				4TVR0408C400NA		4TVR0432C400NA		4TVR0456C400NA			
Individual Models				4TVR0072C400NA + 4TVR0144C400NA + 4TVR0192C400NA		3x 4TVR0144C400NA		4TVR0120C400NA + 2x 4TVR0168C400NA			
Power supply				460/60/3		460/60/3		460/60/3			
Nominal tons				34.0		36.0		38.0			
System type				Ducted		Non-ducted		Ducted		Non-ducted	
Performance	Capacity (nominal) ¹	Cooling	Btu/h	408,000	408,000	432,000	432,000	456,000	456,000		
		Heating	Btu/h	459,000	459,000	486,000	486,000	513,000	513,000		
	Capacity (rated) ²	Cooling	Btu/h	390,000	390,000	415,000	415,000	435,000	435,000		
		High temp heating	Btu/h	435,000	435,000	460,000	460,000	490,000	490,000		
		Low temp heating	Btu/h	284,000	284,000	300,000	300,000	320,000	320,000		
	AHRI -1230 efficiency ratings ²	EER	-	9.80	9.80	9.60	9.60	9.70	9.70		
		IEER	-	17.80	19.10	17.00	19.10	16.50	19.00		
		COP @ 47°F	-	3.20	3.20	3.20	3.20	3.22	3.23		
		COP @ 17°F	-	2.36	2.36	2.28	2.33	2.17	2.27		
		SCHE	-	19.00	22.00	17.00	21.50	19.00	21.50		
Power	MCA		A	Each individual outdoor unit requires a separate electrical connection. Refer to the electrical data for each individual outdoor unit.							
	MOP		A								
	SCCR		kA								
Compressor	Type (qty)		-	SSC scroll (5)		SSC scroll (6)		SSC scroll (5)			
	Model name		-	DS-GB052FAVBSG x 3 + DS-GB066FAVBSG x 2		DS-GB052FAVBSG x 6		DS-GB052FAVBSG x 4 + DS-GB066FAVBSG x 1			
	Oil	Type	-	PVE		PVE		PVE			
Initial charge		fl. oz.	551.1		628.8		551.1				
Fan	Type (qty)		-	Propeller (5)		Propeller (6)		Propeller (6)			
	Output (each)		W	630 + (620 x 2) + (620 X 2)		(620 x 2) + (620 x 2) + (620 X 2)		(620 x 2) + (620 x 2) + (620 X 2)			
	Airflow rate		CFM	7,240 + 9,535 + 10,950		9,535 X 3		9,180 + (10,950 x 2)			
	External static pressure		in. WG	0.31		0.31		0.31			
Piping connections	Liquid pipe		dia. in.	3/4 braze		3/4 braze		3/4 braze			
	Gas pipe		dia. in.	1-5/8 braze		1-5/8 braze		1-5/8 braze			
	High pressure gas pipe (for HR)		dia. in.	1-3/8 braze		1-3/8 braze		1-3/8 braze			
	Installation limits	Max length ³	ft	656		656		656			
		Max height ⁴	ft	361		361		361			

Table 25. 460 V heat recovery triple module: 34–38 ton capacity (continued)

Model name			4TVR0408C400NA	4TVR0432C400NA	4TVR0456C400NA	
Individual Models			4TVR0072C400NA + 4TVR0144C400NA + 4TVR0192C400NA	3x 4TVR0144C400NA	4TVR0120C400NA + 2x 4TVR0168C400NA	
Power supply			460/60/3	460/60/3	460/60/3	
Nominal tons			34.0	36.0	38.0	
System type			Ducted	Non-ducted	Ducted	Non-ducted
Indoor unit connections	Number of connectable IDUs	-	64	64	64	
	Total capacity (cooling)	Btu/h	216,000 – 561,600	216,000 – 561,600	228,000 – 592,800	
Refrigerant	Type	-	R410A	R410A	R410A	
	Factory charge	lbs.	55.6	57.5	64.8	
Sound ⁵	Sound pressure	dB(A)	67	67	67	
	Sound power	dB(A)	88	88	89	
External dimensions	Net weight	lbs.	430 + 672 + 750	672 x 3	637 + (732 x 2)	
	Shipping weight	lbs.	465 + 714 + 788	714 x 3	679 + (770 x 2)	
	Net dimensions (WxHxD)	in.	(34-5/8 x 66-3/4 x 30-1/8) + (51 x 66-3/4 x 30-1/8) x2	(51 x 66-3/4 x 30-1/8) x 3	(51 x 66-3/4 x 30-1/8) x 3	
	Shipping dimensions (WxHxD)	in.	37-3/8 x 75-1/4 x 32-3/4 + (53-5/8 x 75-1/4 x 32-3/4) x2	(53-5/8 x 75-1/4 x 32-3/4) x 3	(53-5/8 x 75-1/4 x 32-3/4) x 3	
Operating temp range	Cooling ⁶	°F	5 – 120 (-13 to 120, see footnote 8)	5 – 120 (-13 to 120, see footnote 8)	5 – 120 (-13 to 120, see footnote 8)	
	Heating	°F	-13 - 75	-13 - 75	-13 - 75	

Notes:

- Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
- Rated per AHRI-1230 Standard conditions.
- Actual length (equivalent length in parenthesis).
- If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft.
- Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
- Refer to the ""Outdoor Unit Operation Limits,"" p. 68 section of this document.
- Requires two each 4TDK3819B0000A and 4TDK3100B0000A outdoor unit Y-joint connections.
- 13°F cooling with low ambient cooling kit.



Product Specifications

Table 26. 460 V heat recovery triple module: 40–44 ton capacity

Model name			4TVR0480C400NA		4TVR0504C400NA		4TVR0528C400NA		
Individual Models			4TVR0144C400NA + 2x 4TVR0168C400NA		3x 4TVR0168C400NA		2x 4TVR0168C400NA + 4TVR0192C400NA		
Power supply			460/60/3		460/60/3		460/60/3		
Nominal tons			40.0		42.0		44.0		
System type			Ducted	Non-ducted	Ducted	Non-ducted	Ducted	Non-ducted	
Performance	Capacity (nominal) ¹	Cooling	Btu/h	480,000	480,000	504,000	504,000	528,000	528,000
		Heating	Btu/h	540,000	540,000	567,000	567,000	594,000	594,000
	Capacity (rated) ²	Cooling	Btu/h	455,000	455,000	480,000	480,000	500,000	500,000
		High temp heating	Btu/h	510,000	510,000	535,000	535,000	560,000	560,000
		Low temp heating	Btu/h	332,000	332,000	348,000	348,000	364,000	364,000
	AHRI -1230 efficiency ratings ²	EER	-	9.60	9.60	9.60	9.60	9.50	9.50
		IEER	-	16.60	18.60	16.40	18.40	16.00	18.00
		COP @ 47°F	-	3.21	3.21	3.21	3.21	3.20	3.20
		COP @ 17°F	-	2.13	2.23	2.11	2.21	2.10	2.05
		SCHE	-	19.00	21.50	19.00	20.00	18.50	19.00
Power	MCA		A	Each individual outdoor unit requires a separate electrical connection. Refer to the electrical data for each individual outdoor unit.					
	MOP		A						
	SCCR		kA						
Compressor	Type (qty)		-	SSC scroll (6)		SSC scroll (6)		SSC scroll (6)	
	Model name		-	DS-GB052FAVB SG x 6		DS-GB052FAVB SG x 6		DS-GB052FAVB SG x 4 + DS-GB066FAVB SG x 2	
	Oil	Type	-	PVE		PVE		PVE	
		Initial charge	fl. oz.	628.8		628.8		628.8	
Fan	Type (qty)		-	Propeller (6)		Propeller (6)		Propeller (6)	
	Output (each)		W	(620 x 2) + (620 x 2) + (620 x 2)		(620 x 2) + (620 x 2) + (620 x 2)		(620 x 2) + (620 x 2) + (620 x 2)	
	Airflow rate		CFM	9,535 + (10,950 x 2)		10,950 x 3		10,950 x 3	
	External static pressure		in. WG	0.31		0.31		0.31	
Piping connections	Liquid pipe		dia. in.	3/4 braze		3/4 braze		3/4 braze	
	Gas pipe		dia. in.	1-5/8 braze		1-5/8 braze		1-5/8 braze	
	High pressure gas pipe (for HR)		dia. in.	1-3/8 braze		1-3/8 braze		1-3/8 braze	
	Installation limits	Max length ³	ft	656		656		656	
		Max height ⁴	ft	361		361		361	

Table 26. 460 V heat recovery triple module: 40–44 ton capacity (continued)

Model name			4TVR0480C400NA	4TVR0504C400NA	4TVR0528C400NA	
Individual Models			4TVR0144C400NA + 2x 4TVR0168C400NA	3x 4TVR0168C400NA	2x 4TVR0168C400NA + 4TVR0192C400NA	
Power supply			460/60/3			
Nominal tons			40.0			
System type			Ducted	Non-ducted	Ducted	Non-ducted
Indoor unit connections	Number of connectable IDUs	-	64		64	
	Total capacity (cooling)	Btu/h	240,000 – 624,000		252,000 – 655,200	
Refrigerant	Type	-	R410A		R410A	
	Factory charge	lbs.	67.7		72.8	
Sound ⁵	Sound pressure	dB(A)	67		68	
	Sound power	dB(A)	89		90	
External dimensions	Net weight	lbs.	672 + (732 x 2)		732 x 3	
	Shipping weight	lbs.	714 + (770 x 2)		770 x 3	
	Net dimensions (WxHxD)	in.	(51 x 66-3/4 x 30-1/8) x 3		(51 x 66-3/4 x 30-1/8) x 3	
	Shipping dimensions (WxHxD)	in.	(53-5/8 x 75-1/4 x 32-3/4) x 3		(53-5/8 x 75-1/4 x 32-3/4) x 3	
Operating temp range	Cooling ⁶	°F	5 – 120 (-13 to 120, see footnote 8)		5 – 120 (-13 to 120, see footnote 8)	
	Heating	°F	-13 - 75		-13 - 75	

Notes:

- Nominal capacity based on 25 ft of equivalent refrigerant piping with 0 ft level difference.
 - Cooling:** Indoor temperature 80°F DB, 67°F WB/Outdoor temperature 95°F DB, 75°F WB
 - Heating:** Indoor temperature 70°F DB, 60°F WB/Outdoor temperature 47°F DB, 43°F WB
- Rated per AHRI-1230 Standard conditions.
- Actual length (equivalent length in parenthesis).
- If the outdoor unit is installed above the indoor unit, the allowable height difference is 361 ft. If the outdoor unit is installed below the indoor unit, the allowable height difference is 131 ft (131 m).
- Sound pressure was acquired in a dead room. Actual noise level may be different depending on installation conditions.
- Refer to the ""Outdoor Unit Operation Limits," p. 68 section of this document.
- Requires two each 4TDK3819B0000A and 4TDK3100B0000A outdoor unit Y-joint connections.
- 13°F cooling with low ambient cooling kit.

Outdoor Unit Operation Limits

Notes:

- For Figure 1, p. 68 and Figure 2, p. 68, it is recommended that wind baffles be used for outdoor units that produce cooling below an ambient temperature of 23°F (-5°C).
- For Figure 1, p. 68:
 - Cooling operation below 23°F (-5°C) heat pumps and 5°F (-15°C) heat recovery require installation of low ambient cooling kits and front and rear wind baffles.

Figure 1. Cooling

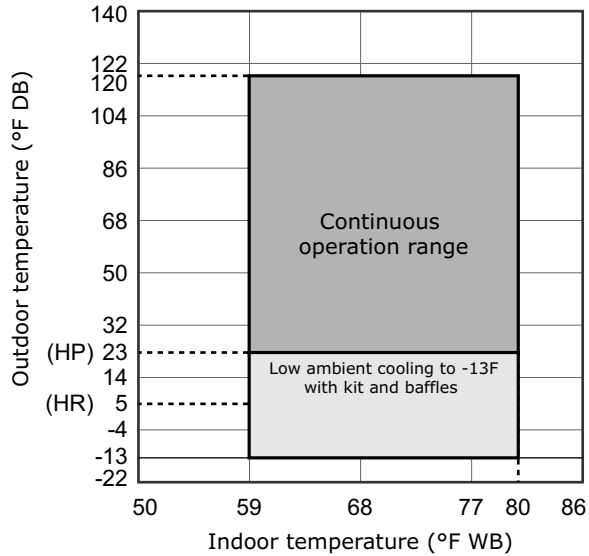
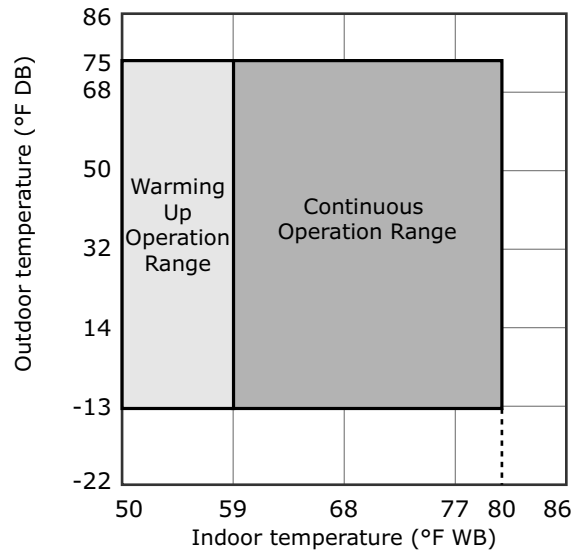


Figure 2. Heating



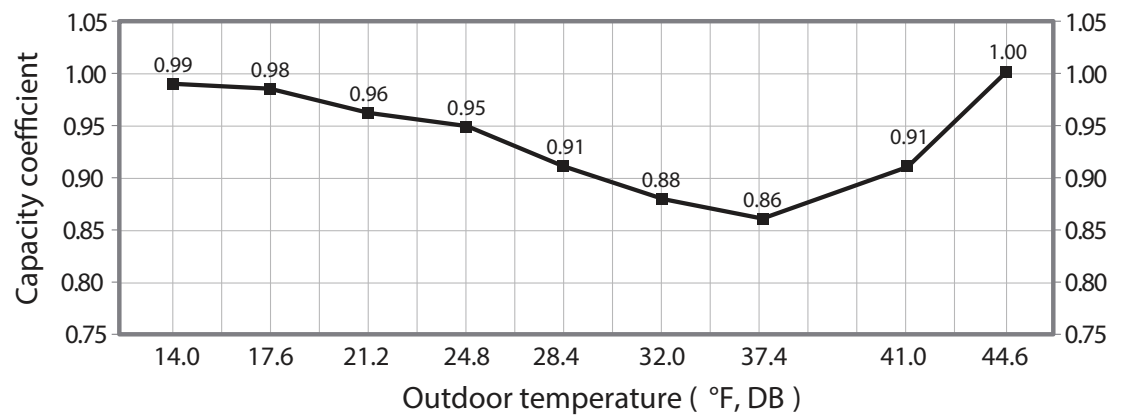
Defrosting Correction Factor

In heating operation, frost can be formed on heat exchanger according to outdoor temperature. (frost on heat exchanger results in decreasing the performance.) To remove frost on heat exchanger of outdoor unit, defrost operation is carried out periodically. During defrost operation, capacity of outdoor unit may decrease. The decrement is not considered to the individual capacity tables.

Outdoor temperature (°F, WB)	14	17.6	21.2	24.8	28.4	32.0	37.4	41.0	44.6
Capacity coefficient	0.99	0.98	0.96	0.95	0.91	0.88	0.86	0.91	1.00

Figure 3. Corrected Heating Capacity — Heating Capacity x Capacity Coefficient

Capacity coefficient of outdoor unit on defrost operation





Electrical Wiring Diagrams – Outdoor Units

Figure 4. Heat Pump - 4TVH0072C300NA, 4TVH0072C400NA

Note 1: Resistance value at 25°C (77°F)

Note 2: Input voltage 460 V: Does not apply
Input voltage 208–230 V: Apply

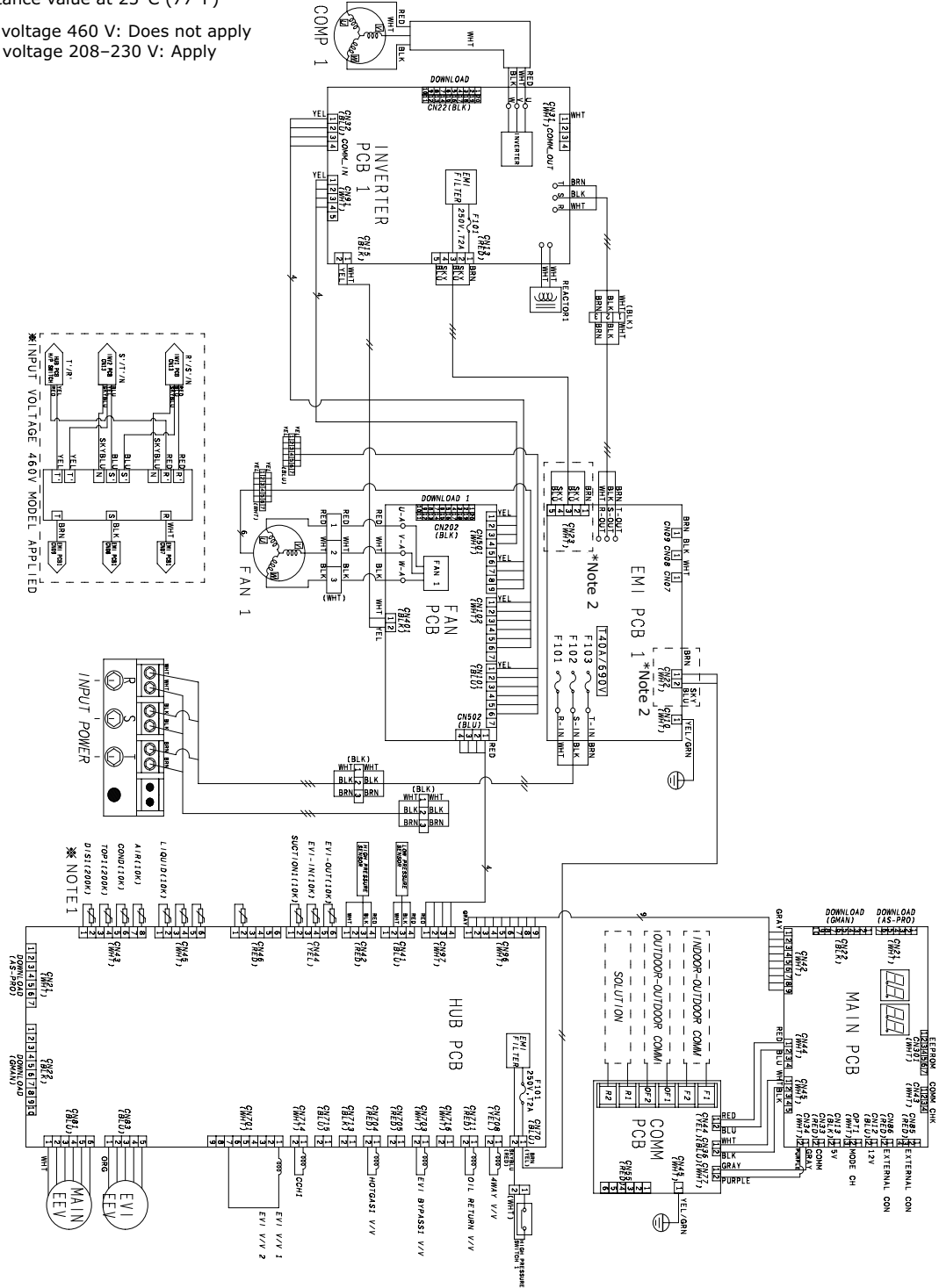
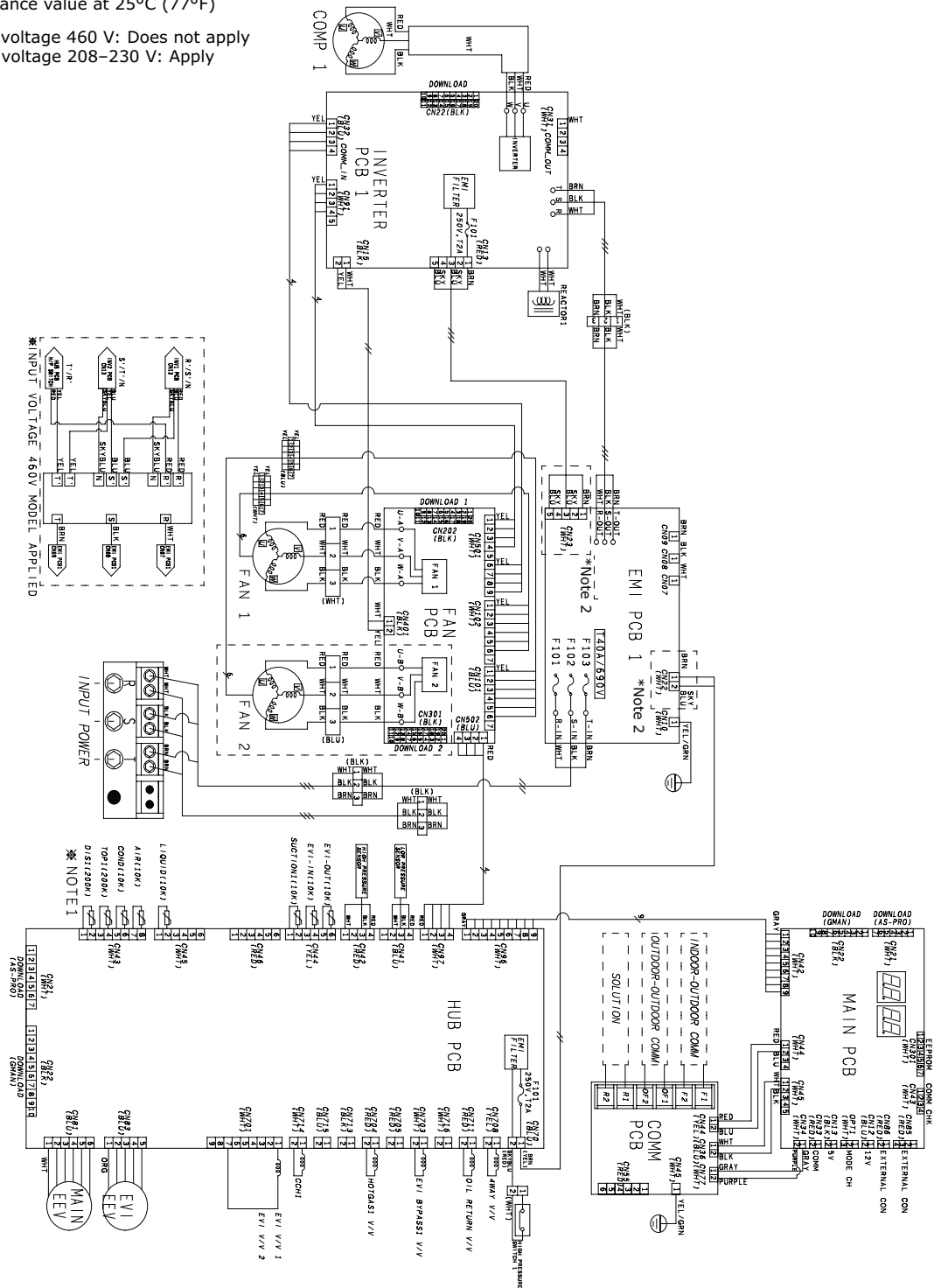


Figure 5. Heat Pump - 4TVH0096C400NA, 4TVH1020C400NA

Note 1: Resistance value at 25°C (77°F)

Note 2: Input voltage 460 V: Does not apply
Input voltage 208–230 V: Apply



Electrical Wiring Diagrams – Outdoor Units

Figure 6. Heat Pump - 4TVH0096C300NA, 4TVH0120C300NA, 4TVH0144C300NA, 4TVH0144C400NA, 4TVH0168C300NA, 4TVH0168C400NA, 4TVH0192C300NA, and 4TVH0192C400NA

Note 1: Resistance value at 25°C (77°F)

Note 2: Input voltage 460 V: Does not apply
Input voltage 208–230 V: Apply

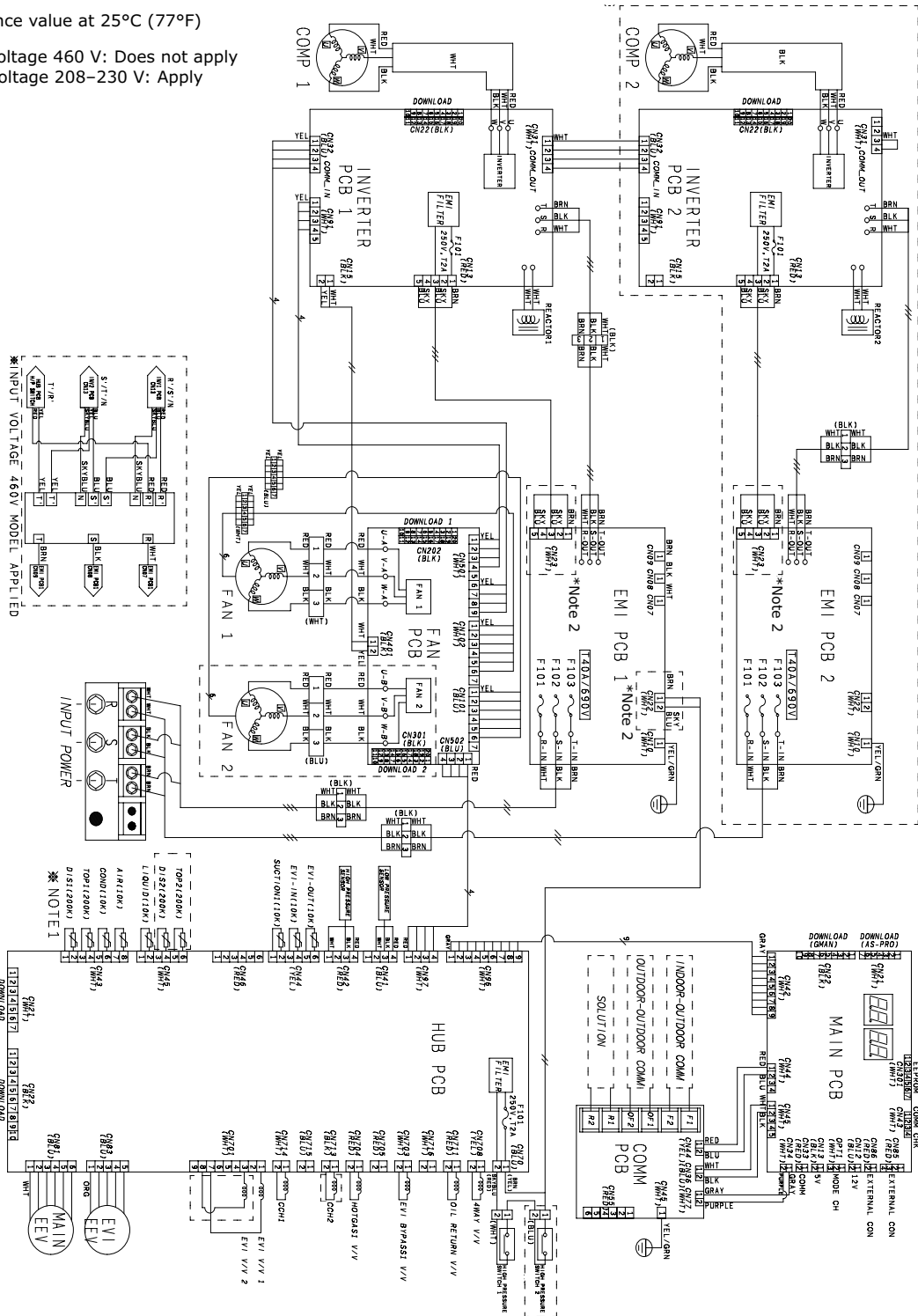


Figure 7. Heat Recovery - 4TVR0072C300NA, 4TVR0072C400NA

Note 1: Resistance value at 25°C (77°F)

Note 2: Input voltage 460 V: Does not apply
Input voltage 208-230 V: Apply

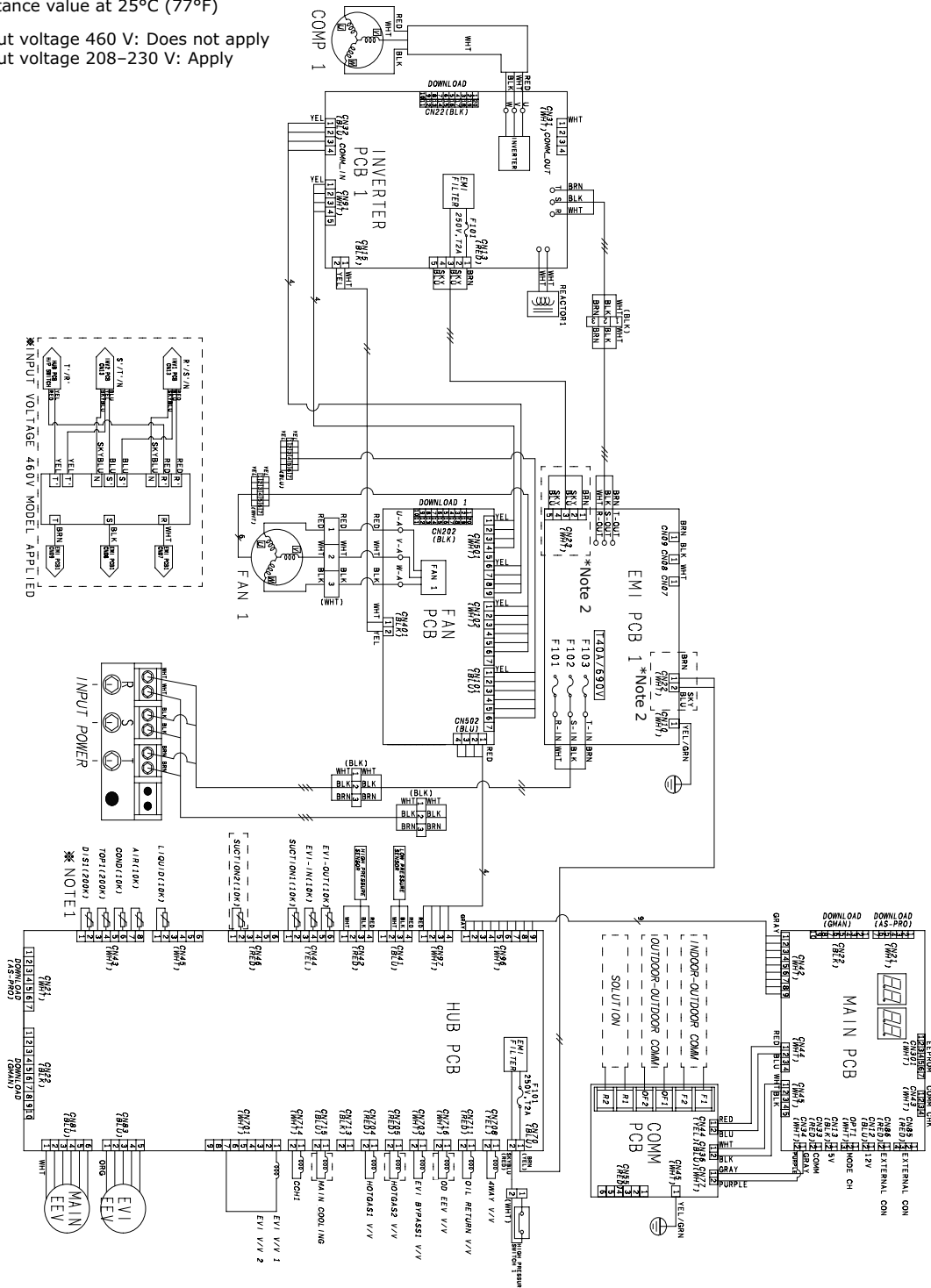


Figure 8. Heat Recovery - 4TVR0096C400NA, 4TVR0120C400NA

Note 1: Resistance value at 25°C (77°F)

Note 2: Input voltage 460 V: Does not apply
Input voltage 208–230 V: Apply

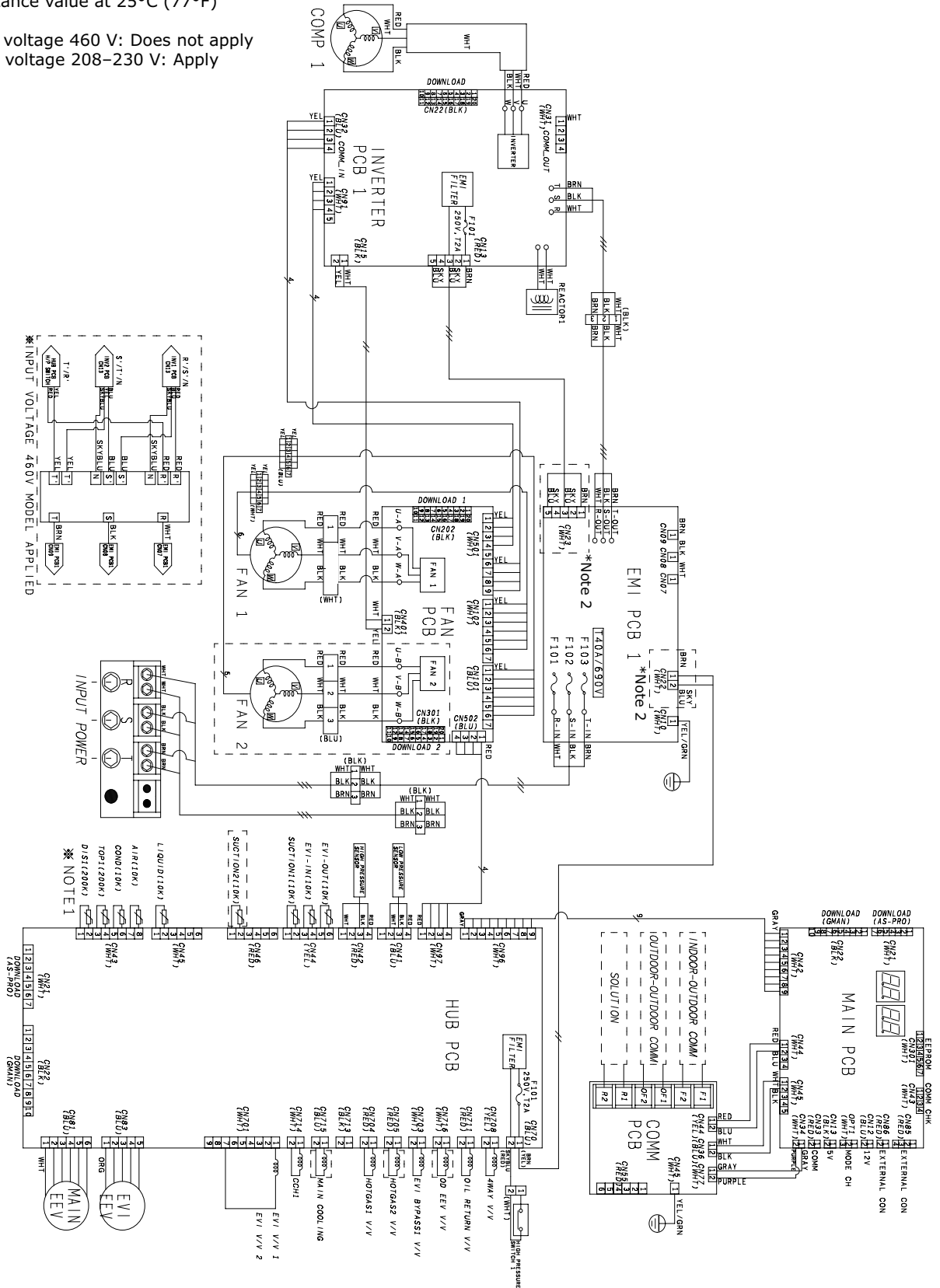
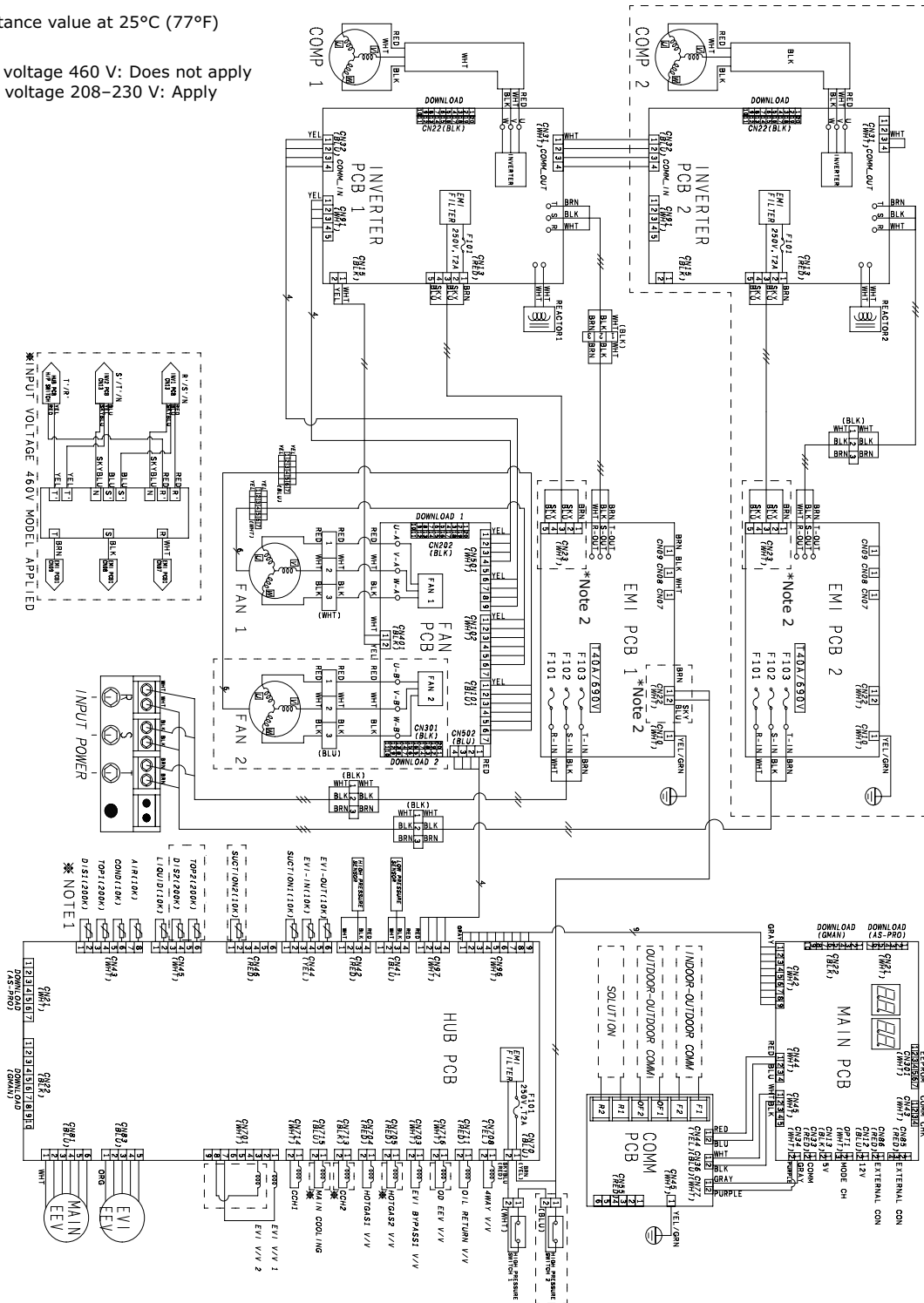


Figure 9. Heat Recovery - 4TVR0096C300NA, 4TVR0120C300NA, 4TVR0144C300NA, 4TVR0144C400NA, 4TVR0168C300NA, 4TVR0168C400NA, 4TVR0192C300NA and 4TVR0192C400NA

Note 1: Resistance value at 25°C (77°F)

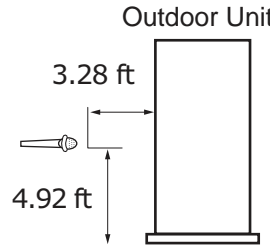
Note 2: Input voltage 460 V: Does not apply
Input voltage 208–230 V: Apply





Sound Levels

Sound Pressure Level



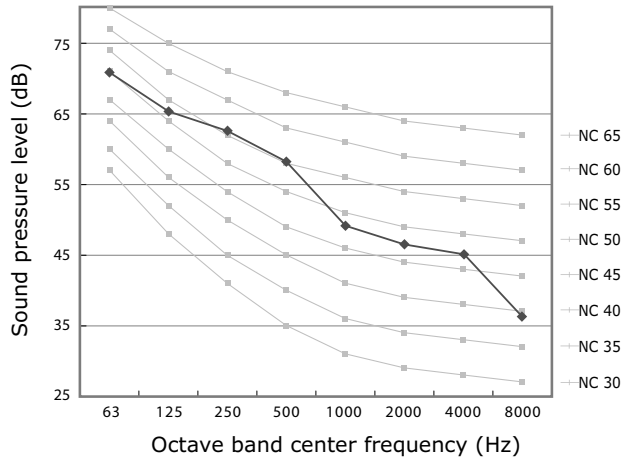
Model	Pressure, Unit: dB(A)
4TVH/R0072C300NA, 4TVH/R0072C400NA	60
4TVH/R0096C300NA, 4TVH/R0096C400NA	61
4TVH/R0120C300NA, 4TVH/R0120C400NA	61
4TVH/R0144C300NA, 4TVH/R0144C400NA	62
4TVH/R0168C300NA, 4TVH/R0168C400NA	63
4TVH/R0192C300NA, 4TVH/R0192C400NA	64

Notes:

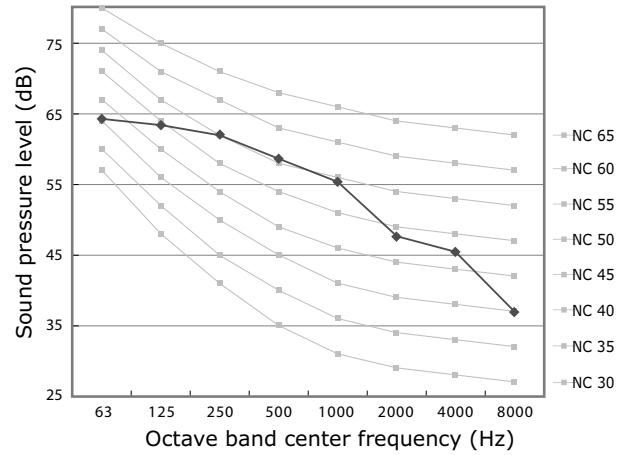
- *Measuring place: Anechoic chamber (conversion value)*
- *These operation sound value were obtained in a anechoic room. Sound pressure level will vary depending on a range of factors such as the construction of the particular room where the equipment is installed.*
- *Operation sound level may differ depending on operation and ambient conditions.*

NC Curves

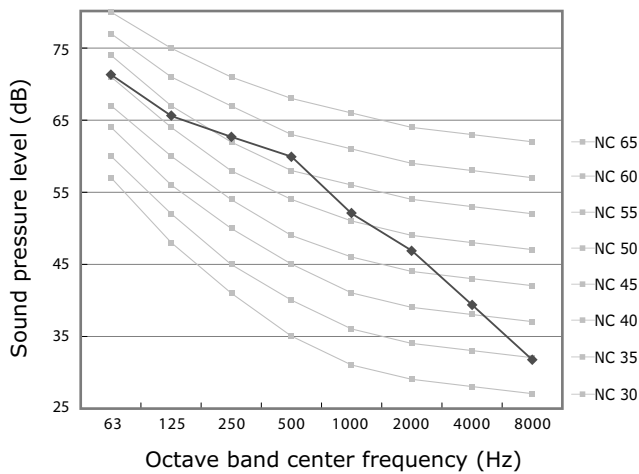
4TVH/R0072C300NA, 4TVH/R0072C400NA



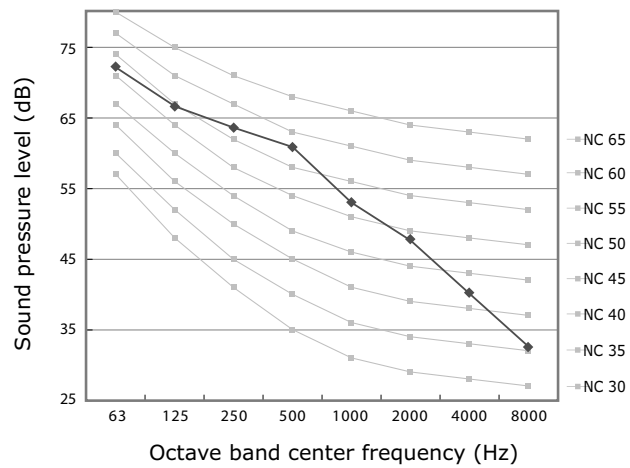
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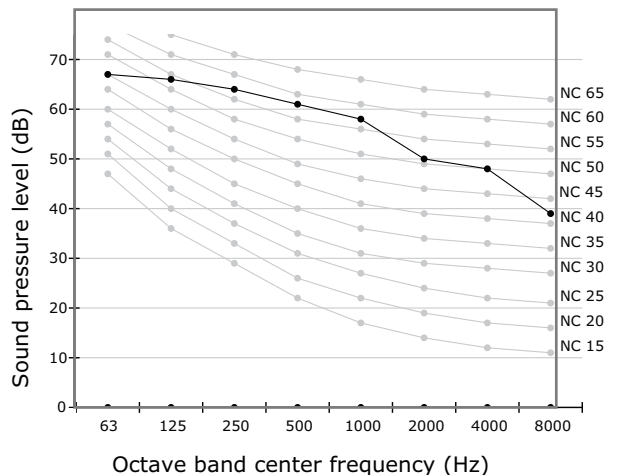
4TVH/R0120C300NA, 4TVH/R0120C400NA



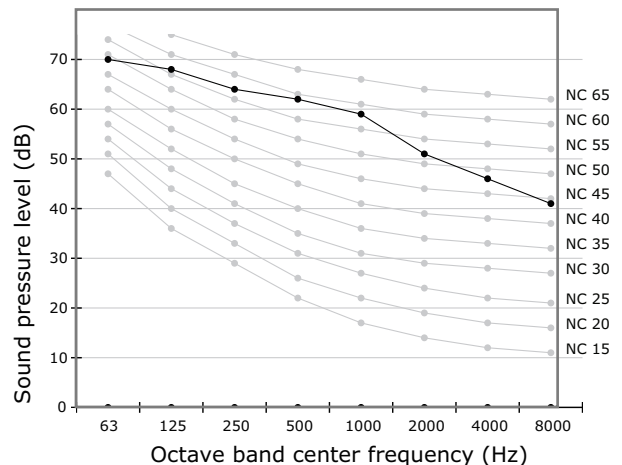
4TVH/R0144C300NA, 4TVH/R0144C400NA



4TVH/R0168C300NA, 4TVH/R0168C400NA



4TVH/R0192C300NA, 4TVH/R0192C400NA





Sound Power

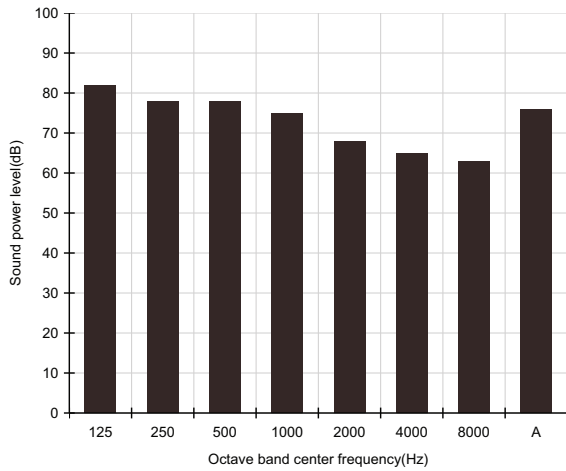
Notes:

- *dBA = A-weighted sound power level.*
- *Reference power: 1 pW*
- *Measured according to ISO 3741.*

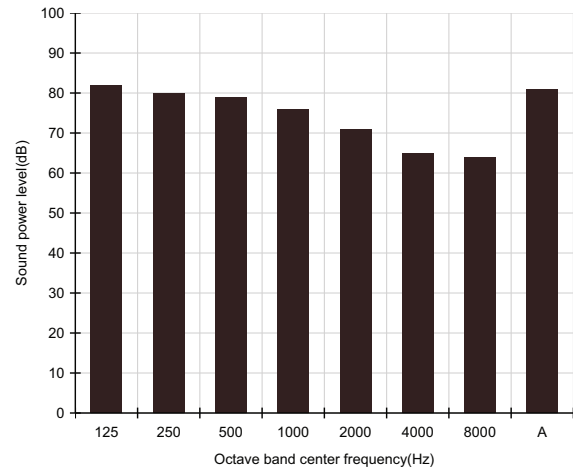
Model	Power, Unit: dB(A)
4TVH/R0072C300NA, 4TVH/R0072C400NA	77
4TVH/R0096C300NA, 4TVH/R0120C300NA	81
4TVH/R0120C300NA, 4TVH/R0120C400NA	81
4TVH/R0144C300NA, 4TVH/R0144C400NA	83
4TVH/R0168C300NA, 4TVH/R0168C400NA	85
4TVH/R0192C300NA, 4TVH/R0192C400NA	86

NR Curves

4TVH/R0072C300NA, 4TVH/R0072C400NA

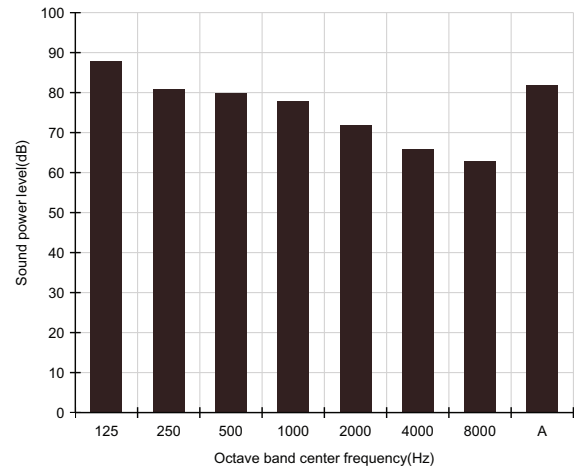
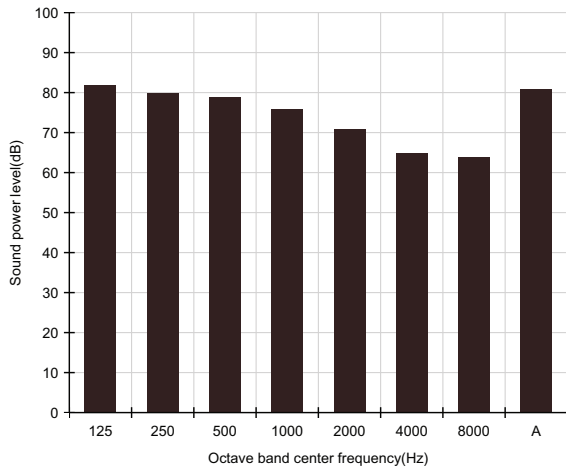
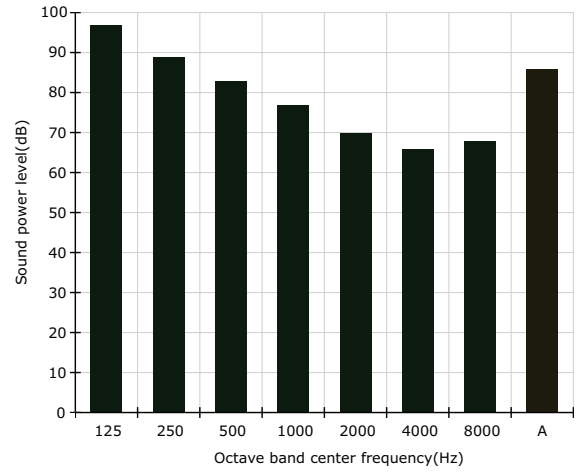
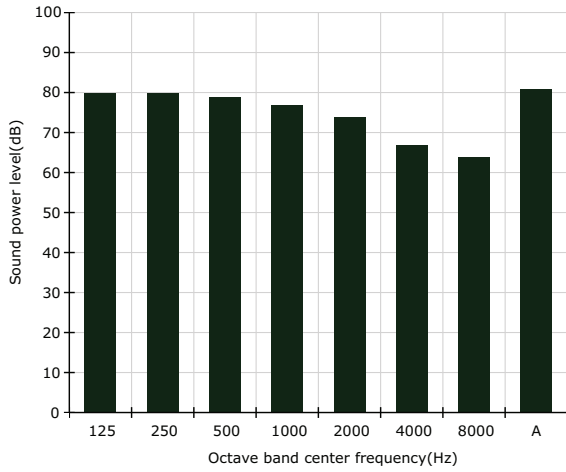


4TVH/R0096C300NA, 4TVH/R0096C400NA



4TVH/R0120C300NA, 4TVH/R0120C400NA

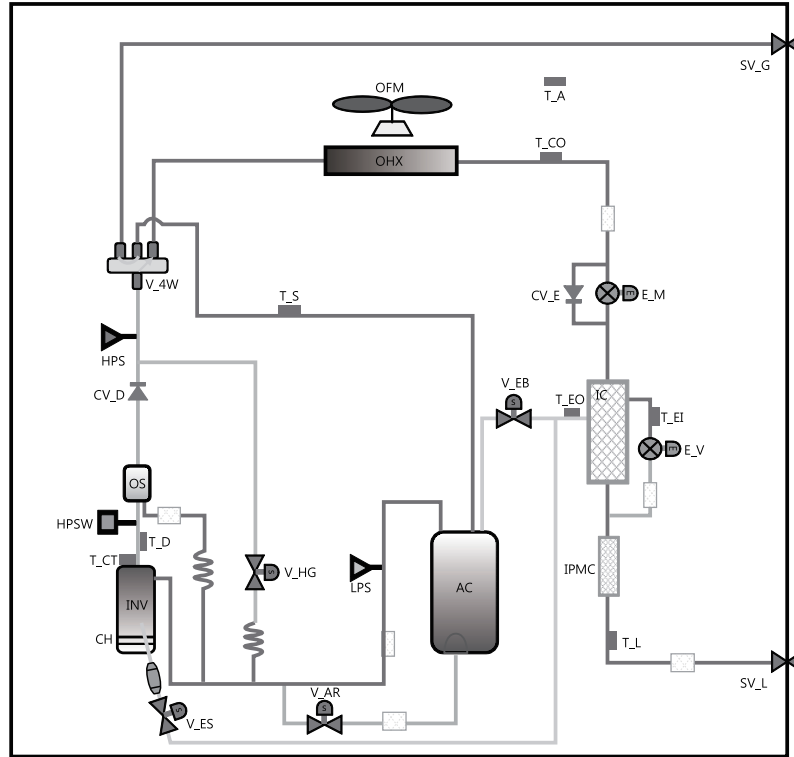
4TVH/R0144C300NA, 4TVH/R0144C400NA


4TVH/R0168C300NA, 4TVH/R0168C400NA
4TVH/R0192C300NA, 4TVH/R0192C400NA


Refrigerant Cycle Diagrams

Parts of Outdoor Unit (HP)

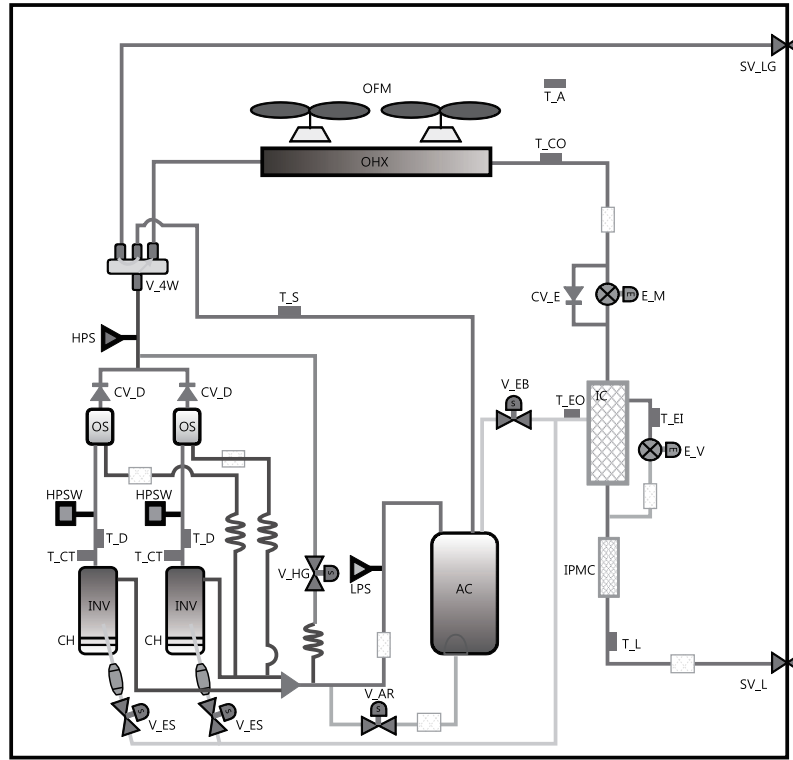
Figure 10. Refrigerant Cycle Diagram 4TVH0072C300NA and 4TVH0072C400NA



Classification	Description
INV	Inverter Compressor
OFM	Outdoor Fan Motor
OHX	Outdoor Heat Exchanger
AC	Accumulator
OS	Oil Separator
IC	Intercooler
IPMC	IPM Cooler
CH	Crank Case Heater
HPS	High Pressure Sensor
LPS	Low Pressure Sensor
HPSW	High Pressure Switch
E_M	Main EEV
E_EV	EVI EEV
V_ES	EVI Solenoid Valve
V_EB	EVI Bypass Valve

Classification	Description
V_HG	Hot Gas Bypass Valve
V_4W	4way Valve
V_AR	Accumulator Oil Return Valve
CV_E	EEV Bypass Check Valve
CV_D	Discharge Check Valve
T_D	Discharge Temperature Sensor
T_S	Suction Temperature Sensor
T_CO	Condenser Out Temperature Sensor
T_EI	EVI In Temperature Sensor
T_EO	EVI Out Temperature Sensor
T_L	Liquid Tube Temperature Sensor
T_CT	Compressor Top Temperature Sensor
T_A	Ambient Temperature Sensor
SV_G	Gas Pipe Service Valve
SV_L	Liquid Pipe Service Valve

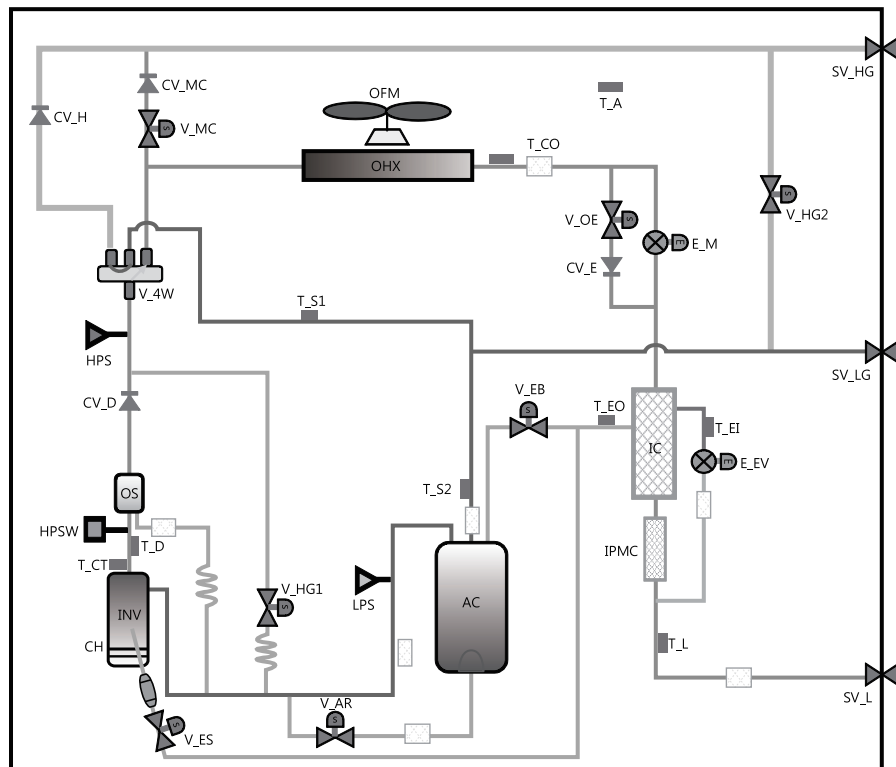
Figure 12. Refrigerant Cycle Diagram 4TVH0096C300NA, 4TVH0120C300NA, 4TVH0144C300NA, 4TVH0144C400NA, 4TVH0168C300NA, 4TVH0168C400NA, 4TVH0192C300NA and 4TVH0192C400NA



Classification	Description
INV	Inverter Compressor
OFM	Outdoor Fan Motor
OHX	Outdoor Heat Exchanger
AC	Accumulator
OS	Oil Separator
IC	Intercooler
IPMC	IPM Cooler
CH	Crank Case Heater
HPS	High Pressure Sensor
LPS	Low Pressure Sensor
HPSW	High Pressure Switch
E_M	Main EEV
E_EV	EVI EEV
V_ES	EVI Solenoid Valve
V_EB	EVI Bypass Valve

Classification	Description
V_HG	Hot Gas Bypass Valve
V_4W	4way Valve
V_AR	Accumulator Oil Return Valve
CV_E	EEV Bypass Check Valve
CV_D	Discharge Check Valve
T_D	Discharge Temperature Sensor
T_S	Suction Temperature Sensor
T_CO	Condenser Out Temperature Sensor
T_EI	EVI In Temperature Sensor
T_EO	EVI Out Temperature Sensor
T_L	Liquid Tube Temperature Sensor
T_CT	Compressor Top Temperature Sensor
T_A	Ambient Temperature Sensor
SV_G	Gas Pipe Service Valve
SV_L	Liquid Pipe Service Valve

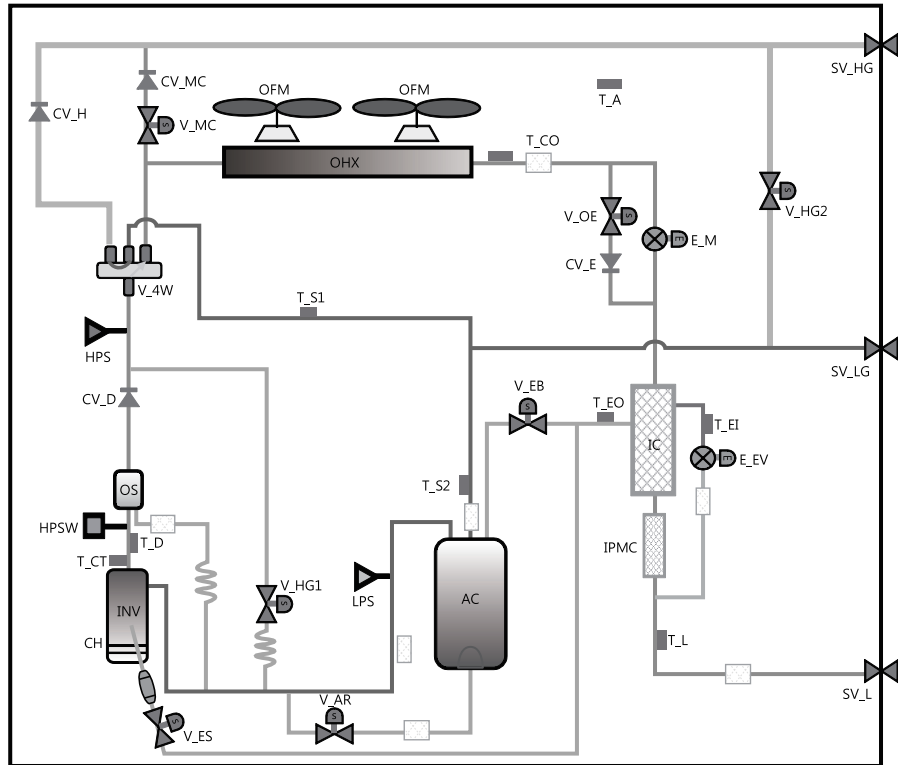
Parts of Outdoor Unit (HR)

Figure 13. Refrigerant Cycle Diagram 4TVR0072C300NA, 4TVR0072C400NA


Classification	Description
INV	Inverter Compressor
OFM	Outdoor Fan Motor
OHX	Outdoor Heat Exchanger
AC	Accumulator
OS	Oil Separator
IC	Intercooler
IPMC	IPM Cooler
CH	Crank Case Heater
HPS	High Pressure Sensor
LPS	Low Pressure Sensor
HPSW	High Pressure Switch
E_M	Main EEV
E_EV	EVI EEV
V_ES	EVI Solenoid Valve
V_EB	EVI Bypass Valve

Classification	Description
V_HG	Hot Gas Bypass Valve
V_4W	4way Valve
V_AR	Accumulator Oil Return Valve
CV_E	EEV Bypass Check Valve
CV_D	Discharge Check Valve
T_D	Discharge Temperature Sensor
T_S	Suction Temperature Sensor
T_CO	Condenser Out Temperature Sensor
T_EI	EVI In Temperature Sensor
T_EO	EVI Out Temperature Sensor
T_L	Liquid Tube Temperature Sensor
T_CT	Compressor Top Temperature Sensor
T_A	Ambient Temperature Sensor
SV_LG	Low Pressure Gas Pipe Service Valve
SV_L	Liquid Pipe Service Valve
SV_HG	High Pressure Gas Pipe Service Valve

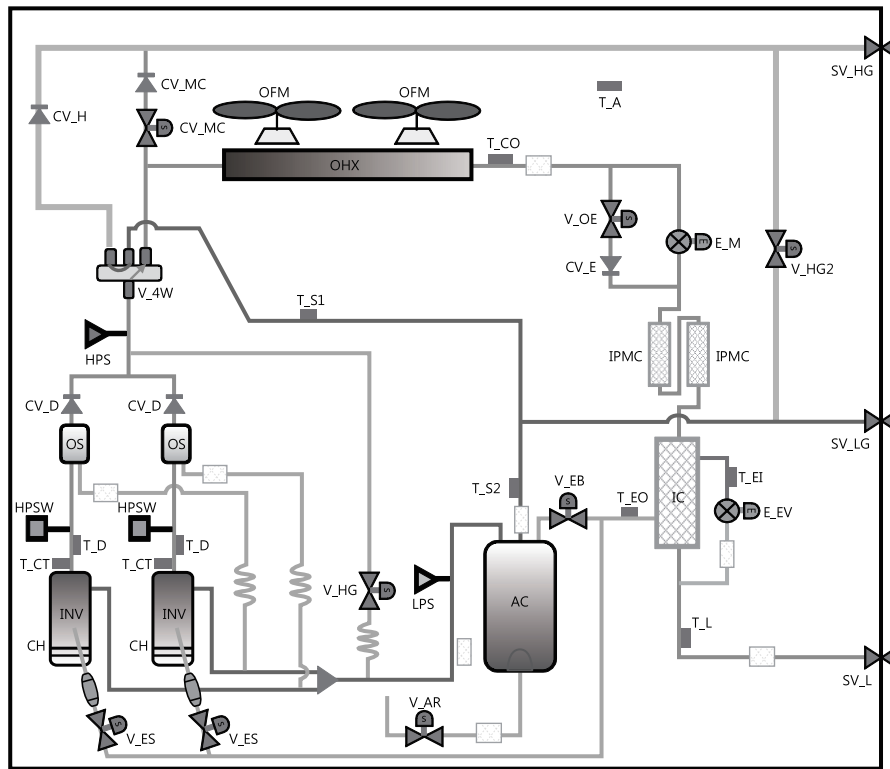
Figure 14. Refrigerant Cycle Diagram 4TVR0096C400NA and 4TVR0120C400NA



Classification	Description
INV	Inverter Compressor
OFM	Outdoor Fan Motor
OHX	Outdoor Heat Exchanger
AC	Accumulator
OS	Oil Separator
IC	Intercooler
IPMC	IPM Cooler
CH	Crank Case Heater
HPS	High Pressure Sensor
LPS	Low Pressure Sensor
HPSW	High Pressure Switch
E_M	Main EEV
E_EV	EVI EEV
V_ES	EVI Solenoid Valve
V_EB	EVI Bypass Valve

Classification	Description
V_HG	Hot Gas Bypass Valve
V_4W	4way Valve
V_AR	Accumulator Oil Return Valve
CV_E	EEV Bypass Check Valve
CV_D	Discharge Check Valve
T_D	Discharge Temperature Sensor
T_S	Suction Temperature Sensor
T_CO	Condenser Out Temperature Sensor
T_EI	EVI In Temperature Sensor
T_EO	EVI Out Temperature Sensor
T_L	Liquid Tube Temperature Sensor
T_CT	Compressor Top Temperature Sensor
T_A	Ambient Temperature Sensor
SV_LG	Low Pressure Gas Pipe Service Valve
SV_L	Liquid Pipe Service Valve
SV_HG	High Pressure Gas Pipe Service Valve

Figure 15. Refrigerant Cycle Diagram 4TVR0096C300NA, 4TVR0120C300NA, 4TVR0144C300NA, 4TVR0144C400NA, 4TVR0168C300NA, 4TVR0168C400NA, 4TVR0192C300NA and 4TVR0192C400NA



Classification	Description
INV	Inverter Compressor
OFM	Outdoor Fan Motor
OHX	Outdoor Heat Exchanger
AC	Accumulator
OS	Oil Separator
IC	Intercooler
IPMC	IPM Cooler
CH	Crank Case Heater
HPS	High Pressure Sensor
LPS	Low Pressure Sensor
HPSW	High Pressure Switch
E_M	Main EEV
E_EV	EVI EEV
V_ES	EVI Solenoid Valve
V_EB	EVI Bypass Valve

Classification	Description
V_HG	Hot Gas Bypass Valve
V_4W	4way Valve
V_AR	Accumulator Oil Return Valve
CV_E	EEV Bypass Check Valve
CV_D	Discharge Check Valve
T_D	Discharge Temperature Sensor
T_S	Suction Temperature Sensor
T_CO	Condenser Out Temperature Sensor
T_EI	EVI In Temperature Sensor
T_EO	EVI Out Temperature Sensor
T_L	Liquid Tube Temperature Sensor
T_CT	Compressor Top Temperature Sensor
T_A	Ambient Temperature Sensor
SV_LG	Low Pressure Gas Pipe Service Valve
SV_L	Liquid Pipe Service Valve
SV_HG	High Pressure Gas Pipe Service Valve

Dimensional Drawings

Figure 16. Dimensional drawing: 4TVH0072C*00NA/4TVR0072C*00NA

Units: inches

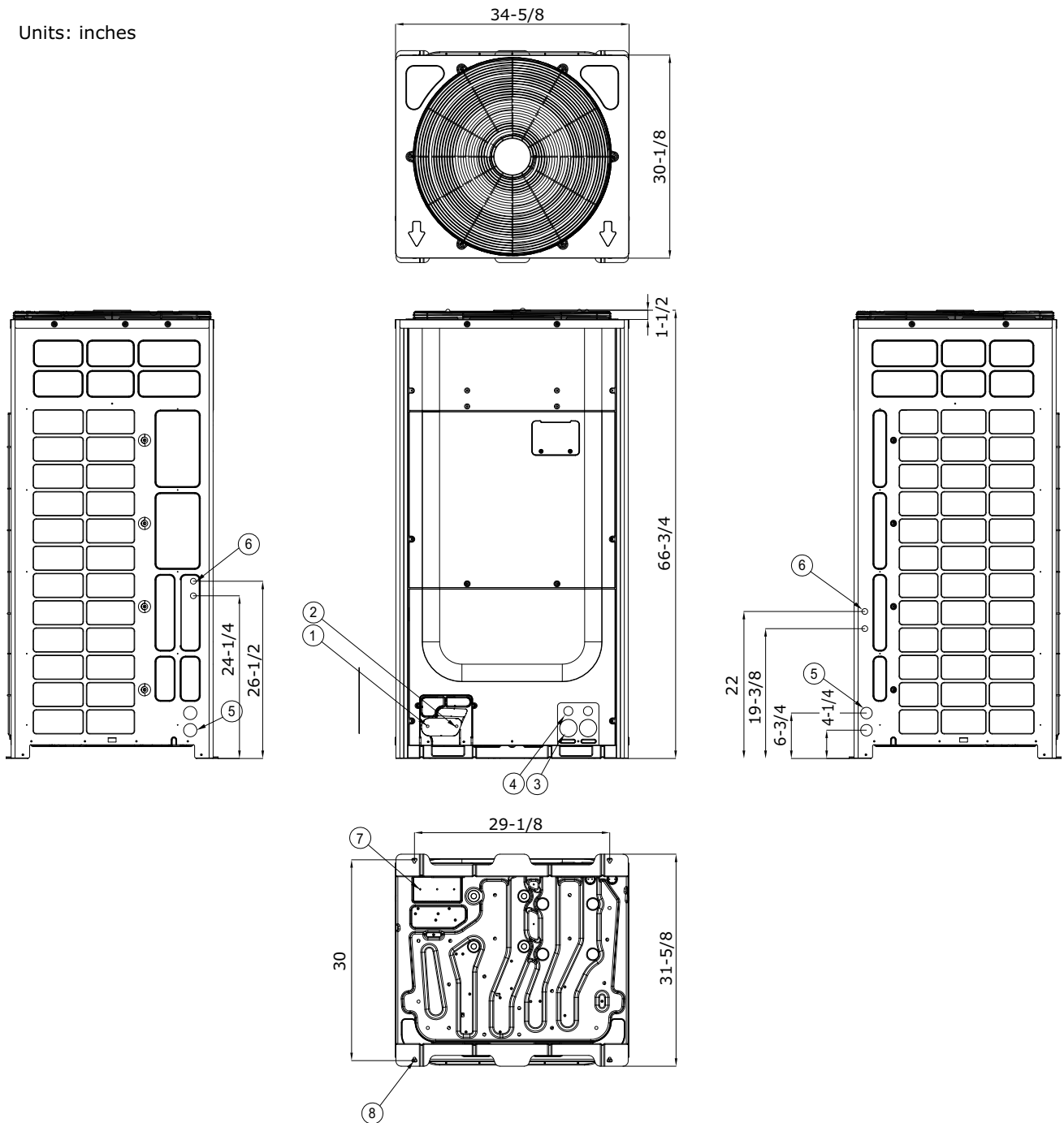


Figure 17. Dimensional drawing: 4TVH0096/120/144/168/192/C*00NA, 4TVR0096/120/144/168/192/C*00NA

Units: inches

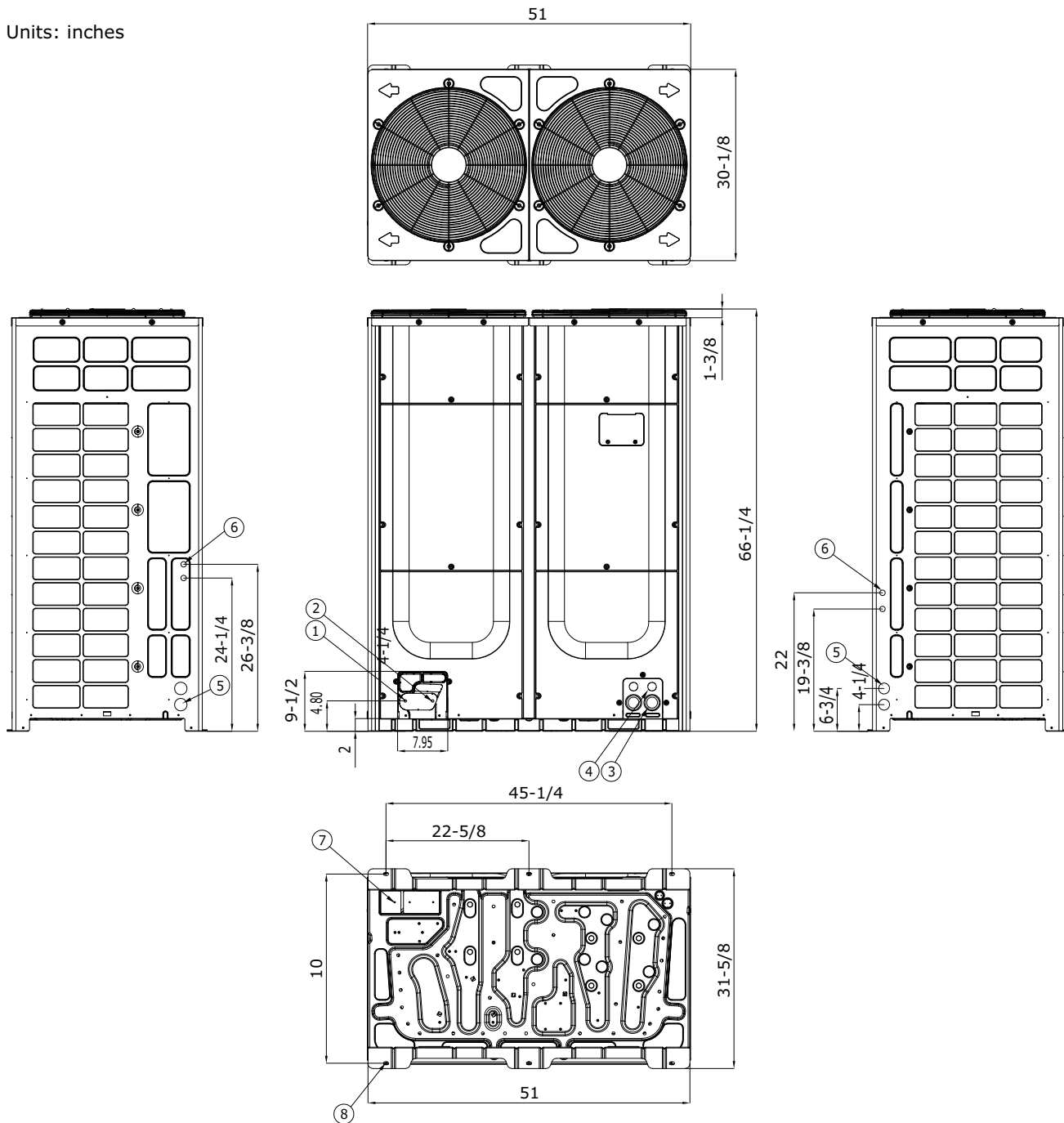
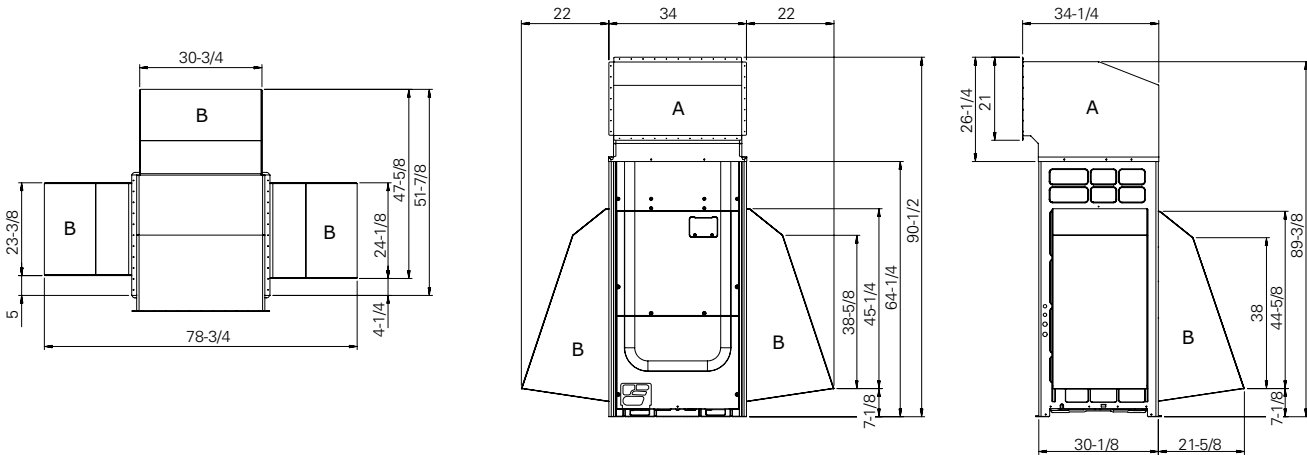


Figure 18. Dimensional drawing of units with low ambient cooling kit and optional wind baffles: 4TVH0072C*00NA and 4TVR0072C*00NA

Units: inches



A: Optional condenser low ambient cooling kit
 B: Optional wind baffle/discharge air hood

A wind baffle should be installed:

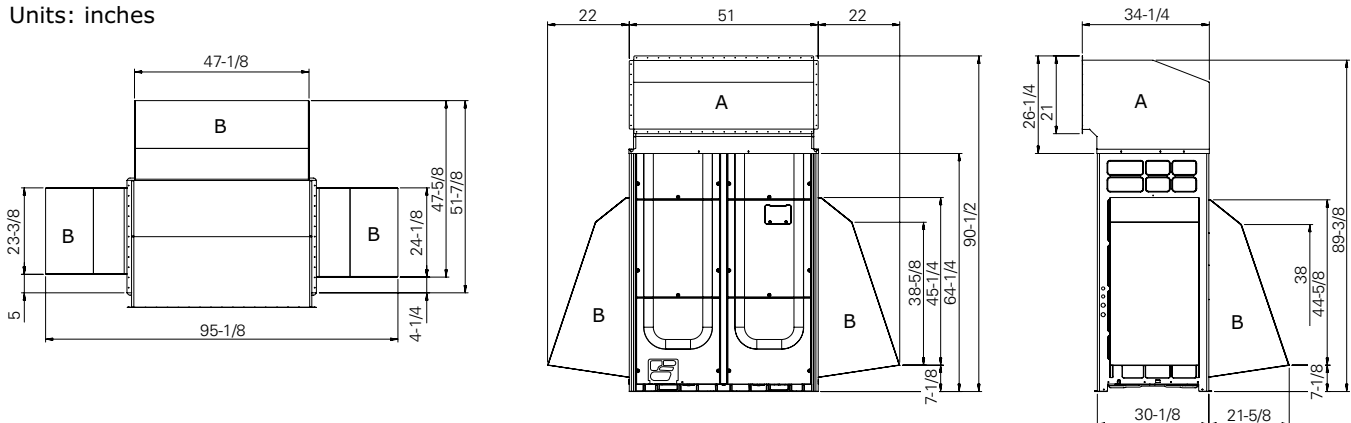
- To prevent snow from accumulating on the outdoor unit and the risk of accumulated frost, which may interfere with normal heating operation.
- To protect the unit from humid air, such as near a sea shore.
- Heat pump applications require the use of low ambient cooling between 23°F and -13°F. They also require the use of low ambient cooling kits.
- If the prevailing wind is not blowing into the low ambient cooling kit.
- The discharge air is not directed to the enclosed area.

Install the baffle so that:

- The height (h) of the frame or base should be a minimum of 12 inches plus the additional height of the heaviest expected snowfall. (Example: If the base height is the minimum 12 inches and the heaviest expected snow load is 6 inches, then $h = 12 \text{ inches} + 6 \text{ inches} = 18 \text{ inches}$).

Figure 19. Dimensional drawing of units with low ambient cooling kit and optional wind baffles: 4TVH0096/120/144/168/192C*00NA and 4TVR0096/120/144/168/192/C*00NA

Units: inches



A: Optional condenser low ambient cooling kit
 B: Optional wind baffle/discharge air hood

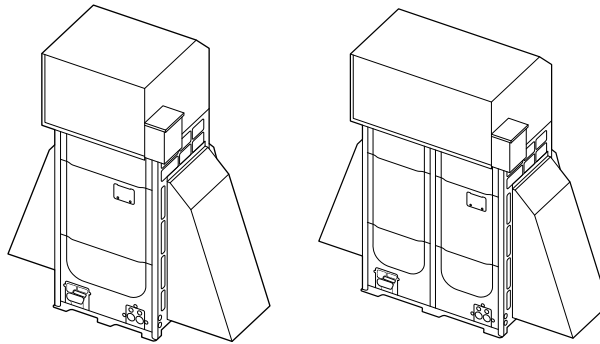
Wind Baffle (recommended)

A wind baffle should be installed:

- To prevent snow from accumulating on the outdoor unit and the risk of accumulated frost, which may interfere with normal heating operation.
- To protect the unit from humid air, such as near a sea shore.
- Heat pump applications require the use of low ambient cooling between 23°F and -13°F. They also require the use of low ambient cooling kits.
- If the prevailing wind is not blowing into the low ambient cooling kit.
- The discharge air is not directed to the enclosed area.

Install the baffle so that:

- The height (**h**) of the frame or base should be a minimum of 12 inches plus the additional height of the heaviest expected snowfall. (Example: If the base height is the minimum 12 inches and the heaviest expected snow load is 6 inches, then $h = 12 \text{ inches} + 6 \text{ inches} = 18 \text{ inches}$).





Notes



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