Russell

A2L
LOW VELOCITY CENTER MOUNT
UNIT COOLER

Walk-Ins: Small to Medium Cooler Applications

Air Defrost
5,300 to 33,800 BTUH

Electric Defrost
5,300 to 33,800 BTUH

FEATURES

Low Velocity Center Mount Unit Coolers mount flush to the ceiling to provide extra storage space. Units are ideal for florist boxes; produce storage; meat cutting, holding and packing rooms; and similar applications. Features include two-way air flow to provide for even circulation and temperature, easy serviceability, usability with multiple refrigerants, and are available in air and electric defrost models.

SIZES

There are a wide array of sizes available with capacities ranging from 5,300 to 33,800 BTUH at a 10° TD. One through five fan models are available with air flow spanning a range of 632 to 3,160 CFM.

HOUSING

The embossed aluminum casing is lightweight yet durable. Each fan section is baffled to prevent short cycling of the discharge air. The units are designed to mount flush to the ceiling and are compliant with NSF requirements. Top panel contains 3/8" mounting holes to simplify installation. The housing is sloped to provide more efficient condensate draining. A uniquely shaped control access cover allows for easy access for service in confined spaces.

COIL

Copper hairpins consist of high efficiency 3/8" enhanced copper tubes which are staggered and mechanically expanded into corrugated aluminum fins achieving maximum heat transfer while reducing refrigerant charge. Die formed fin collars provide even fin spacing. All models are available with 6 fins per inch (FPI). Sweat connections are standard on all models.

MOTORS

Standard models feature highly efficient Dual Speed Electronically Commutated (EC) motors. Dual Speed EC motors are available for 115V or 208-230V and are compliant with California Title 24 regulations. All motors include thermal overload protection.

FANS & FAN GUARDS

Aluminum 12" fans are balanced to provide vibration-free operation. Improved black plastic fan guard design and deep draw venturi achieve optimal air pattern. Fan motors and blades can be easily accessed by removing the fan guard.

REFRIGERANTS

Low Velocity Unit Coolers are optimized for multiple A2L refrigerants including R454A, R454C and R455A. Please specify the refrigerant requirements when ordering. A separate compartment is provided for all refrigerant connections which allows for internal mounting of expansion valves.

AIR DEFROST

Air Defrost models are designed for use in coolers down to 35°F. All components are factory wired to convenient screw-type terminal strips.

ELECTRIC DEFROST

Electric Defrost models are designed for use in coolers down to 28°F.

ELECTRICAL

Available for 115V (Air Defrost) and 208-230V. All of the components are factory wired to terminal strips and are UL and cUL listed.

OPTIONAL FEATURES

- EcoNet® Enabled Controller[1] (factory-installed)
- EcoNet® Command Center (loose)
- Thermostat - Mechanical or Electric (mounted or loose)
- Thermostatic Expansion Valve mounted or loose)
- Electronic Expansion Valve (mounted or loose)
- Solenoid Shut Off Valve (SSOV) in place Liquid Line Solenoid Available Loose for field installation.
- Insulated Drain Pan
- Painted Cabinet (White or Black)
- Stainless Steel Cabinet
- Coated Coil (Russproof, Heresite, Bronz-Glow, or Electrofin®)

MODEL NOMENCLATURE

R	A	V	6	A	053	A	D	A
Brand	Refrigerant Class	Style	Fins per Inch (FPI)	Defrost Type	BTUH in Thousands	Unit Voltage^	Motor Type	Vintage
R = Russell	A2L	Low Velocity Center Mount	6 FPI	A = Air E = Electric	XXX	A = 115/1/60 D = 208-230/1/60	D = Dual Speed EC	A

^ 50 Hz available. Contact Factory for additional information.

[1] EcoNet Control Package includes: EEV; suction pressure transducer; suction, entering air coil temp. thermistors; local on-board two-row LCD display and push-button adjustments. (Controller replaces TXV, liquid line solenoid valve, room thermostat, defrost termination and fan delay, and time clock.)
EcoNet approved Refrigerants are: R 454A, R454C, R455A

APPLICATION RATING & ELECTRICAL DATA

AIR DEFROST MODELS // 6 FPI

Model No.	BTUH Capacity @ 25°F SST & 10°F TD	CFM	No. of Fans	115V/1			208-230V/1		
	R454A/R454C/ R455A			Total Fan AMPS	MCA	MOPD	Total Fan AMPS	MCA	MOPD
RAV6A053*DA	5,300	654	1	0.8	15.0	20	0.5	15.0	20
RAV6A066*DA	6,600	632	1	0.8	15.0	20	0.5	15.0	20
RAV6A105*DA	10,500	1,308	2	1.6	15.0	20	1.0	15.0	20
RAV6A131*DA	13,100	1,264	2	1.6	15.0	20	1.0	15.0	20
RAV6A159*DA	15,900	1,962	3	2.4	15.0	20	1.5	15.0	20
RAV6A196*DA	19,600	1,896	3	2.4	15.0	20	1.5	15.0	20
RAV6A216*DA	21,600	2,616	4	3.2	15.0	20	2.0	15.0	20
RAV6A270*DA	27,000	2,528	4	3.2	15.0	20	2.0	15.0	20
RAV6A338*DA	33,800	3,160	5	4.0	15.0	20	2.5	15.0	20

*Asterisk represents a variable character based on voltage ordered. See nomenclature page for details.
Dual Speed EC Motors include thermal overload protection.

ELECTRIC DEFROST MODELS // 6 FPI

Model No.	BTUH Capacity @ 25°F SST & 10°F TD	CFM	No. of Fans	208-230V/1						
	R454A/R454C/ R455A			Total Fan AMPS	Base Model		Econet Enabled		Heater Amps	Heater Watts
					MCA	MOPD	MCA	MOPD		
RAV6E053DDA	5,300	654	1	0.5	15.0	20	15.0	20	3.3	750
RAV6E066DDA	6,600	632	1	0.5	15.0	20	15.0	20	3.3	750
RAV6E105DDA	10,500	1,308	2	1.0	15.0	20	15.0	20	6.5	1,500
RAV6E131DDA	13,100	1,264	2	1.0	15.0	20	15.0	20	6.5	1,500
RAV6E159DDA	15,900	1,962	3	1.5	15.0	20	15.0	20	9.8	2,250
RAV6E196DDA	19,600	1,896	3	1.5	15.0	20	15.0	20	9.8	2,250
RAV6E216DDA	21,600	2,616	4	2.0	15.0	20	18.3	20	13.0	3,000
RAV6E270DDA	27,000	2,528	4	2.0	15.0	20	18.3	20	13.0	3,000
RAV6E338DDA	33,800	3,160	5	2.5	15.0	20	22.4	25	16.3	3,750

Dual Speed EC Motors include thermal overload protection
208-230 ratings include 2 amp for controls on Econet Enabled units.

DISTRIBUTOR NOZZLES & EXPANSION VALVES

AIR DEFROST MODELS // 6 FPI

Model No.		Nozzle @ Liq. Temp.		TXV @ Liq. Temp.		EEV @ Liq. Temp.		No. of Circuits
		50°F	100°F	50°F	100°F	50°F	100°F	
R454A	RAV6A053*DA	1/6,TYPE L	1/2,TYPE L	SBFTE-AAA-C	SBFTE-AA-C	SER-AA	SER-AA	2
	RAV6A066*DA	1/4,TYPE L	1/2,TYPE L	SBFTE-AA-C	SBFTE-AA-C	SER-AA	SER-AA	2
	RAV6A105*DA	1/3,TYPE L	1,TYPE L	SBFTE-AA-C	SBFTE-A-C	SER-A	SER-A	2
	RAV6A131*DA	1/2,TYPE L	1,TYPE L	SBFTE-A-C	SBFTE-A-C	SER-A	SER-A	4
	RAV6A159*DA	1/2,TYPE L	1-1/2,TYPE L	SBFTE-A-C	SBFTE-A-C	SER-A	SER-B	4
	RAV6A196*DA	3/4,TYPE L	1-1/2,TYPE L	SBFTE-A-C	SBFTE-B-C	SER-B	SER-B	4
	RAV6A216*DA	3/4,TYPE L	2,TYPE L	SBFTE-A-C	SBFTE-B-C	SER-B	SER-B	6
	RAV6A270*DA	1,TYPE L	2,TYPE L	SBFTE-B-C	SBFTE-B-C	SER-B	SER-B	8
	RAV6A338*DA	1,TYPE L	3,TYPE L	SBFTE-B-C	SBFTE-C-C	SER-B	SER-C	8
R454C	RAV6A053*DA	1/6,TYPE L	1/2,TYPE L	SBFVE-AA-C	SBFVE-AA-C	SER-AA	SER-A	2
	RAV6A066*DA	1/4,TYPE L	3/4,TYPE L	SBFVE-AA-C	SBFVE-AA-C	SER-AA	SER-A	2
	RAV6A105*DA	1/3,TYPE L	1,TYPE L	SBFVE-A-C	SBFVE-A-C	SER-A	SER-A	2
	RAV6A131*DA	1/2,TYPE L	1-1/2,TYPE L	SBFVE-A-C	SBFVE-A-C	SER-A	SER-B	4
	RAV6A159*DA	1/2,TYPE L	1-1/2,TYPE L	SBFVE-A-C	SBFVE-B-C	SER-B	SER-B	4
	RAV6A196*DA	3/4,TYPE L	2,TYPE L	SBFVE-A-C	SBFVE-B-C	SER-B	SER-B	4
	RAV6A216*DA	3/4,TYPE L	2,TYPE L	SBFVE-B-C	SBFVE-B-C	SER-B	SER-C	6
	RAV6A270*DA	1,TYPE L	3,TYPE L	SBFVE-B-C	SBFVE-B-C	SER-B	SER-C	8
	RAV6A338*DA	1-1/2,TYPE L	3,TYPE L	SBFVE-B-C	SBFVE-C-C	SER-C	SER-C	8
R455A	RAV6A053*DA	1/6,TYPE L	1/2,TYPE L	SBFVE-AA-C	SBFVE-AA-C	SER-AA	SER-A	2
	RAV6A066*DA	1/4,TYPE L	3/4,TYPE L	SBFVE-AA-C	SBFVE-AA-C	SER-AA	SER-A	2
	RAV6A105*DA	1/3,TYPE L	1,TYPE L	SBFVE-A-C	SBFVE-A-C	SER-A	SER-A	2
	RAV6A131*DA	1/2,TYPE L	1-1/2,TYPE L	SBFVE-A-C	SBFVE-A-C	SER-A	SER-B	4
	RAV6A159*DA	1/2,TYPE L	1-1/2,TYPE L	SBFVE-A-C	SBFVE-B-C	SER-B	SER-B	4
	RAV6A196*DA	3/4,TYPE L	2,TYPE L	SBFVE-A-C	SBFVE-B-C	SER-B	SER-B	4
	RAV6A216*DA	3/4,TYPE L	2,TYPE L	SBFVE-B-C	SBFVE-B-C	SER-B	SER-C	6
	RAV6A270*DA	1,TYPE L	3,TYPE L	SBFVE-B-C	SBFVE-B-C	SER-B	SER-C	8
	RAV6A338*DA	1-1/2,TYPE L	3,TYPE L	SBFVE-B-C	SBFVE-C-C	SER-C	SER-C	8

The Distributor lines are 3/16" diameter and 18" long.
*Asterisk represents a variable character based on voltage order. See nomenclature page for details.
Expansion valve selections based on +25° Suction Temp and 8°F to 12°F evaporator TD. Contact factory for operating conditions outside this range.
SBFTE Expansion valves are compatible with R454A refrigerant. SBFVE Expansion valves are compatible with R454C and R455A refrigerants.
For other valves, follow manufacturer's selection guidelines.
Base models (with no factory-mounted components) include nozzles sized for 100°F liquid, shipped loose.

LOOSE COMPONENTS REQUIRED FOR A2L ISOLATION CONTROLS

A_{MIN} (MINIMUM ALLOWABLE ROOM SIZE) VALUES // AIR DEFROST MODELS // 6 FPI

	Model No.	A_{min} Values (Ft^2)					Loose SSOV Isolation Valve @ Liquid Temp			Loose CSOV Isolation CV	
		10 Ft Line Run	20 Ft Line Run	30 Ft Line Run	40 Ft Line Run	50 Ft Line Run	Size	50°F	100°F	Size	Description
R454A	RAV6A053*DA	21	27	32	38	44	3/8	SSOV3S130	SSOV3S130	5/8	CSOV-5S
	RAV6A066*DA	18	24	30	35	41	3/8	SSOV3S130	SSOV3S130	5/8	CSOV-5S
	RAV6A105*DA	28	34	40	46	52	3/8	SSOV3S130	SSOV3S130	7/8	CSOV-7S
	RAV6A131*DA	33	39	45	51	57	3/8	SSOV3S130	SSOV3S130	7/8	CSOV-7S
	RAV6A159*DA	36	42	48	54	60	3/8	SSOV3S130	SSOV6S130	7/8	CSOV-7S
	RAV6A196*DA	42	48	54	60	66	3/8	SSOV6S130	SSOV6S130	7/8	CSOV-7S
	RAV6A216*DA	42	48	54	60	66	3/8	SSOV6S130	SSOV6S130	7/8	CSOV-7S
	RAV6A270*DA	57	68	80	91	103	1/2	SSOV6S140	SSOV6S140	1-1/8	CSOV-9S
	RAV6A338*DA	67	79	90	102	113	1/2	SSOV6S140	SSOV6S140	1-1/8	CSOV-9S
R454C	RAV6A053*DA	20	26	31	37	42	3/8	SSOV3S130	SSOV3S130	5/8	CSOV-5S
	RAV6A066*DA	18	23	29	34	40	3/8	SSOV3S130	SSOV3S130	5/8	CSOV-5S
	RAV6A105*DA	27	33	38	44	50	3/8	SSOV3S130	SSOV3S130	7/8	CSOV-7S
	RAV6A131*DA	31	37	43	49	55	3/8	SSOV3S130	SSOV3S130	7/8	CSOV-7S
	RAV6A159*DA	34	40	46	52	58	3/8	SSOV3S130	SSOV6S130	7/8	CSOV-7S
	RAV6A196*DA	41	47	53	58	64	3/8	SSOV6S130	SSOV6S130	7/8	CSOV-7S
	RAV6A216*DA	41	47	52	58	64	3/8	SSOV6S130	SSOV6S140	7/8	CSOV-7S
	RAV6A270*DA	55	66	77	88	100	1/2	SSOV6S140	SSOV6S140	1-1/8	CSOV-9S
	RAV6A338*DA	65	76	87	98	110	1/2	SSOV6S140	SSOV6S140	1-1/8	CSOV-9S
R455A	RAV6A053*DA	18	23	28	33	39	3/8	SSOV3S130	SSOV3S130	5/8	CSOV-5S
	RAV6A066*DA	16	21	26	31	36	3/8	SSOV3S130	SSOV3S130	5/8	CSOV-5S
	RAV6A105*DA	24	30	35	40	46	3/8	SSOV3S130	SSOV3S130	7/8	CSOV-7S
	RAV6A131*DA	29	34	39	45	50	3/8	SSOV3S130	SSOV3S130	7/8	CSOV-7S
	RAV6A159*DA	31	37	42	47	53	3/8	SSOV3S130	SSOV6S130	7/8	CSOV-7S
	RAV6A196*DA	37	43	48	53	59	3/8	SSOV6S130	SSOV6S130	7/8	CSOV-7S
	RAV6A216*DA	37	43	48	53	58	3/8	SSOV6S130	SSOV6S140	7/8	CSOV-7S
	RAV6A270*DA	50	60	70	81	91	1/2	SSOV6S140	SSOV6S140	1-1/8	CSOV-9S
	RAV6A338*DA	59	69	80	90	100	1/2	SSOV6S140	SSOV6S140	1-1/8	CSOV-9S

* Asterisk represents a variable character based on voltage order. See nomenclature page for details.
Solenoid Shut off valves (SSOV) operate as double duty isolation/liquid line solenoid valve and are required to ship loose and be installed in the field, outside the refrigerated space.
SSOV/CSOV (Check Shut off valves) Selection Criteria: Maximum 10 Foot Line Rise, 100 Foot Line Run, 1:1 Condensing Unit/Evaporator. Contact applications for additional lengths or design considerations.
A_{min} values calculated using operating conditions included in UL 60335-2-89 101.DVU.1.2 and standard connection sizes (liquid and suction).
A_{min} values provided for 10 Ft, 20 Ft, 30 Ft, 40 Ft and 50 Ft line lengths. Contact applications for additional lengths or design considerations.
A_{min} values intended to determine compliance with UL 2-89 and is NOT for charging calculations.

DISTRIBUTOR NOZZLES & EXPANSION VALVES

ELECTRIC DEFROST MODELS // 6 FPI

Model No.		Nozzle @ Liq. Temp.		TXV @ Liq. Temp.		EEV @ Liq. Temp.		No. of Circuits
		50°F	100°F	50°F	100°F	50°F	100°F	
R454A	RAV6E053DDA	1/6,TYPE L	1/2,TYPE L	SBF-AAA-C	SBFTE-AA-C	SER-AA	SER-AA	2
	RAV6E066DDA	1/4,TYPE L	1/2,TYPE L	SBF-AA-C	SBFTE-AA-C	SER-AA	SER-AA	2
	RAV6E105DDA	1/3,TYPE L	1,TYPE L	SBF-AA-C	SBFTE-A-C	SER-A	SER-A	2
	RAV6E131DDA	1/2,TYPE L	1,TYPE L	SBF-A-C	SBFTE-A-C	SER-A	SER-A	4
	RAV6E159DDA	1/2,TYPE L	1-1/2,TYPE L	SBF-A-C	SBFTE-A-C	SER-A	SER-B	4
	RAV6E196DDA	3/4,TYPE L	1-1/2,TYPE L	SBF-A-C	SBFTE-B-C	SER-B	SER-B	4
	RAV6E216DDA	3/4,TYPE L	2,TYPE L	SBF-A-C	SBFTE-B-C	SER-B	SER-B	6
	RAV6E270DDA	1,TYPE L	2,TYPE L	SBF-B-C	SBFTE-B-C	SER-B	SER-B	8
	RAV6E338DDA	1,TYPE L	3,TYPE L	SBF-B-C	SBFTE-C-C	SER-B	SER-C	8
R454C	RAV6E053DDA	1/6,TYPE L	1/2,TYPE L	SBFVE-AA-C	SBFVE-AA-C	SER-AA	SER-A	2
	RAV6E066DDA	1/4,TYPE L	3/4,TYPE L	SBFVE-AA-C	SBFVE-AA-C	SER-AA	SER-A	2
	RAV6E105DDA	1/3,TYPE L	1,TYPE L	SBFVE-A-C	SBFVE-A-C	SER-A	SER-A	2
	RAV6E131DDA	1/2,TYPE L	1-1/2,TYPE L	SBFVE-A-C	SBFVE-A-C	SER-A	SER-B	4
	RAV6E159DDA	1/2,TYPE L	1-1/2,TYPE L	SBFVE-A-C	SBFVE-B-C	SER-B	SER-B	4
	RAV6E196DDA	3/4,TYPE L	2,TYPE L	SBFVE-A-C	SBFVE-B-C	SER-B	SER-B	4
	RAV6E216DDA	3/4,TYPE L	2,TYPE L	SBFVE-B-C	SBFVE-B-C	SER-B	SER-C	6
	RAV6E270DDA	1,TYPE L	3,TYPE L	SBFVE-B-C	SBFVE-B-C	SER-B	SER-C	8
	RAV6E338DDA	1-1/2, TYPE L	3,TYPE L	SBFVE-B-C	SBFVE-C-C	SER-C	SER-C	8
R455A	RAV6E053DDA	1/4,TYPE L	1/2,TYPE L	SBFVE-AA-C	SBFVE-AA-C	SER-AA	SER-A	2
	RAV6E066DDA	1/4,TYPE L	3/4,TYPE L	SBFVE-AA-C	SBFVE-AA-C	SER-AA	SER-A	2
	RAV6E105DDA	1/2,TYPE L	1,TYPE L	SBFVE-A-C	SBFVE-A-C	SER-A	SER-A	2
	RAV6E131DDA	3/4,TYPE L	1-1/2, TYPE L	SBFVE-A-C	SBFVE-A-C	SER-A	SER-B	4
	RAV6E159DDA	3/4,TYPE L	1-1/2, TYPE L	SBFVE-A-C	SBFVE-B-C	SER-B	SER-B	4
	RAV6E196DDA	3/4,TYPE L	2,TYPE L	SBFVE-A-C	SBFVE-B-C	SER-B	SER-B	4
	RAV6E216DDA	1,TYPE L	2,TYPE L	SBFVE-B-C	SBFVE-B-C	SER-B	SER-C	6
	RAV6E270DDA	1-1/2, TYPE L	2-1/2,TYPE L	SBFVE-B-C	SBFVE-B-C	SER-B	SER-C	8
	RAV6E338DDA	1-1/2, TYPE L	3,TYPE L	SBFVE-B-C	SBFVE-C-C	SER-C	SER-C	8

The Distributor lines are 3/16" diameter and 18" long.
Expansion valve selections based on +25°F Suction Temp and 8°F to 12°F evaporator TD.
Contact factory for operating conditions outside this range.
SBFTE Expansion valves are compatible with R454A refrigerant. SBFVE Expansion valves are compatible with R454C and R455A refrigerants.
For other valves, follow manufacturer's selection guidelines.
Base models (with no factory-mounted components) include nozzles sized for 100°F liquid, shipped loose.

LOOSE COMPONENTS REQUIRED FOR A2L ISOLATION CONTROLS

A_{MIN} (MINIMUM ALLOWABLE ROOM SIZE) VALUES // ELECTRIC DEFROST MODELS // 6 FPI

Model No.		A_{min} Values (Ft^2)					Loose SSOV Isolation Valve @ Liquid Temp			Loose CSOV Isolation CV	
		10 Ft Line Run	20 Ft Line Run	30 Ft Line Run	40 Ft Line Run	50 Ft Line Run	Size	50°F	100°F	Size	Description
R454A	RAV6E053DDA	21	27	32	38	44	3/8	SSOV3S130	SSOV3S130	5/8	CSOV-5S
	RAV6E066DDA	18	24	30	35	41	3/8	SSOV3S130	SSOV3S130	5/8	CSOV-5S
	RAV6E105DDA	28	34	40	46	52	3/8	SSOV3S130	SSOV3S130	7/8	CSOV-7S
	RAV6E131DDA	33	39	45	51	57	3/8	SSOV3S130	SSOV3S130	7/8	CSOV-7S
	RAV6E159DDA	36	42	48	54	60	3/8	SSOV3S130	SSOV6S130	7/8	CSOV-7S
	RAV6E196DDA	42	48	54	60	66	3/8	SSOV6S130	SSOV6S130	7/8	CSOV-7S
	RAV6E216DDA	42	48	54	60	66	3/8	SSOV6S130	SSOV6S130	7/8	CSOV-7S
	RAV6E270DDA	57	68	80	91	103	1/2	SSOV6S140	SSOV6S140	1-1/8	CSOV-9S
	RAV6E338DDA	67	79	90	102	113	1/2	SSOV6S140	SSOV6S140	1-1/8	CSOV-9S
R454C	RAV6E053DDA	20	26	31	37	42	3/8	SSOV3S130	SSOV3S130	5/8	CSOV-5S
	RAV6E066DDA	18	23	29	34	40	3/8	SSOV3S130	SSOV3S130	5/8	CSOV-5S
	RAV6E105DDA	27	33	38	44	50	3/8	SSOV3S130	SSOV3S130	7/8	CSOV-7S
	RAV6E131DDA	31	37	43	49	55	3/8	SSOV3S130	SSOV6S130	7/8	CSOV-7S
	RAV6E159DDA	34	40	46	52	58	3/8	SSOV3S130	SSOV6S130	7/8	CSOV-7S
	RAV6E196DDA	41	47	53	58	64	3/8	SSOV6S130	SSOV6S130	7/8	CSOV-7S
	RAV6E216DDA	41	47	52	58	64	3/8	SSOV6S130	SSOV6S140	7/8	CSOV-7S
	RAV6E270DDA	55	66	77	88	100	1/2	SSOV6S140	SSOV6S140	1-1/8	CSOV-9S
	RAV6E338DDA	65	76	87	98	110	1/2	SSOV6S140	SSOV6S140	1-1/8	CSOV-9S
R455A	RAV6E053DDA	18	23	28	33	39	3/8	SSOV3S130	SSOV3S130	5/8	CSOV-5S
	RAV6E066DDA	16	21	26	31	36	3/8	SSOV3S130	SSOV3S130	5/8	CSOV-5S
	RAV6E105DDA	24	30	35	40	46	3/8	SSOV3S130	SSOV3S130	7/8	CSOV-7S
	RAV6E131DDA	29	34	39	45	50	3/8	SSOV3S130	SSOV6S130	7/8	CSOV-7S
	RAV6E159DDA	31	37	42	47	53	3/8	SSOV3S130	SSOV6S130	7/8	CSOV-7S
	RAV6E196DDA	37	43	48	53	59	3/8	SSOV6S130	SSOV6S130	7/8	CSOV-7S
	RAV6E216DDA	37	43	48	53	58	3/8	SSOV6S130	SSOV6S140	7/8	CSOV-7S
	RAV6E270DDA	50	60	70	81	91	1/2	SSOV6S140	SSOV6S140	1-1/8	CSOV-9S
	RAV6E338DDA	59	69	80	90	100	1/2	SSOV6S140	SSOV6S140	1-1/8	CSOV-9S

Solenoid Shut Off Valves (SSOV) operate as double duty isolation/liquid line solenoid valve and are required to ship loose and be installed in the field, outside the refrigerated space.

SSOV/CSOV (Check Shut Off Valves) Selection Criteria: Maximum 10 Foot Line Rise, 100 Foot Line Run, 1:1 Condensing Unit/Evaporator. Contact applications for additional lengths or design considerations.

A_{min} values calculated using operating conditions included in UL 60335-2-89 101.DVU.1.2 and standard connection sizes (liquid and suction).

A_{min} values provided for 10 Ft, 20 Ft, 30 Ft, 40 Ft and 50 Ft line lengths. Contact applications for additional lengths or design considerations.

A_{min} values intended to determine compliance with UL 2-89 and is NOT for charging calculations.

SPECIFICATIONS

AIR DEFROST MODELS // 6 FPI

Model No.	Fans	Refrigerant Connections		No. of Hanger Slot Locations	Dimensions (In.)				Approx. Weight (Lbs.)	
		Liquid	Suction		L	W	H	Figure	Net	Ship
RAV6A053*DA	1	4	3/8	5/8	36	28-3/8	13-3/4	1	60	195
RAV6A066*DA	1	4	3/8	5/8	36	28-3/8	13-3/4	1	60	195
RAV6A105*DA	2	6	3/8	7/8	56	28-3/8	13-3/4	2	80	215
RAV6A131*DA	2	6	3/8	7/8	56	28-3/8	13-3/4	2	80	215
RAV6A159*DA	3	8	3/8	7/8	76	28-3/8	13-3/4	3	100	235
RAV6A196*DA	3	8	3/8	7/8	76	28-3/8	13-3/4	3	100	235
RAV6A216*DA	4	10	3/8	7/8	96	28-3/8	13-3/4	4	125	285
RAV6A270*DA	4	10	1/2	1-1/8	96	28-3/8	13-3/4	4	125	285
RAV6A338*DA	5	12	1/2	1-1/8	116	28-3/8	13-3/4	5	155	340

ELECTRIC DEFROST MODELS // 6 FPI

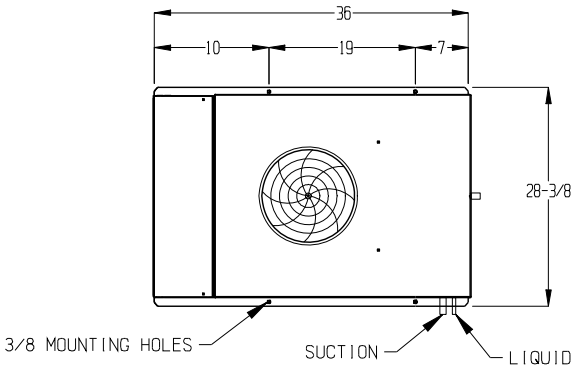
Model No.	Fans	Refrigerant Connections		No. of Hanger Slot Locations	Dimensions (In.)				Approx. Weight (Lbs.)	
		Liquid	Suction		L	W	H	Figure	Net	Ship
RAV6E053DDA	1	4	3/8	5/8	36	28-3/8	13-3/4	1	60	195
RAV6E066DDA	1	4	3/8	5/8	36	28-3/8	13-3/4	1	60	195
RAV6E105DDA	2	6	3/8	7/8	56	28-3/8	13-3/4	2	80	215
RAV6E131DDA	2	6	3/8	7/8	56	28-3/8	13-3/4	2	80	215
RAV6E159DDA	3	8	3/8	7/8	76	28-3/8	13-3/4	3	100	235
RAV6E196DDA	3	8	3/8	7/8	76	28-3/8	13-3/4	3	100	235
RAV6E216DDA	4	10	3/8	7/8	96	28-3/8	13-3/4	4	125	285
RAV6E270DDA	4	10	1/2	1-1/8	96	28-3/8	13-3/4	4	125	285
RAV6E338DDA	5	12	1/2	1-1/8	116	28-3/8	13-3/4	5	155	340

*Asterisk represents a variable character based on voltage order. See nomenclature page for details.
Drain connection is 3/4" NPT for all models.
For units with mounted TXV components, see nozzle/TXV table for distributor connection size when TXV is field supplied.
TXV Type: Externally Equalized (EXT)

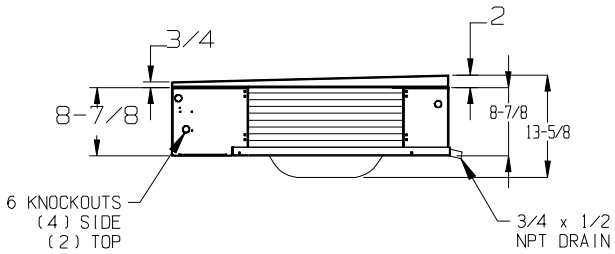
DIMENSIONAL DRAWINGS

Figure 1: Single Fan

Bottom View



Side View

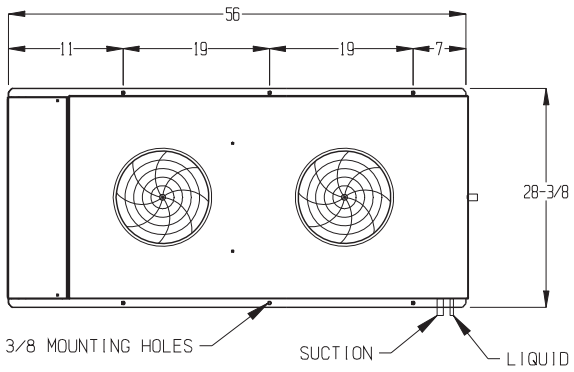


Measurements noted on the end view drawing are the same for all units. All mounting holes are 3/8" diameter.

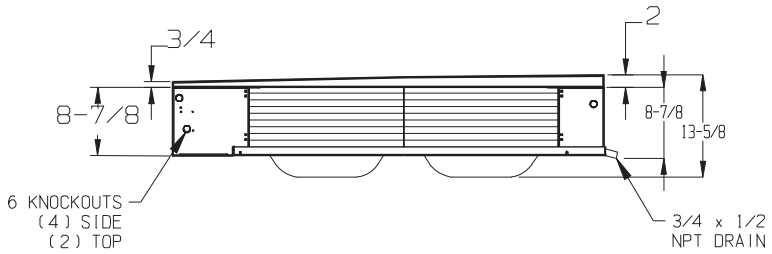
DIMENSIONAL DRAWINGS

Figure 2: Two Fan

Bottom View



Side View

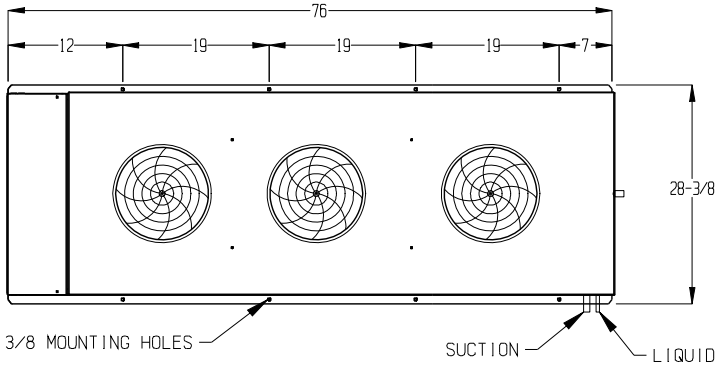


Measurements noted on the end view drawing are the same for all units. All mounting holes are 3/8" diameter.

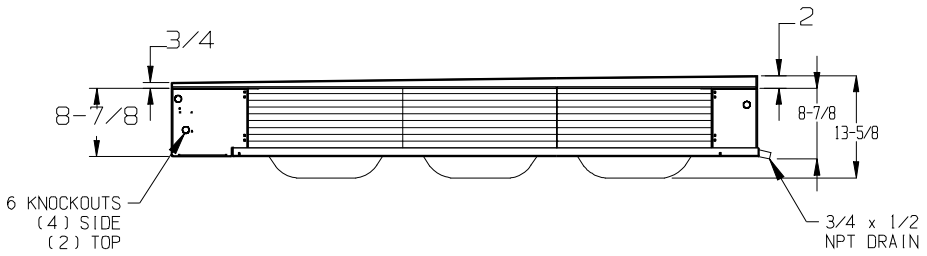
DIMENSIONAL DRAWINGS

Figure 3: Three Fan

Bottom View



Side View

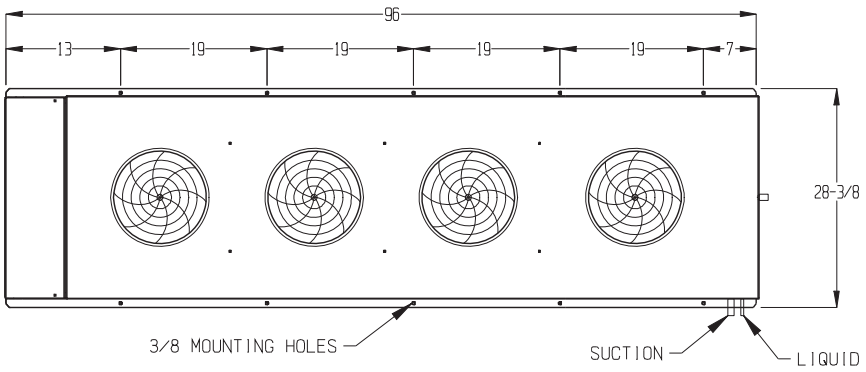


Measurements noted on the end view drawing are the same for all units. All mounting holes are 3/8" diameter.

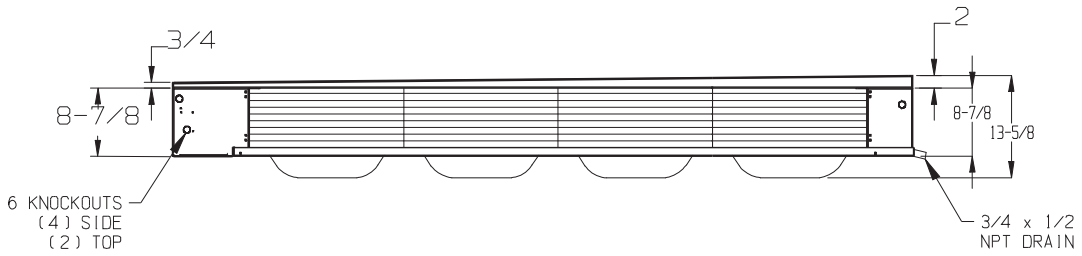
DIMENSIONAL DRAWINGS

Figure 4: Four Fan

Bottom View



Side View

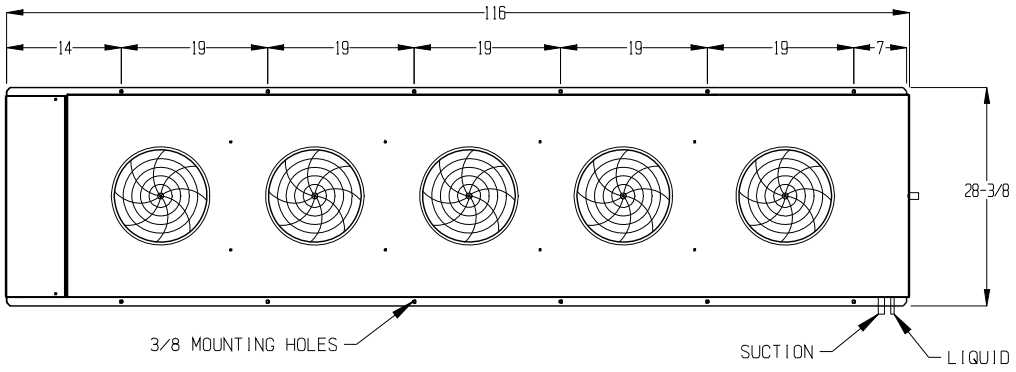


Measurements noted on the end view drawing are the same for all units. All mounting holes are 3/8" diameter.
Mounting holes on four and five fan units are located 20" on center at each tube sheet. All dimensions are in inches.

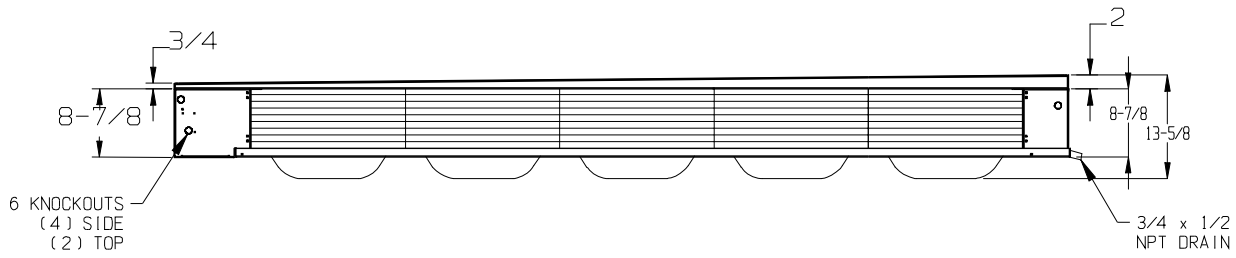
DIMENSIONAL DRAWINGS

Figure 5: Five Fan

Bottom View



Side View



Measurements noted on the end view drawing are the same for all units. All mounting holes are 3/8" diameter.
Mounting holes on four and five fan units are located 20" on center at each tube sheet. All dimensions are in inches.

EVAPORATOR APPLICATION RATINGS

Multiple conditions combine to determine the application capacity of an evaporator. Walk-in space temperature, relative humidity, saturated suction temperature difference, and outdoor ambient temperature. All of the factors are considered when calculating an evaporator application rating. These ratings are considerably higher than the net capacity value used for DOE ratings (AWEF).

The AWEF of an evaporator is calculated using the dry coil capacity and the daily evaporator power consumption. Power consumption included fan and defrost power. Evaporator net capacity reported to the DOE database is dry coil capacity less the full power fan watts. DOE test conditions are at 10°F evaporator/SST temperature difference and less than 50% relative humidity and 96°F liquid temperature. These conditions create a uniform test method, but should not be used for equipment selection. The equipment selected would be too large for the application.

Published application ratings are a guideline for proper equipment selection. They account for true operating conditions experienced by equipment.

DEPARTMENT OF ENERGY ANNUAL WALK-IN ENERGY FACTOR (AWEF) RATINGS

Cooler Models - Air Defrost[1]

Base Model No.	Defrost Type	FPI	AWEF
RAV6A053*DA	Air Defrost	6	9.00
RAV6A066*DA	Air Defrost	6	9.00
RAV6A105*DA	Air Defrost	6	9.00
RAV6A131*DA	Air Defrost	6	9.00
RAV6A159*DA	Air Defrost	6	9.00
RAV6A196*DA	Air Defrost	6	9.00
RAV6A216*DA	Air Defrost	6	9.00
RAV6A270*DA	Air Defrost	6	9.00
RAV6A338*DA	Air Defrost	6	9.00

Cooler Models - Electric Defrost[1]

Base Model No.	Defrost Type	FPI	AWEF
RAV6E053DDA	Electric Defrost	6	9.00
RAV6E066DDA	Electric Defrost	6	9.00
RAV6E105DDA	Electric Defrost	6	9.00
RAV6E131DDA	Electric Defrost	6	9.00
RAV6E159DDA	Electric Defrost	6	9.00
RAV6E196DDA	Electric Defrost	6	9.00
RAV6E216DDA	Electric Defrost	6	9.00
RAV6E270DDA	Electric Defrost	6	9.00
RAV6E338DDA	Electric Defrost	6	9.00

* Asterisk represents a variable character based on voltage order. See nomenclature page for details.
[1] If the model has a numerical value in the table above, the following statement applies:
"The refrigeration system is designed and certified for use in walk-in cooler applications."

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