Russell

A2L

CENTER MOUNT
UNIT COOLER

Walk-Ins: Small to Medium Cooler and Freezer Applications

Air Defrost

5,145 to 31,400 BTUH

Electric Defrost

4,515 to 34,020 BTUH

FEATURES

Center Mount Unit Coolers are designed for use in walk-in coolers and freezers with very low headroom clearance. Units mount flush to the ceiling to provide extra storage space. Features include two-way air flow to provide 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 4,515 to 32,400 BTUH at a 10° TD. One through five fan models are available with air flow spanning a range of 572 to 3,150 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. Medium temperature models are available with 6 fins per inch (FPI) and low temperature models with 6 and 4 FPI. Sweat connections are standard on all models.

MOTORS

Standard models feature highly efficient Dual Speed Electronically Commutated (EC) motors. Available for 115V or 208-230V/1 and are compliant with California Title 24 regulations. All motors include thermal overload protection.

FANS AND 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

Center Mount Unit Coolers are optimized for multiple A2L refrigerants including R454A, R454C, and R455A. Please specify the refrigerant requirements when ordering. A seperate 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 Air Defrost models are 6 FPI.

ELECTRIC DEFROST

Electric Defrost 6 FPI models are designed for use in coolers and freezers down to -10°F and 4 FPI models are designed for use in freezers between 32°F to -10°F.

ELECTRICAL

Available for 115V and 208-230V/1. All components are factor y wired to terminal strips and are UL and cUL listed.

OPTIONAL FEATURES

- EcoNet® Enabled Controller1 (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)
- Safety 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	E	6	A	045	A	D	A
Brand	Refrigerant Class	Style	Fins per Inch (FPI)	Defrost Type	BTUH by Hundreds	Unit Voltage[1]	Motor Type	Vintage
R = Russell	A2L R-454A R-454C R-455A	E = Center Mount	4 FPI 6 FPI	A = Air E = Electric	XXX	A =115/1/60 D =208-230/1/60	D = Dual Speed EC	A

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: RR454A, R454C, R455A.
^50 Hz available. Contact Factory for additional information.

2019 DEALER DESIGN AWARDS
NEWS GOLD
GOLD AWARD WINNER

ECONET® ENABLED UNIT COOLERS (OPTIONAL)

Developed in conjunction with Rheem Manufacturing specifically for walk-in coolers and freezers – it builds in the reliability and efficiency of Rheem's EcoNet technology.

- Saves energy in refrigeration systems through precise superheat and space temperature control, fan cycling, and controlling how often the system goes into defrost based on compressor runtime.
- Eliminates unnecessary defrosts
- Maximizes energy efficiency with less compressor runtime
- Reduces fan speed to 50% during off cycle for energy savings
- Can be used with a condensing unit in single and multiple evaporator installations as a group.

Optional **EcoNet** Command Center with intuitive graphical interface controls up to 32 devices (including the Command Center) through one display, provides continuous communication between system components, and the remote mount display allows for EcoNet Enabled Unit Coolers to be programmed, monitored and troubleshot outside of the space being cooled.

APPLICATION RATING & ELECTRICAL DATA // AIR DEFROST MODELS

	Model No.	BTUH Capacity @ 25°F ST & 10TD	CFM	No. of Fans	115V/1			208-230V/1		
		R454A,R454C R455A			Total Fan Amps	MCA	MOPD	Total Fan Amps	MCA	MOPD
6 FPI	RAE6A051*DA	5,145	572	1	0.8	15.0	20	0.5	15.0	20
	RAE6A085*DA	8,610	1,204	2	1.6	15.0	20	1.0	15.0	20
	RAE6A103*DA	10,395	1,144	2	1.6	15.0	20	1.0	15.0	20
	RAE6A128*DA	12,915	1,806	3	2.4	15.0	20	1.5	15.0	20
	RAE6A157*DA	15,855	1,716	3	2.4	15.0	20	1.5	15.0	20
	RAE6A173*DA	17,430	2,408	4	3.2	15.0	20	2.0	15.0	20
	RAE6A207*DA	20,895	2,288	4	3.2	15.0	20	2.0	15.0	20
	RAE6A249*DA	25,095	2,860	5	4.0	15.0	20	2.5	15.0	20
	RAE6A316*DA	31,400	3,150	5T	4.0	15.0	20	2.5	15.0	20

*Asterisks represents variable character based on voltage ordered. See nomenclature on page 3.
Dual Speed EC Motors include thermal overload protection

APPLICATION RATING & ELECTRICAL DATA // ELECTRIC DEFROST MODELS

	Model No.	BTUH Capacity @ -20°F ST & 10TD	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		
6 FPI	RAE6E045DDA	4,515	602	1	0.5	15.0	20	15.0	20	3.2	750
	RAE6E054DDA	5,460	572	1	0.5	15.0	20	15.0	20	3.2	750
	RAE6E090DDA	9,135	1, 204	2	1.0	15.0	20	15.0	20	6.5	1,500
	RAE6E107DDA	10,815	1,144	2	1.0	15.0	20	15.0	20	6.5	1,500
	RAE6E129DDA	13,020	1,806	3	1.5	15.0	20	15.0	20	9.8	2,250
	RAE6E149DDA	15,015	1,716	3	1.5	15.0	20	15.0	20	9.8	2,250
	RAE6E160DDA	16,170	2,408	4	2.0	15.0	20	19.2	20	13.0	3,000
	RAE6E217DDA	21,945	2,288	4	2.0	15.0	20	19.2	20	13.0	3,000
	RAE6E265DDA	26, 775	2,860	5	2.5	15.0	20	16.3	20	16.3	3,750
	RAE6E337DDA	34,020	3,150	5T	2.5	15.0	20	24.4	30	24.4	5,620
4 FPI	RAE4E043DDA	4,515	572	1	0.5	15.0	20	15.0	20	3.2	750
	RAE4E087DDA	9,135	1,144	2	1.0	15.0	20	15.0	20	6.5	1,500
	RAE4E127DDA	12,810	1,716	3	1.5	15.0	20	15.0	20	9.8	2,250
	RAE4E183DDA	18,480	2,288	4	2.0	15.0	20	19.2	20	13.0	3,000
	RAE4E222DDA	22,365	2,860	5	2.5	15.0	20	16.3	20	16.3	3,750
	RAE4E283DDA	28,560	3,150	5T	2.5	15.0	20	24.4	30	24.4	5,620

Dual Speed EC Motors include thermal overload protection.

Capacity Correction for Electric Defrost Evaporators				
S.S.T. (Dew)	20	0	-10	-20
Multiply Capacity by:	1.15	1.075	1.0375	1

Econet Enabled units are not powered by the condensing unit so defrost heaters are incorporated into shown MCA/MOPD.
1AMP Minimum allowed for Econet control circuit

DISTRIBUTOR NOZZLES & EXPANSION VALVES // AIR DEFROST MODELS

	Model No.	Part Numbers						No. of Circuits
		Nozzle @ Liquid Temp		TXV @ Liquid Temp		EEV @ Liquid Temp		
		50°F	100°F	50°F	100°F	50°F	100°F	
6 FPI - R454A	RAE6A051*DA	1/6, TYPE L	1/2,TYPE L	SBFTE-AAA-C	SBFTE-AA-C	SER-AA	SER-AA	2
	RAE6A085*DA	1/4,TYPE L	3/4,TYPE L	SBFTE-AA-C	SBFTE-AA-C	SER-A	SER-A	2
	RAE6A103*DA	1/3, TYPE L	3/4,TYPE L	SBFTE-AA-C	SBFTE-A-C	SER-A	SER-A	2
	RAE6A128*DA	1/3, TYPE L	1, TYPE L	SBFTE-A-C	SBFTE-A-C	SER-A	SER-A	4
	RAE6A157*DA	1/2,TYPE L	1-1/2, TYPE L	SBFTE-A-C	SBFTE-A-C	SER-A	SER-B	4
	RAE6A173*DA	1/2,TYPE L	1-1/2, TYPE L	SBFTE-A-C	SBFTE-A-C	SER-A	SER-B	4
	RAE6A207*DA	3/4,TYPE L	1-1/2, TYPE L	SBFTE-A-C	SBFTE-B-C	SER-A	SER-B	4
	RAE6A249*DA	3/4,TYPE L	2, TYPE L	SBFTE-B-C	SBFTE-B-C	SER-B	SER-B	8
	RAE6A316*DA	1, TYPE L	2-1/2, TYPE L	SBFTE-B-C	SBFTE-B-C	SER-B	SER-C	6
6 FPI - R454C	RAE6A051*DA	1/6, TYPE L	1/2,TYPE L	SBFVE-AA-C	SBFVE-AA-C	SER-AA	SER-AA	2
	RAE6A085*DA	1/4,TYPE L	3/4,TYPE L	SBFVE-AA-C	SBFVE-A-C	SER-A	SER-A	2
	RAE6A103*DA	1/3, TYPE L	1, TYPE L	SBFVE-A-C	SBFVE-A-C	SER-A	SER-A	2
	RAE6A128*DA	1/2,TYPE L	1-1/2, TYPE L	SBFVE-A-C	SBFVE-A-C	SER-A	SER-B	4
	RAE6A157*DA	1/2,TYPE L	1-1/2, TYPE L	SBFVE-A-C	SBFVE-B-C	SER-B	SER-B	4
	RAE6A173*DA	3/4,TYPE L	1-1/2, TYPE L	SBFVE-A-C	SBFVE-B-C	SER-B	SER-B	4
	RAE6A207*DA	3/4,TYPE L	2, TYPE L	SBFVE-B-C	SBFVE-B-C	SER-B	SER-B	4
	RAE6A249*DA	1, TYPE L	2-1/2, TYPE L	SBFVE-B-C	SBFVE-B-C	SER-B	SER-C	8
	RAE6A316*DA	1, TYPE L	3, TYPE L	SBFVE-B-C	SBFVE-C-C	SER-C	SER-C	6
6 FPI - R455A	RAE6A051*DA	1/4,TYPE L	1/2,TYPE L	SBFVE-AA-C	SBFVE-AA-C	SER-AA	SER-AA	2
	RAE6A085*DA	1/3, TYPE L	3/4,TYPE L	SBFDE-AA-C	SBFVE-A-C	SER-A	SER-A	2
	RAE6A103*DA	1/2,TYPE L	1, TYPE L	SBFVE-A-C	SBFVE-A-C	SER-A	SER-A	2
	RAE6A128*DA	1/2,TYPE L	1-1/2, TYPE L	SBFVE-A-C	SBFVE-A-C	SER-A	SER-B	4
	RAE6A157*DA	3/4,TYPE L	1-1/2, TYPE L	SBFVE-A-C	SBFVE-B-C	SER-B	SER-B	4
	RAE6A173*DA	3/4,TYPE L	1-1/2, TYPE L	SBFVE-A-C	SBFVE-B-C	SER-B	SER-B	4
	RAE6A207*DA	1, TYPE L	2, TYPE L	SBFVE-B-C	SBFVE-B-C	SER-B	SER-B	4
	RAE6A249*DA	1, TYPE L	2-1/2, TYPE L	SBFVE-B-C	SBFVE-B-C	SER-B	SER-C	8
	RAE6A316*DA	1-1/2,TYPE L	3, TYPE L	SBFVE-B-C	SBFVE-C-C	SER-C	SER-C	6

*Asterisks represents a variable character based on voltage ordered. See nomenclature on page 3.
TXV Type: Externally Equalized. For units with mounted TXV components, see nozzle/TXV table for distributor connection size when TXV is field supplied.

LOOSE COMPONENTS REQUIRED FOR A2L MITIGATION CONTROL // AIR DEFROST MODELS

Model No.		Loose SSOV Mitigation Valve @ Liquid Temp			Loose CSOV Mitigation CV	
		Size	50°F	100°F	Size	Description
6 FPI - R454A	RAE6A051*DA	3/8	SSOV3S130	SSOV3S130	5/8	CSOV-5S
	RAE6A085*DA	3/8	SSOV3S130	SSOV3S130	5/8	CSOV-5S
	RAE6A103*DA	3/8	SSOV3S130	SSOV3S130	7/8	CSOV-7S
	RAE6A128*DA	3/8	SSOV3S130	SSOV6S130	7/8	CSOV-7S
	RAE6A157*DA	3/8	SSOV3S130	SSOV6S130	7/8	CSOV-7S
	RAE6A173*DA	3/8	SSOV3S130	SSOV6S130	7/8	CSOV-7S
	RAE6A207*DA	3/8	SSOV6S130	SSOV6S130	7/8	CSOV-7S
	RAE6A249*DA	1/2	SSOV6S140	SSOV6S140	1-1/8	CSOV-9S
	RAE6A316*DA	1/2	SSOV6S140	SSOV6S140	1-1/8	CSOV-9S
6 FPI - R454C	RAE6A051*DA	3/8	SSOV3S130	SSOV3S130	5/8	CSOV-5S
	RAE6A085*DA	3/8	SSOV3S130	SSOV3S130	5/8	CSOV-5S
	RAE6A103*DA	3/8	SSOV3S130	SSOV3S130	7/8	CSOV-7S
	RAE6A128*DA	3/8	SSOV3S130	SSOV6S130	7/8	CSOV-7S
	RAE6A157*DA	3/8	SSOV3S130	SSOV6S130	7/8	CSOV-7S
	RAE6A173*DA	3/8	SSOV6S130	SSOV6S130	7/8	CSOV-7S
	RAE6A207*DA	3/8	SSOV6S130	SSOV6S130	7/8	CSOV-7S
	RAE6A249*DA	1/2	SSOV6S140	SSOV6S140	1-1/8	CSOV-9S
	RAE6A316*DA	1/2	SSOV6S140	SSOV6S140	1-1/8	CSOV-9S
6 FPI - R455A	RAE6A051*DA	3/8	SSOV3S130	SSOV3S130	5/8	CSOV-5S
	RAE6A085*DA	3/8	SSOV3S130	SSOV3S130	5/8	CSOV-5S
	RAE6A103*DA	3/8	SSOV3S130	SSOV3S130	7/8	CSOV-7S
	RAE6A128*DA	3/8	SSOV3S130	SSOV6S130	7/8	CSOV-7S
	RAE6A157*DA	3/8	SSOV3S130	SSOV6S130	7/8	CSOV-7S
	RAE6A173*DA	3/8	SSOV6S130	SSOV6S130	7/8	CSOV-7S
	RAE6A207*DA	3/8	SSOV6S130	SSOV6S130	7/8	CSOV-7S
	RAE6A249*DA	1/2	SSOV6S140	SSOV6S140	1-1/8	CSOV-9S
	RAE6A316*DA	1/2	SSOV6S140	SSOV6S140	1-1/8	CSOV-9S

Note: Mitigation solenoid valve (SSOV) and mitigation suction line check valves (CSOV) are sized on a 1:1 condensing unit to evaporator ratio. Sizing assumes 100 ft line run, 10 ft vertical rise. Any design outside ofthese assumptions will require application support.

DISTRIBUTOR NOZZLES & EXPANSION VALVES // ELECTRIC DEFROST

	Model No.	Part Numbers						No. of Circuits
		Nozzle @ Liquid Temp		TXV @ Liquid Temp		EEV @ Liquid Temp		
		50°F	100°F	50°F	100°F	50°F	100°F	
6 FPI - R454A	RAE6E045DDA	1/4,TYPE L	1/2,TYPE L	SBFTE-AA-Z	SBFTE-AA-Z	SER-AA	SER-AA	2
	RAE6E054DDA	1/3, TYPE L	3/4,TYPE L	SBFTE-AA-Z	SBFTE-AA-Z	SER-AA	SER-AA	2
	RAE6E090DDA	1/2,TYPE L	3/2, TYPE L	SBFTE-A-Z	SBFTE-A-Z	SER-A	SER-A	4
	RAE6E107DDA	3/4,TYPE L	3/2, TYPE L	SBFTE-A-Z	SBFTE-A-Z	SER-A	SER-A	4
	RAE6E129DDA	3/4,TYPE L	3/2, TYPE L	SBFTE-A-Z	SBFTE-B-Z	SER-A	SER-A	4
	RAE6E149DDA	1, TYPE L	2, TYPE L	SBFTE-A-Z	SBFTE-B-Z	SER-A	SER-B	4
	RAE6E160DDA	1, TYPE L	2, TYPE L	SBFTE-B-Z	SBFTE-B-Z	SER-A	SER-B	4
	RAE6E217DDA	3/2, TYPE L	5/2, TYPE L	SBFTE-B-Z	SBFTE-C-Z	SER-B	SER-B	8
	RAE6E265DDA	2, TYPE L	3, TYPE L	SBFTE-B-Z	SBFTE-C-Z	SER-B	SER-B	8
	RAE6E337DDA	5/2, TYPE G	4, TYPE G	SBFTE-C-Z	SBFTE-C-Z	SER-B	SER-C	12
6 FPI - R454C	RAE6E045DDA	1/3,TYPE L	3/4,TYPE L	SBFVE-AA-Z	SBFVE-AA-Z	SER-AA	SER-AA	2
	RAE6E054DDA	1/3,TYPE L	3/4,TYPE L	SBFVE-AA-Z	SBFVE-A-Z	SER-AA	SER-A	2
	RAE6E090DDA	3/4,TYPE L	1-1/2,TYPE L	SBFVE-A-Z	SBFVE-A-Z	SER-A	SER-A	4
	RAE6E107DDA	3/4,TYPE L	1-1/2,TYPE L	SBFVE-A-Z	SBFVE-B-Z	SER-A	SER-A	4
	RAE6E129DDA	1,TYPE L	2,TYPE L	SBFVE-A-Z	SBFVE-B-Z	SER-A	SER-B	4
	RAE6E149DDA	1,TYPE L	2,TYPE L	SBFVE-B-Z	SBFVE-B-Z	SER-A	SER-B	4
	RAE6E160DDA	1,TYPE L	2,TYPE L	SBFVE-B-Z	SBFVE-B-Z	SER-B	SER-B	4
	RAE6E217DDA	1-1/2,TYPE L	2-1/2,TYPE L	SBFVE-B-Z	SBFVE-C-Z	SER-B	SER-C	8
	RAE6E265DDA	2,TYPE L	4,TYPE L	SBFVE-C-Z	SBFVE-C-Z	SER-B	SER-C	8
	RAE6E337DDA	2-1/2,TYPE G	5,TYPE G	SBFVE-C-Z	SBFVE-C-Z	SER-C	SER-C	12
6 FPI - R455A	RAE6E045DDA	1/3,TYPE L	3/4,TYPE L	SBFVE-AA-Z	SBFVE-AA-Z	SER-AA	SER-AA	2
	RAE6E054DDA	1/2,TYPE L	3/4,TYPE L	SBFVE-AA-Z	SBFVE-A-Z	SER-AA	SER-A	2
	RAE6E090DDA	3/4,TYPE L	1-1/2,TYPE L	SBFVE-A-Z	SBFVE-A-Z	SER-A	SER-A	4
	RAE6E107DDA	3/4,TYPE L	1-1/2,TYPE L	SBFVE-A-Z	SBFVE-B-Z	SER-A	SER-A	4
	RAE6E129DDA	1,TYPE L	2,TYPE L	SBFVE-A-Z	SBFVE-B-Z	SER-A	SER-B	4
	RAE6E149DDA	1,TYPE L	2-1/2,TYPE L	SBFVE-B-Z	SBFVE-B-Z	SER-A	SER-B	4
	RAE6E160DDA	1-1/2,TYPE L	2-1/2,TYPE L	SBFVE-B-Z	SBFVE-B-Z	SER-B	SER-B	4
	RAE6E217DDA	2,TYPE L	3,TYPE L	SBFVE-B-Z	SBFVE-C-Z	SER-B	SER-B	8
	RAE6E265DDA	2,TYPE L	4,TYPE L	SBFVE-C-Z	SBFVE-C-Z	SER-B	SER-C	8
	RAE6E337DDA	3,TYPE G	5,TYPE G	SBFVE-C-Z	SBFVE-C-Z	SER-C	SER-C	12

*Asterisks represents a variable character based on voltage ordered. See nomenclature on page 3.
TXV Type: Externally Equalized. For units with mounted TXV components, see nozzle/TXV table for distributor connection size when TXV is field supplied.

LOOSE COMPONENTS REQUIRED FOR A2L MITIGATION CONTROL // ELECTRIC DEFROST MODELS

	Model No.	Loose SSOV Mitigation Valve @ Liquid Temp			Loose CSOV Mitigation CV	
		Size	50°F	100°F	Size	Description
6 FPI - R454A	RAE6E045DDA	3/8	SS0V3S130	SS0V3S130	7/8	CSOV-7S
	RAE6E054DDA	3/8	SS0V3S130	SS0V3S130	7/8	CSOV-7S
	RAE6E090DDA	3/8	SS0V3S130	SS0V3S130	7/8	CSOV-7S
	RAE6E107DDA	3/8	SS0V3S130	SS0V3S130	1-1/8	CSOV-9S
	RAE6E129DDA	3/8	SS0V3S130	SS0V3S130	1-1/8	CSOV-9S
	RAE6E149DDA	3/8	SS0V3S130	SS0V6S130	1-1/8	CSOV-9S
	RAE6E160DDA	3/8	SS0V3S130	SS0V6S130	1-1/8	CSOV-9S
	RAE6E217DDA	1/2	SSOV6S140	SSOV6S140	1-3/8	CSOV-11S
	RAE6E265DDA	1/2	SSOV6S140	SSOV6S140	1-3/8	CSOV-11S
	RAE6E337DDA	1/2	SSOV6S140	SSOV6S140	1-3/8	CSOV-11S
6 FPI - R454C	RAE6E045DDA	3/8	SS0V3S130	SS0V3S130	7/8	CSOV-7S
	RAE6E054DDA	3/8	SS0V3S130	SS0V3S130	7/8	CSOV-7S
	RAE6E090DDA	3/8	SS0V3S130	SS0V3S130	7/8	CSOV-7S
	RAE6E107DDA	3/8	SS0V3S130	SS0V3S130	1-1/8	CSOV-9S
	RAE6E129DDA	3/8	SS0V3S130	SS0V6S130	1-1/8	CSOV-9S
	RAE6E149DDA	3/8	SS0V6S130	SS0V6S130	1-1/8	CSOV-9S
	RAE6E160DDA	3/8	SS0V6S130	SS0V6S130	1-1/8	CSOV-9S
	RAE6E217DDA	1/2	SSOV6S140	SSOV6S140	1-3/8	CSOV-11S
	RAE6E265DDA	1/2	SSOV6S140	SSOV6S140	1-3/8	CSOV-11S
	RAE6E337DDA	1/2	SSOV6S140	SSOV6S140	1-3/8	CSOV-11S
6 FPI - R455A	RAE6E045DDA	3/8	SS0V3S130	SS0V3S130	7/8	CSOV-7S
	RAE6E054DDA	3/8	SS0V3S130	SS0V3S130	7/8	CSOV-7S
	RAE6E090DDA	3/8	SS0V3S130	SS0V3S130	7/8	CSOV-7S
	RAE6E107DDA	3/8	SS0V3S130	SS0V6S130	1-1/8	CSOV-9S
	RAE6E129DDA	3/8	SS0V3S130	SS0V6S130	1-1/8	CSOV-9S
	RAE6E149DDA	3/8	SS0V3S130	SS0V6S130	1-1/8	CSOV-9S
	RAE6E160DDA	3/8	SS0V6S130	SS0V6S130	1-1/8	CSOV-9S
	RAE6E217DDA	1/2	SSOV6S140	SSOV6S140	1-3/8	CSOV-11S
	RAE6E265DDA	1/2	SSOV6S140	SSOV6S140	1-3/8	CSOV-11S
	RAE6E337DDA	1/2	SSOV6S140	SSOV6S140	1-3/8	CSOV-11S

Note: Mitigation solenoid valve (SSOV) and mitigation suction line check valves (CSOV) operate as double duty mitigation controls for A2L leak mitigation system and are required to ship loose and be installed outside the refrigerated space.

DISTRIBUTOR NOZZLES & EXPANSION VALVES // ELECTRIC DEFROST

	Model No.	Part Numbers						No. of Circuits
		Nozzle @ Liquid Temp		TXV @ Liquid Temp		EEV @ Liquid Temp		
		50°F	100°F	50°F	100°F	50°F	100°F	
4 FPI - R454A	RAE4E043DDA	1/4,TYPE L	1/2,TYPE L	SBFTE-AA-Z	SBFTE-AA-Z	SER-AA	SER-AA	2
	RAE4E087DDA	1/2,TYPE L	1-1/2,TYPE L	SBFTE-A-Z	SBFTE-A-Z	SER-A	SER-A	4
	RAE4E127DDA	3/4,TYPE L	1-1/2,TYPE L	SBFTE-A-Z	SBFTE-B-Z	SER-A	SER-A	4
	RAE4E183DDA	1,TYPE L	2-1/2,TYPE L	SBFTE-B-Z	SBFTE-B-Z	SER-A	SER-B	8
	RAE4E222DDA	1-1/2,TYPE L	3,TYPE L	SBFTE-B-Z	SBFTE-C-Z	SER-B	SER-B	8
	RAE4E283DDA	2,TYPE G	4,TYPE G	SBFTE-C-Z	SBFTE-C-Z	SER-B	SER-B	12
4 FPI - R454C	RAE4E043DDA	1/3,TYPE L	3/4,TYPE L	SBFVE-AA-Z	SBFVE-AA-Z	SER-AA	SER-AA	2
	RAE4E087DDA	3/4,TYPE L	1-1/2,TYPE L	SBFVE-A-Z	SBFVE-A-Z	SER-A	SER-A	4
	RAE4E127DDA	1,TYPE L	2,TYPE L	SBFVE-A-Z	SBFVE-B-Z	SER-A	SER-B	4
	RAE4E183DDA	1-1/2,TYPE L	2-1/2,TYPE L	SBFVE-B-Z	SBFVE-C-Z	SER-B	SER-B	8
	RAE4E222DDA	1-1/2,TYPE L	3,TYPE L	SBFVE-B-Z	SBFVE-C-Z	SER-B	SER-B	8
	RAE4E283DDA	2,TYPE G	4,TYPE G	SBFVE-C-Z	SBFVE-C-Z	SER-B	SER-C	12
4 FPI - R455A	RAE4E043DDA	1/3,TYPE L	3/4,TYPE L	SBFVE-AA-Z	SBFVE-AA-Z	SER-AA	SER-AA	2
	RAE4E087DDA	3/4,TYPE L	1-1/2,TYPE L	SBFVE-A-Z	SBFVE-A-Z	SER-A	SER-A	4
	RAE4E127DDA	1,TYPE L	2,TYPE L	SBFVE-A-Z	SBFVE-B-Z	SER-A	SER-B	4
	RAE4E183DDA	1-1/2,TYPE L	2-1/2,TYPE L	SBFVE-B-Z	SBFVE-C-Z	SER-B	SER-B	8
	RAE4E222DDA	2,TYPE L	3,TYPE L	SBFVE-B-Z	SBFVE-C-Z	SER-B	SER-B	8
	RAE4E283DDA	2-1/2,TYPE G	4,TYPE G	SBFVE-C-Z	SBFVE-C-Z	SER-B	SER-C	12

*Asterisks represents a variable character based on voltage ordered. See nomenclature on page 3.
TXV Type: Externally Equalized. For units with mounted TXV components, see nozzle/TXV table for distributor connection size when TXV is field supplied.

LOOSE COMPONENTS REQUIRED FOR A2L MITIGATION CONTROL // ELECTRIC DEFROST MODEL

	Model No.	Loose SSOV Mitigation Valve @ Liquid Temp			Loose CSOV Mitigation CV	
		Size	50°F	100°F	Size	Description
4 FPI - R454A	RAE4E043DDA	3/8	SS0V3S130	SS0V3S130	7/8	CSOV-7S
	RAE4E087DDA	3/8	SS0V3S130	SS0V3S130	7/8	CSOV-7S
	RAE4E127DDA	3/8	SS0V3S130	SS0V3S130	1-1/8	CSOV-9S
	RAE4E183DDA	3/8	SS0V6S130	SS0V6S130	1-1/8	CSOV-9S
	RAE4E222DDA	1/2	SSOV6S140	SSOV6S140	1-3/8	CSOV-11S
	RAE4E283DDA	1/2	SSOV6S140	SSOV6S140	1-3/8	CSOV-11S
4 FPI - R454C	RAE4E043DDA	3/8	SS0V3S130	SS0V3S130	7/8	CSOV-7S
	RAE4E087DDA	3/8	SS0V3S130	SS0V3S130	7/8	CSOV-7S
	RAE4E127DDA	3/8	SS0V3S130	SS0V6S130	1-1/8	CSOV-9S
	RAE4E183DDA	3/8	SS0V6S130	SS0V6S130	1-1/8	CSOV-9S
	RAE4E222DDA	1/2	SSOV6S140	SSOV6S140	1-3/8	CSOV-11S
	RAE4E283DDA	1/2	SSOV6S140	SSOV6S140	1-3/8	CSOV-11S
4 FPI - R455A	RAE4E043DDA	3/8	SS0V3S130	SS0V3S130	7/8	CSOV-7S
	RAE4E087DDA	3/8	SS0V3S130	SS0V3S130	7/8	CSOV-7S
	RAE4E127DDA	3/8	SS0V3S130	SS0V6S130	1-1/8	CSOV-9S
	RAE4E183DDA	3/8	SS0V6S130	SS0V6S130	1-1/8	CSOV-9S
	RAE4E222DDA	1/2	SSOV6S140	SSOV6S140	1-3/8	CSOV-11S
	RAE4E283DDA	1/2	SSOV6S140	SSOV6S140	1-3/8	CSOV-11S

Note: Mitigation solenoid valve (SSOV) and mitigation suction line check valves (CSOV) operate as double duty mitigation controls for A2L leak mitigation system and are required to ship loose and be installed outside the refrigerated space.

SPECIFICATIONS // AIR DEFROST MODELS

	Model No.	Fans	No. of Hanger Slot Locations	Connection Sizes		Dimensions (Inches)				Approximate Weight (Lbs)	
				Liquid Line Size	Suction Line Size	Length	Width	Height	Figure	Net	Ship
6 FPI - RAE6A	RAE6A051*DA	1	4	3/8	5/8	36	28-3/8"	11-1/4"	1	55	190
	RAE6A085*DA	2	6	3/8	5/8	56	28-3/8"	11-1/4"	2	75	210
	RAE6A103*DA	2	6	3/8	7/8	56	28-3/8"	11-1/4"	2	80	215
	RAE6A128*DA	3	8	3/8	7/8	76	28-3/8"	11-1/4"	3	95	230
	RAE6A157*DA	3	8	3/8	7/8	76	28-3/8"	11-1/4"	3	105	240
	RAE6A173*DA	4	10	3/8	7/8	96	28-3/8"	11-1/4"	4	120	280
	RAE6A207*DA	4	10	3/8	7/8	96	28-3/8"	11-1/4"	4	130	290
	RAE6A249*DA	5	12	1/2	1-1/8	116	28-3/8"	11-1/4"	5	145	330
	RAE6A316*DA	5T	12	1/2	1-1/8	116	28-3/8"	13-3/4"	6	155	340

SPECIFICATIONS // ELECTRIC DEFROST MODELS 6 FPI

	Model No.	Fans	No. of Hanger Slot Locations	Connection Sizes		Dimensions (Inches)				Approximate Weight (Lbs)	
				Liquid Line Size	Suction Line Size	Length	Width	Height	Figure	Net	Ship
6 FPI - RAE6A	RAE6E045DDA	1	4	3/8	7/8	36	28-3/8"	11-1/4"	1	50	185
	RAE6E054DDA	1	4	3/8	7/8	36	28-3/8"	11-1/4"	1	55	190
	RAE6E090DDA	2	6	3/8	7/8	56	28-3/8"	11-1/4"	2	75	210
	RAE6E107DDA	2	6	3/8	1-1/8	56	28-3/8"	11-1/4"	2	80	215
	RAE6E129DDA	3	8	3/8	1-1/8	76	28-3/8"	11-1/4"	3	95	230
	RAE6E149DDA	3	8	3/8	1-1/8	76	28-3/8"	11-1/4"	3	105	240
	RAE6E160DDA	4	10	3/8	1-1/8	96	28-3/8"	11-1/4"	4	120	280
	RAE6E217DDA	4	10	1/2	1-3/8	96	28-3/8"	11-1/4"	4	130	290
	RAE6E265DDA	5	12	1/2	1-3/8	116	28-3/8"	11-1/4"	5	145	330
	RAE6E337*DA	5T	12	1/2	1-3/8	116	28-3/8"	13-3/4"	6	155	340

SPECIFICATIONS // ELECTRIC DEFROST MODELS 4 FPI

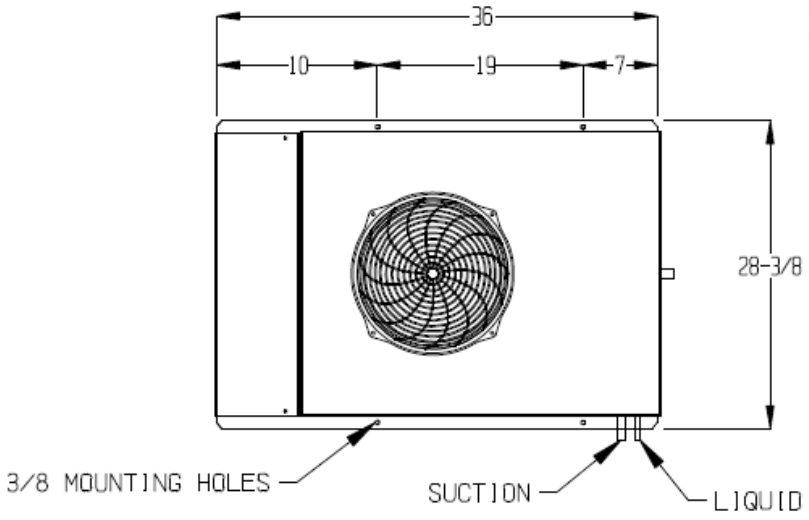
	Model No.	Fans	No. of Hanger Slot Locations	Connection Sizes		Dimensions (Inches)				Approximate Weight (Lbs)	
				Liquid Line Size	Suction Line Size	Length	Width	Height	Figure	Net	Ship
4 FPI - RAE4E	RAE4E043DDA	1	4	3/8	7/8	36	28-3/8"	11-1/4"	1	55	190
	RAE4E087DDA	2	6	3/8	7/8	56	28-3/8"	11-1/4"	2	80	215
	RAE4E127DDA	3	8	3/8	1-1/8	76	28-3/8"	11-1/4"	3	105	240
	RAE4E183DDA	4	10	3/8	1-1/8	96	28-3/8"	11-1/4"	4	130	290
	RAE4E222DDA	5	12	1/2	1-3/8	116	28-3/8"	11-1/4"	5	145	330
	RAE4E283DDA	5T	12	1/2	1-3/8	116	28-3/8"	13-3/4"	6	155	340

* Astericks represents a variable character based on voltage ordered. See Nomenclature on page 3.
TXV Type: Externally Equalized
For units with mounted TXV components, see nozzle/TXV table for distributor connection size when TXV is field supplied.

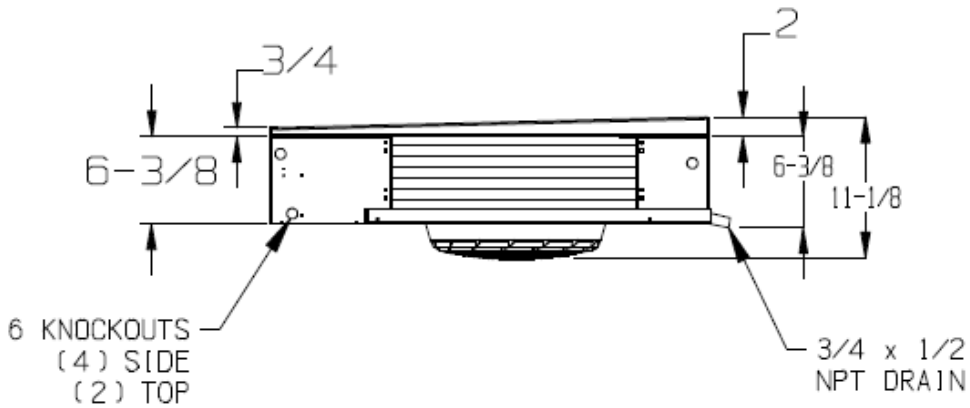
PHYSICAL DIMENSIONS

Figure 1 - Single Fan

Bottom View



Side View

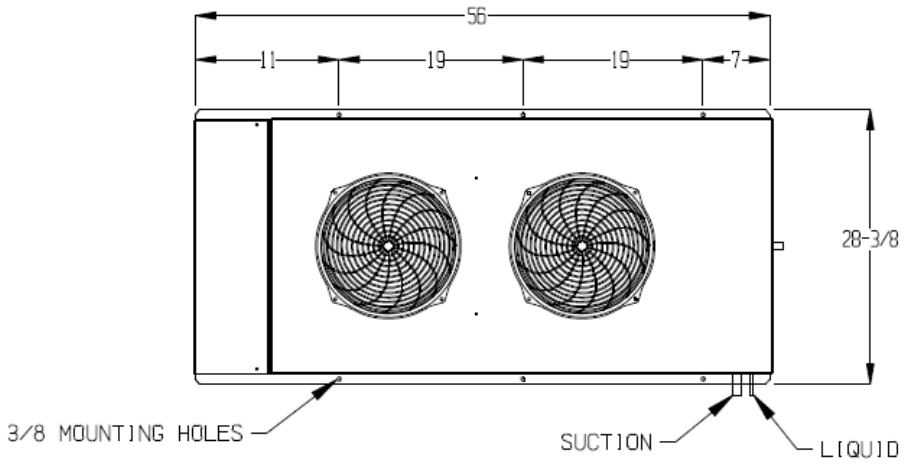


All dimensions are in inches.
Measurements noted on the end view drawing are the same for all units. All mounting holes are 3/8" diameter.

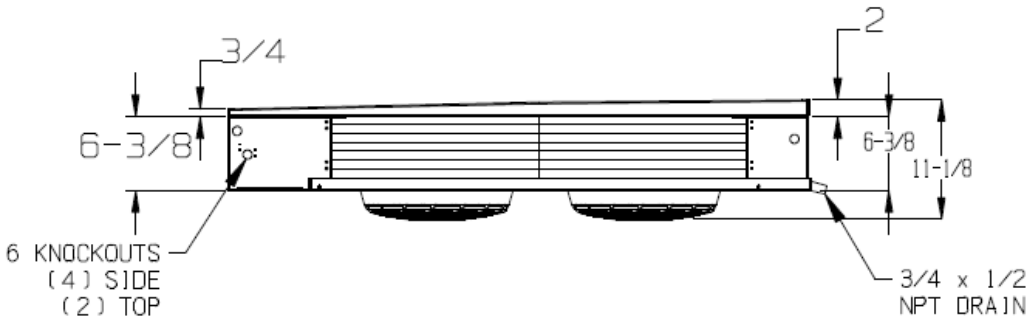
PHYSICAL DIMENSIONS

Figure 1 - Two Fan

Bottom View



Side View

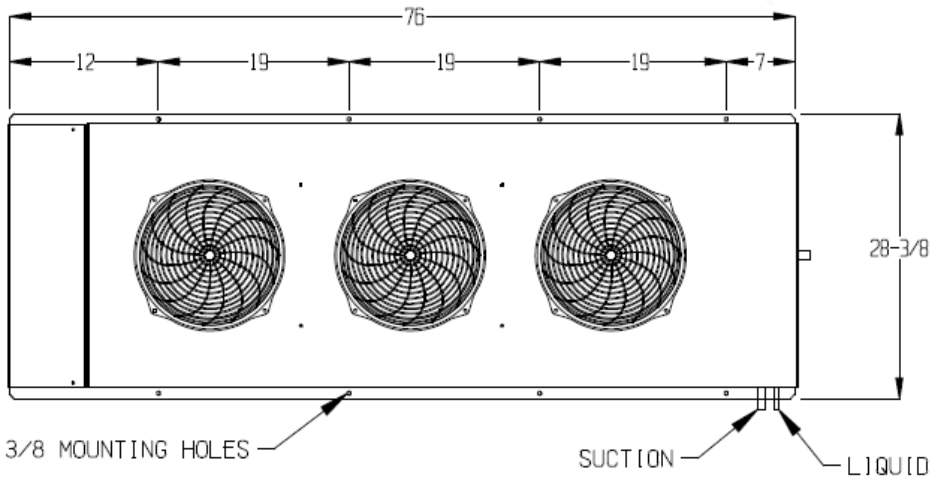


All dimensions are in inches.
Measurements noted on the end view drawing are the same for all units. All mounting holes are 3/8" diameter.

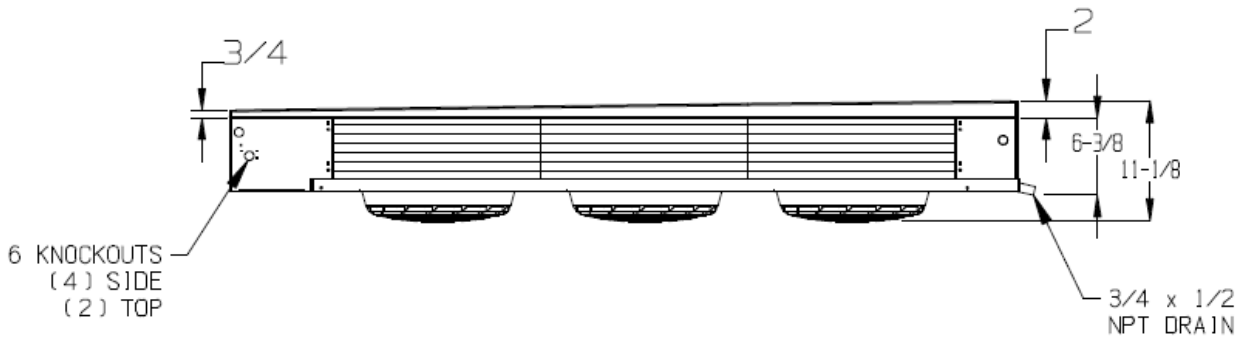
PHYSICAL DIMENSIONS

Figure 3: Three Fan

Bottom View



Side View

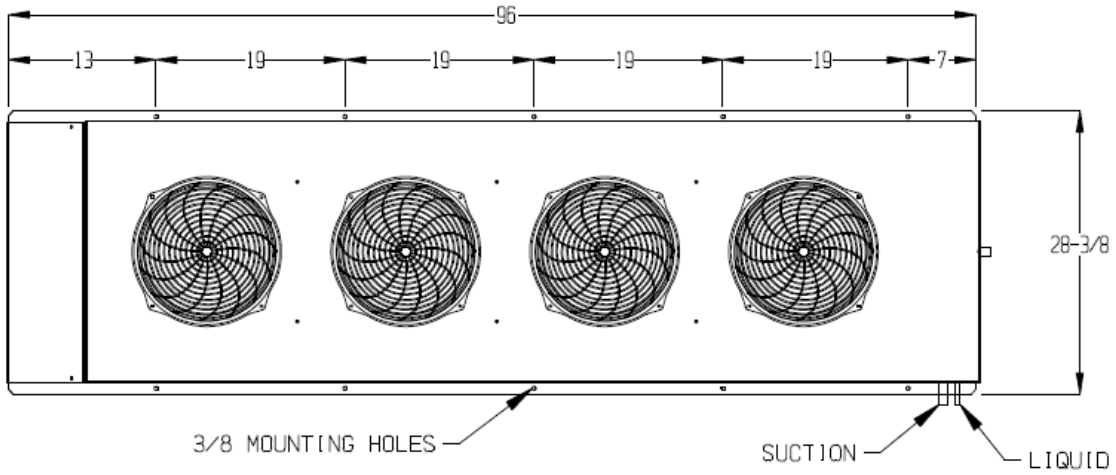


All dimensions are in inches.
Measurements noted on the end view drawing are the same for all units. All mounting holes are 3/8" diameter.

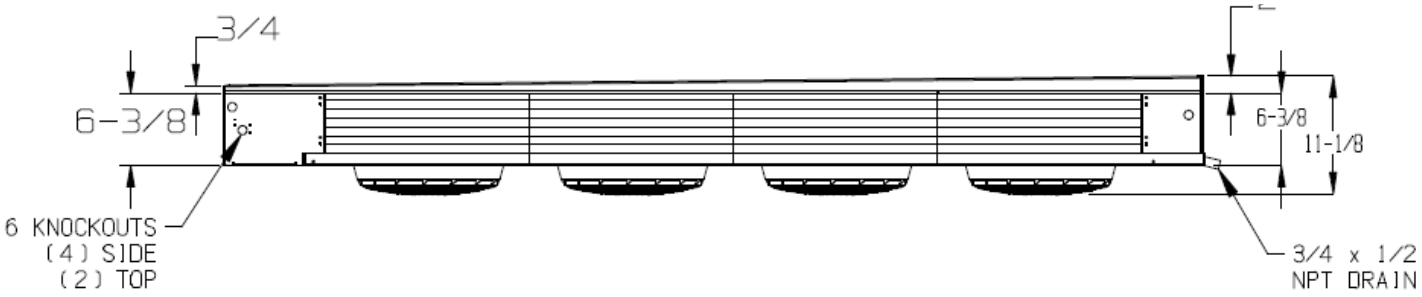
PHYSICAL DIMENSIONS

Figure 4: Four Fan

Bottom View



Side View

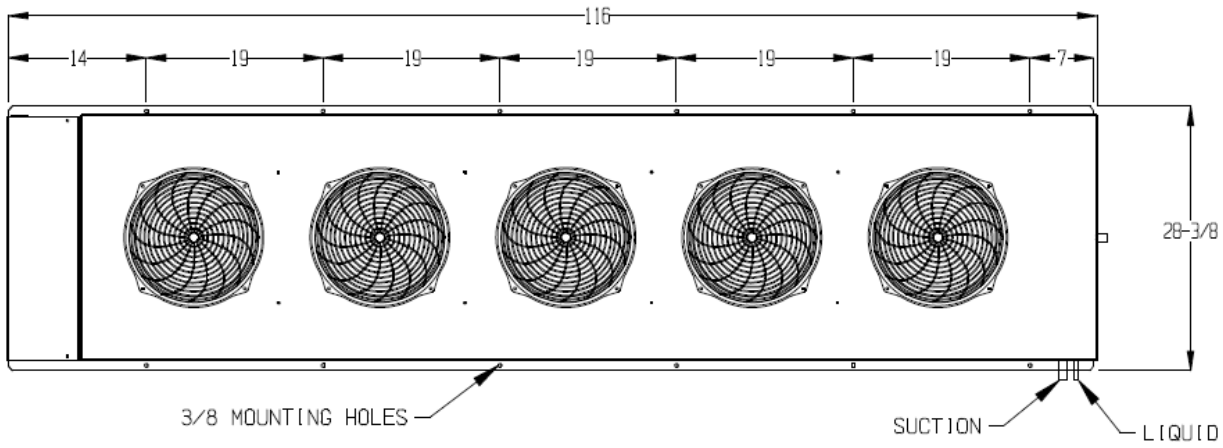


Measurements noted on the end view drawing are the same for all units. All mounting holes are 3/8" diameter. Mounting holes on four and five fan units are located 20" on center at each tube sheet. All dimensions are in inches.

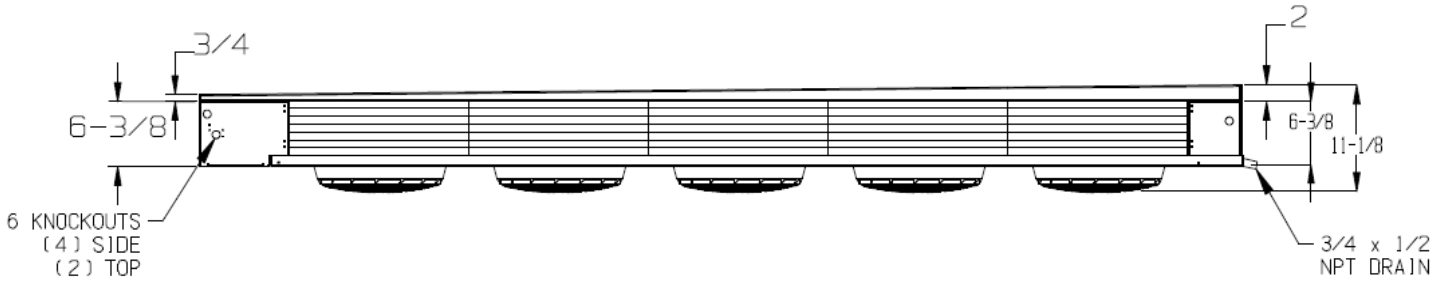
PHYSICAL DIMENSIONS

Figure 5: Five Fan

Bottom View



Side View

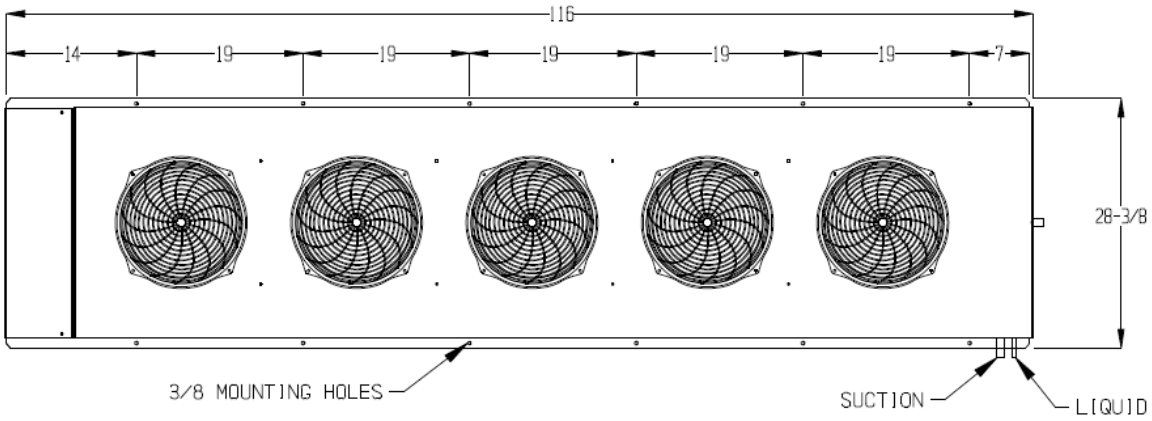


Measurements noted on the end view drawing are the same for all units. All mounting holes are 3/8" diameter.
Mounting holes on four and five fan units are located 20" on center at each tube sheet. All dimensions are in inches.

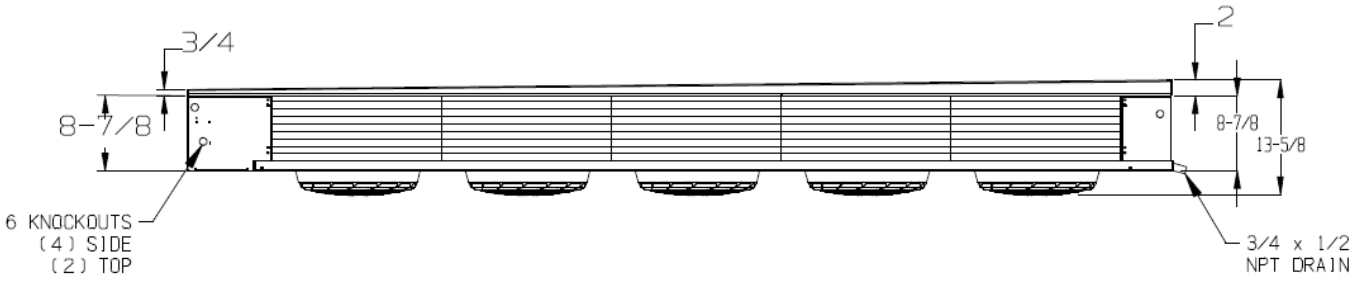
PHYSICAL DIMENSIONS

Figure 6: Five Tall 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. All dimensions are in inches.

AWEF RATINGS // COOLER AND FREEZER MODELS

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 consid`ered 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.

Model No.	Department of Energy Annual Walk-In Energy Factor (AWEF) Ratings		
	Defrost Type	FPI	AWEF
	Cooler Models1		
RAE6A051*DA	Air Defrost	6	9.00
RAE6A085*DA	Air Defrost	6	9.00
RAE6A103*DA	Air Defrost	6	9.00
RAE6A128*DA	Air Defrost	6	9.00
RAE6A157*DA	Air Defrost	6	9.00
RAE6A173*DA	Air Defrost	6	9.00
RAE6A207*DA	Air Defrost	6	9.00
RAE6A249*DA	Air Defrost	6	9.00
RAE6A316*DA	Air Defrost	6	9.00
RAE6E045DDA	Electric Defrost	6	9.00
RAE6E054DDA	Electric Defrost	6	9.00
RAE6E090DDA	Electric Defrost	6	9.00
RAE6E107DDA	Electric Defrost	6	9.00
RAE6E129DDA	Electric Defrost	6	9.00
RAE6E149DDA	Electric Defrost	6	9.00
RAE6E160DDA	Electric Defrost	6	9.00
RAE6E217DDA	Electric Defrost	6	9.00
RAE6E265DDA	Electric Defrost	6	9.00
RAE6E337DDA	Electric Defrost	6	9.00

Model No.	Department of Energy Annual Walk-In Energy Factor (AWEF) Ratings		
	Defrost Type	FPI	AWEF
	Freezer Models1		
RAE6E045DDA	Electric Defrost	6	4.15
RAE6E054DDA	Electric Defrost	6	4.15
RAE6E090DDA	Electric Defrost	6	4.15
RAE6E107DDA	Electric Defrost	6	4.15
RAE6E129DDA	Electric Defrost	6	4.15
RAE6E149DDA	Electric Defrost	6	4.15
RAE6E160DDA	Electric Defrost	6	4.15
RAE6E217DDA	Electric Defrost	6	4.15
RAE6E265DDA	Electric Defrost	6	4.15
RAE6E337DDA	Electric Defrost	6	4.15
RAE4E043DDA	Electric Defrost	4	3.96
RAE4E087DDA	Electric Defrost	4	4.02
RAE4E127DDA	Electric Defrost	4	4.07
RAE4E183DDA	Electric Defrost	4	4.13
RAE4E222DDA	Electric Defrost	4	4.15
RAE4E283DDA	Electric Defrost	4	4.15

*Asterisks represents a variable character based on voltage ordered. See nomenclature on page 3.
Models were designed in anticipation of the July 2020 Department of Energy AWEF regulations for evaporators for Walk-in coolers and Freezers in boxes less than 3,000 sq. ft. See above for AWEF compliance ratings.

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