

CENTER MOUNT UNIT COOLER

Small to Medium Walk-Ins
Cooler and Freezer Applications

Air Defrost
4,100 to 30,400 BTUH

Electric Defrost
3,700 to 32,400 BTUH



CENTER MOUNT

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 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 3,700 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 pan 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 4 FPI. Sweat connections are standard on all models.

FANS

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.

MOTORS

Standard models feature highly efficient Electronically Commutated (EC) motors that can be field or factory wired for dual speed. 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.

ELECTRICAL

Available for 115V, and 208/230V. All components are factory wired to terminal strips and are UL and cUL listed.

AIR DEFROST

Air Defrost models (RE6A) are designed for use in coolers down to 35°F.

ELECTRIC DEFROST

Electric Defrost models (RE6E) are designed for use in coolers and freezers down to -10°F.

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)
- Liquid Line Solenoid Valve (mounted or loose)
- Insulated Drain Pan
- Painted Cabinet (White or Black)
- Coated Cabinet
- Stainless Steel Cabinet
- Coated Coil (Russproof, Heresite Bronz-Glow, or Electrofin®)
- Heat Exchanger (loose)

Note

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.)

MODEL NUMBER NOMENCLATURE

CONFIGURABLE BASE MODEL

R	E	6	A	041	A	D	A
Brand	Style	Fins Per Inch	Defrost Type	BTUH in Hundreds	Unit Voltage [^]	Motor Type	Revision
R - Russell	E - Center Mount	4 FPI 6 FPI	A - Air E - Electric		A - 115/1/60 D - 208-230/1/60	E - Single Speed EC D - Dual Speed EC	

Note

[^] 50 Hz available. Contact Factory for additional information.

LOW HEIGHT UNIT COOLER

Highlighted Features and Options



FANS AND HOUSING

- Extra low height — mounts flush to ceiling
- Two-way air flow for even air circulation and consistent temperature
- 12" aluminum fans are balanced for vibration-free operation
- High efficiency fan guard design and deep draw venturi provide optimal air flow
- Easy access to fan motors
- Sloped housing for efficient condensate draining
- UL and NSF approved



COILS AND DEFROST HEATERS

- Available in 4 or 6 FPI
- Electric defrost heaters are mounted on the air intake coil face to provide optimal performance and are easily accessible by removing the venturi panel
- Independent defrost termination on each coil slab for efficient defrosting
- Independent drain pan per coil

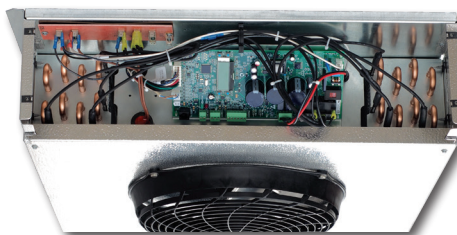
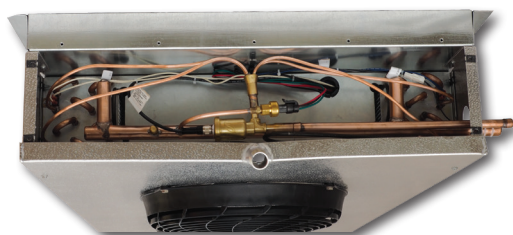
ECONET ENABLED UNIT COOLERS (Optional)

Developed in conjunction with Rheem Manufacturing specifically for walk-in coolers and freezers — it builds on 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

ELECTRICAL AND PIPING



Unit shown with EcoNet option installed

- Unique design of control access cover allows for service in confined spaces
- Ample room in electrical and piping compartments for easy access

CENTER MOUNT

Performance and Electrical Data - Air Defrost Models

	Model Number	BTUH Capacity @ 25°F S.T. & 10°F TD		CFM	No. of Fans	Total Fan Motor AMPS - 1 Phase		MCA		MOPD			
		R404A	R407A/ R448A/ R449A/B [^]			Single and Dual Speed EC Motors [†]		115V	208- 230V	115V	208- 230V	115V	208- 230V
						115V	208- 230V						
6 FPI	RE6A041**A	4,100	4,900	572	1	0.8	0.5	15.0	15.0	20.0	20.0		
	RE6A070**A	7,000	8,200	1,204	2	1.6	1.0	15.0	15.0	20.0	20.0		
	RE6A084**A	8,400	9,900	1,144	2	1.6	1.0	15.0	15.0	20.0	20.0		
	RE6A104**A	10,400	12,300	1,806	3	2.4	1.5	15.0	15.0	20.0	20.0		
	RE6A128**A	12,800	15,100	1,716	3	2.4	1.5	15.0	15.0	20.0	20.0		
	RE6A141**A	14,100	16,600	2,408	4	3.2	2.0	15.0	15.0	20.0	20.0		
	RE6A169**A	16,900	19,900	2,288	4	3.2	2.0	15.0	15.0	20.0	20.0		
	RE6A204**A	20,400	23,900	2,860	5	4.0	2.5	15.0	15.0	20.0	20.0		
RE6A258**A	25,800	30,400	3,150	5	4.0	2.5	15.0	15.0	20.0	20.0			

Consult Factory for 50Hz Operation

* Each asterisk represents a variable character based on voltage and motor ordered. See page 2 for nomenclature.

[^] Standard rating based on R407A refrigerant with 100°F liquid temperature. Consult factory for other conditions.

[†] These Electronically Commutated (EC) Motors are not available for 460V. EC Motors can be field or factory wired for dual-speed operation. Dual-speed EC motors are compliant with California Title 24 regulations.

Energy Independence and Security Act of 2007 specifies that walk-in coolers and freezers under 3,000 square feet that are manufactured after January 1, 2009 shall have evaporators with EC motors when they are single phase, less than 460 volt and less than 1 HP.

Distributor Nozzle - Air Defrost Models

Model Number	Part Numbers						Number of Circuits
	Nozzle @ Liq. Temp.		TXV [^] @ Liq. Temp.		EEV @ Liq. Temp.		
	50°F	100°F	50°F	100°F	50°F	100°F	

R404A

6 FPI	RE6A041**A	L, #1/6	L, #1/2	SBFSE-AA-C	SBFSE-AA-C	SER-AA	SER-AA	2
	RE6A070**A	L, #1/4	L, #3/4	SBFSE-AA-C	SBFSE-A-C	SER-A	SER-A	2
	RE6A084**A	L, #1/4	L, #3/4	SBFSE-A-C	SBFSE-A-C	SER-A	SER-B	2
	RE6A104**A	L, #1/3	L, #1	SBFSE-A-C	SBFSE-A-C	SER-A	SER-B	4
	RE6A128**A	L, #1/2	L, #1-1/2	SBFSE-A-C	SBFSE-B-C	SER-B	SER-B	4
	RE6A141**A	L, #1/2	L, #1-1/2	SBFSE-A-C	SBFSE-B-C	SER-B	SER-B	4
	RE6A169**A	L, #3/4	L, #2	SBFSE-A-C	SBFSE-B-C	SER-B	SER-B	4
	RE6A204**A	L, #3/4	L, #2	SBFSE-B-C	SBFSE-C-C	SER-B	SER-C	4
RE6A258**A	L, #3/4	L, #2-1/2	SBFSE-B-C	SBFSE-C-C	SER-B	SER-C	6	

R407A/ R448A/ R449A/B[†]

6 FPI	RE6A041**A	L, #1/6	L, #1/2	SBFDE-AAA-C	SBFDE-AA-C	SER-AA	SER-AA	2
	RE6A070**A	L, #1/4	L, #3/4	SBFDE-AA-C	SBFDE-A-C	SER-A	SER-A	2
	RE6A084**A	L, #1/3	L, #3/4	SBFDE-AA-C	SBFDE-A-C	SER-A	SER-A	2
	RE6A104**A	L, #1/2	L, #1	SBFDE-A-C	SBFDE-A-C	SER-A	SER-B	4
	RE6A128**A	L, #1/2	L, #1-1/2	SBFDE-A-C	SBFDE-A-C	SER-A	SER-B	4
	RE6A141**A	L, #1/2	L, #1-1/2	SBFDE-A-C	SBFDE-B-C	SER-B	SER-B	4
	RE6A169**A	L, #3/4	L, #1-1/2	SBFDE-A-C	SBFDE-B-C	SER-B	SER-B	4
	RE6A204**A	L, #3/4	L, #2	SBFDE-B-C	SBFDE-B-C	SER-B	SER-B	4
RE6A258**A	L, #1	L, #2-1/2	SBFDE-B-C	SBFDE-C-C	SER-B	SER-C	6	

Distributor lines are 3/16" diameter and 14" long. Distributor connection size is 1/2" for all air defrost models.

* Each asterisk represents a variable character based on voltage and motor size ordered. See page 2 for nomenclature.

– Single feed circuit coils do not get a distributor/nozzle.

[^] TXV selections are based on +25°F suction temp., 8°F to 12°F evaporator TD. Contact factory for operating conditions outside of this range.

[†] SBFDE expansion valves are compatible with R407A, R448A and R449A/B. For other valves, follow manufacturers selection guidelines.

If unit is not configured with a factory installed TXV, unit will include shipped-loose nozzles sized for 100°F liquid temperature.

LOW HEIGHT UNIT COOLER

Performance and Electrical Data - Electric Defrost Models

Model Number	BTUH Capacity @ -20°F S.T. & 10°F T.D		CFM	No. of Fans	208-230V/1					
	R404A	R407A/ R448A/ R449A/B [^]			Single and Dual Speed EC Motors [†]	MCA		MOPD		
						Total Fan Motor AMPS	Base Model	EcoNet Enabled	Base Model	EcoNet Enabled
6 FPI	RE6E037D*A	3,700	4,300	602	1	0.5	15.0	15.0	20.0	20.0
	RE6E045D*A	4,500	5,200	572	1	0.5	15.0	15.0	20.0	20.0
	RE6E075D*A	7,500	8,700	1,204	2	1.0	15.0	15.0	20.0	20.0
	RE6E089D*A	8,900	10,300	1,144	2	1.0	15.0	15.0	20.0	20.0
	RE6E108D*A	10,800	12,400	1,806	3	1.5	15.0	15.0	20.0	20.0
	RE6E125D*A	12,500	14,300	1,716	3	1.5	15.0	15.0	20.0	20.0
	RE6E137D*A	13,700	15,400	2,408	4	2.0	15.0	15.0	20.0	20.0
	RE6E182D*A	18,200	20,900	2,288	4	2.0	15.0	15.0	20.0	20.0
4 FPI	RE6E221D*A	22,100	25,500	2,860	5	2.5	15.0	16.3	20.0	20.0
	RE6E278D*A	27,800	32,400	3,150	5	2.5	15.0	24.4	20.0	30.0
	RE4E037D*A	3,700	4,300	572	1	0.5	15.0	15.0	20.0	20.0
	RE4E075D*A	7,500	8,700	1,144	2	1.0	15.0	15.0	20.0	20.0
	RE4E107D*A	10,700	12,200	1,716	3	1.5	15.0	15.0	20.0	20.0
	RE4E149D*A	14,900	17,600	2,288	4	2.0	15.0	15.0	20.0	20.0
	RE4E186D*A	18,600	21,300	2,860	5	2.5	15.0	16.3	20.0	20.0
	RE4E234D*A	23,400	27,200	3,150	5	2.5	15.0	24.4	20.0	30.0

Model Number	Heater Amps	Heater Watts	
	230V/1		
6 FPI	RE6E037D*A	3.2	750
	RE6E045D*A	3.2	750
	RE6E075D*A	6.5	1,500
	RE6E089D*A	6.5	1,500
	RE6E108D*A	9.8	2,250
	RE6E125D*A	9.8	2,250
	RE6E137D*A	13.0	3,000
	RE6E182D*A	13.0	3,000
4 FPI	RE6E221D*A	16.3	3,750
	RE6E278D*A	24.4	5,620
	RE4E037D*A	3.2	750
	RE4E075D*A	6.5	1,500
	RE4E107D*A	9.8	2,250
RE4E149D*A	13.0	3,000	
RE4E186D*A	16.3	3,750	
RE4E234D*A	24.4	5,620	

Consult Factory for 50Hz Operation

* Asterisk represents a variable character based on motor ordered. See page 2 for nomenclature.

[^] Standard rating based on R407A refrigerant with 100°F liquid temperature. Consult factory for other conditions.

[†] These Electronically Commutated (EC) Motors are not available for 460V. EC Motors can be field or factory wired for dual-speed operation. Dual-speed EC motors are compliant with California Title 24 regulations.

Energy Independence and Security Act of 2007 specifies that walk-in coolers and freezers under 3,000 square feet that are manufactured after January 1, 2009 shall have evaporators with EC motors when they are single phase, less than 460 volt and less than 1 HP.

CENTER MOUNT

Distributor Nozzle - Electric Defrost Models

	Model Number	Part Numbers						Number of Circuits
		Nozzle @ Liq. Temp.		TXV [^] @ Liq. Temp.		EEV @ Liq. Temp.		
		50°F	100°F	50°F	100°F	50°F	100°F	
R404A								
6 FPI	RE6E037D*A	L, #1/4	L, #3/4	SBFSE-AA-ZP	SBFSE-AA-ZP	SER-AA	SER-AA	2
	RE6E045D*A	L, #1/3	L, #3/4	SBFSE-AA-ZP	SBFSE-AA-ZP	SER-AA	SER-A	2
	RE6E075D*A	L, #3/4	L, #1-1/2	SBFSE-A-ZP	SBFSE-A-ZP	SER-A	SER-A	4
	RE6E089D*A	L, #3/4	L, #1-1/2	SBFSE-A-ZP	SBFSE-A-ZP	SER-A	SER-B	4
	RE6E108D*A	L, #1	L, #2	SBFSE-A-ZP	SBFSE-B-ZP	SER-A	SER-B	4
	RE6E125D*A	L, #1	L, #2	SBFSE-A-ZP	SBFSE-B-ZP	SER-A	SER-B	4
	RE6E137D*A	L, #1	L, #2-1/2	SBFSE-A-ZP	SBFSE-B-ZP	SER-B	SER-B	4
	RE6E182D*A	L, #1-1/2	L, #3	SBFSE-B-ZP	SBFSE-C-ZP	SER-B	SER-B	8
RE6E221D*A	L, #2	L, #4	SBFSE-B-ZP	SBFSE-C-ZP	SER-B	SER-C	8	
RE6E278D*A	G, #2	G, #5	SBFSE-C-ZP	SBFSE-C-ZP	SER-C	SER-C	12	
4 FPI	RE4E037D*A	L, #1/4	L, #3/4	SBFSE-AA-ZP	SBFSE-AA-ZP	SER-AA	SER-AA	2
	RE4E075D*A	L, #3/4	L, #1-1/2	SBFSE-A-ZP	SBFSE-A-ZP	SER-A	SER-A	4
	RE4E107D*A	L, #3/4	L, #2	SBFSE-A-ZP	SBFSE-B-ZP	SER-A	SER-B	4
	RE4E149D*A	L, #1-1/2	L, #2-1/2	SBFSE-A-ZP	SBFSE-B-ZP	SER-B	SER-B	8
	RE4E186D*A	L, #2	L, #3	SBFSE-B-ZP	SBFSE-C-ZP	SER-B	SER-C	8
	RE4E234D*A	G, #2	G, #4	SBFSE-C-ZP	SBFSE-C-ZP	SER-B	SER-C	12
R407A/ R448A/ R449A/B[†]								
6 FPI	RE6E037D*A	L, #1/4	L, #1/2	SBFDE-AA-ZP	SBFDE-AA-ZP	SER-AA	SER-AA	2
	RE6E045D*A	L, #1/3	L, #3/4	SBFDE-AA-ZP	SBFDE-AA-ZP	SER-AA	SER-AA	2
	RE6E075D*A	L, #3/4	L, #1	SBFDE-A-ZP	SBFDE-A-ZP	SER-A	SER-A	4
	RE6E089D*A	L, #3/4	L, #1-1/2	SBFDE-A-ZP	SBFDE-B-ZP	SER-A	SER-A	4
	RE6E108D*A	L, #3/4	L, #1-1/2	SBFDE-A-ZP	SBFDE-B-ZP	SER-A	SER-B	4
	RE6E125D*A	L, #1	L, #2	SBFDE-A-ZP	SBFDE-B-ZP	SER-A	SER-B	4
	RE6E137D*A	L, #1	L, #2	SBFDE-B-ZP	SBFDE-B-ZP	SER-A	SER-B	4
	RE6E182D*A	L, #1-1/2	L, #2-1/2	SBFDE-B-ZP	SBFDE-C-ZP	SER-B	SER-B	8
RE6E221D*A	L, #1-1/2	L, #3	SBFDE-B-ZP	SBFDE-C-ZP	SER-B	SER-C	8	
RE6E278D*A	G, #2	G, #4	SBFDE-C-ZP	SBFDE-C-ZP	SER-B	SER-C	12	
4 FPI	RE4E037D*A	L, #1/4	L, #1/2	SBFDE-AA-ZP	SBFDE-AA-ZP	SER-AA	SER-AA	2
	RE4E075D*A	L, #3/4	L, #1	SBFDE-A-ZP	SBFDE-A-ZP	SER-A	SER-A	4
	RE4E107D*A	L, #3/4	L, #1-1/2	SBFDE-A-ZP	SBFDE-B-ZP	SER-A	SER-B	4
	RE4E149D*A	L, #1-1/2	L, #2-1/2	SBFDE-B-ZP	SBFDE-B-ZP	SER-B	SER-B	8
	RE4E186D*A	L, #1-1/2	L, #2-1/2	SBFDE-B-ZP	SBFDE-C-ZP	SER-B	SER-B	8
	RE4E234D*A	G, #2	G, #4	SBFDE-C-ZP	SBFDE-C-ZP	SER-B	SER-C	12

Distributor lines are 3/16" diameter and 14" long. Distributor connection size is 1/2" for electric defrost models with "L" nozzle and 7/8" for models with "G" nozzle.

* Asterisk represents a variable character based on motor ordered. See page 2 for nomenclature.

– Single feed circuit coils do not get a distributor/nozzle.

[^] TXV selections are based on -20°F suction temp., 8°F to 12°F evaporator TD. Contact factory for operating conditions outside of this range.

[†] SBFDE expansion valves are compatible with R407A, R448A and R449A/B. For other valves, follow manufacturers selection guidelines.

If unit is not configured with a factory installed TXV, unit will include shipped-loose nozzles sized for 100°F liquid temperature.

LOW HEIGHT UNIT COOLER

Specifications

Model Number	TXV [†] Type	Refrigerant Connections		No. of Hanger Slot Locations	Dimensions (Inches)				Approx. Weight (Lbs.)	
		Liquid Line ¹	Suction		Length	Width	Height	Figure	Net	Ship

Air Defrost Models

6 FPI	RE6A041**A	EXT	3/8	5/8	2	32	28-3/8	11-1/4	1	55	190
	RE6A070**A	EXT	3/8	5/8	3	52	28-3/8	11-1/4	2	75	210
	RE6A084**A	EXT	3/8	5/8	3	52	28-3/8	11-1/4	2	80	215
	RE6A104**A	EXT	3/8	5/8	4	72	28-3/8	11-1/4	3	95	230
	RE6A128**A	EXT	3/8	7/8	4	72	28-3/8	11-1/4	3	105	240
	RE6A141**A	EXT	3/8	7/8	5	92	28-3/8	11-1/4	4	120	280
	RE6A169**A	EXT	3/8	7/8	5	92	28-3/8	11-1/4	4	130	290
RE6A204**A	EXT	3/8	1-1/8	6	112	28-3/8	11-1/4	5	145	330	
RE6A258**A	EXT	3/8	1-1/8	6	112	28-3/8	13-3/4	6	155	340	

Electric Defrost Models

6 FPI	RE6E037D*A	EXT	3/8	5/8	2	32	28-3/8	11-1/4	1	50	185
	RE6E045D*A	EXT	3/8	5/8	2	32	28-3/8	11-1/4	1	55	190
	RE6E075D*A	EXT	3/8	5/8	3	52	28-3/8	11-1/4	2	75	210
	RE6E089D*A	EXT	3/8	5/8	3	52	28-3/8	11-1/4	2	80	215
	RE6E108D*A	EXT	3/8	7/8	4	72	28-3/8	11-1/4	3	95	230
	RE6E125D*A	EXT	3/8	7/8	4	72	28-3/8	11-1/4	3	105	240
	RE6E137D*A	EXT	3/8	7/8	5	92	28-3/8	11-1/4	4	120	280
	RE6E182D*A	EXT	3/8	7/8	5	92	28-3/8	11-1/4	4	130	290
RE6E221D*A	EXT	3/8	1-1/8	6	112	28-3/8	11-1/4	5	145	330	
RE6E278D*A	EXT	3/8	1-1/8	6	112	28-3/8	13-3/4	6	155	340	
4 FPI	RE4E037D*A	EXT	3/8	5/8	2	32	28-3/8	11-1/4	1	55	190
	RE4E075D*A	EXT	3/8	5/8	3	52	28-3/8	11-1/4	2	80	215
	RE4E107D*A	EXT	3/8	7/8	4	72	28-3/8	11-1/4	3	105	240
	RE4E149D*A	EXT	3/8	7/8	5	92	28-3/8	11-1/4	4	130	290
	RE4E186D*A	EXT	3/8	1-1/8	6	112	28-3/8	11-1/4	5	145	330
RE4E234D*A	EXT	3/8	1-1/8	6	112	28-3/8	13-3/4	6	155	340	

* Each asterisk represents a variable character based on voltage and motor ordered. See page 2 for nomenclature.

† Externally equalized.

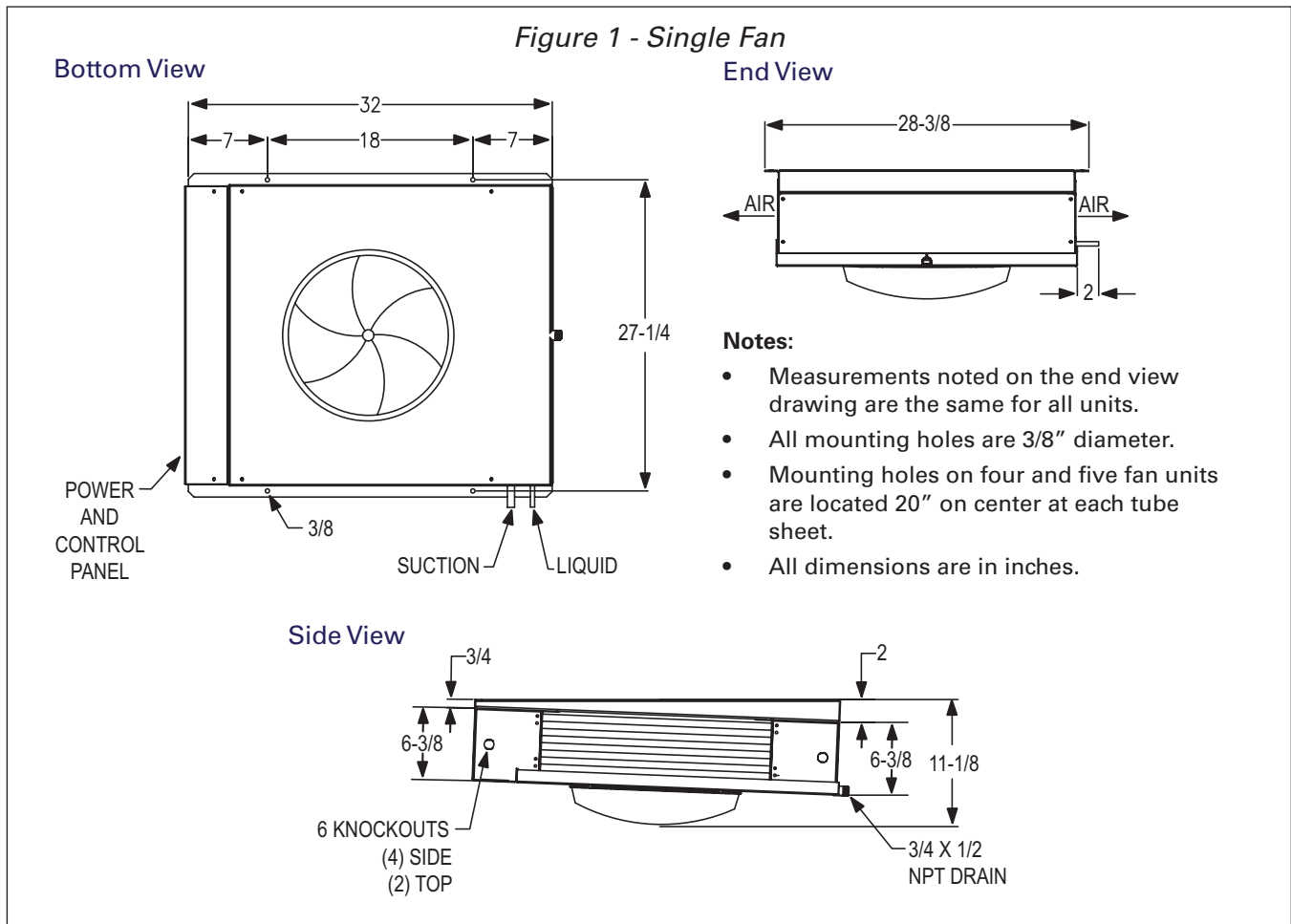
1 For units with mounted TXV components. See Nozzle/TXV table for distributor connection size when TXV is field installed.



Applications

CENTER MOUNT

Physical Dimensions



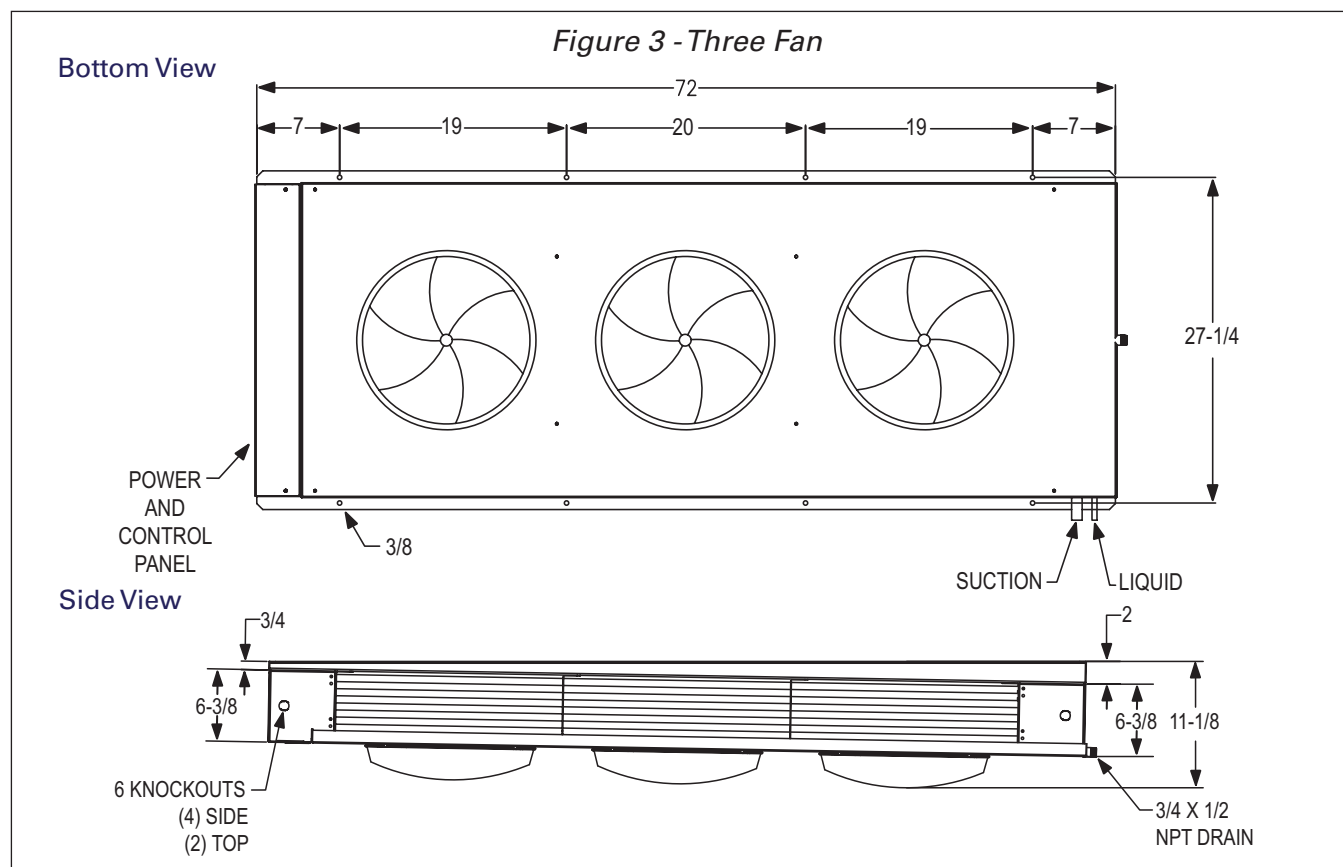
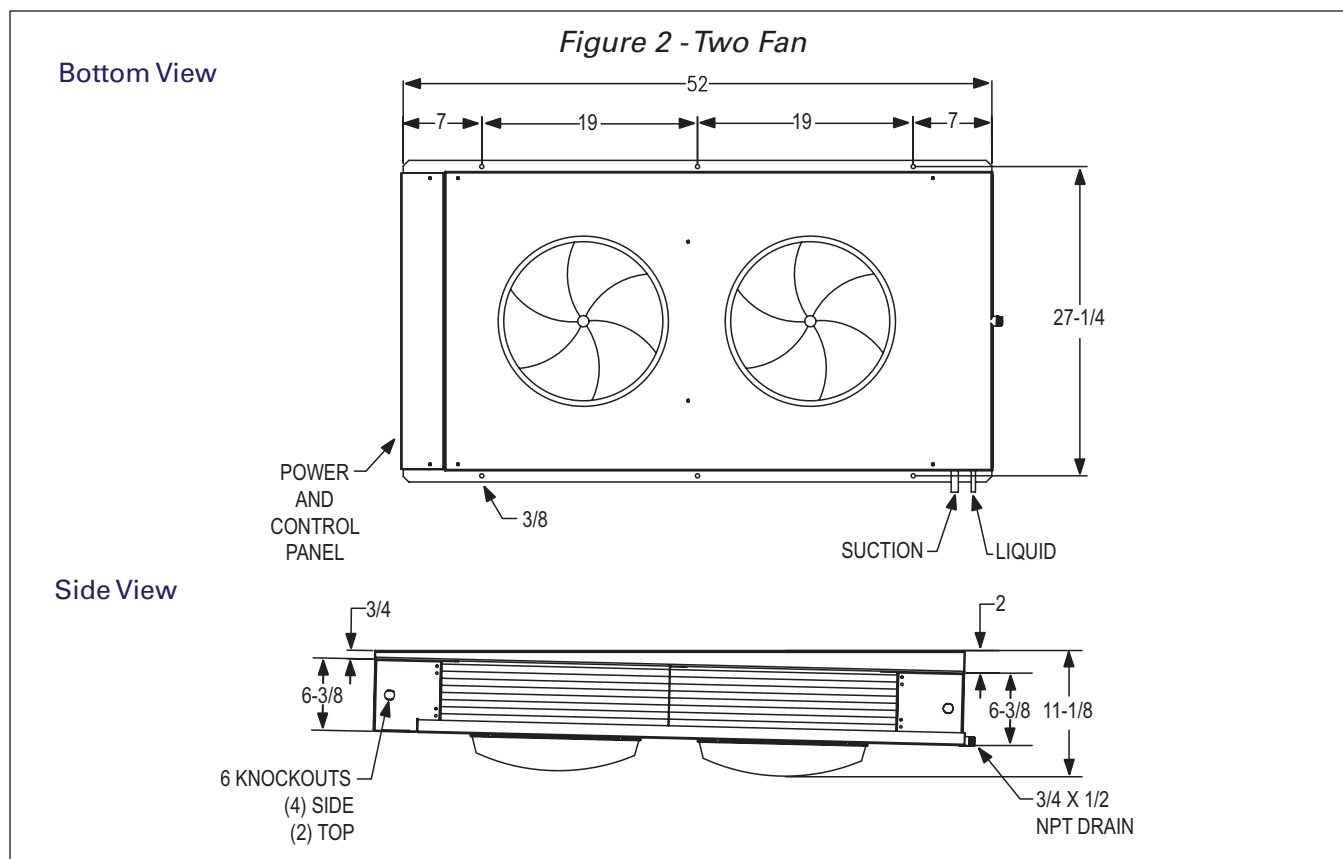
Mounts flush to ceiling to maximize storage space

Easy access to fan motors

Sloped housing for efficient condensate draining

LOW HEIGHT UNIT COOLER

Physical Dimensions

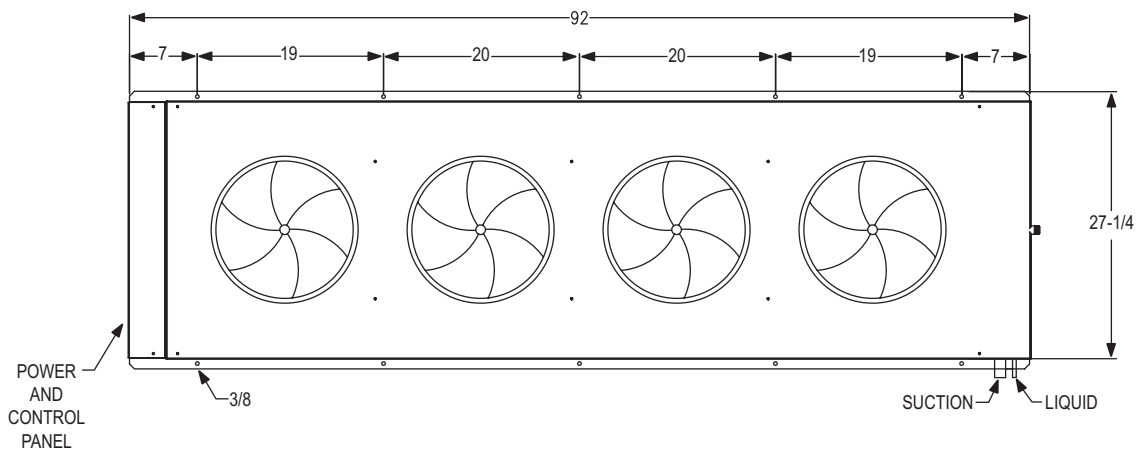


CENTER MOUNT

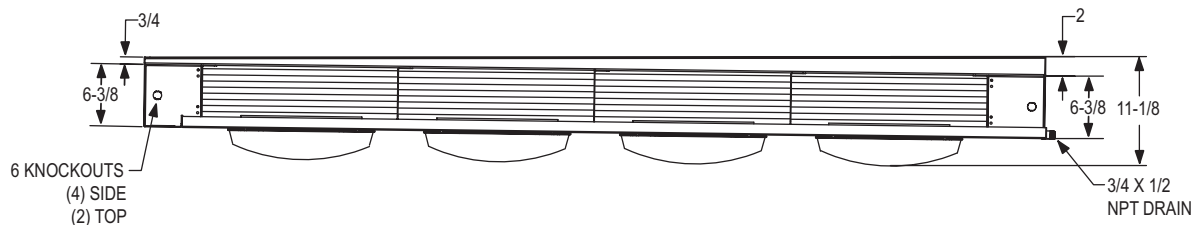
Physical Dimensions

Figure 4 - Four Fan

Bottom View



Side View



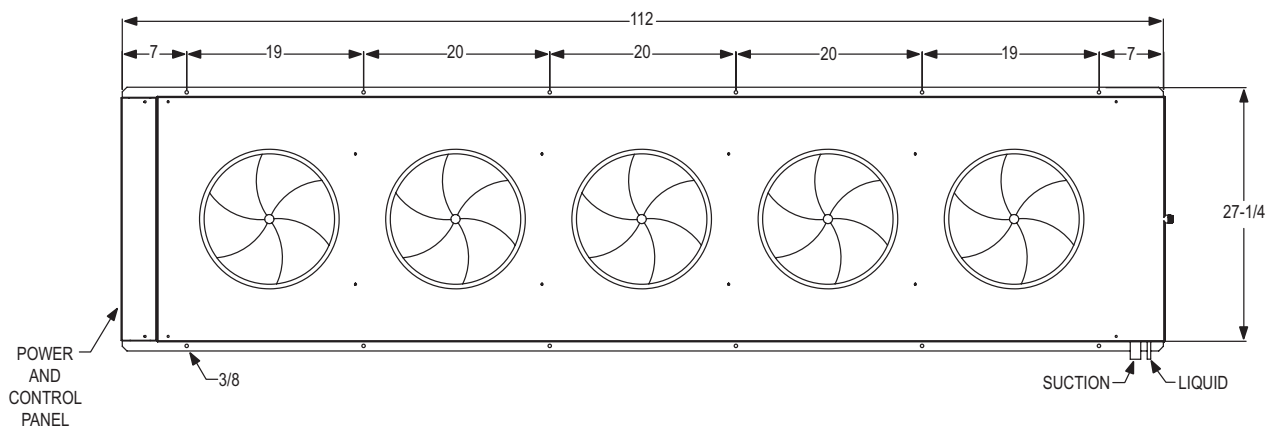
Russell's Center Mount Unit Cooler can be used in combination with Next-Gen MiniCon Condensing Units to provide complete refrigeration solutions for small to medium walk-ins

LOW HEIGHT UNIT COOLER

Physical Dimensions

Figure 5 - Five Fan

Bottom View



Side View

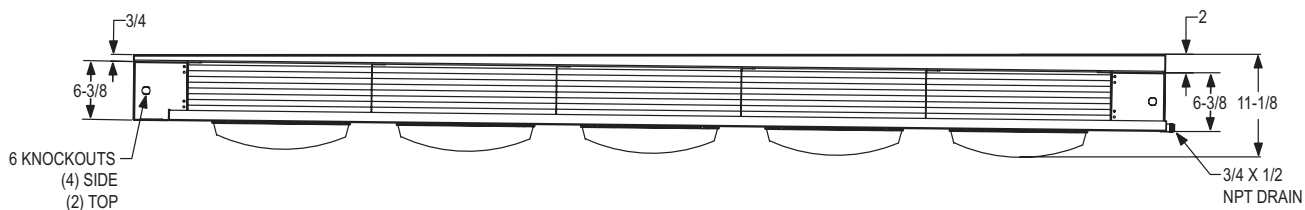
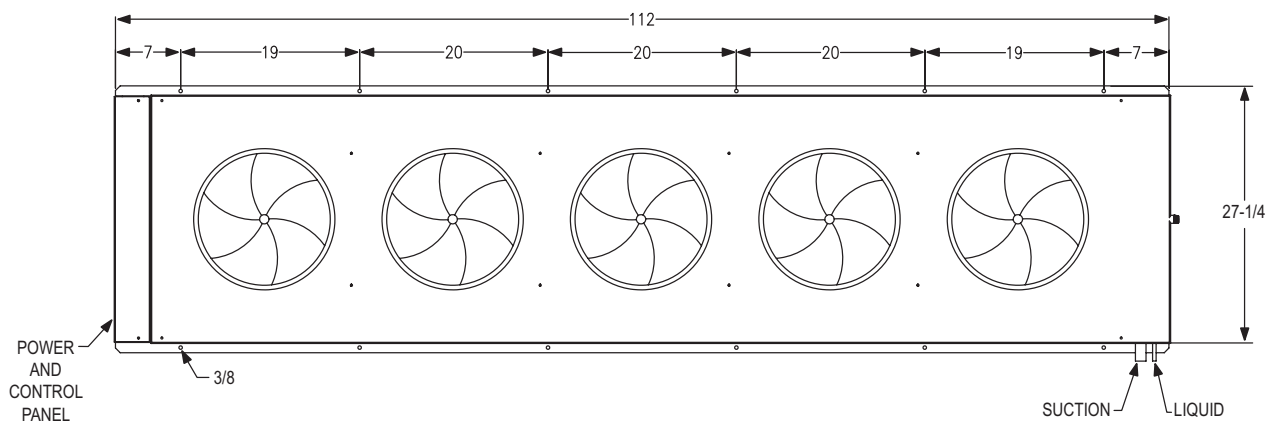
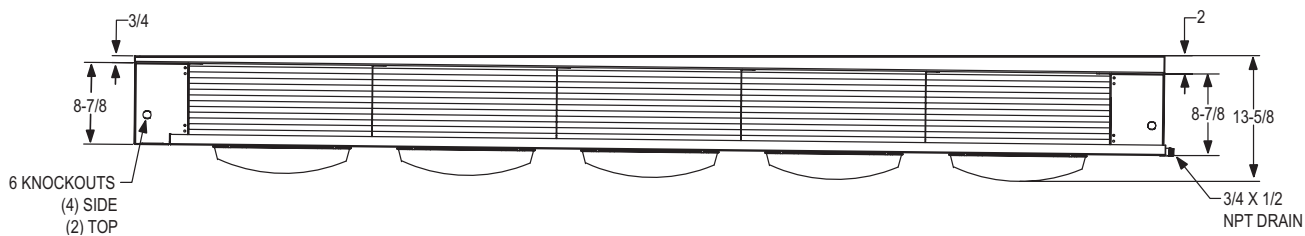


Figure 6 - Five Fan Tall

Bottom View



Side View



CENTER MOUNT UNIT COOLER

Due to continuing product development, specifications are subject to change without notice.

