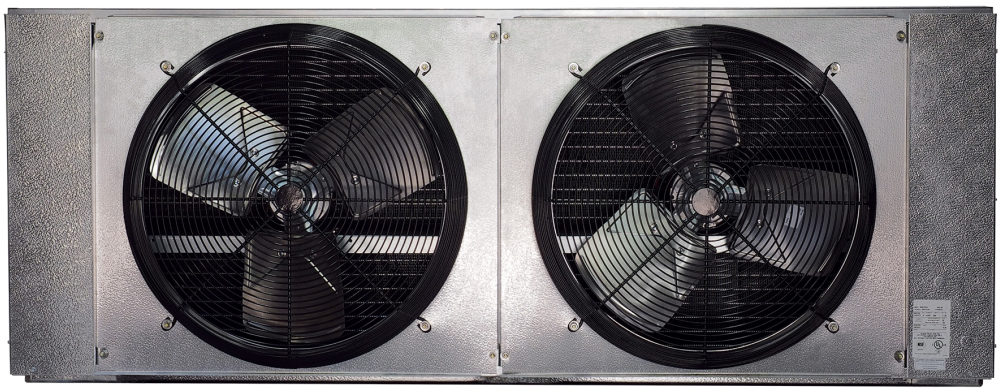
KRAMER

A2L
MEDIUM PROFILE
UNIT COOLER



Walk-Ins: Medium to Large Cooler and Freezer Applications

Air Defrost
21,900 to 99,000 BTUH

Medium Temperature Electric Defrost
21,900 to 98,900 BTUH

Low Temperature Electric Defrost
12,900 to 89,000 BTUH

FEATURES

Our Medium Profile Unit Coolers are the perfect evaporator solution for medium to large walk-in coolers and freezers. Designed with efficiency, performance and service in mind, the Medium Profile line truly stands out from the competition. The unit coolers were engineered to meet the Department of Energy's new AWEF* performance regulations and all feature energy-efficient rail-mount Dual Speed EC Motors. For maximum performance, all units are circuited for multiple refrigerants and feature optimized circuit patterns, enhanced surface coil tubing, and new high efficiency fan and venturi designs. The Medium Profile product line has several serviceability features including rail-mount motors, easily removable fan guards and modular fan panels, face mount defrost heaters, hinged drain pans, and shipping pallets designed to facilitate quicker installation.

SIZES

There are a wide array of sizes available with capacities ranging from 11,000 to 99,000 BTUH at a 10° TD. Models are available with air flow spanning a range of 2,090 to 12,770 CFM.

HOUSING

Each unit is constructed with a rust-free, heavy gauge, textured, aluminum housing which is light weight yet extremely durable. Models feature hinged one-piece drain pans to allow for convenient servicing and maintenance. Hanger holes are provided on all units for fast installation.

COIL

Seamless copper tubes are staggered and mechanically expanded into corrugated aluminum fins to assure maximum heat transfer. Die formed fin collars are provided for accurate fin spacing. Top panel is fastened directly to the tube sheets of the coil to provide high structural strength. Low Temp Electric Defrost is available in both 6 FPI and 4 FPI. Medium Temp Electric Defrost and Air Defrost models are available in 6 FPI.

MOTORS

All models feature highly efficient Dual Speed Electronically Commutated (EC) motors which are compliant with California Title 24 regulations[2].

FANS & FAN GUARDS

Powerful heavy-duty aluminum fans are individually balanced to provide vibration free operation. Standard heavy-gauge wire fan guards are UL/cUL-approved epoxy coated for corrosion resistance. Air throw for Medium Profile Unit Coolers is 75 ft.

REFRIGERANTS

Medium Profile Unit Coolers are optimized for multiple refrigerants including R454A, R454C, R455A. Please specify system refrigerant requirements when ordering. A separate compartment is provided for all refrigerant connections which allows ample room for internal mounting of Expansion Valves.

AIR DEFROST

Air Defrost models are designed for use in coolers at +35°F room temperature and warmer.

ELECTRIC DEFROST - MEDIUM TEMP

Medium Temperature Electric Defrost Models are designed for use in coolers between 10°F and 35°F room temperatures. Defrost heaters are mounted on the air intake side of the unit for optimal performance and easy maintenance. Heaters are installed inside the drain pan for fast, reliable drainage. Adjustable defrost termination, fan delay and heater safety controls are factory mounted for optimum performance of each control function.

ELECTRIC DEFROST - LOW TEMP

Low Temperature Electric Defrost Models are designed for use in freezers between +10°F and -30°F room temperatures. Defrost heaters are mounted on the air intake side of the unit for optimal performance and easy maintenance. Heaters are installed inside the drain pan for fast, reliable drainage. Adjustable defrost termination, fan delay and heater safety controls are factory mounted for optimum performance of each control function.

ELECTRICAL

Available in 115/1[2] (Air Defrost only) 208-230V/1[2], 208-230V/3[2], 460V/1, or 460V/3[2]. A large compartment is supplied for all electrical components and is easily accessible by removing the end panel. All models are UL and cUL listed.

OPTIONAL FEATURES

- EcoNet® Enabled Controller[3] (factory-installed)
- EcoNet® Command Center (loose)
- Thermostat - Mechanical or Electric (mounted or loose)
- Thermostatic Expansion Valve (mounted or loose)
- Adjustable Defrost Termination
- Electronic Expansion Valve (mounted or loose)
- Solenoid Shut Off Valve (loose)
- Check Shut Off Valve (loose)
- Insulated Drain Pan
- Painted Cabinet (White or Black)
- Stainless Steel Cabinet
- Coated Coil (Bronz-Glow, or Electrofin®)
- Suction/Liquid Heat Exchanger (loose)

* AWEF (Annual Walk-in Energy Factor)
1. Single Compressor system without variable capacity.
2. Some limitations apply. For specific electrical offering, consult electrical data tables in this brochure.
3. EcoNet® Control Package includes EEV, suction pressure transducer, suction and entering air coil temp. thermistors, local on-board two-row backlit LCD display and push-button adjustments. (Controller replaces TXV, liquid
line solenoid valve, room thermostat, defrost termination and fan delay, and time clock.)

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, continuous communication between system components, and remote mount display allows for EcoNet® Enabled Unit Coolers to be programmed, monitored and troubleshot outside of space being cooled.

MODEL NOMENCLATURE

K	A	M	6	E	181	D	D	A
Brand	Refrigerant Class	Style	Fins per Inch (FPI)	Defrost Type	BTUH in Thousands	Unit Voltage[1]	Motor Type	Vintage
K = Kramer	A = A2L	M = Medium Profile	4 FPI 6 FPI	A = Air D = Medium Temp Electric Defrost E = Low Temp Electric Defrost	XXX	A = 115/1/60 D = 208-230/1/60 E = 208-230/3/60 F = 460/1/60 G = 460/3/60	D = Dual Speed EC	A

[1] 50 Hz available. Contact Factory for Additional Information.
EcoNet® approved refrigerants are: R454A, R454C. R455A.

APPLICATION RATING & ELECTRICAL DATA

AIR DEFROST

	Model No.	BTUH Capacity @ +25°F S.T. & 10°F TD	CFM	No. of Fans	Total Fan Motor AMPS			MCA	MOPD
		R454A/R454C/ R455A			115V/1	208-230V/1	460V/1		
6 FPI	KAM6A219*DA	21,900	3,190	1	3.2	1.9	1.2	15.0	20
	KAM6A268*DA	26,800	2,950	1	3.2	1.9	1.2	15.0	20
	KAM6A336*DA	33,600	6,950	2	6.4	3.8	2.4	15.0	20
	KAM6A448*DA	44,800	6,380	2	6.4	3.8	2.4	15.0	20
	KAM6A540*DA	54,000	5,900	2	6.4	3.8	2.4	15.0	20
	KAM6A668*DA	66,800	9,580	3	9.6	5.7	3.6	15.0	20
	KAM6A800*DA	80,000	8,860	3	9.6	5.7	3.6	15.0	20
	KAM6A888*DA	88,800	12,770	4	12.8	7.6	4.8	15.0	20
	KAM6A990*DA	99,000	11,800	4	12.8	7.6	4.8	15.0	20

* Asterisk represents a variable character based on voltage ordered.

APPLICATION RATING & ELECTRICAL DATA

MEDIUM TEMPERATURE ELECTRIC DEFROST

	Model No.	BTUH Capacity @ +25°F S.T. & 10°F TD	CFM	No. of Fans	Total Fan Motor AMPS Dual Speed EC	
		R454A/R454C/R454A			208-230V/1	460V/1
6 FPI	KAM6D218*DA	21,900	3,190	1	1.9	1.2
	KAM6D267*DA	26,800	2,950	1	1.9	1.2
	KAM6D335*DA	33,600	6,950	2	3.8	2.4
	KAM6D447*DA	44,800	6,380	2	3.8	2.4
	KAM6D539*DA	54,000	5,900	2	3.8	2.4
	KAM6D667*DA	66,800	9,580	3	5.7	3.6
	KAM6D799*DA	80,000	8,860	3	5.7	3.6
	KAM6D887*DA	88,700	12,770	4	7.6	4.8
	KAM6D989*DA	98,900	11,800	4	7.6	4.8

* Asterisk represents a variable character based on voltage ordered. See nomenclature on page 4 for details.

	Model No.	208-230V/1				Heater Amps	Heater Watts
		Base Model		EcoNet® Enabled			
		MCA	MOPD	MCA	MOPD	208-230V/1	
6 FPI	KAM6D218DDA	15.0	20	26.3	30	19.5	4,480
	KAM6D267DDA	15.0	20	26.3	30	19.5	4,480
	KAM6D335DDA	15.0	20	50.2	60	38.5	8,860
	KAM6D447DDA	15.0	20	50.2	60	38.5	8,860
	KAM6D539DDA	15.0	20	50.2	60	38.5	8,860

208-230 ratings include 2 amp for controls on EcoNet® Enabled units.

	Model No.	208-230V/3				Heater Amps	Heater Watts
		Base Model		EcoNet® Enabled			
		MCA	MOPD	MCA	MOPD	208-230V/3	
6 FPI	KAM6D218EDA	15.0	20	16.1	20	11.3	4,480
	KAM6D267EDA	15.0	20	16.1	20	11.3	4,480
	KAM6D335EDA	15.0	20	29.8	30	22.2	8,860
	KAM6D447EDA	15.0	20	29.8	30	22.2	8,860
	KAM6D539EDA	15.0	20	29.8	30	22.2	8,860
	KAM6D667EDA	15.0	20	43.9	45	33.5	13,340
	KAM6D799EDA	15.0	20	43.9	45	33.5	13,340
	KAM6D887EDA	15.0	20	58.1	60	44.9	17,920
	KAM6D989EDA	15.0	20	58.1	60	44.9	17,850

208-230 ratings include 2 amp for controls on EcoNet® Enabled units.

APPLICATION RATING & ELECTRICAL DATA

MEDIUM TEMPERATURE ELECTRIC DEFROST

	Model No.	460V/1				Heater Amps	Heater Watts
		Base Model		EcoNet® Enabled			
		MCA	MOPD	MCA	MOPD	460V/1	
6 FPI	KAM6D218FDA	15.0	20	15.0	20	9.7	4,480
	KAM6D267FDA	15.0	20	15.0	20	9.7	4,480
	KAM6D335FDA	15.0	20	25.1	30	19.3	8,860
	KAM6D447FDA	15.0	20	25.1	30	19.3	8,860
	KAM6D539FDA	15.0	20	25.1	30	19.3	8,860
	KAM6D667FDA	15.0	20	37.3	40	29.0	13,340
	KAM6D799FDA	15.0	20	37.3	40	29.0	13,340
	KAM6D887FDA	15.0	20	49.5	50	38.8	17850
	KAM6D989FDA	15.0	20	49.5	50	38.8	17850

460 ratings include 1 amp for controls on EcoNet® Enabled units.

	Model No.	460V/3				Heater Amps	Heater Watts
		Base Model		EcoNet® Enabled			
		MCA	MOPD	MCA	MOPD	460V/3	
6 FPI	KAM6D218GDA	15.0	20	15.0	20	5.6	4,480
	KAM6D267GDA	15.0	20	15.0	20	5.6	4,480
	KAM6D335GDA	15.0	20	15.0	20	11.1	8,860
	KAM6D447GDA	15.0	20	15.0	20	11.1	8,860
	KAM6D539GDA	15.0	20	15.0	20	11.1	8,860
	KAM6D667GDA	15.0	20	22.0	25	16.8	13,340
	KAM6D799GDA	15.0	20	22.0	25	16.8	13,340
	KAM6D887GDA	15.0	20	29.0	30	22.4	17,850
	KAM6D989GDA	15.0	20	29.0	30	22.4	17,850

460 ratings include 1 amp for controls on EcoNet® Enabled units.

APPLICATION RATING & ELECTRICAL DATA

LOW TEMPERATURE ELECTRIC DEFROST

	Model No.	BTUH Capacity @ -20°F S.T. & 10°F TD[1] R454A/R454C/R454A	CFM	No. of Fans	Total Fan Motor AMPS Dual Speed EC[†]	
					208-230V/1	460V/1
6 FPI	KAM6E181*DA	18,100	3,190	1	1.9	1.2
	KAM6E217*DA	21,900	2,950	1	1.9	1.2
	KAM6E371*DA	37,100	6,380	2	3.8	2.4
	KAM6E446*DA	44,600	5,900	2	3.8	2.4
	KAM6E557*DA	55,700	9,570	3	5.7	3.6
	KAM6E669*DA	66,900	8,850	3	5.7	3.6
	KAM6E741*DA	74,100	12,760	4	7.6	4.8
	KAM6E890*DA	89,000	11,800	4	7.6	4.8
4 FPI	KAM4E129*DA	12,900	3,580	1	1.9	1.2
	KAM4E168*DA	16,800	3,360	1	1.9	1.2
	KAM4E271*DA	27,100	7,170	2	3.8	2.4
	KAM4E340*DA	34,000	6,730	2	3.8	2.4
	KAM4E398*DA	39,800	10,750	3	5.7	3.6
	KAM4E495*DA	49,500	10,100	3	5.7	3.6
	KAM4E529*DA	52,900	14,300	4	7.6	4.8
	KAM4E658*DA	65,800	13,500	4	7.6	4.8

* Asterisk represents a variable character based on voltage ordered. See nomenclature on page 4 for details.
[†] Dual Speed EC Motors are compliant with California Title 24 regulations.
[†] EC Motors Thermally Protected Internally

Capacity Correction for Electric Defrost Evaporators

S.S.T. (Dew)	20°F	0°F	-10°F	-20°F	-30°F	-40°F
Multiply Capacity by:	1.15	1.075	1.0375	1	0.9625	0.925

[1] Capacity values adjusted using the Correction Table for Electric Defrost Evaporators.

APPLICATION RATING & ELECTRICAL DATA

LOW TEMPERATURE ELECTRIC DEFROST

	Model No.	208-230V/1				Heater Amps	Heater Watts
		Base Model		EcoNet® Enabled			
		MCA	MOPD	MCA	MOPD	208-230V/1	
6 FPI	KAM6E181DDA	15.0	20	26.3	30	19.5	4,480
	KAM6E217DDA	15.0	20	26.3	30	19.5	4,480
	KAM6E371DDA	15.0	20	50.2	60	38.5	8,860
	KAM6E446DDA	15.0	20	50.2	60	38.5	8,860
4 FPI	KAM4E129DDA	15.0	20	26.3	30	19.5	4,480
	KAM4E168DDA	15.0	20	26.3	30	19.5	4,480
	KAM4E271DDA	15.0	20	50.2	60	38.5	8,860
	KAM4E340DDA	15.0	20	50.2	60	38.5	8,860

208-230 ratings include 2 amp for controls on EcoNet® Enabled units.

	Model No.	208-230V/3				Heater Amps	Heater Watts
		Base Model		EcoNet® Enabled			
		MCA	MOPD	MCA	MOPD	208-230V/3	
6 FPI	KAM6E181EDA	15.0	20	16.1	20	11.3	4,480
	KAM6E217EDA	15.0	20	16.1	20	11.3	4,480
	KAM6E371EDA	15.0	20	29.8	30	22.2	8,860
	KAM6E446EDA	15.0	20	29.8	30	22.2	8,860
	KAM6E557EDA	15.0	20	43.9	45	33.5	13,340
	KAM6E669EDA	15.0	20	43.9	45	33.5	13,340
	KAM6E741EDA	15.0	20	58.1	60	44.9	17,850
	KAM6E890EDA	15.0	20	58.1	60	44.9	17,850
4 FPI	KAM4E129EDA	15.0	20	16.1	20	11.3	4,480
	KAM4E168EDA	15.0	20	16.1	20	11.3	4,480
	KAM4E271EDA	15.0	20	29.8	30	22.2	8,860
	KAM4E340EDA	15.0	20	29.8	30	22.2	8,860
	KAM4E398EDA	15.0	20	43.9	45	35.5	13,340
	KAM4E495EDA	15.0	20	43.9	45	35.5	13,340
	KAM4E529EDA	15.0	20	58.1	60	44.7	17,850
	KAM4E658EDA	15.0	20	58.1	60	44.7	17,850

208-230 ratings include 2 amp for controls on EcoNet® Enabled units.

APPLICATION RATING & ELECTRICAL DATA

LOW TEMPERATURE ELECTRIC DEFROST

	Model No.	460V/1				Heater Amps	Heater Watts
		Base Model		EcoNet® Enabled			
		MCA	MOPD	MCA	MOPD	460V/1	
6 FPI	KAM6E181EFA	15.0	20	15.0	20	9.7	4,480
	KAM6E217EFA	15.0	20	15.0	20	9.7	4,480
	KAM6E371EFA	15.0	20	25.1	30	19.3	8,860
	KAM6E446EFA	15.0	20	25.1	30	19.3	8,860
	KAM6E557EFA	15.0	20	37.3	40	29.0	13,340
	KAM6E669EFA	15.0	20	37.3	40	29.0	13,340
	KAM6E741FDA	15.0	20	49.5	50	38.8	17,850
	KAM6E890FDA	15.0	20	49.5	50	38.8	17,850
4 FPI	KAM4E129FDA	15.0	20	15.0	20	9.7	4,480
	KAM4E168FDA	15.0	20	15.0	20	9.7	4,480
	KAM4E271FDA	15.0	20	25.1	30	19.3	8,860
	KAM4E340FDA	15.0	20	25.1	30	19.3	8,860
	KAM4E398FDA	15.0	20	37.3	40	29.0	13,340
	KAM4E495FDA	15.0	20	37.3	40	29.0	13,340
	KAM4E529FDA	15.0	20	49.5	50	38.8	17,850
	KAM4E658FDA	15.0	20	49.5	50	38.8	17,850

460 ratings include 1 amp for controls on EcoNet® Enabled units.

APPLICATION RATING & ELECTRICAL DATA

LOW TEMPERATURE ELECTRIC DEFROST

	Model No.	460V/3				Heater Amps	Heater Watts
		Base Model		EcoNet® Enabled			
		MCA	MOPD	MCA	MOPD	460V/3	
6 FPI	KAM6E181EGA	15.0	20	15.0	20	5.6	4,480
	KAM6E217EGA	15.0	20	15.0	20	5.6	4,480
	KAM6E371EGA	15.0	20	15.0	20	11.1	8,860
	KAM6E446EGA	15.0	20	15.0	20	11.1	8,860
	KAM6E557EGA	15.0	20	22.0	25	16.8	13,340
	KAM6E669EGA	15.0	20	22.0	25	16.8	13,340
	KAM6E741GDA	15.0	20	29.0	30	22.4	17,850
	KAM6E890GDA	15.0	20	29.0	30	22.4	17,850
4 FPI	KAM4E129GDA	15.0	20	15.0	20	5.6	4,480
	KAM4E168GDA	15.0	20	15.0	20	5.6	4,480
	KAM4E271GDA	15.0	20	15.0	20	11.1	8,860
	KAM4E340GDA	15.0	20	15.0	20	11.1	8,860
	KAM4E398GDA	15.0	20	22.0	25	16.8	13,340
	KAM4E495GDA	15.0	20	22.0	25	16.8	13,340
	KAM4E529GDA	15.0	20	29.0	30	22.4	17,850
	KAM4E658GDA	15.0	20	29.0	30	22.4	17,850

460 ratings include 1 amp for controls on EcoNet® Enabled units.

DISTRIBUTOR NOZZLES & EXPANSION VALVES

AIR DEFROST MODELS // 6 FPI

	Model No.	Part Numbers						No. of Circuits
		Nozzle @ Liq. Temp.		TXV^ @ Liq. Temp.		EEV @ Liq. Temp.		
		50°F	100°F	50°F	100°F	50°F	100°F	
6 FPI - R454A	KAM6A219*DA	3/4, TYPE L	2, TYPE L	SBFTE-A-C	SBFTE-B-C	SER-B	SER-B	6
	KAM6A268*DA	1, TYPE L	2-1/2, TYPE L	SBFTE-B-C	SBFTE-B-C	SER-B	SER-B	6
	KAM6A336*DA	1, TYPE L	3, TYPE L	SBFTE-B-C	SBFTE-C-C	SER-B	SER-C	8
	KAM6A448*DA	1-1/2, TYPE L	4, TYPE L	SBFTE-B-C	SBFTE-C-C	SER-C	SER-C	9
	KAM6A540*DA	2, TYPE G	5, TYPE G	SBFTE-C-C	SBFTE-C-C	SER-C	SER-C	12
	KAM6A668*DA	2-1/2, TYPE G	6, TYPE G	SBFTE-C-C	ERTE-8-C	SER-C	SER-C	12
	KAM6A800*DA	3, TYPE G	10, TYPE G	SBFTE-C-C	ERTE-8-C	SER-C	SER-DS	16
	KAM6A888*DA	3, TYPE G	10, TYPE G	ERTE-8-C	ERTE-10-C	SER-C	SER-DS	18
	KAM6A990*DA	4, TYPE G	10, TYPE G	ERTE-8-C	ERTE-10-C	SER-C	SER-DS	24
6 FPI - R454C	KAM6A219*DA	3/4, TYPE L	2, TYPE L	SBFVE-B-C	SBFVE-B-C	SER-B	SER-B	6
	KAM6A268*DA	1, TYPE L	2-1/2, TYPE L	SBFVE-B-C	SBFVE-C-C	SER-B	SER-C	6
	KAM6A336*DA	1, TYPE L	3, TYPE L	SBFVE-B-C	SBFVE-C-C	SER-C	SER-C	8
	KAM6A448*DA	1-1/2, TYPE L	4, TYPE L	SBFVE-C-C	SBFVE-C-C	SER-C	SER-C	9
	KAM6A540*DA	2, TYPE G	5, TYPE G	SBFVE-C-C	OVE-10-C	SER-C	SER-C	12
	KAM6A668*DA	2-1/2, TYPE G	6, TYPE G	OVE-10-C	OVE-10-C	SER-C	SER-DS	12
	KAM6A800*DA	3, TYPE G	10, TYPE G	OVE-10-C	OVE-10-C	SER-C	SER-DS	16
	KAM6A888*DA	3, TYPE G	10, TYPE G	OVE-10-C	OVE-10-C	SER-DS	SER-DS	18
	KAM6A990*DA	4, TYPE G	10, TYPE G	OVE-10-C	OVE-10-C	SER-DS	SER-DS	24
6 FPI - R455A	KAM6A219*DA	3/4, TYPE L	2, TYPE L	SBFVE-B-C	SBFVE-B-C	SER-B	SER-B	6
	KAM6A268*DA	1, TYPE L	2-1/2, TYPE L	SBFVE-B-C	SBFVE-C-C	SER-B	SER-C	6
	KAM6A336*DA	1, TYPE L	3, TYPE L	SBFVE-B-C	SBFVE-C-C	SER-C	SER-C	8
	KAM6A448*DA	1-1/2, TYPE L	4, TYPE L	SBFVE-C-C	SBFVE-C-C	SER-C	SER-C	9
	KAM6A540*DA	2, TYPE G	5, TYPE G	SBFVE-C-C	OVE-10-C	SER-C	SER-C	12
	KAM6A668*DA	2-1/2, TYPE G	6, TYPE G	OVE-10-C	OVE-10-C	SER-C	SER-DS	12
	KAM6A800*DA	3, TYPE G	10, TYPE G	OVE-10-C	OVE-10-C	SER-C	SER-DS	16
	KAM6A888*DA	3, TYPE G	10, TYPE G	OVE-10-C	OVE-10-C	SER-DS	SER-DS	18
	KAM6A990*DA	4, TYPE G	10, TYPE G	OVE-10-C	OVE-10-C	SER-DS	SER-DS	24

The Distributor lines are 3/16" or 1/4" diameter and 27" long.

* Asterisk represents a variable character based on voltage ordered. See nomenclature on page 4 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 and ERTE Expansion Valves are compatible with R454A refrigerant.

^ SBFVE and OVE 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 CONTROL

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

	Model No.	A_{min} Values (Ft^2)					Loose SSOV (solenoid shut off valve) Isolation Valve @ Liquid Temp			Loose CSOV (check shut off valve) 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
6 FPI - R455A	KAM6A219*DA	42	54	66	77	89	1/2"	SSOV6S140	SSOV6S140	1-1/8"	CSOV-9S
	KAM6A268*DA	47	58	70	81	93	1/2"	SSOV6S140	SSOV6S140	1-1/8"	CSOV-9S
	KAM6A336*DA	47	58	70	82	93	1/2"	SSOV6S140	SSOV6S140	1-1/8"	CSOV-9S
	KAM6A448*DA	55	67	79	92	104	1/2"	SSOV6S140	SSOV6S140	1-3/8"	CSOV-11S
	KAM6A540*DA	69	88	106	124	143	5/8"	SSOV10S150	SSOV10S150	1-3/8"	CSOV-11S
	KAM6A668*DA	74	92	111	129	147	5/8"	SSOV10S150	SSOV10S150	1-3/8"	CSOV-11S
	KAM6A800*DA	86	105	124	143	162	5/8"	SSOV10S150	SSOV10S150	1-5/8"	CSOV-13S
	KAM6A888*DA	112	148	183	219	254	7/8"	SSOV19S270	SSOV19S270	1-5/8"	CSOV-13S
	KAM6A990*DA	119	155	190	226	261	7/8"	SSOV19S270	SSOV19S270	1-5/8"	CSOV-13S
6 FPI - R454C	KAM6A219*DA	41	52	63	74	86	1/2"	SSOV6S140	SSOV6S140	1-1/8"	CSOV-9S
	KAM6A268*DA	45	56	67	78	90	1/2"	SSOV6S140	SSOV6S140	1-1/8"	CSOV-9S
	KAM6A336*DA	45	56	68	79	90	1/2"	SSOV6S140	SSOV6S140	1-1/8"	CSOV-9S
	KAM6A448*DA	53	65	77	88	100	1/2"	SSOV6S140	SSOV6S140	1-3/8"	CSOV-11S
	KAM6A540*DA	67	85	102	120	138	5/8"	SSOV10S150	SSOV10S150	1-3/8"	CSOV-11S
	KAM6A668*DA	71	89	107	125	143	5/8"	SSOV10S150	SSOV10S150	1-3/8"	CSOV-11S
	KAM6A800*DA	83	101	120	138	157	5/8"	SSOV10S150	SSOV10S150	1-5/8"	CSOV-13S
	KAM6A888*DA	108	143	177	212	246	7/8"	SSOV19S270	SSOV19S270	1-5/8"	CSOV-13S
	KAM6A990*DA	115	150	184	219	253	7/8"	SSOV19S270	SSOV19S270	1-5/8"	CSOV-13S
6 FPI - R455A	KAM6A219*DA	37	48	58	68	78	1/2"	SSOV6S140	SSOV6S140	1-1/8"	CSOV-9S
	KAM6A268*DA	41	51	61	72	82	1/2"	SSOV6S140	SSOV6S140	1-1/8"	CSOV-9S
	KAM6A336*DA	41	52	62	72	82	1/2"	SSOV6S140	SSOV6S140	1-1/8"	CSOV-9S
	KAM6A448*DA	49	59	70	81	91	1/2"	SSOV6S140	SSOV6S140	1-3/8"	CSOV-11S
	KAM6A540*DA	61	77	94	110	126	5/8"	SSOV10S150	SSOV10S150	1-3/8"	CSOV-11S
	KAM6A668*DA	65	81	98	114	130	5/8"	SSOV10S150	SSOV10S150	1-3/8"	CSOV-11S
	KAM6A800*DA	76	93	109	126	143	5/8"	SSOV10S150	SSOV10S150	1-5/8"	CSOV-13S
	KAM6A888*DA	99	130	162	193	225	7/8"	SSOV19S270	SSOV19S270	1-5/8"	CSOV-13S
	KAM6A990*DA	105	137	168	200	231	7/8"	SSOV19S270	SSOV19S270	1-5/8"	CSOV-13S

Solenoid Shut Off Valves 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 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

MEDIUM TEMPERATURE ELECTRIC DEFROST // 6 FPI

	Model No.	Part Numbers						No. of Circuits
		Nozzle @ Liq. Temp.		TXV^ @ Liq. Temp.		EEV @ Liq. Temp.		
		50°F	100°F	50°F	100°F	50°F	100°F	
6 FPI - R454A	KAM6D218*DA	3/4, TYPE L	2, TYPE L	SBFTE-A-C	SBFTE-B-C	SER-B	SER-B	6
	KAM6D267*DA	1, TYPE L	2-1/2, TYPE L	SBFTE-B-C	SBFTE-B-C	SER-B	SER-B	6
	KAM6D335*DA	1, TYPE L	3, TYPE L	SBFTE-B-C	SBFTE-C-C	SER-B	SER-C	8
	KAM6D447*DA	1-1/2, TYPE L	4, TYPE L	SBFTE-B-C	SBFTE-C-C	SER-C	SER-C	9
	KAM6D539*DA	2, TYPE G	5, TYPE G	SBFTE-C-C	SBFTE-C-C	SER-C	SER-C	12
	KAM6D667*DA	2-1/2, TYPE G	6, TYPE G	SBFTE-C-C	ERTE-8-C	SER-C	SER-C	12
	KAM6D799*DA	3, TYPE G	10, TYPE G	SBFTE-C-C	ERTE-8-C	SER-C	SER-DS	16
	KAM6D887*DA	3, TYPE G	10, TYPE G	ERTE-8-C	ERTE-10-C	SER-C	SER-DS	16
	KAM6D989*DA	4, TYPE G	10, TYPE G	ERTE-8-C	ERTE-10-C	SER-C	SER-DS	24
6 FPI - R454C	KAM6D218*DA	3/4, TYPE L	2, TYPE L	SBFVE-B-C	SBFVE-B-C	SER-B	SER-B	6
	KAM6D267*DA	1, TYPE L	2-1/2, TYPE L	SBFVE-B-C	SBFVE-C-C	SER-B	SER-C	6
	KAM6D335*DA	1, TYPE L	3, TYPE L	SBFVE-B-C	SBFVE-C-C	SER-C	SER-C	8
	KAM6D447*DA	1-1/2, TYPEL	4, TYPE L	SBFVE-C-C	SBFVE-C-C	SER-C	SER-C	9
	KAM6D539*DA	2, TYPE G	5, TYPE G	SBFVE-C-C	OVE-10-C	SER-C	SER-C	12
	KAM6D667*DA	2-1/2, TYPE G	6, TYPE G	SBFVE-C-C	OVE-10-C	SER-C	SER-DS	12
	KAM6D799*DA	3, TYPE G	10, TYPE G	ERVE-8-C	OVE-10-C	SER-C	SER-DS	16
	KAM6D887*DA	3, TYPE G	10, TYPE G	ERVE-8-C	OVE-15-C	SER-DS	SER-DS	16
	KAM6D989*DA	4, TYPE G	10, TYPE G	ERVE-8-C	OVE-15-C	SER-DS	SER-DS	24
6 FPI - R455A	KAM6D218*DA	3/4, TYPE L	2, TYPE L	SBFVE-B-C	SBFVE-B-C	SER-B	SER-B	6
	KAM6D267*DA	1, TYPE L	2-1/2, TYPE L	SBFVE-B-C	SBFVE-C-C	SER-B	SER-C	6
	KAM6D335*DA	1, TYPE L	3, TYPE L	SBFVE-B-C	SBFVE-C-C	SER-C	SER-C	8
	KAM6D447*DA	1-1/2, TYPEL	4, TYPE L	SBFVE-C-C	SBFVE-C-C	SER-C	SER-C	9
	KAM6D539*DA	2, TYPE G	5, TYPE G	SBFVE-C-C	OVE-10-C	SER-C	SER-C	12
	KAM6D667*DA	2-1/2, TYPE G	6, TYPE G	SBFVE-C-C	OVE-10-C	SER-C	SER-DS	12
	KAM6D799*DA	3, TYPE G	10, TYPE G	ERVE-8-C	OVE-10-C	SER-C	SER-DS	16
	KAM6D887*DA	3, TYPE G	10, TYPE G	ERVE-8-C	OVE-15-C	SER-DS	SER-DS	16
	KAM6D989*DA	4, TYPE G	10, TYPE G	ERVE-8-C	OVE-15-C	SER-DS	SER-DS	24

The Distributor lines are 3/16" or 1/4" diameter and 27" long.
* Asterisk represents a variable character based on voltage ordered. See page 4 for nomenclature.
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 and ERTE Expansion Valves are compatible with R454A refrigerant.
^ SBFVE, ERVE and OVE 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 CONTROL

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

	Model No.	A_{min} Values (Ft^2)					Loose SSOV (solenoid shut off valve) Isolation Valve @ Liquid Temp			Loose CSOV (check shut off valve) 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
6 FPI - R455A	KAM6D218*DA	42	54	66	77	89	1/2"	SSOV6S140	SSOV6S140	1-1/8"	CSOV-9S
	KAM6D267*DA	47	58	70	81	93	1/2"	SSOV6S140	SSOV6S140	1-1/8"	CSOV-9S
	KAM6D335*DA	47	58	70	82	93	1/2"	SSOV6S140	SSOV6S140	1-1/8"	CSOV-9S
	KAM6D447*DA	55	67	79	92	104	1/2"	SSOV6S140	SSOV6S140	1-3/8"	CSOV-11S
	KAM6D539*DA	69	88	106	124	143	5/8"	SSOV10S150	SSOV10S150	1-3/8"	CSOV-11S
	KAM6D667*DA	74	92	111	129	147	5/8"	SSOV10S150	SSOV10S150	1-3/8"	CSOV-11S
	KAM6D799*DA	86	105	124	143	162	5/8"	SSOV10S150	SSOV10S150	1-5/8"	CSOV-13S
	KAM6D887*DA	112	148	183	219	254	7/8"	SSOV19S270	SSOV19S270	1-5/8"	CSOV-13S
	KAM6D989*DA	119	155	190	226	261	7/8"	SSOV19S270	SSOV19S270	1-5/8"	CSOV-13S
6 FPI - R454C	KAM6D218*DA	41	52	63	74	86	1/2"	SSOV6S140	SSOV6S140	1-1/8"	CSOV-9S
	KAM6D267*DA	45	56	67	78	90	1/2"	SSOV6S140	SSOV6S140	1-1/8"	CSOV-9S
	KAM6D335*DA	45	56	68	79	90	1/2"	SSOV6S140	SSOV6S140	1-1/8"	CSOV-9S
	KAM6D447*DA	53	65	77	88	100	1/2"	SSOV6S140	SSOV6S140	1-3/8"	CSOV-11S
	KAM6D539*DA	67	85	102	120	138	5/8"	SSOV10S150	SSOV10S150	1-3/8"	CSOV-11S
	KAM6D667*DA	71	89	107	125	143	5/8"	SSOV10S150	SSOV10S150	1-3/8"	CSOV-11S
	KAM6D799*DA	83	101	120	138	157	5/8"	SSOV10S150	SSOV10S150	1-5/8"	CSOV-13S
	KAM6D887*DA	108	143	177	212	246	7/8"	SSOV19S270	SSOV19S270	1-5/8"	CSOV-13S
	KAM6D989*DA	115	150	184	219	253	7/8"	SSOV19S270	SSOV19S270	1-5/8"	CSOV-13S
6 FPI - R455A	KAM6D218*DA	37	48	58	68	78	1/2"	SSOV6S140	SSOV6S140	1-1/8"	CSOV-9S
	KAM6D267*DA	41	51	61	72	82	1/2"	SSOV6S140	SSOV6S140	1-1/8"	CSOV-9S
	KAM6D335*DA	41	52	62	72	82	1/2"	SSOV6S140	SSOV6S140	1-1/8"	CSOV-9S
	KAM6D447*DA	49	59	70	81	91	1/2"	SSOV6S140	SSOV6S140	1-3/8"	CSOV-11S
	KAM6D539*DA	61	77	94	110	126	5/8"	SSOV10S150	SSOV10S150	1-3/8"	CSOV-11S
	KAM6D667*DA	65	81	98	114	130	5/8"	SSOV10S150	SSOV10S150	1-3/8"	CSOV-11S
	KAM6D799*DA	76	93	109	126	143	5/8"	SSOV10S150	SSOV10S150	1-5/8"	CSOV-13S
	KAM6D887*DA	99	130	162	193	225	7/8"	SSOV19S270	SSOV19S270	1-5/8"	CSOV-13S
	KAM6D989*DA	105	137	168	200	231	7/8"	SSOV19S270	SSOV19S270	1-5/8"	CSOV-13S

Solenoid Shut Off Valves 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 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

LOW TEMPERATURE ELECTRIC DEFROST // 6 FPI

	Model No.	Part Numbers						No. of Circuits
		Nozzle @ Liq. Temp.		TXV^ @ Liq. Temp.		EEV @ Liq. Temp.		
		50°F	100°F	50°F	100°F	50°F	100°F	
6 FPI - R454A	KAM6E181*DA	1-1/2, TYPE L	3, TYPE L	SBFTE-B-Z	SBFTE-B-Z	SER-A	SER-B	6
	KAM6E217*DA	1-1/2, TYPE L	3, TYPE L	SBFTE-B-Z	SBFTE-C-Z	SER-B	SER-B	8
	KAM6E371*DA	2-1/2, TYPE G	6, TYPE G	SBFTE-C-Z	SBFTE-C-Z	SER-B	SER-C	12
	KAM6E446*DA	3, TYPE G	6, TYPE G	SBFTE-C-Z	ERTE-8-Z	SER-C	SER-C	16
	KAM6E557*DA	4, TYPE G	10, TYPE G	ERTE-8-Z	OTE-10-Z	SER-C	SER-C	18
	KAM6E669*DA	4, TYPE G	10, TYPE G	ERTE-8-Z	OTE-15-Z	SER-C	SER-C	24
	KAM6E741*DA	5, TYPE G	15, TYPE G	OTE-10-Z	OTE-15-Z	SER-C	SER-DS	18
	KAM6E890*DA	6, TYPE G	15, TYPE G	OTE-15-Z	OTE-20-Z	SER-C	SER-DS	24
6 FPI - R454C	KAM6E181*DA	1-1/2, TYPE L	3, TYPE L	SBFVE-B-Z	SBFVE-C-Z	SER-B	SER-B	6
	KAM6E217*DA	1-1/2, TYPE L	3, TYPE L	SBFVE-B-Z	SBFVE-C-Z	SER-B	SER-C	8
	KAM6E371*DA	2-1/2, TYPE G	6, TYPE G	SBFVE-C-Z	OVE-10-Z	SER-C	SER-C	12
	KAM6E446*DA	3, TYPE G	6, TYPE G	ERVE-8-Z	OVE-10-Z	SER-C	SER-C	16
	KAM6E557*DA	4, TYPE G	10, TYPE G	ERVE-8-Z	OVE-15-Z	SER-C	SER-C	18
	KAM6E669*DA	4, TYPE G	10, TYPE G	OVE-15-Z	OVE-20-Z	SER-C	SER-DS	24
	KAM6E741*DA	5, TYPE G	15, TYPE G	OVE-15-Z	OVE-20-Z	SER-C	SER-DS	18
	KAM6E890*DA	6, TYPE G	15, TYPE G	OVE-15-Z	OVE-20-Z	SER-DS	SER-DS	24
6 FPI - R455A	KAM6E181*DA	1-1/2, TYPE L	3, TYPE L	SBFVE-B-Z	SBFVE-C-Z	SER-B	SER-B	6
	KAM6E217*DA	1-1/2, TYPE L	3, TYPE L	SBFVE-B-Z	SBFVE-C-Z	SER-B	SER-C	8
	KAM6E371*DA	2-1/2, TYPE G	6, TYPE G	SBFVE-C-Z	OVE-10-Z	SER-C	SER-C	12
	KAM6E446*DA	3, TYPE G	6, TYPE G	ERVE-8-Z	OVE-10-Z	SER-C	SER-C	16
	KAM6E557*DA	4, TYPE G	10, TYPE G	ERVE-8-Z	OVE-15-Z	SER-C	SER-C	18
	KAM6E669*DA	4, TYPE G	10, TYPE G	OVE-15-Z	OVE-20-Z	SER-C	SER-DS	24
	KAM6E741*DA	5, TYPE G	15, TYPE G	OVE-15-Z	OVE-20-Z	SER-C	SER-DS	18
	KAM6E890*DA	6, TYPE G	15, TYPE G	OVE-15-Z	OVE-20-Z	SER-DS	SER-DS	24

The Distributor lines are 3/16" or 1/4" diameter and 27" long.
* Asterisk represents a variable character based on voltage ordered. See nomenclature on page 4 for details.
Expansion valve selections based on -20°F Suction Temp and 8°F to 12°F evaporator TD.
Contact factory for operating conditions outside this range.
Do not use pressure limiting TXV's when the condensing unit includes a CPR valve.
^ SBFTE, ERTE and OTE Expansion Valves are compatible with R454A refrigerant.
^ SBFVE, ERVE and OVE 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 CONTROL

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

	Model No.	A_{min} Values (Ft^2)					Loose SSOV (solenoid shut off valve) Isolation Valve @ Liquid Temp			Loose CSOV (check shut off valve) 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
6 FPI - R455A	KAM6E181*DA	42	54	65	76	87	1/2"	SSOV6S140	SSOV6S140	1-3/8"	CSOV-11S
	KAM6E217*DA	46	58	69	80	91	1/2"	SSOV6S140	SSOV6S140	1-3/8"	CSOV-11S
	KAM6E371*DA	56	68	79	91	102	1/2"	SSOV6S140	SSOV6S140	1-5/8"	CSOV-13S
	KAM6E446*DA	71	89	108	127	146	5/8"	SSOV10S150	SSOV10S150	2-1/8"	CSOV-17S
	KAM6E557*DA	78	97	115	134	153	5/8"	SSOV10S150	SSOV10S150	2-1/8"	CSOV-17S
	KAM6E669*DA	89	108	126	145	164	5/8"	SSOV10S150	SSOV10S150	2-1/8"	CSOV-17S
	KAM6E741*DA	92	111	130	148	167	5/8"	SSOV10S150	SSOV10S150	2-1/8"	CSOV-17S
	KAM6E890*DA	116	153	189	225	261	7/8"	SSOV19S270	SSOV19S270	2-5/8"	CSOV-21S
6 FPI - R454C	KAM6E181*DA	41	52	63	74	85	1/2"	SSOV6S140	SSOV6S140	1-3/8"	CSOV-11S
	KAM6E217*DA	45	56	67	78	88	1/2"	SSOV6S140	SSOV6S140	1-3/8"	CSOV-11S
	KAM6E371*DA	54	65	77	88	99	1/2"	SSOV6S140	SSOV6S140	1-5/8"	CSOV-13S
	KAM6E446*DA	68	87	105	123	141	5/8"	SSOV10S150	SSOV10S150	2-1/8"	CSOV-17S
	KAM6E557*DA	75	94	112	130	148	5/8"	SSOV10S150	SSOV10S150	2-1/8"	CSOV-17S
	KAM6E669*DA	86	104	122	140	158	5/8"	SSOV10S150	SSOV10S150	2-1/8"	CSOV-17S
	KAM6E741*DA	89	107	125	144	162	5/8"	SSOV10S150	SSOV10S150	2-1/8"	CSOV-17S
	KAM6E890*DA	113	148	183	218	253	7/8"	SSOV19S270	SSOV19S270	2-5/8"	CSOV-21S
6 FPI - R455A	KAM6E181*DA	37	47	57	67	77	1/2"	SSOV6S140	SSOV6S140	1-3/8"	CSOV-11S
	KAM6E217*DA	41	51	61	71	81	1/2"	SSOV6S140	SSOV6S140	1-3/8"	CSOV-11S
	KAM6E371*DA	50	60	70	80	90	1/2"	SSOV6S140	SSOV6S140	1-5/8"	CSOV-13S
	KAM6E446*DA	62	79	95	112	128	5/8"	SSOV10S150	SSOV10S150	2-1/8"	CSOV-17S
	KAM6E557*DA	69	85	102	118	135	5/8"	SSOV10S150	SSOV10S150	2-1/8"	CSOV-17S
	KAM6E669*DA	79	95	112	128	145	5/8"	SSOV10S150	SSOV10S150	2-1/8"	CSOV-17S
	KAM6E741*DA	81	98	114	131	147	5/8"	SSOV10S150	SSOV10S150	2-1/8"	CSOV-17S
	KAM6E890*DA	103	135	167	199	231	7/8"	SSOV19S270	SSOV19S270	2-5/8"	CSOV-21S

Solenoid Shut Off Valves 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 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

LOW TEMPERATURE ELECTRIC DEFROST // 4 FPI

	Model No.	Part Numbers						No. of Circuits
		Nozzle @ Liq. Temp.		TXV^ @ Liq. Temp.		EEV @ Liq. Temp.		
		50°F	100°F	50°F	100°F	50°F	100°F	
4 FPI - R454A	KAM4E129*DA	1, TYPE L	2, TYPE L	SBFTE-A-Z	SBFTE-B-Z	SER-A	SER-A	4
	KAM4E168*DA	1, TYPE L	2, TYPE L	SBFTE-B-Z	SBFTE-B-Z	SER-A	SER-B	6
	KAM4E271*DA	2, TYPE G	4, TYPE G	SBFTE-B-Z	SBFTE-C-Z	SER-B	SER-B	9
	KAM4E340*DA	2-1/2, TYPE G	4, TYPE G	SBFTE-C-Z	SBFTE-C-Z	SER-B	SER-C	12
	KAM4E398*DA	2-1/2, TYPE G	6, TYPE G	SBFTE-C-Z	ERTE-8-Z	SER-C	SER-C	12
	KAM4E495*DA	4, TYPE G	10, TYPE G	SBFTE-C-Z	ERTE-8-Z	SER-C	SER-C	16
	KAM4E529*DA	4, TYPE G	10, TYPE G	SBFTE-C-Z	ERTE-8-Z	SER-C	SER-C	18
	KAM4E658*DA	5, TYPE G	10, TYPE G	ERTE-8-Z	OTE-15-Z	SER-C	SER-C	24
4 FPI - R454C	KAM4E129*DA	1, TYPE L	2, TYPE L	SBFVE-B-Z	SBFVE-B-Z	SER-A	SER-B	4
	KAM4E168*DA	1, TYPE L	2, TYPE L	SBFVE-B-Z	SBFVE-C-Z	SER-A	SER-B	6
	KAM4E271*DA	2, TYPE G	4, TYPE G	SBFVE-C-Z	SBFVE-C-Z	SER-B	SER-C	9
	KAM4E340*DA	2-1/2, TYPE G	4, TYPE G	SBFVE-C-Z	OVE-10-Z	SER-C	SER-C	12
	KAM4E398*DA	2-1/2, TYPE G	6, TYPE G	SBFVE-C-Z	OVE-10-Z	SER-C	SER-C	12
	KAM4E495*DA	4, TYPE G	10, TYPE G	ERVE-8-Z	OVE-10-Z	SER-C	SER-C	16
	KAM4E529*DA	4, TYPE G	10, TYPE G	ERVE-8-Z	OVE-15-Z	SER-C	SER-C	18
	KAM4E658*DA	5, TYPE G	10, TYPE G	OVE-10-Z	OVE-20-Z	SER-C	SER-DS	24
4 FPI - R455A	KAM4E129*DA	1, TYPE L	2, TYPE L	SBFVE-B-Z	SBFVE-B-Z	SER-A	SER-B	4
	KAM4E168*DA	1, TYPE L	2, TYPE L	SBFVE-B-Z	SBFVE-C-Z	SER-A	SER-B	6
	KAM4E271*DA	2, TYPE G	4, TYPE G	SBFVE-C-Z	SBFVE-C-Z	SER-B	SER-C	9
	KAM4E340*DA	2-1/2, TYPE G	4, TYPE G	SBFVE-C-Z	OVE-10-Z	SER-C	SER-C	12
	KAM4E398*DA	2-1/2, TYPE G	6, TYPE G	SBFVE-C-Z	OVE-10-Z	SER-C	SER-C	12
	KAM4E495*DA	4, TYPE G	10, TYPE G	ERVE-8-Z	OVE-10-Z	SER-C	SER-C	16
	KAM4E529*DA	4, TYPE G	10, TYPE G	ERVE-8-Z	OVE-15-Z	SER-C	SER-C	18
	KAM4E658*DA	5, TYPE G	10, TYPE G	OVE-10-Z	OVE-20-Z	SER-C	SER-DS	24

The Distributor lines are 3/16" or 1/4" diameter and 27" long.
* Asterisk represents a variable character based on voltage ordered. See nomenclature on page 4 for details.
Expansion valve selections based on -20 Suction Temp and 8F to 12F evaporator TD.
Contact factory for operating conditions outside this range.
Do not use pressure limiting TXV's when the condensing unit includes a CPR valve.
^ SBFTE, ERTE and OTE Expansion Valves are compatible with R454A refrigerant.
^ SBFVE, ERVE and OVE 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 CONTROL

A_{MIN} (MINIMUM ALLOWABLE ROOM SIZE) VALUES // LOW TEMPERATURE ELECTRIC DEFROST // 4 FPI

Model No.		A_{min} Values (Ft^2)					Loose SSOV (solenoid shut off valve) Isolation Valve @ Liquid Temp			Loose CSOV (check shut off valve) 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
4 FPI - R455A	KAM4E129*DA	42	53	64	75	86	1/2"	SSOV6S140	SSOV6S140	1-1/8"	CSOV-9S
	KAM4E168*DA	46	58	69	80	91	1/2"	SSOV6S140	SSOV6S140	1-3/8"	CSOV-11S
	KAM4E271*DA	55	66	78	89	101	1/2"	SSOV6S140	SSOV6S140	1-5/8"	CSOV-13S
	KAM4E340*DA	62	73	85	97	108	1/2"	SSOV6S140	SSOV6S140	1-5/8"	CSOV-13S
	KAM4E398*DA	67	80	92	105	117	1/2"	SSOV6S140	SSOV6S140	2-1/8"	CSOV-17S
	KAM4E495*DA	85	103	122	141	159	5/8"	SSOV10S150	SSOV10S150	2-1/8"	CSOV-17S
	KAM4E529*DA	92	111	130	148	167	5/8"	SSOV10S150	SSOV10S150	2-1/8"	CSOV-17S
	KAM4E658*DA	103	119	137	155	174	5/8"	SSOV10S150	SSOV10S150	2-1/8"	CSOV-17S
4 FPI - R454C	KAM4E129*DA	41	51	62	73	83	1/2"	SSOV6S140	SSOV6S140	1-1/8"	CSOV-9S
	KAM4E168*DA	45	56	67	77	88	1/2"	SSOV6S140	SSOV6S140	1-3/8"	CSOV-11S
	KAM4E271*DA	53	64	75	86	97	1/2"	SSOV6S140	SSOV6S140	1-5/8"	CSOV-13S
	KAM4E340*DA	60	71	82	93	105	1/2"	SSOV6S140	SSOV6S140	1-5/8"	CSOV-13S
	KAM4E398*DA	65	77	89	101	113	1/2"	SSOV6S140	SSOV6S140	2-1/8"	CSOV-17S
	KAM4E495*DA	82	100	118	136	154	5/8"	SSOV10S150	SSOV10S150	2-1/8"	CSOV-17S
	KAM4E529*DA	89	107	125	144	162	5/8"	SSOV10S150	SSOV10S150	2-1/8"	CSOV-17S
	KAM4E658*DA	99	116	134	153	170	5/8"	SSOV10S150	SSOV10S150	2-1/8"	CSOV-17S
4 FPI - R455A	KAM4E129*DA	37	47	57	66	76	1/2"	SSOV6S140	SSOV6S140	1-1/8"	CSOV-9S
	KAM4E168*DA	41	51	61	71	81	1/2"	SSOV6S140	SSOV6S140	1-3/8"	CSOV-11S
	KAM4E271*DA	48	58	69	79	89	1/2"	SSOV6S140	SSOV6S140	1-5/8"	CSOV-13S
	KAM4E340*DA	55	65	75	85	96	1/2"	SSOV6S140	SSOV6S140	1-5/8"	CSOV-13S
	KAM4E398*DA	59	70	81	92	103	1/2"	SSOV6S140	SSOV6S140	2-1/8"	CSOV-17S
	KAM4E495*DA	75	91	108	124	141	5/8"	SSOV10S150	SSOV10S150	2-1/8"	CSOV-17S
	KAM4E529*DA	81	98	114	130	148	5/8"	SSOV10S150	SSOV10S150	2-1/8"	CSOV-17S
	KAM4E658*DA	91	107	114	139	157	5/8"	SSOV10S150	SSOV10S150	2-1/8"	CSOV-17S

Solenoid Shut Off Valves 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 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.

PHYSICAL SPECIFICATIONS

AIR DEFROST MODELS

	Model No.	Fan Diam. (In.)	Motor Data			Refrigerant Connections		No. of Hangers Slot Location	Fig.	Unit Dimensions (In.)			Approx. Unit Wt. (Lbs.)
			Motor Qty.	HP	RPM	Liquid Line^	Suction^			L	W	H	
6 FPI	KAM6A219*DA	24	1	1/3	850	3/8	7/8	4	1	47-1/2	21-5/16	33-7/8	120
	KAM6A268*DA	24	1	1/3	850	3/8	7/8	4	1	47-1/2	21-5/16	33-7/8	120
	KAM6A336*DA	24	2	1/3	850	1/2	1-1/8	6	2	80-1/2	21-5/16	33-7/8	220
	KAM6A448*DA	24	2	1/3	850	1/2	1-1/8	6	2	80-1/2	21-5/16	33-7/8	220
	KAM6A540*DA	24	2	1/3	850	5/8	1-1/8	6	2	80-1/2	21-5/16	33-7/8	220
	KAM6A668*DA	24	3	1/3	850	5/8	1-3/8	8	3	113-9/16	21-5/16	33-7/8	316
	KAM6A800*DA	24	3	1/3	850	5/8	1-3/8	8	3	113-9/16	21-5/16	33-7/8	316
	KAM6A888*DA	24	4	1/3	850	7/8	1-5/8	10	4	146-9/16	21-5/16	33-7/8	420
	KAM6A990*DA	24	4	1/3	850	7/8	1-5/8	10	4	146-9/16	21-5/16	33-7/8	420

MEDIUM TEMPERATURE ELECTRIC DEFROST MODELS

	Model No.	Fan Diam. (In.)	Motor Data			Refrigerant Connections		No. of Hangers Slot Location	Fig.	Unit Dimensions (In.)			Approx. Unit Wt. (Lbs.)
			Motor Qty.	HP	RPM	Liquid Line^	Suction^			L	W	H	
6 FPI	KAM6D218*DA	24	1	1/3	850	3/8	7/8	4	1	47-1/2	21-5/16	33-7/8	120
	KAM6D267*DA	24	1	1/3	850	3/8	7/8	4	1	47-1/2	21-5/16	33-7/8	120
	KAM6D335*DA	24	2	1/3	850	1/2	1-1/8	6	2	80-1/2	21-5/16	33-7/8	220
	KAM6D447*DA	24	2	1/3	850	1/2	1-1/8	6	2	80-1/2	21-5/16	33-7/8	220
	KAM6D539*DA	24	2	1/3	850	5/8	1-1/8	6	2	80-1/2	21-5/16	33-7/8	220
	KAM6D667*DA	24	3	1/3	850	5/8	1-3/8	8	3	113-9/16	21-5/16	33-7/8	316
	KAM6D799*DA	24	3	1/3	850	5/8	1-3/8	8	3	113-9/16	21-5/16	33-7/8	316
	KAM6D887*DA	24	4	1/3	850	7/8	1-5/8	10	4	146-9/16	21-5/16	33-7/8	420
	KAM6D989*DA	24	4	1/3	850	7/8	1-5/8	10	4	146-9/16	21-5/16	33-7/8	420

* Asterisk represents a variable character based on voltage ordered. See nomenclature on page 4 for details.
^ For units with mounted TXV components, See Nozzle TXV table for distributor connection size when a TXV is field supplied.
For dimensional distance between hanger slots, consult model's corresponding dimensional drawing. Hanger slots are 3/8" deep x 1" wide.
Drain connection is 1-1/4" NPT for all models.
For shipping dimensions and weights, see the Shipping information included with each dimensional drawing.

PHYSICAL SPECIFICATIONS

LOW TEMPERATURE ELECTRIC DEFROST MODELS

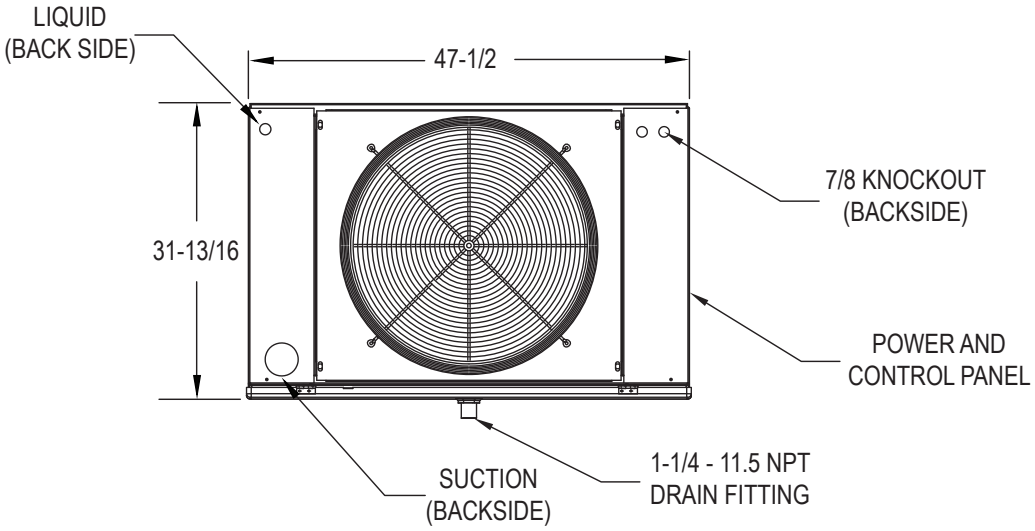
	Model No. RM*E/G/H	Fan Diam. (In.)	Motor Data			Refrigerant Connections		No. of Hangers Slot Location	Fig.	Unit Dimensions (In.)			Approx. Unit Wt. (Lbs.)
			Motor Qty.	HP	RPM	Liquid Line^	Suction^			L	W	H	
6 FPI	KAM6E181*DA	24	1	1/3	850	3/8	1-1/8	4	1	47-1/2	21-5/16	33-7/8	120
	KAM6E217*DA	24	1	1/3	850	3/8	1-1/8	4	1	47-1/2	21-5/16	33-7/8	120
	KAM6E371*DA	24	2	1/3	850	1/2	1-5/8	6	2	80-1/2	21-5/16	33-7/8	220
	KAM6E446*DA	24	2	1/3	850	5/8	1-5/8	6	2	80-1/2	21-5/16	33-7/8	220
	KAM6E557*DA	24	3	1/3	850	5/8	2-1/8	8	3	113-9/16	21-5/16	33-7/8	320
	KAM6E669*DA	24	3	1/3	850	5/8	2-1/8	8	3	113-9/16	21-5/16	33-7/8	320
	KAM6E741*DA	24	4	1/3	850	5/8	2-1/8	10	4	146-9/16	21-5/16	33-7/8	420
	KAM6E890*DA	24	4	1/3	850	7/8	2-5/8	10	4	146-9/16	21-5/16	33-7/8	420
4 FPI	KAM4E129*DA	24	1	1/3	850	3/8	1-1/8	4	1	47-1/2	21-5/16	33-7/8	120
	KAM4E168*DA	24	1	1/3	850	3/8	1-1/8	4	1	47-1/2	21-5/16	33-7/8	120
	KAM4E271*DA	24	2	1/3	850	1/2	1-3/8	6	2	80-1/2	21-5/16	33-7/8	220
	KAM4E340*DA	24	2	1/3	850	1/2	1-3/8	6	2	80-1/2	21-5/16	33-7/8	220
	KAM4E398*DA	24	3	1/3	850	1/2	1-5/8	8	3	113-9/16	21-5/16	33-7/8	320
	KAM4E495*DA	24	3	1/3	850	5/8	1-5/8	8	3	113-9/16	21-5/16	33-7/8	320
	KAM4E529*DA	24	4	1/3	850	5/8	2-1/8	10	4	146-9/16	21-5/16	33-7/8	420
	KAM4E658*DA	24	4	1/3	850	5/8	2-1/8	10	4	146-9/16	21-5/16	33-7/8	420

* Asterisk represents a variable character based on voltage ordered. See nomenclature on page 4 for details.
^ For units with mounted TXV components, See Nozzle TXV table for distributor connection size when a TXV is field supplied.
For dimensional distance between hanger slots, consult model's corresponding dimensional drawing. Hanger slots are 3/8" deep x 1" wide.
Drain connection is 1-1/4" NPT for all models.
For shipping dimensions and weights, see the Shipping information included with each dimensional drawing.

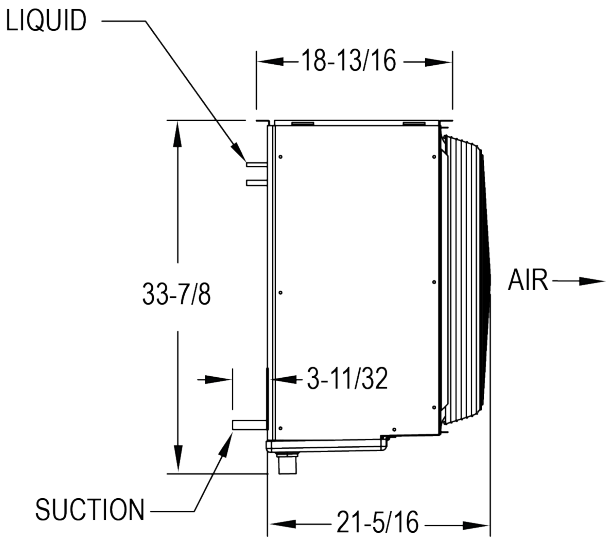
DIMENSIONAL DRAWINGS

Figure 1: Single Fan

Front View



Side View



Top View

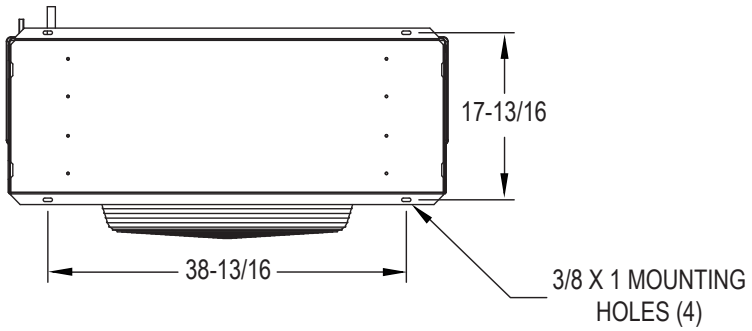


FIGURE 1: SHIPPING INFORMATION

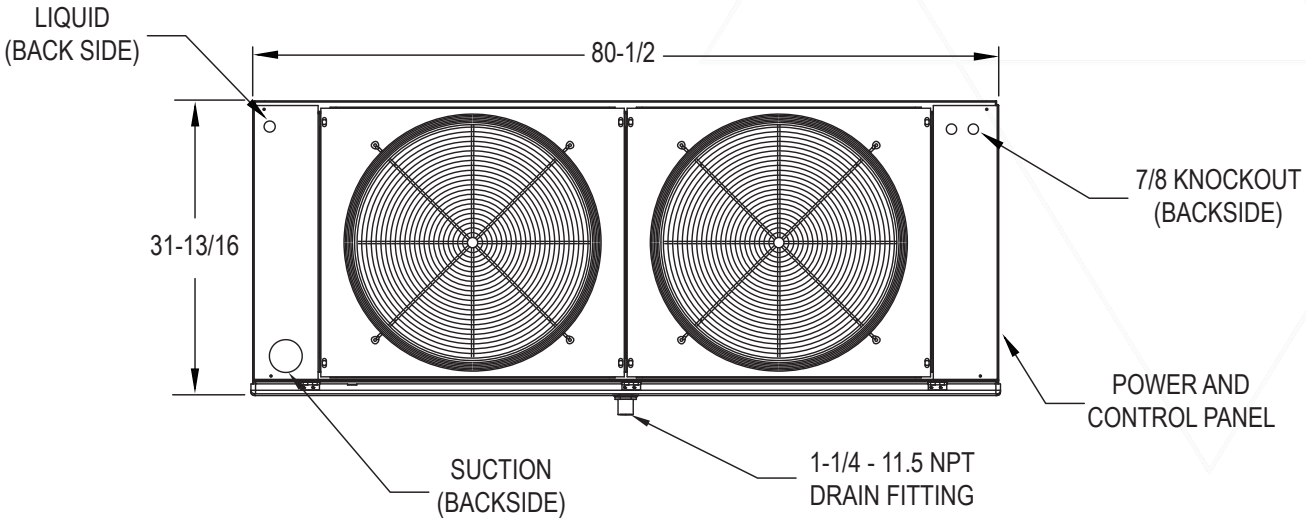
No. of Fans	Shipping Dimensions (Inches)			Shipping Weight (Lbs)
	L	W	H	
1	60	43-1/4	48-1/2	346

All mounting holes are 3/8" diameter. All dimensions are in inches.

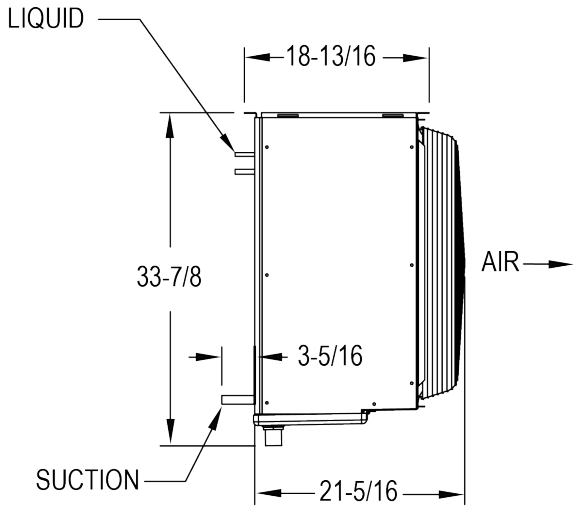
DIMENSIONAL DRAWINGS

Figure 2: Two Fan

Front View



Side View



Top View

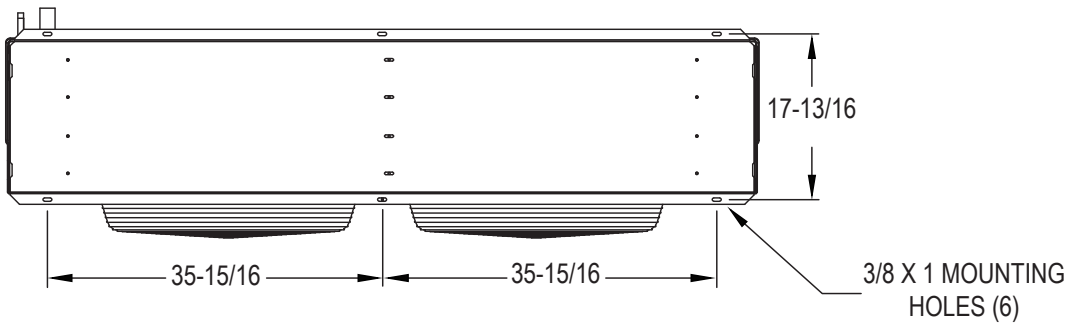


FIGURE 2: SHIPPING INFORMATION

No. of Fans	Shipping Dimensions (Inches)			Shipping Weight (Lbs)
	L	W	H	
2	93	43-1/4	48-1/2	510

All mounting holes are 3/8" diameter. All dimensions are in inches.

DIMENSIONAL DRAWINGS

Figure 3: Three Fan

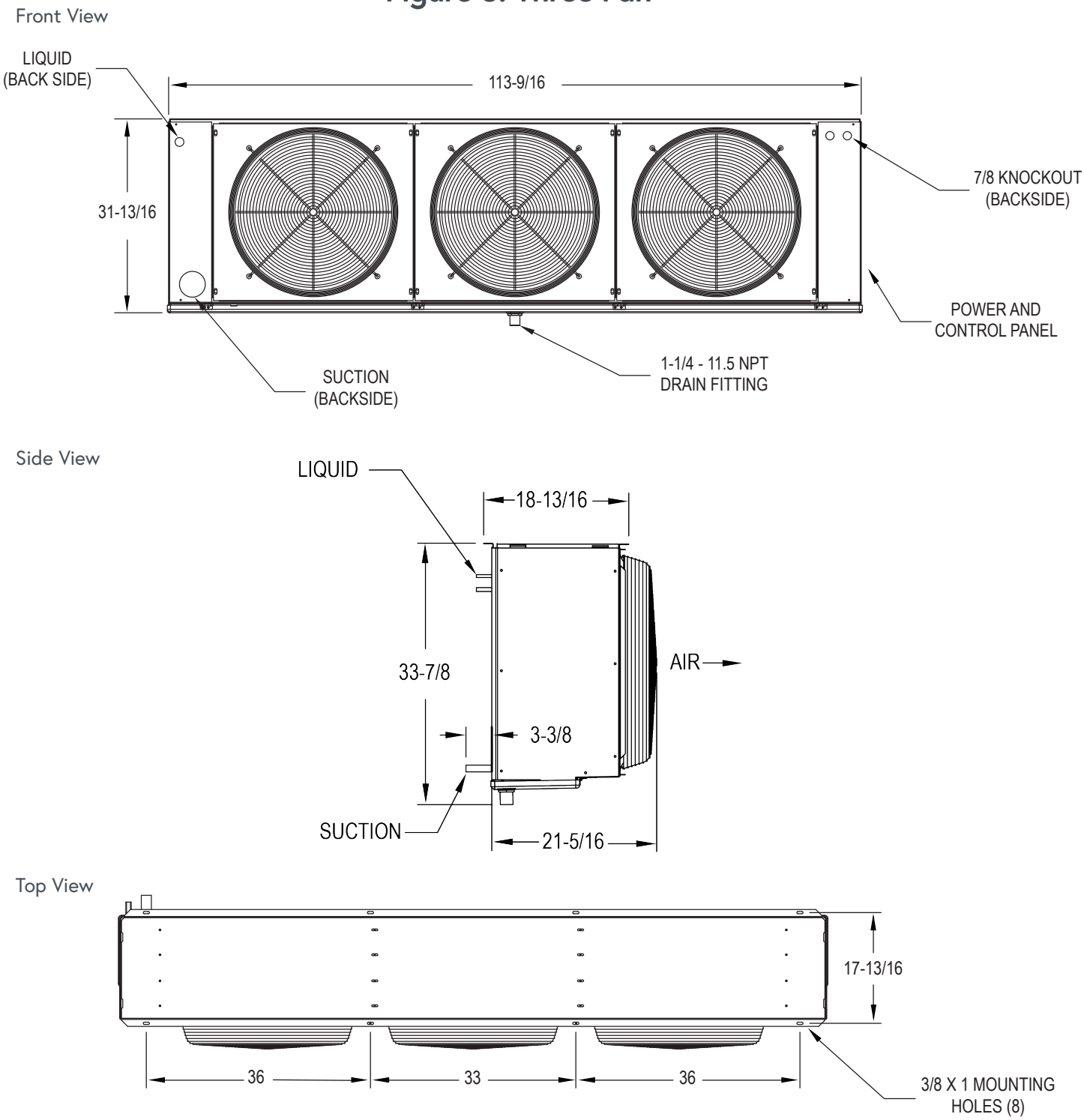


FIGURE 3: SHIPPING INFORMATION

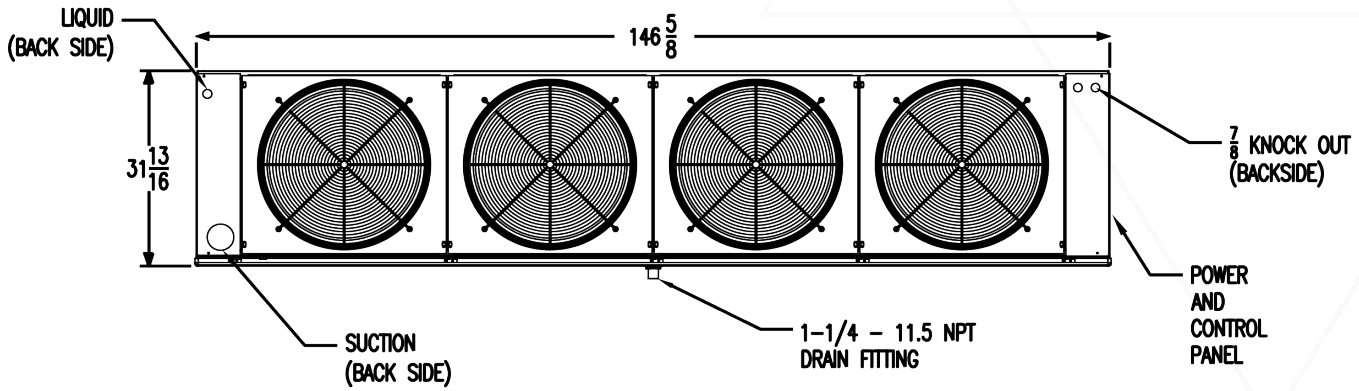
No. of Fans	Shipping Dimensions (Inches)			Shipping Weight (Lbs)
	L	W	H	
3	120	43-1/4	48-1/2	673

All mounting holes are 3/8" diameter. All dimensions are in inches.

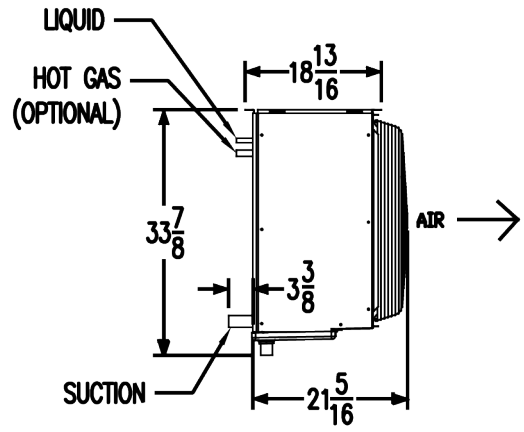
DIMENSIONAL DRAWINGS

Figure 4: Four Fan

Front View



Side View



Top View

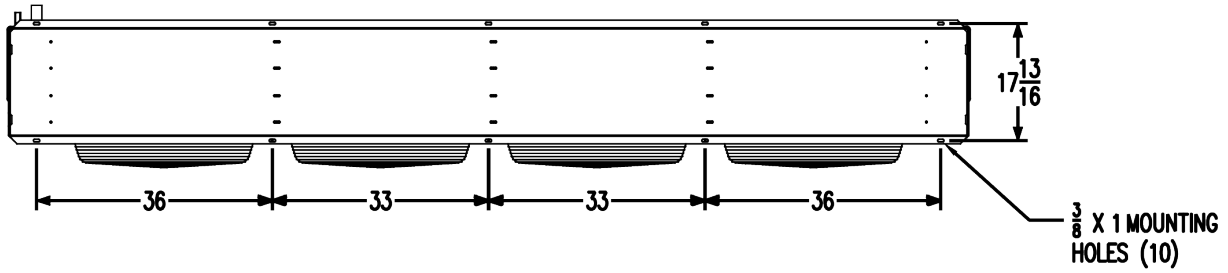


FIGURE 4: SHIPPING INFORMATION

No. of Fans	Shipping Dimensions (Inches)			Shipping Weight (Lbs)
	L	W	H	
4	160	43-1/4	48-1/2	843

All mounting holes are 3/8" diameter. 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.

AWEF RATINGS // COOLER AND FREEZER MODELS

Department of Energy Annual Walk-In Energy Factor (AWEF) Ratings

Base Model No.	Defrost Type	FPI	AWEF
COOLER MODELS[1]			
KAM6A219*DA	Air Defrost	6	9
KAM6A268*DA	Air Defrost	6	9
KAM6A336*DA	Air Defrost	6	9
KAM6A448*DA	Air Defrost	6	9
KAM6A540*DA	Air Defrost	6	9
KAM6A668*DA	Air Defrost	6	9
KAM6A800*DA	Air Defrost	6	9
KAM6A888*DA	Air Defrost	6	9
KAM6A990*DA	Air Defrost	6	9
KAM6D218*DA	Med Temp Electric Defrost	6	9
KAM6D267*DA	Med Temp Electric Defrost	6	9
KAM6D335*DA	Med Temp Electric Defrost	6	9
KAM6D447*DA	Med Temp Electric Defrost	6	9
KAM6D539*DA	Med Temp Electric Defrost	6	9
KAM6D667*DA	Med Temp Electric Defrost	6	9
KAM6D799*DA	Med Temp Electric Defrost	6	9
KAM6D887*DA	Med Temp Electric Defrost	6	9
KAM6D989*DA	Med Temp Electric Defrost	6	9

Department of Energy Annual Walk-In Energy Factor (AWEF) Ratings

Base Model No.	Defrost Type	FPI	AWEF
FREEZER MODELS[2]			
KAM6E181*DA	Low Temp Electric Defrost	6	4.15
KAM6E217*DA	Low Temp Electric Defrost	6	4.15
KAM6E371*DA	Low Temp Electric Defrost	6	4.15
KAM6E446*DA	Low Temp Electric Defrost	6	4.15
KAM6E557*DA	Low Temp Electric Defrost	6	4.15
KAM6E669*DA	Low Temp Electric Defrost	6	4.15
KAM6E741*DA	Low Temp Electric Defrost	6	4.15
KAM6E890*DA	Low Temp Electric Defrost	6	4.15
KAM4E129*DA	Low Temp Electric Defrost	4	4.15
KAM4E168*DA	Low Temp Electric Defrost	4	4.15
KAM4E271*DA	Low Temp Electric Defrost	4	4.15
KAM4E340*DA	Low Temp Electric Defrost	4	4.15
KAM4E398*DA	Low Temp Electric Defrost	4	4.15
KAM4E495*DA	Low Temp Electric Defrost	4	4.15
KAM4E529*DA	Low Temp Electric Defrost	4	4.15
KAM4E658*DA	Low Temp Electric Defrost	4	4.15

* Asterisk represents a variable character based on voltage ordered.
See nomenclature on page 4 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."

[2] 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 freezer applications."

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