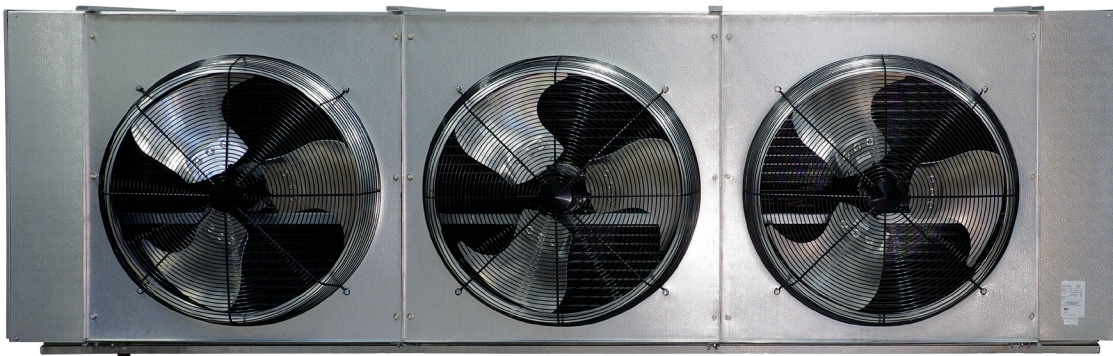


KRAMER

HEAVY DUTY UNIT COOLER



Walk-Ins: Medium to Large Cooler and Freezer Applications

Air Defrost

31,200 to 253,100 BTUH

Electric Defrost

33,100 to 227,400 BTUH

Hot Gas Defrost

33,100 to 227,400 BTUH



FEATURES

Heavy Duty Unit Coolers are the ideal evaporator solution for medium and large walk-in coolers and freezers. Designed with efficiency, performance and service in mind, the Heavy Duty Cooler line is optimized to cover Cold Storage applications in the most effective way. The Heavy Duty units were engineered to meet the Department of Energy's new AWEF performance regulations and feature energy-efficient rail-mount Dual Speed EC Motors.

All units are circuited for multiple refrigerants and feature optimized circuit patterns to maximize performance. Heavy Duty Unit Coolers have several enhanced service features including rail-mount motors, new high efficiency fan and venturi designs, enhanced surface coil tubing, easily removable fan guards and modular fan panels, face mount defrost heaters, hinged drain pans and shipping pallets designed to facilitate easy installation.

SIZES

There are a wide array of sizes to match your specific application requirements ranging from 31,200 to 253,100 BTUH at a 10°TD. Models are available with air flow spanning a range of 5,750 to 24,000 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 drain pans to allow for convenient servicing and maintenance. Pre-drilled hanger holes are provided on all units for fast installation.

COIL

Seamless copper tubes are staggered and mechanically expanded into heavy gauge corrugated aluminum fins to assure maximum heat transfer. Die formed fin collars are provided for accurate fin spacing. Heavy gauge hangers are fastened directly to the tube sheet of the coil to provide high structural strength. Electric Defrost and Hot Gas Defrost Models are available in both 6 FPI and 4 FPI.

MOTORS

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

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 Heavy Duty Unit Coolers is up to 100 ft.

REFRIGERANTS

Heavy Duty Unit Coolers are optimized for multiple refrigerants including R404A, R407A, R448A, R449A and R744 DX (CO₂). 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 and warmer.

ELECTRIC DEFROST - MEDIUM TEMP

Heavy Duty Unit Coolers are designed for use in coolers between +11°F and +35°F room temperatures.

Defrost heaters are mounted on the air intake side of the unit for optimal performance and easy maintenance. An additional Heater is 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. An additional heater is 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.

HOT GAS DEFROST

There are two types of Hot Gas Defrost models available: 3-pipe Hot Gas models and 2-pipe Hot Gas Reverse Cycle units. Hot Gas Defrost 6 FPI models are designed for use in coolers and freezers between 35°F and -30°F. Hot Gas Defrost 4 FPI models are designed for use in freezers between 32°F and -30°F. All units include adjustable defrost termination and fan delay controls which are factory mounted for optimum performance of each control function. Refer to the current Technical Bulletin for piping. Reverse Cycle units can also be used for Alternating Evaporator Systems.

ELECTRICAL

Available in 208-230V/1, 208-230V/3, 460/1, or 460/3. Heavy Duty Evaporators can also be operated on 220/1/50, 220/3/50, 380/1/50, and 380/3/50 power (Contact factory for details). A large compartment is supplied for all electrical components and is easily accessible by removing the end panel. All 60 Hz models are UL and cUL listed.

OPTIONAL FEATURES

- EcoNet® Enabled Controller³ (factory-installed)
- EcoNet® Command Center (loose)
- Reverse Connections
- 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)
- 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 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	H	6	E	109	D	D	A
Brand	Style	Fins per Inch (FPI)	Defrost Type	BTUH in Thousands	Unit Voltage ¹	Motor Type	Vintage
K = Kramer	H = Heavy Duty Y = Reverse Connections	4 /6	A = Air D = Medium Temp Electric Defrost E = Low Temp Electric Defrost K = Hot Gas 3 Pipe HG Drain Pan H = Hot Gas 3 Pipe Electric Drain Pan L = Hot Gas Rev HG Drain Pan G = Hot Gas Rev Electric Drain Pan		D = 208-23/1/60 E = 208-230/3/60 F = 460/1/60 G = 460/3/60	D = Dual Speed ECM	

APPLICATION RATING AND ELECTRICAL DATA // AIR DEFROST MODELS

Model No.	BTUH Capacity @ 25°F S.T. & 10°F TD		CFM	No. of Fans	208-230V/1	460V/1	
	R404A, R744 DX (CO ₂)	R407A/R448A/ R449A [^]			Total Fan AMPS		
6 FPI	KH6A031*DA	31,200	36,600	5,920	1	6.3	3.1
	KH6A043*DA	43,600	51,100	5,870	1	6.3	3.1
	KH6A052*DA	52,100	61,900	5,750	1	6.3	3.1
	KH6A063*DA	63,200	73,500	11,850	2	12.6	6.2
	KH6A087*DA	87,900	103,500	11,730	2	12.6	6.2
	KH6A105*DA	105,200	124,900	11,500	2	12.6	6.2
	KH6A132*DA	132,500	155,800	17,600	3	18.9	9.3
	KH6A156*DA	156,300	185,700	17,250	3	18.9	9.3
	KH6A175*DA	175,400	206,900	23,460	4	25.2	12.4
	KH6A209*DA	209,500	253,100	23,000	4	25.2	12.4

Model No.	208-230V/1				460V/1				
	Base Model		EcoNet Enabled ²		Base Model		EcoNet Enabled ²		
	MCA	MOPD	MCA	MOPD	MCA	MOPD	MCA	MOPD	
6 FPI	KH6A031*DA	15.0	20	15.0	20	15.0	20	15.0	20
	KH6A043*DA	15.0	20	15.0	20	15.0	20	15.0	20
	KH6A052*DA	15.0	20	15.0	20	15.0	20	15.0	20
	KH6A063*DA	15.0	20	16.2	20	15.0	20	15.0	20
	KH6A087*DA	15.0	20	16.2	20	15.0	20	15.0	20
	KH6A105*DA	15.0	20	16.2	20	15.0	20	15.0	20
	KH6A132*DA	20.5	25	22.5	25	15.0	20	15.0	20
	KH6A156*DA	20.5	25	22.5	25	15.0	20	15.0	20
	KH6A175*DA	26.8	30	28.8	30	15.0	20	15.0	20
	KH6A209*DA	26.8	30	28.8	30	15.0	20	15.0	20

*Each asterisk represents a variable character based on voltage ordered. See page 4 for nomenclature.

[^]R407A, R448A and R449A are rated at dew point temperature. Use R407A capacity ratings for R407C and R407F.

†Dual Speed EC motors are compliant with California Title 24 regulations.

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APPLICATION RATING AND ELECTRICAL DATA // MEDIUM TEMPERATURE ELECTRIC DEFROST

Model No.	BTUH Capacity @ +25°F S.T. & 10°F TD		CFM	No. of Fans	208-230V/1	460V/1
	R404A, R744DX (CO ₂)	R407A, R448A, R449A [^]			Total Fan Motor AMPS	
KH6D030*DA	31,200	36,600	5,920	1	6.3	3.1
KH6D042*DA	43,600	51,100	5,870	1	6.3	3.1
KH6D051*DA	52,100	61,900	5,750	1	6.3	3.1
KH6D062*DA	63,200	73,500	11,850	2	12.6	6.2
KH6D086*DA	87,900	103,500	11,730	2	12.6	6.2
KH6D104*DA	105,200	124,900	11,500	2	12.6	6.2
KH6D130*DA	132,500	155,800	17,600	3	18.9	9.3
KH6D155*DA	156,300	185,700	17,250	3	18.9	9.3
KH6D174*DA	175,400	206,900	23,460	4	25.2	12.4
KH6D208*DA	209,500	253,100	23,000	4	25.2	12.4

*Each asterisk represents a variable character based on voltage ordered. See page 4 for nomenclature.

[^]R407A, R448A and R449A are rated at dew point temperature. Use R407A capacity ratings for R407C and R407F.

†Dual Speed EC motors are compliant with California Title 24 regulations.

APPLICATION RATING AND ELECTRICAL DATA // MEDIUM TEMPERATURE ELECTRIC DEFROST

Model No.	208-230V/3							Heater Watts
	Base Model		EcoNet Enabled ²		Heater Amps			
	MCA	MOPD	MCA	MOPD	No. of Circuits	Amps per Circuit	Total Heater Amps	
KH6D030EDA	15.0	20	16.4	20	1	14.4	14.4	6,000
KH6D042EDA	15.0	20	16.4	20	1	14.4	14.4	6,000
KH6D051EDA	15.0	20	16.4	20	1	14.4	14.4	6,000
KH6D062EDA	15.0	20	30.9	35	1	28.9	28.9	12,000
KH6D086EDA	15.0	20	30.9	35	1	28.9	28.9	12,000
KH6D104EDA	15.0	20	30.9	35	1	28.9	28.9	12,000
KH6D130EDA	20.5	25	45.3	50	1	43.3	43.3	18,000
KH6D155EDA	20.5	25	45.3	50	1	43.3	43.3	18,000
KH6D174EDA	26.8	30	59.7	60	2	28.9	57.7	24,000
KH6D208EDA	26.8	30	59.7	60	2	28.9	57.7	24,000

Model No.	460V/3							Heater Watts
	Base Model		EcoNet Enabled ²		Heater Amps			
	MCA	MOPD	MCA	MOPD	No. of Circuits	Amps per Circuit	Total Heater Amps	
KH6D030GDA	15.0	20	15.0	20	1	7.5	7.5	6,000
KH6D042GDA	15.0	20	15.0	20	1	7.5	7.5	6,000
KH6D051GDA	15.0	20	15.0	20	1	7.5	7.5	6,000
KH6D062GDA	15.0	20	16.1	20	1	15.1	15.1	12,000
KH6D086GDA	15.0	20	16.1	20	1	15.1	15.1	12,000
KH6D104GDA	15.0	20	16.1	20	1	15.1	15.1	12,000
KH6D130GDA	15.0	20	23.6	25	1	22.6	22.6	18,000
KH6D155GDA	15.0	20	23.6	25	1	22.6	22.6	18,000
KH6D174GDA	15.0	20	31.1	35	1	30.1	30.1	24,000
KH6D208GDA	15.0	20	31.1	35	1	30.1	30.1	24,000

EcoNet Enabled Units are not powered by Condensing Unit so Defrost Heaters are incorporated into shown MCA/MOPD.

8 HEAVY DUTY UNIT COOLER

APPLICATION RATING AND ELECTRICAL DATA // LOW TEMPERATURE ELECTRIC DEFROST

Model No.		BTUH Capacity @ -20°F S.T. & 10°F TD		CFM	No. of Fans	Total Fan AMPS	
		R404, R744 DX	R407A, R448A, R449A			208-230V/1	460V/1
6 FPI	KH6E033*DA	33,100	38,700	5920	1	6.3	3.1
	KH6E044*DA	44,500	50,900	5870	1	6.3	3.1
	KH6E053*DA	53,800	62,100	5750	1	6.3	3.1
	KH6E066*DA	66,400	76,600	11850	2	12.6	6.2
	KH6E089*DA	89,400	102,300	11730	2	12.6	6.2
	KH6E109*DA	109,299	125,700	11500	2	12.6	6.2
	KH6E134*DA	134,500	153,800	17600	3	18.9	9.3
	KH6E163*DA	163,500	188,800	17250	3	18.9	9.3
	KH6E199*DA	199,100	227,400	23000	4	25.2	12.4

Model No.		BTUH Capacity @ -20°F S.T. & 10°F TD		CFM	No. of Fans	Total Fan AMPS	
		R404, R744 DX	R407, R448, R449			208-230V/1	460V/1
4 FPI	KH4E035*DA	35,800	41,100	5870	1	6.3	3.1
	KH4E044*DA	44,000	50,800	5750	1	6.3	3.1
	KH4E071*DA	71,400	83,000	11730	2	12.6	6.2
	KH4E087*DA	87,400	100,900	11500	2	12.6	6.2
	KH4E107*DA	107,700	122,900	17600	3	18.9	9.3
	KH4E131*DA	131,900	152,300	17250	3	18.9	9.3
	KH4E167*DA	167,000	190,200	23000	4	25.2	12.4

Capacity Correction for Low Temp Electric and Hot Gas Defrost Evaporators

SST (Dew)	0°F	-10°F	-20°F	-30°F	-40°F
Multiply Capacity by:	1.075	1.0375	1	0.9626	0.925

*Each asterisk represents a variable character based on voltage ordered. See page 4 for nomenclature.

^R407A, R448A and R449A are rated at dew point temperature. Use R407A capacity ratings for R407C and R407F.

†Dual Speed EC motors are compliant with California Title 24 regulations.

APPLICATION RATING AND ELECTRICAL DATA // LOW TEMPERATURE ELECTRIC DEFROST

Model No.		208-230V/3							Heater Watts
		Base Model		EcoNet Enabled		Heater Amps			
		MCA	MOPD	MCA	MOPD	No. of Circuits	Amps per Circuit	Total Heater Amps	
6 FPI	KH6E033EDA	15.0	20	20.5	20	1	14.4	14.4	6,000
	KH6E044EDA	15.0	20	20.5	20	1	14.4	14.4	6,000
	KH6E053EDA	15.0	20	20.5	20	1	14.4	14.4	6,000
	KH6E066EDA	15.0	20	30.9	35	1	28.9	28.9	12,000
	KH6E089*DA	15.0	20	30.9	35	1	28.9	28.9	12,000
	KH6E109EDA	15.0	20	30.9	35	1	28.9	28.9	12,000
	KH6E134EDA	20.5	25	45.3	50	1	43.3	43.3	18,000
	KH6E163EDA	20.5	25	45.3	50	1	43.3	43.3	18,000
	KH6E199EDA	26.8	30	59.7	30	2	28.9	57.7	24,000

Model No.		208-230V/3							Heater Watts
		Base Model		EcoNet Enabled		Heater Amps			
		MCA	MOPD	MCA	MOPD	No. of Circuits	Amps per Circuit	Total Heater Amps	
4 FPI	KH4E035EDA	15.0	20	20.5	20.5	1	14.4	14.4	6,000
	KH4E044EDA	15.0	20	20.5	20.5	1	14.4	14.4	6,000
	KH4E071EDA	15.0	20	30.9	30.9	1	28.9	28.9	12,000
	KH4E087EDA	15.0	20	30.9	30.9	1	28.9	28.9	12,000
	KH4E107EDA	15.0	25	45.3	45.3	1	43.3	43.3	18,000
	KH4E131EDA	15.0	25	45.3	45.3	1	43.3	43.3	18,000
		KH4E167EDA	20.5	30	59.7	59.7	2	28.9	57.7

*Each asterisk represents a variable character based on voltage ordered. See page 4 for nomenclature.

^R407A, R448A and R449A are rated at dew point temperature. Use R407A capacity ratings for R407C and R407F.

†Dual Speed EC motors are compliant with California Title 24 regulations.

EcoNet Enabled Units are not powered by Condensing Unit so Defrost Heaters are incorporated into shown MCA/MOPD.

10 HEAVY DUTY UNIT COOLER

APPLICATION RATING AND ELECTRICAL DATA // LOW TEMPERATURE ELECTRIC DEFROST

Model No.		460/3							Heater Watts
		Base Model		EcoNet Enabled ²		Heater Amps			
		MCA	MOPD	MCA	MOPD	No. of Circuits	Amps per Circuit	Total Heater Amps	
6 FPI	KH6E033GDA	15.0	20	15.0	20	1	7.5	7.5	6,000
	KH6E044GDA	15.0	20	15.0	20	1	7.5	7.5	6,000
	KH6E053GDA	15.0	20	15.0	20	1	7.5	7.5	6,000
	KH6E066GDA	15.0	20	16.1	20	1	15.1	15.1	12,000
	KH6E089GDA	15.0	20	16.1	20	1	15.1	15.1	12,000
	KH6E109GDA	15.0	20	16.1	20	1	15.1	15.1	12,000
	KH6E134GDA	15.0	20	23.6	20	1	22.6	22.6	18,000
	KH6E163GDA	15.0	20	23.6	20	1	22.6	22.6	18,000
	KH6E199GDA	15.0	20	31.1	20	1	30.1	30.1	24,000

Model No.		460/3							Heater Watts
		Base Model		EcoNet Enabled ²		Heater Amps			
		MCA	MOPD	MCA	MOPD	No. of Circuits	Amps per Circuit	Total Heater Amps	
4 FPI	KH4E035GDA	15.0	20	15.0	20	1	7.5	7.5	6,000
	KH4E044GDA	15.0	20	15.0	20	1	7.5	7.5	6,000
	KH4E071GDA	15.0	20	16.1	20	1	15.1	15.1	12,000
	KH4E087GDA	15.0	20	16.1	20	1	15.1	15.1	12,000
	KH4E107GDA	15.0	20	23.6	25	1	22.6	22.6	18,000
	KH4E131GDA	15.0	20	23.6	25	1	22.6	22.6	18,000
		KH4E167GDA	15.0	20	31.1	35	1	30.1	30.1

*Each asterisk represents a variable character based on voltage ordered. See page 4 for nomenclature.

^R407A, R448A and R449A are rated at dew point temperature. Use R407A capacity ratings for R407C and R407F.

†Dual Speed EC motors are compliant with California Title 24 regulations.

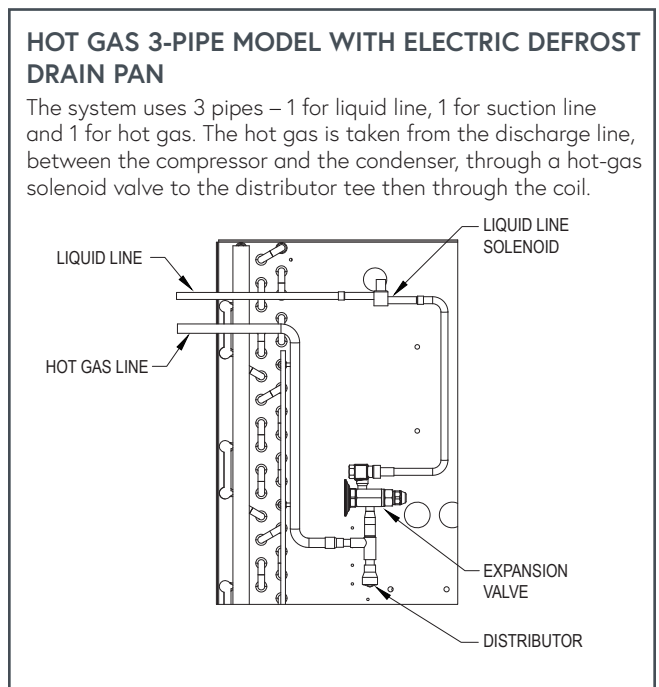
EcoNet Enabled Units are not powered by Condensing Unit so Defrost Heaters are incorporated into shown MCA/MOPD.

APPLICATION RATING AND ELECTRIC DATA // HOT GAS 3-PIPE DEFROST

Hot Gas 3-Pipe Model No.		BTUH Capacity @ -20°F S.T. & 10°F TD ¹		CFM	No. of Fans	208-230V/1			460V/1		
		R404A	R407A, R448A, R449A [^]			Total Fan AMPS	MCA	MOPD	Total Fan AMPS	MCA	MOPD
6 FPI - RH*H, RH*K	KH6H033*DA	33,100	38,700	5,920	1	6.3	15.0	20	3.1	15.0	20
	KH6H044*DA	44,500	50,900	5,870	1	6.3	15.0	20	3.1	15.0	20
	KH6H053*DA	53,800	62,100	5,750	1	6.3	15.0	20	3.1	15.0	20
	KH6H066*DA	66,400	76,600	11,850	2	12.6	15.0	20	6.2	15.0	20
	KH6H089*DA	89,400	102,300	11,730	2	12.6	15.0	20	6.2	15.0	20
	KH6H109*DA	109,200	125,700	11,500	2	12.6	15.0	20	6.2	15.0	20
	KH6H134*DA	134,500	153,800	17,600	3	18.9	20.5	25	9.3	15.0	20
	KH6H163*DA	163,500	188,800	17,250	3	18.9	20.5	25	9.3	15.0	20
KH6H199*DA	199,100	227,400	23,000	4	25.2	26.8	30	12.4	15.0	20	
4 FPI - RH*H, RH*K	KH4H035*DA	35,800	41,100	5,870	1	6.3	15.0	20	3.1	15.0	20
	KH4H044*DA	44,000	50,800	5,750	1	6.3	15.0	20	3.1	15.0	20
	KH4H071*DA	71,400	83,000	11,730	2	12.6	15.0	20	6.2	15.0	20
	KH4H087*DA	87,400	100,900	11,500	2	12.6	15.0	20	6.2	15.0	20
	KH4H107*DA	107,700	122,900	17,600	3	18.9	20.5	25	9.3	15.0	20
	KH4H131*DA	131,900	152,300	17,250	3	18.9	20.5	25	9.3	15.0	20
	KH4H167*DA	167,000	190,200	23,000	4	25.2	26.8	30	12.4	15.0	20

†Dual Speed EC motors are compliant with California Title 24 regulations.

Hot Gas 3-Pipe Model No.		208-230V/1	460V/1	Heater Watts
		Electric Heater in Drain Pan		
6 FPI - RH*H	KH6H033*DA	8.3	4.3	2,000
	KH6H044*DA	8.3	4.3	2,000
	KH6H053*DA	8.3	4.3	2,000
	KH6H066*DA	16.7	8.7	4,000
	KH6H089*DA	16.7	8.7	4,000
	KH6H109*DA	16.7	8.7	4,000
	KH6H134*DA	25.0	13.0	6,000
	KH6H163*DA	25.0	13.0	6,000
KH6H199*DA	33.3	17.4	8,000	
4 FPI - RH*H	KH4H035*DA	8.3	4.3	2,000
	KH4H044*DA	8.3	4.3	2,000
	KH4H071*DA	16.7	8.7	4,000
	KH4H087*DA	16.7	8.7	4,000
	KH4H107*DA	25.0	13.0	6,000
	KH4H131*DA	25.0	13.0	6,000
	KH4H167*DA	33.3	17.4	8,000



Each asterisk represents a variable character based on defrost and voltage ordered. Hot Gas 3-Pipe Version (H: Hot Gas Defrost 3-Pipe with Electric Drain Pan Heater, K: Hot Gas Defrost 3-Pipe with Hot Gas Drain Pan). See page 4 for nomenclature.
 1. Note from page 7, Hot gas includes Electric Defrost Drain Pan

Capacity Correction for Low Temp Electric and Hot Gas Defrost Evaporators

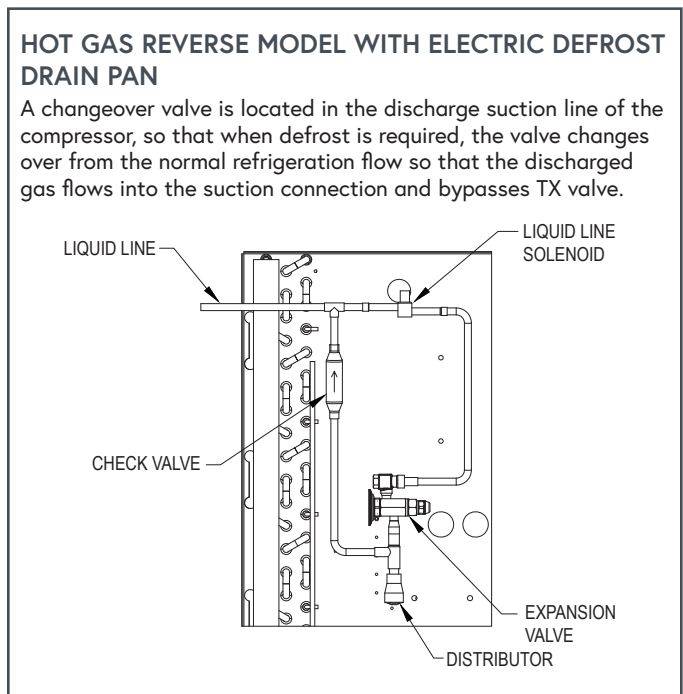
S.S.T. (Dew)	0°F	-10°F	-20°F	-30°F	-40°F
Multiply Capacity by:	1.0375	1	0.98	0.96	0.92

APPLICATION RATING AND ELECTRICAL DATA // HOT GAS REVERSE CYCLE

Hot Gas 2-Pipe Model No.		BTUH Capacity @ -20°F S.T. & 10°F TD ¹		CFM	No. of Fans	208-230V/1			460V/1		
		R404A	R407A, R448A, R449A [^]			Total Fan AMPS	MCA	MOPD	Total Fan AMPS	MCA	MOPD
6 FPI - RH6G, RH6L	KH6G033*DA	33,100	38,700	5,920	1	6.3	15.0	20	3.1	15.0	20
	KH6G044*DA	44,500	50,900	5,870	1	6.3	15.0	20	3.1	15.0	20
	KH6G053*DA	53,800	62,100	5,750	1	6.3	15.0	20	3.1	15.0	20
	KH6G066*DA	66,400	76,600	11,850	2	12.6	15.0	20	6.2	15.0	20
	KH6G089*DA	89,400	102,300	11,730	2	12.6	15.0	20	6.2	15.0	20
	KH6G109*DA	109,200	125,700	11,500	2	12.6	15.0	20	6.2	15.0	20
	KH6G134*DA	134,500	153,800	17,600	3	18.9	20.5	25	9.3	15.0	20
	KH6G163*DA	163,500	188,800	17,250	3	18.9	20.5	25	9.3	15.0	20
	KH6G199*DA	199,100	227,400	23,000	4	25.2	26.8	30	12.4	15.0	20
4 FPI - RH6G, RH6L	KH4G035*DA	35,800	41,100	5,870	1	6.3	15.0	20	3.1	15.0	20
	KH4G044*DA	44,000	50,800	5,750	1	6.3	15.0	20	3.1	15.0	20
	KH4G071*DA	71,400	83,000	11,730	2	12.6	15.0	20	6.2	15.0	20
	KH4G087*DA	87,400	100,900	11,500	2	12.6	15.0	20	6.2	15.0	20
	KH4G107*DA	107,700	122,900	17,600	3	18.9	20.5	25	9.3	15.0	20
	KH4G131*DA	131,900	152,300	17,250	3	18.9	20.5	25	9.3	15.0	20
	KH4G167*DA	167,000	190,200	23,000	4	25.2	26.8	30	12.4	15.0	20

[†]Dual Speed EC motors are compliant with California Title 24 regulations.

Hot Gas 3-Pipe Model No.		208-230V/1 & 460V/1		Heater Watts
		Electric Heater in Drain Pan		
6 FPI - RH6G, RH6L	KH6G033*DA	8.3	4.3	2,000
	KH6G044*DA	8.3	4.3	2,000
	KH6G053*DA	8.3	4.3	2,000
	KH6G066*DA	16.7	8.7	4,000
	KH6G089*DA	16.7	8.7	4,000
	KH6G109*DA	16.7	8.7	4,000
	KH6G134*DA	25.0	13.0	6,000
	KH6G163*DA	25.0	13.0	6,000
	KH6G199*DA	33.3	17.4	8,000
4 FPI - RH6G, RH6L	KH4G035*DA	8.3	4.3	2,000
	KH4G044*DA	8.3	4.3	2,000
	KH4G071*DA	16.7	8.7	4,000
	KH4G087*DA	16.7	8.7	4,000
	KH4G107*DA	25.0	13.0	6,000
	KH4G131*DA	25.0	13.0	6,000
	KH4G167*DA	33.3	17.4	8,000



Each asterisk represents a variable character based on defrost and voltage ordered. Hot Gas 3-Pipe Version (H: Hot Gas Defrost 3-Pipe with Electric Drain Pan Heater, K: Hot Gas Defrost 3-Pipe with Hot Gas Drain Pan). See page 4 for nomenclature.

1. Note from page 7, Hot gas includes Electric Defrost Drain Pan

Capacity Correction for Hot Gas Defrost Evaporators					
S.S.T. (Dew)	0°F	-10°F	-20°F	-30°F	-40°F
Multiply Capacity by:	1.0375	1	0.98	0.96	0.92

DISTRIBUTOR NOZZLE AND EXPANSION VALVES // MEDIUM TEMPERATURE ELECTRIC DEFROST

Model No.	Part Numbers						No. of Circuits	
	Nozzle at Liq. Temp.		TXV at Liq. Temp.		EEV at Liq. Temp.			
	50°F	100°F	50°F	100°F	50°F	100°F		
6 FPI - R404A	KH6D030*DA	G-1-1/2	G-4	SBFSE-B-C	SBFSE-C-C	SER-C	SER-C	6
	KH6D042*DA	G-1-1/2	G-5	SBFSE-B-C	OSE-6-C	SER-C	SER-C	6
	KH6D051*DA	E-2	E-6	SBFSE-B-C	OSE-6-C	SER-C	SER-D	12
	KH6D062*DA	E-2-1/2	E-10	OSE-6-C	OSE-6-C	SER-C	SER-D	9
	KH6D086*DA	C-3	C-12	OSE-6-C	OSE-9-C	SER-D	SER-D	18
	KH6D104*DA	C-4	C-15	OSE-9-C	OSE-9-C	SER-D	SERI-F	18
	KH6D130*DA	C-5	C-20	OSE-9-C	OSE-12-C	SER-D	SERI-F	18
	KH6D155*DA	C-6	C-25	OSE-9-C	OSE-12-C	SERI-F	SERI-G	24
	KH6D174*DA	A-8	A-25	OSE-12-C	OSE-21-C	SERI-F	SERI-G	27
KH6D208*DA	A-10	A-30	OSE-12-C	OSE-21-C	SERI-F	SERI-G	36	
6 FPI - R407A, R448A, R449A†	KH6D030*DA	G-1-1/2	G-4	SBFDE-B-C	SBFDE-C-C	SER-B	SER-C	6
	KH6D042*DA	G-1-1/2	G-5	SBFDE-C-C	SBFDE-C-C	SER-C	SER-C	6
	KH6D051*DA	E-2	E-6	SBFDE-C-C	EBSDE-7-C	SER-C	SER-C	12
	KH6D062*DA	E-2-1/2	E-8	SBFDE-C-C	EBSDE-7-C	SER-C	SER-D	9
	KH6D086*DA	C-4	C-12	EBSDE-7-C	EBSDE-10-C	SER-D	SER-D	18
	KH6D104*DA	C-4	C-15	EBSDE-7-C	ODE-12-C	SER-D	SERI-F	18
	KH6D130*DA	C-5	C-17	EBSDE-10-C	ODE-12-C	SER-D	SERI-F	18
	KH6D155*DA	C-6	C-20	EBSDE-12-C	ODE-17-C	SERI-F	SERI-F	24
	KH6D174*DA	A-8	A-25	EBSDE-12-C	ODE-17-C	SERI-F	SERI-G	27
	KH6D208*DA	A-10	A-30	EBSDE-17-C	ODE-28-C	SERI-F	SERI-G	36

The distributor lines are 1/4" tube & 31" long.

* Each asterisk represents a variable character based on voltage ordered. See page 4 for nomenclature.

^ 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. Base models (no factory-mounted components) include nozzles sized for 100°F liquid shipped loose.

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

DISTRIBUTOR NOZZLE AND EXPANSION VALVES // LOW TEMPERATURE ELECTRIC DEFROST

Model No.		Part Numbers						No. of Circuits
		Nozzle at Liq. Temp.		TXV [^] at Liq. Temp.		EEV at Liq. Temp.		
		50°F	100°F	50°F	100°F	50°F	100°F	
6 FPI - R404A	KH6E033*DA	E-3	E-8	SBFSE-C-Z	EBSSE-6-Z	SER-C	SER-C	9
	KH6E044*DA	E-4	E-10	OSE-6-Z	EBSSE-7-1/2-Z	SER-C	SER-C	9
	KH6E053*DA	E-5	E-12	OSE-6-Z	EBSSE-10-Z	SER-C	SER-D	12
	KH6E066*DA	C-6	C-17	OSE-6-Z	EBSSE-10-Z	SER-C	SER-D	18
	KH6E089*DA	C-10	C-20	OSE-9-Z	EBSSE-13-Z	SER-D	SER-D	18
	KH6E109*DA	C-12	C-25	OSE-12-Z	OSE-21-Z	SER-D	SERI-F	24
	KH6E134*DA	A-15	A-35	OSE-12-Z	OSE-30-Z	SER-D	SERI-F	27
	KH6E163*DA	A-17	A-40	OSE-21-Z	OSE-30-Z	SERI-F	SERI-G	36
	KH6E199*DA	A-20	A-50	OSE-35-Z	OSE-45-Z	SERI-F	SERI-G	36
4 FPI - R404A	KH4E035*DA	E-3	E-8	SBFSE-C-Z	OSE-6-Z	SER-C	SER-C	9
	KH4E044*DA	E-4	E-12	OSE-6-Z	OSE-6-Z	SER-C	SER-C	12
	KH4E071*DA	C-8	C-17	OSE-6-Z	OSE-12-Z	SER-C	SER-D	18
	KH4E087*DA	C-10	C-20	OSE-9-Z	OSE-12-Z	SER-D	SER-D	24
	KH4E107*DA	A-12	A-30	OSE-12-Z	OSE-21-Z	SER-D	SERI-F	27
	KH4E131*DA	A-15	A-35	OSE-12-Z	OSE-30-Z	SER-D	SERI-F	36
	KH4E167*DA	A-20	A-40	OSE-21-Z	OSE-30-Z	SERI-F	SERI-G	36
6 FPI - R407A, R448A, R449A	KH6E033*DA	E-2-1/2	E-6	SBFDE-C-Z	ODE-7-Z	SER-B	SER-C	9
	KH6E044*DA	E-4	E-8	EBSDE-7-Z	ODE-12-Z	SER-C	SER-C	9
	KH6E053*DA	E-5	E-12	EBSDE-7-Z	ODE-12-Z	SER-C	SER-C	12
	KH6E066*DA	C-6	C-15	EBSDE-10-Z	ODE-12-Z	SER-C	SER-D	18
	KH6E089*DA	C-8	C-17	ODE-12-Z	ODE-17-Z	SER-D	SER-D	18
	KH6E109*DA	C-12	C-25	ODE-17-Z	ODE-28-Z	SER-D	SER-D	24
	KH6E134*DA	A-15	A-30	ODE-17-Z	ODE-28-Z	SER-D	SERI-F	27
	KH6E163*DA	A-17	A-35	ODE-28-Z	ODE-40-Z	SERI-F	SERI-G	36
	KH6E199*DA	A-20	A-40	ODE-28-Z	ODE-45-Z	SERI-F	SERI-G	36
4 FPI - R407A, R448A, R449A	KH4E035*DA	E-3	E-6	SBFDE-C-Z	ODE-7-Z	SER-C	SER-C	9
	KH4E044*DA	E-4	E-8	SBFDE-C-Z	ODE-7-Z	SER-C	SER-C	12
	KH4E071*DA	C-6	C-15	ODE-12-Z	ODE-12-Z	SER-C	SER-D	18
	KH4E087*DA	C-8	C-17	ODE-12-Z	ODE-17-Z	SER-D	SER-D	24
	KH4E107*DA	A-12	A-20	ODE-17-Z	ODE-28-Z	SER-D	SER-D	27
	KH4E131*DA	A-15	A-30	ODE-17-Z	ODE-28-Z	SER-D	SERI-F	36
	KH4E167*DA	A-17	A-35	ODE-28-Z	ODE-40-Z	SER-F	SERI-G	36

The distributor lines are 1/4" tube & 31" long.

*Each asterisk represents a variable character based on voltage ordered. See page 4 for nomenclature.

[^]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 ODE, and EBSDE expansion valves are compatible with R407A, R448A and R449A/B. For other valves, follow manufacturers selection guidelines. Base models (no factory-mounted components) include nozzles sized for 100°F liquid shipped loose.

DISTRIBUTOR NOZZLE AND EXPANSION VALVES // HOT GAS DEFROST

Model No. RH*H/RH*G/RH*K/ RH*L	Part Numbers						No. of Circuits	
	Nozzle at Liq. Temp.		TXV [^] at Liq. Temp.		EEV at Liq. Temp.			
	50°F	100°F	50°F	100°F	50°F	100°F		
6 FPI - R404A	KH6E033EDA	E-3	E-8	SBFSE-C-Z	EBSSE-6-Z	SER-C	SER-C	9
	KH6E044EDA	E-4	E-10	OSE-6-Z	EBSSE-7-1/2-Z	SER-C	SER-C	9
	KH6E053EDA	E-5	E-12	OSE-6-Z	EBSSE-10-Z	SER-C	SER-D	12
	KH6E066EDA	C-6	C-17	OSE-6-Z	EBSSE-10-Z	SER-C	SER-D	18
	KH6E089EDA	C-10	C-20	OSE-9-Z	EBSSE-13-Z	SER-D	SER-D	18
	KH6E109EDA	C-12	C-25	OSE-12-Z	OSE-21-Z	SER-D	SERI-F	24
	KH6E134EDA	A-15	A-35	OSE-12-Z	OSE-30-Z	SER-D	SERI-F	27
	KH6E163EDA	A-17	A-40	OSE-21-Z	OSE-30-Z	SERI-F	SERI-G	36
KH6E199EDA	A-20	A-50	OSE-35-Z	OSE-45-Z	SERI-F	SERI-G	36	
4 FPI - R404A	KH4E035EDA	E-3	E-8	SBFSE-C-Z	OSE-6-Z	SER-C	SER-C	9
	KH4E044EDA	E-4	E-12	OSE-6-Z	OSE-6-Z	SER-C	SER-C	12
	KH4E071EDA	C-8	C-17	OSE-6-Z	OSE-12-Z	SER-C	SER-D	18
	KH4E087EDA	C-10	C-20	OSE-9-Z	OSE-12-Z	SER-D	SER-D	24
	KH4E107EDA	A-12	A-30	OSE-12-Z	OSE-21-Z	SER-D	SERI-F	27
	KH4E131EDA	A-15	A-35	OSE-12-Z	OSE-30-Z	SER-D	SERI-F	36
	KH4E167EDA	A-20	A-40	OSE-21-Z	OSE-30-Z	SERI-F	SERI-G	36
6 FPI - R407A/R448A/ R449A [†]	KH6E033EDA	E-2-1/2	E-6	SBFDE-C-Z	ODE-7-Z	SER-B	SER-C	9
	KH6E044EDA	E-4	E-8	EBSDE-7-Z	ODE-12-Z	SER-C	SER-C	9
	KH6E053EDA	E-5	E-12	EBSDE-7-Z	ODE-12-Z	SER-C	SER-C	12
	KH6E066EDA	C-6	C-15	EBSDE-10-Z	ODE-12-Z	SER-C	SER-D	18
	KH6E089EDA	C-8	C-17	ODE-12-Z	ODE-17-Z	SER-D	SER-D	18
	KH6E109EDA	C-12	C-25	ODE-17-Z	ODE-28-Z	SER-D	SER-D	24
	KH6E134EDA	A-15	A-30	ODE-17-Z	ODE-28-Z	SER-D	SERI-F	27
	KH6E163EDA	A-17	A-35	ODE-28-Z	ODE-40-Z	SERI-F	SERI-G	36
	KH6E199EDA	A-20	A-40	ODE-28-Z	ODE-45-Z	SERI-F	SERI-G	36
4 FPI - R407A/ R448A/R449A [†]	KH4E035EDA	E-3	E-6	SBFDE-C-Z	ODE-7-Z	SER-C	SER-C	9
	KH4E044EDA	E-4	E-8	SBFDE-C-Z	ODE-7-Z	SER-C	SER-C	12
	KH4E071EDA	C-6	C-15	ODE-12-Z	ODE-12-Z	SER-C	SER-D	18
	KH4E087EDA	C-8	C-17	ODE-12-Z	ODE-17-Z	SER-D	SER-D	24
	KH4E107EDA	A-12	A-20	ODE-17-Z	ODE-28-Z	SER-D	SER-D	27
	KH4E131EDA	A-15	A-30	ODE-17-Z	ODE-28-Z	SERI-D	SERI-F	36
	KH4E167EDA	A-17	A-35	ODE-28-Z	ODE-40-Z	SERI-F	SERI-G	36

The distributor lines are 1/4" tube & 21" long.

*Each asterisk represents a variable character based on voltage ordered. See page 4 for nomenclature.

[^]TXV selections for Hot Gas Defrost Models are based on -20°F suction temp., 8°F to 12°F evaporator TD. Contact factory for operating conditions outside of this range. Do not use pressure limiting TXVs when the condensing unit includes a CPR valve.

[†]SBFDE, EBSDE, and ODE expansion valves are compatible with R407A, R448A and R449A/B. For other valves, follow manufacturers selection guidelines. Base models (no factory-mounted components) include nozzles sized for 100°F liquid shipped loose.

16 HEAVY DUTY UNIT COOLER

SPECIFICATIONS // AIR DEFROST

Model No.	Fan Dia. (In.)	Motor Data			Refrigerant Connections		No. of Hanger Slot Locations	Fig.	Unit Dimensions (In.)			Approx. Unit Wt. (Lbs.)	
		Motor Qty.	HP	RPM	Liquid Line [^]	Suction			L	W	H		
6 FPI	KH6A031*DA	30	1	3/4	850	1/2	1-1/8	4	1	59-7/8	27-3/8	49-1/4	293
	KH6A043*DA	30	1	3/4	850	1/2	1-3/8	4	1	59-7/8	27-3/8	49-1/4	293
	KH6A052*DA	30	1	3/4	850	5/8	1-5/8	4	1	59-7/8	27-3/8	49-1/4	293
	KH6A063*DA	30	2	3/4	850	5/8	1-5/8	6	2	99-7/8	27-3/8	49-1/4	489
	KH6A087*DA	30	2	3/4	850	7/8	2-1/8	6	2	99-7/8	27-3/8	49-1/4	489
	KH6A105*DA	30	2	3/4	850	7/8	2-1/8	6	2	99-7/8	27-3/8	49-1/4	489
	KH6A132*DA	30	3	3/4	850	7/8	2-1/8	8	3	139-7/8	27-3/8	49-1/4	652
	KH6A156*DA	30	3	3/4	850	1-1/8	2-1/8	8	3	139-7/8	27-3/8	49-1/4	652
	KH6A175*DA	30	4	3/4	850	1-1/8	2-1/8	10	4	179-7/8	27-3/8	49-1/4	837
	KH6A209*DA	30	4	3/4	850	1-1/8	2-1/8	10	4	179-7/8	27-3/8	49-1/4	837

SPECIFICATIONS // MEDIUM TEMPERATURE ELECTRIC

Model No.	Fan Dia. (In.)	Motor Data			Refrigerant Connections			No. of Hanger Slot Locations	Fig.	Unit Dimensions (In.)			Approx. Unit Wt. (Lbs.)	
		Motor Qty.	HP	RPM	Liquid Line [^]	Suction	3-Pipe Hot Gas Line			L	W	H		
6 FPI - RH*E/H/G/K/L	KH6D030*DA	30	1	3/4	850	1/2"	1-1/8"	1-1/8	4	1	59-7/8	27-3/8	49-1/4	293
	KH6D042*DA	30	1	3/4	850	1/2"	1-3/8"	1-1/8	4	1	59-7/8	27-3/8	49-1/4	293
	KH6D051*DA	30	1	3/4	850	5/8"	1-5/8"	1-1/8	4	1	59-7/8	27-3/8	49-1/4	293
	KH6D062*DA	30	2	3/4	850	5/8"	1-5/8"	1-1/8	6	2	99-7/8	27-3/8	49-1/4	489
	KH6D086*DA	30	2	3/4	850	7/8"	2-1/8"	1-1/8	6	2	99-7/8	27-3/8	49-1/4	489
	KH6D104*DA	30	2	3/4	850	7/8"	2-1/8"	1-1/8	6	2	99-7/8	27-3/8	49-1/4	489
	KH6D130*DA	30	3	3/4	850	7/8"	2-1/8"	1-3/8	8	3	139-7/8	27-3/8	49-1/4	652
	KH6D155*DA	30	3	3/4	850	1-1/8"	2-1/8"	1-3/8	8	3	139-7/8	27-3/8	49-1/4	652
	KH6D174*DA	30	4	3/4	850	1-1/8"	2-1/8"	1-3/8	10	4	179-7/8	27-3/8	49-1/4	837
	KH6D208*DA	30	4	3/4	850	1-1/8"	2-1/8"	1-1/8	10	4	179-7/8	27-3/8	49-1/4	837

*Each asterisk represents a variable character based on voltage ordered. See page 4 for nomenclature.

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

1.For dimensional distance between hanger slots, consult model's corresponding dimension drawing. Hanger slots are 1/2" deep x 1" wide.

2.Drain is 1-1/4" NPT for all models.

SPECIFICATIONS // LOW TEMPERATURE ELECTRIC

Model No.	Fan Dia. (In.)	Motor Data			Refrigerant Connections		No. of Hanger Slot Locations	Fig.	Unit Dimensions (In.)			Approx. Unit Wt. (Lbs.)	
		Motor Qty.	HP	RPM	Liquid Line [^]	Suction			L	W	H		
6 FPI	KH6E033*DA	30	1	3/4	850	1/2	2-1/8	4	1	59-7/8	27-3/8	49-1/4	293
	KH6E044*DA	30	1	3/4	850	5/8	2-1/8	4	1	59-7/8	27-3/8	49-1/4	293
	KH6E053*DA	30	1	3/4	850	5/8	2-1/8	4	1	59-7/8	27-3/8	49-1/4	293
	KH6E066*DA	30	2	3/4	850	5/8	2-1/8	6	2	99-7/8	27-3/8	49-1/4	489
	KH6E089*DA	30	2	3/4	850	7/8	3-1/8	6	2	99-7/8	27-3/8	49-1/4	489
	KH6E109*DA	30	2	3/4	850	7/8	3-1/8	6	2	99-7/8	27-3/8	49-1/4	489
	KH6E134*DA	30	3	3/4	850	1-1/8	3-1/8	8	3	139-7/8	27-3/8	49-1/4	652
	KH6E163*DA	30	3	3/4	850	1-1/8	3-1/8	8	3	139-7/8	27-3/8	49-1/4	652
	KH6E199*DA	30	4	3/4	850	1-1/8	3-1/8	10	4	179-7/8	27-3/8	49-1/4	837
4 FPI	KH4E035*DA	30	1	3/4	850	1/2	2-1/8	4	1	59-7/8	27-3/8	49-1/4	293
	KH4E044*DA	30	1	3/4	850	5/8	2-1/8	4	1	59-7/8	27-3/8	49-1/4	293
	KH4E071*DA	30	2	3/4	850	5/8	2-1/8	6	2	99-7/8	27-3/8	49-1/4	489
	KH4E087*DA	30	2	3/4	850	7/8	3-1/8	6	2	99-7/8	27-3/8	49-1/4	489
	KH4E107*DA	30	3	3/4	850	7/8	3-1/8	8	3	139-7/8	27-3/8	49-1/4	652
	KH4E131*DA	30	3	3/4	850	1-1/8	3-1/8	8	3	139-7/8	27-3/8	49-1/4	652
	KH4E167*DA	30	4	3/4	850	1-1/8	3-1/8	10	4	179-7/8	27-3/8	49-1/4	837

*Each asterisk represents a variable character based on voltage ordered. See page 4 for nomenclature.

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

1.For dimensional distance between hanger slots, consult model's corresponding dimension drawing. Hanger slots are 1/2" deep x 1" wide.

2.Drain is 1-1/4" NPT for all models.

SPECIFICATIONS // HOT GAS MODELS

Model No.	Fan Dia. (In.)	Motor Data			Refrigerant Connections			No. of Hanger Slot Locations	Fig.	Unit Dimensions (In.)			Approx. Unit Wt. (Lbs.)	
		Motor Qty.	HP	RPM	Liquid Line [^]	Suction	3-Pipe Hot Gas Line			L	W	H		
6 FPI - RHE*/H/G/K/L	KH6*033*DA	30	1	3/4	850	1/2	2-1/8	1-1/8	4	1	59-7/8	27-3/8	49-1/4	293
	KH6*044*DA	30	1	3/4	850	5/8	2-1/8	1-1/8	4	1	59-7/8	27-3/8	49-1/4	293
	KH6*053*DA	30	1	3/4	850	5/8	2-1/8	1-1/8	4	1	59-7/8	27-3/8	49-1/4	293
	KH6*066*DA	30	2	3/4	850	5/8	2-1/8	1-1/8	6	2	99-7/8	27-3/8	49-1/4	489
	KH6*089*DA	30	2	3/4	850	7/8	3-1/8	1-1/8	6	2	99-7/8	27-3/8	49-1/4	489
	KH6*109*DA	30	2	3/4	850	7/8	3-1/8	1-1/8	6	2	99-7/8	27-3/8	49-1/4	489
	KH6*134*DA	30	3	3/4	850	1-1/8	3-1/8	1-3/8	8	3	139-7/8	27-3/8	49-1/4	652
	KH6*163*DA	30	3	3/4	850	1-1/8	3-1/8	1-3/8	8	3	139-7/8	27-3/8	49-1/4	652
	KH6*199*DA	30	4	3/4	850	1-1/8	3-1/8	1-3/8	10	4	139-7/8	27-3/8	49-1/4	837
4 FPI - RHE*/H/G/K/L	KH4*035*DA	30	1	3/4	850	1/2	2-1/8	1-1/8	4	1	59-7/8	27-3/8	49-1/4	293
	KH4*044*DA	30	1	3/4	850	5/8	2-1/8	1-1/8	4	1	59-7/8	27-3/8	49-1/4	293
	KH4*071*DA	30	2	3/4	850	5/8	2-1/8	1-1/8	6	2	99-7/8	27-3/8	49-1/4	489
	KH4*087*DA	30	2	3/4	850	7/8	3-1/8	1-1/8	6	2	99-7/8	27-3/8	49-1/4	489
	KH4*107*DA	30	3	3/4	850	7/8	3-1/8	1-3/8	8	3	139-7/8	27-3/8	49-1/4	652
	KH4*131*DA	30	3	3/4	850	1-1/8	3-1/8	1-3/8	8	3	139-7/8	27-3/8	49-1/4	652
	KH4*167*DA	30	4	3/4	850	1-1/8	3-1/8	1-3/8	10	4	179-7/8	27-3/8	49-1/4	837

*Each asterisk represents a variable character based on voltage ordered. See page 4 for nomenclature.

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

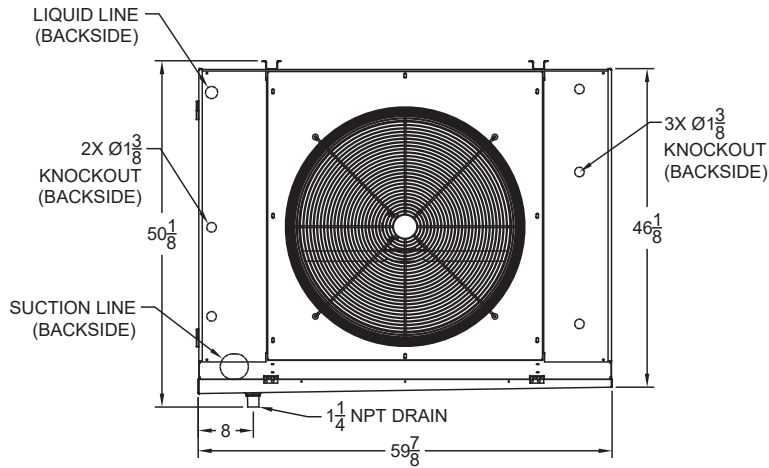
1.For dimensional distance between hanger slots, consult model's corresponding dimension drawing. Hanger slots are 1/2" deep x 1" wide.

2. Drain is 1-1/4" NPT for all models.

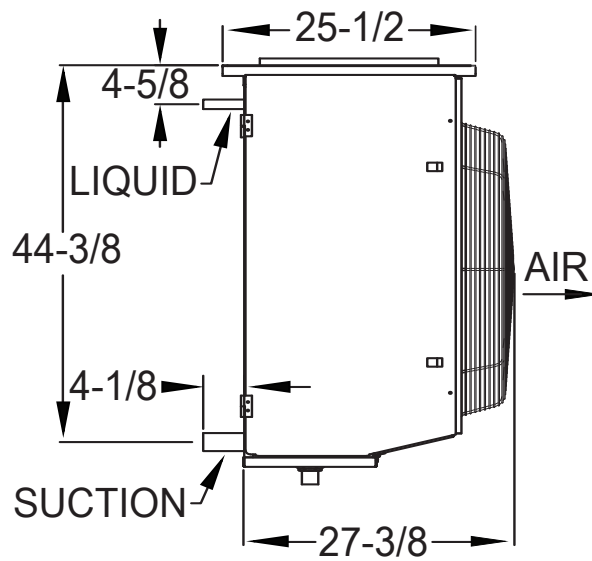
PHYSICAL DIMENSIONS

Figure 1: Single Fan

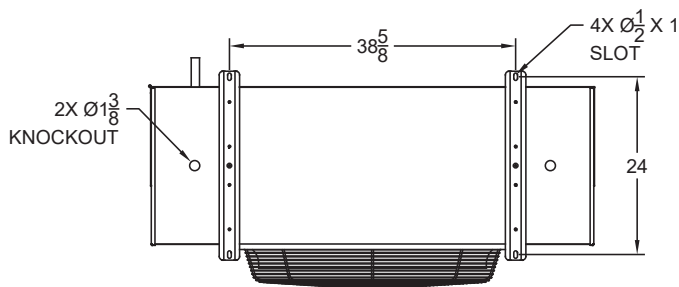
Front View



Side View



Top View

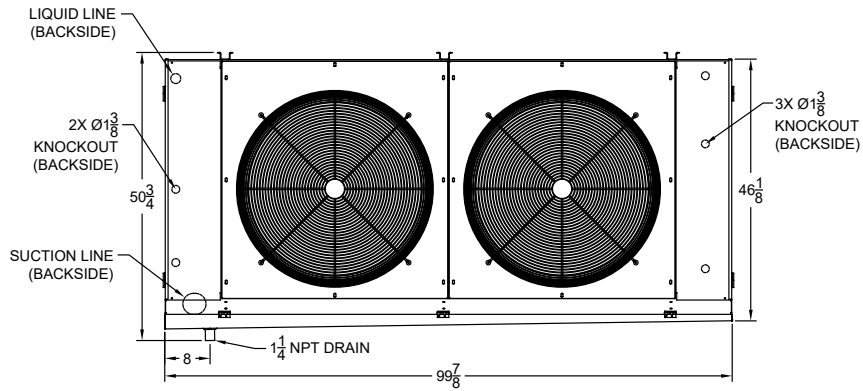


All mounting holes are 1/2" diameter.
 Mounted hanger spacers aid in the correct installation.
 All dimensions are in inches.

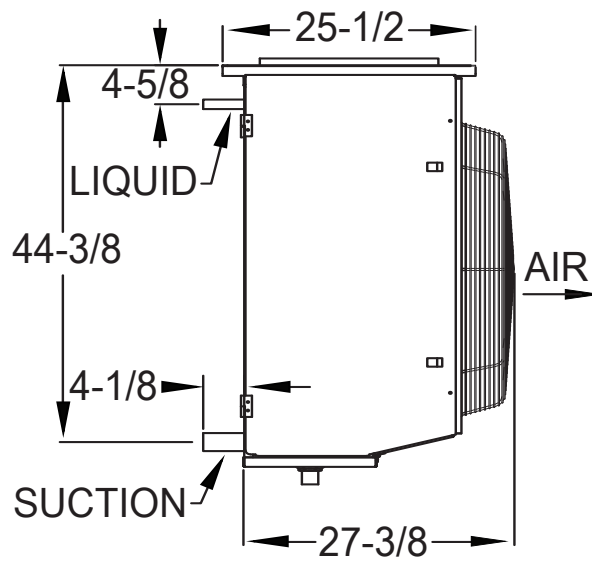
PHYSICAL DIMENSIONS

Figure 2: Two Fan

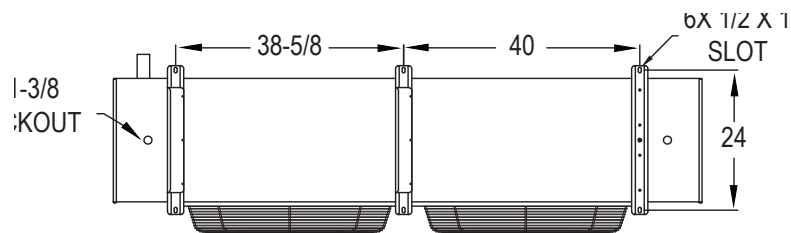
Front View



Side View



Top View

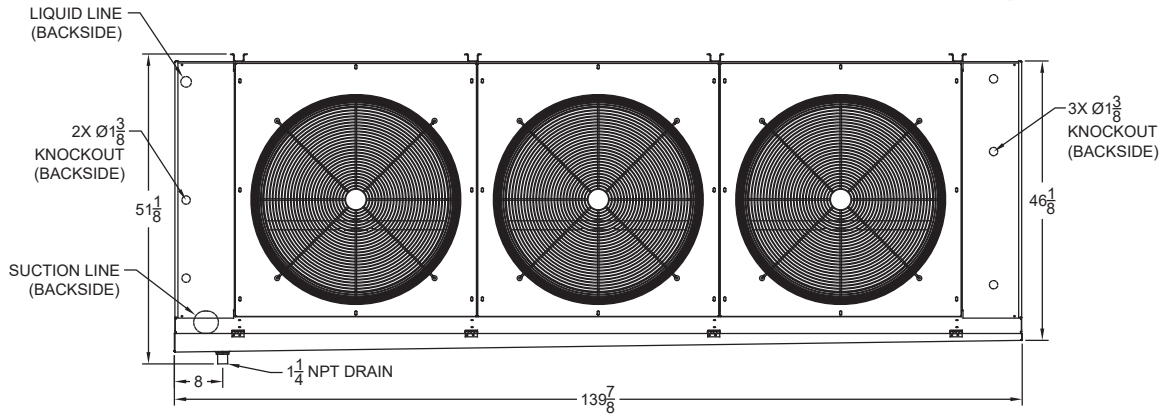


All mounting holes are 1/2" diameter.
 Mounted hanger spacers aid in the correct installation.
 All dimensions are in inches.

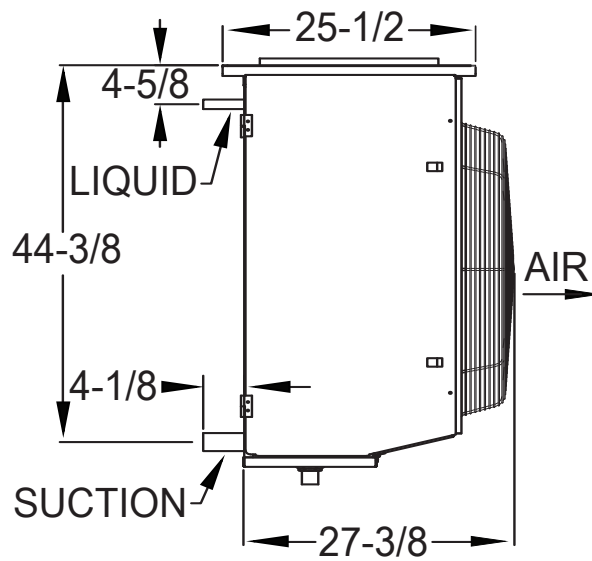
PHYSICAL DIMENSIONS

Figure 3: Three Fan

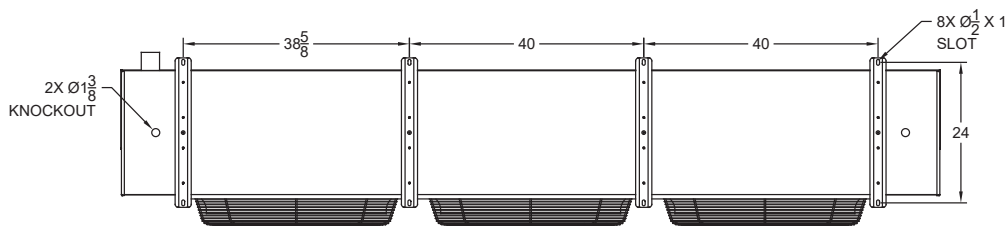
Front View



Side View



Top View

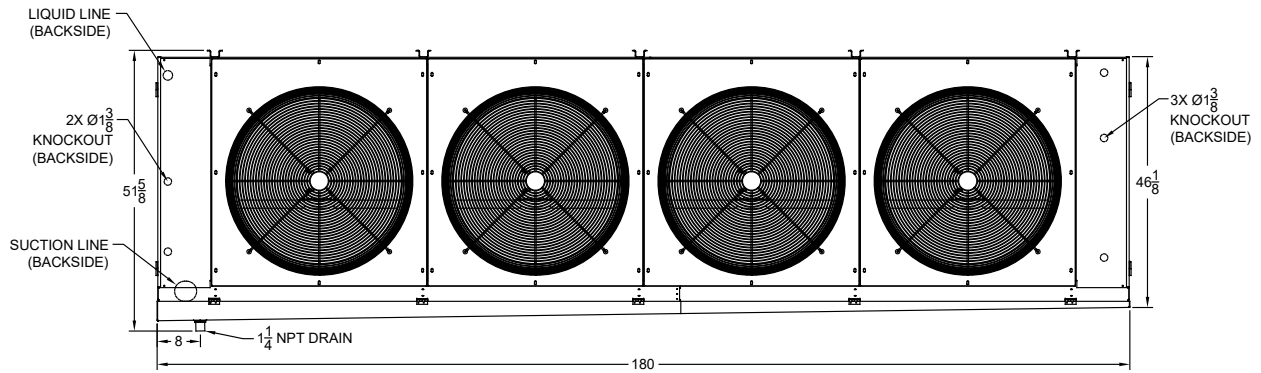


All mounting holes are 1/2" diameter.
 Mounted hanger spacers aid in the correct installation.
 All dimensions are in inches.

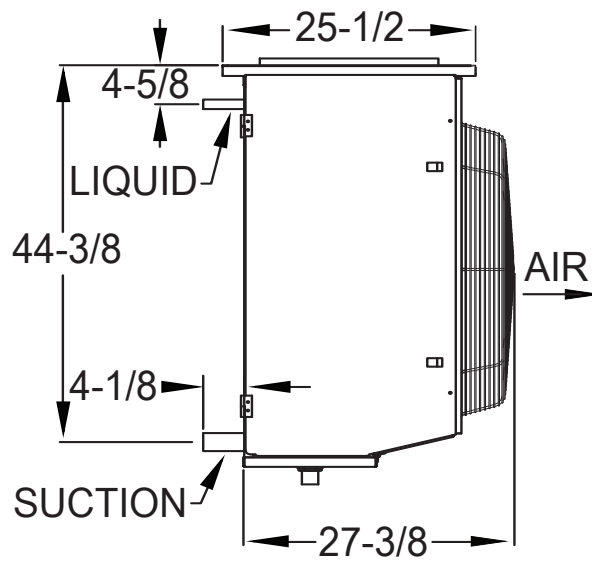
PHYSICAL DIMENSIONS

Figure 4: Four Fan

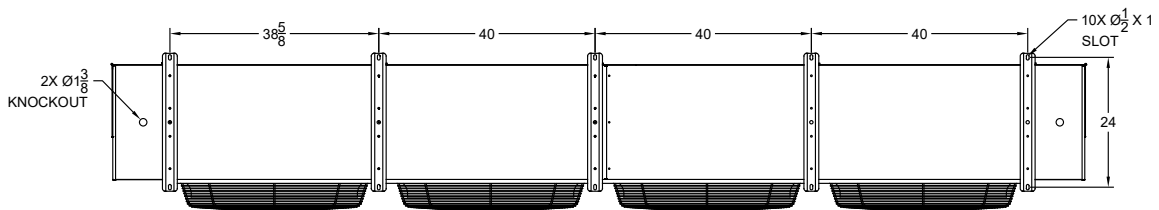
Front View



Side View



Top View



All mounting holes are 1/2" diameter.
 Mounted hanger spacers aid in the correct installation.
 All dimensions are in inches.

SHIPPING INFORMATION

Figure 1-4: Shipping information

No. of Fans	Shipping Dimensions (In.)			Shipping Weight (Lbs)
	L	W	H	
1	69	42	66	470
2	109	42	66	730
3	146	42	66	1,000
4	189	42	66	1,130

DISTRIBUTOR NOZZLE AND EXPANSION VALVES // AIR DEFROST MODELS

Model No.	Part Numbers						No. of Circuits	
	Nozzle at Liq. Temp.		TXV [^] at Liq. Temp.		EEV at Liq. Temp.			
	50°F	100°F	50°F	100°F	50°F	100°F		
6 FPI - R404A	KH6A031*DA	G-1-1/2	G-4	SBFSE-B-C	SBFSE-C-C	SER-C	SER-C	6
	KH6A043*DA	G-1-1/2	G-5	SBFSE-C-C	OSE-6-C	SER-C	SER-C	6
	KH6A052*DA	E-2	E-6	SBFSE-C-C	OSE-6-C	SER-C	SER-D	12
	KH6A063*DA	E-2-1/2	E-10	OSE-6-C	OSE-6-C	SER-C	SER-D	9
	KH6A087*DA	C-3	C-12	OSE-6-C	OSE-9-C	SER-D	SER-D	18
	KH6A105*DA	C-4	C-15	OSE-9-C	OSE-9-C	SER-D	SERI-F	18
	KH6A132*DA	C-5	C-20	OSE-9-C	OSE-12-C	SER-D	SERI-F	18
	KH6A156*DA	C-6	C-25	OSE-9-C	OSE-12-C	SERI-F	SERI-G	24
	KH6A175*DA	A-8	A-25	OSE-12-C	OSE-21-C	SERI-F	SERI-G	27
KH6A209*DA	A-10	A-30	OSE-12-C	OSE-21-C	SERI-F	SERI-G	36	
6 FPI - R407A, R448A, R449A†	KH6A031*DA	G-1-1/2	G-4	SBFDE-B-C	SBFDE-C-C	SER-B	SER-C	6
	KH6A043*DA	G-1-1/2	G-5	SBFDE-C-C	SBFDE-C-C	SER-C	SER-C	6
	KH6A052*DA	E-2	E-6	SBFDE-C-C	EBSDE-7-C	SER-C	SER-C	12
	KH6A063*DA	E-2-1/2	E-10	SBFDE-C-C	EBSDE-7-C	SER-C	SER-D	9
	KH6A087*DA	C-3	C-12	EBSDE-7-C	EBSDE-10-C	SER-D	SER-D	18
	KH6A105*DA	C-4	C-15	EBSDE-7-C	ODE-12-C	SER-D	SERI-F	18
	KH6A132*DA	C-5	C-17	EBSDE-10-C	ODE-12-C	SER-D	SERI-F	18
	KH6A156*DA	C-6	C-20	EBSDE-12-C	ODE-17-C	SERI-F	SERI-F	24
	KH6A175*DA	A-8	A-25	EBSDE-12-C	ODE-17-C	SERI-F	SERI-G	27
KH6A209*DA	A-10	A-30	EBSDE-17-C	ODE-28-C	SERI-F	SERI-G	36	

The distributor lines are 1/4" tube & 31" long.

*Each asterisk represents a variable character based on voltage ordered. See page 4 for nomenclature.

[^]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. Base models (no factory-mounted components) include nozzles sized for 100°F liquid shipped loose.

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

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.

Russell's published application ratings are a guideline for proper equipment selection. They account for true operating conditions experienced by equipment.

SPECIFICATIONS // ALL MODELS

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

Cooler Models

Base Model No.	Defrost Type	FPI	AWEF
KH6A031*DA	Air	6	9
KH6A043*DA	Air	6	9
KH6A052*DA	Air	6	9
KH6A063*DA	Air	6	9
KH6A087*DA	Air	6	9
KH6A105*DA	Air	6	9
KH6A132*DA	Air	6	9
KH6A156*DA	Air	6	9
KH6A175*DA	Air	6	9
KH6A209*DA	Air	6	9
KH6D030*DA	Electric	6	9
KH6D042*DA	Electric	6	9
KH6D051*DA	Electric	6	9
KH6D062*DA	Electric	6	9
KH6D086*DA	Electric	6	9
KH6D104*DA	Electric	6	9
KH6D130*DA	Electric	6	9
KH6D155*DA	Electric	6	9
KH6D174*DA	Electric	6	9
KH6D208*DA	Electric	6	9

Each asterisk represents a variable character based on defrost and voltage ordered. See page 4 for nomenclature.

+ If the model has a numerical value in the AWEF table below, the following statement applies: "The refrigeration system is designed and certified for use in walk-in cooler applications less than 3,000 sq. ft."

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

Freezer Models

Base Model No.	Defrost Type	FPI	AWEF
KH6E033*DA	Electric	6	4.15
KH6E044*DA	Electric	6	4.15
KH6E053*DA	Electric	6	4.15
KH6E066*DA	Electric	6	4.15
KH6E089*DA	Electric	6	4.15
KH6E109*DA	Electric	6	4.15
KH6E134*DA	Electric	6	4.15
KH6E163*DA	Electric	6	4.15
KH6E199*DA	Electric	6	4.15
KH6*033*DA	Hot Gas	6	4.15
KH6*044*DA	Hot Gas	6	4.15
KH6*053*DA	Hot Gas	6	4.15
KH6*066*DA	Hot Gas	6	4.15
KH6*089*DA	Hot Gas	6	4.15
KH6*109*DA	Hot Gas	6	4.15
KH6*134*DA	Hot Gas	6	4.15
KH6*163*DA	Hot Gas	6	4.15
KH6*199*DA	Hot Gas	6	4.15
KH4E035*DA	Electric	4	4.15
KH4E044*DA	Electric	4	4.15
KH4E071*DA	Electric	4	4.15
KH4E087*DA	Electric	4	4.15
KH4E107*DA	Electric	4	4.15
KH4E131*DA	Electric	4	4.15
KH4E167*DA	Electric	4	4.15
KH4*035*DA	Hot Gas	4	4.15
KH4*044*DA	Hot Gas	4	4.15
KH4*071*DA	Hot Gas	4	4.15
KH4*087*DA	Hot Gas	4	4.15
KH4*107*DA	Hot Gas	4	4.15
KH4*131*DA	Hot Gas	4	4.15
KH4*167*DA	Hot Gas	4	4.15



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