

COMMERCIAL REFRIGERATION



ORDERS

All products, except surface coils and parts, are shipped F.O.B. point of shipment with full freight allowed on single orders with a net price value of \$10,000 or more, within the continental USA (excluding Alaska and Hawaii). Buyer will bear all additional costs for special routing or handling requests.



256-259-7400 Customer Service 1-800-288-9488 Equipment Orders 1-855-HTPARTS (1-855-487-2787)

Parts Orders



equipment@htpg.com

parts@htpg.com



Kramer.HTPG.com

WARRANTY

The Seller warrants against defect in materials and workmanship in products which it manufactures for (1) year from the date of installation or up to 18 (eighteen) months from the date of shipment, whichever event occurs first, when properly installed and operated under normal use. This guarantee does not include any labor or other charges made outside of the Seller's factory for replacement or repair of defective parts unless specifically stated in the body of the Sellers invoice. On parts not manufactured by HTPG, such as motors, controls, valves and compressors we extend to the Buyer the same warranties made to us by the manufacturer.

The Seller's only liability under this warranty or otherwise shall be the repair or replacement (at Seller's option) of nonconforming goods or parts. Seller assumes no liability for incidental or consequential damages such as injury to persons or property, or lost profits.

Claims must be submitted to our Warranty Group within 90 days of the repair. To submit a claim, visit https://www.htpg.com/submit-a-claim/

VIEW TERMS & WARRANTY





Not all combinations of nomenclature are available. For specific offering, see following pages or consult with one of our sales representatives.

K	Α	L	6	E	042	E	D	Α
Brand	Refrigerant Class	Style	Fins Per Inch (FPI)	Defrost Type	Capacity	Voltage	Motor Type	Vintage
K - Kramer	A2L	L - Low Profile U - Low Profile Reverse Connections E - Center Mount V - Low Velocity Center Mount	6 FPI 4 FPI	A - Air E - Electric	# x 100 = BTUH	A - 115/1/60 D - 230/1/60 E - 208-230/3/60	D - Dual Speed EC	

MODELS



DOE AWEF values for specific models in a given application can be found in the Product Brochure on our website.

Small to Medium Walk-Ins Cooler and Freezer Applications



BTUH

Air Defrost

Electric Defrost

5,000 - 47,700

3,200 - 34,300

MODEL NOMENCLATURE // CONFIGURABLE BASE MODEL

K	Α	L	6	Е	042	E	D	Α
Brand	Refrigerant Class	Style	Fins Per Inch (FPI)	Defrost Type	Capacity	Voltage	Motor Type	Vintage
K - Kramer	A2L	L - Low Profile (Standard) U - Low Profile Reverse Connections	6 FPI 4 FPI	A - Air E - Electric (Low Temp)	# x 100 = BTUH	A - 115/1/60 D - 230/1/60 E - 208-230/3/60	D - Dual Speed EC	

PRE-CONFIGURATION CODES²

R	S	F
Refrigerant	Valve	Pre-assembly Code
R - EcoNet Approved Refrigerants ³ T - 454A V - 454C, R455A	S - Sporlan SER P - Mechanical TXV	F - EcoNet 2.0 Control Package ⁴ N - Mounted TXV & Electronic Thermostat M - Mounted TXV & Mechanical Thermostat ⁵



DOE AWEF values for specific models in a given application can be found in the Product Brochure on our website.

Small to Medium Walk-Ins Cooler and Freezer Applications





Air Defrost

Electric Defrost

5,000 - 47,700

3,200 - 34,300

STANDARD FEATURES

- Textured aluminum construction
- All units are provided with sweat refrigerant connections
- All units suitable for use with R454A, R454C and R455A
- Flush ceiling mount with slotted hangers and hinged access end panels
- Face mounted heaters and fixed defrost termination, fan delay and heater safety controls
- Dual Speed EC motors are compliant with California Title 24 regulations

OPTIONS

- Coated aluminum fins.
- ► EcoNet® Enabled Unit Cooler controller
- EcoNet Command Center

- Coated housing
- Adjustable termination/fan delay control
- Insulated drain pan
- 1 Refrigerant and electrical connection locations have been changed for the Next-Gen All-Temp design. Standard connections "L" are now opposite of the legacy All-Temp models. Mirror connections "U" are the same end as legacy All-Temp models and are available only as built-to-order base units with no installed options.
- 2 Pre-Configuration Codes are used to show common Factory Mounted options. Pre-Configuration Codes are not available for every model. For specific model availability, see the respective Pre-Configuration pricing tables or contact your local Kramer sales representative.
- 3 EcoNet approved refrigerants are: R454A, R454C, and R455A.
- 4 EcoNet Control Package includes: An electronic expansion valve (EEV); a suction pressure transducer; a suction temperature thermistor and an entering air coil temperature thermistor; local on-board two-row LCD display and push-button adjustments. (EcoNet Control package replaces the thermostatic expansion valve (TXV), a liquid line solenoid valve (LLSV), a room thermostat, defrost termination and fan delay, and a defrost time clock.)
- 5 Models with Pre-configured Mechanical Components (TXV and Mechanical or Electronic Thermostat) are rated for +25°FSST/10°FTD (Air Defrost) and -20°FSST/10°FTD (Electric Defrost).
- · EcoNet Control Package is not available in 50 Hz.
- •CO2 and Glycol Next-Gen All-Temp Unit Coolers available. If required, please contact factory.

AIR DEFROST CONFIGURABLE BASE MODELS

		DUAL SPEED EC	MOTORS - 6 FPI		
No. of Fans	11	5 V	230 V		
	Model No.	List Price (\$US)	Model No.	List Price (\$US)	
	KAL6A050ADA	3,798	KAL6A050DDA	3,798	
1	KAL6A062ADA	3,900	KAL6A062DDA	3,900	
	KAL6A081ADA	4,528	KAL6A081DDA	4,528	
	KAL6A088ADA	5,916	KAL6A088DDA	5,916	
2	KAL6A113ADA	6,701	KAL6A113DDA	6,701	
2	KAL6A141ADA	7,039	KAL6A141DDA	7,039	
	KAL6A159ADA	7,517	KAL6A159DDA	7,517	
	KAL6A170ADA	9,094	KAL6A170DDA	9,094	
3	KAL6A196ADA	10,098	KAL6A196DDA	10,098	
	KAL6A220ADA	11,005	KAL6A220DDA	11,005	
	KAL6A234ADA	11,857	KAL6A234DDA	11,857	
4	KAL6A289ADA	14,380	KAL6A289DDA	14,380	
	KAL6A316ADA	15,670	KAL6A316DDA	15,670	
5	KAL6A375ADA	17,969	KAL6A375DDA	17,969	
4	KAL6A404ADA	19,286	KAL6A404DDA	19,286	
6	KAL6A477ADA	21,654	KAL6A477DDA	21,654	

EC motors are rated for 50Hz operations. Dual Speed EC motors are compliant with California Title 24 regulations. Dual Speed motor operation employs a relay to control motor speed • Reverse Connections (U) are available at no charge and cannot be ordered with any factory mounted options.

AIR DEFROST CONFIGURABLE OPTIONS

EcoNet 1.0 & EcoNet 2.0 Control Package w/Sporlan OEV Control Package no longer available

FANS	FACTORY MOUNTED OPTIONS // LIST PRICE ADDER (\$US)							
# OF FA	TXV	EEV¹	EcoNet 2.0 Control Package w/Sporlan SER	KE2 Evaporator Defrost Control Package ²	Mechanical Thermostat	Electronic Thermostat	Insulated Drain Pan	
1	769	2,472	3,180	6,937	567	850	999	
2	769	2,472	3,180	6,937	567	850	1,262	
3	769	2,472	3,180	6,937	567	850	1,532	
4	769	2,472	3,180	6,937	567	850	1,761	
5	769	2,472	3,180	6,937	567	850	2,011	
6	1,446	2,472	3,180	6,937	567	850	2,286	

¹ Price Adder is for Electronic Expansion Valve (EEV) only. Controller not included and must be field supplied.

Shipped-Loose Accessories are found on page 20 • Alternative Housing, Coil Coating & Housing Coating options are available. Contact Application Engineering for coated housing or alternate coil coating • ElectroFin, Bronz-Glow and Heresite are available coating options.

² KE2 Evaporator Control Package includes KE2 OEM control board, Liquid Line Solenoid Valve (LLSV) and Electronic Expansion Valve (EEV).

AIR DEFROST PRE-CONFIGURED1 MODELS // ECONET 2.0 WITH SPORLAN SER

No. of		DUAL SPEED EC MOTORS - 6 FPI	
Fans	115 V	208-230 V	List Price (\$US)
\	KAL6A050ADARSF	KAL6A050DDARSF	6,978
1	KAL6A062ADARSF	KAL6A062DDARSF	7,080
	KAL6A081ADARSF	KAL6A081DDARSF	7,708
	KAL6A088ADARSF	KAL6A088DDARSF	9,096
2	KAL6A113ADARSF	KAL6A113DDARSF	9,881
2	KAL6A141ADARSF	KAL6A141DDARSF	10,219
	KAL6A159ADARSF	KAL6A159DDARSF	10,697
	KAL6A170ADARSF	KAL6A170DDARSF	12,274
3	KAL6A196ADARSF	KAL6A196DDARSF	13,278
	KAL6A220ADARSF	KAL6A220DDARSF	14,185
	KAL6A234ADARSF	KAL6A234DDARSF	15,037
4	KAL6A289ADARSF	KAL6A289DDARSF	17,560
	KAL6A316ADARSF	KAL6A316DDARSF	18,850
5	KAL6A375ADARSF	KAL6A375DDARSF	21,149
	KAL6A404ADARSF	KAL6A404DDARSF	22,466
6	KAL6A477ADARSF	KAL6A477DDARSF	24,834

¹ Pre-Configuration Codes are used to show common Factory Mounted options. Pre-Configuration Codes are not available for every model. For specific model availability, see the respective Pre-Configuration pricing tables or contact your local Kramer sales representative.

² Models with Pre-configured Mechanical Components (TXV and Mechanical or Electronic Thermostat) are rated for +25°FSST/10°FTD (Air Defrost) and -20°FSST/10°FTD (Electric Defrost).

AIR DEFROST PRE-CONFIGURED¹ MODELS // R-454A Models include mounted TXV and Electronic Thermostat²

o. of	DUAL SPEED EC MOTORS - 6 FPI	
ans 115 V	208-230 V	List Price (\$US)
KAL6A050ADATPN	KAL6A050DDATPN	5,417
1 KAL6A062ADATPN	KAL6A062DDATPN	5,519
KAL6A081ADATPN	KAL6A081DDATPN	6,147
KAL6A088ADATPN	KAL6A088DDATPN	7,535
KAL6A113ADATPN	KAL6A113DDATPN	8,320
2 KAL6A141ADATPN	KAL6A141DDATPN	8,658
KAL6A159ADATPN	KAL6A159DDATPN	9,136
KAL6A170ADATPN	KAL6A170DDATPN	10,713
3 KAL6A196ADATPN	KAL6A196DDATPN	11,717
KAL6A220ADATPN	KAL6A220DDATPN	12,624
KAL6A234ADATPN	KAL6A234DDATPN	13,476
4 KAL6A289ADATPN	KAL6A289DDATPN	15,999
KAL6A316ADATPN	KAL6A316DDATPN	17,289
5 KAL6A375ADATPN	KAL6A375DDATPN	19,588
KAL6A404ADATPN	KAL6A404DDATPN	21,582
6 KAL6A477ADATPN	KAL6A477DDATPN	23,950

¹ Pre-Configuration Codes are used to show common Factory Mounted options. Pre-Configuration Codes are not available for every model. For specific model availability, see the respective Pre-Configuration pricing tables or contact your local Kramer sales representative.

² Models with Pre-configured Mechanical Components (TXV and Mechanical or Electronic Thermostat) are rated for +25°FSST/10°FTD (Air Defrost) and -20°FSST/10°FTD (Electric Defrost).

AIR DEFROST PRE-CONFIGURED¹ MODELS // R-454C & R-455A Models include mounted TXV and Electronic Thermostat²

No. of		DUAL SPEED EC MOTORS - 6 FPI	
Fans	115 V	208-230 V	List Price (\$US)
	KAL6A050ADAVPN	KAL6A050DDAVPN	5,417
1	KAL6A062ADAVPN	KAL6A062DDAVPN	5,519
	KAL6A081ADAVPN	KAL6A081DDAVPN	6,147
	KAL6A088ADAVPN	KAL6A088DDAVPN	7,535
2	KAL6A113ADAVPN	KAL6A113DDAVPN	8,320
2	KAL6A141ADAVPN	KAL6A141DDAVPN	8,658
	KAL6A159ADAVPN	KAL6A159DDAVPN	9,136
	KAL6A170ADAVPN	KAL6A170DDAVPN	10,713
3	KAL6A196ADAVPN	KAL6A196DDAVPN	11,717
	KAL6A220ADAVPN	KAL6A220DDAVPN	12,624
	KAL6A234ADAVPN	KAL6A234DDAVPN	13,476
4	KAL6A289ADAVPN	KAL6A289DDAVPN	15,999
	KAL6A316ADAVPN	KAL6A316DDAVPN	17,289
5	KAL6A375ADAVPN	KAL6A375DDAVPN	19,588
,	KAL6A404ADAVPN	KAL6A404DDAVPN	21,582
6	KAL6A477ADAVPN	KAL6A477DDAVPN	23,950
	KAL6A375ADAVPN KAL6A404ADAVPN	KAL6A375DDAVPN KAL6A404DDAVPN	19,588 21,582

¹ Pre-Configuration Codes are used to show common Factory Mounted options. Pre-Configuration Codes are not available for every model. For specific model availability, see the respective Pre-Configuration pricing tables or contact your local Kramer sales representative.

² Models with Pre-configured Mechanical Components (TXV and Mechanical or Electronic Thermostat) are rated for +25°FSST/10°FTD (Air Defrost) and -20°FSST/10°FTD (Electric Defrost).

AIR DEFROST PRE-CONFIGURED¹ MODELS // R-454A Models include mounted TXV and Mechanical Thermostat²

No. of	DUAL SPEED EC	MOTORS - 6 FPI
Fans	115 V	List Price (\$US)
	KAL6A050ADATPM	5,417
1	KAL6A062ADATPM	5,519
	KAL6A081ADATPM	6,147
	KAL6A088ADATPM	7,535
2	KAL6A113ADATPM	8,320
2	KAL6A141ADATPM	8,658
	KAL6A159ADATPM	9,136
	KAL6A17OADATPM	10,713
3	KAL6A196ADATPM	11,717
	KAL6A220ADATPM	12,624
	KAL6A234ADATPM	13,476
4	KAL6A289ADATPM	15,999
	KAL6A316ADATPM	17,289
5	KAL6A375ADATPM	19,588
	KAL6A404ADATPM	21,582
6	KAL6A477ADATPM	23,950

¹ Pre-Configuration Codes are used to show common Factory Mounted options. Pre-Configuration Codes are not available for every model. For specific model availability, see the respective Pre-Configuration pricing tables or contact your local Kramer sales representative.

² Models with Pre-configured Mechanical Components (TXV and Mechanical or Electronic Thermostat) are rated for +25°FSST/10°FTD (Air Defrost) and -20°FSST/10°FTD (Electric Defrost).

AIR DEFROST PRE-CONFIGURED¹ MODELS // R-454C & R-455A Models include mounted TXV and Mechanical Thermostat²

No. of	DUAL SPEED EC	MOTORS - 6 FPI
Fans	115 V	List Price (\$US)
	KAL6A050ADAVPM	5,134
1	KAL6A062ADAVPM	5,236
	KAL6A081ADAVPM	5,864
	KAL6A088ADAVPM	7,252
2	KAL6A113ADAVPM	8,037
2	KAL6A141ADAVPM	8,375
	KAL6A159ADAVPM	8,853
	KAL6A17OADAVPM	10,430
3	KAL6A196ADAVPM	11,434
	KAL6A22OADAVPM	12,341
	KAL6A234ADAVPM	13,193
4	KAL6A289ADAVPM	15,716
	KAL6A316ADAVPM	17,006
5	KAL6A375ADAVPM	19,305
,	KAL6A4O4ADAVPM	21,299
6	KAL6A477ADAVPM	23,667

¹ Pre-Configuration Codes are used to show common Factory Mounted options. Pre-Configuration Codes are not available for every model. For specific model availability, see the respective Pre-Configuration pricing tables or contact your local Kramer sales representative.

² Models with Pre-configured Mechanical Components (TXV and Mechanical or Electronic Thermostat) are rated for +25°FSST/10°FTD (Air Defrost) and -20°FSST/10°FTD (Electric Defrost).

14

NEXT-GEN ALL-TEMP · LOW PROFILE

AIR DEFROST // REVERSE CONNECTION No Configuration Allowed

lo. of		DUAL SPEED EC MOTORS - 6 FPI	
-ans	115 V	208-230 V	List Price (\$US)
	KAU6A050ADA	KAU6A050DDA	3,798
1	KAU6A062ADA	KAU6A062DDA	3,900
	KAU6A081ADA	KAU6A081DDA	4,528
	KAU6A088ADA	KAU6A088DDA	5,916
2	KAU6A113ADA	KAU6A113DDA	6,701
2	KAU6A141ADA	KAU6A141DDA	7,039
	KAU6A159ADA	KAU6A159DDA	7,517
	KAU6A170ADA	KAU6A170DDA	9,094
3	KAU6A196ADA	KAU6A196DDA	10,098
	KAU6A220ADA	KAU6A220DDA	11,005
	KAU6A234ADA	KAU6A234DDA	11,857
4	KAU6A289ADA	KAU6A289DDA	14,380
	KAU6A316ADA	KAU6A316DDA	15,670
5	KAU6A375ADA	KAU6A375DDA	17,969
4	KAU6A404ADA	KAU6A404DDA	19,286
6	KAU6A477ADA	KAU6A477DDA	21,654

¹ Pre-Configuration Codes are used to show common Factory Mounted options. Pre-Configuration Codes are not available for every model. For specific model availability, see the respective Pre-Configuration pricing tables or contact your local Kramer sales representative.

² Models with Pre-configured Mechanical Components (TXV and Mechanical or Electronic Thermostat) are rated for +25°FSST/10°FTD (Air Defrost) and -20°FSST/10°FTD (Electric Defrost).

ELECTRIC DEFROST CONFIGURABLE BASE MODELS

	DUAL SPEED EC MOTORS - 230 V						
No. of Fans	6	FPI	4 FPI				
	Model No.	List Price (\$US)	Model No.	List Price (\$US)			
	KAL6E042DDA	5,182	KAL4E032DDA	4,974			
1	KAL6E051DDA	5,764	KAL4E040DDA	5,532			
	KAL6E058DDA	6,342	KAL4E046DDA	6,090			
	KAL6E079DDA	7,992	KAL4E061DDA	7,670			
2	KAL6E092DDA	8,407	KAL4E076DDA	8,074			
2	KAL6E110DDA	8,654	KAL4E099DDA	8,309			
	KAL6E129DDA	10,141					
3	KAL6E148DDA	11,339	KAL4E114DDA	10,882			
3	KAL6E173DDA	12,936	KAL4E133DDA	12,421			
4	KAL6E194DDA	15,174	KAL4E150DDA	14,563			
4	KAL6E218DDA	16,744	KAL4E170DDA	16,070			
5	KAL6E237DDA	18,828	KAL4E184DDA	18,079			
6	KAL6E290DDA	22,088	KAL4E232DDA	21,205			
O	KAL6E343DDA	24,456	KAL4E281DDA	23,477			

EC motors are rated for 50Hz operations. Dual speed EC motors are compliant with California Title 24 regulations. Dual speed motor operation employs a relay to control motor speed. • Reverse Connections (U) are available at No Charge. Reverse Connection models cannot be ordered with any factory mounted options. • 5 & 6 fan electric defrost models are also available wired for 208-230/3/60. EcoNet is not available on 208-230/3/60 Models.

ELECTRIC DEFROST CONFIGURABLE OPTIONS

EcoNet 1.0 Control Package & EcoNet 2.0 Control Package w/Sporlan OEV **no longer available**

FANS			FACTORY M	OUNTED OPTIONS	S // LIST PRICI	E ADDER (\$US)		
# OF FAI	TXV	EEV ¹	EcoNet 2.0 Control Package w/Sporlan SER	KE2 Evaporator Defrost Control Package ²	Mechanical Thermostat	Electronic Thermostat	Adjustable Termination Switch/Fan Delay	Insulated Drain Pan
1	769	2,472	3,180	6,937	567	850	585	999
2	769	2,472	3,180	6,937	567	850	585	1,262
3	769	2,472	3,180	6,937	567	850	585	1,532
4	769	2,472	3,180	6,937	567	850	585	1,761
5	769	2,472	3,180	6,937	567	850	585	2,011
6	1,446	2,472	3,180	6,937	567	850	585	2,286

See notes on next page.

ELECTRIC DEFROST PRE-CONFIGURED¹ MODELS // CODE RSF // ECONET 2.0 WITH SER VALVE Models include EcoNet 2.0 Control Package³

	DUAL SPEED EC MOTO	DRS - 6 FPI - 230 V	
No. of Fans	EcoNet 2.0 Cont	trol Package ^{2,3,4}	
	Model No.	List Price (\$US)	
\	KAL6E042DDARSF	8,362	
1	KAL6E051DDARSF	8,944	
	KAL6E058DDARSF	9,522	
	KAL6E079DDARSF	11,172	
2	KAL6E092DDARSF	11,587	
Ζ	KAL6E110DDARSF	11,834	
	KAL6E129DDARSF	13,321	
3	KAL6E148DDARSF	14,519	
J	KAL6E173DDARSF	16,116	
4	KAL6E194DDARSF	18,354	
4	KAL6E218DDARSF	19,924	
5	KAL6E237DDARSF	22,008	
6	KAL6E290DDARSF	25,268	
O	KAL6E343DDARSF	27,636	

¹ Pre-Configuration Codes are used to show common Factory Mounted options. Pre-Configuration Codes are not available for every model. For specific model availability, see the respective Pre-Configuration pricing tables or contact your local Russell sales representative.

Models with Pre-configured Mechanical Components (TXV and Mechanical or Electronic Thermostat) are rated for +25°FSST/10°FTD (Air Defrost) and -20°FSST/10°FTD (Electric Defrost).

² EcoNet approved refrigerants are: R454A, R454C, and R455A.

³ EcoNet Control Package includes: An electronic expansion valve (EEV); a suction pressure transducer; a suction temperature thermistor and an entering air coil temperature thermistor; local on-board two-row LCD display and push-button adjustments. (EcoNet Control package replaces the thermostatic expansion valve (TXV), a liquid line solenoid valve (LLSV), a room thermostat, defrost termination and fan delay, and a defrost time clock.)

SSOV and CSOV valves are still required with EcoNet Enabled Unit Coolers to satisfy safety mitigation requirements.

⁴ EcoNet Control Package is not available in 50 Hz.

ELECTRIC DEFROST PRE-CONFIGURED⁵ MODELS // CODE TPN/VPN Models include mounted TXV and Electronic Thermostat⁶

		DUAL SPEED EC MOTORS - 6 FPI			
No. of Fans	230 V				
	Model No. R454A	Model No. R454C, R455A	List Price (\$US)		
	KAL6E042DDATPN	KAL6E042DDAVPN	6,801		
1	KAL6E051DDATPN	KAL6E051DDAVPN	7,383		
	KAL6E058DDATPN	KAL6E058DDAVPN	7,961		
	KAL6E079DDATPN	KAL6E079DDAVPN	9,611		
2	KAL6E092DDATPN	KAL6E092DDAVPN	10,026		
2	KAL6E110DDATPN	KAL6E110DDAVPN	10,273		
	KAL6E129DDATPN	KAL6E129DDAVPN	11,760		
3	KAL6E148DDATPN	KAL6E148DDAVPN	12,958		
3	KAL6E173DDATPN	KAL6E173DDAVPN	14,555		
4	KAL6E194DDATPN	KAL6E194DDAVPN	16,793		
4	KAL6E218DDATPN	KAL6E218DDAVPN	18,363		
5	KAL6E237DDATPN	KAL6E237DDAVPN	20,447		
6	KAL6E290DDATPN	KAL6E290DDAVPN	24,384		
U	KAL6E343DDATPN	KAL6E343DDAVPN	26,752		

ELECTRIC DEFROST CONFIGURABLE OPTIONS (previous page)

- 1 Price Adder is for Electronic Expansion Valve (EEV) only. Controller not included and must be field supplied.
- 2 KE2 Evaporator Control Package includes KE2 OEM control board, Liquid Line Solenoid Valve (LLSV) and Electronic Expansion Valve (EEV).

Shipped-Loose Accessories are found on page 20 • Alternative Housing, Coil Coating & Housing Coating options are available. Contact Application Engineering for coated housing or alternate coil coating • ElectroFin, Bronz-Glow and Heresite are available coating options.

ELECTRIC DEFROST PRE-CONFIGURED OPTIONS

- 5 Pre-Configuration Codes are used to show common Factory Mounted options. Pre-Configuration Codes are not available for every model. For specific model availability, see the respective Pre-Configuration pricing tables or contact your local Kramer sales representative.
- 6 Models with Pre-configured Mechanical Components (TXV and Mechanical or Electronic Thermostat) are rated for +25°FSST/10°FTD (Air Defrost) and -20°FSST/10°FTD (Electric Defrost).

ELECTRIC DEFROST PRE-CONFIGURED¹ MODELS // CODE TPM/VPM Models include mounted TXV and Mechanical Thermostat²

	\	OUAL SPEED EC MOTORS - 6 FPI - 230 V		
No. of Fans		230 V		
	Model No. R454A	Model No. R454C, R455A	List Price (\$US)	
	KAL6E042DDATPM	KAL6E042DDAVPM	6,518	
1	KAL6E051DDATPM	KAL6E051DDAVPM	7,100	
	KAL6E058DDATPM	KAL6E058DDAVPM	7,678	
	KAL6E079DDATPM	KAL6E079DDAVPM	9,328	
2	KAL6E092DDATPM	KAL6E092DDAVPM	9,743	
Ζ	KAL6E110DDATPM	KAL6E110DDAVPM	9,990	
	KAL6E129DDATPM	KAL6E129DDAVPM	11,477	
3	KAL6E148DDATPM	KAL6E148DDAVPM	12,675	
3	KAL6E173DDATPM	KAL6E173DDAVPM	14,272	
4	KAL6E194DDATPM	KAL6E194DDAVPM	16,510	
4	KAL6E218DDATPM	KAL6E218DDAVPM	18,080	
5	KAL6E237DDATPM	KAL6E237DDAVPM	20,164	
6	KAL6E290DDATPM	KAL6E290DDAVPM	24,101	
U	KAL6E343DDATPM	KAL6E343DDAVPM	26,469	

¹ Pre-Configuration Codes are used to show common Factory Mounted options. Pre-Configuration Codes are not available for every model. For specific model availability, see the respective Pre-Configuration pricing tables or contact your local Kramer sales representative.

² Models with Pre-configured Mechanical Components (TXV and Mechanical or Electronic Thermostat) are rated for +25°FSST/10°FTD (Air Defrost) and -20°FSST/10°FTD (Electric Defrost).

19

NEXT-GEN ALL-TEMP · LOW PROFILE

ELECTRIC DEFROST // REVERSE CONNECTION No Configuration Allowed

No. of	DUAL SPEED EC	MOTORS - 6 FPI
Fans	208-230 V	List Price (\$US)
	KAU6E042DDA	5,182
1	KAU6E051DDA	5,764
	KAU6E058DDA	6,342
	KAU6E079DDA	7,992
2	KAU6E092DDA	8,407
Ζ	KAU6E110DDA	8,654
	KAU6E129DDA	10,141
3	KAU6E148DDA	11,339
3	KAU6E173DDA	12,936
4	KAU6E194DDA	15,174
4	KAU6E218DDA	16,744
5	KAU6E237DDA	18,828
,	KAU6E290DDA	22,088
6	KAU6E343DDA	24,456

¹ Pre-Configuration Codes are used to show common Factory Mounted options. Pre-Configuration Codes are not available for every model. For specific model availability, see the respective Pre-Configuration pricing tables or contact your local Kramer sales representative.

² Models with Pre-configured Mechanical Components (TXV and Mechanical or Electronic Thermostat) are rated for +25°FSST/10°FTD (Air Defrost) and -20°FSST/10°FTD (Electric Defrost).

Shipped Loose Accessories

CONTROLS & THERMOSTATS

Option Name	Option Description	List Price (\$US)
EcoNet Command Center	EcoNet Command Center for EcoNet Enabled Unit Coolers	1,635
Mechanical Thermostat	Mechanical Thermostat: -30°F to + 100°F	533
Electronic Thermostat	Electronic Thermostat: -30°F to + 100°F	688

VALVES

Option Name	Range	List Price (\$US)
	1 to 15 Tons	1,907
Electronic Expansion Valve (EEV)	16 to 25 Tons	2,738
	1/4 to 3 Tons	625
Thermostatic Expansion Valve (TXV)	4 to 9 Tons	890
	10 to 30 Tons	1,566

SHUT-OFF VALVES

	List Pric	List Price (\$US)				
# of Fans	Solenoid Shut-Off Valve (SSOV)	Check Shut-Off Valve (CSOV)				
1	825	217				
2	825	217				
3	825	217				
4	825	217				
5	861	315				
6	861	315				

 $\ensuremath{\mathsf{A2L}}$ SSOV and CSOV Mitigation Valves must ship loose for field install

CENTER MOUNT LOW HEIGHT

Small to Medium Walk-Ins
Cooler and Freezer Applications



c(UL)us (NSF)



Air Defrost

5,100 - 31,600

Electric Defrost

4,500 - 33,700

MODEL NOMENCLATURE								
K	Α	E	6	Α	041	Α	D	Α
Brand	Refrigerant Class	Style	Fins Per Inch (FPI)	Defrost Type	Capacity	Voltage	Motor Type	Vintage
K - Kramer	A2L	E - Center Mount	6 FPI 4 FPI	A - Air E - Electric (Low Temp)	# x 100 = BTUH	A - 115/1/60 D - 230/1/60	D - Dual Speed EC	

STANDARD FEATURES

- Dual Speed EC Motors
- Extra low height mounts flush to ceiling
- Two-way air flow for even air circulation and consistent temperature
- ► Electric Defrost models feature independently defrosted coils for optimal defrost performance
- High efficiency fan guard design and deep draw venturi provide optimal air flow
- ► Sloped housing for efficient condensate draining
- Unique design allows for service in confined spaces
- Lightweight and durable embossed aluminum housing

OPTIONS

- Coated aluminum fins
- EcoNet® Enabled Unit Cooler controller
- EcoNet Command Center
- Coated housing
- Adjustable termination/fan delay control
- Insulated drain pan



DOE AWEF values for specific models in a given application can be found in the Product Brochure on our website.

CENTER MOUNT • LOW HEIGHT

AIR DEFROST CONFIGURABLE BASE MODELS

\		DUAL SPEED EC	MOTORS - 6 FPI		
No. of Fans	111	5 V	230 V		
	Model No.	List Price (\$US)	Model No.	List Price (\$US)	
1	KAE6A051ADA	5,024	KAE6A051DDA	5,279	
2	KAE6A085ADA	7,294	KAE6A085DDA	7,615	
2	KAE6A103ADA	7,998	KAE6A103DDA	8,328	
2	KAE6A128ADA	8,731	KAE6A128DDA	9,128	
3	KAE6A157ADA	10,912	KAE6A157DDA	11,328	
4	KAE6A173ADA	12,030	KAE6A173DDA	12,511	
4	KAE6A207ADA	13,852	KAE6A207DDA	14,352	
_	KAE6A249ADA	15,113	KAE6A249DDA	15,688	
5	KAE6A316ADA	18,286	KAE6A316DDA	20,766	

AIR DEFROST CONFIGURABLE OPTIONS

EcoNet 1.0 & EcoNet 2.0 Control Package w/Sporlan OEV Control Package no longer available

FANS	FACTORY MOUNTED OPTIONS // LIST PRICE ADDER (\$US)					
# OF FA	TXV	EEV¹	EcoNet 2.0 Control Package w/Sporlan SER	Mechanical Thermostat	Electronic Thermostat	Insulated Drain Pan
1	769	2,472	3,180	567	850	259
2	769	2,472	3,180	567	850	326
3	769	2,472	3,180	567	850	395
4	769	2,472	3,180	567	850	463
5	769	2,472	3,180	567	850	533

AIR DEFROST CONFIGURABLE BASE MODELS

EC motors are rated for 50Hz operations. Dual speed EC motors are compliant with California Title 24 regulations. Dual speed motor operation employs a relay to control motor speed.

AIR DEFROST CONFIGURABLE OPTIONS

1 Price Adder is for Electronic Expansion Valve (EEV) only. Controller not included and must be field supplied.

Shipped-Loose Accessories are found on page 24 · Alternative Housing, Coil Coating & Housing Coating options are available. Contact Application Engineering for coated housing or alternate coil coating. ElectroFin, Bronz-Glow and Heresite are available coating options.

CENTER MOUNT • LOW HEIGHT

ELECTRIC DEFROST CONFIGURABLE BASE MODELS

\	DUAL SPEED EC MOTORS - 4 FPI				
No. of	230				
Fans	Model No.	List Price (\$US)			
1	KAE4E043DDA	7,915			
2	KAE4E087DDA	11,006			
3	KAE4E127DDA	14,891			
4	KAE4E183DDA	18,744			
5	KAE4E222DDA	21,205			
5	KAE4E283DDA	24,386			

EC motors are rated for 50Hz operations. Dual speed EC motors are compliant with California Title 24 regulations. Dual speed motor operation employs a relay to control motor speed.

N	DUAL SPEED EC	MOTORS - 6 FPI					
No. of Fans	230 V						
	Model No.	List Price (\$US)					
1	KAE6E045DDA	7,915					
I	KAE6E054DDA	10,656					
2	KAE6E090DDA	11,006					
Z	KAE6E107DDA	13,847					
3	KAE6E129DDA	15,030					
ى 	KAE6E149DDA	15,210					
4	KAE6E160DDA	18,277					
4	KAE6E217DDA	19,340					
5	KAE6E265DDA	23,038					
Э	KAE6E337DDA	25,860					

ELECTRIC DEFROST CONFIGURABLE OPTIONS

EcoNet 1.0 & EcoNet 2.0 Control Package w/Sporlan OEV Control Package no longer available

FANS	FACTORY MOUNTED OPTIONS // LIST PRICE ADDER (\$US)						
# OF F/	占 TXV EEV		EcoNet 2.0 Control Package w/Sporlan SER	Mechanical Thermostat	Electronic Thermostat	Insulated Drain Pan	
1	769	2,472	3,180	567	850	259	
2	769	2,472	3,180	567	850	326	
3	769	2,472	3,180	567	850	395	
4	769	2,472	3,180	567	850	463	
5	769	2,472	3,180	567	850	533	

¹ Price Adder is for Electronic Expansion Valve (EEV) only. Controller not included and must be field supplied.

Shipped-Loose Accessories are found on next page 24 • Alternative Housing, Coil Coating & Housing Coating options are available. Contact Application Engineering for coated housing or alternate coil coating. ElectroFin, Bronz-Glow and Heresite are available coating options.

CENTER MOUNT . LOW HEIGHT

Shipped Loose Accessories

CONTROLS & THERMOSTATS

Option Name	Option Description	List Price (\$US)	
EcoNet Command Center	EcoNet Command Center for EcoNet Enabled Unit Coolers	1,635	
Mechanical Thermostat	Mechanical Thermostat: -30°F to + 100°F	533	
Electronic Thermostat	Electronic Thermostat: -30°F to + 100°F	688	

VALVES

Option Name	Range	List Price (\$US)
Floring Francisco Valua (FFVA	1 to 15 Tons	1,907
Electronic Expansion Valve (EEV)	16 to 25 Tons	2,738
	1/4 to 3 Tons	625
Thermostatic Expansion Valve (TXV)	4 to 9 Tons	890
	10 to 30 Tons	1,566

SHUT-OFF VALVES

	List Price (\$US)				
# of Fans	Solenoid Shut-Off Valve (SSOV)	Check Shut-Off Valve (CSOV)			
1	825	217			
2	825	217			
3	825	217			
4	825	217			
5	861	315			

 $\ensuremath{\mathsf{A2L}}$ SSOV and CSOV Mitigation Valves must ship loose for field install

CENTER MOUNT LOW VELOCITY

Small to Medium Walk-Ins Cooler Applications



c(UL)us (NSF)



Air Defrost

5,300 - 33,800

Electric Defrost

Electric Dellos

5,300 - 33,800

MODEL NOMENCLATURE									
K A V 6 A 043 A D A									
Brand	Refrigerant Class	Style	Fins Per Inch (FPI)	Defrost Type	Capacity	Voltage	Motor Type	Vintage	
K - Kramer	A2L	V - Low Velocity Center Mount	6 FPI	A - Air E - Electric (Low Temp)	# x 100 = BTUH	A - 115/1/60 D - 230/1/60	D - Dual Speed EC		

STANDARD FEATURES

- Dual Speed EC Motors
- Extra low height mounts flush to ceiling
- Two-way air flow for even air circulation and consistent temperature
- Electric Defrost models feature independently defrosted coils for optimal defrost performance
- High efficiency fan guard design and deep draw venturi provide optimal air flow
- Sloped housing for efficient condensate draining
- Unique design allows for service in confined spaces
- Lightweight and durable embossed aluminum housing

OPTIONS

- EcoNet® Enabled Unit Cooler Controller
- EcoNet® Command Center
- Thermostatic expansion valve (mounted or loose)
- Thermostat (mechanical or electronic mounted or loose)



DOE AWEF values for specific models in a given application can be found in the Product Brochure on our website.

CENTER MOUNT . LOW VELOCITY

CONFIGURABLE BASE MODELS

			DUAL SPEED EC	MOTORS - 6 FPI		
No.		Air De	Electric Defrost			
of Fans	11	5 V	23	o v	23	0 V
	Model No.	List Price (\$US)	Model No.	List Price (\$US)	Model No.	List Price (\$US)
1	KAV6A053ADA	7,931	KAV6A053DDA	8,245	KAV6E053DDA	9,130
1	KAV6A066ADA	8,213	KAV6A066DDA	8,542	KAV6E066DDA	9,583
_	KAV6A105ADA	9,565	KAV6A105DDA	9,949	KAV6E105DDA	11,210
2	KAV6A131ADA	11,731	KAV6A131DDA	12,202	KAV6E131DDA	13,559
2	KAV6A159ADA	13,616	KAV6A159DDA	14,162	KAV6E159DDA	15,916
3	KAV6A196ADA	15,277	KAV6A196DDA	15,893	KAV6E196EDA	17,779
4	KAV6A216ADA	18,619	KAV6A216DDA	19,364	KAV6E216EDA	21,775
4	KAV6A270ADA	21,055	KAV6A270DDA	21,898	KAV6E270DDA	24,485
5	KAV6A338ADA	23,089	KAV6A338DDA	24,014	KAV6E338DDA	27,275

CONFIGURABLE OPTIONS

EcoNet 1.0 & EcoNet 2.0 Control Package w/Sporlan OEV Control Package **no longer available**

FANS	FACTORY MOUNTED OPTIONS // LIST PRICE ADDER (\$US)							
# OF F4	O TXV EEV ¹ Control Packag		EcoNet 2.0 Control Package w/Sporlan SER	Mechanical Thermostat	Electronic Thermostat	Insulated Drain Pan		
1	769	2,472	3,180	567	850	259		
2	769	2,472	3,180	567	850	326		
3	769	2,472	3,180	567	850	395		
4	769	2,472	3,180	567	850	463		
5	769	2,472	3,180	567	850	533		

CONFIGURABLE BASE MODELS

EC motors are rated for 50Hz operations. Dual speed EC motors are compliant with California Title 24 regulations. Dual speed motor operation employs a relay to control motor speed.

CONFIGURABLE OPTIONS

1 Price Adder is for Electronic Expansion Valve (EEV) only. Controller not included and must be field supplied.

Shipped-Loose Accessories are found on next page • Alternative Housing, Coil Coating & Housing Coating options are available. Contact Application Engineering for coated housing or alternate coil coating. ElectroFin, Bronz-Glow and Heresite are available coating options.

CENTER MOUNT . LOW VELOCITY

Shipped Loose Accessories

CONTROLS & THERMOSTATS

Option Name	Option Description	List Price (\$US)	
EcoNet Command Center	EcoNet Command Center for EcoNet Enabled Unit Coolers	1,635	
Mechanical Thermostat	Mechanical Thermostat: -30°F to + 100°F	533	
Electronic Thermostat	Electronic Thermostat: -30°F to + 100°F	688	

VALVES

Option Name	Range	List Price (\$US)
	1 to 15 Tons	1,907
Electronic Expansion Valve (EEV)	16 to 25 Tons	2,738
	1/4 to 3 Tons	625
Thermostatic Expansion Valve (TXV)	4 to 9 Tons	890
	10 to 30 Tons	1,566

SHUT-OFF VALVES

	List Price (\$US)				
# of Fans	Solenoid Shut-Off Valve (SSOV)	Check Shut-Off Valve (CSOV)			
1	825	217			
2	825	217			
3	825	217			
4	825	217			
5	861	315			

A2L SSOV and CSOV Mitigation Valves must ship loose for field install



MODELS



DOE AWEF values for specific models in a given application can be found in the Product Brochure on our website.

29

NEXT-GEN MINICON

1/2 TO 6 HP

c UL us





DOE AWEF values for specific models in a given application can be found in the Product Brochure on our website.

MODEL NOMENCLATURE

K	F	0	N	150	E	4 A	D	Α
Brand	Style	Compressor	Compressor Configuration	Horsepower	Temperature	Refrigerant	Voltage	Vintage
K - Kramer	F - Flooded B - Non-Flooded	O - Scroll	N - Single Horizontal (Small)	150 = 1.5 HP	E - Extended Medium L - Low M - Medium	4A - R454A, R454C, R455A	D - 208-230/1/60 E - 208-230/3/60 G - 460/3/60 M - 200-220/1/50 N - 200-220/3/50 Q - 380/3/50	А

PRE-CONFIGURATION CODE¹

Pre-Assembly Code

NT - No Defrost Timer /Kit²

 $50\ Hz$ available. Contact Factory for additional information.

- 1 Pre-Configuration Codes are used to show common Factory Mounted options and are not available for every model.
- $2\,\,$ "NT" pre-configuration code is available on Flooded Models with 230/1/60 or 208-230/3/60 voltage.

c UL us





DOE AWEF values for specific models in a given application can be found in the Product Brochure on our website.

STANDARD FEATURES

- Scroll Compressors
- All-weather Galvanized steel painted housing
- Generously sized high efficiency condenser, enhanced copper tubes/aluminum fins
- Integral Liquid Sub-cooling Circuit provides subcooled liquid to the expansion device
- Base mounted shut-off valves placed external to cabinet for easy access
- Liquid line kit with filter/drier and sight glass with moisture indicator
- Suction line piping
- Larger electrical panel with hinged/removable door
- Color coded point-to-point wiring
- Crankcase heater

- Refrigerant receiver with isolation valve and pressure relief plug
- High Efficiency Motors
- Encapsulated high pressure (auto reset) and adjustable low pressure control
- Electronic defrost timer with defrost contactor/ relay on low temperature standard models (2 evaps. maximum)
- Electronic air defrost timer (Medium temperature standard models only)
- Flooded models include flooded head pressure control
- Non-flooded models include pressure fan cycle control

OPTIONS

- Suction Accumulator
- Oil separator (may not be available with mounted accumulator)
- Thru-the door fused disconnect for cabinet sizes FM1 through FM4
- External fused or non-fused disconnect loose or mounted
- Heated and insulated receiver
- Oversized receiver
- Adjustable high/low pressure control
- ► Hose option for adjustable pressure control
- High ambient components: suction desuperheating TRE valve, dual pressure control, and insulated suction line components and piping

FLOODED // SCROLL COMPRESSOR // CONFIGURABLE BASE MODELS Includes Flooded Head Pressure Control Valve, Liquid Line Kit with Filter/Drier, Sight Glass with Moisture Indicator and Defrost Provisions

	Cabinet	Nom.	Compressor		208-230/1/60		4 Yr Compressor
	Size		Model No.	Model No.	Standard Defrost Provision(s)	List Price (\$US)	Protection Plan (Net Price Adder \$US)
Δ		0.5	YB06KAE	KFON060M4ADA	Air Defrost Timer	14,133	446
MED TEMP	EN 44	0.75	YB07KAE	KFON080M4ADA	Air Defrost Timer	14,925	446
Σ	FM1	1.0	YB08KAE	KFON100M4ADA	Air Defrost Timer	15,203	446
		1.0	YS09KAE	KFON130E4ADA	Air Defrost Timer	16,097	446
ш	EMO.	1.25	YS11KAE	KFON150E4ADA	Air Defrost Timer	16,205	446
EXTENDED MEDIUM TEMPERATURE	FM2	1.5	YS12KAE	KFON180E4ADA	Air Defrost Timer	17,926	446
PERA	EMO.	2.0	YS14KAE	KFON200E4ADA	Air Defrost Timer	17,943	446
TEM	FM3	2.5	YS16KAE	KFON250E4ADA	Air Defrost Timer	18,286	446
ΜΩ	FM4	2.8	YS19KAE	KFON280E4ADA	Air Defrost Timer	19,305	585
MED		3.0	YS21KAE	KFON300E4ADA	Air Defrost Timer	19,569	585
IDED		3.5	YS24KAE	KFON350E4ADA	Air Defrost Timer	21,496	585
XTEN		4.0	YS26KAE	KFON400E4ADA	Air Defrost Timer	21,791	607
íù		4.5	YS30KAE	KFON450E4ADA	Air Defrost Timer	23,515	607
		5.0	YS33KAE	KFON500E4ADA	Air Defrost Timer	24,602	628
		1.0	YF03KAE	KFON100L4ADA	ED-5	16,290	446
	FM1	1.3	YF04KAE	KFON130L4ADA	ED-5	16,997	446
RE		1.5	YF05KAE	KFON160L4ADA	ED-5	17,761	446
RATU	FM2	2.3	YF07KAE	KFON230L4ADA	ED-7	18,844	446
MPEF		2.5	YF06KSE	KFON250L4ADA	ED-7	20,350	446
LOW TEMPERATURE	FM3	3.0	YF07KSE	KFON300L4ADA	ED-7	21,078	585
Ó		3.5	YF09KSE	KFON350L4ADA	ED-10	23,288	585
	EN44	4.0	YF10KAE	KFON400L4ADA	ED-10	26,241	607
	FM4	5.0	YF13KAE	KFON500L4ADA	ED-10	27,115	628

[•] Factory Mounted Options are found on page 39 & Shipped-Loose Accessories are found on page 40.

[·] An Electric Defrost Kit must be ordered in lieu of the standard Air Defrost Timer when Extended Range Medium Temperature models are used for low temperature applications.

NON-FLOODED // SCROLL COMPRESSOR // CONFIGURABLE BASE MODELS Includes Liquid Line Kit with Filter/Drier, Sight Glass with Moisture Indicator and Defrost Provisions

	Cabinet Size	Nom.	Compressor		208-230/1/60		4 Yr Compressor
			Model No.	Model No.	Standard Defrost Provision(s)	List Price (\$US)	Protection Plan (Net Price Adder \$US)
Σ	\	0.5	YB06KAE	KBON060M4ADA	Air Defrost Timer	13,430	446
MED TEMP	EN44	0.75	YB07KAE	KBON080M4ADA	Air Defrost Timer	14,221	446
Σ	FM1	1.0	YB08KAE	KBON100M4ADA	Air Defrost Timer	14,493	446
		1.0	YS09KAE	KBON130E4ADA	Air Defrost Timer	15,303	446
ш	EMO.	1.25	YS11KAE	KBON150E4ADA	Air Defrost Timer	15,421	446
EXTENDED MEDIUM TEMPERATURE	FM2	1.5	YS12KAE	KBON180E4ADA	Air Defrost Timer	16,786	446
PERA	EMO.	2.0	YS14KAE	KBON200E4ADA	Air Defrost Timer	17,086	446
TEM	FM3	2.5	YS16KAE	KBON250E4ADA	Air Defrost Timer	17,416	446
MUIC	FM4	2.8	YS19KAE	KBON280E4ADA	Air Defrost Timer	18,491	585
MED		3.0	YS21KAE	KBON300E4ADA	Air Defrost Timer	18,841	585
IDED		3.5	YS24KAE	KBON350E4ADA	Air Defrost Timer	20,639	585
XTEN		4.0	YS26KAE	KBON400E4ADA	Air Defrost Timer	20,957	607
Ш		4.5	YS30KAE	KBON450E4ADA	Air Defrost Timer	22,721	607
		5.0	YS33KAE	KBON500E4ADA	Air Defrost Timer	23,870	628
		1.0	YF03KAE	KBON100L4ADA	ED-5	15,408	446
	FM1	1.3	YF04KAE	KBON130L4ADA	ED-5	16,175	446
RE		1.5	YF05KAE	KBON160L4ADA	ED-5	16,979	446
RATU	FM2	2.3	YF07KAE	KBON230L4ADA	ED-7	18,107	446
MPEF		2.5	YF06KSE	KBON250L4ADA	ED-7	19,644	446
LOW TEMPERATURE	FM3	3.0	YF07KSE	KBON300L4ADA	ED-7	20,843	585
0		3.5	YF09KSE	KBON350L4ADA	ED-10	22,513	585
	EN44	4.0	YF10KAE	KBON400L4ADA	ED-10	25,533	607
	FM4	5.0	YF13KAE	KBON500L4ADA	ED-10	26,289	628

 $[\]cdot$ Factory Mounted Options are found on page 39 & Shipped-Loose Accessories are found on page 40.

An Electric Defrost Kit must be ordered in lieu of the standard Air Defrost Timer when Extended Range Medium Temperature models are used for low temperature applications.

FLOODED // SCROLL COMPRESSOR // NO DEFROST PROVISIONS PRE-CONFIGURED MODELS

Includes Flooded Head Pressure Control Valve, Liquid Line Kit with Filter/Drier, Sight Glass with Moisture Indicator and No Defrost Provisions

	Cabinet Size	Nom. H.P.	Compressor Model No.	208-230	0/1/60	4 Yr Compressor Protection Plan (Net Price Adder \$US)
\rightarrow				Model No.	List Price (\$US)	
M	\	0.5	YB06KAE	KFON060M4ADANT	13,231	446
MED TEMP	FM1	0.75	YB07KAE	KFON080M4ADANT	14,023	446
Σ	FIYII	1	YB08KAE	KFON100M4ADANT	14,301	446
		1	YS09KAE	KFON130E4ADANT	15,195	446
ш	FM2	1.25	YS11KAE	KFON150E4ADANT	15,303	446
EXTENDED MEDIUM TEMPERATURE	FIMIZ	1.5	YS12KAE	KFON180E4ADANT	17,024	446
PER/	FM3	2	YS14KAE	KFON200E4ADANT	17,041	446
TEM	FIMI3	2.5	YS16KAE	KFON250E4ADANT	17,384	446
MOIC	FM4	2.8	YS19KAE	KFON280E4ADANT	18,403	585
ME		3	YS21KAE	KFON300E4ADANT	18,667	585
IDED		3.5	YS24KAE	KFON350E4ADANT	20,594	585
XTEN		4	YS26KAE	KFON400E4ADANT	20,889	607
ш		4.5	YS30KAE	KFON450E4ADANT	22,613	607
		5	YS33KAE	KFON500E4ADANT	23,700	628
		1	YF03KAE	KFON100L4ADANT	15,204	446
	FM1	1.3	YF04KAE	KFON130L4ADANT	15,911	446
JRE		1.5	YF05KAE	KFON160L4ADANT	16,675	446
RATL	FM2	2.3	YF07KAE	KFON230L4ADANT	17,758	446
LOW TEMPERATURE		2.5	YF06KSE	KFON250L4ADANT	19,264	446
√ TE	FM3	3	YF07KSE	KFON300L4ADANT	19,992	585
Ó		3.5	YF09KSE	KFON350L4ADANT	22,202	585
	EN44	4	YF10KAE	KFON400L4ADANT	25,155	607
	FM4	5	YF13KAE	KFON500L4ADANT	26,029	628

[•] Factory Mounted Options are found on page 39 & Shipped-Loose Accessories are found on page 40.

An Electric Defrost Kit must be ordered in lieu of the standard Air Defrost Timer when Extended Range Medium Temperature models are used for low temperature applications.

FLOODED // SCROLL COMPRESSOR // CONFIGURABLE BASE MODELS

Includes Flooded Head Pressure Control Valve, Liquid Line Kit with Filter/Drier, Sight Glass with Moisture Indicator and Defrost Provisions

	Cabinat		om. Compressor		208-230/3/60		
	Size		Model No.	Model No.	Standard Defrost Provision(s)	List Price (\$US)	Protection Plan (Net Price Adder \$US)
ΑP	\	0.5	YB06KAE	KFON060M4AEA	Air Defrost Timer	14,301	446
MED TEMP	E) 44	0.75	YB07KAE	KFON080M4AEA	Air Defrost Timer	15,317	446
Ξ	FM1	1.0	YB08KAE	KFON100M4AEA	Air Defrost Timer	15,499	446
		1.0	YS09KAE	KFON130E4AEA	Air Defrost Timer	16,049	446
	EM0	1.25	YS11KAE	KFON150E4AEA	Air Defrost Timer	16,314	446
JRE	FM2	1.5	YS12KAE	KFON180E4AEA	Air Defrost Timer	17,630	446
RATU	EMO.	2.0	YS14KAE	KFON200E4AEA	Air Defrost Timer	18,067	446
EXTENDED MEDIUM TEMPERATURE	FM3	2.5	YS16KAE	KFON250E4AEA	Air Defrost Timer	18,521	446
Μ		2.8	YS19KAE	KFON280E4AEA	Air Defrost Timer	19,599	585
EDIL		3.0	YS21KAE	KFON300E4AEA	Air Defrost Timer	19,909	585
Σ	FM4	3.5	YS24KAE	KFON350E4AEA	Air Defrost Timer	21,833	585
ENDI		4.0	YS26KAE	KFON400E4AEA	Air Defrost Timer	22,441	607
EXT		4.5	YS30KAE	KFON450E4AEA	Air Defrost Timer	23,048	607
		5.0	YS33KAE	KFON500E4AEA	Air Defrost Timer	24,876	628
		6.0	YS40KAE	KFON600E4AEA	Air Defrost Timer	27,601	628
		1.0	YF03KAE	KFON100L4AEA	ED-5	16,506	446
	FM1	1.3	YF04KAE	KFON130L4AEA	ED-5	17,227	446
		1.5	YF05KAE	KFON160L4AEA	ED-5	18,000	446
TEMPERATURE	FM2	2.3	YF07KAE	KFON230L4AEA	ED-5	19,102	446
PERA		2.5	YF06KSE	KFON250L4AEA	ED-6	20,714	446
TEM	FM3	3.0	YF07KSE	KFON300L4AEA	ED-6	21,469	585
MOJ		3.5	YF09KSE	KFON350L4AEA	ED-7	23,553	585
		4.0	YF10KAE	KFON400L4AEA	ED-7	26,504	607
	FM4	5.0	YF13KAE	KFON500L4AEA	ED-11	27,262	628
		6.0	YF15KAE	KFON600L4AEA	ED-11	28,845	628

[•] Factory Mounted Options are found on page 39 & Shipped-Loose Accessories are found on page 40.

An Electric Defrost Kit must be ordered in lieu of the standard Air Defrost Timer when Extended Range Medium Temperature models are used for low temperature applications.

NON-FLOODED // SCROLL COMPRESSOR // CONFIGURABLE BASE MODELS

Includes Liquid Line Kit with Filter/Drier, Sight Glass with Moisture Indicator and Defrost Provisions

	Cabinet	Nom. H.P.	Compressor	208-230/3/60			4 Yr Compressor
	Size		Model No.	Model No.	Standard Defrost Provision(s)	List Price (\$US)	Protection Plan (Net Price Adder \$US)
Δ		0.5	YB06KAE	KBON060M4AEA	Air Defrost Timer	13,591	446
МЕО ТЕМР	EN41	0.75	YB07KAE	KBON080M4AEA	Air Defrost Timer	14,613	446
Σ	FM1	1.0	YB08KAE	KBON100M4AEA	Air Defrost Timer	14,795	446
		1.0	YS09KAE	KBON130E4AEA	Air Defrost Timer	15,324	446
	EMO.	1.25	YS11KAE	KBON150E4AEA	Air Defrost Timer	15,581	446
JRE	FM2	1.5	YS12KAE	KBON180E4AEA	Air Defrost Timer	16,732	446
EXTENDED MEDIUM TEMPERATURE	EMO	2.0	YS14KAE	KBON200E4AEA	Air Defrost Timer	17,204	446
MPE	FM3	2.5	YS16KAE	KBON250E4AEA	Air Defrost Timer	17,675	446
Σ	FM4	2.8	YS19KAE	KBON280E4AEA	Air Defrost Timer	18,786	585
EDIL		3.0	YS21KAE	KBON300E4AEA	Air Defrost Timer	19,159	585
Σ		3.5	YS24KAE	KBON350E4AEA	Air Defrost Timer	20,983	585
END		4.0	YS26KAE	KBON400E4AEA	Air Defrost Timer	21,606	607
EXT		4.5	YS30KAE	KBON450E4AEA	Air Defrost Timer	22,227	607
**************************************		5.0	YS33KAE	KBON500E4AEA	Air Defrost Timer	24,147	628
		6.0	YS40KAE	KBON600E4AEA	Air Defrost Timer	26,649	628
		1.0	YF03KAE	KBON100L4AEA	ED-5	15,414	446
	FM1	1.3	YF04KAE	KBON130L4AEA	ED-5	16,257	446
		1.5	YF05KAE	KBON160L4AEA	ED-5	17,120	446
EMPERATURE	FM2	2.3	YF07KAE	KBON230L4AEA	ED-5	18,354	446
PERA	FM3	2.5	YF06KSE	KBON250L4AEA	ED-6	20,012	446
TEMF		3.0	YF07KSE	KBON300L4AEA	ED-6	20,765	585
MO		3.5	YF09KSE	KBON350L4AEA	ED-7	22,846	585
		4.0	YF10KAE	KBON400L4AEA	ED-7	25,800	607
	FM4	5.0	YF13KAE	KBON500L4AEA	ED-11	26,557	628
		6.0	YF15KAE	KBON600L4AEA	ED-11	28,141	628

[•] Factory Mounted Options are found on page 39 & Shipped-Loose Accessories are found on page 40.

[•] An Electric Defrost Kit must be ordered in lieu of the standard Air Defrost Timer when Extended Range Medium Temperature models are used for low temperature applications.

FLOODED // SCROLL COMPRESSOR // NO DEFROST PROVISIONS PRE-CONFIGURED MODELS

Includes Flooded Head Pressure Control Valve, Liquid Line Kit with Filter/Drier, Sight Glass with Moisture Indicator and No Defrost Provisions

	Cabinet			208-230	4 Yr Compressor Protection Plan	
$\overline{}$	Size	H.P.	Model No.	Model No.	List Price (\$US)	(Net Price Adder \$US)
ДЬ		0.5	YB06KAE	KFON060M4AEANT	13,399	446
MED TEMP	EN 41	0.75	YB07KAE	KFON080M4AEANT	14,415	446
Σ	FM1	1.0	YB08KAE	KFON100M4AEANT	14,597	446
		1.0	YS09KAE	KFON130E4AEANT	15,147	446
	EN42	1.25	YS11KAE	KFON150E4AEANT	15,412	446
JRE	FM2	1.5	YS12KAE	KFON180E4AEANT	16,728	446
EXTENDED MEDIUM TEMPERATURE	FM3	2.0	YS14KAE	KFON200E4AEANT	17,165	446
EMPE	FIMI3	2.5	YS16KAE	KFON250E4AEANT	17,619	446
Σ	FM4	2.8	YS19KAE	KFON280E4AEANT	18,697	585
EDIL		3.0	YS21KAE	KFON300E4AEANT	19,007	585
ED M		3.5	YS24KAE	KFON350E4AEANT	20,931	585
END		4.0	YS26KAE	KFON400E4AEANT	21,539	607
EXT		4.5	YS30KAE	KFON450E4AEANT	22,146	607
		5.0	YS33KAE	KFON500E4AEANT	23,974	628
		6.0	YS40KAE	KFON600E4AEANT	26,699	628
		1.0	YF03KAE	KFON100L4AEANT	15,420	446
	FM1	1.3	YF04KAE	KFON130L4AEANT	16,141	446
		1.5	YF05KAE	KFON160L4AEANT	16,914	446
TURE	FM2	2.3	YF07KAE	KFON230L4AEANT	18,016	446
PERA		2.5	YF06KSE	KFON250L4AEANT	19,628	446
TEM	FM3	3.0	YF07KSE	KFON300L4AEANT	20,383	585
LOW TEMPERATURE		3.5	YF09KSE	KFON350L4AEANT	22,467	585
_		4.0	YF10KAE	KFON400L4AEANT	25,418	607
	FM4	5.0	YF13KAE	KFON500L4AEANT	26,176	628
		6.0	YF15KAE	KFON600L4AEANT	27,759	628

[•] Factory Mounted Options are found on page 39 & Shipped-Loose Accessories are found on page 40.

An Electric Defrost Kit must be ordered in lieu of the standard Air Defrost Timer when Extended Range Medium Temperature models are used for low temperature applications.

FLOODED - SCROLL COMPRESSOR // CONFIGURABLE BASE MODELS

Includes Flooded Head Pressure Control Valve, Liquid Line Kit with Filter/Drier, Sight Glass with Moisture Indicator and Defrost Provisions

	Cabinet	Nom.	Compressor		460/3/60		4 Yr Compressor
	Size	H.P.	Model No.	Model No.	Standard Defrost Provision(s)	List Price (\$US)	Protection Plan (Net Price Adder \$US)
	FM1	1.0	YS09KAE	KFON130E4AGA	Air Defrost Timer	17,664	446
	EN 40	1.25	YS11KAE	KFON150E4AGA	Air Defrost Timer	18,095	446
JRE	FM2	1.5	YS12KAE	KFON180E4AGA	Air Defrost Timer	18,964	446
EXTENDED MEDIUM TEMPERATURE	EN40	2.0	YS14KAE	KFON200E4AGA	Air Defrost Timer	19,179	446
MPE	FM3	2.5	YS16KAE	KFON250E4AGA	Air Defrost Timer	19,450	446
Σ	FM4	2.8	YS19KAE	KFON280E4AGA	Air Defrost Timer	20,498	585
EDIU		3.0	YS21KAE	KFON300E4AGA	Air Defrost Timer	20,743	585
Σ		3.5	YS24KAE	KFON350E4AGA	Air Defrost Timer	22,609	585
ENDI		4.0	YS26KAE	KFON400E4AGA	Air Defrost Timer	23,499	607
EXT		4.5	YS30KAE	KFON450E4AGA	Air Defrost Timer	25,369	607
		5.0	YS33KAE	KFON500E4AGA	Air Defrost Timer	25,644	628
		6.0	YS40KAE	KFON600E4AGA	Air Defrost Timer	28,380	628
	FM2	2.3	YF07KAE	KFON230L4AGA	ED-17	20,719	446
JRE		2.5	YF06KSE	KFON250L4AGA	ED-17	22,335	446
RATL	FM3	3.0	YF07KSE	KFON300L4AGA	ED-17	22,717	585
LOW TEMPERATURE		3.5	YF09KSE	KFON350L4AGA	ED-17	24,325	585
W TE		4.0	YF10KAE	KFON400L4AGA	ED-17	26,877	607
Ó	FM4	5.0	YF13KAE	KFON500L4AGA	ED-17	27,712	628
		6.0	YF15KAE	KFON600L4AGA	ED-17	29,309	628

[•] Factory Mounted Options are found on page 39 & Shipped-Loose Accessories are found on page 40.

[•] An Electric Defrost Kit must be ordered in lieu of the standard Air Defrost Timer when Extended Range Medium Temperature models are used for low temperature applications.

NON-FLOODED // SCROLL COMPRESSOR // CONFIGURABLE BASE MODELS Includes Liquid Line Kit with Filter/Drier, Sight Glass with Moisture Indicator and Defrost Provisions

	Cabinet Size		ot Nom (Compressor		4 Yr Compressor	
			Model No.	Model No.	Standard Defrost Provision(s)	List Price (\$US)	Protection Plan (Net Price Adder \$US)
	EN40	1.25	YS11KAE	KBON150E4AGA	Air Defrost Timer	17,362	446
Ш	FM2	1.5	YS12KAE	KBON180E4AGA	Air Defrost Timer	18,152	446
TUR	EN40	2.0	YS14KAE	KBON200E4AGA	Air Defrost Timer	18,366	446
MEDIUM TEMPERATURE	FM3	2.5	YS16KAE	KBON250E4AGA	Air Defrost Timer	18,638	446
TEM		2.8	YS19KAE	KBON280E4AGA	Air Defrost Timer	19,723	585
MOIC	FM4	3.0	YS21KAE	KBON300E4AGA	Air Defrost Timer	20,037	585
MEC		3.5	YS24KAE	KBON350E4AGA	Air Defrost Timer	21,789	585
EXTENDED		4.0	YS26KAE	KBON400E4AGA	Air Defrost Timer	22,741	607
XTEN		4.5	YS30KAE	KBON450E4AGA	Air Defrost Timer	24,368	607
Ш		5.0	YS33KAE	KBON500E4AGA	Air Defrost Timer	24,865	628
		6.0	YS40KAE	KBON600E4AGA	Air Defrost Timer	27,558	628
	FM2	2.3	YF07KAE	KBON230L4AGA	ED-17	19,562	446
RE		2.5	YF06KSE	KBON250L4AGA	ED-17	21,218	446
RATU	FM3	3.0	YF07KSE	KBON300L4AGA	ED-17	21,911	585
MPEI		3.5	YF09KSE	KBON350L4AGA	ED-17	23,621	585
LOW TEMPERATURE		4.0	YF10KAE	KBON400L4AGA	ED-17	26,173	607
Ó	FM4	5.0	YF13KAE	KBON500L4AGA	ED-17	27,005	628
		6.0	YF15KAE	KBON600L4AGA	ED-17	28,603	628

[·] Factory Mounted Options are found on page 39 & Shipped-Loose Accessories are found on page 40.

An Electric Defrost Kit must be ordered in lieu of the standard Air Defrost Timer when Extended Range Medium Temperature models are used for low temperature applications.

FACTORY INSTALLED OPTIONS // GENERAL

	Cubin at C	List Price Adder (\$US)		
Option Description	Cabinet Size	Medium Temp	Low Temp	
Crankcase Heater	ALL	STANDARD		
Fixed High/Adjustable Low Pressure Control	ALL	STAND	ARD	
Adjustable High/Adjustable Low Pressure Control	ALL	633	3	
Adjustable Head Pressure Control Valve	FM1-FM3	565	5	
Liquid Line With Components: Sealed Filter	ALL	STAND	ARD	
Liquid Line Without Components Dine Only	FM1	(483	3)	
Liquid Line Without Components: Pipe Only	FM2 - FM4	(573	3)	
Liquid Line with Premium Components: Replaceable Core Filter/ Drier	FM4	933	3	
Suction Line Components: Sealed Filter	FM1	605	5	
suction Line Components: Sealed Filter	FM2 - FM4	721		
Suction Line Components: Replaceable Core Filter	FM4	2,122		
Suction Line Accumulator	FM1	934		
Suction Line Accumulator	FM2 - FM4	1,44	1	
High Ambient Components: TREV, dual pressure control, and insulated suction line components and piping For units at ambient conditions above 105°F, medium temperature models also require suction accumulator to be ordered when selecting this option.	FM1 - FM4	2,286	1,687	
Oil Separator	FM4	2,29	2	
	FM1	922	2	
	FM2	2,09	71	
Over-Sized Receiver	FM3	2,20	5	
	FM4	2,262		
Compressor Pump-down Switch	ALL	597	7	
Heated & Insulated Receiver (temperature controlled with low pressure bypass timer)	ALL	1,26	4	
Phase Loss Monitor^	ALL	2,07	72	
Copper Fins Or Electro Fin Coated Coil	ALL	CONTACT F	ACTORY	
Thur. The Dana New Friend Discourse C 111	FM1 - FM2	888		
Thru The Door - Non - Fused - Disconnect Switch	FM3 - FM4	1,181		
External Funed Disconnect (Mounts-1)	FM1 - FM2	999	?	
External Fused Disconnect (Mounted)	FM3 - FM4	1,84	-1	

FACTORY INSTALLED OPTIONS // GENERAL

Option Description	Cabinet Size	List Price Adder (\$US)
	FM1	1,965
V . I	FM2	2,674
Variable Speed EC Motors & Controller	FM3	2,984
	FM4	2,171

FACTORY INSTALLED OPTIONS // COMMON DEFROST COMPONENTS

	Cabinet	List Price Adder (\$US)		
Option Description	Size	Medium Temp	Low Temp	
Standard (Electronic) Air Defrost Timer*	ALL	STANDARD	-	
Remove Standard Air Defrost Timer	ALL	(902)	-	
Standard Defrost Kit (ED5 - ED11)	ALL	-	STANDARD	
Substitute Standard Air Defrost Timer For Standard Defrost Kit (ED5-ED11)	ALL	184	-	
Remove Standard Defrost Kit	ALL	-	(1,086)	

Negative numbers (in parentheses) represent the price to be deducted from base price if a standard feature is removed.

Defrost Kit Descriptions & Additional Defrost Kit Options available on 41.

SHIPPED-LOOSE ACCESSORIES

Option Description	Cabinet Size	List Price Adder (\$US)
Crankcase Pressure Regulating Valve	ALL	CONTACT FACTORY
External Fused Disconnect	FM4	1,688
Two-Tiered Stacking Rack	ALL	CONTACT FACTORY
	FM1	691
C // !! C !	FM2	763
Snow / Hail Guards	FM3	827
	FM4	1,012
Snow Legs	ALL	460

[^] Only available on units that are 3 Phase.

^{*} Standard Electronic Air Defrost Timer can be substituted with Mechanical Air Defrost Timer at no charge.

41 AIR-COOLED CONDENSING UNITS

NEXT-GEN MINI-CON • 1/2 TO 6 HP

ELECTRIC DEFROST KITS - DEFROST KIT NOMENCLATURE								
ED	1	2	-	M	48			
Kit Designator	Unit Coolers per System	Defrost Kit Identifier		Defrost Heater Phase	Defrost Heater Voltag			
	1, 2, or 3			A - 1 Phase Fan Motor(s), 1 Phase Heater(s) B - 1 Phase Fan Motor(s), 3 Phase Heaters(s) C - 3 Phase Fan Motor(s), 3 Phase Heater(s)	2 - 208-230 4 - 460			

ELECTRIC DEFROST KITS - DESCRIPTIONS

The MiniCon Electric Defrost System provides unique features that other defrost systems lack. These energy saving features are as follows:

- The auxiliary switch on 3 phase systems and block-out relays on 1 phase systems prevents the defrost heaters from energizing when the compressor is in operation. This features holds the maximum amp draw to the largest single load that the system will draw, and therefore reduces the electrical service requirement to the condensing unit.
- On multiple evaporator systems, individual defrost contactors are used in conjunction with sequencing relays* to allow each evaporator to terminate defrost independently. This efficient method of defrost saves electricity, and reduces the potential of overheating and steaming the evaporators. In addition, the amount of heat added to the room is kept to a minimum, reducing the run time of the condensing unit.

ELECTRIC DEFROST KITS - DEFINITIONS

- **Timer** Initiates the defrost cycle. Also used as override protection for defrost termination.
- Auxiliary Switch Mounted on the compressor contactor, it prevents the defrost contactor from operating whenever the compressor is energized.
- **Block-out Relay** Serves the same function as auxiliary switch, except used when defrost contactor is not required (single phase only).
- Fan Contactor Used with 460 V motors or when 230 V motors are wired for 3 phase power.
- **Defrost Contactor** Carries amperage load for heaters. Contactor selection is based on the maximum resistive load rating of the contactor.
- **Relays** Provides interconnection of multiple unit coolers on a single system so that each unit cooler is allowed to individually terminate defrost on temperature.

42 AIR-COOLED CONDENSING UNITS

NEXT-GEN MINI-CON • 1/2 TO 6 HP

ELECTRIC DEFROST KITS // KIT NUMBERS

Kit No.	Timer	Auxiliary Relays	Block-out Relays	† Defrost Heater Contactor (1)	‡ Fan Contactor	Sequencing Relay
ED-5	1	- /	1-15A	-	-	-
ED-6	1	-/	1-20A	-	-	-
ED-7	1	/-	1-25A	-	-	-
ED-10	1	/ -	1-30A	-	-	-
ED-20	1	/ -	1-30A	-	-	2
ED-210	1	-	1-30A	-	-	-
ED-17	1	1	-	1-15A	1-25A	-
ED-11	1	1	-	1-30A	-	-
ED-12	1	1	-	1-30A	1-25A	-
ED-14	1	1	-	1-50A	1-25A	-
ED-211	1	1	-	1-30A	-	-
ED-213	1	1	-	1-50A	=	-
ED-21	1	1	-	2-15A	-	2
ED-22	1	1	-	2-15A	1-25A	2
ED-23	1	1	-	2-25A	-	2
ED-24	1	1	-	2-25A	1-25A	2

POWER CONNECTION

Factory installed components on the condensing unit to allow for powering EcoNet enabled evaporators.

Max Amps	List Price (\$US)
30A	650
60A	851

^{*} Except for ED-210, ED-211, ED-213

 $[\]ensuremath{\uparrow}$ Heater contactor amperage is based on its resistive rating.

[‡] Fan motor contactor amperage is based on its inductive rating.

ELECTRIC DEFROST KITS // PRICING

			List Price				
Quantity of Unit Coolers	Description	•		230 V	460 V	Adder (Only	
Per System		1 PH. FANS 1 PH. FANS 1 PH. HTRS		3 PH. FANS 3 PH. HTRS	3 PH. FANS 3 PH. HTRS	Available Mounted)	
	DEFROST KITS WHEN THE EVA	PORATOR FAN M	OTORS ARE WIR	RED FOR 230/1			
	Up to 15 Amps Heater (w/ relay)	ED5-A2	-	-	-	1,087	
	20 Amps Heater (w/ relay)	ED6-A2	-	-	-	1,087	
1	25 Amps Heater (w/ relay)	ED7-A2	-	-	-	1,087	
	Up to 30 Amps Heater (w/ relay)	ED10-A2	-	-	-	1,087	
	30 Amps - Heater (w/ contactors)	-	ED11-B2	-	-	1,087	
	Up to 30 Amps Heater (w/ relay)	ED210-A2	-	-	-	1,184	
	30 Amps Heater	ED211-A2	ED211-B2	-	-	1,184	
	50 Amps Heater	ED213-A2	ED213-B2	-	-	2,377	
2	Up to 15 Amps Heaters each (w/relays)	ED20-A2	-	-	-	3,392	
	15 Amps Heaters each	ED21-A2	ED21-B2	-	-	3,392	
	25 Amps Heaters each (w/relays)	ED23-A2	-	-	-	3,487	
	25 Amps Heaters each (w/contactors)	<u>-</u>	ED23-B2	-	-	3,487	
	DEFROST KITS WHEN THE EVAPORATOR	FAN MOTORS A	RE WIRED FOR 2	30/3, 460/3, OR	460/1.		
	Up to 25 Amps Heater	ED17-A4	-	-	-	1,087	
1	30 Amps Heater	ED12-A4	ED12-BX	ED12-C2	ED12-C4	2,476	
	50 Amps Heater	<u>-</u>	ED14-BX	ED14-C2	ED14-C4	2,898	
2	Up to 15 Amps Heaters per Unit Cooler	- -	ED22-BX	ED22-C2	ED22-C4	4,166	
2	25 Amps Heaters per Unit Cooler	-	ED24-BX	ED24-C2	ED24-C4	4,166	



ALL-IN-ONE with available Leak Mitigation Package



втин

Medium Temp

Low Temp

4,790 - 15,830

3,790 - 15,130

MODEL NOMENCLATURE

Н	Р	0	100	М	4C	D	Α
Brand	Product	Compressor	Horsepower	Temperature	Refrigerant	Voltage	Vintage
HTPG	Packaged Refrigeration System	O - Scroll	100 = 1 HP	M - Medium L - Low D - Medium Electric Defrost	4C - R454C	A - 115/1/60 D - 208-230/1/60	

PRE-CONFIGURATION CODE

LD

Pre-Configuration Code

LD - Leak Mitigation Package

STANDARD FEATURES

- EcoNet Enabled to maximize energy efficiency with less compressor runtime
- EcoNet optimizes defrost by using adaptive defrost or managing compressor runtime
- EcoNet improves product quality by reducing temperature fluctuation
- Factory pre-charged with R-454C
- One electrical wiring point with the ability to add a plug on select models
- Standard boil-out pan with an option to mount a drain line
- Lift-off panels & large electrical box

OPTIONS

- Roof Kit
- Hail Guard
- Power cords

MEDIUM TEMPERATURE // AIR DEFROST // R-454C

Model with Leak Mitigation	List Price (\$US)	Compressor Type	Compressor HP	Voltage	Cabinet Size	Extended Compressor Warranty Net Price
HPO080M4CAALD	25,909	Scroll	0.75	115/1/60	Small	446
HPO100M4CAALD	27,244	Scroll	1	115/1/60	Small	446
HPO120M4CAALD	32,084	Scroll	1.25	115/1/60	Large	446
HPO080M4CDALD	27,141	Scroll	0.75	208-230/1/60	Small	446
HPO100M4CDALD	29,619	Scroll	1	208-230/1/60	Small	446
HPO120M4CDALD	31,835	Scroll	1.25	208-230/1/60	Large	446
HPO150M4CDALD	35,997	Scroll	1.5	208-230/1/60	Large	446

MEDIUM TEMPERATURE // ELECTRIC DEFROST // R-454C

Model with Leak Mitigation	List Price (\$US)	Compressor Type	Compressor HP	Voltage	Cabinet Size	Extended Compressor Warranty Net Price
HPO080D4CDALD	27,553	Scroll	0.75	208-230/1/60	Small	446
HPO100D4CDALD	29,980	Scroll	1	208-230/1/60	Small	446
HPO120D4CDALD	33,552	Scroll	1.25	208-230/1/60	Large	446
HPO150D4CDALD	38,556	Scroll	1.5	208-230/1/60	Large	446

LOW TEMPERATURE // ELECTRIC DEFROST // R-454CA

Model with Leak Mitigation	List Price (\$US)	Compressor Type	Compressor HP	Voltage	Cabinet Size	Extended Compressor Warranty Net Price
HPO150L4CDALD	40,874	Scroll	1.5	208-230/1/60	Small	446
HPO250L4CDALD	44,847	Scroll	2.5	208-230/1/60	Small	446
HPO300L4CDALD	52,516	Scroll	3	208-230/1/60	Large	585
HPO350L4CDALD	61,079	Scroll	3.5	208-230/1/60	Large	585

ROOF KITS

Part #	Cabinet Size	List Price (\$US)
08537719	Small	2.070
08537720	Large	2,878

HAIL GUARDS

Part #	Cabinet Size	List Price (\$US)	
08537721	Small	1,974	
08537722	Large		

POWER CORDS

	Model	Part #	NEMA Receptacle	List Price (\$US)	
MEDIUM TEMP AIR	HPO080M4CAA	08538541	5-20R	215	
	HPO100M4CAA	-	-	-	
	HPO120M4CAA	-	-	-	
	HPO080M4CDA	08238542	6-15R		
	HPO100M4CDA	08238542	6-15R	215	
	HPO120M4CDA	08238542	6-15R		
	HPO150M4CDA	08538543	6-20R		
	HPO080D4CDA	08238542	6-15R		
MEDIUM TEMP ELECTRIC	HPO100D4CDA	08238542	6-15R	215	
	HPO120D4CDA	08238542	6-15R	213	
	HPO150D4CDA	08538543	6-20R		
LOW TEMP ELECTRIC	HPO150L4CDA	08238542	6-15R	215	
	HPO250L4CDA	08538543	6-20R		
	HPO300L4CDA	-	-	-	
	HPO350L4CDA	-	-	-	

PRINCIPAL TERMS AND CONDITIONS OF SALE

- 1 Applicable Law and Terms of Sale: All orders shall be subject to the following terms and conditions notwithstanding any additional or contrary printed terms and conditions of Buyer. Such additional or contrary terms shall not bind Seller unless accepted in writing even though such terms do not materially alter the terms hereof. No oral statements, warranties, stipulations, representations or terms shall have any binding effect or be any part of the contract whatsoever.
- 2 Orders: All orders must be in writing and will be binding when our order acknowledgment is mailed. Orders are accepted subject to strikes, fires, accidents, and other causes beyond our reasonable control. Acceptance of your order is conditioned upon an agreement to hold us harmless by reason of delivery delays.
- 3 Prices: Subject to change without notice, and all quotations, unless otherwise specified, are binding only for immediate acceptance. Prices are based on material made to Seller's standard tolerances, unless otherwise specified.
- Freight: All products are shipped FOB Point of Shipment with full freight allowed on single orders with a net price value of \$10,000.00 or more, except surface coils and parts, within the continental USA (excluding Alaska and Hawaii). Shipments to destinations outside the continental USA, that meet freight allowance requirements, will incur charges for the additional transport beyond the USA border. Seller reserves the choice of transportation mode, carrier, and shipping point. If special routing (dedicated/contract haul, flatbed delivery, appointment to meet a crane, etc.) is required/requested for a purchase order of \$10,000.00 or greater, Buyer will be assessed a special delivery charge per truck. Charges of \$80 per hour resulting from excessive unloading time, beyond the allotted "free time" (two hours per stop on partial loads and/or full truck loads), as defined by the carrier, is subject to being passed on to the customer. The responsibility of the Seller shall cease upon delivery of product in good condition to a common carrier (TL, LTL, FLATBED, ETC. Since all goods are shipped at Buyer's risk, they should be examined carefully before signing delivery receipt. If common carrier tenders delivery of goods in damaged condition or if packages delivered do not correspond with the number called for on the freight bill, Buyer should insist on common carrier's agent (DRIVER) making notation of the condition of shortages or damage on delivery receipt. The Buyer should never refuse freight from the common carrier. Filing freight claims are under the responsibility of the Buyer, and this will enable them to secure prompt payment of claim for damaged or lost material. Sometimes damage or loss is not readily apparent, so it is suggested that Buyer thoroughly inspect each shipment as soon as it is received for concealed loss or damage. Refer to HTPG's 2019 Freight Policy for further information.
- 5 Taxes: Any sales, use, excise, or similar tax payable by Seller which is or may be imposed by any taxing authority upon manufacture, sale or delivery of goods covered by any order or any increase in rate of any such tax now in force, shall be added to the sales price; if not collected at the time of payment of sales price, Buyer will hold Seller harmless.
- 6 Limited Warranty: Seller warrants against defect in materials and workmanship in products which it manufactures for (1) year from date of installation or up to (18) eighteen months from the date of shipment, whichever event occurs first, when properly installed and operated under normal use. This guarantee does not include any labor or other charges made outside of the Seller's factory for replacement or repair of defective parts unless specifically stated in the body of the Sellers invoice. On parts not manufactured by Seller, such as motors, controls, valves and compressors we extend to the Buyer the same warranties made to us by the manufacturer. Sellers only liability under this warranty or otherwise shall be the repair or replacement (at Seller's option) of non-conforming goods or parts. Seller assumes no liability for incidental or consequential damages such as injury to person or property, or lost profits.
- 7 THIS GUARANTEE SUPERSEDES AND IS IN LIEU OF ANY AND ALL OTHER WARRANTIES BY LAW OR CUSTOM, EITHER EXPRESSED OR IMPLIED INCLUDING, BUT NOT LIMITED BY THIS ENUMERATION, ANY GUARANTEE AS TO QUALITY OR FITNESS FOR ANY PARTICULAR PURPOSE, EXCEPT AS SET FORTH ABOVE. NO PERSON, AGENT, OR DEALER IS AUTHORIZED TO GIVE ANY WARRANTIES ON BEHALF OF SELLER NOR TO ASSUME FOR SELLER ANY OTHER LIABILITY IN CONNECTION WITH ANY OF THE SELLER'S PRODUCTS.
- 8 Delivery: Seller shall not be liable for any delays in or failure of delivery due to acts of God or public authority, labor disputes, accidents, fires, floods, extreme weather conditions, failure of and delays by carriers, shortages of material, delays of a supplier, and any other cause beyond Seller's control. In no event shall Seller be liable for consequential or special damages arising out of a delay in or failure of delivery. Failure to meet estimated ship dates will not be considered sufficient cause of cancellation of orders.
- 9 Cancellations and Returned Goods: Permission to return any part or product must be obtained from Seller and may be subject to a restocking charge. Credits for new material accepted for return will be at the original sales price or current market price, whichever is lower, less handling and restocking charges. Buyer must prepay all transportation charges. Any costs for putting material in condition for resale will be charged to the Buyer. Shipment of material returned without factory authorization or not properly tagged with a Return Material Authorization Number or not freight prepaid cannot be received by Seller. Obsolete products or material made to special order are not returnable.
- 10 Catalog Materials and Drawings: Seller is not responsible for typographical errors or other errors of omission in Seller's catalogs or drawings.
- 11 Late Charge Provision: Buyer agrees to pay a late charge of 1-1/2% per month (18% per year) for any invoice or bill not paid within (30) thirty days of the date of the billing invoice.
- 12 Choices of law, Disputes: This agreement and the performance of the parties hereunder shall be construed in accordance with and governed by the laws of the State of Georgia and shall be deemed made in the state. Buyer irrevocably consents to the exclusive jurisdiction of the courts of Fulton County, on all matters arising out of or relating to this sale and Buyer further irrevocably consents to service of process by certified mail, return receipt requested, at Buyers address set forth in the order acknowledgment.



KRAMER

Kramer.HTPG.com

Main 256-259-7400

Equipment Orders 800-288-9488 or equipment@htpg.com

Parts 855-HTPARTS (1-855-487-2787) or parts@htpg.com