

LIST PRICES

Add appropriate expansion valve price(s) from page 13 of this price sheet when unit coolers are for use with KramerSaver or Thermobank condensing units. Liquid line solenoid and mechanical room T-Stat prices (shipped loose) are already included in the list price for KramerSaver or Thermobank condensing units. **All** system accessories and optional component prices must be added when evaporators are used with Next-Gen and Next-Gen II condensing units.

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 AND HANDLING REQUESTS. (See page 41).

SEE THE BACK COVER FOR "CONDITIONS OF SALE AND WARRANTY"

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CONDENSING UNITS

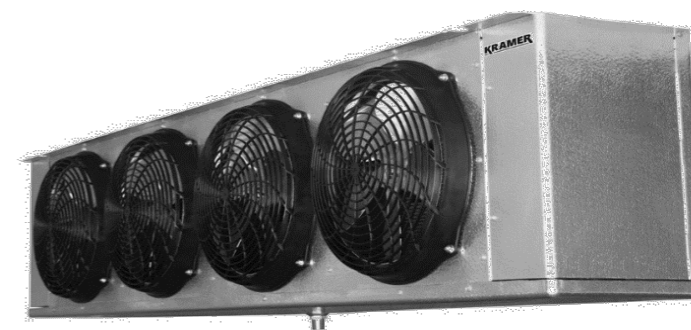
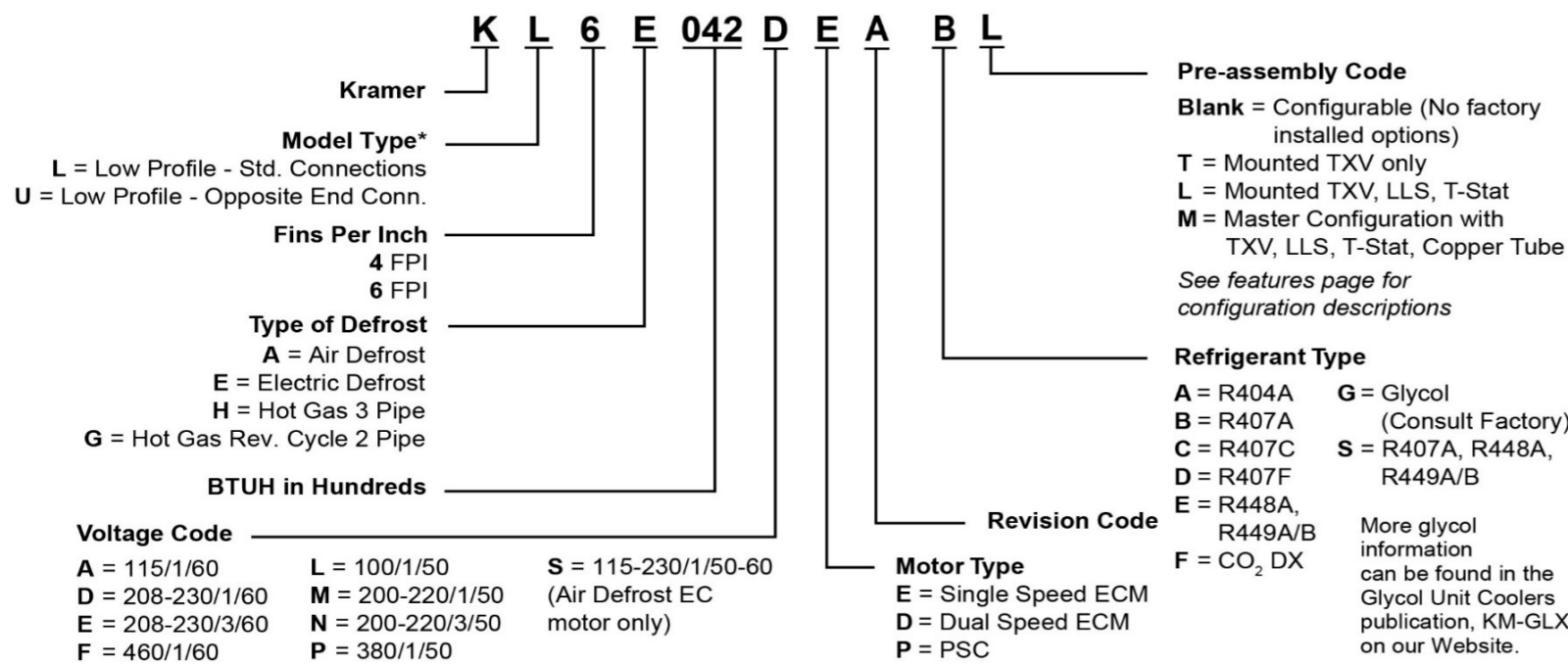
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Due to ongoing product development, specification and prices are subject to change without notice.

NEXT-GEN ALL-TEMP LOW PROFILE UNIT COOLERS



NOTE: 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 image connections ("U" - same end as legacy LP models) are available only as built-to-order base units with no installed options.

STANDARD FEATURES

- Textured aluminum construction
- Flush ceiling mount with slotted hangers and hinged access end panels
- Face mounted heaters and fixed defrost termination, fan delay and heater safety controls
- Single or dual voltage EC motors. Optional Dual speed available
- All units are provided with sweat refrigerant connections
- U. L. approved black plastic fan guards and deep draw venturi provide optimal air flow
- All units suitable for use with R404A, R407A, R407C, R407F, R448A, R449A/B. Can be configured for use with CO₂ DX or Glycol

ORDERING INFORMATION

1. Model number
2. Motor Type
3. Motor electrical (voltage/phase/frequency)
4. Heater electrical (voltage/phase/frequency)
5. Units with mounted components require the following information: Refrigerant type, evaporator temperature and T.D.

NEXT-GEN ALL-TEMP • AIR DEFROST MODELS - 6 FPI													
MODEL NUMBER	Electronically Commutated Motors†			Single Speed PSC Motors					Baked Epoxy Coil Coating (Other coatings are also available. Contact Applications for a special quote). See note 6 below.	Insulated Drain Pan	Heat Exchanger (Shipped loose) selected @10° T.D./R407A		Unit Cooler Approx. Ship Wt (LBS)
	Configurable Model - Single speed operation (Motor code "E". No accessories mounted)	Configurable Model - Dual speed operation (Motor code "D". No accessories mounted)	Pre-Assembled with factory mounted accessories - Assembly Code L or M (Motor code "E" or "D"). See notes 1, 2 & 3 below.	Configurable Model - Single speed operation (Motor code "P". No accessories mounted)	Pre-Assembled with factory mounted accessories - Assembly Code L or M (Motor code "P"). See notes 1, 2 & 3 below.	Configurable Model - Single speed operation (Motor code "P". No accessories mounted)	Pre-Assembled with factory mounted accessories - Assembly Code L or M (Motor code "P"). See notes 1, 2 & 3 below.	Configurable Model - Single speed operation (Motor code "P". No accessories mounted)			Model	List Price	
	115V/208-230V/1 Voltage code "S"	115V/208-230V/1 Voltage code "S"	115V Voltage code "A"	115V/1 (Voltage code "A")	115V/1 (Voltage code "A")	208-230V/1 (Voltage code "D")	208-230V/1 (Voltage code "D")	460V/1 (Voltage code "F")					
KL6A041*	\$1,693	\$1,693	\$2,682	\$1,339	\$2,328	\$1,391	\$2,380	\$1,559	\$397	\$545	HX-25	\$156	41
KL6A052*	1,739	1,739	2,728	1,389	2,378	1,411	2,400	1,585	407	545	HX-25	156	44
KL6A066*	2,018	2,018	3,007	1,668	2,657	1,792	2,781	1,966	436	545	HX-50	156	47
KL6A073*	2,637	2,637	3,626	1,916	2,905	2,068	3,057	2,424	593	688	HX-50	184	52
KL6A094*	2,987	2,987	3,976	2,266	3,255	2,302	3,291	2,661	614	688	HX-50	184	55
KL6A117*	3,138	3,138	4,127	2,465	3,454	2,498	3,487	2,829	645	688	HX-75	253	58
KL6A130*	3,351	3,351	4,340	2,701	3,690	2,740	3,729	3,084	675	688	HX-75	253	62
KL6A141*	4,054	4,054	5,043	3,011	4,000	3,054	4,043	3,568	914	835	HX-75	253	72
KL6A161*	4,502	4,502	5,491	3,432	4,421	3,489	4,478	4,015	939	835	HX-75	253	78
KL6A181*	4,907	4,907	5,896	3,859	4,848	3,914	4,903	4,436	965	835	HX-100	324	85
KL6A195*	5,286	5,286	6,275	4,164	5,153	4,219	5,208	4,773	1,003	960	HX-100	324	115
KL6A235*	6,411	6,411	7,400	4,850	5,839	5,236	6,225	6,009	1,052	960	HX-150	374	124
KL6A260*	6,986	6,986	7,975	5,087	6,076	5,480	6,469	6,132	1,101	960	HX-150	374	147
KL6A295*	8,012	8,012	9,336	6,053	7,377	6,539	7,863	7,504	1,299	1,096	HX-150	374	218
KL6A330*	8,599	8,599	9,923	6,409	7,733	6,921	8,245	8,005	1,608	1,246	HX-250	517	257
KL6A390*	9,655	9,655	10,979	7,471	8,795	7,939	9,263	9,022	1,668	1,246	HX-250	517	262

†Electronically Commutated motors are not available for 380V, 460V, or 575V. Use PSC motors for 460V volts. Use EC motors for 100-230V 50HZ operations.

†These models utilize dual voltage EC motors that are configurable for single or dual speed operation. Dual speed EC motors are compliant with California Title 24 regulations.

†Dual speed motor operation employs a relay to control motor speed. LLS voltage must match the voltage applied to the motor. Electric default: dual speed relay voltage is 230V.

†Specify motor speed: single (motor code E) or dual speed (motor code D) at time of order. (115 and 230 volt dual speed relays are both included with S voltage code.)

* Refer to nomenclature example to complete the model number.

‡ Reference the catalog for 3 phase heater availability.

1. Pre-Assembly code L indicates that the unit includes factory mounted txv, liquid line solenoid, mechanical room t-stat.
2. Pre-Assembled code M designates a **Master unit** for a 2 evaporator Master / Slave evaporator setup. A master unit includes a mounted txv, liquid line solenoid, mechanical room t-stat and copper tee. Code M models are to be matched with an identical model, suffix code T, in order to complete the Master/Slave combination. See note 3 for description of code T models.
3. For Pre-Assembled code T (mounted TXV only), select a configurable model then add \$377 for up to 3 ton requirement or \$664 for 4 to 9 ton mounted txv to price of the configurable unit.
4. See page 16 for expansion valve pricing.
5. \$319 List adder for adjustable termination/fan delay control in lieu of a fixed controls.
6. Baked epoxy coating covers the coil only. Contact Application Engineering for coated housing or alternate coil coating. ElectroFin, Bronz-Glow and Heresite are available coating options.
7. Electric default: Dual speed relay voltage is 230V.

AIR DEFROST EVAPORATORS

MEDIUM SILHOUETTE

Model Number	BTU/HR @ 10° TD	Electronically Commutated Motors†						PSC Motors					
		Single Speed		Dual Speed			Variable Speed			Single Speed			
		115V/1	230V/1	115V/1	230V/1	460V/1**	115V/1	230V/1	460V/1**	115V/1	230V/1	460V/1	575V/1
4 FPI													
MSA-126	12,600	\$4,821	\$4,903	\$5,249	\$5,398	\$5,787	No longer available	\$4,217	\$4,311	\$4,465	\$4,555		
MSA-169	16,900	5,845	5,948	6,274	6,443	6,832		4,719	4,826	4,971	5,070		
MSA-224	22,400	7,200	7,351	7,843	8,094	8,677		5,878	6,040	6,642	6,775		
MSA-287	28,700	8,886	9,223	9,529	9,966	10,549		7,631	7,993	8,408	8,575		
MSA-340	34,000	11,236	11,482	11,764	12,010	12,366		9,397	9,633	9,934	10,133		
MSA-395	39,500	12,694	13,319	13,222	13,847	14,203		11,002	11,614	12,183	12,428		
MSA-465	46,500	15,671	15,855	16,464	16,648	17,181		12,961	13,138	13,918	14,196		
MSA-585	58,500	16,447	16,968	17,240	17,761	18,294		13,997	14,506	15,458	15,768		

6 FPI													
CSA-145	14,500	\$5,018	\$5,084	\$5,447	\$5,579	\$5,968	No longer available	\$4,375	\$4,450	\$4,634	\$4,726		
CSA-191	19,100	6,074	6,087	6,503	6,582	6,971		4,871	4,883	5,095	5,197		
CSA-240	24,000	7,485	7,649	8,128	8,391	8,975		6,130	6,306	6,655	6,789		
CSA-305	30,500	9,219	9,467	9,862	10,209	10,793		7,890	8,154	8,427	8,596		
CSA-370	37,000	11,700	12,026	12,229	12,554	12,910		9,721	10,030	10,372	10,579		
CSA-415	41,500	13,242	13,457	14,034	14,250	14,783		11,362	11,580	11,827	12,064		
CSA-490	49,000	16,267	16,610	17,060	17,403	17,936		13,516	13,847	14,446	14,736		
CSA-620	62,000	17,080	17,355	17,873	18,147	18,681		14,465	14,731	15,510	15,820		

8 FPI													
DSA-151	15,100	\$5,191	\$5,269	\$5,620	\$5,764	\$6,153	No longer available	\$4,550	\$4,639	\$4,819	\$4,916		
DSA-210	21,000	6,261	6,338	6,690	6,833	7,222		5,168	5,247	5,320	5,427		
DSA-260	26,000	7,750	7,869	8,392	8,612	9,195		6,441	6,571	6,909	7,049		
DSA-320	32,000	9,479	9,858	10,122	10,600	11,184		8,309	8,722	8,812	8,988		
DSA-410	41,000	12,056	12,536	12,584	13,064	13,420		10,102	10,560	10,778	10,993		
DSA-450	45,000	13,660	13,974	14,188	14,502	14,858		11,656	11,956	12,318	12,566		
DSA-540	54,000	16,826	17,403	17,618	18,195	18,729		14,022	14,576	14,877	15,174		
DSA-690	69,000	17,622	17,992	18,415	18,785	19,318		15,286	15,651	16,174	16,498		

EC = Electronically Commutated Motors PSC = Permanent Split Capacitor

Units with dual speed motors include a relay which controls motor speed when wired to the room T-stat. Field wiring is required unless the T-Stat is mounted on the unit.

Dual speed EC motors are compliant with California Title 24 regulations.

** These 460V/1 models use 1/3 HP motors for all units.

Contact Application Engineering for coated housing prices.

† EC motors are not available in 575V.

\$319 List adder for adjustable termination/fan delay control in lieu of a fixed controls.

Specify voltage and motor type when ordering. See CSA, DSA and MSA Series brochures for nomenclature, voltage code and motor codes.

	MODEL NUMBER	Insulated Drain Pan	HEAT. EXCHANGER @ 10° T.D./R404A		APPROX SHIP WT. (LBS)
			MODEL	LIST	
4 FPI	MSA-126	\$1,859	HX-50	\$184	115
	MSA-169	1,859	HX-75	253	130
	MSA-224	2,085	HX-100	324	280
	MSA-287	2,085	HX-150	374	310
	MSA-340	1,859	HX-150	374	345
	MSA-395	1,859	HX-150	374	375
	MSA-465	2,085	HX-250	517	400
	MSA-585	2,085	HX-250	517	505
6 FPI	CSA-145	\$1,859	HX-75	\$253	120
	CSA-191	1,859	HX-75	253	140
	CSA-240	2,085	HX-100	324	290
	CSA-305	2,085	HX-150	374	320
	CSA-370	1,859	HX-150	374	360
	CSA-415	2,085	HX-150	374	395
	CSA-490	2,085	HX-250	517	415
	CSA-620	2,085	HX-250	517	520
8 FPI	DSA-151	\$1,859	HX-75	\$253	125
	DSA-210	1,859	HX-75	253	145
	DSA-260	2,085	HX-100	324	295
	DSA-320	2,085	HX-150	374	330
	DSA-410	1,859	HX-150	374	370
	DSA-450	1,859	HX-250	517	390
	DSA-540	2,085	HX-250	517	430
	DSA-690	2,085	HX-250	517	540

AIR DEFROST EVAPORATORS

HEIGHT SAVER						
Model Number	BTU/HR @ 10° TD	Single Speed EC Motors [†]		Single Speed PSC Motors	Insulated Drain Pan	Approx. Ship WT. (LBS)
		115V/1	230V/1	115V PSC ¹		

6 FPI

HSA-65	6,500	\$2,911	\$3,028	\$2,093	\$4,196	90
HSA-85	8,500	3,690	3,757	2,553	4,196	95
HSA-95	9,500	4,070	4,290	2,854	4,196	100
HSA-103	10,300	4,301	4,454	3,188	4,982	120
HSA-123	12,300	5,031	5,197	3,533	4,982	125
HSA-142	14,200	5,518	5,693	3,764	4,982	130
HSA-159	15,900	5,989	6,205	4,235	5,596	145
HSA-193	19,300	7,002	7,199	4,675	4,982	150
HSA-218	21,800	7,767	8,019	5,248	5,596	160
HSA-233	23,300	9,310	9,554	6,385	6,743	180

8 FPI

HSA-74	7,400	\$2,970	\$3,270	\$2,135	\$4,196	95
HSA-90	9,000	3,763	4,058	2,604	4,196	100
HSA-100	10,000	4,151	4,634	2,911	4,196	105
HSA-110	11,000	4,387	4,810	3,252	4,982	125
HSA-130	13,000	4,539	5,613	3,604	4,982	130
HSA-156	15,600	5,628	6,149	3,839	4,982	135
HSA-164	16,400	6,108	6,701	4,320	5,596	150
HSA-212	21,200	7,142	7,776	4,769	4,982	155
HSA-240	24,000	7,916	10,013	5,353	5,596	165
HSA-250	25,000	9,496	10,318	6,513	6,743	185

1. PSC motors are not available for models with 230V/1 requirements. Use models with EC motors for 230V/1 applications.

[†] EC motors are not Available in 460V/1.

Dual speed EC motors are not available for HSA models.

All units are provided with sweat refrigerant connections.

230V/1/60 models also valid for 208V/1/60

EC = Electronically Commutated Motors PSC = Permanent Split Capacitor

460V motors are not available for HSA models.

Use EC motors for 50HZ operation.

Specify voltage (A = 115/1 or D = 230/1) and motor type (P = PSC or E =ECM) when ordering.

COOLMASTER					
MODEL NUMBER	BTU/HR @ 10° TD	LIST PRICE 208-230 or 460/3	HEAT EXCHANGER		Approx. Ship WT. (LBS)
			MODEL	PRICE	

4 FPI

CM-450D	45,500	\$11,700	HX-250	\$517	500
CM-620D	62,700	13,672	HX-250	517	600
CM-850D	85,500	18,050	HX-350	530	900
CM-1100D	107,900	20,861	HX-500	841	1,000
CM-1250D	123,500	27,894	HX-500	841	1,150
CM-1350D	136,600	29,366	HX-500	841	1,500
CM-1600D	159,900	32,036	LHX-15	2,307	1,700
CM-1800D	182,200	34,325	LHX-20	2,469	2,000
CM-2100D	212,500	42,007	LHX-20	2,469	2,200

6 FPI

CCM-520D	51,400	\$12,187	HX-250	\$517	510
CCM-710D	70,825	14,391	HX-350	530	615
CCM-970D	97,125	18,802	HX-350	530	920
CCM-1220D	122,250	21,729	HX-500	841	1,025
CCM-1390D	139,400	29,245	HX-500	841	1,180
CCM-1550D	154,500	30,911	LHX-15	2,307	1,530
CCM-1810D	180,450	33,370	LHX-15	2,307	1,740
CCM-2060D	205,650	35,755	LHX-20	2,469	2,600
CCM-2400D	239,900	43,756	LHX-20	2,469	2,700

8 FPI

DCM-560D	55,975	\$12,310	HX-250	\$517	535
DCM-770D	77,075	14,679	HX-350	530	640
DCM-1060D	105,750	21,434	HX-350	530	950
DCM-1330D	133,050	24,772	HX-500	841	1,055
DCM-1520D	151,750	30,123	HX-500	841	1,225
DCM-1680D	167,950	31,530	LHX-15	2,307	1,580
DCM-1960D	196,450	36,040	LHX-15	2,307	1,800
DCM-2240D	223,850	39,152	LHX-20	2,469	2,650
DCM-2620D	261,500	45,945	LHX-20	2,469	2,800

ELECTRIC DEFROST EVAPORATORS

NEXT-GEN ALL-TEMP • ELECTRIC DEFROST MODELS

MODEL NUMBER	Electronically Commutated Motors ^{††}			Single Speed PSC Motors			Contact Applications for Coil Coating prices for electric defrost models	Insulated Drain Pan	Heat Exchanger (Shipped loose) selected @10° T.D./R407A		Unit Cooler Approx. Ship Wt. (LBS)
	Configurable Model Single speed operation (Motor code "E". No accessories mounted)	Configurable Model Dual speed operation (Motor code "D". No accessories mounted)	Pre-Assembled with factory mounted accessories - Assembly Code L or M (Motor code "E" or "D"). See notes 1, 2 & 3.	Configurable Model - Single speed operation (Motor code "P". No accessories mounted)	Pre-Assembled with factory mounted accessories - Assembly Code L or M (Motor code "P"). See notes 1, 2 & 3 below.	Configurable Model - Single speed operation (Motor code "P". No accessories mounted)			Model	List Price	
	208-230V/1 or 3ph‡ (Voltage code "D" or "E")	208-230V/1 or 3ph‡ (Voltage code "D" or "E")	208-230V/1 or 3ph‡ (Voltage code "D" or "E")	208-230V/1 or 3ph‡ (Voltage code "D" or "E")	208-230V/1 or 3ph‡ (Voltage code "D" or "E")	460V/1 (Voltage code "F")					

4 FPI

KL4E027*	\$1,514	\$1,514	\$2,503	\$1,350	\$2,339	\$1,609	C/F	\$545	HX-25	\$156	40
KL4E032*	1,892	1,892	2,881	1,601	2,590	1,860	C/F	545	HX-25	156	42
KL4E038*	2,380	2,380	3,369	2,060	3,049	2,326	C/F	545	HX-25	156	46
KL4E051*	2,903	2,903	3,892	2,576	3,565	2,846	C/F	688	HX-25	156	50
KL4E064*	3,644	3,644	4,633	2,993	3,982	3,297	C/F	688	HX-50	184	52
KL4E080*	4,152	4,152	5,141	3,462	4,451	3,749	C/F	688	HX-50	184	55
KL4E094*	4,669	4,669	5,658	3,715	4,704	4,435	C/F	835	HX-50	184	79
KL4E110*	5,465	5,465	6,454	4,347	5,336	5,141	C/F	835	HX-50	184	84
KL4E125*	6,158	6,158	7,147	4,890	5,879	5,860	C/F	960	HX-75	253	124
KL4E141*	6,947	6,947	7,936	5,515	6,504	6,499	C/F	960	HX-75	253	144
KL4E155*	7,719	7,719	8,756	6,146	7,470	7,169	C/F	1,096	HX-75	253	191
KL4E195*	9,252	9,252	10,289	7,731	9,055	9,068	C/F	1,246	HX-100	324	257
KL4E230*	10,654	10,654	11,691	8,626	9,950	9,965	C/F	1,246	HX-150	374	262

6 FPI

KL6E035*	\$2,355	\$2,355	\$3,344	\$2,023	\$3,012	\$2,305	C/F	\$545	HX-25	\$156	41
KL6E042*	2,619	2,619	3,608	2,257	3,246	2,513	C/F	545	HX-25	156	44
KL6E049*	2,883	2,883	3,872	2,522	3,511	2,865	C/F	545	HX-25	156	47
KL6E066*	3,633	3,633	4,622	2,932	3,921	3,274	C/F	688	HX-50	184	52
KL6E077*	3,821	3,821	4,810	3,112	4,101	3,683	C/F	688	HX-50	184	55
KL6E090*	3,934	3,934	4,923	3,259	4,248	3,870	C/F	688	HX-50	184	58
KL6E105*	4,608	4,608	5,597	3,803	4,792	4,145	C/F	688	HX-50	184	62
KL6E121*	5,153	5,153	6,142	4,108	5,097	4,893	C/F	835	HX-75	253	78
KL6E142*	5,880	5,880	6,869	4,829	5,818	5,645	C/F	835	HX-75	253	85
KL6E162*	6,895	6,895	7,884	5,497	6,486	6,460	C/F	960	HX-75	253	124
KL6E182*	7,609	7,609	8,598	6,212	7,201	7,254	C/F	960	HX-100	324	147
KL6E200*	8,558	8,558	9,595	6,918	8,242	8,040	C/F	1,096	HX-100	324	195
KL6E244*	10,039	10,039	11,363	7,928	9,252	9,244	C/F	1,246	HX-150	374	238
KL6E281*	11,114	11,114	12,438	9,034	10,358	10,482	C/F	1,246	HX-150	374	238

- ^{††} Electronically Commutated motors are not available for 380V, 460V, or 575V. Use PSC motors for 460V volts. Use EC motors for 100-230V 50HZ operations.
- ^{††} These models utilize dual voltage EC motors that are configurable for single or dual speed operation. **Dual speed EC motors are compliant with California Title 24 regulations.**
- ^{††} Dual speed motor operation employs a relay to control motor speed. LLS voltage must match the voltage applied to the motor. Electric default: Dual speed relay voltage is 230V.
- ^{††} Specify operating voltage 230V/1 (voltage code D) or 230/3 (voltage code E) and motor speed, single (motor code E) or dual speed (motor code D) operation at time of order. (All motors are single phase.)
- * Refer to nomenclature example - page 2 - to complete the model number.
- ‡ Reference the catalog for 3 phase heater availability.
1. Pre-Assembly code **L** indicates that the unit includes factory mounted txv, liquid line solenoid, mechanical room t-stat.
 2. Pre-Assembled code **M** designates a **Master unit** for a 2 evaporator Master / Slave evaporator setup. A master unit includes a mounted txv, liquid line solenoid, mechanical room t-stat and copper tee. Code **M** models are to be matched with an identical model, suffix code **T**, in order to complete the Master/Slave combination. See note 3 for description of code **T** models.
 3. For Pre-Assembled code **T** (mounted TXV only), select a configurable model then add \$377 for up to 3 ton requirement or \$664 for 4 to 9 ton mounted txv to price of the configurable unit.
 4. See page 13 for expansion valve pricing.
 5. \$319 List adder for adjustable termination/fan delay control in lieu of a fixed controls.
 6. Contact Application Engineering for coated housing or coil coating. ElectroFin (not NSF approved), Bronz-Glow and Heresite are available coating options.
 7. Electric default: Dual speed relay voltage is 230V.

MEDIUM SILHOUETTE

MODEL NUMBER	Electronically Commutated Motors [†]			Single Speed PSC Motors			Insulated Drain Pan	Heat Exchanger (Shipped loose)		Approx Ship Wt. (LBS)		
	Single Speed	Dual Speed		Variable Speed		230/1 (A)		460/1 (B)	575V/1		MODEL	LIST
	230/1 (A)	230/1 (A)	460V/1 (B) **	230/1 (A)	460V/1 (B) **							

4 FPI

MSE-105	\$5,245	\$5,740	\$6,129	No longer available	\$4,495	\$4,763	\$4,859	\$1,859	HX 150	\$374	120
MSE-140	6,769	7,264	7,653		5,090	5,269	5,375	1,859	HX 150	374	135
MSE-175	7,703	8,445	8,587		6,392	6,889	7,027	2,085	HX 150	374	285
MSE-230	10,588	11,143	11,472		8,869	9,578	9,769	1,859	HX 250	517	315
MSE-325	14,835	15,390	15,719		12,558	13,316	13,582	1,859	HX 350	530	350
MSE-390	15,686	16,519	17,012		13,760	14,686	14,981	2,085	HX 350	530	425
MSE-510	17,859	18,692	19,185		16,726	17,977	18,338	2,085	HX 500	841	530

6 FPI

CSE-130	\$5,614	\$6,109	\$6,498	No longer available	\$4,592	\$4,822	\$4,919	1,859	HX 150	\$374	125
CSE-150	5,891	6,386	6,775		5,221	5,465	5,574	1,859	HX 150	374	140
CSE-185	8,831	9,574	10,157		7,020	7,670	7,824	2,085	HX 150	374	295
CSE-270	11,029	11,584	11,913		9,871	10,408	10,616	1,859	HX 250	517	320
CSE-320	12,469	13,024	13,353		10,692	11,449	11,679	1,859	HX 350	530	365
CSE-385	15,563	16,396	16,889		13,130	13,759	14,034	2,085	HX 350	530	450
CSE-460	16,166	16,999	17,492		14,396	15,418	15,726	2,085	HX 500	841	490
CSE-520	18,333	19,166	19,659		16,411	17,242	17,587	2,085	HX 500	841	535

- (A) 230/1 Volt motors and 230/1 or 230/3 Volt heaters. Adjustable DTFD List price add per unit - \$319
- (B) 460/1 Volt motors and 460/1 or 460/3 Volt heaters. Air Straightener List price add per fan - \$337

1. Electric defrost models include fixed defrost termination and fan delay controls.
2. Standard motor wiring is single phase.
3. Standard heater wiring is 3 phase.
4. ** These 460V/1 models use 1/3 HP motors for all units.

[†] Electronically Commutated motors are not available for 575V applications.

Dual speed EC motors are compliant with California Title 24 regulations.

Specify voltage and motor type when ordering. See MSE and CSE Series brochure for nomenclature, voltage code and motor codes.

ELECTRIC DEFROST EVAPORATORS

HEIGHT SAVER

MODEL NUMBER	BTU/HR @ 10° TD	Single Speed EC Motor ¹	Insulated Drain Pan	APPROX. SHIP WT. (LBS)		MODEL NUMBER	BTU/HR @ 10° TD	Single Speed EC Motor ¹	Insulated Drain Pan	APPROX. SHIP WT. (LBS)
		230/1 (A)						230/1 (A)		
4 FPI						6 FPI				
HSE-50	5,000	\$3,401	\$4,196	90		HSE-55	5,500	\$4,709	\$4,196	95
HSE-60	6,000	4,726	4,196	95		HSE-63	6,300	4,862	4,196	100
HSE-66	6,600	4,870	4,196	100		HSE-71	7,100	4,852	4,196	105
HSE-74	7,400	5,577	4,982	120		HSE-79	7,900	5,586	4,982	125
HSE-86	8,600	6,218	4,982	125		HSE-91	9,100	6,250	4,982	130
HSE-94	9,400	6,233	4,982	130		HSE-103	10,300	6,532	4,982	135
HSE-116	11,600	6,506	5,596	145		HSE-125	12,500	6,786	5,596	150
HSE-130	13,000	6,752	4,982	150		HSE-143	14,300	7,828	4,982	155
HSE-144	14,400	7,818	5,596	160		HSE-163	16,300	8,769	5,596	165
HSE-174	17,400	8,782	6,743	180		HSE-219	21,900	10,781	6,743	185

(A) 230/1 Volt motors and heaters.

All models are supplied with a non-adjustable defrost termination and fan delay thermostat mounted and wired.

Adjustable DTFD list add per unit. **\$319**

EC = Electronically Commutated Motors

All units are provided with sweat refrigerant connections.

¹ 460V motors are not available for HSE models.

230V/1/60 models also valid for 208V/1/60

Use EC motors for 50HZ operation. Dual speed EC motors are not available for HSE models.

COOLMASTER

MODEL NUMBER	BTU/HR @ 10° TD	LIST PRICE 208-230/460/3	HEAT EXCHANGER		APPROX. SHIP WT. (LBS)
			MODEL	PRICE	
4 FPI - Standard Fan					
KED-400D	40,000	\$13,686	HX-350	\$530	450
KED-550D	55,000	17,601	HX-500	841	520
KED-750D	75,000	25,705	LHX-15	2,307	790
KED-950D	95,000	29,379	LHX-20	2,469	890
KED-1200D	120,000	33,716	LHX-20	2,469	1,410
KED-1600D	160,000	47,368	LHX-30	2,917	1,810
4 FPI - Pressure Propeller					
KED-400PP	40,000	\$15,844	HX-350	\$530	490
KED-550PP	55,000	19,769	HX-500	841	550
KED-750PP	75,000	27,875	LHX-15	2,307	810
KED-950PP	95,000	31,689	LHX-20	2,469	900
KED-1200PP	120,000	36,967	LHX-20	2,469	1,430
KED-1600PP	160,000	51,703	LHX-30	2,917	1,900
6 FPI - Standard Fan					
CED-450D	45,200	\$14,385	HX-350	\$530	470
CED-620D	62,200	18,430	HX-500	841	540
CED-850D	84,800	26,775	LHX-15	2,307	815
CED-1070D	107,400	30,287	LHX-20	2,469	920
CED-1360D	135,600	34,938	LHX-25	2,644	1,460
CED-1800D	180,800	48,732	LHX-30	2,917	2,170
6 FPI - Pressure Propeller					
CED-450PP	45,200	\$16,275	HX-350	\$530	520
CED-620PP	62,200	20,598	HX-500	841	570
CED-850PP	84,800	28,943	LHX-15	2,307	835
CED-1070PP	107,400	32,455	LHX-20	2,469	930
CED-1360PP	135,600	38,189	LHX-25	2,644	1,480
CED-1800PP	180,800	53,066	LHX-30	2,917	2,260

All models have 3 phase motors and heaters.

Models "KED-1200" and larger and models "CED-1360" and larger are equipped with fused defrost heaters.

All models are supplied with an adjustable defrost termination / fan delay thermostat mounted and wired.

Air Straighteners list adder **\$452**

Models with Pressure Propeller fans are for use in Blast Freezers with air pressure drop up to 0.5" static pressure.

Models with PP fans are not for use above +25°F room temperature.

NEXT-GEN ALL-TEMP HOT GAS DEFROST EVAPORATORS

HOT GAS DEFROST / REVERSE CYCLE MODELS												
MODEL NUMBER	Electronically Commutated Motors†				PSC Motors			Insulated Drain Pan	Heat. Exchanger (Shipped loose) selected @10° T.D./R407A		Unit Cooler Approx. Ship Wt. (LBS)	
	Configurable Model <u>Single</u> speed operation (Motor code "E". No accessories mounted)		Configurable Model - <u>Dual</u> speed motor operation (Motor code "D". No accessories mounted.)		Configurable Model - <u>Single</u> speed operation (Motor code "P". No accessories mounted)				Model	List Price		
	115V/1 (Voltage code "A")	208-230V/1 (Voltage code "D")	115V/1 (Voltage code "A")	208-230V/1 (Voltage code "D")	115V/1 (Voltage code "A")	208-230V/1 (Voltage code "D")	460V/1 (Voltage code "F")					
4 F P I	KL4G027*	\$1,579	\$1,640	\$1,579	\$1,640	\$1,350	\$1,411	\$1,924	\$545	HX-25	\$156	40
	KL4G032*	1,863	1,923	1,863	1,923	1,595	1,655	2,169	545	HX-25	156	42
	KL4G038*	2,358	2,412	2,358	2,412	2,016	2,070	2,252	545	HX-25	156	46
	KL4G051*	2,994	3,097	2,994	3,097	2,476	2,741	3,006	688	HX-25	156	50
	KL4G064*	3,757	3,860	3,757	3,860	3,107	3,202	3,446	688	HX-25	156	52
	KL4G080*	4,223	4,345	4,223	4,345	3,532	3,654	3,914	688	HX-50	184	55
	KL4G094*	4,546	4,865	4,546	4,865	3,593	3,990	4,387	835	HX-50	184	79
	KL4G110*	5,320	5,638	5,320	5,638	4,203	4,537	4,958	835	HX-50	184	84
	KL4G125*	5,922	6,327	5,922	6,327	4,653	5,177	5,700	960	HX-50	184	124
	KL4G141*	6,680	7,085	6,680	7,085	5,248	5,653	6,186	960	HX-75	253	144
KL4G155*	7,262	7,759	7,262	7,759	5,687	6,135	6,729	1,096	HX-75	253	191	
KL4G195*	8,913	9,496	8,913	9,496	6,926	7,479	8,228	1,246	HX-100	324	257	
KL4G230*	10,274	10,982	10,274	10,982	8,246	8,933	9,697	1,246	HX-100	324	262	
6 F P I	KL6G035*	\$2,292	\$2,345	\$2,292	\$2,345	\$1,948	\$2,000	\$2,174	\$545	HX-25	\$156	41
	KL6G042*	2,589	2,650	2,589	2,650	2,226	2,286	2,467	545	HX-25	156	44
	KL6G049*	2,922	2,990	2,922	2,990	2,562	2,631	2,814	545	HX-25	156	47
	KL6G066*	3,508	3,733	3,508	3,733	2,806	3,031	3,378	688	HX-25	156	52
	KL6G077*	3,884	4,107	3,884	4,107	3,176	3,399	3,746	688	HX-50	184	55
	KL6G090*	4,115	4,392	4,115	4,392	3,427	3,705	4,054	688	HX-50	184	58
	KL6G105*	4,824	5,102	4,824	5,102	4,018	4,372	4,725	688	HX-50	184	62
	KL6G121*	5,066	5,389	5,066	5,389	4,032	4,344	4,862	835	HX-75	253	78
	KL6G142*	5,930	6,142	5,930	6,142	4,879	5,091	5,611	835	HX-75	253	85
	KL6G162*	6,585	7,000	6,585	7,000	5,186	5,601	6,301	960	HX-75	253	124
KL6G182*	7,375	7,921	7,375	7,921	5,979	6,525	7,221	960	HX-75	253	147	
KL6G200*	7,796	8,289	7,796	8,289	6,078	6,571	7,442	1,096	HX-100	324	195	
KL6G244*	9,441	10,134	9,441	10,134	7,325	8,032	9,104	1,246	HX-100	324	238	
KL6G281*	10,514	11,345	10,514	11,345	8,435	9,258	10,313	1,246	HX-100	324	262	

1. \$379 List adder for liquid txv bypass check valve, shipped loose.

\$582 list price adder for liquid txv bypass check valve - factory mounted.

2. Consult factory for installed suction check valve prices.

3. Hot Gas reverse cycle includes a fixed defrost termination control and a fixed fan delay control, factory wired.

HOT GAS DEFROST / 3 PIPE DEFROST MODELS												
MODEL NUMBER	Electronically Commutated Motors†				PSC Motors			Insulated Drain Pan	Heat. Exchanger (Shipped loose) selected @10° T.D./R407A		Unit Cooler Approx. Ship Wt. (LBS)	
	Configurable Model <u>Single</u> speed operation (Motor code "E". No accessories mounted)		Configurable Model - <u>Dual</u> speed motor operation (Motor code "D". No accessories mounted.)		Configurable Model - <u>Single</u> speed operation (Motor code "P". No accessories mounted)				Model	List Price		
	115V/1 (Voltage code "A")	208-230V/1 (Voltage code "D")	115V/1 (Voltage code "A")	208-230V/1 (Voltage code "D")	115V/1 (Voltage code "A")	208-230V/1 (Voltage code "D")	460V/1 (Voltage code "F")					
4 F P I	KL4H027*	\$1,579	\$1,640	\$1,579	\$1,640	\$1,350	\$1,411	\$1,924	\$545	HX-25	\$156	40
	KL4H032*	1,863	1,923	1,863	1,923	1,595	1,655	2,169	545	HX-25	156	42
	KL4H038*	2,358	2,412	2,358	2,412	2,016	2,070	2,252	545	HX-25	156	46
	KL4H051*	2,994	3,097	2,994	3,097	2,476	2,741	3,006	688	HX-25	156	50
	KL4H064*	3,757	3,860	3,757	3,860	3,107	3,202	3,446	688	HX-25	156	52
	KL4H080*	4,223	4,345	4,223	4,345	3,532	3,654	3,914	688	HX-50	184	55
	KL4H094*	4,546	4,865	4,546	4,865	3,593	3,990	4,387	835	HX-50	184	79
	KL4H110*	5,320	5,638	5,320	5,638	4,203	4,537	4,958	835	HX-50	184	84
	KL4H125*	5,922	6,327	5,922	6,327	4,653	5,177	5,700	960	HX-50	184	124
	KL4H141*	6,680	7,085	6,680	7,085	5,248	5,653	6,186	960	HX-75	253	144
KL4H155*	7,262	7,759	7,262	7,759	5,687	6,135	6,729	1,096	HX-75	253	191	
KL4H195*	8,913	9,496	8,913	9,496	6,926	7,479	8,228	1,246	HX-100	324	257	
KL4H230*	10,274	10,982	10,274	10,982	8,246	8,933	9,697	1,246	HX-100	324	262	
6 F P I	KL6H035*	\$2,292	\$2,345	\$2,292	\$2,345	\$1,948	\$2,000	\$2,174	\$545	HX-25	\$156	41
	KL6H042*	2,589	2,650	2,589	2,650	2,226	2,286	2,467	545	HX-25	156	44
	KL6H049*	2,922	2,990	2,922	2,990	2,562	2,631	2,814	545	HX-25	156	47
	KL6H066*	3,508	3,733	3,508	3,733	2,806	3,031	3,378	688	HX-25	156	52
	KL6H077*	3,884	4,107	3,884	4,107	3,176	3,399	3,746	688	HX-50	184	55
	KL6H090*	4,115	4,392	4,115	4,392	3,427	3,705	4,054	688	HX-50	184	58
	KL6H105*	4,824	5,102	4,824	5,102	4,018	4,372	4,725	688	HX-50	184	62
	KL6H121*	5,066	5,389	5,066	5,389	4,032	4,344	4,862	835	HX-75	253	78
	KL6H142*	5,930	6,142	5,930	6,142	4,879	5,091	5,611	835	HX-75	253	85
	KL6H162*	6,585	7,000	6,585	7,000	5,186	5,601	6,301	960	HX-75	253	124
KL6H182*	7,375	7,921	7,375	7,921	5,979	6,525	7,221	960	HX-75	253	147	
KL6H200*	7,796	8,289	7,796	8,289	6,078	6,571	7,442	1,096	HX-100	324	195	
KL6H244*	9,441	10,134	9,441	10,134	7,325	8,032	9,104	1,246	HX-100	324	238	
KL6H281*	10,514	11,345	10,514	11,345	8,435	9,258	10,313	1,246	HX-100	324	262	

1. Hot Gas 3 Pipe Defrost models include a fixed defrost termination control and a fixed fan delay control, factory wired.

† Electronically Commutated motors are not available for 380V, 460V, or 575V. Use PSC motors for 460V volts. Use EC motors for 100-230V 50HZ operations.

† These models utilize single voltage EC motors that are configurable for single or dual speed operation. **Dual speed EC motors are compliant with California Title 24 regulations.**

† Dual speed motor operation employs a relay to control motor speed. LLS voltage must match the voltage applied to the motor. Electric default: dual speed relay voltage is 230V.

† Specify operating voltage and motor speed at time of order.

\$319 List adder for adjustable termination/fan delay control in lieu of a fixed controls.

Contact Application Engineering for coated housing or coil coating. ElectroFin (not NSF approved), Bronz-Glow and Heresite are available coating options.

HOT GAS DEFROST EVAPORATORS

MEDIUM SILHOUETTE - HOT GAS REVERSE CYCLE

Model Number	Single Speed EC Motors [†]		Dual Speed EC Motors		Variable Speed EC Motors			Single Speed PSC Motors				Insulated Drain Pan	HEAT EXCHANGER		APPROX. SHIP WT. (LBS)
	115V/1	230V/1	230V/1	460V/1**	115V/1	230V/1	460V/1**	115V/1	230V/1	460V/1	575V/1		MODEL	LIST	
6 FPI															
CSG-130R	\$6,776	\$7,157	\$7,271	\$7,660	No longer available			\$5,338	\$5,729	\$6,016	\$6,135	\$1,859	HX 150	\$374	125
CSG-150R	8,537	8,631	9,032	9,421				6,842	6,934	7,284	7,429	1,859	HX 150	374	140
CSG-185R	9,424	9,572	10,166	10,750				8,000	8,163	8,807	8,983	2,085	HX 150	374	295
CSG-270R	12,226	12,443	12,781	13,110				10,940	11,165	11,867	12,105	1,859	HX 250	517	320
CSG-320R	13,827	14,159	14,383	14,711				11,775	12,099	13,042	13,303	1,859	HX 350	530	365
CSG-385R	16,162	16,392	16,995	17,488				14,114	14,350	15,353	15,660	2,085	HX 350	530	450
CSG-460R	18,232	18,634	19,065	19,558				15,542	15,941	17,217	17,561	2,085	HX 500	841	490
CSG-520R	20,017	20,448	20,850	21,343				17,353	17,779	19,034	19,414	2,085	HX 500	841	535

4 FPI

MSG-105R	\$6,472	\$6,838	\$6,967	\$7,356	No longer available			\$5,132	\$5,511	\$5,951	\$6,070	\$1,859	HX 150	\$374	120
MSG-140R	7,875	8,241	8,370	8,759				6,585	6,964	7,522	7,672	1,859	HX 150	374	135
MSG-175R	9,052	9,186	9,794	9,936				7,649	7,796	8,459	8,628	2,085	HX 150	374	285
MSG-230R	11,895	12,112	12,450	12,779				10,524	10,748	11,087	11,308	1,859	HX 250	517	315
MSG-325R	15,611	15,840	16,166	16,495				13,801	14,028	14,481	14,772	1,859	HX 350	530	350
MSG-390R	17,729	18,038	18,562	19,055				15,305	15,616	16,411	16,739	2,085	HX 350	530	425
MSG-510R	19,382	19,727	20,215	20,708				16,614	16,949	18,191	18,555	2,085	HX 500	841	530

For adjustable DTFD add - \$319 list per unit.

Reverse Cycle Evaps have TXV bypass check valve and pan circuit/coil check valve installed. Suction check valve is to be supplied & installed by others.

ECM = Electronically Commutated Motors PSC = Permanent Split Capacitor

† These EC Motors are not available in 460V or 575V.

** These 460V/1 models use 1/3 HP motors for all units.

Units with dual speed motors include a relay which controls motor speed when wired to the room T-stat. Field wiring is required unless the T-Stat is mounted on the unit.

Dual speed EC motors are compliant with California Title 24 regulations.

HOT GAS DEFROST EVAPORATORS

MEDIUM SILHOUETTE - THERMOBANK

Model Number	Single Speed EC Motors [†]		Dual Speed EC Motors [†]		Variable Speed EC Motors [†]			Single Speed PSC Motors				Insulated Drain Pan	HEAT EXCHANGER		APPROX. SHIP WT. (LBS)
	115V/1	230V/1	230V/1	460V/1**	115V/1	230V/1	460V/1**	115V/1	230V/1	460V/1	575V/1		MODEL	LIST	
4 FPI															
MSG-105T	\$7,261	\$7,631	\$7,756	\$8,145	No longer available			\$5,920	\$6,304	\$6,740	\$6,875	\$1,859	HX 150	\$374	120
MSG-140T	8,671	9,035	9,166	9,555				7,380	7,758	8,312	8,479	1,859	HX 150	374	135
MSG-175T	11,080	11,278	11,822	11,964				9,677	9,889	10,526	10,737	2,085	HX 150	374	285
MSG-230T	14,098	14,273	14,653	14,982				12,727	12,909	13,454	13,723	1,859	HX 250	517	315
MSG-325T	17,775	18,088	18,330	18,659				15,966	16,276	17,208	17,554	1,859	HX 350	530	350
MSG-390T	20,391	20,699	21,224	21,717				17,966	18,276	19,417	19,806	2,085	HX 350	530	425
MSG-510T	21,202	21,543	22,035	22,528				18,434	18,765	20,007	20,407	2,085	HX 500	841	530
6 FPI															
CSG-130T	\$7,569	\$7,950	\$8,064	\$8,453	No longer available			\$6,130	\$6,522	\$6,805	\$6,940	\$1,859	HX 150	\$374	125
CSG-150T	9,328	9,421	9,823	10,212				7,633	7,724	8,073	8,208	1,859	HX 150	374	140
CSG-185T	11,507	11,700	12,250	12,833				10,083	10,292	10,848	11,050	2,085	HX 150	374	295
CSG-270T	14,342	14,697	14,897	15,226				13,057	13,419	14,097	14,232	1,859	HX 250	517	320
CSG-320T	16,013	16,418	16,569	16,897				13,961	14,358	15,282	15,359	1,859	HX 350	530	365
CSG-385T	18,517	18,717	19,350	19,843				16,469	16,676	17,675	17,891	2,085	HX 350	530	450
CSG-460T	21,832	22,168	22,665	23,158				19,143	19,474	20,665	20,926	2,085	HX 500	841	490
CSG-520T	23,540	23,972	24,373	24,866				20,875	21,304	22,476	22,755	2,085	HX 500	841	535

THERMOBANK Medium Silhouette evaporator prices do not include DTFD or other controls.

EC = Electronically Commutated Motors PSC = Permanent Split

† EC motors are not available for 575V applications.

** These 460V/1 models use 1/3 HP motors for all units.

1. See page 13 for prices to add appropriate system accessories.

Units with dual speed motors include a relay which controls motor speed when wired to the room T-stat. Field wiring is required unless the T-Stat is mounted on the unit.

Dual speed EC motors are compliant with California Title 24 regulations.

Specify voltage and motor type when ordering. See MSG and CSG Series brochure for nomenclature, voltage code and motor codes.

HOT GAS DEFROST EVAPORATORS - THERMOBANK

COOLMASTER					
MODEL NUMBER	BTU/HR @ 10° TD	LIST PRICE 208-230/460/3	HEAT EXCHANGER		APPROX. SHIP WT. (LBS)
			MODEL	LIST PRICE	

4 FPI - Standard Fan

TV-400D	40,000	\$16,533	HX-350	\$530	760
TV-550D	55,000	18,941	HX-500	841	860
TV-750D	75,000	25,401	LHX-15	2,307	1,150
TV-950D	95,000	32,490	LHX-15	2,307	1,260
TV-1100D	108,000	33,731	LHX-20	2,469	1,350
TV-1200D	120,000	36,386	LHX-20	2,469	2,130
TV-1400D	140,000	43,334	LHX-25	2,644	2,280
TV-1600D	160,000	56,085	LHX-30	2,917	2,370
TV-1900D	186,000	62,077	LHX-40	3,244	2,580

4 FPI - Pressure Propeller*

TV-400PP	40,000	\$18,701	HX-350	\$530	850
TV-550PP	55,000	21,108	HX-500	841	950
TV-750PP	75,000	27,569	LHX-15	2,307	1,360
TV-950PP	95,000	34,657	LHX-15	2,307	1,440
TV-1100PP	108,000	35,898	LHX-20	2,469	1,580
TV-1200PP	120,000	39,637	LHX-20	2,469	2,430
TV-1400PP	140,000	46,585	LHX-25	2,644	2,530
TV-1600PP	160,000	60,419	LHX-30	2,917	2,670
TV-1900PP	186,000	66,131	LHX-40	3,244	2,780

6 FPI - Standard Fan

CTV-450D	45,200	\$17,117	HX-350	\$530	770
CTV-620D	62,200	19,578	HX-500	841	880
CTV-850D	84,800	28,675	LHX-15	2,307	1,170
CTV-1070D	107,400	33,816	LHX-15	2,307	1,285
CTV-1220D	122,000	38,359	LHX-20	2,469	1,380
CTV-1360D	135,600	42,070	LHX-20	2,469	2,170
CTV-1580D	158,200	45,388	LHX-25	2,644	2,330
CTV-1800D	180,800	57,491	LHX-30	2,917	2,420
CTV-2100D	210,200	64,739	LHX-40	3,244	2,630

6 FPI - Pressure Propeller*

CTV-450PP	45,200	\$19,284	HX-350	\$530	860
CTV-620PP	62,200	21,746	HX-500	841	965
CTV-850PP	84,800	30,843	LHX-15	2,307	1,390
CTV-1070PP	107,400	35,983	LHX-15	2,307	1,465
CTV-1220PP	122,000	40,526	LHX-20	2,469	1,610
CTV-1360PP	135,600	45,321	LHX-20	2,469	2,470
CTV-1580PP	158,200	48,639	LHX-25	2,644	2,580
CTV-1800PP	180,800	61,825	LHX-30	2,917	2,720
CTV-2100PP	210,200	69,074	LHX-40	3,244	2,830

THERMOBANK evaporator price does not include DTFD or other controls.

Air Straighteners list adder per fan. **\$452**

Models with Pressure Propeller fans are for use in Blast Freezers with air pressure drop up to 0.5" static pressure.

Models with PP fans are not for use above +25°F room temperature.

LOW AIR VELOCITY UNIT COOLERS

LOW VELOCITY UNIT COOLER NOMENCLATURE

K W F 050 A E 1 B 1 1 A 1 A
 I II III IV V VI VII VIII IX X XI XII XIII

I. Model Series

K – Kramer

II. Unit type

W – Walk In Unit Cooler

III. Series

F – Low Air Velocity

IV. Capacity – Three Number Characters

050, 075, 100, 130, 160, 190, 220, 270, 340

V. Voltage Code

A – 115/1/60
 D – 208-230/1/60
 F – 460/1/60
 L – 100/1/50
 M – 200-220/1/50
 P – 380/1/50
 X – Other

VI. Motor/Fan Type

E – (EC) Electronically Commutated
 P – (PSC) Permanent Split Capacitor
 S – (SP) Shaded Pole
 X – Other

VII. Length in Fans

1, 2, 3, 4, 5, 6

VIII. Coil Density

B – 6 fpi

IX. Coil Material and Coating Options

1 – Aluminum Fins (Al)
 2 – Copper Fins (Cu)
 3 – Al + AST Coating
 4 – Al + Blygold
 5 – Al + Bronz-Glow
 6 – Al + Heresite
 8 – Baked Epoxy Coating
 X – Other

} Post Coat Materials

X. Housing Material and Coatings

1 – Aluminum, Embossed
 3 – White Painted
 6 – Stainless Steel 304
 X – Other

XI. Unit Design Configuration

A – Air Defrost
 E – Electric Defrost
 G – Hot Gas Reverse Cycle Defrost with Drain Pan Loop
 H – Hot Gas Re-Evaporative Defrost with Drain Pan Loop
 K – Hot Gas Reverse Cycle Defrost with 115V Heater
 L – Hot Gas Reverse Cycle Defrost with 208/230V Heater
 X – Other

XII. Not Currently used

XIII. Revision Code – Single Alphanumeric Character

A – Initial Release

LOW AIR VELOCITY UNIT COOLERS

BASE MODELS

Model Number	Air Defrost 115/1/60	Fan Configuration	Approx. Net Weight (lbs)
KWF050AE1B11A1A	\$3,885	1 x 1	50
KWF075AE2B11A1A	4,456	1 x 2	75
KWF100AE2B11A1A	5,622	1 x 2	85
KWF130AE3B11A1A	6,424	1 x 3	100
KWF160AE3B11A1A	7,143	1 x 3	110
KWF190AE4B11A1A	8,909	1 x 4	120
KWF220AE4B11A1A	10,241	1 x 4	130
KWF270AE5B11A1A	11,309	1 x 5	150
KWF340AE6B11A1A	14,439	1 x 6	180

POSITION V

Voltage options

Note: "N/A" = Not available, "N/C" = No additional charge, "—" = Base model features, "C/F" = Contact Factory

Voltage Code	Adder/(Deduct) Per Fan Section	Available Based Upon Position VI Motor Options
A – 115/1/60	—	Available for motor codes E, P, S
D – 208-230/1/60	\$50	Available for motor codes E, P, S
F – 460/1/60	16	Available for motor code P only
L – 100/1/50	—	Available for motor codes E, P, S
M – 200-220/1/50	50	Available for motor codes E, P, S
P – 380/1/50	16	Available for motor code P only

POSITION VI

Motor / Fan Type options

Note: "N/A" = Not available, "N/C" = No additional charge, "—" = Base model features, "C/F" = Contact Factory

Motor / Fan Type	Adder/(Deduct) Per Fan Section	Available Based Upon Position V
E - Electronically Commutated - Single Speed	—	Available for A,D,L,M
D - Electronically Commutated - Dual Speed	\$248	Available for A,L
	248	Available for D,M
P - Permanent Split Capacitor - price deduct	(459)	Available for A,L,D,M,F,P

POSITION VII Length in Fans - No additional charge

POSITION VIII Coil Density - 6 FPI - No additional charge

Position - IX

Coil Material and Coating options

Contact Application Engineering to obtain price quotes for special fin materials or coatings.

Position - X

Housing Material and Coating options

Contact Application Engineering to obtain price quotes for special housing materials or coatings.

LOW AIR VELOCITY UNIT COOLERS

Position - XI

Unit Design Configuration - Horizontal Air Discharge Only

Note: "N/A" = Not available, "N/C" = No additional charge, "—" = Base model features, "C/F" = Contact Factory

ELECTRIC DEFROST - Code E		
Voltage Code	Adder/(Deduct) Per Fan Section	Available Based Upon Position VI Motor Options
A - 115/1/60	N/A	N/A
D - 208-230/1/60	\$250	Available for motor codes E, P, S
F - 460/1/60	338	Available for motor code P only
L - 100/1/50	N/A	N/A
M - 200-220/1/50	250	Available for motor codes E, P, S
P - 380/1/50	338	Available for motor code P only

HOT GAS DEFROST - Reverse Cycle with Hot Gas drain pan loop - Code G		
Voltage Code	Adder/(Deduct) Per Fan Section	Available Based Upon Position VI Motor Options
A - 115/1/60	\$438	Available for motor codes E, P, S
D - 208-230/1/60	438	Available for motor codes E, P, S
F - 460/1/60	438	Available for motor code P only
L - 100/1/50	438	Available for motor codes E, P, S
M - 200-220/1/50	438	Available for motor codes E, P, S
P - 380/1/50	438	Available for motor code P only

HOT GAS DEFROST - Reverse Cycle with electric drain pan heater - Code K or L		
Voltage Code	Adder/(Deduct) Per Fan Section	Available Based Upon Position VI Motor Options
A - 115/1/60	\$286	Available for motor codes E, P, S
D - 208-230/1/60	286	Available for motor codes E, P, S
F - 460/1/60	N/A	N/A
L - 100/1/50	286	Available for motor codes E, P, S
M - 200-220/1/50	286	Available for motor codes E, P, S
P - 380/1/50	N/A	N/A

HOT GAS DEFROST - 3 pipe with Drain Pan loop - Code H		
Voltage Code	Adder/(Deduct) Per Fan Section	Available Based Upon Position VI Motor Options
A - 115/1/60	\$372	Available for motor codes E, P, S
D - 208-230/1/60	372	Available for motor codes E, P, S
F - 460/1/60	372	Available for motor code P only
L - 100/1/50	372	Available for motor codes E, P, S
M - 200-220/1/50	372	Available for motor codes E, P, S
P - 380/1/50	372	Available for motor code P only

Heat Exchanger/Accumulator (HEA) No Longer Available.

Position - XII

INSULATED DRAIN PAN		
Fan Configuration	No Insulation	Insulated Drain Pan ¹
1 X 1	—	\$2,557
1 X 2	—	3,281
1 X 3	—	4,242
1 X 4	—	4,820
1 X 5	—	5,717
1 X 6	—	6,615

1. Insulated Drain Pan not available with stainless steel or galvanized steel pans.

Position - XIII Revision Code: A - Initial Release

Optional Expansion Valves

Balanced Port Expansion Valve - Loose	1/4 thru 3 Tons	\$333
	4 thru 9 Tons	426
Balanced Port Expansion Valve - Mounted	1/4 thru 3 Tons	377
	4 thru 9 Tons	664

Optional Room T-Stat

Type	RANGE	LIST
Mechanical - Loose	-30 to + 100	\$285
Mechanical - Mounted @ Evap	-30 to + 100	309
Electronic - Loose	-30 to + 100	368
Electronic - Mounted @ Evap	-30 to + 100	386

Optional Liquid Line Solenoid Valve

HORSEPOWER RANGE	LOOSE*	MTD*
1/2 thru 3 HP	\$281	\$303
4 thru 8 HP	315	351

SYSTEM PRICING EXAMPLES

Example 1:

5 HP, R-404A +35°F cooler matched with 2 unit coolers,
95°F summer ambient, 10°F winter ambient.

QTY.		LIST PRICE
1	KFDS05M4SEA Outdoor Condensing Unit 230/3/60 53,000 BTUH @ 25° S.T. and 95°F ambient	\$21,567
2	KA46-230B-AE Unit Coolers 115V/1/60	12,352
<u>Field installed components</u>		
2	Thermostatic expansion valves	656
1	Liquid line solenoid valve (loose)	315
1	Room thermostat (loose)	285
<u>Optional accessories</u>		
1	Air defrost timer installed	<u>554</u>
TOTAL LIST PRICE		\$35,729
1	4 year Compressor Protection Plan	NET PRICE \$454

Example 2:

10HP, R404A, -10°F Freezer, matched with 2 unit coolers
95°F Summer ambient, 35°F winter ambient

QTY.		LIST PRICE
1	KFDS10L4SEA Outdoor Condensing 230/3/60 50,300 BTUH @ -20° S.T. and 95° ambient	\$37,521
1	DMB35 Electric defrost provisions, factory installed	2,132
2	MSE-325 unit coolers, 230/1/60 motors, 230/3/60 defrost 25,150 BTUH each @ 9 T.D.	28,056
<u>Field installed components</u>		
2	Thermostatic expansion valves (loose)	1,102
1	Liquid line solenoid valve (loose)	455
1	Room thermostat (loose)	285
<u>Optional accessories</u>		
1	Suction Accumulator (mounted)	1,154
1	Oil separator (mounted)	1,424
2	HX-350 Heat exchangers (field installed)	<u>1,060</u>
TOTAL LIST PRICE		\$73,189
1	4 year Compressor Protection Plan	NET PRICE \$821

OPTIONAL SYSTEM COMPONENTS

HEAT EXCHANGERS - Shipped Loose

MODEL NUMBER	PART NUMBER	LIST PRICE	CONNECTIONS (inches)		APPROXIMATE LENGTH (inches)
			LIQUID	SUCTION	
HX-25	105065001	\$156	1/4	1/2	12
HX-50	105065003	184	3/8	5/8	13
HX-75	105065004	253	3/8	7/8	14
HX-100	105065005	324	3/8	1-1/8	14
HX-150	105065006	374	1/2	1-1/8	14
HX-250	105065007	517	5/8	1-3/8	14
HX-350	105065008	530	5/8	1-5/8	16
HX-500	105065009	841	7/8	2-1/8	17
LHX-15	105065010	2,307	7/8	2-1/8	30
LHX-20	105065011	2,469	1-1/8	2-1/8	30
LHX-25	105065012	2,644	1-1/8	2-5/8	38

KE2 EVAP- OEM EVAPORATOR DEFROST CONTROL *

DESCRIPTION	PART NUMBER	LIST EACH
Factory Installed - For NEXT-GEN ALL-TEMP Low Profile 115V or 230V/1 (Air or Electric Defrost Models)	0829632	\$3,792

*1Ø units only. Internally mounted control board, external display, mounted sensors and EEV.

SURVEILLANT EVAPORATOR DEFROST CONTROL*

DESCRIPTION	PART NUMBER	LIST EACH
Factory Installed - For HSA models - 115V (Air Defrost Only)	08219551	\$5,506
Factory Installed - For HSA/HSE models - 230V/1 (Air or Electric Defrost)	08219552	
Smartgate Router (Shipped Loose)	08219541	\$2,890

*1Ø units only. Externally mounted control enclosure, mounted sensors and EEV

ROOM THERMOSTATS

TYPE	RANGE	LIST EACH
Mechanical - Loose	-30°F to + 100°F	\$285
Mechanical - Installed @ Evap		\$309
Electronic - Loose	-30°F to + 100°F	\$368
Electronic - Installed @ Evap		\$386

LIQUID LINE SOLENOID VALVE - LIST PRICE EACH

HORSEPOWER RANGE	LOOSE	MTD*
1/2 thru 3 HP	\$281	\$303
4 thru 8 HP	315	351
9 thru 10 HP	455	581
12 thru 15 HP	562	725
22 HP	717	831

* Mounted at the Evaporator. LLS mounted at the condensing unit is not available.
For multiple evaporator systems, divide condensing unit HP by the number of evaps.

EXPANSION VALVES

BALANCED PORT TXV'S		LIST
1/4 - 3 Tons	Loose	\$333
	Installed	377
4 - 9 Tons	Loose	426
	Installed	664
10 - 30 Tons	Loose	741
	Installed	1,097
Electronic Expansion Valves		LIST
1 to 15 Tons	Loose	\$1,020
	Installed	1,348
16 to 25 Tons	Loose	1,465
	Installed	1,793

1. EEV prices include cable.
2. EEV prices DO NOT include controller.

NEXT-GEN K-SERIES KOMPACT • AIR COOLED CONDENSING UNITS

1/2 THRU 6 H.P.

Standard Features (all models)

- Hermetic or Scroll compressors
- Weather resistant painted galvanized steel housing on a raised galvanized steel base
- Generously sized condenser. Enhanced Copper tubing / Aluminum fins
- Integrated subcooling loop increases system efficiency
- Easy access liquid & suction line shut off valves mounted external to cabinet
- Liquid receiver with isolation valve and pressure relief plug
- **Liquid line filter/drier and sight glass with moisture indicator**
- Suction line piping (filter optional)
- Encapsulated auto reset high pressure control

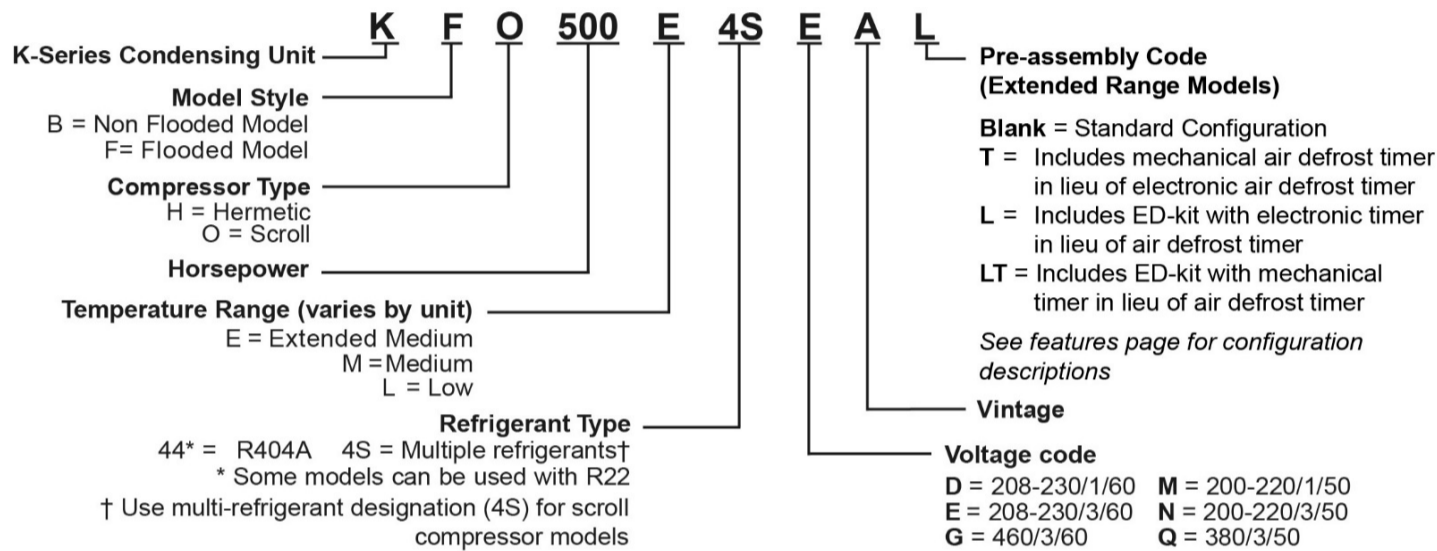
- Mild Ambient Fan Cycle control (2 fan KB models only)
- Large electrical control panel with hinged/lift off door
- Color coded wiring with point-to-point wiring diagram
- Crankcase heater
- PSC condenser fan motor(s)
- **Air Defrost Timer on all Medium Temp. models**
- **All Low temp. models include Electric Defrost provisions**
- UL and cUL listed for indoor / outdoor use
- Encapsulated auto reset low pressure control (medium temps)
- Adjustable low pressure control for low temp models

KF models also include a Flooded Head Pressure Control Valve (70°F) as a standard feature

Optional Components

- Electric Defrost on Extended range med. temp models
- Suction line filter
- Mounted replaceable core liquid or suction line filter (4 to 6 HP)
- Suction Accumulator
- Oil Separator (may not be available with accumulator)
- Liquid line piping only (no filter)
- Copper or polyester coated fins
- Electro-Fin coated condenser coil
- Single Speed EC condenser mtr.
- Pump down toggle switch
- Thru-the-door disconnect switch (some models)
- External fused or non-fused disconnect
- Paragon Mechanical timer
- CPC timer
- Phase loss monitor
- Snow / Hail guards

NOMENCLATURE:



NEXT-GEN K-SERIES KOMPACT • HERMETIC COMPRESSOR MODELS

§REF TYPE	NOM. H.P.	Model Number	Compressor	KF OUTDOOR FLOODED LIST PRICE (Includes Flooded Head Pressure Control Valve, Liquid Line Kit with Filter/Drier and Sight Glass with Moisture Indicator, and Defrost Timer or Kit)			KB INDOOR / OUTDOOR BASE UNIT LIST PRICE (Includes Fan Cycle Head Pressure Control Valve, Liquid Line Kit with Filter/Drier and Sight Glass with Moisture Indicator, and Defrost Timer or Kit)			†ECM Cond. Motor Add.	4 Year Compressor Protection Plan	Approx. Ship Wt. (LBS)
				208-230V/3	208-230V/1	460V/3	208-230V/3	208-230V/1	460V/3			
EXTENDED RANGE	0.50	K*H055E4S	RST45C1E	N/A	\$6,665	N/A	N/A	\$6,245	N/A	\$248	\$105 NET	152
	0.75	K*H080E4S	RST55C1E	N/A	6,721	N/A	N/A	6,327	N/A	248	105 NET	156
	0.75	K*H090E4S	RST64C1E	N/A	7,143	N/A	N/A	6,707	N/A	248	105 NET	160
	1.00	K*H100E4S	RST70C1E	\$7,395	7,479	N/A	\$6,928	7,013	N/A	248	105 NET	167
MEDIUM TEMP	1.25	K*H125E4S	RST97C1E	7,745	7,833	N/A	7,285	7,356	N/A	496	118 NET	195
	1.50	K*H150E44	CS10K6E	8,027	8,052	\$8,528	7,573	7,582	\$7,980	496	118 NET	205
	2.00	K*H200E44	CS12K6E	8,608	8,452	N/A	8,137	7,993	N/A	496	129 NET	228
LOW TEMP R404A	2.50	K*H250E44	CS14K6E	8,941	9,090	9,880	8,445	8,595	9,388	496	129 NET	235
	3.00	K*H300E44	CS18K6E	8,853	9,040	9,807	8,416	8,604	9,374	496	142 NET	253
	3.00	K*H325E44	CS20K6E	9,335	9,521	10,311	8,897	9,079	9,877	496	142 NET	273
LOW TEMP R404A	1.00	K*H100L44	CF04K6E	7,415	7,294	N/A	6,955	6,916	N/A	496	118 NET	195
	1.50	K*H150L44	CF06K6E	7,453	7,324	7,757	6,996	6,944	7,316	496	118 NET	195
	2.00	K*H200L44	CF09K6E	8,339	8,002	8,475	7,867	7,621	8,031	496	129 NET	243
	3.00	K*H300L44	CF12K6E	10,591	10,448	11,104	10,169	10,017	10,672	496	142 NET	255

§ For R507 models, use equivalent R404A model prices.

* Models 055E4S, 080E4S, and 090E4S are not suitable for use with R507. Use Scroll compressors for refrigerants other than R404A/507.

† Additional price to order optional ECM condenser fan motors. Not available for 460V.

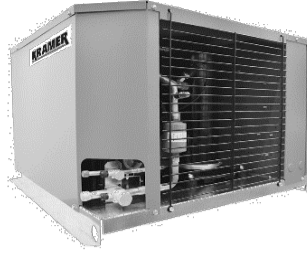
NOTE: An optional Electric Defrost kit must be ordered in lieu of the standard Air Defrost Timer when Extended range medium temperature models are used for low temperature applications.

NEXT-GEN KOMPACT • AIR COOLED CONDENSING UNITS

1/2 THRU 6 H.P. SCROLL COMPRESSORS

Next-Gen **Kompact** Air Cooled Condensing Units are configured with quiet and reliable scroll compressors.

Models range from 1/2 to 6 horsepower. Refer to page 16 for a list of optional components and publication number KM-KFH for detailed specifications.



NEXT-GEN KOMPACT • SCROLL COMPRESSOR MODELS

Temp Range	NOM H.P.	Model Number	Compressor	KF Flooded Unit LIST PRICE			KB Non Flooded Unit LIST PRICE			4 Year Compressor Protection Plan	Approx. Ship Wt. (LBS)	EC ¹ Motor Adder
				(Includes Flooded Head Pressure Control Valve, Liquid Line Kit with Filter/Drier and Sight Glass with Moisture Indicator, and Defrost Timer or Kit)*			(Includes Fan Cycle Head Pressure Control Valve, Liquid Line Kit with Filter/Drier and Sight Glass with Moisture Indicator, and Defrost Timer or Kit)*					
				208-230V/3	208-230V/1	460/3	208-230V/3	208-230V/1	460/3			
Medium Temp	0.6	K*O060M4S	ZB06KAE	\$7,429	\$7,341	N/A	\$7,059	\$6,976	N/A	\$194 NET	195	\$248
	0.75	K*O080M4S	ZB07KAE	7,955	7,752	N/A	7,589	7,386	N/A	194 NET	195	248
	1.0	K*O100M4S	ZB08KAE	8,050	7,897	N/A	7,684	7,527	N/A	194 NET	195	248
	1.0	K*O130E4S	ZS09KAE	8,336	8,362	\$9,176	7,958	7,950	\$8,803	194 NET	195	248
	1.25	K*O150E4S	ZS11KAE	8,473	8,418	9,398	8,092	8,010	9,018	194 NET	205	248
	1.5	K*O180E4S	ZS13KAE	9,157	9,311	9,849	8,691	8,719	9,427	194 NET	210	248
	2.0	K*O200E4S	ZS15KAE	9,385	9,321	9,962	8,937	8,874	9,540	194 NET	215	248
	2.5	K*O250E4S	ZS19KAE	9,621	9,496	10,103	9,181	9,047	9,681	194 NET	230	248
	3.0	K*O300E4S	ZS21KAE	10,341	10,165	10,774	9,951	9,787	10,408	253 NET	305	442
	3.5	K*O350E4S	ZS26KAE	11,340	11,165	11,743	10,899	10,720	11,317	253 NET	325	442
Low Temp	4.0	K*O400E4S	ZS29KAE	11,096	11,318	12,205	10,699	10,883	11,812	264 NET	352	442
	4.5	K*O450E4S	ZS33KAE	11,971	12,213	13,176	11,544	11,802	12,656	271 NET	375	442
	5.0	K*O500E4S	ZS38K4E	12,920	12,780	13,320	12,543	12,398	12,915	271 NET	383	442
	6.0	K*O600E4S	ZS45K4E	14,337	N/A	14,739	13,842	N/A	14,314	271 NET	405	442
	1.0	K*O100L4S	ZF03KAE	8,575	8,462	N/A	8,005	8,003	N/A	194 NET	195	248
	1.3	K*O130L4S	ZF04KAE	8,948	8,830	N/A	8,445	8,403	N/A	194 NET	195	248
	1.6	K*O160L4S	ZF05KAE	9,349	9,225	N/A	8,891	8,819	N/A	194 NET	195	248
	2.3	K*O230L4S	ZF07K4E	9,921	9,788	N/A	9,534	9,405	N/A	194 NET	230	248
Low Temp	2.5	K*O250L4S	ZF08K4E	10,760	10,571	11,601	10,394	10,205	11,021	194 NET	240	248
	3.0	K*O300L4S	ZF09K4E	11,152	10,948	11,799	10,786	10,826	11,381	253 NET	245	248
	3.5	K*O350L4S	ZF11K4E	12,233	12,096	12,635	11,866	11,693	12,269	253 NET	255	248
	4.0	K*O400L4S	ZF13K4E	13,766	13,629	13,960	13,400	13,263	13,594	264 NET	352	442
	5.0	K*O500L4S	ZF15K4E	14,160	14,084	14,393	13,794	13,653	14,027	264 NET	367	442
	6.0	K*O600L4S	ZF18K4E	14,983	N/A	15,223	14,617	N/A	14,857	271 NET	383	442

¹Additional list price to order optional Electronically Commutated condenser fan motors. Not available for 460V.

* See page 14 for a complete list of features, voltage codes and an example of nomenclature layout.

NOTE: An optional 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.

LEGACY KOMPACT • AIR COOLED CONDENSING UNITS

Standard features for Legacy KE style Indoor / Outdoor models:

- Semi-hermetic compressors
- Heavy gauge galvanized steel weather-proof housing on a raised base
- Compressor Contactor (three phase) or Start Kit (single phase)
- Main Power Block and Control Circuit Fuses
- High-low Pressure Control and Oil Pressure Control (when required)
- Liquid Receiver with Shut-off Valve and Pressure Relief Plug
- Liquid and suction line piping (filters are optional)
- PSC condenser fan motor(s)
- UL and cUL listed.

Standard features for Legacy KL style models:

- Same features as KE models, plus:
- Liquid Line Filter/Drier, Sight Glass & Pre-bent Piping
- Crankcase Heater
- Low ambient Head Pressure Valve
- Air Defrost Timer on 2-1/2 to 3 H.P. Medium & High Temp models
- Electric Defrost Timer with Defrost Contactor/Relay on Low Temp models
(ED10-230/1 on 1/2 thru 3 HP)

SEMI-HERMETIC COMPRESSOR MODELS

REF TYPE	NOM H.P.	Model Number	Compressor	KL OUTDOOR PACKAGE LIST PRICE			KE INDOOR/ OUTDOOR LIST PRICE			4 Year Compressor Protection Plan	Approx. Ship Wt. (LBS)	EC ¹ Motor Adder
				208-230V/3	208-230V/1	460V/3	208-230V/3	208-230V/1	460V/3			
				MEDIUM TEMP R404A	0.75	K*S075M44	KAN-007E	\$8,015	\$8,015			
1.0	K*S100M44	KAR-010E	8,253		8,253	N/A	6,804	6,804	N/A	194 NET	220	248
1.5	K*S150M44	KAG-010E	9,988		N/A	N/A	8,158	N/A	N/A	194 NET	245	496
2.0	K*S200M44	KAK-02xE	11,728		11,728	N/A	10,150	10,150	N/A	194 NET	270	496
2.5	K*S250M44	ERC-02xE	12,192		N/A	\$13,334	11,719	N/A	\$12,785	194 NET	385	496
LOW TEMP R404A	3.0	K*S300M44	ERF-031E	13,650	14,005	14,291	12,540	12,892	13,357	253 NET	415	496
	0.50	K*S050L44	KAN-005E	8,584	8,584	N/A	6,250	6,035	N/A	194 NET	189	248
	0.75	K*S075L44	KAM-007E	9,216	9,216	N/A	6,584	6,402	N/A	194 NET	205	248
	1.0	K*S100L44	KAJ-01xE	9,638	9,638	9,977	7,258	7,244	7,538	194 NET	220	248
	1.5	K*S150L44	KAL-01xE	10,057	9,900	11,000	8,474	8,337	9,900	194 NET	248	496
Low Temp R404A	2.0	K*S200L44	EAV-021E	12,410	12,477	13,143	10,314	10,467	12,343	194 NET	290	496
	3.0	K*S300L44*	LAH-032E	13,792	13,792	14,191	12,402	12,683	13,382	253 NET	383	496

* Model K*S300L44 is not available for 208V/1 (230V only).

¹Additional list price to order optional Electronically Commutated condenser fan motors. Not available for 460V.

LEGACY KOMPACT WITH DISCUS COMPRESSOR

No Longer Available. Select Next Gen II model - See Page 17

NEXT-GEN KOMPACT / LEGACY K-SERIES • AIR COOLED CONDENSING UNITS

1/2 THRU 6 H.P. - OPTIONS

FACTORY INSTALLED OPTIONS

OPTIONS / ACCESSORIES	OPTION NUMBER	H.P. RANGE	KF MODELS	KB MODELS	KL PACKAGE	KE MODELS
CRANKCASE HEATER	CCH-1	1/2 - 6 H.P.	STD.	STD.	STD.	\$206
DEDUCT CRANKCASE HEATER	CCH-DED	1/2 - 6 H.P.	-\$206	-\$206	-\$206	N/A
LIQUID LINE COMPONENTS	LK-MC1	1/2 - 3 H.P.	STD.	STD.	STD.	518
- Filter drier, sight-glass and piping	LK-MC2	4 - 6 H.P.	STD.	STD.	STD.	601
LIQUID LINE ONLY (Deduct liquid line filter and sight glass)	LL-MC1	1/2 - 3 H.P.	-330	-330	N/A	STD.
	LL-MC2	4 - 6 H.P.	-393	-393	N/A	STD.
Replaceable Core Liquid Filter/Dryer (4 - 6 H.P. only) Must add LK for KE unit	RPL-4	4 - 6 H.P.	486	486	486	486
SUCTION LINE COMPONENTS	SK-MC1	1/2 - 3 H.P.	330	330	330	330
- Filter and Piping	SK-MC2	4 - 6 H.P.	393	393	393	393
REPLACEABLE CORE SUCTION FILTER (4 - 6 H.P. only)	RPS-4	4 - 6 H.P.	470	470	470	470
SUCTION LINE ACCUMULATOR - Must add SK option	ASK-3	1/2 - 2 HP	508†	508†	508†	508†
	ASK-4	2½ - 6 H.P.	785†	785†	785†	785†
OIL SEPARATOR 4-6 HP (Due to space limits, may not be available with ASK opt)	OS-4	4 - 6 H.P.	1,337	1,337	1,337	1,337
OVER-SIZED RECEIVER – Refers to Next-Gen CU frame sizes FM1 through FM4. See product catalogue for details. Contact factory for Legacy model oversized receiver prices.	OSR-1	FM1	422	422	Contact Application Engineering for pricing this option	
	OSR-2	FM2	503	503		
	OSR-3	FM3	1,203	1,203		
	OSR-4	FM4	1,235	1,235		
SPRING MOUNT AND DISCHARGE VIBRASORBER - Semi-Hermetics only.	SPR-VB	1/2 - 3 H.P.	N/A	N/A	253	253
- Standard on 4 - 6 H.P. models,		4 - 6 H.P.	N/A	N/A	NLA	NLA
LOW AMBIENT FLOODED HEAD PRESSURE CONTROL	FLD-SF	1/2 - 2 H.P.	STD.	N/A	STD.	367
	FLD-F	2½ - 3 H.P.	STD.	N/A	STD.	367
MILD AMBIENT FAN CYCLE	FC-1	KB all, KE 2 fan only	N/A	STD.	N/A	359
ADJUSTABLE LOW PRESSURE CONTROL (For medium temperature units)	ADJ-LP	1/2 - 6 H.P.	153	153	153	153
ADJUSTABLE HI/LOW PRESSURE CONTROL	204464041	1/2 - 6 H.P.	344	344	344	344
PUMPDOWN TOGGLE SWITCH	PDS	1/2 - 6 H.P.	324	324	324	324
AIR DEFROST TIMER ¹ (Electronic timer is standard. No additional charge to substitute mechanical timer. Specify at time of order.)	TMR ¹	1/2 - 6 H.P.	STD.	STD.	554	554
DEDUCT AIR DEFROST TIMER ¹	DEDUCT TMR ¹	2 1/2 - 6 H.P.	-554	-554	-554	N/A
SUBSTITUTE ED KIT (ED5 THRU ED10) FOR AIR DEFROST TIMER ²	REPLACE TMR ²	1 - 6 H.P. ²	114	114	N/A	N/A
ELEC. DEFR. TIMER WITH BLOCK-OUT RELAY 230/1 ^{††}	ED-5 THRU ED-10	1/2 - 6 H.P.	STD.*	STD.*	STD.*	668
* 2 EVAP ELEC. DEFR. TIMER WITHOUT BLOCK-OUT RELAY 230/1 ^{††}	ED-210-A2	1/2 - 6 H.P.	SPECIFY	SPECIFY	SPECIFY	668
ELECTRIC DEFR. TIMER WITH BLOCK-OUT AND CONTACTOR 230/3 ^{††}	ED-11-B2	1/2 - 6 H.P.	STD.*	STD.*	STD.*	668
DEDUCT STANDARD EVAP ELECTRIC DEFROST COMPONENTS		1/2 - 6 H.P.	-668	-668	-668	N/A
** 2 EVAP ELEC. DEFR. TMR WITH ONE 30 AMP DEFR. CONTACTOR 230/3 ^{††}	ED-211-B2	1/2 - 6 H.P.	SPECIFY	SPECIFY	SPECIFY	668
2 EVAP ELEC. DEFR. TMR WITH ONE 50 AMP DEFR. CONTACTOR 230/3 ^{††}	ED-213-B2	1/2 - 6 H.P.	742	742	742	1,296
2 EVAP. ELEC. DEFR. WITH SEQUENCING & B.O. RELAYS 230/1 ^{††}	ED-20-A2	4 - 6 H.P.	1,183	1,183	1,183	1,851
2 EVAP. ELEC. DEFR. WITH SEQ. & B.O. W/ CONTACTORS 230/3 ^{††}	ED-21-B2	4 - 6 H.P.	1,183	1,183	1,183	1,851
HEATED AND INSULATED RECEIVER	HIR	1/2 - 6 H.P.	689	689	689	689
PHASE LOSS MONITOR	PLM	1/2 - 6 H.P.	1,129	1,129	1,129	1,129
CRANKCASE PRESSURE REGULATING VALVE - (LOOSE ONLY)	CPR-1	1/2 - 6 H.P.	752	752	752	752
POLYESTER COATED CONDENSER FINS	PCF	1/2 - 3 H.P.	957	957	957	957
		4 - 6 H.P.	1,245	1,245	1,245	1,245
COPPER FINS OR ELECTRO FIN COATED COIL	CONTACT APPLICATIONS ENGINEERING FOR PRICING					
THRU THE DOOR NON - FUSED DISCONNECT SWITCH	TDNM-1	1/2 - 3 H.P.	485	485	485	485
	TDNM-2	4 - 6 H.P.	643	643	643	643
THRU THE DOOR FUSED DISCONNECT SWITCH	TDFM-1	1/2 - 3 H.P.	N/A	N/A	N/A	N/A
	TDFM-2	4 - 6 H.P.	1,318	1,318	1,318	1,318
EXTERNAL FUSED DISCONNECT (Mounted)	EFDM-1	1/2 - 3 H.P.	545	545	545	545
	EFDM-2	4 - 6 H.P.	1,003	1,003	1,003	1,003

FIELD INSTALLED OPTIONS

OPTIONS AND ACCESSORIES		H.P. RANGE	KF MODELS	KB MODELS	KL MODELS	KE MODELS
EXTERNAL FUSED DISCONNECT (Shipped loose)	EFDL-2	4 - 6 H.P.	\$902	\$902	\$902	\$902
TWO TIERED STACKING RACK	11639400	1/2 - 3 H.P.	9,925	9,925	C/F	C/F
	11639600	4 - 6 H.P.	9,925	9,925	C/F	C/F
SNOW / HAIL GUARDS (Shipped loose)	SG-A	Config. A, FM1	370	370	370	370
	SG-B	Config. B, FM2	407	407	407	407
	SG-C	Config. C, FM3	441	441	441	441
	SG-D	Config. D, FM4	541	541	541	541

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

¹ AIR DEFROST TIMER IS STANDARD ON 2-1/2 - 6 HP HIGH/MEDIUM TEMP **KL** MODELS AND STANDARD FOR ALL KF AND KB MED. TEMP. MODELS

² SUBSTITUTE ED KIT (ED5 THRU ED10) FOR AIR DEFROST TIMER. VALID FOR NEXT-GEN EXTENDED RANGE KOMPACT ONLY. APPLIES TO PRE-ASSEMBLY CODES L AND LT. SEE NOMENCLATURE.

*ELECTRIC DEFROST PROVISIONS (ED KIT) FOR ONE EVAP IS A STANDARD FEATURE ON LOW TEMPERATURE UNITS (ED Kits are optional for KE models).

†† REFER TO THE APPROPRIATE EVAPORATOR PRODUCT BULLETIN TO IDENTIFY THE CORRECT E.D. KIT FOR YOUR REQUIREMENT.

NOT ALL E.D. KITS FIT INTO ALL CONTROL PANELS. CONTACT APPLICATIONS ENGINEERING WITH QUESTIONS.

† MUST ADD SK OPTION TO ADD A SUCTION LINE ACCUMULATOR IF SK IS NOT ALREADY INCLUDED (See Kompact-Series publication for details).

NEXT-GEN II AIR COOLED CONDENSING UNITS

3 THRU 22 H.P.



Unit is shown with optional components mounted

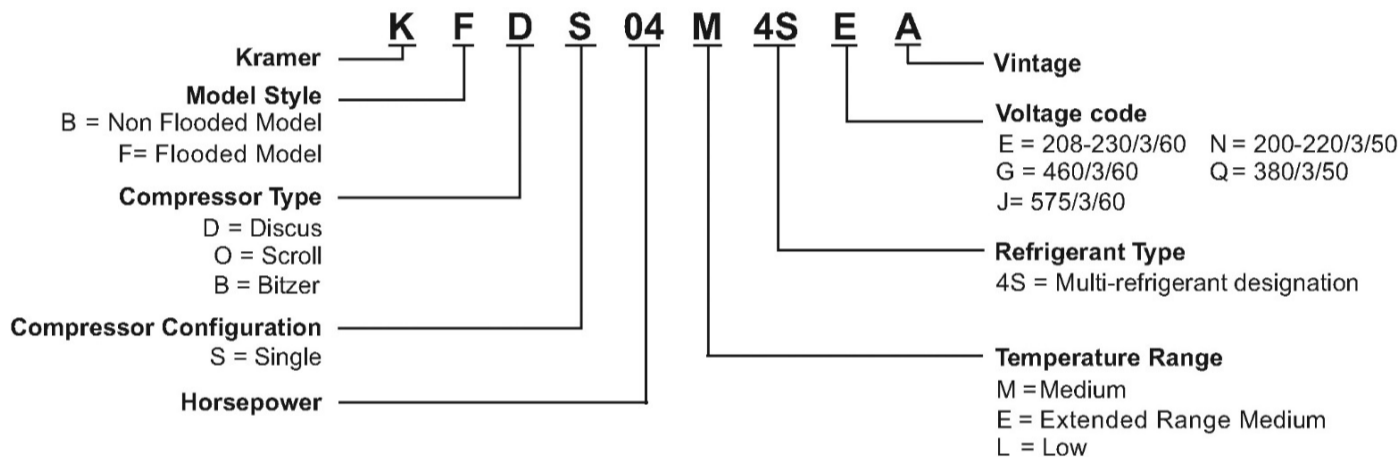
Standard Features (all models):

- Copeland Discus™, Copeland Scroll™ or Bitzer Semi-Hermetic Compressor
- All weather G90 galvanized steel painted enclosure
- Removable side panels for ease of service
- Generously sized high efficiency condenser, with enhanced copper tubes/and aluminum fins
- Liquid line kit with sealed filter/drier and sight glass with moisture indicator
- Easy access base mounted service valves placed external to cabinet
- Dual pressure (auto reset) controls with flexible Refflex® hoses
- Vertical receiver with isolation valves
- Refrigerant pressure relief valve (Larger models in FD2 and FD3 cabinets)
- Integral liquid subcooling circuit
- Suction line piping (filter optional)
- Heavy duty three phase condenser fan motor(s)
- Crankcase heater
- Control circuit fuses
- Pump down toggle switch
- Large electrical panel with hinged door
- 208-230V control voltage
- Color coded point-to-point wiring
- Fan cycling on KB models
- Liquid injection / Demand Cooling™ for low temp compressors

KF models also include a Flooded Head Pressure Control Valve (70°F) as a standard feature

Optional Features (all models):

- Electronic air defrost timer
- Electric defrost kits
- Mechanical timer in lieu of electronic timer
- 50 Hz timer and/or defrost kit
- Current sensing relay
- Thru the door Non-fused disconnect
- Suction line filter (sealed)
- Suction accumulator
- Oil separator
- Replaceable core liquid filter with bypass
- Replaceable core suction filter with bypass
- External fused or non-fused disconnect - loose or mounted
- Heated and insulated receiver (Temp controlled with low pressure bypass timer)
- Refrigerant pressure relief valve (for models in FD1 cabinet).
- Oversized receiver
- Insulated receiver
- Hail / Snow Guard - shipped loose (onl)
- 316 Grade stainless steel housing
- Crankcase pressure regulator



Temp Range	Compressor (Discus)	H.P.	Model Number	KF		Model Number	KB		4 Year Compressor Protection Plan	Approx. Ship Wt. (LBS)
				Flooded Unit	List Price		VOLTAGE	Non Flooded		
Medium Temp Discus	2DC3R53K	04	KFDS04M4SEA	\$21,185	208/230/3/60	KBDS04M4SEA	\$20,204	\$454 NET	825	
			KFDS04M4SGA	22,504	460/3/60	KBDS04M4SGA	21,522			
			KFDS04M4SJA	22,955	575/3/60	KBDS04M4SJA	21,974			
	2DD3R63K	05	KFDS05M4SEA	21,567	208/230/3/60	KBDS05M4SEA	20,585	454 NET	850	
			KFDS05M4SGA	22,832	460/3/60	KBDS05M4SGA	21,850			
			KFDS05M4SJA	23,406	575/3/60	KBDS05M4SJA	22,424			
	2DL3R78K	06	KFDS06M4SEA	26,786	208/230/3/60	KBDS06M4SEA	25,804	550 NET	1,075	
			KFDS06M4SGA	28,650	460/3/60	KBDS06M4SGA	27,669			
			KFDS06M4SJA	29,220	575/3/60	KBDS06M4SJA	28,239			
	2DA3R89K	07	KFDS07M4SEA	27,354	208/230/3/60	KBDS07M4SEA	26,372	558 NET	1,100	
			KFDS07M4SGA	29,027	460/3/60	KBDS07M4SGA	28,045			
			KFDS07M4SJA	29,598	575/3/60	KBDS07M4SJA	28,616			
	3DA3R10M	08	KFDS08M4SEA	30,677	208/230/3/60	KBDS08M4SEA	29,696	558 NET	1,130	
			KFDS08M4SGA	32,515	460/3/60	KBDS08M4SGA	31,533			
			KFDS08M4SJA	33,178	575/3/60	KBDS08M4SJA	32,196			
	3DB3R12M	10	KFDS10M4SEA	32,896	208/230/3/60	KBDS10M4SEA	31,914	721 NET	1,330	
			KFDS10M4SGA	34,599	460/3/60	KBDS10M4SGA	33,617			
			KFDS10M4SJA	35,237	575/3/60	KBDS10M4SJA	34,255			
	3DF3R15M	12	KFDS12M4SEA	35,635	208/230/3/60	KBDS12M4SEA	34,653	865 NET	1,330	
			KFDS12M4SGA	37,030	460/3/60	KBDS12M4SGA	36,048			
			KFDS12M4SJA	N/A	575/3/60	KBDS12M4SJA	N/A			
	3DS3R17M	15	KFDS15M4SEA	37,127	208/230/3/60	KBDS15M4SEA	36,146	1,116 NET	1,350	
			KFDS15M4SGA	38,381	460/3/60	KBDS15M4SGA	37,399			
			KFDS15M4SJA	39,033	575/3/60	KBDS15M4SJA	38,051			

Voltage codes: E = 208-230/3/60, G = 460V/3/60, J = 575V/3/6

* See next page for condensing units with low temp Discus™ or Scroll™ compressors.

NEXT-GEN II AIR COOLED CONDENSING UNITS
3 THRU 22 H.P. - DISCUS and SCROLL

Temperature Range	Compressor (Discus)	H.P.	Model Number	KF Flooded List Price	VOLTAGE	Model Number	KB Non Flooded List Price	4 Year Compressor Protection Plan	Approx. Ship Wt. (LBS)
Low Temp Discus	2DF3F16K	03	KFDS03L4SEA	\$23,541	208/230/3/60	KBDS03L4SEA	\$22,559	\$306 NET	710
			KFDS03L4SGA	24,997	460/3/60	KBDS03L4SGA	24,015		
			KFDS03L4SJA	25,528	575/3/60	KBDS03L4SJA	24,547		
	2DL3F20K	04	KFDS04L4SEA	25,566	208/230/3/60	KBDS04L4SEA	24,584	454 NET	760
			KFDS04L4SGA	27,043	460/3/60	KBDS04L4SGA	26,061		
			KFDS04L4SJA	27,521	575/3/60	KBDS04L4SJA	26,539		
	2DA3F23K	05	KFDS05L4SEA	26,122	208/230/3/60	KBDS05L4SEA	25,140	454 NET	805
			KFDS05L4SGA	27,800	460/3/60	KBDS05L4SGA	26,818		
			KFDS05L4SJA	28,301	575/3/60	KBDS05L4SJA	27,319		
	3DA3F28K	06	KFDS06L4SEA	28,257	208/230/3/60	KBDS06L4SEA	27,276	550 NET	870
			KFDS06L4SGA	29,947	460/3/60	KBDS06L4SGA	28,966		
			KFDS06L4SJA	30,620	575/3/60	KBDS06L4SJA	29,638		
	3DB3F33K	08	KFDS08L4SEA	31,332	208/230/3/60	KBDS08L4SEA	30,350	558 NET	1,130
			KFDS08L4SGA	32,696	460/3/60	KBDS08L4SGA	31,714		
			KFDS08L4SJA	33,730	575/3/60	KBDS08L4SJA	32,748		
	3DF3F40K	09	KFDS09L4SEA	34,762	208/230/3/60	KBDS09L4SEA	33,781	721 NET	1,275
			KFDS09L4SGA	36,668	460/3/60	KBDS09L4SGA	35,686		
			KFDS09L4SJA	37,344	575/3/60	KBDS09L4SJA	36,362		
	3DS3F46K	10	KFDS10L4SEA	37,521	208/230/3/60	KBDS10L4SEA	36,539	821 NET	1,275
			KFDS10L4SGA	38,126	460/3/60	KBDS10L4SGA	37,144		
			KFDS10L4SJA	39,018	575/3/60	KBDS10L4SJA	38,036		
	4DBNF54K	12	KFDS12L4SEA	38,216	208/230/3/60	KBDS12L4SEA	37,235	865 NET	1,290
			KFDS12L4SGA	39,031	460/3/60	KBDS12L4SGA	38,049		
			KFDS12L4SJA	39,765	575/3/60	KBDS12L4SJA	38,783		
	4DHNF63K	15	KFDS15L4SEA	40,037	208/230/3/60	KBDS15L4SEA	39,059	1,116 NET	1,310
			KFDS15L4SGA	40,634	460/3/60	KBDS15L4SGA	39,653		
			KFDS15L4SJA	41,435	575/3/60	KBDS15L4SJA	40,453		
4DJNF76K	22	KFDS22L4SEA	45,040	208/230/3/60	KBDS22L4SEA	44,058	1,382 NET	1,420	
		KFDS22L4SGA	45,752	460/3/60	KBDS22L4SGA	44,770			
		KFDS22L4SJA	46,852	575/3/60	KBDS22L4SJA	45,871			

Temperature Range	Compressor (Scroll)	H.P.	Model Number	KF Flooded LIST PRICE	VOLTAGE	Model Number	KB Non Flooded List Price	4 Year Compressor Protection Plan	Approx. Ship Wt. (LBS)
Medium Temp Scroll	ZS29KAE	04	KFOS04E4SEA	\$19,470	208/230/3/60	KBOS04E4SEA	\$18,489	\$264 NET	700
			KFOS04E4SGA	21,008	460/3/60	KBOS04E4SGA	20,027		
			KFOS04E4SJA	21,463	575/3/60	KBOS04E4SJA	20,481		
	ZS33KAE	05	KFOS05E4SEA	19,817	208/230/3/60	KBOS05E4SEA	18,835	264 NET	710
			KFOS05E4SGA	21,328	460/3/60	KBOS05E4SGA	20,346		
			KFOS05E4SJA	21,844	575/3/60	KBOS05E4SJA	20,862		
	ZS38K4E	06	KFOS06E4SEA	22,582	208/230/3/60	KBOS06E4SEA	21,600	271 NET	710
			KFOS06E4SGA	24,393	460/3/60	KBOS06E4SGA	23,411		
			KFOS06E4SJA	24,906	575/3/60	KBOS06E4SJA	23,925		
	ZS45K4E	07	KFOS07E4SEA	23,022	208/230/3/60	KBOS07E4SEA	22,040	448 NET	870
			KFOS07E4SGA	24,737	460/3/60	KBOS07E4SGA	23,755		
			KFOS07E4SJA	25,251	575/3/60	KBOS07E4SJA	24,269		
	ZB58K5E	08	KFOS08E4SEA	23,477	208/230/3/60	KBOS08E4SEA	22,496	448 NET	915
			KFOS08E4SGA	25,212	460/3/60	KBOS08E4SGA	24,230		
			KFOS08E4SJA	25,760	575/3/60	KBOS08E4SJA	24,778		
	ZB66K5E	09	KFOS09E4SEA	24,778	208/230/3/60	KBOS09E4SEA	23,797	485 NET	980
			KFOS09E4SGA	26,329	460/3/60	KBOS09E4SGA	25,347		
			KFOS09E4SJA	26,852	575/3/60	KBOS09E4SJA	25,870		
	ZB76K5E	10	KFOS10E4SEA	28,968	208/230/3/60	KBOS10E4SEA	27,986	485 NET	1,085
			KFOS10E4SGA	30,069	460/3/60	KBOS10E4SGA	29,087		
			KFOS10E4SJA	30,687	575/3/60	KBOS10E4SJA	29,705		
	ZB95K5E	13	KFOS13E4SEA	32,082	208/230/3/60	KBOS13E4SEA	31,101	560 NET	1,105
			KFOS13E4SGA	32,156	460/3/60	KBOS13E4SGA	31,174		
			KFOS13E4SJA	33,207	575/3/60	KBOS13E4SJA	32,225		
	ZB114K5E	15	KFOS15E4SEA	35,821	208/230/3/60	KBOS15E4SEA	34,839	571 NET	1,200
			KFOS15E4SGA	37,457	460/3/60	KBOS15E4SGA	36,475		
			KFOS15E4SJA	38,188	575/3/60	KBOS15E4SJA	37,206		

Low Temp Scroll	ZF25K4E	08	KFOS08L4SEA	\$22,186	208/230/3/60	KBOS08L4SEA	\$21,204	\$448 NET	850
			KFOS08L4SGA	23,498	460/3/60	KBOS08L4SGA	22,516		
			KFOS08L4SJA	23,958	575/3/60	KBOS08L4SJA	22,976		
	ZF34K5E	10	KFOS10L4SEA	27,538	208/230/3/60	KBOS10L4SEA	26,556	485 NET	1,025
			KFOS10L4SGA	29,158	460/3/60	KBOS10L4SGA	28,176		
			KFOS10L4SJA	29,756	575/3/60	KBOS10L4SJA	28,774		
	ZF41K5E	13	KFOS13L4SEA	31,125	208/230/3/60	KBOS13L4SEA	30,143	560 NET	1,050
			KFOS13L4SGA	31,658	460/3/60	KBOS13L4SGA	30,676		
			KFOS13L4SJA	32,520	575/3/60	KBOS13L4SJA	31,538		
	ZF49K5E	15	KFOS15L4SEA	32,159	208/230/3/60	KBOS15L4SEA	31,178	571 NET	1,105
			KFOS15L4SGA	32,885	460/3/60	KBOS15L4SGA	31,904		
			KFOS15L4SJA	33,542	575/3/60	KBOS15L4SJA	32,560		

Voltage codes: E = 208-230/3/60, G = 460V/3/60, J = 575V/3/60

* See next Page for Condensing units with Bitzer Compressors

NEXT-GEN II AIR COOLED CONDENSING UNITS 3 THRU 22 H.P. - BITZER

Temperature Range	Compressor (Bitzer)	H.P.	Model Number	KF Flooded List Price	VOLTAGE	Model Number	KB Non Flooded List Price	4 Year Compressor Protection Plan	Approx. Ship Wt. (LBS)
Medium Temp Bitzer	2DES-3	03	KFBS03E4SEA	\$23,247	208/230/3/60	KBBS03E4SEA	\$22,265	\$454 NET	800
			KFBS03E4SGA	24,771	460/3/60	KBBS03E4SGA	23,789		
			KFBS03E4SJA	25,001	575/3/60	KBBS03E4SJA	24,019		
	2CES-4	04	KFBS04E4SEA	23,613	208/230/3/60	KBBS04E4SEA	22,631	454 NET	825
			KFBS04E4SGA	25,083	460/3/60	KBBS04E4SGA	24,101		
			KFBS04E4SJA	25,439	575/3/60	KBBS04E4SJA	24,457		
	4FES-5	05	KFBS05E4SEA	23,994	208/230/3/60	KBBS05E4SEA	23,013	454 NET	850
			KFBS05E4SGA	25,411	460/3/60	KBBS05E4SGA	24,429		
			KFBS05E4SJA	25,879	575/3/60	KBBS05E4SJA	24,897		
	4EES-6	06	KFBS06E4SEA	26,300	208/230/3/60	KBBS06E4SEA	25,318	550 NET	1,075
			KFBS06E4SGA	27,293	460/3/60	KBBS06E4SGA	26,311		
			KFBS06E4SJA	29,056	575/3/60	KBBS06E4SJA	28,074		
	4DES-7	07	KFBS07E4SEA	28,573	208/230/3/60	KBBS07E4SEA	27,592	558 NET	1,100
			KFBS07E4SGA	29,143	460/3/60	KBBS07E4SGA	28,162		
			KFBS07E4SJA	32,201	575/3/60	KBBS07E4SJA	31,219		
	4CES-9	08	KFBS08E4SEA	32,201	208/230/3/60	KBBS08E4SEA	31,219	558 NET	1,130
			KFBS08E4SGA	33,811	460/3/60	KBBS08E4SGA	32,829		
			KFBS08E4SJA	34,538	575/3/60	KBBS08E4SJA	33,556		
	4TES-12	10	KFBS10E4SEA	32,589	208/230/3/60	KBBS10E4SEA	31,607	721 NET	1,330
			KFBS10E4SGA	34,514	460/3/60	KBBS10E4SGA	33,532		
			KFBS10E4SJA	35,151	575/3/60	KBBS10E4SJA	34,170		
	4PES-15	12	KFBS12E4SEA	33,974	208/230/3/60	KBBS12E4SEA	32,992	865 NET	1,330
			KFBS12E4SGA	35,745	460/3/60	KBBS12E4SGA	34,764		
			KFBS12E4SJA	36,383	575/3/60	KBBS12E4SJA	35,401		
4NES-20	15	KFBS15E4SEA	34,747	208/230/3/60	KBBS15E4SEA	33,765	1,116 NET	1,350	
		KFBS15E4SGA	36,447	460/3/60	KBBS15E4SGA	35,466			
		KFBS15E4SJA	37,081	575/3/60	KBBS15E4SJA	36,099			

Low Temp Bitzer	4FES-3	03	KFBS03L4SEA	\$23,135	208/230/3/60	KBBS03L4SEA	\$22,154	\$281 NET	710
			KFBS03L4SGA	23,943	460/3/60	KBBS03L4SGA	22,962		
			KFBS03L4SJA	24,460	575/3/60	KBBS03L4SJA	23,478		
	4EES-4	04	KFBS04L4SEA	25,176	208/230/3/60	KBBS04L4SEA	24,194	281 NET	760
			KFBS04L4SGA	25,984	460/3/60	KBBS04L4SGA	25,002		
			KFBS04L4SJA	26,501	575/3/60	KBBS04L4SJA	25,519		
	4DES-5	05	KFBS05L4SEA	26,326	208/230/3/60	KBBS05L4SEA	25,344	312 NET	805
			KFBS05L4SGA	27,218	460/3/60	KBBS05L4SGA	26,237		
			KFBS05L4SJA	27,718	575/3/60	KBBS05L4SJA	26,736		
	4CES-6	06	KFBS06L4SEA	31,041	208/230/3/60	KBBS06L4SEA	30,060	324 NET	870
			KFBS06L4SGA	32,198	460/3/60	KBBS06L4SGA	31,216		
			KFBS06L4SJA	32,539	575/3/60	KBBS06L4SJA	31,557		
	4TES-9	08	KFBS08L4SEA	33,027	208/230/3/60	KBBS08L4SEA	32,045	324 NET	1,130
			KFBS08L4SGA	34,138	460/3/60	KBBS08L4SGA	33,157		
			KFBS08L4SJA	34,582	575/3/60	KBBS08L4SJA	33,600		
	4PES-12	09	KFBS09L4SEA	35,183	208/230/3/60	KBBS09L4SEA	34,201	324 NET	1,275
			KFBS09L4SGA	36,232	460/3/60	KBBS09L4SGA	35,250		
			KFBS09L4SJA	37,217	575/3/60	KBBS09L4SJA	36,235		
	4NES-14	10	KFBS10L4SEA	37,370	208/230/3/60	KBBS10L4SEA	36,388	324 NET	1,275
			KFBS10L4SGA	38,419	460/3/60	KBBS10L4SGA	37,437		
			KFBS10L4SJA	39,404	575/3/60	KBBS10L4SJA	38,422		
	4JE-15	12	KFBS12L4SEA	40,083	208/230/3/60	KBBS12L4SEA	39,101	439 NET	1,290
			KFBS12L4SGA	41,132	460/3/60	KBBS12L4SGA	40,151		
			KFBS12L4SJA	42,117	575/3/60	KBBS12L4SJA	41,136		
4HE-18	15	KFBS15L4SEA	42,859	208/230/3/60	KBBS15L4SEA	41,877	545 NET	1,310	
		KFBS15L4SGA	43,905	460/3/60	KBBS15L4SGA	42,923			
		KFBS15L4SJA	44,893	575/3/60	KBBS15L4SJA	43,911			
4GE-23	22	KFBS22L4SEA	44,325	208/230/3/60	KBBS22L4SEA	40,826	620 NET	1,420	
		KFBS22L4SGA	45,434	460/3/60	KBBS22L4SGA	44,452			
		KFBS22L4SJA	46,422	575/3/60	KBBS22L4SJA	45,440			

Voltage codes: E = 208-230/3/60, G = 460V/3/60, J = 575V/3/60

3 THRU 22 H.P. CONDENSING UNITS - FACTORY INSTALLED DEFROST KITS

1 EVAPORATOR PER CU	Max Defrost Load (Amps per evap.)	List Price
DMA15	15	\$1,273
DMA20	20	
DMA24	24	
DMA30	30	
DMA35	35	\$1,421
DMA40	40	
DMA48	48	
DMB60	60	\$2,773
DMB96	96	

2 EVAPS PER CU	Max Defrost Load (Amps per evap.)	List Price
DMB35	35	\$1,928
DMB40	40	
DMB48	48	
DMB60	60	
DMB96	96	\$2,773

3 EVAPS PER CU	Max Defrost Load (Amps per evap.)	List Price
DMC35	35	\$2,900
DMC40	40	
DMC48	48	
DMC60	60	\$3,586
DMC96	96	

AIR DEFROST TIMER: \$554

Note: All electric defrost kits include 1 fan contactor and are suitable for single or three phase loads. Defrost amp values are the maximum load for a kit. Smaller loads may be attached.

3 THRU 22 H.P. CONDENSING UNITS - FACTORY INSTALLED OPTIONS

All options are factory mounted unless otherwise noted.	OPTION NUMBER	H.P. RANGE	LIST PRICE†
Electrical Options			
THROUGH THE DOOR NON-FUSED DISCONNECT SWITCH	TDNM-3	3-10	\$1,552
	TDNM-4	12-22	1,735
EXTERNAL FUSED DISCONNECT - Loose or Mounted	EFDM-2 (230V)	3 - 6	1,003
	EFDM-3 (230V)	7 - 10	1,194
	EFDM-4 (230V)	12 - 22	2,546
	EFDM-2 (460V)	3 - 6	1,179
	EFDM-3 (460V)	7 - 10	2,122
	EFDM-4 (460V)	12 - 22	3,501
MAIN CIRCUIT BREAKER	BKR-2	3 - 6	1,433
	BKR-3	7 - 10	1,804
	BKR-4	12 - 22	2,271
PHASE LOSS MONITOR	PLM	ALL	1,129
ANTI SHORT CYCLE TIMER	ASC	ALL	667
CURRENT SENSING RELAY (Run proof)	CSR	All	739
COMPRESSOR UNLOADERS (Suction pressure control. Medium Temp reciprocating compressors only. 1 Step for 3D and larger compressors.)	UNL-1	When Available	2,075

See Page 19 for defrost kit prices.

Mechanical Options

SUCTION LINE FILTER (Sealed)	SK-5	3 - 8	\$486
	SK-6	9 - 10	825
	SK-7	12 - 22	1,316
REPLACEABLE CORE SUCTION FILTER (With Bypass)	RSK-5	3 - 8	1,094
	RSK-6	9 - 10	1,400
	RSK-7	12 - 22	1,974
REPLACEABLE CORE LIQUID FILTER (With Bypass)	RLK-5	3 - 8	1,148
	RLK-6	9 - 10	1,432
	RLK-7	12 - 22	2,073
SUCTION LINE ACCUMULATOR (Must add Suction line filter option.)	ASK-4	3 - 8	785
	ASK-5	9 - 10	1,154
	ASK-6	12 - 22	2,411
OIL SEPARATOR	OS-1	3 - 6	1,337
	OS-2	7 - 10	1,424
	OS-3	12 - 22	1,674
OVERSIZED RECEIVERS	OSR-1	1 FAN	1,180
	OSR-2	2 FAN	661
	OSR-3	2 FAN TALL	668
PRESSURE RELIEF VALVE (For models built on FD1 cabinet base. Requires Oversized Receiver OSR-1 option)	RV	FD1 Cabinet	299
HEATED AND INSULATED RECEIVER (Temperature controlled with low pressure bypass timer)	HIR	ALL	776
CRANKCASE PRESSURE REGULATOR (Do not use with MOP style TXV's. Must provide refrigerant type, holding temperature, suction temperature, and maximum design capacity.)	CPR VALVE	3 - 5	1,539
		6 - 9	1,707
		10 - 15	3,179
		22	4,976
LIQUID INJECTION / DEMAND COOLING™ PRICE DEDUCT - to optionally remove the feature from low temperature models (not available for Scroll™ compressors)	LNJ-deduct	ALL	2,518
HAIL / SNOW GUARDS (Shipped loose to prevent shipping damage. Requires field installation)	SG-E	1 FAN	933
	SG-F	2 FAN	1,276
	SG-G	2 FAN TALL	1,429
2 UNIT STACKING RACK (Shipped empty. Condensing units must be field installed.)	SR-2	1 or 2 FAN	C/A
3 UNIT STACKING RACK (Shipped empty. Condensing units must be field installed.)	SR-3	1 or 2 FAN	C/A

Contact Application Engineering for a special quote on options not found in the price list.

† Phase Loss monitor is a standard feature for K5 Scroll Series CoreSense modules. Extended Range models

*OS8E4S thru OS15E4s and Low Temp OS10L4L thru *OS15L4S use K5 Series Scroll compressors.

QV-SERIES AIR COOLED CONDENSING UNITS

15 THRU 100 H.P.



Standard Features (all models)

- Copeland Discus compressor
- Available in single, dual or parallel compressor configurations
- Prepaint gray exterior/ G60 galvanized steel outdoor cabinet construction
- Heavy gauge G90 galvanized steel frame
- Award-winning floating coil design with generously sized condensers for energy savings
- Integral subcooling circuit boosts energy efficiency
- Mechanically formed pre-bent tubing reduces potential leaks
- Compatible with multiple refrigerants
- Optimized for high glide refrigerants
- Separate power and control electrical panels
- Swept wing fan/Venturi improves airflow and sound
- Hinged and removable access panels
- Flip top hinged Venturi panels for easy servicing
- Floored compressor cabinet with removable compressor tray
- Color-coded control wiring diagram with diagnostic terminals/ color-coded high and low pressure hoses
- LED control and compressor panel lighting
- 110V service convenience outlet
- Service gauge hooks
- 3 Phase condenser fan motors
- Electronic oil failure control
- Horizontal receiver
- Receiver isolation valves
- Refrigerant relief valve
- Replaceable core liquid line filter
- Suction line and discharge line vibrasorbors
- Liquid line isolation valve with sight glass
- Single point alarm with liquid line solenoid lockout
- Control circuit and condenser fan fusing
- Condenser fan contactors
- UL and cUL listed for outdoor use

Flooded (KF) Models include an adjustable head pressure control valve

Non-Flooded (KB) Models include electronic fan cycling control and a minimum charge monitor

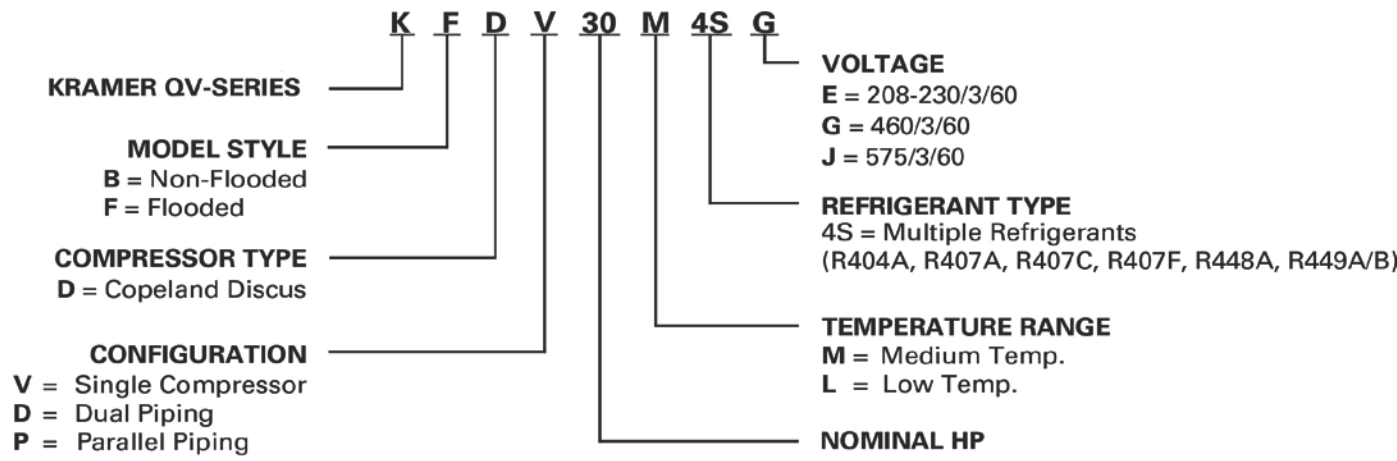
Parallel Compressor Models (KF*P/ KB*P) include an oil management system

Options

- EC fan motors for variable speed
- Air defrost timer or electric defrost components
- Electric defrost kits available for up to 4 evaporators
- Oversized receiver
- ElectroFin[®], polyester coated fins or Bronz-Glow coil coating
- Liquid injection on low temp. compressors
- Heated and insulated receiver
- Oil separator with check valve
- Fan cycling control (RF models)
- Suction accumulator
- Liquid filter isolation valve
- Suction isolation valve
- Suction filter isolation valve
- Replaceable core suction filter
- Crankcase pressure regulator
- Hot gas bypass (Discharge tee, regulator or ball valve)
- Heat reclaim (Sporlan 3 way valve)
- Thru-the-door non-fused disconnect switch
- Thru-the-door fused disconnect (200 amp Max)
- Thru-the-door breaker disconnect (200 amp Max)
- Phase loss monitor
- Anti short cycle timer

QV-SERIES AIR COOLED CONDENSING UNITS

MODEL NUMBER NOMENCLATURE



NOMINAL COMPRESSOR HP

SINGLE COMP.	DUAL PIPING	PARALLEL PIPING
15 HP	30 (2) 15 HP	-
20 HP	40 (2) 20 HP	-
22 HP	44 (2) 22 HP	44 (2) 22 HP
25 HP	50 (2) 25 HP	50 (2) 25 HP
27 HP	54 (2) 27 HP	54 (2) 27 HP
30 HP	60 (2) 30 HP	60 (2) 30 HP
35 HP	70 (2) 35 HP	70 (2) 35 HP
40 HP	80 (2) 40 HP	80 (2) 40 HP
50 HP	100 (2) 50 HP	100 (2) 50 HP

QV-SERIES • SINGLE DISCUS COMPRESSOR MODELS

TEMP. RANGE	NOM H.P.	MODEL NUMBER	COMPRESSOR NUMBER	FLOODED MODELS (KF)			NON-FLOODED MODELS (KB)			4 Year Compressor
				208-230V/3	460V/3	575V/3	208-230V/3	460V/3	575V/3	
Medium Temp.	15	K*DV015M4S	3DS3R17ME	\$41,933	\$42,619	\$43,647	\$41,679	\$42,388	\$43,161	\$1,116
	20	K*DV020M4S	4DBNR20ME	46,411	47,065	47,895	45,424	46,353	47,392	1,382
	25	K*DV025M4S	4DHNR22ME	55,420	56,028	57,181	54,294	55,233	56,265	1,544
	30	K*DV030M4S	4DJNR28ME	64,777	65,483	66,900	61,268	62,028	63,094	1,656
	35	K*DV035M4S	6DHNR35ME	73,363	73,783	75,491	70,656	70,849	72,350	1,744
	40	K*DV040M4S	6DJNR40ME ¹	80,735	81,856	83,188	77,617	78,755	80,419	1,821
Low Temp.	50	K*DV050M4S	6DUNR49ME	N/A	97,721	N/A	N/A	92,805	N/A	2,061
	22	K*DV022L4S	4DJNF76KE	52,133	53,230	54,332	52,125	52,784	53,942	1,382
	27	K*DV027L4S	6DHNF93KE	60,346	60,828	61,883	59,178	60,245	60,971	1,544
	30	K*DV030L4S	6DJNF11ME	66,672	67,287	68,661	65,298	66,390	67,835	1,656
40	K*DV040L4S	6DUNF13ME	N/A	83,782	N/A	N/A	82,413	N/A	1,993	

QV-SERIES • DUAL DISCUS COMPRESSOR MODELS

TEMP. RANGE	NOM H.P.	MODEL NUMBER	COMPRESSOR NUMBER	FLOODED MODELS (KF)			NON-FLOODED MODELS (KB)			4 Year Compressor
				208-230V/3	460V/3	575V/3	208-230V/3	460V/3	575V/3	
Medium Temp.	30	K*DD030M4S	3DS3R17ME	\$83,866	\$85,238	\$87,294	\$83,358	\$84,776	\$86,322	\$2,232
	40	K*DD040M4S	4DBNR20ME	92,822	94,130	95,790	90,848	92,706	94,784	2,764
	50	K*DD050M4S	4DHNR22ME	110,840	112,056	114,362	108,588	110,466	112,530	3,088
	60	K*DD060M4S	4DJNR28ME	129,554	130,966	133,800	122,536	124,056	126,188	3,312
	70	K*DD070M4S	6DHNR35ME	146,726	147,566	150,982	141,312	141,698	144,700	3,488
	80	K*DD080M4S	6DJNR40ME ¹	161,470	163,712	166,376	155,234	157,510	160,838	3,642
Low Temp.	100	K*DD100M4S	6DUNR49ME	N/A	195,442	N/A	N/A	185,610	N/A	4,122
	44	K*DD044L4S	4DJNF76KE	104,266	106,460	108,664	104,250	105,568	107,884	2,764
	54	K*DD054L4S	6DHNF93KE	120,692	121,656	123,766	118,356	120,490	121,942	3,088
	60	K*DD060L4S	6DJNF11ME	133,344	134,574	137,322	130,596	132,780	135,670	3,312
80	K*DD080L4S	6DUNF13ME	N/A	167,564	N/A	N/A	164,826	N/A	3,986	

QV-SERIES • PARALLEL PIPED DISCUS COMPRESSOR MODELS

TEMP. RANGE	NOM H.P.	MODEL NUMBER	COMPRESSOR NUMBER	FLOODED MODELS (KF)			NON-FLOODED MODELS (KB)			4 Year Compressor
				208-230V/3	460V/3	575V/3	208-230V/3	460V/3	575V/3	
Medium Temp.	50	K*DP050M4S	4DHNR22ME	\$124,549	\$125,615	\$128,127	\$121,966	\$123,807	\$126,041	\$3,088
	60	K*DP060M4S	4DJNR28ME	142,103	143,395	146,263	133,964	135,407	137,440	3,312
	70	K*DP070M4S	6DHNR35ME	159,773	160,491	163,701	153,652	153,845	156,594	3,488
	80	K*DP080M4S	6DJNR40ME ¹	173,297	175,997	179,517	166,335	169,067	173,335	3,642
	100	K*DP100M4S	6DUNR49ME	N/A	216,941	N/A	N/A	205,449	N/A	4,122
Low Temp.	44	K*DP044L4S	4DJNF76KE	118,274	120,446	122,855	118,256	119,429	121,967	2,764
	54	K*DP054L4S	6DHNF93KE	133,799	134,594	137,286	131,158	133,292	135,233	3,088
	60	K*DP060L4S	6DJNF11ME	145,618	146,711	149,645	142,554	144,729	147,823	3,312
	80	K*DP080L4S	6DUNF13ME	N/A	185,996	N/A	N/A	182,906	N/A	3,986

¹6DJ3R40ME on 575/3

QV-SERIES AIR COOLED CONDENSING UNITS • OPTIONS AND ACCESSORIES

QV-SERIES • SINGLE COMPRESSOR MODEL OPTIONS

OPTION FAMILY	OPTION NAME	OPTION AVAILABLE ON MODELS:	LIST PRICE
Compressor Options	Compressor Unloading with Pressure Control for 1 Cycle Bank	020M-30M, 50M; 022L - 040L	\$2,079
	Compressor Unloading with Pressure Control for 2 Cycle Bank	035M & 045M	2,993
	Head Cooling Fan	All Models	1,721
	Liquid Injection	022L - 040L	3,779
Electrical and Control Panel Options	Air Defrost Time Clock	All Medium Temperature Models	554
	Anti-Short Cycle Timer	All Models	480
	Condenser Fan Breaker	015M -030M; 022L - 040L	725
	Condenser Fan Breaker	035M -050M	1,100
	Control Circuit Breaker	All Models	236
	EC Fan Motors with Electronic Variable Speed Control	015M -030M; 022L - 040L	Call Factory
	EC Fan Motors with Electronic Variable Speed Control	035M -050M	Call Factory
	Thru-the-door Fused Disconnect	Models with MOPD < 61A	1,464
	Thru-the-door Fused Disconnect	Models with 61A < MOPD < 101A	2,167
	Thru-the-door Fused Disconnect	Models with 101A < MOPD < 201A	3,713
	Thru-the-door Main Breaker	Models with MOPD ≤ 100A	1,871
	Thru-the-door Main Breaker	Models with 101A < MOPD < 201A	3,036
	Thru-the-door Non-Fused Disconnect	Models with MCA < 59A	1,318
	Thru-the-door Non-Fused Disconnect	Models with 59A < MCA > 99A	1,913
	Thru-the-door Non-Fused Disconnect	Models with 99A < MCA < 199A	3,164
	Phase-Loss Monitor - 250A	230V & 460V	925
	Phase-Loss Monitor - ICM450	230V	1,350
Phase-Loss Monitor - ICM450	460V	960	
Refrigeration Options	Crankcase Pressure Regulator Valves	015M	3,250
	Crankcase Pressure Regulator Valves	020M - 040M; 022L - 030L	4,093
	Crankcase Pressure Regulator Valves	050M & 040L	8,121
	Fan Cycling - Temperature or Pressure	All Flooded Models; Standard on Non-Flooded Models	1,460
	Heat Reclaim Valve	All Models	3,379
	Heated & Insulated Receiver	All Models	2,569
	Hot Gas Bypass Tee & Ball Valve	All Models	792
	Hot Gas Bypass Tee, Ball Valve & Regulator	All Models	4,592
	Liquid-line Filter Isolation Valve (Single Valve)	All Models	457
	Oil Separator with Check Valve	015 - 030	1,857
	Oil Separator with Check Valve	035 - 050	3,307
	Oil Separator with Check Valve & Oil Return Service Kit	015 - 030	3,486
	Oil Separator with Check Valve & Oil Return Service Kit	035 - 050	4,936
	Oversized Receiver	All Models	1,093
	Receiver Level Gauge	All Models	1,357
	Suction Accumulator - Standard	015	2,450
	Suction Accumulator - Standard	020-050	2,833
	Suction Accumulator - Heat Exchanger	015	3,036
	Suction Accumulator - Heat Exchanger	020-050	4,700
	Suction-line Filter - Replaceable Core	015M	1,069
	Suction-line Filter - Replaceable Core	020M - 040M; 022L - 030L	1,333
	Suction-line Filter - Replaceable Core	050M & 040L	1,385
	Suction-line Filter Isolation Valves	015M	750
	Suction-line Filter Isolation Valves	020M - 040M; 022L - 030L	1,207
	Suction-line Filter Isolation Valves	050M & 040L	2,100
	Suction-line Insulation	All Models	1,329

QV-SERIES AIR COOLED CONDENSING UNITS • OPTIONS AND ACCESSORIES

QV-SERIES • DUAL COMPRESSOR MODEL OPTIONS

OPTION FAMILY	OPTION NAME	OPTION AVAILABLE ON MODELS:	LIST PRICE
Compressor Options	Compressor Unloading with Pressure Control for 1 Cycle Bank	D040M - D060M, D100M; D044L - D080L	\$4,158
	Compressor Unloading with Pressure Control for 2 Cycle Bank	D070M & D080M	5,986
	Head Cooling Fan	All Models	3,442
	Liquid Injection	D044L - D080L	7,558
Electrical and Control Panel Options	Air Defrost Time Clock	All Medium Temperature Models	1,108
	Anti-Short Cycle Timer	All Models	960
	Condenser Fan Breaker	D030M -D060M; D044L - D080L	1,450
	Condenser Fan Breaker	D070M -D100M	2,200
	Control Circuit Breaker	All Models	236
	EC Fan Motors with Electronic Variable Speed Control	D030M -D060M; D044L - D080L	Call Factory
	EC Fan Motors with Electronic Variable Speed Control	D070M -D100M	Call Factory
	Thru-the-door Fused Disconnect	Models with MOPD < 61A	1,464
	Thru-the-door Fused Disconnect	Models with 61A < MOPD < 101A	2,167
	Thru-the-door Fused Disconnect	Models with 101A < MOPD < 201A	3,713
	Thru-the-door Main Breaker	Models with MOPD ≤ 100A	1,871
	Thru-the-door Main Breaker	Models with 101A < MOPD < 201A	3,036
	Thru-the-door Non-Fused Disconnect	Models with MCA < 59A	1,318
	Thru-the-door Non-Fused Disconnect	Models with 59A < MCA > 99A	1,913
	Thru-the-door Non-Fused Disconnect	Models with 99A < MCA < 199A	3,164
Phase-Loss Monitor -250A	230V & 460V	925	
Phase-Loss Monitor - ICM450	460V	1,920	
Refrigeration Options	Crankcase Pressure Regulator Valves	D030M	6,500
	Crankcase Pressure Regulator Valves	D040M - D080M; D044L - D060L	8,186
	Crankcase Pressure Regulator Valves	D100M & D080L	16,242
	Fan Cycling - Temperature or Pressure	All Flooded Models; Standard on Non-Flooded Models	2,920
	Heat Reclaim Valve	All Models	6,758
	Heated & Insulated Receiver	All Models	5,138
	Hot Gas Bypass Tee & Ball Valve	All Models	1,584
	Hot Gas Bypass Tee, Ball Valve & Regulator	All Models	9,184
	Liquid-line Filter Isolation Valve (Single Valve per Circuit)	All Models	914
	Oil Separator with Check Valve	D030 - D060	3,714
	Oil Separator with Check Valve	D070 - D100	6,614
	Oil Separator with Check Valve & Oil Return Service Kit	D030 - D060	6,972
	Oil Separator with Check Valve & Oil Return Service Kit	D070 - D100	9,872
	Oversized Receiver	All Models	2,186
	Receiver Level Gauge	All Models	2,714
	Suction Accumulator - Standard	D030	4,900
	Suction Accumulator - Standard	D040-D100	5,666
	Suction Accumulator - Heat Exchanger	D030	6,072
	Suction Accumulator - Heat Exchanger	D040-D100	9,400
	Suction-line Filter - Replaceable Core	D030M	2,138
	Suction-line Filter - Replaceable Core	D040M - D080M; D044L - D060L	2,666
	Suction-line Filter - Replaceable Core	D100M & D080L	2,770
	Suction-line Filter Isolation Valves	D030M	1,500
	Suction-line Filter Isolation Valves	D040M - D080M; D044L - D060L	2,414
Suction-line Filter Isolation Valves	D100M & D080L	4,200	
Suction-line Insulation	All Models	2,658	

QV-SERIES AIR COOLED CONDENSING UNITS • OPTIONS AND ACCESSORIES

QV-SERIES • PARALLEL COMPRESSOR MODEL OPTIONS

OPTION FAMILY	OPTION NAME	OPTION AVAILABLE ON MODELS:	LIST PRICE
Compressor Options	Compressor Unloading with Pressure Control for 1 Cycle Bank	P050M - P060M, P100M; P044L - P080L	\$4,158
	Compressor Unloading with Pressure Control for 2 Cycle Bank	P070M & P080M	5,986
	Head Cooling Fan	All Models	3,442
	Liquid Injection	P044L - P080L	7,558
Electrical and Control Panel Options	Air Defrost Time Clock	All Medium Temperature Models	554
	Anti-Short Cycle Timer	All Models	480
	Condenser Fan Breaker	P050M -P060M; P044L - P080L	725
	Condenser Fan Breaker	P070M -P100M	1,100
	Control Circuit Breaker	All Models	236
	EC Fan Motors with Electronic Variable Speed Control	P050M -P060M; P044L - P080L	Call Factory
	EC Fan Motors with Electronic Variable Speed Control	P070M -P100M	Call Factory
	Thru-the-door Fused Disconnect	Models with MOPD < 61A	1,464
	Thru-the-door Fused Disconnect	Models with 61A < MOPD < 101A	2,167
	Thru-the-door Fused Disconnect	Models with 101A < MOPD < 201A	3,713
	Thru-the-door Main Breaker	Models with MOPD ≤ 100A	1,871
	Thru-the-door Main Breaker	Models with 101A < MOPD < 201A	3,036
	Thru-the-door Non-Fused Disconnect	Models with MCA < 59A	1,318
	Thru-the-door Non-Fused Disconnect	Models with 59A < MCA > 99A	1,913
	Thru-the-door Non-Fused Disconnect	Models with 99A < MCA < 199A	3,164
	Phase-Loss Monitor - 250A	230V & 460V	925
Phase-Loss Monitor - ICM450	460V	1,920	
Refrigeration Options	Crankcase Pressure Regulator Valves	P050M-P60M	8,121
	Crankcase Pressure Regulator Valves	P070M-P100M; P044L - P080L	9,557
	Fan Cycling - Temperature or Pressure	All Flooded Models; Standard on Non-Flooded Models	2,040
	Heat Reclaim Valve	All Models	3,379
	Heated & Insulated Receiver	All Models	2,569
	Hot Gas Bypass Tee & Ball Valve	All Models	792
	Hot Gas Bypass Tee, Ball Valve & Regulator	All Models	4,592
	Liquid-line Filter Isolation Valve (Single Valve)	All Models	457
	Oversized Receiver	All Models	1,093
	Receiver Level Gauge	All Models	1,357
	Suction Accumulator - Standard	P050M-P60M	3,400
	Suction Accumulator - Standard	P070M-P100M; P044L - P080L	3,700
	Suction Accumulator - Heat Exchanger	P050M-P60M	4,700
	Suction Accumulator - Heat Exchanger	P070M-P100M; P044L - P080L	5,193
	Suction-line Filter - Replaceable Core	P050M-P60M	1,500
	Suction-line Filter - Replaceable Core	P070M-P100M; P044L - P080L	1,662
	Suction-line Filter Isolation Valves	P050M-P60M	2,100
	Suction-line Filter Isolation Valves	P070M-P100M; P044L - P080L	3,314
Suction-line Insulation	All Models	2,658	

QV-SERIES AIR COOLED CONDENSING UNITS • DEFROST KITS

ELECTRIC DEFROST KIT NOMENCLATURE

DL	A	24	-
Defrost Kit Large Condenser	Heater Contactor Quantity A: 1 Heater Contactor B: 2 Heater Contactor C: 3 Heater Contactor D: 4 Heater Contactor	Max Total Heater Amp Value	Special Kit Codes -1: 1 Evaporator with Multiple Heater Feeds -2: 2 Evaporators with Multiple Heater Feeds PP: Pressure Prop Kits for Large Evaporators Kits beginning with "K" are for use with large Kramer evaporators. Models include internal heater branch fusing.

When selecting defrost kit, use the next higher amp value above the defrost load.
 All kits include 1 fan contactor and are suitable for 1 or 3 phase loads.
 Electrical resistance loads greater than 48 amps must be split into multiple circuits.

ELECTRIC DEFROST KIT OPTIONS • SINGLE AND PARALLEL COMPRESSOR MODELS

1 HEATER CONTACTOR		2 HEATER CONTACTORS		3 HEATER CONTACTORS		4 HEATER CONTACTORS	
Defrost Kit Model	List Price (\$US)	Defrost Kit Model	List Price (\$US)	Defrost Kit Model	List Price (\$US)	Defrost Kit Model	List Price (\$US)
DLA24 ¹	\$1,530						
DLA30 ¹	1,590						
DLA35 ¹	1,790	DLB35 ¹	\$2,285	DLC35	\$3,120		
DLA40 ¹	1,790	DLB40 ¹	2,285	DLC40	3,120		
DLA48 ¹	1,790	DLB48 ¹	2,285	DLC48	3,120		
KDLA53 ¹	1,904						
		DLB60 ^{1 2 4}	2,375	DLC60 ¹	3,120	DLD60	\$3,690
KDLA76 ¹	3,088						
		DLB96 ^{1 2 4}	2,875	DLC96 ¹	3,310	DLD96	3,720
KDLA100 ¹	3,275						
		KDLB106 ¹	3,421				
		KDLB152 ¹	3,515	DLC144 ¹	4,510	DLD144 ^{3 5}	4,540
		KDLB200 ¹	4,408			DLD192 ^{3 5}	4,770

Kramer Large Evaporator Kits include internal heater branch fusing.
 Defrost Kit selected for Single and Parallel compressor models is for entire unit. Up to 4 contactors.
¹Defrost Kit Available with Pressure Prop Kit for Large Evaporators (Special Kit Code: PP)
²Defrost Kit Available for Evaporator with Multiple Heater Feeds (Special Kit Code: -1)
³Defrost Kit Available for 2 Evaporators with Multiple Heater Feeds (Special Kit Code: -2)
⁴Defrost Kit Available for Evaporator with Multiple Heater Feeds & Pressure Prop Kit (Special Kit Code: -1PP)
⁵Defrost Kit Available for 2 Evaporators with Multiple Heater Feeds & Pressure Prop Kit (Special Kit Code: -2PP)

ELECTRIC DEFROST KIT OPTIONS • DUAL COMPRESSOR MODELS

1 HEATER CONTACTOR PER		2 HEATER CONTACTORS PER	
Defrost Kit Model	List Price (\$US)	Defrost Kit Model	List Price (\$US)
DLA24 ¹	\$3,060		
DLA30 ¹	3,180		
DLA35 ¹	3,580	DLB35 ¹	\$4,570
DLA40 ¹	3,580	DLB40 ¹	4,570
DLA48 ¹	3,580	DLB48 ¹	4,570
KDLA53 ¹	3,808		
		DLB60 ^{1 2 3}	4,750
KDLA76 ¹	6,176		
		DLB96 ^{1 2 3}	5,750
KDLA100 ¹	6,550		
		KDLB106 ¹	6,842
		KDLB152 ¹	7,030
		KDLB200 ¹	8,816

Kramer Large Evaporator Kits include internal heater branch fusing.
 Defrost Kit selected is per compressor for Dual compressor models. Up to 2 contactors/compressor.
¹Defrost Kit Available with Pressure Prop Kit for Large Evaporators (Special Kit Code: PP)
²Defrost Kit Available for Evaporator with Multiple Heater Feeds (Special Kit Code: -1)
³Defrost Kit Available for Evaporator with Multiple Heater Feeds & Pressure Prop Kit (Special Kit Code: -1PP)

QV-SERIES AIR COOLED CONDENSING UNITS • DEFROST KITS

ELECTRIC DEFROST KIT OPTIONS • FUSEBLOCK AND CIRCUIT BREAKERS

MAX HEATER AMPS	1 HEATER CONTACTOR		2 HEATER CONTACTORS		3 HEATER CONTACTORS		4 HEATER CONTACTORS	
	Fuseblock List Price Adder	Circuit Breaker List Price Adder	Fuseblock List Price Adder	Circuit Breaker List Price Adder	Fuseblock List Price Adder	Circuit Breaker List Price Adder	Fuseblock List Price Adder	Circuit Breaker List Price Adder
24	\$107	\$807						
30	143	1,257						
35	143	1,257	\$143	\$1,491	\$214	\$1,600		
40	143	1,257	143	1,491	214	1,600		
48	143	1,257	143	1,491	214	1,600		
53	221	1,514						
60			200	2,507	307	2,645	\$330	\$2,770
76	443	2,707						
96			257	2,521	350	3,371	425	3,475
100	500	2,909						
106			536	3,175				
144					443	3,486	580	4,186
152			605	3,317				
192							583	4,229
200			1,229	4,321				

Dual Compressor Units require 2 Fuseblocks & 2 Circuit Breaker, 1 per compressor. Up to 2 contactors/compressor.

FAN CONTACTOR KIT OPTIONS • SINGLE AND PARALLEL COMPRESSOR MODELS

1 FAN CONTACTOR		
Kit Number	Max Motor Amps	List Price (\$US)
TMR-EF-15A	15	\$845
TMR-EF-30A	30	895

Kit Includes: Defrost Timer & Evaporator Fan Contactor

"C" MODEL AIR COOLED CONDENSING UNITS 15 THRU 70 H.P.

Legacy C Models are being discontinued. Last day orders will be accepted is

July 1, 2018. Use QV-Series Air Cooled Condensing Units instead.

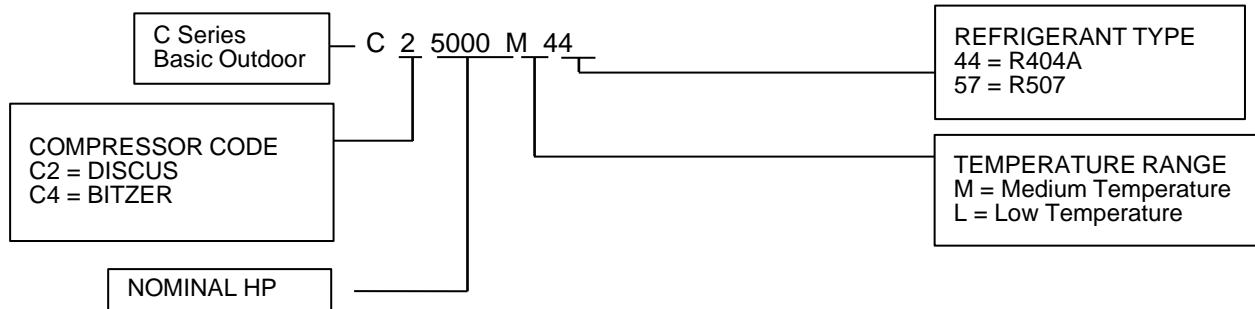
REFR.	MODEL "C"	BASIC UNITS			4 Year Compressor Protection Plan (Net Price)† †	(1) LIQUID LINE SOL.	SUCTION ACCUM.	OIL SEP.	FLOOD CONTROL	FAN CYCLE	(2) HOT GAS BYPASS	(3) CYLIND. UNLOAD
		230V/3/60	460V/3/60	575V/3/60								
MEDIUM TEMP R507 R404A	C21500M44	\$37,922	\$38,992	\$39,765	\$1,116	\$562	\$2,411	\$1,674	\$977	\$1,116	\$3,494	\$2,075
	C22000M44	41,528	43,761	44,639	1,382	562	2,411	1,674	977	1,116	3,494	2,075
	C22500M44	49,656	49,961	50,965	1,544	717	3,020	2,774	1,666	1,116	3,494	2,075
	C23000M44	58,554	60,914	62,127	1,656	717	3,020	2,774	1,666	1,116	3,494	2,075
	C23500M44	66,318	68,443	69,807	1,744	717	3,020	2,774	1,666	1,378	3,494	2,075
	C24000M44	72,869	75,617	77,125	1,821	717	3,020	2,774	1,666	1,378	4,621	2,075
	† C25000M44	121,250	124,049	126,516	3,108	1,463	4,372	Included	2,140	1,643	4,621	4,144
	† C26000M44	140,347	142,890	146,308	3,312	1,463	4,372	Included	2,140	1,643	4,621	4,144
	† C27000M44	155,785	158,538	161,641	3,488	1,463	4,372	Included	2,140	1,643	4,621	4,144
LOW TEMP R507 R404A	C21500L44	\$41,516	\$42,608	\$46,393	\$1,116	\$562	\$2,411	\$1,674	\$977	\$1,116	SEE NOTE 4 BELOW	
	C22000L44	45,758	47,793	50,619	1,382	562	2,411	1,674	977	1,116		
	C22700L44	54,201	56,256	57,386	1,554	717	3,020	2,774	1,666	1,116		
	C23100L44	60,108	62,365	63,616	1,656	717	3,020	2,774	1,666	1,116		
	† C24400L44	115,143	116,727	119,049	2,764	1,463	4,372	Included	1,666	1,378		
	† C25400L44	128,238	130,416	133,012	3,108	1,463	4,372	Included	2,140	1,643		
	† C26200L44	141,061	142,495	145,316	3,312	1,463	4,372	Included	2,140	1,643		

† Parallel piped units are supplied with oil equalization system and oil separator. Contact applications for a quote for units with (2) independent compressor systems.

† † Compressor Protection Plan Net prices are not to be discounted.

Medium Temp Units available for R404A (M44), R507 (M57), or R407C (H47). Add the appropriate suffix to the model number.

Nomenclature for Large Condensing Units



NOTES

- Item shipped loose.
- Condenser FLOOD CONTROL must be used with HOT GAS BYPASS or cylinder unloading option. HOT GAS BYPASS requires field installed hot gas line to side port distributor on evaporator.
- One bank of unloading for single compressor models. Parallel compressor units are configured for 1 bank unloading per compressor.
- HOT GAS BYPASS and cylinder unloading are typically used in medium temperature applications.

"C" MODEL AIR COOLED CONDENSING UNITS 15 THRU 70 H.P.

Legacy C Models are being discontinued. Last day orders will be accepted is

July 1, 2018. Use QV-Series Air Cooled Condensing Units instead.

REFR.	MODEL "C"	TIMER			(1) NON FUSED DISCONNECT			(1) TWO TEMP VALVE
		(2)	30 AMP CONTACTOR	50 AMP CONTACTOR	230V/3/60	460V/3/60	575V/3/60	
MEDIUM TEMP R404A R507 R407C	C21500M44	\$554	\$668	\$1,296	\$1,988	\$2,182	\$2,182	\$4,437
	C22000M44	554	668	1,296	1,988	2,182	2,182	4,437
	C22500M44	554	668	1,296	2,110	2,593	2,593	5,593
	C23000M44	554	668	1,296	3,541	3,974	3,974	5,593
	C23500M44	554	668	1,296	3,541	3,974	3,974	5,593
	C24000M44	554	668	1,296	3,541	3,974	3,974	5,593
	† C25000M44	554	668	1,296	-	4,772	4,772	7,353
	† C26000M44	554	668	1,296	-	-	-	7,353
† C27000M44	554	668	1,296	-	-	-	7,353	
LOW TEMP R507 R404A	C21500L44	-	\$668	\$1,296	\$1,988	\$2,182	\$2,182	\$4,437
	C22000L44	-	668	1,296	1,988	2,182	2,182	4,437
	C22700L44	-	668	1,296	2,110	2,593	2,593	5,593
	C23100L44	-	668	1,296	-	3,974	3,974	5,593
	† C24400L44	-	668	1,296	-	4,772	4,772	5,593
	† C25400L44	-	668	1,296	-	4,772	4,772	7,353
	† C26200L44	-	668	1,296	-	-	-	7,353

† Parallel piped units are supplied with oil equalization system and oil separator. Contact applications for a quote for units with (2) independent compressor systems.

NOTES

1. Item shipped loose.
2. Factory mounted Mechanical Air Defrost Timer

ADDITIONAL OPTIONS

DESCRIPTION	LIST PRICE
ANTI-SHORT CYCLE TIMER (PRICE IS PER COMPRESSOR)	\$667
EVAPORATOR FAN CONTACTOR	317
GAUGE KIT - HIGH, LOW, AND OIL PRESSURE (PER COMPRESSOR)	1,866
OVERSIZED RECEIVER - 1200 — 3000 LOW TEMP MODELS	733
OVERSIZED RECEIVER - 1200 — 2500 HIGH/MED TEMP MODELS	2,067
OVERSIZED RECEIVER - 3000 HIGH/MED. TEMP AND LARGER MODELS	1031 ‡
PHASE LOSS MONITOR (PRICE IS BASED ON 1 PER UNIT)	1,129
SPRING LOADED PRESSURE RELIEF VALVE	299
SINGLE POINT ALARM	371
ELECTRONIC ROOM T-STAT (A419ABC-1C) Part# 204464206 (shipped loose)	368

*E = POE Oil or 0 = Mineral Oil. All current models have POE oil.

‡ = NOT AVAILABLE FOR THE 7000 MODELS

Limited Extended Compressor Protection Plan covers defects in factory material or workmanship. Defective compressor, with serial number tag intact, must be returned to an authorized wholesaler. Warranty does not include external parts, controls, refrigerant, shipping, labor or product loss.

KRAMERSAVER 15 THRU 70 H.P. - AIR DEFROST

Legacy KramerSaver Models are being discontinued. Last day orders will be accepted is

July 1, 2018. Use QV-Series Air Cooled Condensing Units instead.

REFR.	MODEL "KS"	BASIC UNITS			4 Year Compressor Protection Plan (Net Price)† †	SUCTION ACCUM.	OIL SEP.	(c) CYLIND. UNLOAD	NON FUSED (a)		
		230V/3/60	460V/3/60	575V/3/60					DISCONNECT		
									230V/3/60	460V/3/60	575V/3/60
MEDIUM TEMP R407C R507 R404A	KS21500M44	\$41,767	\$42,837	\$43,610	\$1,116	\$2,411	\$1,674	\$2,075	\$2,182	\$2,593	\$2,593
	KS22000M44	45,990	48,743	49,102	1,382	2,411	2,774	2,075	2,110	2,593	2,593
	KS22500M44	54,334	54,639	55,643	1,544	3,020	2,774	2,075	2,110	2,593	2,593
	KS23000M44	63,231	65,592	66,805	1,656	3,020	2,774	2,075	3,541	3,974	3,974
	KS23500M44	70,996	73,121	74,485	1,744	3,020	2,774	4,144	3,541	3,974	3,974
	KS24000M44	77,547	80,295	81,803	1,821	4,372	2,774	4,144	3,541	3,974	3,974
	† KS25000M44	124,774	127,573	130,041	3,108	4,372	INCL	4,144	-	4,772	4,772
	† KS26000M44	143,872	146,976	149,832	3,312	4,372	INCL	4,144	-	-	-
† KS27000M44	158,488	161,204	164,344	3,488	4,372	INCL	4,144	-	-	-	

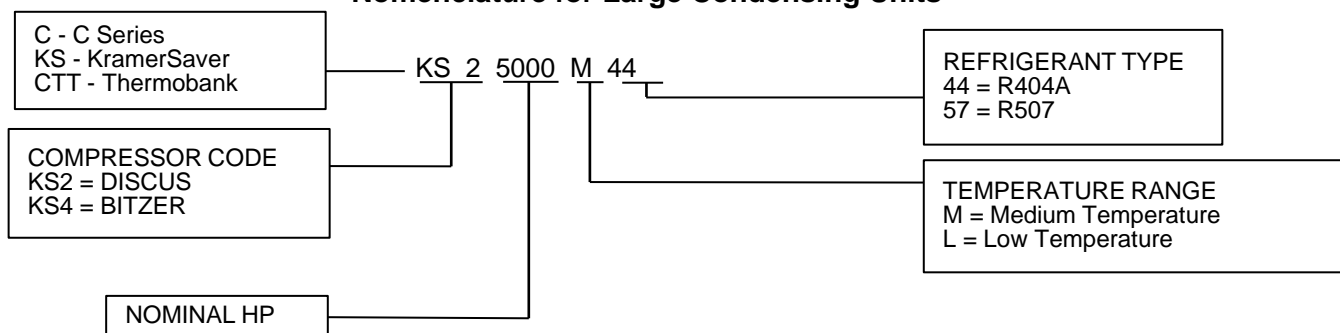
Units are available for R404A (M44), R507 (M57) OR R407C (H47). Add the appropriate suffix to the model number.

Contact Application Engineering for quotes when units will use other refrigerants.

† Parallel units include oil equalization system and oil separator. Contact applications for a quote for units with (2) independent compressor systems.

† † Compressor Protection Plan Net prices are not to be discounted.

Nomenclature for Large Condensing Units



KRAMERSAVER AIR DEFROST - STANDARD FEATURES

1. HI-LO PRESSURE SWITCH, AUTO RESET LOW / MANUAL RESET HIGH
2. ELECTRONIC OIL PRESSURE CONTROL
3. CONTACTORS & OVERLOAD PROTECTORS
4. SUCTION & DISCHARGE VIBRATION ELIMINATORS
5. MANUAL COMPRESSOR SWITCH AND PUMPDOWN SWITCH
6. CRANKCASE HEATER
7. WEATHER PROOF HOUSING
8. RECEIVER WITH SERVICE VALVE
9. FUSIBLE PLUG
10. MINIMUM CHARGE MONITOR - DUAL SIGHT GLASSES W/ MOISTURE INDICATOR
11. SUCTION LINE FILTER - REPLACEABLE CORE TYPE
12. LIQUID LINE DRIER - REPLACEABLE CORE TYPE
13. DEFROST TIMER (Factory Mounted)
14. LIQUID LINE SOLENOID VALVE (Shipped Loose)
15. ROOM THERMOSTAT (Shipped Loose)
16. THERMOSTATIC EXPANSION VALVE (FOR 1 EVAP.) (Shipped Loose)
17. FLEXIBLE CONTROL HOSES
18. CONTROL CIRCUIT TRANSFORMER (460V UNITS ONLY)
19. SUB CIRCUIT FUSING

NOTES:

- a. Non Fused Disconnect shipped loose.
- b. See page 29 for additional options
- c. One bank of unloading for single compressor models. Parallel compressor units configured for 1 bank unloading per compressor.

KRAMERSAVER 15 THRU 70 H.P. - ELECTRIC DEFROST

Legacy KramerSaver Models are being discontinued. Last day orders will be accepted is
July 1, 2018. Use QV-Series Air Cooled Condensing Units instead.

REFR.	MODEL "KS"	BASIC UNITS			4 Year Compressor Protection Plan (Net Price)† †	SUCTION ACCUM.	OIL SEP.	CYLINDER UNLOADING*	NON FUSED (a) DISCONNECT		
		230V/3/60	460V/3/60	575V/3/60					230V/3/60	460V/3/60	575V/3/60
MEDIUM TEMP R407C R507 R404A	KS21500M44	\$44,051	\$45,121	\$45,894	\$1,116	\$2,411	\$1,674	\$2,075	\$2,110	\$2,593	\$2,593
	KS22000M44	48,274	50,507	51,386	1,382	3,020	2,774	2,075	2,110	2,593	2,593
	KS22500M44	56,403	56,708	57,711	1,544	3,020	2,774	2,075	2,110	2,593	2,593
	KS23000M44	65,300	67,661	68,873	1,656	3,020	2,774	2,075	3,541	3,974	3,974
	KS23500M44	73,065	75,189	76,554	1,744	3,020	2,774	2,075	3,541	3,974	3,974
	KS24000M44	79,616	82,363	83,871	1,821	3,020	2,774	2,075	3,541	3,974	3,974
	† KS25000M44	126,978	129,777	132,245	3,108	4,372	INCL	4,144	-	4,772	4,772
	† KS26000M44	146,076	149,180	152,036	3,312	4,372	INCL	4,144	-	-	-
† KS27000M44	160,692	163,407	166,548	3,488	4,372	INCL	4,144	-	-	-	
LOW TEMP R507 R404A	KS21500L44	\$47,276	\$48,459	\$52,243	\$1,116	\$2,411	\$1,674	SEE NOTE (b)	\$2,110	\$2,593	\$2,593
	KS22000L44	54,193	54,955	58,927	1,382	3,020	2,774		2,110	2,593	2,593
	KS22700L44	60,751	62,806	63,936	1,554	3,020	2,774		2,110	2,593	2,593
	KS23100L44	66,658	68,915	70,166	1,656	3,020	2,774		-	3,974	3,974
	† KS24400L44	120,871	122,455	124,778	2,764	4,372	INCL		-	3,974	3,974
	† KS25400L44	133,966	136,145	138,741	3,108	4,372	INCL		-	3,974	3,974
	† KS26200L44	145,968	147,402	150,222	3,312	4,372	INCL		-	-	-

Units are available for R404A (M44), R507 (M57) OR R407C (H47). Add the appropriate suffix to the model number. Contact Application Engineering for quotes when units will use other refrigerants.

† Parallel units include oil equalization system and oil separator. Contact applications for a quote for units with (2) independent compressor systems.

† † Compressor Protection Plan Net prices are not to be discounted.

* One bank of unloading for single compressor models. Parallel compressor units are configured for 1 bank unloading per compressor.

KS2 = Copeland DISCUS Compressor

KS4 = BITZER Compressor

SEE NOMENCLATURE EXAMPLE ON PAGE 30

KRAMER SAVER ELECTRIC DEFROST - STANDARD FEATURES

1. HI-LO PRESSURE SWITCH, AUTO RESET LOW / MANUAL RESET HIGH
2. ELECTRONIC OIL PRESSURE CONTROL
3. CONTACTORS & OVERLOAD PROTECTORS
4. SUCTION AND DISCHARGE VIBRATION ELIMINATORS
5. MANUAL COMPRESSOR PUMPDOWN SWITCH
6. CRANKCASE HEATER
7. WEATHER PROOF HOUSING
8. RECEIVER W/ SERVICE VALVE
9. FUSIBLE PLUG
10. MINIMUM CHARGE MONITOR - DUAL SIGHT GLASSES W/ MOISTURE INDICATOR
11. SUCTION LINE FILTER - REPLACEABLE CORE TYPE
12. LIQUID LINE DRIER - REPLACEABLE CORE TYPE
13. DEFROST TIMER W/ CONTACTORS (AS REQUIRED)
14. LIQUID LINE SOLENOID VALVE (Shipped Loose)
15. MECHANICAL ROOM THERMOSTAT (Shipped Loose)
16. THERMOSTATIC EXPANSION VALVE (FOR 1 EVAP.) (Shipped Loose)
17. FLEXIBLE CONTROL HOSES
18. CONTROL CIRCUIT TRANSFORMER (460V UNITS ONLY)
19. SUB CIRCUIT FUSING

NOTES:

- a. Non Fused Disconnect shipped loose.
- b. Cylinder unloading is typically used in medium temperature applications.
- c. See page 29 for additional options.

CTT THERMOBANK CONDENSING UNITS

When ordered as Condensing unit only

REFRIG.	HP	MODEL "CTT" HOT GAS DEFROST	BASIC UNITS			4 Year Compressor Protection Plan (Net Price)† †	SUCTION ACCUM.	OIL SEP.	NON FUSED (1) DISCONNECT		
			230V/3/60	460V/3/60	575V/3/60				230V/3/60	460V/3/60	575V/3/60
MEDIUM TEMP R507 R404A	5	CTT20500M44	\$46,565	\$48,987	\$49,965	\$550	\$785	\$1,337	\$848	\$1,025	\$1,025
	7.5	CTT20700M44	54,652	58,365	59,534	558	785	1,369	998	1,179	1,179
	8	CTT20800M44	59,155	61,816	63,310	558	785	1,369	998	1,179	1,179
	10	CTT21000M44	70,216	71,978	73,418	721	1,154	1,369	998	1,179	1,179
	12	CTT21200M44	73,247	75,331	76,768	865	2,411	1,674	1,988	2,182	2,182
	15	CTT21500M44	\$56,781	\$57,964	\$59,123	\$1,116	\$2,411	\$1,674	\$2,110	\$2,593	\$2,593
	20	CTT22000M44	63,610	67,869	69,441	1,382	2,411	2,774	2,110	2,593	2,593
	25	CTT22500M44	80,773	83,255	84,921	1,544	3,020	2,774	2,110	2,593	2,593
	30	CTT23000M44	87,055	90,061	91,864	1,656	3,020	2,774	3,541	3,974	3,974
	35	CTT23500M44	96,937	99,644	101,637	1,744	3,020	2,774	3,541	3,974	3,974
	40	CTT24000M44	105,274	108,774	110,951	1,821	3,020	2,774	3,541	3,974	3,974
	50	† CTT25000M44	160,093	162,976	166,236	3,108	4,372	INCL	-	4,772	4,772
	60	† CTT26000M44	189,778	192,653	196,506	3,312	4,372	INCL	-	4,772	4,772
	70	† CTT27000M44	237,895	243,440	248,309	3,488	4,372	INCL	-	-	-
LOW TEMP R507 R404A	4	CTT20400L44	\$46,797	\$50,059	\$51,058	\$454	\$785	\$1,337	\$848	\$1,025	\$1,025
	5	CTT20500L44	49,054	52,237	53,280	454	785	1,337	848	1,025	1,025
	6	CTT20600L44	51,980	54,994	56,095	550	785	1,337	848	1,025	1,025
	8	CTT20800L44	59,950	62,774	64,031	558	785	1,424	998	1,179	1,179
	9	CTT20900L44	65,994	68,185	69,550	721	1,154	1,424	998	1,179	1,179
	10	CTT21000L44	70,074	71,446	72,876	821	1,154	1,424	998	1,179	1,179
	12	CTT21200L44	74,604	76,660	78,194	865	2,411	1,674	1,988	2,182	2,182
	15	CTT21500L44	\$59,738	\$61,651	\$62,884	\$1,116	\$2,411	\$1,674	\$2,110	\$2,593	\$2,593
	22	CTT22200L44	69,398	71,440	72,869	1,382	2,411	1,674	2,110	2,593	2,593
	27	CTT22700L44	82,038	84,658	86,352	1,544	3,020	2,774	2,110	2,593	2,593
	30	CTT23100L44	93,434	96,309	98,236	1,656	3,020	2,774	3,541	3,974	3,974
	44	† CTT24400L44	135,947	138,308	141,074	2,764	4,372	INCL	3,541	3,974	3,974
	50	† CTT25400L44	158,904	162,663	165,916	3,108	4,372	INCL	-	4,772	4,772
	60	† CTT26200L44	177,379	179,029	182,611	3,312	4,372	INCL	-	-	-

When ordered with Evaporators and system accessories

REFRIG.	HP	MODEL "CTT" HOT GAS DEFROST	BASIC UNITS			4 Year Compressor Protection Plan (Net Price)† †	SUCTION ACCUM.	OIL SEP.	NON FUSED (1) DISCONNECT		
			230V/3/60	460V/3/60	575V/3/60				230V/3/60	460V/3/60	575V/3/60
MEDIUM TEMP R507 R404A	5	CTT20500M44	\$35,276	\$37,110	\$37,851	\$550	\$785	\$1,337	\$848	\$1,025	\$1,025
	7.5	CTT20700M44	41,403	44,215	45,100	558	785	1,369	998	1,179	1,179
	8	CTT20800M44	48,754	51,103	52,125	558	785	1,369	998	1,179	1,179
	10	CTT21000M44	53,194	54,528	55,619	721	1,154	1,369	998	1,179	1,179
	12	CTT21200M44	56,882	58,270	59,435	865	2,411	1,674	1,988	2,182	2,182
	15	CTT21500M44	\$47,317	\$48,303	\$49,269	\$1,116	\$2,411	\$1,674	\$2,110	\$2,593	\$2,593
	20	CTT22000M44	53,008	56,557	56,557	1,382	2,411	2,774	2,110	2,593	2,593
	25	CTT22500M44	67,310	69,379	70,767	1,544	3,020	2,774	2,110	2,593	2,593
	30	CTT23000M44	72,546	75,051	76,553	1,656	3,020	2,774	3,541	3,974	3,974
	35	CTT23500M44	80,780	83,036	84,697	1,744	3,020	2,774	3,541	3,974	3,974
	40	CTT24000M44	87,729	90,645	92,459	1,821	3,020	2,774	3,541	3,974	3,974
	50	† CTT25000M44	137,184	139,654	142,447	3,108	4,372	INCL	-	4,772	4,772
	60	† CTT26000M44	162,620	165,084	168,386	3,312	4,372	INCL	-	4,772	4,772
	70	† CTT27000M44	203,852	208,603	212,775	3,488	4,372	INCL	-	-	-
LOW TEMP R507 R404A	4	CTT20400L44	35,451	37,922	38,681	454	785	1,337	848	1,025	1,025
	5	CTT20500L44	37,162	39,571	40,363	454	785	1,337	848	1,025	1,025
	6	CTT20600L44	39,378	41,661	42,494	550	785	1,337	848	1,025	1,025
	8	CTT20800L44	45,416	47,557	48,508	558	785	1,424	998	1,179	1,179
	9	CTT20900L44	49,995	51,655	52,689	721	1,154	1,424	998	1,179	1,179
	10	CTT21000L44	53,085	54,126	55,209	821	1,154	1,424	998	1,179	1,179
	12	CTT21200L44	63,196	63,438	66,033	865	2,411	1,674	1,988	2,182	2,182
	15	CTT21500L44	49,781	52,403	53,650	1,116	\$2,411	\$1,674	\$2,110	\$2,593	\$2,593
	22	CTT22200L44	57,831	59,533	60,724	1,382	2,411	1,674	2,110	2,593	2,593
	27	CTT22700L44	68,365	70,548	71,959	1,544	3,020	2,774	2,110	2,593	2,593
	30	CTT23100L44	77,861	80,257	81,863	1,656	3,020	2,774	3,541	3,974	3,974
	44	† CTT24400L44	113,289	115,256	126,968	2,764	4,372	INCL	3,541	3,974	3,974
	50	† CTT25400L44	132,420	135,552	149,325	3,108	4,372	INCL	-	4,772	4,772
	60	† CTT26200L44	147,816	149,191	164,350	3,312	4,372	INCL	-	-	-

THERMOBANK HOT GAS DEFROST

STANDARD FEATURES

1. HI-LO PRESSURE SWITCH, SYSTEM 450 ELECTRONIC CONTROLLER – CONTROLS LOW-PRESSURE; FAN CYCLING PRESSURE; DISCHARGE SOLENOID VALVE; POST DEFROST; DEFROST TERMINATION AND DEFROST TERMINATION SWITCH
2. ELECTRONIC OIL PRESSURE CONTROL
3. CONTACTORS AND OVERLOAD PROTECTORS
4. SUCTION AND DISCHARGE VIBRATION ELIMINATORS
5. SYSTEM PUMP-DOWN SWITCH
6. CRANKCASE HEATER
7. THERMOBANK IMMERSION HEATER WITH INTEGRAL/ADJUSTABLE THERMOSTAT
8. FUSED CONTROL CIRCUIT TRANSFORMER (460V UNITS)
9. WEATHERPROOF HOUSING
10. OVERSIZED LIQUID RECEIVER W/ SERVICE VALVE
11. PRESSURE RELIEF VALVE
12. SUCTION LINE FILTER - REPLACEABLE CORE TYPE (4 to 70 H.P. models)
13. LIQUID LINE DRIER - REPLACEABLE CORE TYPE (4 to 70 H.P. models)
14. DEFROST TIMER WITH REQUIRED HOT GAS DEFROST CONTROLS
15. LIQUID LINE SOLENOID VALVE (Shipped Loose)
16. HOT GAS SOLENOID (Shipped Loose)
17. ELECTRONIC ROOM THERMOSTAT (Shipped Loose)
18. REFFLEX FLEXIBLE CONTROL HOSES
19. CONTROL CIRCUIT TRANSFORMER (460V UNITS ONLY)
20. SUB CIRCUIT FUSING
21. PERFORATED CONTROL PANEL INSERT AND WIRING TRAYS
22. ADJUSTABLE FLOODED HEAD PRESSURE CONTROL VALVES
23. DISCHARGE CHECK VALVE
24. HIGH EFFICIENCY CONDENSER COIL WITH 3/8" O.D. ENHANCED TUBES AND INTEGRAL SUBCOOLING CIRCUIT
25. ENERGY EFFICIENT 1 HP 850 RPM CONDENSER FAN MOTORS
26. HIGH PRESSURE OIL MANAGEMENT SYSTEM (PARALLEL PIPED COMPRESSOR UNITS)

NOTES:

When ordering Thermobank Systems with Evaporators – The price of the Thermostatic Expansion Valve needs to be added to the price of the selected evaporator – see page 13 for system accessories.

See page 29 for additional options.

KRAMERSAVER / THERMOBANK OPTIONS

DESCRIPTION	H.P RANGE	LIST PRICE
ANTI - SHORT CYCLE TIMER (PRICE IS PER COMPRESSOR)	All	\$667
EVAPORATOR FAN CONTACTOR	All	317
GAUGE KIT, HIGH, LOW, AND OIL PRESSURE (PRICE IS PER COMPRESSOR)	All	1,606
OVERSIZED RECEIVER - 1500 THROUGH 2200 MODELS	15 - 22 H.P.	733
OVERSIZED RECEIVER - 2500 THROUGH 4400 MODELS	25 - 44 H.P.	2,067
OVERSIZED RECEIVER - 5000 AND LARGER MODELS	40 - 80 H.P.	1,031
PHASE LOSS MONITOR (PRICE IS BASED ON 1 PER UNIT)	All	1,129
SPRING LOADED PRESSURE RELIEF VALVE	All	299
SINGLE POINT ALARM	All	371
MECHANICAL ROOM THERMOSTAT (A19AAA-49C) Part# 204464001 (shipped loose)	All	285
ELECTRONIC ROOM THERMOSTAT (A419ABC-1C) Part# 204464206 (shipped loose)	All	368
TIMER INSTALL CHARGE FOR AIR DEFROST SYSTEMS	All	285
CRANKCASE PRESSURE REGULATOR (Mounted)	4 - 5 H.P.	1,539
	6 - 9 H.P.	1,707
	10 - 12 H.P.	3,179

4 YEAR COMPRESSOR PROTECTION PLAN

4 Year Compressor Protection Plan covers defects in factory material or workmanship.
 Defective compressor, with serial number tag intact, must be returned to an authorized wholesaler.
 Compressor Protection Plan does not include external parts, controls, refrigerant, shipping, labor or product loss.

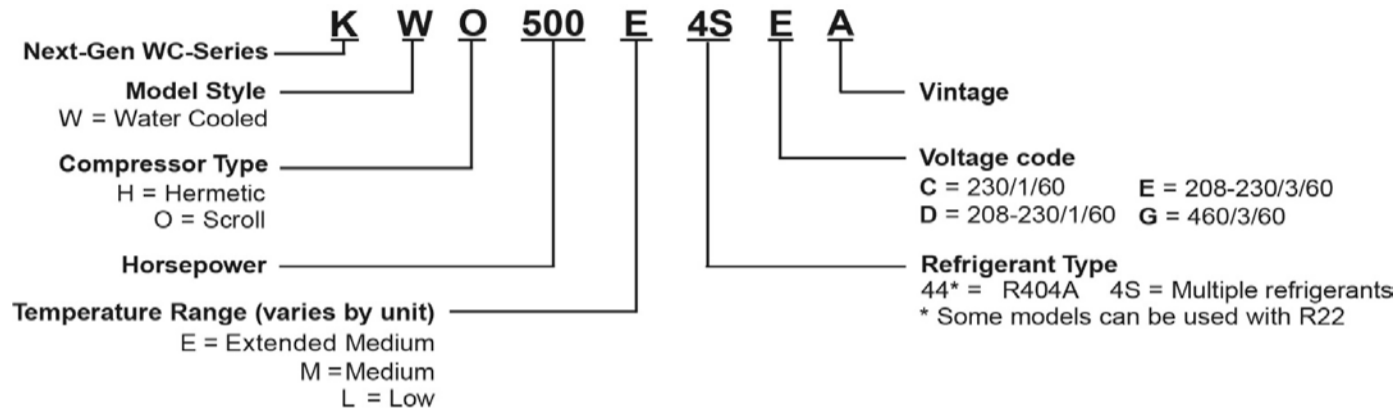
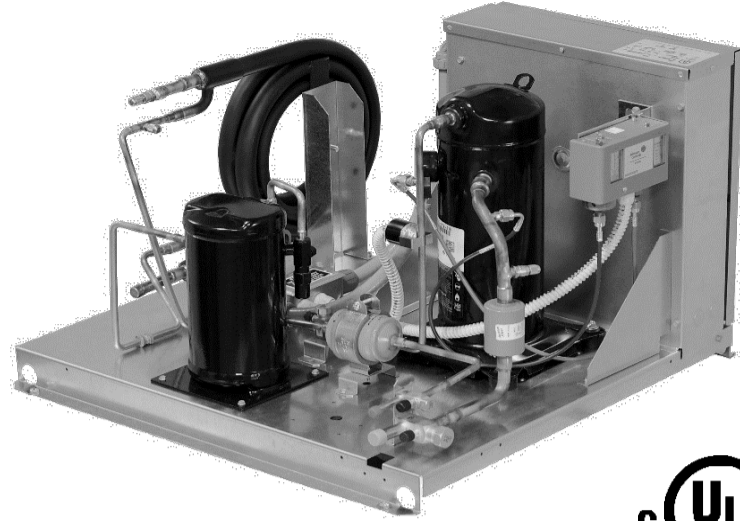
NEXT-GEN WC-SERIES™ • INDOOR WATER COOLED CONDENSING UNITS

1/2 THRU 6 H.P.

Standard Features (all models)

- Hermetic or Scroll compressors
- Galvanized steel base
- High efficiency water cooled coaxial condenser and heat exchange
- Mechanically formed pre-bent tubing for reduced leak potential
- **Liquid line kit with filter/drier and sight glass with moisture indicator**
- Suction line piping (filter optional)
- Suction and discharge service valves (as required)
- Base mounted shut-off valves
- Color-coded point-to-point wiring
- Large electrical control panel with hinged/removable door
- Refrigerant receiver with isolation valve and pressure relief plug
- Adjustable high and low pressure controls
- Control transformer (460V to 230V) as required
- Compressor contactor (1Ø or 3Ø), start kit (1Ø)
- Crankcase heater
- **Electronic defrost timer with defrost contactor/ relay on low temp. models (2 evaps. Maximum)**
- **Electronic air defrost timer (Medium temperature models)**

For defrost provisions see pages 40 & 41



NEXT-GEN WC-SERIES • HERMETIC COMPRESSOR MODELS

Temp Range	NOM H.P.	Model Number	Compressor	BASE LIST PRICE (Includes Liquid Line Kit with Filter/Drier and Sight Glass with Moisture Indicator, and Defrost Timer or Kit)			Water Reg. Valve‡	Sealed Suction Line Filter	Suction Accum. ^	Pump Down Switch	4 Year Comp. Protection Plan	Approx. Ship Wt. (LBS)
				208-230V/3	208-230V/1	460V/3						
Medium Temp	1/2	KWH055E4S	RST45C1E	N/A	\$4,415	N/A	\$433	\$330	\$508	\$324	\$105 NET	152
	1/2	KWH080E4S	RST55C1E	N/A	4,507	N/A	433	330	508	324	105 NET	156
	3/4	KWH090E4S	RST64C1E	N/A	4,641	N/A	433	330	508	324	105 NET	160
	3/4	KWH100E4S	RST70C1E	\$5,184	5,014	\$5,252	433	330	508	324	105 NET	167
	1	KWH125E4S	RST97C1E	5,330	5,373	N/A	433	330	508	324	118 NET	195
	1-1/2	KWH150E44	CS10K6E	5,481	5,225	6,114	433	330	508	324	118 NET	205
	2	KWH200E44	CS12K6E	6,268	5,769	N/A	433	330	508	324	129 NET	228
	2-1/2	KWH250E44	CS14K6E	6,640	6,192	7,053	470	330	508	324	129 NET	235
Low Temp	3	KWH300E44	CS18K6E	7,589	7,327	7,890	470	393	785	324	142 NET	253
	3	KWH325E44	CS20K6E	7,966	7,678	8,228	470	393	785	324	142 NET	273
	1-1/2	KWH150L44	CF06K6E	5,393	5,253	N/A	433	330	508	324	118 NET	195
	2	KWH200L44	CF09K6E	5,596	5,456	6,035	433	330	508	324	129 NET	243
	3	KWH300L44	CF12K6E	7,929	7,744	8,059	470	393	785	324	142 NET	255

ADDITIONAL OPTIONS FOR NEXT-GEN WC-SERIES UNITS

DESCRIPTION	LIST PRICE
ANTI-SHORT CYCLE TIMER	\$667
GAUGE KIT, HIGH, LOW, AND OIL PRESSURE	1,866
PHASE LOSS MONITOR	1,129
CUPRONICKEL HEAT EXCHANGER AND WATER PIPING	CF
ELECTRONIC OIL PRESSURE CONTROL (SOPC)	814
TWO-TIERED STACKING RACK	CF

^ For pre-piped Suction Accumulator, the Sealed Suction Line Filter option must also be ordered.
CF = Contact Factory for pricing

‡ OPTIONAL FIELD INSTALLED WATER REGULATING VALVE (ALL MODELS) SHIPPED LOOSE

The V46 pressure-actuated water-regulating valve size estimates are based on 65°F to 85°F coil inlet water temperature and the refrigerant pressure at 105°F saturated condensing. An adjustable water-pressure reducing valve (0 to 50 psi) is required upstream from the V46 valve, to reduce the inlet water pressure and achieve the required flowrates. Refer to the V46 Pressure-Actuated Water-Regulating Valve Product Bulletin, LIT-125687 on the Johnson Control QuickLIT website for complete information on sizing and adjusting V46 valves.

Water Flowrates (GPM)	Water Regulating Valve
1.5 to 11.5	V46AA-1C
11.5 to 21	V46AB-1C

NEXT-GEN WC-SERIES™ • INDOOR WATER COOLED CONDENSING UNITS
1/2 THRU 6 H.P.

NEXT-GEN WC-SERIES • SCROLL COMPRESSOR MODELS

Temp Range	NOM H.P.	Model Number	Compressor	BASE LIST PRICE (Includes Liquid Line Kit with Filter/Drier and Sight Glass with Moisture Indicator, and Defrost Timer or Kit)*			Water Reg. Valve‡	Sealed Suction Line Filter	Suction Accum.^	Pump Down Switch	4 Year Comp. Protection Plan	Approx. Ship Wt. (LBS)
				208-230V/3	208-230V/1	460V/3						
Medium Temp	1/2	KWO060M4S	ZB06KAE	\$8,353	\$8,341	N/A	\$433	\$330	\$508	\$324	\$194 NET	195
	1/2	KWO080M4S	ZB07KAE	8,452	8,423	N/A	433	330	508	324	194 NET	195
	1	KWO100M4S	ZB08KAE	8,562	8,506	N/A	433	330	508	324	194 NET	195
	1-1/3	KWO130E4S	ZS09KAE	8,687	8,600	\$9,004	433	330	508	324	194 NET	195
	1-1/2	KWO150E4S	ZS11KAE	9,287	9,200	9,604	433	330	508	324	194 NET	205
	1-3/4	KWO180E4S	ZS13KAE	9,506	9,419	9,823	433	330	508	324	194 NET	210
	2	KWO200E4S	ZS15KAE	9,670	9,582	9,987	433	330	508	324	194 NET	215
	2-1/2	KWO250E4S	ZS19KAE	9,799	9,692	10,176	470	330	508	324	194 NET	230
	3	KWO300E4S	ZS21KAE	9,965	9,839	10,402	470	393	785	324	253 NET	305
	3-1/2	KWO350E4S	ZS26KAE	10,588	10,455	10,899	470	393	785	324	253 NET	325
	4	KWO400E4S	ZS29KAE	10,937	10,787	11,238	527	393	785	324	264 NET	352
	4-1/2	KWO450E4S	ZS33KAE	10,801	10,649	11,193	527	393	785	324	271 NET	375
6	KWO500E4S	ZS38K4E	11,337	11,184	11,821	816	393	785	324	271 NET	383	
6 1/2	KWO600E4S	ZS45K4E	13,087	N/A	13,296	816	393	785	324	271 NET	405	
Low Temp	1	KWO100L4S	ZF03KAE	9,222	8,740	N/A	433	330	508	324	194 NET	230
	1-1/3	KWO130L4S	ZF04KAE	9,383	8,955	N/A	433	330	508	324	194 NET	230
	1-1/2	KWO160L4S	ZF05KAE	9,603	9,232	N/A	433	330	508	324	194 NET	230
	2	KWO230L4S	ZF07KAE	9,882	9,754	10,192	433	330	508	324	194 NET	230
	2-1/2	KWO250L4S	ZF08K4E	10,233	10,091	10,342	470	330	508	324	194 NET	240
	3	KWO300L4S	ZF09K4E	10,487	10,336	11,744	470	393	785	324	253 NET	245
	3-1/2	KWO350L4S	ZF11K4E	10,957	10,803	11,215	470	393	785	324	253 NET	255
	4	KWO400L4S	ZF13K4E	11,414	11,269	11,673	527	393	785	324	264 NET	352
5	KWO500L4S	ZF15K4E	11,555	11,415	11,824	816	393	785	324	264 NET	367	
6	KWO600L4S	ZF18K4E	13,027	N/A	13,735	816	393	785	324	271 NET	383	

ADDITIONAL OPTIONS FOR NEXT-GEN WC-SERIES UNITS

DESCRIPTION	LIST PRICE
ANTI-SHORT CYCLE TIMER	\$667
GAUGE KIT, HIGH, LOW, AND OIL PRESSURE	1,866
PHASE LOSS MONITOR	1,129
CUPRONICKEL HEAT EXCHANGER AND WATER PIPING	CF
ELECTRONIC OIL PRESSURE CONTROL (SOPC)	814
TWO-TIERED STACKING RACK	CF

* See page 35 for a complete list of features, voltage codes and an example of nomenclature layout.

^ For pre-piped Suction Accumulator, the Sealed Suction Line Filter option must also be ordered.

CF = Contact Factory for pricing

‡ OPTIONAL FIELD INSTALLED WATER REGULATING VALVE (ALL MODELS) SHIPPED LOOSE

The V46 pressure-actuated water-regulating valve size estimates are based on 65°F to 85°F coil inlet water temperature and the refrigerant pressure at 105°F saturated condensing. An adjustable water-pressure reducing valve (0 to 50 psi) is required upstream from the V46 valve, to reduce the inlet water pressure and achieve the required flowrates. Refer to the V46 Pressure-Actuated Water-Regulating Valve Product Bulletin, LIT-125687 on the Johnson Control QuickLIT website for complete information on sizing and adjusting V46 valves.

Water Flowrates (GPM)	Water Regulating Valve
1.5 to 11.5	V46AA-1C
11.5 to 21	V46AB-1C

KW SERIES WATER COOLED COMPRESSOR UNITS 1/2 THRU 5 H.P.

KW Series 1/2 to 5 H.P. models are no longer available. Use Next-Gen WC-Series models instead.

§ REF TYPE	NOM H.P.	MODEL NUMBER	BASE LIST PRICE			WATER REG. VALVE‡	CLEANABLE CONDENSER	LIQUID LINE KIT (LK)	* SUCTION LINE KIT (SK)	^ SUCTION ACCUM.	4 YEAR COMP. PROTECTION PLAN	APPROX. WT. LBS
			230/3	230/1	460/3							
MED. TEMP. R404A	0.5	KWH055M44	<h2 style="margin: 0;">KW Series 1/2 to 5 H.P. models are no longer available. Use Next-Gen WC-Series models instead.</h2>									
	0.5	KWH080M44										
	0.75	KWH090M44										
	0.75	KWH100M44										
	1.0	KWH125M44										
	1.5	KWH151M44										
	1.5	KWH200M44										
	1.75	KWH251M44										
2.0	KWH301M44											
3.0	KWH325M44											
LOW TEMP. R404A	0.75	KWH075L44										
	1.0	KWH100L44										
	1.5	KWH165L44										
	2.0	KWH215L44										
	3.0	KWH315L44										
MED. TEMP. R404A	0.75	KWS075M44										
	1.0	KWS100M44										
	1.5	KWS150M44										
	2.0	KWS200M44										
	2.5	KWS250M44										
	3.0	KWS300M44										
LOW TEMP. R404A	0.5	KWS050L44										
	0.75	KWS075L44										
	1.0	KWS100L44										
	1.5	KWS150L44										
	2.0	KWS200L44										
	3.0	†KWS300L44										

KW SERIES INDOOR WATER COOLED CONDENSING UNITS 3 THRU 40 H.P. AND KW SCROLL MODELS

REFR. TYPE	NOM H.P.	MODEL NUMBER	LIST PRICE		WATER REG. VALVE‡	LK	* SK	^ SUCTION LINE ACCUM.	OIL SEPERATOR	4 YEAR COMP. PROTECTION PLAN	APPRX. SHIP WT (LBS)
			230/3	460/3							
DISCUS COMPRESSOR											
MED. TEMP R404A	5.0	KWD5M44	\$18,535	\$20,517	\$816	\$606	\$486	\$785	\$1,337	\$558 NET	485
	5.0	KWD6M44	19,947	21,998	816	606	486	785	1,337	558 NET	495
	7.5	KWD7M44	21,354	23,600	1,118	606	486	785	1,337	558 NET	540
	7.5	KWD8M44	23,385	25,410	1,118	606	486	785	1,424	558 NET	590
	10.0	KWD10M44	27,481	28,412	1,118	816	825	1,154	1,424	721 NET	780
	12.0	KWD12M44	29,776	30,309	1,444	1,024	1,316	2,411	1,674	865 NET	790
	15.0	KWD15M44	30,685	31,600	1,444	1,024	1,316	2,411	1,674	1,086 NET	800
	20.0	KWD20M44	35,246	35,924	1,444	1,024	1,316	2,411	1,674	1,382 NET	835
	25.0	KWD25M44	40,680	41,246	1,444	1,196	1,316	3,020	2,774	1,554 NET	1,050
	30.0	KWD30M44	48,411	48,850	1,444	1,196	1,316	3,020	2,774	1,656 NET	1,105
35.0	KWD35M44	54,659	55,094	1,444	1,196	1,316	3,020	2,774	1,744 NET	1,150	
40.0	KWD40M44	59,894	60,595	1,444	1,196	1,316	3,020	2,774	1,821 NET	1,200	
LOW TEMP. R404A	3.0	KWD3L44	15,962	17,748	816	606	486	785	1,337	306 NET	390
	4.0	KWD4L44	17,108	18,834	816	606	486	785	1,337	454 NET	465
	5.0	KWD5L44	17,928	19,262	816	606	486	785	1,337	454 NET	485
	6.0	KWD6L44	20,114	21,219	816	606	486	785	1,337	550 NET	530
	8.0	KWD8L44	21,931	23,449	1,118	606	486	785	1,424	558 NET	590
	9.0	KWD9L44	24,270	25,939	1,118	816	825	1,154	1,424	721 NET	620
	10.0	KWD10L44	26,773	27,395	1,118	816	825	1,154	1,424	721 NET	795
	12.0	KWD12L44	29,734	30,092	1,118	1,024	1,316	2,411	1,674	865 NET	820
	15.0	KWD15L44	32,385	32,770	1,444	1,024	1,316	2,411	1,674	1,116 NET	845
	22.0	KWD22L44	38,150	38,439	1,444	1,024	1,316	2,411	1,674	1,382 NET	1,030
27.0	KWD27L44	53,630	54,000	1,444	1,196	1,316	3,020	2,774	1,554 NET	1,255	
30.0	KWD30L44	55,635	56,391	1,444	1,196	1,316	3,020	2,774	1,656 NET	1,310	
SEMI-HERMETIC COMPRESSOR											
MED. TEMP R404A	3.0	KWS3M44	Models no longer available.								
LOW TEMP. R404A	3.0	KWS3L44									

KW Series 1/2 to 6 H.P. Scroll models are no longer available. Use Next-Gen WC-Series models instead.

SCROLL COMPRESSOR													
REFR. TYPE	NOM. H.P.	MODEL NUMBER	LIST PRICE			WATER REG. VALVE‡	CLEANABLE CONDENSER	LK	* SK	^ SUCTION LINE ACCUM.	OIL SEPERATOR	4 YEAR COMP. PROTECTION PLAN	APPRX. SHIP WT (LBS)
			230/3	230/1	460/3								
MED. TEMP R404A	1.0	KWO100M44	KW Series 1/2 to 6 H.P. Scroll models are no longer available. Use Next-Gen WC-Series models instead.										
	1.5	KWO150M44											
	2.0	KWO200M44											
	2.5	KWO250M44											
	3.0	KWO315M44											
	3.0	KWO350M44											
	4.0	KWO400M44											
	6.0	KWO600M44											
	6.5	KWO650M44											
	7.5	KWO7M44											
7.5	KWO8M44	21,988	N/A	23,577	1,118	C/F	606	486	785	1,424	448 NET	450	
10.0	KWO10M44	27,305	N/A	28,087	1,118	C/F	816	825	1,154	1,424	485 NET	665	
13.0	KWO13M44	27,789	N/A	28,630	1,444	C/F	1,024	1,316	2,411	1,674	560 NET	675	
LOW TEMP. R404A	2.0	KWO200L44	KW Series 1/2 to 6 H.P. Scroll models are no longer available. Use Next-Gen WC-Series models instead.										
	2.5	KWO250L44											
	3.0	KWO300L44											
	3.0	KWO301L44											
	4.0	KWO400L44											
	5.0	KWO500L44											
	6.0	KWO600L44											
	7.5	KWO8L44											
10.0	KWO10L44	22,166	N/A	23,810	1,118	C/F	816	825	1,154	1,424	485 NET	645	
13.0	KWO13L44	24,794	N/A	25,606	1,444	C/F	1,024	1,316	2,411	1,674	560 NET	670	

§ For R507 models, use equivalent R404A model prices. Models 055M44, 065M44, and 070M44 not suitable for use with R507.

* Suction line assembly option must be ordered to receive the Suction Accumulator pre-piped.

^ For pre-piped Suction Accumulator, the SK option must also be ordered.

C/F = Consult the factory for pricing.

‡ Water Reg. Valve shipped Loose for field installation.

See page 39 for optional piping components and additional items

KR SERIES REMOTE COMPRESSOR UNITS 3 THRU 40 H.P.

REFR. TYPE	NOM. H.P.	MODEL NUMBER	LIST PRICE		LK	* SK	^ SUCTION LINE ACCUM.	OIL SEPERATOR	4 YEAR COMP. PROTECTION PLAN	APPRX. SHIP WT. (lbs)
			230/3	460/3						
DISCUS COMPRESSOR										
MED. TEMP. R404A	5.0	KRD5M44	<h1 style="font-size: 2em;">KR Series models are no longer available</h1>							
	6.0	KRD6M44								
	7.5	KRD7M44								
	7.5	KRD8M44								
	10.0	KRD10M44								
	12.0	KRD12M44								
	15.0	KRD15M44								
	20.0	KRD20M44								
	25.0	KRD25M44								
	30.0	KRD30M44								
35.0	KRD35M44									
40.0	KRD40M44									
LOW TEMP. R404A	3.0	KRD3L44								
	4.0	KRD4L44								
	5.0	KRD5L44								
	6.0	KRD6L44								
	8.0	KRD8L44								
	9.0	KRD9L44								
	10.0	KRD10L44								
	12.0	KRD12L44								
MED. TEMP. R404A	15.0	KRD15L44								
	22.0	KRD22L44								
	27.0	KRD27L44								
LOW TEMP. R404A	30.0	KRD30L44								
	3.0	KRNS3M44								
	3.0	KRNS3L44								

OPTIONAL PIPING COMPONENTS			
*LIQUID LINE KIT		* SUCTION LINE KIT	
HP	Kit Num	HP	Kit Num
3 - 8	LK-4	3 - 8	SK-4
9 - 10	LK-5	9 - 10	SK-5
12 - 22	LK-6	12 - 22	SK-6
25 - 40	LK-7	25 - 40	SK-7

See pages 21 & 25 for piping component pricing.

ADDITIONAL OPTIONS FOR RW UNITS	
DESCRIPTION	LIST PRICE
ANTI-SHORT CYCLE TIMER	\$667
GAUGE KIT, HIGH, LOW, AND OIL PRES.	1,866
PHASE LOSS MONITOR	1,129
OVERSIZED CONTROL PANEL (OCP)	637
ELECTRONIC OIL PRESSURE CONTROL (SOPC)	814
TWO-TIERED STACKING OPTION - RWH and RWS	C/F
TWO-TIERED STACKING OPTION - RWD	C/F

ELECTRIC DEFROST KIT COMPONENTS

(See page 19 for Next-Gen II and page 26-27 for QV-Series Defrost Kits)

The Kramer **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 feature 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.

KIT NUMBER	TIMER	AUXILIARY SWITCH	BLOCK-OUT RELAY	† 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-210	1	—	1-30A	—	—	—
ED-11	1	1	—	1-30A	—	—
ED-211	1	1	—	1-30A	—	—
ED-12	1	1	—	1-30A	1-25A	—
ED-13	1	1	—	1-50A	—	—
ED-213	1	1	—	1-50A	—	—
ED-14	1	1	—	1-50A	1-25A	—
ED-15	1	1	—	2-75A	—	—
ED-16	1	1	—	2-75A	1-25A	—
ED-17	1	1	—	1-15A	1-25A	—
ED-18	1	1	—	1-20A	1-20A	—
ED-20	1	—	1-30A	—	—	2
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
ED-25	1	1	—	2-50A	—	2
ED-26	1	1	—	2-50A	1-25A	2
ED-27	1	1	—	2-75A	—	2
ED-28	1	1	—	2-75A	1-25A	2
ED-30	1	—	1-30A	—	—	3
ED-31	1	1	—	3-10A	—	3
ED-32	1	1	—	3-10A	1-25A	3
ED-33	1	1	—	3-15A	—	3
ED-34	1	1	—	3-15A	1-25A	3
ED-35	1	1	—	3-30A	—	3
ED-36	1	1	—	3-30A	1-25A	3
ED-37	1	1	—	3-75A	—	3
ED-38	1	1	—	3-75A	1-40A	3

TIMER

Initiates the defrost cycle. Also used as over ride 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 460V motors or when 230V 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.

SEQUENCING RELAYS

Provides interconnection of multiple unit coolers on a single system so that each unit cooler is allowed to individually terminate defrost on temperature.

* Except for ED-210, ED-211, ED-213

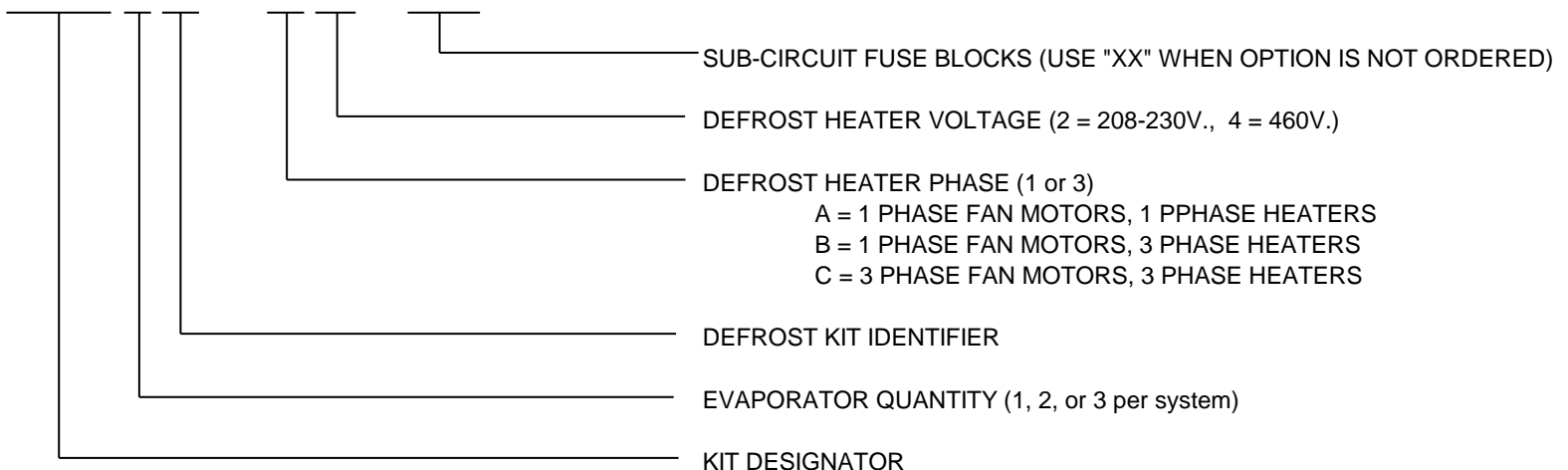
† Heater contactor amperage is based on its resistive rating.

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

ELECTRIC DEFROST KIT NOMENCLATURE

(See page 19 for Next-Gen II and page 26-27 for QV-Series Defrost Kits)

ED 12 - A 2 - FB



ELECTRIC DEFROST PROVISIONS

(See page 19 for Next-Gen II and page 26-27 for QV-Series Defrost Kits)

QTY OF UNIT COOLERS	DESCRIPTION	† DEFROST KIT NUMBER				LIST PRICE	
		1 PH. FANS 1 PH. HTRS	1 PH. FANS 3 PH. HTRS	230 V.	460 V.	LOOSE OR MOUNTED	‡ SUB-CIRC. FUSE BLOCKS (LESS FUSES)
				3 PH. FANS 3 PH. HTRS	3 PH. FANS 3 PH. HTRS		

DEFROST KITS WHEN THE EVAPORATOR FAN MOTORS ARE WIRED FOR 230/1.

ONE UNIT COOLER PER SYSTEM	Up to 15 Amps Heater (w/ relay)	ED5-A2-XX	N/A	N/A	N/A	\$668	N/A
	20 Amps Heater (w/ relay)	ED6-A2-XX	N/A	N/A	N/A	668	N/A
	25 Amps Heater (w/ relay)	ED7-A2-XX	N/A	N/A	N/A	668	N/A
	Up to 30 Amps Heater (w/ relay)	ED10-A2-XX	N/A	N/A	N/A	668	N/A
	30 Amps - Heater (w/ contactors)	N/A	ED11-B2-XX	N/A	N/A	668	\$167
	50 Amps - Heater	ED13-A2-XX	ED13-B2-XX	N/A	N/A	1,296	167
	75 Amps Heater	ED15-A2-XX	ED15-B2-XX	N/A	N/A	1,987	203
TWO UNIT COOLERS PER SYSTEM	Up to 30 Amps Heater (w/ relay)	ED210-A2-XX	N/A	N/A	N/A	668	N/A
	30 Amps Heater	ED211-A2-XX	ED211-B2-XX	N/A	N/A	668	167
	50 Amps Heater	ED213-A2-XX	ED213-B2-XX	N/A	N/A	1,296	203
	Up to 15 Amps Heaters each (w/ relays)	ED20-A2-XX	N/A	N/A	N/A	1,851	N/A
	15 Amps Heaters each	ED21-A2-XX	ED21-B2-XX	N/A	N/A	1,851	300
	25 Amps Heaters each (w/ relays)	ED23-A2-XX	N/A	N/A	N/A	1,901	300
	25 Amps Heaters each (w/ contactors)	N/A	ED23-B2-XX	N/A	N/A	1,901	300
	50 Amps Heaters each	ED25-A2-XX	ED25-B2-XX	N/A	N/A	2,132	300
75 Amps Heaters each	ED27-A2-XX	ED27-B2-XX	N/A	N/A	2,903	390	
THREE UNIT COOLERS PER SYSTEM	Up to 10 Amps Heaters each (w/ relays)	ED30-A2-XX	N/A	N/A	N/A	2,519	N/A
	16 Amps Heaters each (w/ relays)	ED31-A2-XX	N/A	N/A	N/A	2,519	370
	16 Amps Heaters each (w/ relays)	ED33-A2-XX	N/A	N/A	N/A	2,519	370
	16 Amps Heaters each (w/ contactors)	N/A	ED33-B2-XX	N/A	N/A	2,519	370
	30 Amps Heaters each (w/ relays)	ED35-A2-XX	N/A	N/A	N/A	2,827	370
	30 Amps Heaters each (w/ contactors)	N/A	ED35-B2-XX	N/A	N/A	2,827	370
	50 Amps Heaters each	ED37-A2-XX	ED37-B2-XX	N/A	N/A	3,213	439

DEFROST KITS WHEN THE EVAPORATOR FAN MOTORS ARE WIRED FOR 230/3, 460/3, OR 460/1.

ONE UNIT COOLER	Up to 25 Amps Heater	ED17-A4-XX	N/A	N/A	N/A	\$1,351	\$277
	30 Amps Heater	ED12-A4-XX	ED12-BX-XX	ED12-C2-XX	ED12-C4-XX	1,351	277
	50 Amps Heater	N/A	ED14-BX-XX	ED14-C2-XX	ED14-C4-XX	1,580	277
	75 Amps Heater	N/A	N/A	ED16-C2-XX	ED16-C4-XX	2,173	323
TWO UNIT COOLERS	Up to 15 Amps Heaters per Unit Cooler	N/A	ED22-BX-XX	ED22-C2-XX	ED22-C4-XX	2,272	370
	25 Amps Heaters per Unit Cooler	N/A	ED24-BX-XX	ED24-C2-XX	ED24-C4-XX	2,272	370
	50 Amps Heaters per Unit Cooler	N/A	ED26-BX-XX	ED26-C2-XX	ED26-C4-XX	2,395	423
	75 Amps Heaters per Unit Cooler	N/A	N/A	ED28-C2-XX	N/A	3,092	514
THREE UNIT COOLERS	Up to 10 Amps Heaters per Unit Cooler	N/A	ED32-BX-XX	ED32-C2-XX	ED32-C4-XX	2,900	491
	16 Amps Heaters per Unit Cooler	N/A	ED34-BX-XX	ED34-C2-XX	ED34-C4-XX	2,900	491
	30 Amps Heaters per Unit Cooler	N/A	ED36-BX-XX	ED36-C2-XX	ED36-C4-XX	3,586	491
	50 Amps Heaters per Unit Cooler	N/A	ED38-BX-XX	ED38-C2-XX	ED38-C4-XX	3,983	588

† Replace "XX" with "FB" when ordering the sub-circuit fuse block option. For description of "ED" kit nomenclature see page 34.

‡ Sub-circuit fuse block price includes fuse blocks installed in the condensing unit, **less fuses**, for evaporator(s) motors and defrost heaters.

Sub-circuit fusing option is not available for 1/2 to 6 HP Minicon models due to space limitations in the control panel.

* Add "FB" suffix to ED kit part number when pricing sub-circuit fuse block option.

†† ED-Kits are supplied as mounted components and not available as a "ship loose" accessory.

FREIGHT SURCHARGES

The following freight surcharges will be applied to orders when applicable. For delivery and post delivery issues, the customer will be notified and a second invoice will be generated.

BASIC LTL SURCHARGES	NET †
Delivery Notification / Call before delivery	\$71
Lift Gate Service	222
Saturday Delivery Request	504
*Failed/Refused delivery attempt (minimum)	102
*Failed/Refused delivery attempt (Maximum)	1,263
Re-Consignment fee	95
Storage (Per 100 LBS for each calendar day)	4.81

BASIC CONTRACT HAUL SURCHARGES	NET †
Cancelled truck not used	\$2,247
Reconsignment fee	806
Reconsignment cost per mile (\$1566 Minimum)	3.36
Delay in unloading (4 hours or more past an appointment)	1,566

† Net prices are not to be discounted.

* Refused Delivery fee will be calculated @ 12.07 cents per 100 LBS, subject to Minimum and Maximum charges shown above (per incident).

† Net prices are not to be discounted.

APEX • TOP MOUNTED REFRIGERATION SYSTEM

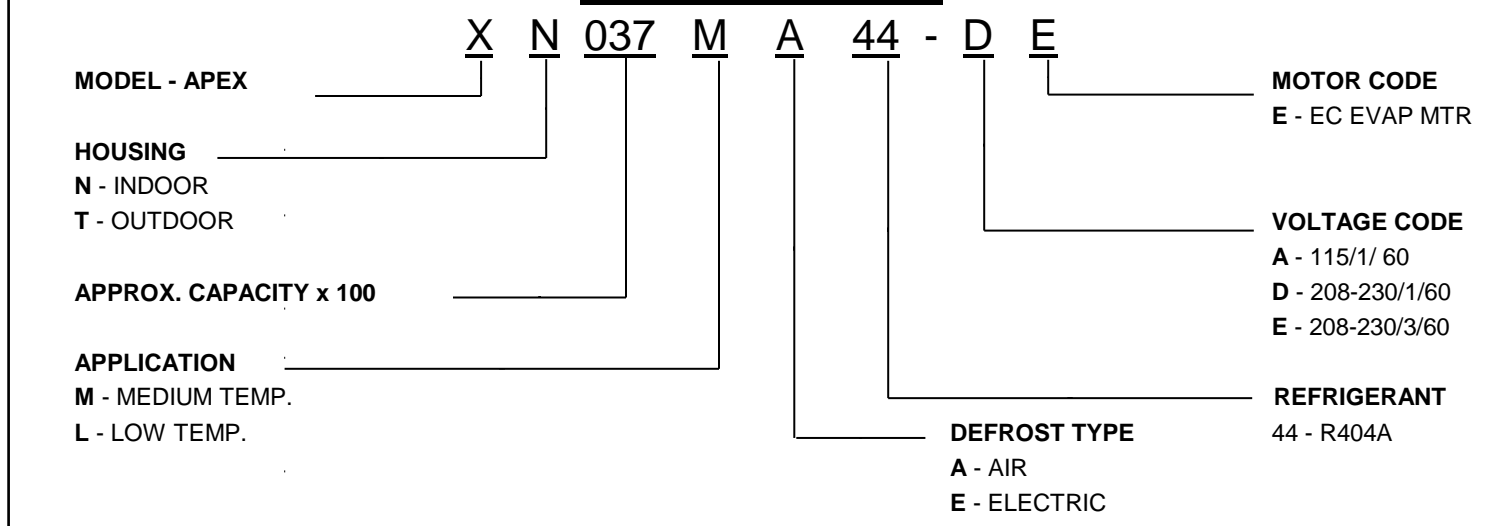
Medium Temperature - Air Defrost

Model Number	Indoor List Price EC Evap Mtr	Outdoor List Price EC Evap Mtr	Indoor Power Cord	Volts/Ph./Hz	INDOOR NET / SHIP WT. (LBS.)	OUTDOOR NET / SHIP WT. (LBS.)	4 Year Compressor Protect. Plan Net Price
XN026MA44AE	\$5,498	N/A	Yes	115/1/60	120 / 185	N/A	\$78
XN029MA44AE	6,022	N/A	Yes	115/1/60	120 / 185	N/A	78
XN037MA44AE	6,211	N/A	Yes	115/1/60	125 / 190	N/A	78
XN050MA44AE	8,216	N/A	Yes	115/1/60	210 / 305	N/A	78
X*050MA44DE	8,223	\$9,338	Yes	208-230/1/60	210 / 305	220 / 360	78
X*068MA44DE	9,511	10,226	Yes	208-230/1/60	220 / 315	230 / 370	78
X*076MA44DE	10,161	11,133	Yes	208-230/1/60	220 / 315	230 / 375	78
X*106MA44DE	12,104	12,520	Yes	208-230/1/60	295 / 420	310 / 485	80
X*106MA44EE	11,356	12,479	No	208-230/3/60	305 / 430	320 / 495	80
X*134MA44DE	13,550	13,707	No	208-230/1/60	310 / 435	325 / 500	96
X*134MA44EE	12,418	13,627	No	208-230/3/60	310 / 435	325 / 500	96

Low Temperature - Electric Defrost

Model Number	Indoor List Price EC Evap Mtr	Outdoor List Price EC Evap Mtr	Indoor Power Cord	Volts/Ph./Hz	INDOOR NET / SHIP WT. (LBS.)	OUTDOOR NET / SHIP WT. (LBS.)	4 Year Compressor Protect. Plan Net Price
XN018LE44AE	\$8,995	N/A	Yes	115/1/60	140 / 200	N/A	\$78
X*024LE44AE	10,226	N/A	Yes	115/1/60	210 / 305	N/A	78
X*024LE44DE	10,841	\$10,729	Yes	208-230/1/60	210 / 305	225 / 365	78
X*031LE44DE	10,799	12,061	Yes	208-230/1/60	245 / 340	255 / 400	78
X*043LE44DE	12,024	13,817	Yes	208-230/1/60	245 / 340	255 / 400	80
X*051LE44DE	13,798	15,600	Yes	208-230/1/60	315 / 445	320 / 510	80
X*051LE44EE	13,794	15,474	No	208-230/3/60	315 / 445	320 / 510	80
X*068LE44DE	14,805	16,614	No	208-230/1/60	320 / 450	335 / 515	94
X*068LE44EE	14,793	16,604	No	208-230/3/60	320 / 450	335 / 515	94

NOMENCLATURE



Saving Time and Money

- Fully factory assembled, charged and tested.
 - No piping or loose components to install which saves you labor cost \$\$\$.
 - PSC condenser motors for all units.
 - Adjustable digital controller is preset for typical cooler or freezer applications.
 - **Two-year warranty on all parts***
See Apex IOM M900 for full Warranty Statement
- * Insert character for housing code or motor code as applicable

Quick Installation

- Installs in a fraction of the time it takes for a typical split refrigeration systems.
- The supply/return register mounts flush with a standard 4" ceiling panel which provides for more storage in your cooler or freezer.
- Condensate is evaporated so no drain line is required on indoor models.
- Outdoor models come standard with a roof and drain line connection (see drawing in Catalog 509).



Standard Features

- Inverter Duty rail mounted motors
- Vertical air flow
- Motors with inherent thermal overload protection
- 3/8" refrigerant saving copper tube, aluminum fin coils*
- 650 PSIG working pressure
- Vinyl coated heavy gauge steel fan guards
- Swept wing fan/Venturi improves airflow and sound
- Hinged Venturi panels for easy servicing
- Hinged leg design for simple installation
- Proprietary floating coil design
- Thru-the-door non-fused disconnect switch
- Heavy gauge painted galvanized steel construction
- Heavy duty lifting eyes for equipment rigging
- UL and cUL listed for outdoor use
- LED control panel lighting
- California Title 24 compliant - see pages 43-44 for applicable models and details

Options

- Fan cycling head pressure control
- Flooded head pressure control
- Subcooling circuit
- Horizontal air flow
- Multi-circuited coils
- Wide selection of fin coatings and materials
- Individual motor fusing
- Individual or paired motor contactors
- EMS control options
- Variable frequency drives
- Multiple control panel locations
- Multiple refrigerant options
- Thru-the-door fused disconnect
- Main circuit breaker disconnect
- Leg height up to 46" (18" standard)
- Fixed box style legs (25")

QUANTUM AIR™ LARGE AIR COOLED CONDENSERS NOMENCLATURE (Pages 46-49)

K	D	D	0	8	7	G	D	3	A
1	2	3	4	5	6	7	8	9	10
Position Number and Description									
1	Model Series - K = Kramer				8	Motor			
2	Unit Type - D = Condenser					B – 1140 RPM, 1.5 HP Motor			
3	Width					D – 850 RPM, 1.5 HP Motor			
	S = Single Wide					L – 850 RPM 1 HP Motor			
	D = Double Wide					E – 550 RPM, 1/3 HP Motor			
4-6	Capacity (MBTUH)**					G – 900 RPM Variable Speed EC Motor (Rail Mtd.)			
7	Voltage Code					K – 1200 RPM Variable Speed EC Motor (Rail Mtd.)			
	E – 208-230V/3/60		N – 200-220V/3/50		9	(Enclosed Motors are an option available for certain			
	G – 460V/3/60		Q – 380V/3/50		10	Voltage/RPM combinations)			
	J – 575V/3/60		X – Other - Non-catalogued			Number of Fans Long - 1 to 7			
						Vintage Code			

SMALL AIR COOLED CONDENSERS NOMENCLATURE (Page 45)

K	D	S	007	D	A	2	B	1	2	A	1	A
I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII
I. Model Series	K – Kramer						IX. Coil Material and Coating Options*					
II. Unit Type	D – Condenser							1 – Aluminum fins				
III. Series	S – Single fan wide							2 – Copper fins				
IV. Capacity – Three Number Characters								3 – Al + AST coating				
V. Voltage Code	A – 115V/1/60		H – 575V/1/60					6 – Al + Heresite				
	D – 208-230V/1/60		X – Other					7 – Al + Polyester coat - Pre Coated Fin Material				
	E – 208-230V/3/60							X – Other				
	F – 460V/1/60		Codes D, E, F, and G can				X. Housing Material and Coatings*	1 – Aluminum				
	G – 460V/3/60		be used with 50 or 60 Hz power					7 – Stainless Steel 316L				
VI. Motor/Fan Type	A – 1140 RPM, 0.33 HP, Metal Blade							2 – Galvanized				
	C – 850 RPM, 0.25 HP, Metal Blade							X – Other				
	H – 1140 RPM, 0.5 HP Totally Enclosed, Metal Blade							XI. Unit Design Configuration				
	X – Other							A – Vertical Fan Discharge, Standard Legs				
VII. Length in Fans – 1 or 2								E – Vertical Fan Discharge, 30" Legs				
VIII. Coil Density	A – 8 fpi		D – 14 fpi					N – Horizontal Fan Discharge, Standard Legs				
	B – 10 fpi		X – Other				XII. Circuit Splitting Options	1 – Full				
	C – 12 fpi							2 – 50/50				
								X – Other				
							XIII. Revision Code – Single Alphanumeric Character	A – Initial Release				

* Contact Application Engineering to obtain price quotes for special fin materials or coatings.

When ordering please specify: Motor Voltage, Control Voltage (24, 115V or 208V), Internal or External Control Power, Design Ambient Temperature, the number of compressor systems and FPI required. Also provide the Refrigerant type, THR, T.D. for each compressor system.

SMALL AIR COOLED CONDENSERS

1075 RPM .33 HP MOTORS			
Model Number	10 FPI List Price	Fan Configuration	Approx. Net Weight (lbs.)
KDS001DA1B12A1A	\$2,180	1 x 1	80
KDS002DA1B12A1A	2,860	1 x 1	86
KDS003DA1B12A1A	3,195	1 x 1	107
KDS005DA1B12A1A	5,838	1 x 1	116
KDS007DA2B12A1A	7,312	1 x 2	164
KDS009DA2B12A1A	8,950	1 x 2	179
KDS011DA2B12A1A	10,048	1 x 2	195

850 RPM .25 HP MOTORS			
Model Number	10 FPI List Price	Fan Config.	Approx. Net Weight (lbs.)
KDS001DC1B12A1A	\$2,390	1 x 1	80
KDS002DC1B12A1A	3,429	1 x 1	86
KDS003DC1B12A1A	3,921	1 x 1	107
KDS004DC1B12A1A	6,189	1 x 1	116
KDS006DC2B12A1A	7,633	1 x 2	164
KDS008DC2B12A1A	9,597	1 x 2	179
KDS009DC2B12A1A	10,431	1 x 2	195

1075 RPM .33 HP MOTORS - Totally Enclosed			
Model Number	10 FPI List Price	Fan Config.	Approx. Net Weight (lbs.)
KDS001DH1B12A1A	\$3,172	1 x 1	80
KDS002DH1B12A1A	3,853	1 x 1	86
KDS003DH1B12A1A	4,188	1 x 1	107
KDS005DH1B12A1A	6,830	1 x 1	116
KDS007DH2B12A1A	9,296	1 x 2	164
KDS009DH2B12A1A	10,934	1 x 2	179
KDS011DH2B12A1A	12,032	1 x 2	195

POSITION V - Available Voltage Options*

Voltage Code	Adders Per Fan Section	Available Based Upon Position VI - Motor Options
A-115/1/60	N/C	Only available with motor option A
D-208-230/1/60	—	Available with motor options A & C
E-208-230/3/60	\$123	Available with motor options A, C, & H
F-460/1/60	N/C	Available with motor options A & C
G-460/3/60	123	Available with motor options A, C, & H
H-575/1/60	48	Only available with motor option A

Note: "N/A" = Not available, "N/C" = No additional charge, "—" = Base Model Feature

POSITION VI - Available Motor / Fan Type Options

Motor Type	Adder Per Fan	Available Based Upon Position V - Voltage Options
A- 1075, 0.33HP	—	Available in Voltage codes A, D, E, F, G, H
C- 850 RPM, 0.25HP	—	Available in Voltage codes D, E, F, G
H - 1075, 0.5 HP	—	Available in Voltage codes E, G

Note: "N/A" = Not available, "N/C" = No additional charge, "—" = Base Model Feature

Position - VII - Indicates Length in Fans (1 or 2)

Position - VIII - Coil Density Options Price Add or Deduct (8FPI)

Fan Configuration	A - 8 FPI	B - 10 FPI	C - 12 FPI	D - 14 FPI
1 X 1	(\$376)	—	\$378	\$756
1 X 2	(\$752)	—	\$756	\$1,510

Note: "N/A" = Not available, "N/C" = No additional charge, "—" = Base Model Feature

Position - IX - Coil Material and Coating Options**

Aluminum fins (Standard) / Copper fins / Other

No Coating (Standard) / Al + AST coating / Al + Heresite coating / Al + Polyester coat - Pre Coated Fin Material / Other

Position - X - Housing Material and Coating Options**

Galvanized (Standard) / Aluminum / Stainless Steel 316L / Other

Position - XI - Unit Design Configuration

Leg Configuration	Fan Config. 1 x 1	Fan Config. 1 x 2
A – Vertical Fan Discharge, Standard 15" Legs	—	—
E – Vertical Fan Discharge, 30" Legs	\$137	\$273
N – Horizontal Fan Discharge, Standard Legs	—	—

Position - XII - Circuit Splitting Options**

Full (Standard) / 50/50 / Multi-Circuiting / Subcooling Circuit / Other

Available Options**

Fan cycling head pressure control (2 fan model only)

Variable speed fan control (header end fan only)

Flooded head pressure control (shipped loose)

Notes:

* Codes D, E, F and G can be used with 50 or 60 Hz power.

** Contact Application Engineering to obtain price quotes for special fin materials, coatings, circuit splitting and available options.

1. Horizontal discharge orientation is available using standard leg arrangement code A.

2. Floating coil is not available for small condensers.

QUANTUM AIR™ LARGE CONDENSERS

1140 RPM 1.5 HP MOTORS (Code B)

SINGLE FAN WIDTH

Model Number	8 FPI	10 FPI	12 FPI	14 FPI	Fans	Approx. Net Weight (lbs.)
KDS004^B1	\$6,769	\$7,173	\$7,564	\$7,955	1 x 1	350
KDS006^B1	8,618	9,022	9,414	9,805	1 x 1	375
KDS007^B1	9,624	10,028	10,419	10,810	1 x 1	400
KDS012^B2	14,156	14,965	15,747	16,529	1 x 2	725
KDS015^B2	19,485	20,294	21,076	21,858	1 x 2	750
KDS018^B2	23,090	23,899	24,681	25,463	1 x 2	775
KDS022^B3	28,495	29,709	30,882	32,055	1 x 3	1,125
KDS027^B3	33,176	34,390	35,563	36,736	1 x 3	1,150
KDS030^B4	39,811	41,429	42,993	44,557	1 x 4	1,500
KDS036^B4	45,034	46,652	48,216	49,780	1 x 4	1,525
KDS039^B5	49,669	51,692	53,647	55,602	1 x 5	1,875
KDS047^B5	57,789	59,812	61,767	63,722	1 x 5	1,900
KDS056^B6	69,157	71,585	73,931	76,277	1 x 6	2,275
KDS065^B7	81,261	84,093	86,830	89,567	1 x 7	2,650

850 RPM 1.5 HP MOTORS (Code D)

SINGLE FAN WIDTH

Model Number	8 FPI	10 FPI	12 FPI	14 FPI	Fans	Approx. Net Weight (lbs.)
KDS004^D1	\$6,698	\$7,103	\$7,494	\$7,885	1 x 1	350
KDS005^D1	8,563	8,967	9,358	9,749	1 x 1	375
KDS007^D1	9,541	9,946	10,337	10,728	1 x 1	400
KDS010^D2	14,478	15,287	16,070	16,852	1 x 2	725
KDS014^D2	19,427	20,236	21,018	21,800	1 x 2	750
KDS015^D2	21,543	22,352	23,134	23,916	1 x 2	775
KDS021^D3	28,666	29,880	31,053	32,226	1 x 3	1,125
KDS024^D3	32,456	33,669	34,843	36,016	1 x 3	1,150
KDS028^D4	38,934	40,552	42,116	43,680	1 x 4	1,500
KDS032^D4	43,660	45,278	46,842	48,406	1 x 4	1,525
KDS035^D5	47,605	49,628	51,583	53,539	1 x 5	1,875
KDS043^D5	57,146	59,169	61,124	63,080	1 x 5	1,900
KDS052^D6	68,573	71,000	73,346	75,693	1 x 6	2,275
KDS060^D7	80,400	83,232	85,969	88,706	1 x 7	2,650

DOUBLE FAN WIDTH

Model Number	8 FPI	10 FPI	12 FPI	14 FPI	Fans	Approx. Net Weight (lbs.)
KDD022^B2	\$29,237	\$30,855	\$32,419	\$33,984	2 x 2	1,500
KDD030^B2	38,903	40,521	42,085	43,649	2 x 2	1,525
KDD036^B2	45,304	46,922	48,486	50,050	2 x 2	1,550
KDD045^B3	58,191	60,618	62,964	65,310	2 x 3	2,275
KDD054^B3	68,083	70,510	72,857	75,203	2 x 3	2,300
KDD059^B4	77,912	81,149	84,277	87,405	2 x 4	3,025
KDD072^B4	89,929	93,166	96,294	99,422	2 x 4	3,050
KDD078^B5	99,341	103,387	107,297	111,208	2 x 5	3,775
KDD094^B5	115,754	119,799	123,710	127,620	2 x 5	3,800
KDD113^B6	138,298	143,152	147,845	152,537	2 x 6	4,550
KDD131^B7	162,921	168,584	174,059	179,534	2 x 7	5,300

DOUBLE FAN WIDTH

Model Number	8 FPI	10 FPI	12 FPI	14 FPI	Fans	Approx. Net Weight (lbs.)
KDD019^D2	\$28,167	\$29,785	\$31,349	\$32,913	2 x 2	1,500
KDD028^D2	38,789	40,408	41,972	43,536	2 x 2	1,525
KDD031^D2	42,362	43,980	45,544	47,108	2 x 2	1,550
KDD041^D3	57,693	60,121	62,467	64,813	2 x 3	2,275
KDD048^D3	65,507	67,934	70,281	72,627	2 x 3	2,300
KDD055^D4	77,952	81,188	84,316	87,445	2 x 4	3,025
KDD065^D4	87,502	90,738	93,867	96,995	2 x 4	3,050
KDD069^D5	95,171	99,216	103,127	107,037	2 x 5	3,775
KDD086^D5	114,495	118,541	122,451	126,362	2 x 5	3,800
KDD103^D6	137,213	142,068	146,760	151,453	2 x 6	4,550
KDD121^D7	160,821	166,485	171,959	177,434	2 x 7	5,300

^ Insert voltage code here.

\$219 List price adder per fan 575/3/60 motors.

\$860 List Price adder (per fan) for Totally Enclosed Motor. 1.5 HP 1140 or 850 RPM, or 1.0 HP 850 RPM only. Not available for 550 RPM models.

^ Insert voltage code here.

575V motors are not available for units with 850RPM, 1.5 HP motors.

QUANTUM AIR™ LARGE CONDENSERS

850 RPM 1.0 HP MOTORS (Code L)[†]

SINGLE FAN WIDTH

Model Number	8 FPI	10 FPI	12 FPI	14 FPI	Fans	Approx. Net Weight (lbs.)
KDS004 [^] L1	\$6,260	\$6,665	\$7,056	\$7,447	1 x 1	350
KDS006 [^] L1	8,105	8,510	8,901	9,292	1 x 1	375
KDS008 [^] L1	9,688	10,093	10,484	10,875	1 x 1	400
KDS010 [^] L2	13,596	14,406	15,188	15,970	1 x 2	725
KDS012 [^] L2	17,154	17,963	18,745	19,528	1 x 2	750
KDS015 [^] L2	20,740	21,549	22,331	23,113	1 x 2	775
KDS019 [^] L3	27,099	28,312	29,486	30,659	1 x 3	1,125
KDS023 [^] L3	31,013	32,227	33,400	34,573	1 x 3	1,150
KDS026 [^] L4	37,518	39,137	40,701	42,265	1 x 4	1,500
KDS030 [^] L4	42,553	44,171	45,736	47,300	1 x 4	1,525
KDS032 [^] L5	45,694	47,717	49,672	51,627	1 x 5	1,875
KDS040 [^] L5	56,283	58,306	60,261	62,216	1 x 5	1,900
KDS048 [^] L6	67,909	70,337	72,683	75,029	1 x 6	2,275
KDS056 [^] L7	79,466	82,298	85,035	87,772	1 x 7	2,650

550 RPM 1/3 HP MOTORS (Code E)[†]

SINGLE FAN WIDTH

Model Number	8 FPI	10 FPI	12 FPI	14 FPI	Fans	Approx. Net Weight (lbs.)
KDS004 [^] E1	\$7,230	\$7,634	\$8,025	\$8,416	1 x 1	350
KDS005 [^] E1	8,511	8,915	9,306	9,697	1 x 1	375
KDS006 [^] E1	9,588	9,993	10,384	10,775	1 x 1	400
KDS008 [^] E2	14,251	15,060	15,842	16,624	1 x 2	725
KDS011 [^] E2	18,782	19,591	20,373	21,155	1 x 2	750
KDS012 [^] E2	20,771	21,580	22,363	23,145	1 x 2	775
KDS016 [^] E3	28,746	29,960	31,133	32,306	1 x 3	1,125
KDS018 [^] E3	31,503	32,717	33,890	35,063	1 x 3	1,150
KDS021 [^] E4	39,403	41,021	42,585	44,150	1 x 4	1,500
KDS025 [^] E4	44,180	45,798	47,362	48,926	1 x 4	1,525
KDS028 [^] E5	50,060	52,083	54,038	55,993	1 x 5	1,875
KDS032 [^] E5	55,484	57,507	59,462	61,418	1 x 5	1,900
KDS040 [^] E6	70,597	73,024	75,370	77,717	1 x 6	2,275
KDS046 [^] E7	82,534	85,366	88,103	90,840	1 x 7	2,650

DOUBLE FAN WIDTH

Model Number	8 FPI	10 FPI	12 FPI	14 FPI	Fans	Approx. Net Weight (lbs.)
KDD017 [^] L2	\$26,197	\$27,815	\$29,379	\$30,944	2 x 2	1,500
KDD026 [^] L2	37,504	39,122	40,686	42,250	2 x 2	1,525
KDD030 [^] L2	42,570	44,188	45,752	47,316	2 x 2	1,550
KDD038 [^] L3	56,709	59,136	61,482	63,828	2 x 3	2,275
KDD046 [^] L3	66,169	68,597	70,943	73,289	2 x 3	2,300
KDD051 [^] L4	76,150	79,387	82,515	85,643	2 x 4	3,025
KDD060 [^] L4	86,730	89,967	93,095	96,223	2 x 4	3,050
KDD063 [^] L5	92,437	96,482	100,393	104,303	2 x 5	3,775
KDD080 [^] L5	114,073	118,118	122,029	125,939	2 x 5	3,800
KDD097 [^] L6	137,004	141,859	146,551	151,244	2 x 6	4,550
KDD113 [^] L7	160,574	166,238	171,713	177,187	2 x 7	5,300

DOUBLE FAN WIDTH

Model Number	8 FPI	10 FPI	12 FPI	14 FPI	Fans	Approx. Net Weight (lbs.)
KDD016 [^] E2	\$30,547	\$32,166	\$33,730	\$35,294	2 x 2	1,500
KDD021 [^] E2	39,403	41,021	42,585	44,150	2 x 2	1,525
KDD025 [^] E2	43,787	45,405	46,969	48,533	2 x 2	1,550
KDD032 [^] E3	60,464	62,891	65,238	67,584	2 x 3	2,275
KDD037 [^] E3	66,219	68,647	70,993	73,339	2 x 3	2,300
KDD043 [^] E4	80,898	84,134	87,263	90,391	2 x 4	3,025
KDD050 [^] E4	90,126	93,362	96,491	99,619	2 x 4	3,050
KDD055 [^] E5	103,201	107,246	111,157	115,067	2 x 5	3,775
KDD063 [^] E5	113,301	117,347	121,257	125,168	2 x 5	3,800
KDD080 [^] E6	143,667	148,522	153,214	157,907	2 x 6	4,550
KDD093 [^] E7	167,057	172,721	178,195	183,670	2 x 7	5,300

[^] Insert voltage code here.

\$219 List price adder per fan 575/3/60 motors.

\$860 List Price adder (per fan) for Totally Enclosed Motor. 1.5 HP 1140 or 850 RPM, or 1.0 HP 850 RPM only. Not available for 550 RPM models.

[†] These models fulfill California Title 24 condenser efficiency requirements when utilizing Variable Frequency Drives and 10 FPI coils.

[^] Insert voltage code here.

575V motors are not available for units with 550RPM, 1/3 HP motors.

QUANTUM AIR™ LARGE CONDENSERS

VSEC 1200 RPM (Code K)						
SINGLE FAN WIDTH						
Model Number	8 FPI	10 FPI	12 FPI	14 FPI	Fans	Approx. Net Weight (LBS.)
KDS005^K1	\$12,281	\$12,685	\$13,076	\$13,467	1 x 1	350
KDS006^K1	14,130	14,534	14,926	15,317	1 x 1	375
KDS008^K1	15,136	15,540	15,931	16,322	1 x 1	400
KDS013^K2	25,180	25,989	26,771	27,553	1 x 2	725
KDS016^K2	30,509	31,318	32,100	32,882	1 x 2	750
KDS019^K2	34,114	34,923	35,705	36,487	1 x 2	775
KDS024^K3	45,031	46,245	47,418	48,591	1 x 3	1,125
KDS028^K3	49,712	50,926	52,099	53,272	1 x 3	1,150
KDS032^K4	61,859	63,477	65,041	66,605	1 x 4	1,500
KDS038^K4	67,082	68,700	70,264	71,828	1 x 4	1,525
KDS041^K5	77,229	79,252	81,207	83,162	1 x 5	1,875
KDS049^K5	85,349	87,372	89,327	91,282	1 x 5	1,900
KDS059^K6	102,229	104,657	107,003	109,349	1 x 6	2,275
KDS069^K7	119,845	122,677	125,414	128,151	1 x 7	2,650

VSEC 900 RPM (Code L)						
SINGLE FAN WIDTH						
Model Number	8 FPI	10 FPI	12 FPI	14 FPI	Fans	Approx. Net Weight (LBS.)
KDS004^G1	\$12,281	\$12,685	\$13,076	\$13,467	1 x 1	350
KDS005^G1	14,130	14,534	14,926	15,317	1 x 1	375
KDS007^G1	15,136	15,540	15,931	16,322	1 x 1	400
KDS010^G2	25,180	25,989	26,771	27,553	1 x 2	725
KDS014^G2	30,509	31,318	32,100	32,882	1 x 2	750
†KDS015^G2*	34,114	34,923	35,705	36,487	1 x 2	775
KDS021^G3	45,031	46,245	47,418	48,591	1 x 3	1,125
†KDS025^G3*	49,712	50,926	52,099	53,272	1 x 3	1,150
KDS028^G4	61,859	63,477	65,041	66,605	1 x 4	1,500
†KDS033^G4*	67,082	68,700	70,264	71,828	1 x 4	1,525
KDS035^G5	77,229	79,252	81,207	83,162	1 x 5	1,875
†KDS044^G5*	85,349	87,372	89,327	91,282	1 x 5	1,900
†KDS052^G6*	102,229	104,657	107,003	109,349	1 x 6	2,275
†KDS061^G7*	119,845	122,677	125,414	128,151	1 x 7	2,650

DOUBLE FAN WIDTH						
Model Number	8 FPI	10 FPI	12 FPI	14 FPI	Fans	Approx. Net Weight (LBS.)
KDD023^K2	\$51,285	\$52,903	\$54,467	\$56,032	2 x 2	1,500
KDD032^K2	60,951	62,569	64,133	65,697	2 x 2	1,525
KDD038^K2	67,352	68,970	70,534	72,098	2 x 2	1,550
KDD047^K3	91,263	93,690	96,036	98,382	2 x 3	2,275
KDD057^K3	101,155	103,582	105,929	108,275	2 x 3	2,300
KDD063^K4	122,008	125,245	128,373	131,501	2 x 4	3,025
KDD075^K4	134,025	137,262	140,390	143,518	2 x 4	3,050
KDD082^K5	154,461	158,507	162,417	166,328	2 x 5	3,775
KDD099^K5	170,874	174,919	178,830	182,740	2 x 5	3,800
KDD118^K6	204,442	209,296	213,989	218,681	2 x 6	4,550
KDD138^K7	240,096	245,760	251,234	256,709	2 x 7	5,300

DOUBLE FAN WIDTH						
Model Number	8 FPI	10 FPI	12 FPI	14 FPI	Fans	Approx. Net Weight (LBS.)
KDD020^G2	\$51,285	\$52,903	\$54,467	\$56,032	2 x 2	1,500
KDD028^G2	60,951	62,569	64,133	65,697	2 x 2	1,525
†KDD032^G2*	67,352	68,970	70,534	72,098	2 x 2	1,550
KDD042^G3	91,263	93,690	96,036	98,382	2 x 3	2,275
†KDD049^G3*	101,155	103,582	105,929	108,275	2 x 3	2,300
KDD056^G4	122,008	125,245	128,373	131,501	2 x 4	3,025
†KDD065^G4*	134,025	137,262	140,390	143,518	2 x 4	3,050
KDD070^G5	154,461	158,507	162,417	166,328	2 x 5	3,775
†KDD087^G5*	170,874	174,919	178,830	182,740	2 x 5	3,800
KDD105^G6*	204,442	209,296	213,989	218,681	2 x 6	4,550
†KDD122^G7*	240,096	245,760	251,234	256,709	2 x 7	5,300

^ Insert voltage code here.

^ Insert voltage code here.

† These selected models fulfill California Title 24 condenser efficiency requirements when utilizing 10 FPI coils.

Large Air Cooled Condenser Options

Fan configuration

	1X1	1X2	1X3	1X4	1X5	1X6	1X7	2X2	2X3	2X4	2X5	2X6	2X7
Disconnect Options													
Through the door non-fused disconnect	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD	STD
Through the door fused disconnect	\$442	508	749	850	935	1,022	1,107	850	1,022	1,318	1,617	1,917	2,214
Main Power Circuit Breaker	\$908	908	1,123	1,123	1,123	1,123	1,123	1,123	1,123	1,204	1,204	1,204	1,204
Bladed Safety Switch, Non-fused	\$809	809	1,558	1,558	1,558	1,558	1,558	1,558	1,558	1,965	1,965	1,965	1,965
110 VAC - 20 Amp Convenience Outlet powered by separate building feed or transformer	\$326	326	326	326	326	326	326	326	326	326	326	326	326

Fan Cycling Options - Requires Contactor Option													
Ambient fan cycling [†]	—	\$902	1,230	1,638	2,046	2,456	2,866	901	1,230	1,638	2,046	2,456	2,866
Mechanical Pressure fan cycling (per circuit) W/O Header [†]	—	\$1,357	1,485	1,979	2,474	2,969	3,462	1,357	1,485	1,979	2,474	2,969	3,462
Mechanical Pressure fan cycling (per circuit) W/ Header [†]	—	\$1,729	2,225	2,723	3,221	3,718	4,225	1,729	2,225	2,723	3,221	3,718	4,225
Electronic Pressure fan cycling (per circuit) W/O Header [†]	—	\$1,408	1,764	2,930	4,097	5,262	6,180	1,408	1,764	2,930	4,097	5,262	6,180
Electronic Pressure fan cycling (per circuit) W/ Header [†]	—	\$1,999	3,164	4,330	5,497	6,405	7,526	1,999	3,164	4,330	5,497	6,405	7,526

Note: Header fan is continuous run and not cycled.

Electronic Header End Fan Speed Control - Req. Contactor & Fan Cycle on 1x2 and larger													
Variable speed header end fan (1 or 2 Circuit) ambient controlled [†]	\$2,242	2,553	2,879	3,289	3,699	4,110	4,518	2,551	2,961	3,374	3,784	4,195	4,605
Variable speed header end fan (1 or 2 Circuit) Mechanical control - pressure [†]	\$2,673	2,871	3,176	3,669	4,166	4,661	5,153	2,871	3,176	3,669	4,166	4,661	5,153
Variable speed header end fan (1 or 2 Circuit) Electronic control - pressure [†]	\$2,831	3,136	3,455	4,621	5,788	6,685	7,808	3,136	3,455	4,621	5,788	6,685	7,808

Variable Frequency Drive (VFD)													
VFD Package - Shipped Loose [†]	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F
VFD Package - Factory Mounted [†]	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F

Control Boards - Items with this mark also ‡ require the contactor option													
CPC relay board + xfmr (1x1 thru 2x4 config) ‡	\$2,912	2,912	2,912	2,912	2,912	2,912	2,912	2,912	2,912	2,912	-	-	-
CPC relay boards (2)+ xfmr (2x5 thru 2x7 config) ‡	—	—	—	—	—	—	—	—	—	—	\$5,460	5,460	5,460
CPC relay board condenser split 50/50 (1 board + relay)	\$3,030	3,030	3,030	3,030	3,030	3,030	3,030	3,030	3,030	3,030	3,030	3,030	3,030
CPC analog speed control board and transformer	\$3,048	3,048	3,048	3,048	3,048	3,048	3,048	3,048	3,048	3,048	3,048	3,048	3,048
DANFOSS relay board + xfmr (1x1 thru 2x4 config) ‡	\$2,923	2,923	2,923	2,923	2,923	2,923	2,923	2,923	2,923	2,923	-	-	-
DANFOSS relay boards (2) + xfmr (2x5 thru 2x7 config) ‡	—	—	—	—	—	—	—	—	—	—	\$5,991	5,991	5,991
DANFOSS relay board condenser split 50/50 (relay) ‡	\$4,292	4,292	4,292	4,292	4,292	4,292	4,292	4,292	4,292	4,292	4,292	4,292	4,292
DANFOSS analog speed control board and transformer	\$3,375	3,375	3,375	3,375	3,375	3,375	3,375	3,375	3,375	3,375	3,375	3,375	3,375
VSEC Stand alone motor control (C450)	\$4,431	4,431	4,431	4,431	4,431	4,431	4,431	4,431	4,431	4,431	4,431	4,431	4,431

Consult Application Engineering For Other Relay Board Options

Control Options													
Control Circuit Breaker (2P - 15A)	\$291	291	291	291	291	291	291	291	291	291	291	291	291
Control circuit transformer [†]	\$551	551	551	551	551	551	551	551	551	551	551	551	551

Fan Control Options (Contactors)													
Individual Motor Contactors [†]	\$232	463	693	924	1,154	1,385	1,615	924	1,385	1,845	2,307	2,768	3,229
Paired Motor Contactors [†]	—	—	—	—	—	—	—	\$463	694	925	1,156	1,387	1,618
NEMA rated Contactors - Individual [†]	\$950	1,900	2,849	3,798	4,747	5,697	6,646	3,798	5,697	7,595	9,494	11,392	13,291
NEMA rated Contactors - PAIRED [†]	—	—	—	—	—	—	—	\$1,900	2,849	3,798	4,747	5,697	6,646
Individual motor fuses [†]	\$234	467	699	932	1,165	1,397	1,630	932	1,397	1,863	2,329	2,794	3,260
Paired motor fuses [†]	—	—	—	—	—	—	—	\$467	699	932	1,165	1,397	1,630
Individual circuit breakers ^{††}	\$648	930	1,384	1,854	2,308	2,778	3,208	1,854	2,778	3,687	4,614	5,540	6,196
Paired circuit breakers ^{††}	—	—	—	—	—	—	—	\$930	1,384	1,854	2,308	2,778	3,208
Individual motor terminal boards [†]	\$164	325	487	648	812	973	1,134	648	973	1,556	1,881	2,202	2,527
Paired motor terminal blocks [†]	—	—	—	—	—	—	—	\$325	487	648	812	973	1,134
Fan toggle switches - per fan (to control contactors) [†]	\$97	195	289	386	482	579	675	386	579	772	964	1,156	1,348
Fan toggle switches - PAIRED (to control contactors) [†]	—	—	—	—	—	—	—	\$195	289	386	482	579	675
Fan toggle switches - per fan (to control Motors) [†]	\$442	442	442	442	442	442	442	1,554	2,330	3,107	3,884	4,660	5,437
Fan toggle switches - PAIRED (to control Motors) [†]	—	—	—	—	—	—	—	\$777	1,165	1,554	1,942	2,330	2,719

Build Options**													
Horizontal Air Discharge	\$654	958	1,410	1,730	2,035	2,340	2,626	1,915	2,789	3,460	4,068	4,679	5,256
Aluminum Housing	\$260	520	780	1,039	1,299	1,559	1,818	1,039	1,559	2,078	2,598	3,117	3,636
Stainless Steel Housing	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A
Leg length - 21" or 30" - Standard Vertical air discharge	\$137	273	408	408	408	503	639	273	408	408	408	503	639
Leg length - 46" (Vertical air discharge only)	\$163	323	483	483	483	594	754	323	483	483	483	594	754
Box Style Leg at every location- 25" (Vertical air discharge only)	\$475	712	949	1,186	1,423	1,660	1,897	712	949	1,186	1,423	1,660	1,897
Sealtite wiring to motor rail	\$204	253	383	515	637	767	895	515	767	1,022	1,280	1,534	1,780
Sealtite wiring to electrical box	\$675	1,350	2,025	2,699	3,374	4,049	4,724	2,699	4,049	5,398	6,748	8,097	9,447
Condenser Base with 18" legs (Vertical air discharge only)	\$1,656	2,389	3,125	4,475	5,414	6,208	7,210	2,389	3,125	4,475	5,414	6,456	7,499
Condenser Base with 30" or 46" legs (Vertical air discharge only)	\$1,772	2,624	3,475	4,432	6,000	6,883	7,998	2,624	3,475	4,944	6,000	7,158	8,318
Condenser / Receiver Assembly (Vertical air discharge only)	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A
Header End control panel mounting (Specify location change)	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C	N/C

Flooded Head Pressure Controls (Shipped loose only)													
	Number of Controls												
List Price per compressor system [†]	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A
Number of Controls per compressor system [†]	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A
Manifold included [†]	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A	C/A

* Multiple valves or manifolds are required for multi-circuit condensers.

** Contact Application Engineering to obtain price quotes for special fin materials or coatings.

N/C = No additional charge for this feature.

C/A = Contact Application engineering for custom price quote.

† This option is not available for condensers with VSEC motors.

†† Units with VSEC motors **include** individual circuit breaker. Paired circuit breakers are not available.

Supersedes ALL Kramer Price Lists
published prior to April 2018

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:** Prices are 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.
4. **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 (DRY VAN, FLATBED, LTL, AND PARCEL), carrier, and shipping point. For special routing requests, Buyer will bear all additional costs for such routing. The responsibility of the Seller shall cease upon delivery of the product in good condition to a common carrier (TL, LTL, FLATBED, etc.). Since all goods are shipped at Buyer's risk, they should carefully examine 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 of 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. Refer to HTPG's 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 Seller's 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. Seller's 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 Buyer's address set forth in the order acknowledgement.

The above terms and conditions apply to all orders placed with the Seller. Buyer acknowledges having read and understood these terms and conditions and agrees to abide by them upon placement of any order with the Seller. In the event it becomes necessary to refer the account to a collection agency or to institute legal action to obtain payment of the account, Buyer agrees to pay all reasonable attorney fees and court costs incurred by such action.