



Kol-Flo Low Profile Unit Cooler

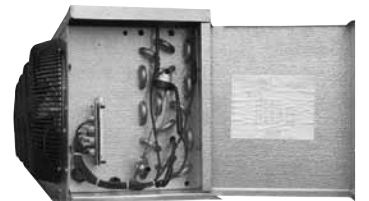
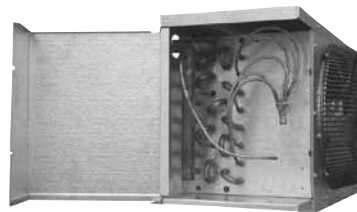
Small to Medium
Walk-ins

Coolers & Freezer
Applications

Air Defrost - 3,900 to 39,000 BTUH

Electric Defrost - 3,600 to 28,000 BTUH

Now available with EC Motors
High Efficiency / High Reliability



Features

The Kolpak Kol-Flo is the original low profile unit cooler that has established an industry standard as being the all-purpose design for walk-in coolers, freezers and other applications. They feature an air draw-through design offering air and electric defrost models.

Sizes

There are 35 sizes available with 3,700 to 39,000 BTUH at a 10° TD ranging from 740 to 4,980 cfm. One through six fan models are available.

Housing

Rust-free, heavy gauge, textured Aluminum casing is light weight yet durable. Each fan section is baffled to prevent short cycling of the air. The unit is designed to mount flush to the ceiling and meets all NSF requirements. Slotted hangers are provided for easy installation. Drain fittings are installed in the horizontal position to gain more usable head-room in low ceiling applications. The end panels now are hinged to open up out for easy access to both the piping and electrical ends. Expansion valves, solenoid and temp controls are conveniently installed inside the cabinet.

Coil

Seamless Copper tubes are staggered and mechanically expanded into corrugated Aluminum fins and heavy gauge tube sheets to achieve maximum heat transfer and strength. Die formed fin collars provide even fin spacing. Fin spacings available are 4, 6, and 8 fins per inch. Sweat connections are standard on all models.

Motors

Standard Motors are high efficiency PSC or EC motors are available in 115V and 230V.

Fans

Heavy duty 12" Aluminum fans are balanced to provide vibration-free operation. Our new low throw black plastic fan guards have an improved air pattern. The optional epoxy resin high throw fan guard moves air up to 50 feet.

Air Defrost

All models with the prefix "AM" are designed for use in coolers of 35°F and warmer. Complete air defrost systems for off-cycle or timed air defrost are available from Kolpak.

Electrical

Available in 115V, 208/230V, and 460V (see page 4). All components are factory wired to convenient screw-type terminal strips. A large compartment is supplied internal to the unit for all electrical components and is easily accessible by removing the end panel. All models are UL & cUL listed.

Electric Defrost

Available on all models with the prefix "SE". Designed for use where electric heat is used to defrost. Placement of the heaters internal to the coil allows for an extremely rapid and efficient defrost. This arrangement enables the heat to be conducted through the fins from the center out for an even defrost pattern. All heaters are wired to a terminal strip to allow a quick field change-over from single phase to three phase, 230V to 460V and vice versa. A lower heater is installed close to the drain pan for fast, reliable drainage. A defrost termination thermostat (DT) terminates the defrost cycle when the temperature is satisfied. A heater safety thermostat is installed to prevent heaters from overheating above 75° in case of DT failure. All heaters are flexible and can be easily replaced within 12 inches of the end of the units. A fan delay thermostat is supplied to allow the warm coil to cool after a defrost cycle prior to the fans turning on. Complete electric defrost refrigeration systems are available from Kolpak.

Standard Features

- High efficiency EC fan motors
- Factory mounted expansion valves, TXV, and Solenoid valves

Optional Features

- 460 volt motors and heaters
- Coated Aluminum fins or Copper Fins
- Baked white enamel housing
- Epoxy resin high throw guards for up to 50 ft.

Kolpak standard EC motors

bring the benefits inherent to unit bearing motor design to the refrigeration Unit Cooler market.

- Large oil reservoir
- Totally enclosed construction
- Journal bearing machined into the cast iron endbell
- Spiral grooved shaft pump guarantees positive oil circulation
- Threaded shaft uses hubless fan blade.

Energy Savings per Motor

by Changing to More Efficient Unit Cooler Motors (based on Energy Cost of \$0.10 per kWh)

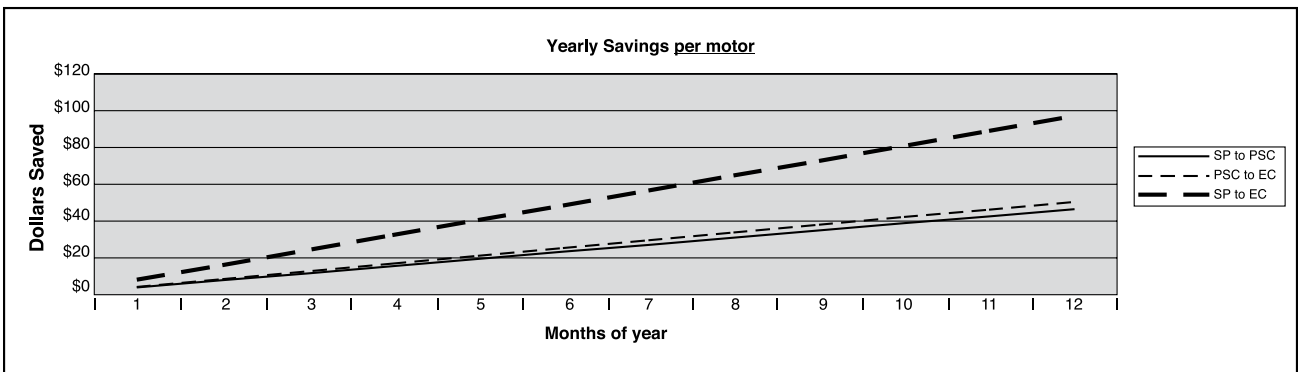
Motor Change	Std Motor Power Watts/Mtr	Change to Motor Power Watts/Mtr	Reduced Power Watts/Mtr	Run Time Hrs/Day	Motor Energy Savings kWh/Yr	Motor Energy Savings \$/Yr	Reduced Box Load MBTU/Yr	Cond. Unit Energy Savings \$/Rd	Yearly Savings \$ Per MTR	Pay back in Yrs.
SP to PSC	120	85	35	22	281	28	959	18	47	0.6
PSC to EC	85	47	38	22	305	31	1041	20	51	2.0
SP to EC	120	47	73	22	586	59	2000	38	97	1.3

Subtract 6% from total savings for medium temperature air defrost units that run 24 hours per day.

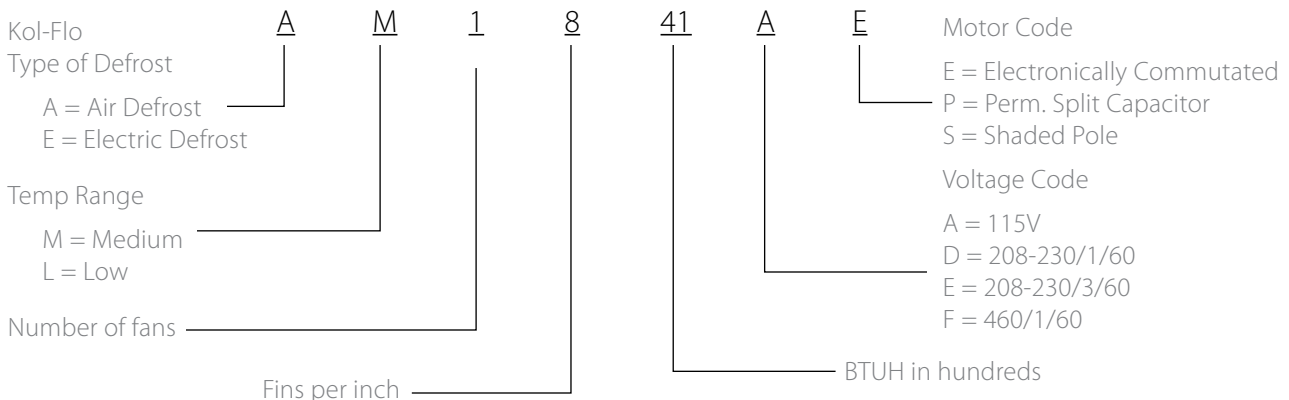
EC = 50 Watt Electronically Commutated motor (Standard motor)

PSC = 1/20 HP PSC motor (Optional motors available at additional cost)

SP = 1/20 HP Shaded pole motor (Optional motors)



Nomenclature



Air Defrost / Specifications

MODEL NUMBER	BTUH Capacity @ 25° F.S.T.		CFM	Total Fan Motor Amps - 1 Phase							
	10° TD	12° TD		SP Motor			Replacement Only PSC Motor		Standard EC Motor		
				115V	230V	460V	115V	230V	115V	230V	
Re-Evap	10° TD	12° TD		115V	230V	460V	115V	230V	115V	230V	
AM18-41	4,100	4,900	800	1.9	1.0	0.54	1.0	0.5	0.9	0.45	
AM18-53	5,300	6,400	770	1.9	1.0	0.54	1.0	0.5	0.9	0.45	
AM18-66	6,600	7,900	740	1.9	1.0	0.54	1.0	0.5	0.9	0.45	
AM28-76	7,600	9,100	1,460	3.8	2.0	1.1	2.0	1.0	1.8	0.90	
AM28-97	9,700	11,600	1,420	3.8	2.0	1.1	2.0	1.0	1.8	0.90	
AM28-106	10,600	12,700	1,540	3.8	2.0	1.1	2.0	1.0	1.8	0.90	
AM28-122	12,200	14,600	1,380	3.8	2.0	1.1	2.0	1.0	1.8	0.90	
AM28-134	13,400	16,100	1,480	3.8	2.0	1.1	2.0	1.0	1.8	0.90	
AM38-160	16,000	19,200	2,310	5.7	3.0	1.6	3.0	1.5	2.7	1.35	
AM38-195	19,500	23,400	2,220	5.7	3.0	1.6	3.0	1.5	2.7	1.35	
AM48-212	21,200	25,400	3,080	7.6	4.0	2.2	4.0	2.0	3.6	1.80	
AM48-264	26,400	31,700	2,960	7.6	4.0	2.2	4.0	2.0	3.6	1.80	
AM58-275	27,500	33,000	3,850	9.5	5.0	2.7	5.0	2.5	4.5	2.25	
AM68-318	31,800	38,200	4,620	11.4	6.0	3.2	6.0	3.0	5.4	2.70	
AM68-390	39,000	46,800	4,440	11.4	6.0	3.2	6.0	3.0	5.4	2.70	
8 FPI	AM16-39	3,900	4,700	830	1.9	1.0	0.54	1.0	0.5	0.9	0.45
	AM16-48	4,800	5,800	800	1.9	1.0	0.54	1.0	0.5	0.9	0.45
	AM16-58	5,800	7,000	780	1.9	1.0	0.54	1.0	0.5	0.9	0.45
	AM26-70	7,000	8,400	1,540	3.8	2.0	1.1	2.0	1.0	1.8	0.90
	AM26-87	8,700	10,400	1,500	3.8	2.0	1.1	2.0	1.0	1.8	0.90
	AM26-115	11,500	13,800	1,560	3.8	2.0	1.1	2.0	1.0	1.8	0.90
	AM36-145	14,500	17,400	2,400	5.7	3.0	1.6	3.0	1.5	2.7	1.35
	AM36-170	17,000	20,400	2,340	5.7	3.0	1.6	3.0	1.5	2.7	1.35
	AM46-192	19,200	23,000	3,200	7.6	4.0	2.2	4.0	2.0	3.6	1.80
	AM46-230	23,000	27,600	3,120	7.6	4.0	2.2	4.0	2.0	3.6	1.80
	AM56-245	24,500	29,400	4,000	9.5	5.0	2.7	5.0	2.5	4.5	2.25
	AM66-295	29,500	35,400	4,800	11.4	6.0	3.2	6.0	3.0	5.4	2.70
	AM66-345	34,500	41,400	4,680	11.4	6.0	3.2	6.0	3.0	5.4	2.70
	6 FPI	AM14-42	4,200	5,000	830	1.9	1.0	0.54	1.0	0.5	0.9
AM24-84		8,400	10,100	1,660	3.8	2.0	1.1	2.0	1.0	1.8	0.90
AM24-105		10,500	12,600	1,620	3.8	2.0	1.1	2.0	1.0	1.8	0.90
AM34-130		13,000	15,600	2,490	5.7	3.0	1.6	3.0	1.5	2.7	1.35
AM44-170		17,000	20,400	3,320	7.6	4.0	2.2	4.0	2.0	3.6	1.80
AM54-215		21,500	25,800	4,150	9.5	5.0	2.7	5.0	2.5	4.5	2.25
AM64-255		25,500	30,600	4,980	11.4	6.0	3.2	6.0	3.0	5.4	2.70
4 FPI	AM14-42	4,200	5,000	830	1.9	1.0	0.54	1.0	0.5	0.9	0.45
	AM24-84	8,400	10,100	1,660	3.8	2.0	1.1	2.0	1.0	1.8	0.90
	AM24-105	10,500	12,600	1,620	3.8	2.0	1.1	2.0	1.0	1.8	0.90
	AM34-130	13,000	15,600	2,490	5.7	3.0	1.6	3.0	1.5	2.7	1.35
	AM44-170	17,000	20,400	3,320	7.6	4.0	2.2	4.0	2.0	3.6	1.80
	AM54-215	21,500	25,800	4,150	9.5	5.0	2.7	5.0	2.5	4.5	2.25
	AM64-255	25,500	30,600	4,980	11.4	6.0	3.2	6.0	3.0	5.4	2.70

* PSC = Permanent Split Capacitor EC = Electronically Commutated Motor
 Note: All fan motors are wired for single phase supply voltage.

Ordering Information Required

It is vital that the information listed below is given with each evaporator order. Orders without this information may be delayed.

- (1) Model Number
- (2) Type of motor (If replacement only) std is EC
- (3) Voltage, frequency and phase of motors and heaters (when applicable)
- (5) Evaporator temperature

Electric Defrost / Specifications

	MODEL NUMBER Re-Evap	BTUH Capacity @ 10° T.D. Evaporator Temperature				CFM	Motor Amps ¹				Heater Amps ¹			Watts
		-30°	-20°	-10°	+20°		Standard		PSC 230V	ECM 230V	208/230V		460V 1 PH	
							230V	460V			1 PH	3 PH		
6 FPI	EL16-36	3,400	3,600	3,700	3,900	830	1.0	0.54	0.5	0.45	4.4	2.6	2.2	1,000
	EL16-41	3,900	4,100	4,300	4,800	800	1.0	0.54	0.5	0.45	4.4	2.6	2.2	1,000
	EL16-46	4,400	4,600	4,800	5,800	780	1.0	0.54	0.5	0.45	4.4	2.6	2.2	1,000
	EL26-60	5,700	6,000	6,200	7,000	1,540	2.0	1.1	1.0	0.90	7.0	6.0	3.5	1,600
	EL26-75	7,100	7,500	7,800	8,700	1,500	2.0	1.1	1.0	0.90	7.0	6.0	3.5	1,600
	EL26-92	8,700	9,200	9,600	11,500	1,560	2.0	1.1	1.0	0.90	8.7	7.5	4.4	2,000
	EL36-120	11,400	12,000	12,500	14,500	2,400	3.0	1.6	1.5	1.35	13.0	11.3	6.4	3,000
	EL36-140	13,300	14,000	14,600	17,000	2,340	3.0	1.6	1.5	1.35	13.0	11.3	6.4	3,000
	EL46-164	15,000	16,400	17,100	19,200	3,200	4.0	2.2	2.0	1.80	17.4	15.1	8.7	4,000
	EL46-185	17,600	18,500	19,200	23,000	3,120	4.0	2.2	2.0	1.80	17.4	15.1	8.7	4,000
	EL56-210	20,000	21,000	21,800	24,500	4,000	5.0	2.7	2.5	2.25	—	18.8	10.9	5,000
	EL66-245	23,300	24,500	25,500	29,500	4,800	6.0	3.2	3.0	2.70	—	22.6	13.0	6,000
	EL66-280	26,600	28,000	29,100	34,500	4,680	6.0	3.2	3.0	2.70	—	22.6	13.0	6,000
	4 FPI	EL14-37	3,500	3,700	3,800	4,200	830	1.0	0.54	0.5	0.45	4.4	2.6	2.2
EL24-72		6,800	7,200	7,500	8,400	1,660	2.0	1.1	1.0	0.90	8.7	7.5	4.4	2,000
EL24-85		8,100	8,500	8,800	10,500	1,620	2.0	1.1	1.0	0.90	8.7	7.5	4.4	2,000
EL34-105		10,000	10,500	10,900	13,000	2,490	3.0	1.6	1.5	1.35	13.0	11.3	6.4	3,000
EL44-140		13,300	14,000	14,600	17,000	3,320	4.0	2.2	2.0	1.80	17.4	15.1	8.7	4,000
EL54-180		17,10	18,000	18,700	21,500	4,150	5.0	2.7	2.5	2.25	—	18.8	10.9	5,000
EL64-215		20,400	21,500	22,400	25,500	4,980	6.0	3.2	3.0	2.70	—	22.6	13.0	6,000

(1) All fan motors are wired for single phase.

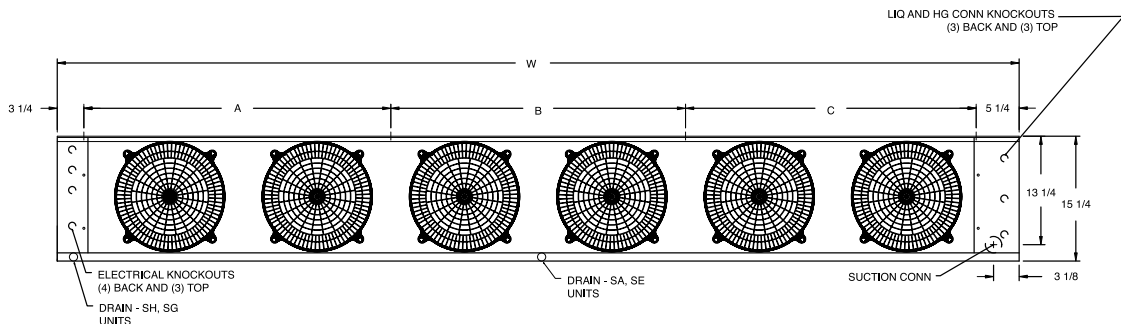
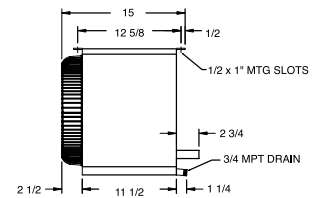
(2) For 208/230 volt models, heaters are wired as standard for single phase on 1 through 4 fan models. 5 and 6 fan models are wired 3 phase. 460 Volt models are only available in single phase and are compatible with all 3 phase systems.

Physical Data

Models		TXV TYPE	Refrigerant Connections			No. of Hangers	Dimensions (Inches)				Ship Wt. (lbs.)
			All Liquid	AM Suction	EL Suction		A	B	C	W	
18-41	—	EXT	1/2 ODS	5/8 ODS	—	2	19	—	—	27-1/2	43
18-53	—	EXT	1/2	5/8	—	2	19	—	—	27-1/2	46
18-66	—	EXT	1/2	5/8	—	2	19	—	—	27-1/2	50
28-76	—	EXT	1/2	5/8	—	2	33	—	—	41-1/2	64
28-97	—	EXT	1/2	7/6	—	2	33	—	—	41-1/2	69
28-106	—	EXT	1/2	7/8	—	2	37	—	—	45-1/2	71
28-122	—	EXT	1/2	7/8	—	2	33	—	—	41-1/2	74
28-134	—	EXT	1/2	7/8	—	2	37	—	—	45-1/2	77
38-160	—	EXT	1/2	1-1/8	—	2	55	—	—	63-1/2	110
38-195	—	EXT	1/2	1-1/8	—	2	55	—	—	63-1/2	120
48-212	—	EXT	1/2	1-1/8	—	3	36-1/2	36-1/2	—	81-1/2	145
48-264	—	EXT	1/2	1-1/8	—	3	36-1/2	36-1/2	—	81-1/2	160
58-275	—	EXT	1/2	1-1/8	—	3	54-1/2	36-1/2	—	99-1/2	230
68-318	—	EXT	1/2	1-1/8	—	4	36-1/2	36	36-1/2	117-1/2	255
68-390	—	EXT	1/2	1-1/8	—	4	36-1/2	36	36-1/2	117-1/2	275
16-39	16-36	EXT	1/2 ODS	5/8 ODS	5/8 ODS	2	19	—	—	27-1/2	41
16-48	16-41	EXT	1/2	5/8	5/8	2	19	—	—	27-1/2	44
15-55	16-46	EXT	1/2	5/8	5/8	2	19	—	—	27-1/2	47
2G 70	26-60	EXT	1/2	5/8	7/8	2	33	—	—	41-1/2	61
26-87	26-75	EXT	1/2	7/8	7/8	2	33	—	—	41-1/2	67
26-115	26-92	EXT	1/2	7/8	7/8	2	37	—	—	45-1/2	74
36-145	36-120	EXT	1/2	7/8	7/8	2	55	—	—	63-1/2	105
36-170	36-140	EXT	1/2	1-1/8	1-1/8	2	55	—	—	63-1/2	115
46-192	46-164	EXT	1/2	1-1/8	1-1/8	3	36-1/2	36-1/2	—	81-1/2	140
46-230	46-185	EXT	1/2	1-1/8	1-1/8	3	36-1/2	36-1/2	—	81-1/2	155
56-245	56-210	EXT	1/2	1-1/8	1-1/8	3	54-1/2	36-1/2	—	99-1/2	225
66-295	66-245	EXT	1/2	1-1/8	1-1/8	4	36-1/2	36	36-1/2	117-1/2	250
66-345	66-280	EXT	1/2	1-1/8	1-1/8	4	SRW	36	36-1/2	117-1/2	270
14-42	14-37	EXT	1/2 ODS	5/8 ODS	5/8 ODS	2	19	—	—	27-1/2	42
24-84	24-72	EXT	1/2	7/8	7/8	2	37	—	—	45-1/2	67
24-105	24-85	EXT	1/2	7/8	7/8	2	37	—	—	45-1/2	72
J4-130	34-105	EXT	1/2	7/8	7/8	2	55	—	—	63-1/2	100
44-170	44-140	EXT	1/2	7/8	1-1/8	3	36-1/2	36-1/2	—	81-1/2	135
54-215	54-180	EXT	1/2	1-1/8	1-1/8	3	54-1/2	36-1/2	—	99-1/2	220
64-255	64-215	EXT	1/2	1-1/8	1-1/8	4	36-1/2	36	36-1/2	117-1/2	245

Installation Notes:

- (1) Install 12" away from back wall.
- (2) Drain connection on AM and EL units are centered on drain pan.
- (3) For long air throw requirements, specify high throw fan guard.



Electric Defrost Kits

Model Number	1 Unit Cooler Per System		2 Unit Coolers Per System		3 Unit Coolers Per System	
	230V	460V	230V	460V	230V	460V
EL16-36	KED-10	ED-12	D-20*	ED-22	ED-30	ED-32
EL16-41	KED-10	ED-12	ED-20'	ED-22	ED-30	ED-32
EL16-46	KED-10	ED-12	ED-20"	ED-22	ED-30	ED-32
EL26-60	KED-10	ED-12	ED-20*	ED-22	ED-30	ED-32
EL26-75	KED-10	ED-12	ED-20*	ED-22	ED-30	ED-32
EL26-92	KED-10	ED-12	ED-20*	ED-22	ED-30	ED-32
EL36-120	KED-10	ED-12	ED-20*	ED-22	ED-33	ED-32
EL36-140	KED-10	ED-12	ED-20*	ED-22	ED-33	ED-yz
EL46-164	KED-10	ED-12	ED-23*	ED-22	ED-35	ED-32
EL46-185	KED-10	ED-12	ED-23*	ED-22	ED-35	ED-32
EL56-210	KED-11	ED-12	ED-23*	ED-22	ED-35	ED-34
EL66-245	KED-11	ED-12	ED-23*	ED-22	ED-35	ED-34
EL66-280	KED-11	ED-12	ED-23'	ED-22	ED-35	ED-34
EL14-37	KED-10	ED-12	ED-20'	ED-22	ED-30	ED-32
EL24-72	KED-10	ED-12	ED-20*	ED-22	ED-30	ED-32
EL24-85	KED-10	ED-12	ED-20*	ED-22	ED-30	ED-32
EL34-105	KED-10	ED-12	ED-20*	ED-22	ED-33	ED-32
EL44-140	KED-10	ED-12	ED-23*	ED-22	ED-35	ED-32
EL54-180	KED-11	ED-12	ED-23*	ED-22	ED-35	ED-34
EL64-215	KED-11	ED-12	ED-23'	ED-22	ED-35	ED-34

Electric defrost kits consist of components that are necessary to control the defrost cycle. The optional kits are available as a factory installed option when ordered with a condensing unit. Not all KED-Kits are available for all condensing unit models. The contents of each kit is described below, along with the function of each component. * - 1/2 through 3 HP models require KED-210 or KED-213.

Electric Defrost Kits

Kit No.	Timer	Auxiliary Switch	Block-Out Relay	Defrost Contactor	Fan Contactor	Sequencing Relay
KED10-230/1	1	—	1-30A	—	—	—
KED11-230/3	1	1	—	1-30A	—	—
KED12-460/3	1	1	—	1-30A	1-25A	—
¹ KED210-230/1	1	—	1-30A	—	—	—
¹ KED213-230/1	1	1	—	1-50A	—	—
¹ KED213-230/3	1	1	—	1-50A	—	—
KED20-230/1	1	—	1-30A	—	—	2
KED22-460/3	1	1	—	2-15A	1-25A	2
KED23-230/1	1	1	—	2-25A	—	2
KED23-230/3	1	1	—	2-25A	—	2
KED30-230/1	1	—	1-30A	—	—	3
KED32-460/3	1	1	—	3-10A	1-25A	3
KED33-230/1	1	1	—	3-16A	—	3
KED34-460/3	1	1	—	3-16A	1-25A	3
KED35-230/1	1	1	—	3-33A	—	3
KED35-230/3	1	1	—	3-33A	—	3

¹ For use with 2 evaporators, 1/2 through 3 HP 120-series systems ONLY!

Timer: Initiates the defrost cycle. Also used as an override protection for defrost termination.

Auxiliary Switch: Is mounted on the compressor contactor and prevents the defrost contactor from operating whenever the compressor is energized.

Block-Out Relay: Serves the same function as auxiliary switch. Used when defrost contactor is not required (lower wattage single phase only).

Defrost Contactor: Carries amperage load for heaters.

Fan Contactor: Used with 460V motors or when 230V motors are wired 3 phase.

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.



1/2 Through 20 HP Complete Refrigeration Packages

- Air Defrost
- Electric Defrost

Contact Your Kolpak Representative for details		
<p>Kol-Flo Low Profile Unit coolers</p> 	<p>Low Air Velocity Unit Coolers</p> 	<p>Two-Flo Space Saver Unit Coolers</p> 
<p>Multi-Pak Condensing unit up to 20HP</p> 		<p>Kolpak 120 Series Condensing Units 1/2 - 6HP</p> 



SOLUTIONS

Kolpak provides many of the operational solutions from Manitowoc Foodservice, a global company dedicated to bringing value to foodservice operators by equipping them with highly individualized real-world answers that enhance menus, service, profits and efficiency.

To learn how Manitowoc Foodservice and its leading brands can equip you, visit our global web site at www.manitowocfoodservice.com then find the regional or local resources available to you.

