

KWF SERIES



LOW AIR VELOCITY UNIT COOLERS

SMALL TO MEDIUM WALK-INS
COOLER APPLICATIONS

Air, Electric, and Hot Gas Defrost
5,000 to 36,550 BTUH at 10° TD



Features

Flow-Temp Low Air Velocity Unit Coolers are ideally suited for meat cutting, holding and packing rooms; produce storage; florist boxes; and similar applications. The units are available with air, electric or hot gas defrost.

SIZES

There are a wide array of sizes available with capacities ranging from 5,000 to 36,550 BTUH at 10°TD, and 10,000 to 73,100 at 20°TD. One through six fan models are available with air flow spanning a range of 580 to 3,430 CFM.

HOUSING

Rust free heavy gauge textured Aluminum is standard. Optionally available with other coatings.

COIL

The coil is constructed from seamless Copper tubes which are staggered and mechanically expanded into heavy gauge, corrugated, aluminum fins, assuring maximum heat transfer. Coated aluminum fins or copper fins are available as an option.

MOTORS

Standard models feature highly efficient Electronically Commutated (EC) motors. Permanent Split Capacitor (PSC) motors are also available for 115V/1, 208/230V/1 and 460V/1 requirements. All motors include thermal overload protection.

FANS

Fan motors and blades can be easily accessed by lowering the hinged drain pan.

ELECTRICAL

Available for 115V, 208/230V and 460V for 60Hz and 100V, 200-220V and 380V for 50 Hz applications. All components are factory wired to terminal strips and are UL and cUL listed and NSF approved.

AIR DEFROST

Air Defrost models (A) are designed for use in coolers down to 35°F.

ELECTRIC DEFROST

Electric Defrost models (E) are designed for use in coolers and freezers down to 28°F.

HOT GAS DEFROST

There are four types of Hot Gas Defrost models available: 2-pipe Hot Gas Reverse Cycle with Drain Pan Loop (G); 3-pipe Hot Gas with Drain Pan Loop (H); 2-pipe Hot Gas Reverse Cycle with 115V Heater (K); and 2-pipe Hot Gas Reverse Cycle with 208/230V Heater (L). Hot Gas Defrost models are designed for use in coolers and freezers down to 28°F.

MODEL NUMBER NOMENCLATURE

<u>K</u> I	<u>W</u> II	<u>F</u> III	<u>050</u> IV	<u>A</u> V	<u>E</u> VI	<u>1</u> VII	<u>B</u> VIII	<u>1</u> IX	<u>1</u> X	<u>A</u> XI	<u>1</u> XII	<u>A</u> XIII
I. Model Series K – Kramer					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							
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					X. Housing Material and Coatings 1 – Aluminum, Embossed 3 – White Painted 6 – Stainless Steel 304 X – Other							
VI. Motor/Fan Type* E – (EC) Electronically Commutated P – (PSC) Permanent Split Capacitor X – Other					XI. Unit Design Configuration A – Air Defrost E – Electric Defrost G – 2-pipe Hot Gas Reverse Cycle Defrost with Drain Pan Loop H – 3-pipe Hot Gas Defrost with Drain Pan Loop K – 2-pipe Hot Gas Reverse Cycle Defrost with 115V Heater L – 2-pipe Hot Gas Reverse Cycle Defrost with 208/230V Heater X – Other							
VII. Length in Fans 1, 2, 3, 4, 5, 6					XII. Not Currently used							
VIII. Coil Density B – 6 fpi					XIII. Revision Code – Single Alphanumeric Character A – Initial Release							

Performance and Electrical Data - All Models

Model Number	BTUH Capacity @ 30°F S.T. & 20°F TD		CFM	No. of Fans	EC* Motors - 1 Phase - 60 HZ				PSC Motors - 1 Phase - 60 HZ					
	R404A	R407A/ R448A/ R449A/B			115V		208-230V		115V		208-230V		460V	
					Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts

+30°F Suction Temperature & 20°F TD

KWF050	10,000	10,700	580	1	0.6	35	0.3	35	0.4	50	0.3	50	0.2	50
KWF075	15,000	16,200	850	2	1.2	70	0.6	70	0.8	100	0.6	100	0.3	100
KWF100	20,000	21,500	1,110	2	1.2	70	0.6	70	0.8	100	0.6	100	0.3	100
KWF130	26,000	27,800	1,750	3	1.8	105	0.9	105	1.2	150	0.9	150	0.5	150
KWF160	32,000	34,300	1,720	3	1.8	105	0.9	105	1.2	150	0.9	150	0.5	150
KWF190	38,000	40,600	2,330	4	2.4	140	1.2	140	1.6	200	1.2	200	0.6	200
KWF220	44,000	47,300	2,290	4	2.4	140	1.2	140	1.6	200	1.2	200	0.6	200
KWF270	54,000	58,100	2,840	5	3.0	175	1.5	175	2.0	250	1.5	250	0.8	250
KWF340	68,000	73,100	3,430	6	3.6	210	1.8	210	2.4	300	1.8	300	0.9	300

+25°F Suction Temperature & 10°F TD

KWF050	5,000	5,350	580	1	0.6	35	0.3	35	0.4	50	0.3	50	0.2	50
KWF075	7,500	8,100	850	2	1.2	70	0.6	70	0.8	100	0.6	100	0.3	100
KWF100	10,000	10,750	1,110	2	1.2	70	0.6	70	0.8	100	0.6	100	0.3	100
KWF130	13,000	13,900	1,750	3	1.8	105	0.9	105	1.2	150	0.9	150	0.5	150
KWF160	16,000	17,150	1,720	3	1.8	105	0.9	105	1.2	150	0.9	150	0.5	150
KWF190	19,000	20,300	2,330	4	2.4	140	1.2	140	1.6	200	1.2	200	0.6	200
KWF220	22,000	23,650	2,290	4	2.4	140	1.2	140	1.6	200	1.2	200	0.6	200
KWF270	27,000	29,050	2,840	5	3.0	175	1.5	175	2.0	250	1.5	250	0.8	250
KWF340	34,000	36,550	3,430	6	3.6	210	1.8	210	2.4	300	1.8	300	0.9	300

Model Number	Defrost Heaters - 1 Phase - 60 HZ				Defrost Heaters - 1 Phase - 50 HZ				Optional Drain Pan Heater for Hot Gas - 1 Phase 60 HZ			
	230V		460V		200V		380V		115V		208-230V	
	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts	Amps	Watts
KWF050	4.3	1,000	2.2	1,000	4.2	915	1.8	680	2.2	250	2.0	225
KWF075	4.3	1,000	2.2	1,000	4.2	915	1.8	680	2.2	250	2.0	225
KWF100	4.3	1,000	2.2	1,000	4.2	915	1.8	680	2.2	250	2.0	225
KWF130	10.4	2,400	5.2	2,400	10.0	2,200	4.3	1,640	5.2	600	4.7	540
KWF160	10.4	2,400	5.2	2,400	10.0	2,200	4.3	1,640	5.2	600	4.7	540
KWF190	10.4	2,400	5.2	2,400	10.0	2,200	4.3	1,640	5.2	600	4.7	540
KWF220	10.4	2,400	5.2	2,400	10.0	2,200	4.3	1,640	5.2	600	4.7	540
KWF270	17.4	4,000	8.7	4,000	16.6	3,660	6.5	2,460	8.7	1,000	7.8	900
KWF340	21.7	5,000	10.9	5,000	20.8	4,570	8.1	3,070	10.9	1,250	7.8	900

* EC motors are not available for 460V.

Specifications

Model Number	Refrigerant Connection	Number of Fans	Dimensions (Inches)			Approx. Net Wt. (Lbs.)
	Suction (ODS)		L	W	H	
KWF050	1-1/8	1	48	24-1/4	8	50
KWF075	1-1/8	2	67	24-1/4	8-1/4	75
KWF100	1-1/8	2	67	24-1/4	8-1/4	75
KWF130	1-1/8	3	85	24-1/4	11-1/4	100
KWF160	1-1/8	3	85	24-1/4	11-1/4	110
KWF190	1-1/8	4	85	24-1/4	12-3/4	120
KWF220	1-1/8	4	85	24-1/4	12-3/4	130
KWF270	1-1/8	5	96	24-1/4	12-3/4	150
KWF340	1-1/8	6	120	24-1/4	12-3/4	180

Distributor Nozzle - 60Hz - All Models

Model Number	Part Numbers						Number of Circuits
	R404A			R407A, R448A, R449A/B			
	Distributor @ 100°F & 50°F Liquid	Nozzle @ 100°F Liquid	Nozzle @ 50°F Liquid	Distributor @ 100°F & 50°F Liquid	Nozzle @ 100°F Liquid	Nozzle @ 50°F Liquid	

+30°F Suction Temperature & 20°F TD

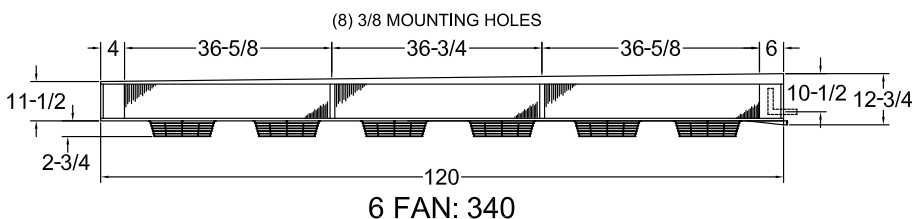
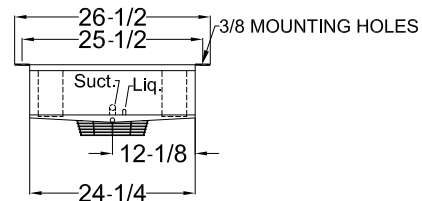
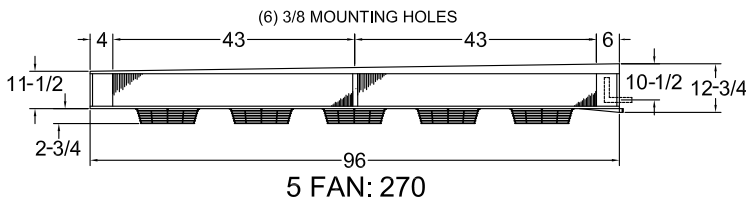
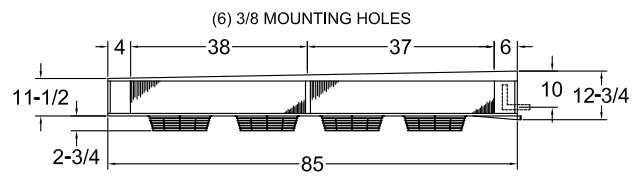
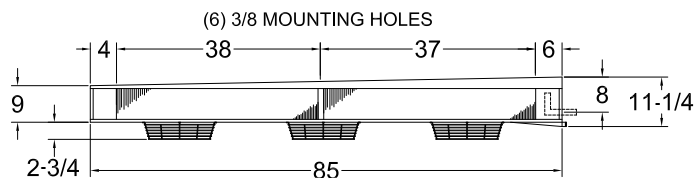
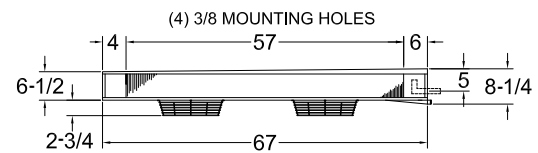
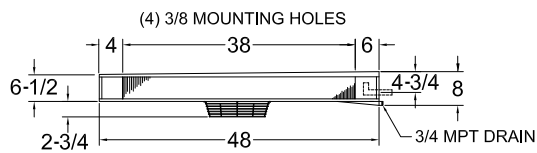
KWF050	D260	L, #3/4	L, #1/4	D260	L, #3/4	L, #1/4	2
KWF075	D260	L, #1	L, #1/3	D260	L, #1	L, #1/3	4
KWF100	D260	L, #1-1/2	L, #1/2	D260	L, #1-1/2	L, #1/2	4
KWF130	D260	L, #2	L, #3/4	D260	L, #1-1/2	L, #3/4	6
KWF160	D262	L, #2-1/2	L, #3/4	D262	L, #2	L, #1	8
KWF190	D262	L, #2-1/2	L, #1	D262	L, #2-1/2	L, #1	8
KWF220	1113	G, #3	G, #1	1113	G, #3	G, #1-1/2	10
KWF270	1113	G, #4	G, #1-1/2	1113	G, #3	G, #1-1/2	10
KWF340	1135	G, #5	G, #1-1/2	1135	G, #4	G, #2	16

+25°F Suction Temperature & 10°F TD

KWF050	D260	L, #1/2	L, #1/6	D260	L, #1/2	L, #1/6	2
KWF075	D260	L, #3/4	L, #1/4	D260	L, #3/4	L, #1/4	4
KWF100	D260	L, #3/4	L, #1/4	D260	L, #1	L, #1/3	4
KWF130	D260	L, #1	L, #1/3	D260	L, #1-1/2	L, #1/2	6
KWF160	D262	L, #1-1/2	L, #1/2	D262	L, #1-1/2	L, #1/2	8
KWF190	D262	L, #1-1/2	L, #1/2	D262	L, #2	L, #3/4	8
KWF220	1113	G, #2	G, #3/4	1113	G, #2	G, #3/4	10
KWF270	1113	G, #2	G, #3/4	1113	G, #2-1/2	G, #1	10
KWF340	1135	G, #3	G, #1	1135	G, #3	G, #1	16

Note: The distributor lines are 3/16" tube and 20" long

Physical Dimensions



All dimensions are in inches.

Due to continuing product development, specifications are subject to change without notice.