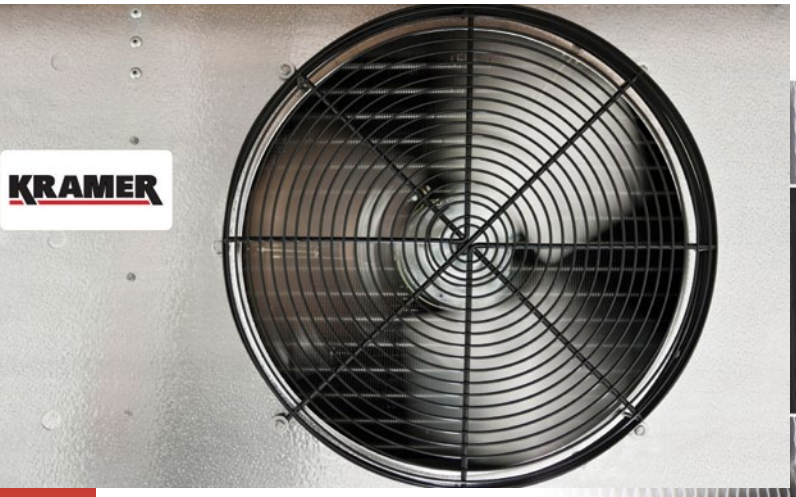


MSA Series

MSA Medium Silhouette

Air Defrost

The MSA unit cooler is ideal for meat, produce, fish or dairy storage walk in coolers in warehouses and supermarkets where temperatures of +35°F or higher are required.

The draw-thru air flow design coupled with fin spacing of 4 per inch assures uniform air distribution.

Removable end panels allow easy access to refrigerant connections. There is ample room within the end compartment for mounting the expansion valve.

MSA unit coolers are designed in modular fashion allowing interchangeability of fan guards and motors on all units.

c UL us NSF

Features:

LONG LIFE AND RELIABILITY

- 4FPI
- Available with PSC or EC motors
- Motor bearings are lubricated for the life of the motor
- Motors have built-in overload protection
- Coils constructed of Copper tubes and Aluminum fins

QUALITY

- Fans and motors are specially selected for quietness
- UL & C-UL listed, NSF-approved
- Coils tested, dehydrated and sealed at the factory
- Fan guards exceed OSHA requirements

SERVICEABILITY

- Removable end panels for easy access
- Separate fixed defrost and fan delay control factory wired and mounted for optimum performance of each control.

Nomenclature:

MSA - 126 - A E

MEDUIM SILHOUETTE
MODEL - FPI 4
AIR DEFROST

BTUH IN HUNDREDS

VOLTAGE CODE:
A = 115/1/60
D = 208-230/1/60
F = 460/1/60

MOTOR CODE:
P = Perm. Split Cap.
E = Electronically Commutated Motor

Fig. 1

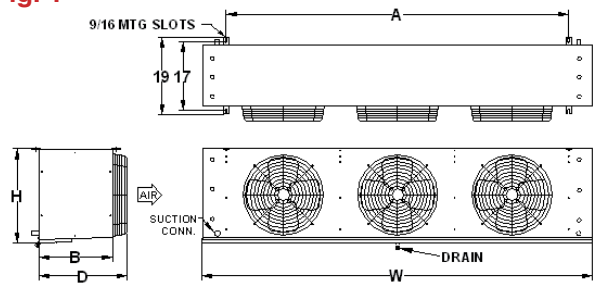
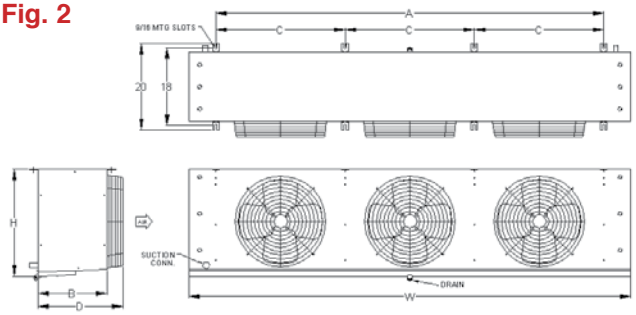


Fig. 2



Capacity and Physical Data

MODEL	BTU/HR @ 10 T.D. (1) EVAPORATOR TEMP.			CFM	FITTINGS - (OD)		REFR. CHARGE (3)	DRAIN MPT. (IN)	HEAT EXCH. (OPTIONAL)	APPROX. NET WT. (LBS)
	+25°F(2)	+30°F(2)	+40°F		SUCTION OUTLET	LIQUID INLET				
MSA-126	12,600	13000	13700	3830	7/8	1/2	2.5	3/4	HX-150	115
MSA-169	16,900	17400	18300	3620	7/8	1/2	3.4	3/4	HX-150	130
MSA-224	22,400	23100	24300	5750	7/8	1/2	3.7	3/4	HX-150	280
MSA-287	28,700	29600	31100	5200	1 1/8	1/2	6.1	3/4	HX-250	310
MSA-340	34,000	35000	36900	5710	1 1/8	7/8	7.8	3/4	HX-250	345
MSA-395	39,500	40700	42900	5430	1 1/8	7/8	8.4	3/4	HX-250	375
MSA-465	46,500	47900	50500	8990	1 3/8	7/8	9.2	3/4	HX-250	400
MSA-585	58,500	60300	63500	8140	1 3/8	7/8	13.7	3/4	HX-350	505

(1) T.D is the difference between the box temperature and the refrigerant temperature.
(2) Frosting conditions
(3) Refrigerant charge is based on LBS of R-22

Electrical and Physical Data

MODEL	MOTOR (4)		MOTOR WATTS		TOTAL MOTOR AMPS 115/1/60		230/1/60		460/1/60		DIMENSIONS (INCHES)						
	NO.	H.P.	PSC	ECM	PSC	ECM	PSC	ECM	PSC	ECM	FIG.	H	W	D	A	B	C
MSA-126	2	1/8	141	70	4.0	2.4	1.8	1.2	0.9	N/A	1	19	55	18-3/4	42	15	—
MSA-169	2	1/8	141	70	4.0	2.4	1.8	1.2	0.9	N/A	1	19	55	18-3/4	42	15	—
MSA-224	3	1/8	141	70	6.0	3.6	2.7	1.8	1.4	N/A	1	19	77	18-3/4	63	15	—
MSA-287	3	1/8	141	70	6.0	3.6	2.7	1.8	1.4	N/A	1	19	77	18-3/4	63	15	—
MSA-340	2	1/3	357	225	14.2	6.0	6.4	4.2	2.6	N/A	2	25	77	20	63	16	—
MSA-395	2	1/3	357	225	14.2	6.0	6.4	4.2	2.6	N/A	2	25	106	20	93	16	—
MSA-465	3	1/3	357	225	21.3	9.0	9.6	6.3	3.9	N/A	2	25	106	20	93	16	31
MSA-585	3	1/3	357	225	21.3	9.0	9.6	6.3	3.9	N/A	2	25	106	20	93	16	31

(4) All motors are high efficiency Permanent Split Capacitor (PSC) or Electronically Commutated (EC) motors and have built in thermal overload protection.

Specifications,weights and dimensions subject to change without notice.

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

Energy Savings per Motor

Motor HP and RPM	Standard PSC Motor Input Power Watts/Mtr	Optional EC Motor Input Power Watts/Mtr	Reduced Power Consumption Watts/Mtr PSC to ECM	Run Time Hrs/Day	Motor Energy Savings kWh/Yr	Motor Energy Savings $/Yr	Reduced Box Load MBTU/Yr	Cond. Unit Energy Savings kWh/Yr	Cond. Unit Energy Savings $/Yr	Yearly Savings $/Motor	Pay-back Yrs
1/8-1075	141	70	71	22	570	$57	1,945	374	$37	$94	1.5
1/3-1075	357	225	132	22	1059	$105	3,617	695	$70	$175	0.9

Subtract 6% from total savings for medium temperature 24 run hours per day.

KM-MSA-0412A