

CSA Series



CSA Medium Silhouette

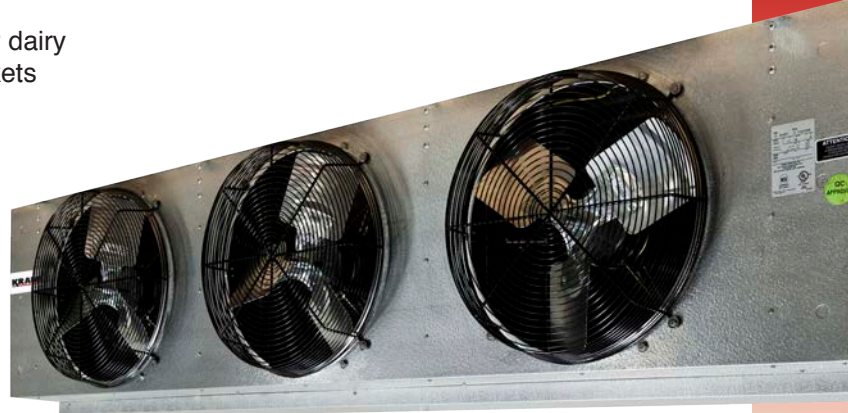
Evaporators for Air Defrost

The CSA 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 6 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.

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



Features:

LONG LIFE AND RELIABILITY

- 6 FPI
- 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 Listed
- 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:

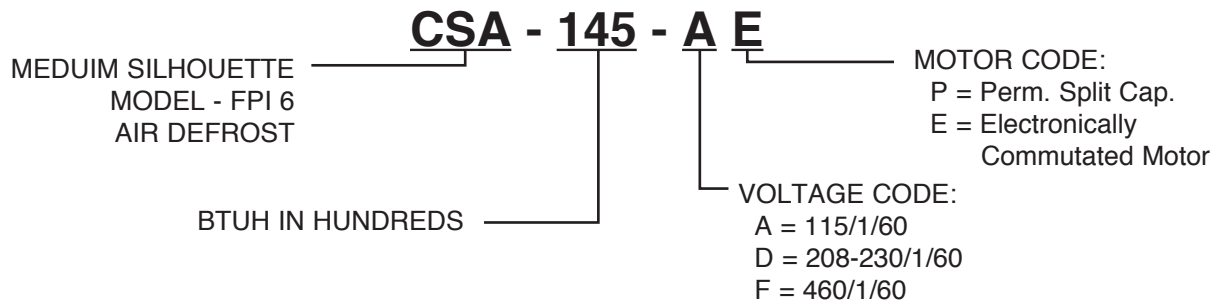


Fig. 1

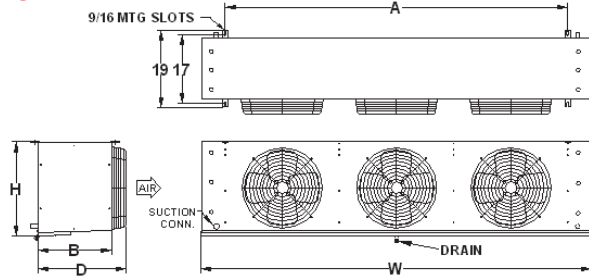
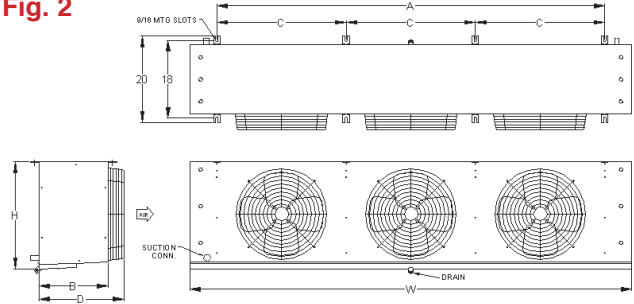


Fig. 2



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				
CSA-145	14500	14900	15700	3680	7/8	1/2	2.5	3/4	HX-150	120
CSA-191	19100	19600	20600	3470	7/8	1/2	3.4	3/4	HX-150	140
CSA-240	24000	24700	26000	5510	7/8	1/2	3.7	3/4	HX-150	290
CSA-305	30500	31400	33100	4960	1 1/8	1/2	6.1	3/4	HX-250	320
CSA-370	37000	38100	40100	5460	1 1/8	7/8	7.8	3/4	HX-250	360
CSA-415	41500	42700	45000	8620	1 1/8	7/8	8.4	3/4	HX-250	395
CSA-490	49000	50500	53200	8580	1 3/8	7/8	9.2	3/4	HX-250	415
CSA-620	62000	63900	67300	7770	1 3/8	7/8	13.7	3/4	HX-350	520

(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)		WATTS per MOTOR		TOTAL MOTOR AMPS						DIMENSIONS (INCHES)						
					115/1/60		230/1/60		460/1/60		FIG.	H	W	D	A	B	C
	NO.	H.P.	PSC	ECM	PSC	ECM	PSC	ECM	PSC	ECM							
CSA-145	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	—
CSA-191	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	—
CSA-240	3	1/8	141	70	6.0	3.6	2.7	1.8	1.4	N/A	1	19	76	18-3/4	63	15	—
CSA-305	3	1/8	141	70	6.0	3.6	2.7	1.8	1.4	N/A	1	19	76	18-3/4	63	15	—
CSA-370	2	1/3	357	225	14.2	6.0	6.4	4.2	2.6	N/A	2	25	76	20	63	16	—
CSA-415	2	1/3	357	225	14.2	6.0	6.4	4.2	2.6	N/A	2	25	106	20	93	16	—
CSA-490	3	1/3	357	225	21.3	9.0	9.6	6.3	3.9	N/A	2	25	106	20	93	16	31
CSA-620	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.