



CSE Series

CSE Medium Silhouette Electric Defrost

CSE model unit coolers are specifically designed for walk-in cooler and freezer applications, incorporating the time proven Kramer-Electric defrost. The positive heat source and ease of service make these units the popular choice in electric defrost units.

These units are suitable for maintaining room temperatures in the range of +35°F to -30°F. 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 and electrical connections. There is ample room within the end compartment for mounting the expansion valve.

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



Features:

EFFICIENT OPERATION

- 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 specially selected for quietness
- Heated drain pans for positive condensate drainage
- 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:

CSE - 130 - D E

MEDIUM SILHOUETTE
MODEL - FPI 6
ELECTRIC DEFROST

BTUH IN HUNDREDS

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

VOLTAGE CODE:
D = 208-230/1/60
E = 208-230/3/60
F = 460/1/60, G = 460/3/60

Fig. 1

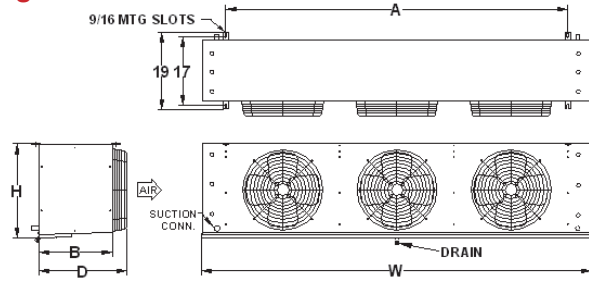
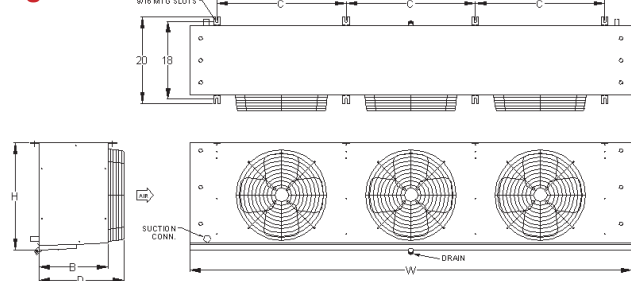


Fig. 2



Capacity Data

MODEL NO.	CFM	CAPACITY DATA — BTU/HR @ 10°T.D. (1)						REFRIG. CHARGE R 404a
		EVAPORATING TEMPERATURE						
		-30°F	-20°F	-10°F	0°F	+10°F	+20°F	
CSE-130	3780	12,400	13,000	13,600	13,900	14,200	15,000	2.6
CSE-150	3470	14,300	14,000	15,600	16,300	17,000	19,100	3.4
CSE-185	5510	17,600	18,500	19,300	19,650	21,000	24,000	3.7
CSE-270	5720	25,700	27,000	28,100	28,600	29,200	30,500	6.3
CSE-320	5480	30,500	32,000	33,300	34,500	35,600	37,100	7.8
CSE-385	9130	36,700	38,500	40,100	41,800	43,600	49,000	6.9
CSE-460	9090	43,800	46,000	47,900	49,900	52,000	54,400	9.2
CSE-520	8190	49,500	52,000	54,100	56,400	58,800	62,000	13.8

(1) T.D. is the difference between the box temperature and the refrigerant temperature.

Physical Data

MODEL NO.	FIG.	DIMENSIONS (INCHES)						FITTINGS - OD			OPTIONAL HEAT EXCH.	APPROX. WT.
		H	W	D	A	B	C	LIQ.	SUCT.	DRAIN		
CSE-130	1	19	55	18 3/4	42	15	—	1/2	1 1/8	3/4	HX-150	125
CSE-150	1	19	55	18 3/4	42	15	—	1/2	1 1/8	3/4	HX-150	140
CSE-185	1	19	76	18 3/4	63	15	—	1/2	1 1/8	3/4	HX-150	295
CSE-270	2	25	76	20	63	16	—	1/2	1 3/8	3/4	HX-250	320
CSE-320	2	25	76	20	63	16	—	7/8	1 3/8	3/4	HX-350	365
CSE-385	2	25	106	20	93	16	31	7/8	1 5/8	3/4	HX-350	450
CSE-460	2	25	106	20	93	16	31	7/8	1 5/8	3/4	HX-500	490
CSE-520	2	25	106	20	93	16	31	7/8	1 5/8	3/4	HX-500	535

Electrical Data

MODEL NO.	MOTOR (2)		TOTAL MOTOR AMPS				TOTAL MOTOR WATTS		HEATER AMPS				HEATER WATTS
			208-230/1/60		460/1/60				230V		460V		
	NO.	HP	PSC	ECM	PSC	ECM	PSC	ECM	1 PH	3 PH	1 PH	3 PH	
CSE-130	2	1/8	1.8	1.2	1.0	N/A	282	140	20.3	11.7	10.1	5.9	4685
CSE-150	2	1/8	1.8	1.2	1.0	N/A	282	140	20.3	11.7	10.1	5.9	4685
CSE-185	3	1/8	2.7	1.8	1.5	N/A	423	210	29.5	17.0	14.7	8.5	6774
CSE-270	2	1/3	6.4	4.2	2.6	N/A	714	450	29.5	17.0	14.7	8.5	6774
CSE-320	2	1/3	6.4	4.2	2.6	N/A	714	450	29.5	17.0	14.7	8.5	6774
CSE-385	3	1/3	9.6	6.3	3.9	N/A	1071	675	42.4	24.5	21.2	12.2	9747
CSE-460	3	1/3	9.6	6.3	3.9	N/A	1071	675	42.4	24.5	21.2	12.2	9747
CSE-520	3	1/3	9.6	6.3	3.9	N/A	1071	675	42.4	24.5	21.2	12.2	9747

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

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

Specifications, weights and dimensions subject to change without notice.