Bulletin 106C

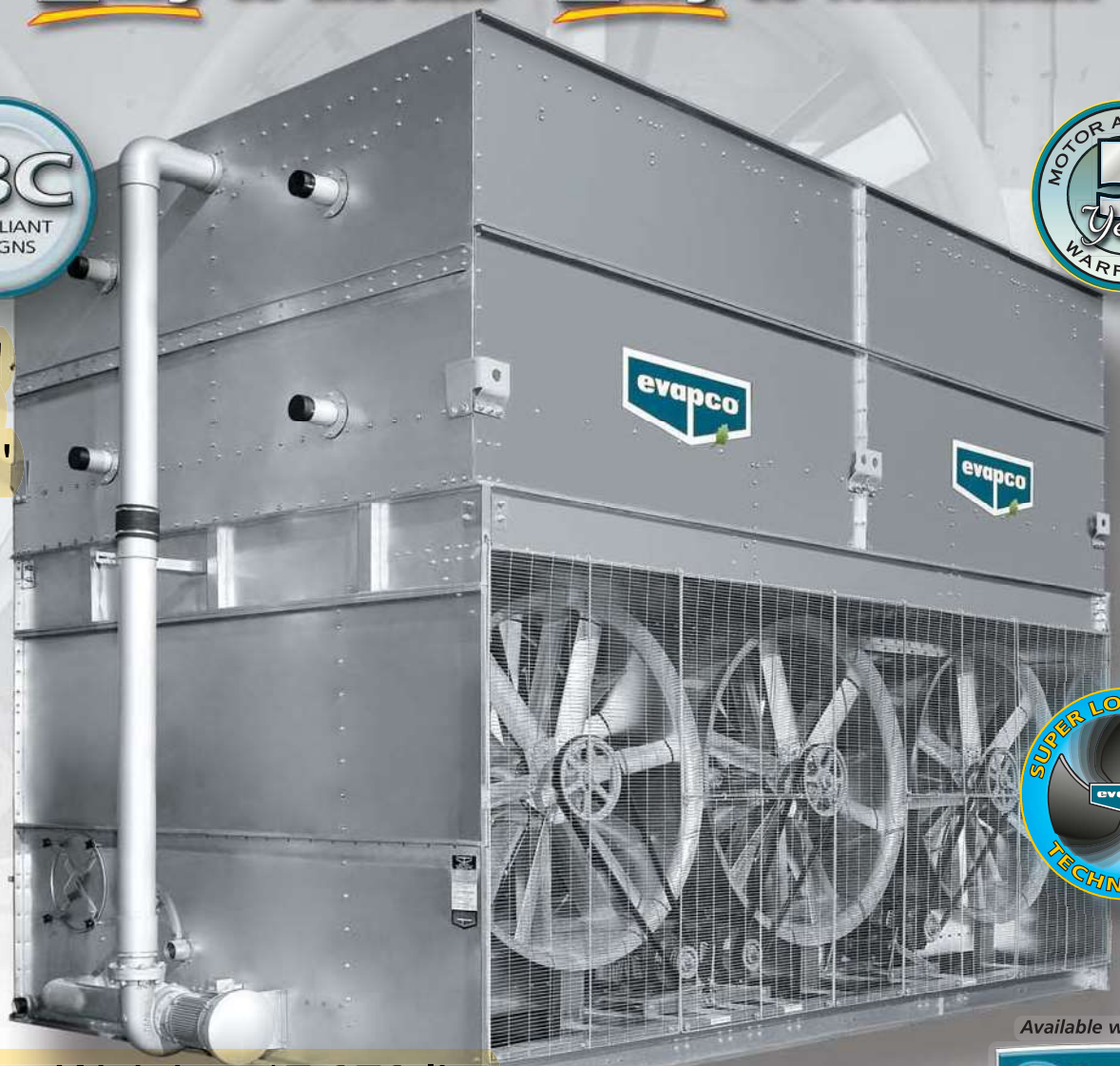
Model #: PMC325E
Serial #: 8342263

2008
325 Tons

PMC-E

EVAPORATIVE CONDENSERS

Easy to Install – Easy to Maintain



IBC COMPLIANT DESIGNS

MOTOR AND DRIVE 5 Year WARRANTY

SUPER LOW SOUND TECHNOLOGY

L: 12' 0"
W: 6' 4"
H: 11' 7"

Operating Weight: 17,070 lbs
Shipping Weight: 13,520 lbs

Available with Optional

Pulse~Pure

Water Treatment System

*Forced Draft, Axial Fan Models Available in Capacities from **124** to **1,408** Ammonia Tons!*

Technology for the Future...Available Today!

U.S. Green Building Council Member

IARW International Association of Refrigerated Warehouses

Member of iiar International Institute of Ammonia Refrigeration www.iiar.org

AHRI Air-Conditioning, Heating, and Refrigeration Institute

Table 1 - HCFC-22 and HFC-134a Heat Rejection Factors

Condensing Pres. psig		Cond. Temp. °F	Wet Bulb Temperature, (°F)																
HCFC-22	HFC-134a		50	55	60	62	64	66	68	70	72	74	75	76	77	78	80	82	84	86
156	95	85	1.10	1.22	1.39	1.50	1.61	1.75	1.93	2.13	2.42	2.78	3.02	3.29	3.64	4.00	-	-	-	-
168	104	90	.93	1.02	1.14	1.21	1.28	1.36	1.45	1.57	1.71	1.89	2.00	2.12	2.25	2.38	2.85	3.50	-	-
182	114	95	.80	.87	.95	1.00	1.05	1.10	1.15	1.22	1.31	1.40	1.45	1.50	1.56	1.64	1.82	2.07	2.37	2.77
196	124	100	.71	.76	.82	.85	.88	.91	.94	.98	1.03	1.09	1.12	1.15	1.20	1.24	1.34	1.46	1.63	1.82
211	135	105	.63	.66	.70	.72	.75	.77	.80	.83	.87	.91	.93	.95	.97	1.00	1.06	1.13	1.23	1.35
226	146	110	.56	.59	.62	.64	.65	.67	.69	.71	.74	.77	.78	.80	.82	.84	.88	.93	.98	1.04

Note: Consult factory for selections using other refrigerants.

Table 2 - Ammonia (R-717) Heat Rejection Factors

Condensing Pres. psig	Cond. Temp. °F	Wet Bulb Temperature, (°F)																	
		50	55	60	62	64	66	68	70	72	74	75	76	77	78	80	82	84	86
152	85	.98	1.09	1.24	1.34	1.44	1.56	1.72	1.90	2.16	2.48	2.70	2.94	3.25	3.57	-	-	-	-
166	90	.83	.91	1.02	1.08	1.14	1.21	1.29	1.40	1.53	1.69	1.79	1.89	2.01	2.12	2.54	3.12	-	-
181	95	.71	.78	.85	.89	.94	.98	1.03	1.09	1.17	1.25	1.29	1.34	1.39	1.47	1.63	1.85	2.12	2.47
185	96.3	.69	.75	.82	.86	.90	.94	.98	1.03	1.10	1.18	1.22	1.26	1.31	1.37	1.51	1.71	1.94	2.25
197	100	.63	.68	.73	.76	.79	.81	.84	.87	.92	.97	1.00	1.03	1.07	1.11	1.20	1.30	1.46	1.63
214	105	.56	.59	.62	.64	.67	.69	.71	.74	.78	.81	.83	.85	.87	.89	.95	1.01	1.10	1.21
232	110	.50	.53	.55	.57	.58	.60	.62	.63	.66	.69	.70	.71	.73	.75	.79	.83	.87	.93

Table 3 - Unit Heat Rejection

Model	MBH Base	Model	MBH Base	Model	MBH Base	Model	MBH Base	Model	MBH Base	Model	MBH Base
PMC-175E-1g	2572.5	PMC-428E-1g	6291.6	PMC-631E-1g	9275.7	PMC-852E-1g	12524.4	PMC-1006E-1g	14788.2	PMC-1290E-1g	18963.0
PMC-190E-1g	2793.0	PMC-431E-1g	6335.7	PMC-634E-1g	9319.8	PMC-853E-1g	12539.1	PMC-1024E-1g	15052.8	PMC-1358E-1g	19962.6
PMC-210E-1g	3087.0	PMC-450E-1g	6615.0	PMC-636E-1g	9349.2	PMC-856E-1g	12583.2	PMC-1038E-1g	15258.6	PMC-1376E-1g	20227.2
PMC-220E-1g	3234.0	PMC-457E-1g	6717.9	PMC-645E-1g	9481.5	PMC-863E-1g	12686.1	PMC-1071E-1g	15743.7	PMC-1382E-1g	20315.4
PMC-235E-1g	3454.5	PMC-464E-1g	6820.8	PMC-679E-1g	9981.3	PMC-888E-1g	13053.6	PMC-1073E-1g	15773.1	PMC-1438E-1g	21138.6
PMC-240E-1g	3528.0	PMC-481E-1g	7070.7	PMC-688E-1g	10113.6	PMC-889E-1g	13068.3	PMC-1088E-1g	15993.6	PMC-1446E-1g	21256.2
PMC-250E-1g	3675.0	PMC-488E-1g	7173.6	PMC-690E-1g	10143.0	PMC-894E-1g	13141.8	PMC-1116E-1g	16405.2	PMC-1473E-1g	21653.1
PMC-275E-1g	4042.5	PMC-492E-1g	7232.4	PMC-691E-1g	10157.7	PMC-895E-1g	13156.5	PMC-1117E-1g	16419.9	PMC-1549E-1g	22770.3
PMC-295E-1g	4336.5	PMC-495E-1g	7276.5	PMC-719E-1g	10569.3	PMC-900E-1g	13230.0	PMC-1125E-1g	16537.5	PMC-1556E-1g	22873.2
PMC-325E-1g	4777.5	PMC-503E-1g	7394.1	PMC-723E-1g	10628.1	PMC-929E-1g	13656.3	PMC-1127E-1g	16566.9	PMC-1599E-1g	23505.3
PMC-332E-1g	4880.4	PMC-515E-1g	7570.5	PMC-731E-1g	10745.7	PMC-939E-1g	13803.3	PMC-1180E-1g	17346.0	PMC-1625E-1g	23887.5
PMC-335E-1g	4924.5	PMC-519E-1g	7629.3	PMC-737E-1g	10833.9	PMC-940E-1g	13818.0	PMC-1182E-1g	17375.4	PMC-1705E-1g	25063.5
PMC-360E-1g	5292.0	PMC-536E-1g	7879.2	PMC-772E-1g	11348.4	PMC-949E-1g	13950.3	PMC-1189E-1g	17478.3	PMC-1712E-1g	25166.4
PMC-369E-1g	5424.3	PMC-558E-1g	8202.6	PMC-774E-1g	11377.8	PMC-956E-1g	14053.2	PMC-1201E-1g	17654.7	PMC-1776E-1g	26107.2
PMC-375E-1g	5512.5	PMC-559E-1g	8217.3	PMC-778E-1g	11436.6	PMC-962E-1g	14141.4	PMC-1203E-1g	17684.1	PMC-1788E-1g	26283.6
PMC-386E-1g	5674.2	PMC-564E-1g	8290.8	PMC-800E-1g	11760.0	PMC-974E-1g	14317.8	PMC-1211E-1g	17801.7	PMC-1877E-1g	27591.9
PMC-397E-1g	5835.9	PMC-591E-1g	8687.7	PMC-801E-1g	11774.7	PMC-976E-1g	14347.2	PMC-1258E-1g	18492.6	PMC-1879E-1g	27621.3
PMC-400E-1g	5880.0	PMC-596E-1g	8761.2	PMC-811E-1g	11921.7	PMC-983E-1g	14450.1	PMC-1261E-1g	18536.7	PMC-1985E-1g	29179.5
PMC-420E-1g	6174.0	PMC-601E-1g	8834.7	PMC-831E-1g	12215.7	PMC-989E-1g	14538.3	PMC-1269E-1g	18654.3		
PMC-426E-1g	6262.2	PMC-605E-1g	8893.5	PMC-840E-1g	12348.0	PMC-992E-1g	14582.4	PMC-1275E-1g	18742.5		

PMC-E Selection Procedure

Evaporator Ton Method

In the evaporator ton method, factors for the specified operating conditions (suction temperature, condensing temperature and wet bulb) are obtained from either Table 5 or 6 and multiplied times the heat load in tons. The resultant figure is used to select a unit from Table 4. The condenser model in Table 4 is equal to the unit capacity in evaporator tons for HCFC-22 or HFC-134a conditions of 105°F condensing, 40°F suction and 78° wet bulb.

EXAMPLE

Given: 300 ton evaporator load, R-717, condensing at 95° F, with +10° F suction and 76° F wet bulb temperatures.

Selection: The capacity factor from Table 6 for the given condensing and wet bulb conditions is 1.38, and the capacity factor for the suction temperature of +10° F is 1.03, so the corrected capacity required may be determined as:

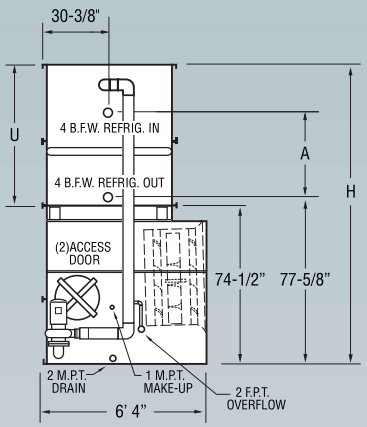
300 X 1.38 X 1.03 = 426 corrected tons. Therefore, select a model PMC-428E-1g, PMC-431E-1g or PMC-450E-1g depending on unit type desired, and any layout or horsepower considerations.

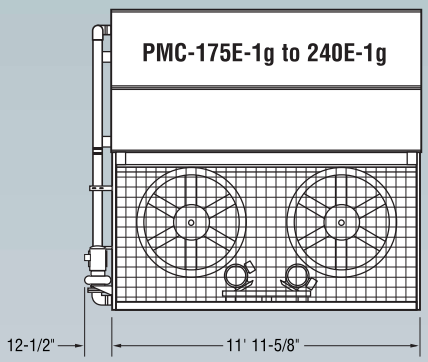
Table 4 - Unit Sizes

PMC-E Models									
Model	Capacity	Model	Capacity	Model	Capacity	Model	Capacity	Model	Capacity
PMC-175E-1g	175	PMC-464E-1g	464	PMC-719E-1g	719	PMC-949E-1g	949	PMC-1258E-1g	1258
PMC-190E-1g	190	PMC-481E-1g	481	PMC-723E-1g	723	PMC-956E-1g	956	PMC-1261E-1g	1261
PMC-210E-1g	210	PMC-488E-1g	488	PMC-731E-1g	731	PMC-962E-1g	962	PMC-1269E-1g	1269
PMC-220E-1g	220	PMC-492E-1g	492	PMC-737E-1g	737	PMC-974E-1g	974	PMC-1275E-1g	1275
PMC-235E-1g	235	PMC-495E-1g	495	PMC-772E-1g	772	PMC-976E-1g	976	PMC-1290E-1g	1290
PMC-240E-1g	240	PMC-503E-1g	503	PMC-774E-1g	774	PMC-983E-1g	983	PMC-1358E-1g	1358
PMC-250E-1g	250	PMC-515E-1g	515	PMC-778E-1g	778	PMC-989E-1g	989	PMC-1376E-1g	1376
PMC-275E-1g	275	PMC-519E-1g	519	PMC-800E-1g	800	PMC-992E-1g	992	PMC-1382E-1g	1382
PMC-295E-1g	295	PMC-536E-1g	536	PMC-801E-1g	801	PMC-1006E-1g	1006	PMC-1438E-1g	1438
PMC-325E-1g	325	PMC-558E-1g	558	PMC-811E-1g	811	PMC-1024E-1g	1024	PMC-1446E-1g	1446
PMC-332E-1g	332	PMC-559E-1g	559	PMC-831E-1g	831	PMC-1038E-1g	1038	PMC-1473E-1g	1473
PMC-335E-1g	335	PMC-564E-1g	564	PMC-840E-1g	840	PMC-1071E-1g	1071	PMC-1549E-1g	1549
PMC-360E-1g	360	PMC-591E-1g	591	PMC-852E-1g	852	PMC-1073E-1g	1073	PMC-1556E-1g	1556
PMC-369E-1g	369	PMC-596E-1g	596	PMC-853E-1g	853	PMC-1088E-1g	1088	PMC-1599E-1g	1599
PMC-375-E-1g	375	PMC-601E-1g	601	PMC-856E-1g	856	PMC-1116E-1g	1116	PMC-1625E-1g	1625
PMC-386E-1g	386	PMC-605E-1g	605	PMC-863E-1g	863	PMC-1117E-1g	1117	PMC-1705E-1g	1705
PMC-397E-1g	397	PMC-631E-1g	631	PMC-888E-1g	888	PMC-1125E-1g	1125	PMC-1712E-1g	1712
PMC-400E-1g	400	PMC-634E-1g	634	PMC-889E-1g	889	PMC-1127E-1g	1127	PMC-1776E-1g	1776
PMC-420E-1g	420	PMC-636E-1g	636	PMC-894E-1g	894	PMC-1180E-1g	1180	PMC-1788E-1g	1788
PMC-426E-1g	426	PMC-645E-1g	645	PMC-895E-1g	895	PMC-1182E-1g	1182	PMC-1877E-1g	1877
PMC-428E-1g	428	PMC-679E-1g	679	PMC-900E-1g	900	PMC-1189E-1g	1189	PMC-1879E-1g	1879
PMC-431E-1g	431	PMC-688E-1g	688	PMC-929E-1g	929	PMC-1201E-1g	1201	PMC-1985E-1g	1985
PMC-450E-1g	450	PMC-690E-1g	690	PMC-939E-1g	939	PMC-1203E-1g	1203		
PMC-457E-1g	457	PMC-691E-1g	691	PMC-940E-1g	940	PMC-1211E-1g	1211		

Engineering & Dimensions Data

PMC-175E-1g to 375E-1g





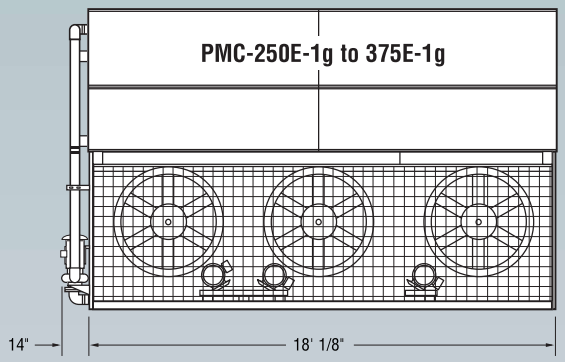


Table 7 Engineering Data

Model No.	R-717 Capacity Tons*	Fans		Weights (lbs)†			Refrigerant Operating Charge lbs.***	Coil Volume ft³	Spray Pump		Remote Sump			Dimensions (in.)		
		HP	CFM	Shipping	Heaviest Section†	Operating			HP	GPM	Gallons Req'd**	Conn. Size	Operating Weight	Height H	Upper U	Coil A
PMC-175E-1g	124	(2)5	31,300	8,090	5,220	10,410	165	22	2	345	200	8	9,360	130-3/8	57-3/8	30-3/4
PMC-190E-1g	135	(2)5	34,000	8,090	5,220	10,410	165	22	2	345	200	8	9,360	130-3/8	57-3/8	30-3/4
PMC-210E-1g	149	(2)5	33,500	9,050	6,180	11,400	200	28	2	345	200	8	10,350	138-7/8	65-7/8	39-1/4
PMC-220E-1g	156	(2)5	33,000	10,050	7,180	12,440	240	33	2	345	200	8	11,390	147-3/8	74-3/8	47-3/4
PMC-235E-1g	167	(2)7.5	36,600	9,150	6,180	11,500	200	28	2	345	200	8	10,450	138-7/8	65-7/8	39-1/4
PMC-240E-1g	170	(2)7.5	35,500	10,150	7,180	12,540	240	33	2	345	200	8	11,490	147-3/8	74-3/8	47-3/4
PMC-250E-1g	177	(3)5	54,000	10,570	6,210	13,990	185	25	3	515	260	10	12,040	121-7/8	48-7/8	22-1/4
PMC-275E-1g	195	(3)5	48,500	12,080	7,720	15,560	240	33	3	515	260	10	13,600	130-3/8	57-3/8	30-3/4
PMC-295E-1g	209	(3)5	51,900	12,080	7,720	15,560	240	33	3	515	260	10	13,600	130-3/8	57-3/8	30-3/4
PMC-325E-1g	230	(3)5	50,900	13,530	9,170	17,070	300	41	3	515	260	10	15,110	138-7/8	65-7/8	39-1/4
PMC-335E-1g	238	(3)5	50,300	15,030	10,670	18,630	360	49	3	515	260	10	16,670	147-3/8	74-3/8	47-3/4
PMC-360E-1g	255	(3)7.5	57,000	13,690	9,170	17,230	300	41	3	515	260	10	15,270	138-7/8	65-7/8	39-1/4
PMC-375E-1g	266	(3)7.5	56,300	15,190	10,670	18,790	360	49	3	515	260	10	16,830	147-3/8	74-3/8	47-3/4

* Tons at standard conditions: 96.3°F condensing, 20°F suction and 78°F W.B.

** Gallons shown is water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation. (12" would normally be sufficient.)

† Heaviest section is the upper coil section. **When 5.12 seismic design is required consult the factory for specific weights.**

*** Refrigerant charge is shown for R-717. Multiply by 1.93 for R-22 and 1.98 for R-134a.

Dimensions are subject to change. Do not use for pre-fabrication.