

Selection

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Two methods of unit selection are provided on the following pages. The heat rejection method is always recommended and the selection can be made via BAC's free product selection software, or manually as described below.

NOTE: Consult your local BAC Representative for evaporative condenser selections for systems utilizing the following:

- **Hydrocarbon refrigerants such as propane, butane, or propylene**
- **Centrifugal compressors**
- **Rotary screw compressors with water cooled oil coolers**
- **Ammonia evaporative condensers with desuperheaters**
- **Halocarbon evaporative condensers with subcooling**

Heat Rejection Method

In a mechanical refrigeration system, the function of an evaporative condenser is to reject heat to the environment. The heat to be rejected is the sum of the heat input at the evaporator and the energy input at the compressor. For a given set of operating conditions, the energy input through the compression process can vary. Therefore, in order to accurately determine the proper evaporative condenser required, it is necessary to establish the compressor energy input as well as the heat absorbed in the evaporator.

Selection Procedure

The Base Heat Rejection of the VCA Evaporative Condenser is shown in Table 1. Tables 2 and 3 present capacity factors to be applied to the system heat rejection for various condensing temperatures, entering wet-bulbs, and refrigerants.

1. Establish total heat rejection required in thousands of BTU per hour (MBH): Total heat rejection = compressor evaporator capacity (MBH) + compressor BHP x 2,545.
2. Determine the refrigerant and design conditions for condensing temperature and entering wet-bulb temperature.
3. Using the appropriate table for the system refrigerant and model (Tables 2 or 3), determine the capacity factor for the design condensing temperature and entering wet-bulb temperature.
4. Multiply the total heat rejection by the capacity factor determined in Step 3.
5. From Table 1, select the evaporative condenser whose Base Heat Rejection equals or exceeds the corrected heat rejection calculated in Step 4.



Table 1: Base Heat Rejection

Model Number	Base Heat Rejection (MBH)	Model Number	Base Heat Rejection (MBH)	Model Number	Base Heat Rejection (MBH)	Model Number	Base Heat Rejection (MBH)	Model Number	Base Heat Rejection (MBH)	Model Number	Base Heat Rejection (MBH)
VCA-122A	1,793	VCA-396A	5,821	VCA-609A	8,952	VCA-1240A	18,228	VCA-688A	10,114	VCA-1252A	18,404
VCA-138A	2,029	VCA-424A	6,233	VCA-653A	9,599	VCA-1218A	17,905	VCA-602A	8,849	VCA-1321A	19,419
VCA-150A	2,205	VCA-416A	6,115	VCA-707A	10,393	VCA-1306A	19,198	VCA-664A	9,761	VCA-S870A	12,789
VCA-161A	2,367	VCA-446A	6,556	VCA-779A	11,451	VCA-1414A	20,786	VCA-711A	10,452	VCA-S932A	13,700
VCA-154A	2,264	VCA-300A	4,410	VCA-662A	9,731	VCA-1558A	22,903	VCA-785A	11,540	VCA-S972A	14,288
VCA-170A	2,499	VCA-331A	4,866	VCA-680A	9,996	VCA-302A	4,439	VCA-751A	11,025	VCA-S1071A	15,744
VCA-182A	2,675	VCA-340A	4,998	VCA-750A	11,025	VCA-342A	5,027	VCA-827A	12,157	VCA-S1019A	14,979
VCA-178A	2,617	VCA-375A	5,513	VCA-804A	11,819	VCA-377A	5,542	VCA-887A	13,039	VCA-S1124A	16,523
VCA-191A	2,808	VCA-402A	5,909	VCA-760A	11,172	VCA-404A	5,939	VCA-895A	13,157	VCA-S1204A	17,699
VCA-174A	2,558	VCA-407A	5,983	VCA-814A	11,966	VCA-381A	5,601	VCA-957A	14,068	VCA-930A	13,671
VCA-192A	2,822	VCA-401A	5,895	VCA-858A	12,613	VCA-420A	6,174	VCA-1010A	14,847	VCA-1052A	15,464
VCA-206A	3,028	VCA-429A	6,306	VCA-946A	13,906	VCA-451A	6,630	VCA-605A	8,894	VCA-1162A	17,081
VCA-227A	3,337	VCA-473A	6,953	VCA-866A	12,730	VCA-471A	6,924	VCA-684A	10,055	VCA-1246A	18,316
VCA-195A	2,867	VCA-393A	5,777	VCA-928A	13,642	VCA-513A	7,541	VCA-754A	11,084	VCA-1284A	18,875
VCA-215A	3,161	VCA-433A	6,365	VCA-1024A	15,053	VCA-491A	7,218	VCA-808A	11,876	VCA-1376A	20,227
VCA-235A	3,455	VCA-464A	6,821	VCA-S700A	10,296	VCA-541A	7,953	VCA-762A	11,201	VCA-1204A	17,699
VCA-259A	3,807	VCA-512A	7,526	VCA-S828A	12,173	VCA-580A	8,526	VCA-840A	12,348	VCA-1327A	19,507
VCA-261A	3,837	VCA-460A	6,762	VCA-S838A	12,325	VCA-537A	7,894	VCA-902A	13,259	VCA-1422A	20,903
VCA-288A	4,234	VCA-507A	7,453	VCA-S884A	12,991	VCA-584A	8,600	VCA-879A	12,921	VCA-1570A	23,079
VCA-308A	4,528	VCA-543A	7,982	VCA-920A	13,524	VCA-626A	9,202	VCA-942A	13,847	VCA-1501A	22,065
VCA-273A	4,013	VCA-510A	7,497	VCA-1086A	15,964	VCA-661A	9,717	VCA-1026A	15,082	VCA-1654A	24,314
VCA-301A	4,425	VCA-560A	8,232	VCA-1020A	14,994	VCA-526A	7,732	VCA-982A	14,435	VCA-1774A	26,078
VCA-322A	4,733	VCA-600A	8,820	VCA-1120A	16,464	VCA-581A	8,541	VCA-1082A	15,905	VCA-1790A	26,313
VCA-323A	4,748	VCA-585A	8,600	VCA-1200A	17,640	VCA-623A	9,158	VCA-1160A	17,052	VCA-1914A	28,136
VCA-356A	5,233	VCA-620A	9,114	VCA-1062A	15,611	VCA-582A	8,555	VCA-1075A	15,803	VCA-2019A	29,679
VCA-382A	5,601	VCA-488A	7,174	VCA-1169A	17,200	VCA-642A	9,437	VCA-1170A	17,199		

Table 2: Heat Rejection Capacity Factors – R-717 (Ammonia)

Condensing Pressure (psig)	Condensing Temp (°F)	Entering Wet-Bulb Temperature (°F)																
		50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82
151.3	85	0.97	1.01	1.06	1.11	1.17	1.25	1.33	1.43	1.55	1.70	1.89	2.14	2.47	2.97	3.73	-	-
154.1	86	0.94	0.98	1.02	1.07	1.13	1.19	1.27	1.36	1.46	1.60	1.76	1.97	2.26	2.66	3.26	4.25	-
156.9	87	0.91	0.95	0.99	1.03	1.08	1.14	1.21	1.29	1.39	1.51	1.65	1.83	2.08	2.40	2.88	3.63	-
159.8	88	0.88	0.91	0.95	0.99	1.04	1.10	1.16	1.23	1.32	1.42	1.55	1.71	1.92	2.20	2.58	3.16	4.13
162.6	89	0.85	0.89	0.92	0.96	1.00	1.05	1.11	1.18	1.26	1.35	1.46	1.60	1.78	2.02	2.34	2.80	3.53
165.5	90	0.83	0.86	0.89	0.93	0.97	1.01	1.07	1.13	1.20	1.28	1.38	1.51	1.67	1.87	2.13	2.51	3.08
168.5	91	0.80	0.83	0.86	0.90	0.93	0.98	1.02	1.08	1.14	1.22	1.31	1.42	1.56	1.73	1.96	2.27	2.72
171.5	92	0.78	0.81	0.83	0.87	0.90	0.94	0.99	1.04	1.10	1.17	1.25	1.35	1.47	1.62	1.82	2.08	2.44
174.5	93	0.76	0.78	0.81	0.84	0.87	0.91	0.95	1.00	1.05	1.11	1.19	1.28	1.38	1.52	1.69	1.91	2.21
177.6	94	0.74	0.76	0.79	0.81	0.84	0.88	0.92	0.96	1.01	1.07	1.13	1.21	1.31	1.43	1.58	1.77	2.02
180.7	95	0.72	0.74	0.76	0.79	0.82	0.85	0.88	0.92	0.97	1.02	1.08	1.16	1.24	1.35	1.48	1.64	1.86
185.0	96.3	0.69	0.71	0.73	0.76	0.78	0.81	0.84	0.88	0.92	0.97	1.02	1.09	1.16	1.25	1.36	1.51	1.68
187.0	97	0.68	0.70	0.72	0.74	0.77	0.79	0.83	0.86	0.90	0.94	0.99	1.05	1.13	1.21	1.31	1.44	1.60
190.2	98	0.66	0.68	0.70	0.72	0.74	0.77	0.80	0.83	0.87	0.91	0.96	1.01	1.07	1.15	1.24	1.35	1.49
193.4	99	0.65	0.66	0.68	0.70	0.72	0.75	0.77	0.80	0.84	0.87	0.92	0.97	1.03	1.10	1.18	1.28	1.40
196.7	100	0.63	0.65	0.66	0.68	0.70	0.72	0.75	0.78	0.81	0.84	0.88	0.93	0.98	1.05	1.12	1.21	1.32
213.7	105	0.56	0.57	0.58	0.60	0.61	0.63	0.65	0.67	0.69	0.71	0.74	0.77	0.81	0.85	0.89	0.95	1.01
231.8	110	0.50	0.51	0.52	0.53	0.54	0.55	0.57	0.58	0.60	0.62	0.64	0.66	0.68	0.71	0.74	0.78	0.82





Table 3: Heat Rejection Capacity Factors – R-22, R-134a

Condensing Pressure (psig)		Condensing Temp (°F)	Entering Wet-Bulb Temperature (°F)																
R-22	R-134a		50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80	82
155.7	95.2	85	1.09	1.14	1.19	1.25	1.32	1.40	1.49	1.60	1.74	1.91	2.12	2.40	2.78	3.33	-	-	-
158.2	97.1	86	1.06	1.10	1.15	1.20	1.27	1.34	1.42	1.52	1.64	1.79	1.98	2.22	2.54	2.98	3.66	4.78	-
160.7	98.9	87	1.02	1.06	1.11	1.16	1.22	1.28	1.36	1.45	1.56	1.69	1.85	2.06	2.33	2.70	3.24	4.08	-
163.2	100.7	88	0.99	1.03	1.07	1.12	1.17	1.23	1.30	1.38	1.48	1.60	1.74	1.92	2.16	2.47	2.90	3.56	4.65
165.8	102.6	89	0.96	0.99	1.03	1.08	1.13	1.18	1.25	1.32	1.41	1.52	1.64	1.80	2.00	2.27	2.63	3.15	3.97
168.4	104.3	90	0.93	0.96	1.00	1.04	1.09	1.14	1.20	1.27	1.35	1.44	1.56	1.70	1.87	2.10	2.40	2.82	3.46
171.0	106.2	91	0.90	0.93	0.97	1.01	1.05	1.10	1.15	1.21	1.29	1.37	1.47	1.60	1.75	1.95	2.20	2.55	3.06
173.7	108.1	92	0.88	0.91	0.94	0.97	1.01	1.06	1.11	1.16	1.23	1.31	1.40	1.51	1.65	1.82	2.04	2.33	2.74
176.4	110.0	93	0.85	0.88	0.91	0.94	0.98	1.02	1.07	1.12	1.18	1.25	1.33	1.43	1.56	1.71	1.90	2.14	2.49
179.1	111.9	94	0.83	0.85	0.88	0.91	0.95	0.98	1.03	1.08	1.13	1.20	1.27	1.35	1.47	1.60	1.77	1.98	2.27
181.8	113.9	95	0.81	0.83	0.86	0.88	0.92	0.95	0.99	1.04	1.09	1.15	1.22	1.30	1.40	1.51	1.66	1.84	2.09
184.6	115.9	96	0.79	0.81	0.83	0.86	0.89	0.92	0.96	1.00	1.05	1.10	1.17	1.24	1.33	1.43	1.56	1.72	1.93
187.4	117.5	97	0.76	0.79	0.81	0.83	0.86	0.89	0.93	0.97	1.01	1.06	1.12	1.18	1.26	1.36	1.47	1.61	1.80
190.2	119.9	98	0.75	0.76	0.79	0.81	0.84	0.86	0.90	0.93	0.97	1.02	1.07	1.13	1.21	1.29	1.39	1.52	1.68
193.0	122.1	99	0.73	0.74	0.77	0.79	0.81	0.84	0.87	0.90	0.94	0.98	1.03	1.09	1.15	1.23	1.32	1.43	1.57
195.9	124.1	100	0.71	0.73	0.74	0.77	0.79	0.81	0.84	0.87	0.91	0.95	0.99	1.04	1.10	1.17	1.26	1.36	1.48
210.7	149.6	105	0.63	0.64	0.66	0.67	0.69	0.71	0.73	0.75	0.77	0.80	0.83	0.87	0.91	0.95	1.00	1.07	1.14
226.4	146.4	110	0.56	0.57	0.58	0.60	0.61	0.62	0.64	0.65	0.67	0.69	0.71	0.74	0.77	0.85	0.83	0.87	0.92

Selection Example

Given:

R-717 refrigerant

Compressor evaporator capacity = 550 tons

Compressor BHP = 600

Condensing temperature = 95°F

Entering wet-bulb temperature = 76°F

Solution:

- Determine the total heat rejection:
 Compressor evaporator capacity =
 $550 \text{ TR} \times 12,000 \text{ BTUH/TR} = 6,600,000 \text{ BTUH}$
 Compressor BHP input =
 $600 \text{ BHP} \times 2,545 \text{ BTUH/BHP} = 1,527,000 \text{ BTUH}$
 Total heat rejection = 8,127,000 BTUH = 8,127 MBH
- From Table 2, the heat rejection capacity factor for R-717 at 95°F condensing temperature and 76°F entering wet-bulb temperature is 1.35.
- Multiply: $8,127 \text{ MBH} \times 1.35 = 10,972 \text{ MBH}$
- From Table 1 select a unit with a Base Heat Rejection equal to or greater than 10,972 MBH: Model VCA-750A.



Evaporator Ton Method

This selection method is based on estimated horsepower requirements for open reciprocating compressors only, and cannot be considered to be precise. Critical selection of this type should be checked by the heat rejection method shown on page F50.

Selection Procedure

1. Determine the evaporator capacity in Refrigeration Tons (one Refrigeration Ton = 12,000 BTUH)
2. Determine refrigerant and design conditions of condensing temperature, suction temperature, and entering wet-bulb temperature.
3. Using tables appropriate for the system refrigerant, determine two correction factors: the Evaporator Capacity Factor (Table 5 and 6) and the Suction Temperature Factor (Tables 7 and 8).
4. Multiply the evaporator capacity in tons by the two correction factors determined in Step 3.
5. From Table 4 select an evaporative condenser whose model number equals or exceeds the product (factors x tons) calculated in Step 4.

Notes: Consult your BAC Representative for evaporative condenser selections for systems utilizing refrigerants other than R-717, R-22, or R-134a and systems requiring special considerations, such as screw compressors with water cooled oil coolers, evaporative condensers with ammonia desuperheaters or halocarbon subcooling.

Selection Example: Open Recip. Compressor

Given: R-134a refrigerant
 Evaporator capacity = 145 tons
 Condensing temperature = 105°F
 Suction temperature = 30°F
 Entering wet-bulb temperature = 80°F

Solution:

- From Table 6, the capacity factor for R-134a at 105°F condensing temperature and 80°F entering wet-bulb is 1.07.
- From Table 8, the capacity factor for R-134a at 30°F suction temperature is 1.03.
- Multiply 145 x 1.07 x 1.03 = 159.8 corrected tons.
- From Table 4, select a unit with Corrected Evaporator Tons equal or greater to 159.8: Model VCA-161A.

Table 4: Base Corrected Evaporator Tons

Model Number	Corrected Evaporator Tons	Model Number	Corrected Evaporator Tons	Model Number	Corrected Evaporator Tons
VCA-122A	122	VCA-680A	680	VCA-1010A	1010
VCA-138A	138	VCA-750A	750	VCA-605A	605
VCA-150A	150	VCA-804A	804	VCA-684A	684
VCA-161A	161	VCA-760A	760	VCA-754A	754
VCA-154A	154	VCA-814A	814	VCA-808A	808
VCA-170A	170	VCA-858A	858	VCA-762A	762
VCA-182A	182	VCA-946A	946	VCA-840A	840
VCA-178A	178	VCA-866A	866	VCA-902A	902
VCA-191A	191	VCA-928A	928	VCA-879A	879
VCA-174A	174	VCA-1024A	1024	VCA-942A	942
VCA-192A	192	VCA-S700A	700	VCA-1026A	1026
VCA-206A	206	VCA-S828A	828	VCA-982A	982
VCA-227A	227	VCA-S838A	838	VCA-1082A	1082
VCA-195A	195	VCA-S884A	884	VCA-1160A	1160
VCA-215A	215	VCA-920A	920	VCA-1075A	1075
VCA-235A	235	VCA-1086A	1086	VCA-1170A	1170
VCA-259A	259	VCA-1020A	1020	VCA-1252A	1252
VCA-261A	261	VCA-1120A	1120	VCA-1321A	1321
VCA-288A	288	VCA-1200A	1200	VCA-S870A	870
VCA-308A	308	VCA-1062A	1062	VCA-S932A	932
VCA-273A	273	VCA-1169A	1169	VCA-S972A	972
VCA-301A	301	VCA-1240A	1240	VCA-S1071A	1071
VCA-322A	322	VCA-1218A	1218	VCA-S1019A	1019
VCA-323A	323	VCA-1306A	1306	VCA-S1124A	1124
VCA-356A	356	VCA-1414A	1414	VCA-S1204A	1204
VCA-382A	382	VCA-1558A	1558	VCA-930A	930
VCA-396A	396	VCA-302A	302	VCA-1052A	1052
VCA-424A	424	VCA-342A	342	VCA-1162A	1162
VCA-416A	416	VCA-377A	377	VCA-1246A	1246
VCA-446A	446	VCA-404A	404	VCA-1284A	1284
VCA-300A	300	VCA-381A	381	VCA-1376A	1376
VCA-331A	331	VCA-420A	420	VCA-1204A	1204
VCA-340A	340	VCA-451A	451	VCA-1327A	1327
VCA-375A	375	VCA-471A	471	VCA-1422A	1422
VCA-402A	402	VCA-513A	513	VCA-1570A	1570
VCA-407A	407	VCA-491A	491	VCA-1501A	1501
VCA-401A	401	VCA-541A	541	VCA-1654A	1654
VCA-429A	429	VCA-580A	580	VCA-1774A	1774
VCA-473A	473	VCA-537A	537	VCA-1790A	1790
VCA-393A	393	VCA-584A	584	VCA-1914A	1914
VCA-433A	433	VCA-626A	626	VCA-2019A	2019
VCA-464A	464	VCA-661A	661		
VCA-512A	512	VCA-526A	526		
VCA-460A	460	VCA-581A	581		
VCA-507A	507	VCA-623A	623		
VCA-543A	543	VCA-582A	582		
VCA-510A	510	VCA-642A	642		
VCA-560A	560	VCA-688A	688		
VCA-600A	600	VCA-602A	602		
VCA-585A	585	VCA-664A	664		
VCA-620A	620	VCA-711A	711		
VCA-488A	488	VCA-785A	785		
VCA-609A	609	VCA-751A	751		
VCA-653A	653	VCA-827A	827		
VCA-707A	707	VCA-887A	887		
VCA-779A	779	VCA-895A	895		
VCA-662A	662	VCA-957A	957		





Table 5: Evaporator Capacity Factors – R-717 (Ammonia)

Condensing Pressure (psig)	Condensing Temp (°F)	Entering Wet-Bulb Temperature (°F)																
		R-717	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80
151.7	85	0.98	1.02	1.07	1.12	1.18	1.26	1.34	1.44	1.56	1.71	1.90	2.15	2.50	2.99	-	-	-
154.1	86	0.95	0.99	1.03	1.08	1.14	1.20	1.28	1.37	1.48	1.61	1.78	1.99	2.28	2.68	3.29	4.30	-
156.9	87	0.92	0.96	1.00	1.04	1.10	1.16	1.23	1.31	1.41	1.52	1.67	1.86	2.10	2.44	2.92	3.68	-
159.8	88	0.90	0.93	0.97	1.01	1.06	1.11	1.18	1.25	1.34	1.45	1.58	1.74	1.95	2.23	2.62	3.21	4.20
162.6	89	0.87	0.90	0.94	0.98	1.02	1.07	1.13	1.20	1.28	1.37	1.49	1.63	1.82	2.05	2.38	2.85	3.59
165.9	90	0.85	0.88	0.91	0.95	0.99	1.03	1.09	1.15	1.22	1.31	1.41	1.54	1.70	1.91	2.18	2.56	3.14
168.9	91	0.82	0.85	0.88	0.92	0.95	1.00	1.05	1.11	1.17	1.25	1.34	1.46	1.60	1.78	2.01	2.33	2.79
171.9	92	0.80	0.83	0.86	0.89	0.92	0.96	1.01	1.06	1.12	1.20	1.28	1.38	1.51	1.66	1.86	2.13	2.51
174.9	93	0.78	0.81	0.83	0.86	0.90	0.93	0.98	1.02	1.08	1.15	1.22	1.31	1.42	1.56	1.74	1.96	2.27
178.0	94	0.76	0.78	0.81	0.84	0.87	0.90	0.94	0.99	1.04	1.10	1.17	1.25	1.35	1.47	1.62	1.82	2.08
181.1	95	0.74	0.76	0.79	0.81	0.84	0.88	0.91	0.95	1.00	1.06	1.12	1.19	1.28	1.39	1.53	1.70	1.92
185.0	96.3	0.72	0.74	0.76	0.79	0.81	0.84	0.88	0.91	0.96	1.01	1.06	1.13	1.21	1.30	1.41	1.56	1.74
187.4	97	0.71	0.73	0.75	0.77	0.80	0.82	0.86	0.89	0.93	0.98	1.03	1.10	1.17	1.26	1.36	1.49	1.66
190.6	98	0.69	0.71	0.73	0.75	0.77	0.80	0.83	0.86	0.90	0.95	0.99	1.05	1.12	1.20	1.29	1.41	1.55
193.9	99	0.67	0.69	0.71	0.73	0.75	0.78	0.81	0.84	0.87	0.91	0.96	1.01	1.07	1.14	1.23	1.33	1.46
197.2	100	0.66	0.68	0.69	0.71	0.73	0.76	0.78	0.81	0.85	0.88	0.92	0.97	1.03	1.09	1.17	1.26	1.38
214.2	105	0.59	0.61	0.62	0.63	0.65	0.67	0.69	0.71	0.73	0.76	0.79	0.82	0.86	0.90	0.95	1.00	1.07
232.3	110	0.54	0.55	0.56	0.57	0.58	0.59	0.61	0.62	0.64	0.66	0.68	0.71	0.73	0.76	0.79	0.83	0.88

Table 6: Evaporator Capacity Factors – R-22, R-134a

Condensing Pressure (psig)	Condensing Temp (°F)	Entering Wet-Bulb Temperature (°F)																	
		R-22	R-134a	50	52	54	56	58	60	62	64	66	68	70	72	74	76	78	80
155.7	95.2	85	1.04	1.09	1.14	1.19	1.26	1.33	1.42	1.53	1.66	1.82	2.02	2.29	2.65	3.18	-	-	-
158.2	97.1	86	1.01	1.05	1.10	1.15	1.21	1.28	1.36	1.46	1.57	1.71	1.89	2.12	2.42	2.85	3.49	4.57	-
160.7	98.9	87	0.98	1.02	1.06	1.11	1.16	1.23	1.30	1.39	1.49	1.62	1.78	1.97	2.23	2.59	3.10	3.91	-
163.2	100.7	88	0.95	0.99	1.03	1.07	1.12	1.18	1.25	1.33	1.42	1.53	1.67	1.85	2.07	2.37	2.79	3.41	4.46
165.8	102.6	89	0.92	0.96	0.99	1.04	1.08	1.14	1.20	1.27	1.36	1.46	1.58	1.73	1.93	2.18	2.53	3.03	3.82
168.4	104.3	90	0.90	0.93	0.96	1.00	1.05	1.10	1.15	1.22	1.30	1.39	1.50	1.64	1.80	2.02	2.31	2.72	3.33
171.0	106.2	91	0.87	0.90	0.94	0.97	1.01	1.06	1.11	1.17	1.24	1.33	1.43	1.55	1.69	1.88	2.13	2.47	2.95
173.7	108.1	92	0.85	0.88	0.91	0.94	0.98	1.02	1.07	1.13	1.19	1.27	1.36	1.47	1.60	1.76	1.98	2.26	2.66
176.4	110.0	93	0.83	0.85	0.88	0.91	0.95	0.99	1.04	1.09	1.15	1.22	1.30	1.39	1.51	1.66	1.84	2.08	2.41
179.1	111.9	94	0.81	0.83	0.86	0.89	0.92	0.96	1.00	1.05	1.10	1.17	1.24	1.33	1.43	1.56	1.72	1.93	2.21
181.8	113.9	95	0.79	0.81	0.84	0.86	0.89	0.93	0.97	1.01	1.06	1.12	1.19	1.27	1.36	1.48	1.62	1.80	2.04
184.6	115.9	96	0.77	0.79	0.81	0.84	0.87	0.90	0.94	0.98	1.03	1.08	1.14	1.21	1.30	1.40	1.53	1.68	1.89
187.4	117.5	97	0.75	0.77	0.79	0.82	0.84	0.88	0.91	0.95	0.99	1.04	1.10	1.16	1.24	1.33	1.44	1.58	1.76
190.2	119.9	98	0.73	0.75	0.77	0.80	0.82	0.85	0.88	0.92	0.96	1.00	1.05	1.11	1.19	1.27	1.37	1.49	1.65
193.0	122.1	99	0.72	0.73	0.75	0.78	0.80	0.83	0.86	0.89	0.93	0.97	1.02	1.07	1.14	1.21	1.30	1.41	1.55
195.9	124.1	100	0.70	0.72	0.74	0.76	0.78	0.80	0.83	0.86	0.90	0.94	0.98	1.03	1.09	1.16	1.24	1.34	1.46
210.7	149.6	105	0.63	0.64	0.66	0.67	0.69	0.71	0.73	0.75	0.77	0.80	0.83	0.87	0.91	0.95	1.00	1.07	1.14
226.4	146.4	110	0.57	0.58	0.59	0.60	0.62	0.63	0.65	0.66	0.68	0.70	0.72	0.75	0.78	0.81	0.84	0.88	0.93

Table 7: Suction Temperature Factors – R-717 (Ammonia)

Suction Temperature (°F)	-20	-10	0	+10	+20	+30	+40	+50
Capacity Factor	1.14	1.11	1.07	1.04	1.00	0.98	0.95	0.93

Table 8: Suction Temperature Factors – R-22, R-134a

Suction Temperature (°F)	-20	-10	0	+10	+20	+30	+40	+50
Capacity Factor	1.20	1.16	1.13	1.09	1.06	1.03	1.00	0.98

