

Table 22 Refrigerant 717 Properties of Superheated Vapor (Continued)

Temp F	Abs Pressure 190.0 psi Gage Pressure 175.3 psi (Sat Temp 93.13 F)			Abs Pressure 200.0 psi Gage Pressure 185.3 F			Abs Pressure 210.0 psi Gage Pressure 195.3 F			Abs Pressure 220.0 psi Gage Pressure 205.3 F			Abs Pressure 230.0 psi Gage Pressure 215.3 F		
	v	h	s	v	h	s	v	h	s	v	h	s	v	h	s
(At Sat)	(1.581)	(832.4)	(1.1892)	(1.520)	(832.7)	(1.1766)	(1.451)	(833.0)	(1.1713)	(1.387)	(833.2)	(1.1671)	(1.307)	(833.4)	(1.1631)
100	1.615	837.8	1.1892	1.520	835.9	1.1809	1.480	841.8	1.1863	1.400	839.4	1.1781	1.328	837.4	1.1700
110	1.663	845.4	1.2034	1.567	843.4	1.1947	1.509	848.9	1.1990	1.428	844.9	1.1918	1.349	843.4	1.1819
120	1.710	853.8	1.2180	1.615	851.9	1.2087	1.538	854.4	1.2131	1.456	850.9	1.2046	1.370	849.4	1.1938
130	1.755	862.7	1.2328	1.663	860.0	1.2231	1.567	861.9	1.2275	1.485	858.4	1.2190	1.391	856.9	1.2057
140	1.799	872.0	1.2478	1.698	869.5	1.2377	1.600	870.4	1.2420	1.525	867.0	1.2344	1.412	866.4	1.2176
150	1.842	881.7	1.2629	1.740	879.4	1.2525	1.635	880.9	1.2568	1.564	876.5	1.2491	1.433	875.9	1.2295
160	1.884	891.7	1.2778	1.780	889.4	1.2674	1.670	891.4	1.2711	1.601	886.0	1.2638	1.454	885.4	1.2414
170	1.925	901.9	1.2928	1.820	899.4	1.2822	1.705	901.9	1.2858	1.638	895.5	1.2785	1.475	894.9	1.2533
180	1.966	912.3	1.3078	1.859	909.5	1.2971	1.740	912.4	1.2999	1.675	905.0	1.2932	1.496	904.4	1.2652
190	2.005	922.9	1.3228	1.897	919.7	1.3120	1.775	922.9	1.3140	1.710	914.5	1.3079	1.517	913.9	1.2771
200	2.045	933.6	1.3378	1.935	929.9	1.3269	1.810	933.1	1.3289	1.745	924.0	1.3226	1.538	923.4	1.2890
210	2.084	944.4	1.3528	1.972	940.1	1.3418	1.845	943.6	1.3438	1.780	934.5	1.3373	1.559	933.9	1.3009
220	2.123	955.2	1.3678	2.009	950.3	1.3567	1.880	953.8	1.3588	1.815	945.0	1.3520	1.580	944.4	1.3128
230	2.161	966.1	1.3828	2.046	960.5	1.3716	1.915	964.0	1.3738	1.848	955.5	1.3667	1.601	954.9	1.3247
240	2.199	977.0	1.3978	2.082	970.7	1.3865	1.950	974.2	1.3889	1.881	966.0	1.3814	1.622	965.4	1.3366
250	2.236	988.0	1.4128	2.118	980.9	1.4014	1.985	984.4	1.4010	1.914	976.5	1.3961	1.643	975.9	1.3485
260	2.274	999.0	1.4278	2.154	991.1	1.4163	2.020	994.6	1.4160	1.947	987.0	1.4108	1.664	986.4	1.3604

Temp F	Abs Pressure 240.0 psi Gage Pressure 225.3 psi (Sat Temp 108.09 F)			Abs Pressure 250.0 psi Gage Pressure 235.3 F			Abs Pressure 260.0 psi Gage Pressure 245.3 F			Abs Pressure 280.0 psi Gage Pressure 265.3 F			Abs Pressure 300.0 psi Gage Pressure 285.3 F		
	v	h	s	v	h	s	v	h	s	v	h	s	v	h	s
(At Sat)	(1.253)	(833.6)	(1.1892)	(1.202)	(833.8)	(1.1855)	(1.150)	(833.9)	(1.1818)	(1.078)	(834.0)	(1.1749)	(0.999)	(834.0)	(1.1683)
110	1.281	835.8	1.1921	1.240	841.5	1.1890	1.183	839.8	1.1817	1.058	835.4	1.1778	1.028	835.4	1.1718
120	1.309	845.8	1.1974	1.268	849.6	1.1947	1.210	847.8	1.1975	1.115	844.0	1.1821	1.083	844.0	1.1867
130	1.342	855.3	1.2038	1.296	858.7	1.2015	1.237	856.9	1.2043	1.151	852.2	1.1879	1.108	852.2	1.1925
140	1.380	865.8	1.2102	1.324	868.8	1.2083	1.265	867.0	1.2111	1.189	860.1	1.1937	1.133	860.1	1.1983
150	1.416	876.3	1.2166	1.352	878.9	1.2151	1.293	877.1	1.2179	1.227	868.2	1.1995	1.158	868.2	1.2041
160	1.452	886.8	1.2230	1.380	889.0	1.2219	1.321	887.2	1.2247	1.261	878.3	1.2053	1.183	878.3	1.2099
170	1.487	897.3	1.2294	1.408	899.1	1.2287	1.349	897.3	1.2315	1.295	888.4	1.2111	1.208	888.4	1.2157
180	1.521	907.8	1.2358	1.436	909.2	1.2355	1.377	907.4	1.2383	1.329	898.5	1.2169	1.233	898.5	1.2215
190	1.554	918.3	1.2422	1.464	919.3	1.2423	1.405	917.5	1.2451	1.363	908.6	1.2227	1.258	908.6	1.2273
200	1.587	928.8	1.2486	1.492	929.4	1.2491	1.433	927.6	1.2519	1.397	918.7	1.2285	1.283	918.7	1.2331
210	1.619	939.3	1.2550	1.520	939.5	1.2559	1.461	937.7	1.2587	1.431	928.8	1.2343	1.308	928.8	1.2389
220	1.651	949.8	1.2614	1.548	949.6	1.2627	1.489	947.8	1.2655	1.465	938.9	1.2401	1.333	938.9	1.2447
230	1.683	960.3	1.2678	1.576	959.7	1.2695	1.517	957.9	1.2723	1.499	949.0	1.2459	1.358	949.0	1.2505
240	1.714	970.8	1.2742	1.604	969.8	1.2763	1.545	968.0	1.2791	1.533	959.1	1.2517	1.383	959.1	1.2563
250	1.745	981.3	1.2806	1.632	979.9	1.2831	1.573	978.1	1.2859	1.567	969.2	1.2575	1.408	969.2	1.2621
260	1.775	991.8	1.2870	1.660	989.9	1.2899	1.601	988.2	1.2927	1.601	979.3	1.2633	1.433	979.3	1.2679
270	1.805	1002.3	1.2934	1.688	999.9	1.2967	1.629	998.3	1.2995	1.635	989.4	1.2691	1.458	989.4	1.2737

Table 23 Refrigerant 744 (Carbon Dioxide) Properties of Solid, Liquid, and Saturated Vapor*

Temp F	Pressure		Volume cu ft/lb		Density lb/cu ft		Enthalpy** Btu/lb		Entropy** Btu/(lb)(°R)	
	psia	psig	Vapor v _g	Liquid v _f	Liquid v _f	Vapor v _g	Liquid h _f	Vapor h _g	Liquid s _f	Vapor s _g
-147	3.14	25.54	55.80	99.80	0.0101	123.2	-123.2	-0.3214	0.4833	
-140	3.19	25.41	54.50	99.80	0.0101	123.2	-123.2	-0.3163	0.4891	
-130	3.29	25.19	52.50	99.80	0.0101	123.2	-123.2	-0.3068	0.4950	
-120	3.40	24.98	50.50	99.80	0.0101	123.2	-123.2	-0.2973	0.5009	
-110	3.52	24.78	48.50	99.80	0.0101	123.2	-123.2	-0.2878	0.5068	
-100	3.65	24.59	46.50	99.80	0.0101	123.2	-123.2	-0.2783	0.5127	
-90	3.79	24.41	44.50	99.80	0.0101	123.2	-123.2	-0.2688	0.5186	
-80	3.94	24.24	42.50	99.80	0.0101	123.2	-123.2	-0.2593	0.5245	
-70	4.10	24.08	40.50	99.80	0.0101	123.2	-123.2	-0.2498	0.5304	
-60	4.27	23.93	38.50	99.80	0.0101	123.2	-123.2	-0.2403	0.5363	
-50	4.45	23.79	36.50	99.80	0.0101	123.2	-123.2	-0.2308	0.5422	
-40	4.64	23.66	34.50	99.80	0.0101	123.2	-123.2	-0.2213	0.5481	
-30	4.84	23.54	32.50	99.80	0.0101	123.2	-123.2	-0.2118	0.5540	
-20	5.05	23.43	30.50	99.80	0.0101	123.2	-123.2	-0.2023	0.5599	
-10	5.27	23.33	28.50	99.80	0.0101	123.2	-123.2	-0.1928	0.5658	
0	5.50	23.24	26.50	99.80	0.0101	123.2	-123.2	-0.1833	0.5717	
10	5.74	23.16	24.50	99.80	0.0101	123.2	-123.2	-0.1738	0.5776	
20	6.00	23.09	22.50	99.80	0.0101	123.2	-123.2	-0.1643	0.5835	
30	6.27	23.03	20.50	99.80	0.0101	123.2	-123.2	-0.1548	0.5894	
40	6.56	22.98	18.50	99.80	0.0101	123.2	-123.2	-0.1453	0.5953	
50	6.87	22.94	16.50	99.80	0.0101	123.2	-123.2	-0.1358	0.6012	
60	7.20	22.91	14.50	99.80	0.0101	123.2	-123.2	-0.1263	0.6071	
70	7.55	22.89	12.50	99.80	0.0101	123.2	-123.2	-0.1168	0.6130	
80	7.92	22.88	10.50	99.80	0.0101	123.2	-123.2	-0.1073	0.6189	
90	8.31	22.88	8.50	99.80	0.0101	123.2	-123.2	-0.0978	0.6248	
100	8.72	22.89	6.50	99.80	0.0101	123.2	-123.2	-0.0883	0.6307	
110	9.15	22.91	4.50	99.80	0.0101	123.2	-123.2	-0.0788	0.6366	
120	9.60	22.94	2.50	99.80	0.0101	123.2	-123.2	-0.0693	0.6425	
130	10.07	22.98	0.50	99.80	0.0101	123.2	-123.2	-0.0598	0.6484	
140	10.56	23.03		99.80	0.0101	123.2	-123.2	-0.0503	0.6543	
150	11.07	23.09		99.80	0.0101	123.2	-123.2	-0.0408	0.6602	
160	11.60	23.16		99.80	0.0101	123.2	-123.2	-0.0313	0.6661	
170	12.15	23.24		99.80	0.0101	123.2	-123.2	-0.0218	0.6720	
180	12.72	23.33		99.80	0.0101	123.2	-123.2	-0.0123	0.6779	
190	13.31	23.43		99.80	0.0101	123.2	-123.2	-0.0028	0.6838	
200	13.92	23.54		99.80	0.0101	123.2	-123.2	0.0067	0.6897	
210	14.55	23.66		99.80	0.0101	123.2	-123.2	0.0162	0.6956	
220	15.20	23.79		99.80	0.0101	123.2	-123.2	0.0257	0.7015	
230	15.87	23.93		99.80	0.0101	123.2	-123.2	0.0352	0.7074	
240	16.56	24.08		99.80	0.0101	123.2	-123.2	0.0447	0.7133	
250	17.27	24.24		99.80	0.0101	123.2	-123.2	0.0542	0.7192	
260	18.00	24.41		99.80	0.0101	123.2	-123.2	0.0637	0.7251	
270	18.75	24.59		99.80	0.0101	123.2	-123.2	0.0732	0.7310	

* Inches of mercury below one standard atmosphere.

** Based on 0 for the saturated liquid at -40 F.

