

TABLE 3. THERMODYNAMIC PROPERTIES OF WATER AT SATURATION*

FAHR. TEMP. (°F)	ABSOLUTE PRESSURE $p_s \times 10^3$		SPECIFIC VOLUME, CU FT PER LB			ENTHALPY, BTU PER LB			ENTROPY, BTU PER (LB) (°F)			FAHR. TEMP. (°F)
	Lb/Sq In.	In. Hg	Sat. Solid v_f	Evap. $v_{fg} \times 10^{-3}$	Sat. Vapor $v_g \times 10^{-3}$	Sat. Solid h_f	Evap. h_{fg}	Sat. Vapor h_g	Sat. Solid s_f	Evap. s_{fg}	Sat. Vapor s_g	
-160	0.004949	0.01008	0.01722	36070	36070	-223.05	1212.43	990.38	-0.4907	4.0456	3.5549	-160
-155	0.009040	0.01840	0.01723	20080	20080	-220.44	1213.02	992.58	-0.4854	3.9812	3.4958	-155
-150	0.01620	0.03298	0.01723	11390	11390	-218.82	1213.82	994.80	-0.4801	3.9188	3.4387	-150
-145	0.02850	0.05803	0.01724	6577	6577	-217.17	1214.17	997.00	-0.4748	3.8583	3.3835	-145
-140	0.04628	0.1003	0.01724	3864	3864	-215.49	1214.70	999.21	-0.4695	3.7998	3.3301	-140
-135	0.08380	0.1706	0.01725	2308	2308	-213.80	1215.22	1001.42	-0.4643	3.7428	3.2785	-135
-130	0.1403	0.2856	0.01725	1400	1400	-212.08	1215.71	1003.63	-0.4590	3.6874	3.2284	-130
-125	0.2312	0.4708	0.01726	862.2	862.2	-210.34	1216.18	1005.84	-0.4538	3.6338	3.1800	-125
-120	0.3757	0.7649	0.01726	538.6	538.6	-208.58	1216.63	1008.05	-0.4485	3.5815	3.1330	-120
-115	0.6019	1.228	0.01727	341.1	341.1	-206.79	1217.05	1010.26	-0.4433	3.5308	3.0875	-115
-110	0.9517	1.938	0.01728	218.9	218.9	-204.98	1217.45	1012.47	-0.4381	3.4815	3.0434	-110
-105	1.466	3.025	0.01728	142.2	142.2	-203.14	1217.82	1014.68	-0.4329	3.4335	3.0006	-105
-100	2.291	4.664	0.01729	93.52	93.52	-201.28	1218.17	1016.89	-0.4277	3.3868	2.9591	-100
-95	3.491	7.108	0.01729	62.23	62.23	-199.40	1218.50	1019.10	-0.4225	3.3412	2.9187	-95
-90	5.260	10.71	0.01730	41.86	41.86	-197.49	1218.80	1021.31	-0.4173	3.2969	2.8796	-90
-85	7.841	16.96	0.01730	28.46	28.46	-195.56	1219.08	1023.52	-0.4121	3.2538	2.8416	-85
-80	11.57	23.55	0.01731	19.55	19.55	-193.60	1219.33	1025.73	-0.4069	3.2114	2.8045	-80
-75	16.89	34.39	0.01732	13.56	13.56	-191.62	1219.56	1027.94	-0.4017	3.1702	2.7685	-75
-70	24.43	49.74	0.01732	9.501	9.501	-189.61	1219.76	1030.15	-0.3965	3.1301	2.7336	-70
-65	35.01	71.28	0.01733	6.715	6.715	-187.58	1219.94	1032.36	-0.3914	3.0910	2.6998	-65
-60	49.72	101.2	0.01734	4.788	4.788	-185.52	1220.10	1034.58	-0.3862	3.0526	2.6664	-60
-55	70.01	142.6	0.01734	3.443	3.443	-183.44	1220.23	1036.79	-0.3810	3.0152	2.6342	-55
-50	97.76	199.0	0.01735	2.496	2.496	-181.34	1220.34	1039.00	-0.3758	2.9786	2.6028	-50
-45	111.5	227.0	0.01736	2.200	2.200	-180.49	1220.37	1039.88	-0.3738	2.9643	2.5905	-45
-40	127.0	259.5	0.01736	1.941	1.941	-179.64	1220.40	1040.76	-0.3717	2.9501	2.5784	-40
-35	144.4	294.0	0.01736	1.715	1.715	-178.78	1220.43	1041.65	-0.3696	2.9359	2.5663	-35
-30	164.1	334.0	0.01736	1.518	1.518	-177.92	1220.45	1042.53	-0.3676	2.9219	2.5543	-30
-25	186.1	379.0	0.01737	1.343	1.343	-177.06	1220.48	1043.42	-0.3655	2.9080	2.5425	-25
-20	211.0	429.5	0.01737	1.191	1.191	-176.19	1220.49	1044.30	-0.3634	2.8942	2.5308	-20
-15	238.8	486.2	0.01737	1.057	1.057	-175.32	1220.51	1045.19	-0.3614	2.8807	2.5193	-15
-10	270.0	549.7	0.01737	0.9391	0.9391	-174.45	1220.52	1046.07	-0.3593	2.8671	2.5078	-10
-5	304.9	620.8	0.01738	0.8355	0.8355	-173.57	1220.52	1046.95	-0.3573	2.8538	2.4965	-5

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FAHR. TEMP. (°F)	ABSOLUTE PRESSURE $p_s \times 10^3$		SPECIFIC VOLUME, CU FT PER LB			ENTHALPY, BTU PER LB			ENTROPY, BTU PER (LB) (°F)			FAHR. TEMP. (°F)
	Lb/Sq In.	In. Hg	Sat. Solid v_f	Evap. $v_{fg} \times 10^{-3}$	Sat. Vapor $v_g \times 10^{-3}$	Sat. Solid h_f	Evap. h_{fg}	Sat. Vapor h_g	Sat. Solid s_f	Evap. s_{fg}	Sat. Vapor s_g	
-30	0.3440	0.7003	0.01738	7.441	7.441	-172.68	1220.52	1047.84	-0.3552	2.8405	2.4853	-30
-25	0.3876	0.7891	0.01738	6.834	6.834	-171.80	1220.52	1048.72	-0.3532	2.8274	2.4742	-25
-20	0.4363	0.8882	0.01738	5.921	5.921	-170.91	1220.51	1049.60	-0.3511	2.8143	2.4632	-20
-15	0.4908	0.9987	0.01739	5.290	5.290	-170.01	1220.50	1050.49	-0.3490	2.8013	2.4523	-15
-10	0.5509	1.122	0.01739	4.732	4.732	-169.12	1220.49	1051.37	-0.3470	2.7886	2.4415	-10
-5	0.6181	1.259	0.01739	4.237	4.237	-168.21	1220.47	1052.25	-0.3449	2.7757	2.4308	-5
0	0.6845	1.333	0.01739	4.011	4.011	-167.76	1220.46	1053.14	-0.3439	2.7685	2.4256	0
5	0.6928	1.410	0.01740	3.797	3.797	-167.31	1220.45	1053.14	-0.3429	2.7632	2.4203	5
10	0.7332	1.493	0.01740	3.596	3.596	-166.85	1220.43	1053.58	-0.3418	2.7568	2.4150	10
15	0.7757	1.579	0.01740	3.407	3.407	-166.40	1220.42	1054.02	-0.3408	2.7506	2.4098	15
20	0.8204	1.670	0.01740	3.228	3.228	-165.94	1220.41	1054.47	-0.3398	2.7444	2.4046	20
25	0.8676	1.766	0.01740	3.060	3.060	-165.48	1220.39	1054.91	-0.3388	2.7383	2.3995	25
30	0.9172	1.867	0.01740	2.901	2.901	-165.03	1220.38	1055.35	-0.3377	2.7320	2.3943	30
35	0.9694	1.974	0.01740	2.750	2.750	-164.57	1220.36	1055.79	-0.3367	2.7259	2.3892	35
40	1.024	2.086	0.01740	2.609	2.609	-164.11	1220.34	1056.23	-0.3357	2.7198	2.3841	40
45	1.082	2.203	0.01741	2.475	2.475	-163.65	1220.32	1056.67	-0.3347	2.7138	2.3791	45
50	1.143	2.327	0.01741	2.349	2.349	-163.18	1220.30	1057.12	-0.3336	2.7076	2.3740	50
55	1.207	2.457	0.01741	2.229	2.229	-162.72	1220.28	1057.56	-0.3326	2.7016	2.3690	55
60	1.274	2.594	0.01741	2.118	2.118	-162.26	1220.26	1058.00	-0.3316	2.6956	2.3640	60
65	1.344	2.737	0.01741	2.010	2.010	-161.79	1220.23	1058.44	-0.3306	2.6896	2.3590	65
70	1.419	2.888	0.01741	1.909	1.909	-161.33	1220.21	1058.88	-0.3295	2.6836	2.3541	70
75	1.496	3.047	0.01742	1.814	1.814	-160.86	1220.18	1059.32	-0.3285	2.6777	2.3492	75
80	1.578	3.213	0.01742	1.723	1.723	-160.39	1220.15	1059.76	-0.3275	2.6718	2.3443	80
85	1.664	3.388	0.01742	1.638	1.638	-159.92	1220.13	1060.21	-0.3264	2.6658	2.3394	85
90	1.754	3.572	0.01742	1.557	1.557	-159.45	1220.10	1060.65	-0.3254	2.6600	2.3346	90
95	1.849	3.764	0.01742	1.481	1.481	-158.98	1220.07	1061.09	-0.3244	2.6541	2.3297	95
100	1.948	3.968	0.01742	1.408	1.408	-158.51	1220.04	1061.53	-0.3234	2.6483	2.3249	100
105	2.052	4.178	0.01742	1.340	1.340	-158.04	1220.01	1061.97	-0.3224	2.6425	2.3201	105
110	2.161	4.400	0.01743	1.275	1.275	-157.56	1219.97	1062.41	-0.3213	2.6367	2.3154	110
115	2.276	4.633	0.01743	1.214	1.214	-157.09	1219.94	1062.85	-0.3203	2.6309	2.3108	115
120	2.396	4.878	0.01743	1.155	1.155	-156.61	1219.90	1063.29	-0.3193	2.6252	2.3060	120
125	2.521	5.134	0.01743	1.100	1.100	-156.14	1219.88	1063.74	-0.3182	2.6194	2.3012	125

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