

ภาคผนวก

Table A-1
Superheated refrigerant-12

Temp. $^{\circ}C$	v m^3/kg	u kJ/kg	h kJ/kg	s $kJ/(kg.K)$	v m^3/kg	u kJ/kg	h kJ/kg	s $kJ/(kg.K)$
	0.060 MPa ($T_{sat} = -41.42^{\circ}C$)				0.10 MPa ($T_{sat} = -30.10^{\circ}C$)			
Sat	0.2575	153.49	168.94	0.7290	0.1600	158.15	174.15	0.7171
-40	0.2593	154.16	169.72	0.7324				
-20	0.2838	163.91	180.94	0.7785	0.1677	163.22	179.99	0.7406
0	0.3079	174.05	192.52	0.8225	0.1827	173.50	191.77	0.7854
10	0.3198	179.26	198.45	0.8439	0.1900	178.77	197.77	0.8070
20	0.3317	184.57	204.47	0.8647	0.1973	184.12	203.85	0.8281
30	0.3435	189.96	210.57	0.8852	0.2045	189.57	210.02	0.8488
40	0.3552	195.46	216.77	0.9053	0.2117	195.09	216.26	0.8691
50	0.3670	201.02	223.04	0.9251	0.2188	200.70	222.58	0.8889
60	0.3787	206.69	229.41	0.9444	0.2260	206.38	228.98	0.9084
80	0.4020	218.25	242.37	0.9822	0.2401	218.00	242.01	0.9464
	0.14 MPa ($T_{sat} = -21.91^{\circ}C$)				0.18 MPa ($T_{sat} = -15.38^{\circ}C$)			
Sat	0.1168	161.52	177.87	0.7102	0.0922	164.20	180.80	0.7054
-20	0.1179	162.50	179.01	0.7147				
-10	0.1235	167.69	184.97	0.7378	0.0925	164.39	181.03	0.7181
0	0.1289	172.94	190.99	0.7602	0.0991	172.37	190.21	0.7408
10	0.1343	178.28	197.08	0.7821	0.1034	177.77	196.38	0.7630
20	0.1397	183.67	203.23	0.8035	0.1076	183.23	202.60	0.7846
30	0.1449	189.17	209.46	0.8243	0.1118	188.77	208.89	0.8057
40	0.1502	194.72	215.75	0.8447	0.1160	194.35	215.23	0.8263
50	0.1553	200.38	222.12	0.8648	0.1201	200.02	221.64	0.8464
60	0.1605	206.08	228.55	0.8844	0.1241	205.78	228.12	0.8662
80	0.1707	217.74	241.64	0.9225	0.1322	217.47	241.27	0.9045
100	0.1809	229.67	255.00	0.9593	0.1402	229.45	254.69	0.9414
	0.20 MPa ($T_{sat} = -12.53^{\circ}C$)				0.24 MPa ($T_{sat} = -7.42^{\circ}C$)			
Sat	0.0835	165.37	182.07	0.7035	0.0703	167.45	184.32	0.7004
0	0.0886	172.08	189.08	0.7325	0.0729	171.49	188.99	0.7177
10	0.0926	177.50	196.02	0.7548	0.0763	176.98	195.29	0.7404
20	0.0964	183.00	202.28	0.7766	0.0796	182.53	201.63	0.7624
30	0.1002	188.56	208.60	0.7978	0.0828	188.14	208.01	0.7838
40	0.1040	194.17	214.97	0.8184	0.0860	193.80	214.44	0.8047
50	0.1077	199.86	221.40	0.8387	0.0892	199.51	220.92	0.8251
60	0.1114	205.62	227.90	0.8585	0.0923	205.31	227.46	0.8450
80	0.1187	217.35	241.09	0.8969	0.0985	217.07	240.71	0.8836
100	0.1259	229.35	254.53	0.9339	0.1045	229.12	254.20	0.9208
120	0.1331	241.59	268.21	0.9696	0.1105	241.41	267.93	0.9566

Table A-1
(Continued)

Temp. $^{\circ}C$	v m^3/kg	u kJ/kg	h kJ/kg	s $kJ/(kg.K)$	v m^3/kg	u kJ/kg	h kJ/kg	s $kJ/(kg.K)$
	0.28 MPa ($T_{sat} = -2.93^{\circ}C$)				0.32 MPa ($T_{sat} = 1.11^{\circ}C$)			
Sat	0.06076	169.26	186.27	0.6980	0.05351	170.88	188.00	0.6960
0	0.06166	170.89	188.15	0.7049				
10	0.06464	176.45	194.55	0.7279	0.05590	175.90	193.79	0.7167
20	0.06755	182.06	200.97	0.7502	0.05852	1818.57	200.30	0.7393
30	0.07040	187.71	207.42	0.7718	0.06106	187.28	206.82	0.7612
40	0.07319	193.42	213.91	0.7928	0.06355	193.02	213.36	0.7824
50	0.07594	199.18	220.44	0.8134	0.06600	198.82	219.94	0.8031
60	0.07865	205.00	227.02	0.8334	0.06841	204.68	226.57	0.8233
80	0.08399	216.82	240.34	0.8722	0.07314	216.55	239.96	0.8623
100	0.08924	228.29	253.88	0.9095	0.07778	228.66	253.55	0.8997
120	0.09443	241.21	267.65	0.9455	0.08236	241.00	267.36	0.9358
	0.40 MPa ($T_{sat} = 8.15^{\circ}C$)				0.50 MPa ($T_{sat} = 15.60^{\circ}C$)			
Sat	0.04321	173.69	190.97	0.6928	0.03482	176.61	194.02	0.6899
10	0.04363	174.76	192.21	0.6972				
20	0.04584	180.57	198.91	0.7204	0.03565	179.26	197.08	0.7004
30	0.04797	186.39	205.58	0.7428	0.03746	185.23	203.96	0.7235
40	0.05005	192.23	212.25	0.7645	0.03922	191.20	210.81	0.7457
50	0.05207	198.11	218.94	0.7855	0.04091	197.19	217.64	0.7672
60	0.05406	204.03	225.65	0.8060	0.04257	203.20	224.48	0.7881
80	0.05791	216.03	239.19	0.8454	0.04578	215.32	238.21	0.8281
100	0.06173	228.20	252.89	0.8831	0.04889	227.61	252.05	0.8662
120	0.06546	240.61	266.79	0.9194	0.05193	240.10	266.06	0.9086
140	0.06913	253.23	280.88	0.9544	0.05492	252.77	280.23	0.9379
	0.60 MPa ($T_{sat} = 22.00^{\circ}C$)				0.70 MPa ($T_{sat} = 27.65^{\circ}C$)			
Sat	0.02913	179.09	196.57	0.6878	0.02501	181.23	198.74	0.6860
30	0.03042	184.01	202.26	0.7068	0.02535	182.72	200.46	0.6917
40	0.03197	190.13	209.31	0.7297	0.02676	189.00	207.73	0.7153
50	0.03345	196.23	216.30	0.7516	0.02810	195.23	214.90	0.7378
60	0.03489	202.34	223.27	0.7729	0.02939	201.45	222.02	0.7595
80	0.03765	214.61	237.20	0.8135	0.03184	213.88	236.17	0.8008
100	0.04032	227.01	251.20	0.8520	0.03419	226.40	250.33	0.8398
120	0.04291	239.57	265.32	0.8889	0.03646	239.05	264.57	0.8769
140	0.04545	252.31	279.58	0.9243	0.03867	251.85	278.92	0.9125
160	0.04794	265.25	294.01	0.9584	0.04085	264.83	293.42	0.9468