R404A 冷媒飽和性質表 (Staurated Properities Table of R404A Refrigerant)

冷媒(refrigerant)：		R404A		臨界溫度(critical temperature)： 345.2 K		臨界壓力(critical Pressure)： 3728.9 kPa		莫爾質量(molar mass)： 97.6 kg/kmol											
溫度	壓力	比容		比焓		比熵		定壓比熱		定容比熱		黏度		熱傳導率		聲速		表面張力	
(temp.)	(press.)	(specific volume)		(specific enthalpy)		(spec. entropy)		(isobaric sp. heat)		(isochoric sp. heat)		(viscosity)		(thermal conductivity)		(speed of sound)		(surface tension)	
°C	kPa	m3/kg		kJ/kg		kJ/(kgK)		kJ/(kgK)		kJ/(kgK)		mPa-s		W/(mK)		m/s		m-N/m	
相(phase)		液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)
-88	7.9	0.0007	2.1605	86.6	312.8	0.57	1.80	1.22	0.65	0.77	0.56	808.1	8.23	0.1138	0.0070	954.2	134.2	17.3	17.3
-86	9.2	0.0007	1.8639	89.0	314.0	0.59	1.79	1.21	0.66	0.77	0.57	772.5	8.32	0.1128	0.0072	940.0	134.8	17.1	17.1
-84	10.7	0.0007	1.6144	91.5	315.2	0.60	1.79	1.21	0.66	0.77	0.57	738.9	8.41	0.1117	0.0073	926.3	135.4	16.9	16.9
-82	12.4	0.0007	1.4035	93.9	316.5	0.61	1.78	1.21	0.67	0.78	0.58	707.2	8.51	0.1106	0.0075	913.1	135.9	16.7	16.7
-80	14.3	0.0007	1.2247	96.3	317.7	0.63	1.78	1.21	0.67	0.78	0.58	677.3	8.60	0.1096	0.0076	900.3	136.4	16.5	16.5
-78	16.4	0.0007	1.0723	98.7	318.9	0.64	1.77	1.21	0.68	0.78	0.59	649.0	8.69	0.1086	0.0078	887.8	136.9	16.3	16.3
-76	18.8	0.0007	0.9421	101.2	320.1	0.65	1.76	1.21	0.69	0.78	0.59	622.4	8.78	0.1075	0.0079	875.7	137.5	16.1	16.1
-74	21.4	0.0007	0.8303	103.6	321.3	0.66	1.76	1.22	0.69	0.79	0.60	597.1	8.88	0.1065	0.0081	863.9	137.9	15.9	15.9
-72	24.4	0.0007	0.7341	106.0	322.6	0.67	1.75	1.22	0.70	0.79	0.60	573.2	8.97	0.1055	0.0082	852.3	138.4	15.7	15.7
-70	27.7	0.0007	0.6510	108.5	323.8	0.69	1.75	1.22	0.70	0.79	0.61	550.6	9.06	0.1045	0.0084	841.0	138.9	15.5	15.5
-68	31.3	0.0007	0.5789	110.9	325.0	0.70	1.75	1.22	0.71	0.79	0.61	529.2	9.16	0.1035	0.0086	829.9	139.3	15.3	15.3
-66	35.3	0.0007	0.5162	113.4	326.2	0.71	1.74	1.22	0.72	0.80	0.62	508.8	9.25	0.1025	0.0087	819.0	139.8	15.1	15.1
-64	39.7	0.0007	0.4615	115.8	327.5	0.72	1.74	1.22	0.72	0.80	0.62	489.6	9.35	0.1016	0.0089	808.3	140.2	14.9	14.9
-62	44.5	0.0007	0.4137	118.3	328.7	0.73	1.73	1.23	0.73	0.80	0.63	471.3	9.44	0.1006	0.0090	797.7	140.6	14.7	14.7
-60	49.8	0.0007	0.3717	120.7	329.9	0.75	1.73	1.23	0.73	0.80	0.63	453.9	9.54	0.0996	0.0092	787.2	141.0	14.4	14.4
-58	55.6	0.0007	0.3348	123.2	331.1	0.76	1.73	1.23	0.74	0.81	0.64	437.4	9.63	0.0987	0.0094	776.9	141.3	14.2	14.2
-56	61.9	0.0007	0.3022	125.7	332.4	0.77	1.72	1.24	0.75	0.81	0.64	421.7	9.73	0.0977	0.0095	766.6	141.7	14.0	14.0
-54	68.7	0.0008	0.2734	128.1	333.6	0.78	1.72	1.24	0.75	0.81	0.65	406.8	9.82	0.0968	0.0097	756.5	142.0	13.8	13.8
-52	76.2	0.0008	0.2478	130.6	334.8	0.79	1.72	1.24	0.76	0.81	0.65	392.6	9.92	0.0959	0.0099	746.5	142.3	13.6	13.6
-50	84.2	0.0008	0.2251	133.1	336.0	0.80	1.71	1.24	0.77	0.82	0.66	379.1	10.01	0.0949	0.0100	736.5	142.6	13.4	13.4
-48	93.0	0.0008	0.2049	135.6	337.2	0.81	1.71	1.25	0.78	0.82	0.67	366.2	10.11	0.0940	0.0102	726.6	142.9	13.1	13.1
-46	102.4	0.0008	0.1868	138.1	338.4	0.82	1.71	1.25	0.78	0.82	0.67	353.9	10.21	0.0931	0.0104	716.8	143.1	12.9	12.9
-44	112.6	0.0008	0.1707	140.6	339.6	0.84	1.71	1.26	0.79	0.82	0.68	342.2	10.30	0.0922	0.0105	707.0	143.4	12.7	12.7
-42	123.5	0.0008	0.1562	143.1	340.8	0.85	1.70	1.26	0.80	0.83	0.68	331.0	10.40	0.0913	0.0107	697.3	143.6	12.5	12.5
-40	135.3	0.0008	0.1432	145.7	342.0	0.86	1.70	1.26	0.81	0.83	0.69	320.3	10.50	0.0904	0.0109	687.7	143.7	12.3	12.3
-38	147.9	0.0008	0.1315	148.2	343.2	0.87	1.70	1.27	0.81	0.83	0.69	310.1	10.60	0.0896	0.0110	678.0	143.9	12.0	12.0
-36	161.4	0.0008	0.1209	150.7	344.4	0.88	1.70	1.27	0.82	0.83	0.70	300.3	10.70	0.0887	0.0112	668.4	144.0	11.8	11.8
-34	175.9	0.0008	0.1113	153.3	345.6	0.89	1.69	1.28	0.83	0.84	0.71	291.0	10.80	0.0878	0.0114	658.8	144.1	11.6	11.6
-32	191.3	0.0008	0.1027	155.9	346.8	0.90	1.69	1.28	0.84	0.84	0.71	282.0	10.90	0.0870	0.0116	649.3	144.2	11.3	11.3
-30	207.8	0.0008	0.0948	158.4	347.9	0.91	1.69	1.29	0.85	0.84	0.72	273.5	11.00	0.0861	0.0117	639.7	144.3	11.1	11.1
-28	225.3	0.0008	0.0877	161.0	349.1	0.92	1.69	1.29	0.85	0.84	0.72	265.2	11.10	0.0853	0.0119	630.2	144.3	10.9	10.9
-26	244.0	0.0008	0.0812	163.6	350.3	0.93	1.69	1.30	0.86	0.85	0.73	257.4	11.21	0.0844	0.0121	620.7	144.4	10.6	10.6
-24	263.8	0.0008	0.0752	166.2	351.4	0.94	1.69	1.30	0.87	0.85	0.73	249.8	11.31	0.0836	0.0123	611.2	144.3	10.4	10.4
-22	284.8	0.0008	0.0698	168.8	352.5	0.95	1.68	1.31	0.88	0.85	0.74	242.6	11.41	0.0827	0.0124	601.7	144.3	10.2	10.2
-20	307.1	0.0008	0.0649	171.5	353.7	0.96	1.68	1.32	0.89	0.86	0.75	235.6	11.52	0.0819	0.0126	592.3	144.2	9.9	9.9
-18	330.7	0.0008	0.0604	174.1	354.8	0.97	1.68	1.32	0.90	0.86	0.75	228.9	11.62	0.0811	0.0128	582.8	144.1	9.7	9.7
-16	355.6	0.0008	0.0562	176.8	355.9	0.98	1.68	1.33	0.91	0.86	0.76	222.4	11.73	0.0803	0.0130	573.3	144.0	9.5	9.5
-14	382.0	0.0008	0.0524	179.4	357.0	0.99	1.68	1.33	0.92	0.86	0.76	216.2	11.84	0.0795	0.0132	563.8	143.8	9.2	9.2
-12	409.8	0.0008	0.0489	182.1	358.1	1.00	1.68	1.34	0.93	0.87	0.77	210.2	11.94	0.0787	0.0134	554.3	143.7	9.0	9.0
-10	439.1	0.0008	0.0457	184.8	359.2	1.01	1.68	1.35	0.94	0.87	0.78	204.4	12.05	0.0779	0.0136	544.8	143.4	8.7	8.7

Refer to the NIST Database 23 - RefProp 7.0, created by Cheng-Te Lin, Kuenling refrigerating machinery Co., LTD.

R404A 冷媒飽和性質表 (Staurated Properities Table of R404A Refrigerant)

冷媒(refrigerant)：		R404A		臨界溫度(critical temperature)： 345.2 K		臨界壓力(critical Pressure)： 3728.9 kPa		莫爾質量(molar mass)： 97.6 kg/kmol											
溫度	壓力	比容		比焓		比熵		定壓比熱		定容比熱		黏度		熱傳導率		聲速		表面張力	
(temp.)	(press.)	(specific volume)		(specific enthalpy)		(spec. entropy)		(isobaric sp. heat)		(isochoric sp. heat)		(viscosity)		(thermal conductivity)		(speed of sound)		(surface tension)	
°C	kPa	m3/kg		kJ/kg		kJ/(kgK)		kJ/(kgK)		kJ/(kgK)		mPa-s		W/(mK)		m/s		m-N/m	
相(phase)		液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)	液(liq.)	汽(vap.)
-8	470.0	0.0008	0.0427	187.5	360.2	1.02	1.68	1.36	0.95	0.87	0.78	198.9	12.16	0.0771	0.0137	535.3	143.2	8.5	8.5
-6	502.5	0.0009	0.0399	190.2	361.3	1.03	1.67	1.36	0.96	0.88	0.79	193.5	12.28	0.0763	0.0139	525.8	142.9	8.3	8.3
-4	536.7	0.0009	0.0374	193.0	362.3	1.04	1.67	1.37	0.98	0.88	0.80	188.3	12.39	0.0755	0.0141	516.3	142.6	8.0	8.0
-2	572.5	0.0009	0.0350	195.7	363.3	1.05	1.67	1.38	0.99	0.88	0.80	183.3	12.50	0.0747	0.0143	506.8	142.2	7.8	7.8
0	610.2	0.0009	0.0328	198.5	364.3	1.06	1.67	1.39	1.00	0.88	0.81	178.4	12.62	0.0739	0.0145	497.2	141.8	7.5	7.5
2	649.7	0.0009	0.0308	201.3	365.3	1.07	1.67	1.40	1.01	0.89	0.81	173.7	12.74	0.0732	0.0147	487.6	141.4	7.3	7.3
4	691.1	0.0009	0.0289	204.1	366.3	1.08	1.67	1.41	1.03	0.89	0.82	169.1	12.85	0.0724	0.0149	478.0	141.0	7.1	7.1
6	734.4	0.0009	0.0272	206.9	367.2	1.09	1.67	1.42	1.04	0.89	0.83	164.7	12.97	0.0716	0.0152	468.4	140.5	6.8	6.8
8	779.7	0.0009	0.0255	209.8	368.2	1.10	1.67	1.43	1.06	0.90	0.83	160.4	13.10	0.0709	0.0154	458.7	140.0	6.6	6.6
10	827.1	0.0009	0.0240	212.6	369.1	1.11	1.67	1.44	1.07	0.90	0.84	156.2	13.22	0.0701	0.0156	449.1	139.4	6.3	6.3
12	876.6	0.0009	0.0226	215.5	370.0	1.12	1.67	1.45	1.09	0.90	0.85	152.2	13.35	0.0694	0.0159	439.3	138.8	6.1	6.1
14	928.3	0.0009	0.0213	218.4	370.8	1.13	1.67	1.46	1.11	0.91	0.85	148.2	13.57	0.0686	0.0163	429.6	138.1	5.9	5.9
16	982.3	0.0009	0.0200	221.3	371.7	1.14	1.66	1.47	1.12	0.91	0.86	144.3	13.71	0.0679	0.0166	419.8	137.4	5.6	5.6
18	1038.5	0.0009	0.0188	224.3	372.5	1.15	1.66	1.49	1.14	0.91	0.87	140.6	13.86	0.0672	0.0169	410.0	136.7	5.4	5.4
20	1097.2	0.0009	0.0178	227.3	373.3	1.16	1.66	1.50	1.16	0.92	0.87	136.9	14.01	0.0664	0.0172	400.1	135.9	5.1	5.1
22	1158.2	0.0009	0.0167	230.3	374.0	1.17	1.66	1.52	1.19	0.92	0.88	133.3	14.17	0.0657	0.0175	390.1	135.1	4.9	4.9
24	1221.8	0.0010	0.0158	233.3	374.7	1.18	1.66	1.53	1.21	0.92	0.89	129.8	14.33	0.0650	0.0178	380.2	134.2	4.7	4.7
26	1288.0	0.0010	0.0149	236.3	375.4	1.19	1.66	1.55	1.23	0.93	0.90	126.4	14.50	0.0643	0.0181	370.1	133.3	4.4	4.4
28	1356.8	0.0010	0.0140	239.4	376.0	1.20	1.66	1.57	1.26	0.93	0.90	123.0	14.67	0.0635	0.0185	360.0	132.4	4.2	4.2
30	1428.3	0.0010	0.0132	242.5	376.6	1.21	1.66	1.59	1.29	0.93	0.91	119.7	14.85	0.0628	0.0189	349.8	131.4	4.0	4.0
32	1502.7	0.0010	0.0125	245.7	377.2	1.22	1.66	1.61	1.32	0.94	0.92	116.5	15.04	0.0621	0.0193	339.5	130.3	3.7	3.7
34	1579.8	0.0010	0.0118	248.9	377.7	1.23	1.65	1.64	1.36	0.94	0.93	113.3	15.24	0.0614	0.0197	329.2	129.2	3.5	3.5
36	1660.0	0.0010	0.0111	252.1	378.2	1.24	1.65	1.66	1.40	0.95	0.94	110.1	15.45	0.0607	0.0201	318.8	128.0	3.3	3.3
38	1743.1	0.0010	0.0104	255.4	378.6	1.26	1.65	1.69	1.44	0.95	0.94	107.0	15.67	0.0600	0.0206	308.2	126.7	3.1	3.1
40	1829.4	0.0010	0.0098	258.7	378.9	1.27	1.65	1.72	1.49	0.96	0.95	103.9	15.90	0.0592	0.0211	297.6	125.4	2.8	2.8
42	1918.9	0.0010	0.0093	262.0	379.2	1.28	1.65	1.76	1.54	0.96	0.96	100.9	16.14	0.0585	0.0216	286.8	124.1	2.6	2.6
44	2011.6	0.0011	0.0087	265.5	379.4	1.29	1.65	1.80	1.60	0.96	0.97	97.9	16.40	0.0578	0.0222	275.9	122.6	2.4	2.4
46	2107.8	0.0011	0.0082	268.9	379.6	1.30	1.64	1.85	1.67	0.97	0.98	94.9	16.68	0.0571	0.0228	264.8	121.1	2.2	2.2
48	2207.4	0.0011	0.0077	272.5	379.6	1.31	1.64	1.90	1.76	0.98	0.99	91.9	16.98	0.0564	0.0235	253.6	119.5	2.0	2.0
50	2310.6	0.0011	0.0072	276.1	379.5	1.32	1.64	1.96	1.85	0.98	1.00	88.9	17.30	0.0557	0.0243	242.2	117.9	1.8	1.8
52	2417.5	0.0011	0.0068	279.8	379.3	1.33	1.64	2.03	1.97	0.99	1.02	85.9	17.66	0.0551	0.0251	230.6	116.1	1.6	1.6
54	2528.3	0.0012	0.0064	283.6	379.0	1.34	1.63	2.12	2.10	1.00	1.03	82.8	18.05	0.0544	0.0260	218.7	114.3	1.4	1.4
56	2643.0	0.0012	0.0059	287.5	378.5	1.35	1.63	2.23	2.27	1.00	1.04	79.7	18.48	0.0537	0.0271	206.5	112.4	1.2	1.2
58	2761.8	0.0012	0.0055	291.5	377.8	1.36	1.62	2.36	2.49	1.01	1.05	76.6	18.97	0.0531	0.0283	194.0	110.4	1.0	1.0
60	2884.9	0.0012	0.0051	295.7	376.9	1.38	1.62	2.54	2.79	1.02	1.07	73.4	19.54	0.0525	0.0297	181.1	108.2	0.8	0.8
62	3012.4	0.0013	0.0048	300.1	375.7	1.39	1.61	2.79	3.19	1.04	1.09	70.0	20.20	0.0520	0.0314	167.7	106.0	0.7	0.7
64	3144.6	0.0013	0.0044	304.8	374.0	1.40	1.61	3.17	3.80	1.05	1.10	66.5	21.00	0.0516	0.0335	153.7	103.6	0.5	0.5
66	3281.8	0.0014	0.0040	309.8	371.8	1.42	1.60	3.79	4.81	1.07	1.13	62.7	22.00	0.0515	0.0363	139.0	101.0	0.3	0.3
68	3424.2	0.0014	0.0036	315.5	368.6	1.43	1.59	5.07	6.80	1.09	1.15	58.3	23.37	0.0520	0.0403	123.4	98.3	0.2	0.2
70	3572.5	0.0015	0.0031	322.5	363.6	1.45	1.57	9.03	12.52	1.13	1.19	52.8	25.53	0.0541	0.0475	106.6	95.0	0.1	0.1

Refer to the NIST Database 23 - RefProp 7.0, created by Cheng-Te Lin, Kuenling refrigerating machinery Co., LTD.