

饱和水和饱和蒸汽的热力学 参数表

C1 水和水蒸气性质参数的名称、符号和单位

性质参数名称	符号	单位符号	备 注
热力学温度	T	K	$t = T - T_0$ $T_0 = 273.16^\circ\text{C}$ t_s —饱和温度 “' ”—饱和水参数 “'' ”—饱和水蒸气参数 表 C4 中, 粗水平线上区为不饱和 过冷水参数, 下区为过热蒸汽
摄氏温度	T	$^\circ\text{C}$	
绝对压力	P	Pa(MPa)	
比体积	v	m^3/kg	
密度	ρ	kg/m^3	
焓	H	kJ/kg	
蒸发热	r	kJ/kg	

C2 饱和水和饱和蒸汽的热力学基本参数 (按压力排列) 表 (2)

P /MPa	T / $^\circ\text{C}$	v' /(m^3/kg)	v'' /(m^3/kg)	h' /(kJ/kg)	h'' /(kJ/kg)	R /(kJ/kg)
0.0010	6.9828	0.0010001	129.209	29.34	2514.4	2485.0
0.0015	13.0356	0.0010006	87.982	54.71	2525.5	2470.7
0.0020	17.5127	0.0010012	67.006	73.46	2533.6	2460.2
0.0025	21.0963	0.0010020	54.256	88.45	2540.2	2451.7
0.0030	24.0996	0.0010027	45.667	101.00	2545.6	2444.6
0.0035	26.6936	0.0010033	39.479	111.85	2550.4	2438.5
0.0040	28.9826	0.0010040	34.802	121.41	25545	2433.1
0.0045	31.0348	0.0010046	31.141	129.99	2558.2	2428.2
0.0050	32.8976	0.0010052	28.194	137.77	2561.6	2423.8
0.0055	34.6052	0.0010058	25.771	144.91	2564.7	2419.8
0.0060	36.1832	0.0010064	23.741	151.50	2567.5	2416.0
0.0065	37.6512	0.0010069	22.016	157.64	2570.2	2412.5
0.0070	39.0246	0.0010074	20.531	163.38	2572.6	2409.2
0.0075	40.3156	0.0010079	19.239	168.77	2574.9	2406.2
0.0080	41.5343	0.0010084	18.105	173.86	2577.1	2403.2
0.0085	42.6891	0.0010089	17.100	178.69	2579.2	2400.5
0.0090	43.7867	0.0010094	16.204	183.28	2581.1	2397.9
0.0095	44.8329	0.0010098	15.400	187.65	2583.0	2395.3
0.010	45.8328	0.0010102	14.675	191.83	2584.8	2392.9
0.011	47.7099	0.0010111	13.416	199.68	2588.1	2388.4
0.012	49.4458	0.0010119	12.362	206.94	2591.2	2384.3
0.013	51.0617	0.0010126	11.466	213.70	2594.0	2380.3
0.014	52.5743	0.0010133	10.694	220.02	2596.7	2376.7
0.015	53.9971	0.0010140	10.023	225.97	2599.2	2373.2
0.016	55.3410	0.0010147	9.4331	231.60	2601.6	2370.0
0.017	56.6149	0.0010154	8.9110	236.93	2603.8	2366.9
0.018	57.8264	0.0010160	8.4452	241.99	2605.9	2363.9
0.019	58.9818	0.0010166	8.0272	246.83	2607.9	2361.1
0.020	60.0864	0.0010172	7.6498	251.45	2609.9	2358.4

P /MPa	T /°C	v' /(m ³ /kg)	v'' /(m ³ /kg)	h' /(kJ/kg)	h'' /(kJ/kg)	R /(kJ/kg)
0.021	61.1450	0.0010178	7.3073	255.88	2611.7	2355.8
0.022	62.1615	0.0010183	6.9951	260.14	2613.5	2353.3
0.023	63.1395	0.0010189	6.7093	264.23	2615.2	2350.9
0.024	64.0819	0.0010194	6.4467	268.18	2616.8	2348.6
0.025	64.9916	0.0010199	6.2045	271.99	2618.3	2346.4
0.026	65.8709	0.0010204	5.9803	275.67	2619.9	2344.2
0.027	66.7220	0.0010209	5.7724	279.24	2621.3	2342.1
0.028	67.5467	0.0010214	5.5788	282.69	2622.7	2340.0
0.029	68.3469	0.0010219	5.3982	286.05	2624.1	2339.1
0.030	69.1240	0.0010223	5.2293	289.30	2625.4	2336.1
0.032	70.6147	0.0010232	4.9223	295.55	2628.0	2332.4
0.034	72.0286	0.0010241	4.6504	301.48	2630.4	2328.9
0.036	73.3740	0.0010249	4.4078	307.12	2632.6	2325.5
0.038	74.6576	0.0010257	4.1900	312.50	2634.8	2322.3
0.040	75.8856	0.0010265	3.9934	317.65	2636.9	2319.2
0.045	78.7432	0.0010284	3.5762	329.64	2641.7	2312.0
0.050	81.3453	0.0010301	3.2402	340.56	2646.0	2305.4
0.055	83.7375	0.0010317	2.9636	350.61	2649.9	2299.3
0.060	85.9539	0.0010333	2.7318	359.93	2653.6	2293.6
0.065	88.0209	0.0010347	2.5346	368.62	2656.9	2288.3
0.070	89.9591	0.0010361	2.3647	376.77	2660.1	2283.3
0.075	91.7851	0.0010375	2.2169	384.45	2663.0	2278.6
0.080	93.5124	0.0010387	2.0870	391.72	2665.8	2274.0
0.085	95.1520	0.0010400	1.9719	398.63	2668.4	2269.8
0.090	96.7134	0.0010412	1.8692	405.21	2670.0	2265.6
0.095	98.2044	0.0010423	1.7770	411.49	2673.2	2261.7
0.10	99.632	0.0010434	1.6937	417.51	2675.4	2257.9
0.11	102.317	0.0010455	1.5492	428.84	2679.6	2250.8
0.12	104.808	0.0010476	1.4281	439.36	2683.4	2244.1
0.13	107.133	0.0010495	1.3251	449.19	2687.0	2237.8
0.14	109.315	0.0010513	1.2363	458.42	2690.3	2231.9
0.15	111.372	0.0010530	1.1590	467.13	2693.4	2226.2
0.16	113.320	0.0010547	1.0911	475.38	2696.2	2220.9
0.17	115.170	0.0010563	1.0309	483.22	2699.0	2215.7
0.18	116.933	0.0010579	0.97723	490.70	2701.5	2210.8
0.19	118.617	0.0010594	0.92900	497.85	2704.0	2206.1
0.20	120.231	0.0010608	0.88544	504.70	2706.3	2201.6
0.21	121.780	0.0010623	0.84590	511.29	2708.5	2197.2
0.22	123.270	0.0010636	0.80984	517.62	2710.6	2193.0
0.23	124.705	0.0010650	0.77681	523.73	2712.6	2188.9
0.24	126.091	0.0010663	0.74645	529.63	2714.5	2184.9
0.25	127.430	0.0010675	0.71844	535.34	2716.4	2181.0
0.26	128.727	0.0010688	0.69251	540.87	2718.2	2177.3

P /MPa	T /°C	v' /(m ³ /kg)	v'' /(m ³ /kg)	h' /(kJ/kg)	h'' /(kJ/kg)	R /(kJ/kg)
0.27	129.984	0.0010700	0.66844	546.24	2719.9	2173.6
0.28	131.203	0.0010712	0.64604	551.44	2721.5	2170.1
0.29	132.388	0.0010724	0.62513	556.51	2723.1	2166.6
0.30	133.540	0.0010735	0.60556	561.43	2724.7	2163.2
0.31	134.661	0.0010746	0.58722	566.23	2726.1	2159.9
0.32	135.754	0.0010757	0.56999	570.90	2727.6	2156.7
0.33	136.819	0.0010768	0.55376	575.46	2729.0	2153.5
0.34	137.858	0.0010779	0.53846	579.92	2730.3	2150.4
0.35	138.873	0.0010789	0.52400	584.27	2731.6	2147.4
0.36	139.865	0.0010799	0.51032	588.53	2732.9	2144.4
0.37	140.835	0.0010809	0.49736	592.69	2734.1	2141.4
0.38	141.784	0.0010819	0.48505	596.76	2735.3	2138.6
0.39	142.713	0.0010829	0.47336	600.76	2736.5	2135.7
0.40	143.623	0.0010839	0.46222	604.67	2737.6	2133.0
0.41	144.515	0.0010848	0.45162	608.51	2738.7	2130.2
0.42	145.390	0.0010858	0.44150	612.27	2739.8	2127.5
0.43	146.248	0.0010867	0.43184	615.97	2740.9	2124.9
0.44	147.090	0.0010876	0.42260	619.60	2741.9	2122.3
0.45	147.917	0.0010885	0.41375	623.16	2742.9	2119.7
0.46	148.729	0.0010894	0.40528	626.67	2743.9	2117.2
0.47	149.528	0.0010903	0.39716	630.11	2744.8	2114.7
0.48	150.313	0.0010911	0.38936	633.50	2745.7	2112.2
0.49	151.084	0.0010920	0.38188	636.83	2746.6	2109.8
0.50	151.844	0.0010928	0.37468	640.12	2747.5	2107.4
0.52	153.327	0.0010945	0.36108	646.53	2749.3	2102.7
0.54	154.765	0.0010961	0.34846	652.76	2750.9	2098.1
0.56	156.161	0.0010977	0.32671	658.81	2752.5	2093.3
0.58	157.518	0.0010993	0.32574	664.69	2754.0	2089.3
0.60	158.838	0.0011009	0.31547	670.42	2755.5	2085.0
0.62	160.123	0.0011024	0.30585	676.01	2756.9	2080.9
0.64	161.376	0.0011039	0.29681	681.46	2758.2	2076.8
0.66	162.598	0.0011053	0.28830	686.78	2759.5	2072.7
0.68	163.791	0.0011068	0.28027	691.98	2760.6	2068.8
0.70	164.956	0.0011082	0.27268	697.06	2762.0	2064.9
0.72	166.095	0.0011096	0.26550	702.04	2763.2	2061.1
0.74	167.209	0.0011110	0.25870	706.90	2764.3	2057.4
0.76	168.300	0.0011123	0.25224	711.68	2765.4	2053.7
0.78	169.368	0.0011137	0.24610	716.35	2766.4	2050.1
0.80	170.415	0.0011150	0.24026	720.94	2767.5	2046.5
0.82	171.441	0.0011163	0.23469	725.44	2768.5	2043.0
0.84	172.448	0.0011176	0.22938	729.85	2769.4	2039.6
0.86	173.436	0.0011188	0.22430	734.19	2770.4	2036.2

0.88	174.405	0.0011201	0.21945	738.45	2771.3	2032.8
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P /MPa	T /°C	v' /(m ³ /kg)	v'' /(m ³ /kg)	h' /(kJ/kg)	h'' /(kJ/kg)	R /(kJ/kg)
0.90	175.358	0.0011213	0.21481	742.64	2772.1	2029.5
0.92	176.294	0.0011226	0.21036	746.77	2773.0	2026.2
0.94	177.214	0.0011238	0.20610	750.82	2773.8	2023.0
0.96	178.119	0.0011250	0.20201	754.81	2774.6	2019.8
0.98	179.009	0.0011262	0.19807	758.74	2775.4	2016.7
1.00	179.884	0.0011274	0.19429	762.61	2776.2	2013.6
1.05	182.015	0.0011303	0.18545	772.03	2778.0	2005.9
1.10	184.067	0.0011331	0.17738	781.13	2779.7	1998.5
1.15	186.048	0.0011359	0.16999	789.92	2781.3	1991.3
1.20	187.961	0.0011386	0.16320	798.43	2782.7	1984.3
1.25	189.814	0.0011412	0.15693	806.69	2784.1	1997.4
1.30	191.609	0.0011438	0.15113	814.70	2785.4	1970.7
1.35	193.350	0.0011464	0.14574	822.49	2786.6	1964.2
1.40	195.042	0.0011489	0.14072	830.07	2787.8	1957.7
1.45	196.688	0.0011514	0.13604	837.46	2788.9	1951.4
1.50	198.289	0.0011539	0.13166	844.67	2789.9	1945.2
1.55	199.850	0.0011563	0.12755	851.70	2790.8	1939.2
1.60	201.372	0.0011586	0.12369	858.56	2791.7	1933.2
1.65	202.857	0.0011610	0.12005	865.28	2792.6	1927.3
1.70	204.307	0.0011633	0.11662	871.84	2793.4	1921.5
1.75	205.725	0.0011656	0.11338	878.28	2794.1	1915.9
1.80	207.111	0.0011678	0.11032	884.57	2794.8	1910.3
1.85	208.468	0.0011701	0.10741	890.75	2795.5	1904.7
1.90	209.797	0.0011723	0.10465	896.81	2796.1	1899.3
1.95	211.099	0.0011744	0.10203	902.75	2796.7	1893.9
2.00	212.375	0.0011766	0.099536	908.59	2797.2	1888.6
2.05	213.626	0.0011787	0.097158	914.33	2797.7	1883.4
2.10	214.855	0.0011809	0.094890	919.96	2798.2	1878.2
2.15	216.060	0.0011830	0.092723	925.50	2798.6	1873.1
2.20	217.244	0.0011850	0.090652	930.95	2799.1	1868.1
2.25	218.408	0.0011871	0.088669	936.32	2799.4	1863.1
2.30	219.552	0.0011892	0.086769	941.60	2799.8	1858.2
2.35	220.676	0.0011912	0.084948	946.81	2800.1	1853.3
2.40	221.783	0.0011932	0.083199	951.93	2800.4	1848.5
2.45	222.871	0.0011952	0.081520	956.98	2800.7	1843.7
2.50	223.943	0.0011972	0.079905	961.96	2800.9	1839.0
2.55	224.998	0.0011991	0.078352	966.88	2801.2	1834.3
2.60	226.037	0.0012011	0.076856	971.72	2801.4	1829.6
2.65	227.061	0.0012031	0.075415	976.50	2801.6	1825.0
2.70	228.071	0.0012050	0.074025	981.22	2801.7	1820.5
2.75	229.066	0.0012069	0.072684	985.88	2801.9	1816.0

2.80	230.047	0.0012088	0.071389	990.49	2802.0	1811.5
2.85	231.014	0.0012107	0.070138	995.03	2802.1	1807.0

P /MPa	T /°C	v' /(m ³ /kg)	v'' /(m ³ /kg)	h' /(kJ/kg)	h'' /(kJ/kg)	R /(kJ/kg)
2.90	231.969	0.0012126	0.068928	999.53	2802.2	1802.6
2.95	232.911	0.0012145	0.067758	1003.97	2802.2	1798.2
3.0	233.841	0.0012163	0.066626	1008.4	2802.3	1793.9
3.1	235.666	0.0012200	0.064467	1017.0	2802.3	1785.4
3.2	237.445	0.0012237	0.062439	1025.4	2802.3	1776.9
3.3	239.183	0.0012274	0.060529	1033.7	2802.3	1768.6
3.4	240.881	0.0012310	0.058728	1041.8	2802.1	1760.3
3.5	242.540	0.0012345	0.057025	1049.8	2802.0	1752.2
3.6	244.164	0.0012381	0.055415	1057.6	2801.7	1744.2
3.7	245.754	0.0012416	0.053888	1065.2	2801.4	1736.2
3.8	247.311	0.0012451	0.052438	1072.7	2801.1	1728.4
3.9	248.836	0.0012486	0.051061	1080.1	2800.8	1720.6
4.0	250.333	0.0012521	0.049749	1087.4	2800.3	1712.9
4.1	251.800	0.0012555	0.048500	1094.6	2799.9	1705.8
4.2	253.241	0.0012589	0.047307	1101.6	2799.4	1697.8
4.3	254.656	0.0012623	0.046168	1108.5	2798.9	1690.3
4.4	256.045	0.0012657	0.045079	1115.4	2798.3	1682.9
4.5	257.411	0.0012691	0.044037	1122.1	2797.7	1675.6
4.6	278.754	0.0012725	0.043038	1123.8	2797.0	1668.8
4.7	260.074	0.0012758	0.042081	1135.8	2796.4	1661.1
4.8	261.373	0.0012792	0.041161	1141.8	2795.7	1653.9
4.9	262.652	0.0012825	0.040278	1148.2	2794.9	1646.8
5.0	263.911	0.0012858	0.039429	1154.5	2794.2	1639.7
5.1	265.151	0.0012891	0.038611	1160.7	2793.4	1632.7
5.2	266.373	0.0012924	0.037824	1166.9	2792.6	1625.7
5.3	267.576	0.0012957	0.037066	1172.9	2791.7	1618.8
5.4	268.763	0.0012990	0.036334	1178.9	2790.8	1611.9
5.5	269.933	0.0013023	0.035628	1184.9	2789.9	1605.0
5.6	271.086	0.0013056	0.034946	1190.8	2789.0	1598.2
5.7	272.224	0.0013089	0.034288	1196.6	2788.0	1591.4
5.8	273.347	0.0013121	0.033651	1202.4	2787.0	1584.7
5.9	274.456	0.0013154	0.033034	1208.1	2786.0	1578.0
6.0	275.550	0.0013187	0.032438	1213.7	2785.0	1571.3
6.1	276.630	0.0013219	0.031860	1219.3	2783.9	1564.7
6.2	277.697	0.0013252	0.031300	1224.8	2782.9	1558.0
6.3	278.750	0.0013285	0.030757	1230.3	2781.8	1551.5
6.4	279.791	0.0013317	0.030230	1235.8	2780.6	1544.9
6.5	280.820	0.0013350	0.029719	1241.1	2779.5	1538.4
6.6	281.837	0.0013383	0.029223	1246.5	2778.3	1531.8
6.7	282.842	0.0013415	0.028741	1251.8	2777.1	1525.4

6.8	283.836	0.0013448	0.028272	1257.0	2775.9	1517.9
6.9	284.818	0.0013481	0.027817	1262.2	2774.7	1512.5
7.0	285.790	0.0013513	0.027373	1267.4	2773.5	1506.0

P /MPa	T /°C	v' /(m ³ /kg)	v'' /(m ³ /kg)	h' /(kJ/kg)	h'' /(kJ/kg)	R /(kJ/kg)
7.1	286.751	0.0013546	0.026942	1272.6	2772.2	1499.6
7.2	287.702	0.0013579	0.026522	1277.6	2770.9	1493.2
7.3	288.643	0.0013611	0.26113	1282.7	2769.6	1486.9
7.4	289.574	0.0013644	0.025715	1287.7	2768.3	1480.5
7.5	290.496	0.0013677	0.025327	1292.7	2766.9	1474.2
7.6	291.408	0.0013710	0.024949	1297.6	2766.5	1467.9
7.7	292.311	0.0013743	0.024580	1302.6	2764.2	1461.6
7.8	293.205	0.0013776	0.024220	1307.4	2762.8	1455.3
7.9	294.091	0.0013809	0.023868	1312.3	2761.3	1449.0
8.0	294.968	0.0013842	0.023525	1317.1	2759.9	1442.8
8.1	295.836	0.0013876	0.023190	1321.9	2758.4	1436.6
8.2	296.697	0.0013909	0.022863	1326.6	2757.0	1430.3
8.3	297.549	0.0013942	0.022544	1331.4	2755.5	1424.1
8.4	298.394	0.0013976	0.022231	1336.1	2754.0	1417.9
8.5	299.231	0.0014009	0.021926	1340.7	2752.5	1411.7
8.6	300.069	0.0014043	0.021627	1345.4	2750.0	1405.5
8.7	300.882	0.0014077	0.021335	1350.0	2749.4	1399.3
8.8	301.697	0.0014111	0.021049	1354.6	2747.8	1393.2
8.9	302.505	0.0014145	0.020769	1359.2	2746.2	1387.0
9.0	303.306	0.0014179	0.020495	1363.7	2744.6	1380.9
9.1	304.100	0.0014213	0.020227	1372.8	2743.0	1374.7
9.2	304.888	0.0014247	0.019964	1372.8	2741.3	1368.6
9.3	305.668	0.0014281	0.019707	1377.2	2739.7	1362.5
9.4	306.443	0.0014316	0.019455	1381.7	2738.0	1356.3
9.5	307.211	0.0014351	0.019208	1386.1	2736.4	1350.2
9.6	307.973	0.0014385	0.018965	1390.6	2734.7	1344.1
9.7	308.729	0.0014420	0.018728	1395.0	2733.0	1338.0
9.8	309.479	0.0014455	0.18494	1399.3	2731.2	1331.9
9.9	310.222	0.0014190	0.018266	1403.7	2729.5	1325.8
10.0	310.961	0.0014526	0.018041	1408.0	2727.7	1319.7
10.2	312.420	0.0014597	0.017605	1416.7	2724.2	1307.5
10.4	313.858	0.0014668	0.017184	1425.2	2720.6	1295.3
10.6	315.274	0.0014741	0.016778	1433.7	2716.9	1283.1
10.8	316.670	0.0014814	0.016385	1442.2	2713.1	1270.9
11.0	318.045	0.0014887	0.016006	1450.6	2709.3	1258.7
11.2	319.402	0.0014962	0.015639	1458.9	2705.4	1246.5
11.4	320.740	0.0015037	0.015284	1467.2	2701.5	1234.3
11.6	322.059	0.0015113	0.014940	1475.4	2697.4	1222.0
11.8	323.361	0.0015190	0.014607	1483.6	2693.3	1209.7

12.0	324.646	0.0015268	0.014283	1491.8	2689.2	1197.4
12.2	325.914	0.0015346	0.013969	1499.9	2684.9	1185.0
12.4	327.165	0.0015426	0.013664	1508.0	2680.6	1172.6
12.6	328.401	0.0015507	0.013367	1516.0	2676.1	1160.1

P /MPa	T /°C	v' /(m ³ /kg)	v'' /(m ³ /kg)	h' /(kJ/kg)	h'' /(kJ/kg)	R /(kJ/kg)
12.8	329.622	0.00155899	0.013078	1524.0	2671.6	1147.6
13.0	330.827	0.0015672	0.012797	1532.0	2667.0	1135.0
13.2	332.018	0.0015756	0.012523	1540.0	2662.3	1122.3
13.4	333.194	0.0015842	0.012256	1547.9	2657.4	1109.5
13.6	334.357	0.0015928	0.011996	1555.8	2652.5	1096.7
13.8	335.506	0.0016017	0.011743	1563.8	2647.5	1083.8
14.0	336.342	0.0016016	0.011495	1571.6	2642.4	1070.7
14.2	337.764	0.0016197	0.011253	1579.5	2637.1	1057.6
14.4	338.874	0.0016290	0.011017	1587.4	2631.8	1044.4
14.6	339.972	0.0016385	0.010786	1595.3	2626.3	1031.0
14.8	341.057	0.0016481	0.010561	1603.1	2620.7	1017.6
15.0	342.131	0.0016579	0.010340	1611.0	2615.0	1004.0
15.2	343.193	0.0016679	0.010125	1618.9	2609.2	990.3
15.4	344.243	0.0016782	0.009914	1626.8	2603.3	976.5
15.6	345.282	0.0016886	0.009707	1634.7	2597.3	962.6
15.8	346.311	0.0016993	0.009505	1642.6	2591.1	948.5
16.0	347.328	0.0017103	0.009308	1650.5	2584.9	934.3
16.2	348.336	0.0017216	0.009114	1658.5	2578.5	920.0
16.4	349.332	0.0017331	0.008925	1666.5	2572.1	905.5
16.6	350.319	0.0017448	0.008738	1674.5	2565.5	891.0
16.8	351.296	0.0017570	0.008553	1683.0	2558.6	875.6
17.0	352.263	0.0017696	0.008371	1691.7	2551.6	859.9
17.2	353.220	0.0017826	0.008191	1700.4	2544.4	844.1
17.4	354.168	0.0017961	0.008014	1709.0	2537.1	828.1
17.6	355.107	0.0018101	0.007839	1717.6	2529.5	811.9
17.8	356.036	0.0018247	0.007667	1726.2	2521.8	795.6
18.0	356.957	0.0018399	0.007498	1734.8	2513.9	779.1
18.2	357.869	0.0018556	0.007330	1743.5	2505.8	762.3
18.4	358.772	0.0018721	0.007165	1752.1	2497.4	745.3
18.6	359.666	0.0018893	0.007001	1760.9	2488.8	727.9
18.8	360.553	0.0019072	0.006839	1769.7	2479.9	710.1
19.0	361.431	0.0019260	0.006678	1778.7	2470.6	692.0
19.2	362.301	0.0019458	0.006517	1787.8	2461.1	673.3
19.4	363.163	0.0019666	0.006358	1797.0	2451.1	654.1
19.6	364.017	0.0019886	0.006198	1806.6	2440.7	634.2
19.8	364.863	0.0020120	0.006038	1816.3	2429.8	613.5
20.0	365.702	0.0020370	0.005877	1826.5	2418.4	591.9
20.2	366.533	0.0020639	0.005714	1837.0	2406.2	569.2

20.4	367.357	0.0020931	0.005548	1848.1	2393.3	545.1
20.6	368.173	0.0021252	0.005379	1859.9	2379.4	519.5
20.8	368.982	0.0021610	0.005205	1872.5	2364.2	491.7
21.0	369.784	0.0022015	0.005023	1886.3	2347.6	461.3
21.2	370.580	0.0022488	0.004831	1901.5	2328.9	427.4

P /MPa	T /°C	v' /(m ³ /kg)	v'' /(m ³ /kg)	h' /(kJ/kg)	h'' /(kJ/kg)	R /(kJ/kg)
21.4	371.368	0.0023061	0.004624	1919.0	2307.4	388.4
21.6	372.149	0.0023793	0.004392	1940.0	2281.6	341.6
21.8	372.924	0.0024832	0.004115	1967.2	2248.0	280.8
22.0	373.692	0.0026713	0.003728	2011.1	2195.6	184.5
22.12	374.15		0.00317			2107.4

控制阀大全