

参考资料

1. 换算表

1) 温度换算表 (°C ↔ °F)

首先，在 ↓ 栏找出被换算值，然后读出其右(左)栏的读数，即可求出换算值。

例:

5°C → 41.0°F		
°C	↓	°F
-15.0	5	41.0
-15.0°C ← 5°F		

温度换算式: °C = 5/9 (°F - 32)
°F = 9/5 × °C + 32

°C	↓	°F	°C	↓	°F	°C	↓	°F	°C	↓	°F	°C	↓	°F
-101.1	-150	-238.0	-37.2	-35	-31.0	-23.3	-10	14.0	-9.4	15	59.0	4.4	40	104.0
-95.6	-140	-220.0	-36.7	-34	-29.2	-22.8	-9	15.8	-8.9	16	60.8	5.0	41	105.8
-90.0	-130	-202.0	-36.1	-33	-27.4	-22.2	-8	17.6	-8.3	17	62.6	5.6	42	107.6
-84.4	-120	-184.0	-35.6	-32	-25.6	-21.7	-7	19.4	-7.8	18	64.4	6.1	43	109.4
-78.9	-110	-166.0	-35.0	-31	-23.8	-21.1	-6	21.2	-7.2	19	66.2	6.7	44	111.2
-73.3	-100	-148.0	-34.4	-30	-22.0	-20.6	-5	23.0	-6.7	20	68.0	7.2	45	113.0
-67.8	-90	-130.0	-33.9	-29	-20.2	-20.0	-4	24.8	-6.1	21	69.8	7.8	46	114.8
-62.2	-80	-112.0	-33.3	-28	-18.4	-19.4	-3	26.6	-5.6	22	71.6	8.3	47	116.6
-56.7	-70	-94.0	-32.8	-27	-16.6	-18.9	-2	28.4	-5.0	23	73.4	8.9	48	118.4
-51.1	-60	-76.0	-32.2	-26	-14.8	-18.3	-1	30.2	-4.4	24	75.2	9.4	49	120.2
-45.6	-50	-58.0	-31.7	-25	-13.0	-17.8	0	32.0	-3.9	25	77.0	10.0	50	122.0
-45.0	-49	-56.2	-31.1	-24	-11.2	-17.2	1	33.8	-3.3	26	78.8	15.6	60	140.0
-44.4	-48	-54.4	-30.6	-23	-9.4	-16.7	2	35.6	-2.8	27	80.6	21.1	70	158.0
-43.8	-47	-52.6	-30.0	-22	-7.6	-16.1	3	37.4	-2.2	28	82.4	26.7	80	176.0
-43.3	-46	-50.8	-29.4	-21	-5.8	-15.6	4	39.2	-1.7	29	84.2	32.2	90	194.0
-42.8	-45	-49.0	-28.9	-20	-4.0	-15.0	5	41.0	-1.1	30	86.0	37.8	100	212.0
-42.2	-44	-47.2	-28.3	-19	-2.2	-14.4	6	42.8	-0.6	31	87.8	43.3	110	230.0
-41.7	-43	-45.4	-27.8	-18	-0.4	-13.9	7	44.6	0	32	89.6	48.9	120	248.0
-41.1	-42	-43.6	-27.2	-17	1.4	-13.3	8	46.4	0.6	33	91.4	54.4	130	266.0
-40.6	-41	-41.8	-26.7	-16	3.2	-12.8	9	48.2	1.1	34	93.2	60.0	140	284.0
-40.0	-40	-40.0	-26.1	-15	5.0	-12.2	10	50.0	1.7	35	95.0	65.6	150	302.0
-39.4	-39	-38.2	-25.6	-14	6.8	-11.7	11	51.8	2.2	36	96.8	71.1	160	320.0
-38.9	-38	-36.4	-25.0	-13	8.6	-11.1	12	53.6	2.8	37	98.6	76.7	170	338.0
-38.3	-37	-34.6	-24.4	-12	10.4	-10.6	13	55.4	3.3	38	100.4	82.2	180	356.0
-37.8	-36	-32.8	-23.9	-11	12.2	-10.0	14	57.2	3.9	39	102.2	87.8	190	374.0

2) 温差换算表 (°C ↔ °F)

°C	↓	°F	°C	↓	°F
0.056	0.1	0.18	3.33	6	10.8
0.111	0.2	0.36	3.89	7	12.6
0.278	0.5	0.90	4.44	8	14.4
0.56	1	1.8	5.00	9	16.2
1.11	2	3.6	5.56	10	18.0
1.67	3	5.4	6.11	11	19.8
2.22	4	7.2	6.67	12	21.6
2.78	5	9.0	8.33	15	27.0

左表为温度的单位量的比较表。例如, 20°C ↔ 25°C 的温差为 5°C, 便能知道等于 68°F → 77°F 的温差 9°F。

3) 压力换算表 (kgf/cm² ↔ MPa)

例: 1 MPa=10.1972kgf/cm², 1kgf/cm²=0.09807 MPa

kgf/cm²	↓	MPa	kgf/cm²	↓	MPa	kgf/cm²	↓	MPa	kgf/cm²	↓	MPa
0	0	0	214.141	21	2.05940	520.057	51	5.00139	825.973	81	7.94339
1.01972	0.1	0.009806	224.338	22	2.15746	530.254	52	5.09946	836.170	82	8.04145
2.03944	0.2	0.019613	234.535	23	2.25553	540.451	53	5.19752	846.367	83	8.13952
3.05916	0.3	0.029420	244.732	24	2.35360	550.648	54	5.29559	856.564	84	8.23759
4.07888	0.4	0.039226	254.930	25	2.45166	560.846	55	5.39366	866.762	85	8.33565
5.09860	0.5	0.049033	265.127	26	2.54973	571.043	56	5.49172	876.959	86	8.43372
6.11832	0.6	0.058839	275.324	27	2.64780	581.240	57	5.58279	887.156	87	8.53179
7.13804	0.7	0.068646	285.521	28	2.74586	591.437	58	5.68786	897.353	88	8.62985
8.15776	0.8	0.078453	295.718	29	2.84393	601.634	59	5.78592	907.550	89	8.72792
9.17748	0.9	0.088259	305.916	30	2.94199	611.832	60	5.88399	917.748	90	8.82598
10.1972	1	0.09807	316.113	31	3.04006	622.029	61	5.98206	927.945	91	8.92405
20.3944	2	0.19613	326.310	32	3.18313	632.226	62	6.08012	938.142	92	9.02212
30.5916	3	0.29420	336.507	33	3.23619	642.423	63	6.17819	948.339	93	9.12018
40.7888	4	0.39227	346.704	34	3.33426	652.620	64	6.27626	958.536	94	9.21825
50.9860	5	0.49033	356.902	35	3.43233	662.818	65	6.37432	968.734	95	9.31632
61.1832	6	0.58840	367.099	36	3.53039	673.015	66	6.47239	978.931	96	9.41438
71.3804	7	0.68647	377.296	37	3.62846	683.212	67	6.57046	989.128	97	9.51245
81.5776	8	0.78453	387.493	38	3.72653	693.409	68	6.66852	999.325	98	9.61052
91.7748	9	0.88260	397.690	39	3.82459	703.606	69	6.76659	1000.52	99	9.70858
101.972	10	0.98066	407.888	40	3.92266	713.804	70	6.86465	1019.72	100	9.80665
112.169	11	1.07873	418.085	41	4.02073	724.001	71	6.96272	1529.58	150	14.70997
122.366	12	1.17680	428.282	42	4.11879	734.198	72	7.06079	2039.44	200	19.6133
132.563	13	1.27486	438.479	43	4.21686	744.395	73	7.15885	2549.30	250	24.51662
142.760	14	1.37293	448.676	44	4.31493	754.592	74	7.25692	3059.16	300	29.41995
152.958	15	1.47100	458.874	45	4.41299	764.790	75	7.35499	3569.02	350	34.32327
163.155	16	1.56906	469.071	46	4.51106	774.987	76	7.45305	4078.88	400	39.2266
173.352	17	1.66713	479.268	47	4.60913	785.184	77	7.55112	4588.74	450	44.12992
183.549	18	1.76520	489.465	48	4.70719	795.381	78	7.64919	5098.60	500	49.03325
193.746	19	1.96133	499.662	49	4.80526	805.578	79	7.74725			
203.944	20	1.96133	509.860	50	4.90332	815.776	80	7.84532			

4) 压力换算表 (kgf/cm² ↔ psi)

kgf/cm ²	↓	psi	kgf/cm ²	↓	psi	kgf/cm ²	↓	psi	kgf/cm ²	↓	psi
0	0	0	0.773	11	156.5	2.180	31	440.9	4.218	60	853.4
0.0070	0.1	1.422	0.844	12	170.8	2.250	32	455.2	4.922	70	995.6
0.0141	0.2	2.845	0.914	13	184.9	2.320	33	469.4	5.625	80	1137.9
0.0211	0.3	4.267	0.984	14	199.1	2.390	34	483.6	6.328	90	1280.1
0.0281	0.4	5.689	1.055	15	213.4	2.461	35	497.8	7.031	100	1422.3
0.0352	0.5	7.112	1.125	16	227.6	2.531	36	512.0	7.734	110	1564.5
0.0422	0.6	8.534	1.195	17	241.8	2.601	37	526.3	8.437	120	1706.8
0.0492	0.7	9.956	1.266	18	256.0	2.672	38	540.5	9.140	130	1849.0
0.0562	0.8	11.379	1.336	19	270.2	2.742	39	554.7	9.843	140	1991.2
0.0633	0.9	12.801	1.406	20	284.5	2.812	40	568.9	10.55	150	2133.5
0.0703	1	14.22	1.477	21	298.7	2.883	41	583.2	14.06	200	2844.6
0.1406	2	28.45	1.547	22	312.9	2.953	42	597.4	21.09	300	4266.9
0.2109	3	42.67	1.617	23	327.1	3.023	43	611.6	28.12	400	5689.2
0.2812	4	56.89	1.687	24	341.4	3.094	44	625.8	35.15	500	7111.5
0.3515	5	71.12	1.758	25	355.6	3.164	45	640.1	42.18	600	8533.8
0.4218	6	85.34	1.828	26	369.8	3.234	46	654.3	49.22	700	9956.1
0.4922	7	99.56	1.898	27	384.0	3.304	47	668.5	56.25	800	11378.4
0.5625	8	113.79	1.969	28	398.3	3.375	48	682.7	63.30	900	12800.7
0.6328	9	128.01	2.039	29	412.5	3.445	49	696.9	70.31	1000	14223.0
0.7031	10	142.22	2.109	30	426.7	3.515	50	711.2			

5) 能力换算表 (kW ↔ kcal/h)

1kW ↔ 860kcal/h

kW	↓	1000 kcal/h	kW	↓	1000 kcal/h	kW	↓	1000 kcal/h	kW	↓	1000 kcal/h
0.116	0.1	0.086	1.162	1	0.86	11.62	10	8.6	116.2	100	86
0.232	0.2	0.172	2.325	2	1.72	23.25	20	17.2	232.5	200	172
0.348	0.3	0.258	3.488	3	2.58	34.88	30	25.8	348.8	300	258
0.465	0.4	0.344	4.651	4	3.44	46.51	40	34.4	465.1	400	344
0.581	0.5	0.430	5.813	5	4.33	58.13	50	43.3	581.3	500	433
0.697	0.6	0.516	6.976	6	5.16	69.76	60	51.6	697.6	600	516
0.813	0.7	0.602	8.139	7	6.02	81.39	70	60.2	813.9	700	602
0.930	0.8	0.688	9.302	8	6.88	93.02	80	68.8	930.2	800	688
1.046	0.9	0.774	10.46	9	7.74	104.6	90	77.4	104.6	900	774

6) 长度换算表 (in ↔ mm)

in	mm	in	mm
1/8	3.18	1/64	0.40
1/4	6.35	3/64	1.19
3/8	9.53	5/64	1.98
1/2	12.70	7/64	2.78
5/8	15.88	9/64	3.57
3/4	19.05	11/64	4.39
7/8	22.23	13/64	5.16
1	25.40	15/64	5.95
1/16	1.59	17/64	6.75
3/16	4.76	19/64	7.54
5/16	7.94	21/64	8.33
7/16	11.11	23/64	9.13
9/16	14.29	25/64	9.92
11/16	17.46	27/64	10.72
13/16	20.64	29/64	11.51
15/16	23.81	31/64	12.30
1/32	0.79	33/64	13.10
3/32	2.38	35/64	13.89
5/32	3.97	37/64	14.68
7/32	5.56	39/64	15.48
9/32	7.14	41/64	16.27
11/32	8.73	43/64	17.07
13/32	10.32	45/64	17.86
15/32	11.91	47/64	18.65
17/32	13.49	49/64	19.45
19/32	15.08	51/64	20.24
21/32	16.67	53/64	21.04
23/32	18.26	55/64	21.83
25/32	19.84	57/64	22.62
27/32	21.43	59/64	23.42
29/32	23.02	61/64	24.21
31/32	24.61	63/64	25.00

7) 真空度换算表 (MPa ↔ MPa (abs) ↔ cmHg ↔ kgf/cm²(abs))

MPa	MPa (abs)	cmHg v	kgf/cm ² (abs)	MPa	MPa (abs)	cmHg v	kgf/cm ² (abs)
-0.1013	0	76	0	-0.0480	0.0533	36	0.5438
-0.0987	0.0027	74	0.0272	-0.0453	0.0560	34	0.5710
-0.0960	0.0053	72	0.0544	-0.0427	0.0587	32	0.5981
-0.0933	0.0080	70	0.0816	-0.0400	0.0613	30	0.6254
-0.0907	0.0107	68	0.1088	-0.0373	0.0640	28	0.6526
-0.0880	0.0133	66	0.1360	-0.0347	0.0667	26	0.6798
-0.0853	0.0160	64	0.1631	-0.0320	0.0693	24	0.7069
-0.0827	0.0187	62	0.1903	-0.0293	0.0720	22	0.7341
-0.0800	0.0213	60	0.2175	-0.0267	0.0747	20	0.7613
-0.0773	0.0240	58	0.2447	-0.0240	0.0773	18	0.7885
-0.0747	0.0267	56	0.2719	-0.0213	0.0800	16	0.8157
-0.0720	0.0293	54	0.2991	-0.0187	0.0827	14	0.8429
-0.0693	0.0320	52	0.3263	-0.0160	0.0853	12	0.8700
-0.0667	0.0347	50	0.3535	-0.0133	0.0880	10	0.8972
-0.0640	0.0373	48	0.3806	-0.0107	0.0907	8	0.9245
-0.0613	0.0400	46	0.4078	-0.0080	0.0933	6	0.9517
-0.0587	0.0427	44	0.4350	-0.0053	0.0960	4	0.9788
-0.0560	0.0453	42	0.4622	-0.0027	0.0987	2	1.0060
-0.0533	0.0480	40	0.4894	0	0.1013	0	1.0332
-0.0507	0.0507	38	0.5166				

8) 其他

1 kg=2.20462 lb, 1 mm=0.03937 inch
 1 U.S.Refrigeration Ton=12,000Btu/h=3,024 kcal/h
 1 kgf/cm²=98.0667 kPa=0.980667 bar