



Conversion Chart

Temperature Basics

	Absolute Zero	Freezing Point	Boiling Point
Degrees	-273 °C	0 °C	100 °C
Kelvin	0 K	273 K	373 K

The Kelvin is often used to express a temperature difference e.g. a ΔT (temp. diff.) of 2°C could be misread as being 2° above freezing point. A ΔT of 2 K does not run the risk of being misread.

Multiples, Symbols and Prefixes

Symbol	Prefix	Multiplier of Factor
T	tera	10 ¹² = 1,000,000,000,000
G	giga	10 ⁹ = 1,000,000,000
M	mega	10 ⁶ = 1,000,000
k	kilo	10 ³ = 1,000
h	hecto	10 ² = 100
da	deca	10 ¹ = 10
d	deci	10 ⁻¹ = 0.1
c	centi	10 ⁻² = 0.01
m	milli	10 ⁻³ = 0.001
μ	micro	10 ⁻⁶ = 0.000 001
n	nano	10 ⁻⁹ = 0.000 000 001
p	pico	10 ⁻¹² = 0.000 000 000 001
f	femto	10 ⁻¹⁵ = 0.000 000 000 000 001
a	atto	10 ⁻¹⁸ = 0.000 000 000 000 000 001

Water Flow

	m ³ /h	L/s	gpm (US)	m ³ /min	L/min	L/h
m ³ /h	1	0.278	4.41	0.0167	16.7	1,000
L/s	3.6	1	15.876	0.06	60	3,597
gpm (US)	0.227	0.063	1	0.0038	3.79	227
m ³ /min	60	3.6	263.16	1	1,000	60,240
L/min	0.06	0.0167	0.264	0.001	1	60.20
L/h	0.001	0.000278	0.0044	0.0166 x 10 ⁻³	0.016	1

The specification above are normal and conform to generally acceptable industry standard. Cyrus is not responsible for damages resulting from misapplication or misuse of its products.

Pressure

	Pa	mbar	bar	kgf/cm ²	mm H ₂ O	mm Hg	psi
Pa (N/m ²)	1	0.01	1 x 10 ⁻⁵	102 x 10 ⁻⁷	0.102	0.0075	145 x 10 ⁻⁶
mbar	100	1	0.001	102 x 10 ⁻⁵	10.2	0.75	0.0145
bar	100,000	100	1	1.02	10,200	750	14.5038
kgf/cm ²	98,100	981	0.981	1	10,000	736	14.2333
mm H ₂ O	9.81	0.098	98.1 x 10 ⁻⁶	0.0001	1	0.0736	0.001422
mm Hg	133.3	1.33	0.00133	0.001359	13.59	1	0.01934
psi	6,895.06	68.95	0.06895	0.07031	703.01	51.717	1

Energy

	J	Wh	kgfm	kcal	Btu	kWh	hph
J	1	0.000278	0.102	0.000239	0.00095	27.8 x 10 ⁻⁸	3.728 x 10 ⁻⁷
Wh	3,600	1	367	0.86	3.412	0.001	0.00134
kgfm	9.81	2.725 x 10 ³	1	0.00234	0.00929	2.75 x 10 ⁻⁶	3.659 x 10 ⁻⁶
kcal	4,184	1.163	427	1	3.968	1.163 x 10 ⁻³	0.00148
Btu	1,052.60	0.2931	107.64	0.252	1	2.931 x 10 ⁻⁴	0.393 x 10 ⁻³
kWh	3.6 x 10 ⁶	1,000	3.67 x 10 ⁵	860	3,412.50	1	1.3414
hph	2.688 x 10 ⁶	746.2	273,745	641	2,544	0.7462	1

Power

	W	kW	kgfm/s	hp	kcal/h	Btu/min	Btu/hr
W	1	0.001	0.102	1.341 x 10 ⁻³	0.86	0.0568	3.41
kW	1,000	1	101.97	1.341	860	56.85	3.413
kgfm/s	9.81	9.81 x 10 ⁻³	1	0.0131	8424	0.5568	3.34
hp	746	0.746	76	1	642.4	42.462	2,544
kcal/h	1.163	1.163 x 10 ⁻³	0.119	0.00156	1	0.0661	3.97
Btu/min	17.606	0.0176	1.769	0.02355	15.13	1	62.5
Btu/hr	0.293	0.293 x 10 ⁻³	0.299	0.393 x 10 ⁻³	0.252	0.016	1

Air Flow

	m ³ /h	m ³ /min	L/h	L/min	SCFM	SCFH	SCIM
m ³ /h	1	0.016	1,000	16.67	0.59	35.34	1,022.50
m ³ /min	60	1	60,000	1,000	35.4	2,120	61.3 x 10 ³
L/h	0.001	16 x 10 ⁻⁶	1	1.0167	5.9 x 10 ⁻⁴	35.34 x 10 ³	1.02
L/min	0.06	0.001	60	1	0.0354	2.12	61.17
SCFM	1.695	0.0282	1,695	28.25	1	60	1,728
SCFH	0.0283	4.72 x 10 ⁻⁴	28.3	0.472	0.0167	1	28.8
SCIM	0.98 x 10 ⁻³	16.3 x 10 ⁻⁶	0.98	0.016	0.00058	0.0347	1