

Engineering conversion cheat sheet

The conversions engineers and engineering students reach for most, on one printable page.
Every value comes from the same exact definitions the Unitglide converters use.

Length & area		
FROM	EQUALS	REVERSE
1 in	25.4 mm	0.03937008 in per mm
1 ft	0.3048 m	3.28084 ft per m
1 mi	1.609344 km	0.6213712 mi per km
1 ft ²	0.09290304 m ²	10.76391 ft ² per m ²
1 in ²	645.16 mm ²	0.001550003 in ² per mm ²

Mass & force		
FROM	EQUALS	REVERSE
1 lb	0.4535924 kg	2.204623 lb per kg
1 slug	14.5939 kg	0.06852177 slug per kg
1 lbf	4.448222 N	0.2248089 lbf per N
1 kip	4.448222 kN	0.2248089 kip per kN
1 kgf	9.80665 N	0.1019716 kgf per N

Pressure & stress		
FROM	EQUALS	REVERSE
1 psi	6.894757 kPa	0.1450377 psi per kPa
1 psi	0.006894757 MPa	145.0377 psi per MPa
1 ksi	6.894757 MPa	0.1450377 ksi per MPa
1 bar	14.50377 psi	0.06894757 bar per psi
1 atm	101.325 kPa	0.009869233 atm per kPa
1 inH ₂ O	249.0889 Pa	0.004014631 inH ₂ O per Pa

Torque & energy		
FROM	EQUALS	REVERSE
1 lbf·ft	1.355818 N·m	0.7375621 lbf·ft per N·m
1 lbf·in	0.1129848 N·m	8.850746 lbf·in per N·m
1 BTU	1.055056 kJ	0.9478171 BTU per kJ
1 kWh	3.6 MJ	0.2777778 kWh per MJ
1 ft·lbf	1.355818 J	0.7375621 ft·lbf per J

Power		
FROM	EQUALS	REVERSE
1 hp	0.7456999 kW	1.341022 hp per kW
1 BTU/h	0.2930711 W	3.412142 BTU/h per W
1 TR	3.516853 kW	0.2843451 TR per kW

Flow		
FROM	EQUALS	REVERSE
1 gpm (US)	3.785412 L/min	0.2641721 gpm (US) per L/min
1 cfm	1.699011 m³/h	0.5885778 cfm per m³/h
1 ft³/s	0.02831685 m³/s	35.31467 ft³/s per m³/s
1 lb/h	0.4535924 kg/h	2.204623 lb/h per kg/h

Density & viscosity		
FROM	EQUALS	REVERSE
1 lb/ft³	16.01846 kg/m³	0.06242796 lb/ft³ per kg/m³
1 g/cm³	1,000 kg/m³	0.001 g/cm³ per kg/m³
1 cP	0.001 Pa·s	1,000 cP per Pa·s
1 cSt	0.000001 m²/s	1,000,000 cSt per m²/s

Heat transfer		
FROM	EQUALS	REVERSE
1 BTU/(h·ft²·°F)	1.730735 W/(m·K)	0.5777893 BTU/(h·ft²·°F) per W/(m·K)
1 BTU/(h·ft²)	3.154591 W/m²	0.3169983 BTU/(h·ft²) per W/m²
1 BTU/(h·ft²·°F)	5.678263 W/(m²·K)	0.1761102 BTU/(h·ft²·°F) per W/(m²·K)

Electrical		
FROM	EQUALS	REVERSE
1 mA·h	3.6 C	0.2777778 mA·h per C
1 A·h	3,600 C	0.0002777778 A·h per C
1 kΩ	1,000 Ω	0.001 kΩ per Ω
1 μF	1,000 nF	0.001 μF per nF

Unitglide · unitglide.app/reference/engineering-conversions · Factors from NIST SP 811, NIST Handbook 44 and the BIPM SI Brochure (9th ed.). Values rounded to 7 significant figures unless exact.