

Appendix F

MAGNETIC PARAMETER CONVERSIONS

	SI (MKS)	CGS	English
Φ	webers (Wb) 1 Wb	maxwells = 10^8 maxwells	lines = 10^8 lines
B	Wb/m^2 1 Wb/m^2	gauss (maxwells/cm ²) = 10^4 gauss	lines/in. ² = 6.452×10^4 lines/in. ²
A	1 m ²	= 10^4 cm ²	= 1550 in. ²
μ_o	$4\pi \times 10^{-7}$ Wb/Am	= 1 gauss/oersted	= 3.20 lines/Am
\mathcal{F}	NI (ampere-turns, At) 1 At	$0.4\pi NI$ (gilberts) = 1.257 gilberts	NI (At) 1 gilbert = 0.7958 At
H	NI/l (At/m) 1 At/m	$0.4\pi NI/l$ (oersteds) = 1.26×10^{-2} oersted	NI/l (At/in.) = 2.54×10^{-2} At/in.
H_g	$7.97 \times 10^5 B_g$ (At/m)	B_g (oersteds)	$0.313 B_g$ (At/in.)