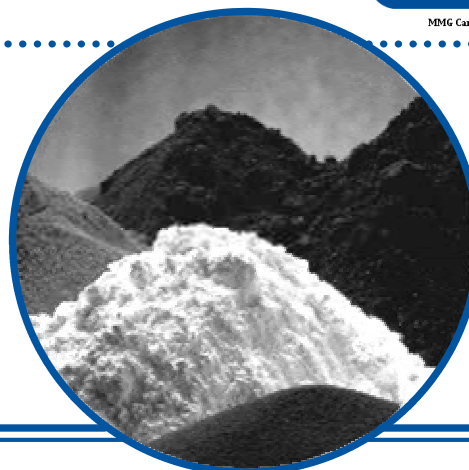


F48

Power Ferrite Material

Features

- Low power loss
- Losses minimized from 80 to 100 °C
- High saturation flux density
- Smaller core size for a given throughput power



The F48 material grade was designed for power management and conversion applications operating up to 500 kHz (depending on the flux density) for the aerospace, computer, medical, industrial and telecommunications industries. It offers improved power loss density and increased permeability over our commercial F44 material grade. F48 is available in all of our standard geometries including E, U, RM, PQ, ETD and planar cores.

Material Data

Parameter	Symbol	Standard Test Condition		Unit	Value
Initial permeability (nominal)	μ_i	f = 25 kHz	B < 0.1 mT	25 °C -	2300 ± 20%
Saturation flux density (typical)	B_{sat}	H = 796 A/m = 10 Oe		25 °C mT 100 °C	480 380
Amplitude permeability (nominal)	μ_a	B = 400 mT B = 320 mT		25 °C - 100 °C	2500 2000
Remanent flux density (minimum)	B_r	H ? 0 (from near saturation) f = 10 kHz		mT 25 °C	150
Coercivity (typical)	H_c	B ? 0 (from near saturation) f = 10 kHz		A / m 25 °C	20
Curie temperature (minimum)	T_c	f = 10 kHz	B < 0.1 mT	°C	220
Resistivity (typical)	?	1 V/cm		25 °C O · cm	100
Total power loss density (maximum)	P_v	f = 100 kHz f = 100 kHz	B = 100 mT B = 200 mT	25 °C mW / cm ³ 100 °C	70 380

General Note

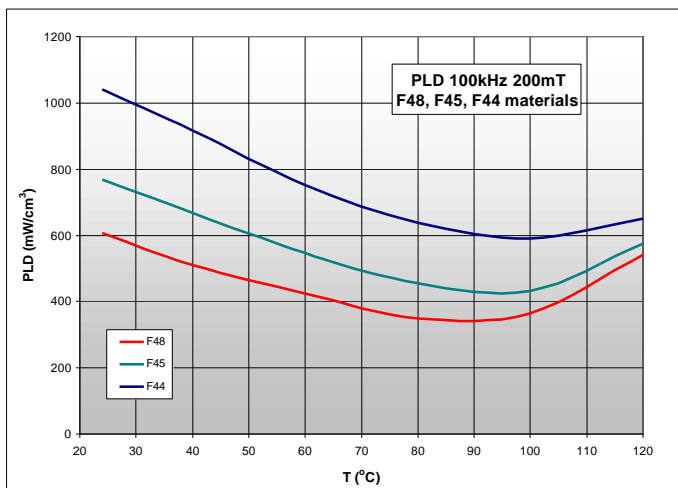
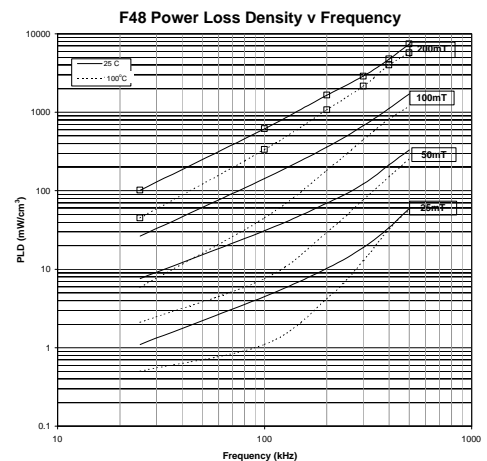
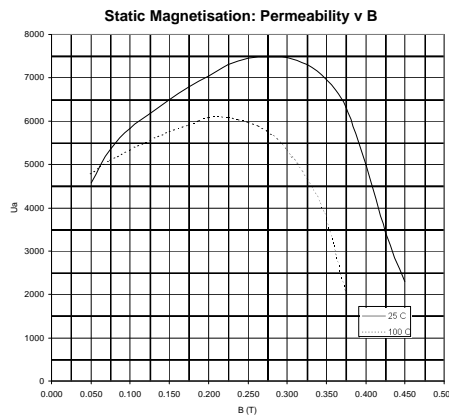
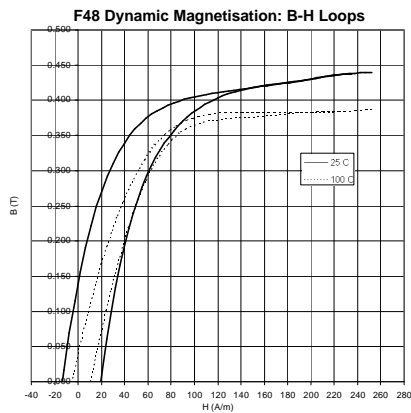
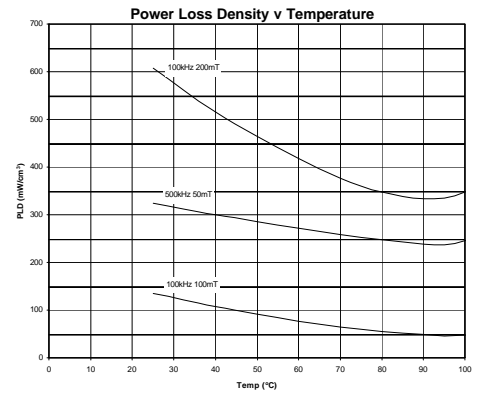
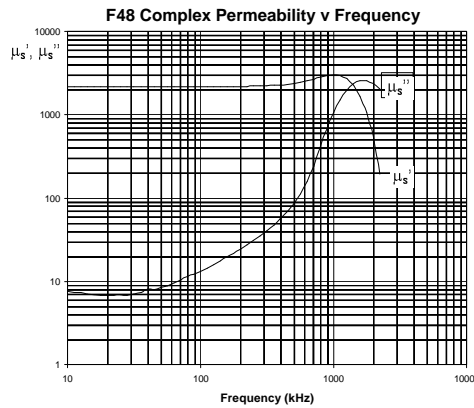
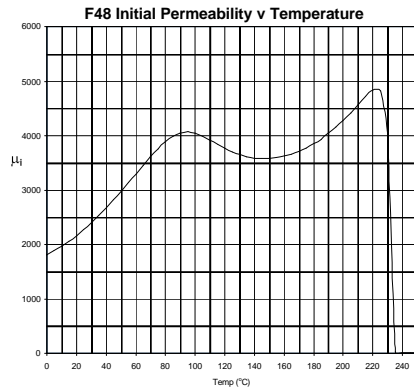
MMG reserves the right to make changes in product specification without notice or liability. All information is subject to MMG's own data and is considered accurate at time of going to print.



F48 Power Ferrite Material



Material Data



Applications

- Switch mode power supplies
- Flyback transformers
- DC/DC converters

For additional information or to discuss your specific requirements please contact our Magnetics Applications Team.