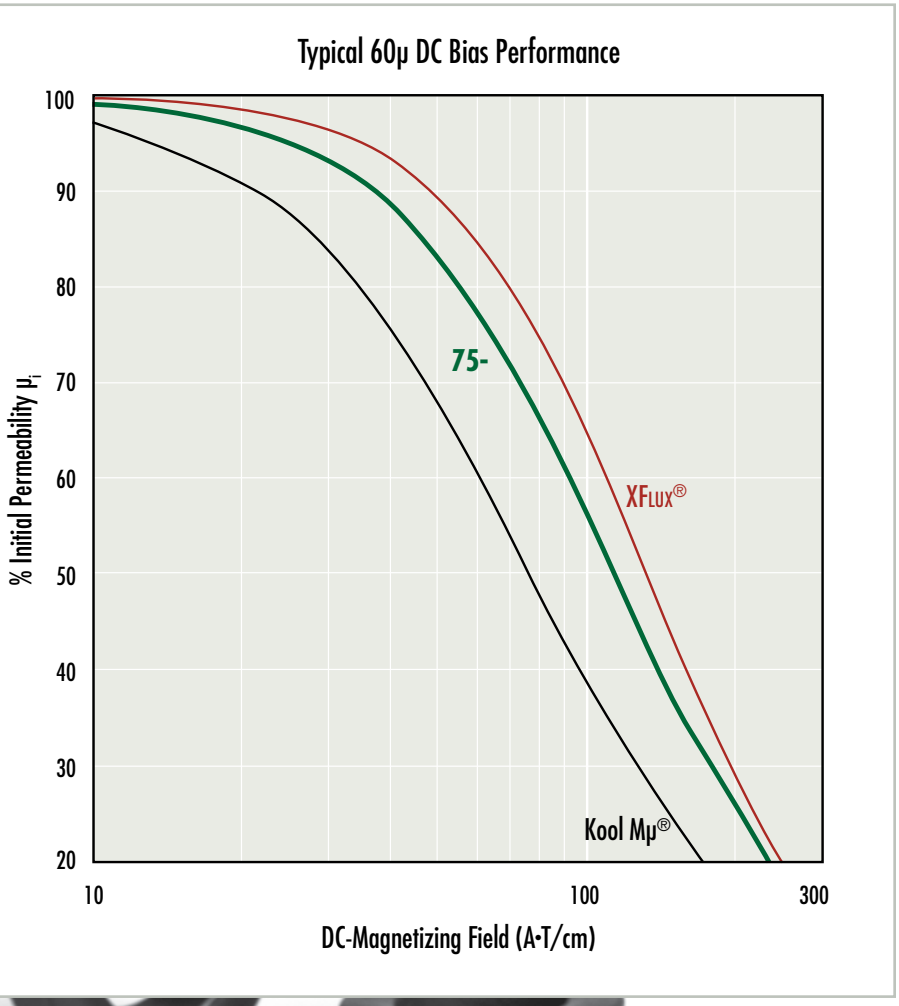
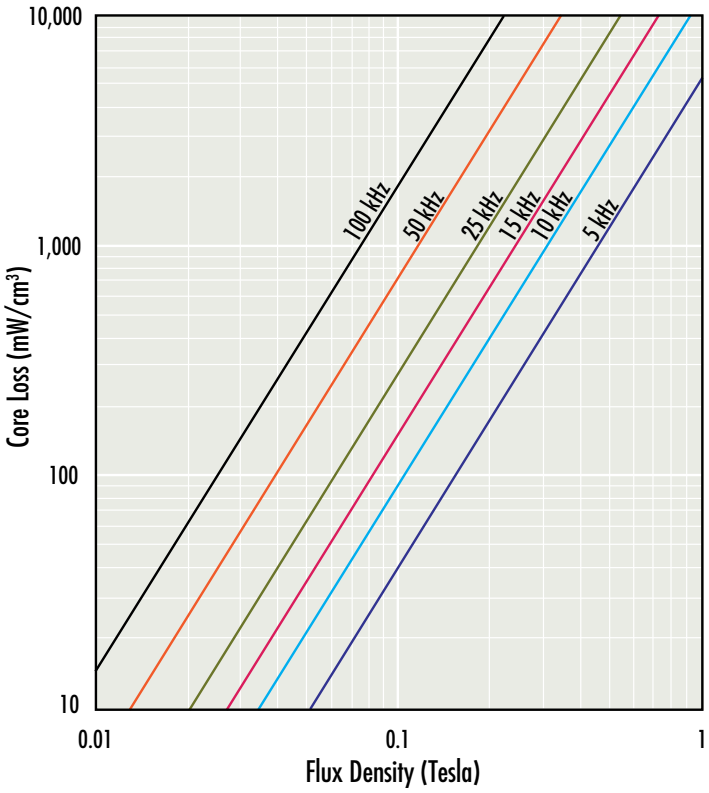
75-Series Powder Cores

75-Series cores achieve better DC Bias performance than Kool Mμ® while maintaining lower core losses than XFlux®. The relatively high saturation flux density of 75-Series cores makes them a low-cost solution in applications where stable inductance under load is necessary, such as inverters for renewable energy sources and Uninterruptible Power Supplies (UPS). 75-Series cores can offer a lower cost alternative to High Flux cores and offer a substantial improvement in core loss and DC Bias performance when compared to Iron Powder.

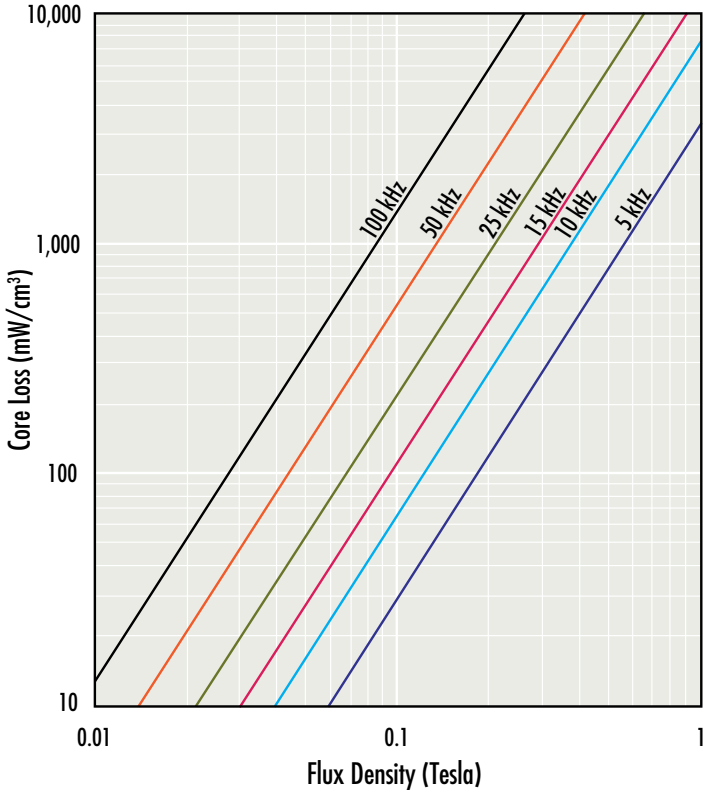


Material	Alloy Composition	DC Bias	Core Loss	Relative Cost	Saturation Flux Density	Curie Temperature	Operating Temperature Range	60μ μ flat to...
75-Series	**FeSiAl**	**Better**	**Moderate**	**Low**	**1.5 T**	**700° C**	**-55° C to 200° C**	**500 kHz**
XFlux®	FeSi	Best	High	Low	1.6 T	700° C	-55° C to 200° C	500 kHz
High Flux	FeNi	Best	Moderate	Medium	1.5 T	500° C	-55° C to 200° C	1 MHz
Kool Mμ®	FeSiAl	Good	Low	Low	1.0 T	500° C	-55° C to 200° C	900 kHz
MPP	FeNiMo	Better	Very Low	High	0.8 T	460° C	-55° C to 200° C	2 MHz
Iron Powder	Fe	Good	Highest	Lowest	1.2 - 1.5 T	770° C	-30° C to 75° C	500 kHz
Ferrite	Ceramic	Poor	Lowest	Lowest	0.45 T	100 - 250° C	Variable	Variable

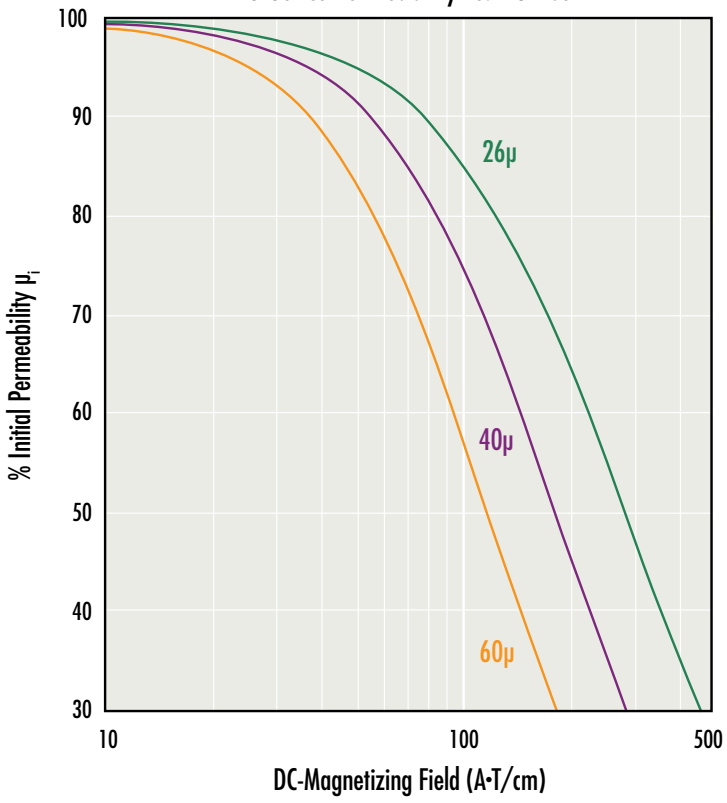
75-Series Core Loss Density - 26µ, 40µ



75-Series Core Loss Density - 60µ



75-Series Permeability vs. DC Bias



Available Sizes and Permeabilities			
Toroid OD:	**26µ**	**40µ**	**60µ**
27 mm	0075932A7	0075936A7	0075894A7
47 mm	0075440A7	0075431A7	0075439A7
57 mm	0075191A7	0075189A7	0075192A7

DC Bias and Core Loss			
	Permeability		
	26µ	**40µ**	**60µ**
DC Bias (A•T/cm)			
80% Rolloff	128	80	56
50% Rolloff	282	183	115
Core Loss (mW/cm³)			
100 mT 50 kHz	700	676	537
100 mT 100 kHz	1900	1860	1425

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