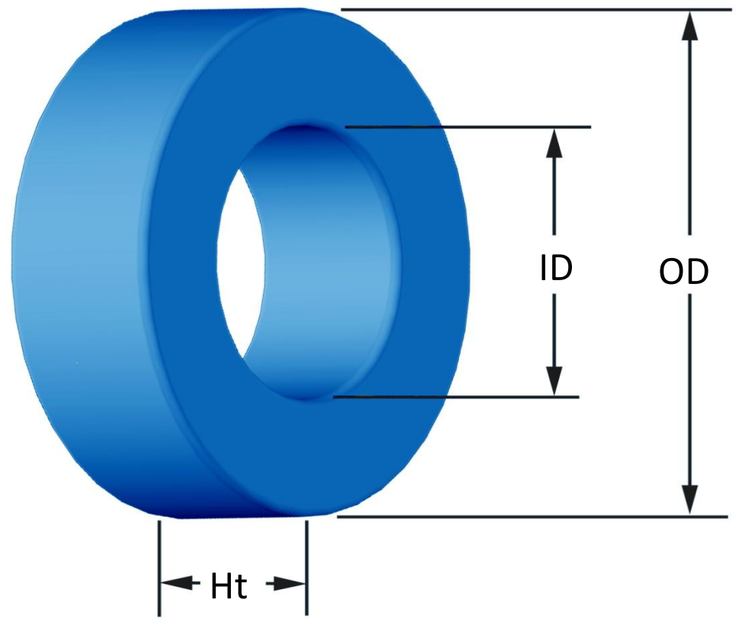
MICROMETALS™
POWDER CORE SOLUTIONS

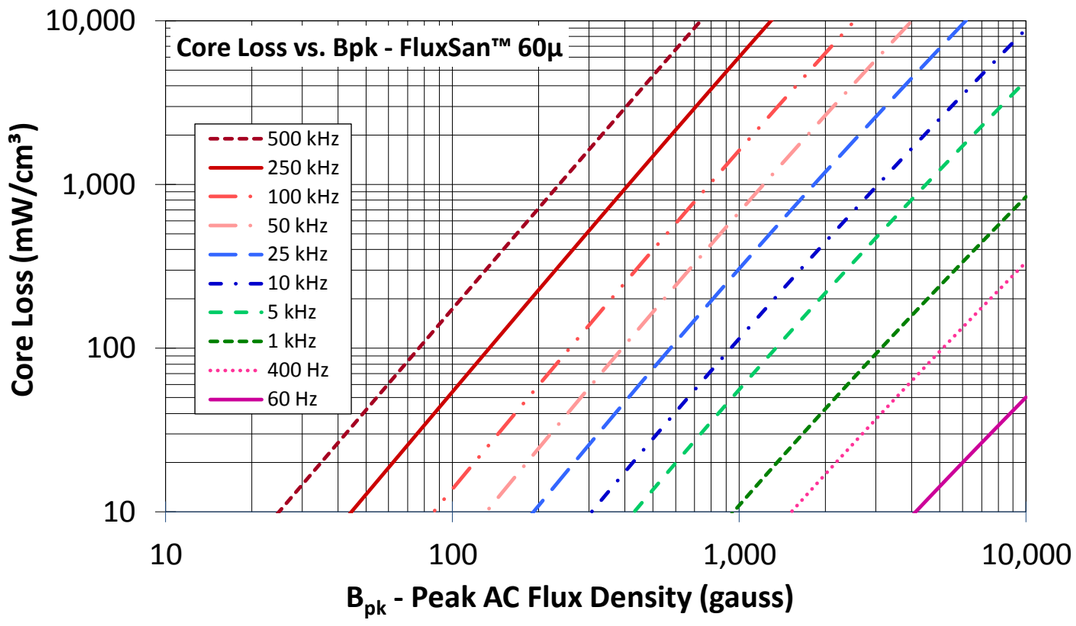
Part Number:	FS-040060-2

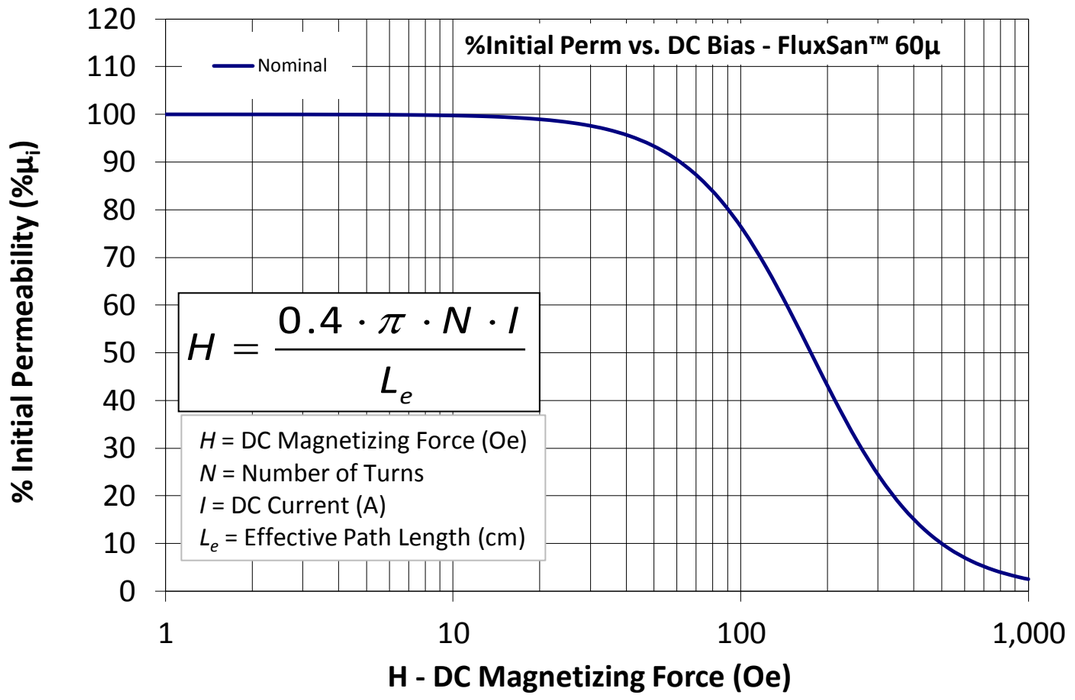
Revision 20190529 - Generated 2019-May-29

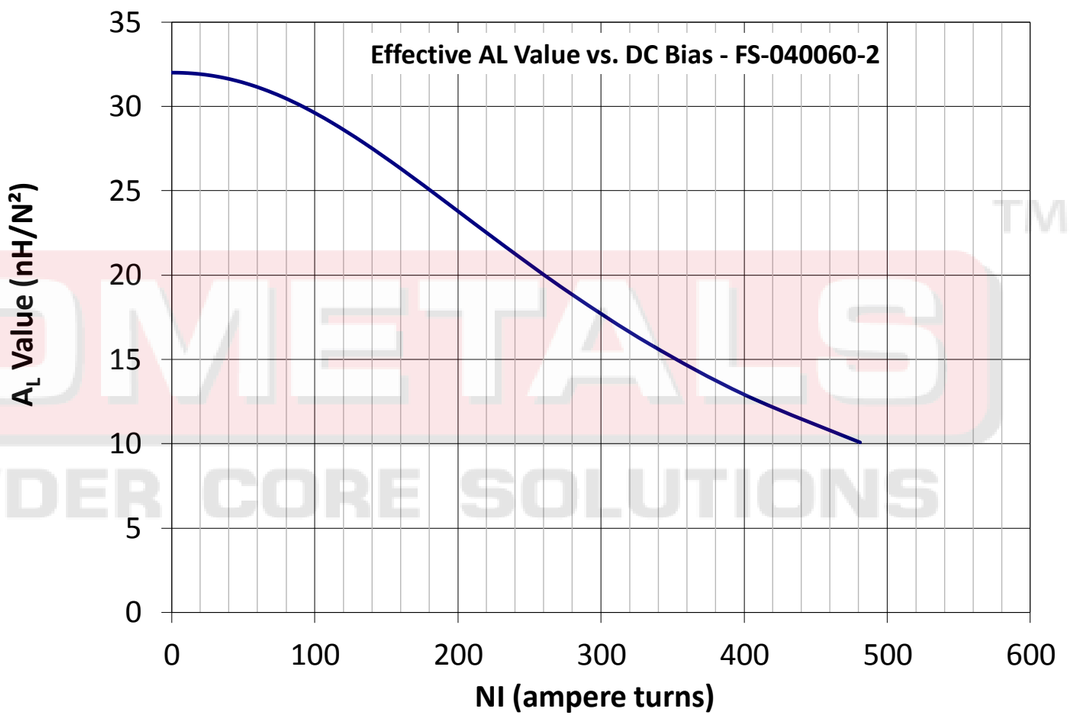


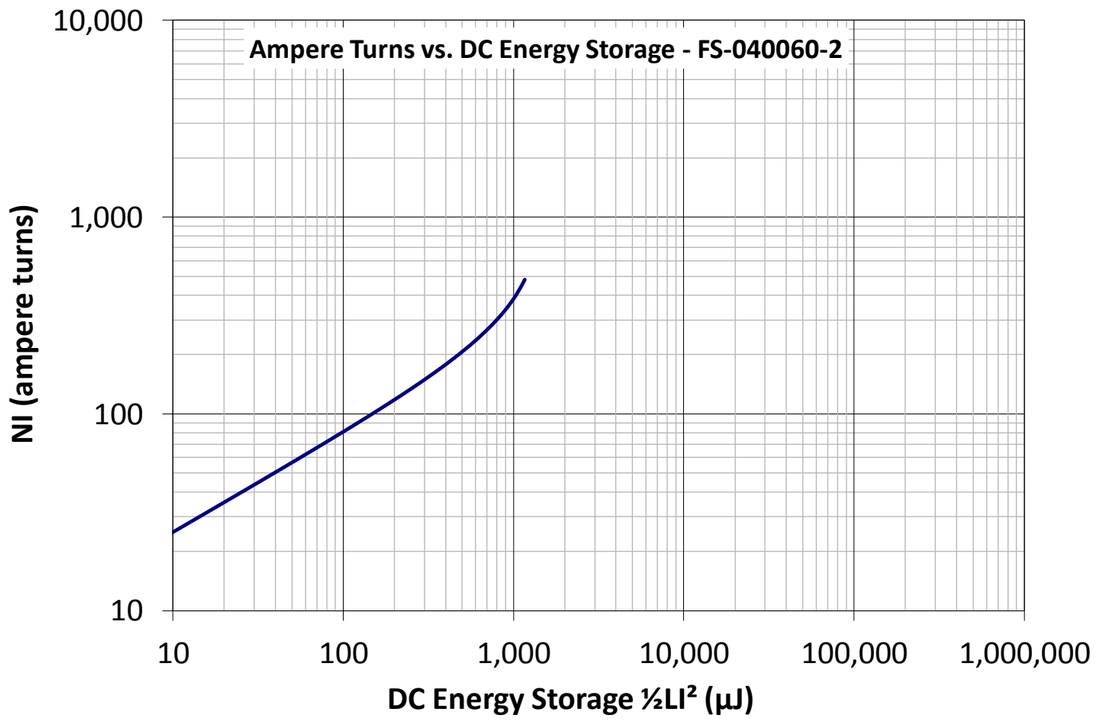
(If coated, Max./Min. includes coating)

OD	(nom. - bare core)	10.16 mm	0.400 in
	(max.)	10.80 mm	0.425 in
ID	(nom. - bare core)	5.08 mm	0.200 in
	(min.)	4.57 mm	0.180 in
HT	(nom. - bare core)	3.96 mm	0.156 in
	(max.)	4.57 mm	0.180 in
Mass	(approximate)	1.6 grams	
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	0.100 cm²	
	L_e - Eff. Mag. Path Length	2.38 cm	
	V_e - Eff. Core Volume	0.238 cm³	
	WA - Min. Eff. Window Area	0.164 cm²	
	sa - Surface Area	4.20 cm²	
	mlt - mean length per turn	1.77 cm	
Inductance	μ_i(reference)	60	
	A_L value (nominal)	32 nH/N²	
	Test Winding	N=55, #30 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.024 V	
	AL tolerance	±8%	
Core Loss	Core Loss(mW/cm³)= $\frac{f}{\frac{a}{Bpk^{3}}+\frac{b}{Bpk^{2.3}}+\frac{c}{Bpk^{1.65}}}+d\cdot Bpk^{2}\cdot f^{2}$		
	where B_{pk} expressed in gauss, f expressed in hertz, and:		
	a=1.000E+06, b=3.903E+08, c=3.785E+06, d=5.229E-14		
	B_{pk}	1000 G	
	frequency	50 kHz	
	Core Loss (nominal)	676 mW/cm³	
	Core Loss (maximum)	778 mW/cm³	
DC Saturation	$\%\mu_i = \frac{1}{a+b\cdot H^{c}}+d$		
	where H expressed in oersteds, and:		
	a=1.000E-02, b=1.949E-07, c=2.099, d=0.000		
	H_{DC}	150 Oe	
	Percent Initial Perm(nom.)	58.1%	
	Percent Initial Perm(min.)	48.6%	
Coating/Pkg	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	9,000 Pcs/Box	









Winding Table	**Wire Size**	AWG	20	22	24	26	28	30	32	34	36	38	40
		mm	0.800	0.630	0.500	0.400	0.315	0.250	0.200	0.160	0.125	0.100	0.080
	Single Layer	Turns	12	15	19	25	32	40	50	63	80	100	125
		Rdc(Ω)	7.0 m	14.0 m	28.2 m	59.1 m	120.3 m	239.1 m	475.2 m	952.3 m	1.9	3.8	7.6
	Full Winding	Turns	12	18	28	44	68	105	162	251	389	602	931
		Rdc(Ω)	7.0 m	16.8 m	41.6 m	104.0 m	255.5 m	627.5 m	1.5	3.8	9.4	23.0	56.6

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