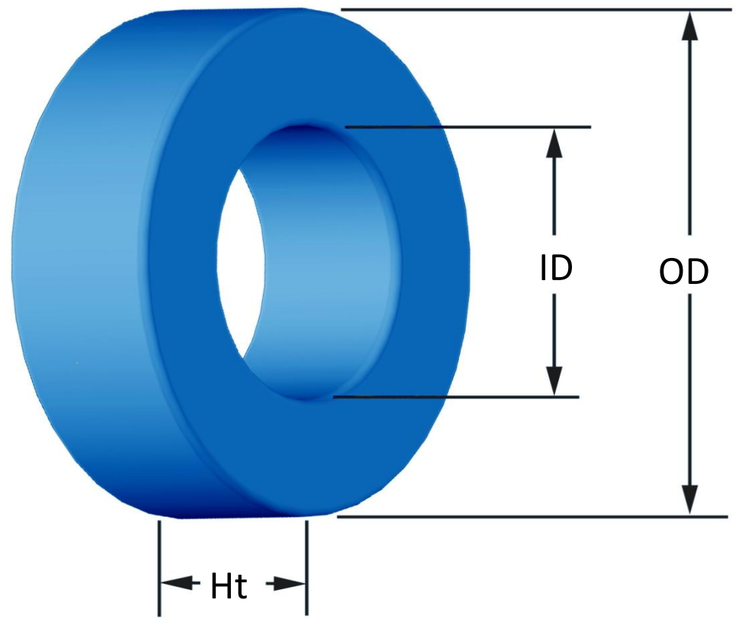
MICROMETALS™
POWDER CORE SOLUTIONS

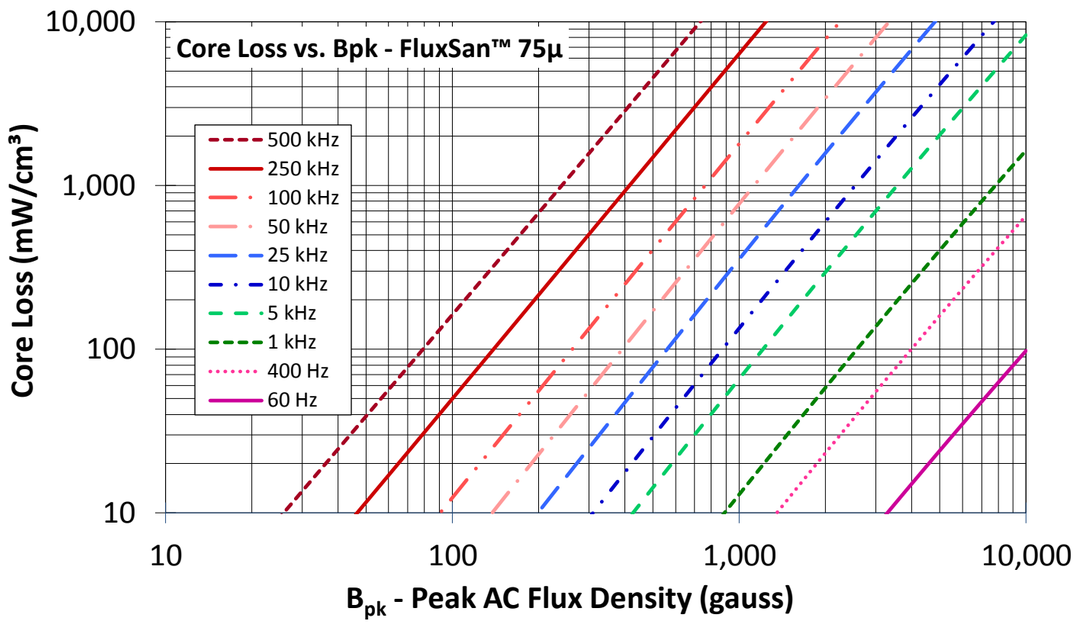
Part Number:	FS-400075-2

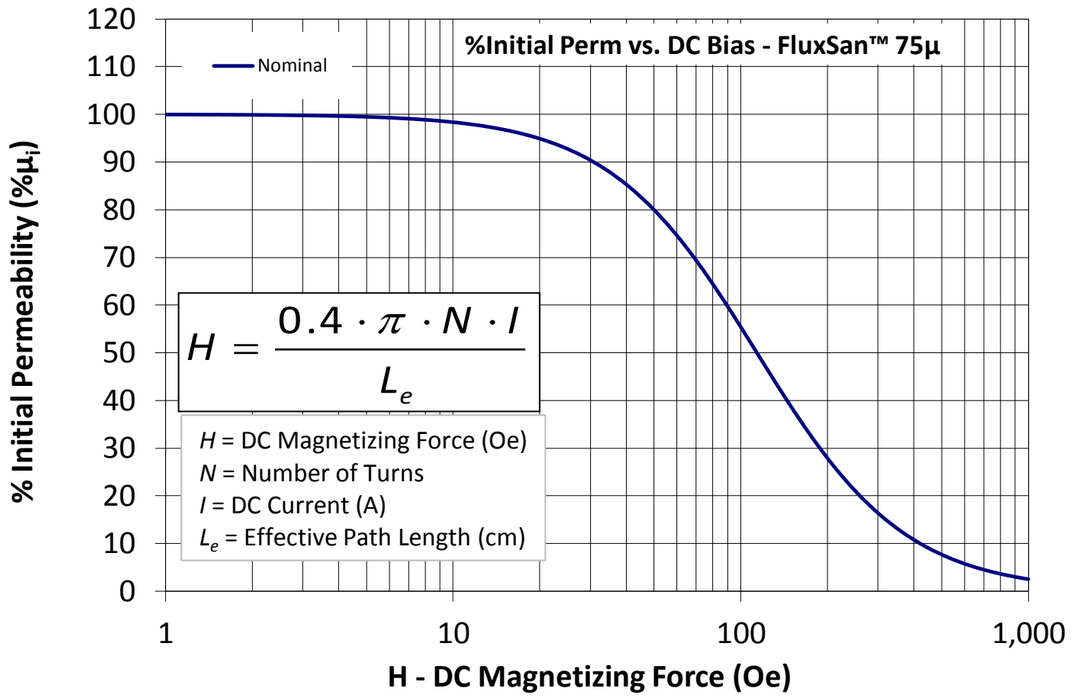
Revision 20190529 - Generated 2019-May-29

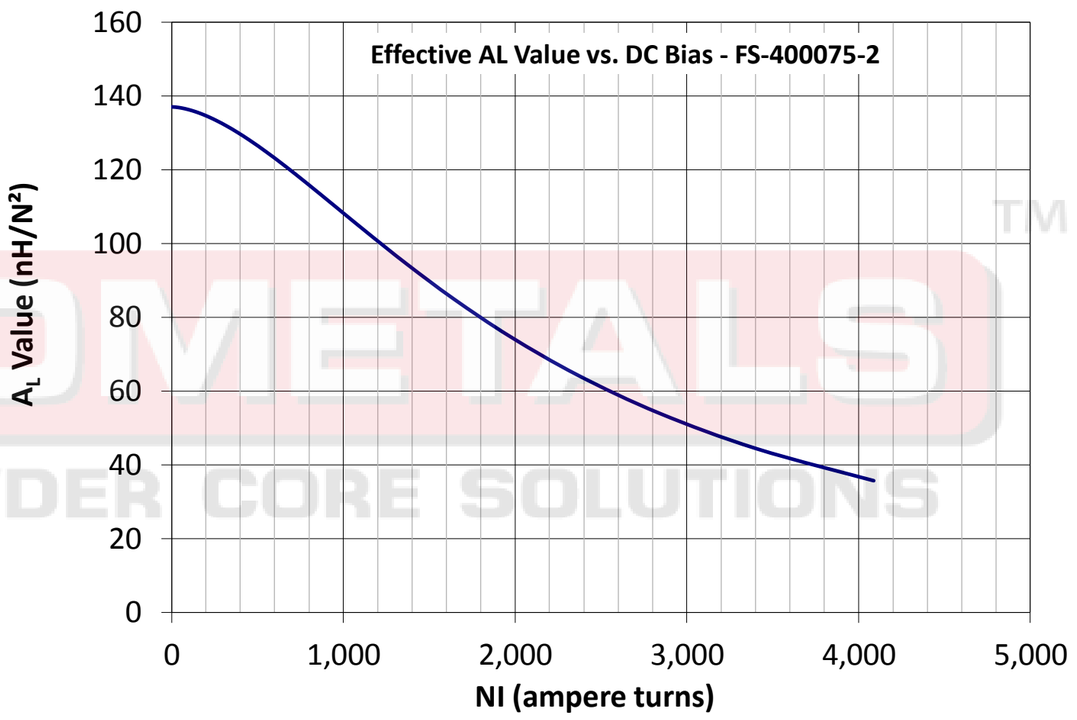


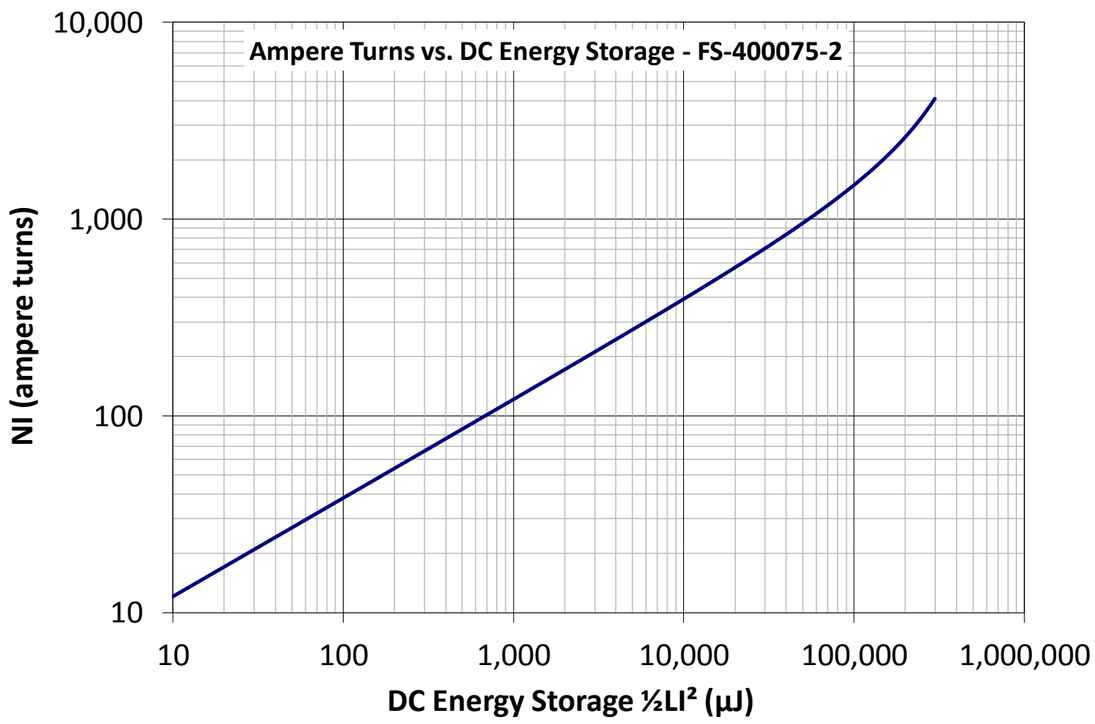
(If coated, Max./Min. includes coating)

OD	(nom. - bare core)	101.60 mm	4.000 in
	(max.)	102.87 mm	4.050 in
ID	(nom. - bare core)	57.15 mm	2.250 in
	(min.)	55.75 mm	2.195 in
HT	(nom. - bare core)	16.51 mm	0.650 in
	(max.)	17.78 mm	0.700 in
Mass	(approximate)	590 grams	
Magnetic Dimensions	A_e - Eff. Mag. Cross Section	3.52 cm²	
	L_e - Eff. Mag. Path Length	24.271 cm	
	V_e - Eff. Core Volume	85.5 cm³	
	WA - Min. Eff. Window Area	24.4 cm²	
	sa - Surface Area	303 cm²	
	mlt - mean length per turn	11.1 cm	
Inductance	μ_i(reference)	75	
	A_L value (nominal)	137 nH/N²	
	Test Winding	N=140, #18 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	2.2 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=1.883E+08, b=5.098E+08, c=1.162E+06, d=5.024E-14		
	B_{pk}	1000 G	
	frequency	50 kHz	
	Core Loss (nominal)	772 mW/cm³	
	Core Loss (maximum)	887 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=3.486E-06, c=1.682, d=0.000		
	H_{DC}	80 Oe	
	Percent Initial Perm(nom.)	64.4%	
	Percent Initial Perm(min.)	57.1%	
Coating/Pkg	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	16 Pcs/Box	









Winding Table	**Wire Size**	AWG	8	10	12	14	16	18	20	22	24	26	28
		mm	3.150	2.500	2.000	1.600	1.250	1.000	0.800	0.630	0.500	0.400	0.315
	Single Layer	Turns	44	56	70	88	110	138	172	215	268	335	417
		Rdc(Ω)	10.0 m	20.2 m	40.2 m	80.5 m	160.0 m	319.2 m	632.7 m	1.3	2.5	5.0	9.8
	Full Winding	Turns	128	198	306	474	733	1,135	1,756	2,719	4,208	6,512	10,079
		Rdc(Ω)	29.1 m	71.6 m	175.9 m	433.4 m	1.1	2.6	6.5	15.9	39.1	96.4	237.2

MICROMETALS™ POWDER CORE SOLUTIONS

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