



Part Number: **MS-600090-2**
 Revision 20160816 - Generated 2016-Aug-16



OD	(nom. - bare core) (max. - after coating)	152.40 mm 153.90 mm	6.000 in 6.059 in
ID	(nom. - bare core) (min. - after coating)	81.28 mm 79.65 mm	3.200 in 3.136 in
Ht	(nom. - bare core) (max. - after coating)	20.32 mm 21.72 mm	0.800 in 0.855 in
Mass	(approximate)	1,500 grams	
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	7.05 cm ²	
	L _e - Eff. Mag. Path Length	35.97 cm	
	V _e - Eff. Core Volume	253 cm ³	
	WA - Min. Eff. Window Area	49.8 cm ²	
	sa - Surface Area	646 cm ²	
	mlt - mean length per turn	15.8 cm	
Inductance	μ _i (reference)	90	
	A _L value (nominal)	229 nH/N ²	
	Test Winding	N=200, #18 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	6.3 V	
	AL tolerance	±8%	
Core Loss	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$ where B _{pk} expressed in gauss, f expressed in hertz, and: a=7.890E+09, b=7.111E+08, c=8.980E+06, d=2.846E-14		
	B _{pk}	1000 G	
	frequency	50 kHz	
	Core Loss (nominal)	323 mW/cm ³	
	Core Loss (maximum)	372 mW/cm ³	
DC Saturation	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$ where H expressed in oersteds, and: a=1.000E-02, b=3.994E-06, c=1.883, d=0.000		
	H _{DC}	50 Oe	
	Percent Initial Perm.(nom.)	61.3%	
	Percent Initial Perm.(min.)	52.9%	
Coating/Pkg	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
	Package Quantity	4 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	65	81	102	127	159	198	247	309	385	479	597
		Rdc(Ω)	21.1 m	41.7 m	83.6 m	165.5 m	329.4 m	652.5 m	1.3	2.6	5.1	10.1	20.0
Full Winding	Turns	261	404	625	967	1,497	2,316	3,585	5,549	8,589	13,293	20,574	
	Rdc(Ω)	84.5 m	208.1 m	512.0 m	1.3	3.1	7.6	18.8	46.2	113.9	280.2	689.8	

