



Part Number: MS-400040-2

Revision 2021-Dec-01 - Generated 2021-Dec-01



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

OD	(nom. - bare core) (max.)	101.60 mm 102.87 mm	4.000 in 4.050 in										
ID	(nom. - bare core) (min.)	57.15 mm 55.75 mm	2.250 in 2.195 in										
HT	(nom. - bare core) (max.)	16.51 mm 17.78 mm	0.650 in 0.700 in										
Mass	(approximate)	470 grams											
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	3.52 cm ²											
	L _e - Eff. Mag. Path Length	24.271 cm											
	V _e - Eff. Core Volume	85.5 cm ³											
	WA - Min. Eff. Window Area	24.4 cm ²											
	sa - Surface Area	303 cm ²											
Inductance	μ _i (reference)	40											
	A _L value (nominal)	75 nH/N ²											
Core Loss	Test Winding	N=140, #18 AWG											
	Frequency	10 kHz											
	Voltage on Agilent 4284A	2.2 V											
	AL tolerance	±8%											
	Core Loss(mW/cm ³):	$\frac{a}{Bpk^3} + \frac{b}{Bpk^{2.3}} + \frac{c}{Bpk^{1.65}} + d \cdot Bpk^2 \cdot f^2$											
DC Saturation	where B _{pk} expressed in gauss, f expressed in hertz, and: a=1.000E+06, b=6.961E+08, c=5.397E+06, d=4.127E-14												
	B _{pk}	1000 G											
	frequency	50 kHz											
	Core Loss (nominal)	441 mW/cm ³											
	Core Loss (maximum)	507 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=2.655E-06, c=1.703, d=0.000												
	H _{dc}	100 Oe											
Coating/Pkg	Percent Initial Perm(nom.)	59.6%											
	Percent Initial Perm(min.)	52.0%											
	Coating Type:	Blue Epoxy											
	Voltage Breakdown (min.)	1000 Vrms											
Winding Table	Limit	0.1 mA, 5 s											
	Package Quantity	16 Pcs/Box											
	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	

