



Part Number: **FS-300075-2**

Revision 20190529 - Generated 2019-May-29



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

OD	(nom. - bare core)	77.80 mm	3.063 in
	(max.)	78.94 mm	3.108 in
ID	(nom. - bare core)	49.23 mm	1.938 in
	(min.)	47.96 mm	1.888 in
HT	(nom. - bare core)	12.70 mm	0.500 in
	(max.)	13.97 mm	0.550 in
Mass	(approximate)	240 grams	
Magnetic Dimensions	A _e - Eff. Mag. Cross Section	1.77 cm ²	
	L _e - Eff. Mag. Path Length	19.612 cm	
	V _e - Eff. Core Volume	34.8 cm ³	
	WA - Min. Eff. Window Area	18.1 cm ²	
	sa - Surface Area	184 cm ²	
	mlt - mean length per turn	8.29 cm	
Inductance	μ _i (reference)	75	
	A _L value (nominal)	85 nH/N ²	
	Test Winding	N=120, #18 AWG	
	Frequency	10 kHz	
	Voltage on Agilent 4284A	0.94 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=1.883E+08, b=5.098E+08, c=1.162E+06, d=5.024E-14		
	B _{pk}	1000 G	
	frequency	50 kHz	
DC Saturation	Core Loss (nominal)	772 mW/cm ³	
	Core Loss (maximum)	887 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=3.486E-06, c=1.682, d=0.000		
	H _{DC}	80 Oe	
	Percent Initial Perm(nom.)	64.4%	
Coating/Pkg	Percent Initial Perm(min.)	57.1%	
	Coating Type:	Blue Epoxy	
	Voltage Breakdown (min.)	1000 Vrms	
	Limit	0.1 mA, 5 s	
Winding Table	Package Quantity	45 Pcs/Box	
	Wire Size	AWG	8 10 12 14 16 18 20 22 24 26 28
Single Layer		mm	3.150 2.500 2.000 1.600 1.250 1.000 0.800 0.630 0.500 0.400 0.315
	Turns		38 48 60 75 95 118 148 185 230 287 358
Full Winding	Rdc(Ω)		6.5 m 13.0 m 25.9 m 51.4 m 103.6 m 204.6 m 408.2 m 811.5 m 1.6 3.2 6.3
	Turns		95 146 227 351 543 840 1,300 2,012 3,114 4,820 7,459
	Rdc(Ω)		16.2 m 39.6 m 97.9 m 240.7 m 592.1 m 1.5 3.6 8.8 21.7 53.5 131.6

