



**Part Number:** **E220-40**

Revision 20190524 - Generated 2019-May-30



<b>A</b>	56.13 ± 0.38 mm	2.210 ± 0.015 in											
<b>B</b>	27.69 ± 0.20 mm	1.090 ± 0.008 in											
<b>C</b>	20.83 ± 0.25 mm	0.820 ± 0.010 in											
<b>D</b>	19.18 mm (nom.)	0.755 in (nom.)											
<b>E</b>	38.61 mm (nom.)	1.520 in (nom.)											
<b>F</b>	17.27 ± 0.18 mm	0.680 ± 0.007 in											
<b>Mass</b>	(approximate)	160 grams/half											
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	3.60 cm <sup>2</sup>											
	L <sub>e</sub> - Eff. Mag. Path Length	13.2 cm											
	V <sub>e</sub> - Eff. Core Volume	47.7 cm <sup>3</sup>											
	WA - Min. Eff. Window Area	4.06 cm <sup>2</sup>											
	sa - Surface Area	125 cm <sup>2</sup>											
<b>Inductance</b>	mlt - mean length per turn	11.9 cm											
	μ <sub>i</sub> (reference)	60											
	A <sub>L</sub> value (nominal)	240 nH/N <sup>2</sup>											
	Test Winding	N=100, #16 AWG											
	Frequency	10 kHz											
<b>Core Loss</b>	Voltage on Agilent 4284A	1.6 V											
	A <sub>L</sub> tolerance	±10%											
	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$												
	where B <sub>pk</sub> expressed in gauss, f expressed in hertz, and: a=1.10E+09, b=3.30E+07, c=2.50E+06, d=3.10E-13												
	B <sub>pk</sub>	140 G											
<b>DC Saturation</b>	frequency	100 kHz											
	Core Loss (nominal)	127 mW/cm <sup>3</sup>											
	Core Loss (maximum)	146 mW/cm <sup>3</sup>											
	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$												
	where H expressed in oersteds, and: a=1.00E-02, b=8.93E-06, c=1.61, d=0.00												
<b>Coating/Pkg</b>	H <sub>DC</sub>	50 Oe											
	Percent Initial Perm(nom.)	67.0%											
	Percent Initial Perm(min.)	60.2%											
	Coating Type:	None, Green/Yellow Stripes											
	Voltage Breakdown (min.)	N/A											
<b>Winding Table</b>	Limit	N/A											
	Package Quantity	80 Halves/Box											
	<b>Wire Size</b>	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
	<b>Full Winding</b>	Turns	22	34	52	81	126	194	301	465	720	1,115	1,726
Rdc(Ω)		5.4 m	13.2 m	32.1 m	79.6 m	197.0 m	482.4 m	1.2	2.9	7.2	17.7	43.7	

