



**Part Number:** **T650-30**

Revision 20190524 - Generated 2019-May-30



<b>OD</b>	(nom. - bare core) (max. - after coating)	165.10 mm 166.37 mm	6.500 in 6.550 in										
<b>ID</b>	(nom. - bare core) (min. - after coating)	88.90 mm 87.63 mm	3.500 in 3.450 in										
<b>Ht</b>	(nom. - bare core) (max. - after coating)	50.80 mm 52.07 mm	2.000 in 2.050 in										
<b>Mass</b>	(approximate)	4,400 grams											
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	18.4 cm <sup>2</sup>											
	L <sub>e</sub> - Eff. Mag. Path Length	39.9 cm											
	V <sub>e</sub> - Eff. Core Volume	734 cm <sup>3</sup>											
	WA - Min. Eff. Window Area	60.3 cm <sup>2</sup>											
	sa - Surface Area	927 cm <sup>2</sup>											
	mlt - mean length per turn	22.7 cm											
<b>Inductance</b>	μ <sub>i</sub> (reference)	22											
	A <sub>L</sub> value (nominal)	127 nH/N <sup>2</sup>											
	Test Winding	N=100, #22 AWG											
	Frequency	10 kHz											
	Voltage on Agilent 4284A	5.0 V											
<b>Core Loss</b>	A <sub>L</sub> tolerance	±10%											
	Core Loss(mW/cm <sup>3</sup> )=	$\frac{f}{\frac{a}{Bpk^3} + \frac{b}{Bpk^{2.3}} + \frac{c}{Bpk^{1.65}}} + d \cdot Bpk^2 \cdot f^2$											
	where B <sub>pk</sub> expressed in gauss, f expressed in hertz, and:	a=3.30E+08, b=2.00E+07, c=2.00E+06, d=1.10E-13											
	B <sub>pk</sub>	140 G											
	frequency	100 kHz											
<b>DC Saturation</b>	Core Loss (nominal)	129 mW/cm <sup>3</sup>											
	Core Loss (maximum)	149 mW/cm <sup>3</sup>											
	%μ <sub>i</sub> =	$\frac{1}{a + b \cdot H^c} + d$											
	where H expressed in oersteds, and:	a=1.00E-02, b=4.10E-06, c=1.34, d=0.00											
<b>Coating/Pkg</b>	H <sub>DC</sub>	200 Oe											
	Percent Initial Perm(nom.)	66.7%											
	Percent Initial Perm(min.)	61.1%											
	Coating Type:	Green/Gray Epoxy Paint											
<b>Winding Table</b>	Voltage Breakdown (min.)	500 Vrms, 60Hz											
	Limit	3 mA, 5 s											
	Package Quantity	2 Pcs/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>Single Layer</b>	Turns	71	90	112	140	175	219	273	340	423	527	657	
	Rdc(Ω)	33.1 m	66.7 m	132.0 m	262.5 m	521.8 m	1.0	2.1	4.1	8.1	16.0	31.7	
<b>Full Winding</b>	Turns	316	489	756	1,170	1,812	2,804	4,340	6,717	10,396	16,090	24,903	
	Rdc(Ω)	147.3 m	362.5 m	891.3 m	2.2	5.4	13.3	32.7	80.6	198.3	488.2	1.2 k	

