



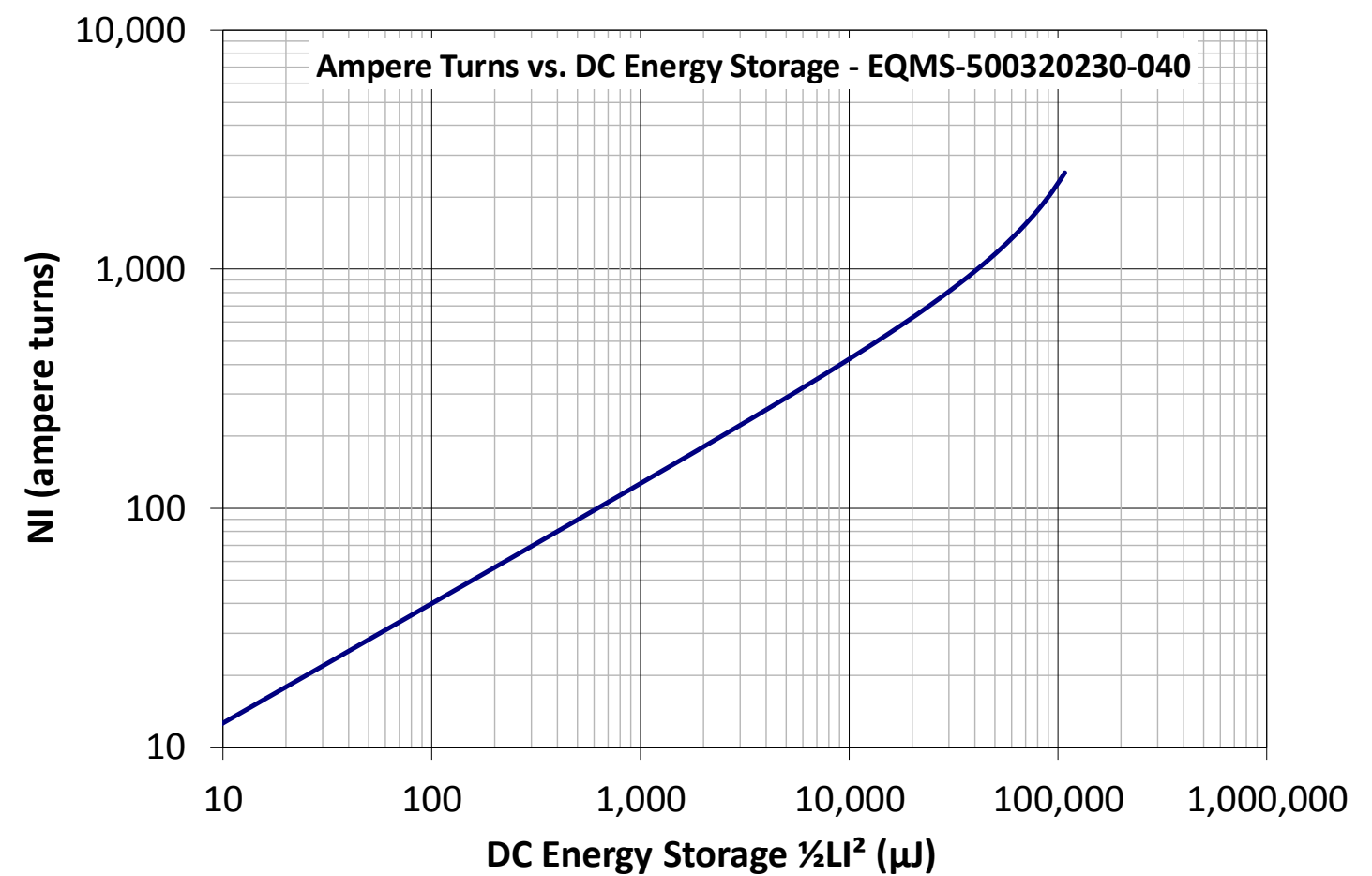
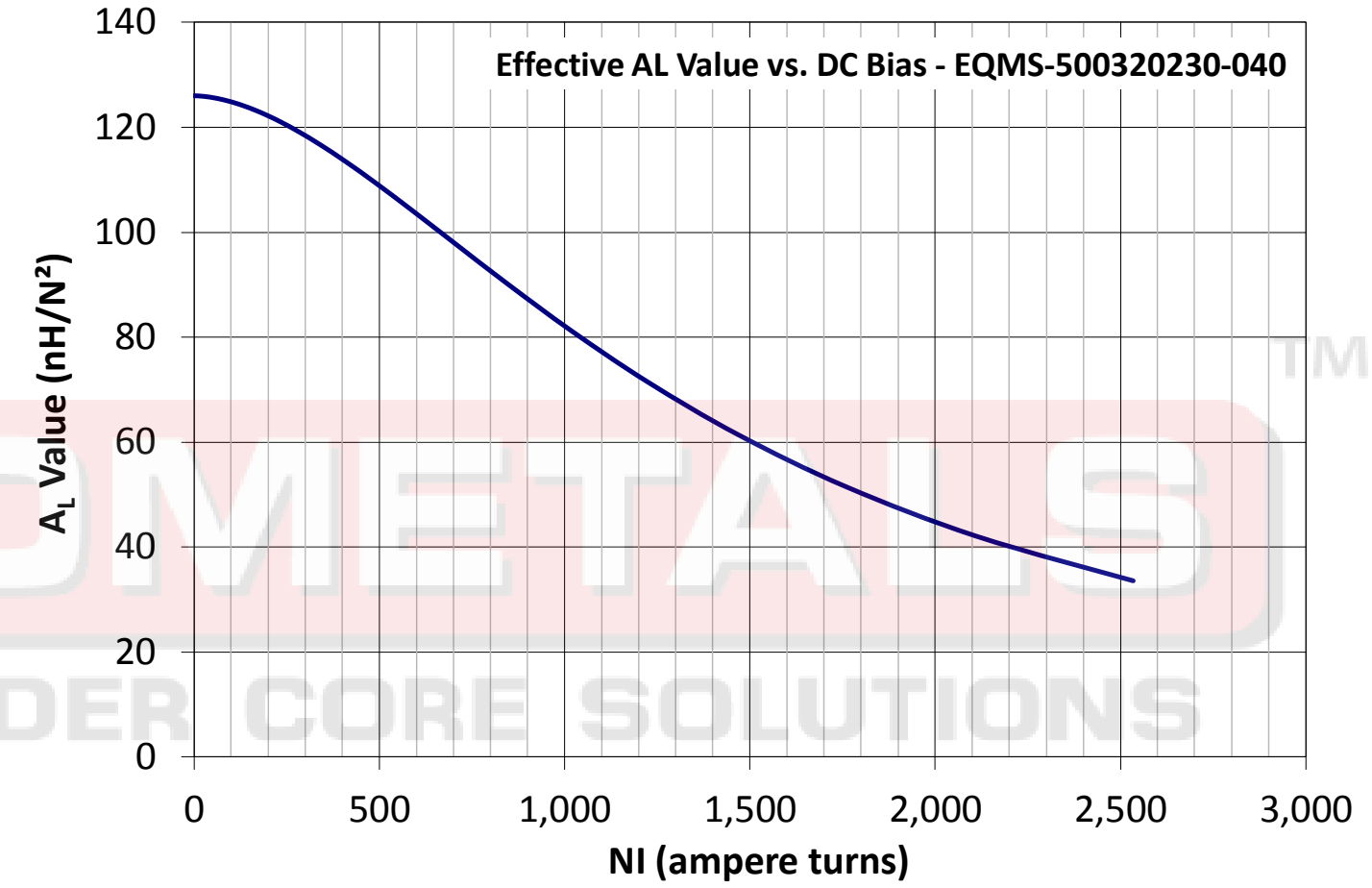
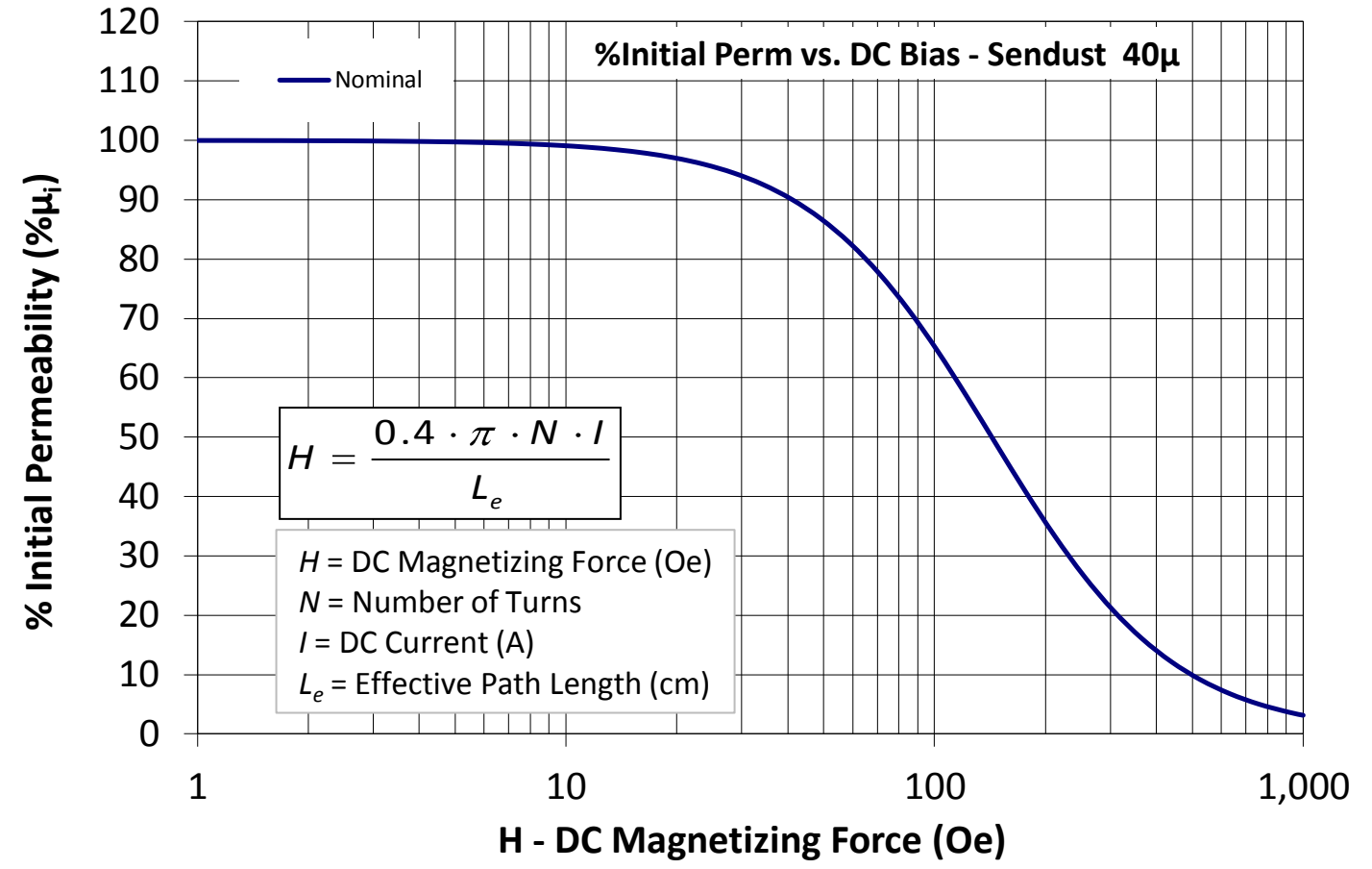
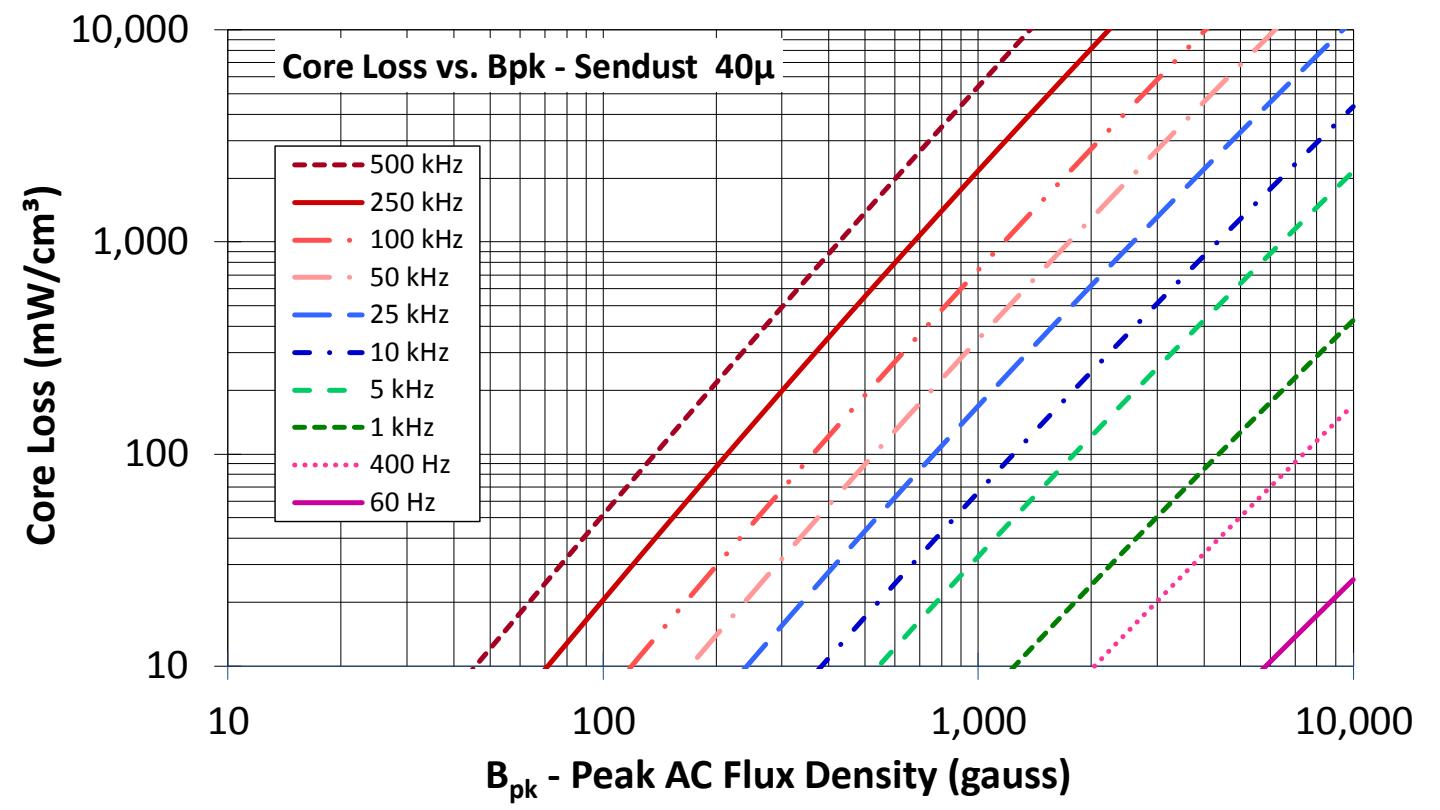
**Part Number:** EQMS-500320230-040

Revision 20190529 - Generated 2019-May-29



<b>A</b>	50 ± 0.61 mm	1.969 ± 0.024 in
<b>B</b>	32 ± 0.41 mm	1.260 ± 0.016 in
<b>C</b>	23 ± 0.41 mm	0.906 ± 0.016 in
<b>D</b>	17.1 mm (min.)	0.673 in (min.)
<b>E</b>	20 ± 0.30 mm	0.787 ± 0.012 in
<b>F</b>	43.5 mm (min.)	1.713 in (min.)
<b>Mass</b>	(approximate)	99 grams/half
<b>Magnetic Dimensions</b>	A <sub>e</sub> - Eff. Mag. Cross Section	3.14 cm <sup>2</sup>
	L <sub>e</sub> - Eff. Mag. Path Length	12.54 cm
	V <sub>e</sub> - Eff. Core Volume	39.4 cm <sup>3</sup>
	WA - Min. Eff. Window Area	3.97 cm <sup>2</sup>
	sa - Surface Area	104 cm <sup>2</sup>
	mlt - mean length per turn	9.97 cm
<b>Inductance</b>	μ <sub>i</sub> (reference)	40
	A <sub>L</sub> value (nominal)	126 nH/N <sup>2</sup>
	Test Winding	N=30, #18 AWG
	Frequency	10 kHz
	Voltage on Agilent 4284A	0.42 V
	A <sub>L</sub> tolerance	±12%
<b>Core Loss</b>	$\text{Core Loss (mW/cm}^3\text{)} = \frac{f}{\frac{a}{B_{pk}^3} + \frac{b}{B_{pk}^{2.3}} + \frac{c}{B_{pk}^{1.65}}} + d \cdot B_{pk}^2 \cdot f^2$	
	where B <sub>pk</sub> expressed in gauss, f expressed in hertz, and: a=1.00E+06, b=4.96E+08, c=8.10E+06, d=8.55E-15	
	B <sub>pk</sub>	1000 G
	frequency	50 kHz
	Core Loss (nominal)	347 mW/cm <sup>3</sup>
Core Loss (maximum)	400 mW/cm <sup>3</sup>	
<b>DC Saturation</b>	$\% \mu_i = \frac{1}{a + b \cdot H^c} + d$	
	where H expressed in oersteds, and: a=0.01, b=1.58E-06, c=1.76, d=0.00	
	H <sub>DC</sub>	100 Oe
	Percent Initial Perm(nom.)	65.3%
Percent Initial Perm(min.)	57.7%	
<b>Coating/Pkg</b>	Coating Type:	None
	Voltage Breakdown (min.)	N/A
	Limit	N/A
	Package Quantity	72 Halves/Box

<b>Winding Table</b>	<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	21	33	51	79	123	190	294	455	704	1,090	1,687
		Rdc(Ω)	4.3 m	10.8 m	26.5 m	65.2 m	161.4 m	396.5 m	975.7 m	2.4	5.9	14.6	35.8



**Handling and Storage:** Cores should be stored in the original unopened packaging between -10°C and +50°C and less than 60% relative humidity. After the original packaging is opened, the cores should be stored between -8°C and +25°C less than 30% relative humidity. Gloves should be used when handling uncoated cores. The cores should also be sheltered from rain, moisture, salt water, salt air, plasters, ashes, sulfur, sulfur dioxide, ammonia sulfates, soils, acids, metals shavings, and solvents.

**Operating Temperature:** Cores can be used continuously at operating temperatures between -60°C and +200°C.

RoHS 2.0, REACH and ISO (TS16949, ISO 9001, ISO 14001) compliant. Statements available for download at [www.micrometalsapc.com](http://www.micrometalsapc.com).

Micrometals Alloy Powder Cores, A Division of Micrometals, Inc. - 5615 E. La Palma Ave., Anaheim, California 92807 USA

Ph: +1-714-970-9400, Toll Free in USA: +1-800-356-5977, Asia Pacific Sales: +852 3106 3736

[www.MicrometalsAPC.com](http://www.MicrometalsAPC.com)