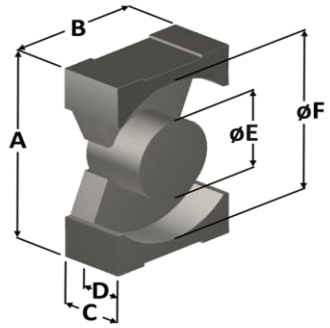
MICROMETALS™
POWDER CORE SOLUTIONS

Part Number:	PQHF-213140081-026
Revision:	2023-Dec-06



A	21.30 ± 0.41 mm	0.839 ± 0.016 in
B	14.00 ± 0.41 mm	0.551 ± 0.016 in
C	8.100 ± 0.203 mm	0.319 ± 0.008 in
D	5.000 mm (min.)	0.197 in (min.)
E	8.800 ± 0.41 mm	0.346 ± 0.016 in
F	17.60 mm (min.)	0.693 in (min.)
Mass	(approximate)	6.8 grams/half

Magnetic Dimensions

A_e - Eff. Mag. Cross Section	0.619 cm²
L_e - Eff. Mag. Path Length	3.76 cm
V_e - Eff. Core Volume	2.33 cm³
WA - Min. Eff. Window Area	0.420 cm²
sa - Surface Area	18.1 cm²
mlt - mean length per turn	4.15 cm

Inductance

μ_i(reference)	26
A_L value (nominal)	54 nH/N²
Test Winding	N=10, #20 AWG
Frequency	10 kHz
Voltage on Agilent 4284A	0.027 V
A_L tolerance	±12%

Core Loss

$$\text{Core Loss(mW/cm}^3\text{)} = \frac{f}{\frac{a}{Bpk^3} + \frac{b}{Bpk^{2.3}} + \frac{c}{Bpk^{1.65}}} + d \cdot Bpk^2 \cdot f^2$$

where B_{pk} expressed in gauss, f expressed in hertz, and:

a=1.000E+06, b=1.746E+08, c=2.796E+06, d=2.196E-14

B_{pk}	300	G
frequency	100 k	Hz
Core Loss (nominal)	192	mW/cm³
Core Loss (maximum)	221	mW/cm³

DC Saturation

$$\%\mu_i = \frac{1}{a + b \cdot H^c} + d$$

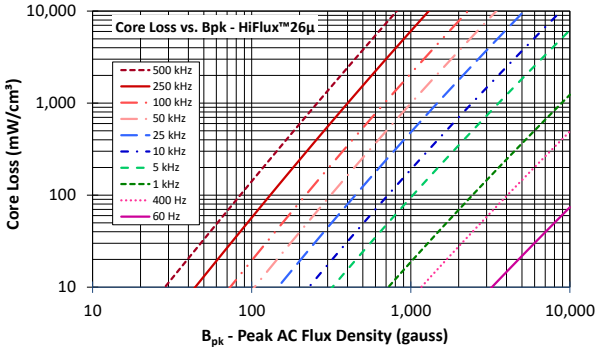
where H expressed in oersteds, and:

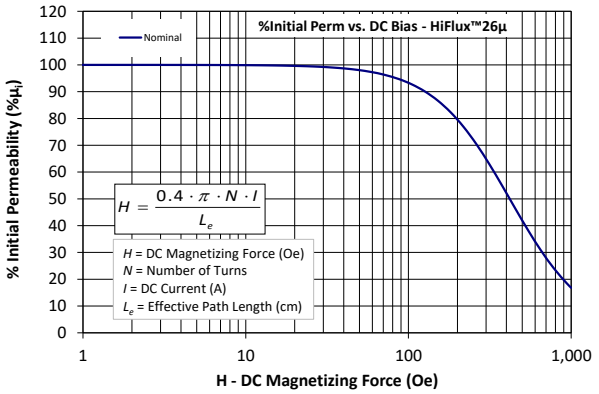
a=1.000E-02, b=1.509E-07, c=1.839, d=0.000

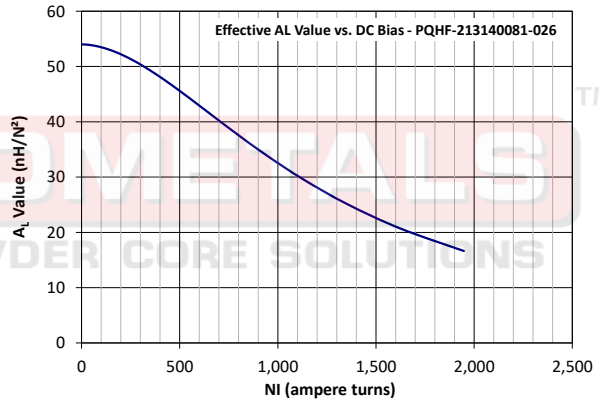
H_{DC}	200	Oe
Percent Initial Perm(nom.)	79.6	%
Percent Initial Perm(min.)	73.6	%

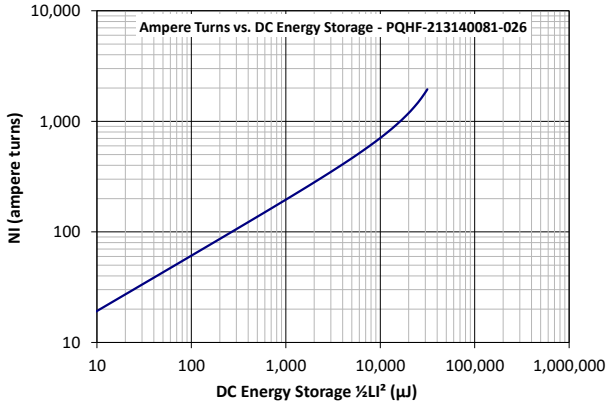
Coating/Pkg

Coating Type:	None
Voltage Breakdown (min.)	N/A
Limit	N/A
Package Quantity	864 Halves/Box









Winding Table

Wire Size	AWG	18	20	22	24	26	28	30	32	34	36	38
	mm	1.000	0.800	0.630	0.500	0.400	0.315	0.250	0.200	0.160	0.125	0.100
Full Winding	Turns	20	31	48	75	115	178	276	428	662	1,024	1,585
	Rdc(Ω)	17.4 m	42.8 m	105.3 m	261.7 m	638.3 m	1.6	3.9	9.6	23.5	57.8	142.3

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.

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