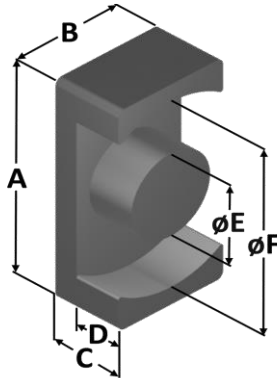




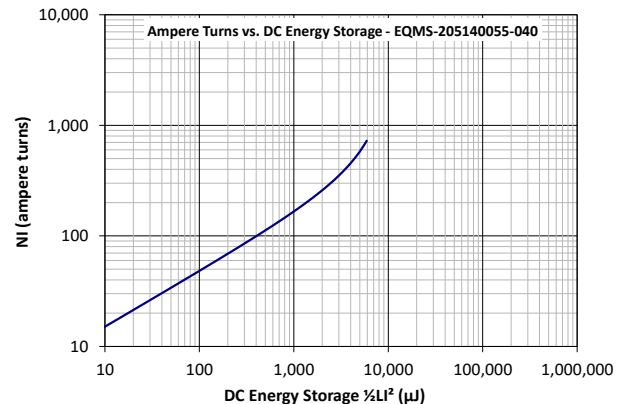
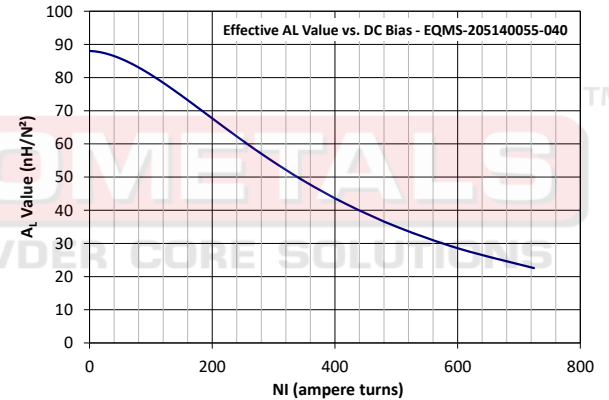
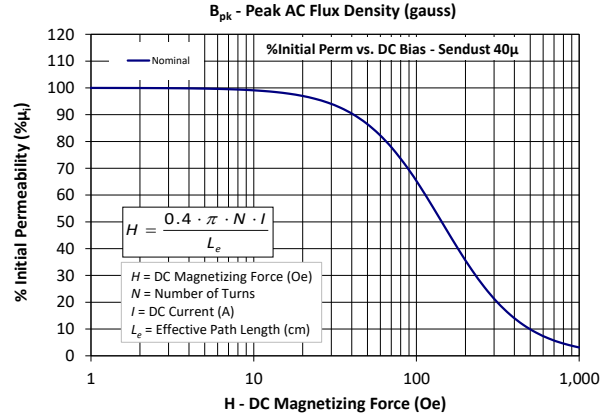
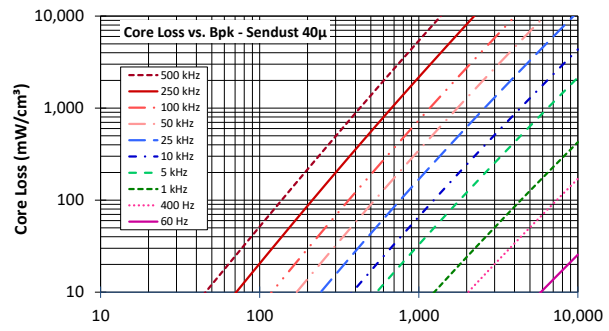
Part Number: EQMS-205140055-040

Revision: 2023-Dec-18



|                            |                                                                                                                                                                                                                                                                                             |                  |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| <b>A</b>                   | 20.50 ± 0.30 mm                                                                                                                                                                                                                                                                             | 0.807 ± 0.012 in |
| <b>B</b>                   | 14.00 ± 0.20 mm                                                                                                                                                                                                                                                                             | 0.551 ± 0.008 in |
| <b>C</b>                   | 5.500 ± 0.203 mm                                                                                                                                                                                                                                                                            | 0.217 ± 0.008 in |
| <b>D</b>                   | 2.800 mm (min.)                                                                                                                                                                                                                                                                             | 0.110 in (min.)  |
| <b>E</b>                   | 8.800 ± 0.20 mm                                                                                                                                                                                                                                                                             | 0.346 ± 0.008 in |
| <b>F</b>                   | 17.80 mm (min.)                                                                                                                                                                                                                                                                             | 0.701 in (min.)  |
| <b>Mass</b>                | (approximate)                                                                                                                                                                                                                                                                               | 5.4 grams/half   |
| <b>Magnetic Dimensions</b> | $A_e$ - Eff. Mag. Cross Section 0.608 cm <sup>2</sup><br>$L_e$ - Eff. Mag. Path Length 3.48 cm<br>$V_e$ - Eff. Core Volume 2.12 cm <sup>3</sup><br>$W_A$ - Min. Eff. Window Area 0.246 cm <sup>2</sup><br>$s_a$ - Surface Area 14.0 cm <sup>2</sup><br>$mlt$ - mean length per turn 4.18 cm |                  |
| <b>Inductance</b>          | $\mu_i$ (reference) 40<br>$A_L$ value (nominal) 88 nH/N <sup>2</sup><br>Test Winding N=10, #26 AWG<br>Frequency 10 kHz<br>Voltage on Agilent 4284A 0.027 V<br>$A_L$ 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 $B_{pk}$ expressed in gauss, $f$ expressed in hertz, and:<br>$a=1.000E+06$ , $b=4.962E+08$ , $c=8.098E+06$ , $d=8.549E-15$         |                  |
| <b>DC Saturation</b>       | $\% \mu_i = \frac{1}{a + b \cdot H^c} + d$ where $H$ expressed in oersteds, and:<br>$a=1.000E-02$ , $b=1.581E-06$ , $c=1.763$ , $d=0.000$                                                                                                                                                   |                  |
| <b>Coating/Pkg</b>         | Coating Type: None<br>Voltage Breakdown (min.) N/A<br>Limit N/A<br>Package Quantity 1,008 Halves/Box                                                                                                                                                                                        |                  |

|                      |                     |               |           |           |           |           |           |           |           |           |           |           |           |
|----------------------|---------------------|---------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>Winding Table</b> | <b>Wire Size</b>    | <b>AWG</b>    | <b>20</b> | <b>22</b> | <b>24</b> | <b>26</b> | <b>28</b> | <b>30</b> | <b>32</b> | <b>34</b> | <b>36</b> | <b>38</b> | <b>40</b> |
|                      |                     | mm            | 0.800     | 0.630     | 0.500     | 0.400     | 0.315     | 0.250     | 0.200     | 0.160     | 0.125     | 0.100     | 0.080     |
|                      | <b>Full Winding</b> | <b>Turns</b>  | 18        | 28        | 44        | 68        | 105       | 162       | 251       | 388       | 601       | 930       | 1,440     |
|                      |                     | <b>Rdc(Ω)</b> | 25.0 m    | 61.9 m    | 154.7 m   | 380.3 m   | 933.8 m   | 2.3       | 5.6       | 13.9      | 34.2      | 84.2      | 207.2     |



**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).**

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