

### Mechanical Specification

**Part Number:**

HMR166HP-1631A8

**Nominal Core Dimensions:**

7.87 x 6.89 x 1.18 inch  
(200 x 175 x 30mm)

**Finished Core Dimensions:**

OD ≤ 8.19 inch (208.0 mm)  
ID ≥ 6.54 inch (166.0 mm)  
H ≤ 1.46 inch (37.0 mm)

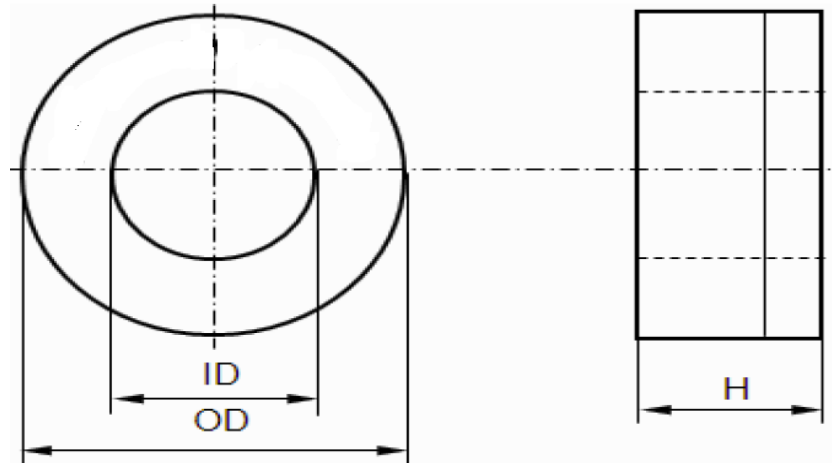
$$l_{\epsilon} = 58.52 \text{ cm} \quad A_{\epsilon} = 2.74 \text{ cm}^2$$

Currie Temp = 1,112°F (600 °C)

RTI Temp (0.81) = 248°F (120°C)

Core Material: Nanoperm

Marking: HMR166HP-1631A8



Notes:

Packing: 1 pc per layer, 2 layers/box; Box Quantity = 2 pcs

### Electrical Core Performance

Permeability @ frequency = 10 KHz and Hpeak = 3.13mA/cm ~60,000

| Inspection Value | Measured Value                      | Measurement Limits | Frequency | L <sub>eff</sub> * N (mA*turn) | Maximum Asymmetric Current I <sub>sat</sub> * (Sum Peak Current) |
|------------------|-------------------------------------|--------------------|-----------|--------------------------------|--|
|                  | A <sub>ε</sub> (μH/N <sup>2</sup> ) | 24.9 - 49.8        | 10 KHz    | 130                            |  |
|                  | A <sub>ε</sub> (μH/N <sup>2</sup> ) | 8.5 min            | 100 KHz   | 130                            |  |
|                  |                                     |                    |           |                                | 7.8 A  |

\*Saturation Current Isat of NANOPERM®: Peak value of the exiting current when the initial inductance level is dropped to 10 per cent. Saturation behaviour is dependant on frequency, signal shape and leakage field. The current value is a calculated value for design help only and cannot be guaranteed. Isat is calculated @ B = 1.0 T - μnom - N = 1.

### Core Finishing

|                      |           |                    |  |
|----------------------|-----------|--------------------|--|
| Type:                | BLUE Case | Case material:     | Zytel FR70G25 V0 NNC10 with RAL 5012 Blue Pigment    |
| Case UL file Number: | E41938    | Voltage Breakdown: | 2,500 volts rms between two copper wires on the core |

### Certification

MH&W International certifies that the manufacturing and the quality process meet all requirements of IEC Part 1: General Specification for "Fixed Inductors For Electromagnetic Interference Suppression", IEC 60938-1:1999 + A1:2006. This International Standard is used in lieu of requirements/documents pertaining to UL, CE, CSA, DIN and other individual agencies. The flame insulation rating meets UL-94V-0.

MH&W International certifies the product described herein is in compliance with the Directive 2011/65/EU of the European Parliament and of the council of 8 June, 2011 on the Restriction of the use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS2 Directive).

| Revision #                      | DATE       | Alteration    | Drawing Approval |           |
|---------------------------------|------------|---------------|------------------|-----------|
| 1                               | 12/12/2013 | INITIAL ISSUE | Engineering:     | K. Giles  |
|                                 |            |               | Sales:           | B. Wilson |
| Drawing Number: HMR166HP-1631A8 |            |               |                  |           |