

# CoolBLUE® CBR123HP1Ø1-428A12

## Product Specification For Inductive Common Mode Choke Components



MH&W International Corp.

575 Corporate Drive Mahwah, NJ 07430 USA

Phone 201-252-8125 Email: coolblue@mhw-intl.com

### Mechanical Specification

**Part Number:**

CBR123HP1Ø1-428A12

**Nominal Core Dimensions:**

6.30 x 5.12 x 1.18 inch  
(160 x 130 x 30 mm)

**Finished Core Dimensions:**

OD ≤ 6.50 inch (165.0 mm)  
ID ≥ 4.84 inch (123.0 mm)  
H ≤ 1.34 inch (34.0mm)

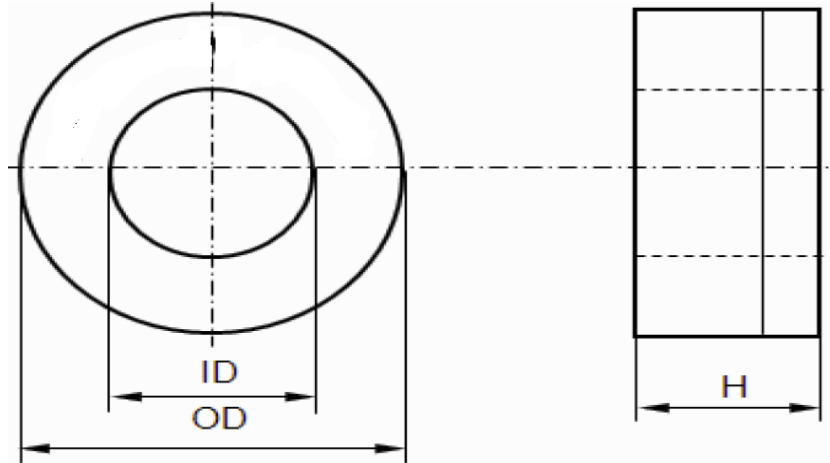
$$l_E = 45.39 \text{ cm} \quad A_E = 3.24 \text{ cm}^2$$

Currie Temp = 1,112°F (600 °C)

RTI Temp (0.81) = 248°F (120°C)

Core Material: Nanoperm®

Marking: CBR123HP1Ø1-428A12



Notes:

Packing: 1 pc per layer, 5 layers/box; Box Quantity = 5 pcs

### Electrical Core Performance

Permeability @ frequency = 10 KHz and Hpeak = 3.12 mA/cm ~30,000

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> )	20.9 - 45.0	10 KHz	100	
	A <sub>ε</sub> (μH/N <sup>2</sup> )	10.5 min	100 KHz	100	

\*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	
5	8/17/2017	INITIAL ISSUE	Engineering:	K. Giles
			Sales:	B. Wilson
Drawing Number: CBR123HP1Ø1-428A12				