



CCNT-040-025-015-MFBL

Nanocrystalline toroidal core 40x25x15 mm

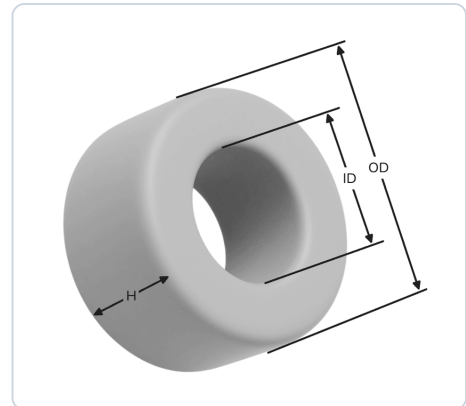
DIMENSIONS

Parameter	Bare (mm)	Cased (mm)
Outside diameter (OD)	40	44.2
Inside diameter (ID)	25	21.6
Height (H)	15	18.9

Dimensions Summary: Bare OD 40mm x ID 25mm x H 15mm; Cased OD 44.2mm x ID 21.6mm x H 18.9mm

Finished tolerance: 0.4mm

Case marking uses bare core dimensions.



CORE PROPERTIES

A_{Fe}	0.92 cm ²	L_{Fe}	10.2 cm	B_s	1.25 T	μ_i	80,000
Working temp	-40°C – +130°C	Curie	560 °C	Casing	PBT Class B 130C	Weight	79 g

INDUCTANCE FACTOR AL ($\mu H/N^2$)

1kHz ($\mu H/N^2$)	10kHz @ 2mT ($\mu H/N^2$)	100kHz @ 2mT ($\mu H/N^2$)
200	70	15

DESIGN NOTE

Published AL is for the finished closed toroid under the stated test conditions ($N = 1$) and is typical, with a tolerance of $\pm 30\%$. Estimate inductance as $L \approx AL \times N^2$, then verify on the wound part. Size the winding to the cased inside diameter, not the bare ID. High- μ_i nanocrystalline toroids suit current transformers, common-mode chokes, and gate-drive isolation; for DC-biased PFC or reactor designs that need a controlled air gap, use a cut core. Keep peak flux within 1.25 T and continuous case temperature within the PBT Class B 130°C rating.

TYPICAL APPLICATIONS

Protective Relay Cts | Solid-State Transformer Cores | Medium-Frequency Power Transformers | Metering Cts | Protection-Class Current Transformers

DOCUMENT CONTROL

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