

CENTURACORES

Nanocrystalline Transformer Cores

<https://centuracores.com/products/ccnt-040-032-015-hfwh/>

Product datasheet: CCNT-040-032-015-HFWH

Product information

Nanocrystalline toroidal core 40x32x15 mm

Bare size: 40x32x15 mm

Finish: White PBT Class B 130C

CCNT-040-032-015-HFWH is a 40x32x15 mm nanocrystalline toroidal core for RCD/GFCI residual-current sensing, ground-fault detection for EV chargers, and cable-bundle EMI suppression. Its nanocrystalline HF characteristic supports common-mode and EMI filter designs where impedance and winding window matter as much as size. Choose this size when the filter or choke needs this window and OD, not the next larger footprint.

Bare core dimensions

Outer diameter (OD): 40 mm

Inner diameter (ID): 32 mm

Height (H): 15 mm

Cased / finished dimensions

Outer diameter (OD): 45.5 mm

Inner diameter (ID): 28.5 mm

Height (H): 18.8 mm

Tolerance: 0.4mm

Size marking on the case is the bare core dimension, not the cased or finished size.

Magnetic properties

Effective area A_e : 0.5 cm²

Mean path length L_e : 11.3 cm

AL @ 10kHz, 2mT: 49 uH/T²

AL @ 100kHz, 2mT: 13 uH/T²

Saturation B_s : 1.25 Tesla

Initial permeability μ_i : 80000

Curie temperature: 560 C

Operating temperature: -40 deg C to +130 deg C

Net weight: 42 g

Applications

- RCD/GFCI residual-current sensing
- ground-fault detection for EV chargers
- cable-bundle EMI suppression
- leakage current monitoring
- residual-current device (RCD) sensing transformers
- EV charger ground-fault detection cores
- cable-bundle/busbar common-mode EMI filters
- leakage-current monitoring transformers