

# CENTURACORES

Nanocrystalline Transformer Cores

<https://centuracores.com/products/ccnt-100-080-020-hfbk/>

## Product datasheet: CCNT-100-080-020-HFBK

### Product information

Nanocrystalline toroidal core 100x80x20 mm

Bare size: 100x80x20 mm

Finish: Black PBT Class B 130C

CCNT-100-080-020-HFBK is a 100x80x20 mm nanocrystalline toroidal core for large-cable ground-fault CTs, busbar metering CTs, and industrial residual-current monitoring. Its nanocrystalline HF characteristic suits higher-frequency magnetics where size, window, and permeability must stay in balance. Choose this size when cable or busbar clearance and magnetic area come first.

### Bare core dimensions

Outer diameter (OD): 100 mm

Inner diameter (ID): 80 mm

Height (H): 20 mm

### Cased / finished dimensions

Outer diameter (OD): 104.5 mm

Inner diameter (ID): 75.8 mm

Height (H): 23.4 mm

Tolerance: 1mm

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

### Magnetic properties

Effective area  $A_e$ : 1.67 cm<sup>2</sup>

Mean path length  $L_e$ : 28.2 cm

AL @ 10kHz, 2mT: 58 uH/T<sup>2</sup>

AL @ 100kHz, 2mT: 17 uH/T<sup>2</sup>

Saturation  $B_s$ : 1.25 Tesla

Initial permeability  $\mu_i$ : 80000

Curie temperature: 560 C

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

Net weight: 316 g

### Applications

- large-cable ground-fault CTs
- busbar metering CTs
- industrial residual-current monitoring
- utility-scale current sensing
- large-cable/busbar ground-fault protection CTs
- utility-scale revenue metering CTs
- industrial residual-current monitoring transformers
- switchgear/panel current-sensing cores