

PRODUCT DATASHEET

Nanocrystalline Rectangular Cut Core (C-Core)

High-Performance Magnetic Solutions with Ultra-Thin Ribbon (<26μm) for Transformers and Inductors

DG Focus Technology Co., Ltd. · Source page: product-nanocrystalline-c-core.html · Compiled 24 September 2026. Values are copied from that page.

Custom sizes and windings available — request a quote at www.magcomponent.com/contact.html

MagComponent provides high-performance nanocrystalline rectangular cut cores (commonly known as C-cores), manufactured using ultra-thin ribbon material with thickness less than 26 μm. This product combines high saturation flux density with excellent frequency characteristics, making it an ideal choice for high-performance transformers and inductors.

Electromagnetic characteristics

The page describes stability in high-temperature and high-frequency environments, with these published values:

Parameter	Published value
Saturation flux density (Bs)	1.2 T
Resistivity (ρ)	100 μΩ·cm
Curie temperature (Tc)	570°C
Crystallization temperature (Tx)	510°C
Max operating temperature	<155°C
Ribbon thickness	<26 μm
Density	7.2 g/cm³
Saturation magnetostriction (λs)	2~3

Standard product selection table

The following table shows MagComponent's popular model specifications (more models available in the complete manual):

Model (P/N)	Core build (a)	Window (b×c)	External (e×f)	Ae (cm²)	Weight (g)
MCNC 158	9.0 mm	10 × 32.8 mm	28 × 50.8 mm	1.18	87
MCNC 246	13.0 mm	15 × 56.0 mm	41 × 82.0 mm	2.83	334
MCNC 308	16.0 mm	20 × 70.0 mm	52 × 102.0 mm	3.49	519
MCNC 474	26.0 mm	45 × 88.0 mm	97 × 140.0 mm	6.80	1537
MCNC 680	40.0 mm	50 × 130.0 mm	130 × 210.0 mm	17.44	5503

* Note: All dimensional tolerances follow industry standards. Please refer to the specification sheet for detailed data.

Geometric parameter definitions

The page defines these symbols for each core:

- a: core build (core thickness)
- b: window width
- c: window height (window length dimension)
- d: core height
- e: core width
- f: core length
- Ae: effective cross-section area
- Aw: window area

Applications

As published on the product page:

- High-performance transformers
- High-performance inductors
- High-frequency transformers and inductors for power conversion

Published notes

- Customization published on the page: custom dimensions based on specific requirements, special geometric configurations, application-specific optimizations, and prototype development support.
- All data listed in this catalog are based on optimally annealed samples and are provided for design reference purposes only. They do not represent the sole basis for final order guarantees.

Not published on this product page. These items are omitted rather than estimated:

- Permeability (μ i or otherwise) is not published on this page.
- Core height (d) and window area (Aw) are defined, but values are not tabulated for the listed models.
- Numeric dimensional tolerances are not published. The page says tolerances follow industry standards.
- Saturation magnetostriction is published as 2~3. The page does not state the unit.
- Core loss, AL, and an operating frequency range are not published on this page.

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