

PRODUCT DATASHEET

High-Efficiency Nanocrystalline Cut Core PFC Inductor

Product model: MCNC0603

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

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MagComponent presents the MCNC0603 nanocrystalline cut core PFC inductor, specifically designed for inductive compensation PFC circuits and active PFC circuits. This component improves power factor and reduces reactive power, significantly enhancing power conversion efficiency.

Electrical characteristics — MCNC0603

Values below are printed in the technical specifications, performance, and detailed electrical characteristics sections.

Parameter	Published value
Core	Nanocrystalline magnetic core with FR-4 base
Inductance	5.1mH ±30% @60Hz/1.0V
Rated current (IDC)	Maximum 15.0A
DC resistance (DCR)	Maximum 900mΩ
Permeability	180, operator not legible on the page (see gaps)
Constant bias range	0-50 Oe
Operating temperature	-25°C to +85°C
Storage temperature	-40°C to +85°C
Withstand voltage test (Hipot)	1500Vac 5mA/3Sec (coil-core)
Interlayer short circuit test	1600Vac @60Hz
Product dimensions	69×53×40mm
Origin	China
HS code	8504500000
Packaging dimensions	5.00×5.00×4.00cm
Gross weight	0.300kg

The summary card prints inductance as 5.1 mH @60Hz/1.0V and operating temperature as -25°C to 85°C. Tolerance ±30% and the storage range are in the detailed section and the feature list.

Applications

As published on the product page:

- Inductive compensation PFC circuits and active PFC circuits
- Power factor correction in variable frequency air conditioner power supplies, UPS switching power supplies, and plasma TVs
- Output filter inductors in switching power supplies and converters
- Differential mode noise filter inductors

Published notes

- The page describes high linear permeability, extremely low high-frequency loss, and excellent frequency characteristics and temperature stability. No separate core-loss number is published.
- The page states that customization is available for special requirements and performance specifications.
- Published packaging dimensions (5.00×5.00×4.00cm) are smaller than the published product outline (69×53×40mm). Both figures are copied as printed. Confirm packaging before design use.

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

- Permeability is printed as the Greek letter μ , then Unicode U+FFFD, then a question mark, then 180. This datasheet does not read that broken character as $\geq$, $\approx$, $=$, or any other operator. Only the number 180 is legible.
- Saturation flux density (Bs), ribbon thickness, and a numeric core-loss figure are not published on this page.
- No additional MCNC0603 electrical ratings beyond the rows above are published on this page.

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