



PRODUCT DATASHEET

Low Permeability Nanocrystalline Ribbon

Tension annealed to 200–600 μ i for DC-biased inductors

DG Focus Technology Co., Ltd. · Source page: product-low-permeability-nano-ribbon.html · Compiled 25 September 2026. Values are copied from that page.

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Tension-annealed nanocrystalline ribbon held to a controlled permeability of 200–600 μ i for DC-biased inductors. Saturation flux density on this page is 1.2 T. Inductance is described as stable from 1 kHz to 1 MHz. It is not a substitute for high-permeability 1K107.

Published characteristics

Parameter	Published value
Initial permeability (μ i)	200–600, with named grades 200, 300, 400, 500, and 600
Saturation flux density (Bs)	1.2 T on this page
Frequency	Inductance stability from 1 kHz to 1 MHz; resonance zone noted at 10–20 MHz
Operating temperature	–40°C to +150°C
DC bias sample	22-turn sample, as printed

Finished-core pages often print Bs $\approx$ 1.2 T typical. The 1K107 ribbon page prints Bs $\approx$ 1.25 T. This page prints 1.2 T.

Grades with bias numbers (22-turn sample)

μ i	Inductance stability to 1 MHz	Saturation field H	DC bias (22 turns)
200	Excellent	$\sim$ 60 Oe	$\sim$ 10.0 A
400	Excellent	$\sim$ 30 Oe	$\sim$ 5.0 A
600	Good	$\sim$ 20 Oe	$\sim$ 3.5 A

The page also says the 200 μ i grade holds stable inductance up to 10 A or 50–60 Oe. Field strength and bias current are not published for grades 300 and 500.

Applications

As published on the product page:

- EV onboard-charger inductors and DC-DC converters
- Solar high-power filter inductors and DC-link inductors
- Industrial power-supply magnetics in the 1 kHz to 1 MHz band
- Differential-mode filtering on a DC-biased winding

Published notes

- 200 and 300 μ i are described as the maximum DC-bias pair. 400, 500, and 600 μ i are described as the higher-inductance pair.
- The page points common-mode chokes that need permeability above 80,000 to the 1K107 ribbon, and 50 Hz distribution transformers to 1K101.

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

- Saturation magnetostriction (λ_s), core loss, and Curie temperature are not published on this page.
- Bias current and field strength for the 300 μ i and 500 μ i grades are not published. Do not interpolate the 22-turn table.

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