High Current Flat Wire Inductor (Edge-Wound Copper)

Product Design Reference | PMT-PR-2026-1112-09 | Rev A/0 | 2026-11-12

This reference reproduces published product information and its stated evidence status. Final project specifications require an approved drawing and sample acceptance record.

Published Parameters and Conditions

Parameter	Published value / interpretation
Inductance range:	1 μH - 100 μH
Rated current:	10 A - 200 A
DCR:	0.5 mΩ - 10 mΩ
Operating frequency:	20 kHz - 100 kHz
Operating temp:	-55 °C to +155 °C
Insulation class:	Class H (180 °C)

Application and Validation

Featuring flat copper wire winding technology for ultra-low DCR and excellent thermal performance. Designed for high-current applications like EV and energy storage systems, meeting strict power density and reliability requirements.

Documented references beyond this range: PHD6581 120 μH / 300 A (6 mΩ measured DCR) and a 500 μH / 50 A energy storage inductor .

PROMAGTECH supports custom inductance, current rating, core material, insulation class, cooling method, and mounting structure based on your converter topology and application environment.

Compare flat wire and round wire winding for DCR, thermal path, saturation behavior and power density.

Review an anonymized high-current design case with DC bias, compact envelope and sample-stage checks.

Round-wire versus flat-wire trade-offs for window fill, AC loss, thermal path and production consistency.

Project Review and Contact

Send voltage, topology, frequency, RMS and peak current, loaded inductance or turns ratio, thermal boundary, insulation and available mounting dimensions. Sample fees and delivery schedule are confirmed in the project quotation.

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Product page: https://www.promagtech.com/products/flat-wire-inductor.html

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