

CenturaCores Custom Nanocrystalline Core RFQ Template

<https://centuracores.com/resources/custom-nanocrystalline-core-rfq-template/>

CUSTOM NANOCRYSTALLINE CORE SPECIFICATION

CenturaCores RFQ Template |

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Companion guide: <https://centuracores.com/articles/how-to-specify-custom-nanocrystalline-cores/>

Buyer: _____ Date: _____ Rev: _____
Company: _____ Contact / email: _____

1. FUNCTION

☐ CMC/EMI ☐ Metering CT ☐ Protection CT ☐ RCD ☐ HF transformer ☐ Other: _____

One-line duty: _____

2. ELECTRICAL / MAGNETIC OPERATING POINT

Frequency: _____ Hz / kHz (range: _____ to _____)

Waveform: ☐ sine ☐ square ☐ PWM Duty: _____

Form factor kw (info): _____ (e.g. 4.44 sine / 4.0 square)

Bpk or V-s: _____ T or _____ V·μs Margin for transient: _____%

Temp: ambient _____°C hotspot _____°C

Max core loss: _____ W (or _____ W/kg) at B=_____ T, f=_____, T=_____°C

Ribbon thickness class: ☐ 20–25 μm ☐ "d18 μm ☐ other: _____

3. PERMEABILITY / AL (enforceable)

Target: μ_i or μ_e "e _____ OR AL "e _____ nH/N²

Test: f=_____, H=_____ A/m (or B=_____ mT), T=_____°C, fixture: _____

Loop / anneal: ☐ R-round ☐ Z-square ☐ F-flat (transverse, low Br, DC bias)

Br/Bs limits if any: _____

Note: R/Z/F is supplier shorthand. State remanence and bias needs explicitly.

4. APPLICATION EXTRAS

CMC: Iline=_____ A; Zcm/IL table attached; max "I/surge=_____ A

CT: class=_____; burden=_____ VA (meter + wiring); Is=_____ A; ALF/Vk=_____; Rf=_____ kA

RCD: I"n=_____ mA; bandwidth=_____

5. GEOMETRY

Shape: ☐ toroid ☐ oval ☐ rect ☐ C-cut ☐ E ☐ other

Drawing No: _____ OD/ID/HT or A/B/C: _____

Gap (if cut): g=_____ mm; faces: _____

Finish: ☐ bare ☐ epoxy ☐ case _____ Color/markings: _____

Stacking factor assumption for design: Kstack=_____ (info only; typically 0.75–0.85)

6. ENVIRONMENT / MECHANICAL

Mounting: _____ Clamp limits: _____ Potting/PCB notes: _____

Packaging: export anti-vib / moisture barrier required: ☐ Y ☐ N

7. QUALITY

Reports required: dimensions, μ /AL, loss, (CT excitation), FAI

Sampling: _____

8. COMMERCIAL

Qty: proto _____ / prod _____ Target lead time: _____

Ship to: _____

ATTACHMENTS

☐ Dimensioned drawing (PDF) ☐ IL/Zcm table ☐ Excitation / burden notes ☐ Other: _____

Submit with your drawing via <https://centuracores.com/request-quote/>

Or open the Core Designer: <https://centuracores.com/tools/custom-transformer-core-designer/>