

Low-Frequency & Power Transformer

RFQ Checklist & Selection Quick Reference

Share as much of the detail below as you can — the more we have, the faster one dedicated engineer can return a proposed design and indicative pricing (typically within 48 hours). P&A International is an engineering-led contract manufacturer; every supplier in our network is ISO 9000 certified or better.

1. What to send us for a fast, accurate quote

- Primary and secondary voltages, VA rating and number of outputs
- Line frequency (50 / 60 Hz) and single- or three-phase
- Load regulation required, taps, and any electrostatic screen
- Isolation and safety requirements, and target standards (IEC 61558 / EN 61558, CE, UL)
- Mechanical envelope — size, mounting (chassis / PCB / flying-lead), terminations — and thermal limits
- Target cost and annual volume or call-off pattern
- Any reference design, competitor part number or physical sample

2. Which transformer type? — quick reference

Type	Best for
Toroidal	High efficiency, low stray field, low audible noise — audio, medical, instrumentation.
EI laminated & control	Rugged, cost-effective industrial power, control and general-purpose use.
R-Type	Compact, high-efficiency alternative to toroidal/EI where space & thermal headroom matter.
Encapsulated & PCB	Sealed / potted, board-level isolation for moisture, vibration and safety-critical designs.
Three-phase	Industrial machinery, renewable-energy systems and three-phase power conversion.

3. Design factors that shape the quote

- **Voltage & regulation:** primary/secondary voltages, taps and the load regulation you need set the turns ratio, copper size and core. Tighter regulation = more copper and a larger core.
- **Temperature rise & insulation class:** core and copper loss drive temperature rise and the insulation class (A/E/B/F/H); lamination grade, wire gauge and build are chosen to stay inside your thermal limit.
- **Isolation & safety:** creepage/clearance, the insulation system (reinforced or screened) and compliance to IEC 61558 / EN 61558, CE and UL are designed in from the start.
- **Mounting & environment:** chassis, PCB, flying-lead or encapsulated — with terminations and potting to suit your enclosure, assembly and operating environment.

Send your completed checklist (and any schematic, drawing or sample) and one dedicated engineer will respond with a proposed design and indicative pricing. No project too big or too small.