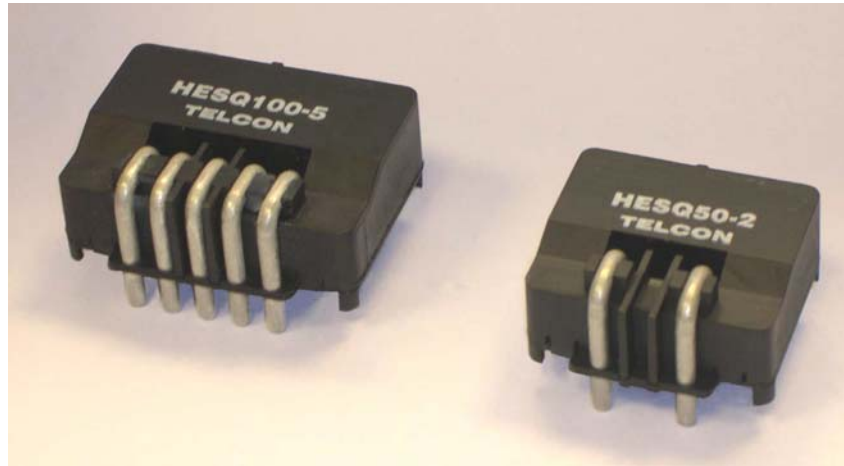


Miniature Electronicless Closed Loop Current Transformer HESQ50 & HESQ100



The HESQ50 & HESQ100 are both Hall Element coil and lamination stack assemblies, fitted with isolated primary turns, enabling the implementation of a full Closed Loop Hall Effect Current Transformer by the addition of the requisite electronic circuitry.

The HESQ range complements the existing HES range giving PCB mounting for all connections including the primary while offering the most cost effective current sensor implementation.

Features

- Integrated Multiple Package
- 4.5kV Proof Stress
- Fast Response
- All Contacts Via PCB
- Designed In Quality

Applications

- Variable Speed Drives
- UP Systems
- D.C. Power Supplies
- Low Frequency Current Measurement

Benefits

- Component Placement Under Device
- Ease of Assembly
- Small PCB Footprint
- Galvanic Isolation
- High Accuracy

- Overcurrent Protection
- Robotics
- Frequency Inverters
- Power Factor Monitoring

| Electrical | HESQ50 | HESQ100 |
|---|---------------|----------------|
| Nominal Primary Current (total all hoops) | 50A | 100A |
| Max total continuous primary current | 70A | 150A |
| Primary Current per hoop | 40A | 40A |
| Turns Ratio | 1000:1 x 2 | 1000:1 x 5 |
| Coil Resistance | 51Ω | 41Ω |
| Proof Stress Voltage | 4kV | 4kV |
| Creepage Distance (pri - sec) | 7.5mm | 7.3mm |
| Clearance Distance | 7.5mm | 7.3mm |
| Operating Temperature Range | -10 to 85°C | -10 to 85°C |
| Storage Temperature Range | -40 to 100°C | -40 to 100°C |
| | | |
| Typical Dynamic Performance – in Application Circuit | | |
| Linearity | 0.1% | 0.1% |
| Limit of Linearity (total of all hoops) | 85A | 150A |
| Ratio Error | 0.5% | 0.5% |
| Zero Offset Drift (dc) | 5μA/°C | 3μA/°C |
| Bandwidth (1dB) | (DC - 25kHz) | (DC - 25kHz) |
| Delay time | 1.5μs | 1.5μs |
| Nominal Power Supply | ±15V | ±15V |
| Minimum Load Resistance | 22Ω | 15Ω |
| | | |
| General | | |
| Weight | 15g | 19g |
| Housing | Noryl | Noryl |
| Mounting | PCB | PCB |
| | | |
| Hoop Temperature rise @ I _{max tot.} | 18°C | 18°C |
| Hoop Resistance | 148μΩ | 148μΩ |
| | | |

As part of our policy of continuous product improvement we reserve the right to make modifications to this product without prior notice.