

Miniature Hall Effect Current Transformer Type HTP100CPT/2K



The HTP100CPT/2K is a closed loop Hall Effect Current Transformer suitable for measuring currents up to 100A. The product provides an output current into an external load resistance which is galvanically isolated from the primary conductor. All contacts, including the primary, are designed for PCB mounting.

The HTP100CPT/2K complements the existing HTP range giving comparable accuracy in a substantially smaller volume, and a smaller footprint. There are three separate primary conductors which can be connected in parallel to give the full rated current.

Features

- Miniature Package
- 5 kV Proof Stress
- Fast Response
- Contacts via PCB
- Designed in Quality

Benefits

- Small PCB Footprint
- Galvanic Isolation
- High Accuracy
- Ease of assembly
- High Reliability

Applications

- Variable Speed Drives
- UPS Systems
- D.C. Power Supplies
- Low Frequency Current Measurement
- Overcurrent Protection
- Robotics
- Frequency Inverters
- Power Factor Monitoring

TECHNICAL DATA

| | |
|-----------------------------|--------------------------------|
| Nominal Primary Current | 100A |
| Measurement Range | ±160A peak |
| Turns Ratio | 2000:1 |
| Nominal Power Supply | ±15V ±5% |
| Power Supply Current | 16mA per rail + output current |
| Minimum Load Resistance | 33 to 65 Ω |
| Operating Temperature Range | 0 to +85°C |
| Storage Temperature Range | -25°C to +90°C |

SPECIFICATION

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|---|----------------------------------|
| Linearity | 0.1% of nominal primary current. |
| Overall Accuracy | 0.5% of nominal primary current |
| Output Offset Current | <±100μA at primary current =0A |
| Output Offset Current After Overload | <±250μA at primary current =0A |
| Zero Offset/Temperature | <3μA/°C |
| Zero Offset/Supply Variation | <2μA/V |
| Coil resistance at 25°C | 64 Ω |
| Primary Conductor Resistance (each conductor) | 50μΩ |
| Bandwidth (-1dB) | dc to 70kHz |
| di/dt following | >50A/μs |
| Delay Time | 0.4μS |
| dV/dt Immunity | 10kV/μs |
| Proof Stress Voltage | 5kV a.c., rms, 50Hz for 1 minute |
| Creepage Distance | 7.4mm |
| Clearance Distance | 7.4mm |

GENERAL DATA

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|----------------------------|---|
| Weight | 11.4g nominal |
| Housing | PBT 15% Glass Filled Flammability Rating V0, CTI Rating >140 |
| Mounting | Direct mounting to PCB by 9 pins |
| Primary Conductor Material | Copper Tin Plated |
| Signal Sense | Positive output obtained when current flows in direction of arrow |

DIMENSIONS

