



Speciality Magnetic Components

QUALIFIED TO ISO 9001:2008

PCB Mounting Hall Effect Current Transformer Type HTP100C



The HTP100C 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.

The HTP100C is similar to the HTP100S but has the hole in the centre of the package and the pins closer to the centre line of the package for increased compatibility with the industry standard devices.

Features

- High Accuracy
- 5kV Proof Stress
- Fast response
- Designed-in Quality

Benefits

- Galvanic Isolation
- Wide Dynamic Range
- Non - Invasive
- High reliability

Applications

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

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

TECHNICAL DATA

ELECTRICAL

Nominal Primary Current	100A
Turns Ratio	1000:1
Nominal Power Supply	$\pm 15V \pm 5\%$
Supply Current	16mA per rail + output current
Minimum Load Resistance	45 Ω
Operating Temperature Range	0 to +70°C
Storage Temperature Range	-25°C to +90°C

SPECIFICATION

Linearity	0.1% of nominal primary current
Limit of Linearity	$\pm 140A$ peak
Overall accuracy	0.5% of nominal primary current
Output Offset Current	$< \pm 200\mu A$ at primary current = 0A
Zero Offset /Temperature	$< 5\mu A/^{\circ}C$
Zero Offset/Supply Variation	$< 5\mu A/V$
Coil Resistance at 25°C	32 Ω
Bandwidth (1dB)	DC to 150kHz
di/dt following	$> 200A/\mu s$
Delay time	0.1 μs
dV/dt Immunity	10kV/ μs
Proof Stress Voltage	5kV a.c., r.m.s, 50Hz for 1minute
Creepage Distance	6 mm
Clearance Distance	6 mm

GENERAL DATA

Weight	16g nominal
Housing	25% Glass Filled Nylon 66 Flammability Rating UL94 V0 , CTI Rating >600
Mounting	Direct mounting to pcb by 3 pins
Signal Sense	Positive output obtained when current flows as shown by arrow.
Conductor Temperature	The temperature of the primary conductor should not exceed 100°C
Conductor Position	Optimum dynamic performance is achieved with a single conductor filling the bore.

DIMENSIONS (mm)

