
Hall Effect Current Transformer Type HTP230



The HTP230 is a closed loop Hall Effect Current Transformer suitable for measuring currents up to 230A. The product provides an output current proportional to the primary current. The product has a through hole for the primary current which provides galvanic isolation from the supply and output connections. The supply and output pins are designed for pcb mounting. Clips allow it to snap into suitable slots in the pcb and the compliant design of the pins minimise internal and external stresses due to shock and vibration.

Features

- 3 kV Proof Stress
- Fast Response
- Control Connections via PCB
- Designed in Quality

Applications

- Variable Speed Drives
- UPS Systems
- D.C. Power Supplies
- Hoists and Lifts

Benefits

- Galvanic Isolation
- High Accuracy
- Ease of assembly
- High Reliability
- Overcurrent Protection
- Robotics
- Frequency Inverters
- Welding Supplies

TECHNICAL DATA

Nominal Primary Current	230A (a.c. rms sinewave or d.c.)
Turns Ratio	2000
Power Supply Voltage	$\pm 15V \pm 5\%$
Power Supply Current	16mA + output current
Minimum Load Resistance	30 Ω (See Note 1)
Operating Temperature Range	0 to +85°C
Storage Temperature Range	-40°C to +85°C

SPECIFICATION ($\pm 15V$ Supply, 25°C)

Linearity	$\pm 0.1\%$ of nominal primary current.
Limit of Linearity (with 30 Ω load)	$\pm 400A$ peak value
Overall Accuracy	0.5% of nominal primary current
Zero Offset	100 μA max.
Zero Offset Drift	3 $\mu A/^\circ C$ average over 0 to 85°C
Zero Offset change with Supply Voltage	3 $\mu A/V$
Coil resistance	24 Ω
1dB Bandwidth	dc to 200kHz min.
Response Time	0.15 μs max. at 50% pulse height
Output Rise Time	<0.2 μs max 10 to 90%
Slew Rate (di/dt) Referenced to Input	>200A/ μs
Isolation Proof Stress Voltage	7kV a.c., rms, 50Hz for 1 minute
Creepage Distance	17 mm min
Clearance Distance	17 mm min

GENERAL DATA

Weight	44g
Housing Material	PA66 30% Glass Filled UL94V0
Signal Sense	A current in the direction of the arrow gives a positive voltage at the load resistor.

Note 1: The minimum load resistance specification is based on thermal considerations. It will allow the nominal primary current to be carried continuously under worst case conditions. Lower values will increase internal heating but may be used in low duty cycle applications and in lower ambient temperatures

Note 2: Insulation values refer to insulation between a bare primary conductor in the hole and the supply and output terminal.

DIMENSIONS (in mm)

