

AC Current Transducer AT-CT253

250A AC

GENERAL DESCRIPTION

The AT-CT253 probe is the latest in compact AC Current probes. Designed to meet the most stringent demands in industry and electrical contracting, while also meeting the latest safety and performance standards.

ELECTRICAL SPECIFICATIONS

Operating Range: 0.5 to 250A
Measurement Range: 5 to 240A
Transformation Ratio: DC Voltage output
Output Signal: 20mV DC/A AC (4.8 VDC @ 240AAC)

Range	Accuracy	Phase Shift
5 to 10A	3% of Reading \pm 100mV	N/A
10 to 40A	2.5% of Reading \pm 50mV	N/A
40 to 100A	2.0% of Reading \pm 50mV	N/A
100 to 240A	2.0% of Reading	N/A

Frequency Range: 40Hz to 10kHz
Nominal Operating Conditions: 200A permanently to 1kHz:
Derating above 3kHz: 200 A x (1/0.333F), F in kHz
3 @ 200Arms with an error (due to CF) of 4%
Crest Factor: 600Vrms
Working Voltage: 30Vrms
Common Mode Voltage: <15mA/A at 50Hz
Influence of Adjacent Conductor: DC current <20A, <5%
Influence of DC on AC signal: 0.5% of mV output @ 50/60Hz
Influence of Conductor Position in Jaw: 40 Hz to 1 kHz: 5% of mV output
1 kHz to 10 kHz: 12% of mV output
Influence of Frequency: < 3% of mA output from 40Hz to 1kHz
< 12% of mA output from 1kHz to 10kHz
Influence of Load:

MECHANICAL SPECIFICATIONS

Dimensions: 5.47 x 2.00 x 1.18" (139 x 51 x 30 mm)
Weight: 180 g (6.5 oz)
Jaw Opening: 0.83" (21mm)
Maximum Conductor Size: Cable: 0.78" (20mm) Bus Bar: 0.78 x 0.19" (20 x 5mm)
Case Protection: IP 40 (IEC 529)
Drop Test: 1.0 m (IEC 68-2-32)
Mechanical Shock: IEC 68-2-27
Vibration: IEC 68-2-6
Polycarbonate Material: Jaws: Polycarbonate with 10% fiberglass charge, Red UL 94 V0
Case: Polycarbonate 920A Gray
Opening Operations - Life: > 50,000
Output: 5 feet double insulated cable with non-insulated ferrules
Red ferrule is positive

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature: 14° to 131°F (-10° to +55°C)
Storage Temperature: -40° to 158°F (-40° to +70°C)
Altitude: Non-operating: 0 to 12,000 m
Operating: 0 to 2000 m
Operating Relative Humidity: 10 to 35°C 85% RH (without roll-off above 35°C)
Influence of Temperature: ≤ 150 ppm/°K, or 0.15% of mV output per 10°K
Influence of Humidity (10 to 90% RH): $\leq 0.2\%$ of mV output per 10°K @ 18°C to 28°C

SAFETY SPECIFICATIONS

☒ **Electrical:** Double insulation or reinforced insulation between the primary or secondary and the outer case of the handle conforms to IEC 1010-2-32. 600V Cat. III, Pollution Degree 2

☒ **Dielectric Strength:** 5550V, 50/60 Hz between primary, secondary and the outer case of the handle

