

AC Current Transducer CT-253

250A AC

GENERAL DESCRIPTION

The CT-253 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 ± 100mV	N/A
ij	10 to 40A	2.5% of Reading ± 50mV	N/A
	40 to 100A	2.0% of Reading ± 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 **Crest Factor:**

3 @ 200Arms with an error (due to CF) of 4%

Working Voltage: 600Vrms Common Mode Voltage: 30Vrms

Influence of Adjacent Conductor: <15mA/A at 50Hz DC current <20A, <5% Influence of DC on AC signal:

Influence of Conductor Position in Jaw: 0.5% of mV output @ 50/60Hz Influence of Frequency: 40 Hz to 1 kHz: 5% of mV output 1 kHz to 10 kHz: 12% of mV output

< 3% of mA output from 40Hz to 1kHz Influence of Load: < 12% of mA output from 1kHz to 10kHz

MECHANICAL SPECIFICATIONS

5.47 x 2.00 x 1.18" (139 x 51 x 30 mm) **Dimensions:**

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) 1.0 m (IEC 68-2-32) **Drop Test: Mechanical Shock:** IEC 68-2-27 IEC 68-2-6 Vibration:

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

14° to 131°F (-10° to +55°C) **Operating Temperature:** -40° to 158°F (-40° to +70°C) Storage Temperature: 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

≤ 0.2% of mV output per 10°K @ 18°C to 28°C Influence of Humidity (10 to 90% RH):

SAFETY SPECIFICATIONS

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:

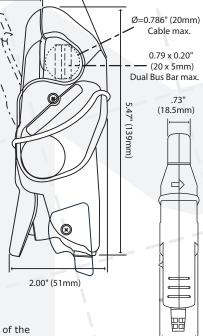
5550V, 50/60 Hz between primary, secondary and the outer case of the handle

ORDERING INFORMATION

Item: Cat#: AC Current Transducer CT-253 (225A) 35-0048



ISO9000\SPECIFICATIONS\CT-253.pdf



2.56" (65mm)

.83" (21mm)



1.18

(30mm)

Rev:3 - 11/06/12