



# 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)

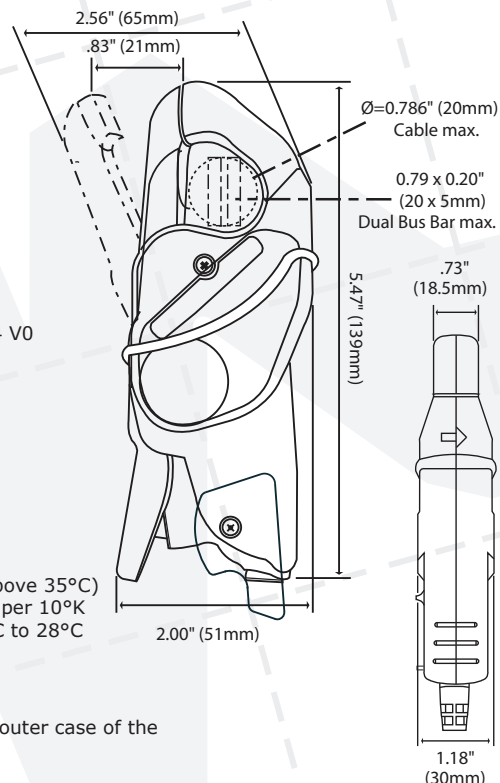
Range	Accuracy	Phase Shift
5 to 10A	3% of Reading ± 100mV	N/A
10 to 40A	2.5% of Reading ± 50mV	N/A
40 to 100A	2.0% of Reading ± 50mV	N/A
100 to 240A	2.0% of Reading	N/A

**Frequency Range:** 40Hz to 10kHz  
**Nominal Operating Conditions:** 200A permanently to 1kHz;  
 Derating above 3kHz: 200 A x (1/0.333F), F in kHz  
 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):** ≤ 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

### ORDERING INFORMATION

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