

# 7 Specifications

## NOMINAL CHARACTERISTICS

Nominal characteristics describe parameters and attributes which are guaranteed by design, but do not have associated tolerances.



Maximum Continuous Input Current	150 Amp rms Refer to figure 7-1, Input current vs. frequency.
Maximum Non-Continuous Peak Current	300 Amp peak, 500 Amp at pulse width of < 30 $\mu$ sec.
Insertion Impedance	Refer to figure 7-2.
Intended Output Load	1 M $\Omega$
Maximum Permitted Circuit Voltage	600 V Cat II, 300 V Cat III (Insulated conductor).

## WARRANTED CHARACTERISTICS

Guaranteed at 23° C  $\pm$  3° C (73° F  $\pm$  5° F) after power has been applied for 30 minutes.

Low Frequency Accuracy	$\pm$ 1.0 % of reading $\pm$ 1 mV.
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## TYPICAL CHARACTERISTICS

Sensitivity	200 mA/div to 100 A/div
Output voltage	0.01 V/A
Sensitivity Temperature Coefficient	$\pm$ 2 % or less. (from 0° to +40° C, 32° F to 104° F).
Noise	Equivalent to 25 mA rms or less (Bandwidth of measuring instrument: 20 MHz).
Bandwidth	DC to 10 MHz
Rise Time	< 35 nsec.

## CP150 Current Probe

### ENVIRONMENTAL CHARACTERISTICS



Temperature: Operating	0 to 40° C (32° F to 104° F) at 80% relative humidity.
Storage	-10° C to 50° C (14° F to 122° F) 80% relative humidity.
Usage	Indoor
Altitude	2000 m (6562 feet).
Effect of External Magnetic Field	Equivalent to a maximum of 150 mA (In a 60 Hz, 400 A/m magnetic field).

### PHYSICAL CHARACTERISTICS

Dimensions Probe:	
Length	176 mm (6.9 inch)
Width	27 mm (1.1 inch)
Height	69 mm (2.7 inch)
Dimensions Compensation Box:	
Length	65 mm (2.6 inch)
Width	39 mm (1.5 inch)
Height	24 mm (0.9 inch)
Weight	460 g (16.2 oz.)
Maximum conductor diameter	20 mm (0.79 in)

### COMPLIANCES AND CERTIFICATIONS

#### CE Declaration of Conformity

The probe meets requirements of the EMC Directive 89/336/EEC for Electromagnetic Compatibility and Low Voltage Directive 73/23/EEC for Product Safety.

EMC Directive: EN 61326-1:1997+A1:1998  
EMC requirements for electrical equipment for  
measurement, control and laboratory use.

Electromagnetic Emission: EN 55011:1998, Class B radiated emissions

Electromagnetic Immunity: EN 61000-3-2:1995+A1:1998+A2:1998\*Electrostatic  
discharge  
(4 kV/8 kV contact/air)

## Specifications

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EN 61000-3-3:1995\*

RF Radiated  
Electromagnetic Field  
(3 V/m)

\*Meets Performance Criteria "B" limits at certain test levels, during the disturbance, product undergoes a temporary degradation or loss of function of performance which is self recoverable.

Low Voltage directive: EN 61010-1:1993+A2:1995

Safety requirements for electrical equipment for measurement, control and laboratory use.

Part 1: General requirements

Part 2-031: Particular requirements for hand-held probe assemblies for electrical measurement and test

Part 2-032: Particular requirements for hand-held current clamps for electrical measurement and test

The probe has been qualified to the following

EN 61010-2-031: 1994

EN 61010-2-032: 1995

Over-voltage Category II, III (anticipated transient over-voltage 4000 V) Pollution Degree 2.

Pollution Degree 2

## CP150 Current Probe

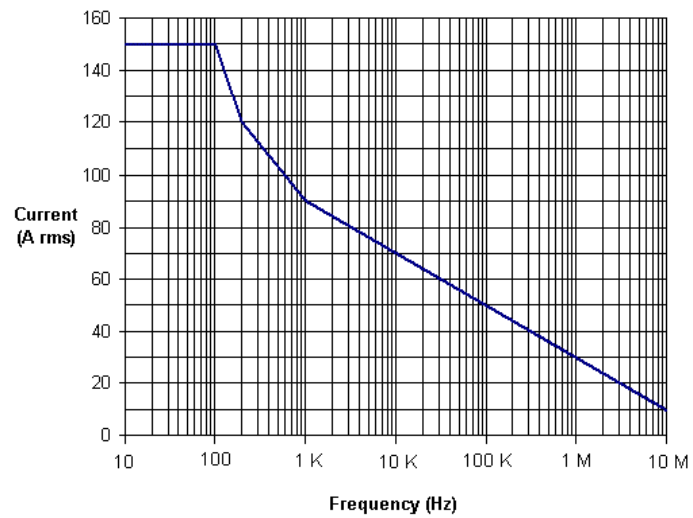


Figure 7-1. Maximum Input Current vs. Frequency

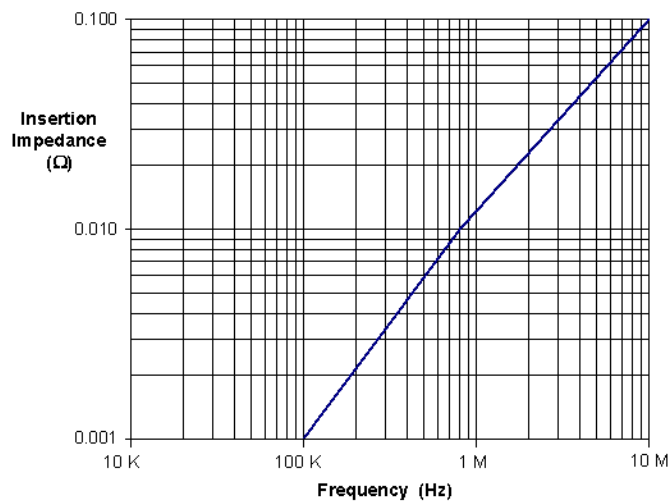


Figure 7-2. Insertion Impedance vs. Frequency