

Probing Solutions

CP500

AC/DC Current Probe

Leading Specifications

- 500 Amps RMS
- 2 MHz bandwidth
- Integrated with Oscilloscope
 - No external amplifier required
 - Automatic scaling
 - Units in Amperes
- Small probe size with large jaw



The CP500 is the newest member of the LeCroy family of Current Probes with 500 Amp (continuous) capability.

The CP500 is an AC and DC coupled 500 Amp current probe with DC to 2 MHz frequency response. This probe plugs directly onto the LeCroy oscilloscope requiring no external power amplifiers. The probe becomes fully integrated with the oscilloscope including probe DeGauss, Autozero, automatic setup of scale factor sensitivity, and measurement units in amperes.

Measuring AC and DC Currents

Based on a combination of Hall effect and transformer technology, the CP500 current probe is ideal for making accurate AC, DC, and impulse current measurements. Current levels of 500 amps (rms) continuous are easily captured. Multiple probes can be used with LeCroy oscilloscopes providing single or three phase measurements up to 1000 amps combined in-phase current levels.

Small Form Factor

The combination of the probe's small form factor and large probe jaw makes access in tight areas easier while accommodating large conductor sizes.

Integrated with Oscilloscope

Sources of measurement error can include errors from manual setup of the probe with the oscilloscope. DeGaussing the probe, setting correct Zero offsets, setting correct sensitivities on the oscilloscope, and having parameter units in amperes (for additional computation of watts and joules) are all automatically completed through the LeCroy Probos connection. Integration of the probe and the oscilloscope eliminates these errors. In addition there are many benefits of not having a bulky external amplifier, such as:

- **Lower Noise** - eliminates the ground loop created by the second power cable
- **Cost Savings** - prevents purchasing an additional power supply
- **Space Savings** - consolidates equipment
- **Time Savings** - measurements are automatically integrated with oscilloscope
- **Error Reduction** - scale factors, zero offsets, units, and math analysis are managed by the oscilloscope

The CP500 can be used with LeCroy oscilloscopes using firmware version 9.1.0 or later.

LeCroy

Technical Specifications

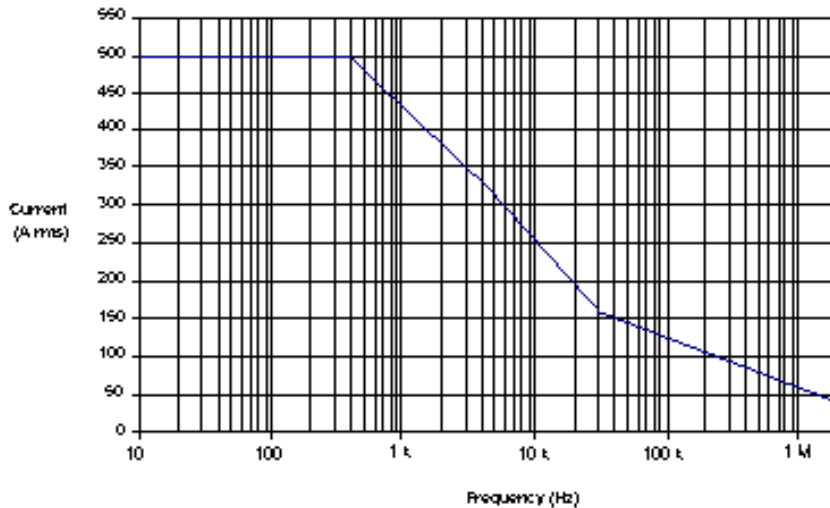
Electrical Characteristics:

Max Continuous Input Current:	500 A
Bandwidth (probe only):	2 MHz
Max Peak Current :	700 A
Max In-Phase Current (across all oscilloscope channels):	1000 A
Low-Frequency Accuracy (probe only at 23 ± 3° C):	
0 to 500 amp	±1% of reading ± 500 mA
500 to 700 amp peak	±2% of reading
Risetime:	≤ 175 ns
AC Noise (referenced to input):	≤ 25 mA rms
Coupling:	AC and DC

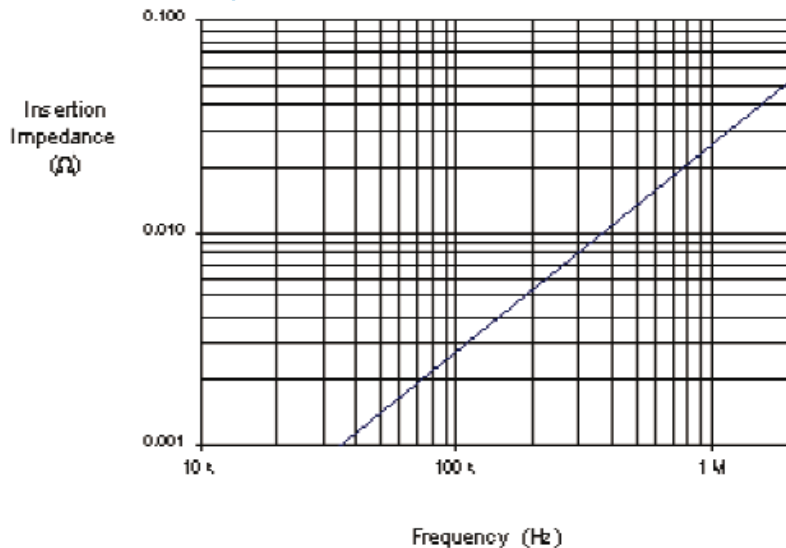
General Characteristics

Cable Length:	6 m
Weight (probe only):	640 g (1.41 lbs)
Usage Environment:	Indoor
Operating Temperature:	0° C to 40° C
Max Altitude:	2000 m
Max Relative Humidity:	80%
Max Conductor Size (diameter):	20 mm (.79")
Interface:	ProBus, 1 MΩ only
Maximum Insulated Wire Voltage:	600 V CAT II 300 V CAT III
Warranty:	One year

Derating Curve (max current with frequency)



Insertion Impedance



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Ordering Information

500 A DC/AC Current Probe, 2 MHz
CP500 Instruction Manual, English

Product Code

CP500
CP500-OM-E