

Advanced measurements by using the CMP-1006 Digital Clamp Meter

Measurement functions

- INRUSH function for measuring current drawn by an electrical device when first turned on
- AC and DC current measurement up to 1000 A
- True RMS AC voltage and current measurement for accurate and reliable readings of non-sinusoidal signals
- AC and DC voltage measurement up to 600 V
- resistance measurement up to 66 MΩ
- continuity test with acoustic signalling (beeper) for resistance below 40 Ω
- temperature measurement (Fahrenheit and Celsius)
- frequency measurement
- duty cycle measurement
- diode test



**INRUSH
CURRENT**



CAT III

600 V

CAT IV

300 V

IP40

Overview

Sonel CMP-1006 Clamp Meter is designed to work in difficult measuring conditions. A special housing, covered with an elastomer coating, provides protection against drops and mechanical damages. CMP-1006 is the best solution for those who expect the device to be reliable at work in industrial and residential environments.

Designed for specialists

- industrial and commercial electricians
- plant maintenance
- facility maintenance
- electrical contractors
- utility technicians
- HVACR specialists





Special features

- large and easy to read LCD display with backlit
- auto range with manual selection mode
- HOLD function, allowing for freezing the result on the display
- DCA ZERO function for relative mode in DC current function
- MAX and MIN results hold function
- large jaw suitable for large conductors and busbars
- automatic power down after 25 minutes



Facilitating the measurements

The AC-16 adapter expands the application of the clamp meter. With the ratio x1 and x10, 230 V AC of voltage and max 16 A of current, the adapter can be applied with any type of clamp meter.

DC current measurement

Range	Resolution	Accuracy
0.0...659.9 A	0.1 A	$\pm(2.5\% \text{ m.v.} + 5 \text{ digits})$
660...1000 A	1 A	$\pm (2.8\% \text{ m.v.} + 8 \text{ digits})$

AC current measurement (True RMS)

Range	Resolution	Accuracy
0.0...659.9 A	0.1 A	$\pm(2.5\% \text{ m.v.} + 8 \text{ digits})$ for 45...65 Hz
660...1000 A	1 A	$\pm(2.8\% \text{ m.v.} + 8 \text{ digits})$ for 45...65 Hz

DC voltage measurement

Range	Resolution	Accuracy
0.000...6.599 V	0.001 V	$\pm(1.5\% \text{ m.v.} + 3 \text{ digits})$
6.60...65.99 V	0.01 V	
66.0...600.0 V	0.1 V	

AC voltage measurement (True RMS)

Range	Resolution	Accuracy
0.000...6.599 V	0.001 V	$\pm(1.8\% \text{ m.v.} + 5 \text{ digits})$ for 45...65 Hz
6.60...65.99 V	0.01 V	
66.0...600.0 V	0.1 V	

Resistance measurement

Range	Resolution	Accuracy
0.0...659.9 Ω	0.1 Ω	$\pm(1.0\% \text{ m.v.} + 4 \text{ digits})$
0.660...6.599 k Ω	0.001 k Ω	$\pm(1.5\% \text{ m.v.} + 2 \text{ digits})$
6.60...65.99 k Ω	0.01 k Ω	
66.0...659.9 k Ω	0.1 k Ω	
0.660...6.599 M Ω	0.001 M Ω	$\pm(2.5\% \text{ m.v.} + 3 \text{ digits})$
6.60...66.00 M Ω	0.01 M Ω	$\pm(3.5\% \text{ m.v.} + 5 \text{ digits})$

Frequency measurement

Range	Resolution	Accuracy
30.00...659.9 Hz	0.1 Hz	$\pm(1.2\% \text{ m.v.} + 2 \text{ digits})$
0.660...6.599 kHz	0.001 kHz	
6.60...15.00 kHz	0.01 kHz	

sensitivity:

30 Hz...5 kHz: 10 V RMS min

5 kHz...15 kHz: 40 V RMS min. for 20...80% duty cycle

Duty cycle measurement

Range	Resolution	Accuracy
10.0...94.9%	0.1%	unspecified

- frequency range: 30 Hz...15 kHz

Temperature

Range	Resolution	Accuracy *
-20...+760°C	1°C	$\pm(3\% \text{ m.v.} + 5^\circ\text{C})$
-4...+1400°F	1°F	$\pm(3\% \text{ m.v.} + 9^\circ\text{F})$

* probe accuracy not included

Abbreviation „m.v.“ used in the specification of measurement means a measured value.

Technical specification

power supply of the meter	9 V battery, type 6LR61
display	6600 readings, backlit LCD
continuity test	threshold 40 Ω , measurement current <0.5 mA
diode test	typical measurement current 0.3 mA typical voltage of open circuit <3 V DC
indication of low battery charge	'BAT' symbol is displayed
indication of range overflow	'OL' symbol is displayed
frequency of measurements	2 readings per second, nominal
INRUSH	integration time 100 ms
temperature sensor	K-type temperature probe
interior clamp diameter	36 mm x 52 mm
input impedance	10 M Ω (V DC and V AC)
AC bandwidth	50...400 Hz (A AC and V AC)
auto-off timeout	25 minutes
dimensions	229 mm x 80 mm x 49 mm
weight	303 g
compliance with standards	EN 61010-1, EN 61010-2-032

Nominal operating conditions

operating temperature range	5...40°C
operating humidity	max. 80% up to 31°C decreasing linearly to 50% at 40°C
storage temperature	-20...+60°C at humidity <80%
operating altitude	max. 2,000 m



Standard accessories



Optional accessories

