


Digital T-RMS AC/DC Clamp Meter PRO 421

Input Limits	
Function	Maximum Input
Amperes AC/DC	1000A
Voltage AC/DC	1000V
Frequency, Resistance, Diode, Continuity	1000V
Capacitance Test, Temperature	1000V

GENERAL SPECIFICATIONS

Clamp Size	: Opening 1.4" (35mm) approx
TRMS	: The AC voltage and AC current of this instrument are measured by TRMS. True RMS measurement is different from mean measurement. The mean measurement method can only measure the symmetric waveform, such as sine wave. True RMS measurements can reliably measure any irregular waveform and obtain valid values for AC voltage or AC current.
Diode Test	: Test current of 0.3mA typical; Open circuit voltage 3.2V DC typical.
Continuity Check	: Threshold $\leq 50\Omega$; Test current $< 0.5\text{mA}$
Low Battery Indication	: "  " is displayed
Overrange Indication	: "OL" is displayed
Measurements Rate	: 2 per second. nominal
Input Impedance	: 10M (VDC and VAC)
Display	: 6000 counts LCD
AC Current	: 50-60Hz (AAC)
AC Voltage Bandwidth	: 50-400Hz (VAC)
Operating Temperature	: 5 to 40°C (41 to 104°F)
Storage Temperature	: -20 to 60°C (-4 to 140°F)
Operating Humidity	: Max 80% up to 31°C (87°F) decreasing linearly to 50% at 40°C (104°F)
Storage Humidity	: <80%
Operating Altitude	: 7000ft. (2000meters) maximum.
Over Voltage	: Category III 1000V
Battery	: Three "AAA" 1.5V Battery
Auto Off	: Approx. 30 minutes
Safety	: For indoor use and in accordance with Overvoltage Category II. Pollution Degree 2. Category II includes local level, appliance, portable equipment, etc, with transient overvoltages less than Overvoltage Cat. III.



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- Non Contact Voltage Detection
- Relative Measurement
- Inrush Current Measurement to measure starting current of Motors
- Peak / Data Hold
- Measurement of Voltage in Variable Frequency Drive (VFD)
- Lo-Z Voltage measurement
- Flash Light in the Clamp to Access Dark Areas

SPECIFICATIONS

AC Current (50/60Hz) T-RMS

Range & Resolution	Accuracy ± (% of reading+digital)
600.0A	±(2.5% + 8 digits)
1000A	±(2.8% + 8 digits)

DC Current

Range & Resolution	Accuracy ± (% of reading+digital)
600.0A	±(2.5% + 5 digits)
1000A	±(2.8% + 5 digits)

AC Voltage (50-400Hz) T-RMS

Range & Resolution	Accuracy ± (% of reading+digital)
6.000V	±(1.5% + 5 digits)
60.00V	
600.0V	
1000V	

LoZ AC Voltage

Range & Resolution	Accuracy ± (% of reading+digital)
6.000V	±(3.0% + 40 digits)
60.00V	
300.0V	

DC Voltage

Range & Resolution	Accuracy ± (% of reading+digital)
600.0mV	±(0.5% + 5 digits)
6.000V	±(1.5% + 2 digits)
60.00V	
600.0V	
1000V	

Resistance

Range & Resolution	Accuracy ± (% of reading+digital)
600.0Ω	±(1.0% + 4 digits)
6.000KΩ	±(1.5% + 2 digits)
60.00KΩ	
600.0KΩ	±(2.5% + 3 digits)
6.000MΩ	
60.00MΩ	±(3.5% + 5 digits)

Capacitance

Range & Resolution	Accuracy ± (% of reading+digital)
60.00nF	±(4.0% + 20 digits)
600.0nF	±(3% + 5 digits)
6.000μF	
60.00μF	
600.0μF	±(5% + 5 digits)
6.000mF	
60.00mF	±(5% + 8 digits)
100.0mF	±(5% + 15 digits)

Frequency Sensitivity: = >5Vrms

Range & Resolution	Accuracy ± (% of reading+digital)
9.999Hz to 99.99kHz	±(1.2% + 5 digits)

Duty Cycle Sensitivity: = >5Vrms

Range & Resolution	Accuracy ± (% of reading+digital)
10.0% to 90.0%	±(1.2% + 2 digits)

Temp (Type-K)

Range & Resolution	Accuracy ± (% of reading+digital)
-20.0 to 1000°C	±(3% + 5°C)
-4.0 to 1832°F	±(3% + 9°F)

(Probe accuracy not included)

Note: Accuracy is given as ±(% of reading + counts of least significant digit) at 23°C±5°C, with relative humidity less than 80%RH. AC voltage and current shall be subject to sine wave.