

## Digital AC T-RMS / DC Clamp Meter for Solar and Motor Applications **PRO SOLAR-3**

### INTRODUCTION

The Metravi PRO Solar-3 is a professional T-RMS Industrial Clamp Meter with TFT Colour Display, featuring fast A/D Converter and high accuracy.

Makes it easy to find and solve problems in production equipment with Trend Capture and helps with Bluetooth data transfer & analysis reports using free App on your Smartphone.

Ensures safe measurements with double-moulded plastic housing, IP65 waterproof certification, CATIV 600V, CATIII 1000V & CATII 1500V categorisation.

Measures upto 1500V DC measurement, and hence, is most suitable for Solar and Photovoltaic Applications. In-rush current, VFD and LoZ measurement functions make it a must for all Motor Applications too.

### KEY FEATURES

- 6000 Count 2.4" TFT Colour LCD display
- DC Current, AC, AC+DC TRMS Current
- DC Voltage, AC, AC+DC TRMS Voltage
- Resistance and Continuity Test
- Diode Test
- Capacitance
- Frequency
- Duty Cycle
- Temperature with K-type Probe
- Flexible Coil for measuring upto 3000A
- Inrush Current Measurement
- LoZ Voltage measurement
- VFD Measurement
- Data Hold / Relative measurements
- Trend Capture
- In-built Flashlight to access dark areas
- Rechargeable battery and battery charger
- Non-contact Voltage Detection (NCV)
- Data Logger with Date and Time stamp
- Bluetooth and free App for sharing, recording & analysing on Smartphone
- Record variation of parameters with respect to time
- Safety: IEC/EN61010. EMC: IEC/EN61326-1
- Over-voltage Protection: CATIV 600V, CATIII 1000V, CATII 1500V
- Size (HxWxD): 95mm x 270mm x 42mm; Weight: 550g
- Comes in a Hard Carrying Case with Battery Charging Adaptor and cable, Rechargeable Battery, K-type Thermocouple Probe Set, High-quality Test Leads, Flexible Clamp





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## SPECIFICATIONS

### DC Voltage

Range	Resolution	Accuracy
600.0mV	0.1mV	$\pm(0.8\% + 8 \text{ digits})$
6.000V	0.001V	$\pm(0.5\% + 5 \text{ digits})$
60.00V	0.01V	
600.0V	0.1V	$\pm(0.8\% + 5 \text{ digits})$
1500V	1V	

Input impedance > 10M $\Omega$  ;

Protection Against Overcharge : 1500V DC/1000VAC RMS.

### AC TRMS Voltage

Range	Resolution	Accuracy
6.000V	0.001V	$\pm 50\text{Hz}-60\text{Hz}: \pm(1.2\% + 5 \text{ digits})$ $61\text{Hz}-1\text{kHz}: \pm(2.5\% + 5 \text{ digits})$
60.00V	0.01V	
600.0V	0.1V	
1000V	1V	

Protection Against Overcharge : 1000V DC/AC RMS.

Accuracy specified from 10% to 100% of the measuring range, sine wave.

Input Impedance : > 9M $\Omega$

Accuracy PEAK Function :  $\pm 10\% \text{rdg}$ ,

PEAK Response Time : 1ms.

### LoZ AC TRMS Voltage

Range	Resolution	Accuracy
6.000V	0.001V	$\pm(3.0\% + 40 \text{ digits})$
60.00V	0.01V	
300.0V	0.1V	

Input Impedance : > 300k $\Omega$

Protection Against Overcharge : 1000V DC/AC RMS.

Accuracy specified from 10% to 100% of the measuring range, sine wave.

### AC+DC TRMS Voltage (50Hz-1 kHz)

Range	Resolution	Accuracy
6.000V	0.001V	$\pm(2.5\% + 20 \text{ digits})$
60.00V	0.01V	
600.0V	0.1V	
1000V	1V	

Input impedance > 10M $\Omega$ ;

Protection Against Overcharge : 1000V DC/AC RMS.

### LoZ AC+DC TRMS Voltage

Range	Resolution	Accuracy
6.000V	0.001V	$\pm(3.5\% + 40 \text{ digits})$
60.00V	0.01V	
300.0V	0.1V	

Input Impedance : > 300k $\Omega$

Protection Against Overcharge : 1000V DC/AC RMS.

### DC Current

Range	Resolution	Accuracy
60.00A	0.01A	$\pm(2.0\% + 8 \text{ digits})$
600.0A	0.1A	
1000A	1A	

Protection Against Overcharge : 1000A DC/AC RMS.

### AC TRMS Current (50Hz-60Hz)

Range	Resolution	Accuracy
60.00A	0.01A	$\pm(2.5\% + 5 \text{ digits})$
600.0A	0.1A	
1000A	1A	

Protection Against Overcharge : 1000A DC/AC RMS.

Accuracy specified from 10% to 100% of the measuring range. sine wave.

Accuracy Inrush function integral time 100ms.  
and reading for reference only.

### Flexible Coil Current (50Hz-400Hz)

Range	Resolution	Accuracy
30.00A	0.01A	$\pm(3.0\% + 5 \text{ digits})$
300.0A	0.1A	
3000A	1A	

Protection Against Overcharge : 1000A DC/AC RMS.

Accuracy specified from 10% to 100% of the measuring range. sine wave.

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### Resistance and Continuity Test

Range	Resolution	Accuracy
600.00Ω	0.1Ω	±(1.0% + 10 digits)
6.000kΩ	0.001kΩ	±(0.8% + 5 digits)
60.00kΩ	0.01kΩ	
600.0kΩ	0.1kΩ	
6.000MΩ	0.001MΩ	
60.00MΩ	0.01MΩ	±(2.5% + 10 digits)

Buzzer < 50Ω;

**Protection Against Overcharge** : 1000V DC/AC RMS.

### Frequency (Electronic Circuits)

Range	Resolution	Accuracy
60.00H	0.01Hz	±(0.2% + 5 digits)
600.0Hz	0.1Hz	
6.000kHz	0.001kHz	
60.00kHz	0.01kHz	
600.0kHz	0.1kHz	
6.000MHz	0.001MHz	
10.00MHz	0.01MHz	

**Protection Against Overcharge** : 1000V DC/AC RMS.

**Sensitivity** : >2V RMS (at 20%-80% duty cycle) and f <100kHz;  
>5V RMS (at 20%-80% duty cycle) and f >100kHz

### Duty Cycle

Range	Resolution	Accuracy
10.0% - 90.0%	0.1%	±(1.2% + 8 digits)

**Pulse Frequency Range**: 40Hz-10kHz;

**Pulse Amplitude** : ±5V (100us-100ms).

### Capacitance

Range	Resolution	Accuracy
60.00nF	0.01nF	±(3.0% + 20 digits)
600.0nF	0.1nF	±(3.0% + 8 digits)
6.000μF	0.001μF	
60.00μF	0.01μF	
600.0μF	0.1μF	
6000μF	1μF	±(3.5% + 20 digits)
60.00mF	0.01mF	Unspecific
100.0mF	0.1mF	

**Protection Against Overcharge** : 1000V DC/AC RMS.

### Temperature with K-Type Probe

Range	Resolution	Accuracy
-40.0 to 600.0°C	0.1°C	±(1.5% + 3°C)
600 to 1000°C	1°C	
-40.0 to 600.0°F	0.1°F	±(1.5% + 5.4°F)
600 to 1800°F	1°F	
245.0 to 600.0K	0.1K	±(1.5% + 3K)
600 to 1273K	1K	

**Protection Against Overcharge** : 1000V DC/AC RMS.

### Diode Test

Test Current	Max Voltage with Open Circuit
<1.5mA	3.3V DC

