

SMART DIGITAL SOLAR TRUE RMS CLAMP METER DT4545 PRO

APPLICATION: This is a Smart Digital True RMS Clamp Meter with Backlight. This instrument can be used to measure AC/DC voltage, AC/DC Current, Resistance, Capacitance, Temperature and other parameters. It is an ideal tool for solar applications.

FEATURES:

- Display: 5999 count LCD display
- NCV and DATA HOLD
- Operating temperature and humidity: 0–40C (<80% RH; not applicable below 10C).
- Storage temperature and humidity: -10C to 50C (<70% RH, with battery removed).
- Temperature coefficient: 0.1 accuracy/C (at temperatures <18C or >28C).
- Over-range indication: The LCD display will show “OL”.
- Low battery indication: When the battery voltage falls below the normal operating
- **600V CAT. III**
- Input polarity indication: Automatically displays the “-” symbol.
- Power supply: 3.7V lithium battery
- Dimensions: 280 x 94 x 43 mm
- Weight: Approx. 448g (including battery).



SPECIFICATION:

DC Voltage:

RANGE	RESOLUTION	ACCURACY
6V	0.001V	± (0.5% of reading+5 counts)
60V	0.01V	
600V	0.1V	± (1.0% of reading+2 digits)
1000V	1V	
2000V	1V	± (1.2% of reading+3 digits)

Maximum input voltage: 2000 V DC RMS

Input impedance: 10 MΩ

AC Voltage:

RANGE	RESOLUTION	ACCURACY
6V	0.001V	± (0.8% of reading+5 counts)
60V	0.01V	
600V	0.1V	± (1.5% of reading+2 digits)
750V	1V	
2000V	1V	± (1.8% of reading+3 digits)

Input impedance: 10 MΩ, Overload protection: 2000 V DC or 2000 V AC (RMS). Maximum input voltage: 2000 V AC (RMS)

Frequency range: 40 Hz to 1 kHz

Response: True RMS. Note: When measuring AC or DC voltages in the low-voltage range, if the test leads are not connected to the circuit under test, the meter may fluctuate; this is normal and is caused by the meter's high sensitivity. When the probes are connected to the circuit

Capacitance:

RANGE	RESOLUTION	ACCURACY
6nF	0.001nF	± (4.0% of reading+20 counts)
60nF	0.01nF	± (4.0% of reading+5 digits)
600nF	0.1 nF	
6µF	0.001µF	
60µF	0.01µF	
600µF	0.1 µF	
6mF	0.001mF	
60mF	0.01 mF	

Overload Protection:250 V DC/AC

Resistance:

RANGE	RESOLUTION	ACCURACY
600Ω	0.1Ω	± (1.2% of reading+3digits)
6kΩ	0.001kΩ	
60kΩ	0.01kΩ	
600KΩ	0.1Ω	
6MΩ	0.001MΩ	
60MΩ	0.01MΩ	± (2.0% of reading+5 digits)

AC Current:

RANGE	RESOLUTION	ACCURACY
600A	0.1A	± (3.5% of reading+5 digits)
2000A	1A	

Maximum input current: 2000A / Frequency range: 50–60 Hz / Response: True RMS

-When measuring AC current, place the conductor to be tested in the centre of the clamp jaws. If not centred, the maximum positional error may increase by 1.5%.

-On the AC current range, briefly press the INR key to select INRUSH surge current measurement. At this point, power on the electrical device to measure its instantaneous inrush current; surge current measurement is available only on the 2000A range.

DC Current:

RANGE	RESOLUTION	ACCURACY
600A	0.1A	± (3.5% of reading+5 digits)
2000A	1A	

input current: 2000A

Due to the presence of external electromagnetic fields such as the Earth's, to ensure the accuracy of the measurement reading, press the ZERO key to set the reading to zero. If the reading is still not zero after pressing the key, press it several times until the reading is zero. Note: Due to the high sensitivity of the product, to ensure accurate readings, the orientation of the instrument during measurement should be as consistent as possible with the orientation during zeroing.

Temperature Measurement:

RANGE	RESOLUTION	ACCURACY
-20°C ~ 1000°C	1FC/1°C	± (1.5% of reading+5 digits)
-4°F ~ 1832°F		± (1.5% of reading+10 digits)

Temperature specifications do not include thermocouple error.

Frequency:

Clamp-on frequency measurement (via Range A):

RANGE	RESOLUTION	ACCURACY
1Hz-2000Hz	1Hz	± (2.0% of reading+10 counts)

Measurement range: 1 Hz to 2000 Hz

- Input signal range: 60 A AC (RMS)

Via V-range:

RANGE	RESOLUTION	ACCURACY
1Hz-2000Hz	1Hz	± (2.0% of reading+10 counts)

Measurement range: 1 Hz to 2000 Hz

- Input signal range: _2 V AC (RMS)

Functions	Description
Diode	Displays the approximate forward voltage drop of the diode
Continuity	If the resistance under test is less than 50Ω, the built-in buzzer sounds
NCV	Displays intensity based on proximity to the power source and emits a beep at different frequencies
LIVE	When testing the live wire, the display shows “----” and an alarm sounds; the neutral wire shows no reaction
Power Off	The meter automatically shuts down after 15 minutes without signal input

ACCESSORIES:

User manual, Test lead, Charging Cable, Thermocouple, Cloth Pouch.