

## Digital AC/DC Clamp Meter Solar 2

### SPECIFICATIONS

#### General Specifications

**Display :** 6000 Counts.

**Over Range Indication :** "OL" or "-OL"

**Bluetooth :** 4.0

**Data Logging :** 4000 data memory


**Measure :** Samples 3 times per second.

**Max Conductor Size of JAW :** 37mm diameter

**Dimensions (WXHxD) :** 62mm x 240mm x 41mm

**Weight :** approx.430g (including battery)

**Low Battery Indication:**

Voltage drops below operating voltage  will flash.

**Power Requirement :** AA Size Battery x2 (R6, LR6,150,15A)

**Battery Life :** 200 hours ALKALINE Battery (without Backlight)

**Operating Temperature :** -10 ~10°C

10°C ~ 30°C (≤ 80% RH)

30°C ~ 40°C (≤ 75% RH)

40°C ~ 50°C (≤ 45%RH)

**Storage Temperature:** -20°C to 60°C, 0 to 80%R.H.  
(batteries not fitted)

**Altitude :** 6561.7ft (2000m)

#### CAT Application field

- The circuits directly connected to Low-voltage installation.
- The building installation.
- The source of the Low-voltage installation.

**Safety :** EN 61010-1, EN 61010-2-032, EN 61010-2-033 for  
CAT III 1000V,CAT IV 600V, EN 61326-1

**Drop Protection :** 4 feet drop to hard wood on concrete floor

**Vibration :** Random Vibration per MIL-PRF-28800F Class 2

**Pollution Degree :** 2

**Indoor Use**

#### Electrical Specifications

Accuracy is given as ± (%of reading+counts of least significant digit) at 23°C±5°C, with relative humidity Less than 80%R.H., and is specified for 1 year after calibration.

**Temperature Coefficient :** 0.2 x (Specified accuracy) / °C, < 18°C, > 28°C

**AC Function :** ACV and ACA specifications are accoupled, true R.M.S. The crest factor may be upto 3.0 as 4000 counts. Accuracy is unspecified of Square Wave.

**For non-sinusoidal waveforms, Additional Accuracy by Crest Factor (C.F.) :** Add 3.0% for C.F. 1.0 ~ 2.0.  
Add 5.0% for C.F. 2.0 ~ 2.5.  
Add 7.0% for C.F. 2.5 ~ 3.0.

**Max. Crest Factor of Input Signal :** 3.0 @ 3000 Counts / 2.0 @ 4500 Counts / 1.5 @ 6000 Counts

Frequency Response is specified for sine waveforms.

LCD displays 0 Counts when the reading <20 Counts.



## Digital AC/DC Clamp Meter

### Solar 2

#### DC mV

Range	OL Reading	Resolution	Accuracy
600.0mV	660.0mV	0.1mV	±(0.7%+5D)

Input Impedance: 10MΩ

Overload Protection : AC/DC 1000V

#### DC Voltage

Range	OL Reading	Resolution	Accuracy
600.0V	660.0mV	0.1V	±(0.7%+2D)
1000V	1100V	1V	

Input Impedance : 10MΩ

Overload Protection : AC/DC 1000V

#### AC Voltage

Range	OL Reading	Resolution	Accuracy
600.0V	660.0mV	0.1V	±(1.0%+5D)
1000V	1100V	1V	

Input Impedance : 10MΩ // Less than 100pF

Frequency Response : 45-400Hz (Sine Wave)

Overload Protection : AC/DC 1000V

#### PV DC Voltage

Range	OL Reading	Resolution	Accuracy
600.0V	660.0mV	0.1V	±(2.0%+5D)
2000V	2200V	1V	

Input Impedance : 10MΩ

Overload Protection : AC/DC 1000V

#### PV AC Voltage

Range	OL Reading	Resolution	Accuracy
600.0V	660.0mV	0.1V	±(2.0%+5D)
1500V	1600V	1V	

Input Impedance : 10MΩ // Less than 100pF

Frequency Response : 45 - 400Hz (Sine Wave)

Overload Protection : AC/DC 1000V

#### AC DC μA

Range	OL Reading	Resolution	Accuracy
400.0μA	440.0μA	0.1μA	±(1.0%+3D)
4000μA	4400μA	1μA	

Input Impedance : Approx. 3kΩ

Frequency Response : 45-400Hz (Sine Wave)

Overload Protection : AC/DC 1000V

#### DC Current

Range	OL Reading	Resolution	Accuracy
60.00A	66.00A	0.01A	±(2.0%+5D)
600.0A	660.0A	0.1A	

The measured value <5.0A, add 10dgt to the accuracy.

The measured value >1000A, add 0.5% to the accuracy.

Overload Protection : AC/DC 600A/1500A

#### AC Current

Range	OL Reading	Resolution	Accuracy
60.00A	66.00A	0.01A	±(2.0%+5D)
600.0A	660.0A	0.1A	

Add 10dgt to the accuracy when <5.0A

Add 1% to the accuracy when >100Hz.

Frequency Response : (SineWave) 45 ~ 400Hz

Overload Protection : AC/DC 600A/1500A

#### Flexible Current Probe

Range	OL Reading	Resolution	Accuracy
300.0A	330.0A	0.1A	±(1.5%+5D)
3000A	3300A	1A	

Frequency Response : 45Hz to 400Hz

Accuracy does not include accuracy of the Flexible Current Probe.

Overload Protection : AC/DC 1000V

Flexible Probe optional, to be purchased separately

#### Frequency

Range	OL Reading	Resolution	Accuracy
100.00Hz	100.00Hz	0.01Hz	±(0.3%+3D)
1000.00Hz	1000.00Hz	0.1Hz	
10.000kHz	10.000kHz	0.001kHz	

Minimum Sensitivity : >5V(for ACV 1Hz-10kHz)  
>8A (for ACA 1Hz-1kHz)

Minimum Frequency : 1Hz

Overload Protection : AC/DC 1000V and 600A/1500A

## Digital AC/DC Clamp Meter Solar 2

### HFR (High Frequency Rejection)

Available for ACV, ACA and, Flexible Current Probe.

Add  $\pm 4\%$  to specified accuracy of each function and each range for 45Hz to 200Hz

Accuracy is unspecified for  $>200\text{Hz}$ . Cut-off Frequency (-3dB): 800Hz

### Inrush Current

Available for ACA and Flexible Current Probe

**Trigger Level** :  $\geq 50\text{d}$ .

Add  $\pm 3\%$  to specified accuracy of each function and each range.

### Resistance

Range	OL Reading	Resolution	Accuracy
600.0 $\Omega$	660.0 $\Omega$	0.1 $\Omega$	$\pm(0.9\%+5D)$
6.000k $\Omega$	6.600k $\Omega$	0.001k $\Omega$	$\pm(0.9\%+2D)$
60.00k $\Omega$	66.00k $\Omega$	0.00k $\Omega$	
600.0k $\Omega$	660.0k $\Omega$	0.1k $\Omega$	

To get more accurate result, short the test probes to obtain the offset. The accuracy specification is specified for the result compensated for offset.

**Overload Protection** : AC/DC 1000V

### Continuity

Built-in buzzer sounds when measured resistance is less than 20 $\Omega$  and sounds off when measured resistance is more than 200 $\Omega$ , Between 20 $\Omega$  to 200 $\Omega$  the buzzer may sound on or off.

**Continuity Indicator**: 2.7K Tone Buzzer

**Response Time of Buzzer** :  $<100\text{msec}$ .

**Overload Protection** : AC/DC 1000V

### Diode

Range	OL Reading	Resolution	Accuracy
1.500V	1.500V	0.001V	$\pm(0.9\%+2D)$

**Open Circuit Voltage** : Approx. 1.8V

**Overload Protection** : AC/DC 1000V

### Capacitance

Range	OL Reading	Resolution	Accuracy
100.0 $\mu\text{F}$	110.0 $\mu\text{F}$	0.1 $\mu\text{F}$	$\pm(1.9\%+2D)$
1000 $\mu\text{F}$	1100 $\mu\text{F}$	1 $\mu\text{F}$	

**Overload Protection** : AC/DC 1000V

### VoltSeek

**Voltage Range of High Sensitivity** :

80V -1000V (At the top edge of the jaw)

**Voltage Range of Low Sensitivity** :

160V-1000V (At the top edge of the jaw)

### Temperature

Range	OL Reading	Resolution	Accuracy
-40.0 $^{\circ}\text{C}$ to 400.0 $^{\circ}\text{C}$	440.0 $^{\circ}\text{C}$	0.1 $^{\circ}\text{C}$	$\pm(1\%+20D)$
-40.0 $^{\circ}\text{F}$ to 752.0 $^{\circ}\text{F}$	824.0 $^{\circ}\text{F}$	0.1 $^{\circ}\text{F}$	$\pm(1\%+36D)$

The accuracy does not include the accuracy of the thermocouple probe.

Accuracy specification assumes surrounding temperature stable to  $\pm 1^{\circ}\text{C}$ . For surrounding temperature changes of  $\pm 2^{\circ}\text{C}$ , rated accuracy applies after 2 hours.

**Overload Protection** : AC/DC 1000V