



# CT-317

## PHOTOVOLTAIC (PV) CURRENT CLAMP 1000 V, 2000 A

**FOR SELF-CONSUMPTION INSTALLATIONS**

**FEATURES IMPEDANCE, CAPACITANCE,  
TEMPERATURE & FREQUENCY MEASUREMENTS,  
DIODE TEST AND USB DATA TRANSFER**



Thanks to its specifications (1000 V, 2000 A), the CT-317 current clamp is perfect to work in self-consumption PV (photovoltaic) installations, both in private residential environments, buildings and other locations.

Just insert a microSD card in the memory slot to store measurement records with an user-definable time between samples of 2 to 7200 seconds. The system accepts cards of up to 32 GB (an 8 GB card is included).

The CT-317 current clamp has a built-in real-time clock to attach the day and time to the measurements, transfer them to the computer and process them with any compatible application.



### MEASUREMENTS INCLUDED IN THE CT-317 CURRENT CLAMP

- ✓ **DC/AC voltage:** Up to 1000 V
- ✓ **DC/AC current:** Up to 2000 A
- ✓ **Continuity test:** Audible tone
- ✓ **Diode test:** Audible tone
- ✓ **Impedance:** Up to 60 MΩ
- ✓ **Frequency:** Up to 999.9 Hz
- ✓ **Capacitance:** Up to 600 μF
- ✓ **Temperature:** From -100 °C to 1300 °C (optional)

### SPECIFICATIONS

- ✓ **Display:** Backlighted LCD screen, 128x64 pixels
- ✓ **Polarity:** Automatic, on-screen indication
- ✓ **Datalogger:** Up to 32 GB of data (microSD storage)
- ✓ **Dimensions:** 108 (W.) x 280 (H.) x 47 (D.) mm
- ✓ **Functions:** HOLD, relative measurement, PK-PK
- ✓ **Overrange:** On-screen indication and statement in datalogger
- ✓ **PC software:** Included, to convert data to MS Excel
- ✓ **Power supply:** Batteries (2x1.5 V AA-size) or AC adapter

SPECIFICATIONS	CT-317 SELF-CONSUMPTION PHOTOVOLTAIC (PV) INSTALLATIONS CURRENT CLAMP 1000 V, 2000 A
Display	Dot matrix backlighted LCD screen (128x64 pixels)
Display functions	HOLD, relative measurement, peak-to-peak measurement
Polarity	Automatic: Positive by default and on-screen negative polarity indication
Overrange	(OL) or (-OL) is displayed, and "999" or "9999" is recorded the datalogger (overlooking the decimal point)
Analogue to Digital Conversor	6000 counts
Protection class	IEC1010 CAT III 1000 V, CAT IV 600 V
Max conductor diameter	50 mm
Clamps frequency response	From 40 Hz to 1 kHz
Datalogger	Measurements are stored in the microSD card (up to 32 GB) Measurements are associated to its timestamp (MM/DD/YYYY HH:MM:SS) Measurements can be exported to Microsoft Excel Time between measurements from 2 to 7200 seconds Supplying the instrument from its AC 9 V adaptor is recommended
DC voltage Scales Resolution Accuracy Overload protection	600mV / 6V / 60V / 600V / 1000V 0.1 mV / 0.001V / 0.01V / 0.1V / 1V 600 mV scale: $\pm(0.8\% \text{ rdg.} + 2 \text{ digits})$ / Other scales: $\pm(0.8\% + 1 \text{ digit})$ / PK-PK: $\pm(5\% + 30 \text{ digits})$ 1000 V
AC TRMS voltage Scales Resolution Accuracy Input impedance Overload protection	600mV / 6V / 60V / 600V / 1000V 0.1 mV / 0.001V / 0.01V / 0.1V / 1V $\pm(1\% \text{ rdg.} + 2 \text{ digits})$ / PK-PK: $\pm(5\% + 30 \text{ digits})$ 10 M $\Omega$ 1000 V RMS
DC/AC TRMS current Scales Resolution Accuracy Overload protection	From 0.5 to 2000 A 0.1A / 1A 600 A scale: $\pm(1\% \text{ rdg.} + 12 \text{ digits})$ / 2000 A scale: $\pm(1\% + 8 \text{ digits})$ / PK-PK: $\pm(5\% + 30 \text{ digits})$ 2100 A with clamps
Impedance Scales Resolution Accuracy	600 $\Omega$ / 6k $\Omega$ / 60k $\Omega$ / 600k $\Omega$ / 6M $\Omega$ / 60M $\Omega$ 0.1 $\Omega$ / 0.001k $\Omega$ / 0.01k $\Omega$ / 0.1k $\Omega$ / 0.001M $\Omega$ / 0.01M $\Omega$ 600 $\Omega$ scale: $\pm(1\% \text{ rdg.} + 2 \text{ digits})$ / Other scales: $\pm(1.5\% + 2 \text{ digits})$
Diode test	Short/open circuit, pass/fail test
Continuity test	Audible tone when the impedance value is below 5 $\Omega$
Capacitance Scales Resolution Accuracy	6nF / 60nF / 600nF / 6 $\mu$ F / 60 $\mu$ F / 600 $\mu$ F 0.001nF / 0.01nF / 0.1nF / 0.001 $\mu$ F / 0.01 $\mu$ F / 0.1 $\mu$ F $\pm(3\% \text{ rdg.} + 5 \text{ digits})$
Frequency	From 40 to 999.9 Hz (0.1 Hz resolution). Accuracy $\pm(0.5\% \text{ rdg.} + 2 \text{ digits})$ .
Temperature Scales Resolution Accuracy	Optional -100 to 199.9 $^{\circ}$ C / 200 to 1300 $^{\circ}$ C 0.1 $^{\circ}$ C / 1 $^{\circ}$ C $\pm(1\% \text{ rdg.} + 1^{\circ}\text{C})$ / $\pm(1\% \text{ rdgt.} + 2^{\circ}\text{C})$
Power supply	2 AA-size 1,5 V batteries or 9 V AC adapter
Mechanical features	108 (W.) x 280 (H.) x 47 (H.) mm / 640 g, including batteries
Included accessories	Test leads, Crocodile clamps, USB cable, RS-232 cable, Measurement acquisition software, Temperature probe (optional), 8 GB microSD card, carrying pouch, AC adapter