



CT-327

THREE-PHASE & SINGLE-PHASE WATTMETER CLAMP 600 V, 2000 A

WITH ON-SCREEN WAVEFORM DISPLAY

FEATURING TRANSIENT CAPTURE,
PEAK-TO-PEAK MEASUREMENT
AND GRAPHIC PHASOR DIAGRAM

The professional-grade **CT-327** wattmeter clamp is one of the most advanced instruments in its class. In addition to its capabilities of power and energy measurement (active, apparent and reactive), it can trace in its very own screen the voltage and current graphs as well as the harmonics with no need of using additional instruments.

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 (includes an 8 GB card).

The **CT-317** wattmeter 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.



**TRUE
RMS**



MEASUREMENTS INCLUDED IN THE CT-327 WATTMETER CLAMP

- ✓ **AC voltage:** Up to 600 V
- ✓ **AC current:** Up to 2000 A
- ✓ **Power and energy measurement:** Active, apparent, reactive
- ✓ **Power factor:** From 0 to 1, accuracy ± 0.04
- ✓ **Phase angle:** From -180° to 180° , resolution 0.1°
- ✓ **Harmónics:** Absolute and percentage measurement
- ✓ **Frequency:** From 45 to 65 Hz
- ✓ **Temperature:** From -100°C to 1300°C

SPECIFICATIONS

- ✓ **Display:** Backlighted LCD screen, 128x64 pixels
- ✓ **Graphic phasor diagram:** Available
- ✓ **Datalogger:** Up to 32 GB of data (microSD storage)
- ✓ **Dimensions:** 106 (W.) x 280 (H.) x 47 (D.) mm
- ✓ **Functions:** HOLD, on-screen waveform display, peak-to-peak
- ✓ **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-327 THREE-PHASE AND SINGLE-PHASE WATTMETER CLAMP 600 V, 2000 A
Display	Dot matrix backlighted LCD screen (128x64 pixels)
Display functions	HOLD, voltage and current waveforms, graphic phasor diagram, PK-PK measurement
Power measurements	Active, apparent and reactive power and energy. Power factor measurement.
Overrange	(OL) or (-OL) is displayed, and "999" or "9999" is recorded in the datalogger (overlooking the decimal point)
Protection class	IEC1010 CAT IV 600 V
Max conductor diameter	57 mm
Clamps frequency response	From 40 Hz to 1 kHz
Screen capture	Stored in BMP format
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
AC TRMS voltage Scales Resolution Accuracy Input impedance Overload protection	10 to 600 V RMS / PK-PK 0.1 V $\pm(0.5\% \text{ rdg.} + 3 \text{ digits})$ / PK-PK: $\pm(5\% + 30 \text{ digits})$ 10 M Ω 720 V RMS
AC TRMS current Scales Resolution Accuracy Overload protection	10 to 2000 A / PK-PK 0.01 A (up to 100 A) / 0.1 A (up to 1000 A) / 1 A (up to 2000 A) Up to 200 A: $\pm(1\% \text{ rdg.} + 0.5 \text{ A})$ / Up to 2000 A: $\pm(5\% \text{ rdg.} + 5 \text{ A})$ / PK-PK: $\pm(5\% \text{ rdg.} + 30 \text{ digits})$ 2100 A RMS with clamp
Power factor	From 0 to 1 (resolution 0.01). Accuracy ± 0.04
Phase angle ϕ	From -180° to 180° (resolution 0.1°). Accuracy $\pm 1^\circ \times \text{acos}(\text{PF})$
Power Margin Resolution Accuracy	Active / Apparent / Reactive From 0 to 1.8 MW/MVA/MVAR From 0.001 kW/kVA/kVAR to 0.001 MW/MVA/MVAR $\pm(1.5\% \text{ rdg.} + 2 \text{ digits})$
Energy/h (WH/SH/QH) Margin Resolution Accuracy	Active / Apparent / Reactive From 0 kWh/kVAh/kVARh to 9.9999 MWh/MVAh/MVARh From 0.001 kWh/kVAh/kVARh to 0.001 MWh/MVAh/MVARh $\pm(1.5\% \text{ rdg.} + 20 \text{ digits})$
Harmonics measurement V _{AC} A _{AC}	From 1° to 20° : Accuracy $\pm(2\%+5 \text{ dig.})$ / From 21° to 50° : Accuracy $\pm(4\%+5 \text{ dig.})$. Resolution 0.1 V From 1° to 20° : Accuracy $\pm(2\%+5 \text{ dig.})$ / From 21° to 50° : Accuracy $\pm(4\%+5 \text{ dig.})$. Resolution 0.1 to 1 A
Harmonics percentage V _{AC} A _{AC}	From 1° to 20° : Accuracy $\pm(2\%+10 \text{ dig.})$ / From 21° to 50° : Accuracy $\pm(4\%+20 \text{ dig.})$. Resolution 0.1% From 1° to 20° : Accuracy $\pm(2\%+10 \text{ dig.})$ / From 21° to 50° : Accuracy $\pm(4\%+20 \text{ dig.})$. Resolution 0.1%
Total harmonic distortion	0 to 20%: Accuracy $\pm(2\% \text{ rdg.} + 5 \text{ digits})$ / 20.1 to 100%: Accuracy $\pm(6\% \text{ rdg.} + 10 \text{ digits})$. Resolution 0.1%
Frequency	From 45 to 65 Hz (resolution 0.1 Hz). Accuracy $\pm 0.1 \text{ Hz}$
Temperature Scales Resolution Accuracy	-100 to 199.9°C / 200 to 1300°C 0.1°C / 1°C $\pm(1\% \text{ rdg.} + 1^\circ\text{C})$ / $\pm(1\% \text{ rdg.} + 2^\circ\text{C})$
Power supply	2x1,5 V AA-size batteries or 9 V AC adapter
Mechanical features	106 (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, 8 GB microSD card, carrying pouch, AC adapter