

X-Meter 96C

Color LCD Touchscreen Network Analyzer for electrical panels. Current measurement with CT, TV Clamp on and Rogowski sensors



Optional modules available

- > Module for Current measurement 5A max (with CT's).
- > Module for Current measurement 125÷2000A (with Rogowski probes).
- > Clamp-on module for Current measurement with 1A CT's.
- > I/O module: 4 Open-collector Inputs + 2 Optomos Outputs (clean contact), with independent mass reference.

NOTE: 1 Current Measurement Module and 1 I/O Module can be added on one instrument at the same time.

Applied Standards

- > EN 55011(Class A)
- > EN 61000-4-2 -EN 61000-4-5
- > EN 61000-4-6
- > EN 61000-4-11
- > EN 61000-4-3
- > EN 61000-4-4
- > EN 60204-1

- Flush mount network analyser
- Memory and communication extensions to store up to 250 days' worth of data
- RS485 integrated serial port
- Bidirectional energy measurement (imported / transferred)
- 50 measurements
- Measurements in true value (true RMS)
- Measurements on 4 quadrants
- Graphic display
- Graphic display of voltage, current, power and cosφ
- 12 power totalizators on 4 quadrants that can be reset
- € Indication of absorbed and delivered power
- Clock and calendar

General	References
Consumption	5 VA
Nr.3 Voltage Inputs	100-400 Vac
Nr.3 Current Inputs	SEE OPTIONAL MODULES
Inputs/Outputs	SEE OPTIONAL MODULES
Protection degree	IP 20
Weight	300 gr
Maximum size LxHxW (including terminals)	96 x 96 x 68 mm (83mm including modules)
Size of the recessed part LxHxW (including terminals)	91 x 91 x 65 mm
Display	LCD TFT 3.5" 320x240 pixel 262k colors
User interface	Icons with touchscreen
Working temperature	-10°C + 55°C
Relative humidity	95% without condensation
Accuracy	+/- 0.25% Full-Scale, Measured Value +/- 0.50% Full-Scale, Measured Value Derived
Power Supply	110-240 Vac / 48-120 Vdc
Frequency	50-60 Hz

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Options X-Meter 96C

96C-TA5 - Current Interface

Currents measurement module: three 5A max inputs for CT connection.

96C-ROG - Rogowski Coil Interface

Current measurement module for Rogowski connection: selectable range 125-250-100-1000-2000A with a keypad, entire measurement chain's precision guaranteed (analyser+Rogowski coil): class 1.

96C-CC1 - 1Veff Current Interface

Current measurement module for 3 CT's (24mm diameter) with 1V output and fixed flow from 25 to 200A. Entire measurement chain's precision guaranteed (analyser+Rogowski coil): class 1.

96C-DIG - Digital I/O Interface

I/O module with 4 open collector inputs for clean contacts and two 24Vac or 100mA max Optomos outputs and independent mass reference.

XM6 - Harmonics recording

Module for harmonics measurement up to the 25th which also allows data storing.

XM7 - Annual programmable clocks

This firmware module for programmable clocks with perpetual annual calendar lets the user enable 4 optomos outputs on the X-Meter 96C for automatic management of set utilities' switching ON and OFF (i.e. lights, motor, HVAC, etc.). Each X-Meter 96C can manage up to 12 daily profiles, 2 special periods and 20 special days. Each profile defines 8 status changes within 1one day (24 hours) for each one of the 4 loads. Connect up to 128 X-Meter 96C's for up to 512 loads' management. This function is only available with XM1 enabled.

XM8 - Galvanically Isolated analogic Channel

1 DIN module for voltage or current signals interfacing to the X-Meter 96C's inputs for data visualisation and storage. The X-Meter 96C can power up to two XM8 modules and any additional one must have its own 12Vdc power supply (not included). There are 11 possible interface configurations for voltage and current signals with 0,5% full scale precision guaranteed.

XM9 - PT100-500-1000 probe interface module

PT1000 temperature probes interfacing with the X-Meter 96C's inputs to visualise and file the temperature data acquired. The X-Meter 96C can power up to two XM9 modules and any additional one must have its own 12Vdc power supply (not included). 0,5% full scale precision guaranteed.

XM10 - Room temperature

This device acquires room temperature data (-10 °C +65°C ± 1.5°C) to send them to the X-Meter 96C's for visualisation and storage. XM10 is suitable for wall fitting and the X-Meter 96C can power up to two XM10 modules and any additional one must have its own 12Vdc power supply (not included). It is particularly suitable to monitor and manage room temperature in Data Centres, LV/MV panels, warehouses, etc.

XM11 - Room temperature and humidity

This device acquires room temperature and humidity data to send them to the X-Meter 96C's for visualisation and storage. XM11 is suitable for wall fitting and the X-Meter 96C can power up to two XM11 modules and any additional one must have its own 12Vdc power supply (not included). It is particularly suitable to monitor and manage room temperature and humidity in Food industry. Humidity Range (Relative Hum 0-100%) ±2% accuracy within the 10 to 90% range. Temperature Range (-10°C +65°C) ±0,8°C accuracy (±0.3°C at 25°C).

XM14 - Power quality

This module lets the user record voltage swells and values with 10 ms integration. XM14 can also measure and store harmonics up to the 25th, both voltage and current. An alarm can be set in advance to send and alert enabled when micro interruptions occur.

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List of Measurements

Direct measurements for single-phase

- Phase-neutral voltage L1-N
- Phase-neutral voltage L2-N
- Phase-neutral voltage L3-N
- Phase-phase voltage L1-L2
- Phase-phase voltage L2-L3
- Phase-phase voltage L3-L1
- Line current L1
- Line current L2
- Line current L3

Single-phase derived measurements

- Bi-directional active power L1 (positive=imported (Q1 and Q4), negative=exported (Q2 and Q3))
- Bi-directional active power L2 (positive=imported, negative=exported)
- Bi-directional active power L3 (positive=imported, negative=exported)
- Bi-directional reactive power L1 (positive=imported (Q1 and Q4))
- Bi-directional reactive power L2 (positive=imported)
- Bi-directional reactive power L3 (positive=imported)
- Distorting power L1
- (indication of presence of current harmonics)
- Distorting power L2
- (indication of presence of current harmonics)
- Distorting power L3
- (indication of presence of current harmonics)
- Apparent power L1
- Apparent power L2
- Apparent power L3
- Power factor L1
- Power factor L2
- Power factor L3

Main measurements of three-phase system

- Three-phase equivalent voltage phase-neutral
- Three-phase equivalent voltage phase-phase
- Three-phase equivalent current
- Three-phase active power (positive=imported, negative=exported) Bidirectional
- Three-phase reactive power (positive=imported) Bi-directional

Secondary measurements of three-phase system

- Three-phase equivalent distorting power
- Three-phase equivalent apparent power
- Three-phase equivalent power factor
- Calculated neutral current
- Ideal Neutral-center star Voltage, N-O
- Frequency (measured on voltage input L)

Integrated Energy values of three-phase system

- Imported active Energy, Bench 1
- Exported active Energy, Bench 1
- Imported Inductive Energy (Q1), Bench 1
- Exported Capacitive Energy (Q2), Bench 1
- Exported Inductive Energy (Q3), Bench 1
- Imported Capacitive Energy (Q4), Bench 1
- Imported active Energy, Bench 2
- Exported active Energy, Bench 2
- Imported Inductive Energy (Q1), Bench 2
- Exported Capacitive Energy (Q2), Bench 2
- Exported Inductive Energy (Q3), Bench 2
- Imported Capacitive Energy (Q4), Bench 2