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SICAM P850

Multifunctional power meter for acquisition, visualization, evaluation, and transmission in one device

www.siemens.com/powerquality

Device Description

The SICAM P850 multifunctional power meter is used for acquisition, visualization, evaluation, and transmission of electrical measured variables such as magnitudes of voltage and current, frequency, power, harmonics. The acquisition, processing, and accuracy of measured values and events are performed acc. to the IEC 61000-4-30 power quality measurement standard.

The measured values can be forwarded to a personal computer or power automation/SCADA system via communication interfaces or shown on a display. Measured values can be recorded in parameterizable time intervals with various recorders such as fault recorders. Events are evaluated directly via the Web browser in the device and can be displayed as a report.

Benefits

- Comprehensive acquisition and analysis of electrical measurands for early detection of power quality issue.
- High level of investment security through the use of standards
- Improved availability
- Open and transparent connectivity and interoperability

Applications

SICAM P850 is used in power systems and industrial plants to measure and analyze electrical measurands.

Features

- PQ measurement according to IEC 61000-4-30
- Harmonics acc. to IEC 61000-4-7
- Energy management and power monitoring functionality
- Standard communication protocols and data export formats

Compact and Reliable

Device Characteristics

Measured Characteristics

- True RMS values of voltage and current with 2048 sampled values/10 sampling cycles (sampling rate 10.24 kHz @50 Hz)
- Voltage, current, frequency, min/max/average values
- Harmonics up to the 40$_{th}$ harmonic
- Power factor
- Unbalance
- THD of voltage and current
- Limit violations and indications

Power Quality Features

- Measurement compliant with IEC 61000-4-30
- IEC 61000-4-7 Harmonics

Energy Management

- Active, reactive, and apparent power and energy
- Accuracy class active power 0.5S according to IEC 62053-22
- Accuracy class voltage/current 0.5 %

Communication Protocols

- Ethernet: IEC 61850, Modbus TCP, SNMP
- Serial: Modbus RTU master and IEC 60870-5-103

Data Export

- CSV data for PQ recordings, measured-value recorder
- COMTRADE according IEEE/IEC, fault records

Input Measuring Circuits

- 4 x alternating voltage, V_{L-N}/V_{L-L}: AC 400 V/690 V
- 3 x alternating current, I_N: 1 A/5 A

Binary Inputs/Outputs

- 2 digital outputs

Operation and Display

- Graphic display including operation via 4 function keys
- Integrated Web server to interact with PC and HTML pages

Time Synchronization

- Via Ethernet: NTP client (Network Time Protocol)

Auxiliary Voltage

- AC 110 V to 230 V, DC 24 V to 250 V

Housing Specification

- Dimensions: 96 mm x 96 mm x 100 mm (WxHxD)
- IP51

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