

## Advanced Power Quality Analyzers

### PM174 / PM175



The Advanced Power Quality Analyzers PM174/5 are compact, multi-functional three-phase power and revenue meters equipped with advanced power quality analysis capabilities.

The analyzers have been developed to answer the needs of a wide range of

users: substation operators, electrical energy system integrators, generator users, industrial and commercial energy consumers. These analyzers cover the entire range of applications demanding high performance power quality monitoring and root cause analysis.

The PM174 provides the full range of power quality monitoring, logging and statistics according to IEEE1159. The PM175 provides similar performance according to EN50160, GOST 13109 or GOST R 32144-2013.

The PM174/5 allows both suppliers and consumers to monitor the quality of outgoing or incoming electric power. This enables power suppliers to prepare timely corrective action, and helps consumers prevent equipment damages caused by power quality issues.

Two independent communication ports allow local and remote data acquisition.

#### Pole-Top MV Monitoring

PM175 Smart grid solution with unique sensors (PT/CT)

#### EDL174/5

Portable Power Quality Analyzer



#### Displays

The PM174/5 Series offers a selection of display modules.

## Features

#### Multi-Functional 3-Phase Power Meter

- Voltage, current (incl. neutral current), power, energy, power factor, frequency, voltage/current unbalance, load profile

#### Multi-Tariff Revenue Meter

- Accuracy class 0.2S according to ANSI C12.20 / IEC 62053-22
- Built-in Time of Use (TOU) tariffs to meet any billing requirements
- Sealing option
- Built-in clock and calendar functions with back-up battery
- Time synchronization via communication port or digital input

#### Advanced Power Quality Analysis

- Monitoring, statistics & reports according to EN50160, IEEE1159, GOST 13109 or GOST 32144-2013 specifications
- Power Quality event logging with waveform recording

- Directional power harmonics (via PAS)
- Waveform recording with 6 channels (3 voltage inputs, 3 current inputs)
- Harmonics & inter-harmonics according to IEC 61000-4-7 (up to the 40<sup>th</sup> via display / 63<sup>rd</sup> via PAS)
- Voltage and current THD, current TDD, K-Factor
- Flicker according to IEC 61000-4-15
- Dips, swells, interruptions and transient recording with waveforms

#### Event/Data Log

- Power quality event/data logging
- Logging capability for more than 100 parameters
- Logging parameters with real-time stamps

#### Alarm and Control Functions

- 16 programmable set-points
- 2 programmable relay outputs 3A, 250V
- 2 digital inputs

- Optional 2AI or 2AO
- Optional 2DI+2DO (total 4DI+4DO)

#### Power Supply

- AC/DC: 85-264V AC, 88-290V DC
- Optional: 12V DC, 24V DC, 48V DC

#### Communication

- 2 independent communication ports (RS-232/422/485, modem, Ethernet, Profibus DP, GPRS)
- Protocols: Modbus RTU, ASCII, DNP 3.0, Modbus/TCP, DNP3/TCP

#### Construction

- Full galvanic isolation of voltage and current measuring circuits—6 kV Impulse
- Dual panel mounting: 4" Round; Square 96x96 DIN
- **Weight:** 2.7 lbs / 1.23 kg (LED display)
- **HxWxD:** 5x5x5.6" / 127x127x143 mm (LED display)



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