

PQM-800 Power Quality Monitor



Key Features:

- High Frequency PQ & Transients
- 1 MSample/second sample rate
- 8 channel synchronous sampling
- Cloud upload for immediate visualization and permanent availability
- Up to 4 TB storage for year-long recordings

The PQM-800 is a power quality monitoring system made for detailed analysis of voltages and currents over long periods of time. With a 1 MS/s sample rate on 8 channels, continuous evaluation of harmonics up to 500 kHz and an intelligent transient detection, the PQM-800 is built to find problems with high frequency harmonics and transient phenomena in power systems or single devices and plants.

For control, communication, and visualization, the PQM-800 has an integrated webserver, which allows complete control and access over the integrated Wi-Fi or via LAN. It can also be securely connected to the BSS Monitoring Cloud using a VPN.

The PQM-800 is available with 4x 600 V 4mm plug inputs and 4x 50 V BNC inputs for measurements in low voltage grids (see picture), or with 8x 50 V BNC inputs for usage with voltage dividers and sensors.

Technical Details:

Sample Rate	1MS/s synchronous
Vertical Resolution	14 bit
Input Channels	4x 4mm plug input + 4x BNC or 8x BNC
Analog Bandwidth	BNC inputs: DC ... 10 MHz 4mm plug inputs: DC ... 500 kHz
Input range	BNC inputs: $U_{peak} = \pm 50 V$, 4mm input plugs: $U_{peak} = \pm 600 V$
Input impedance	BNC inputs: 1 M Ω , 20 pF 4mm plug inputs: 10 M Ω , 2.5 nF
Internal Storage	512 GB, upgradeable to up to 4 TB
Time Synchronization	NTP

Power Consumption	< 50 W
Power Supply	100 ... 250 V AC, 50 ... 60 Hz
Ground Connection	via power connector, M8 screw or 4mm socket
Ports	USB, RJ-45, ext. WiFi-Antenna, C14 power jack
Size (W x L x H)	406 x 330 x 174 mm (Pelicase 1400)
Weight	5 kg
IP protection class	IP20 when opened, IP67 when closed
Operation temperature	-20°C ... +50°C
Relative humidity	max. 95% (non-condensing)

Recorded Values:

Voltage RMS, Current RMS, Apparent Power, Active Power, Non-Active Power, Power Factor, Voltage THD, Current THD, Fundamental Frequency, Voltage and Current Harmonics in different aggregation levels:

Range:	2 ... 40 th Harmonic	2 kHz ... 9 kHz	9 kHz ... 150 kHz	150 kHz ... 500 kHz
Aggregation:	50 Hz	200 Hz	2 kHz	10 kHz

Transient Detection:

Triggers	1. Threshold trigger 2. Waveform comparison (envelope curve) (configurable via browser interface)
Sample Rate	1MS/s (1 µs sample distance)
Trigger Re-arm Time	None (continuous software trigger)
Recording Length	Adaptive, according to number of cycles affected
Minimum Recording Length	3 cycles
Maximum Recording Length	10 cycles
Storage	Stored as separate files on the devices, can be uploaded to BSS Monitoring Cloud if Internet Access is provided

Subject to change and error.

v.2.0