

Power, Harmonics, THD, Phase diagram, Flicker, Transient, Waveform...



GENERAL FEATURES:

- **Automatic Voltage and Power Quality Analysis** according to EN 50160 with PASS / FAIL limit evaluation, including flickers and harmonics. Compliance with power quality standard IEC 61000-4-30 Class A/S. Pre-defined recorder profile for EN 50160 survey;
- **Troubleshooting and Maintenance Tool** to discover voltage sags and swells, resonant states, high neutral conductor currents in 3-phase systems, asymmetry, transients;

- **Designing Tool** of filtering systems, power correction equipment, over voltage protection and UPS systems;
- Power Quality Negotiating background Tool;
- **Download, view and analyse with Power-View PC SW** platform that contains a package of functionalities needed for evaluation of power quality phenomena and creation of complex reports.

ADVANTAGES:

- **Voltage TRMS**, peak, crest factor (4-channel), 0 ... 1000 Vrms;
- **Current TRMS**, peak, crest factor (4-channel), automatic clamp recognition;
- **Power** (active, reactive, apparent), Power factor, cos φ, Unbalance;
- **Energy** (active, reactive, generated, consumed);
- **Harmonic analysis** up to 50th harmonic, THD measurement;
- **Flicker measurement**;
- **Waveform displaying and Transient snaphooting**;
- **Fast logging and Inrush Current recording**;
- Faster troubleshooting due to on-screen displaying of trends and captured events;
- Voltage events and user defined alarms capture;
- **GPS** time synchronization;

- Internal memory allows recording over one month period;
- Instrument, or a group of them, can be **remotely controlled** and programmed via GPRS modem.

APPLICATIONS:

- Power Quality, Maintenance, Compensation PF, Filters, Start up machines.
- Power quality assessment and troubleshooting in low and middle voltage electrical systems.
- Energy assessment to quantify the before and after installation improvements in energy consumption in order to justify energy saving devices.
- Checking power correction equipment performance.
- Long-term analysis, to uncover hard-to-find or intermittent issues.
- Predictive maintenance, to detect and prevent power quality issues before they cause downtime.
- Load studies, to verify electrical system capacity before adding loads;
- Start up current, unbalance/asymmetry recording to optimize systems efficiency.
- Electrical Safety in Public Areas.



Selection Guide

Part No.		MI 2892 Power Master	MI 2792A PowerQ4 Plus	MI 2792 PowerQ4 Plus	MI 2592 PowerQ4	MI 2392 PowerQ Plus	MI 2492 PowerQ
Features	Description						
CLASS	IEC 61000-4-30 Class A / Class S / Class B	Class A	Class A*	Class S	Class S	Class B	Class B
INPUTS	Number of current measuring inputs	4	4	4	4	3	3
	Number of voltage measuring inputs	4	4	4	4	3	3
	TRMS Voltage measurement (Min., Max., Avg.)	✓	✓	✓	✓	✓	✓
	TRMS Current measurement (Min., Max., Avg.)	✓	✓	✓	✓	✓	✓
	Current in neutral conductor	✓	✓	✓	✓	calculated	calculated
PERIODICS	Power Factor and cos φ	✓	✓	✓	✓	✓	✓
	Power measurement (W, VA, VAR)	✓	✓	✓	✓	✓	✓
	Energy measurement	✓	✓	✓	✓	✓	✓
	THD and harmonics analysis	✓	✓	✓	✓	✓	✓
	Frequency measurement	✓	✓	✓	✓	✓	✓
	Flicker measurement	✓	✓	✓	✓	✓	✓
	Voltage events (sags, swells, interruptions)	✓	✓	✓	✓	✓ (without flicker)	✓ (without flicker)
	Unbalance	✓	✓	✓	✓	✓	✓
	EN 50160 Analysis	✓	✓	✓	✓	✓	✓
	Scope function	✓	✓	✓	✓	✓	✓
ON LINE	Phase diagram	✓	✓	✓	✓	✓	✓
	Harmonics measurement	✓	✓	✓	✓	✓	✓
SPECIAL TOOLS	Transients measurement	✓	✓	✓	✓	✓	✓
	Waveform recording	✓	✓	✓	✓	✓ (snapshot)	✓ (snapshot)
	Inrush currents	✓	✓	✓	✓	✓	✓ (snapshot)
OTHER	Interharmonics analysis	✓	✓	✓	✓	✓	✓
	Signalling	✓	✓	✓	✓	✓	✓
	Temperature measurement	✓	✓	✓	✓	✓	✓
PC SW	PC SW PowerView	✓	✓	✓	✓	✓	✓
	MicroSD memory card	✓	✓	✓	✓	✓	✓
COMMUNICATION PORTS	RS232 and USB / Ethernet	✓ / ✓	✓ / -	✓ / -	✓ / -	✓ / -	✓ / -
	GPS time synchronization	✓	✓	✓	Option	Option	Option
	Remote instruments control (GPRS)	-	Option	Option	-	-	-

* Class A in range 49-51 Hz, see instruction manuals for details.