

## PowerQ MI 2492



Handheld, easy to use, 3-phase analyser for quick diagnostics of power quality



**PowerQ** is a lightweight, handheld, 3-phase analyser for quick power quality assessment in low and middle voltage systems.

All major power quality parameters like U, I, PF, cos  $\varphi$ , P, Q and S can be monitored on-line, measured or recorded.

Thanks to various pre-set measuring profiles, different diagnostics can be performed on-site even without using a PC.

Built-in in a rugged case **PowerQ** can be used in harsh industrial conditions.

Memory module allows up to five days of recording.

Windows compatible **PowerView** PC Software is delivered in a standard set and supports data downloading and making of test reports.

### Target applications:

- Power quality assessment and troubleshooting in low and middle voltage electric systems
- Power correction equipment performance testing and designing
- Selection and designing of harmonics filters
- Monitoring and managing of consumption profile

### Main features:

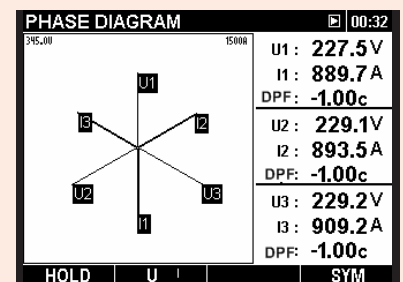
- Simultaneous measurement and recording of basic power parameters (U, I, P, Q, S, PF, cos  $\varphi$ , THD)
- Pre-set measuring profiles (U-I-f; Power, Harmonics)
- Voltage and current harmonics up to 50<sup>th</sup> component
- Phase diagram
- Voltage un-symmetry in 3-phase systems
- On-line scope function
- Windows compatible PowerView PC Software for downloading and creating of test reports

### Standards:

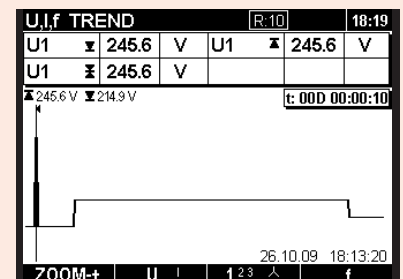
**Safety:** IEC/EN 61010-1

**EMC:** IEC/EN 61326-1

**Measurements:** EN 50160 and EN 61000-4-30, Class B



Phase diagram helps at connecting the instrument on the power network and visualizes phase shifts between phase voltages and currents.



Large LCD display enables on-line monitoring of measuring results either in table or graph form.

# Technical specification

## Function

### AC Voltage inputs

Number of inputs	3
Input voltage range	3.0 ... 550.0 Vrms L - N (952.0 Vrms L - L)
Basic accuracy	± (1 % of reading + 0.5 V)
Resolution	0.1 V
Sampling rate	1024 samples per 10 periods

### AC Current inputs

Number of inputs	3
Input voltage range	0.04 ... 1 Vrms
Current measuring range	4 ... 100 A and 40 ... 1000 A (with current clamp A 1033)
Resolution	0.1 A
Basic accuracy	± (2 % of reading + 0.3 A)
Sampling rate	1024 samples per 10 periods

Function	Measuring range	Resolution	Accuracy
Frequency	45.00 ... 66.00 Hz	10 mHz	± (0.5 % of reading + 0.02 Hz)
	0.000 ... 0.999 k	1	
	0.00 ... 9.99 k	10	
	0.0 ... 999.9 k	100	
	0.000 ... 9.999 M	1 k	
Power (W, VA, VAR)	0.00 ... 99.99 M	10 k	± (3 % of reading + 3 digits)
	0.0 ... 999.9 M	100 k	
	0.000 ... 9.999 G	1 M	
	0.00 ... 40.00 G	10 M	
Power factor, cos φ	0.00 ... 0.39	0.01	± 0.06
	0.40 ... 1.00	0.01	± 0.03
Harmonics analysis up to 50 <sup>th</sup> component	$U_M > 3 \% U_N$ ( $I_M > 3 \% I_N$ )	0.1 %	5 % $U_M$ ( $I_M$ ) (3 % for DC)
	$U_M < 3 \% U_N$ ( $I_M < 3 \% I_N$ )	0.1 %	0.15 % $U_N$ ( $I_N$ )

## Recording

Integration period (IP)	1 ... 3600 s
Maximum number of signals	500
COM port	RS232 and USB
Display	Graphic LCD with backlight, 320 x 200 dots
Memory module	8 MB Flash
Voltage supply	230 V <sub>AC</sub> or 6 x 1.2 V NiMH rechargeable batteries, type AA
Overvoltage category	CAT IV / 600 V
Protection class	Double insulation
Dimensions	220 x 115 x 90 mm
Weight	0.65 kg

## Ordering information:

Standard set

Part No. MI 2492



- Instrument PowerQ
- Current clamp 1000 A/1 V, 3 pcs
- Test tips, 3 pcs
- Alligator clips, 4 pcs
- Voltage measurement cables, 4 pcs
- PowerView PC SW package with RS232 and USB cable
- Power supply adapter
- Rechargeable batteries, 6 pcs
- Soft carrying bag
- Handbook "Modern Power Quality Measurement Techniques" on CD
- User manual
- Product verification data

Standard set

Part No. MI 2492F



Similar content as MI 2492:  
Current clamp 1000 A/1 V, 3 pcs replaced by  
1-phase flexible current clamps 3000/300/30 A, 3 pcs

## Option accessories:

Photo	Order No.	Acc. description
	A 1020	Small soft carrying bag
	A 1033	Current clamp 1000 A/1 V
	A 1037	Current transformer 5 A/1 V
	A 1039	Clamp adapter (for A 1069 and A 1122)
	A 1069	Mini clamp 100 A/1 V to be used with A 1039
	A 1122	Mini clamp 5 A/1 V to be used with A 1039
	A 1171	USB/RS232 converter with 1 m fixed cable
	A 1179	3-phase flexible current clamps 2000/200/20 A
	A 1227	1-phase flexible current clamp 3000/300/30 A
	A 1257	3-phase flexible current clamps 3000/300/30 A
	S 2014	Safety fuse adapter
	S 2015	Safety flat clamps



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