

# Meridian™ Quatro Portable Power Quality Monitor

FOR POWER QUALITY, LOAD STUDIES, AND FLICKER ANALYSIS AT POWER PLANTS, SUBSTATIONS, AND OTHER FACILITIES



## POWER QUALITY MONITOR

The Quatro is a powerful monitor that provides simultaneous power, harmonic, transient and flicker analysis for single or three-phase circuits.

It's the perfect tool for identifying voltage sags and swells, performing energy studies to optimize your electricity usage, and solving problems associated with harmonics and voltage flicker. This rugged compact unit is housed in a tough weatherproof case and can be installed anywhere, indoors or out. For cycle-by-cycle power analysis, it offers high-resolution 8 KHz sampling of 8 channels, 4

voltages, and 4 currents, with a fast 16-bit digital processor. A truly versatile tool, the Quatro is accurate and extremely reliable.

It's also easy to use. Plug it in to verify correct connections through our LED indicators and it has the capacity to store up to six months of data. The measurements are easily downloaded to your computer with our RS-232 Serial Port or with an optional infrared receiver. The Quatro measurements are viewed with our powerful analysis software used with all our products. The powerful software provides on the spot analysis with pre-configured graphs that include time plots of all your measurements, summary reports and harmonic spectrums. Or you can automate the analysis using our report generator that provides one complete report of your entire survey.



## FEATURES AND BENEFITS

- Easy to use, predefined configurations and automated analysis
- Low cost unit, includes powerful analysis software
- Advanced single and three-phase power quality monitoring and recording
- Simultaneous power, harmonic, transient and flicker analysis, with 8 KHz sampling
- Selectable storage size from one day to six months
- Compact, lightweight weatherproof enclosure

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*Experience the Power™*

## SPECIFICATIONS

### INPUTS

#### Voltage

- Four voltage inputs, phase A, B, C, neutral to ground voltage

#### Service

- Four current inputs, phase A, B, C, and neutral current

#### Circuit Type

- Single phase, split phase, 3-phase wye, 3-phase delta

#### Input Impedance

- 5 Megohms

### MEASUREMENT RANGE AND CAPABILITY

#### Voltage – two versions

- 5-480 VAC and 5-600 VAC

#### Current

- 0-10,000 amps through external current clamps (0-3sVAC input)

#### Frequency

- 45 to 65 Hz, and 400 Hz

#### Sample Rate

- 8 KHz (50, 60 and 400 Hz)

### MEASUREMENT CAPABILITY

#### Voltage and Current

(all measurements cycle by cycle)

- $V_{RMS}$  minimum, maximum, average (individual phase, phase to phase, phase to neutral, total)
- $V_{PEAK}$  minimum, maximum (individual phase)
- $I_{RMS}$  minimum, maximum (individual phase, total)

#### Power

- Watt, VAR, VA, power factor, phase angle

#### Energy

- Watthours

#### Transient

- 125 microsecond

#### Harmonics

- To 50<sup>th</sup> voltage only, THD on voltage and current, meets IEC61000-4-7

#### Flicker

- Pst and Plt, meets IEC 61000-4-15, IEC 868

### MEASUREMENT ACCURACY

#### Resolution

- 16 bit

#### Voltage

- $\pm 0.2\%$  of full scale

#### Current

- $\pm 0.2\%$  of full scale

#### Power

- 0.5% full scale (VA, VAR, Watt, PF)

#### Energy

- 1% of reading @85 to 100% power factor (Watt hours)

### RECORDING RATE AND DATA STORAGE

#### Continuous and Automatic;

#### Fill and Stop

#### Recording Rate

- Cycle by cycle measurements, average periods selectable: 1, 5, 10, 15, 30, 60 minutes

#### Data Storage

- 1 MB flash RAM

Recording Interval	Without Harmonic	With Harmonic
1 minute	3 days	1 days
5	15	5
10	30	10
15	45	15
30	90	30
60	180 days	60 days

### COMMUNICATIONS

#### RS-232

- 9 pin direct connect

#### Optional Wireless Infrared Port

- 1200/9600 Baud, maximum 30 ft. (10M)

### REAL TIME CLOCK

#### Internal

- Sec/day @25 degrees C, 4 seconds per day over temperature, keeps time on loss of power.

### POWER SUPPLY

#### Externally Powered

- 80 to 265 VAC, 50-60 from AC adapter

#### Self Powered

- 480 V unit from 220-480 VAC L-L
- 600 V unit from 270-600 VAC L-L
- Frequency
- 45 to 65 Hz, 400 Hz with adaptor

### PHYSICAL AND ENVIRONMENTAL

#### Enclosure

- Weatherproof, KYDEX 510

#### Operating Temperature

- -22° to 131°F (-30° to 55°C)

#### Humidity

- 5 to 95% non-condensing

#### Dimensions

- 8.66 in. x 6.30 in. x 2.95 in. (H x W x D)  
(220 mm x 160 mm x 75 mm)

#### Weight

- lbs, 1 kg



For customer support call:

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