

Meridian™ Power Quality Analyzer

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



POWER QUALITY ANALYZER

The AMETEK Meridian Power Quality Monitor is the value leader of high performance analyzers. It's several tools in one at a fraction of the cost; AC/DC wattmeter, harmonic analyzer, transient analyzer and flicker meter all operating simultaneously to provide the complete picture for any power problem using a single set-up and configuration. The Meridian is equipped with Pentium power to perform the most demanding power quality surveys. It can make over 8,000 measurements of power, harmonics, waveform, flicker and transients each and every cycle with an enormous 10 GB of storage.

With power comes ease of use as our predefined surveys provide a quick setup with plug and play simplicity. Remote configuration and analysis is possible with the built-in Ethernet and internal modem. Designed for any application, the Meridian can be used anywhere, inside or out with its compact portable weatherproof enclosure. The Meridian includes a Pentium Processor to diagnose virtually any power problem quickly, simply, and accurately with full cycle-by-cycle measurements on 8 channels (4 voltage and 4 current); and one survey set-up that captures it all: power, harmonics to the 63rd order, waveform, flicker, and transient, simultaneously. With a sampling rate of 256 samples per cycle on every channel and a 4 MHz peak detect, you get high resolution data of even the quickest transients. The Meridian has optional internal battery for continuous recording through power interruptions.

The ideal tool for all your power quality needs: sags, swells, outages to IEEE 1159, harmonics to IEC 61000-4-7, flicker to IEC 61000-4-15, transients, energy measurements and high frequency peak detection. A must for industrial high tech production, continuous process and all users of sensitive electronic equipment.



FEATURES AND BENEFITS

- Pentium Power performs over 8,000 measurements each and every cycle synchronously on 8 input channels (4 voltage and 4 current) with absolutely no sampling or measurement gaps
- Simultaneously measures power, harmonics, waveform, flicker and transients
- Built-in Ethernet, optional modem, serial and parallel ports allows remote configuration and analysis
- Compact portable weatherproof enclosure
- 256 samples per cycle waveform analysis, 4 MHz peak detector. High resolution measurements with cycle by cycle recording.
- 10.0 GB data storage capacity enables surveys lasting multiple days

AMETEK®



Experience the Power™

SPECIFICATIONS

INPUTS

Voltage

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

Current

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

Circuit Type

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

Input Impedance

- 5 Megohm

Digital

- 8 selectable inputs and 8 outputs through external I/O (optional)

MEASUREMENT RANGE AND CAPABILITY

Voltage

- 5-750 VAC and 0-800 VDC, 6 Kv impulse

Current

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

Frequency

- DC, 45 to 65 Hz, and 400 Hz

Sample Rate

- 256 samples per cycle, (15.3 KHz @ 60 Hz, 12.8 KHz @ 50 Hz), 32 samples per cycle (400 Hz)

Peak Detector

- 4 MHz (duration greater than 250 nsec and with a frequency content greater than 5 KHz)

MEASUREMENT CAPABILITY

Voltage and Current

- True RMS (minimum, maximum, and average), peak (hi, lo, abs), waveform, instantaneous

Power

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

Energy/Demand

- Watthours, varhours (supplied, and delivered), thermal demand

Transient

- 250 nanosecond w/ 4 MHz peak detect

Harmonics

- To 63rd voltage, current and power, THD, meets IEC61000-4-7

Flicker

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

MEASUREMENT ACCURACY

Resolution

- 14 bit

Voltage, Current

- $\pm 0.05\%$ of full scale

Power

- 0.1% of full scale (VA, VAR, Watt, PF)

Energy

- 0.1% of full scale

RECORDING RATE AND DATA STORAGE

Continuous, or by Exception

Recording Rate

- Adjustable from one cycle up to one week, multiple rates per measurement type

Data Storage

- 10 GB Hard Drive, 64 MB RAM

EVENT TRIGGERING

Voltage and Current

- All measured or calculated values; internal, external, and manual
- Up to 32 triggers on any measurement, pre-trigger up to one second, post trigger unlimited

COMMUNICATIONS

Ethernet

- TCP/IP, 10Base2

Modem

- 56 kbps, V.90 (optional internal or external)

Serial

- RS232

Parallel

- Centronics for local printer

REAL TIME CLOCK

Internal

- 1 sec/day at 77°F (25°C), 4 seconds per day over temperature, keeps time on loss of power

POWER SUPPLY

Input

- 80 to 230 VAC, 50-60 Hz: 125 to 250 VDC (self or externally powered)

Battery (optional)

- 5 minute ride through

PHYSICAL AND ENVIRONMENTAL

Enclosure

- Weatherproof

Operating Temperature

- 32° to 122°F (0° to 50°C) option for -22° to 122°F (-30° to 50°C)

Humidity

- 5 to 95% non-condensing

Dimensions

- 10 in. H x 16 in. W x 8.5 in. D (254 mm x 406 mm x 203 mm)

Weight

- 12 lbs.



For customer support call:

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ISO 9001 Certified