

PM3000



Take control of your power



Unravel the mystery
with

the PM3000 Three Phase Power Quality Recording Analyser with Harmonics and Adaptive Store.



- **Can I save money by distributing my load?**
- **Is my power factor good enough?**
- **Can I know if my machines are deteriorating?**

The PM3000 will help answer these questions and many more and you can take measurements over a long period and still get detailed results.

Take your PM3000 anywhere, it's small and light and robust.

Setting up is EASY. Use it as a meter or download to your PC

We are here to help you

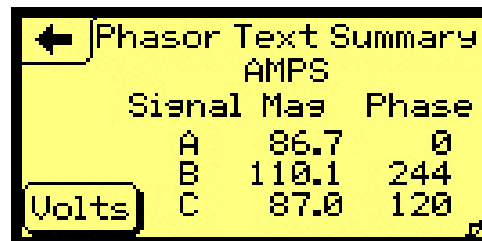
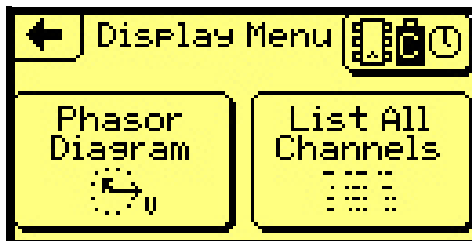
Email: support@outramresearch.co.uk Tel No: 01243 573050

PM3000 Power Quality Recording Analyser

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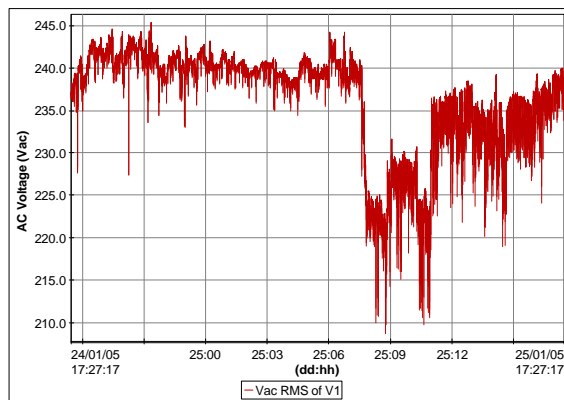
Here's how!



with

- An easy touchscreen operation
- Flexibility to produce the answer that suits you best
- Single cycle Adaptive Store, our unique data storage method for producing lots of detail when you need it.

This is what is happening to someone's voltage between 7.30 am and 11.00 am in the morning?



How does he find out what is causing it? He needs to because his machines are failing. Also, is something getting hot and presenting a fire risk? **By measuring the voltage at both sides of a joint and discovering a drop in volts across the joint the PM3000 traced the problem**

with

- The best graphing software on the market
- Reports such as EN50160, averaging or exceedence
- Many useful power calculations.

For further information and help contact:

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Another Adaptive Store product from Outram Research LTD

Warning Because you will be attaching the PM3000 to a potentially hazardous live circuit, you must be suitably qualified.

Have you read the detailed specification sheet?

PM3000 Power Quality Recording Analyser

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Unravel the mystery
With....



These features

- **Patented Single Cycle Adaptive Storage** recording process provides extremely high resolution and Proper Time waveforms down to single cycle over long recording periods
- Records and displays up to 16 channels of voltage, current, power, power factor, VAR's, phase angle, frequency, THD, and much more. Over 50 individual measurements
- Graphical **touchscreen** interface provides straightforward, user-friendly operation
- Eleven pre-stored configurations are set for 3 phase, 2 phase, and single phase hook ups with several channels pre-configured for power and harmonic measurements
- Phasor Diagram Display ensures correct hook up, provides suggestions upon detecting errors and determines if current sensor is properly orientated
- On-screen HELP guides users through configuration and hook up
- Capable of storing up to 127 configuration or data files
- Data Storage includes an additional internal flash memory for field programmable upgrades
- RS232, with MODBUS ASCII protocol or modem communications
- The PM3000 runs off the voltage being measured
- Powered independently by AC measurement circuits or DC power supply for voltages below 50 volts
- Battery back up provides 10 minutes resettable timed ride-through in case of power outage
- Fused voltage leads and internally fused voltage inputs protect expensive equipment
- rugged, compact, portable case is lockable
- **Safety Benefit:** Very small size, will fit in most panels and allow the door to be closed
- Best value 3 Phase Power Quality Analyser with Total Harmonics and Proper Time waveforms

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Outram Research Ltd www.outramresearch.co.uk

PM3000 Power Quality Recording Analyser

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The Kit



- PM3000 Power Quality & Harmonic Logger
- Three 24" 1000Amp Flexible Current Clamps (max conductor size 8")
- Four Voltage Input Cables with Fusing
- 9-Pin Serial Download Cable
- Two Neutral Common Leads
- Mains lead
- Pronto for Windows Analysis Software
- Customer CD with Operation Manual

The Specifications

Input Voltage: Three 0-480 Vac Inline shrouded 4mm banana plugs and fused crocodile clip

Input Currents: Three 24" 1000 Amp Flexible Current Clamps or with conventional 0-.5 Vac current clamp voltage output

Channels: 16

Accuracy: Volts and wide range current < 0.25% True RMS
Narrow range current < 1% True RMS

Resolution: Programmable to 0.1 Vac and 0.1 Aac
0.01V, 0.01A high resolution mode

Maths Channels:

AC 1 Phase: RMS, Stray Voltage RMS Hi Res < 35V, Real power, VARS (fund), Apparent Power, Power Factor, Phase angle, Frequency

AC 2 Phase: Real Power, VARS (fund), Apparent Power, Power Factor

AC 3 Phase: Real Power, VARS, (fund), Apparent Power, Power Factor, Voltage Unbalance, Current Unbalance (Conventional & Sequential Components)

Harmonics: Total Harmonic Value, % Total Harmonic Distortion

Other Maths Option: Channel X * Constant, Channel X / Channel Y, Filtered Channel X, Internal Temperature, On Charge, Battery Volts

Recording: 64 samples per cycle; single cycle True RMS response time; 16 bit simultaneously sampling all channels

Memory: 1MB Ram

Recording Mode and Rate:

Adaptive Store: Unique store management enables extended recording & single cycle resolution on significant signal changes

Point Store: Selectable from single cycle rate to once every 12 hours

Data Retention: Back-up battery provides 2 month's retention @ 77°F (25°C)

Power: Requires 50-480 Vac off of Phase A voltage measurement or separate power supply

Battery: 4 AA Ni-Cad battery pack & 1 Lithium battery

Safety & Standards: IEC 61010, CE, IEC 61326 (EMC), IEC 61000-4-15

Internal fusing: PSU, Battery stack, fused voltage leads

Communications:

Serial Ports: RS232, (up to 230.4K baud); isolation > 2.5kV

Protocol: MODBUS ASCII

Computer Requirements for Pronto Software: Windows 98, ME, NT4, 2000, Pentium processor, XP: 32MB RAM

Display: Backlit LCD graphic touchscreen display 2.5" x 1.35"

Case: Pelican 1120 Guard Box: Dimensions 8" x 6.5" x 3.5"

Weight: 2.5lbs. without leads and clamps

Operating Temp: 14° F (-10° C) to 140° F (60° C)

For further information and help contact:

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Another Ranger
product from
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Warning Because you will be attaching the PM3000 to a potentially hazardous live circuit, you must be suitably qualified.