POWER QUALITY ANALYSER

GPS LTD.

PQA-8000

The perfect power quality analyser for engineers looking for high-quality versatile instruments.

The PQA-8000 Power Quality Analyzer is a state-of-the-art solution designed to provide precise and comprehensive power quality measurements for industrial, commercial, and utility environments. Equipped with advanced technology, the PQA-8000 ensures accurate detection and analysis of key electrical parameters, helping to maintain optimal system performance and prevent costly downtime.

The PQA-8000 is capable of capturing and detecting instantaneous changes in the voltage and current parameters of the power grid. Including voltage and current fluctuations, voltage and current dips, sudden drops, short interruptions, transient overvoltage, inrush current, current and voltage transient distortion.

Whether you need to troubleshoot power disturbances or optimize energy consumption, the PQA-8000 Power Quality Analyzer provides the essential insights needed to ensure your electrical system is operating at peak performance.

Key Features

- **Real-time waveform display (4 channels voltage & current)**
- **True-RMS values for voltages and currents**
- **Display the DC components of voltage**
- **Peak current and voltage values**
- **Minimum and Maximum half-cycle RMS current and voltage values**
- **Pharos diagram display**
- **Measurement of harmonics of each phase up to the 50th**
- **Bar charts display harmonic ratios of current and voltage of each phase**
- **Total harmonic distortion (THD)**
- **Active, reactive, apparent power by phase and cumulative**
- **Active, reactive, apparent energy y phase and cumulative**
- **Transformer K factor**
- **Power factors (PF) and displacement factors (DPF)**
- **Short-term voltage flicker (PST)**
- **3-phase unbalance (current and voltage)**

www.gpslimited.com/PQA8000
For all enquiries, Tel: +44 (0) 208 964 3600
Email: info@gpslimited.com

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Technical Specifications

PQA-8000 Power Quality Analyser			
Current Test	See current clamps listed below (optional accessories)		
Voltage Test	Line voltage: 1.0V ~ 2000V; Phase voltage: 1.0V ~ 1000V		
Electricity Energy Parameter	W, VA, var, PF, DPF, cosϕ, tanϕ ; Wh, Varh, Vah		
Test modes (6)	Waveform mode, Harmonic Mode, Power & Energy Mode, Trend Mode, Alarm Mode, Capture Mode		
Number of Channels	4 voltages, 4 currents	**Voltage Flicker**	Yes
Frequency	40Hz ¬ 70Hz	**Three-Phase Unbalance**	Yes
Harmonic Wave	Yes, 0 – 50 times	**Start Current Mode**	Yes, 100 seconds
Total Harmonic Distortion	Yes, 0 – 50 times, each phase	**Peak Value**	Yes
Expert Mode	Yes	**Phasor Diagram Display**	automatic
Transient Record Groups	150 groups	**Screenshot Capacity**	60 screens
Record	300 days (record 20 parameters simultaneously, every 5 seconds record 1 point)		
Min/Max Recorded Value	Yes, the max/min value can be measured for a certain time		
Alarm	40 different types of parameter selection, 12800 group alarm logs		
Automatic Shut Down	In the alarm/trend graph recording/transient capture mode (waiting or in progress), the instrument does not automatically shut down. In other test modes, if there is no button operation within 15 minutes, prompting to automatically shut down after 1 minute.		
Display Mode	High-definition LCD colour screen, 640dots x 480dots, 5.6 inches, display field 116mm x 88mm with backlight function		
Standard Accessories	Instrument Bag: 1pcs; Test Cable: 5PCS (yellow, green, red, blue, black); Alligator Clip: 5PCS; Probe: 5PCS; Charger 1PCS; Software CD: 1COPY; 2G Memory Card: 1PCS;		

Power Supply
Rechargeable lithium battery 9.6V, 4500mAH, external charger; working current about 490mA, battery can continuously work for 8 hours

Battery Indicator
Battery symbol shows dump energy. When the voltage is too low, automatic shutdown after the 1 minute

Input Impedance
Input impedance of test voltage: 1MΩ

Withstand Voltage
Withstand 3700V/50Hz sinusoidal AC voltage for 1 minute between instrument wiring and shell

Insulation
Between instrument wiring and shell ≥10MΩ

Structure
Double insulation, with insulation vibration-proof sheath

Safety Standard
IEC 61010 1000V Cat III / 600V CAT IV, IEC61010-031, IEC61326, Pollution Degree 2

Length of Voltage Test Wire
3m

Length of Current Sensor Wire (optional)
2m

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Current Clamps (optional) (4 sets supplied of each)

Current Sensor Model	Current Clamp	Current True RMS	Current True RMS Max Error	Phase Angle φ Max Error
FR008 (CT : Φ8mm)		10mA～99mA	±(1 % + 3dgt)	±(1.5°),Arms≥20mA
		100mA～10.0A	±(1 % + 3dgt)	±(1°)
FR020 (CT : Φ20mm)		0.10A～0.99A	±(1 % + 3dgt)	±(1.5°)
		1.00A～100A	±(1 % + 3dgt)	±(1°)
FR050 (CT : Φ50mm)		1.0A～9.9A	±(2 % + 3dgt)	±(3°)
		10.0A～1000A	±(2 % + 3dgt)	±(2°)
FR300R (CT : Φ300mm)		10A～99A	±(1 % + 3dgt)	±(3°)
		100A～6000A	±(1 % + 3dgt)	±(2°)

General Specifications

Part Numbers / Optional Accessories		
Code	**Item**	**Part Number**
PQA-8000	Intelligent Multifunctional Power Quality Analyzer 3-Phase 4-Channel Harmonic Detector with 5.6-inch LCD	478000

Dimensions
277 x 227 x 153mm / 10.9 x 8.9 x 6.0" (w x d x h) approx.

Mass
1.6kg/3.5lbs approx. (main unit with battery)

FR008 small sharp current clamp: 168g each
FR020 circle current clamp: 252g each
FR050 circle current clamp: 463g each
FR300R Flexible Coil Current Sensor (with integrator): 280g each

Test wires and power adapter: 800g

Total package weight: 10.8kgs

Operating
10°C ~ 40°C (working)
-10°C ~ 60°C (storage)

80%RH (working)
70%RH (storage)

Services
1-year warranty (subject to product registration with GPS Ltd)

Visit www.gpslimited.com/register-product
Service and calibration available.

Please contact for more information

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