

POWERSIDE™

All our energy, in your power



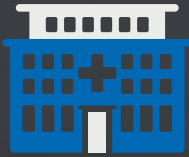
PQube® 3 Power Analyzers

COMPACT, VERSATILE, PRECISE, INTUITIVE

- Up to 14 Current Channels • 4MHz HF Transients • 2kHz–150kHz Emissions •
- Revenue Grade Class 0.2 Accuracy • Class A Ed3 Power Quality

INDUSTRIES

PQube 3 power analyzers help companies save money and time across numerous industries:



HEALTHCARE FACILITIES



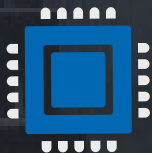
TELECOMMUNICATIONS



TRANSPORT



UTILITY DISTRIBUTION



SEMICONDUCTOR
MANUFACTURING

AND MORE

SAVE MONEY AND GAIN PEACE OF MIND

A PQube 3 power analyzer is the best investment in productivity, process quality improvement, and peace of mind you'll ever make.

DATA DELIVERED TO YOU ANYWHERE

Receive graphical information about trends and events on your smartphone, tablet, or laptop.

MONITOR REMOTELY

See what's happening in real-time. Get a wide range of measurements from the comfort of your home or office.

QUICKLY DISCOVER PROBLEMS

Receive notification of problems or impending problems the moment they happen.

IDENTIFY ROOT CAUSES FASTER

Identify or rule out power as the root cause of a failure. Your PQube 3 pays for itself on the first avoided service call.

MANY DEVICES IN ONE

The compact, power-packed PQube 3 series includes an endless array of functions

Triggered Oscilloscope

Includes 40 digital oscilloscopes

Triggers on sags, swells, DC voltage, temperature, pressure, humidity, and more

Offers 250 nanosecond transient capture

Sends out notifications real-time by email, SMS or SNMP traps

Real-time Intelligent Sensor

Reports over 3000 parameters — every second

Peace of mind with real-time analysis

Enables rapid and effective diagnostics

Ensures process compliance

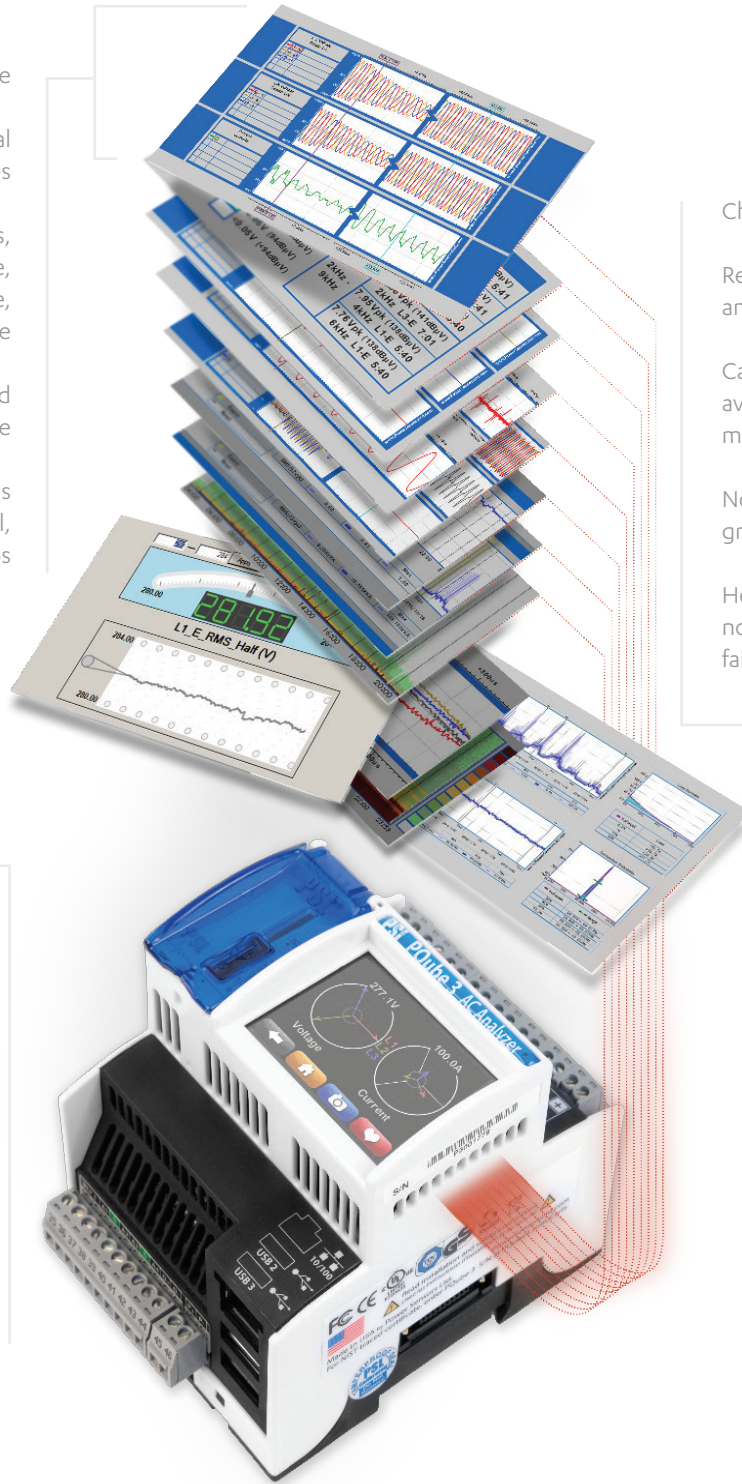


Chart Recorder

Records daily, weekly and monthly trends

Captures minimum, average, and max values by the minute, it never misses a cycle

No software to install. Emails graphs, Excel, PQDIF files to you

Helps identify deviations from normal activity, provides predictive failure analysis

P WERSIDE™

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8 Current Inputs
0.333V or 10Vpk voltage differential input channels. Use Powerside's Ultra-Precise Current Transformers for 0.2 Class revenue metering

4 Voltage Inputs
Up to 960VAC nominal voltage inputs

Use VAT1 module for dual-voltage mode

Powerside's Ultra-Precise Calibrated Current Transformers

Anti-Tamper Lid

16GB External Data Backup

Expansion Bus
For additional modules both sides

USB 2.0 Port
Data backup, configuration and firmware updates

Digital Input

Relay Output

4 Analog Input Channels
Suitable for flow, RPM, fluid level, pressure, and more

Touchscreen Display
Intuitive interface to configure, upgrade firmware, view over 600 live meters, recent events, and system status

32GB Internal Memory
Over a year's worth of data storage

10/100 Ethernet RJ-45 Port
Built-in Ethernet port. Wireless, cell modem, PoE compatible

24VAC or 24~48VDC Instrument Power Input

EnviroSensor® Inputs
Connect a Powerside ENV2 sensor for ambient temperature, humidity, barometric pressure, shock, and vibration, 3-Axis acceleration, and more

PQube[®]3

POWER QUALITY IS ONLY THE BEGINNING

Powerside's PQube 3 power analyzers are the only complete solution on the market. With an exhaustive array of inputs from electrical to environmental, so the PQube 3 makes sophisticated data analysis a simple process you can diagnose and fix problems fast.

PQube 3e — 14 Current Channels



HIGH SPEED

MICRO POWER QUALITY

- Up to 4MHz high frequency sampling — 250ns transient detection and recording
- Event-triggered recording based on sags, swells and interruptions, over/under-frequency, waveshape changes, inrush current, and more
- 2kHz-150kHz conducted emissions recording
- High-speed 512-samples-per-cycle recording on all channels
- IEC 61000-4-30 Ed3 Class A:
 - Voltage sags/swells/interruptions
 - Voltage flicker (Pinst, Pst, PLT)
 - Voltage and current harmonics and inter-harmonics up to rank 50
 - Voltage and current unbalance
 - Voltage THD, current THD, and TDD
 - Rapid voltage changes
- Daily, weekly, and monthly trends with min/avg/max
- Daily cumulative probability, histograms, and more

BUILT-IN WEB AND EMAIL SERVER NO SOFTWARE TO INSTALL

While other analyzers require you to download and install software, PQube 3 power analyzers don't. To review data remotely, you need nothing more than a network connection.

- Intuitive, PQube 3-generated GIF graphs, plus CSV/Excel and PQDIF (IEEE standard) files
- Automated file transfer with FTP or HTTP protocols
- Embedded firewall and bank-level security protocol (HTTPS & FTP-S)

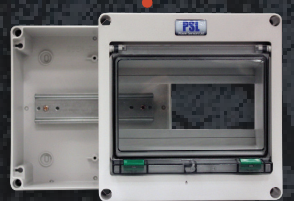
Receive email alerts when events happen



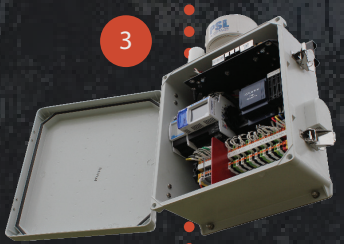
View trend and event recordings, view meters, configure your PQube 3, and update firmware remotely from a web browser.



1



2



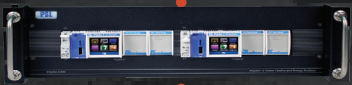
3



4



5



6

INSTALL ANYWHERE

The Compact, power-packed PQube 3 power analyzers have flexible installation options, from snap-on DIN rail to portable, and everything in between. If you've got something to meter, there's a place to install a PQube!

1. SNAP-ON DIN RAIL

Simple and easy to install, PQube 3 power analyzers snap to existing DIN rails.

2. USE YOUR OWN DIN RAIL ENCLOSURE

Conveniently install and easily access your PQube 3 power analyzer inside a hinged-window enclosure.

3. RUGGED POLE-MOUNT

IP44-rated enclosure that's perfect for distribution line monitoring. Self-powered from monitored voltage and 3G/4G modem compatible.

4. RUGGED WALL-MOUNT

IP44-rated enclosure is ideal for rugged indoor/outdoor installation and 3G/4G modem compatible.

5. PORTABLE

Perfect for field service, our compact enclosure is built to move and is 3G/4G modem compatible.

6. 19-INCH RACK-MOUNT

Designed for substations and data centers, this single-phase rack mount can support up to two PQubes.

CONNECT IT

YOU'RE CONFIGURED

Once you've got it mounted and wired, a PQube 3 auto detects the nominal frequency, voltage, and wiring configuration saving you time and money on commissioning.

BONUS SOFTWARE

Easily view and chart real-time meters and generate custom reports using Powerside's free software

www.PQube3.com
1186795 - Day 10/24/2016
Summary of Results
YOUR STANDARD-2016.C01 Report
10/24/2016

YOUR STANDARDS Pass-Fail Requirements Table

YOUR Standard GEM-2016.C01	Power Quality Parameter	YOUR STANDARD	Remarks
4.2.1	Power Frequency	PASS	
4.2.2	Supply Voltage Variations	FAIL	
2016.1	Supply Current Variations	PASS	
2016.1	Equipment Safety Ground	PASS	
4.2.3	Flicker Severity	FAIL	Exceeds Limits
4.2.4	Voltage Unbalance	PASS	
4.2.5	Voltage THD	PASS	
4.2.5	Voltage Harmonics	PASS	
2016.C1	Individual Current Harmonics	PASS	
602.c2	Power Factor	FAIL	Exceeds Limits
2016.1	Power Room Temperature	PASS	
2016.1	Power Room Humidity	PASS	

YOUR STANDARD GEM-2016.C01 Additional Information Table

YOUR-Standard GEM-2016.C01 Section	Power Quality Parameter	Remarks
4.3.0.a	Real Power	
4.3.0.b	Reactive Power	
4.3.0.c	Apparent Power	
4.3.1	Interruptions	
4.3.2	Dips	
4.3.3	Swells	
4.3.4	Transient Overvoltages	
4.3.5	Waveshape Changes	

Note 1: During 10/24/2016 measurements were made 100.00% of the time
Note 2: Low Voltage Systems (< 1 600V) limits were used.

Instrument used: PQube3@ (www.PQube3.com)
Manufacturer: Power Sensors Ltd, U.S.A.
PQube ID: 1186795
Location: Sample Location
Serial number: P3002550
Firmware revision: 3.4.3.16.07.22
Calibration Certificate: <http://www.PowerStandards.com/CalibCerts/P3002550>
Report Software: PQube Report Writer 3.4.0.15
Author of Report: Power Sensors LTD
Name: Kamron T...

Customer Information
Name:

REPORT WRITER

Save hundreds of hours by automatically analyzing measurements over days, weeks, or months.

- Generate custom reports with your logo and contact information
- Define report contents: select parameters and thresholds for compliance tables with pass/fail criteria
- Include summary statements, graphs, trends, and statistics tables
- Output various report types including EN50160, harmonics, energy, billing, and more
- Select from multiple languages or easily integrate additional languages

MAIN BUILDING PANEL

PQube Modbus TCP/IP Connection
PQube User: PQube 3
PQube Version: 3.4.3
PQube IP Address: 192.168.1.100
Modbus TCP Port: 502
Modbus Slave Device Address: 1
Modbus Register Start Address: 0
Slave Name: MAIN BUILDING PANEL

Modbus Meter
Voltage Group: L1_N_RMS_Half
Current Group: Red
Power_Energy Group: Default Scaling
Misc Group: Auto Scaling
278.41 | 284.03 | 282.16 | 284.03

Modbus Meter
Voltage Group: Frequency
Current Group: Green
Power_Energy Group: Default Scaling
Misc Group: Auto Scaling
59.95 | 60.05 | 59.990 | 60.05

L1_N_RMS_Half (V)

Frequency (Hz)

Modbus Meter
Voltage Group: Total_Power
Current Group: Orange
Power_Energy Group: Default Scaling
Misc Group: Auto Scaling
20000 | 30000 | 20000 | 30000

Modbus Meter
Voltage Group: L1_True_Power_Factor
Current Group: Gray
Power_Energy Group: Default Scaling
Misc Group: Auto Scaling
-1 | 1 | 0.9895 | 1.00

L1_True_Power_Factor

MODBUS CLIENT

Get real-time measurements remotely from your PQube 3.

- Remote verification of voltage and current connections
- Real-time logging/strip charts
- Real-time scope meter with waveforms
- Real-time Voltage and current harmonics
- Real-time 2kHz–150kHz supra-harmonics
- Easy access to over 3000 parameters
- Recording of live meter values in CSV files

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Snap on a PQube 3 Power Analyzer to Solve Power Quality Problems

Powerside's PQube® 3 series of high-speed revenue-grade power analyzers identify, measure, record, and report all power quality problems.

- Made compact, PQube's install incredibly fast auto-detecting the mains frequency, wiring configuration, and nominal voltage
- No software required
- Available with a large section of accessories and inputs from electrical to environmental
- Real-time actionable data can be accessed remotely or via user-defined reports delivered to your inbox
- Use on single or three-phase loads, a combination of loads or only for voltage measurement
- ANSI, CSA, IEC, UL, EMC, ROHS, and FCC compliant



Services and Support

On-site or remote monitoring and measurement

Our factory-trained technicians make power quality easy by monitoring and detecting power quality issues like voltage spikes, swells, sags, harmonic disturbances, and power interruptions. This service gives you the information you need to quickly improve operational efficiency.

Power network analysis

Our engineers analyze your network using the latest ETAP software. They pinpoint and correct power quality issues like high harmonic distortion or poor power factor to ensure your network stays stable and operates efficiently.

PQube® 3 Data Monitoring and Analysis

Discover how our PQube® 3 data monitoring and analysis service provides actionable insight into the power quality condition of your network. It's a painless way to reduce downtime and save operating costs.

EC&M
Product of the Year
2018 Category Winner

ISO
9001
registered

SP
C US

CE

ANSI

UL
LISTED

TUV

IEC

EMC²

RoHS
2002/95/EC

FCC

Made in USA

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