POWERSIDE®

PQ Edge™

Precision Analysis of Power Quality

Safeguard Mission-Critical Equipment Against Operational Risk and Downtime

In critical sectors like data centers and medical imaging, the reliability of high-tech electronics is paramount — and it hinges on power quality. Inferior or unreliable power, characterized by transients, harmonics and distortions, can lead to big problems like outages, flicker, equipment damage, inaccurate readings and more.

Enter the PQ Edge Power Analyzer

Designed to alert you to these risks the moment they happen, the PQ Edge™ unlocks visibility into your power quality issues before they become a problem.

When assessing your electric power, the PQ Edge helps ensure poor power quality doesn't negatively impact your equipment.

APPLICATIONS AND INDUSTRIES

- Medical imaging
- Grid edge
- EV charging stations
- Data centers
- Microgrids
- Manufacturing and production
- Food production and storage

PQ Edge At a Glance

- Class A power quality certified per IEC 61000-4-30 Ed3 with revenue grade Class 0.5 accuracy

- ANSI Energy Class 0.5 on four single-phase channels provides real-time measurement of voltage, frequency and waveform characteristics

- Compact size, slim profile and connection layout enable easy integration into existing electrical systems and uncomplicated embedding into machinery

- Current inputs — compatible with split core or Rogowski coils — do not require an integrator

- Auto-configuration allows for simple plug-and-play installation, connecting directly to voltages up to 750 Vac (L-N)

- Continuous monitoring and alerts of power quality events, disturbances and trends, accessible via built-in web and email servers
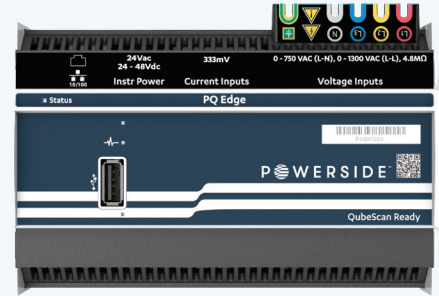
The Latest Addition to the Powerside Family

You may be familiar with our PQube® 3 flagship power analyzer. Both PQube 3 and PQ Edge offer best-in-class monitoring and analysis of power quality, with key differences to address specific use cases. Here's how they compare:

	PQ Edge™	PQube® 3
HMI Display	USB, operation LED (flash modes), and Bluetooth connectivity	Touch screen display, operation LED (flash modes) and USB connectivity
Weight	8.4 oz.	10.5 oz.
Dimensions (L x W x H)	5.52 x 3.78 x 2.38 in.	4.33 x 2.89 x 3.08 in.
Voltage Channels	4 Voltage +E 0-1300VAC L-L	4 Voltage +E configurable to dual 3ph voltage with external module
Current Channels	4 current channels (333mV)	Up to 14 current channels (333mV &+/-IOV)
Analog/Digital/ Relay/ENV Sensor	1 ENV sensor for temperature, humidty, barometric pressure and 3-axis acceleration sensor	4 analog & 1 digital; 1-4 relays; 2 ENV sensor capacity
Memory & Storage	32GB internal storage, USB port, and cloud storage	up to 32GB external, USB Port, and cloud storage
Instrument Power Requirement	24VAC or 24-48VDC	24VAC, 24-48VDC, or PoE (Module options for 110/240VAC)
PQ Sample Rate & Class	512 samples/cycle @ 50/60Hz Class A	512 samples/cycle @ 50/60Hz Class A
Harmonic; THD,TDD,THDl	IEC 61000-4-7 Cl 1 up to 50th	IEC 61000-4-7 Cl 1 up to 50th
Power & Energy Class	KWh Accuracy Cl2.20; KVARh, kVAh, PF (TPF or DPF) Class 0.5	KWh Accuracy Cl2.20 Cl 0.2; KVARh, kVAh, PF (TPF or DPF) Class 0.2
High-Frequency Impulse/Flicker	IEC 61000-4-15	IEC 61000-4-15; Up to 4Mhz sampling
Conducted Emissions	2-9kHz range 0-60Vpk in 200Hz bins	2-150kHz range covering supraharmonics 0-60Vpk
Unbalance	IEC, GB and ANSI methods	IEC, GB and ANSI methods
Communication Protocols	HTTP/FTP/DNP3/BACnet/SNMP	HTTP/FTP/DNP3/BACnet/SNMP

PQ Edge™

Technical specifications

Dimensions (L x W x H)	5.52 in X 3.78 in X 2.38 in (14.02 cm X 9.60 cm X 6.04 cm), 1.8 in (3.5cm) DIN rail mountable
Weight	8.4 oz (238g)
Operating Environment	Temperature: -40 to +158°F (-40 to +70°C); humidity: 5-95% RH (inside use); altitude: <2000m above sea level
Power Supply	AC: 24 Vac ±10% at 50/60 Hz, 1.5A max; DC: ±24 to 48 Vdc ±10% (polarity independent), 1A max.
Internal Memory	32 GB
Data Backup	USB 2.0 thumb drive
Clock Synchronization	SNTP, NTP
Output File Types	Text, GIF, CSV, and IEEE 1159-3 PQDIF
Communication Ports	Ethernet RJ45 10/100 (optional external wireless or cell modem)
Communication Protocols	Modbus/TCP, DNP 3.0, SNMP with traps, BACnet, FTP or HTTP (secure FTPS and HTTPS, and email)

Voltage

Sampling Rate	512 samples per cycle at 50 Hz/60 Hz (applies to voltage and current channels)
Inputs	4 + reference to earth (L1, L2, L3, N, E)
Voltage Range	0 to 750 Vac (L-N), 0 to 1300 Vac (l-L), impedance: 4.8MΩ
Voltage Magnitude*	L-L, L-N, L-E, and N-E. RMS over 1/2 cycle (Urms 1/2)
Frequency*	50 Hz, 60 Hz, 400 Hz
Unbalance (negative & zero sequence)*	IEC, GB, and ANSI methods
Flicker (Pinst, Pst, & Plt)*	IEC 61000-4-15
Voltage Harmonic & Interharmonic*	Volt, or %H1, IEC 61000-4-7 Class 1, order up to 50th
Total Harmonic Distortion (THD)	%, IEC 61000-4-7
Conducted Emissions (2-9 kHz)*	Volts for L1-E, L2-E, L3-E: resolution 200 Hz bins, range 0 to 60 Vpk

Current

Inputs	4 inputs (l1 to l4), differential; nominal input: 0.333 Vrms; impedance: 33.3 kΩ
Current Magnitude*	RMS refreshed 1/2 cycle (lrms 1/2)
Peak Current	RMS over 1 sec, 1 min, or user defined (3 min to 1 hr)
Unbalance (negative & zero sequence)*	IEC, GB, and ANSI methods
Current Harmonics & Interharmonics*	Amp, order up to 50th
Total Demand Distortion (TDD)	Amp, IEC 61000-4-7
Total Harmonic Demand Distortion (THDI)	%, IEC 61000-4-7

Power

Channels	4 calculated channels. l1 to l4, calculated either L1-N, L2-N, or L3-N voltages
Total Power	One 3-phase load
Peak Power	Intervals: 1 sec, 1 min or user defined (up to one hour)
Reactive Power	VAR (per-phase and total)
Apparent Power	VA (per-phase, peak, and total)
Power Factor	TPF or DPF method (per-phase and total)

Energy

Channels	4 channels. l1 to 4 calculated with one three phase channel or four single phase channels
Energy (Import, Export, & Net)	kWH (per-phase and total); accuracy certified ANSI C12.20 Class 0.5 and IEC 62053-22 Class 0.5
Reactive Energy (Import, Export, & Net)	kVARh (per-phase and total)
Apparent Energy	kVAh (per-phase and total)

Environment sensors

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Inputs	1 ENV2 probe input (USB port, shared with USB drive)
Temperature	-4 to 176°F (-20 to 80°C)
Humidity	0 to 100% RH
Barometric Pressure	Resolution better than 0.001 hPa
Acceleration (x, y, & z)	(x, y, and z) ±2, ±4, or ±8 gravity ranges, trigger on shock/vibration, seismic or tilt

*Meets or exceeds IEC 61000-4-30 Ed. 3 Class A

PQ Edge + QubeScan

See the How, When and Why Behind Power Quality Issues

Manage an entire fleet of PQ Edge power analyzers with QubeScan monitoring software. As each individual PQ Edge collects and interprets power quality data at the machine or facility level, QubeScan pools the data from all of your power analyzers—providing unprecedented visibility, analyses and custom reports.

- Understand power and energy consumption, trends, events and environmental parameters

- Geolocate your fleet with a map view of PQ Edge devices across equipment and facilities

- Create tailored event alarms for voltage dips, swells and other custom parameters

- Optimize time and effort with automatic compliance reporting and extended data recording functions

- Monitor in real-time with live meters, interactive charts and custom dashboards

- Access months or even years of data on a secure AWS cloud platform
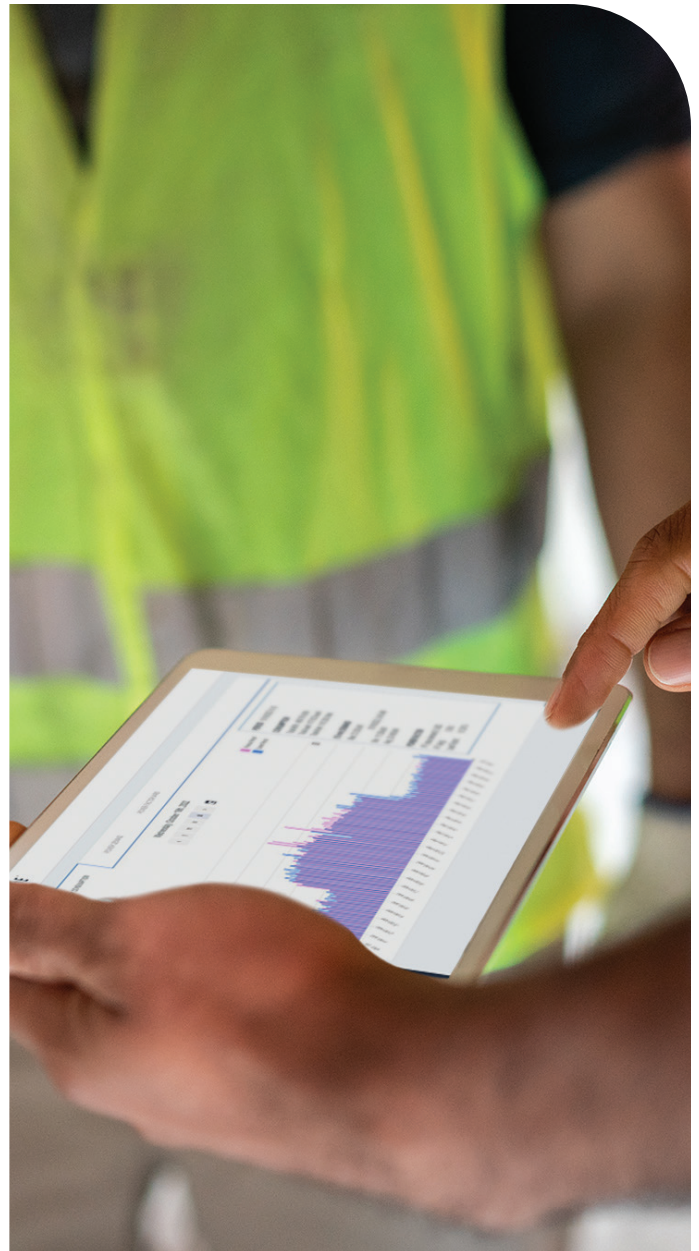
Keep Tabs On the Health of Your Power Supply

Don't let poor power quality disrupt the sensitive electronics your mission-critical applications depend on.

Request a demo of PQ Edge today.

powerside.com/PQEdge

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