

AZZO ENERGYX

PORTABLE

Cloud-connected portable metering service providing instant insight into power quality and energy management issues



ENERGYX

PORTABLE

THE WORLD'S MOST POWERFUL PORTABLE METER

For more than 10 years, AZZO has been providing power quality audits and analysis. With the real-time IoT connectivity of EnergyX Portable, AZZO can provide temporary monitoring services with data analysis reporting by our experienced and qualified engineers. Working onsite or remotely as required, we help you to diagnose power quality or capacity concerns, then size and design the appropriate PQ mitigation solution, and provide verification and validation of solutions post-install.



INSIGHT

AZZO's EnergyX Portable is a cloud-connected portable meter that provides insight into power quality and energy management issues. With secure, built-in cellular connectivity and QR Code activation, you get live visualizations within minutes. No more waiting to download metering data. Multiple meters can be automatically integrated into a whole-site analysis rather than having to manually combine individual meter data files.

Offering the widest set of applications including monitoring and analysis of harmonics, power factor, energy billing, demand management, disturbance direction detection, power quality compliance, inrush current, asset health and more.



POWER QUALITY AND ENERGY AUDITS

AZZO's specialists can remotely assess your site for power quality issues. You will get a report with detailed evidence and recommendations. Then, following any mitigation installations, we'll validate the solution.

We have also partnered with experts around the world to offer you energy audits, helping to reduce your energy expenses and improve operational efficiency.

SPOTLIGHT ON POWER QUALITY AUDITS WITH ENERGYX PORTABLE

THE HIDDEN PRODUCTIVITY KILLER

Several factors are leading to an increased risk of power quality disturbances and outages:

- Electrical network complexity is increasing due to more distributed energy resources and digital management systems
- Energy efficiency initiatives such as LED lighting and variable speed drive installations are injecting more harmonics into electrical networks
- Increasing electrification from EV fleets, robotics and electric heating are putting existing circuits under heavier load conditions

IMPACTS OF POOR POWER QUALITY (PQ)

- Risks of fire due to overheating transformers and cables
- Loss of insulation on cables due to voltage harmonics
- Misoperation of circuit breakers due to high harmonic levels

HOW TO REVEAL HIDDEN POWER QUALITY ISSUES

To detect and resolve these issues, you need to temporarily install power quality metering and connect it to an analytics platform that provides insights into the nature of the issues. Then AZZO's Power Quality Specialists interpret the insights and make recommendations to correct the identified problems.

THE BENEFITS OF GOOD POWER QUALITY

- Improved energy efficiency
- Reduced utility costs
- Reduced waste and improved operational efficiency
- Reduced emissions
- Increased productivity
- Minimized downtime
- Increased equipment and power reliability
- Lower operating costs

**"POWER QUALITY ISSUES
ARE THE SILENT EQUIPMENT
DESTROYERS.**

**YOU CAN ONLY FIND AND
FIX THEM WITH THE RIGHT
MEASUREMENT TOOLS LIKE
ENERGYX PORTABLE"**

JASON HEINDEL
SOLUTIONS ARCHITECT
AZZO



of power disturbances
originate inside facilities



typical number of PQ
events in a facility



average restart time
after a shutdown



of mission-critical power
outages are due to PQ issues

POWER QUALITY AUDITS

1. PQ SITE ASSESSMENT

Determine how power
quality issues are
impacting your facility

- Interview on PQ situation and existing mitigation solutions
- Analysis of main contributors and site risks
- On-site PQ temporary measurements and diagnostics at strategic and selected points
- PQ report based on international standards and mitigation plan

2. PQ MITIGATION IMPLEMENTATION

Fix the issues to
reduce risk and
increase productivity

- Repair maintenance or extension of existing mitigation solutions
- Sizing of power factor correction (PFC), active harmonic filtering (AHF) and/or hybrid solution
- Verify successful PQ mitigation implementation by utilising EnergyX Portable once solution has been installed
- Increase the visibility at strategic points with new power meters or power quality meters

3. PQ MONITORING SOLUTIONS

Deploy continuous
monitoring to prevent
future issues

- Centralized monitoring solutions with AZZO EnergyX Platform
- Advanced assessment of power quality, real time alarming and daily dashboards through EnergyX

HOW IT WORKS

To get started, reserve your meter by filling in this form

azzo.com/energyx-portable-request-form

An AZZO representative will contact you to review your needs

After delivery and installation of the unit, AZZO will remotely ensure its proper installation and configuration

An AZZO engineer will be with you every step of the way



THE HARDWARE

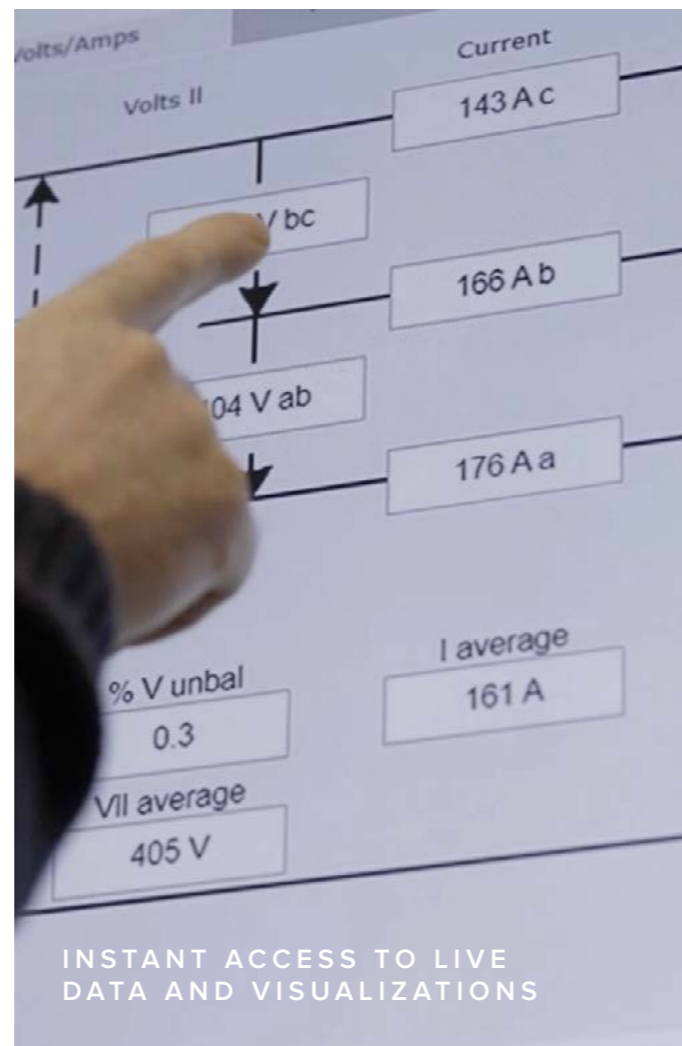


CAPABILITIES

When EnergyX Portable connects to EnergyX Cloud you get:

- Dashboards, live data diagrams, event analyser and comprehensive, flexible reporting tools
- Alarm tables and notification to ensure you don't miss an issue while it is occurring
- Sequence of events, timeline view and waveform analysis to further isolate root cause
- Power quality compliance analysis for these standards: IEEE 519:2014, EN 50160, IEC 61000-4-30, SARFI, CBEMA
- Energy management analysis compliant with ISO 50001
- Utility billing verification with complex tariffs and cost allocation studies (with multiple meters)
- Disturbance direction detection (caused by utility or caused by customer?) As well as load loss detection (did that disturbance cause my outage?)
- Complex KPI tracking to verify performance targets or diagnose them
- Ability to monetize demand peaks, power factor and harmonics issues by assessing their impact on energy bills
- Supports over 10 languages and multiple timezones

The capabilities used will depend on your needs and may include additional fees.



TECHNICAL

Up to 0.2S accuracy

Complies with recognized power quality monitoring standards:

- IEC 61000-4-30 class S
- Power Quality measurement up to the 63rd harmonic
- IEC 62586 Power Quality monitoring
- EN 50160 Compliance Monitoring
- IEEE 519:2014
- IEEE 1588

Patented disturbance direction detection, extended waveform capture (2s pre-event data / 5s event data @ 256 samples/cycle) and high speed RMS data capture for in-depth analysis of any PQ disturbance in your electrical system

Power Quality Detection:

- Harmonics/inter-harmonics
- Flicker
- Sag/swell

Rogowski Coils measure up to 4000A at 50-20,000 Hz

CE certified to the following Standards: EN / IEC 61010-1:2010, AMD1:2016 and EN/IEC 61010-2030:2017

North American ETL certification to the following Standards: CAN/CSA-C22.2 No. 61010-1-12, UL-61010-2-030, UL-61010-1, CAN/CSA-C22.2 No. 61010-2-030



AZZO

technology comes together

azzo.com

solutions@azzo.com

To find out how we can assist you
with your solutions, contact us today.

