

Power Quality Monitoring 2.0

WHY IS IT NEEDED?

Characteristics such as frequency, magnitude, waveform, and symmetry harmonic distortion are subject to variations during normal operation in an electrical supply system. This is due to load changes, disturbances generated by some equipment, and faults mainly caused by external events.

These power quality issues can affect industrial end users, electricity distributors, and equipment and system manufacturers. Surveys have revealed that significant losses in some industries are due to poor power quality.

Electrical power quality is an important contributing factor in supply security at industrial sites. Continuous power quality monitoring can help detect, record and prevent problems.

HOW DOES IT WORK?

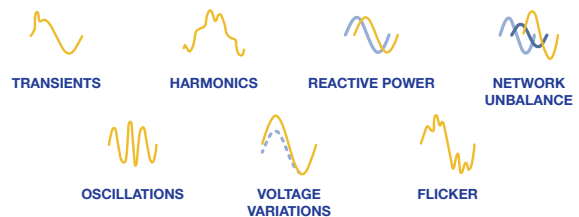
ENGIE Laborelec brings together, in one single organization, the full range of power quality expertise, such as:

- ♥ **Measurement capabilities**, including measurement campaigns and continuous long term monitoring;
- ♥ **Measurement analysis**, including aging tests and optimized battery energy management systems;
- ♥ **Targeted remediation solutions**, ranging from accurate switchgear settings to specific advice on asset operation;
- ♥ **Troubleshooting.**

With its extensive experience in power quality, ENGIE Laborelec can often adopt the role of independent party in conflicts between industrial companies and grid operators.

BENEFITS

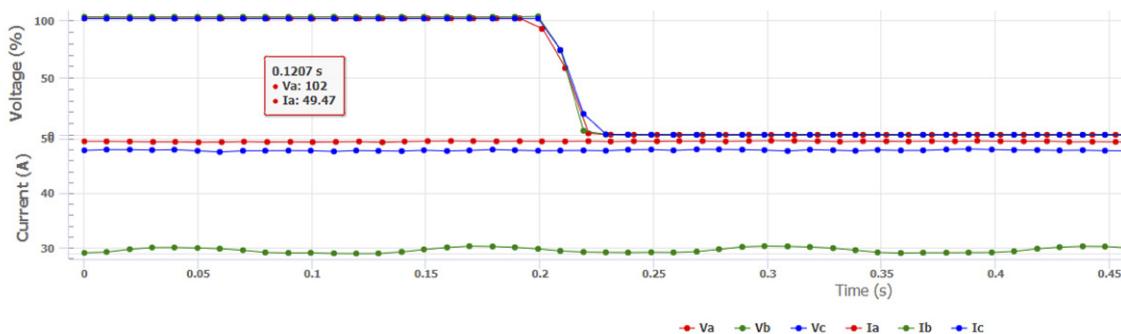
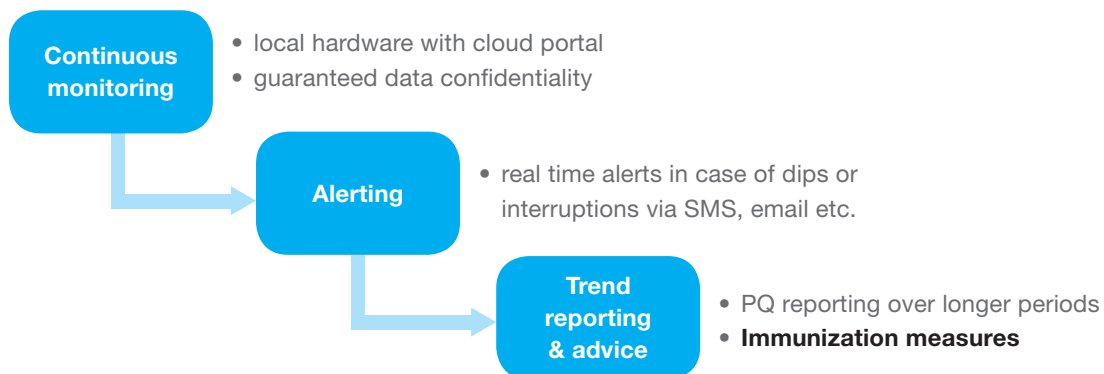
- ♥ **Expertise and experience** all in one place
- ♥ **Independent** multi-disciplinary advice
- ♥ **Problem mitigation** from identification to practical solutions
- ♥ **Reduced costs** because of greater availability
- ♥ **Real time alerting and continuous access** to power quality parameters leading to better understanding of site sensitivity



Power Quality Analysis is essential for a stable and reliable electrical network.

WHAT DOES IT DO?

Using the ENGIE Laborelec PQM 2.0 Service, the site operator can constantly monitor and verify electrical system quality, in accordance with the EN 50160 standard. The user is **alerted automatically** and in real time, whenever power quality issue occurs by SMS or email and, every six months, ENGIE Laborelec sends a report with a **trend analysis** and benchmarking of the local grid quality. Where applicable, further advice helps operators improve the safety of their internal systems in relation to power quality issues.



High sampling rates lead to accurate measurement and rigorous analysis.

REFERENCE PROJECTS

There are over 450 active PQ-monitoring systems worldwide, and many loyal satisfied customers. ENGIE Laborelec's long experience in this field means that high-profile companies in sectors such as metallurgy, chemistry, food & beverage and micro-electronics are signing up for the PQM 2.0 service.



Would you like to know more?

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