Remoting Power Quality Monitoring for Special Projects

Combine PQ Data with System Performance Data: The Whole Story

Monitoring for electric PQ provides vital information about how the load uses power, and how the source supplies it. For many systems, measuring additional system data and combining it with complete PQ data, provides critical data regarding total system performance. Combining the data will reveal how changes in PQ can impact system performance. The opposite is also true—perhaps a change in system operating modes changes the way the system uses power, perhaps causing a PQ problem for the customer's power system or the grid.

Dranetz Encore Series 61000® PQ monitoring systems can measure all types of system data including:

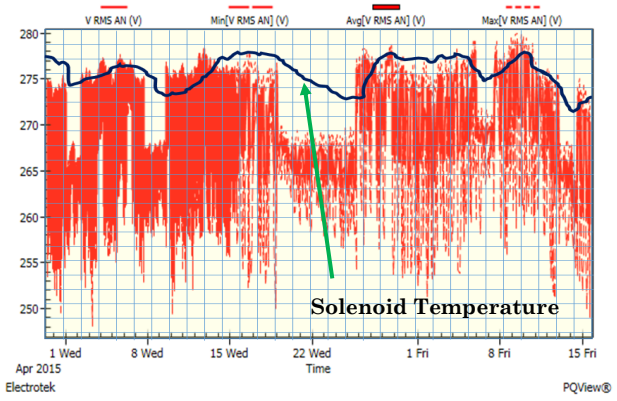
- Temperature
- Humidity
- Vibration
- Illuminance
- Sound
- Conducted emission
- Radiated emissions
- Others

Any device delivering an analog or digital signal can be measured by the Dranetz 61000 monitor when equipment with any of Dranetz's input modules. Four modules are available for analog inputs up to 150 volts AC or DC. One module is available for digital inputs. Breaker or switch positions can also be detected.

Dranetz 61000 PQ monitor mainframes can support up to four modules. Two dedicated for three-phase voltage and current inputs leaves two that can be used for analog or digital input modules.

Plant engineers responsible for maintaining production lines and systems can monitor and detect normal, and abnormal operating conditions with a Dranetz 61000 system.

PQ and system data is collected by several of the Electrotek's PQView4® software versions. Thresholds for detecting PQ conditions, and for detecting system conditions can be set as well as, email notifications sent when conditions deviate from acceptable values. Dranetz 61000 monitors combined with one of Electrotek's PQView4 software versions can also be programmed to detect early unacceptable conditions before catastrophic failures occur.



Combined PQ & System Data: Avoid Catastrophic Failures & Financial Losses

The overall goal of PQ monitoring is to prevent the upset and failure of electrical and electronic equipment. Technologies by Dranetz and Electrotek are the only combined solutions that can provide an end-to-end solution to detect undesirable operating conditions related to power and system performance.

All systems are composed of smaller systems and many pieces of equipment, all of which is either electrical or mechanical. Detection of unacceptable temperature and vibration conditions are two of the most important parameters to measure when combined with PQ data. Our combined system eliminates the need for two or more systems. With fewer systems, maintenance and calibration are more cost-effective. Moreover, plant engineers don't have to combine data from different systems, leading to another layer of cost savings.

PQView4® software can be setup to detect and notify personnel when system performance reaches individual layered thresholds, so that early detection of unacceptable conditions can be used to save money.

Power Systems and Power Quality Engineering Services Center

Electrotek's Power Quality Engineering Services Center is a world-renowned center for power systems and power quality engineering. Our Center includes an Advanced Power Quality Testing & Research Laboratory.

Learn about our Center by visiting: www.pqengineering.com

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Benefits of Measuring PQ and System Data with Dranetz Encore 61000

Combined PQ and system data measurement provides many benefits related to cost and system performance:

- Improve monitoring and emergency notification of unsafe operating conditions, whether they develop as a result of poor power quality or not.
- Continuously track critical system parameters with power quality conditions including steady-state data and number and severity of disturbances incident upon the system.
- Minimize the amount of downtime caused by unexpected failures.
- Maximum system uptime to ensure optimal productivity under known PQ conditions.
- Receive early notifications of marginal system conditions before they reach catastrophic levels.
- Monitor power quality to ensure system operates under power conditions satisfactory to system warranty specifications.
- Track various system efficiency conditions to determine when critical system components need replacement to ensure energy savings in manufacturing plants.

About Electrotek

Founded in 1984, Electrotek Concepts, Inc. is world renowned for its research, developmental, applications, and problem-solving work in understanding, identifying, analyzing, and preventing power quality (PQ) problems. Our expertise extends from the utility generators to inside the electrical/electronic load inside a customers' facility. The experience of Electrotek's team of PQ engineers extends from experts in utility power systems, participants on IEEE and IEC standards boards regarding PQ standards, to designers of end-use electronic equipment. Our engineers are armed to address any PQ problem at any level. The future of reliable, available power, and customer equipment in today's modern technological society depends on compatibility between utility power, the customer's facility electrical system, and the end-use equipment customers depend on to carry out their day-to-day business activities.

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PQView®