

Info Sheet

Power Quality Analysis

Diagnose, protect, and optimize your electrical infrastructure.

1. Overview

IPU SA's **Power Quality Analysis** service is designed to evaluate the performance and stability of electrical systems by identifying irregularities that affect equipment health, safety, and efficiency. By monitoring voltage, current, frequency, and harmonics, our team uncovers hidden issues and recommends corrective actions to maintain compliance with international standards like **IEEE 519**.

Our end-to-end solution includes on-site data collection, advanced diagnostics, and tailored reports — supporting everything from energy optimization to failure prevention.

2. Key Features

- Real-time monitoring of voltage, current, frequency, and harmonics
 - Identification of power anomalies: sags, swells, flicker, imbalance
 - Root cause analysis of transient events and distortions
 - Load profiling and phase imbalance detection
 - Power factor measurement and efficiency evaluation
 - Comprehensive report with recommended corrective measures
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3. Applications

- Facilities with sensitive or high-value equipment
 - Plants experiencing unexplained outages or overheating
 - Buildings facing utility penalties or energy inefficiencies
 - New projects requiring IEEE/IEC compliance validation
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4. Integration Capabilities

- Compatible with IPU SA energy management systems
 - Interface-ready with third-party analyzers and metering devices
 - Analysis output can inform future corrective hardware (PFC, AHF, etc.)
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5. Certifications & Standards

- Complies with **IEEE 519** and **IEC 61000** standards
- Reports align with utility, LEED, and facility audit requirements