



Inspector™ Site Survey Application Note

Proven Platform for Site Survey & Power Quality Evaluation



INSPECTOR™ Site Survey Benefits



A next-generation, mature, and field-proven Power Quality (PQ) evaluation platform that has been deployed for years in industrial and commercial environments. It delivers advanced analytics, automated standards compliance checking, and clear reporting for fast, accurate decision-making.

EN50160 Compliance Assessment

Inspector includes a long-established automated engine for evaluating electrical supply quality according to EN50160. Engineers rely on this functionality daily across multiple sites.

Key Capabilities

- Automatic EN50160 compliance scoring for voltage, frequency, and disturbance limits.
- Weekly statistical analysis based on real site measurements.
- Color-coded pass/fail indicators for intuitive interpretation.
- Immediate detection of deviations including undervoltage, overvoltage, harmonics, and flicker.

Benefits

- Confidently verifies whether electrical supply meets international PQ requirements.
- Supports grid dispute resolution with documented evidence.
- Provides clarity for auditors, consultants, and facility owners.

Ride-Through Curve Analysis

Inspector has been used for years to measure PQ disturbances over industry-standard ride-through curves such as ITIC, CBEMA, and SEMI F47.

Key Capabilities

- Direct mapping of real events onto selected ride-through curves.
- Automated event classification into safe, marginal, or failure zones.
- Detailed sag analysis showing depth, duration, and affected phases.
- Helps determine equipment immunity and vulnerability.

Benefits

- Reveals whether the electrical environment is suitable for sensitive equipment.
- Helps prevent unexpected downtime due to minor voltage disturbances.
- Identifies areas requiring infrastructure upgrades.



Power Quality Trending and Analytics

Inspector captures and trends key PQ parameters required for accurate site evaluation.

Key Capabilities

- Voltage & current RMS trending
- Harmonic spectrum analysis
- Flicker trending (Pst, Plt)
- Phase imbalance detection
- Load profile & power factor assessment

Benefits

- Converts measurements into actionable insights.
- Allows engineers to identify recurring patterns and seasonal impacts.
- Supports proactive maintenance and optimization.



Disturbance Recording and Event Characterization

Inspector logs all PQ abnormalities and classifies them automatically.

Recorded Events

- Voltage sags & swells
- Interruptions
- Transients & rapid voltage changes
- Frequency deviations

Benefits

- Eliminates manual inspection effort.
- Provides full transparency into site conditions.
- Enables deep analysis for root cause identification.



Professional Reporting

Inspector generates high-quality, ready-to-share reports used in real-world audits, commissioning, and regulatory documentation.

Report Contents

- EN50160 compliance summary
- Ride-through curve plots
- PQ trends
- Disturbance event tables
- Executive summary

Benefits

- Ideal for audits, commissioning, and regulatory documentation.
- Saves time on report preparation.
- Enhances communication with clients and stakeholders.



Multi-Point Survey Flexibility

Inspector supports surveys across multiple facility locations:

- Main incomer supply
- Distribution panels
- Sensitive equipment feeds
- Transformer secondary sides

Benefits

- Offers full visibility of the electrical ecosystem.
- Helps pinpoint localized PQ problems.
- Provides comparative insights across site sections.



Quick Setup and Deployment

Inspector is designed for rapid field deployment, offering plug-and-play installation, automatic phase detection, and a guided configuration workflow.

Benefits

- Minimal technical expertise required.
- Faster survey turnaround time.
- Reduced commissioning effort.



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