Simplifying power quality, maximizing versatility

PowerLogic™ PM8000 series multifunction power meters

CLICK TO START

Schneider Electric™

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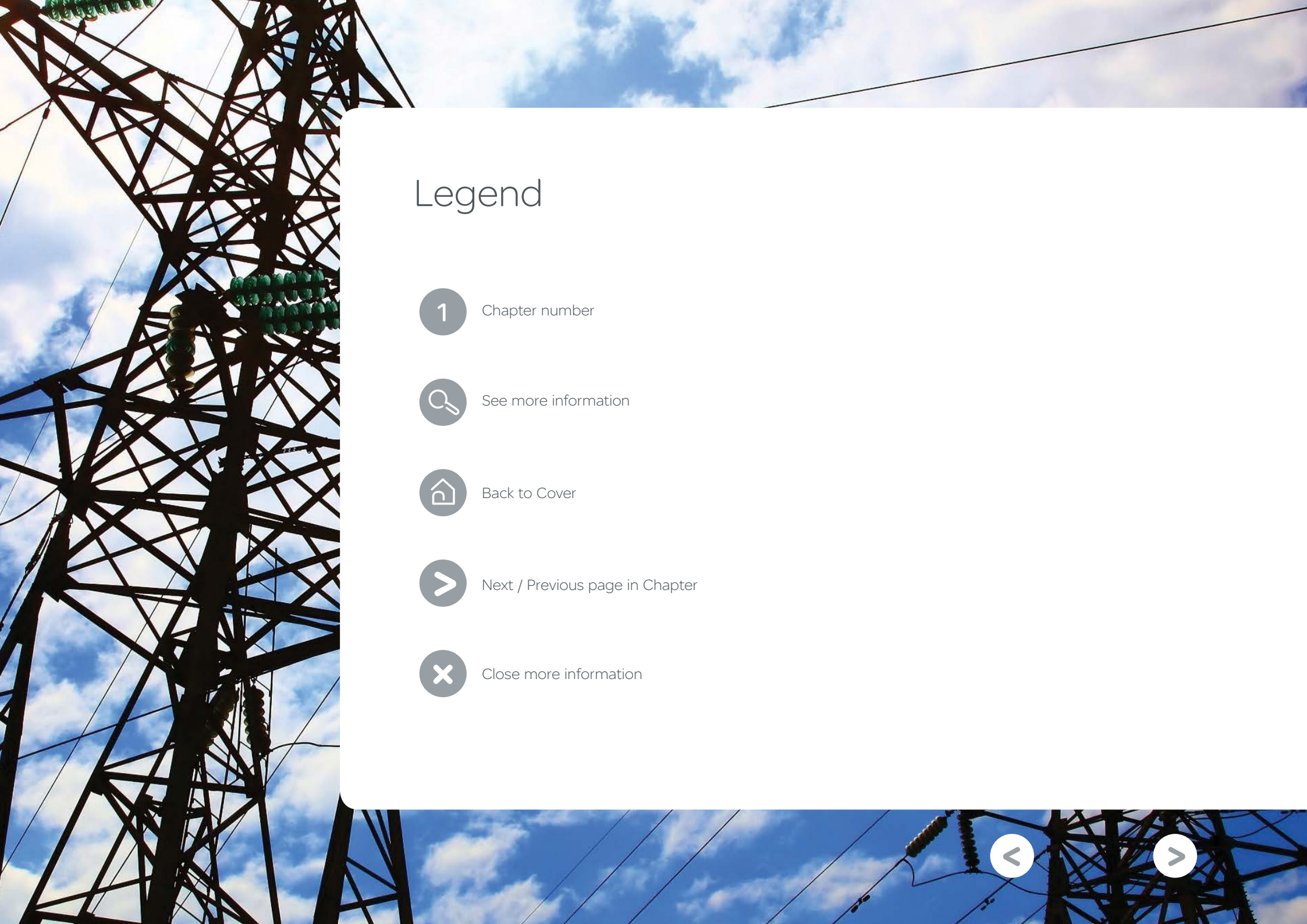

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Survey data suggests that PQ-related financial losses across all business sectors annually total between $119 and 188 billion in the US[1] and more than €150 billion in the European EU-25 countries[2].

1) EPRI CEIDS [3] PQ survey [2000]
2) Targosz & Manson [2007]

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The energy you rely on may be posing hidden risks to your business

Increasingly power-sensitive equipment, a power grid under stress, energy price volatility, and evolving environmental regulations all add up to cost and reliability risks for your operations, bottom line, and competitive edge.

To keep your business running and costs in check, you need an easy way to get the right energy and power quality information in a format that you can understand and act on.

Buildings | Data Center | Healthcare | Industry | Waste Water | O&G | MMM

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Introducing PowerLogic PM8000 series meters

Schneider Electric now offers a series of compact meters that will help you ensure the reliability and efficiency of your energy infrastructure, by:

- Making power quality easy to understand
- Unifying metering and logging of all utilities
- Making data fast to access and act on
- Adapting to your needs, today and tomorrow

The PM8000 series will become your new power monitoring workhorse, suited to key metering points throughout your energy infrastructure and offering exceptional performance at its price point.

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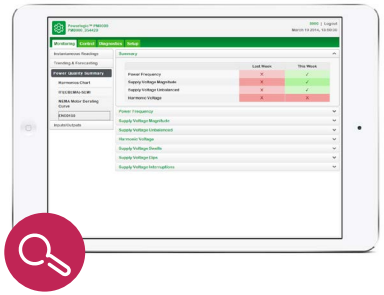
Reveal and understand complex power quality conditions

The PM8000 series helps you isolate the severity and source of problems, avoid downtime, support preventive maintenance, and extend equipment life.

- Simplified pass/fail power quality compliance indicators
- Standard power disturbance susceptibility curves
- NEMA derating curve for motors
- Alarm priority categorization



PQ compliance

Susceptibility

Reveal and understand complex power quality conditions

- Reveal harmonic distortion levels
- Capture and visually analyse waveforms in high resolution
- Detect sags or swells
- Use disturbance direction detection to quickly locate a fault

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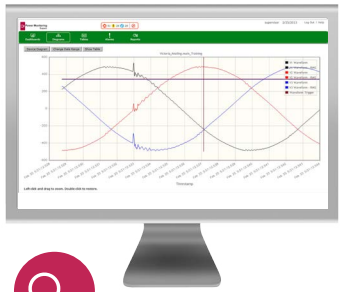
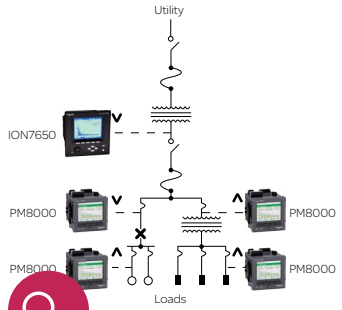
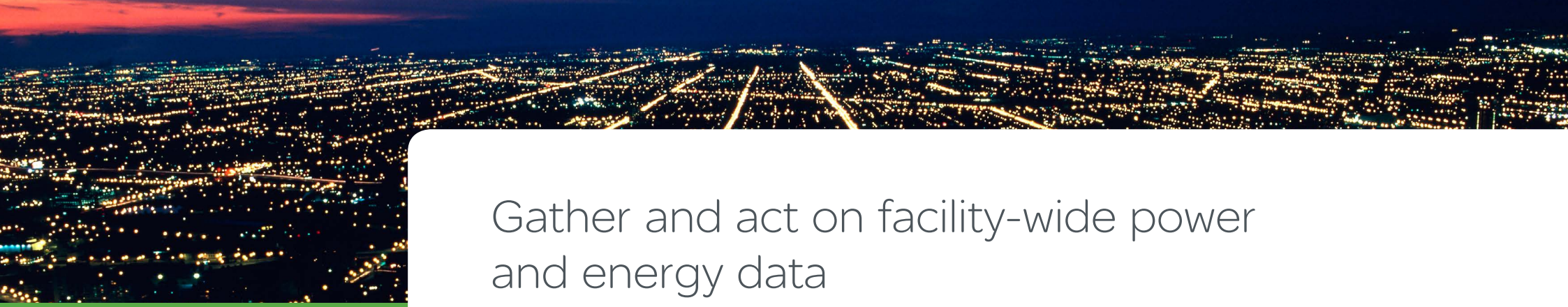
Harmonics



Waveforms



Disturbances



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Gather and act on facility-wide power and energy data

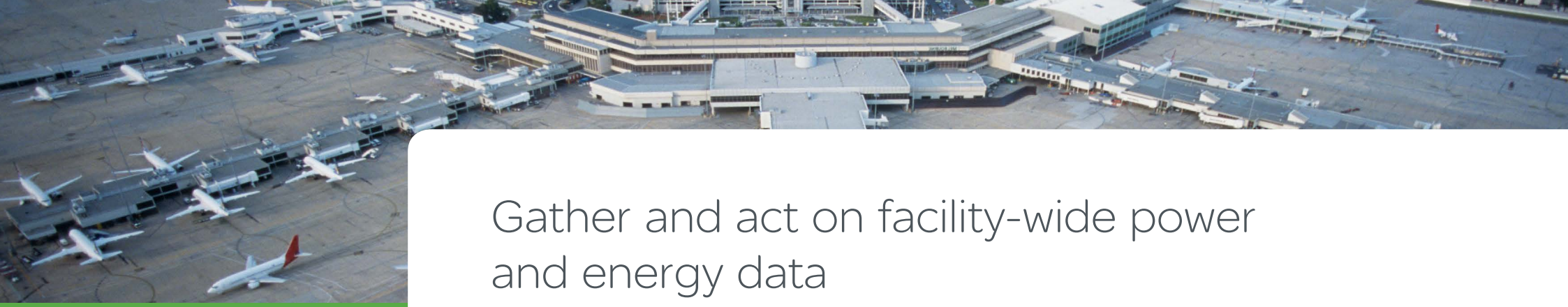
PM8000 series meters help you improve energy efficiency, sub-bill or allocate costs, and improve productivity by tracking consumption and identifying conditions that could pose risks to equipment and processes.

- High-accuracy energy metering[1]
- Time-of-use metering with network synchronization
- Unified metering for all WAGES utilities
- Net metering

Energy

WAGES

1) ANSI C12.20 Class 0.2, IEC 62053-22 Class 0.2S (real energy), IEC 61557-12, utility sealable



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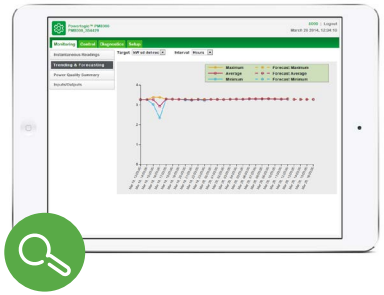
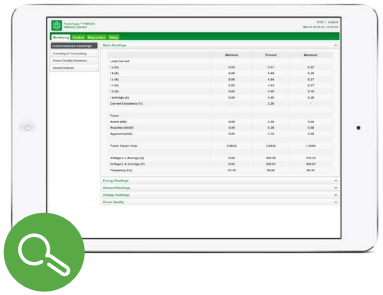
Gather and act on facility-wide power and energy data

- Cycle-by-cycle RMS updates
- Minimum/maximum logging
- Historical trend logging for energy, demand, power factor, or any other parameter
- Event logging
- Configurable alarms: trigger recording, perform control, send email or text messages



Trending



Real-time

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Integrate easily with energy management systems

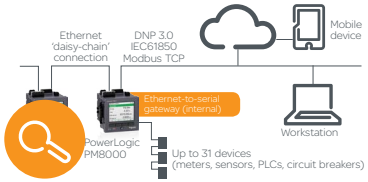
Simple installation and networking make energy information accessible, while integration with StruxureWare applications makes information immediately relevant and actionable.

- A variety of form factors, pluggable connectors, and a free setup application make wiring and configuration fast
- The colour, graphical, high-resolution display offers local data access with multi-language support

Form factors

Integrate easily with energy management systems

- Dual-port Ethernet supports daisy-chaining, redundant loops, and multiple protocols
- CT and VT polarity reversible via front panel, web page or software
- Customizable on-board web pages
- Email ‘push’ of historical data files
- RS-485 serial port
- Ethernet-to-serial gateway
- Modbus Master functionality
- Secure, configurable user accounts



Communications

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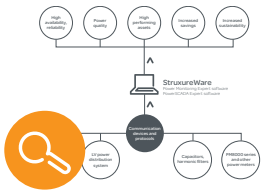
Integrate easily with energy management systems

Your portal to reliability and efficiency

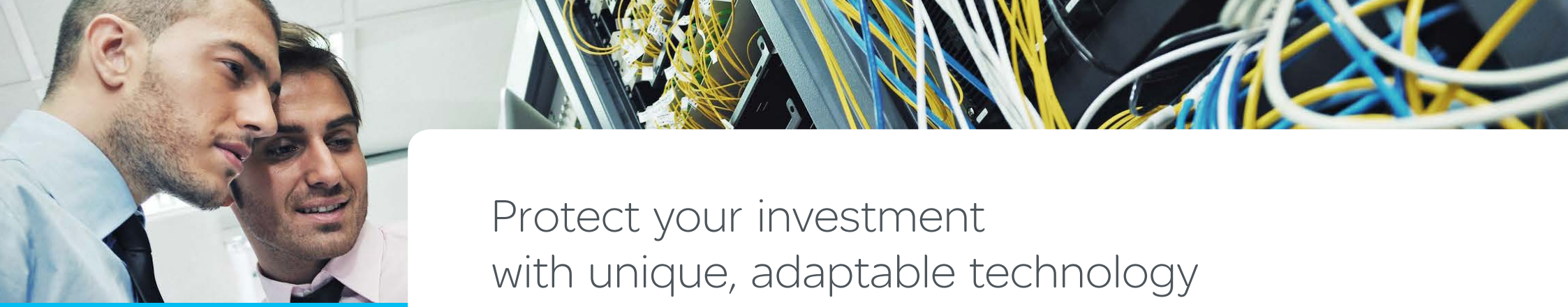
- Build a complete intelligence network with other meters from the PowerLogic family
- Integrate with open, scalable StruxureWare Power Monitoring Expert and PowerSCADA Expert software
- Help operations managers maximize uptime and equipment life by studying real-time status, historical trends, and detailed PQ compliance reports
- Help financial managers optimize costs and efficiency by analysing reports tailored for each goal, such as LEED building certification



Network

One-line

Dashboard



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Protect your investment with unique, adaptable technology

The PM8000 series is built on a uniquely modular architecture that enables highly customized functionality and continuous added value.

Patented ION™ technology:

- Adapts and scales the meter's functionality
- Provides useful preconfigured functions 'out of the box'
- Enables customization to meet any requirement, today or tomorrow

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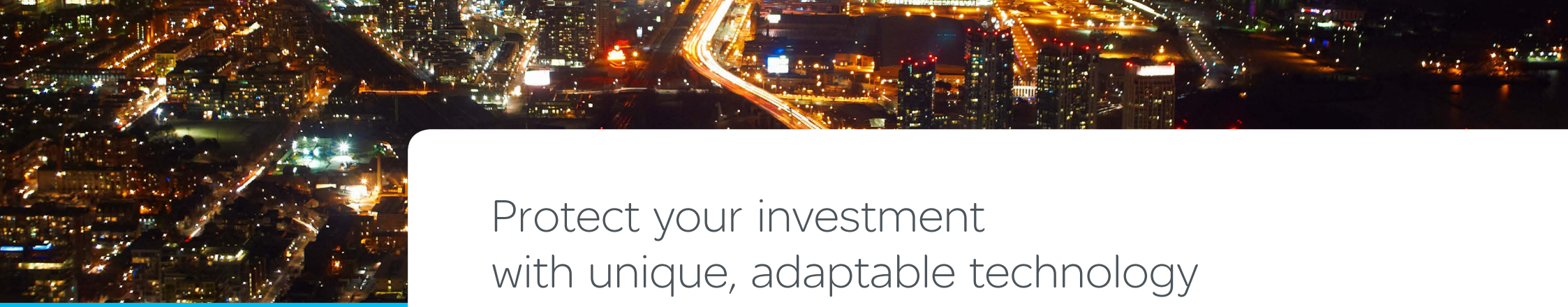
"ION technology allows us to differentiate ourselves by freeing us to innovate applications and streamline the meter's functionality for our customers' ever-changing needs"

James DiLiberto, Engineering Manager, AZZO Automation



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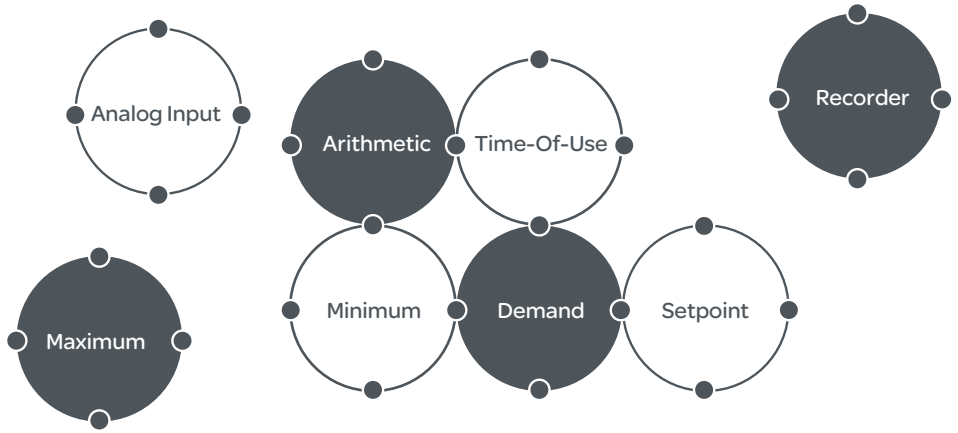
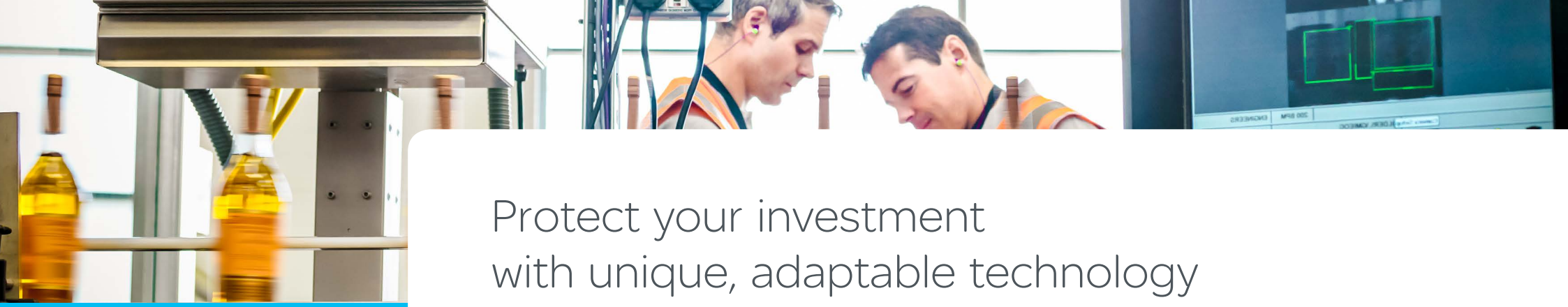
Example applications:

- Totalize energy data from multiple meters
- Perform WAGES unit conversion
- Apply complex logic for alarming or control
- Tailor data visualization and reporting





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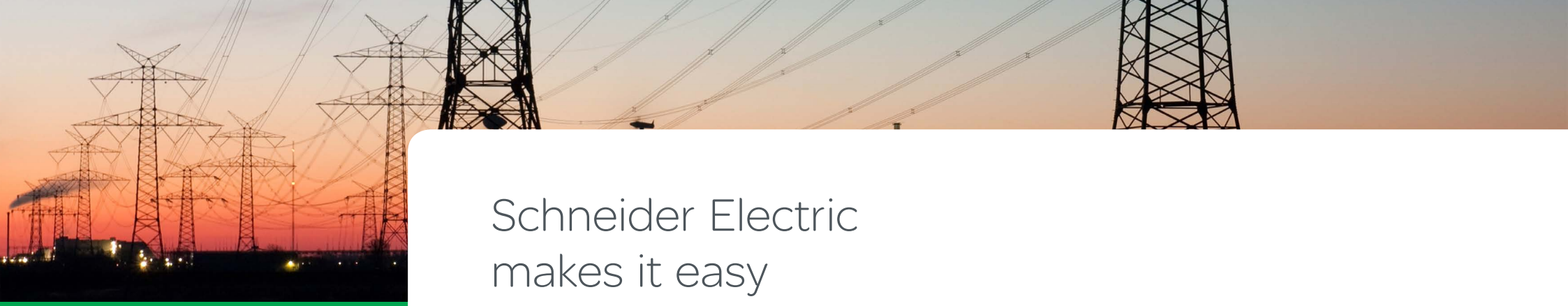
Adaptability and connectivity are further enhanced by plug-and-play I/O options.

- Use digital inputs to monitor status, trigger alarms or logging, count meter pulses for piped utilities, or sync to demand pulses
- Use analog inputs for tracking temperature sensors, fuel levels, or water flow
- Use pulse and analog outputs for equipment interfacing

Inputs/outputs



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Schneider Electric makes it easy

We understand your needs, collaborating with you to deliver the best, customized solutions that add value to your business.

- Global presence in 100+ countries
- Innovative technologies and services that drive intelligence and connectivity
- Integrated solutions for increased efficiency
- Green products and practices that have the minimum impact on the environment
- Reliable offers that you can be confident in

Let Schneider Electric experts and partners help you make the most of your energy.

Learn more about the complete **PowerLogic** range

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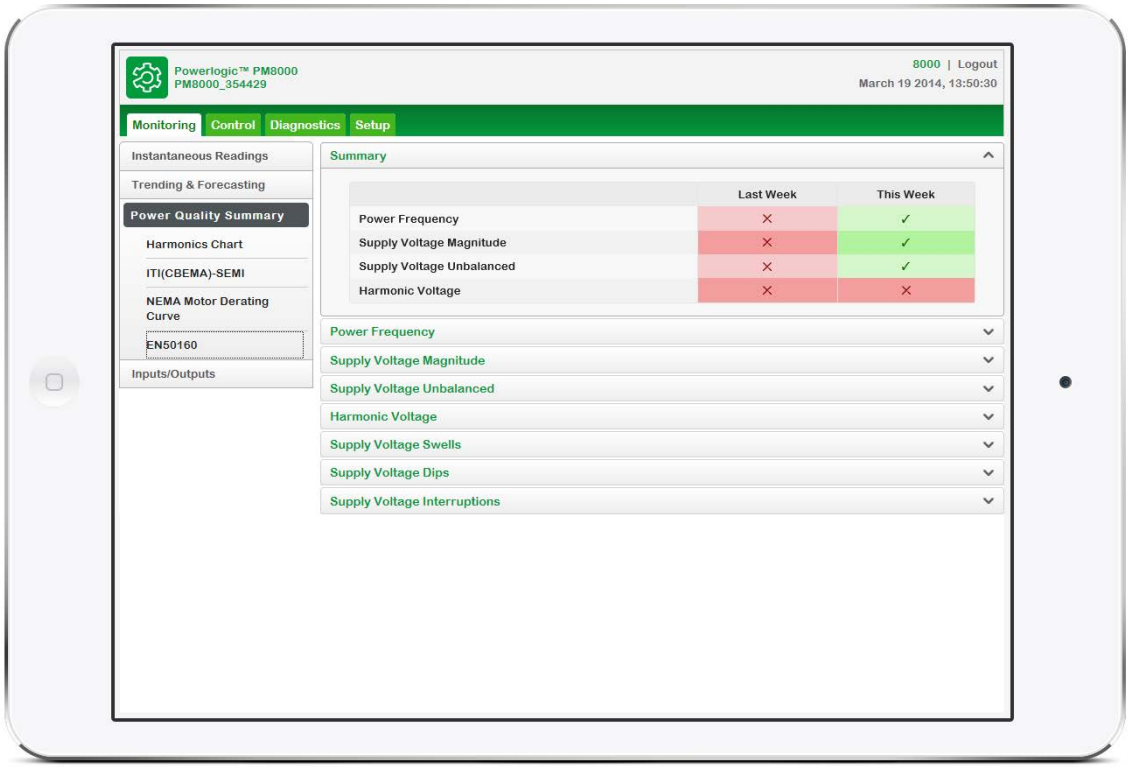

Use your browser to see PQ compliance pass/fail indicators. Use StruxureWare Power Monitoring Expert software for more detailed reporting.

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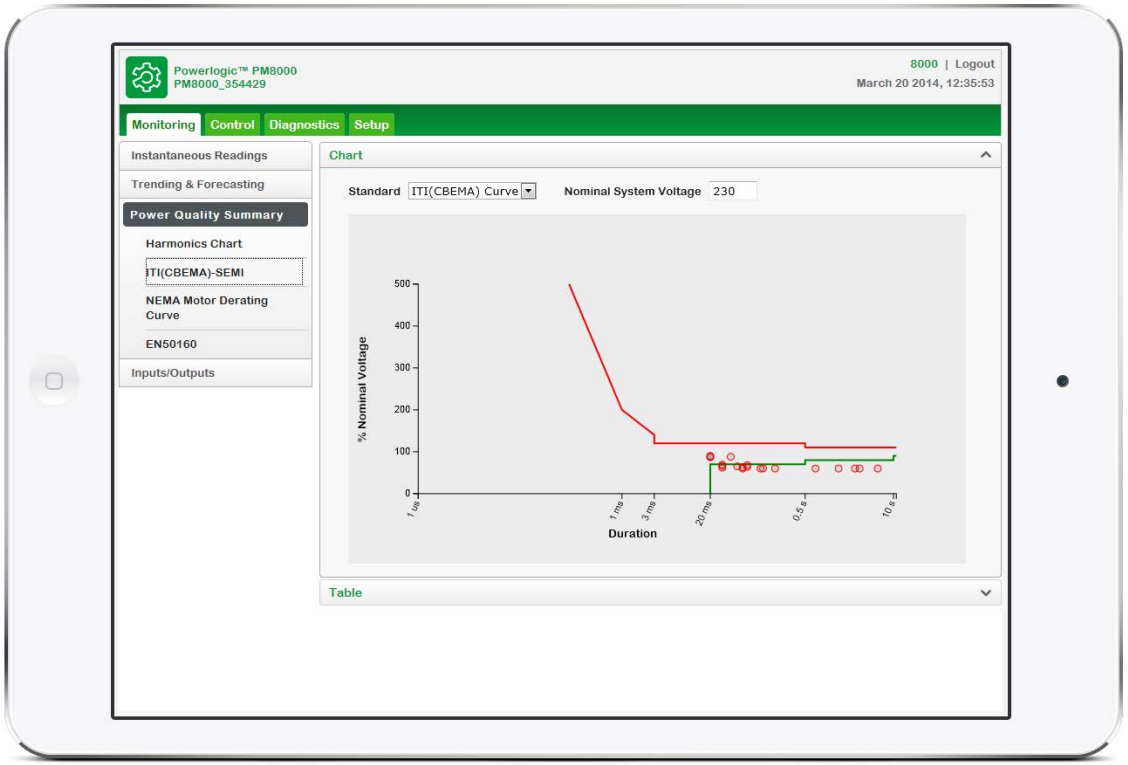

View PQ event severity on a standard ITIC (CBEMA) or SEMI susceptibility curve.

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Graphical views of total and individual harmonic distortion help reveal potential risks to equipment reliability.

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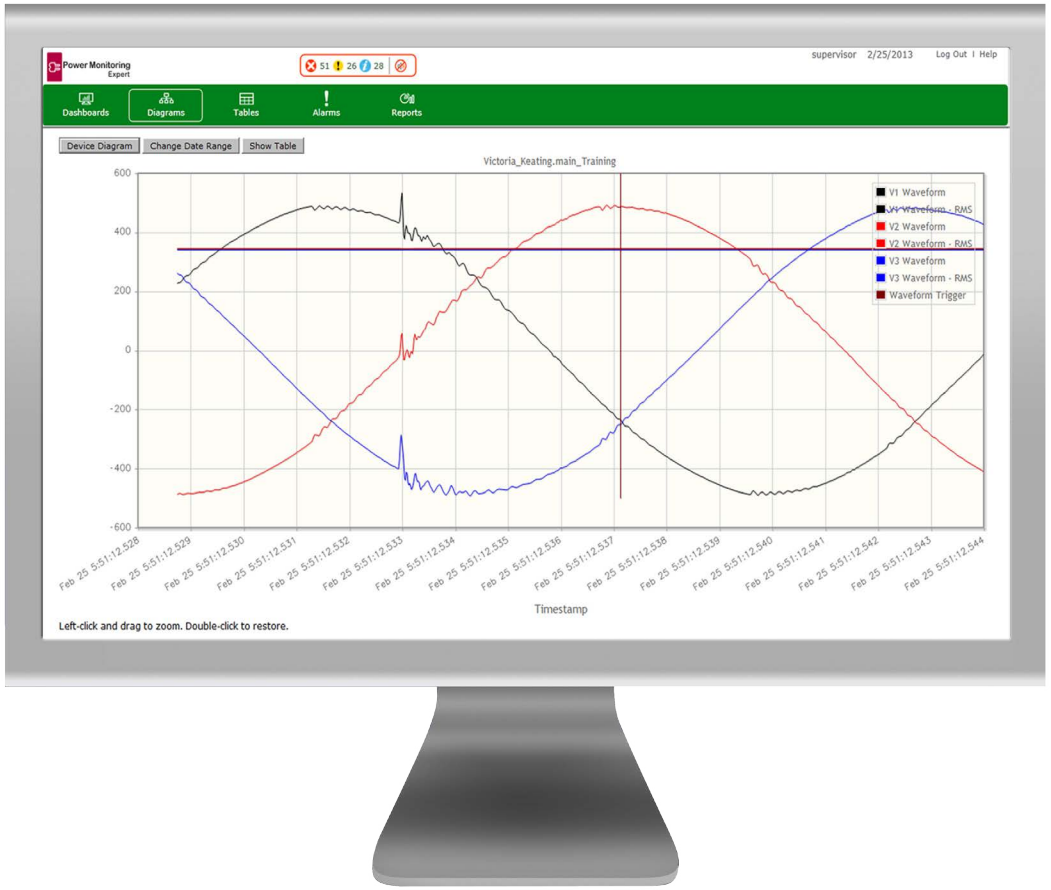

Visually analyse the signatures of captured current or voltage waveforms to look for power system anomalies.

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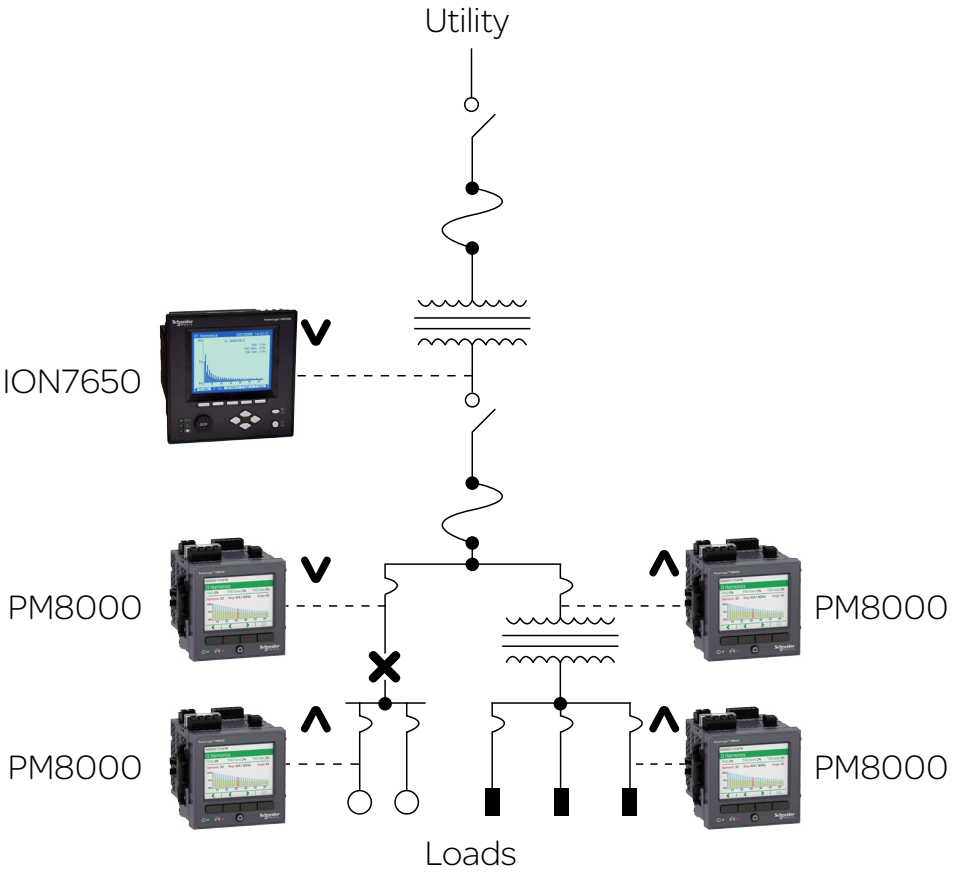

Use disturbance direction detection to determine the source of a disturbance by indicating whether it originated upstream or downstream of the meter.

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4-quadrant energy and demand metering, with support for time-of-use[1].

1) Customized multi-tariff metering supported with StruxureWare Power Monitoring Expert

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Meter and log consumption of water, compressed air, natural gas, electricity, and steam.

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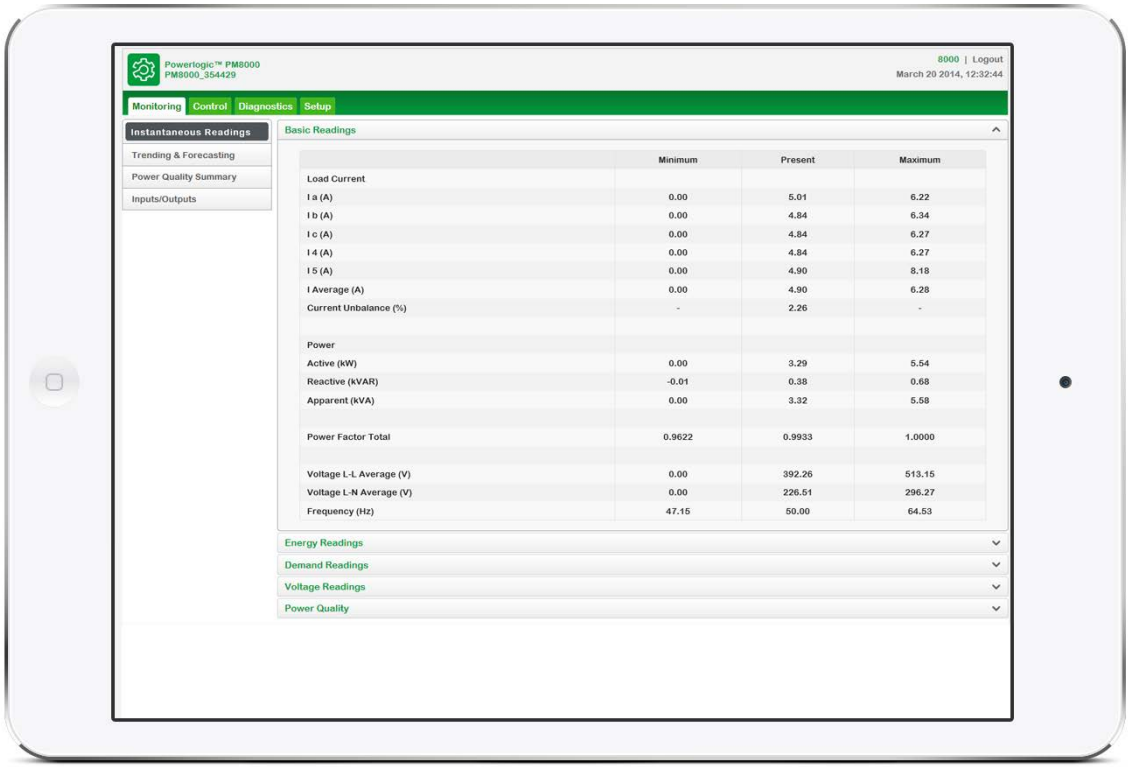

View real-time readings for all important instantaneous, power, energy, and demand parameters.

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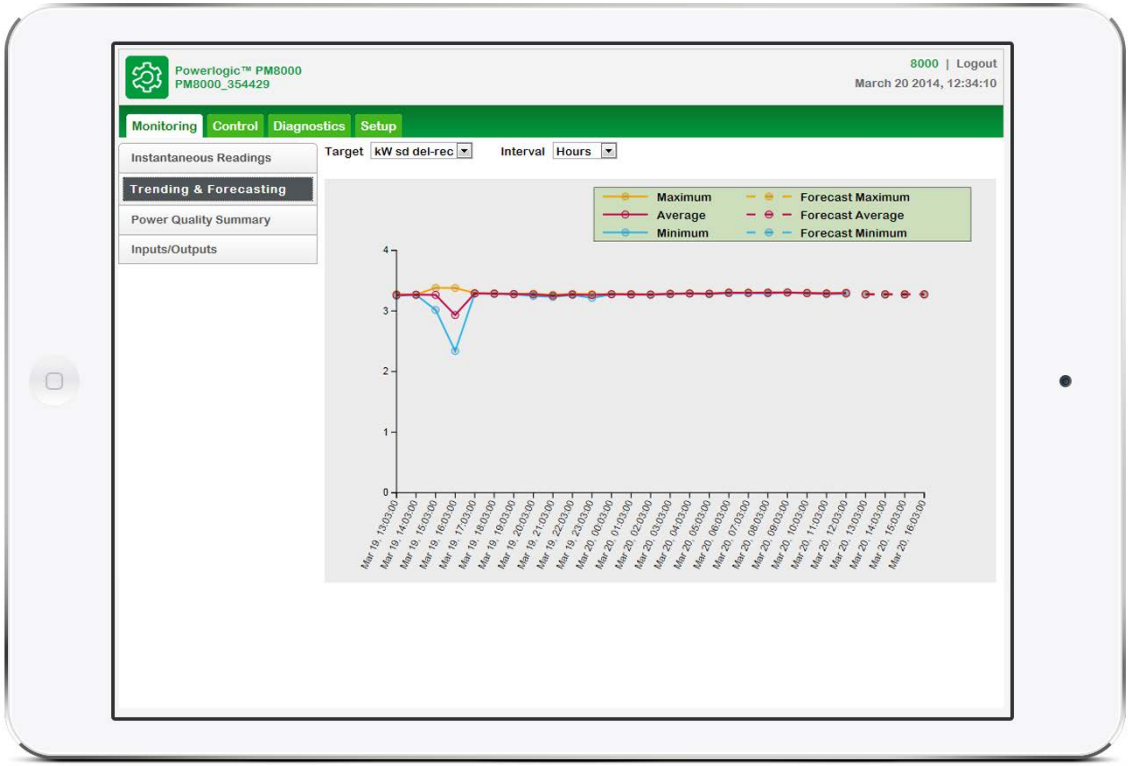

Trend and forecast any parameter, including its minimum, maximum, and average values. Use StruxureWare Power Monitoring Expert for more detailed analysis.

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Panel, DIN, and remote display options are adaptable to any installation.

Front panel phasor display makes it easy to validate proper wiring connections.

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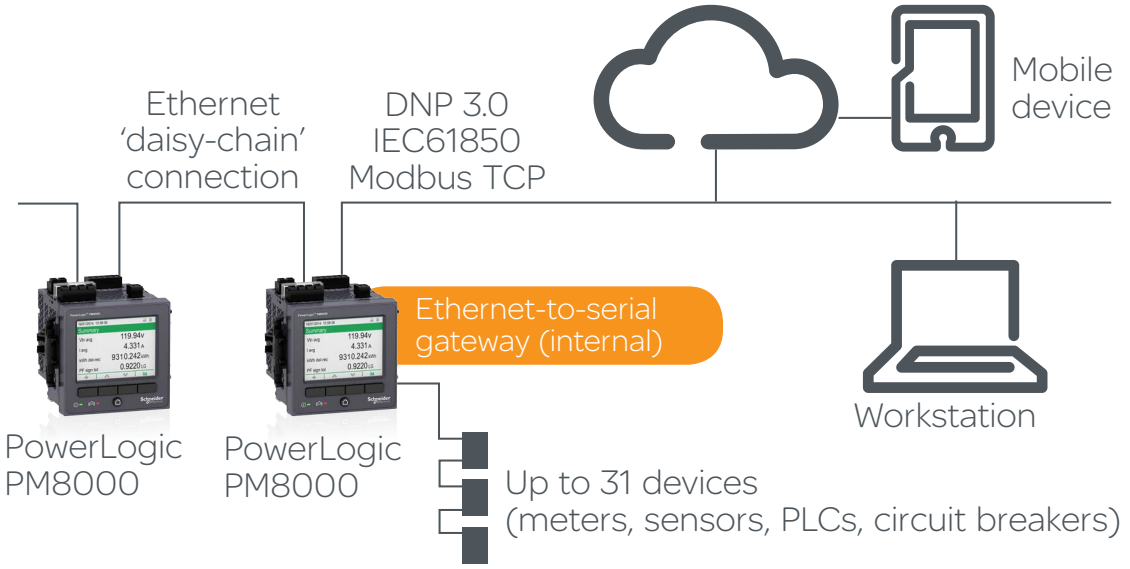

Multiport and multiprotocol support enables simultaneous data and control access.

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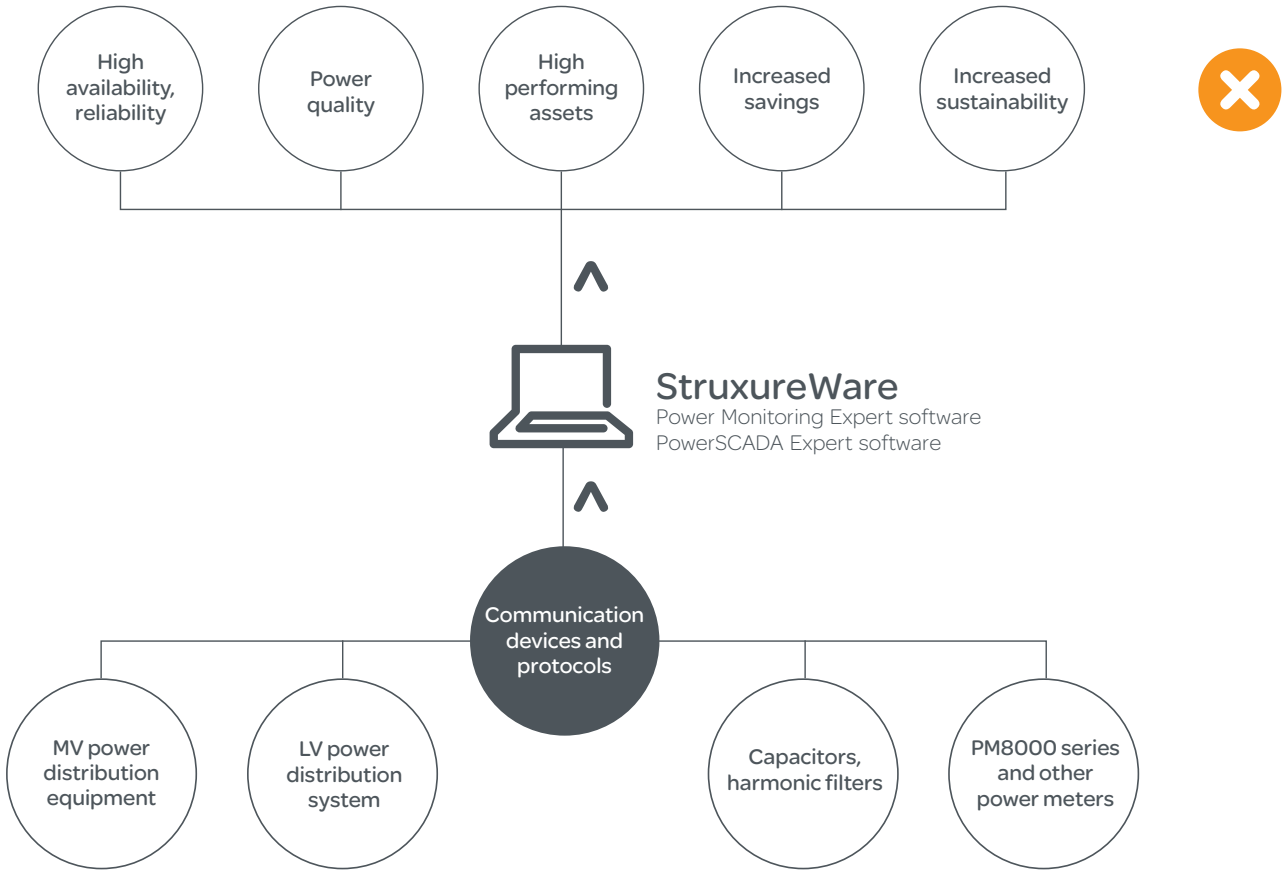

Like the body's circulatory system, data from distributed meters and other devices is automatically centralized, supporting simple analysis and fast decision making.

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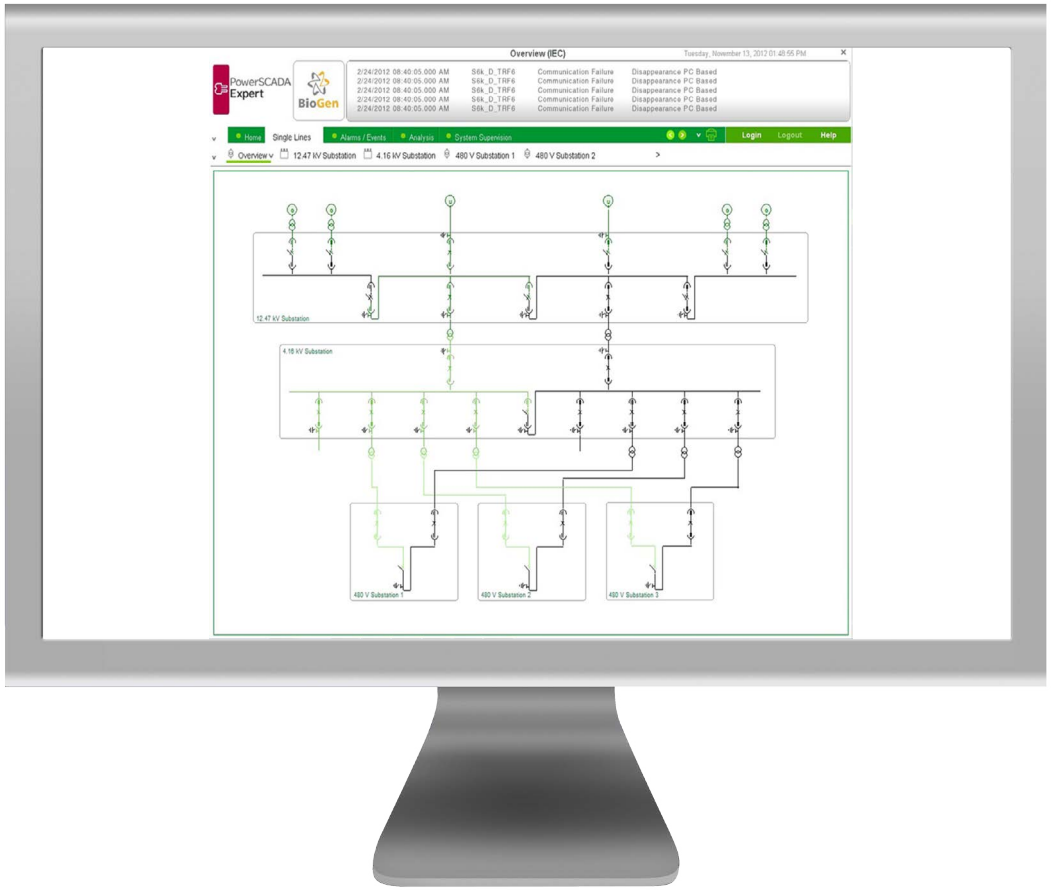

Use StuxureWare PowerSCADA Expert for control and real-time data views with support for hot system backup.

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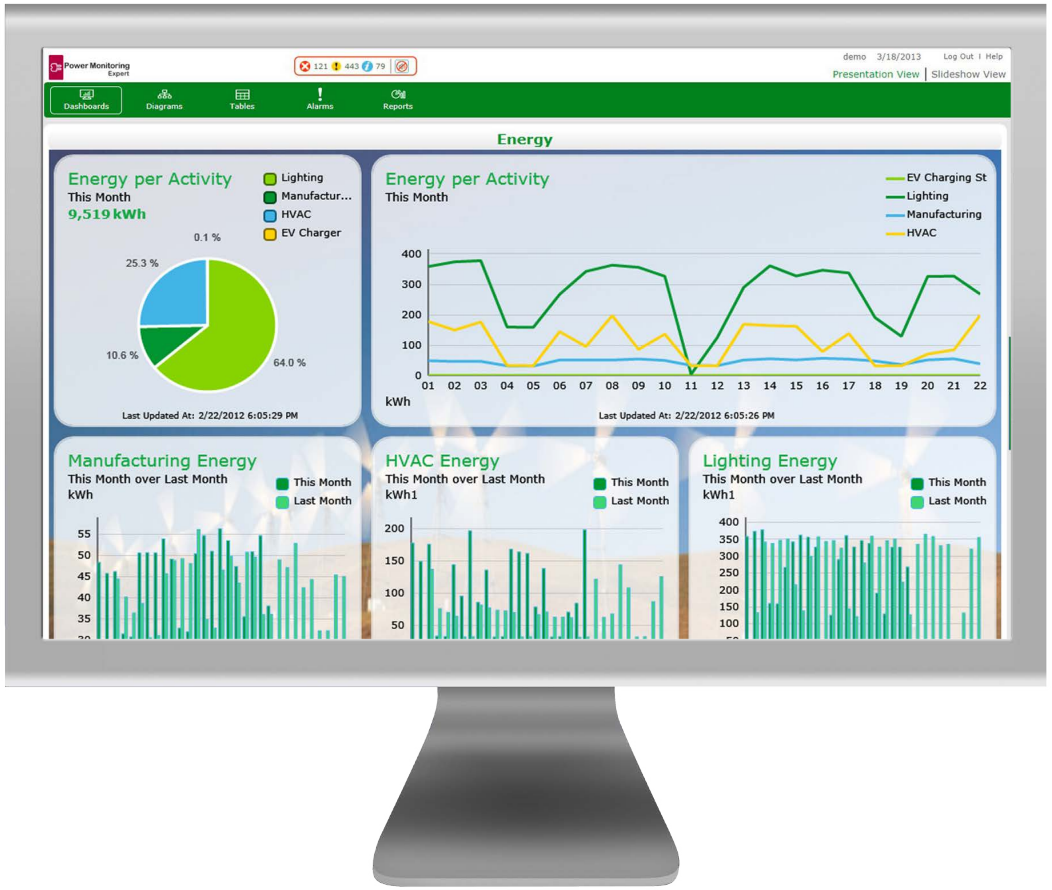

Use the advanced data visualization capability of StruxureWare Power Monitoring Expert for energy cost and efficiency analysis.

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Protect your investment with unique, adaptable technology

Base model

- 3 digital inputs
- 1 KY (form A) energy pulse output

Optional expansion

Up to four, field-installable I/O modules per meter:

- 6 digital in + 2 relay out
- 4 analog in + 2 analog out

For more detailed information on I/O options see the online Product Range Data Sheet