

## The Powerlogic advantage



PowerLogic solutions are the world's largest and most advanced range of energy management products.

Thousands of organisations world-wide choose PowerLogic systems because of key advantages:

- A fast, quantifiable return on investment through both a low total cost of ownership and rich functionality that returns multiple financial benefits
- A comprehensive portfolio of modular, scalable components that enable affordable system expansion as needs dictate and budgets allow
- End-to-end interoperability offering seamless integration with business, accounting, BAS and SCADA applications
- A complete range of compatible, complementary, single-sourced Schneider Electric power and automation solutions
- Support for numerous global metering accuracy and power quality monitoring standards.

## Applications

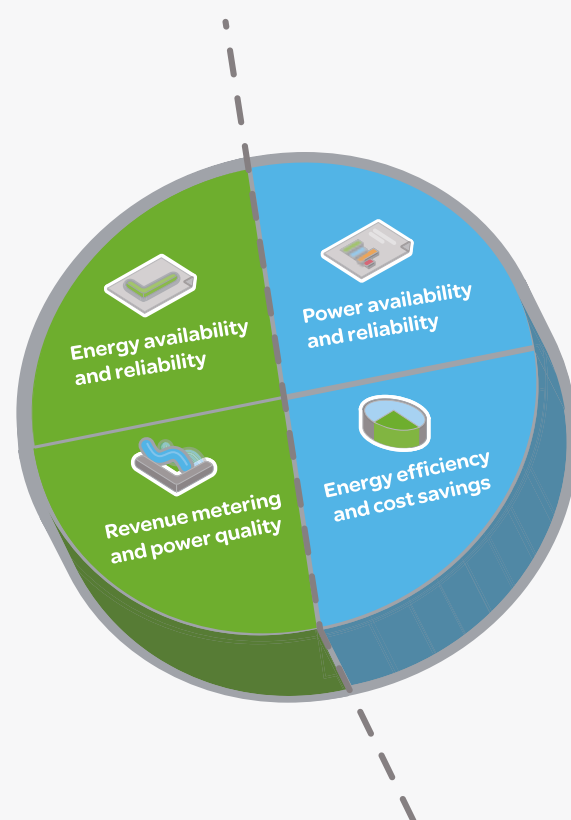
### SUPPLY

#### Energy availability and reliability

- Improve T&D network reliability
- Enhance substation automation
- Maximise the use of yourexisting infrastructure

#### Revenue metering and power quality

- Maximise metering accuracy at all interchange points
- Verify compliance with new power quality standards
- Analyse and isolate the source of power quality problems



### DEMAND

#### Power availability and reliability

- Validate that power quality complies with the energy contract
- Verify the reliable operation of power and mitigation equipment
- Improve response to power-related problems
- Leverage existing infrastructure capacity and avoid over-building
- Support proactive maintenance to prolong asset life

#### Energy efficiency and cost savings

- Measure efficiency, reveal opportunities and verify savings
- Manage green house gas emissions
- Allocate energy costs to departments or processes
- Reduce peak demand and power factor penalties
- Enable participation in load curtailment programs (e.g. demand response)
- Strengthen rate negotiation with energy suppliers
- Identify billing discrepancies
- Sub-bill tenants for energy costs

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As a global specialist in energy management with operations in more than 100 countries, Schneider Electric offers integrated solutions across multiple market segments, including leadership positions in energy and infrastructure, industrial processes, building automation and data centres/networks, as well as a broad presence in residential applications.

Focused on making energy safe, reliable, efficient, productive and green, the company's 150,000 plus employees achieved sales of 24 billion euros in 2013, through an active commitment to help individuals and organisations Make the most of their energy<sup>SM</sup>.

We are changing our brand names and becoming one Schneider Electric. You'll get the same great quality products, but from one name you can remember and trust. This provides you and your customers with the reassurance associated with Schneider Electric.

Some of our market leading brands have already become Schneider Electric including Merlin Gerin, Telemecanique, Square D, GET, Mita, Saret, Himel, Thorsman, Tower and TAC.

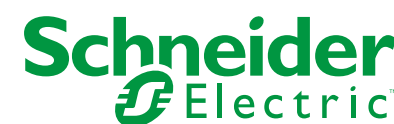
Working as one Schneider Electric makes it clearer that our ranges are highly compatible for integrated solutions.

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As standards, specifications and designs change from time to time, please ask for confirmation of the information given in this publication.

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member of



# Datacentre metering solutions

Powerlogic meters



The PowerLogic range of meters and software helps manage all energy assets, every second of the day. A PowerLogic system enables all stakeholders, from CEOs to facility and engineering managers, to respond quickly to potential problems and manage energy in financial and environmental terms.

PowerLogic technology delivers the key performance indicators and analytics that you need to strategically balance emissions, efficiency, reliability and cost.





### PM5300

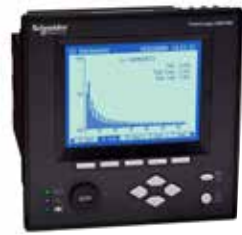
The PowerLogic PM5000 series power meters are the new benchmark in affordable, precision metering. The ideal fit for high-end cost management applications, providing the measurement capabilities needed to allocate energy usage, optimise equipment efficiency and utilisation, and perform a high level assessment of the power quality in an electrical network.

### Benefits

- Track real-time power conditions
- Monitor control functions
- Provide basic power quality values
- Monitor equipment and network status

### Characteristics

- Accuracy class 0.5S for active energy metering
- Individual harmonics in addition to THD and TDD to help locate the source of disturbances
- Data logging locally in non-volatile memory ensures that information is not lost during a power or communications outage
- Graphical display with intuitive menu-driven navigation makes information easy to locate and read
- Extended voltage range (direct connection up to 690 V L-L)
- Real-time clock with battery back up



### ION7650

ION7650 revenue-class power and energy metering, event and min/max logging, historical logging (up to 800 channels), expandable memory, sag/swell monitoring, harmonics measurement, set points, digital and analog I/O, and Internet-enabled multi-port communications.

### Benefits

- Comply with environmental and regulatory requirements.
- Improve power quality, reliability and uptime
- Integrated utility metering.

### Characteristics

- Voltage, current, neutral and ground current, power, frequency, power factor, demand, energy, and time-of-use metering
- 1024 samples/cycle waveform capture, transient capture (20 us @ 50 Hz), sag/swell monitoring, harmonics measurement (up to 63rd), and symmetrical components
- 3-phase, 4-quadrant metering, class 0.2 accuracy (IEC, ANSI)
- Disturbance direction detection to indicate whether a disturbance originated upstream or downstream from the meter
- Setpoint learning to automatically learn what constitutes a sag, swell, transient or high and low setpoint
- 65 setpoints for alarms and control, 1/2 cycle response, multi-condition, call out on alarm



### ION7350

ION7300 series meters used in energy management applications such as feeder monitoring and sub-metering. PowerLogic ION7300 series meters interface with power monitoring software or other energy management or automation systems to provide users with real-time information for monitoring and analysis.

### Benefits

- Power quality analysis
- Load studies and circuit optimisation
- Equipment monitoring and control

### Characteristics

- Voltage, current, power, frequency, power factor, demand, energy, and time-of-use metering
- 64 samples/cycle waveform capture, dip/swell monitoring, harmonics measurement (up to 31st)
- 3-phase, 4-quadrant metering, class 0.5 revenue-accurate (IEC & ANSI)
- Sequence-of-events, coincident minimum/maximum, historical trends, and high-speed snapshot recording, 1 ms resolution timestamping
- 12 setpoints for alarms and control, 1 second response, multi-condition, call out on alarm



## The PowerLogic Solution

A PowerLogic solution monitors all power and cooling systems and accurately tracks their energy consumption. Enterprise-level software delivers insightful diagnostics and metrics to help verify the reliability of your backup systems and maximise the use of existing capacity to defer new capital investments. You can also reveal energy inefficiencies and strengthen energy procurement across multiple sites.



### PM870

The PowerLogic Series 800 Power Meters offer high-performance measurement capabilities needed to monitor an electrical installation in a compact 96 x 96 mm unit. The power meter's large easy-to-read display lets you view all three phases and neutral at the same time. The PM870 is the first compact meter to offer voltage and current disturbance (sag and swell) detection and configurable waveform capture.

### Benefits

- Power quality analysis
- Sub billing, cost allocation and energy management
- Remote monitoring of the installation

### Characteristics

- Direct connect voltage inputs. No need for potential transformers (PTs) up to 600 VAC
- Custom alarming with time stamping
- Individual harmonic magnitudes and angles, and waveform capture
- Voltage and current disturbance (sag and swells) detection and configurable waveform capture
- IEC 62053-22 class 0.5S for real energy. Accurate energy measurement for sub-billing and cost allocation
- Trend curves and short-term forecasting (PM850 and PM870)



### BCPM (Branch Circuit Power Meter)

The PowerLogic BCPM is a highly accurate, full featured metering product designed for the unique, multi-circuit and minimal space requirements of a high performance power distribution unit (PDU) or remote power panel (RPP). BCPM fits any PDU or RPP design and supports both new and retrofit installations. It has exceptional dynamic range and accuracy, and optional feature sets to meet the energy challenges of mission critical data centres.

### Benefits

- Maximise uptime and avoid outages
- Optimise existing infrastructure
- Improve power distribution efficiency
- Track usage and allocate energy costs
- Enable accurate sub-billing

### Characteristics

- Monitor up to 72 circuits with 2 or 4 solid-core CT strips
- Monitor up to 84 circuits with individual split-core CTs
- Monitor mains with two sets of inputs for four auxiliary CTs
- Set alarm levels at High-high, high, low and low-low as a percent of breaker rating, to ensure you get an alarm before a breaker trip occurs
- Accurate at low current values, down to 250mA solid-core CT) or 1A (split-core CT)



### StruxureWare™ Power Monitoring Expert for data centres

StruxureWare Power Monitoring Expert software is a complete supervisory software package for power management applications. The software collects and organises data gathered from your facility's electrical network and presents it as meaningful, actionable information via intuitive web interface. Leverage and optimise your existing infrastructure. Integrate with other energy management and automation systems (e.g. SCADA, BAC, DCS, ERP) or web services.

### Benefits

- Verify the reliable operation of power equipment and optimise the electrical distribution network
- Improve response to power-related problems and provide information to help proactively assess potential issues
- Leverage existing infrastructure capacity and avoid over-building
- Support proactive maintenance to prolong asset life

### Characteristics

- Highly scalable, flexible and open architecture
- Real-time monitoring through a secure, multi-user web portal
- Power quality analysis and compliance monitoring
- Alarming and event logging
- Intuitive, customisable web client interface:
- Dashboards, Diagrams, Tables and Reports