

2. High Accuracy, Specialized Solutions - for MV/LV Distribution



2.1 PowerLogic™ ION9000T **NEW**

***Price On Request**

The PowerLogic™ ION9000T is your 24/7 power quality expert, providing information, not just data.

- > High-Speed Transient Capture (HSTC) of voltage events 100 nano seconds or longer in duration and up to 10,000 V in magnitude with high speed and disturbance waveform captures, as well as prevent statistics on each transient.
- > Modular, flexible, patented ION™ programmable technology.
- > Industry leading Class 0.1S accuracy IEC 62052-11 ed.2, ANSI C12.20 Class 0.1 (active energy).
- > Patented Disturbance Direction Detection - The meter shall be able to provide a level of confidence that a voltage disturbance occurred upstream or downstream of the meter.
- > Onboard PQ Analysis – Complying with IEC61000-4-30 class A, IEC62586-1 / IEC62586-2, and verified by third-party lab certifications.
- > Onboard pass/fail PQ characterization and assessment according to EN50160 and IEEE519.
- > Cybersecurity event logging, Syslog protocol, HTTPS, SFTP and full control of each communication port.
- > The meter support time synchronisation methods that include Precision Time Protocol, IRIG-B, GPS (RS485), NTP and software command.

2.2 PowerLogic™ ION9000

***Price On Request**

ION9000 makes your power network safer, more reliable, efficient, and compliant.



- > Transient detection and capture: events 20 microseconds or longer in duration on any voltage channel with alarm, event log, and waveform capture.
- > 2 GB of standard non-volatile memory.
- > Fully compliant with IEC 61000-4-30 class A ed3 Power Quality standard according to IEC 62586-1 / -2.
- > Provides onboard power quality compliance monitoring according to EN50160 and IEEE519.
- > Can record voltage and current waveforms at 1024 samples per cycle
- > The meter is revenue class compliant to class 0.1S according to ANSI and IEC for both 5A and 1A nominal inputs.
- > Provides a graphical flexible programming capability to allow it to be adapted to nearly any application.
- > Can serve as a Modbus Master in a communication network, either through reading and logging data from other Modbus devices, or serving as a Modbus serial to Ethernet gateway.
- > Provides a level of confidence that a voltage disturbance occurred upstream or downstream of the meter.
- > Provides two color display options; one that is 96mm x 96mm with pushbutton controls and one that is 192mm x 192mm with touchscreen controls.

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2.3 PowerLogic™ ION 8650

Providing high accuracy and a wide range of features for transmission and distribution metering, the PowerLogic™ ION8650 advanced revenue and power quality meter has the flexibility to change along with your needs.

- > Utility grade accurate metering with IEC 62053-22/23 Class 0.2S with 1024 samples / cycle.
- > The power meter has 3rd party laboratory test reports for IEC 61000-4-30 Class 'A' 2nd edition and IEC 61000-4-15 – Flicker.
- > Has 14 programmable oscillographic waveform recorders.
- > Can be configured to provide COMTRADE waveforms.
- > Can perform high-speed sag/swell detection of voltage disturbances on a cycle-by-cycle basis, providing the duration of the disturbance, the minimum, maximum and average value of the voltage for each phase during the disturbance.
- > Has 128MB* of onboard memory.
- > Capable of communicating via hardware ports simultaneously and independently: Ethernet, Serial: RS-232 or RS-485, ANSI 12.18 compliant optical port.
- > Support EN50160 reporting for compliance monitoring.
- > Built-in web pages in the power meter enables access to real-time values and basic power quality information using a standard web browser. Basic configuration of the power meter can also be performed through the browser.



2.4 PowerLogic™ ION7400 **NEW**

***Price On Request**

Providing high accuracy and a wide range of features for transmission and distribution metering, the versatile PowerLogic™ ION7400 series advanced utility meter has the flexibility to change along with your needs.

- > Meets stringent IEC and ANSI measurement accuracy standards including ANSI C12.20 accuracy class 0.2, current class 2 and 10, and IEC 62053-22 Class 0.2S and is fully compliant with IEC 61557-12 PMD.
- > The meter is certified by a third-party laboratory to the power quality standards IEC 61000-4-30, Edition 3 Class 'A' and IEC 62586-2 Edition 2. The meter's low pass anti-aliasing signal filters shall meet the requirements of IEC 61000-4-7.
- > Has sampling rate of 512 Samples/cycle.
- > Has a high-visibility color graphical display that is user programmable to display up to 6 parameters per screen.
- > Provides multi-port Ethernet and serial communications with at least two Ethernet ports and one RS485 serial port.
- > Industrial communication protocols supported by the meter includes Modbus, DNP3, and IEC 61850. The meter provides enhanced cybersecurity features not limited to HTTPS in accordance with TLS 1.2.
- > Has the ability to determine the location of a voltage disturbance by identifying the direction of the disturbance relative to the meter.

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2.5 PowerLogic™ PM8000 Series **NEW**

***Price On Request**

The PowerLogic™ PM8000 series meters are compact, cost-effective multifunction power meters that will help you ensure reliability and efficiency of your power-critical facility.

- > Meets stringent IEC and ANSI measurement accuracy standards including ANSI C12.20 accuracy class 0.2, current class 2 and 10, and IEC 62053-22 Class 0.2S and be fully compliant with IEC 61557-12 PMD.
- > Certified by a third-party laboratory to the power quality standards IEC 61000-4-30, Edition 3 Class 'A' and IEC 62586-2 Edition 2. The meter's low pass anti-aliasing signal filters shall meet the requirements of IEC 61000-4-7.
- > Has sampling rate of 512 Samples/cycle*.
- > Has a high-visibility color graphical display that is user programmable to display up to 6 parameters per screen.
- > Has the ability to determine the location of a voltage disturbance by identifying the direction of the disturbance relative to the meter. The disturbance direction shall be captured in the device's event log, along with a timestamp and confidence level indicating level of certainty.
- > Meter's on-board web server provides access to real-time values, power quality information, and basic meter configuration.
- > Provides set-point driven alarming capability.
- > Captures voltage and current channels for sub-cycle disturbances, as well as multi-cycle sags, swells and outages in quick succession, without dead time between recordings.

*Available only in Class A Meter

Please contact Customer Care Center for Stockable and Non stockable status of references.

✓ NORMAL STOCK ITEMS

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PowerLogic™ PM55/56/5700 Series

Power quality, features in a cost-effective, precision meter

The highly capable PowerLogic™ PM5500, PM5600, and PM5700 power meters combine multiple features that are not typically found in basic range power meters: power quality capabilities, residual current monitoring, and MID conformance. This combination of features merge with industry-leading measurement accuracy to match the requirements of energy cost management applications in buildings and industry. Compliant with stringent international metering standards, these meters remove any uncertainty in billing for energy consumption and ensure a high level of performance that non-compliant devices cannot match.

Allocate energy costs, perform tenant sub-billing, pinpoint energy savings, optimize equipment efficiency and utilization, and perform a basic assessment of the power quality in your electrical network.

Residual Current Monitoring

- Proactively identify residual current to maximize electrical distribution uptime, reduce risk of faults, and improve safety

Power Quality Monitoring

- Identify power quality events to avoid downtime, prevent equipment damage

LVDC Control Power Option (24V DC)

- Continuously monitor system and log data, even during an outage or voltage instability, in addition to significant installation and material cost savings DNP3.0 Protocol
- Seamless tie-in to new or existing utility and heavy industrial applications without the need for additional gateways or protocol converters

Analog Inputs

- Monitor electrical and non-electrical parameters (e.g. temperature, flow rate, pressure etc.)

3. High Accuracy, Compact, Power Meters - for HV/MV/LV Distribution



3.1 PowerLogic™ PM5000

The PowerLogic™ PM5000 series power meters are the new benchmark in affordable, precision metering.

- > Easy to install and operate.
- > Easy for circuit breaker monitoring and control with two Relay outputs (PM5330, PM5340.)
- > Identify power quality events to avoid downtime, prevent equipment damage.
- > Load management combined with alarm and timestamping
- > High performance and accuracy - Provides Class 0.2S accuracy per IEC 62053-22 standard.
- > Residual Current Monitoring in PM5660 and PM5760
- > Voltage sag and swell detection with waveform capture in PM5650 and PM5760.
- > Individual Harmonics up-to 63rd (PM5560), 31st (PM53xx) & 15th (PM51xx) THD, TDD.
- > Onboard BACnet/IP, EtherNet/IP, and DNP3.0 protocol support
- > Demand prediction based on sliding, fixed and rolling block, thermal methods.
- > Data logging upto 16 parameters.
- > WAGES Monitoring.
- > Allocate energy costs, perform tenant sub-billing, pinpoint energy savings, optimize equipment efficiency and utilization and perform a basic assessment of the power quality in your electrical network.

| Product | Description | Reference | Unit MRP [₹] |
|---------|---|-------------|--------------|
| PM5760 | CI 0.2S, 63rd Harmonic, 1.1 MB, 2DI/2DO, RS-485, Ethernet, Wave-Form Capture and Sag/Swell, RCM | METSEPM5760 | 127617 |
| PM5660 | CI 0.2S, 63rd Harmonic, 1.1 MB, 2DI/2DO, RS-485, Ethernet, RCM | METSEPM5660 | 106528 |
| PM5650 | CI 0.2S, 63rd Harmonic, 1.1 MB, 4DI/2DO, RS-485, Ethernet, Wave-Form Capture and Sag/Swell | METSEPM5650 | 111666 |
| PM5580 | CI 0.2S, 63rd Harmonic, 1.1 MB, 4DI/2DO, RS-485, Ethernet | METSEPM5580 | 83888 |
| PM5570 | CI 0.2S, 63rd Harmonic, 1.1 MB, 2DI/2AI/2DO, RS-485, Ethernet | METSEPM5570 | 82081 |
| PM5560 | CI 0.2S, 63rd Harmonic, 1.1 MB, 4DI/2-DO, RS-485, Ethernet | 30003008D | 81411 |
| PM5340 | CI 0.5S, 31st Harmonic, 256 kB, 2DI/2DO/2-Relay, Ethernet | 30003007D | 47619 |
| PM5320 | CI 0.5S, 31st Harmonic, 256 kB, 2DI/2DO, Ethernet | 30003005D | 44383 |

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3. High Accuracy, Compact, Power Meters - for HV/MV/LV Distribution



3.2 Smart Demand Controller - EM7200

EasyLogic™ EM7230 / EM7280 / EM7290 is a smart demand controller for optimizing maximum demand charges in LV or MV circuits.

- > Accuracy Class 0.2*, 0.5S and Class 1.0 as per IEC 62053 21/22.
- > True RMS measurement 64 samples per cycle.
- > Power quality analysis: THD % measurements and Individual harmonics up to 31st order for voltage and current, per-phase.
- > Demand management: Simultaneous display of peak, present, predicted & rising demands of all the four demand parameters (W, VA, VAR, Amps) configurable for 1 to 30 minutes interval with prediction and spare load.
- > Multi-tariff energy - 4 multi tariff registers, can be activated through RTC.
- > On board 3 Form C mechanical relays for Demand control and management.
- > PF Lock features for advanced Revenue metering.
- > On board Modbus RTU RS-485 communication port.
- > Billing: Tenant billing/utility meter cross check (where local regulations are not applicable).
- > 4 Highs' & 4 Lows' for Instantaneous and Demand parameters with Date & Time stamp.

| Product | Description | Reference | Unit MRP [₹] |
|---------|---|-----------|--------------|
| EM 7290 | Demand Controller CI0.2 ⁽⁺⁾ , RS-485 | 30002975 | 64888 |
| EM 7280 | Demand Controller CI0.5S, RS-485 | 30002198 | 50618 |
| EM 7230 | Demand Controller CI1.0, RS-485 | 30002055 | 46724 |

⁽⁺⁾Class 0.2S compliance available in 3ph,4w system

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The Easy choice for Quality,
Value and Simplicity

EasyLogic™ PM2000 series

- Active Accuracy - Class 0.5S/1.0 as per IEC62053-22/21
- Dual Sourcing - Utility or Solar or wind energy monitoring using the DI
- 12am (Configurable) Snapshot - Volt, Amp, Power & Energy
- Rate Counters - Configurable for Energy and KgCO2
- Expandable IO Module - Digital IO/Analog IO
- Calibration and Heart beat LED on the front display



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3.3 EasyLogic™ PM2000 Series

Offering all the measurement capabilities required to monitor and electrical installation in a single 96 x 96 mm unit, with LED or LCD display options.

- > Energy Standard - Class 0.5S /1.0 as per IEC 62053-22 / 21.
- > Easy to install: Mounts using two clips, no tools are required.
- > Easy to operate: Intuitive navigation with self guided menus and test LED at the front panel used for test and calibration of the meter on site or laboratory.
- > Power quality analysis: Offers THD measurements and Individual harmonics up to 15th order in PM2x20 variants and up to 31st in PM2x30 variants.
- > Load management: Simultaneous display of peak, present, predicted & rising demands of all the four demand parameters.
- > Billing: Tenant billing/utility meter cross check.
- > Password: Field configurable password for securing set up information and prevent tampering of integrated values.
- > Cyber security: Option for disabling RS-485 port through front panel keys against unauthorized access. It helps during installation and trouble shooting of communication network.
- > 12am snap shot: The values from summary page will be stored as snap shot and refreshed by next day 12am.
- > Rate counters: 2 configurable counters display values in custom specified units based on energy recorded (e.g., kgCO2 carbon emission or energy cost).

| Product | Description | Reference | Unit MRP [₹] |
|----------------------------|--|-------------------|--------------|
| PM2230 | CI 0.5S, LCD display, 31st Harmonics, RS-485, 12 AM Snapshot, kgCO2 counters | METSEPM2230D | 34085 |
| PM2220 | CI 1.0, LCD display, 15th Harmonics, RS-485, 12 AM Snapshot, kgCO2 counters | METSEPM2220D | 31357 |
| PM2130 | CI 0.5S, LED display, 31st Harmonics ⁽⁺¹⁾ , RS-485 | METSEPM2130D | 32647 |
| PM2K2DIDO ⁽⁺²⁾ | Module with 2-Digital input and Relay outputs for PM2x30 meter | METSEPM2KDGLIO22D | 3874 |
| PM2K1AIAO ⁽⁺²⁾ | Module with 1 each Analog input and output for PM2x30 meter | METSEPM2KANLGO11D | 4593 |
| PM2K2AIAO ⁽⁺²⁾ | Module with 2- Analog inputs and outputs for PM2x30 meter | METSEPM2KANLGO22D | 5595 |
| PM2K2DI2RO ⁽⁺²⁾ | Module with 2-Digital input and Relay outputs for PM2x30 meter | METSEPM2K2DI2ROD | 5443 |

⁽⁺¹⁾Through communication only

⁽⁺²⁾Any one IO module can be used at a time with PM2130 or PM2230 meter. The control power range with IO module shall be 72 to 304 V AC L-N or 90 to 304 V DC.

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Envisioning **Atmanirbhar Bharat**
by creating world-class products in
India, for India and the world



EasyLogic™ Series and PowerLogic™ Series

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