



Intelligent Metering Device and Revenue Meter

The ION® 6200 meter offers outstanding quality, versatility, and functionality in a low-cost, ultra-compact meter. The meter is simple to use, and offers a big, bright LED display for superior readability in adverse lighting conditions.

Complete with four-quadrant power, demand, energy, power factor, and frequency measurements, the ION 6200 meter is available in a variety of flexible configurations including ANSI and Measurement Canada certification for use as a revenue meter.

This versatile unit is easy to wire and mount. It offers an excellent upgrade path, allowing you to start with a low-cost base model and add enhanced functionality over the long term.

The ION 6200 is the industry's first basic meter that lets you upgrade functionality in the field by activating the base unit. Rather than carry a large inventory of pre-configured meters, Genset and electrical equipment manufacturers, panel shops, EMS manufacturers and energy service providers can adapt meter functionality to specific applications as required.

Applications Summary

Revenue Metering and Sub-Metering

The low cost and highly accurate ION 6200 meter with optional revenue certification and simple retrofit installation provides economical power monitoring for commercial and residential tenants. The meter easily integrates with existing energy management systems and RTUs, and allows you to increase property values by eliminating previously uncontrolled expenses.

Replace Multiple Analog Meters

An ideal replacement for analog meters, the ION 6200 meter can be used for stand-alone metering in custom panels, switchboards, switchgear, gensets, motor control centers and UPS systems.

Basic Metering

The ION 6200 meter offers high-accuracy power, energy, and demand measurements. These revenue-accurate values can be used for bill verification, monitoring backup power for critical systems, and offering cost effective energy solutions.

Cost Allocation

Perfect for monitoring right down to the tool level, the ION 6200 meter can help monitor cost centers, identify opportunities for demand control, and check energy consumption patterns. Revenue certification is available if required.

Substation Monitoring

The Megawatt option provides readings in megawatts and kilovolts for high voltage applications.

Features Summary

Modularity

- Simple retrofit
- Low initial investment that can still meet future needs
- Retrofittable upgrades add functionality as required

Ease of Use

- Fast setup via display or software
- Free configuration software
- Bright, easy to read LED display

Measurements

- 64 samples per cycle
- IEC 60687 class 0.5 accuracy
- ANSI C12.20 0.5 compliant
- 4 Quadrant energy and demand
- 49 real-time, true RMS electrical parameters
- Per phase voltage, current, peak current demand, watts, VARs, kWh, and more*
- Neutral current, THD, frequency, power factor, and more
- Megawatt option measures in MW and kV

Revenue Certification

- ANSI and Measurement Canada options
- Factory-sealed version available in Canada

Communications

- RS-485 port
- Modbus RTU for integration with Energy Management Systems
- ION compatible protocol for use with ION Enterprise® software

Pulse Outputs

- 2 outputs for kWh, kVARh or kVAh pulsing

*Per phase energy values not available in Delta volts mode



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Datasheet: ION® 6200

Base Unit

Physical Configurations

- Integrated models have a built-in display and fit in an ANSI 4" (10cm) and DIN 96 cutout
- Transducer (TRAN) models have no display and can be fastened to a flat surface with a 4" (10cm) ANSI bolt pattern or mounted to a DIN rail. A Remote Display Module (RMD) can be ordered for the TRAN and mounted through an ANSI 4" (10cm) and DIN 96 cutout. A 14ft. (4.3m) cable is standard with this option.

Front Panel Display

Bright LED display with twelve 3/4" (19mm) high digits

- Displays all basic power parameters
- Easy setup for common configuration parameters
- Password protection on setup parameters
- Password protection for demand reset

Standard/Enhanced Measurements

Parameters (Standard/Megawatt Option)

Standard EP #1 EP #2

Voltage L-N	average	■	■	■
	per phase	■	■	■
Voltage L-L	average	■	■	■
	per phase	■	■	■
Frequency			■	■
Current	average	■	■	■
	per phase	■	■	■
I4			■	■
kW/MW	Total		■	■
	per phase			■
kVAR/MVAR	Total			■
	per phase			■
kVA/MVA	Total			■
	per phase			■
kWh/MWh	Total		■	■
	Del/Rec (Imp/Exp)	per phase		■
kVARh/MVARh	Total			■
	Del/Rec (Imp/Exp)	per phase		■
kVAh/MVAh	Total			■
	per phase			■
kW/MW	Demand			■
	Peak		■	■
kVAR/MVAR	Demand			■
	Peak			■
kVA/MVA	Demand			■
	Peak			■
Current Demand	average		■	■
	per phase		■	■
Current Peak Demand	average		■	■
	per phase		■	■
Power Factor	Total		■	■
	per phase			■
Voltage THD	per phase			■
Current THD	per phase			■

Pulse Outputs

- Optional kWh, kVARh and/or kVAh pulsing via two Form A outputs

Communications

- Optional RS-485 port with standard Modbus RTU and ION compatible protocol
- Baud rates from 1,200bps to 19,200bps

Plug-in Power Supplies

- 100 to 240VAC (50 to 60Hz) / 110 to 300VDC
- Optional 20 to 60DC (+/- 10%)
- Optional 480VAC (60Hz)

Specifications

Accuracy

- Voltage: L-N 0.3% reading, L-L 0.5% reading
- Frequency: +/- 0.1Hz
- Current:
 - >= 5% of full scale: 0.3% reading
 - < 5% of full scale: 0.3% reading + 0.05% full scale
 - I4 derivation: 0.6% reading + 0.05% full scale
- Power factor: 1.0% reading
- Total harmonic distortion (THD): +/- 1.0%
- Power and energy measurements: (kW, kVA, kVAR, kWh, kVAh, kVARh). Complies with IEC 60687 Class 0.5 and ANSI 12.20 Class 0.5 (0.5% reading).

Environmental Conditions

- Operating temp: -20°C to 70°C (-4°F to 158°F)
- Storage: -40°C to 85°C (-40°F to 185°F)
- Humidity: 5% to 95% non-condensing

Installation and Input Ratings

- 64 samples per cycle true RMS
- Autoranging voltage inputs allow direct connection to 400/690VAC systems. The meter is calibrated for 60 to 400VAC L-N connections.
- Supports Direct 4-Wire Wye, 3-Wire Wye, 3-Wire Delta, Direct Delta and single phase configurations
- 3-phase voltage and current inputs
- Impedance: 2M Ω /phase (phase-Vref)
- Burden: 0.05VA (typical) @ 5A RMS
- 5A nominal / 10A full scale / 20% overrange full accuracy
- Current overload rating 120A for 1 second
- Standard terminal strip covers

Dimensions and Shipping

- Basic unit installed depth: 4.2 x 4.2 x 1.6 in (106.7 x 106.7 x 40.6 mm)
- Remote display: 4.2 x 4.2 x 0.9 in (106.7 x 106.7 x 22.9 mm)
- Shipping weight: 1.5 lb / 0.68 kg

Software

- Download free ION Setup™ configuration software from our web site
- Integrate the ION 6200 into ION Enterprise®, our monitoring, analysis and control software

Meet the World Leader

Power Measurement is the leading provider of enterprise energy management systems for energy suppliers and consumers worldwide. Our ION® web-ready software and intelligent electronic devices comprise a complete, real-time information and control network that supports billing for complex energy contracts and helps improve power quality, reduce energy costs and keep operations running enterprise-wide, 24 hours a day. Our reputation for unparalleled value, quality and service is based on over two decades of innovation and experience.

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