

# Basic multi-function metering

A range of meters designed for cost management and simple network management. Affordable to buy and easy to choose, the highly-capable PowerLogic PM5000 series meters are designed to provide the best combination of features to match all your energy cost management needs.

As well as pin-point energy savings, optimal equipment efficiency and utilisation, basic multi-function meters perform a high level assessment of the power quality in an electrical network.

- PowerLogic ION6200
- PowerLogic PM3000
- PowerLogic PM5350
- PowerLogic PM5000

PB111770 PB117510 PB108447 PEB6127



# ION6200 series

The PowerLogic ION6200 is a multi-function, cost-attractive, feature-rich flush or DIN rail-mounted multi-function meter that offers all the measurement capabilities required to monitor an electrical installation.

Complete with four-quadrant power, demand, energy, power factor, and frequency measurements, this versatile unit is easy to wire and mount. It offers an excellent upgrade path that lets you start with a low-cost base model and add enhanced functionality over the long term.

## Applications

### Cost management applications

- Basic metering
- Class 0.5S metering and sub-metering
- Replace multiple analogue meters
- Cost allocation
- Substation monitoring



### The solution for

All markets that can benefit from a solution that includes PowerLogic ION6200 series meters:

- Buildings
- Industry
- Data centres and networks
- Infrastructure (e.g. airports, road tunnels, telecom)

### Benefits

Optimise your energy consumption & enable energy efficiency practices

- Collect and analyse energy consumption data from each area for each type of load or circuit
- Gain an accurate understanding of business expenses by allocating the energy-related costs
- Identify savings opportunities
- Use information to implement actions designed to reduce energy consumption

### Competitive advantages

Connectivity advantages

- High visibility front display panel
- Megawatt option for all power and energy values
- Complete communications - optional RS-485 port, standard Modbus RTU, data rates 1200-19200 baud
- Modular construction allows for easy retrofit and planned upgrades
- Fast, easy setup via display or software
- IEC 60687 Class 0.5s accuracy for tariff metering
- Certified for revenue metering
- Multiple installation options - direct 4-wire Wye, 3-wire Wye, 3-wire Delta, Direct Delta, and single phase

### Power management solutions

Schneider Electric provides innovative power management solutions to increase your energy efficiency and cost savings, maximise electrical network reliability and availability, and optimise electrical asset performance.

### Conformity of standards

- |                |                 |
|----------------|-----------------|
| • EN 61000-4-2 | • IEC 61000-4-2 |
| • EN 61000-4-3 | • IEC 61000-4-3 |
| • EN 61000-4-4 | • IEC 61000-4-4 |
| • EN 61000-4-5 | • IEC 61000-4-5 |
| • EN 61000-4-6 | • IEC 61000-4-6 |
| • EN 61010-1   | • IEC 61000-6-2 |
| • IEC 61010-1  |                 |

# ION6200

ION6200 feature selection		ION6200 Standard	ION6200 EP1	PM3250 EP2
<b>Performance standard</b>				
IEC61557-12 PMD/Sx/K55/0.5		■	■	■
<b>General</b>				
Use on LV and HV systems		■	■	■
Current and voltage accuracy		0.3%	0.3%	0.3%
Energy and power accuracy		0.5%	0.5%	0.5%
Number of samples per cycle		64	64	64
<b>Instantaneous rms values</b>				
Current and voltage		■	■	■
Frequency			■	■
Active, power	Total		■	■
	Per phase			■
Reactive and apparent power	Total			■
	Per phase			■
Power factor	Total		■	■
	Per phase			■
<b>Energy value</b>				
Active energy			■	■
Reactive, apparent energy				■
<b>Demand value</b>				
Current	Present and max		■	■
Active power	Present			■
	Max		■	■
Reactive and apparent power	Present and max			■
<b>Power quality measurements</b>				
Harmonic distortion	Current, voltage			■
<b>Display and I/O</b>				
LED display		■	■	■
Pulse output		■	■	■
Direct voltage connection (V AC)		400/690	400/690	400/690
<b>Communication</b>				
RS-485 port		■	■	■
ION compatibility		■	■	■
Modbus RTU protocol		■	■	■

See your Schneider Electric representative for complete ordering information.

# ION6200

## ION6200 feature selection

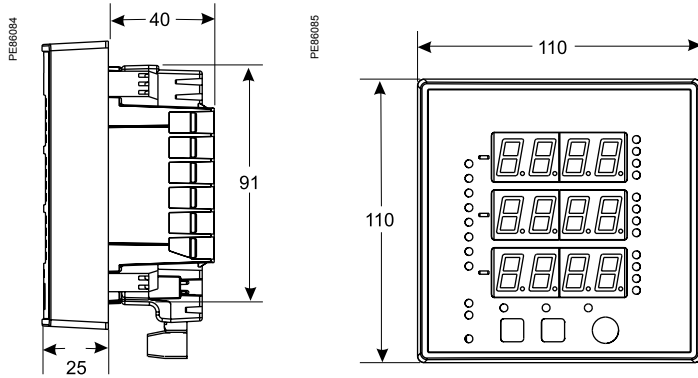
Electrical characteristics		
Type of measurement		True rms electrical parameters Up to 64 samples per cycle
Measurement accuracy	Current	≥5 % of full scale 0.3 % reading
		<5 % of full scale 0.3 % reading + 0.5 % full scale
		I4 derivation 0.6 % reading + 0.5 % full scale
	Voltage	L-N 0.3 % reading, L-L 0.5 % reading
	Power	IEC 60687 Class 0.5, ANSI 12.20 Class 0.5
	Frequency	0.1 % reading
	Power factor	1.0 % reading
	Energy	IEC 60687 Class 0.5, ANSI 12.20 Class 0.5
	Harmonic distortion	Total harmonic distortion + 1.0 %
Input-voltage characteristics	Measured voltage	60-400 L-N (103.5-690 L-L) V AC RMS (3 phase) 60-400 L-N V AC (single phase)
	Measurement range	60-400 LN V AC
	Impedance	2 MW /phase
	Inputs	V1, V2, V3, Vref
	Overload	1500 V AC RMS continuous
	Dielectric withstand	>3250 V AC RMS; 60 Hz for 1 minute
Input-current characteristics	Rated inputs	5 A nominal /10 A full scale RMS (+20% overrange with full accuracy, 300 V RMS to ground)
	Permissible overload	120 A RMS for 1 second, non-recurring
	Starting current	0.005 A RMS
	Burden	0.05 VA (typical) @ 5 A RMS
	Inputs	I1, I2, I3
	Dielectric withstand	3000 V RMS for 1 minute
Power supply	AC	Standard: 100-240 V AC, 50-60 Hz
	DC	Standard: 110-300 V DC, Low Voltage DC: 20-60 V DC
Inputs/outputs	Digital outputs	2 optically isolated digital outputs for KY pulsing or control Max forward current: 150 mA Max voltage: 200 V Max current: 150 mA
	RS-485 port	Optically isolated
Mechanical characteristics		
Weight		0.68 kg
IP degree of protection (IEC 60529)		Meter with display: front IP 65, back IP 30; Transducer unit (no integrated display): IP 30 Remote display unit: front IP 65; back IP 30
Dimensions		Basic unit installed depth: 106.7x106.7x40.6 mm Remote display: 106.7x106.7x22.9 mm
Environmental conditions		
Operating temperature		-20° C to 70° C ambient air
Storage temperature		-40° C to 85° C
Humidity rating		5 % to 95 % non-condensing
Pollution degree		2
Installation category		III (Distribution)
Electromagnetic compatibilty for industrial environments		

# ION6200

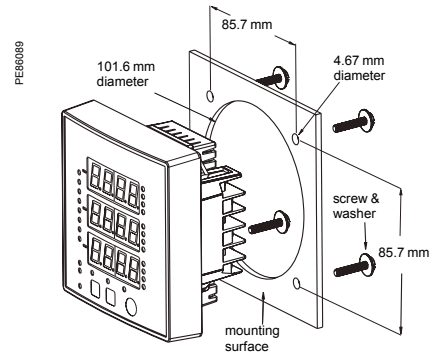
ION6200 feature selection		
<b>Electromagnetic compatibility</b>		
Electrostatic discharge		IEC 61000-4-2 (EN61000-4-2/IEC801-2)
Immunity to radiated fields		IEC 61000-4-3 (EN61000-4-3/IEC801-3)
Immunity to fast transients		IEC 61000-4-4 (EN61000-4-4/IEC801-4)
Surge immunity		IEC 61000-4-5 (EN61000-4-5/IEC801-5)
Conducted immunity		IEC 61000-4-6 (EN61000-4-6/IEC801-6)
Electromagnetic compatibility for industrial environments		IEC 61000-6-2
<b>Safety</b>		
Standards		cUL compliant to CSA C22.2 No. 1010-1
		IEC1010-1 (EN61010-1)
		UL 3111-1
<b>Communications</b>		
RS-485 port		Up to 19 200 bps, Modbus RTU, ION compatible protocol
<b>Display</b>		
Bright LED display		19 mm high digits
		Displays all basic power parameters
		Easy setup for common configuration parameters
		Password protection on setup parameters
		Password protection for demand reset
<b>Megawatt options</b>		
MegaWatt option on meter base with integrated display. Not available for RMICAN or RMICAN-sealed meters		MO
MegaWatt option on Transducer model with DIN rail mount, Remote Display and 4.2 m cable (RJ11, 6 conductor, 26 gauge). Not available with Security options RMICAN or RMICAN-SEAL.		N1
MegaWatt option on Transducer model with DIN rail mount, Remote Display and 2 m cable (RJ11, 6 conductor, 26 gauge). Not available with Security options RMICAN or RMICAN-SEAL.		N2
MegaWatt option on Transducer model with DIN rail mount, Remote Display and 9 m cable (RJ11, 6 conductor, 26 gauge). Not available with Security options RMICAN or RMICAN-SEAL.		N3
<b>Options card</b>		
1 Standard Measurements		Z0A0N
2 Enhanced Package #1		Z0A0P
3 Enhanced Package #2		Z0A0R
4 Standard Measurements, two pulse outputs		Z0B0N
5 Enhanced Package #1, two pulse outputs		Z0B0P
6 Enhanced Package #2, two pulse outputs		Z0B0R
7 Standard Measurements, RS-485		A0A0N
8 Enhanced Package #1, RS-485		A0A0P
9 Enhanced Package #2, RS-485		A0A0R
10 Standard Measurements, two pulse outputs, RS-485		A0B0N
11 Enhanced Package #1, two pulse outputs, RS-485		A0B0P
12 Enhanced Package #2, two pulse outputs, RS-485		A0B0R
<b>Remote modular display (RMD)</b>		
Model		M620D
Display type	Standard display	R
	For use with Transducer meter base with MegaWatt option	N
Cable length	No Cable	0
	4.2 m cable connecting RMD to Transducer meter base	1
	2 m cable connecting RMD to Transducer meter base	2
	9 m cable connecting RMD to Transducer meter base	3

ION6200 feature selection		
Part numbers		
Part	Code	Description
1 Model	M6200	A
2 Form factor	A0	Integrated display model
	R1	Transducer model with DIN rail mount, Remote Display and 4.2 m cable (RJ11, 6 conductor, 26 gauge)
	R2	Transducer model with DIN rail mount, Remote Display and 2 m cable (RJ11, 6 conductor, 26 gauge)
	R3	Transducer model DIN rail mount, Remote Display and 9 m cable (RJ11, 6 conductor, 26 gauge)
	T1	Transducer model with DIN rail mount (requires Comms or pulse outputs)
3 Current inputs	A	10 Amp current inputs (12 A max)
4 Voltage inputs	0	Autoranging (57-400 V AC L-N / 99-690 V AC L-L)
6 System frequency	0	Calibrated for use with 50 Hz or 60 Hz systems
7 Communications	Z0	No communications
	A0	Single RS-485 port (supports Modbus RTU protocol and ION-compatible PML protocol)
8 I/O	A	No I/O
	B	This option activates the two Form A digital outputs for kWh, kvarh energy pulsing
9 Security	0	No hardware lock (setup is password protected)
	2	RMANSI: Revenue Meter approved for use in the United States (ANSI C12.16 approved; meets ANSI C12.20 class 0.5 accuracy at 23° C; 10 A current inputs only)
	3	RMICAN: Measurement Canada approved revenue meter for use in Canada (10A current inputs only)
	4	RMICAN-SEAL: Factory-sealed and Measurement Canada approved revenue meter
10 Measurement package	N	Standard Measurements (Volts/Amps per phase and avg)
	P	Enhanced Package #1 (Standard Measurements plus Energy/Power total, Frequency, Power Factor total, Neutral Current)
	R	Enhanced Package #2 (all measurements)
Power supply	P620PB	Standard plug-in power supply (100-240 V AC / 50-60 Hz or 110-300 V DC)
	P620PC	Low voltage DC plug-in power supply (20-60 V DC)

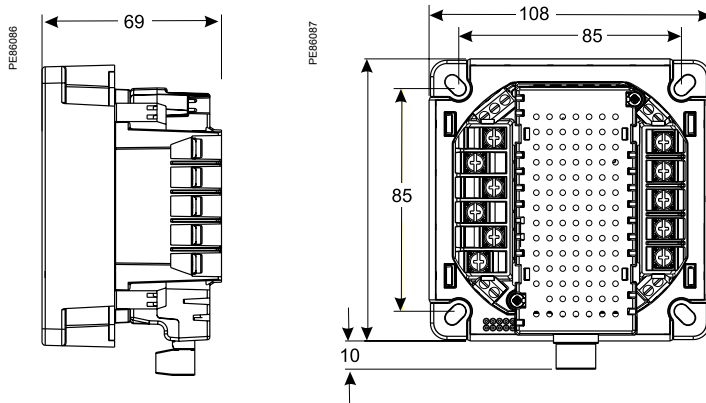
ION6200 integrated model dimensions



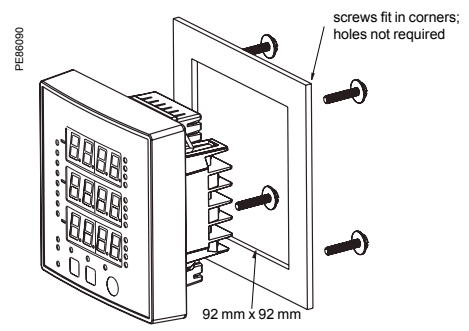
Mounting integrated model - ANSI 4" (4 1/2" Switchboard)



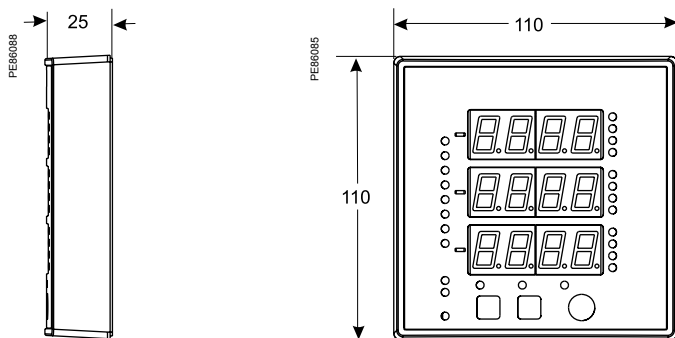
ION6200 TRAN model dimensions



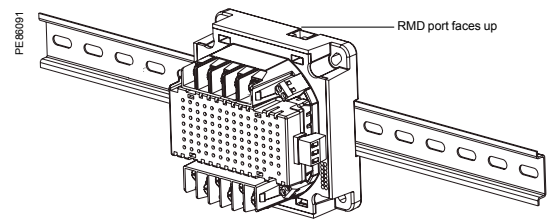
Mounting integrated model - DIN 96



ION6200 RMD dimensions



Mounting the TRAN model





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Product name  
**PLSED306008EN**

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

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06-2017

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