

# PowerLogic power-monitoring units

## iEM3000 Series

Technical data sheet



# Energy Meter Series iEM3000

## Functions and characteristics

PE108410

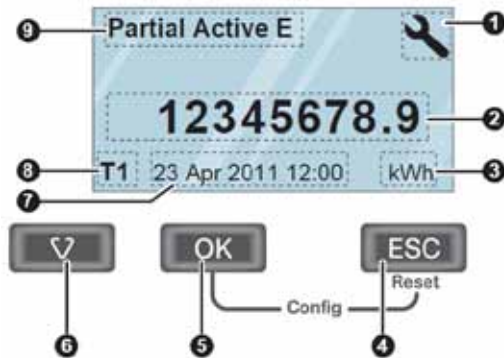


Energy Meter Series iEM3100

PE108432



Energy Meter Series iEM3255



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The PowerLogic Energy meter Series iEM3000 offers a cost-attractive, competitive range of DIN rail-mounted energy meters ideal for sub-billing and cost allocation applications.

Combined with communication systems, like Smart Link, the iEM3000 series make it easy to integrate electrical distribution measurements into customer's facility management systems. It's the right energy meter at the right price for the right job.

Two versions are available: 63A direct measure (iEM3100) and current transformers associated meter (iEM3200). For each range five versions are available to satisfy from basic to advanced applications:

- iEM3100/iEM3200: kWh meter with partial counter
- iEM3110/iEM3210: kWh meter with partial counter and pulse output. MID certified.
- iEM3115/iEM3215: a multi-tariff meter controlled by digital input or internal clock, MID certified.
- iEM3150/iEM3250: kWh meter with partial counter and current, voltage, power measurement. Modbus communication.
- iEM3155/iEM3255: energy meter, four quadrant, multi-tariffs with partial counter and current, voltage, power measurement. Modbus communication, digital input/output and MID certified.

Innovative design makes the meters smart and simple:

- Easy to install for panel builders
- Easy to commission for contractors and installers
- Easy to operate for end users

### Applications

#### Cost management applications

- Bill verification
- Sub-billing, including WAGES view
- Cost allocation, including WAGES view

#### Network management applications

- Basic electrical parameters like current, voltage and power
- Onboard overload alarm to avoid circuit overload and trip
- Easy integration with PLC systems by input/output interface

### Market segments

- Buildings & Industry
- Data centres and networks
- Infrastructure (airports, road tunnels, telecom)

### Characteristics

- Self-powered meters
- Chain measurement (meters + CTs) accuracy class 1
- Compliance with IEC 61557-12, IEC 62053-21/22, IEC 62053-23, EN50470-3
- Graphical display for easy viewing
- Easy wiring (without CTs) iEM3100 series
- Double fixation on DIN rail (horizontal or vertical)
- Anti-tamper security features ensure the integrity of your data

### Part numbers

Meter model and description	Current measurement	Part no.
iEM3100 basic energy meter	Direct connected 63 A	<b>A9MEM3100</b>
iEM3110 energy meter with pulse output	Direct connected 63 A	<b>A9MEM3110</b>
iEM3115 multi-tariff energy meter	Direct connected 63 A	<b>A9MEM3115</b>
iEM3150 energy meter & electrical parameter plus RS485 comm port	Direct connected 63 A	<b>A9MEM3150</b>
iEM3155 advanced multi-tariff energy meter & electrical parameter plus RS485 comm port	Direct connected 63 A	<b>A9MEM3155</b>
iEM3200 basic energy meter	Transformer connected 6 A	<b>A9MEM3200</b>
iEM3210 energy meter with pulse output	Transformer connected 6 A	<b>A9MEM3210</b>
iEM3215 multi-tariff energy meter	Transformer connected 6 A	<b>A9MEM3215</b>
iEM3250 energy meter & electrical parameter plus RS485 comm port	Transformer connected 6 A	<b>A9MEM3250</b>
iEM3255 advanced multi-tariff energy meter & electrical parameter plus RS485 comm port	Transformer connected 6 A	<b>A9MEM3255</b>

Function guide	iEM3100	iEM3110	iEM3115	iEM3150	iEM3155	iEM3200	iEM3210	iEM3215	iEM3250	iEM3255
Direct measurement (up to 63 A)	■	■	■	■	■					
CTs inputs (1 A, 5A)						■	■	■	■	■
VTs inputs									■	■
Active energy measurements	■	■	■	■	■	■	■	■	■	■
Four quadrant energy measurements					■					■
Electrical measurements (I, V, P, etc.)				■	■				■	■
Multi-tariff (internal clock)			4		4			4		4
Multi-tariff (external control)			4		2			4		2
Measurement display	■	■	■	■	■	■	■	■	■	■
Programmable inputs					1					1
Programmable digital outputs					1					1
Pulse output		■					■			
kW overload alarm					■					■
Modbus RS485				■	■				■	■
MID (legal metrology certification)		■	■		■		■	■		■
Width (18 mm module in DIN Rail mounting)	5	5	5	5	5	5	5	5	5	5

PE108410



Direct connected up to 63 A



CTs connected (1 A / 5 A)

### Connectivity advantages

Programmable digital input	External tariff control signal (4 tariffs) Remote Reset partial counter External status, e.g. breaker status Collect WAGES pulses
Programmable digital output	kWh overload alarm (iEM3155/iEM5255) kWh pulses
Graphic LCD display	Scroll energies Current, voltage, power, frequency, power factor
Communication	Modbus RS485 with plug-in screw terminals allows connection to a daisy chain
<b>Standards</b>	
IEC standards integrated display	IEC 61557-12, IEC 61036, IEC 61010, IEC 62053-21/22 Class 1 and Class 0.5S, IEC 62053-23
MID	EN 50470-1/3

### Multi-tariff capability

The iEM3000 range allows arrangement of kWh consumption in four different registers. This can be controlled by:

- Digital Inputs. Signal can be provided by PLC or utilities
- Internal clock programmable by HMI
- Through communication

This function allows users to:

- Make tenant metering for dual source applications to differentiate backup source or utility source
- Understand well the consumption during working time and non working time, and between working days and weekends
- Follow up feeders consumption in line with utility tariff rates









