

Kilowatt-hour meters

Energy Meter Series iEM3000 Functions and characteristics (cont.)

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



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 (i EM3155/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
Standards	
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

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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

Specification guide	iEM3100 Range				
	iEM3100	iEM3110	iEM3115	iEM3150	iEM3155
Current (max.) Direct connected	63 A				
Meter constant LED	500/kWh				
Pulse output		Up to 1000p/kWh			Up to 1000p/kWh
Multi-tariff			4 tariffs		4 tariffs
Communication				Modbus via RS485	Modbus via RS485
DI/DO		0/1	2/0		1/1
MID (EN50470-3)		■	■		■
Network	1P+N, 3P, 3P+N				
Accuracy class	Class 1 (IEC 62053-21 and IEC61557-12) Class B (EN50470-3)				
Wiring capacity	16 mm ²				
Display max.	LCD 99999999.9kWh				
Voltage (L-L)	3 x 100/173 Vac to 3 x 277/480 Vac (50/60 Hz)				
IP protection	IP40 front panel and IP20 casing				
Temperature	-25°C to 55°C (K55)				
Product size	10 steps of 9mm				
Overvoltage and measurement	Category III, Degree of pollution 2				
kWh	■	■	■	■	■
kVARh					■
Active power			■	■	■
Reactive power					■
Currents and voltages			■	■	■
Overload alarm					■
Hour counter					■

Specification guide	iEM3200 Range						
	iEM3200	iEM3210	iEM3215	iEM3250	iEM3255		
1 A / 5 A CTs (max current)	6 A						
Meter constant LED	5000/kWh						
Pulse output frequency		Up to 100p/kWh			Up to 100p/kWh		
Multi-tariff			4 tariffs		4 tariffs		
Communication				Modbus via RS485	Modbus via RS485		
DI/DO		0/1	2/0		1/1		
MID (EN50470-3)		■	■		■		
Network	1P+N, 3P, 3P+N support CTs			1P+N, 3P, 3P+N support CTs & VTs			
Accuracy class	Class 0.5S (IEC 62053-22 and IEC61557-12) Class C (EN50470-3) ⁽¹⁾						
Wiring capacity	6 mm ² for currents and 4 mm ² for voltages						
Display max.	LCD 99999999.9kWh or 99999999.9MWh						
Voltage (L-L)	3 x 100/173 Vac to 3 x 277/480 Vac (50/60 Hz)						
IP protection	IP40 front panel and IP20 casing						
Temperature	-25°C to 55°C (K55)						
Product size	10 steps of 9mm						
Overvoltage & measurement	Category III, Degree of pollution 2						
kWh	■	■	■	■	■		
kVARh					■		
Active power			■	■	■		
Reactive power					■		
Currents and voltages			■	■	■		
Overload alarm					■		
Hour counter					■		
(1) For 1 A CTs Class 1 (IEC62053-21 and IEC61557-12 Class B (EN50470-3)							