Energy metering integration made simple

Acti 9 energy meters
iEM 2000 series
iEM 3000 series

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Meet your customers' expectations with the right meter

Cost-attractive, feature-rich, Acti 9™ energy meters are perfect for helping your customers' installations become more energy efficient. Native, multi-protocol support (Modbus, LON, M-bus, BACnet) ensures seamless integration with your customers' existing networks, to bring simple energy management applications to any building.

Their efficient design will also reduce your installation and commissioning costs. Having compatibility with low-voltage and Rogowski coil current transformers, iEM3000 series meters provide a simple retrofit solution for upgrading small panels as well as large bus bars in switchgear, motor control centers, and other low-voltage distribution equipment. Whether you require a simple kWh meter for energy awareness, an MID-compliant meter for billing purposes, or a full-featured, multitariff energy meter for more advanced energy programs, there is an Acti 9 meter that is the best fit for your panel and your customer's application

Accurate information

- Accuracy class 1.0 and 0.5S (IEC 62053- 21/22) for active energy metering
- Compliance to regulations EN50470-1/3, IEC 61557-12, IEC 62053-21/22, IEC 62053-23

Data integrity

- Antitamper sealing parts prohibit accessibility to all metering connections (voltage, current, DI/DO)
- Save date/time of last reset to verify start of measurement campaigns and know if clock was altered

Robust design

- Two clips for the DIN rail offer greater stability, and allow installation vertically or in high-vibration environments
- Well protected for normal use: IP40 on front face (up to IP51 on select meters), IP20 inside cabinet

100%
Compatible with the Acti9 range.

+
MID certified for billing applications.

100%
Extensive protocol support with Modbus, M-bus, BACnet, LON.

Simple & smart

A complete range for all of your projects

- Single-phase and three-phase models
- Multiple protocols: Modbus, BACnet, LON, M-Bus
- Multiple current sensor connection options: Direct, 1A/5A CT, 0.333V/1.0V CT, and Rogowski coil
- MID compliant
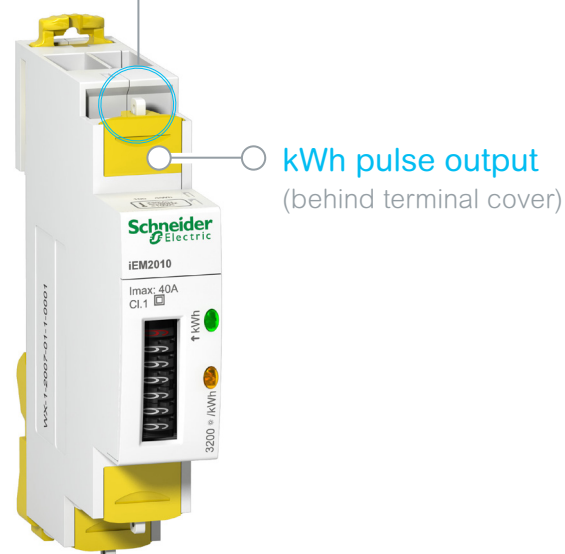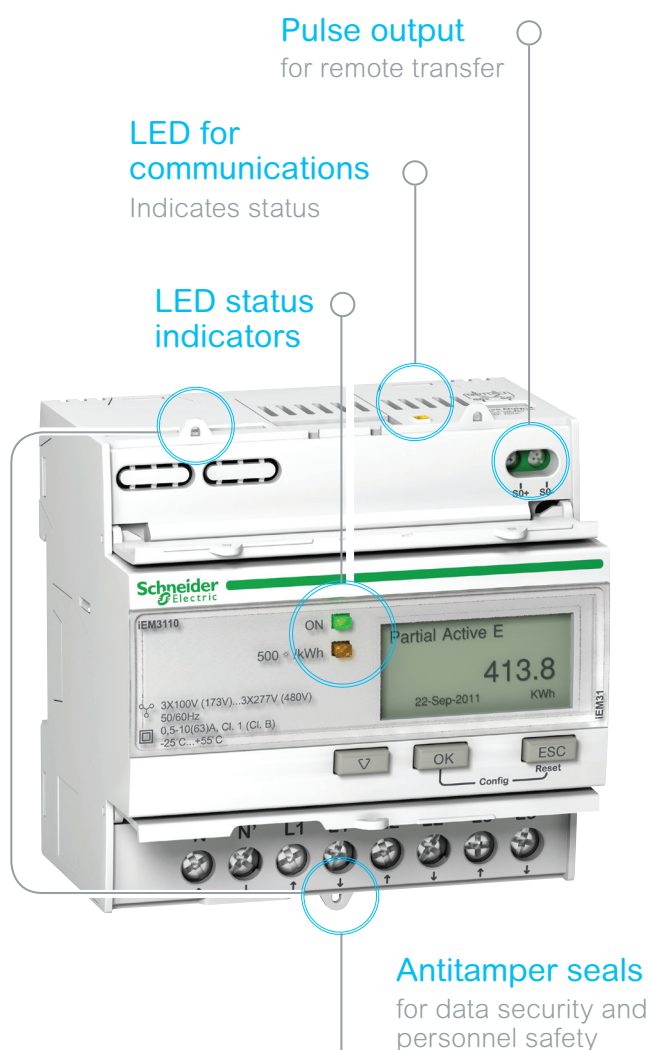
Save installation time, costs, and space

- Bottom-to-bottom, direct connection with three ratings available: 40 A (iEM2000 models), 45 A (iEM2050 and iEM2055), 63 A (iEM2100 and iEM3100 models) and 125 A (iEM3300 models)
- 1A/5A CTs for iEM3200 models
- Separation of power (bottom) and communication (top) connections reduces risk of wiring mistakes
- LVCT and Rogowski coil models eliminate need for CT shorting blocks, reducing the number of components and the number of wire terminations needed, saving time and labor cost (iEM3400 and iEM3500 models)

Commission safely with ease

- Front flaps prevent contact with current and voltage inputs after installation
- LEDs indicate meter power and communications
- LVCTs and Rogowski coils increase safety since no current comes from the sensors

Use with confidence

- Graphic display makes it easy to accurately read the descriptions of displayed values
- Easy navigation for setup and meter reading

Pulse output
for remote transfer

LED for communications
Indicates status

LED status indicators

Antitamper seals
for data security and personnel safety

kWh pulse output
(behind terminal cover)

More than just kWH

Programmable digital output
for alarm or kWh pulse

Digital inputs
for WAGES counting, tariff control, or external status

Pluggable communication port
M-bus, Modbus, BACnet, or LON protocol

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IEM3255

ON

5000 ⚬ /kWh

Active E Import

110489.2

kWh

3X100V (173V)...3X277V (480V)
50/60Hz
0.05-5(6)A, Cl. 0.5S (Cl. C)
-25°C...+55°C

V ⎵ OK ⎵ ESC Reset
Config

V1 V2 V3 Vn S1 S2 S1 S2 S1

Graphic display
for ease of reading

Communication port
Modbus or M-bus protocol

Digital input
for switching between tariffs

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IEM2155

230V~ 50Hz 3VA
0.25-5(60)A, Cl. B (Cl. 1)

1000 e/kWh

Config Reset

V OK ESC

Measurement parameters

- Total and partial kWh to discover consumption behavior
- Four-quadrant metering to differentiate energy consumption
- Target green technologies (delivered/received)
- Reduce utility penalties (active/reactive)
- Additional parameters (P, Q, S, 3xI, V, PF, F) to monitor network balance and overload behavior

Multiple tariffs

- Save up to four different time slots to manage multiple tariffs (peak/off-peak, workday/weekend)
- Control tariffs via digital inputs, internal clock, or communication

Digital inputs

- Use the meter as a pulse counter for another meter (WAGES monitoring)
- Manage double-source applications (e.g., utility main plus and on-site generator)
- Monitor circuit breaker status or cabinet door opening

Smart alarm

- kW overload alarm helps prevent utility demand charges

Function	Acti 9 iEM2000 series single-phase meters										
	iEM2000T	iEM2000	iEM2010	iEM2050*	iEM2055*	iEM2100	iEM2105	iEM2110	iEM2135	iEM2150	iEM2155
Width (18 mm modules, DIN rail housing)	1	1	1	1 x 17.5mm	1 x 17.5mm	2	2	2	2	2	2
Direct Measurement (up to 40 A or 45 A or 63 A)	40 A	40 A	40 A	45 A	45 A	63 A	63 A	63 A	63 A	63 A	63 A
Active Energy measurements class (Total and partial kWh)	1	1	1	1	1	1	1	1	1	1	1
Four-quadrant Energy measurements				y	y				y	y	y
Display	None	Mechanical	Mechanical	LCD	LCD	LCD	LCD	LCD	LCD	LCD	LCD
Current, Voltage, Power, Power Factor, Frequency				y	y			y	y	y	y
Multi-tariff (external control)				2	2			2	2		2
Protocol				Modbus	Modbus				M-Bus	Modbus	Modbus
MID		y	y		y			y	y		y
Digital inputs — tariff control only								1	1		1
Digital outputs — kWh/kvarh pulsing only			1 x kWh	1 x kWh	1 x kWh		1 x kWh		1 x kWh, 1 x kvarh		

*NEW offer !

Acti 9 energy meters are 100% compatible with the Acti 9 system

Smart Link

iC60N

iEM3310

iC60H

iEM2010

Acti 9 energy meters are fully compatible with the Acti 9 modular system, gathering device status and energy consumption data so that your customers can effectively manage the behavior of their electrical distribution system.

Function	iEM3100 iEM3200 iEM3300	iEM3110 iEM3210 iEM3310	iEM3115 iEM3215	iEM3135 iEM3235 iEM3335	iEM3150 iEM3250 iEM3350	iEM3155 iEM3255 iEM3355	iEM3165 iEM3265 iEM3365	iEM3175 iEM3275 iEM3375
	Acti 9 iEM3000 series three-phase meters							
Width (18 mm modules, DIN rail housing)	5 / 5 / 7		5 / 5	5 / 5 / 7				
Direct Measurement (up to 63 A or 125 A)	63 A / - / 125A		63 A / -	63 A / - / 125A				
Measurement inputs through CTs (1A, 5A)	- / y / -		- / y	- / y / -				
LVCT support						iEM3455	iEM3465	
Rogowski coil support						iEM3555	iEM3565	
Active Energy measurements class (Total and partial kWh)	1 / 0.5S / 1		1 / 0.5S	1 / 0.5S / 1				
Four-quadrant Energy measurements				y		y	y	y
Multitariff (internal clock)			4	4		4	4	4
Multitariff (external control)			4	2		2	2	2
Protocol				M-Bus	Modbus	Modbus	BACnet	LON
MID		y	y	y		y	y	y
Digital inputs								
Prog = Tariff control or WAGES input; Tariff = Tariff control only			2 x tariff	1 x prog		1 x prog	1 x prog	1 x prog
Digital outputs								
Prog = kWh pulse or kW alarm; kWh = kWh pulse only	1 x kWh			1 x prog		1 x prog	1 x prog	1 x prog

How to read table: If a cell contains a single value, that value applies to all meter models identified in the header cell(s). For cells with multiple values, the values correspond from left to right with the meter models listed from top to bottom for each associated header cell. For example, a cell with "A / B / C" means A for iEM31xx models, B for iEM32xx models, and C for iEM33xx models.

Low-voltage and Rogowski coil current transformers help simplify system upgrades

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To find out more about energy metering integration,
go to: schneider-electric.com

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