PowerLogic™ EM4800 series Technical Datasheet

The compact PowerLogic™ EM4800 series multi-circuit energy meter from Schneider Electric enables reliable metering of individual tenants with a low installation cost-per-point by combining revenue-accurate electricity sub-metering with advanced communications technology.The ideal fit for high-end cost management applications, providing the measurement capabilities needed to allocate energy usage, perform tenant metering and sub-billing, pin-point energy savings, optimise equipment efficiency and utilisation, and perform a high level assessment of the power quality in an electrical network.

Applications

Capable of essential cost management:

- Multi-tenant metering
- Energy management
- Energy cost allocation
- Utility bill verification

PE86325

METSEEM480525

The solution for

Markets that can benefit from a solution that includes PowerLogic™ EM4800 series meters:

- Buildings
- Industry
- Healthcare
- Data Centre and networks
- Infrastructure

Benefits

System integrators' benefit

- Ease of integration
- Ease of setup
- Cost effectiveness

Panel builders' benefit

- Ease of installation
- Cost effectiveness
- Aesthetically pleasing
- Simplified ordering

End users' benefit

- Ease of use
- Precision metering & sub-billing
- Billing flexibility
- Comprehensive, consistent and superior performance

Competitive advantages

- Compact, maintenance-free design
- Hi-density, flexible connection
- Direct connection
- Multiple CT types
- No rewiring required
- Integrated communications

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

- IEC61557-12
- IEC62053-22
- IEC62053-24
- IEC 61010-1
- IEC 61000-4-2
- IEC 61000-4-3
- IEC 61000-4-4
- IEC 61000-4-5
- IEC 61000-4-6
- IEC 61000-4-8

EM4800 series

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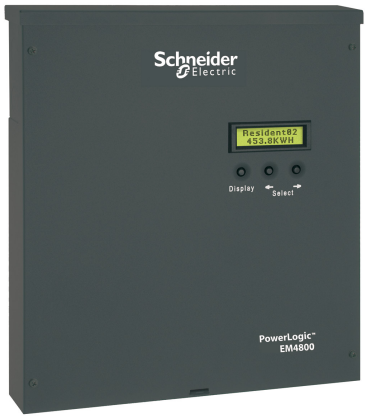

EM4800 series multi-circuit energy meter front (above), installed in panel (below)

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The compact PowerLogic™ EM4800 series multi-circuit energy meter from Schneider Electric enables reliable metering of individual tenants with a low installation cost-per-point by combining revenue-accurate electricity sub-metering with advanced communications technology.

The EM4800 is ideal for multi-tenant or departmental metering applications within office towers, condominiums, apartment buildings, shopping centres and other multi-user environments.

The PowerLogic™ EM4800 series meters monitor up to 24 tenants with a single device. Multiple meters can be combined to support an unlimited number of suites.

- Three meter models offer a choice of CT secondary ratings and installation options:
  - PowerLogic™ EM4805: 5 A, split or solid core CTs
  - PowerLogic™ EM4833: 0.333 V, split or solid core CTs
  - PowerLogic™ EM4880: 80 mA, solid core CTs
- Main characteristics
  - Compact, maintenance-free design
    - Requires no floor space.
- Hi-density, flexible connection
  - From single-pole to single- or three-phase metering, supports up to 24 circuits. Select the connection type using an intuitive configuration tool.
- Direct connection
  - For 100 - 300 V AC L-N electrical distribution systems:
    - 120/240 V, 120/208 V, 230/240 V, 220/380 V, 240/415 V, 277/480 V
- Multiple CT types
  - Support a variety of needs in both new and retrofit installations.
    - 1/3 V output CT option does not require shorting blocks, making it the ideal choice for retrofit installations.
- No rewiring required
  - Use existing wiring to connect to existing panels.
- Integrated communications
  - Onboard Ethernet and modem allows for easy integration into existing communications networks.

Feature selections

Commercial ref. no.	Model	Description
METSEEM480525	EM4805	24 x 5 A inputs, 230/240 V control power, 50 Hz
METSEEM480516		24 x 5 A inputs, 120 V control power, 60 Hz
METSEEM483325	EM4833	24 x 333 mV inputs, 230/240 V control power, 50 Hz
METSEEM483316		24 x 333 mV inputs, 120 V control power, 60 Hz
METSEEM488016	EM4880	24 x 80 mA inputs, 120 V control power, 60 Hz
METSEEM488025		24 x 80 mA inputs, 230/240 V control power, 50 Hz

EM4800 series

Selection guide

General		EM4805	EM4833	EM4880
Use on LV systems		■	■	■
Accuracy	+/- 0.5 %	■	■	■
Accuracy compliance	ANSI C12.1 and C12.20 Class 0.5; IEC 62053-22, Class 0.5S	■	■	■
Maximum circuits: single-pole / single phase / three-phase	24 / 12 / 8	■	■	■
Instantaneous rms values				
Energy	Real, kWh received/delivered	■	■	■
	Reactive, kvarh received/ delivered	■	■	■
	Apparent, VAh	■	■	■
Voltage		■	■	■
Pulse counts		■	■	■
Voltage and current	V rms, I rms per phase	■	■	■
Power	Real, reactive, apparent	■	■	■
Power factor		■	■	■
Measurements available for data logging				
Energy	Real, kWh received/delivered	■	■	■
	Reactive, kvarh received/ delivered	■	■	■
	Apparent, VAh	■	■	■
Voltage		■	■	■
Display				
Backlit LCD display	2 lines of 16 characters	■	■	■
Optional remote modular display available		■	■	■
Communication				
Ethernet port		■	■	■
V.90 modem port		■	■	■
Pulse inputs	2	■	■	■
Protocols: Modbus TCP/IP, HTTP, BACnet/IP, FTP, and SNTP		■	■	■
Installation options				
5 A CTs		■		
0.333 V CTs			■	
80 mA CTs				■
Split-core CT		■	■	
Solid core CT		■	■	■
Remote modular display		■	■	■

EM4800 series

Electrical characteristics		
Input-voltage characteristics	Inputs	V1, V2, V3, Vn
	Measured voltage	80 - 480 V AC L-L without PTs Up to 999 kV with external PTs
	Frequency range	50/60 Hz
Mechanical characteristics		
Weight	EM4805	approx. 5.4 kg
	EM4833/EM4880	approx. 4.0 kg
Dimensions	EM4805	335 x 44 x 55 mm
	EM4833 / EM4880	335 x 305 x 55 mm
Environmental conditions		
Operating temperature		-40 °C to 70 °C
Storage temperature		-40 °C to 70 °C
Humidity rating		0 % to 90 % RH non-condensing
Enclosure		Type 1 (indoor or enclosed outdoor use)
Altitude		3000 m
Pollution degree		2
Safety and standards		
UL Certified to IEC/EA/CSA 61010-1		
CSA-C22.2 No 61010-1-04		
FCC Part 15 Class B		
ICES-003 EN55022, IEC 6100-4-5		
ANSI/TIA968-A: 2002		
Communication		
Ports		Ethernet
		V.90 modem
Pulse inputs		2
Protocols		Modbus TCP/IP, HTTP, BACnet/IP, FTP, and SNTP
Display characteristics		
Integrated backlit LCD display		2 ines, 16 digits per line display; R / L arrow buttons select metering point; Display button cycles through measurements per point.

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Schneider Electric Industries SAS
35, Rue Joseph Monier
CS 30323
92506 Rueil Malmaison Cedex

RCS Nanterre 954 503 439
Capital social 928 298 512 €
www.se.com

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

Over 75 % of Schneider Electric products have been awarded the Green Premium ecolabel.

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