

PowerLogic power-monitoring units

EM4800 series multi-circuit energy meters

Technical data sheet



EM4800 series

Functions and characteristics

PE86325



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

PE86326



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

Applications

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

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.

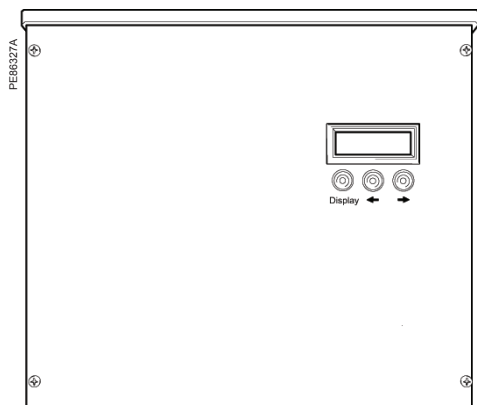
No rewiring required
Use existing wiring to connect to existing panels.

Integrated communications
Onboard Ethernet and modem allows for easy integration into existing communications networks.

Model	Description	Part number
EM4805	24 x 5 A inputs, 230/240 V control power, 50 Hz	METSEEM480525
	24 x 5 A inputs, 120 V control power, 60 Hz	METSEEM480516
EM4833	24 x 333 mV inputs, 230/240 V control power, 50 Hz	METSEEM483325
	24 x 333 mV inputs, 120 V control power, 60 Hz	METSEEM483316
EM4880	24 x 80 mA inputs, 120 V control power, 60 Hz	METSEEM488016

EM4800 series

Functions and characteristics (cont.)



PowerLogic EM4800 series digital panel meter.

Selection guide		EM4805	EM4833	EM4880
General				
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 ACTs		■		
0.333 V CTs			■	
80 mA CTs				■
Split core CT		■	■	
Solid core CT		■	■	■
Remote modular display		■	■	■

EM4800 series

Functions and characteristics (cont.)

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	33.5 cm x 44 cm x 5.5 cm (13.125 in x 17 in x 2.125 in)
	EM4833 / EM4880	33.5 cm x 30.5 cm x 5.5 cm (13.125 in x 12 in x 2.125 in)
Environmental conditions		
Operating temperature		-40°C to +70°C (-40°F to +158°F)
Storage temperature		-40°C to +70°C (-40°F to +158°F)
Humidity rating		0% to 90 % RH non-condensing
Enclosure		Type 1 (indoor or enclosed outdoor use)
Altitude		3000 m (9843 ft)
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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