

Looking for accurate electric energy metering and simple, easy installation?

PowerLogic[®] Energy Meter

for submetering applications



Applications

- Tenant Submetering
- Cost Allocation
- Performance Contracting
- Real Time Power Monitoring
- LEED Certification
- EPACT 2005 Compliance
- Demand Response



Make the most of your EnergySM



by Schneider Electric

Schneider
Electric

Features and Benefits

High-resolution back-lit liquid crystal display — Provides clear data readings from a distance under any lighting conditions.

True reading display — No multipliers are required for data readings. The true reading is what you see in the display.

High accuracy — ±1% systems accuracy from 2% to 100% of the CT rating meets ANSI C12.1 metering accuracy standards.

kW demand metering — The optional EMCB also provides kW demand monitoring in the Energy Meter. The user can set the demand interval from five minutes to one hour to accurately measure kW demand.

Simple, fast installation — Factory assembled split-core CTs greatly reduce installation time. The meter automatically corrects for phase reversal, eliminating concern with CT load orientation. To simplify installation further, CTs and voltage terminals are color coded, making it easy to determine the correct phase matching.

Easy integration to PowerLogic or Control/Data Acquisition Systems — Extended models have pulse output contacts, selectable from 1/10 to 1 kWh per pulse, for easy integration to existing control systems.

Automatic meter reading — The optional Energy Meter Communications Board (EMCB) provides serial Modbus® RS-485 RTU communications for connecting the Energy Meter to a remote monitoring system. With the addition of the EMCB, the Energy Meter can be used with PowerLogic software for electrical cost allocation and billing of submetered electrical systems.

Technical Specifications

LCD display	Physical 1.2" x 3.8" inch viewing area, 160 segments, back lit with green LEDs
Electrical services	Single and three phase plus neutral
CT case isolation	600 Vac
Sample rate	1280 Hz
Internal isolation	2500 Vac
Operating temperature range	0 to 50°C (<95% RH, non-condensing)
Storage temperature range	-40 to 70°C
Systems accuracy	±1% of reading from 2% to 100% of the rated current of the CTs
Meter/CT distance	20 feet (5 meters) maximum
Frequency	50/60 Hz

Basic 120/240 Volt, 208Y/120V Volt Wye

Power source	Line powered 120 Vac, line-to-neutral
Voltage tolerance	-25/+10% (90–132 Vac)
Services	120/240 Vac with neutral, 208Y/120 Vac with neutral

Extended Range 120 /240V to 480Y/277V (4 wire) Wye

Power source	Line powered 120-277 Vac (line-to-neutral)
Voltage tolerance	-25/+10% (90 Vac line-to-neutral to 300 Vac (line-to-line))
Services	102W, 103W and 304W up to 480Y/277V
Pulse output	N.O., Opto-FET, 100 mA at 24 Vac/dc
Pulse rate	0.10, 0.25, 0.50, or 1.00 kWh per pulse
Phase loss alarm output	N.C. Opto-FET, 100 mA at 24 Vac/dc Fixed threshold 25% below any other phase. Always open as long as alarm persists.

Split Core CTs

Included, quantity dependent upon model selected. Available CT ranges: 100A, 200A, 300A, 400A, 800A, 1600A

Communications Board, EMCB Modbus Communications

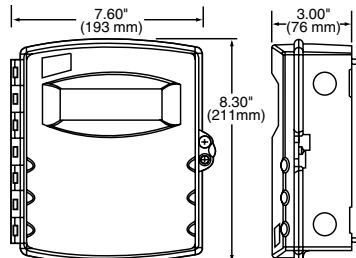
Output type	Modbus RTU
Connection	2-wire or 4-wire selectable
Baud rate	2400, 4800, 9600, 19200 Baud
Parity	None/Odd/Even selectable
Address	1–63

Display

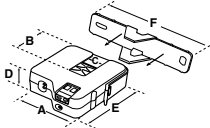
Energy, kWh,	Real Power, kW total
Real Power, kW, per phase	Reactive power, kVAR total
Reactive power, kVAR	Power factor total
Power factor, per phase	Voltage, V average
Max Power, kW max	Current, A average
Voltage, V, per phase	Demand, kWd
Current, A, phase	

Agency Compliance

UL, CUL



CT Dimensions



Size 0

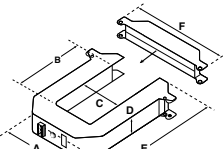
A =	2.15" (55 mm)
B =	1.28" (33 mm)
C =	.518" (13 mm)
D =	.915" (23 mm)
E =	2.34" (60 mm)
F =	3.52" (90 mm)

Size 1

A =	2.58" (81 mm)
B =	1.10" (48 mm)
C =	.75" (23 mm)
D =	1.04" (26 mm)
E =	2.90" (74 mm)
F =	3.52" (90 mm)

Size 2

A =	3.75" (95 mm)
B =	1.51" (38 mm)
C =	1.25" (32 mm)
D =	1.13" (29 mm)
E =	4.20" (106 mm)
F =	4.75" (121 mm)



Size 3

A =	4.90" (124 mm)
B =	2.89" (73 mm)
C =	2.45" (62 mm)
D =	1.13" (29 mm)
E =	5.57" (141 mm)
F =	5.91" (150 mm)

Size 4

A =	4.90" (124 mm)
B =	5.50" (140 mm)
C =	2.45" (62 mm)
D =	1.13" (29 mm)
E =	8.13" (207 mm)
F =	5.92" (150 mm)

Ordering Information

Basic 120/240 Volt 208Y/120V

Catalog #	Description
EMB1010	Basic 100A, .518" x 1.28" ID, 1 CT
EMB1021	Basic 200A, .75" x 1.10" ID, 1 CT
EMB1032	Basic 300A, 1.25" x 1.51" ID, 1 CT
EMB2010	Basic 100A, .518" x 1.28" ID, 2 CTs
EMB2021	Basic 200A, .75" x 1.10" ID, 2 CTs
EMB2032	Basic 300A, 1.25" x 1.51" ID, 2 CTs
EMB2043	Basic 400A, 2.45" x 2.89" ID, 2 CTs
EMB2083	Basic 800A, 2.45" x 2.89" ID, 2 CTs
EMB3010	Basic 100A, .518" x 1.28" ID, 3 CTs
EMB3021	Basic 200A, .75" x 1.10" ID, 3 CTs
EMB3032	Basic 300A, 1.25" x 1.51" ID, 3 CTs
EMB3043	Basic 400A, 2.45" x 2.89" ID, 3 CTs
EMB3083	Basic 800A, 2.45" x 2.89" ID, 3 CTs
EMB3084	Basic 800A, 2.45" x 5.50" ID, 3 CTs
EMB3164	Basic 1600A, 2.45" x 5.50" ID, 3 CTs

Extended Range 120/240 Volt to 480Y/277V (4 wire)

Catalog #	Description
EME1010	Extended Range 100A, .518" x 1.28" ID, 1 CT
EME1021	Extended Range 200A, .75" x 1.10" ID, 1 CT
EME1032	Extended Range 300A, 1.25" x 1.51" ID, 1 CT
EME2010	Extended Range 100A, .518" x 1.28" ID, 2 CTs
EME2021	Extended Range 200A, .75" x 1.10" ID, 2 CTs
EME2032	Extended Range 300A, 1.25" x 1.51" ID, 2 CTs
EME2043	Extended Range 400A, 2.45" x 2.89" ID, 2 CTs
EME2083	Extended Range 800A, 2.45" x 2.89" ID, 2 CTs
EME3010	Extended Range 100A, .518" x 1.28" ID, 3 CTs
EME3021	Extended Range 200A, .75" x 1.10" ID, 3 CTs
EME3032	Extended Range 300A, 1.25" x 1.51" ID, 3 CTs
EME3043	Extended Range 400A, 2.45" x 2.89" ID, 3 CTs
EME3083	Extended Range 800A, 2.45" x 2.89" ID, 3 CTs
EME3084	Extended Range 800A, 2.45" x 5.50" ID, 3 CTs
EME3164	Extended Range 1600A, 2.45" x 5.50" ID, 3 CTs

Energy Meter Accessories

Catalog #	Description
EMCB	Energy Meter Communication Board
EMFP1	Energy Meter Fuse Pack, Set of 1
EMFP2	Energy Meter Fuse Pack, Set of 2
EMFP3	Energy Meter Fuse Pack, Set of 3
EMBOND	Energy Meter Bonding Kit

Additional CT Sets

Catalog #	Description
EMCT010	100A, .518" x 1.28" ID, 1 CT
EMCT021	200A, .75" x 1.10" ID, 1 CT
EMCT032	300A, 1.25" x 1.51" ID, 1 CT
EMCT043	400A, 2.45" x 2.89" ID, 1 CT
EMCT083	800A, 2.45" x 2.89" ID, 1 CT
EMCT084	800A, 2.45" x 5.50" ID, 1 CT
EMCT164	1600A, 2.45" x 5.50" ID, 1 CT