

New Information

Power Manager™

(Part of the Advanced Power System™)

A Low Cost, Multipoint Monitor and Control Module

Power Manager is an electronic submetering and control device that can be mounted inside Advanced Power Centers, switchboards or panelboards.

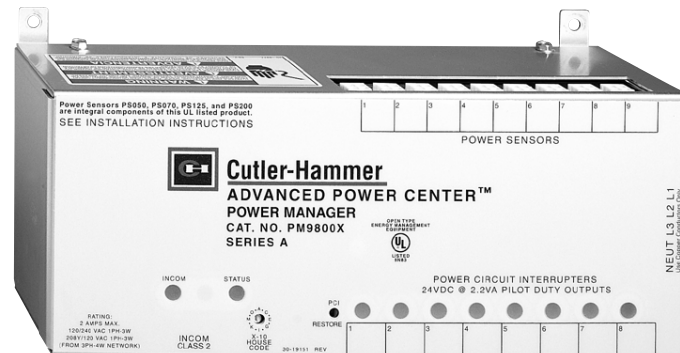
■ General Applications

- Submetering, monitoring, and cost allocation of individual tenants or branch circuits electric power consumption.
- Energy monitoring of individual machinery or processes.
- Low cost load control.
- Circuit breaker load control.

■ Power Sensors and Power Circuit Interrupters

- Power Sensors monitor energy consumption at the incoming line and on selected branch circuits, providing high accuracy metering for various size loads. Power Manager's low cost per metering point makes it an ideal choice for submetering and subbilling. Power Manager has nine sensor points, configurable for 120V and 240V single-phase loads or for 208V three-phase, four-wire loads.
- Power Circuit Interrupters are remote controlled branch circuit breakers, available for controlling loads up to 60 amperes. Breaker control is compatible with style CHxxxPMPCI, CHQxxxPMPCI, or CLxxxPMPCI up to 60 amperes and classified breakers for 120V and 240V AC loads. They are available in 1- and 2-pole styles and are UL listed or UL classified to fit most loadcenters.

Power Managers, Power Sensors, and Power Circuit Interrupters are UL listed as Class I devices.



■ Important Features

- Multipoint electrical usage metering.
- Multipoint loadcenter-based control.
- Networkable.
- Meter control configurations.
- Monitors 120V and 120/240V single-phase, and 120/208V three-phase Y loads.
- Controls up to eight 1-pole and 2-pole Power Circuit Interrupters.
- Monitors power in watts and energy in watthours from up to nine Power Sensors.
- Meets rigid ANSI C12.16 accuracy specification for revenue meters.
- Faceplate LEDs provide status of Power Circuit Interrupters, INCOM communications, and the Power Manager.

■ Communications Capabilities

- These capabilities provide for powerful monitoring and controlling functions to be integrated into both new and retrofit applications.
- RS 232 wired communications.
 - INCOM wired communications.
 - X-10® power line carrier for load control applications.
 - CEBus® power line carrier.

■ PowerNet™ Compatibility

- Power Manager is fully compatible with the Cutler-Hammer PowerNet software platform.
- The Power Manager can be utilized as part of an electricity monitor/control and billing system.
- Power Manager is compatible with third party software platforms and interface devices.

■ Easy to Install

- Mounted inside an Advanced Power Center (used in place of a conventional loadcenter).
- Snap-fit electrical connectors for Power Sensor, load control, and INCOM cables.

■ Installation Options

- Can be mounted in panelboards, switchboards, or other UL listed equipment.
- For retrofitting applications, Power Manager can be mounted in an external auxiliary enclosure.

■ Meets All Standards

- Underwriters Laboratories Inc. listed under UL 8N83.
- Complies with UL 991 radiated susceptibility requirements.
- Third party tested for ANSI C12.16 accuracy.
- Complies with FCC emission standard Part 15, Subpart B.

Specifications

■ **Voltages**

- 120V Single-Phase
- 120V/240V Single-Phase
- 120V/208V Three-Phase Y

■ **Current Ranges (CTs)**

- 0-50 Amperes
- 0-70 Amperes
- 0-125 Amperes
- 0-200 Amperes
- 0-400 Amperes

■ **Metering Accuracy**

- < 2% error at 1% of full scale
- < 1% error at 1.5% of full scale
- < 1% error at 90% and 110% of rated voltage
- < 1% error at 57 and 63 Hz
- < 2% error at .5 lagging PF

■ **Environmental**

Operating Temperature -20°C to 50°C

■ **Humidity**

0% to 95%

■ **Power**

120V

■ **Frequency Range**

57 to 63 Hz

■ **EMC**

- Compliant with FCC rules and regulations, Part 15, Subpart B, Class B equipment.
- Compliant with UL 991 radiated susceptibility requirements.

■ **Communications**

INCOM communication network supports up to 1,000 devices up to distances of 10,000 feet

■ **Communications Speed**

- INCOM: 1200, 9600 bps
- RS 232: 9600 bps

■ **Storage**

Rollover occurs at:

- 50A sensor: 13, 421, 772 kWh
- 70A sensor: 18, 790, 481 kWh
- 125A sensor: 33, 554, 432 kWh
- 200A sensor: 55, 687, 091 kWh
- 400A sensor: 107, 374, 182 kWh

Power Manager Version PM9800R - RS 232

Converts a network of Cutler-Hammer PowerNet devices to ASCII RS 232 format for access through a serial port of a personal computer, laptop, modem, or Programmable Logic Controller.

Ordering Information

Power Managers, Power Sensors, and Power Circuit Interrupters can be ordered directly from Cutler-Hammer distributors. Use catalog numbers when ordering.

Power Sensors - 120/240V AC

Ampere Rating	Diameter	Catalog Number
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Branch Circuit with 48" Lead

0 to 125	.545	PS125
0 to 200	1.130	PS200
0 to 400	1.500	PS400

Branch Circuit with 36" Lead

0 to 50	.315	PS050
0 to 70	.545	PS070

3 Foot Extension Lead	PSEXT03
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Power Circuit Interrupters – Type CH

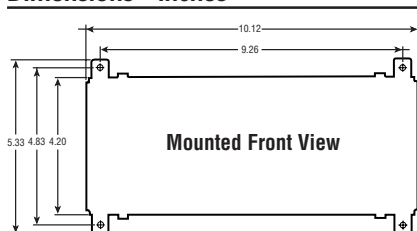
Type CH, Rated 10 kAIC for Installation in Cutler-Hammer Type Loadcenters

Ampere Rating	120/240V AC Rated	
	1-Pole	2-Pole
Catalog Number		

15	CH115PMPCI	CH215PMPCI
20	CH120PMPCI	CH220PMPCI
25	CH125PMPCI	CH225PMPCI
30	CH130PMPCI	CH230PMPCI
35	CH135PMPCI	CH235PMPCI
40	CH140PMPCI	CH240PMPCI
50	—	CH250PMPCI
60	—	CH260PMPCI

3 Foot Extension Lead	PCIEXT03
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Dimensions – Inches



Power Managers

Catalog Number	Description		Communications Protocol ^①
	Monitoring Points	Control Points	
PM9800 N	9	8	INCOM
PM9800 R	9	8	INCOM & RS 232
PM9800 C	9	8	INCOM & CEBus
PM9800 X	9	8	INCOM & X-10

- ① **INCOM** – Allows communication of power information and circuit remote control using a hardwired twisted pair.
- X-10** – Allows communication with other X-10 compatible devices (circuit remote control only) over standard 120V building wire. No special wiring required.
- CEBus** – Allows communication with other CEBus compatible devices (power information and circuit remote control) over standard 120V building wire.
- RS 232** – Provides a 9-pin Male D-type Connector.

Need More Information?

- Phone: 1-888-APC-8202
- E-Mail: apc@ch.etn.com
- Website: www.cutlerhammer.eaton.com/apc

CEBus is a registered trademark of the Electronics Industries Association (EIA).

X-10 is a registered trademark of X-10 (USA) Inc.

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