

Eaton's enclosed meter family

# Single- and multi-unit enclosed meters



**EATON**

*Powering Business Worldwide*

# Enclosed meters

The Eaton enclosed meter line provides a complete energy metering and data acquisition solution in a single enclosure. Designed for Eaton's IQ 35M, IQ 150, IQ 250/260, and Power Xpert® 2000/4000/6000/8000 and Multi-Point Meters, Eaton's enclosed meter line offers mounting and installation flexibility, especially in retrofit applications where no metering compartment or mounting space is available in the existing electrical distribution equipment or where installation time is a premium. Factory designed and wired, Eaton's enclosed meter line offers savings in labor and installation costs because input current and voltage wiring as well as I/O wiring is prewired to terminal blocks inside the enclosure.

The enclosed meter line has two standard offerings: single-, prewired unit (specific IQ 150, IQ 250/260, PXM 2000, PXM 4000/6000/8000 and PXBCM or PXMP) and a multi-unit (specific IQ 150, IQ 250/260 or IQ 35M models). Because the multi-unit can include Eaton's Power Xpert Gateway 900, it facilitates measurement and verification of the energy usage on processes and in buildings. This provides a convenient way to monitor energy usage from multiple

points, collect and log specific energy use parameters, and display and generate logs for historical energy usage reports. Simply put, Eaton's multi-unit enclosed meter solution helps meet any measurement and verification requirement to show energy efficiency improvements and results. In addition to the standard offering, Eaton can also provide an enclosed metering solution tailored around your project needs.



Multi-unit  
NEMA® 12 (front view)



Single-unit  
NEMA 12 (front view)



Power Xpert Multi-Point/Power  
Xpert Branch Circuit Monitor  
NEMA 12 (front view)



Power Xpert Meter  
4000/6000/8000  
NEMA 12 (front view)



## Applications

Factory designed and wired to fit various Eaton power and energy meters at varying price points, Eaton's enclosed meter line offers savings in labor and installation costs because input current and voltage wiring, as well as I/O wiring, is prewired to terminal blocks inside the enclosure. Standalone, enclosed meters are ideal for new metering applications where no metering existed previously, for retrofit installations where energy monitoring is a must or where ease of installation is required.

- Health care facilities
- Educational facilities and campuses
- Industrial facilities
- Commercial facilities
- Government facilities

The multi-unit offering consolidates energy-related data available from the meters in the enclosure, but also allows for external meters to be added to the embedded Power Xpert Gateway 900. Through the Power Xpert Gateway 900's embedded Web server, information can be presented in a variety of ways; a standard Web browser being the most widely used method.

The enclosed product is a standalone solution that is ideal for many infrastructure designs. Further, as needs change and grow, the enclosed product can be integrated through PXI or Foreseer® Software into a broader solution that encompasses other intelligent hardware and can integrate with third-party network management systems (NMS) or building management systems (BMS) for system-wide monitoring and reporting of energy and power.

## Features/benefits

- Saves installation time and cost
- One part number to order; no need to worry that any part has been left out
- Pick the meter or meters you need as it is designed to fit various Eaton power and energy meters, at varying price points

## Factory wired

Most electrical contractors are very familiar with wiring meters. However, it does take time to place the disconnect, the CT shorting blocks, the terminal blocks, the control power transformer and so on, and the associated wiring. It is not uncommon for errors to be introduced during the installation of multiple meters; it's just inherent in wiring. With Eaton's enclosed meter line, everything is wired at the factory—the shorting block, the terminal blocks and so on—assuring that it's done right. Further, to ensure safety, Eaton's enclosed meter line includes a primary fusible disconnect for line voltage, which can be turned off during meter maintenance.

For applications with line voltages above the rated power supply of the meter, an optional control power transformer is supplied in the enclosure. Control voltage can also be supplied via a separate source that is wired to the field installation terminal block. CT inputs for the meter are wired directly to the shorting terminal blocks for easy field installation.

Factory-wired products also save on installation time and costs. The meters are flush mounted on the enclosure door with all inputs/outputs factory wired to the terminal blocks.

A meter subpanel assembly is also available, which includes all the internal components of the single-unit enclosed meter for the IQ 150/250/260 and PXM 2000 Meters wired and mounted on a subpanel to be installed into an existing electrical structure. It comes with a 48-inch lead for flexibility in mounting the meters at various distances.



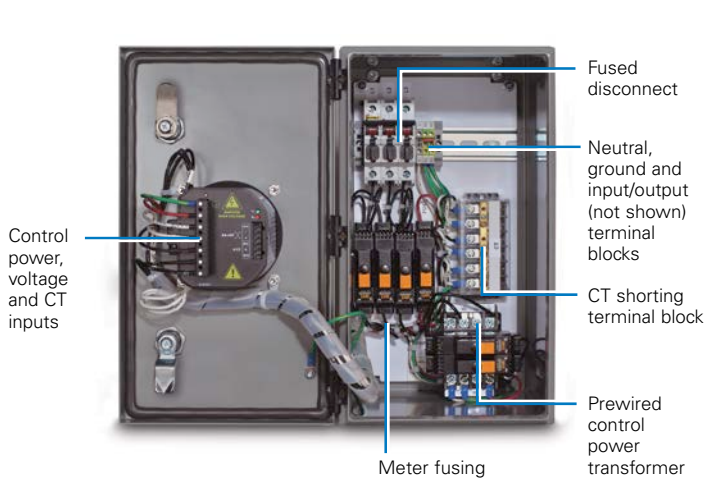


# NEMA rated

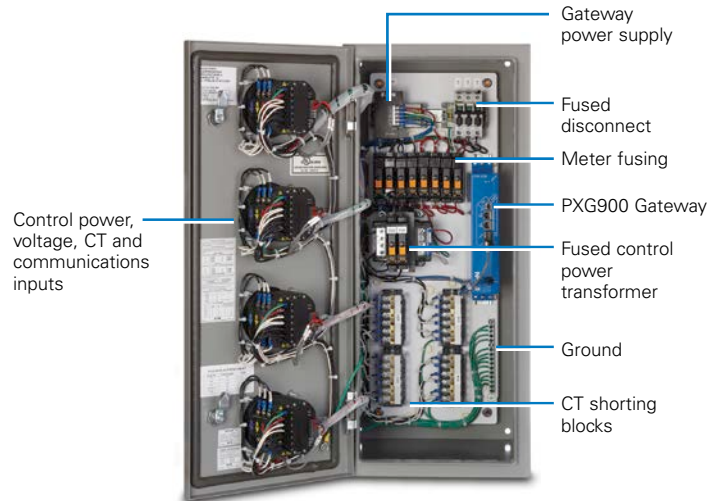
NEMA 12 enclosure prevents dust and other materials from entering the equipment. Internal gaskets also prevent air irritants from harming the vital equipment inside. This quality enclosure meets most indoor application needs.

NEMA 3R enclosure is constructed for either indoor or outdoor use. It helps to protect personnel from access to hazardous parts and provides a degree of protection for equipment inside the enclosure against ingress of solid foreign objects (falling dirt), harmful effects of water (rain, sleet, snow) and external formation of ice on the enclosure.

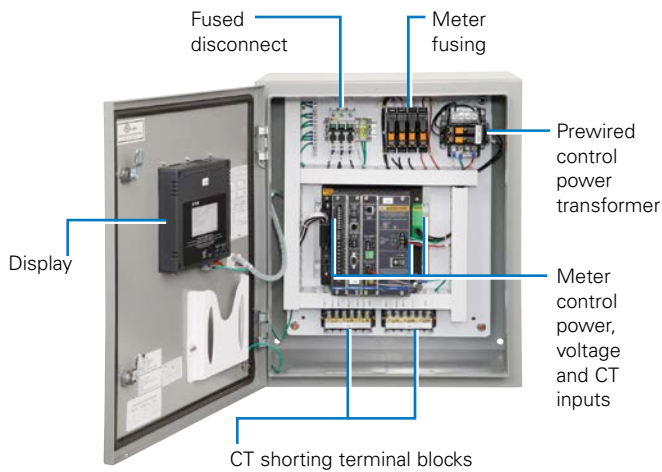
NEMA 4X enclosure provides the same degree of protection as the NEMA 3R with the additional protection against windblown dust, splashing and hose-directed water, and corrosion.



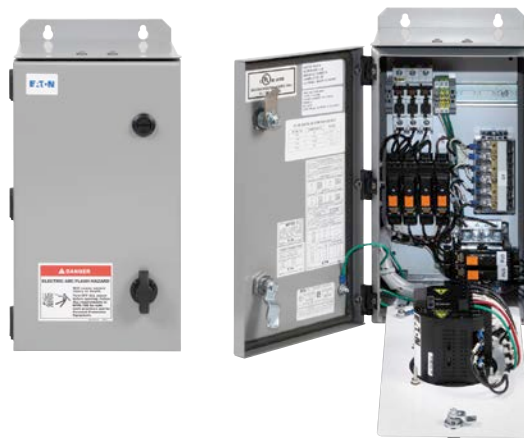
NEMA 12 front view, door open, prewired and tested



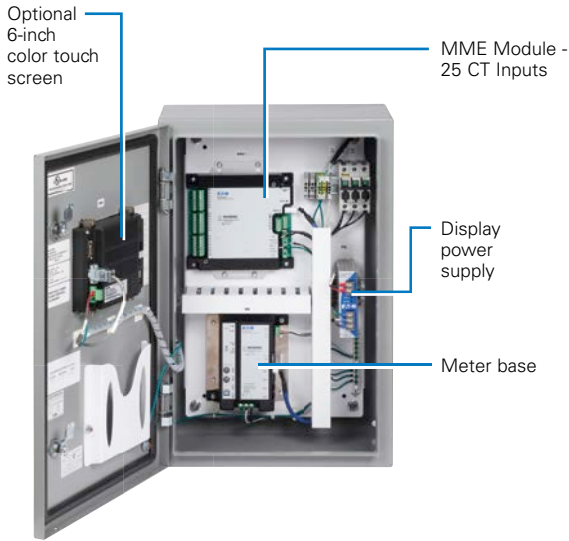
NEMA 12 multi-unit view, door open, prewired and tested



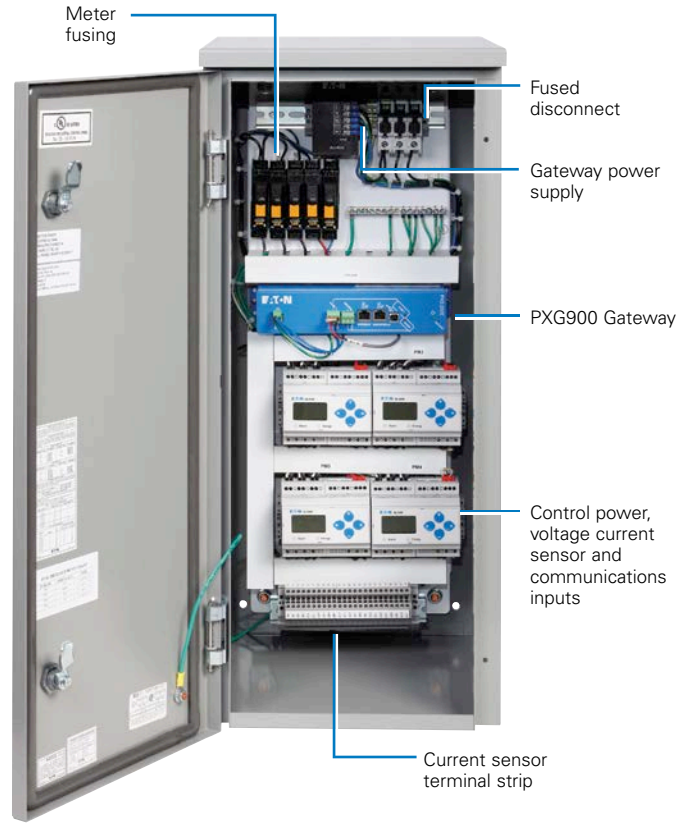
NEMA 12 single-unit enclosed meter inside view, PXM 4000/6000/8000 series



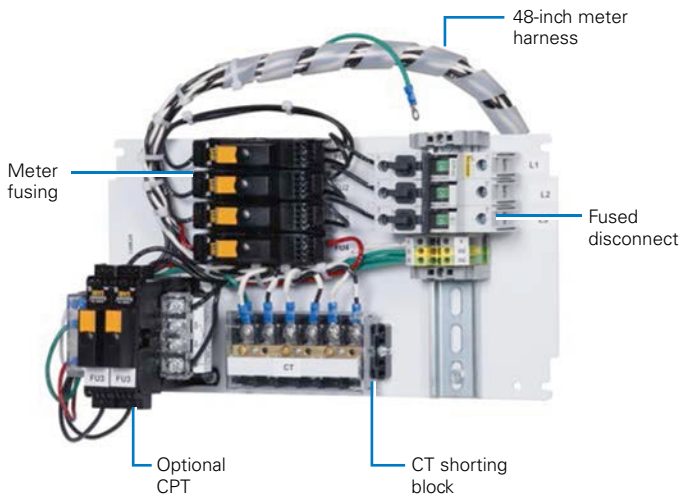
NEMA 3R single-unit closed and open, IQ 150/250/260 and PXM 2000 series



Enclosed Power Xpert Branch Circuit Monitor

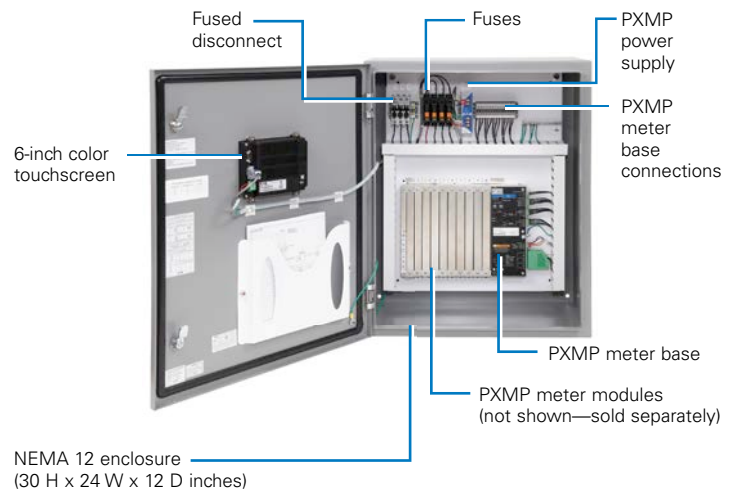


Multi-unit enclosed meter, inside view of IQ 35M



Prewired meter backpan, single unit

- Prewired panel to save installation time and cost for retrofits into existing equipment
- Designed for Eaton's:
  - IQ 100 Meter series
  - IQ 250/260
  - Power Xpert Meter 2000 series
- With or without CPT, depending on voltage
- Order meters separately



Enclosed Power Xpert Multi-Point Meter

## Enclosed meter product specifications

Description	Specification
Enclosure rating	NEMA 12, 3R, 4X
Enclosure operating temperature	-20 °C to +40 °C <b>Note:</b> Temperature range of meter is -20 °C to +70 °C. If applied outside, proper precautions should be taken to avoid exceeding the maximum and minimum temperature ratings of the meter.
Dimensions	Single unit (IQ 150/250/260 and PXM 2000): NEMA 12 (8.00 W x 16.30 H x 10.40 D inches), NEMA 3R/4X (8.00 W x 16.30 H x 9.60 D inches)  Single MME (PXBCM) NEMA 12 (16.00 W x 16.00 H x 8.00 D inches) NEMA 3R/4X (20.00 W x 16.00 H x 12.00 D inches)  Two MME (PXBCM) NEMA 12 (16.00 W x 24.00 H x 8.00 D inches) NEMA 3R/4X (20.00 W x 24.00 H x 12.00 D inches)  Single unit (PXMP): NEMA 12/3R/4X (24.00 W x 30.00 H x 12.00 D inches)  Single unit (PXM 4000/6000/8000): NEMA 12 (20.00 W x 24.00 H x 14.10 D inches) NEMA 3R/4X (20.20 W x 24.00 H x 13.90 D inches)  Multi unit: NEMA 12 (13.00 W x 30.00 H x 15.20 D inches) NEMA 3R (13.20 W x 30.10 H x 14.60 D inches) NEMA 4X (13.00 W x 30.00 H x 14.00 D inches)
Meters	Single unit: IQ 150, IQ 250/260, PXM 2000/4000/6000/8000 and PXMP models Multi unit: IQ 35M, IQ 150 and IQ 250/260
Communications (multi unit only)	Power Xpert Gateway 900
Control voltage	120–600 V (PXMP)—power supply required 100–277 Vac L:N (PXBCM)—no CPT required  Up to 240 V (IQ 35M/150/250/260 and PXM 2000/4000/6000/8000)—no CPT required  Greater than 240 V (IQ 150/250/260 and PXM 2000)—CPT required  Separate source control—no CPT required
Basic model	Fusible disconnect—primary voltage Shorting block(s)—not required for IQ 35M or PXMP Ground terminal block Neutral terminal block Eight-point terminal block(s) for input/output modules for IQ 250/260 and PXM 2000
Wiring	Wired for three-phase, four-wire applications. Three-phase, three-wire applications—will need to change the wiring for both the voltage and the current per the wiring diagram in the meter instruction manual.
Certifications	UL® 508A and cUL®
Source control	No separate source control voltage required for applications below 240 Vac (except PXMP)
Prewired	Prewired current transformer, shorting terminal block(s), neutral, ground, voltage, control power, fusible disconnect and input/output terminal block(s)
Latch	Padlocking latch provision
Optional features	Control power transformer—single unit: 50 VA (IQ 150/250/260) and 150 VA (PXM 4000/6000/8000); multi unit: 250 VA control power supply for meter where monitored voltage is 480 Vac (IQ 150/250/260 and PXM 2000/4000/6000/8000)

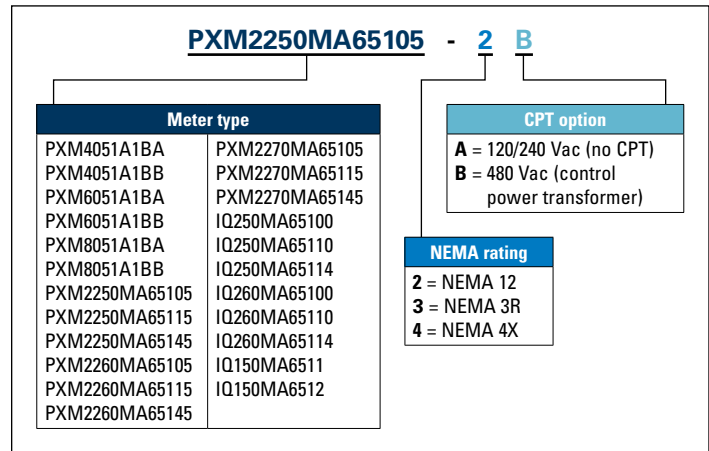
**Note:** Specifications are subject to change without notice and represent the maximum capabilities of the product with all options installed. This is not a complete feature list. Features and functionality may vary depending on selected options, firmware version and product model. Please refer to the technical data sheet and the user manual for detailed specifications.

## Meter subpanel assembly

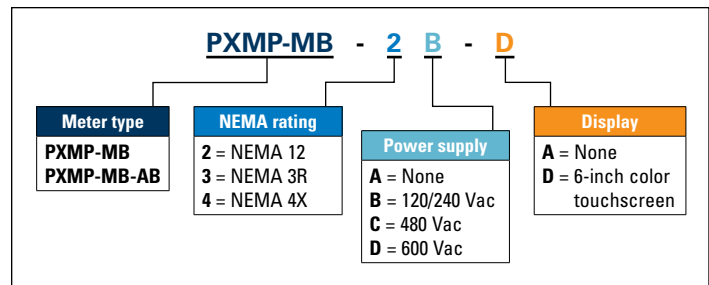
Description	Catalog Number
Meter subpanel assembly for PXM 2000 and IQ 150/250/260 Meters	<b>PXM2K-MSPA-A</b>
Meter subpanel assembly with CPT for PXM 2000 and IQ 150/250/260 Meters	<b>PXM2K-MSPA-B</b>

## Ordering information

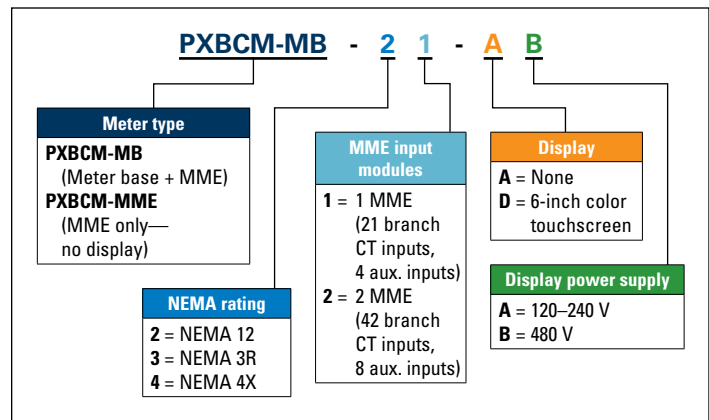
### Single-unit enclosed meter



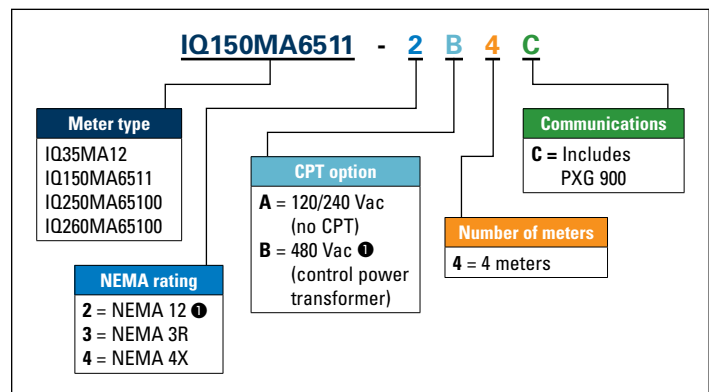
### Enclosed PXMP meter



### Power Xpert Branch Circuit Monitor enclosed meter



### Multi-unit enclosed meter



① Not available with IQ 35M.

**Note:** Other meter models available upon request in single- and multi-unit enclosed versions.





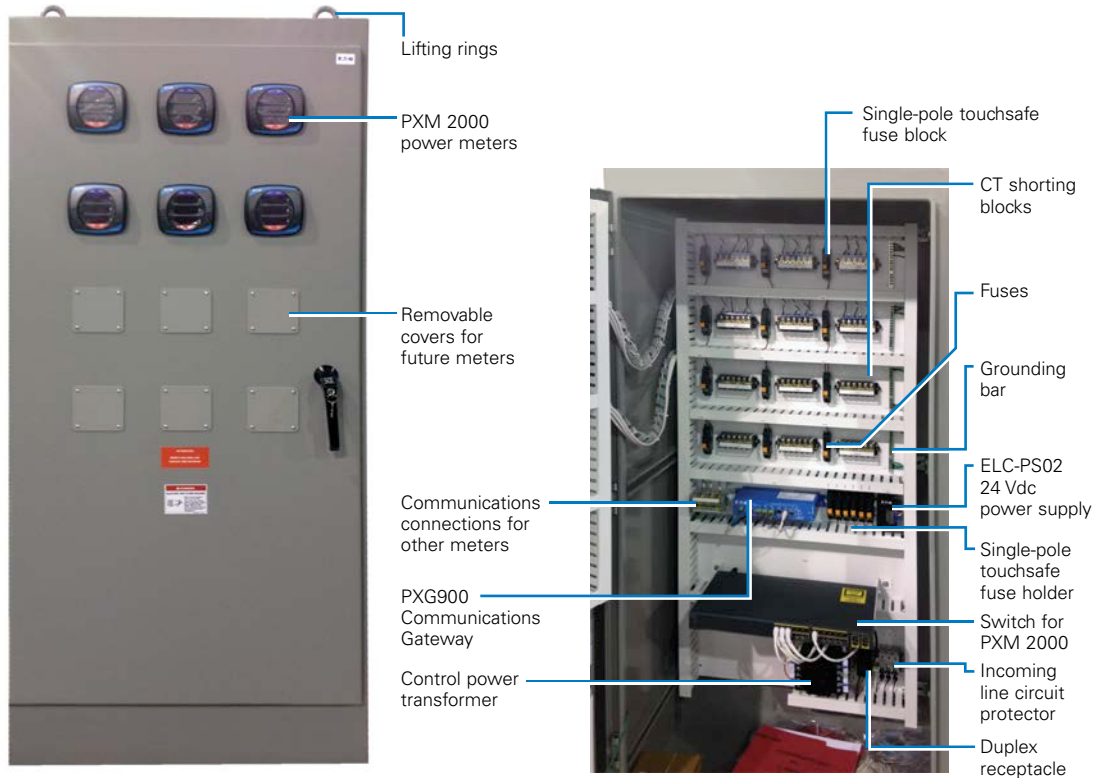
### **FACTORY WIRED**

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# Flex Center

Eaton's Meter Flex Center can provide above and beyond the standard meter enclosure offerings. The Meter Flex Center can tailor the enclosed solution to meet the specification requirements. Special requirements within the enclosures can be size, number of meters, differing meter models, special communication equipment, uninterruptible power supplies, electric heaters, power receptacles, or any other custom need. Here is an example of just a few of the Meter Flex Center capabilities.



NEMA 1 16 meter enclosure with PXM 2000 front view and door open

To find out more about how Eaton's enclosed meter family can help you manage your energy use, go to [Eaton.com/meters](http://Eaton.com/meters) or contact Eaton at **1-877-ETN-CARE** or [pqsupport@eaton.com](mailto:pqsupport@eaton.com).

**Eaton**  
 1000 Eaton Boulevard  
 Cleveland, OH 44122  
 United States  
 Eaton.com

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