

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 Power Xpert® 350/1000/2000/3000/4000/6000/8000 single-point and multi-point meters, Power Xpert Dashboard and Power Xpert Gateway, 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 PXM 350,1000, 2000, 3000, PXM 4000/6000/8000 and PXBCM or PXMP) and a multi-unit (specific PXM 350,1000, 2000, 3000 models) and/or Dashboard. Because the multi-unit can include Eaton's Power Xpert Gateway 900 (PXG900), 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.

Note: 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. Enclosed meters are well-suited for new installations (where no metering existed previously), when energy monitoring is a must. Enclosed meters are also ideal for retrofit solutions where ease of installation is required to update an existing building's infrastructure.

- Healthcare 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 PXG900. Through the PXG900, information can be presented in a variety of ways, including via the on-board web interface.

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 PX-EVA or Foreseer® Software into a broader solution that encompasses other intelligent hardware and can integrate with third-party network management systems or building management systems for system-wide monitoring and reporting of energy and power.

Features and benefits

- Saves installation time and cost
- Easy ordering for peace of mind: fusible disconnect, current transformer (CT) shorting blocks, terminal blocks and control power transformer (CPT) (optional) included and pre-wired
- Designed to fit various Eaton power and energy meters, at varying price points

Factory wired

Although, many electrical contractors are very familiar with wiring meters, it takes time to place the disconnect, the CT shorting blocks, the terminal blocks, the CPT and so on, and the associated wiring. Installations of multiple meters can be complicated, introducing the risk of errors in the wiring. With Eaton's enclosed meter line, everything is wired at the factory—the shorting block, the terminal blocks and so on—ensuring 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 CPT 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 PXM 350, 1000, 2000, 3000 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

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.

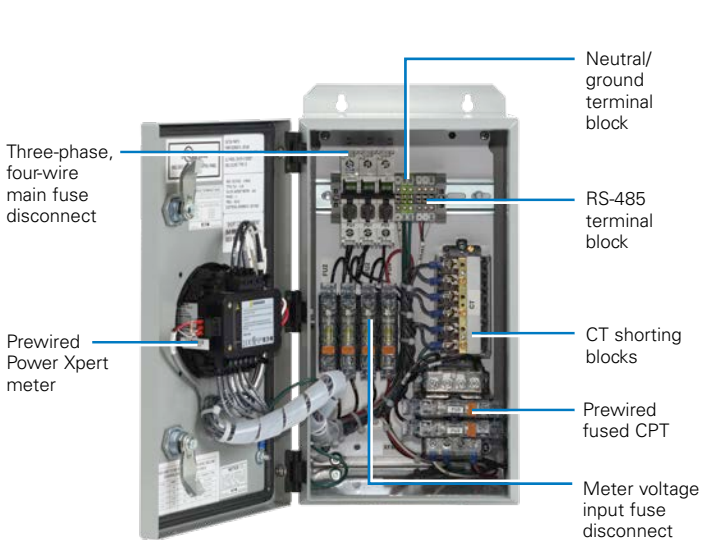
NEMA 3R

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.

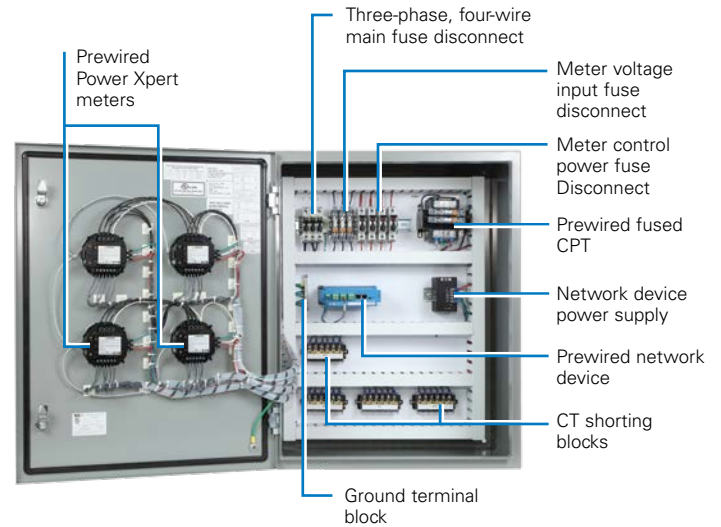
NEMA 4X

NEMA 4X (304SS) 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.

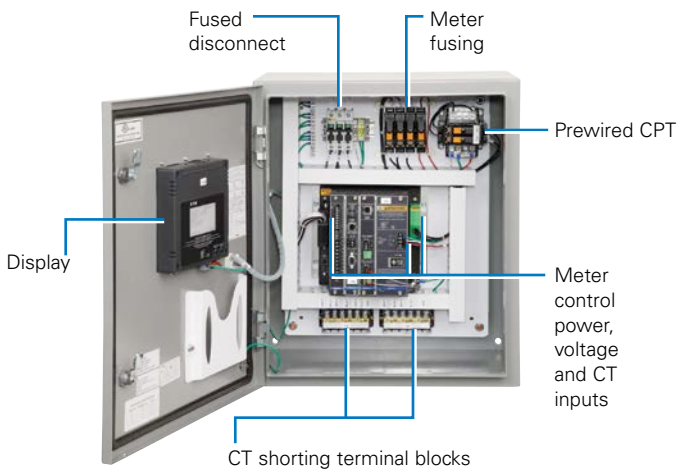
Note: Refer to temperature specifications on page 6.



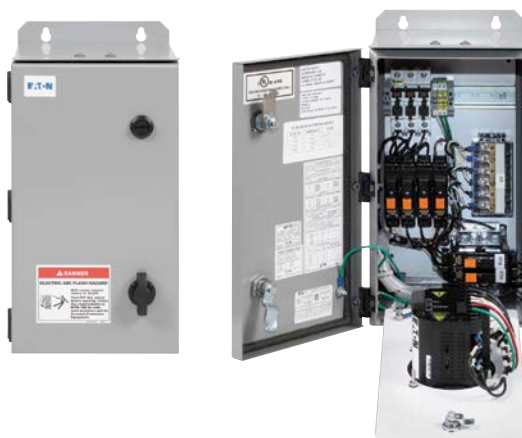
NEMA 12 front view, door open, prewired and tested



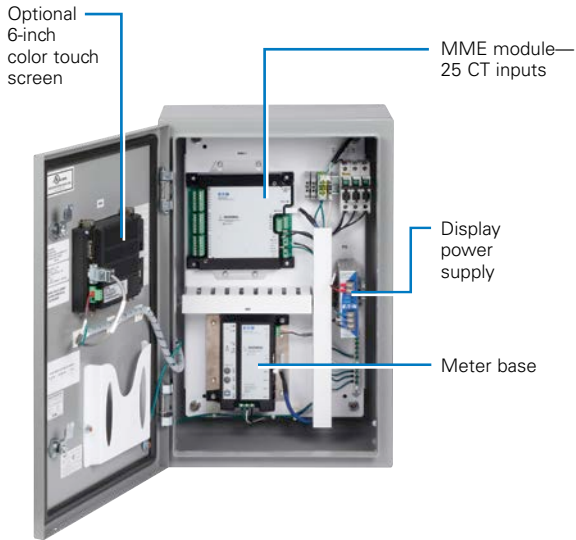
NEMA 12 multi-unit view, door open, prewired and tested



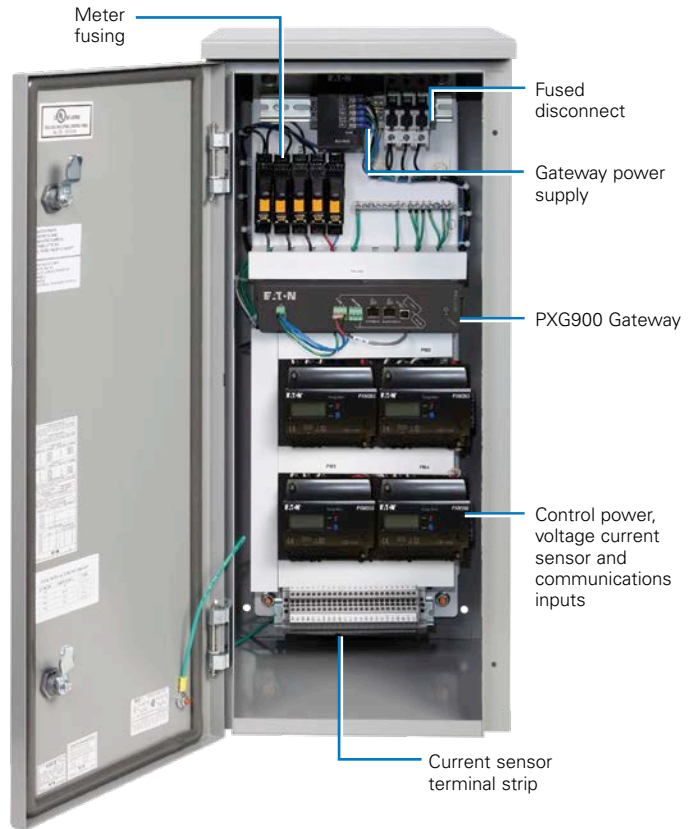
NEMA 12 single-unit enclosed meter inside view, PXM 4000/6000/8000 series



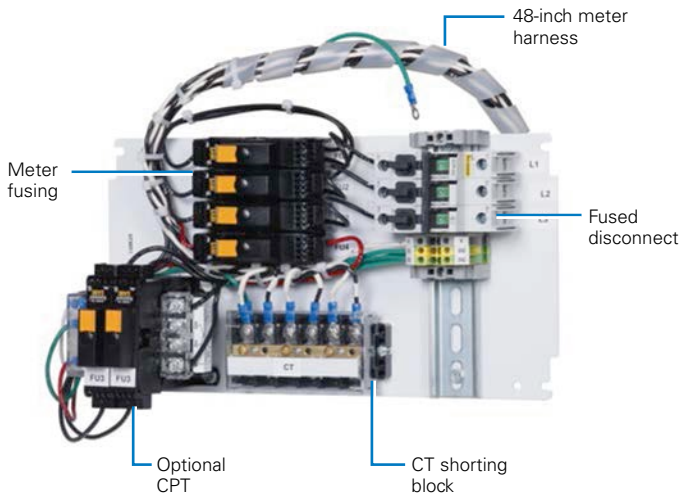
NEMA 3R single-unit closed and open, PXM1000/2000/3000 series



Enclosed Power Xpert branch circuit monitor

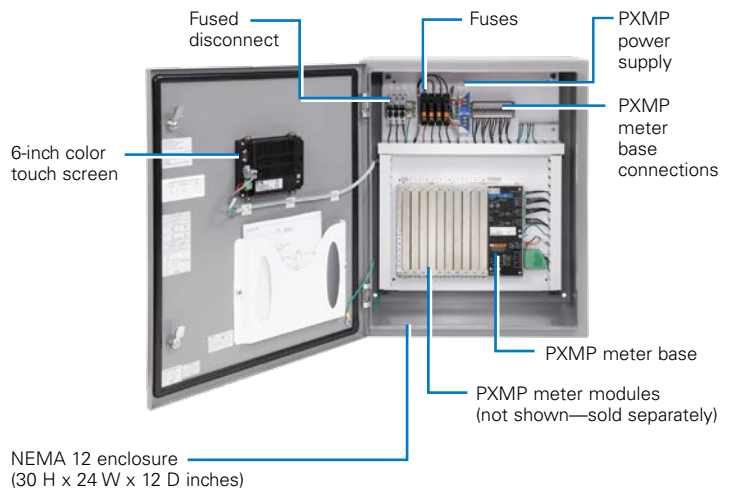


Multi-unit enclosed meter, inside view of PXM350



Prewired meter backpan, single unit

- Prewired panel to save installation time and cost for retrofits into existing equipment
- Designed for Eaton's Power Xpert Meter 1000/2000/3000 series
- With or without CPT, depending on voltage
- Order meters separately



Enclosed Power Xpert Multi-Point Meter

Enclosed meter product specifications

Description	Specification
Enclosure type	NEMA 12, NEMA 3R, NEMA 4X (304SS)
Enclosure operating temperature	-20 °C to +70 °C Proper precautions should be taken to avoid exceeding the maximum and minimum temperature ratings of the meter.
Meters	Single unit: PXM350, PXM1000/2000/3000/4000/6000/8000, PXMP models, PXBCM models Multi-unit (four maximum): PXM350, PXM1000/2000/3000
Network device option (multi-unit only)	PXG900, PXDBLite, PXDB, PXDB campus, Ethernet switch
Standard features	All enclosures are factory wired and tested. Multi-unit enclosures include up to four meters of the selected catalog number. NEMA 12 enclosed meters are door mounted; NEMA 3R and NEMA 4X enclosed meters are mounted inside the door. Includes all required fusing. All meters are prewired to one three-phase/four-wire main fuse disconnect for phase A/B/C neutral/ground customer connection. Three-phase/three-wire applications may require wiring changes; consult meter wiring installation manual. Includes control power fuse disconnect per meter. Includes terminal block for CT input per meter (shorting terminal block for 5A/1A meters). Includes one CPT with selected catalog numbers for 480 V applications providing meter and network device control power. Network device and/or displays prewired to meter(s) and Vdc power supply for applicable catalog numbers. Includes padlocking latch on enclosure door.
Certifications	UL® 508A and cUL®

Meter subpanel assembly

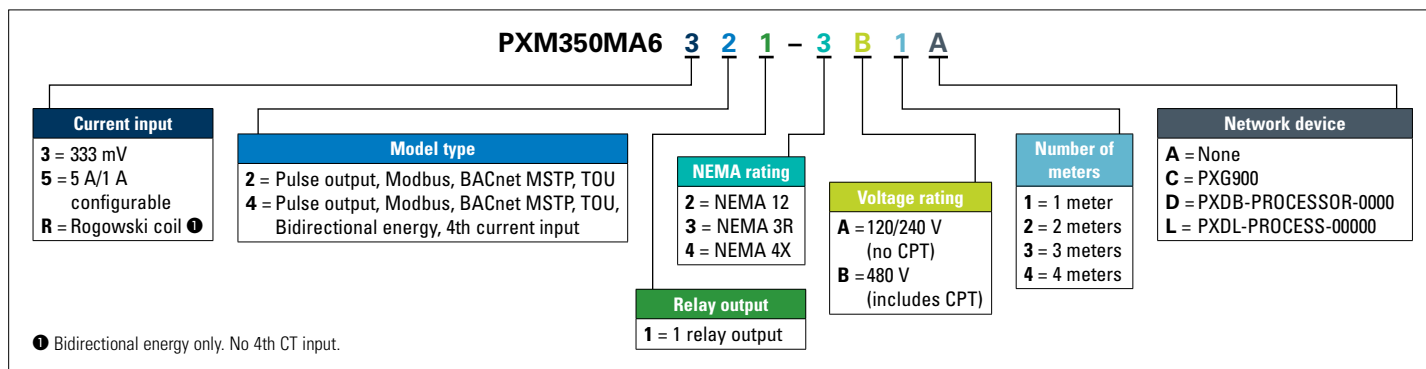
Description	Catalog number
Meter subpanel assembly for PXM350, PXM1000, PXM2000 and PXM3000 meters	PXM2K-MSPA-A
Meter subpanel assembly with CPT for PXM350, PXM1000, PXM2000 and PXM3000 meters	PXM2K-MSPA-B

FACTORY WIRED

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.

Ordering information

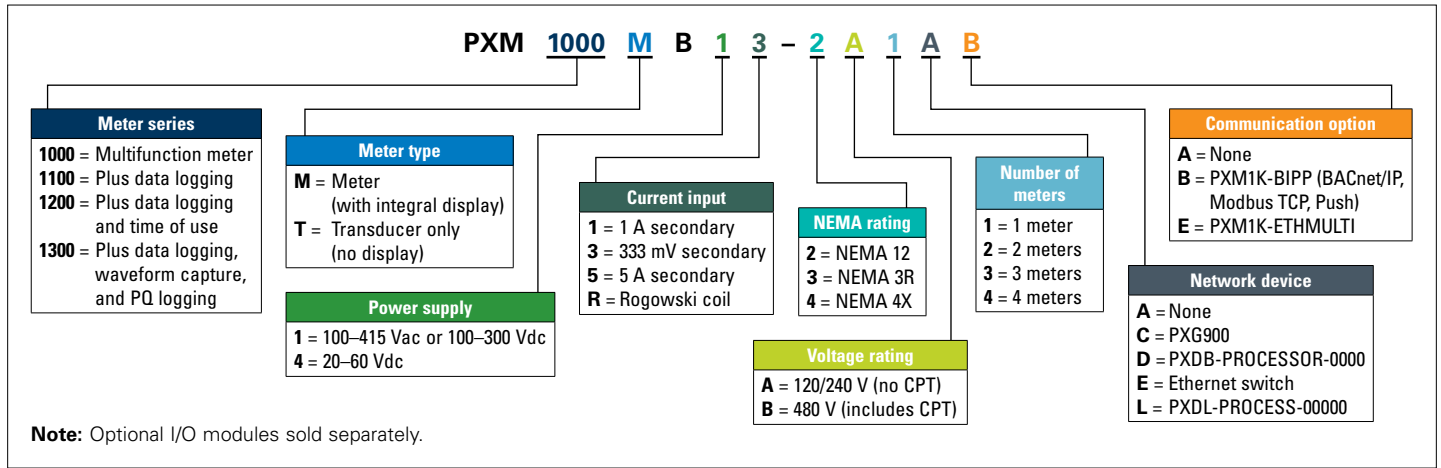
PXM350



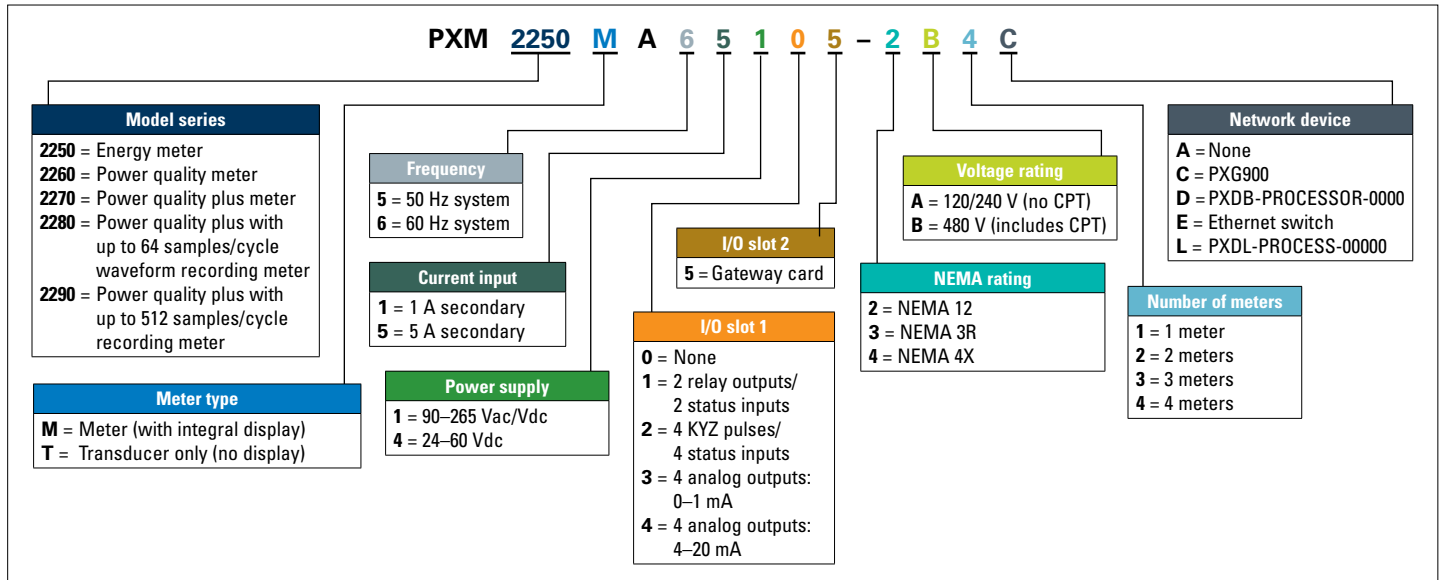
Description	Specification
Dimensions in inches	Single PXM350 ①②③ NEMA 12 (16.30 H x 8.00 W x 9.58 D) NEMA 3R (16.30 H x 8.00 W x 9.58 D) NEMA 4X (304SS) (16.30 H x 8.00 W x 9.58 D) Two, three or four PXM350 ① NEMA 12 (30.00 H x 20.00 W x 8.00 D) NEMA 3R (30.00 H x 20.00 W x 8.00 D) NEMA 4X (30.00 H x 20.00 W x 8.00 D) Single PXM1000, PXM2000 or PXM3000 ③ NEMA 12 (16.30 H x 8.00 W x 9.58 D) NEMA 3R (16.30 H x 8.00 W x 9.58 D) NEMA 4X (304SS) (16.30 H x 8.00 W x 9.58 D) Two, three or four PXM1000, PXM2000 or PXM3000 ① NEMA 12 (24.00 H x 20.00 W x 12.00 D) NEMA 3R (24.00 H x 20.00 W x 12.00 D) NEMA 4X (24.00 H x 20.00 W x 12.00 D) Single PXM4000, PXM6000 or PXM8000 ①③ NEMA 12 (24.00 H x 24.00 W x 12.00 D) NEMA 3R (24.00 H x 24.00 W x 12.00 D) NEMA 4X (24.00 H x 24.00 W x 12.00 D) PXBCM-MB-BASIC or PXBCM-MB-ENERGY and (single or two) PXBCM-MME ①③ NEMA 12 (30.00 H x 24.00 W x 12.00 D) NEMA 3R (30.00 H x 24.00 W x 12.00 D) NEMA 4X (30.00 H x 24.00 W x 12.00 D) Single or two PXBCM-MME (no PXBCM-MB) ①③ NEMA 12 (30.00 H x 24.00 W x 12.00 D) NEMA 3R (30.00 H x 24.00 W x 12.00 D) NEMA 4X (30.00 H x 24.00 W x 12.00 D) Single PXMP-MB (no PXMP modules) ①③ NEMA 12 (30.00 H x 24.00 W x 12.00 D) NEMA 3R (30.00 H x 24.00 W x 12.00 D) NEMA 4X (30.00 H x 24.00 W x 12.00 D) Single PXDBL-PROCESS/PXDB-CAMPUS-PROCESS/PXG900 NEMA 12 (16.30 H x 8.00 W x 9.58 D) NEMA 3R (16.30 H x 8.00 W x 9.58 D) NEMA 4X (16.30 H x 8.00 W x 9.58 D) Single PXBD-PROCESSOR NEMA 12 (16.00 H x 16.00 W x 8.00 D) NEMA 3R (16.00 H x 16.00 W x 8.00 D) NEMA 4X (16.00 H x 16.00 W x 8.00 D)

- All enclosures are sized to accommodate the following options:
 - CPT
 - Network device (PXG900 or PXDBL-PROCESS or PXDB-PROCESSOR or 6-port Ethernet switch)
 - Vac/Vdc power supply for displays, Ethernet switch, PXDB
 - HMI display for enclosures including PXM4000/PXM6000/PXM8000 (6 or 12 inches), PXBCM (6 inches) or PXMP (6 inches)
- Single meter enclosure dimensions accommodate room for CPT but no network device.
- Network device is not an option for single meter enclosures or enclosures for PXM4000/PXM6000/PXM8000, PXMP, PXBCM (all configurations).

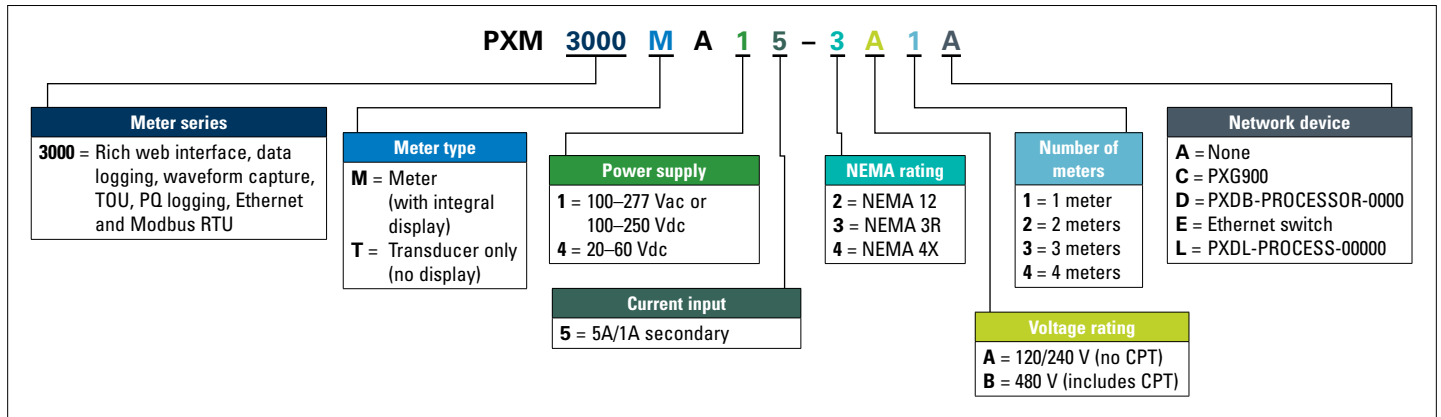
PXM1000

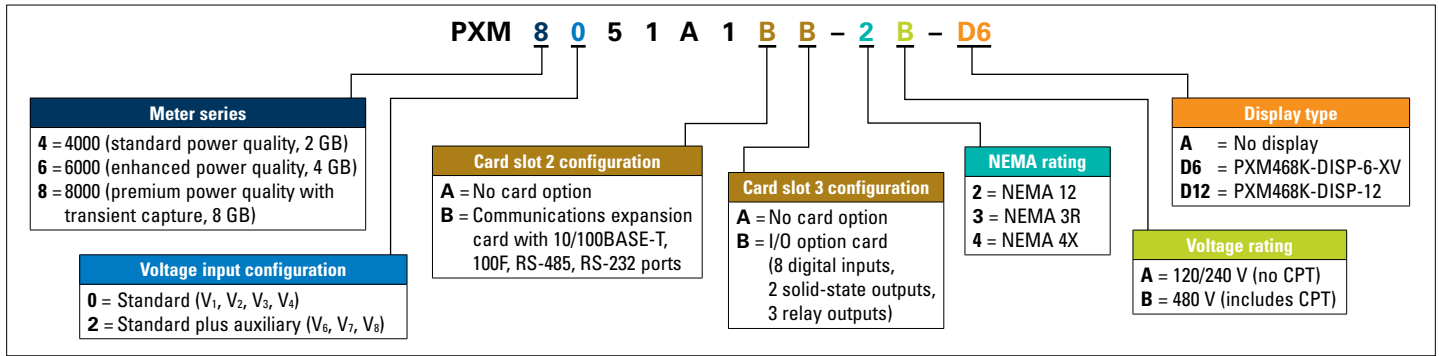


PXM2000



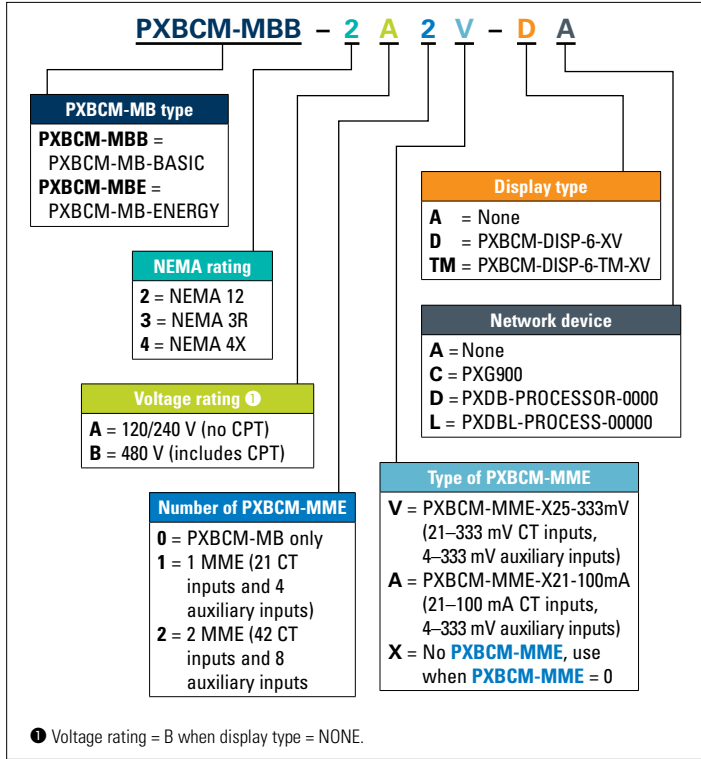
PXM3000



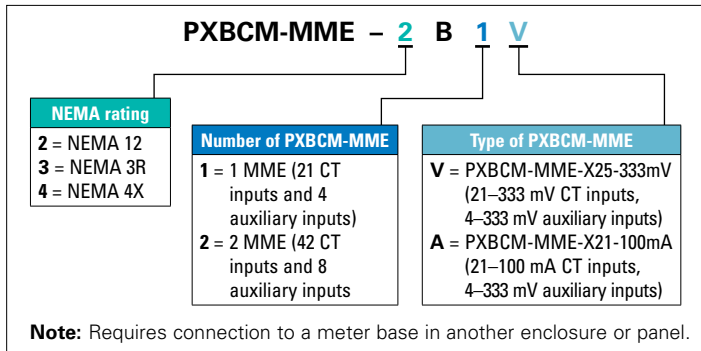


Power Xpert Branch Circuit Monitor (PXBCM)

For PXBCM enclosures including meter base.



PXBCM meter module external only (without PXBCM meter base).

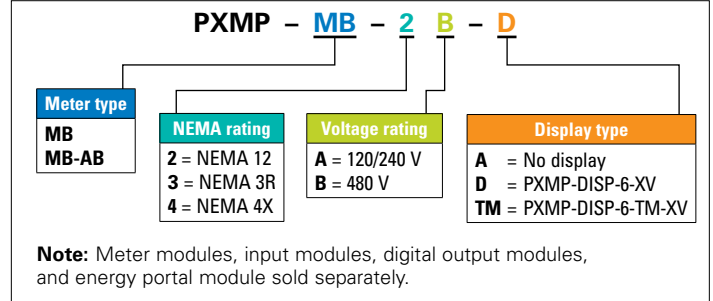


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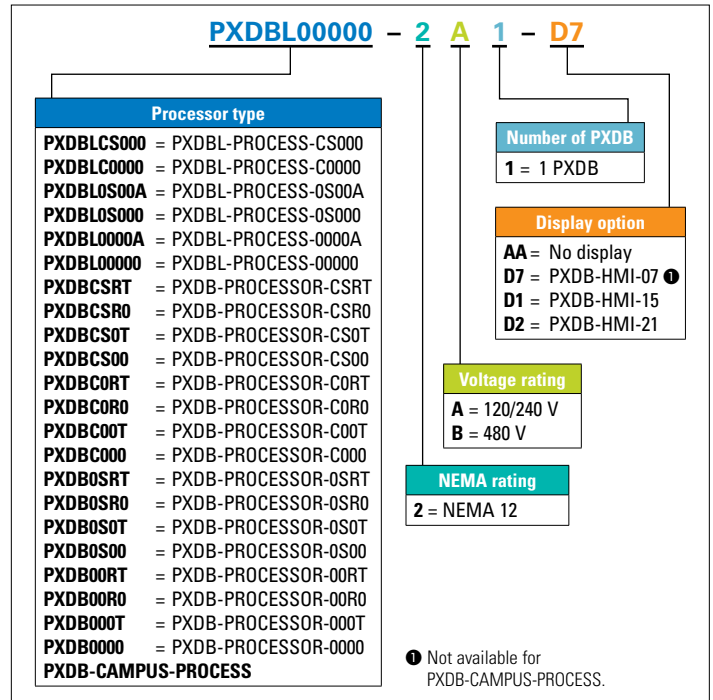
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Power Xpert Multi-Point Meter (PXMP)

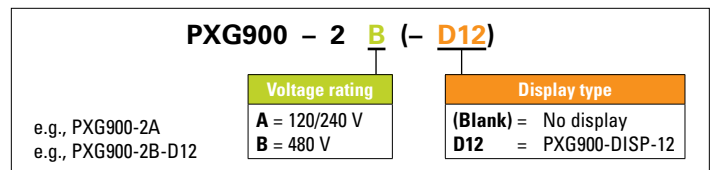


PXDBL-PXDB-PXDBCAMPUS



PXG900

Enclosures rated for NEMA 12.



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