

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 (PXM350), Power Xpert Energy (PXE), Power Xpert Quality (PXQ) Event Analysis System single-point and multi-point meters and Power Xpert Gateway 1000 (PXG1000). 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 PXM350, PXE, PXQ Event Analysis System and PXBCM or PXMP) and a multi-unit (specific PXM350 and PXE models) and/or PXG1000. Because the multi-unit can include Eaton's PXG1000, 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
Power Xpert Energy Series (PXE)
NEMA® 12 (front view)



Single-unit Power
Xpert Energy Series (PXE)
NEMA 12 (front view)



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



Power Xpert Quality (PXQ)
Event Analysis System
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 PXG1000. Through the PXG1000, 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 Brightlayer™ 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: disconnect, fuses, 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 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 PXM350 and PXE 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.

Additionally, the PXQ Event Analysis System is now available pre-installed in an adapter for quick and easy installation in place of a PXM 4000/6000/8000. This includes a power supply and wiring pigtailed.



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.

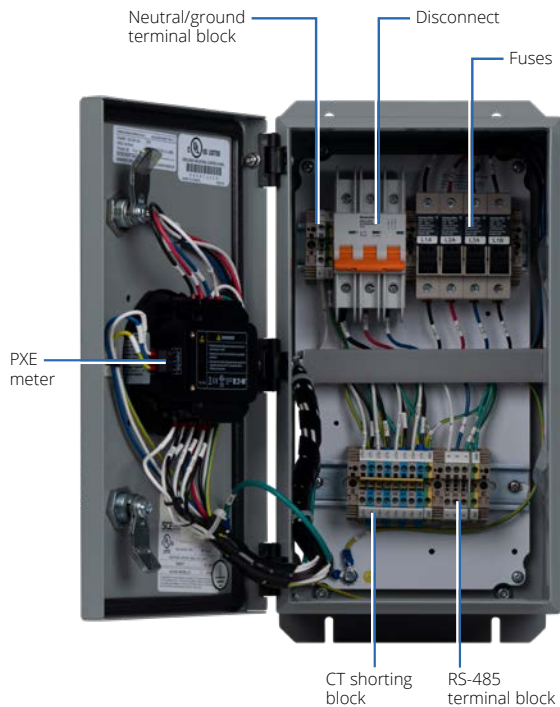
NEMA 3R

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.

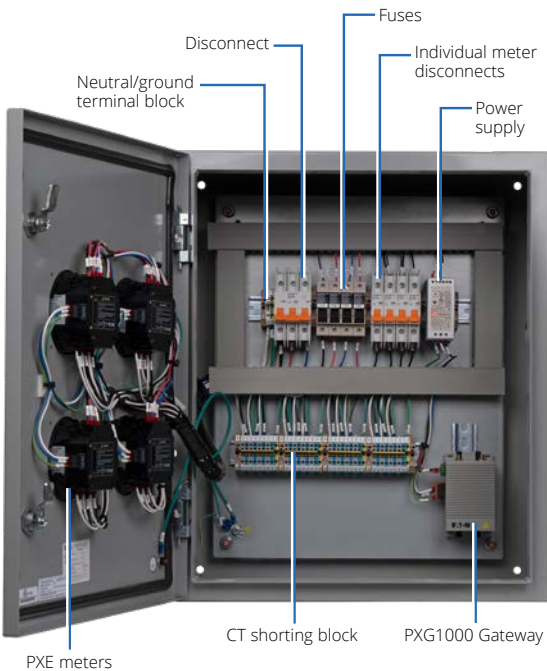
NEMA 4X

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.

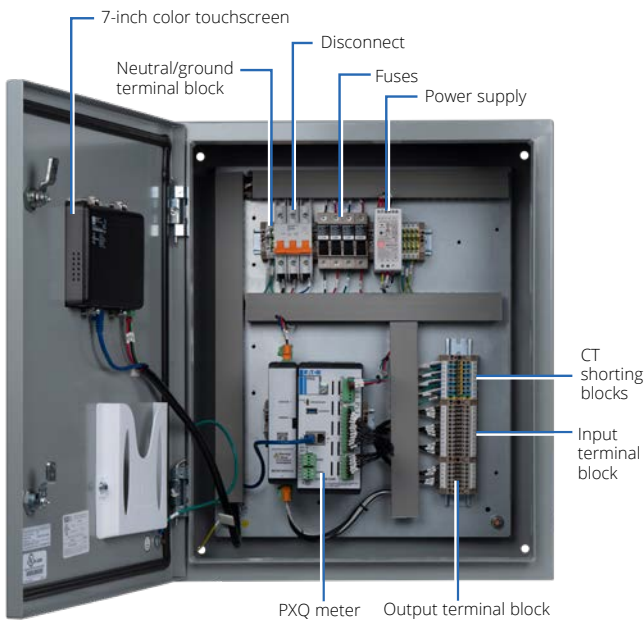
Note: Refer to temperature specifications on page 6.



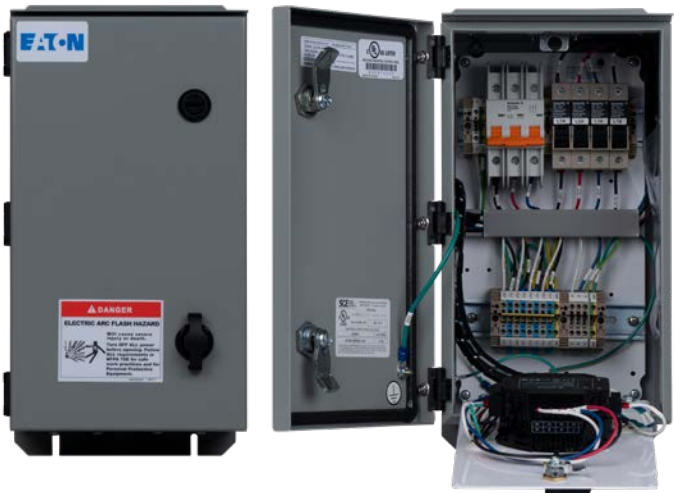
NEMA 12 front view, door open, PXE Series



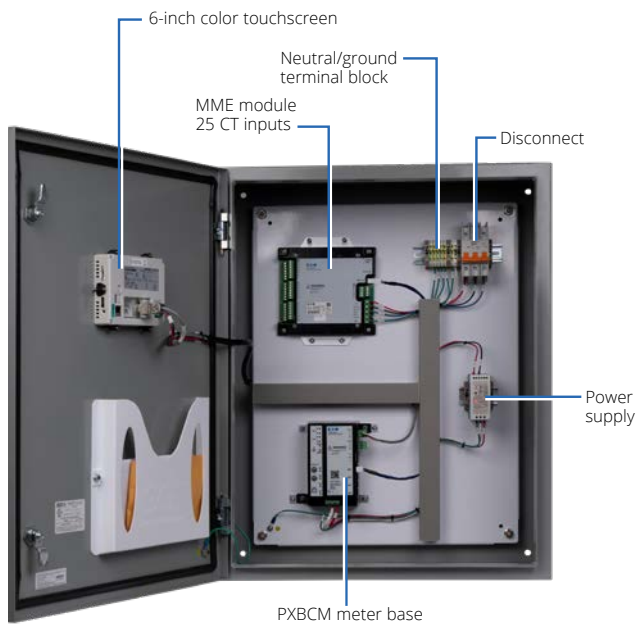
NEMA 12 multi-unit view, door open, PXE Series



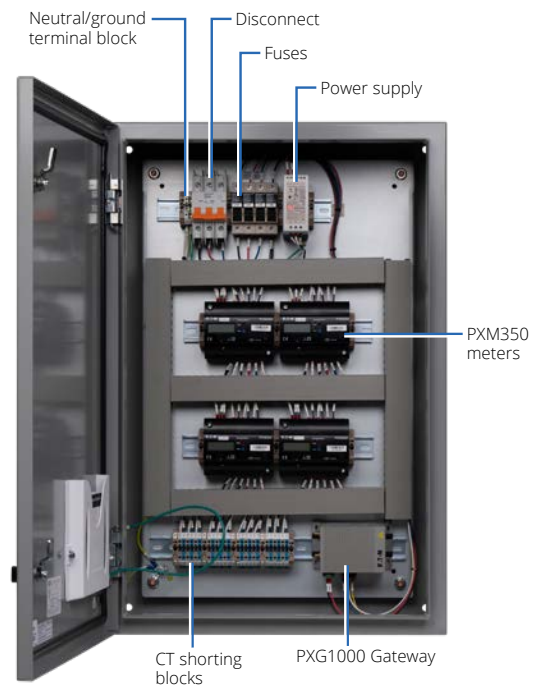
NEMA 12 single-unit enclosed meter inside view, PXQ Event Analysis System



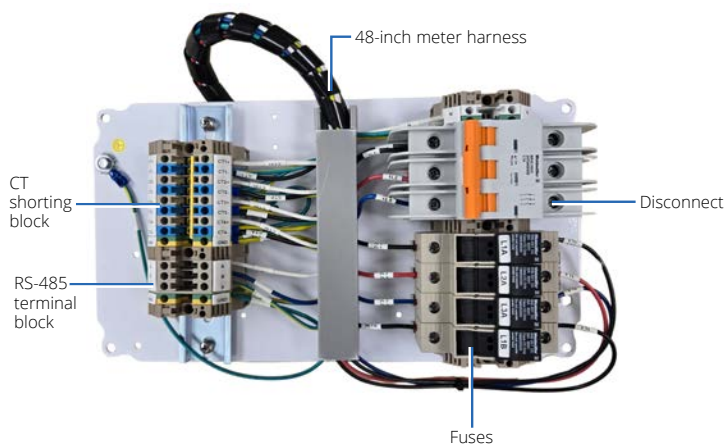
NEMA 3R single-unit closed and open, PXE Series



NEMA 12 front view, door open, Power Xpert Branch Circuit Monitor

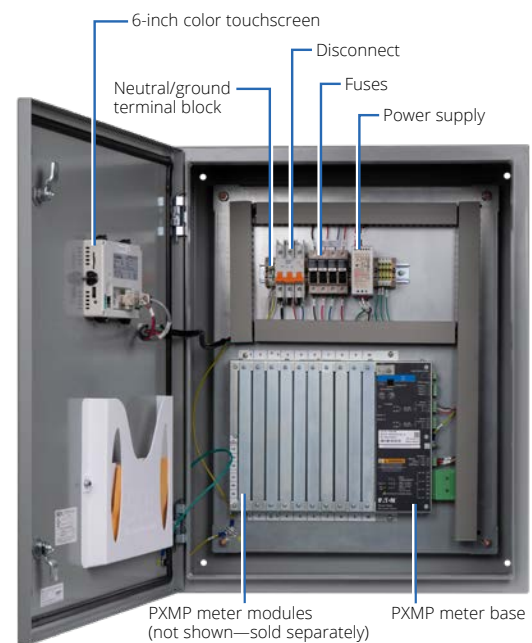


NEMA 12 multi-unit view, door open, PXM350



Prewired meter backpan, single unit

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



NEMA 12 front view, door open, 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, PXE, PXMP models, PXBCM models, PXQ Event Analysis System Multi-unit (four maximum): PXM350, PXE
Network device option (multi-unit only)	PXG1000, 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 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 disconnect per meter. Includes terminal block for CT input per meter (shorting terminal block for 5 A / 1 A 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®
Dimensions in inches	Single PXM350 ❶❶❶ NEMA 12, NEMA 3R, NEMA 4X (304SS) (16.30 H x 8.00 W x 9.58 D) Two, three or four PXM350 ❶ NEMA 12, NEMA 3R, NEMA 4X (304SS) (30.00 H x 20.00 W x 8.00 D) Single PXE ❶❶ NEMA 12, NEMA 3R, NEMA 4X (304SS) (16.30 H x 8.00 W x 9.58 D) Two, three or four PXE ❶ NEMA 12, NEMA 3R, NEMA 4X (304SS) (24.00 H x 20.00 W x 12.00 D) Single PXQ Event Analysis System ❶❶ NEMA 12, NEMA 3R, NEMA 4X (304SS) (24.00 H x 20.00 W x 12.00 D) PXBCM-MB-BASIC or PXBCM-MB-ENERGY and (single or two) PXBCM-MME ❶ NEMA 12, NEMA 3R, NEMA 4X (304SS) (30.00 H x 24.00 W x 12.00 D) Single PXBCM-MB-BASIC or PXBCM-MB-ENERGY only (no PXBCM-MME) ❶ NEMA 12, NEMA 3R, NEMA 4X (304SS) (16.00 W x 16.00 H x 8.00 D) Single or two PXBCM-MME (no PXBCM-MB) ❶❶ NEMA 12, NEMA 3R, NEMA 4X (304SS) (30.00 H x 24.00 W x 12.00 D) Single PXMP-MB (no PXMP modules) ❶❶ NEMA 12, NEMA 3R, NEMA 4X (304SS) (30.00 H x 24.00 W x 12.00 D) Single PXG1000/campus without display NEMA 12 (16.30 H x 8.00 W x 9.58 D) Single PXG1000/campus with 7-inch or 15-inch display NEMA 12 (24.00 H x 24.00 W x 12.00 D) Single PXG1000/campus with 21-inch display NEMA 12 (30.00 H x 30.00 W x 10.00 D)

❶ All enclosures are sized to accommodate the following options:

- (1) CPT
- (1) Network device (PXG1000 or 6-port Ethernet switch)
- (1) Vac/Vdc power supply for displays, Ethernet switch, PXDB
- (1) HM/i display for enclosures including PXQ Event Analysis System (7 inches), PXBCM (6 inches) or PXMP (6 inches)

❷ Single meter enclosure dimensions accommodate room for CPT but no network device.

❸ Network device is not an option for single meter enclosures or enclosures for PXQ Event Analysis System or PXMP (all configurations) or PXBCM-MME enclosures.

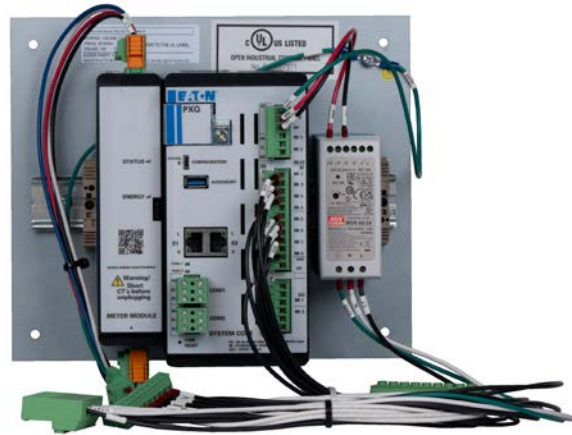
FACTORY WIRED

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.

Meter subpanel assembly

Description	Dimensions in inches	Catalog number
Meter subpanel assembly for PXM350 and PXE meters	13.00 H x 7.00 W x 4.22 D	PXE-MSPA-A
Meter subpanel assembly with CPT for PXM350 and PXE meters	13.00 H x 7.00 W x 4.22 D	PXE-MSPA-B

PXQ with adapter for PXM4000/6000/8000



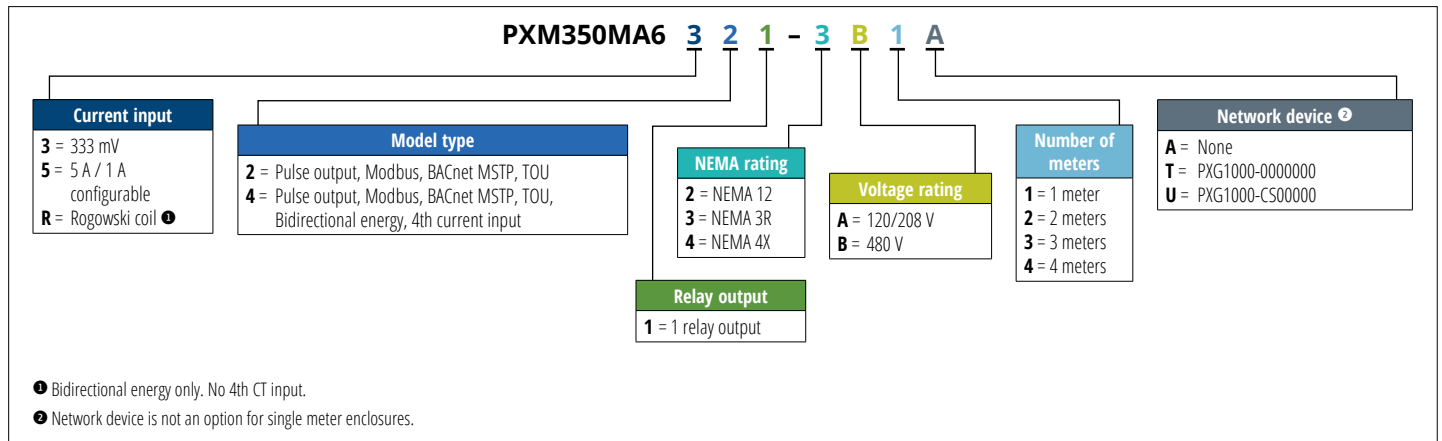
Adapter plate pictured with PXQ installed; PXQ not included with adapter plate.

Description	Dimensions in inches	Catalog number
PXQ Tier 1 adapter plate for PXM4000/6000	10.20 H x 8.70 W x 5.50 D	PXQ-ST1-1A1-A46K
PXQ Tier 1 adapter plate for PXM8000	9.00 H x 10.50 W x 6.00 D	PXQ-ST1-1A1-A8K
PXQ Tier 2 adapter plate for PXM4000/6000	10.20 H x 8.70 W x 5.50 D	PXQ-ST2-1A1-A46K
PXQ Tier 2 adapter plate for PXM8000	9.00 H x 10.50 W x 6.00 D	PXQ-ST2-1A1-A8K

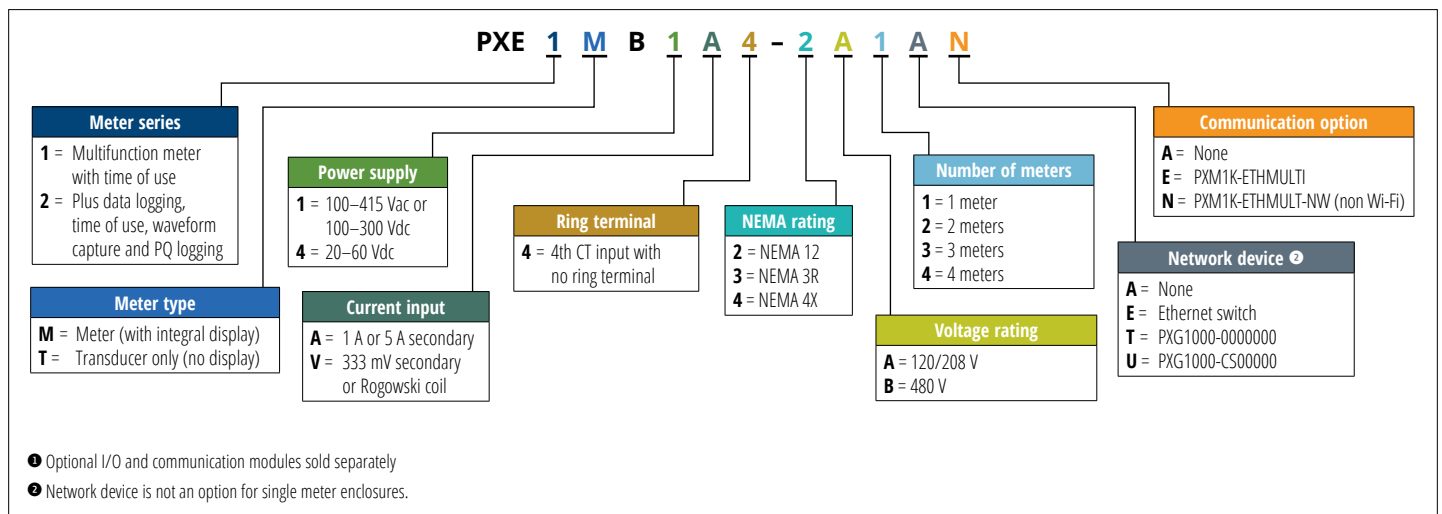
Note: DC power supply and wire harnesses included with PXQ adapter plate.

Ordering information

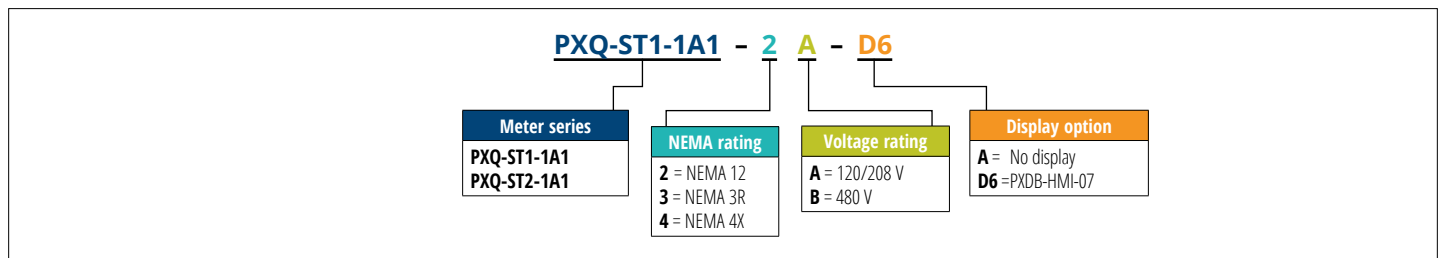
PXM350



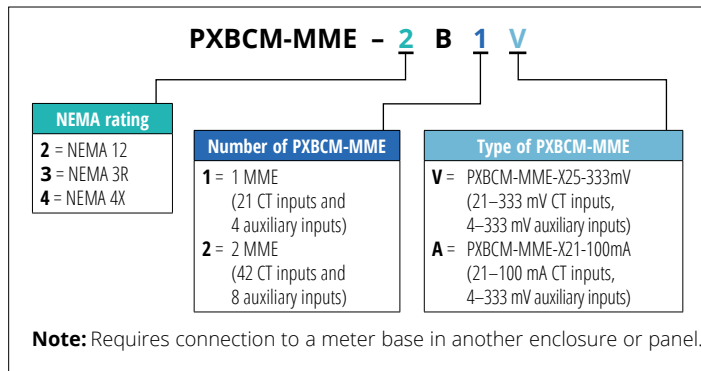
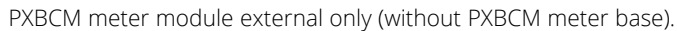
PXE



PXQ



For PXBCM enclosures including meter base.



PXMP - MB - 2 B - D

Meter type	NEMA rating	Voltage rating	Display type
MB	2 = NEMA 12 3 = NEMA 3R 4 = NEMA 4X	A = 120/208 V B = 480 V	A = No display D = PXMP-DISP-6-XV TM = PXMP-DISP-6-TM-XV

Note: Meter modules, input modules, digital output modules, and energy portal module sold separately.

PXG1K0000000 - 2 A 1 - D7

Processor type

PXDB-CAMPUS-PROCESS

PXG1K0000000 = PXG1000-00000000
PXG1K000000D = PXG1000-0000000D
PXG1K000000G = PXG1000-0000000G
PXG1K000000GD = PXG1000-0000000GD
PXG1K0000A00 = PXG1000-0000A00
PXG1K0000A0D = PXG1000-0000A0D
PXG1K0000A0G = PXG1000-0000A0G
PXG1K0000A0GD = PXG1000-0000A0GD
PXG1K0S00000 = PXG1000-0S000000
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PXG1K0S00A0D = PXG1000-0S00A0D
PXG1K0S00A0G = PXG1000-0S00A0G
PXG1K0S00A0GD = PXG1000-0S00A0GD
PXG1KC0000000 = PXG1000-C0000000
PXG1KC000000D = PXG1000-C000000D
PXG1KC0000G00 = PXG1000-C0000G00
PXG1KC0000G0D = PXG1000-C0000G0D
PXG1KC00T0G00 = PXG1000-C00T0G00
PXG1KC00T0G0D = PXG1000-C00T0G0D
PXG1KC0R00G00 = PXG1000-C0R00G00
PXG1KC0R00G0D = PXG1000-C0R00G0D
PXG1KCS00000 = PXG1000-CS000000
PXG1KCS0000D = PXG1000-CS00000D
PXG1KCS000G0 = PXG1000-CS000G00
PXG1KCS000GD = PXG1000-CS000GD0
PXG1KCS0T0G0 = PXG1000-CS0T0G00
PXG1KCS0T0GD = PXG1000-CS0T0GD0
PXG1KCSR00G00 = PXG1000-CSR00G00
PXG1KCSR00GD = PXG1000-CSR00GD0
PXG1KCSRT0G0 = PXG1000-CSRT0G00
PXG1KCSRT0GD = PXG1000-CSRT0GD0

NEMA rating

2 = NEMA 12

Voltage rating

A = 120/208 V
B = 480 V

Number of PXG1000 or Campus

1 = 1 PXG1000 or Campus

Display option

AA = No display
D7 = PXDB-HMI-07
D1 = PXDB-HMI-15
D2 = PXDB-HMI-21

❶ Not available for PXDB-CAMPUS-PROCESS.

Note: Control App includes ARMS App.

① Not available for PXDB-CAMPUS-PROCESS.

Note: Control App includes ARMS App.

or email **MRSupport@Eaton.com**

