

X-Energy

Product Information

Type-tested switchboard system



EATON

Powering Business Worldwide



Make way for progress by integrating innovation

Of course, we all like the idea of progress, but often what we really need are tangible, practical solutions – innovations we can implement and use right now.

And that is precisely why Eaton has developed xEnergy. This switchboard system has been designed so that you can configure your projects efficiently to meet your own specific requirements – from planning and assembly to installation. It provides the ideal basis for building infrastructures up to 6300 A.

xEnergy cleverly combines switching and protective devices, mounting systems and enclosure components, so that you can work quickly and efficiently in your workshop and easily integrate future innovations as they arise.

Ideal modules, intelligent system platform

Is it possible to bridge the divide between increasingly stringent technological and safety requirements on the one hand, and cost reduction on the other? Eaton's answer to this question is a resounding 'Yes' – and it has

developed the latest generation of switchboard systems to prove its point.

Eaton's xEnergy system range thinks ahead by allowing for tomorrow's requirements today. The xEnergy's switching and protective devices, mounting and switchboard systems together form a single technical and cost-effective economic unit that offers you the best in power management, switching and control.

How does it work? Quite simply: the system's modular design

allows for a wide range of intelligent combinations. That means you save time, money and space. And because you can also rely on Eaton's excellent reputation for safety, you can implement individual projects in functional buildings or office and industrial buildings simply, quickly and flexibly.

Functionality is a fundamental, individuality is the future

The xEnergy switchboard system consists of IEC/EN 60439/61439 type-tested function modules. These have an internal separation up to Form 4, and comply with various national or regional installation requirements, such as DIN VDE, CEI, NF or UNE. This means you can design customised solutions for use in several different countries.

The xEnergy system offers you a wide range of options for implementing power distribution reliably, economically and fully in accordance with your customers' requirements. You can use feeder and coupling sections for circuit-breakers up to 6300 A, and individually

equipped outgoing sections with fixed and removable compartment modules for switching and protective devices up to 630 A.

Outgoing sections up to 630 A for switch-fuse strips, fuse rails and fuse switch-disconnectors are also available.

Control sections and empty sections can be combined as required for installing ancillary components such as motor starters, PFC modules, frequency inverters, soft starters or for automation solutions. The mounting systems for rail-mounted service installation devices can be used in conventional service distribution boards.

On call

Think of Eaton as your business partner – a partner who can support you in providing the highest levels of service to your customers, a partner who can advise you on how to get the results you want. Each module has been carefully designed and thought through to ensure complete consistency – from the device itself, the mounting system, the enclosure, right up to the software tools.

Partnering with Eaton gives you the competitive edge over your competitors: it means you can provide optimum added value in your own panel building designs, and can enjoy the reassurance of knowing that you are using type-tested systems that are always state-of-the-art.

In short, you will be connecting to the future with xEnergy. All products in the xEnergy range can be supplied either functionally grouped in flat packs, or as switchboards fully pre-assembled according to your specifications.

Enclosure components are supplied on demand, exactly matched to your individual requirements, including type tests.

IZM and NZM circuit-breakers for xEnergy power sections

- Type-tested switchgear assemblies (TTA) up to 6300 A
- Clear and symmetrical design with only one circuit-breaker per section reduces the number of busbar connections and saves mounting requirements
- Internal separation up to Form 4 increases personnel and system protection
- Fast and direct allocation of circuit-breaker mounting kits for the mechanical fastening of circuit-breakers
- High level of flexibility in the terminal area thanks to alternative connection options

NZM and PKZ circuit-breakers for xEnergy outgoing sections

- 3-pole and 4-pole switching and protective devices, type-tested switchboard systems (TTA) up to 630 A
- Max. 38 fixed compartment modules in one section (H 50 mm), optimum device utilisation despite high packing density
- Flexible module mounting to Form 4 with different device mounting depths, however with standard operating front
- Simple module mounting to Form 2 on one mounting depth
- Highly flexible combination possible for functional areas and busbars in accordance with IEC/EN 60439/61439 and national installation practice





xEnergy product features

Busbar location at top up to 4000 A

- Clear separation into functional units (Form 1 to Form 4)
- Enclosures for combination and separate mounting
- Degree of protection IP 31 or IP 55
- Height 2000mm
- Widths 425mm, 600mm, 800mm, 1000mm, 1200mm
- Main busbar location at top, up to 1600 A at 400mm section depth
- Main busbar location at top, up to 3200 A at 600mm section depth
- All mounted units as TTA's
- Network systems TN-C, TN-C-S, TN-S, TT, IT
- Colour RAL 7035 (others on demand)

XP power sections

- EFeeders, outgoers with NZM 4 circuit-breakers up to 1600 A or IZM up to 4000 A
- Fixed mounted and withdrawable units
- 3- or 4-pole circuit-breakers
- Cable or busbar trunking connection from bottom

XF fixed mounted sections

- Outgoers with PKZ and NZM circuit-breakers up to 630 A
- Feeders or outgoers with NZM 4 circuit-breakers and IZM up to 1600 A
- 3- or 4-pole circuit-breakers
- Cable connection from below or rear

XG freely configurable sections

- Mounting systems for rail-mounted service installation devices for conventional service distribution boards
- Individual fixed mounted units on mounting plates up to 630 A, such as soft starters, frequency inverters, PFC modules
- Automation and control applications
- Adapter systems for motor starters (xStart)

XW Withdrawable

- Power outgoers with circuit breakers up to 630 A
- Outgoers for motor starters up to 250 KW
- Empty drawers for individual applications
- Easy and uniform handling for all drawer sizes
- Drawers can be replaced under live-line working conditions
- Internal separation up to form 4
- Unambiguous position indicator for operating, test or de-energized status
- Easy maintenance without the need of using any special tools for replacement jobs
- Minimum down times

xEnergy product features

Busbar location at rear up to 6300 A

- Clear separation into functional units (Form 1 to Form 4)
- Enclosures for combination and separate mounting
- Degree of protection IP 31 or IP 55
- Height 2000mm
- Widths 425mm, 600mm, 800mm, 1000mm, 1200mm
- Main busbar location at rear, up to 3200 A at 600mm section depth
- Main busbar location at rear, up to 4000 A at 800mm section depth
- 2 main busbar systems can be installed per section
- All mounted units as TTA's
- Network systems TN-C, TN-C-S, TN-S, TT, IT
- Colour RAL 7035 (others on demand)

XP power sections

- Feeders, outgoers with NZM 4 circuit-breakers up to 1600 A or IZM up to 6300 A
- Fixed mounted and withdrawable units
- 3- or 4-pole circuit-breakers
- Cable or busbar trunking connection from top or bottom

XF fixed mounted sections

- Outgoers with PKZ circuit-breakers, NZM up to 630 A
- 3- or 4-pole circuit-breakers
- Fixed mounted and removable units
- Cable connection from top and bottom

XG freely configurable sections

- Mounting systems for rail-mounted service installation devices for conventional service distribution boards
- Individual fixed mounted units on mounting plates up to 630 A, such as soft starters, frequency inverters, PFC modules
- Automation and control applications
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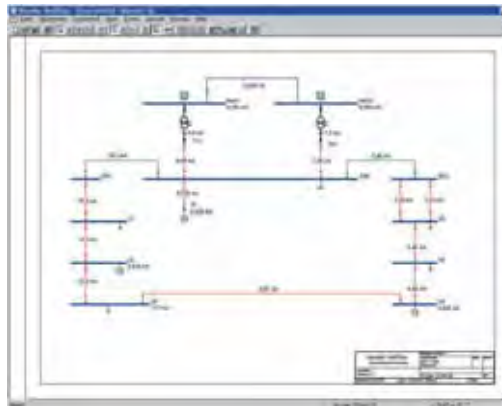
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Networked expertise, know-how as a competitive edge

Software tools

Eaton also offers a comprehensive set of tools. The software tools for planning, documentation and calculation provide all the support planners, panel builders and installation technicians need. The specially developed Eaton Toolbox includes tools for network calculations, configuration, quotations, engineering and ordering. Using Eaton tools, which have the system-specific data already built-in, means you can work faster and more efficiently.



xSpider

is a graphically oriented design software for dimensioning low-voltage network fitted with protective devices of eaton brands.

This software includes a database of all protective devices (MCBs, MCCBs, ACBs, Fuses and motor starters). Download for free: www.moeller.net



Configurator for xEnergy

The Configurator tool helps you configure the required xEnergy switchboard system simply and quickly. In this way, you can make your own quotations and generate accurate parts lists in no time at all and at the push of a button.

**Innovation included
When you use Eaton's**

innovative solutions and services, your switchboard systems immediately gain in power themselves – they become ready for future developments. They enable you to integrate tomorrow's power requirements today, configuring data management for growth and integrating communication now.

Flexible combinations

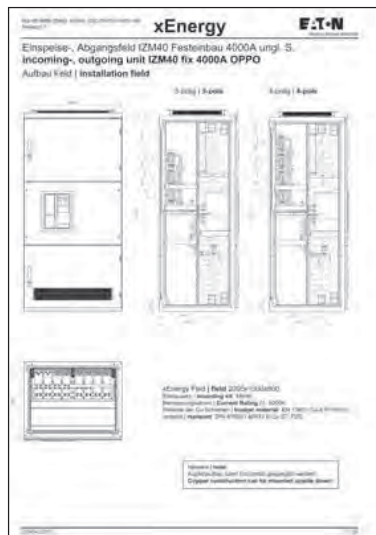
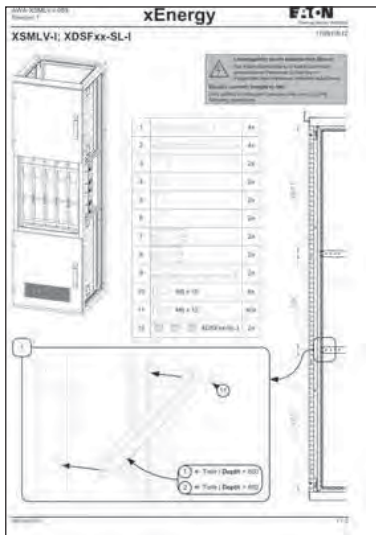
The systems for mounting components into the enclosures are precisely matched to each switching and protective device. This tailored technology offers you a high level of flexibility, thus ensuring easy handling and rapid installation. Up to 38 modules can be installed into a single section. Despite this high packing density, all devices can be used to the full in any combination.

Tested for safety

The relevant switchgear assemblies have been tested by Eaton to every level of protection, up to 6300 A. The extensive type tests include certification of short-circuit current capability up to the protective conductor circuit.

The xEnergy assembly manual also enables you to offer and build type-tested switchgear assemblies to individual specifications. In other words, xEnergy allows you to build further on Eaton's quality and safety.

All Assembly instructions, mounting instructions and certificates are available for xEnergy-partners on the eaton's website. Every xEnergy-partner will receive an access code giving him access to the database. www.xEnergy-partner.com



Service round the clock

You can always call on us for practical tips, and learn from our experience. We provide customers with technical support and training so that they can build their own xEnergy type-tested switchboard systems. For more details, please e-mail us at SupportDistributionboardAustria@eaton.com.

Knowledge is an asset

Your knowledge is a highly valuable asset. It is what helps you attract new customers. To help you further your own professional advancement, Eaton provides a monthly overview on its website of the many seminars and training courses it offers. For our latest offering, please visit www.moeller.net.

If you have any questions about xEnergy, about how it works or how it can be used, we will be happy to answer them. Just e-mail us at SupportDistributionboardAustria@eaton.com or visit our website: www.eaton.com



Eaton Partner program

The key to your success with xEnergy switchboard systems is the Eaton Partner program. Joining the program is well worth it: Not only will you receive a wealth of insider information, you will also be the first to get informed about facts and innovations regarding xEnergy.

A few seconds after you register under www.xenergy-partner.com you will become an xEnergy Partner Net will welcome you personally and all the benefits of the Eaton Partner program will instantly be available to you.

For more information visit us at www.eaton.com



EATON

xEnergy
Licensed Partner

Benefits

- Listing as a Licensed Partner on the Eaton website
- Access to BAs, AWAs (building and assembly instructions), Configurator, certificates and technical data sheets
- Continuously up-dated product information
- Software downloads
- Installation instructions
- Information material for your customers, such as catalogues and flyers
- Certificates of conformity and guidelines regarding IEC standards

Eaton's Electrical Sector is a global leader in power distribution, power quality, control and automation, and monitoring products. When combined with Eaton's full-scale engineering services, these products provide customer-driven PowerChain ManagementT solutions to serve the power system needs of the data center, industrial, institutional, public sector, utility, commercial, residential, IT, mission critical, alternative energy and OEM markets worldwide.

PowerChain Management solutions help enterprises achieve sustainable and competitive advantages through proactive management of the power system as a strategic, integrated asset throughout its life cycle, resulting in enhanced safety, greater reliability and energy efficiency. For more information, visit www.eaton.com/electrical.

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