

Power Defense SB insulated case circuit breakers



Power Defense SB circuit breakers with Power Xpert Release (PXR) trip units



Digitally transform your switchboard with Eaton's Power Defense SB (PD-SB) circuit breakers with PXR trip units for a more connected, reliable and safe system.

Digitally enhanced low-voltage power breaker portfolio

The Power Defense low voltage insulated case circuit breaker (ICCB) with PXR technology deliver accurate and intelligent circuit protection for UL 891 switchboard applications. The digital enhancements of the PXR electronic trip units combined with the proven reliability of Eaton's Magnum air circuit breakers (ACB) provide customers the ability to improve system health, accurately and efficiently diagnose system issues, and field test quickly for increased uptime.

Our compatible software and apps enhance commissioning and maintenance efforts, providing intuitive interfaces for set up of trip unit protection and operating parameters, secondary injection testing, troubleshooting, system situational awareness, and reports.

The PXR trip units provide an enhanced and easy-to-use software interface, which displays a summary for critical performance metrics, such as current and energy usage, battery life, and Zone Selective Interlocking (ZSI) status. Additionally, a scroll-through menu provides access to more detailed metrics, password protected settings, and access to the testing functionality.



EATON

Powering Business Worldwide



Advanced algorithms provide system health and improved safety

The PXR trip unit's breaker health feature and programmable relays/alarms will help you avoid costly downtime by enabling you to predict maintenance requirements on your power distribution system and alarm prior to component failure. The breaker health application aggregates system performance and events data to provide maintenance recommendations based on the breaker type. The programmable relays can be set up to provide pre-alarms to overload or ground fault conditions, as well as to breaker status, including health parameter level.

The ZSI system provides a means for breakers to coordinate during phase or ground faults, enabling the breaker closest to the fault to override user-defined delay settings to quickly clear the fault while minimizing downtime and reducing thermal and mechanical stress on the equipment. PXR trip units also display ZSI status and provide a visual indication when the restraining signal is received from downstream units.

For added protection, the breaker incorporates Eaton's patented Arc Flash Reduction Maintenance System™ to reduce arc flash level energy by decreasing the fault clearing times when enabled. The innovative safety feature can help you decrease personal protection equipment (PPE) requirements to enhance productivity, while also improving personnel safety and can be enabled remotely via communications or a remote switch.

Perform maintenance at a safe distance

The new motorized remote racking (MR2) solution offers another Eaton first in safety features for the Magnum and Power Defense line of ACBs. Combined with Eaton's Arc Flash Reduction Maintenance System and ZSI, Magnum offers unparalleled protection for personnel and equipment in low voltage power distribution. The innovative MR2 solution allows you to remotely insert a breaker into its cell from the disconnected position while safely remaining outside the arc flash boundary.

The Eaton Power Xpert Dashboard can be used as a clear simple one-line display interface of all your Magnum and Power Defense breakers with PXR and communicate to your PXR trip units for display of meter, status, alarms, and health as well as provide the ability to remotely enable the Arc Flash Reduction Maintenance System protection or perform remote rack-in/rack-out operations.

Features and benefits

- Industry-exclusive motorized remote racking (MR2) feature allows you to perform maintenance through our intuitive software at a safe distance.
- Embedded communications and revenue-grade energy metering accuracy help to reduce cost by eliminating the need for separate meters. Easily connect and push data through our Power Xpert Dashboards via direct Modbus RTU or Modbus TCP communications adapter module (CAM).
- Cost effectively perform secondary injection testing with our intuitive Power Xpert Protection Manager (PXPM) software.
- Breaker health and advanced algorithms help avoid costly downtime by enabling predictive maintenance on your power distribution system prior to component failure.
- Arc Flash Reduction Maintenance System reduces potential incident arc flash energy levels by faster clearing times at lower instantaneous pickup levels, reducing your PPE requirements and improving personnel safety and productivity.
- Multiple programmable high load and ground fault alarms help avoid costly downtime by providing pre-trip indications.



Why Eaton?

As life at home is impacted by the aspects of digital technology, so are the distribution assemblies you manage and maintain every day to keep the power flowing and operations up and running. Don't wait for the transformation to take shape. Integrate Eaton's digitally enhanced Magnum and Power Defense circuit breakers with PXR trip units today for a safer, more reliable system.

For more information, visit [Eaton.com/PowerDefense](https://www.eaton.com/PowerDefense), or contact your local Eaton sales representative.

Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
[Eaton.com](https://www.eaton.com)

© 2022 Eaton
All Rights Reserved
Printed in USA
Publication No. PA013008EN/NFMD
November 2022

Eaton is a registered trademark.

All other trademarks are property of their respective owners.

Follow us on social media to get the latest product and support information.

