

Energizing a world that demands more

Eaton brings a new dimension of expertise to help utilities improve reliability, drive operational efficiencies and reduce costs. Utilities rely on Eaton to help them protect people, processes and the environment with products and solutions that can enhance every aspect of their business. From safety to reliability, including addressing cyber security challenges, Eaton is helping utilities design, build and maintain a safer, automated, secure and cost-effective grid. Eaton delivers support in the wake of extreme weather conditions, workforce changes and shareholder expectations, all while managing power, complying with local and federal government regulations and providing solutions that help utilities make smart capital investments for the future.



Power distribution and protection



Integrated and mobile power assemblies (E-houses)

- Mobile Integrated Transportable Substation (MITS)
- Turnkey engineered E-houses
- Outdoor enclosures for metal-clad switchgear solutions



Medium- and lowvoltage switchgear

- · Generator- and line-mounted, metal-clad medium-voltage switchgear to 38 kV, metalenclosed low-voltage switchgear to 600 V and 10.000 A main bus
- · Low- and medium-voltage standard and arc resistant



Power and distribution transformers

- Liquid-filled to 12,000 kVA (ANSI) and dry-type to 10,000 kVA (ANSI)
- PEAKTM 75 °C AWR
- · Single-phase pad- and pole-mount
- Three-phase compact pad-mount and substation



Uninterruptible power supplies

- · Engineered solutions
- Three-phase and single-phase
- FERRUPS voltage regulating



Power capacitors and controls

- · Open air, metal-enclosed, polemount and mobile capacitor banks for system voltages, worldwide, from 2.4 kV through EHV
- · Single-phase unfused, externally and internally fused MV capacitors
- Oil or vacuum capacitor switches



Voltage regulators and controls

- · Substation, pole-mount and pad-mount configurations
- · Industry-exclusive multi-phase control option
- Tap-changer offers the fastest correction for large voltage excursions



Automatic transfer switches

• Breaker-based up to 5000 A

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- Contactor-based up to 3000 A
- Bypass isolation for both contactor- and breaker-based solutions



- Grid storage inverters
- Solar inverters



Reclosers and controls

- Single-phase, three-phase and triple-single operation
- · Oil or vacuum interruption with hydraulic or electronic control



Underground distribution switchgear

Network protectors

for vaults

• CM-52 and CM-22 protectors

· Arc flash mitigation solutions

· Communications and automation

- Vacuum fault interrupter for more reliable switching for 15, 25 and 35 kV systems
- Automatic source transfer to protect critical loads



Overcurrent and overvoltage protection

- · Distribution-, intermediate-, station-class and riser pole surge arresters for overhead and underground applications
- Current-limiting and power fuses for overhead, enclosuremounted, underground and vaulted applications



Panelboards, switchboards and safety switches

- · AC and DC panelboards, fusible and draw-out
- AC switchboards, draw-out and reverse fed
- Non-loadbreak pringle bolted pressure contact switches



Underground loadbreak and deadbreak connectors

- 200 A and 600 A loadbreak and deadbreak technology
- Complete line of connectors for sectionalizing, switching, protection, automatic source transfer equipment for pad-mounted and subsurface installations



Busway

- Pow-R-Way III busway rated IP66 up to 5000 A (600 V-15 kV)
- Non-segregated phase busway up to 5000 A (600 V-15 kV)
- Non-segregated phase busway up to 2000 A (27 V-38 kV)



Meters and relays

- - · Available for transformer, capacitor, motor, feeder and line distance protection



Demand response (DR) and peak-shaving

· Shift peak demand to manage system constraints and energy market exposure

• Revenue-grade energy monitors

InsulGard™ partial discharge

and BushingGard continuous

and panel meters

· Robust two-way data available for real-time validation, verification and forecasting

Automation and monitoring



Smart grid networks and advanced metering infrastructure (AMI)

- Two-way open RF platform that can support smart metering (electric, water and gas), demand response, distribution automation and street lighting control
- Customer portals and pre-paid solutions



Smart sensors and fault circuit indicators

- · Real-time data and alarms for improving distribution system reliability and operations
- Supports DNP3 protocol



Substation automation

- Provides interoperability and interconnectivity of IEDs with wide range of protocols
- Acts as NERC CIP electronic perimeter for all managed devices



Distribution automation solutions

- Easy software application integrates with Yukon™ Feeder Automation
- · Volt/VAR optimization and voltage conservation with Yukon Volt/VAR Management software

Motor control and instrumentation



Medium- and low-voltage motor control

- Medium-voltage motor control centers rated 2.4 kV to 13.8 kV
- Low-voltage motor controls for 600 V and below applications
- Standard, arc-resistant and arc-flash preventive motor control centers



Medium- and low-voltage drives

- 4160 V to 6000 hp (arc resistant) and 600 V to 2000 hp
- 24-pulse 2.4 kV and 4.1 kV to 6000 kV (ANSI) and 6-pulse 480 V and 575 V to 2 kV $\,$
- Complies with IEEE Std. 519™ 1992 2014 standard

Services



Crisis response

- Mobile 18-wheeler "base camp" with products and service personnel to reduce downtime
- · Manufacturing capacity reserved at factory for fast emergency
- · Crisis inventory provided as bundled offering supplied locally

Electrical products and services

· Medium- and low-voltage switchgear

• Medium- and low-voltage motor

· Capacitor banks, filters and

PH: (877) ETN-CARE

Associated product lines

trc@eaton.com

control centers

voltage regulators

E-houses



Electrical services

- · Arc flash studies and power system studies
- · Life cycle extension, energy management and turnkey project services
 - · Site testing and commissioning

• Medium- and low-voltage drives

Power and distribution

Meters and relays

· Electrical services

transformers and busway

• Uninterruptible power supplies



Design tools and services

- Lighting layout and design services
- Custom SKU-level 2D and 3D models for integration into design software
- Custom SKU-level specification sheets



CYME power systems engineering and analysis

software

- · Analyzes transmission, distribution and industrial networks
- · Provides impact assessment of new technology, smart grid and distributed generation for network optimization and reliability improvement

Eaton's Cooper Power Systems business

PH: (877) 277-4636 cps-info@cooperindustries.com

Associated product lines

- Underground distribution switchgear
- Overhead distribution equipment Power connectors
- · Capacitor banks, filters and voltage regulators
- Arresters

- Medium-voltage transformers • Distribution and substation
- AMI/DR solutions

EATON Electrical solutions for utilities line card



We deliver:

- Electrical solutions that use less energy, improve power reliability and make the places
 we live and work safer and more comfortable
- Hydraulic and electrical solutions that enable machines to deliver more productivity without wasting power
- Aerospace solutions that make aircraft lighter, safer and less costly to operate, and help airports operate more efficiently
- Vehicle drivetrain and powertrain solutions that deliver more power to cars, trucks and buses, while reducing fuel consumption and emissions

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Powering business worldwide

As a global power management company, we help customers worldwide manage the power needed for buildings, aircraft, trucks, cars, machinery and businesses.

Eaton's innovative technologies help customers manage electrical, hydraulic and mechanical power more reliably, efficiently, safely and sustainably. We provide integrated solutions that help make energy, in all its forms, more practical and accessible.

With 2015 sales of \$20.9 billion, Eaton has approximately 97,000 employees around the world and sells products in more than 175 countries.

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