

Electrical solutions for mining  
Line card

# Robust performance above and below ground



Exploration

Drill & blast

Cut, load & haul

Crush & grind

Material handling

Processing

## Energizing a world that demands more.

Eaton's products are energizing the world to maximize uptime and improve cost and energy efficiency while keeping people and property safe.

We're energized by the challenge of powering a world that demands more. With more than 100 years of experience in electrical power management, we have the expertise to see beyond today. From groundbreaking products to turnkey design and engineering services, mining owners and operators count on Eaton solutions to improve mining operations.



*Powering Business Worldwide*

## Electrical systems & services

### Electrical products and services

PH: (877) ETN-CARE

trc@eaton.com

#### Associated product lines

- Integrated power assemblies
- Medium- and low-voltage switchgear
- Medium- and low-voltage motor control centers
- Capacitor banks, filters and voltage regulators
- Medium- and low-voltage drives
- Power and distribution transformers/busway
- Uninterruptible power supplies
- Meters and relays
- Electrical services
- Power distribution surge protection

### Eaton's Power Systems business

PH: (877) 277-4636

cps-info@cooperindustries.com

#### Associated product lines

- Medium-voltage switchgear
- Overhead distribution equipment
- Power connectors
- Capacitor banks, filters and voltage regulators
- Arresters
- Medium-voltage transformers

### Wiring devices

PH: (866) 853-4293

custserv@

cooperwiringdevices.com

#### Associated product lines

- Wireless and instrumentation
- Water-tight connectors
- Wall outlets

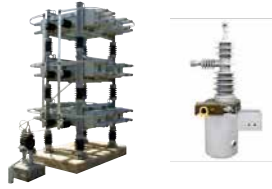
For more information about our products and solutions, visit:

**Eaton.com/Mining**



### Integrated power assemblies (E-houses)

- Turnkey engineered
- Mobile substations
- Factory acceptance testing, field commissioning



### Capacitor banks, filters and voltage regulators

- Low-voltage capacitor solutions
- Medium-voltage capacitor solutions
- Passive and active filters
- Medium- and low-voltage regulators



### Uninterruptible power supplies

- Engineered solutions
- Three-phase and single-phase
- FERRUPS voltage regulating
- ANSI and IEC configurations



### Wireless and instrumentation

- Wireless I/O systems
- Remote control belly packs
- Isolation barriers
- Surge suppression



### Medium- and low-voltage switchgear

- Metal-clad medium-voltage switchgear to 38 kV, 3000 A
- Metal-enclosed low-voltage switchgear to 600 V, 6000 A
- Integral motorized breaker racking
- ANSI and IEC, arc classified option



### Medium- and low-voltage drives

- MV ratings to 4160 V, 6000 hp, optional 15 kV input
- 24-pulse 2.4 kV and 4.1 kV with encapsulated technology
- LV ratings to 690 V, 2200 hp
- 6- and 18-pulse converter
- IEEE® 519 harmonic compliance



### Meters and relays

- Revenue grade energy monitors
- Panel meters
- Motor and feeder protective relays
- InsulGard partial discharge relays



### Electrical services

- Arc flash studies
- Power system studies
- Life cycle extension services
- Energy management services
- Site testing and commissioning
- Turnkey project services



### Medium- and low-voltage motor control centers

- Medium-voltage ratings to 13.8 kV, 800 A
- Low-voltage ratings to 600 V, 3200 A
- Standard, arc-resistant and arc preventive designs
- ANSI/NEMA® and IEC certified



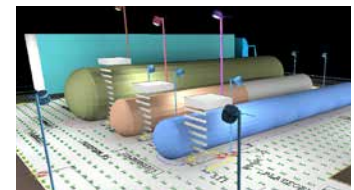
### Power and distribution transformers/busway

- Liquid filled to 12 MVA (ANSI)
- Non-segregated medium- and low-voltage busway
- FR3 environmentally-friendly fluid
- NEMA 4X Class I Division 2 hazardous location transformer



### Hazardous area communications

- Underground and shaft signaling systems (IEC)
- Closed circuit TV solutions
- Telephone and loudspeaker solutions
- HMI and process displays



### 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 engineering software

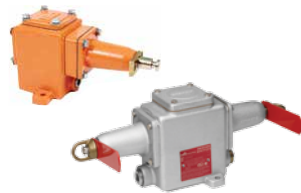


# Electrical products & bulk materials



## Lighting solutions

- LED, HID, incandescent and fluorescent
- Types: flood, task, high bay, wall pack, area and roadway
- Application: indoor, outdoor, industrial, harsh, hazardous areas
- ANSI and IEC configurations



## Conveyor control and pushbutton stations

- Conveyor pull switch
- Mine signal switch
- Pushbutton and control station
- Conveyor belt alignment switch
- Industrial and hazardous areas
- ANSI and IEC configurations



## Enclosures

- Junction boxes and enclosures
- Stainless steel, aluminum, fiberglass, steel iron
- Instrument housings
- Industrial- and commercial-grade enclosures
- Hazardous rated versions available
- ANSI and IEC configurations

## Eaton's Crouse-Hinds business

PH: (866) 764-5454

crouse.customerctr@cooperindustries.com

### Associated product lines

- Lighting solutions
- Plugs, receptacles and connectors
- Power connectors
- Cable, conduit and wiring solutions
- Hazardous area communications
- Signals and alarms
- Conveyor controls and pushbutton stations
- Mechanical solutions
- Design tools and services
- Instrumentation

## Eaton's B-Line business

PH: (800) 851-7415

blineus@cooperindustries.com

### Associated product lines

- Cable ladder systems
- Strut and fasteners
- Enclosures
- Safety walkway grating
- Design tools and services

## Eaton's Lighting business

PH: (770) 486-4800

talktous@cooperindustries.com

### Associated product lines

- Industrial lighting
- Indoor and outdoor fixtures
- Design tools and services

## Eaton's Bussmann business

PH: (636) 394-2877

fusebox@cooperindustries.com

### Associated product lines

- Power and control fuses
- Wireless solutions

For more information about our products and solutions, visit:

**Eaton.com/Mining**



## Cable ladder systems

- Aluminum, stainless steel, galvanized steel and FA series fiberglass material options
- Strut systems, fittings and accessories



## Mechanical solutions

- GripStrut® slip-resistant walkways
- Limberoller conveyor idlers
- Telescoping light poles



## Signal and alarms

- Beacons and strobes
- Fire detection and alarms
- Mass notification systems
- ANSI and IEC configurations



## Plugs, receptacles and connectors

- Welding receptacles
- Industrial, harsh, hazardous areas
- Molded to cable
- Passive connectivity
- ANSI and IEC configurations



## Power connectors

- Macey coupling systems (IEC)
- Quick-Loc® Series systems (ANSI)
- Medium load break connectors (ANSI and IEC)
- Industrial, harsh, hazardous areas



## Cable and conduit wiring solutions

- Industrial fittings
- Cable glands
- Hub reducers, adapters and accessories
- Industrial, harsh, hazardous areas
- ANSI and IEC configurations



## Low-voltage distribution

- OEM line isolation switch for control panels
- Panels (ANSI and IEC)
- Safety switches (ANSI and IEC)
- Dry-type distribution (ANSI)
- Control power transformers (ANSI and IEC)
- Industrial, harsh, hazardous areas
- Surge protective devices



## Circuit breakers

- Vacuum to 38 kV
- Low-voltage power circuit breakers
- Molded-case industrial breakers
- Molded-case mining breakers
- ANSI and IEC configurations



## Power and control fuses

- Medium-voltage expulsion and current limiting
- Low-voltage power
- Control fuses
- ANSI and IEC configurations



# Energizing a world that demands more.

## 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

Discover today's Eaton.

## 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 \$20.9B, Eaton has approximately 100,000 employees around the world and sells products in more than 175 countries.

[Eaton.com](http://Eaton.com)

**EATON**

*Powering Business Worldwide*

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