

Eaton Corporation - Electrical Division

# Capabilities Brochure

Australia and New Zealand

**EATON**

*Powering Business Worldwide*

Celebrating  
**100** YEARS  
Ideals that Endure

# An Introduction to Eaton Corporation

Eaton Corporation is a diversified power management company with 2010 global sales of US \$13.7 billion. Eaton is a global technology leader in electrical components and systems for power quality, distribution and control; renewable energy; hydraulics components, systems and services for industrial and mobile equipment; aerospace fuel, hydraulics and pneumatic systems for commercial and military use; and truck and automotive drivetrain and powertrain systems for performance, fuel economy and safety. Eaton has approximately 70,000 employees worldwide and sells products to customers in more than 150 countries. For more information, visit [www.eaton.com](http://www.eaton.com).

## The Eaton business system

The Eaton Business System provides the foundation for a high-performance culture through an integrated operating system. The Eaton Business System converts the power of many into the power of one Eaton, encompassing the core values, policies and processes used to conduct business and continually measure, assess and improve performance.

## Our area of business

Electrical – The Electrical business is a leader in electrical control, power distribution, renewable energy solutions, uninterruptible power systems and industrial automation products and services. The Electrical segment provides customer-driven solutions that serve the changing needs of the industrial, utilities, commercial, telecommunications, residential and original equipment markets.

## Centuries of electrical engineering expertise

**1886** Westinghouse engineers built and developed the apparatus that made alternating current the standard of the world and ushered in the age of electricity.

**1893** Cutler-Hammer pioneered the control of electricity in 1893 and over the years became a leader in developing advanced electrical distribution and control technology.

**1894 – 1908** Holec founding companies established including Hazemeyer

**1979** MEM Established

**1962** Founding Powerware companies are formed

**1979** Eaton acquires Cutler-Hammer

**1994** Eaton acquires Distribution and Control Business Unit of Westinghouse “One of the biggest acquisitions in the history of the electrical industry” *Electrical fellowship, US Jan 1994*

**2003** Eaton acquires Holec, MEM, Bell and IRH Components

**2004** Eaton acquires Powerware, leaders in AC and DC power protection

**2007** Eaton acquires Phoenixech

**2009** Eaton acquires Moeller





# Our areas of business

## Energy



Eaton is a key supplier to the Energy Market in Australia and New Zealand. Eaton holds preferred supplier status with a number of utilities for various products including LV switchgear, MV ring main units, test and measurement and fuse-links.

## Renewable Energy



With a wide spectrum of renewable energy power products designed to improve energy efficiency, Eaton is well positioned to offer full turn-key solutions for renewable energy projects of any size for both commercial and industrial applications. Our extensive product range, global presence and expertise coupled with local knowledge makes Eaton the logical choice for turn-key project solutions.

Our product range includes: AC/DC switching and protection, LV and MV switchgear, AC/DC surge protection, solar inverters, transformers, AC/DC switchboards, array combiners, load centres and enclosures, monitoring and metering, vacuum contactors, quick chargers for electric vehicles and BOS (balance of system) components for wind and solar applications.

## Commercial



Including High-rise / Government facilities / Public works / Data Centres / Hospitals / Universities / Schools.

In commercial applications Eaton brands excel in combining products and know-how into application specific solutions. From medium voltage distribution to automation. Products include Panelboards and Switchboards, Low Voltage and Medium Voltage switchgear, UPS Systems, Surge Suppression systems and safety switches

## Industrial



Including Petrochemical, Process, Food, Pharmaceuticals, and Telecommunications. Eaton solutions support reliable and dependable power supply to the industrial markets. Innovative solutions provide added benefits beyond the product, from Medium Voltage and Low Voltage systems and components plugs and connectors.

## Mining



Eaton's product range include components specifically developed for the mining industry. This includes 1000V switchgear, connectors, safety switches, vacuum contactors, air circuit breakers, ferro-resonant power conditioners, enclosures, pushbuttons, MV switchgear.

## Wholesale



The wholesale customer segment is a key channel for Eaton in making products and systems easily accessible to electricians and contractors including availability of replacement parts for all Industry.

Eaton holds preferred supplier status with key wholesale chains and supports this channel with a dedicated network of Eaton sales representatives.

## Our Team

Eaton's focus is to provide and develop optimum solutions together with you for your project. We work closely with customers and specifiers on key projects to ensure a match between what you need to achieve and what we deliver. Our team of Sales and Project Engineers are experienced industry personnel who understand your special requirements. When you plan your next project contact us and we will provide support to you and your staff throughout the project's phases.

# Renewable Energy Solutions

## PV Grid Connect Inverters

- Single-phase and three-phase
- Transformer-free designs
- Lead free (ROHS)
- High conversion efficiency
- >99.5% MPPT efficiency
- Plug and play
- 1 to 3 MPP trackers
- Monitoring solutions
- Compact, fan-free designs
- Complies with Australian Standards



## Electric Vehicle Quick Chargers

- Level 2 single-phase and three-phase DC quick chargers
- Communications and network management solutions



## Turnkey Solar Services

### Design - Pre-installation services



- Solar site assessments including technical and financial analysis
- Solar system design including shading and annual kWh output analysis
- Photovoltaic panel layout
- Electrical Balance Of System Design
- Monitoring system design (meters and software)
- Building connection and substation design
- Turnkey construction project management including design and procurement services

### Build - Installation services



- Turnkey construction projects
- Photovoltaic panel installation
- Electrical balance of system installation
- Monitoring system installation (meters and software)
- Building infrastructure connection
- Substation construction
- Utility grid interconnection, synchronizing and controls
- Solar system commissioning and performance verification

### Support - Post-installation services



- Remote performance monitoring (metering and data collection)
- Ongoing energy production monitoring and rebate certifications
- Building energy audits
- Site power quality, load shedding and future expansion analysis
- Maintenance
- Operations training for site personnel
- Safety training

### Value add - Additional services



- Eaton offers many additional services that help keep workers safe and clean, reliable power flowing.
- Arc flash hazard analysis and solutions
  - Power reliability studies
  - Green certification audits

## Electrical balance of system (BOS) and turnkey service solutions for wind turbines

**a**

### Products

- Power conversion components
- Turbine sensors
- Tower busway
- Base of tower switchgear
- Grid connection switchgear
- Metering and monitoring

**b**

### Services

- Substation construction
- Maintenance
- Retrofit upgrades
- Arc flash and power system studies

**c**

### Types of Installations

- Utility Nacelle
- Utility Base
- Small Nacelle



# Markets served

In the electrical industry, Eaton is a global leader in electrical control, renewable energy, power distribution and industrial automation products and services. Through advanced product development, world class manufacturing methods and global engineering services and support, Eaton provides customer-driven solutions under world renown brand names such as Cutler-Hammer, Powerware, Durant, Heinemann, Holec, and MEM, which globally serve the changing needs of the industrial, energy, commercial, mining, residential, and OEM markets.

Electricity plays a central role in modern life – so central, everything before it can most definitely be called the past. Eaton's expertise in the electrical power arena is nearly as broad as electricity's many

uses, covering the full range of power distribution, protection and maintenance systems and solutions.

We create solutions for an equally broad array of commercial, industrial and residential customers in the construction, industrial products, machinery, telecommunications and energy industries. These businesses have all come to rely upon Eaton's proven ability to help them manage electrical power in ways that improve reliability and productivity, reduce operating costs, increase safety and ease regulatory compliance. You can see the benefits of the electric power we help harness in the smooth operation of key installations including some of the world's busiest airports, off shore platforms, roadway/tunnel projects to name a few.



## Products and services

Eaton offers an extensive range of systems, components and services to the Australian and New Zealand markets which meet customer requirements for the safe and effective distribution, control and protection of electrical systems. Eaton Product lines are renowned for their ingenuity, reliability and quality. Eaton is advanced in product development, world-class manufacturing and global engineering services and support.

- Automation and Control
- Low Voltage Power Distribution
- Solar & Wind Balance Of Systems (BOS)
- Control Gear, Fuse Gear
- Power quality
- Plugs and Connectors
- Low Voltage Systems
- Medium Voltage Switchgear
- Test and Measurement
- Enclosures
- Uninterruptible Power Supply Systems
- DC Systems
- Electronic Components
- DC Quick Chargers for Electric vehicles (EV)

## Eaton engineering services

Eaton's Engineering Services group provides on-site engineering support including installation, commissioning, maintenance, troubleshooting.

## Global ethics

Eaton has always had a reputation for honesty and integrity. Our values and philosophy are clear: we care about how we get results. We understand that the highest standards of business conduct are essential in securing the respect and confidence of those with whom we do business. Eaton employees are proud of our company and every day we demonstrate our commitment to sustaining its exceptional standards.

## Code of ethics

Eaton Corporation requires that its directors, officers and employees abide by documented fundamental principles of ethical behaviour in performing their duties.

## Our Vision

To be the most admired company in our markets.