



# Energizing a world that demands more. 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 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

We provide integrated solutions that help make energy, in all its forms, more practical and accessible.

With 2014 sales of \$22.6 billion, Eaton has approximately 100,000 employees around the world and sells products in more than 175 countries.



### Eaton's electrical business

### Eaton is a global leader with expertise in:

- · Power distribution and circuit protection
- · Backup power protection
- Solutions for harsh and hazardous environments
- · Lighting and security
- · Structural solutions and wiring devices
- Control and automation
- Engineering services

Eaton is positioned through its global solutions to answer today's most critical electrical power management challenges. With 100 years of electrical experience behind us, we're energized by the challenge of powering up a world that demands twice as much energy as today. We're anticipating needs, engineering products and creating solutions to energize our markets today and in the future.

We are dedicated to ensuring that reliable, efficient and safe power is available when it's needed most.

Eaton.com

Eaton training solutions introduction

# Eaton can provide the expertise to develop the knowledge and skills of you and your workforce.

In the highly competitive world we now live in, all businesses and individuals alike have the constant drive to cut cost whilst delivering more than ever before. In addition to these daily grinds there is the need to be fully aware and actively practice a host of legislative and health and safety policies. This is where Eaton can help you and your business strive to be the best at what you do.







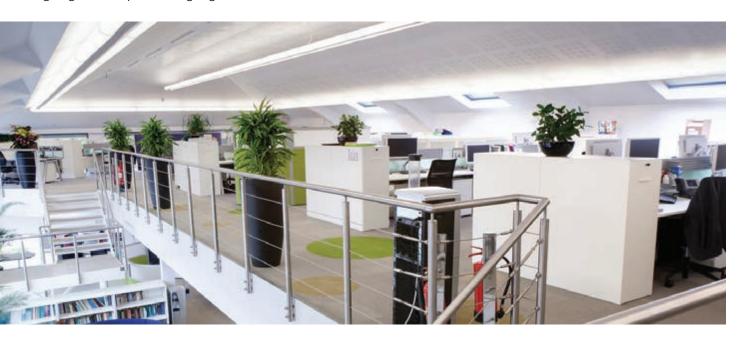
### Why train with Eaton?

- With experience across a range of industry sectors, our highly qualified team of trainers deliver meaningful and useful knowledge to our students demonstrating excellence and best in class
- Purpose built training environments to encourage learning in a quick, effective manner
- On-site training can be arranged if required
- Practical sessions to allow our learners to engage in simulated real life type scenarios
- Eaton as part of one of the world's leading power management businesses is able to provide the highest levels of expertise leading the way with technology and legislation
- Whatever your business requirements, Eaton can tailor courses to suit

Eaton offers accredited CPD training seminars covering a variety of topics. Each seminar lasts one hour and can be held at a customers' premises during lunchtime breaks to reduce the impact on working time.



Lighting and safety - De-energising





### Course duration

1 hour

### **Course location**

Eaton's Training Centre:-Birmingham Doncaster Manchester Slough OR your business premises

### **Booking details**

To book, or for further information about training courses from Eaton, send an email to: **Eaton Training** 

CPDUK@eaton.com

### De-energising the Office – A CPD seminar from Eaton

Eaton is offering a 1 hour seminar on De-energising the Office.

### At the end of the seminar, delegates will have an understanding of:

- Where office lighting design has come from and where it is going
- Looking at the most recent legislation, EN12464-1, and how it can be used to produce compliant and energy reducing designs
- Achieving low carbon lighting solutions

### Seminar content

- The history of office lighting
- Drivers for the future
- Legislation and compliance
- Office lighting design
- Consideration of lighting requirements for task areas
- Future challenges

### Target audience

- Consultants
- Designers
- Engineers

Lighting and safety - Emergency





### Course duration

1 hour

### **Course location**

Eaton's Training Centre:-Birmingham Doncaster Manchester Slough OR your business premises

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### Emergency Lighting – A CPD seminar from Eaton

Eaton is offering a 1 hour seminar on Emergency Lighting.

### At the end of the seminar, delegates will have an understanding of:

- The latest legislation for Emergency Lighting, including BS5266, and how to comply with the requirements
- Design, installation and monitoring requirements of an emergency lighting scheme

### Seminar content

- An overview of the requirements of BS5266
- How to design an emergency lighting scheme
- Open area and escape route requirements
- Requirements for exit signs
- Data authentication and the importance of quality
- Comparing alternative types of emergency lighting and the use of automatic testing
- Designing emergency lighting installations

### Target audience

- Consultants
- Designers
- Engineers

Lighting and safety - Central battery systems





### Course duration

1 hour

### Course location

Eaton's Training Centre:-Birmingham Doncaster Manchester Slough OR your business premises

### **Booking details**

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### Central Battery Systems - A CPD seminar from Eaton

Eaton is offering a 1 hour seminar on Central Battery Systems.

### At the end of the seminar, delegates will have an understanding of:

- How Central Battery Systems work, and the benefits of using them
- The types of Central Battery Systems and their applications
- The preferred code of practice relating to central battery systems and the testing/ maintenance requirements covered by the Fire Safety Order directive

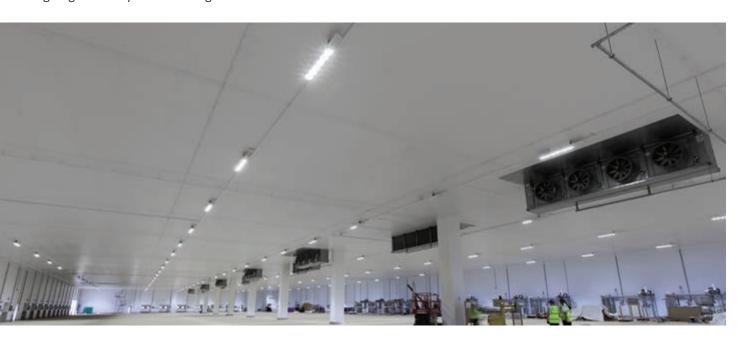
### Seminar content

- Design and installation standards / regulations
- Types of Central Battery Systems and their applications
- Equipment / battery technologies
- Central Battery System design and planning
- Why and when to use a Central Battery System
- Environmental considerations of using a Central Battery System
- Maintenance and running costs of Central Battery Systems
- Benefits of using Central Battery Systems

### Target audience

- Consultants
- Designers
- Engineers

Lighting and safety - The meaning of life





### Course duration

1 hour

### **Course location**

Eaton's Training Centre:-Birmingham Doncaster Manchester Slough OR your business premises

### **Booking details**

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### The meaning of life – A CPD seminar from Eaton

Eaton is offering a 1 hour seminar on LED Lighting.

### At the end of the seminar, delegates will have an understanding of:

- The elements of an LED luminaire, what to look out for when specifying an LED luminaire, and how to design with LED
- Performance characteristics of LED lighting, and getting the best out of the technology

### Seminar content

- Basics of the technology
- Market drivers of LED lighting
- The advantages and disadvantages of LEDs
- What to look for
- How to specify LED products
- How to design with LEDs

### Target audience

- Architects
- Consultants

Fire systems





### Course duration

1 hour

### Course location

Eaton's Training Centre:-Birmingham Doncaster Manchester Slough OR

your business premises

### **Booking details**

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# Visual Alarm Devices (VADs), A Guide to EN54-23 and Cop0001–A CPD seminar from Eaton

Eaton is offering a 1 hour seminar on Visual Alarm Devices (VADs), A Guide to EN54-23 and Cop0001.

### At the end of the seminar, delegates will have an understanding of:

- Addresses the general rules for system planning and design
- Providing guidance on the installation, service and maintenance of suitable visual alarm products
- Incorporation of the latest legislation and best practice guidelines affecting the use of VADs including the new standard EN 54-23 and CoP 0001: LPCB's Code of Practice for visual alarm devices used for fire warning

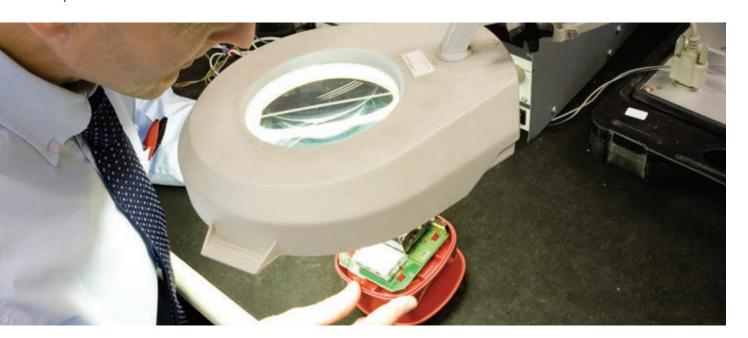
### Seminar content

- Changes to the legislation and standards affecting VADs
- Introduction to EN-23
- General rules for system planning and design
- External factors to be considered
- EN 54-23 compliant products
- Guide to installation, service and maintenance

### Target audience

- Risk assessors
- Specifiers
- Installers

Fire systems





### Course duration

1 hour

### **Course location**

Eaton's Training Centre:-Birmingham Doncaster Manchester Slough

OR

your business premises

### **Booking details**

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2 Wire Systems, understanding the difference between fire systems and how 2 Wire can save costs vs a conventional system

Eaton is offering a 1 hour seminar on the benefits of a 2 Wire or Bi Wire system over a Conventional system

### At the end of the seminar, delegates will have an understanding of:

- The different types of systems available and their benefits
- Undertsanding how a 2 Wire system differs from a conventional system and the saving that can be achieved
- An overview of the devices available and the basic operation of a 2 Wire system

### Seminar content

- Fire system comparisons
- 2 Wire benefits
- Bi-Wire system features
- Installation, commisioning and maintenance
- Basic operation
- Product and devices review

### Target audience

- Fire designers
- Integrators
- Building owners

Security systems





### Course duration

1 hour

### **Course location**

Eaton's Training Centre:-Birmingham Doncaster Manchester Slough OR your business premises

### **Booking details**

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# Understanding How Intruder Alarms Work – A CPD seminar from Eaton

Eaton is offering a 1 hour seminar on How Intruder Alarms Work.

### At the end of the seminar, delegates will have an understanding of:

- Intruder systems and associated technology, detailing considerations to be made when reviewing the security requirements of a property
- The new EN regulations, the UK PD6662:2010 scheme and the new BS82423:2010 standard, which came into force on June 1st 2012, outlining their implications for the security system user and manager

### Seminar content

- An understanding of the types of alarm systems available and the pros and cons of each
- The implications on hardware and system design
- An understanding of detection types, where these are used and how they are deployed to ensure the security of the property
- Supplementary hardware that can be used in conjunction with alarm systems to provide additional personal protection
- An understanding of the regulatory landscape surrounding intruder alarm systems
- The importance of both hardware and installation

### Target audience

- Contractors
- Consultants
- Electrical Engineers

Circuit protection and power management





### Course duration

1 hour

### Course location

Eaton's Training Centre:-Birmingham Doncaster Manchester Slough OR

your business premises

### **Booking details**

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# Understanding Circuit Protection Selectivity and Backup Protection – A CPD seminar from Eaton

Eaton is offering a 1 hour seminar on Understanding Circuit Protection Selectivity and Backup Protection.

### At the end of the seminar, delegates will have an understanding of:

- The requirements of the 17th Edition Wiring Regulations in respect of discrimination (selectivity) and back-up protection
- How to use manufacturers' information in the preparation of a discrimination study
- Reasons why discrimination may or may not be a requirement

### Seminar content

- Definitions with examples and different types of electrical circuit fault
- IEC / BSEN Standards applicable to fuses and circuit breakers
- How discrimination study is carried out
- Explanation of overload Vs short circuit discrimination
- Use of time current curves / look-up tables
- Current limiting properties of fuses and circuit breakers
- Category A Vs Category B MCCBs for time graded discrimination
- Backup protection brief overview
- Discussions and Questions

### Target audience

- Contractors
- Consultants
- Electrical Engineers

Circuit protection and power management





### Course duration

1 hour

### **Course location**

Eaton's Training Centre:-Birmingham
Doncaster
Manchester
Slough
OR
your business premises

### **Booking details**

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# Building Regulations Part L2 Overview and the Impact on Electrical Power Measurement – A CPD seminar from Eaton

Eaton is offering a 1 hour seminar on Building Regulations Part L2 Overview and the Impact on Electrical Power Measurement in industrial and commercial buildings.

### At the end of the seminar, delegates will have an understanding of:

- The Background to legislation
- L2 Building Regulations
- CIBSE documents and design steps
- Measuring Instruments Directive
- Manufacturers' solutions

### Seminar content

- Background to legislation
- L2 Building Regulations overview
- CIBSE documents and design steps
- Measuring Instruments Directive
- Manufacturers' solutions
- Discussions and Questions

### Target audience

- Contractors
- Consultants

Circuit protection and power management





### Course duration

1 hour

### **Course location**

Eaton's Training Centre:-Birmingham Doncaster Manchester Slough OR

your business premises

### **Booking details**

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### Power Factor Correction – A CPD seminar from Eaton

Eaton is offering a 1 hour seminar on providing a greater awareness of what PFC is and its merits, plus how to determine whether you have a requirement for use.

### At the end of the seminar, delegates will have an understanding of:

- What is PFC (Power Factor Correction)
- How to determine PFC requirements
- How to calculate and specify PFC
- What are the overall benefits

### Seminar content

- Overview of what is PFC (Power Factor Correction)
- Determining PFC requirements
- Calculation and specification
- Benefits
- Discussion and Questions

### Target audience

- Specifiers
- Architects
- Contractors
- Consultants

Circuit protection and power management





### Course duration

1 hour

### **Course location**

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### Arc Flash in Low Voltage Switchboards – A CPD seminar from Eaton

Eaton is offering a 1 hour seminar on understanding the potential hazards presented by arcing faults in Low Voltage switchboards.

### At the end of the seminar, delegates will have an understanding of:

- What is Arc Flash
- Understanding the potential hazards and measures to mitigate them
- Risk data
- Regulations and Legislation
- Standards and Guidelines
- Solutions

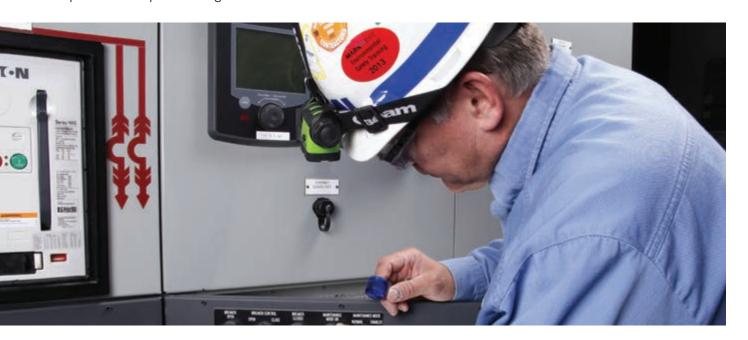
### Seminar content

- What is Arc Flash
- Risk data
- Regulations and Legislation
- Standards and Guidelines
- Solutions
- Discussions and Questions

### Target audience

- Electrical Engineers
- Designers
- Specifiers
- Consultants

Circuit protection and power management





### Course duration

1 hour

### Course location

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### Switchgear for IE3 Motors- A CPD seminar from Eaton

Eaton is offering a 1 hour seminar on Switchgear for IE3 Motors.

### At the end of the seminar, delegates will have an understanding of:

- The Background to legislation
- Measuring Instruments Directive
- Manufacturers' solutions

### Seminar content

- Activities by the EU to achieve the climate protection targets
- Contents, scope and implementation of the ErP directive including a time-line. (Note that we are currently part way through the introduction of new legislation)
- The Improvement and changes to motors to achieve higher energy efficiency
- Influence of the changes on the starting behaviour of motors
- Measuring results, tests and experiences with IE3-motors by EATON
- Modification of motor starters for the increased inrush currents of IE3-motors
- The seminar also covers the scope of upgrading motor control equipment in enable IE2 motors to meet the new legislation

### Target audience

- Electrical Engineers
- Designers
- Specifiers

Circuit protection and power management





### Course duration

1 hour

### Course location

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### Basic Fuse-Ology- A CPD seminar from Eaton

Eaton is offering a 1 hour seminar on Basic Fuse-Ology.

### At the end of the seminar, delegates will have an understanding of:

- The components used to construct a fuse link
- How a fuse works and the operating process of a fuse during fault clearing
- The reason a fuse should be used and its advantages
- An understanding of the electrical characteristics of a fuse and fuse selection
- The many types of fuse links available

### Seminar content

- Basic electrical theory relating to fuse protection
- Fuse construction and components that make up a fuse link and their importance
- The operating process and the function of a fuse links components for safe fuse operation and fast fault clearing
- Overcurrent circuit protection with fuse links. Fault currents and how the fuse is used to limit fault currents and isolate circuits quickly
- How the fuse functions and the technology used to achieve different operating characteristics
- Fuse selection requirements and how to select the correct type of fuse
- Fuse types and categories including the terminology used to identify different types available
- The electrical characteristics of a fuse link and how to use the data to help with fuse selection

### Target audience

- Electrical engineers
- Design engineers
- Specifies
- Anybody in the electrical industry wishing to know more about circuit protection with fuse links

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