

## Internal cartridge fuse installation instructions



*Powering Business Worldwide*

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## Safety for life



Eaton meets or exceeds all applicable industry standards relating to product safety in its Cooper Power™ series products. We actively promote safe practices in the use and maintenance of our products through our service literature, instructional training programs, and the continuous efforts of all Eaton employees involved in product design, manufacture, marketing, and service.

We strongly urge that you always follow all locally approved safety procedures and safety instructions when working around high voltage lines and equipment, and support our “Safety For Life” mission.

## Safety information

The instructions in this manual are not intended as a substitute for proper training or adequate experience in the safe operation of the equipment described. Only competent technicians who are familiar with this equipment should install, operate, and service it.

A competent technician has these qualifications:

- Is thoroughly familiar with these instructions.
- Is trained in industry-accepted high and low-voltage safe operating practices and procedures.
- Is trained and authorized to energize, de-energize, clear, and ground power distribution equipment.
- Is trained in the care and use of protective equipment such as arc flash clothing, safety glasses, face shield, hard hat, rubber gloves, clampstick, hotstick, etc.

Following is important safety information. For safe installation and operation of this equipment, be sure to read and understand all cautions and warnings.

### Hazard Statement Definitions

This manual may contain four types of hazard statements:

#### DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

#### WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

#### CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

#### CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in equipment damage only.

### Safety instructions

Following are general caution and warning statements that apply to this equipment. Additional statements, related to specific tasks and procedures, are located throughout the manual.

#### DANGER

**Hazardous voltage. Contact with hazardous voltage will cause death or severe personal injury. Follow all locally approved safety procedures when working around high- and low-voltage lines and equipment.**

G103.3

#### WARNING

**Before installing, operating, maintaining, or testing this equipment, carefully read and understand the contents of this manual. Improper operation, handling or maintenance can result in death, severe personal injury, and equipment damage.**

G101.0

#### WARNING

**This equipment is not intended to protect human life. Follow all locally approved procedures and safety practices when installing or operating this equipment. Failure to comply can result in death, severe personal injury and equipment damage.**

G102.1

#### WARNING

**Power distribution and transmission equipment must be properly selected for the intended application. It must be installed and serviced by competent personnel who have been trained and understand proper safety procedures. These instructions are written for such personnel and are not a substitute for adequate training and experience in safety procedures. Failure to properly select, install or maintain power distribution and transmission equipment can result in death, severe personal injury, and equipment damage.**

G122.3

## Product information

### Introduction

Eaton's *Service Information MN132013EN* provides instructions to mount a Cooper Power™ series cartridge fuse onto a bushing or a terminal board.

### Read this manual first

Read and understand the contents of this manual and follow all locally approved procedures and safety practices before installing or operating this equipment.

### Additional information

These instructions cannot cover all details or variations in the equipment, procedures, or process described nor provide directions for meeting every possible contingency during installation, operation, or maintenance. For additional information, contact your representative.

### Acceptance and initial inspection

Each cartridge fuse is in good condition when accepted by the carrier for shipment. Upon receipt, inspect the shipping container for signs of damage. Unpack the cartridge fuse and inspect it thoroughly for damage incurred during shipment. If damage is discovered, file a claim with the carrier immediately.

### Handling and storage

Be careful during handling and storage of the cartridge fuse to minimize the possibility of damage. If the cartridge fuse is to be stored for any length of time prior to installation, provide a clean, dry storage area.

### Standards

ISO 9001 Certified Quality Management System

### Description

The cartridge fuse is mounted vertically on either a bushing or a terminal board inside the transformer tank with the fuse lead end downward at least 2.0 inches (51 mm) beneath the level of the dielectric fluid.

**Table 1. Clearance, Minimum**

Fuse Voltage Rating (kV)	Clearance to Ground in (mm)
8.3	2.0 (51)
15.5	3.5 (89)

**Note:** Thread size is 1/4 X 20-0.75 in.

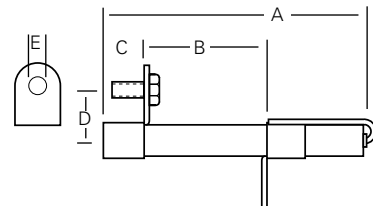
**Table 2. Current Sensing Cartridge Dimensions\***

Figure	Dimensions in (mm)					
	A	B	C	D	E	Dia.
1	5.18 (131.6)	3.12 (79.2)	0.87 (22.1)	0.87 (22.1)	0.24 (6.1)	0.50 (12.7)
2	6.37 (161.8)	4.06 (103.1)	0.87 (22.1)	0.87 (22.1)	0.24 (6.1)	0.50 (12.7)

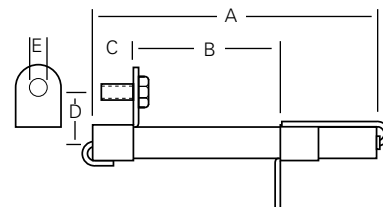
\* Refer to page 2 for dual sensing cartridge information.

### Installation-Torque Requirement

Figures 1 and 2	18-30 inch pounds
Figures 3 and 4	18-36 inch pounds
Figures 5 and 6	18-30 inch pounds



**Figure 1. 3437718C\_M; 8.3 kV, 200 A interrupt.**



**Figure 2. 3437719C\_M; 15.5 kV, 1000 A interrupt.**

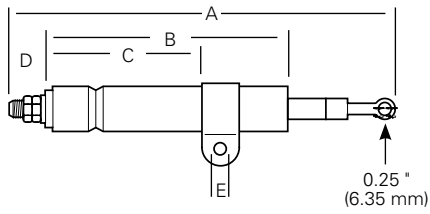


Figure 3. (3437628C\_M; 8.3 kV, 2000 A Interrupt)

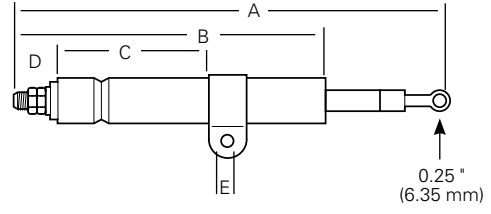


Figure 4. (3437629C\_M; 15.5 kV, 1000 A Interrupt)

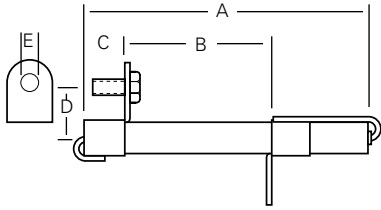


Figure 5. (3437723C\_M; 15.5 kV, 1000 A Interrupt)

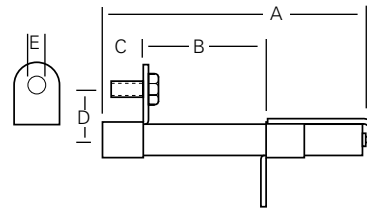


Figure 6. (3437722C\_M; 8.3 kV, 2000 A Interrupt)

**Note:** Dimensions given are for reference only.

**Dual Sensing Cartridge Dimensions in (mm)**

Figure	A	B	C	D	E	Dia
3	9.37 (237.0)	5.62 (142.7)	4.0 (101.6)	0.62 (15.7)	0.34 (8.6)	0.75 (19.1)
4	11.18 (284.0)	6.80 (172.7)	4.00 (101.6)	0.62 (15.7)	0.34 (8.6)	0.75 (19.1)
5*	6.37 (161.8)	4.06 (103.1)	0.87 (22.1)	0.87 (22.1)	0.24 (6.1)	0.50 (12.7)
6*	5.18 (131.6)	3.12 (79.2)	0.87 (22.1)	0.87 (22.1)	0.24 (6.1)	0.50 (12.7)

\* Thread size is 1/4 X 20-0.75 in.

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