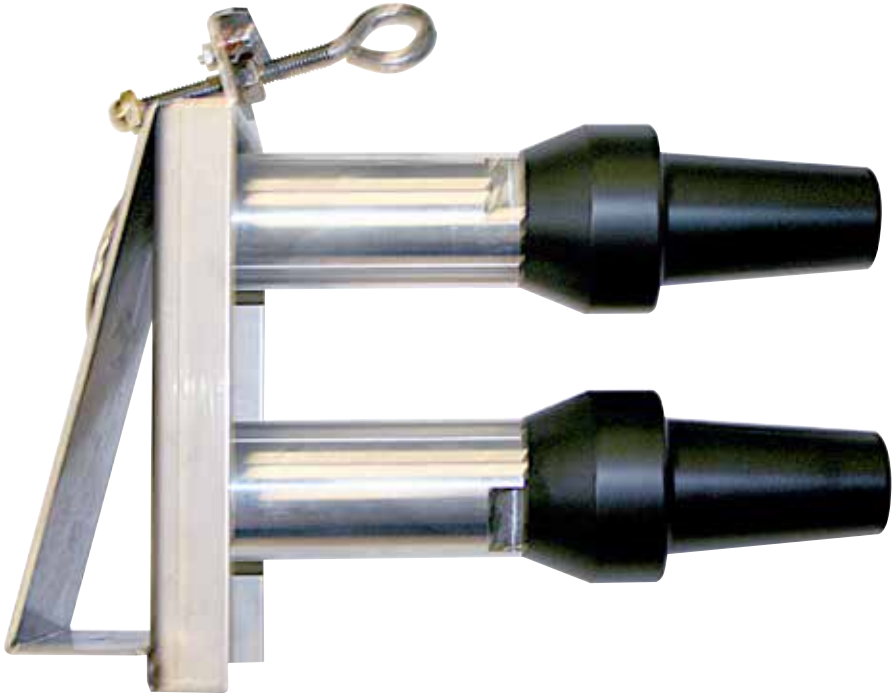
600 A 15 and 25 kV class Cleer loadbreak standoff bushing installation instructions



Powering Business Worldwide

DISCLAIMER OF WARRANTIES AND LIMITATION OF LIABILITY

The information, recommendations, descriptions and safety notations in this document are based on Eaton Corporation's ("Eaton") experience and judgment and may not cover all contingencies. If further information is required, an Eaton sales office should be consulted. Sale of the product shown in this literature is subject to the terms and conditions outlined in appropriate Eaton selling policies or other contractual agreement between Eaton and the purchaser.

THERE ARE NO UNDERSTANDINGS, AGREEMENTS, WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, OTHER THAN THOSE SPECIFICALLY SET OUT IN ANY EXISTING CONTRACT BETWEEN THE PARTIES. ANY SUCH CONTRACT STATES THE ENTIRE OBLIGATION OF EATON. THE CONTENTS OF THIS DOCUMENT SHALL NOT BECOME PART OF OR MODIFY ANY CONTRACT BETWEEN THE PARTIES.

In no event will Eaton be responsible to the purchaser or user in contract, in tort (including negligence), strict liability or otherwise for any special, indirect, incidental or consequential damage or loss whatsoever, including but not limited to damage or loss of use of equipment, plant or power system, cost of capital, loss of power, additional expenses in the use of existing power facilities, or claims against the purchaser or user by its customers resulting from the use of the information, recommendations and descriptions contained herein. The information contained in this manual is subject to change without notice.

Contents

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 Cooper Power™ series 600 A, 15 and 25 kV Class Cleer™ loadbreak standoff bushing meets the applicable requirements of IEEE Std 386™ standard, "Separable Insulated Connector Systems" and provides double interfaces for temporarily parking its Cooper Power series Cleer loadbreak connector in sectionalizing cabinets and in underground vaults. The standoff bushing is designed to be installed in the parking stand of the sectionalizing cabinet or in a parking stand mounted in a vault.

⚠ WARNING

Hazardous Voltage. All associated apparatus must be de-energized during any hands-on installation or maintenance. Failure to comply could result in death and severe personal injury.

⚠ CAUTION

The 600 A, 15 and 25 kV Class standoff bushings are designed to be operated in accordance with normal safe operating procedures. These instructions are not intended to supersede or replace existing safety and operating procedures.

The standoff bushing should be installed and serviced only by personnel familiar with good safety practices and the handling of high-voltage electrical equipment.

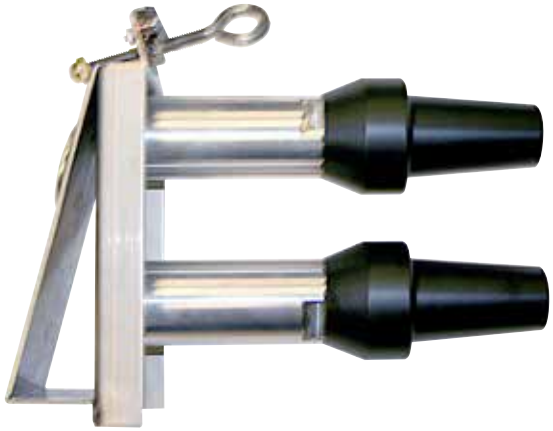


Figure 1. 600 A, 15 and 25 kV Class Cleer loadbreak standoff bushing (parking stand version shown).

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 Eaton representative.

Acceptance and initial inspection

Each Cleer standoff bushing is in good condition when accepted by the carrier for shipment. Upon receipt, inspect the shipping container for signs of damage. Unpack the standoff bushing 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 standoff bushing to minimize the possibility of damage. If the standoff bushing is to be stored for any length of time prior to installation, provide a clean, dry storage area.

Quality standards

ISO 9001 Certified Quality Management System

Installation procedure

Equipment required

- Cleer standoff bushing assembly kit including:
  - Standoff bushing
  - Lubricant
  - Instruction sheet
- Tools:
  - Clampstick
  - Wrench (direct wall mount)
  - Mounting hardware (customer supplied)

Direct wall mount

Step 1
Install standoff bushing

- Place wall mount standoff assembly against mounting surface. Position and mark mounting surface.
- Using 1/2" hardware, (customer supplied), secure stand-off assembly to mounting surface, using all four holes shown in Figure 2.

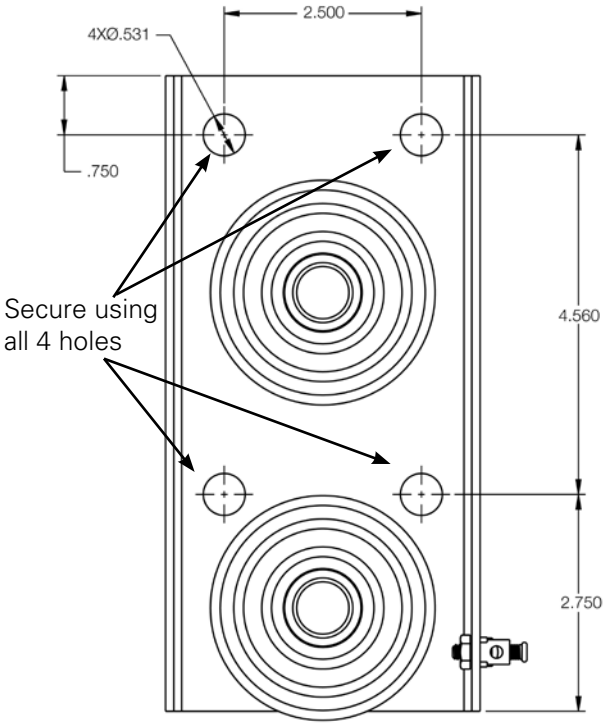


Figure 2. Direct wall mount.

Step 2
Clean and lubricate

- Clean interface surfaces of standoff bushing and lubricate with lubricant supplied or an Eaton approved equivalent.

Step 3
Attach ground lead

- Attach #14 AWG drain wire from standoff bushing grounding lug to system ground.
- Proceed to Step 4, Operate.

Parking Stand Mount

Step 1
Clean and lubricate

- Clean interface surfaces of standoff bushing and lubricate with lubricant supplied or an Eaton approved equivalent.

Step 2
Attach ground lead

- Attach #14 AWG drain wire from standoff bushing grounding lug to system ground.

Step 3
Install standoff bushing

- Grasp the eyebolt on the standoff bushing with a clampstick. Using clampstick, install the standoff bushing into the parking stand bracket.
- Using clampstick, turn the eyebolt clockwise to ensure rigid mounting.

Note: Cleer parking stand standoff bushings are designed to fit standard standoff brackets furnished with most apparatus.

Step 4
Operate

- Attach a clampstick into the pulling eye of the Cleer LCN connector. Disconnect the connector from the loadbreak bushings, position the connector probes into the standoff bushings and push tightly onto the standoff bushings.
- Cover the energized Cleer loadbreak bushings with grounded insulated protective caps.

Note: Cleer 600 A standoff bushings must be covered with insulated protective caps when not in use to keep the interface clean.

This page is intentionally left blank.

Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

Eaton's Cooper Power Systems Division
2300 Badger Drive
Waukesha, WI 53188
United States
Eaton.com/cooperpowerseries

Printed in USA
Publication No. MN650021EN Rev 00
(Replaces S6001003 Rev 00)

For Eaton's Cooper Power series product information call 1-877-277-4636 or visit: www.eaton.com/cooperpowerseries.

Powering Business Worldwide