200 A 15, 25, and 35 kV class insulated standoff bushing installation instructions

Cooper
Power Systems
by EATON

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Safety for life

Eaton's Cooper Power Systems products meet or exceed all applicable industry standards relating to product safety. 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's Cooper Power Systems 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 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 a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

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

CAUTION

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

CAUTION: Indicates a hazardous situation which, if not avoided, could 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

The 200 A, Insulated Standoff Bushing from Eaton's Cooper Power Systems meets the full requirements of IEEE Std 386™ standard - Separable Insulated Connector Systems and provides a single loadbreak interface made of high quality peroxide-cured EPDM rubber. It is used to isolate and sectionalize energized cable in pad-mounted cabinets, underground vaults, and other apparatus. Temporary or permanent parking of energized 200 A loadbreak elbow connectors that conform to IEEE Std 386™ standard is simplified with use of the insulated standoff bushing.

The insulated standoff bushing is designed to be installed in the parking stand mounted on a transformer or other apparatus. A grounding lug is provided on the standoff bushing bracket for attachment of a drain wire to ensure deadfront construction. When mated with a comparably rated product, the insulated standoff bushing provides a fully-shielded, submersible, separable connector for energized operation.

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

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 insulated 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 insulated 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 insulated standoff bushing to minimize the possibility of damage. If the insulated protective 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

Equipment required

- Insulated Standoff Bushing Assembly Kit including:
  - Insulated Standoff Bushing
  - Lubricant
  - Instruction Sheet

Tools required

- Hotstick

Installation procedure

Step 1.

Clean and lubricate

- Remove protective shipping cap.
- Clean interface surface of standoff bushing and lubricate with lubricant supplied or an Eaton's Cooper Power Systems approved equivalent.

Step 2.

Attach drain wire

- Attach #14 AWG drain wire from standoff bushing grounding lug to ground bus on apparatus.

Step 3.

Install standoff bushing

- Grasp the eyebolt on the standoff bushing with a hotstick.

  Using a hotstick, install the standoff bushing on the parking stand.
- Using a hotstick, turn the eyebolt clockwise to ensure rigid mounting.

Note: Insulated standoff bushings are designed to fit standard standoff brackets furnished with most apparatus.

Step 4.

Operating procedures

- Attach a hotstick into the pulling eye of the loadbreak elbow. Disconnect the elbow from the bushing, position the elbow probe into the standoff tap and push tightly onto the standoff bushing.
- Cover the energized bushing with a grounded insulated protective cap.

Note: Standoff bushings must be covered with an insulated protective cap when not in use to keep the interface clean.

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