
15 /25/35 kV 200A CLASS BUSHING INSERT INSTALLATION & OPERATING INSTRUCTIONS

DESCRIPTION

The CHARDON bushing insert is designed for assembly to a high-voltage bushing well and is used as a mating loadbreak connector for a loadbreak elbow. Using bushing inserts makes field installation and replacement possible and efficient. The bushing insert is designed to operate with a bushing well meeting the interface requirements of Fig. 3 of the IEEE Standards for Separable Insulated Connector Systems, ANSI / IEEE 386. The elbow interface of the bushing insert meets the requirements of ANSI/IEEE 386 as defined below:

- 15kV 200A Class (8.3kV and 8.3/14.4kV)
- 25kV 200A Class (15.2kV and 15.2/26.3kV)
- 35kV 200A Class (21.1kV)

BUSHING INSERT KIT CONTENT

- 1 - Bushing Insert, with Shipping Cap
- 1 - Silicone Grease 5g
- 1 - Paper Towel



CAUTION All associated apparatus must be de-energized during installation and/or maintenance.



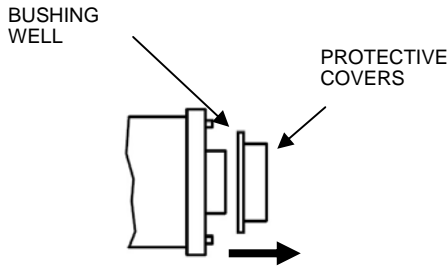
DANGER Do not touch or move energized product by hand. Failure to follow this instruction may result in serious or fatal injury, as well as damage to the product.

SAFETY INFORMATION

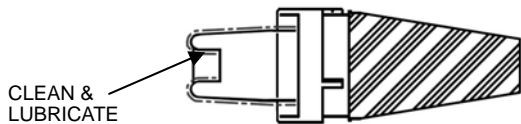
The instructions in this manual are not intended as a substitute for proper training or adequate experience in the safe operation of the equipment described. Only competent technicians, who are familiar with this equipment should install, operate and service it.

INSTALL PROCEDURE

STEP 1



- Remove the protective cover from the high-voltage bushing well.
- Clean bushing well and apply a thin uniform coating of lubricant provided to the bushing insert interface as shown.



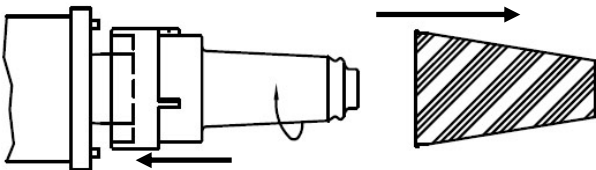
- Clean mating interface of bushing insert and apply a thin, uniform coating of lubricant.



NOTE: Do not substitute other lubricants for those provided.

STEP 2

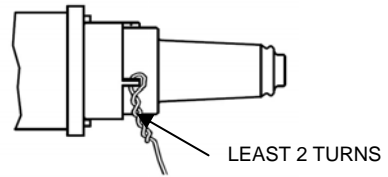
1. SHIPPING CAP



2. PLACE BI & tighten in a clockwise

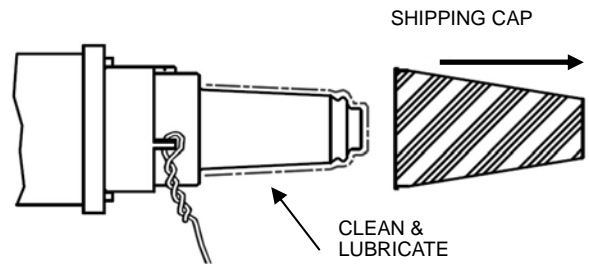
- Remove the shipping cap from bushing insert.
- Place the bushing insert into the bushing and tighten in a clockwise direction until it bottoms, achieving a final minimum torque of 150 inch pounds up to a maximum of 180 inch pounds.
- Replace the cover after tightening if the mating product is not to be assembled immediately. Do not energize bushing with shipping cap installed.

STEP 3



- Attach a piece of wire equivalent to #14 copper wire to the eye on the body of the bushing insert.
- Hold the strand with pliers close to the rubber eye hole and tightly twist the loose end around the strand at least 2 turns.
- Cut off excess wire and squeeze the loop adjacent to the body of the eye.
- Attach the other end of the wire to a ground connection.

STEP 4



- Remove the shipping cap if it is in place and clean the operating interface.
- Uniformly apply one tube of lubricant provided to the bushing operating interface. Use only the lubricant provided with the bushing insert.

WARNING:



THE SHIPPING CAP IS NOT SUITABLE AS AN INSULATING CAP FOR ENERGIZED USE.

WARNING:



ALL ASSOCIATED APPARATUS MUST BE DE-ENERGIZED BEFORE PREPARATION OR REPREPARATION PROCEDURES.

LOADBREAK OPERATION

- Securely fasten a suitable live-line tool to the pulling eye of the mating loadbreak elbow.
- Without exerting any pulling force, slightly rotate the elbow clockwise to break surface friction between the elbow and bushing.
- Withdraw the elbow from the bushing with a fast, firm, straight motion, being careful not to place the connector near a ground plane.
- Place the elbow on an appropriate accessory device, following the operating instructions for that accessory.
- Place an insulated protective cap with drain wire attached to system ground on any exposed energized bushing using a suitable live-line tool.

LOADMAKE OPERATION

- Area must be clear of obstructions or contaminants that would interfere with the operation of the loadbreak elbow.
- Securely fasten a suitable live-line tool to the pulling eye.
- Place the loadbreak elbow over the bushing, inserting the white arc follower of the probe into the bushing approximately 2 1/2" until a slight resistance is felt.
- Immediately thrust the elbow onto the bushing with a fast, firm, straight motion, with sufficient force to latch the elbow to the bushing.
- Push again on the elbow with the live-line tool, and then pull gently to make sure that it is secure.

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