

Installation & Operating Instructions

Hubbell Elbow Arrester 200A, 15kV, 25kV, & 35kV Class

DESCRIPTION

Hubbell Elbow Arresters are designed to provide an effective overvoltage protection for underground distribution systems. They will mate with any 200A loadbreak bushing or accessory that contains the corresponding operating interface per IEEE Std. 386 and has a fault close rating of 10kA, symmetrical.

- 15kV Class: 200A 8.3kV (Interface 5)
- 25kV Class: 200A 15.2kV (Interface 7A)
- 35kV Class: 200A, 21.1kV (Interface 7B)
- 35kV Class: 200A, 21.1kV (Interface 8)

CONTENTS OF PACKAGE

- (1) Elbow Arrester
- (1) Lubricant (DO NOT SUBSTITUTE)
- (1) Instruction Sheet

Normally Recommended MCOV for Various System Voltages			
System L-L Voltage (kV)		Arrester MCOV (kV)	
Nominal	Maximum	Grounded Neutral Circuits	3-Phase Ungrounded Circuits
2.40	2.54	2.55	2.55
4.16	4.40	2.55	5.10
4.80	5.08	5.10	5.10
6.90	7.26	5.10	7.65
8.32	8.80	5.10	8.40
12.00	12.70	7.65	12.70
12.47	13.20	7.65	15.30
13.20	14.00	8.40	15.30
13.80	14.50	8.40	15.30
20.78	22.00	12.70	22.00
22.90	24.20	15.30	24.40
23.00	24.34	15.30	24.40
24.94	26.40	15.30	
28.00	29.80	17.00	
34.50	36.50	22.00	

Note:

- Read these instructions thoroughly before operating the system.
- Check contents of box to ensure that it is complete and the components are NOT damaged.
- Verify product compatibility to existing system

Important:

The elbow arrester should only be applied to systems where the power frequency voltage seen by the arrester does not exceed the published maximum continuous operating voltage (MCOV). The nominal voltage rating and the MCOV are located on each elbow arrester.

CAUTION

The equipment covered by these instructions should be installed, operated and serviced only by competent personnel familiar with safety practices. This instruction is written for such personnel and is not intended as a substitute for adequate training and experience in safe procedures for this type of equipment.

DANGER

Do not touch or move energized product by hand. Be sure that the arrester is rated for their intended application. Any failed or suspicious arrester should be considered energized because failed arresters on re-energized lines can maintain voltage. Failure to follow this instruction may result in damage to the products and serious or fatal injury.

These instructions do not purport to cover all details or variations in equipment nor to provide for every possible contingency to be met in connection with installation, operation or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to Hubbell Power Systems, Inc.

ELBOW ARRESTER

The elbow arrester can be installed on energized or de-energized systems. Hubbell Power Systems recommends installation on de-energized systems whenever possible. Follow the same installation procedures for de-energized systems.

ENERGIZED SYSTEM INSTALLATION

Preparation:

1. Check the arrester for appropriate voltage rating and the interface for application
2. Verify system maximum continuous operating voltage does not exceed the MCOV rating of the arrester.
3. Ensure that there is adequate space to install the arrester and attach the ground leads without interfering with the arrester or other loadbreak devices operation.

Grounding:

1. Connect the braided ground lead of the arrester to system ground.
2. Attach a #14 or equivalent CU drain wire to the ground tab on the arrester.
3. Connect the other end of the drain wire directly to system ground independent of the braided ground lead.
4. Provide enough slack in both leads for hotstick maneuvering.

Lubrication:

1. Remove protective cap.
2. Keep interfaces clean and dry.
3. Apply a thin, uniform coat of the supplied lubricant (DO NOT SUBSTITUTE as other lubricants may be harmful) to the operating interface of the arrester.

Caution – Excess lubricant may prevent the elbow arrester from properly locking into place.

Connection:

Caution – DO NOT INSTALL BY HAND

1. Remove existing elbow or insulating cap from bushing with a hotstick tool using proper operating procedures and instructions.
2. Fasten hotstick tool to the operating eye of the elbow arrester until firm.
3. Establish an operating position that will provide firm footing and secure grasp on the hotstick tool throughout the range of movement required for the operating sequence.
4. Orient the elbow arrester with the grounded end pointing down.
5. Place elbow arrester operating interface over bushing, with the probe inserted into the mating part.
6. Turn face away and thrust the elbow arrester forward with a firm, quick motion to lock the arrester on the mating part. Test for proper locking by gently pulling on the arrester to ensure a secure connection.
7. Be sure to check all ground leads for proper connections. If a ground lead becomes disconnected, remove the arrester from the bushing with a hotstick tool before re-attaching the ground lead.

