



INSTRUCTIONS

GEH-2906B
Supersedes GEH-2904A
and GEH-2903A

DISTRIBUTION SURGE ARRESTERS

CAUTION: THE EQUIPMENT COVERED BY THESE INSTRUCTIONS SHOULD BE INSTALLED AND SERVICED ONLY BY COMPETENT PERSONNEL FAMILIAR WITH GOOD 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.

GENERAL

The nameplate rating should be checked to ascertain that the maximum circuit line-to-ground voltage under any condition of operation, including fault conditions, will not exceed the voltage rating of the arrester. Application of higher-than-rated power voltages may result in the failure of the arrester.

Efficient operation of the lightning arrester requires a permanent low-resistance ground. The best protection is obtained by connecting the arrester directly across the line and ground terminals of the apparatus being protected, using a common ground connection for both apparatus and arrester. If this is not physically possible, the arrester should be so connected that its grounding resistance does not exceed five ohms.

INSTALLATION

CAUTION: CARE SHOULD BE TAKEN IN HANDLING ARRESTERS TO AVOID BREAKAGE.

The arrester preferably should be mounted vertically and installed as close as possible to the apparatus being protected. Line and ground connections should be short and direct. Line and ground terminal nuts or bolts should be tightened firmly on their respective leads, but with no more than 15 lb-ft torque.

The arrester should be clamped securely in its hanger and in a location where it will not be subjected to sustained vibration.

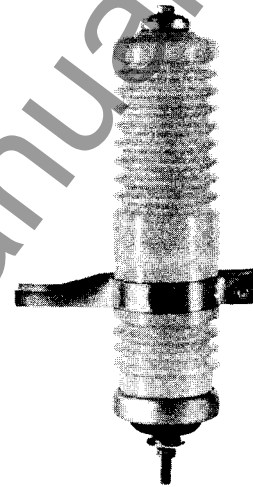


Fig. 1. Distribution arrester with disconnector.

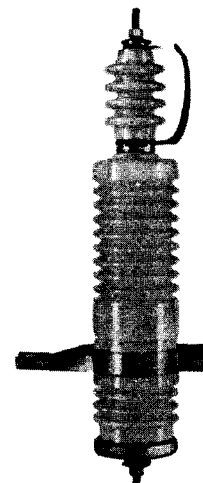
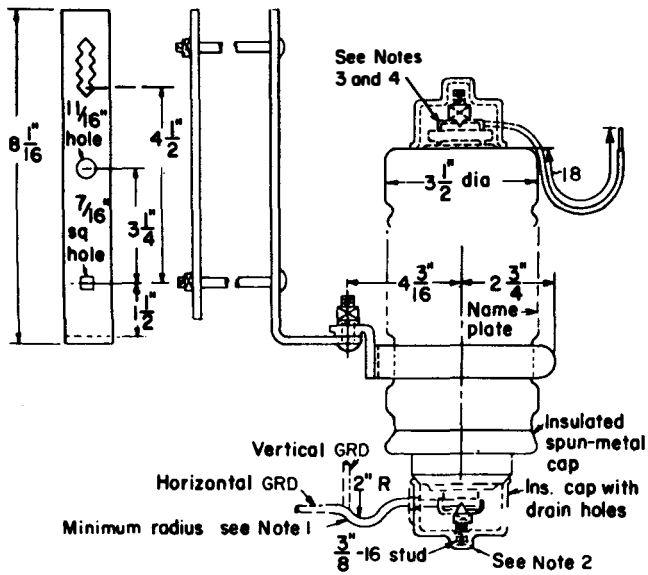


Fig. 2. Distribution arrester, externally gapped.

Arresters may also be mounted horizontally. However, a slight inclination with the line end elevated may be desirable.

NOTE: Precautions to be taken in installing direct-connected arresters are shown in Fig. 3.



NOTES

1. The Ground connection should have flexibility as shown, to assure proper disconnector operation. Care should be taken to keep the Ground connection a minimum of one (1) inch away from spun-metal cap, to avoid shorting out disconnector.
2. For proper operation of this arrester, there should be a minimum of four (4) inches clearance directly below the bottom of the arrester.
3. To remove the line lead, lift up the edge of the bird-proofing cap off the line lead and unscrew the insulating cap off the stud.
4. Replace the bird-proofing cap. Push the cap on the stud as far as it will go.

Fig. 3. Outline drawing of a direct-connected arrester with bird-proofed terminals, insulated bottom cap, insulated line lead and standard EEL-NEMA mounting bracket. Some models do not include all of these accessories.

In addition to the above, the installation of arresters for protection of dry-type transformers and

rotating machines should be made in accordance with NFPA No. 70 National Electrical Code, and local ordinances where applicable.

OPERATION

The arrester is energized unless disconnected from the line. Where guard rails or screens are used or required, they should be grounded and suitable electrical clearances maintained.

MAINTENANCE

Before inspecting or handling the arrester, disconnect it from the line; and, as a safety precaution, ground the line terminal. The arrester should be completely disconnected electrically and removed from the hanger for a more thorough examination. There is no simple field test which will check the protective characteristics of the arrester.

STORAGE

Arresters, if left in shipping containers, should be stored indoors and in a dry location for protection of the cartons. The arresters themselves are weatherproof.

RE-USE

While field practice has shown that arresters are often reinstalled with no testing, for trouble-free performance it is recommended that arresters be tested as described in GET-2529 after the unit is removed from a system and before re-use.

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