

Lightning Arresters

INSTRUCTIONS

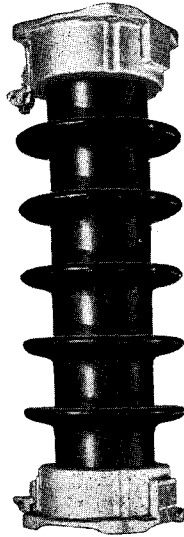


FIG. 1—25-Kv. TYPE LV ARRESTER, UNIT DESIGN

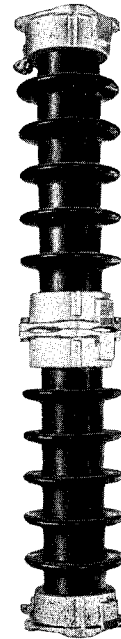


FIG. 2—TYPE LV ARRESTER CONSISTING OF TWO 25-Kv. UNIT ARRESTERS

GENERAL

Westinghouse power transformers may be protected against lightning strokes on both the high and low voltage side by a type LV Autovalve lightning arrester placed at each bushing. These arresters are designed and constructed to withstand both "hot" and "cold" lightning. Their gaps are so coordinated with the winding insulation that the winding is safe from lightning surges which are shunted to ground through the Autovalve arrester.

These arresters do not produce interference with radio reception. Outstanding features are:

1. Solder sealed top and bottom thus being moisture proof beyond a shadow of a doubt.
2. Good protective ratio. Average values close to $2\frac{1}{2}$ times the arrester rating.
3. High discharge capacity. Guaranteed discharge of not less than 65,000 amperes on a 5-10 micro-second wave.
4. Can discharge "hot lightning"—lightning with long tail waves.

Under 20 Kv. another type LV autovalves arrester is used to by-pass lightning surges. This arrester is equally effective in handling both "hot" and "cold" lightning strokes. Water tight construction and rigid factory tests insure a moisture-proof arrester with radio interference eliminated.

CONSTRUCTION

All solder sealed, unit design type LV arresters are used on 20 Kv. to 73 Kv. A-C. circuits. Complete arrester units consist of 3 inch diameter porous block elements and a multiple series gap of resistance type spacers and metal electrodes. The entire assembly is enclosed in wet process porcelain casings hermetically sealed top and bottom by the Westinghouse patented process of soldering metal to porcelain. Solder sealing furnishes an absolutely moisture proof construction. End castings are fastened on both ends of each porcelain by a high melting point sealing gum.

INSTALLATION

Lightning arresters are shipped bolted in place on transformers where shipping clearances permit. When shipping

clearances require separate shipment care should be taken in unpacking to see that the porcelain parts are not chipped or broken. Mounting is facilitated by brackets provided for the purpose on the cover near the transformer bushings. See outline drawing of assembled transformer. Connecting cables or straps are furnished with the arresters so that the lower electrode can be solidly grounded and the upper electrode connected to the bushing.

MAINTENANCE

Because of the sealed design there is no maintenance required on Westinghouse type LV autovalve arresters.

RENEWALS

Should renewals be required order per style number on arrester or specify as arresters for Westinghouse Transformer giving serial number or shop order number as given on the transformer nameplate.

ORDERING

Order from nearest Westinghouse Electric and Mfg. Co. Office or direct from the Sharon, Pa., Works.

Westinghouse Electric & Manufacturing Company

Sharon, Pa.

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