



# INSTRUCTIONS

## TYPE RM AUTOVALVE LIGHTNING ARRESTERS

For Protection of Dry Type Transformers



FIG. 1. End-Mounting Type RM Autovalve Lightning Arrester.

**TYPE RM AUTOVALVE LIGHTNING ARRESTERS** are designed for the protection of rotating machinery and dry type air insulated transformers. This leaflet is concerned only with this type of arrester when used with dry type transformers.

The RM arrester is a valve type arrester having a low protective ratio, that is, ratio of maximum impulse voltage on discharge to maximum crest 60 cycle voltage. Because of this characteristic, it is ideally suited to the protection of dry type transformers which have a low impulse ratio or ratio of impulse strength to 60 cycle strength.

### CONSTRUCTION

There are two different types of RM arresters used in ASL transformers differing in external appearances and mounting methods but having the same operating characteristics. Examples of the two types are shown in Figures 1 and 2.

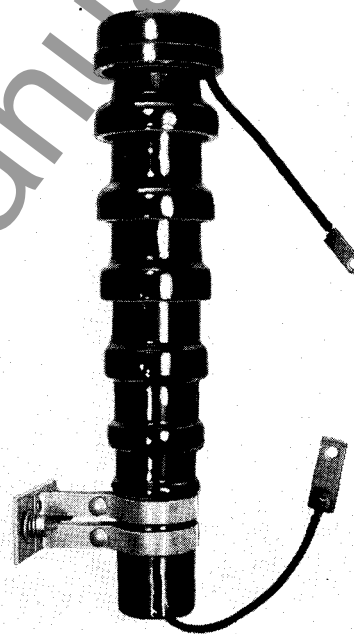


FIG. 2. Bracket-Mounting Type RM Autovalve Lightning Arrester.

The arrester in Figure 1 is a special arrester consisting of a porcelain casing with smooth bands having a casting cemented on one end. This casting is galvanized cast-iron and serves both as a ground terminal and a means of mounting the arrester. At the other end of the arrester is the line connection consisting of a stud with clamp type terminal for #6 to 2/0 solid copper wire.

The arrester in Figure 2 is a conventional type arrester consisting of a porcelain casing with a porcelain cap on the line end. The line and ground connections are cables equivalent to #6 conductors. The arrester is mounted by means of a bracket clamping the lower portion of the arrester.

### INSTALLATION

Lightning arresters for use on dry type transformers are shipped separately and must be mounted on the transformer during its installation.

## TYPE RM AUTOVALVE ARRESTERS

Before unpacking, examine the containers for any visible signs of damage or abuse. Any damage should be noted carefully. Unpack the parts carefully and examine for breakage or other damage. Inspect particularly the porcelains for any breakage. If damage exists, save the containers and packing material and notify the Carrier.

Shortages should be checked with the Carrier, or if the shortages are not the fault of the Carrier, with the nearest Westinghouse Sales Office. If parts do not agree with packing list, contact the nearest Westinghouse representative, giving him the order reading and other identification.

Mounting supports with proper drilling for bolting of the arresters and connectors from the arresters to the line terminals are provided with the transformers. See outline drawing of transformer for the location of arrester.

### TESTING

The Type RM arresters used on dry type transformers have resistance shunted gaps and therefore, a transformer winding will not megger infinity when an arrester is connected to the winding. For example, if a 500 volt megger is used, the following minimum values of megger readings may be expected:

### MINIMUM MEGGER READINGS

Arrester Rating	Readings on 500 Volt Megger
*3 kv	11 Megohms
*4.5 kv	17 Megohms
6 kv	25 Megohms
7.5 kv	32 Megohms
9 kv	40 Megohms
12 kv	55 Megohms
15 kv	70 Megohms

\*Arresters of the 3 and 4.5 kv ratings with style numbers higher than 1,616,000 will megger infinity.

### MAINTENANCE

Because of the sealed design, there is no maintenance required on Westinghouse Type RM Autovalve arresters. In locations where dirt and soot collect, it is recommended that the arresters be cleaned periodically.

### RENEWALS

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



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