



# INSTRUCTIONS FOR TRANQUELL®

## POLYMER ARRESTERS

### DISTRIBUTION MODELS 9L20, 3-30KV

### RISER POLE MODELS 9L27, 3-30 KV

**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.

**WARNING: ARRESTERS APPLIED AT VOLTAGES HIGHER THAN RATING MAY CAUSE DAMAGE AND/OR INJURY. CHECK THE ARRESTER RATING, MARKED CLEARLY ON THE INTEGRAL BRACKET, TO ASSURE CORRECT APPLICATION.**

### INTRODUCTION

The TRANQUELL polymer distribution/riser pole arrester is designed to limit surge voltage by conducting the surge current to ground, and thus avoiding equipment damage. The arrester is of single pole design, suitable for outdoor use, and designed in accordance with the latest revision of the ANSI/IEEE C62.11 standard. The TRANQUELL arrester consists of a stack of MOV disks which are permanently sealed in a watertight polymer housing. The arrester is shipped fully assembled. For drawings and dimensions of the XEP full line of arresters refer to Figs. 1,2,3 and 4.

### CONTINUOUS OPERATING VOLTAGE

TRANQUELL arresters must be applied where the continuous phase-to-ground power frequency voltage at the arrester location does not exceed the arrester continuous voltage capability as indicated on the nameplate. In case of doubt concerning application, consult your local GE company representative.

### ALTITUDE AND TEMPERATURE

The 9L23 and 9L27 series arresters can be used from 0-12,000 feet (3600m) altitude. These arresters can be used in locations where the maximum temperature does not exceed 60° C and where the weighted average temperature does not exceed 45° C.

### INITIAL INSPECTION

Although it is very unlikely, extraordinarily rough handling can result in damage to the TRANQUELL polymer arrester. Careful inspection of each arrester prior to installation is required to assure that no damage has occurred during shipment. ***If damage is apparent, do not install arrester.*** Claims for shipping damage should be registered immediately with the common carrier.

The model number, rating, and maximum continuous operating voltage (MCOV) are identified on the nameplate which is imprinted on the top metal end plate. The nameplate information should be checked against the shipping memorandum. If at any time it is

necessary to correspond with the GE company, complete nameplate data should be furnished in order to expedite replies.

### INSTALLATION

Install the arrester electrically as close as practicable to the equipment to be protected. Keep the arrester connections short and direct. Connect the arrester ground to the equipment ground, and the line connection should be made in such a manner that no excessive mechanical stress is placed on the arrester. Additionally, no more than 20 ft.-lb. of torque should be applied while tightening down any nuts.

**CAUTION:** Always be certain that the ground connection is firmly made before connecting the arrester to the line.

### REMOVAL

When a metal-oxide arrester is disconnected from an energized line, it is possible for a small amount of static charge to be retained by the arrester. The energy available in the form of retained charge on the TRANQUELL polymer arresters is imperceptibly small. After disconnecting the arrester from the line, a slight "pin-prick" type spark may be felt by anyone touching the line end. As a precautionary measure, install a temporary ground on the line end of the arrester after it is disconnected from the line. This will ensure that any retained charge is discharged to ground. Remove the temporary ground before the arrester is re-installed.

**WARNING:** To avoid electrical shock when removing an arrester from service, consider it to be fully energized until both the line and ground leads are disconnected.

### ARRESTER CARE

TRANQUELL polymer arresters do not require special care. These arresters do not require testing, and no test which applies power voltage in excess of maximum arrester voltage rating should be made without consulting the GE Company. Additionally, there is no single field test which will indicate the complete operating characteristics of the arrester.

*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 the GE Company.*



GE Transmission Systems

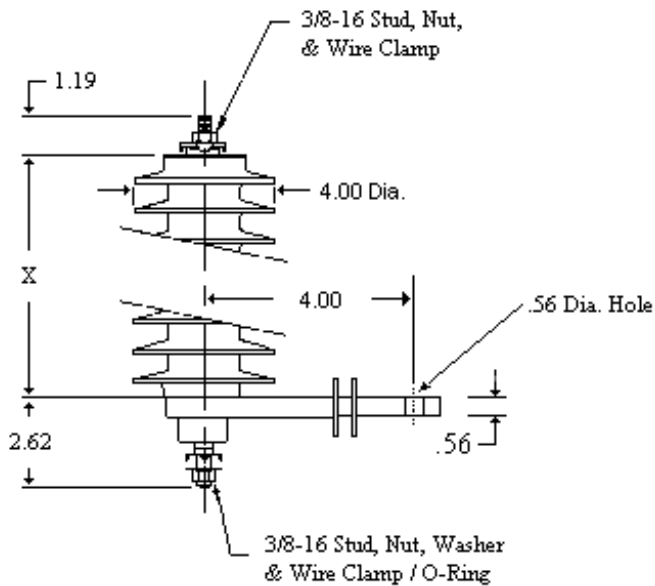
GE Company  
381 Broadway  
Fort Edward, NY 12828-1000

# GEH – 5972E TRANQUELL® POLYMER DISTRIBUTION/RISER POLE ARRESTERS

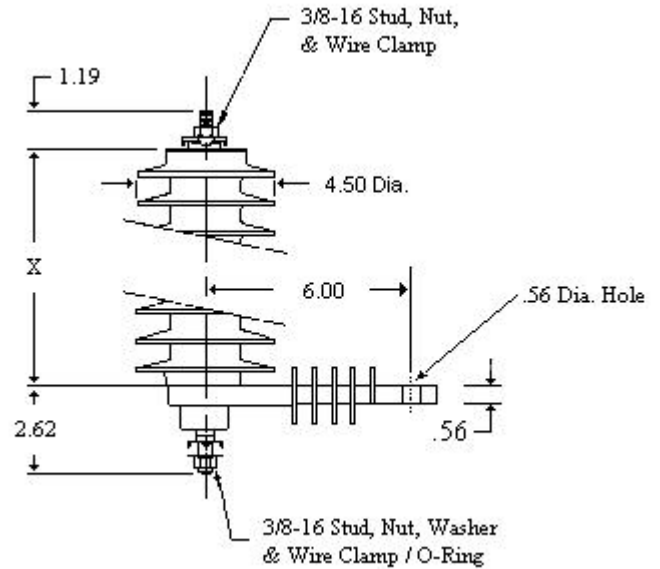
## NOTES

1. These arresters are for 0 to 12,000 ft. (0 to 3600m) altitude. For special arresters involving high altitudes, other combinations of hardware, etc., refer to the nearest GE sales office.
2. Basic unit model number does not include mounting hardware or accessories.

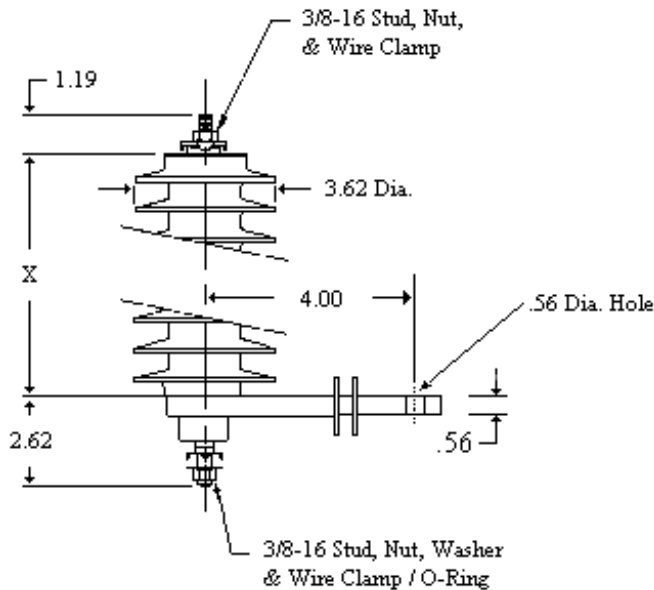
3. All polymer containers are gray color.
4. Dimensions outside brackets ([..]) are in inches; dimensions within brackets are in millimeters.
5. Line and ground connectors can accommodate Al/Cu conductors up to 5/16 inch diameter solid or No. 2 cable, 7 strands.



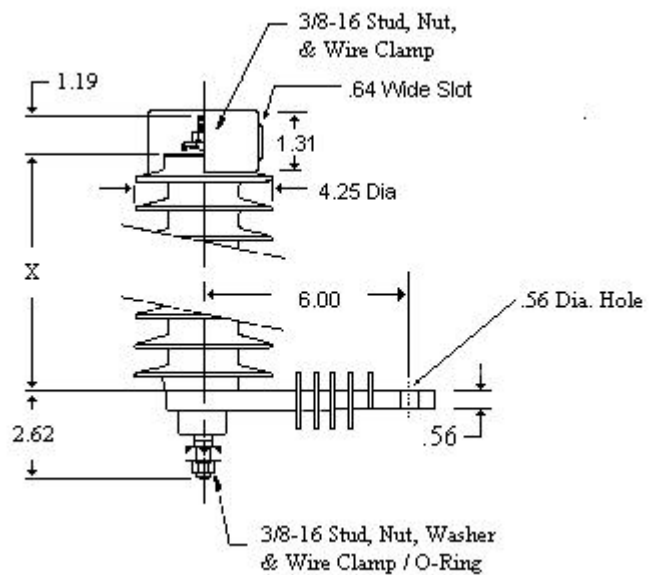
**Fig. 1, Heavy Duty Distribution Arrester  
3 kV through 10 kV**



**Fig. 2, Heavy Duty Distribution Arrester  
12 kV through 36 kV**



**Fig. 3, Riser Pole Arrester  
3 kV through 10 kV**



**Fig. 4, Riser Pole Arrester  
12 kV through 36 kV**



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