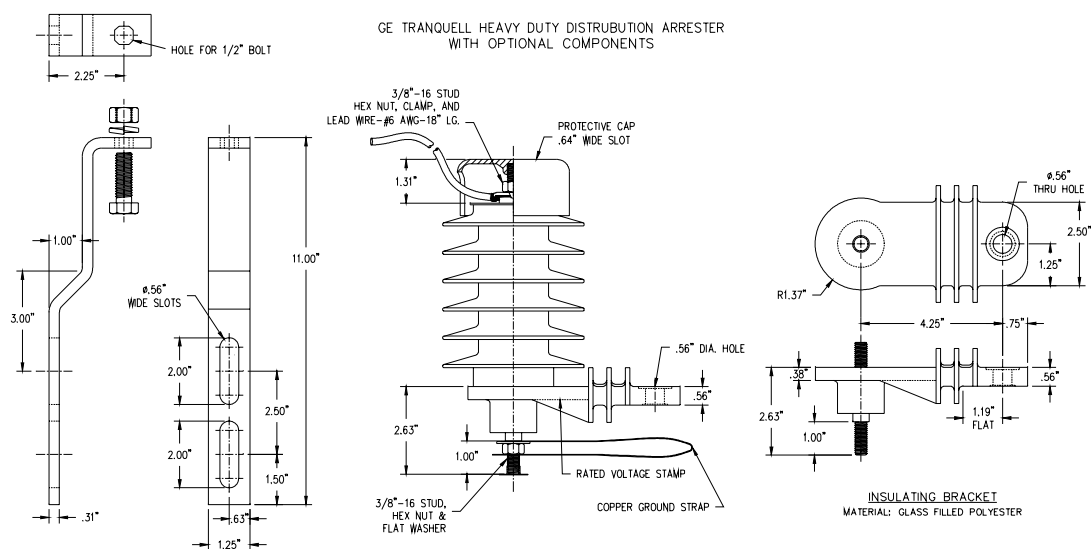




GE Lightning Arrester Components



GE Arrester Electrical & Mechanical Characteristics

PROTECTIVE CHARACTERISTICS

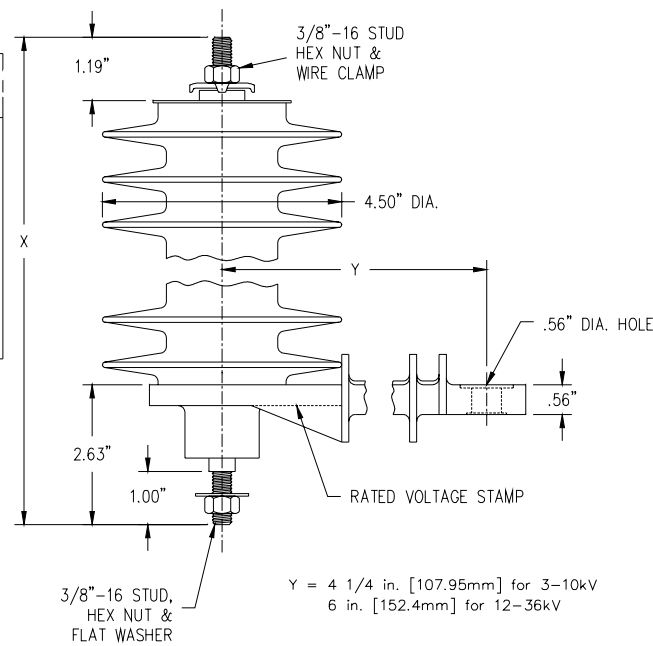
Rated Voltage kV	MCOV kVrms	0.5 μsec 10 kA Max IR- kVcrest	Switching Surge Maximum IR- kV	8/20 Maximum Discharge Voltage (kV Crest)					
				1.5 kA	3 kA	5 kA	10 kA	20 kA	40 kA
3	2.6	12.5	8.0	9.5	10.0	10.5	11.0	13.0	15.3
6	5.1	25.0	16.0	19.0	20.0	21.0	22.0	26.0	30.5
9	7.7	34.0	22.5	24.5	26.0	27.5	30.0	35.0	41.0
10	8.4	36.5	23.5	26.0	28.0	29.5	32.0	37.5	43.5
12	10.2	43.5	28.8	30.7	32.9	34.8	38.5	43.8	51.5
15	12.7	54.2	35.0	38.4	41.0	43.4	48.0	54.6	64.2
18	15.3	65.0	42.1	46.0	49.1	52.0	57.5	65.4	76.9
21	17.0	69.5	44.9	49.5	52.5	55.7	61.5	69.9	82.2
24	19.5	87.0	56.4	61.6	65.8	69.6	77.0	87.6	103.0
27	22.0	97.7	63.2	69.2	73.9	78.2	86.5	98.4	115.7
30	24.4	108.4	71.0	76.8	82.0	86.8	96.0	109.2	128.4
36	29.0	130.0	84.2	92.0	98.2	104.0	115.0	130.8	153.8

INSULATION CHARACTERISTICS

Rated Voltage (kV)	Creep in [mm]	Strike in [mm]	Minimum 1.2 :: 50 kV Withstand (kV Crest)	Minimum Power Frequency (kV rms)	
				Wet (10sec)	Dry (1sec)
3	8 [203.2]	3.6 [91.4]	50	35	25
6	15.4 [391.2]	6.7 [170.2]	75	45	35
9	15.4 [391.2]	6.7 [170.2]	75	45	35
10	15.4 [391.2]	6.7 [170.2]	75	45	35
12	26 [660.4]	9.7 [246.4]	125	65	45
15	26 [660.4]	9.7 [246.4]	125	65	45
18	26 [660.4]	9.7 [246.4]	125	65	45
21	26 [660.4]	9.7 [246.4]	125	65	45
24	52 [1320.8]	18.0 [457.2]	160	90	65
27	52 [1320.8]	18.0 [457.2]	160	90	65
30	52 [1320.8]	18.0 [457.2]	160	90	65
36	52 [1320.8]	18.0 [457.2]	160	90	65

DIMENSIONS, LEAKAGE DISTANCES, MOUNTING CLEARANCES & WEIGHTS

MCOV	"X" Overall Height	Mounting Clearance (1)			Weight
		Leakage Distance Terminal to Base	Center Line to Center Line	Center Line to Ground	
kV	in [mm]	in [mm]	in [mm]	in [mm]	lb [kg]
2.55	7.0 [177.8]	8.0 [203.2]	5.0 [127]	3.0 [76.2]	3.2 [1.45]
5.10	9.3 [236.2]	15.4 [391.2]	5.4 [137.2]	3.4 [86.4]	4.0 [1.81]
7.65	9.3 [236.2]	15.4 [391.2]	6.0 [152.4]	4.0 [101.6]	4.0 [1.81]
8.40	9.3 [236.2]	15.4 [391.2]	6.2 [157.5]	4.2 [106.7]	4.0 [1.81]
10.2	12.3 [312.4]	26.6 [675.6]	7.5 [190.5]	5.5 [139.7]	5.4 [2.44]
12.7	12.3 [312.4]	26.6 [675.6]	8.5 [215.9]	6.5 [165.1]	5.4 [2.44]
15.3	12.3 [312.4]	26.6 [675.6]	9.5 [244.3]	7.5 [190.5]	6.0 [2.71]
17.0	12.3 [312.4]	26.6 [675.6]	10.0 [254.0]	8.0 [203.2]	6.0 [2.71]
19.5	21.0 [533.4]	52.0 [1320.8]	12.0 [304.8]	10.0 [254.0]	9.5 [4.30]
22.0	21.0 [533.4]	52.0 [1320.8]	13.0 [330.2]	11.0 [279.4]	9.5 [4.30]
24.4	21.0 [533.4]	52.0 [1320.8]	14.0 [355.6]	12.0 [304.8]	9.5 [4.30]



General Electric Lightning Arresters



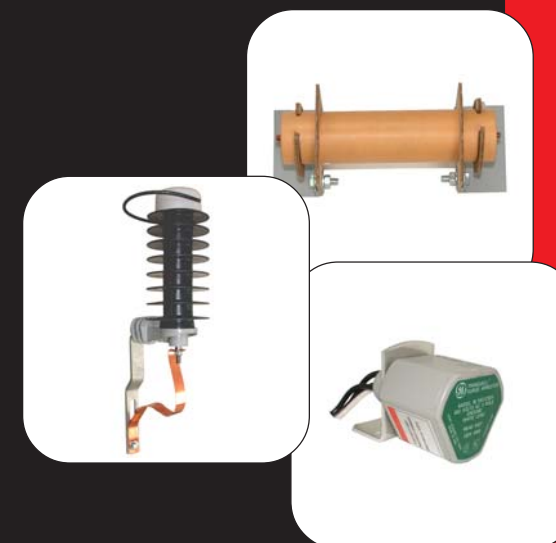
GE SURGE PROTECTION...

The performance and reliability of today's electric power system can be enhanced with the unique characteristics of GE TRANQUELL® arrester products. Since introducing the world's first metal oxide arrester in 1976, offering new concepts in surge arrester design and application, GE has developed and applied metal oxide technology for a variety of traditional and special applications. GE offers one of the most complete lines of surge arrester products in the world today.

The GE arrester provides both excellent protective characteristics and temporary overvoltage capability. The gapless construction provides a design, which is simple and reliable while remaining economical. TRANQUELL Polymer and Porcelain arresters are designed to meet the most demanding service conditions.



Starting with the state-of-the-art world class disk technology, all the way through the ISO 9001 approved design, assemble and test processes, GE offers extremely reliable arrester products.



H-J International, Inc.

3010 High Ridge Blvd High Ridge, Missouri USA 63049
Tel: (636) 677-3421 Fax: (636) 376-1915
www.h-jinternational.com





Polymer Distribution Arresters



GE Distribution & Riser Pole Arresters

GE TRANQUELL® Heavy and Normal Duty Distribution, and Riser Pole arresters are polymer arresters that offer high fault current capability while maintaining light weight and high durability.

GE's surge arresters are designed and tested in accordance with the ANSI/IEEE C62.11 and IEC 99-4 standards. The GE TRANQUELL Distribution and Riser Pole Polymer line of surge arrester products provide excellent protective characteristics, temporary overvoltage capability, and switching surge energy withstand to power systems voltage of less than 46 kVrms. GE polymer arresters are ideally suited for application in both indoor and outdoor situations. For more information on this product contact your local GE Representative.

GE Tranquell Polymer Distribution and Riser Pole surge arresters are used on distribution systems to protect transformers and other medium voltage power equipment from lightning and switching surge generated overvoltages. The Polymer Distribution and Riser Pole arresters exhibit excellent protective characteristics, temporary overvoltage capability, and

switching surge energy withstand. Gapless internal construction combined with a polymer housing results in a design which is simple, reliable, and economical while offering excellent fault current capability to meet the most demanding service conditions. The GE arrester design is based on field-proven metal oxide disks known for maintaining stable characteristics. In order to assure the highest level of quality, Tranquell Polymer Distribution and Riser Pole surge arresters are designed and manufactured in accordance with the latest versions of ANSI/IEEE C62.11 and IEC 99-4.

BASIC CONSTRUCTION

The metal oxide column is centered and restrained in alignment with tightly woven fiberglass filament strands impregnated with epoxy resin. The interstices between the stranding are filled with a silicone dielectric material so the design is free of air and moisture. The inside diameter of the housing is slightly smaller than the outside diameter of the cylindrical element providing a snug fit.

For a typical 10kV rated arrester, the basic polymer housing is only six inches long – 50 to 60 percent shorter than the porcelain equivalent. Likewise, the arresters are less than half the weight of an equivalent porcelain housed arrester. This makes

Distribution Surge Arrester Features

High Fault Current Capability

Excellent Protective Characteristics

Light Weight

High Durability

Excellent Temporary Overvoltage & Surge Duty Capabilities

Superior Contamination Performance

Designed & Tested In Accordance With ANSI/IEEE C62.11 & IEC 99-4

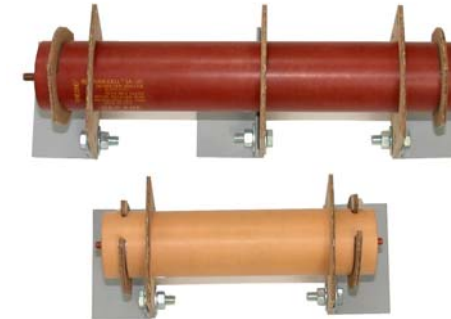
transportation, handling, and installation much easier.

Another significant advantage of the GE TRANQUELL polymer arrester construction is that fault withstand capability can be maintained throughout the voltage range. The fault current capability of porcelain housed arresters is reduced as the housing lengthens.

The polymer housed arrester can be used with all standard mounting arms and brackets. They come with all the necessary fasteners, isolators and terminal attachments. A specially designed glass-filled polyester insulating arm extends from the arrester to the NEMA crossarm bracket.



Distribution Under-Oil Arresters



CAUTION - THE ARRESTERS ARE PRIMARILY INTENDED FOR INSTALLATION BY OEM USERS. ONLY COMPETENT PERSONNEL FAMILIAR WITH GOOD SAFETY PRACTICES SHOULD DO SERVICE OR REPLACEMENT BY AN END USER.

Low Voltage Arrester Features

Voltage Rating 120 Volts, Single Phase To 650 Volts, 1 or 3 Phase

UL & CSA Listed

Available in a 1, 2 or 3 Pole Version

Provides All Weather Protection With LEXAN Resin Housing

Suitable For Indoor & Outdoor Applications

Designed & Tested In Accordance With ANSI Standard C62.11-1987

GE TRANQUELL® Submersible (Under-Oil) surge arrester is designed to limit surge voltage by discharging the surge current to ground. The arrester is for application under-oil and can be used where the maximum temperature does not exceed 125° C, and where the weighted average temperature does not exceed 90°C. It will meet or exceed the application requirements of ANSI C62.11-1993 standards for Metal Oxide Surge Arresters for AC Power Circuits.

Under-Oil Arrester Features

Voltage Rating 3kV Through 30kV rms

Rated 75kV Through 150kV BIL

For Use Inside The Transformer, Under The Insulating Liquid

Vertical or Horizontal Mounting

Line & Ground Lead Connections are 0.25"-20 Threads with 0.44" Threads Exposed

Designed & Tested in Accordance With ANSI/IEEE C62.11



Distribution Low Voltage Arresters



GE TRANQUELL® Secondary surge arrester is specifically designed to protect utility, agricultural, and industrial installations and equipment in the 120 – 600 volt range from overvoltages caused by lightning discharges. It is available for both single and three phase applications. These arresters offer

protection against either externally induced surges caused by lightning or utility switching, or internally generate switching surges caused by starting/stopping of compressors, air conditioners, elevators and machine tools or fuse/circuit breaker operations.