

Capacitors, Arresters and Harmonic Filters

Tranquell™ Secondary Surge Arresters and Protective Capacitors

120-650 Vac
Series 9L15F

Assures Service Continuity

The GE Tranquell™ secondary arrester is specifically designed to protect utility, agricultural, and industrial installations and equipment in the 120-650 volt range from overvoltages caused by lightning discharges. It is available for both single- and three-phase application.

Applications that provide ideal installations for this arrester are:

- Exposed secondary circuits
- Watt hour meters
- Station auxiliary equipment and circuits
- Motors and control circuits
- Distribution transformer secondaries

Dependable Protection

The unique metal oxide element inside each Tranquell™ arrester gives you improved overvoltage protection. These tough elements are designed so that they can handle surge after surge without trouble, breakdown, or repairs. Your arrester's protective ability will remain unchanged throughout its service life.

Secondary Arresters – Indoor or Outdoor Mounting

Circuit Voltage Rating rms	Max. Permissible Line-to-Ground Voltage rms	No. of Poles	Net Weight (lbs/Kg)	Product Number ¹
120	175	2	1.0/0.4	9L15HCB001
650	650	1	1.0/0.4	9L15GCA001
650	650	2	1.0/0.4	9L15GCB001
650	650	3	1.0/0.4	9L15GCC001



Non-PCB Secondary Protective Capacitors—Indoor or Outdoor Mounting

Circuit Voltage Rating rms	Max. Permissible Line-to-Ground Voltage rms	No. of Poles	Net Weight (lbs/Kg)	Product Number ¹
0-650	650	3	4.00/1.8	9L18BBB301

¹Quantity break pricing applies; consult factory or your GE sales representative.

Secondary Surge Arrester Protective Characteristics

Discharge Voltage kV Crest (8 x 20 Microsecond Current Wave)				Discharge Capabilities 8 x 20 microsecond	Energy Handling Capability
1.5 kA	5.0 kA	10.0 kA	20.0 kA		
2.2	2.6	2.9	3.5	20,000 amp	900 joules per pole

Fusing

To minimize the possibility of violent rupture in the unlikely event of electrical failure of the arrester, current limiting fuses are recommended for all applications above 120 volts. A fuse must be installed in series with each pole of the arrester (i.e. each black wire). See Fuse Selection table below. The GEH-4982C instruction book shipped with each arrester also includes fusing guidelines.

Fuse Selection – For 9L15E Series (above 120V)

Arrester Location	Maximum Lightning Impulse ^{2,3}	Fuse Rating ⁴
A Long Branch Circuit more than 20m from Service Entrance with wires #14-10	200A	30 A; 600 V U.L. Class T 200,000 A Interrupt
B Major Feeders and Short Branch Circuits less than 20m from Service Entrance	3 kA 8x20 μs	30 A; 600 V U.L. Class T 200,000 A Interrupt
C Outside and Service Entrance	10 kA 4x10 μs	30 A; 600 V U.L. Class T 200,000 A Interrupt

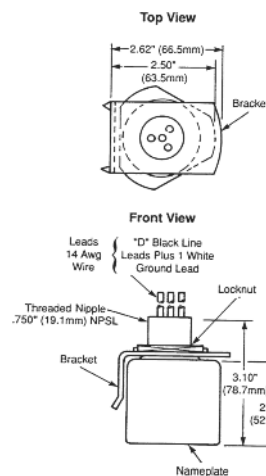


Figure 1
Tranquell™ Arrester

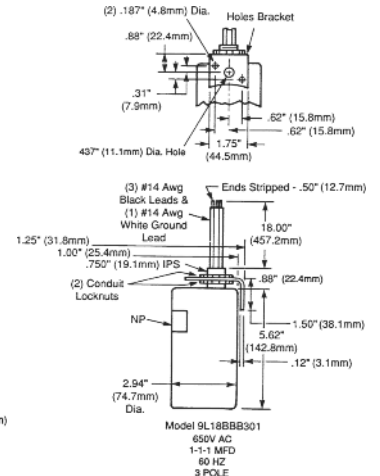


Figure 2
Protective Capacitor⁵

²Maximum impulse expected as described in ANSI/IEEE C62.41 for systems with medium exposure to surges. Arresters have been design tested to impulses as high as 20 kA, 8x20μs.

³Design tests for secondary arresters as required by ANSI/IEEE standards are limited to a maximum of 10 kA, 4x10μs impulses.

⁴UL Class CC (Midget) 30 A fuses are also satisfactory for locations A and B.

⁵Secondary capacitor is a 3-pole device that can be applied with 1- and 2-pole arresters by connecting the corresponding black leads and tying off the unused leads.

