Transmission Silicone Insulators

Station Post

69 kV to 230 kV
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One of the most critical assets of an electrical Transmission System is the station. Not only is this asset the heart of the supply to large electrical loads but it also serves many customers from industrial to residential. Therefore, power outages or interruptions due to insulation failures are costly and impact negatively on customer service. With **K-LINE INSULATORS LIMITED (KLI)** silicone Station Post Insulators these are greatly minimized through improved performance to reliability and savings in the life cycle cost.

Silicone’s hydrophobic property allows **KLI** Station Post Insulators to electrically outperform ceramic insulators. The lightweight feature of polymer insulators makes them easy to handle and install. The size and fittings of polymer station insulators are compatible with existing Station Post hardware and arrangements. Experience with silicone polymer insulators has proven their superiority over ceramic insulators.

**KLI** silicone Transmission Station Post Insulators are manufactured and tested to world-class polymer insulator standards, CSA and ANSI. **K-LINE INSULATORS LIMITED** is registered to ISO 9001 Quality Systems.

**PERFORMANCE BENEFITS**

The performance benefits of **KLI** Transmission Station Post Insulators are listed below.

- Improves Reliability (interruptions and outages due to vandalism, and flashovers in all types of environments are a thing of the past)
- Eliminates or Reduces Maintenance (such as washing and trouble calls) and are compatible with existing ceramic insulators
- Improves Power Quality (lower RI and TVI)
- Energy Efficiency (reduced losses due to lower leakage currents)
- Safety (light weight for handling and installation, eliminates catastrophic mechanical failures)
- Service Life (consistent performance over its service life)
- Life Cycle Cost (savings over ceramic insulators)

**APPLICATION**

Transmission Station Post Insulators are used in open-type stations operating at and above 60 kV. These insulators support the bus, leads, or other apparatus within the station.

**CORE ROD**

The core rod of the insulator is made of a high quality, epoxy resin, E-Glass fiberglass rod that has been specially formulated for electrical and mechanical applications.

**HOUSING**

The housing (includes sheath and sheds) of the insulator is one piece, high temperature vulcanized, injection molded silicone rubber that is chemically bonded to the core rod. This ensures that the interface between the rubber and rod is impenetrable against moisture ingress. **KLI** uses its own proprietary silicone rubber formula in the manufacture of its insulators. The formulation has silicone rubber as the base polymer material with additives to enhance its performance in wet and contaminated environments.
### Technical Data

#### Transmission Station Post Insulator

<table>
<thead>
<tr>
<th>Catalogue Number</th>
<th>Voltage Class</th>
<th>Section Length</th>
<th>Dry Arcing Distance</th>
<th>Leakage Distance</th>
<th>Impulse Withstand</th>
<th>Low Frequency Flashover</th>
<th>Specified Cantilever Load (SCL)</th>
<th>Maximum Design Cantilever Load (MDCL)</th>
<th>Specified Tensile Load (STL)</th>
<th>Approx. Weight</th>
<th>Equivalent Height to ANSI Technical Reference Number</th>
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**Ordering Information:**

1. Above catalogue numbers apply to insulators with through holes on both ends.
2. Add T1 to catalogue numbers for insulators with one end tapped & the other with through holes.
3. Add T2 to catalogue number for insulators with both ends tapped.

230kV Post Insulators have a Ø300mm (Ø12”) Corona Ring

4 – ø18mm (Ø0.69”) OR 4 TAPPED HOLES, 5/8-11 (OVERSIZED) ON 127mm (5.00”) B.C.D.
**END BASES**

The standard base fittings are flat round iron bases that are available with bolt circle mounting holes with either through or tapped holes. These bases are compatible with the ceramic Station Post Insulator standard.

The end bases are radially swaged onto the core rod to provide the mechanical performance and reduce stress concentration. Our proprietary design insures a watertight seal between the rubber and end fitting. This special silicone rubber to metal fittings sealing process prevents moisture ingress to the fiberglass core rod. For other special base requirements, please contact KLI.

Corrosion protection of the end bases is provided by hot-dip galvanizing to CSA G164 or ASTM A153 specifications.

**230kV & ABOVE**

Station Post insulators can be stacked to achieve higher voltage classes. Stacked posts have the advantage of easier transportation, lighter weight for handling and installation.

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