Revision 1
Nov 21, 2013

1. Scope

This specification applies to the District's requirements for composite, non-ceramic, polymeric horizontal post insulators for conductors on a 115kV electrical transmission system. The polymeric covering, including the weathersheds, shall be made of silicone rubber.

2. Reference Standards

Insulators shall meet the applicable requirements of the latest revisions of the following standards.

Industry Standards	
ANSI C29.7-2002	Wet Process Porcelain Insulators - High Voltage Line - Post Type
ANSI C29.17-2002	Insulators - Composite Line Post Type
ASTM-153-09	Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
District Standards	
Compatible Unit I0706	115kV Polymer Horizontal Post Insulator - Back to Back
Compatible Unit I0707	115kV Polymer Horizontal Line Post Insulator (49" Pole Clearance)
Compatible Unit I0708	115kV Polymer High-Strength Horizontal Line Post Insulator
Compatible Unit I0709	230kV Polymer Horizontal Line Post (102" Pole Clearance)

3. Mechanical Ratings & Material ID Numbers

Cat. ID	Section Length	Core Diameter	Tilt	Weight (lb)	MDCL[1] (lb)	MDTL[2] (lb)	Corona Ring
937758	47"-50"	2.5"	12°	60	1,650	2,500	Retrofittable
937782	48"-50"	3"	12°	90	3,000	2,500	Retrofittable
1003389	102"	3"	17°	134	1,446	2,500	6"

1 - Minimum Design Cantelever Load (MDCL)
2 - Minimum Design Tensile Load (MDTL)

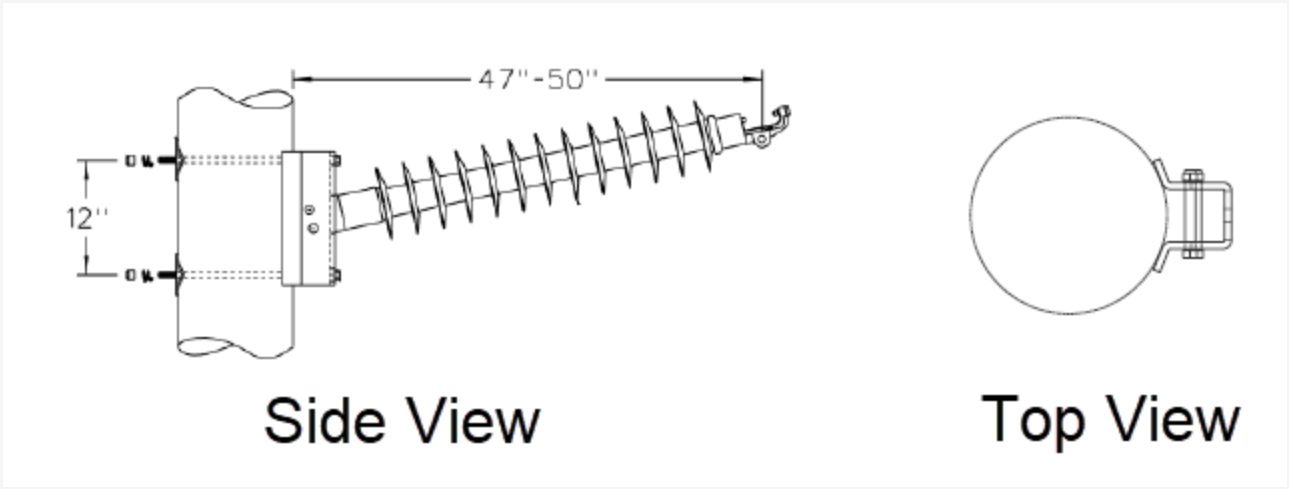
Upon request, manufacturers shall provide a combined loading chart for review by the District.

4. Minimum Electrical Ratings & Material ID Numbers

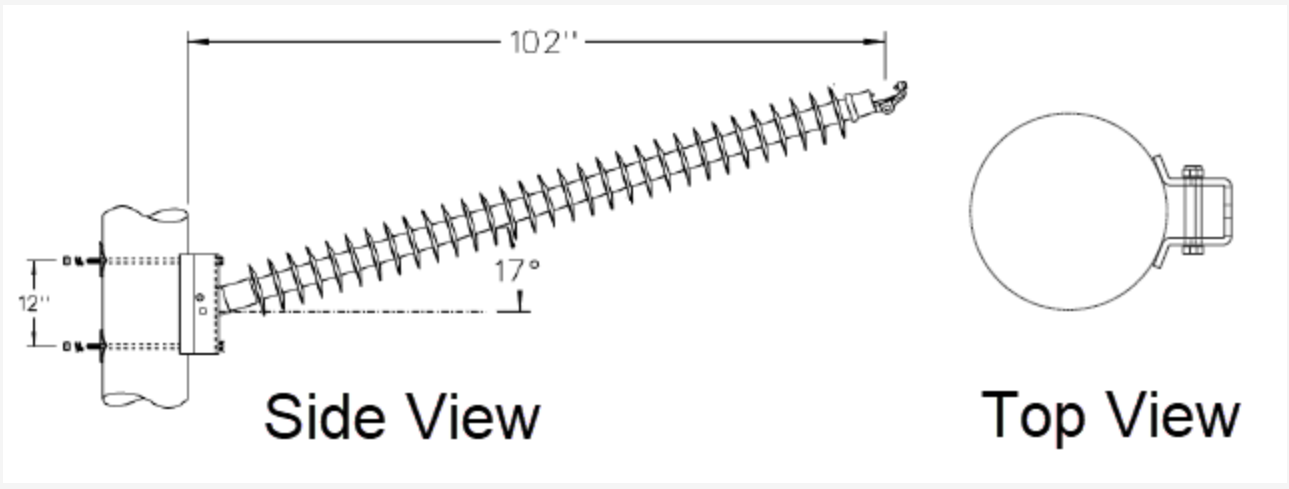
Cat. ID	Dry Arcing Distance	Leakage Distance	60Hz Dry Flashover	60Hz Wet Flashover
937758	36"	93"	350 kV	350 kV
937782	30"	68"	290 kV	290 kV
1003389	92"	207"	839 kV	753 kV

5. Dimensions And Drawings

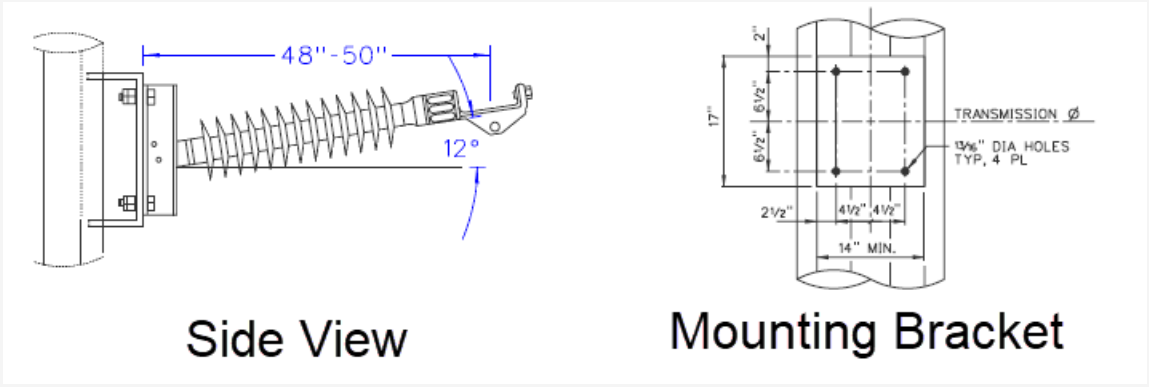
Material ID	Section Length	Tilt
937758	47"-50"	12 Degrees



Material ID	Section Length	Tilt
1003389	102"	17 Degrees



Material ID	Section Length	Tilt
937782	48"-50"	12 Degrees



6. Construction

Insulator strength member shall be made of fiberglass rod. All parts of the fiberglass rod shall be completely covered with the same silicone rubber polymeric material as the weathersheds. The entire length of the polymeric covering, including the weathersheds, shall be one continuous, seamless piece of material. Weathersheds shall retain their original shape after severe deformation. Weathersheds shall shed water and be self-cleaning with rain.

7. Corona Ring

All insulators shall either be equipped with a corona ring or be easily retrofittable with a corona ring as indicated in Section 3.

8. End Fittings

Each insulator shall be equipped with a horizontal trunnion adapter for attaching a conductor clamp. The adapter shall be dimensioned per ANSI C29.7, latest revision. Base shall have a pole-face style mounting bracket with 12" hole spacing to accomodate 3/4" bolts. End fittings may be constructed from high strength aluminum alloy or malleable or ductile iron, galvanized in accordance with ASTM A153, latest revision. End-fittings shall have sealant applied to protect against moisture penetration. Insulator, mounting bracket, and horizontal adapter clamp shall be shipped assembled.

9. Identification

Each insulator shall be permanently marked with the manufacturer's name or logo and the date of manufacture. Each insulator shall be marked with the designed cantilever load rating (DCL) with appropriate units. The markings shall be legible and durable. Packages containing multiple insulators shall be marked with the manufacturer's name, the type of insulator and the insulator part number.