

Clevis Type Suspension Insulators ANSI 52-4

Suspension Insulators | Datasheet | Pingxiang Huahao Insulator Co., Ltd.



A porcelain disc insulator to ANSI 52-4 with clevis and tongue coupling, used in suspension and tension strings on overhead transmission and distribution lines. Discs are stacked to build the string length the line voltage and pollution level require, so one stock item covers many tower designs. Combined mechanical and electrical strength is 15,000 pounds (67kN) with a maximum working load of 7,500 pounds (33.5kN).

Specifications

Parameter	Value
ANSI Class	52-4
Diameter (D)	10 inches (254mm)
Spacing (S)	5 3/4 inches (146mm)
Leakage Distance	12 5/8 inches (320mm)
Dry Arcing Distance	7 3/4 inches (197mm)
Combined M&E; Strength	15,000 pounds (67kN)
Routine Proof Test Load	7,500 pounds (33.5kN)
Time Load Test Value	10,000 pounds (44.5kN)
Maximum Working Load	7,500 pounds (33.5kN)
Impact Strength	55 inch-pounds (6.2Nm)
Low Frequency Dry Flashover Voltage	80kV
Low Frequency Wet Flashover Voltage	50kV
Critical Impulse Flashover Voltage Positive	125kV
Critical Impulse Flashover Voltage Negative	130kV
Low Frequency Puncture Voltage	110kV
Test Voltage RMS to Ground	10kV
Maximum RIV at 1000 kHz	50 microvolts

Key Benefits

- Clevis and tongue coupling assemblies without loose ball and socket security clips
- One disc class covers many voltages because string length is set by disc count
- Combined M&E; rating of 15,000 pounds (67kN) gives a 2:1 margin over the 7,500 pound working load
- Porcelain dielectric does not track or erode under long-term UV and corona exposure
- 320mm leakage distance per disc supports string design for polluted and coastal routes
- Routine proof tested at 7,500 pounds (33.5kN) so every unit shipped has been load verified

Application Scenarios

- Suspension strings at tangent towers on overhead transmission lines
- Tension and dead-end strings where the line changes direction or terminates at a portal
- Line reconstruction where existing clevis and tongue hardware must be reused
- Coastal and industrial corridors where salt or cement dust demands extra string leakage
- Distribution feeder crossings that require a higher mechanical rating than pin type insulators

Materials

- Glazed electrical porcelain dielectric body
- Galvanized malleable iron or forged steel clevis and tongue fittings
- Portland cement bonding the fittings to the porcelain

Use Guide

- Set the disc count from the system voltage and the site pollution level not from the disc rating alone
- Check the tower hardware is clevis and tongue before ordering to avoid a coupling mismatch
- Keep the maximum working load at or below 7,500 pounds (33.5kN) including ice and wind loading
- Handle by the metal fittings and store on the pallet supplied to protect the porcelain sheds
- Inspect for cement growth cracks and glaze damage before stringing

Certification: ISO 9001:2008 | Standards: GB ANSI BS DIN AS IEC | Design capability up to 500kV AC and 400kV DC. For a quotation email admin@huahaoinsulator.com with the class, coupling type, quantity and destination.