



Pillar Grounding Ring

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PRODUCT SALES MANUAL



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1. About us

1.1 Company Profile

Quanzhou Seven stars Electric Co., Ltd was founded in 1995 and the main production base with modern workshops of 60000 m² locates at Jiangnan Electronic Industrial Park for High and New Technique in Quanzhou. The registered capital accounts 40 million RMBs and the fixed asset more than 100 million RMBs. Our company is a national important High - Tech enterprise which is concentrated on research , production, marketing, sales and technical service of power insulating technique and products.

We follow always the direction to combine the international advanced technique with self-innovation. The company has established a technical center for high voltage insulation technique in Beijing. The production base in Quanzhou has three cable accessories production lines equipped with 2KM³DESMA automatic injecting machines from Germany, physical and chemical labor equipped with complete test meters and equipments, high voltage test house. We have established the perfect system for development and production which deals with cable accessoriest series of 220kV and below, and complete quality control system based on ISO9001:2000 quality control system and ISO14000:2004 environmental management system.

Quanzhou Sevenstars Electric Co., Ltd endeavors always to provide the customers with superior electrical products, perfect technical service and design proposal With the concept individual respect, quality first, costumer superiority, mutual benefit and destination of modernizing enterprise we would establish likely the loyal cooperation with the domestic and foreign partners to realize the mutual technical acceleration, mutual resour cecommunion and mutual benefit.

2. Background Technology

With the advancement of urban and rural power network renovation technology, 24KV distribution lines are more often insulated with safer and more reliable operation. The 24KV composite post type grounding ring is made of silicone rubber, which has good water resistance and excellent insulating properties, and is made of special fixtures with piercing clips, and the fixtures are made to produce uniform plastic deformation through synchronous crimping technology, and the interface properties are stable. "At present, the grounding rings on the market are used with piercing wires that are tightened by bolts. This pillar type grounding ring device includes a fixed clamp, a grounding ring is attached to the left side of the fixed clamp, a fixed compartment is movably mounted on the right side of the fixed clamp, a core rod is fixedly attached to the right side of the fixed compartment, and an end connection is fixedly mounted on the right side of the core rod. The pillar type grounding hanging ring device, turning the worm, so that the threaded rod through the worm wheel and worm rod engagement and rotation, and by setting the limit rod, limit the rotation of the movable plate, so that the movable plate can be threaded through the threaded hole and threaded rod connection and move to the right side, drive the card rod to the right side, because the card rod on the rod to limit, so that the rod can continue to insert the fixed bin, and further make the fixed clip and the fixed bin between the distance between Compared with the traditional bolt fixing, it is more convenient and efficient, which reduces the labor intensity of the staff and improves the working efficiency.

2.1 Features

- End connection: Metal fittings are protected by zinc layer, ultrasonic monitoring, computer-controlled coaxial constant pressure crimping process, the indentation after crimping is as bright as new, the stress dispersion is good, and the quality is stable and reliable.
- Silicone shed design: The aerodynamically designed silicone rubber shed adopts the integral molding technology of the sheath, and the three-sheath structure of the big and small umbrellas ensures that all creepage distances are effective under any climate and dirty conditions, improving Synthetic insulators are self-cleaning and polluting in the air.
- Insulation piercing clip: use high conductive piercing blade, the contact resistance is smaller and the current carrying capacity is larger. Anti-oxidation, anti-corrosion stainless steel bolts, easy and smooth installation. It can be selected according to insulated wires of different cross-sections.
- Grounding ring: made of high-quality aluminum or copper (optional), suitable for copper-aluminum transition. It is mainly used for power inspection or discharge of overhead lines of 24KV and below; it is convenient and reliable for hanging and disconnecting grounding during power outage maintenance.
- Fittings: Made of special steel, the end adopts labyrinth waterproof design, and adopts outsourcing glue technology, which greatly improves the waterproof and anti-seepage performance of the product.



End Connections



Silicone umbrella skirt



Puncture wire clip



Grounding ring

2.2 Service Conditions

- This product specifies the structure type, parameters, test methods, technical requirements, inspection rules, packaging and labeling of the composite pillar type grounding ring for power lines with a voltage level of 24kV.
- This product standard applies to the AC power system rated voltage 24kV, frequency does not exceed 100HZ, altitude does not exceed 1000m overhead lines with composite pillar type grounding ring, installation site ambient temperature between -40tC ~ +40tC, applicable to all types of dirt areas, especially for heavy dirt areas.



2.3 Standards and Specifications

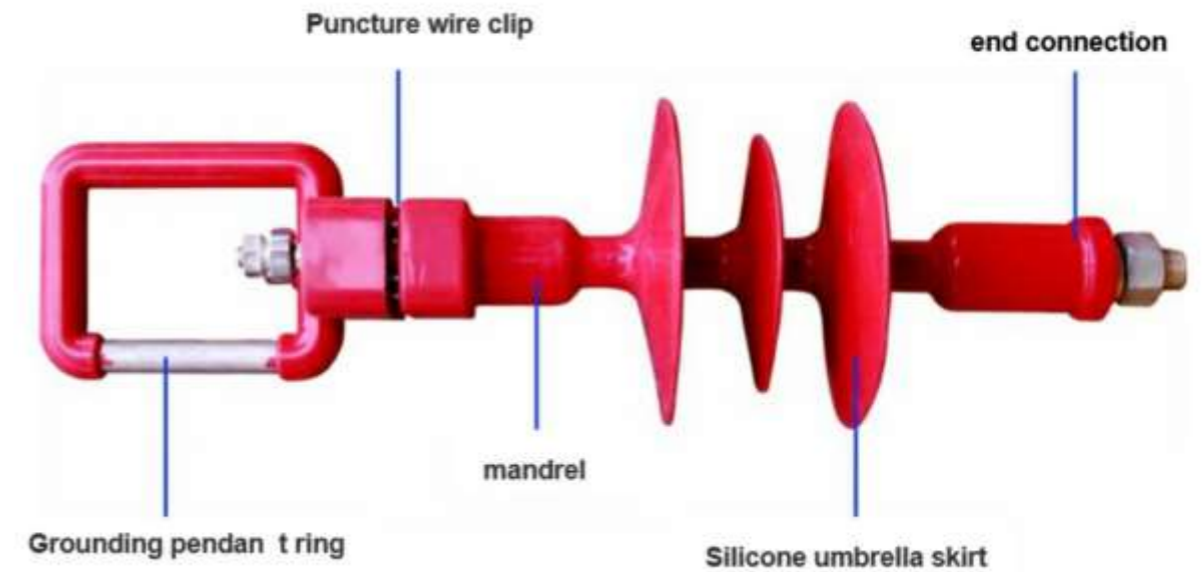
- GB/T4056-94 (IEC60120) 《High-voltage line suspension insulator connection structure and dimensions》
- GB775.1-3-87 《Insulator Test Methods》
- JB/T8177-99 《Hot-dip galvanizing layer of insulator metal accessories by technical conditions》
- GB6553 (IEC60587) 《Test Methods for Evaluating the Leakage and Corrosion Resistance of Electrical Insulating Materials Used under Severe Environmental Conditions》
- JB5892-1991 《Technical conditions for organic composite insulators for high voltage lines》

3. Structure

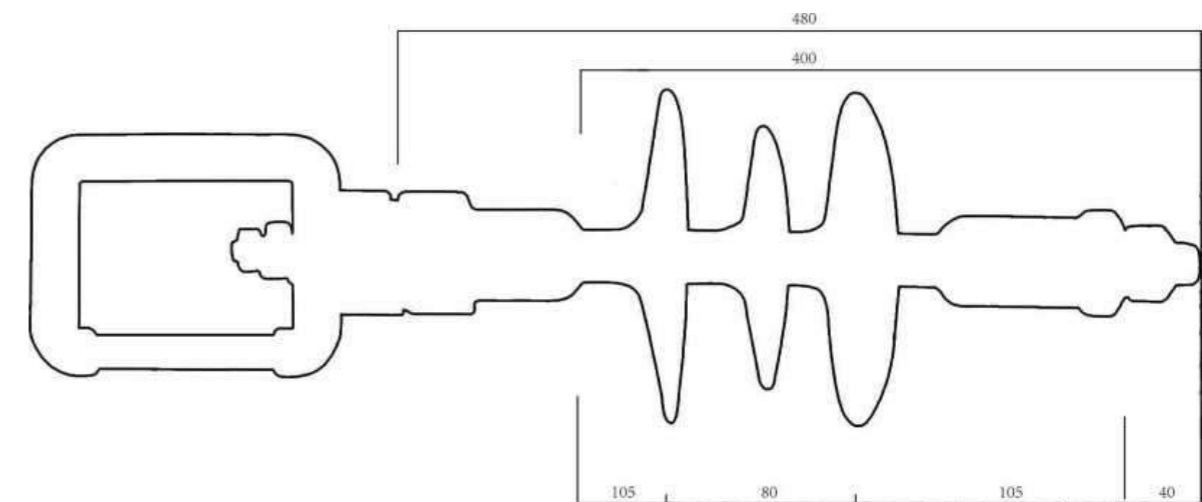
3.1 General

24kV Composite Pillar Type Grounding Ring is mainly composed of grounding ring, insulating body and lock nut, and its product structure is shown below

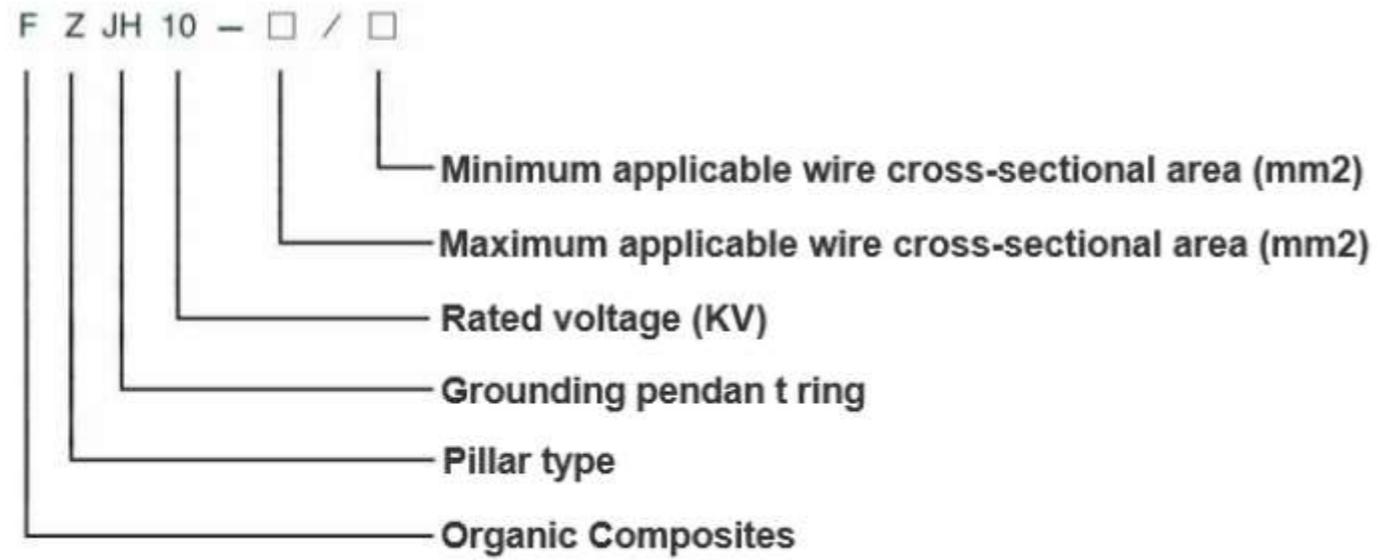
3.2 Product Structure Drawing



3.3 Dimensional Drawing



4. Model Definition



5. Technical Parameters

5.1 Structure, Size Parameter Table

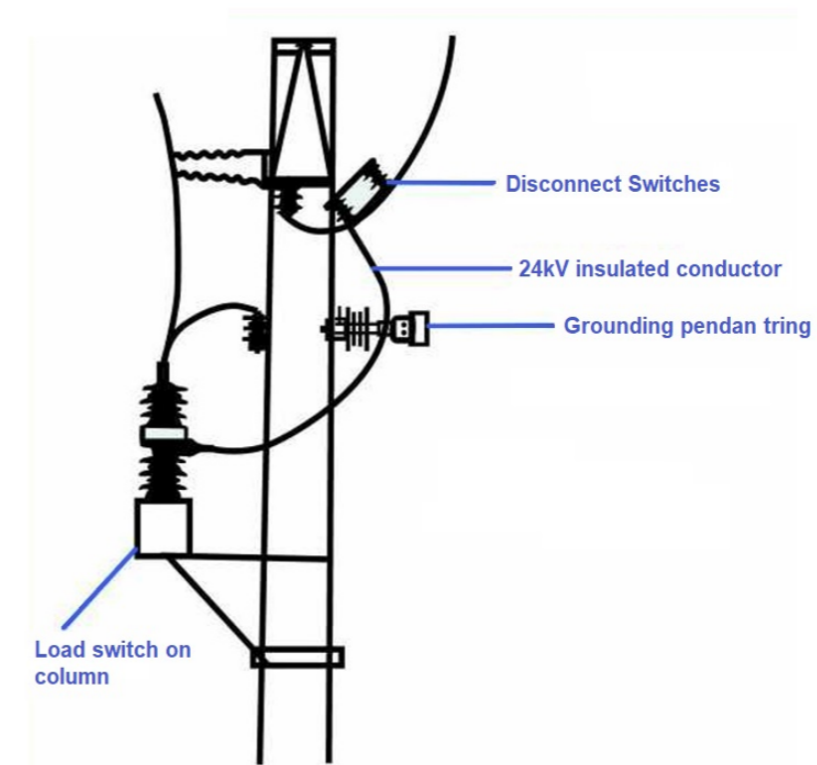
No.	Model	Height H,mm	Min. arc distance h,mm	Min. nominal creepage distance L , mm	Umbrella diameter ±0.5mm	Thread length mm	Applicable wire cross section (mm ²)
1	FZJH10-95/25	400±15	185	480	150/120	M20x40	25 ~95
2	FZJH10-185/95	400±15	185	480	150/120	M20x40	95 -185
3	FZJH10-240/150	400±15	185	480	150/120	M20x40	150-240
4	FZJH10-240/240	400±15	185	480	150/120	M20x40	240

5.2 Mechanical & Electrical Parameter Table

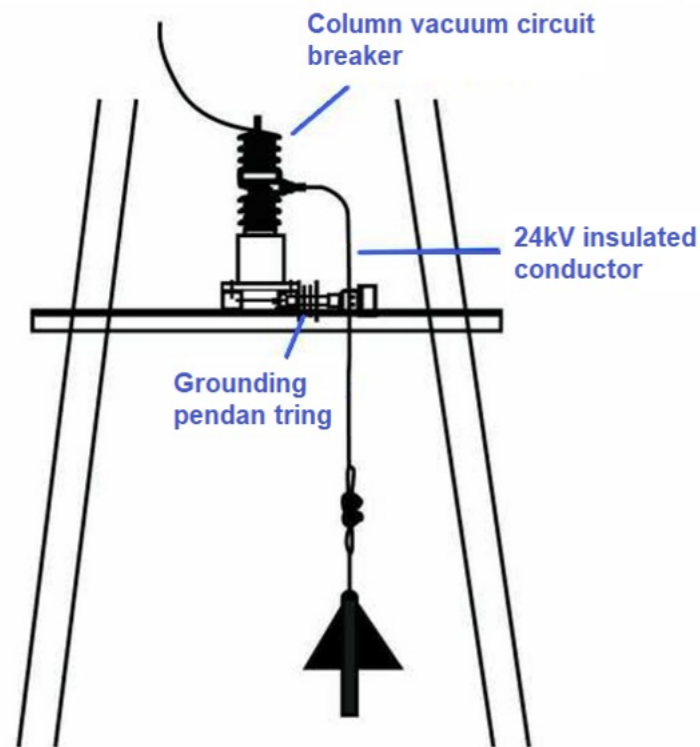
No.	Model	Rated voltage kV	Rated mechanical load KN	Rated lightning impulse withstand voltage	Rated power frequency dry withstand voltage [50Hz: 1 min]	Rated power frequency wet withstand voltage [50Hz: 1 min]	Nom. current	Dynamic stability test DL/T879-2004	Thermal stability test DL/T879-2004
1	FZJH10-95/25	24	4	≤75	≤42	≤50	476	≤18.3kA0.1s	7.3kA1° -5%S
2	FZJH10-185/95	24	4	≤75	≤42	≤50	476	≤18.3kA0.1s	7.3kA1° -5%S
3	FZJH10-240/150	24	4	≤75	≤42	≤50	476	≤25.6kA0.1s	10.2kA1° -5%S
4	FZJH10-240/240	24	4	≤75	≤42	≤50	476	≤25.6kA0.1s	10.2kA1° -5%S

6. Installation Schematic

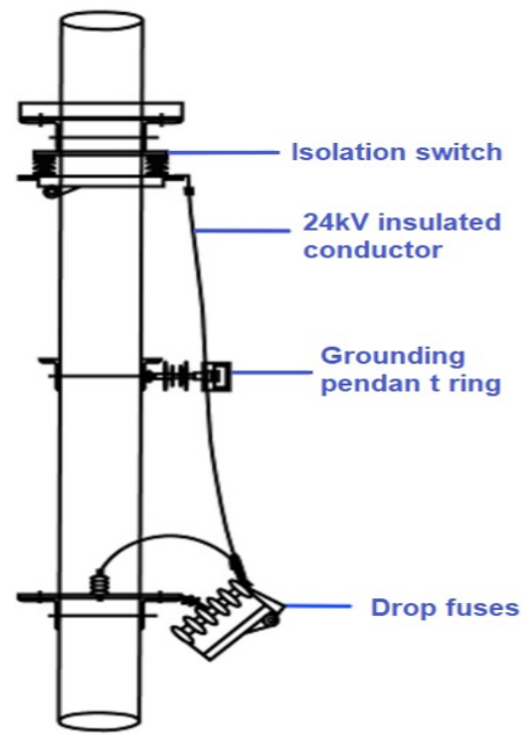
6.1 24KV Pillar Load Switch Installation



6.2 24KV Pillar Vacuum Circuit Breaker Installation



6.3 Transformer Platform Installation



7. Cooperative Partners



8. National independent laboratory test report



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