

TECHNICAL SPECIFICATION OF THE 11KV METAL PARTS SUITABLE FOR 11 KV STRING INSULATORS (C&T TYPE)

1. SCOPE:

The specification covers design, manufacture, testing at manufacturer's works before dispatch, supply and delivery as per the "Schedule of Requirements" attached.

2. Standards:-

The fittings shall conform to the IS specification No. IS-2486- Part-I-1971 and IS-2486 Part-II-1974 and IS 2486- Part-III-1977 (the latest version thereof) – These fittings shall suit the 11kV String Insulators (C & T Type) covered in IS 731-1971(the latest versions thereof) and IS-3188-1965 (the latest version thereof).

3. Design and type:-

The fittings shall be Clevis and Tongue type. The Clevis should conform to fig. (25) of IS 2486 Part-II-1974 (the latest version). The minimum failing load of the fittings shall not be less than 3000 kgs.

The cross arm straps shall be suitable for 75X40 mm channel cross arms. The slip strength of the tension clamp shall not be less than 90% of the ultimate tensile strength (breaking strength) of the conductor. The thickness of the spring washers, nuts to be used with the fittings shall be as per IS 3063-1972 and IS 1363-1967 respectively. **The length of bolts should be maintained 145 mm with applicable tolerance as per IS.**

4. Materials:-

The components of the fitting shall be of materials specified in clause 5.1 of IS 2486-part-I-1971 (the latest issue). Fittings comprising tension clamps of Alluminium alloy shall be offered. The composition of Alluminium alloy may be declared giving references to the relevant IS. The exact weight of the clamp shall be mentioned.

5. Testing:-

a) Tests to be conducted

1. Slip strength test
2. Mechanical tests
3. Verification of dimensions
4. Galvanizing test
5. Visual examination test.

- b) The following tests shall be conducted on the fittings ordered in accordance with IS and Test Certificates shall be submitted in duplicate. The test samples shall be selected by the " EASTERN POWER DISTRIBUTION COMPANY OF A.P. LIMITED". Inspecting Officers in the event of inspection is done at the manufacturer's works.

i) Acceptance tests:-

As per Clause 5.3.2 of IS 2486 Part-I-1971 (the latest issue) sampling should follow the procedure laid down in Appendix-A of IS 2486 – Part-I-1971 (the latest issue).

ii) Routine tests:-

As per clause 5.3.3 of IS 2486-Part I-1971 (the latest issue) on each and every fittings.

6) Packing:- For packing of fittings double gunny bags shall be employed. The gross weight of the packing shall not normally exceed 50 kgs.

7) Guaranteed Technical particulars:-The technical particulars as specified in the IS shall be guaranteed and statements of guaranteed particulars shall be furnished along with tender in the form given in Annexure.

8) SAMPLES:-

Two samples shall be submitted along with the tender.

9) Embossing:- The material shall be engraved with your trade mark.

**GUARANTEED TECHNICAL PARTICULARS OF 11KV METAL PARTS SUITABLE
FOR 11 KV STRING INSULATORS (C&T TYPE)**

Sl.No.	Characteristic
1	Type of manufacture: The materials used for various components parts like cross arm straps, tension clamps, rivet pin, security clip etc. should also be furnished.
2	Makers' name and company
3	Type of galvanizing
4	Slip strength (KN)
5	Electrical resistance of fittings
6	Maximum size of conductor for which the fittings are suitable
7	Weight of the metal parts
8	Drawings to scale (drawings of all components parts as well as the assembly drawings) to be enclosed.