

TECHNICAL SPECIFICATION
OF
GALVENIZED FABRICATION KIT
FOR
COMPACT TRANSFORMER CENTER

:: TECHNICAL SPECIFICATION NO::

Sr. No	Technical Specification No./Revision	Date of revision
1.	GUVNL/GPRD/TS/RP-065/GCTC/	17/1/19
2.		
3.		

GELVENIZED FABRICATION KIT FOR COMPACT TRANSFORMER CENTER

1.0 STANDARDS :

- 1.1** The design, fabrication, galvanizing and testing of fabrication kit for 11KV/22KV distribution transformer center shall be according to the latest edition of the following standards (as mentioned Up-to-date) except where otherwise specified in the Specification.

1.	Specification for zinc	IS : 209-1992
2.	Code of practice for use of structural steel in general Building Construction.	IS : 800-1991
3.	Code of practice for use of structural steel in overhead transmission line towers.	IS 2062-1999
4.	Hexagon head bolts, screws and nuts of product grade 'C'.	IS : 1363-1992 (Part 3)
5.	Technical supply conditions for threaded fasteners (First Revision)	IS : 1367-1979
6.	Plain washers	IS : 2016-1992
7.	Steel for general structural purposes Specification.	IS : 2062-1999
8.	Recommended practice for hot-dip galvanizing of iron and steel.	IS : 2629-1990
9.	Methods of testing weight thickness and uniformity of coating on hot-dip galvanised articles.	IS : 2633-1992
10.	Single Coil Rectangular Section spring washers for bolts, nuts, screws.	IS : 2063-1972
11.	Specification for hot-dip zinc containing on structural steel and other allied products.	IS : 4759-1990
12.	Specification for hot-dip galvanised coating on fasteners.	IS :5358-1969
13.	Code of practice for design, installation and maintenance of overhead power lines.	IS : 5613-1976
14.	Heavy washers for steel structures.	IS : 6610-1991
15.	Hexagonal bolts for steel structures.	IS : 6639-1972
16.	Methods for determination of weight of zinc coating of zinc coated iron and steel articles.	IS : 6745-1972

17.	Transmission Tower bolts of property class 5.6.	IS : 12427-1992
-----	---	-----------------

2.0 PROCUREMENT OF EQUIPMENTS, TOOLS-TACKLES AND MATERIALS :

- 2.1** All the materials, tools, equipment's in sufficient quantity, required for straightening, cutting, drilling, punching, bending, welding, galvanizing etc. activities shall be procured / arranged by the successful Bidder before the work is to be taken up on hand and shall not link the delivery period with procurement / arrangement of these items / tools / equipment's. List of equipment and size of galvanized bath shall be submitted along with technical bid.
- 2.2** The Bidder shall make his own arrangement for procurement of steel conforming to IS: 2062 Grade-A E250 before commencement of work-in sufficient quantity. The use of high tensile steel is not permitted.
- 2.3** In case of non-availability of any required steel section, Bidder at his own cost shall procure and utilize next higher section to complete the work. However, from design point of view, such alternate higher section shall be got approved from respective DISCOM before the use. The total payable weight will be limited to A/T Guaranteed weight only.

The Bidder shall make his own arrangement for procurement of required Bolt-Nuts, washers etc. from the approved vendor of GUVNL or its subsidiaries well in advance and supply as per scheduled completion period along with the inspection at sub vendor's premises.

The bolt nuts shall be procured from the approved vendors of GUVNL or its subsidiaries.

For any other make of bolt nuts, the Bidder will have to take prior approval of the respective DISCOM. For such approval the Bidder has to submit the following in respect of prospective bolt-nut supplier.

Plant Capacity per annum.

Type test reports for bolt nuts to be supplied (not older than 7 Year).

List of orders executed / under execution.

However, DISCOM reserves right to test the samples of Bolts & nuts of the proposed Bolt-nut supplier before approving the make. The DISCOM is at liberty to have samples of steel, zinc etc. to be used, test, check in any Laboratory recognized by the Government at the cost of Bidder and reject the material if found below standard.

The zinc used for galvanizing of fabricated materials shall be electrolytic high grade zinc (99.95% Purity.)

3.0 DRAWINGS AND BILLS OF MATERIALS :

3.1 The DISCOM will provide one set of approved drawings for Double Pole Structure (08 Mtr. P.S.C. Pole) Drg. No. GPRD/RP065/GCTC/001 and GPRD/RP065/GCTC/002 Date 26.04.2024 and bills of material pertaining to respective structure, to the successful Bidder on award of contract.

4.0 PROTO-MODEL ASSEMBLY:

4.1 Before going for mass production, the Bidder shall prepare proto- model assembly at his own cost for each type of structure in accordance with respective approved drawings and bills of materials and rectify all the defects observed and arrange for its approval from respective DISCOM.

4.2 The steel bolts-nuts, washers etc. required for PROTO-MODEL assembly shall be arranged by the Bidder at his own cost.

4.3 Bidder having supplied particular type of structure material as per the drawing shall be exempted from preparation of Proto- Model assembly and its approval before mass production. However details of earlier supplied structure material kit indicating AT No., order quantity and supplied qty should be furnished along with Technical Bid.

5.0 DESIGN, FABRICATION, STAMPING AND GALVANISING OF TRANSFORMER STRUCTURE KIT.

All the activities like straightening, cutting, drilling punching, bending, notching, stamping galvanizing etc. shall be carried out according to the Technical Specification given in this Tender document.

6.0 TYPE OF STRUCTURES:

6.1 All the structures shall be fully galvanized using only structural mild steel sections for members. The use of high tensile steel is not permitted. Hexagonal head bolts with nuts and spring washers shall be used for connections.

7.0 MATERIAL:

7.1 The steel required for fabrication of structure member shall conform to IS: 2062 -1999 E 250 Grade A. The zinc required for galvanizing shall be of Zn-99.95% and shall conform to IS: 209-1992. The bolts and nuts shall conform to IS: 12427-1992/IS: 1367(Part-3)-1991. The bolts and nuts shall be of minimum class 5.6. The plain washers shall conform to IS:2016-1992. Heavy washers shall conform to IS:6610- 1991. Spring washers for bolts and nuts shall conform to IS:3063- 1994. All bolts and nuts shall have hexagonal heads. The heads, being forged out of the solid, truly concentric and square with the shanks, must be perfectly straight. Fully threaded bolts shall not be used. The length of bolts shall be such that the threaded portion will not extend to

the place of contact of the member. All bolts shall be threaded as per IS: 1363 (1992) to take full depth of the nut and shall be threaded enough to permit firm gripping of the member, but no further threaded portion of each bolt shall project through the nut at least 6mm. when fully tightened. All nuts shall fit hand tight to the point where the shank, of the bolt connects to the head. Flat and tapered washers shall be provided where necessary. The diameter of bolts shall be 16mm as per drawing. The thickness of spring washers shall be 3.5 mm. Spring washers shall be provided under all nuts. These washers shall be positive lock type electro galvanized.

8.0 FABRICATION WORKMANSHIP:

- 8.1** The details of fabrication shall conform to IS: 802 (Part-II) - 1978.
- 8.2** All the structure members shall be accurately fabricated to bolt together easily at site without any undue strain on the bolts. The diameter of the bolt-hole shall be equal to the diameter of bolt plus 1.5 mm. All similar parts of structure shall be made strictly inter- changeable. All steel sections before any work is done on them, shall be carefully, levelled, straightened and made true to detailed drawings by methods which will not injure the materials so that when assembled the adjacent matching surfaces are in close contact throughout. No rough edges shall be permitted in the entire structure.

9.0 DRILLING AND PUNCHING:

- 9.1** Before any cutting work is started, all steel sections shall be carefully straightened and trued by pressure and not by hammering. They shall again be trued after being punched and drilled. Holes for bolts shall be drilled or punched with a jig but drilled holes shall be preferred. The following maximum tolerance of accuracy of punched holes is permissible. Holes must be perfectly circular and no tolerance in this respect is permissible. The maximum allowable difference in diameter of the holes on the channel or angle is 0.8 mm i.e. the allowable taper in a punched holes should not exceed 0.8mm of diameter. Holes must be square with the plates or angles and have their walls parallel. All burs left by drills or punch shall be removed completely. When the structure members are in positions, the holes shall be truly opposite to each other. Drilling or ramming to enlarge defective holes shall not be permitted.

10.0 ERECTION MARK:

- 10.1** Each individual structure member shall carry a code number conforming to the component number given to it in the bills of material and fabrication drawing.-

- 10.2** All fabricated items shall be die punched marked (before galvanizing) of supplier having Company name – AT number – Month – year of manufacturing, by minimum size of Ariel-16 point font equivalent, and must be clearly visible.

Example: DG-4567-07-14

11.0 BENDING :

- 11.1** Mild steel angle sections up to 75 x 75 mm (up to 6 mm thick) shall be bent cold up to and including bend angle of 10 Deg. angles above 75x75 mm (thickness up to 6 mm) and up to and including 100 x 100 mm (thickness up to 8 mm) may also be bent cold up to the bend angle of 5 Deg. All other angle sections and bend angles not covered above shall be bent hot

12.0 FRP Channel

The FRP Channel shall be used as a base of the DO fuse and Support channel of the DO fuse base, it shall be manufactured in accordance with IS-6746 standards and others relevant standards.

The Channel shall be made of Glass reinforced flame retardant Polyester (minimum Glass content 55%) and should be corrosion resistant and fire retardant (Class 1, Fire rating) in accordance with the latest ASTM E-84 /. It shall have flame spread rating of 25 or less (class 1 rating) when tested in accordance with ASTM E 84.

All the FRP channels shall be manufactured using the PULTRUSION technology.

The Glass content shall be maintained between 55% -in all the pultruded components.

The Composite material shall have ultraviolet light inhibiting chemical additive to resist UV degradation. All pultruded material shall be Nexus (or equivalent) surfacing, a veil to provide maximum chemical and UV protection.

The Composite FRP channel shall be supplied with Drilling / Perforation as mentioned in the drawing.

The channel shall be supplied in standard lengths, mentioned as per the attached drawings.

The Channel construction shall have high degree of finish and shall be such, so as to facilitate easy handling and also, to ensure easy installation of SLDO, without causing damage.

The inside surface shall be perfectly smooth and free from sharp edges, burrs or projections, etc.. Only machine molding [i.e. Pultruded] is acceptable in both the sides.

The hardware shall conform to NEMA FG-1 and shall be able to withstand the loading as per norms.

Tolerance on width and length shall be +/- 6 mm and height +/- 2 mm for channel.

The color of channel and its accessories shall be grey FRP shall require two nos. of Coat of aliphatic polyurethane paint on C Channel. Thickness of paint shall be minimum 70 Microns (in Dry Condition)

13.0 GALVANISING :

13.1 The galvanizing shall be done to all the structure members after the fabrication work is completed. The nuts may be tapped or re-run after galvanizing. Threads of bolts and nuts shall have neat fit and can be turned with finger throughout the length of the threads of bolts and they shall be capable of developing full strength of bolts.

13.2 The zinc deposition should not be less than specified, per galvanized surface area of the fabricated structure member.

13.3 The galvanizing of the structure members shall conform to IS: 2629- 1985 & IS: 4759-1984. All galvanized members shall withstand tests as per IS: 2633-1986.

The weight of zinc coating shall be determined as per the method stipulated in IS:2633-1986. Spring washers shall be electro galvanized as per IS:1573-1970.

13.4 All the clamps shall be fully galvanized.

13.5 Unless otherwise specified the fabricated parts shall have a minimum overall zinc coating of 610 Gram per Sq. meter of surface. The average zinc coating shall be maintained as 87 Micron.

14.0 CONFORMITY:

14.1 The Bidder shall ensure that the specified materials and workmanship of all structures actually supplied strictly conform to drawings/data supplied/approved by the DISCOM. -In case any deviation is detected during the process of supply or even after erection, the Bidder shall replace such defective structure free of cost to the DISCOM. All expenditure or losses incurred in erection, to and fro transportation and any other expenditure or losses incurred by the DISCOM on this account shall be borne by the Bidder. No extensions in delivery period shall be allowed on this account.

15.0 QUALITY ASSURANCE PLAN

15.1 The bidder shall invariably furnish following information along with his

offer, failing which his offer shall be rejected.

- i) Statement giving list of important raw materials, proposed to be used in the fabrication against this Specification, names of sub suppliers for the raw materials, list of standards according to which the raw materials are tested, list of tests normally carried out on raw materials in presence of Bidder's representative as routine and / or acceptance during production and on finished goods, copies of test certificates.
- ii) Information and copies of test certificates as in (i) above in respect of bought out accessories.
- iii) List of manufacturing facilities available.
- iv) Level of automation achieved and list of areas where manual processing exists.

List of areas in manufacturing process, where stage inspections are normally carried out for quality control and details of such tests and inspections

List of testing equipment available with the Bidder for final testing as per relevant IS specified. In the case if the Bidder does not possess all the Acceptance testing facilities the same tests shall be carried out at Govt. approved third party lab.

The Purchaser reserves the right for factory inspection to verify the facts quoted in the offer. If any of the facts are found to be misleading or incorrect the offer of that Bidder will be out rightly rejected and he may be black listed.

Special features provided to make it maintenance free.

15.2 The bidder shall also submit following information to the purchaser along with the technical Bid. .

- i) List of raw materials as well as bought out accessories, and the name of suppliers of raw materials as well as bought out accessories.
- ii) Type test certificates of the raw material and bought out accessories.
- iii) Quality assurance plan (QAP) with hold points for purchaser's inspection.

15.3 The Bidders shall submit the routine test certificates of all the bought out items, accessories etc.

16.0. INSPECTION:

The successful Bidder has to offer inspection of fabricated material every month as per scheduled giving minimum time of not less than 10 days. The inspection of fabricated material shall be carried out at manufacturer's works

for Acceptance tests as per relevant Indian standard. The inspection of bolts-nuts, washers, and other bought out items shall be carried out at Manufacturer's works as per relevant IS. The testing charges shall be borne by the bidder. If the testing facilities are not available for the tests to be carried out, the same shall be carried out at NABL laboratory / Govt. Approved laboratory at no extra cost to the DISCOM.

The DISCOM reserves right to pick-up sample of any material from the lot received at site and get the same tested as per ISS at third party Laboratory (preferably Government Laboratory or Educational Institution). The material should pass these and if the material fails, they will be summarily rejected and Bidder should make immediate arrangement to replace them with standard materials and after getting them duly inspected. Rejected/ defective material if found during inspection shall be destroyed in presence of DISCOM's representative. The bidder shall replace the material if not found as per specific requirements, at no extra cost to the DISCOM, including testing charges.

The inspection shall be carried out as per guideline given here under:-

16.1 GENERAL GUIDE-LINE FOR INSPECTION:

Fabricated Structure Material:

- i) Visual examination and quantity verification of offered lot.
- ii) Sample selection from the offered lot at a ratio of 50 MT (or part thereof) 1 no. for all tests.
- iii) Dimension, fabrication and trueness verification of structure member from fabrication sketch.
- iv) Galvanizing test of each selected sample i.e. dip test, hammer test and mass of zinc test.
- v) Random verification Zinc coating over galvanized surface by Elcometer.
- vi) Tensile test and bend test on each selected sample.
- vii) Chemical composition test on at least one sample per lot offered for inspection.
- viii) Verification of manufacturer's test certificate for mild steel used in structure members and submission of copy of the same along with inspection report. Failing in which dispatch instruction will not be issued.

16.2 Bolts-Nuts, Washers, Accessories, Attachments etc.: (To be carried out at manufacture's works.)

- i) Visual examination and quantity verification of offered lot.

- ii) Sample selection from the offered lot as per relevant IS for each item.
- iii) Dimension, fabrication and trueness verification from fabrication sketch.
- iv) Galvanizing test on each sample.
- v) Other acceptance tests for respective item as per relevant Indian Standard and as per latest IS revision.
- vi) The inspection report shall be along with size and quantity shall be mentioned in each type of bolt-nuts and attachment.

16.3 No member once rejected shall be resubmitted for inspection. Such member shall be destroyed in presence of the Inspector.

16.4 The acceptance of any lot shall in no way relieve the Bidder for any of his responsibility for meeting all the requirements of the specification and shall not prevent subsequent rejection of any item of that lot later found defective.

17.0 DESPATCH INSTRUCTIONS:

17.1 On receipt and verification of test certificates, concern CE, DISCOM will issue a clearance for dispatch of inspected material. No material shall be dispatched before receipt of such dispatch instruction in writing.

The bolt-Nuts and all other items procured from other manufacturer should be dispatched directly to the consignee to avoid double payment of Sales Tax / VAT.

18.0 PACKING AND MARKING ON PACKING:

18.1 The material shall be boxed or bundled for transport in the following manner:

Channels, Angles, clamps shall be packed in bundles and correct number of bolts, nuts and washers required for structures shall be packed in a heavy gunny bag. All together shall be securely wrapped at each end and over 900mm. One such kit for one transformer structure shall be prepared for dispatch.

18.2 All above packings are subject to the approval of the DISCOM.

18.3 Each bundle or packing shall have the following marks :

The name of the consignee (as per dispatch instructions given by the DISCOM.)

Ultimate destination as required by the DISCOM.

19.0 MATERIAL ACCOUNTS:

- 19.1** The successful Bidder has to approach the consignee for reconciliation of the materials supplied as per approved Bill of Material (Member wise without any shortages) from time to time and get the completion certificate for receipt of complete structure quantities.

All the final accounts shall be according to sectional weight basis, as per approved bills of material only.

20 WEIGHTS:

- 20.1** The unit weights of each type of structure, including bolt-nuts, accessories, attachments shall be furnished and / or to be approved by the DISCOM. The weight of structure shall mean the weight calculated by using the black sectional (i.e. un galvanized) weights of all steel members of the sizes indicated in the fabrication drawings and bills of materials without taking into consideration the reduction in weight due to drilling of bolts, holes, skew cuts, chamfering etc. or increase in weight due to galvanizing but taking into consideration the weight of the special fittings, bolts, nuts, washers and other accessories.

21.0 EMBOSSING OR ENGRAVING:

The successful Bidder wherever possible will have to provide embossing / engraving on the Member No, Manufacturer's name and trademark.

22.0 Type Test:

Steel Material Type test is to be consider as per the relevant IS and its latest amendment

The FRP Pultruded Sections used shall be fully type tested for Mechanical Properties, Electrical Properties, Fire Propagation, low flammability Fire Rating & Specific Optical Density of Smoke as mentioned in the above standards. Test certificate conforming the same, shall have to be submitted along with the offer.

- (i)** Fire Retarding quality – Class 1 as per BS – 476 Part- 7
- (ii)** Flame Spread - <25 as per ASTM E84

(iii) Self-Extinguishing – D 635

(iv) Oxygen Index Test – Min 29 as per ASTM D 2863

(v) UV Resistance – For 1000 Hours accelerated weather test, with reduction of tensile strength of not more than 7 % exposure to UV as per ASTM G 154.

(vi) Antistatic Property – Resistivity $> 10^6$ (more than 10^6) as per ASTM D 257

(vii) Water absorption - Max. 0.6% - 24 hrs test as per ASTM D 570.

(viii) Resistance to tracking and Erosion Test – As per IEC 60587 Class 2,A@1.5 KV.

All the Type Tests shall be carried out from Laboratories which are accredited by the National Board of Testing and Calibration Laboratories (NABL) of Govt. of India, such as CPRI, ERDA, ERTL, CIPET and ATIRA to prove that the FRP Pultruded Sections meet the requirements of the specification.

23.0 ROUTINE TESTS :

Routine test shall be carried out as per the latest IS / ASTM or equivalent and its amendment,

Test on FRP Channel:

Loading Test – Minimum 300 KG @ 1 Meter Span Uni- directional load withstand capacity for FRP and additional conc. load of 70 Kg with a safety factor of 2 should be placed at mid span of the channel under the test and the channel should not break or develop crack.

Deflection – Does not showing any damages or Cracks Glass Content - Min 55 %

Oxygen Index Test – Min. 29 As per ASTM D 2863

Fire Retardancy – As per Standards UL94 v-0

Supplier is required to maintain the register for routine tests and will show to the inspector, who comes for inspection, for verification / confirmation purpose. Supplier has to submit the routine test report of Chemical Composition of phosphor bronze sheet.

24.0 Acceptance Test

The acceptance test as per following are to be carried out on randomly selected sample of steel material.

a. Verification of Dimension

- b. Yield strength Test
- c. Elongation Test
- d. Bend Test
- e. Chemical Composition.

FRP Manufacturer should have a facility to test channels as per load test, ASTM D 2584 for glass content and IS 6746 for flammability test at their work.

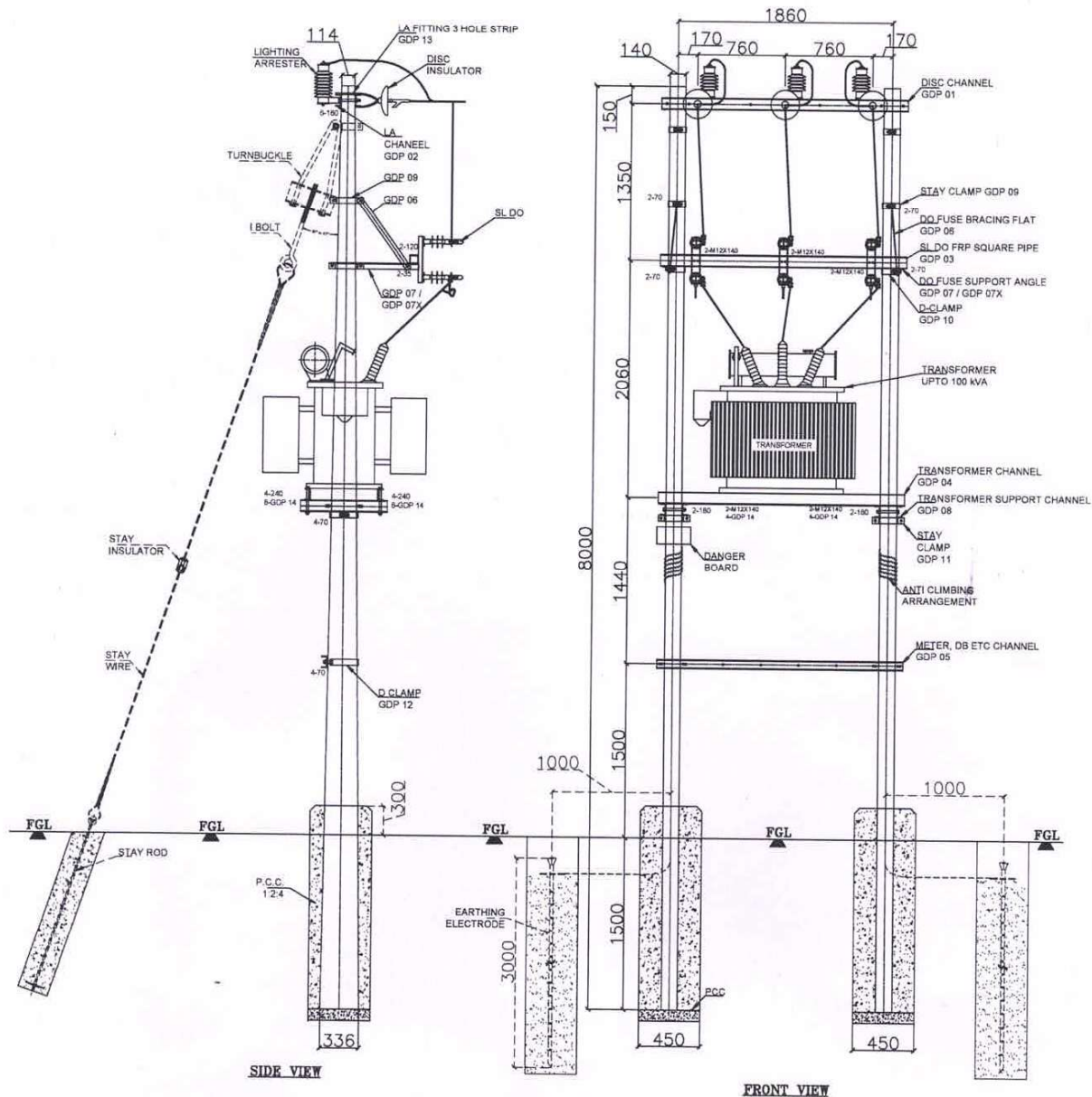
Raw material test certificates for polymer resin, glass fiber used for production shall be furnished during inspection.

Following tests shall be carried out in presence of the DISCOM representative at the works of OEM.

- a) Tensile Strength- as per GTP
- b) Flexural Test - as per GTP
- c) Compressive Test - as per GTP
- d) Visual and Dimension Test – As per the Approved Drawing
- e) Glass Content Test – Minimum 55%
- f) Burn and Flammability Test UL 94 V-0

GTP for FRP Base Channel –Mechanical and Electrical Properties

Sr. no	Parameter	Standard	Unit	Values for FRP Pultruded Section	Confirmation
1	Ultimate Tensile Strength	ASTM D 638	Psi	30000	Yes
2	Tensile Modules	ASTM D 638	Psi(10^6)	2.5	Yes
3	Flexural Strength	ASTM D 790	Psi	30000	Yes
4	Flexural Modulus	ASTM D 790	Psi(10^6)	1.6	Yes
5	Compressive Strength	ASTM D 695	PSi	30000	Yes
6	Compressive Modulus	ASTM D 695	PSi(10^6)	2.5	Yes
7	Barcol Hardness	ASTM D 2583	scale	50-65	Yes
8	Water Absorption	ASTM D 570	% max by weight	≤ 0.6	Yes
9	Glass Content	ASTM D 2584	%	Min 55	Yes
10	FSI (Flame Spread Index)	ASTM E- 84	(Class-A)	Less than 25	Yes
11	Dielectric Strength Radial	ASTM D 149	kV/25mm	30-45	Yes
12	Dielectric Strength Axial	ASTM D 149	kV/25mm	10 ~ 15	Yes
13	Arc Resistance	ASTM D 495	Sec	> 120	Yes
13	Oxygen Index	ASTM D 2863-2000	Sec	> 120	Yes



Mem No.	Item Name	Qty. in one	Section	Length
GDP 01	TOP CHANNEL	1	ISM100X50	2140
GDP 02	LA CHANNEL	1	ISM100X50	2140
GDP 03	SL DO FRP SQUARE PIPE	1	75X75X6 TK	2160
GDP 04	TRANSFORMER BASE CHANNEL	2	ISM100X50	2140
GDP 05	METER, DB ETC CHANNEL	1	ISM75X40	2180
GDP 06	DO FUSE BRACING FLAT	2	F50X6	750
GDP 07	DO FUSE SUPPORT ANGLE	1	L50X50X6	750
GDP 07X	DO FUSE SUPPORT ANGLE	1	L50X50X6	750
GDP 08	TRANSFORMER SUPPORT CHANNEL	4	ISM100X50	634
GDP 09	C-CLAMP	4	F50X8	-
GDP 10	D-CLAMP-1	2	F50X8	-
GDP 11	SUPPORT CLAMP	4	F50X8	-
GDP 12	D-CLAMP-2	2	F50X8	-
GDP 13	LA FITTING 3 HOLE STRIP	3	F50X6	235
GDP 14	Pack washer for X'mer mount M12 Bolts	24	F50x6	50
	Nut Bolt With Washer	10	M 16	180
	Nut Bolt With Washer	2	M 16	120
	Nut Bolt With Washer	17	M 16	70
	Nut Bolt With Washer	2	M 16	35
	Nut Bolt With Washer	8	M 12	240
	Nut Bolt With Washer	10	M 12	140

Stay Set with Turn bucket, Stay Rod, Thimble, Stay Insulator, I-bolt & Support Clamp; Earth Electrode Pipes

FABRICATED
(It is Not in scope with GCTC)

Checked &
Approved By:

Ignesh Borisagar

LB Upadhyay

NOTES:-

1. ALL HOLES ARE #17.5MM FOR #16MM BOLTS UNLESS OTHERWISE SPECIFIED.
2. ALL STRUCTURAL STEEL MEMBERS SHALL BE GALVANIZED AFTER FABRICATION. THE MINIMUM WEIGHT OF ZINC COATING SHALL BE 610GM/SQ.M.
3. SPRING WASHERS TO BE USED UNDER EACH NUT.
4. ALL ERECTION MARK SHALL BE PREFIXED WITH "GDP".
5. ALL STRUCTURAL STEEL SHALL CONFORM TO IS: 2062.
6. ALL FASTENERS SHALL BE OF PROPERTY CLASS 5.8 OF IS: 1367.
7. ALL DIMENSIONS ARE IN MM.
8. IN FABRICATION DIM. TOLERANCE SHALL BE $\pm 5\%$, MIN. 1MM.

Project Name:

Galvanized Fabrication Kit for
Compact Transformer Center

Research Proj. No:

Date

GPRD/RP01/GCTC/001

26.04.2024



Gujarat Power Research and
Development Cell,
IIT Gandhinagar Research Park,
IIT Gandhinagar, Palaj, Gandhinagar

DISC CHANNEL - GDP 01	TRANSFORMER CHANNEL - GDP 04
LA CHANNEL - GDP 02	METER, DB ETC CHANNEL - GDP 05
DO MOUNT FRP SQUARE PIPE - GDP 03	TRANSFORMER SUPPORT CHANNEL - GDP 08
C-CLAMP (GDP 09) D-CLAMP-1 (GDP 10) SUPPORT CLAMP (GDP 11) D-CLAMP-2 (GDP 12)	DO FUSE SUPPORT BRACING FLAT - GDP 06 LA FITTING 3 HOLE STRIP - GDP 13 DO FUSE SUPPORT ANGLE - GDP 07 DO FUSE SUPPORT ANGLE - GDP 07X
ALL DIMENSIONS ARE TO BE READ AND NOT TO BE MEASURED. IN CASE OF ANY DISCREPANCY BETWEEN GPRD CELL-GUVN, GOG DRGS AND OTHER DRGS, DISCREPANCY SHOULD BE BROUGHT TO THE NOTICE OF THE GPRD BEFORE COMMENCEMENT OF THE WORK. IN CASE OF ANY AMBIGUITIES ON SITE, THE GPRD SHOULD BE INFORMED. IT IS MUST TO INFORM AND TO HAVE PRIOR PERMISSION OF GPRD BEFORE MAKING ANY CHANGES ON SITE. REFER THE LATEST REVISED DRAWING.	Project Name: Galvanized Fabrication Kit for Compact Transformer Center Title: Compact Transformer Structure Checked & Approved By: J B Upadhyay Drawing Prepared By: Jignesh Borsliagar Research Proj. No.: GPRD/RP06/GCTC/002 Date: 26.04.2024 Gujarat Power Research and Development Cell, IIT Gandhinagar Research Park, IIT Gandhinagar, Palaj, Gandhinagar