

TECHNICAL SPECIFICATION FOR 3-PHASE SMC BOX MADE FROM SMC
(Sheet Moulded Compound) FOR 3- PHASE ENERGY METER.

1.0 SCOPE:

This specification covers the design, manufacturing and testing of anti-corrosive, dust proof, rust proof, shock proof, self extinguishing property, resistant to heat, vermin & water proof, Ultra Violet Stabilized and pilfer resistant Meter Box made from SMC Made from Thermosetting Plastic Confirming to IS:13410 (1992)/ 13411 and attached technical specification, drawing and IS 14772:2000.

2.0 CONSTRUCTION:

2.1 The minimum size of box from inside shall be **400 X 300 X 190 mm.**

2.2 SMC Meter Box shall be moulded in a single piece forming the body of the SMC meter box with a cover fitted with base by minimum three nos. concealed Stainless steel hinges. The lid/cover shall rest on the collar of SMC the Meter Box base in such a way that any access from outside of the meter is not possible. The hinges shall be fitted with the SMC Meter Box body base and cover rigidly, thereby making the SMC Meter Box pilfer resistant. All corners of the SMC meter Box should be round & not pointed ones.

2.3 The door in closed position should be overlapped in such a manner that no direct entry or access is possible. The SMC Meter Box shall be closed by 2.3S.S.'U' Clamp of minimum 0.8 mm (+/- 0.1 mm) thickness for holding and locking of the door with body base. The 'U' Clamp shall have 4 mm. diameter holes through which it is possible to seal the box for sealing purpose.

2.4 The top surface of box shall have little tapering shape towards both sides of the meter box for easy flow of rainwater.

2.5 For fixing of P.P.T. (Poly Propylene Talk Fitted-V-O(FR)) box on wall 4 Nos of nail holes with 7 mm diameter shall be provided at 20 CM Horizontal distance between them keeping vertical location as mentioned in drawing.

2.6 Length of flexible channel for fixing of meter bottom screw inside the SMC Box shall be of length having 150 mm play as mentioned in Drawing.

2.7 **2 (Two) Part head screw is to be provided for fixing of meter bottom screw channel Instead of 4 part head screw.**

2.8 One more door closing 'U' clamp at the bottom of SMC Box shall be provided as mentioned in Drawing. The 'U' Clamp shall have 4 mm. diameter holes through which it is possible to seal the box for sealing purpose.

2.9 The box should have a window of size **140 x 120 mm.** provided with glass as shown in the drawing. The door shall open at 90 degree.

2.10 Cable entry and exit holes of 25mm diameter shall be provided on both sides of box with good quality rubber grommets as shown in the drawing.

2.11 One nos Earth bolt of 6mm diameter x 25mm length with 2 Nos Nuts and 2 nos. washers plus a spring washer shall be provided. The earthing arrangement shall be of M.S. with Zinc passivated. The irremovable earthing symbol is to be provided near the earthing bolt.

2.12 All corners of the Meter box should be round and not pointed ones.

2.11 All metal parts shall be Zinc passivated.

2.12 Required arrangements per box should be as follows:

Sr No	Details	Box for 3 Ph. Meter
1	Size of the box inside	400 X 300 X 190 mm
2	Thickness	2 mm
3	Opening of the box	90°
4	No of holes on backside box wall having 7 mm dia for fixing of box.	04 No
5	Earth bolt of 6 mm dia X 25 mm length with 2 nuts and 2 washers	01 No
6	Cable Entry Hole with good quality rubber grommets as shown in drawing.	25 mm- 01 No
7	Cable Exit Holes with good quality rubber grommets as shown in drawing.	25 mm- 01 No

3.0 GUARANTEED TECHNICAL PARTICULARS:

Guaranteed Technical particulars are given in enclosed Annexure A and B. Bidder shall submit the data in given Performa.

4.0 TYPE TEST CERTIFICATE:

The bidder shall submit type test report as per IS-14772-2000 & IS - 13410: 1992 from CIPET, Ahmedabad /ERDA, Vadodara along with the offer. Type Test Certificate should not be older than 5 years as on the date of tender opening.

5.0 ROUTINE TEST:

Manufacturer has to Carryout routine test during production to check the essential requirements that are likely to vary during production. Manufacturer has to keep records of the same and to be produced for verification of inspector when asked at the time of inspection of lot.

6.0 ACCEPTANCE TEST:

The acceptance tests shall be carried out on randomly selected samples as per Annexure - B.

7.0 TYPE TEST:

From the offered lot, Sample shall be picked up at discretion of PGVCL for type test at CIPET, Ahmedabad /ERDA, Vadodara for every 30,000 nos. supply. The charges for the Type Test shall be borne by bidder. On passing the type test successfully, the lot shall be accepted. In case, the boxes are not confirmed to type test, another sample from the lot shall be selected and tested again. On receipt of unsatisfactory results, the lot shall be rejected and new lot shall be offered for inspection keeping aside old lot offered and rejected earlier by the PGVCL. However PGVCL reserves the right to accept the boxes by levying penalty as per description of the PGVCL.

8.0 RAW MATERIALS:

The manufacturer has to submit the test certificate for the material used in the lot offered and document for purchase of raw material.

9.0 FACILITY:

The bidder shall have facility to test the box for routine tests and acceptance as per IS-14772: 2000 and IS - 13410 at their works. The bidder has to submit list of Machinery & Equipment / Testing instruments etc.

10.0 INSPECTION AND TESTING:

The bidder has to offer the boxes for inspection at his works before dispatch. The manufacturer will offer all facilities to inspector without any charge.

11.0 DESPATCH:

The 3-PH SMC meter boxes shall be so dispatched as to ensure that no damage occurs during transport where they may be subject to rough handling.

12.0 DESTINATION:

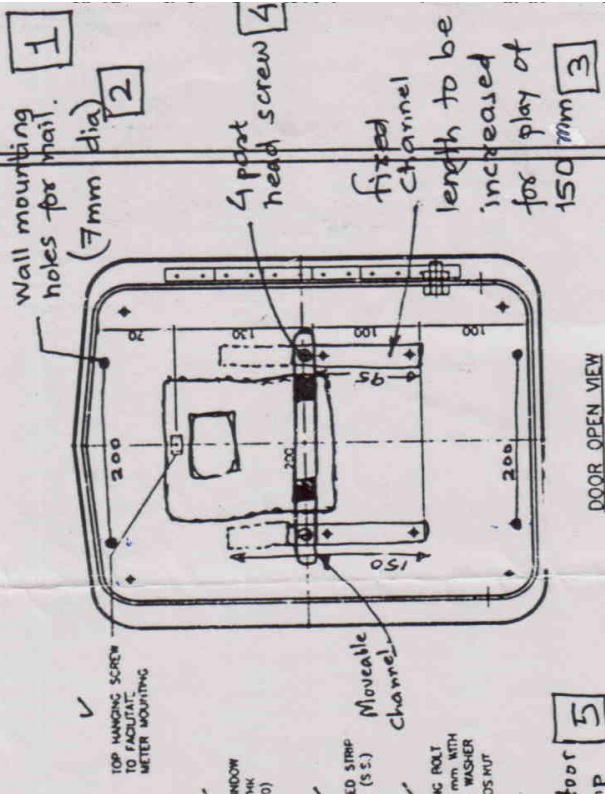
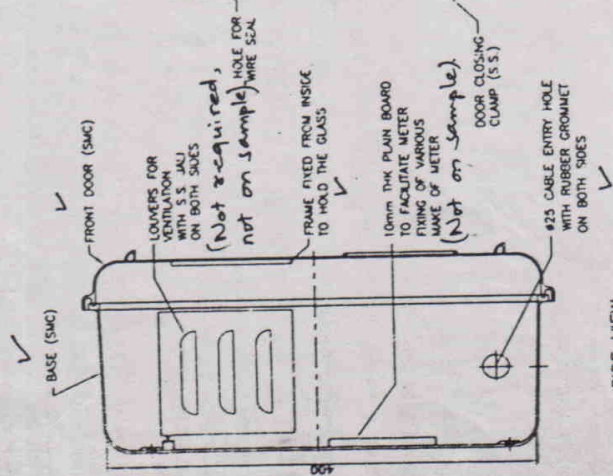
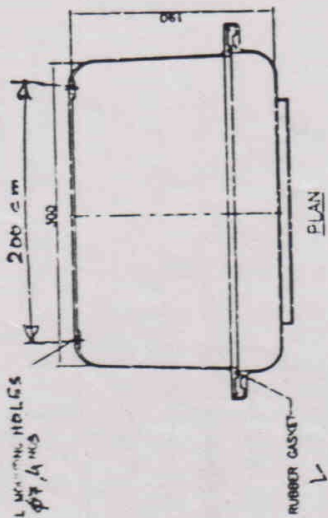
The above material shall be supplied to RSO or any store of PGVCL.

13.0 TENDER SAMPLE:

One Sample (as per Specifications and Drawing attached with this Tender) is required to be submitted at the address of The Deputy Engineer, Regional Store Office, PGVCL, Dudhsagar Road, Rajkot. Tender without sample is liable to be rejected.

SUGGESTION FOR MODIFICATION IN SIMUL DESIGN FOR WHOLE CURRENT METERS)

- NOTES :-
- ✓ (1) MADE OUT OF SHEET Moulding CO. TO BE 14. PROCESS OF HOT PRESS COMPRESSION Moulding CONFORMING TO IS : 13410.
 - ✓ (2) SMC BASE OR DOOR SHALL NOT SOFTEN OR BEND ON HEATING.
 - ✓ (3) DOOR FITTED TO BASE BY CONCEAL HINGES WITH DOOR CLOSING CLAMP
 - ✓ (4) DIMENSIONS
INSIDE :- H=400mm, W=300mm, D=190mm.
 - ✓ (5) COLOUR - OFF WHITE.



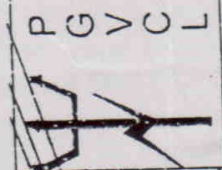
Suggested door closing clamp

DOOR OPEN VIEW

ELEVATION

SIDE VIEW

Paschim Gujarat Vij Company Ltd.



P G V C L

DRAWING

FOR (3-PH WHOLCURRENT METER)
MADE FROM THERMOSETTING
PLASTIC

Adil, Chief Engr.
(Tech)

AB
Executive Engr
(Tech)