

Sr No	Clause/Section No	Page No	Present Clause	Amended Clause
1	Section-4, Part-B, Clause No. 5		Table 2 - Bill of Quantity Table to be deleted	<b>Revised Table -2 is enclosed herewith</b>
2	APPENDICES-F		Appendices-F Technical Specifications for Polycarbonate Meter Cover Box for Single Phase Meters --- Deleted-----	Revised APPENDICES-F is enclosed herewith
3	APPENDICES-G		Appendices-G Technical Specifications for Polycarbonate Meter Cover Box for Three Phase Meters --- Deleted-----	Revised APPENDICES-G is enclosed herewith
4	Display parameters	149	Mode: 1 Manual Scrolling Parameter List	<b>Deleted</b>
5	APPENDICES-B DATA DISPLAY FACILITY, Clause 5.1	120	<p><b>5.1 DATA DISPLAY FACILITY (AUTO/MANUAL)</b></p> <p>Data Display shall be in three modes-</p> <ol style="list-style-type: none"> <li>1. Auto Scroll</li> <li>2. Scroll with Push Button</li> <li>3. High Resolution (Shall display energy values with resolution of 2 digits before decimal and 3 digits after decimal in push button mode)</li> </ol>	<p><b>5.1 DATA DISPLAY FACILITY (AUTO/MANUAL)</b></p> <p>Refer Annexure-3</p>

Sr No	Clause/Section No	Page No	Present Clause	Amended Clause
			<p>The display order shall be:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Auto Scroll           <ul style="list-style-type: none"> <li>• Cumulative Active Energy kWh along with legend.</li> <li>• Current calendar month MD in kW with legend.</li> <li>• Instantaneous voltage</li> <li>• Instantaneous current</li> </ul> </li> </ul> <p>These parameters should be displayed on the LCD/LED continuously for a period of 15 seconds on Auto scroll. In case of power failure, the meter should display above parameters with push button.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Scroll with Push-button           <ul style="list-style-type: none"> <li>• Internal diagnostics o Cumulative kWh</li> <li>• Date</li> <li>• Real Time</li> <li>• Voltage in (V) o Current (I)</li> <li>• Power (kW)</li> <li>• Current month MD in kW</li> <li>• Last month cumulative kWh o Last month MD in kW</li> </ul> </li> </ul>	

Sr No	Clause/Section No	Page No	Present Clause	Amended Clause
			<ul style="list-style-type: none"> <li>• Last month MD occurrence Date</li> <li>• Last month MD occurrence</li> <li>• Time</li> <li>• Meter Serial Number</li> </ul> <p>The meter's display should return to default display mode (continues auto scroll) if push button is not operated for more than 10 seconds. (The order of display may be revised as per requirement of the utility)</p>	
6	PART-C SCC, Clause 9	215	<p><b>9. COMPLETION TIME/ DELIVERY SCHEDULE</b>  Entire material to be delivered and jobs to be completed as per the delivery schedule from the date of issue of Purchase Order/Letter of Award and as per the ANNEX-D.</p>	<p><b>9. COMPLETION TIME/ DELIVERY SCHEDULE</b>  Entire material to be delivered and jobs to be completed as per the delivery schedule from the date of issue of Purchase Order/Letter of Award and as per the Appendices-E.</p>
7	Section 4 Part B Clause no 6.10.3	82	<p>6.10.3 Representatives of Implementation Partners(s)</p> <p>a) The representatives of bidder(s) shall be responsible for interacting with UGVCL and identified utilities for coordinating in case of meter replacement, issue handling etc.</p> <p>b) The Project Director shall be based out of UGVCL office (location shall be intimated later) and shall be the single point of contact for the identified utilities and UGVCL</p> <p>c) The Project Managers shall be based</p>	<p>6.10.3 Representatives of Implementation Partners(s)</p> <p>a) The representatives of bidder(s) shall be responsible for interacting with UGVCL and identified utilities for coordinating in case of meter replacement, issue handling etc.</p> <p>b) Deleted</p> <p>c) Deleted</p> <p>d) Deleted</p> <p>e) These officers are responsible for smooth coordination of the entire project. These officers</p>

Sr No	Clause/Section No	Page No	Present Clause	Amended Clause
			<p>out of utility office (location shall be intimated later)</p> <p>d) The field persons shall be based out of utility office (location shall be intimated later)</p> <p>e) These officers are responsible for smooth coordination of the entire project. These officers shall be required to travel to field locations as and when required.</p> <p>f) These officers shall liaison with other stakeholders such as system integrators, communication service providers etc. to ensure seamless implementation of the project.</p>	<p>shall be required to travel to field locations as and when required.</p> <p>f) These officers shall liaison with other stakeholders such as system integrators, communication service providers etc. to ensure seamless implementation of the project.</p>
8	APPENDICES-C DATA DISPLAY FACILITY, Clause 5.1	128	<p><b>5.1 DATA DISPLAY FACILITY (AUTO/MANUAL)</b></p> <p>Data Display shall be in three modes-</p> <ol style="list-style-type: none"> <li>1. Auto Scroll</li> <li>2. Scroll with Push Button</li> <li>3. High Resolution (Shall display energy values with resolution of 2 digits before decimal and 3 digits after decimal in push button mode)</li> </ol> <p>The display order shall be-</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Auto Scroll <ul style="list-style-type: none"> <li>• Cumulative Active Energy kWh along with legend.</li> <li>• Cumulative Energy in kVAh with legend</li> <li>• Current calendar month MD in kW with</li> </ul> </li> </ul>	<p><b>5.1 DATA DISPLAY FACILITY (AUTO/MANUAL)</b></p> <p>Refer Annexure-3</p>

Sr No	Clause/Section No	Page No	Present Clause	Amended Clause
			<p>legend.</p> <ul style="list-style-type: none"> <li>• Current calendar month MD in kVAh with legend</li> <li>• Instantaneous voltage VRN</li> <li>• Instantaneous voltage VYN</li> <li>• Instantaneous voltage VBN</li> <li>• Instantaneous current IR</li> <li>• Instantaneous current IY</li> <li>• Instantaneous current IB</li> </ul> <p>These parameters should be displayed on the LCD/LED continuously for a period of 15 seconds on Auto scroll. In case of power failure, the meter should display above parameters with push button.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Scroll with Push-button           <ul style="list-style-type: none"> <li>• Internal diagnostics</li> <li>• Cumulative kWh o Cumulative kVAh</li> <li>• Date</li> <li>• Real Time</li> <li>• Voltage VRN (V) Voltage VYN (V) Voltage VBN (V) Current IR (I)</li> </ul> </li> </ul>	

Sr No	Clause/Section No	Page No	Present Clause	Amended Clause
			<ul style="list-style-type: none"> <li>Current IY (I)</li> <li>Current IB(I)</li> <li>Power (kW)</li> <li>Power (kVA)</li> <li>Current month MD in kW</li> <li>Current month MD in kVAh</li> <li>Last month cumulative kWh</li> <li>Last month cumulative kVAh</li> <li>Last month MD in kW &amp; occurrence Date</li> <li>Last month MD in kVAh&amp; occurrence Date</li> <li>Average power factor</li> <li>Meter Serial Number</li> </ul> <p>The meter's display should return to default display mode (continues auto scroll) if push button is not operated for more than 10 seconds. (The order of display may be as per the requirement of utility)</p>	

Sr No	Clause/Section No	Page No	Present Clause	Amended Clause
9	Important Dates and Announcement	10	A Commencement of downloading of this RFP and online bidding : 29 Sept, 5:00 pm 2018	A Commencement of downloading of this RFP and online bidding : 29 Sept, 5:00 pm 2018
			B Pre-bid meeting : 10 Oct,2018 12:00 pm	B. Pre-bid meeting : 10 Oct,2018 12:00 pm
			C Last date for online bidding : 20 Oct, 5:00 pm 2018	C. Last date for online bidding : 03Nov, 5:00 pm 2018
			D Last date for receipt of bid in Physical Copy at Mehsana : 29 Oct, 3:00 pm 2018	D. Last date for receipt of bid in Physical Copy at Mehsana : 15Nov, 3:00 pm 2018
			E Technical Bid Opening : 29 Oct, 4:00 pm 2018	E. Technical Bid Opening : 15Nov, 4:00 pm 2018
			F. Evaluation of Technical bid and Opening of Financial Bid : 13 Nov, 3:00 pm 2018	F. Evaluation of Technical bid and Opening of Financial Bid : 30 Nov, 3:00 pm 2018
10	Bid Details Clause E	8	E. The schedule of this RFP is as follows (all times indicated herein are in IST): a) Commencement of downloading of this RFP and online : 29 Sept, 5:00 pm 2018	E. The schedule of this RFP is as follows (all times indicated herein are in IST): Refer Important Dates and Announcement clause at Page No.10

Sr No	Clause/Section No	Page No	Present Clause	Amended Clause
			<p>bidding</p> <hr/> <p>b) Last date for online bidding : 20 Oct, 5:00 pm 2018</p> <hr/> <p>c) Last date for receipt of bid in Physical Copy at Mehsana : 27 Oct, 3:00 pm 2018</p> <hr/> <p>d) Technical Bid Opening (if possible) : 27 Oct, 4:00 pm 2018</p>	
<b>11</b>	Bid Details	8	The tender documents should reach the latest by 15.00 hours of date: Dt.27.10.2018.	The tender documents should reach the latest by as per the dates given in Important dates and Announcement Clause at Page No. 10
<b>12</b>	Bid Details, Clause B	8	A. This RFP can be downloaded from <a href="http://www.ugvcl.com">http://www.ugvcl.com</a> and online bidding at <a href="https://nprocure.com">https://nprocure.com</a> on or before 20 Oct, 2018 at 5:00 pm Indian Standard Time (IST) by meeting the requisite criteria and following the procedure indicated therein.	A. This RFP can be downloaded from <a href="http://www.ugvcl.com">http://www.ugvcl.com</a> and online bidding at <a href="https://nprocure.com">https://nprocure.com</a> on or before the date given in Important Dates and announcement Clause at Page No. 10 by meeting the requisite criteria and following the procedure indicated therein.
<b>13</b>	Three phase tamper Exhibit -2	158	Three phase tamper Exhibit -2	Should be as per IS 16444.



**Table 2 - Bill of Quantity**

S.No	ItemName	Unit	DGVC L	MGVC L	PGV CL	UGV CL	TOTAL
1.	Single Phase Whole Current Smart Meters <b>as per IS 16444 Part 1withaccuracy class 1 and current rating of5-30A/10-60A</b>	Numbers	1000	5000	9785	0	15785
2.	Meter Box for Single Whole Phase Smart Meters (Inclusive ofAll Necessary Accessories) <b>as per AppendixA</b>	Numbers	1000	5000	9785	0	15785
3.	Three Phase Whole Current Smart Meters <b>as per IS 16444 Part 1withaccuracy class 1 and current rating of10-60A</b>	Numbers	0	0	2445	0	2445
4.	Meter Box for Three Phase Whole current SmartMeters (Inclusive of All Necessary Accessories) <b>as per AppendixB</b>	Numbers	0	0	2445	0	2445

## Appendices-F

### TECHNICAL SPECIFICATION FOR METER BOX MADE FROM THERMOSETTING PLASTIC FOR SINGLE PHASE ENERGY METER.

#### 1.0 SCOPE:

1.1 This specification covers the design, manufacturing and testing of anticorrosive, dust proof, rust proof, shock proof, self extinguishing property, resistant to heat, vermin & waterproof, Ultra Violet Stabilized and pilfer resistant Meter Box made from Thermosetting Plastic i.e. Glass Reinforced Polyester Sheet Moulding Compound (SMC) Confirming to IS:13410(1992) and attached technical specification, drawing and IS14772:2000.

#### 2.0 CONSTRUCTION:

- 2.1 The minimum size of box from inside shall be 250X220X135mm and thickness 1.5mm so as to house any make of energy meter for single phase mains.
- 2.2 Meter Box shall be moulded in a single piece forming the body of the meter box with a cover fitted with base by minimum two nos. concealed stainless steel hinges. The lid / cover shall rest on the collar of 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 Meter Box body base and cover rigidly, thereby making the Meter Box pilfer resistant.
- 2.3 The door in closed position should be overlapped in such a manner that no direct entry or Access is possible. The Meter Box shall be closed by SS 'U' Clamp of minimum 0.8mm. (+0.1mm) thickness for holding and locking of the door with body base. The "U" Clamp shall have 4mm. diameter hole through which it is possible to seal the box.
- 2.4 The box should have a window of size 110X120mm. provided with internally fitted glass of 3mm thickness as shown in the drawing. The glass shall be fixed from inside without any hardware exposed at front. The door shall open from right to left at 90 degree.
- 2.5 The top surface of box shall have little tapering shape towards both sides of the meter box for easy flow of rain water.
- 2.6 4 Nos. holes on back side box wall having 6mm diameter shall be provided for fixing of box on the wall.
- 2.7 Cable entry and exit holes of 14mm. diameter shall be provided on both sides of box with Good quality rubber grommets as shown in the drawing.

2.8. One no Earth bolt of 6mm diameter x 25mm length with 2 nos. nuts and 2 nos. washers & aspirating washer shall be provided. The irremovable earthing symbol is to be provided near earth bolt.

2.9 The adjustable bracket (Engineering/Polymeric plastic) to facilitate Meter fixing of various make of meter by self threading screw should be provided as per drawing.

2.10 All corners of the meter box should be round and not pointed ones. Hardware used for fixing window glass, hinges and particle board shall be concealed and non removable from outside.

2.11 All M.S. parts shall be zinc passivated.

### 3.0 GUARANTEED TECHNICAL PARTICULARS:

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

#### 4.1 TYPETEST CERTIFICATE:

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

#### 4.2 ROUTINE TEST:

Manufacturer has to carry out 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.

#### 4.3 ACCEPTANCE TEST:

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

#### 4.4 TYPETEST:

From the offered lot, Sample shall be picked up at discretion of **UTTAR GUJARAT VIJ COMPANY LIMITED** for type test at CIPET, Ahmedabad/ERDA., Baroda or NABL approved lab for every 50,000 nos. supply. For lot sizes smaller than 50,000 nos. latest

type test certificate for the same item but not older than 2 years from the date of inspection shall be considered valid. 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 a side old lot offered and rejected earlier by the **UTTAR GUJARAT VIJ COMPANY LIMITED**. However **UTTAR GUJARAT VIJ COMPANY LIMITED** reserves the right to accept the boxes by levying penalty as per description of the **UTTAR GUJARAT VIJ COMPANY LIMITED**.

**5.0 RAW MATERIALS:**

Test certificate for the material used in the lot offered and document for purchase of raw materials should be maintained by manufacturer and produced to inspector as and when required.

**6.0 FACILITY:**

The bidders 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 instrument set etc.

**7.0 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.

**8.0 DISPATCH:**

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

**9. TENDERS SAMPLE:**

At least two samples as per specifications will have to be submitted before opening of the tenders. The Deputy Engineer, Deputy Engineer (Stores): **Regional Store Office: UTTAR GUJARAT VIJ COMPANY LTD.: Visnagar Road: Mehsana: 384001**

**GUARANTEE TECHNICAL PARTICULARS FOR SINGLE PHASE METER BOX**

SR. NO.	PARTICULARS	DETAILED PARTICULARS	TO BE OFFERED BY BIDDER
1.	Maker's name	To be intimated by the supplier	
2.	Material	Glass reinforced polyester sheet moulding compound	
3.	Grade of Material	SMC confirming to IS: 13410: 1992 Grade S1	
4.	Properties of Material of Construction of Meter Box		
	Heat Deflection Temperature (Ref. )	150° C (Minimum)	
	Exposure to flame (Ref. Std. IS: 4249)	Self-extinguishing	
	Melting Point (Ref. Std. IS: 13360)	Does not melt	
	Glow wire test at 650C	As per IS 11000 Part-2/sec-1	
	Degree of protection	IP-42 as per; IS-12063/87	
	Heat distortion temp.	125C (Min) as per IS: 13410	

	Dielectric Strength at 90°C in Oil	9KV/mm (Min) as per IS: 6262-1971	
5.	Inside dimension of Meter Box	To be mentioned by the supplier	
	a. Height	250mm (min)	
	b. Width	220mm (min)	
	c. Depth	135mm (min)	
	d. Thickness of SMCSheet	1.5mm (min)	
6.	Window having Glass of 3mm thickness	Window Size 110mm X 120mm	
	Fixing of Glass	Fitted from inside in such a way that it cannot be replaced without opening door (with plastic frame all around)	
7.	Earthing Arrangement		
	Earthing bolt	One no. of zinc passivated Earthing bolt of MS with 2 nuts and 2 washers and spring washer. Irremovable earthing sign has to be provided near to earthing bolt.	
	Dia. & Length of earthing bolts	Dia. 6mm Length 25mm	
8.	Door Locking.	For holding of door with base on one no. of "U" shaped clamp to be provided	
9.	Manufacturer short name and <b>UGVCL</b> shall be embossed. A/T no. and month & year of manufacture shall be	To be provided on the front side of the box	
10	Sealing arrangement	Holes for wire seal.	
11.	Wire entry	Side entry 14 mm dia. hole	
12.	Colour of Meter Box	Off White	
13.	Meter Mounting Arrangement	Universal type to suit mounting of any make of meter broadly as per the Drawing.	

TESTREQUIREMENTFORMETERBOX	ReferenceStandards
1) ROUTINETEST	
(a)Protectionagainstelectricshock	IS14772
(b)Provisionforearthing	-Do-
2)ACCEPTANCETESTS(Randomsamples10nos.tobeselected)	
(a)Marking(Name,Trademark)	-Do-
(b)Protectionagainstelectricshock	-Do-
(c)Provisionforearthing	-Do-
(d)ConstructionandDimensionverification	-Do-
(e)Heatdistortiontemperature(min.150°C)(Onanyonesample)	IS:13410
3) TYPETEST	
(a)Marking	IS:14772
(b)Dimensions	-Do-
(c)Protectionagainstelectricshock	-Do-
(d)Provisionforearthing	-Do-
(e)Construction	-Do-
(f)Resistancetoageing,tohumidconditions,IngressofSolidobjectsandtoharmfulingressOfwater	-Do-
(g)Mechanicalstrength	-Do-
(h)Resistancetoheat	-Do-
(i)Resistanceofinsulatingmaterialtoabnormalheatandfire	-Do-
(j)Resistancetorusting	-Do-
(k)Resistanceoftracking	-Do-
(l)Heatdistortiontemperature(min.150°C)	IS13360
(m)SelfExtinguishing(SpiritBurner)	IS:4249
(n)MaterialIdentification	CIPET
AlltypetestsasperIS13410/1992	IS13410

## Appendices-G

### TECHNICAL SPECIFICATION FOR 3-PH SMC BOXES MADE FROM THERMOSETTING PLASTIC FOR 3-PH ENERGY METETR.

**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, UltraViolet Stabilized and pilfer resistant 3-PH SMC BOXES made from Thermosetting Plastic i.e. Glass Reinforced Polyester Sheet Moulding Compound (SMC) Confirming to IS:13410(1992) and attached technical specification, drawing and IS 14772:2000.

**2.0 CONSTRUCTION:**

- 2.1 The minimum size of box from inside shall be 375X270X210mm.
- 2.2 Meter Box shall be moulded in a single piece forming the body of the 3-PH SMC BOXES with a cover fitted with base by minimum two nos. concealed Stainless steel hinges. The lid/covers shall rest on the collar of the 3-PH SMC BOXES base in such a way that any access from outside of the box is not possible. The hinges shall be fitted with the 3-PH SMC BOXES body base and cover rigidly, thereby making the Service Connection Box pilfer resistant. All corners of the 3-PH SMC BOXES 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 S.S. 'U' Clamp of minimum 0.8 mm (+/- 0.1mm). thickness for holding and locking of the door with body base. The "U" Clamp shall have 4mm diameter hole 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 3-PH SMC BOXES for easy flow of rain water.
- 2.5 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.
- 2.6 Hardware used for fixing window glass, hinges and particle board shall be concealed and non removable from outside.
- 2.7 Cable entry and exit holes shall be provided on both sides of the box with flexible PVC glands as shown in drawing. Specification of flexible PVC glands is attached separately.
- 2.8 Required arrangements per box should be as follows:

SrNo	Details	Box for 3 ph. Connection

01	Size of thebox	375X270X210mm.
02	Thickness	2mm
03	Opening of thebox	90°
04	No of holes on backside boxwallhaving6mmdiaforfixingofbox	04No
05	Earth bolt of 6 mm dia x 25mmlengthwith2nutsand2washers	01No

**3 GUARANTEED TECHNICAL PARTICULARS:**

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

**4 TYPE TEST CERTIFICATE:**

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

**5 ROUTINE TEST:**

Manufacturer has to carry out 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 ACCEPTANCE TEST**

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

**7 TYPE TEST**

From the offered lot, samples shall be picked up at discretion of DGVCL for type test at CIPET, Ahmedabad/ERDA., Baroda for every 30,000 nos. supply. The charges for the Type Tests shall be borne by bidder. On passing the type tests 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 DGVCL. However Company reserves the right to accept the boxes by evading penalty at the discretion of the DGVCL.

**8 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 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 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 DESPATCH**

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

**12 TENDERSAMPLE**

A tender sample as per specifications will have to be submitted before opening of the tender to Dy. Engineer, UGVCL, RSO, Mehsana.

**13 Destination:**

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

<b>GUARANTEED TECHNICAL PARTICULARS FOR 3-PH SMC BOXES</b>			
SR. NO.	PARTICULARS	DETAILED PARTICULARS	TO BE OFFERED BY BIDDER
1	Maker's name	To be intimated by the supplier	
2	Material	Glass reinforced polyester sheet moulding compound	
3	Grade of Material	SMC confirming to IS: 13410:1992 Grade S1	
4	Properties of Material of Construction of Service Connection Box		
	Heat Deflection Temperature (Ref. Std. IS: 13411)	150°C (Minimum)	
	Exposure to flame (Ref.)	Self-extinguishing	
	Melting Point (Ref. Std. IS: 13360)	Does not melt	
	Glow wire test at 650°C	As per IS 11000 Part-2/sec-1	
	Degree of protection	IP-42 as per IS-12063/87	
	Heat distortion temp.	125°C (Min) as per IS: 13411	
	Dielectric Strength at 90°C in oil	9KV/mm (Min) as per IS: 6262-1971	
5	Inside dimension of Service Connection Box	To be mentioned by the supplier	
	a. Height	375 mm (min)	
	b. Width	270 mm (min)	
	c. Depth	210 mm (min)	
6	Earthing Arrangement		
	Earthing bolt	One no. of Earthing bolt of MS with 2 nuts and 2 washers shall be provided on RH side of box. Earthing sign has to be provided near to earthing bolt.	
	Dia. & Length of earthing bolts	Dia. 6 mm Length 25mm	
7	Locking arrangement	For Holding & Locking of door with base two nos. of "U" shaped clamp to be provided	

8	Manufacturer short name andUGVCLshall be embossed. A/T no. andmonth& year of manufacture shall bescreenprinted.	Tobeprovidedonthefrontsideofthebox	
9	Sealingarrangement	Holes for wireseal.	
10	Wireentry	Cable entry and exit holes shallbeprovidedonbothsidesofthebox withflexible PVCglands	
11	Colour of MeterBox	OffWhite	
12	WindowhavingTriplexGlass	WindowSize140mmX120mm	
	Fixing ofGlass	Fittedfrominsideinsuchawaythatitcan bereplacedwithoutopeningdoor(with anti corrosive SS frameallaround)	

<b>TESTREQUIREMENTFOR3-PHSMCBOXES</b>	<i>ReferenceStandards</i>
<b>ROUTINETEST</b>	
Protectionagainstelectricshock	IS14772
Provision forearthing	- Do-
<b>ACCEPTANCETESTS(Randomsamples10nos.tobeselected)</b>	
Marking ( Name, Trademark)	- Do-
Protectionagainstelectricshock	- Do-
Provision forearthing	- Do-
ConstructionandDimensionverification	- Do-
Heatdistortiontemperature(min.150 <sup>0</sup> C)(Onanyonesample)	IS13411
SelfExtinguishing(Onanyonesample)	IS:4249
DielectricStrengthat90CinOil	IS:6262-1971
MeltingPoint	IS:13360
Glowwiretestat650°C	IS 11000Part-2
HeatDeflectionTemperature(min.150°C)(Onanyonesample)	IS:13411
<b>TYPETEST</b>	
Marking	IS:14772
Dimensions	- Do-
Protectionagainstelectricshock	- Do-
Provision forearthing	- Do-
Construction	- Do-
Resistance to ageing, to humid conditions, ingress of Solid objectsandtoharmfulingressofwater	- Do-
Mechanicalstrength	- Do-

---

Resistance to heat	- Do-
Resistance of insulating material to abnormal heat and fire	- Do-
Resistance to rusting	- Do-
Resistance of tracking	- Do-
Heat distortion temperature (min. 150 <sup>0</sup> C)	IS 13360 (Part VI Sec III)
Self Extinguishing	IS: 4249
Material Identification	CIPET