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Note: The bidders, in their own interest are requested to read very carefully Section-I (Instruction to Bidders), Section-II (General Condition of Contract) & Section-III (Technical Specification) before filling the bid. The Bid documents can be downloaded from website of Jodhpur Discom <a href="www.jdvvnl">www.jdvvnl</a>, www.sppp.rajasthan.gov.in & http:eproc.rajasthan.gov.in & can be uploaded on the website http:eproc.rajasthan.gov.in. No hard copy of the bidding documents will be provided to the bidders through this office. In case of any discrepancy found in the bidding documents downloaded from the website and appended with the bid (as a bid document) and the original copy of such document available in the office of Superintending Engineer (MM&C), Jodhpur Discom, Jodhpur then the copy available with Superintending Engineer (MM&C), Jodhpur Discom, Jodhpur will be considered as final document for all purposes. The proof of depositing the cost of Bid document, EMD or Vendor registration certificate (if applicable) and tender processing fee be furnished upto 4:00 PM of one day prior to the date of tender opening in the manner prescribed in bid document.

Two Part Bid



### JODHPUR VIDYUT VITRAN NIGAM LIMITED OFFICE OF THE SUPERINTENDING ENGINEER (MM&C) NEW POWER HOUSE INDUSTRIAL AREA, JODHPUR. TELEPHONE: 0291-2742223 / FAX:- 0291-2746539

# SPECIFICATION NO.JDVVNL/SE/MM&C/TN-1353 HT & MIP SHEET METAL METER BOXES.

Tenders are hereby invited in e-tender system for purchase of HT & MIP meter boxes. Tenders are to be submitted online in electronic format on website http://www.eproc.rajasthan.gov.in. The details are as under-

S.No.	Name of Item	Quantity (Approx)
1	HT Meter Boxes	1097 Nos.
2	MIP Meter Boxes	2210 Nos.

A.	NIT No.	TN-1353
В.	Cost of Specification	Rs. 2,950.00 per set (Two Thousand Nine Hundred & Fifty only)
C.	Processing of RISL	Rs. 1,180.00 per set (One Thousand One Hundred & Eighty only)
D.	Earnest money	Rs. 2.0 Lac / Exemption Certificate or vendor registration of category
		class `A/B'
E.	Validity	120 days after the date of opening of techno-commercial bid.

#### **IMPORTANT DATES**

S.N.	Events	Date & Time	Location
1.	Last Date of downloading of	Up to 16.08.2017	www.jdvvnl.com &
	tender specifications	(04:00 PM)	http://www.eproc.rajasthan.gov.in
2.	Last Date of Deposit of cost of	Up to 16.08.2017	Office of Sr. A.O (Cash & CPC),
	Tender Specifications,	(4:00 PM)	JdVVNL , New Power House,
	Processing fee & Earnest Money		Industrial Area, Jodhpur
3.	Last Date & time of submission	Up to 17.08.2017	http://www.eproc.rajasthan.gov.in
	of electronic bid	(12:00 PM)	
4.	Opening of Technical Bid	17.08.2017	http://www.eproc.rajasthan.gov.in
		(03:00 PM)	
5.	Opening of Price Bid	To be intimated	http://www.eproc.rajasthan.gov.in
		separately to the	
		qualified bidders	



# TECHNICAL SPECIFICATION FOR HT & MIP METER BOXES AGAINST TN - 1353.

#### **1.0 SCOPE:**

This specification provides for the design, manufacture and stage inspection and testing before dispatch, supply and delivery of sheet metal meter boxes specified herein for their satisfactory operation. The HT & MIP meter box for wall mounting as per requirement indicated in the drawings. The wall mounting of HT & MIP meter boxes shall be achieved by providing four (4) grouted studs on the walls, two of them will be inside the meter box and two will be outside the meter box as shown in the attached general arrangement drawing. The mounting holes of the boxes must be accessible without removing any non-metallic sheet.

1.1 It is not the intent to specify completely herein all the details of the design and construction of equipment. However, the equipment shall conform in all respects to high standards of engineering, design and workmanship and shall be capable of performing in continuous commercial operation up to the bidder's guarantee, in a manner acceptable to the purchaser, who will interpret the meanings of drawings and specification and shall have the power to reject any work or material which in his judgment is not in accordance therewith. The offered equipment shall be complete with all components necessary for their effective and trouble free operation. Such components shall be deemed to be within the scope of bidder's supply irrespective of whether those are specifically brought out in this specification and/ or the commercial order or not.

#### 2.0 **STANDARDS**:

2.1 The meter boxes shall conform to the following Indian Standards which shall mean latest revisions, amendments/changes adopted and published, unless otherwise specified hereinafter.

S.No.	. Indian Standard	Title
1.	IS:14772 - 2000	General requirement for enclosure for accessories for household and similar fixed electrical installations.
2.	IS:1852-1985	Specification for rolling & cutting tolerances for hot rolled steel products
3.	IS:2036 - 1974	Specification for Phenolic laminated sheets (superseding IS:2038-1962).
4.	IS:4820 - 1968	Specification for Thin vulcanized fibre sheets for electrical purposes.
5.	IS:808 -1989	Specification for MS Channel (ISMB)

#### 3. **REQUIREMENT**

The requirement of HT & MIP meter boxes shall be as under:

S.No.	Item	Quantity
1	HT meter box	1097 Nos.
2.	MIP meter box	2210 Nos.

The above quantity is tentative which can be increased/ decreased at the time of placement of order.

#### 4.0 GENERAL TECHNICAL REQUIREMENTS:

#### REQUIREMENT FOR SHEET METAL METER BOXES:

#### a) STANDARD:

The meter boxes along with the doors shall be fabricated out of MS sheet of fine quality and thickness as per relevant drawings attached and capable of withstanding the mechanical, Electrical and Thermal stresses as well as the effects of humidity which are likely to be encountered in the services and at the same time ensuring the desired degree of safety. The same shall comply in all respect with the requirement of latest IS:14772(2000) for "Boxes for enclosure of electrical accessories". In case of any discrepancy between write-up and drawings attached, the details given in drawings will prevail. The bill of material as indicated in the drawings shall be covered in the scope of supply.

All sides of the box will be fabricated out of M.S Sheet of fine quality. The two sides and rear one will be fabricated out of one single sheet. Top and bottom will be in one piece each from one M.S sheet, which will be continuously welded from inside to form a complete box. The door will be in one part for HT & MIP meter box which will be fabricated out of M.S sheet. Each door will be fixed with the box from inside hinges in such a way that door hinges can't be removed from outside. The door shall be provided with handle. The door shall be provided with a lining of minimum 5mm thick felt in order to make it dust proof.

The door shall ensure reasonable safety against the spread of fire. They should not be ignited by thermic over-load of live parts housed by the box.

#### **b) SEALING ARRANGEMENT:**

The doors shall also be provided with sealing arrangement from outside by fixing 30x9 mm long, bolts at the top and bottom and the Hexagonal nuts as per arrangement shown in the enclosed drawings. These bolts shall be welded on the collars in such a manner that the fly nuts can be tightened from outside. These bolts should possess hole of 2 mm as in the centre of the head from where the sealing wire shall pass and the meter boxes can be sealed properly. The doors will further be provided with a felt lining of 5 mm in order to make it dust proof.

#### c) **EARTHING OF METER BOX:**

The earthing bolts of size 35x9 mm made of hot dipped G.I. with four plain 1.2 mm thick G I washers, one G I spring washer and two G I nuts on either side of the box shall be provided as shown in the drawing for earthing of meter box. The earthing bolts provided in the meter box on both sides should have arrangement that the bolts cannot be loosened and removed from out side. The bolt should have the cottar pin arrangement.

#### d) INCOMING AND OUTGOING CABLE ARRANGEMENT:

Two holes at the bottom just below the cable fixing bracket shall be provided for entry & exit of cable. Holes of 50mm dia shall be provided for fixing cable as shown in the drawing.

#### e) WINDOW GLASS:

One unbreakable transparent sheet of toughened/triplex glass of thickness 6 mm for window of required size will be provided on the upper door as per arrangement indicated in the drawing so that the meter inside the box can be read easily. The glass sides shall be lined up with V-shaped rubber gasket of 1mm thickness. This glass shall be fixed inside the box in a projected groove. The glass assembly shall be secured with a zinc passivated rectangular MS frame screwed at four corners.

#### f) WORKMANSHIP:

The fabrication of material shall be done in such a way that there is a good finish of fabricated material. The material shall be fabricated accurately to adhere to dimensions as per attached drawings. Holes must be perfectly circular and dimensional tolerance as given below shall be permissible. The box should be fabricated/ welded such that the rain water does not enter into it.

#### g) TOLERANCE:

The sheet metal boxes shall be subjected to a maximum of plus-minus one percent(+/-1%) tolerance on the overall dimensions and –ive rolling tolerance for sheet metal boxes shall be as per IS:1852/1985 & IS 513-1994 with latest amendment(s). However there shall be no limit for +ive tolerance in thickness. The rolling tolerance for non metallic bakelite base sheet shall be as per IS: 2036/1995 with latest amendments. The tolerance in weight of meter box shall not be more than plus three percent and minus zero percent (+ 3% & -0%).

#### h) PAINTING/PROTECTION AGAINST CORROSION:

The box (es) shall be adequately protected against rust, dust and corrosion both from inside and outside.

All sheet steel work shall be phosphated in accordance with IS: 6005 code of practice for phosphating iron and steel. Oil, grease, dirt and swarm shall be thoroughly removed by emulsion cleaning.

Rust and scale shall be removed by pickling with dilute acid followed by washing with running water rinsing with slightly alkaline hot water and drying. After phosphating thorough rinsing shall be carried out with clean water followed by final rinsing with dilute dichromate solution and oven drying.

After phosphating the cabinet must be painted by electrostatic method only (powder coating) and the minimum coating should be 50 microns. The colour shade shall be 631 of IS - 5.

#### i) GUARANTEED TECHNICAL PARTICULARS:

The tenderer shall furnish all the necessary information as desired in the schedule of GTPs at Schedule-V (A&B) of this specification. If the tenderer desires to furnish any other information in addition to the details as asked for, the same may be furnished against the last item for HT & MIP type of box of this schedule.

#### j) PROTO TYPE SAMPLE:

The successful bidder will offer for inspection a proto type sample of HT & MIP meter boxes before commencement of supplies as per enclosed drawing.

The prototype sample is required to be offered for inspection prepared, cut & made to size except welding. The prototype sample shall be verified by the inspecting officer of the Nigam as per following guidelines:-

Thickness of walls of MS sheet without paint & weld be verified. Thereafter getting the box welded, the weight of the box be taken and recorded. Weight of prototype samples after approval of design shall be taken with paint / powder coating and same shall be verified during inspection. Four sticker seals & two polycarbonate seals be provided on proto-type meter box keeping the door in open condition.

The inspecting officer will inspect accordingly and if any suggestion or modifications are required same will be reviewed and a final revised drawing will be furnished by the bidder for approval of the purchaser before taking up mass production.

Firms who have already supplied HT & MIP meter box under previous two TNs of any of three discoms may be exempted from approval of Proto-Type Samples, in case order is placed upon them.

#### k) EMBOSSING:

The following information shall be clearly/ indelibly embossed on the meter boxes made of MS sheet.

- i) Jd.V.V.N.L (on the top of the door.)
- ii) Manufacturer's trade name
- iii) TN-1353. (at the bottom of the door.)
- iv) Sign of Danger (in upper side of front door)
- v) HT/ M.I.P. Meter box

#### **5.0 PRINCIPAL PARAMETERS:**

#### 5.1 HT METER BOXES:

- a) GENERAL TECHNICAL REQUIREMENT: The HT metering cubicle dimensions shall be 1500 mm height x 1350 mm width as viewed from front side and 1250 mm depth as viewed from lower side and 300 mm depth as viewed from upper side. The box shall be suitable for housing following items:
  - i) 11 KV CT/PT Unit.
  - ii) Electronic/Static Trivector meter:
  - iii) Testing Terminal block

The cubicle shall be fabricated out of MS sheet of fine quality having thickness 1.6mm. The thickness of the Sheet for cubicle door shall also be 1.6 mm. The cubicle shall be fabricated out of or not more than five pieces of the M.S. Sheet(s).

(i)	Bottom 1250mm x 1350mm x 3 mm	1 No.
(ii)	Rear 1000mm x 1350mm	1 No.
(iii)	Top 1750mm x 1350mm (without any joint)	1 No.
(iv)	Side members 1250 width x 1000mm height upto 950 mm width	2 Nos.
	and for next 300 mm width height is 1500mm i.e.(1250 x 1000 +	
	450 x 500 in all)	

All above pieces should be minimum 1.6 mm thick except bottom which is 3mm thick.

There should be no joint in the above pieces. All the members shall be welded with continuous welding from inside to form a complete cubicle, since the thickness of sheet is 1.6mm. Looking to the weight of HT meter box which is about 210 kg. or as per approved prototype sample's weight. MS plate of 5 mm thick with a hole of 50 mm dia shall be at both sides of the HT meter box. The top cover sheet shall be slopping by 10 to 25 mm towards backside of the box. 2 nos. M.S channels of size 75x40 mm with length of 1100 mm (front to rear) shall be provided at the bottom of the box to avoid direct contact of the box with floor which will also provide ease in handling and during fixing on the plinth.

#### b) DOOR:

The door shall be in two parts fabricated out of 1.6 mm thick MS Sheet. Each door shall be fixed with the box with three inside hinges. The left hand side door shall be provided with handle and the right hand side door shall be provided with built-in system of one handle to open and close the doors and to engage vertical M.S. Rods for keeping the doors in close position but without lock and key facility. A window as per size indicated in drawing shall be provided on right hand side door of the box.

#### c) **SEALING ARRANGEMENT:**

One `L' shape 25 mm MS strip of thickness 3 mm on both doors as shown in the drawing shall be welded from inside for sealing purpose.

The door shall also be provided with sealing arrangements from its outside by fixing studs as per drawing at the top & bottom with Hexagonal nuts to tighten & to keep the doors in closed position. The size of the cut outs for the windows shall be as shown in drawing.

#### d) ADDITIONAL DOOR WINDOW:

- i) One additional door with window as per separate drawing shall be required to be provided with the box such that
  - a) Meter will not be accessible physically without opening the door of the box.
  - b) It will not allow any external object to enter into the box.
  - c) It will have separate sealing arrangement as per drawing.
  - d) The meter shall be readable from outside through an unbreakable transparent sheet of toughened/ triplex glass of thickness 6 mm for window of required size will be provided on the upper door as per arrangement indicated in the drawing so that the meter inside the box can be read easily.
  - e) Opening for push button mode display (as per drawing)

The window of this additional door shall be provided with toughened / triplex glass by securing the same with the help of a rectangular M.S. frame which can be tightened through 4 Nos. nut bolts of appropriate size. The 4 bolts shall be welded inside the door from its head such that the nuts can be tightened to secure the rectangular frame. The glass sides shall be fixed inside the box in a projected groove. This additional door shall also be required to be provided with sealing bolts with holes and hexagonal nuts as shown in drawing.

This door shall be provided with 2 nos. suitable size hinges from inside such that the hinges are not visible from outside. This door shall be provided with U-shaped rubber gasket along the edges of the door.

#### e) EARTHING OF BOX:

The earthing bolt on each side of the cubicle shall be provided as shown in the drawing. The earthing bolts provided in the meter box on both side should have arrangement such that the bolts cannot be loosened and removed from outside. The bolts should have the cotter pin arrangement.

#### f) CABLE ENTRY/EXIT:

Two holes at the bottom just below the HT cable fixing bracket shall be provided for entry and exit of 11 KV cable. The size of the hole shall be 80mm for HT cable for 25A to 200A rating. The cable entry and exit holes should be fitted with metallic glands for proper closing and sealing after installation of the cable. Hole of 60 mm dia on 1350 x 100mm sheet near the bakelite sheet for fixing TTB for 4 sq mm cable (3nos) from CTPT sec. to TTB.

#### g) TEST TERMINAL BLOCK:

The HT metering box shall be provided with three phase four wire Link type meter test terminal block (TTB) of VEECO/CAPITAL.

#### h) NON - METALIC BAKELLITE BASE SHEET:

One non-metallic bakelite sheet having size 400x400x4.5mm shall be provided for mounting meter. Another non- metallic bakelite sheet of size 300m x 400mm shall be provided for fixing TTB. The supply shall include such sheets as per relevant ISS. The sliding arrangement of bakelite for fixing meter shall be continuous key type of size 25x25x3mm.

#### 5.2 MIP METER BOXES:

#### TECHNICAL REQUIREMENT

#### a) **GENERAL**:

The MIP metering cabinet dimensions shall be 1100x625x375mm as per enclosed drawing and shall be suitable to house the 3 phase static meter in the upper compartment and current transformers (Resin Cast Bar Type) in the lower compartment. Both the compartments will be separated by a portion of 1.6 mm thick MS Sheet. The cabinet shall be suitable for wall mounting.

The box shall be fabricated out of 1.6mm thick MS sheet of fine quality. The two sides and rear one will be fabricated out of one single sheet of minimum 1.6 mm thick. Top & bottom will be in one piece each from 1.6 mm MS sheet which will be welded from inside to form a complete box. The top cover sheet shall be slopping by 15mm to 20 mm towards back side of the box. The approximate weight of the meter box will be more than 46 kgs. or as per approved prototype sample's weight.

#### b) DOOR:

The door will be fabricated in one piece out of 1.6 mm sheet. M S angle of size of 25x25x3mm should be welded on the back of the door at ABCDE as per drawing enclosed at a distance of 20mm from rubber lining. The door shall be fixed with the box with two inside hinges. The door shall be provided with handle. The door shall also be provided with sealing arrangement from outside by fixing stud at the top middle & bottom and hexagonal nuts. These studs should posses hole of 2mm as in centre of the head from where the sealing wire shall pass & meter box can be sealed properly. The door will further be provided with a lining of 5mm thick felts in order to make it dust proof. The door shall be provided with window with additional door having size as per relevant drawing will be provided on the door so that the meter inside the box shall be read easily. Four fixing clamp, two at top side and two at bottom of the meter for fixing the box on wall.

#### c) CABLE ENTRY/ EXIT:

Two holes of 50mm dia shall be provided for fixing cable as per drawing. The cable entry and exit holes should be fitted with metallic glands for proper closing and sealing after installation of the cable.

#### d) ADDITIONAL DOOR WINDOW:

- i) One additional door with window as per separate drawing shall be required to be provided with the box such that :
- a) Meter will not be accessible physically without opening the door of the box.
- b) It will not allow any external thing to enter into the box.
- c) It will have separate sealing arrangement as per drawing.
- d) The meter shall be readable from outside through an unbreakable transparent sheet of toughened/ triplex glass of thickness 6 mm for window of required size provided on the upper door as per arrangement indicated in the drawing so that the meter inside the box can be read easily.
- e) Opening for push button mode (as per drawing)-

The window of this additional door shall be provided with toughened/ triplex glass by securing the same with the help of a rectangular frame which can be tightened through 4 nos. nut bolts of appropriate size. The 4 bolts shall be welded inside the door from its head such that the nuts can be tightened to secure the rectangular frame. This glass shall be fixed inside the box in a projected groove. This additional door shall also be required to be provided with sealing bolts with holes and hexagonal nuts as shown in the drawing. This door shall be provided with 2 nos. suitable size hinges from inside such that the hinges are not visible from outside. This door shall be provided with u-shaped rubber gasket along the edges of the door.

#### e) MOUNTING OF NONMETALLIC BASE SHEET:

The box shall be provided with 4 rectangular brackets of size mentioned in the drawing so as to fix bakelite sheet to mount the meter on it at a distance of about 50mm from the rear wall on which the meter & CTs will be fixed. The supply shall include bakelite sheet as per ISS.

#### f) ARRANGEMENT OF CT MOUNTING:

The primary terminal P1 of CTs shall be mounted on porcelain supports bolted on three Nos. The other side of CT (P2) shall also be mounted on another three Nos. porcelain supports/clits. The position should be adjusted by sliding clits to & fro horizontally as per the requirement of primary terminals of CTs.

#### g) PARTITION PLATE:

There shall be one partition plate at the height of 700mm from the bottom of the box to facilitate 4 Nos. CTs.

#### **6.0 TESTS:**

#### **6.1 TESTING FACILITIES:**

The tenderer must indicate clearly about the various testing facilities for routine/acceptance tests as per relevant ISS is respect of Meter Box as are available at their works. In case no testing facilities are available at the tenderer's works particulars of the place where such testing is proposed to be conducted during the course of inspection must be indicated.

#### **6.2 TEST VALUES:**

For all acceptance tests, the acceptance values shall be the values guaranteed by the bidder in the guaranteed technical particulars or the acceptance value specified in this specification or the relevant standard whichever is more stringent.

#### **6.3 ADDITIONAL TESTS:**

The purchaser reserves the right for carrying out any other tests of a reasonable nature at the works of the supplier/laboratory or at any other recognized laboratory/ research institute in addition to the above mentioned acceptance and routine tests at the cost of the purchaser to satisfy that the material complies with the intent of this specification.

#### **6.4.1 TYPE TESTS:**

Tests carried out to prove conformity with the requirement of the standard. These are intended to prove the general qualities & design of a given type of product. This test shall be carried out on two sample of enclosure for accessories of the same type selected preferably at random from a regular production lot. Before commencement of tests, the sample shall be visually examined & inspected for obvious visual defects in respect of component, part and their assembly, construction, marking, mechanical hazards, earthing etc. The external surface finish shall be even and free from finishing defects.

The following tests as per IS: 14772/2000 shall constitute the type test:

S.No.	Tests
1.	Marking
2.	Dimensions
3.	Protection against electric shock
4.	Provision For earthing
5.	Construction
6.	Resisting to aging,to humid condition, ingress of material.
7.	Mechanical Strength
8.	Resistance to heat
9.	Resistance to rusting.

Criteria of acceptance: Both samples shall successfully pass all type tests for providing conformity with the requirements of the

standard. If any of the sample fails in any of the type tests, the testing authority, at its discretion, may call for fresh sample not exceeding twice the original number and subject to all tests or to the test(s) in which failure(s) occurred

#### **6.4.2 ACCEPTANCE TESTS:**

The following tests shall constitute the acceptance tests:-

#### **Tests**

- i.) Marking
- ii.) Dimensions
- iii.) Protection against electric shock
- iv.) Provision for earthing
- v.) Construction

The verification of above tests shall be arranged by the supplier in the presence of purchaser's inspecting officer at the time of inspection.

#### **6.4.3 ROUTINE TESTS:**

The tests at s.no.(3) and (4) in the Cl.6.4.2 shall constitute this test as per IS:14772/2000.

#### 7. INSPECTION & TESTING:

The inspection and testing shall be carried out by the purchaser's representative as per provisions of relevant ISS, specification & GTP and shall be governed by clause No.1.27 entitled "inspection and Testing" of Schedule-2" General conditions of Contract" except mentioned hereunder.

- a) The supplier shall arrange fifteen days advance notice to enable the purchaser to depute the inspecting officer for conducting necessary testing at supplier's works. Any delay beyond fifteen days in arranging the inspection shall be to the purchaser's account.
- b) In case the manufacturer does not have adequate facilities for getting all the required tests conducted in his laboratory, the purchaser at his option may get these tests conducted in any reputed testing laboratory. All the expenses for such tests to be conducted outside shall be borne by the supplier.
- c) In case material/equipment is not found ready by the representative of the purchaser deputed for inspection to the extent of the quantity indicated in the inspection call with tolerance of (-) 10% or if the inspection is not got carried out by any reasons on account of the supplier the re-inspection charges shall be Rs. 7500.00 only for the supplier works located in Rajasthan and an amount of Rs.15,000.00 only for the supplier works located outside Rajasthan will become payable by the supplier on this account to the Sr. Accounts Officer (CPC) JDVVNL, Jodhpur.

- d) The Acceptance tests shall be carried out as per relevant ISS Latest Amended), P.O., GTP and the proto type sample approved by this office. For acceptance tests samples from the offered quantity for inspection shall be selected by inspecting officer as per provisions of IS:14772/2000 (Latest amended).
- e) The inspection may be carried out by the purchaser's representative at any stage of manufacture/before dispatch as per relevant standard. Inspection and acceptance of any material under the specification by the purchaser, shall not relieve the bidder of his obligation of furnishing material in accordance with the specification & shall not prevent subsequent rejection if the material is found to be defective. The bidder shall keep the purchaser informed in advance, about manufacturing programme so that arrangements can be made for inspection.
- f) The purchaser reserves the right to insist for witnessing the acceptance/routine testing of the bought out items. The bidder shall give 15 days advance intimation to enable the purchaser to depute his representative for witnessing the acceptance and routine tests. The inspection charges would be to the purchaser's account.

#### 8.0 DRAWING

The bidder shall furnish drawings of HT & MIP meter boxes enclosed with the specification duly signed on each along with the tender, failing which the offer is likely to be ignored.

#### 9.0 GUARANTEED TECHNICAL AND OTHER PARTICULARS:

The guaranteed technical and other particulars shall be given in the Performa as per Schedule V (A&B). Any deviation from the specifications referred to above shall be supported by adequate justifications.

#### 10.0 STAGE INSPECTION DURING MANUFACTURE:

The stage inspection/ testing during manufacture shall mean those tests which are to be carried out during the process of manufacture and end inspection to ensure quality control such that the end product is of the designed quality conforming to the intent of this specification. The inspection may be carried out by the purchaser at any stage of manufacture/before despatch as per relevant standard.

#### 11.0 QUALITY ASSURANCE PLAN:

- 11.1 The Bidder hereunder shall invariably furnish following information along with his offer, failing which the offer shall be liable for rejection. Information shall be separately given for individual type of material offered.
- i) Statement giving list of important raw materials, names of sub-suppliers for the raw material, list of standards according to which the raw materials are tested, list of tests normally carried out on raw materials in the presence of Bidder's representative, and copies of test certificates.

- ii) Information and copies of test certificates as in (i) above in respect of bought out items.
- iii) List of manufacturing facilities available.
- iv) Level of automation achieved and list of areas where manual processing exists.
- v) List of areas in manufacturing process, where stage inspections are normally carried out in quality control and details of such tests and inspections.
- vi) Special features provided in the equipments to make it maintenance free.
- vii) List of testing equipment available with the Bidder for final testing of equipment specified and test plant limitation, if any, vis-a-vis the type, special, acceptance and routine tests specified in the relevant standards. These limitations shall be very clearly brought out in schedule of deviations from specified test requirements.
- 11.2 The Supplier shall within 30 days of placement of order submit the following information to the Purchaser.
  - i.) List of raw material as well as bought out accessories and the names of subsuppliers selected from those furnished along with the offer.
- ii.) Type test certificates of the raw material and bought out accessories.
- iii.) Quality Assurance Plan (QAP) with hold points for Purchaser's inspection. The QAP and Purchaser's hold points shall be discussed between the Purchaser and the Supplier before the QAP is finalized.
- 11.3 The Supplier shall submit the routine test certificates of bought out items and raw material at the time of routine testing of the equipments.

#### **12.0 TEST REPORTS:**

- i) All records of routine test reports shall be maintained by the Supplier at his works for periodic inspection by the Purchaser.
- ii) All test reports of tests conducted during manufacture shall be maintained by the Supplier. These shall be produced for verification as and when requested for by the Purchaser.

#### 13.0 PACKING & FORWARDING:

The HT & MIP meter boxes shall be suitably packed in order to avoid damage during transit and handling.

#### **14.0 PRICES:**

The prices/ rates quoted shall be FIRM & strictly as per BOQ (Price Schedule) enclosed with the tender documents clearly indicating Ex-works, Freight & Insurance & GST.

#### 15.0 DELIVERY SCHEDULE:

The delivery schedule of the material shall be quoted on Monthly basis to be indicated in Schedule-VIII, enclosed with the tender documents. The successful bidder shall furnish proto type sample for our approval before commencement of supplies within 30 days from the date of receipt of Purchase Order. The commencement period for supply shall be 30 days from the date of letter conveying approval of sample. The supplies shall be completed latest within 8 months from the date of receipt of Purchase Order. The time taken in inspection & testing, approval of proto type sample and any other clarification/ amendment/ contractual formalities shall, therefore, be accounted for by the successful bidder while completion of supplies within 8 months from the date of receipt of Purchase Order.

#### 16.0 DRAWINGS:

#### 1. MIP METER BOX

ANNEXURE-I DRAWING of front elevation with front door closed ANNEXURE-II DRAWING of front elevation with front door removed ANNEXURE-III DRAWING of Panel's side view ANNEXURE-IV DRAWING of Panel's plan ANNEXURE-V DRAWING of Panel's window door, bus bar cleat

#### 2. HT METER BOX

ANNEXURE-VI DRAWING of Complete HT meter box ANNEXURE-VII DRAWING of Panel's window door, bus bar cleat

17. As GST act has been effected from 01.07.2017, therefore, BOQ has been prepared accordingly with applicability of GST. Further, old tax structure wherever appearing in ITB/GCC/Specification may be replaced by GST as per notification.

Further, GST registration number of Jodhpur Discom is 08AAACJ8578R1ZJ.

#### SCHEDULE -I



# SCHEDULE OF REQUIREMENT

S.N.	Description of the equipment required	Quantity (Nos.)
MET	ERING BOXES	
	HT meter box	1097 Nos.
	MIP meter box	2210 Nos.

Note: The quantity as mentioned in the schedule of requirements are tentative and may increase/ decrease as per the requirement of the nigam.

# Schedule – II

# PURCHASE OF HT & MIP METER BOXES AGAINST TN-1353 $\underline{ \text{PRICE ARE 'FIRM'} }$

### Schedule – III



### JODHPUR VIDYUT VITRAN NIGAM LIMITED

# A Govt. of Rajasthan Undertaking Prescribed technical specification for supply of

(Name of Material/Equipment/Machinery/T&P etc.)

	Technical specification to which material/equipment/ Machinery/T&P shall confirm	Name of IS/other standard specification to which material should confirm	Other particulars if any.
	ed that we agree to all the aforesaid our technical specification shall be		t at S.No for
S.No.	Technical specification to which material/equipment/ Machinery/T&P shall confirm	Name of IS/other standard specification to which material should	Other particulars if any.

(Signature)

#### Schedule-III-A

#### PRE-QUALIFICATION REQUIREMENT

#### TN-1353

#### ITEM: - HT & MIP METER BOXES.

The bidder should fulfill following qualifying requirements for successful participation in the tender along with relevant documentary evidence supporting each qualifying requirement without which the offer shall be considered non-responsive & rejected.

- I) The bidder should be a Manufacturer. The offers from Sole Distributor / Sole Selling Agent / Authorized Dealer shall not be entertained.
- II) The bidder is required to quote for minimum 10% of tendered quantity, failing which the offer may be considered Non-Responsive.
- III) The bidder should have designed, manufactured / fabricated, tested and supplied to utility / Discoms / Govt. Departments at least 2XQQ (QQ being the quoted quantity) of HT and MIP Meters Boxes in last three years from the date of opening of technical commercial bid. In support of fulfillment of the past supply criteria, the bidder shall furnish documentary evidence in the form of certificate from Chartered Accountant in the prescribed proforma only. This prescribed proforma should be either in original or copy duly attested by Notary. The bidder shall also sign and affix seal on the prescribed format C.A. Certificate. The certificate should have membership number with the name & address of the chartered accountant. Certificate should clearly indicate the quantity supplied, period of supply, voltage class / accuracy class of the material etc. in the format prescribed any deviation to format or information diverted format, will not be considered and rejected.

The material supplied and accepted for same or better rating for Turnkey projects to a licensed power utility/Govt. shall be consider for the purpose of evaluating criteria. The certificate given by C.A. shall indicate above quantity separately.

Note: The quantity of 200 Amp. & above LT Distribution Kiosks & Feeder Pillar Boxes may also be considered for quantity evaluation for purchase of HT/MIP meter boxes.

- IV) The bidder should possess adequate testing facilities for carrying out routine & acceptance test of items as per relevant standard at their works. The bidder shall furnish documentary evidence in support for conducting routine & acceptance test.
- V) **PERFORMANCE CRITERIA:-** i) If a bidder has supplied up to 50% of ordered quantity in previous tender up to date of opening of subsequent tender and scheduled delivery period expired, the bid of such bidder will not be opened in the Discom for that item.
- ii) However, if the supplies have been completed for a quantity more than 50% but not completed up to date of opening of subsequent tender and scheduled delivery period expired, the quantity equal to the quantity pending in previous tender for that item shall be reduced from the subsequent tender quantity to be allocated to the bidder.

- VI) **POOR RECORD OF PERFORMANCE AND DELIVERY: -**The bidder who have been black listed in any of the state Discom or with whom business relations have been severed in Jodhpur Discom or who is debarred by Jodhpur Discom shall not be considered.
- **VII**) The bidder shall clearly indicate the deviations such as Technical Deviation & Commercial Deviations in the prescribed proforma only.

The deviations indicated elsewhere in the bid shall not be accepted.

- VIII) The bidder must clearly fill up each and every particular of Guaranteed Technical Particulars annexed with Technical Specification otherwise he will be responsible for Technical Non-Responsiveness.
- IX) All documents required in the prescribed format are to be furnished along with the bid itself only except an attested copy of BIS license (wherever it is required), failing which the bid will be summarily rejected.

#### Note:

- i) Rajasthan based firms not meeting minimum quantity supplied criterion but having manufacturing and adequate testing facility and technical know how shall be considered as new firms and would be eligible for trial order only.
- ii) Requirement of quantity manufactured, minimum quantity to be offered and amount of Bank Guarantee to be furnished shall be reduced to 25% for Rajasthan based units.

#### Schedule-IV `A'

## Must be filled-in by the tenderer and attach with technical bid (Part-I)

To,

The Superintending Engineer (MM&C), Jodhpur Vidyut Vitran Nigam Limited, Jodhpur.

Dear Sir,

With reference to your invitation to tender against specification No. **JDVVNL/SE/MM&C/TN-1353**, we agree to supply the following quantity:-

S. No	Particulars of item	Tendere d Quantity (In Nos.)	Qty. Offered (In Nos.)	Justification of quantity offered as per Qualifying Requirement.	Status of Type Test Certificates.
1	2	3	4	5	6
1.	Sheet Metal Meter Boxes HT Type.	1097 Nos.			
2.	Sheet Metal Meter Boxes MIP Type.	2210 Nos.			

- 1. The offer is valid for a period of 120 days from the date of opening of this tender.
- 2. It is noted that the quantities as mentioned in the specification are approximate and we agree to supply any quantity as per your requirement.
- 3. The prices are FIRM in all respect.
- 4. The delivery shall strictly be in accordance with our delivery clause as given in Schedule-VIII of this specification. In case we fail to deliver the material as indicated in the clause No. 1.23, we are liable to pay recovery for delay in delivery as per clause No. 1.24 of this Schedule-II of this specification. The material shall conform to your specification No. JDVVNL/SE/MM&C/TN-1353 and as per relevant ISS in all respect.
- 5. We confirm that we agree to all the terms & conditions as well as the technical stipulations of your specification No. **JDVVNL/SE/MM&C/TN-1353** and there are no deviations other than as specified in the Schedule VI (A&B).

Yours	fait	hfu]	lly,

Dated: Signature of tenderer with stamp

# Schedule-V



# JODHPUR VIDYUT VITRAN NIGAM LIMITED

# A Govt. of Rajasthan Undertaking

	ent of guaranteed technical particula				
	(Na	ame of	material)	against	specification
S.No.	Particulars of technical & other p	erformanc	e data guara	nteed.	
	ed that we agree to all the aforesaid te following:-	chnical pa	urticulars and	l other per	formance data
S.No.	Particulars of technical & other		Reasor		
	Performance data		deviati	ons/depart	ture.

(**Signature**)
Name & Designation with seal of the bidder.

#### **SCHEDULE-VA**

# ANNEXURE A

# STATEMENT OF GUARANTEED TECHNICAL PARTICULARS AND OTHER DETAILS FOR HT METER BOXES AGAINST TN-1353.

Particulars	Requirement of the specification
Name & address of firm / bidder.	
Work's complete address of manufacture	
Dimensions of Box in mm	
Thickness of M.S. Sheet in mm	
For three sides, top & door	
For bottom.	
Dimensions of Bakelite/ Acrylic sl	heet in mm.
Sheet for mounting meter.	
Sheet for mounting TTB.	
Sheet on the top side of CT-PT Chamber	
Sheet on both sides.	
Sheet on back sides.	
Transparent Acrylic sheet.	
Window/window door details :	
Inner dimension of window	
Window door dimension.	
Viewing window dimension.	
Metal frame for fixing acrylic sheet	
Inner dimensions.	
Outer dimensions.	
Dimensions of sealing/earthing bolts in mm.	
Door sealing bolts.	
Earthing bolts.	
Approximate weight of complete Box in Kgs.	
Details of painting.	
Shade No. Of colour/paint.	
Tolerance in fabrication:	
In overall dimension.	
	Name & address of firm / bidder.  Work's complete address of manufacture  GST Registration No.  Dimensions of Box in mm  Thickness of M.S. Sheet in mm  For three sides, top & door  For bottom.  Dimensions of Bakelite/ Acrylic since the sides of CT-PT Chamber  Sheet for mounting TTB.  Sheet on the top side of CT-PT Chamber  Sheet on both sides.  Sheet on back sides.  Transparent Acrylic sheet.  Window/window door details:  Inner dimension of window  Window door dimension.  Viewing window dimension.  Acrylic sheet size for window.  Metal frame for fixing acrylic sheet  Inner dimensions.  Outer dimensions.  Outer dimensions.  Dimensions of sealing/earthing bolts in mm.  Door sealing bolts.  Earthing bolts.  Earthing bolts.  Approximate weight of complete Box in Kgs.  Details of painting.  Shade No. Of colour/paint.  Tolerance in fabrication:

11	Dimensions of fixing brackets in	
	mm.	
12	Details of Test Terminal Block	
12	(TTB)	
a)	Make. (capital/veeco)	
b)	Rating.	
c)	Type. (Link type)	
d)	Whether extended cover provided?	
13	Embossing details.	JdVVNL
		Trade mark of manufacturer
		TN-1353
		Sign of danger
		HT Meter box
14	Dimensions of felt lining to	
14	make box dust proof	
15	Details of drawing	
16	Size of base channel for HT box.	

#### **ANNEXURE B**

# STATEMENT OF GUARANTEED TECHNICAL PARTICULARS AND OTHER DETAILS FOR MIP METER BOXES AGAINST TN-1353.

S. N o.	Particulars	Requirement of the specification
1 (a)	Name & address of firm / bidder.	
b)	Work's complete address of manufacture	
c)	GST Registration No.	
2	Dimensions of Box in mm	
3	Thickness of M.S. Sheet in mm	
a)	For three sides, top & door	
b)	For bottom.	
4	Dimensions of Bakelite/ Acrylic sheet in mm.	
a)	Sheet for mounting meter.	
b)	Sheet for cleats	
5	Window/window door details:	
a)	Inner dimension of window	
b)	Window door dimension.	
c)	Viewing window dimension.	
d)	Toughened/triplex glass	
e)	Metal frame for fixing acrylic Sheet	
i)	Inner dimensions.	
ii)	Outer dimensions.	
6	Dimensions of sealing/earthing bolts in mm.	
a)	Door sealing bolts.	
b)	Earthing bolts.	
7	Approximate weight of complete Box in Kgs.	
8	Details of painting.	
9	Shade No. of colour/paint.	
10	Tolerance in fabrication :	
a)	In overall dimension.	
b)	Rolling tolerance.	
11	Dimensions of fixing brackets As per drawings in mm.	
12	Embossing details.	JDVVNL
	<u> </u>	Trade mark of manufacturer
		TN-1353
		Sign of danger
1.0		MIP meter box
13	Dimensions of felt lining to make box dust proof.	
14	Details of Bus bar cleats	
15	Details of drawing	

Schedule - VI (A)



#### JODHPUR VIDYUT VITRAN NIGAM LIMITED

#### A Govt. of Rajasthan Undertaking

### **DEPARTURE/DEVIATION FROM TECHNICAL SPECIFICATION**

The bidder shall state under this schedule the departure from the Purchaser's specification in respect of technical is as under:-

S.No. Main Deviations from Technical Specification.

Certified that we agree to all the technical specification of the NIT except for the deviation to the extent indicated above.

(Signature)

Schedule – VI (B)



### JODHPUR VIDYUT VITRAN NIGAM LIMITED

A Govt. of Rajasthan Undertaking

# <u>DEPARTURE FROM COMMERCIAL TERMS & CONDITIONS OF THE SPECIFICATION</u>

The bidder shall state under this schedule the departure from the Purchaser's specification in respect of Commercial terms & conditions:-

S.No.	Main Deviations from Specification.
	r

Certified that we agree to all the commercial terms & conditions as laid down in General Conditions of Contract to the specification except for the deviation to the extent indicated above.

(Signature)

Schedule - VII



#### JODHPUR VIDYUT VITRAN NIGAM LIMITED

### A Govt. of Rajasthan Undertaking

# **LIST OF PAST SUPPLIES**

The bidder shall state under this schedule whether material and equipments, similar to those offered in the tender have been previously supplied by him. A list shall be given of such orders executed by him together with information regarding the names of purchasing organizations, quantities supplied and when the supplies were effected. This list should be in form given below:-

S.No.	Detailed particulars items supplied	Qty in Nos.	Order No. & Date	Name & details of purchasing authority	
1	2	3	4	5	6

If executed partially to be mentioned (Qty. in Nos.)	whether still to be executed	Delivery stipulated in order	Remarks
7	8	9	10

**Note:** Separate schedules are to be furnished by the bidder for past supply to the JdVVNL, Jodhpur other State Electricity Boards and other Departments /Organisations.

(Signature)

#### **Schedule-VIIA**



# PROFORMA FOR C.A. CERTIFICATE FOR QUANTITY VERIFICATION TN No.1353

		<u>TO </u>	WHOM S	O EVER IT	MAY	CONC	CERN			
addi fina deta <b>FO</b>	ress) have m ncial year(s) iled out belo R THE LA	nanufactured to the Elec ow:	and suppli trical utiliti E <b>FINANC</b>	ied the goods ies / Governm	/ equipment Dep	ments / partmen	material d t / Discon	luring that ns / Orga	anization	ng as
S. N o	Financia l Year in which material supplied	Detailed particula rs of item(s) supplied	Name & particul ars of Purcha sing Authori ty	Order No. & date against which item(s) supplied.	Unit	Ord Qty.	Value (Rs.)		ctual ied upto Value (Rs.)	Remarks
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
Nar With	nature , ne & Design h Seal of the e	Bidder				Ac	ture & sea Name : ddress: embership			
				ect based on exertificate issue					accounts	
					CA I	Firm (			)	
				igned by the						Î

Note: - The C.A. certificate must be signed by the bidder and C.A. firm on the letter head of C.A. The details i.e. address of C.A. & membership No. shall clearly be mentioned on C.A. certificate. In case C.A. certificate is not signed by the bidder/furnished without membership No. & address of C.A. then same may not be considered for which responsibility rests with the bidder.

#### Schedule – VIII



# JODHPUR VIDYUT VITRAN NIGAM LIMITED A Govt. of Rajasthan Undertaking

### **DELIVERY SCHEDULE**

#### PART-A

The delivery schedule of the material by the Purchase Officer is as mentioned hereunder:-

S.No	Particulars of Material	Commencement Period	Rate of supply per Month	Period for completion of
				delivery of entire material
1	HT & MIP METER BOXES	30 Days from the date of letter conveying approval of sample	The supplies shall be completed latest within 8 months from the date of receipt of Purchase Order	Completion in  Eight months (including commencement period of 30 days) at equal monthly rate from the date of receipt of Purchase Order.

#### PART-B

In case bidder deviates from the delivery schedule mentioned by the purchaser in Part-A then the delivery schedule shall be indicated/mentioned by the bidder as under:-

S.No	Particulars of Material	Commencement Period per month	Rate of supply per Month	Period completion delivery entire materi	for of of al

Note: 1. During the commencement period the process of model assembly and submission of B.O.M for approval shall be got completed.

2. During the commencement period the contractual formalities shall be got completed.

(Signature)



#### JODHPUR VIDYUT VITRAN NIGAM LIMITED

# A Govt. of Rajasthan Undertaking List of Equipments and Technical Hands Available with the Firm

(To be filled in by the bidders & enclosed with the bid)

Manufacturers and / or their authorized agents who are quoting against this bid are requested to furnish the following information along-with the bid. The Purchaser will have the discretion to ignore the bid without the under noted particulars and/or ignore the bid particulars.

- 1. Name and Address of Manufacturer.
- 2. Whether firm is proprietorship/partnership/ Limited (Please give details and also enclose copy of memorandum of constitution of firm along with name of directors/partners/proprietor & their address)
- 3. Place where works exist.
- 4. Details of machinery particularly with B.H.P. of each item installed.
- 5. Details of staff employed in the works.
- 6. Date when started the manufacturing of item under reference.
- 7. List of items manufactured.
- 8. Literature and drawings of items manufactured showing their description, size, design and other important technical particulars.
- 9. Details of order so far, executed along with the names of organization to whom supplied.
- 10. Manufacturing capacity.
- 11. Is the workshop open for inspection by the representative of the board, if required?
- 12. Statement of financial resources and Banking Reference along with Balance-Sheet for previous two years.
- 13. Testing facilities available for the manufactured articles in the testing laboratory of works.
- 14. Whether the Firm is a small/medium/large scale industry.
- 15. Registration No. with:
  - i. Small Scale, National/State.
  - ii. DGTD
  - iii. State Industries Department.

(Signature)