

The Tata Power Company Ltd		<i>OPEN TENDER NOTIFICATION</i>
<i>Tender Reference: CC24VJS064</i>		<i>Document Date: 20th Jan 2024</i>

The Tata Power Company Limited Invites Tender through E-Tender Two-Part Bidding Process from interested bidders for the following package: -

A. Summary of the tendered package:

Sr. No.	Description	Tender Reference no.	Bid Guarantee Fee / EMD (Rs.)	Tender Fee (Rs.)	Last Date and Time for payment of Tender Participation fee
For the following package please send mail to Mr. Vinayak Shinde (vinayak.shinde@tatapower.com) with copy to Mr. Rameshkumar P N (pnramesh@tatapower.com)					
1.	Corrigendum to Tender issued vide published advertisement dtd. 19th Jan 2024 - OLA for Supply of SFU Metering Panel & Change Over Panels without CT	CC24VJS064	2,00,000/-	2,000 /-	31st Jan 2024

B. Procedure to Participate in Tender.

Following steps to be done before “Last date and time for Payment of Tender Participation Fee” as mentioned above

1. Non-Refundable Tender Fee, as indicated in table above, to be submitted in the form of Direct deposit in the following bank account and submit the receipt along with a covering letter clearly indicating the Tender Reference number –

Beneficiary Name – The Tata Power Co. Ltd.

Bank Name – HDFC Bank Ltd.

Branch Name – Fort Branch, Mumbai

Address – Maneckji Wadia Building, Nanik Motwani Marg, Fort, Mumbai 400023.

Branch Code – 60

Bank & Branch Code – 400240015

Account No – 00600110000763

Account type – CC

IFSC Code – HDFC0000060

2. Eligible and Interested Bidders to submit duly signed and stamped letter on Bidder's letterhead indicating

Tender Enquiry number

Name of authorized person

Contact number

e-mail id

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Details of submission of Tender Participation Fee

E-mail with necessary attachment of 1 and 2 above to be send to vinayak.shinde@tatapower.com with copy to pnramesh@tatapower.com before “Last date and time for Payment of Tender Participation Fee”

Interested bidders to submit Tender Participation Fee and Authorization Letter before Last date and time as indicated above after which link from Tata Power E-Tender system (Ariba) will be shared for further communication and bid submission.

Please note all future correspondence regarding the tender, bid submission, bid submission date extension, Pre-bid query etc. will happen only through Tata Power E-Tender system (Ariba).

No e-mail or verbal correspondence will be responded. All communication will be done strictly with the bidder who have done the above step to participate in the Tender.

Also it may be strictly noted that once date of “Last date and time for Payment of Tender Participation Fee” is lapsed no Bidder will be sent link from Tata Power E-Tender System (Ariba). Without this link vendor will not be able to participate in the tender. Any last moment request to participate in tender will not be entertained.

Any payment of Tender Participation Fee by Bidder who have not done the pre-requisite will not be refunded.

Also all future corrigendum's to the said tender will be informed on Tender section on website <https://www.tatapower.com> only.

Summary of Changes

1. Date extension of submission of Expression of Interest till 31st Jan. 2024.

The original tender document is reproduced below.

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OPEN TENDER NOTIFICATION

FOR

**OLA for Supply of SFU Metering Panel & Change Over Panels
without CT**

**The Tata Power Company Limited (Tata Power)
Smart Center of Procurement Excellence, 2nd Floor,
Sahar Receiving Station, Near Hotel Leela,
Sahar Airport Road, Andheri East, Mumbai-400059**

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Section A : Tender Notice including Instruction to Bidders

1. Tender Details

1.1 Key Tender Specific Details

Reference Number	CC24VJS064
Description	OLA for Supply of SFU Metering Panel & Change Over Panels without CT
Type of Tender	Out Line Agreement
Estimated Period	One Year
Tender Fee	Rs 2000/-
Earnest Money Deposit (EMD)	Rs 2,00,000/- Rs. Two Lakhs Only PLEASE NOT THAT IT IS MANDATORY TO SUBMIT EMD IN BANK GUARANTEE FORMAT ONLY
Price Basis	On Firm Basis
Executive Handling this Tender*	Name: Mr. Vinayak Shinde E-Mail ID: vinayak.shinde@tatapower.com
Technical Query *	Name: Mr. Ajay Potdar E-Mail ID: avpotdar@tatapower.com

*You may contact the above personnel from Monday to Friday during office hours only.

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1.2 Calendar of Events

(a)	Payment of Tender Fee and Submission of letter nominating authorized person by Interested Bidder indicating their intent to Buy Tender	Till 29 th January 2024
(b)	Access to Tender Documents through E-Tender system to authorized person of Interested Bidder	29 th January 2024
(c)	Last Date of receipt of pre-bid queries, if any.	By 05 th February 2024
(d)	Last Date of Posting Consolidated replies to all the pre-bid queries as received	10 th February 2024
(e)	Last date and time of receipt of Bids	19 th February 2024

Note:- * These date and time are as planned and tentative. In case of change the same shall be intimated to Authorized Person of Interested Bidder through E-Tender System.

Please note post submission of Bids relevant communication will be done with Authorized Person of Interested Bidder through E-Tender System

1.3 Mandatory documents required along with the Bid

- 1.3.1 Bid Guarantee Fee (EMD) of requisite value and validity. PLEASE NOTE THAT BID GUARANTEE ONLY IN FORM OF BANK GUARANTEE WILL BE ACCEPTED.
- 1.3.2 Requisite Documents to ascertain fulfilling of Technical and Commercial Pre-Qualification Requirement as detailed in Tender Enquiry.
- 1.3.3 Technical Submission including Drawings, Type Test details etc as detailed in Technical Specification.
- 1.3.4 Required Commercial Submission as detailed in Tender Document
- 1.3.5 Technical and Commercial Clarification and Deviations as per the format attached in the Tender Enquiry
- 1.3.6 Proper authorization letter to sign the tender and participate in Tata Power E-Tender system on the behalf of bidder.
- 1.3.7 **For vendor not registered with Tata Power, Duly filled Vendor Registration form with all supporting documents is mandatory to participate in the Tender.**

Please note that in absence of any of the above documents, the bid submitted by a bidder shall be liable for rejection.

Also please note that whenever editable format are shared it is requested that data be filled in relevant cells. No formatting or addition / deletion of rows / columns to be done. Wherever editable Excel submission are requested the file should be free from references, macros etc.

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Checklist of Document Submission

Stage of Tendering	Document	Type of Format	Mode of submission
Before last date of Pre-Bid Query	Query / Clarification / Deviation (QCD) Format. (F1) Technical and Commercial	Editable Excel Format	Through message in E-tender system
Bid Submission Envelope 1 (First Part)	Earnest Money Deposit	Original Bank Guarantee	In Sealed Envelope
Bid Submission Envelope 2 (Second Part)	Documents to be uploaded in Ariba only. In case of multiple files, a zipped folder can be attached for the same (size limit of 100MB per zipped file)		
To be submitted Under Tab 2.1 in Ariba	Duly filled PQR and supporting documents		
	Duly filled PQR format	Editable Excel Format	E-Tender System
	Backup documents for Technical and Commercial PQR	Signed and Scanned documents	E-Tender System
To be submitted under Tab 2.2 in Ariba	Technical Submission and Supporting Documents		
	Duly filled Unpriced Bid Format. Signed copy of Technical Specifications indicating your acceptance of the same	Signed and scanned copy of document	E-Tender System
To be submitted under Tab 2.3 in Ariba	Commercial Submission and supporting document		

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	Letter of Undertaking (FOR VENDORS NOT REGISTERED WITH TATA POWER)	Scanned Copy of letter of undertaking duly filled, stamped and signed	E-Tender System
	E-auction Undertaking form	Scanned Copy of letter of undertaking duly filled, stamped and signed	E-Tender System
Bid Submission Envelope 3 (Third Part)	Duly filled Priced Bid Format	Hard copy in original duly signed and stamped	Sealed Envelope
	Duly filled Priced Bid Format	To be entered in E-Tender System	E-Tender System

1.4 Deviation from Tender

Normally, the deviations to tender terms are not admissible and the bids with deviation are liable for rejection. Hence, the bidders are advised to refrain from taking any deviations on this Tender. Still in case of any deviations, all such deviations shall be set out by the Bidders, clause by clause in the Query / Clarification / Deviation (QCD) Format. Deviations have to be mandatorily submitted in editable Excel sheet.

Technical or Commercial Deviation should be mentioned in Deviation Format only. Deviation in any other document or Format will not be considered.

1.5 Right of Acceptance/Rejection

1.5.1 Bids are liable for rejection in absence of following:-

1.5.2 Mandatory Documents as listed in 1.3 above

1.5.3 Price Bid as per the Price Schedule mentioned in Tender Document

1.5.4 Receipt of Bid and Response to queries within the due date and time

Tata Power reserves the right to accept/reject any or all the bids without assigning any reason thereof.

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1.6 Qualification Criteria

S.No.	Description	Qualifying Criteria	Evaluation Documents Required
1	Infrastructure	<p>Bidder must be an OEM of Equipment with manufacturing facility / assembly in India.</p> <p>The bidder must have in-house routine and acceptance testing facilities for acceptance as per relevant IS/IEC</p>	<p>Self-undertaking to be submitted in this regard.</p> <p>TATA Power reserves the right to inspect the said manufacturing facility as a proof of compliance to this parameter.</p>
2	Supply and Experience	<p>The bidder must have supplied for same or higher size and voltage</p> <ul style="list-style-type: none"> a) A minimum of 400 nos during last 5 years or b) A single order of 200 nos or c) Two orders of 120 nos last 5 years. <p>Indian Subsidiaries of global companies having plant in India are also eligible to bid if the qualification requirements stated above are met independently or in combination with the parent company. Declaration from parent company needs to be submitted.</p>	<p>Purchase Order Copies and Completion Certificates.</p> <p>Self-undertaking to be submitted in this regard. TATA Power reserves the right to inspect the said manufacturing facility as a proof of compliance to this parameter.</p>

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S.No.	Description	Qualifying Criteria	Evaluation Documents Required
3	Type Test	<p>The bidder shall submit Type test reports obtained from NABL / International Accredited Lab for the equipment / material offered. The type tests should have been conducted on the equipment / material of the same design meeting IS guidelines.</p> <p>The type tests should have been conducted within 5 years prior to the date of bid opening. Time period for type test can be extended by another 5 years as a special case if there is no change in design / material of construction (MOC).</p> <p>In case the type test reports furnished are not for the quoted equipment / material but for the equipment / material with higher voltage class and/or different capacity, then type test shall be carried out for the offered equipment / material from NABL / International Accredited Lab without any cost implication to the owner and the Type Test reports shall be submitted before dispatch of the equipment / material and within 120 days of outline agreement.</p>	<p>Type Test Report.</p> <p>Undertaking that there is no change in design / material of construction (MOC) if Type Test Report older than 5 years.</p> <p>Undertaking that type test shall be carried out for the offered equipment / material from NABL / International Accredited Lab without any cost implication to the owner and Type Test reports shall be submitted before dispatch of the equipment / material and within 120 days of outline agreement.</p> <p>Undertaking that there is no change in design / material of construction (MOC) if Type Test Report older than 5 years.</p>
4	Commercial Capability	Average Annual turnover of the bidder for last three years shall not be less than Rs 2 Crs	Copies of audited Balance Sheet and P&L Statements along with UDIN number to be submitted in this regard.

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S.No.	Description	Qualifying Criteria	Evaluation Documents Required
5	Performance	The bidder should have performance certificates for 2 year satisfactory performance from at least 2 reputed Distribution Utilities for equipments of similar or higher rating. The work against these issued certificates should be completed in last seven years from the date of bid submission. In case the bidder has a previous association with any of Tata Power Groups for similar products and services, the performance feedback for that bidder by Tata Power User Group shall only be considered irrespective of performance certificates issued by any third organization.	Supply List & Performance Certificates from the utilities

1.7 Pre-Bid Queries

Technical or Commercial Pre-Bid Queries if any has to be sent through message in E-Tender System. Pre-Bid Query has to be sent only in the Query / Clarification / Deviation (QCD) Format. Pre-Bid Queries sent in any other format or send through any other communication channel will not be accepted and answered. Pre-Bid Query have to be sent in the stipulated timeline as defined in the Tender Document. No Pre-Bid Query will be accepted after the due time and date as specified as "Last Date of receipt of pre-bid queries, if any"

1.8 Marketing Integrity

We have a fair and competitive marketplace. The rules for bidders are outlined in the General Condition of Contracts and other parts of Tender Documents. Bidders must agree to these rules prior to participating. In addition to other remedies available, Tata Power reserves the right to exclude a bidder from participating in future markets due to the bidder's violation of any of the rules or obligations contained in the General Condition of Contracts or other part of the Tender Documents. A bidder who violates the market place rules or engages in behavior that disrupts the fair execution of the marketplace, may result in restriction of a bidder from further participation in the marketplace for a length of time, depending upon the seriousness of the violation. Examples of violations include, but are not limited to:

- Failure to honor prices submitted to the marketplace
- Breach of terms as published in TENDER
- Submit irrelevant documents or frequently cases of missing documents as part of compliance to Qualifying, Technical or Commercial Requirements causing unnecessary delay in Tender Evaluation

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1.9 Supplier Confidentiality

All information contained in this tender is confidential and shall not be disclosed, published or advertised in any manner without written authorization from Tata Power. This includes all bidding information submitted to Tata Power. All tender documents remain the property of Tata Power and all suppliers are required to return these documents to Tata Power upon request. Suppliers who do not honor these confidentiality provisions will be excluded from participating in future bidding events.

1.10 Payment Terms

100% payment shall be made within **60 days** from the receipt and acceptance of the material at the Consignee Stores/Site/Location as per the Contractual Terms and Conditions.

2. Evaluation Criteria

- The bids will be evaluated technically on the compliance to tender terms and conditions.
- The bids will be evaluated commercially on the overall all-inclusive lowest cost for the complete tender BOQ / each line item as calculated in Schedule of Items. Tata Power however, reserves right to split the order line item wise and/or quantity wise among more than one Bidder. Hence all bidders are advised to quote their most competitive rates against each line item.
- Bidder has to mandatorily quote against each item of Schedule of Items. Failing to do so, Tata Power may reject the bids.

NOTE: In case of a new bidder not registered with Tata Power, factory inspection and evaluation shall be carried out to ascertain bidder's manufacturing capability and quality procedures. However Tata Power reserves the right to carry out factory inspection and evaluation for any bidder prior to technical qualification. In case a bidder is found as Disqualified in the factory evaluation, their bid shall not be evaluated any further and shall be summarily rejected. The decision of Tata Power shall be final and binding on the bidder in this regard.

2.1 Price Variation Clause and Cap: Not Applicable (On Firm basis)

3. Submission of Bid Documents

3.1 Bid Submission

Bidders are requested to submit their offer in line with this Tender document. Bids shall be submitted in 3 (three) parts:

FIRST PART: "EMD – BANK GUARANTEE" of Value detailed in 1.1 valid for 180 days from the due date of bid submission in the form of Bank Guarantee favoring 'The Tata Power Company Limited'. The EMD has to be strictly in the format as mentioned in Tender Document, failing which it shall not be accepted by Tata Power and the bid as submitted shall be liable for rejection.

Note : BG of 180 days and further claim period of 180 days is needed. In case the same cannot be issued by your bank then BG valid for 365 days can be provided.

Tata Power Bank details for EMD BG / NEFT:

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Beneficiary Name – The Tata Power Co. Ltd.

Bank Name – HDFC Bank Ltd.

Branch Name – Fort Branch, Mumbai

Address – Maneckji Wadia Building, Nanik Motwani Marg, Fort, Mumbai 400023.

Branch Code – 60

Bank & Branch Code – 400240015

Account No – 00600110000763

Account type – CC

IFSC Code – HDFC0000060

The hard copy of EMD in a sealed envelope should be sent on address mentioned in Tender document. Pls mail the UTR details in case of NEFT for verification.

First Part has to be submitted in Sealed Envelope.

SECOND PART: “TECHNICAL / UN-PRICED COMMERCIAL BID” shall contain the following documents:

- a) Documentary evidence in support of Technical, Commercial qualifying criteria
- b) Technical literature/GTP/Type test report/Details of Qualified Manpower Available/ Testing Facility available etc. *(complete in all respect as desired and detailed in Technical Specification and Technical Requirement Section)*
- c) Duly filled Technical and Commercial Deviation Sheets
- d) Duly filled formats like Authorization affidavit form
- e) *Unpriced Commercial Bid*

The technical / un-priced commercial bid shall be properly indexed and is to be submitted in Soft Copy though E-Tender system of Tata Power. Hard Copy of Technical Bids need not be submitted.

Second Part has to be submitted through E-Tender System Only

THIRD PART: “PRICE BID” shall contain only the price details and strictly in Price Bid format along with explicit break up of basic prices and applicable GST. Basic price should include packaging forwarding, freight, transit insurance and any other cost envisaged by the bidder.

Third part has to be submitted through E-Tender System (ARIBA) only.

FOR BIDS INVITED THROUGH E-TENDER SYSTEM (TECHNICAL AND UN-PRICED COMMERCIAL BID) :

In response to advertisement Bidder has to provide details of person authorized to Bid on behalf of the Bidder. An e-mail will be generated by E-Tender System and the authorized person can download the Tender Documents from the system.

SECOND and THIRD PART of the Bid have to be submitted in E-Tender System.

Bidders have to mandatorily submit SECOND PART (Technical and Un-priced commercial Bid) only through E-Tender system of Tata Power. Bids submitted through any other form/ route shall not be admissible.

EMD BG to be sent in a sealed envelope which shall be clearly marked as below to the below address.

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EMD

“Please mention Tender Reference No”

The Tata Power Company Limited, Smart Center of Procurement Excellence, 2nd Floor, Sahar Receiving Station, Near Hotel Leela, Sahar Airport Road, Andheri East, Mumbai-400059

Bids submitted by Email/Telex/Telegram /Fax will be rejected. No request from any Bidder to Tata Power to collect the proposals from Courier/Airlines/Cargo Agents etc. shall be entertained.

SIGNING OF BID DOCUMENTS:

The bid must contain the name, residence and place of business of the person or persons making the bid and must be signed and sealed by the Bidder with his usual signature. The names of all persons signing should also be typed or printed below the signature.

The Bid being submitted must be signed by a person holding a Power of Attorney authorizing him to do so, certified copies of which shall be enclosed.

The Bid submitted on behalf of companies registered with the Indian Companies Act, for the time being in force, shall be signed by persons duly authorized to submit the Bid on behalf of the Company and shall be accompanied by certified true copies of the resolutions, extracts of Articles of Association, special or general Power of Attorney etc. to show clearly the title, authority and designation of persons signing the Bid on behalf of the Company. Satisfactory evidence of authority of the person signing on behalf of the Bidder shall be furnished with the bid.

A bid by a person who affixes to his signature the word ‘President’, ‘Managing Director’, ‘Secretary’, ‘Agent’ or other designation without disclosing his principal will be rejected.

The Bidder’s name stated on the Proposal shall be the exact legal name of the firm.

3.2 Contact Information

Communication Details: Detailed in 1.1

3.3 Bid Prices

Bidders shall quote for the entire Scope of Supply/ work with a break up of prices for individual items and Taxes & duties. The bidder shall complete the appropriate Price Schedules included herein, stating the Unit Price for each item & total price with taxes, duties & freight up to destination at various sites of Tata Power. The all-inclusive prices offered shall be inclusive of all costs as well as Duties, Taxes and Levies paid or payable during the execution of the supply work, breakup of price constituents.

The quantity break up shown else-where other than Price Schedule is tentative. The bidder shall ascertain himself regarding material required for completeness of the entire work. Any items not indicated in the price schedule but which are required to complete the job as per the Technical Specifications/ Scope of Work/ SLA mentioned in the tender, shall be deemed to be included in prices quoted.

3.4 Bid Currencies

Prices shall be quoted in Indian Rupees Only. It also may be noted that the denomination of Purchase Order / Outline Agreement / Rate Contract and associated Payment to Successful Bidder shall also be in Indian Rupees Only. In case Bidder intends to import any equipment, part etc and supply to Tata

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Power then all liability and costs related to import will rest with the Bidder. All statutory compliances, payments, expenditure etc related to importing of equipment will be responsibility of the bidder.

3.5 Period of Validity of Bids

Bids shall remain valid for 180 days from the due date of submission of the bid.

Notwithstanding clause above, Tata Power may solicit the Bidder's consent to an extension of the Period of Bid Validity. The request and responses thereto shall be made in writing.

3.6 Alternative Bids

Bidders shall submit Bids, which comply with the Bidding documents. Alternative bids will not be considered. The attention of Bidders is drawn to the provisions regarding the rejection of Bids in the terms and conditions, which are not substantially responsive to the requirements of the bidding documents.

3.7 Modifications and Withdrawal of Bids

The bidder is not allowed to modify or withdraw its bid after the Bid's submission. The EMD as submitted along with the bid shall be liable for forfeiture in such event.

3.8 Earnest Money Deposit (EMD)

The bidder shall furnish, as part of its bid, an EMD amounting as specified in the tender. The EMD is required to protect the Tata Power against the risk of bidder's conduct which would warrant forfeiture.

The EMD shall be in following form:

- Bank Guarantee valid for 180 days after due date of submission.

The EMD shall be forfeited in case of:

- a) The bidder withdraws its bid during the period of specified bid validity.

Or

- b) In case of a successful bidder, if the Bidder, within 15 days, does not
 - i) accept the purchase order, or
 - ii) furnish the required Contract Performance Bank Guarantee (CPBG)

Original Bank Guarantee submitted as EMD shall be returned only after completion of award process for unsuccessful bidders and issue of Contract Performance Bank Guarantee (CPBG) for successful bidder.

4. Bid Opening & Evaluation process

4.1 Process to be confidential

Information relating to the examination, clarification, evaluation and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process. Any effort by a Bidder to influence Tata Powers processing of Bids or award decisions may result in the rejection of the Bidder's Bid.

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4.2 Technical Bid Opening

Bids will be opened at Corporate Office of Tata Power as per our standard Process. The bids shall be opened internally by Tata Power. Technical bid must not contain any cost information whatsoever.

First the envelope marked “EMD” will be opened. Bids without EMD of required amount/ validity in prescribed format, shall be rejected.

Next, the technical bid of the bidders who have furnished the requisite EMD will be opened in E-Tender system.

4.3 Preliminary Examination of Bids/Responsiveness

Tata Power will examine the Bids to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the Bids are generally in order. Tata Power may ask for submission of original documents in order to verify the documents submitted in support of qualification criteria.

Prior to the detailed evaluation, Tata Power will determine the substantial responsiveness of each Bid to the Bidding Documents including production capability and acceptable quality of the Goods offered. A substantially responsive Bid is one, which conforms to all the terms and conditions of the Bidding Documents without material deviation.

Bid determined as not substantially responsive will be rejected by the Tata Power and/or the Tata Power and may not subsequently be made responsive by the Bidder by correction of the non-conformity.

4.4 Techno Commercial Clarifications

Bidders need to ensure that the bids submitted by them are complete in all respects. To assist in the examination, evaluation and comparison of Bids, Tata Power may, at its discretion, ask the Bidder for a clarification on its Bid for any deviations with respect to the Tata Power specifications and attempt will be made to bring all bids on a common footing. All responses to requests for clarification shall be in writing and no change in the price or substance of the Bid shall be sought, offered or permitted owing to any clarifications sought by Tata Power.

4.5 Price Bid Opening

The EMD of the bidder withdrawing or substantially altering his offer at any stage after the technical bid opening will be forfeited at the sole discretion of Tata Power without any further correspondence in this regard.

Arithmetical errors will be rectified on the following basis: If there is a discrepancy between the unit price and the total price per item that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price per item will be corrected. If there is a discrepancy between the Total Amount and the sum of the total price per item, the sum of the total price per item shall prevail and the Total Amount will be corrected.

4.6 Reverse Auction and Price Matching Option

Tata Power reserves the right to go for Reverse Auction (RA) for price negotiation and discover the most competitive price on ARIBA portal, Tata Power’s official e-tendering platform. This will be

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decided after techno-commercial evaluation of the bids. Bidders need to give their acceptance with the offer for participation in RA. Non-acceptance to participate in RA may result in non-consideration of their bids, in case Tata Power decides to go for RA.

Only those bidders who are techno-commercially qualified shall be eligible to participate further in RA process. However, the original H1 bidder (whose price bid is the highest post techno-commercial evaluation) shall not be allowed to participate in further RA process provided minimum three techno-commercially qualified bids are available.

For case where more than one bidders have to be awarded (including Rate Contract / Outline Agreement) Price Matching Option will be exercised. Volume of job allocated to original competitive bidder will be more than bidder who is chosen through Price Matching Option. Tata Power decision regarding work sharing shall be final and no explanation OR clarification shall be given regarding the same.

5.0 Award Decision

Tata Power will award the contract to the successful bidder whose bid has been determined to be the lowest-evaluated responsive bid as per the Evaluation Criterion mentioned at Clause 2.0. The Cost for the said calculation shall be taken as the all-inclusive cost quoted by bidder in Priced Bid Format subject to any corrections required in line with Clause 4.3 above. The decision to place purchase order/Outline Agreement/ Rate Contract solely depends on Tata Power on the cost competitiveness across multiple lots, quality, delivery and bidder's capacity, in addition to other factors that Tata Power may deem relevant.

Tata Power reserves all the rights to award the contract to one or more bidders so as to meet the delivery requirement or nullify the award decision without assigning any reason thereof.

In case any supplier is found unsatisfactory during the delivery process, the award will be cancelled and Tata Power reserves the right to award other suppliers who are found fit.

5.1 Rate Contract / Outline Agreement

Rate Contract / Outline Agreement does not guarantee any assured business volume in Rupees or Quantity. Quantities are only indicative and specified for the purpose of readiness as per the request from Purchaser. Supplies shall be only against Firm Purchase Orders placed as per the agreed terms and conditions of Rate Contract / Outline Agreement. Purchaser shall be entitled at its discretion to place firm order for such supplies on "As and When Required Basis" without minimum take-off guarantee.

Rate Contract / Outline Agreement will have list of Items with Unit Rate and applicable Taxes and Duties. There will be a cap on value for which order which can be placed against the Rate Contract / Outline Agreement. Actual quantity ordered for each line item may differ significantly from the tentative quantity indicated in the Tender Document. One / few / all items of Rate Contract / Outline Agreement can be ordered till the Cap Value is reached.

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6.0 Order of Preference/Contradiction:

In case of contradiction in any part of various documents in tender, following shall prevail in order of preference:

1. Outline Agreement/Purchase Order (with Commercial conditions)
2. Special Terms and conditions (if applicable)
3. General Terms and conditions
4. Technical Specifications

In case there is a discrepancy in the BOQ mentioned in tender (to the extent modified through subsequent Corrigendum, if any) and the bid submitted by any bidder, the description as mentioned in the tender (to the extent modified through subsequent Corrigendum, if any) shall prevail.

7.0 Ethics

Tata Power is an ethical organization and as a policy Tata Power lays emphasis on ethical practices across its entire domain. Bidder should ensure that they should abide by all the ethical norms and in no form either directly or indirectly be involved in unethical practice.

Tata Power work practices are governed by the Tata Code of Conduct. Bidder is request to refer Tata Code of Conduct Clause in General Terms and Conditions.

8.0 General Condition of Contract and Special Condition of Contracts

Any condition not mentioned above shall be applicable as per General Terms and Conditions and Special Condition of Contracts attached along with this tender.

---XXX---

The Tata Power Company Ltd		<i>OPEN TENDER NOTIFICATION</i>
<i>Tender Reference: CC24VJS064</i>		<i>Document Date: 20th Jan 2024</i>

Annexure 1
Schedule Of Items

Sr. no.	Material / Service Short Text (as per SAP)	Quantity	UoM	Unit Rate (Basic)	Total
1	PANEL METERING WITH SFU & CT 415V 800A	25	nos.		-
2	PANEL METERING W/630A SFU & 600/5 A CT	50	nos.		-
3	PANEL METERING W/400A SFU & 400/5 A CT	100	nos.		-
4	PANEL METERING W/250A SFU & 250/5 A CT	250	nos.		-
5	PANEL METERING W/200A SFU & 200/5 A CT	10	nos.		-
6	PANEL METERING W/160A SFU & 150/5 A CT	10	nos.		-
7	PANEL METERING WITH 125A SFU & 100/5A CT	50	nos.		-
8	PANEL METERING WITH 100A SFU & 100/5A CT	10	nos.		-
9	PANEL METERING WITH 63A SFU	200	nos.		-
10	SWITCH CHANGEOVER W/125A METERING PANEL	50	nos.		-
11	SWITCH CHANGEOVER 250A W/METERING PANEL	100	nos.		-
12	SWITCH CHANGEOVER 400A W/METERING PANEL	50	nos.		-
13	CHANGE OVER SWITCH 630 4P 415V/GE	25	nos.		-
	Sub Total				-
	GST @18%				-
	Total with taxes				-


The Tata Power Company Ltd		TECHNICAL SPECIFICATION FOR SWITCH FUSE UNIT METERING PANEL WITHOUT CT
ENSE-DS-2026-R00		Date of Issue: 02/01/2024

TECHNICAL SPECIFICATION

Switch Fuse Unit Metering Panel without CT




**(Rating- 63A, 100A, 125A, 160A, 200A, 250A,
400A, 630A, 800A)**

The Tata Power Company Ltd.
Engineering Services (ENSE),
Distribution Division, Senapati Bapat Marg,
Lower Parel, Mumbai – 400013 Maharashtra




The Tata Power Company Ltd		TECHNICAL SPECIFICATION FOR SWITCH FUSE UNIT METERING PANEL WITHOUT CT
ENSE-DS-2026-R00		Date of Issue: 02/01/2024

Document No: ENSE-DS-2026-R00

Document Title: Technical specifications for Switch Fuse Unit Metering Panel without CT

00	For tender purpose(ENSE-DS-2026-R00)	2/1/24	KSJ		AVP		RMB	
R5	D-NPCE-SPEC-14	05/01/22	SS	-SD-	Vikas Koul	-SD-	Vikas Koul	-SD-
R4	D-NPCE-SPEC-14	31/3/20	AS	-SD-	SBK	-SD-	NCP	-SD-
R3	D-NPCE-SPEC-14	23/5/19	ND	-SD-			NCP	-SD-
R2	D-NPCE-SPEC-14	3/11/18	ND	-SD-			NCP	-SD-
R1	D-NPCE-SPEC-14	13/10/16	ND	-SD-			CKC	-SD-
R0	D-NPCE-SPEC-14	17/2/16	AP	-SD-			CKC	-SD-
Rev No.	Remarks	Date	Initials	Sign	Initials	Sign	Initials	Sign
			Prepared By		Checked By		Approved and Issued By	

The Tata Power Company Ltd.
Engineering Services (ENSE),
Distribution Division, Senapati Bapat Marg,
Lower Parel, Mumbai – 400013 Maharashtra




Rev No.	Prepared By & Date	Checked By & Date	Approved for Issue By & Date
R00	 Ketan S. Jadhav	 Ajay V. Potdar	 Ravindra M. Bhanage
Date	02/01/2024	02/01/2024	02/01/2024

The Tata Power Company Ltd		TECHNICAL SPECIFICATION FOR SWITCH FUSE UNIT METERING PANEL WITHOUT CT
ENSE-DS-2026-R00		Date of Issue: 02/01/2024

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- 2.0 APPLICABLE STANDARDS
- 3.0 CLIMATIC CONDITIONS OF THE INSTALLATION
- 4.0 GENERAL TECHNICAL REQUIREMENTS
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- 6.0 NAME PLATE AND MARKING
- 7.0 TESTS
- 8.0 TYPE TEST CERTIFICATES
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- 15.0 MINIMUM TESTING FACILITIES
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ANNEXURE: I II & III

Rev No.	Prepared By & Date	Checked By & Date	Approved for Issue By & Date
R00	 Ketan S. Jadhav 02/01/2024	 Ajay V. Potdar 02/01/2024	 Ravindra M. Bhanage 02/01/2024
Date	02/01/2024	02/01/2024	02/01/2024

The Tata Power Company Ltd		TECHNICAL SPECIFICATION FOR SWITCH FUSE UNIT METERING PANEL WITHOUT CT
ENSE-DS-2026-R00		Date of Issue: 02/01/2024

1	SCOPE	<ol style="list-style-type: none"> 1. This specification covers design, engineering, manufacture; shop testing, inspection, painting, packing, and supply of 415V Switch Fuse Unit metering panel complete with all accessories for efficient and trouble-free operation of the distribution network for Tata Power Company Limited at Mumbai. 2. It is not our intent to specify completely herein all details of design and construction of the equipment. However, the equipment shall conform in all respects to high standards of Engineering design and workmanship and shall can perform in a manner acceptable to the PURCHASER (TPC) who will interpret the meaning of drawings and specification and shall be entitled to reject any work or material which in his judgement is not in full accordance therewith. 3. All the bought-out items shall be of reputed make and shall be subject to approval by the PURCHASER (TPC) after award of contract. All SUBVENDOR/SUBCONTRACTOR list shall also be subject to approval by the PURCHASER (TPC) after award of contract. 																																	
2	APPLICABLE STANDARDS	<p>The Switch changeover metering panel shall comply with the requirements stated in the latest editions of the following recommendations, standard and specifications:</p> <table border="1" data-bbox="391 762 1533 1192"> <thead> <tr> <th data-bbox="391 762 639 800">Title</th> <th data-bbox="639 762 1533 800">Indian standard</th> </tr> </thead> <tbody> <tr> <td data-bbox="391 800 639 837">IS 13703</td> <td data-bbox="639 800 1533 837">Low Voltage HRC Fuses.</td> </tr> <tr> <td data-bbox="391 837 639 905">IS 12063</td> <td data-bbox="639 837 1533 905">Classification of degrees of protection provided by Enclosures of Electrical equipment.</td> </tr> <tr> <td data-bbox="391 905 639 963">IS 5082</td> <td data-bbox="639 905 1533 963">Wrought Aluminium & Al alloy plates & sheets for Electrical application.</td> </tr> <tr> <td data-bbox="391 963 639 1022">IEC 60529 -1989</td> <td data-bbox="639 963 1533 1022">Degree of Protection provided by Enclosures</td> </tr> <tr> <td data-bbox="391 1022 639 1081">IS 2551 - 1982</td> <td data-bbox="639 1022 1533 1081">Danger Notice Plates</td> </tr> <tr> <td data-bbox="391 1081 639 1157">IS/IEC 60947-3 : 2020</td> <td data-bbox="639 1081 1533 1157">Low-voltage switchgear and control gear part 3 switches, disconnectors, switch-disconnectors and fuse-combination units</td> </tr> <tr> <td data-bbox="391 1157 639 1192">IS 5</td> <td data-bbox="639 1157 1533 1192">Colors for Ready Mixed Paints and Enamels</td> </tr> </tbody> </table>	Title	Indian standard	IS 13703	Low Voltage HRC Fuses.	IS 12063	Classification of degrees of protection provided by Enclosures of Electrical equipment.	IS 5082	Wrought Aluminium & Al alloy plates & sheets for Electrical application.	IEC 60529 -1989	Degree of Protection provided by Enclosures	IS 2551 - 1982	Danger Notice Plates	IS/IEC 60947-3 : 2020	Low-voltage switchgear and control gear part 3 switches, disconnectors, switch-disconnectors and fuse-combination units	IS 5	Colors for Ready Mixed Paints and Enamels																	
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3	CLIMATIC CONDITIONS OF THE INSTALLATION	<table border="1" data-bbox="412 1241 1398 1671"> <tbody> <tr> <td data-bbox="412 1241 505 1278">1</td> <td data-bbox="505 1241 1183 1278">Maximum ambient temperature</td> <td data-bbox="1183 1241 1398 1278">43 deg.C</td> </tr> <tr> <td data-bbox="412 1278 505 1316">2</td> <td data-bbox="505 1278 1183 1316">Max. Daily average ambient temp</td> <td data-bbox="1183 1278 1398 1316">35 deg.C</td> </tr> <tr> <td data-bbox="412 1316 505 1354">3</td> <td data-bbox="505 1316 1183 1354">Min Ambient Temperature</td> <td data-bbox="1183 1316 1398 1354">07 deg.C</td> </tr> <tr> <td data-bbox="412 1354 505 1392">4</td> <td data-bbox="505 1354 1183 1392">Maximum Relative Humidity</td> <td data-bbox="1183 1354 1398 1392">100%</td> </tr> <tr> <td data-bbox="412 1392 505 1430">5</td> <td data-bbox="505 1392 1183 1430">Minimum Relative Humidity</td> <td data-bbox="1183 1392 1398 1430">40%</td> </tr> <tr> <td data-bbox="412 1430 505 1467">6</td> <td data-bbox="505 1430 1183 1467">Average No. of thunderstorm per annum</td> <td data-bbox="1183 1430 1398 1467">50</td> </tr> <tr> <td data-bbox="412 1467 505 1505">7</td> <td data-bbox="505 1467 1183 1505">Average Annual Rainfall</td> <td data-bbox="1183 1467 1398 1505">2380mm</td> </tr> <tr> <td data-bbox="412 1505 505 1543">8</td> <td data-bbox="505 1505 1183 1543">Average No. of rainy days per annum</td> <td data-bbox="1183 1505 1398 1543">115</td> </tr> <tr> <td data-bbox="412 1543 505 1581">9</td> <td data-bbox="505 1543 1183 1581">Rainy months</td> <td data-bbox="1183 1543 1398 1581">June to Oct.</td> </tr> <tr> <td data-bbox="412 1581 505 1619">10</td> <td data-bbox="505 1581 1183 1619">Altitude above MSL not exceeding</td> <td data-bbox="1183 1581 1398 1619">300 meters</td> </tr> <tr> <td data-bbox="412 1619 505 1656">11</td> <td data-bbox="505 1619 1183 1656">Average Air Pressure</td> <td data-bbox="1183 1619 1398 1656">29.6-inch Hg</td> </tr> </tbody> </table> <p>Atmosphere is generally laden with mild acid and dust suspended during summer months and subjected to fog in winter months. The design of the equipment and accessories shall be suitable to withstand seismic forces corresponding to an acceleration of 0.1g.</p>	1	Maximum ambient temperature	43 deg.C	2	Max. Daily average ambient temp	35 deg.C	3	Min Ambient Temperature	07 deg.C	4	Maximum Relative Humidity	100%	5	Minimum Relative Humidity	40%	6	Average No. of thunderstorm per annum	50	7	Average Annual Rainfall	2380mm	8	Average No. of rainy days per annum	115	9	Rainy months	June to Oct.	10	Altitude above MSL not exceeding	300 meters	11	Average Air Pressure	29.6-inch Hg
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R00	 Ketan S. Jadhav 02/01/2024	 Ajay V. Potdar 02/01/2024	 Ravindra M. Bhanage 02/01/2024
Date	02/01/2024	02/01/2024	02/01/2024

4 GENERAL TECHNICAL REQUIREMENTS

63A, 100A & 125A SFU

Sr. No		63A SFU	100A SFU	125A SFU	To be provided by Bidder
	Vender Address and contact details				
A	Ratings				
1	Ampere	63A	100A	125A	
2	Primary Voltage ($\pm 10\%$)	415V	415V	415V	
3	Phase	3 phases	3 phases	3 phases	
4	Frequency (Hz)	50Hz	50Hz	50Hz	
5	Ambient Temp	50°C	50°C	50°C	
6	Total Temp rise on full load	90 Degree	90 Degree	90 Degree	
7	Application	Indoor / Outdoor	Indoor / Outdoor	Indoor / Outdoor	
8	Short Circuit Withstand Current	50kA	50kA	50kA	
B	Enclosure				
1	Overall preferred Dimensions L x W x H (mm)	300 X 200 X 750 mm	470X 370X 1300	470 X 370 X 1300 mm	
2	Gauge and material	16 Gauge M.S Sheet	16 Gauge M.S Sheet	16 Gauge M.S Sheet	
3	Thickness of pleat	1.6 mm	1.6 mm	1.6 mm	
4	Thickness of Gland plate	3mm	3mm	3mm	
5	Colour of Body	International Orange shade No 592 of IS-5			
6	Protection grade of enclosure	IP54	IP54	IP54	
7	SLD inside of door	SLD shall be pasted on inside part of door			
8	1 ph supply provision to Modem	To be provided in metering panel			
C	Bus Bar Size				
1	Phase Material Aluminium	100 sq mm connector for Incomer & Outgoing Make: Elmex/connectwell	1 X 25 X 5 mm	1 X 25 X 6 mm	
2	Neutral Material Aluminium	100 sq mm connector for Incomer & Outgoing Make: Elmex/connectwell	1 X 25 X 5 mm	1 X 25 X 6 mm	
3	Earth Material GI	1 X 25 X 5 mm	1 X 25 X 5 mm	1 X 25 X 6 mm	

Rev No.

Prepared By & Date

Checked By & Date

Approved for Issue By & Date

R00

Ketan S. Jadhav

Ajay V. Potdar

Ravindra M. Bhanage

Date




02/01/2024

02/01/2024




02/01/2024

4	Removable acrylic insulation barrier over incomer	To be provided			
D	Fuse Detail				
1	Make	Schneider/ L&T/ Siemens/ GE Power Controls/ HPL/ Havells/ Jean Muller / Bussman.			
2	Knife Type	To be provided			
3	Pull out arrangement	With Fuse Puller	With Fuse Puller	With Fuse Puller	
4	Rating	63A	100A	125A	
5	Type	HRC	HRC	HRC	
6	Fast acting gG fuse	To be provided			
E	CT Detail	(CT to be supplied by TATA POWER & installed by Bidder)			
1	Ratio	NA	100/5A	125/5A	
2	VA rating	NA	5 VA	5 VA	
3	Type	NA	Resin cast	Resin cast	
4	CT secondary wiring with colour coded	NA	4 Sq. mm Copper	4 Sq. mm Copper	
5	PT secondary wiring with colour coded	NA	2.5 Sq. mm Copper	2.5 Sq. mm Copper	
6	Accuracy class	NA	Class 1.0, 05VA, ISF <=5	Class 0.5, 05VA, ISF <=5	
F	Switch fuse unit				
1	Make	L&T, ABB, HPL, Havells, siemens			
2	Rating	63A	100A	125A	
3	Type	Manual Type	Manual Type	Manual Type	
4	Pole	TP	TP	TP	
5	Voltage rating ($\pm 10\%$)	415 V			
G	Cable size (For Reference)	1 Nos. 35 Sq. mm	1 Nos. 120 Sq. mm	1 Nos. 120 Sq. mm	
1	Incoming Cable entry	From Bottom	From Bottom	From Bottom	
2	Outgoing Cable entry	From Bottom	From Top	From Top	
H	SFU with phase barrier	To be provided			
I	Guaranty Period	12 months from the date of commissioning or 24 months from the date of last supplies made under the contract whichever is later			

4.2	160A, 200A & 250A SFU				
		160A SFU	200A SFU	250A SFU	To be provided by Bidder
	Vender Address and contact details				

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A	Ratings				
1	Ampere	160A	200A	250A	
2	Primary Voltage(±10%)	415V	415V	415V	
3	Phase	3 phases	3 phases	3 phases	
4	Frequency (Hz)	50Hz	50Hz	50Hz	
5	Ambient Temp.	50°C	50°C	50°C	
6	Total Temp rise on full load	90 Degree	90 Degree	90 Degree	
7	Application	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor	
8	Short Circuit Withstand Current	50kA	50kA	50kA	
B	Enclosure				
1	Overall preferred Dimensions L x W x H (mm)	520X420X1300	570X470X1300	570X 470 X 1300	
2	Gauge and material	16 Gauge M.S Sheet	16 Gauge M.S Sheet	16 Gauge M.S Sheet	
3	Thickness of pleat	1.6 mm	1.6 mm	1.6 mm	
4	Thickness of Gland Plate	3mm	3mm	3mm	
4	Colour of Body	International Orange shade No 592 of IS-5			
5	Protection grade of enclosure	IP54	IP54	IP54	
6	SLD inside of door	SLD shall be pasted on inside part of door			
7	1 ph supply provision for Modem	To be provided in metering panel			
C	Bus Bar Size				
1	Phase Material Aluminium	1 X 25 X 8 mm	1 X 25 X 10 mm	1 X 30 X 10 mm	
2	Neutral Material Aluminium	1 X 25 X 8 mm	1 X 25 X 10 mm	1 X 30 X 10 mm	
3	Earth Material GI	1 X 25 X 6 mm	1 X 25 X 6 mm	1 X 25 X 6 mm	
4	Removable acrylic insulation barrier over incomer	To be provided			
D	Fuse Detail				
1	Make	Schneider/ L&T/ Siemens/ GE Power Controls/ HPL/ Havells/ Jean Muller / Bussman.			
2	Knife Type	To be provided			
3	Pull out arrangement	With Fuse Puller	With Fuse Puller	With Fuse Puller	
4	Rating	160A	200A	250A	

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5	Type	HRC	HRC	HRC	
6	Fast acting gG fuse	To be provided			
E	CT Detail	(CT to be supplied by TATA POWER and installed by Bidders)			
1	Ratio	150/5A	200/5 A	250/5A	
2	VA rating	5 VA	5 VA	5 VA	
3	Type	Resin cast	Resin cast	Resin cast	
4	CT secondary wiring with colour coded	4 Sq. mm Copper	4 Sq. mm Copper	4 Sq. mm Copper	
5	PT secondary wiring with colour coded	2.5 Sq. mm Copper	2.5 Sq. mm Copper	2.5 Sq. mm Copper	
6	Accuracy class	Class 0.5, 05VA, ISF <=5	Class 0.5, 05VA, ISF <=5	Class 0.5, 10VA, ISF <=5	
F	Switch fuse unit				
1	Make	L&T, ABB, HPL, Havells, siemens			
2	Rating	160A	200A	250A	
3	Type	Manual Type	Manual Type	Manual Type	
4	Pole	TP	TP	TP	
5	Voltage rating ($\pm 10\%$)	415 V			
G	Cable size (For Reference)	1 Nos. 185 Sq. mm	1 Nos. 185 Sq. mm/ 2 No. 120 sq.mm	1 Nos. 300 Sq. mm/ 2 no 185 sq.mm	
1	Incoming Cable entry	From Bottom	From Bottom	From Bottom	
2	Outgoing Cable entry	From Top	From Top	From Top	
H	SFU with phase barrier	To be provided			
I	Guarantee Period	12 months from the date of commissioning or 24 months from the date of last supplies made under the contract whichever is later			

400A, 630A & 800A SFU

4.3	Sr. No	400A SFU	630A SFU	800A SFU	To be provided by Bidder
		Vender Address and contacts details			
	A	Ratings			
	1	Ampere	400A	630A	800A
	2	Primary Voltage ($\pm 10\%$)	415V	415V	415V
	3	Phase	3 phases	3 phases	3 phases
	4	Frequency (Hz)	50Hz	50Hz	50Hz
	5	Ambient Temp.	50°C	50°C	50°C
6	Total Temp rise on full load	90 Degree	90 Degree	90 Degree	

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7	Application	Indoor / Outdoor	Indoor / Outdoor	Indoor / Outdoor	
8	Short Circuit Withstand Current	50kA	50kA	50kA	
B	Enclosure				
1	Overall preferred Dimensions L x W x H (mm)	620 X470 X 1350	620 X 470 X 1350	770 X 470 X 1700	
2	Gauge and material	16 Gauge M.S Sheet	16 Gauge M.S Sheet	16 Gauge M.S Sheet	
3	Thickness of pleat	1.6 mm	1.6 mm	1.6 mm	
4	Thickness of Gland plate	3mm	3mm	3mm	
4	Colour of Body	International Orange shade No 592 of IS-5			
5	Protection grade of enclosure	IP54	IP54	IP54	
6	SLD inside of door	SLD shall be pasted on inside part of door			
7	1 ph supply provision for Modem	To be provided in metering panel			
C	Bus Bar Size				
1	Phase Material Aluminium	1 X 50 X 10 mm	1 X 40 X 20 mm	1 X 50 X 20 mm	
2	Neutral Material Aluminium	1 X 50 X 10 mm	1 X 40 X 20 mm	1 X 50 X 20 mm	
3	Earth Material GI	1 X 50 X 6 mm	1 X 50 X 6 mm	1 X 50 X 6 mm	
4	Removable acrylic insulation barrier over incomer	To be provided			
D	Fuse Detail				
1	Make	Schneider/ L&T/ Siemens/ GE Power Controls/ HPL/ Havells/ Jean Muller / Bussman.			
2	Knife Type	To be provided			
3	Pull out arrangement	With Fuse Puller	With Fuse Puller	With Fuse Puller	
4	Rating	400A	630A	800A	
5	Type	HRC	HRC	HRC	
6	Fast acting gG fuse	To be provided			
E	CT Detail	(CT to be supplied by TATA POWER)			
1	Ratio	400/5A	630/5 A	800/5 A	
2	VA rating	10 VA	10 VA	10 VA	
3	Type	Resin cast	Resin cast	Resin cast	
4	CT secondary wiring with colour coded	4 Sq. mm Copper	4 Sq. mm Copper	4 Sq. mm Copper	
5	PT secondary wiring with colour coded	2.5 Sq. mm Copper	2.5 Sq. mm Copper	2.5 Sq. mm Copper	
6	Accuracy class	Class 0.5, 10VA, ISF <=5	Class 0.5, 10VA, ISF <=5	Class 0.5, 10VA, ISF <=5	
F	Switch fuse unit				


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1	Make	L&T, ABB, HPL, Havells, siemens		
2	Rating	400A	630A	800A
3	Type	Manual Type	Manual Type	Manual Type
4	Pole	TP	TP	TP
5	Voltage rating ($\pm 10\%$)	415 V		
G	Cable size (For Reference)	1 Nos. 300 Sq. mm/ 2 no.s 185 sq.mm	2 Nos. 300 Sq. mm	3 Nos. 300 Sq. mm
1	Incoming Cable entry	From Bottom	From Bottom	From Bottom
2	Outgoing cable entry	From Top	From Top	From Top
H	SFU with phase barrier	To be provided		
I	Guaranty Period	12 months from the date of commissioning or 24 months from the date of last supplies made under the contract whichever is later		

5 GENERAL CONSTRUCTION

5.1	Panel Metal Box	<ol style="list-style-type: none"> The Metering panel shall be Metal enclosed with access from Front side. The Metering panel shall be of Dust & Vermin proof construction having IP 54 protection and adequate louvers for cooling. There should be wire mesh inside louvers with check-nut arrangement. Incoming Cable entry facilities at bottom of panel and removable gland plates of size suitable to accommodate incoming cables with desired cable sizes. Outgoing Cable entry facilities at top of panel and removable gland plates of size suitable to accommodate outgoing cables with desired cable sizes. Phase barriers for SFU should be provided. Padlock arrangement to be provided for SFU operating handle. There will be two door arrangement in Top side of Metering panel. One MS sheet openable door with hinge arrangement to be provided in between Meter and Outgoing busbar and second door to be provided above meter & control panel with locking arrangement. I/C cable connection & O/G cable connection will be done on busbars. Hole size needs to be mentioned considering cable lug palm & hole position. Removable acrylic insulation barrier sheet to be provided over incoming busbar.
5.2	Bus Bar	<ol style="list-style-type: none"> Busbars shall be made of Electrical Grade Aluminium alloy and of suitable size to withstand the specified circuit rating. The busbars will be supported with epoxy insulators and insulated with colour code sleeves. Voltage tapping to be taken from busbar and not from SFU. Minimum 20mm clearance to be maintained between CT and phase. Size of hole as 12.5mm for cable lug termination for all at Termination. Phase arrangement to be RYBN (from Left to Right)

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		7. Bus-bar arrangement should be staggered type for both incoming and outgoing cable termination. 8. Busbar aluminium current density should be less than 1A/sqmm. 9. Neutral busbar to be connected to with earth busbar via disconnecting link. Link size should be same as neutral busbar.			
5.3	Metering compartment	1. Adequate space for mounting TVM should be provided in compartment with suitable window with "Transparent Toughened Glass" shall be provided to view TVM readings from outside the compartment (without opening the door). The glass window to be aligned with meter display. Smart meter to get accommodated in the same space. 2. Provision to be provided for mounting the energy meter with max dimensions as L x B x D: 360 x 200 x 200 mm (Energy meter will be supplied by TPC). 3. Colour coded wires for the same to be provided. 4. Wiring provision to be made for MODEM through 2A fuse with holders and ferruling and length of wire should be sufficient to avoid loose connection. 5. Mounting plate to be provided for fixing of Meter & fuses. 6. Metering compartment should be separate from busbar compartment.			
5.4	CT Details	1. CT's will be provided by Tata power. All venders should collect CTs from Tata Power store and CTs to be mounted on panel as per approved GA drawing. 2. Transportation cost for collecting Tested CTs from TATA POWER warehouse is in OEM scope. 3. CT installation on busbar should ensure the manufacturing details are visible and same needs to be mentioned on metering & CT compartment door. The secondary terminal should be clearly visible and accessible for checking tightness. 4. Paper sticker to be pasted in CT compartment door mentioning CT Make, CT Serial no, phase, accuracy class & burden. 5. Minimum clearance between phase to phase CT is 20mm & between phase CT & Enclosure is 20mm. 6. Colour coded wires to be provided from CT Secondary to TVM Slot. CT secondary (S2 terminal) should be grounded. 7. Colour coded wires to be provided from Busbar to TVM Slot. 8. Ferruling to be done for CT/PT wires. 9. CT secondary wiring to be properly dressed upto metering compartment. 10. The CT secondary S2 terminal to be looped and grounded at main earth busbar			
5.5	Power provision Supply for Modem	1. Provision of 2A fuse and neutral link needs to be provided to extend to supply to the modem. 2. Pocket provision (140Lx 85Hx 40D mm) to be made in metering compartment door for installing modem and a hole provision with rubber grommet to be made for connecting wires to outside antenna.			
6.0	NAME PLATE AND MARKING	6.1 Name plate- On front door top left side-showing 1) Purchaser name, PO number & SAP code 2) Manufacturer name 3) Month / year of manufacturing 4) 'Property of Tata Power			

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6.2 Separate metallic name plate with Tata Power Logo of Dimension 6*6 Inches in clear font as shown below.

Relationship between the two marks- size

The Tata and Tata Power Marks are always used in conjunction with each other, never appearing in isolation on Tata Power communication.

The height of the letter T of Tata (T-height) is the basic measure for all sizes and proportions.

The rounded measure 2T in height, is separated from the Tata lettering by a distance of 1/2T.

The T height of both, the Tata and the Tata Power Marks is to be the same, except in exceptional cases on approval from the Corporate Communications team.



Centre aligned - Stacked (Preferred)

Relationship between the two marks- positioning

The two marks can appear stacked, which is the preferred placement, or linear, by the side of one another.



- 1) Marking for panel earth stud- Black letter 'E', on riveted Al label
- 2) Danger board in English & local language, riveted on doors- White colour background with Red lettering on 1.6mm thick Al plate.
- 3) Surface preparation for painting- Sand blasting or 7 tank processes.
- 4) Painting - Power coated grade A polyester paint with min thickness 120 micron.
- 5) SLD shall be engraved & pasted on inside of door.
- 6) Panel serial number to be provided.




7.0 TESTS


TESTING & INSPECTION Requirement: -



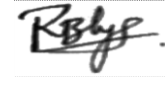
7.1 Prototype to be offered for inspection and based on the observations rest of the order may be executed. Only type tested components – Switch, Fuses, Insulators & aluminium bus bar shall be accepted.

7.2 Type Test: - Following Tests should be carried out as per **IS/IEC 60947-3 : 2020** as per clause no. 9.1.2 The verification of,

- a) Constructional Requirements
- b) Temperature rise Test
- c) Dielectric properties
- d) Making & Breaking capacity & short circuit Test
- e) Operating Limits
- f) Operational performance
- g) Degree of protection of enclosed equipment




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		<p>7.3 Routine test/acceptance test - (Inspection test witness by purchaser)</p> <ol style="list-style-type: none"> 1) Visual inspection, dimension checks & paint thickness check. 2) Bill of material check 3) Insulation resistance test/ Dielectric Test 4) High voltage test 5) Operational check/Functional Check <p>7.4 Tolerances on panel dimensions- Maximum +/- 5mm</p> <p>7.5 No negative tolerance on bus bar dimensions & bus bar clearances</p> <p>7.6 Prototype panel to be approved by Tata Power for new vendors.</p>			
8.0	TYPE TEST CERTIFICATES	<ol style="list-style-type: none"> 1. The Bidder shall furnish the type test certificates of SFUs for the tests as mentioned above as per the corresponding standards. All the tests shall be conducted at CPRI / ERDA / NABL as per the relevant standards. Type test should have been conducted in certified Test Laboratories during the period not exceeding 10 years from the date of opening the bid. In case if type test conducted beyond 10 years then bidder to certify on letter head of parent OEM that no design change & no manufacturing plant change occurred from type tested product. 2. In the event of any discrepancy in the test reports i.e. any test report not acceptable or any/all type tests (including additional type tests, if any) not carried out, same shall be carried out without any cost implication to TATA POWER COMPANY. 			
9.0	PRE-DESPATCH INSPECTION	<ol style="list-style-type: none"> 1. The Material shall be subject to inspection by a duly authorized representative of the TATA POWER COMPANY. Inspection may be made at any stage of manufacture at the discretion of the Purchaser and the equipment, if found unsatisfactory as to workmanship or material, the same is liable to rejection. Bidder shall always grant free access to the places of manufacture to TATA POWER COMPANY's representatives when the work is in progress. Inspection by the TATA POWER COMPANY or its authorized representatives shall not relieve the Bidder of his obligation of furnishing equipment in accordance with the specifications. TATA POWER COMPANY authorized representatives shall have the right to inspect the design, materials and workmanship and to report thereon, at any stage of manufacture, if found necessary. All facilities shall be extended to our representatives for witnessing the tests. Due notice shall be given to us to enable us to depute our representatives for stage inspection. 2. Material shall be dispatched after specific MDCC (Material Dispatch Clearance Certificate) is issued by TATA POWER COMPANY. 3. Following documents shall be sent along with material <ol style="list-style-type: none"> a) Test reports b) MDCC issued by TATA POWER COMPANY c) Invoice in duplicate d) Packing list e) Drawings & catalogue f) Guarantee / Warrantee card g) Delivery Challan h) Other Documents (as applicable). 			

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10.0	INSPECTION AFTER RECEIPT AT STORE	The material received at store will be inspected for acceptance and shall be liable for differences from the reports of the pre-dispatch inspection and one copy of the report shall be sent to TATA POWER COMPANY.
11.0	GUARANTEE	<p>Bidder shall stand guarantee towards design, materials, workmanship & quality of process / manufacturing of items under this contract for due and intended performance of the same, as an integrated product delivered under this contract. In the event any defect is found by the TATA POWER COMPANY up to a period of at least 12 months from the date of commissioning or 24 months from the date of last supplies made under the contract whichever is later, (the time scale of 12/24 months could be enhanced subject to mutual agreements) Bidder shall be liable to undertake to replace/rectify such defects at its own costs, within mutually agreed time frame, and to the entire satisfaction of the Purchaser, failing which the TATA POWER COMPANY will be at liberty to get it replaced/rectified at Bidder's risks and costs and recover all such expenses plus the Purchaser's own charges (@ 20% of expenses incurred), from the Bidder or from the "Security cum Performance Deposit" as the case may be.</p> <p>Bidder shall further be responsible for 'free replacement' for another period of THREE years from the end of the guarantee period for any 'Latent Defects' if noticed and reported by the Purchaser.</p>
12.0	PACKING	<ol style="list-style-type: none"> 1) Packing protection- Against shocks, vibration & corrosion, damages during transportation 2) Packing identification labels, to show purchaser name, PO number, quantity of panels, Panel type, Manufacturer serial number 3) Handling instruction- To be marked on packing boxes. 4) Bidders should prefer to use recyclable & environmentally friendly materials for packing. 5) No single use plastic to be used.
13.0	TENDER SAMPLE	NA
NA	QUALITY CONTROL	<ol style="list-style-type: none"> 1. The Bidder shall submit with the offer Quality assurance plan indicating the various stages of inspection, the tests and checks which will be carried out on the material of construction, components during manufacture and bought out items and fully assembled component and equipment after finishing. As part of the plan, a schedule for stage and final inspection within the parameters of the delivery schedule shall be furnished. TATA POWER COMPANY shall reserve the sole rights for the type test of a random sample from the lot and in case of any discrepancy or deviation from the Type test certificates submitted along with the Bid; the complete Lot shall be rejected. 2. TATA POWER COMPANY representative or its nominated representative shall have free access to the Bidder's works to carry out inspections.
15.0	MINIMUM TESTING FACILITIES	Bidder shall have adequate in-house testing facilities for carrying out all routine tests & acceptance tests as per relevant International / Indian standards.
16.0	MANUFACTURING ACTIVITIES	The successful bidder will have to submit first GTP & Drawing with 7 days from placement of outline agreement for approval and complete the approval process within 14 days of outline agreement. The date of Code -2/ Code-1 approval given by TATA Power will be treated as first day for assessment of LD (if applicable).

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17.0	SPARES, ACCESSORIES ND TOOLS	NA
18.0	DRAWINGS AND DOCUMENTS	<ol style="list-style-type: none"> 1. Following drawings and documents shall be prepared based on TATA POWER COMPANY specifications and statutory requirements and shall be submitted with the bid: <ol style="list-style-type: none"> a) Filled in Technical Particulars b) General description of the equipment and all components including brochures. c) General arrangement drawing. d) Bill of material e) Experience List f) Type test certificates 2. After the award of the contract copies of drawings, drawn to scale, describing the equipment in detail shall be forwarded for approval 3. All the documents & drawings shall be in English language.
19.0	GUARANTEED TECHNICAL PARTICULARS	Bidders to comply for all above requirement of specifications clauses & submit signed and stamp copy as technical compliance document.

20.0 SCHEDULE OF DEVIATIONS

(TO BE ENCLOSED WITH THE BID)

All deviations from this specification shall be set out by the Bidders, clause by Clause in this schedule. Unless specifically mentioned in this Schedule, the tender shall be deemed to confirm the purchaser's specifications:




Sr. No.	Clause No.	Details of deviation with justifications


We confirm that there are no deviations apart from those detailed above.

Seal of the Company:

Signature

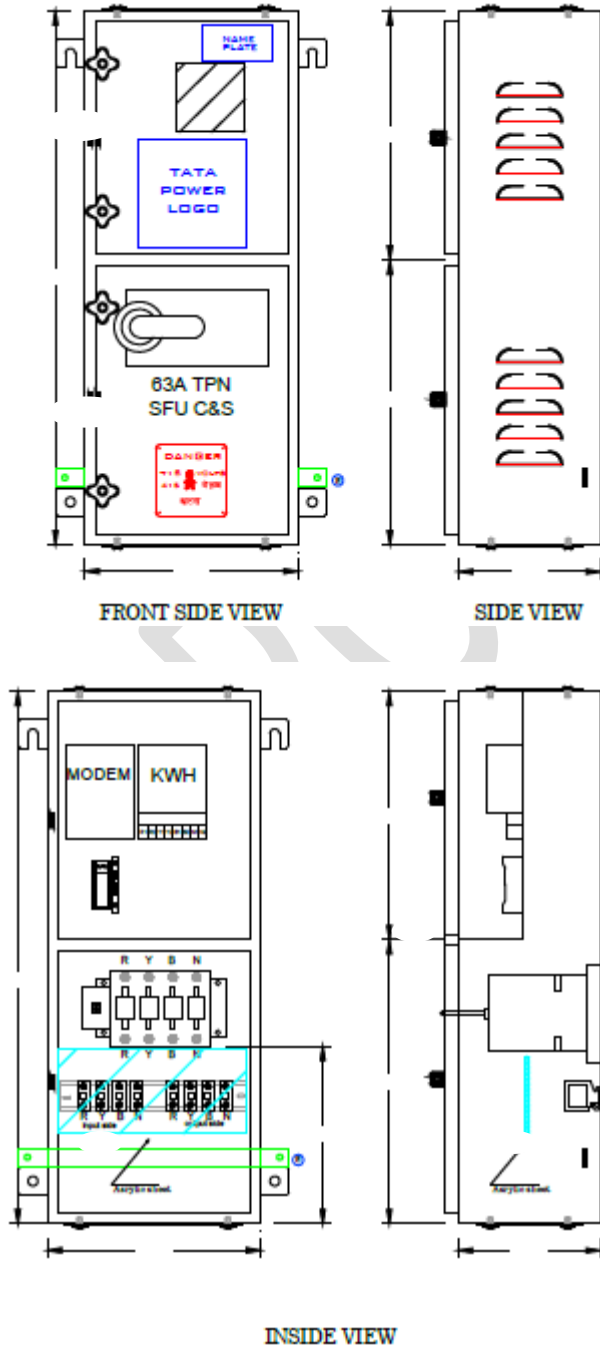
Designation



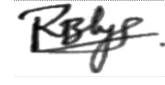
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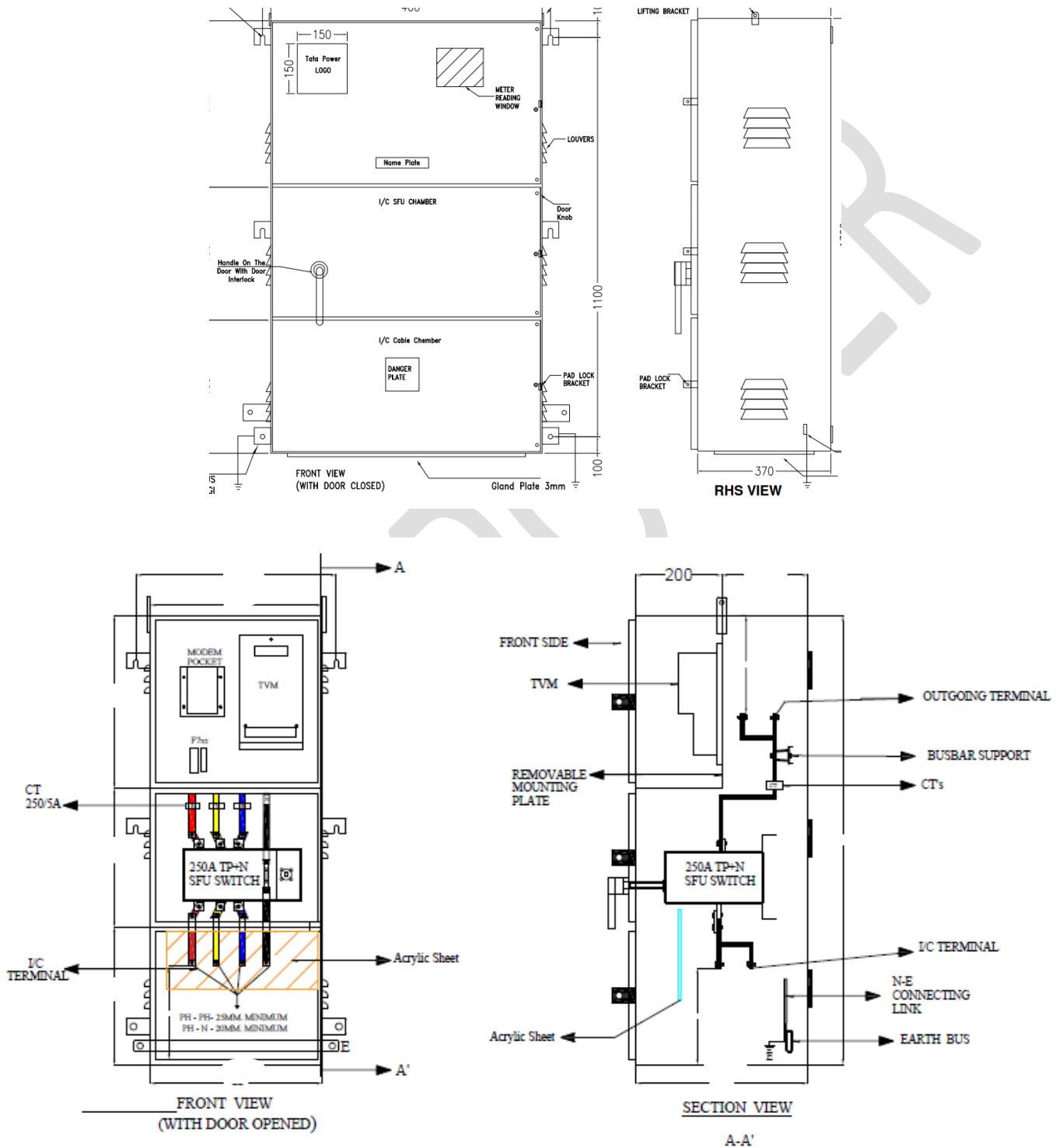
ANNEXURE I - Reference Drawings

A. 63A SFU



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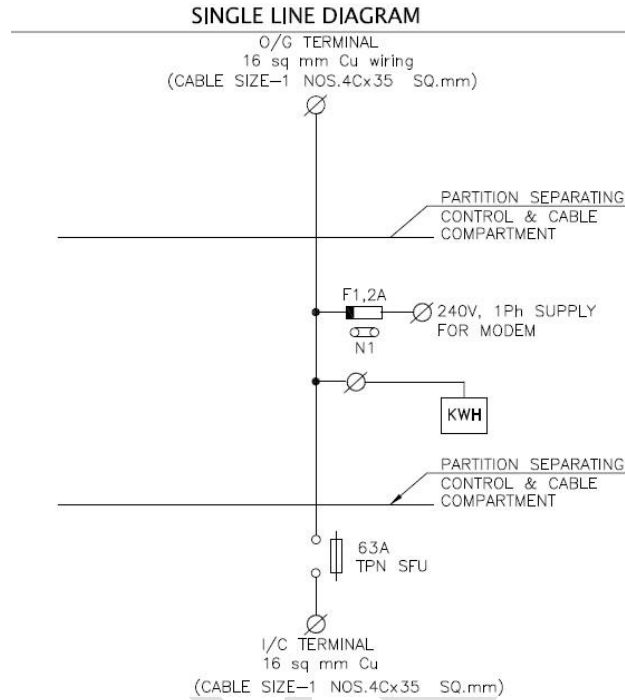
B. 100A/125A/160/200A/250A/400A/630A/800A SFU



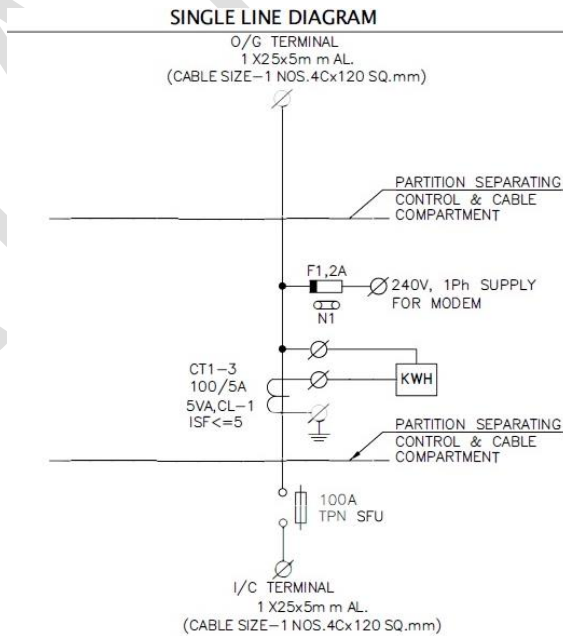
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ANNEXURE II - Reference SLD's


A. 63A SFU



B. 100A/125A/160/200A/250A/400A/630A/800A SFU SLD Reference:






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ANNEXURE III: Inspection testing plan

1. Visual inspection, dimension checks & paint thickness check.
2. Bill of material check
3. Insulation resistance test/ Dielectric Test
4. High voltage test
5. Operational check/Functional Check

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TECHNICAL SPECIFICATION




Switch Changeover Metering Panel without CT (Rating- 125A, 250A, 400A, 630A)

The Tata Power Company Ltd.
Engineering Services (ENSE),
Distribution Division, Senapati Bapat Marg,
Lower Parel, Mumbai – 400013 Maharashtra

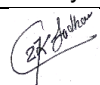


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ENSE-DS-2027-R00		Date of Issue: 02/01/2024

Document No: ENSE-DS-2027-R00

Document Title: Technical specifications for Switch Changeover Metering Panel without CT

00	For tender purpose (ENSE-DS-2027-R00)	20/11/23	KSJ		AVP		RMB	
R6	D-NPCE-SPEC-22	12/00/22	Soumya Sidhamwar	-SD-	Vikas Koul	-SD-	S B Modak	-SD-
R5	D-NPCE-SPEC-14	05/06/20	AS	-SD-			RK	-SD-
R4	D-NPCE-SPEC-14	16/04/20	AS	-SD-			NCP	-SD-
R3	D-NPCE-SPEC-14	23/5/19	ND	-SD-			NCP	-SD-
R2	D-NPCE-SPEC-14	3/11/18	ND	-SD-			NCP	-SD-
R1	D-NPCE-SPEC-14	14/11/16	ND	-SD-			CKC	-SD-
R0	D-NPCE-SPEC-14	25/06/16	AP	-SD-			CKC	-SD-
Rev No.	Remarks	Date	Initials	Sign	Initials	Sign	Initials	Sign
			Prepared By		Checked By		Approved and Issued By	

The Tata Power Company Ltd.
Engineering Services (ENSE),
Distribution Division, Senapati Bapat Marg,
Lower Parel, Mumbai – 400013 Maharashtra




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- 3.0 CLIMATIC CONDITIONS OF THE INSTALLATION
- 4.0 GENERAL TECHNICAL REQUIREMENTS
- 5.0 GENERAL CONSTRUCTIONS
- 6.0 NAME PLATE AND MARKING
- 7.0 TESTS
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ANNEXURE: I II & III

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1	SCOPE	<ol style="list-style-type: none"> This specification covers design, engineering, manufacture; shop testing, inspection, painting, packing, and supply of 415V Switch Fuse Unit metering panel complete with all accessories for efficient and trouble-free operation of the distribution network for Tata Power Company Limited at Mumbai. It is not our intent to specify completely herein all details of design and construction of the equipment. However, the equipment shall conform in all respects to high standards of Engineering design and workmanship and shall can perform in a manner acceptable to the PURCHASER (TPC) who will interpret the meaning of drawings and specification and shall be entitled to reject any work or material which in his judgement is not in full accordance therewith. All the bought-out items shall be of reputed make and shall be subject to approval by the PURCHASER (TPC) after award of contract. All SUBVENDOR/SUBCONTRACTOR list shall also be subject to approval by the PURCHASER (TPC) after award of contract. 																																	
2	APPLICABLE STANDARDS	<p>The Switch changeover metering panel shall comply with the requirements stated in the latest editions of the following recommendations, standard and specifications:</p> <table border="1" data-bbox="391 831 1523 1314"> <thead> <tr> <th>Title</th> <th>Indian standard</th> </tr> </thead> <tbody> <tr> <td>IS 13703</td> <td>Low Voltage HRC Fuses.</td> </tr> <tr> <td>IS 12063</td> <td>Classification of degrees of protection provided by Enclosures of Electrical equipment.</td> </tr> <tr> <td>IS 5082</td> <td>Wrought Aluminium & Al alloy plates & sheets for Electrical application.</td> </tr> <tr> <td>IEC 60529 -1989</td> <td>Degree of Protection provided by Enclosures</td> </tr> <tr> <td>IS 2551 - 1982</td> <td>Danger Notice Plates</td> </tr> <tr> <td>IS/IEC 60947-3 : 2020</td> <td>Low-voltage switchgear and control gear part 3 switches, disconnectors, switch-disconnectors and fuse-combination units</td> </tr> <tr> <td>IS 5</td> <td>Colors for Ready Mixed Paints and Enamels</td> </tr> </tbody> </table>	Title	Indian standard	IS 13703	Low Voltage HRC Fuses.	IS 12063	Classification of degrees of protection provided by Enclosures of Electrical equipment.	IS 5082	Wrought Aluminium & Al alloy plates & sheets for Electrical application.	IEC 60529 -1989	Degree of Protection provided by Enclosures	IS 2551 - 1982	Danger Notice Plates	IS/IEC 60947-3 : 2020	Low-voltage switchgear and control gear part 3 switches, disconnectors, switch-disconnectors and fuse-combination units	IS 5	Colors for Ready Mixed Paints and Enamels																	
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3	CLIMATIC CONDITIONS OF THE INSTALLATION	<table border="1" data-bbox="415 1352 1386 1780"> <tbody> <tr><td>1</td><td>Maximum ambient temperature</td><td>43 deg.C</td></tr> <tr><td>2</td><td>Max. Daily average ambient temp</td><td>35 deg.C</td></tr> <tr><td>3</td><td>Min Ambient Temperature</td><td>07 deg.C</td></tr> <tr><td>4</td><td>Maximum Relative Humidity</td><td>100%</td></tr> <tr><td>5</td><td>Minimum Relative Humidity</td><td>40%</td></tr> <tr><td>6</td><td>Average No. of thunderstorm per annum</td><td>50</td></tr> <tr><td>7</td><td>Average Annual Rainfall</td><td>2380mm</td></tr> <tr><td>8</td><td>Average No. of rainy days per annum</td><td>115</td></tr> <tr><td>9</td><td>Rainy months</td><td>June to Oct.</td></tr> <tr><td>10</td><td>Altitude above MSL not exceeding</td><td>300 meters</td></tr> <tr><td>11</td><td>Average Air Pressure</td><td>29.6-inch Hg</td></tr> </tbody> </table>	1	Maximum ambient temperature	43 deg.C	2	Max. Daily average ambient temp	35 deg.C	3	Min Ambient Temperature	07 deg.C	4	Maximum Relative Humidity	100%	5	Minimum Relative Humidity	40%	6	Average No. of thunderstorm per annum	50	7	Average Annual Rainfall	2380mm	8	Average No. of rainy days per annum	115	9	Rainy months	June to Oct.	10	Altitude above MSL not exceeding	300 meters	11	Average Air Pressure	29.6-inch Hg
1	Maximum ambient temperature	43 deg.C																																	
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The atmosphere is generally laden with mild acid and dust in suspension during the dry months and is subjected to fog in cold months. The design of equipment and accessories shall be suitable to withstand seismic forces corresponding to an acceleration of 0.3 g.
For Mumbai the atmosphere is mainly humid across year.




4	General Technical requirements					
		125A SFU	250A SFU	400A SFU	630A SFU	Vendor to be provided
	Vendor Address and contact details					
A	Ratings					
1	Ampere	125A	250A	400A	630A	
2	Primary Voltage ($\pm 10\%$)	415 V				
3	Phase	3 phases				
4	Frequency (Hz)	50Hz				
5	Ambient Temp.	50°C				
6	Total Temp rise on full load	90 Degree				
7	Application	Outdoor / Indoor				
8	Short Circuit Withstand Current	50kA				
B	Enclosure					
1	Overall preferred Dimensions L x W x H (mm)	470 X 400 X 1300 mm	570X 500 X 1300 mm	620 X500 X 1500 mm	620 X 500 X 1500 mm	
2	Gauge and material	16 Gauge M.S Sheet				
3	Thickness of pleat	1.6 mm				
4	Thickness of Gland Plate	3mm				
4	Colour of Body	International Orange shade No 592 of IS-5				
5	Protection grade of enclosure	IP54				
6	SLD inside of door	SLD shall be pasted on inside part of door				
7	1 ph supply provision to Modem	To be provided in metering panel				
C	Bus Bar Size					
1	Phase Material Aluminium	1 X 25 X 6 mm	1 X 30 X 10 mm	1 X 50 X 10 mm	1 X 40 X 20 mm	
2	Neutral Material Aluminium	1 X 25 X 6 mm	1 X 30 X 10 mm	1 X 50 X 10 mm	1 X 40 X 20 mm	
3	Earth Material GI	1 X 25 X 6 mm	1 X 25 X 6 mm	1 X 50 X 6 mm	1 X 50 X 6 mm	
4	Removable acrylic insulation barrier sheet over both incoming busbars.	To be provided				
D	Fuse Detail					
1	Make	Schneider/ L&T/ Siemens/ GE Power Controls/ HPL/ Havells/ Jean Muller / Bussman.				
2	Knife Type	To be provided				
3	Pull out arrangement	With Fuse Puller				
4	Rating	125A	250A	400A	630A	

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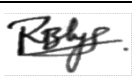
5	Type	HRC			
6	Fast acting gG fuse	To be provided			
E	CT Detail	(CT to be supplied by TATA POWER and installed by OEM)			
1	Ratio	125/5A	250/5A	400/5A	630/5 A
2	VA rating	5 VA	5 VA	10 VA	10 VA
3	Type	Resin cast			
4	CT secondary wiring with colour coded	4 Sq. mm Copper			
5	PT secondary wiring with colour coded	2.5 Sq. mm Copper			
6	Accuracy class	Class 0.5, 05VA, ISF <=5	Class 0.5, 10VA, ISF <=5	Class 0.5, 10VA, ISF <=5	Class 0.5, 10VA, ISF <=5
F	Cable size (For Reference)	1 Nos. 120 Sq. mm	1 Nos. 300 Sq. mm/ 2 no 185 sqmm	1 Nos. 300 Sq. mm/ 2 no.s 185 smm	2 Nos. 300 Sq. mm
1	Incoming Cable entry	From Bottom			
2	Outgoing Cable entry	From Top			
G	Changeover Switch				
1	Make	L&T, ABB, HPL, Havells, Siemens			
2	Rating	125A	250A	400A	630A
3	Type	Manual Type			
4	Pole	FP			
5	Voltage rating ($\pm 10\%$)	415 V			
F	Change over switch with phase barrier	To be provided			
G	Guarantee Period	12 months from the date of commissioning or 24 months from the date of last supplies made under the contract whichever is later			

5	GENERAL CONSTRUCTION	
5.1	Panel Metal Box	<ol style="list-style-type: none"> 1. The Metering panel shall be Metal enclosed with access from Front side. 2. The Metering panel shall be of Dust & Vermin proof construction having IP 54 protection and adequate louvers for cooling. There should be wire mesh inside louvers with check-nut arrangement. 3. Incoming Cable entry facilities at bottom of panel and removable gland plates of size suitable to accommodate incoming cables with desired cable sizes. 4. Outgoing Cable entry facilities at top of panel and removable gland plates of size suitable to accommodate outgoing cables with desired cable sizes. 5. Phase barriers should provide for change over switch. 6. Padlock arrangement be provided for change over switch operating handle. 7. There will be two door arrangement in Top side of Metering panel. One MS sheet openable door with hinge arrangement to be provided in between Meter and Outgoing

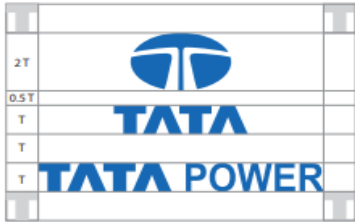

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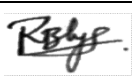
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		<p>busbar and second door to be provided above meter & control panel with locking arrangement.</p> <p>8. I/C cable connection & O/G cable connection will be done on busbars. Hole size needs to be mentioned considering cable lug palm & hole position.</p> <p>9. Removable acrylic insulation barrier sheet to be provided over both incoming busbars.</p>
5.2	Bus Bar	<ol style="list-style-type: none"> 1. Busbars shall be made of Electrical Grade Aluminium alloy and of suitable size to withstand the specified circuit rating. 2. The busbars will be supported with epoxy insulators and insulated with colour code sleeves. 3. Voltage tapping to be taken from busbar and not from changeover switch. 4. Minimum 20mm clearance to be maintained between CT and phase. 5. Size of hole as 12.5mm for cable lug termination for all at Termination. 6. Phase arrangement to be RYBN (from Left to Right) 7. Bus-bar arrangement should be staggered type for both incoming and outgoing cable termination. 8. Busbar aluminium current density should be less than 1A/sqmm. 9. Neutral busbar to be connected to with earth busbar via disconnecting link. Link size should be same as neutral busbar.
5.3	Metering compartment	<ol style="list-style-type: none"> 1. Adequate space for mounting TVM should be provided in compartment with suitable window with "Transparent Toughened Glass" shall be provided to view TVM readings from outside the compartment (without opening the door). The glass window to be aligned with meter display. Smart meter to get accommodated in the same space. 2. Provision to be provided for mounting the energy meter with max dimensions as L x B x D: 360 x 200 x 200 mm (Energy meter will be supplied by TPC). 3. Colour coded wires for the same to be provided. 4. Wiring provision to be made for MODEM through 2A fuse with holders and ferruling and length of wire should be sufficient to avoid loose connection. 5. Mounting plate to be provided for fixing of Meter & fuses. 6. Metering compartment should be separate from busbar compartment.
5.4	CT Details	<ol style="list-style-type: none"> 1. CT's will be provided by Tata power. All venders should collect CTs from Tata Power store and CTs to be mounted on panel as per approved GA drawing. 2. Transportation cost for collecting Tested CTs from TATA POWER warehouse is in OEM scope. 3. CT installation on busbar should ensure the manufacturing details are visible and same needs to be mentioned on metering & CT compartment door. The secondary terminal should be clearly visible and accessible for checking tightness. 4. Paper sticker to be pasted in CT compartment door mentioning CT Make, CT Serial no, phase, accuracy class & burden. 5. Minimum clearance between phase to phase CT is 20mm & between phase CT & Enclosure is 20mm. 6. Colour coded wires to be provided from CT Secondary to TVM Slot. CT secondary (S2 terminal) should be grounded. 7. Colour coded wires to be provided from Busbar to TVM Slot. 8. Ferruling to be done for CT/PT wires.

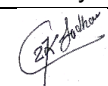

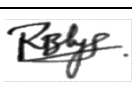
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		9. CT secondary wiring to be properly dressed upto metering compartment. 10. The CT secondary S2 terminal to be looped and grounded at main earth busbar.
5.5	Power provision Supply for Modem	1. Provision of 2A fuse and neutral link needs to be provided to extend to supply to the modem. 2. Pocket provision (140Lx 85Hx 40D mm) to be made in metering compartment door for installing modem and a hole provision with rubber grommet to be made for connecting wires to outside antenna.
6.0	NAME PLATE AND MARKING	<p>6.1 Name plate- On front door top left side-showing</p> <ol style="list-style-type: none"> 1) Purchaser name, PO number & SAP code 2) Manufacturer name 3) Month / year of manufacturing 4) 'Property of Tata Power' <p>6.2 Separate metallic name plate with Tata Power Logo of Dimension 6*6 Inches in clear font as shown below.</p> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div data-bbox="516 814 857 1260" style="width: 60%;"> <p>Relationship between the two marks- size</p> <p>The Tata and Tata Power Marks are always used in conjunction with each other, never appearing in isolation on Tata Power communication.</p> <p>The height of the letter T of Tata (T-height) is the basic measure for all sizes and proportions.</p> <p>The rounded measure 2T in height, is separated from the Tata lettering by a distance of 1/2T.</p> <p>The T height of both, the Tata and the Tata Power Marks is to be the same, except in exceptional cases on approval from the Corporate Communications team.</p> </div> <div data-bbox="1068 821 1421 1041" style="width: 35%; text-align: center;">  </div> </div> <p style="text-align: right; margin-right: 20px;">Centre aligned - Stacked (Preferred)</p> <div style="display: flex; justify-content: center; align-items: center; margin-top: 20px;">  </div> <ol style="list-style-type: none"> 1) Marking for panel earth stud- Black letter 'E', on riveted AI label 2) Danger board in English & local language, riveted on doors- White colour background with Red lettering on 1.6mm thick AI plate. 3) Surface preparation for painting- Sand blasting or 7 tank processes. 4) Painting - Power coated grade A polyester paint with min thickness 120 micron. 5) SLD shall be engraved & pasted on inside of door. 6) Panel serial number to be provided.



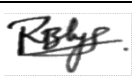
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7.0	TESTS	<p>TESTING & INSPECTION Requirement: -</p> <p>7.1 Prototype to be offered for inspection and based on the observations rest of the order may be executed. Only type tested components – Switch, Fuses, Insulators & aluminium bus bar shall be accepted.</p> <p>7.2 Type Test: - Following Tests should be carried out as per IS/IEC 60947-3 : 2020 as per clause no.9.1.2 The verification of,</p> <ol style="list-style-type: none"> Constructional Requirements Temperature rise Test Dielectric properties Making & Breaking capacity & short circuit Test Operating Limits Operational performance Degree of protection of enclosed equipment <p>7.3 Routine test- (Inspection test witness by purchaser)</p> <ol style="list-style-type: none"> Visual inspection, dimension checks & paint thickness check. Bill of material check Insulation resistance test/ Dielectric Test High voltage test Operational check/Functional Check <p>7.4 Tolerances on panel dimensions- Maximum +/- 5mm</p> <p>7.5 No negative tolerance on bus bar dimensions & bus bar clearances</p> <p>7.6 Prototype panel to be approved by Tata Power for new vendors.</p>
8.0	TYPE TEST CERTIFICATES	<ol style="list-style-type: none"> The Bidder shall furnish the type test certificates of SFUs for the tests as mentioned above as per the corresponding standards. All the tests shall be conducted at CPRI / ERDA / NABL as per the relevant standards. Type test should have been conducted in certified Test Laboratories during the period not exceeding 10 years from the date of opening the bid. In case if type test conducted beyond 10 years then bidder to certify on letter head of parent OEM that no design change & no manufacturing plant change occurred from type tested product. In the event of any discrepancy in the test reports i.e. any test report not acceptable or any/all type tests (including additional type tests, if any) not carried out, same shall be carried out without any cost implication to TATA POWER COMPANY.
9.0	PRE-DESPATCH INSPECTION	<ol style="list-style-type: none"> The Material shall be subject to inspection by a duly authorized representative of the TATA POWER COMPANY. Inspection may be made at any stage of manufacture at the discretion of the Purchaser and the equipment, if found unsatisfactory as to workmanship or material, the same is liable to rejection. Bidder shall always grant free access to the places of manufacture to TATA POWER COMPANY's representatives when the work is in progress. Inspection by the TATA POWER COMPANY or its authorized representatives shall not relieve the Bidder of his obligation of furnishing equipment in accordance with the specifications. TATA POWER COMPANY authorized representatives shall have the right to inspect the design, materials and workmanship and to report thereon, at any stage of manufacture, if found necessary. All facilities shall be extended to our representatives for witnessing the tests. Due notice shall be given to us to enable us to depute our representatives for stage inspection. Material shall be dispatched after specific MDCC (Material Dispatch Clearance Certificate) is issued by TATA POWER COMPANY.

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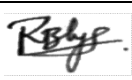
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		<p>3. Following documents shall be sent along with material</p> <ol style="list-style-type: none"> Test reports MDCC issued by TATA POWER COMPANY Invoice in duplicate Packing list Drawings & catalogue Guarantee / Warrantee card Delivery Challan Other Documents (as applicable).
10.0	INSPECTION AFTER RECEIPT AT STORE	<p>The material received at store will be inspected for acceptance and shall be liable for differences from the reports of the pre-dispatch inspection and one copy of the report shall be sent to TATA POWER COMPANY.</p>
11.0	GUARANTEE	<p>Bidder shall stand guarantee towards design, materials, workmanship & quality of process / manufacturing of items under this contract for due and intended performance of the same, as an integrated product delivered under this contract. In the event any defect is found by the TATA POWER COMPANY up to a period of at least 12 months from the date of commissioning or 24 months from the date of last supplies made under the contract whichever is later, (the time scale of 12/24 months could be enhanced subject to mutual agreements) Bidder shall be liable to undertake to replace/rectify such defects at its own costs, within mutually agreed time frame, and to the entire satisfaction of the Purchaser, failing which the TATA POWER COMPANY will be at liberty to get it replaced/rectified at Bidder's risks and costs and recover all such expenses plus the Purchaser's own charges (@ 20% of expenses incurred), from the Bidder or from the " Security cum Performance Deposit" as the case may be.</p> <p>Bidder shall further be responsible for 'free replacement' for another period of THREE years from the end of the guarantee period for any 'Latent Defects' if noticed and reported by the Purchaser.</p>
12.0	PACKING	<ol style="list-style-type: none"> Packing protection- Against shocks, vibration & corrosion, damages during transportation Packing identification labels, to show purchaser name, PO number, and quantity of panels, Panel type, and Manufacturer serial number. Handling instruction- To be marked on packing boxes. Bidders should prefer to use recyclable & environmentally friendly materials for packing. No single use plastic to be used.
13.0	TENDER SAMPLE	NA
14.0	QUALITY CONTROL	<ol style="list-style-type: none"> The Bidder shall submit with the offer Quality assurance plan indicating the various stages of inspection, the tests and checks which will be carried out on the material of construction, components during manufacture and bought out items and fully assembled component and equipment after finishing. As part of the plan, a schedule for stage and final inspection within the parameters of the delivery schedule shall be furnished. TATA POWER COMPANY shall reserve the sole rights for the type test of a random sample from the lot and in case of any discrepancy or deviation from the Type test certificates submitted along with the Bid; the complete Lot shall be rejected.

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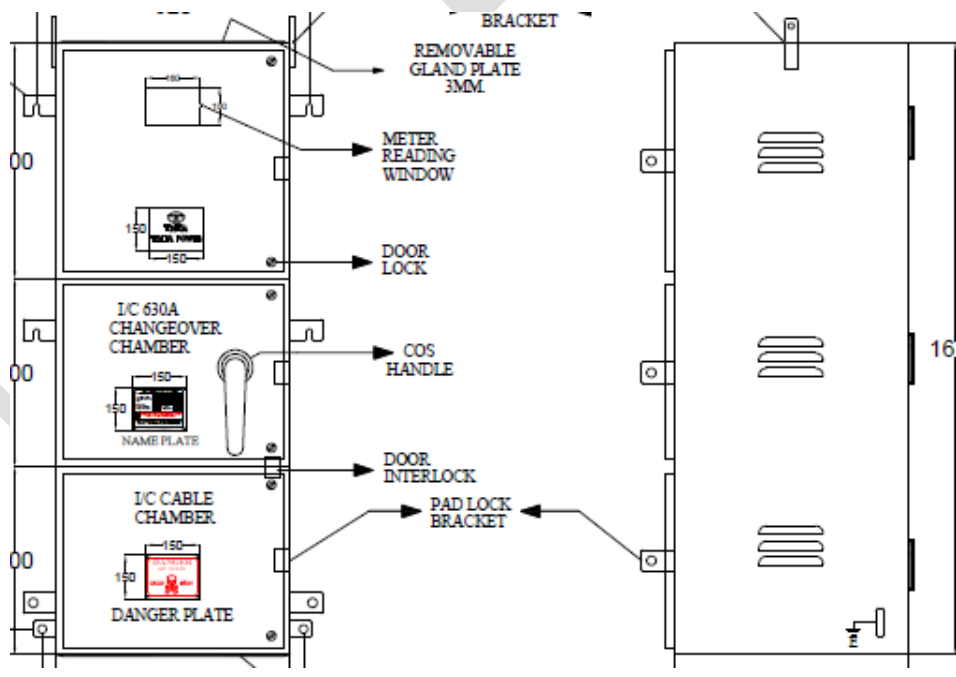
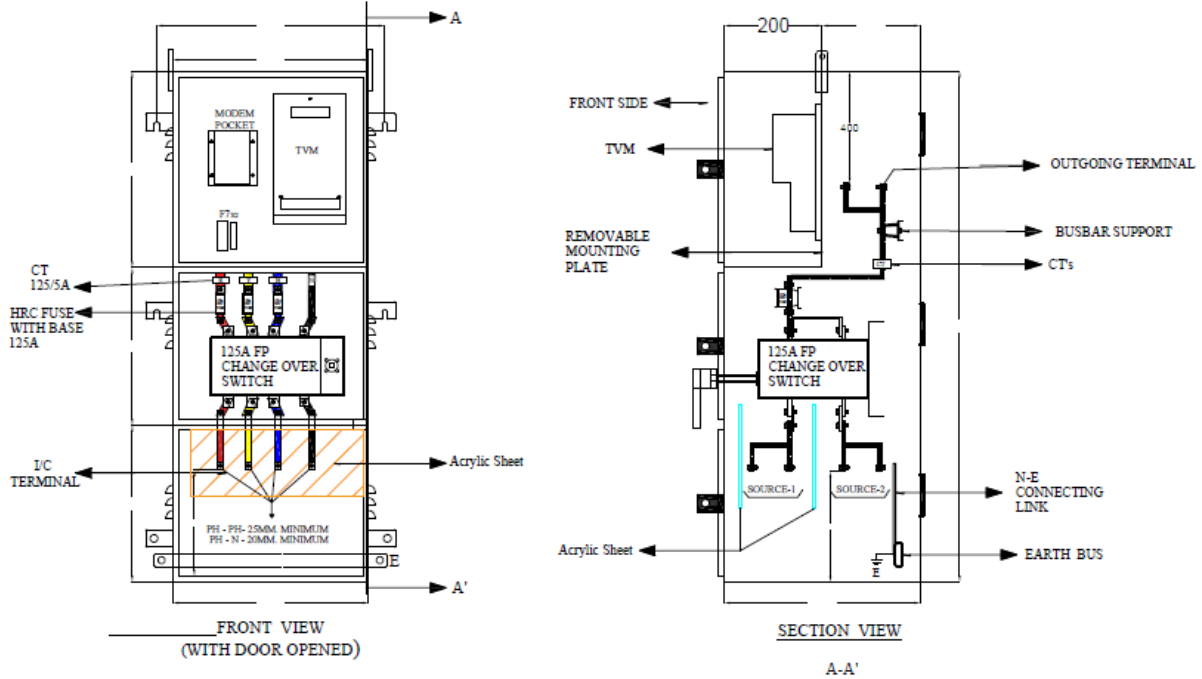
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		2. TATA POWER COMPANY representative or its nominated representative shall have free access to the Bidder's works to carry out inspections.						
15.0	MINIMUM TESTING FACILITIES	Bidder shall have adequate in-house testing facilities for carrying out all routine tests & acceptance tests as per relevant International / Indian standards.						
16.0	MANUFACTURING ACTIVITIES	The successful bidder will have to submit first GTP & Drawing with 7 days from placement of outline agreement for approval and complete the approval process within 14 days of outline agreement. The date of Code -2/ Code-1 approval given by TATA Power will be treated as first day for assessment of LD (if applicable).						
17.0	SPARES, ACCESSORIES AND TOOLS	NA						
18.0	DRAWINGS AND DOCUMENTS	<ol style="list-style-type: none"> Following drawings and documents shall be prepared based on TATA POWER COMPANY specifications and statutory requirements and shall be submitted with the bid: <ol style="list-style-type: none"> Filled in Technical Particulars General description of the equipment and all components including brochures. General arrangement drawing. Bill of material Experience List Type test certificates After the award of the contract copies of drawings, drawn to scale, describing the equipment in detail shall be forwarded for approval All the documents & drawings shall be in English language. 						
19.0	GUARANTEED TECHNICAL PARTICULARS	Bidders to comply for all above requirement of specifications clauses & submit signed and stamp copy as technical compliance document.						
20.0	SCHEDULE OF DEVIATIONS							
<p style="text-align: center;"><u>(TO BE ENCLOSED WITH THE BID)</u></p> <p>All deviations from this specification shall be set out by the Bidders, clause by Clause in this schedule. Unless specifically mentioned in this Schedule, the tender shall be deemed to confirm the purchaser's specifications:</p> <table border="1" data-bbox="224 1444 1533 1577"> <thead> <tr> <th data-bbox="224 1444 375 1478">Sr. No.</th> <th data-bbox="375 1444 646 1478">Clause No.</th> <th data-bbox="646 1444 1533 1478">Details of deviation with justifications</th> </tr> </thead> <tbody> <tr> <td data-bbox="224 1478 375 1577"></td> <td data-bbox="375 1478 646 1577"></td> <td data-bbox="646 1478 1533 1577"></td> </tr> </tbody> </table> <p>We confirm that there are no deviations apart from those detailed above.</p> <p>Seal of the Company: _____</p> <p style="text-align: right;">Signature _____ Designation _____</p>			Sr. No.	Clause No.	Details of deviation with justifications			
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ANNEXURE I - Reference Drawings

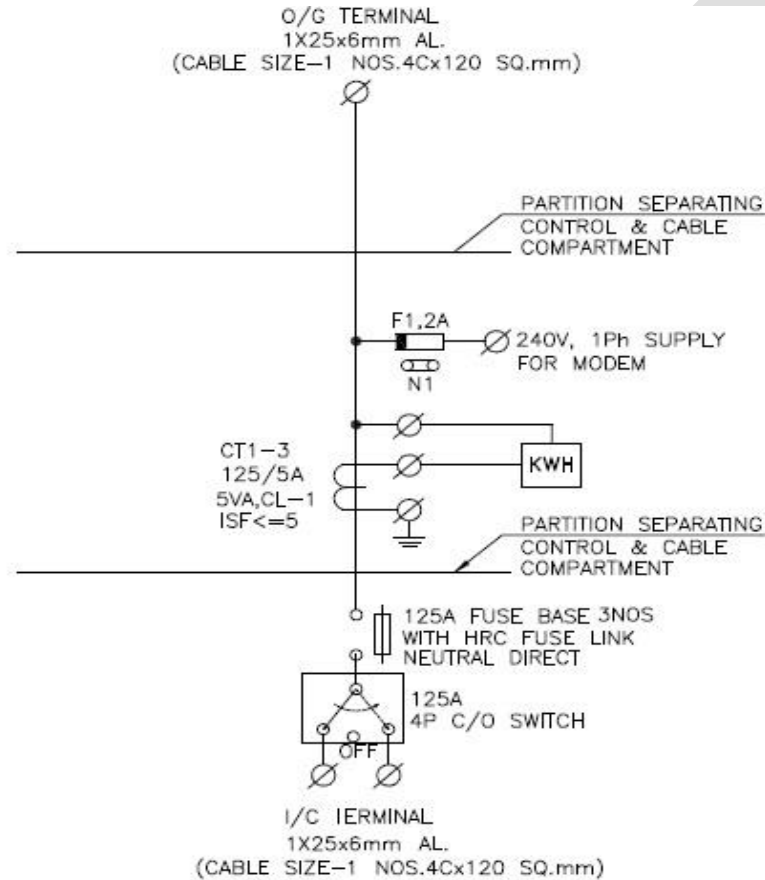
125/250/400/630A SFU Changeover panel



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ANNEXURE II: Reference SLD

125/250/400/630A SFU Changeover panel






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ANNEXURE III: Inspection testing plan

1. Visual inspection, dimension checks & paint thickness check.
2. Bill of material check
3. Insulation resistance test/ Dielectric Test
4. High voltage test
5. Operational check/Functional Check



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