

CENTRALIZED CONTRACTS GROUP**NIT No.: TPCODL / CCG / 2024-25 / 1000000892 Dated. 02.08.2024****Corrigendum- II****NIT No. : TPCODL / CCG / 2024-25 / 1000000892 Dated. 02.08.2024****Rate Contract – SITC of Transformer Monitoring Unit for TP Odisha Discoms****Dated 08th October 2024****1.2 Scope of Work:**

Bids are invited from interested Bidders to award Rate Contract (RC) for SITC of Transformer Monitoring Unit for TP Odisha Discoms for Two years as mentioned below:

S. No	Capacity	UOM	TPNODL	TPCODL	Grand Total
1	SITC of Transformer Monitoring Unit	EA	50	100	150

1.4 Calendar of Events:

(b)	Date by which Interested and Eligible Bidder to pay Tender Fee and confirm participation as mentioned in “Procedure to Participate in Tender”	21-10-2024 [15:00 hrs]
(e)	Due date and time of receipt of Bids	25-10-2024 [15:00 hrs]
(f)	Date & Time of opening technical bids	25-10-2024 [16:00 hrs]
(g)	Date & Time of opening of Price of qualified bids	To be notified to the successful bidders

Note: In the event of last date specified for submission of bids and date of opening of bids is declared as a closed holiday for TP Discom’s office, the last date of submission of bids and date of opening of bids will be the day following working day at appointed times.

2.0 Pre- Qualification Criteria

Sl No	Parameter	Owner Requirement	Documents to be submitted by Bidder
A	Technical Pre-Qualification Requirements for Meter manufacturer (OEM)		
1	Manufacturing Facility	The bidder should have own manufacturing facility to manufacture TMU / Relays of same or higher rating and in-house facilities for acceptance tests as per technical specifications. In the case bidder being Authorized Channel Partner, they shall submit the certificate from OEM regarding the same.	Bidder undertaking / OEM certificate should submit in this regard

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2	Type test Report	The bidder should have valid Type Test Report (TTR). All the type test reports, required as per Technical Specifications validity shall as per latest CEA guidelines.	Bidder must submit valid type test report in this regard
3	Performance	Bidder shall submit two nos. performance certificate of similar items during last 05 years from any reputed Discom / PSUs / Reputed Companies. In case the bidder has got previous association with any Tata Power Discom - TPCODL / TPNODL / TPWODL / TPSODL etc. for supply of similar product, performance feedback (w.r.t. both quality & past delivery) of the same will be solely considered irrespective of the performance certificate issued by bidder's other customers- Performance certificate and contact details of client's needs to be submitted.	Performance certificate and contact details of client's needs to be submitted
B	Financial Pre-Qualification Requirements		
1	Commercial Capability	The bidder should have Average Annual turnover of at least Rs. 10.00 Cr. for any of last 3 Financial Year (FY) out of FY 19-20, FY 20-21, FY 21-22, FY 22-23 & FY 23-24. Qualification Requirement of Financial Turnover for MSME registered in the State of Odisha shall be reduced to 20% of the existing criteria	Copy of audited P&L Account (with UDIN no.) to be submitted in this regard
2	Experience	Experience – The bidder should have at least 05 years of experience in design, manufacturing & Supply of TMU for electricity transmission & Distribution application. a. A minimum order of 50% of tender qty. during last 5 years Or, b. A single order of 25% of tender qty. nos. in last 5 years Or, c. Two orders of 15% of tender qty. in each, in last 5 years. Order copies to be submitted in this regard.	Undertaking for year of experience. PO / WO needs to be submitted.
3	Statutory Compliances	The bidder must have valid GST registration & valid PAN Card	Copy of GST Certificate & PAN Card to be submitted in this regard

The bidder may fulfill the above criteria either through the channel partner or in collaboration with the Original Equipment Manufacturer (OEM). In such cases, the bidder must submit a letter of authorization from the OEM confirming the partnership. Additionally, the OEM's experience and credentials will be considered for meeting the qualification criteria, provided that the bidder and OEM agree to jointly take responsibility for fulfilling all obligations under the contract. This is to be submitted through MAF.

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- The bids will be evaluated technically and on qualifying criteria of tender terms and conditions.
- The bids will be evaluated commercially on the **Overall BOQ basis** as calculated in Schedule of Items [Annexure I].

4.0 Price Basis: The Prices shall remain FIRM.

14.1 Special Conditions of Contract

1. After finalization of the tender, Rate Contract shall be issued to the successful bidder with a validity period of Two Year. Within the validity of the rate contract and as per requirement of material, release order shall be issued from time to time.
2. **Performance Bank Guarantee:** PBG of 5% of RC value shall be submitted within 21 days of issuance of RC. PBG submitted, shall be released after completion of applicable guarantee period plus one month. Performance Bank Guarantee for MSME registered in the State of Odisha shall be 25% of the value normally prescribed.
3. **GTP & Drawing:** BA shall submit GTP/ Drawing within 15 days from issuance of rate contract. If drawing is not approved by competent authority due to document shortfall or any changes are suggested, vendor has to resubmit new drawing / GTP / documents within 03 days of such intimation. In case BA does not get necessary approvals for issuance of manufacturing clearances /CAT-A within mentioned /mutually agreed timelines, then CCG/other TP Odisha Discoms reserve the right to cancel issued rate contract / release order and also reserve the right to forfeit EMD/PBG.
4. **Guarantee Period:** 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 found within a period of 60 months from the date of handing over (after successful commissioning), Bidder shall be liable to replace/rectify such defects at their own costs, to the entire satisfaction of the Discom failing which the Discom will be at liberty to get it replaced/rectified at such expenses plus the Discom own charges, from the Bidder or from the if noticed and reported by Discom, Bidder shall further be responsible for free replacement / rectification during such period mentioned in the Tender Document, from the end of the guarantee period.
5. **Delivery Period:** For Supply Part: Supply shall be completed within 60 days + 15 days (considering the approval of drawing / GTP) from date of receipt of release order for the first lot however for remaining lots the delivery will be 60 days from RO date.

For ITC Part: ITC shall be completed within 30 days of site clearance upon intimation from User group over E mail.

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6. **Payment Terms:** For Supply Part: 70% payment will be made within 45 days on submission of error-free Invoice complete in all respects after receipt of materials in good condition, verification thereof, subject to inspection of materials by authorized officials after successful delivery and balance 30% within 30 days post successfully completion of ITC.

For ITC Part: 100% within 30 days post successfully completion of ITC.

However, BA shall have option to Invoice 100% of the payment post completion of SITC job and installation.

7. **Liquidated Damages:** For supplies which are of standalone use, multiple in quantities and having a single final delivery schedule, Liquidated damages shall be levied without prejudice to any of the other contractual rights of Discom, as described below:

For delay of each week and part thereof from the delivery schedule specified in the contract, 1% of contract value corresponding to undelivered quantity, provided full quantity is supplied within 130% of the original contract time. If full contractual quantity is not delivered within 130% of contract time for delivery, Discom has the right to levy LD on the entire contract value, subject to a maximum of 10% of the total contract value.

8. Pre-dispatch inspection, MDCC and other shall be applicable as per GCC.

9. CCG / Discom reserve the right to nominate a third party for the purpose of carrying out the inspection and such an agency shall be entitled to all the rights and privileges of CCG / Discom as far as conducting the inspection.

10. CCG / Discoms shall short close the issued Release Order / Rate contract, in case of any quality issue / not able to supply & installation within time period.

11. Any change in statutory taxes, duties and levies during the contract period shall be borne by respective TP Odisha Discom. However, in case of delay in supply owing to reasons not attributable to TP Odisha Discom, any increase in total liability shall be passed on the Bidder, whereas any benefits arising owing to such statutory variation in taxes and duties shall be passed on TP Odisha Discom.

CENTRALIZED CONTRACTS GROUP**NIT No.: TPCODL / CCG / 2024-25 / 1000000892 Dated. 02.08.2024****ANNEXURE-I:****Price Schedule**

Sr No	Item Description	Unit	Quantity	HSN/ SAC Code	Unit Ex-Work Price (Rs. / Unit)	GST (Rs/ Unit)	All Inclusive Unit Rate (Rs.)	Total All Inclusive Value (Rs.)
A	B	C	D	E	F	G	H=F+G	I=H*D
1	Supply of Transformer Monitoring Unit	EA	150					
2	TMU PANEL ENCL. 450x370x450 mm	EA	150					
3	BASIC CONTACTOR 4NO 24V DC	EA	300					
4	110V AC CONTACTOR 2NO+2NC	EA	150					
5	CTR EL08/EN16/EO16 OLTC DIGITAL TPL	EA	150					
6	ITC of Transformer Monitoring Unit	EA	150					
Grand Total (in Rs.)								

NOTE:.

- The bids will be evaluated commercially on **the overall BOQ** basis.
- The unit price to be entered in column "F" of above table is exclusive of GST.
- The prices mentioned above shall be on FOR basis for all the TP Odisha Discom locations.
- Issuance of Release Orders (RO) shall be done by respective Discoms as per their requirement.
- The material shall be delivered as per the location captured in the Release Order.
- The bidders are advised to quote prices strictly in the above format. Failing to do so, bids are liable for rejection.
- The bidder must fill each and every column of the above format. ***Mentioning "extra/inclusive"/other conditions in any of the column may lead for rejection of the price bid.***
- No cutting/ overwriting in the prices is permissible.
- The quantity mentioned above are for evaluation purpose only and may vary as per actual site requirement.

Pre-bid reply, TS & drawing for accessories attached.

All other terms and conditions of the above tender shall remain unaltered.

Yours faithfully,**-sd-****Head-Contracts
CCG, Bhubaneswar**

Format for Pre-Bid Queries				
Tender No: TPCODL / CCG / 2024-25 / 1000000892				
Tender Description: Rate Contract – SITC of Transformer Monitoring Unit for TP Odisha Discoms				
Bidder :				
Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
1	2	3	4	5
1			Motivation behind upgrading technical specifications and include condition monitoring features which were missing in earlier tenders ?	This shall be as per TS. However, additional features are accepted.
2			In previous tenders, Tata Power provided technical deviations to accommodate other bidders, similar practise will followed for this tender as well ?	Technical Deviations are only given when none of the bidders are able to comply
3			We will have any advantage, If we meet 100% technical specifications ?	Evaluation shall be as per tender conditions
4			Refer pg. 37 of 288 of Tender doc, Pt-36- Process bus implementation was never implemented however it is still part of specs so we request confirmation with the end user(site team) that it is optional and not mandatory.	Process Bus not implemented at TP Odisha Discom, Minimum 2xRJ45 Electrical Ethernet Port required with RSTP/PRP. It will also work for the service port as well as web HMI
5			Transformer efficiency calculation has been waived off in past tenders and we request to waive off in order to provide the level playing field. We do not wish to comply if TPC is ready to waive it off for other bidders.	Not Required
6			Refer pg. 38 of 288 of Tender doc, In the past tender, 22BI , 11BO and 4AI were mentioned however this is the 1st tender with such high numbers of BI/BO and we request to implement the old specs since there are not so many BIs available on transformer. Such high configuration can be complied by us, however; request to confirm with your site team , if such high no. of BI BO config. is really required or not. If these extra specifications are not required, we request to waive off in order to provide the level playing field. We do not wish to comply if TPC is ready to waive it off for other bidders.	This shall be as per TS
7			Refer pg. 34 of 288 of Tender doc, Forecast Future Temp, Insulation loss of life, Water content in paper etc are very high end specifications and would require some additional BI, BO and AI configuration and the same can be complied by us, however request to reconsider/reconfirm whether these are actually being used by the end user at any SS or not. We are suppliers of TMU to TPC from the past 20 years and the devices are still running intact from 2004 in various TPDDL and TATA Power Mumbai Substations and have never came across such higher end requirements. If these extra specifications are not required, we request to waive off in order to provide the level playing field. We do not wish to comply if TPC is ready to waive it off for other bidders.	Not Required
8			Refer pg. 35&36 of 288 of Tender doc, Pt.7- Oil-Level and Quality, Load condition, gas concentration, Transformer life counters & Pt. 8- Oil Analysis, Loses calculation, Efficiency, Loses Decomposition, Comparative Analysis etc. are Condition Based Monitoring and not and were never a part of TMU and the same has be waived-off. We are suppliers of TMU to TPC from the past 20 years and the devices are still running intact from 2004 in various TPDDL and TATA Power Mumbai Substations and have never came across such requirements in TMU.	Not Required
9			Refer pg. 37 of 288 of Tender doc, Pt. 36- Wherein 3 nos of Ethernet port is specified for SCADA communication. However 2nos. Of Ethernet ports are enough for SCADA communication and the same is being followed across all utilities in their TMU. So, we can comply for 2nos. Ethernet ports for SCADA communication.	Minimun 2xRJ45 Electrical Ethernet Port required with RSTP/PRP. It will also works for the service port as well as web HMI. Device should communicate on IEC 61850-8-1Edition 1and Ed.2and IEC 60870-5-104.

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
10			Refer pg. 36 of 288 of Tender doc, Pt 17- Conformal coating makes the relay board irreparable and the same has to be waived-off	This shall be as per TS
11			Final TMU configuration as per previous tenders for TPC, we recommend: BI - 22 nos BO - 11 nos AI - 4 nos 2xRJ45 ports for SCADA communication	This shall be as per TS
12			Scope of Work	Tender is for the supply of the Transformer Monitoring IED not about protection relay.TMU should have the all the features as mentioned in TS.
13			Scope of Work	We will only provide the space/location. As per the rate contract Supply, Installation, Testing and commissioning is in bidder scope. Bidder will supply the Device. All the consumable during retrofitting of the device will beared by the Bidder. Bidder will provide the sufficient man power for the retrofiting work and testing with as per TP Odisha Discom requirement.
14			Scope of Work	We will provide the control cables for Switchyard to Transformer CRP. Internal CRP wiring of work will be in Bidder scope. Bidder will provide the all consumables like 1.5sqmm/2.5 sqmm FRLS 1100V grade loose wire, all types of lugs, Printed Ferulle tubes, TBs, MCBs etc. For testing of the TMU, Bidder will provide the secondary injection Kit.Bidders team movement, lodging and fooding are not in TP Odisha Discom Scope.
15	Specification no : ENG-EHV-1053 Pg 38/288 , Clause no 5 General Construction	TMU shall have separate Panel and shall complied to the following: 1.TMU Panel shall have simplex dust proof design with front and rear door, front door shall design with fiber glass. 2.TMU Panel shall have panel mounted arrangement. 3.TMU Panel shall be placed properly in Panel Room 4.Doors shall have handles with either built-in locking facility or wi+A4ll be provided with pad-lock.	We understand from Pre-bid meeting that Scope of bidder is limited to supply , Installation , testing & commissioning of stand alone TMU. Any type of panels/wiring /accessories/retrofit is not in the scope of supplier. Necessary space shall be provided by TPCODL for installation of TMU in the existing panel/TPCODL will supply loose panels to mount these TMU.	We will only provide the space/location. As per the rate contract Supply, Installation, Testing and commissioning is in bidder scope. Bidder will supply the Device with Encloser panel for TMU itself. All the consumable during retrofitting of the device will be borne by the Bidder. Bidder will provide the sufficient man power for the retrofiting work as per TP Odisha Discom requirement
16	1.2 Scope of work	Supply ,Installation, testing & commissioning of TMU : 130 Nos.	We understand from tender document 100 Nos is for TPCODL & 30 Nos is for TPNODL. However, we need clarification on following points	As per NIT / Corrigendum
17			1. Total no of sites and location .	Will be provided by the TP DISCOM before bidder team deputaion
18			2. No of TMUs to be supplied per location .	TMU will be supplied to Store/site as per RO/clearance from TP DISCOMs
19			3. Tentative commissioning schedule.	Will be provided by the TP DISCOM before bidder team deputaion
20			4. Specify the number of man-days required for each TMU commissioning.	3 days for retrofiting and testing job
21			5. Specify number of visits required for the total project.	1-2 visits before team deputaion.
22			6. We want to propose additional rates if service exceeds defined vists/man-days.	Bids to be quoted as per tender format
23			7.Kindly clarify if any cables required to connect TMU is in scope of bidder	We will provide the control cables for Switchyard to Transformer CRP. Internal wiring of work will be in Biddeer scope. Bidder will provide the all consumables like 1.5sqmm/2.5 sqmm FRLS 1100V grade loose wire, all types of lugs, Printed Ferulle tubes, TBs, MCBs etc. For testing of the TMU, Bidder will provide the secondary injection Kit.
24			8.TMU requires 48V DC as auxiliary supply. Kindly confirm if the same shall be arranged by Tata Power	TMU DC supply should be in range for both 24VDC and 48VDC as per TS. Clause 4.1

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
25			9.Kindly clarify if any civil works required for erection, shall pertain to bidder's scope	No Civil work required.
26			10.Kindly clarify if integration of TMU with RTU/SCADA will be in Tata Power's scope	In the Bidder scope as per SITC.
27			11.Kindly provide clarity regarding delivery of TMU. We understand that all the material will be supplied to central store of TPCODL and TPNODL. Local transit of material is in Tata Power's scope	TMU will provided by the bidder on site substation location as provided by User department at the time of delivery.
28	14.1 Special Conditions of Contract 6.Payment Terms		Kindly confirm if the payment will be released after receipt of material at Tata Power's store. We request not to interlock payment with erection and commissioning works because this activity might require shut down of power sub station which might take time and will lead to long delays in payments.	For Supply Part: 70% payment will be made within 45 days on submission of error-free Invoice complete in all respects after receipt of materials in good condition, verification thereof, subject to inspection of materials by authorized officials after successful delivery and balance 30% within 30 days post successfully completion of ITC. For ITC Part: 100% within 30 days post successfully completion of ITC. However, BA shall have option to Invoice 100% of the payment post completion of SITC job and installation.
29	4.1 General Requirements	Control of cooling levels of transformer Fans, Used for above 10MVA PTR. (product range should different as compared to requirement). User should have scope for setting the high & low point temperature of winding so that relevant command can be send by the TMU to relay for operation of cooling fan. Status of fan should be indicated on TMU.	Cooling fan control by means of logics and binary output can be sent by the TMU. Setting of low & high point temperature feature in TMU not required.	As per TS, TMU should be capable for the controlling of the cooling system. TMU should have to monitoring the WTI and OTI tempratures using 4-20mA Analog Inputs. By using these inputs TMU will control the cooling FAN.
30		Insulation Loss of Life 2. Water content in paper (from the diagnostic module)	Not supported.	Not Required
31		Monitoring of life time consumption (Power Loss) of transformer refers to the amount of power it consumes over its operational lifespan.	Not supported.	Not Required
32		Relay shall have the facility to make online efficiency monitoring of Power Transformer	Not supported.	Not Required
33		The IED should have web HMI function (Online monitoring of the function blocks or remote access/engineering through the software is must)	WebHMI option not available in current release but can be viewed through a PC (Remote HMI).	Web HMI is required as per TS
34		The IED should have gateway configuration through which it can be accessed from remote location and any configuration can be changed or downloaded.	IED configuration can be viewed however PCM600 software is required for changing the configuration. However any accessories like RTU, Gateway, Ethernet Switch, LIU etc. shall not be in the scope of supplier	Only One configuration tool will be used by the bidder for the TMU configuration and same will have to provided by the bidder. If any tool have required lisenace to run in pc/laptop then bidder will provide the same in free of cost.
35		The unit shall have facility to recode the voltage and current with respect to time. Each of voltage value shall be measured for 100ms and averaged for 1 second. The recorded values shall be presented in graphical format on the device.	Recorded values will be shown in RMS & Numerical format	TS to be followed
36	Due date extension		We earnstly request you to please extend the tender due date of submission till 12-Sep-2024	As per Corrigendum
37			Scope of Work	Tender is for the supply of the Transformer Monitoring IED not about protection relay.TMU should have the all the features as mentioned in TS.

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
38			Scope of Work	We will only provide the space/location. As per the rate contract Supply, Installation, Testing and commissioning is in bidder scope. Bidder will supply the Device. All the consumable during retrofitting of the device will beared by the Bidder. Bidder will provide the sufficient man power for the retrofitting work and testing with as per TP Odisha Discom requirement.
39			Scope of Work	We will will provide the control cables for Switchyard to Transformer CRP. Internal CRP wiring of work will be in Biddeer scope. Bidder will provide the all consumables like 1.5sqmm/2.5 sqmm FRLS 1100V grade loose wire, all types of lugs, Printed Ferulle tubes, TBs, MCBs etc. For testing of the TMU, Bidder will provide the secondary injection Kit.Bidders team movement, lodging and fooding are not in TP Odisha Discom Scope.
40	Manufacturing Facility	The bidder should have own manufacturing facility to manufacture TMU/Relays of same or higher rating and in-house facilities for acceptance tests as per technical specifications. Bidder must submit undertaking in this regard.	Bidder may not be an manufacturer. Bidders cab be system intigrator / channel partner & authorised by Manufacturer. Kindly clarify.	Revised QR to be followed
41	2.0 - Prequalifying requirment (Pg-6) Point-3B-1 (Financial)	Experience – The bidder must have supplied ; a. A minimum order of 100% of tender qty. during last 3 years Or, b. A single order of 70% of tender qty. nos. in last 3 years Or, c. Two orders of 50% of tender qty. in each, whichever is maximum in last 3 years. Order copies to be submitted in this regard.	Orders Received to OEM directly / through channel partners should be considered and not bidder only.	Revised QR to be followed
42			It seems overall budget for Numerical based monitoring and Transformer monitoring units is low.	Tender conditions to be followed.
43	4.0 (General Requirement)	The manufacturer, whose protection system is offered, should have experience of manufacturing, testing, installation and commissioning of such a system for any electricity transmission and distribution utility for at least three years. BA should produce at least two no. of performance copy for the same.	Are your looking for Protection system or Transformer Monitoring System for various parameters?We understood , proetction relay is different and TMU is specifically designed to monitor various parameters defiened in tender. Kindly confirm.	TS Clause 4.0 is all about the experience of BA related to the mentioned job. This point is not related to the type of the of TMU. We required TMU as per TS not any protection relay.

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
44	Tender Scope	The tender specification and scope of work calls for Numerical Relay based monitoring and Condition Monitoring of the Transformers.	Bidder requests to clarify the scope of work & supply. If M/s Tata Power intends to perform Numerical Relay based monitoring along with Condition Monitoring of the Transformers, bidder has M/s Rugged Monitoring based Transformer Condition Monitoring Solution. Bidder can supply any approved Make of Numerical Relay and integrate with Transformer Condition Monitoring System (attacheed for ready reference).	Tender is for the supply of the Transformer Monitoring IED not about protection relay.TMU should have the all the features as mentioned in TS. TP Odisha Discom will only provide the space/loaction. As per the rate contract Supply, Installation, Testing and commissioning is in bidder scope. Bidder will supply the Device. All the consumable during retrofitting of the device will beared by the Bidder. Bidder will provide the sufficient man power for the retrofitting work and testing with SCADA as per TP Odisha Discom requirement. TP Odisha Discom will provide the control cables for Switchyard to Transformer CRP. Internal CRP wiring of work will be in Biddeer scope. Bidder will provide the all consumables like 1.5sqmm/2.5 sqmm FRLS 1100V grade loose wire, all types of lugs, Printed Ferulle tubes, TBs, MCBs etc. For testing of the TMU, Bidder will provide the secondary injection Kit.Bidders team movement, lodging and fooding are not in TP Odisha Discom Scope.
45	Qualification Requirement	OEM of Numerical Relay / Meter	Bidder request to accept Transformer Condition Monitoring System OEM as part of Qualification Requirement, since the tender scope calls for Numerical Relay based monitoring and Transformer Condition Monitoring System.	QR to be followed. TMU should have the all the features as mentioned in TS.
46	Cl No 4.1, Pg 33	The IED should have web HMI function (Online monitoring of the function blocks or remote access/engineering through the software is must)	RS 485 based remote access through Desktop application (PC Software)	Remote access through Desktop application is different thing. Web HMI access does not required any application/configuration tool. RS485 based remote access for IEC communication protocol. Minimun 2xRJ45 Electrical Ethernet Port required with RSTP. It will also works for the service port as well as web HMI. Device should communicate on IEC 61850-8-1 Edition 1and Ed.2
47	Cl No 4.1, Pg 33	The RELAY shall have facility to show the single line diagram of transformer feeders in the form of MIMIC diagram, which could facilitate the user in ascertaining the status of parallel operation like which transformer is running in parallel with which transformer	Master/Follower Status Indication LED is present on Individual Device.	TMU shall have facility to show the single line diagram of transformer feeders in the form of MIMIC and also have the IO Buttons, L/R Remote Buttons, Function Buttons and sets of user configurable LEDs.
48	Cl No 4.1, Pg 36	Compliant to IEC 61850-9-2LE Standard	Device is IEC 61850 Compliant, IEC 61850-9-2LE Standard is used in Transformer Protection devices	Not Required
49	Cl No 4.1, Pg 37	Minimum 3 communication Ethernet port (preferably RJ45) shall be available based	Device has 2x RJ45 or FO(Optional) IEC 61850 Port & 1x RS485 Port for HMI	Minimun 2xRJ45 Electrical Ethernet Port required with RSTP. It will also works for the service port as well as web HMI. FO ports not required.
50	Cl No 4.1, Pg 37	This device should communicate on IEC 61850-8-1 Ed. 1 & Ed. 2, IEC 60870-5-104	This point contradicts to point Compliant to IEC 61850-9-2LE Standard	Device should communicate and compliant to IEC 61850-8-1 Edition 1and Ed.2
51	Cl No 5.0, Pg 38	TMU shall have separate Panel	No specifications for panel given i.eType of metal, Thickness of sheet, Color Shade, Mounting Arrangement	TMU encloser will provided by the TP Odisha Discom
52			Scope of Work	Tender is for the supply of the Transformer Monitoring IED not about protection relay.TMU should have the all the features as mentioned in TS.
53			Scope of Work	We will only provide the space/loaction. As per the rate contract Supply, Installation, Testing and commissioning is in bidder scope. Bidder will supply the Device. All the consumable during retrofitting of the device will beared by the Bidder. Bidder will provide the sufficient man power for the retrofitting work and testing with SCADA as per TP Odisha Discom requirement.

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
54			Scope of Work	We will provide the control cables for Switchyard to Transformer CRP. Internal CRP wiring of work will be in Bidder scope. Bidder will provide the all consumables like 1.5sqmm/2.5 sqmm FRLS 1100V grade loose wire, all types of lugs, Printed Ferulle tubes, TBs, MCBs etc. For testing of the TMU, Bidder will provide the secondary injection Kit. Bidders team movement, lodging and fooding are not in TP Odisha Discom Scope.
55	clause 4	General Specification	under clause 4 & few other subclauses thereafter, there is mention of RELAY / TMU. We are keen to know if you are meaning protection relay wherever relay is mentioned.	Transformer Monitoring Unit.
56	clause 4	General Specification	let us know if this tender is for relay requirement or for TMU requirement.	The tender is for SITC of Transformer Monitoring Unit
57	In Clause No 4.1 Point No 38	The minimum IO & LED Capacity of TMU shall be	In clause no 4.1 point no 38 of technical specifications please let us know if mandatory of minimum DI 38, minimum DO 11, minimum AI 05 & this minimum will not be increased.	This shall be as per TS
58	In Clause No 4.1 Point No 38	The minimum IO & LED Capacity of TMU shall be	let us know signal list where in above said minimum DI, DO & AI will be used.	As per Annexure IO List
59	In Clause No 4.1 Point No 5	Monitoring of Dissolved Gas content (If DGA kit continue attached to Transformer Drain valve) - Optional	As tender technical specifications ask TMU should be able to integrate with existing DGA, please let us know on which protocol these DGA communicate.	Not Required
60	In Clause No 4.1 Point No 7	Monitoring of life time consumption (Power Loss) of transformer refers to the amount of power it consumes over its operational lifespan, this consumption is influenced below said factors	we want to know if monitoring of lifetime consumption (power loss) of transformer considering detail lists temperature, Oil Level & Quality, Load Condition, Voltage & Current, Gas Concentrations (Optional), Tap Changer Positions, Alarm & Event Logs, Communication Status & Transformer Life Counter, is it as per any specific standard. Please let us know such a standard number or procedure mentioned in any other standard document.	We don't need any life time monitoring, power loss however Tap Changer Position, Alarms/Trips and Event Logs are must and device should have the capability to record and save these data in real time.
61	In Clause No 4.1 Point No 8	Relay shall have the facility to make online efficiency monitoring of Power Transformer	let us know the standard number or procedure mentioned in any other standard document for "relay shall have the facility to make online efficiency power transformer" where in technical specification lists load monitoring, temperature monitoring, oil analysis, losses calculation, efficiency calculation, voltage regulation, historical data analysis, losses decomposition, etc.,	Transformer Oil and winding temperature monitoring is must, these inputs are required for the controlling of the cooling FAN using TMU binary outputs. Voltage regulation is the key feature of the TMU to monitored and controlled the LV terminal voltage of Power Transformer. As the TMU is Intelligent Electronic Device so it also have the feature to save historical data like event and fault with time stamp.
62	In Clause No 4.1 Point No 37	This device should communicate on IEC 61850-8-1 Ed. 1 & Ed. 2, IEC 60870-5-10	Do you require IEC60870-104, IEC 61850 Ed 1 & also IEC 61850 Ed 2 all these protocols available in all tendered quality of TMU's.	IEC 61850 Ed 1 & also IEC 61850 Ed 2 both are required.
63	In Clause No 4.1 Point No 36	Minimum 3 communication Ethernet port (preferably RJ45) shall be available based on RSTP/PRP for Station Bus and the same ports should be compliant for Process Bus	Please let us know if PRP is already implemented in your DISCOM & if yes how many substations are already with PRP / in how many substations there will be PRP coming up in future	Minimum 2xRJ45 Electrical Ethernet Port required with RSTP. It will also works for the service port as well as web HMI. Device should communicate on IEC 61850-8-1 Edition 1 and Ed.2
64	In Clause No 4.1 Point No 36	Minimum 3 communication Ethernet port (preferably RJ45) shall be available based on RSTP/PRP for Station Bus and the same ports should be compliant for Process Bus	Please let us know in what ways 3 ports Ethernet port will be required	Minimum 2xRJ45 Electrical Ethernet Port required with RSTP. It will also works for the service port as well as web HMI. Device should communicate on IEC 61850-8-1 Edition 1 and Ed.2
65	In Clause No 4.1 Point No 3	Recording of Hot spot temperature	technical specification asks for hot spot temperature insulation loss of life, water content in insulation paper, please let us know in which protocol such a equipment is giving data.	Not Required
66		Scope of Work (Common Point for all Bidder)		Tender is for the supply of the Transformer Monitoring IED not about protection relay. TMU should have the all the features as mentioned in TS.

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
67		Scopre of Work(Common Piont for all Bidder)		We will only provide the space/loaction. As per the rate contract Supply, Installation, Testing and commissioning is in bidder scope. Bidder will supply the Device. All the consumable during retrofitting of the device will beared by the Bidder. Bidder will provide the sufficient man power for the retrofiting work and testing with SCADA as per TP Odisha Discom requirement.
68		Scopre of Work(Common Piont for all Bidder)		We will provide the control cables for Switchyard to Transformer CRP. Internal CRP wiring of work will be in Biddeer scope. Bidder will provide the all consumables like 1.5sqmm/2.5 sqmm FRLS 1100V grade loose wire, all types of lugs, Printed Ferulle tubes, TBs, MCBs etc. For testing of the TMU, Bidder will provide the secondary injection Kit.Bidders team movement, lodging and fooding are not in TP Odisha Discom Scope.
69	2.0 Pre- Qualification Criteria / A Technical Pre- Qualification Requirements for Meter manufacturer (OEM) / 4. Performance	Bidder shall submit two nos. performance certificate of similar items during last 05 years from any reputed Discom / PSUs / Reputed Companies. In case the bidder has got previous association with any Tata Power Discom - TPCODL / TPNODL / TPWODL / TPSODL etc. for supply of similar product, performance feedback (w.r.t. both quality & past delivery) of the same will be solely considered irrespective of the performance certificate issued by bidder's other customers- Performance certificate and contact details of client's needs to be submitted.	We , the main bidder , are the channel partner for the manufacturer of TMU . Hence kindly allow us to submit the credentials of our OEM as part of performance certificate	Revised QR to be followed
70	2.0 Pre- Qualification Criteria / B Financial Pre- Qualification Requirements / 2. Experience	Experience – The bidder must have supplied ; a. A minimum order of 100% of tender qty. during last 3 years Or, b. A single order of 70% of tender qty. nos. in last 3 years Or, c. Two orders of 50% of tender qty. in each, whichever is maximum in last 3 years. <u>Order copies to be submitted in this regard.</u>	We , the main bidder , are the channel partner for the manufacturer of TMU . Hence kindly allow us EITHER to submit " the credentials of our OEM as part of experience " OR allow us to submit our credentials from other equipments related to substation like RTUs / CRP etc.	Revised QR to be followed
71	2.0 Pre- Qualification Criteria / A Technical Pre- Qualification Requirements for Meter manufacturer (OEM) / 4. Performance	Bidder shall submit two nos. performance certificate of similar items during last 05 years from any reputed Discom / PSUs / Reputed Companies. In case the bidder has got previous association with any Tata Power Discom - TPCODL / TPNODL / TPWODL / TPSODL etc. for supply of similar product, performance feedback (w.r.t. both quality & past delivery) of the same will be solely considered irrespective of the performance certificate issued by bidder's other customers- Performance certificate and contact details of client's needs to be submitted.	We , as a bidder , are the channel partner for the OEM of TMU . Hence kindly allow us to submit the credentials of our OEM as part of performance certificate	Revised QR to be followed

Sr. No.	Detailed Reference to NIT. Please specify Document No / Clause No / Page No	Description as per Bid Document	Remarks - Query / Clarification	Tata Power Response
72	2.0 Pre-Qualification Criteria / B Financial Pre-Qualification Requirements / 2. Experience	Experience – The bidder must have supplied ; a. A minimum order of 100% of tender qty. during last 3 years Or, b. A single order of 70% of tender qty. nos. in last 3 years Or, c. Two orders of 50% of tender qty. in each, whichever is maximum in last 3 years. Order copies to be submitted in this regard.	We , as a bidder , are the channel partner for the OEM of TMU . Hence kindly allow us either to submit " the credentials of our OEM as part of experience " OR allow us to submit our credentials from other equipments related to substation like RMUs / RTUs / CRP etc.	Revised QR to be followed
73	2.0 Pre-Qualification Criteria / B Financial Pre-Qualification Requirements / 1. Commercial Capability	The bidder should have Average Annual turnover of at least Rs. 10.00 Cr. for any of last 3 Financial Year (FY) out of FY 19-20, FY 20-21, FY 21-22, FY 22-23 & FY 23-24. Qualification Requirement of Financial Turnover for MSME registered in the State of Odisha shall be reduced to 20% of the existing criteria	Request for considering the average annual turnover of atleast Rs. 7.00 CR for any of last 3 Financial Year (FY) out of FY 19-20, FY 20-21, FY 21-22, FY 22-23 & FY 23-24	Revised QR to be followed

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	TECHNICAL SPECIFICATION		
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1 SCOPE

This specification covers technical requirements of supply, design, constructional features & transportation of Transformer TAP Position Transducer for efficient and trouble free operations at TPCODL/TPNODL/TPSODL/TPWODL stores/site.

2 APPLICABLE STANDARDS

Safety	IEC 61010-1
Electromagnetic Compatibility Emissions:	IEC 61326-2-1, IEC 61000-3-2/3, FCC Subpart B of Part 15 Class A
Immunity	IEC 61000-4-2/3/4/5/6/8/11
Protection	For Housing IP40 For Terminals IP20 as per IEC60529
Over Voltage Category	Acc to IEC 664 III for power supply & II for measuring input & Oupput.

3. CLIMATIC CONDITIONS OF THE INSTALLATION:

1	Maximum ambient temperature	50 deg C
2	Max. Daily average ambient temp	35 deg C
3	Min Ambient Temperature	0 deg C
4	Maximum Humidity	95%
5	Average Annual Rainfall	150cm
6	Average No. of rainy days per annum	120
7	Altitude above MSL not exceeding	1000m
8	Wind Pressure	300 Km/hr
9	Earthquakes of an intensity in horizontal direction	equivalent to seismic acceleration of 0.3g
10	Earthquakes of an intensity in vertical direction	equivalent to seismic acceleration of 0.15g (g being acceleration due to gravity)

TPCODL service area has **heavy saline conditions along the coast and High cyclonic Intensity winds with speed upto 300 Kmph**. The atmosphere is generally laden with mild acid and dust in suspension during the dry months and is subjected to fog in cold months.

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4. GENERAL TECHNICAL REQUIREMENTS

The purpose of the Transformer Tap Position Transducer is to convert tap position of transformer to equivalent analogue output. Output can be given as input to Transformer Monitoring Unit or RTCC or indicator or recorder or RTU. Input aid and measuring range are programed with the AID of the PC and the configuration software.

Tap position transducer receives resistance input, which corresponds to tap position of transformer and Output should be proportional to tap position.

The device should have one Input channel and two Independent output channels.

Description	Required	Provided (To be filled by bidder)
Measured Range	0 to 25000 Ohm	
Output Signals	4 to 20 mA	
Auxiliary Voltage	20 to 60 V DC	
Power Consumption	<3W	
Mounting	Din Rail	
Accuracy	+/- 2% of range	
Measurement Type	3 Wire	
Standard Input	0 to 17KOhm (Can be able to change at the site as per requirement)	
Display	LED	
Electrical Isolation	Electrically isolated and output should not be influenced with earthing or any external factors	
Response Time	<4S	
Residual ripple in O/P Current	<0.5% p.p	
Warranty	1 Year	

5.0 TESTS:

All routine, acceptance & type tests shall be carried out in accordance with the relevant IS/IEC. All routine /acceptance tests shall be witnessed by the purchaser/his authorized representative. All the components shall also be type tested as per the relevant standards. The camera shall be calibrated against standards which are traceable to National / International standards.

6. TYPE TEST CERTIFICATES

The bidder shall furnish the type test certificates of the individual component for the tests as mentioned as above as per the corresponding standards, if asked for by TPCL. All the tests shall be conducted by CPRI/ERDA as per the relevant standards. Type test should have been conducted in certified Test

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Laboratories during the period not exceeding 5 years from the date of opening the bid. 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 TPCL.

7. PRE DISPATCH INSPECTION

The Material shall be subject to inspection by a duly authorized representative of the TPCL. 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 grant free access to the places of manufacture to TPCL's representatives at all times when the work is in progress. Inspection by the TPCL or its authorized representatives shall not relieve the bidder of his obligation of furnishing equipment in accordance with the specifications. Material shall be dispatched after specific MDCC (Material Dispatch Clearance Certificate) is issued by TPCL.

Following documents shall be sent along with material

- Test reports
- MDCC issued by TPCL
- TPCL Invoice in duplicate
- Packing list
- Drawings & catalogue
- Guarantee / Warrantee card
- Delivery Challan
- Other Documents (as applicable)

8. INSPECTION AFTER RECEIPT AT STORES

The material received at TPCL store will be inspected for acceptance and shall be liable for rejection, if found different from the reports of the pre-dispatch inspection and one copy of the report shall be sent to Project Engineering department.

9. PACKING

Bidder shall ensure that all the equipment covered under this specification shall be prepared for rail/road transport in a manner so as to protect the equipment from damage in transit.

10. TENDER SAMPLE

Demonstration has to be provided with in a week after technical bid opening as intimated by TPCODL

11. MINIMUM TESTING FACILITIES

Bidder shall have adequate in house testing and repair facilities for carrying out all routine tests & acceptance tests as per relevant International / Indian standards. It is mandatory to have at least one service lab with calibrated Black body & other facilities in India

12. MANUFACTURING ACTIVITIES

Not Applicable

13. SPARES, ACCESSORIES AND TOOLS

As mentioned in GTP Clause no. 4

14. DRAWINGS AND DOCUMENTS

Not applicable

Instruction Manuals: Bidder shall furnish two (2) soft copies (CD) and four (4) hard copies of nicely bound manual (in English Language) covering maintenance instructions and all relevant information pertaining to the main equipment as well as auxiliary devices.

16.0 DOCUMENTS:

TPCODL TP CENTRAL ODISHA DISTRIBUTION LIMITED	TP CENTRAL ODISHA DISTRIBUTION LIMITED, BHUBANESWAR		
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S. No.	Description	For Approval	For Review Information	Final Submission
1	Technical Parameters	√		√
2	General Arrangement drawings	√		√
3	Terminal block and Connection drawings	√		√
4	Foundation plan and loading details	√		√
5	Manual/Catalogues/ Software		√	√
6	Installation/Commissioning Manuals		√	
7	Instructions for use		√	
8	Transport/ Shipping dimension drawing		√	√
9	QA & QC Plan	√	√	√
10	Routine, Acceptance and Type Test Certificates	√	√	√

All the documents & drawings shall be in English language. Supplier shall furnish two softcopies (CD) and four (4) hard copies of nicely bound manuals covering erection and maintenance instructions and all relevant information and drawings pertaining to the main equipment as well as auxiliary devices.

16.

**SCHEDULE OF DEVIATIONS
(TO BE ENCLOSED WITH TECHNICAL 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:

S. No	Clause No.	Details of deviation with justifications

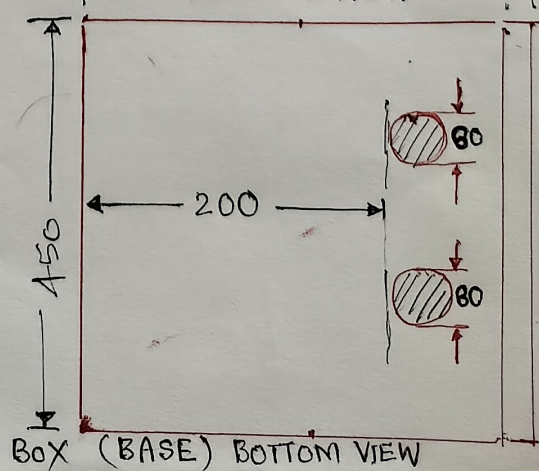
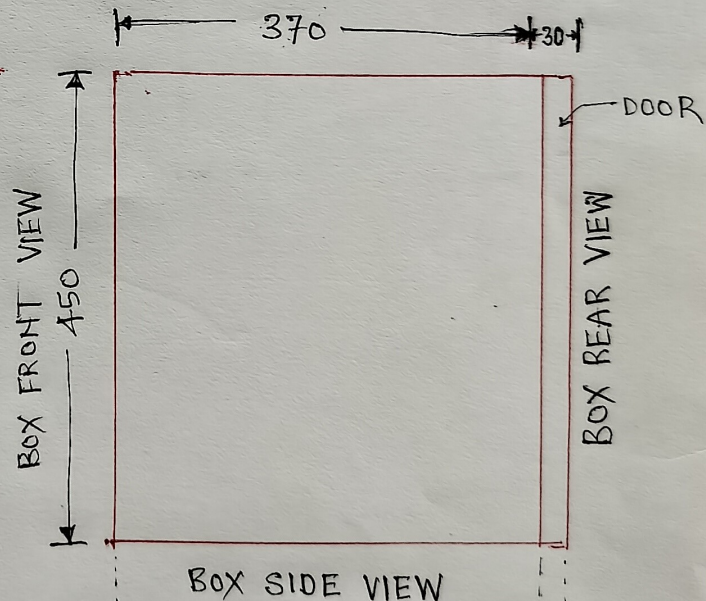
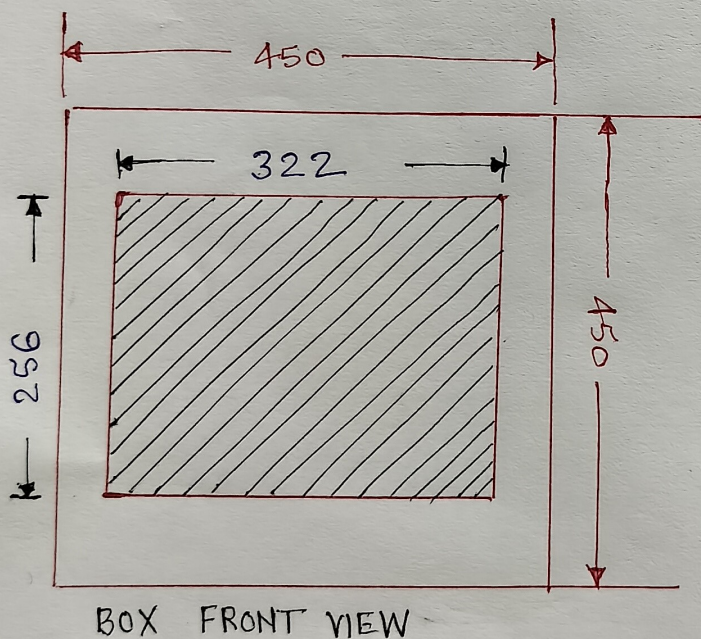
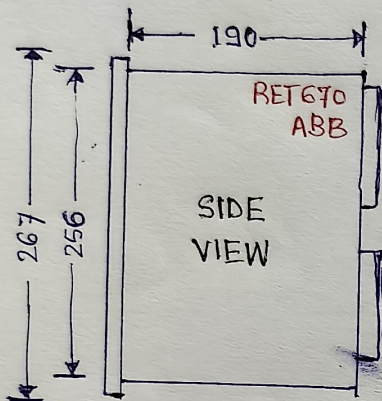
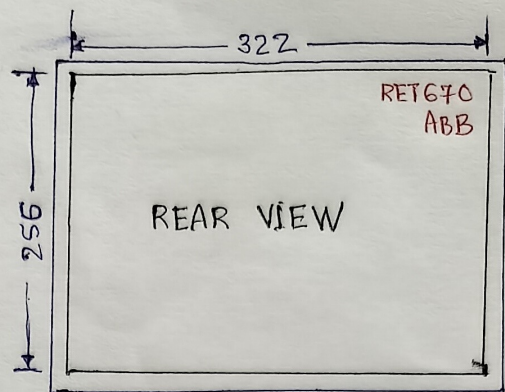
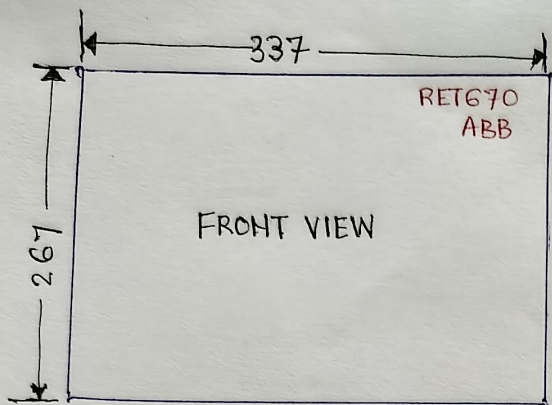
We confirm that there are no deviations apart from those detailed above.

Seal of the Company:

Signature

Designation

NOTE (1) ALL DIMENSIONS ARE IN MM. (2) CABLE ENTRY SHALL BE FROM BOTTOM.



- (1) RELAY CUTOUT SIZE 322W X 256H MM.
- (2) RELAY BEZEL SIZE ~~337W~~ 337W X 267H MM.
- (3) 80MM HOLES AT BOTTOM FOR CABLE.