

SE/JLG/T-08/2024-25

Maharashtra State Electricity Distribution Co. Ltd.

Tender Details		13-08-2024 12:55:02
Tender Code	SE/JLG/T-08/2024-25	
Tender Type	Works Tender	
Type Of Bid	Two Bid	
Description	Tender for Supply of Numerical Relays (3OC+1EF) at various 33/11 KV substations under Jalgaon Circle as per Specifications	
Estimated Cost (In Lakhs)	20	
Basis of prices	NA	
Tender Validity	NA	
Delivery Requirement (In Months)	NA	
Tender on rate contract basis	NO	
Tender Fee (In INR)	2500	
GST In INR (@18% on Tender Fee: SAC No.	450	
Total Tender Fee Amount including GST in INR.	2950	
Contact	Shri Vishal B Khandare , 7030440084 ,sejalgaon@mahadiscom.in	
Pre-Qualifying Req	As per Tender Terms and Conditions	
Budget Type	NA	
Scheme Code	null	
Scheme Name		
Department	Technical	
Office Type	CIRCLE	
Location Type	Jalgaon Circle	
Designation	Executive Engineer(Distribution)	
Pre-Bid Meeting Address	Office of the Superintending Engineer Maharashtra State Electricity Distribution Co. Ltd. Old MIDC,Ajantha Road,Jalgaon Jalgaon:-425003	
Bid Opening Address	ONLINE	
Version No	1	
Call for Deviation	NO	
Is Annexure C1 Applicable	NA	
Is Manufacturer Applicable	NO	
Is Trader Applicable	NO	
Minimum % of Offered Quantity	NA	
Is Power Supplier Applicable	NO	
Tender Sale Start Date	14-08-2024 00:00	
Tender Sale End Date	23-08-2024 15:00	
Bid Start Date	14-08-2024 00:15	
Bid End Date	23-08-2024 16:00	
Pre-Bid Meeting Date	20-08-2024 12:00	

Techno-Commercial Bid opening on	23-08-2024 17:00
Price Bid opening on	Will be declared later
Annexure C1 Opening Date	NA
Winner Selection Date	Will be declared later
Can Bidder Opt EMD Exemption	Y



# **MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD.**

(Govt of Maharashtra Undertaking)

## **“Jalgaon Circle”**

**“Tender for Supply of Numerical Relays (3OC+1EF) at various 33/11 KV substations  
under Jalgaon Circle as per Specifications”**

**Tender No. SE/JLG/T-08/2024-25**

**VOLUME-1**

**TECHNICAL BID**



**Office of the Superintending Engineer  
Maharashtra State Electricity Distribution Co. Ltd.  
Old MIDC, Ajantha Road, Jalgaon**

**Jalgaon:-425003**

**Phone No.: Mob. 7030440084**

**E-mail: [sejalgaon@mahadiscom.in](mailto:sejalgaon@mahadiscom.in) & Website: [www.mahadiscom.in](http://www.mahadiscom.in)**

**Maharashtra State Electricity Distribution Co. Ltd.**  
**Circle office- Jalgaon**  
 (Govt of Maharashtra Undertaking)

**TENDER NO.: - SE/JLG/T-08/2024-25**

<b>TENDER INDEX</b>			
<b>Sr No</b>	<b>Particulars</b>		<b>Page No</b>
	<b>Volume I</b>		
<b>1</b>	<b>Tender Purchase Details</b>		<b>3</b>
<b>2</b>	<b>Tender Notice</b>		<b>4</b>
<b>3</b>	<b>Instructions to the Bidder</b>	Annexure 'A'	<b>5-10</b>
<b>4</b>	<b>Conditions of Tender and Supply</b>	Annexure 'B'	<b>11-14</b>
<b>5</b>	<b>Questionnaire</b>	Annexure 'C'	<b>15</b>
<b>6</b>	<b>Technical Specifications</b>	Annexure 'D'	<b>16</b>
<b>7</b>	<b>Schedule</b>	Schedule 'A to C'	<b>17-19</b>
<b>8</b>	<b>Bank Guaranty</b>		<b>20</b>
<b>9</b>	<b>Annexure "F"</b>		<b>21</b>

**Maharashtra State Electricity Distribution Co. Ltd.**  
**Circle office- Jalgaon**  
**(Govt of Maharashtra Undertaking)**

**TENDER DETAILS**

Tender No.	SE/JLG/T-08/2024-25
Name of the Tender	Supply of Numerical Relays (3OC + 1 EF) at various 33/11 KV substations under Jalgaon Circle as per Specifications.
Estimated cost of work	Rs. 20.00 Lakhs
Tender Fees	Rs.2500 + 450 = 2950/- (including GST)
Bid Security	Rs. 20000/-
Download of Tender documents from website	14.08.2024 to 23.08.2024 up to 15:00 Hrs
Last Date of upload of Tender on website	23.08.2024 up to 16:00 Hrs
Date of opening of Technical Bid	23.08.2024 at 17:00 Hrs if possible
Date of opening of Commercial bid	27.08.2024 at 15:00 Hrs if possible
Pre bid meeting	20.08.2024 at 12:00 PM
Executing Agency	Superintending Engineer, MSEDCL, Jalgaon
Address	Vidyut Bhavan, Old MIDC, Ajantha Road, Jalgaon
Phone Nos.	7030440084
Fax No.	
E-mail	<a href="mailto:sejalgaon@mahadiscom.in">sejalgaon@mahadiscom.in</a>
Website	<a href="http://www.mahadiscom.in">www.mahadiscom.in</a>
<b>TO BE FILLED BY THE BIDDER</b>	
Name and Address Of Bidder	M/s
Name of the proprietor/authorized person	
Telephone No.	
Fax No.	
Mobile No.	
e-mail	
EMD Paid Details	Rs.                      Rec. No -                      Date:-

**IMPORTANT NOTES:**

1. Bidders must submit all the tender documents online duly filled in & signed by agency before the due date and time.
2. Rates should be quoted in the prescribed commercial Bid attached with this tender and not in any other form.



### **E-TENDER NOTICE**

The Superintending Engineer, Jalgaon Circle, Jalgaon on behalf of M.S.E.D.C.L.(employer) invites e-tender from eligible bidders for supply of following materials.

<b>Tender No</b>	<b>Nature of Work</b>	<b>Estimated Amount Rs. in Lakhs</b>	<b>Amount of EMD</b>
SE/JLG/ T-08/2024-25	Supply of Numerical Relays (3OC + 1 EF) at various 33/11 KV substations under Jalgaon Circle as per Specifications	20.00	Rs.20000/-

#### **TERMS & CONDITIONS:**

1. The online sale of tender will start from 14.08.2024 to 23.08.2024 up to 15:00 Hrs. The last date of uploading of bids on web site/ submission of tender is **23.08.2024** up to 16:00 Hrs. Tenders will be opened on date **23.08.2024** at 17:00 Hrs. if possible.  
For more details regarding registration process and tender, visit our e-tendering web site on <https://etender.mahadiscom.in/eatApp/> No hard copy of tender documents will be provided by this office. Any change in the tender schedule, corrigendum etc. will be made available on the web site. Prospective bidders are therefore requested to regularly check the web site for any updates.
2. The amount of EMD should be submitted in the form of Demand Draft/Bank Guarantee of any Nationalized/Scheduled Bank having Branch at Jalgaon in favour of Superintending Engineer, O & M Circle, MSEDCL, Jalgaon.
3. MSEDCL reserves the right to accept any tender or to reject any or all Tenders without assigning any reason thereof.

Sd /-  
**Superintending Engineer**  
**Jalgaon Circle**

**Maharashtra State Electricity Distribution Co. Ltd.**  
**Circle office- Jalgaon**  
**(Govt of Maharashtra Undertaking)**  
**INVITATION TO TENDER AND INSTRUCTION TO BIDDERS**

**ANNEXURE 'A'**

To be submitted/uploaded online on or before Date 23.08.2024 up to 16:00 Hrs. on our website <https://etender.mahadiscom.in/eatApp/>. The Bidder is requested to quote his lowest rates FOR destination for supply of materials. The material is required to be supplied at Store Centre, Jalgaon. The tender documents dully filled-in & signed are to be uploaded before due time & date of submission of tender in prescribed form.

**1.0 SCOPE OF WORK:**

The scope of work under this tender is for Supply of Numerical Relay (03 OC + 1 EF) various 33/11 KV substations under Jalgaon Circle as specified in Annexure-D/Technical Specifications, at our MM Cell, MSSEDCL, Jalgaon zone, Jalgaon.

Sr.No.	Particulars	Quantity
1	2	3
1	Supply of Numerical Relay (03 OC + 1 EF) at various 33/11 KV substations under Jalgaon Circle as per Specifications. MM CELL: CE/MSD/MSD-II/ Numerical relays/02-2015	200

Note: -The tender is values based, quantities may change as per the lowest quoted price.

**2.0 REQUIREMENT FROM BIDDERS:**

- 2.1 The bidder should have executed one work order/contract for supply of similar material to any of the MSSEDCL/Other Power Utility for at least 20 % of the estimated cost of tender or Two work order/contract together equivalent to least 25 % of the estimated cost of tender or Three work order/contract together equivalent to least of the estimated cost along with order execution proof i.e. work done certificate (not below the rank of Executive Engineer or equivalent) and performance report.
- 2.2 Copy of the balance sheet for any last 3 (three) years out of (2020-21,2021-22,2022-23) to judge funding position with signature of C.A. The average annual turnover must be 30% of estimated cost.
- 2.3 Required Net worth – 10% of bid value. Net worth & turn over certificate by C.A for last three years.
- 2.4 Bidder must be manufacturer or authorized supplier /dealer, must enclose Authorization letter from the manufacturer or he should possess the required experience set as above otherwise offer is liable for rejection. **Certificate of Registration of manufacturing unit under Factories Act. / Shop Act. / Registration for trading.**
- 2.5 The above stated requirements are a minimum and the Purchaser reserves the right to request for any additional information / data and also reserve the right to reject the proposal of any bidder, if in the opinion of the purchaser, the qualification data is incomplete or the Bidder is not found qualified to satisfactory perform the contract.
- 2.6 Copy of GST Registration certified to be submitted.
- 2.7 Income tax clearance certificate, Balance sheet for last 3 Years.
- 2.8 PAN card Registration Number.
- 2.9 The bidder shall quote his lowest reasonable rate per unit in Annexure 'E' only, in figures as well as in words. Any deviation in the rates etc. will not be allowed on any ground such as mistake, misunderstanding etc. after the tender has been submitted.

**2.10 Sample of relay offered must be submitted on or before time of bid submission.**

### 3.0 PRICE:

- a. Prices are acceptable only on F.O.R. destination basis inclusive of GST, risk in transit, freight showing the break-up as desired in the Annexure 'B'. It shall be noted that quotations not conforming to F.O.R. destination basis inclusive of GST, and to the unit as specified in Annexure 'E', shall be rejected even though the bidder's offer may be lowest. Therefore, the prices shall be quoted only in the form of Annexure 'E' of the tender documents. The bidder shall quote Ex-Works Price and element of freight and insurance along with applicable rate of GST. The F.O.R. destination price i.e. up to site or the Store Centre of the purchaser as the case may be inclusive of GST, risk in transit and freight prepaid will be programmatically calculated.

The prices to be quoted by the bidder should take into account the credit available on input under the CENVAT Scheme. The bidder should give a declaration that any set-off in respect of duties on inputs as admissible under law is being totally and unconditionally passed on the purchaser in the price quoted by him.

The bidder should declare that in quoting the above price, bidder has taken into account the entire credit on inputs available under CENVAT Scheme.

The bidder should further agree to pass on such additional duties as set-off as may become available in future in respect of all the inputs used in the manufacture of the final product on the date of the supply under the CENVAT Scheme by way of reduction of prices and advise the purchaser accordingly.

b. TAXES AND DUTIES:

(i) The F.O.R. destination rate shall be quoted inclusive of GST. The same shall be indicated against respective clauses of Annexure 'E' without any ambiguity.

(ii) It is imperative for the bidder to indicate the amount of GST included in their price while giving the break-up of F.O.R. destination price in Annexure 'E', failing which, the offer will be treated as ambiguous and will be rejected as per the provisions of clause IX of tender form. In case the GST is not payable partially / fully, the bidder shall indicate the reasons thereof duly supported by documentary evidence.

(iii) The Purchaser is registered under MVAT/GST Act of the Maharashtra State, so also under the Central Sales Tax Act, 1956. (iv) declaration on Form 'C' will be issued whenever and wherever applicable.

- c. Against one tender form purchased by the Bidder, he shall submit only one offer. Bidder is requested to quote only single price/rate for the quantity offered by the Bidder. The offers with prices of the materials quoted in slab basis and/or with any conditional discount on any account viz. payment, quantity etc. shall be rejected. Bidder shall quote the rate only in the unit of the item specified in Annexure-'E'.
- d. **The Bidder shall quote prices in two digit fractions in Indian Rupees only, if bidder quotes price in more than two digit fractions, then only first two digits will be considered for evaluation of rate & placement of order.** Although the material requires some imported components, if any. The Bidder shall arrange to import such material against his import license & Purchaser shall not be responsible for obtaining Import License or furnishing Essentiality Certificate for import of such component of the custom duty payable on such material. The Purchaser shall not be liable to pay custom duty or variation thereof including variation on account of foreign exchange rate. The offers requesting the purchaser to obtain Import License or to make payment of custom duty or any variation referred to above shall be rejected.
- e. The Bidder should quote his prices in Annexure-E and also give the break-ups under the columns in Annexure-E as provided therein.
- f. Prices are acceptable only on F.O.R destination basis inclusive of Excise Duty, Sales Tax/VAT, risk in transit, freight showing the break-up as desired in the Price Bid/Annexure 'E'. It shall note that quotations not conforming to F.O.R. destination basis inclusive of Excise Duty and Sales Tax/VAT etc. and to the unit as specified in Price Bid / Annexure 'E', shall be rejected even though the Bidder's offer may be lowest. Therefore, the prices shall be quoted only in the form of Price Bid / Annexure 'E' of the tender documents.

### 4.0 QUOTATION:

- i. The Bidder shall quote his lowest reasonable rate per unit as specified in Annexure 'E' only in figures as well as in words. Any deviation in the rates etc. will not be allowed on any ground such as mistake, misunderstanding etc. after the tender has been submitted.
- ii. In case of difference between the rates in figures and in words, it will be considered to read the rates advantageous and economical to the Company.
- iii. Supplier's printed terms and conditions will not be considered as forming part of the tender



**5.0 AMBIGUITY IN QUOTATION:**

The Bidder shall ensure that he should quote the tender in clear terms and only fill in the blanks Wherever required. Any ambiguity in the terms and conditions may lead the rejection of tender. The Bidder should note that there shall be no deviation in respect of the following terms specified in tender documents and the deviation if any, the tender shall be liable for rejection.

- i. Payment of Earnest Money Deposit.
- ii. Payment of Security Deposit.
- iii. Liquidated damages.
- iv. Terms of payment.
- v. F.O.R. destination prices.
- vi. Guarantee.
- vii. Period of validity of offer.
- viii. Jurisdiction of Court.
- ix. Default of contractor & termination thereof.

**6.0 ADDITIONS/ALTERATIONS PROHIBITED:**

Bidders shall not make any additions, alterations or changes in the tender form, conditions of tender and supply including the description of the material mentioned in Annexure 'D'.

**7.0 FILLING IN OF ANNEXURE/QUESTIONNAIRE:**

Bidders are requested to ensure that the comments against each and every item/clause of the Annexure/Questionnaire shall be clearly filled in and answered. Any item/clause shall not be left blank or unanswered. If any item/clause is not applicable, the words "Not Applicable" shall be written against it. No place in the offer should be left blank or dashes are required.

**8.0 SIGNING OF THE TENDRER DOCUMENTS:**

There should be no over writings. Whenever required, the overwriting should be avoided and new details be given. Corrections if any to the information filled in, should be initiated by the Bidder. Tenders not signed as above shall be liable to be rejected.

**9.0 CLARIFICATION OF TENDER DOCUMENTS:**

The Bidder is expected to examine all instructions, forms, terms and specifications in the tender documents. Failure to furnish all information required under the tender documents or submission of tender not substantially responsive to the tender documents in every respect will be at the risk of the Bidder and may result in rejection of his tender. The Bidder requiring a clarification of the tender documents may notify to the purchaser 3 days prior to the date of submission of tender.

**10.0 LOCAL CONDITIONS:**

It shall be imperative on each Bidder to fully inform himself of all local conditions and all other factors, which may have any effect on the execution of the contract covered under these documents and specifications. The Bidder shall also make enquiry and satisfy himself about the contingencies, risk and other circumstances, which may influence or affect the execution of the contract as specified in this tender specification. The Purchaser shall not entertain any request for clarification from the tenders regarding such local conditions.

It shall be presumed by the Purchaser that all such factors, conditions etc. have been properly investigated and considered by the Bidder while submitting his tender. Neither any change in the time schedule of the contract nor any financial adjustments arising thereof shall be permitted by the Purchaser which are based on the lack of such clear information or its effect on the cost of the contract to the Bidder.

**11.0 DISCLOSING THE NAME OF THE MANUFACTURER:**

Whenever a material is described by name of the particular brand or being offered after purchasing from other sources, the Bidder shall specifically disclose the name of the original supplier or the manufacturer.

**12.0 EARNEST MONEY DEPOSIT (EMD):**

The Bidder shall pay the Earnest Money Deposit as set below along with the tender i.e. (1% estimated cost of tender. The tender without the payment of Earnest Money Deposit shall be summarily rejected.

- a) Earnest Money shall be paid online through payment gateway of MSEDCL's e-tender site or online RTGS/NEFT to MSEDCL's Bank of Maharashtra A/c No. 20024902956 IFS Code MAHB0000004, Jalgaon Branch for the office of the Superintending Engineer, MSEDCL,

Jalgaon Circle Office or Nationalized/Scheduled Bank's Bank Guarantee, payable in Jalgaon in prescribed Performa on Rs.200/- Stamp Paper as follows:

***Earnest Money Deposit should be @ 1.00% (One Percent) of the bid value.***

- b) A reference to the tender number should be given in case the E.M.D. is paid in cash RTGS/NEFT before the due date of the tender and the relevant deposit amount and receipt No. should be mentioned in the tender. No interest shall be paid on the Earnest Money Deposit.
- c) In the event the Bidder withdraws his offer during the validity period the earnest money deposit shall stand forfeited and the Purchaser shall be entitled to recover the amount of E.M.D. paid or en-cashing the Bank guarantee or by resorting to any other remedy available under the law.
- d) If the successful Bidder upon award of the contract fails to pay the Security Deposit as per Clause of Annexure-'B' of the order / contract then the E.M.D. amount shall be forfeited by the Purchaser without pre judice to the right of the Purchaser to recover damages, if any.

### **13.0 EARNEST MONEY OF UNSUCCESSFUL BIDDER:**

**Earnest money deposited shall be** returned to the unsuccessful Bidder as soon as possible after the tender has been decided and on submission of original receipt of E.M.D payment to this office.

### **14.0 SUBMISSION OF BILL OF MATERIAL:**

The Bidder shall submit the tender specification wherever applicable. The specification submitted along with the tender shall not be considered for evaluation of the offer but the specification of the successful Bidder shall be scrutinized when the Purchaser decides to accept such tender.

The same approved by the Purchaser, shall be completed by the successful Bidder within **Seven Working Days** from the date of Letter of Award (LOA) of the contract. Any delay in this regard shall lead to cancellation of the Letter of Award at the risk and cost of the Bidder. The supplies against the contract shall conform to the approved detailed specification.

### **15.0 TIMELY SUBMISSION OF OFFER:**

Bidders are requested to submit their tender/offer **online only** on or before the due date and time for submission as mentioned in tender notice.

- a. Tender offer other than online offer will not be entertained or considered under any circumstances whatsoever.
- b. Bidders are requested to upload scanned copies of following documents in Volume-I (Technical Bid) such as- Tender Fee receipt or Demand Draft, EMD paid receipt or Demand Draft, GST Certificate, PAN Card, SSI Registration Certificate, Experience Certificates, IT returns, balance sheets of last 03 years, net worth certificate certified by CA. Type test report: Type test reports of any laboratories accredited by NABL (National Accreditation Board for testing & Calibration laboratories) should be enclosed for material where it is required, etc. Scanned copies of Volume-I (Technical Bid) need to be uploaded duly signed & your firm stamp. However, one set of Volume-I (Technical Bid) in hard copy duly signed on each page along with original Demand Drafts for Tender Fee and EMD (or Xerox copy of money receipt if paid in cash) should be submitted to this office before due date of submission.
- c. Price Bid shall contain only Annexure 'E' duly filled and signed.

### **16.0 INFORMATION REQUIRED WITH TENDER:**

- 1. The Bidder shall attach the relevant documents in order to show that the Bidder is qualified as required herein before under clause No 2.0 along with the offer.
- 2. In case of any deviation as regards the specification, the Bidder shall clearly indicate in separate sheet of technical/commercial deviation schedule.
- 3. The Bidder shall give the full address along with Telephone No. Fax, e-mail etc. for the purpose of correspondence. The letters/Notices served or left upon said address shall be deemed to have been served upon the Bidder or contractor. The Bidder shall immediately communicate the change in address, Telephone, Fax, E-mail etc., if any. Failure to intimate such change, any letter or notice served upon original address of the Bidder shall be deemed to be received by the Bidder/contractor.
- 4. Verbal statement or information furnished by the Bidder as regards the quality, quantity, arrangement of work or any other matter connected to the tender shall not be considered.

**17.0 DELIVERY OF THE EQUIPMENT/S:**

Bidder is requested to quote delivery F.O.R. Destination only. Bidder should quote clear delivery schedule in the format specified in tender document. Offers, with qualified delivery schedule which directly or indirectly affects the Conditions of Tender & Supply given in Annexure 'B' shall be liable for rejection.

**18.0 LANGUAGE OF THE TENDER:**

The tender filled in by the Bidder and all correspondence & documents relating to the tender exchanged between the Bidder and Purchaser shall be written in English language. Any document furnished along with the tender in a local vernacular language shall be accompanied with the English translation.

**19.0 AMMENDMENT OF THE TENDER:**

At any time prior to the date of opening of the tender, the purchaser may for any reason, whether at its own initiative or in response to a clarification required by the Bidder, modify the tender documents by an amendment will be notified to all the prospective Bidders who have received the tender documents and will be binding on them. Purchaser may at its discretion extend the date of opening of the tender.

**20.0 OPENING OF TENDER:**

It should be noted that, Volume No. I will be opened online first. If the Bidder fulfils the qualifying criteria as mentioned in Condition No. 16 above, then only Volume No. II will be opened. The date of opening of Price Bid will be informed to all concerned by SMS or e- mail.

**21.0 DISREGARD OF TENDER CONDITIONS:**

The Purchaser reserves the right to reject any tender, which does not confirm to any of the conditions / instructions etc.

Tender containing any deviations / additions / alterations / changes in the conditions of tender and supply as stated in Annexure 'A', 'B', 'C' & 'D' shall not be acceptable. The Bidder having signed all the tender documents indicates any deviations / additions / alterations / changes in the covering letter, unrelated annexures, schedules of the offer or elsewhere, the same shall be ignored and the offer shall be treated as meeting with all specified tender conditions.

**22.0 EXAMINATION OF TENDERS:**

The Bidder shall furnish all the data, drawings and other information / documents as per schedules attached to this specification, duly signed with the seal of the company, as a token of acceptance. The purchaser reserves the right to reject any offer for lack of any data as called for in the schedules and particularly in the technical details.

After the opening, the purchaser shall examine the tenders to determine whether they are complete, whether required confirmations have been furnished, whether the documents have been properly signed and whether the tenders are generally in order. Immediately after opening, the purchaser shall examine each tender to ascertain whether the essential / special terms and conditions are agreed.

**23.0 POLICY FOR TENDERS UNDER CONSIDERATION:**

The tenders shall be deemed to be under consideration immediately after they are opened and until such time the official intimation of award is made by the purchaser to the Bidders. While the tenders are under consideration, the Bidders and/or their representatives or other interested parties are advised to refrain from contacting by any means ,the purchaser and/or his employees/representatives on matters related to the tender under consideration. The purchaser, if necessary, shall obtain clarifications on the tender by requesting for such information from any or all the Bidders in writing, as may be necessary. All unsolicited correspondence, discussions etc. By the Bidder after opening of the price bid shall not be considered for tender evaluation purpose.

**24.0 ACCEPTANCE OF TENDER:**

The Purchaser does not bind itself to accept the lowest or any tender, neither will any reasons be assigned for the rejection of any tender or part of tender. It is also not binding on the Purchaser to disclose any analysis report on tender / samples. The Bidder on the other hand binds himself to supply any item or items selected from his offer in part or whole at the option of the Purchase

The Purchaser shall reserve the right to place an order for any quantity in excess to the extent of 50% or any less quantity, of the quantities offered by the Bidder.

**25.0 WITHDRAWAL OF INVITATION OF TENDER:**

The Purchaser reserves its right to withdraw the invitation of tender at any time before its acceptance is communicated to the successful Bidders.

**26.0 NAME OF AGENT / REPRESENTATIVE:**

In case the Bidder authorizes the agent or representative to deal on behalf of the Bidder, the name and address of such person should be informed to the purchaser.

**27.0 NOTIFICATION OF AWARD OF CONTRACT:**

The notification of Award of contract shall be communicated to the successful Bidder by Letter of Award (LOA) by registered post.

**28.0 VALIDITY OF THE TENDER:**

The Bidder shall keep the offer valid for acceptance up to and including last date of calendar month, covering the date of completion of 120 days (One Hundred & Twenty Days) from the date of opening of the tender and shall also agree to extend the period of validity required by the Purchaser. The Bidder shall not be allowed to modify or change the conditions of the tender while extending the period of validity.

**Maharashtra State Electricity Distribution Co. Ltd.**  
**Circle office- Jalgaon**  
**(Govt of Maharashtra Undertaking)**

**ANNEXURE 'B'**

**CONDITIONS OF TENDER AND SUPPLY**

**1.0 EFFECT OF CONTRACT:**

The contract shall be considered as having come in to force from the date of Notification of Award. The Bidder whose offer is accepted is hereinafter called "the supplier".

**2.0 SECURITY DEPOSIT:**

The supplier shall pay within 7 days, Security Deposit @ 10% of the value of the order. However, in respect of the following categories of suppliers, the Security Deposit applicable shall be as under:

The failure to make payment of Security Deposit within 7 days as above will be viewed seriously and the contract awarded shall be liable to be terminated.

The Security Deposit shall be paid in favour of Purchaser by way of:

- (i) Online RTGS/NEFT to MSEDCL's Bank of Maharashtra A/c No. 20024902956 IFS Code MAHB0000004, Jalgaon Branch for the office of the Superintending Engineer, MSEDCL, Jalgaon Circle or
- (ii) When the amount exceeds Rs. 5,000/-, Bank Guarantee from a Nationalized/ Scheduled Bank valid for the guarantee period of last consignment of materials as given in clause no. 23 of conditions of Tender and supply in the standard form of the Purchaser or

This Security Deposit online through RTGS/NEFT or in the form of Bank Guarantee or otherwise is for the due performance of the material/contract and the same shall be liable to apportion towards amount due or becoming due by the supplier on his failure to execute this order or any other contract and in the event of non-fulfilment of the terms and conditions of the contract.

The Security Deposit shall be refunded on the expiry of the guarantee period specified in condition No.23 stated herein below. In case of G.P. Notes the amount of Security Deposit payable should be on the basis of market value of the G.P. notes at the time of presentation of the G.P. Notes

**3.0 QUALITY OF SUPPLIES:**

All materials supplied shall be strictly as per specification quoted in tender.

**4.0 F.O.R. DESTINATION:**

The material is to be supplied at Jalgaon Store office of the Additional Executive Engineer (Stores In charge).

**5.0 Delivery period: As per schedule 'A' 15 days from date of receipt confirmed purchase order.**

**6.0 BILL OF MATERIALS:**

The supplier shall furnish bill of materials for each type of equipment/material offered which should be consistent with the drawing, sample, and specification and guaranteed technical particulars. The copies of the bill of materials should always be enclosed along with the bill submitted by the supplier for payment wherein he should specifically mention the materials / components dispatched out of the bill of materials, if the equipment is not sent in totality. Where the equipment/material to be supplied consist of more than one component, the supplier claiming payment for equipment/materials shall certify that all components of the equipment/ material have been supplied in full for the quantity indicated in the invoice. Part payment shall not be allowed.

**7.0 PACKING LIST:**

Each package shall contain, in waterproof cover, the detailed list indicating the order reference, date, list of content and reference to the approved bill of materials. Each item contained in the package shall be

described sufficiently to enable identification of the quantity, weight etc. There should not be any alteration in the packing list incorporated in the order, copy of the packing list should be sent to the consignee along with other documents.

#### **8.0 REPLACEMENT OF GOODS LOST, BROKEN OR DAMAGED:**

Notwithstanding anything herein contained, the supplier undertakes to be responsible for the safe arrival of the materials in good condition and without any loss or damage at the final destination and Until the same be actually delivered to and received by the Purchaser at its stores. Materials carried by railways or other carrier shall be deemed to be so carried at the risk of the supplier. In case of transit damage/shortages, the payment shall be made only for the quantity received in good and working condition and the consignee shall lodge claims with carriers and transfer the same to the supplier with all necessary documents for settlement of the same with carriers at the supplier's end. The transit damages/ shortages/losses reported by the consignee shall be repaired/replaced by the supplier duly inspected, free of cost, within one month from the date of such intimation of breakages/ shortages/losses without waiting for settlement of the claims from carrier or insurance co. etc.

#### **9.0 REPLACEMENT OF REJECTED MATERIALS:**

If, on inspection at the final destination, the Purchaser discovers any loss in the materials supplied or that they are received in damaged condition or that in the opinion of the Purchaser, they are not of the contracted quality or specification, the Purchaser shall be entitled (notwithstanding that the property in the materials shall have passed on to the Purchaser) to refuse to accept or to reject the materials altogether and claim damages or cancel the contract and buy its requirements from any of its suppliers stipulating earliest possible delivery and in accordance with its tender system against the supplier and recover the damages if any, from the supplier from any outstanding sums that may be due to the supplier from the Purchaser against this contract or against any of the contract entered into with the supplier, without prejudice to other rights and remedies available to it in law and reserving always to itself the right to forfeit the Security Deposit placed by the supplier for the due fulfilment of the contract. In case the stores/ materials are found not in accordance with the prescribed specifications and/or the approved sample, the same will be rejected and the supplier shall replace the rejected stores/materials free of cost within one month from the date of intimation. The replacement of goods shall also have to be got inspected as per inspection clause. Further if the stores/ equipment supplied becomes incomplete on account of either rejection or short supply of its components, the complete cost of the stores/equipment shall be recovered from supplier's bills without notice.

#### **10.0 TOLERANCE IN QUANTITY TO BE SUPPLIED:**

Variation in quantity to be supplied against confirmed order shall be permissible up to five percent per item per consignee.

#### **11.0 OCTROI AT DESTINATION:**

Octroi charges, if applicable, at destination shall be borne by the Purchaser.

#### **12.0 SUBMISSION OF BILLS:**

No payment shall be made for the supply of equipment/item in part components.

#### **13.0 PAYMENT OF BILLS:**

100% payment of the Contract price will be paid by RTGS only within reasonable period as per availability of funds after submission bills in triplicate along with S.R. Note (supplier's copy) to the **Accounts Section of Jalgaon Circle**

- a. Bill/Invoice.
- b. Other documents like proof of having paid the Excise Duty as required under the prevailing rules (In case the supplier is a trader, these documents from the original manufacturer of the product shall be produced.), copy of acceptance letter of bank guarantee for Security Deposit, authority of exemption thereof.

Where required by the Purchaser, the successful Bidder must send the operation and maintenance manuals, test Certificates, drawings etc. for the material ordered. These should be sent immediately after dispatch of material and a statement to that effect should be made in the invoice. Failure to comply with this provision will result in delay in payment of the bill.

The supplier shall forward the original R.R./ L.R. direct to the consignee along with various documents as stated below in this clause. The original bill shall be forwarded to Superintending Engineer, MSEDCL Jalgaon Circle, Jalgaon and marked ORIGINAL. GST Registration Certificate No. and Date held by him under the Sales Tax Act. The Purchaser shall not be responsible for delay in payment of bills if the supplier

fails to comply with any of the above requirements.

**c. The new payment policy adopted by MSEDCL from 01.05.2018 all vendor payment will made through Centralized Payment System (CPS) for the vendors bank related details and other information are required which submit in "Annexure-F"**

#### **14.0 TAXES AND DUTIES:**

- a) Notwithstanding the fact that contract price is exclusive of GST:
- b) Structural changes in and due to 'CENVAT' Scheme:-**
  - i) In the event of any structural change occurred in the CENVAT Scheme after the date of submission of the tender till the currency of the contract, the benefit out of such change shall be passed on to either of the parties.
  - ii) In the event of CENVAT's credit being extended by the Government of India to more items than those already covered, the firm should advise the purchaser about the additional benefits accrued or any variation thereof through a letter containing the following Certificate as may be considered necessary by the purchaser.
  - iii) "Where by declare that we can avail additional duty set-offs as per latest CENVAT Scheme in force now and we here by give a reduction of....per unit and agree to revise the prices indicated in the order. The current GST of .....% is payable on this reduced price. Therefore, we request you to amend the order accordingly." The above clause shall not be applicable for traders & for those firms who quoted zero percentage GST.

#### **15.0 DEDUCTION:**

Any amount or amounts which become payable by the supplier to the purchaser under a particular contract, shall be deducted by the purchaser from any amount/amounts due or becoming due to the supplier under the same or any other contract and shall be adjusted against dues to the Purchaser.

#### **16.0 GUARANTEE:**

Goods offered shall be guaranteed for a period of 12 months from the date of commissioning or 18 months from the date of dispatch whichever is earlier. The stores/ materials found defective within the above guarantee period shall be replaced /repaired by the supplier free of cost, within one month of receipt of intimation. If the defective store/materials are not replaced /repaired within the specified period as above, the Purchaser shall recover an equivalent amount plus 15 % supervision charges from any of the bills of the supplier. Further, in case of repeated failures of equipments / material, the Purchaser reserves the right to debar/disqualify the supplier for future tenders/orders.

#### **17.0 LIFTING OF REJECTED / DAMAGED MATERIAL:**

- a) On failure to replace or repair the transit damaged or rejected material within one month from the date of intimation as required under tender, it shall be deemed to have concluded that such material is finally rejected. The damaged/rejected material shall be lifted by the supplier within 30 days from the date of receipt of notice to that effect from the concerned consignee on reimbursement to the Purchaser of the cost of the material/equipment, if any, already paid in terms of payment clause in the contract and actual expenses incurred by the consignee towards octroi, handling, demurrage/wharf age/ under charges, freight, insurance premium etc. The Purchaser shall not be responsible in any case for the loss, destruction damage, deterioration of the material after expiry of the said 30 days period.
- b) If the supplier fails to lift the material within this period, the material will remain with the Purchaser at the cost and risk of the supplier. Supplier shall, therefore, be liable to pay ground rent @ 0.1% per day of purchase cost of the material to be lifted from the date of intimation of rejection till the actual date of lifting.
- c) The Purchaser will be also free to dispose of such material, after the period of said 30 days, by Public Auction/Tender Notice/Destruction as may be deemed fit and storage charges @ 0.1 % per day of purchase cost will be recovered from the date of intimation of rejection of materials till the date of realization of the sale amount/physical removal of the material besides the actual expenses incurred as referred to at (a) above.
- d) Not with standing what is contended in the fore going clauses, the supplier shall be liable to pay the Purchaser the cost and expenses incurred by the Purchaser, if any , including ground rent and the same shall be appropriated and recovered from the sale proceeds.

#### **18.0 LIQUIDATED DAMAGES FOR LATE DELIVERY:**

In case the materials are not delivered within the period stipulated in the order, the supplier shall be liable to pay at the discretion of the competent authority of the Purchaser, the liquidated damages to the Purchaser up to half percent per week or part of week on the delayed quantity subject to a

maximum of cumulative ceiling of 10% reckoned on the contract value of such complete portion or section of the plant, equipment or material delayed and also the portions up applied which could not be brought in to commission due to any part thereof not having been delivered in time. Due consideration may be given in the levy of liquidated damages for reasons absolutely be you and the control of the supplier, for which documentary evidence shall be produced to the satisfaction of the competent authority of the Purchaser. The Purchaser shall be entitled to deduct/recover the amount of liquidated damages from the current bill payable to the supplier or any other amount due or payable to him against this or any other contract. For computing the liquidated damages for delayed supplies, the date of railway receipt to or the date of receipt of materials at stores in case of road transport, shall be the date of delivery.

#### **19.0 PERFORMANCE OF CONTRACT:**

The Purchaser will not be in any way liable for non-performance either in whole or in part of any contract or for any delay in performance thereof in consequence of strikes, shortage, non-availability of raw materials, combination of labour or workmen or lockout, breakdown or accident to machinery or accidents of whatever nature, failure on the part of the railways to supply sufficient wagons to carry essential raw materials etc. and finished products from the stores, subject to the provision and stipulation made in condition No. 24 as stated above i.e. Liquidated damages for late delivery.

#### **20.0 POWER OF ATTORNEY:**

It will be obligatory on the supplier to communicate the revocation of Power of Attorney, if any, after submission of offer till the execution of contract failing which the act(s) & action done by the agent/representative shall be deemed to be the valid act(s) & action of the Bidder/supplier.

#### **21.0 JURISDICTION:**

Any disputes or difference arising under, out of or in connection with this tender or contract if concluded, shall be subject to the exclusive jurisdiction of the "Courts" in **Jalgaon**.

#### **22.0 TERMINATION OF CONTRACT:**

In case the contractor/supplier fails to deliver the stores/material or any consignment thereof within the contracted period of delivery or in case the stores/materials are found not in accordance with the prescribed specification, the Purchaser shall exercise in discretionary power-either,

- a. to purchase from elsewhere, after giving due notice to the contractor, at the risk of contractor, such stores/material not so delivered or other of similar description,  
Without cancelling the contract in respect of consignment not yet due for delivery,
- OR**
- b. to cancel the contract reserving Purchaser's right to recover damages, notwithstanding that the powers under (a) and (b) referred above are in addition to the rights and remedy available to the Purchaser under the General Law of India relating to contract.

#### **NOTES:**

- (i) In the event of risk purchase of stores of similar description, the option of the Purchaser shall be final. In the event of action taken under (a) or (b) above, the supplier shall be liable for any loss which the Purchaser may sustain on that account but the supplier shall not be entitled to any saving on such purchases made against default.
- (ii) The company reserves its right not to deal with the supplier, whose contract is terminated for whatsoever reasons, for a period from the date of cancellation of contract as may be deemed fit.
- (iii) The company may also blacklist the supplier whose contract is terminated for whatsoever reasons on giving opportunity to show cause for such action to the supplier.
- (iv) The decision of the Purchaser shall be final as regards the acceptability of the stores supplied by the supplier and the Purchaser shall not be required to give any reason in writing or otherwise at any time for the rejection of the stores/materials.



**Maharashtra State Electricity Distribution Co. Ltd.**  
**Circle office-Jalgaon**  
**(Govt of Maharashtra Undertaking)**

**ANNEXURE-C**

Sr. No	Particulars	
1	Purchase of Tender: Please quote Money Receipt No. or UTR No. & Date against which Tender is purchased	Yes/No
2	Earnest Money Deposit: E.M.D. paid vide Money Receipt No. & Date (if by RTGS/NEFT) or BG no & Date & Validity	Yes/No
3	Type of Concern: Whether the firm is Proprietary/Partnership/Private Ltd. Or Limited Company.	
4	Registration with MSEDCL: Whether you are registered with the MSEDCL.	Yes/No
5	Manufacturer or Trader :Whether you are manufacturer or Trader, If Trader, Please indicate the name & Address of Manufacturer, whose product you have offered.	
6	Past Performance :Whether you have executed orders of same nature in MSEDCL.(Please attach a copy giving details of orders executed)	Yes/No
7	Monthly Capacity :Assessed capacity per month which can be supplied *	
8	Testing Facilities :Whether the unit is having facility of testing as per relevant ISI	Yes/No
9	Validity of offer :Offer is valid for 60 days	
10	Income Tax Clearance Certificate :Please enclose latest I.T. Clearance Certificate	Yes/No
11	Annual Turn-Over :Annual Turn – Over for the last 3 years	Yes/No
12	Any other information :	
13	GST Registration No	Yes/No
14	Type test report: Type test reports of any laboratories accredited by NABL (National Accreditation Board for testing & Calibration laboratories) should be enclosed where ever it is required.	Yes/No
15	Sample Submission	Yes/No

**ANNEXURE ' D'**

**TECHNICAL SPECIFICATION**

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**Attached separate file.....**

SPEC NO. MM CELL: CE/MS/MS-II/Numerical relays/02-2015.

TECHNICAL SPECIFICATION FOR Non Directional Over current/ Earth fault and Differential Numerical Relays to be used in 33/22/11 kV Control & Relay Panels for Lines and Power Transformer. (Except Communication Protocol)

Seal and Signature of the Authorized Signatory

**SCHEDULE - 'A'****BIDDER'S EXPERIENCE**

Bidder shall furnish here a list of similar orders executed / under execution by him to whom a reference may be made by purchaser in case he considers such a reference necessary.

<b>Sr. No.</b>	<b>Name of client &amp; Description</b>	<b>Value of order</b>	<b>Period of supply &amp; Commissioning</b>	<b>Name and address to whom reference may be made</b>
1				
2				
3				
4				
5				

**SCHEDULE-B**  
**SECURITY DEPOSIT (BANK GUARANTEE)**

**Bank Guarantee No: -****Date:-**

The [Name of the Bank and address] hereby agree unequivocally and unconditionally to pay at Jalgaon Circle Office , within 48 hours, on demand in writing from the Maharashtra State Electricity Distribution Co. Ltd. (formerly known as M.S.E.B.) or any officer authorized by it in this behalf, of any amount up to and not exceeding Rs..... (Rupees ..... Only) to the said Maharashtra state Electricity Distribution company Ltd. On behalf of M/S ..... who have tendered and /or contracted or may tender of contract hereafter for supply of material , equipment or services to the Maharashtra state Electricity Distribution company Ltd ( formerly known as MSEB) against Order No..... Dt..... Total Value of the order is Rs.....(Rs.....Only).

This agreement shall be valid and bidding on this Bank up to and including ..... (Claim period up to and including ..... ) shall not be terminable by notice or any change in the constitutions of bank or the firm of contractors or any reasons whatsoever and our liability hereunder shall not be impaired or discharged by any extension of time or between parties to the said within written contract. The Validity of this bank Guarantee will be extended by us for the further period of Six Months, one month prior to its present validity period at the request of Maharashtra State Electricity Distribution Co. Ltd.

In case any dispute arising out of or in connection with the extension or encashment of Bank Guarantee, the court in Jalgaon will have jurisdiction.

Our liability under this Guarantee is restricted to Rs. ....(Rupees.....only)our guarantee shall remain in force until (claim period up to and including ..... Unless a suit of action to enforce a claim under guarantee is filed against us within six month from the aforesaid date i.e ..... , all rights of Maharashtra state Electricity Distribution company Ltd( formerly known as MSEB)under the said guarantee shall be forfeited and we shall be relieved and discharged from our liability there under.

Notwithstanding anything contained herein:

- 1) Our Liability under this bank guarantee is restricted to..... (Rupees.....only).
- 2) This bank guarantee is valid up to ..... (Claim period up to including .....).
- 3) We are liable to pay the guarantee amount or any part thereof under this bank guarantee only and only if Maharashtra state Electricity Distribution company Ltd( MSEDCL) serve up on us written claim or demand on or before.....

(Name of Bank)

**Date:-**

(Rubber seal and code no of signatory)

**Place:-**

**SCHEDULE-C**

**LETTER TO THE SUPERINTENDING ENGINEER**

To,

The Superintending Engineer  
Maharashtra State Electricity Distribution Co. Ltd.  
Jalgaon Circle Office,  
Vidyut Bhavan, Old MIDC, Ajantha Road,  
Jalgaon, 425003  
Phone No.: 7030440084

Dear Sir,

We agree to supply the material the mentioned in the above tender (SE/JLG/T-08/2024-25) at the rates here in tendered by us subject to the conditions of the tender which we have carefully read and thoroughly understood the same.

We hereby agree to keep this offer open for 60 days after the returnable date of the tender and shall be bound by communication of acceptance dispatched within the prescribed time.

Yours faithfully,

Date:

Name and address of the Bidder

Seal and signature of the Bidder.

Sample Form of  
**BID SECURITY (EMD)**  
**(BANK GUARANTEE)**

WHEREAS, \_\_\_\_\_ [Name of Bidder] (hereinafter called “the Bidder”) has submitted his bid dated \_\_\_\_\_, 2024, for the supply of \_\_\_\_\_, including one year guarantee period, and as described in the Tender No ..... in Jalgaon Circle Office (hereinafter called “the Bid”).

KNOW ALL PEOPLE by these presents that We \_\_\_\_\_ [Name of Bank] of [Name of Country] \_\_\_\_\_ having our registered office at \_\_\_\_\_ (hereinafter called “the Bank”) are bound unto the Maharashtra State Electricity Distribution Company Limited, Represented by the Superintending Engineer (Jalgaon Circle Office), address:..... in the sum of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) for which payment well and truly to be made to the said Employer. The Bank binds himself, its successors and assigns by these presents. This guarantee will be payable at our branch office at \_\_\_\_\_ [Address of branch office at Jalgaon Circle Office Maharashtra],

SEALED with the Common Seal of the said Bank this \_\_\_\_\_ day of \_\_\_\_\_, 2024.

The CONDITIONS of this obligation are:

1. if the Bidder withdraws his Bid during the period of Bid validity specified in the Form of Bid; or
2. if the Bidder refuses to accept the correction of errors in his Bid; or
3. if the Bidder is determined at any time prior to award of contract to have engaged in corrupt or fraudulent practices in competing for the contract; or
4. if the Bidder, having been notified of the acceptance of his Bid by the Employer during the period of Bid validity:
  - a) fails or refuses to execute the Form of Contract Agreement in accordance with the Instructions to Bidders, if required; or
  - b) fails or refuses to furnish the Security deposit, in accordance with the Instructions to Bidders;
5. in case of Joint Venture if there is any breach in the Joint Venture before finalization of tender & issue of LOA within original or extended period of validity of the bid.

we undertake to pay to the Employer up to the above amount upon receipt of its first written demand, without the Employer having to substantiate his demand, provided that in its demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or all of the above conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date 150 days after the deadline for submission of bids as such deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not later than the above date.

DATE \_\_\_\_\_

Signature of Bank’s authorized officer

SEAL \_\_\_\_\_

## Annexure-F

Name of Circle Office:

Vendor Master updation

<b>Sr. No.</b>	<b>1</b>
<b>Name of the Vendor</b>	
<b>Vendor No</b>	
<b>Detailed Address</b>	
Street/Area	
Village/Town	
<b>District</b>	
<b>PIN</b>	
<b>State</b>	
<b>Contact No.</b>	
<b>Nature of Business</b>	
<b>SSI/LSI</b>	
<b>PAN No.</b>	
<b>GSTN No.</b>	
<b>Bank Details</b>	
Bank Account Number	
Bank Name	
Branch Name	
IFSC Code	
MICR Code	
<b>Authorised Signatory of vendor</b>	
Name of Person	
Designation	
Contact No.	
<b>FOR OFFICE USE</b>	
<b>Details Updated By</b>	
Name of Employee	
CPF No	
Designation	
Office Name (Circle /Circle )	
<b>Details Verified By (F&amp;A) Incharge of particular Office.</b>	
Name of officer	
CPF No	
Designation	
Office Name (Circle /Circle )	
<b>Details Consolidated by Zone office -MSEDCL's Zonal (F&amp;A)Officer verified vendor data received from Circle</b>	
Name of Officer	
CPF No	
Designation	
Office Name Zone	

Seal and Signature of the Authorized Signatory



Maharashtra State Electricity Distribution Co. Ltd.

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**SPEC NO. MM CELL: CE/MSC/MSC-II/Numerical relays/02-2015.**

**TECHNICAL SPECIFICATION**

**FOR**

**Non Directional Over current/ Earth fault and Differential Numerical Relays to be used in 33/22/11 kV  
Control & Relay Panels for Lines and Power Transformer**

**FOR**

**VARIOUS 33/22/11 kV SUBSTATIONS**

**IN**

**MAHARASHTRA**



<b>I N D E X</b>
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CLAUSE NO.	CONTENTS
1	SCOPE
2	TECHNICAL QUALIFYING REQUIREMENT
3	SERVICE CONDITIONS
4	PROTECTIVE NUMERICAL RELAYS PRINCIPAL REQUIREMENTS
5	TESTS
6	INSPECTION
7	MINIMUM TESTING FACILITIES
8	PERFORMANCE GUARANTEE
9	ACCEPTANCE AND ROUTINE TESTS
10	DOCUMENTATION
11	TRAINING
12	PACKING AND FORWARDING
13	DOCUMENTS TO BE SUBMITTED ALONG WITH OFFER.
E- GUARANTEED TECHNICAL PARTICULARS	
SCHEDULE I- THE LIST OF TYPE TEST REPORTS FOR NUMERICAL RELAYS (BACK UP/DIFFERENTIAL)	
SCHEDULE II-FORMAT OF UNDER TAKING FROM RELAY MANUFACTURERS	

**Technical Specifications for Non Directional Over current/ Earth fault and Differential Numerical Relays to be used in 33/22/11 kV Control & Relay Panels for Lines and Power Transformer**

**SPEC NO. CE/MMC/MSC-II/ Numerical Relays/022015, Date: 25.02.2015**

**1. SCOPE:**

This specification covers design, manufacture, assembly, testing before supply, inspection, packing and delivery and other basic technical requirements in respect of **Non Directional Over current/ Earth fault and Differential Numerical Relays to be used in 33/22/11 kV Control & Relay Panels for Lines and Power Transformer** to be installed at various 33/22/11 kV sub-stations of MSEDCL. The equipment to be supplied against this specification are required for vital installations where continuity of service is very important. The design, materials and manufacture of the equipment shall, therefore, be of the highest order to ensure continuous and trouble-free service over the years.

- 1.1. The equipment offered shall be complete with all parts necessary for their effective and trouble-free operation. Such parts will be deemed to be within the scope of the supply irrespective of whether they are specifically indicated in the commercial order or not.
- 1.2. It is not the intent to specify herein complete details of design and construction. The equipment offered shall conform to the relevant standards and be of high quality, sturdy, robust and of good design and workmanship complete in all respects and capable to perform continuous and satisfactory operations in the actual service conditions at site and shall have sufficiently long life in service as per statutory requirements. If the dimensional drawings attached with this specification and the notes thereto are generally of illustrative nature. In actual practice, notwithstanding any anomalies, discrepancies, omissions, in-completeness, etc. in these specifications and attached drawings, the design and constructional aspects, including materials and dimensions, will be subject to good engineering practice in conformity with the required quality of the product, and to such tolerances, allowances and requirements for clearances etc. as are necessary by virtue of various stipulations in that respect in the relevant Indian Standards, IEC standards, I.E. Rules, I.E. Act and other statutory provisions.
- 1.3. The Tenderer/supplier shall bind himself to abide by these considerations to the entire satisfaction of the purchaser and will be required to adjust such details at no extra cost to the purchaser over and above the tendered rates and prices.

**2. TECHNICAL QUALIFYING REQUIREMENTS :**

- 1) The bidder shall have performance experience of minimum two years for successful operation for the offered relay in respect to implementation of IEC 61850 protocol to any SCADA/substation auto system in reputed power sector utility in India as on the due date of bid opening. The bidder shall submit copies of the purchase orders and performance certificates for the same along with the bid.
- 2) Inter-Operability Test : One sample of offered relay shall be submitted by the bidder free of cost to TQA office, Pune within 15 days from the date of tender opening. The Vendor has to arrange all required software, hardware tools etc. for carrying out inter operability test. The MSEDCL will provide only space for carrying out test. Inter operability test of the offered relay with the existing relay in MSEDCL network or other manufacture relay will be witness by Testing department, MSEDCL. Those bidders who failed to submit the sample & show inter-operability testing of offered relay, their offer shall be liable for rejection against the Tender.

**3. SERVICE CONDITIONS:****3.1. System particulars:**

- a. Nominal system voltage ... 33 kV, 22 kV & 11 kV
- b. Corresponding highest system voltage ... 36 kV, 24 kV & 12 kV
- c. Frequency ... 50 Hz $\pm$ 3%
- d. Number of phases ... 3
- e. Neutral earthing ... Solidly grounded

**3.2. Equipment supplied against the specification shall be suitable for satisfactory operation under the following tropical conditions:-**

- a. Max. ambient air temperature : 50 ° C
- b. Max. relative humidity : 100 %
- c. Max. annual rainfall : 1450 mm
- d. Max. wind pressure : 150 kg/sq.m.
- e. Max. altitude above mean sea level : 1000 mtrs.
- f. Isoceran level : 50
- g. Seismic level(Horizontal acceleration) : 0.3 g.
- h. Climatic Condition Moderately hot and humid tropical climate conducive to rust and fungus growth.
- i. Reference Ambient Temperature for temperature rise : 50 deg C

**3.3. The climatic conditions are prone to wide variations in ambient conditions and hence the equipment shall be of suitable design to work satisfactorily under these conditions.****3.4. Auxiliary supplies available at the various sub-stations are as follows:-****3.4.1. Rating:**

i.	A. C. Supply	240 volts with $\pm$ 10% variation
ii	D.C. Supply	30 V DC / 110 V DC /220 V DC with +10% to – 15% variation
iii	Frequency	50 Hz with $\pm$ 3%

**3.5. The Relays at various sub-units/components mounted on the panels shall conform to the latest revisions of the following standards :**

a)	IS 3231 / 1986 Reaffirmed 1997	Electrical relays for power system protection
b)	IEC 60255 amended up to date	Numerical biased protection relay
c)	IEC 61850	Communication Protocol

**4. PROTECTIVE NUMERICAL RELAYS PRINCIPAL REQUIREMENTS:**

For 33/22/11 kV lines, Non directional 3 O/C & 1 E/F relay with High set feature shall be provided. Numerical relays shall be suitable for auxiliary supply (24 V to 220 V DC/AC with  $\pm 20\%$  tolerance ) and shall have a reset push button and a test push button to test the relay function with provision to trip bypass push button. The relays should have following Principal Requirements:

**(A) Numerical non directional 3 O/C + 1 E/F with high set feature for lines conforming to IEC 60255 & IS 3231 up to date.**

Elements	3 O/C + 1 E/F + High set for both O/C & E/F separately
CT Secondary input current to relay	Selection for 1 A / 5 A through software & shall be possible at site
Operating Characteristics selectable	<ol style="list-style-type: none"> <li>1. IDMT – 3 Sec.</li> <li>2. IDMT- 1.3 sec.</li> <li>3. Very Inverse</li> <li>4. Extremely Inverse</li> <li>5. Definite time</li> <li>6. User defined inverse</li> <li>7. Long time inverse</li> </ol>
Auxiliary supply	24 V to 220 V DC/ AC with +/- 20 % tolerance
Instantaneous O/C Plug setting	5 % to 400% in steps of 1%
Instantaneous E/F Plug setting	5 % to 200 % in steps of 1 %
High Set O/C setting	5 % to 4000 % in steps of 1 %
High Set E/F setting	5% to 2500 % in steps of 1 %
Time multiplier setting for O/C & E/F	0.02 to 2.0 in steps of 0.01.
Time delay for High set O/C & E/F	0.01 sec to 15 sec in steps of 0.01 sec.
Memory storage for fault information	Storing of latest 500 events with date & time stamping and storage of latest 10 fault records, fault amplitude , type of fault, faulty phase with FIFO feature (available on display & shall be retrievable through software)
Thermal overload function	To protect cables & transformers from the effects of long term degradation on overloading, the relay shall have the thermal overload setting as per IEC.
Auto reclose function	Four shot, three phase auto reclose facility with independent time setting shall be available

Pre-Logic	User programmable facility to achieve customized functions, create logics with external information through DI/DO etc.
Mounting	<ol style="list-style-type: none"> <li>1) Relay should be flush mounted with preferably DRAW OUT type model with CT shorting facility of make before break type.</li> <li>OR</li> <li>2) Flush Mounted with fixed type connections shall also be considered</li> <li>3) All relay connections shall be fixed screw type terminals with adequate spacing on back side.</li> <li>4) Galvanic isolation between field connection &amp; relay hardware.</li> </ol>
LED indications	<p>7 programmable LEDs &amp; 1 LED for healthy indication.</p> <p>Colour of LED</p> <p>01- Power ON – Green colour</p> <p>02- Pick up – Yellow colour</p> <p>03 – L1 – Red colour</p> <p>04 – L2– Red colour</p> <p>05 – L3– Red colour</p> <p>06 – E/F– Red colour</p> <p>07 – High set– Red colour</p>
Push buttons	Reset push button for resetting the relay manually. Functional keys should be available for separate trip command.
Output contacts	The relay shall 6 NO + 2 changeover potential free and heavy duty programmable contacts. Min 8 nos relay output contacts shall be provided for specific function outputs for alarm, trip & trip circuit supervision. All output contacts should be freely programmable.
Contact rating	Continuous carry -5A, Make & carry for 0.2 sec-30A
Self diagnosis feature	Relay should have self diagnosis for its healthiness of functioning & should show indication in case of its failure
Password protection	The relay should have provision password protection for the applied settings
Selectivity of primary CT current	The relay should have facility to select the primary CT current from 50A to 1600A in steps of 50A. The relay should display the CT primary current.
Operational indicator	LED
IS reference	IEC 60255 , IEC 61850, IS 3231 amended up to date
LCD Display	Relay shall have minimum 4 line LCD backlit display
Features	Minimum 2 setting groups (3 phase and 1 phase)

Disturbances recorder	The DR shall capture waveforms of analogue channels, and all the DI channels & the DO channels. It shall be possible to configure and capture in DR, all the internal functions like overcurrent start etc. for better analysis of the fault information. It shall have a minimum storage of 10 records of 2 sec each (total memory 20 sec). It shall have facility to record information prior to fault incidence with a pre-trigger time setting of 25 % (programmable).
Communication protocol	<ol style="list-style-type: none"> <li>1) One No. of IEC 61850 protocol compliant Ethernet, RJ 45 port on rear side for communication with SCADA system.</li> <li>2) Functioning of relay shall not hamper to fault occurring on any interconnected relay</li> <li>3) One front port RS 232/USB 2.0 relay parameterization &amp; configuration etc. with the help of PC &amp; suitable interfacing cable with one end having RS 232 port &amp; other end USB 2.0 to be provided to connect with PC free of cost.</li> <li>4) Relay should generate GOOSE message as per IEC 61850 standard for interlocking &amp; also ensure interoperability with third party relays.</li> </ol>

Note: 1. LBB (Local Breaker Backup) feature shall be available in relay with time setting 0-600 sec in steps of 100 msec.

2. CT/PT connectors on relay shall be screw type .

3. Relay shall be supplied with license software & all connecting accessories for configuration/data downloading etc. Necessary software for relay setting, retrieving DR,event log,trip log shall be supplied by bidder free of cost. Necessary multiuser/corporate license software is to be supplied to MSEDCL for installation on all Testing division PC's. Bidder has to supply communication hardware for relay setting, DR downloading from front port. This device shall be compatible to USB/RS232 port on front end.

4. The bidder shall provide all necessary software tools alongwith source codes to perform addition of bays in future & compatible integration with SCADA by the user. These software tools shall be able to configure relay,add analog variable alarm list,event list modify interlocking logics etc for additional bays/equipments which shall be added in future.

For 33/11 kV transformers of rating 10 MVA, differential protection shall be provided. Transformer differential relay shall be Numerical biased differential relay, with in built current amplitude & vector group compensation feature & also with differential high set element for two winding power transformer conforming IEC 60255. The principal requirements are given below.

B) Numerical biased differential protection relay with inbuilt current amplitude & vector group compensation feature & also with differential high set element for two winding power transformer conforming to IEC 60255 -22(1-6), IEC 60255-5 amended up to date.

1.	Auxiliary voltage	24 V to 220 V DC/AC with +/- 20 % tolerance
2.	C.T. secondary input current to relay	Selection for 1 A / 5 A through software shall be possible at site for both HV & LV sides.
3.	Online display	LCD, 4 line with backlit. HV & LV phase currents & differential current on display

4.	Mounting	<p>1) Relay should be flush mounted with preferably DRAW OUT type model with CT shorting facility of make before break type. OR</p> <p>2) Flush Mounted with fixed type connections shall also be considered</p> <p>3) All relay connections shall be fixed screw type terminals with adequate spacing on back side.</p> <p>4) Galvanic isolation between field connection &amp; relay hardware</p>
1)	Features & Programmable setting Range	
	a) Operating Current (Minimum)	Operation based on fundamental frequency with 10% to 100% in steps of 5%.
	b) Adjustable bias setting	10% to 50 % In (neutral current)
	c) Bias (Minimum) Setting	<p>Dual bias characteristics</p> <p>Slope I- 10% to 50% in steps of 5%</p> <p>Slope II- 50% to 400% in steps of 5 %</p>
	d) Programmable HV/LV CT ratio of T/F vector group	
	e) CT correction factor	<p>Primary - 0.1 to 2 in steps 0.001</p> <p>Secondary- 0.1 to 2 in steps 0.001</p>
	f) Differential High set setting	100% to 4000% in steps of 50%
	g) Time delay for High set O/C & E/F	0.01 sec to 15 sec in steps of 0.01 sec.
	h) Harmonic restrain	<p>2<sup>nd</sup> harmonic blocking limit 10% to 80 % in steps of 5%</p> <p>5<sup>th</sup> harmonic blocking limit 10% to 80 % in steps of 5%</p>
2)	DC burden	<p>Quiescent condition – approx 4 watt</p> <p>Under trip condition – 30 Volt - approx 4 watt, 110 Volt - approx 7 watt.</p>
3)	AC burden	<p>Through current only – approx 0.15 VA for 1 amp &amp; 0.30 VA for 5 amp (per bias circuit)</p> <p>Bias &amp; differential Ckt only : 2.8 VA for 1 amp &amp; 3.2 VA for 5 amp.</p>
4)	Contact arrangements	
	a) Binary inputs	Minimum 08 nos. suitable for station auxiliary DC i.e 24 V to 220V DC/AC with +/- 20 % tolerance

	b) Outputs	The relay shall 6 NO + 2 changeover potential free and heavy duty programmable contacts. Min 8 nos relay output contacts shall be provided for specific function outputs for alarm, trip & trip circuit supervision. All output contacts should be freely programmable.
5)	Contact rating	Continuous carry -5A, Make & carry for 0.2 sec-30A
6)	Current Input	Six for differential.
7)	Disturbances recorder	<p>To record graphic form of instantaneous values of current in all two windings in Sine analog channel during fault &amp; disturbance for the pre-faulty &amp; post fault period. Minimum 20 sec, 10 fault, 500 events. The disturbance recorder shall have the facility to record the following external digital channel signals apart from digital signals pertaining to differential relays.</p> <p>a) Backup relay operated- 01 inputs</p> <p>b) Buchholz/ OLTC- Alarm /trip, 4 no. inputs</p> <p>c) WTI/OTI/PRV - Alarm/ trip, 06 no. inputs</p>
8)	Features	Minimum 2 setting groups (3 phase and 1 phase)
9)	Communication protocol	<p>1) One No. of IEC 61850 protocol compliant Ethernet, RJ 45 port on rear side for communication with SCADA system.</p> <p>2) Functioning of relay shall not hamper to fault occurring on any interconnected relay</p> <p>3) One front port RS 232/USB 2.0 relay parameterization &amp; configuration etc. with the help of PC &amp; suitable interfacing cable with one end having RS 232 port &amp; other end USB 2.0 to be provided to connect with PC free of cost.</p> <p>4) Relay should generate GOOSE message as per IEC 61850 standard for interlocking &amp; also ensure interoperability with third party relays.</p>
5)	Standards	As per IEC 60255-22(1-6), IEC 60255-5, IEC 61850
6)	<p>General features:</p> <p>a) Relay should be numerical Type.</p> <p>b) Relay shall be high speed with an operating time less than 50 ms at 5 times rated current.</p> <p>c) Relay shall measure true RMS value.</p> <p>d) Relay shall have continues self monitoring &amp; diagnostic feature for healthiness.</p> <p>e) Relay shall have immunity to magnetizing in rush current.</p> <p>f) Relay shall be stable on heavy through faults.</p> <p>g) Relay shall be password protected.</p> <p>h) Relay shall receord &amp; have memory log up to last minute 10 faults.</p> <p>i) The relay shall have front end Ethernet / RJ 45 communication port for compatibility to</p>	



	SCADA to use with PC/Laptop for local access to setting , event & recording in addition to scroll button for the same.
j)	The supplier shall provide customized licensed software copy & communication cable for local as well as remote communication.

In case any special software/devices are required for the testing/setting of the protective relays, the bidder shall include one set of such accessories in the offer free of cost. The unit price for such items shall be indicated in the offer so as to enable the purchaser to order out more sets, if required.

The relay manufacturers should extend necessary technical support and back-up guarantee for the satisfactory operation of the relay. The tenderer shall also furnish an undertaking confirming that the relay offered is in the current range of manufacture and will not be phased out for at least 5 years from the date of supply.

## 5. TESTS :

### Type Test :

The relays offered in the Tender should have been successfully type tested at any 3<sup>rd</sup> party NABL Lab in line with relevant Standards IEC 60255 & IS 3231 amended up to date and the Technical Specification within the last 5(five) years prior to the date of opening of the Tender.

### **A. The List of type Test reports of details of Numerical relays (Back up/Differential) are as follows:**

Sr. No.	Title of Type Test
1	Functional Test (Under normal operating condition )
2	Power consumption in current circuit
3	Power consumption in auxiliary circuit
4	Dielectric test
5	Impulse voltage test
6	High frequency interference test
7	Radiated radio frequency electromagnetic field immunity test
8	Surge immunity test
9	Electrostatic discharge test
10	Fast transient disturbance test
11	Vibration response test
12	Shock response test
13	Cold test (storage & operating)
14	Dry heat test (Storage & Operating )
15	Degree of protection IP 54
16	Thermal (short time thermal withstand test)
17	Drop out , pick up , ratio test
18	DC supply interruption
19	AC ripples on DC supply
20	Voltage dips and short interruptions

### **B. The List of routine Tests of Numerical Relays are as follows:**

Operating value test
Operating time test
Communication/ SCADA compatibility conformance Test

The Copies of type test reports in respect of all offered relays shall invariably be submitted along with the offer. Incomplete type test reports will be treated as invalid and the offer will be liable for rejection.

If offered relays are type tested at any 3<sup>rd</sup> party NABL before 5 years from the opening of tender, the same will be considered for placement of order. However, bidder has to carry out these tests at his own cost at any third party NABL Lab before commencement of first supply. Undertaking in this respect will have to be submitted along with offer otherwise the offer will be liable for rejection.

The bidder shall submit copies of the valid Type Test Reports for approval immediately on receipt of LOA.

Even if the equipment/material has been type tested within five years, the purchaser reserves the right to demand repetition of one or more tests included in the list of type tests in the presence of purchaser's representative.

The MSEDCL shall have the option to carry out various tests including type tests as per specification on the samples selected at random from the supplies effected, to ensure that the supplies conform in quality and workmanship to the relevant specification. The testing shall be done at independent laboratory at MSEDCL's cost. Due notice shall be given to supplier for such sample selection and such testing thereof to enable him to be present for the same if so desired by him. If the supplier or his authorized representative fails to attend the sample selection and testing, the same shall be carried out unilaterally by the MSEDCL and the result thereof shall be binding upon the supplier. In case the sample selected from the supplies fails to withstand the required tests, then for first time failure of sample,

- Supplier shall have to replace the full quantity of the respective inspected lot supplied to various Stores and lying unused at Stores.
- For the quantity already accepted against the order and used, deduction in price of 10% of the value of material supplied shall be made

AND

in respect of further supplies made against the order, if failure of samples is noticed (i.e. second time failure against the order)

- The quantity lying unused at various Stores shall be rejected.
- for the quantity already accepted against the order and used, deduction in price of 10% of the value of material supplied shall be made.
- Balance quantity against the order including the rejected qty. shall be cancelled without any liability on either side,
- The firm will be debarred from dealing with the MSEDCL upto a period of three years from the date of rejection.

The purchaser reserves the right to conduct tests included in the list of Type Tests on requisite number of samples/items from any of the lots during the tenure of the supply, at the purchaser's cost in the presence of manufacturer's representatives. If the equipment/material does not withstand the type test, then the equipment/material supplied till then will be liable for rejection. The supplier, in such an eventuality, shall be allowed to modify the equipment and type test the same again at his cost in the presence of the purchaser's representative. These type tests shall however be conducted by the supplier within 15 days. After successful passing of the type tests, all the equipments/materials supplied earlier shall be modified in line with the equipment/materials which have successfully passed the type test. In case the supplier fails to carry out the Type Test within reasonable time or does not agree to carry out the type tests at his cost, his equipment/material supplied earlier shall be rejected and the order placed shall be cancelled and payments made earlier for these supplies shall be recovered by the purchaser.

**C. Standard Documentation according to IEC 61850 :**

- 1) MICS (model implantation conformance statement) document
- 2) PICS (protocol implementation conformance statement )
- 3) Conformance Test certificate from KEMA/CPRI

All the above mentioned certificates shall be submitted alongwith Techno-commercial bid.

**6. INSPECTION:**

- a. The inspection of Relays shall be carried out by the purchaser at any stage of manufacture. The successful Tenderer shall grant free access to the purchaser's representative/s at a reasonable notice when the work is in progress. Inspection and acceptance of any equipment under this specification by the purchaser shall not relieve the supplier of his obligation of furnishing equipment in accordance with the specification and shall not prevent subsequent rejection if the equipment is found to be defective.

The supplier shall keep the purchaser informed in advance, about the manufacturing programme so that arrangement can be made for inspection. The Purchaser will depute one Executive Engineer (Inspection wing) and one Executive Engineer from Testing Division, to carry out joint inspection of Relays.

All routine and acceptance tests shall be carried out at the time of joint inspection from the offered lot of relays of each type and designation. The Relays so selected must pass all routine and acceptance tests as per relevant standards otherwise the whole lot offered shall be rejected.

- b. The purchaser reserves the right to insist for witnessing the acceptance/routine testing of the bought out items. The supplier shall keep the purchaser informed, in advance, about such testing programme.

**7. MINIMUM TESTING FACILITIES**

The relay manufacturer must have adequate in-house testing facilities in their works to carry out the all routine & acceptance tests as per relevant standards on the offered relays and should be made available to purchaser's Engineers to carry out all Routine and Acceptance tests.

**8. PERFORMANCE GUARANTEE:**

All equipments supplied against this specification shall be guaranteed for a period of 66 months from the date of receipt at the consignee's or 60 months from the date of commissioning, whichever is earlier. However, any engineering error, omission, wrong provision, etc. which do not have any effect on the time period shall be attended to as and when observed/pointed out without any price implications.

**9. ACCEPTANCE AND ROUTINE TESTS :**

All acceptance and routine tests as stipulated in the relevant standards shall be carried out by the supplier in the presence of the Purchaser's representative without any extra cost.

- a. Immediately after finalization of the programme of type/acceptance/routine testing, the supplier shall give four weeks advance intimation to the purchaser, to enable him to depute his representative for witnessing the tests.
- b. The supplier shall carryout all the relevant physical verifications and functional tests as applicable at his works on Relays. Copies of these test certificates duly endorsed by the supplier's testing engineer shall be furnished to the inspecting officer of the MSEDCL. The inspecting officer reserves the right to insist for repetition of functional tests on any or all of the relays offered for inspection, and the supplier shall arrange for the same.

**10. DOCUMENTATION :**

- a. After issue of letter of Award, the successful tenderer shall have to submit one sets of complete type test reports alongwith necessary certificates according to IEC 61850 as mentioned above at point 5(C) for approval to the Chief Engineer, (MM Cell), 1st floor, Prakashgad, MSEDCL, Bandra (E). If any deviations observed, the same will be conveyed to the supplier who shall submit compliance thereof accordingly final for approval shall be given. The period of commencement of delivery shall include submission and approval of Type test reports.
- b. The manufacturing of the equipments shall be strictly in accordance with the approved type test reports and no deviations will be permitted without the written approval of the Stores Section. All manufacturing and fabrication work in connection with the equipments prior to the approval of the type test reports shall be at the supplier's risk.
- c. After approval of the type test reports and bills of materials, the suppliers shall submit detailed packing lists for approval. After approval, copies of these packing lists shall be forwarded to the respective consignees. Copies of packing lists shall also be submitted to the Chief Accounts Officer (SB), MSEDCL, alongwith the bills for payment.
- d. In case the supplier fails to furnish the required type test reports and instruction & maintenance manuals even at the time of supply of equipment, the date of furnishing of type test report /manuals will be considered as the date of supply of equipment for the purpose of computing penalties for late delivery.
- e. The type test reports, technical literature and manuals submitted by the tenderer alongwith his offer shall be treated as purely and generally informative in nature and unless the details incorporated in them are clearly and specifically brought out in the Guaranteed Technical Particulars, the same shall not be binding upon the purchaser (a) for evaluation of the offer and (b) for the order, if placed.

**11. TRAINING :**

Suitable training shall be imparted to MSEDCL engineers on the following aspects after the discussion with S.E.(TQA) Pune & Nagpur suitably :

- 1) Relay setting & parameterization
- 2) Relay configuration with respect to I/P,O/P & functional block for protection.
- 3) GOOSE configuration
- 4) Configuration & interfacing required for third party SCADA system integration.
- 5) Diagnostic features.
- 6) Any other features as per requirement

**12. PACKING AND FORWARDING:**

- a. All relays shall be packed in cushion carton suitable for vertical/horizontal transport as the case may be and the packing shall be suitable to withstand handling during the transport and outdoor storage during transit. The supplier shall be responsible for any damage to the equipment during transit due to improper and inadequate packing. The easily damageable materials shall be carefully packed and marked with the appropriate caution symbols. Wherever necessary, proper arrangement for lifting, such as lifting hooks etc. shall be provided. Any material found short inside the packing cases shall be supplied by the supplier within 7 days without any extra cost.
- b. Each consignment shall be accompanied by a detailed packing list containing the following information :
  - a. Name of the consignee
  - b. Details of consignment.

- c. Destination
  - d. Total weight of consignment
  - e. Sign showing upper/lower side of the carton.
  - f. Handling and unpacking instructions.
  - g. Bill of material indicating contents of each package.
- c. All the equipments covered in this specification shall be delivered to the stores centers of the MSEDCL as will be intimated to the successful tenderers. The equipment shall be delivered to these stores centres only by road transport, and shall be suitably packed to avoid damages during transit in the case of indigenous supplies.
- d. The tenderers shall quote delivery periods for various equipment, and shall stick up to the committed delivery. It may clearly be noted that the delivery periods will under no circumstances be linked up with other formalities like type test report approval, etc. It is therefore, the responsibility of the successful tenderers to submit the type reports in time and get these approved by the CE (MM Cell), MSEDCL.
- 13. DOCUMENTS TO BE SUBMITTED ALONGWITH THE OFFER in Electronic and Physical form :**
- Relay catalogue, Type test reports, On line GTP , Instruction and maintenance manual etc.

<b>Guaranteed Technical Particulars</b>		
<b>1. Numerical non directional 3 O/C + 1 E/F with high set relay for lines</b>		
1	Make	Text
2	Type	Text
3	Designation	Text
4	Reference standards	Text
5	Elements	Text
6	CT Secondary input current.	Text
7	Operating Characteristics.	Text
8	Auxiliary supply range	Text
9	Instantaneous O/C Plug setting of 3 Over Current & 1 Earth Fault with high set relay.	Text
10	Instantaneous E/F Plug setting	Text
11	High Set O/C setting.	Text
12	High Set E/F setting.	Text
13	Time multiplier setting.	Text
14	Time delay for high set feature in sec.	Text
15	Memory storage for fault information	Text
16	Thermal Overload function	Text
17	Auto reclose function	Text
18	Pro –logic	Text
19	a) Flush mounted with DRAW OUT type (Yes/NO)	Boolean
	b) Flush mounted with fixed type connections (Yes/NO)	Boolean

20	LED indications.	Text
21	Push buttons provided.	Text
22	Output contacts	Text
23	Communication port	Text
24	Contact rating	Text
25	Self diagnosis feature (yes/no)	Boolean
26	Two level Password protection (Yes/No)	Boolean
27	Selectivity of primary CT current through software (yes/No)	Boolean
28	Operational indicator should be LEDs (Yes/No)	Boolean
29	Minimum 4 line LCD Backlit Display (Yes/No)	Boolean
30	Features	File
31	Disturbances recorder	File
32	Communication protocol	Text
33	Product maturity : The bidder should mention the time period for which the product is in the market.	Text
34	Expected production life, please specify clearly.	Text
35	Hardware/Firmware change notification process. Upgrades to be provided free of cost within the guarantee period, please specify clearly.	Text
36	Life span of standard tools and processes for relay configuration, querying and integration, please specify clearly.	Text
37	Whether all type tests are carried out on Relay at NABL laboratories within five years from date of opening of tender(yes/No)	Text
38	Type Test Reports No. and date	File
39	Are following Type test reports submitted with offer for offered equipment	Text
	1.Functional Test (Under normal operating condition )	Boolean
	2. Power consumption in current circuit	Boolean
	3. Power consumption in auxiliary circuit	Boolean
	4. Dielectric test	Boolean
	5. Impulse voltage test	Boolean
	6. High frequency interference test	Boolean
	7. Radiated radio frequency electromagnetic field immunity test	Boolean
	8. Surge immunity test	Boolean
	9. Electrostatic discharge test	Boolean
	10. Fast transient disturbance test	Boolean
	11. Vibration response test	Boolean
	12. Shock response test	Boolean
	13. Cold test (storage & operating)	Boolean
	14. Dry heat test (Storage & Operating )	Boolean
	15. Degree of protection IP 54	Boolean
	16. Thermal (short time thermal withstand test)	Boolean

	17. Drop out , pick up , ratio test	Boolean
	18. DC supply interruption	Boolean
	19. AC ripples on DC supply	Boolean
	20. Voltage dips and short interruptions	Boolean
40	Software/ device required for testing/setting of relays shall be provided to MSEDCL if required (Yes/No)	Boolean
<b>2. Numerical biased differential protection relay with inbuilt current amplitude &amp; vector group compensation feature &amp; also with differential high set element for two winding power transformer</b>		
1	Make	Text
2	Type	Text
3	Designation	Text
4	Reference standards	Text
5	CT Secondary input current selectable through software (Yes/No).	Boolean
6	Auxiliary voltage range	Text
7	Online display of HV & LV phase currents & differential current (yes/No)	Boolean
8	Adjustable bias setting	Text
9	Operation based on fundamental frequency (yes/No)	Text
10	Programmable HV/LV CT ratio of T/F vector group	Text
11	Minimum 4 line Backlit LCD display (Yes/No).	Boolean
12	2 <sup>nd</sup> and 5 <sup>th</sup> Harmonic Restrain feature	Text
13	Storing facility of faults & events	Text
14	Password protection (Yes/No)	Boolean
15	DC burden	Text
16	AC burden	Text
17	Contact arrangements	Text
18	Contact rating	Text
19	Current Input	Text
20	Self diagnosis feature for healthiness of relay (Yes/No)	Boolean
21	a) Flush mounted with DRAW OUT type (Yes/NO)	Boolean
	b) Flush mounted with fixed type connections (Yes/NO)	Boolean
22	Communication port for compatibility to SCADA	Text
23	Features	file
24	Disturbances recorder	File
25	Dual Bias Characteristics	Text
26	Communication protocol	Text
27	Product maturity : The bidder should mention the time period for which the product is in the market.	
28	Expected production life, please specify clearly.	

29	Hardware/Firmware change notification process. Upgrades to be provided free of cost within the guarantee period, please specify clearly.	
30	Life span of standard tools and processes for relay configuration, querying and integration, please specify clearly.	
31	Whether relay is type tested. (Yes/No),	Boolean
32	Are following Type test reports submitted with offer for offered equipment	Text
	1.Functional Test (Under normal operating condition )	Boolean
	2. Power consumption in current circuit	Boolean
	3. Power consumption in auxiliary circuit	Boolean
	4. Dielectric test	Boolean
	5. Impulse voltage test	Boolean
	6. High frequency interference test	Boolean
	7. Radiated radio frequency electromagnetic field immunity test	Boolean
	8. Surge immunity test	Boolean
	9. Electrostatic discharge test	Boolean
	10. Fast transient disturbance test	Boolean
	11. Vibration response test	Boolean
	12. Shock response test	Boolean
	13. Cold test (storage & operating)	Boolean
	14. Dry heat test (Storage & Operating )	Boolean
	15. Degree of protection IP 54	Boolean
	16. Thermal (short time thermal withstand test)	Boolean
	17. Drop out , pick up , ratio test	Boolean
	18. DC supply interruption	Boolean
	19. AC ripples on DC supply	Boolean
	20. Voltage dips and short interruptions	Boolean
33	Software/ device required for testing/setting of relays shall be provided to MSEDCL if required (Yes/No)	Boolean



**SCHEDULE-I**

**A. The List of type Test reports for Numerical relays (Back up/Differential) are as follows:**

Sr. No.	Title of Type Test
1	Functional Test (Under normal operating condition )
2	Power consumption in current circuit
3	Power consumption in auxiliary circuit
4	Dielectric test
5	Impulse voltage test
6	High frequency interference test
7	Radiated radio frequency electromagnetic field immunity test
8	Surge immunity test
9	Electrostatic discharge test
10	Fast transient disturbance test
11	Vibration response test
12	Shock response test
13	Cold test (storage & operating)
14	Dry heat test (Storage & Operating )
15	Degree of protection IP 54
16	Thermal (short time thermal withstand test)
17	Drop out , pick up , ratio test
18	DC supply interruption
19	AC ripples on DC supply
20	Voltage dips and short interruptions

**B. The List of routine Tests of Numerical Relays are as follows:**

Operating value test
Operating time test
Communication/ SCADA compatibility conformance Test

**SCHEDULE - II****Undertaking from Relay manufacturer:**

We hereby confirm that the protective relay(s) type \_\_\_\_\_

i)

ii)

iii)

offered by us against your tender No. \_\_\_\_\_ are in our current range of production. We also confirm that these relays will not be phased out by us in the next 5 years from the date of supply. Necessary repairs/replacements if necessary during this period will be made available by us.

Name & Designation : \_\_\_\_\_

Company Seal : \_\_\_\_\_

We have offered our relay(s) type \_\_\_\_\_

i)

ii)

iii)

to MSEDCL's tender no. \_\_\_\_\_. In this connection we hereby confirm that we would be extending all the required technical support to MSEDCL for the above mentioned relay(s).

Name & Designation : \_\_\_\_\_

Company Seal : \_\_\_\_\_



**MAHARASHTRA STATE ELECTRICITY DISTRIBUTION CO. LTD,  
Jalgaon Circle**

**“Tender for Supply of Numerical Relays (3OC + 1 EF) at various 33/11 KV  
substations under Jalgaon Circle as per Specifications”**

**Tender No. SE/JLG/T-08/2024-25**

**VOLUME-2**

**PRICE BID**



**Office of the Superintending Engineer  
Maharashtra State Electricity Distribution Co. Ltd.  
Old MIDC, Ajantha Road, Jalgaon  
Jalgaon:-425003  
Phone No.: Mob. 7030440084**

**E-mail: [sejalgaon@mahadiscom.in](mailto:sejalgaon@mahadiscom.in) & Website: [www.mahadiscom.in](http://www.mahadiscom.in)**

## MAHARASHTRA STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED, JALGAON CIRCLE JALGAON

## ANNEXURE 'G'

## PRICE SCHEDULE

Sr.No.	Particulars	F.O.R. Destination Price per Unit in Rs. (Excluding GST)	GST in % & in Rs	Total Rs. =(3+4)	Delivery Period	Make and Model Offered
1	2	3	4	5	6	7
1	Supply of Numerical Relay (03 OC + 1 EF) at various 33/11 KV substations under Jalgaon Circle as per Specifications.					

(Seal &amp; Signature of the Tenderer)

LIST OF SERVICES

SR. NO.	SERVICE NAME	ACTIVITY NUMBER	UOM	SAC CODE	REQ. QTY	VERSION	MATERIAL TYPE
1	Replacement of all types of Relay	PM.SS.044	Number	9954	1		null

Required Documents (To be uploaded online)				
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Sr. No.	NAME	SECTION	ITEM	DESCRIPTION
1	Price Bid	Price Section	Replacement of all types of	Price Bid
2	Tech-I	Technical Section	Replacement of all types of	As per Tender Terms and conditions
3	Tech-II	Technical Section	Replacement of all types of	As per Tender Terms and conditions
4	Financial Doc	Commercial Section		As per Tender Terms and conditions