



BHARAT HEAVY ELECTRICALS LTD.
 (A GOVT. OF INDIA UNDERTAKING)
 P.O BHEL Jhansi - 284129, INDIA
 Tel.:0510-277001/2412260 Fax: 2412120
 Email : mmx@bheljhs.co.in

PURCHASE ENQUIRY

ENQ NO/DT: E0629001 26/04/22
 REV NO/DT: 0 26/04/22

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PLEASE SEND YOUR BEST QUOTATION AS PER TERMS & CONDITIONS AND REMARK MENTIONED UNDERNEATH.	
Enq Due on:	10-05-22 TUESDAY
Close at:	13:15 Open at:14:00
Matcat:	061007 ENAMELLED & NOMEX CO
Validity:	120 days from Technical bid opening date
IEM:	AS PER TENDER DOCUMENT
TOP:	See Special Remarks
RA:	BHEL reserves the right to conduct RA
Est. Value:	Item wise
Bid Type:	TWO BID
Delivery:	FOR Jhansi
Tot Item:	3
E-Proc:	Yes

REQUIRED: TEST CERT/ GUARANTEE CERT

ITEM NO : 1 PSL QTY/UM: 1800.00 RL
 MATL CODE : JS9006275320 PO QTY /UM: 188100.00 KG
 DESTINATION: JS

DESCRIPTION	DELIVERY	QUANTITY (PSL UM)
NOMEX PICC WITH ENAMEL COVERING AS PER ATTACHED ANNEXURE ES625668/NPICC REV-01 DT.16.09.21 @ APPROX 104.5 KG/ RL	APR-22	900.00
	AUG-22	900.00

ITEM NO : 2 PSL QTY/UM: 500.00 RL
 MATL CODE : TR872067T202 PO QTY /UM: 54250.00 KG
 DESTINATION: JS

DESCRIPTION	DELIVERY	QUANTITY (PSL UM)
ENAMELLED & NOMEX COVERED COPPER CONDUCTOR AS PER SL. No. 1 OF ATTACHED ANNEXURE REV. 00. SIZE- 1.2mm X 5.0mm.	APR-22	250.00
	AUG-22	250.00

ITEM NO : 3 PSL QTY/UM: 150.00 RL
 MATL CODE : TR870134A205 PO QTY /UM: 12150.00 KG
 DESTINATION: JS

DESCRIPTION	DELIVERY	QUANTITY (PSL UM)
ENAMELLED & NOMEX COVERED COPPER CONDUCTOR AS PER SL. No. 1 OF ATTACHED ANNEXURE REV. 00. SIZE- 1.2mm X 5.5mm.	APR-22	75.00
	AUG-22	75.00

SPECIAL REMARKS:

- ENQUIRY IS FLOATED IN "TWO BID" SYSTEMS THROUGH E-PROCUREMENT (<https://eprocurebhel.co.in>) TO ESTABLISH 1 YEAR RATE CONTRACT FOR PROCUREMENT OF NOMEX PAPER INSULATED AND ENAMELED COPPER CONDUCTOR AS PER TENDER DOCUMENT ANNEXURE-I TO ANNEXURE-V.
- ALL THE TENDER DOCUMENTS SPECIFICATIONS AND GENERAL TERMS AND CONDITIONS OF ENQUIRY IS UPLOADED AT OUR E-PROCUREMENT PORTAL. <https://eprocurebhel.co.in>.
- PLEASE READ ALL THE DOCUMENT CAREFULLY BEFORE SUBMITTING THE OFFER.
- DULY FILLED, SIGNED AND STAMPED COPY OF TENDER DOCUMENTS, SPECIFICATIONS, GTC OF ENQUIRY AND PQR RELATED SUPPORTING DOCUMENTS SHALL BE UPLOADED AT E-PROCUREMENT PORTAL (<https://eprocurebhel.co.in>) FAILING WHICH OFFER SHALL BE LIABLE FOR REJECTION.

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5. SUBMISSION OF TENDER DOCUMENT THROUGH OTHER MODE SHALL NOT BE ACCEPTED.
6. BIDDERS SHALL QUOTE THEIR RATES AS PER PRICE BOQ FORMAT UPLOADED ON E-PROCUREMENT PORTAL ELSE OFFER SHALL BE REJECTED.
7. INSPECTION SHALL BE DONE BY BHEL AT BHEL JHANSI AND AS PER TENDER DOCUMENT.
8. BHEL WILL CONDUCT REVRESE AUCTION AS PER TENDER DOCUMENT ANNEXURE-I.
9. DELIVERY MENTIONED ABOVE IS TENTATIVE AND ACTUAL DELIVERY WILL BE GIVEN IN PURCHASE ORDER AFTER ESTABLISHMENT OF RATE CONTRACT.
10. NOMEX PAPER OF M/S DUEPONT USA / DUEPONT AUTHORISED AGENT SHOULD BE USED AND TC SHOULD BE PROVIDED WITH SUFFICIENT QTY. AND DATE OF TC SHALL NOT BE MORE THAN 3 YEARS FROM PO DATE.
11. THE BIDDER DECLARES THAT THEY WILL NOT ENTER INTO ANY ILLEGAL OR UNDISCLOSED AGREEMENT OR UNDERSTANDING, WHETHER FORMAL OR INFORMAL WITH OTHER BIDDER(S). THIS APPLIES IN PARTICULAR TO PRICES, SPECIFICATIONS, CERTIFICATIONS, SUBSIDIARY CONTRACTS, SUBMISSION OR NON-SUBMISSION OF BIDS OR ANY OTHER ACTIONS TO RESTRICT COMPETITIVENESS OR TO INTRODUCE CARTELIZATION IN THE BIDDING PROCESS. IN CASE, THE BIDDER IS FOUND HAVING INDULGED IN ABOVE ACTIVITIES, SUITABLE ACTION SHALL BE TAKEN BY BHEL AS PER EXTANT POLICIES/ GUIDELINES.

**THE QUOTATION MUST BE SEALED AND BE SENT IN DOUBLE ENVELOPE.
 THE INNER ENVELOPE SHOULD BEAR ENQUIRY NUMBER & DUE DATE AT THE TOP.**

In case the bidder has not submitted PAN No, TIN No. and E-mail ID, the bidder has to submit the same along with the copy of PAN No and TIN No. Else his offer will be liable to be rejected.

If you are not in a position to quote due to any reason, you must send regret letter titled enquiry no. etc, failing which you may not be considered for sending future enquiries.

ENCLOSERS:



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FOR AND ON BEHALF OF
BHARAT HEAVY ELECTRICALS LTD
NAVEEN
26/04/22
NAVEEN KR MAHASETH
DY MANAGER (CMM)
Email:-nkmahaseth@bhel.in

***** END OF PURCHASE ENQUIRY*****

NOTE :

- * THE BIDDER IS INFORMED THAT THE GENERAL TERMS & CONDITIONS OF ENQUIRY (JHS 2055A Rev 03) WHICH ARE UPLOADED AT <https://www.bheljhs.co.in/apps/sip/index.php> AT (TERMS & CONDITION -> FOR ENQUIRY) LINK, ARE TO BE READ BY THE BIDDER BEFORE SUBMITTING QUOTE IN THE ENQUIRY. BHEL SHALL CONSTRUCE THE PARTICIPATION BY THE BIDDER IN ENQUIRY AS ACCEPTANCE TO THE GENERAL TERMS AND CONDITIONS OF ENQUIRY.
- * SUPPLIERS ARE REQUESTED TO INFORM US WITH VALID CERTIFICATE,IF THEY ARE REGISTERED UNDER MSMED ACT' 2006. (APPLICABLE FOR INDIAN SUPPLIERS ONLY).
- * FOR SUPPLIERS SUPPLYING FROM OUTSIDE THE LOCAL AREA OF BHEL JHANSI,ENTRY TAX WILL BE APPLICABLE.SUPPLIERS SHOULD NECESSARILY INDICATE RATE OF ENTRY TAX SEPARATELY WHEREVER APPLICABLE.THEY SHOULD ALSO MENTION THE ENTRY TAX CHARGED SAPARATELY IN THE INVOICE.
- * FOR SUPPLIERS SUPPLYING FROM OUTSIDE UP,IN CASE THE OFFER IS SILENT ON ENTRY TAX, IT SHALL BE LOADED SUITABLY WITH THE APPLICABLE RATES
- * IN CASE IF THERE IS ANY DIFFERENCE BETWEEN THE 'SPECIAL REMARKS/ANNEXURES' OF THE ENQUIRY AND THE PREPRINTED TERMS & CONDITIONS (REF JSC140/M2053), THE REQUIREMENT GIVEN IN REMARKS WILL PREVAIL.
- * Reference Sl. No. 2(B) of General Terms and Conditions regarding option for offer submission through Email addressed to tenderbox.jhs@bhel.in , please note that the maximum mail size including attachments should not exceed 20 MB , otherwise the offer shall not be delivered due to size limitation and bidder sending mail attachments more than 20 MB will have no claim whatsoever on the subject tender . Also due to any technical snag , if offer has not reached tenderbox.jhs@bhel.in , it will be bidder's sole responsibility to ensure offer submission through alternate routes before the due date and time .BHEL will not entertain any such claim for non-receipt of offer on time .

789006/2022/TP-MM

Terms & Conditions for supply of Nomex Paper insulated and Enameled copper conductor on finished basis under 1 year Rate Contract Enquiry No. E0629001 through E-procurement .

1. **General:-** E-tenders are invited in Two-Part Bid system for purchase of Nomex Paper insulated and Enameled copper conductors as per various drawings/ Specifications and terms & conditions mentioned in the Annexures -"I to V" on finished & returnable drum basis. The supplies against this rate contract enquiry shall be subject to our General Terms and conditions of enquiry and PO. In addition, the terms and conditions given under this annexure shall specifically apply to this enquiry. If any difference between the General Terms and conditions of enquiry, purchase order, the conditions included in this annexure shall prevail.

The offer of the bidders who are in the banned list as also the offer of the bidders who engage the services of the banned firms shall be rejected. List of banned firms is available on BHEL website: www.bhel.com. Likewise, offers of those bidder(s) will not be considered who have been suspended (under hold / delisting) by BHEL, Jhansi during the given period.

Lot wise quantity and delivery schedule indicated in the purchase enquiry is tentative. Actual procurement will be carried out progressively as per requirement of BHEL against the rate contract.

Please upload your best quotation/ offer on <https://eprocurebhel.co.in> for the requirement strictly as per schedule of price format before due date & time as mentioned in "PURCHASE ENQUIRY".

Your best quotation/offer for the requirement mentioned in "PURCHASE ENQUIRY", in line with our terms and conditions, should be submitted online via e-procurement system only. It shall be the responsibility of the bidder to ensure that the Tender is submitted on or before the due date. Part-I bids shall be opened through e-procurement Portal. Detailed Tender documents can be downloaded from the following websites: - a) <https://eprocurebhel.co.in/> b) www.bhel.com

2. **Procedure for Bid submission** :- Offer shall be submitted by the bidders in two parts:-

Part - I Technical cum Commercial bid

A- Part-I of the bid shall contain complete detail of the product offered, all techno-commercial terms & conditions and acceptance to the following: -

- (i) Duly signed & sealed copy of **Annexure-I**.
- (ii) Duly filled, signed & sealed copy of **Annexure-II**.
- (iii) Duly filled, signed & sealed copy of Qualifying Requirement (PQR) **Annexure- III** with authenticated copy of all supporting documents.
- (iv) Un-price format- **Annexure-IV**.
- (v) Duly filled, signed & sealed copy of Integrity Pact **Annexure-V**.
- (vi) Duly sealed and signed copy General Terms and Conditions (GTC) Rev-3 of Enquiry and specification AA28128,AA28144 & AA22901.

B- In case it becomes necessary to deviate in any of the above, the deviations must be clearly brought out in bid Part-I of the offer. Any deviation to INTEGRITY PACT' is not acceptable. Copy of un-priced bid with status "quoted (Q) & un - quoted (NQ)" must accompany bid part-I.

Bidders to put sign and seal on documents before uploading at e-procurement site <https://eprocurebhel.co.in>

Part - II Price bid

Bidders have to quote their rate in as per attached Price BOQ formats only. Price bid form are to be filled in e-procurement module using digital signature.

Sanjay *Alam*

ANNEXURE - I

Terms & Conditions for supply of Nomex Paper insulated and Enameled copper conductor on finished basis under 1 year Rate Contract Enquiry No. E0629001 through E-procurement .

Both Part –I (Technical cum Commercial bid) & Part –II (Price bid as per uploaded Price BOQ formats) of the offer shall be duly filled, sealed and signed copy to be uploaded by bidders at e-procurement site only.

Note: -

- . Please note that Part Supplies offered for tender BOQ shall disqualify the bidder's offer.
- . Documents and Credential as per Technical & Financial PQR, Techno Commercial Bids and Price Bids should be uploaded on the e-procurement portal.
- . Bidders to ensure that Third party/customer issued certificates being submitted as proof of PQR qualification should have verifiable details of document/certificate issuing authority such as name & designation of Issuing Authority and its organisation contact number and email Id etc. In case the same found not available, Purchaser has right to reject such document from evaluation.

3. **Bid Opening:** - The 'Techno-commercial' part of the bid i.e. Bid Part –I of the offers shall be opened on the due date of tender opening. Clarifications, wherever required on this part, shall be obtained from the bidders for their evaluation. The Price bid Part-II of such vendors alone shall be opened whose techno-commercial bids are found acceptable. The date of 'Price bid -Part II' opening shall be intimated later on. Before price bid opening / RA (reverse auction) all formalities for registration has to be completed by the bidders as per new supplier link at www.bhel.com.

Alternatively: "BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on www.bhel.com) for this tender. RA shall be conducted among the techno commercially qualified bidders.

Price bids of all techno-commercially qualified bidders shall be opened and same shall be considered for RA. In case any bidder(s) do(es) not participate in online Reverse Auction, their sealed envelope price bid along with applicable loading, if any, shall be considered for ranking."

4. **Pre Qualification Criteria :** For Pre-qualification criteria, refer Annexure-III.

Offers of those bidders who meet the Pre-qualification criteria mentioned in Annexure-III will be accepted. Any deviation from these shall render offer submitted by bidder as rejected.

* Bidders have to submit duly filled, signed & sealed copy of Annexure-III with all relevant documents as required.

5. **Bid evaluation:** The bid shall be evaluated on total delivered cost to BHEL (landed cost net of input tax credit) taking into account all duties / taxes / Cess as per prevailing structure on date of tender enquiry (bid part-I) opening and based on the LME CSP & FBIL+0.10 rate prevailing on the date of tender opening (bid part-I).
If LME CSP rate and FBIL USD +0.10 rate is not available on Part-I bid opening date due to holiday then LME CSP rate and FBIL USD rate prior to Part-I bid opening date shall be considered.

Bidders may note that quoted rates shall be loaded for any deviation from the terms & conditions given in this enquiry, to arrive at landed cost and same shall be communicated to techno-commercially suitable bidders before price bid opening.

Evaluation of items shall be done on item wise L1 basis.

6. **Technical Parameters and Tendered Quantity:-** Refer Purchase enquiry.

Important note:

- Item quantity may vary $\pm 30\%$ of total quantity awarded to vendors for that particular item.

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789006/2022/TP-MM

Terms & Conditions for supply of Nomex Paper insulated and Enameled copper conductor on finished basis under 1 year Rate Contract Enquiry No. E0629001 through E-procurement.

7. **Pricing Terms** :- Material will be supplied on finished basis as per pricing terms given below:-

A) **LME CSP for Copper & Exchange rate for US \$**:- LME CSP & Exchange rate will be corresponding to 3rd LME working day from the date of letter of intent (LOI) / instruction for copper booking (excluding date of LOI). Exchange rate shall be FBIL USD rate + 0.10. In case of RBI holiday on the 3rd LME working day, then exchange rate of next working day shall be considered.

Exchange rate (rounding off upto two decimal places) available on FBIL website shall be considered.

B) **Premium (USD / MT)**:- 190.(Applicable to all items)

This will be firm through out the validity of contract.

C) **Multiplication factor (MF*)**:- 1.055*

*This is as per notional customs duty, presently it is 1.055

D) **Copper Rate (Rs / Kg)**:- (LME + Premium) X Exchange.rate X MF /1000.

E) **Fabrication Rate (Rs / Kg)**:- To be quoted by bidders in E-procurement Price BOQ format.

F) **PO Rate (Rs/Kg)** :- Copper Rate + Fabrication rate (D + E).

Premium & fabrication rate shall be firm throughout the validity of the contract. The fabrication rate shall be inclusive of all tooling cost, insulation cost, packing, freight, insurance and forwarding charges etc. and no extra charges shall be payable on whatsoever account.

While quoting the rates, bidders must take into account the following factors in addition to whatever they deem fit:

- No extra charges shall be paid for packing, forwarding, radial insulation, fumigation, weight per drum and Cross section of conductor etc.
- Bidders shall quote their most competitive rates, which shall be valid regardless of the quantity that may be awarded to them.
- Rate quoted on other base prices shall be rejected.

The packing material i.e. drums on which the Copper Conductors shall be supplied can be **re-usable** and will remain property of the supplier. Supplier shall time to time collect the same at their own cost so that work space at BHEL is not limited due to empty drums. Benefit of the saving on this account to be passed on, while quoting the rates. **The empty drum will be collected by the suppliers from BHEL works at their own cost.**

8. **PVC (Price variation Clause) Applicable**: Yes, as per pricing Terms mentioned at clause 7.

9. **Transit Insurance**: - By the bidder.

10. **Number of Suppliers**: - We need 3 suppliers for execution of this contract and the tentative distribution of quantities among L1, L2 & L3 would be in the ratio of 60:25:15. Number of minimum suppliers required to execute this contract may change depending upon committed capacity and also acceptance to counter offer, if any, made by BHEL. Quantity distribution to bidders shall be limited to (n-1) limited to 3 bidders where n is number of techno – commercially qualified bidders and shall be as shown below.

ANNEXURE - I

Terms & Conditions for supply of Nomex Paper insulated and Enameled copper conductor on finished basis under 1 year Rate Contract Enquiry No. E0629001 through E-procurement.

n	L1	L2	L3	TOTAL
1	100	-	-	100
2	70	30	-	100
3	60	25	15	100

11. **Quantity Tolerance:** - Against individual P.O. items quantity tolerance shall be ± 2 %.
12. **Inspection of material:** -
Test Certificates shall be as per annexures provided at the time of issuing of purchase order, purchase specifications, QA plan etc. and must accompany with each lot against supply. Final inspection for acceptance of quality and quantity shall be done at BHEL's works after receipt of material and results shall be binding on the suppliers.
13. **Replacement of rejected Goods:** - Final inspection for acceptance of quality shall be at BHEL's works after receipt of material and results shall be binding on the suppliers. In case of rejection due to non compliance to agreed specification and for the reasons attributable to the vendor, the materials shall be replaced by vendor free of charge on "FOR BHEL works basis" including interlay cost elements such as total transportation, insurance and other taxes / levies etc as applicable. The rejected goods shall be subsequently returned to the vendor at his cost.
14. **Taxes & Duties:** - All taxes & duties shall be paid extra and as applicable at the time of dispatch within India only will be paid / reimbursed by BHEL and same will be loaded for price comparison on delivered cost to BHEL (i.e. landed cost net of input tax credit).
15. **Payments Terms:** - 100% payment within 90 days of receipt of material (45 days for MSE / NSIC registered suppliers as per relevant act in force), subject to acceptance of material at BHEL, on direct presentation of the documents.
Any deviation from the above payment terms, if accepted (by BHEL), shall be loaded @ SBI base rate (as on date of Part I bid opening) + 6%, for the purpose of bid evaluation.

For more details refer clause 15 of General terms and conditions rev 03 of enquiry.
16. **Terms of delivery:** - On FOR BHEL Jhansi basis as per clause 6 of General terms and conditions rev 03 of enquiry .
17. **Validity of Rate Contract:** - The rate contract shall be valid for one year for ordering (i.e. for issue of purchase order/ issue of letter of intent (LOI)) and supply upto 3 months thereafter. The contract may be extended for further 3 months (or part thereof) on mutual consent.
18. **Short Closure of RC:** - BHEL reserves the right to short close the FA / RC at any point of time during validity of the contract.
19. **Validity of Offer:** - Offer should be valid for a period of 120 days from the date of techno-commercial bid opening date (part-1) for finalization of the contract.
20. **Levy of Penalty for delayed performance & Risk and Cost:** - As per Clause no: 8 of General terms and conditions rev 03 of enquiry




789006/2022/TP-MM

Terms & Conditions for supply of Nomex Paper insulated and Enameled copper conductor on finished basis under 1 year Rate Contract Enquiry No. E0629001 through E-procurement .

21. Compliance to **Make In India** circular issued by Gov.

"For this procurement the local content to categorize a supplier as a class-I local supplier/ Class-II local supplier / Non local supplier and purchase preference to Class-I local supplier is, as defined in Public Procurement (Preference to Make in India) order 2017 dated 16.09.2020 issued by DPIIT. In case of subsequent orders issued by the nodal ministry changing the definition of local content for the items of the NIT, the same shall be applicable even if issued after issue of this NIT, but before opening of Part-II bids against this NIT."

22. Tenders shall be submitted strictly in accordance with the requirements of the above tender documents

23. Standard pre-printed terms & conditions of the tenderers may not be considered valid and offer may liable for rejection.

24. All the above tender documents shall automatically become a part of the Order/Contract after its finalization.

25. All corrigenda addenda, amendments, time extensions, clarifications etc. to the tender will be hosted on BHEL websites only (www.bhelpem.com., www.bhel.com & <https://eprocurebhel.co.in> under subject tender reference. Bidders are requested to visit our websites from time to time to keep themselves updated. Bidders may go through the Sellers' manual & Help documents provided on E-Procurement Portal website & obtain required Digital Signature Certificate for participating in the subject Tender.

26. Bidders to submit their offers strictly in line with the form available at e-procurement portal.

27. **Integrity Pact (IP) – Independent external monitor (IEM) :-**

a) IP is a tool to ensure that activities and transactions between the Company and its Bidders/ Contractors are handled in a fair, transparent and corruption free manner. Following Independent External Monitors (IEMs) on the present panel have been appointed by BHEL with the approval of CVC to oversee implementation of IP in BHEL.

Sl	IEM	Email
1	Shri Arun Chandra Verma, IPS (Retd.)	acvermal@gmail.com
2	Shri Virendra Bahadur Singh, IPS (Retd.)	vbsinghips@gmail.com

b) The IP as enclosed with the tender is to be submitted (duly signed by authorized signatory who signs in the offer) along with techno-commercial bid (Part-I, in case of two/ three part bid). Only those bidders who have entered into such an IP with BHEL would be competent to participate in the bidding. In other words, entering into this Pact would be a preliminary qualification.

c) Please refer Section-8 of the IP for Role and Responsibilities of IEMs. In case of any complaint arising out of the tendering process, the matter may be referred to the IEM mentioned in the tender. **Note:** No routine correspondence shall be addressed to the IEM (Phone/ post/ email) regarding the clarifications, time extensions or any other administrative queries, etc on the tender issued. All such clarification / issues shall be addressed directly to the tender issuing (procurement) department

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ANNEXURE - I

Terms & Conditions for supply of Nomex Paper insulated and Enameled copper conductor on finished basis under 1 year Rate Contract Enquiry No. E0629001 through E-procurement.

For all clarifications/ issues related to the tender, Please contact:

Name: (1) Naveen Mahaseth (2) Pawan Kumar
Deptt : Material Management
Address : PO Khailar, BHEL Jhansi-284120
Phone : (Landline/ Mobile)
(1) 0510-241 2329/2449 (2) 8765956505 / 9816096471
Email: nkmahaseth@bhel.in, pawanbhel@bhel.in
Fax: 0510-2412120

28. The bidder declares that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other bidder(s). this applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process. in case, the bidder is found having indulged in above activities, suitable action shall be taken by bhel as per extant policies/ guidelines.
29. Commercial Conditions quoted by the vendor in any place including as stated in bidder's 'General Terms and Conditions' if any, shall not be binding on the Purchaser and the conditions contained in this annexure, including General terms & Conditions rev 03 of enquiry shall only prevail.

Approved by

Pawan Kumar
DGM (CMM)

Pawan Kumar
15/04/22

Prepared by

Naveen Kumar
Dy.Mgr (CMM)

Annexure – II

Techno – commercial format for FA / RC under enquiry E0629001 for supply of Nomex Paper insulated & Enameled copper conductor on finished basis through E-procurement.

SL. NO.	DESCRIPTION	BIDDERS RESPONSE
1	Name of the supplier	
2	Name & designation of the contact person	
3	Address of the works at which inspection / delivery is offered.	
4	Complete acceptance to Technical Terms & conditions including Technical/ Purchase Specs as mentioned in Annexure. – I.	<input type="checkbox"/> Accepted
5	Complete acceptance to all terms & conditions of tender enquiry as mentioned in Annexure.-I	<input type="checkbox"/> Accepted
6	Acceptance for finalization of Price bid part-II through on line bidding (Reverse Auction).	<input type="checkbox"/> Accepted
7	*Acceptance for the final inspection of material after receipt at BHEL works and results shall be binding on the supplier.	<input type="checkbox"/> Accepted
8	Quoted delivery in number of days for contractual purposes on FOR destination basis from date of LOI.	_____ Days
9	Monthly committed capacity against this tender for BHEL on finished basis which shall not change during tenure of this contract.	_____ KG
10	Applicable GST (mention NA if not applicable)	
	A. IGST@ %
	B. CGST @ %
	C. SGST @ %
11	*Acceptance to Pricing Terms as per sl.no: 7 of Annexure – I.	<input type="checkbox"/> Accepted
12	*Acceptance to bid evaluation criterion at sl.no.5 of Annexure – I	<input type="checkbox"/> Accepted
13	Acceptance to <u>Delivery Terms on F.O.R destination basis as per clause 16 of Annexure-I</u>	<input type="checkbox"/> Accepted
14	Acceptance to <u>LD / Penalty for Delayed Performance (including Risk Purchase) as per sl.no 20 of Annexure – I.</u>	<input type="checkbox"/> Accepted
15	Acceptance to payment terms as per sl.no 15 of Annexure – I.	<input type="checkbox"/> Accepted
	100% payment within 90 days of receipt (45 days for MSE registered suppliers as per relevant act n force), subject to acceptance of material at BHEL.	<input type="checkbox"/> MSE's <input type="checkbox"/> 90day
16	*Acceptance to rejection replacement clause as per sl.no.13 of Annexure - I.	<input type="checkbox"/> Accepted
17	Validity of offer to be reckoned from the date of bid Part-I opening and it will be 120 days from the date of techno-commercial bid opening date (part-1) for finalization of the contract	<input type="checkbox"/> Accepted
18	*Acceptance to RC quantity distribution as per sl.no 10 of Annexure – I.	<input type="checkbox"/> Accepted
19	Un-Price bid (Annexure – IV) submitted with 'Q (Quoted)' OR 'NQ (Not Quoted)' status with bid part – I.	<input type="checkbox"/> Yes
20	Acceptance to short closure clause as per sl.no. 18 of Annexure – I.	<input type="checkbox"/> Accepted
21	Integrity Pact submitted in original duly signed	<input type="checkbox"/> Yes
22	Acceptance to Warranty, Corresponding Repairs / Replacement of Goods, and Deductions as per clause 17(A) of GTC rev 03.	<input type="checkbox"/> Accepted
23	In case of any inconsistency between offers of supplier and the accepted terms and conditions in this sheet, the terms and conditions of this sheet shall prevail.	<input type="checkbox"/> Accepted

*In case of non-acceptance to these clauses, your bid may be liable for rejection.

Signature with name of the Authorized Signatory

Man
Ramya

EMANRY 1 E0629001

E0629001.

VINAY PI Estimate= R 67/33 PQR for PI-421610793 / Enquiry- Annexure - III



Pre-Qualifying Requirement for Procurement of 'Enamelled and Paper Covered Rectangular Copper Conductors' - PI:421610793/

Sl. No.	REQUIREMENT	Bidder's Response																				
1	<p>Bidders should be the MANUFACTURER of 'Enamelled and Paper Covered Rectangular Copper Conductors'</p> <p>For Item 1 only :- Vendor should be the CLW approved directly or through any of the 3 Phase Electric Loco Transformer manufacturer approved by CLW on or before the date of bid part - I Opening. For this, the bidder has to furnish Approval Letter from CLW/Approved Bill of Material of Transformer manufacturers of 3 Phase Electric Loco Transformers of Rating 6531 KVA/7775 KVA approved by CLW clearly showing bidders name in it.</p> <p>Bidders to provide Self Undertaking that Bidder is capable of executing the job under captioned enquiry</p>	<input type="checkbox"/> YES <input type="checkbox"/> YES <input type="checkbox"/> Submitted <input type="checkbox"/> YES																				
2	<p>SUPPLY EXPERIENCE:-</p> <p>a) For Item 1 :- Bidders should have experience of having supplied "Enamelled and Paper Covered Rectangular Copper Conductors" to 3 Phase Electric Loco Transformer approved by CLW in last five years. To qualify, the bidder should have executed minimum two Orders of 'Goods' in the last five years till the date of Part I (Techno-commercial) Bid opening.</p> <p>b) For Item 2&3 Combined:- Bidders should have experience of having supplied "Enamelled and Paper Covered Rectangular Copper Conductors" (henceforth called "Goods") to Railways/ Metro/ Generation / Transmission (of electric power) Companies or Transformer Manufacturers. To qualify, the bidder should have executed minimum two Orders of 'Goods' in the last five years till the date of Part I (Techno-commercial) Bid opening.</p> <p>Bidder to submit copies of supply orders, Tax Invoices / Completion Certificate of same order as a documentary proof for minimum quantum as mentioned in clause 3</p>	<input type="checkbox"/> YES <input type="checkbox"/> YES																				
3	<p>Minimum Quantum- Should have supplied for Item-1</p> <p>(a) for non-MSEs (1) Minimum 18810 KG (Or) (2) Goods of worth Rs 50 Lakhs</p> <p>(b) for MSEs (1) Minimum 13167 KG (Or) (2) Goods of worth Rs 35 Lakhs</p> <p>Should have supplied for Item 2&3 combined</p> <p>(a) for non-MSEs (1) Minimum 6640 Kg (Or) (2) Goods of worth Rs 25 Lakhs</p> <p>(b) for MSEs (1) Minimum 4648 Kg (Or) (2) Goods of worth Rs 17.5 Lakhs</p> <p>Vendor to submit details of executed PO.</p> <table border="1"> <thead> <tr> <th>Customer Name</th> <th>Order No. & Date</th> <th>Qty. supplied in UoM</th> <th>Tax Invoice / Completion Certificate & Date</th> <th>Remark, if any</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Customer Name	Order No. & Date	Qty. supplied in UoM	Tax Invoice / Completion Certificate & Date	Remark, if any																
Customer Name	Order No. & Date	Qty. supplied in UoM	Tax Invoice / Completion Certificate & Date	Remark, if any																		

TRP

MM 02/04/22

QC 01.4.22

Prepared by (Indentor)
TRE

VINAY PI Estimate= R PQR for PI-421610793 / Enquiry- 67/33 Annexure - III



Pre-Qualifying Requirement for Procurement of 'Enamelled and Paper Covered Rectangular Copper Conductors' - PI:421610793/

Sl. No.	REQUIREMENT	Bidder's Response
4	New vendors who are not registered with BHEL, Jhansi should submit duly filled "Supplier Registration Form (SRF)" along with the requested documents. The SRF is available on line on our website www.bhel.com.	<input type="checkbox"/> Document Submitted

- We agree that our bid is liable to be rejected in case (a) the relevant information is not filled, (b) documentation is incomplete, (c) there are false declarations, and (d) if we do not meet the PQR.
- Criteria at Sl. No. 4 is desirable. Other are mandatory.
- Supporting documents for the details filled above have been submitted.

(Signature of the Supplier with Name, Designation & Seal)

TRP 1/4

Signature
02/04/22
MM

Signature
01.4.22
Prepared by (Indentor)
TRE



BHARAT HEAVY ELECTRICALS LIMITED JHANSI - 284120
(A Govt of India undertaking)
Material Management

UNPRICE BID- ANNEXURE-IV

UNPRICE BID FOR INDIGENOUS BIDDER, FOR ENQUIRY NO. E0629001

1	Name & Address of the Supplier			
2	Enquiry Item No.	1	2	3
3	Items Qty, in RL	1800	500	150
4	Items Qty, Kg	188100.00	54250.00	12150.00
5	Rate schedule : PO rate on F.O.R. destination basis shall consist A) Copper Rate and B) Fabrication Rate as below:			
A)	Copper Rate shall be calculated as below			
i	LME CSP Rate for Copper Grade A	3rd LME working day from date of LOI.(excluding date of LOI)		
ii	Exchange rate(RBI (FBIL) USD + 0.10)			
ii	Premium, USD/MT	190	FIXED	
iv	*Multiplication factor	1.055*	* as per prevailing notional customs duty, presently it is 1.055	
v	Copper rate Rs./Kg=	((LME CSP Rate+ Premium) x Multiplication factor x Exchange rate)/1000,		
B)	Fabrication rate in Rs. / kg basis: Bidder to quote			
	Item No	#1	#2	#3
	Fabrication rates (in figure)	Quoted / Not Quoted	Quoted / Not Quoted	Quoted / Not Quoted
	Fabrication rates (in words)	Quoted / Not Quoted	Quoted / Not Quoted	Quoted / Not Quoted
C)	PO Rate = Copper Rate + Fab.= A + B			

(Signature of the Supplier with Name, Designation & Seal)




Annexure-**V****INTEGRITY PACT****Between**

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at "BHEL House", Siri Fort, New Delhi - 110049 (India) hereinafter referred to as "The Principal", which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the ONE PART

and

_____ (description of the party along with address), hereinafter referred to as "The Bidder/ Contractor" which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the OTHER PART

Preamble

The Principal intends to award, under laid-down organizational procedures, contract/s for Procurement of Normex enamelled copper conductor under 1 year rate contract again E0629001. _____ (hereinafter referred to as "Contract"). The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal will appoint panel of Independent External Monitor(s) (IEMs), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 - Commitments of the Principal

- 1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles: -
 - 1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - 1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/ additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
 - 1.1.3 The Principal will exclude from the process all known prejudiced persons.
- 1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

Section 2 - Commitments of the Bidder(s)/ Contractor(s)

- 2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. The Bidder(s)/ Contractor(s) commits himself to observe the following principles during participation in the tender process and during the contract execution.

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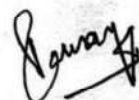
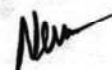
- 2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he/ she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
- 2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
- 2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant Indian Penal Code (IPC) and Prevention of Corruption Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- 2.1.4 Foreign Bidder(s)/ Contractor(s) shall disclose the name and address of agents and representatives in India and Indian Bidder(s)/ Contractor(s) to disclose their foreign principals or associates. The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- 2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 2.3 The Bidder(s)/ Contractor(s) shall not approach the Courts while representing the matters to IEMs and shall await their decision in the matter.

Section 3 - Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process, terminate the contract, if already awarded, exclude from future business dealings and/ or take action as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

Section 4 - Compensation for Damages

- 4.1 If the Principal has disqualified the Bidder (s) from the tender process before award / order acceptance according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.
- 4.2 If the Principal is entitled to terminate the Contract according to Section 3, or terminates the Contract in application of Section 3 above, the Bidder(s)/ Contractor (s) transgression through a violation of Section 2 above shall be construed breach of contract and the Principal shall be entitled to demand and recover from the Contractor an amount equal to 5% of the contract value or the amount equivalent to Security Deposit/ Performance Bank Guarantee, whichever is higher, as damages, in addition to and without prejudice to its right to demand and recover compensation for any other loss or damages specified elsewhere in the contract.

Section 5 - Previous Transgression

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 (three) years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 5.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason or action can be taken as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

Section 6 - Equal treatment of all Bidder (s)/ Contractor (s) / Sub-contractor (s)

- 6.1 The Principal will enter into Integrity Pacts with identical conditions as this Integrity Pact with all Bidders and Contractors.
- 6.2 In case of Sub-contracting, the Principal Contractor shall take the responsibility of the adoption of Integrity Pact by the Sub-contractor(s) and ensure that all Sub-contractors also sign the Integrity Pact.
- 6.3 The Principal will disqualify from the tender process all Bidders who do not sign this Integrity Pact or violate its provisions.

Section 7 - Criminal Charges against violating Bidders/ Contractors /Subcontractors

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

Section 8 -Independent External Monitor(s)

- 8.1 The Principal appoints competent and credible panel of Independent External Monitor (s) (IEMs) for this Integrity Pact. The task of the IEMs is to review independently and objectively, whether and to what extent the parties comply with the obligations under this Integrity Pact.
- 8.2 The IEMs are not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.
- 8.3 The IEMs shall be provided access to all documents/ records pertaining to the Contract, for which a complaint or issue is raised before them as and when warranted. However, the documents/records/information having National Security implications and those documents which have been classified as Secret/Top Secret are not to be disclosed.
- 8.4 The Principal will provide to the IEMs sufficient information about all meetings among the parties related to the Contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the IEMs the option to participate in such meetings.



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- 8.5 The advisory role of IEMs is envisaged as that of a friend, philosopher and guide. The advice of IEMs would not be legally binding and it is restricted to resolving issues raised by a Bidder regarding any aspect of the tender which allegedly restricts competition or bias towards some Bidders. At the same time, it must be understood that IEMs are not consultants to the Management. Their role is independent in nature and the advice once tendered would not be subject to review at the request of the organization.
- 8.6 For ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process or during execution of Contract, the matter should be examined by the full panel of IEMs jointly, who would look into the records, conduct an investigation, and submit their joint recommendations to the Management.
- 8.7 The IEMs would examine all complaints received by them and give their recommendations/ views to the CMD, BHEL at the earliest. They may also send their report directly to the CVO, in case of suspicion of serious irregularities requiring legal/ administrative action. Only in case of very serious issue having a specific, verifiable Vigilance angle, the matter should be reported directly to the Commission. IEMs will tender their advice on the complaints within 30 days.
- 8.8 The CMD, BHEL shall decide the compensation to be paid to the IEMs and its terms and conditions.
- 8.9 IEMs should examine the process integrity, they are not expected to concern themselves with fixing of responsibility of officers. Complaints alleging mala fide on the part of any officer of the Principal should be looked into by the CVO of the Principal.
- 8.10 If the IEMs have reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant Indian Penal Code / Prevention of Corruption Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the IEMs may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- 8.11 After award of work, the IEMs shall look into any issue relating to execution of Contract, if specifically raised before them. As an illustrative example, if a Contractor who has been awarded the Contract, during the execution of Contract, raises issue of delayed payment etc. before the IEMs, the same shall be examined by the panel of IEMs. Issues like warranty/ guarantee etc. shall be outside the purview of IEMs.
- 8.12 However, the IEMs may suggest systemic improvements to the management of the Principal, if considered necessary, to bring about transparency, equity and fairness in the system of procurement.
- 8.13 The word 'Monitor' would include both singular and plural.

Section 9 - Pact Duration

- 9.1 This Integrity Pact shall be operative from the date this Integrity Pact is signed by both the parties till the final completion of contract for successful Bidder, and for all other Bidders 6 months after the Contract has been awarded. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings.
- 9.2 If any claim is made/ lodged during currency of this Integrity Pact, the same shall be binding and continue to be valid despite the lapse of this Pact as specified above, unless it is discharged/ determined by the CMD, BHEL.

Section 10 - Other Provisions

- 10.1 This Integrity Pact is subject to Indian Laws and exclusive jurisdiction shall be of the competent Courts as indicated in the Tender or Contract, as the case may be.
- 10.2 Changes and supplements as well as termination notices need to be made in writing.
- 10.3 If the Bidder(s)/ Contractor(s) is a partnership or a consortium or a joint venture, this Integrity Pact shall be signed by all partners of the partnership or joint venture or all consortium members.
- 10.4 Should one or several provisions of this Integrity Pact turn out to be invalid, the remainder of this Integrity Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 10.5 Only those bidders / contractors who have entered into this Integrity Pact with the Principal would be competent to participate in the bidding. In other words, entering into this Integrity Pact would be a preliminary qualification.
- 10.6 In the event of any dispute between the Principal and Bidder(s)/ Contractor(s) relating to the Contract, in case, both the parties are agreeable, they may try to settle dispute through Mediation before the panel of IEMs in a time bound manner. In case, the dispute remains unresolved even after mediation by the panel of IEMs, either party may take further action as the terms & conditions of the Contract. The fees/expenses on dispute resolution through mediation shall be shared by both the parties. Further, the mediation proceedings shall be confidential in nature and the parties shall keep confidential all matters relating to the mediation proceedings including any settlement agreement arrived at between the parties as outcome of mediation. Any views expressed, suggestions, admissions or proposals etc. made by either party in the course of mediation shall not be relied upon or introduced as evidence in any further arbitral or judicial proceedings, whether or not such proceedings relate to the dispute that is the subject of mediation proceedings. Neither of the parties shall present IEMs as witness in any Alternative Dispute Resolution or judicial proceedings in respect of the dispute that was subject of mediation.

 For & On behalf of the Principal
 (Office Seal)
(MAHEEN MAHAJETHI)
Dy. Manager (MM)
B.H.E.L., JHANSI
 Place _____
 Date 15/04/22

 For & On behalf of the Bidder/ Contractor
 (Office Seal)

Witness: _____
 (Name & Address) 15/04/22
(PAWAN KUMAR)
Dy. General Manager (CMM)
B.H.E.L., JHANSI

Witness: _____
 (Name & Address) _____

Clause on IP in the tender**"Integrity Pact (IP)**

- (a) IP is a tool to ensure that activities and transactions between the Company and its Bidders/ Contractors are handled in a fair, transparent and corruption free manner. Following Independent External Monitors (IEMs) on the present panel have been appointed by BHEL with the approval of CVC to oversee implementation of IP in BHEL.

SI	IEM	Email
1.	Shri Arun Chandra Verma, IPS (Retd.)	acverma1@gmail.com
2.	Shri Virendra Bahadur Singh, IPS (Retd.)	vbsinghips@gmail.com

- (b) The IP as enclosed with the tender is to be submitted (duly signed by authorized signatory) along with techno-commercial bid (Part-I, in case of two/ three part bid). Only those bidders who have entered into such an IP with BHEL would be competent to participate in the bidding. In other words, entering into this Pact would be a preliminary qualification.
- (c) Please refer Section-8 of IP for Role and Responsibilities of IEMs. In case of any complaint arising out of the tendering process, the matter may be referred to any of the above IEM(s). All correspondence with the IEMs shall be done through email only.

Note:

No routine correspondence shall be addressed to the IEM (phone/ post/ email) regarding the clarifications, time extensions or any other administrative queries, etc on the tender issued. All such clarification/ issues shall be addressed directly to the tender issuing (procurement) department's officials whose contact details are provided below:

Details of contact person(s):

(1) **(NAVEEN MAHASETH)**
 Name: Dy. Manager (MM)
 Deptt: B.H.E.L., JHANSI
 Address: _____
 Phone: (Landline/ Mobile)
8765956505
 Email: nkmahaseth@bhel.in
 Fax: _____

(2) _____
 Name: _____
 Deptt: _____
 Address: _____
 Phone: (Landline/ Mobile)
 Email: paasambhel@bhel.in
 Fax: _____

(पञ्चम प्रशासक)
 (पासम् बहल)
 उप महाप्रशासक (संवेदन तन्त्र) महाराष्ट्र
 Dy. General Manager (Sensory Control)
 बी.ए.एल. जहानसि
 B.H.E.L., JHANSI



CORPORATE PURCHASING SPECIFICATION

AA 229 01

Rev. No. 05

PAGE 1 OF 3

POLYAMIDE (ARAMID) CALENDER PAPER**1.0 GENERAL:**

This specification governs with the quality requirements calender polyamide (Aramid) paper made from specially formulated polyamide fibres with a high degree of thermal stability. The material is used upto a maximum operating temperature of 220°C.

2.0 APPLICATION:

Used as inter-turn insulation, slot liner of electrical machines.

3.0 COMPLIANCE WITH NATIONAL STANDARDS:

There is no national standard covering this type of material.

4.0 DIMENSIONS AND TOLERANCES:**4.1 Sizes:**

Thickness, width and length of the sheet / tape shall be as specified in BHEL order.

4.1.1 Preferred thickness and Tolerances:

0.05, 0.08, 0.13, 0.18, 0.2, 0.25, 0.3, 0.4, 0.5 and 0.8 mm with tolerances as per Annexure I.

4.1.2 Preferred Width and Tolerances:

Sheet: 600mm and 900mm with tolerance of ± 15 mm.

Tape: 20, 25 and 30 mm with tolerance of ± 0.5 mm.

5.0 FINISH:

The material shall be free from surface or edge defects, inclusions, voids, pin-holes and cracks which may affect its suitability for use. Visual properties shall be consistent from lot to lot.

6.0 TEST SAMPLES:

A roll of at least 50 metres length for tape or 2 m² sample from inner portion of sheet roll of ordered thickness from the same batch shall be supplied for testing and approval.

7.0 PROPERTIES:

When tested in accordance with the relevant clauses of the test methods mentioned against each, the test samples shall show the following values.

Revisions : As per 38th MOM of MRC-E

APPROVED :
INTERPLANT MATERIAL
RATIONALISATION COMMITTEE-MRC (E)

Rev. No. 05

Amd.No.

Reaffirmed

Prepared

Issued

Dt. of 1st Issue

Dt.:20.04.2012


Dt :

Year :

BHOPAL

Corp. R&D

AUGUST, 1983

AA 229 01	CORPORATE PURCHASING SPECIFICATION	
Rev. No. 05		
PAGE 2 OF 3		
<p>7.1 Physical properties:</p> <p>7.1.1 Moisture absorption: 8%, maximum A sample of 75 ± 1 mm x 75 ± 1mm is kept at 90% RH and room temperature (27⁰ ± 2⁰C) for 72 hours.</p> <p>8.0 TYPE TESTS:</p> <p>8.1 Mechanical properties :</p> <p>Breaking strength : As per Annexure I</p> <p>Elongation at break : As per Annexure I</p> <p>8.2 Electrical Properties:</p> <p>Electrical strength (BDV) in air at 27 ± 2⁰ C : As per Annexure I</p> <p>Volume Resistivity (ASTM D –257) : 1 x 10¹⁶ ohm-cm, minimum.</p> <p>9.0 ACCEPTANCE CRITERIA:</p> <p>Material shall be accepted on the basis of the following:</p> <p>a) Compliance certificate furnished by the supplier b) Test certificate furnished by the supplier and / or testing carried out at BHEL end.</p> <p>10.0 TEST CERTIFICATES:</p> <p>Unless otherwise stated, three copies of test certificates shall be supplied along with each consignment giving following information:</p> <p>In addition, the supplier shall ensure to send one copy of test certificate along with the dispatch documents to facilitate quick clearance of the materials.</p> <p>AA 229 01, Rev 05: Polyamide (Aramid) calender paper. BHEL order No. Manufacturers/suppliers Name: Trade name/mark, if any: Batch/Lot No. Quantity supplied Test results of clauses 4.0, 7.0 and 8.0</p> <p>11.0 PACKING AND MARKING:</p> <p>Rolls shall be suitably packed to prevent damage during transit and storage. Each consignment shall be legibly marked or labeled with the following information:</p> <p>AA 229 01: Polyamide (Aramid) calender paper BHEL order No. Manufacturers/suppliers Name: Batch/Lot No. Trade mark, if any Sizes and Quantity supplied</p> <p>12.0 REFERRED STANDARDS (Latest Publications Including Amendments):</p> <p>1) ASTM D 257</p>		



CORPORATE PURCHASING SPECIFICATION


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ANNEXURE I - CLAUSE 8.0

Nominal Thickness, mm	Tolerance ± mm	Substance Tolerance g/m ² of ±10%	Breaking strength, N/cm width, minimum		Elongation, percent, minimum		Tear strength, N, minimum		Dissipation factor, maximum	Electric strength (BDV) in air at 27±2°C kV/mm, min.
			Machine direction (MD)	Cross machine direction (XD)	Machine direction (MD)	Cross machine direction (XD)	Machine direction (MD)	Cross machine direction (XD)		
0.05	0.01	40	44	19	11	8	0.7	1.6	0.004	19
0.08	0.01	63	70	35	11	9	1.2	2.3	0.005	24
0.13	0.02	120	140	68	16	13	2.4	5.1	0.006	27
0.18 0.2	0.02	170	230	120	19	15	3.6	7.1	0.006	35
0.25	0.03	250	320	160	20	16	5.2	9.8	0.006	33
0.3	0.03	310	390	210	23	19	6.5	12	0.007	34
0.4	0.05	410	490	260	21	17	8.1	15	0.007	33
0.5	0.06	540	670	390	22	17	12	19	0.007	33
0.8	0.10	850	910	610	20	16	--	--	0.007	28

	CORPORATE PURCHASING SPECIFICATION		AA 281 28												
			Rev. No. 06												
			PAGE 1 OF 10												
PAPER COVERED RECTANGULAR COPPER CONDUCTOR (0.1% PROOF STRESS)															
1.0 GENERAL: This specification governs the quality requirements of high conductivity work hardened rectangular copper conductor covered with atleast three layers of paper and suitable for use in hot insulating oil. Paper shall conform to BHEL specification AA 21111. The material in oil shall have temperature index of atleast 105.															
2.0 APPLICATION: Used for windings of transformers.															
3.0 COMPLIANCE WITH NATIONAL STANDARDS: There is no National standard covering this type of material. However, assistance has been derived from IEC:60317-27-1990 : Specification for particular Type of Winding Wires-paper Covered Rectangular Copper Wires.															
4.0 DIMENSIONS:															
4.1 Conductor of any size within the following range shall be ordered. <table style="width: 100%; border: none;"> <tr> <td style="width: 60%;">Thickness</td> <td>: 1 to 6 mm</td> </tr> <tr> <td>Width</td> <td>: 3.2 to 18 mm</td> </tr> <tr> <td>Area</td> <td>: 5 to 90 mm²</td> </tr> <tr> <td>Width/Thickness</td> <td>: 1.3 to 8</td> </tr> <tr> <td>Radial insulation thickness on the conductor</td> <td>: 0.15 to 2.6 mm</td> </tr> </table> <p>However paper insulated wire with radial insulation above 2.6 mm can also be ordered in special cases.</p>						Thickness	: 1 to 6 mm	Width	: 3.2 to 18 mm	Area	: 5 to 90 mm ²	Width/Thickness	: 1.3 to 8	Radial insulation thickness on the conductor	: 0.15 to 2.6 mm
Thickness	: 1 to 6 mm														
Width	: 3.2 to 18 mm														
Area	: 5 to 90 mm ²														
Width/Thickness	: 1.3 to 8														
Radial insulation thickness on the conductor	: 0.15 to 2.6 mm														
4.2 Bunched wire (number of insulated conductors stacked axially or radially and then insulated overall) with maximum covered diagonal of 25 mm can also be ordered. Size range or individual bare strip shall be within the range indicated in Cl.4.1.															
4.3 Round edge (semi-circular edge) wire with the size limitation as per Cl.4.1 can also be ordered.															
Revisions : Cl: 33.5.28 of MOM of MRC-E			APPROVED : INTERPLANT MATERIAL RATIONALISATION COMMITTEE-MRC (E)												
Rev. No. 06	Amd.No.	Reaffirmed	Prepared	Issued	Dt. of 1st Issue										
Dt: 01.10.2003	Dt :	Year :	BHOPAL	Corp. R&D	AUGUST, 1987										


AA 281 28	CORPORATE PURCHASING SPECIFICATION																		
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PAGE 2 OF 10																			
<p>4.4 Conductor size, radial insulation thickness and covered dimensions shall be as stated on the order. Total weight of conductor, the length of wire per drum and total number of drums shall also be stated on the order. The length per drum is very important. It shall neither be less nor be more than the specified.</p>																			
<p>4.5 Weights indicated in an order are nominal and can vary within $\pm 2\%$ considering all allowed tolerances on dimensions and on corner radius.</p> <p>Excess weights more than 2 percent shall not be admissible in any circumstances.</p>																			
<p>5.0 TEST SAMPLES:</p>																			
<p>5.1 Paper :</p> <p>The supplier shall send test certificate for papers for all the tests as per BHEL specification AA 211 11 for approval. The test report shall be sent for each lot of paper and of different thicknesses received from the paper mill which are to be used in the manufacture of BHEL paper covered conductors.</p> <p>In the absence of proper test certificate 20 sheets of size 300 X 300 mm of paper from each lot and of different thicknesses shall be supplied for our testing and inspection, with machine direction and cross machine direction marked on each sheet.</p>																			
<p>5.2 Finished Conductor:</p> <p>5 metre long sample of covered conductor shall be supplied for testing and inspection.</p>																			
<p>6.0 TEST METHODS :</p> <p>Unless otherwise specified, the test shall be conducted in accordance with relevant methods of IEC 60851.</p>																			
<p>7.0 CONDUCTOR :</p>																			
<p>7.1 Grade of Material :</p> <p>The conductor shall be manufactured from ETP grade copper conforming to BHEL specification AA 12024. Except that it shall be work hardened and meet the requirements of 0.1% proof stress as per clause 7.4 and resistance as per clause 7.5.</p> <p>NOTE: Manufacture of copper conductors from continuous cast copper bars is preferable provided all other acceptance parameters and conditions remains same.</p>																			
<p>7.2 Tolerances on Dimensions:</p>																			
<table border="1"> <thead> <tr> <th colspan="2"><u>Width or Thickness, mm</u></th> <th rowspan="2">Tolerances \pm mm</th> </tr> <tr> <th>Over</th> <th>Upto and Incl.</th> </tr> </thead> <tbody> <tr> <td>--</td> <td>3.15</td> <td>0.030</td> </tr> <tr> <td>3.15</td> <td>6.30</td> <td>0.050</td> </tr> <tr> <td>6.30</td> <td>12.50</td> <td>0.070</td> </tr> <tr> <td>12.50</td> <td>--</td> <td>0.100</td> </tr> </tbody> </table>	<u>Width or Thickness, mm</u>		Tolerances \pm mm	Over	Upto and Incl.	--	3.15	0.030	3.15	6.30	0.050	6.30	12.50	0.070	12.50	--	0.100		
<u>Width or Thickness, mm</u>		Tolerances \pm mm																	
Over	Upto and Incl.																		
--	3.15	0.030																	
3.15	6.30	0.050																	
6.30	12.50	0.070																	
12.50	--	0.100																	


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7.3 Radius on corners:			

Thickness of Conductors, mm		Corner Radius, mm	Tolerance, %
Over	Upto and Incl.		


--	1.00	Semicircular	± 25
1.00	1.60	0.50	
1.60	2.24	0.65	
2.24	3.55	0.80	
3.55	--	1.00	

NOTE: In case of round edge wire tolerance on radius shall be ± 25%.			
7.4 0.1% Proof stress (IS: 1608):			
The nominal value of proof stress shall be selected from the following and shall be as sated in the order.			
7.4.1 Nominal value 0.1% proof stress:			
115,125,135 and 145 MPa			
7.4.2 Tolerance:			
+ 15% and - 10%			
Tests shall be carried out on one sample only taking 50 mm gauge length as per IS : 1608. However, any other value of proof stress can also be ordered.			
7.5 Electrical Resistivity :			
The resistivity at 20 ⁰ C, when measured directly on the sample in “as received condition” shall not be grater than 0.01777 ohm-mm ² /metre (Refer Appendix B of IS:613 for temperature correction factor).			
7.6 Joint :			
All Joints in the conductor shall be resistance welded and subsequently cold worked.			

AA 281 28	CORPORATE PURCHASING SPECIFICATION	
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<p>8.0 PAPER :</p> <p>8.1 Grade of paper: Kraft paper shall conform to BHEL specification AA 21111.</p> <p>8.2 Thickness: The thickness of paper shall be within limits of 40 and 125 microns both inclusive and shall also comply with the requirements of clause 9.4.</p> <p>9.0 APPLICATION OF PAPER :</p> <p>9.1 General : To prevent the inclusion of copper dust or other extraneous matter under the paper covering, the conductor shall be fully cleaned by felt pads or other suitable means immediately before entering the paper covering machine. Each layer or paper shall be continuous firmly applied and substantially free from creases. No bonding or adhesive material shall be used except to anchor the ends of paper. Any such bonding or adhesive material shall have no deleterious effect on transformer oil, insulating paper or the electric strength of the covering. When papers of different thicknesses are used, the outermost paper shall be the thickest. The thickness of the paper shall be progressively increased from the innermost to the outermost layers.</p> <p>9.2 Width of paper: For butt wound layers, the width of paper shall not exceed 1.5 times the sum of the width and the thickness of the conductor or 20 mm whichever is lower. For overlap wound layer, the width of the paper shall be between 1.35 to 1.5 times the width of the paper for butt wound layers or 25 mm whichever is lower.</p> <p>9.3 Overlap: Paper tap wound with each turn overlapping the preceding turn by not less than 25 to 35 percent of the paper width, with a minimum of 3 mm overlap.</p> <p>9.4 Minimum number of layers of paper covering: The paper covering shall contain a minimum number of layers as indicated below. Total number of layers shall be same in all the drums of particular size of an order.</p>		

		CORPORATE PURCHASING SPECIFICATION		AA 281 28
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Radial paper covering mm 1	Min. Number of paper covering 2	Max. thickness of paper for butt wound layers micron 3	Min. thickness of paper for overlap wound layers micron 4	
0.15	3	45	45	
0.20	4	45	45	
0.25	4	55	55	
0.30	5	65	65	
0.35	6	65	65	
0.40	7	65	65	
0.45	7	65	65	
0.50	8	65	65	
0.55	9	65	65	
0.60	9	65	65	
0.65	10	65	65	
0.70	10	65	65	
0.75	11	65	65	
0.80	12	65	65	
0.85	13	65	65	
0.90	13	65	65	
0.95	14	65	65	
1.00	14	65	75	
1.05	15	65	75	
1.10	15	75	75	
1.15	16	75	75	
1.20	16	75	75	
1.30	17	75	75	
1.40	18	75	75	
1.50	20	75	75	
1.60	21	75	75	
1.70	23	75	75	
1.80	24	75	75	
1.90	25	75	75	
2.00	27	75	75	
2.10	28	75	75	
2.20	29	75	75	
2.30	31	75	75	
2.40	32	75	75	
2.50	33	75	75	
2.60	34	75	75	

Note: 1. Order shall indicate minimum number of paper layers when radial covering is more than 2.6 mm in exceptional cases.

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2. Paper thickness indicated in column 3 and 4 are nominal thickness. 63 and 64 micron nominal thickness declared by a few manufactures shall be acceptable against 65 micron requirement of this table.

3. For radial paper thickness not specified in column 1 above, paper covering arrangement shall be as per the nearest lower radial insulation in the table. For example, for radial insulation of 0.33 mm radial insulation shall be followed.

9.5 Arrangement of layers:

All the layers shall be applied in the same direction, all except the outermost layer shall be butt wound and the outermost layer shall be overlap wound. Within each group of papers, the position of the butt joints of layer relative to the layer below shall be progressively displaced by approximately 30 percent of the paper width with a minimum of 3 mm. However, this displacement shall be about 50% of paper width when there are only two butt wound paper layers in a group.

9.6 Wax Coating:

When specified on order, a coating of paraffin wax confirming to IS:4654, of thickness not exceeding 0.02 mm shall be applied on the bottom flat sides of fully paper covered conductor. Wax shall be applied only on one side of covered width of the conductor.

10.0 INCREASE IN DIMENSIONS DUE TO COVERING :


10.1 Increase in Dimensions :

The increase in dimensions due to covering shall have tolerance as stated below:

<u>Increase due to the covering, mm</u>		Tolerance, percent
Over	Upto and Includ.	
0.25	0.5	+0 , -10
0.5	1.3	+0 , -7.5
1.3	-	+0 , -5

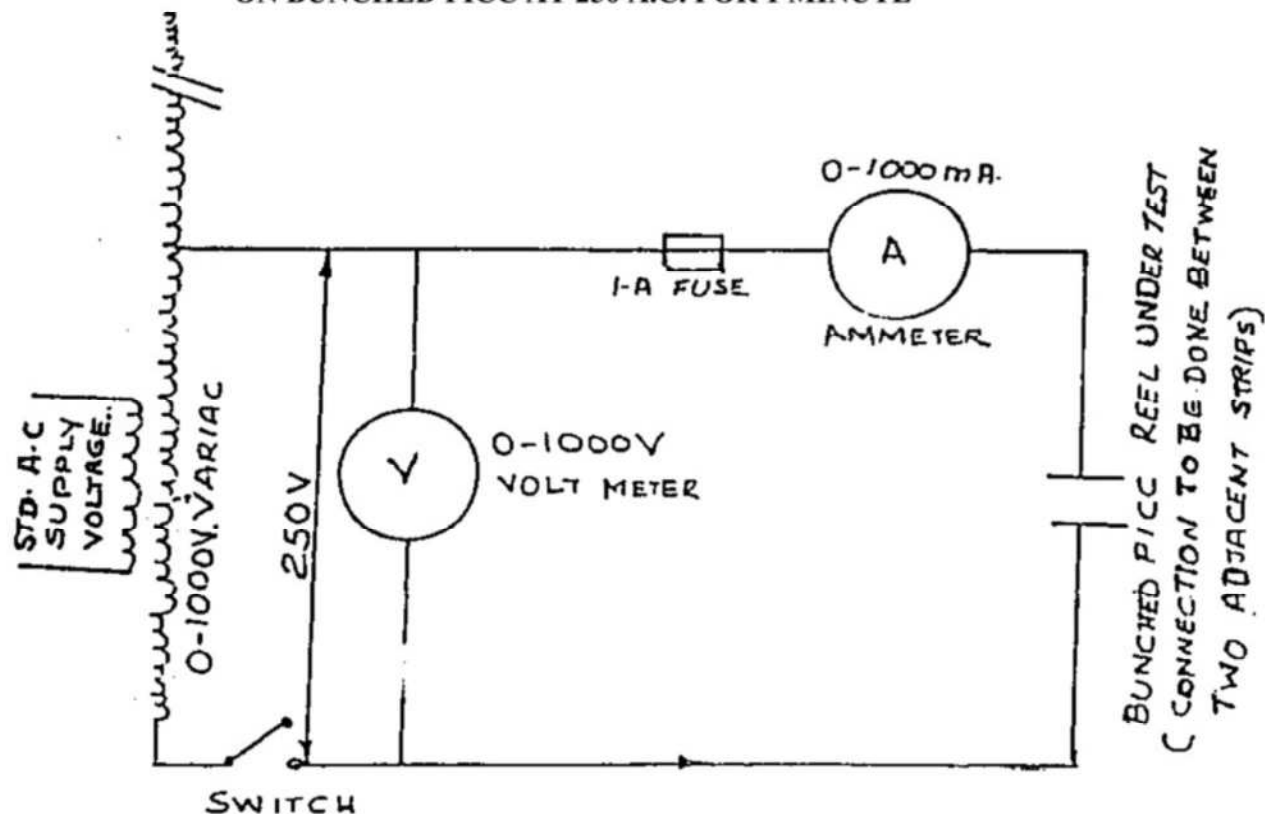
10.2 Measuring Equipment :

The measurement shall be made with a suitable ratchet micrometer. The spindle and anvil of the micrometer shall have a diameter of 5 to 8 mm.

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<p>10.3 Measuring Method:</p> <p>Overall thickness shall be measured at three positions not less than 100 mm apart. The measurements shall be made on completely straight parts of the conductor. The measurement shall include at least one overlap. The average of the three results shall be reported as the overall thickness. The covering shall be removed by any method which does not damage the conductor for three positions used for the measurement of the conductor for three positions used for the measurement of overall thickness and conductor thickness measured at these positions. The average of the three results shall be reported as conductor thickness.</p> <p>The difference between the overall thickness and the conductor thickness shall be reported as the increase in dimensions due to covering.</p> <p>10.4 Counter check :</p> <p>The increase in dimensions due to covering shall also be counter checked by adding up the thickness of paper used in each layer. Radial build up due to the outermost 25 percent overlap wound layer shall be taken as 1.5 times the thickness of paper used. The thickness of paper shall be measured by ratchet micrometer by stacking the tapes of paper in different layer one above the other. However, the thickness of overlap layer shall be separately measured. Paper tape shall not be folded to form two or more tapes. Length of paper tapes shall not be less than 150 mm. Five measurements shall be made distributed over the stack. The paper thickness shall be computed by dividing by five the mean of the five readings.</p> <p>10.5 Radial insulation so computed in CI 10.4 shall not be less than the minimum allowed (considering the appropriate tolerance) as per CI 10.1.</p> <p>10.6 Maximum overall Dimension:</p> <p>Overall dimension shall not exceed the sum of the maximum bare dimension and the maximum increase in dimension due to covering permitted.</p> <p>11.0 SPECIFIC REQUIREMENTS FOR BUNCHED WIRE:</p> <p>11.1 To facilitate proper bunching without any tearing of the paper, paraffin wax on mating surfaces of two or more strips (each covered with individual paper insulation) shall be applied by the manufacture. Total thickness of wax coating shall not exceed 0.02 mm. Extra built up to this extent, i.e. 0.02 mm over specified covered dimensions shall be allowed.</p> <p>11.2 Insulation Test :</p> <p>The insulation test at 250 V, AC for 1 minute shall be conducted on all drums, between conductors. A fuse wire of 1 ampere rating shall be connected in series with test specimen. The drum shall be considered to have passed the insulation test if charging current is less than 1 ampere i.e. fuse wire is not fused. An ammeter shall also be connected in the circuit to measure leakage current between adjacent strands of bunched wire.</p> <p>The test setup shall be as given below :</p>		

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**CIRCUIT DIAGRAM FOR INSULATION TEST
ON BUNCHED PICC AT 250 A.C. FOR 1 MINUTE**



11.3 The starting end of the bunched wire shall project outwards from all the drums. Individual strips be separated at this end during insulation test.

12.0 TEST CERTIFICATE:

Unless otherwise specified, three copies of test certificates shall be supplied along with each consignment. In addition, the supplier shall ensure to enclose one copy of the test certificate along with their despatch documents to facilitate quick clearance of the material.

The test certificate shall bear the following information:

AA 281 128 (Rev 06): Paper covered rectangular copper conductor (0.1% Proof stress).

BHEL Order No.

Manufacturer's / Supplier's Name

Trade mark, if any

Bare conductor size

Over all wire size


Increase in dimensions due to covering


No. of layers and thickness of paper of each layer


No. of drums / Net weight

Test values obtained for test on conductor and wire as per clauses 4.0 , 7.0, 9.0, 10.0 and 12.0.

**Test certificate for compliance of characteristics of paper to BHEL specification
AA 2111.**

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13.0 PACKING AND MARKING :		
<p>The paper covered conductor shall be tightly and evenly wound, without twist, on drums in such a direction that when unrolled the exposed edge of the overlap of the outer layer of paper is towards the drum. The drums shall conform to IEC 60264 / IS:2069. Dimensions of drums will be subjected to charge to suit our requirement of paper covered conductor weight per drum. However, the construction of the two flanges of the drum shall be any one of the following 3 alternatives.</p>		
<p>a) Laminated plyboard construction flange thickness built up using 1 to 3 mm thick veneer plyboard bonded together using phenol/cresol formaldehyde resin.</p>		
(OR)		
<p>b) Laminated timber core construction. Timber core will be made using buttons of width not less than 50 mm on both side; of timber core 3 to 4 mm thick laminated/single veneer plyboard will be bounded .Adhesive used in manufacturing timber core drum flanges will be phenol/cresol formaldehyde resin.</p>		
(OR)		
<p>c) Manufactured from any other suitable alternative material like plastic, steel etc. subject to prior approval by BHEL.</p>		
<p>The bunched wire shall be supplied only in drums of minimum barrel diameter of 560mm. Flange diameter and transverse of drum can be changed to suit the actual length and weight of bunched wire required against as per order.</p>		
<p>Before winding the insulated conductor, a layer of polythene sheet shall be wrapped on empty drum. Polythene sheet shall be least 60 microns thick complying to IS:2508, Gr.:000. Then a layer of 75 or 100 micron thick Kraft paper or any other packing paper shall be put over the polythene sheet. After winding the conductor, the polythene sheet edges shall be folded over the conductor so that polythene sheet is on outer side for protection against water ingress. Thereafter a polythene strip shall be wound on outside.</p>		
<p>Whenever bare cross section of paper insulated copper conductor is more than 40 mm², an interlayer of 50-60 micron thick Kraft paper shall be given to protect the conductor during winding at BHEL.</p>		
<p>As a final protection, a layer of oiled canvas, or similar waterproof material shall be wrapped over the polythene sheet, ensuring that no part of the conductor is exposed.</p>		
<p>Metal/non-metal strips used over the drum shall be stamped/sealed with the manufacturer's identification mark. Similarly, end of the conductor shall also be sealed/stamped.</p>		
<p>The covered conductor on each drum shall be in on continuous length. There shall be a gap of atleast 25mm between fully packed conductors and drum flange diameter to facilitate handling and transportation of drums.</p>		
<p>Direction of winding shall be indicated on the drum. For this suitable stamp of "Arrow" mark shall be made. This mark should be stamped on each drum flange indicating the winding direction.</p>		

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<p>Each drum shall be labeled clearly stating the following information. The label shall preferably be cemented into a recess with side of the flange of the drum.</p> <p>AA 28128 : Paper covered Rectangular copper conductor (0.1% Proof stress). BHEL Order No. Manufacturer's / Supplier's Name Dimensions of conductor Size of conductor Net weight / Gross weight</p> <p>14.0 REFERRED STANDARDS (Latest Publications Including Amendments):</p> <p>1) IS:613 2) IS: 1608 3) IS: 2069 4) IS:2508 5) IS: 4654 6) AA 12024 7) AA 21111 8) IEC 60317-27 9) IEC 60264 10) IEC 60851</p>		

	CORPORATE PURCHASING SPECIFICATION		AA 28144		
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<u>POLYESTERIMIDE ENAMELLED RECTANGULAR COPPER CONDUCTORS</u> <u>(TEMPERATURE INDEX 155)</u>					
1. <u>GENERAL:</u> <p>This specification governs the quality requirements of rectangular copper conductors, insulated with flexible enamel based on polyesterimide base fine and medium covering with a temperature index of at least 155.</p>					
2. <u>APPLICATION:</u> <p>Used in the windings of Rotating Electrical Machines. ↑</p>					
3. <u>COMPLIANCE WITH NATIONAL STANDARDS:</u> <p>This specification conforms to the following Standards and shall also meet the alternate / additional requirements of this specification. ↑</p> <p>IS:13730 Pt 16 1996 : Specification for particular types of winding wire- Polyester enameled rectangular copper wires clause 155. ↑</p> <p>IEC : 60317- 0-2 : Specification for particular types of winding wire Pt. 0 - General Requirements - Section 2 Enamelled Rectangular Copper Wire. ↑</p>					
4. <u>SIZES :</u> <p>The conductor shall be supplied to the sizes specified in our order. The sizes shall be preferably selected from Cl. 4 of IS : 13730 Pt . 16 ↑</p>					
5. <u>JOINTS :</u> <p>No joint shall be made in the copper conductor after it is drawn. Any joint made during the drawing process shall be resistance welded only.</p>					
Revision :			APPROVED :		
Cl.34.1.19 of MOM of MRC- E			INTER PLANT MATERIAL RATIONALISATION COMMITTEE- MRC (E)		
Rev.No. 03	Amd.No.	Reaffirmed	Prepared	Issued	Dt.of Ist Issue
Dt: 23.05.2007	Dt:	Year:	BHOPAL	Corp. R&D	Dec.1977

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6. CONDUCTOR :6.1 Conductor Material :

The conductor shall be manufactured from ETP grade copper, conforming to IS : 191 Part 5, and shall be of high conductivity, annealed copper.

6.2 TOLERANCES ON NOMINAL DIMENSIONS :

Width of Conductor mm			Tolerance on thickness ± mm			
Over	Up to & incl.	Tol.(±)	Up to 1	Over 1 & Incl. 3	Over 3 & Upto 6	Over 6 & up to 10
-	3	0.03	0.02	0.03	-	-
3	6	0.04	0.02	0.03	0.04	-
6	10	0.07	0.02	0.03	0.04	0.07
10	18	0.10	0.02	0.03	0.04	0.07
18	25	0.10	0.03	0.04	0.06	0.08

6.3 Radius on Corners :

The conductor shall have radius corners, the radius of curvature together with the Tolerances being as given below. The arc shall merge smoothly in to the flat and the conductor shall be free from sharp, rough and projected edges.

Thickness of strip, mm		Nominal Radius on edges in mm	Tolerances (± mm)
Over	up to & incl.		
-	1.2	0.4	0.06
1.2	1.7	0.5	0.08
1.7	2.5	0.6	0.09
2.5	4.0	0.8	0.12
4.0	10.0	1.0	0.15

6.4 Tensile Strength & Elongation :

A sample of conductor 250 mm long between the grips shall be steadily elongated at a rate of 60 to 300 mm/minute until the conductor fractures. The tensile strength and elongation at fracture shall comply with the following requirements :

Nom. Conductor Thickness in mm		Tensile Strength Max.	Elongation at 200 mm G.L.
Over	Up to & incl.	N / m ²	% Min.
0.8	2.5	265	30
2.5	10.0	255	35



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6.5 Hardness :

Hardness on finished conductor shall not exceed 60 HV.

6.6 Resistance :

The resistance at 20 ° C of a conductor of one meter length and of uniform cross sectional area of 1 mm² shall be taken as 0.01737 ohm max.

7.0 Increase In Dimensions Due To Covering :

The increase in dimensions due to the enamel covering, shall conform to the values given below :

Grade	Increase in Dimension, mm	
	Minimum	Maximum
Fine	0.06	0.11
Medium	0.11	0.16

8.0 ENAMEL COVERING:**8.1 General :**

The conductor shall be completely and uniformly covered with a durable, flexible synthetic enamel polyesterimide base . The enameled conductor shall have a smooth surface, free from embedded particles of dust and other deleterious materials.

8.2 Flexibility And Adherence:

Separate samples of conductors above 2 mm thickness shall be bent, one on edge and one on flat, through 180° round a mandrel of diameter 4 times the bare width of the conductor when bent on edge or four times the bare thickness when bent on flat.

Conductors of upto and including 2 mm thickness shall be pre-elongated by 10 percent and bent through 180° round a mandrel of diameter 9 times the thickness as per the standard procedure.

After bending the samples shall show no cracks and peeling off when examined under a magnification of approximately 10-15 times .



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8.3 Prolonged Heat Shock Test :

Samples of conductor above 2 mm thickness shall be bent, on flat, through 180° round a mandrel of diameter 4 times the bare thickness of the conductor.

Conductors upto and including 2 mm thickness shall be pre-elongated by 10% and bent through 180° round a mandrel of diameter 9 times the thickness in accordance with the standard procedure.

The samples prepared as above shall be placed in an electrically heated forced air circulation oven at a temperature of $180 \pm 2^\circ \text{C}$ for 48 hours. After removal from the oven, the samples shall be allowed to cool to room temperature and shall show no cracks when examined under a magnification of approximately 10-15 times.

8.4 Thermal Endurance Test :

The manufacturer shall certify that the enameled wire has been made using materials and process that have been shown to give a product which will meet the following requirement.

When tested by the method given in IS : 13778 Pt. 6 / IEC -851 Pt. 6, temperature corresponding to an extrapolated life 20,000 hours shall be not less than 155°C .

8.5 Hardness of Enamel :

When tested under a thrust of 500 gf the hardness of the pencil which just fails to scrape off the enamel to the bare conductor shall be 5 H minimum.

8.6 Resistance of Enamel to Varnish Solvent :

Six samples of enameled conductors immersed in the solvents xylene butanol (approx. 9 : 1) solvent naphtha, toluene, White spirit, methylated spirit (when specially demanded) butanol, butyl acetal for 24 hours at 10° to 40°C and allowed to dry for 30 minutes after removal. The hardness of enameled conductor so obtained shall not be reduced when compared to that specified in clause 8.5.

8.7 Resistance of Enamel to Insulating Oil :

The enameled conductor bent on flat as described in clause 8.2 & then immersed in oil conforming to IS:335 for 6 hours at $110 \pm 2^\circ \text{C}$ and allowed to cool to room temperature. The hardness of enameled conductor so obtained shall not be reduced when compared to that specified in clause 8.5.



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8.8 Cure Test :

A sample of the enameled wire shall be conditioned by baking at $130 \pm 2^\circ\text{C}$. for 10 minutes and allowed to cool to room temperature. Not less than 100 mm of the sample shall then be immersed, without bending for 5 minutes in a boiling mixture 30% commercial grade toluene and 70% denatured ethyl alcohol by volume. On removal from the liquid the enamel film shall show no visible swelling or blistering except on the last 10 mm of the immersed end.

8.9 Electric Strength :

When tested at $155 \pm 2^\circ\text{C}$ by the method specified in IS:13730 Pt. 16 the enameled conductor shall not breakdown at a voltage less than specified below :

Grade of covering	Breakdown Voltage Min
Fine	750
Medium	1500

9.0 TEST CERTIFICATES:

Unless otherwise stated, three copies of test certificates shall be supplied along with each consignment . In addition, the supplier shall ensure to enclose one copy of test certificate along with their dispatch documents to facilitate quick clearance of the material.

The test certificate shall bear the following

AA 28144 : Polyesterimide Enamelled Rectangular Copper Conductors
(Rev.No 03) : Conductors. (Temp. Index 155)

BHEL Order No.

Manufacturer's/Supplier's Name.

Batch / Lot No.

Sizes and Quantity Supplied.

Test results / certificate of compliance with clause 6 to 8

Note: On first consignment for establishment of material, the supplier shall indicate the type and make of enamel used for the conductors, with their life time characteristics, for BHEL's approval. The approved enamel as identified by IR spectroscopy or any other suitable instrumental method shall only be used. On subsequent orders, supplier shall furnish a certificate that only the approved enamel have been used.



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10. PACKING AND MARKING:

The covered conductor shall be wound on Drum No. 4520 (Dia. Of flange to IS:2069 = 450 MM and approximate capacity = 55 Kgs.) . In all the cases, the covered strip shall be protected against possible damages from the inner faces of the flanges of the drums by lining each flange with stout paper or card.

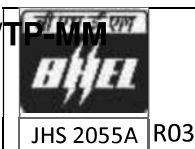
Each drum shall be marked with the following :
AA 28144 : Polyesterimide Enamelled rectangular Copper conductors
(Temp. Index 155).

BHEL Order No.
Suppliers Name
Size of the Conductor
Quantity

11. Referred Standards (Latest Publications Ind. Amdts)

- | | | | | | |
|----|------------------|----|---------------|----|----------|
| 1. | IS : 13730 Pt.16 | 2. | IEC 60317-0-2 | 3. | IS : 191 |
| 4. | IS : 13778 Pt. 6 | 5. | IEC 851 Pt. 6 | 6. | IS:335 |
| 7. | IS : 2069 | | | | |

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GENERAL TERMS AND CONDITIONS OF ENQUIRY

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SN	Description
1	General:
A	These general terms & conditions shall apply to all enquiries, notice inviting tenders, request for quotations concerning the supply of goods and / or rendering of services to Bharat Heavy Electricals Ltd., Jhansi (hereinafter referred to as BHEL or the Purchaser) or its Projects / Customers.
B	Special / supplementary enquiry conditions & Mandatory Sheet requirements, if any, covered in the respective enquiry, will override the relevant conditions mentioned in this document.
C	Commercial Conditions quoted by the vendor in any place including as stated in bidder's 'General Terms and Conditions' if any, shall not be binding on the Purchaser. Only the conditions contained in this document, including special conditions, if any, for this enquiry shall prevail.
2	General Instructions - Common for Indigenous & Foreign enquiries
A	Sealed bids are invited for scope of Supply / Services as detailed in the enquiry. The quotation should be neatly typed and free from over writing/ erasures. Any correction or addition must be authenticated.. Relevant enclosures, supporting documents, catalogue, samples, if any, as required as per Notice Inviting Tender (NIT) conditions shall be sent along with technical offer. Rate should be quoted in the units asked for in the enquiry. The rates should be quoted both in figures and words. In case of discrepancy in figures and words, the rates quoted in words shall be considered.
B	<p>Bids shall be submitted in a Sealed cover with Enquiry No., Due date and Bidder's name indicated on the Cover. The Cover should contain both Part-I and Part -II bids, as the case may be.</p> <p><u>Part – I bid</u></p> <p>In case of Two part Bid, Part – I bid i.e. Technical bid containing (i) technical offer, (ii) Mandatory Sheet, (iii) un-priced copy of the Price Bid, (iv) EMD (if called in NIT), and (v) Relevant documents of PQR (if called in NIT), all duly filled-in & signed; should be kept in one envelope. The Part – I bid Cover items should have Enquiry No., Part I Bid, Due date, and Bidder's name indicated on the Cover</p> <p><u>Part –II Bid wherever Reverse Auction is not called for</u></p> <p>Part – II bid i.e. Price Bid containing only the price (as called for in the price format where required), duly filled-in & signed; should be kept in a separate envelope. The Price bid Cover items should have Enquiry No., Part II Bid, and Bidder's name indicated on the Cover</p> <p><u>Part –II Bid wherever Reverse Auction is called for</u></p> <p>Part – II bid i.e. Price Bid containing only the price (as called for in the price format where required), duly filled-in & signed; should be kept in a separate envelope. Wherever, BHEL informs that it proposes to conduct Reverse Auction for many items in the tender and where evaluation of the tender is on individual item basis, separate Part – II bids are to be submitted for each of the item. The Price bid Cover for each of the items should have Enquiry No., Part II Bid, Item no of Enquiry, and Bidder's name indicated on the Cover</p> <p>The envelopes indicating Part –I or Part-II, as the case may be, to be put in a bigger envelope, which should be addressed to In-charge, Tender Room, Bharat Heavy Electricals Ltd., Administration Building, Jhansi 284120. Enquiry No., due date and bidder's name must be mentioned on the bigger envelope. Offer must reach tender room of BHEL Jhansi latest by 13.15 hrs of the enquiry due date.</p> <p>In case, the bids are not submitted in the manner stated above, the offer of the bidder(s) are liable to be rejected.</p> <p>It is preferred that offers are sent in sealed envelope. However, if the bidder chooses to send the offer through E-mail, offers received through E-mail shall be considered only when such offers are complete in all respects.. In cases of offers through E-mail, the offers shall be sent to tenderbox.jhs@bhel.in, wherein the Subject of the Email should mention the Enquiry Number. E mail offers sent to any other E mail ID shall not be entertained. BHEL shall not take any responsibility if the offers are incomplete or if the Enquiry number is not mentioned in the subject of the E-mail.</p>
C	Wherever BHEL proposes to issue tender through e –procurement, the same philosophy as mentioned in 2B above is ensured through suitable system locks.
D	Offer received after 13.15 hrs of the due date will be termed as "Late" and shall not be considered

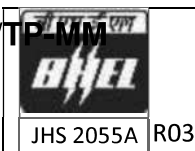


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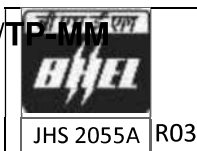
	<p>BHEL reserves the right to go for Reverse Auction (RA) (as per Guidelines available on www.bhel.com) instead of opening the sealed envelope price bid, submitted by the bidder. This will be decided after techno-commercial evaluation. Bidders to give their acceptance with the offer for participation in RA. Non-acceptance to participate in RA may result in non consideration of their bids, in case BHEL decides to go for RA. Those bidders who have given their acceptance to participate in Reverse Auction will have to necessarily submit 'Process compliance form' (to the designated service provider) as well as 'Online sealed bid' in the Reverse Auction. Non-submission of 'Process compliance form' or 'Online sealed bid' by the agreed bidder(s) will be considered as tampering of the tender process and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on www.bhel.com).</p> <p>E The bidders have to necessarily submit online sealed bid less than or equal to their envelope sealed price bid already submitted to BHEL along with the offer. The envelope sealed price bid of successful L1 bidder in RA, if conducted, shall also be opened after RA and the order will be processed on lower of the two bids (RA closing price & envelope sealed price) thus obtained. The bidder having submitted this offer specifically agrees to this condition and undertakes to execute the contract on thus awarded rates.</p> <p>If it is found that L1 bidder has quoted higher in online sealed bid in comparison to envelope sealed bid for any item(s), the bidder will be issued a warning letter to this effect. However, if the same bidder again defaults on this count in any subsequent tender in the unit, it will be considered as fraud and will invite action by BHEL as per extant guidelines for suspension of business dealings with suppliers/ contractors (as available on www.bhel.com)</p>
F	<p>The goods offered shall conform to BHEL specifications / drawings and / or Indian / International standards as mentioned in the Enquiry and the bidder is required to confirm his unconditional acceptance to the same. Vendors, seeking deviations from the specifications and any other conditions, may indicate the same clearly on a separate sheet, with reasons for such deviations. BHEL reserves the right to reject the offer with deviations or load the deviations suitably for evaluation.</p>
G	<p>Offers shall be submitted directly by vendor or his authorized agent/representative only. Offers from any other sources shall be considered as unsolicited and shall be summarily rejected.</p>
H	<p>Bid in single part or techno-commercial bid in two part system (as the case may be) will be opened on the due date. In case of two part bid, price bids of techno-commercially acceptable bidder(s) only shall be opened on the assigned date, for which separate intimation will be sent to the acceptable bidders.</p>
I	<p>The bidder whose bid is technically not accepted will be informed & EMD wherever submitted shall be returned along with his price bid within <u>30 days</u> of contract finalization date. No interest will be payable on EMD amount. EMD shall however be forfeited in the event of bidder backing out after submission of the bid.</p>
J	<ol style="list-style-type: none"> 1. Any discount / revised offer submitted by a bidder on its own shall be considered, provided it is received on or before the due date and time of offer submission (Part-I). Conditional discounts shall not be considered for evaluation of tenders. 2. Unsolicited discounts / revised offers given after Part-I bid opening shall not be accepted. No change in price will be permitted within the validity period asked for in the enquiry. 3. In case of changes in scope and / or technical specification and / or commercial terms & conditions, having price implication, techno-commercially acceptable bidders shall be asked by BHEL to submit the impact of such changes on their price bids. A suitable cut-off date and time shall be given to all the techno-commercially acceptable bidders to submit the impact on their price bids. In case a bidder opts to submit revised price bid instead of impact called for, then their original price (i.e. previous bid) shall be necessarily opened to know the price impact. .
K	<p>The bidders will submit Integrity Pact, duly signed by its authorized signatory, if called for in the enquiry.</p>
L	<p>Wherever the enquiry is issued to unregistered vendor referred by BHEL Customer, the bidder shall submit the Supplier Registration Form (SRF) online at www.bhel.com and submit the signed copy of the duly filled-in SRF along with the bid. Price bids of such vendors, will be opened only on techno-commercial acceptance of bid and if allotted permanent code before the date of price bid opening.</p>
M	<p>BHEL expects that the bidder must respond to the enquiry. Regret letter, with valid reasons for not participating in the tender will be submitted where the bidder is unable to submit offer. Repeated lack of response on the part of vendor may lead to his deletion from BHEL's approved vendor list.</p>
N	<p>Goods shall be properly packed to avoid transit damage. Suitable markings shall be provided to identify the goods with that of the PO No, Item no. and the consignee details.</p>
O	<p>Goods shall be consigned to Manager , Stores (CRX), BHEL, Jhansi - 284120, India, unless otherwise specified in the PO.</p>
P	<p>Offers of the Bidders who are under HOLD or are under Interim Suspension or are on the banned list (as on date of Price bid opening) and / or those bidders who engage services of such suspended / banned firms, shall be rejected. The list of firms banned by BHEL is available on BHEL web site www.bhel.com. The list of firms suspended by BHEL, Jhansi is available on www.bheljhs.co.in. The " Guidelines for suspension of business dealings with Suppliers / Contractors" is uploaded on BHEL website http://www.bhel.com/vender_registration/vender.php</p>



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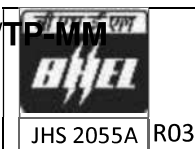
Q	In case of press tenders (i.e. those published in newspapers) all corrigenda, addenda, amendments, time extensions, clarifications etc. to the tender will be hosted on BHEL website. (www.bhel.com & www.bheljhs.co.in) only. Bidders responding to press tender should regularly visit website(s) to keep themselves updated.
R	In case the bidder decides to sub-contract part of his activity / work to some of his vendors, details of such intended subcontracting shall be mentioned in the bid. This will however not absolve the bidder from his contractual obligations and responsibilities.
S	In the course of evaluation, if more than one bidder happen to occupy L-1 status and the order is to be placed on a single vendor, effective L-1 will be decided by soliciting discounts from the respective L1 bidders.. In case more than one bidder happen to occupy the L1 status even after soliciting discounts, the L1 bidder shall be decided by, a toss / draw of lots, in the presence of the respective L1 bidder(s). BHEL's decision in such situations shall be final and binding.
T	Wherever the minimum reserved capacity is called for in the tender, the offers of such bidders, who do not quote for the minimum reserved capacity, are liable to be rejected.
U	<p>Due to large qty. requirement, we may finalize the tendered quantities among more than one bidder (after acceptance of L1 price by the other bidders), but limited to the capacity quoted by the bidder. Indicate your committed capacity for the item(s) tendered and confirm that capacity offered by you against our tender shall be available for us during the entire period of the Purchase Order / Contract.</p> <p>Where the number of qualified responses (N) are three or more, the distribution shall be limited to (N-1) responses. The manner and proportion of distribution shall be mentioned in the specific enquiry. Normally, the quantity distribution shall be generally as per quantities allocated to the bidder, but limited to the capacity quoted by the bidder.</p> <p>While the manner of distribution is mentioned in the enquiry, the absolute values of the unit of measurement shall be rounded off. For eg : If an allocation of 40% quantity results in 23.5 units, the quantity allocated shall be 24 units. If an allocation of 40% quantity results in 23.3 units, the quantity allocated shall be 23 units</p> <p>The distribution shall be based on the acceptance given by bidders to the L1 price counter offered to them. In case any or all of the bidders do not accept the counter offer, and a situation arises wherein bidder(s) who have agreed to the counter offer may have to be allotted more quantity than what has been proposed earlier, then the same shall be done, but limited to the capacity quoted by the bidder (s).</p> <p>Wherever, the number of techno commercially qualified responses (N) is two, BHEL reserves the right on whether or not to distribute the quantity on more than one bidder</p> <p>While the above pattern shall also be followed in long term framework agreements (FA), performance of the suppliers shall be monitored periodically, and the loading in FA will also be subject to factors like (a) Customer approval of suppliers in specific projects, (b) quality surveillance at Supplier works, (c) Suppliers delivery and quality performance during execution of FA, (c) Pendency of orders on the supplier and (d) responsiveness in addressing post order completion issues at BHEL. In view of these factors, the loading during execution of FA may vary with respect to allocated quantity. During execution of FA, if the performance of supplier is not upto the mark in respect of delivery / quality performance / quoted capacity of the bidder, BHEL reserves the right to either reduce further loading or stop loading till the execution of overdue orders. In such cases, action shall be taken against the defaulting supplier(s) as per guidelines of the Company, and the balance allocated full or part quantity of the defaulting supplier(s) may be re-distributed amongst other performing and willing vendors of the FA..</p>
V	The bidder shall submit price bid strictly in the price format, wherever provided for, in the enquiry. Any attempt on the part of the bidder to alter the contents of the price bid format in any manner, which in the opinion of BHEL can vitiate the tendering process, will lead to rejection of the bid, <u>besides BHEL taking appropriate punitive action as deemed fit.</u>
3	Vendor's particulars & logistics information
	Bidder to provide contact details and all logistical information as called for in the Mandatory Sheet enclosed to this enquiry
4	Delivery Schedule & Completion date
A	<ul style="list-style-type: none"> • Instead of writing specific date against delivery offered, Bidder shall commit delivery period in number of days / weeks/ months to suit the delivery period indicated in the enquiry. • Commencement of delivery period shall be reckoned from the date of PO / LOI or any other agreed milestone. • Seller shall deliver the goods in the manner and schedule agreed under the Purchase order. • Goods shall be delivered within contractual period or any extension thereof, if any, granted by the Purchaser.



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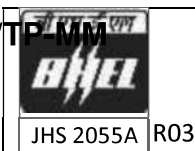
B.	In case of foreign supplies, bidders are to quote for CIF/CFR delivery terms .For CIF / CFR delivery terms, the date of bill of lading (BL) shall be taken as actual date of delivery.
C.	In case of Indigenous bidders, the date of delivery at named destination in India shall be taken as contractual delivery completion date where delivery terms are FOR destination. In case of 'Ex-works' delivery terms, the date of LR / RR shall be the contractual delivery completion date.
D	In case of unreasonable delivery quoted by the bidders, BHEL reserves the right to reject such offers.
5	Transit Insurance
	Except where delivery terms are agreed on CIF basis for Imports & FOR destination basis for indigenous purchases, transit insurance will be covered by BHEL under its open Marine Insurance Policy. Seller shall inform dispatch particulars with value of consignment to the Purchaser within 07 days of dispatch for BHEL to arrange insurance coverage in its policy. Failure on the part of seller to inform dispatch particulars will make him liable to pay for any transit damages / losses suffered by the Purchaser.
6	Delivery Terms
A	Indigenous Purchase
	Goods shall be delivered on 'FOR Destination' basis (with freight and insurance in bidder scope) to the named destination unless otherwise called for in the enquiry. In case the bidder quotes on Ex-Works, the offer of such bidder(s) is/are liable to be rejected. Wherever the PO terms mentions delivery terms as FOR Destination basis, and In the event of supplier having supplied the material by BHEL Truck / Vehicles as per BHEL transportation rate contract, thus causing BHEL to bear the freight charges, the corresponding amount ,incurred / estimated, shall be deducted from the bills of the Supplier.
B	Foreign Purchase – Imports
	<ol style="list-style-type: none"> 1. Goods shall be dispatched by sea on CIF/CFR basis, unless stated otherwise in the enquiry or purchase order. The destination shall at Navsheva, Mumbai for LCL/Breakbulk Cargo and ICD, Mandideep, Madhya Pradesh for FCL Cargo 2. If air freight is called for in the enquiry, the goods shall be delivered on FCA basis to the named Airport 3. Please visit BHEL Jhansi web site www.bheljhs.co.infor details of named Airports. . Name of the airport so chosen by the Seller shall be indicated by the Bidder in his offer. 4. Goods shall be handled for air freight by BHEL's freight forwarder only, under FCA contracts and HAWB issued by BHEL appointed forwarder or his authorized agent(s) shall only be accepted for negotiation.
C	<ul style="list-style-type: none"> • In the event of bidder offering CFR or CIF delivery terms for delivery in FCL(Full Container Load), the Bidder shall provide 14 days' time free of detention from the date of delivery at delivery port. Wherever the detention free period offered is less than 14 days, the bids shall be loaded for the period short of 14 days period. • <u>Port congestion charges or any additional charges claimed by shipping line till delivery at destination port shall be to the Seller's account.</u> •
7	Force Majeure
	Notwithstanding anything contained in the contract, neither the Seller nor the Purchaser shall be held responsible for total or partial non-execution of any of the contractual obligations, should the obligation become unreasonably onerous or impossible due to occurrence of a 'Force Majeure' which directly affects the obligations to be performed by the Purchaser or the Seller; Such events include war, military operations of any nature, blockages, revolutions, insurrections, riots, civil commotions, insurgency, sabotage, acts of public enemy, fires, explosion, epidemics, quarantine restrictions, floods, earthquake, or acts of God, restrictions by Govt. authorities; over which the Seller or the Purchaser has no control. The party claiming to be affected by force majeure shall notify the other party in writing without delay, within two weeks on the intervention and on the cessation of such circumstance. Extension of time sought by the Seller along with supporting evidence and so granted by the Purchaser for the supply/ work affected, if any, shall not be construed as waiver in respect of remaining deliveries. Rescheduling of deliveries on account of force majeure conditions, if so agreed by the Purchaser, will not entail the Seller to claim any increase in the price on whatsoever account.



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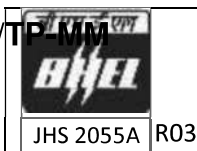
	Notwithstanding above provisions, Purchaser shall reserve the right to cancel the order/ Contract, wholly or partly, in order to meet the overall project schedule and make alternative arrangements. If deemed necessary, Purchaser may takeover partly processed material at a mutually agreed price.
8	LD / Penalty for delayed performance.
A	<p>I. Subject to force majeure conditions, LD shall be 0.5% of the total order value per week of delay or part thereof, subject a maximum of 10% of the total order value.</p> <p>II. In case of staggered delivery schedule, LD shall be 0.5% of the undelivered portion per week or part thereof subject to a maximum of 10% of the undelivered portion .</p> <p>III. However in case of Capital Machine / BOP where staggered deliveries may be applicable, the LD cap will be levied on total order value inclusive of E&C charges. (15%)</p> <p>IV. Wherever Erection & Commissioning (E& C) is called for, the vendor is provided a stipulated period from date of site readiness. LD shall be applicable for any delay beyond the stipulated period mentioned in the PO.</p> <p>V. In case of any amendment / revision, the LD shall be linked to the amended / revised PO value.</p> <p>VI. Any loading on LD clause shall be to the extent to which it is not agreed to by the bidder (at offered value)</p> <p>For the sake of clarity – Total order value means purchase order value (exclusive of taxes), Undelivered portion means , the delayed portion for the given lot.</p> <p>In case a supply is rejected and the same is replaced at a later date, the date of replacement of accepted supply shall be reckoned for calculation of LD</p>
B	In case the contractually agreed delivery date falls on a holiday in BHEL Jhansi, the next working day shall be taken as contractual delivery date for compliance and applicability of LD / penalty.
C	<p>In case of Ex works Delivery terms for Indigenous supplies, the date LR shall be reckoned for LD deduction.</p> <p>In case of FOR Delivery terms, the date of entry in BHEL Jhansi (CISF date) shall be reckoned for LD deduction.</p> <p>In case of FCA Delivery terms / Ex Works Delivery terms of Foreign supplies , the date Invoice / Packing List / Test Certificate, whichever date is later, shall be reckoned for LD deduction.</p> <p>In case of FOB / CIF / CFR / CIP Delivery terms, the date of Bill of Lading , shall be reckoned for LD deduction.</p>
	Risk Purchase.
C	<p>If the material is not supplied within the agreed delivery period, BHEL reserves the right to cancel the order and purchase the material(of the undelivered portion) from alternate source(s) at the Risk and Cost of the Seller. In such an event, it shall be obligatory on the part of seller to make good any loss suffered by the purchaser. In such cases, BHEL shall withhold bills, bank guarantees, etc of the Supplier, which are pending either at BHEL, Jhansi or any other Unit of BHEL . Wherever Risk purchase is invoked attracting action as per guidelines of the Company, action shall be initiated to suspend business dealings with the Supplier. To know the implications of suspension, the bidder may see the “ Guidelines for suspension of business dealings with Suppliers / Contractors” which is uploaded on BHEL website http://www.bhel.com/vender registration/vender.php</p>
9	Indian Agents and Agency commission
A	BHEL prefers to deal directly with Foreign vendor, wherever required, for procurement of Goods. However if the Foreign Principal desires to avail services of an Indian Agent, then the Principal should ensure compliance to “regulatory guidelines” which will require submission of an agency agreement. The agency agreement should specify the precise relationship between the foreign OEM / foreign Principal and their Indian Agent. Any payment which the Indian agent receives in India or abroad from the OEM, whether as commission or as a general retainer fee, should be brought on record in the agency agreement.
B	The CIF price quoted will be deemed to be inclusive of Indian Agency commission. Agency commission as disclosed by the bidder in his quoted CIF price will be paid in Indian Rupees on receipt & acceptance of Materials or it's installation at destination, as the case may be. The lower of the TT selling rate prevailing on the date of (a_ technical bid opening, or (b) price bid opening, or (c) date of invoice, shall be considered for computation of Agency commission.
C	Be it a case of a Foreign / Indigenous Principal or OEM, in a tender either the Indian Agent on behalf of Principal / OEM or the Principal / OEM itself can bid, but both cannot bid simultaneously for same item / product in the same Tender. In case both submit a bid in the tender, then the bid of OEM only shall be opened



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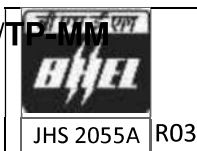
D	Be it a case of a Foreign / Indigenous Principal or OEM, If an agent submits Bid on behalf of the Principal / OEM, the same agent shall not submit bid on behalf of another Principal / OEM in the Tender, for the same Item / Product.										
10	Documentation:										
A	Indigenous Purchase										
	Immediately on despatch of Goods, the following documents shall be necessarily sent by the Seller to the respective address(es) mentioned below										
	<table border="1" style="width: 100%;"> <tr> <td style="width: 5%; text-align: center;">(a).</td> <td style="width: 40%;">Addressed to: Addl General Manager (Stores) Main Store Building BHEL Jhansi PIN-284120 Telephone . 0510-2412230</td> <td style="width: 55%;">Documents to be sent: (i) GST compliance Invoice – Duplicate for Transporter (ii) Challan/Despatch Advice note / Packing List etc. + 1 Photo copy (iii) Test Certificate, Guarantee / Warrantee Certificate (iv) LR/RR Duplicate for Transporter copy (v) O&M Manuals, wherever applicable</td> </tr> <tr> <td style="text-align: center;">(b)</td> <td>Addressed to: Dy. General Manager (Finance) Administrative Building BHEL Jhansi PIN-284120</td> <td>Documents to be sent: (i) GST compliance Invoice – Original for Buyer (ii) Copy of LR/RR (iii) Copy of Test Certificate (iv) PVC Calculation sheet, if any, with supporting documents. (v) MOM with BHEL Customer (if called for in the PO) in case of installation & commissioning at Customer Site (vi) Capitalization Certificate, if called for in the PO</td> </tr> <tr> <td style="text-align: center;">(c)</td> <td>Addressed to: Dy. General Manager (MM) Administrative Building BHEL Jhansi PIN-284120</td> <td>Documents to be sent: (i) GST compliance Invoice – Extra copy / Photo copy (ii) Challan/Despatch Advice note (iii) Test Certificate, Guarantee / Warrantee Certificate (iv) Copy of LR/RR</td> </tr> </table>	(a).	Addressed to: Addl General Manager (Stores) Main Store Building BHEL Jhansi PIN-284120 Telephone . 0510-2412230	Documents to be sent: (i) GST compliance Invoice – Duplicate for Transporter (ii) Challan/Despatch Advice note / Packing List etc. + 1 Photo copy (iii) Test Certificate, Guarantee / Warrantee Certificate (iv) LR/RR Duplicate for Transporter copy (v) O&M Manuals, wherever applicable	(b)	Addressed to: Dy. General Manager (Finance) Administrative Building BHEL Jhansi PIN-284120	Documents to be sent: (i) GST compliance Invoice – Original for Buyer (ii) Copy of LR/RR (iii) Copy of Test Certificate (iv) PVC Calculation sheet, if any, with supporting documents. (v) MOM with BHEL Customer (if called for in the PO) in case of installation & commissioning at Customer Site (vi) Capitalization Certificate, if called for in the PO	(c)	Addressed to: Dy. General Manager (MM) Administrative Building BHEL Jhansi PIN-284120	Documents to be sent: (i) GST compliance Invoice – Extra copy / Photo copy (ii) Challan/Despatch Advice note (iii) Test Certificate, Guarantee / Warrantee Certificate (iv) Copy of LR/RR	
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	In case any other documents are required, the distribution of such documents will be specified in the Purchase order.										
	Further, if specified in the Purchase order, all the details and copies of documents have to be uploaded by Supplier on BHEL portal before despatch of Goods										
B	Foreign Purchase – Imports										
	<p>Seller shall send 1 set of following documents, in English, within 7 days of BL date by courier to the Purchaser</p> <ol style="list-style-type: none"> 1. Original Clean on board Bill of lading. 2. One set of Commercial Invoice, Packing list indicating container-wise Gross weight, net weight, CBM (cubic metre) volume, No. of packages with Dimensions of each package. 3. Original certificate of Country of Origin issued by Chamber of Commerce 4. One set of Original test certificates and O&M manual where called for. 5. Fumigation certificate wherever cargo is packed in wooden packing or packing of Plant origin material is used. <p>In case the Seller decides to negotiate all 3 originals of BL through negotiating Bank, non-negotiable documents (NND) consisting of copy of BL / HAWB & all originals at sl.no. 10-B2 to B5 will be couriered to Purchaser. Soft Copy of documents at sl. 10-B1 to B5 will also be sent by e-mail to the Purchaser at the e-mail address given in the PO. Other documents, as required, will be separately indicated in the Purchase Order. Additional expenditure, if any, incurred by the Purchaser by way of detention / demurrage, resulting out of delay attributable to the Seller in providing negotiable documents, will be recovered from the Seller.</p>										
C	In case of incomplete documentation, the communication shall be provided to supplier. The delays in submission of documentation by the supplier shall be reckoned while releasing payments to the Supplier										
11	Pricing Terms										
	Prices once quoted shall remain firm within the validity or any extension thereof for placement of order, till complete execution of the order, without any escalation/increase for any reason, whatsoever, unless specifically provided for in the Enquiry & PO. In case of foreign vendors, the quoted price shall be taken as inclusive of Third Party Inspection and testing charges as called for in the NIT.										



GENERAL TERMS AND CONDITIONS OF ENQUIRY

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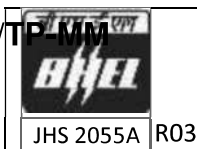
12	Price Validity :
	<p>Unless stated otherwise in the enquiry, offer shall be valid for a period of 120 days from the date of Techno- commercial (Part-I) bid opening date.</p> <p>The prices quoted for spare parts of the main equipment shall be kept valid for a period of 180 days from the date of placement of PO for the main equipment.</p>
13	Taxes & Duties - Indigenous Purchase
A	<p>The Taxes and duties as applicable shall be payable extra which may include GST against Gate pass- The Seller shall clearly indicate extent of taxes as applicable in his techno commercial bid. In the event of vendor failing to furnish valid GST invoices with appropriate HSN Code , amount corresponding to GST will be disallowed by BHEL while making payments.</p> <p>Bidders to ensure applicability of IGST / CGST/SGST based on the Inter / Intrastate movement of goods.</p> <p>GST Registration Number (GSTIN) should be clearly mentioned on the vendor's quotation.</p> <p>Please quote our IGST registration number 09AAACB4146P2ZC in all invoices raised for supply of goods and services under GST regime and also ensure filing of timely return and payment of tax and compliance of other applicable provisions on supplier under GST regime.</p> <p>In the event of any disallowance of input credit or applicability of interest or any other financial liability arises on BHEL-Jhansi due to any default of supplier under GST such implication shall be to supplier's account.</p> <p>GST shall be levied on LD and the relevant tax invoice shall be provided to vendors for availing credit.</p> <p>In case of directly despatchable items to Customer's Site, Supplier to bill to BHEL Jhansi at its GST Account number 09AAACB4146P2ZC and ship to the respective Customer</p> <p>Since, input credit of GST will be available to BHEL-Jhansi only after correct filing of return and payment of applicable GST by supplier, reimbursement of GST shall be made by BHEL-Jhansi on matching of vendor inputs at GST portal and after ensuring availability of input credit to BHEL-Jhansi. Payment of tax shall be done only after availing matching ITC, in all cases where bills are submitted directly to BHEL-Jhansi or through bank or under LC or through any other mode.</p> <p>Other statutory declaration forms are also to be submitted in time, as mentioned in the relevant Laws. BHEL reserves the right to withhold the payment due to the vendor equivalent to BHEL's tax and related liability thereon.</p> <p>In case of any changes in statutory laws w.r.t. taxes and duties, the same shall be applicable at the given point of time.</p>
B	<i>Wherever GST is not applicable, the tax and duty structure , as applicable, is to be complied by the seller.</i>
14	Taxes & Duties - Foreign Purchase – Imports
A	The offered prices shall be inclusive of all the Taxes and duties as applicable in the country of bidder / country of dispatch for the quoted FCA / CFR/CIF price.
15	Payment Terms-
A	<p>Indigenous: 100 % payment within 90 days (45 days for MSE / NSIC registered suppliers as per relevant act in force) from the date of receipt of material and submission of clear and admissible bill, subject to acceptance of material at BHEL , on direct presentation of the documents..</p> <p>Payments to vendors who are seeking benefits under MSME act shall not be entertained if the Udyog Aadhar Memorandum (UAM) submitted by them is not valid on the date of Purchase Order and date of supply (SRV Date of BHEL) . It is hence in the interest of the vendor that they validate the status of UAM regularly with BHEL.</p> <p>In case of despatch of material to site directly, site certification for receipt of materials is required unless otherwise provided for in the PO. Any deviation from the above payment terms, if accepted (by BHEL), shall be loaded @ SBI base rate(as on date of Part I bid opening) + 6%, for the purpose of bid evaluation.</p>



GENERAL TERMS AND CONDITIONS OF ENQUIRY

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	<p>All documents as called for in the PO have to be submitted by the Supplier at the time of receipt of material and this should include the Invoice of the Supplier - Original copy of the Buyer and Duplicate for Transporter. On receipt of Invoice, the same shall be acknowledged by BHEL. Any clarifications on the bill submitted by the supplier shall be sought generally within 30 days (15 days for MSE / NSIC registered suppliers as per relevant act in force) of receipt of bill at BHEL. While it would be in the interest of the Supplier to provide the reply immediately to the clarifications sought , the Supplier is to respond at least within 7 days from the date of clarifications sought by BHEL. Wherever clarifications are sought by BHEL, the date of receipt of clarifications from the supplier shall be considered as date of submission of clear and admissible bill.</p>						
B	<p>Foreign: 100% against irrevocable, unconfirmed LC, payable within 120 days of the bill of lading (BL) date. In case BHEL considers any deviation in payment terms i.e. early payment based on vendor's request, then bids shall be evaluated with loading of State bank of India Base rate (as on date of Part I bid opening) plus 6%, for the credit period short of 120 days. The LC shall be established 2 month prior to shipment date, valid for period of 120 days, unless agreed otherwise. Payment terms of CAD payable on 120th day of BL / HAWB date shall be preferred.</p>						
C	<p>While there could be exceptional situations wherein the payment may be delayed beyond the stipulated time mentioned above, it is clarified that BHEL shall not pay any interest on such delays</p>						
D	<p>In case of any disagreement between BHEL and the Supplier on any part of the bill, such part shall be severed from the rest and payment against agreed and admissible part shall be processed as per laid down procedure, while the disputed part shall be dealt as per contract provisions viz. conciliation, dispute resolution, arbitration, etc</p>						
16	<p>Inspection of Goods</p>						
A	<p>The Seller shall give adequate notice, of 1 week or as mutually agreed period, in writing to the Purchaser about the date and place at which the goods will be ready for inspection/ testing, as provided for in the contract.</p>						
B	<p>Purchaser or his authorized representative shall be entitled to carry out inspection of material and workmanship at Seller's premises or at his sub-contractor's premises at all reasonable times during execution of contract; Such inspection, examination and testing, if made, shall not absolve the Seller from his obligations under the contract.</p>						
C	<p>All costs related to inspections and re-inspections shall be borne by the Seller. In case of foreign vendors, the cost of third party inspection, where called for, shall be deemed to be included in the quoted price. Seller shall be responsible to provide assistance such as labour, materials, electricity, fuels, stores, apparatus, instruments at his cost, as may be required and as may be reasonably demanded to carry out such tests effectively.</p>						
D	<p><u>Undertaking to be provided by Suppliers before despatch</u> : The suppliers , before despatching the jobs, shall provide an undertaking on their letterhead, that the jobs have been made as per BHEL Specification / Drawings, that the test results meet the specified parameters of the drawing / specification, that the supplies have been inspected as per Quality Plan (if called for in the Purchase Order), that on receipt of supplies at BHEL, Jhansi; BHEL reserves the right to reject any supplies which are non compliant, that in case the material is accepted with deviationst wherever rectifications / rework is observed, that the Supplier shall be given seven days notice to attend to the work and if the Supplier does not attend the rectifications in the said period, BHEL shall reserve the right for suitable deductions.</p> <p>Despatch clearance shall be given when the Supplier provides the above undertaking (as per Annexure I) to BHEL</p>						
E	<p><u>Uploading despatch information on BHEL SIP</u></p> <p>The supplier has to upload despatch information details by logging in at 'Supplier Information Portal' of BHEL Jhansi website using their User name (Vendor Code) and Password. Subsequently, the supplier has to click at the link'Update Consignment details' provided therein.Submitting 'Despatch Intimation' is mandatory. All supplies arriving (reaching BHEL Jhansi) will be allowed inside CISF Material gate of BHEL Jhansi only if the supplier has submitted online Despatch Intimation.</p> <p>The following documents are necessary before entry of material at our Material Gate:</p> <table border="1" style="width: 100%;"> <tr> <td style="width: 5%;">1</td> <td>GST Invoice OR Delivery Challan (as per rule 55) OR Bill of entry for imports OR Excise Duty Invoice for Petroleum supplies</td> </tr> <tr> <td>2</td> <td>Lorry Receipt (LR) OR Railway Receipt (RR) OR Door Delivery (Courier Docket..).</td> </tr> <tr> <td>3</td> <td>'Despatch Intimation' (Printout required).</td> </tr> </table>	1	GST Invoice OR Delivery Challan (as per rule 55) OR Bill of entry for imports OR Excise Duty Invoice for Petroleum supplies	2	Lorry Receipt (LR) OR Railway Receipt (RR) OR Door Delivery (Courier Docket..).	3	'Despatch Intimation' (Printout required).
1	GST Invoice OR Delivery Challan (as per rule 55) OR Bill of entry for imports OR Excise Duty Invoice for Petroleum supplies						
2	Lorry Receipt (LR) OR Railway Receipt (RR) OR Door Delivery (Courier Docket..).						
3	'Despatch Intimation' (Printout required).						



GENERAL TERMS AND CONDITIONS OF ENQUIRY

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The following documents are additionally required for **SRV clearance** if they are called for in the Purchase Order (PO):

4	Complete Test certificates/Inspection reports
5	Guarantee certificates
6	Any other document as called for

Following may be required for **SRV preparation** depending on the nature of material being supplied:

7	Packing lists, wherever applicable.
8	Weighment slip.

A cost of one percent of the transaction value (not more than Rs 5000 per transaction but not less than Rs 500 per transaction) shall be deducted from supplier bills in case supplier has failed to upload the despatch information on Supplier Information Portal

E Material despatched one month prior to the date of despatch shall not be permitted inside BHEL, unless there are instructions otherwise from BHEL. In all such cases, material will be allowed inside only if approved by Head MM

Material despatched 10 weeks after date of despatch shall not be permitted inside BHEL, unless there are instructions otherwise from BHEL. In all such cases, material will be allowed inside only if approved by Head MM

17 Warranty , Corresponding Repairs / Replacement of Goods, and Deductions

Goods shall comply with the specifications for material, workmanship and performance.

The warranty shall be for a period of 24 months from the date of receipt at BHEL, Jhansi

However, **wherever erection & commissioning also is in the scope of the bidder**, the warranty shall be for a period of 24 months from the date of supply or 18 months from the date of commissioning, whichever is later.

In case any other terms are to be specified for warranty, the same shall be specified in the specific enquiry

A Normally deviation shall not be accepted for the criteria of warranty period. The offers of bidders, who offer deviation to the warranty terms mentioned in the NIT, are liable to be rejected.

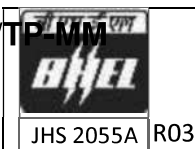
If the item supplied is found non-compliant during the warranty period, leading to rejection, the Seller shall arrange free replacement / repair of goods, within one month from the date of intimation or any mutually agreed period. The rejected goods shall be taken away by the Seller at his cost and replaced on Delivered Duty Paid (DDP) (FOR - BHEL Stores/ designated destination basis) within such period. In the event of the Seller's failure to comply, Purchaser may take action as appropriate, including Repair / Replenish rejected goods & disposal of rejections, at the risk & cost of the Seller.

In case the defects attributable to Seller are detected during processing of the goods at purchaser's/ his subcontractor's works, the Seller shall be responsible for free replacement/ repair of the goods as required by the purchaser.

18 Evaluation and Loading Criteria:

Evaluation of the tender shall be on the basis of delivered cost, i.e. 'total cost to BHEL' w.r.t the finalized technical scope and commercial conditions (after considering, inter alia, Customs Duty and CENVAT/ VAT/ CST/Service Tax/Entry Tax or any other tax as applicable). Exchange rate (TT selling rate of State Bank of India) applicable on the date of Part-I bid opening shall be considered for evaluation of foreign bids. If the relevant day happens to be a bank holiday in India, then the FOREX rate as on the previous bank working day shall be taken for evaluation.

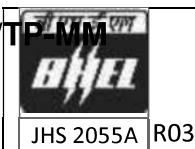
Foreign suppliers shall ensure that the benefits as applicable under Free Trade Agreement (FTA) with Government of India are disclosed in the bid & relevant documents such as Certificate of Country of Origin, issued by the appropriate authority in the country of Export, is provided by the vendor along with dispatch documents. Bids shall be evaluated with such applicable benefits. In the event of Seller failing to provide appropriate documents for Purchaser to avail disclosed



GENERAL TERMS AND CONDITIONS OF ENQUIRY

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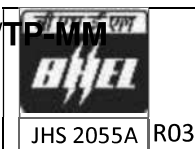
	<p>concessional duty benefits in India, the cost incurred owing to consequent delays, detention and demurrage thereof, will be to the Seller's account.</p> <p>To arrive at the Delivered Cost, the quoted price shall be suitably loaded, the details of which are mentioned in this annexure / special remarks of the enquiry. In case of any additional techno commercial deviations, for which the loading criterion is required to be framed after opening of techno commercial bid, such criteria shall be communicated to all qualified bidders before price bid opening.</p>
19	Non-Disclosure Agreement
	<p>All Drawing and technical documents relating to the product or its manufacture submitted by one party to the other, prior or subsequent to the formation of contract, shall remain property of the submitting party. Drawing, technical documents or other technical information received by one party, shall not without the consent of the other party, be used for any other purpose than that, for which they were provided. Such technical information shall not without the consent of the submitting party, otherwise be used or copied, reproduced, transmitted or communicated to a third party. Patterns supplied by BHEL will remain BHEL's property which shall be returned by the bidder on demand to BHEL. Bidder shall in no way share or use such intellectual property of BHEL to promote his own business with others. <u>BHEL reserves the right to claim damages from the bidder, or take appropriate penal action as deemed fit against the bidder, for any infringement of the provisions contained herein.</u></p>
20	RIGHT OF REJECTION /NON- PLACEMENT OF PO/ SHORTCLOSURE OF PO: BHEL reserves the right to accept the offers in part or in full, or cancel the Tender enquiry without assigning any reason whatsoever / non placement of PO or contract / short closure of PO or contract.
21	Performance Bank Guarantee (PBG)/ Security Deposit (SD):
A	Bank Guarantee wherever called for, shall be in the BHEL prescribed format. In case the order is to be placed in foreign currency, the BG must normally be in Indian Currency from the Consortium Banks of BHEL / as specified in the specific Enquiry
B	Wherever the contract is for supply of Goods processed on labour basis from BHEL supplied materials, the materials shall be issued against a suitable security, preferably Bank guarantee.
22	Benefits earmarked for Purchase from Micro & Small Enterprises (MSEs) – Indigenous Purchase
A	MSE suppliers who are registered by bodies like MSMED, NSIC & DIC specified by Ministry of Micro, Small and Medium Enterprises (MoMSME) can avail the intended benefits only if they submit along with the offer, relevant documents including valid certificate as mentioned in " Format for Supplier MSME Status' on Supplier Information Portal of BHEL, Jhansi. In case the valid MSE registration of the bidder is already updated in SDC records of BHEL, Jhansi, it may not submit the details again. It is hence in the interest of the supplier that they validate the status of UAM regularly with BHEL, if they would like to avail intended benefits under MSME Act.
B	Tenders to MSE suppliers shall be issued free of cost & no EMD wherever called for will be insisted upon. Such MSE bidders shall submit along with bid, relevant documents including valid certificate. Date to be reckoned for determining the deemed validity will be the date of bid opening (Part I in case of two part bid). Non- submission of such document will lead to consideration of their bid, at par with other bidders. No benefit shall be applicable for this enquiry if any deficiency in the above required documents are not submitted before price bid opening. If the tender is to be submitted through e-procurement portal, then the above required documents are to be uploaded on the portal. Documents should be notarized or attested by a Gazetted Officer.
C	In tender, participating MSEs quoting price within price band of L1 (on total cost to BHEL) +15% shall also be allowed to supply a portion of requirement by bringing down their price to L1 price in a situation where L1 price is from someone other than a MSE and such MSE shall be allowed to supply up to 20% of total tendered quantity. In case of more than one such MSE within price band of L1 (on total cost to BHEL) +15%, the supply shall be shared proportionately (to tendered quantity, as per their tender ranking of the bidders and also their SC/ST status). However if there are more than one MSE vendor at the same price level, then the quantity shall be distributed equally. A quantum of 4% out of 20% quantity, so earmarked, will be reserved for MSE's owned by SC / ST entrepreneurs who submit their bid with relevant documents. However, such distribution shall be subject to the tender requirement in terms of Customer approval of vendors, divisibility of quantity, etc. While all efforts shall be made to ensure compliance to the stated distribution, the decision of BHEL in distribution stated in this clause shall be binding on all bidders.



GENERAL TERMS AND CONDITIONS OF ENQUIRY

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	The above distribution is not applicable (a) where L1 vendor is MSE vendor and minimum 20% share is assured to the L1 bidder in the tender, or (b) where the MSE bidders qualified for distribution as per 'manner of splitting' clause in NIT already cater to 20% share in the tendered load.
D	In case it comes to notice that the bidder is found responsible for misconducts like, having submitted fake/false/forged documents/ certificates, has misrepresented the facts, has wilfully suppressed the facts, has resorted to unethical/illegal means, etc., action shall be initiated against such bidders as per the extant guidelines of the Company for suspension of business dealings.
23	Benefits earmarked to suppliers for Purchase under 'MAKE IN INDIA'
	As part of minimizing import content, Government of India, vide order no P-45021/2/2017-B.E.-II dated 15.06.2017, under the subject – Public Procurement (Preference to Make in India) -- has set the initiatives to encourage and promote indigenously manufactured goods within India and services provided by sources within India. . In line with this, bidders who manufacture the goods and provide services within India (otherwise referred as local suppliers) are given purchase preference and are entitled to benefits in the tender
A	Definitions
(i)	Local content means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value , in percent . Presently, the minimum local content required is 50%. The nodal ministry may prescribe a higher or lower percentage in respect of any particular item and may also prescribe the manner of calculation of local content.
(ii)	Local supplier means a supplier or service provider whose product or service offered for procurement meets the minimum local content as prescribed
(iii)	Margin of Purchase Preference means the maximum extent to which the price quoted by a local supplier may be above the L1 for the purpose of purchase preference. Presently the margin of Purchase preference is 20%.
B	Conditions under which preference is given
(i)	In procurement of goods in respect of which the Nodal ministry has communicated that there is sufficient local capacity and local competition, and where the estimated value of procurement is Rs 50 lakhs or less, only local suppliers shall be eligible. If the estimated value of procurement of such goods is more than Rs 50 lakhs, provisions of 23(B) (ii) and 23(B)(iii) shall apply.
(ii)	If the procurement of goods are not covered by 23(B)(i) and are divisible in nature, the following procedure shall be followed :
a	If L1 is a local supplier, the order for full quantity shall be awarded to local supplier
b	If L1 bid is not from a local supplier, 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the local suppliers, shall be invited to match the L1 price for the remaining 50% quantity, subject to the local supplier's quoted price falling within the margin of purchase preference, and the order for that quantity shall be awarded to such local supplier subject to matching the L1 price. In case such lowest eligible local supplier fails to match the L1 price or accepts less than offered quantity, the next higher local supplier within the margin of purchase preference shall be invited to match the L1 price for remaining quantity and so on, and the order shall be awarded accordingly. In case some quantity is still left uncovered on local suppliers, then such balance quantity may also be ordered on the L1 bidder.
iii	If the procurement of goods are not covered by 23(B)(ii) and are not divisible in nature, and in procurement of services where the bid is evaluated on the price alone, the following procedure shall be followed :
a	If L1 is a local supplier, the order shall be awarded to local supplier
b	If L1 bid is not from a local supplier, then the lowest bidder among the local suppliers, will be invited to match the L1 price, subject to the local supplier's quoted price falling within the margin of purchase preference, and the order shall be awarded to such local supplier subject to matching the L1 price. In case such lowest eligible local supplier fails to match the L1 price, the local supplier with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on, and the order shall be awarded accordingly. In case none of the local suppliers within the margin of preference match the L1 price, then the order may be awarded to the L1 bidder.
C	Exemption of small purchases
	Notwithstanding anything contained at clause 23B above, procurements where the estimated value of procurement is less than Rs 5 lakhs are exempt and purchase preference shall not be accorded in such cases.



GENERAL TERMS AND CONDITIONS OF ENQUIRY

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D	Verification of local content
(i)	The local supplier, at the time of tender, bidding or solicitation, shall be required to provide self certification that the item offered meets the minimum local content and shall give details of the location(s) at which the local value addition is made.
(ii)	In cases of procurement for a value in excess of Rs 10 crores, the local supplier shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.
(iii)	False declarations shall be in breach of code of integrity and shall invite action as per guidelines for Suspension of Business dealings with Suppliers
E	In case of any disputes / clarifications, the extant guidelines of Government of India shall prevail.
24	Fraud Prevention
	The Bidder along with its associate/ collaborators/ sub-contractors/ sub-vendors/ consultants/ service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website http://www.bhel.com and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice
25	Settlement of Disputes & Arbitration
A	All questions/interpretations regarding subject matter of the Contract shall be decided by the Purchaser on the request of the Seller and the decision of the Purchaser shall be final.
B	In case of dispute, steps shall be taken by the parties to the contract to settle the same through negotiations.
C	In case, dispute is not settled in negotiations, it shall be referred to Conciliator appointed by the competent authority of the Purchaser.
D	In case dispute is not settled in conciliation proceedings, the same shall be referred to Arbitration as per Corporate Guidelines of the Purchaser and the arbitration proceeding shall be conducted as per provisions of the Arbitration and Conciliation Act, 1996 read with Corporate guideline as amended from time to time.
E	The Seller shall continue to perform the contract, pending settlement of dispute(s).
26	Applicable Laws and Jurisdiction of Courts
	Indian laws both substantive and procedural, for the time being in force, including modifications thereto, shall govern the Contract including Arbitration proceedings. The competent Courts at Jhansi in the State of Uttar Pradesh, India shall have sole jurisdiction.
27	Conciliation
	BHEL and bidder agree that if at any time (whether before, during or after the arbitral or judicial proceedings), any Disputes (which term shall mean and include any dispute, difference, question or disagreement arising in connection with construction, meaning, operation, effect, interpretation or breach of the terms and conditions of order, which the Parties are unable to settle mutually), arise inter-se the Parties, the same may, be referred by either party to Conciliation to be conducted through Independent Experts Committee to be appointed by competent authority of BHEL from the BHEL Panel of Conciliators.
	Notes:
	1. No serving or a retired employee of BHEL/Administrative Ministry of BHEL shall be included in the BHEL Panel of Conciliators.
	2. Any other person(s) can be appointed as Conciliator(s) who is/are mutually agreeable to both the parties from outside the BHEL Panel of Conciliators.
	The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof. The details of Conciliations shall be governed by the BHEL Conciliation scheme 2018.
28	General
	The Bidder shall keep a track of any changes by visiting the Supplier Information Portal of BHEL, Jhansi at https://www.bheljhs.co.in/apps/sip/index.php



ANNEXURE TO INDENT NO. _____
W.O.: STD

DATE: 30.09.2020
ES NO.: 627061

COPPER DATA FOR ENAMELLED AND NOMEX COVERED

RECTANGULAR COPPER CONDUCTOR FOR 1276 IGBT-EMU TRANSFORMER

SL. NO.	BARE COPPER SIZE (mm)	RAD. ENAMEL (mm)	RAD. NOMEX (mm)	NO. OF REEL	LENGTH PER REEL (mtr)	WEIGHT (Kg)		WEIGHT PER REEL (Kg)	REMARK
						BARE	COVERED		
1	1.2 x 5.0	Grade-I	0.15	04	2014	415	434	108.5	For HV (1 set)

NOTE TO SUPPLIER:

1. Conductor must confirm to CPS-AA28128/ Rev-06 (except for the insulation covering) and nominal value of 0.1% Proof stress shall be 135 Mpa. The insulation shall be dual enamel covering to IEC-60317-29 (polyester or polyesterimide over coated with polyamide-imide) and Nomex paper to CPS-AA22901/ Rev-03 in place of Kraft paper.
2. Nomex paper OEM Test certificate to be supplied along with the supply.
3. The Length of reel is very important and in no case it should be less than the specified.
4. Conductor size, length and weight must be marked clearly on drums.

Katindra

Prepared by:

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[Handwritten signature]

Checked by:


(NEERA) VARSHNEY
उप महाप्रबन्धक (अधिष्ठापक) परिष्कार अभियन्त्री
D.G.M. (Design) Transformer Engineering
बी०एच०ई०एल०, झांसी
B.H.E.L., JHANSI


**COPPER DATA FOR ENAMELLED AND NOMEX COVERED RECTANGULAR COPPER
CONDUCTOR FOR IGBT EMU TRANSFORMER**

Sl. No.	Bare Copper size (mm)	Rad. Enamel (mm)	Rad. Nomex (mm)	No. of Reels	Length Per Reel (Mtr.)	Weight (KG)		Weight Per Reel (kg)	REMARK
						Bare	covered		
1.	1.2x5.5	Grade-I	0.15	6	1362	464	486	81	For HV coil (1 set)

NOTE TO SUPPLIERS:

1. Conductor must confirm to CPS-AA28128/ Rev-06 (except for the insulation covering) and nominal value of 0.1% proof stress shall be 135 Mpa. The insulation shall be dual enamel covering to IEC-60317-29 (Polyster or polysterimide over coated with polyamide-imide) and Nomex (Aramid) paper to CPS-AA22901/Rev-03 in place of kraft paper.
2. Nomex paper OEM test certificate to be supplied alongwith the supply.
3. The length of reel is very important and in no case it should be less than the specified.
4. Conductor size, length and weight must be marked clearly on drums.

Prepared By 

Approved By 

(NEERAJ VARSHNEY)
Manager (Design)
Transformer Engineering
B.H.E.L., JHANSI (U.P.)

ANNEXURE TO PI NO. _____

DATE: 16-09-2021

REV: 01

ES NO.: 625668

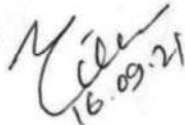
**COPPER DATA FOR ENAMELLED AND NOMEX COVERED RECTANGULAR COPPER CONDUCTOR
(PICC) FOR 01 NO. 6531 KVA 3-PH. LOCO. TRANSFORMER (HV COIL) FOR INDIAN RAILWAYS**

Sl. No.	BARE COPPER SIZE (In mm)	Radial Enamel (In mm)	Rad. Nomex Insulation (In mm)	No. Of Reels	Length per Reel (in Mtr.)	Weight (KG)		Weight Per Reel
						Bare	Covered	
1	2.65 x 4.0	0.065	0.25	12	1119	1200	1254	104.5 For HV

NOTE TO SUPPLIERS:

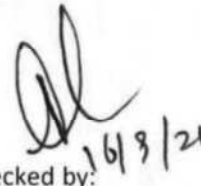
1. Conductor must confirm to CPS-AA28128/ Rev-06 and nominal value of 0.1% Proof stress shall be 135 Mpa with $\pm 10\%$ tolerance. The insulation shall be enamel covering to CPS-AA28144/ Rev-03 and Aramid (Nomex) paper to CPS-AA22901/ Rev-05 in place of Kraft paper.
2. Source Test certificate of Nomex paper to be supplied along with the supply.
3. Length of reel is very important and in no case it should be less than the specified.
4. Length of conductor and weight must be marked clearly on each drum.

Prepared by:



16.09.21

Checked by:



16/9/21

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