



West Bengal State Electricity Distribution Company Limited

(A Govt. of West Bengal Enterprise)

Office of the Regional Manager

Birbhum Region

3rd Floor, Commercial Complex, Suri, Birbhum, Pin: 731101

E-mail: rm.birbhum@wbasedcl.in

NOTICE INVITING e-TENDER

Memo No. : **RM/BRO/ETENDER/ABCACC/26-27/1290**

NIT No. : **RM/BRO/ETENDER/ABCACC/26-27/02**

Date- **31.08.2026**

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Name of the Tender: Supply, Delivery of different AB cable accessories for New Service Connection and Maintenance purpose at Rampurhat Divisional Store under Rampurhat Division under Birbhum Region.

Tender is invited by the **Regional Manager, Birbhum Region, WBSEDCL, Super Market Complex, 3rd Floor, Suri, District: Birbhum, Pin-731101** through electronic tendering (e-tendering) from the bonafide, experienced & resourceful contractors of Govt., Semi Govt., Govt. undertaking Organizations, Govt. Enterprises etc. (Submission of Bid through online) who have successfully completed delivery of similar nature of materials:

Sl. No.	Description of Item	UNIT	Total Quantity	Estimated Cost (Rs.)	Earnest Money	Delivery time
1	SUSPENSION CLAMP WITH BRKT 35SQMM MESENGER	Nos.	600	6,91,250.00	2% (Two Percent) of the Estimated Amount i.e. Rs. 13,825.00.	30 days from the placement of Purchase Order.
2	DEAD END CLAMP-LT ABC(3X70+1X16+1X50SMM)	Nos.	700			
3	INSULATION-PIERCING CONNECTOR (ABC) 50-70 SQ.MM.	Nos.	3000			
5	LTDISTBOX 3PH CON.WH ST.STRAP&BUCKLE-ABC	Nos.	375			

Terms & Conditions of the E-Tender:

1. In the event of e-filling intending bidder may download the tender document from the website <https://wbtenders.gov.in> directly with the help of Digital Signature Certificate.
2. Both Technical Bid and Financial Bid should be submitted in technical and financial folder concurrently duly digitally signed by the Tenderer through the website <https://wbtenders.gov.in>.
3. Technical Document and Financial Bid should be submitted online on or before as per the "Date & Time Schedule" stated in Sl. No.-07.
4. The FINANCIAL OFFER of the prospective tenderer will be considered only if the TECHNICAL DOCUMENT of the tenderer found qualified by the Tender Inviting Authority. The decision of the Tender Inviting Authority will be final and absolute in this respect. The list of Responsive and Non-Responsive Bidders will be displayed in the website.

5. Eligibility criteria for participation in the tender



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5.1. Bonafide, experienced & resourceful contractors of Govt., Semi Govt., Govt. undertaking Organizations, Govt. Enterprises etc. who have successfully delivered (**work completion certificate**)

- Tendered/ Similar material having value not less than 80% (Eighty percent) of the estimated cost in a single contract during last 4 (Four) years or
- Tendered/ Similar material having value not less than 50% (Fifty percent) of the estimated cost in 2 contract during last 4 (Four) years or
- Tendered/ Similar material having value not less than 40% (Forty percent) of the estimated cost in 3 contract during last 4 (Four) years.

5.2. All intending Bidders are required to produce valid copies of Professional Tax (PT) Clearance Certificate along with PAN Card / IT return as well as EPF, ESI, GST Registration Certificate(including HSN and SAC Code) & Certificate of compliance of statutory obligations (to be documented through e-filing).

6. No mobilization / secured advance will be allowed.

7. Date & Time schedule:-

Sl. No.	Particulars	Date & Time
01.	Date of uploading of N.I.T. and Tender Documents (online). [Publishing date]	07.09.2026 at 10.00 Hrs
02.	Documents sell / download start date (online).	07.09.2026 at 10.00 Hrs
03.	Bid Submission upload start date (online)	07.09.2026 at 10.00 Hrs
04.	Bid Submission upload end date (online)	14.09.2026 up to 10.00 Hrs
05.	Date for opening of Technical bid (online) for the Bidders	16.09.2026 after 11.00 Hrs
06.	Date of uploading the Final List of Technically Qualified Bidders after Technical Bid Evaluation (online).	To be intimated later.
07.	Date, for opening of Financial Bid (online).	To be intimated later.

- If a Holiday falls on any of the aforesaid scheduled date then scheduled date shall be considered on next working day.

8. Bids shall remain valid for a period not less than 180 (One hundred Eighty) days after date of Bid opening of tender. Bid valid for a shorter period shall be rejected by the Tender Inviting Authority as non-responsive. If the tenderer withdraws the bid before the period of bid validity without giving any satisfactory explanation for such withdrawals, the earnest money as deposited will be forfeited forthwith without assigning any reason thereof.

9. One Sample of the tendered item(s) is/are to be submitted along with **Type Test Report Certificate** at Rampurhat Divisional Store physically, strictly as per the "Date & Time Schedule" stated in Sl. No. 7. The tag with the sample should contain the name of the sample along with Brand name (if any), name of the manufacturing company as well as the name of the vendor/ bidder; for a valid tender, sample has to be approved by the Divisional Authority (Sample Approval Committee). The financial bid of the bidders, whose samples are not approved, will not be opened for financial evaluation & henceforth they will be deemed disqualified. Rejected Samples can be taken back by the respective vendors. After LOA/ PO is (are) awarded, the awardee(s) can adjust the sample with the delivered material lot.

10. **Earnest Money/ Bid Guarantee:** A bidder desirous of taking part in a tender invited by offices of WBSedcl shall login to the e-Procurement portal of Government of west Bengal <https://wbteners.gov.in> using his login Id and password. The bidder shall select the tender to bid and initiate payment of EMD amounting **Rs. 13,825.00**.



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Exemption from deposition of EMD shall not be allowed under any circumstances. No Interest shall be payable by WBSEDCL on the above bid guarantee.

Following payment options are available for paying EMD amount through online mode:

- Net-banking through Payment Gateway.
- RTGS/NEFT Payment: On selection of RTGS/ NEFT as the payment mode, the e-Procurement portal will show a pre-fired challan having the details to process RTGS/NEFT transaction. The bidder will print the challan and use the prefilled information to make RTGS/NEFT payment using his bank account. Once the payment is made, the bidder will come back to the e-procurement portal to continue the bidding process after expiry of a reasonable time to enable the RTGS/NEFT process to be completed.

EMD amount need to be paid in online mode. Any other mode of payment will not be accepted.

General Instructions for Online Payment:

- The bidder will have to mandatorily pay through Net-banking facility once Net banking mode is opted for payment.
- Status of NEFT/RTGS payment through Challan for a bid may take time for bank settlement which is updated in 24 Hrs. (approx.). As such bidders opting to pay through NEFT/RTGS mode shall make payment well before 24 Hrs. to avoid any complicity.
- In case actual EMD amount as per NIT is more than the one shown in E-tender Portal, bidders will have to opt for NEFT/RTGS mode (challan mode). In that case the total actual EMD amount is to be paid only through NEFT/RTGS mode (challan mode).
- The bank account used for payment of EMD by the bidders shall be maintained operative until the completion of tendering process. All refunds will be made mandatorily to the Bank A/c from which the payment of EMD has been initiated.

11. Refund/ Settlement of EMD Amount:

- For unsuccessful bidders, EMD amount submitted against the tender shall be refunded automatically, through an automated process, by NIC portal on receipt of updated status of any bid.
- For successful bid(s), EMD will be refunded from WBSEDCL authority after completion of tendering process and following due procedures.
- The bank account used for payment of EMD by the bidders shall be maintained operative until the completion of tendering process. All refunds will be made mandatorily to the Bank A/c from which the payment of EMD has been initiated.
- For any queries related to payments and refunds, bidders will have to communicate with ICICI Customer Support, viz, 033-40267512/ 13, since payment gateway facility used by E-tender portal is maintained by ICICI.

12. The intending Bidders shall clearly understand that whatever may be the outcome of the present invitation of the Bid, the Tender Inviting Authority reserves the right to accept or reject any / all offer without assigning any reason whatsoever and is not liable for any cost that might have incurred by the Bidder at the stage of Bidding.

13. Prospective applicants are advised to note carefully the minimum qualification criteria as mentioned in “**Instruction to bidders**” stated in Section – “A” before tendering the bids.

14. Work Order & Payment of work will be depended on availability of fund. Intending bidders may consider this criteria while submission of tender and quoting their rate through online.

15. No Conditional Bid / Incomplete Tender will be accepted under any circumstances.



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16. At any stage during scrutiny, if it is found that the credential or any other papers which the Bidder uploaded during Bidding process, found incorrect / manufactured / fabricated, that bid will be considered a nonresponsive and outright rejected with forfeiture of Earnest Money and action will be taken as per stipulation of IT Rules in force.

17. Before issuance of Letter of Acceptance / Work order/ Purchase Order, the tender accepting authority may verify the credential & other documents of the lowest bidder so uploaded online if found necessary. If it is found such document incorrect / manufactured / fabricated, Letter of Acceptance / Work order will not be issued in favour of the bidder under any circumstances and action will be taken accordingly.

18. The Tender Inviting Authority reserves the right to cancel the NIT due to unavoidable circumstances and no claim in this respect will be entertained.

19. The company shall no way be held responsible or liable for any accident, miss hap of any worker during the execution of the work, any loss or damage cause to any equipments of WBSEDCL during execution shall have to be compensated in full as per direction of the Tender Inviting Authority.

20. Standard safety norms as prescribed in the rules and regulations of WBSEDCL have to be religiously followed.

21. Penalty of 0.143 % per day of delay or part thereof subject to maximum of 10 % of the particular lot delivered and accepted beyond the scheduled period.

22. The bidders need to have necessary electrical license and documents, obtained from the Appropriate Authority, to execute work of mentioned voltage grade.

23. Other information as well as terms and conditions, which are not covered above, will be available in Instructions to Bidders, General Conditions of Contract of this tender along with the Revised Purchase Policy and Civil Works Policy of WBSEDCL.

24. Price Bid of a bidder will be considered only if his Techno-commercial Bid is found acceptable by WBSEDCL. Decision of WBSEDCL will be final and absolute/binding in this respect. The list of techno-commercially qualified bidders will be displayed in the said website in due course.

25. Any bidder against whom FIR/Complaint is lodged with Police by WBSEDCL shall not be eligible to participate in the bidding process.

26. If the offer is submitted without or inadequate Earnest Money, the bid will not be opened. In case of incomplete offer, the tender will be liable for rejection and Earnest Money Deposit will be forfeited.

27. Any evidence of unfair Trade Practices including over charging, price fixing, cartel etc. as defined in various statutes, will automatically disqualify the bidders.

NOTE:

1. WBSEDCL reserves the right to reject or accept any Bid or part thereof or all Bids received at its sole discretion without assigning any reason (s) whatsoever.
2. WBSEDCL is not necessarily bound to accept the lowest offer.
3. Submission of Bidding Documents will not be construed to mean that such bidder is automatically considered qualified.



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4. Tender submitted after expiry of scheduled date and time shall not be considered.
5. No interest shall be payable for Earnest Money.
6. Any extraneous conditions will be treated as non-responsive.
7. The Bids must be submitted in prescribed proforma only.
8. Formation of any Cartel, may lead to the cancellation of tenders with period measures as necessary and WBSEDCL reserves the right to take such unilateral decisions without further notice to anyone.
9. Bidders shall ensure that all pre-requisites are duly fulfilled by them and if there be any dispute regarding non-submission of any document, WBSEDCL reserves the right to cancel the Bid unilaterally without assigning any reasons whatsoever.
10. The bidder is expected to examine carefully all instruction, conditions, forms, schedules terms, annexure, specifications and drawings of the bidding document. Bids, which are determined to be not substantially responsive to the requirement of the bidding document, may lead to rejection.

SECTION – A INSTRUCTION TO BIDDERS

A. General guidance for e-Tendering

Instructions / Guidelines for tenders for electronic submission of the tenders online have been annexed for assisting the contractors to participate in e-Tendering.

1. Registration of Contractor:

Any contractor willing to take part in the process of e-Tendering will have to be enrolled & registered with the Government e-Procurement system, through logging on to <https://wbtenders.gov.in> (the web portal). The contractor is to click on the link for e-Tendering site as given on the web portal.

2. Digital Signature certificate (DSC):

Each contractor is required to obtain a class-II or Class-III Digital Signature Certificate (DSC) for submission of tenders, from the approved service provider of the National Information's Centre (NIC) on payment of requisite amount. Details are available at the Web Site stated in Clause-2 of Guideline to Bidder DSC is given as a USB e-Token.

3. The contractor can search & download NIT & Tender Documents electronically from computer once he logs on to the website mentioned in Clause 2 using the Digital Signature Certificate. This is the only mode of collection of Tender Documents.

4. Submission of Tenders:

Tenders are to be submitted through online to the website in two folders at a time for each work, one in Technical Proposal & the other in Financial Proposal before the prescribed date & time using the Digital Signature Certificate (DSC) The documents are to be uploaded (virus scanned copy) duly Digitally Signed. The documents will get encrypted (transformed into non readable formats).

4.1. Technical proposal:

The Technical proposal should contain scanned copies of the following documents

1) Non Statutory / Technical Document Cover file Containing:

- a. Copy of I.T. return for last 3 (three) financial years (FY 2022-23, 2023-24 & 2024-25).
- b. PAN details.
- c. GSTIN.
- d. Company Registration No. (If bidder is company).



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- e. Professional Tax Certificate for the year 2025-26.
- f. Trade License.
- g. Registered HSN/ SAC Code as applicable against quoted item.
- h. Documentary evidence(s) duly certified by the competent authority regarding fulfilment of Commercial eligibility criteria as per clause no. 5.0 of "Terms & Conditions of the E-Tender".

Note: Failure of submission of any of the above mentioned documents will render the tender liable to be rejected for both statutory & non statutory cover.

THE ABOVE STATED NON-STATUTORY / TECHNICAL DOCUMENTS SHOULD BE ARRANGED IN THE FOLLOWING MANNER

Click the check boxes beside the necessary documents in the My Document list and then click the Tab "Submit Non Statutory Documents" to send the selected documents to Non-Statutory folder.

Next, click the tab "Click to Encrypt and upload" and then click the "Technical" Folder to upload the Technical documents.

Sl. No.	Category Name	Sub-category Description	Details
1.	Certificates	Certificates	a) PAN Card. b) Copy of I.T. return for last 3 (three) financial years (FY 2022-23, 2023-24 & 2024-25). c) GSTIN. d) Company Registration No. (If bidder is company). e) Professional Tax Certificate for the year 2025-26. f) Trade License. g) Registered HSN/ SAC Code as applicable against quoted item.
2.	Company Detail(s)	Company Detail	
3.	Credentials	Credential	Bonafide, experienced & resourceful contractors of Govt., Semi Govt., Govt. undertaking Organizations, Govt. Enterprises etc. who have successfully delivered a. Tendered/ Similar material having value not less than 80% (Eighty percent) of the estimated cost in a single contract during last 4 (Four) years or b. Tendered/ Similar material having value not less than 50% (Fifty percent) of the estimated cost in 2 contract during last 4 (Four) years or c. Tendered/ Similar material having value not less than 40% (Forty percent) of the estimated cost in 3 contract during last 4 (Four) years. Documents of Credential (documentary evidence(s) duly certified by the competent authority) of tendered items / similar nature of items.
4.	Financial Information	Financial Information	a) Copy of IT returns for last 3 financial years (FY 2022-23, 2023-24 & 2024-25). b) Annual Audited Financial Report for last 3 years (FY 2022-23, 2023-24 & 2024-25) to be submitted for verification in respect of bidders for whom Audit of Accounts is mandatory. For whose Audits

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			of accounts is not mandatory, they shall submit copy of IT returns along with related enclosures (Form 3CA and Form 3CB) for last 5 years. [Non-statutory documents].
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The bidder shall have to go through all the “Annexure” enclosed in this bid document and submit the filled in proforma of the appropriate/relevant annexure with the bid document putting the signature with seal of the Company before uploading the tender.

Price bid should contain the priced “Bill of Quantities” (BOQ) in one cover (folder). Bidder is to quote the rate in the space marked for quoting rate in the BOQ.

4.1.1. Opening of Technical proposal:

Technical proposals will be opened by the Regional Manager, Birbhum Region, WBSEDCL, Super Market Complex, 3rd Floor, Suri, District: Birbhum, Pin-731101, and his authorized representative electronically from the web site stated using their Digital Signature Certificate (DSC).

- Intending tenderers may remain present, if they so desire.
- Summary list of technically qualified tenderers will be uploaded online.
- Pursuant to scrutiny & decision of the Department, the list of eligible tenderers will be uploaded in the web portal.

4.2. VALIDITY OF BIDS:

Price bid of the tender shall be opened after opening of “Techno- Commercial Bid & EMD”. Bids shall remain valid for a period of 180 days from the next day of opening of the tender.

4.3. Earnest Money Deposit (EMD):

The bidder shall deposit the requisite earnest money online.

The bid guarantee/EMD shall be forfeited:

- If during the period of validity specified by the bidder, the bidder withdraws/modifies its bid as a whole or part.
- If bidder deviates from any clarification/confirmation given by him subsequent to submission of his bid.
- In case of successful bidder, if bidder fails
 - To accept LOI/Order unconditionally and sign contract
 - To furnish the contract performance bond.

4.4. Financial proposal:

The financial proposal should contain the following documents in one cover (folder) i.e. Bill of quantities (BOQ). The contractor is to quote the rate online through Computer in the space marked for quoting rate in the BOQ. Only downloaded copies of the above documents are to be uploaded virus scanned & Digitally Signed by the contractor.

5. PRE BID MEETING:

- A pre bid meeting may be arranged by WBSEDCL in which all the bidders will be requested to attend.
- If there be any discrepancy or obscurity in the meaning of any clauses of the bid document or if there be any query of the intending bidder, the bidder may submit their queries to the tendering authority before specified date. Any change in date shall be intimated to the bidders through e-mail or fax, telephone.
- Non attendance at the pre-bid discussion will not be a cause for disqualification of bidders.
- The clarification given in the pre bid discussion shall be final and binding on the bidder, being a part of the original Bid Document.
- Pre-bid proceedings, if any, shall be circulated among all bidders by email.



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6. BID SUBMISSION:

Bids shall be submitted online within the stipulated deadline. WBSEDCL may at its discretion, extend the deadline of bid submission by issuing an amendment. In that case all rights and obligations of WBSEDCL and the bidders previously subject to the original deadline shall thereafter be subject to the new deadline as extended.

7. BID WITHDRAWAL/ MODIFICATION:

The bidder may modify or withdraw his bid after submission but within the deadline of bid submission, provided written notice of the modification/withdrawal is received by WBSEDCL prior to the deadline for bid submission. No bid shall be modified/ withdrawn after the deadline of bid submission. Modification /withdrawal of bid by any bidder after the deadline of bid submission shall result into forfeiture of EMD.

8. BID OPENING:

- a.** Techno-commercial bids shall be opened only for those bidders whose EMD has been found in order. Bidder's representatives with written authorization (max. 2 persons per bidder) may attend bid opening. No electronic recording shall be permitted during bid opening.
- b.** WBSEDCL will scrutinize and evaluate techno-commercial bid. After that, the list of techno-commercially qualified bidders and date & time of price bid opening will be notified in the web portal.
- c.** WBSEDCL may, at its discretion, extend the key dates of the bid or cancel the entire bidding process.
- d.** WBSEDCL reserves to instruct the bidders to submit hard copy of any relevant document (and to produce the original documents for verification) during scrutiny & evaluation of bids. Bidders' failure to comply such instruction may lead to rejection of bid.

9. PROCESS TO BE CONFIDENTIAL:

- a.** After the opening of bids, information relating to the examination, clarification, evaluation and comparison of bids, and recommendations concerning the award of contract shall not be disclosed to bidders or other persons not officially concerned with such process.
- b.** Any effort by a bidder to influence WBSEDCL or other connected in the process of examination, clarification, evaluation and comparison of bids, and in decisions concerning the award of contract, may result in the rejection of his/their bid.
- c.** Formation of any Cartel, may lead to the cancellation of tenders with penal measures as necessary and WBSEDCL reserves the right to take such unilateral decisions without further notice to anymore.

10. RIGHT TO REJECT BIDS:

WBSEDCL reserves the right to accept or reject the bid, wholly or partly, or to split the work in parts and to add/delete any of the items, without assigning any reason whatsoever.

11. COST OF BIDDING:

The bidder shall bear all costs associated with the preparation and submission of his bid and WBSEDCL in no case shall be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

12. DETERMINATION OF RESPONSIVENESS:

- 12.1.** Prior to the detailed evaluation of bids, WBSEDCL will determine whether the bid is substantially responsive to the requirement of the bidding document.
- 12.2.** For the purpose of this clause a substantially responsive bid is one which conforms to all the terms, conditions and specification of the bidding document, without material deviation, or reservations. WBSEDCL's determination of bid's responsiveness shall be based on the contents of the bid itself without recourse to extrinsic evidence.
- 12.3.** If a bid is not substantially responsive to the requirements of the bidding document, it may be rejected by WBSEDCL and the same cannot subsequently be made responsive by the bidder by correction.



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13. CORRECTION OF ERRORS:

13.1. If there be a discrepancy between the unit price and the total price that is obtained by multiplying the unit price & quantity, the unit price shall prevail and total price shall be corrected.

13.2. If there be a discrepancy in figure and word the total amount stated in word shall prevail.

14. EVALUATION AND COMPARISON OF BIDS:

14.1. On examination of documents submitted under different covers, WBSEDCL will evaluate and compare the bid, determined to be substantially responsive at each step.

14.2. Evaluation of bid will include and will take into account:

14.2.1 WBSEDCL shall evaluate and compare only the bids determined to be substantially responsive.

14.2.2 The bids shall be evaluated on the basis of total price for the entire scope of work covered under this bid document.

14.2.3 Evaluation bid – price of all bidders shall be compared among themselves to determine the lowest evaluation bid and as a result of this comparison, the lowest bid will be selected for award of contract.

14.2.4 Conditional rebate, if any, offered by any bidder shall not be considered in Bid evaluation.

15. PROCEDURE OF EVALUATION:

Evaluation of e-tenders will be done in the following steps:

Step-1 The Earnest Money will be examined. The mode and amount of deposit must be in conformity with requirements set forth in the "Earnest Money" clause, failing which the bid is liable for rejection without opening other covers.

Step-2 Techno-Commercial Evaluation for two part bidding: Only those bids meeting the requirements of previous step will be examined and assessed. The bidders will be intimated about the non-compliance of various techno commercial requirements and asked for conforming compliance with the condition of bidding document. In case, it is felt necessary by WBSEDCL that post bid discussion are required, the same will be carried out individually with each bidder. The bidders will be required to confirm compliance with all the conditions of bidding document. Bids, which do not satisfy the "Must Conditions", will not be considered for technical evaluation. "Must Conditions" are to be submitted as per format enclosed with this section. No clarification will be asked from the bidder in this regard.

Step-3 Opening of price part and financial evaluation on completion of techno-commercial evaluation. Cover containing price offer of the bidders who have successfully made the requirements of previous steps will be opened in presence of the bidders representative (maximum two) on subsequent pre-intimated date. Price bid of the bidders who do not fulfil the Techno-Commercial requirements shall not be opened.

16. CORRESPONDENCE: Any notice to the contractor under terms of the contract shall be served by register mail or by hand at the contractor's principal place of business. Any notice to the owner shall be served at the owner's principal office in the same manner.

17. No agent is allowed to participate in the Tender. Original bidder will only be allowed in the tender.

18. Acceptance of Tender :- On opening of Techno-Commercial Bids (Part-I) the same shall have to be evaluated both in technical and commercial aspects, the tenderers whose offers are found to be acceptable may be considered for opening of their respective price bids (Part- II). If there may be found any dispute regarding non-submission of any documents, Annexure, Tender Fees or earnest money, WBSEDCL reserves the right to cancel that bid ultimately



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without assigning any reason whatsoever. WBSEDCL is not bound to accept the lowest tender and reserves the right to cancel any or all the tenders unilaterally.

19. Rate: - The rate should be quoted inclusive of delivery charges but excluding GST. The rate is Firm for entire delivery period. No escalation of rate, if any, may be considered except in the event of any new taxes / levies making into force due to Govt. Legislation/notification or by any of the statutory body, the same will become applicable to the concerned party from the effective date.

20. No price preference will be allowed to any tenderer based on the size of the industries or its geographic location. Cooperative Society will not be considered with separate status.

21. Payment on submission of bill after completion of delivery would be made by concerned authority. Bill along with signed challan's to be submitted in triplicate mentioning in each the GST registration number and HSN / SAC Code along with the items to the Regional Manager, Birbhum Region for payment by the Manager (F&A), Birbhum Region in due course.

22. Any further information may be had from the website: www.wbasedcl.in, <https://wbtenders.gov.in> and the following office time to time.

SECTION – B

GENERAL CONDITIONS OF CONTRACT FOR SUPPLY AND DELIVERY OF EQUIPMENT/ MATERIALS

1. Any contractor willing to take part in the process of e-Tendering will have to be enrolled & registered with the Government e-Procurement system, through logging on to <http://wbtenders.gov.in> (the web portal). The contractor is to click on the link for e-Tendering site as given in the web portal.

2. The intending bidder(s) required to quote the rate item-wise in the BOQ. The quoted price should be firm. There will be no price variation during the pendency of the contract period or thereafter. Bidders are in no way allowed to get any escalation of price against the contract. Price indicated in the schedule of prices deemed to include all the levies / duties / cess & all other incidentals payable as per statute. Relevant Goods and Service Tax rules are applicable for the work. The estimated cost is exclusive of Goods and Services Tax. It will be paid to the appropriate authority / agency as per prevailing rates and rules in force.

3. WBSEDCL, who do not bind itself to accept the lowest tender, reserves the right to accept or reject any bid and to annual the Bidding processes and reject all Bids at any time prior to the Award of Contract without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the ground for WBSEDCL's (Tender Accepting Authority) action.

4. Canvassing in connection with tenders is strictly prohibited and the tenders submitted by the contractors, who resort to canvassing will be liable to rejection.

5. Bids shall remain valid for a period not less than 180 (One hundred eighty) days after date of Bid opening of tender.

6. Security Money:

The Successful tenderer within 7 (seven) days of receipt of LOI / order, shall submit his unconditional acceptance in writing failing which the Department shall have the right to terminate the LOI / Order as per rule and earnest money, submitted along with the tender will be forfeited. On receiving tenderer's acceptance for delivery of the material the



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earnest money deposited with the tender will be automatically converted to form a part of security money deposited. An additional sum of security money, if required, shall be deposited by the tenderer to constitute initial security money of 2% (two percent) of ordered value. Further additional security money shall be deducted from the progressive bills at 8% (eight percent) of each such bill so that the total deduction together with 2% (two percent) Security money already taken shall constitute not less than 10% (ten percent) of the total value. All security money shall be refunded after expiry of the period of maintenance which shall be **12 (twelve)** months normally, if not otherwise mentioned.

7. Inspection and Testing:

a. Before finalization of Tender: After opening of Techno-Commercial part of Tender, the Tendering authority on its discretion may send their representative for inspection of the factory premises at any day within working hrs. to ensure participating tenderer's manufacturing capability and technical eligibility to combat with WBSEDCL's requirement.

b. After finalization of Tender: The material shall be subjected to tests as per relevant Indian Standards and as per our technical specification. If the Indian Standard has the provision of routine tests, each material/ equipment shall be subjected to those routine tests. In all cases, while offering, test reports indicating the test results should be submitted to the inspecting authority of the Company as will be indicated in the Purchase Order.

However, WBSEDCL reserves the right to depute its Engineers for carrying out inspection and testing on the offered lot as per relevant Indian Standards and Technical Specification and also reserves the right to reject either raw materials or finished products found to be not complying with the requirement of the specifications and standards. The supplier shall give at least 15 days prior intimation about the readiness of the material at the works for testing and inspection. The supplier shall extend all facilities for such inspection and testing for which no extra shall be charged and the inspection report shall have to be signed jointly otherwise the offered lot(s) shall be treated as cancelled.

WBSEDCL reserves the right to carry out in-house testing of the supplied materials at destination stores in presence of the authorized representative of the Manufacturer. In any case they do not be present, company shall test unilaterally and their result will be binding on them. In case the test results deviates from the inspection result carried out at the Manufacturers' Works (more than 2% tolerance as per IS wherever applicable) the company reserves the right to cancel the specific lot and in that event materials are to be replaced by the manufacturer free of cost including transportation from site to their works and back.

8. Technical Specification of the Materials: All the materials are to be supplied by the agency as per BOQ and attached Technical Specifications of WBSEDCL. The guarantee certificate, challan and **NSIC Test Certificate** of all purchased materials must be submitted.

The WBSEDCL will have right to test any material(s) at any moment, if found necessary. In that case the contractor will be liable to take appropriate actions, which include the cost of testing and other incidentals. Authenticated document for confirmation of quality of material, purchased by the contractor, shall have to be submitted on demand by the Engineer-in-charge.

9. Dispatch & Delivery:

The supplier after receiving Purchase Order shall deliver the equipment/materials suitably packed to the Stores located in Rampurhat Division as instructed. The materials are to be booked by Road only and the same should be suitably packed and fully insured against all risks and deliver the consignment as per Purchase Order. Immediately after dispatch of materials/equipment by Road, the supplier shall notify the purchaser and consignee officer so that the consignment can be taken delivery at destination.



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The date of receipt of offer for inspection of the materials / equipment along with works test certificate will be treated as the date of delivery of that particular lot provided the materials pass in inspection and testing. Delay in offer beyond the delivery schedule to be incorporated in the order shall attract imposition of LD as per LD clause.

The materials delivered to consignee store will be subjected to re-inspection / re-testing in presence of authorized representative of supplier for which due notice in advance will be furnished by competent authority. If any discrepancy/dispute in quality arises in any sample selected from a lot, the supplier shall have to replace that specific lot at the supplier's cost and WBSedcl reserves the right to take any penal action whatsoever without any further reference.

10. Repeat Order:

With due consent of the supplier the WBSedcl may place repeat order within a period of six (06) months from the date of completion of delivery as per the order to cover approximately 50% of the ordered quantity on successful performance of the contract and on the need of the WBSedcl on the basis of existing rates, terms and conditions.

The repeat order may also be placed within one year from the date of issuance of original order subject to successful completion of delivery as per the order to the extent of at least 75% of the quantity ordered.

11. Defect Liability Period:

The term 'Defect Liability Period' shall mean the period of twelve (12) months from the date of completion of the delivery. If any defect is found within the defect liability period, the contractors shall be liable to rectify/ replace the materials at their own cost and responsibility. Defects/ rectification work so notified shall have to be attended and completed satisfactory within fifteen (15) days. For faithful and due fulfilment of all obligations, this defect liability period shall be covered by the Security Money already retained from the contractor. After completion of defect liability period, and on completion of satisfactory rectification of defect, if any reported within the defect liability period, and on receipt of the application from the contractor, Controlling Officer of the work shall recommended for refund of the Security Money.

12. Cancellation/Termination of Order (if placed):

The time period for effecting complete supply and delivery of the above materials / equipment as indicated through the delivery schedule shall have to be treated as the essence of the contract. The company reserves the right to repudiate the contract if the above period is not strictly adhered to. In the event of failure in effecting the desired supply and delivery of the above equipment / materials within due date, the above ordered may cancelled on submission of necessary notice in this regard and fresh order may be placed on the next higher bidder or on any other bidder, as a result of which the extra cost thus liable to incurred shall be realised from the original supplier's pending bills which may be lying with the WBSedcl.

13. Quality Assurance Programme:

Immediately on receipt of this order you shall have to submit a 'Quality Assurance Plan' indicating the specific quality control procedure and practices adopted in the major activities of production to ensure its standard.

14. Force Majeure:

The supplier shall be under no liability if he is prevented from carrying out any of his obligations by reason of war, invasion, act of foreign country, hostilities (whether war declared or not), riots, civil commotion, mutiny, insurrection, rebellion, revolution, accident, earth quake, fires, floods Govt. order and / or restrictions (except power supply restriction) delay or inability to obtain materials due to import or other statutory restriction and other cause beyond the reasonable control of the supplier. However, such force majeure circumstances are to be intimated immediately and to be established subsequently with proper documents / proofs to the entire satisfaction of the purchaser.



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WBSEDCL

15. Legal Jurisdiction:

If any dispute or difference arises with respect to quality / quantity of the equipment / materials pertaining to this order or any other terms and condition of the order including its execution, such dispute or difference shall be subject to settlement under the jurisdiction of Courts in Kolkata only.

16. Additional Liabilities:

The WBSEDCL shall not take any additional liability towards enhanced taxes, duties and price variation beyond the scheduled delivery period as incorporated in the purchase order, if the delay is due to failure on the part of the supplier.


31.8.26

(P. Sarkar)

Regional Manager

Birbhum Region

W.B.S.E.D.C.L.

Regional Manager
Birbhum Regional Office
WBSEDCL, Suri, Birbhum



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Annexure-1

PROFORMA OF AGREEMENT

(TO BE EXECUTED ON Rs 100/- Non judicial Stamp Paper)

ARTICLES OF AGREEMENT made thisDate ofin the year.....

between West Bengal State Electricity Distribution Company Limited having its Head Office at Vidyut Bhavan, Block DJ, Sector-II, Kolkata-700091 hereinafter referred to as the WBSEDCL (which expression shall unless excluded by or repugnant to the context be deemed to include its successors and assigns) of the ONE PART ANDhereinafter referred to as „CONTRACTOR“ (which expression shall unless excluded by or repugnant to the context be deemed to include his heirs, executors, administrators, representatives and assigns) of the OTHER PART.

WHERE AS WBSEDCL invited tenders vide Tender Notice No..... Date (annexed hereto) for (Name of the work).....

AND WHERE AS in pursuance of such invitation for tenders the contractor submitted a tender vide no. dt..... which was opened on

The tender offer shall be in the custody of the WBSEDCL at present.

AND WHERE AS AFTER consideration of the tender submitted by the contractor with clarification(s), if any, WBSEDCL accepted the said tender submitted by the contractor and placed order no..... dt..... (annexed hereto).

NOW THEREFORE, the WBSEDCL and the Contractor agree as follows :

The contractor agrees to undertake the work of as per Order No dt..... referred to above.

The WBSEDCL agrees to pay the contractor as per the Order No.....dt..... referred to above.

Both the contractor and the WBSEDCL agree that for the purpose of jurisdiction of court in regard to any dispute arising out of this agreement, this agreement shall be deemed to have been executed within the jurisdiction of the original side of the High Court, Kolkata.

In witness whereof the parties have hereunder affixed their signature, on the day, the month and year written as above.

Contractor

WBSEDCL

Witness:

Witness:

1.....

1.....

2.....

2.....



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Annexure-2

LETTER HEAD OF BIDDER (AS ENROLLED ONLINE ON e-Tendering PORTAL OF NIC)

To
The Tender Committee

Sub: Letter of Bid for the supply of

.....

.....

.....

Ref: 1. NIT No:.....Dated:

2. Tender Id No:.....

Dear Sir,

We offer to execute the work as per our offered bill of quantity in accordance with the conditions of the NIT document as available in the website. The details of the EMD being submitted by us has been furnished on-line.

This Bid and your subsequent Letter of Acceptance / Work Order shall constitute a binding contract between us.

We hereby confirm our acceptance of all the terms and conditions of the NIT document unconditionally.

Signature of the Tenderer

Dated.....



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Annexure-3

MANDATE FORM BY VENDOR FOR RTGS/ NEFT PAYMENTS (TO BE FILL IN BLOCK LETTER)

1. NAME OF THE VENDOR:
2. ERP VENDOR NO:
3. Vendor Type: Company / Partnership / Proprietorship / Self Help Grp / HUF/Others (To be specified)
4. ADDRESS:.....
.....
5. TELEPHONE NO. & FAX NO:.....
6. MOBILE PHONE:
7. Email:.....
8. P.A.N. NO. (MANDATORY):

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9. GST REGISTRATION NO:

10. PARTICULARS OF BANK ACCOUNT (One cancelled Cheque is to be enclosed)

i) Name of Account Holder:

ii) BANK NAME:

iii) BRANCH NAME & ADDRESS:.....

iv) BANK BRANCH TELEPHONE NO:.....

v) Account type (whether SB or Current):.....

vi) ACCOUNT NO:

--	--	--	--	--	--	--	--	--	--	--	--	--	--

vii) BANK'S MICR CODE:

--	--	--	--	--	--	--	--	--	--	--	--	--	--

viii) BANK'S IFS CODE:

--	--	--	--	--	--	--	--	--	--	--	--	--	--

11. DECLARATION OF THE PARTY:

I hereby declare that the particulars given above are correct and complete. If the transaction is delayed or not Affected at all for reasons of incomplete and incorrect information, WBSedcl will not be held responsible.

Date:

Signature of the Vendor



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Annexure-4

PROFORMA FOR UNDERTAKING TO BE SUBMITTED BY THE BIDDER

(For genuineness of the information furnished on-line and authenticity of the documents produced before Tender Committee for verification in support of his eligibility)

I,.....Partner /Legal Attorney /Accredited Representative of M/s.
..... solemnly declare that:

1. We are submitting Tender for the job/supply of.....
2. None of the Partners of our firm in relative of employees of.....
3. All information furnished by us In respect of fulfillment of eligibility criteria and qualification information of this Tender
is complete, correct and true.
4. All documents/Credentials submitted along with this Tender are genuine, authentic, true and valid.
5. If any information and document submitted is found to be false/incorrect any time, department may cancel my Tender and action as deemed fit may be taken against us, including termination of the contract, forfeiture of all dues including Earnest Money and banning/delisting of our firm and all partners of the firm etc.

Signature of the Tenderer



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Annexure-5

Form-XII

(On the Bidder's Letterhead)

Declaration of not being blacklisted/Debarred/Put on Holiday list

Certified that our Company, M/s is not blacklisted/ debarred/ suspended or put on holiday list by any Statutory/Regulatory/Government Authorities/ State Electricity Utility/ PSU in India.

It is certified that the information furnished above is true to the best of my knowledge and belief.

Bidders Name:

Signature of the Tenderer:

Designation:

Seal of the Company:

Date:



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Annexure-6

FORM-XIII

(On the Bidder's Letterhead)

Self-declaration by Proprietor of the Bidding Company for not being blacklisted/Debarred/Put On Holiday list

I hereby confirm and declare that, none of the other CONCERNS OF WHICH I AM A Proprietor /Managing Partner are blacklisted/ debarred/ suspended or put on holiday list by any Statutory/ Regulatory/ Government Authorities/ State Electricity Utility/ PSU in India.
It is certified that the information furnished above is true to the best of my knowledge and belief.

Signature of the Proprietor:

Name:

Designation:

Seal of the Company:

Date:



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Annexure-7

FORM-XI

(On the Bidder's Letterhead)

Declaration regarding no litigation against WBSEDCL

We hereby declare that, no legal litigation/arbitration is pending/ongoing against WBSEDCL in any court/Forum against/by the bidder or its sister concern/Director/Partner/Proprietor.

If it is found at any stage of tendering, our offer will be rejected and I/We don't have any objection on the same.

Bidders Name:

Signature of the Tenderer:

Designation:

Seal of the Company:

Date:

	TECHNICAL SPECIFICATION	
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TECHNICAL SPECIFICATION FOR INSULATION PIERCING CONNECTORS, ANCHOR (DEAD END) & SUSPENSION ACCESSORIES & OTHER ACCESSORIES FOR AERIAL BUNCHED CABLES FOR WORKING VOLTAGE UPTO AND INCLUDING 1100 VOLTS

1.0 SCOPE

This specification covers the design, manufacture, assembly, testing and supply of Accessories for anchoring, suspending & making connections to Aerial Bunched Cables rated 1100 volts and insulated with cross-linked polyethylene.

2.0 STANDARD

The design, performance and test requirements shall confirm to this specification and the following standards. However in case of any conflict, the requirements of this specification shall prevail.

λ	NFC 33-020	Insulation Piercing Connectors
λ	NFC 33-209	LV Aerial Bunched Cables
λ	NFC 20-540	Environment Testing for Outdoor
λ	NFC 33-004	Electrical Ageing Test
λ	NFC 33-040	Suspension Equipments
λ	NFC 33-041	Anchoring Devices
λ	IS 14255	LV Aerial Bunched Cables

The Devices shall also be compatible with the cables of sizes & dimensions as defined in the Cable Specifications for the cables with which they are intended to be used.

3.0 CLIMATIC CONDITIONS

For the purpose of designing the climatic conditions as specified in annexure-1 shall be considered.

4.0 CABLE DATA

The standard sizes and characteristics of the phase and street lighting conductors, messenger wires shall be as specified in IS : 14255-1995.

TECHNICAL SPECIFICATION

The Accessories of LT XLPE Insulated Aerial Bunched Cables (ABC) with insulated messenger cum neutral are specified below :

- The ABC accessories should be of proven design with minimum 2 years record of satisfactory operation with a major utility. Order copies and Performance Certificates should be enclosed with the offer.
- Since ABC accessories are to be used with insulated neutral-cum-messenger, their design should incorporate specific features to prevent damage to the insulation which meeting the required electrical, mechanical & thermal requirements.
- All mechanical, electrical & thermal ratings should meet or exceed 90% of the corresponding ratings of the cable, or the values specified herein, whichever are more stringent.
- The accessories should provide "Double Insulation" so that a single point failure of insulation will not result in the system tripping.

5.0 THE ABC ACCESSORIES

The ABC Accessories shall consist of the following :

a)	Insulation Piercing Connectors (IPC)	:	For making tap-off/branch connectors/service connector to an ABC line.
b)	Anchoring Assembly (AA)	:	For fitting onto a pole for anchoring the end of a length of ABC, or for a major change in direction.
c)	Suspension Assembly (SA)	:	For supporting a length of ABC at an intermediate pole in a length, with small angle of deviation.
d)	Service clamp (sc)	:	For anchor Insulated service lines (armoured or unarmoured)
e)	Transformer Connections	:	For connection to the transformer bushing.
f)	Junction Sleeves	:	For Phases, neutral messengers & Street lighting conductor.
g)	ABC Service Main Distribution Box	:	For Distribution of multiple no. of Service Connections from Main AB cable.



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	TECHNICAL SPECIFICATION	
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5.1 Insulation Piercing Connectors (IPC)

5.1.1 Insulation Piercing Connectors (IPC) are used for making Tee/Tap-off/Service connectors to an ABC/Bare Overhead Line.

5.1.2 Insulation Piercing Connectors are designed to make a connection between the uncut main conductor and a branch cable conductor without having to strip either cable to expose the conductor instead the tightening action of the IPC will first pierce the Insulation, then make good electrical contact between the main end and branch conductor while simultaneously insulating and sealing the connection.

5.1.3 Constructional Features of IPC

5.1.3.1 The housing shall be made entirely of mechanical and weather resistant plastic insulation material and no metallic part outside the housing is acceptable except for the tightening bolt.

5.1.3.2 Any metallic part that is exposed must not be capable of carrying a potential during or after connector installation.

5.1.3.3 Screws or nuts assigned for fitting with IPC (Insulating Piercing connector), must be fitted with torque limiting shear heads to prevent over tightening or under tightening (min & max torque values to be specified by Manufacturer).

5.1.3.4 The IPC must perform piercing and connection on Main and Branch cable simultaneously.

5.1.3.5 The IPCs shall be water proof and the water tightness shall be ensured by appropriate elastomer materials and not by grease, gel or paste alone.

5.1.3.6 Design of IPC should be such as to not cause damage to insulation of adjacent conductors due to vibration and relative movement during service.

5.1.3.7 The connector shall have a rigid removable end cap which can be slide fitted onto the main connector body on either right or left by the installer (depending on site requirement) for sealing the cut end of the branch cable. Once the connector is fitted, it should not be possible to remove the cap without removing the connector.



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	TECHNICAL SPECIFICATION	
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5.1.3.8 All the metallic parts of the connector should be corrosion resistant and there should not be any appreciable change in contact resistance & temperature after overloads & load cycling.

- λ The contact plates should be made of tinned copper.
- λ Connector teeth should be factory greased & sealed to retard water or moisture ingress & corrosion.
- λ The Insulation material should be made of weather & UV resistant reinforced polymer.
- λ The outer metallic part should have potential free tightening bolts to allow safe installation on live lines.

5.1.4 Mechanical Tightening and Electrical Continuity

5.1.4.1 Connectors shall be tightened upto 70% of the minimum torque indicated by the Manufacturer. At this torque electrical contact should have occurred between conductors to be joined. Then connectors shall be tightened up to the breakdown of the shear heads and lastly, upto 1.5 times the maxm. torque indicated by the manufacturer.

For the connector fitted with two screws on the same core, after the breakdown of the shear heads tightening may be carried out manually and alternatively using a torque meter. The test conditions shall be as close as possible to those defined for the use of the test machine as per NF-C standard.

5.1.4.2 At 1.5 times the maximum torque indicated by the manufacturer, there shall be no breakdown of any part of the connector or the core conductor.

5.1.4.3 Maximum rated torque shall not exceed 20 N.m for conductor <95 sq.mm and 30 for >95 but <150 sq.mm.

5.1.4.4 Tightening screws shall have hex. Heads of 10 mm, 13 mm or 17 mm only.

5.1.5 Effect of Tightening on Main Core of IPC

TECHNICAL SPECIFICATION

- 5.1.5.1 The connector shall be fitted approx. at the center of the main core, which is secure between two anchoring points 0.5 mtr. To 1.5 mtr. apart. At the time of fitting the connectors, the main core shall be under longitudinal tension at 20% of the load indicated in Table-1 :

Table - 1	
Nominal Cross – section (sq.mm.)	Tensile Strength (Newton)
16	1200
25	1800
35	2500
50	3500
70	5000
150	10000

- 5.1.5.2 Tensile strain shall be increased to the full value indicated in the Table 1 and held minute. There should be no breakdown of the core conductor.

5.1.6 Effect of Tightening on Branch Core of IPC

- 5.1.6.1 Test specimen shall be made up as in clause 5.1.5.1 except that this shall be do the smallest cross sections of main and branch conductors within its range.

- 5.1.6.2 An increasing tensile load shall be applied to the Branch Conductor along the axis of the recess for the Branch cable. Load shall increase at 100 – 500 N/minute until it reaches the value specified in the Table 2 and maintained for 1 minute.

Table - 2	
Nominal Cross – section (sq.mm.)	Tensile Strength (Newton)
16 (Alu)	290
25	450
35 & above	500

- 5.1.6.3 No slippage or breaking of conductor shall occur.

5.1.7 Dielectric & Water Tightness Test of IPC

- 5.1.7.1 The connector is tightened up to the minimum torque indicated by the manufacturer.

TECHNICAL SPECIFICATION

5.1.7.2 Connectors are mounted on

- λ Minimum cross section of main core.
- λ Maximum cross section of main core.

5.1.7.3 In each case Branch is of minimum cross section.

5.1.7.4 Protection caps for the branch cable are to be used in accordance with the requirements of clause 5.1.3.7. An additional water tight cap of any design may be used to seal one end of the main cable if it is immersed under water. No additional gel or any protection is to be provided while installing connector.

5.1.7.5 The entire assembly shall be immersed at a depth of approx. 30 cms. For 30 minutes with the free ends of main and branch cable out of the water.

5.1.7.6 An AC voltage of 6 kV shall be applied between the water bath and each of the cores in turn for 1 minute. There shall be no flashover or electrical tripping with a trip setting of 10 mA $\pm$ 0.5mA.

5.1.8 Electrical & Ageing Test of IPC

5.1.8.1 Two test configurations are used according to Table 3 with the connections tightened to the minimum torque specified by their manufacturers and resistance recorded.

Table - 3		
Configuration	Main core cross section	Branch core cross section Tensile Strength (K.N)
1 st Configuration	Maximum	Maximum
2 nd Configuration	Maximum	Maximum

5.1.8.2 The configurations are subjected to 200 heat cycles by injecting suitable current into them. In each cycle the temperature of the conductor shall be raised from ambient to 120 $\pm$ 5°C as, measured by a thermocouple.

	TECHNICAL SPECIFICATION	
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5.1.8.3 The duration of each heating cycle is chosen to maintain a sufficiently steady temperature of $120 \pm 5^{\circ}\text{C}$ for 15 minutes. The duration of each cooling cycle is chosen to bring the conductor temperature to within 2°C of ambient.

5.1.8.4 Nominal heating current is indicated in the Table-4. It shall be permissible to accelerate the temperature rise by using a current up to 1.5 times the nominal current and to accelerate the cooling period by use of a fan or air blower.

Table - 4	
Nominal Cross – section (sq. mm.)	Nominal Heating Current (A)
16	102
25	139
35	175
50	225
70	283
95	350
120	412
150	480
185	545
240	670

5.1.8.5 The over current test of Clause 5.1.9 shall be done after 50 cycles if the connector is a safety connector designed to ground a phase connector while the line is being worked on.

5.1.8.6 At the end of the 200 cycles the resistance shall again be measured. It shall not differ from the initial value by more than 12%.

5.1.9 Over Current Test of IPC

5.1.9.1 Over current test is required to establish the performance of Safety Connectors that are intended to provide a safe path to ground for the phases while the line is de-energised for working. It establishes the performance of the connector under short term over load conditions.

	TECHNICAL SPECIFICATION	
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5.1.9.2 After the first 50 cycles of clause 5.1.8, the connectors are subjected to 4 over currents of 1 sec duration each.

5.1.9.3 The conductor temperature at the start of the over current test should be not more than 35°C.

5.1.9.4 Current density during over current shall be 100 A/sq.mm for Aluminium and 95 A/sq.mm for Aluminium – Alloy Conductor.

5.1.9.5 Variation in time of over current is permissible between 0.85 sec & 1.15 sec., provided it maintains the relationship $I^2t = K$ where,

I = rms value of over current in Amps.

t = time in seconds

K = Constant

5.1.9.6 After the over current test the electrical ageing test of clause 5.1.8 shall be resumed.

5.1.10 Type Test of IPC

5.1.10.1 Type Test Reports should be submitted from an Independent Laboratory of Repute or the Works Laboratory in case of a foreign manufacturer covering the following (on any convenient size of fitting of same design made from the same materials).

5.1.10.2 The installation of the connectors shall be done by the laboratory following instructions provided by the manufacturer.

5.1.10.3 The Test report shall record the embossing and marking on the connector.

5.1.10.4 The following shall constitute Type Tests for IPC :

- λ Electrical Ageing Test
- λ Dielectric and Water Tightness Test
- λ Mechanical Tightening Test
- λ Effect of Tightening on main Core
- λ Effect of Tightening on Branch core



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	TECHNICAL SPECIFICATION	
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λ Over-current Test (if applicable)

The following shall be Type Test for Suspension Assembly (SA)

λ Mechanical Test

λ Voltage Test

λ Climatic Aging Test

λ Corrosion Test

λ Endurance Test under Thermal & Mechanical Stresses

The following shall be Type Tests for Anchoring Assemblies (AA)

λ Mechanical Test

λ Voltage Test

λ Dynamic Test

λ Climatic Aging Test

λ Corrosion Test

λ Endurance Test under Thermal & Mechanical Stresses

5.2 Anchoring Clamp for Insulated Messenger :

The clamps should be designed to Anchor LT-AB cable with insulated messenger. The clamp should consists of an Aluminium alloy corrosion resistant castled body, bail of stainless steel and self adjusting plastic wedges which shall anchor/hold the neutral messenger without damaging the insulation.

λ No losable part in the process of clamping arrangement

λ The clamp should conform to the standard NFC 33041 and 33042 or equivalent I.S. if any.

λ The clamp body should be made of corrosion resistant Alluminium alloy, bail should be of stainless steel and wedges should be weather and UV resistant polymer.

λ Ultimate tensile strength of the clamp should not be less than 15 km for 50/70 sq.mm insulated messenger wire / 10 KN for 25/35 sq.mm insulated messenger wire.

TECHNICAL SPECIFICATION

- λ Slip load of the clamp should not be less than 3 KN for 50/70 sq.mm. messenger wire / 2 KN for 25/35 sq.mm. messenger wire.
- 5.2.1 Anchoring assemblies are used to firmly attach the messenger of ABC to a support and transmit the mechanical tension.
 - λ at the end of a run or to the supporting structures
 - λ at a major change in direction.
- 5.2.2 Each Anchoring Assembly shall include.
 - λ One number tension bracket.
 - λ One number wedge type tension clamp
 - λ Flexible Rope for fixing tension clamp to bracket.
- 5.2.3 Anchoring assemblies shall be supplied in sets to ensure compatibility of the materials against corrosion or wear of moving parts.
- 5.2.1 Tension Bracket of AA
 - 5.2.4.1 The tension bracket shall be made out of a single piece of Aluminium alloy suitable for attachment to a pole either by
 - a) 16mm galvanized steel bolt (s) or
 - b) two stainless Steel straps of 20 x 0.7 mm.
 - 5.2.4.2 The tension bracket should be designed to ensure the Flexible rope cannot slip out at any angle.
 - 5.2.4.3 The tension bracket should be rated and tested for the loads specified in Table-5. The load shall be applied at an angle of 45° from the normal to the surface of mounting of the bracket.

Table - 5			
Conductor Size (Sq.mm.)	Rating	Load for deformation <10mm (Newtons)	Load for deformation <30mm & no-break (Newtons)
25-35	1500 Kg.	12,000	15,000

	TECHNICAL SPECIFICATION	
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50-95	2000 Kg.	15,600	19,500
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5.2.5 Flexible Rope of AA

- 5.2.5.1 The Anchoring assembly shall be supplied with a stainless steel flexible Rope to connect the Tension Clamp to the Tension Bracket.
- 5.2.5.2 The rope should have sufficient flexibility to ease the torsional movement of the ABC System.
- 5.2.5.3 The Rope should be pre-fitted with compression type end fittings to secure the tension clamp.
- 5.2.5.4 A wear resistant moveable saddle should be un-loosably fitted on the Rope to prevent abrasion at the point of fitting into the tension bracket.
- 5.2.5.5 The Rope should have sufficient mechanical strength to withstand the mechanical test for the complete assembly tests in this specification.

5.2.6 Wedge Type Tension Clamp of AA

- 5.2.6.1 Wedge type clamps shall be used for clamping the messenger without damaging the insulation.
- 5.2.6.2 The clamp shall be capable of clamping an uncut messenger so that it can continue without break to the connecting point or next span.
- 5.2.6.3 The clamp shall be fully insulating type of mechanical and weather resisting thermoplastic.
- 5.2.6.4 No bolts or loose parts are allowed as part of the Clamping system.
- 5.2.6.5 No tools shall be needed for fitting the messenger into the clamp.
- 5.2.6.6 The clamp shall be self tightening and capable of holding without slippage the load specified in the Table-6.

TECHNICAL SPECIFICATION

Table - 6

Conductor Size		Rating (Kg.)	T start (1 minute) (Newtons)	T final (1 minute) (Newtons)
Sq. mm.	Dia. (mm)			
25-35	8-11	1000 Kg.	8,000	10,000
50-54	12-14	1500 Kg.	12,000	15,000
70-95	13.5-16	2000 Kg.	12,000	15,000

5.2.6.7 After fitting the insulated messenger in the clamp, load T start will be held for 1 minute & then load increased to T final at rate between 5000 – 7,500 N/mtr. In each case there shall be no breakdown of any part of clamp and slippage of messenger in relation to the clamp.

5.2.7 Voltage Test on Clamp of AA

5.2.7.1 Voltage test is carried out on anchor clamps to ensure no damage is caused to the insulated messenger.

5.2.7.2 A conductive rod of dia. corresponding to the average dia. that can be accommodated in the clamp is fitted into the clamp, protruding by approx. 50mm at each end of the tightening piece.

5.2.7.3 The rod and clamp is subjected to tensile load as stated in Table 7 below when fixed to a support in its normal manner.

Table - 7

Conductor Size		Normal rating (kg)	Load Applied (N)
Sq. mm.	Dia. (mm)		
25-35	8-11	1000	2000
50-54	12-14	1500	4000
70-95	13.5-16	2000	4000

TECHNICAL SPECIFICATION

5.2.7.4 A power frequency voltage of 6 kV is applied for 1 minute between the rod and conductive part of the clamp, or fixation point in absence of conductive part.

5.2.7.5 No breakdown or flashover shall occur. There shall be no tripping due to leakage with a setting of 10 ± 0.5 mA.

5.2.8 Endurance under Mechanical & Thermal Stress of AA

5.2.8.1 This test is done on clamp rated 1500 Kg. or 2000 Kg. using insulated messenger 50 to 70 sq. mm.

5.2.8.2 A neutral messenger is fitted between two anchor clamps, with clamp spacing approx. 5 mtr. & 1 mtr. Of messenger protruding from the end. Marks are made to enable measurement of slippage.

5.2.8.3 The sample is subjected to 500 cycles of 90 minutes each as described below :

5.2.8.3.1 Messenger temperature is raised by passing an AC current to $60 \pm 3^\circ\text{C}$ within 15 minutes. This temperature is maintained for at least 30 minutes to give a total heating period of 45 mts. Per cycle.

5.2.8.3.2 Messenger is allowed to cool naturally to ambient for further 45 minutes to complete 90mts. Cycle time.

5.2.8.3.3 Mechanical load is applied during the cycle as per table 8 below. Load F1 is applied throughout the cycle, except for a short period of 5 sec. to 60 sec. when it is gradually increased from F1 to F2 at any time during the last 15 minutes of the 90 minute cycle.

Table - 8				
Conductor Size		Rating (Kg.)	F1 (Newtons)	F2 (Newtons)
Sq. mm.	Dia. (mm)			
25-35	8-11	1000 Kg.	2,200	5,000
50-54	12-14	1500 Kg.	4,000	7,500
70-95	13.5-16	2000 Kg.	4,500	10,000



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TECHNICAL SPECIFICATION

5.2.8.3.4 There should be no slippage greater than 4 mm after 2 cycles or greater than 8 mm after 500 cycles.

5.2.8.3.5 Voltage test is done at the end of the 500 cycles by immersing the test specimen of neutral messenger and clamps in water of resistivity not less than 200 Ohm mtr. For 30 minutes.

5.2.8.3.6 A voltage of 10 kV ac is applied for 1 minute between messenger and water bath using a trip setting of $10 + 0.5$ am. There should be no breakdown or tripping.

5.3 Suspension clamp for insulated neutral messenger:

The clamp should be designed to hang L.T – AB cable with insulated neutral messengers. The neutral messengers should be fixed by an adjustable grip device. A movable link should allow longitudinal and transversal movement of the clamp body.

- λ No losable part in the process of clamping arrangement.
- λ The clamp should conform to the standard NFC 33040 or equivalent I.S, if any.
- λ The clamp and the link made of Polymer should provide an additional insulation between the cable and the pole.
- λ The clamps and movable links should be made of weather and UV resistant glass fibre reinforced polymer.
- λ Clamps should be fixed with pole by eye hook / bracket. Bracket should be made of corrosion resistant aluminium alloy.
- λ Ultimate tensile strength of the clamp should not be less than 15 KN for 50/70 sq.mm. insulated messenger wire 4.3 KN for 25/35 sq.mm. insulated messenger wire.
- λ Maximum allowable load of the clamp should not be less than 20 KN for 50/70 sq.mm. insulated messenger wire/15 KN for 25/30 sq.mm insulated messenger wire.

TECHNICAL SPECIFICATION

- 5.3.1 Suspension Assembly is used for supporting an ABC by installation on the messenger at an intermediate point of support such as a pole. It can accommodate small angles of deviation upto 30°.
- 5.3.2 Each Suspension Assembly shall consist of :
- λ One number Suspension Bracket.
 - λ One number moveable (articulated) connecting link.
 - λ One number Suspension Clamp.
- 5.3.3 Suspension Assemblies shall be supplied in sets to ensure compatibility of the materials against corrosion or wear of rotating/moving parts.
- 5.3.4 Suspension Bracket of SA
- 5.3.4.1 The Suspension Bracket shall be made from single piece aluminium alloy suitable for attachment to a pole by either.
- a) 16 mm galvanized steel bolt or
 - b) Two stainless steel straps.
- 5.3.4.2 The Suspension Bracket shall be provided with an upper bulge to prevent the clamp from turning over on the Bracket for more than 45° from the horizontal or to within less than 60 mm from the pole / fixing structure.
- 5.3.4.3 The Suspension Bracket should be so designed to ensure that the articulated link cannot slip out of it.
- 5.3.4.4 Suspension Brackets shall be designed to withstand a load applied at the anchoring point of the movable link as per Table – 9 below without deformation of more than 10mm or breakdown at 33° below horizontal (there should be no longitudinal component of load parallel to the plane of fixing).

Table - 9			
Conductor Size		Normal Rating	Load (Newtons)
Sq. mm.	Dia. (mm)		
25-54	8-15	1500 Kg.	12500



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TECHNICAL SPECIFICATION

70-95

13-17

2000 Kg.

14000

5.3.5 Movable (Articulated) Link of SA

5.3.5.1 Movable Links are used between the Suspension Bracket and Suspension Clamp to allow a degree of movement and flexibility between the two.

5.3.5.2 Moveable Links should be made fully of insulating type of mechanical and weather resistant thermoplastic. A metallic wear resistant ring should however be fitted at point of contact between the Suspension Bracket and the movable link.

5.3.5.3 The Movable link should be unloosably fitted to the Bracket and the Clamp.

5.3.6 Suspension Clamp of SA

5.3.6.1 Suspension Clamps are used for locking the messenger of the ABC bundle without damaging the insulation or allowing the messenger to become dismounted from the fitting.

5.3.6.2 The Suspension Clamp shall accommodate messenger wires from 25 to 95 sq.m.

5.3.6.3 The Suspension Clamp shall be made fully of insulating type of mechanically strong and weather resistant plastic.

5.3.6.4 Bolts should not be used for clamping / locking the messenger in the Clamp.

5.3.6.5 There shall be no losable parts in the Suspension clamp.

5.3.6.6 The Suspension Clamp should be unloosably fitted to the rest of the Suspension Assembly.

5.3.7 Mechanical Test on Clamp of SA

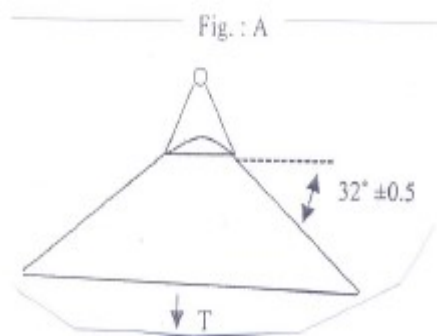
5.3.7.1 The Sub Assembly shall be subjected to a vertical load applied as per drawing in accordance with Table-10. There shall be no breakdown or permanent deformation at load T initial for 1 minute or when the load is increased to T final and released.

Table - 10

Conductor Size	T start (I minute)	T final (I minute)
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TECHNICAL SPECIFICATION

Sq. mm.	Dia. (mm)	Rating (Kg.)	(Newtons)	(Newtons)
25-54	8-15	1500 Kg.	9,600	12,000
70-95	13-17	2000 Kg.	12,800	16,000



5.3.7.2 A sample messenger shall be fitted into a fixed suspension clamp and subjected to a gradually applied longitudinal load of 300 N. There shall be no permanent slippage.

5.3.8 Voltage Test of SA

A copper foil is wrapped at the clamping point around the maximum size of messenger allowed in that clamp. An ac voltage of 6 KV is applied between the copper foil and nearest conductive point of the clamp or into its absence to the point of fixation. The voltage should be withstood for 1 minute without breakdown or flashover.

5.3.9 Test Under Mechanical & Thermal Stress

5.3.9.1 The test specimen is made up of approx. 10mts. Of messenger wire strung between two anchor clamps with a Suspension Clamp fixed in the middle. Masses of 40 Kg. are suspended at a distance of 1-2mtr. On either side of the Suspension Clamp with a fixing mechanism of mass 2 ± 1 Kg.

5.3.9.2 The specimen is subjected to 500 cycles of 90 minutes each. Each cycle consists of the following :

	TECHNICAL SPECIFICATION	
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- a) For first 75 minutes a constant longitudinal tension of 4000 N is applied to the messenger for rating of 1500 Kg. and of 4500 N rating of 2000 Kg. while 64 cycles right and left oscillation are produced on the clamp 32° on either side of the vertical.
 - b) During the first 45 minutes an intermittent current of 4-5 A/sq.mm is applied to maintain the conductor temp at $60 \pm 3^{\circ}$ C.
 - c) During the next 45 minutes of the cycle the conductor is allowed to cool down naturally to the ambient.
 - d) At the 75th minute, after having completed 64 oscillations, the oscillations are stopped and the longitudinal tension is increased to 7500 N for 1500 kg. Rating and 10000 N for 2000 Kg. Rating.
- 3.9.3 No messenger slippage should occur within the Suspension Clamp during the 500 cycles.
- 5.3.9.4 At the end of the 500 cycles, the messenger is immersed in water for 30 minutes. It is then tested to withstand 10 kV ac for 1 minute with a trip setting of 10 ± 0.5 mA. There should be no breakdown or flashover.
- 5.4 Acceptance Tests
- 5.4.1 The following shall constitute Acceptance Tests for Insulation Piercing Connectors (IPC) :
- λ Visual *
 - λ Dimensional (as per SCD and overall dimensions submitted with Tender Offer)*
 - λ Electrical Ageing Test ***
 - λ Dielectric and Water Tightness Test. **
 - λ Mechanical Tightening Test **
 - λ Effect of Tightening on Main Core **
 - λ Effect of Tightening on Branch Core **

TECHNICAL SPECIFICATION

The above tests are to be carried out as per sampling plan below. However electrical ageing test on IPC (market***) is to be done on only one connector of each type and size.

In case of random failure/defect, double the sample lot is to be drawn and there should be no failure/defect exceeding half the permissible defects (rounded down) shown in the chart.

Lot Size	For tests Marked*		For Tests Market **	
	Sample Size	Max. permissible Defects	Sample Size	Max. permissible Defects
Upto 100	2	nil	2	nil
101 to 1000	6	nil	4	nil
>1001	0.01% subject to min. 6 pieces	0.1% of pieces checked	4	nil

5.4.2 The following shall constitute acceptance tests for Anchor Assemblies :

- λ Visual *
- λ Dimensional (as per SCD and overall dimensions submitted with Tender Offer)*
- λ Mechanical Test on Bracket**
- λ Mechanical Test on Clamp **
- λ Voltage Test *

5.4.3 The following shall constitute acceptance tests for Suspension Assemblies :

- λ Visual *
- λ Dimensional (as per SCD and overall dimensions submitted with Tender Offer)*
- λ Mechanical Test on Bracket**
- λ Mechanical Test on Clamp **
- λ Voltage Test *

TECHNICAL SPECIFICATION

The above tests (for AA & SA) are to be carried out as per sampling plan below. In case of random failure/defect, double the sample lot is to be drawn and there should be no failure/defect exceeding half the permissible defects (rounded down) shown in the chart.

Lot Size	For tests Marked*		For Tests Market **	
	Sample Size	Max. permissible Defects	Sample Size	Max. permissible Defects
Upto 100	2	nil	1	nil
101 - 500	5	1	2	nil
501 - 2500	10	2	2	nil
2501 & above	10 + 0.2 %	2 + 10% pf addl. Sample quantity	4	1

6.0 SERVICE CLAMP

The clamps should be designed to anchor insulated service lines (armoured or unarmoured) with 2/4 conductors.

- λ The clamps should be made of weather and UV resistant polymer.
- λ No losable part in the process of clamping arrangement
- λ The clamp should conform to the standard NFC 33042 or equivalent I.S., if any. No losable
- λ Breaking Load of the clamp should not be less than 3 KN.

7.0 TRANSFORMER CONNECTION

- λ The connection to the transformer should be made with Pre-Insulated lugs for phase and street lighting conductors and with an Aluminium Lug for neutral Messenger. If the Bus-bars-bars are of copper, the Lugs should be preferably Bi-metallic type.
- λ The Barrel of the lug normally insulated with an Anti-UV black Thermoplastic tube sealed with a flexible ring. Die reference, size and strip length are to be indicated on the plastic.
- λ Sizes covered 16-70 & upto 150 mm² Aluminium XLPE insulated cable.
- λ Reference standard NFC 33021 or equivalent I.S. if any.



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TECHNICAL SPECIFICATION

8.0 JUNCTION SLEEVES

- λ The sleeves should be Pre-Insulated for phases, neutral messengers and street lighting conductors.
- λ Sleeve should be made of Alluminium, insulated with an Anti-UV black thermoplastic tube hermetically sealed two ends with 2 flexible rings.
- λ Die reference, size and strip length are indicated on the sleeve itself.
- λ Sizes needed : 16-70 & upto 150 mm² for Alluminium XLPE insulated cable.
- λ Reference standard : NFC 33021 or equivalent I.S. if any.
- λ Design as per furnished drawing.

9.0 EYE HOOKS

- λ Eye looks should be designed as to hold suspension clamps and Dead end clamps and to be installed with the pole clamp.
- λ Eye-hooks should be made of forged Galvanised steel.
- λ The clamps corrosion resistance should conform the standards I.S. 2629 & I.S. 2633.
- λ Bolts and nuts should be made of hot dip Galvanised steel according to VDE 0210 and VDE 0212.
- λ Ultimate Tensile strength (UTs) of the clamp should 20 KN.
- λ Design as per furnished drawing.

10.0 SERVICE MAIN DISTRIBUTION BOXES

10.1 Scope



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	TECHNICAL SPECIFICATION	
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This Distribution Box should be Weather & Moisture Proof with Spring loaded/Bolt & Nut type Bus Bar system & should be able to carry a current according to specified capacity. It can have 1/3-phase input & provision of 4 to 6 nos. of 3-phase or 1-phase outputs. The box should have the provision for special key for locking & Proper arrangement of sealing. The boxes should be assembled on the pole using Metal Tapes & Buckles or Bolts. No. of Boxes per pole may vary with supporting arrangement for more no. of service connections. The Spring used should be of stainless steel having required capacity to provide suitable pressure in the connector.

10.2 Construction

Distribution Boxes should be designed with Bus Bars with spring action contact, or screw-bolt technique. For spring action contact only insertion of the conductor into the specified groove of the Busbar is sufficient for proper connection whereas for Nut Bolt type proper washers & other accessories are to be provided for connections. It should be used for multiple connections (3-phase or 1-phase) in low voltage Distribution Network. The boxes should be suitable for 1/3-phase (4 crores) inputs & provision for 4 to 6 nos. of 3-phase or 1-phase outputs. Bus bars should be with a continuous pair of contact bars with colour code to facilitate the identification of the correct energy phase.

The box should be able to incorporate the input or output cable dia. Of maximum 16mm. (Equivalent to 120Sq.mm.).

The Boxes should consist of special type Lock & key system as well as provision for sealing for complete protection of the service connection contacts.

10.3 Current Ratings

The maximum current rating should be 140A/200A/250A & concerned authority should have the liberty to choose among the above ratings as per their requirement.

10.4 Voltage Ratings :

The maximum voltage withstand capacity should be 600V.

Working Temp

	TECHNICAL SPECIFICATION	
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Safe working temperature should be around 80 C for Outer Box & 100°C for metallic Bus bars.

10.5 Materials

Material used in the manufacturing process of the components of this product should be specified in the respective product drawings & can be summarized as follows :

- λ Outer Box (Base & Cap) : With UV protection & Flame retardant characteristics (HB, as per UL 94-Tests for Flammability of Plastic materials) & preferably made up of ASA (Acyronitrile Styrene Acrylate).
- λ Cable Grommets : Ethylene-Propylene Rubber :
- λ Safety Key : PA 6.6 (Nylon).
- λ Safety Screw : Stainless Steel or Plating Finished steel.
- λ Insulation protection as per IP 44.
- λ Bus bars or Terminal Blocks : PA 6.6 (Nylon), Stainless Steel & Copper.
- λ Button & Cable Holder : PA 6.6 (Nylon) with 50% Glass Fibre.
- λ Busbar Insulation : Polyimide.

10.6 Locking System

The boxes should consist of Special type Lock & Key arrangement as well as provision for sealing for complete protection of the service connection contacts.



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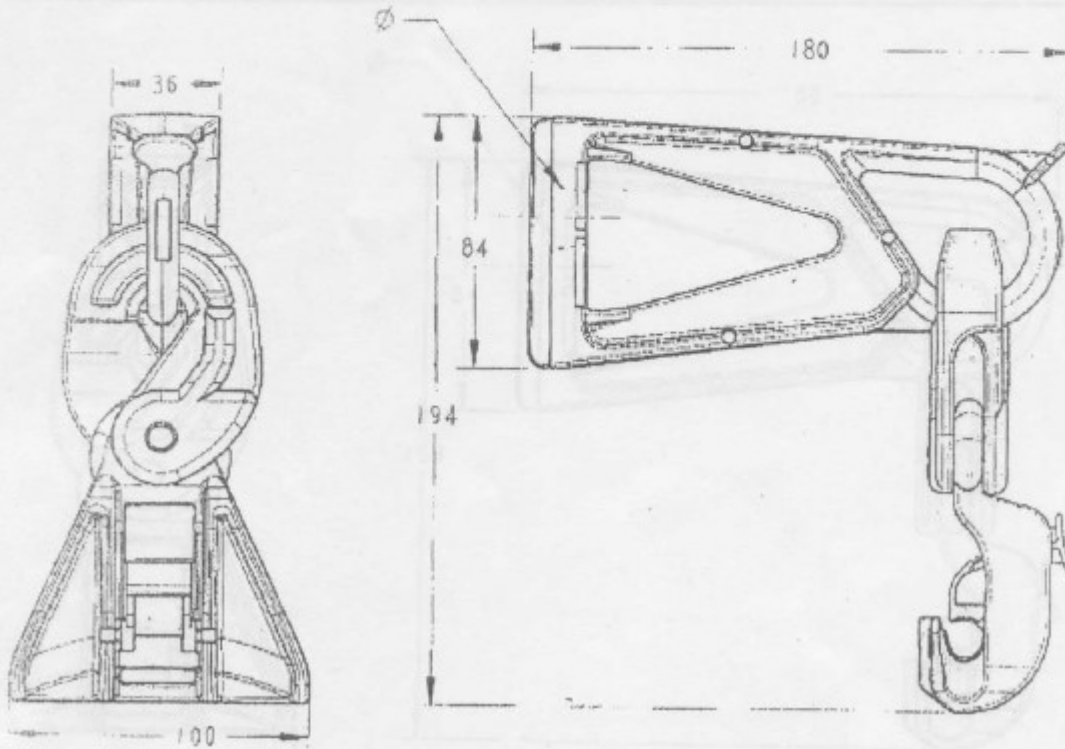
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ANNEXURE - A



Standard : As per NF C 33040

UTS : 15KN

Maximum Allowable Load : 20KN

All Dimensions are in mm.

Not to Scale

W.B.S.E.D.C.L.

(A West Bengal Govt. Enterprise)

Name: Suspension Clamp

for 50/70 Sqmm. Insulated Messenger



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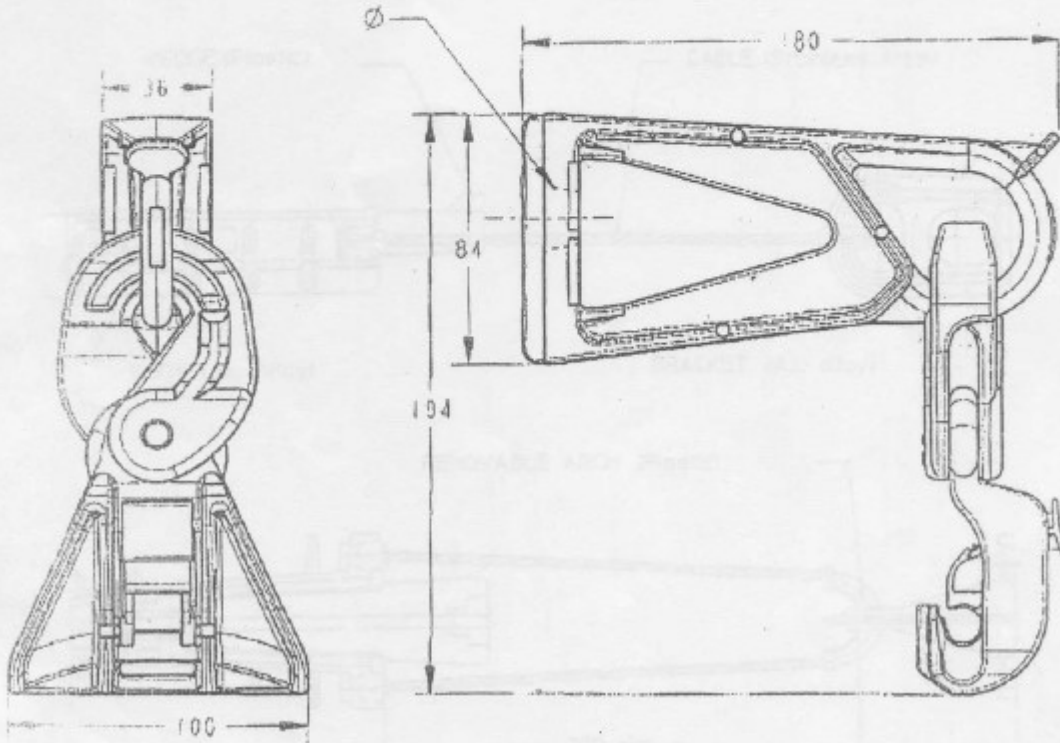
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ANNEXURE - B



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17

Standard : As per NF C 33040

UTS : 4.3KN

Maximum Allowable Load : 15KN

All Dimensions are in mm.

Not to Scale

W.B.S.E.D.C.L.

(A West Bengal Govt. Enterprise)

Name: Suspension Clamp

for 25/35 Sqmm. Insulated Messenger



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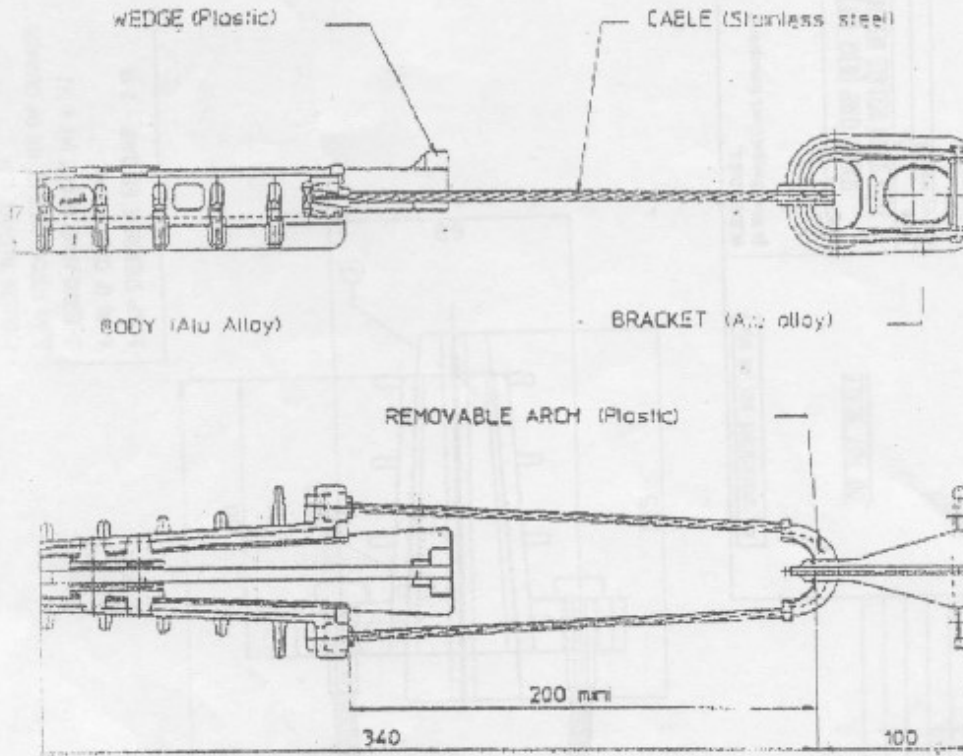
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ANNEXURE - C



Standard : As per NF C 33041 & 042

Slip Load : 3KN

UTS : 15KN

All Dimensions are in-mm.

Not to Scale

W.B.S.E.D.C.L.

(A West Bengal Govt. Enetrprise)

Name: Dead End Clamp

for 50/70 Sqmm. Insulated Messenger



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ANNEXURE - D

TECHNICAL DATA:

1. GENERAL TOLERANCE: ± 3%
2. ALL FERROUS PARTS ARE HOT DIP GALVANIZED
3. TESTING AS PER IS: C-33 (M1 & M2)
4. UTS OF CLAMP - 10 KIL
5. SLIP STRENGTH OF THE CLAMP - 2 KIL

250(MIN)

80

89

105

W.B.S.E.D.C.L.
(A West Bengal Govt. Enterprise)

DO NOT SCALE

OFFICE: DEPENDENT CLAMP (WEDGE TYPE) FOR 25/35 SQ. MM INSULATED MESSENGER CABLE

ROLL NO. HIS

AMOUNT REC. IN

SL. NO.	DESCRIPTION	MATERIAL	QTY.	UTS.	DWG. NO.
3	STRAP	STEEL WIRE	1 NO		
2	WEDGES	WEATHER RESISTANT PLASTIC	1 SET		
1	CLAMP BODY	ALUMINIUM ALLOY LMS	1 NO		

Registered Office: "Vidyut Bhavan", Block-DJ, Sector-II, Bidhannagar, Kolkata-700091

Corporate Identity Number (CIN): U40109WB2007SGC113473

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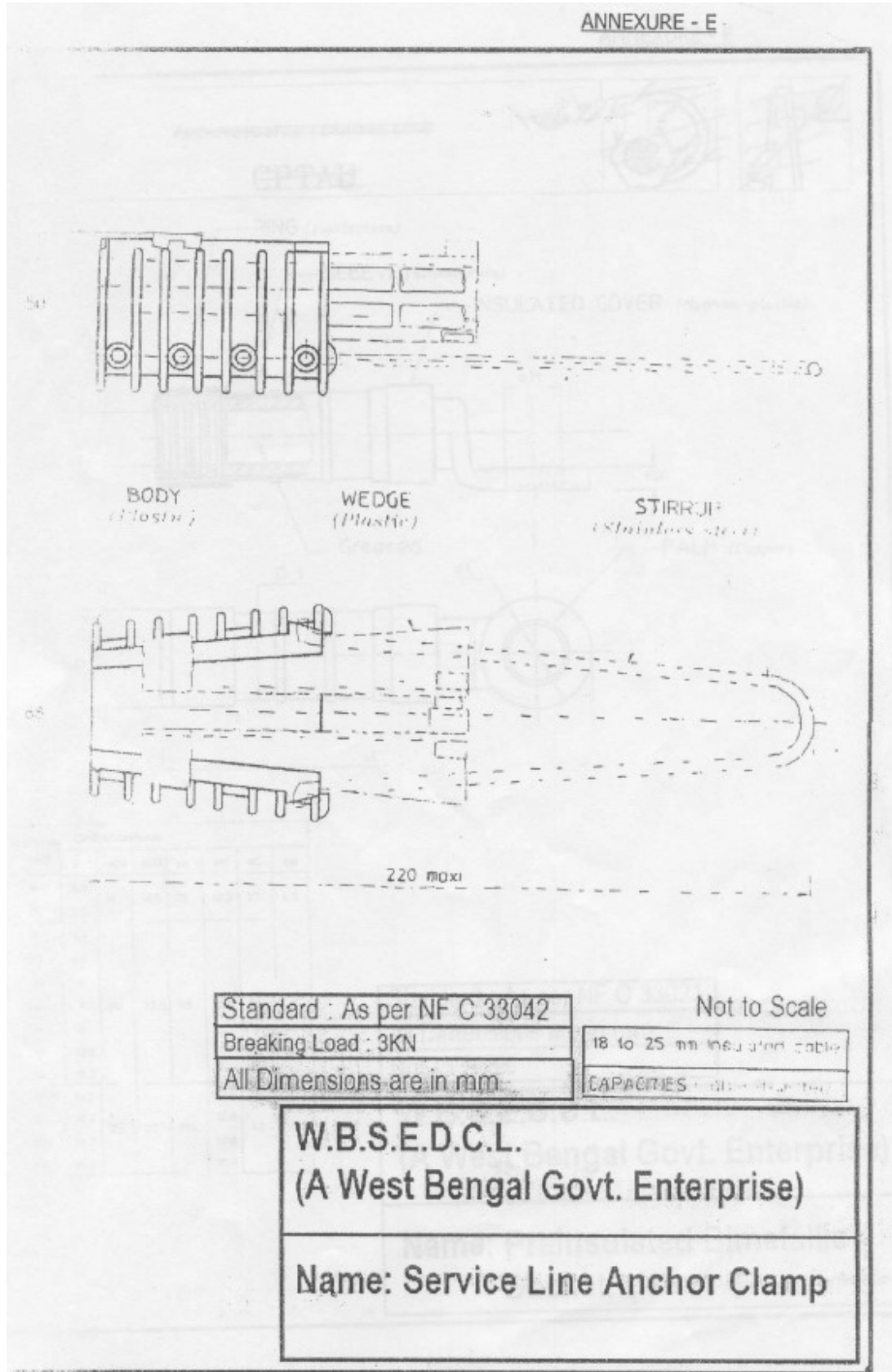
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ANNEXURE - E





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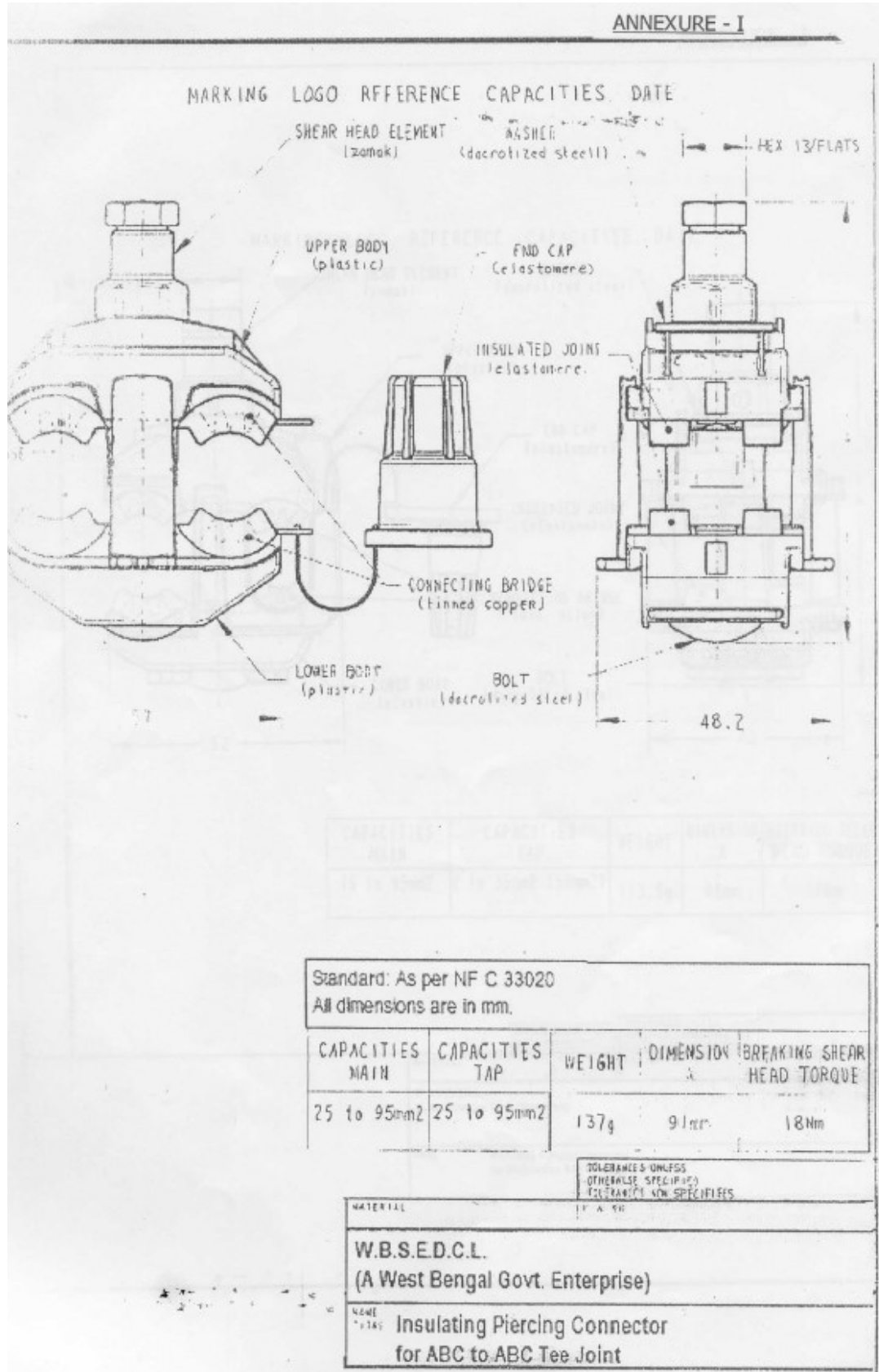
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ANNEXURE - I





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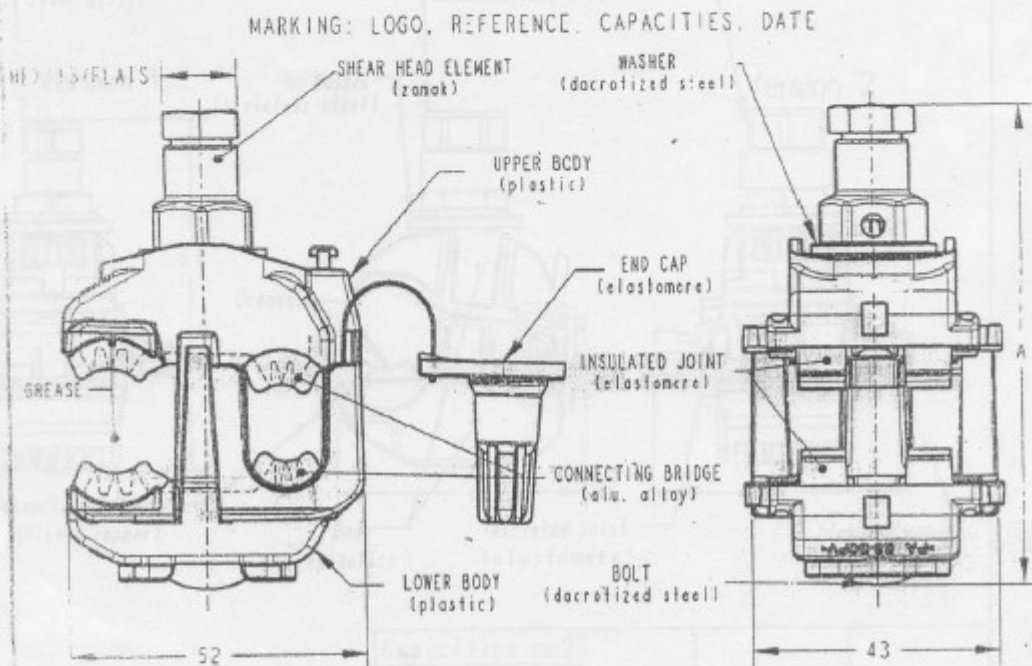
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ANNEXURE - J



CAPACITIES MAIN	CAPACITIES TAP	WEIGHT	DIMENSION A	BREAKING SHEAR HEAD TORQUE
16 to 95mm ²	4 to 35mm ² (50mm ²)	113.5g	86mm	11 Nm

STANDARD AS PER IS 3020
(All dimensions are in mm)

TOLERANCES UNLESS
OTHERWISE SPECIFIED
TOLERANCES NON-SPECIFIED:

MATERIAL

FINISH

W.B.S.E.D.C.L.
(A West Bengal Govt. Enterprise)

NAME
Insulating Piercing Connector
for Distribution Box Charging



WBSEDCL

West Bengal State Electricity Distribution Company Limited

(A Govt. of West Bengal Enterprise)

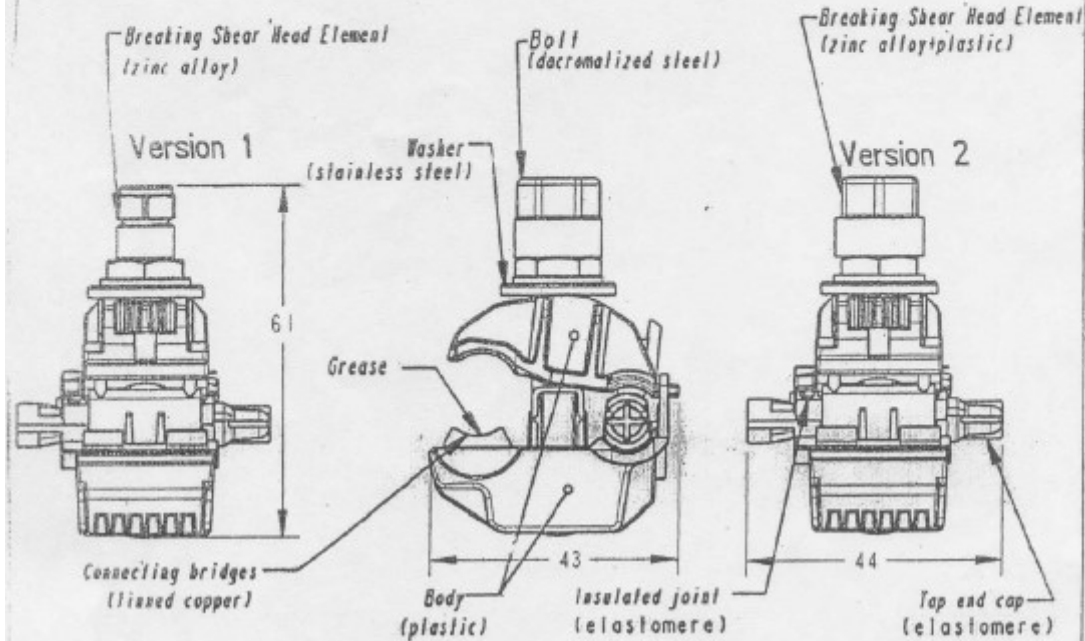
Office of the Regional Manager

Birbhum Region

3rd Floor, Commercial Complex, Suri, Birbhum, Pin: 731101

E-mail: rm.birbhum@wbsedcl.in

ANNEXURE - K



Capacities mm ²		Version	Breaking shear head torque	Hexagonal wrench
Main	Tap			
16-95	1,5-10	Version 1	6,8 to 8 Nm	10 mm

Standard As per IS: 3325
All Dimensions are in mm.

TOLERANCES UNLESS
OTHERWISE SPECIFIED
TOLERANCES: MM SPECIFICS:

MATERIAL

FINISH

W.B.S.E.D.C.L.
(A West Bengal Govt. Enterprise)

NAME Insulating plating Connector
for Connection of Street Lights

Registered Office: "Vidyut Bhavan", Block-DJ, Sector-II, Bidhannagar, Kolkata-700091

Corporate Identity Number (CIN): U40109WB2007SGC113473

www.wbsedcl.in