



(A Government of West Bengal Enterprise)
GARIA DIVISIONAL OFFICE, GARIA DIVISION
GARIA. 24 PARGANAS (S) Administrative Building ,Hindustan More
NSC Bose Road ,Garia
Kolkata -700084

NOTICE INVITING e-TENDER

NIT No. : DM/GARIA/PROC/2023-24/ 1648

Date: 22.08.2023

Subject: : Supply, loading at factory, transportation of **Rachyem/Ensto/SKIC** make Insulation-Piercing Connector (ABC) – 16sq mm Street Light Connection along with end cap (Main 16 to 95 mm², Tap 2.5 to 10 mm²) to Garia Divisional store, unloading at Garia Divisional store including guaranteed obligation of complete supply of materials in conformity to the technical specification enclosed herewith, for the work of ongoing modification scheme of existing LT network at KMC Ward no-111,112,113,114 and maintenance work under Garia Division, WBSEDCL.

The Divisional Manager, Garia Division Office, WBSEDCL invites e-Tender (on Item Rate Template) from genuine bonafide, experienced & resourceful manufacturers / Distributors for supply, delivery of the following items :

Tender Value :	Rs 955451.00 (Nine lakh fifty five thousand four hundred fifty one only)
Earnest Money (Rs.) :	Rs. 20000.00 (Twenty thousand only)

Sl No	Material Description	Unit	Quantity	Delivery Location	Delivery Time
1	Insulation-Piercing Connector (ABC) – 16sq mm Street Light Connection along with end cap (Main 16 to 95 mm ² , Tap 2.5 to 10 mm ²)	Nos	11097	The supply of the material will be directly at Garia Divisional Store under Garia Division WBSEDCL	20 days from the issuance of P.O.

Scope: - The scope of work in brief shall include supply, loading at factory, transportation of Rachyem/Ensto/SKIC make Insulation-Piercing Connector (ABC) – 16sq mm Street Light Connection along with end cap (Main 16 to 95 mm², Tap 2.5 to 10 mm²) to Garia Divisional store, unloading at Garia Divisional store including guaranteed obligation of complete supply of materials in conformity to the technical specification enclosed herewith, for the work of ongoing modification scheme of existing LT network at KMC Ward no-111,112,113,114 and maintenance work under Garia Division, WBSEDCL.

The Insulation-Piercing Connector (ABC) – 16sq mm Street Light Connection along with end cap (Main 16 to 95 mm², Tap 2.5 to 10 mm²) are procured for the work of ongoing modification scheme of existing LT network at KMC Ward no-111,112,113,114 and maintenance work under Garia Division, WBSEDCL The supply of the materials will be directly at the Garia Divisional Store. After successful delivery to store papers will be regularized from Garia Divisional Store (Site store is subject to be changed as per site requirement).

N.B. : Authorized Dealers of the original manufacturers of the items shall be allowed to participate in the tender on request of the manufacturer. WBSEDCL may consider placement of order on the dealer on behalf of the said manufacturer and/or they may be allowed to receive payment, on behalf of the co., provided that all responsibilities & warranties, as per terms of the tender specification

1. Intending Bidders shall login to the e-Procurement portal of Government of west Bengal <https://wbtennders.gov.in> using his login Id and password
2. Earnest Money Deposit (EMD) in e-tendering process will be collected and refunded in online mode via dedicated bank account maintained at corporate level instead of depositing DD/Pay Order to the tender inviting authority.
3. E-tender portal is maintained by NIC and payment gateway facility available in e-tender portal is maintained by ICICI Bank.
4. Facility for collecting EMD via offline mode has been discontinued in e-tender portal as per order.
5. As per the procedure defined for online collection in e-tender process, EMD amount deposited by bidders is initially held in a pool account of Government of West Bengal maintained by ICICI. Only the amount corresponding to successful bid will be transferred to WBSEDCL Bank Account after completion of tendering process on awarding Award of Contract (AOC). EMD for unsuccessful bids will be returned to bidders automatically from NIC portal after completion of tendering process.
6. For technically rejected bids, EMD amount will be automatically returned to bidders after the bid is technically rejected in e-tender portal.
7. Payment status of bids submitted against NIT's will be available in MIS reports provided in e-tender portal maintained by NIC.
8. Successful bidder (s) shall have to create vendor id through WBSEDCL web portal vendor corner, if not created earlier.
9. The bidder shall select the tender to bid and initiate payment of EMD. Following payment options are available for paying EMD amount through online mode:
 - i. Net-banking through Payment Gateway
 - ii. RTGS/NEFT Payment: On selection of RTGS/ NEFT as the payment mode, the e-Procurement portal will show a pre-filled 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.
 - iii. Submission of EMD through BG: For submission of EMD in the form of BG, bidders will have to opt for EMD Exemption in e-tender portal and upload scanned copy of BG in the EMD exemption document upload section. Physical copy of BG shall be submitted at the office of tender inviting authority as per respective clauses of NIT.

10. General Instructions for Online Payment:

- a. The bidder will have to mandatorily pay through Net-banking facility once Net banking mode is opted for payment.
- b. 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.
- c. 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).
- d. 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:

- a. 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.
- b. For successful bid(s), EMD will be refunded from WBSEDCL authority after completion of tendering process and following due procedures.

- c. 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.
- d. 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.

13. Eligibility criteria:

1. All categories of intending Bidders who have successfully delivered tendered items to WBSEDCL / other Power Utilities / Other Govt. Departments against Purchase Orders, Inspection Offer letter (if any), Despatch Instructions (if any), Signed Challans etc. for completing supply & delivery of Similar type of tendered item of similar make of similar voltage level during last 3(three) years, subject to fulfilment of the following criteria:

One similar contract of costing not less than the amount to **50 %** of the estimated cost against a particular contract during last 3 (three) years.

Bidders shall submit copies of orders executed (Purchase Orders, Inspection Offer letter (if any), Despatch Instructions (if any), Signed Challans etc) successfully for the relevant years and abstract thereof to prove the quantity as supplied.

2. Manufacturer's certificate or valid dealership certificate.
3. Type test report from NABL accredited Laboratory, for the specified materials conducted within five years from the date of opening of bid (Technical). Bids not accompanied with type test reports conducted within five years & the drawings of the offered Materials dully approved by the Type Testing Agency shall not be considered for evaluation.
4. The sample of the item as per specification should be submitted to this office within due date as a part of Techno-commercial qualification and those manufacturers will be allowed whose type test certificates and sample will be found in order.

5. The prospective Bidders or any of their constituent partner shall neither have abandoned any work nor any of their contract have been rescinded during the last 5 (five) years. Such abandonment or rescission will be considered as disqualification towards eligibility. (A declaration in this respect has to be furnished by the prospective bidders).

6. The bidder should not have been blacklisted from any Govt. organization across India in last three calendar years or must not have any criminal records like embezzlement money or fund misappropriation in the past and undertaking in this regard shall be provided by the authorized signatory of the bidder. During contract period if the undertaking submitted by the vendor is found to be false, the order issued on vendor shall be terminated.

7. I.T. return for last 3 (three) financial years.

8. Copies of valid Professional Tax (PT) payment certificate, PAN, GSTIN, Registration No. of the Company, Trade License are to be submitted by the Bidder.

These are required for acceptance of the Technical Bid unless of which the bid may be considered as non responsive.

14. The ordered materials should be delivered within 20 days from issuance of P.O , otherwise, penalty may be imposed as per rule of WBSEDCL for delay in delivery of ordered materials. If the above materials are found beyond Specification / satisfaction, the same will be rejected and fresh material is to be submitted at the own cost of the successful bidder.

15. Earnest Money / Bid Guarantee: The amount of Earnest money @ 2% (two percent) of the pro-rata tendered amount of the offered quantity shall be submitted individually along with the offer.

16. Bid Validation: Bid shall remain valid for a period not less than 180 days after date of Bid opening of tender. If the Bidder modifies/withdraws the bid during the validity period of bid, the bid will be cancelled with forfeiture of earnest money deposit (EMD).

17. Both Technical Bid and Financial Bid are to be submitted concurrently duly digitally signed by the Bidder through the website <https://wbtenders.gov.in>. Technical Document and Financial Bid should be submitted online on or before as per stated 'Date & Time Schedule'.

18. The FINANCIAL OFFER of the prospective bidder will be considered only if the TECHNICAL BID of the Bidder is found qualified by the WBSEDCL. The decision of the WBSEDCL will be final and absolute in this respect. The list of Qualified Bidders of Technical Bid will be displayed in the website.

19. No mobilization advance and secured advance will be allowed.

20. Date and Time Schedule:

Sl No	Particulars	Date and Time
1	Date of uploading of NIT & other Documents (Publishing Date)	24.08.2023 at 11.00 hrs
2	Documents download start date	24.08.2023 at 11.00 hrs
3	Pre- Bid meeting date	25.08.2023 at 11.00 hrs
4	Bid submission starting date	25.08.2023 at 15.00 hrs
5	Bid submission closing date	31.08.2023 at 15.00 hrs
6	Last date of submission of sample of tendered item	01.09.2023 at 15.00 hrs
7	Techno-commercial bid opening date	04.09.2023 at 15.00 hrs
8	Price bid opening date	To be intimated later.

21. WBSEDCL reserves its right to take decision keeping its financial interest. The provisions of Vendor Rating & Holiday Listing, will be applicable as per Revised Purchase Policy of WBSEDCL which is available in Website: www.wbsedcl.in

22. 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.

23. The quoted rates should be inclusive of all taxes & duties, freight and incidental charges with loading and unloading charge. The rate quoted by the contractor i.r.o. each item is inclusive of all such taxes, cess and others as stated above excluding GST. Applicable GST will be paid as per.

24. Any evidence of unfair Trade practices including overcharging, price fixing, cartel etc. as defined in various statutes, will automatically disqualify the bidders. Any bidder against whom FIR/ Complaint is lodged with Police by WBSEDCL shall not be eligible to participate in the bidding process,

25. The quantities provided in the schedule are provisional only, which may vary upto any extent or may be deleted altogether. The quoted rate of each item shall remain Firm. The company reserves the right to alter, amend, and omit or otherwise vary the quantities as may be necessary but such variation will be limited to $\pm 25\%$ (plus or minus twenty five percent) of the contract price. Payment shall be made as per actual execution.

26. Specification of materials: **Rachyem/Ensto/SKIC** make, IPC for 16 Sq.mm Street Light Connection along with end cap (Main 16 to 95 mm², Tap 2.5 to 10 mm²), applicable standard NFC 33-020 of 2013 or equivalent I.S, if any.

27. The Bidder, at his own responsibility and risk to visit and examine the site of works and its surroundings and obtained all information that may be necessary for preparing Bid and entering into an agreement for the work / works as mentioned in the NIT, before submitting offer with full satisfaction. The costs for visiting the working site shall be at the bidder own expense.

28. The intending Bidders shall clearly understand that whatever may be the outcome of the present invitation of the Bid, no cost of Bidding shall be reimbursable by the Tender Inviting Authority. 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.

29. Payment of supply materials will be depended on availability of fund. Intending bidders may consider this criteria while submission of tender and quoting their rate through online.

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

31. The intending bidder(s) required to quote the rate in item rate BOQ to tender online considering that no escalation and / or price adjustment will be allowed by the department under any circumstances.

32. 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.

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

Any further information along with WBSEDCL's Revised Purchase Policy may be had from the Website: **www.wbsedcl.in** and the following office:

*Office of the Chief Engineer (Procurement & Contracts),
West Bengal State Electricity Distribution Company Limited,
Vidyut Bhavan, 4th Floor,
Bidhannagar, Kolkata - 700091.
Phone No. 033-2319-7563*

Sd/-

Divisional Manager
Garia Division, WBSEDCL

INSTRUCTION TO BIDDERS :

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

2. 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 of West Bengal, through logging onto <http://www.wbtenders.gov.in> (the web portal) the contractor is to click on the link for e-Tendering site as given on the web portal.

3. 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 Informatics Centre (NIC) on payment of requisite amount. Details are available at the Web Site stated in Clause-2 of Instruction to Bidder. DSC is given as a USB e-Token.

4. Downloading of Tender documents: The contractor can search & download N.I.T. & Tender Document(s) electronically from computer once logs on to the website mentioned in clause 2 using the Digital Signature Certificate. This is the only mode of collection of Tender Documents.

5. 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/.pdf format).

5.1 Technical proposal: The Technical proposal should contain scanned copies of the following standardized formats in two folders :

Non-Statutory Folder Containing :

- i) Company details
- ii) I.T. return for last 3 (three) financial years
- iii) Copies of valid Professional Tax (PT) payment certificate, PAN, GSTIN, Registration No. of the Company, Trade License are to be submitted by the Bidder.
- iv) **Credentials:** As mentioned in Eligibility criteria

Manufacturer's certificate/ Distributor's certificate, Purchase Orders, Dispatch Instructions (if any), Signed Challans and valid Type test report from NABL accredited Laboratory, Make & Brand of delivered materials with approved valid GTP and Drawing of NABL for acceptance of the Technical Bid unless of which the bid may be considered as non responsive.

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
01.	Certificates	Certificates	a) Copies of valid Professional Tax (PT) payment certificate, PAN, GSTIN, Registration No. of the Company, Trade License are to be submitted by the Bidder. b) Copy of I.T. return for last 3 assessment years
02.	Company Detail(s)	Company Detail	Manufacturer’s certificate/ Valid Delarship certificate.
03.	Technical Details	GTP & Drawing	a)Type test report from NABL accredited Laboratory as per IS specification. b) The sample of the item as per specification should be submitted to this office within due date as a part of Techno-commercial qualification and those manufacturers will be allowed whose type test certificates from NABL accredited Laboratory and sample will be found in order by the technical committee of the Division.
04.	Credentials	Credential	All categories of intending Bidders who have successfully delivered tendered items to WBSEDCL / other Power Utilities / Other Govt. Departments against Purchase Orders, Inspection Offer letter (if any), Despatch Instructions (if any), Signed Challans etc. for completing supply & delivery of Similar type of tendered item of similar make of similar voltage level during last 3(three) years, subject to fulfillment of the following criteria: One similar contract of costing not less than the amount to 50 % of the estimated cost against a particular contract during last 3 (three) years. Bidders shall submit copies of orders executed (Purchase Orders, Inspection Offer letter (if any), Despatch Instructions (if any), Signed Challans etc) successfully for the relevant years and abstract thereof to prove the quantity as supplied.
05.	Financial Information	Financial Information	Copy of I.T. return for last 3 assessment years
06.	Earnest Money and Cost of Tender	Earnest Money	Scanned copy of Bank Draft

5.2 Notwithstanding anything stated above, the Owner (WBSEDCL) reserves the right to assess the capacity and capability of the Bidder to execute the work, should the circumstances warrant such assessment in the overall interest of the Owner. W.B.S.E.D.C.L reserves the right to check the original, if required.

5.3 PENALTY FOR SUPPRESSION / DISTORTION OF FACTS

If any Bidder fails to produce the original hard copies of the documents (especially Completion Certificates and audited balance sheets), or any other documents on demand of the Tender Committee within a specified time frame or if any deviation is detected in the hard copies from the uploaded soft copies or if there is any suppression, the tender committee will take actions deemed fit against such defaulting Bidder.

The Employer reserves the right to accept or reject any Bid and to cancel 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 Employer's action.

5.4 The sample of the material is to be submitted to Garia Divisional Store physically within the schedule date. The tag of the sample should contain the name of the sample as well as the name of the Vendor/Bidder. For a valid bidder, the sample has to be approved by the Technical inspection committee of the Division. The technical evaluation of the bidders, whose sample is not approved by the committee, will be rejected or disqualified. After LOA is awarded, the awardees can adjust the sample with the ordered quantity and rest of all samples can be taken back by the respective bidders.

5.5 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 (on item rate) online through Computer in the space marked in the BOQ. Only downloaded copies of the above documents are to be uploaded virus scanned & Digitally Signed by the contractor.

6. Cost of bidding: The Bidder shall bear all cost associated with the preparation and submission of their bid and WBSEDCL in no case shall be responsible or liable for these costs, regardless of the conduct or outcome of the bidding process.

7. Opening, Evaluation and comparison of bids:

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

7.2 Evaluation of bid will include and will take into account:

7.2.1 Cost of purchase items including taxes & duties etc. but excluding GST.

7.2.2 The owner shall evaluate and compare only the bids (Item rate BOQ) determined to be substantially responsive.

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

7.2.4 Evaluated bid price of all bidders shall be compared among themselves to determine the lowest evaluated bid and as a result of this comparison, the lowest bid will be selected for award of contract if satisfied all requirements.

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

(i) Opening of Technical proposal: Technical proposals will be opened by the Divisional Manager, Garia Divisional Office, Administrative Building (1st Floor), Hindustan More, Garia, NSC Bose Road, Kolkata – 700084, WBSEDCL and his authorized representatives electronically from the web site stated using their Digital Signature Certificate (DSC) only who have submitted cost of tender and EMD in offline mode within scheduled date and time. Cover (folder) for Statutory Documents will be opened first and if found in order, cover (folder) for Non-Statutory Documents will be opened. If there is any deficiency in the Statutory Documents the tender will summarily be rejected. Summary list of technically qualified bidders will be uploaded online. Pursuant to scrutiny & decision of the Department, the list of eligible bidders will be uploaded in the web portal.

(ii) Techno-commercial Evaluation : On examination of documents submitted under different covers WBSEDCL will evaluate and compare the bid, determined to be substantially responsive at each step. The bids shall be evaluated on the basis of total price for the entire scope of work covered under this bid document. Evaluated bid price of all bidders shall be compared among themselves to determine the lowest evaluated bid and as a result of this comparison, the lowest bid will be selected for award of contract. Conditional rebate, if any, offered by any bidder shall not be considered in Bid evaluation.

(iii) Opening and evaluation of Financial Proposal: Financial proposals of the declared techno-commercially eligible, will be opened electronically by the Tender Inviting Authority from the web portal stated above on the prescribed date. The encrypted copies will be decrypted and the rates will be read out to the bidders remaining present at that time. After opening of the financial proposal the preliminary summary result

containing inter alia, name of bidders and the rates quoted by them will be uploaded. The Tender Accepting Authority may ask any of the bidders to justify the rate quoted by them.

8. Language and measures: All documents pertain to the contract including specifications, schedule, notice, correspondences, operating and maintenance instructions, drawings or any other writings be written in English language.

9. Notification of Award : Prior to expiration of Bid validity the Employer shall notify to the successful bidder in writing the Letter of Award. The bidder shall provide unconditional acceptance of LOA within one week.. Failure of the successful bidder to comply with the requirement of acceptance of LOA, shall constitute sufficient ground for the annulment of the Award and forfeiture of Bid security /EMD.

10. Corrupt or fraudulent practice: Owner expects that Bidders/Suppliers/Contractors observe the highest standard of ethics during the execution of such contracts. In pursuance of this policy, the Owner: Defines, for the purposes of this provision, the terms set forth below as follows : i) "Corrupt Practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution, and

11) "Fraudulent Practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Owner, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Owner of the benefits of free and open competition. iii) Will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question. iv) Will declare a firm ineligible, either indefinitely or for a stated period of time, if Owner any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing the Contract.

Sd/-

Divisional Manager

Garia Division Office, WBSEDCL

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

1. DEFINITION OF TERMS: In writing these General Conditions of Contract, Specification and Bill of Quantity / Bidding Schedule (Schedule of work), the following words shall have normally the meanings here-in-after indicated unless there is something in the subject matter of content inconsistent with such construction.

The Company / Purchaser / Owner / Department shall mean the WEST BENGAL STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED (WBSEDCL), having its head office at Vidyut Bhawan, Block-DJ, Sector-II, Kolkata-700091.

The Engineer-in-Charge / Controlling Officer shall mean the Engineer deployed by the company for the purpose of this contract.

Company's representative shall mean any person or persons of WBSEDCL appointed by the Company. The Vendor shall mean the Bidder who will be awarded with the contract by the Company.

The work Site shall mean the site of proposed work as detailed in the specification or any other place where the work is to be executed under the contract.

The terms Services shall mean all works to be undertaken by the Vendor as laid down under the head 'Scope of Work' or elsewhere in the specification enclosed. When the words 'approved', 'subject to approval', 'as directed', 'accepted', 'permitted' etc. are used, the approval, judgment, direction etc. are understood to be a function of company.

Writing shall indicate any manuscript, type written, printed or other statement reproduced in any visible form.

Date of Contract shall mean the date on which the notification of award of contract / letter of award has been issued. Zero Date will be reckoned from the date of handing over of site.

2. Contract Documents means all documents forming part of Contract (and all parts thereof) are indicated to be correlative, complementary and mutually explanatory of the Contract Agreement. The Contract shall be read as whole.

3. Tender Submission:- Any Bidder 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://wbttenders.gov.in> (the web portal).

4. PERFORMANCE BOND/SECURITY DEPOSIT: As a contract security the contractor shall have to furnish Performance Bond in the form of Demand Draft amounting to **10% (ten percent) of the contract price (to be mentioned in the LOI/Order)** to guarantee the faithful performance and security of the contract in accordance with all the conditions and terms stipulated herein. Performance Bond will also have the guarantee for successful and satisfactory performance of the works to be done under the contract till the expiry of the guarantee period. The Performance guarantee is to be submitted to the Controlling Officer of the work immediately on receipt of the Order.

5. Refund of Performance Bond / Security Deposit & Earnest money for Successful Bidder: Refund of Security deposit shall be subject to Company's right to deduct/appropriate its dues against the contractor under this contract or any other contract. The Security Deposit for all type of bids shall be released only after satisfactory expiry of the warranty period. Refund of earnest money for the successful bidder shall be released only after submission & acceptance of performance bond.

6. FORFEITURE OF EARNEST MONEY DEPOSIT (EMD): (i) If successful Bidders fail to accept Purchase Order / LOI issued within their offered validity period, (ii) if any cartel is formed in their quotation in case of failure to supply material by the supplier as per delivery schedule, company may, at its discretion resort to Risk Purchase clause as provided in G.C.

7. PAYMENT: 100% payment of bill will be made within 45 (forty five) days from the date of submission of bill against SRV, original receipt of challan/invoice duly signed by an Officer in the rank of Sr. SAE/Jr. Manager (Stores) attached to the respective stores and submission of performance bond/security deposit.

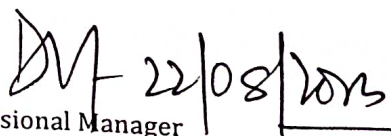
8. GOODS & SERVICES TAX (GST): GST at prevailing rate will be paid extra.

9. PAYING OFFICER: The Manager (F&A), Garia Division shall be the Paying Authority.

10. CONTROLLING OFFICER: The Divisional Manager, Garia Division shall be the Controlling Officer for the above mentioned work.

11. WARRANTY: In the event of any defect in the equipment/materials arising out of faulty design, materials, workmanship within a period of 12 months of commissioning or 18 (eighteen) months from the date of last despatch of any integral part of the equipment/materials whichever is earlier the supplier shall guarantee to replace or repair the same to the satisfaction of the purchaser. If the supplier fail to do so within a reasonable time, WBSEDCL reserves the right to effect repair or replacement by any other agency and recover charges for repair or replacement from the supplier.

- 12. LIQUIDATED DAMAGE FOR DELAY IN DELIVERY:** The time of delivery of the equipment/materials are to be treated as an essence of the contract and the WBSEDCL reserves the right to repudiate the contract, if the equipment / materials are not physically delivered within stipulated period as per physical delivery clause. But WBSEDCL may at his discretion waive this condition and accept the material with imposition of liquidated damage @ 1/2% of the Value of the materials beyond the schedule delivery period for each week of delay Subject to maximum of 5% of the particular lot and accept the goods beyond the stipulated period.
- 13. MANNER OF EXECUTION OF CONTRACT:** The successful bidder has to submit acceptance of the LOI / Order within 7 (Seven) days from the date of issue of the Letter of Intent / Order.
- 14. EXTENSION OF TIME:** An extension of time without imposition of liquidity damage, may be granted for delay in execution of work provided there is no fault whatsoever on the part of the contractor. Such extension may only be granted on the basis of application to be submitted timely (within schedule time of completion) by the contractor who has to establish that the extension of time required by him is not due to his fault.
- 15. RISK PURCHASE:** The time of delivery (offer for inspection) or physical dispatch stipulated in the purchase order shall be deemed to be of the essence of the contract and if the supplier fails to deliver or dispatch any consignment within the period prescribed for such delivery or dispatch in the said purchase order/contract/letter of intent, the purchaser shall be entitled to purchase such consignment or if not available, the best and nearest available substitute elsewhere on the account and at the risk of the supplier or to cancel the contract and the supplier shall be liable to compensate for any loss or damage which the purchaser may sustain by reason of such failure on the part of the supplier. The Company at its discretion may not issue subsequent tender if earlier Purchase Order against earlier tender is not executed fully. If there is a failure to execute the contract fully, WBSEDCL reserves the right forfeit Earnest Money deposit/cash security to the extent of loss so suffered by the WBSEDCL on risk purchase or otherwise, and may deduct the additional amount, if any, so incurred by the Company from other claim / bill lying with the WBSEDCL.
- 16. 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 conditions of the order including its execution, such dispute/difference shall be subject to settlement under the jurisdiction of Courts in Kolkata.
- 17. 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, earthquake, 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.
- 18. 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 enclosed 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 above stipulated due date as incorporated through the schedule enclosed, the above order may be 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 be incurred shall be realized from the original supplier's pending bills which may be lying with the WBSEDCL.


Divisional Manager
Garia Divisional Office, W.B.S.E.D.C.L.

ANNEXURE –I

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 Work _____ against
Tender Notice No _____ Dated _____

2. None of the Partners of our firm is relative of employee of W.B.S.E.D.C.L.

3. All information furnished by us in respect of fulfilment 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 Bidder

Dated _____

ANNEXURE-II

Format of Letter of Bid

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

To.
The Tender Committee

Sub : Letter of Bid for the work

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 Bidder

Dated_____

ANNEXURE-III

Dated:_____

DECLARATION BY THE BIDDER

I/We have inspected the site of work and have made myself/ourselves fully acquainted with local conditions in and around the site of work. I /We have carefully gone through the Notice Inviting Tender and other tender documents mentioned therein. I/We have also carefully gone through the 'Bill of Quantities'.

My/Our tender is offered taking due consideration of all factors regarding the local site conditions stated in this Detailed Notice Inviting Tender to complete the proposed construction in all respects.

I/We promise to abide by all the stipulations of the contract documents and carry out and complete the work to the satisfaction of the department.

Signature of Bidder

Postal address of the Bidder

ANNEXURE-IV

PROFORMA OF DECLARATION OF BLACK LISTING/HOLIDAY LISTING

Ref : Notice Inviting e-Tender no :.....dtd

In the case of a Proprietary Concern:

I hereby declare that neither I in my personal name or in the name of my Proprietary concern M/s _____ which is submitting the bid for the work nor any other concern in which I am proprietor nor any partnership firm in which I am involved as a managing partner have been placed on black list or holiday list declared by WBSEDCL, WBSETCL or any central/ state power utility services, except as indicated below:

(Here give particulars of black listing or holiday listing, and in absence thereof state "NIL")

In the case of a Partnership Firm:

We hereby declare that neither we, M/s _____ submitting the bid for the work nor any partner involved in the management of the said firm either in his individual capacity or as proprietor or managing partner of any firm or concern have or has been placed on black list or holiday list declared by WBSEDCL, WBSETCL or any central/ state power utility services, except as indicated below:

(Here give particulars of black listing or holiday listing, and in absence thereof state "NIL")

In the case of a Company:

We hereby declare that we have not been placed on any black list or holiday list declared by WBSEDCL, WBSETCL or any central/ state power utility services, except as indicated below:

(Here give particulars of black listing or holiday listing, and in absence thereof state "NIL")

It is understood that if this declaration is found to be false in any particular WBSEDCL, WBSETCL or Administrative Ministry, shall have the right to reject the Bid and if the bid has resulted in a contract, the contract is liable to be terminated.

ANNEXURE-V

PROFORMA OF DECLARATION REGARDING ABANDONMENT OR RESCISSION OF WORK

Ref : Notice Inviting e-Tender no : dated
.....

In the case of a Proprietary Concern:

I hereby declare that neither I in my personal name or in the name of my Proprietary concern M/s _____ which is submitting the bid for the work nor any other concern in which I am proprietor nor any partnership firm in which I am involved as a managing partner neither have abandoned any work nor any of our contract have been rescinded during the last 5 (five) years, except as indicated below:

(Here give particulars of abandonment or rescission of work and in absence thereof state "NIL")

In the case of a Partnership Firm:

We hereby declare that neither we, M/s _____ submitting the bid for the work nor any partner involved in the management of the said firm either in his individual capacity or as proprietor or managing partner of any firm or concern neither have abandoned any work nor any of our contract have been rescinded during the last 5 (five) years except as indicated below:

(Here give particulars of abandonment or rescission of work and in absence thereof state "NIL")

In the case of a Company:

We hereby declare that we neither have abandoned any work nor any of our contract have been rescinded during the last 5 (five) years, except as indicated below:

(Here give particulars of abandonment or rescission of work, and in absence thereof state "NIL")

It is understood that if this declaration is found to be false, The WBSEDCL shall have the right to reject the Bid and if the bid has resulted in a contract, the contract is liable to be terminated.

TECHNICAL SPECIFICATION ACCESSORIES RELATED TO LT AB CABLE

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

01. 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.

02. 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.

In case of any conflict, the requirements of this specification shall prevail.		
1	NFC 33-020	Document defines the characteristics and the tests applicable to insulation piercing connectors for overhead distributions and services with bundle assembled cores, of rated voltage 0.6/1KV and NF EN 50483-4:2009: Test requirements for low voltage aerial bundled cable accessories -- Part 4: Connectors as mentioned in NFC 33-020 -2013.
2	NFC33-021	Documents defines characteristics and tests applicable to pre-insulated compression type connecting equipment for overhead distributions and services with bundle assembled cores, of rated voltage 0.6/1KV
3	NFC 20-540	Environmental testing. Test methods. Climatic ageing test of equipment and synthetic materials for outdoor use.
4	NFC 33-004	Insulated Cables and their accessories for Power System - connecting equipment for overhead Distribution and Services of rated Voltage 0.6/1kV with at least one insulated core - Electrical aging test
5	NFC 33-040	Documents defines characteristics and tests applicable to suspension equipments for overhead distribution with bundle assembles cores, of rated voltage 0.6/1 KV
6	NFC 33-041	Documents defines characteristics and tests applicable to anchoring devices for overhead distribution with bundle assembled cores, of rated voltage 0.6/1 KV
7	NFC 33-042	This document defines characteristics and tests applicable to anchoring devices for overhead and overhead-underground services with insulated cables, of rated voltage 0,6/1 kV
8	IS 14255	LV Aerial Bunched Cables and other IS as referred there

The accessories 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.

[Handwritten signatures and dates:]

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TECHNICAL SPECIFICATION ACCESSORIES RELATED TO LT AB CABLE

03. CLIMATIC CONDITIONS

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

04. CABLE DATA

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

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 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.
- The accessories should provide "Double Insulation" so that a single point failure of insulation will not result in the system tripping.

05. 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)	Junction Sleeves	:	For Phases, neutral messengers & Street lighting conductor.
e)	ABC Service Main Distribution Box	:	For Distribution of multiple no. of Service Connections from Main AB cable.

05.1. Insulation Piercing Connectors (IPC)

In the process of replacing the Bare Conductors with LT AB Cables to reduce power theft & Transmission Losses, it is important to analyze the proper method of providing service connection from AB Cables to consumers without damaging the cable. Removal of Bare Conductor, Stringing of LT AB Cable & re-establishing the service connections should be simultaneous process.

In this regard the Insulating Piercing Connectors are required-

- For providing service connections from LT pole
- For providing supply to Junction/ Distribution Box from AB Cable &

TECHNICAL SPECIFICATION ACCESSORIES RELATED TO LT AB CABLE

c) For establishing Tee connection from LT ABC to LT ABC.

d) For establishing system earthing with insulated messenger cum neutral wire wherever required.

These Insulating Piercing Connectors should not be exposed to any bare conductor in the environment during connection. The connectors should be totally Weather & Moisture-proof so that no water or moisture can enter through the pierced holes onto the cable insulation. It must have Shear Head type mechanism to control the effective Torque during connection and to ensure perfect installation. Connectors should not have any losable parts, which may drop and then lost while installation at overhead conditions. For individual connectors Torque required for different conductor sizes should be mentioned in the equipment.

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

05.1.2. 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.

05.1.3. Constructional Features of IPC

The connectors should be totally insulated with no loose parts. The connectors should be totally Weather & Moisture proof so that no water or moisture can enter through the pierced holes on the cable insulation.

05.1.3.1. The housing shall be made entirely of mechanical and weather resistant & UV resistant reinforced polymer insulation material and no metallic part outside the housing is acceptable except for the tightening bolt.

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

05.1.3.3. 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).

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

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

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

05.1.3.7. 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.

TECHNICAL SPECIFICATION ACCESSORIES RELATED TO LT AB CABLE

05.1.3.8. All the metallic parts of the connector should be corrosion resistant and should be proven in Salt Fog chamber & Wet SO₂ gas chamber and there should not be any appreciable change in contact resistance & temperature after overloads & load cycling.

- i. The contact plates should be made of Aluminium Alloy and for street light phase contact plates should be made of tinned copper
- ii. Connector teeth should be factory greased & sealed to retard water or moisture ingress & corrosion.
- iii. The Insulation material should be made of weather & UV resistant reinforced polymer.
- iv. The outer metallic part should have potential free tightening bolts to allow safe installation on live lines.

05.1.4. Mechanical Tightening and Electrical Continuity

05.1.4.1. 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 maximum torque indicated by the manufacturer.

05.1.4.2. 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.

05.1.4.3. 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.

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

05.1.4.5. Tightening screws shall have hex.

05.1.5. Effect of Tightening on Main Core of IPC

05.1.5.1. 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

Tensile strain shall be increased to the full value indicated in the Table 1 and held minute.

TECHNICAL SPECIFICATION ACCESSORIES RELATED TO LT AB CABLE

There should be no breakdown of the core conductor.

05.1.6. Effect of Tightening on Branch Core of IPC

05.1.6.1. Test specimen shall be made up as in clause 05.1.5. [Page 4 of this document] except that this shall be done the smallest cross sections of main and branch conductors within its range.

05.1.6.2. 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

05.1.6.3. No slippage or breaking of conductor shall occur.

05.1.7. Dielectric & Water Tightness Test of IPC

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

05.1.7.2. Connectors are mounted on

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

05.1.7.3. In each case Branch is of minimum cross section.

05.1.7.4. Protection caps for the branch cable are to be used in accordance with the requirements of clause 05.1.3.7. [As noted in Page 3 of this document]. 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.

05.1.7.5. 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.

05.1.7.6. 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.

05.1.8. Electrical & Ageing Test of IPC

05.1.8.1. 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

05.1.8.2. The configurations are subjected to 200 heat cycles by injecting suitable current into them. In

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each cycle the temperature of the conductor shall be raised from ambient to $120 + 5^{\circ}\text{C}$ as, measured by a thermocouple.

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

05.1.8.4. 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

05.1.8.5. 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.

05.1.8.6. 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%.

05.1.9. Over Current Test of IPC

05.1.9.1. 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.

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

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

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

05.1.9.5. Variation in time of over current is permissible between 0.85 sec & 1.15 sec., provided if maintains the relationship $I^2t = K$ where,
 I = rms value of over current in Amps.
 t = time in seconds
 K = Constant

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

05.1.9.7. According to NFC 33-020 -2013, clause 6.9: as a preliminary measure, it is ensured that resistance of the contacts is below $630\mu\Omega$.

TECHNICAL SPECIFICATION ACCESSORIES RELATED TO LT AB CABLE

05.1.10. Test of IPC

05.1.10.1.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).

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

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

NFC	Clause	Test	Type Test	Acceptance test
		Visual		√*
		Dimensional		√*
NFC 33-020; 2013	6.3	Mechanical Test	√	√**
NFC 33-020; 2013	6.3.1	Shear head function's test and connector bolt tightening test	√	√*
NFC 33-020; 2013	6.3.2	Test for mechanical damage to the main conductor	√	√
NFC 33-020; 2013	6.3.3	Branch Cable Pull-out test	√	√
NFC 33-020; 2013	6.4	Dielectric voltage test and water tightness test	√	√**
NFC 33-020; 2013	6.5	Low Temperature assembly test	√	
NFC 33-020; 2013	6.6	Climatic Ageing Test	√	
NFC 33-020; 2013	6.7	Corrosion Test	√	
NFC 33-020; 2013	6.8	Electrical ageing test	√	
NFC 33-020; 2013	6.9	Temperature Rise and Over Current Test	√	√**

The above tests 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	2	Nil
101 to 1000	6	Nil	4	Nil
>1001	0.01% subject to min. 6 pieces	0.1% of pieces checked	4	Nil

Capacity needed: For ABC 16 to 95 mm²

Model 1 for customer service Main 16 to 95 mm²

Tap 2.5 to 10 mm² (For Street lighting) Design as per furnished drawing (Anx-I)

Model 2 for customer service Main 16 to 95 mm²

Tap 04 to 35 mm² (for distribution box charging) Design as per furnished drawing (Anx-II)

Model 3 for customer service Main 25 to 95 mm²

Tap 25 to 95 mm² (For ABC to ABC Tee Joint) Design as per furnished drawing (Anx-III)

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