WEST BENGAL STATE ELECTRICITY TRANSMISSION COMPANY LIMITED
(A West Bengal Government Enterprise)

Tender Document

Name Of the Work

Supply & Delivery of DIFFERENT TYPES OF CLAMPS AND CONNECTORS and Hardware Fittings with Accessories at **Gokarna 220 KV Substation under Gokarna 400KV Area Office, WBSETCL** at Murshidabad District.

NIT No. GAO/Elect/E-Tender/2024-25/03, Dated: 21/11/2024

Section I – V
Notice Inviting Tender (NIT)
Instruction to Bidders (ITB)
General Purchase Conditions of Contract (GPC)
Special Conditions of Contract (SCC)
Technical Specifications

WBSETCL

Office of the Area Manager: Gokarna 400KV Area Office
Vill+Post-Gokarna
PS-Kandi; Dist: Murshidabad, Pin: 742136
Tel No. +91 9434910138, E-Mail ID: gokarnaareaoffice@gmail.com

These documents are meant for the exclusive purpose of bidding against this NIT and shall not be transferred, reproduced or otherwise used for purposes other than that for which they are specifically issued.

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Section I - NOTICE INVITING e-TENDER

ABRIDGED NOTICE INVITING TENDER

NIT No. **GAO/Elect/E-Tender/2024-25/03, Dated: 21/11/2024**

WBSETCL invites sealed limited tender (single stage double envelope) bids from eligible and qualified bidders for procurement of following works and services:-

For

Supply & Delivery of DIFFERENT TYPES OF CLAMPS AND CONNECTORS and Hardware Fittings with Accessories at **Gokarna 220 KV Substation under Gokarna 400KV Area Office, WBSETCL** at Murshidabad District.[Open Domestic Competitive Bidding]

1.0 WBSETCL invites single stage double folder bids from eligible and qualified bidders through e-tender for procurement of service as follows:

2.0 Brief scope of work for Supply & Delivery of DIFFERENT TYPES OF CLAMPS AND CONNECTORS and Hardware Fittings with Accessories at **Gokarna 220 KV Substation under Gokarna 400KV Area Office, WBSETCL** at Murshidabad District.

3.0 Detailed Specifications (**also available in www.wbsetcl.in**) scope of supply and terms and conditions of supply are given in the bidding documents, which are available at the online e-tendering portal https://wbtenders.gov.in/or https://etender.wb.nic.in as per the following schedule:

Bidding document No	:	**GAO/Elect/E-Tender/2024-25/03, Dated: 21/11/2024**
Name of work	:	Supply & Delivery of DIFFERENT TYPES OF CLAMPS AND CONNECTORS and Hardware Fittings with Accessories at **Gokarna 220 KV Substation under Gokarna 400KV Area Office, WBSETCL** at Murshidabad District.
Date of uploading of N.I.T. & other Documents (online) (Publishing Date)	:	**21.11.2024**

Documents download start date (Online)	:	**21.11.2024 at 06.00 pm.**
Last Date of uploading of Pre Bid Quarries/ Or submission of queries manually at GAO	:	**25.11.2024 up to 03:00 pm**
Pre Bid Meeting	:	**27.11.2024 at 03:00 pm**
Bid submission start date (On line)		**29.11.2024 from 09:00 am**
Bid Submission closing (On line)	:	**18.12.2024 at 3:00 P.M.**
Last Date of submission for the cost of Tender Documents and Bid security/Earnest Money Deposit in original (Off line)	:	**Up to 20.12.2024, 03.00 PM**
Opening of Techno-commercial bid (Online)	:	**24.12.2024 from 3:00P.M.**
Opening of price bid	:	To be intimated later
Bid validity	:	90 days from the next date of bid opening.
Delivery time	:	All materials are to be delivered at Gokarna 220 KV Sub Station store within 60 (Sixty) days from the date of approval of Drawings. Drawings are to be submitted by the manufacturer within 10 (ten) days from the date of placement of order. The delivery schedule mentioned herein is inclusive of the period required for conducting tests, inspection etc. if so required by the Purchaser.
EMD	:	Rs. 22,268.00 (Rupees Twenty Two Thousand Two Hundred and Sixty Eight only)
Tender Fee	:	NOT APPLICABLE

4.0 A complete set of bidding documents may be downloaded by any interested bidder.

5.0 Downloading the bidding documents shall not automatically construe that the bidder fulfils the Qualifying Requirements which shall be determined during bid evaluation based on data/documents uploaded by the bidder

6.0 All bids must be supported by **bid security (EMD)** for an amount of **Rs. 12665=00/- (Rupees Twelve Thousand Six hundred Sixty Five Only)** in the form of **Demand**

Draft / NEFT drawn in favour of **"WBSETCL GOKARNA 400KV AREA OFFICE" from any scheduled commercial bank, payable at SBI, Purandarpur Kandi Branch, Murshidabad** which shall remain valid for a period of one hundred and eighty (180) days from the next day of bid opening date with a further claim period of thirty (30) days. Bidders must submit the Bid security physically within the stipulated date as above at the **Office of the Area Manager, Gokarna 400KV Area Office,** Vill+PO-Gokarna, Murshidabad-742136. Non submission of the acceptable bid security along with prescribed cost of bidding documents as specified here, in a sealed cover or submission of bid security and cost of bidding document of inadequate value shall be rejected by the WBSETCL and in such cases bids shall be considered as non-responsive.

7.0 Bid shall be rejected by the WBSETCL if the bidder fails to submit original Demand Draft / NEFT details against Earnest Money Deposit (EMD) physically to the office of the **GOKARNA AREA OFFICE, WBSETCL,** Vill+PO-Gokarna, Murshidabad-742136 under sealed cover on or before the scheduled date & time as specified above.

8.0 Qualifying Requirements for bidders:

8.1. Following shall be the qualification requirements:

A. Technical: The bidder should have the past experience of executing similar supply & delivery of same type materials of amount not less than Rs. 13.36 lakhs in the preceding 5 (five) financial years under Central/ State Government or reputed power utilities of PSUs.

B. Financial: Financial Q.R. for the tender are as follows:

Net Worth:	Net Worth should be positive.
Liquid Asset:	Rs. 6.57 Lakh. Bidder should have liquid assets (L.A) and/or evidence of access to or availability of credit facilities of equivalent amount.
MAAT:	Rs. 39.41 Lakh.
EMD:	₹ 22,268.00(Rupees Twenty Two Thousand Two Hundred and Sixty Eight only)

1. MAAT: Minimum average annual turnover for the best three years out of the Last five financial years.
2. 'Liquid Asset' shall be as per the last audited accounts available.

C. Personnel Capability:

Details by the bidder shall be furnished in their offer. Bidders shall upload scanned copies of valid and authenticated documentation in support of his capability/experience/requirement and qualification.

8.2. The bidder shall furnish, as part of his bid, scanned copies of documents to be uploaded for establishing the bidder's qualifications. In particular, the following documents need to be uploaded by the bidder:

a. List of contracts for similar supply & delivery executed in the past three years with copies of LoAs and execution status of each contract supported by client's certificate.

b. Audited Annual Accounts of the company for the last three (3) years (in case of companies)

or

IT Return duly acknowledged by the tax department for the last three (3) years (in case of bidders other than companies).

c. Copies of Professional Tax Clearance Certificate, ~~E.S.I and E.P.F registration numbers~~, PAN and/or TAN Card, Registration Certificate (Form GST REG - 06) issued under Goods and Services Tax Laws.

8.3. In addition to above, the bidder shall also be required to meet the eligibility conditions and submit a declaration as per Annexure: 5 of Section VI-A of the bidding documents.

8.4. Notwithstanding anything stated herein, WBSETCL reserves the right to inquire and review the bidder's capability and capacity to execute the Works and services.

9.0 WBSETCL reserves the right to accept or reject any bid partly or fully or cancel the bidding process without assigning any reasons there for and in such case no bidder shall have any claim arising out of such action.

10.0 Address for seeking any clarifications on the bid documents :

The SE & Area Manager, Gokarna 400KV Area Office, Vill+PO-Gokarna, Murshidabad, Pin-742136. EMAIL: gokarnaareaoffice@gmail.com || PHONE NUMBER: 9434910138.

9. Interested bidders shall obtain detailed NIT and bidding documents from Gokarna 400 KV Area Office on payment of prescribed cost of bidding documents.

10. Detailed NIT and bidding documents are also available on WBSETCL website (www.wbsetcl.in) and can be downloaded from the website for bidders' information. Bid submission should however be made on the bid documents purchased from WBSETCL and as amended from time to time.

11. Delivery Schedule: All materials are to be delivered at Gokarna 220 KV Sub Station store within 60 (Sixty) days from the date of approval of Drawings. Drawings are to be submitted by the manufacturer within 10 (ten) days from the date of placement of order. The delivery schedule mentioned herein is inclusive of the period required for conducting tests, inspection etc. if so required by the Purchaser. Material should be manufactured as per technical specification of WBSETCL as available in www.wbsetcl.in.

12. Consignee Officer: The Engineer-in-Charge (Electrical), Gokarna 220KV Sub-Station, WBSETCL (9434910221).

13. Paying Officer: The Asst. Manager (F&A), Gokarna 400KV Area Office, WBSETCL.

14. After price bid opening split PO may be issued among different vendors by Piecemeal Distribution.

15. All materials to be supplied and delivered by you at your own responsibility at the store of Gokarna 220 KV Sub Station.

Section II - INSTRUCTION TO BIDDERS

ITB. 1. Responsibility of bidders

ITB.1.1. The WBSETCL will not assume any responsibility regarding information gathered, interpretations or conclusions made by the bidder or regarding information, interpretations or deductions the bidder may derive from the data furnished by the WBSETCL. Verbal agreement or conversation with any employee of the WBSETCL either before or after the submission of bid shall not affect or modify any of the terms or obligations contained herein.

ITB.1.2. It shall be the sole responsibility of bidders to determine and to satisfy themselves by such means as they consider necessary or desirable as to all matters pertaining to this bidding process including in particular all factors that may affect the bid price and period of supply of Equipment/ Materials.

ITB. 2. Clarifications on bidding documents

ITB.2.1. A prospective bidder requiring any clarification on bidding documents may notify the WBSETCL in writing by post or fax, as per Annexure: 13of Section V-B, to the address mentioned in NIT, not later than the date and time specified in NIT. The WBSETCL will issue clarification(s) as he may think fit not later than fifteen (15) days prior to the deadline/ extended deadline for submission of bids prescribed by the WBSETCL. All such clarifications shall form part of the bidding documents and shall accompany the bidder's Proposal. Written copies of the WBSETCL's response (including an explanation of the query but without identifying its source) will be uploaded in the e-tendering portal in the corrigendum folder which shall be available to all the participant bidders.

ITB.2.2. Any queries sent by the bidders after the date and time notified in NIT orany extended date, if any, shall not be entertained.

ITB. 3. Amendment of bidding documents

ITB.3.1. At any time, but not later than ten (10) days prior to the deadline for submission of bids, the WBSETCL may, for any reason, modify the bidding documents by issue of an addendum/amendment.

ITB.3.2. The addendum/amendment will be intimated (through e-tendering portal, corrigendum folder) to all bidders. The WBSETCL shall assume that the information contained therein have been taken into account by the bidder in its bid. The WBSETCL will bear no responsibility or liability arising out of non-cognizance of the same in time or otherwise by the bidder. WBSETCL may, at its discretion, extend the deadline for the submission of bids.

ITB.3.3. For the information of bidders, the addendum/ amendments, if any, shall be uploaded on the e-tendering portal. The bidders may visit the website https://wbtenders.gov.in/ orhttps://etender.wb.nic.in from time to time in their own interest.

ITB. 4. Right to split Order

The WBSETCL reserves the right to split (maximum up to 50% subject to price matching with L1 bidder) the total quantity among more than one bidder.

ITB. 5. Language of the bid

The bid prepared by the bidder and all correspondences and documents relating to the bid, exchanged between the bidder and the WBSETCL shall be written in the English language, provided that any printed literature furnished by the bidder may be written in another language so long as the bid is accompanied by an English translation of its pertinent passages. Failure to

comply with this may disqualify a bid. For purposes of interpretation of the bid, the English translation shall govern.

ITB. 6. Documents constituting the bid

ITB.6.1. The bid to be submitted by the bidder shall consist of the following documents:

a. Bid Form as per Annexure: 1 of Section V-A

b. Price Schedule as per (BoQ) to be uploaded in Financial cover

c. Bid Security. ~~(If the Bid Security is in the form of Bank Guarantee, it shall be as per Annexure: 6 of Section V-A).~~**BG IS NOT APPLICABLE IN THIS CASE.**

d. A Declaration as per Annexure: 5 of Section V-A affirming the eligibility of the bidder.

e. GCC, SCC and Technical Specifications, duly signed by the authorized signatory of the bidder.

ITB. 7. Cost of bidding

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

ITB. 8. Bid Prices

ITB.8.1. Price of Equipment / Materials, including type tests charges to be manufactured within/outside India shall be quoted inclusive of all costs as well as duties and taxes paid or payable on goods and services procured to manufacture the equipment / materials. Benefit of Input Tax Credit (ITC) should be adjusted in the quoted price. Amount of discount, if any, shall be adjusted for computation of tax. However, CGST and SGST/WBGST or IGST, as the case, may be shall not be included in the unit price but shall be quoted separately in the Price Schedule. Local transportation including transit insurance and other local costs incidental to delivery of Equipment / Materials to the Site shall also be included in Price Schedule and shall be subjected to taxes, as applicable. The taxes, duties and levies shall be quoted as per the rates in force on seven (7) days prior to the last date of submission of bids.

ITB.8.2. Equipment / Materials against which no price is entered by the bidder will not be paid for by WBSETCL when delivered and shall be deemed to have been

covered in other prices in the Price Schedule where the evaluation is being done on the basis of total prices quoted for all the Equipment / Materials.

ITB.8.3. All the prices shall be quoted in INR (Indian rupees) only. Foreign exchange component or foreign exchange variation will not be entertained for any reason whatsoever.

ITB.8.4. The total bid price at the bottom of Price Schedule shall be indicated both in figures and words.

ITB.8.5. If any rebate/discount is offered, the overall discount in percentage shall be brought out in the Price Schedule and taxes shall be charged after effecting the amount of discount. Conditional rebates/discount, if any, offered by any bidder shall not be considered during bid evaluation.

ITB.8.6. In case the Purchaser observes that the L1 bidder has quoted abnormally low bid in comparison with Purchaser's cost estimate, the bid will be compared to the average of bids quoted by the other bidders. The Purchaser then, shall ask the bidder to produce detailed price analysis to demonstrate the justification of prices quoted in the bid. After evaluation, Purchaser may ask the bidder to enhance the Performance Security at the bidder's expense, equivalent to the difference of L1 bid and the average of bids quoted by the other bidders. Such performance guarantee shall be valid till the successful execution of the Works and services, failing which his bid may be rejected.

ITB.8.7. Price Variation

ITB.8.7.1. The prices quoted by the bidder shall be firm during the entire period of delivery as specified in the Order and not subject to variation on any account whatsoever, except the statutory variations on account of taxes and duties on the direct transactions between the supplier and Purchase.

ITB.8.7.2. No price variation will be allowed.

ITB.8.7.3. No price variation will be allowed for bought-out Equipment/ Materials, if any. [**Not applicable here**]

ITB. 9. Period of validity of bids

ITB.9.1. The bids submitted by the bidder shall remain valid for a period specified in NIT. A bid valid for a shorter period than that prescribed in the NIT shall be rejected by the WBSETCL.

ITB.9.2. In exceptional circumstances, WBSETCL may solicit the bidder's consent to an extension of bid validity for a further period without any change in the terms and conditions of the offer. The request and response thereto shall be made in writing by post or fax followed by post confirmation. The bidder may refuse the request without having his bid security forfeited. Bidders agreeing to the request will neither be required nor permitted to modify their respective bids, but will be required to extend the validity of their bid securities

correspondingly. The provisions of ITB. 10regarding discharge and forfeiture of bid security shall continue to apply during the extended period of bid validity.

ITB. 10. Bid Security

ITB.10.1. The bidder shall furnish bid security in the form of a Demand Draft/ ~~Banker's Pay Order/ Banker's Cheque~~ at its option, from any scheduled commercial bank in favor of **"WBSETCL GOKARNA 400KV AREA OFFICE", payable at SBI, Purandarpur Kandi Branch, Murshidabad** for an amount specified in the NIT.

ITB.10.2. Any bid not supported with the relevant bid security in adequate value and/or the forwarding letter as per Annexure: 3a/3bof Section V-A will be rejected by the WBSETCL and returned to the bidder with in thirty (30) days of the bid opening date.

ITB.10.3. The bid security shall be forfeited in the following circumstances:

a. If the bidder withdraws its bid as a whole or in part as per ITB. 13, during the period of bid validity specified by the bidder in its bid

b. If the bidder does not accept the correction of its bid price pursuant to ITB. 16

c. If the successful bidder fails, within the specified time limit to accept the Purchase Order unconditionally or, to furnish the Performance Guarantee, in accordance withGPC.7wherever such guarantee is required to be furnished or does not provide the additional security as per ITB.8.6.

ITB.10.4. Bid security of the unsuccessful bidders will be returned as promptly as possible after the expiration of the validity of bid security or after the issue and acceptance of Purchase Order by the successful bidder, whichever is earlier.

ITB.10.5. The bid security of the successful bidder will be discharged on furnishing the Performance Guarantee, where required to be furnished, as per GPC.7and acceptance of Order by the bidder.

ITB.10.6. No interest shall accrue and be paid by the WBSETCL on the bid security.

ITB. 11. Submission of bids

ITB.11.1. Tender documents may be downloaded from website and submission of Technical-Commercial Bid and Price Bid will be done by uploading the same in respective designated folder as per Time Schedule stated in Sl. No.3 of Detailed NIT. Both Techno-commercial Bid and Price Bid are to be submitted concurrently duly digitally signed in the website https://wbtenders.gov.in/or https://etender.wb.nic.in.The intending tenderers are required to quote the rate online. Tenders are to be submitted through online to the website in respective folders at a time for each work, one in Techno-commercial Proposal & the other is Price Proposal before the prescribed date &time using the Digital

Signature Certificate (DSC). The virus scanned documents are to be uploaded duly digitally signed. The documents will get encrypted (transformed into non readable formats).

ITB.11.2.

ITB.11.3. Any interlineations, erasures, overwriting, cutting or alteration shall only be valid if they are digitally singed by the authorized signatory to the bid.

ITB.11.4. Bids may be uploaded within the scheduled time frame as mentioned in the Cl.No.2 of the Detailed NIT. The WBSETCL shall not be responsible for any delay in submission of the bid in the online e-tendering portal.

ITB.11.5. Bids shall be submitted in the manner specified here under:

General guidance for e-Tendering:

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

i. **Registration of Bidder:** 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 **https://etender.wb.nic.in or** https://wbtenders.gov.in the contractor is to click on the link for e-Tendering site as given on the web portal.

ii. **Digital Signature certificate (DSC):** Each bidder 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 above. DSC is given as a USB e-Token.

iii. **The bidder** can search & download N.I.T. & Tender Document(s) electronically from computer once he logs on to the website mentioned above using the Digital Signature Certificate. This is the only mode of collection of Tender Documents.

iv. **Participation in more than one work:** A prospective bidder shall be allowed to participate in the job either in the capacity of individual or as a partner of a firm. If found to have applied severally in a single job all his applications will be rejected for that job.

v. **Submission of Tenders:** Tenders are to be submitted through online to the website stated above in two folders at a time for each work, one in Techno-commercial Proposal &the other is Price 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).

I. Techno-commercial Proposal:

Techno-Commercial proposal should consist of the given below documents and should be uploaded in the given below manner:

A. **Technical Packet Cover**: Containing the following documents:

1. DOCUMENTS WHICH SHOULD BE UPLOADED IN THE SUBFOLDERS PROVIDED UNDER "FEE/PREQUAL/TECHNICAL"COVER)

1st Folder Name: Bid Proposal, Power of Attorney and Affidavit regarding Eligibility)

Documents:

a. Bid proposal as per **Annexure: 1** of Section V-A

2nd Folder Name: (EMD, Tender Fee and Forwarding Letter for Bid Security)

Documents:

a. A scanned copy of Bid Security, in the form of ~~Bank Guarantee/Pay Order/~~Demand Draft, [While the original Bid Security shall be submitted physically(offline) to the Office of The Superintending Engineer & Area Manager: Gokarna 400KV Area Office under sealed cover on or before the scheduled date & time as specified in the detailed NIT].

~~b. Forwarding letter for submission of Bid Security as per **Annexure: 3a** of Section V-Ato be uploaded.~~

c. A scanned copy of Tender Fees, in the form of Demand Draft shall be uploaded. (**While the original Tender Fee shall be submitted physically** (offline) to the Office of The Superintending Engineer & Area Manager: Gokarna 400KV Area Office under sealed cover on or before the scheduled date & time as specified in the detailed NIT).

3rd Folder Name: (Annexures)

Documents:

a. Filled up form as per **Annexure: 5A to 5C** of Section V-A to establish that the bidder meets the qualification requirements

b. Filled up form furnishing information on any history of litigation or arbitration resulting from contracts executed in the last five (5) years or currently under execution as per **Annexure: 8** of Section V-A

~~c. Transformer/Reactor loss figures, if applicable, as per **Annexure: 10** of Section V-A~~

4th Folder Name : [NIT and Technical Specification with its Corrigenda (if any) and GTP]

Documents:

a. NIT
b. Technical Specification
c. Filled up Guaranteed Technical Particulars Format, if provided with the Technical Specification
d. Corrigenda published (if any).

B. **Other Important Document (OID) Cover:** containing the following documents:

i. Copies of TAN Registration No., Registration Certificate (Form GST REG - 06) issued under Goods and Services Tax Laws.

ii. Audited Annual Accounts of the company for the last five (5) years (in case of companies)

or

IT Return duly acknowledged by the tax department for the last five (5) years (in case of bidders other than companies).
[**Applicability up to the extent of meeting Financial QR**]

iii. Registration Certificate under Companies Act.

or

Documentary evidence regarding category of the manufacturer (Micro / Small / Medium / Large) like Registration Certificate issued by SSI / NSIC / Directorate of Industries etc.

iv. If the bidder is an authorized dealer/supplier/ sole selling agent/Indian subsidiary of a foreign manufacturer, or the original manufacturer supplies the

Equipment / Materials through a dealer, supplier, sole selling agent in India or Indian subsidiary, an authorisation letter from such original manufacturer needs to be furnished by the bidder.

v. List of purchase order references for similar supplies in the past five (5) years with copies of un-priced/priced purchase orders and execution status of each order supported by duly acknowledged delivery challans or excise duty gate passes or, client's certificate. [**Applicability up to the extent of meeting Technical QR**].

vi. Performance Certificates from the user for successful operation of similar equipment. [**Applicability up to the extent of meeting Technical QR**].

vii.

viii. Registered Deed of partnership Firm / Article of Association & Memorandum.

N.B: Failure of submission of any of the above mentioned documents as stated under the head "**Technical Packet &Other Important Document Cover**" will render the tenderer liable to be rejected for both Technical Packet&Other Important Document Cover.

II. Price Proposal:

Price proposal should consist of the given below documents and should be uploaded in the given below manner:

1. DOCUMENTS WHICH SHOULD BE UPLOADED IN THE SUBFOLDERS PROVIDED UNDER "FINANCIAL COVER"

FOLDER NAME :(BOQ)

DOCUMENTS:

a. BOQ.

THE ABOVE STATED OID /TECHNICAL DOCUMENTSSHOULD 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 Other Important Document (OID)' to send the selected documents to OID folder.

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

Sr. No.	Category Name	Sub-Category Description	Details
A.	Certificate(s)	Certificate(s)	TAN Registration No., Registration Certificate (Form GST REG - 06) issued under Goods and Services Tax Laws. Latest P Tax (Challan) Latest IT Receipt.
B.	Company Detail(s)	Company Detail	Registration Certificate under Companies Act or Documentary evidence regarding category of the manufacturer (Micro / Small / Medium / Large) like Registration Certificate issued by SSI / NSIC / Directorate of Industries/ Partnership Firm (Partnership Deed, Trade License)/ Society (Society Registration Copy, Trade License) etc. and Memorandum of Association and Articles of Association of the Company.
C.	Credential	Credential - 1(Technical QR) Credential -2(other papers)	Documentary evidence for delivery of the tendered items supported by duly acknowledged delivery challans or excise duty gate passes or, client's certificate [Applicability up to the extent of meeting Technical QR]. List of purchase order references for similar supplies in the past five (5) years with copies of un-priced/priced purchase orders and execution status of each order supported by duly acknowledged delivery challans or excise duty gate passes or, client's certificate in line with Annexure-5B& 5C of Section V-A of the tender document. [Applicability up to the extent of meeting Technical QR].
D	Financial Info		Audited Annual Accounts of the company for the last Five (5) years (in case of companies) or IT Return duly acknowledged by the tax department for the last Five (5) years (in case of bidders other than companies). Tax Audited Report along with Balance Sheet

			& Profit & Loss A/c. for the last 5 (Five) years (year just preceding the current Financial Year will be considered as year – I)

ITB. 12. Deadline for Submission of bids

ITB.12.1. Bids must be received by WBSETCL at the online e-tendering portal address specified in NIT no later than the time and date mentioned in NIT. In the event of the specified date for submission of bids being declared a holiday for the WBSETCL, the bids will be received up to the appointed time on the next working day. Such postponement of date will not have any impact on the other dates specified in the bidding documents (i.e. bid validity and validity of bid security).

ITB.12.2. The WBSETCL may, at his discretion, under intimation to the bidders who have purchased the bidding documents, extend the deadline for the submission of bids/ opening of bids by issuing an addendum and hosting the same on the website, in which case all rights and obligations of WBSETCL and bidders previously subject to the original deadline shall thereafter subject to the deadline as extended.

ITB.12.3. In the event, the deadline for submission of bid is extended by the WBSETCL, the bidders who have already submitted their bids within the original deadline of submission shall have the option to upload their revised bid in substitution either in full or in part of earlier bid. In the absence of a revised bid, the original bid shall be considered for opening and subsequent evaluation. Wherever, the bidder has submitted the revised bid in full, in modification of earlier bid, the earlier bid shall be returned unopened to the bidder.

ITB.12.4. Any bid received by the WBSETCL after the bid submission deadline as per ITB. 12 will be rejected and returned unopened to the bidder.

ITB. 13. Withdrawal of bids

ITB.13.1. The bidder shall not be permitted to withdraw their bid during the interval between bid submission deadline (as mentioned in NIT) and the period of bid validity as per ITB. 9. If any withdrawal of bid is made by the bidder during the above period, it shall result in the forfeiture of the bid security.

ITB. 14. Bid Opening

ITB.14.1. WBSETCL will open the bids electronically at e-tendering portal by the authorized personnel(s) using their Digital Signature Certificate(DSC), at the scheduled date & time for opening of bids as mentioned in NIT or on the date and time as intimated to the bidder on successful completion of evaluation of techno-commercial bids in case of Single-stage two envelope bidding. The

bidders' representatives who desire may attend/witness the bid opening event through e-tendering portal at their respective end. In the event of the specified date for the opening of bids being declared a holiday for the WBSETCL or suspended for any involuntarily reasons, the bids will be opened at the appointed time & date which shall be intimated/ communicated to all the intending bidders.

ITB.14.2. Bids that are not opened at bid opening will not be considered for further evaluation, regardless of the circumstances. The reason for which bids are not being opened will be notified to all the bidders through e-tendering portal.

ITB.14.3. The bidders' names, bid withdrawal and the presence or absence of the requisite bid security and such other details as WBSETCL, at his discretion, may consider appropriate will be notified in the e-tendering portal at the bid opening date.

ITB.14.4. In the case of Single stage two-envelope bids, on the date of opening of bid, the techno-commercial bid shall only be opened. The date for opening of the Price bid shall be intimated electronically at the appropriate time to the bidders whose bid is found responsive in the techno-commercial evaluation.

ITB.14.5. In the event, the WBSETCL, in its discretion, decides not to open the bid for want of adequate response to the bidding, the WBSETCL may either extend the bid submission deadline in pursuant to ITB.12.3 or cancel the bidding process.

ITB. 15. Clarification on bids

ITB.15.1. During bid evaluation, WBSETCL may, at its discretion and if so required, ask the bidders for any clarification in support of their compliance to stipulated Qualifying Requirements (QR) or any other matter related to its bid except to the extent inITB.15.2. The request for clarification required from the bidder and the response thereto shall be in writing and shall be delivered by registered post/speed post/ courier/ hand delivery under acknowledgement/ email/ fax so as to reach the WBSETCL within the time specified in the request for clarification issued by the WBSETCL.

ITB.15.2. Any post-bid change in the price or substance (techno-commercial) of the bid shall not be sought, offered or accepted, if given by the bidder.

ITB. 16. Correction of arithmetical errors in price bid

ITB.16.1. Arithmetical errors will be corrected at the time of evaluation of price bid and the corrected figure will be considered for bid evaluation. The corrections in the bid price shall be done as per the provisions of this clause and shall be binding on the bidder. If the bidder does not accept the correction of errors as per the provisions of this clause, his bid will be rejected and the bid security will be forfeited.

ITB.16.2. If there is a discrepancy between the product of unit price and quantity and the total price for the concerned item, the product of unit price and quantity will prevail and the total price will be corrected. If there is discrepancy between summation of subtotals and total price, the summation of subtotal price shall prevail, and the total price shall be corrected. If there is a discrepancy between words and figure, the amount in words will prevail.

ITB.16.3. The total price so corrected shall be considered for the purpose of evaluation of bid. However for the purpose of award, the corrected price by the WBSETCL or the bid price quoted by the bidder, whichever is lower, will be taken.

ITB.16.4. Bids will be corrected for the rates of taxes & duties if incorrect rates are taken by the bidder. For the purpose of bid comparison and evaluation, the rates of taxes & duties in force as on seven (7) days prior to the last date of submission of bids would be considered.

ITB. 17. Delivery Schedule

The basic consideration and the essence of the Order shall be the strict adherence to the delivery schedule specified in the detailed NIT. No credit will be given for earlier completion for the purpose of evaluation.

ITB. 18. Procedure of Evaluation of bids

ITB.18.1. The WBSETCL will carry out a detailed evaluation of the bids determined to be substantially responsive in order to determine whether the technical aspects are in accordance with the requirements set forth in the bidding documents. Bids submitted by bidders with any technical or commercial deviations may be liable to be rejected. Bidders shall submit a filled-in proforma as per Annexure: 12 of Section V-A.

ITB.18.2. The WBSETCL will determine to its satisfaction whether the selected bidder has submitted the lowest evaluated responsive bid and is qualified in terms of the qualifying requirements stipulated in NIT and has the adequate capacity and capability to execute the Order.

ITB.18.3. Wherever mentioned in the NIT, the evaluation will take into account the bidder's capacity and capabilities, in particular its work in hand and future commitments wherever required. It will be based upon an examination of the documentary evidence of the bidder's capability submitted by the bidder, as well as such other information as the WBSETCL deems necessary and appropriate.

ITB.18.4. The final evaluated bid prices [Total Landed Price] of all the 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 placement of Order. However, the WBSETCL reserves the right not to accept the lowest bidder.

ITB.18.5. WBSETCL, at its discretion, may take into consideration the delay in delivery of material/rejection of inspection calls/making fake inspection calls against earlier purchase order(s) executed by a bidder while finalizing the ordered quantity in respect of any Equipment / Materials against the subject tender.

ITB.18.6. The evaluation of bid shall be done on the basis of ***"each group (Group A, B,&C) of supply".*** Where evaluation is done on the basis of each ***group*** of supply, the bidder evaluated as the lowest bidder for any ***group*** of supply would be considered as the successful bidder for such item**.**

ITB. 19. Purchase Order

ITB.19.1. After approval of bid evaluation, WBSETCL will issue the Purchase Order to the successful bidder as per Annexure: 14 of Section V-Band send it by registered/speed post or courier in two (2) copies. The Order shall contain the description of the Equipment / Materials, price and period of supply and other terms and conditions.

ITB.19.2. The successful bidder shall sign and record "Accepted Unconditionally" with stamp and date, and return one (1) copy of the PO within seven (7) days of date of issue of the Order, to WBSETCL as acknowledgment of unconditional acceptance of the Order.

ITB. 20. Variations

ITB.20.1. The WBSETCL may vary the quantity of the Equipment / Materials to be supplied by plus/minus (±) twenty-five percent (25%) any time during the execution of the Order. The total value of Order shall be adjusted in case of change in quantity of Equipment / Materials based on the unit price indicated in the Purchase Order.

ITB.20.2. The WBSETCL may place repeat order within a period of six (6) months from the date of completion of the Order for quantity not exceeding fifty percent (50%) of the ordered quantity on successful completion of the Order and if so required by the WBSETCL, on the basis of existing rates, terms and conditions.

ITB. 21. Corrupt or Fraudulent Practices

ITB.21.1. The WBSETCL requires that the bidders/Suppliers observe the highest standards of ethics during the procurement and execution of the Order.

ITB.21.2. In pursuance of this policy, the WBSETCL defines, for the purposes of this provision the terms set forth below as follows:

a. "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 execution of the Order.

b. "Fraudulent practice" means a misinterpretation of facts in order to influence the procurement process or the execution of Order to the detriment of the WBSETCL, 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 WBSETCL of the benefits of free and open competition.

ITB.21.3. The WBSETCL will reject a bid or cancel the Purchase Order if already placed, if it determines that the bidder recommended for award or on whom the Purchase Order has already been placed has engaged in Corrupt or Fraudulent practices in competing for the Order in question.

ITB.21.4. The WBSETCL may declare a firm ineligible for issue of Purchase Order, either indefinitely or for a stated period of time, if it any time determines that the firm has engaged in Corrupt or Fraudulent practices in competing for or in executing an earlier order of the WBSETCL.

ITB. 22. WBSETCL's right to accept any bid, and to reject any or all bids

WBSETCL reserves the right to accept or reject any bid, and to annul the bidding process and reject all Bids at any time prior to award of Purchase Order, without thereby incurring any liability to bidders.

GPC.2. Definitions

The following words and expressions shall have the meaning hereby assigned to them.

GPC.2.1. "Defect Liability Period" means the period of validity of the warranties given by the Supplier commencing at completion of the supply, during which the Supplier is responsible for rectification of defects and damages with respect to the Equipment / Materials as provided in GPC.18

GPC.2.2. The terms "Equipment" and "Materials" shall mean and include all things to be provided by the Supplier in terms of the provisions of the Order.

GPC.2.3. "GPC" means the General Purchase Conditions hereof.

GPC.2.4. Periods
In these provisions "Day" means calendar day. However "Working day" as used herein means all calendar days excluding Sundays and Government holidays in West Bengal. "Month" and "Year" and all dates shall be reckoned according to the Gregorian calendar.

GPC.2.5. "Price Schedule" means the schedules or any part or individual schedule thereof, submitted by the bidder with his bid.

GPC.2.6. "Purchase Order" (PO) or Order means notice of acceptance of the bid in writing to the successful bidder, indicating the sum WBSETCL will pay for the procurement of Equipment / Materials along with the terms and conditions of supply.

GPC.2.7. "WBSETCL" means West Bengal State Electricity Transmission Company Limited (WBSETCL), Kolkata, and includes its legal successors and permitted assigns.

GPC.2.8. "Supplier" shall mean the individual firm, company or corporation whether incorporated or otherwise to whom the Purchase Order is addressed and shall include its legal successors and permitted assigns.

GPC.2.9. "Site" includes the place or places, where Equipment/Materials are to be delivered and/or the place of installation of Equipment/ Materials as specified by the WBSETCL.

GPC.2.10. 'Order value' means the sum total of contract price stated in the Letter of Award as payable to the supplier for supply of the equipment/ materials under the scope of the order subject to such addition & adjustment thereto or deductions there from as may be made pursuant to the terms of the Order. In case where separate identifiable equipment/ materials can be delivered and taken over by the purchaser and for which separate delivery schedule is

provided in the Order, in relation to such supply, the order value shall mean the price relatable to such supplies completed and taken over by the Purchaser.

GPC.3. Governing Law

The Purchase Order shall be governed by and interpreted in accordance with laws in force in India including any such Laws promulgated or comes into force during the period of the Purchase Order. The Courts of Kolkata shall have exclusive jurisdiction in all matters arising under the Purchase Order.

GPC.4. Disputes

GPC.4.1. If any dispute or difference of any kind whatsoever will arise between the WBSETCL and the Supplier in connection with or arising out of the Order, the parties will make every effort to resolve amicably such dispute or difference by mutual consultation. If, after ninety (90) days from the date of dispute is first brought to the notice of any party and the parties have failed to resolve their dispute or difference by such mutual consultation, then either the WBSETCL or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of the matter may be commenced unless such notice is given.

GPC.4.2. Arbitration

GPC.4.2.1. The WBSETCL shall appoint an arbitrator whose decision shall be final and binding and shall be enforceable in any court of competent jurisdiction as decree of the court. The parties thereby waive any objections to or claims of immunity from such enforcement. If, for any reason, an arbitrator is unable to perform its function, the mandate of the Arbitrator shall terminate and a substitute shall be appointed in the same manner as the original arbitrator.

GPC.4.2.2. The arbitration proceedings shall be conducted in accordance with Indian Arbitration and Conciliation Act 1996 as amended from time to time. The cost of the arbitration shall be equally shared by the WBSETCL and Supplier. The arbitration shall be conducted at Kolkata.

GPC.4.2.3. Notwithstanding any disputes with reference to the Order pending for arbitration, the Supplier shall continue to perform his obligations in accordance with the WBSETCL's decision or instruction, and WBSETCL shall also continue to perform his obligations under the Order including payment of any monies due to the Supplier.

GPC.5. Terms and Procedure for Payment

GPC.5.1. The payments to the Contractor for the performance of the Contract will be made by the Purchaser as per terms and conditions specified in the SCC. No

payment made by the Purchaser herein shall be deemed to constitute acceptance by the Purchaser of the Works and services or any part thereof. The currency of payment shall be Indian rupees. The payments made to the Contractor shall be subject to deductions towards security deposit.

GPC.5.2. Price variation, where applicable, will be allowed on quoted ex-works price of bidders' own manufactured Equipment / Materials only up to the scheduled date of delivery or actual date of delivery whichever is earlier. Any increase in price, beyond the scheduled delivery period of the Order will not be borne by WBSETCL, if the delay is due to any default on the part of the Supplier. However, if the delay is attributable to the WBSETCL, price escalation will be borne by the WBSETCL.

GPC.6. Specifications and Drawings

Any information, details etc called for in the specification and not shown in the drawings and vice-versa have the same effect and meaning as if called for and shown both in the specification and drawings. In case of conflict between drawings and the specifications, the decision of the WBSETCL or his duly authorised representative shall be final and binding.

GPC.7. Performance Guarantee

GPC.7.1.

The bid security amount submitted by the Contractor in the form of Demand Draft~~/ Banker's Pay Order/ Banker's Cheque~~ shall be retained by the Purchaser as initial security deposit for the due and faithful fulfilment of the Contract by the Contractor. Further, at the time of making any payment to Contractor for the work done under the Contract, the Purchaser shall deduct Ten percent (10%) of the gross value of each running bill, till the total deductions including initial security deposit, on this account is equivalent to three percent (10%) of the Contract Price.

The Security deposit amount shall be refunded by the Purchaser on expiry of defect liability period provided that the Controlling Officer is satisfied that there is no demand outstanding against the Contractor. The Purchaser shall have absolute discretion to forfeit the security deposit for any default on the part of Contractor in the performance of the Contract, including its obligations under the defect liability period. No interest shall be payable by the Purchaser to the Contractor against security deposit

GPC.8. Taxes, Duties and Other Levies

GPC.8.1. CGST and SGST/WBGST or IGST, as the case may be, and any other levies/ duties payable shall be shown separately in the tax invoice. This shall be to the account of the WBSETCL, unless otherwise mentioned in the Purchase Order.

GPC.8.2. For the purpose of the Order, the price for the ordered quantity is based on the taxes, duties, levies and charges prevailing at the date seven (7) days prior to the last date of bid submission (hereinafter called "Tax" in this paragraph). If any rates of Tax are increased or decreased, a new Tax is introduced, an existing Tax is abolished, or any change in interpretation or application of any Tax occurs in the course of the performance of the Order, which was or will be assessed on the Supplier in connection with performance of the Order, an equitable adjustment of the Order price shall be made to fully take into account any such change by addition to the Order price or deduction there from, as the case may be. The WBSETCL shall not be liable to make any adjustment for the change in Tax in respect of transactions between Supplier and its sub-vendors, as disclosed in Annexure: 7 of Section V-A.

GPC.8.3. In case of any Equipment/ Materials directly sourced by the Supplier from outside India, no Custom Duty or its variation, if any, will be paid separately. However, the supplier shall pass on the benefit of Input Tax Credit (ITC) of IGST paid or payable at the time of import.

GPC.8.4. The WBSETCL 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 any failure on the part of the Supplier.

GPC.8.5. WBSETCL shall deduct tax from the payment made or credited to the supplier on the taxable goods at applicable rate.

GPC.9. Patent rights & Royalties

GPC.9.1. Royalties and fees for patents covering Equipment / Materials shall be deemed to have been included in the price quoted by the Supplier. The Supplier shall satisfy all demands that may be made at any time for such royalties or fees and he alone shall be liable for any damages or claims for patent infringements and shall keep the WBSETCL indemnified in that regard.

GPC.9.2. The Supplier shall indemnify and hold harmless the WBSETCL, his successors or assignees, its employees and officers from and against any and all suits, actions or administrative proceedings, claims, demands, losses, damages, costs, and expenses of whatsoever nature, including attorney's fees and expenses, which the WBSETCL may suffer as a result of any infringement or alleged infringement of any patent, utility model, registered design, trademark, copyright or other intellectual property right registered or otherwise existing at the date of the Order by reason of sale of the products produced by the Equipment / Materials in any country. Such indemnity shall not cover any use of the Equipment / Materials or any part thereof other than for the purpose indicated by or to be reasonably inferred from the Order, any infringement resulting from the use of the Equipment / Materials or any part thereof, or any products produced thereby in association or combination with any other Equipment / Materials not supplied by the Supplier, pursuant to the Order.

GPC.10. Design and Engineering

The matters regarding submission and approval of drawings/ samples/models or any other information related thereto shall be governed by the provisions made in the Technical Specification as per Section IV.

GPC.11. Quality Assurance Plan

If mentioned in the Purchase Order, the Supplier shall have to submit a Quality Assurance Plan as per Appendix 1 to Annexure: 14 of Section V-B, indicating the specific quality control procedure and practices adopted in the major activities of production to ensure manufacturing standard, immediately on receipt of the Purchase Order.

GPC.12. Packing

The Equipment / Materials shall have to be securely packed in optimum quantity and size so that each package is capable of handling and is transportable as indicated in the Technical Specifications. Due care shall be taken during transportation to keep the packing and Equipment / Materials in good order condition for acceptance by Site.

GPC.13. Inspection & Testing

GPC.13.1. The Supplier shall give at least fifteen (15) days prior intimation about the readiness of the Equipment / Materials at the Supplier's works for testing and inspection. Supplier while making the inspection call shall:

a. confirm the readiness of the Equipment / Materials for the inspection and testing;
b. availability of necessary equipment for such testing;
c. submit copies of routine test certificates indicating the test results in six (6) copies to the inspecting authority, failing which the inspection call will not be accepted.

GPC.13.2. The Inspection will be carried out by the representatives of WBSETCL. The WBSETCL shall, at first confirm by the quickest possible means and later in writing, of his intention to attend the tests. The WBSETCL shall attend the testing at the place so named within this period. The Equipment / Materials shall be subjected to tests as per relevant standards mentioned in the Technical Specification. If the standard has the provision of routine tests, each Equipment / Materials shall be subjected to those routine tests. If the Equipment / Materials are found acceptable after inspection and testing, the same shall be suitably marked by the WBSETCL's inspecting officer. All necessary assistance in this regard shall be extended by the Supplier to the WBSETCL's inspecting team free of cost.

GPC.13.3. If the WBSETCL or his designated representatives fails to attend the test and/or inspection or if it is agreed between the parties that WBSETCL's representative shall not attend the test, then the WBSETCL may advise the Supplier in writing to proceed with the test and/or inspection in the absence of WBSETCL's representative. The Supplier shall provide the WBSETCL with a certified report of the results thereof.

GPC.13.4. Cost of inspection& testing
The entire cost of the inspection and testing of the Equipment / Materials as per requirement shall be borne by the Supplier. The expense of the inspectors of WBSETCL towards lodging, boarding and travel and other incidental expenditure shall be borne by WBSTECL.

GPC.13.5. Calibration of testing equipment
Calibration Certificate issued by laboratory accredited by NABL, CPRI, ERDA or equivalent institutions as acceptable to the WBSETCL may be accepted unconditionally provided the certificate bears the logo of the accreditation body. If during Inspection & Testing, Supplier fails to produce Calibration Certificate of the testing equipment as indicated above, the inspection shall not be carried out and such inspection call shall be treated as fake inspection call and costs thereof shall be recovered by the WBSETCL accordingly.

GPC.13.6. The WBSETCL reserves the right to reject Equipment / Materials found to be not complying with the requirement of the specifications and standards. The Supplier shall extend all facilities for such inspection and testing for which no extra cost shall be charged by the Supplier.

GPC.13.7. Repetition of Tests
If any of the Equipment / Materials fails to pass during inspection and testing, the Supplier shall arrange for repeat tests as per standards specified in Technical Specifications, at his own cost and expenses.

GPC.13.8. Cost of fake inspection call
In case of failure to make available the Equipment / Materials for inspection as per the inspection call given by the Supplier of any particular lot of Equipment / Materials, re-testing fee will be charged @ Rs. 5,000/- (within the State of West Bengal) & @ Rs.20,000/- (outside State) for carrying out each subsequent inspection of that particular lot, after the re-offer.

GPC.13.9. Reports of Inspection and Tests
After the tests have been completed at the Supplier's works, the Supplier shall submit six (6) copies of test reports to the WBSETCL. Material Inspection Clearance Certificate (MICC)-cum-Delivery Instruction (DI) will be issued by the inspection team of the WBSETCL on successful completion of inspection and testing.

GPC.14. Delivery

GPC.14.1. Delivery schedule will be as mentioned in the Purchase Order and it shall be adhered to. Delay in meeting scheduled delivery period as stipulated shall be liable for liquidated damages.

GPC.14.2. After receiving dispatch clearance/dispatch instruction (DI) from the WBSETCL, the Supplier shall deliver the Equipment / Materials suitably packed, at the place of delivery. The Equipment / Materials are to be booked only by road and should be suitably packed and fully insured against all risks. The Equipment / Materials should be delivered as per the DI immediately. After dispatch of Equipment / Materials by road, the Supplier shall notify the WBSETCL about the value of consignment, weight and dimension of consignment by fax and post a copy by registered post, enclosing all the relevant documents, on the strength of which the consignment can be taken delivery at destination.

GPC.14.3. The Equipment / Materials delivered to Site will be subjected to re-inspection/testing and if any discrepancy/dispute in quality arises, the Supplier shall have to replace the entire lot at the Supplier's cost.

GPC.14.4. The required number of way bills (Part II) shall be generated by the Supplier as per online way bill issue system of the State Commercial department as prescribed from time to time. The WBSETCL shall not be responsible for any delay or any consequences resulting from the issue of way bill.

GPC.15. Removal of rejected Equipment / Materials and replacement

GPC.15.1. If upon delivery, whether inspected and approved earlier or otherwise, the Equipment / Materials is not in conformity with the specifications, the same shall be rejected by the WBSETCL or his duly authorised representative and notification to this effect will be issued to the Supplier within ninety (90) days from the date of receipt of the Equipment / Materials at the Site.

GPC.15.2. The Supplier shall arrange at his cost for removal of the rejected Equipment / Materials within thirty (30) daysfrom the date of notification. In the event, the Supplier fails to remove the Equipment / Materials within the said thirty (30) days, the WBSETCL shall be at liberty to dispose of such Equipment / Materials in any manner as he may think fit. All such expenses shall be recoverable from the Supplier.

GPC.16. Risk Purchase

GPC.16.1. If the Supplier fails to deliver the Equipment / Materials within the specified delivery period, the WBSETCL shall be entitled to purchase the Equipment / Materials, or if not available, the best and nearest available substitute from elsewhere on the account and at the risk of the Supplier. The WBSETCL will also be entitled to cancel the Order, either in part or in full, and the Supplier

shall be liable to compensate the WBSETCL for any loss or damage which the WBSETCL may sustain by reason of such failure on the part of the Supplier.

GPC.16.2. If there is a failure to execute the Order, or there is any breach on the part of the Supplier in the terms and conditions of the Purchase Order, the WBSETCL reserves the right to invoke performance guarantee and may deduct the additional amount, if any, so incurred by the WBSETCL from other claims/bills lying with the WBSETCL against the relevant Order or any other Order.

GPC.17. Liquidated Damages

Supply and delivery (physical delivery of Equipment / Materials at the place of delivery in accordance with the Delivery Instruction) of the Equipment / Materials should be as per the delivery schedule. If the Equipment / Materials are not delivered within stipulated period as per delivery schedule, WBSETCL reserves the right to repudiate the Purchase Order. But the WBSETCL may, at his discretion, extend the delivery schedule subject to imposition of liquidated damages at half percent (0.5%) of the value of the Equipment / Materials physically delivered beyond the schedule delivery period for each week of delay or part thereof up to a maximum limit of five percent (5%) of the value of total Order value and accept the Equipment / Materials beyond the stipulated period. Liquidated damages, if any, shall be recovered from the outstanding bills/performance guarantee.

GPC.18. Defects Liability

GPC.18.1. In the event of any defect in the Equipment / Materials arising out of faulty design, materials, workmanship within the Defects Liability Period as mentioned in the Purchase Order, the Supplier shall be responsible for rectification of the defect, damage or replacement of the defective or damaged Equipment / Materials to the satisfaction of the WBSETCL.

GPC.18.2. If any defect shall appear or damage occurs in the Equipment / Materials, the WBSETCL shall forthwith inform the Supplier in writing for taking up the immediate rectification work within the period specified in such notice.

GPC.18.3. The Supplier shall rectify the defect or damage or replace the Equipment / Materials at his cost, within the time specified in the notice, to the satisfaction of the WBSETCL. If the Equipment / Materials are required to be taken to the works of the Supplier for the purpose of repairs or rectification, the Supplier shall be authorized to take such Equipment / Materials only on the submission of a bank guarantee, as per Annexure: 16 of Section V-B, equivalent to the ordered value of such Equipment / Materials being taken back to the works of the Supplier.

GPC.18.4. If the Supplier fails to rectify the damage/defect within the specified time, the WBSETCL may carry out the work himself or get it done by others at the risk and cost of Supplier. The Supplier shall pay to the WBSETCL, the cost of

such work carried out by the WBSETCL within fifteen (15) days of receipt of notice thereof from the WBSETCL.

GPC.18.5. The WBSETCL shall have a right to invoke the Performance Guarantee for failure on the part of the Supplier to pay the cost as referred in GPC.18.4 above, or failure to full fill its obligations under the Defect Liability Period.

GPC.18.6. Upon completion of the Defects Liability Period and upon fulfilment of all obligations by the Supplier with respect to the Purchase Order, the WBSETCL shall issue a Defect Liability certificate within thirty (30) days of such completion.

GPC.19. Compliance of regulations

GPC.19.1. The Supplier shall ensure that all Equipment / Materials covered by the Order shall have been produced, sold, dispatched, delivered, tested and commissioned in strict compliance with all applicable laws, regulations including Industries (Development & Regulations) Act, 1951 and any amendments there under, any labour laws, working conditions and technical codes and requirement as applicable from time to time.

GPC.19.2. The Supplier shall deliver such documents as may be required by the WBSETCL as an evidence of compliance. Any liability arising out of contravention of any of the laws in executing the Order shall be the sole responsibility of the Supplier and the WBSETCL shall not be responsible in any manner whatsoever.

GPC.20. Force Majeure

Supplier shall not be considered in default if delay in delivery occurs due to reasons beyond his control such as acts of God, natural calamities, civil wars, strikes, fire, frost, floods, riot and acts of unsurpassed power. Only those reasons which have duration of more than seven (7) days shall be considered as Force Majeure. A notification to this effect duly certified by local chamber of commerce/statutory authorities shall be given by Supplier to the WBSETCL. In the event of delay due to Force Majeure, the delivery schedule will be extended for a length of time equal to the period of Force Majeure, or at the option of the WBSETCL, the Order may be cancelled. Such cancellation, would be without any liability whatsoever on the part of the WBSETCL.

GPC.21. Termination

The WBSETCL reserves the right to cancel the Order in part or in full by giving an advance notice of thirty (30) days thereby if

a. The supplier fails to comply with any of the terms of the Order
b. The supplier becomes bankrupt or goes into liquidation

c. The supplier makes general assignment for the benefit of the creditors
d. Any receiver is appointed for the property owned by the Supplier

GPC.22. Assignment

The Supplier shall not, without the express prior written consent of the WBSETCL assign to any third party the Order or any part thereof, or any right, benefit, obligation or interest therein or there under, except that the Supplier shall be entitled to assign either absolutely or by way of charge any monies due and payable to it or that may become due and payable to it under the Order.

Section IV – SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract (SCC), Section-IV, shall supplement/amend the General Purchase Conditions of Contract (GPC), Section-III. Wherever there is a conflict, the provisions in SCC shall prevail over those in the GPC.

SCC Item No.	GCC Clause Ref, If any	Data
1		The Courts of Kolkata shall have exclusive jurisdiction in all matters arising under the Contract
2		The Appointing Authority for Adjudicator shall be Addl. Chief Engineer, Berhampore Transmission Zone.
3	GPC 5	The terms of payments are as under: The bill or GST invoice in triplicate along with SRV, Challan, Warranty & relevant supporting documents are to be submitted to the site engineer for incorporating necessary certificate and forwarding the same to this office for arranging payment by the paying officer in due course subjected to deduction of 10 % as security deposit including initial security deposit.
4	Paying Authority	The Paying Authority shall be the Asst. Manager (F&A), Gokarna 400KV Area Office, WBSETCL.
5	Consignee Officer	The Engineer-in-Charge (Electrical), Gokarna 220KV Sub-Station, WBSETCL.
6	Controlling Officer	The Controlling Officer will be the SE & Area Manager, Gokarna 400KV Area Office, WBSETCL.
7	GPC 7	Security Deposit: The purchaser shall deduct @ 10 % or any equivalent amount from Bill as security deposit till the total deduction becomes 10 % of the final contract price including initial security deposit.
8	GPC 18	Defects Liability: In the event of any defect in the Equipment / Materials arising out of faulty design, materials, workmanship within the Defects Liability Period as mentioned in the Purchase Order, the Supplier shall be responsible for rectification of the defect, damage or replacement of the defective or damaged Equipment / Materials to the satisfaction of the Purchaser. The materials supplied shall be guaranteed for 12 (Twelve) months from the date of delivery against any defect of materials. Any

		item not satisfying the specifications or performance characteristics shall have to be replaced free of cost within a reasonable time after receipt of intimation from the ordering authority.
9	**Delivery Schedule:**	All materials are to be delivered at Gokarna 220 KV Sub Station at your own responsibility **within 60 (Sixty)** days from the date of approval of Drawings. Drawings are to be submitted by the manufacturer within 10 (ten) days from the date of placement of order. The delivery schedule mentioned herein is inclusive of the period required for conducting tests, inspection etc. if so required by the Purchaser.

TECHNICAL SPECIFICATION FOR CLAMPS CONNECTORS
(For details please follow at https://www.wbsetcl.in/specification.php)

1. SCOPE:

This specification covers design, manufacture, testing of the terminal Connectors, Clamps, bundle spacer and equipotential rings. All clamps, connectors and equipotential rings shall be suitable as per application of Al. Pipe bus of different sizes suitable for different voltage class, ACSR Moose Conductor, ACSR Panther Conductor, ACSR ZEBRA Conductor, equipment terminal pad etc.

2. STANDARD :

ClampandConnectorshallconformtothelatestrevisionofthefollowing IS

(i)	IS– 5561	:	ElectricPowerConnectors
(ii)	IS-2121PartI& II	:	Conductorandearthwireaccessoriesforoverheadline.
(iii)	IS-2633	:	Methodfortestingweight,thicknessanduniformityofcoating on hot dipped galvanized articles.

(iv)	IS-5082	:	WroughtAluminiumandAluminiumAlloysectionforelectrical purpose.
(v)	IS-1285	:	Wrought Aluminium and Aluminium Alloy Round Tube and hollow sections.
(vi)	IS-617	:	Aluminiumandaluminiumalloyingotsandcastingfor general engineering purpose.

3. I)DEVIATION:

Normally the offer should be as per Technical Specification without any deviation.

A1: II)MODIFICATION :

If any modification felt necessary to improve performance, efficiency and utility of equipment, the same must be mentioned in the 'Modification schedule' with reasons duly supported by documentary evidences and advantages. Such modifications suggested may or may not be accepted, but the same must be submitted along with Pre-Bid Queries. The modifications not mentioned in Schedule will not be considered.

4. DESIGNCRITERIAOFCLAMPS&CONNECTORSFOR220KV,132KV&33KVSWITCHYARD PORTION:

(a) Clamps and connectors shall be made from cold forged Aluminum Alloy plate i.e. Extruded Aluminum Clamps and Connectors shall be processed through Cold forging of Aluminum Alloy.

(b) The Nuts and Bolts associated with equipment of Connector pieces shall be of MS Hot dip Galvanized, Quality of nuts and bolts shall conform to relevant IS of latest edition.

(c) Minimum thickness at any point of current carrying part of any clamp and connector shall not be less than 12 mm. However bidder has to submit detail calculation in support of withstanding of continuous current rating of connector as well as short circuit current withstand for specified duration as mentioned under general specification without increase of temperature beyond allowable limit as per relevant IS.

(d) The clamps and connectors shall be of best quality and workmanship, free from blowholes, cracks, cavities, surface blisters, claws and any other defect which may effect the performance of the clamp.

(e) Wherever connector will bridge Aluminum & Copper for bimetallic clamps, pure copper with tin coated liner having minimum thickness of 2 mm. shall be used.

(f) The connectors shall be designed Corona free. The voltage gradient at any corner surface shall be at a level that will not cause any resultant radio interference.

(g) Flexibleconnectorsshallbemadefrom adequatenumberof copper/aluminiumfoilstranded together having suitable current rating. Calculation and details shall be submitted insupport during detailed engineering.

(h) AllconnectorsoritscomponentstobeconnectedwithACSRconductorshallbeof compression type having Aluminum purity not less than 99.0%.

(i) AllclampsandconnectorsshallbemadefromcoldforgedAluminumplatei.e.extruded Aluminum having purity of Aluminum not less than 97.5%.

(j) Fromoutermost holeedge tonearestedge ofany clampsand connectorsthe distanceshall not be less than 10 mm.

(k) SharpCornersandedgesshallberoundedoff.

(l) The connectors are to be designed to prevent accumulation of moisture and can withstand the corrosive atmosphere condition.

(m) The connector shall be mechanically strong so that it can withstand loads imposed during erection, normal service, electro-mechanical force due to temperature variation and short circuit condition.

(n) The bolts shall be so located that pressure is properly distributed from the bolts over theentire contact surface.

(o) ThecurrentdensityofAluminum/coppershallbeconsideredas0.75/1.75A/sq. mm.

(p) The normal rated continuous current of clamps and connectors shall be selected as per point of application, use of type of conductors/Aluminum tube and also the stipulation of Clause No. 12.1 (a), (b) & (c) of IS : 5561 which are stated below :

(i) Equipment Connectors – The values of current shall be selected on the basis of the rating of the equipment to which the connector is connected or on the basis of the rating of the conductor for which the opening is designed, whichever is smaller.

(ii) Junction Connectors – The values of current shall be selected on the basis of the conductor which has the lower current carrying value where the openings are of two sizes and on the basis of the conductor which is common to both openings where the openings are of the same size.

(iii) 'T' Connectors – The values of current shall be selected on the basis of the full rated current in the tap conductor only.

(Q) **THE RATED FREQUENCY OF CONNECTOR SHALL BE 50HZ.**

(r) Rated short time current shall be as laid in the general specification for different voltage classes.

(s) The temperature rise of connector above an ambient temp. of 50°C when carrying rated continuous current shall not exceed 35°C.

(t) Power connector shall be so designed and proportioned that they are capable of safely withstanding stresses to which they may be subjected (including those due to short-circuit and climatic condition) and that the effect of vibration both on the conductor and the connector itself are minimized. They shall be designed, manufactured and finished so as to avoid sharp radii of curvature, ridges and excrescences which might lead to localised pressure on or damage to the conductor in service.

(u) Sufficient contact pressure should be maintained at the joint by the provision of the required number of bolts or other fixing arrangement.But the contact pressure should not be sogreat astocause relaxationofthe joint.The joint should be suchthat the pressure is maintained within the range under all conditions of service.To avoid excessive local pressure, the contact pressure should be evenly distributed by the use of pressure plates, washers or suitable saddles of adequate area and thickness.

(v) Allconnectorshouldbesodesignedandmanufacturedsoastoofferеaseofinstallation,as these are to be in overhead installation.

The connectors shall be indelibly marked with rated current or any identifying mark to enable full particulars of the connector to be obtained.

The electric power connector may also be marked with the ISIC ertification Mark.

(w) Alltheclampsandconnectorstobesuppliedalongwithallequipmenti.e.Breaker,C.T., P.T.EarthingTransformer.,L.A.,CVT,Isolator,Stn.ServiceTransformeretc.shallbe guided by this technical specification.

5. DESIGN CRITERIA FOR 400KV CLAMPS AND CONNECTORS.

(i) Allaluminiumandaluminiumalloysusedinthemanufactureofclampsandconnectorsshall conform to designation 4600 of IS : 617 and to be manufactured by Casting process, Clamps and connectors shall be free from cavities, blow holes, surface blisters and any other defects which may affect the performance of the clamps.

(ii) Generalradiusshallbeprovidedonalloutersurfacestokeepvoltagestresstoaminimum.

(iii) Thethermalratingofconnectionshallbesuchthatthejointrunscoolerthanthe associated bus bar.

(iv) The current density shall be considered as 0.75A/sq. mm. in case of aluminium ally/forged aluminium and that for copper shall be 1.75 A/Sq. mm.

(v) Sl. No.(b),(c),(f),(g),(h),(k),(l),(m),(n),(o),(q),(r),(s),(t),(u),(v)and(w)of Cl. No. 4 are also applicable.

(vi) All clamps and connectors shall be bolted type.

6. EQUIPOTENTIAL RING FOR 400KV EQUIPMENTS :

Equipotential grading rings shall be provided and installed by the contractor on all live parts of 400KV equipment, connections, fittings, where the shape of external surface present sharp corner of any other irregularities resulting from design, manufacture, assembly, erection.They shall also be provided and installed wherever else, such rings are necessary to reduce the dielectricstressonthe line surfaces in order toobviate radio interference and Corona effect. All clamp and connectors shall be bolted type.

The sharp and finish of such rings shall be such that the external line surface of the associated equipment is entirely surrounded and that the form of the dielectric field in the immediate vicinities of the line rings is smooth enough toreduce the voltage gradient with in safe limits

even under the most severe operating and climatic conditions.The rings shall be constitutedby aluminium alloy pipes of adequate diameter.They shall be as light as possible and present the minimum possible moment of inertia.Provisions shall be made in order :

a) Topreventingressandaccumulationofmoistureandimpuritiesinsidethering.

b) Tofastentheringtotheassociatedequipment,insuchawayastopreventloosening under any circumstances.

c) Toavoidvibrationsorresonanceeffectsduringoperation.

Thedesign oftheringassembliesshall permittheir easypartialor totalinstallation,dismantling and replacement, without disturbing the associated equipment within the limits of an effecting design.The types of rings shall be standardized as much as possible in order to minimize their variety.All rings of the same type shall be fully interchangeable, without adjustment.

Particular care shall be taken during manufacture and erection in order to obtain a perfectly smooth surface on the whole pipe.Rings not in perfect conditions shall be rejected.The designandarrangement oftheequipotentialringsshallbesubjecttotheapprovalofWBSETCL.

7. BUNDLE SPACER

a) Bundlespaceristobeusedfor‘Quadruple’&twinACSRconductor

b) In order to maintain inter group spacing between the sub-conductors ofa bundle under all working condition spacers shall be fitted in a bundle.The spacer shall be connected at the interval of suitable longitudinal distance in each phase of line and contractor shall specify the number of spacers to be required per span of 400KV, 220 KV and132 KV and 33 KV switchyard to avoid rubbing betweensub-conductors.The jumper at tension points shall also be fitted with spacers.

c) The spacer shall have enough strength so as to restore normal spacingbetween the sub- conductors after displacement by wind, short circuits etc.withoutdamageor permanent deformation.They shall have longlife without fatigue or wear and shall have gentle but firm griponconductors.Theyshallbeabletowithstand alltheelectromagneticandelectrostatic forces under different operating conditions including dead short-circuit.

d) Theyshall preferablybe of one-piece construction.All boltsshall be captive and nutsshall only beneededslackening notremovalinordertofitthe spacerstothesub-conductors.The spacer should notslip under any condition and joint with sub-conductors incorporating a flexible medium is acceptable provided such medium cannot slip under any condition.

e) The spacer shall not damage or chafe the conductor in any way. All nuts used for spacers shall be locked in a manner against vibration loosening.

f) The spacer shall be flexible enough to avoid distortion or damage of the sub-conductor.The electrical resistance between conductor and spacer shall be reasonable for satisfactory operation.The material of the spacer shall be of aluminum alloy of an approved type.

g) Thes pacing shall be so arranged that group spacing between sub-conductors is kept at 300 mm for 220 KV, 132 KV and 33 KV bus & jumper and 450mm. for 400KV Bus and Jumper for new S/stn. However inter conductor spacing is to be matched for exsisting 400KV, 220KV & 132KV S/stn.

h) The spacer shall not have any projection, cuts, abrasions etc. or chattering parts, which might cause corona & radio interference. They shall also have strength to resist deformations, which might cause the R.I. performance of the spacers.

i) ThespacersshallconformtoIS:10162.OnlyTypetestedspacersshallbeoffered.

8. GUARANTEE:

Electrical characteristics shall be guaranteed by the bidder. In case of failure of materials to meet the guarantee, WBSETCL shall have right to reject the material. Guaranteed Technical Particulars are to be submitted by successful bidder during detailed engineering along with submitteddrawings/documents.Howeverformatforsubmissionof GTP shall be handed over to intending bidders at the time of sale of tender documents.

9. TESTREPORTSANDTYPETESTS:

The materials offered should be similar withones onwhichtype testing hasbeen carried out as per relevant IS and IEC. Three sets of complete type test reports carried out in Govt.recognized TestHouseorLaboratory/NABLaccredited laboratoryshallhavetobe submittedby successful bidder positively along with submission of drawings during detailed Engineering. Successful bidder may require to produce original copies of type test reports at the time of detail Engineering if asked by WBSETCL.

Eachtypetestreportshallcomplythefollowinginformationwithtestresult

i) Competeidentification,dateandserialno.
ii) Methodofapplication,whereapplied,durationandinterpretationofeachtest.
iii) Relevantdrawingsasdocumentedwithtestreport.

10. TESTSATMANUFACTURER'SWORKSANDTESTCERTIFICATES:

Bidders shall have adequate testing facilities at their works to conduct all acceptance and routinetestsasstipulatedbelowasperrelevantISinpresenceofengineersofWBSETCL.

AcceptanceTest:

(a) Tensiletest

(b) Resistancetest
(c) Dimensionalcheck
(d) Galvanizingtest,whereapplicable.andallotherrelevanttestasperlatestIS/IEC.

RoutineTest:

Allroutinetestsatmanufacturer'sworksshallbecarriedoutasperstipulationofrelevantIS andtestreportsaretobesubmitted.

AllacceptancetestsaretobecarriedoutinpresenceofrepresentativesofWBSETCLat manufacturer'sworksoneverylotofferedforinspection.

Three (3) copies of routine and acceptance test results shall be submitted for approval & distribution. The contractor shall give at least 15 (fifteen) days advance notice to the Chief Engineer, Engg. Deptt., intimating the actual date of inspection and details of all tests that are to be carried out. The entire cost of acceptance and routine tests that are to be carried out as per relevant IS shall be treated as included in the quoted price.

11. CONTRACTDRAWINGS,MANUALS

In the event of placement of Letter of Award, contractor shall submit drawings and manuals in six (6) copies for approval.

After approval four (4) sets of approved drawings, relevant manuals both in soft and hard copy foreachsub-stationshallbesubmittedbythecontractorforourrecordanddistributiontosite.

SPECIFICTECHNICALPARAMETERSOFCLAMPANDCONNECTORS

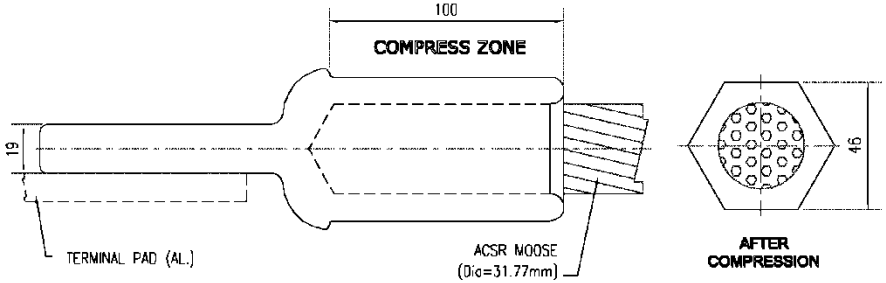
SNO	DESCRIPTION	TECHNICALPARAMETERS			
(i)	Ratedvoltageofthe system (KV)	400	220	132	33
(ii)	RatedShorttimecurrent (KA for 3 Secs.)	50foronesec	40for3sec	31.5for3sec	25for3sec
(iii)	RatedCurrent(Amp)	Depending upon point of application &Cl. No. 4(q) of technicalspecification			
(iv)	Current density of Al./Copper(A/Sq.mm.)	0.75/1.75			
(v)	TypeofClamps&connectors	Made from al. alloy by casting process.	Made from cold forged Al. Alloy plate i.e. Extruded Al. Compression / Bolted or both as per technical specification and requirement		
(vi)	Minimumthicknessof bimetal in bimetallic connections	2mm.			

A2: GUARANTEEDTECHNICALPARTICULARSFORCLAMPS&CONNECTORS

(TobefilledinandsignedbytheBidder)

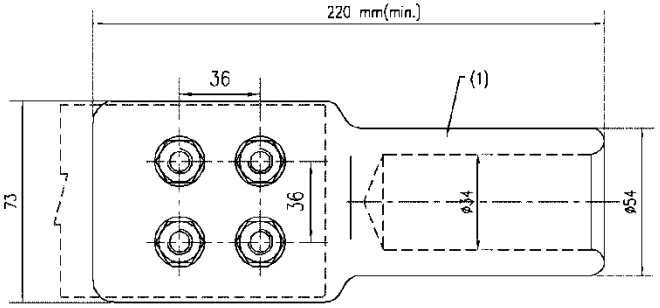
SL	DESCRIPTION	FOR400 KV	FOR220KV	FOR132 KV	FOR33 KV
1	General				
1.01	NameofManufacturer				
1.02	LocationofFactory				
1.03	ConformingStandard				
1.04	Material				
1.05	Type of clamps and connector(conventionalor compression or both)				
1.06	ThicknessofConnectors (mm)				
1.07	Minimum thickness of bimetallic element (mm)				
1.08	Temperature rise at full load and above 50°C ambient (°C)				
1.09	Tensilestrength(Kgf)				
2	ElectricalParameters				
2.01	Designedratedcurrent(A)				
2.02	Designed short time current (KArms for 3 sec.)				
2.03	Compositionofaluminium alloy in percentage				
2.04	Currentdensity(A/Sq.mm)				
2.05	Aluminium				
2.06	Copper				
2.07	CoronaExtinctionvoltage (KVrms)				

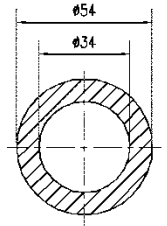
2.08	Electricalconductivity				
2.09	Magneticpowerloss				
2.10	RadioInterferencevoltage (microV)				



BILL OF MATERIALS:

ITEM	DESCRIPTION	MATERIAL	QTY.
1	CONNECTOR BODY	ALUMINIUM ALLOY GR. 19500	1 NO
2	M-12, BOLT, NUT, FLAT WASHER	MILD STEEL (HDG)	4 SETS
3	SPRING WASHER	SPRING STEEL (GR.5.6)-HDG	4 SETS

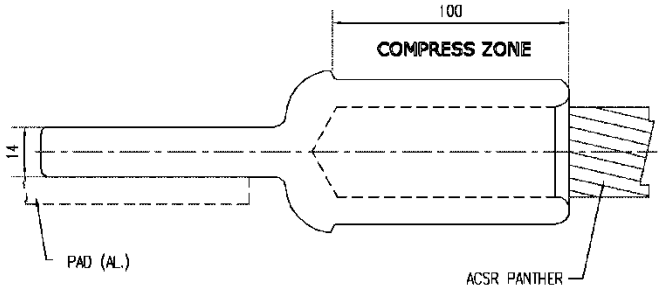


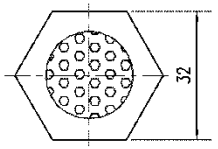


TECHNICAL DATA:

01. REFERENCE ISS: IS 5561-70,IS: 617,IS:1285,IS:2633
02. RATED SHORT TIME CURRENT: 40 KA FOR 3 SEC.
03. MAX. TEMP. RISE 40°C OVER AMBIENT TEMPERATURE OF 50°C AT 900 AMPS.
04. ALL BOLTS, NUTS & WASHERS HOT DIP GALVANISED OF IS-2633.
05. TENSILE STRENGTH OF CONNECTOR-110 KG.
06. ALL SHARP CORNERS ARE SMOOTHLY ROUNDED OFF
07. ALL DIMENSIONS ARE IN mm.

WEST BENGAL STATE ELECTRICITY TRANSMISSION COMPANY LIMITED (A Govt.of West Bengal Enterprise)		
Office of the Chief Engineer (ENGINEERING DEPARTMENT)		
Title: LUGS FOR MOOSE CONDUCTOR		
DRG. NO. WBSETCL / C & C - 001		
DRAWN BY	CHECKED BY	
SCALE N.T.S	RECOM. BY	
DATE-21.06.2016	APPROVED BY	
GEN. TOL: ±5%	TOTAL SHEET: 01 / SHEET: 1 OF 1	REV.

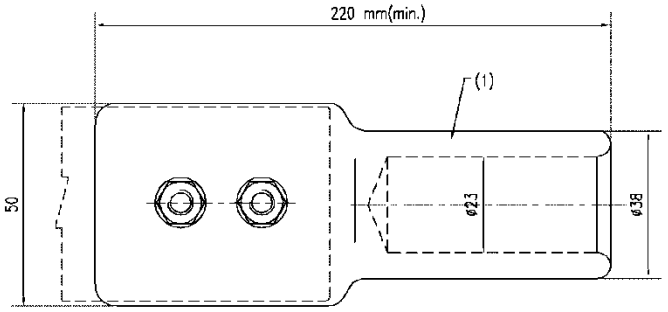


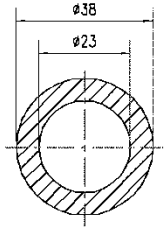


AFTER COMPRESSION

BILL OF MATERIALS:

ITEM	DESCRIPTION	MATERIAL	QTY.
1	CONNECTOR BODY	ALUMINIUM ALLOY GR. 19500	1 NO
2	M-12, BOLT, NUT, FLAT	MILD STEEL (HDG)	2 SETS
3	SPRING WASHER	SPRING STEEL (GR.5.6)-HDG	2 SETS





BEFORE COMPRESSION

TECHNICAL DATA:

01. REFERENCE ISS: IS 5561-70,IS: 617,IS:1285,IS:2633
02. RATED SHORT TIME CURRENT: 40 KA FOR 3 SEC.
03. MAX. TEMP. RISE 40°C OVER AMBIENT TEMPERATURE OF 50°C AT 500 AMPS.
04. ALL BOLTS, NUTS & WASHERS HOT DIP GALVANISED OF IS-2633.
05. TENSILE STRENGTH OF CONNECTOR-110 KG.
06. ALL SHARP CORNERS ARE SMOOTHLY ROUNDED OFF
07. ALL DIMENSIONS ARE IN mm.

WEST BENGAL STATE ELECTRICITY TRANSMISSION COMPANY LIMITED
(A Govt.of West Bengal Enterprise)

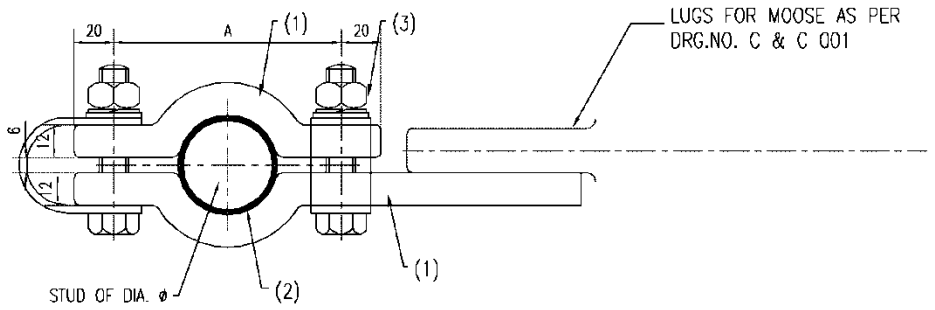
Office of the Chief Engineer
(ENGINEERING DEPARTMENT)

Title: LUGS FOR PANTHER CONDUCTOR

DRG. NO. WBSETCL / C & C - 02

DRAWN BY	CHECKED BY	
SCALE N.T.S	RECOM. BY	
DATE-21.06.2016	APPROVED BY	

GEN. TOL: ±5% | TOTAL SHEET: 01 | SHEET: 1 OF 1 | REV.

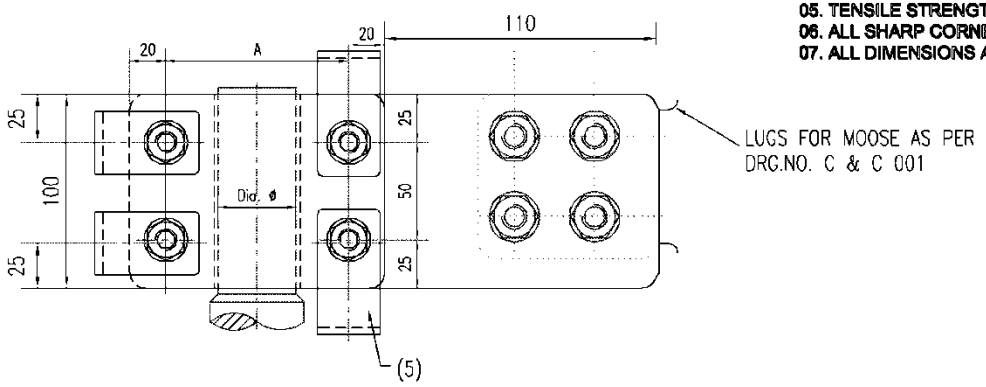


BILL OF MATERIALS:

ITEM	DESCRIPTION	MATERIAL	QTY.
1	CONNECTOR BODY	EXTRUDED AL. GR. 63400	2 NOS
2	ROUND BIMETALLIC BUSH (2mm THICK.)	ALUMINIUM & COPPER	1 NO (If Required)
3	M-12, BOLT, NUT, FLAT WASHER	MILD STEEL (HDG)	4 SETS
4	SPRING WASHER	SPRING STEEL (GR.5.6)-HDG	4 SETS
5	BIPASS STRIPS (25Wx3mm THICK.)	EXTRUDED AL. GR. 63400	4 NOS

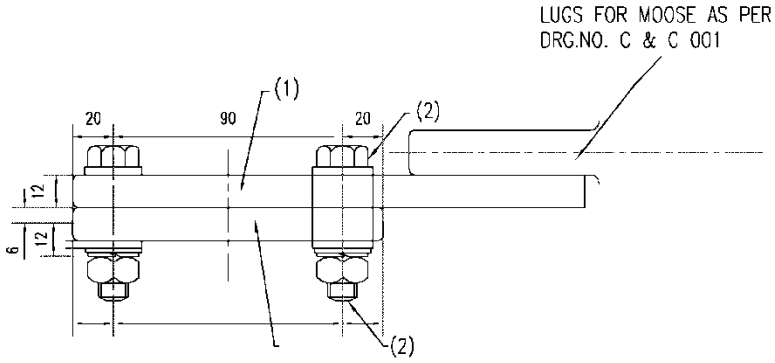
TECHNICAL DATA:

01. REFERENCE ISS: IS 5561-70,IS: 617,IS:1285,IS:2633
02. RATED SHORT TIME CURRENT: 40 KA FOR 3 SEC.
03. MAX. TEMP. RISE 40°C OVER AMBIENT TEMPERATURE OF 50°C AT 900 AMPS
04. ALL BOLTS, NUTS & WASHERS EXCEPT SP. WASHERS, HOT DIP GALVANISED OF IS-2633
05. TENSILE STRENGTH OF CONNECTOR-110 KG.
06. ALL SHARP CORNERS ARE SMOOTHLY ROUNDED OFF
07. ALL DIMENSIONS ARE IN mm.



* DIMENSION OF A & ø WILL BE DECIDED AS PER EQUIPMENT STUD DIA

WEST BENGAL STATE ELECTRICITY TRANSMISSION COMPANY LIMITED (A Govt.of West Bengal Enterprise)		
Office of the Chief Engineer (ENGINEERING DEPARTMENT)		
Title: TERMINAL CONNECTOR FOR STUD TO SINGLE MOOSE (UNIVERSAL TYPE)		
DRG. NO. WBSETCL / C & C -04		
DRAWN BY -	CHECKED BY -	
SCALE - N.T.S	RECOM. BY -	
DATE-21.06.2016	APPROVED BY	
GEN. TOL: ±5%	TOTAL SHEET: 01 / SHEET: 1 OF 1	REV.

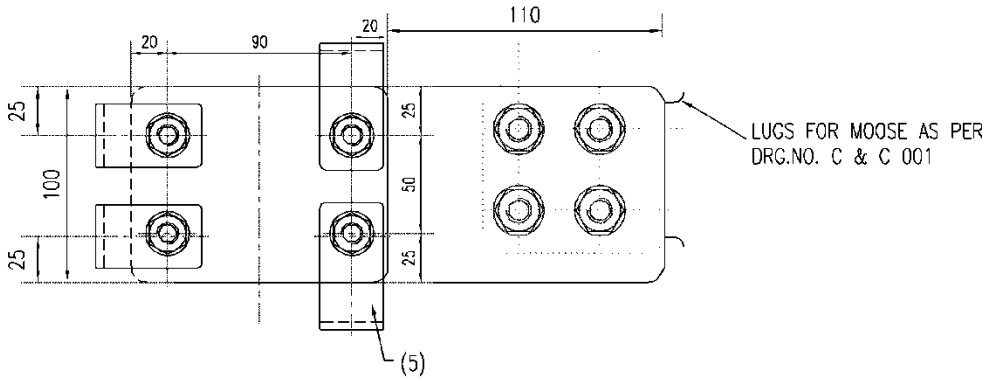


BILL OF MATERIALS:

ITEM	DESCRIPTION	MATERIAL	QTY.
1	CONNECTOR BODY	EXTRUDED AL. GR. 63400	2 NOS
2	M-12, BOLT, NUT, FLAT WASHER	MILD STEEL (HDG)	4 SETS
3	SPRING WASHER	SPRING STEEL (GR.5.6)-HDG	4 SETS
4	BIPASS STRIPS (25Wx3mm THICK.)	EXTRUDED AL. GR. 63400	4 NOS

TECHNICAL DATA:

01. REFERENCE ISS: IS 5561-70,IS: 617,IS:1285,IS:2633
02. RATED SHORT TIME CURRENT: 40 KA FOR 3 SEC.
03. MAX. TEMP. RISE 40°C OVER AMBIENT TEMPERATURE OF 50°C AT 900 AMPS
04. ALL BOLTS, NUTS & WASHERS EXCEPT SP. WASHERS, HOT DIP GALVANISED OF IS-2633
05. TENSILE STRENGTH OF CONNECTOR-110 KG.
06. ALL SHARP CORNERS ARE SMOOTHLY ROUNDED OFF
07. ALL DIMENSIONS ARE IN mm.



WEST BENGAL STATE ELECTRICITY TRANSMISSION COMPANY LIMITED
(A Govt.of West Bengal Enterprise)

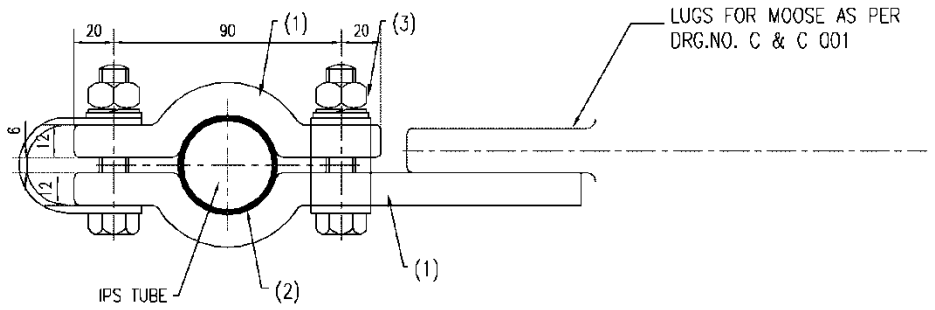
Office of the Chief Engineer
(ENGINEERING DEPARTMENT)

Title: CONNECTOR FOR PAD TO SINGLE MOOSE (UNIVERSAL TYPE)

DRG. NO. WBSETCL / C & C -06

DRAWN BY -	CHECKED BY -	
SCALE - N.T.S	RECOM. BY -	
DATE-21.06.2016	APPROVED BY	

GEN. TOL: ±5% | TOTAL SHEET: 01 | SHEET: 1 OF 1 | REV.

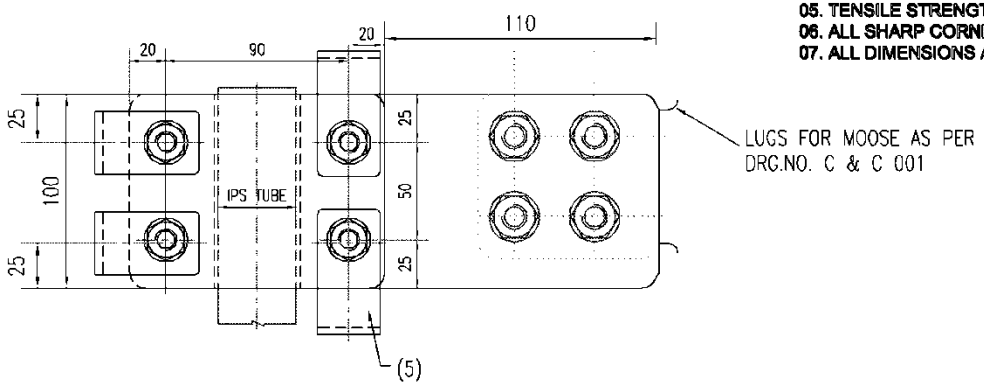


BILL OF MATERIALS:

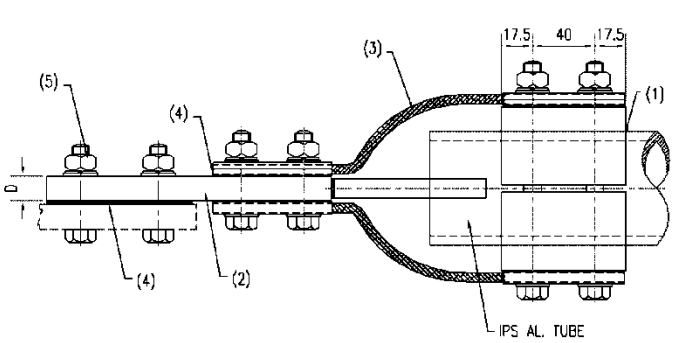
ITEM	DESCRIPTION	MATERIAL	QTY.
1	CONNECTOR BODY	EXTRUDED AL. GR. 63400	2 NOS
2	M-12, BOLT, NUT, FLAT WASHER	MILD STEEL (HDG)	4 SETS
3	SPRING WASHER	SPRING STEEL (GR.5.6)-HDG	4 SETS
4	BIPASS STRIPS (25Wx3mm THICK.)	EXTRUDED AL. GR. 63400	4 NOS

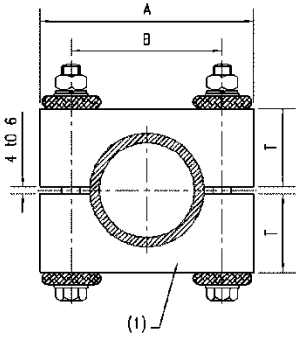
TECHNICAL DATA:

01. REFERENCE ISS: IS 5561-70,IS: 617,IS:1285,IS:2633
02. RATED SHORT TIME CURRENT: 40 KA FOR 3 SEC.
03. MAX. TEMP. RISE 40°C OVER AMBIENT TEMPERATURE OF 50°C AT 900 AMPS
04. ALL BOLTS, NUTS & WASHERS EXCEPT SP. WASHERS, HOT DIP GALVANISED OF IS-2633
05. TENSILE STRENGTH OF CONNECTOR-110 KG.
06. ALL SHARP CORNERS ARE SMOOTHLY ROUNDED OFF
07. ALL DIMENSIONS ARE IN mm.



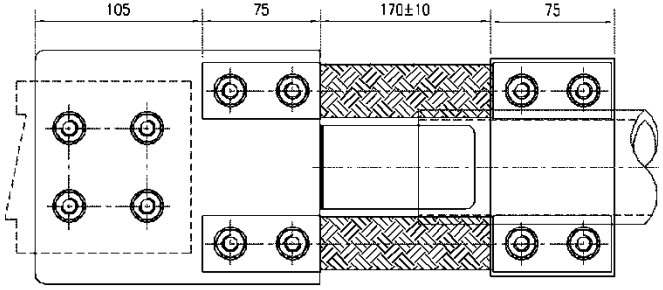
WEST BENGAL STATE ELECTRICITY TRANSMISSION COMPANY LIMITED (A Govt.of West Bengal Enterprise)		
Office of the Chief Engineer (ENGINEERING DEPARTMENT)		
Title: CONNECTOR FOR IPS ALUMINIUM TUBE TO SINGLE MOOSE (UNIVERSAL TYPE)		
DRG. NO. WBSETCL / C & C -007		
DRAWN BY -	CHECKED BY -	
SCALE - N.T.S	RECOM. BY -	
DATE-21.06.2016	APPROVED BY	
GEN. TOL: ±5%	TOTAL SHEET: 01 / SHEET: 1 OF 1	REV.

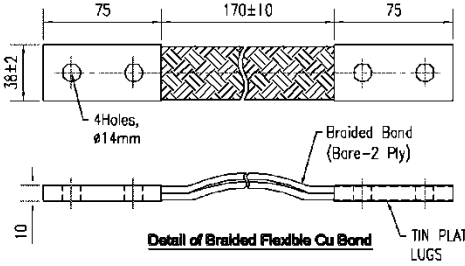




BILL OF MATERIALS:

ITEM	DESCRIPTION	MATERIAL	QTY.
1	BLOCK TYPE CLAMP BODY	ALUMINIUM ALLOY GR. 4600/63400	1 PAIR
2	TERMINAL CONNECTING PART	EXTRUDED AL. GR. 63400	1 NO
3	BRAIDED FLEXIBLE BOND (38x10mm) 02 PLY	EC GRADE COPPER	2 TO 4 NOS.
4	BIMETALLIC SHEET (2mm THK.) IF APPLICABLE	ALUMINIUM & COPPER	3 NO
5	M-12, BOLT, NUT, FLAT & WASHER	MILD STEEL (HDG)	12 SETS
6	SPRING WASHER	SP. STEEL (GR. 5.6) -HDG	12 SETS





AL. TUBE	All dimension are in mm					No. of Braided Flexible Bond	Rating of Connector (Amp.)
	A	B	T	C	D		
3" IPS TUBE	155	115	62	150	19	04	2000
2.5" IPS TUBE	140	100	54	150	16	04	1600
1.5" IPS TUBE	115	75	40	100	16	02	1250

TECHNICAL DATA:

01. REFERENCE ISS: IS 5561-70,IS: 617, IS:1285, IS:2633
02. RATED SHORT TIME CURRENT: 40 KA FOR 3 SEC.
03. MAX. TEMP. RISE 40°C OVER AMBIENT TEMPERATURE OF 50°C AT RATED CURRENT.
04. ALL BOLTS, NUTS & WASHERS HOT DIP GALVANISED OF IS-2633.
05. TENSILE STRENGTH OF CONNECTOR-110 KG.
06. ALL SHARP CORNERS ARE SMOOTHLY ROUNDED OFF
07. ALL DIMENSIONS ARE IN mm.

WEST BENGAL STATE ELECTRICITY TRANSMISSION COMPANY LIMITED
(A Govt.of West Bengal Enterprise)

Office of the Chief Engineer
(ENGINEERING DEPARTMENT)

Title: CONNECTOR FOR EQUIPMENT PAD TO IPS TUBE (FLEXIBLE TYPE)

DRG. NO. WBSETCL / C & C - 10

DRAWN BY	CHECKED BY	
SCALE N.T.S	RECOM. BY	
DATE-21.06.2016	APPROVED BY	

GEN. TOL: ±5% | TOTAL SHEET: 01 | SHEET: 1 OF 1 | REV.