



# Bharat Heavy Electricals Limited

Power Sector, Project Engineering Management

3<sup>rd</sup> Floor, BHEL SADAN, Sector-16A, Film City, Noida-201301

**NIT Ref. 77/25/6320/RAH dated 06.03.2026**

Dear Ma'am/Sir,

**Subject:** Tender Enquiry for Supply of CABLE TERM. & JOINT KITS (As per Specification) for **2X800 MW MEL SINGRAULI PHASE II BTG.**

We are pleased to invite your offer duly filled & Signed as per BOQ & as per following terms and conditions:

**Terms & Conditions:**

1. Delivery schedule: -Despatch of material shall be Ten (10) days from the date of PO.
2. Delivery Address: Material shall be dispatched to the following address:  
**Construction Manager, MEL site office, Mahan Energen Limited  
2x800 MW (Phase-II) Thermal Power Project, Village: Bandhoura, Karsualal  
Tehsil: Waidhan, District-Singrauli, Pin - 486886, Madhya Pradesh  
GSTIN 23AABCE6086C2ZY**
3. Payment terms: - 100% payment along with freight & GST shall be released as per timelines given below after receipt of material at site and on submission applicable documents as mentioned below. GST payment shall be made based on documentary evidence.  
**Payment timelines are: -**
  - a) Within 45 days for Supplier qualified and registered as **Micro** or **small enterprises** as per MSMED Act
  - b) Within 60 days for Supplier qualified and registered as Medium enterprises as per MSMED Act
  - c) Within 90 days for suppliers other than (a) & (b) above
4. Documents required for payment:
  - a.) Tax Invoice – original +1 copy
  - b.) Receipted LR (signed & stamped)/ confirmation from site regarding receipt of material
  - c.) Packing List
  - d.) MDCC from BHEL (shall be issued before dispatch).
  - e.) Guarantee/ Warrantee Certificate for 12 months from dispatch date.
  - f.) Insurance Intimation (as applicable)
  - g) Material Test Certificates (as applicable)
  - h) Documentary evidence of freight charges for claiming freight amount
5. Offer Validity: 30 days from bid opening date.
6. Guarantee terms: 12 months from dispatch date.
7. Packing type: - Normal packing (to keep the material safe from any transportation damage).
8. Evaluation will be done on overall L1 (Total cost to BHEL excluding GST) basis.
9. Billing Address & detail for Invoice: - BHEL, PS-PEM, BHEL SADAN, PLOT No.25, SECTOR-16A, NOIDA-201301, **GST No. 09AAACB4146P2ZC** and Place of supply will be Uttar Pradesh (09).

**Kindly ensure to submit your offer to the email ID: [pempersonalenquiry@bhel.in](mailto:pempersonalenquiry@bhel.in) latest by 04:00 PM on 06.03.2026.**

- a. Duly filled & signed Offer Format.
- b. Acceptance for Technical Specification PE-TS-504-507-E014
- c. Duly filled Annexure-I to NIT, i.e. BOQ cum Price Format
- d. Duly filled Annexure-II to NIT, i.e. Deviation Sheet

S/d



# **Bharat Heavy Electricals Limited**

**Power Sector, Project Engineering Management**

3<sup>rd</sup> Floor, BHEL SADAN, Sector-16A, Film City, Noida-201301

On behalf of BHEL PEM

**Enclosures:**

1. Offer Format
2. Technical Specification PE-TS-504-507-E014
3. BOQ cum Price Format, Annexure-I to NIT
4. Deviation Sheet, Annexure-II to NIT

**LETTER HEAD OF BIDDER**

**Offer Letter**

To,  
M/s Bharat Heavy Electrical Limited,  
PS-PEM, BHEL SADAN, Sector-16A, Noida

**Subject: Our offer for CABLE TERMINATION & JOINTING KITS for 2X800 MW MEL SINGRAULI PHASE II BTG.**

Dear Sir,

With reference to your enquiry no. **77/25/6320/RAH dated 06.03.2026** please find our offer as below

SL NO	Description & specification	Quantity	Total Ex-Works & Freight Prices (duly packed) (Rs.)	GST Rate	Remarks
1	CABLE TERMINATION & JOINTING KITS	As per BOQ (annexure-I)			Price Details as per Annexure-I Make- 3M / Raychem

Total Ex-Work Price (in words): .....

**Terms & Conditions:**

We accept all terms and conditions mentioned in NIT.

**Encl:**

1. Signed & stamped NIT.
2. Annexure-I (BOQ cum Price format)
3. Annexure-II

Particulars of bidder / authorized representative				
Name	Designation	Signature	Date	Company Seal

## ANNEXURE-I

### 2X800 MW MEL SINGRAULI PHASE II BTG

#### PRICE SCHEDULE CUM BOQ FOR CABLE TERMINATION KITS

S. No.	MAKE	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT EX WORKS PRICE (INRs)	Total Ex-Works Prices (INRs)	Freight (Packing & forwarding) charges	GST Rate (as applicable)	GST Value	TOTAL F.O.R SITE PRICES-INRs (Mahan Energen Limited, District-Singrauli, Pin - 486886, M.P)
1	3M / RAYCHEM	<b>TERM. KIT 6.6 KV 3C-185 AL ARMoured</b> <b>(As per Specification no. SPECIFICATION NO: PE-TS-504-507-E014 attached)</b>	NOS.	12						

# **2X800 MW MEL SINGRAULI PHASE II BTG**

## **TECHNICAL SPECIFICATION FOR CABLE TERMINATION KIT**

**SPECIFICATION NO: PE-TS-504-507-E014**

**REVISION: 0**



**BHARAT HEAVY ELECTRICALS LIMITED  
POWER SECTOR  
PROJECT ENGINEERING MANAGEMENT  
NOIDA, UP (INDIA) – 201301**



**TECHNICAL SPECIFICATION FOR  
CABLE TERMINATION KIT**

SPECIFICATION NO. PE-TS-504-507-E014

VOLUME II

SECTION

REVISION 0

DATE: 19.02.2026

SHEET 1 OF 1

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	DATA SHEET – A	02
2.0	SECTION- II	
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*Total nos. of sheets including cover & separator sheets = 11 sheets*



**TECHNICAL SPECIFICATION FOR  
CABLE TERMINATION KIT**

SPECIFICATION NO. PE-TS-504-507-E014

VOLUME II

SECTION I

REVISION 0

DATE: 19.02.26


SHEET 1 of 1

**COMPLIANCE CERTIFICATE**

The bidder shall confirm compliance to the following by signing/ stamping this compliance certificate and furnishing same with the offer.

1. The scope of supply, technical details, construction features, design parameters etc. shall be as per technical specification & there are no exclusion/ deviation with regard to same.
2. There are no deviation with respect to specification.
3. Only those technical submittals which are specifically asked for in NIT to be submitted at tender stage shall be considered as part of offer. Any other submission, even if made, shall not be considered as part of offer.
4. Any comments/ clarifications on technical/ inspection requirements furnished as part of bidder's covering letter shall not be considered by BHEL, and bidder's offer shall be construed to be in conformance with the specification.
5. Any changes made by the bidder in the price schedule with respect to the description/ quantities from those given in 'BOQ-Cum-Price schedule' shall not be considered (i.e. technical description and quantities as per specification shall prevail).

-----  
BIDDER'S STAMP & SIGNATURE

	<b>TECHNICAL SPECIFICATION FOR CABLE TERMINATION KIT</b>	SPECIFICATION NO. PE-TS-504-507-E014	
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### SPECIFIC TECHNICAL REQUIREMENTS

#### 1.0 SCOPE OF ENQUIRY

- 1.1 Design, manufacture, inspection and testing at manufacturer's works, proper packing and delivery to site of Cable Termination Kit conforming to this specification.
- 1.2 Technical requirements of Cable Termination Kit are indicated in technical specification.

#### 2.0 BILL OF QUANTITIES

- 2.1 The bidder to quote for items as per price schedule attached with NIT.

#### 3.0 DRAWINGS & DOCUMENTS TO BE SUBMITTED

- 3.1 Documents required after award of LOI/PO shall be follows (to be submitted by successful bidder):

#### DOCUMENTS SUBMISSION SCHEDULE

<i>BHEL Drawing No.</i>	<i>Drawing Title</i>	<i>Vendor Sub (Days)*</i>	<i>Bhel comment (Days)</i>	<i>Vendor Sub (Days)#</i>	<i>Bhel and Customer comment/approval (Days)</i>
<b>Primary Documents</b>					
PE-V0-503-507-E904	QUALITY PLAN FOR CABLE TERMINATION & JOINTING KITS	5	5	5	15
PE-V0-503-507-E032	TECHNICAL DATA SHEET & GA OF CABLE TERMINATION & JOINTING KITS	5	5	5	15
PE-V0-503-507-E033	TYPE TEST REPORT / CERTIFICATES	5**	5**	5**	15**

#### NOTES:

a) \* 1st submission within indicated days from date of purchase order

b) # Submission (within indicated days) after incorporating all BHEL comments

c) Primary documents shall be considered for Delay analysis

d) \*\* Primary/Secondary :

Case 1: If Type Test Report is available and Type test conduction is not required as per technical Specification, Type test report to be submitted as above. However, physical inspection shall be done by BHEL.

Case 2: If Type Test Report is not available as per technical Specification, Newly conducted test report to be submitted as below:

R-0 within 02 months of approval of other primary drawing/documents & subsequent revisions within 10 days of comments received from BHEL. BHEL shall furnish comments / approval on each submission within 18 days from receipt.

Case 3: For the cases where earlier conducted Type test reports are available as per technical Specification, however the Type Test need to be conducted as per contractual requirement, Type Test Report to be submitted within 1 week of type test conduction & subsequent revisions within 10 days of comments received from BHEL. BHEL shall furnish comments / approval on each submission within 18 days from receipt.

\*\* For Cases 1 & 2 above, the document shall be "Primary" and for Case - 3 the document shall be "Secondary"

- 3.2 a) Type test report for 6.6 KV should not be more than five (5) years old from the date of techno-commercial bid opening date.

b) In case bidder is not able to submit report of type test(s), or in case type tests report(s) are not found to be meeting the specification/ relevant standard requirements, then all such tests shall be conducted under this contract by the bidder free of cost to BHEL, and reports shall be submitted for approval. No charges shall be paid for testing under such circumstances.


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c) Kit contents shall be supplied from the same source as were used for type testing.

3.3 Documents shall be furnished through BHEL's document management system (wrench) portal.

**Notes:**

1. Vendor shall submit the dates for drawing/document submission/BHEL comments/ resubmission after approval of documents.
2. In BOM each of the item to be uniquely identified with item code no. or item Sl. No. Supplier to ensure that all the items which will find separate mention in the packing list are covered in detailed BOM. Supplier to give following undertaking in BOM: " The BOM provided here completes the scope (in content and intent) of material supply under PO no. ---- dtd ----- Any additional material which may become necessary for the intended application of supplied item/package will be supplied free of cost in most reasonable time."
3. At contract stage, the successful bidder shall submit the Quality Plan for BHEL/ ultimate customer's approval. In case bidder has reference, Quality Plan agreed with ultimate customer, same can be submitted for specific project after award of contract for BHEL/ ultimate customer's approval. There shall be no commercial implication to BHEL on account of Quality plan approval.
4. Termination shall have provision for shield connection and earthing, wherever cable screening is specified.
5. Cable glands are excluded from the scope of supply of termination kit.
6. Bidder to offer higher voltage grade termination kit, if they cannot produce relevant type test certificates for particular kits conducted in any govt. / govt. approved lab, without any price implication.
7. **PACKING:**  
Individual parts of termination kit shall be packed in strong plastic bags to protect them from ingress of dust & moisture. Further total kits shall be placed in a strong cardboard container to protect it against damage during transit, storage for prolonged periods and handling. It shall have proper marking over the box for early identification.

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### **DATASHEET-A**

#### **1.0 REFERENCE CODES & STANDARDS**


- 1.1 IS: 13573 (Latest Revision): Cable accessories for extruded power cables.
- 1.2 IS: 8309: Compression type tubular terminal ends for aluminium conductors of insulated cables.
- 1.3 Heat shrink material shall comply with requirements of ESI 09-13 (external tests).
- 1.4 Cable joints and terminations should be with FRLS properties as per IEC 60754

#### **2.0 TERMINATION KITS**

- 2.1 Voltage grade: 6.6kV (UE)
- 2.2 Application: Indoor
- 2.3 Type: Heat Shrinkable Type
- 2.4 Sizes: As per BOQ
- 2.5 Type testing conforming to: As per IS 13573 and IEC60502
- 2.6 Total Shrouding of all live parts: Yes

#### **3.0 BRIEF CABLE SPECIFICATION**

- 3.1 Voltage grade: 6.6kV (UE)
- 3.2 Conductor material: Stranded aluminium
- 3.3 Conductor screening material: Extruded cross-linked Semi conducting compound
- 3.4 Insulation material: Cross-linked polyethylene (XLPE)
- 3.5 Insulation Screen material
- a) Non-metallic: Cross-linked semi-conducting compound
- b) Metallic: Copper tape
- 3.6 Armour: Applicable
- (a) Single core: Aluminium round wire

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(b) Multi core: Galvanised steel strip/round wire armour

3.7 Inner sheath material: PVC Type ST2 (For multicore cables)

3.8 Outer sheath material: PVC Type ST2 (FRLS)

#### 4.0 Required Fault Level:

Voltage Grade	6.6kV (UE)
RMS Value	50 kA for 0.16 sec (for 6.6kV)
Peak Value	125kA (for 6.6kV)

Fault withstand duration: 1.0 sec

#### 5.0 Type testing requirement:

6.6kV rade joints and terminations shall be type tested and Type test reports as per IS:13573 Part-II and IEC60502 shall be furnished. Also, heat shrink material shall comply with requirements of ESI 09-13 (external tests). Critical components used in cable accessories shall be of tested and proven quality as per relevant product specification/ESI specification. Cable joints and terminations should be with FRLS properties as per IEC 60754-1&2. Calculation to withstand the required fault level shall also be furnished in case of cold shrinkable type kits.

Type test certificates to be furnished in line with Clause 3.4, 3.5, 3.6 of Section-II of specification. Type testing/Test certificates shall conform to IS: 13573.

Type test report for 6.6 KV should not be more than five (5) years old from the date of techno-commercial bid opening date.

#### 6.0 CABLE LUGS (As per DIN):

(a)Tinned copper solderless crimping type lugs & ferrule. Cable lugs shall be provided with bimetallic washer.



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CABLE TERMINATION KIT**

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**SECTION-II**

**STANDARD TECHNICAL REQUIREMENTS**

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## 1.0 CODES AND STANDARDS

- 1.1 The material shall comply with all currently applicable safety codes and statutory regulations of India as well as of the locality where the material is to be installed.
- 1.2 The design, material, construction, manufacture, inspection, testing and performance of **Cable Termination & Jointing Kits** shall conform to the latest revision of relevant standards and codes of practices as per Datasheet-A.

## 2.0 TECHNICAL REQUIREMENTS

- 2.1 Technical particulars of Cable termination & jointing kits are specified in Technical Datasheet.
- 2.2 Termination Kits shall be of proven design and make, which have already been extensively used and fully type tested. Critical components used in cable accessories shall be of tested and proven quality as per relevant product specification/ESI specification. Kit contents shall be supplied from the same source as were used for type testing.
- 2.3 The termination/jointing kits shall be suitable for site ambient conditions and polluted atmosphere, and for storage without deterioration at 50°C ambient temperature.
- 2.4 Termination kits shall be suitable for installation inside motor terminal boxes, metal clad switchgear, transformer terminal box etc.
- 2.5 Each kit shall contain all necessary components, accessories and consumables to make a complete termination in such a way that no live parts of the terminals and connecting lugs are exposed. Cable lugs for termination kits & jointing ferrules for straight through jointing kits shall form part of the kit.
- 2.6 The kit shall be complete with
- The tinned copper solderless crimping type cable lugs & ferrule or mechanical connectors (wherein bolts are tightened that shear off at an appropriate torque) as per DIN standard suitable for aluminium compacted conductor cables. Same shall be provided with bimetallic washer.
  - The aluminium solderless crimping type cable lugs and ferrule as per DIN standard.
    - or (b) shall be applicable as per BOQ.
- 2.7 Termination and jointing kits shall have requisite stress relieving characteristics.
- 2.8 Termination and joints shall have provision for shield connection and earthing, wherever cable screening is specified.
- 2.9 All materials and components of the terminations/joints shall be suitable for and compatible with the type of cables for which the terminations/joints are intended.
- 2.10 Any surface treatment or sealants used to ensure environmental protection to the components of termination/joint or on the cable surface shall be non-tracking type and shall withstand the associated electric stress.

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- 2.11 Cable jointing kits shall be suitable for directly buried cables.
- 2.12 Cable glands are excluded from the scope of supply of termination kit/ jointing kits.

### 3.0 QUALITY ASSURANCE, TESTING & INSPECTION

- 3.1 At contract stage, the successful bidder shall submit the signed & stamped Manufacturing Quality Plan for BHEL/ ultimate customer's approval. In case bidder has reference Manufacturing Quality Plan agreed with ultimate customer, same can be submitted for specific project after award of contract for BHEL/ ultimate customer's approval. There shall be no commercial implication to BHEL on account of Manufacturing Quality plan approval.
- 3.2 All materials shall be procured, manufactured, inspected and tested by vendor/ sub-vendor as per approved Manufacturing Quality Plan.
- 3.3 The supplier shall perform all tests necessary to ensure that the material and workmanship conform to the relevant standards and comply with the requirements of the specification. Charges for all these tests for all the equipments & components shall be deemed to be included in the bid price.
- 3.4 The bidder shall furnish the reports of all the type tests carried out, which shall conform to the latest revision of relevant standards. These reports should be for the tests conducted either in government approved third party laboratory or witnessed by client (such as major utilities/ industries) on identical/ similar items to those ordered under this contract.
- 3.5 In case bidder is not able to submit report of type test(s), or in case type tests report(s) are not found to be meeting the specification/ relevant standard requirements, then all such tests shall be conducted under this contract by the bidder free of cost to BHEL, and reports shall be submitted for approval. No charges shall be paid for testing under such circumstances.
- 3.6 Irrespective of the bidder furnishing valid type test report as indicated above, BHEL may get type tests conducted if specified as project requirement, for which cost shall be borne by BHEL as per actual.
- 3.7 Bidder to offer higher voltage grade termination & jointing kits, if they cannot produce relevant type test certificates for particular kits conducted in any govt. / govt. approved lab, without any price implication.

### 4.0 PACKING

Individual parts of termination & jointing kits shall be packed in strong plastic bags to protect them from ingress of dust & moisture. Further total kits shall be placed in a strong cardboard container to protect it against damage during transit, storage for prolonged periods and handling. It shall have proper marking over the box for early identification.