



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(भारत सरकार का उपक्रम)

BHARAT HEAVY ELECTRICALS LIMITED

(A Govt. of India Undertaking)

TCN - 02

Ref: PSER:SCT:LPT-A1202:TCN-02

Date: 09-06-2011

Sub	Tender change notice (TCN) 02.	
Job	(i) Erection, commissioning etc of Electrical System; (ii) Erection, commissioning etc of control & instrumentation (C&I) System; (iii) Engineering/ design, manufacturing/ procurement, supply, erection, commissioning etc of Ventilation System and (iv) Engineering/ design, manufacturing/ procurement, supply, erection, commissioning etc of Plant Illumination System for 53 MW Combined Cycle Power Plant at Lepetkata, BCPL, Assam.	
Ref	1.0	Tender no PSER:SCT:LPT-A1202:11.
	2.0	BHEL's NIT, vide reference no PSER:SCT:LPT-A1202:2408, dated 17-05-11.
	3.0	BHEL's TCN-01, vide reference no PSER:SCT:LPT-A1202:TCN-01, dated 04-06-11.
	4.0	All other pertinent issues till date.

With reference to above, following points/ documents, relevant to tender, may please be noted and complied with while submitting offer.

- 1.0 General technical requirements of Cable Glands as per enclosed Annexure-A.
- 2.0 General technical requirements of Cable Lugs as per enclosed Annexure-B
- 3.0 Revised 'No deviation certificate' as per enclosed Annexure-2. Bidder shall submit no deviation certificate as per enclosed format only.
- 5.0 All other terms & conditions shall remain unchanged.

Thanking you,

Yours faithfully,
for BHARAT HEAVY ELECTRICALS LTD

Engineer (SCT)

Encl

- 1.0 As above.

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

POWER SECTOR EASTERN REGION, DJ-9/1, SECTOR-II, SALT LAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960 फोन/Phone : बोर्ड/EPABX : 23211691, 23211798, 23211796

JOB

(i) Erection, commissioning etc of Electrical System; (ii) Erection, commissioning etc of control & instrumentation (C&I) System; (iii) Engineering/ design, manufacturing/ procurement, supply, erection, commissioning etc of Ventilation System and (iv) Engineering/ design, manufacturing/ procurement, supply, erection, commissioning etc of Plant Illumination System for 53 MW Combined Cycle Power Plant at Lepetkata, BCPL, Assam.

TENDER NO - PSER:SCT:LPT-A1202:11

**GENERAL TECHNICAL REQUIREMENTS
OF
CABLE GLANDS**

1.0 GENERAL

This specification covers the design, manufacture, testing, packing and delivery to site of cable glands.

2.0 CODES AND STANDARDS

2.1 The material, constructional features and various processes involved in manufacture shall comply with the latest edition of the following Indian and British Standards. However, if Data Sheet A specifies conformance to any other national/ international standard(s), the same shall be considered.

- a) BS:6121 Mechanical cable glands
(Part 1 -Specification for metallic glands)
- b) IS:12943 Brass Glands for PVC Cables - Specification (for single
compression glands only)

3.0 DESIGN AND CONSTRUCTIONAL FEATURES

3.1 Cable glands shall be single or double compression, insulated or non-insulated type as per Data Sheet A.

3.2 Material of glands shall be brass.

3.3 Surface finish (plating/ tinning) shall be provided as indicated in Data Sheet A.

3.4 Rubber components used in the gland shall be of neoprene.

3.5 Make of glands shall be one of BHEL approved makes.

3.6 Insulated cable glands shall be provided with separate earth tag of copper strip. Earth lead of braided copper for each gland shall be provided, if specified in Data Sheet A. Size and length of tag and lead shall be to the Purchaser's approval.

3.7 Following information shall be engraved/ printed on each cable gland:

- a) Name of manufacturer/ trade name
- b) Type number
- c) Applicable range of outer diameter of cable

4.0 INSPECTION & TESTING

4.1 Cable glands shall be inspected and tested as per the applicable standards and BHEL approved Quality Plan.

5.0 PACKING

5.1 Packing of the items shall be to the approval of Purchaser.

6.0 DOCUMENTATION

6.1 The following documents are to be submitted by the successful bidder within two weeks of award of contract for Purchaser's approval :

- a) Data Sheet C
- b) Drawings and Catalogues

DATASHEET A**SPECIFIC TECHNICAL REQUIREMENTS**

1.0 CONSTRUCTIONAL DETAILS

1.1 Type of compression: Double Compression

1.2 Duty: Heavy

1.3 Whether insulated type: NO

If Yes, then

(a) whether braided copper
lead required : NA

1.4 Material: Brass

1.5 Type of surface finish: Tinned

1.6 Thickness of surface finish: 10 microns

1.7 Rubber component material: Neoprene

1.8 Applicable Standard: BS 6121

DATASHEET C
GURANTEED TECHNICAL PARTICULARS
(TO BE SUBMITTED BY SUCCESSFUL BIDDER)

1.0 GENERAL

1.1 Name of vendor :

1.2 Address of vendor :

1.3 Make of gland :

2.0 STANDARDS APPLICABLE

2.1 BS:6121 : YES

3.0 TECHNICAL DETAILS

a) Type of compression : DOUBLE

b) Whether insulated type : YES

c) Material :

d) Whether surface finish provided : YES

e) Type of surface finish :

f) Thickness of surface finish : microns

g) Type of rubber material :

h) Whether engraving/ printing as per : YES/NO
specification provided

i) Whether type tested : YES

4.0 DOCUMENTATION

Whether the following are furnished for Purchaser's approval :

a) Drawings and Catalogues YES

JOB

(i) Erection, commissioning etc of Electrical System; (ii) Erection, commissioning etc of control & instrumentation (C&I) System; (iii) Engineering/ design, manufacturing/ procurement, supply, erection, commissioning etc of Ventilation System and (iv) Engineering/ design, manufacturing/ procurement, supply, erection, commissioning etc of Plant Illumination System for 53 MW Combined Cycle Power Plant at Lepetkata, BCPL, Assam.

TENDER NO - PSER:SCT:LPT-A1202:11

**GENERAL TECHNICAL REQUIREMENTS
OF
CABLE LUGS**

1.0 GENERAL

This specification covers the design, manufacture, testing, packing and delivery to site of cable lugs.

2.0 CODES AND STANDARDS

2.1 The material, constructional features and various processes involved in manufacture shall comply with the latest edition of following standards. However, if Data Sheet A specifies conformance to any other national/ international standard(s), the same shall be considered.

- a) IS:8309 Specification for compression type tubular terminal ends for aluminium conductors of insulated cables.

3.0 DESIGN AND CONSTRUCTIONAL FEATURES

3.1 Cable lugs shall be of aluminium or tinned copper as indicated in Data Sheet A.

3.2 Type of end connection shall be solderless crimping type unless specified otherwise in Data Sheet A.

3.3 Cable lugs shall be suitable for aluminium or copper conductor.

3.4 Cable lugs for conductors of power cables shall be "heavy duty" type. The type & size of cable lugs for power cables shall be selected according to the number and sizes of strands indicated against each size of conductor in the BOQ.

3.5 Following information shall be engraved/printed on each cable lug:

- a) Name/ trade name/ trade mark of manufacturer
- b) Size

4.0 INSPECTION & TESTING

4.1 Cable lugs shall be inspected and tested as per the applicable standards and BHEL approved Quality Plan.

5.0 PACKING

5.1 Packing of the items shall be to the approval of Purchaser.

6.0 DOCUMENTATION

6.1 The following documents are to be submitted by the successful bidder within two weeks of award of contract for Purchaser's approval :

- a) Data Sheet C
- b) Quality Plan
- c) Field Quality Plan
- d) Drawings and Catalogues
- e) Bar Chart
- f) Billing Schedule

DATASHEET A**SPECIFIC TECHNICAL REQUIREMENTS**

1.0 CONSTRUCTIONAL DETAILS

- | | | |
|-----|---|--|
| 1.1 | Type : | Solderless crimping type (Heavy duty for Power cables) |
| 1.2 | Material : | Copper / Aluminium |
| | (a) Power cables: | Aluminium / Tinned copper (As per BOQ) |
| | (b) Control cables: | Copper |
| 1.3 | Whether tinning required :
(For copper cable lugs) | YES |
| 1.4 | Thickness of tinning : | 10 microns |
| 1.5 | Applicable Standard : | |
| | a) For lugs for 11kV/ 3.3 kV
grade cables | DIN 46329 |
| | b) For LT cables | IS:8309 |

DATASHEET C**GURANTEED TECHNICAL PARTICULARS
(TO BE SUBMITTED BY SUCCESSFUL BIDDER)**

1.0 GENERAL

1.1 Name of vendor :

1.2 Address of vendor :

1.3 Make :

2.0 STANDARD APPLICABLE

2.1 DIN 46329 for HT cables : YES

2.1 IS:8309 For other cables : YES

3.0 TECHNICAL DETAILS

a) Type :

b) Material :

c) Whether tinning provided : YES
for copper lugs

d) Thickness of tinning : microns

e) Whether type tested : YES

4.0 DOCUMENTATION

Whether the following are furnished for Purchaser's approval :

a) Quality Plan

b) Drawings and Catalogues

FORMAT FOR NO DEVIATION CERTIFICATE
(To be submitted in the bidder's letter head)

BHARAT HEAVY ELECTRICALS LIMITED,
Power Sector - Eastern Region,
Plot no 9/1, DJ Block, Sector – II, Salt Lake City,
Kolkata – 700 091

Sub	No Deviation Certificate.	
Job	(i) Erection, commissioning etc of Electrical System; (ii) Erection, commissioning etc of control & instrumentation (C&I) System; (iii) Engineering/ design, manufacturing/ procurement, supply, erection, commissioning etc of Ventilation System and (iv) Engineering/ design, manufacturing/ procurement, supply, erection, commissioning etc of Plant Illumination System for 53 MW Combined Cycle Power Plant at Lepetkata, BCPL, Assam.	
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	4.0	BHEL's TCN-02, vide reference no PSER:SCT:LPT-A1202:TCN-02, dated 09-06-11.
	5.0	All other pertinent issues till date.

Dear Sirs,

With reference to above, this is to confirm that as per tender conditions, we have visited site before submission of our offer and noted the job content & site conditions etc. We also confirm that we have not changed/ modified the tender documents as appeared in the website/ issued by you and in case of such observance at any stage, it shall be treated as null and void.

We hereby confirm that we have not taken any deviation from tender clauses together with other references as enumerated in the above referred NIT. We hereby confirm our unqualified acceptance to all terms & conditions, unqualified compliance to technical specification, integrity pact (if applicable) and acceptance to reverse auctioning process.

In the event of observance of any deviation in any part of our offer at a later date whether implicit or explicit, the deviations shall stand null & void.

We confirm to have submitted offer in accordance with tender instructions and as per aforesaid references.

Thanking you,

Yours faithfully,

(Signature, date & seal of authorized
representative of the bidder)