



SO 9001:2000  
&14001:2004  
NAVARATNA  
COMPANY

**MATERIAL MANAGEMENT(PURCHASE)  
CENTRAL FOUNDRY FORGE PLANT,BHEL  
RANIPUR, HARIDWAR (INDIA) – 249403**

Phone No.+91-1334-281277,284684 FAX No. 225892

e-mail: [ranjank@bhelhwr.co.in](mailto:ranjank@bhelhwr.co.in),[kraj@bhelhwr.co.in](mailto:kraj@bhelhwr.co.in),[manoj26@bhelhwr.co.in](mailto:manoj26@bhelhwr.co.in)

## OPEN TENDER

M/S.....

.....

**Sub: Tender Enquiry No. 3004P/360/3/0218P1**

Dear Sir,

We are pleased to invite your offer in TWO PARTS strictly as per enclosed terms and conditions and '**Instruction to Bidders**' in sealed covers for the under mentioned equipment / systems.

Tender No.	Description of Equipment	Qty. (No.)	Tender Opening date and time	EMD (Earnest Money Deposit)
3004P/360/3/0218P1	Power Distribution Board	Total 06	30.09.2013 At 2.00 PM	Rs. 2, 00,000.00 (Rs. Two lakhs only) or equivalent foreign currency.

1. Tender can be downloaded from web site [www.bhelhwr.co.in](http://www.bhelhwr.co.in) / [www.bhel.com](http://www.bhel.com) without any tender fee.
2. Tender opening date and time is indicated as above. Tenders in two part in line with '**Instruction to Bidders**' is required to be submitted on or before due date. On due date, tender can be submitted up to 1.45 PM and will be opened at 2.00 P.M. on same date in the Tender Room of Material Management Department, CFFP/BHEL, Haridwar.
3. BHEL will not be responsible for any type of postal delay .Please note that late offers shall not be accepted.
4. Intending vendors must remit the requisite EMD of Rs 2,00,000/- (rupees two lakhs ) in the form of **Cash (as permissible under Income Tax Act) / Pay Order / Demand draft / e-payment (in case of foreign bidders)** only (Cheque / Bank Guarantee are not acceptable) while submitting the tender documents as detailed in "Instruction to Bidders".

5. Part-1 bids shall be opened of those vendors **ONLY WHO HAVE SUBMITTED EMD drawn in favor of CFFP / BHEL Haridwar, IN ANOTHER ENVELOPE SUPERSCRIBED WITH BOLD LETTERS "EMD ")** on the due date in the presence of authorized representatives of the bidders who may like to be present . The authorized representative should bring authority letter from their principals for attending the bid opening.
6. All Govt. of India / Central & State PSUs / State Govt. entities / Micro and Small Enterprises are exempted from submission of EMD.
- 7.1 EMD by the Tenderer will be forfeited if, the successful bidder/vendor refuses to honour the Order after award of the same on him and/or withdraws his bid and /or unilaterally changes the offer and/or any of its terms & conditions within the validity period.
- 7.2 EMD given by all unsuccessful Tenderers shall be refunded on acceptance of award / LOI/PO by successful Tenderer. The EMD of successful bidder shall be returned after submission of Contract Execution Bank Guarantee (CEBG).
- 7.3 EMD shall not carry any interest.
- 8 Other terms and conditions tender will be as per following attached tender documents:
  - Tender enquiry.
  - Annexure C of '**Instruction to Bidders**'.
  - Annexure I of commercial terms.
  - Annexure II of BG Format.
  - Annexure III of Consortium Bank List & e payment format.
  - Annexure IV, A & B Terms & Conditions regarding Indian agent of foreign suppliers.
  - Annexure V of Pre Qualification Criteria (PQC).
  - Annexure VI & VII of Technical Specification.

**NOTE:** The vendor should submit their best price at this stage itself and they will not be allowed to revise the price. Any revision / discount given by vendor subsequently will be ignored.

[Any clarification on technical specifications can be obtained from BHEL before tender opening. Vendors are welcome to have pre-bid meeting with BHEL engineers for better understanding of our requirements.](#)

KINDLY READ "INSTRUCTIONS TO BIDDERS" **THOUROUGHLY**. QUOTATION NOT IN ACCORDANCE WITH INSTRUCTIONS ARE LIABLE TO BE DISQUALIFIED AND IGNORED

Thanking You,

Yours Faithfully,  
For & ON BEHALF OF CFFP/ BHEL, HARIDWAR

Raj Kishore  
Manager (Purchase)



निविदा सूचना  
**TENDER ENQUIRY**

भारत हैवी इलैक्ट्रिकल्स लिमिटेड  
**Bharat Heavy Electricals Ltd**  
सेन्ट्रल फाउन्ड्री फोर्ज प्लांट- हरिद्वार - २४६४०३ (भारत)  
**Central Foundry Forge Plant, Haridwar-249403 (INDIA)**

AA-17001

Phone : (0091) 01334- 281639,281385,285336

Fax : 01334 225892 / 226458

TIN NO. 05001763485  
C S T NO. HR-5018287 Dt. 16-03-1995

निविदा सूचना सं. ENQUIRY NO.*	3004 P/ 360/3/0218P1	दिनांक Date	26-08-2013
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कृपया निम्नलिखित के लिए निविदा दें। PLEASE QUOTE FOR THE FOLLOWING :

M/S. :: DUE DATE 30-09-2013  
::  
: Vendor Code 09285  
INDIA

SL	MATERIAL CODE ITEM DESCRIPTION	QUANTITY	UNIT	LOTNO	LOT DELIVERY QTY SCHEDULE
1	FF4210813095 3 PHASE, 50 HZ, 415 V, 3200 A POWER DISTRIBUTION BOARD CONSI STING OF 01 NO 3200A INCOMER AND 01 NO 1250A, 06 NOS 800A & 02 NOS 400A OUTGOING FEEDERS AS PER SPEC. NO. CFF/CDS/CAPITAL/2MVA/13-14/02	5	NO	1	5 15/02/14
2	FF4210813109 3 PHASE, 50HZ, 415V, 3200A POWER DISTRIBUTION BOARD CONSISTING OF 01 NO 3200A INCOMER AND 01 NO 2000A, 01 NO 1250A, 02 NOS 800A, 02 NOS 400A & 02 NOS 250A OUTGOING FEEDERS AS PER SPEC. NO. : CFF/CDS/CAPITAL/2MVA/13-14/03	1	NO	1	1 15/02/14

\*\* IMPORTANT: This enquiry is 2 part tender. Techno-Commercial bid (Part-1) & Price Bids (Part-2) should be submitted in separate envelopes. These two envelopes should be submitted in a common sealed envelope. Techno-Commercial Bid shall contain detailed Technical Specification, Drawings Technical documents, Catalogues, taxes & duties, payment terms, delivery period, Validity of offer, Replica of Price Bid (Copy of price bid without price part) etc. The confirmation to the special terms & conditions must be submitted alongwith Techno-Commercial bid.

Standard Instructions:  
TEST CERTIFICATE REQUIRED.  
GUARANTEE CERTIFICATE REQUIRED.  
BASIC RATES, TAXES DUTIES SEPERATELY  
CENVATABL DUPLICATE COPY OF INVOICE.

Special Instructions:  
01. PANEL LAYOUT & WIRING DRAWING ARE TO BE APPROVED BY BHEL BEFORE  
MANUFACTURING.  
02. APPROVAL WILL BE DONE WITHIN 7 DAYS FROM THE DATE OF RECEIPT OF DRG.

Page No 1



AA-17001

निविदा सूचना  
**TENDER ENQUIRY**

भारत हैवी इलेक्ट्रिकल्स लिमिटेड  
**Bharat Heavy Electricals Ltd**  
सेन्ट्रल फाउन्ड्री फॉर्ज प्लांट- हरिद्वार - २४६४०३ (भारत)  
**Central Foundry Forge Plant, Haridwar-249403 (INDIA)**

Phone : (0091) 01334- 281639,281385,285336 Fax : 01334 225892 / 226458

TIN NO. 05001763485  
C S T NO. HR-5018287 Dt. 16-03-1995

निविदा सूचना सं. ENQUIRY NO.★	3004 P/ 360/3/0218P1	दिनांक Date	26-08-2013
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कृपया निम्नलिखित के लिए निविदा दें। PLEASE QUOTE FOR THE FOLLOWING :

MATERIAL CODE                      QUANTITY    UNIT                      LOTNO  
ITEM DESCRIPTION

03. VENDOR HAS TO CONFIRM ALL THE CONDITIONS OF TECHNICAL SPECIFICATION NO. CFFP/CDS/CAPITAL/2MVA/13-14/02 & CFFP/CDS/CAPITAL/2MVA/13-14/03.
04. EARLY DELIVERY IS ACCEPTABLE.
05. ATTACHMENT-
- ANNEXURE C OF GENERAL TERMS AND CONDITION.
  - ANNEXURE- I OF COMMERCIAL TERMS.
  - ANNEXURE II OF BG FORMAT.
  - ANNEXURE III OF CONSORTIUM BANK LIST.
  - ANNEXURE IV, A & B OF 'TERMS & CONDITION REGARDING INDIAN AGENT OF FOREIGN SUPPLIERS.
  - ANNEXURE V OF PRE QUALIFICATION CRITERIA (PQC).
  - ANNEXURE VI & VII OF TECHNICAL SPECIFICATION.
  - ANNEXURE D OF E PAYMENT FORMAT.

## General Instructions:

1. Please submit authorization letter (format enclosed) for facilitating e-payment/electronic transfer of funds
  2. 100% payment within 30 days after receipt & acceptance of material at CFFP BHEL, Haridwar through e-payment.
  3. CFFP/BHEL RESERVES THE RIGHT TO PRE-INSPECT THE MATERIAL AT VENDOR'S WORKS / GODOWN/ PREMISES BEFORE DESPATCH.
  4. ORIGINAL MANUFACTURER'S TEST CERTIFICATE IS REQUIRED ALONG WITH DESPATCH DOCUMENTS. IN CASE SUPPLIES ARE FROM TRADERS, IT SHALL BE THE RESPONSIBILITY OF THE TRADER TO PROVIDE ORIGINAL MANUFACTURER'S TEST CERTIFICATE WITH LINKAGE TO TRADER'S INVOICE STATING BATCH NO.
  5. CFFP/BHEL Reserves the right to procure from more than one vendor.
  6. Please quote prices in figures & words both. In case the prices quoted in words and figures are different, the values indicated in words will be considered for evaluation & establishing L1 status.
- \* The offers of the bidders who are on the banned list as also the offers of the bidders, who engage the services of the banned firms, shall be rejected. The list of banned firms is available on web site [www.bhel.com](http://www.bhel.com)

  
**MANOJ KUMAR YADAVA**  
SR. ENGINEER (PUR.)

**Instruction to bidders**

**Clause 1.0:**

The tenders shall be submitted in three parts (part I Techno -Commercial Bid, part II price Bid & part III supplier registration form as described below on or before the due date.

- **The Quotation should be from the Principal / Original Manufacturer, failing which the quotation is likely to be ignored.**
- Any corrections / amendments shall be properly & fully authenticated with signature.

The bidders (originals manufacturers) will have to submit ink-signed offer / bid in original directly to BHEL. In case the bid is submitted by fax / email, the bidders shall simultaneously ensure submission of ink-signed original bid to BHEL also in the manner prescribed in this tender. **Unsigned bids shall be ignored.**

However, the suppliers or their authorized person may be allowed to attend the tender opening, if duly authorized by their principals, through a specific letter for a particular enquiry for specific price bid opening on that particular day. General authorization letter is not acceptable.

**Clause 1.1:** PART-I (TECHNO-COMMERCIAL BID) shall comprise of following documents:

- a) Complete Technical offer
- b) Catalogue of the Equipment, Complete reference of the past supply of equipment for the same or similar specification giving details of customer with Name of the contact person, Fax no, phone no, E-mail if available.
- c) Acceptance of commercial terms by vendor as per **Annexure I**.
- d) Deviation with reference to specification to be laid down on separate sheet.

Cost of deviation is to be submitted along with the price bid essentially, in case vendor withdraws the deviation clauses the same will be considered for final evaluation,

- e. Copy of price Bid (**without prices**) as per **annexure 'E'**, this should be replica of part II bid without price.
- f. The rating of the company quoting for this tender from a third party (independent agency) preferably by M/S Dun and Bradstreet should be submitted. (DUN NUMBER). **Compliance of this clause is mandatory in case of foreign supplier, Indigenous suppliers to submit the copy of balance sheets for last three years.**
- g. Any additional documents (please specify).

**Clause 1.2:** PART-II (PRICE BID)

The price Bid (with price) to be submitted with part I, for the complete scope strictly as specified in the price Format attached as **Annexure- E**.

Prices are to be indicated in both figures and words. In case of any discrepancy of value the prices quoted in words shall be considered for evaluation and establishing L1 status in line with clause no 4.

If price bid is not submitted along with the technical bid, the offer will be rejected out rightly.

**Clause 1.2.1**

a) Foreign Suppliers: The prices are to be quoted on CIF Mumbai (Sea). The bidder who quotes on other than CIF Mumbai basis then his offer will be loaded by the maximum freight, packing & forwarding , insurance charges quoted by any other bidder from the same or nearby port, against the enquiry/freight rate & insurance available with BHEL. Further non-availability of ship will not be accepted for rescheduling or waiver of penalties.

b) Indigenous suppliers: Vendors to quote rates on FOR destination (BHEL / CFFP Haridwar) basis. Vendor can dispatch good through any Indian Bank Association approved transporters having their branch at Haridwar / destination. For the convenience name and address of transporters approved by IBA and BHEL are posted at website [www.bhelhwr.co.in](http://www.bhelhwr.co.in). If any bidder still quotes on other than FOR destination basis, then their offer will be loaded by maximum freight, packing & forwarding charges quoted by any other vendor from the same or nearby station, against the enquiry / freight rate available with BHEL. Further, non-availability of BHEL approved transporter will not be accepted for rescheduling of delivery or waiver of penalties.

c) Insurance during transportation shall be taken care of by vendor.

d) Applicable sales Tax, Excise duty, service tax, educational cess and any other statutory levy should be indicated separately and clearly in the quotation.

e) The comparison between foreign and indigenous bids shall be done based on the **Total** Landed price basis (FOR Destination).

f) Delivery: In case, delivery not possible to meet as per tender, earliest possible delivery may please be quoted.

**Clause 1.3:**

Part-III - Supplier Registration/ evaluation form (SRF)

The SRF duly filled up will be assessed for manufacturing capability, quality systems being followed, organizational soundness and financial worthiness

Vendor evaluation form can be downloaded from [www.bhel.com](http://www.bhel.com) / [www.bhelhwr.co.in](http://www.bhelhwr.co.in).

For New Vendors, the SRF is to be submitted essentially, failing which the offer will not be considered further.

For Vendor registered with T code, VRF is to be submitted essentially along with the offer, failing which the offer will not be considered further.

**Clause 2.1:**

PART-I containing techno-commercial part and part-III containing vendor Registration/ evaluation form will be opened on the date and time specified in the covering letter, in the presence of those **vendors**, who wish to attend **the tender opening**. Offer should be complete in all respect (i.e. Part-I, Part-II, Part-III and Part-IV)

**Clause 2.2: First part IV containing EMD will be opened, in case same is found in order then only part I and part III (containing SRF) will be opened.**

**Clause 2.2.1:**

The part-II price Bid along with supplementary priced bid (if necessary) will be opened at a later date of only those bidders whose techno-commercial bid is found acceptable.

**BHEL reserves the right to evaluate vendors process capability / quality systems etc by visiting vendor works (if required)**

**Clause 3.1:**

The following shall be superscribed on the envelopes:

1. PART-I

1. TENDER NO. AND ITEMS DESCRIPTION.

2. DUE DATE FOR OPENING.
3. "TECHNO-COMMERCIAL BID PART-I"

2. PART-II

1. TENDER NO. AND ITEMS DESCRIPTION.
2. DUE DATE FOR OPENING OF PART-I.
- 3."PRICE BID PART-II".

3. PART-III

1. TENDER NO. AND ITEMS DESCRIPTION.
2. DUE DATE FOR OPENING.
3. Supplier registration form duly filled.

4. PART-IV

**EMD: Details of Drafts attached (Amount, No, Bank, Branch, Issue date)**

**Clause 3.2:**

The part-I, part-II, part-III **and part-IV** shall be individually sealed and super scribed as indicated above and shall be enclosed further in the envelop duly sealed and super scribed as:

"TENDER FOR (ITEM NAME) AGAINST TENDER NO.----- DUE ON -----  
CONTAINING PART-I, PART-II, PART-III & PART IV OF THIS OFFER." Vendor's full name and address should be clearly mentioned on the envelope

**Clause 3.3:**

Envelopes not marked as above are liable to be ignored and may not be opened.

**Clause No 4 :** If any discrepancy in Words & Figures found in quoted price bid, following is to be followed.

- a- If, in the price structure quoted for the required goods/services/works, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit price shall prevail and the total price corrected accordingly.
- b- If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- c- If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject of (a) and (b) above.

**Clause No. 5: As per directives of CENTRAL VIGILANCE COMMISSION, GOVERNMENT OF INDIA, One agent cannot represent two or more suppliers or quote on their behalf in a particular tender. If so found at any stage, BHEL Hardwar is likely to cancel Enquiries / POs to such suppliers. Further such Indian Agents are likely to be de-listed from BHEL.**

Thanking You,

Yours faithfully,  
For & on behalf of CFFP BHEL, Hardwar.

Raj Kishore  
Manager (Purchase)

T E No: 3004 P/360/3/0218 P1

<u>COMMERCIAL TERMS</u>	Vendor Acceptance
<p><b>1. Payment terms:</b>  <b>Indigenous Supplier:</b> 80% payment of Supply value shall be made within 45 days from the date of receipt of material at CFFP / BHEL. Balance 20% of Supply value will be paid after receipt of Performance Bank Guarantee (PBG) valid for 13 months from the date of receipt of material at CFFP / BHEL. PBG will be submitted by Supplier from any of the Consortium Banks of BHEL for 10% of total PO Value in the prescribed Format. The PBG confirmation charges shall be borne by vendor.  <b>For foreign supplier:</b> Payment of Supply value shall be 80% on dispatch through USANCE LC on 70th day of bill of lading date ( B/L date) and balance 20% of supply value will be paid through trunk transfer after receipt of Performance Bank Guarantee (PBG) valid for 13 months from the date of receipt of material at CFFP / BHEL. PBG will be submitted by Supplier from any of the Consortium Banks of BHEL for 10% of total PO Value in the prescribed Format. The PBG confirmation charges shall be borne by vendor.</p> <p>Note : Any deviation, in Payment Terms by bidder w.r.t. tender conditions following loading shall be applicable:  (a) Benchmark Prime Lending Rate (BPLR) of SBI as applicable on the scheduled date of tender opening + 2%, for the amount &amp; period of relaxation sought by bidder.  (b) On account of payment through LC, Bank charges shall also be loaded for the deviation in  (i) opening of LC by BHEL and  (ii) period and amount of LC w.r.t. NIT norms, as per the prevailing bank rates.</p>	
<p><b>2. Contract Execution Bank Guarantee (CEBG) :</b> Vendor has to submit Contract Execution Bank Guarantee for 10% of the total PO value ( supply) in the currency of order within 30 days from the date of purchase order (but before LC opening in case of foreign vendors) in the form of Bank Guarantee in BHEL format from BHEL consortium bank or from a reputed bank and confirmed by any consortium bank of BHEL valid up to 30 days from the date of receipt of material at CFFP / BHEL.</p> <p>If the supplier fails to submit the CEBG even within 60 days from the date of PO, BHEL reserves the right to cancel PO &amp; forfeit the EMD given by the supplier. In addition, in such case, action will be initiated in line with BHEL's extant guidelines for Suspension of Business dealings with Suppliers.</p> <p>Note : In case of foreign vendors if some indigenous supply is involved then Contract Execution Bank Guarantee shall be of combined order value (Import order value + indigenous order value in foreign currency) and to be submitted by foreign vendor</p>	
<p><b>3. PBG terms:</b>  Performance Bank Guarantee (PBG) valid for 30 days beyond the guarantee / warranty period ( 13 months from receipt of material at CFFP / BHEL) by Supplier from any of the Consortium Banks of BHEL for 10% of total PO Value in the prescribed Format. The PBG confirmation charges shall be borne by vendor. This bank guarantee shall have to be submitted before release of last balance payment.  Note : In case of foreign vendors if some indigenous supply is involved then PBG value shall be of combined order value (Import order value + indigenous order value in foreign currency) and to be submitted by foreign vendor.</p>	
<p><b>4 . CURRENCY OF PAYMENT FOR FOREIGN VENDORS :</b> (Euro / Dollar / YEN &amp; GBP)</p>	
<p><b>5 .</b> For indigenous supply the currency shall be Indian Rupees</p>	
<p><b>6 . Time period for Supply:</b>  Time period required by BHEL - 4 months from the date of Purchase Order. Supplier is requested to quote earliest possible delivery.</p>	
<p><b>7 . ORDER ACCEPTANCE :</b> CEBG and order acceptance (ink-signed) will be submitted within 30 days from the date of PO.</p>	

<p><b>8. Submission of Bank Guarantee:</b> All bank guarantees i.e CEBG as well as performance bank guarantee should be from one of the BHEL consortium banks (annexure-III) and the bank guarantees should be in the proforma as prescribed by BHEL (annexure-II). BGs shall be from one of the Consortium Banks of BHEL or from a reputed Bank and confirmed by any Consortium Bank of BHEL. All bank charges on account of issuance and confirmation of CEBG whether incurred in India or outside India will have to be borne by the vendor.</p>	
<p><b>9. Penalty for delay in supply :</b> The rate of penalty for delayed Supply shall be @ 0.5% per week of delay of total PO value subject to a maximum of 10% of total PO value. - In case PO includes more than one machine, the penalty shall be @ 0.5% per week of delay on total PO value ( supply) for the delayed machine. - In case any bidder is not accepting the above penalty for delayed Supply, the offer of bidder shall be loaded to the extent to which it is not agreed by the bidder. - In case, any shortage is noticed viz-a-viz PO requirement in the main equipment /spares, such shortages shall be replenished by supplier on FOR destination basis without any cost implication to BHEL i.e. Custom Duty and freight charges etc. up to destination for such short supplies shall be borne by the supplier. Supply period indicated by bidder should include reasonable time required for approval of drawings and other inputs from BHEL. In the Techno-Commercial Bid, the bidder shall submit milestones for various activities in co-relation with Supply and E&amp;C period quoted by him.  For calculating Late Delivery penalty delivery date shall be considered as per following: 1. Indigenous Suppliers: a. Delivery Ex-works:- Date of GR /LR b. Delivery FOR Destination:- Date of receipt at BHEL Hardwar. 2. Import Supply: Delivery CIF/CPT port of destination:- Date of AWB/BL</p>	
<p><b>10. Settlement of Disputes :</b> In case of any dispute, settlement of disputes through arbitration shall be in accordance with Arbitration Rules of Conciliation and Arbitration of the ICC, Paris. The venue of arbitration shall be Delhi. The courts of Delhi shall have exclusive jurisdiction.</p>	
<p>For Indigenous Source. The venue of arbitration shall be Haridwar. Haridwar Courts will have exclusive jurisdiction.</p>	
<p><b>11. Authorization for pre-inspection:</b> BHEL is authorized to pre inspect the material at vendor's works. The material will be dispatched only after getting clearance from BHEL.</p>	
<p>Indigenous suppliers should give Pre-Dispatch Inspection (PDI) call at least 15 days in advance and foreign suppliers should give PDI call at least 45 days in advance. If supplier fails to give pre-inspection call within stipulated time, this will not be a reason of penalty waiver or delivery extension.</p>	
<p>Travel, Lodging &amp; Boarding charges of BHEL inspectors / trainees during pre-inspection and training will be borne by BHEL</p>	
<p><b>12. Drawing / data approval :</b> Any drawing / data approval required from BHEL after placement of order shall be the responsibility of the vendor and any delay on account of the same shall be the responsibility of the vendor and have no bearing on the penalty applicable.</p>	
<p><b>13. Drawing / design / information use:</b> The vendor will have to give an undertaking that the drawing / design / information enclosed with the enquiry / proposed order will not be parted to any other agency and will also not be used for manufacturing for any other customer.</p>	
<p><b>14. Delivery of the equipment:</b> Delivery must essentially be CIF Mumbai Sea port for import and FOR BHEL Haridwar for indigenous. Sea freight charges for import and freight charges for indigenous items must essentially be quoted and indicated separately in price bid. In case of FOB quote, loading for freight &amp; others will be done.</p>	
<p><b>15. 3 Sets of O&amp;M Manual:</b> 3 Sets of Operation &amp; Maintenance Manual shall have to be supplied along with the equipment. Final payment will be released only after receipt of the required documentation ( No of sets if mentioned in technical specification then same will prevail).</p>	
<p><b>16. Training:</b> Vendor shall provide required training to BHEL personnel free of cost.</p>	
<p><b>17. Details of Contact person Name, Designation, Department complete postal, E-mail address &amp; Fax no, phone, Mobile no. to be mentioned.</b></p>	

<b>18. Import Supply: a.</b> Phyto-sanitary Certificate essential for packages (Wooden)	
<b>b.</b> Country or origin certificate: Vendor to furnish the country of origin certificate from Chamber of Commerce with dispatch documents	
<b>19. Validity:</b> Validity of the offer should be 180 days from tender opening date.	
<b>20. Bank Charges:</b> Bank Charges on either side. Or your prices will be loaded suitably.	
<b>21. Participation in Reverse Auction ( R.A.) :</b> BHEL may decide to process the case through RA. Vendors to give their confirmation for participation in Reverse Auction process.	
<b>22.</b> L1 price will be decided on landed cost to CFFP, BHEL basis. <b>** For evaluation, exchange rate (TT selling rate of SBI) as on scheduled date of tender opening (part –I bid in case of two part bid) shall be considered in case of foreign supplier.</b>	
<b>23.</b> Price bid should clearly indicate the basic cost ,freight and applicable taxes and duties mentioned in price bid format. <b>Replica of price bid</b> (copy of price bid without price part) to be submitted alongwith techno commercial bid.	
<b>24. Complete details</b> (company name with address / Phone no / FAX / mail id) is required on which purchase order is to be released.	
<b>25.</b> Foreign Suppliers: Dispatching port & Country to be mentioned essentially	
<b>26.</b> Total weight - Gross / Net in Kg, package size essentially should be indicated (if not exact then approximate.)	
<b>27. Risk Purchase Clause:</b> In case of delays in supplies / defective supplies or non-fulfillment of any other terms and conditions given in the Purchase Order the purchaser may cancel the purchase order in full or part thereof, and may also make the purchase of such material from elsewhere / alternative source at the risk and cost of the supplier.	
<b>28. Guarantee :</b> 12 months from date of receipt of material at CFFP / BHEL.	
<b>29.</b> Vendor who is not registered in CFFP/BHEL Haridwar or registered with T code should also submit duly filled up Supplier Registration Form (available at <a href="http://www.bhel.com">www.bhel.com</a> ) alongwith all supporting documents in separate envelop with their offer.	
<b>30.</b> Foreign suppliers and their Indian agent ( If any) must comply with the terms and condition given n annexure -IV.	
<b>Note:</b> Attach separate sheet for additional information if necessary. The above terms & condition supersedes the terms & conditions found contradictory written else where in the tender enquiry	

Date

Signature with Seal of company.

**Price bid Format**

**Annexure- E**

T.E	3004P/360/3/0218P1.	
S.N.	Parameters	Cost
1	<b>Item No 1 ( material code FF4210813095) :</b> Total cost of power distribution board complying all parameters of technical specification of CFF/CDS/CAPITAL/2 MVA/13-14/ 02	
2	<b>Item No 2 ( material code FF4210813109) :</b> Total cost of power distribution board complying all parameters of technical specification of CFF/CDS/CAPITAL/2 MVA/13-14/ 03	
3	Applicable Taxes and duties.	Excise Duty..... CST..... Service Tax & Any other.....
4	Freight and transit insurance charges upto CFFP BHEL Haridwar Stores inclusive of service tax.	

**NOTE:**

A.	Copy of this sheet <b>without price part</b> must be submitted alongwith techno-commercial offer.
B.	Quantity required for item no 1 is 5 nos and for item no 2 is 1 number.

Signature with seal of company.



ANNEXURE-II

WAM-28

### Proforma for Bank Guarantee

In consideration of the Bharat Heavy Electrical Limited Siri fort N. Delhi through Division CFFP Hardwar (hereinafter called the Company') having agreed to exempt----- (hereinafter called 'the said Contractor' which term includes 'Suppliers' for the purpose of this Bond) from the demand under the terms and conditions of an Agreement no / PO no ----- date. ----- made between -----and ----- for (hereinafter called 'the said Agreement') of Security Deposit for the due fulfillment by the said Contractor of the terms and conditions contained in the said Agreement, on production of a Bank Guarantee for Rs. ----- (Rupees-----only).

1. We, \_\_\_\_\_(Indicate the name of the Bank)\_\_\_\_\_  
(hereinafter referred to as 'the Bank') at the request \_\_\_\_\_  
\_\_\_\_\_(Contractor (s) do hereby undertake to pay to the Company an amount not exceeding Rs. \_\_\_\_\_  
\_\_\_\_\_ against any loss or damage caused to or suffered or would be caused to or suffered by the Company by reason of any breach by the said Contractor (s) of any of the terms and conditions contained in the said Agreement.
2. We, \_\_\_\_\_(indicate the name of the Bank)\_\_\_\_\_ do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the Company stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Company by reason of breach by the said Contractor(s), of any of the terms of conditions contained in the said Agreement or by reason of the contractor(s), failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. \_\_\_\_\_.
3. We undertake to pay to the Company any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto our liability under this present being absolute and unequivocal.

The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the Contractor(s) shall have no claim against us for making such payment.

4. We, \_\_\_\_\_(indicate the name of the Bank)\_\_\_\_\_ further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall

continue to be enforceable till all the dues of the Company under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till \_\_\_\_\_ Office / Department / Division of Bharat Heavy Electrical Limited certifies that the terms and conditions of the said Agreement have been fully and property carried out by the said contractor(s) and accordingly discharged this guarantee. Unless a demand or claim under this guarantee is made on us in writing on or before the \_\_\_\_\_ we shall be discharged from all the liability under this guarantee thereafter.

5. We, \_\_\_\_\_(indicate the name of the Bank)\_\_\_\_\_ further agree with the Company that the Company shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said contractor(s) from time to time or to postpone for any time or from time to time any of the power exercisable by the company against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by any reason of any such variation or extension being granted to the said contractor(s) or for any forbearance, act or omission on the part of the company or any indulgence by the company to the said contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.
  
6. This guarantee will not be discharged due to the change in the constitution of the Bank or the contractor(s).
  
7. We, \_\_\_\_\_(indicate the name of the bank)\_\_\_\_\_ lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Company in writing.

Dated the \_\_\_\_\_ day of \_\_\_\_\_

For \_\_\_\_\_(indicate the name of the bank)\_\_\_\_\_

<b>LIST OF BHEL CONSORTIUM BANK</b>	
<b>1</b>	<b>State Bank of India</b>
<b>2</b>	<b>Canara Bank</b>
<b>3</b>	<b>Bank of Baroda</b>
<b>4</b>	<b>Punjab National Bank</b>
<b>5</b>	<b>State Bank of Hyderabad</b>
<b>6</b>	<b>State Bank of Travancore</b>
<b>7</b>	<b>Corporation bank</b>
<b>8</b>	<b>Syndicate Bank</b>
<b>9</b>	<b>Indian Bank</b>
<b>10</b>	<b>Oriental Bank of Commerce</b>
<b>11</b>	<b>UCO bank</b>
<b>12</b>	<b>Central bank of India</b>
<b>13</b>	<b>IDBI Ltd.</b>
<b>14</b>	<b>HDFC Bank Ltd.</b>
<b>15</b>	<b>ICICI Bank Ltd.</b>
<b>16</b>	<b>Kotak Mahindra Bank ltd</b>
<b>17</b>	<b>The Federal bank Limited</b>
<b>18</b>	<b>Abn-Amro Bank</b>
<b>19</b>	<b>Citi Bank</b>
<b>20</b>	<b>HSBC</b>
<b>21</b>	<b>Deutsche Bank</b>
<b>22</b>	<b>Standard Chartered Bank</b>
<b>23</b>	<b>United bank of India</b>
<b>24</b>	<b>Vijaya Bank</b>
<b>25</b>	<b>Union Bank of India</b>
<b>26</b>	<b>Bank of India</b>
<b>27</b>	<b>Andhra Bank</b>
<b>28</b>	<b>Punjab &amp; Sind Bank</b>
<b>29</b>	<b>Axis Bank</b>

### **Terms and conditions regarding Indian agent of foreign suppliers:**

01. BHEL shall deal directly with foreign vendors, wherever required, for procurement of goods. However, if the foreign principal desires to avail of the services of an Indian agent, then the foreign principal should ensure compliance to regulatory guidelines- which require mandatory submission of an Agency agreement.
02. It shall be incumbent on the Indian agent and the foreign principal to adhere to the relevant guidelines of Government of India, issued from time to time.
03. The agency agreement should specify the precise relationship between the foreign OEM/Foreign principal and their Indian agent and their mutual interest in the business. All services to be rendered by agent/associate, whether of general nature or in relation to the particular contract, must be clearly stated by the foreign supplier / Indian agent. Any payment, which the agent or associate receives in India or aboard from the OEM, whether as commission or as a general retainer fee should be brought on record in the agreement and be made explicit in order to ensure compliance to laws of the country.
04. Any agency commission to be paid by BHEL to the Indian agent shall be in Indian currency only.
05. Tax deduction at source is applicable to the agency commission paid to the Indian agent as per the prevailing rules.
06. In the absence of any agency agreement, BHEL shall not deal with any Indian agent (authorized representatives/ associate/consultant, or by whatever name called) and shall deal directly with the foreign principal only for all correspondence and business purposes.
07. The "Guidelines for Indian Agents of Foreign Suppliers" enclosed at annexure- 'A' shall apply in all such cases.
08. The supply and execution of the Purchase Order (including indigenous suppliers/service) shall be in the scope of the OEM/ Foreign principal. The OEM/ Foreign principal should submit their offer inclusive of all indigenous suppliers/services and evaluation will be based on 'total cost to BHEL'. In case OEM/ foreign principal recommends placement of order(s) towards indigenous portion of supplies/services on Indian Supplier (s)/ agent on their behalf, the credentials/capacity/capability of the Indian Supplier (s)/ agent to make the supplies/Services shall be checked by BHEL as per the extant guidelines of Supplier Evaluation, Approval and Review Procedure (SEARP), before opening of price bids. In this regards, details may be checked as per Annexure- 'B' (copy enclosed). It will be the responsibility of the OEM/ Foreign Principal to get acquainted with the evaluation requirements of Indian supplier/agent as per SEARP available on [www.bhel.com](http://www.bhel.com).

The responsibility for successful execution of the contract (including indigenous supplies/services) lies with the OEM/ foreign principal. All bank guarantees to this effect shall be in the scope of the OEM/Foreign principal.

**Guidelines for Indian Agents of Foreign Suppliers**

- 1.0 There shall be compulsory registration of agents for all Global (Open) Tender and Limited Tender. An agent who is not registered with BHEL shall apply for registration in the registration form in line with SEARP.
  - 1.1 Registered agents will file an authenticated Photostat copy duly attested by a Notary Public/Original certificate of the Principal confirming the agency agreement and giving the status being enjoyed by the agent and the commission/ remuneration/ salary/ retainership being paid by the principal to the agent before the placement of order by BHEL.
  - 1.2 Wherever the Indian representatives have communicated on behalf of their principals and the foreign parties have stated that they are not paying any commission to the Indian agents, and the Indian representative is working on the basis of salary or as retainer, a written declaration to this effect should be submitted by the party (i.e. Principal) before finalizing the order.
- 2.0 Disclosure of particulars of agents/ representatives in India, if any.**
- 2.1 Tenderers of Foreign nationality shall furnish the following details in their offers:
    - 2.1.1 The Bidder(s)/ Contractor(s) of foreign origin shall disclose the name and address of the agents/ representatives in India if any and the extent of authorization and authority given to commit the Principals. In case the agent/ representative be a foreign Company, it shall be confirmed whether it is existing Company and details of the same shall be furnished.
    - 2.1.2 The amount of commission/ remuneration included in the quoted price(s) for such agents/ representatives in India.
    - 2.1.3 Confirmation of the Tenderer that the commission/ remuneration, if any, payable to his agents/ representatives in India, may be paid by BHEL in Indian Rupees only.
  - 2.2 Tenderers of Indian Nationality shall furnish the following details in their offers:
    - 2.2.1 The Bidder(s)/ Contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any, indicating their nationality as well as their status, i.e. whether manufacturer or agents of manufacturer holding the Letter of Authority of the Principal specifically authorizing the agent to make an offer in India in response to tender either directly or through the agents/ representatives.
    - 2.2.2 The amount of commission/ remuneration included in the price (s) quoted by the Tenderer for himself.
    - 2.2.3 Confirmation of the foreign principals of the Tenderer that the commission/ remuneration, if any, reserved for the Tenderer in the quoted price(s), may be paid by BHEL in India in equivalent Indian Rupees on satisfactory completion of the Project or supplies of Stores and Spares in case of operation items.
  - 2.3 In either case, in the event of contract materializing, the terms of payment will provide for payment of the commission/ remuneration, if any payable to the agents/ representatives in India in Indian Rupees on expiry of 90 days after the discharge of the obligations under the contract.
  - 2.4 Failure to furnish correct and detailed information as called for in paragraph 2.0 above will render the concerned tender liable to rejection or in the event of a contract materializing, the same liable to termination by BHEL. Besides this there would be a penalty of banning business dealings with BHEL or damage or payment of a named sum.

---X---

This format is applicable only to Indian Suppliers/ Agents supplying indigenous portion of Foreign Purchases.

\* In all other cases, extant guidelines of SEARP, 2010 are to be followed.

SEARP (SRF) Clause No	Detail
	<b>Name &amp; address of the firm</b>
<b>1.0</b>	<b>Products/ Systems / Services being considered for</b>
<b>2.0</b>	<b>General Information</b>
2.2	Name of Chief Executive
2.3	Details of authorized signatory
<b>3.0</b>	<b>Ownership Information</b>
3.1	Type of firm
3.2	Nature of Business <ul style="list-style-type: none"> <li>• <i>Attach <b>authorization letter</b> and <b>agency agreement</b> from Principal ( from whom capital equipment is procured)</i></li> <li>• <i>Attach copy of declaration from Foreign Principal for <b>total guarantee/ warranty of indigenous supplies</b></i></li> </ul>
3.3	Year of establishment
3.4	Year of commencement of business
<b>4.0</b>	<b>Registration particulars</b>
4.1	Permanent Account No.
4.2 / 4.3	Sales Tax / TIN no
4.6	Service tax no. (in case of E&C)
<b>5.0</b>	<b>Organisational strength</b>
<b>6.0</b>	<b>Other particulars</b>
6.1	If the company is already registered with other units
6.2	Directors/ Partners, if related to any BHEL Employee
6.9	If any Ex BHEL Personnel employed by the Company
6.12	Details of pending legal issues with BHEL
6.13	Bank Account information
<b>9.0</b>	<b>Financial information</b>
9.6	Sales/ Turnover details of last 3 years (or from the date of incorporation whichever is less )

---X---

AUTHORISATION LETTER  
FOR E-PAYMENT/ELECTRONIC FUNDS TRANSFER (EFT/RTGS)  
PLEASE FILL UP THE FORM IN CAPITAL LETTERS ONLY

ANNEXURE-D  
Page 1 of 1

TYPE OF REQUEST (Tick One)	<input type="checkbox"/>	CREATE	<input type="checkbox"/>	CHANGE
<u>BHEL Vendor/ Supplier Code</u>	<input type="text"/>			
Company's Name	<input type="text"/>			
Address	<input type="text"/>			
City	<input type="text"/>			
Pincode	<input type="text"/>			
State	<input type="text"/>			
Contact Person(S)	<input type="text"/>			
Telephone NO.	<input type="text"/>			
FAX. No.	<input type="text"/>			
e-mail id	<input type="text"/>			
1. Bank Name	<input type="text"/>			
2. Bank Address	<input type="text"/>			
3. Bank Telephone No.	<input type="text"/>			
4. Bank Account No.	<input type="text"/>			
5. Account Type.	<input type="text"/>			
6. Bank's Branch Code	<input type="text"/>			
7. Bank Swift Code	<input type="text"/>			
(aplicable to EFT only)				
8. Enclose blank cancelled cheque	<input type="checkbox"/>	<input type="checkbox"/>		

DECLARATION

1. I as representative/Owner of the above named company, hereby authorize BHEL CFFP, Ranipur, Haridwar to electronically make payments to the designated bank account. I hereby certify that the particulars given above are true, complete and correct.  
(2) If the transsation is delayed or not effected at all for reasons of incomplete or incorrect information, I would not hold BHEL/transfereing Bank responsible.
3. This authority remains in full force untill BHEL, CFFP, Ranipur, Haridwar receives & acknowledge written notification requesting a change or cancellation.
4. I have read the contents of the covering letter and agree to discharge the responsibilty expected of me as a participant under E-payment/EFT/RTGS.

Date:

Authorized Signatory  
Designation

Company Seal

Verification By Bank

**Annexure - V**

**PRE QUALIFICATION CRITERIA FOR POWER DISTRIBUTION BOARDS**

This criteria governs the technical requirement for supply of 06 Nos 415 V, 50 Hz, 4 Pole, 3200 A Power Distribution Boards (PDB) and offer of only those bidders will be considered who shall qualify following each criteria (clause 1 to 5) and submit the documentary proof against each criteria.

S.No.	Description
01	Who have successfully designed, manufactured and supplied at least 05 Nos 415 V, 4Pole / 3 Pole, 50 Hz Power Distribution Board with incomer capacity of 2500A and above in past five years (from the date of opening of tender) and such PDBs are presently working satisfactorily till date. The latest Performance certificate from customers must accompany with offer. <b>Without the performance certificate the offer will be ignored.</b>
02	The annual turnover of the vendor should be Rs. 1.5 Crores and above in past two years year. Vendor to submit Audited balance sheet, Income tax return of past two years, copy of PAN/ TAN Nos.
03	Foreign Vendors should have after sales service office set up in India and should submit details of after sales office located in India along with PAN/ TAN/ Registration certificate etc.
04	Vendor must quote for both type of Power Distribution Boards.
05	BHEL reserves the right to verify the information provided be the vendor. In case the information provided by the vendor is found to be false/ incorrect, the offer will be rejected.

**TECHNICAL SPECIFICATION NO- CFF/CDS/CAPITAL/2MVA/13-14/02**

**3200 A , 415V DISTRIBUTION BOARD (QTY- 5Nos)**

1. The Power Distribution Board (PDB) should consist of ACBs (Only specified makes) housed in a sheet steel enclosure of thickness not less than 2 mm suitable for three phase four wire system.
2. PDB should be painted first with corrosion resistant paint and then with industrial grade grey paint and contain base frame suitable for floor mounting.
3. The frame is to be provided with proper sealing against rodent/ reptile entry.
4. The backside of the PDB should be provided with openable Door/ Doors.
5. The PDB is to be designed to accommodate 08 Nos (3.5Cx 300sq mm) cables for incomer of 3200 A and 04 No(3.5Cx300 sq mm) cables for 1250 A outgoing feeder, 03 No (3.5Cx300 sq. mm) cables for each 800A outgoing feeder and 01 No (3.5Cx300 sq. mm) cable in each 400 A outgoing feeder. The PDB should have provision for entry of all the cables through detachable plates at the bottom.
6. The PDB should be provided with the earthing bus bar and suitable for natural air cooling arrangement (Preferably Net type).
7. There should be three sections in PDBs for housing incoming and outgoing ACBs/ Switches. The incoming feeder must be positioned as per the position indicated below and the overall height of PDB should not exceed 2300 mm.
8. All the bus bars should contain sleeves with heat shrunk PVC as per standard colour coding i.e. Red, Yellow, Blue for phases and Black for Neutral and the clearances of bus bars from each other and panel body should be as per relevant IS.

The PDB should have the following items

**A) INCOMING FEEDER DETAILS**

S.NO	ITEM	QTY
01	4 Pole, Air circuit breaker, 3200A, 415 V, manual draw out (MDO) type of breaking capacity at least 50 KA with guide frame and over current protection, short circuit protection, Earth fault protection & shunt trip.	01 Nos
02	Voltmeter :0- 500V analog	03 Nos
03	Ammeter: 0-3200 A, analog	03 Nos

04	Phase live indicator, High luminosity LED's.	06 Nos
05	Fuse-2A with base.	09 Nos
06	Current Transformer of ratio 3200/5A	03 Nos

**B) OUTGOING FEEDER DETAILS:**

Outgoing feeder shall include:

i) 01 No feeder of 1250 A ii) 6 No feeders of 800A iii) 2 No feeders of 400 A.

**i) 1250A OUTGOING FEEDER DETAILS**

S.NO	ITEM	QTY
01	4Pole, Air circuit breaker, 1250A, 415 V, manual draw out (MDO) type of breaking capacity at least 50KA with guide frame and overload / instantaneous short circuit / delayed short circuit / ground fault protection.	01 Nos
02	Indicating Light	03 Nos
03	Fuse-2A with base	03 Nos
04	Analog Ammeter with selector switch (0-1250 A)	01 Nos
05	Current Transformer of ratio 1250/5A ,	03 Nos

**ii) 800A OUTGOING FEEDER DETAILS:**

S.NO	ITEM	QTY
01	4 Pole, Air circuit breaker, 800A, 415 V, manual draw out (MDO) type of breaking capacity at least 50KA with guide frame, overload / instantaneous short circuit / delayed short circuit / ground fault protection.	06 Nos
02	Indicating Light	18 Nos
03	Fuse-2A with base	18 Nos
04	Analog Ammeter with selector switch (0-800 A )	06 Nos
05	Current Transformer of ratio 800/5A	18 Nos

iii) **400A OUTGOING FEEDER DETAILS:**

S.NO	ITEM	QTY
01	4 Pole, 415 Volts, 400A MCCB unit of breaking capacity at least 36 KA with indicating LED	02 Nos

**Preferable Make of Items:**

S.NO	ITEM	MAKE/DESCRIPTION
01	Air circuit Breaker, MCCB.	L&T/ SIEMENS
02	Voltmeters & Ammeters	AE, 96*96sq mm, Analog
03	Indicators LED's	L&T/SIEMENS
04	Current Transformers	KAPPA/AE/ENG ELECTRIC
05	Bus bars	Aluminium
06	Ammeter selector switch	L&T/SIEMENS/KAYCEE

**POSITIONING OF ACBs / MCCBs**

ACB 800 A, 4P		ACB 800 A, 4P		MCCB 400A, 4P	MCCB 400A, 4P
ACB 800 A, 4P		ACB 800 A, 4P		ACB 800 A, 4P	
ACB 800 A, 4P		<b>ACB for Incomer 3200 A, 4P</b>		ACB 1250 A, 4P	

**SPECIFICATION NO- CFF/CDS/CAPITAL/2MVA/13-14/03**

**3200 A, 415V DISTRIBUTION BOARD (QTY- 01No)**

1. The Power Distribution Board (PDB) should consist of ACBs (Only specified makes) housed in a sheet steel enclosure of thickness not less than 2 mm suitable for three phase four wire system.
2. PDB should be painted first with corrosion resistant paint and then with industrial grade grey paint and contain base frame suitable for floor mounting.
3. The frame is to be provided with proper sealing against rodent/ reptile entry.
4. The backside of the PDB should be provided with openable Door/ Doors.
5. The PDB is to be designed to accommodate 08 Nos (3.5Cx 300sq mm) cables for incomer of 3200 A and 06 No (3.5Cx300 sq.mm) cables for 2000A outgoing feeder, 04 No(3.5Cx300 sq mm) cables for 1250 A outgoing feeder, 03 No (3.5Cx300 sq. mm) cables for each 800A outgoing feeder and 01 No cables in rest each outgoing feeder. The PDB should also have provision for entry of all the cables through detachable plates at the bottom.
6. The PDB should be provided with the earthing bus bar and suitable for natural air cooling arrangement (Preferably Net type).
7. There should be three sections in PDBs for housing incoming and outgoing ACBs/ Switches. The incoming feeder must be positioned as per the position indicated below and the overall height of PDB should not exceed 2300 mm.
8. All the bus bars should contain sleeves with heat shrunk PVC as per standard colour coding i.e. Red, Yellow, Blue for phases and Black for Neutral and the clearances of bus bars from each other and panel body should be as per relevant IS

The PDB should have the following items.

**A) INCOMING FEEDER DETAILS**

S.NO	ITEM	QTY
01	Air circuit breaker, 3200A, 4 Pole, 415 V, manual draw out (MDO) type of breaking capacity at least 50 KA with guide frame and over current protection, short circuit protection, Earth fault protection & shunt trip.	01 Nos
02	Voltmeter :0- 500V analog, AE make.	03 Nos
03	Ammeter: 0-3200 A, analog, AE make.	03 Nos
04	Phase live indicator, High luminosity LED's.	06 Nos
05	Fuse-2A with base.	09 Nos

06	Current Transformer of ratio 3200/5A	03 Nos
----	--------------------------------------	--------

**B) OUTGOING FEEDER DETAILS:**

Outgoing feeder shall include:

i) 01 No feeder of 2000 A ii) 01 No feeder of 1250A iii) 02 No feeders of 800A iv) 02 No feeders of 400 A. v) 02 No feeders of 250 A

**i) 2000A OUTGOING FEEDER DETAILS**

S.NO	ITEM	QTY
01	Air circuit breaker, 2000A, 4Pole , 415 V, manual draw out (MDO) type of breaking capacity at least 50KA with guide frame and overload / instantaneous short circuit / delayed short circuit / ground fault protection.	01 Nos
02	Indicating Light	03 Nos
03	Fuse-2A with base	03 Nos
04	Analog Ammeter with selector switch (0-2000 A)	01 Nos
05	Current Transformer of ratio 2000/5A.	03 os

**ii) 1250A OUTGOING FEEDER DETAILS**

S.NO	ITEM	QTY
01	Air circuit breaker, 1250A, 4Pole, 415 V, manual draw out (MDO) type of breaking capacity at least 50KA with guide frame and overload / instantaneous short circuit / delayed short circuit / ground fault protection.	01 Nos
02	Indicating Light	03 Nos
03	Fuse-2A with base	03 Nos
04	Analog Ammeter with selector switch (0-1250 A)	01 Nos
05	Current Transformer of ratio 1250/5A.	03 Nos

**iii) 800A OUTGOING FEEDER DETAILS:**

S.NO	ITEM	QTY
01	Air circuit breaker, 800A, 4 Pole, 415 V, manual	02 Nos

	draw out (MDO) type of breaking capacity at least 50KA, with guide frame overload / instantaneous short circuit / delayed short circuit / ground fault protection.	
02	Indicating Light	06 Nos
03	Fuse-2A with base	06 Nos
04	Analog Ammeter with selector switch (0-800 A )	02 Nos
05	Current Transformer of ratio 800/5A ,	06 Nos

**iv) 400A OUTGOING FEEDER DETAILS:**

S.NO	ITEM	QTY
01	4 Pole, 415 V 400A MCCB of breaking capacity at least 36 KA with indicating LED.	02 Nos

**v) 250A OUTGOING FEEDER DETAILS:**

S.NO	ITEM	QTY
01	4 Pole, 415 V, 250A MCCB unit of breaking capacity at least 36 KA with indicating LED.	02 Nos.

**Preferable Make of Items:**

S.NO	ITEM	MAKE/DESCRIPTION
01	Air circuit Breaker, MCCB	L&T/ SIEMENS
02	Voltmeters & Ammeters	AE, 96*96sq mm, Analog
03	Indicators LED's	L&T/SIEMENS
04	Current Transformer	KAPPA/AE/ENG ELECTRIC
05	Bus bars	Aluminium
06	Ammeter selector switch	L&T/SIEMENS/KAYCEE

**POSITIONING OF ACBs / MCCBs**

MCCB 400 A, 4P		MCCB 250 A, 4P		MCCB 250 A, 4P
ACB 800 A, 4P		ACB 800 A, 4P		MCCCB 400 A, 4P
ACB 2000 A, 4P		<b>ACB for Incomer 3200 A, 4P</b>		ACB 1250 A, 4P