

**Bid Document/ बिड दस्तावेज़**

Bid Details/बिड विवरण	
<b>Bid End Date/Time/बिड बंद होने की तारीख/समय</b>	30-03-2024 11:00:00
<b>Bid Opening Date/Time/बिड खुलने की तारीख/समय</b>	30-03-2024 11:30:00
<b>Bid Offer Validity (From End Date)/बिड पेशकश वैधता (बंद होने की तारीख से)</b>	90 (Days)
<b>Ministry/State Name/मंत्रालय/राज्य का नाम</b>	Ministry Of Heavy Industries And Public Enterprises
<b>Department Name/विभाग का नाम</b>	Department Of Heavy Industry
<b>Organisation Name/संगठन का नाम</b>	Bharat Heavy Electricals Limited (bhel)
<b>Office Name/कार्यालय का नाम</b>	10090001-edn Bangalore
<b>Total Quantity/कुल मात्रा</b>	2528
<b>Item Category/मद केटेगरी</b>	24V 10A DC/DC CONVERTER (BHEL Material Code: EN7470106006) (Q3)
<b>MSE Exemption for Years of Experience and Turnover/ अनुभव के वर्षों से एमएसई छूट</b>	No
<b>Startup Exemption for Years of Experience and Turnover/ अनुभव के वर्षों से स्टार्टअप छूट</b>	No
<b>Document required from seller/विक्रेता से मांगे गए दस्तावेज़</b>	Additional Doc 1 (Requested in ATC) *In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer
<b>Bid to RA enabled/बिड से रिवर्स नीलामी सक्रिय किया</b>	Yes
<b>RA Qualification Rule</b>	H1-Highest Priced Bid Elimination
<b>ITC available to buyer/क्रेता के लिए उपलब्ध आईटीसी</b>	Yes
<b>Type of Bid/बिड का प्रकार</b>	Two Packet Bid
<b>Time allowed for Technical Clarifications during technical evaluation/तकनीकी मूल्यांकन के दौरान तकनीकी स्पष्टीकरण हेतु अनुमत समय</b>	2 Days
<b>Inspection Required (By Empanelled Inspection Authority / Agencies pre-registered with GeM)</b>	No

Bid Details/बिड विवरण	
Payment Timelines	Payments shall be made to the Seller within <b>90</b> days of issue of consignee receipt-cum-acceptance certificate (CRAC) and on-line submission of bills (This is in supersession of 10 days time as provided in clause 12 of GeM GTC)
Evaluation Method/मूल्यांकन पद्धति	Total value wise evaluation

#### EMD Detail/ईएमडी विवरण

Required/आवश्यकता	No
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#### ePBG Detail/ईपीबीजी विवरण

Required/आवश्यकता	No
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#### Splitting/विभाजन

Bid splitting not applied/बोली विभाजन लागू नहीं किया गया.

#### MII Purchase Preference/एमआईआई खरीद वरीयता

MII Purchase Preference/एमआईआई खरीद वरीयता	Yes
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#### MSE Purchase Preference/एमएसई खरीद वरीयता

MSE Purchase Preference/एमएसई खरीद वरीयता	Yes
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1. Preference to Make In India products (For bids < 200 Crore): Preference shall be given to Class 1 local supplier as defined in public procurement (Preference to Make in India), Order 2017 as amended from time to time and its subsequent Orders/Notifications issued by concerned Nodal Ministry for specific Goods/Products. The minimum local content to qualify as a Class 1 local supplier is denoted in the bid document. If the bidder wants to avail the Purchase preference, the bidder must upload a certificate from the OEM regarding the percentage of the local content and the details of locations at which the local value addition is made along with their bid, failing which no purchase preference shall be granted. In case the bid value is more than Rs 10 Crore, the declaration relating to percentage of local content shall be certified by the statutory auditor or cost auditor, if the OEM is a company and by a practicing cost accountant or a chartered accountant for OEMs other than companies as per the Public Procurement (preference to Make-in -India) order 2017 dated 04.06.2020. Only Class-I and Class-II Local suppliers as per MII order dated 4.6.2020 will be eligible to bid. Non - Local suppliers as per MII order dated 04.06.2020 are not eligible to participate. However, eligible micro and small enterprises will be allowed to participate .The buyers are advised to refer the OM No.F.1/4/2021-PPD dated 18.05.2023. [OM No.1\\_4\\_2021\\_PPD\\_dated\\_18.05.2023](#) for compliance of Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017.

2. Purchase preference to Micro and Small Enterprises (MSEs): Purchase preference will be given to MSEs as

defined in Public Procurement Policy for Micro and Small Enterprises (MSEs) Order, 2012 dated 23.03.2012 issued by Ministry of Micro, Small and Medium Enterprises and its subsequent Orders/Notifications issued by concerned Ministry. If the bidder wants to avail the Purchase preference, the bidder must be the manufacturer of the offered product in case of bid for supply of goods. Traders are excluded from the purview of Public Procurement Policy for Micro and Small Enterprises. In respect of bid for Services, the bidder must be the Service provider of the offered Service. Relevant documentary evidence in this regard shall be uploaded along with the bid in respect of the offered product or service. If L-1 is not an MSE and MSE Seller (s) has/have quoted price within L-1+ 15% (Selected by Buyer) of margin of purchase preference /price band defined in relevant policy, such Seller shall be given opportunity to match L-1 price and contract will be awarded for 25%(selected by Buyer) percentage of total QUANTITY. The buyers are advised to refer the OM No.F.1/4/2021-PPD dated 18.05.2023 [OM No.1 4 2021 PPD dated 18.05.2023](#) for compliance of Concurrent application of Public Procurement Policy for Micro and Small Enterprises Order, 2012 and Public Procurement (Preference to Make in India) Order, 2017.

3. Reverse Auction would be conducted amongst all the technically qualified bidders except the Highest quoting bidder. The technically qualified Highest Quoting bidder will not be allowed to participate in RA. However, H-1 will also be allowed to participate in RA in following cases:

- If number of technically qualified bidders are only 2 or 3.
- If Buyer has chosen to split the bid amongst N sellers, and H1 bid is coming within N.
- In case Primary product of only one OEM is left in contention for participation in RA on elimination of H-1.
- If L-1 is non-MSE and H-1 is eligible MSE and H-1 price is coming within price band of 15% of Non-MSE L-1
- If L-1 is non-MII and H-1 is eligible MII and H-1 price is coming within price band of 20% of Non-MII L-1

## 24V 10A DC/DC CONVERTER (BHEL Material Code: EN7470106006) ( 2528 pieces )

(Minimum 50% and 20% Local Content required for qualifying as Class 1 and Class 2 Local Supplier respectively/क्रमशः श्रेणी 1 और श्रेणी 2 के स्थानीय आपूर्तिकर्ता के रूप में अर्हता प्राप्त करने के लिए आवश्यक)

### Technical Specifications/तकनीकी विशिष्टियाँ

Buyer Specification Document/क्रेता विशिष्टि दस्तावेज़	<a href="#">Download</a>
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### Input Tax Credit(ITC)/इनपुट कर क्रेडिट(आईटीसी) and/ तथा Reverse Charge(RCM)/रिवर्स प्रभार (आरसीएम) Details

ITC on GST/जीएसटी पर इनपुट कर क्रेडिट	ITC on GST Cess/जीएसटी उपकर कर क्रेडिट
100%	NA

### Consignees/Reporting Officer/परेषिती/रिपोर्टिंग अधिकारी and/ तथा Quantity/मात्रा

S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
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S.No./क्र. सं.	Consignee Reporting/Officer/ परेषिती/रिपोर्टिंग अधिकारी	Address/पता	Quantity/मात्रा	Delivery Days/डिलीवरी के दिन
1	Dinesh Kumar Bhagat	560026,MANAGER STORES,- GI Bharat Heavy Electricals Limited Electronics Division, Mysore Road, Bangalore - 560026 Karnataka India	2528	60

## Buyer Added Bid Specific Terms and Conditions/क्रेता द्वारा जोड़ी गई बिड की विशेष शर्तें

### 1. Scope of Supply

Scope of supply (Bid price to include all cost components) : Only supply of Goods

### 2. Generic

OPTION CLAUSE: The Purchaser reserves the right to increase or decrease the quantity to be ordered up to 25 percent of bid quantity at the time of placement of contract. The purchaser also reserves the right to increase the ordered quantity by up to 25% of the contracted quantity during the currency of the contract at the contracted rates. Bidders are bound to accept the orders accordingly.

### 3. Generic

Data Sheet of the product(s) offered in the bid, are to be uploaded along with the bid documents. Buyers can match and verify the Data Sheet with the product specifications offered. In case of any unexplained mismatch of technical parameters, the bid is liable for rejection.

### 4. Generic

Bidders are advised to check applicable GST on their own before quoting. Buyer will not take any responsibility in this regards. GST reimbursement will be as per actuals or as per applicable rates (whichever is lower), subject to the maximum of quoted GST %.

### 5. Generic

Supplier shall ensure that the Invoice is raised in the name of Consignee with GSTIN of Consignee only.

### 6. Generic

While generating invoice in GeM portal, the seller must upload scanned copy of GST invoice and the screenshot of GST portal confirming payment of GST.

### 7. Buyer Added Bid Specific ATC

Buyer Added text based ATC clauses

#### A. PRE-QUALIFICATION REQUIREMENT (PQR)

Bidder should submit documentary evidence for PQC, for evaluating the eligibility of Bidder as per **Buyer specification document** in this bid.

#### B. Payment Timelines:

Type of Bidder	Payment Terms (Number of days )
Micro & Small Enterprises (MSEs)	45 days from CRAC date
Medium Enterprises	60 days from CRAC date
Non MSME	90 days from CRAC date

**C.** Bidder to submit duly signed integrity pact along with their offer. Format for integrity pact is available in **Buyer uploaded ATC document** in this bid.

**D. Contact Details:**

Engineering Dept.	Tender Dept.
Mr. Dinakara/ Manager	Mr. Dinesh Kumar Bhagat/ Manager
e-mail: dinakara@bhel.in	e-mail: dkbhagat@bhel.in
Tel: 080 26998184	Tel: 080 26998108

**8. Buyer Added Bid Specific ATC**

Buyer uploaded ATC document [Click here to view the file.](#)

## Disclaimer/अस्वीकरण

The additional terms and conditions have been incorporated by the Buyer after approval of the Competent Authority in Buyer Organization, whereby Buyer organization is solely responsible for the impact of these clauses on the bidding process, its outcome, and consequences thereof including any eccentricity / restriction arising in the bidding process due to these ATCs and due to modification of technical specifications and / or terms and conditions governing the bid. Any clause(s) incorporated by the Buyer regarding following shall be treated as null and void and would not be considered as part of bid:-

1. Definition of Class I and Class II suppliers in the bid not in line with the extant Order / Office Memorandum issued by DPIIT in this regard.
2. Seeking EMD submission from bidder(s), including via Additional Terms & Conditions, in contravention to exemption provided to such sellers under GeM GTC.
3. Publishing Custom / BOQ bids for items for which regular GeM categories are available without any Category item bunched with it.
4. Creating BoQ bid for single item.
5. Mentioning specific Brand or Make or Model or Manufacturer or Dealer name.
6. Mandating submission of documents in physical form as a pre-requisite to qualify bidders.
7. Floating / creation of work contracts as Custom Bids in Services.
8. Seeking sample with bid or approval of samples during bid evaluation process.
9. Mandating foreign / international certifications even in case of existence of Indian Standards without specifying equivalent Indian Certification / standards.
10. Seeking experience from specific organization / department / institute only or from foreign / export experience.
11. Creating bid for items from irrelevant categories.
12. Incorporating any clause against the MSME policy and Preference to Make in India Policy.
13. Reference of conditions published on any external site or reference to external documents/clauses.
14. Asking for any Tender fee / Bid Participation fee / Auction fee in case of Bids / Forward Auction, as the case may be.

Further, if any seller has any objection/grievance against these additional clauses or otherwise on any aspect of this bid, they can raise their representation against the same by using the Representation window provided in the bid details field in Seller dashboard after logging in as a seller within 4 days of bid publication on GeM. Buyer is duty bound to reply to all such representations and would not be allowed to open bids if he fails to reply to such representations.

[This Bid is also governed by the General Terms and Conditions/ यह बिड सामान्य शर्तों के अंतर्गत भी शासित है](#)

In terms of GeM GTC clause 26 regarding Restrictions on procurement from a bidder of a country which shares a land border with India, any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. While participating in bid, Bidder has to undertake compliance of this and any false declaration and non-compliance of this would be a ground for immediate termination of the contract and further legal action in accordance with the laws./जेम की सामान्य शर्तों के खंड 26 के संदर्भ में भारत के साथ भूमि सीमा साझा करने वाले देश के बिडर से खरीद पर प्रतिबंध के संबंध में भारत के साथ भूमि सीमा साझा करने वाले देश का कोई भी बिडर इस निविदा में बिड देने के लिए तभी पात्र होगा जब वह बिड देने वाला सक्षम प्राधिकारी के पास पंजीकृत हो। बिड में भाग लेते समय बिडर को इसका अनुपालन करना होगा और कोई भी गलत घोषणा किए जाने व इसका अनुपालन न करने पर अनुबंध को तत्काल समाप्त करने और कानून के अनुसार आगे की कानूनी कार्यवाई का आधार होगा।

**---Thank You/धन्यवाद---**



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SECTION-A

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***GENERAL INSTRUCTION TO BIDDERS***

***FOR***

***PURCHASE SPECIFICATION PS4102024 Rev-02  
24V-10A DC to DC CONVERTER***

APPROVED BY:

S B BANIK

PREPARED

DINAKARA P

CHECKED

MUKESH KUMAR

ISSUED

ENGG

DATE

29.02.2024



## ***PURCHASE SPECIFICATION PS4102024 : Rev-02 24V-10A DC to DC CONVERTER***

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### **GENERAL INSTRUCTIONS TO BIDDERS**

1.0 All required documents against this tender / specification shall be submitted in English only.

2.0 **Introduction:** Bidders are required to offer 24V-10A DC to DC CONVERTER.

3.0 In order to accept the Technical offers / proposals from Bidders for the item mentioned in this Specification certain Pre-qualification criteria are required to be met by Bidder.

4.0 Pre-qualification requirements (PQR) are clearly mentioned in the specification. Bidder to read the same carefully and submit the details required for BHEL's acceptance.

5.0 In case Bidder does not include the details or meet the requirements of Pre-qualification requirements, their offer will be summarily Rejected and Bidder's Technical offers will not be evaluated further.

6.0 **Evaluation methodology:** BHEL shall initially open Bidder's PQR documents only as per the specification for review & acceptance. Only after acceptance of PQR documents, BHEL shall open Bidder's Technical offers for evaluation.

7.0 Bidders are required to submit offers in three parts as detailed below:

Part-I (PQR documents)

Documents pertaining to Pre-Qualification requirements in line with the specification.

Part-II (Technical bid)

Technical bid shall be submitted in line with the Technical specs PS4102024 Rev no.02.

Offer shall compulsorily include columns in tabular form having BHEL clause-wise specification number, technical requirement as per BHEL specification, technical parameters offered by vendor, deviations against each sub-clause amongst other data.

Part-III (Commercial/Price bid)

8.0 Whenever required during evaluation of PQR and Technical offers/bids, vendor is required to be present at BHEL Electronic Division, Bangalore, for discussions.



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# ***PRE-QUALIFICATIONS REQUIREMENT***

***FOR***

***PURCHASE SPECIFICATION PS4102024 Rev-02  
24V-10A DC to DC CONVERTER***

APPROVED BY:



S B BANIK

PREPARED



DINAKARA P

CHECKED



MUKESH KUMAR

ISSUED

ENGG

DATE

29.02.2024



***PRE QUALIFICATION REQUIREMENT (PQR) FOR PURCHASE SPECIFICATION  
PS4102024 Rev 02 24V-10A DC to DC CONVERTER***

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**Pre-Qualification Requirements (PQR) of Bidders for 24V-10A DC to DC CONVERTER as a part of Offer:**

- 1.0 The bidder should have supplied quoted model of **24V-10A DC to DC CONVERTER unit** for 10% of current tender quantity, to any DCS vendor catering to control system application for any power plant or process industry. Unpriced Purchase order copy (Proving supply of cumulative order quantity in last three financial year from the date of bid opening) to be submitted along with the bid in support of quantity supplied in the relevant Financial years.
- 2.0 Along with the documents related to PQR above, following details shall also be included in the Offer:
- Technical literature / Manuals of offered converter.
  - Unpriced Purchase Order copies
  - Reports of successful commissioning of the converter
- 3.0 Name & registered address of the Indian branch office or Indian representative for support of services after sales with Organization chart
- 4.0 Details of Manufacturing, testing & inspection facility.
- 5.0 Bidder shall have facility in India for servicing of offered converter, Stocking of Spares. Bidder to submit these details.
- 6.0 Bidder shall submit following Type Test certificates of the quoted model being supplied & conducted in a Govt Approved/Accredited Lab & valid within the last five years from the date of bidding.
- Electrostatic Discharge Immunity • EN61000-4-2
  - Electromagnetic Field Immunity • EN61000-4-3
  - Radio Frequency Immunity • EN61000-4-6
  - Surge Withstand Capability • EN61000-4-12 equivalent to ANSI 37.90.1/1EEE-472
  - Dry Heat • IEC-68-2-2 or equivalent
  - Damp Heat • IEC-68-2-3 or equivalent
  - Vibration Test • IEC-68-2-6 or equivalent
  - CE/UL certification
- 7.0 If Bidder is not Original Equipment Manufacturer (OEM), then Bidder to include authorisation letter from OEM for supply and servicing of the offered System. This authorisation letter provided by OEM to Bidder shall indicate the Type and Duration of the agreement.
- 8.0 After PQR clearance bidder to provide two sample models within two weeks of BHEL intimation and same shall be evaluated by BHEL as per technical spec no: PS4102024 Rev02 during technical evaluation. Bidder to confirm supply of two samples on **non-returnable basis**.  
However, If the bidder has supplied the offered make & model earlier to BHEL-EDN against the material code: EN7470106006 for minimum 01 such PO, then purchase order copies along with invoice not older than 4years as on date of bidding to be submitted. Samples need not be provided in such cases.
- 9.0 In case the Bidder is not able to produce above type test reports in clause no 6.0 at the time of offering, the vendor need to confirm that the type test report shall be submitted within one month after the placement of order and before supply of items.
- 10.0 Bidder shall submit certificate for more than 20% local content (value added in India) for the offered item along with the offer.
- 11.0 Important note: In case Bidder does not submit details mentioned in the above clauses to meet the requirements of Pre-Qualification Requirements, Offers will be summarily rejected and bidder's technical offers/proposals will not be evaluated further. Please read carefully the General instructions.

**BHEL Material Code: EN7470106006**

**Material Description: 24V 10A DC/DC CONVERTER**

24VDC/24VDC CONVERTER;

I/P=24VDC (18-32VDC) WITH REVERSE PROTECTION.

O/P=24VDC +/-1%,10A;

LOAD SHARING >90% WHEN PARALLELING UPTO 4 UNITS;

SUITABLE FOR PLATE/DIN RAIL MOUNTING;

ENCLOSURE: VENTILATED;

OPERATING TEMP:0-60DEG C;

CONTACT:1 C/O FOR FAULT MONITORING.INDICATION:DC I/P

(GREEN),DC OK(YELLOW):DC LOW(RED);

I/P PROTECTION:FUSE;

INRUSH CURRENT:<15A TYPICAL;

EFFICIENCY: >85% OVER THE RANGE 10% TO FULL 100% LOAD;

(PS/410/2024)



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*Technical specification*

*FOR*

*24V-10A*

*DC-DC*

*CONVERTER*

REV 02

APPROVED BY

  
S B BANIK

PREPARED

  
DINAKARA P

CHECKED

  
MUKESH KUMAR

ISSUED

ENGG

DATE

02/06/2022



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REV No.	DATE	NATURE OF CHANGE	REASON	PREPARED BY	CHECKED BY	APPROVED BY
00	15/04/2015	FIRST ISSUE	--	SUR /NP/ RKS	SBB	V S
01	19/06/2017	SECOND ISSUE	Clause 20 & 22 Revised	SUR /NP/ RB	SBB	V S
02	02/06/2022	THIRD ISSUE	Clause 1.2 ,21,26 Revised	DP	MK	SBB

REV 02

APPROVED BY :

S B BANIK

PREPARED

DINAKARA P

CHECKED


MUKESH KUMAR


ISSUED

ENGG

DATE

02/06/2022

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<div><div><div>COPY RIGHT AND CONFIDENTIAL</div><div>The information on this document is the property of Bharat Heavy Electrical Limited. It must not be used directly or indirectly in anyway detrimental to the interest of the company.</div></div></div> <div><div><div><div><div><div>TECHNICAL REQUIREMENTS FOR 24V-10A DC TO DC CONVERTER</div></div></div><div><div>1.0 GENERAL REQUIREMENTS:</div><div><div>1.1 The purpose of this specification is general technical requirement for procurement of 24V-10A DC TO DC converter.</div><div><div><div>BHEL-EDN Material Code : EN7470106006</div></div><div><div>1.2 Input-Output Specifications :</div><div><div><div>1) I/P Range : 24VDC (18 -32VDC ) with reverse protection</div><div>2) O/P : 24VDC +/- 1%, 10A. with power boost capability.</div><div>3) Load Sharing &gt; 90% when paralleling upto 4 units (minimum 4 units in parallel).</div><div>4) Output Diode ‘OR’ing : For parallel operation of converter, output diode is to be provided as part of converter and housed inside converter.</div><div>(Supplier to indicate the details of the ‘OR’ing methodology).</div><div>5) Suitable for DIN rail mounting.</div><div>6) Enclosure: Ventilated, Natural air-cooling when housed in control cabinet of IP42 protection</div><div>7) Operating temperature = 0~60 degC</div><div>8) Indications : LED indications for DC Input(Green), DC Ok(Yellow) and DC Low(Red) preferred. Supplier to indicate the details of LED indications in the converter offered.</div><div>9) I/P protection : Fuse .</div><div>10) I/P Surge Protection for compliance : as per EN61000-4-5, level 3</div><div>11) Inrush current &lt; 15 A typical</div><div>12) Line regulation :&lt;= +/-1%</div><div>13) Load Regulation &lt;= +/-1%</div><div>14) Efficiency &gt;= 90% over the range 10% to full 100% load.</div><div>15) O/P settable from 23 to 28VDC,</div><div>16) Derating : &gt; 60 Deg C</div></div></div></div></div></div></div></div></div></div> </			

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<div>COPY RIGHT AND CONFIDENTIAL</div> <div>The information on this document is the property of Bharat Heavy Electrical Limited. It must not be used directly or indirectly in anyway detrimental to the interest of the company.</div>		<p>17) O/P protection : overload , short-circuit protection with output power limitation .</p> <p>18) Selectable auto-recovery feature should be available.</p> <p>19) Remote Power Supply Alarm :: Potential-free Contact (Common-NO) shall be provided to facilitate Power –supply output error or Input supply failed condition for remote monitoring.</p> <ul style="list-style-type: none"> <li>• <b><u>HV test Capability</u></b> : The unit shall withstand HV/IR test as per the details indicated below and this shall be carried out by supplier on 100% of the modules . <ul style="list-style-type: none"> <li>• (i) Input Terminals and ground : minimum 1.5 KV DC for 1min</li> <li>• (ii) Input and Output : minimum 1.5 KV DC for 1 min</li> <li>• (iii) Output to Ground :minimum 0.5 KV DC for 1 min</li> <li>• (iv) Output Relay Contact to Ground : minimum 0.5K DC for 1 min</li> </ul> </li> </ul> <p>(IR value before and after HV test shall be within +/- 10% of each other)</p> <p>20) <b><u>Test Report</u></b> : Supplier shall submit Test report / Compliance report for all the above mentioned features indicating serial number of the PS module &amp; date of test.</p> <p>21) <b><u>Type Test Certificate</u></b> : Type Test certificates for the PS model being supplied &amp; conducted in a Govt Approved/Accredited Lab &amp; valid within the last five years shall be submitted along with offer to enable technical evaluation. <ul style="list-style-type: none"> <li>• Electrostatic Discharge Immunity • EN61000-4-2</li> <li>• Electromagnetic Field Immunity • EN61000-4-3</li> <li>• Radio Frequency Immunity • EN61000-4-6</li> <li>• Surge Withstand Capability • EN61000-4-12 equivalent to ANSI 37.90.1/IEEE-472</li> <li>• Dry Heat • IEC-68-2-2 or equivalent</li> <li>• Damp Heat • IEC-68-2-3 or equivalent</li> <li>• Vibration Test • IEC-68-2-6 or equivalent</li> </ul> </p>	
		<p>23) <b><u>Approvals</u></b>: The Power Supply Unit shall have the required CE/UL certification</p> <p>24) <b><u>Catalogue</u></b> : Supplier to submit catalogue / performance curves for the model being offered <ul style="list-style-type: none"> <li>• Efficiency Vs load,</li> <li>• Op.Temperature Vs Load Current etc</li> </ul> </p>	
		<p>25) <b>Each power supply module should be marked with SLNO , BATCH NUMBER AND MONTH OF MANUFACTURING for easy identification.</b></p> <p>26) <b><u>Deviation</u></b> : Offer shall include columns in tabular form having BHEL clause-wise specification number, technical requirement as per BHEL specification, technical parameters offered by vendor, deviations against each sub-clause if applicable amongst other data.</p>	

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