



प्लाज्मा अनुसंधान संस्थान
INSTITUTE FOR PLASMA RESEARCH
 परमाणु ऊर्जा विभाग, भारत सरकार का एक सहायता प्राप्त संस्थान
An Aided Institute of Department of Atomic Energy,
Government of India



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ENQUIRY

ENQUIRY NO : IPR/EQF/18-19/065
 Date : 05-06-2018

Due on : 05-07-2018 by 1:00 PM IST

Please send your offer in sealed envelope specifying Enquiry No, Date & Due Date, ALONG WITH your credentials for the following items which we are interested to import directly against Foreign Trade Policy 2015-2020.

Important Note:

Please note that e-mail quotations are not acceptable however you may send your queries (if any) to importpurchase@ipr.res.in

Please ensure your sealed quotation reaches this office not later than above mentioned due date and time.

Kindly go through the following documents properly before quoting which are available on the IPR web portal i.e., http://www.ipr.res.in/documents/tender_terms.html / attached herewith.

- 1) Instructions to the bidders & Terms and conditions (refer Form No: **IPR-FP-01.V3**)
- 2) Bidding format

GST for Goods and Services (IGST/CGST/SGST TAX BENEFITS): Please refer **clause no: 14** of Form No: **IPR-FP-01.V3**

QUOTATION SHOULD BE ADDRESSED TO PURCHASE OFFICER ONLY

Sr No	Description	Quantity
1	High Current DC power supply as per specifications	1.0 Nos.

Note: Please quote with complete technical details (Technical compliance sheet and product data sheet).

Encl: Refer attached sheet for detailed technical specification.

Sd/-

Mr. D. Ramesh
Purchase Officer-II

Information to Vendors: We are working towards a single platform for our future requirement. Hence, please refer IPR website i.e., <http://www.ipr.res.in/documents/tenderseng.html> for our future requirement.

1. Scope of Work

- Design of Supply the High Current power supply supplies as per the detailed specifications mentioned in annexure-I
- The High Current power supply shall be designed, manufactured, and tested as per the codes and standard mentioned in section 3.
- After fabrication process completion vendor should perform the tests as per standard code.
- Shipment, Unloading and installation of High Current power supply supplies to IPR site.
- Submission of standard test reports along with High Current power supply supplies

3. Application codes & Standards

High Current DC power supply must follow the standards or equivalent standard

- EN 60204: High Current DC Power supply must be design and fabrication standard or equivalent.
- EN 55011 standard for radio disturbance
- EN 61000-6-2 for electromagnetic compatibility
- EN 61010-1 electric safety and measurements and control

2. Technical Specification

Technical Specification for High Current DC power supply as briefed in Annexure-I

3. Metering, Mode of control & Indication

Power ON & OFF Switch	Required
Voltage Display	DC voltage display on front panel required
Current Display	Digital DC output current display required
Voltage (V) Knob	Adjusting voltage value knob required
Current (I) Knob	Adjusting Current value knob required
Constant current & Voltage mode	required
Fault LED	Required
Line voltage ON& OFF	Required
Emergency Push button	Required

4. Mode of operation

High Current DC power supply shall be designed to meet the following mentioned criteria related to operation of power supply.

Manual control of power supply through the front face of control panel. Control panel shall have all the meters, display and control units as per mentioned in section 4.

5. Transportation

Appropriate safe packing, transportation (including Insurance) of High Current DC power supply to IPR site are under the scope of the supplier, which shall include (but not limited to) a necessary list of documentation and appropriate packing, markings, labelling for the deliverables items.

6. Installation at IPR

Supplier should install the High Current DC power supply at IPR in the presence of IPR Representative(s). Supplier should perform the following acceptance tests during installations.

- Physical Verification of the technical Specifications of High Current DC power supply the reported in Purchase order.

2. Demonstration of the as well as Display of High Current DC power supply operations using appropriate using plasma sources available with IPR in presence of IPR's representative(s) at IPR.

7. Training at IPR

The supplier has to arrange two to three days technical training of the IPR Representatives at IPR with free of cost for safe operation High Current DC power supply.

8. Acceptance test at IPR

1. Visual inspection of High Current DC power supply
2. DC Current and voltage measurements on dummy load provided by IPR.

After the completion of acceptance test, the detailed test report including the test results shall be prepared by the supplier.

9. Delivery Period

The High Current DC power supply should be delivered and installed within the period four month to IPR after release of purchase order.

10. Document Required

Supplier should provide the operation and troubleshooting manual of the High Current DC power supply along with it

11. Warranty

Supplier should provide a minimum of one year standard warranty for High Current DC power supply thereof from the date of final acceptance issued by IPR.

Annexure-I: Technical Specifications for High Current DC power supply

Sr. No.	Parameter	Specifications
1.	Type Operation	DC regulated Constant current or Voltage selectable
2.	Current output	400A-450 A
3.	Voltage Output	60V DC
4.	Current Ripple	1% or better
5.	Voltage Ripple	1% or better
6.	Line regulation Current mode	$\leq \pm 1\%$
7.	Line regulation Voltage mode	$\leq \pm 1\%$
8.	Thermal Stability	$\leq \pm 1\%$ after warm up and 8 hours
9.	Current ramp rate	Front panel selectable, Variable max. ramp rate 5 A/s
10.	Current programming resolution	100 mA
11.	Galvanic Isolation between DC output and chassis	$> = 50 \text{ kV}$
12.	Duty	Continuous
13.	Operational mode	Remote, local standalone required
14.	Analog input current adjustment	0-10 VDC or 0-5 VDC for full current scale
15.	Analog input voltage adjustment	0-10 VDC or 0-5 VDC for full voltage scale
16.	Accuracy	1% for both current and voltage
17.	Digital interface for remote operation	RS 232/ USB/ Serial port
18.	Mounting	Suitable 19 inch rack
19.	Front panel indicators and controls	O/P current, voltage digital display, CV /CC mode display, Over voltage and current
20.	Emergency Push button	OFF to ON state to disable PS required
21.	Test certificates and manuals	Hard/ softcopy of manual should be provided with Power supply and Hard copy of test reports
22.	Warranty	Minimum one year
23.	Cooling	Air
24.	Tool kit	One set Tool kits

Compliance sheet

Sr. No.	Parameter	Specifications	Vendor's Specifications
1.	Type Operation	DC regulated Constant current or Voltage selectable	
2.	Current output	400A-450A	
3.	Voltage Output	60VDC	
4.	Current Ripple	1% or better	
5.	Voltage Ripple	1% or better	
6.	Line regulation Current mode	$\leq \pm 1\%$	
7.	Line regulation Voltage mode	$\leq \pm 1\%$	
8.	Thermal Stability	$\leq \pm 1\%$ after warm up and 8 hours	
9.	Current ramp rate	Front panel selectable, Variable max. ramp rate 5 A/s	
10.	Current programming resolution	100 mA	
11.	Galvanic Isolation between DC output and chassis	> 50 kV	
12.	Duty	Continuous	
13.	Operational mode	Remote, local standalone required	
14.	Analog input current adjustment	0-10 VDC or 0-5 VDC for full current scale	
15.	Analog input voltage adjustment	0-10 VDC or 0-5 VDC for full voltage scale	
16.	Accuracy	1% for both current and voltage	
17.	Digital interface for remote operation	RS 232/ USB/ Serial port	
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22.	Warranty	Minimum one year	
23.	Cooling	Air	
24.	Tool kit	One set Tool kits	

Date :

Sign and Official Stamp