

दूरभाष :  
TELEPHONE :  
: कार्क-मुंबई, चेम्बूर,  
TELEGRAMS: BARC-MUMBAI, CHEMBUR.  
टेलिग्रांम : ०११-६१०१७/०११-६१०२२ कार्क ईन  
TELEX: 011-61017/011-61022 BARC IN  
फैक्स संख्या : ९१-२२-५५६०७५०  
FAX NUMBER: 91-22-5560750



सत्यमेव जयते

भारत सरकार  
GOVERNMENT OF INDIA

भाभा परमाणु अनुसंधान केन्द्र  
BHABHA ATOMIC RESEARCH CENTRE

दुबई,  
मुंबई-४०० ०८५.  
TROMBAY,  
MUMBAI-400 085.

Ref: LPTD/WORKS/JT/2018/116946


Date: 4/6/2018

**Sub: Minor Fabrication- Invitation of quotations**  
**Due date: 27/06/2018**

Dear Sirs,

1. Quotations are invited for the **Fabrication of high voltage module as per specifications attached in annexure-1.**
2. The bidder shall quote for fabrication of these components with material.
3. Taxes and excise duties shall be quoted separately. Form H/AF shall be provided wherever necessary.
4. Quotations are to be in printed letter head / quotation format which should consist of GST registration number registered with the local ST authority/ CST authority, PAN number etc. Quotations that are received in computer-generated form will be construed as invalid and rejected.
5. The quotations via **speed post** must reach, **Head, Laser & Plasma Technology Division by 27/06/2018** and must be sent in a sealed envelope superscripted with the above **reference number and due date** given above.
6. The address on the envelope should read:  
**Head,**  
**Laser & Plasma Technology Division,**  
**3<sup>rd</sup> floor, 285-H, Mod. Labs.**  
**Bhabha Atomic Research Centre,**  
**Trombay, Mumbai-400 085.**  
**Attn: Jinesh Thomas**
7. The bidder shall have to take an insurance policy against any material issued to him by the purchaser.
8. The fabrication work shall be subject to inspection by our engineer. The finished components shall not be dispatched prior to approval by our engineer at bidder's works. Necessary inspection facilities shall be provided to our engineers during fabrication at bidder's premises.
9. The bidder shall deliver the finished components after the approval by our engineer, **within 60 working days** from the date of our firm purchase order is issued to the bidder. The finished components and the scrap from the free issue material (if any) shall be delivered by the bidder at M-6, A-Block, Mod Labs, Laser & Plasma Technology Division, Trombay, Mumbai-400 085.
10. Head, Laser and Plasma Technology Division, BARC reserves the right to accept/reject any or all quotations without assigning any reason.

Yours sincerely,

  
R K Rajawat  
Head L&PTD

Encl: Annexure-1.

Copy to:

- 1) BARC website (for uploading), Head SIRD.
- 2) Notice boards, V S Bhavan,
- 3) Accounts Officer (Works), CC.

**The quotations will be opened on 28/06/2018 at 14.00 hours**

## **GENERAL SPECIFICATIONS**

### **1.0 Free issue materials**

- 1.1 The free issue supply material issued by the purchaser to the fabricator shall be covered by insurance policy taken by the fabricator at his own cost for its full value.
- 1.2 The insurance policy shall cover losses of damages to the purchaser's materials due to fire, riot, strikes, theft, civil commotion etc. or any other cause.
- 1.3 The insurance policy shall be valid till the date of actual delivery of the components to the purchaser.
- 1.4 The purchaser shall be named as the beneficiary.
- 1.5 The fabricator shall return the balance material such as scraps, outputs, etc. after the fabrication to the purchaser.
- 1.6 Free issue material is \_\_\_\_\_ and shall be issued to fabricator/bidder at \_\_\_\_\_

### **2.0 Quality surveillance, inspection and inspection report**

- 2.1 All work covered by the specification shall be subject to quality surveillance by the purchaser or his authorized representative for which purpose the fabricator shall allow access at all reasonable time during manufacture to \_\_\_\_\_
  - 2.1.1 The premises in which the work is being carried out.
  - 2.1.2 The drawing and/or tooling involved.
  - 2.1.3 Gauge, instruments, etc. required for inspecting the work.
- 2.2 Inspection and tests shall be carried out by the fabricator as per the requirements detailed in the drawings and these specifications.
- 2.3 The fabricator shall submit three copies of inspection report to the purchaser for approval.
- 2.4 Components found unsatisfactory as to workmanship or material shall be removed by fabricator and replaced by components which are satisfactory.
- 2.5 Fabricator shall use materials as specified by the purchaser and submit to the purchaser, the material test certificate for his approval.
- 2.6 The finished components shall not be dispatched prior to approval by our engineer at bidder's works.

### **3.0 Delivery**

- 3.1 The bidder shall deliver the finished components after approval by our engineer within **60 working days** from the date the firm purchase order is issued to bidder.

### **4.0 Subcontract**

- 4.1 The fabricator shall not sub-contract any or all the work without written consent from the purchaser. The fabricator shall be responsible to the purchaser for all work of the sub-contractor of the fabricator, if allowed by the purchaser.

### **5.0 Tax**

- 5.1 **IGST @ 5%, Income Tax @ 2%**, will be deducted from your bill. **IGST concession certificate will be issued before shipment of the material from your works. Since the goods are to be supplied against the work order meant for research purpose of a research organization under DAE, IGST @ 5% is payable for the goods covered by this work order as per notification 47/2017 dated 14-11-2017.**

- 6.0 **Payment. Payment shall be made only on satisfactory completion of work and production of bill, advance stamped receipt and guarantee/warranty certificate.**

### **7.0 Confidentiality:**

- 7.1 No party shall disclose any information to any third party concerning the matters under this contract generally. In particular, any information identified as "Property" in nature by disclosing party shall be kept strictly confidential by receiving party and shall not be disclosed to any third party without the prior written consent of the original disclosing party.
- 7.2 "Restricted information" categories under section 18 of the Atomic Energy Act, 1962 and "Official Secrets" under Section 5 of the Official act. Any contravention of the above-mentioned provisions by any contractor, sub-contractor, consultant, adviser or the employees of a contractor will invite penal consequences under the aforesaid legislation.
- 7.3 Prohibition against use of BARC's name without permission for publicity purposes  
The contractor or sub-contractor, consultant, adviser or employees engaged by the contractor shall not use BARC's name for any publicity purpose through any public media like Press, Radio, TV or Internet without the prior written approval of BARC

### **8.0**

- 8.1 Any delay which is attributable to the contractor is liable for penalty @ ½ % per week (max 5%) to be imposed on the contractor.
- 8.2 In case any extension in delivery is to be granted to the contractor, party's request for extension may be called for and the same may be justified by the Division. (Only for action).

## Annexure-I

Scope of work and technical specifications for fabrication and testing of High voltage module

Quantity: 5 No.s

Enclosure type	19" rack mountable	With handle
Dimensions	Less than 3U height	84T width
Input Power	AC in	230 V supply
Channel out	1 independent	2 inputs, 1 output on BNC
Channel gain	100	+/- 0.1
Channel linearity	1%	0-1000 V range
Input current range	Two inputs	10 nA to 1 uA
Current inputs	2 No.s on female LEMO	EKG.0B.303.CLL
DPM	Difference error of inputs	Panel display
Bipolar analogue meter	Gain * Difference	Panel display
Channel control input	Integrated difference error	Between above two current input
Channel input offset	10 turn precision pot	100k
Channel input offset step	300mV output	3mV input
Channel input offset range	0-10 V	Output 0-1000 V
Channel output range	0-1000 V	On BNC
Lock/unlock mode	Mode selection	Toggle switch
Channel output response	100*(offset)	Under unlock condition
Channel output response	100*(control input + offset)	Under lock
Output ripple	100 mV pp / 10mV rms	Maximum at 400V output
Channel bandwidth limit	100 Hz	0-15 V input
Channel current capacity	1 mA	Average
Channel display type	3 ½ digit led small	Four on panel
Channel Display #1	Operating HV output	0-1000 V
Channel Display #2	Operating difference error	-100mV to +100mV
Channel Display #3	Operating difference error integrated	-1V to +1V
Channel Display #4	Operating temperature	15-45°C
Heater controller	30V 1 Ampere supply	Set point 47K NTC

Front panel layout

