

Government of India
Bhabha Atomic Research Center
Pulsed Power & Electromagnetics Division

Reference: PP&EMD/BARCV/18-19/IND/SKS/30

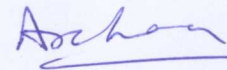
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Name of Party:

SUB: Fabrication, Supply & Repair of – 45 kV / 150 mA Constant Current Power Supply Qty: 1 No's, (Detailed Specifications Attached)

Dear Sir,

1. Quotations are invited for the minor fabrication job, as per the enclosed specification
2. Bidder shall quotes for fabrication of these components with materials.
3. Taxes shall be quoted separately.
4. The quotation must reach the Head, Pulsed Power & ElectroMagnetics Division by date 14.11.2018 and must be sent in a sealed, printed envelope superscripted with reference number and the due date given above. Quotation opening time is 4:00 PM. The party may send its representative at the time of opening.
5. The address of the envelop should read –
Dr. S K Sharma C/o Dr. Archana Sharma
PP&EMD, Bhabha Atomic Research Centre
IDA Block B, 4th Cross Road, Autonagar, Visakhapatnam - 530012
6. The fabrication work shall be subjected to inspection by our Engineer. The finished component shall not be dispatched prior to approval of our engineer at bidders premises. Necessary inspection facilities should be provided to our engineer during fabrication at bidder's premises.
7. The bidder shall deliver the finished components after approval by our engineer with in 6/8 weeks from the date of firm work order issued to the bidder. The finished components along with left over material shall be delivered by the bidder at the address mention in point no 5
8. Head, PP&EMD reserves the rights to accept/ reject any or all quotations without assigning any reasons.
9. Delivery charges if any, must be clearly mentioned with the offer,
10. Quotation must also indicate the validity of offer.
11. Drawing / sketches must be returned along with the offer.
12. Quotation are to be in printed letter-head / quotation format only. Quotation received in computer-generated forms will be considered as invalid and rejected.
13. Quotation should consists of Sales Tax registration number (Registered with local ST / CST authority), PAN number of the firm, services tax registration number etc.
14. Claim preferred by the firms are also be in printed INVOICE format consisting of the above registration numbers.
15. No Free issue material will be given.



(Dr. Archana Sharma)
Head, PP&EMD
BARC, Visakhapatnam

डॉ अर्चना शर्मा
Dr. ARCHANA SHARMA

अध्यक्ष, स्पंद शक्ति एवं विद्युत-चुंबकीय प्रभाग
Head, Pulsed Power & Electro-Magnetics Division (PP&EMD)
भाभा परमाणु अनुसंधान केंद्र (भारत सरकार)
Bhabha Atomic Research Centre (Government of India)
आटोनगर, विशाखपट्टणम
Autonagar, Visakhapatnam

Item: Fabrication, Supply & Repair of – 45 kV / 150 mA Constant Current Power Supply
Qty: 1 No's

Specification of Constant Current Capacitor Charging Power Supply unit

45 kV Capacitor charging power supply rack consisting of 6.6 kJ/sec IGBT based resonant inverter providing constant current output with maximum charging voltage of 45 kV. Capable of charging 208 uF capacitor in 60 seconds.

Technical Specification of Constant Current Power Supply

IGBT resonant inverter based capacitor charging power supply along with 50 kV DC disconnecting switch

Input	: 415 Volts, 3 Phase, 50 Hz
Output	: 45 kV (maximum)
Polarity	: Positive
Average Power	: 6600 Watts per module
Charging time	: 60 sec
Topology	: Series resonant topology
Charging current	: Settable from minimum to maximum
Operating temperature	: 0 deg C to 55 deg C
Cooling	: Forced Air cooling
HV transformer / Rectifier	: Dry type, Silicon rubber encapsulated

External Interface

HV Enable, Voltage setting, End of charge, Fault, Power ON status, Remote power ON/OFF.

Protections

Heat sink over temperature, Input over voltage, Input under voltage, Control supply failure, Capacitor voltage reversal

Fabrication & Repair

1. The output polarity has to be converter to – 45 kV dc, the necessary design modification, fabrication and repair has to be carried out in the power supply.
2. The power will be tested with capacitor load (100 nF) for 30 min and also with short-circuit load.

Note

1. The necessary fabrication and repair work has to be carried out at our site in Visakhapatnam.
2. The party will bring the spares and consumables and do the necessary changes.
2. The material has to be delivered at BARC, Visakhapatnam.
3. The party has to test the control unit with existing powers supply at Visakhapatnam.
4. The party has to install the item with power supply at Visakhapatnam.