**Indian Institute of Technology, Kanpur**
**Department of Mechanical Engineering**

**Tender Document**

**Sub: ENQUIRY LETTER for DC Power Supply**

**Tender Enquiry Number: IITK/GSMST/KMD/2023-2024/1** **Enquiry Date: 21.07.2023**

**Closing Date: 31.07.2023 Opening Date: 01.08.2023**

**Quotations are invited for the above-mentioned subject as per the technical specifications given below:**

| | Detailed Specification and Requirements | |
|---|---|---|
| 1. | DC Output Rating | |
| | Voltage<br>Current<br>Power | 100V<br>7.5A<br>750W |
| 2 | Output voltage ripple and noise | |
| | CVp-p<br>CVrms | 80mV<br>8mV |
| 3 | Load effect (change from 0% to 100% of full load) | |
| | Voltage<br>Current | 12mV<br>6.5mA |
| 4 | Source effect (change from 85-132 VAC input or 170-265 VAC input) | |
| | Voltage<br>Current | 12mV<br>2.75mA |
| 5 | Programming accuracy | |
| | Voltage 0.05%<br>Current 0.1% | 50mV<br>7.5mA |
| 6 | Measurement accuracy | |
| | Voltage 0.1%<br>Current 0.1% | 100mV<br>22.5mA |
| 7 | Load transient recovery time4 | ≤1 ms |
| | Supplemental characteristics are not warranted but are descriptions of typical performance determined either by design or type testing | |
| 8 | Output response time (settle to within ±1.0% of the rated output, with a resistive load) | |
| | Up Full Load<br>Down Full Load<br>Down, no load | 0.15 s<br>0.15 s<br>1.5 s |
| 9 | Command response time5 | 55 ms |
| 10 | Data read back transfer time6 | 3ms |
| 11 | Remote sense compensation<br>Volts/load lead | <br>5V |
| 12 | Over-voltage protection<br>Range<br>Accuracy | <br>5 to 110V<br>0.80V |
| 13 | Output ripple and noise7<br>CCrms | 23mA |
| 14 | Programming resolution measurement resolution | |

| | | |
|---|---|---|
| | Voltage<br>Current | 12mV<br>0.9mA |
| 15 | Front panel display accuracy (4 digits; ±1 count) | |
| | Voltage<br>Current | 0.5 V<br>0.0375 A |
| 16 | Series and parallel capability | Parallel operation Up to 4 units can be connected in primary/secondary mode<br>Series operation Up to 2 units can be connected in series |
| 17 | Output terminal isolation | 6 V to 60 V units No output terminal may be more than ±60 VDC from any other terminal or chassis ground |
| 18 | Store-recall states | Volatile memory locations: 16 |
| 19 | Analog programming (of output voltage and current) | |
| | Input signal Selectable; | 0 to 5 V / 0 to 10 V full scale |
| | Input impedance Selectable | 0 to 5 kΩ / 0 to 10 kΩ full scale |
| 20 | Input Voltage | Nominal input 100 – 240 VAC; 50/60 Hz |
| 21 | Regulatory compliance<br>EMC | European EMC directive 89/336/EEC for Class A products<br>• This ISM device complies with Canadian ICES-001.<br>• Cetappareil ISM estconforme à la norme NMB-001 du Canada. |
| 22 | Safety | European Low Voltage Directive 73/23/EEC<br>Any LEDs used in this product are Class 1 as per IEC 825-1 |
| 23 | Phase | Single Phase |
| 24 | Frequency | 47 – 63 Hz. |
| 25 | Power factor | > 0.99 |
| 26 | Protection | over-temperature, over-current and over-voltage protection (OVP) under-voltage limit (UVL) |
| 27 | Interface | LAN, USB, GPIB |
| 28 | Operating Temperature<br>Storage temp | 0 °C to 40 °C<br>–20 °C to 70 °C |
| 29 | Warranty and service support | The instrument should have atleast 3 – Years standard warranty and Manufacturer should have its own NABL and UKAS ACCREDITED Lab, ISO/IEC 17025:2017 Certified calibration Lab and service center in India |
| 30 | Calibration & User Manual | Required |

**Bid Evaluation Criteria:**

1) The cost comparison for the offer will be carried out **on set basis** and not on individual components basis.
2) Only offers received from OEM or OEM authorized distributor / sales representatives will be considered. The supplier must attach the authorization certificate from the OEM failing which quotations are liable to be rejected.

**Bidder Qualification Criteria:**

1) Detailed technical **literature / data sheet** must accompany quotations, failing which quotations are liable to be rejected.

**Note: The Quotation should reach the undersigned on or before 5 Pm on 31st July, 2023.**

**Indenter Details:**

**Dr. K. Muralidhar**
**Professor,**
**Department of Mechanical Engineering**
**Indian Institute of Technology, Kanpur-208016**

**Terms and Conditions:**

1. Maximum discount should be offered.
2. Quotations should be valid for minimum 90 days
3. Delivery period will be 6-8 weeks after receipt of purchase order at door delivery basis.
4. Manufacturer authorization certificate from principal company is required if you are a local supplier
5. The Institute reserves the right of accepting or rejecting any quotation or bid without assigning any reason thereof.
6. Payment Terms: 100% after supply of the materials.
7. Bidder must clearly mention their contact details with address and email ID.

**Signature**

K Muralidhar

**Dr. K. Muralidhar**

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