

DEPARTMENT OF ELECTRICAL ENGINEERING
INDIAN INSTITUTE OF ENGINEERING SCIENCE AND TECHNOLOGY,
SHIBPUR, HOWRAH-711 103.

No. 228/2021/EE-3/21(KM_PE)

Dated: 22/09/2021

From : The Head of the Department,
Electrical Engineering,
IEST, Shibpur, Howrah-711 103

To : Enlisted vendors of the institute and other interested parties/ For Website Tender.

Dear Sir(s),

Sealed quotations are invited for supply of the following item(s) within 10 working days from the date of publication of this notice in the institute website. The quotation should include 5% GST only as per institute rule, delivery charges, entry tax if any, etc. and should be addressed to the Head, Department of Electrical Engineering, Indian Institute of Engineering Science and Technology, Shibpur and should mention a firm delivery period. Preferences will be given to the suppliers who can supply ex-stock.

Any clarifications regarding specifications only may be obtained sending an e-mail with tender reference to kmukherjee.ee@faculty.iiests.ac.in within 7 days after publication of the tender advertisement in the institute website.

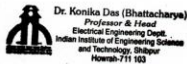
The vendors, who are not enlisted in the Institute register, should submit the copies of their valid Trade License, PAN, latest Income Tax / Sales Tax Statement /Return, SSI/MSME certificate, GST certificate, if any etc. and any other commercial credentials. The institute shall provide the certificate for concessional GST rate (5%) along with the purchase order.

Yours faithfully,

Konika Das (Bhattacharya)

Signature of the indenting Officer/
Concerned Faculty Member

Prof. & Head of EE Dept.
IEST, Shibpur, Howrah – 711 103



Purchase of various instruments for Power Electronics laboratory, EE Dept., IEST Shibpur:

List of Items and specifications given in Annexure-I:

(Please quote on a per unit basis, final quantity will be decided based on fund availability)

Annexure-I

Item 1: Rheostats*, Toshniwal make or equivalent

- (a) Rheostat, 25 ohms, 5A continuous, single tube, **open**, 2 inch tube size approximate and 12 inch approximate length – 2 no.s tentative, please quote on a per unit basis
- (b) Rheostat, 270 ohms, 1.2A continuous, **open**, 1.5 inch tube size approximate and 12 inch approximate length – 2 no.s tentative, please quote on a per unit basis
- (c) Rheostat, 110 ohms, 1.7A continuous, **open**, 1.5 inch tube size approximate and 12 inch approximate length – 2 no.s tentative, please quote on a per unit basis

Detailed desired specifications/requirement:

The above rheostats should follow the specifications given below:

- (i) Current ratings mentioned in (a), (b) and (c) above should all be continuous ratings.
- (ii) Resistance wire should be wound on a SINGLE hexagonal steel tube, vitreous enamelled
- (iii) Wound tube should be fitted in two end castings with mounting holes, duly insulated with micanite cups.
- (iv) Brush should be of Copper graphite to provide lubrication and prevent wear and tear of wire.
- (v) Heat resistant compression springs to be used to ensure firm contact of Brush with the resistance winding.
- (vi) Winding should be covered with a perforated steel sheet enclosure with only the Slider Knob & two Insulated Banana plug Terminals accessible externally from all sides, except bottom, to ensure that the operator cannot come in contact with the slider bar/ winding to avoid shock hazard.
- (vii) The Rheostat should meet the requirements of IS:9051 in respect to
 - (a) Tolerance on resistance value : + 20% to -5%
 - (b) H.T. Test : 2kV for 1 minute
 - (c) Temperature rise : 375°C (mounted vertically)
 - (d) Maximum working voltage : 500 V
 - (e) Ambient room Temperature : 0 - 45⁰C
- (viii) Ratings in Amperes & ohms to be provided on a duly marked Nameplate affixed with Rivets to the Rheostat

Manufacturer of the rheostat should be reputed, who

- (a) have proved past experience of supplying to Government Educational Institutions / Public Sector Companies in the past 5 years as follows: a) One order of Rs 2.4 Lacs OR b) Two orders of Rs 2.0 Lacs OR c) Three orders of Rs 1.6 Lacs. **(Documents in support of this should be submitted with offer.)**
- (b) have an in-house NABL accredited Electrotechnical Laboratory with Traceable capabilities of measuring Resistance.
- (c) Manufacturer's test certificates have to be provided during supply of items.

Warranty requirements: Minimum 1 year.

***Note:** Final quantities should be decided based on funds available. Techno-commercial evaluation will be made considering all the instruments of item-1 as a single combined group. The vendor, who

will satisfy the technical requirements of all the rheostats and quotes the minimum total price for all the sub-items under (a), (b) and (c) of item-1 as a group will be considered as the lowest bidder.

Item 2: Wire-wound Resistors**

- (a) 600 ohms plus/minus 5%, 180W continuous - 4 no.s tentative, please quote on a per unit basis
- (b) 1000 ohms plus/minus 5%, 75W continuous - 4 no.s tentative, please quote on a per unit basis
- (c) 2000 ohms plus/minus 5%, 40W continuous - 4 no.s tentative, please quote on a per unit basis

For each of the above resistors, arrangements must be there for soldering/screwing with external copper wires by the customer. Wires should be suitable for 1 kV insulation level, should be suitable for natural cooling, should have high stability of resistance value at high temperatures. Resistors will be finally wall mounted by customer with natural cooling. Heating element should be made up of suitable alloy with as less inductive effect as possible. These should be preferably open type, insulation resistance should be at least 1 Meg-ohm.

Warranty requirements: Minimum 1 year.

****Notes:**

- (i) An approximate drawing for each type of the quoted resistors showing mounting arrangements and dimensions should be submitted with the quotation/offer.
- (ii) Final quantity of each type will be decided as per funds available.
- (iii) While delivery, customer will test for the resistor value, Megger, High Voltage insulation test and temperature rise before final acceptance.
- (iv) *Techno-commercial evaluation will be made considering all the instruments of item-2 as a single combined group. The vendor, who will satisfy the technical requirements of all the wire-wound resistors and quotes the minimum total price for all the sub-items under (a), (b) and (c) of item-2 as a group will be considered as the lowest bidder.*