

Our Fax No. 022 2826 2057

Our Ref: WROL/ 3:40

Mumbai,

Subject: Inviting Sealed Quotation for supply of

2008 01 07

**“Normal Operation as well as Making Breaking Capacity Test Equipment”
Extensions of date for submission of Bids document.**

To,

Manufacturers & suppliers of **“Normal Operation as well as Making Breaking Capacity Test Equipment”** used for **Testing of Switches for Domestic and Similar Purposes, Ref: IS 3854: 1997 (including three amendments)**

Dear Sirs,

Technical & Commercial Bids are invited for the supply of - **Normal Operation as well as Making Breaking Capacity Test Equipment”** used for **Testing of Switches for Domestic and Similar Purposes**, in SEPARATE SEALED covers, which should reach the undersigned latest by **1700 h, on 27 January 2008**, at the following address.

**Scientist F & Head
WRO Laboratory, “Manakalaya”
Bureau of Indian Standards
E-9, M.I.D.C., Behind Marol Telephone Exchange.
Andheri (East),
Mumbai 400 093**

1. Terms and Conditions of supply are given in **Annex-I**
2. The detailed specification(s) of the above mentioned equipment(s)/item(s) are given in **Annex-II**
3. The Bid envelops and the Technical Bid & EMD envelops contained in the Bid envelops shall be opened in the chamber of Sc. F & Head, WRO Laboratory at the address mentioned above at **1500 h on 29 January 2008** and in the presence of such tenderers or their duly authorized representatives, who may like to attend.
4. Please ensure that the envelopes containing **Technical & Commercial Bids are sealed properly i.e. either wax sealed or with adhesive cello tape on both ends. Unsealed and stapled envelopes shall not be accepted. EMD Demand Draft / Pay Order (Rs. 30,000/-) should be kept in a separate envelop and marked as EMD. It should not be kept inside Commercial Bid envelop.**

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5. The Equipment Specification and Terms & Conditions can also be downloaded from BIS Website –www.bis.org.in/other/tender.asp
6. Bid without EMD will be summarily rejected.
7. Please note that the Technical Bid of only such bidders will be subjected to evaluation / assessment, who make an explicit statement towards acceptance of our General Terms and Conditions of Supply, vide Annex I, especially acceptance of Payment Terms. (Ref. Cl. 9)
8. Commercial Bids of only such bidders will be opened whose Technical Bid meet the Equipment Specification as laid down in Annexe II.
9. The Bidders whose Technical Bid qualify for acceptance will be informed about the date of opening of Commercial Bids and will be permitted to remain present at the time of opening of Commercial Bids, if they so desire.

Thanking you,

Yours faithfully,

(Mohd. Rizwan)
Sc. B & OIC Purchase
Ph: 022-2832 7856

Encl: as above

ANNEX-I

2007 11 30

Normal Operation as well as Making Breaking Capacity Test Equipment for Testing of Switches for Domestic and Similar Purposes Ref : IS 3854 : 1997 (including three amendments)

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TERMS & CONDITIONS

1. The BUREAU gives FIRST PREFERENCE in its purchase to goods bearing ISI CERTIFICATION MARK and second preference to those which conform to the relevant Indian Standard Specifications.
2. The delivery of the equipment is required to be made within 30 days of receipt of order. If, it is not possible for you to effect delivery within the period, you are required to specify the date by which you can guarantee delivery of the equipment.
3. The **Technical & Commercial Bids with Ref No. & Date should be sealed and sent separately in sealed envelopes**. The Bids shall remain valid for a period of **120 days** from the date of opening of Technical Bid.

3.1 The **Technical Bid** - should accompany complete specification, manufacturer's name, address make & model No. of the equipment quoted, warranty period along with following details :

- a. Expected life span of equipment and accessories,
- b. List of infrastructural facilities and consumables to be arranged by the Bureau for commissioning of equipment,
- c. List of Users in India with complete postal address to whom the similar equipment has been supplied,
- d. Near locations in India from where after sales services shall be provided along with the name of Servicing Agent,
- e. The optional and any other essential items/accessories required for the maintenance of the equipment for the next three years,
- f. Technical literature of the equipment along with necessary photographs/drawings, if any.

Note : Warranty Period of the equipment quoted should not be less than one year.

3.2 Cost of the items should be mentioned clearly in the **Commercial Bid** only. Under no circumstances cost of the equipment be declared in Technical Bid. It may be noted that the Cost declaration in Technical Bid is liable to make the Bid invalid. The following details need to be included.

- a. Price break-up of main equipment and accessories and consumables to be supplied by the party,
- b. Rebate on the quoted price, if additional equipment is procured for any other BIS Lab, and
- c. The Annual Maintenance Contract charges for next three years after the expiry of warranty period
- d. The rates quoted shall be valid for a period of **120 days** from the date of opening of the tender. However, the current values of the foreign currency would be applicable at the time of placing the order in case the rates are quoted in foreign currency.

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(Mohd. Rizwan)
Sc. B & OIC Purchase

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**Normal Operation as well as Making Breaking Capacity Test Equipment
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TERMS & CONDITIONS

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4. Quotations/Bids, qualified by indefinite expressions as “Subject to immediate acceptance, Subject to prior sale” etc. and incomplete quotations are liable to be summarily rejected.
- (a) Tenders not accompanied with Demand Draft towards “Earnest Money Deposit” will summarily be rejected.
 - (b) Tenders, which are submitted without following the Two-Bid Offer System, will summarily be rejected.
 - (c) Unsigned Tenders will also be rejected.
5. The rates quoted should separately indicate Basic Cost, Excise Duty, Sales Tax, P&F charges, Freight, Insurance, VAT etc. Rates quoted should specifically state Sales Tax, Excise Duty or any other taxes/charges. In absence of any such stipulation, it will be presumed that the prices include all such charges and no claim for the same shall be entertained. **Form C/D shall not be provided by BIS**
6. Each tender document shall be accompanied with **EMD of Rs. 30,000/-**. The demand draft for the EMD amount shall be drawn in favour of BUREAU OF INDIAN STANDARDS payable at Mumbai. The sealed envelope containing EMD should be superscribed “**EMD**” and **stapled separately with the envelope containing the Technical Bid.**
7. Bid security (EMD) of the successful bidder shall be refunded on receipt of the equipment.
8. Bid security (EMD) of unsuccessful bidders shall be returned to them at the earliest after expiry of the final bid validity and latest on or before the 30th day after award of the contract
9. BIS shall pay 90 % of the cost, taxes in full along with other charges after satisfactory installation & commissioning and the Balance 10 % will be retained as Contract Performance Security and would be released after satisfactory expiry of Warranty Period (one year minimum). However, other terms of payment for Contract Performance Security can also be considered, if so stated clearly but the ‘Contract Performance Security’ should be valid during guarantee/warranty period.
10. The **warranty period** of the equipments **may be stated clearly** in the Technical Bids. In case the same is not found stated, it will be presumed that **warranty period as mentioned in their respective specifications of the quotation document (if specified), is applicable**

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(Mohd. Rizwan)
Sc. B & OIC Purchase

ANNEX-I (contd....)

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11. Please mention clearly in the Technical Bids regarding address of **arrangements for service/repair** of the equipments is available. Suppliers having such arrangements near Mumbai would be preferred.
12. All goods received would be subjected to inspection, by BIS before or after receipt or commissioning (as applicable) and the decision of BIS shall be final & binding. Rejected items/goods/stores shall be removed by the supplier at his own cost and risk, within 30 days of receipt of notice for the removal of such goods, and no liability, whatsoever, on the Bureau shall be attached for the rejected/disapproved goods/items/stores.
13. The Bureau reserves the right to accept or reject summarily and or all quotations/s in whole or part without assigning any reason whatsoever.
14. The Bureau takes no responsibility for delay, loss or non-receipt of quotations after despatch.
15. **In case of non compliance with the Terms & Conditions of the contract, the Bureau reserves its right to:**
 - a) Cancel/rescind/revoke the order if supply is not made in time and is not conforming to the required specifications.
 - b) Impose Penalty up to 1% of the total value of the order for a delay of every seven days after the schedule date subject to the ceiling of a maximum of 10% of the total value of the order.
16. All questions, disputes or difference arriving under, out of or in connection with this tender enquiry shall be subject to the exclusive jurisdiction of Mumbai Courts.
17. The authorised signatory of the bidder should sign with name & designation of the signatory spelt out on each page of the Technical as well as Commercial Bid.

**(Mohd. Rizwan)
Sc. B & OIC Purchase**

ANNEX-II

BUREAU OF INDIAN STANDARDS (WRO Laboratory - Purchase Cell)

2007 11 30

EQUIPMENT SPECIFICATION:

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NAME OF THE EQUIPMENT: Normal Operation as well as Making Breaking Capacity Test Equipment used for Testing of Switches for Domestic and Similar Purposes, Ref: IS 3854: 1997 (Including three amendments)

WHERE REQUIRED : ELECTRICAL LAB, BIS WESTERN REGION
TOTAL QUANTITY REQUIRED: ONE UNIT
PURPOSE : Testing of Switches for Domestic and Similar Purposes
Ref: IS 3854: 1997 (including three amendments)

Details of Specification: A) Basic Testing Device /Unit (minimum requirements)
The machine shall be capable of

- i) Operating on normal supply of voltage of 240 V AC, Single Phase.
- ii) Testing three switches at a time.
- iii) Testing Single Pole, Two Pole, Two-way switches and also Tumbler, Rocker, Push Button, Cord Operated switches of Surface/Flush/Semi-flush mounting type.
- iv) Operating ON – OFF Cycle, setting up of ON – OFF time and measuring ON – OFF cycles through Digital Counters capable to measure upto 5 digits, i.e 0 to 99999 Cycles. Separate Digital Counter shall be provided for each switch under test. The equipment should be capable of performing a minimum of 40,000 ON –OFF operations un-interruptedly.
The Counters will be such that in the event of shorting of any one switch or open circuiting of switch under test, the ON – OFF Counter attached to that switch will stop further counting. The buzzer / alarm attached to the equipment will sound alarm in the event of failure. The current load being supplied to such a switch should also stop automatically. Facility should be available to discontinue mechanical operation of ON –OFF Cycle for that switch (by passing of failed switch).
- v) The device for operation of switches for ON - OFF shall be separate and shall be such that it should be possible to exert required force to operate the same.
- vi) Adjusting the operating cycle time in seconds & minutes as required during testing of switches with minimum ON / OFF time of 1 second.
The cycle time controller shall be electronic.
- vii) Other necessary controls and indicators - cum - controllers for safe use as well as easy handling of the equipment
- viii) A buzzer / alarm will be provided to indicate completion of set number of cycles.

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(M.D.Chilakwad)
Sc.E & OIC, Electrical

ANNEX-II (contd...)

EQUIPMENT SPECIFICATION:

**Normal Operation as well as Making Breaking Capacity Test Equipment
for Testing of Switches for Domestic and Similar Purposes
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B) Power Supply & Load Requirements (Load Panel)

- i) Voltage : Stabilised 230V/240V/250V AC & shall have means to give voltage upto 110 % of the rated voltage with suitable VA capacity.
- ii) Current : Shall be suitable to give stabilised 1/2/4/6/10/16/20/25/32A current and shall be able to raise current to 130 % of the rated current.
- iii) The load panel shall be such that it shall be possible to provide power factor of 0.6 ± 0.05 lag at rated current and a power factor of 0.3 ± 0.05 lag at 130 % of the rated current and 110 % of the rated voltage of either of 230 V/240 V/250V.
- iv) The voltage and the current supplied to the test pieces should be substantially in sine wave form and should not vary significantly during the test. The inductor used shall be air core type.
- v) Panel for holding about 50 Tungsten Filament Lamps of 200 W shall be provided with facility to operate the required numbers of lamps at a time.
- vi) The equipment should have Load Unit A and Load Unit B inserted between the test circuit terminals as indicated in Fig. 14 of IS 3854 : 1997
- vii) The panel shall have following calibrated meters mounted on it and the calibration should be from an NABL Accredited Calibration Lab :
 - a) Digital ac volt meter : Range 0 - 600 V; LC 0.1V, Accuracy 1 % or better
 - b) Digital ac ammeter : Range 0 - 100 A; LC 0.1 A; Accuracy 1 % or better
 - c) Digital power factor meter : Range 0.3 lead to 0.3 lag, LC 0.05

C) ON – OFF Time :

- a) ON – OFF time shall be equal for Making – Breaking Capacity test
- b) ON Period 25 % + (0 to 5) % of the total cycle time stipulated, and OFF Period 75 % - (0 to 5) % of the total cycle time stipulated for Normal Operation test

D) Rate of Operation :

- a) 30 operations per minute if the rated current does not exceed 10 A
- b) 15 operations per minute if the rated current exceeds 10 A, but is less than 25 A.
- c) 7.5 operations per minute if the rated current is more than 25 A.

(M.D.Chilakwad)
Sc.E & OIC, Electrical

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E) Software Control & Printout of the Input Data and Results :

Based on declared nominal current rating of the switch sample under test the software should be able to select the ON – OFF time for the cycle & number of ON – OFF cycles which that switch has to be subjected. The software should be able to set the ON – OFF time and number of ON – OFF cycles. At the end of the test the printer attached to the PC should be able to print out the results, i.e the number of cycles which the switch sample under test actually withstood successfully along with the sample identification number, current rating of the switch tested, the selected ON –OFF time, name of operator and the date of test, etc.,

F) Manual Control :

It should be possible to regulate and operate the equipment manually as well. This feature will be useful especially in the event of software failure.

G) Rust prevention : All exposed ferrous components should be Nickel plated as far as possible.

H) Panel Housing & Internal Wiring : The panel should be housed in duly powder coated M.S. body and provided with the rubber castor wheels for easy mobility of the panel. Wires used for internal wiring shall be of appropriate rating. Proper earthing of the equipment including panel, load unit and fixtures should be provided.

I) Cooling arrangement : Forced air cooling arrangement should be provided to avoid excessive heating of the components.

J) Technical Guidance : For technical guidance Cl. 18 & 19 of IS 3854 : 1997 may be referred.

K) Drawings and Guiding Figures:

Relevant drawing and figures from IS 3854 : 1997 as well as detailed description of the test is enclosed (Fig 10, Fig 13 & Fig 14).

L) Operating Manual and Warranty :

Drawing of the equipment supplied and also the operating / service manual will also be provided along with Certificate of Warranty valid at least for a period of one year from the date of commissioning of the equipment.. The supplier should demonstrate operation of the equipment.

(M.D.Chilakwad)
Sc.E & OIC, Electrical

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