

PURCHASE ENQUIRY

To M/s	Our E-mail : smb@bhelpswr.co.in	
	ENQUIRY No :	12037 E
	ENQ.DATE	13.10.2012
	DUE DATE	03.11.2012

Dear Sir,

Kindly submit your sealed quotation by Speed Post / Registered Post / Courier / Air Mail in **two bids viz. (1) Technical cum Commercial Bid & (2) Price Bid** for the material indicated below confirming acceptance to the terms and conditions enclosed, so as to reach our office on or before 3.00 PM on the due date. Quotation may be sent by Fax only if asked so by BHEL / with prior permission of BHEL.

S.No.	Description of Material	Qty (Nos)	Delivery Schedule	Material Required at (Destination)
01	SUPPLY OF 1-5 KV INSULATION TESTER AS PER ANNEXURE-I	2 Nos.	WITHIN TWO MONTHS FROM PO. DATE	REGIONAL SERVICE CENTRE 568/1, PARPIA COMPOUND, R.C. DUTT ROAD, VADODARA-390 007 (GUJARAT)
02	SUPPLY OF 250 V INSULATION TESTER AS PER ANNEXURE-II	5 Nos.	WITHIN TWO MONTHS FROM PO. DATE	
03	SUPPLY OF 500 KV INSULATION TESTER AS PER ANNEXURE-III	5 Nos.	WITHIN TWO MONTHS FROM PO. DATE	

A) GENERAL TERMS AND CONDITIONS OF CONTRACT

Cl. No.	DESCRIPTION
01	Each tender should be sent in a double cover, inner cover should be sealed with tenderer's distinctive seal. The outer cover should bear the address of this office and super scribed with correct Enquiry No. and Due Date. Tender should be free from CORRECTION AND ERASURES. Corrections, if any must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amount in figures and words, amount quoted in words shall prevail.
02	Technical cum Commercial bid will be opened at 3.30 PM on Due Date. The Technical cum Commercial bid should accompany copy of documents like authorized dealership certificate, earlier supply order details of similar equipment and their performance feedback from customers, company profile and present status, product catalogue of the models offered, technical specifications of the product, commercial Terms & Conditions and other relevant documents etc.
03	Price bid of technically accepted bidders only will be opened. No revision of prices will be entertained after Tenders are opened, unless mentioned in our enquiry / asked so by BHEL.
04	Manufacturer's name, Trade Mark or Patent No. if any, shall be specified in the Technical cum Commercial Bid
05	Please mention the relevant national / international standard code of the product quoted for in the Technical cum Commercial bid.
06	The purchaser shall be under no obligation to accept the lowest or any other tender and shall be entitled to accept or reject any tender in part or full without assigning any reason whatsoever.
07	Late tenders received after Due Date & time shall not be accepted in any circumstances.
08	Price quoted shall be valid for 90 days from the date of opening
09	Price shall be quoted as per enclosed 'Price Format' only. Quotations not accompanying filled in 'Price Format' are likely to be rejected. Please fill in all the columns of all formats

**BHARAT HEAVY ELECTRICALS LIMITED
PS-WR:HQ:NAGPUR**

PUR-F31/01
Page 2 OF 13

ENQUIRY NO. 12037 E

DT.13.10.12

DUE DATE: 03.11.12

10	The price quoted should be as applicable to DGS & D (Govt. of India) and other Govt. Organizations. In case DGS & D rate / Running Contract is not existing, but a contract is in vogue with any BHEL Unit, reference of the same shall be furnished and same may be applicable to this contract.
11	SECURITY DEPOSIT: The supplier shall have to furnish Security Deposit (Cash/DD/Bank Guarantee from a Scheduled Bank) if so specified in the tender under Special Terms & Conditions.
12	PACKING AND MARKING: The supplier shall arrange for secure protective packing of the goods suitable for tropical conditions to avoid loss, damage, atmospheric action during handling and transit. The packing standards will comply with relevant national standard/carrier's conditions of packing or established practice. If any damage is sustained and the carrier or underwriter attributes it to improper packing, the seller shall be liable to replace the material or reimburse the value of the loss notwithstanding any transit insurance arranged by him or not. The following marking shall be made on each package in black bold letters. NAME & ADDRESS OF CONSIGNEE, DIMENSION OF PACKAGE, WEIGHT DETAILS: GROSS, TARE & NETT These markings should be stenciled or written in bold letters on the package. Should the package be small, suitable cards/metal tags giving these details may be tagged or nailed
13	INSPECTION: Final inspection will be carried out the destination/site/Purchaser's works by the authorized inspecting Officer, if so specified in the tender under Special Terms & Conditions. Whenever preliminary or stage inspection is to be carried out at supplier's works the same is subject to final acceptance after receipt of the material at the destination/Purchaser's works and the decision of the purchaser shall be final. The propriety of goods shall not pass until final acceptance by the purchaser
14	REJECTION: The seller shall intimate the purchaser in writing within 15 days (after being intimated about rejection of goods) regarding disposal action of the rejected material. If no advice is received within this time the purchaser shall be at liberty to return the material at the cost and risk of the seller after receiving the cost if any paid by the Purchaser including inward freight and other incidental charges. The Purchaser will not be responsible for the rejected material thereafter and no claim will rest on him.
15	Delivery: Purchaser shall not be liable to receive and pay for any supply made after delivery date stipulated in the order unless the delivery date is formally extended by the purchaser. Wherever the terms of delivery of the order is other than F.O.R. destination, delivery date will be reckoned as the date of dispatch or the date of readiness after inspection of the material where the Purchaser has agreed for inspection or collection.
16	Test certificate: The seller shall carry out such tests as prescribed by the purchaser / as required in accordance to the relevant national or international standards, in his works and/or other places as stipulated in the order. Necessary test certificate shall be submitted with delivery of materials. The seller shall also provide at no extra cost the required number of catalogues, drawing and other manuals related to materials under this order.
17	TERMS OF PAYMENT: Payment will normally be made within a month of receipt of material in good condition at destination. Any other payment terms have to be mutually agreed. The seller shall send dispatch documents, invoice etc. in such quantum and a manner as provided in the order. (I) It is expressly understood that in the event of rejection of the materials for which payment has been made against document's through bank the Purchaser reserves the right to claim from the seller the amount paid and the incidental charged incurred in the same manner i.e. negotiating return dispatch documents, through Bank and the Seller shall honour such claim and retire the documents from the Bank. (ii) Bank charges for any payment claimed through Bank shall be borne by the seller and the seller shall also agree to bear any demurrage or other charges arising out of any delay in retirements or documents from Bank due to delayed, insufficient incorrect information furnished. (iii) The seller shall also ensure that the Carriers do not delay dispatch of the consignment once the carrier's receipt is obtained.
18	GUARANTEE WARRANTY: The materials shall be warranted for design material and workmanship and also for performance warranty as specially stipulated by the purchaser in the order in its annexure.
19	INSURANCE: Wherever specifically agreed to and directed, the supplier will insure the goods for all transit risks upto delivery of the goods at the final destination. In all other cases supplier must furnish particulars of dispatch for each consignment immediately after the dispatch of goods. Failure to do this will make the supplier responsible for making good any loss, which otherwise might have been recovered from underwriters.

BHARAT HEAVY ELECTRICALS LIMITED
PS-WR:HQ:NAGPUR

PUR-F31/01
Page 3 OF 13

ENQUIRY NO. 12037 E

DT.13.10.12

DUE DATE: 03.11.12

20	<p>DELIVERY FAILURE, TERMINATION & LIQUIDATED DAMAGE: The parties hereto agree that the timely dispatch/delivery and completion of the other schedules as stipulated in order/contract shall be the essence of the Order/Contract. If the seller/contractor fails to complete the dispatch/ delivery and other schedules within the time period stipulated in the order/contract, or within any extension of time granted by the purchaser, it shall be lawful for the purchaser to recover damages for the breach of order/contract without prejudice to any other rights and/or remedies provided for, in order/contract and hereunder.</p> <p>The purchaser reserves the right to recover from the Seller/Contractor, as agreed liquidated damages and not by way of penalty, a sum equivalent to half percent {½% of the total contract price per week part thereof, subject to a maximum of ten percent @ 10%} of the total contract price excluding elements of taxes, duties and freight, if seller/contractor has failed to deliver any part of the goods within the period stipulated in the Order/Contract.</p> <p>The purchaser reserves the right to purchase from elsewhere on account of and at the risk and cost of the seller /contractor without notice to the seller /contractor of goods not so delivered or their equivalent , without canceling the order/contract in respect of the goods not yet due for delivery.</p> <p>The purchaser reserves the right to cancel the order/contract or a portion thereof for the goods not so delivered at the risk and cost of the seller/contractor and the seller/contractor shall be liable to the purchaser for any excess costs thereof.</p>
21	<p>RISK PURCHASE : In the event the supplier has failed to deliver or dispatch whole of the goods or any part within the time stipulated or if the same were not available in his stock, the best and the nearest available substitute thereof may be purchased/arranged by purchaser from elsewhere at the risk and the cost of the seller. The purchaser at his option will be entitled to terminate the contract and seller shall be liable for any loss which the purchaser may sustain by reason of such risk purchases in addition to penalty at the rate mentioned in clause 20 above.</p>
22	<p>PREFERENTIAL DELIVERY : It should be noted that if an Order is placed on a higher tenderer as a result of this invitation to tender, in preference to the lowest acceptable offer in consideration of the earlier delivery, the seller will be liable to pay the purchaser the difference between the contract rate and that of the lowest acceptable tender on the basis of final price F.O.R. destination including all elements of freight, sales tax, duties and other incidentals in case of failure to complete supplies in terms of such contract within the date of delivery specified in the tender and contract.</p>
23	<p>This order or any part thereof shall not be sub-contracted without the purchaser's consent.</p>
24	<p>METRIC SYSTEM: Supplier is requested to indicate metric system measurements in all documents.</p>
25	<p>INDEMNITY: The Seller shall indemnify the Purchaser against any claim due to any breach of patent, negligence, defective material or injury to seller or his agent.</p>
26	<p>In the event of any reduction in the price, due to change of Govt. duties after award to the work and before delivery commencement, purchaser is entitled to such reduction and may negotiate fresh price at its discretion.</p>
27	<p>GENERAL: The purchaser reserves the right to split up the tender and place orders for individual item on different suppliers and also increase or decrease the quantity.</p>
28	<p>DISPUTES & ARBITRATION: All cases of disputes will be resolved according to the Indian Arbitration Act 1940</p>
29	<p>FORCE MAJEUR: Acts of God, Acts of Government, War, Sabotage, Riots, Civil commotion, Police action, Revolution, Natural Calamities, Epidemic and other similar causes over which the supplier has no control, will amount to Force Majeur. Delay attributable to Force Majeur will be condoned; however the onus of establishing the reason of delay lies with the Supplier.</p>

30	<p>Important Note:</p> <p>1) IF L-1 BIDDER IS OTHER THAN Micro and Small Scale Enterprises (MSEs).</p> <p>a) In tender, participating Micro and Small Scale Enterprises (MSEs) quoting price within price band of L1+15% shall also be allowed to supply a portion of requirement by bringing down their price to L1 price in a situation where L1 price is from someone other than a MSE and such MSE shall be allowed to supply up to 20% of total tendered value. In case of more than one such MSE (L1+15%), L-3 onwards bidders will be given opportunity to match the L-1 prices, provided their predecessors in terms of Price standing refuses to match L-1 prices.</p> <p>b) Total tendered quantity shall be divided as follows: In the ratio of 80:16:4 (if L-1 bidder is non MSE), where 80% order will be placed on L-1 bidder, 16% on MSE and 4% on MSE (owned by SC/ST) subjected to following conditions: I. MSEs Matches L-1 price. II. If no MSE owned by SC/ST has participated in the tendering process, portion earmarked (4%) will be awarded entirely to other MSE (not owned by SC/ST) i.e. total 20% will be awarded to them.</p> <p>c) If no MSE matches the L-1 price, than entire order shall be awarded to L-1 bidder.</p> <p>2) IF L-1 BIDDER IS Micro and Small Scale Enterprises (MSEs) (NOT OWNED BY SC/ST). In tender, participating MSEs, owned by SC/ST, quoting price within price band of L1+15% shall also be allowed to supply a portion of requirement by bringing down their price to L1 price. MSE (owned by SC/ST) shall be allowed to supply up to 20% of total tendered value/quantity. In case of more than one such MSE (L-1+15%), L-3 onwards bidders will be given opportunity to match the L-1 prices, provided their predecessors in terms of Price standing refuses to match L-1 prices.</p> <p>3) IF L-1 BIDDER IS Micro and Small Scale Enterprises (MSEs) (OWNED BY SC/ST). 100% order will go to the L-1 bidder.</p> <p>4) Participating MSEs should be registered with District Industries Centers or Khadi and Village Industries Commission or Khadi and Village Industries Board or Coir Board or National Small Industries Corporation or Directorate of Handicrafts and Handloom and their ownership is established in case they are claiming the portion earmarked for MSEs owned by SC/STs.</p> <p>5) Bidder who is claiming 4% of the quantity earmarked for MSEs owned by SC/STs are required to submit the documentary evidence to establish the ownership of MSE firm. Bidder should also mention the same in their techno-commercial bid. After opening of Price bids no such claim shall be entertained.</p> <p>6) MSEs will be given tender documents free of cost and are exempted from payment of earnest money (EMD).</p>
31	In case of any contradictions between General and special terms and conditions, the provisions in Special Terms & Conditions will prevail.

Yours faithfully,
For Bharat Heavy Electricals Ltd

Engineer/Purchase

BHARAT HEAVY ELECTRICALS LIMITED
PS-WR:HQ:NAGPUR

PUR-F31/01
Page 5 OF 13

ENQUIRY NO. 12037 E

DT.13.10.12

DUE DATE: 03.11.12

B) SPECIAL TERMS AND CONDITIONS OF CONTRACT

CI No.	Description
01	Bidder should be manufacturer / authorized dealer/distributor for the quoted product. (In case of authorized dealer/distributor: Authorization certificate should be enclosed.)
02	Bidder must necessarily comply with the technical specification of Insulation Tester as per Annex-I,Annex- II & Annex-III. Bidders offer shall be disqualified in nonconformance to Annex-I,II & III.
03	Clause no. 30 of General Terms & Conditions of Contract shall not be applicable for this tender. Total items as mentioned in this tender shall be placed on L-1 bidder.
04	Tender should be submitted in two parts (1) technical bid comprising product catalogue, copy of relevant Indian Standards and Commercial Terms and conditions as enclosed. And (2) Price bid in prescribed price format in a separate sealed envelope. (Split up of Basic rate, Excise Duty, Sales tax / VAT must be furnished in the price bid)
05	Payment Terms: 80% payment of Supply value shall be made within 45 days from the date of receipt of material at destination and on submission of complete documents to BHEL-PSWR Hqr., Nagpur. Balance 20% shall be released on submission of Performance Bank Guarantee (PBG) valid for 30 days beyond the Warranty period by supplier from any of the consortium Banks of BHEL for 10 % of total PO value in prescribed format. The PBG confirmation charges shall be borne by vendor.
06	Bidder to submit "Un Priced Price format" duly filled and signed along with the technical bid. The price should be quoted as specified in the price format with split up details.
07	Bidder must confirm whether Excise Invoice shall be given or not . In case bidder confirms that excise invoice shall be given, then the evaluation of bid shall be on the basis landed cost to BHEL excluding Excise Duty.
08	In case bidder fails to supply the material as per delivery schedule of this tender, LD shall be levied as per clause no.20 of GCC of this tender specification.
09	BHEL reserves the right to reject or accept the tender without assigning any reasons whatsoever.
10	The offers of the bidders who are on the banned list as also the offer of the bidders, who engage the services of the banned firms, shall be rejected. The list of banned firms is available on BHEL web site (www.bhel.com - --> Tender Notification ---> List of Banned Firms)
11	Octroi at destination, if applicable, will be paid by BHEL on submission of original Octroi receipt.
12) This is to inform you that BHEL has switched on to payment through Electronic Fund Transfer (EFT)/ RTGS. The following details are to be furnished by you pertaining to your Bank Accounts where proceeds will be transferred through our Banker: <ol style="list-style-type: none">1. Name of the Company2. Name of Bank3. Name of Bank Branch & Branch Code4. City5. Account Number6. Account type7. IFSC code of the Bank Branch8. MICR Code of the Bank Branch	

Thanking you,

Yours faithfully,
For BHARAT HEAVY ELECTRICALS LTD.

Engineer/Purchase

**BHARAT HEAVY ELECTRICALS LIMITED
PSWR: HQ: NAGPUR**

TECHNO-COMMERCIAL TERMS & CONDITIONS: (PART OF TECHNICAL CUM COMMERCIAL BID) Page 6 OF 13

ENQUIRY NO.12037 E

DT.13.10.12

DUE DATE: 03.11.12

SN	DESCRIPTION OF T & C	TERMS & CONDITIONS AS QUOTED IN THIS TENDER
01	DELIVERY TERMS	F.O.R. DESTINATION ONLY
02	PLACE OF DELIVERY	REGIONAL SERVICE CENTRE, 568/1, PARPIA COMPOUND, R.C. DUTT ROAD, VADODARA (GUJARAT)
03	DELIVERY PERIOD FROM THE DATE OF ORDER	Within TWO MONTHS from the P.O. date.
04	CURRENCY OF PAYMENT	INR
05	PACKING & FORWARDING CHARGES	Included @ _____% (or) Extra@ _____% (or) NA
06	EXCISE DUTY/CVD (% RATE)	Included @ _____% (or) Extra@ _____% (or) NA
07	EXCISE /CVD INVOICES	WILL BE PROVIDED/ NOT PROVIDED
08	CST/ VAT WITHOUT CONCESSIONAL FORMS "C" / "D" (% RATE)	Included @ _____% (or) Extra@ _____% NO "C" OR "D" FORM WILL BE ISSUED BY BHEL
09	OCTROI / ENTRY TAX AT DESTINATION	Extra, if applicable shall be paid by BHEL on submission of original receipt.
10	FREIGHT CHARGES UP TO DESTINATION	Included @ _____% (or) Extra@ _____% (or) NA
13	TRANSIT INSURANCE CHARGES	BY BHEL. SUPPLIER HAS TO INTIMATE THE DISPATCH DETAILS TO BHEL'S UNDERWRITERS AS SOON AS THE MATERIAL DISPATCHED.
14	ANY OTHER CHARGES (please specify here the nature of charge)	(AMOUNT TO BE SPECIFIED IN THE PRICE FORMAT)
15	PAYMENT TERMS (Specify scope of Banker's Charges at both ends / Demand Draft Charges)	80% payment of Supply value shall be made within 45 days from the date of receipt of material at destination and on submission of complete documents to BHEL-PSWR Hqr., Nagpur. Balance 20% shall be released on submission of Performance Bank Guarantee (PBG) valid for 30 days beyond the Warranty period by supplier from any of the consortium Banks of BHEL for 10 % of total PO value in prescribed format. The PBG confirmation charges shall be borne by vendor.
16	MODE OF DISPATCH	BY ROAD / RAIL / SHIP / AIR / CARGO COURIER / SPECIAL MESSENGER / HAND DELIVERY
17	NAME OF THE GOODS MANUFACTURER / PRINCIPALS	
18	TRADE NAME / MODEL NUMBER OF GOODS	
19	AUTHORIZED DEALERSHIP CERTIFICATE	CERTIFICATE OF MANUFACTURER/PRINCIPALS: ENCLOSED/ NOT ENCLOSED
20	WARRANTY / GUARANTEE CONDITIONS	TWO YEARS
21	PRODUCT CATALOGUE / WRITE UP	ENCLOSED / NOT ENCLOSED
22	CONTACT PERSON'S NAME, E-MAIL ID, PHONE NO	

SIGNATURE & SEAL OF TENDERER

This sheet should be sent dully filled and signed as a part of technical bid. Otherwise the offer will not be considered for further processing

**BHARAT HEAVY ELECTRICALS LIMITED
POWER SECTOR: WESTERN REGION: NAGPUR**

ENQUIRY NO. 12037 E

DT.13.10.12

DUE DATE: 03.11.12

Page 7 OF 13

**ANNEXURE-I
TECHNICAL SPECIFICATION FOR INSULATION TESTER**

Sr. No.	Specification		Bidder's Confirmation
1	Voltage input range	95-240V+/-10% 50/60 Hz & DC	
2	Battery Life	8 hours continuous testing at 5 kv	
3	test Voltage	1kv-5Kv in 25 steps	
4	Accuracy	+/-20% to 15 T-Ohm or better	
5	Guard	+/-2% error guarding 500k-Ohm leakage with 100M-Ohm load	
6	Display range	digital display:10k-Ohm to 15 TOhm	
		Analog Display display: 100K-Ohm to 15TOhm	
7	short circuit/ charge current	3mA	
8	capacitor charge time	25 Sec per Micro F to discharge 5000 Vto 50 V	
9	Capacitor Measurement	1 nf to 50nf	
10	Accuracy	+/-5 % +/-5nf or better	
11	Voltage output Accuracy	+/-2%+/-1V of nomical test voltage at 100M-Ohm load +/-25V for test less than 500V	
12	Current measurent range	+/-0.01mA nA to +/- 5 mA	
13	current measurent accuracy	+/-5%+/-0.2nA at all voltage	
14	Display	Analog/ digital 3 digit	
15	interference Rejection	1 mA rms per kV test voltage, 2 mA rms max	
16	timer range	up to 90 minutes	
17	Memory Capacity	32 KB or better	
18	Lead set	Three flexible silicon insulated leads with compact damp	
19	Ingress protection	IP 65	
20	Other features	Timer Control, timer display, 5mA &3 mA test current,2mA rms at 200 V & above interference rejection,2% error guarding 500KOhm leakage with 100MOhm load, data stoarage, USB output , RS232 output, IP 65 rating, Alarm limit mode	
21	Supplied std.	Test leads medium size clip,test leads.large size clip	
22	Calibration Certificate is required from NABL acc. Lab Delivery		
23	Instruction Manual is required		

BHARAT HEAVY ELECTRICALS LIMITED
POWER SECTOR: WESTERN REGION: NAGPUR

ENQUIRY NO. 12037 E

DT.13.10.12

DUE DATE: 03.11.12

Page 08 OF 13

ANNEXURE-II
TECHNICAL SPECIFICATION FOR INSULATION TESTER-250V

Sr. No.	Specification	Bidder's Confirmation
1	Insulation Nominal test voltages	250V
2	insulation resistance range	20 Gohm
3	Range full scale Accuracy	250 volts +/- 3 % +/-2 digit +/-0.8% per Gohm or better
4	Analog range	1 Gohm full scale
5	Short Circuit current	2 mA +/-0%-50%
6	Terminal Voltage	-0%+20%+/-1V
7	Test current on load	1 mA at min.pass value of insulation specified in BS7671,HD384 and IEC364,2mA max
8	EN61557 operating range	0.10MΩ to 1.00 Gohm
9	Leakage current	10%+/-3digit
10	Voltage display	3%+/-3 digit +/-0.5% of rated voltage
11	Polarization Index(PI)	10 min/1min ratio
12	Dielectric Absorption ratio (DAR)	60Sec/30Sec Ratio
	Continuity	
13	Measurement	0.01 Ω to 99.9 Ω(0 to 100 Ω on analog scale)
14	Accuracy	+/- 3 % +/-2 digit(0 to 100 Ω)
15	Open circuit voltage	5 V +/-1 V
16	Test current on load	200mA(-0mA+20mA)
		(0.01 Ω to 9.99 Ω)
16	Test current on load	20mA(+/- 1mA)
		(10.0 Ω to 99.9 Ω)
17	Lead resistance zeroing	upto 9.00 Ω
18	Buzzer	Variable limit 1 ,2,5,10,20 Ω
	Resistance	
19	Measurement	0.1 Kohm to 100 Kohm
		(0 to 1 Mohm on analog scale)
20	Accuracy	+/- 3% +/-2digit
		open circuit voltage 5V+/-1 V
		short circuit current 20 Micro A+5 Micro A

**BHARAT HEAVY ELECTRICALS LIMITED
POWER SECTOR: WESTERN REGION: NAGPUR**

ENQUIRY NO. 12037 E

DT.13.10.12

DUE DATE: 03.11.12

Page 09 OF 13

21	Voltage range	0-600 V Dc +/- 2%+/-2 digit 10mV to 600V TRMS sinusoidal +/-2%+/-2 Digit 0-1000V on Analog scale Unspecified input level 0-10 mV for non-sinusoidal waveforms additional Specification apply: +/-3%+/-2 digit 101mV to 600 V TRMS & +/-8% +/- 2 digit 10mV to 100 mV TRMS
22	Frequency	40-450 Hz +/-0.5%+/-1digit (100Hz to 450 Hz)
	Result Storage	
23	Capacity	>1000 test results
24	Download	Bluetooth wireless
25	Bluetooth class	class II
26	Range	up to 10 m
	Power	
27	Power Supply	5 X 1.5 V cells Type IEC LR6(AA,MN1500 , HP7,AM3 R6HP) Alkaline NiMH Rechargeable cells may be used. Battery Life: 2200 insulation test with duty cycle of 5 Sec ON/55Sec OFF @1000V into 1 Mohm
28	Safety Protection	the instrument meet EN 61010-1(1995) to 600 V phase to earth
29	E.M.C.	In Accordance with IEC 61326 including amendment no. 1
	Temperature effect	
	Environmental	
30	operating range	-10 to +55 Deg C
31	Operating Humidity	90 % RH at 40 Deg C Max
32	Storage temperature range	-25 to +70 Deg C
33	Calibration	The Instrument should be Calibrated at NABL Acc. Lab Before delivery & calibration certificate shall be sent with instruments
34	Guarranty/ warranty	Certificate required 3 years Warranty
35	Manual	Instruction Manual Required

**BHARAT HEAVY ELECTRICALS LIMITED
POWER SECTOR: WESTERN REGION: NAGPUR**

ENQUIRY NO. 12037 E

DT.13.10.12

DUE DATE: 03.11.12

Page 10 OF 13

ANNEXURE-III
TECHNICAL SPECIFICATION FOR INSULATION TESTER-500V

Sr. No.	Specification	Bidder's Confirmation
1	Insulation Nominal test voltages	500 V
2	insulation resistance range	20 Gohm
3	Range full scale Accuracy	200 volts +/- 3 % +/-2 digit +/-0.4% Gohm per Gohm or better
4	Analog range	1 Gohm full scale
5	Short Circuit current	2 mA +/-0%-50%
6	Terminal Voltage	-0%+20%+/-1V
7	Test current on load	1 mA at min.pass value of insulation specified in BS7671,HD384 and IEC364,2mA max
8	EN61557 operating range	0.10M1/2 to 1.00 Gohm
9	Leakage curent	10%+/-3digit
10	Voltage display	3%+/-3 digit +/-0.5% of rated voltage
11	Polarization Index(PI)	10 min/1min ratio
12	Dielectric Absorption ratio (DAR)	60Sec/30Sec Ratio
Continuty		
13	Measurement	0.01 1/2 to 99.9 1/2(0 to 100 1/2 on analog scale)
14	Accuracy	+/- 3 % +/-2 digit(0 to 100&1/2on Analog scale Ohm)
15	Open circuit Voltage	5 V+/- 1 V
16	Test current on load	200mA(-mA+20mA) (0..01 ohm to 9.99 Ohm) 20mA(+/- 1mA) (10.0 Ohm to 99.9 Ohm_
17	Zero offset at probe tips	0.10 Ohm Typical
18	Lead Resistance Zeroing	up to 9.00 Ohm
19	Buzzer	Variable limit 1 ,2,5,10,200hm
20	Measurement	0.1 Kohm to 100 Kohm (0 to 1 Mohm on analog scale)

**BHARAT HEAVY ELECTRICALS LIMITED
POWER SECTOR: WESTERN REGION: NAGPUR**

ENQUIRY NO. 12037 E

DT.13.10.12

DUE DATE: 03.11.12

Page 11 OF 13

21	Accuracy	+/- 3% +/-2digit open circuit voltage 5V+/-1 V short circuit current 20 Micro A+5 Micro A	
22	Voltage range	0-600 V Dc +/- 2%+/-2 digit 10mV to 600V TRMS sinusoidal +/-2%+/-2 Digit 0-1000V on Analog scale Unspecified input level 0-10 mV for non-sinusoidal waveforms additional Specication apply: +/-3%+/-2 digit 101mV to 600 V TRMS & +/- 8% +/- 2 digit 10mV to 100 mV TRMS	
Result Storage			
23	Capacity	>1000 test results	
24	Download	Bluetooth wireless	
25	Bluetooth class	class II	
26	Range	up to 10 m	
Power			
27	Power Supply	5 X 1.5 Vcells Type IEC LR6(AA,MN1500 , HP7,AM3 R6HP) Alkaline NiMH Rechargeable cells may be used. Battery Life: 2200 insulation test with duty cycle of 5 Sec ON/55Sec OFF @1000V into 1 Mohm	
28	Safety Protection	the instrument meet EN 61010-1(1995) to 600 V phase to earth	
29	E.M.C.	In Accordance with IEC 61326 including amendment no. 1	

**BHARAT HEAVY ELECTRICALS LIMITED
POWER SECTOR: WESTERN REGION: NAGPUR**

ENQUIRY NO. 12037 E

DT.13.10.12

DUE DATE: 03.11.12

Page 12 OF 13

Temperature effect		
Environmental		
30	operating range	-10 to +55 Deg C
31	Operating Humidity	90 % RH at 40 Deg C Max
32	Storage temperature range	-25 to +70 Deg C
33	Calibration Temperature	+20Deg C
34	Maximum Altitude	2000 m
35	Dust & Water Protection	IP54 protected against dust & splashing water
36	Calibration	The Instrument should be Calibrated at NABL Acc.
		Lab Before delivery & calibration certificate shall
		be sent with instruments
37	Guarranty/ warranty	Certificate required 3 years Warranty
38	Manual	Instruction Manual Required

NOTE: Bidders should submit the signed copy of this technical sheet as token of acceptance.

PRICE FORMAT

**BHARAT HEAVY ELECTRICALS LIMITED
POWER SECTOR: WESTERN REGION: NAGPUR**

NAME OF THE TENDERER: _____

SELLER'S REF. No. _____ DATE : _____

ENQUIRY No.: 12037 E

DATED:13.10.12

DUE DATE: 03.11.12

SL.	DESCRIPTION	PRODUCT 01	PRODUCT 02	PRODUCT 03
A.	ITEM DESCRIPTION AS PER ENQUIRY (PLEASE QUOTE THE BRAND NAME AND MODEL NUMBER)	1-5 KV	250 V	500 V
B.	QTY OFFERED	02 NOS.	05 NOS.	05 NOS.
C.	UNIT RATE			
D.	CURRENCY			
E.	DISCOUNT (%AGE & AMOUNT)			
F.	DISCOUNTED UNIT RATE			
G.	DISCOUNTED BASIC PRICE (G = B x F)			
H.	PACKING & FORWARDING CHARGES			
I.	EXCISE DUTY /CVD (PERCENTAGE AND AMOUNT)			
J.	IMPORT DUTY (PERCENTAGE & AMOUNT)			
K.	SALES TAX AS APPLI. WITHOUT C-FORM (PERCENTAGE & AMOUNT)			
L.	FREIGHT UPTO DESTINATION			
M.	TRANSIT INSURANCE	BY BHEL		
N.	OCTROI CHARGES / ENTRY TAX AT DESTINATION	Extra, if applicable at actual on production of original receipt.		
O.	TOTAL PRICE AT DESTINATION (SUM of 'G' to 'N')			

NOTES:

- PLEASE USE ADDITIONAL SHEETS IF NECESSARY
- FURNISH FURTHER BREAK UP OF PRICE IF NECESSARY

SIGNATURE OF THE TENDERER WITH SEAL