

ENQUIRY

Dear Sirs

Please let us have your Quotation for the following:

S.No.	Item Description	Qty	UOM
1	3 phase power analyzer (as per the specification enclosed)	1.00	NO
2	AC DC Clamp on meter (as per the specification enclosed)	2.00	NOS
3	Earth Resistance tester(as per the specification enclosed)	2.00	NOS
4	Insulation Resistance tester -1 (as per the specification enclosed)	2.00	NOS
5	Insulation Resistance tester -2 (as per the specification enclosed)	1.00	NO

1. The bids shall be enclosed in an envelope and due date sealed duly marked Tender for _____ Ref No: 162986. The bids should be addressed and to be mailed to 'THE HEAD-PURCHASE'.

The bids are liable to be rejected if the sealed envelope is not addressed to "THE HEAD-PURCHASE" with Tender Ref No. and Item Description and due date. The bids delivered in person shall be dropped in Purchase Section. If the bids are sent through courier or mail, it should reach by submission date and time and NCBS will not be responsible for the delay.

2. DUE DATE FOR SUBMISSION OF QUOTATION AGAINST THIS ENQUIRY IS 05/01/2018

3. QUOTATIONS RECEIVED AFTER THE DUE DATE SHALL BE REJECTED.

4. The validity of your quotation should be for 60 days from the due date.

5. All duties, taxes, surcharge and cess as currently applicable must be stated in your quotation, separately. Otherwise your quote is liable to be rejected.

6. Your quotation should indicate delivery period & warranty period.

7. Delivery to be made to our stores. Please indicate charges, if any extra. Transit Insurance should be done upto NCBS Stores.

8. If you are unable to supply the quality, specifications or brand as mentioned in our enquiry, please state so and then offer alternative to quality/specifications.

9. Payment: within one month after delivery & acceptance/satisfactory installation.

10. Please ensure that the enquiry number and the due date is superscribed on the envelope failing which your quotation is liable to be rejected.

11. Since we are a public funded research institution, we are exempted from paying Customs duty (Except ad valorem duty of 5% + 2% Cess and 1% Cus Sec & High Edu. CESS vide Notification No.51/96 with latest amendments) and excise duty vide Notification No. 10/97 CENTRAL EXCISE dated 01-03-1997 for all scientific equipments, technical instruments, equipments (including computers), their accessories, spares, consumables and software. Hence, please offer your prices

12. If the item is covered under DGS&D rate contract, please quote the rate as per the DGS&D rate contract with xerox copy of the DGS&D order.

13. Any dispute or differences that may arise between the parties shall be referred to the sole arbitration of the Centre Director or his nominees. The decision of the arbitrator shall be final and binding on the parties. The venue for arbitration shall be Bangalore. The provisions of the Arbitration and Conciliation Act, 1996 as amended from time to time shall apply. The courts in Bangalore shall have exclusive jurisdiction to deal with any or all disputes between the parties

Yours faithfully

For and on behalf of

National Centre for Biological Sciences



SAMPATTU K S

1 - Three-Phase Energy Analyzer

Description		Range	Resolution	Accuracy
Volts				
Vrms (ac+dc)		1 V to 900 V phase to neutral minimum	0.1v	± 0.5% of nominal voltage
Voltage Crest Factor (CF)		1.0 > 2.0	0.01	± 5 %
Vrms½		1 V to 1000 V phase to neutral	0.1v	± 1% of nominal voltage
Amps				
Amps (ac +dc)	1x	5 A to 6000 A	1 A	± 0.5% ± 5 counts
	10x	0.5 A to 600 A	0.1 A	± 0.5% ± 5 counts
	1mV/A 1x	5 A to 2000 A	1A	± 0.5% ± 5 counts
	1mV/A 10x	0.5 A A to 200 A (ac only)	0.1 A	± 0.5% ± 5 counts
A Crest Factor (CF)		1 to 7	0.01	± 5 %
Amps½	1x	5 A to 6000 A	1 A	± 1% ± 10 counts
	10x	0.5 A to 600 A	0.1 A	± 1% ± 10 counts
	1mV/A 1x	5 A to 2000 A	1A	± 1% ± 10 counts
	1mV/A 10x	0.5 A A to 200 A (ac only)	0.1 A	± 1% ± 10 counts
Frequency				
Hz		42.50 Hz to 55 Hz	0.01 Hz	± 0.01 Hz
Watts (VA, var)	---	max 6000 MW	0.1 W to 1 MW	± 1% ± 10 counts
	1 mV/A	max 2000 MW	0.1 W to 1 MW	± 1% ± 10 counts
Power factor		0 to 1	0.001	± 0.1% @ nominal load conditions
Energy				
kWh (kVAh, kvarh)	---	Depends on clamp scaling and V nominal		± 1% ± 5 counts
Energy loss	---	Depends on clamp scaling and V nominal		± 1% ± 5counts Excluding line resistance accuracy
Harmonic				
Harmonic order (n)	DC, 1 to 50 Grouping: Harmonic groups according to IEC 61000-4-7			
Inter-harmonic order (n)	OFF, 1 to 50 Grouping: Harmonic and Interharmonic subgroups according to IEC 61000-4-7			
Volts	%f	0.0 % to 100 %	0.1 %	± 0.1% ± n x 0.1 %
	%r	0.0 % to 100 %	0.1 %	± 0.1% ± n x 0.4 %
	Absolute	0.0 to 1000 V	0.1 V	± 5% *
	THD	0.0 % to 100 %	0.1 %	± 2.5 %
Amps	%f	0.0 % to 100 %	0.1 %	± 0.1% ± n x 0.1%
	%r	0.0 % to 100 %	0.1 %	± 0.1% ± n x 0.4 %
	Absolute	0.0 to 600 A	0.1 A	± 5% ± 5 counts
	THD	0.0 % to 100 %	0.1 %	± 2.5 %
Watts	%f or %r	0.0 % to 100 %	0.1 %	± n x 2%
	Absolute	Depends on clamp scaling and V nominal	—	± 5% ± n x 2 % ± 10 counts
	THD	0.0 % to 100 %	0.1 %	± 5 %
Phase Angle		-360° to +0°	1°	± n x 1°
Flicker				
Plt, Pst, Pst(1min) Pinst		0.00 to 20.00	0.01	± 5 %
Unbalance				
Volts	%	0.0 % to 20.0 %	0.1 %	± 0.1 %
Amps	%	0.0 % to 20.0 %	0.1%	± 1 %
Case	Design Rugged, shock proof with integrated protective holster Drip and dust proof			
Memory	upto 16GB optionally Screen save and multiple data memories for storing data including recordings (dependent on memory size)			
Real-time clock	Time and date stamp for Trend mode, Transient display, System Monitor and event capture			
Operating temperature	5 °C ~ +50 °C;			
Storage temperature	-10 °C ~ +50 °C			
Maximum operating altitude	CAT IV 600 V, CAT III 1000 V			
Interfaces	mini-USB-B, Isolated USB port for PC connectivity SD card			
Warranty	Three years			
Accessories	Power Adapter International plug adapter set (Single capacity Li-ion battery) 28 Wh (7 hours or more) Test lead and Alligator clip set color coding clips and regional decals flexible current probes 6 GB SD card PowerLog on CD (includes operator manuals in PDF format) USB cable			
Make	Fluke/Hioki/Techtronix/Motwane/Meco			

AC DC Clampon meter

Type of Product	Digital AC/DC Clamp Meter
Sensing	True RMS
DC Current Range	0-2000 A
DC Current Accuracy	(2.0 % \pm 5 Digits)
DC Voltage Range	0-1000 V
DC Voltage Accuracy	1% \pm 2 digits
AC Current Range	0-2000 A
AC Current Accuracy	2 % \pm 5 Digits
AC Voltage Range	0-1000 V
AC Voltage Accuracy	1.2 % \pm 5 digits
Resistance Accuracy	1.0 % \pm 5 digits
Capacitance Range	25nF-25 μ F
Frequency	0-100 KHz
Temperature Range	-10° to 400°C
Operating Environment	10° to 50°C
Storage Environment	-40° to 60°C
Includes	Test Leads , Soft Case , User's Manual
Category Rating :	CAT III 600 V , CAT IV 300 V
design	Slim, ergonomic
warranty	2 year
continuity	<10 ohm(buzzer or sound)
Button	Hold
Display	Large
Preferred Make	Fluke/Hioki/Motwane/Meco

Earth Tester

Type	Analogue Earth Tester
Earth Resistance Measurement Upto	100 ohms
Accuracy	\pm 5%
Body	Metal Body
Terminals	4
Insulation Resistance Test	Better than 25 Mega ohms at 500 V DC
Display	Analogue
Generator Rotation Speed	160 rpm
Resistance Range (Ohm)	0- 2-10-100 Ω
Warranty	1 year
Accessories for measurements earth resistance	GI Spike rods length 300mm while one end pointed other end circular for inserting into earth (2sets), insulated single core copper wires of size 1.5sqmm of Finlex or Havells 2 sets (20mtr each), 4.5kg Sledge Hammer - 1set
Accuracy	\pm 5%
For Measurement of Resistance of Earth Accuracy CONFIRMS to	IS : 9223/1979 Graceful Appearance
Checknut	Chuck Nut Locking Arrangement to Prevent AntiClockwise Rotation
Make`	Waco/Meco/Motwane

Insulation Resistance Tester - 1

Type	Analogue Insulation resistance Tester
Body	Metal Body/ ABS
Voltage	5000 V DC
Resistance	20000 Mohm
Display	Analogue
Generator Rotation Speed	160 rpm(hand driven)
Warranty	1 year
Make`	Waco/Meco/Motwane
Accuracy	As per ISS: 2992-1987

Insulation Resistance Tester - 2

Type	Analogue Insulation resistance Tester
Body	Metal Body/ ABS
Voltage	500 V DC
Resistance	>50 Mohm
Display	Analogue
Generator Rotation Speed	160 rpm(Hand driven)
Warranty	1 year
Make`	Waco/Meco/Motwane
Accuracy	As per ISS: 2992-1987