

email: dir@nitttrc.ac.in
Website: www.nitttrc.ac.in

Phone : 2254 54 00
Fax: (044) 2254 1126



NATIONAL INSTITUTE OF TECHNICAL TEACHERS' TRAINING AND RESEARCH

Taramani P.O., Chennai – 600 113.

(Government of India, Ministry of Human Resource Development)

Ref. No. NITTTR/Mech./SMA/2017-18/

Date: 02.01.2018

To

Delivery required by :
Department of Mechanical
Engineering, NITTTR
Chennai 600 113

QUOTATION DUE DATE

- (a) Please send your quotation within the due date on sealed envelope on or before: **Date: 22.01.2018**
(a) Delivery required at : **NITTTR, TARAMANI, CHENNAI -113**

Sl.No.	Description of Items	Quantity
1.	Solar Module Analyzer (Photovoltaic I-V Curve Tester) (Specifications in Annexure – I) Note : 1. Mention warranty period for the item 2. Indicate the Reference No. and the last date on the Envelope 3. GST Registration No. must be furnished (Enclose Pamphlets, if any)	01 no.

Cover should be addressed to:

M. Senthil Kumar,
Asst. Professor, Dept. of Mech. Engg.,
National Institute of Technical Teachers Training and Research,
Taramani P.O., Chennai – 600 113.

(For terms and conditions please see overleaf)

M. Senthil Kumar,
02.01.18
for DIRECTOR

Annexure - I

Solar Module Analyzer (Photovoltaic I-V Curve Tester) - Specifications

Sl.No.	Parameter	Requirement
1	Battery Type	Rechargeable Lithium Battery, 3400mAh
2.	Battery Life	400 times of linear scan from 60V to 0V and 0A to 12A
3.	Data Logging Memory Size	100 records
4.	AC Adaptor	AC 110 – 240V Input, DC 15V/1 – 3A Output
5.	Dimension	257 x 155 x 57mm (Approx.)
6.	Weight	1160gms Including Battery (Approx.)
7.	Operation Environment	0°C – 50°C, 85% RH
8.	Temperature Coefficient	0.1% of full scale / °C(<18°C or >28° C)
9.	Storage Environment	-20°C – 60°C, 75% RH
10.	Accessories	User Manual, AC Adaptor, Optical USB Cable, Rechargeable Lithium Battery, Software CD, Software Manual, Kelvin Clips (12A max), 1 Set of 4 Wire to 2 Wire Connector (10A Max, 12A for 1 minute) & Carrying Bag

Electrical Specifications (23°C ± 5°C, Four-Wire Measurement Maximum Power Limit is 500W)

DC Voltage Measurement

Range	Resolution	Accuracy
0 – 10V	0.001V	± 1% ± (1% of Vopen ± 0.1V)
10 – 60V	0.01V	± 1% ± (1% of Vopen ± 0.1V)

Vopen: Open Circuit Voltage of Solar Cell or Module

DC Current Measurement

Range	Resolution	Accuracy
0.01 – 10A	1mA	± 1% ± (1% of Ishort ± 9mA)
10 – 12A	10mA	± 1% ± (1% of Vopen ± 0.09A)

Ishort: Short Circuit Current of Solar Cell or Module

DC Current Simulation

Range	Resolution	Accuracy
0.01 – 10A	1mA	± 1% ± 9mA)
10 – 12A	10mA	± 1% ± 0.09A)

User Interface & Data Acquisition Software: Solar Module Analyzer should be supplied with users friendly software for Data Storing and Analysis. Users can store Data. (.CSV/.TAB) that can be read in MS EXCEL and Print Waveform / Graph via Printer.

Terms & Conditions

1. The quotation must specify the period within which the supply could be effected from the date of receipt firm orders.
2. Quotation received after the due date mentioned on the reverse will not be considered.
3. Your quotations should be for materials strictly in accordance with the specifications shown. In case you are offering substitutes state clearly the exact specification etc, of the materials offered Drawing sketches or any other technical data should be submitted separately.
4. The prices quoted should clearly specify charges for delivery of the goods to destination indicated overleaf.
5. The prices quoted should include all packing costs and it will be assumed that packing materials (cases etc..) are non-returnable unless otherwise stated.
6. Sales tax or any other taxes if applicable should be shown separately giving the full rate of taxes for each items giving ex-incidence of such levies.
7. The Director reserves the right to accept the whole or part of any quotation without assigning any reason and the lowest or any quotation will not necessarily be accepted, and the Director's decision shall be the final.
8. Samples must accompany the quotation when so specified or within two days when asked for later.
9. If it is discovered that the materials supplied are not exactly according to the specification, the entire stock will be rejected.
10. We reserve the right to inspect the goods offered at any stage of manufacture / supply at your premises.
11. Any dispute arising out of or relating to this Enquiry shall be deemed to have arisen in Madras and is subject to adjudication of the Madras Courts.
12. Rates quoted once will remain firm for that particular dealing.
13. The quotation should be kept valid for a period of 60 days from the date of opening for acceptance.
14. Payment will be made after confirmation on receipt of the materials in good condition at this Institute (normally within 30 days.) Advance payment will not be entertained at any circumstances.
15. Printed conditions of the firm sent along with the quotation form if any, shall not be binding on us.
16. In case of Printing the Proof should be got approved before final strike.
17. Materials should be supplied at this institute in good condition.
18. Price quoted by the suppliers accepted by the Director is final, and no deviation there from will be accepted without the Director's agreement in writing.
19. If the rates are under D.G.S. & D. Please specify the same clearly enclosing necessary documents.