

Indian Institute of Technology Kanpur
Department of Mechanical Engineering

Enquiry No: Enq/IITK/ME/JB/04

Enquiry Date: 12/05/2016

Closing Date: 20/05/2016

Formal quotations are invited for Battery tester. Sealed quotations have to reach in the following address by the last date & time as mentioned above:

Mr. Manoj Sharma

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Indian Institute of Technology Kanpur

Kanpur, 208016, India

Technical Specifications:

1. Test Cell Type: Cylindrical Li ion 18650.

2. Maximum Voltage / Current:

5V/ 120A @ 1 Ch

5V/60A @ 2 Ch

5V/30A @ 4 Ch

3. Maximum no. of Channels: 4

4. Parallel able Current:

Maximum 120A @1 Ch

/60A @ 2 Ch

/30A @ 4 Ch

5. Control Method: CC/CV/CP charge-discharge models

6. Voltage:

Setting range for charge/discharge: 0 mV ~ 5000 mV, resolution 1mV

Reading range: 0.0 mV ~ +5199.9 mV, resolution 0.1mV
Accuracy: \pm (0.02% stg.+ 0.03% F.S.)

7. Current:

Setting Range: @30A / 0.01A ~ 30.00A , resolution 0.01A
Reading Range: @30A /0.000A ~ 31.500A, resolution 0.001A
Accuracy: @30A/ \pm (0.05% stg.+0.05% rng.)

8. Power:

Setting Range: @150W / 0.000W-160.000W, resolution 0.001W
Accuracy: @150W / \pm (0.07% stg.+0.08% rng.)
Flow edit capability: Max. Step number in one flow: 500 steps
Max. cycle number in one step: 999999 steps
Data Storage: Battery mode : 100ms~60min

Key features :

- High precision output & measurement up to 0.02%
- Independent operation and test
- High Sampling Rate up to 10ms
- CC/CC-CV/CP Charge/Discharge modes
- Flexible (Δt , ΔV , ΔI , ΔQ), data acquisition
- Real-time data acquisition and log (Q, V_t , I_t , time) and step termination status(Q, V_{end} , I_{end} , time)
- Linear circuit design, low ripple current
- Real-time outer loop resistance monitoring
- Modular design for easy installation and maintenance
- Composed with redundancy DC power supply, avoid the effect for long term test during power down

Functions:

- Battery charge & discharge test

- Battery capacity

Other Requirements:

1. Quotation must be valid for 90 days.
2. All parts corresponding to the quotation should be from a single manufacturer for compatibility and maintenance.
3. Vendor should clearly mention type of services i.e. preventive/breakdown.
4. Any compliance claimed should be supported with the necessary data sheet.
5. Warranty period should extend for at least 3 years from the time of installation.
6. The Unit Prices should be quoted for every component and the prices can be in INR or in valid foreign currencies (e.g. US Dollar). For INR quotations, delivery should preferably be up to IIT K. For foreign currency quotations rates must be for CIF New Delhi. Sales Tax, VAT and any other applicable charges should be mentioned.
7. Installation and maintenance charges should be mentioned. This should not be bundled in product pricing.
8. Delivery period should not be more than 4 weeks and it should be at IIT Kanpur.
9. IIT Kanpur is exempted from excise duty.
10. IIT Kanpur is exempted for partial custom duty (CD applicable to IIT Kanpur is 5.15%).