Purchase Requisition No. 1000012414 (SRM/RFX No. 6100000216)

Technical Specifications for Potentiostat/ Galvanostat (Electrochemical Workstation) with Impedance Spectroscopy

Control Amplifier:
1) Compliance voltage: ±12V or better
2) Maximum Current: 400 mA or More

Voltage Control:
1) Applied Potential range: ±10V or more
2) Voltage Resolution: at least 1 to 1.5 μV or better
3) Voltage Accuracy: < ±0.1% of range, ±0.03% of setting

Current Control:
1) Current Ranges: ±10 nA to ± 400 mA or better
2) Current Resolution: 760fA
3) Current Accuracy: < ±0.1% of range, ±0.03% of setting

Acquisition speed/Data Sampling: 100,000 samples/second or better
Frequency range: 10 μHz - 1 MHz or more
AC sine wave Amplitude: 1mV to 1V or more with 1 mV or better resolution
Bandwidth of electrometer: 8 MHz or better
Input Impedance: 1 TΩ
Cell connection/Electrode Configuration: 2, 3 electrode or more
Floating Mode: Should be available
Interface: Ethernet LAN and/ or USB
Software required:

1. Fundamental Electrochemistry – OCV, CV, LSV, Batteries, Fuel cell/ Photovoltaic Testing Techniques
2. Electrochemical Impedance Spectroscopy Technique
3. Corrosion software including LPR, Tafel etc.
4. Pulse software including DPV, NPV, RNPV, SWV etc
5. Equivalent EIS fitting circuit software
6. Analysis tools for Corrosion Rp and Tafel Fit, battery CED fit

Terms and conditions:

1) Free Software support in case of software updates and up-gradation
2) WARRANTY – Min. 1 year
3) Warranty should cover all the critical parts of the setup

After sales “Service and Maintenance” of the setup should be available in India. Details to be mentioned in the Technical bid.