







## **RESEARCH SUPPORTERS INDIA**

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### **GREEN ENERGY SOLUTIONS**

-  **REDOX FLOW BATTERY**
-  **FUEL CELL**
-  **HIGH VOLTAGE/CURRENT BATTERY CYCLER**
-  **CUSTOM REQ**

# ENERGY RESEARCH TEST BENCH

Complete Solutions for Fuel Cell /RFB Stack Testing

Energy Suite Software for Control and Data Acquisition

User Adjustable Safety Features

Multiple Flow Range Options

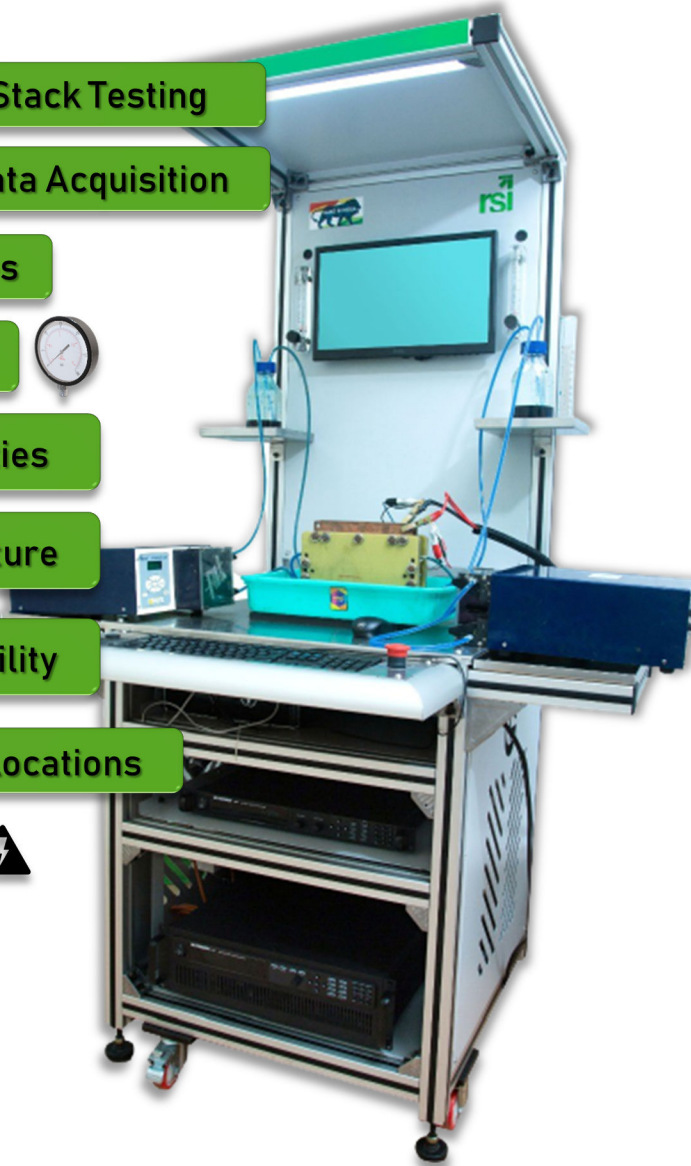
Expandable With Higher Load Capacities

Integrated HFR Measurement Feature

Cell Voltage Monitoring ( CVM) Facility

Temp Monitoring & Control at Desired Locations

Voltage Cut-off functions

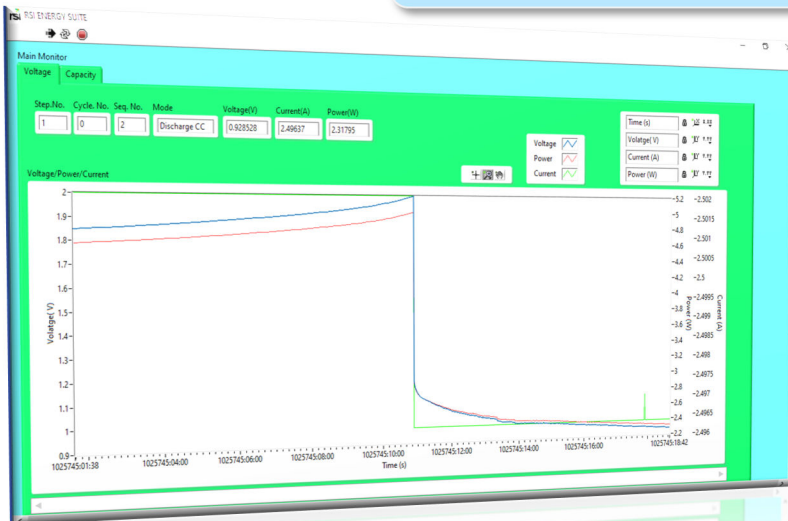


RSI make ENERGY RESEARCH TEST BENCH (ERTB) fully designed and made in India to meet complex research needs of the researchers.

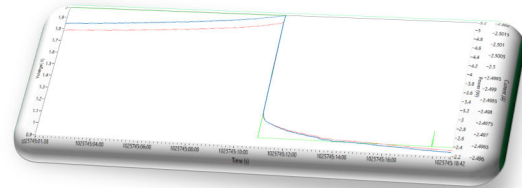
ERTB focused to provide modularity in design and also complies with international standards from every aspect.

Critical components in the system like E-Load, MFC, Peristaltic Pump, Humidifier, Sensors, Controllers are supplied from the world class manufacturer to ensure the precision & safe work environment.

# SOFTWARE RSI ENERGY SUITE - OPERATION

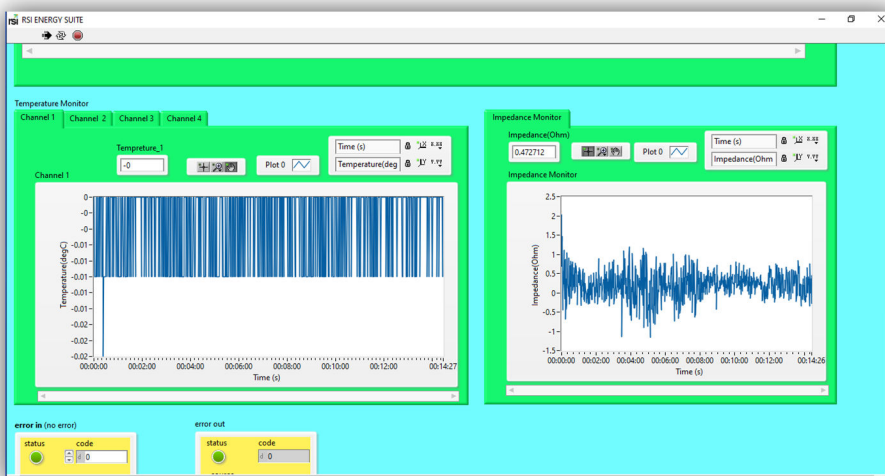


## CUT OFF FUNCTION VOLTAGE/CURRENT



### Advantage of RSI Energy Suite:

- Voltage/Current Cut off function and cycling function for charge/discharge
- Multiple charge/discharge sequence program (up to 100)
- Software was completely “MADE IN INDIA” which makes us to do any changes as per customer requirements
- This is will be the first Software has the feature to measure institute impedance (HFR) for both FCT and RFB measurements
- Slight modification we can make this system for FCT and High Voltage/Current battery cyclers
- Multiple Temperature and cell voltage (CVM) measurements display in software



- Multiple Voltage and temperature display and record
- Real Time Institute Impedance display and record (while charge/discharge)

## FUEL CELL TESTING TECHNICAL SPECIFICATIONS

<b>POWER RANGE</b>	<b>750 WATTS, 120A – 60V</b>
<b>FLOW SUPPLY</b>	<b>MFC AVAILABLE FOR VARIOUS FLOW RANGES FROM 0-50slpm.</b>
<b>GAS HUMIDIFICATION</b>	<b>Nafion™ tubing –based HUMIDIFIER PROVIDES consistent, repeatable humidification of air and hydrogen across the specified flow range</b>
<b>Temperature Control</b>	<b>Fuel Cell fixture end plate , Line Heaters</b>
<b>Safety Features</b>	<b>Emergency Shut-down, automatic shut down due to H2 leakage, over voltage &amp; current protection</b>
<b>Dimension &amp; Weight</b>	<b>890*800*1900 mm , 260 Kg approx.</b>
<b>Power</b>	<b>220-240VAC, 50Hz</b>
<b>Product CODE</b>	<b>ERTB-FC-750</b>

**NOTE: Please consult with our technical team to meet all your customized requirements**

### SOFTWARE RSI ENERGY SUITE

Seq No	Mode	Voltage(V)	Current(A)	Power(W)	R(ohm)	Time	Voltage	Current	Ah	Wh	Hr	Min	Sec	Ah	Wh	V Condition	V	A Condition	A
1	Charge	3.0	2.500	0.000	0.000		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	0	0	0.000	0.000	<=	2.000	<=	0.000
2	Discharge CC	3.0	2.500	0.000	0.000		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	0	0	0.000	0.000	>=	0.600	<=	0.000
3	None	0.000	0.000	0.000	0.000		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	0	0	0.000	0.000	<=	0.000	<=	0.000
4	None	0.000	0.000	0.000	0.000		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	0	0	0.000	0.000	<=	0.000	<=	0.000



**RESEARCH SUPPORTERS INDIA**  
ISO 9001: 2015

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