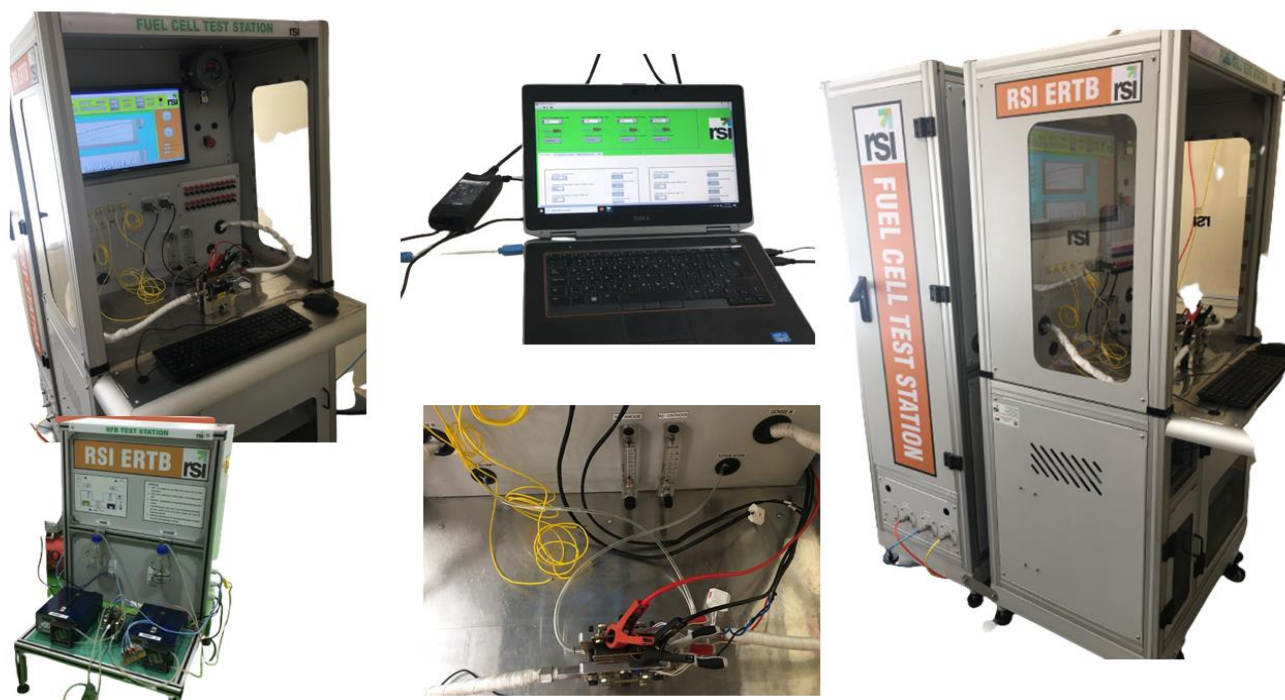


- RSI make **FUEL CELL TEST STATION** is fully designed and integrated with software controlled (**Made in India**) to meet complex research needs of the researchers.
- FCT focussed to provide modularity in design and also complies with international standards from every aspect.
- Critical components in the system like E-Load, MFC, Peristaltic Pump, Humidifier, Sensors, Controllers are supplied from world class manufacturer to ensure the precision & safe work environment
- Send us your requirements and we will prepare a detailed offer for your turn- key project



FUEL CELL TEST STATION SYSTEM SPECIFICATION

PRODUCT CODE	RSI - FCTS -100
POWER	220-240VAC, 50Hz
POWER RANGE	Up To 10 KW, 2000A, 120V *Please Consult with Our Technical Team To Choose Your Right Power Range
DIMENSION	890*800*1900 mm *Subjected to the model
WEIGHT	260 Kg approx *Subjected to the model
Safety Features	Emergency Stop , Tower Light , Hydrogen Sensor
NOTE: Please consult with our technical team to meet all your customised requirements	

GAS SPECIFICATION

MFC Gas Flow - Anode	0-500 SLPM
MFC Gas Flow - Cathode	0-500 SLPM
N2 purge	✓
Software controlled flow range selection	✓

PRESSURE CONTROL AND MEASUREMENT

Back Pressure Gas Controller -Anode And Cathode	0 - 7 Bar
Pressure Transmitter	0 - 1 to 0 - 600 bar.

H2 HUMIDIFICATION SPECIFICATION

Humidification heating temperature	From room temp to 95 deg Celsius
Heater power	230 v ,100 watts
Humidifier tank capacity	1 Litre - (customizable)
Electrolyte used	Water
Automatic water refilling	✓
Water drain out	✓
Low water level warning	✓
Anode / cathode dry gas bypass function	✓
Software controlled temp set point	✓
Temperature monitoring	✓

H2 LINE HEATER SPECIFICATION

Heater power	230 v,100 watts
Software controlled temp set point	✓
Temperature monitoring	✓

O₂ HUMIDIFICATION SPECIFICATION

Humidification heating temperature	From room temp to 95 deg Celsius
Heater power	230 v ,100 watts
Humidifier tank capacity	1 Litre - (customizable)
Electrolyte used	Water
Automatic water refilling	✓
Water drain out	✓
Low water level warning	✓
Anode / cathode dry gas bypass function	✓
Software controlled temp set point	✓
Temperature monitoring	✓

O₂ LINE HEATER SPECIFICATION

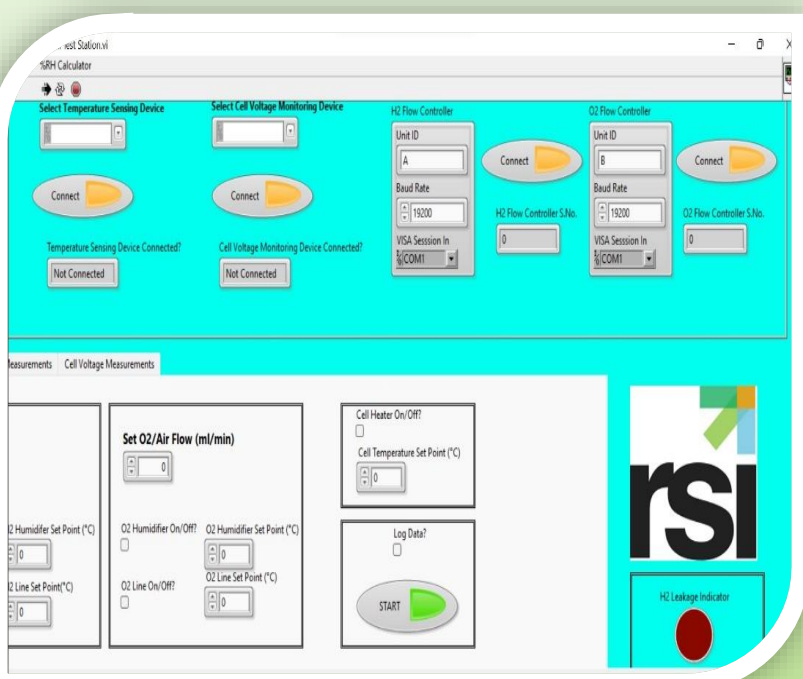
Heater power	230 v,100 watts
Software controlled temp set point	✓
Temperature monitoring	✓

FUEL CELL CONECTIVITY

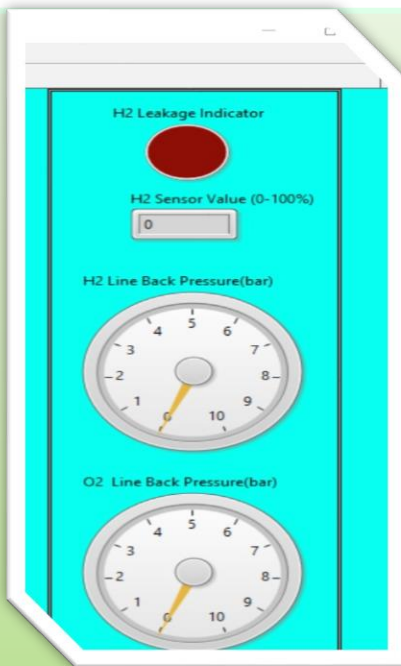
Thermally isolated inlet hoses	✓
Cell heater	✓
Software controlled temp set point	✓
Individual Cell voltage/ Temp monitoring	✓
Stack cell voltage/Temp monitoring	✓
Outlet gas back pressure controlling	✓

SYSTEM REQUIREMENT	
Processor	Intel Core i7 OR i5
Memory (RAM)	16 GB or higher
Storage:	512 GB SSD or larger
Graphics	Dedicated graphics card with at least 4 GB VRAM (NVIDIA GeForce or AMD Radeon)
CPU Operating System:	Windows 11

RSI-FCTS-100 Software Features:

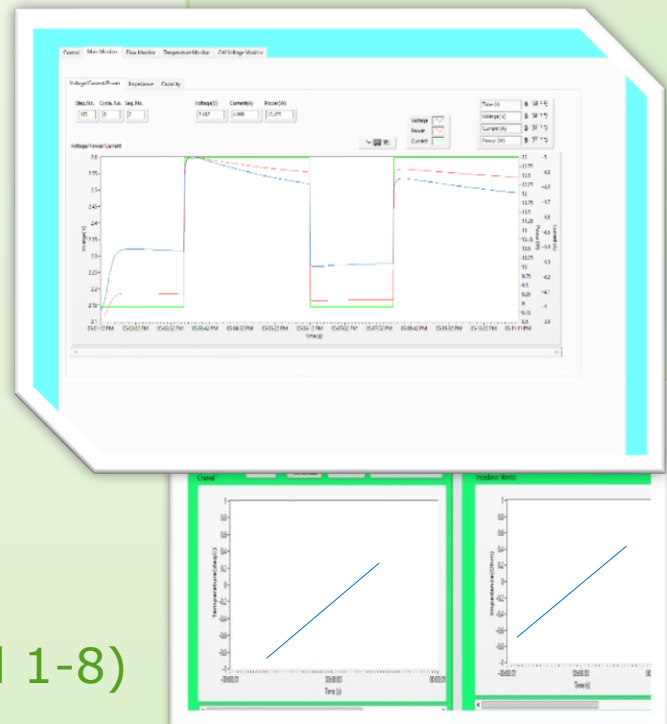


- H2 heating temp setting
- O2 heating temp setting
- Line heater anode and cathode temp settings
- H2 MFC flow control
- O2 MFC flow control
- Cell heater settings



- Hydrogen leakage indicator (0-100%)
- H2 line back pressure indicator
- O2 line back pressure indicator

- Log all data into excel format
- Real time Graphical Representation
- Export specific graph data
- Capacity Monitor (Ah Vs Time Vs Wh)
- Voltage Monitor (Voltage Vs Time)
- Impedance monitor (Impedance(Ohm) Vs Time)
- Flow Measurement (mL/min Vs Time)
- Cell Voltage Monitor (channel 1-8)
- Temperature Monitor(channel 1-8)



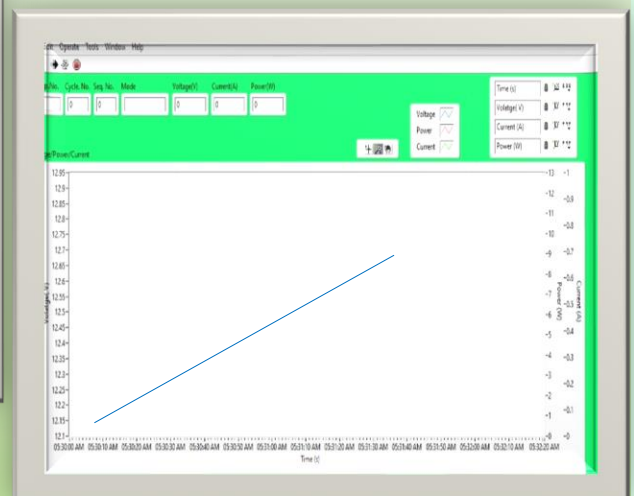
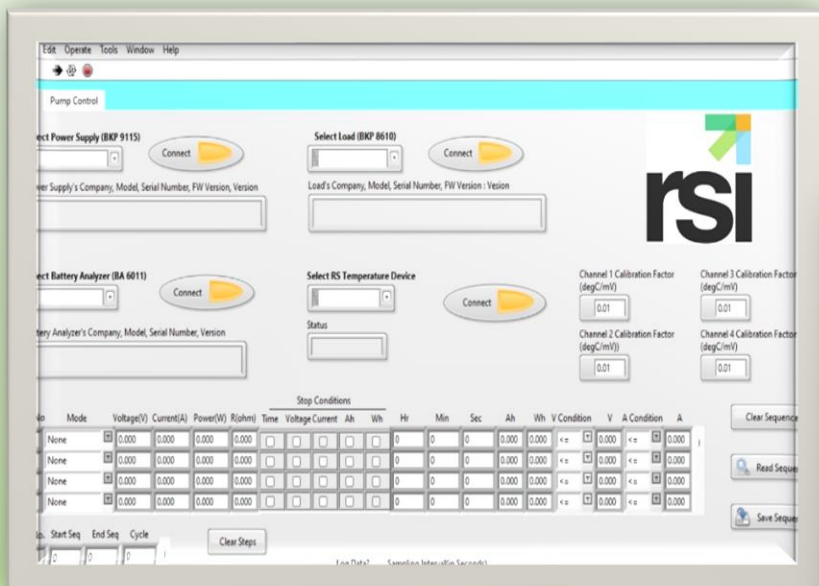
ELECTRONIC LOAD

Software Controlled	✓
Standard working modes	CC , CV
Current ranges	0 to 240 A
Voltage range	0 to 500 V
operating modes	CC/CV/CR/CW

IMPEDANCE ANALYZER

Software controlled	✓
Measurement Parameter Main	V,R
Measurement Parameter Auxiliary	L, C, D, Z, X, Q, θ_d , and θ_r
Test Frequency	1 kHz \pm 0.2 Hz
Display Resolution	5 digits

Introducing RSI energy suite software:



WORKING OF FUEL CELL TEST STAION

<https://youtu.be/y7Z0namawly>

THANK YOU !



Please consult with our technical team to meet all your customised requirements



RESEARCH SUPPORTERS INDIA

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