



**Product Overview:**

The Hydrogen Fuel Cell Systems Trainer is a comprehensive educational and experimental platform designed for the study and analysis of hydrogen-based power generation. It enables hands-on training in hydrogen energy conversion, fuel cell operation, system efficiency, and load management. The system integrates multiple functional modules to simulate real-world hydrogen fuel cell operations safely and accurately.

**Specifications:-**

General	
<b>Model:</b>	Hydrogen Fuel Cell Systems Trainer
<b>Dimensions (W × H × D):</b>	910 × 840 × 460 mm Approx
<b>Weight:</b>	19 kg
<b>Operating Temperature:</b>	+5°C to +35°C
<b>Available Languages:</b>	English
<b>Mains Supply:</b>	230 V AC (50 Hz) / 115 V AC (60 Hz)
Fuel Cell Module	
<b>Rated Output Power:</b>	40 W
<b>Maximum Output Power:</b>	approx. 50 W
<b>No-load Voltage:</b>	9 V
<b>Current at Rated Output:</b>	8 A
<b>Hydrogen Consumption (at rated output):</b>	approx. 580 sml/min

Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.



Export Sales: +91-9829132777  
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<b>Required Hydrogen Purity:</b>	≥ 99.99% (Purity Grade 4.0)
<b>Permissible Hydrogen Pressure:</b>	0.4 – 0.8 bar
<b>Electronic Load Module</b>	
<b>Maximum Continuous Power Output:</b>	100 W
<b>Load Voltage Range:</b>	1.2 – 20 V DC
<b>Load Current Range:</b>	0 – 10 A
<b>Mains Supply:</b>	230 V AC (50 Hz) / 115 V AC (60 Hz)
<b>Dimensions (W × H × D):</b>	400 × 297 × 135 mm Approx
DC/DC Converter Module	
<b>Input Voltage:</b>	4.5 – 10 V DC
<b>Output Voltage:</b>	12 V DC
<b>Maximum Input Current:</b>	10 A
<b>Dimensions (W × H × D):</b>	200 × 297 × 95 mm Approx
<b>Traffic Light Module</b>	
<b>Input Voltage:</b>	12 V DC
<b>Power Consumption</b>	max. 10 W
<b>Dimensions (W × H × D):</b>	200 × 297 × 140 mm Approx
H <sub>2</sub> Storage Module	
<b>Storage Capacity (at 17 bar):</b>	sufficient for 1.7 sl/min output
<b>Output Flow Rate:</b>	1.7 sl/min
<b>Charging Pressure:</b>	10 – 17 bar
<b>Charging Time:</b>	approx. 1 hour at 20°C with active cooling
<b>Hydrogen Generator</b>	
<b>Hydrogen Output Pressure:</b>	up to 15 bar
<b>Supplied Accessories:</b>	H <sub>2</sub> connection kit

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**Applications**

- Educational demonstrations of hydrogen fuel cell technology
- Training on hydrogen energy systems and their control modules
- Laboratory experiments on renewable energy conversion and efficiency

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