HIGH POWER FUEL CELL
Stack Test Station

» Approx power range: 75 - 250 kW
» 800+ channel high-accuracy cell voltage monitoring (CVM)
» Emerald™ control software
» Intuitive automation language allowing 24/7 dynamic operation
» Data logging of CVM and all process parameters
» Easily expandable for additional I/O and diagnostic tools
» Separate coolant module with flow rate up to 600lpm
» Multiple humidification technologies available
» Regenerative (back to grid) load bank; 900V, 1000A
» Available CE certificate of conformity
G900 Features

> Optimized footprint
> Automatic N₂ purge on shutdown
> Integrated H₂ sensor
> Separate high-flow liquid stack cooling module
> Regenerative (back-to-grid) load bank
> LCD monitor and PC included
> Ample 19" rack space
> Water balance capability
> Optional humidifier gas by-pass
> Optional dead-end mode

With power levels up to 250kW, the G900 is the world's most advanced high power fuel cell test station. The G900 can be customized for transportation, stationary or marine fuel cell applications.

Emerald™: Our control and automation software offers exceptional functionality with a user-friendly graphical interface. Enhanced with our proprietary Emerald™ automation language and load following technology, Emerald™ comprehensively manages the full range of test station parameters with a simple user-friendly interface that permits even novices to assemble automation scripts in minutes. Emerald™ is exponentially more powerful than look-up table automation systems, and computer programming skills are not required to create even complex automation scripts. Greenlight even offers optional pre-written scripts to help you start testing right away.

Specifications

| POWER RANGE | 25 - 250 kW (custom ranges available) |
| GAS FLOWS | Standard anode flow range 50 - 5000 nlpm; available to 6000 nlpm |
| | Standard cathode flow range 50 - 7500 nlpm; available to 10000 nlpm |
| GAS MIXING | up to 8 gases available |
| GAS HUMIDIFICATION | steam injection or contact available |
| | up to 90°C (194°F) higher temperatures available |
| | up to 110°C (230°F) higher temperatures available |
| STACK COOLING | Flow range 600 lpm |
| | Temperature control up to 90°C (194°F)† |
| STACK PRESSURE CONTROL | Back pressure control up to 300 kPa (45psig) higher pressures available |
| PROGRAMMABLE LOAD BANK | regenerative (back to grid); up to 250kW, 900V, 1000A |
| CELL VOLTAGE MONITORING | up to 800 additional channels available (average accuracy +/- 1mV) |
| DIMENSIONS (L x W x H) (approximate) | 3500 x 1600 x 2300 mm (137 x 63 x 90 in) |

† Dependent on actual operating conditions - higher temperature, pressure options available

Includes 3 levels of safety:

1. Hard-wired interlocks
2. Factory software interlocks
3. User-configurable software interlocks (warning high/low alarms and shut-down high/low alarms)
   - N₂ purge
   - H₂ sensor
   - Manual emergency stop
   - Optional stack enclosure

PERFORMANCE COMMITMENT:
At Greenlight, we pride ourselves on making the world’s best fuel cell testing equipment. We are committed to your satisfaction and we will do whatever it takes to meet or exceed your expectations.

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