

G100 G200

FCATS™

PEM FUEL CELL Stack Test Station



- » G100 power range: 40 - 2000 W
- » G200 power range: 80 - 4000 W
- » Powerful & accurate R&D test station
- » Customizable with a wide variety of options
- » Automated safety features
- » HyWARE II™ control and automation software
- » HyAL™ fuel cell test programming language
- » Minimal footprint
- » Fully automated for unattended operation
- » Optional configuration for high temperature PEM research
- » Available CE certificate of conformity

G100/200 Features

- » Small footprint
- » Optional fuel cell enclosure
- » Automatic N₂ purge on shutdown
- » Integrated fume hood with H₂ sensor
- » 2 separate PID loops for cell endplate heaters
- » Optional liquid cell cooling capability
- » 17" LCD monitor and PC
- » Ample 19" rack space
- » Water balance capability
- » Optional humidifier gas by-pass
- » Generous workspace for the test article with Dri-Dek® work surface

The G100 and G200 are highly accurate, stable and repeatable R&D machines for single cell and short stack testing.

HyWARE II™ : Our control and automation software offers exceptional functionality with a user-friendly graphical interface. Enhanced with our proprietary HyAL™ automation language and load following technology, HyWARE II 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. HyAL 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

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.

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

APPROXIMATE POWER RANGE	G100: 40 - 1000 W	G200: 80 - 4000 W
GAS FLOWS (custom ranges available)	100:1 turndown MFC's	
Standard anode flow range	G100: 0.25 - 25 nlpm	G200: 0.8 - 80 nlpm
Standard cathode flow range	G100: 0.8 - 80 nlpm	G200: 2 - 200 nlpm
GAS HUMIDIFICATION TECHNOLOGY	contact humidifier	
Dew point control	up to 95°C † (203°F)† optional high temperature operation	
Gas temperature	up to 110°C † (230°F)† optional high temperature operation	
Dry gas by-pass	optional; with automatic control	
ELECTRICAL END PLATE HEATER CONTROL	included	
LIQUID CELL COOLING	optional; high temperature operation optional	
CELL PRESSURE CONTROL	automated	
Back pressure control	up to 300 kPa† (45psi)† higher pressures available	
LOAD BANK		
Maximum load, current, voltage	2000W, 400A, 50V other configurations available	
CELL VOLTAGE MONITORING		
Standard number of channels	4; additional channels available (average accuracy +/- 1mV)	
DIMENSIONS (L x H x W) (approximate)	1375 x 1810 x 1132 mm (54 x 72 x 45 in)	

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

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