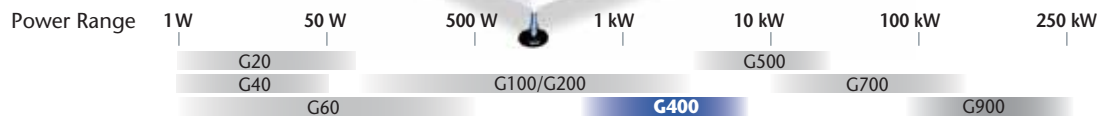


# FCATS™ G400

## PEM FUEL CELL Stack Test Station



- » Approximate power range: 0.5 - 6kW
- » Powerful & accurate R&D test station
- » Customizable with a wide variety of options
- » Industry leading safety features
- » HyWARE II™ control and automation software
- » HyAL™ fuel cell test programming language
- » Fully automated for unattended operation
- » Optional database, remote control and network functions
- » Optional configuration for high temperature PEM research
- » Available CE certificate of conformity

# G400 features

- » Small footprint
- » Optional fuel cell enclosure
- » Automatic N<sub>2</sub> purge on shutdown
- » Integrated fume hood with H<sub>2</sub> sensor
- » Optional PID loops for cell endplate heaters
- » 17" LCD monitor and PC
- » Ample 19" rack space
- » Water balance capability
- » Optional integrated impedance device
- » Generous workspace for the test article with Dri-Dek<sup>®</sup> work surface

The G400 expands our capability in short stack R&D testing with a highly accurate and flexible testing platform. Options include high temperature operation, reformate simulation, dead ended operation and integrated impedance devices.

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, user can alarm off any tag)
- » N<sub>2</sub> purge
  - » H<sub>2</sub> sensor
  - » Manual emergency stop
  - » Optional stack enclosure

<b>POWER RANGE</b>	50 - 6000 W
<b>GAS FLOWS</b>	(custom ranges available) 100:1 turndown MFC's
Standard anode flow range	1.5 - 150 nlpm
Standard cathode flow range	4.0 - 400 nlpm
<b>GAS HUMIDIFICATION TECHNOLOGY</b>	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
<b>ELECTRICAL END PLATE HEATER CONTROL</b>	optional
<b>LIQUID CELL COOLING</b>	included, up to 95°C (203°F) † (high temperature operation available)
<b>CELL PRESSURE CONTROL</b>	included
Back pressure control	up to 300 kPa † (45psi) † higher pressures available
<b>LOAD BANK</b>	
Maximum load, current, voltage	water cooled; 6 kW, 600 A, 120 V; other configurations available
<b>CELL VOLTAGE MONITORING</b>	
	optional, up to 800 channels; average accuracy +/- 1mV
<b>DIMENSIONS (L x H x W) (approximate)</b>	1582 x 1827 x 1367 mm (62 x 72 x 54 in)

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

Greenlight Innovation Corporation, Burnaby, B.C. Canada. All specifications and illustrations contained in this brochure are based on the latest product information available at the time of printing. Greenlight reserves the right to make changes at any time without notice in materials, equipment, specifications and models. Printed in Canada.

