

G400 • G500 • G600
G700 • G900 • G1000

PEM FUEL CELL

Stack Test Stations



- Emerald™ control software for fully automated, unattended operation
- Comprehensive safety features
- Expandable with additional I/O and diagnostic tools
- Multiple humidification technologies available
- Resistive or regenerative loads available
- Available CE certificate of conformity
- Available with optional integrated environmental chambers



Specifications



	G400	G500	G600	G700	G900	G1000
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APPROXIMATE POWER RANGE	0.5 - 6 kW	2 - 12 kW	5 - 50 kW	10 - 100 kW	25 - 200 kW	50 - 300 kW
GAS FLOWS	100:1 turndown MFC's			custom ranges available		
Standard anode flow range	1.5 - 150 nlpm	1.25 - 250 nlpm; available to 750 nlpm	20 - 2,000 nlpm	50 - 2,200 nlpm	80 - 4,000 nlpm	100 - 5,000 nlpm
Standard cathode flow range	4 - 400 nlpm	3.75 - 750 nlpm; available to 1,250 nlpm	35 - 3,500 nlpm	80 - 8,000 nlpm	100 - 10,000 nlpm	300 - 15,000 nlpm
GAS MIXING Anode and Cathode	automated reformat simulation and gas mixing available					
GAS HUMIDIFICATION TECHNOLOGY	numerous humidification technologies available including Rapid Response™					
Dew point control	up to 90°C † (194°F)†					
Gas temperature	up to 110°C † (230°F)†					
Humidifier by-pass	optional; with automatic control					
LIQUID STACK COOLING	up to 90°C (194°F)†					
BACK PRESSURE CONTROL	0.05 - 3 barg† (45psig)†					
LOAD BANK Maximum load, current, voltage	water cooled, up to 6kW	water cooled, up to 20kW	water cooled, or regenerative available		regenerative	
CELL VOLTAGE MONITORING Standard number of channels	up to 1000 channels					
DIMENSIONS Not including optional load banks	1582 x 1367 x 1827 mm (62 x 54 x 72 in)	2819 x 1168 x 22 61 mm (111 x 46 x 89 in)		3500 x 1600 x 2300 mm (137 x 63 x 90 in)		

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

Emerald™: Our flexible control software features a user-friendly interface, and is enhanced with our proprietary automation capability. The flexible **Emerald™** scripting language allows complex script assembly within minutes for all types of users; from novices to experts.



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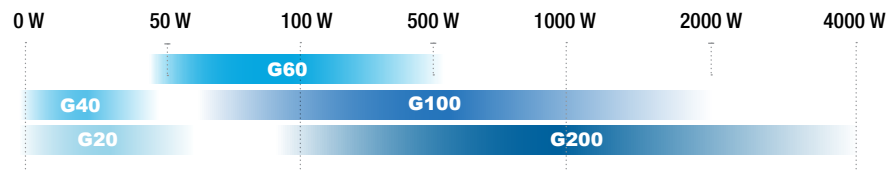
The Test and Automation Specialists: greenlightinnovation.com



G20 • G40 • G60
G100 • G200

PEM FUEL CELL

Single Cell and Component Test Stations



- Emerald™ control software for fully automated, unattended operation
- Comprehensive, user-adjustable safety features
- Expandable with additional I/O and diagnostic tools
- Multiple humidification technologies available, including optional Rapid Response™
- Accurate reformate gas simulation (automated blending)
- Available CE certificate of conformity
- Available with optional environmental chambers, high temperature and DMFC operation



Specifications



	G20	G40	G60	G100	G200
APPROXIMATE POWER RANGE	1 - 100 W	5 - 50 W	10 - 500 W	40 - 2000 W	80 - 4000 W
GAS FLOWS	100:1 turndown MFC's				
Standard anode flow range	0.01 - 1 nlpm	0.015 - 1.5 nlpm	0.1 - 10 nlpm	0.25 - 25 nlpm	0.8 - 80 nlpm
Standard cathode flow range	0.02 - 2 nlpm	0.025 - 2.5 nlpm	0.2 - 20 nlpm	0.8 - 80 nlpm	2 - 200 nlpm
GAS HUMIDIFICATION TECHNOLOGY	gas immersion with sparger	contact humidifier (optional low flow sparger)		contact humidifier	
Dew point control	up to 90°C † (194°F)†				
Gas temperature	up to 110°C † (230°F)†				
Humidifier by-pass	optional; with automatic control				
ELECTRICAL END PLATE HEATER CONTROL	individual anode & cathode PID heater controls	included			
LIQUID CELL COOLING	-	high temperature operation optional			
CELL PRESSURE CONTROL	automated				
Back pressure control	Up to 300kPa† (45psi)† higher pressures available				
LOAD BANK Standard, current, voltage	80A, 50V	80A, 50V	125 - 1000A, 50V	125 - 1000A, 50V	500 - 1000A, 50V
CELL VOLTAGE MONITORING Standard number of channels	1 (average accuracy +/- 1mV)	up to 1000 channels (average accuracy +/- 1mV)			
DIMENSIONS	635 x 546 x 788 mm (25 x 21.5 x 31 in) Benchtop design	890 x 710 x 1855 mm (32 x 28 x 73 in)		1375 x 1132 x 1810 mm (54 x 45 x 72 in)	

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

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