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
Emerald™ control and automation software
Emerald™ fuel cell test programming language
Minimal footprint
Fully automated for unattended operation
Optional configuration for high temperature PEM research
Available CE certificate of conformity
The G100 and G200 are highly accurate, stable and repeatable R&D machines for single cell and short stack testing.

**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

<table>
<thead>
<tr>
<th><strong>APPORXIMATE POWER RANGE</strong></th>
<th><strong>G100</strong>: 40 - 1000 W</th>
<th><strong>G200</strong>: 80 - 4000 W</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GAS FLOWS (custom ranges available)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Standard anode flow range</td>
<td>G100: 0.25 - 25 nlpm</td>
<td>G200: 0.8 - 80 nlpm</td>
</tr>
<tr>
<td>Standard cathode flow range</td>
<td>G100: 0.8 - 80 nlpm</td>
<td>G200: 2 - 200 nlpm</td>
</tr>
<tr>
<td><strong>GAS HUMIDIFICATION TECHNOLOGY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dew point control</td>
<td></td>
<td>up to 95°C (203°F) optional high temperature operation</td>
</tr>
<tr>
<td>Gas temperature</td>
<td></td>
<td>up to 110°C (230°F) optional high temperature operation</td>
</tr>
<tr>
<td>Dry gas by-pass</td>
<td>optional; with automatic control</td>
<td></td>
</tr>
<tr>
<td><strong>ELECTRICAL END PLATE HEATER CONTROL</strong></td>
<td>included</td>
<td>optional; high temperature operation optional</td>
</tr>
<tr>
<td><strong>LIQUID CELL COOLING</strong></td>
<td></td>
<td>automated</td>
</tr>
<tr>
<td><strong>CELL PRESSURE CONTROL</strong></td>
<td></td>
<td>up to 300 kPa (45psi) higher pressures available</td>
</tr>
<tr>
<td>Back pressure control</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LOAD BANK</strong></td>
<td></td>
<td>2000W, 400A, 50V other configurations available</td>
</tr>
<tr>
<td>Maximum load, current, voltage</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CELL VOLTAGE MONITORING</strong></td>
<td>up to 800 channels available (accuracy +/- 1mV)</td>
<td></td>
</tr>
<tr>
<td>Standard number of channels</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DIMENSIONS (L x W x H) (approximate)</strong></td>
<td>1375 x 1132 x 1810 mm (54 x 45 x 72 in)</td>
<td></td>
</tr>
</tbody>
</table>

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.

*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)

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