HYUNDAI SOLAR MODULE

**Mono-Crystalline Type**

HIA-S300HG  HIA-S305HG  HIA-S310HG  HIA-S315HG

**HG SERIES**

120

- For Residential Applications
- For Both Residential & Commercial Applications
- More Power Generation In Low Light

**PERL Technology**

PERL technology provides ultra-high efficiency with better performance in low irradiation. Maximizes installation capacity in limited space.

**Anti-LID / PID**

Both LID (Light Induced Degradation) and PID (Potential Induced Degradation) are strictly eliminated to ensure higher actual yield during lifetime.

**Mechanical Strength**

Tempered glass and reinforced frame design withstand rigorous weather conditions such as heavy snow and strong wind.

**Reliable Warranty**

Global brand with powerful financial strength provide reliable 25-year warranty.

**Corrosion Resistant**

Various tests under harsh environmental conditions such as ammonia and salt-mist passed.

**UL / VDE Test Labs**

Hyundai’s R&D center is an accredited test laboratory of both UL and VDE.

**Hyundai’s Warranty Provisions**

- **10-Year Product Warranty**
  - On materials and workmanship
- **25-Year Performance Warranty**
  - Initial year: 97%
  - Linear warranty after second year: with 0.7%/p annual degradation, 80% is guaranteed up to 25 years

**About Hyundai Energy Solutions**

Established in 1972, Hyundai Heavy Industries Group is one of the most trusted names in the heavy industries sector and is a Fortune 500 company. As a global leader and innovator, Hyundai Heavy Industries is committed to building a future growth engine by developing and investing heavily in the field of renewable energy.

As a core energy business entity of HHI, Hyundai Energy Solutions has strong pride in providing high-quality PV products to more than 3,000 customers worldwide.

**Certification**

- IEC 61215 and IEC 61730 New Standard by TUV SUD
- UL 1703 Listed by UL, Type 1 for Fire Class A
### Electrical Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Mono-Crystalline Type (HiA-S____HG)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nominal Output (Pmpp)</strong></td>
<td>W 300 305 310 315</td>
</tr>
<tr>
<td><strong>Short Circuit Current (Isc)</strong></td>
<td>A 9.77 9.86 9.95 10.04</td>
</tr>
<tr>
<td><strong>Voltage at Pmax (Vmpp)</strong></td>
<td>V 32.15 32.37 32.58 32.79</td>
</tr>
<tr>
<td><strong>Current at Pmax (Imppp)</strong></td>
<td>A 9.33 9.42 9.51 9.60</td>
</tr>
<tr>
<td><strong>Module Efficiency (%)</strong></td>
<td>18.1 18.4 18.7 19.0</td>
</tr>
<tr>
<td><strong>Cell Type</strong></td>
<td>mono-crystalline silicon</td>
</tr>
<tr>
<td><strong>Maximum System Voltage</strong></td>
<td>V 1,500</td>
</tr>
<tr>
<td><strong>Output Power Tolerance (%)</strong></td>
<td>-0 / +3</td>
</tr>
<tr>
<td><strong>Temperature Coefficient of Pmax (%)</strong></td>
<td>-0.417</td>
</tr>
<tr>
<td><strong>Temperature Coefficient of Voc (%)</strong></td>
<td>-0.306</td>
</tr>
<tr>
<td><strong>Temperature Coefficient of Isc (%)</strong></td>
<td>+0.046</td>
</tr>
</tbody>
</table>

*All data at STC (Standard Test Conditions). Above data may be changed without prior notice.

### Mechanical Characteristics

- **Dimensions:** 992 mm (39.06") x 1,675 mm (65.94") x 35 mm (1.38")
- **Weight:** Approx. 18.5 kg (40.8 lbs)
- **Solar Cells:** 120 half cells (2 parallel x 60 half cells in series)
- **Output Cables:** 4 mm² (12AWG) cables with polarized weatherproof connectors, IEC certified (UL listed and UL 4703 certified), Length 1.1 m (43")
- **Junction Box:** IP68, weatherproof, IEC certified (UL listed)
- **Bypass Diodes:** 3 bypass diodes to prevent power decrease by partial shade
- **Construction:** Front : Anti-reflection coated glass
  Encapsulant : EVA | Back Sheet : Weatherproof film
- **Frame:** Clear anodized aluminum alloy type 6063

### Installation Safety Guide

- Only qualified personnel should install or perform maintenance.
- Be aware of dangerous high DC voltage.
- Do not damage or scratch the rear surface of the module.
- Do not handle or install modules when they are wet.

### Module Diagram (unit : mm)

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### I-V Curves

- **Current [A]**

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