For Global Market

**STAR™ II**

290W~305W

5BB-Monocrystalline PV Module

CHSM6610M Series
CHSM6610M/HV Series

CHSM6610M max system voltage 1000V standard
CHSM6610M/HV max system voltage 1500V standard

10-year Warranty for Materials and Processing
25-year Warranty for Extra Linear Power Output (1st year ≤ 3%, 2nd~25th years ≤ 0.7% / year)

97%

KEY FEATURES

- Output Positive Tolerance
  Guaranteed 0~+5W positive tolerance ensures power output reliability.

- Innovative 5-Busbar Cells
  Reduces the cell series resistance and internal stress, decreases the risk of micro-crack and improves the module output.

- Innovative Perc Cell Technology
  Excellent cell efficiency and output.

- Lower Temperature Coefficient
  Improved temperature coefficient decreases power loss in the high temperature application.

- Higher Reliability and Durability
  Effectively deals with harsh environments, such as sand, salt mist and ammonia resistance.

- Passed Hail Test
  Certified to hail resistance: ice ball size (d=45mm) and ice ball velocity (v=30.7m/s).

- PID Resistance
  Excellent PID resistance at 96 hours (@85°C /85%) test, and also can be improved to meet higher standards for the particularly harsh environment.

Optional: Black frame designed for the certain projects and applications (e.g. residential rooftop and so on)

First solar company which passed the TUV Nord IEC/TS 62941 certification audit.

COMPREHENSIVE CERTIFICATES

Tier 1
Bloomberg
No.1
PHOTON
MunichRe
Insured
DNV GL
2017 TOP Performance

80.20%
### ELECTRICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>290 Wp</th>
<th>295 Wp</th>
<th>300 Wp</th>
<th>305 Wp</th>
</tr>
</thead>
<tbody>
<tr>
<td>STC rated output (P_{mpp})*</td>
<td>290</td>
<td>295</td>
<td>300</td>
<td>305</td>
</tr>
<tr>
<td>Rated voltage (V_{mpp}) at STC</td>
<td>32.15</td>
<td>32.38</td>
<td>32.59</td>
<td>32.80</td>
</tr>
<tr>
<td>Rated current (I_{mpp}) at STC</td>
<td>9.03</td>
<td>9.12</td>
<td>9.21</td>
<td>9.30</td>
</tr>
<tr>
<td>Open circuit voltage (V_{oc}) at STC</td>
<td>39.45</td>
<td>39.81</td>
<td>39.90</td>
<td>40.05</td>
</tr>
<tr>
<td>Short circuit current (I_{sc}) at STC</td>
<td>9.54</td>
<td>9.59</td>
<td>9.68</td>
<td>9.72</td>
</tr>
<tr>
<td>Module efficiency</td>
<td>17.8%</td>
<td>18.1%</td>
<td>18.4%</td>
<td>18.7%</td>
</tr>
<tr>
<td>Rated output (P_{mpp}) at NOCT</td>
<td>213.1</td>
<td>216.8</td>
<td>220.5</td>
<td>224.1</td>
</tr>
<tr>
<td>Rated voltage (V_{mpp}) at NOCT</td>
<td>29.58</td>
<td>29.79</td>
<td>30.00</td>
<td>30.21</td>
</tr>
<tr>
<td>Rated current (I_{mpp}) at NOCT</td>
<td>7.20</td>
<td>7.28</td>
<td>7.35</td>
<td>7.42</td>
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<tr>
<td>Open circuit voltage (V_{oc}) at NOCT</td>
<td>36.60</td>
<td>36.93</td>
<td>37.01</td>
<td>37.15</td>
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<tr>
<td>Short circuit current (I_{sc}) at NOCT</td>
<td>7.67</td>
<td>7.71</td>
<td>7.79</td>
<td>7.82</td>
</tr>
<tr>
<td>Temperature coefficient (P_{mpp})</td>
<td>-0.380%</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Temperature coefficient (I_{sc})</td>
<td>+0.042%</td>
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<td></td>
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<tr>
<td>Temperature coefficient (V_{oc})</td>
<td>-0.284%</td>
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<tr>
<td>Normal operating cell temperature (NOCT)</td>
<td>46.2°C</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Maximum system voltage (IEC/UL)</td>
<td>1000VDC or 1500VDC</td>
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<td></td>
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</tr>
<tr>
<td>Number of diodes</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junction box IP rating</td>
<td>IP 67</td>
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<tr>
<td>Maximum series fuse rating</td>
<td>15 A</td>
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</tbody>
</table>

* Measurement tolerance +/- 3%

STC: Irradiance 1000W/m², Cell Temperature 25°C, AM=1.5
NOCT: Irradiance 800W/m², Ambient Temperature 20°C, AM=1.5, Wind Speed 1m/s

### MECHANICAL SPECIFICATIONS

- **Outer dimensions (L x W x H)**: 1648 x 990 x 35 mm (64.88 x 38.98 x 1.38 in)
- **Frame technology**: Aluminum, silver / black anodized
- **Module composition**: Glass / EVA / Backsheet (white)
- **Front glass thickness**: 3.2 mm / 0.13 in
- **Cable length (IEC/UL)**: 900 mm / 35.43 in
- **Cable diameter (IEC/UL)**: 4 mm² / 12 AWG
- **Maximum mechanical test load**: 6000 Pa
- **Fire performance (IEC/UL)**: Class C (IEC) or Type 1 (UL)
- **Connector type (IEC/UL)**: MC4 compatible

### MODULE DIMENSION DETAILS

- **Drainage hole**: 6-7 mm x 11.5 mm / 0.023 feet x 0.038 feet
- **Mounting hole**: 6-7 mm x 11.5 mm / 0.023 feet x 0.038 feet
- **Ground hole**: 6-7 mm x 11.5 mm / 0.023 feet x 0.038 feet
- **Cable entry hole**: 6-9.5 mm / 0.216 feet
- **16-5.5 mm x 8.5 mm / 0.061 feet x 0.035 feet
- **Mounting hole**: 900 mm / 35.43 feet

### PACKING SPECIFICATIONS

- **Weight (module only)**: 18.3 kg / 40.34 lbs
- **Weight of packing unit (for 40'HQ container)**: 616 kg / 1358 lbs
- **Number of modules per 40'HQ container**: 868 pcs

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