For Global Market

**STAR™ II**
**290W~305W**
5BB-Monocrystalline PV Module

**Baseline CHSM6610M Series**
**Baseline 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)

**KEY FEATURES**

- **OUTPUT POSITIVE TOLERANCE**
  Guaranteed 0~+5W positive tolerance ensures power output reliability.

- **INNOVATIONAL 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.

**COMPREHENSIVE CERTIFICATES**

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

<table>
<thead>
<tr>
<th></th>
<th>290 Wp</th>
<th>295 Wp</th>
<th>300 Wp</th>
<th>305 Wp</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STC rated output (P_{mpp})</strong></td>
<td>290 Wp</td>
<td>295 Wp</td>
<td>300 Wp</td>
<td>305 Wp</td>
</tr>
<tr>
<td>Rated voltage (V_{mpp}) at STC</td>
<td>32.15 V</td>
<td>32.38 V</td>
<td>32.59 V</td>
<td>32.80 V</td>
</tr>
<tr>
<td>Rated current (I_{mpp}) at STC</td>
<td>9.03 A</td>
<td>9.12 A</td>
<td>9.21 A</td>
<td>9.30 A</td>
</tr>
<tr>
<td>Open circuit voltage (V_{oc}) at STC</td>
<td>39.45 V</td>
<td>39.81 V</td>
<td>39.90 V</td>
<td>40.05 V</td>
</tr>
<tr>
<td>Short circuit current (I_{sc}) at STC</td>
<td>9.54 A</td>
<td>9.59 A</td>
<td>9.68 A</td>
<td>9.72 A</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 W</td>
<td>216.8 W</td>
<td>220.5 W</td>
<td>224.1 W</td>
</tr>
<tr>
<td>Rated voltage (V_{mpp}) at NOCT</td>
<td>29.58 V</td>
<td>29.79 V</td>
<td>30.00 V</td>
<td>30.21 V</td>
</tr>
<tr>
<td>Rated current (I_{mpp}) at NOCT</td>
<td>7.20 A</td>
<td>7.28 A</td>
<td>7.35 A</td>
<td>7.42 A</td>
</tr>
<tr>
<td>Open circuit voltage (V_{oc}) at NOCT</td>
<td>36.60 V</td>
<td>36.93 V</td>
<td>37.01 V</td>
<td>37.15 V</td>
</tr>
<tr>
<td>Short circuit current (I_{sc}) at NOCT</td>
<td>7.67 A</td>
<td>7.71 A</td>
<td>7.79 A</td>
<td>7.82 A</td>
</tr>
<tr>
<td>Temperature coefficient (P_{mpp})</td>
<td>-0.380%/°C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature coefficient (I_{sc})</td>
<td>+0.042%/°C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature coefficient (V_{oc})</td>
<td>-0.284%/°C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal operating cell temperature (NOCT)</td>
<td>46±2°C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum system voltage (IEC/UL)</td>
<td>1000V_{dc} or 1500V_{dc}</td>
<td></td>
<td></td>
<td></td>
</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>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum series fuse rating</td>
<td>15 A</td>
<td></td>
<td></td>
<td></td>
</tr>
</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 anodized
- **Module composition:** Glass / EVA / Backsheet (white)
- **Front glass thickness:** 3.2 mm / 0.13 in
- **Cable length (IEC/UL):** 900(+)/600(–) mm / 35.43/23.62 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

### PACKING SPECIFICATIONS

- **Weight (module only):** 17.9 kg / 39.46 lbs
- **Packing unit:** 31 pcs / box
- **Weight of packing unit (for 40′HQ container):** 604 kg / 1331 lbs
- **Number of modules per 40′HQ container:** 868 pcs

* Option: 900 mm or 1000 mm for defined projects in advance.

* Refer to Astronergy crystalline installation manual or contact technical department.

* Maximum Mechanical Test Load=1.5×Maximum Mechanical Design Load.

© Chint Solar (Zhejiang) Co., Ltd. Reserves the right of final interpretation, please contact our company to use the latest version for contract.

www.astronergy.com

Astronergy 01.2018