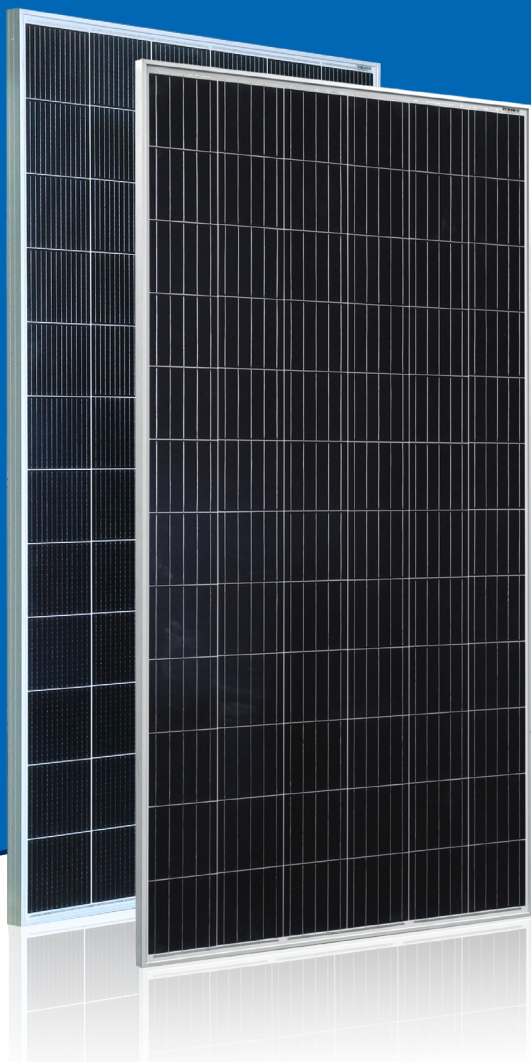


# AstroHalo™

High Tech Leads Industry



Multi-Busbar Module could be the option

## 330W~345W

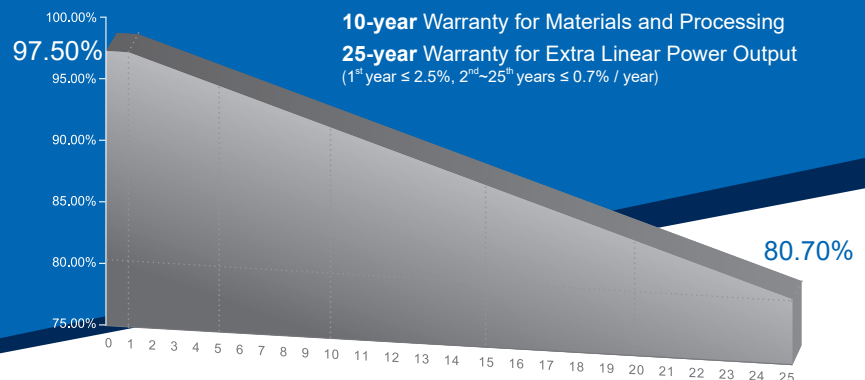
Polycrystalline PV Module

CHSM6612P Series

CHSM6612P/HV Series

CHSM6612P max system voltage 1000V standard  
CHSM6612P/HV max system voltage 1500V standard

<b>Tier 1</b> Bloomberg	<b>No.1</b> PHOTON	Reinsurance 3rd party	<b>DNV GL</b> 2018 TOP Performance
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### KEY FEATURES

- +5W 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.
- EXCELLENT MECHANICAL LOAD CAPABILITY**  
Certified to withstand: snow load (6000 Pa) and wind load (3600 Pa).
- 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.

For Global Market



**ASTRONERGY**  
A CHNT COMPANY

## ELECTRICAL SPECIFICATIONS

STC rated output ( $P_{mpp}$ )*	330 Wp	335 Wp	340 Wp	345 Wp																																												
Rated voltage ( $V_{mpp}$ ) at STC	37.15 V	37.26 V	37.33 V	37.38 V																																												
Rated current ( $I_{mpp}$ ) at STC	8.89 A	9.00 A	9.11 A	9.23 A																																												
Open circuit voltage ( $V_{oc}$ ) at STC	45.86 V	45.98 V	46.16 V	46.37 V																																												
Short circuit current ( $I_{sc}$ ) at STC	9.52 A	9.57 A	9.62 A	9.67 A																																												
Module efficiency	17.1%	17.3%	17.6%	17.8%																																												
Rated output ( $P_{mpp}$ ) at NOCT	230.4 Wp	233.9 Wp	237.4 Wp	240.9 Wp																																												
Rated voltage ( $V_{mpp}$ ) at NOCT	33.92 V	34.01 V	34.10 V	34.15 V																																												
Rated current ( $I_{mpp}$ ) at NOCT	6.79 A	6.88 A	6.96 A	7.05 A																																												
Open circuit voltage ( $V_{oc}$ ) at NOCT	42.08 V	42.19 V	42.36 V </tr <tr> <td>Short circuit current (<math>I_{sc}</math>) at NOCT</td> <td>7.37 A</td> <td>7.40 A</td> <td>7.44 A</td> <td>7.48 A</td> </tr> <tr> <td>Temperature coefficient (<math>P_{mpp}</math>)</td> <td colspan="4">- 0.408%/°C</td> </tr> <tr> <td>Temperature coefficient (<math>I_{sc}</math>)</td> <td colspan="4">+0.050%/°C</td> </tr> <tr> <td>Temperature coefficient (<math>V_{oc}</math>)</td> <td colspan="4">- 0.311%/°C</td> </tr> <tr> <td>Normal operating cell temperature (NOCT)</td> <td colspan="4">46±2°C</td> </tr> <tr> <td>Maximum system voltage (IEC/UL)</td> <td colspan="4">1000V<sub>DC</sub> or 1500V<sub>DC</sub></td> </tr> <tr> <td>Number of diodes</td> <td colspan="4">3</td> </tr> <tr> <td>Junction box IP rating</td> <td colspan="4">IP 67</td> </tr> <tr> <td>Maximum series fuse rating</td> <td colspan="4">15 A</td> </tr>	Short circuit current ( $I_{sc}$ ) at NOCT	7.37 A	7.40 A	7.44 A	7.48 A	Temperature coefficient ( $P_{mpp}$ )	- 0.408%/°C				Temperature coefficient ( $I_{sc}$ )	+0.050%/°C				Temperature coefficient ( $V_{oc}$ )	- 0.311%/°C				Normal operating cell temperature (NOCT)	46±2°C				Maximum system voltage (IEC/UL)	1000V <sub>DC</sub> or 1500V <sub>DC</sub>				Number of diodes	3				Junction box IP rating	IP 67				Maximum series fuse rating	15 A			
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\* Measurement tolerance +/- 3%

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, AM=1.5

NOCT: Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, AM=1.5, Wind Speed 1m/s

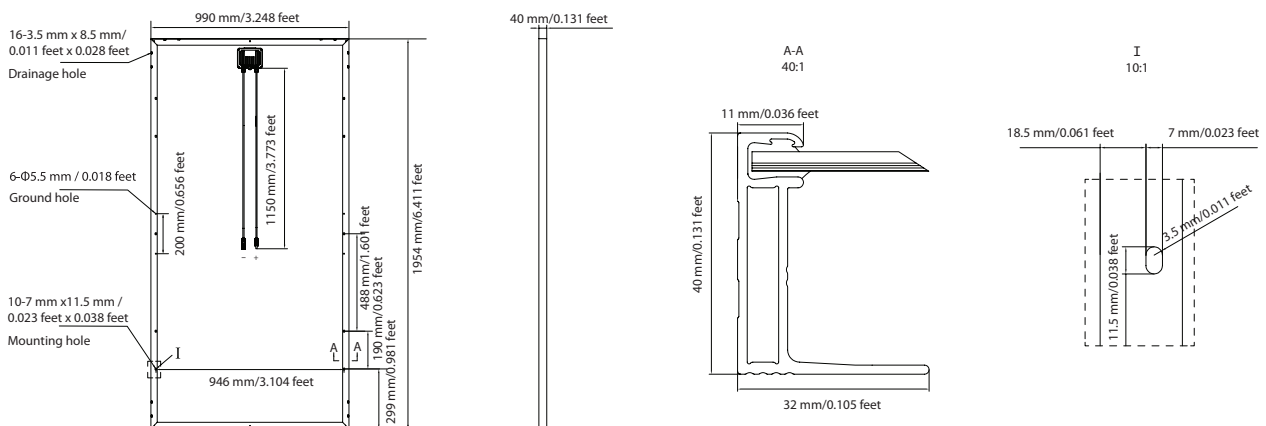
## MECHANICAL SPECIFICATIONS

Outer dimensions (L x W x H)	1954 x 990 x 40 mm 76.93 x 38.98 x 1.57 in
Frame technology	Aluminum, silver anodized
Module composition	Glass / EVA / Backsheet (white)
Front glass thickness	3.2 mm / 0.13 in
① Cable length (IEC/UL)	1150 mm / 45.28 in
Cable diameter (IEC/UL)	4 mm <sup>2</sup> / 12 AWG
② Maximum mechanical test load	6000 Pa
Fire performance (IEC/UL)	Class C (IEC) or Type 1 (UL)
Connector type (IEC/UL)	MC4 compatible

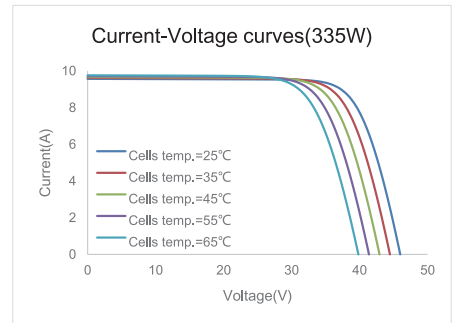
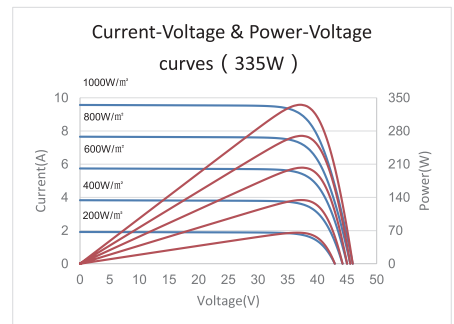
① Option: 900(+)/600(-) mm for defined projects in advance.

② Refer to Astronergy Crystalline Silicon PV Module Installation Manual or contact technical department.  
Maximum Mechanical Test Load=1.5×Maximum Mechanical Design Load.

## MODULE DIMENSION DETAILS



## CURVE



## PACKING SPECIFICATIONS

① Weight (module only)	21.8 kg / 48.06 lbs
② Packing unit	27 pcs / box
Weight of packing unit (for 40'HQ container)	634 kg / 1398 lbs
Number of modules per 40'HQ container	648 pcs

① Tolerance +/- 1.0kg

② Subject to sales contract