

# AstroHalo™

High Tech Leads Industry



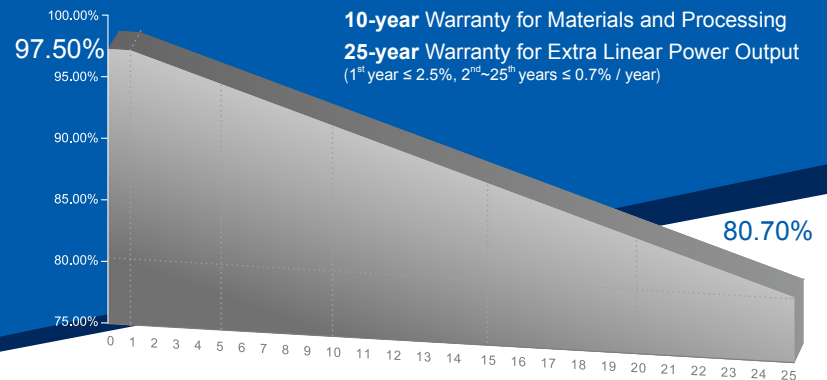
## 275W~290W

Polycrystalline PV Module

CHSM6610P Series

CHSM6610P/HV Series

CHSM6610P max system voltage 1000V standard  
CHSM6610P/HV max system voltage 1500V standard



- \* Multi-Busbar Module could be the option
- \* Optional: Black frame designed for the certain projects and applications (e.g. residential rooftop and so on)

### COMPREHENSIVE CERTIFICATES



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

### 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).
- Anti 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.

For Global Market



**ASTRONERGY**  
A CHNT COMPANY

## ELECTRICAL SPECIFICATIONS

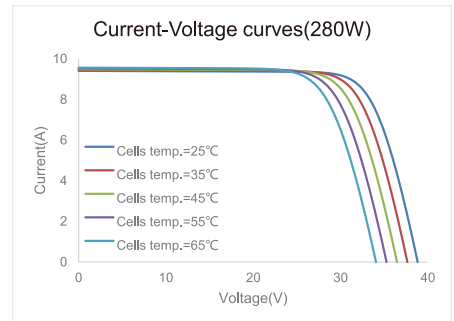
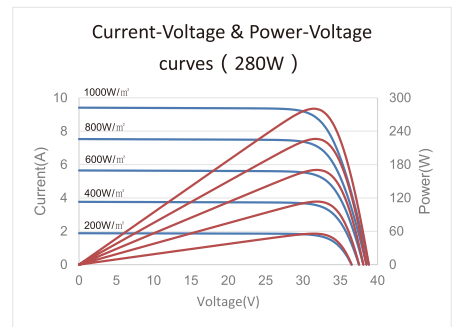
STC rated output ( $P_{mpp}$ )*	275 Wp	280 Wp	285 Wp	290 Wp
Rated voltage ( $V_{mpp}$ ) at STC	31.12 V	31.20 V	31.38 V	31.55 V
Rated current ( $I_{mpp}$ ) at STC	8.85 A	8.99 A	9.09 A	9.20 A
Open circuit voltage ( $V_{oc}$ ) at STC	38.45 V	38.69 V	38.94 V	39.18 V
Short circuit current ( $I_{sc}$ ) at STC	9.52 A	9.59 A	9.68 A	9.75 A
Module efficiency	16.9%	17.2%	17.5%	17.8%
Rated output ( $P_{mpp}$ ) at NOCT	206.3 Wp	210.0 Wp	213.8 Wp	217.5 Wp
Rated voltage ( $V_{mpp}$ ) at NOCT	28.15 V	28.22 V	28.41 V	28.56 V
Rated current ( $I_{mpp}$ ) at NOCT	7.33 A	7.44 A	7.52 A	7.62 A
Open circuit voltage ( $V_{oc}$ ) at NOCT	35.13 V	35.35 V	35.57 V	35.79 V
Short circuit current ( $I_{sc}$ ) at NOCT	8.02 A	8.08 A	8.15 A	8.21 A
Temperature coefficient ( $P_{mpp}$ )	- 0.407%/°C			
Temperature coefficient ( $I_{sc}$ )	+0.049%/°C			
Temperature coefficient ( $V_{oc}$ )	- 0.310%/°C			
Normal operating cell temperature (NOCT)	43±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			

\* 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

## CURVE



## 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
① Cable length (IEC/UL)	1000 mm / 39.37 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 or 1000 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.

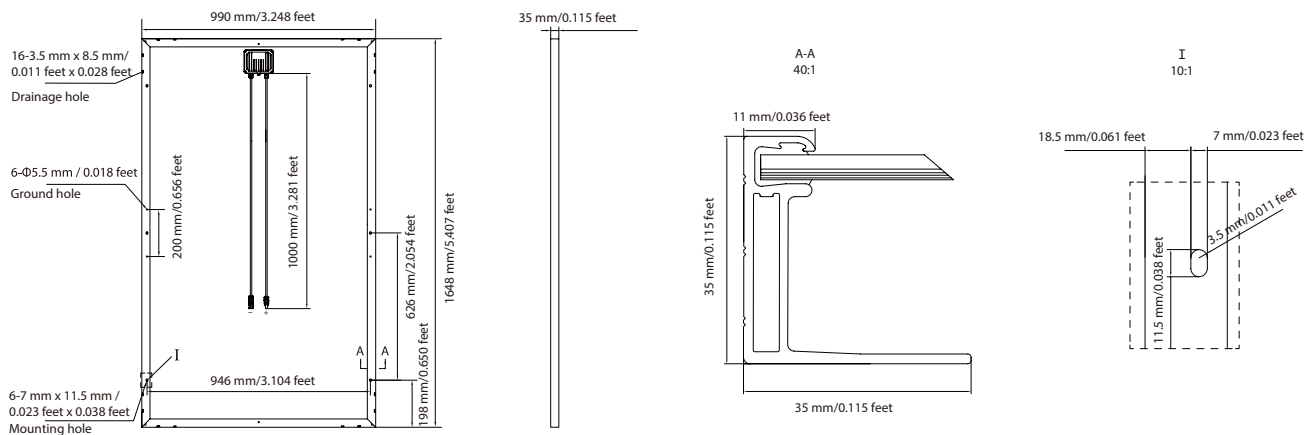
## PACKING SPECIFICATIONS

① Weight (module only)	18.3 kg / 40.34 lbs
② Packing unit	31 pcs / box
Weight of packing unit (for 40'HQ container)	606 kg / 1336 lbs
Number of modules per 40'HQ container	868 pcs

① Tolerance +/- 1.0kg

② Subject to sales contract

## MODULE DIMENSION DETAILS



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