

# AstroHalo™

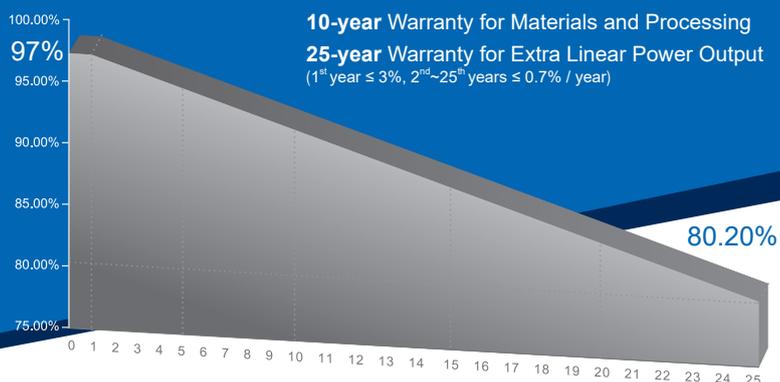
High Tech Leads Industry



## 295W~310W

5BB-Monocrystalline PV Module

CHSM6610M(BL) Series



### KEY FEATURES

- OUTPUT POSITIVE TOLERANCE**  
 Guaranteed 0~+5W positive tolerance ensures power output reliability.
- INNOVATIVE PERC CELL TECHNOLOGY**  
 Excellent cell efficiency and output.
- LOWER TEMPERATURE COEFFICIENT**  
 Improved temperature coefficient decreases power loss in the high temperature application.
- THE-STATE-OF-THE-ART APPEARANCE**  
 Full black designed for a better aesthetic appearance and building integration.
- 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 ( $P_{mpp}$ )*	295 Wp	300 Wp	305 Wp	310 Wp
Rated voltage ( $V_{mpp}$ ) at STC	32.38 V	32.59 V	32.80 V	32.96 V
Rated current ( $I_{mpp}$ ) at STC	9.12 A	9.21 A	9.30 A	9.42 A
Open circuit voltage ( $V_{oc}$ ) at STC	39.81 V	39.90 V	40.05 V	40.18 V
Short circuit current ( $I_{sc}$ ) at STC	9.59 A	9.68 A	9.72 A	9.86 A
Module efficiency	18.0%	18.3%	18.6%	18.9%
Rated output ( $P_{mpp}$ ) at NOCT	216.8 Wp	220.5 Wp	224.1 Wp	227.8 Wp
Rated voltage ( $V_{mpp}$ ) at NOCT	29.79 V	30.00 V	30.21 V	30.31 V
Rated current ( $I_{mpp}$ ) at NOCT	7.28 A	7.35 A	7.42 A	7.52 A
Open circuit voltage ( $V_{oc}$ ) at NOCT	36.93 V	37.01 V	37.15 V	37.27 V
Short circuit current ( $I_{sc}$ ) at NOCT	7.71 A	7.79 A	7.82 A	7.93 A
Temperature coefficient ( $P_{mpp}$ )	- 0.380%/°C			
Temperature coefficient ( $I_{sc}$ )	+0.042%/°C			
Temperature coefficient ( $V_{oc}$ )	- 0.284%/°C			
Normal operating cell temperature (NOCT)	46±2°C			
Maximum system voltage (IEC/UL)	1000V <sub>DC</sub>			
Number of diodes	3			
Junction box IP rating	IP 67			
Maximum series fuse rating	15 A(≤295W), 20 A(≥300W)			

\* 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

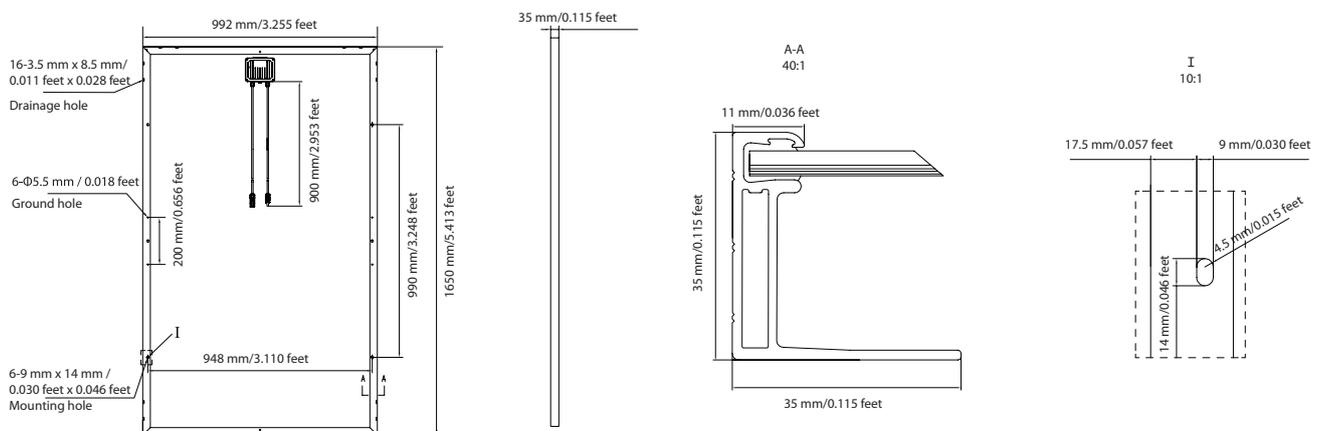
## MECHANICAL SPECIFICATIONS

Outer dimensions (L x W x H)	1650 x 992 x 35 mm 64.96 x 39.06 x 1.38 in
Frame technology	Aluminum, black anodized
Module composition	Glass / EVA / Backsheet (black)
Front glass thickness	3.2 mm / 0.13 in
① Cable length (IEC/UL)	900 mm / 35.43 in
Cable diameter (IEC/UL)	4 mm <sup>2</sup> / 12 AWG
② Maximum mechanical test load	6000 Pa (front) / 3600 Pa (back)
Fire performance (IEC/UL)	Class C (IEC) or Type 1 (UL)
Connector type (IEC/UL)	MC4 compatible

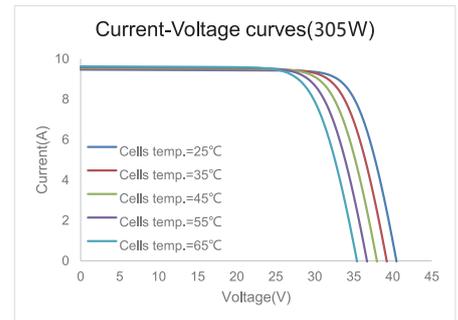
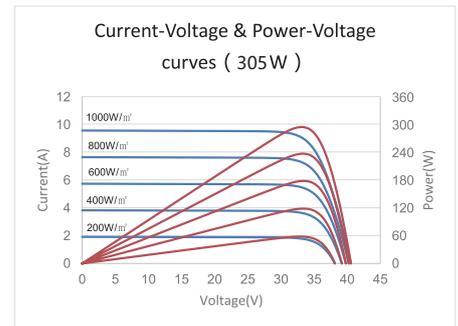
① Option: 900(+)/600(-) mm or 1000 mm for defined projects in advance.

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

## MODULE DIMENSION DETAILS



## CURVE



## PACKING SPECIFICATIONS

① Weight (module only)	18.4 kg / 40.57 lbs
② Packing unit	31 pcs / box
Weight of packing unit (for 40'HQ container)	609 kg / 1343 lbs
Number of modules per 40'HQ container	868 pcs

① Tolerance +/- 1.0kg

② Subject to sales contract