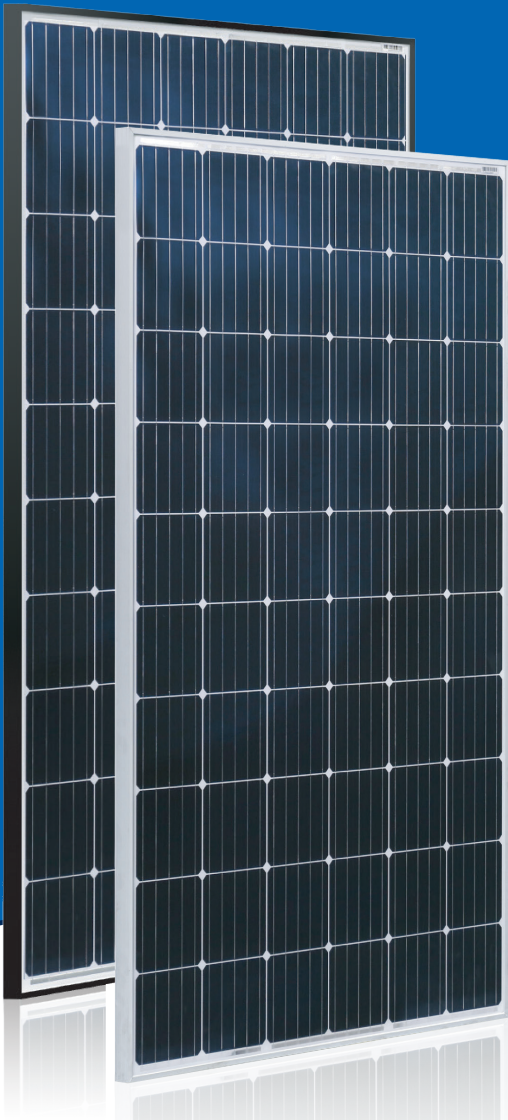


# AstroNova™

Profitable for Decades



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.

# 275W~290W

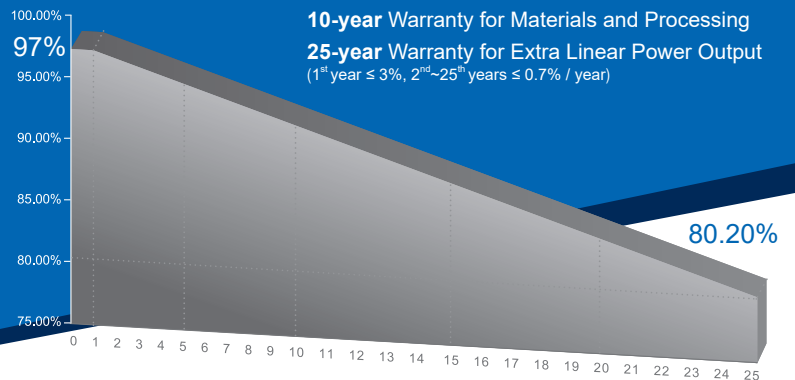
5BB-Monocrystalline PV Module

CHSM6610M Series

CHSM6610M/HV Series

CHSM6610M max system voltage 1000V standard

CHSM6610M/HV max system voltage 1500V standard



## 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.
- 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.
- 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).
- LOWER TEMPERATURE COEFFICIENT**  
 Improved temperature coefficient decreases power loss in the high temperature application.

For Global Market



**ASTRONERGY**  
A CHNT COMPANY

## ELECTRICAL SPECIFICATIONS

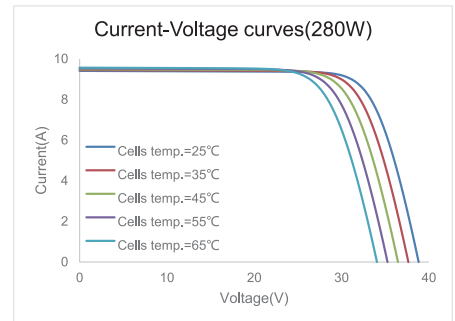
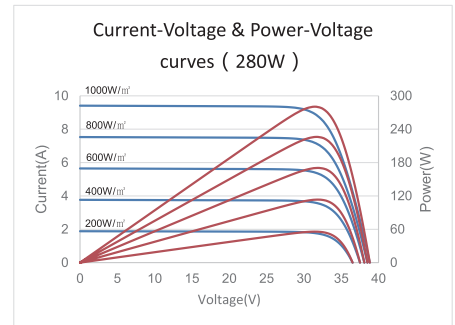
STC rated output ( $P_{mpp}$ )*	275 Wp	280 Wp	285 Wp	290 Wp
Rated voltage ( $V_{mpp}$ ) at STC	31.10 V	31.48 V	31.80 V	32.15 V
Rated current ( $I_{mpp}$ ) at STC	8.84 A	8.91 A	8.97 A	9.03 A
Open circuit voltage ( $V_{oc}$ ) at STC	38.36 V	38.83 V	39.15 V	39.45 V
Short circuit current ( $I_{sc}$ ) at STC	9.38 A	9.41 A	9.46 A	9.54 A
Module efficiency	16.9%	17.2%	17.5%	17.8%
Rated output ( $P_{mpp}$ ) at NOCT	202.1 Wp	205.8 Wp	209.4 Wp	213.1 Wp
Rated voltage ( $V_{mpp}$ ) at NOCT	28.64 V	28.95 V	29.27 V	29.58 V
Rated current ( $I_{mpp}$ ) at NOCT	7.06 A	7.11 A	7.16 A	7.20 A
Open circuit voltage ( $V_{oc}$ ) at NOCT	35.58 V	36.02 V	36.32 V	36.60 V
Short circuit current ( $I_{sc}$ ) at NOCT	7.54 A	7.57 A	7.61 A	7.67 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> 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)	900 mm / 35.43 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.

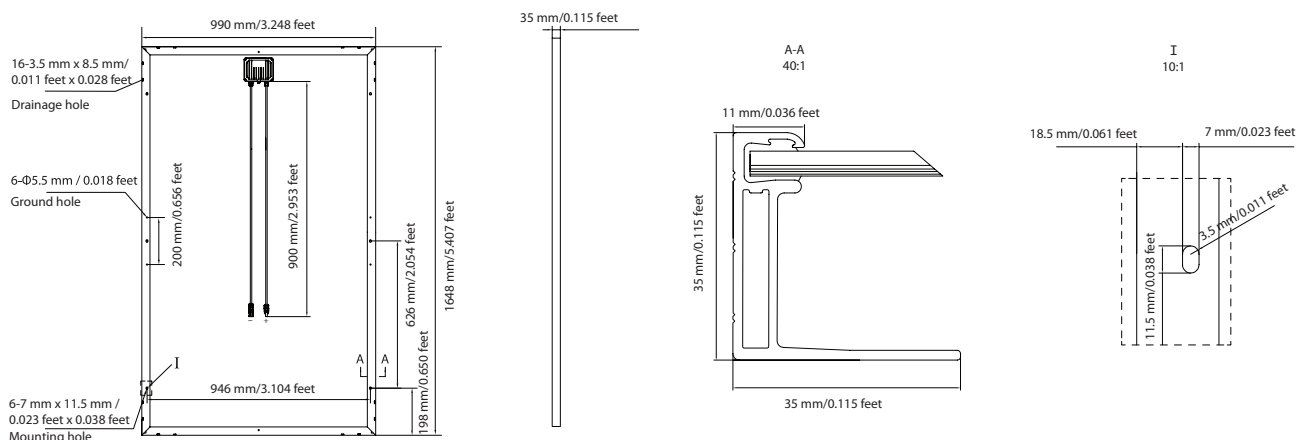
## PACKING SPECIFICATIONS

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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