

AstroSmart™

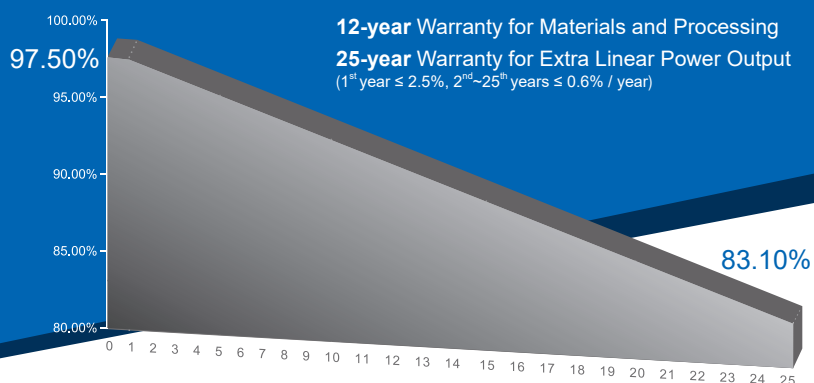
The Wise See Wisdom



280W~290W

5BB-Polycrystalline SMART Module

CHSM6610P Series (156.75)



KEY FEATURES

- OUTPUT POSITIVE TOLERANCE**
 Guaranteed 0~+5W positive tolerance ensures power output reliability.
- RAPID SHUTDOWN SOLUTION**
 Meets NEC 690.12 rapid shutdown requirements.
- SUNSPEC SIGNALING**
 Shutdown can be activated by any signaling device compliant with the SunSpec specification.
- INNOVATIVE PERC CELL TECHNOLOGY**
 Excellent cell efficiency and output.
- OPEN MODULAR DESIGN**
 Diodes, monitoring, safety, optimization or longer strings functions can be choosed.
- 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

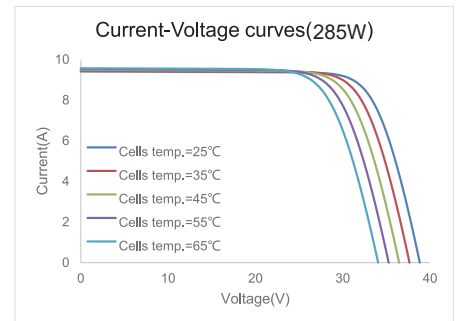
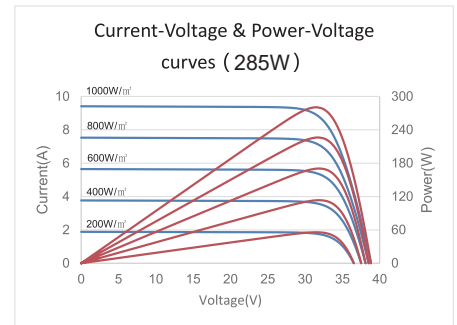
ELECTRICAL SPECIFICATIONS

STC rated output (P_{mpp})*	280 Wp	285 Wp	290 Wp
Rated voltage (V_{mpp}) at STC	31.20 V	31.38 V	31.55 V
Rated current (I_{mpp}) at STC	8.99 A	9.09 A	9.20 A
Open circuit voltage (V_{oc}) at STC	38.69 V	38.94 V	39.18 V
Short circuit current (I_{sc}) at STC	9.59 A	9.68 A	9.75 A
Module efficiency	17.1%	17.4%	17.7%
Rated output (P_{mpp}) at NMOT	210.0 Wp	213.8 Wp	217.5 Wp
Rated voltage (V_{mpp}) at NMOT	28.22 V	28.41 V	28.56 V
Rated current (I_{mpp}) at NMOT	7.44 A	7.52 A	7.62 A
Open circuit voltage (V_{oc}) at NMOT	35.35 V	35.57 V	35.79 V
Short circuit current (I_{sc}) at NMOT	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		
Nominal module operating temperature (NMOT)	43±2°C		
Maximum system voltage (IEC/UL)	1000V _{DC}		
Number of diodes	3		
Junction box IP rating	IP 67		
Maximum series fuse rating	15 A(≤280W), 20 A(≥285W)		

STC: Irradiance 1000W/m², Cell Temperature 25°C, AM=1.5

NMOT: Irradiance 800W/m², Ambient Temperature 20°C, AM=1.5, Wind Speed 1m/s

CURVE



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, silver 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 ² / 12 AWG
② Maximum mechanical test load	5400 Pa (front) / 2400 Pa (back)
Fire performance (IEC/UL)	Class C (IEC) or Type 1 (UL)
Connector type (IEC/UL)	MC4 compatible

① Option: 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.

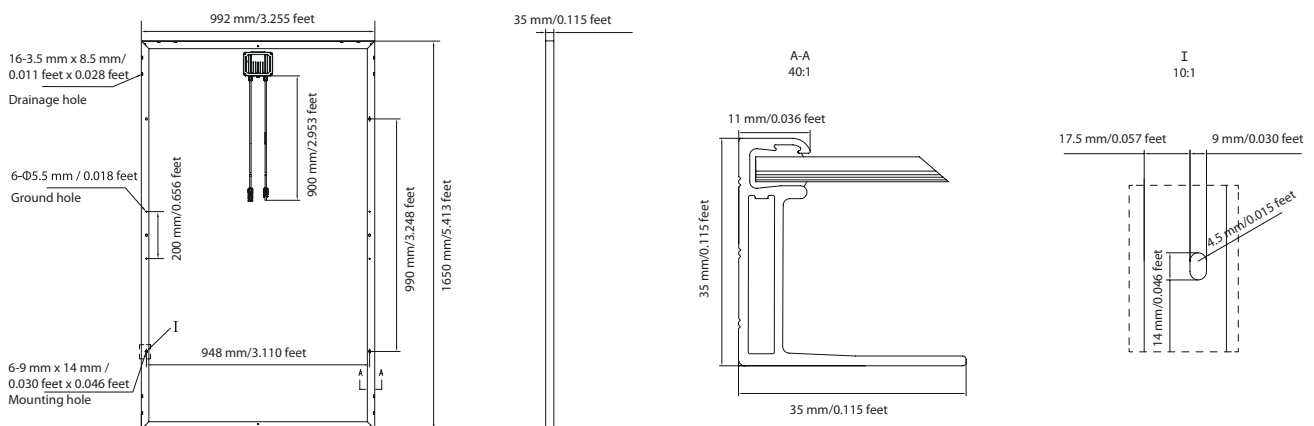
PACKING SPECIFICATIONS

① Weight (module only)	18.4 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

MODULE DIMENSION DETAILS



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