

AstroSemi™

Incredible Power for Small Body

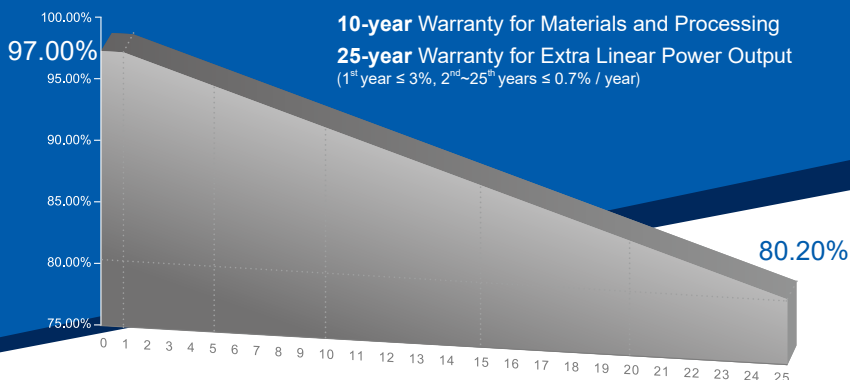


Multi-Busbar Module could be the option

295W~320W

Monocrystalline PV Module
CHSM60M-HC Series

Tier 1 Bloomberg	No.1 PHOTON	Reinsurance 3rd party	DNV GL 2018 TOP Performance
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KEY FEATURES

- +5W OUTPUT POSITIVE TOLERANCE**
Guaranteed 0~+5W positive tolerance ensures power output reliability.
- INNOVATIONAL HALF-CELL TECHNOLOGY**
Improves the module output, decreases the risk of micro-crack, enhances the module reliability.
- INNOVATIVE PERC CELL TECHNOLOGY**
Excellent cell efficiency and output.
- REDUCE SHADOW LOSS**
Effectively reduces the effect of shadow on the module surface.
- REDUCE INTERNAL MISMATCH LOSS**
Reduces mismatch loss and improves output.
- PASSED HAIL TEST**
Certified to hail resistance: ice ball size (d=45mm) and ice ball velocity (v=30.7m/s).
- Anti PID 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	315 Wp	320 Wp
Rated voltage (V_{mpp}) at STC	32.50 V	32.73 V	32.94 V	33.15 V	33.44 V	33.68 V
Rated current (I_{mpp}) at STC	9.08 A	9.17 A	9.26 A	9.35 A	9.42 A	9.50 A
Open circuit voltage (V_{oc}) at STC	39.39 V	39.75 V	39.84 V	40.11 V	40.42 V	40.72 V
Short circuit current (I_{sc}) at STC	9.59 A	9.64 A	9.73 A	9.82 A	9.90 A	9.98 A
Module efficiency	17.8%	18.2%	18.5%	18.8%	19.1%	19.4%
Rated output (P_{mpp}) at NOCT	216.8 Wp	220.5 Wp	224.1 Wp	227.8 Wp	231.5 Wp	235.1 Wp
Rated voltage (V_{mpp}) at NOCT	29.93 V	30.13 V	30.34 V	30.54 V	30.80 V	31.02 V
Rated current (I_{mpp}) at NOCT	7.24 A	7.32 A	7.39 A	7.46 A	7.52 A	7.58 A
Open circuit voltage (V_{oc}) at NOCT	36.54 V	36.87 V	36.96 V	37.21 V	37.50 V	37.77 V
Short circuit current (I_{sc}) at NOCT	7.71 A	7.75 A	7.83 A	7.90 A	7.96 A	8.03 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)	1500V _{DC}					
Number of diodes	3					
Junction box IP rating	IP 67					
Maximum series fuse rating	15 A					

* Measurement tolerance +/- 3%

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

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

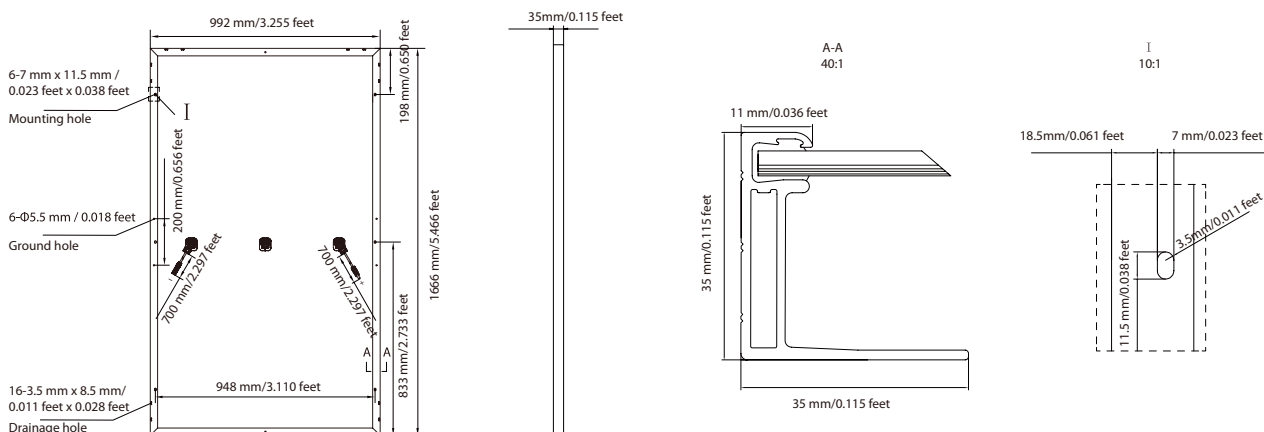
MECHANICAL SPECIFICATIONS

Outer dimensions (L x W x H)	1666 x 992 x 35 mm 65.59 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)	700 mm / 27.56 in
Cable diameter (IEC/UL)	4 mm ² / 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

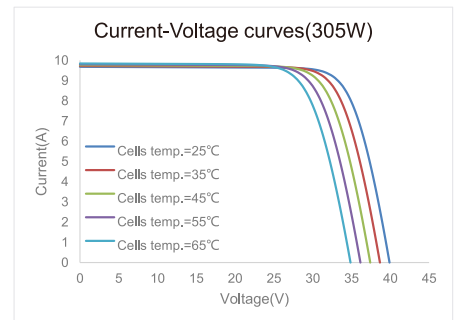
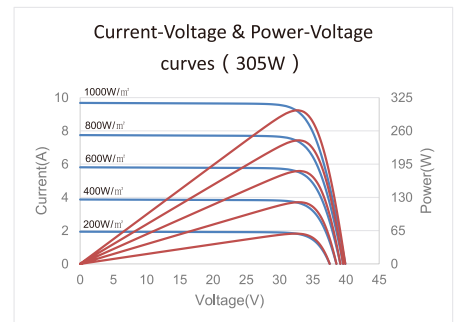
① Option: 1000 mm for defined projects in advance.

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)	18.6 kg / 41.01 lbs
② Packing unit	31 pcs / box
Weight of packing unit (for 40'HQ container)	616 kg / 1358 lbs
Number of modules per 40'HQ container	868 pcs

① Tolerance +/- 1.0kg

② Subject to sales contract