

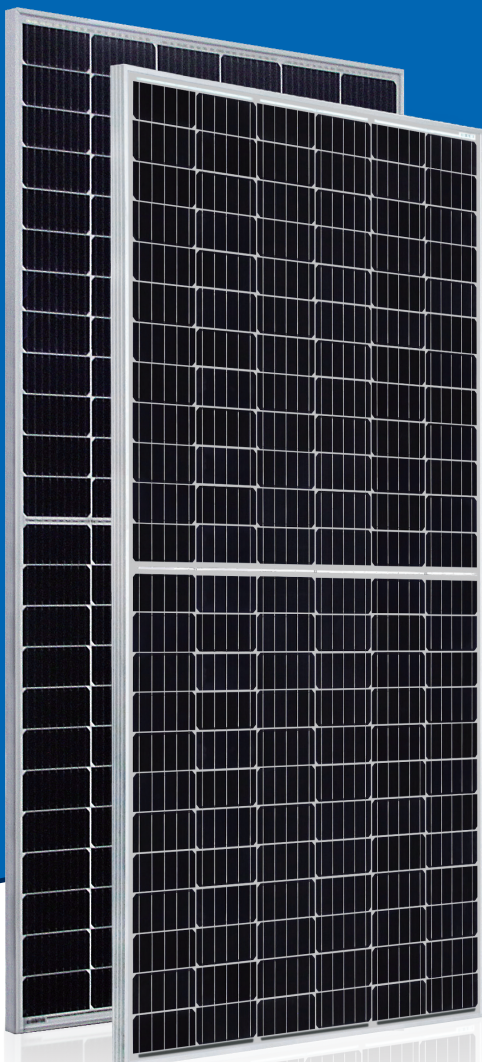
# AstroSemi™

Incredible Power for Small Body

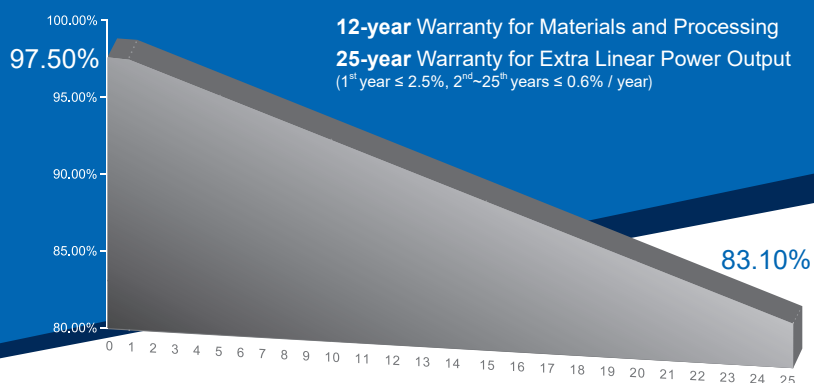
## 380W~400W

Monocrystalline PV Module

CHSM72M-HC Series (156.75)



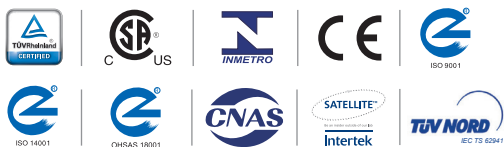
Multi-Busbar Module could be the option



### KEY FEATURES

- 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 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

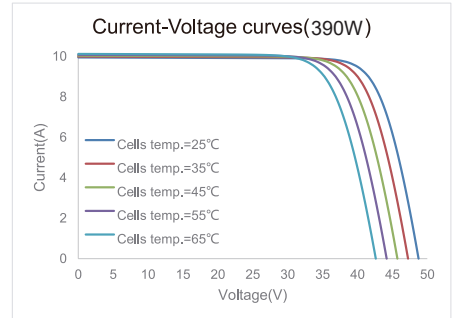
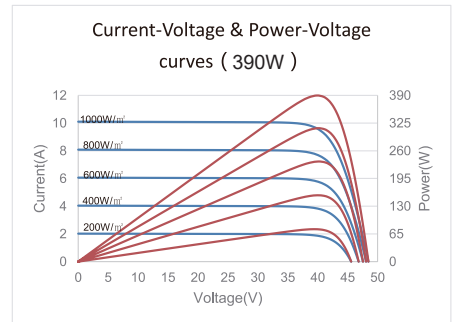
## ELECTRICAL SPECIFICATIONS

STC rated output ( $P_{mpp}$ )*	380 Wp	385 Wp	390 Wp	395 Wp	400 Wp
Rated voltage ( $V_{mpp}$ ) at STC	40.26 V	40.58 V	40.81 V	41.07 V	41.32 V
Rated current ( $I_{mpp}$ ) at STC	9.44 A	9.49 A	9.56 A	9.62 A	9.68 A
Open circuit voltage ( $V_{oc}$ ) at STC	48.18 V	48.47 V	48.70 V	48.98 V	49.25 V
Short circuit current ( $I_{sc}$ ) at STC	9.95 A	10.02 A	10.10 A	10.17 A	10.24 A
Module efficiency	19.2%	19.4%	19.7%	19.9%	20.2%
Rated output ( $P_{mpp}$ ) at NMOT	282.5 Wp	286.2 Wp	289.9 Wp	293.6 Wp	297.4 Wp
Rated voltage ( $V_{mpp}$ ) at NMOT	37.37 V	37.67 V	37.88 V	38.12 V	38.37 V
Rated current ( $I_{mpp}$ ) at NMOT	7.56 A	7.60 A	7.65 A	7.70 A	7.75 A
Open circuit voltage ( $V_{oc}$ ) at NMOT	45.12 V	45.39 V	45.61 V	45.87 V	46.12 V
Short circuit current ( $I_{sc}$ ) at NMOT	8.02 A	8.07 A	8.14 A	8.19 A	8.25 A
Temperature coefficient ( $P_{mpp}$ )	- 0.3528%/°C				
Temperature coefficient ( $I_{sc}$ )	+0.0400%/°C				
Temperature coefficient ( $V_{oc}$ )	- 0.2769%/°C				
Nominal module operating temperature (NMOT)	44±2°C				
Maximum system voltage (IEC/UL)	1500V <sub>DC</sub>				
Number of diodes	3				
Junction box IP rating	IP 67				
Maximum series fuse rating	20 A				

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, AM=1.5

NMOT: 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)	2000 x 992 x 40 mm 78.74 x 39.06 x 1.57 in
Frame technology	Aluminum, silver anodized
Module composition	Glass / EVA / Backsheet (white)
Front glass thickness	3.2 mm / 0.13 in
Cable length (IEC/UL)	Portrait: 350 mm (13.78 in) Landscape: 1200 mm (47.24 in)
Cable diameter (IEC/UL)	4 mm <sup>2</sup> / 12 AWG
① 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

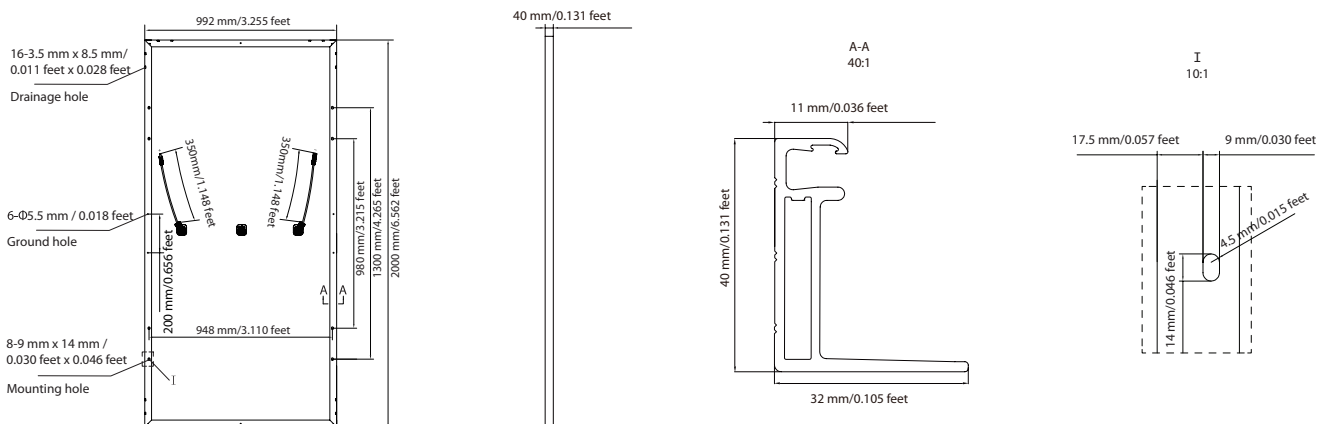
① Refer to Astronergy crystalline installation manual or contact technical department.  
Maximum Mechanical Test Load=1.5×Maximum Mechanical Design Load.

## PACKING SPECIFICATIONS

① Weight (module only)	22.3 kg / 49.16 lbs
② Packing unit	27 pcs / box
Weight of packing unit (for 40'HQ container)	648 kg / 1429 lbs
Number of modules per 40'HQ container	594 pcs

① Tolerance +/- 1.0kg  
② Subject to sales contract

## MODULE DIMENSION DETAILS



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