

ASTRO 4 Semi

Create Sustainable and Efficient Green Energy



ASTRONERGY

A CHINT COMPANY

445W~455W

Monocrystalline PV Module CHSM72M-HC Series (166)



KEY FEATURES

+5W

OUTPUT POSITIVE TOLERANCE
Guaranteed 0~+5W positive tolerance to ensure power output.



INNOVATIONAL HALF-CUT TECHNOLOGY
Better shading tolerance, higher reliability.



INNOVATIONAL MULTI-BUSBAR TECHNOLOGY
Higher light absorption, lower risk of microcrack.

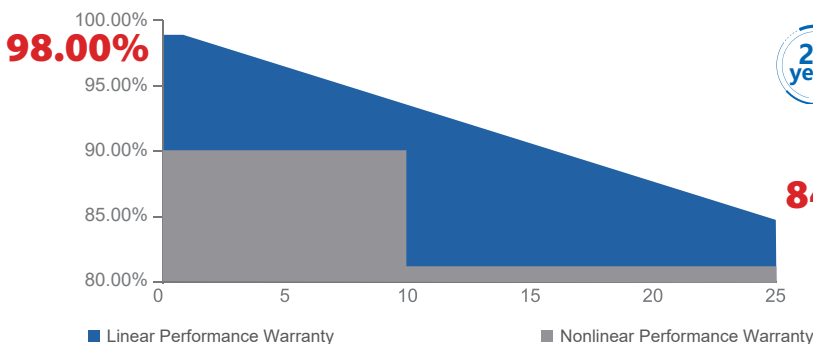


SUPER PERC+ CELL TECHNOLOGY
Higher module power and module efficiency, lower power degradation.

Anti PID

PID RESISTANCE
Excellent PID resistance.

WARRANTY



Warranty for Materials and Processing



Warranty for Extra Linear Power Output
(1st year ≤ 2.0%, 2nd~25th years ≤ 0.55% / year)

For Global Market



The first solar company which passed the TUV Nord IEC/TS 62941 certification audit.

ELECTRICAL SPECIFICATIONS

STC rated output (P_{mpp})	445 Wp	450 Wp	455 Wp
Rated voltage (V_{mpp}) at STC	41.05 V	41.32 V	41.51 V
Rated current (I_{mpp}) at STC	10.84 A	10.89 A	10.96 A
Open circuit voltage (V_{oc}) at STC	48.80 V	49.05 V	49.35 V
Short circuit current (I_{sc}) at STC	11.30 A	11.37 A	11.44 A
Module efficiency	20.5%	20.7%	20.9%
Rated output (P_{mpp}) at NMOT	330.8 Wp	334.5 Wp	338.2 Wp
Rated voltage (V_{mpp}) at NMOT	38.12 V	38.37 V	38.55 V
Rated current (I_{mpp}) at NMOT	8.68 A	8.72 A	8.78 A
Open circuit voltage (V_{oc}) at NMOT	45.70 V	45.94 V	46.22 V
Short circuit current (I_{sc}) at NMOT	9.10 A	9.16 A	9.22 A
Temperature coefficient (P_{mpp})	- 0.35%/°C		
Temperature coefficient (I_{sc})	+ 0.050%/°C		
Temperature coefficient (V_{oc})	- 0.27%/°C		
Nominal module operating temperature (NMOT)	41±2°C		
Maximum system voltage (IEC/UL)	1500V _{DC}		
Number of diodes	3		
Junction box IP rating	IP 68		
Maximum series fuse rating	20 A		

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

MECHANICAL SPECIFICATIONS

Outer dimensions (L x W x H)	2094 x 1038 x 35 mm
Frame technology	Aluminum, silver anodized
Front glass thickness	3.2 mm
Cable length (IEC/UL)	Portrait: 300 mm Landscape: 1300 mm
Cable diameter (IEC/UL)	4 mm ² / 12 AWG
① Maximum mechanical test load	5400 Pa (front) / 2400 Pa (back)
Fire performance (IEC/UL)	Class C (IEC) or Type 4 (UL)
Connector type (IEC/UL)	HCB40 / MC4-EVO2 (optional)

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

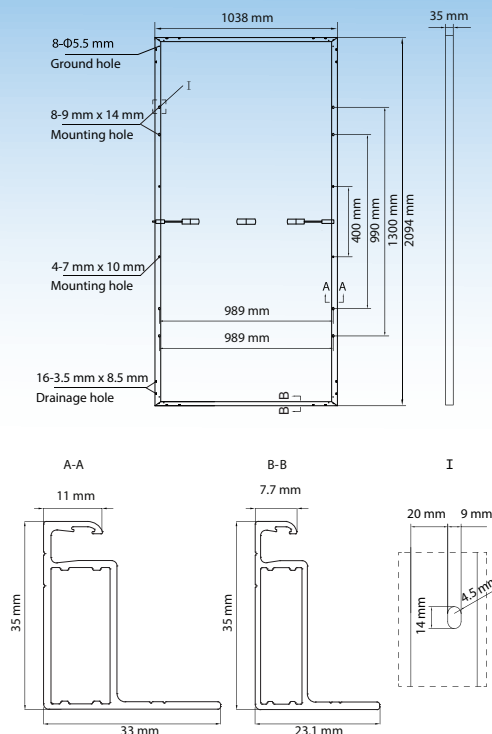
PACKING SPECIFICATIONS

① Module Weight	23 kg
② Packing unit	31 pcs / box
Weight of packing unit (for 40'HQ container)	750 kg
Number of modules per 40'HQ container	682 pcs

① Tolerance +/- 1.0kg

② Subject to sales contract

MODULE DIMENSION DETAILS



CURVE

