

# ASTRO 5 Semi

Create Sustainable and Efficient Green Energy



**ASTRONERGY**  
A CHINT COMPANY

## 530W~550W

Monocrystalline PV Module  
CHSM72M-HC Series (182)



### KEY FEATURES

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

**NON-DESTRUCTIVE CUTTING**  
Higher bending strength of cells and mechanical properties of modules.

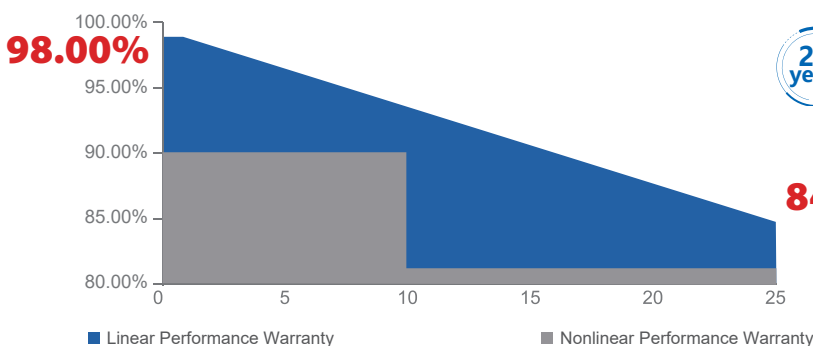
**HIGH CUSTOMER VALUE**  
Lower BOS cost and LCOE.

**INNOVATIONAL HALF-CUT&MULTI-BUSBAR TECHNOLOGY**  
Lower risk of microcrack, better shading tolerance, higher reliability.

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

**Anti PID**  
**PID RESISTANCE**  
Excellent PID resistance.

### WARRANTY



**12 years** Warranty for Materials and Processing

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

Preliminary  
For Global Market



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

## ELECTRICAL SPECIFICATIONS

STC rated output ( $P_{mpp}$ )	530 Wp	535 Wp	540 Wp	545 Wp	550 Wp
Rated voltage ( $V_{mpp}$ ) at STC	41.43 V	41.60 V	41.76 V	41.93 V	42.10 V
Rated current ( $I_{mpp}$ ) at STC	12.79 A	12.86 A	12.93 A	13.00 A	13.06 A
Open circuit voltage ( $V_{oc}$ ) at STC	49.30 V	49.50 V	49.70 V	49.90 V	50.10 V
Short circuit current ( $I_{sc}$ ) at STC	13.52 A	13.61 A	13.72 A	13.81 A	13.90 A
Module efficiency	20.5%	20.7%	20.9%	21.1%	21.3%
Rated output ( $P_{mpp}$ ) at NMOT	396.1 Wp	399.8 Wp	403.5 Wp	407.3 Wp	411.0 Wp
Rated voltage ( $V_{mpp}$ ) at NMOT	38.61 V	38.77 V	38.92 V	39.08 V	39.24 V
Rated current ( $I_{mpp}$ ) at NMOT	10.26 A	10.31 A	10.37 A	10.42 A	10.48 A
Open circuit voltage ( $V_{oc}$ ) at NMOT	46.59 V	46.78 V	46.97 V	47.16 V	47.34 V
Short circuit current ( $I_{sc}$ ) at NMOT	10.97 A	11.04 A	11.13 A	11.20 A	11.27 A
Temperature coefficient ( $P_{mpp}$ )	- 0.35%/°C				
Temperature coefficient ( $I_{sc}$ )	+ 0.045%/°C				
Temperature coefficient ( $V_{oc}$ )	- 0.27%/°C				
Nominal module operating temperature (NMOT)	41±2°C				
Maximum system voltage (IEC/UL)	1500V <sub>DC</sub>				
Number of diodes	3				
Junction box IP rating	IP 68				
Maximum series fuse rating	25 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

## MECHANICAL SPECIFICATIONS

Outer dimensions (L x W x H)	2278 x 1134 x 35 mm
Frame technology	Aluminum, silver anodized
Front glass thickness	3.2 mm
Cable length (IEC/UL)	Portrait: 300 mm Landscape: 1400 mm
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 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.

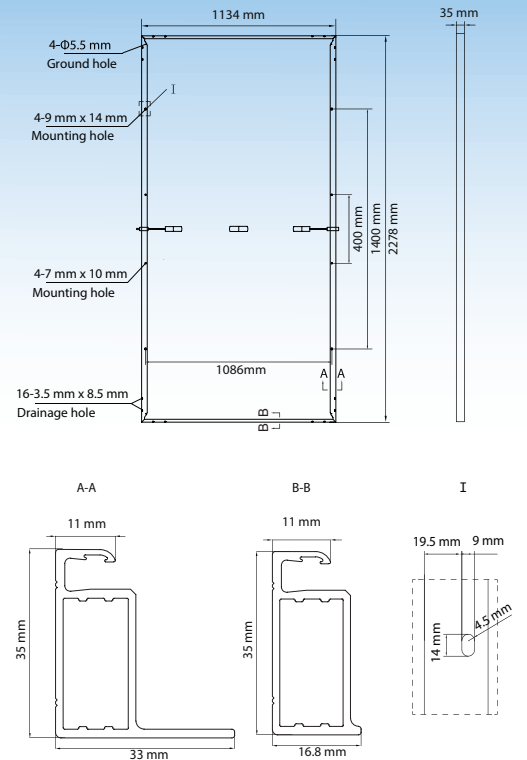
## PACKING SPECIFICATIONS

① Module Weight	27.0 kg
② Packing unit	31 pcs / box
Weight of packing unit (for 40'HQ container)	876 kg
Number of modules per 40'HQ container	620 pcs

① Tolerance +/- 1.0kg

② Subject to sales contract

## MODULE DIMENSION DETAILS



## CURVE

