

# ASTRO 6 Semi

Create Sustainable and Efficient Green Energy



ASTRONERGY  
A CHINT COMPANY

## 590W~610W

Monocrystalline PV Module  
CHSM60M-HC Series (210)



### 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.

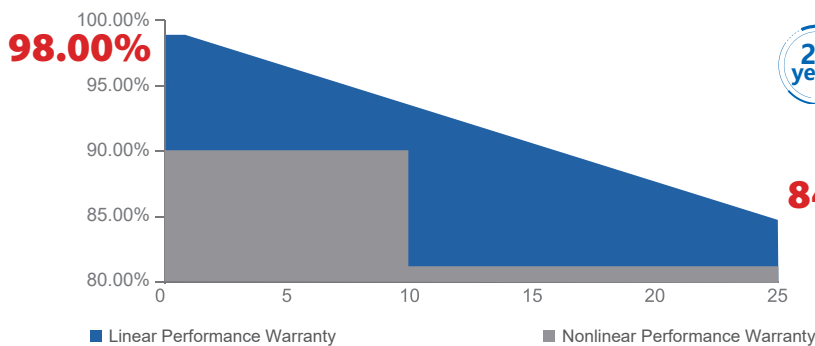


**INNOVATIONAL HALF-CUT&MULTI-BUSBAR TECHNOLOGY**  
Lower risk of microcrack, better shading tolerance, higher reliability.



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

### WARRANTY



Warranty for Materials and Processing



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  
Designed for the Australian Market



## ELECTRICAL SPECIFICATIONS

STC rated output ( $P_{mpp}$ )	590 Wp	595 Wp	600 Wp	605 Wp	610 Wp
Rated voltage ( $V_{mpp}$ ) at STC	34.00 V	34.20 V	34.40 V	34.60 V	34.80 V
Rated current ( $I_{mpp}$ ) at STC	17.36 A	17.40 A	17.45 A	17.50 A	17.54 A
Open circuit voltage ( $V_{oc}$ ) at STC	41.10 V	41.30 V	41.50 V	41.70 V	41.90 V
Short circuit current ( $I_{sc}$ ) at STC	18.42 A	18.47 A	18.52 A <td 18.57 A	18.62 A	
Module efficiency	20.8%	21.0%	21.2%	21.4%	21.6%
Rated output ( $P_{mpp}$ ) at NMOT	440.9 Wp	444.6 Wp	448.4 Wp	452.1 Wp	455.9 Wp
Rated voltage ( $V_{mpp}$ ) at NMOT	31.69 V	31.87 V	32.06 V	32.25 V	32.43 V
Rated current ( $I_{mpp}$ ) at NMOT	13.92 A	13.95 A	13.99 A	14.03 A	14.06 A
Open circuit voltage ( $V_{oc}$ ) at NMOT	38.84 V	39.03 V	39.22 V	39.41 V	39.60 V
Short circuit current ( $I_{sc}$ ) at NMOT	14.94 A	14.98 A	15.02 A	15.06 A	15.11 A
Temperature coefficient ( $P_{mpp}$ )	- 0.34%/°C				
Temperature coefficient ( $I_{sc}$ )	+ 0.04%/°C				
Temperature coefficient ( $V_{oc}$ )	- 0.25%/°C				
Nominal module operating temperature (NMOT)	43±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	30 A				

Power Sorting: 0~+5W

\* Measurement tolerance +/- 3%

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)	2172 x 1303 x 35 mm
Frame technology	Aluminum, silver anodized
Front glass thickness	3.2 mm
Cable length (IEC/UL)	Portrait: 350 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 or PV-KST4-EVO2/XY-UR, PVKBT4-EVO2/XY-UR(optional)

① Refer to Astronergy crystalline installation manual or contact technical department.

Maximum Mechanical Test Load=1.5×Maximum Mechanical Design Load.

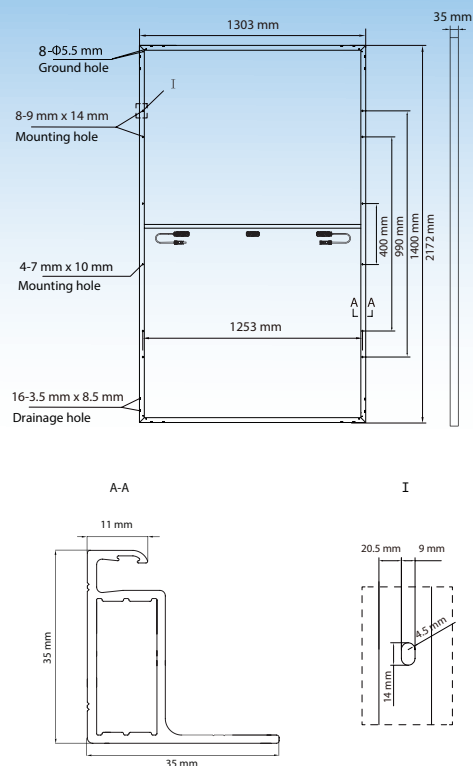
## PACKING SPECIFICATIONS

① Module Weight	32.5 kg
② Packing unit	31 pcs / box
Weight of packing unit (for 40'HQ container)	1047 kg
Number of modules per 40'HQ container	527 pcs

① Tolerance +/- 1.0kg

② Subject to sales contract

## MODULE DIMENSION DETAILS



## CURVE

