

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

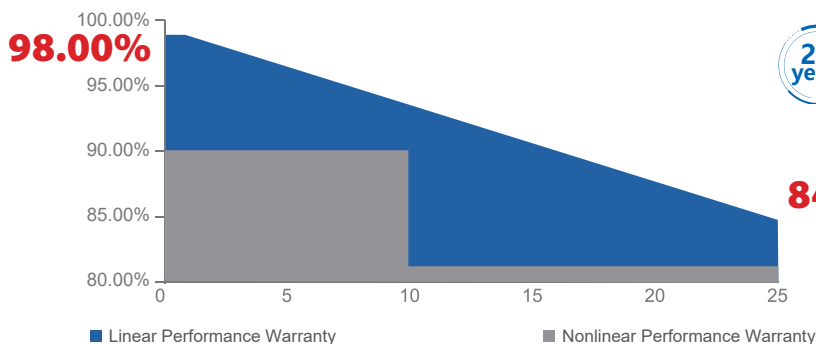


Warranty for Materials and Processing



Warranty for Extra Linear Power Output

(1st year ≤ 2.0%, 2nd~25th 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	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 _{DC}				
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/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)	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 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 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.

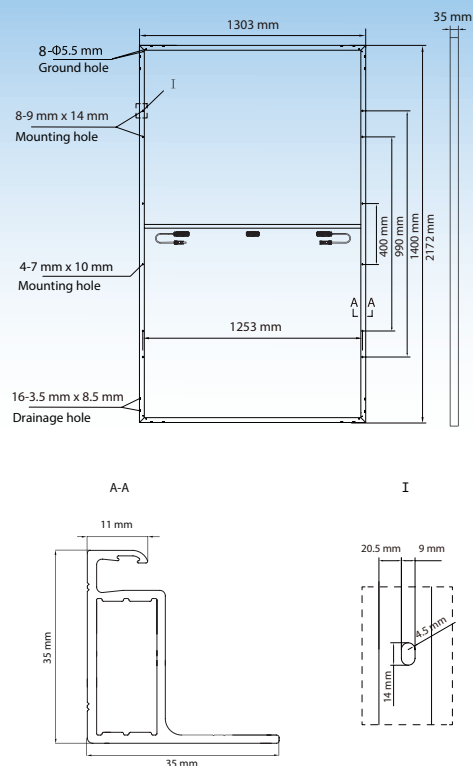
PACKING SPECIFICATIONS

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

