

ASTRO 5s

Create Sustainable and Efficient Green Energy



ASTRONERGY
A CHINT COMPANY

390W~415W

Monocrystalline PV Module
CHSM54M-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.



INNOVATIONAL MULTI-BUSBAR TECHNOLOGY

Higher light absorption, lower risk of microcrack.



INNOVATIONAL HALF-CUT TECHNOLOGY

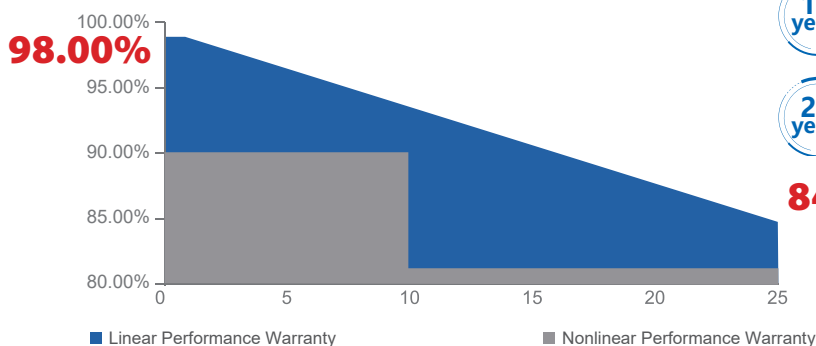
Better shading tolerance, higher reliability.



SUPER PERC+ CELL TECHNOLOGY

Higher module power and module efficiency, lower power degradation.

WARRANTY



Warranty for Materials and Processing
(Standard)



Warranty for Materials and Processing
(Optional for Rooftop installations)



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

84.80%

Designed for the Australian Market



ELECTRICAL SPECIFICATIONS

STC rated output (P_{mpp})	390 Wp	395 Wp	400 Wp	405 Wp	410 Wp	415 Wp
Rated voltage (V_{mpp}) at STC	30.76 V	30.92 V	31.09 V	31.26 V	31.43 V	31.60 V
Rated current (I_{mpp}) at STC	12.68 A	12.77 A	12.86 A	12.96 A	13.05 A	13.13 A
Open circuit voltage (V_{oc}) at STC	36.60 V	36.80 V	37.00 V	37.20 V	37.40 V	37.60 V
Short circuit current (I_{sc}) at STC	13.40 A	13.52 A	13.65 A	13.76 A	13.88 A	13.99 A
Module efficiency	20.0%	20.2%	20.5%	20.7%	21.0%	21.3%
Rated output (P_{mpp}) at NMOT	291.5 Wp	295.2 Wp	298.9 Wp	302.7 Wp	306.4 Wp	310.1 Wp
Rated voltage (V_{mpp}) at NMOT	28.66 V	28.82 V	28.98 V	29.13 V	29.29 V	29.45 V
Rated current (I_{mpp}) at NMOT	10.17 A	10.24 A	10.32 A	10.39 A	10.46 A	10.53 A
Open circuit voltage (V_{oc}) at NMOT	34.59 V	34.78 V	34.97 V	35.15 V	35.34 V	35.53 V
Short circuit current (I_{sc}) at NMOT	10.87 A	10.97 A	11.07 A	11.17 A	11.26 A	11.35 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 _{DC}					
Number of diodes	3					
Junction box IP rating	IP 68					
Maximum series fuse rating	25 A					

Power Sorting: 0~+5W

* Measurement tolerance +/- 3%

STC: Irradiance 1000W/m², Cell Temperature 25°C, AM=1.5NMOT: Irradiance 800W/m², Ambient Temperature 20°C, AM=1.5, Wind Speed 1m/s

MECHANICAL SPECIFICATIONS

Outer dimensions (L x W x H)	1708 x 1133 x 30 mm
Frame technology	Aluminum, silver anodized
Front glass thickness	3.2 mm
Cable length (IEC/UL)	Portrait: 300 mm Landscape: 1200 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.

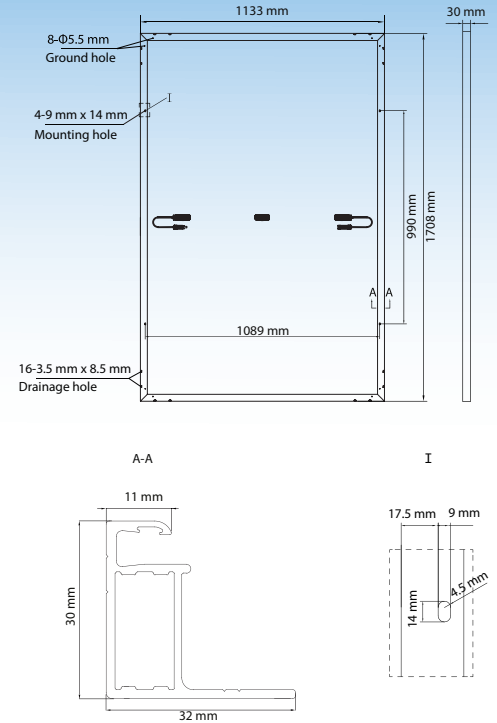
PACKING SPECIFICATIONS

① Module Weight	21.5 kg
② Packing unit	36 pcs / box
Weight of packing unit (for 40'HQ container)	813 kg
Number of modules per 40'HQ container	936 pcs

① Tolerance +/- 1.0kg

② Subject to sales contract

MODULE DIMENSION DETAILS



CURVE

