

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.

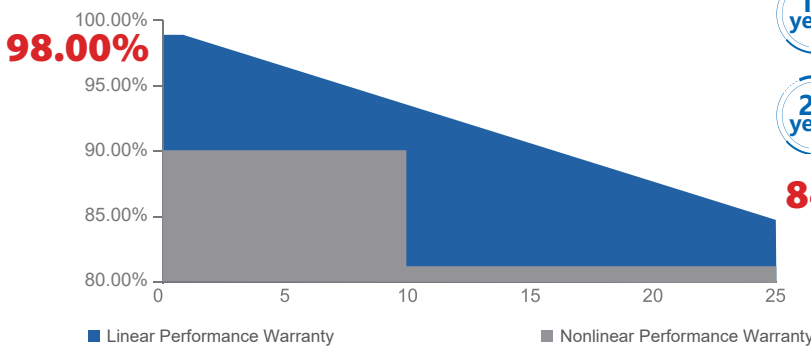
NON-DESTRUCTIVE CUTTING
Higher bending strength of cells and mechanical properties of modules.

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



- 12 years** Warranty for Materials and Processing (Standard)
- 15 years** Warranty for Materials and Processing (Optional for Rooftop installations)
- 25 years** 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=1.5

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

MECHANICAL SPECIFICATIONS

Outer dimensions (L x W x H)	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.

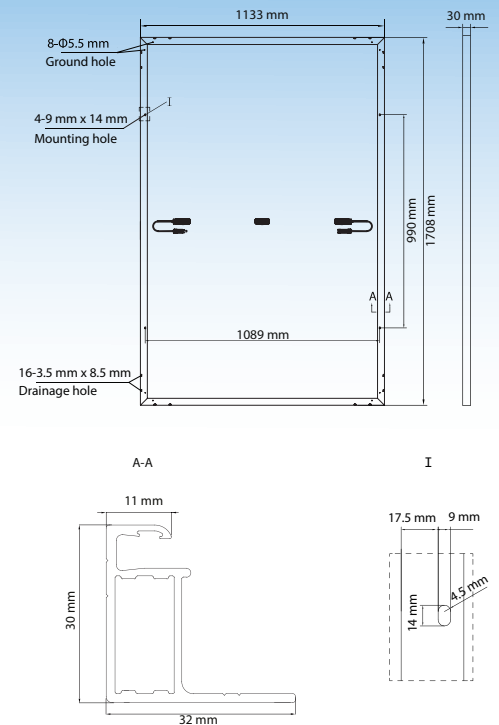
PACKING SPECIFICATIONS

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

