

ASTRO 5s

Create Sustainable and Efficient Green Energy



ASTRONERGY
A CHINT COMPANY

390W~405W

Monocrystalline PV Module
CHSM54M(BL)-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.

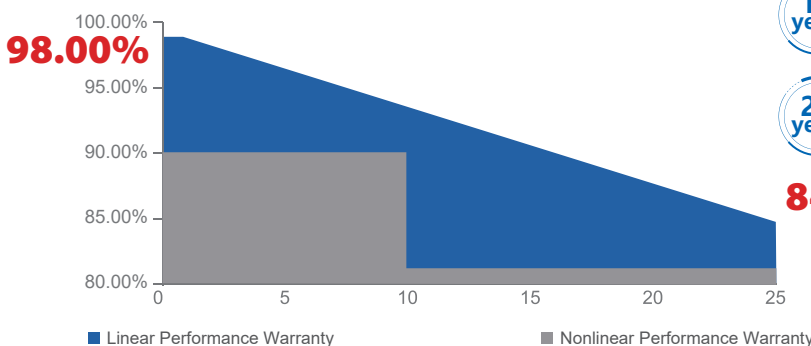


THE-STATE-OF-THE-ART APPEARANCE
Full black designed for a better aesthetic appearance and building integration.



Anti PID
PID RESISTANCE
Excellent PID resistance.

WARRANTY



12 years Warranty for Materials and Processing (Standard)



15 years Warranty for Materials and Processing (Optional, special for rooftop market)



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

84.80%

For Global Market



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

ELECTRICAL SPECIFICATIONS

STC rated output (P_{mpp})	390 Wp	395 Wp	400 Wp	405 Wp
Rated voltage (V_{mpp}) at STC	30.76 V	30.92 V	31.09 V	31.26 V
Rated current (I_{mpp}) at STC	12.68 A	12.77 A	12.86 A	12.96 A
Open circuit voltage (V_{oc}) at STC	36.60 V	36.80 V	37.00 V	37.20 V
Short circuit current (I_{sc}) at STC	13.40 A	13.52 A	13.65 A	13.76 A
Module efficiency	20.2%	20.4%	20.7%	20.9%
Rated output (P_{mpp}) at NMOT	291.5 Wp	295.2 Wp	298.9 Wp	302.7 Wp
Rated voltage (V_{mpp}) at NMOT	28.66 V	28.82 V	28.98 V	29.13 V
Rated current (I_{mpp}) at NMOT	10.17 A	10.24 A	10.32 A	10.39 A
Open circuit voltage (V_{oc}) at NMOT	34.59 V	34.78 V	34.97 V	35.15 V
Short circuit current (I_{sc}) at NMOT	10.87 A	10.97 A	11.07 A	11.17 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)	1000V _{DC}			
Number of diodes	3			
Junction box IP rating	IP 68			
Maximum series fuse rating	25 A			

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, black 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 / MC4 (optional)

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

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

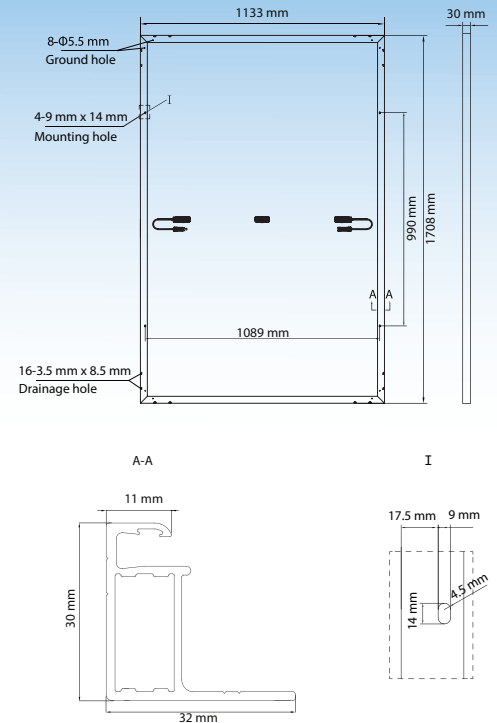
PACKING SPECIFICATIONS

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

