

ASTRO 6 Twins

Create Sustainable and Efficient Green Energy



ASTRONERGY
A CHINT COMPANY

640W~660W

Monocrystalline PV Module
CHSM66M(DG)/F-BH 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
Up to 25% additional power gain, lower BOS cost and LCOE.



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

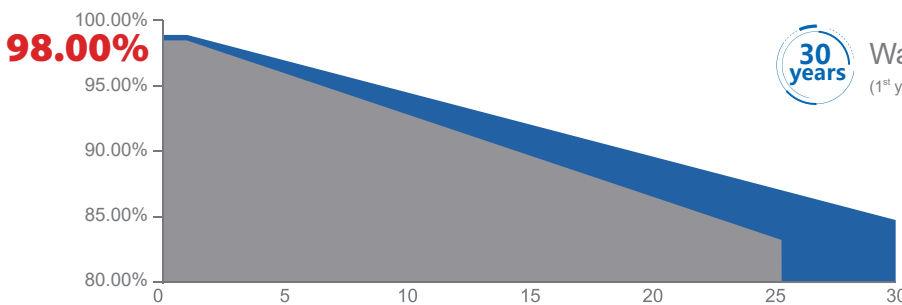


SUPER PERC+ CELL TECHNOLOGY
Higher module power and module efficiency, lower power degradation.



APPLICABLE FOR MULTI DIFFERENT ENVIRONMENTS
Wide range of applications, such as snow areas, high humidity areas and strong sandstorm areas, etc.

WARRANTY



Warranty for Materials and Processing



Warranty for Extra Linear Power Output
(1st year ≤ 2.0%, 2nd~30th years ≤ 0.45% / year)

■ Double glass Product Linear Performance Warranty ■ Regular Product Linear Performance Warranty

Preliminary
Designed for the Australian Market



ELECTRICAL SPECIFICATIONS

Power rating (front)	640 Wp		645 Wp		650 Wp		655 Wp		660 Wp	
Testing Condition	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back
STC rated output (P_{mpp}/Wp)	640	448	645	451	650	455	655	458	660	462
Rated voltage (V_{mpp}/V) at STC	37.28	37.29	37.48	37.49	37.68	37.69	37.88	37.89	38.08	38.09
Rated current (I_{mpp}/A) at STC	17.17	12.02	17.21	12.05	17.26	12.08	17.30	12.11	17.34	12.14
Open circuit voltage (V_{oc}/V) at STC	45.09	45.08	45.29	45.28	45.49	45.48	45.69	45.68	45.89	45.88
Short circuit current (I_{sc}/A) at STC	18.22	12.75	18.27	12.79	18.32	12.82	18.37	12.86	18.42	12.89
Module efficiency	20.6%	14.4%	20.8%	14.5%	20.9%	14.6%	21.1%	14.7%	21.2%	14.9%
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	35 A									

Power Sorting: 0~+5W

* Measurement tolerance +/- 3.5%

STC: Irradiance 1000W/m², Cell Temperature 25°C, AM=1.5

ELECTRICAL SPECIFICATIONS (Integrated power)

P_{mpp} gain	P_{mpp}	V_{mpp}	I_{mpp}	V_{oc}	I_{sc}
5%	682 Wp	37.68 V	18.12 A	45.49 V	19.24 A
10%	715 Wp	37.68 V	18.99 A	45.49 V	20.15 A
15%	747 Wp	37.69 V	19.85 A	45.50 V	21.07 A
20%	780 Wp	37.69 V	20.71 A	45.50 V	21.98 A
25%	812 Wp	37.69 V	21.58 A	45.50 V	22.90 A

* Measurement tolerance +/- 3.5%

Electrical characteristics with different rear power gain (reference to 650W)

MECHANICAL SPECIFICATIONS

Outer dimensions (L x W x H)	2384 x 1303 x 35 mm
Frame technology	Aluminum, silver anodized
Front glass thickness	2.0 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)
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.

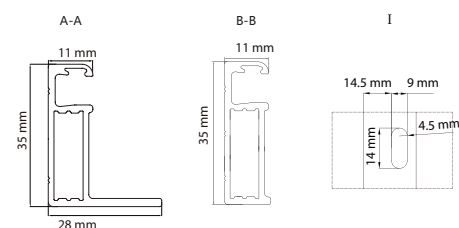
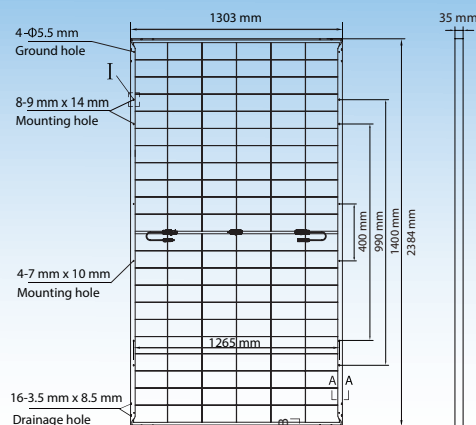
PACKING SPECIFICATIONS

① Module Weight	38.2 kg
② Packing unit	31 pcs / box
Weight of packing unit (for 40'HQ container)	1224 kg
Number of modules per 40'HQ container	527 pcs

① Tolerance +/- 1.0kg

② Subject to sales contract

MODULE DIMENSION DETAILS



CURVE

