

ASTRO 5 Twins

Create Sustainable and Efficient Green Energy



ASTRONERGY
A CHINT COMPANY

525W~545W

Monocrystalline PV Module
CHSM72M(DG)/F-BH 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.



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.

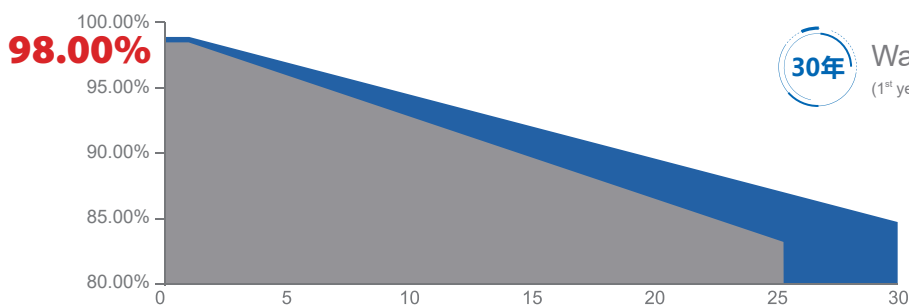


SUPER PERC+ CELL TECHNOLOGY
Higher module power and module efficiency, lower power degradation.



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

WARRANTY



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



Warranty for Materials and Processing



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

For Global Market



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

ELECTRICAL SPECIFICATIONS

Power rating (front)	525 Wp		530 Wp		535 Wp		540 Wp		545 Wp	
Testing Condition	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back
STC rated output (P_{mpp}/Wp)	525	368	530	371	535	375	540	378	545	382
Rated voltage (V_{mpp}/V) at STC	41.43	41.48	41.60	41.65	41.76	41.81	41.93	41.98	42.10	42.15
Rated current (I_{mpp}/A) at STC	12.67	8.87	12.74	8.92	12.81	8.97	12.88	9.01	12.95	9.06
Open circuit voltage (V_{oc}/V) at STC	49.30	49.25	49.50	49.45	49.70	49.65	49.90	49.85	50.10	50.05
Short circuit current (I_{sc}/A) at STC	13.40	9.27	13.48	9.33	13.57	9.39	13.66	9.45	13.75	9.52
Module efficiency	20.5%	14.4%	20.7%	14.5%	20.9%	14.7%	21.1%	14.8%	21.3%	14.9%
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	30 A									

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%	562 Wp	41.76 V	13.45 A	49.70 V	14.25 A
10%	589 Wp	41.76 V	14.09 A	49.70 V	14.93 A
15%	615 Wp	41.77 V	14.73 A	49.71 V	15.61 A
20%	642 Wp	41.77 V	15.37 A	49.71 V	16.29 A
25%	669 Wp	41.78 V	16.01 A	49.72 V	16.96 A

Electrical characteristics with different rear power gain (reference to 535W)

MECHANICAL SPECIFICATIONS

Outer dimensions (L x W x H)	2256 x 1133 x 35 mm
Frame technology	Aluminum, silver anodized
Front glass thickness	2.0 mm
Cable length (IEC/UL)	Portrait: 300 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 / MC4-EVO2 (optional)

① Refer to Astronergy crystalline installation manual or contact technical department.
Maximum Mechanical Test Load=1.5×Maximum Mechanical Design Load.

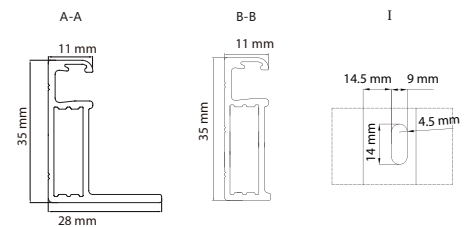
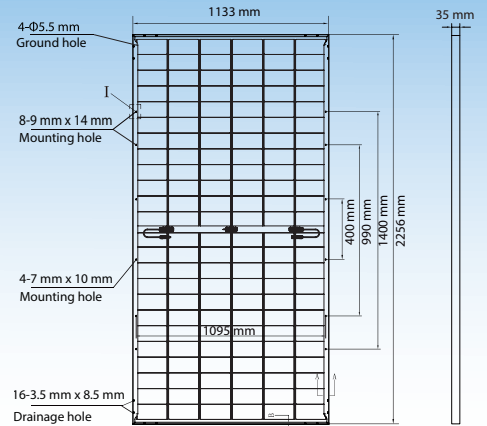
PACKING SPECIFICATIONS

① Module Weight	32.3 kg
② Packing unit	31 pcs / box
Weight of packing unit (for 40'HQ container)	1040 kg
Number of modules per 40'HQ container	620 pcs

① Tolerance +/- 1.0kg

② Subject to sales contract

MODULE DIMENSION DETAILS



CURVE

