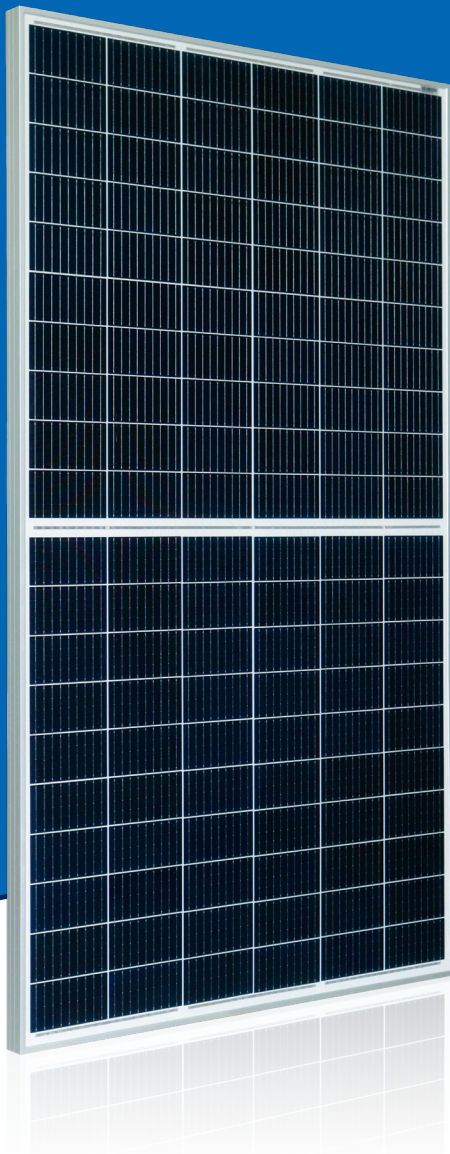


ASTRO 3 Twins

Create Sustainable and Efficient Green Energy

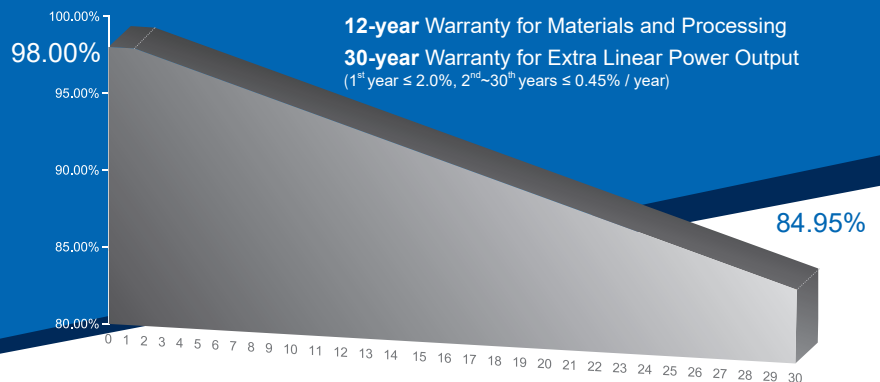


335W~350W

Monocrystalline PV Module

CHSM60M(DG)/F-BH Series (158.75)

CHSM60M(DG)/F-BH is bifacial module with white glazed glass



KEY FEATURES

- +5W OUTPUT POSITIVE TOLERANCE**
Guaranteed 0~+5W positive tolerance to ensure power output.
- INNOVATIONAL HALF-CUT TECHNOLOGY**
Better shading tolerance, higher reliability.
- INNOVATIONAL MULTI-BUSBAR TECHNOLOGY**
Higher light absorption, lower risk of microcrack.
- SUPER PERC+ CELL TECHNOLOGY**
Higher module power and module efficiency, lower power degradation.
- BIFACIAL POWER**
Up to 25% additional power gain from rear side.
- APPLICABLE FOR MULTI DIFFERENT ENVIRONMENTS**
Wide range of applications, such as snow areas, high humidity areas and strong sandstorm areas, etc.

COMPREHENSIVE CERTIFICATES



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

For Global Market



ASTRONERGY
A CHNT COMPANY

ELECTRICAL SPECIFICATIONS

Power rating (front)	335 Wp		340 Wp		345 Wp		350 Wp	
Testing Condition	Front	Back	Front	Back	Front	Back	Front	Back
STC rated output (P_{mpp}/Wp)	335	236	340	239	345	243	350	247
Rated voltage (V_{mpp}/V) at STC	34.44	34.62	34.67	34.85	34.90	35.08	35.13	35.31
Rated current (I_{mpp}/A) at STC	9.73	6.82	9.81	6.87	9.89	6.93	9.97	6.98
Open circuit voltage (V_{oc}/V) at STC	40.80	39.60	40.99	39.78	41.18	39.96	41.37	40.15
Short circuit current (I_{sc}/A) at STC	10.14	7.11	10.21	7.16	10.28	7.21	10.35	7.26
Module efficiency	19.4%	13.6%	19.6%	13.8%	19.9%	14.0%	20.2%	14.3%
Temperature coefficient (P_{mpp})	- 0.34%/°C							
Temperature coefficient (I_{sc})	+0.035%/°C							
Temperature coefficient (V_{oc})	- 0.27%/°C							
Nominal module operating temperature (NMOT)	44±2°C							
Maximum system voltage (IEC/UL)	1500V _{DC}							
Number of diodes	3							
Junction box IP rating	IP 68							
Maximum series fuse rating	20 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%	362 Wp	34.90 V	10.38 A	41.18 V	10.79 A
10%	380 Wp	34.90 V	10.87 A	41.18 V	11.31 A
15%	397 Wp	34.80 V	11.40 A	41.28 V	11.82 A
20%	414 Wp	34.80 V	11.90 A	41.28 V	12.34 A
25%	431 Wp	34.80 V	12.39 A	41.28 V	12.85 A

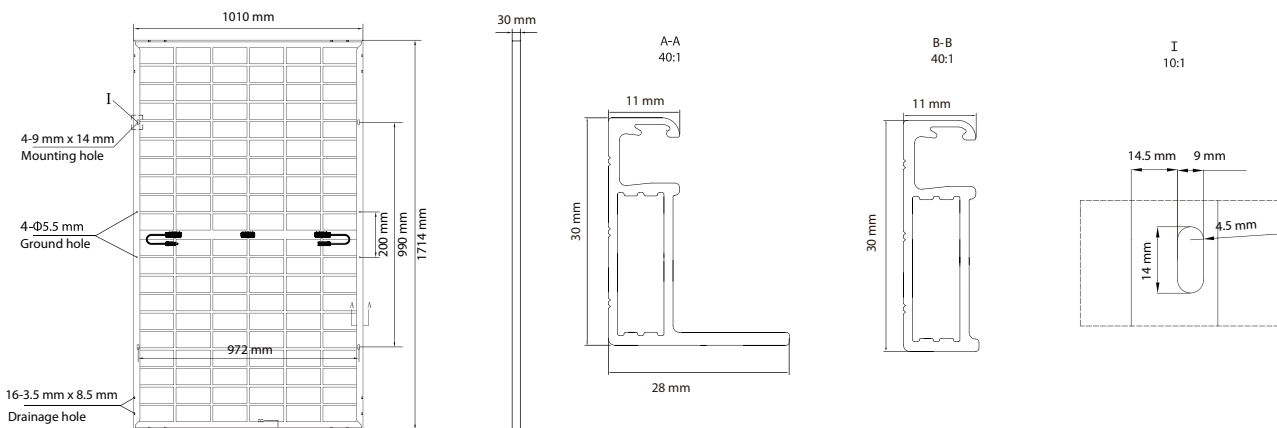
Electrical characteristics with different rear power gain (reference to 345W)

MECHANICAL SPECIFICATIONS

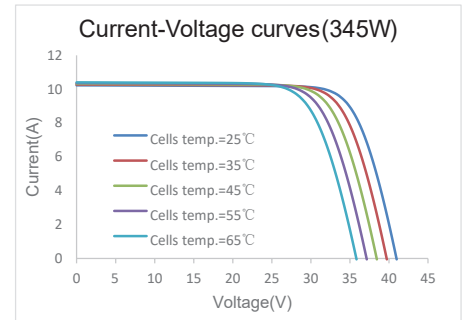
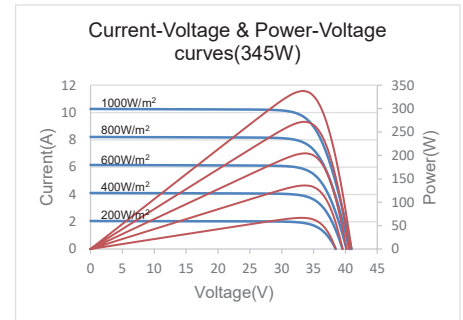
Outer dimensions (L x W x H)	1714 x 1010 x 30 mm
Frame technology	Aluminum, silver anodized
Glass thickness	2.0 mm
Cable length (IEC/UL)	Portrait: 350 mm Landscape: 1100 mm
Cable diameter (IEC/UL)	4 mm ² / 12 AWG
① Maximum mechanical test load	5400 Pa (front) / 2400 Pa (back)
Connector type (IEC/UL)	HCB40 / MC4-EVO2

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

MODULE DIMENSION DETAILS



CURVE



PACKING SPECIFICATIONS

① Module Weight	22.1 kg
② Packing unit	36 pcs / box
Weight of packing unit (for 40'HQ container)	838 kg
Number of modules per 40'HQ container	936 pcs

① Tolerance +/- 1.0kg
② Subject to sales contract