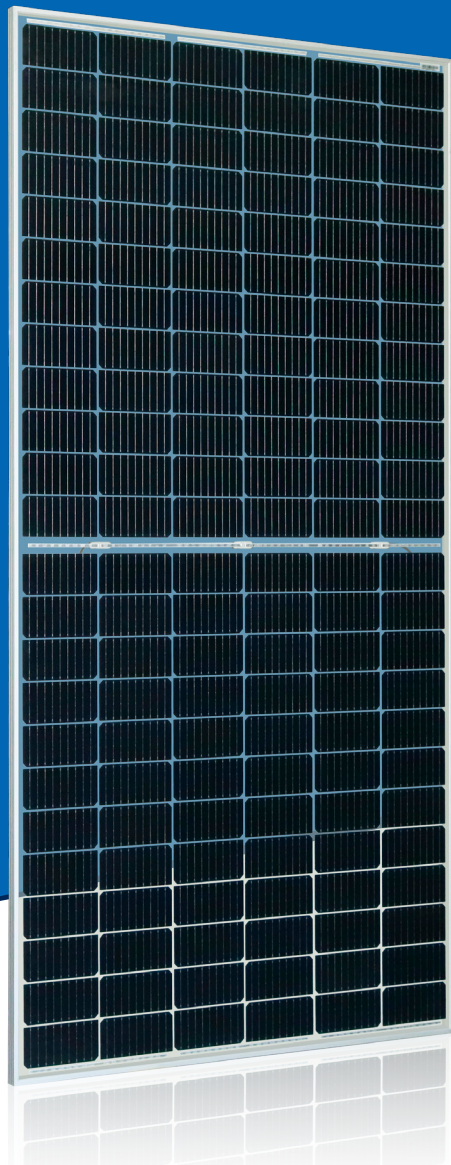


AstroTwins™

Enjoy the Energy of the Universe

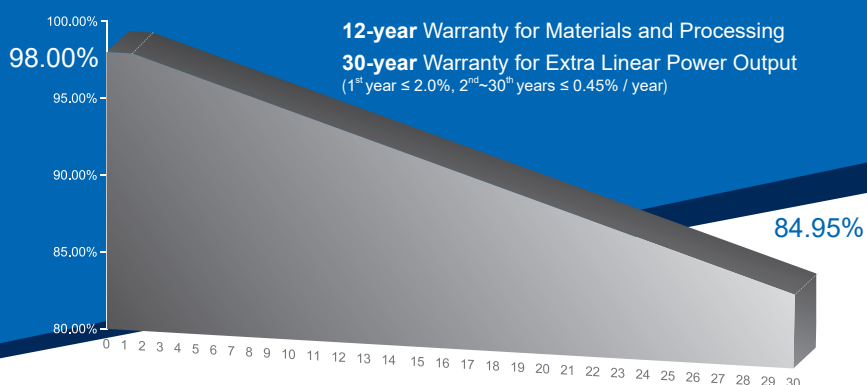


425W~440W

P-type Monocrystalline PV Module

CHSM72M(DGT)/F-BH Series (166)

CHSM72M(DGT)/F-BH is bifacial module with high transparent glass



KEY FEATURES

- +5W OUTPUT POSITIVE TOLERANCE**
Guaranteed 0~+5W positive tolerance ensures power output reliability.
- EXCELLENT WEATHER RESISTANCE**
Reduces the cell micro-crack and extended product warranty.
- BIFACIAL POWER**
The backside makes use of the reflected and scattered light from the surroundings, the modules can yield up to 5%~30% power more, depending on the albedo.
- REDUCE INTERNAL MISMATCH LOSS**
Reduces mismatch loss and improves output.
- APPLICABLE FOR MULTI DIFFERENT ENVIRONMENTS**
The wide range of applications, such as BIPV, vertical installation, snow area, high humidity area and strong sandstorm area, etc.
- SNAIL TRAIL RESISTANCE**
Reduces the probability of snail trails with zero water vapor transmittance.

COMPREHENSIVE CERTIFICATES



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)	425 Wp		430 Wp		435 Wp		440 Wp	
Testing Condition	Front	Back	Front	Back	Front	Back	Front	Back
STC rated output (P_{mpp}/Wp)*	425	318	430	322	435	326	440	330
Rated voltage (V_{mpp}/V) at STC	40.55	40.77	40.80	40.97	41.00	41.16	41.20	41.35
Rated current (I_{mpp}/A) at STC	10.48	7.80	10.54	7.86	10.61	7.92	10.68	7.98
Open circuit voltage (V_{oc}/V) at STC	49.08	48.96	49.38	49.28	49.55	49.53	49.72	49.84
Short circuit current (I_{sc}/A) at STC	10.92	8.19	10.98	8.24	11.07	8.30	11.16	8.35
Module efficiency	19.0%	14.2%	19.2%	14.4%	19.4%	14.5%	19.6%	14.7%
Temperature coefficient (P_{mpp})	- 0.35%/°C							
Temperature coefficient (I_{sc})	+0.04%/°C							
Temperature coefficient (V_{oc})	- 0.28%/°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%	456 Wp	41.00 V	11.12 A	49.55 V	11.43 A
10%	478 Wp	41.00 V	11.66 A	49.55 V	11.98 A
15%	500 Wp	41.00 V	12.20 A	49.55 V	12.54 A
20%	522 Wp	41.06 V	12.71 A	49.61 V	13.07 A
25%	543 Wp	41.06 V	13.22 A	49.61 V	13.60 A

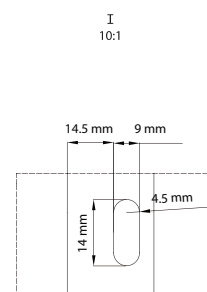
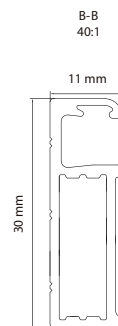
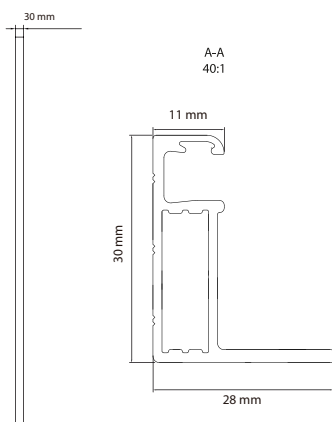
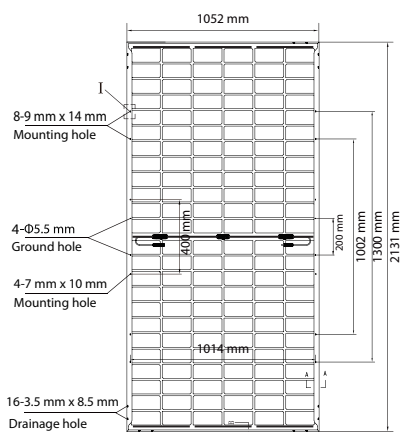
Electrical characteristics with different rear power gain (reference to 435W)

MECHANICAL SPECIFICATIONS

Outer dimensions (L x W x H)	2131 x 1052 x 30 mm
Frame technology	Aluminum, silver anodized
Glass thickness	2.0 mm
Cable length (IEC/UL)	Portrait: 350 mm Landscape: 1300 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)	MC4 compatible

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

MODULE DIMENSION DETAILS



PACKING SPECIFICATIONS

① Weight (module only)	28.5 kg
② Packing unit	36 pcs / box
Weight of packing unit (for 40'HQ container)	1085 kg
Number of modules per 40'HQ container	792 pcs

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

CURVE

