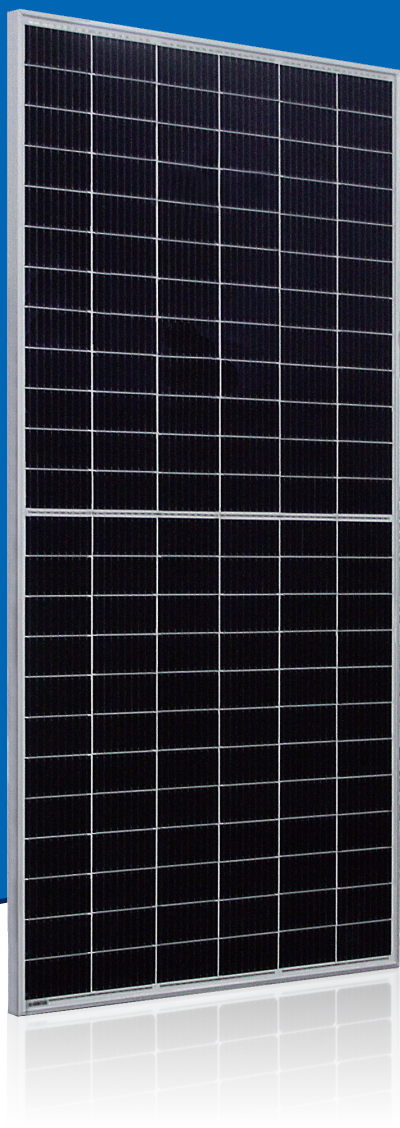


AstroTwins™

Enjoy the Energy of the Universe

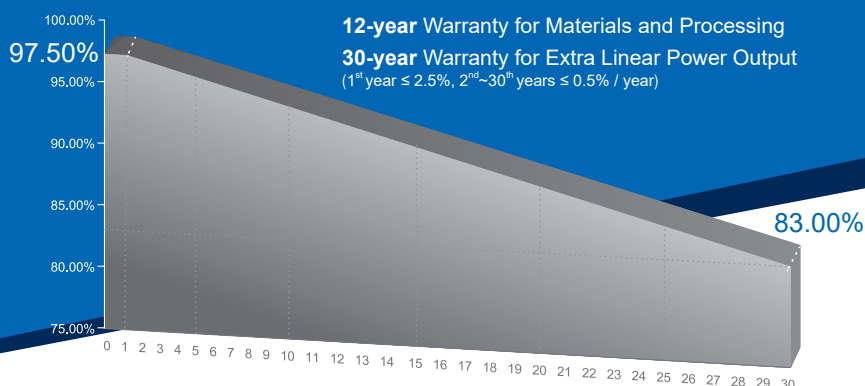


400W~420W

P-type Monocrystalline PV Module

CHSM72M(DG)/F-BH Series (158.75)

CHSM72M(DG)/F-BH is bifacial module with white glazed glass



KEY FEATURES



OUTPUT POSITIVE TOLERANCE

Guaranteed 0~+5W positive tolerance ensures power output reliability.



ENHANCED FIRE PERFORMANCE

Fire Class A certified according to IEC standard.



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



Special for Australian Market



ASTRONERGY
A CHNT COMPANY

ELECTRICAL SPECIFICATIONS

Power rating (front)	400 Wp		405 Wp		410 Wp		415 Wp		420 Wp	
Testing Condition	Front	Back	Front	Back	Front	Back	Front	Back	Front	Back
STC rated output (P_{mpp}/Wp)*	400	282	405	285	410	289	415	292	420	296
Rated voltage (V_{mpp}/V) at STC	40.67	40.88	40.89	41.10	41.10	41.31	41.31	41.52	41.52	41.73
Rated current (I_{mpp}/A) at STC	9.84	6.89	9.91	6.94	9.98	6.99	10.05	7.04	10.12	7.09
Open circuit voltage (V_{oc}/V) at STC	48.24	46.82	48.42	46.99	48.60	47.17	48.78	47.34	48.96	47.51
Short circuit current (I_{sc}/A) at STC	10.30	7.22	10.38	7.28	10.46	7.33	10.54	7.39	10.62	7.45
Module efficiency	19.4%	13.7%	19.7%	13.9%	19.9%	14.0%	20.2%	14.2%	20.4%	14.4%
Temperature coefficient (P_{mpp})	- 0.3528%/°C									
Temperature coefficient (I_{sc})	+0.0400%/°C									
Temperature coefficient (V_{oc})	- 0.2769%/°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									

* Measurement tolerance +/- 3%

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

ELECTRICAL SPECIFICATIONS (Integrated power)

P _{mp} gain	P _{mp}	V _{mp}	I _{mp}	V _{oc}	I _{sc}
5%	425 Wp	40.89 V	10.40 A	48.42 V	10.90 A
10%	446 Wp	40.89 V	10.90 A	48.42 V	11.42 A
15%	466 Wp	40.79 V	11.42 A	48.52 V	11.94 A
20%	486 Wp	40.79 V	11.91 A	48.52 V	12.46 A
25%	506 Wp	40.79 V	12.41 A	48.52 V	12.98 A

Measurement tolerance +/- 3%

Electrical characteristics with different rear power gain (reference to 405W)

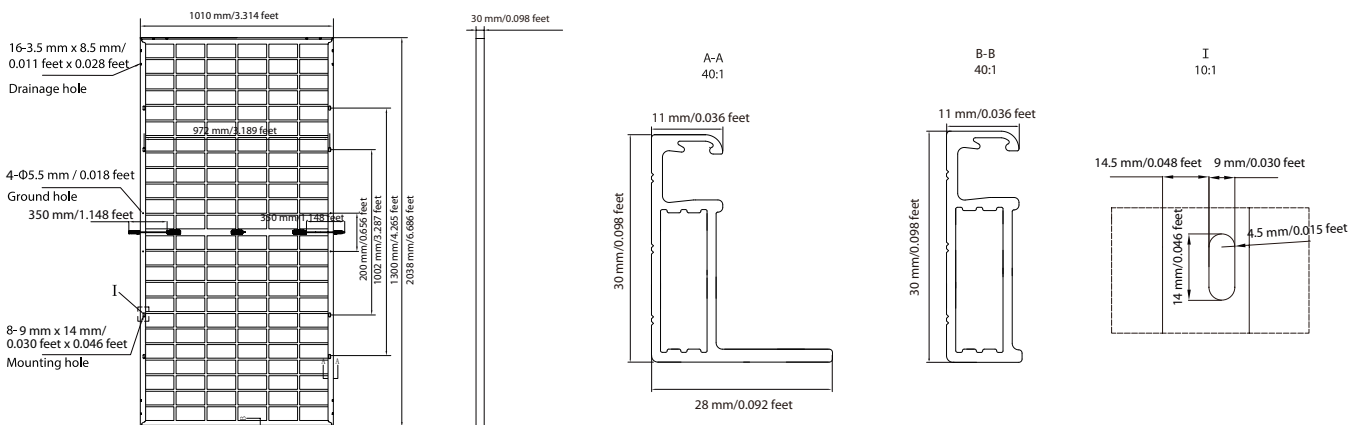
MECHANICAL SPECIFICATIONS

Outer dimensions (L x W x H)	2038 x 1010 x 30 mm 80.24 x 39.76 x 1.18 in
Module composition	Glass / POE / Glass
Front glass thickness	2.0 mm / 0.079 in
Cable length (IEC/UL)	Portrait: 350 mm (13.78 in) Landscape: 1200 mm (47.24 in)
Cable diameter (IEC/UL)	4 mm ² / 12 AWG
① Maximum mechanical test load	2400 Pa (front) / 2400 Pa (back)
Fire performance (IEC/UL)	Class A (IEC) or Type 3 (UL)
Connector type (IEC/UL)	PV-CY03L (Logo:CHUANG YUAN) or PV-HCB40(Logo:XINHUI) or MH5 (Logo:MINGHE) or PV-KST4-EVO2/XY-UR,PV-KBT4-EVO2/XY-UR(Logo:MC)

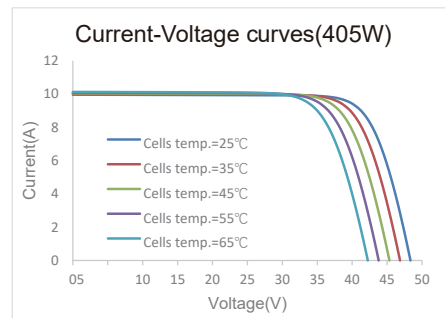
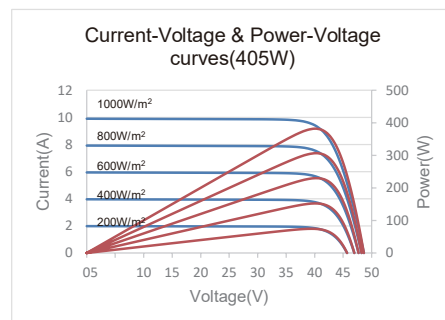
① Refer to Astronergy crystalline installation manual or contact technical department.

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

MODULE DIMENSION DETAILS



CURVE



PACKING SPECIFICATIONS

① Weight (module only)	26.3 kg / 57.98 lbs
② Packing unit	36 pcs / box
Weight of packing unit (for 40'HQ container)	994 kg / 2191 lbs
Number of modules per 40'HQ container	792 pcs

① Tolerance +/- 1.0kg

② Subject to sales contract

Made in Zhejiang, Jiangsu and Anhui of China, Made in Sincan/ Ankara of Turkey

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<http://energy.chint.com>

Astronergy 03-2020