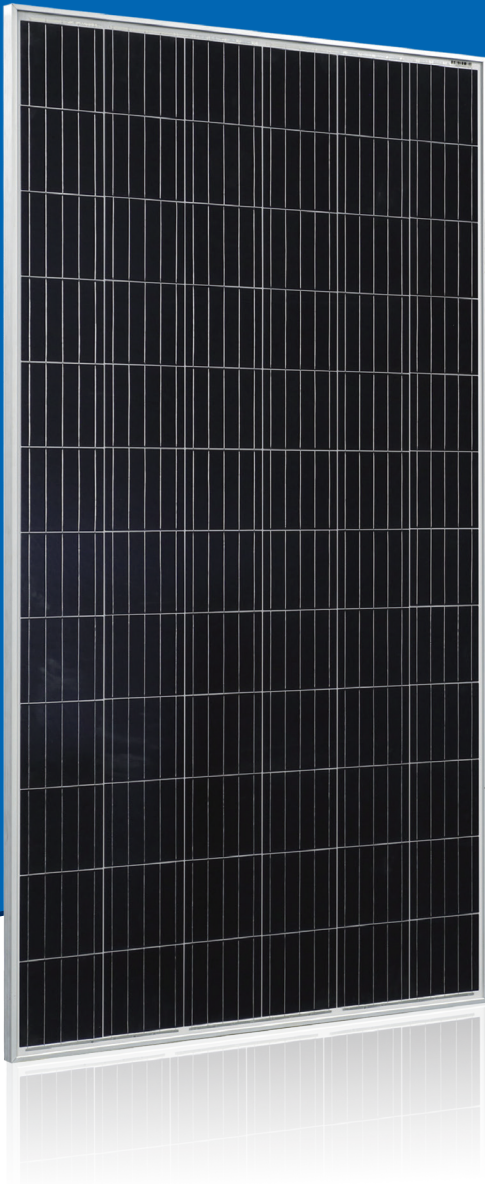


# AstroDual™

Reliable in Every Way



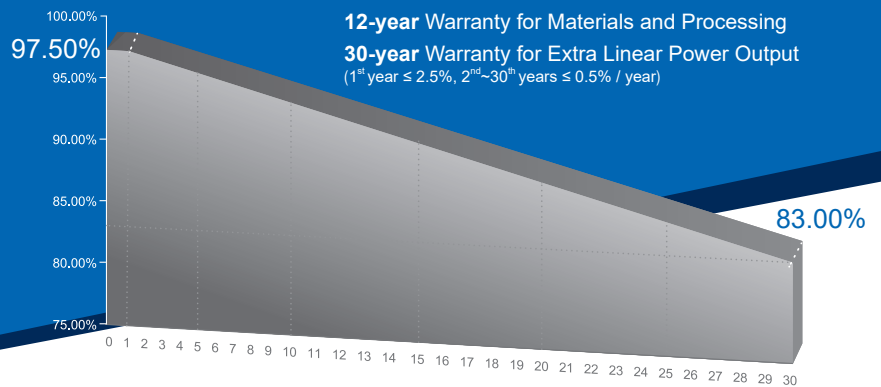
## 320W~345W

5BB-Polycrystalline PV Module

CHSM6612P(DG)/F Series (With Frame)

CHSM6612P(DGT)/F Series (With Frame)

CHSM6612P (DG)/F is double glass module with white encapsulate material  
 CHSM6612P (DGT)/F is double glass module with transparent encapsulate material










### COMPREHENSIVE CERTIFICATES



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

### KEY FEATURES

- 
**ENHANCED FIRE PERFORMANCE**  
 Fire Class A certified according to IEC standard.
- 
**EXCELLENT WEATHER RESISTANCE**  
 Reduces the cell micro-crack and extended product warranty.
- 
**PID RESISTANCE**  
 Excellent PID resistance at 96 hours (@85°C /85%) test, and also can be improved to meet higher standards for the particularly harsh environment.
- 
**FRAMED DOUBLE GLASS STRUCTURE**  
 Similar to conventional modules design, better correspond with installation requirements in current market.
- 
**APPLICABLE FOR MULTI DIFFERENT ENVIRONMENTS**  
 Transparent or white encapsulate material available.
- 
**SNAIL TRAIL RESISTANCE**  
 Reduces the probability of snail trails with zero water vapor transmittance.
- 
**STRONGER STRUCTURE**  
 Better cell micro-crack resistance.

For Global Market



## ELECTRICAL SPECIFICATIONS

STC rated output ( $P_{mpp}$ )*	320 Wp	325 Wp	330 Wp	335 Wp	340 Wp	345 Wp
Rated voltage ( $V_{mpp}$ ) at STC	37.03 V	37.08 V	37.17 V	37.26 V	37.33 V	37.41 V
Rated current ( $I_{mpp}$ ) at STC	8.64 A	8.76 A	8.88 A	8.99 A	9.11 A	9.22 A
Open circuit voltage ( $V_{oc}$ ) at STC	45.51 V	45.72 V	45.87 V	46.02 V	46.22 V	46.42 V
Short circuit current ( $I_{sc}$ ) at STC	9.21 A	9.34 A	9.51 A	9.56 A	9.62 A	9.66 A
Module efficiency	16.2%	16.5%	16.8%	17.0%	17.3%	17.5%
Rated output ( $P_{mpp}$ ) at NOCT	223.5 Wp	226.9 Wp	230.4 Wp	233.9 Wp	237.4 Wp	240.9 Wp
Rated voltage ( $V_{mpp}$ ) at NOCT	33.83 V	33.88 V	33.96 V	34.04 V	34.11 V	34.18 V
Rated current ( $I_{mpp}$ ) at NOCT	6.60 A	6.70 A	6.79 A	6.87 A	6.96 A	7.05 A
Open circuit voltage ( $V_{oc}$ ) at NOCT	41.76 V	41.95 V	42.09 V	42.23 V	42.41 V	42.60 V
Short circuit current ( $I_{sc}$ ) at NOCT	7.12 A	7.22 A	7.36 A	7.39 A	7.44 A	7.47 A
Temperature coefficient ( $P_{mpp}$ )	- 0.400%/°C					
Temperature coefficient ( $I_{sc}$ )	+0.044%/°C					
Temperature coefficient ( $V_{oc}$ )	- 0.299%/°C					
Normal operating cell temperature (NOCT)	46±2°C					
Maximum system voltage (IEC/UL)	1500V <sub>DC</sub>					
Number of diodes	3					
Junction box IP rating	IP 67					
Maximum series fuse rating	15 A					

\* Measurement tolerance +/- 3%

STC: Irradiance 1000W/m<sup>2</sup>, Cell Temperature 25°C, AM=1.5

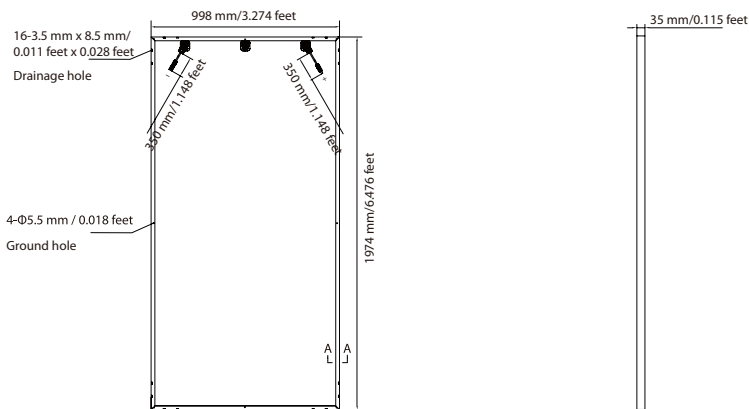
NOCT: Irradiance 800W/m<sup>2</sup>, Ambient Temperature 20°C, AM=1.5, Wind Speed 1m/s

## MECHANICAL SPECIFICATIONS

Outer dimensions (L x W x H)	1974 x 998 x 35 mm 77.72 x 39.29 x 1.38 in
Frame technology	Aluminum, silver anodized
Module composition	Glass / EVA or POE / Glass
Front glass thickness	2.5 mm / 0.098 in
Cable length (IEC/UL)	350mm / 13.78 in
Cable diameter (IEC/UL)	4 mm <sup>2</sup> / 12 AWG
① Maximum mechanical test load	7000 Pa
Fire performance (IEC/UL)	Class A (IEC) or Type 3 (UL)
Connector type (IEC/UL)	MC4 compatible

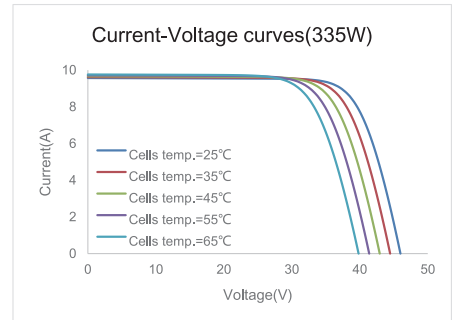
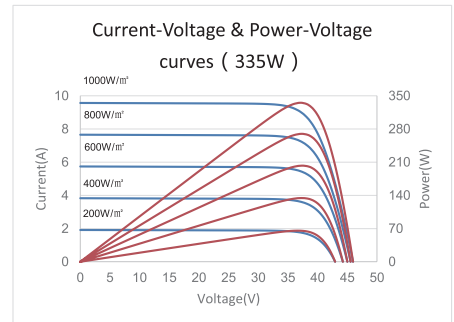
① Refer to Astronergy Crystalline Silicon PV Module Installation Manual or contact technical department.  
Maximum Mechanical Test Load=1.5×Maximum Mechanical Design Load.

## MODULE DIMENSION DETAILS



\* No mounting hole on the frame

## CURVE



## PACKING SPECIFICATIONS

① Weight (module only)	30.3 kg / 66.80 lbs
② Packing unit	31 pcs / box
Weight of packing unit (for 40'HQ container)	984 kg / 2169 lbs
Number of modules per 40'HQ container	682 pcs

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

