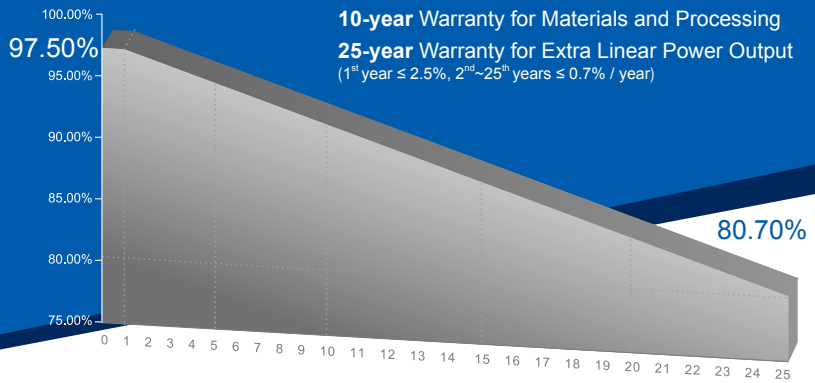
AstroHalo™
High Tech Leads Industry

275W~290W
Polycrystalline PV Module
CHSM6610P Series
CHSM6610P/HV Series

CHSM6610P max system voltage 1000V standard
CHSM6610P/HV max system voltage 1500V standard

Tier 1 Bloomberg | No.1 PHOTON | MunichRe Insured | DNV GL 2018 TOP Performance



10-year Warranty for Materials and Processing
25-year Warranty for Extra Linear Power Output
(1st year ≤ 2.5%, 2nd~25th years ≤ 0.7% / year)

* Multi-Busbar Module could be the option
* Optional: Black frame designed for the certain projects and applications (e.g. residential rooftop and so on)

COMPREHENSIVE CERTIFICATES

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

KEY FEATURES

+5W — OUTPUT POSITIVE TOLERANCE
Guaranteed 0~+5W positive tolerance ensures power output reliability.

INNOVATIONAL 5-BUSBAR CELLS
Reduces the cell series resistance and internal stress, decreases the risk of mirco-crack and improves the module output.

PERC — INNOVATIVE PERC CELL TECHNOLOGY
Excellent cell efficiency and output.

6000 / 3600 — EXCELLENT MECHANICAL LOAD CAPABILITY
Certified to withstand: snow load (6000 Pa) and wind load (3600 Pa).

HIGHER RELIABILITY AND DURABILITY
Effectively deals with harsh environments,such as sand, salt mist and ammonia resistance.

PASSED HAIL TEST
Certified to hail resistence: ice ball size (d=45mm) and ice ball velocity (v=30.7m/s).

Anti PID — PID RESISTANCE
Excellent PID resistance at 96 hours (@85℃ /85%) test, and also can be improved to meet higher standards for the particularly harsh environment.

For Global Market

ASTRONERGY
A CHINT COMPANY

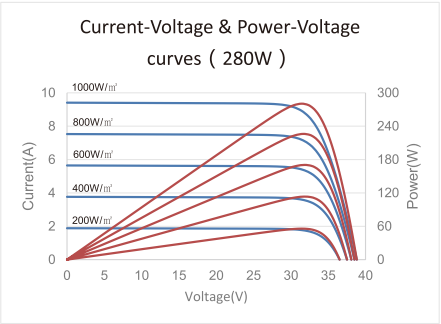
ELECTRICAL SPECIFICATIONS

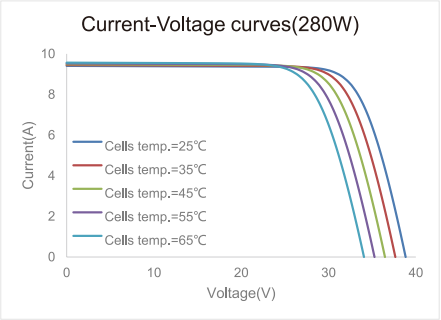
STC rated output (P_{mpp})*	275 Wp	280 Wp	285 Wp	290 Wp
Rated voltage (V_{mpp}) at STC	31.12 V	31.20 V	31.38 V	31.55 V
Rated current (I_{mpp}) at STC	8.85 A	8.99 A	9.09 A	9.20 A
Open circuit voltage (V_{oc}) at STC	38.45 V	38.69 V	38.94 V	39.18 V
Short circuit current (I_{sc}) at STC	9.52 A	9.59 A	9.68 A	9.75 A
Module efficiency	16.9%	17.2%	17.5%	17.8%
Rated output (P_{mpp}) at NOCT	206.3 Wp	210.0 Wp	213.8 Wp	217.5 Wp
Rated voltage (V_{mpp}) at NOCT	28.15 V	28.22 V	28.41 V	28.56 V
Rated current (I_{mpp}) at NOCT	7.33 A	7.44 A	7.52 A	7.62 A
Open circuit voltage (V_{oc}) at NOCT	35.13 V	35.35 V	35.57 V	35.79 V
Short circuit current (I_{sc}) at NOCT	8.02 A	8.08 A	8.15 A	8.21 A
Temperature coefficient (P_{mpp})	- 0.407%/°C			
Temperature coefficient (I_{sc})	+0.049%/°C			
Temperature coefficient (V_{oc})	- 0.310%/°C			
Normal operating cell temperature (NOCT)	43±2°C			
Maximum system voltage (IEC/UL)	1000V_{DC} or 1500V_{DC}			
Number of diodes	3			
Junction box IP rating	IP 67			
Maximum series fuse rating	15 A			

* Measurement tolerance +/- 3%

STC: Irradiance 1000W/m^2, Cell Temperature 25°C, AM=1.5
NOCT: Irradiance 800W/m^2, Ambient Temperature 20°C, AM=1.5, Wind Speed 1m/s

CURVE





MECHANICAL SPECIFICATIONS

Outer dimensions (L x W x H)	1648 x 990 x 35 mm 64.88 x 38.98 x 1.38 in
Frame technology	Aluminum, silver / black anodized
Module composition	Glass / EVA / Backsheet (white)
Front glass thickness	3.2 mm / 0.13 in
① Cable length (IEC/UL)	1000 mm / 39.37 in
Cable diameter (IEC/UL)	4 mm² / 12 AWG
② Maximum mechanical test load	6000 Pa
Fire performance (IEC/UL)	Class C (IEC) or Type 1 (UL)
Connector type (IEC/UL)	MC4 compatible

① Option: 900(+) /600(-) mm or 1000 mm for defined projects in advance.
② Refer to Astronergy Crystalline Silicon PV Module Installation Manual or contact technical department.
Maximum Mechanical Test Load=1.5×Maximum Mechanical Design Load.

PACKING SPECIFICATIONS

① Weight (module only)	18.3 kg / 40.34 lbs
② Packing unit	31 pcs / box
Weight of packing unit (for 40'HQ container)	606 kg / 1336 lbs
Number of modules per 40'HQ container	868 pcs

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

MODULE DIMENSION DETAILS