



ASTRONERGY



ASTRO N7s

CHSM54RN(DG)/F-BH Bifacial Series

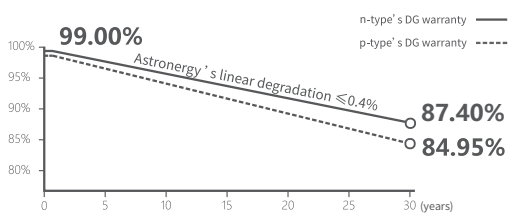
495~515W



Warranty

25 25-year Product Warranty

30 30-year Linear Power Warranty



n-type TOPCon 4.0

Novel upgrade, enhancing module efficiency



ZBB Design

Zero-busbar integrated interconnection



Bifacial Power Generation

Maximizing bifaciality, boosting backside power output



Integrated Appearance

Streamlined design without busbars or harpoon-like ribbons, perfect for upscale zero-carbon buildings



ISO 9001:2015:ISO Quality Management System
ISO 14001:2015:ISO Environment Management System
ISO 45001:Occupational Health and Safety
The first solar company which passed the Nord IEC/TS 62941 certification audit



Tier 1
BloombergNEF



495~515W

POWER RANGE

0~+3%

POWER SORTING

23.2%

MAX MODULE EFFICIENCY

≤ 1.0%

FIRST YEAR POWER DEGRADATION

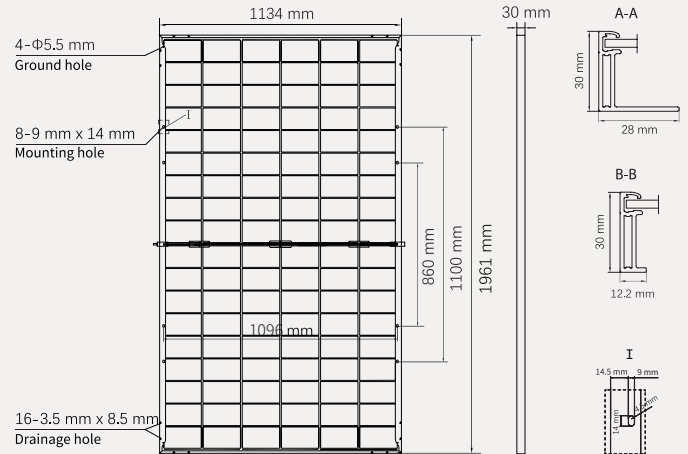
≤ 0.4%

YEAR 2-30 POWER DEGRADATION

Mechanical Specifications

Outer dimensions (L x W x H)	1961 x 1134 x 30 mm
Cell type	n-type mono-crystalline
No. of cells	108 (6*18)
Frame technology	Aluminum, black or silver anodized
Front / Back glass	2.0+2.0 mm
Cable length (Including connector)	Portrait: (+)350 mm, (-)250 mm; Customized length
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 (Standard) / MC4-EVO2A (Optional)
Module weight	27.4 kg
Packing unit	36 pcs / box
Weight of packing unit (for 40'HQ container)	1053 kg
Modules per 40' HQ container	864 pcs (Subject to sales contract)

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



Electrical Specifications

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

Rated output (Pmpp / Wp)	495	500	505	510	515
Rated voltage (Vmpp / V)	33.71	33.83	33.95	34.07	34.19
Rated current (Impp / A)	14.69	14.78	14.88	14.97	15.06
Open circuit voltage (Voc / V)	39.77	39.92	40.06	40.20	40.35
Short circuit current (Isc / A)	15.74	15.84	15.94	16.03	16.13
Module efficiency	22.3%	22.5%	22.7%	22.9%	23.2%

BNPI: Irradiance: front 1000W/m², rear 135W/m², Cell Temperature 25° C, AM=1.5

Rated output (Pmpp / Wp)	545	550	555	560	565
Rated voltage (Vmpp / V)	33.86	33.98	34.09	34.21	34.32
Rated current (Impp / A)	16.09	16.19	16.28	16.37	16.46
Open circuit voltage (Voc / V)	40.02	40.15	40.28	40.41	40.54
Short circuit current (Isc / A)	17.22	17.32	17.42	17.52	17.62

Temperature Ratings (STC)

Temperature coefficient (Pmpp)	-0.29%/°C
Temperature coefficient (Isc)	+0.043%/°C
Temperature coefficient (Voc)	-0.25%/°C

Operating Parameters

Bifaciality (Pmpp)	80±5%
Junction box IP rating	IP 68
Max. series fuse rating	30 A
Max. system voltage (IEC/UL)	1500V _{DC}

Curve

