



ASTRONERGY



ASTRO N7s 2.0

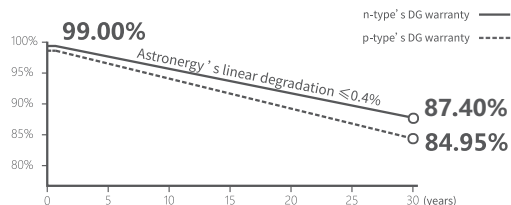
CHSM54RN(DGT)(BLH)/F-BH
Bifacial Series

510~520W

Warranty

30 30-year Product Warranty
(Specified for rooftop market)

30 30-year Linear Power Warranty
(Only to the front-side of modules)



Key Features

- High efficiency n-type TOPCon cells
- Dual glass for improved durability
- Manufacturing with AI technology
- Suitable for residential systems
- Easy to install and transport



ISO 9001:2015:ISO Quality Management System
ISO 14001:2015:ISO Environment Management System
ISO 45001:Occupational Health and Safety



Tier 1
BloombergNEF



510~520W

POWER RANGE

±5W

POWER SORTING

23.6%

MAX MODULE
EFFICIENCY

≤ 1.0%

FIRST YEAR
POWER DEGRADATION

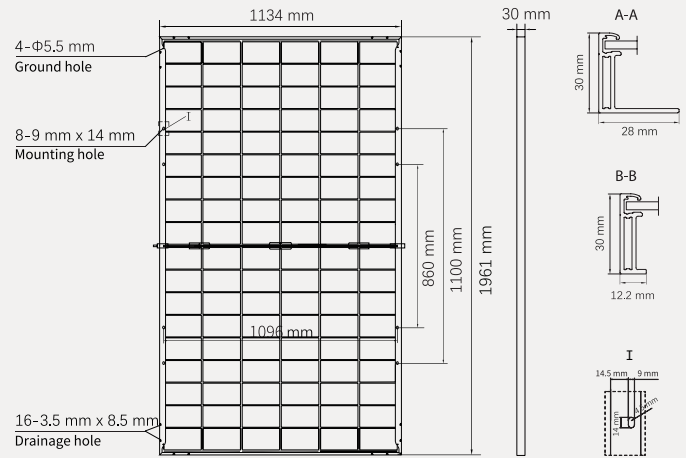
≤ 0.4%

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 (silver optional)
Front / Back glass	2.0+2.0 mm
Cable length (Including connector)	landscape: (+) 1200mm, (-) 1200mm; 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)	PV-KST4EVO2A/xy, PV-KBT4-EVO2A/xy (Staubli) (standard) or PV-HCB40 (Chint New Energy) (optional)
Module weight	26.9 kg
Packing unit	36 pcs / box
Weight of packing unit (for 40'HQ container)	1016 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 CHSM54RN(DGT)(BLH)/F-BH-XXX(XXX=510~520)

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

Rated output (P _{mpp} / Wp)	510	515	520	525
Rated voltage (V _{mpp} / V)	33.96	34.04	34.12	34.21
Rated current (I _{mp} / A)	15.02	15.13	15.24	15.35
Open circuit voltage (V _{oc} / V)	40.87	40.90	41.00	41.10
Short circuit current (I _{sc} / A)	15.83	15.87	15.98	16.09
Module efficiency	22.9%	23.2%	23.4%	23.6%

Tolerance: P_{mpp} ±3%, V_{oc} ±3% and I_{sc} ±4%.

BNPI & BSI: Bifaciality(φP_{mpp}/φI_{sc}) : 80±5 %, Bifaciality(φV_{oc}) : 98±5 %

Rated output (P _{mpp} / Wp)	562.0	567.5	573.0	578.6
Rated voltage (V _{mpp} / V)	33.97	34.05	34.13	34.22
Rated current (I _{mp} / A)	16.55	16.67	16.79	16.91
Open circuit voltage (V _{oc} / V)	40.88	40.91	41.01	41.11
Short circuit current (I _{sc} / A)	17.60	17.67	17.79	17.91
I _{sc} aBSI (BSI)	19.76	19.86	20.00	20.14

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

aBSI (BSI) : Irradiance: front 1000W/m², rear 300W/m²

Electrical characteristics with 10% Bifacial Gains

Rated output (P _{mpp} / Wp)	561.00	566.50	572.00	577.50
Rated voltage (V _{mpp} / V)	33.96	34.04	34.12	34.21
Rated current (I _{mp} / A)	16.52	16.64	16.76	16.88
Open circuit voltage (V _{oc} / V)	40.87	40.90	41.00	41.10
Short circuit current (I _{sc} / A)	17.42	17.46	17.58	17.70

Temperature Ratings (STC)

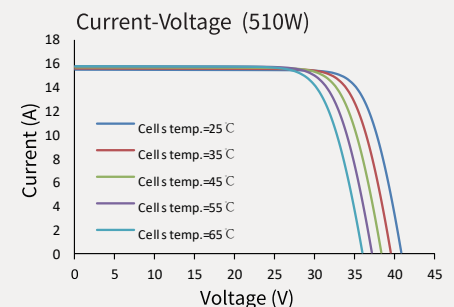
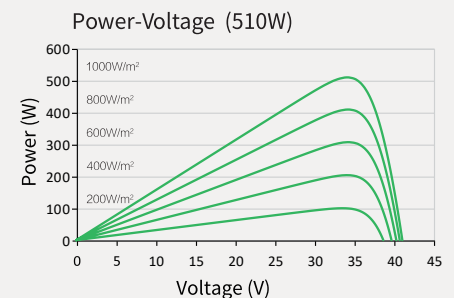
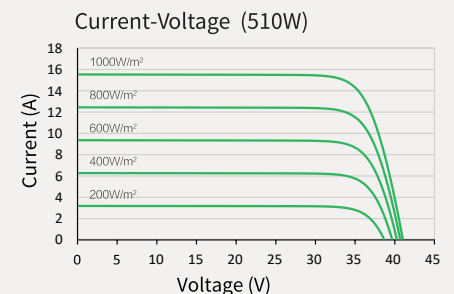
Temperature coefficient (P _{mpp})	-0.29%/°C
Temperature coefficient (I _{sc})	+0.043%/°C
Temperature coefficient (V _{oc})	-0.25%/°C

Fire performance: Class C

Operating Parameters

Operating Temperature	-40°C ~+85°C
No. of diodes	3
Junction box IP rating	IP 68
Max. series fuse rating	30 A
Max. system voltage (IEC/UL)	1500V _{DC}
Module [T98] max [°C]: 70	

Curve



Made in China, Made in Turkey.

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