



ASTRONERGY



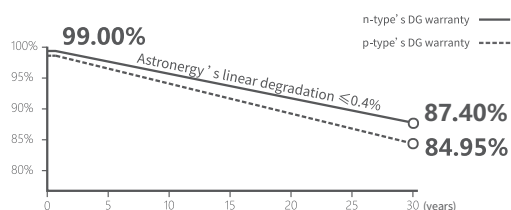
ASTRO N7s

CHSM54RN(DG)/F-BH
Bifacial Series

505~510W

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



505~510W

POWER RANGE

±5W

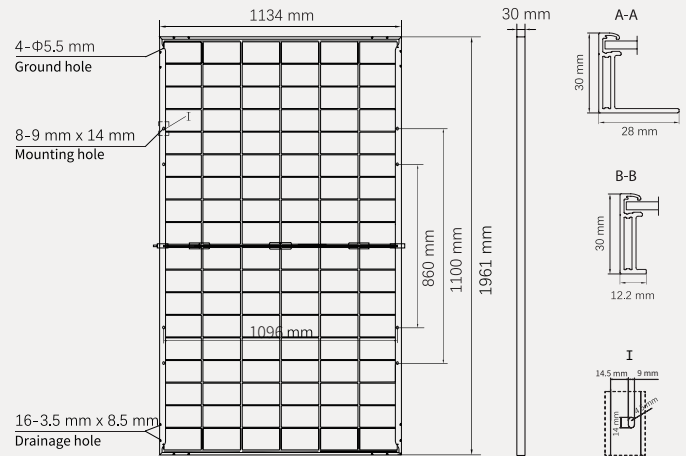
POWER SORTING

22.9%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(DG)/F-BH-XXX(XXX=505~510)

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

Rated output (P _{mpp} / Wp)	505	510
Rated voltage (V _{mpp} / V)	34.15	34.29
Rated current (I _{mpp} / A)	14.79	14.87
Open circuit voltage (V _{oc} / V)	41.05	41.21
Short circuit current (I _{sc} / A)	15.61	15.70
Module efficiency	22.7%	22.9%

Tolerance: P_{mpp} ±3%, V_{oc} ±3% and I_{sc} ±4%.**BNPI:** Irradiance: front 1000W/m², rear 135W/m², Cell Temperature 25° C, AM=1.5

Rated output (P _{mpp} / Wp)	556.5	562.0
Rated voltage (V _{mpp} / V)	34.16	34.30
Rated current (I _{mpp} / A)	16.29	16.39
Open circuit voltage (V _{oc} / V)	41.06	41.22
Short circuit current (I _{sc} / A)	17.37	17.47

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

Electrical characteristics with 10% Bifacial Gains

Rated output (P _{mpp} / Wp)	556	561
Rated voltage (V _{mpp} / V)	34.15	34.29
Rated current (I _{mpp} / A)	16.27	16.36
Open circuit voltage (V _{oc} / V)	41.05	41.22
Short circuit current (I _{sc} / A)	17.17	17.27

Operating Parameters

No. of diodes	3
Junction box IP rating	IP 68
Max. series fuse rating	30 A
Max. system voltage (IEC/UL)	1500V _{DC}

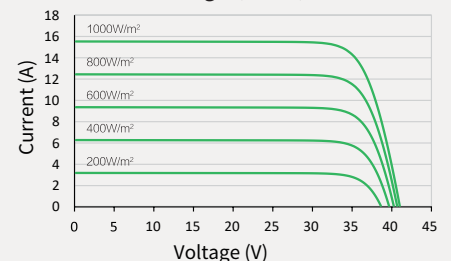
Fire performance: Class C

Temperature Ratings (STC)

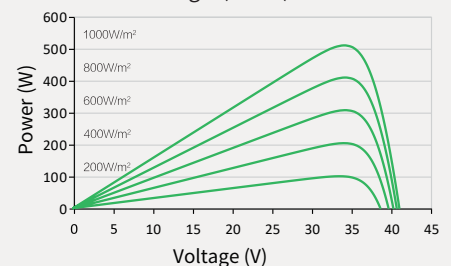
Temperature coefficient (P _{mpp})	-0.29%/°C
Temperature coefficient (I _{sc})	+0.043%/°C
Temperature coefficient (V _{oc})	-0.25%/°C

Curve

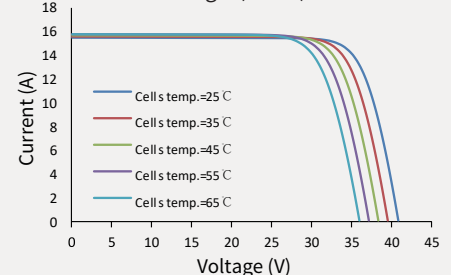
Current-Voltage (510W)



Power-Voltage (510W)



Current-Voltage (510W)



Made in China, Made in Turkey.

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