



ASTRONERGY

Special for Australian Market
Preliminary



ASTRO N7s

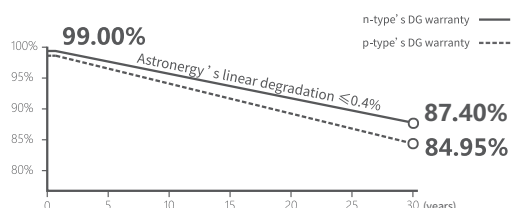
CHSM60RNs(DG)/F-BH
Bifacial Series

495~510W

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
- Elegant Zero Busbar design
- 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



495~510W

POWER RANGE

0~+3%

POWER SORTING

22.9%

MAX MODULE
EFFICIENCY

≤ 1.0%

FIRST YEAR
POWER DEGRADATION

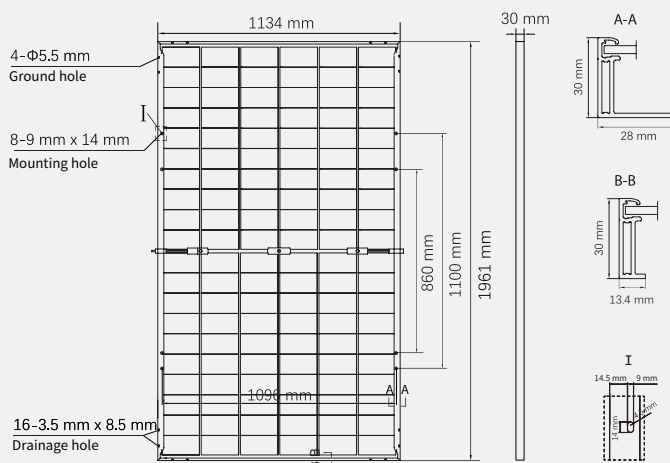
≤ 0.4%

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	120 (6*20)
Frame technology	Aluminum, black 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)	PV-HCB40 (Chint New Energy) or PV-KST4-EVO2A/xy, PV-KBT4-EVO2A/xy (Stäubli)
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 CHSM60RNs(DG)/F-BH-XXX(XXX=495~510)

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

Rated output (P _{mpp} / Wp)	495	500	505	510
Rated voltage (V _{mpp} / V)	36.60	36.80	37.00	37.20
Rated current (I _{mpp} / A)	13.53	13.59	13.65	13.71
Open circuit voltage (V _{oc} / V)	43.80	43.99	44.18	44.37
Short circuit current (I _{sc} / A)	14.29	14.37	14.45	14.53
Module efficiency	22.3%	22.5%	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)	545	550	555	560
Rated voltage (V _{mpp} / V)	36.54	36.69	36.84	36.99
Rated current (I _{mpp} / A)	14.92	14.99	15.07	15.14
Open circuit voltage (V _{oc} / V)	43.73	43.91	44.09	44.27
Short circuit current (I _{sc} / A)	15.76	15.84	15.91	15.99

Bifaciality(P_{mpp}/I_{sc}) : 80±5 %, Bifaciality(V_{oc}) : 98±2 %

Electrical characteristics with 10% Bifacial Gains

Rated output (P _{mpp} / Wp)	545	550	556	561
Rated voltage (V _{mpp} / V)	36.60	36.80	37.00	37.20
Rated current (I _{mpp} / A)	14.88	14.95	15.01	15.08
Open circuit voltage (V _{oc} / V)	43.80	43.99	44.18	44.37
Short circuit current (I _{sc} / A)	15.72	15.81	15.89	15.98

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}

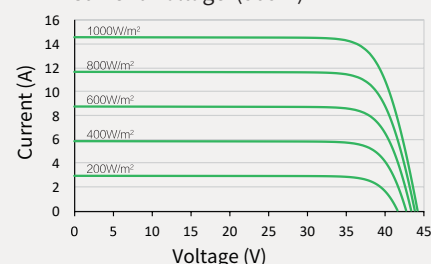
Fire performance: Class C

Temperature Ratings (STC)

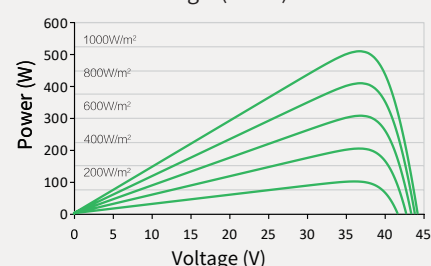
Temperature coefficient (P _{mpp})	-0.29%/°C
Temperature coefficient (I _{sc})	+0.043%/°C
Temperature coefficient (V _{oc})	-0.25%/°C

Curve

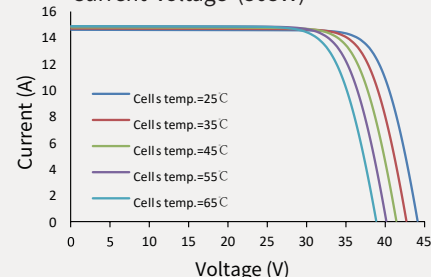
Current-Voltage (505W)



Power-Voltage (505W)



Current-Voltage (505W)



Made in China, Made in Turkey.

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