Special for Australian Market

ASTRONERGY



ASTRO N7s 2.0

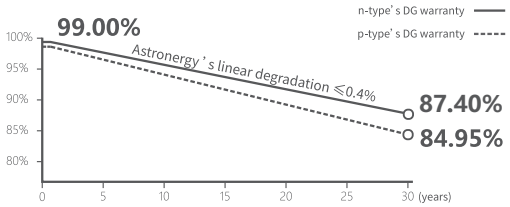
CHSM48RN(DG)/F-BH
Bifacial Series

455~475W

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

Assist carbon neutrality

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

TOP PERFORMER 2025 kiwa PV MODULE RELIABILITY SCORECARD

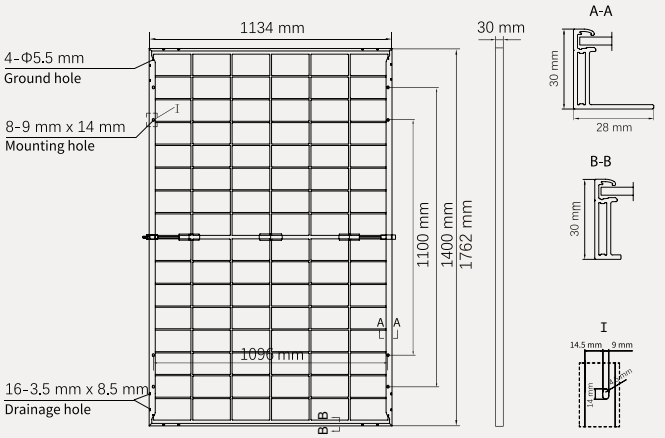
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Underwritten by International Insurer

455~475W	±5W	23.8%	≤ 1.0%	≤ 0.4%
POWER RANGE	POWER SORTING	MAX MODULE EFFICIENCY	FIRST YEAR POWER DEGRADATION	YEAR 2-30 POWER DEGRADATION

Mechanical Specifications

Outer dimensions (L x W x H)	1762 x 1134 x 30 mm
Cell type	n-type mono-crystalline
No. of cells	96 (6*16)
Frame technology	Aluminum, black (silver optional)
Front / Back glass	2.0+2.0 mm (1.6+1.6 mm optional)
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	24.5 kg (21.5 kg for 1.6 mm glass)
Packing unit	36 pcs / box
Weight of packing unit (for 40'HQ container)	927 kg (820 kg for 1.6 mm glass)
Modules per 40' HQ container	936 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 CHSM48RN(DG)/F-BH-XXX(XXX=455~475)

STC: Irradiance 1000W/m^2, Cell Temperature 25° C, AM=1.5

Rated output (Pmpp / Wp)	455	460	465	470	475
Rated voltage (Vmpp / V)	30.47	30.60	30.73	30.75	30.78
Rated current (Impp / A)	14.93	15.03	15.13	15.28	15.43
Open circuit voltage (Voc / V)	36.58	36.74	36.90	36.92	36.95
Short circuit current (Isc / A)	15.78	15.88	15.98	15.99	16.15
Module efficiency	22.8%	23.0%	23.3%	23.5%	23.8%

Tolerance: Pmpp ±3%, Voc ±3% and Isc ±4%.

BNPI & BSI: Bifaciality(Pmpp/Isc): 80±5%, Bifaciality(Voc): 98±5%

Rated output (Pmpp / Wp)	500	506.9	512.4	517.9	523.5
Rated voltage (Vmpp / V)	30.47	30.61	30.74	30.76	30.79
Rated current (Impp / A)	16.41	16.56	16.67	16.84	17.00
Open circuit voltage (Voc / V)	36.58	36.75	36.91	36.93	36.96
Short circuit current (Isc / A)	17.42	17.58	17.69	17.70	18.04
Isc aBSI(BSI)	19.54	19.66	19.77	19.78	20.35

BNPI: Irradiance: front 1000W/m^2, rear 135W/m^2, Cell Temperature 25° C, AM=1.5

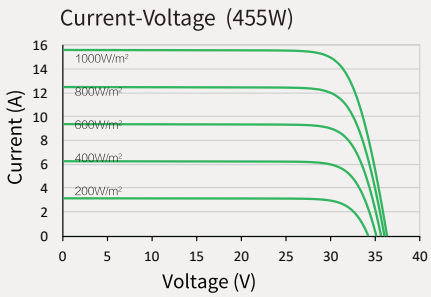
aBSI(BSI): Irradiance: front 1000W/m^2, rear 300W/m^2

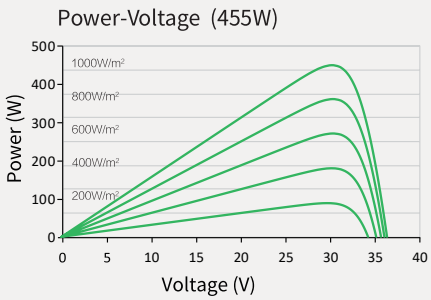
Tolerance: Pmpp ±3%, Voc ±3% and Isc ±4%.

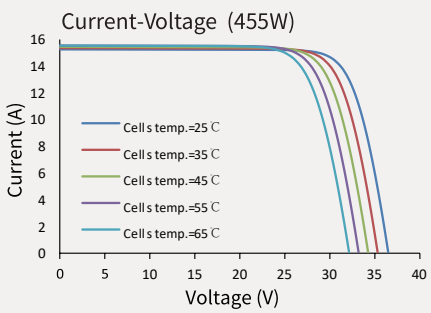
Electrical characteristics with 10% Bifacial Gains

Rated output (Pmpp / Wp)	501.00	506.00	511.50	517.00	522.50
Rated voltage (Vmpp / V)	30.47	30.60	30.73	30.75	30.78
Rated current (Impp / A)	16.43	16.53	16.64	16.81	16.98
Open circuit voltage (Voc / V)	36.58	36.74	36.90	36.92	36.95
Short circuit current (Isc / A)	17.36	17.47	17.58	17.59	17.76

Curve







Temperature Ratings (STC)

Temperature coefficient (Pmpp)	-0.29%/°C
Temperature coefficient (Isc)	+0.043%/°C
Temperature coefficient (Voc)	-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[℃]: 70

Made in China, Made in Turkey.

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