



ASTROENERGY



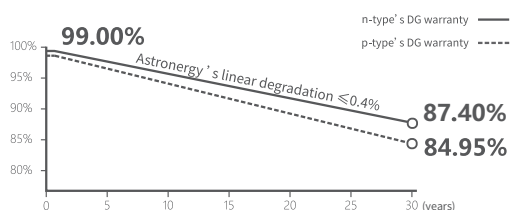
ASTRO N5

CHSM72N(DG)/F-BH
Bifacial Series

570~595W

Warranty

- 15** 15-year Product Warranty
- 30** 30-year Linear Power Warranty



Key Features

- TOPCon / Half-cut
- Low temperature coefficient (Pmpp)
- Non-destructive cutting
- PID resistance
- Low BOS cost & LCOE
- Bifacial gain



570~595W

POWER RANGE

0~+3%

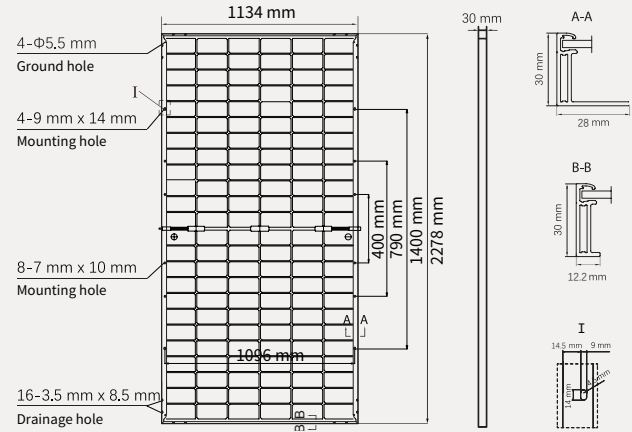
POWER SORTING

23.0%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)	2278 x 1134 x 30 mm
Cell type	n-type mono-crystalline
No. of cells	144 (6*24)
Frame technology	Aluminum, 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	32.1 kg
Packing unit	36 pcs / box
Weight of packing unit (for 40'HQ container)	1207 kg
Modules per 40' HQ container	648 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

	570	575	580	585	590	595
Rated output (P _{mpp} / Wp)	570	575	580	585	590	595
Rated voltage (V _{mpp} / V)	42.77	42.94	43.11	43.27	43.45	43.61
Rated current (I _{mpp} / A)	13.33	13.39	13.45	13.52	13.58	13.64
Open circuit voltage (V _{oc} / V)	50.90	51.10	51.30	51.50	51.70	51.90
Short circuit current (I _{sc} / A)	14.10	14.19	14.28	14.36	14.45	14.53
Module efficiency	22.1%	22.3%	22.5%	22.6%	22.8%	23.0%

NMOT: Irradiance 800W/m², Ambient Temperature 20° C, AM=1.5, Wind Speed 1m/s

	428.6	432.4	436.2	439.9	443.7	447.4
Rated output (P _{mpp} / Wp)	428.6	432.4	436.2	439.9	443.7	447.4
Rated voltage (V _{mpp} / V)	40.26	40.42	40.59	40.73	40.89	41.06
Rated current (I _{mpp} / A)	10.65	10.70	10.75	10.80	10.85	10.90
Open circuit voltage (V _{oc} / V)	48.35	48.54	48.73	48.92	49.11	49.30
Short circuit current (I _{sc} / A)	11.39	11.46	11.53	11.59	11.66	11.73

Electrical Specifications (Integrated power)

P _{mpp} gain	P _{mpp} / Wp	V _{mpp} / V	I _{mpp} / A	V _{oc} / V	I _{sc} / A
5%	609	43.11	14.12	51.30	14.99
10%	638	43.11	14.80	51.30	15.71
15%	667	43.12	15.47	52.31	16.42
20%	696	43.12	16.14	52.31	17.14
25%	725	43.12	16.81	52.31	17.85

Electrical characteristics with different rear power gain (reference to 580W)

Temperature Ratings (STC)

Operating Parameters

Temperature coefficient (P _{mpp})	-0.29%/°C	No. of diodes	3
Temperature coefficient (I _{sc})	+0.043%/°C	Junction box IP rating	IP 68
Temperature coefficient (V _{oc})	-0.25%/°C	Max. series fuse rating	30 A
Nominal module operating temperature (NMOT)	41±2°C	Max. system voltage (IEC/UL)	1500V _{DC}

Curve

