



ASTRONERGY

ENERGYNAT
TRADE

Import and distribution of top PV components

ASTRO 5 Twins

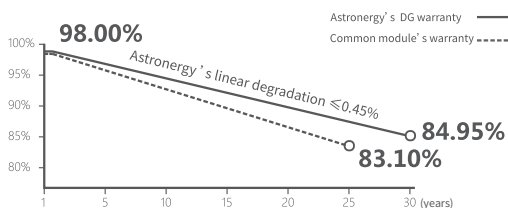
CHSM72M(DG)/F-BH
Bifacial Series(182)

540~555W

Warranty

12 12-year Product Warranty

30 30-year Linear Power Warranty



Key Features

- PERC+ / Half-cut
- Non-destructive cutting
- PID resistance
- Low BOS cost & LCOE
- Bifacial gain



ISO 9001:2015:ISO Quality Management System
ISO 14001:2015:ISO Environment Management System
ISO 45001:Occupational Health and Safety
The first solar company which passed the Nord IEC/TS 62941 certification audit



Tier 1
BloombergNEF



540~555W

POWER RANGE

0~+5W

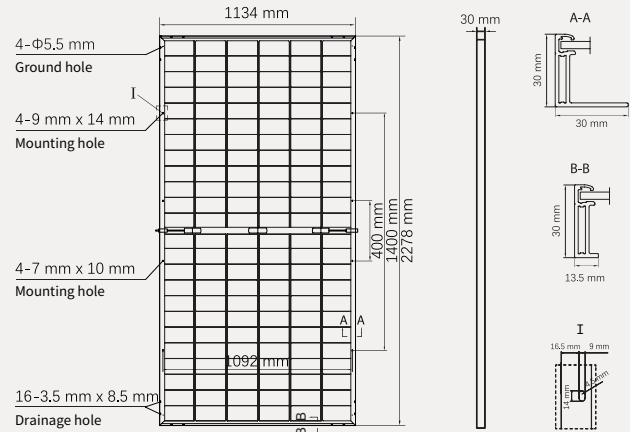
POWER SORTING

21.5%MAX MODULE
EFFICIENCY**≤ 2.0%**FIRST YEAR
POWER DEGRADATION**≤ 0.45%**YEAR 2-30
POWER DEGRADATION

Mechanical Specifications

Outer dimensions (L x W x H)	2278 x 1134 x 30 mm
Cell type	P 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 (Subject to sales contract)
Weight of packing unit (for 40'HQ container)	1215 kg
Modules per 40' HQ container	720 pcs

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

Rated output (Pmpp / Wp)	540	545	550	555
Rated voltage (Vmpp / V)	41.93	42.10	42.27	42.44
Rated current (Impp / A)	12.88	12.95	13.01	13.08
Open circuit voltage (Voc / V)	49.90	50.10	50.30	50.50
Short circuit current (Isc / A)	13.66	13.75	13.84	13.89
Module efficiency	20.9%	21.1%	21.3%	21.5%

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

Rated output (Pmpp / Wp)	403.5	407.3	411.0	414.8
Rated voltage (Vmpp / V)	39.08	39.24	39.39	39.55
Rated current (Impp / A)	10.33	10.38	10.43	10.49
Open circuit voltage (Voc / V)	47.16	47.34	47.53	47.72
Short circuit current (Isc / A)	11.08	11.16	11.23	11.30

Electrical Specifications (Integrated power)

Pmpp gain	Pmpp / Wp	Vmpp / V	Impp / A	Voc / V	Isc / A
5%	578	42.27	13.66	50.30	14.53
10%	605	42.27	14.31	50.30	15.23
15%	633	42.28	14.96	50.31	15.91
20%	660	42.28	15.61	50.31	16.61
25%	688	42.29	16.26	50.32	17.29

Electrical characteristics with different rear power gain (reference to 550W)

Temperature Ratings (STC)

Operating Parameters

Temperature coefficient (Pmpp)	-0.34%/°C	No. of diodes	3
Temperature coefficient (Isc)	+0.04%/°C	Junction box IP rating	IP 68
Temperature coefficient (Voc)	-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

