



ASTRONERGY

ASTRO 5 Twins

Create Sustainable and Efficient Green Energy

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

535~550W

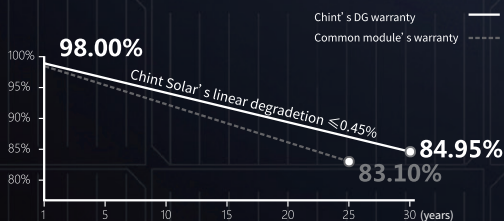
PERC+ / Multi-busbar / Half-cut

Non-destructive cutting

PID resistance

Bifacial gain

Lower BOS cost & LCOE



12-year Product Warranty

30-year Linear Power Warranty



ISO 9001:2015:ISO Quality Management System
ISO 14001:2015:ISO Environment Management System
ISO 45001:2018:Occupational Health and Safety
The first solar company which passed the Nord IEC/TS 62941 certification audit.



Tier 1
BloombergNEF



535~550W

POWER RANGE

0~+5W

POWER
TOLERANCE

21.3%

MAX MODULE
EFFICIENCY

≤ 2.0%

FIRST YEAR
POWER DEGRADATION

≤ 0.45%

YEAR 2-30
POWER DEGRADATION

Electrical Specifications

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

Rated output (P _{mpp} / W _p)	535	540	545	550
Rated voltage (V _{mpp} / V)	41.76	41.93	42.10	42.27
Rated current (I _{mpp} / A)	12.81	12.88	12.95	13.01
Open circuit voltage (V _{oc} / V)	49.70	49.90	50.10	50.30
Short circuit current (I _{sc} / A)	13.57	13.66	13.75	13.84
Module efficiency	20.7%	20.9%	21.1%	21.3%

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

Rated output (P _{mpp} / W _p)	399.8	403.5	407.3	411.0
Rated voltage (V _{mpp} / V)	38.92	39.08	39.24	39.39
Rated current (I _{mpp} / A)	10.27	10.33	10.38	10.43
Open circuit voltage (V _{oc} / V)	46.97	47.16	47.34	47.53
Short circuit current (I _{sc} / A)	11.01	11.08	11.16	11.23

Electrical Specifications (Integrated power)

P _{mpp} gain	P _{mpp} / W _p	V _{mpp} / V	I _{mpp} / A	V _{oc} / V	I _{sc} / A
5%	567	41.93	13.52	49.90	14.35
10%	594	41.93	14.17	49.90	15.03
15%	621	41.94	14.81	49.91	15.71
20%	648	41.94	15.45	49.91	16.39
25%	675	41.95	16.09	49.92	17.07

Electrical characteristics with different rear power gain (reference to 540W)

Temperature Ratings (STC)

Operating Parameters

Temperature coefficient (P _{mpp})	-0.35%/°C	No. of diodes	3
Temperature coefficient (I _{sc})	+0.045%/°C	Junction box IP rating	IP 68
Temperature coefficient (V _{oc})	-0.27%/°C	Max. series fuse rating	30 A
Nominal module operating temperature (NMOT)	41±2°C	Max. system voltage (IEC/UL)	1500V _{DC}

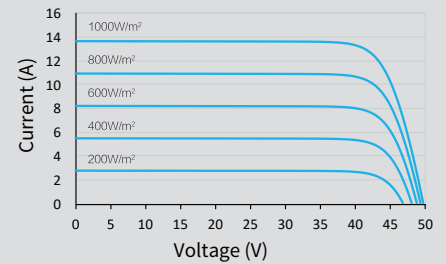
Mechanical Specifications

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 (IEC/UL)	Portrait: 300 mm; Landscape: 1400 mm
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 / MC4-EVO2 (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	648 pcs

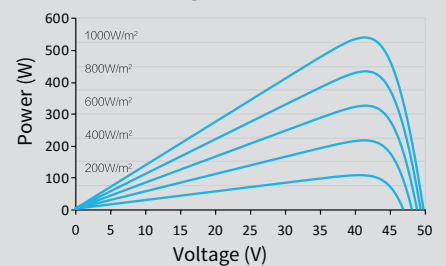
① Refer to Astronergy crystalline installation manual or contact technical department.
Maximum Mechanical Test Load=1.5×Maximum Mechanical Design Load.

Curve

Current-Voltage (540W)



Power-Voltage (540W)



Current-Voltage (540W)

