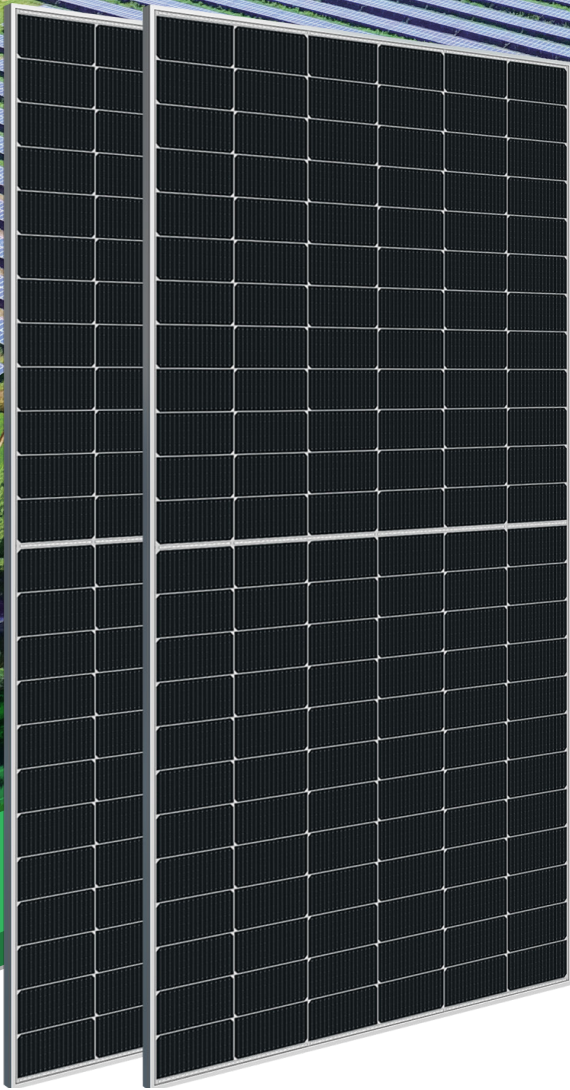




ASTRONERGY



ASTRO 5 Twins

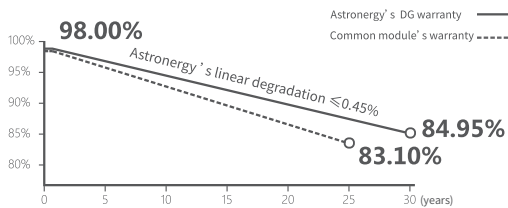
CHSM72M(DG)/F-BH
Bifacial Series

540~560W

Warranty

15 15-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



540~560W

POWER RANGE

0~+3%

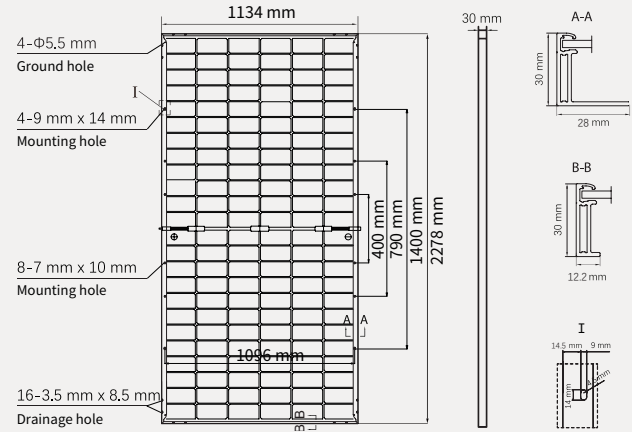
POWER SORTING

21.7%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 |
| Weight of packing unit (for 40'HQ container) | 1207 kg |
| Modules per 40' HQ container | 720 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

| | 540 | 545 | 550 | 555 | 560 |
|---------------------------------|-------|-------|-------|-------|-------|
| Rated output (Pmpp / Wp) | | | | | |
| Rated voltage (Vmpp / V) | 41.93 | 42.10 | 42.27 | 42.44 | 42.61 |
| Rated current (Impp / A) | 12.88 | 12.95 | 13.01 | 13.08 | 13.14 |
| Open circuit voltage (Voc / V) | 49.90 | 50.10 | 50.30 | 50.50 | 50.70 |
| Short circuit current (Isc / A) | 13.66 | 13.75 | 13.84 | 13.89 | 13.98 |
| Module efficiency | 20.9% | 21.1% | 21.3% | 21.5% | 21.7% |

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

| | 403.5 | 407.3 | 411.0 | 414.8 | 418.5 |
|---------------------------------|-------|-------|-------|-------|-------|
| Rated output (Pmpp / Wp) | | | | | |
| Rated voltage (Vmpp / V) | 39.08 | 39.24 | 39.39 | 39.55 | 39.71 |
| Rated current (Impp / A) | 10.33 | 10.38 | 10.43 | 10.49 | 10.54 |
| Open circuit voltage (Voc / V) | 47.16 | 47.34 | 47.53 | 47.72 | 47.91 |
| Short circuit current (Isc / A) | 11.08 | 11.16 | 11.23 | 11.30 | 11.37 |

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 | 15.22 |
| 15% | 633 | 42.27 | 14.96 | 50.30 | 15.92 |
| 20% | 660 | 42.27 | 15.61 | 50.30 | 16.61 |
| 25% | 688 | 42.27 | 16.26 | 50.30 | 17.30 |

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

