

IBC Technology

1/2 Cut

Silver Frame 540-600W

MS(540-600)BC-72H
Mono IBC 182mm 144 Cells

Advanced Solar Technology



Better Appearance

Without the visual impact of the welding strips on the front-side, the pure beauty of the solar cells is perfectly presented.



High Power Generation Efficiency

There is no metal welding strips on the front-side of the module. The power generation area of the front-side increases by 2.5%.



No Light Pollution

The light reflectivity of the module is only 1.7% due to no welding strip technology on the front-side. It reduces light pollution to the environment and neighbors.



No Hot Spot Effect When be Blocked

Using unique all back contact technology, the the positive and negative metal electrodes flow normally on the back-side when be blocked, reducing the risk of hot spots.



Long Warranty of 25 Years

The encapsulating materials use TPE backsheets, which is covered with PVF (Tedlar) film and use improved EPE film, ensuring service life of 25 years.



Better Performance in Low Light Scenes

No shield of metal electrodes on the front-side enables a spectral absorption range of 300nm-1200nm, which extends the working time. The maximum power generation gain is 2.01%.

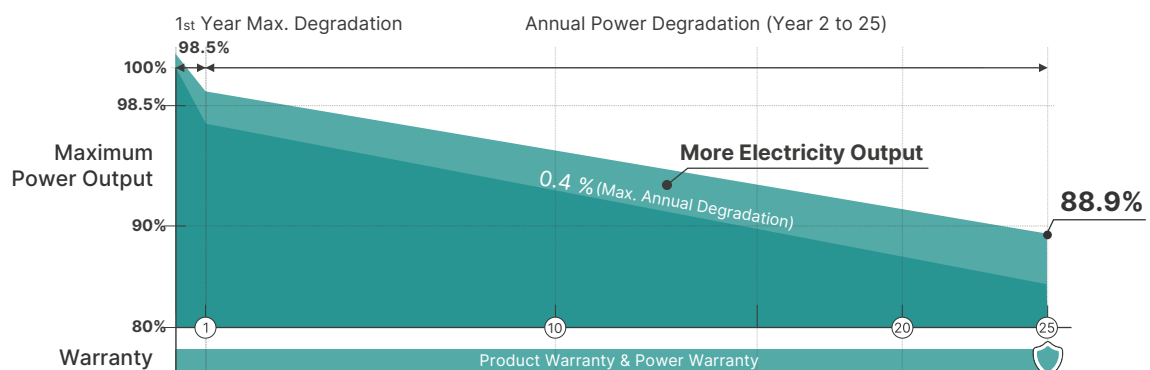


23.20%
Maximum Efficiency

0 ~ +5W
Positive Power Tolerance

25 Years
Product Warranty

25 Years
Power Warranty



Electrical Data(STC)

| Test Conditions | STC | STC | STC | STC | STC | STC | STC | STC | STC | STC | STC | STC | STC |
|--------------------------------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Peak Power Watts- P_{MAX} (Wp)* | 540 | 545 | 550 | 555 | 560 | 565 | 570 | 575 | 580 | 585 | 590 | 595 | 600 |
| Power Tolerance- P_{MAX} (W) | 0 ~ +5 | | | | | | | | | | | | |
| Maximum Power Voltage- V_{MPP} (V) | 42.86 | 43.01 | 43.16 | 43.31 | 43.46 | 43.61 | 43.76 | 43.91 | 44.06 | 44.21 | 44.36 | 44.51 | 44.66 |
| Maximum Power Current- I_{MPP} (A) | 12.66 | 12.73 | 12.79 | 12.86 | 12.92 | 12.98 | 13.05 | 13.11 | 13.18 | 13.24 | 13.31 | 13.37 | 13.44 |
| Open Circuit Voltage- V_{OC} (V) | 51.01 | 51.16 | 51.31 | 51.46 | 51.61 | 51.86 | 51.91 | 52.06 | 52.21 | 52.36 | 52.51 | 52.66 | 52.81 |
| Short Circuit Current- I_{SC} (A) | 13.76 | 13.81 | 13.86 | 13.91 | 13.97 | 14.03 | 14.09 | 14.15 | 14.21 | 14.27 | 14.33 | 14.40 | 14.46 |
| Module Efficiency η_m (%) | 20.90 | 21.10 | 21.30 | 21.50 | 21.70 | 21.90 | 22.10 | 22.30 | 22.50 | 22.60 | 22.80 | 23.00 | 23.20 |

* STC: Air Mass AM1.5, Irradiance at 1000W/m², Cell Temperature 25°C / Measuring tolerance: ±3%.

Electrical Data(NOCT)

| Test Conditions | NOCT | NOCT | NOCT | NOCT | NOCT | NOCT | NOCT | NOCT | NOCT | NOCT | NOCT | NOCT | NOCT |
|--------------------------------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Peak Power Watts- P_{MAX} (Wp)* | 404 | 408 | 412 | 416 | 420 | 421 | 427 | 429 | 434 | 437 | 441 | 445 | 448 |
| Power Tolerance- P_{MAX} (W) | 0 ~ +5 | | | | | | | | | | | | |
| Maximum Power Voltage- V_{MPP} (V) | 39.11 | 39.25 | 39.39 | 39.53 | 39.67 | 39.78 | 39.94 | 40.06 | 40.21 | 40.34 | 40.48 | 40.62 | 40.75 |
| Maximum Power Current- I_{MPP} (A) | 10.36 | 10.42 | 10.48 | 10.54 | 10.60 | 10.65 | 10.70 | 10.74 | 10.80 | 10.84 | 10.90 | 10.97 | 11.00 |
| Open Circuit Voltage- V_{OC} (V) | 47.90 | 48.04 | 48.18 | 48.32 | 48.46 | 48.60 | 48.74 | 48.88 | 49.02 | 49.16 | 49.30 | 49.44 | 49.58 |
| Short Circuit Current- I_{SC} (A) | 11.07 | 11.12 | 11.17 | 11.22 | 11.27 | 11.32 | 11.37 | 11.42 | 11.47 | 11.52 | 11.57 | 11.63 | 11.68 |
| Module Efficiency η_m (%) | 20.90 | 21.10 | 21.30 | 21.50 | 21.70 | 21.90 | 22.10 | 22.30 | 22.50 | 22.60 | 22.80 | 23.00 | 23.20 |

* NOCT: Irradiance at 800W/m², Cell Temperature 20°C, Wind Speed 1m/s / Measuring tolerance: ±3%.

Mechanical Data

| | |
|----------------------|---|
| Solar Cells | Monocrystalline |
| Cell Orientation | 144 cells |
| Module Dimensions | 2278mm × 1134mm × 30mm |
| Weight | 27.20kg |
| Front Glass | 3.2mm, High Transmission, AR Coated Heat Strengthened Glass |
| Encapsulant material | EVA |
| Backsheet | White |
| Frame | 30mm, Silver, Anodized Aluminium Alloy |
| J-Box | IP 68 Rated(3 Bypass Diodes) |
| Cables | Photovoltaic Technology Cable 4.0mm ² Portrait: N 1200mm / P 1200mm Length Can be Customized |
| Connector | MC4 Compatible |

* Please refer to regional datasheet for specific connector.

Temperature Ratings

| | |
|--|-------------|
| NOCT(Nominal Operating Cell Temperature) | 45°C (±2°C) |
| Temperature Coefficient of P_{MAX} | -0.29% / °C |
| Temperature Coefficient of V_{OC} | -0.23% / °C |
| Temperature Coefficient of I_{SC} | 0.05% / °C |

* Do not connect fuse in combiner box with two or more strings in parallel connection.

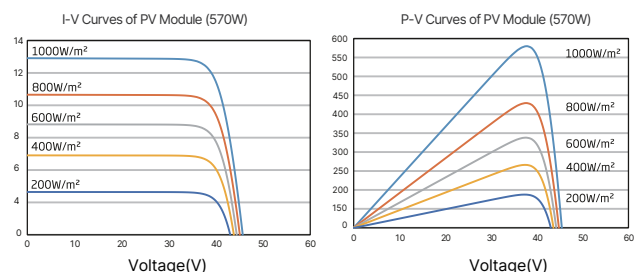
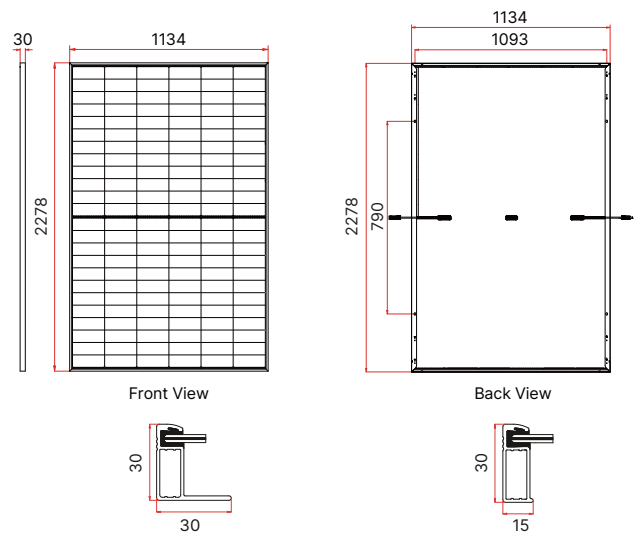
Application Environment

| | |
|-------------------------|---------------------|
| Operational Temperature | -40 ~ +85°C |
| Maximum System Voltage | 1500VDC(IEC) |
| Max Series Fuse Rating | 25A |
| Mechanical Performance | P 5400Pa / N 2400Pa |

Packaging Configuration

| | |
|----------------------------|------------|
| Modules Per Pallet: | 36 Pieces |
| Modules Per 40' Container: | 720 Pieces |

Dimensions of PV Module (mm)



Warranty

25 Years Product Warranty

25 Years Power Warranty

1.5% First Year Degradation

0.4% Annual Power Degradation

* Please refer to product warranty for details.