

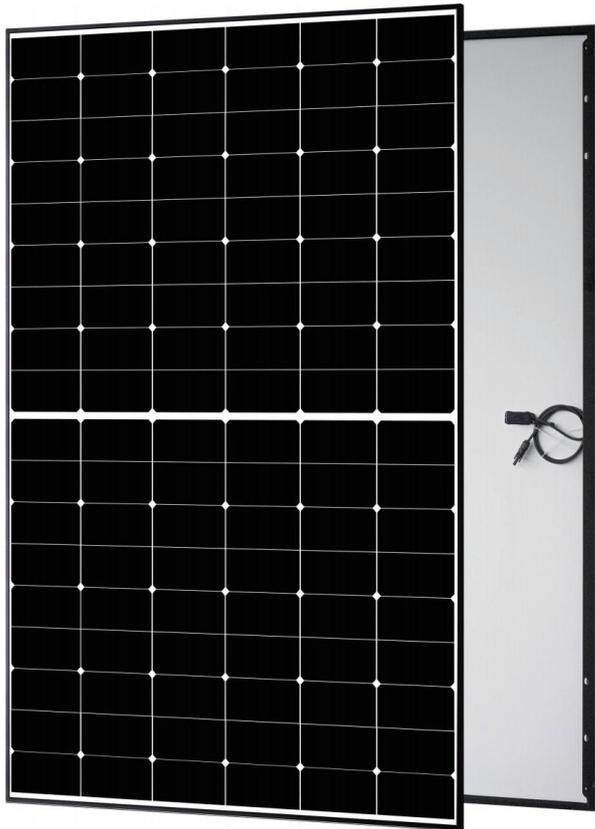
IBC Technology

1/2 Cut

Black Frame 425-450W

MS(425-450)BC-54H
Mono IBC 182mm 108 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 backsheet, 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%.

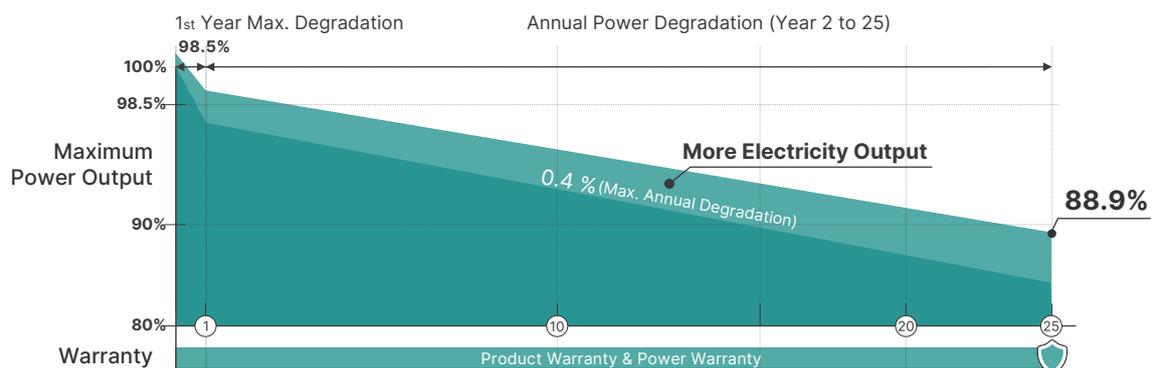


23.00%
Maximum Efficiency

0 ~ +5W
Positive Power Tolerance

25 Years
Product Warranty

25 Years
Power Warranty



Electrical Data(STC)

| Test Conditions | STC | STC | STC | STC | STC | STC |
|--------------------------------------|--------|-------|-------|-------|-------|-------|
| Peak Power Watts- P_{MAX} (Wp)* | 425 | 430 | 435 | 440 | 445 | 450 |
| Power Tolerance- P_{MAX} (W) | 0 ~ +5 | | | | | |
| Maximum Power Voltage- V_{MPP} (V) | 32.64 | 32.84 | 33.04 | 33.24 | 33.44 | 33.64 |
| Maximum Power Current- I_{MPP} (A) | 13.03 | 13.10 | 13.17 | 13.25 | 13.31 | 13.38 |
| Open Circuit Voltage- V_{OC} (V) | 38.93 | 39.13 | 39.33 | 39.53 | 39.73 | 39.93 |
| Short Circuit Current- I_{SC} (A) | 14.07 | 14.15 | 14.22 | 14.29 | 14.37 | 14.45 |
| Module Efficiency η_m (%) | 21.80 | 22.00 | 22.30 | 22.50 | 22.80 | 23.00 |

* 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 |
|--------------------------------------|--------|-------|-------|-------|-------|-------|
| Peak Power Watts- P_{MAX} (Wp)* | 318 | 321 | 325 | 329 | 332 | 336 |
| Power Tolerance- P_{MAX} (W) | 0 ~ +5 | | | | | |
| Maximum Power Voltage- V_{MPP} (V) | 29.78 | 29.97 | 30.15 | 30.33 | 30.51 | 30.70 |
| Maximum Power Current- I_{MPP} (A) | 10.67 | 10.72 | 10.78 | 10.85 | 10.90 | 10.95 |
| Open Circuit Voltage- V_{OC} (V) | 36.55 | 36.74 | 36.93 | 37.12 | 37.30 | 37.49 |
| Short Circuit Current- I_{SC} (A) | 11.36 | 11.43 | 11.49 | 11.54 | 11.61 | 11.64 |
| Module Efficiency η_m (%) | 21.80 | 22.00 | 22.30 | 22.50 | 22.80 | 23.00 |

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

Mechanical Data

| | |
|----------------------|---|
| Solar Cells | Monocrystalline |
| Cell Orientation | 108 cells |
| Module Dimensions | 1722mm × 1134mm × 30mm |
| Weight | 20.80kg |
| Front Glass | 3.2mm, High Transmission, AR Coated Heat Strengthened Glass |
| Encapsulant material | EVA |
| Backsheet | White |
| Frame | 30mm, Black, 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.

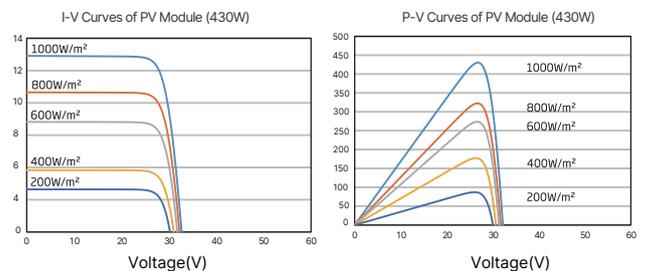
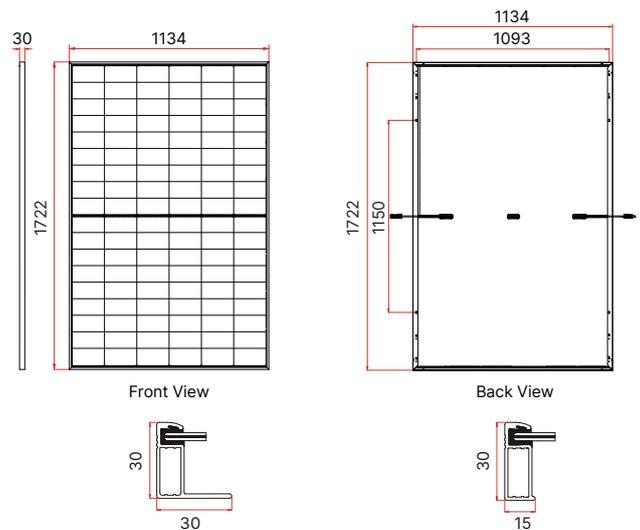
Application Environment

| | |
|-------------------------|---------------------|
| 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: | 936 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.