

## HJT Technology

### 1/2 Cut

### Full Black 500-520W

MS(500-520)JT-54H  
Mono HJT 210mm 108 Cells

**Most Advanced  
Unique Solar Technology**



#### High Bifacial Rate

The HJT cell uses a symmetrical front and back structure, showing an ultra-high bifacial rate. The maximum power generation utilization rate on the back can reach 95%.



#### No PID and LID Effects

HJT N-type silicon is doped with phosphorus, and the surface is TCO film, which abandons the insulating layer. Therefore, the HJT cell completely eliminates PID and LID effects.



#### Low Temperature Coefficient

The power temperature coefficient of HJT PV modules is only  $-0.24\%/^{\circ}\text{C}$ . HJT modules operating in hot environments can bring more power generation gains.



#### Consistent Color

Due to the characteristics of HJT cell process, HJT module color is basically the same without color difference. It creates a beautiful and coherent visual effect. HJT technology is the first choice for full-black modules.



#### High Profitability

With cutting-edge technology and excellent performance, within the product life cycle, the return on investment of HJT modules is 18% higher than that of PERC modules and 12% higher than that of Topcon modules.



#### Butyl Encapsulation

Better water resistance, excellent air tightness, extended module lifespan.

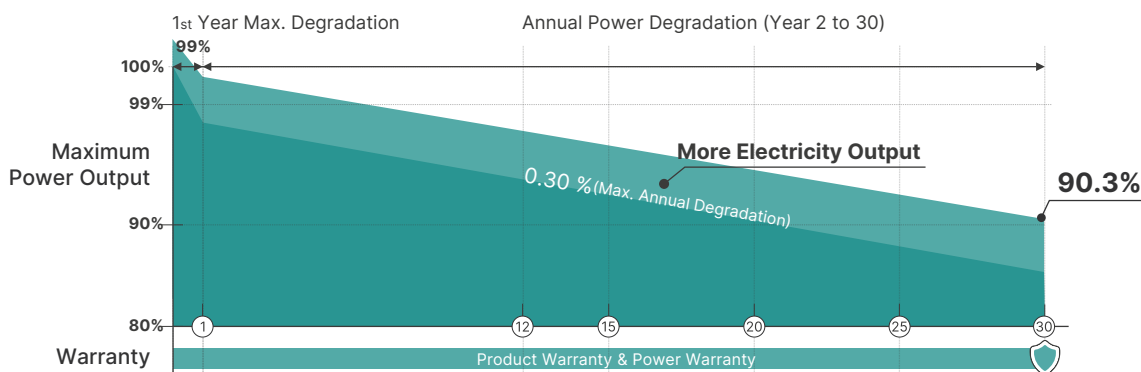


**23.40%**  
Maximum Efficiency

**0 ~ +5W**  
Positive Power Tolerance

**30 Years**  
Product Warranty

**30 Years**  
Power Warranty



## Electrical Data(STC / NOCT)

| Test Conditions                      | STC    | NOCT  | STC   | NOCT  | STC   | NOCT  | STC   | NOCT  | STC   | NOCT  |
|--------------------------------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Peak Power Watts- $P_{MAX}$ (Wp)*    | 500    | 381   | 505   | 385   | 510   | 389   | 515   | 393   | 520   | 397   |
| Power Tolerance- $P_{MAX}$ (W)       | 0 ~ +5 |       |       |       |       |       |       |       |       |       |
| Maximum Power Voltage- $V_{MPP}$ (V) | 34.16  | 32.63 | 34.27 | 32.73 | 34.38 | 32.83 | 34.49 | 32.93 | 34.60 | 33.03 |
| Maximum Power Current- $I_{MPP}$ (A) | 14.64  | 11.70 | 14.74 | 11.72 | 14.84 | 11.86 | 14.94 | 11.94 | 15.04 | 12.02 |
| Open Circuit Voltage- $V_{OC}$ (V)   | 40.76  | 38.90 | 40.87 | 39.01 | 40.98 | 39.11 | 41.09 | 39.22 | 41.20 | 39.32 |
| Short Circuit Current- $I_{SC}$ (A)  | 15.48  | 12.37 | 15.59 | 12.46 | 15.70 | 12.55 | 15.81 | 12.64 | 15.92 | 12.72 |
| Module Efficiency $\eta_m$ (%)       | 22.50  | 22.50 | 22.70 | 22.70 | 22.90 | 22.90 | 23.20 | 23.20 | 23.40 | 23.40 |

\* STC: Air Mass AM1.5, Irradiance at 1000W/m<sup>2</sup>, Cell Temperature 25°C / Measuring tolerance: ±3%.

\* NOCT: Irradiance at 800W/m<sup>2</sup>, Cell Temperature 20°C, Wind Speed 1m/s / Measuring tolerance: ±3%.

## BNPI

|                                      |       |       |       |       |       |
|--------------------------------------|-------|-------|-------|-------|-------|
| 10% Maximum Power- $P_{MAX}$ (Wp)    | 560   | 566   | 571   | 577   | 583   |
| Maximum Power Voltage- $V_{MPP}$ (V) | 34.28 | 34.39 | 34.50 | 34.61 | 34.72 |
| Maximum Power Current- $I_{MPP}$ (A) | 16.36 | 16.47 | 16.58 | 16.69 | 16.80 |
| Open Circuit Voltage- $V_{OC}$ (V)   | 40.90 | 41.01 | 41.12 | 41.23 | 41.34 |
| Short Circuit Current- $I_{SC}$ (A)  | 17.36 | 17.48 | 17.61 | 17.73 | 17.85 |

BNPI: AM1,5 , 1000W/m<sup>2</sup> , 1000W/m<sup>2</sup> , 25°C.

## Mechanical Data

|                      |                                                                                                               |
|----------------------|---------------------------------------------------------------------------------------------------------------|
| Solar Cells          | Heterojunction                                                                                                |
| Cell Orientation     | 108cells (6 x 18)                                                                                             |
| Module Dimensions    | 1960mm × 1134mm × 30mm                                                                                        |
| Weight               | 27.10kg                                                                                                       |
| Front Glass          | 2.0mm, High Transmission, AR Coated Heat Strengthened Glass                                                   |
| Encapsulant material | POE                                                                                                           |
| Back Glass           | 2.0mm, High Transmission, Heat Strengthened Glass                                                             |
| Frame                | Anodized Aluminum Alloy Frame                                                                                 |
| J-Box                | IP 68 Rated(3 Bypass Diodes)                                                                                  |
| Cables               | Photovoltaic Technology Cable 4.0mm <sup>2</sup><br>Portrait: N 1200mm / P 1200mm<br>Length Can be Customized |
| Connector            | MC4 Compatible                                                                                                |

\* Please refer to regional datasheet for specific connector.

## Temperature Ratings

|                                          |             |
|------------------------------------------|-------------|
| NOCT(Nominal Operating Cell Temperature) | 44°C (±2°C) |
| Temperature Coefficient of $P_{MAX}$     | -0.24% / °C |
| Temperature Coefficient of $V_{OC}$      | -0.22% / °C |
| Temperature Coefficient of $I_{SC}$      | 0.04% / °C  |

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

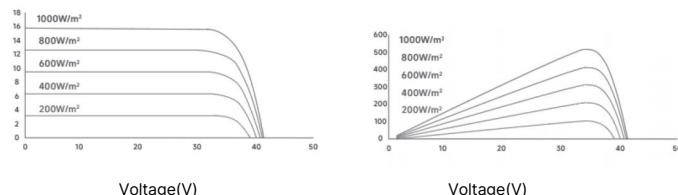
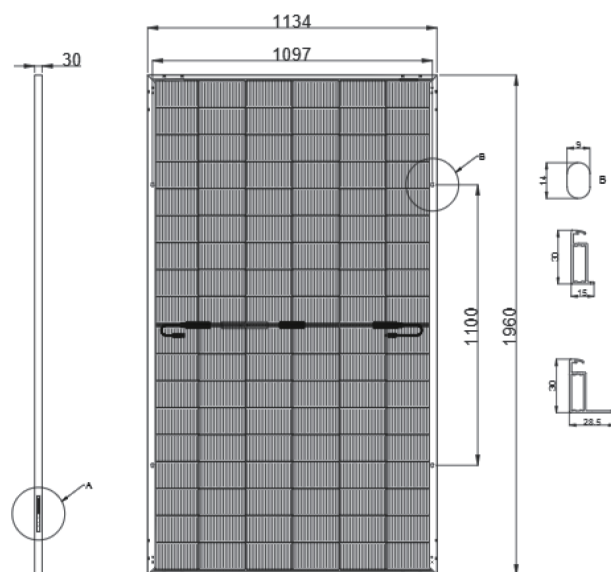
## Application Environment

|                         |                     |
|-------------------------|---------------------|
| Operational Temperature | -40 ~ +85°C         |
| Maximum System Voltage  | 1500V DC            |
| Max Series Fuse Rating  | (IEC)30A            |
| Mechanical Performance  | P 5400Pa / N 2400Pa |

## Packaging Configuration

|                                       |
|---------------------------------------|
| Modules Per Pallet: 36 Pieces         |
| Modules Per 40' Container: 864 Pieces |

## Dimensions of PV Module (mm)



## Warranty

|                                |
|--------------------------------|
| 30 Years Product Warranty      |
| 30 Years Power Warranty        |
| 1% First Year Degradation      |
| 0.30% Annual Power Degradation |

\* Please refer to product warranty for details.