

## HJT Technology

### 1/2 Cut

### Full Black 500-520W

MS500-520DJT-54HRB  
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.

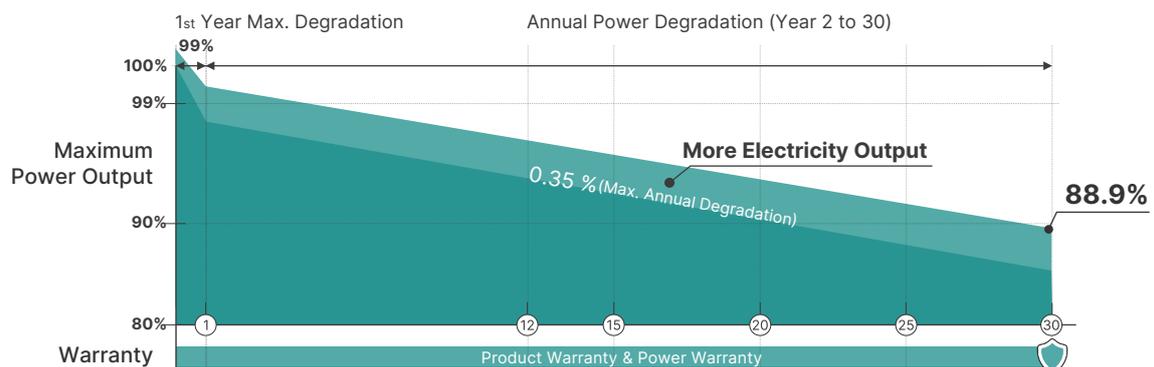


**23.40%**  
Maximum Efficiency

**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

Peak Power Watts- $P_{MAX}$ (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	28.50kg
Front Glass	2.0mm, High Transmission, AR Coated Heat Strengthened Glass
Encapsulant material	POE
Back Glass	2.0mm, High Transmission, Heat Strengthened Glass
Frame	30mm Black, Anodized Aluminium Alloy
J-Box	IP 68 Rated(3 Bypass Diodes)
Cables	Photovoltaic Technology Cable 4.0mm <sup>2</sup> 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)	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.

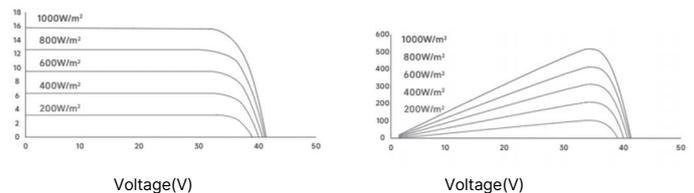
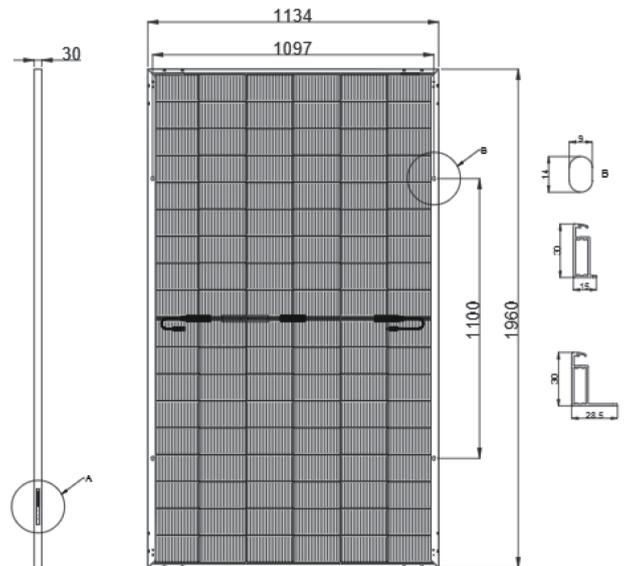
## Application Environment

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

0.35% Annual Power Degradation

\* Please refer to product warranty for details.