

P-type PERC

BACKSHEET MONOCRYSTALLINE MODULE

TSM-DE18 540-560W

560_W / MAXIMUM POWER OUTPUT

21.7% / MAXIMUM EFFICIENCY



High power up to 560W

- Up to 21.7% module efficiency with high density interconnect technology
- Multi-busbar technology for better light trapping effect, lower series resistance and improved current collection



High reliability

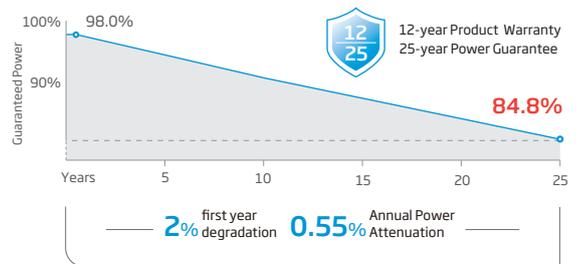
- Ensured PID resistance through cell process and module material control
- Resistant to harsh environments such as salt, ammonia, sand, high temperature and high humidity areas
- Mechanical performance up to 5400 Pa positive load and 2400 Pa negative load



High energy yield

- Excellent IAM (Incident Angle Modifier) and low irradiation performance, validated by 3rd party certifications
- The unique design provides optimized energy production under inter-row shading conditions
- Lower temperature coefficient (-0.34%) and operating temperature

Performance Warranty



* Please refer to product warranty for details

Comprehensive Products and System Certificates

IEC61215/IEC61730/IEC61701/IEC62716

ISO 9001: Quality Management System

ISO 14001: Environmental Management System

ISO14064: Greenhouse Gases Emissions Verification

ISO45001: Occupational Health and Safety Management System



ELECTRICAL DATA (STC)

| | | | | | |
|-------------------------------------|--------|-------|-------|-------|-------|
| Peak Power Watts- $P_{MAX}(W_p)^*$ | 540 | 545 | 550 | 555 | 560 |
| Power Selection (W)** | 0 ~ +5 | | | | |
| Maximum Power Voltage- $V_{MPP}(V)$ | 41.2 | 41.4 | 41.6 | 41.9 | 42.2 |
| Maximum Power Current- $I_{MPP}(A)$ | 13.12 | 13.16 | 13.21 | 13.25 | 13.29 |
| Open Circuit Voltage- $V_{oc}(V)$ | 49.3 | 49.5 | 49.8 | 50.0 | 50.2 |
| Short Circuit Current- $I_{sc}(A)$ | 13.92 | 13.97 | 14.02 | 14.07 | 14.12 |
| Module Efficiency $\eta_m(\%)$ | 20.9 | 21.1 | 21.3 | 21.5 | 21.7 |

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

ELECTRICAL DATA (NOCT)

| | | | | | |
|-------------------------------------|-------|-------|-------|-------|-------|
| Peak Power Watts- $P_{MAX}(W_p)$ | 408 | 411 | 415 | 418 | 422 |
| Maximum Power Voltage- $V_{MPP}(V)$ | 38.3 | 38.5 | 38.7 | 38.9 | 39.1 |
| Maximum Power Current- $I_{MPP}(A)$ | 10.65 | 10.69 | 10.72 | 10.75 | 10.79 |
| Open Circuit Voltage- $V_{oc}(V)$ | 46.4 | 46.6 | 46.9 | 47.1 | 47.2 |
| Short Circuit Current- $I_{sc}(A)$ | 11.22 | 11.26 | 11.30 | 11.34 | 11.38 |

NOCT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s.

TEMPERATURE RATINGS

| | |
|---|-------------|
| NOCT (Nominal Operating Cell Temperature) | 43°C (±2°C) |
| Temperature Coefficient of P_{MAX} | -0.34% /°C |
| Temperature Coefficient of V_{oc} | -0.25% /°C |
| Temperature Coefficient of I_{sc} | 0.04% /°C |

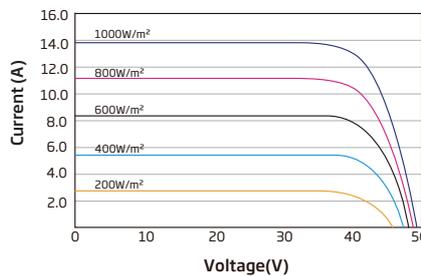
Due to different testing methods, the actual performances might differ from the declared specifications.

MAXIMUM RATINGS

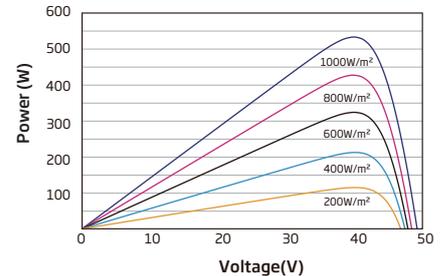
| | |
|-------------------------|----------------|
| Operational Temperature | -40~+85°C |
| Maximum System Voltage | 1500V DC (IEC) |
| Max Series Fuse Rating | 25A |

CURVES OF PV MODULE

I-V CURVES OF PV MODULE (550W)



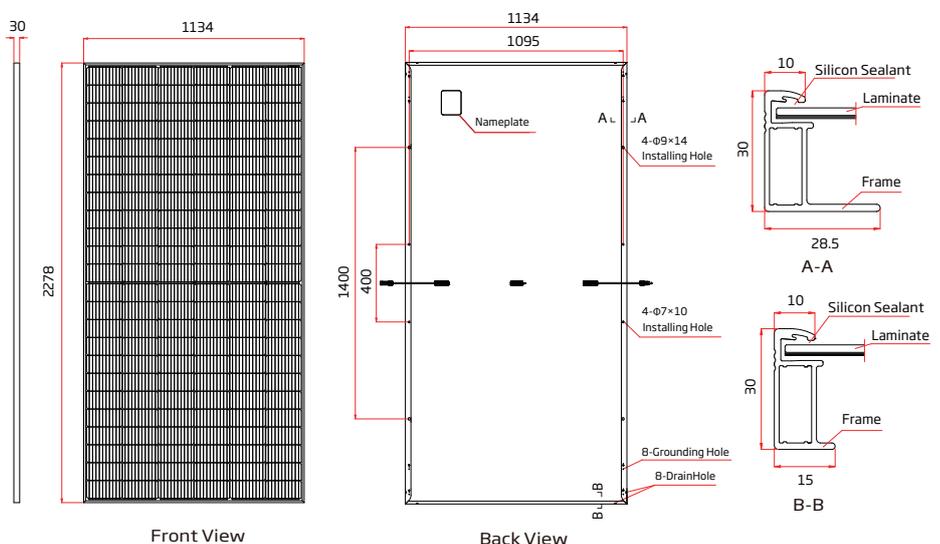
P-V CURVES OF PV MODULE (550W)



MECHANICAL DATA

| | |
|-------------------|---|
| Solar Cells | Monocrystalline |
| No. of cells | 144 cells |
| Module Dimensions | 2278 × 1134 × 30 mm (89.69 × 44.65 × 1.18 inches) |
| Weight | 27.5 kg (60.6 lb) |
| Front Glass | 3.2mm (0.13inches), AR Coating Tempered Glass |
| Backsheet | White |
| Frame | 30mm (1.18 inches) Anodized Aluminium Alloy |
| J-Box | IP 68 rated |
| Cables | Photovoltaic Technology Cable 4.0mm ² (0.006 inches ²) Portrait: 350/280 mm (13.78/11.02 inches) Length can be customized |
| Connector | MC4 EV02 / TS4 Plus / TS4* |
| Packaging | Modules per box: 36 pieces Modules per 40' container: 720 pieces |

*Please refer to regional datasheet for specified connector.



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CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.
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