Founded in 1997, Trina Solar is the world’s leading total solution provider for solar energy. With local presence around the globe, Trina Solar is able to provide exceptional service to each customer in each market and deliver our innovative, reliable products with the backing of Trina as a strong, bankable brand. Trina Solar now distributes its PV products to over 100 countries all over the world. We are committed to building strategic, mutually beneficial collaborations with installers, developers, distributors and other partners in driving smart energy together.

### Comprehensive Products and System Certificates
- IEC61215/IEC61730/IEC61701/IEC62716
- ISO 9001: Quality Management System
- ISO 14001: Environmental Management System
- ISO45001: Occupational Health and Safety Management System

### High customer value
- Lower LCOE (Levelized Cost Of Energy), reduced BOS (Balance Of System) cost, shorter payback time
- Lower guaranteed first year and annual degradation
- Designed for compatibility with existing mainstream system components
- Higher return on Investment

### High power up to 505W
- Large area cells based on 210mm silicon wafers and 1/3-cut cell technology
- Up to 21.1% module efficiency with high density interconnect technology
- Multi-busbar technology for better light trapping effect, lower series resistance and improved current collection

### High reliability
- Minimized micro-cracks with innovative non-destructive cutting technology
- 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 (-0.36%) and operating temperature

### Trina Solar’s VERTEX Backsheet Performance Warranty

![Graph showing the performance warranty over 25 years]

- **Guaranteed Power**
  - 90% after 5 years
  - 84.8% after 25 years

- **Years**
  - 0
  - 5
  - 10
  - 15
  - 20
  - 25

- **Guaranteed Power**
  - 500W+

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**Trina Solar**

500W+

MAXIMUM POWER OUTPUT

21.1%

MAXIMUM EFFICIENCY

0~+5W

POSITIVE POWER TOLERANCE

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**PRODUCTS**

TSM-DE18M(II)

**POWER RANGE**

480-505W
**Measuring tolerance:** ±3%.

41 ¥ (±3 ¥)

- 0.36%/
- 0.26%/
0.04%/ ¥

**NMOT (Nominal Module Operating Temperature)**

- Operational Temperature: -40°C to +85°C
- Maximum System Voltage: 1500V DC (IEC)

**WARRANTY**

- 12 year Product Workmanship Warranty
- 25 year Power Warranty
- 2% first year degradation
- 0.55% Annual Power Attenuation

(Please refer to product warranty for details)

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

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**PACKAGING CONFIGURATION**

- Modules per box: 30 pieces
- Modules per 40’ container: 600 pieces

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**ELECTRICAL DATA (STC)**

<table>
<thead>
<tr>
<th>Peak Power Watts-PMAX (Wp)</th>
<th>480</th>
<th>485</th>
<th>490</th>
<th>495</th>
<th>500</th>
<th>505</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Tolerance-PMAX (%)</td>
<td>0 – +5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum Power Voltage-VMPP (V)</td>
<td>42.0</td>
<td>42.2</td>
<td>42.4</td>
<td>42.6</td>
<td>42.8</td>
<td>43.0</td>
</tr>
<tr>
<td>Maximum Power Current-IMP (A)</td>
<td>11.42</td>
<td>11.49</td>
<td>11.56</td>
<td>11.63</td>
<td>11.69</td>
<td>11.75</td>
</tr>
<tr>
<td>Open Circuit Voltage-VOC (V)</td>
<td>50.8</td>
<td>51.1</td>
<td>51.3</td>
<td>51.5</td>
<td>51.7</td>
<td>51.9</td>
</tr>
<tr>
<td>Short Circuit Current-ISC (A)</td>
<td>11.99</td>
<td>12.07</td>
<td>12.14</td>
<td>12.21</td>
<td>12.28</td>
<td>12.35</td>
</tr>
<tr>
<td>Module Efficiency ηm (%)</td>
<td>20.1</td>
<td>20.3</td>
<td>20.5</td>
<td>20.7</td>
<td>20.9</td>
<td>21.1</td>
</tr>
</tbody>
</table>

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass AM1.5.

**ELECTRICAL DATA (NMOT)**

<table>
<thead>
<tr>
<th>Maximum Power-PMAX (Wp)</th>
<th>363</th>
<th>367</th>
<th>371</th>
<th>375</th>
<th>379</th>
<th>382</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Power Voltage-VMPP (V)</td>
<td>39.6</td>
<td>39.8</td>
<td>40.0</td>
<td>40.2</td>
<td>40.4</td>
<td>40.6</td>
</tr>
<tr>
<td>Open Circuit Voltage-VOC (V)</td>
<td>48.0</td>
<td>48.2</td>
<td>48.4</td>
<td>48.6</td>
<td>48.8</td>
<td>49.0</td>
</tr>
<tr>
<td>Short Circuit Current-ISC (A)</td>
<td>9.65</td>
<td>9.72</td>
<td>9.77</td>
<td>9.83</td>
<td>9.89</td>
<td>9.94</td>
</tr>
</tbody>
</table>

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

**MECHANICAL DATA**

- **Solar Cells**: Monocrystalline
- **Cell Orientation**: 150 cells
- **Module Dimensions**: 2176 × 1098 × 35 mm (85.67 × 43.23 × 1.38 inches)
- **Weight**: 26.3 kg (58.0 lb)
- **Glass**: 3.2 mm (0.13 inches), High Transmission, AR Coated Heat Strengthened Glass
- **Backsheet**: White
- **Frame**: 35 mm (1.38 inches) Anodized Aluminium Alloy
- **J-Box**: IP 68 rated
- **Cables**: Photovoltaic Technology Cable 4.0mm² (0.006 inches²), Portrait: N 280mm/P 280mm (11.02/11.02 inches), Landscape: N 1400 mm/P 1400 mm (55.12/55.12 inches)
- **Connector**: MC4 EVO2 / TS4* (Please refer to regional datasheet for specified connector)

**TEMPERATURE RATINGS**

- **NMOT (Nominal Module Operating Temperature)**: 41°C (±3°C)
- **Temperature Coefficient of PMAX**: -0.36%/°C
- **Temperature Coefficient of VOC**: -0.26%/°C
- **Temperature Coefficient of ISC**: 0.04%/°C

**MAXIMUM RATINGS**

- **Operational Temperature**: -40~+85°C
- **Maximum System Voltage**: 1500V DC (IEC)
- **Max Series Fuse Rating**: 20A

**0.55% Annual Power Attenuation**

(Please refer to product warranty for details)