**Optimized LCoE**

- Maximum yield per space
- Savings in labour cost
- Best suited for tracking systems

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**High power output**

- Bifacial mono PERC cells combined with multi busbar technology
- Half-cut cells with lower thermal coefficients and reduced interconnection losses
- Power gain up to 25% when mounted on tracker, depending on albedo

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**Highly reliable due to stringent quality control**

- Over 30 in-house tests (UV, TC, HF, and many more)
- In-house testing goes well beyond certification requirements
- PID resistant
- 2x 100% inline EL inspection

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**Certified to withstand challenging environmental conditions**

- Salt Mist Corrosion
- Ammonia Corrosion
- Blowing Sand

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**Trina Solar’s DUOMAX Linear Performance Warranty**

- 0.5% Annual Degradation
- Over 30 years

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**Comprehensive Product And System Certificates**

- IEC61215/IEC61730/UL1703
- IEC61701: Salt Mist Corrosion
- IEC62716: Ammonia Corrosion
- ISO9001; ISO14001; OHSAS18001

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**144 HALF-CUT MONOCRYSTALLINE CELLS**

**385-410W POWER OUTPUT RANGE**

**20.0% MAXIMUM EFFICIENCY**

**0/+5W POSITIVE POWER TOLERANCE**

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Founded in 1997, Trina Solar is the world’s leading comprehensive solutions provider for solar energy. We believe close cooperation with our partners is critical to success. Trina Solar now distributes its PV products to over 60 countries all over the world. Trina Solar is able to provide exceptional service to each customer in each market and supplement our innovative, reliable products with the backing of Trina Solar as a strong, bankable partner. We are committed to building strategic, mutually beneficial collaboration with installers, developers, distributors and other partners.

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Trina standard
Industry standard
Trina’s DUOMAX Linear Warranty
Trina standard
Industry standard
### Dimensions of PV Module
**TSM-DEG15MC.20(II)**

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>1011 mm</td>
</tr>
<tr>
<td>Width</td>
<td>2031 mm</td>
</tr>
<tr>
<td>Depth</td>
<td>25 mm</td>
</tr>
</tbody>
</table>

### Electrical Data @ STC

<table>
<thead>
<tr>
<th>Model</th>
<th>TSM-385</th>
<th>TSM-390</th>
<th>TSM-395</th>
<th>TSM-400</th>
<th>TSM-405</th>
<th>TSM-410</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-MAX (W)</td>
<td>385</td>
<td>390</td>
<td>395</td>
<td>400</td>
<td>405</td>
<td>410</td>
</tr>
<tr>
<td>P-MAX (W)</td>
<td>0/+5</td>
<td>0/+5</td>
<td>0/+5</td>
<td>0/+5</td>
<td>0/+5</td>
<td>0/+5</td>
</tr>
<tr>
<td>U-MPP (V)</td>
<td>41.1</td>
<td>41.4</td>
<td>41.7</td>
<td>42.0</td>
<td>42.3</td>
<td>42.6</td>
</tr>
<tr>
<td>U-OC (V)</td>
<td>49.0</td>
<td>49.2</td>
<td>49.4</td>
<td>49.6</td>
<td>49.8</td>
<td>50.0</td>
</tr>
<tr>
<td>I-SC (A)</td>
<td>10.03</td>
<td>10.08</td>
<td>10.12</td>
<td>10.16</td>
<td>10.21</td>
<td>10.25</td>
</tr>
<tr>
<td>Efficiency (%)</td>
<td>18.7</td>
<td>19.0</td>
<td>19.2</td>
<td>19.5</td>
<td>19.7</td>
<td>20.0</td>
</tr>
</tbody>
</table>

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

### Electrical Data @ NMOT

<table>
<thead>
<tr>
<th>Model</th>
<th>TSM-385</th>
<th>TSM-390</th>
<th>TSM-395</th>
<th>TSM-400</th>
<th>TSM-405</th>
<th>TSM-410</th>
</tr>
</thead>
<tbody>
<tr>
<td>P-MAX (W)</td>
<td>290</td>
<td>294</td>
<td>298</td>
<td>302</td>
<td>305</td>
<td>309</td>
</tr>
<tr>
<td>P-MAX (W)</td>
<td>21.6</td>
<td>21.9</td>
<td>22.1</td>
<td>22.4</td>
<td>22.7</td>
<td>23.0</td>
</tr>
<tr>
<td>U-MPP (V)</td>
<td>38.8</td>
<td>39.1</td>
<td>39.3</td>
<td>39.6</td>
<td>39.9</td>
<td>40.2</td>
</tr>
<tr>
<td>I-MPP (A)</td>
<td>12.6</td>
<td>12.9</td>
<td>13.1</td>
<td>13.4</td>
<td>13.7</td>
<td>14.0</td>
</tr>
<tr>
<td>U-OC (V)</td>
<td>46.7</td>
<td>46.9</td>
<td>47.1</td>
<td>47.3</td>
<td>47.5</td>
<td>47.7</td>
</tr>
<tr>
<td>I-SC (A)</td>
<td>8.09</td>
<td>8.13</td>
<td>8.16</td>
<td>8.19</td>
<td>8.23</td>
<td>8.27</td>
</tr>
</tbody>
</table>

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

### Mechanical Data

- **Solar Cells**: Monocrystalline
- **Cell Orientation**: 144 cells (6 x 24)
- **Module Dimensions**: 2031 x 1011 x 25 mm
- **Weight**: 26.3 kg
- **Glass**: 2 mm, High Transmission, AR Coated Heat Strengthened Glass
- **Encapsulant Material**: POE/EVA
- **Back Glass**: 2 mm, Heat Strengthened Glass (White Grid Glass)
- **Frame**: 25 mm Anodized Aluminium Alloy
- **J-Box**: IP 68 rated
- **Cables**: Photovoltaic Cable 4.0 mm²,
- **Connector**: TS4

### Temperature Ratings

- **NMOT (Nominal Module Operating Temperature)**: 41°C (±3K)
- **Temperature Coefficient of P-MAX**: -0.37%/K
- **Temperature Coefficient of U-MPP**: -0.29%/K
- **Temperature Coefficient of I-MPP**: 0.05%/K

### Warranty

- 10 year Product Workmanship Warranty
- 30 year Linear Performance Warranty

*(Please refer to product warranty for details)*

### Maximum Ratings

- **Operational Temperature**: -40 to +85°C
- **Maximum System Voltage**: 1500 VDC (IEC) 1500 VDC (UL)
- **Max Series Fuse Rating**: 20 A
- **Snow Load**: 2400 Pa (1600 Pa*)
- **Wind Load**: 2400 Pa (1600 Pa*)

*Design load with safety factor 1.5.
*(DO NOT connect Fuse in Combiner Box with two or more strings in parallel connection)*

### Packaging Configuration

- Modules per box: 32 pieces
- Modules per 40’ container: 704 pieces

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