THE DUOMAX
DUAL GLASS 144 HALF-CELL MODULE

144-Cell
MONOCRYSSTALLINE MODULE

385-405W
POWER OUTPUT RANGE

19.7%
MAXIMUM EFFICIENCY

0~+5W
POSITIVE POWER TOLERANCE

PRODUCTS
POWER RANGE
TSM-DEG15H.20(II)  385-405W

Increased value
• Reduce BOS cost with high power bin and 1500V system voltage
• 30 year linear warranty
• 0.5% annual degradation
• Low thermal coefficients for greater energy production at higher temperature

Half-cell design brings higher efficiency
• New cell string layout and split J-box location to reduce the energy loss caused by inter-row shading
• Integrated LRF (Light Redirecting Film) to enhance power, specially for ground-mount applications
• Lower cell connection power losses due to half-cell layout (144 monocrystalline)

Highly reliable due to stringent quality control
• Over 30 in-house tests (UV, TC, HF etc)
• Increased module robustness to minimize micro-cracks
• PID resistant and free of snail trails
• Internal test requirement of Trina more stringent than certification authority

Certified to withstand the most challenging environmental conditions
• 2400 Pa negative load
• 5400 Pa positive load

Comprehensive Products And System Certificates
IEC61215/IEC61703/IEC61730/IEC61701/IEC62716
ISO 9001: Quality Management System
ISO 14001: Environmental Management System
ISO14064: Greenhouse gases Emissions Verification
OHSAS 18001: Occupation Health and Safety Management System

Trina Solar’s DUOMAX Linear Performance Warranty

Additional value from Trina Solar’s DUOMAX warranty

Guaranteed Power

Years
0  1  2  3  4  5  10  15  20  25  30

EU-28 WEEE
COMPLIANT
RECYCLABLE
PACKAGING

Trina Solar

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 is able to provide exceptional service to each customer in each market and supplement our innovative, reliable products with the backing of Trina as a strong, bankable partner. We are committed to building strategic, mutually beneficial collaboration with installers, developers, distributors and other partners.
**ELECTRICAL DATA (STC)**

<table>
<thead>
<tr>
<th>Peak Power Watts-P_{max} (Wp)*</th>
<th>385</th>
<th>390</th>
<th>395</th>
<th>400</th>
<th>405</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Output Tolerance-P_{max} (W)</td>
<td>0 ~ +5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum Power Voltage-V_{mp} (V)</td>
<td>40.1</td>
<td>40.5</td>
<td>40.8</td>
<td>41.1</td>
<td>41.4</td>
</tr>
<tr>
<td>Maximum Power Current-I_{mp} (A)</td>
<td>9.61</td>
<td>9.64</td>
<td>9.69</td>
<td>9.74</td>
<td>9.79</td>
</tr>
<tr>
<td>Open Circuit Voltage-V_{oc} (V)</td>
<td>48.5</td>
<td>49.7</td>
<td>50.1</td>
<td>50.4</td>
<td>50.8</td>
</tr>
<tr>
<td>Short Circuit Current-I_{sc} (A)</td>
<td>10.03</td>
<td>10.08</td>
<td>10.13</td>
<td>10.18</td>
<td>10.23</td>
</tr>
<tr>
<td>Module Efficiency η_{p} (%)</td>
<td>18.7</td>
<td>19.0</td>
<td>19.2</td>
<td>19.5</td>
<td>19.7</td>
</tr>
</tbody>
</table>

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

*Measuring tolerance: ±3%.

**ELECTRICAL DATA (NMOT)**

<table>
<thead>
<tr>
<th>Maximum Power-P_{max} (Wp)</th>
<th>291</th>
<th>295</th>
<th>298</th>
<th>302</th>
<th>306</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Power Voltage-V_{mp} (V)</td>
<td>37.9</td>
<td>38.4</td>
<td>38.7</td>
<td>38.9</td>
<td>39.2</td>
</tr>
<tr>
<td>Maximum Power Current-I_{mp} (A)</td>
<td>7.66</td>
<td>7.68</td>
<td>7.71</td>
<td>7.76</td>
<td>7.81</td>
</tr>
<tr>
<td>Open Circuit Voltage-V_{oc} (V)</td>
<td>45.6</td>
<td>46.8</td>
<td>47.2</td>
<td>47.4</td>
<td>47.9</td>
</tr>
<tr>
<td>Short Circuit Current-I_{sc} (A)</td>
<td>8.09</td>
<td>8.13</td>
<td>8.17</td>
<td>8.21</td>
<td>8.27</td>
</tr>
</tbody>
</table>

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

**MECHANICAL DATA**

- **Solar Cells**: Monocrystalline
- **Module Orientation**: 144 cells (6 × 24)
- **Module Dimensions**: 2031 × 1011 × 25 mm (79.96 × 39.80 × 0.98 inches)
- **Weight**: 31.7 kg (69.9 lb)
- **Front Glass**: 2.5 mm (0.10 inches), High Transmission, AR Coated Heat Strengthened Glass
- **Encapsulant Material**: EVA
- **Back Glass**: 2.5 mm (0.10 inches), Heat Strengthened Glass
- **Frame**: 25 mm (0.98 inches) Anodized Aluminium Alloy
- **J-Box**: IP 68 rated
- **Cables**: Photovoltaic Technology Cable 4.0mm² (0.066 inches²), Portrait: N 140mm/P 285mm (5.51/11.22 inches)
- **Landscape**: N 1400 mm / P 1400 mm (55.12/55.12 inches)
- **Connector**: Trina TS4

**TEMPERATURE RATINGS**

- NMOT (Nominal Module Operating Temperature): 41°C (±3°C)
- Temperature Coefficient of P_{mp} [°C]: -0.37%/°C
- Temperature Coefficient of Voc [°C]: -0.29%/°C
- Temperature Coefficient of Isc [°C]: 0.05%/°C

**MAXIMUM RATINGS**

- Operational Temperature: -40~+85°C
- Maximum System Voltage: 1500V DC (IEC)
- Maximum System Voltage: 1000V DC (UL)
- Max Series Fuse Rating: 20A

**WARRANTY**

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

(Please refer to product warranty for details)

**PACKAGING CONFIGURATION**

- Modules per box: 36 pieces
- Modules per 40’ container: 792 pieces

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