THE

DUOMAX\textsuperscript{twin}

BIFACIAL DUAL GLASS 144 CELL MULTI BUSBAR MODULE

144-Cell MONOCRYSTALLINE MODULE

385-410W POWER OUTPUT RANGE

20.0% MAXIMUM EFFICIENCY

0~+5W POSITIVE POWER TOLERANCE

High power output
- Increased total power output through generation from front and back side
- Backside power gain up to 25% depending on albedo
- Unique J-box design and installation method to avoid shading on the back side
- Higher lifetime power using MBB and Half-cell technology

Low LCOE
- Maximize limited space, savings in BOS and labour cost
- Higher power from same installation footprint as standard modules

Wide application
- Deployable for ground mounted utility, carports, and agricultural projects
- Special application like sound barriers on expressways
- Compatible with major tracker systems

Certified to perform in the most challenging environmental conditions
- Resistant to sand, acid, and alkali
- 2400 Pa negative load
- 2400 Pa positive load
- 2400/2400 is the measured load, and the safety factor is 1.5x

Comprehensive Products And System Certificates
IEC61215/IEC61701/IEC61700/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

Founded in 1997, Trina Solar is the world’s leading total solutions 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.
DUOMAX twin

BIFACIAL DUAL GLASS 144 CELL MULTI BUSBAR MODULE

ELECTRICAL DATA (STC)

<table>
<thead>
<tr>
<th>Peak Power Watts - P_{m_{ax}} (W)</th>
<th>385</th>
<th>390</th>
<th>395</th>
<th>400</th>
<th>405</th>
<th>410</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Output Tolerance - P_{m_{ax}} (W)</td>
<td>0</td>
<td>5</td>
<td>10</td>
<td>15</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>Maximum Power Voltage - V_{m_{ax}} (V)</td>
<td>39.9</td>
<td>40.2</td>
<td>40.5</td>
<td>40.8</td>
<td>41.1</td>
<td>41.4</td>
</tr>
<tr>
<td>Maximum Power Current - I_{m_{ax}} (A)</td>
<td>9.66</td>
<td>9.71</td>
<td>9.76</td>
<td>9.81</td>
<td>9.86</td>
<td>9.91</td>
</tr>
<tr>
<td>Open Circuit Voltage - V_{OC} (V)</td>
<td>48.3</td>
<td>48.5</td>
<td>48.7</td>
<td>48.9</td>
<td>49.1</td>
<td>49.3</td>
</tr>
<tr>
<td>Short Circuit Current - I_{SC} (A)</td>
<td>10.21</td>
<td>10.25</td>
<td>10.29</td>
<td>10.33</td>
<td>10.37</td>
<td>10.41</td>
</tr>
<tr>
<td>Module Efficiency - \eta (%)</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 1000W/m^2, Cell Temperature 25°C, Air Mass AM1.5

Measurement tolerance: ±3%.

**BIFACIAL OUTPUT - Backside Power Gain**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Power Output (W)</th>
<th>Module Efficiency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td>424</td>
<td>20.6</td>
</tr>
<tr>
<td>15%</td>
<td>443</td>
<td>21.6</td>
</tr>
<tr>
<td>25%</td>
<td>481</td>
<td>23.4</td>
</tr>
</tbody>
</table>

Bi-facial output backside power gain varies depending upon the specific project albedo.

ELECTRICAL DATA (NMOT)

<table>
<thead>
<tr>
<th>Maximum Power - P_{m_{ax}} (W)</th>
<th>290</th>
<th>294</th>
<th>298</th>
<th>302</th>
<th>305</th>
<th>309</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Power Voltage - V_{m_{ax}} (V)</td>
<td>37.5</td>
<td>37.7</td>
<td>38.0</td>
<td>38.2</td>
<td>38.5</td>
<td>38.8</td>
</tr>
<tr>
<td>Maximum Power Current - I_{m_{ax}} (A)</td>
<td>7.77</td>
<td>7.81</td>
<td>7.85</td>
<td>7.89</td>
<td>7.92</td>
<td>7.97</td>
</tr>
<tr>
<td>Open Circuit Voltage - V_{OC} (V)</td>
<td>45.4</td>
<td>45.6</td>
<td>45.8</td>
<td>46.0</td>
<td>46.2</td>
<td>46.4</td>
</tr>
<tr>
<td>Short Circuit Current - I_{SC} (A)</td>
<td>8.24</td>
<td>8.27</td>
<td>8.30</td>
<td>8.33</td>
<td>8.36</td>
<td>8.39</td>
</tr>
</tbody>
</table>

NMOT: Irradiance at 800W/m^2, Ambient Temperature 20°C, Wind Speed 1m/s.

MECHANICAL DATA

- Solar Cells: Monocrystalline
- Cell Orientation: 144 cells (6 × 24)
- Module Dimensions: 2031 × 1011 × 30mm (79.96 × 39.80 × 1.18 inches)
- Weight: 31.4 kg (69.2 lb)
- Front Glass: 2.5 mm (0.10 inches), High Transmission, AR Coated Heat Strengthened Glass
- Encapsulant material: POE/EVA
- Back Glass: 2.5 mm (0.10 inches), Heat Strengthened Glass (White Grid Glass)
- Frame: 30mm (1.18 inches) Anodized Aluminium Alloy
- J-Box: IP 68 rated
- Cables: Photovoltaic Technology Cable 4.0mm² (0.006 inches²), Portrait: 280/280 mm (11.02/11.02 inches), Landscape: 1900/1900 mm (74.80/74.80 inches)
- Connector: Trina T54

TEMPERATURE RATINGS

- NMOT (Nominal Module Operating Temperature): 41°C (±3°C)
- Temperature Coefficient of P_{m_{ax}}: -0.37%/°C
- Temperature Coefficient of V_{OC}: -0.29%/°C
- Temperature Coefficient of I_{SC}: 0.05%/°C

MAXIMUM RATINGS

- Operational Temperature: -40°C to +85°C
- Maximum System Voltage: 1500V DC (IEC)
- 1500V 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: 32 pieces
- Modules per 40' container: 704 pieces