144 HALF-CUT MONOCRYSTALLINE CELLS

380–410W POWER OUTPUT RANGE

20.0% MAXIMUM EFFICIENCY

0/+5W POSITIVE POWER TOLERANCE

Increased value
• Reduced BOS costs with higher power bins and 1,500V system voltage
• 30 year linear performance warranty
• 0.5% annual degradation

Half-cut cell design brings higher efficiency
• Optimized power output under inter-row shading conditions
• Integrated LRF for increased performance
• Low thermal coefficients for higher energy yield at elevated operating temperatures
• Reduced interconnection losses

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

Certified to withstand challenging environmental conditions
• Salt Mist Corrosion
• Ammonia Corrosion
• Blowing Sand

Comprehensive Product And System Certificates
IEC61215/IEC61701/UL1703
IEC61701 Salt Mist Corrosion
IEC62716 Ammonia Corrosion
IEC60068 Blowing Sand
ISO9001; ISO14001; OHSAS18001

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Certified to withstand challenging environmental conditions
• Salt Mist Corrosion
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Trina Solar’s DUOMAX Linear Performance Warranty

90% %
90%
80% 

Trina’s DUOMAX Linear Warranty
Trina standard
Industry standard

Additional value from Trina Solar’s DUOMAX warranty
+1.6%
+2.5%
+3.4%
+4.3%
ELECTRICAL DATA @ STC

<table>
<thead>
<tr>
<th>Module</th>
<th>Peak Power Watts-P&lt;sub&gt;MAX&lt;/sub&gt; (Wp)*</th>
<th>Power Output Tolerance-P&lt;sub&gt;MAX&lt;/sub&gt; (W)</th>
<th>Maximum Power Voltage-U&lt;sub&gt;MP&lt;/sub&gt; (V)</th>
<th>Maximum Power Current-I&lt;sub&gt;MP&lt;/sub&gt; (A)</th>
<th>Open Circuit Voltage-U&lt;sub&gt;OC&lt;/sub&gt; (V)</th>
<th>Short Circuit Current-I&lt;sub&gt;SC&lt;/sub&gt; (A)</th>
<th>Module Efficiency η&lt;sub&gt;m&lt;/sub&gt; (%)</th>
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<tbody>
<tr>
<td>TSM-380</td>
<td>380</td>
<td>0/+5</td>
<td>39.6</td>
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* Measuring tolerance: ±3%

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

ELECTRICAL DATA @ NMOT

<table>
<thead>
<tr>
<th>Module</th>
<th>Maximum Power-P&lt;sub&gt;MAX&lt;/sub&gt; (Wp)</th>
<th>Maximum Power Voltage-U&lt;sub&gt;MP&lt;/sub&gt; (V)</th>
<th>Maximum Power Current-I&lt;sub&gt;MP&lt;/sub&gt; (A)</th>
<th>Open Circuit Voltage-U&lt;sub&gt;OC&lt;/sub&gt; (V)</th>
<th>Short Circuit Current-I&lt;sub&gt;SC&lt;/sub&gt; (A)</th>
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</tr>
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</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 × 1011 × 25 mm
- Weight: 26.3 kg
- Glass: 2 mm, High Transmission, AR Coated Heat Strengthened Glass
- Encapsulant Material: EVA
- Back Glass: 2 mm, Heat Strengthened Glass
- Frame: 30 mm Anodized Aluminium Alloy
- J-Box: IP 68 rated
- Cables: Photovoltaic Cable 4.0mm², Portrait: N 140mm/P 285mm, Landscape: N 1400 mm /P 1400 mm
- Connector: TS4

TEMPERATURE RATINGS

- NMOT (Nominal Module Operating Temperature): 41°C (±3K)
- Temperature Coefficient of P<sub>MAX</sub>: -0.37%/K
- Temperature Coefficient of U<sub>MP</sub>: -0.29%/K
- Temperature Coefficient of I<sub>SC</sub>: 0.05%/K

MAXIMUM RATINGS

- Operational Temperature: -40 to +85°C
- Maximum System Voltage: 1500V DC (IEC) 1500V DC (UL)
- Max Series Fuse Rating: 20 A
- Snow Load: 5400 Pa (3600 Pa*)
- Wind Load: 2400 Pa (1600 Pa*)

PACKAGING CONFIGURATION

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

WARRANTY

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

* (Please refer to product warranty for details)