144 HALF-CUT MONOCRYSTALLINE CELLS

390-415W POWER OUTPUT RANGE

20.4% MAXIMUM EFFICIENCY

0/+5W POSITIVE POWER TOLERANCE

High power output
• Multi busbar technology combined with mono PERC cells
• Reduced BOS costs with higher power bins and 1,500V system voltage
• Consistently high bankability ratings by BNEF, banks and investors

Half-cut cell design brings higher efficiency
• Optimized power output under inter-row shading conditions
• 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/IEC61730/UL1703
IEC61701 Salt Mist Corrosion
IEC62716 Ammonia Corrosion
IEC60068 Blowing Sand
ISO9001; ISO14001; OHSAS18001

Trina standard
Additional value from Trina Solar’s linear warranty

Guaranteed Power

10 Year Product Warranty · 25 Year Linear Power Warranty
## Electrical Data @ STC

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Peak Power Watts (Wp)*</td>
<td>390</td>
<td>395</td>
<td>400</td>
<td>405</td>
<td>410</td>
<td>415</td>
</tr>
<tr>
<td>Power Output Tolerance (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>Maximum Power Voltage (V)</td>
<td>40.0</td>
<td>40.1</td>
<td>40.3</td>
<td>40.5</td>
<td>40.7</td>
<td>40.9</td>
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<tr>
<td>Maximum Power Current (A)</td>
<td>9.75</td>
<td>9.86</td>
<td>9.92</td>
<td>10.0</td>
<td>10.07</td>
<td>10.15</td>
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<tr>
<td>Open Circuit Voltage (V)</td>
<td>48.5</td>
<td>48.7</td>
<td>49.0</td>
<td>49.2</td>
<td>49.4</td>
<td>49.6</td>
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<tr>
<td>Short Circuit Current (A)</td>
<td>10.30</td>
<td>10.37</td>
<td>10.45</td>
<td>10.52</td>
<td>10.59</td>
<td>10.66</td>
</tr>
<tr>
<td>Module Efficiency (%)</td>
<td>19.2</td>
<td>19.4</td>
<td>19.7</td>
<td>19.9</td>
<td>20.2</td>
<td>20.4</td>
</tr>
</tbody>
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STC: Irradiance 1000 W/m², Cell Temperature 25°C, Air Mass AM1.5
* Measuring tolerance: ±3%

## Electrical Data @ NMOT

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</thead>
<tbody>
<tr>
<td>Maximum Power (Wp)</td>
<td>294</td>
<td>298</td>
<td>301</td>
<td>305</td>
<td>309</td>
<td>313</td>
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<tr>
<td>Maximum Power Voltage (V)</td>
<td>37.6</td>
<td>37.7</td>
<td>37.9</td>
<td>38.1</td>
<td>38.3</td>
<td>38.4</td>
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<tr>
<td>Maximum Power Current (A)</td>
<td>7.83</td>
<td>7.90</td>
<td>7.96</td>
<td>8.02</td>
<td>8.08</td>
<td>8.13</td>
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<td>Open Circuit Voltage (V)</td>
<td>45.6</td>
<td>45.8</td>
<td>46.1</td>
<td>46.3</td>
<td>46.5</td>
<td>46.7</td>
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<tr>
<td>Short Circuit Current (A)</td>
<td>8.30</td>
<td>8.36</td>
<td>8.43</td>
<td>8.48</td>
<td>8.54</td>
<td>8.60</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**: 2024 x 1004 x 35 mm
- **Weight**: 22.8 kg
- **Glass**: 3.2 mm, High Transmission, AR Coated Heat Strengthened Glass
- **Encapsulant Material**: EVA
- **Backsheet**: White
- **Frame**: 35 mm Anodized Aluminium Alloy
- **J-Box**: IP 68 rated
- **Cables**: Photovoltaic Cable 4.0 mm², 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 Pmax**: -0.37%/K
- **Temperature Coefficient of Umpp**: -0.29%/K
- **Temperature Coefficient of Isc**: 0.05%/K

## Maximum Ratings

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

* Measuring tolerance: ±3%

## Packaging Configuration

- **Modules per box**: 30 pieces
- **Modules per 40’ container**: 660 pieces

## Warranty

- **10 year Product Workmanship Warranty**
- **25 year Linear Performance Warranty**

(Please refer to product warranty for details)