Great aesthetics for dark roofs

- Dark mono cells
- Black frame and backsheet

Maximize Limited Space with high efficiency

- Up to 189 W/m² power density
- Low thermal coefficients for greater energy production at high operating temperatures

Excellent low light performance on cloudy days, mornings and evenings

- Advanced surface texturing
- Back surface field
- Selective emitter

Highly reliable due to stringent quality control

- All modules have to pass electroluminescence (EL) inspection
- Over 30 in-house tests (UV, TC, HF, and many more)
- In-house testing goes well beyond certification requirements
- PID resistant
- 1000 V UL/1000 V IEC certified

Certified to withstand challenging environmental conditions

- 2400 Pa wind load
- 5400 Pa snow load
- 35 mm hail stones at 97 km/h
- Ammonia resistance
- Salt mist resistance
- Resistance to sand and dust abrasion

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

Comprehensive Product And System Certificates

IEC61215/IEC61730/UL1703/IEC61701/IEC62716
ISO 9001: Quality Management System
ISO 14001: Environmental Management System
ISO14064: Greenhouse Gas Emissions Verification
OHSAS 18001: Occupational Health and Safety Management System

EU-28 WEEE COMPLIANT RECYCLABLE PACKAGING

TOP PERFORMER PV MODULE RELIABILITY SCORECARD 2017

Trina standard · Industry standard
**I-V Curves of TSM-295DD05A.08(II) at Various Solar Irradiances**

AM1.5, Cell Temperature: 25°C

<table>
<thead>
<tr>
<th>Current (A)</th>
<th>Power W</th>
<th>Voltage (V)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>100</td>
<td>15</td>
</tr>
<tr>
<td>15</td>
<td>200</td>
<td>22</td>
</tr>
<tr>
<td>20</td>
<td>300</td>
<td>30</td>
</tr>
<tr>
<td>25</td>
<td>400</td>
<td>40</td>
</tr>
<tr>
<td>30</td>
<td>500</td>
<td>50</td>
</tr>
</tbody>
</table>

**P-V Curves of TSM-295DD05A.08(II) at Various Solar Irradiances**

AM1.5, Cell Temperature: 25°C

**ELECTRICAL DATA @ STC**

<table>
<thead>
<tr>
<th>TSM-275</th>
<th>TSM-280</th>
<th>TSM-285</th>
<th>TSM-290</th>
<th>TSM-295</th>
<th>TSM-300</th>
<th>TSM-305</th>
<th>TSM-310</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak Power Watts-PMAX (Wp)*</td>
<td>275</td>
<td>280</td>
<td>285</td>
<td>290</td>
<td>295</td>
<td>300</td>
<td>305</td>
</tr>
<tr>
<td>Power Output Tolerance-PMAX (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>
<td>0/+5</td>
</tr>
<tr>
<td>Maximum Power Voltage-Vmp (V)</td>
<td>31.4</td>
<td>31.7</td>
<td>31.8</td>
<td>32.2</td>
<td>32.5</td>
<td>32.6</td>
<td>32.9</td>
</tr>
<tr>
<td>Maximum Power Current-Imp (A)</td>
<td>8.76</td>
<td>8.84</td>
<td>8.97</td>
<td>9.01</td>
<td>9.08</td>
<td>9.19</td>
<td>9.28</td>
</tr>
<tr>
<td>Open Circuit Voltage-Voc (V)</td>
<td>38.4</td>
<td>38.4</td>
<td>38.5</td>
<td>38.9</td>
<td>39.6</td>
<td>39.8</td>
<td>40.0</td>
</tr>
<tr>
<td>Module Efficiency μη (%)</td>
<td>16.8</td>
<td>17.1</td>
<td>17.4</td>
<td>17.7</td>
<td>18.0</td>
<td>18.3</td>
<td>18.6</td>
</tr>
</tbody>
</table>

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

**ELECTRICAL DATA @ NOCT**

<table>
<thead>
<tr>
<th>TSM-275</th>
<th>TSM-280</th>
<th>TSM-285</th>
<th>TSM-290</th>
<th>TSM-295</th>
<th>TSM-300</th>
<th>TSM-305</th>
<th>TSM-310</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Power-Wmax (Wp)</td>
<td>205</td>
<td>209</td>
<td>212</td>
<td>216</td>
<td>220</td>
<td>223</td>
<td>227</td>
</tr>
<tr>
<td>Maximum Power Voltage-Ump (V)</td>
<td>29.1</td>
<td>29.4</td>
<td>29.5</td>
<td>29.9</td>
<td>30.1</td>
<td>30.2</td>
<td>30.5</td>
</tr>
<tr>
<td>Maximum Power Current-Imp (A)</td>
<td>7.04</td>
<td>7.10</td>
<td>7.21</td>
<td>7.24</td>
<td>7.30</td>
<td>7.38</td>
<td>7.46</td>
</tr>
<tr>
<td>Open Circuit Voltage-Uoc (V)</td>
<td>35.7</td>
<td>35.7</td>
<td>35.8</td>
<td>36.2</td>
<td>36.8</td>
<td>37.0</td>
<td>37.2</td>
</tr>
<tr>
<td>Short Circuit Current-Isc (A)</td>
<td>7.46</td>
<td>7.61</td>
<td>7.68</td>
<td>7.80</td>
<td>7.82</td>
<td>7.89</td>
<td>7.95</td>
</tr>
</tbody>
</table>

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

**MECHANICAL DATA**

- **Solar Cells**: Monocrystalline 156.75 × 156.75 mm
- **Cell Orientation**: 60 cells (6 x 10)
- **Module Dimensions**: 1650 × 992 × 35 mm
- **Weight**: 18.6 kg
- **Glass**: 3.2 mm, high transparency, AR coated and heat tempered solar glass
- **Backsheet**: Black
- **Frame**: Black Anodized Aluminium Alloy
- **Connector**: EU Countries: 28 MC4 / UTX / TS4, Non-EU Countries: 28 QC4 / TS4

**WARRANTY**

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

*(Please refer to product warranty for details)*

**PACKAGING CONFIGURATION**

- Modules per box: 30 pieces
- Modules per 40’ container: 840 pieces

**MAXIMUM RATINGS**

- **Operational Temperature**: -40 to +85°C
- **Maximum System Voltage**: 1000VDC (IEC)
  1000VDC (UL)
- **Max Series Fuse Rating**: 15A (Power ≤ 285 W)
  20A (Power ≥ 290 W)
- **Mechanical Load**: 5400Pa
- **Wind Load**: 2400Pa

*DO NOT connect fuse in combiner box with two or more strings in parallel connection*

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