TSM-PC 05.05  
TSM-PA 05.05  
THE AESTHETIC SOLUTION

14.7% MAX EFFICIENCY

240W MAX POWER OUTPUT

10 YEAR PRODUCT WARRANTY

25 YEAR LINEAR POWER WARRANTY

Module can bear snow loads up to 5400Pa and wind loads up to 2400Pa

Guaranteed power output 0~±3%

High performance under low light conditions  
Cloudy days, mornings and evenings

Manufactured according to International Quality and Environment Management System Standards ISO9001, ISO14001

Black frame improves aesthetics

MC4 photovoltaic connectors increase system reliability

Founded in 1997, Trina Solar (NYSE: TSL) has established itself as a leader in the solar community with its vertically integrated business model. Our modules and system solutions provide clean solar power in on-grid and off-grid residential, commercial, industrial and utility-scale systems.

With more than 22 offices worldwide, Trina Solar has partnerships with leading installers, distributors, utilities and developers in all major PV markets. Trina Solar is committed to driving smarter energy choices.

Trina Solar Limited  
www.trinasolar.com

LINEAR PERFORMANCE WARRANTY

10 Year Product Warranty + 25 Year Linear Power Warranty

Trina Solar
Smart Energy Together
CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT.

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ELECTRICAL DATA @ STC

<table>
<thead>
<tr>
<th>TSM-230 PC/PA05.05</th>
<th>TSM-235 PC/PA05.05</th>
<th>TSM-240 PC/PA05.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak Power Watts P_max (Wp)</td>
<td>230</td>
<td>235</td>
</tr>
<tr>
<td>Power Output Tolerance P_max (%)</td>
<td>0/+3</td>
<td>0/+3</td>
</tr>
<tr>
<td>Maximum Power Voltage Vmp (V)</td>
<td>29.2</td>
<td>29.3</td>
</tr>
<tr>
<td>Maximum Power Current Imp (A)</td>
<td>7.90</td>
<td>8.03</td>
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<tr>
<td>Open Circuit Voltage Voc (V)</td>
<td>37.1</td>
<td>37.2</td>
</tr>
<tr>
<td>Short Circuit Current Isc (A)</td>
<td>8.53</td>
<td>8.55</td>
</tr>
<tr>
<td>Module Efficiency η (%)</td>
<td>14.1</td>
<td>14.4</td>
</tr>
</tbody>
</table>

Values at Standard Test Conditions (STC): Air Mass AM1.5, Irradiance 1000W/m², Cell Temperature 25°C.

Power measurement tolerance: ±3%

ELECTRICAL DATA @ NOCT

<table>
<thead>
<tr>
<th>TSM-230 PC/PA05.05</th>
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<th>TSM-240 PC/PA05.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Power P_max (Wp)</td>
<td>167</td>
<td>171</td>
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<tr>
<td>Maximum Power Voltage Vmp (V)</td>
<td>26.3</td>
<td>26.4</td>
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<tr>
<td>Maximum Power Current Imp (A)</td>
<td>6.35</td>
<td>6.48</td>
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<tr>
<td>Open Circuit Voltage Voc (V)</td>
<td>33.9</td>
<td>34.0</td>
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<tr>
<td>Short Circuit Current Isc (A)</td>
<td>6.95</td>
<td>6.97</td>
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</table>

NOCT: Irradiance at 800W/m², Ambient Temperature 20°C, Wind Speed 1m/s. Power measurement tolerance: ±3%

MECHANICAL DATA

<table>
<thead>
<tr>
<th></th>
<th>TSM-PC05.05</th>
<th>TSM-PA05.05</th>
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</thead>
<tbody>
<tr>
<td>Solar cells</td>
<td>Multicrystalline 156 x 156mm (6 inches)</td>
<td></td>
</tr>
<tr>
<td>Cell orientation</td>
<td>60 cells (6 x 10)</td>
<td></td>
</tr>
<tr>
<td>Module dimensions</td>
<td>1650 x 992 x 35mm (64.95 x 39.05 x 1.37 inches)</td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>18.6kg (41.0 lb)</td>
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</tr>
<tr>
<td>Glass</td>
<td>High transparency solar glass 3.2mm (0.13 inches)</td>
<td></td>
</tr>
<tr>
<td>Frame</td>
<td>Anodized aluminum alloy</td>
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</tr>
<tr>
<td>J-Box</td>
<td>IP 65 rated</td>
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</tr>
<tr>
<td>Cables</td>
<td>Photovoltaic Technology cable 4.0mm² (0.006 inches²), 1000mm (39.4 inches)</td>
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<tr>
<td>Connector</td>
<td>Original MC4</td>
<td></td>
</tr>
</tbody>
</table>

TEMPERATURE RATINGS

- Nominal Operating Cell Temperature (NOCT) 45°C (±2°C)
- Temperature Coefficient of P_max -0.45%/°C
- Temperature Coefficient of Voc -0.31%/°C
- Temperature Coefficient of Isc 0.05%/°C

WARRANTY

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

(Please refer to product warranty for details)

PACKAGING CONFIGURATION

Modules per box: 29 pieces
Modules per 40’ container: 812 pieces

Recyclable packaging

CERTIFICATION

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