TWMPD-72HD540-560W
P-type Half-cell Bifacial Module (72)

PRODUCT FEATURES

- High Power Output
- Low LCOE
- Maximum Power 560W+
- High Reliability
- Low LID

POWER WARRANTY

1st year <2%, 0.45% power degradation per year from 2 to 30 years

- 12-year Warranty for Materials
- 30-year Warranty for Linear Power Output

MANAGEMENT SYSTEM AND PRODUCT CERTIFICATION

- ISO9001: 2015/Quality Management System
- ISO14001: 2015/Environment Management System

Front

Rear
### Electrical Characteristics (STC)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>540</th>
<th>545</th>
<th>550</th>
<th>555</th>
<th>560</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Power: Pmax [W]</td>
<td>408.6</td>
<td>412.4</td>
<td>416.2</td>
<td>420.0</td>
<td>423.8</td>
</tr>
<tr>
<td>Open Circuit Voltage: Voc [V]</td>
<td>46.48</td>
<td>46.74</td>
<td>47.01</td>
<td>47.28</td>
<td>47.47</td>
</tr>
<tr>
<td>Short Circuit Current: Isc [A]</td>
<td>11.04</td>
<td>11.08</td>
<td>11.12</td>
<td>11.16</td>
<td>11.20</td>
</tr>
<tr>
<td>Voltage at Maximum Power: Vmp [V]</td>
<td>38.45</td>
<td>38.67</td>
<td>38.90</td>
<td>39.12</td>
<td>39.31</td>
</tr>
<tr>
<td>Module Efficiency: η [%]</td>
<td>20.9</td>
<td>21.1</td>
<td>21.3</td>
<td>21.5</td>
<td>21.7</td>
</tr>
</tbody>
</table>

STC: Irradiance 1000W/m², Cell Temperature 25°C, Air Mass 1.5, Measuring Tolerance: ±3%

### Temperature Ratings

| Temperature Coefficient: Pmax     | -0.34%/°C |
| Temperature Coefficient: Voc      | -0.28%/°C |
| Temperature Coefficient: Isc      | 0.05%/°C  |
| NMOT                              | 45±2°C    |

### Mechanical Parameters

- **Cells**: 1P6
- **Cell Orientation**: 144(6X24)
- **Dimension**: 2278x2134x2930mm
- **Weight**: 32.7kg
- **Front Glass**: 2.0mm high transmittance AR coated tempered glass
- **Rear Glass**: 2.0mm high transmittance coated tempered glass
- **Frame**: Anodized aluminum alloy frame
- **Junction Box**: IP68, 3 diodes
- **Output Cable**: 4.0mm²
- **Cable Length**: >400mm, <200mm, length can be customized
- **Wind/Snow Load**: 2400Pa/5400Pa
- **Packaging**: 36pcs per pallet, 720pcs per 40’HC

### Electrical Characteristics with different rear side power gain

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>5%</td>
<td>562.0</td>
<td>21.9</td>
</tr>
<tr>
<td>15%</td>
<td>621.0</td>
<td>24.0</td>
</tr>
<tr>
<td>25%</td>
<td>675.0</td>
<td>26.1</td>
</tr>
</tbody>
</table>

### Operating Parameters

- **Operational Temperature**: -40°C~+65°C
- **Maximum System Voltage**: 1500V DC
- **Maximum Series Fuse Rating**: 30A
- **Power Output Tolerance**: 0~5W
- **Maximum Bifacility**: 70±5%

### Drawings (Unit: mm)

[Diagram with drawings and graphs]

With technological progress and product updates, there may be deviations between the technical parameters of Tongwei’s module products and the technical parameters contained in this specification, and Tongwei Solar has the right to adjust the technical parameters at any time without notifying the customer, the final interpretation of the technical specification is vested in Tongwei Solar.