TWMND-72HS560-580W
N-type Half-cell Monofacial Module (72)

PRODUCT FEATURES
- High Power Output
- Low LCOE
- Maximum Power
- 580W+
- High Reliability
- Low LID

POWER WARRANTY
1st year <1%, 0.4% 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
Side
### Electrical Characteristics (STC)

<table>
<thead>
<tr>
<th>Module Type: TWMND-721S50XX</th>
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<tbody>
<tr>
<td><strong>Maximum Power: Pmax [W]</strong></td>
</tr>
<tr>
<td><strong>Open Circuit Voltage: Voc [V]</strong></td>
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<tr>
<td><strong>Short Circuit Current: Isc [A]</strong></td>
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<tr>
<td><strong>Voltage at Maximum Power: Vmp [V]</strong></td>
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<tr>
<td><strong>Current at Maximum Power: Imp [A]</strong></td>
</tr>
<tr>
<td><strong>Module Efficiency: η [%]</strong></td>
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</tbody>
</table>

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

### Electrical Characteristics (NMOT)

| Maximum Power: Pmax [W] | 423.8 | 427.6 | 431.4 | 435.2 | 438.9 |
| Open Circuit Voltage: Voc [V] | 49.35 | 49.57 | 49.80 | 50.03 | 50.22 |
| Voltage at Maximum Power: Vmp [V] | 42.32 | 42.60 | 42.87 | 43.15 | 43.34 |
| Current at Maximum Power: Imp [A] | 10.01 | 10.03 | 10.06 | 10.08 | 10.12 |

NMOT: Irradiance 800W/m², Ambient Temperature 20°C, Air Mass 1.5, Wind Speed 1m/s

### Mechanical Parameters

- **Cells**: TNC
- **Cell Orientation**: 144(6x24)
- **Dimension**: 2278.4 x 1134 x 35mm
- **Weight**: 27.8kg
- **Front Glass**: 3.2mm high transmittance, AR coated tempered glass
- **Backsheet**: White
- **Frame**: Anodized aluminum alloy frame
- **Junction Box**: IP68, 3 diodes
- **Output Cable**: 4.0mm²
- **Cable Length**: +400mm, -200mm or ±1400mm, length can be customized
- **Wind/Snow Load**: 2400Pa/5400Pa
- **Packaging**: 31pcs per pallet, 620pcs per 40'HQ

### Operating Parameters

- **Operational Temperature**: -40°C to 65°C
- **Maximum System Voltage**: 1500V DC
- **Maximum Series Fuse Rating**: 25A
- **Power Output Tolerance**: 0% to 6%

### Temperature Ratings

- **Temperature Coefficient (Pmax)**: -0.30%/°C
- **Temperature Coefficient (Voc)**: -0.25%/°C
- **Temperature Coefficient (Isc)**: +0.04%/°C
- **NMOT**: 45±2°C

### Drawings (Unit: mm)