LIGHTWAY SOLAR MODULE
P 1650 × 990 Series
KEY FEATURES

15.92%
Max Efficiency

260W
Max Peak Power

10 YEAR
Product Warranty

25 YEAR
Linear Power Warranty

Positive Tolerance ±5W
Provides our customers with maximum power output

Electric Current Classification
System output maximized by reducing mismatch losses up to 2% with modules sorted and package by amperage

Excellent weak light performance
Relative change of module efficiency at 200W/m² is less than 4%

Upto 5400 Pa Mechanical load
Module certified to withstand extreme wind and snow loads

Passed Ammonia Gas and Salt Mist Corrosion Resistance Test
Tested and approved by TÜV Rheinland according IEC 62716 Draft C and FprEN 61701 Ed.2


PERFORMANCE AT LOW IRRADIANCE

The typical relative change in module efficiency at an irradiance of 200W/m² in relation to 1000W/m² (both at 25℃ and AM 1.5 spectrum) is less than 4%.

LINEAR WARRANTY
• 10-year warranty on materials and workmanship
• 25-year warranty > 80% power output
• 3% degradation rate the first year
• 0.68% yearly linear degradation
### ELECTRICAL DATA @ STC

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Peak Power, Pmax, W</td>
<td>260</td>
<td>255</td>
<td>250</td>
<td>245</td>
<td>240</td>
<td>235</td>
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<tr>
<td>Power tolerance, ΔPmax, W</td>
<td>0.1%</td>
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<tr>
<td>Voltage at Pmax, Voc, V</td>
<td>30.25</td>
<td>30.10</td>
<td>29.95</td>
<td>29.80</td>
<td>29.65</td>
<td>29.50</td>
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<tr>
<td>Current at Pmax, Impp, A</td>
<td>8.61</td>
<td>8.48</td>
<td>8.36</td>
<td>8.24</td>
<td>8.11</td>
<td>7.98</td>
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<tr>
<td>Open Circuit Voltage, Voc, V</td>
<td>37.95</td>
<td>37.88</td>
<td>37.80</td>
<td>37.50</td>
<td>37.40</td>
<td>37.30</td>
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<tr>
<td>Short Circuit Current, Isc, A</td>
<td>9.06</td>
<td>8.90</td>
<td>8.78</td>
<td>8.69</td>
<td>8.56</td>
<td>8.45</td>
</tr>
<tr>
<td>Module Efficiency, η%</td>
<td>15.92</td>
<td>15.61</td>
<td>15.30</td>
<td>15.00</td>
<td>14.69</td>
<td>14.39</td>
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</table>

Values at standard test condition STC: air mass AM 1.5, irradiance 1000W/m², cells temperature 25°C

### ELECTRICAL DATA @ NOCT

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Peak Power, Pmax, W</td>
<td>192</td>
<td>188</td>
<td>185</td>
<td>180</td>
<td>176</td>
<td>173</td>
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<tr>
<td>Voltage at Pmax, Voc, V</td>
<td>28.46</td>
<td>28.42</td>
<td>28.28</td>
<td>27.94</td>
<td>27.77</td>
<td>27.59</td>
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<tr>
<td>Current at Pmax, Impp, A</td>
<td>6.73</td>
<td>6.63</td>
<td>6.53</td>
<td>6.45</td>
<td>6.35</td>
<td>6.26</td>
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<tr>
<td>Open Circuit Voltage, Voc, V</td>
<td>35.09</td>
<td>35.04</td>
<td>34.93</td>
<td>34.61</td>
<td>34.50</td>
<td>34.39</td>
</tr>
<tr>
<td>Short Circuit Current, Isc, A</td>
<td>7.34</td>
<td>7.21</td>
<td>7.12</td>
<td>7.04</td>
<td>6.94</td>
<td>6.85</td>
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</tbody>
</table>

Nominal operating cell temperature NOCT: irradiance 800W/m², ambient temperature 20°C, wind speed 0m/s

### TEMPERATURE RATING

<table>
<thead>
<tr>
<th>Nominal operating cell temperature(NOCT), °C</th>
<th>0</th>
<th>25</th>
<th>40</th>
<th>45</th>
<th>50</th>
<th>55</th>
<th>60</th>
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<tbody>
<tr>
<td>Temperature Coefficient of Pmax, °C/W</td>
<td>-0.42%</td>
<td>-0.32%</td>
<td>-0.22%</td>
<td>-0.12%</td>
<td>-0.06%</td>
<td>-0.01%</td>
<td>0%</td>
</tr>
<tr>
<td>Temperature Coefficient of Voc, °C/W</td>
<td>-0.65%</td>
<td>-0.32%</td>
<td>-0.22%</td>
<td>-0.12%</td>
<td>-0.06%</td>
<td>-0.01%</td>
<td>0%</td>
</tr>
</tbody>
</table>

### MAXIMUM RATING

- Max. System Voltage: 1000Vdc
- Operating Temperature: -40°~+85°C
- Max. Series Fuse Rating: 15A
- Max. Reverse Current: 15A
- Max. Mechanical load: 5400Pa

### CONSTRUCTION MATERIALS

- Solar cells: 60-multicrystalline silicon cells, 156mm * 156mm
- Glass: 3.2mm low-iron tempered glass
- Encapsulant: ethylene vinyl acetate (EVA)
- Frame: anodized aluminum alloy (silver)
- Junction Box: 3IP65 rated, 3/6 diodes
- Cable: 4mm² PV cable, 500m/1200mm
- Connector: MC4 compatible

### GENERAL DATA

- Module Dimension (L+W+H): 1650×990×40mm
- Weight: 19kg
- Modules per pallet: 26
- Pallets per 40’ container: 28
- Packing box dimension (L+W+H): 1700×1150×1040mm

### PACKING

- Modules per pallet: 26
- Pallets per 40’ container: 28
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