The PW1650 is Photowatt’s 5 inch high efficiency module. Thanks to its optimum size it is easy to handle and specifically dedicated to large scale grid connected applications.

The PW1650 module uses Photowatt’s multicrystalline technology. The solar cells are individually characterized and electronically matched prior to interconnection. Encapsulation beneath high transmission tempered glass is accomplished using an advanced, UV resistant thermal setting plastic. The encapsulant, ethylene vinyl acetate, cushions the solar cells within the laminate and protect the cells from etching. The rear surface of the module is completely sealed from moisture and mechanical damage by a continuous high strength polymer sheet.

The PW1650 is using a reinforced transparent anodised aluminium frame, designed to meet Photowatt’s High Quality Standards for corrosion resistance (lifetime tested 3 times longer than requested by CEI 61215).

With a tolerance improvement to +/- 3%, the PW1650 module ensures more power homogeneity in installations, and a financial investment corresponding to the real power produced.

A 12V version and a UL version are available on request.

**POWER TOLERANCE : +/- 3%**  
**EFFICIENCY WARRANTY : 25 YEARS**  
**PRODUCT WARRANTY : 5 YEARS**

<table>
<thead>
<tr>
<th>PW1650</th>
<th>24 V Configuration</th>
<th>12 V Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical power</td>
<td>W</td>
<td>155</td>
</tr>
<tr>
<td>Minimum power</td>
<td>W</td>
<td>150</td>
</tr>
<tr>
<td>Voltage at typical power</td>
<td>V</td>
<td>34</td>
</tr>
<tr>
<td>Current at typical power</td>
<td>A</td>
<td>4.6</td>
</tr>
<tr>
<td>Short circuit current</td>
<td>A</td>
<td>4.8</td>
</tr>
<tr>
<td>Open circuit voltage</td>
<td>V</td>
<td>43</td>
</tr>
<tr>
<td>Maximum system voltage</td>
<td>V</td>
<td>770V DC</td>
</tr>
</tbody>
</table>

Power specifications at 1000 W/m² : 25°C : AM 1.5

*According to general warranty conditions  
Datas subject to evolutions - Last update : 020903
Module dimensions

- Module weight: 18 kg
- Module size: 1237 x 1082 x 45 mm
- Packaging per 2 units: 1350 mm x 1130 mm x 102 mm, 39 kg
- Maximum pallet size (34 modules): 1360 mm x 1130 mm x 1770 mm, 678 kg

Volts vs. Ampères for I=F(V) at T = 25°C as a function of the irradiance E (kW/m²), AM 1.5.

Module protected by 4 bypass diodes (1 bypass for 18 cells)

PW1650 Characteristics

- Ptyp: 165 Watts (24V)
- The universal JBox accepts cables from 1.5 mm² to 4 mm² (AWG16 to AWG11)

Module's mounting oblong hole

The mounting frame screw not passing beyond the frame

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