Daily irradiance data

PVGIS-5 geo-temporal irradiation database

Provided inputs
Latitude/Longitude: 49.866, 14.467
Horizon: Calculated
Database used: PVGIS-CMSAF
Month: July

Outline of horizon at chosen location:

Daily average irradiance on fixed plane with slope 35° and azimuth 0°

Irradiance on a fixed plane
- G: Global irradiance on a fixed plane [W/m²]
- Gb: Direct irradiance on a fixed plane [W/m²]
- Gd: Diffuse irradiance on a fixed plane [W/m²]
- Gc: Global Clear-sky irradiance on a fixed plane [W/m²]

Daily average temperature

Average daily temperature profile
- Td: Average daily temperature profile [°C]

Daily average irradiance on fixed plane with slope 43° and azimuth 0°

Irradiance on a fixed plane
- G: Global irradiance on a fixed plane [W/m²]
- Gb: Direct irradiance on a fixed plane [W/m²]
- Gd: Diffuse irradiance on a fixed plane [W/m²]
- Gc: Global Clear-sky irradiance on a fixed plane [W/m²]
SunVivo
PM060MW2/PM060MB2
Mono-Crystalline Photovoltaic Module

- **Power Range**: 290W - 310Wp
- **Highly Strengthened Design**: Module complies with advanced loading tests to meet 5400 Pa loading requirements
- **PID-Resistance (up to Diamond Level)**: Certified high PID resistance
- **Superior Weak Light Performance**: Improved absorption of long wavelength light
- **Flammability Test**: Low ignitability ensuring fire safety
- **Resistance to Salt Corrosion and Humidity**: Module complies with IEC 61701: Salt Mist Corrosion Testing
- **Ammonia Test**: Reliable in ammonia rich environment

ICIM
BenQ Solar
SunVivo PM060MW2/PM060MB2 (290 ~ 310Wp)

**Electrical Data**

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>290W</td>
<td>17.8%</td>
<td>32.3</td>
<td>9.99</td>
<td>39.7</td>
<td>9.57</td>
<td>0 / +3%</td>
</tr>
<tr>
<td>295W</td>
<td>18.1%</td>
<td>32.6</td>
<td>9.95</td>
<td>38.5</td>
<td>9.53</td>
<td></td>
</tr>
<tr>
<td>300W</td>
<td>18.4%</td>
<td>32.7</td>
<td>9.80</td>
<td>37.7</td>
<td>9.50</td>
<td></td>
</tr>
<tr>
<td>305W</td>
<td>18.7%</td>
<td>32.9</td>
<td>9.78</td>
<td>37.0</td>
<td>9.47</td>
<td></td>
</tr>
<tr>
<td>310W</td>
<td>19.1%</td>
<td>33.1</td>
<td>9.78</td>
<td>37.0</td>
<td>9.47</td>
<td></td>
</tr>
</tbody>
</table>

* Above data are the effective measurement at Standard Test Conditions (STC)
  * STC: irradiance 1000 W/m², spectral distribution AM 1.5, temperature 25 ± 2 °C, in accordance with IEC 60904-3
  * Back–back shade (PM060MB2) is utilized for 290 & 300W, white back shade (PM060MW2) is for 295-310W

**Temperature Coefficient**

<table>
<thead>
<tr>
<th>NOCT</th>
<th>Typ. Temperature Coefficient of P_n</th>
<th>Typ. Temperature Coefficient of V_m</th>
<th>Temperature Coefficient of I_m</th>
</tr>
</thead>
<tbody>
<tr>
<td>46 ± 2 °C</td>
<td>-0.42% / K</td>
<td>-0.30% / K</td>
<td>0.05% / K</td>
</tr>
</tbody>
</table>

* NOCT: Normal Operation Cell Temperature, measuring conditions: irradiance 800 W/m², AM 1.5, air temperature 25 °C, wind speed 1 m/s

**Mechanical Characteristics**

- Dimensions (L x W x H): 1640 x 992 x 40 mm (64.57 x 39.05 x 1.57 in)
- Weight: 19 kg (41.89 lbs)
- Front Glass: High transparent solar glass (tempered), 3.2 mm (0.13 in)
- Cells: 60 monocrystalline solar cells
- Back Sheet: Composite film
- Frame: Anodized aluminum frame
- Junction Box: IP-67 rated with 3 bypass diodes
- Connector Type & Cables: TE Connectivty PV4: 1 x 4 mm² (0.04 x 0.16 in²), Length: each 1.0 m (39.37 in)

**Operating Conditions**

- Operating Temperature: -40 ~ +85 °C
- Ambient Temperature Range: -40 ~ +45 °C
- Max. System Voltage IEC/UL: 1000 V / 1000 V
- Serial Fuse Rating: 15 A
- Maximum Surface Load Capacity: Tested up to 5400 Pa according to IEC 61215 (advanced test)

**Warranties and Certifications**

- Product Warranty: Maximum 12 years for material and workmanship
- Performance Guarantee: Guaranteed linear degradation to 80% for 25 years
  *1
- Certifications: According to IEC/EN 61215, IEC/EN 61730 and UL 1703 guidelines
  *2

**Packaging Configuration**

- Container: 20' GP, 40' GP, 40' HQ
- Pieces per Pallet: 26, 26, 26
- Pallets per Container: 6, 14, 28
- Pieces per Container: 156, 364, 728

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