**KD135GH-2PU**

High efficiency multicrystal photovoltaic module

### Cell:
- 156 mm × 156 mm
- Polycrystalline, 3-busbar
- >16% efficiency
- Embedded in EVA film
- Patented RIE process: very little light reflection, homogenous dark coloration

### Frame:
- Aluminium, black anodised and coated
- Screwed and also adhered
- Strength: 5,400 N/m²
- Interior drainage openings to protect against frost damage
- Approved for module inlay systems
- Flexible assembly (horizontal and upright)

### Junction box:
- Incl. bypass diodes
- Encapsulated
- Highest fireproof class 5V-A in accordance with UL94
- Over-voltage proof Si-p/n bypass diodes
- Pre-configured with connection wires and original multi-contact plug connectors

### Pairing:
- Sorting procedure: Nominal output is achieved by two paired modules (≥270 Wp for 2 × KD135GH-2PU)

### Production:
- Fully automated and integrated production processes in our own production plants
- No intermediate products are purchased
- 100 % final inspection

### Service:
- Professional Europe-wide customer service in Esslingen/Germany

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**COMPANY**

As a pioneer in the photovoltaic sector, Kyocera Solar can look back on over 35 years of experience. We are also involved in numerous future-oriented solutions across the world. Our focus is on innovation and quality.

Our vision: To make solar energy accessible to everybody and to ensure a comprehensive sustained energy supply.

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**10 Years product warranty**

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**TÜVdotCOM Service:** Internet platform for tested quality and service

TÜVdotCOM-ID: 0000023299

IEC 61215 ed. 2, IEC 61730 and Safety Class II

Kyocera is ISO 9001, ISO 14001 and OHSAS18001 certified and registered.
ELECTRICAL CHARACTERISTICS

Current-Voltage characteristics at various irradiance levels

- Irradiance: AM 1.5, 1 kW/m²
- Cell temperature 75 °C

Current-Voltage characteristics at various cell temperatures

- Cell temperature 25 °C

ELECTRICAL PERFORMANCE

<table>
<thead>
<tr>
<th>PV Module Type</th>
<th>KD135GH-2PU</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>At 1000 W/m² (STC)</strong></td>
<td></td>
</tr>
<tr>
<td>Maximum Power</td>
<td>[W] 135</td>
</tr>
<tr>
<td>Maximum System Voltage</td>
<td>[V] 1000</td>
</tr>
<tr>
<td>Maximum Power Voltage</td>
<td>[V] 17.7</td>
</tr>
<tr>
<td>Maximum Power Current</td>
<td>[A] 7.63</td>
</tr>
<tr>
<td>Open Circuit Voltage (VO)</td>
<td>[V] 22.7</td>
</tr>
<tr>
<td>Short Circuit Current (ISC)</td>
<td>[A] 8.37</td>
</tr>
<tr>
<td>Efficiency</td>
<td>[%] 13.4</td>
</tr>
</tbody>
</table>

- **At 800 W/m² (NOCT)**
  - Maximum Power | [W] 97 |
  - Maximum System Voltage | [V] 16.0 |
  - Maximum Power Voltage | [V] 6.1 |
  - Open Circuit Voltage (VO) | [V] 20.2 |
  - Short Circuit Current (ISC) | [A] 6.78 |
  - NOCT | [°C] 45 |

- Power Tolerance | [%] +5/-5 |
- Maximum Reverse Current | [A] 15 |
- Series Fuse Rating | [A] 15 |
- Temperature Coefficient of VO | [%/K] -0.36 |
- Temperature Coefficient of ISC | [%/K] 0.06 |
- Temperature Coefficient of Max. Power | [%/K] -0.46 |
- Reduction of Efficiency (from 1000W/m² to 200 W/m²) | [%] 5.8 |

DIMENSIONS

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Length</td>
<td>[mm] 1500 (± 2.5)</td>
</tr>
<tr>
<td>Width</td>
<td>[mm] 668 (± 2.5)</td>
</tr>
<tr>
<td>Depth / incl. Junction Box</td>
<td>[mm] 46</td>
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<tr>
<td>Weight</td>
<td>[kg] 12.5</td>
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<tr>
<td>Cable</td>
<td>[mm] (+) 1010 / (-) 840</td>
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<tr>
<td>Connection Type</td>
<td>MC PV-KBT3 / MC PV-KST3</td>
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<tr>
<td>Junction Box</td>
<td>[mm] 113 × 82 × 15</td>
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<tr>
<td>Number of bypass diodes</td>
<td>2</td>
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<tr>
<td>IP Code</td>
<td>IP65</td>
</tr>
</tbody>
</table>

CELLS

- Number per Module | 36 |
- Cell Technology | polycrystalline |
- Cell Shape (square) | [mm] 156 × 156 |
- Cell Bonding | 3-Busbar |

GENERAL INFORMATION

- Performance Guarantee | 10*** / 20 years **** |
- Warranty | 10 years **** |

* Electrical values under standard test conditions (STC): irradiation of 1000 W/m², air mass AM 1.5 and cell temperature of 25 °C.
** Electrical values under normal operating cell temperature (NOCT): irradiation of 800 W/m², air mass AM 1.5, wind speed of 1 m/s and ambient temperature of 25 °C.
*** 10 years on 90% of the minimally specified power P under standard test conditions (STC).
**** 20 years on 80% of the minimally specified power P under standard test conditions (STC).
***** In the case of Europe.