Q.ANTUM TECHNOLOGY: LOW LEVELISED COST OF ELECTRICITY
Higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 20.5%.

INNOVATIVE ALL-WEATHER TECHNOLOGY
Optimal yields, whatever the weather with excellent low-light and temperature behaviour.

ENDURING HIGH PERFORMANCE
Long-term yield security with Anti LID Technology, Anti PID Technology¹, Hot-Spot Protect and Traceable Quality Tra.Q™.

EXTREME WEATHER RATING
High-tech aluminium alloy frame, certified for high snow (5400 Pa) and wind loads (2400 Pa).

A RELIABLE INVESTMENT
Inclusive 12-year product warranty and 25-year linear performance warranty².

STATE OF THE ART MODULE TECHNOLOGY
Q.ANTUM DUO combines cutting edge cell separation and innovative wiring with Q.ANTUM Technology.

¹ APT test conditions according to IEC/TS 62804-1:2015, method B (-1500 V, 168 h)
² See data sheet on rear for further information.
**MECHANICAL SPECIFICATION**

Format: 81.9 in × 40.6 in × 1.38 in (including frame)  
(2080 mm × 1030 mm × 35 mm)

Weight: 54.0 lbs (24.5 kg)

Front Cover: 0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology

Back Cover: Composite film

Frame: Anodized aluminum

Cell: 6 × 24 monocrystalline Q.ANSTEM solar half cells

 Junction Box: 2.09-3.98 × 1.26-2.36 × 0.59-0.71 in (53-101 × 32-60 × 15-18 mm), Protection class IP67, with bypass diodes

Cable: 4 mm² Solar cable; (+) ≥ 55.1 in (1400 mm), (−) ≥ 55.1 in (1400 mm)

Connector: Stäubli MC4-Evo2, Hanwha Q CELLS HQC4, Amphenol UTX, Renhe 05-8, JMTTY JM601A, Tongling Cable01S-F; IP68 or Friends PV2e, IP67

**ELECTRICAL CHARACTERISTICS**

**POWER CLASS**

<table>
<thead>
<tr>
<th></th>
<th>415</th>
<th>420</th>
<th>425</th>
<th>430</th>
<th>435</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power at MPP</td>
<td>P_{MPP} [W]</td>
<td>415</td>
<td>420</td>
<td>425</td>
<td>430</td>
</tr>
<tr>
<td>Short Circuit Current</td>
<td>I_{SC} [A]</td>
<td>10.74</td>
<td>10.79</td>
<td>10.83</td>
<td>10.88</td>
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<tr>
<td>Open Circuit Voltage</td>
<td>V_{OC} [V]</td>
<td>48.63</td>
<td>48.88</td>
<td>49.13</td>
<td>49.38</td>
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<tr>
<td>Current at MPP</td>
<td>I_{MP} [A]</td>
<td>10.23</td>
<td>10.27</td>
<td>10.32</td>
<td>10.36</td>
</tr>
<tr>
<td>Voltage at MPP</td>
<td>V_{MP} [V]</td>
<td>40.58</td>
<td>40.89</td>
<td>41.20</td>
<td>41.50</td>
</tr>
</tbody>
</table>

**G CELLS PERFORMANCE WARRANTY**

At least 96% of nominal power during first year. Thereafter max. 0.54% degradation per year. At least 93.1% of nominal power up to 10 years. At least 85% of nominal power up to 25 years.

All data within measurement tolerances. Full warranties in accordance with the warranty terms of the G CELLS sales organisation of your respective country.

**PROPERTIES FOR SYSTEM DESIGN**

| Maximum System Voltage | V_{SYS} [V] | 1500 (IEC)/1500 (UL) |
| Maximum Series Fuse Rating | [A DC] | 20 |
| Max. Design Load, Push/Pull | [lbs/ft²] | 75 (3600Pa)/33 (1800Pa) |
| Max. Test Load, Push/Pull | [lbs/ft²] | 113 (5400Pa)/50 (2400Pa) |

**QUALIFICATIONS AND CERTIFICATES**

UL 6730; CE-compliant; IEC 61215-2016; IEC 61730-2016; U.S. Patent No. 9,863,215 (solar cell)

**PACKAGING INFORMATION**

- Horizontal packaging: 83.9 in × 42.6 in × 47.1 in
- Vertical packaging: 84.6 in × 45.3 in × 48.0 in

- Capacity: 24 pallets, 22 modules

**Note:** Installation instructions must be followed. See the installation and operating manual or contact our technical service department for further information on approved installation and use of this product. G CELLS supplies solar modules in two different stacking methods, depending on the location of manufacture (modules are packed horizontally or vertically). You can find more detailed information in the document "Packaging and Transport Information", available from Q CELLS.

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