BIFACIAL ENERGY YIELD GAIN OF UP TO 20%
Bifacial Q.ANTUM solar cells make efficient use of light shining on the module rear-side for radically improved LCOE.

LOW ELECTRICITY GENERATION COSTS
Q.ANTUM DUO combines cutting edge cell separation and innovative wiring with Q.ANTUM Technology for higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 20.1%.

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

ENDURING HIGH PERFORMANCE
Long-term yield security with Anti LID and Anti PID Technology\(^1\), Hot-Spot Protect and Traceable Quality Tra.Q\(^{\text{TM}}\).

FRAME FOR VERSATILE MOUNTING OPTIONS
High-tech aluminum alloy frame protects from damage, enables use of a wide range of mounting structures and is certified regarding IEC for high snow (5400 Pa) and wind loads (2400 Pa).

A RELIABLE INVESTMENT
Double glass module design enables extended lifetime with 12-year product warranty and improved 30-year performance warranty\(^2\).

\(^{1}\) APT test conditions according to IEC/TS 62804-1:2015 method B (−1500 V, 168 h) including post treatment according to IEC 61215-1-1 Ed. 2.0 (CD) \\
\(^{2}\) See data sheet on rear for further information

THE IDEAL SOLUTION FOR:
- Rooftop arrays on commercial and industrial buildings
- Ground-mounted solar power plants
**MECHANICAL SPECIFICATION**

- **Format**: 79.3 × 39.4 × 1.38 in (including frame) (2015 × 1000 × 35 mm)
- **Weight**: 57.3 lbs (26 kg)
- **Front Cover**: 0.08 in (2 mm) thermally pre-stressed glass with anti-reflection technology
- **Back Cover**: 0.08 in (2 mm) semi-tempered glass
- **Frame**: Anodized aluminium
- **Cell**: 6 × 24 monocrystalline bifacial Q.ANTUM solar half cells
- **Junction**: 1.26-1.52 × 3.43-5.95 × 0.62 in (32-38.5 × 87-100.3 × 15.7 mm)
- **Box**: Protection class IP67, with bypass diodes
- **Cable**: 4 mm² Solar cable; (+) ≥ 17.7 in (450 mm), (−) ≥ 7.9 in (200 mm)
- **Connector**: Stäubli MC4-Evo2, JMYTH PV-JM60LA or Renk 05-8, IP68

**ELECTRICAL CHARACTERISTICS**

<table>
<thead>
<tr>
<th>POWER CLASS</th>
<th>380</th>
<th>385</th>
<th>390</th>
<th>395</th>
<th>400</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC</strong> (POWER TOLERANCE +5 W / −0 W)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power at MPP(^1)</td>
<td>(P_{PP}^{[W]})</td>
<td>380</td>
<td>385</td>
<td>390</td>
<td>395</td>
</tr>
<tr>
<td>Short Circuit Current(^1)</td>
<td>(I_{SC}^{[A]})</td>
<td>10.05</td>
<td>10.10</td>
<td>10.14</td>
<td>10.19</td>
</tr>
<tr>
<td>Open Circuit Voltage(^1)</td>
<td>(V_{OC}^{[V]})</td>
<td>47.95</td>
<td>48.21</td>
<td>48.48</td>
<td>48.74</td>
</tr>
<tr>
<td>Current at MPP</td>
<td>(I_{MP}^{[A]})</td>
<td>9.57</td>
<td>9.61</td>
<td>9.66</td>
<td>9.70</td>
</tr>
<tr>
<td>Voltage at MPP</td>
<td>(V_{MP}^{[V]})</td>
<td>39.71</td>
<td>40.05</td>
<td>40.38</td>
<td>40.71</td>
</tr>
<tr>
<td>Efficiency(^1)</td>
<td>(\eta^{[%]})</td>
<td>≥ 18.9</td>
<td>≥ 19.1</td>
<td>≥ 19.4</td>
<td>≥ 19.6</td>
</tr>
</tbody>
</table>

\(^{1}\)Measurement tolerances \(P_{PP}^{±3\%}, I_{SC}^{±5\%}, V_{OC}^{±5\%}\) at STC: 1000 W/m², 25 ± 2 °C, AM 1.5 according to IEC 60904-3 • Industry standard for tiered warranties • Industry standard for linear warranties

**Q CELLS PERFORMANCE WARRANTY**

At least 98% of nominal power during first year. Thereafter max. 0.5% degradation per year. At least 93.5% of nominal power up to 10 years. At least 86% of nominal power up to 25 years. At least 83.5% of nominal power up to 30 years. All data within measurement tolerances. Full warranties in accordance with the warranty terms of the Q CELLS sales organization of your respective country.

**TEMPERATURE COEFFICIENTS**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Coefficient</th>
<th>(\alpha^{[%/K]})</th>
<th>(\beta^{[%/K]})</th>
</tr>
</thead>
<tbody>
<tr>
<td>(I_{SC})</td>
<td>+0.04</td>
<td>-0.27</td>
<td></td>
</tr>
<tr>
<td>(P_{PP})</td>
<td>-0.36</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**PROPERTIES FOR SYSTEM DESIGN**

- **Maximum System Voltage** \(V_{SYS}^{[V]}\): 1500 (IEC)/1500 (UL)
- **Protection Class**: II
- **Maximum Series Fuse Rating** | \(\text{[A / DC]}\)| | 20 |
- **Fire Rating based on ANSI / UL 1703 C (IEC) / TYPE 19 (UL)\(^4\)** |
- **Max. Design Load, Push / Pull\(^3\) | \(\text{[lbs / ft}^2\) | | 76 (3600 Pa) | | 33 (1800 Pa) |
- **Max. Test Load, Push / Pull\(^3\) | \(\text{[lbs / ft}^2\) | | 113 (5400 Pa) | | 50 (2400 Pa) |

\(^{3}\)See Installation Manual

**QUALIFICATIONS AND PACKAGING INFORMATION**

| Number of Modules per Pallet | 29 |
| Number of Pallets per 53’ Trailer | 25 |
| Number of Pallets per 40’ HC-Container | 22 |
| Pallet Dimensions (L × W × H) | 81.1 × 40.9 × 47.1 in (2060 × 1040 × 1196 mm) |
| Pallet Weight | 1748 lbs (793 kg) |

**PACKAGING INFORMATION**

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.

Hanwha Q CELLS America Inc.
400 Spectrum Center Drive, Suite 1400, Irvine, CA 92618, USA | TEL +1 949 748 59 96 | EMAIL inquiry@us.q-cells.com | WEB www.q-cells.us