Q.ANUTM TECHNOLOGY: LOW LEVELISED COST OF ELECTRICITY
Higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 20.3%.

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 Technology, 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 warranty.

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

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

Format 79.3 in × 39.4 in × 1.38 in (including frame)  
(2015 mm × 1000 mm × 35 mm)
Weight 51.8 lbs (23.5 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.ANTUM 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 4mm² Solar cable; (+) ≥ 53.1 in (1350 mm), (−) ≥ 53.1 in (1350 mm)
Connector Stäubli MC4-Evo2, Hanwha Q CELLS HQC4, Amphenol UTX, Renhe 05-B, JMTMY JM601A, Tongling Cable015-F, IP68 or Friends PV2e; IP67

ELECTRICAL CHARACTERISTICS

WEBSITE: www.q-cells.us
EMAIL: inquiry@us.q-cells.com
TÉLÉPHONE: +1 949 748 59 96
FAX: +1 949 748 63 83
EMAIL: marketing@us.q-cells.com

POWER CLASS

MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC (POWER TOLERANCE +5 W / -0 W)

<table>
<thead>
<tr>
<th>Power at MPP</th>
<th>P_{RMP} [W]</th>
<th>Minimum</th>
<th>380</th>
<th>385</th>
<th>390</th>
<th>395</th>
<th>400</th>
<th>405</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Circuit Current</td>
<td>I_{SC} [A]</td>
<td>10.05</td>
<td>10.10</td>
<td>10.14</td>
<td>10.19</td>
<td>10.24</td>
<td>10.28</td>
<td></td>
</tr>
<tr>
<td>Open Circuit Voltage</td>
<td>V_{OC} [V]</td>
<td>47.95</td>
<td>48.21</td>
<td>48.48</td>
<td>48.74</td>
<td>49.00</td>
<td>49.26</td>
<td></td>
</tr>
<tr>
<td>Voltage at MPP</td>
<td>V_{RMP} [V]</td>
<td>39.71</td>
<td>40.05</td>
<td>40.38</td>
<td>40.71</td>
<td>41.04</td>
<td>41.36</td>
<td></td>
</tr>
<tr>
<td>Efficiency</td>
<td>η [%]</td>
<td>18.9</td>
<td>19.1</td>
<td>19.4</td>
<td>19.6</td>
<td>19.9</td>
<td>20.1</td>
<td></td>
</tr>
</tbody>
</table>

MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT

<table>
<thead>
<tr>
<th>Power at MPP</th>
<th>P_{RMP} [W]</th>
<th>Minimum</th>
<th>284.4</th>
<th>288.2</th>
<th>291.9</th>
<th>295.6</th>
<th>299.4</th>
<th>303.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Circuit Current</td>
<td>I_{SC} [A]</td>
<td>8.10</td>
<td>8.14</td>
<td>8.17</td>
<td>8.21</td>
<td>8.25</td>
<td>8.28</td>
<td></td>
</tr>
<tr>
<td>Open Circuit Voltage</td>
<td>V_{OC} [V]</td>
<td>45.21</td>
<td>45.46</td>
<td>45.71</td>
<td>45.96</td>
<td>46.21</td>
<td>46.46</td>
<td></td>
</tr>
<tr>
<td>Current at MPP</td>
<td>I_{RMP} [A]</td>
<td>7.53</td>
<td>7.57</td>
<td>7.60</td>
<td>7.64</td>
<td>7.67</td>
<td>7.71</td>
<td></td>
</tr>
<tr>
<td>Voltage at MPP</td>
<td>V_{RMP} [V]</td>
<td>37.77</td>
<td>38.08</td>
<td>38.40</td>
<td>38.71</td>
<td>39.02</td>
<td>39.33</td>
<td></td>
</tr>
</tbody>
</table>

Q 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 Q CELLS sales organisation of your respective country.

TEMPERATURE COEFFICIENTS

| Temperature Coefficient of I_{SC} | α [%/K] | +0.04 |
| Temperature Coefficient of V_{OC} | β [%/K] | −0.27 |
| Temperature Coefficient of P_{RMP} | γ [%/K] | −0.36 |

Nominal Module Operating Temperature NMOT [°F] 109 ± 5.4 (43 ± 3 °C)

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V_{SYS} [V] 1500 (IEC)/1500 (UL)
PV module classification Class II
Maximum Series Fuse Rating [A DC] 20 Fire Rating based on ANSI / UL 61730 TYPE 1
Max. Design Load, Push / Pull [lbs / ft²] 75 (3600Pa)/33 (1800Pa) Permitted Module Temperature on Continuous Duty −40 °F up to +185 °F
Max. Test Load, Push / Pull [lbs / ft²] 113 (5400Pa)/50 (2400Pa)

QUALIFICATIONS AND CERTIFICATES


PACKAGING INFORMATION

Horizontal packaging 81.1in 2060mm 40.9in 1040mm 47.1in 1196mm 1588lbs 24 pallets 29 modules
Vertical packaging 84.6in 2090mm 45.3in 1180mm 46.1in 1170mm 1635lbs 27 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. Q 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.

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