BREAKING THE 21 % EFFICIENCY BARRIER
Q.ANTUM DUO Z Technology with zero gap cell layout boosts module efficiency up to 21.7 %.

LOW ELECTRICITY GENERATION COSTS
Higher yield per surface area, lower BOS costs and up to 175 watts more module power than standard 144 half-cell modules.

ENDURING HIGH PERFORMANCE
Long-term yield security with Anti LID 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\(^1\).

STATE OF THE ART MODULE TECHNOLOGY
Q.ANTUM DUO combines cutting edge cell separation and innovative 12-busbar design with Q.ANTUM Technology.

\(^1\) See data sheet on rear for further information.
MECHANICAL SPECIFICATION

Format: 2416 mm x 1134 mm x 35 mm (including frame)

Weight: 31.3 kg

Front Cover: 3.2 mm thermally pre-stressed glass with anti-reflection technology

Back Cover: Composite film

Frame: Anodised aluminium

Cell: 6 x 26 monocrystalline Q.ANTUM solar half cells

Junction box: 53-101 mm x 32-60 mm x 15-18 mm

Protection class: IP67, with bypass diodes

Cable: 4 mm² Solar cable; (+) ≥ 750 mm, (−) ≥ 350 mm

Connector: Stäubli MC4-Evo2, Hanwha Q CELLS HQC4; IP68

Weight: 2416 mm x 1134 mm x 35 mm (including frame)

 ELECTRICAL CHARACTERISTICS

POWER CLASS

<table>
<thead>
<tr>
<th>570</th>
<th>575</th>
<th>580</th>
<th>585</th>
<th>590</th>
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</thead>
<tbody>
<tr>
<td>Power at MPP</td>
<td>P_{MPP} [W]</td>
<td>570</td>
<td>575</td>
<td>580</td>
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<tr>
<td>Short Circuit Current</td>
<td>I_{SC} [A]</td>
<td>13.49</td>
<td>13.61</td>
<td>13.54</td>
</tr>
<tr>
<td>Open Circuit Voltage</td>
<td>V_{OC} [V]</td>
<td>53.59</td>
<td>53.62</td>
<td>53.64</td>
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<tr>
<td>Current at MPP</td>
<td>I_{PP} [A]</td>
<td>12.82</td>
<td>12.87</td>
<td>12.92</td>
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<tr>
<td>Voltage at MPP</td>
<td>V_{PP} [V]</td>
<td>44.46</td>
<td>44.68</td>
<td>44.90</td>
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<tr>
<td>Efficiency</td>
<td>\eta [%]</td>
<td>≥ 20.8</td>
<td>≥ 21.0</td>
<td>≥ 21.2</td>
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MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT

<table>
<thead>
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<tbody>
<tr>
<td>Power at MPP</td>
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<tr>
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<td>I_{PP} [A]</td>
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<td>Voltage at MPP</td>
<td>V_{PP} [V]</td>
<td>42.39</td>
<td>42.58</td>
<td>42.77</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
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<td>≥ 20.8</td>
<td>≥ 21.0</td>
<td>≥ 21.2</td>
</tr>
</tbody>
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ELECTRICAL CHARACTERISTICS

Q CELLS PERFORMANCE WARRANTY

Performance at MPP

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 25 years.

All data within measurement tolerances.

Minimum module efficiency compared to normal power (%)

Temperature Coefficients

- Temperature Coefficient of I_{SC} α [% / K] +0.04
- Temperature Coefficient of V_{OC} β [% / K] −0.27
- Temperature Coefficient of P_{MPP} γ [% / K] −0.34

Nominal Module Operating Temperature NMOT [°C] 43 ± 3

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V_{SYS} [V] 1500

Maximum Reverse Current I_s [A] 25

Permitted Module Temperature on Continuous Duty

-40 °C - +85 °C

QUALIFICATIONS AND CERTIFICATES

Packaging Information

Vertical packaging

2458 mm 1134 mm 1270 mm 1015.6 kg

20 pallets 16 pallets 31 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.

Made in China

Hanwha Q CELLS Australia Pty Ltd

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Specifications subject to technical changes.