Q.PEAK DUO L-G8.3 / BFT
410-425
BIFACIAL GLASS FOIL MODULE
WITH EXCELLENT RELIABILITY
AND ADDITIONAL YIELD

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 Technology¹, Hot-Spot Protect and Traceable Quality Tra.Q™.

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 (5400Pa) and wind loads (2400Pa).

A RELIABLE INVESTMENT
Double glass module design enables extended lifetime with 12-year product warranty and improved 25-year performance warranty².

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/industrial buildings
- Ground-mounted solar power plants

Engineered in Germany
MECHANICAL SPECIFICATION

Format 81.9 in x 40.5 in x 1.37 in (including frame)
(2080 mm x 1030 mm x 35 mm)

Weight 54lbs (24.5 kg)

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

Back Cover Transparent composite film

Cell 6 x 24 monocrystalline Q.ANTUM solar half cells

Junction Box 3.42-3.94 in x 1.26-1.51 in x 0.73 in
(87-103.3 mm x 32-38.5 mm x 18.7 mm), IP67, with bypass diodes

Cable 4mm² Solar cable; (+) ≥ 17.7 in (450 mm), (−) ≥ 7.87 in (200 mm)

Connector Stäubli MC4-Evo2, Hanwha Q CELLS HQC4, Amphenol UTX, Renhe 05-S, JMT HyJM601A, Tongling Cable015-F, IP68 or Friends PV2e; IP67

ELECTRICAL CHARACTERISTICS

POWER CLASS 410 415 420 425

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

<table>
<thead>
<tr>
<th></th>
<th>STC</th>
<th>BSTC</th>
<th>BSTC</th>
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<tbody>
<tr>
<td>Power at MPP</td>
<td>410</td>
<td>448.5</td>
<td>415</td>
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<tr>
<td>Short Circuit Current</td>
<td>10.65</td>
<td>11.65</td>
<td>10.69</td>
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<tr>
<td>Open Circuit Voltage</td>
<td>48.34</td>
<td>48.52</td>
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<tr>
<td>Current at MPP</td>
<td>10.13</td>
<td>11.09</td>
<td>10.18</td>
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<tr>
<td>Voltage at MPP</td>
<td>40.46</td>
<td>40.45</td>
<td>40.77</td>
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<tr>
<td>Efficiency</td>
<td>≥ 19.1</td>
<td>≥ 20.9</td>
<td>≥ 19.4</td>
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</tbody>
</table>

Efficiency: Bifaciality of P and V, +3%; Bifaciality for retreat irradiation on top of STC (front side) + According to IEC 60904-1-2

MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT

<table>
<thead>
<tr>
<th></th>
<th>410</th>
<th>415</th>
<th>420</th>
<th>425</th>
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</thead>
<tbody>
<tr>
<td>Power at MPP</td>
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<td>310.8</td>
<td>314.5</td>
<td>318.3</td>
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<td>Short Circuit Current</td>
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<td>Open Circuit Voltage</td>
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<td>45.82</td>
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<td>Current at MPP</td>
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<td>8.01</td>
<td>8.05</td>
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<tr>
<td>Voltage at MPP</td>
<td>38.49</td>
<td>38.79</td>
<td>39.09</td>
<td>39.38</td>
</tr>
</tbody>
</table>

Q CELLS PERFORMANCE WARRANTY

PERFORMANCE AT LOW IRRADIANCE

At least 98% of nominal power during first year. Thereafter a 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 ISC | α [% / K] | +0.04 |
| Temperature Coefficient of VOC | β [% / K] | −0.27 |
| Temperature Coefficient of P at 10 °C | γ [% / K] | −0.35 |

NOMINAL MODULE OPERATING TEMPERATURE NMOT "F" 108 ± 5.4 (42 ± 3 °C)

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V_m
- 1500 (IEC)/1500 (UL)

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)

Max. Test Load, Push / Pull | lbs / ft² |
- 113 (5400Pa) /50 (2400Pa)

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QUALIFICATIONS AND CERTIFICATES

PACKAGING AND TRANSPORT INFORMATION


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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.