Q. PEAK DUO L-G8.3 / BFG
410-425
BIFACIAL DOUBLE GLASS 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 (3000Pa).

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
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 62.8 lbs (28.5 kg)

Front Cover 0.07 in (2 mm) thermally pre-stressed glass  
with anti-reflection technology

Back Cover 0.07 in (2 mm) semi-tempered glass

Frame Anodized aluminum

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 mm x 32-38.5 mm x 18.7 mm), IP67, with bypass diodes

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

Connector Stäubli MC4-Evo2, Hanwha Q CELLS HQC4, Amphenol UTX,  
Renhe 08E, JMTMY JM601A, Tongling Cable015F; IP68 or  
Friends PV2e; IP67

Electrical characteristics

<table>
<thead>
<tr>
<th>POWER CLASS</th>
<th>410</th>
<th>415</th>
<th>420</th>
<th>425</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power at MPP</td>
<td>$P_{MP}$ [W]</td>
<td>410</td>
<td>448.5</td>
<td>415</td>
</tr>
<tr>
<td>Short Circuit Current</td>
<td>$I_{SC}$ [A]</td>
<td>10.65</td>
<td>10.69</td>
<td>11.74</td>
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<td>Open Circuit Voltage</td>
<td>$V_{OC}$ [V]</td>
<td>48.34</td>
<td>48.59</td>
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<tr>
<td>Current at MPP</td>
<td>$I_{MP}$ [A]</td>
<td>10.13</td>
<td>10.18</td>
<td>11.14</td>
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<tr>
<td>Voltage at MPP</td>
<td>$V_{MP}$ [V]</td>
<td>40.46</td>
<td>40.77</td>
<td>40.76</td>
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<tr>
<td>Efficiency</td>
<td>$\eta$ [%]</td>
<td>≥ 19.1</td>
<td>≥ 20.9</td>
<td>≥ 19.4</td>
</tr>
</tbody>
</table>

Typical module performance under low irradiance conditions in  
comparison to STC conditions (25 °C, 1000 W/m²)

Temperature Coefficients

| Temperature Coefficient | $\alpha$ [%/K] | +0.04 | Temperature Coefficient | $\beta$ [%/K] | −0.27 |
| Temperature Coefficient | $\gamma$ [%/K] | −0.35 | Nominal Module Operating Temperature | NMOT [°F] | 108 ± 5.4 (42 ± 3 °C) |

Properties for System Design

| Maximum System Voltage $V_{VS}$ | [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 29 |
| Max. Design Load, Push / Pull | [lbs/ft²] | 75 (3600 Pa)/42 (2000Pa) | Permitted Module Temperature on Continuous Duty | −40 °C up to +185 °C |
| Max. Test Load, Push / Pull | [lbs/ft²] | 113 (5400 Pa)/63 (3000 Pa) |

Qualifications and Certificates

UL 1703, CE-compliant,  
IEC 61215:2016,  
IEC 61730:2016,  
U.S. Patent No. 9,850,215  
(solar cells)

Packaging and Transport Information

Horizontal packaging 83.8 in x 2130 mm  
42.5 in x 1080 mm  
47.1 in x 1196 mm  
1912 lbs 22 pallets  
867.4 kg 22 pallets  
29 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.

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