Q.PEAK DUO XL-G10.d / BFG

475-490

BIFACIAL DOUBLE GLASS MODULE WITH EXCELLENT RELIABILITY AND ADDITIONAL YIELD

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

LOW ELECTRICITY GENERATION COSTS  
Q.ANTUM DUO Z 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 21.4%.

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 (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 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:

Ground-mounted solar power plants

Engineered in Germany
**MECHANICAL SPECIFICATION**

- **Format**: 87.2 in × 41.1 in × 1.38 in (including frame) (2216 mm × 1045 mm × 35 mm)
- **Weight**: 64.2 lbs (29.1 kg)
- **Front Cover**: 0.08 in (2.0 mm) thermally pre-stressed glass with anti-reflection technology
- **Back Cover**: 0.08 in (2.0 mm) semi-tempered glass
- **Frame**: Anodized aluminum
- **Cell**: 6 × 26 monocrystalline Q.ANTUM solar half cells
- **Junction Box**: 2.09-3.98 in × 1.26-2.36 in × 0.59-0.71 in (53-101 mm × 32-60 mm × 15-18 mm), IP67, with bypass diodes
- **Cable**: 4 mm² Solar cable; (+) ≥ 27.6 in (700 mm), (−) ≥ 13.8 in (350 mm)

**Q CELLS PERFORMANCE WARRANTY**

**PERFORMANCE AT LOW IRRADIANCE**

- Typical module performance under low irradiance conditions in comparison to STC conditions (25°C, 1000 W/m²)
- At least 98% of nominal power during first year. Thereafter max. 0.45% degradation per year. At least 93.95% of nominal power up to 10 years. At least 84.95% 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**

- **Temperature Coefficient of \(I_{SC}\)**: \(\alpha = +0.04\) [% / K]
- **Temperature Coefficient of \(V_{OC}\)**: \(\beta = -0.27\) [% / K]
- **Temperature Coefficient of \(P_{MPP}\)**: \(\gamma = -0.34\) [% / K]

**PROPERTIES FOR SYSTEM DESIGN**

- **Maximum System Voltage** \(V_{SYS}\) [V]: 1500
- **PV module classification**: Class II
- **Maximum Series Fuse Rating [A/DC]**: 20
- **Fire Rating based on ANSI/UL 61730 TYPE 29²
- **Max. Design Load, Push / Pull²**: 75 (3600 Pa)/33 (1800 Pa)
- **Permitted Module Temperature on Continuous Duty**: −40°C up to +85°C
- **Max. Test Load, Push / Pull²**: 113 (5400 Pa)/50 (2400 Pa)

²See Installation Manual

**QUALIFICATIONS AND CERTIFICATES**


**PACKAGING INFORMATION**

- **Horizontal packaging**: 89.4 in 2270 mm, 43.1 in 1095 mm, 47.8 in 1210 mm, 1975 lbs 896 kg
- **20 pallets, 20 modules**

**ELECTRICAL CHARACTERISTICS**

<table>
<thead>
<tr>
<th>POWER CLASS</th>
<th>475</th>
<th>480</th>
<th>485</th>
<th>490</th>
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</thead>
<tbody>
<tr>
<td>Minimum Power at MPP¹</td>
<td>(P_{MPP}) [W]</td>
<td>475</td>
<td>519.6</td>
<td>480</td>
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<tr>
<td>Short Circuit Current¹</td>
<td>(I_{SC}) [A]</td>
<td>11.08</td>
<td>12.17</td>
<td>11.16</td>
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<tr>
<td>Open Circuit Voltage²</td>
<td>(V_{OC}) [V]</td>
<td>53.15</td>
<td>53.39</td>
<td>53.58</td>
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<tr>
<td>Voltage at MPP</td>
<td>(V_{MPP}) [V]</td>
<td>45.03</td>
<td>45.32</td>
<td>45.36</td>
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<tr>
<td>Efficiency¹</td>
<td>(\eta) [%]</td>
<td>≥ 20.5</td>
<td>≥ 22.4</td>
<td>≥ 20.7</td>
</tr>
</tbody>
</table>

1 Measurement tolerances: \(P_{MPP} ± 3\%\), \(I_{SC} ± 5\%\) at STC: 1000 W/m²; \(V_{OC} ± 5\%\), \(\varphi ± 5\%\) at 1000 W/m²; * at BSTC: 1000 W/m² + \(\varphi × 135 W/m²\); \(\varphi = 70 ± 5\%, 25 ± 2°C, AM 1.5\) according to IEC 60904-3

Not: 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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