Q.PEAK DUO ML-G10 SERIES

395 - 415 Wp | 132 Cells
21.1% Maximum Module Efficiency

Breaking the 21% efficiency barrier
Q.ANTUM DUO Z Technology with zero gap cell layout boosts module efficiency up to 21.1%.

Enduring high performance
Long-term yield security with Anti LeTID Technology, Anti PID Technology¹, Hot-Spot Protect.

Extreme weather rating
High-tech aluminium alloy frame, certified for high snow (5400 Pa) and wind loads (4000 Pa).

Innovative all-weather technology
Optimal yields, whatever the weather with excellent low-light and temperature behaviour.

A reliable investment
Inclusive 12-year product warranty and 25-year linear performance warranty².

The most thorough testing programme in the industry
Qcells is the first solar module manufacturer to pass the most comprehensive quality programme in the industry. The new “Quality Controlled PV” of the independent certification institute TÜV Rheinland.

¹ APT test conditions according to IEC/TS 62804-12015, method A (−15°C, 96h)
² See data sheet on rear for further information.

The ideal solution for:
Rooftop arrays on residential buildings

MODEL  Q.PEAK DUO ML-G10
### Mechanical Specification

- **Format**: 74.0 in × 411 in × 1.26 in (including frame)  
  (1879 mm × 1045 mm × 32 mm)
- **Weight**: 48.5 lbs (22.0 kg)
- **Front Cover**: 0.13 in (3.2 mm) thermally pre-stressed glass
- **Back Cover**: Composite film
- **Connector**: Stäubli MC4, Hanwha Q CELLS HQC4; IP68
- **Frame**: Black anodised aluminium
- **Cell**: 6 × 22 monocrystalline Q.ANTUM solar half cells
- **Junction box**: 2.09-3.98 in × 2.36-4.5 in (53-101 mm × 60-158 mm), Protection class IP67, with bypass diodes
- **Cable**: 4 mm² Solar cable; (+) ≥ 49.2 in (1250 mm), (−) ≥ 49.2 in (1250 mm)
- **Back Cover**: Black anodised aluminium
- **Connector**: Stäubli MC4, Hanwha Q CELLS HQC4; IP68

### Electrical Characteristics

#### Minimum Performance at Standard Test Conditions, STC (Power Tolerance +5 W/−0 W)

<table>
<thead>
<tr>
<th>Power at MPP</th>
<th>395</th>
<th>400</th>
<th>405</th>
<th>410</th>
<th>415</th>
</tr>
</thead>
<tbody>
<tr>
<td>$P_{	ext{MPP}}$</td>
<td>395</td>
<td>400</td>
<td>405</td>
<td>410</td>
<td>415</td>
</tr>
<tr>
<td>Short Circuit Current</td>
<td>11.13</td>
<td>11.16</td>
<td>11.19</td>
<td>11.22</td>
<td>11.26</td>
</tr>
<tr>
<td>Open Circuit Voltage</td>
<td>45.03</td>
<td>45.06</td>
<td>45.09</td>
<td>45.13</td>
<td>45.16</td>
</tr>
<tr>
<td>Current at MPP</td>
<td>10.58</td>
<td>10.64</td>
<td>10.70</td>
<td>10.76</td>
<td>10.82</td>
</tr>
<tr>
<td>Voltage at MPP</td>
<td>37.32</td>
<td>37.59</td>
<td>37.85</td>
<td>38.11</td>
<td>38.37</td>
</tr>
<tr>
<td>Efficiency</td>
<td>≥ 20.1</td>
<td>≥ 20.4</td>
<td>≥ 20.6</td>
<td>≥ 20.9</td>
<td>≥ 21.1</td>
</tr>
</tbody>
</table>

#### Minimum Performance at Normal Operating Conditions, NMOT

<table>
<thead>
<tr>
<th>Power at MPP</th>
<th>296.4</th>
<th>300.1</th>
<th>303.9</th>
<th>307.6</th>
<th>311.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short Circuit Current</td>
<td>8.97</td>
<td>8.99</td>
<td>9.02</td>
<td>9.04</td>
<td>9.07</td>
</tr>
<tr>
<td>Open Circuit Voltage</td>
<td>42.46</td>
<td>42.49</td>
<td>42.52</td>
<td>42.56</td>
<td>42.59</td>
</tr>
<tr>
<td>Current at MPP</td>
<td>8.33</td>
<td>8.38</td>
<td>8.43</td>
<td>8.48</td>
<td>8.53</td>
</tr>
<tr>
<td>Voltage at MPP</td>
<td>35.59</td>
<td>35.82</td>
<td>36.04</td>
<td>36.27</td>
<td>36.49</td>
</tr>
</tbody>
</table>

Measurement tolerances $P_{	ext{MPP}} ± 3%$, $I_{SC} ± 5%$ at STC: 1000 W/m², 25 ± 2°C, AM 1.5 according to IEC 60904-3, *800 W/m², NMOT, spectrum AM 1.5*

**TEMPERATURE COEFFICIENTS**

- **Temperature Coefficient of $I_{SC}$**: $\alpha = -0.04$
- **Temperature Coefficient of $V_{OC}$**: $\beta = -0.34$
- **Temperature Coefficient of $P_{	ext{MPP}}$**: $\gamma = -0.27$

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

### Properties for System Design

- **Maximum System Voltage**: $V_{\text{sys}}$ [V] 1000 (IEC)/1000 (UL)
- **Maximum Series Fuse Rating**: [A DC] 20
- **Max. Design Load, Push/Pull**: [lbs/ft²] 75 (3600 Pa)/55 (2660 Pa)
- **Max. Test Load, Push/Pull**: [lbs/ft²] 113 (5400 Pa)/84 (4000 Pa)

**PV module classification**: Class II

**Fire Rating based on ANSI/UL 61730**: TYPE 2

**Permitted Module Temperature on Continuous Duty**: −40°F up to +185°F

- **See Installation Manual**

### Qualifications and Certificates

- **Q.PEAK DUO ML-G10 SERIES**
- **Mechanical Specification**
- **Electrical Characteristics**
- **Properties for System Design**
- **Qualifications and Certificates**

**Qcells pursues minimizing paper output in consideration of the global environment.**

*Installation instructions must be followed. Contact our technical service for further information on approved installation of this product.*

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