Q.ANTUM TECHNOLOGY: LOW LEVELISED COST OF ELECTRICITY
Higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 19.6%.

INNOVATIVE ALL-WEATHER TECHNOLOGY
Optimal yields, whatever the weather with excellent low-light and temperature behaviour.

ENDURING HIGH PERFORMANCE
Long-term yield security with Anti LID Technology, Anti PID 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 (4000 Pa).

MAXIMUM COST REDUCTIONS
Up to 10% lower logistics costs due to higher module capacity per box.

A RELIABLE INVESTMENT
Inclusive 12-year product warranty and 25-year linear performance warranty.

See data sheet on rear for further information.

THE IDEAL SOLUTION FOR:
- Rooftop arrays on residential buildings
- Rooftop arrays on commercial/industrial buildings

Engineered in Germany
**MECHANICAL SPECIFICATION**

**Format**  
65.0 in x 39.0 in x 1.38 in (including frame)  
(1650 mm x 991 mm x 35 mm)

**Weight**  
39.7 lbs (18 kg) ± 5%

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

**Back Cover**  
Composite film

**Frame**  
Anodized aluminum

**Cell**  
6 × 10 monocrystalline Q.ANTUM solar cells

**Junction Box**  
3.35-4.53 in × 2.36-3.15 in × 0.59-0.79 in

**Cable**  
Anodized aluminum, 0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology

**Connector**  
Stäubli MC4-Evo2, Hanwha Q CELLS HQC4, Tongling TL-Cable01S-F, Amphenol UTX, IP68

**Electrical Characteristics**

**Power Class**  
305  
310  
315

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

<table>
<thead>
<tr>
<th>Power at MPP1</th>
<th>P&lt;sub&gt;MPP&lt;/sub&gt; [W]</th>
<th>Minimum</th>
<th>305</th>
<th>310</th>
<th>315</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Circuit Voltage1</td>
<td>V&lt;sub&gt;OC&lt;/sub&gt; [V]</td>
<td>40.15</td>
<td>40.44</td>
<td>40.73</td>
<td></td>
</tr>
<tr>
<td>Voltage at MPP</td>
<td>V&lt;sub&gt;MPP&lt;/sub&gt; [V]</td>
<td>32.78</td>
<td>32.99</td>
<td>33.20</td>
<td></td>
</tr>
<tr>
<td>Efficiency1</td>
<td>η [%]</td>
<td>≥18.7</td>
<td>≥19.0</td>
<td>≥19.3</td>
<td></td>
</tr>
</tbody>
</table>

**Minimum Performance at Normal Operating Conditions, NMOT2**

| Power at MPP2 | P<sub>MPP</sub> [W] | Minimum | 2275 | 231.3 | 235.0 |
| Short Circuit Current2 | I<sub>SC</sub> [A] | 7.88 | 7.94 | 7.99 |
| Open Circuit Voltage2 | V<sub>OC</sub> [V] | 37.97 | 38.06 | 38.33 |
| Current at MPP | I<sub>MPP</sub> [A] | 7.32 | 7.40 | 7.48 |
| Voltage at MPP | V<sub>MPP</sub> [V] | 31.08 | 31.26 | 31.43 |

1Measurement tolerances P<sub>MPP</sub> ± 3%, I<sub>SC</sub>; V<sub>OC</sub> ± 5% at STC: 1000 W/m², 25 ± 2°C, AM 1.5G according to IEC 60904-3 • 2800 W/m², NMOT, spectrum AM 1.5G

**Q CELLS Performance Warranty**

Performance at Low Irradiance

At least 96% of nominal power during first year. Thereafter max. 0.6% degradation per year. At least 92.6% of nominal power up to 10 years. At least 83.6% 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.

**Properties for System Design**

- **Maximum System Voltage** V<sub>VS</sub> [V]  
  1500 (IEC)/1500 (UL)

- **Safety Class**  
  II

- **Maximum Series Fuse Rating** [A DC]  
  20

- **Fire Rating**  
  C / TYPE 1

- **Permitted Module Temperature on Continuous Duty**  
  -40°F up to +185°F  
  (-40°C up to +85°C)

**Qualifications and Certificates**

UL 1703, CE-compliant  
IEC 61215:2016, IEC 61730:2016, Application Class II

**Packaging Information**

- **Number of Modules per Pallet**  
  30

- **Number of Pallets per 53’ Container**  
  30

- **Pallet Dimensions (L x W x H)**  
  66.9 x 44.5 x 45.7 in (1700 x 1130 x 1160 mm)

- **Pallet Weight**  
  1288 lbs (584 kg)

**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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