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 19.9 %.

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 Technology1, 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).

A RELIABLE INVESTMENT
Inclusive 12-year product warranty and 25-year linear performance warranty2.

STATE OF THE ART MODULE TECHNOLOGY
Q.ANTUM DUO combines cutting edge cell separation and innovative wiring with Q.ANTUM Technology.

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

1 APT test conditions according to IEC/TS 62804-1:2015, method B (-1500 V, 168 h)
2 See data sheet on rear for further information.
**Mechanical Specification**

- **Format**: 1685 mm × 1000 mm × 32 mm (including frame)
- **Weight**: 18.7 kg
- **Front Cover**: 3.2 mm thermally pre-stressed glass with anti-reflection technology
- **Back Cover**: Composite film
- **Frame**: Black anodised aluminium
- **Cell**: 6 × 20 monocrystalline Q.ANTUM solar half cells
- **Junction box**: 70-85 mm × 50-70 mm × 13-21 mm Protection class IP67, with bypass diodes
- **Cable**: 4 mm² Solar cable; (+) ≥ 1100 mm, (−) ≥ 1100 mm
- **Connector**: Staubli MC4, Amphenol UTX, Renhe 05-6, Tonglin TL-CableQ1S, JMTHY JM601, IP68 or Friends PV2e, IP67

**Electrical Characteristics**

### Power Class

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

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

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### Q Cells Performance Warranty

- At least 98% of nominal power during first year. Thereafter 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.

**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).

### Temperature Coefficients

- Temperature Coefficient of ISC, α [% / K] = 0.04
- Temperature Coefficient of VOC, β [% / K] = 0.27
- Temperature Coefficient of PMPP, γ [% / K] = 0.36

**Properties for System Design**

- **Maximum System Voltage**: 1000 V
- **Maximum Reverse Current**: 20 A
- **Max. Design Load, Push / Pull**: 3600/2667 Pa
- **Max. Test Load, Push / Pull**: 5400/4000 Pa

**Qualifications and Certificates**

- VDE Quality Tested, IEC 61215:2016; IEC 61730:2016, Application Class II
- This data sheet complies with DIN EN 50380.

**Packaging Information**

- Number of Modules per Pallet: 32
- Number of Pallets per Trailer (241): 30
- Number of Pallets per 40' HC-Container (261): 26
- Pallet Dimensions (L × W × H): 1760 × 1150 × 1190 mm
- Pallet Weight: 642 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.