BREAKING THE 20% EFFICIENCY BARRIER
Q.ANTUM DUO Z Technology with zero gap cell layout boosts module efficiency up to 21.1%.

THE MOST THOROUGH TESTING PROGRAMME IN THE INDUSTRY
Q CELLS 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.

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 Technology, Anti PID Technology², Hot-Spot Protect and Traceable Quality Tra.Q™.

EXTREME WEATHER RATING
High-tech aluminum alloy frame, certified for high snow (6000 Pa) and wind loads (4000 Pa).

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

¹ APT test conditions according to IEC/TS 62804-1:2015, method A (−1500 V, 96 h)
² See data sheet on rear for further information.

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

Format 72.4 in × 40.6 in × 1.26 in (including frame)  
(1840 mm × 1030 mm × 32 mm)
Weight 43.0 lbs (19.5 kg)
Front Cover 0.11 in (2.8 mm) thermally pre-stressed glass with anti-reflection technology
Back Cover Composite film
Frame Black anodized aluminum
Cell 6 × 22 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 4mm² Solar cable; (+) ≥ 47.2 in (1200 mm), (−) ≥ 47.2 in (1200 mm)
Connector Stäubli MCA, IP68

ELECTRICAL CHARACTERISTICS

POWER CLASS 375 380 385 390 395
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC1 (POWER TOLERANCE +5 W / −0 W)
Minimum
Power at MPP4 / P MPP [W] 375 380 385 390 395
Open Circuit Voltage1 / V oc [V] 44.96 44.99 45.03 45.06 45.10
Current at MPP / I MPP [A] 10.09 10.14 10.20 10.26 10.32
Voltage at MPP / V MPP [V] 37.18 37.46 37.74 38.01 38.29
Efficiency1 / η ≥ 19.8 ≥ 20.1 ≥ 20.3 ≥ 20.6 ≥ 20.8
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT2
Minimum
Power at MPP / P MPP [W] 280.8 284.6 288.3 292.0 295.8
Short Circuit Current / I sc [A] 8.55 8.58 8.60 8.63 8.65
Open Circuit Voltage / V oc [V] 42.39 42.43 42.46 42.50 42.53
Voltage at MPP / V MPP [V] 35.39 35.64 35.87 36.11 36.34
1 Measurement tolerances P MPP ± 5%, I sc ± 5% at STC: 1000 W/m², 25 ± 2 °C, AM 1.5 according to IEC 60904-3 • 2 Fire Rating based on ANSI / UL 61730

Q CELLS PERFORMANCE WARRANTY

PERFORMANCE AT LOW IRRADIANCE

At least 96% of nominal power during first year. Thereafter max. 0.5% degradation per year. At least 93.5% of nominal power up to 10 years. At least 86% 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.

TEMPERATURE COEFFICIENTS

Temperature Coefficient of I sc / α [% / K] +0.04
Temperature Coefficient of V oc / β [% / K] −0.27
Temperature Coefficient of P MPP / γ [% / K] −0.35
Nominal Module Operating Temperature / NMOT [°F] 109 ± 5.4 (43 ± 3 °C)

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage / V MPP [V] 1000 (IEC)/1000 (UL) PV module classification Class II
Maximum Series Fuse Rating / [A DC] 20 Fire Rating based on ANSI / UL 61730
Max. Design Load, Push / Pull / [lbs / ft²] 84 (4000Pa)/55 (2660Pa) Permitted Module Temperature on Continuous Duty −40°F up to +185°F (−40°C up to +85°C)
Max. Test Load, Push / Pull / [lbs / ft²] 126 (6000Pa)/84 (4000Pa)

QUALIFICATIONS AND CERTIFICATES


PACKAGING AND TRANSPORT INFORMATION

Horizontal packaging 1890mm 1080mm 1208mm 1458lbs 28 pallets 24 modules
Vertical packaging 1950mm 1185mm 1506lbs 28 pallets 24 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. Q CELLS supplies solar modules in two different stacking methods, depending on the location of manufacture (modules are packed horizontally or vertically). You can find more detailed information in the document “Packaging and Transport Information”, available at Q CELLS.

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