The new Q.PEAK DUO-G5 solar module from Q CELLS impresses thanks to innovative Q.ANTUM DUO Technology, which enables particularly high performance on a small surface. Q.ANTUM’s world-record-holding cell concept has now been combined with state-of-the-art circuitry half cells and a six-busbar design, thus achieving outstanding performance under real conditions - both with low-intensity solar radiation as well as on hot, clear summer days.

**Q.ANTUM TECHNOLOGY: LOW LEVELIZED 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 behavior.

**ENDURING HIGH PERFORMANCE**
Long-term yield security with Anti LID and Anti PID Technology\(^1\), Hot-Spot Protect and Traceable Quality Tra.Q™.

**EXTREME WEATHER RATING**
High-tech aluminum alloy frame, certified for high snow (5400 Pa) and wind loads (4000 Pa) regarding IEC.

**A RELIABLE INVESTMENT**
Inclusive 12-year product warranty and 25-year linear performance guarantee\(^2\).

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

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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: 66.3 in × 39.4 in × 1.26 in (including frame)
(1685 mm × 1000 mm × 32 mm)

Weight: 41.2 lbs (18.7 kg)

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

Back Cover: Composite film

Frame: Black anodized aluminum

Cell: 6 × 20 monocrystalline Q.ANTUM solar half-cells

Junction box: 2.76-3.35 in × 1.97-2.76 in × 0.51-0.83 in

Connector: Multi-Contact MC4, IP68

Cable: Solar cable; (+) ≥ 43.3 in (1100 mm), (−) ≥ 43.3 in (1100 mm)

Multi-Contact MC4, IP68

Composite film

Back Cover

Frame

Black anodized aluminum

6 × 20 monocrystalline Q.ANTUM solar half-cells

Junction box

2.76-3.35 in × 1.97-2.76 in × 0.51-0.83 in

Connector

Multi-Contact MC4, IP68

Cable

Solar cable; (+) ≥ 43.3 in (1100 mm), (−) ≥ 43.3 in (1100 mm)

Electrical characteristics

POWER CLASS

315  320  325  330

MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC1 (POWER TOLERANCE +5 W / −0 W)

Power at MPP

P_{PP} [W]  315  320  325  330

Minimum

Short Circuit Current

I_{SC} [A]  10.04  10.09  10.14  10.20

Open Circuit Voltage

V_{OC} [V]  39.87  40.13  40.40  40.66

Current at MPP


Voltage at MPP

V_{MPP} [V]  32.98  33.32  33.65  33.98

Efficiency1

η [%]  ≥ 18.7  ≥ 19.0  ≥ 19.3  ≥ 19.6

MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT2

Power at MPP

P_{PP} [W]  235.3  239.0  242.8  246.5

Minimum

Short Circuit Current

I_{SC} [A]  8.09  8.13  8.17  8.22

Open Circuit Voltage

V_{OC} [V]  37.52  37.77  38.02  38.27

Current at MPP

I_{MPP} [A]  7.52  7.56  7.60  7.64

Voltage at MPP

V_{MPP} [V]  31.30  31.62  31.94  32.25

1Measurement tolerances P_{PP} ± 3%; I_{SC}, V_{OC} ± 5% at STC: 1000 W/m², 25 ± 2 °C, AM 1.5 G according to IEC 60904-3

2Minimum performance at normal operating conditions. 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.

Q CELLS PERFORMANCE WARRANTY

Performance at low irradiance

Relative efficiency [%] 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.

Typical module performance under low irradiance conditions in comparison to STC conditions (25 °C, 1000 W/m²).

TEMPERATURE COEFFICIENTS

Temperature Coefficient of I_{SC} β [%/K]  +0.04

Temperature Coefficient of V_{OC} γ [%/K]  −0.37

Normal 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)

Safety Class

II

Max. Series Fuse Rating

[A DC]  20

Fire Rating

C (IEC) / TYPE 1 (UL)

Max. Design Load, push2

(lbs/ft²)  75 (3600 Pa) / 55 (2667 Pa)

Permitted module temperature on continuous duty

−40 °F up to +185 °F

Max. Test Load, Push / Pull2

(lbs/ft²)  113 (5400Pa) / 84 (4000Pa)

2 see installation manual

Packaging information

Number of Modules per Pallet 32

Number of Pallets per 53' Trailer 30

Number of Pallets per 40' High Cube Container 26

Pallet Dimensions (L × W × H) 69.3 in × 45.3 in × 46.9 in (1760 mm × 1150 mm × 1190 mm)

Pallet Weight 1415 lbs (642 kg)

Qualifications and certificates

UL 703; VDE Quality Tested; CE-compliant; IEC 61215:2016; IEC 61730:201, application class A

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Specifications subject to technical changes.

*Standard terms of guarantee for the 10 PV companies with the highest production capacity in 2014 (as at: September 2014)

Industry standard for tiered warranties*

Industry standard for linear warranties*

Q CELLS