

Q.PEAK DUO BLK-G5 300-320

Q.ANTUM SOLAR MODULE

The new **Q.PEAK DUO BLK-G5** solar module from Q CELLS impresses with its outstanding visual appearance and particularly high performance on a small surface thanks to the innovative **Q.ANTUM DUO** Technology. 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 19.3%.



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 Technology¹, 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 guarantee².

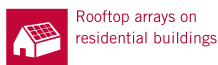


STATE OF THE ART MODULE TECHNOLOGY

Q.ANTUM DUO combines cutting edge cell separation and innovative wiring with Q.ANTUM Technology.



THE IDEAL SOLUTION FOR:



Engineered in **Germany**

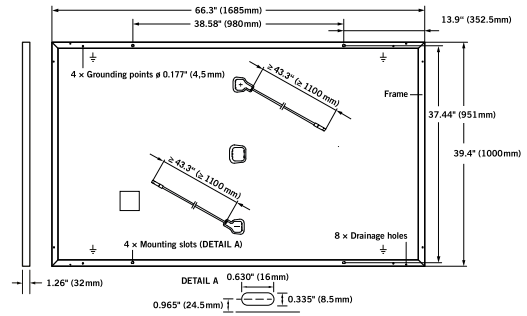
Q CELLS

¹ APT test conditions according to IEC/TS 62804-1:2015, method B (-1500V, 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 (70-85 mm × 50-70 mm × 13-21 mm), decentralized, IP67
Cable	4 mm ² Solar cable; (+) ≥ 43.3 in (1100 mm), (-) ≥ 43.3 in (1100 mm)
Connector	Multi-Contact MC4, IP68

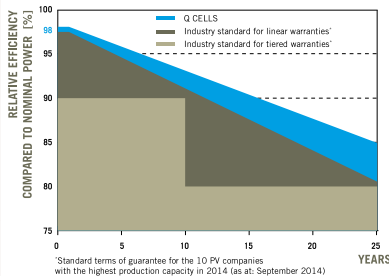


ELECTRICAL CHARACTERISTICS

POWER CLASS			300	305	310	315	320
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC ¹ (POWER TOLERANCE +5 W / -0 W)							
Minimum	Power at MPP ¹	P_{MPP} [W]	300	305	310	315	320
	Short Circuit Current ¹	I_{SC} [A]	9.72	9.78	9.83	9.89	9.94
	Open Circuit Voltage ¹	V_{OC} [V]	39.48	39.75	40.02	40.29	40.56
	Current at MPP	I_{MPP} [A]	9.25	9.31	9.36	9.41	9.47
	Voltage at MPP	V_{MPP} [V]	32.43	32.78	33.12	33.46	33.80
	Efficiency ¹	η [%]	≥ 17.8	≥ 18.1	≥ 18.4	≥ 18.7	≥ 19.0
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT ²							
Minimum	Power at MPP	P_{MPP} [W]	224.1	227.8	231.6	235.3	239.1
	Short Circuit Current	I_{SC} [A]	7.83	7.88	7.92	7.97	8.01
	Open Circuit Voltage	V_{OC} [V]	37.15	37.40	37.66	37.91	38.17
	Current at MPP	I_{MPP} [A]	7.28	7.32	7.37	7.41	7.45
	Voltage at MPP	V_{MPP} [V]	30.78	31.11	31.44	31.76	32.08

¹Measurement tolerances $P_{MPP} \pm 3\%$; $I_{SC}, V_{OC} \pm 5\%$ at STC: 1000 W/m², 25 ± 2 °C, AM 1.5G according to IEC 60904-3 - ²800 W/m², NMOT, spectrum AM 1.5G

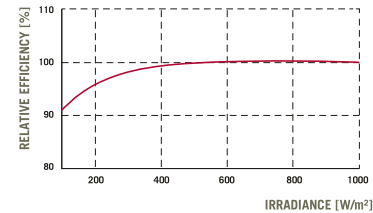
Q CELLS PERFORMANCE WARRANTY



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 organization of your respective country.

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 I_{SC}	α	[%/K]	+0.04	Temperature Coefficient of V_{OC}	β	[%/K]	-0.28
Temperature Coefficient of P_{MPP}	γ	[%/K]	-0.37	Normal Operating Module Temperature	NMOT	[°F]	109 ± 5.4 (43 ± 3 °C)

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V_{SYS}	[V]	1000 (IEC) / 1000 (UL)	Safety Class	II
Maximum Series Fuse Rating	[A DC]	20	Fire Rating	C (IEC) / TYPE 1 (UL)
Max. Design Load, Push / Pull (UL) ²	[lbs/ft ²]	75 (3600 Pa) / 55 (2667 Pa)	Permitted module temperature on continuous duty	-40 °F up to +185 °F (-40 °C up to +85 °C)
Max. Test Load, Push / Pull (UL) ²	[lbs/ft ²]	113 (5400 Pa) / 84 (4000 Pa)	² see installation manual	

QUALIFICATIONS AND CERTIFICATES

UL 1703; VDE Quality Tested; CE-compliant;
IEC 61215:2016; IEC 61730:2016, Application class A



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)

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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