

# 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 Technology<sup>1</sup>, 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.



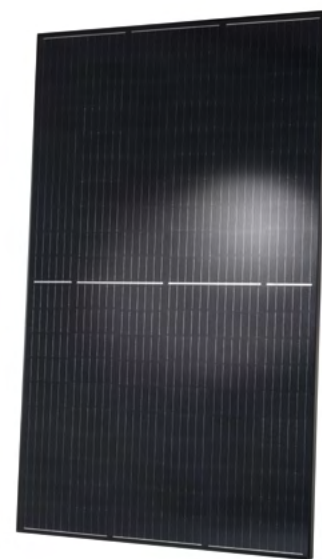
### A RELIABLE INVESTMENT

Inclusive 12-year product warranty and 25-year linear performance guarantee<sup>2</sup>.



### 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:



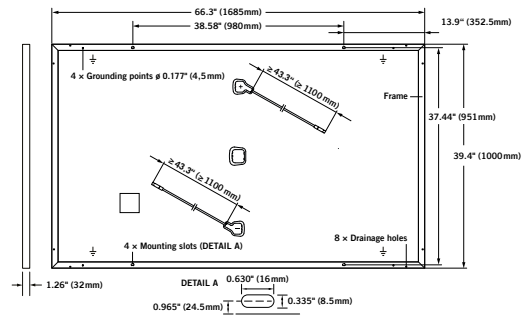
Rooftop arrays on  
residential buildings

<sup>1</sup> APT test conditions according to IEC/TS 62804-1:2015, method B (-1500V, 168 h)

<sup>2</sup> See data sheet on rear for further information.

## MECHANICAL SPECIFICATION

<b>Format</b>	66.3 in × 39.4 in × 1.26 in (including frame) (1685 mm × 1000 mm × 32 mm)
<b>Weight</b>	41.2 lbs (18.7 kg)
<b>Front Cover</b>	0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology
<b>Back Cover</b>	Composite film
<b>Frame</b>	Black anodized aluminum
<b>Cell</b>	6 × 20 monocrystalline Q.ANTUM solar half-cells
<b>Junction box</b>	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
<b>Cable</b>	4 mm <sup>2</sup> Solar cable; (+) ≥ 43.3 in (1100 mm), (-) ≥ 43.3 in (1100 mm)
<b>Connector</b>	Multi-Contact MC4, IP65 and IP68



## ELECTRICAL CHARACTERISTICS

POWER CLASS			300	305	310	315	320
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC <sup>1</sup> (POWER TOLERANCE +5 W / -0 W)							
Minimum	Power at MPP <sup>2</sup>	P <sub>MPP</sub> [W]	300	305	310	315	320
	Short Circuit Current*	I <sub>SC</sub> [A]	9.72	9.78	9.83	9.89	9.94
	Open Circuit Voltage*	V <sub>OC</sub> [V]	39.48	39.75	40.02	40.29	40.56
	Current at MPP*	I <sub>MPP</sub> [A]	9.25	9.31	9.36	9.41	9.47
	Voltage at MPP*	V <sub>MPP</sub> [V]	32.43	32.78	33.12	33.46	33.80
	Efficiency <sup>2</sup>	η [%]	≥ 17.8	≥ 18.1	≥ 18.4	≥ 18.7	≥ 19.0
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NOC <sup>3</sup>							
Minimum	Power at MPP <sup>2</sup>	P <sub>MPP</sub> [W]	222.3	226.0	229.7	233.5	237.2
	Short Circuit Current*	I <sub>SC</sub> [A]	7.84	7.88	7.93	7.97	8.02
	Open Circuit Voltage*	V <sub>OC</sub> [V]	36.93	37.18	37.43	37.69	37.94
	Current at MPP*	I <sub>MPP</sub> [A]	7.28	7.32	7.36	7.41	7.45
	Voltage at MPP*	V <sub>MPP</sub> [V]	30.55	30.88	31.20	31.52	31.84

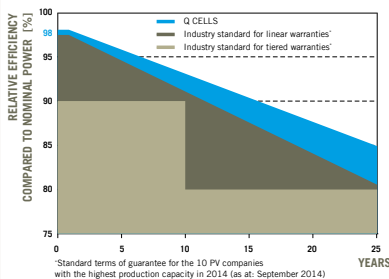
<sup>1</sup> 1000 W/m<sup>2</sup>, 25 °C, spectrum AM 1.5 G

<sup>2</sup> Measurement tolerances STC ± 3 %; NOC ± 5 %

<sup>3</sup> 800 W/m<sup>2</sup>, NOCT, spectrum AM 1.5 G

\* typical values, actual values may differ

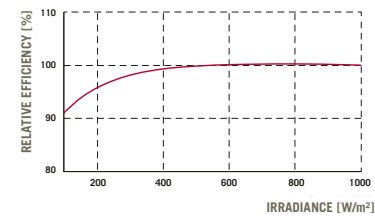
### Q CELLS PERFORMANCE WARRANTY



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/m<sup>2</sup>).

### TEMPERATURE COEFFICIENTS

Temperature Coefficient of I <sub>SC</sub>	α	[%/K]	+0.04	Temperature Coefficient of V <sub>OC</sub>	β	[%/K]	-0.28
Temperature Coefficient of P <sub>MPP</sub>	γ	[%/K]	-0.37	Normal Operating Cell Temperature	NOCT	[°F]	113 ± 5.4 (45 ± 3 °C)

## PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V <sub>sys</sub>	[V]	1000 (IEC) / 1000 (UL)	Safety Class	II
Maximum Series Fuse Rating	[A DC]	20	Fire Rating	C (IEC) / TYPE 1 (UL)
Design load, push (UL) <sup>2</sup>	[lbs/ft <sup>2</sup> ]	75 (3600 Pa)	Permitted module temperature on continuous duty	-40 °F up to +185 °F (-40 °C up to +85 °C)
Design load, pull (UL) <sup>2</sup>	[lbs/ft <sup>2</sup> ]	55.6 (2666 Pa)	<sup>2</sup> see installation manual	

## QUALIFICATIONS AND CERTIFICATES

UL 1703; VDE Quality Tested; CE-compliant;  
IEC 61215 (Ed.2); IEC 61730 (Ed.1) 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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