powered by Q.ANTUM

Q.PEAK BLK-G4.1 285-300

Q.ANTUM SOLAR MODULE

The new high-performance module Q.PEAK BLK-G4.1 is the ideal solution for residential buildings thanks to its innovative cell technology Q.ANTUM. The world-record cell design was developed to achieve the best performance under real conditions – even with low radiation intensity and on clear, hot summer days.

Q.ANTUM TECHNOLOGY: LOW LEVELIZED COST OF ELECTRICITY

Higher yield per surface area and lower BOS costs and higher power classes and an efficiency rate of up to 18.3 %.

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 Technology[1], 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).

MAXIMUM COST REDUCTIONS

Up to 10 % lower logistics costs due to higher module capacity per box.

A RELIABLE INVESTMENT

Inclusive 12-year product warranty and 25-year linear performance warranty[2].

EUPD RESEARCH TOP BRAND PV MODULES EUROPE 2018

Q CELLS YIELD SECURITY
- ANTI PID TECHNOLOGY (APT)
- HOT-SPOT PROTECT (HSP)
- TRACEABLE QUALITY (TRA.Q™)
- ANTI LID TECHNOLOGY (ALT)

VDE 11/2016 Quality Tested
- high reliability
- low degradation
- optimized durability
- continous line monitoring

www.VDEinfo.com
ID. 40032587

Photon
Q CELLS
Best polycrystalline solar module 2014
Q.PRO-G2 235
174 modules tested

[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.

THE IDEAL SOLUTION FOR:

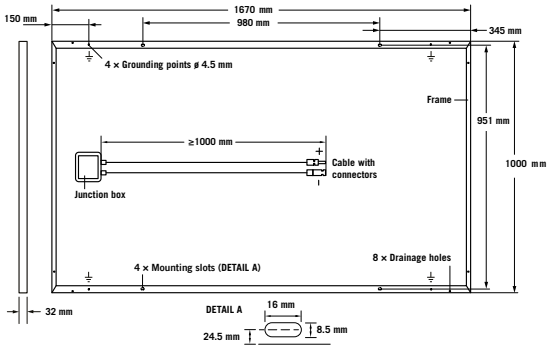
Rooftop arrays on residential buildings

Engineered in **Germany**

Q CELLS

MECHANICAL SPECIFICATION

Format	1670 mm × 1000 mm × 32 mm (including frame)
Weight	18.5 kg
Front Cover	3.2 mm thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Black anodised aluminium
Cell	6 × 10 monocrystalline Q.ANTUM solar cells
Junction box	66-77 mm × 90-115 mm × 15-20 mm, Protection class ≥ IP67, with bypass diodes
Cable	4 mm² Solar cable; (+) 1000 mm, (–) 1000 mm
Connector	Multi-Contact MC4, IP68

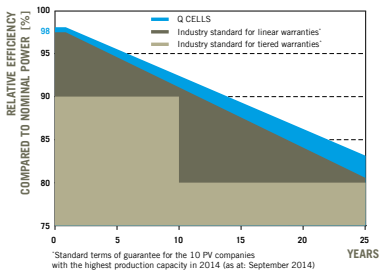


ELECTRICAL CHARACTERISTICS

POWER CLASS			285	290	295	300
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC[1] (POWER TOLERANCE +5 W / –0 W)						
Minimum	Power at MPP[1]	P_{MPP}	285	290	295	300
	Short Circuit Current[1]	I_{SC}	9,56	9.63	9.70	9.77
	Open Circuit Voltage[1]	V_{OC}	38,91	38.19	39.48	39.76
	Current at MPP	I_{MPP}	8,98	9.07	9.17	9.26
	Voltage at MPP	V_{MPP}	31,73	31.96	32.19	32.41
	Efficiency[1]	η	≥ 17.1	≥ 17.4	≥ 17.7	≥ 18.0
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT[2]						
Minimum	Power at MPP	P_{MPP}	212,7	216,4	220,1	223,9
	Short Circuit Current	I_{SC}	7,70	7,76	7,82	7,87
	Open Circuit Voltage	V_{OC}	36,60	36,87	37,14	37,41
	Current at MPP	I_{MPP}	7,04	7,12	7,20	7,28
	Voltage at MPP	V_{MPP}	30,19	30,39	30,58	30,76

[1]Measurement tolerances P_{MPP} ±3 %; I_{SC}; V_{OC} ±5 % at STC: 1000 W/m², 25±2 °C, AM 1.5 G according to IEC 60904-3 · [2]800 W/m², NMOT, spectrum AM 1.5 G

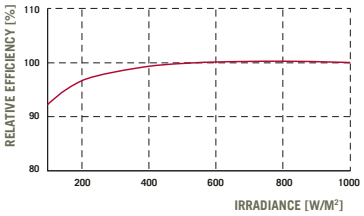
Q CELLS PERFORMANCE WARRANTY



At least 98 % of nominal power during first year. Thereafter max. 0.6 % degradation per year.
At least 92.6 % of nominal power up to 10 years.
At least 83.6 % 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.

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]	–0.39	**Normal Module Operating Temperature**	NMOT	[°C]	43±3

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage	V_{SYS}	[V]	1000	**Safety Class**		II
Maximum Reverse Current	I_R	[A]	20	**Fire Rating**		C
Max. Design Load, Push / Pull		[Pa]	3600/2667	**Permitted Module Temperature on Continuous Duty**		–40 °C up to +85 °C
Max. Test Load, Push / Pull		[Pa]	5400/4000			

QUALIFICATIONS AND CERTIFICATES

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

PARTNER

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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Engineered in **Germany**