powered by Q.ANTUM

Q.PEAK BLK-G4.1
290-305

ENDURING HIGH PERFORMANCE

EUPD RESEARCH TOP BRAND PV MODULES EUROPE 2019

VDE 11/2016 Quality Tested
✓ high reliability
✓ low degradation
✓ optimized durability
✓ continuous line monitoring
www.VDEinfo.com
ID. 40032587

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

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

Q.ANTUM TECHNOLOGY: LOW LEVELISED COST OF ELECTRICITY
Higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 18.6%.

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].

[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.

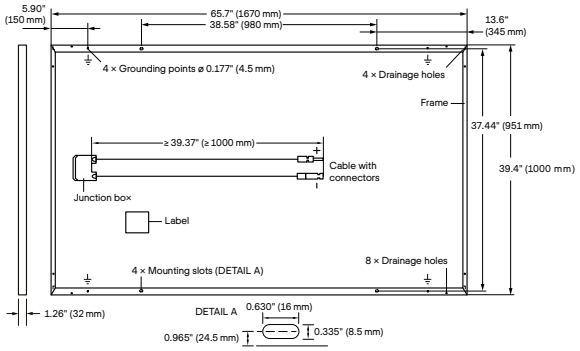
THE IDEAL SOLUTION FOR:
Rooftop arrays on residential buildings

Engineered in Germany

Q CELLS

MECHANICAL SPECIFICATION

Format	65.7 in × 39.4 in × 1.26 in (including frame) (1670 mm × 1000 mm × 32 mm)
Weight	40.8 lbs (18.5 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 × 10 monocrystalline Q.ANTUM solar cells
Junction Box	3.35-4.53 in × 2.36-3.15 in × 0.59-0.75 in (85-115 mm × 60-80 mm × 15-20 mm), IP67, with bypass diodes
Cable	4 mm² Solar cable; (+) ≥ 39.37 in (1000 mm), (–) ≥ 39.37 in (1000 mm)
Connector	Stäubli MC4, Hanwha Q CELLS HQC4, Tonglin TL-Cable01S, Amphenol UTX; IP68

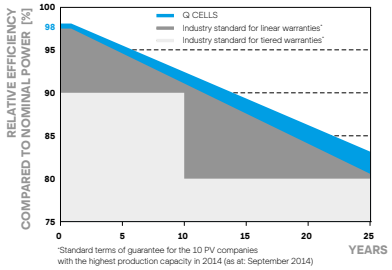


ELECTRICAL CHARACTERISTICS

POWER CLASS				290	295	300	305
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC[1] (POWER TOLERANCE +5 W / –0 W)							
Minimum	Power at MPP[1]	P_{MPP}	[W]	290	295	300	305
	Short Circuit Current[1]	I_{SC}	[A]	9.63	9.70	9.77	9.84
	Open Circuit Voltage[1]	V_{OC}	[V]	39.19	39.48	39.76	40.05
	Current at MPP	I_{MPP}	[A]	9.07	9.17	9.26	9.35
	Voltage at MPP	V_{MPP}	[V]	31.96	32.19	32.41	32.62
	Efficiency[1]	η	[%]	≥17.4	≥17.7	≥18.0	≥18.3
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT[2]							
Minimum	Power at MPP	P_{MPP}	[W]	216.8	220.6	224.3	228.0
	Short Circuit Current	I_{SC}	[A]	7.76	7.82	7.87	7.93
	Open Circuit Voltage	V_{OC}	[V]	36.94	37.21	37.48	37.76
	Current at MPP	I_{MPP}	[A]	7.12	7.20	7.28	7.35
	Voltage at MPP	V_{MPP}	[V]	30.45	30.64	30.82	31.00

[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

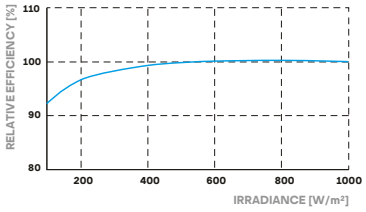
Q CELLS PERFORMANCE WARRANTY



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]	–0.27
Temperature Coefficient of P_{MPP}	γ	[%/K]	–0.38	Normal Module Operating 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 / TYPE 2
Max. Design Load, Push / Pull[3]	[lbs / ft²]	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[3]	[lbs / ft²]	113 (5400 Pa) / 84 (4000 Pa)		

[3] See Installation Manual

QUALIFICATIONS AND CERTIFICATES

VDE Quality Tested, UL 1703, CE-compliant, IEC 61215:2016, IEC 61730:2016, Application Class II, U.S. Patent No. 9,893,215 (solar cells)

PACKAGING INFORMATION

Number of Modules per Pallet	32
Number of Pallets per 53' Container	30
Number of Pallets per 40' Container	26
Pallet Dimensions (L × W × H)	68.7 × 45.3 × 46.1 in (1725 × 1150 × 1170 mm)
Pallet Weight	1435 lbs (651 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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