Q.PEAK-G4.4
295-315

ENDURING HIGH PERFORMANCE

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

EUPD RESEARCH
TOP BRAND PV
MODULES
EUROPE
2019

PERC TECHNOLOGY: LOW LEVELISED COST OF ELECTRICITY
Higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 19.2 %.

INNOVATIVE ALL-WEATHER TECHNOLOGY
Optimal yields, whatever the weather with excellent low-light and temperature behaviour.

ENDURING HIGH PERFORMANCE
Long-term yield security thanks to regular PID and Hot-Spot tests according to IEC requirements.

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[1].

[1] See data sheet on rear for further information.

THE IDEAL SOLUTION FOR:

Rooftop arrays on commercial / industrial buildings

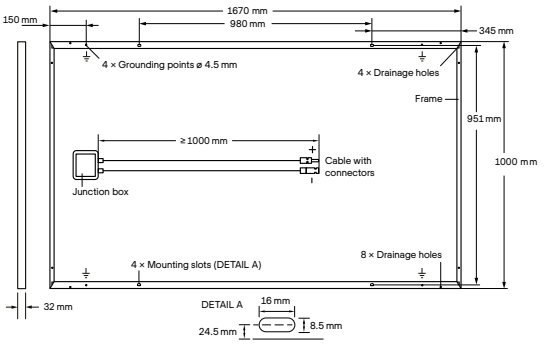
Ground-mounted solar power plants

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 PERC solar cells
Junction box	85-115 mm × 60-80 mm x 15-20 mm Protection class ≥ IP67, with bypass diodes
Cable	4 mm² Solar cable; (+) ≥ 1000 mm, (–) ≥ 1000 mm
Connector	Stäubli MC4; IP68

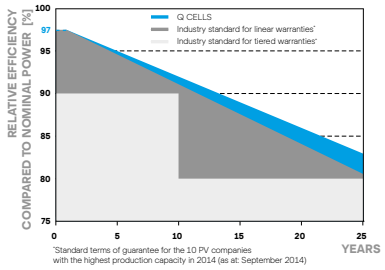


ELECTRICAL CHARACTERISTICS

POWER CLASS				295	300	305	310	315
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC[1] (POWER TOLERANCE +5 W / –0 W)								
Minimum	Power at MPP[1]	P_{MPP}	[W]	295	300	305	310	315
	Short Circuit Current[1]	I_{SC}	[A]	9.76	9.83	9.90	9.97	10.04
	Open Circuit Voltage[1]	V_{OC}	[V]	39.37	39.66	39.94	40.22	40.51
	Current at MPP	I_{MPP}	[A]	9.19	9.28	9.37	9.46	9.56
	Voltage at MPP	V_{MPP}	[V]	32.11	32.33	32.54	32.75	32.96
	Efficiency[1]	η	[%]	≥17.7	≥18.0	≥18.3	≥18.6	≥18.9
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT[2]								
Minimum	Power at MPP	P_{MPP}	[W]	220.1	223.9	227.6	231.3	235.1
	Short Circuit Current	I_{SC}	[A]	7.86	7.92	7.97	8.03	8.09
	Open Circuit Voltage	V_{OC}	[V]	37.04	37.31	37.58	37.85	38.12
	Current at MPP	I_{MPP}	[A]	7.21	7.29	7.37	7.44	7.52
	Voltage at MPP	V_{MPP}	[V]	30.53	30.71	30.89	31.07	31.25

[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

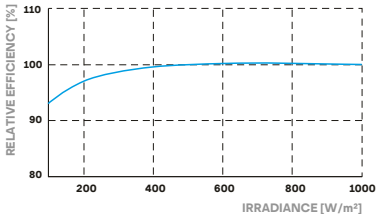
Q CELLS PERFORMANCE WARRANTY



At least 97% of nominal power during first year. Thereafter max. 0.6% degradation per year. At least 92% of nominal power up to 10 years. At least 83% 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 / TYPE 2
Max. Design Load, Push / Pull		[Pa]	3600 / 2667	Permitted Module Temperature on Continuous Duty	–40 °C - +85 °C
Max. Test Load, Push / Pull		[Pa]	5400 / 4000		

QUALIFICATIONS AND CERTIFICATES

IEC 61215:2016; IEC 61730:2016, Application Class II;
This data sheet complies with DIN EN 50380.

PACKAGING INFORMATION

Number of Modules per Pallet	32
Number of Pallets per Trailer (24 t)	30
Number of Pallets per 40' HC-Container (26 t)	26
Pallet Dimensions (L × W × H)	1745 × 1150 × 1170 mm
Pallet Weight	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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Engineered in Germany