Q.PEAK-G3 265-280

MONOCRYSTALLINE SOLAR MODULE

With up to 280 Wp, the new Q.PEAK-G3 is the champion of mono-crystalline solar modules. The third module generation from Q CELLS has been optimised across the board: improved output yield, higher operating reliability and durability, quicker installation and more intelligent design – Made in Europe.

INNOVATIVE ALL-WEATHER TECHNOLOGY

- Maximum yields with excellent low-light and temperature behaviour.
- Increased cell efficiency due to full-square monocrystalline cells.

ENDURING HIGH PERFORMANCE

- Long-term Yield Security due to Anti PID Technology[1], Hot-Spot Protect, and Traceable Quality Tra.Q™.
- Long-term stability due to VDE Quality Tested – the strictest test program.

SAFE ELECTRONICS

- Protection against short circuits and thermally induced power losses due to breathable junction box and welded cables.
- Increased flexibility due to MC4-intermateable connectors.

PROFIT-INCREASING GLASS TECHNOLOGY

- Reduction of light reflection by 50 %, plus long-term corrosion resistance due to high-quality »Sol-Gel roller coating« processing.

LIGHTWEIGHT QUALITY FRAME

- Stability at wind loads of up to 5400 Pa with a module weight of just 19 kg due to slim frame design with high-tech alloy.

MAXIMUM COST REDUCTIONS

- Up to 31 % lower logistics costs due to higher module capacity per box.

EXTENDED WARRANTIES

- Investment security due to 12-year product warranty and 25-year linear performance warranty[2].

EUPD RESEARCH TOP BRAND PV MODULES EUROPE 2014

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

VDE Quality Tested
high reliability
low degradation
frequent product surveillance
ID. 40032587

Photon FIELD MEASUREMENT
Q CELLS
Best polycrystalline solar module 2013
Q.PRO-G2 235
151 modules tested

THE IDEAL SOLUTION FOR:

Rooftop arrays on residential buildings

[1] APT test conditions: Cells at -1000 V against grounded, with conductive metal foil covered module surface, 25 °C, 168 h

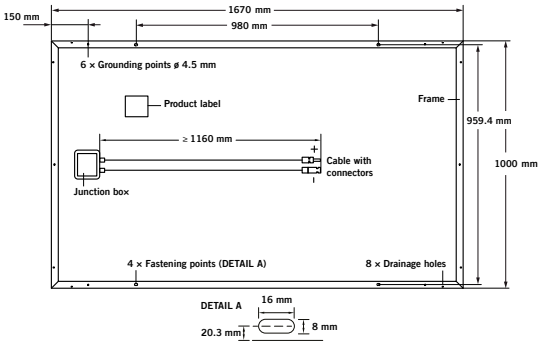
[2] See data sheet on rear for further information.

Engineered in **Germany**

Q CELLS

MECHANICAL SPECIFICATION

Format	1670 mm × 1000 mm × 35 mm (including frame)
Weight	19 kg
Front Cover	3.2 mm thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Black anodised aluminum
Cell	6 × 10 monocrystalline solar cells
Junction box	110 mm × 115 mm × 23 mm Protection class IP67, with bypass diodes
Cable	4 mm² Solar cable; (+) ≥ 1160 mm, (-) ≥ 1160 mm
Connector	SOLARLOK PV4, IP68



ELECTRICAL CHARACTERISTICS

PERFORMANCE AT STANDARD TEST CONDITIONS (STC: 1000 W/m², 25 °C, AM 1.5 G SPECTRUM)[1]

NOMINAL POWER (+5 W/-0 W)		[W]	265	270	275	280
Average Power	P_{MPP}	[W]	267.5	272.5	277.5	282.5
Short Circuit Current	I_{SC}	[A]	9.15	9.25	9.35	9.45
Open Circuit Voltage	V_{OC}	[V]	37.91	38.21	38.51	38.81
Current at P_{MPP}	I_{MPP}	[A]	8.65	8.75	8.85	8.95
Voltage at P_{MPP}	V_{MPP}	[V]	30.94	31.16	31.37	31.58
Efficiency (Nominal Power)	η	[%]	≥ 15.9	≥ 16.2	≥ 16.5	≥ 16.8

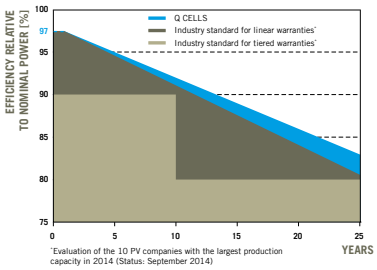
PERFORMANCE AT NORMAL OPERATING CELL TEMPERATURE (NOCT: 800 W/m², 45 ± 3 °C, AM 1.5 G SPECTRUM)[2]

NOMINAL POWER (+5 W/-0 W)		[W]	265	270	275	280
Average Power	P_{MPP}	[W]	197.0	200.7	204.3	208.0
Short Circuit Current	I_{SC}	[A]	7.38	7.46	7.54	7.62
Open Circuit Voltage	V_{OC}	[V]	35.29	35.58	35.86	36.14
Current at P_{MPP}	I_{MPP}	[A]	6.79	6.87	6.95	7.03
Voltage at P_{MPP}	V_{MPP}	[V]	29.01	29.21	29.41	29.60

[1] Measurement tolerances STC: ±3 % (P_{mpp}); ±10 % (I_{sc}, V_{oc}, I_{mpp}, V_{mpp})

[2] Measurement tolerances NOCT: ±5 % (P_{mpp}); ±10 % (I_{sc}, V_{oc}, I_{mpp}, V_{mpp})

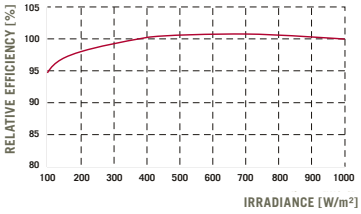
Q CELLS PERFORMANCE WARRANTY



At least 97 % of nominal power during first year. Thereafter max. 0.6 % degradation per year.
At least 92 % of nominal power after 10 years.
At least 83 % of nominal power after 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



The typical change in module efficiency at an irradiance of 200 W/m² in relation to 1000 W/m² (both at 25 °C and AM 1.5 G spectrum) is -2 % (relative).

TEMPERATURE COEFFICIENTS (AT 1000 W/M², 25 °C, AM 1.5 G SPECTRUM)

Temperature Coefficient of I_{SC}	α	[%/K]	+0.04	**Temperature Coefficient of V_{OC}**	β	[%/K]	−0.30
Temperature Coefficient of P_{MPP}	γ	[%/K]	−0.42				

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V_{SYS}	[V]	1000	**Safety Class**	II
Maximum Reverse Current I_R	[A]	20	**Fire Rating**	C
Wind/Snow Load (in accordance with IEC 61215)	[Pa]	5400	**Permitted module temperature on continuous duty**	-40 °C up to +85 °C

QUALIFICATIONS AND CERTIFICATES

VDE Quality Tested, IEC 61215 (Ed. 2); IEC 61730 (Ed. 1), 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**