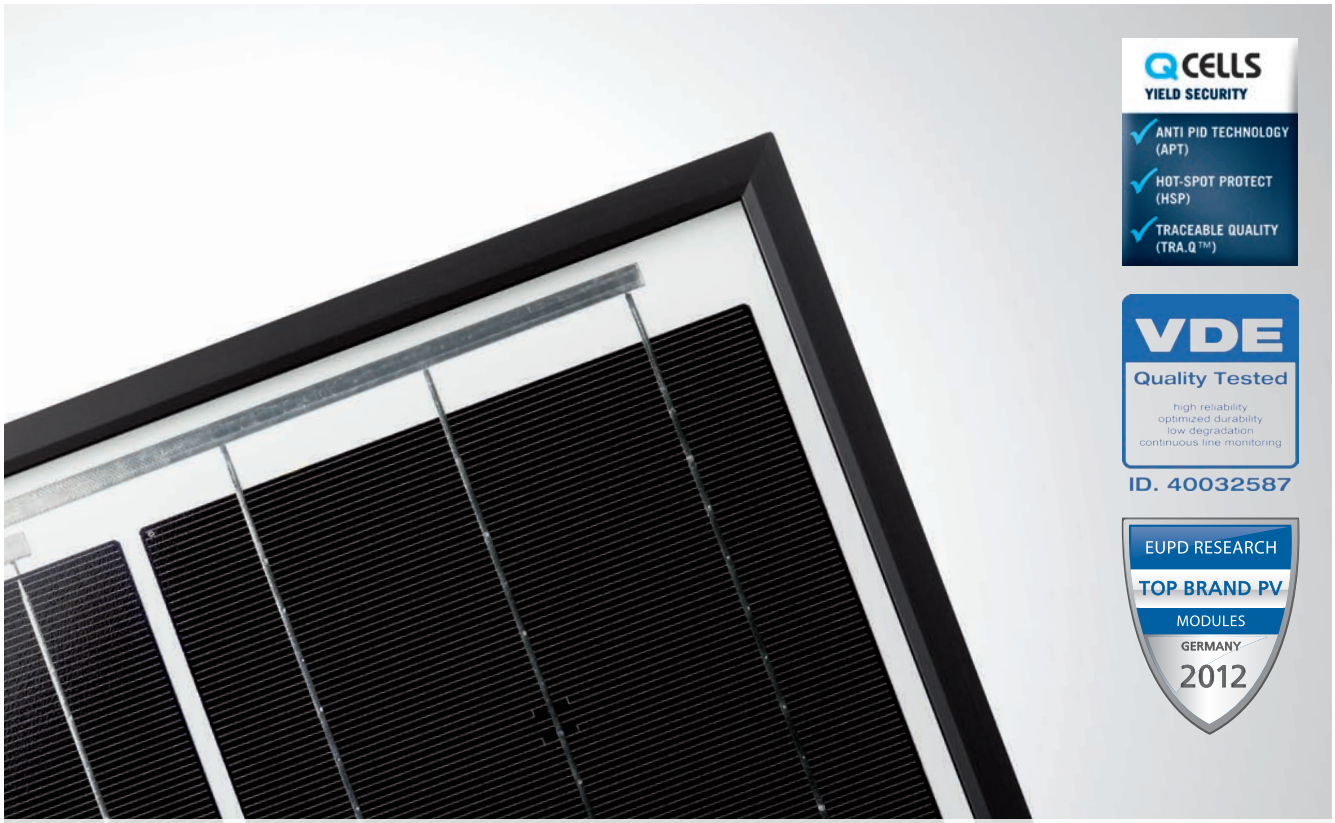


MONOCRYSTALLINE SOLAR MODULE

Q.PEAK-G3 255-275

High performance. Reliability.

With up to 275 Wp, the new Q.PEAK-G3 is the champion of monocrystalline 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 whatever the weather 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 **29 % lower logistics costs** due to higher module capacity per box.

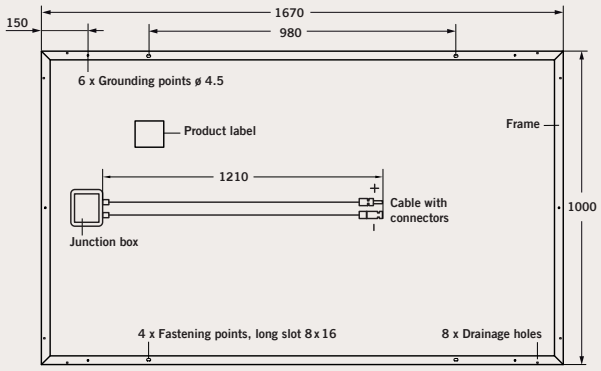
EXTENDED WARRANTIES

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

[1] APT test conditions: Cells at -1000 V against grounded, with conductive metal foil covered module surface, 25 °C, 168 h (TÜV test conditions)
[2] See data sheet on rear for further information.

MECHANICAL SPECIFICATION

Format	1670 mm x 1000 mm x 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	Anodised aluminium
Cell	6 x 10 monocrystalline solar cells
Junction box	110 mm x 115 mm x 23 mm Protection class IP67, with bypass diodes
Cable	4 mm² Solar cable; (+) 1210 mm, (-) 1210 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]	255	260	265	270	275
Average Power	P_{MPP}	[W]	257.5	262.5	267.5	272.5	277.5
Short Circuit Current	I_{SC}	[A]	9.12	9.17	9.23	9.28	9.33
Open Circuit Voltage	V_{OC}	[V]	37.54	37.92	38.30	38.67	39.03
Current at P_{MPP}	I_{MPP}	[A]	8.50	8.58	8.66	8.74	8.83
Voltage at P_{MPP}	V_{MPP}	[V]	30.31	30.60	30.88	31.16	31.44
Efficiency (Nominal Power)	η	[%]	≥15.3	≥15.6	≥15.9	≥16.2	≥16.5

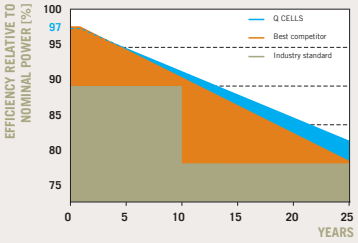
PERFORMANCE AT NORMAL OPERATING CELL TEMPERATURE (NOCT: 800 W/m², 47 ±3 °C. AM 1.5 G SPECTRUM)[2]

NOMINAL POWER (+5 W/-0 W)		[W]	255	260	265	270	275
Average Power	P_{MPP}	[W]	187.95	191.60	195.25	198.80	202.55
Short Circuit Current	I_{SC}	[A]	7.36	7.40	7.45	7.49	7.53
Open Circuit Voltage	V_{OC}	[V]	34.47	34.83	35.17	35.52	35.85
Current at P_{MPP}	I_{MPP}	[A]	6.79	6.85	6.92	6.98	7.05
Voltage at P_{MPP}	V_{MPP}	[V]	27.69	27.96	28.22	28.49	28.74

[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})

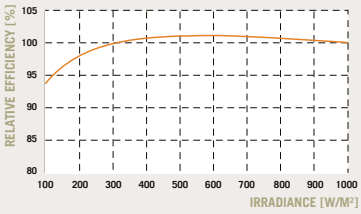
Q CELLS PERFORMANCE WARRANTY



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]	−0.33
Temperature Coefficient of P_{MPP}	γ	[%/K]	−0.43				

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 continous 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 the technical service department for further information on approved installation and use of this product.

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