POLYCRYSTALLINE SOLAR MODULE

Q.PRO-G3 250-270

Versatility. Safety. Performance.

The new Q.PRO-G3 is the new standard in solar. 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 efficiency** due to world record-holding cell concept Q.ANTUM.

RELIABILITY AND 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.

MADE IN EUROPE

ANTI-REFLECTIVE COATING 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.

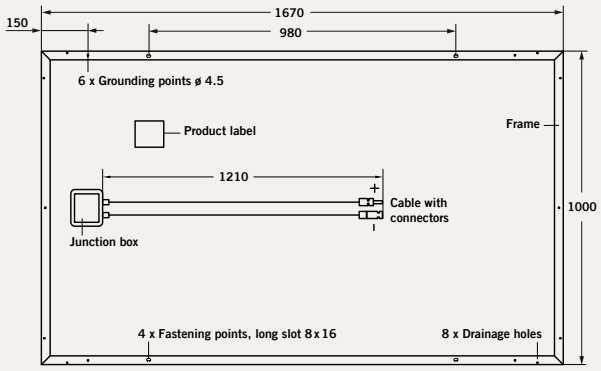
EXTENDED WARRANTIES

- 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
[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 polycrystalline 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]**	250	255	260	265	270
Average Power	P_{MPP}	**[W]**	252.5	257.5	262.5	267.5	272.5
Short Circuit Current	I_{SC}	**[A]**	8.71	8.90	9.09	9.28	9.47
Open Circuit Voltage	V_{OC}	**[V]**	37.49	37.83	38.18	38.52	38.86
Current at P_{MPP}	I_{MPP}	**[A]**	8.21	8.37	8.53	8.69	8.85
Voltage at P_{MPP}	V_{MPP}	**[V]**	30.76	30.77	30.78	30.79	30.80
Efficiency (Nominal Power)	η	**[%]**	≥15.0	≥15.3	≥15.6	≥15.9	≥16.2

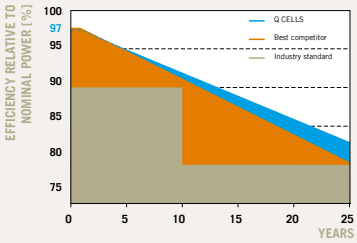
PERFORMANCE AT NORMAL OPERATING CELL TEMPERATURE (NOCT: 800 W/m², 45 ±3 °C. AM 1.5 G SPECTRUM)[2]

NOMINAL POWER (+5 W/-0 W)		**[W]**	250	255	260	265	270
Average Power	P_{MPP}	**[W]**	186.0	189.7	193.4	197.1	200.8
Short Circuit Current	I_{SC}	**[A]**	7.03	7.18	7.33	7.48	7.63
Open Circuit Voltage	V_{OC}	**[V]**	34.68	34.99	35.31	35.63	35.95
Current at P_{MPP}	I_{MPP}	**[A]**	6.44	6.56	6.68	6.80	6.93
Voltage at P_{MPP}	V_{MPP}	**[V]**	28.89	28.92	28.94	28.97	28.99

[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})

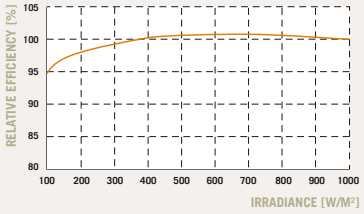
Q CELLS PERFORMANCE WARRANTY



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]**	−0.42				

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, Ed. 2), 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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