

ID. 40032587



POLYCRYSTALLINE SOLAR MODULE

Q.PRO-G2 250-255

Reliability and safety

The **Q.PRO-G2** solar module with power classes up to 255 Wp is one of the strongest 60-cell modules of its type on the market globally – **MADE IN EUROPE**. But there is even more to our polycrystalline modules. Only Q CELLS offers German engineering quality with our unique triple Yield Security – verified by independent testing¹.

YOUR EXCLUSIVE TRIPLE YIELD SECURITY

- **Anti PID Technology (APT)** reliably prevents power loss resulting from unwanted leakage currents (potential-induced degradation)¹.
- **Hot-Spot Protect (HSP)** prevents yield losses and reliably protects against module fire.
- **Traceable Quality (Tra.Q™)** is the 'Finger Print' of a solar cell. Tra.Q™ ensures continuous quality control throughout the entire production process from cells to modules while making Q CELLS solar modules forgery proof.

- **MADE IN EUROPE**

ONE MORE ADVANTAGE FOR YOU

- **NEW! More energy output:** optimised light utilisation with non-corrosive anti-reflection technology.
- **Controlled quality:** Q.PRO-G2 modules continuously pass the most stringent testing program in the PV sector and carry the quality certificate 'VDE Quality Tested' awarded by the Association of German Engineers.
- **Guaranteed performance:** Q CELLS offers the best warranties on the market. A 10-year product warranty plus a 25-year linear performance warranty².



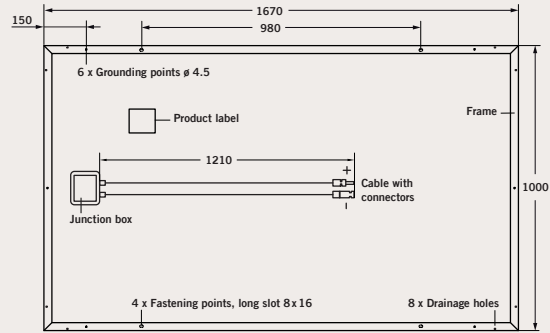
¹ For more information please visit the Desert Knowledge Australia Solar Centre (www.dksolarcentre.com.au)

² APT test conditions: Cells at -1000 V against grounded, with conductive metal foil covered module surface, 25 °C, 168 h (TÜV test conditions)

³ See data sheet on rear for further information.

MECHANICAL SPECIFICATION

Format	1670 mm x 1000 mm x 50 mm (including frame)
Weight	19.8 kg
Front Cover	3.2 mm thermally pre-stressed glass with antireflection technology
Back Cover	Composite film
Frame	Anodised aluminum
Cell	6 x 10 polycrystalline solar cells
Junction box	116 mm x 153 mm x 20 mm Protection class IP68, with bypass diodes
Cable	4 mm ² Solar cable; (+) 1210 mm, (-) 1210 mm
Connector	Yamaichi Y-SOL4, 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
Average Power	P_{MPP}	[W]	252.5	257.5
Short Circuit Current	I_{SC}	[A]	8.94	9.03
Open Circuit Voltage	V_{OC}	[V]	37.78	37.99
Current at P_{MPP}	I_{MPP}	[A]	8.45	8.57
Voltage at P_{MPP}	V_{MPP}	[V]	29.89	30.04
Efficiency (Nominal Power)	η	[%]	≥ 15.0	≥ 15.3

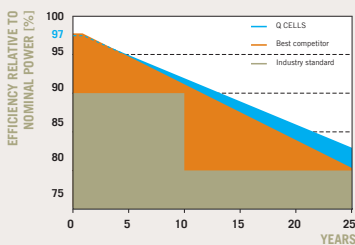
PERFORMANCE AT NORMAL OPERATING CELL TEMPERATURE (NOCT: 800 W/m², 47 ± 3 °C, AM 1.5 G SPECTRUM)²

NOMINAL POWER (+5 W/-0 W)		[W]	250	255
Average Power	P_{MPP}	[W]	184.1	187.8
Short Circuit Current	I_{SC}	[A]	7.22	7.29
Open Circuit Voltage	V_{OC}	[V]	34.69	34.89
Current at P_{MPP}	I_{MPP}	[A]	6.75	6.85
Voltage at P_{MPP}	V_{MPP}	[V]	27.27	27.42

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})

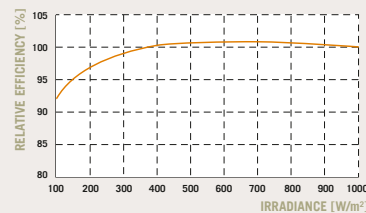
Q CELLS PERFORMANCE WARRANTY



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 organization 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 -3% (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 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 the technical service department for further information on approved installation and use of this product.

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