MONOCRYSTALLINE SOLAR MODULE

Q.PEAK-G2 250-265

Maximum power and appearance

The monocrystalline Q.PEAK-G2 solar module is the perfect combination of power and appearance: black cells and a black frame with power classes up to 265 W. But be careful: Not all solar modules are the same. Only Q.CELLS offers German engineering quality with our unique triple Yield Security.

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.

ONE MORE ADVANTAGE FOR YOU

- **NEW! More energy output:** optimised light utilisation with non-corrosive anti-reflection technology.
- **Controlled quality:** Q.CELLS tests its solar modules in the world's largest module testing center at head office in Thalheim, Germany, longer and more stringently than prescribed in the standards.
- **Guaranteed performance:** Q.CELLS offers the best warranties on the market.
  A 10-year product warranty plus a 25-year linear performance warranty[2].

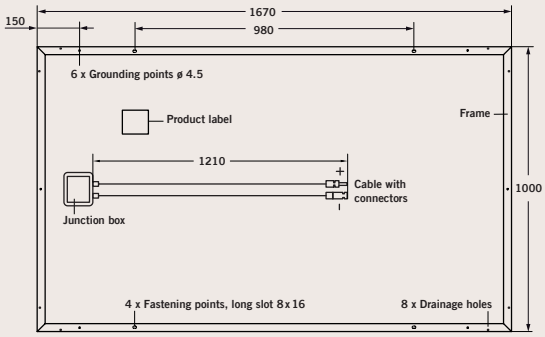
[1] APT test conditions: Cells at -1000 V against grounded, with conductive metal foil covered module surface, 25 °C, 168 h (TÜV test conditions)

[2] For further information please see page 2 of this data sheet.

Q.CELLS

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 anti-reflection technology
Back Cover	Composite film
Frame	Black anodised aluminum
Cell	6 x 10 monocrystalline solar cells
Junction box	116 mm x 153 mm x 20 mm Protection class IP68, with bypass diodes
Cable	4 mm² 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/-0 W)		**[W]**	**250**	**255**	**260**	**265**
Average Power	P_{MPP}	**[W]**	252.5	257.5	262.5	267.5
Short Circuit Current	I_{SC}	**[A]**	9.07	9.12	9.17	9.23
Open Circuit Voltage	V_{OC}	**[V]**	37.15	37.54	37.92	38.30
Current at P_{MPP}	I_{MPP}	**[A]**	8.41	8.50	8.58	8.66
Voltage at P_{MPP}	V_{MPP}	**[V]**	30.01	30.31	30.60	30.88
Efficiency (Nominal Power)	η	**[%]**	≥15.0	≥15.3	≥15.6	≥15.9

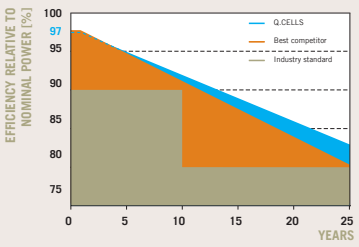
PERFORMANCE AT NORMAL OPERATING CELL TEMPERATURE (NOCT: 800 W/m², 47 ±3 °C, AM 1.5 G SPECTRUM)[2]

NOMINAL POWER (+5/-0 W)		**[W]**	**250**	**255**	**260**	**265**
Average Power	P_{MPP}	**[W]**	184.30	187.95	191.60	195.25
Short Circuit Current	I_{SC}	**[A]**	7.32	7.36	7.40	7.45
Open Circuit Voltage	V_{OC}	**[V]**	34.11	34.47	34.83	35.17
Current at P_{MPP}	I_{MPP}	**[A]**	6.72	6.79	6.85	6.92
Voltage at P_{MPP}	V_{MPP}	**[V]**	27.41	27.69	27.96	28.22

[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})

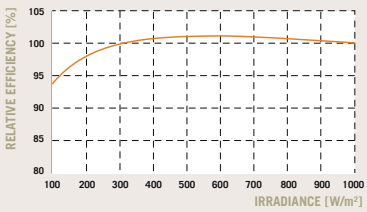
Q.CELLS PERFORMANCE WARRANTY



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 -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 for further information on approved installation and use of this product.

Specifications subject to technical changes © Hanwha Q.CELLS GmbH Q.PEAK-G2_2013-01_Rev02_EN

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