

## MONOCRYSTALLINE SOLAR MODULE

# Q.PEAK-G3 265-280

High performance. Reliability.

With up to 280 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<sup>1</sup>, 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

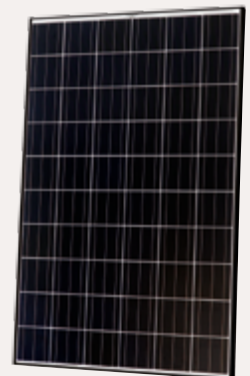
- Stability at **wind loads of up to 5400 Pa** with a **module weight of just 19 kg** due to slim frame design with high-tech alloy.

### MAXIMUM COST REDUCTIONS

- Up to **29% lower logistics costs** due to higher module capacity per box.

### EXTENDED WARRANTIES

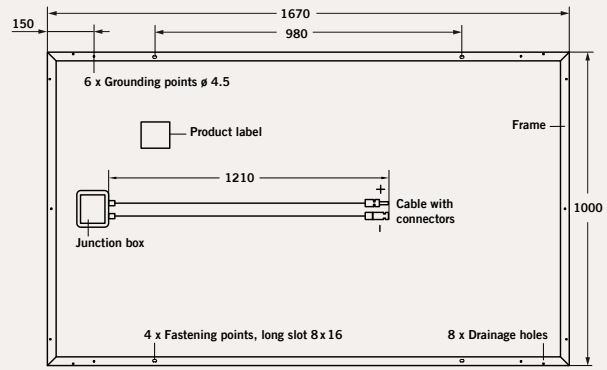
- Investment security due to **12-year product warranty** and **25-year linear performance warranty**<sup>2</sup>.



<sup>1</sup> APT test conditions: Cells at -1000 V against grounded, with conductive metal foil covered module surface, 25 °C, 168 h  
<sup>2</sup> See data sheet on rear for further information.

## MECHANICAL SPECIFICATION

<b>Format</b>	1670 mm x 1000 mm x 35 mm (including frame)
<b>Weight</b>	19 kg
<b>Front Cover</b>	3.2 mm thermally pre-stressed glass with anti-reflection technology
<b>Back Cover</b>	Composite film
<b>Frame</b>	Anodised aluminium
<b>Cell</b>	6 x 10 monocrystalline solar cells
<b>Junction box</b>	110 mm x 115 mm x 23 mm Protection class IP67, with bypass diodes
<b>Cable</b>	4 mm <sup>2</sup> Solar cable; (+) 1210 mm, (-) 1210 mm
<b>Connector</b>	SOLARLOK PV4, IP68



## ELECTRICAL CHARACTERISTICS

PERFORMANCE AT STANDARD TEST CONDITIONS (STC: 1000 W/m<sup>2</sup>, 25 °C, AM 1.5 G SPECTRUM)<sup>1</sup>

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

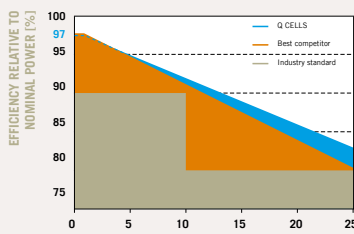
PERFORMANCE AT NORMAL OPERATING CELL TEMPERATURE (NOCT: 800 W/m<sup>2</sup>, 45 ± 3 °C, AM 1.5 G SPECTRUM)<sup>2</sup>

		[W]	265	270	275	280
<b>NOMINAL POWER (+5 W/-0 W)</b>		[W]	265	270	275	280
<b>Average Power</b>	$P_{MPP}$	[W]	197.0	200.7	204.3	208.0
<b>Short Circuit Current</b>	$I_{SC}$	[A]	7.38	7.46	7.54	7.62
<b>Open Circuit Voltage</b>	$V_{OC}$	[V]	35.07	35.35	35.62	35.90
<b>Current at <math>P_{MPP}</math></b>	$I_{MPP}$	[A]	6.79	6.87	6.95	7.03
<b>Voltage at <math>P_{MPP}</math></b>	$V_{MPP}$	[V]	29.01	29.21	29.41	29.60

<sup>1</sup> Measurement tolerances STC: ± 3% ( $P_{MPP}$ ); ± 10% ( $I_{SC}$ ,  $V_{OC}$ ,  $I_{MPP}$ ,  $V_{MPP}$ )

<sup>2</sup> Measurement tolerances NOCT: ± 5% ( $P_{MPP}$ ); ± 10% ( $I_{SC}$ ,  $V_{OC}$ ,  $I_{MPP}$ ,  $V_{MPP}$ )

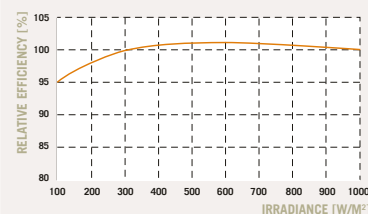
## Q CELLS PERFORMANCE WARRANTY



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/m<sup>2</sup> in relation to 1000 W/m<sup>2</sup> (both at 25 °C and AM 1.5 G spectrum) is -2% (relative).

TEMPERATURE COEFFICIENTS (AT 1000 W/m<sup>2</sup>, 25 °C, AM 1.5 G SPECTRUM)

<b>Temperature Coefficient of <math>I_{SC}</math></b>	$\alpha$	[%/K]	+0.04	<b>Temperature Coefficient of <math>V_{OC}</math></b>	$\beta$	[%/K]	-0.33
<b>Temperature Coefficient of <math>P_{MPP}</math></b>	$\gamma$	[%/K]	-0.42				

## PROPERTIES FOR SYSTEM DESIGN

<b>Maximum System Voltage <math>V_{SYS}</math></b>	[V]	1000	<b>Safety Class</b>	II
<b>Maximum Reverse Current <math>I_R</math></b>	[A]	20	<b>Fire Rating</b>	C
<b>Wind/Snow Load (in accordance with IEC 61215)</b>	[Pa]	5400	<b>Permitted module temperature on continuous duty</b>	-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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