

Q.PEAK-G3 265-280

MONOCRYSTALLINE SOLAR MODULE

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 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 Technology¹, 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-inter-mateable 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 31 % 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 warranty².



THE IDEAL SOLUTION FOR:



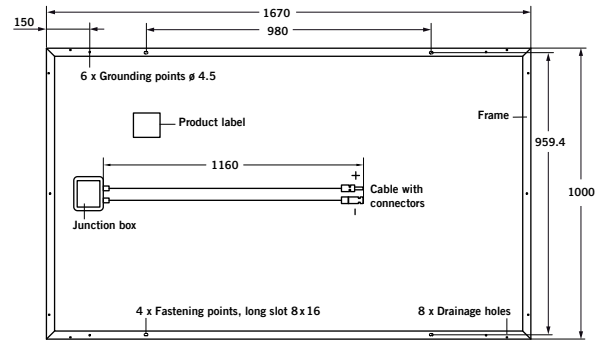
Rooftop arrays on residential buildings

¹ APT test conditions: Cells at -1000V 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 | Black 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 mm ² Solar cable; (+) ≥ 1160 mm, (-) ≥ 1160 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] | 265 | 270 | 275 | 280 |
|--|---------------|--------|--------|--------|--------|
| Average Power | P_{MPP} [W] | 267.5 | 272.5 | 277.5 | 282.5 |
| Short Circuit Current | I_{SC} [A] | 9.15 | 9.25 | 9.35 | 9.45 |
| Open Circuit Voltage | V_{OC} [V] | 37.91 | 38.21 | 38.51 | 38.81 |
| Current at P_{MPP} | I_{MPP} [A] | 8.65 | 8.75 | 8.85 | 8.95 |
| Voltage at P_{MPP} | V_{MPP} [V] | 30.94 | 31.16 | 31.37 | 31.58 |
| Efficiency (Nominal Power) | η [%] | ≥ 15.9 | ≥ 16.2 | ≥ 16.5 | ≥ 16.8 |

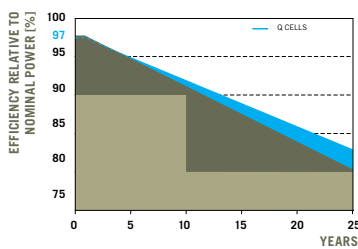
PERFORMANCE AT NORMAL OPERATING CELL TEMPERATURE (NOCT: 800 W/m², 45 ± 3 °C, AM 1.5 G SPECTRUM)²

| NOMINAL POWER (+5 W/-0 W) | [W] | 265 | 270 | 275 | 280 |
|--|---------------|-------|-------|-------|-------|
| Average Power | P_{MPP} [W] | 197.0 | 200.7 | 204.3 | 208.0 |
| Short Circuit Current | I_{SC} [A] | 7.38 | 7.46 | 7.54 | 7.62 |
| Open Circuit Voltage | V_{OC} [V] | 35.29 | 35.58 | 35.86 | 36.14 |
| Current at P_{MPP} | I_{MPP} [A] | 6.79 | 6.87 | 6.95 | 7.03 |
| Voltage at P_{MPP} | V_{MPP} [V] | 29.01 | 29.21 | 29.41 | 29.60 |

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})

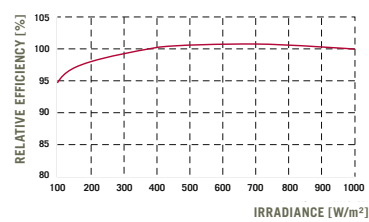
Q CELLS PERFORMANCE WARRANTY



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] | - 0.30 |
| 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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Engineered in Germany

