

Q.CELLS
YIELD SECURITY

- ✓ ANTI PID TECHNOLOGY (APT)
- ✓ HOT-SPOT PROTECT (HSP)
- ✓ TRACEABLE QUALITY (TRA.Q™)

MONOCRYSTALLINE SOLAR MODULE

Q.PEAK BLK 235-255

High performance and aesthetics have a new name

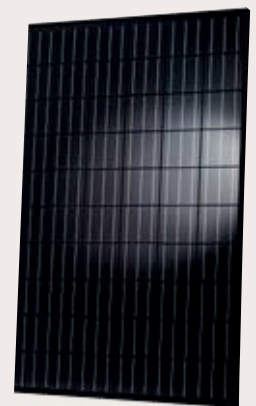
The monocrystalline solar module **Q.PEAK BLK** is our beau for residential rooftop installations where aesthetics matter. **Q.PEAK BLK** is the new standard for high performance and outstanding design. Thanks to our innovative Q-Cells technologies, it is also the worldwide first PID resistant¹ and Hot-Spot free solar module on the market. This makes **Q.PEAK BLK** your safe choice for secure yields.

THE NEW Q-CELLS GENERATION

- Full-black design: **Outstanding aesthetics.**
- Anti PID Technology (APT)¹: **No power loss caused by potential-induced degradation.**
- Traceable Quality (Tra.Q™): **First traceable and forgery proof solar module on the market.**
- New cell concept with reduced serial resistance: **Increased power on module level.**

THE PROVEN Q-CELLS VALUES

- Hot-Spot Protect (HSP): **Increased fire and performance safety.**
- Positive sorting +5 W/-0 W: **Extra output.**
- Tested for wind/snow loads up to 5400 Pa: **Strong in every weather condition.**
- 25-year performance warranty, 10-year product warranty²: **Secure investment.**



THE IDEAL
SOLUTION FOR:



ROOFTOP ARRAYS ON
RESIDENTIAL BUILDINGS



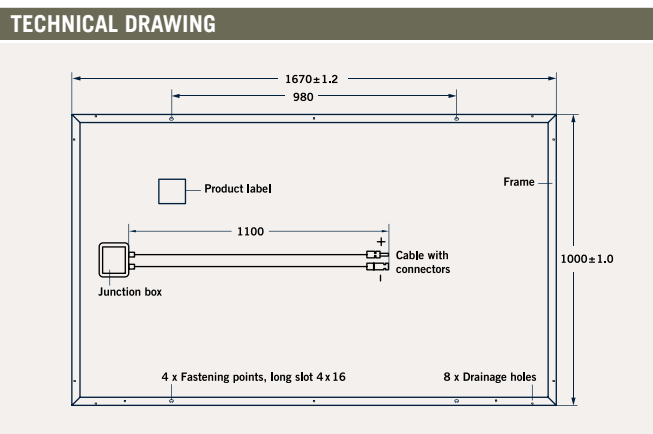
FACADE
INSTALLATIONS

¹ APT test conditions: Cells at -600 V against frame, wet module surface, 25 °C, 300 h

² Performance warranty: min. 97% of nominal power in year 1; max. 0.6% degradation per year from year 2; min. 83% of nominal power after 25 years. Full product and performance warranties in accordance with the valid regional warranty terms.

Q.CELLS

| MECHANICAL SPECIFICATION | |
|--------------------------|---|
| Format | 1670 mm x 1000 mm x 50 mm (including frame) |
| Weight | 20 kg |
| Front Cover | 3.2 mm thermally pre-stressed solar glass |
| Back Cover | Composite film |
| Frame | Anodized aluminum |
| Cell | 6 x 10 monocrystalline solar cells |
| Junction box | 116 mm x 153 mm x 20 mm Protection class IP 67, with bypass diodes |
| Cable | 4 mm ² Solar cable; (+) 1100 mm, (-) 1100 mm |
| Connector | Yamaichi Y-SOL4 (combinable with MC4), IP 68 |



ELECTRICAL CHARACTERISTICS

PERFORMANCE AT STANDARD TEST CONDITIONS (STC: 1000 W/m², 25 °C, AM 1.5 SPECTRUM)¹

| POWER CLASS | | | 235 | 240 | 245 | 250 | 255 |
|------------------------------------|------------------------|------------|--------|--------|--------|--------|--------|
| Nominal Power (+5 W / -0 W) | P_{MPP} | [W] | 235 | 240 | 245 | 250 | 255 |
| Short Circuit Current | I_{SC} | [A] | 8.47 | 8.55 | 8.63 | 8.71 | 8.79 |
| Open Circuit Voltage | V_{OC} | [V] | 37.21 | 37.42 | 37.64 | 37.84 | 38.04 |
| Current at Maximum Power | I_{MPP} | [A] | 7.92 | 8.02 | 8.11 | 8.21 | 8.30 |
| Voltage at Maximum Power | V_{MPP} | [V] | 29.65 | 29.93 | 30.19 | 30.45 | 30.71 |
| Efficiency | η | [%] | ≥ 14.1 | ≥ 14.4 | ≥ 14.7 | ≥ 15.0 | ≥ 15.3 |

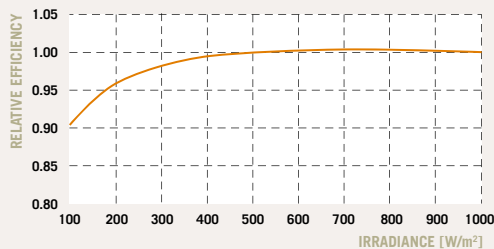
PERFORMANCE AT NORMAL OPERATING CELL TEMPERATURE (NOCT: 800 W/m², 47 ± 3 °C, AM 1.5 SPECTRUM)²

| POWER CLASS | | | 235 | 240 | 245 | 250 | 255 |
|------------------------------------|------------------------|------------|-------|-------|-------|-------|-------|
| Nominal Power (+5 W / -0 W) | P_{MPP} | [W] | 177 | 181 | 184 | 188 | 192 |
| Short Circuit Current | I_{SC} | [A] | 6.81 | 6.88 | 6.94 | 7.01 | 7.07 |
| Open Circuit Voltage | V_{OC} | [V] | 34.22 | 34.43 | 34.63 | 34.83 | 35.02 |
| Current at Maximum Power | I_{MPP} | [A] | 6.38 | 6.46 | 6.53 | 6.61 | 6.69 |
| Voltage at Maximum Power | V_{MPP} | [V] | 27.71 | 27.97 | 28.22 | 28.47 | 28.71 |

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

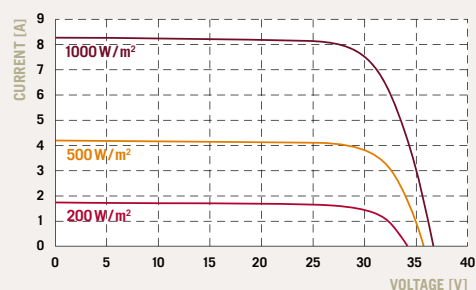
² Measurement tolerances NOCT: ± 5 % (P_{MPP}); ± 10 % (I_{SC}, V_{OC}, I_{MPP}, V_{MPP})

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 spectrum) is -4 % (relative).

TYPICAL CHARACTERISTICS AT DIFFERENT IRRADIANCES



TEMPERATURE COEFFICIENTS (AT 1000 W/m², 25 °C, AM 1.5 SPECTRUM)

| | | | | | | | |
|---|----------|--------------|-------|--|----------|--------------|-------|
| Temperature Coefficient of I_{SC} | α | [%/K] | +0.04 | Temperature Coefficient of V_{OC} | β | [%/K] | -0.32 |
| Temperature Coefficient of P_{MPP} | γ | [%/K] | -0.46 | | | | |

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 | [Pa] | 5400 | Permitted module temperature on continuous duty | -40 °C up to +85 °C |

QUALIFICATIONS AND CERTIFICATES

CE-Compliant; 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.

Distribution by



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