

**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 resistant<sup>1</sup> 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)<sup>1</sup>: **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 warranty<sup>2</sup>: **Secure investment.**



THE IDEAL  
SOLUTION FOR:



ROOFTOP ARRAYS ON  
RESIDENTIAL BUILDINGS



FACADE  
INSTALLATIONS

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

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

### ELECTRICAL CHARACTERISTICS

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

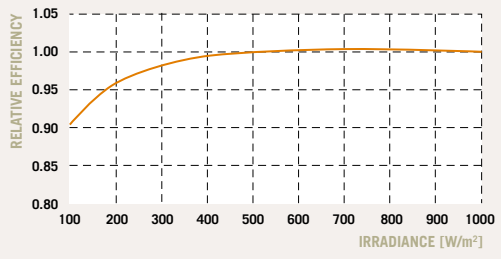
POWER CLASS			235	240	245	250	255
<b>Nominal Power (+5 W / -0 W)</b>	<b>P<sub>MPP</sub></b>	<b>[W]</b>	235	240	245	250	255
<b>Short Circuit Current</b>	<b>I<sub>SC</sub></b>	<b>[A]</b>	8.47	8.55	8.63	8.71	8.79
<b>Open Circuit Voltage</b>	<b>V<sub>OC</sub></b>	<b>[V]</b>	37.21	37.42	37.64	37.84	38.04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

#### PERFORMANCE AT NORMAL OPERATING CELL TEMPERATURE (NOCT: 800 W/m<sup>2</sup>, 47 ± 3 °C, AM 1.5 SPECTRUM)<sup>2</sup>

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

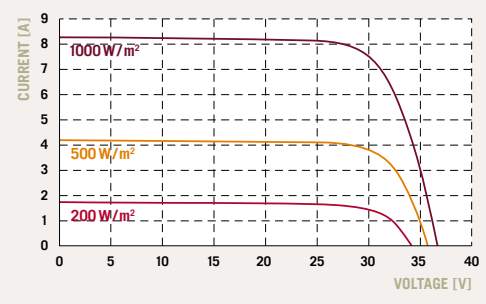
<sup>1</sup> Measurement tolerances STC: ± 3 % (P<sub>MPP</sub>); ± 10 % (I<sub>SC</sub>, V<sub>OC</sub>, I<sub>MPP</sub>, V<sub>MPP</sub>)      <sup>2</sup> Measurement tolerances NOCT: ± 5 % (P<sub>MPP</sub>); ± 10 % (I<sub>SC</sub>, V<sub>OC</sub>, I<sub>MPP</sub>, V<sub>MPP</sub>)

#### 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 spectrum) is -4 % (relative).

#### TYPICAL CHARACTERISTICS AT DIFFERENT IRRADIANCES



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

<b>Temperature Coefficient of I<sub>SC</sub></b>	<b>α</b>	<b>[%/K]</b>	+0.04	<b>Temperature Coefficient of V<sub>OC</sub></b>	<b>β</b>	<b>[%/K]</b>	-0.32
<b>Temperature Coefficient of P<sub>MPP</sub></b>	<b>γ</b>	<b>[%/K]</b>	-0.46				

#### PROPERTIES FOR SYSTEM DESIGN

<b>Maximum System Voltage V<sub>sys</sub></b>	<b>[V]</b>	1000	<b>Safety Class</b>	II
<b>Maximum Reverse Current I<sub>r</sub></b>	<b>[A]</b>	20	<b>Fire Rating</b>	C
<b>Wind/Snow Load</b>	<b>[Pa]</b>	5400	<b>Permitted module temperature on continuous duty</b>	-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.