

Q.CELLS
YIELD SECURITY

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

MONOCRYSTALLINE SOLAR MODULE

Q.PEAK 245-265

High performance and reliability have a new name

The monocrystalline solar module **Q.PEAK** is our energy pack for residential rooftop installations. It is available in power classes up to 265 Wp - a record for 60-cell mono modules. **Q.PEAK** is the new standard for high performance and reliability because due to our innovative Q-Cells technologies, it is the worldwide first PID resistant¹ and Hot-Spot free solar module on the market. This makes **Q.PEAK** your safe choice for secure yields.

THE NEW Q-CELLS GENERATION

- 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

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		TECHNICAL DRAWING	
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	Anodised aluminium		
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		
Grounding points	∅ 4.5 mm		

ELECTRICAL CHARACTERISTICS

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

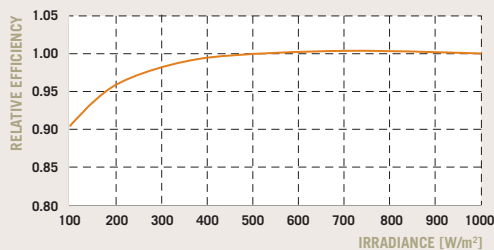
POWER CLASS			245	250	255	260	265
Nominal Power (+5 W / -0 W)	P_{MPP}	[W]	245	250	255	260	265
Short Circuit Current	I_{SC}	[A]	8.99	9.04	9.09	9.15	9.20
Open Circuit Voltage	U_{OC}	[V]	36.55	36.96	37.35	37.73	38.11
Current at Maximum Power	I_{MPP}	[A]	8.29	8.37	8.46	8.54	8.62
Voltage at Maximum Power	U_{MPP}	[V]	29.55	29.86	30.16	30.45	30.74
Efficiency	η	[%]	≥14.7	≥15.0	≥15.3	≥15.6	≥15.9

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

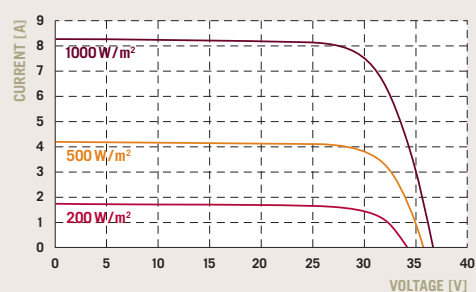
POWER CLASS			245	250	255	260	265
Nominal Power (+5 W / -0 W)	P_{MPP}	[W]	186	189	193	197	201
Short Circuit Current	I_{SC}	[A]	7.15	7.19	7.24	7.28	7.32
Open Circuit Voltage	U_{OC}	[V]	34.34	34.72	35.10	35.47	35.83
Current at Maximum Power	I_{MPP}	[A]	6.63	6.69	6.76	6.82	6.89
Voltage at Maximum Power	U_{MPP}	[V]	28.02	28.31	28.60	28.88	29.15

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 TYPICAL CHARACTERISTICS AT DIFFERENT IRRADIANCES



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).



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 PARTNER

IEC 61215 (Ed.2); IEC 61730 (Ed.1), Application class A
This data sheet complies with DIN EN 50380.



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.