

Q.CELLS
YIELD SECURITY

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

MULTICRYSTALLINE SOLAR MODULE

Q.BASE - G2 235-245

Reliable large-scale operation has a new name

The multicrystalline solar module **Q.BASE-G2** is our economist for utility-scale installations. **Q.BASE-G2** is the safest and most reliable solar module on the market, because thanks to our new Q-Cells technologies, it is the worldwide first PID free¹ and Hot-Spot free solar module. This makes **Q.BASE-G2** 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.**
- 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:



GROUND-MOUNTED
SOLAR POWER PLANTS



ROOFTOP ARRAYS ON
COMMERCIAL AND
INDUSTRIAL BUILDINGS

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

² Subject to registration, and 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	21 kg	
Front Cover	3.2 mm thermally pre-stressed solar glass	
Back Cover	Composite film	
Frame	Anodized aluminum	
Cell	6 x 10 multicrystalline solar cells	
Junction box	134 mm ^{±18} x 169 mm ^{±17} x 26 mm ^{±6} Protection class IP 65, with bypass diodes	
Cable	4 mm ² Solar cable; (+) 1100 mm, (-) 1100 mm	
Connector	Yamaichi Y-SOL4 (compatible 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)

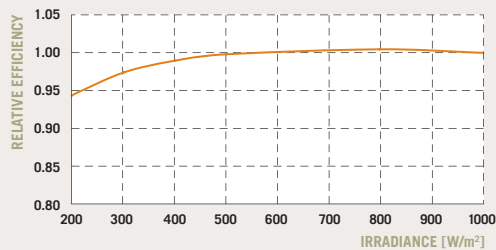
POWER CLASS			215	220	225	230	235*	240*	245*	250
Nominal Power (±2.5 W)	P_{MPP}	[W]	215	220	225	230	235	240	245	250
Short Circuit Current	I_{SC}	[A]	8.37	8.44	8.51	8.58	8.65	8.72	8.78	8.85
Open Circuit Voltage	V_{OC}	[V]	36.02	36.24	36.47	36.69	36.92	37.14	37.36	37.59
Current at Maximum Power	I_{MPP}	[A]	7.74	7.82	7.90	7.99	8.07	8.15	8.24	8.32
Voltage at Maximum Power	V_{MPP}	[V]	28.34	28.55	28.75	28.96	29.16	29.37	29.57	29.78
Efficiency	η	[%]	≥12.7	≥13.0	≥13.3	≥13.6	≥13.9	≥14.2	≥14.5	≥14.8

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

POWER CLASS			215	220	225	230	235*	240*	245*	250
Nominal Power (±2.5 W)	P_{MPP}	[W]	156.9	159.9	163.4	166.2	169.4	172.7	175.9	179.0
Short Circuit Current	I_{SC}	[A]	6.59	6.61	6.68	6.71	6.77	6.84	6.88	6.93
Open Circuit Voltage	V_{OC}	[V]	32.68	32.82	33.00	33.19	33.45	33.71	33.89	34.07
Current at Maximum Power	I_{MPP}	[A]	6.05	6.08	6.17	6.22	6.28	6.33	6.38	6.44
Voltage at Maximum Power	V_{MPP}	[V]	25.99	26.32	26.54	26.76	27.04	27.31	27.56	27.82

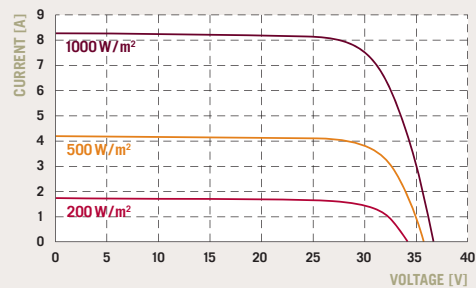
¹ Measurement tolerances STC: ± 3 % (P_{MPP}); ± 10 % (I_{SC}, V_{OC}, I_{MPP}, V_{MPP}) ² Measurement tolerances NOCT: ± 5 % (P_{MPP}); ± 10 % (I_{SC}, V_{OC}, I_{MPP}, V_{MPP}) * Core class

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 less than -6 % (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]	+0.06	Temperature Coefficient of V_{OC}	β	[%/K]	-0.32
Temperature Coefficient of P_{MPP}	γ	[%/K]	-0.45				

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

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.

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