Q.PRIME-G5 270-290

MONOCRYSTALLINE SOLAR MODULE

The new Q.PRIME-G5 is the result of the continued evolution of our monocrystalline solar modules. Thanks to improved power yield, excellent reliability and high-level operational safety, the new Q.PRIME-G5 generates electricity at a low cost (LCOE) and is suitable for a wide range of applications.

SUPERIOR YIELD
High power output thanks to advanced 6-busbar technology and outstanding performance under real-life conditions .

LOW LEVELIZED COST OF ELECTRICITY
Higher yield per surface area, lower BOS costs, higher power classes and an efficiency rate of up to 18.0 %.

INNOVATIVE ALL-WEATHER TECHNOLOGY
Optimal yields, whatever the weather with excellent low-light and temperature behaviour.

EXTREME WEATHER RATING
High-tech aluminium alloy frame, certified for high snow (5400 Pa) and wind loads (4000 Pa).

A RELIABLE INVESTMENT
Inclusive 12-year product warranty and 25-year linear performance warranty[1].

EUPD RESEARCH TOP BRAND PV MODULES EUROPE 2017

pv magazine award 2017 top innovation

[1] See data sheet on rear for further information.

THE IDEAL SOLUTION FOR:

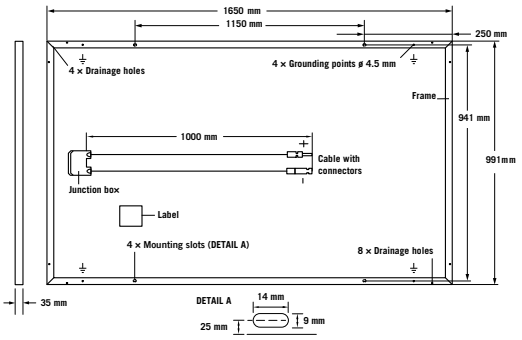
- Rooftop arrays on residential buildings
- Ground-mounted solar power plants
- Rooftop arrays on commercial / industrial buildings

Engineered in **Germany**

Q CELLS

MECHANICAL SPECIFICATION

Format	1650 mm × 991 mm × 35 mm (including frame)
Weight	18 kg ± 5 %
Front Cover	3.2 mm thermally pre-stressed glass with anti-reflection technology
Back Cover	Multi-layer composite sheet
Frame	Anodised aluminium
Cell	6 × 10 monocrystalline solar cells
Junction box	Protection class IP67 or IP68, with bypass diodes
Cable	4 mm² Solar cable; (+) ≥ 1000 mm, (-) ≥ 1000 mm
Connector	Intermateable connector with H4, MC4

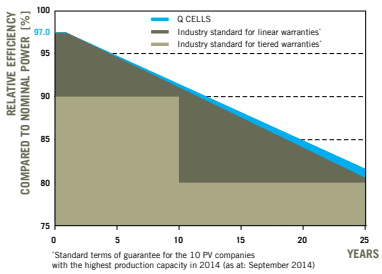


ELECTRICAL CHARACTERISTICS

POWER CLASS				270	275	280	285	290
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC[1] (POWER TOLERANCE +5 W / -0 W)								
Minimum	Power at MPP[2]	P_{MPP}	[W]	270	275	280	285	290
Minimum	Short Circuit Current*	I_{SC}	[A]	9.08	9.20	9.30	9.35	9.48
Minimum	Open Circuit Voltage*	V_{OC}	[V]	37.8	38.0	38.1	38.3	38.5
Minimum	Current at MPP*	I_{MPP}	[A]	8.63	8.74	8.84	8.94	9.04
Minimum	Voltage at MPP*	V_{MPP}	[V]	31.3	31.5	31.7	31.9	32.1
Minimum	Efficiency[2]	η	[%]	≥16.5	≥16.8	≥17.1	≥17.4	≥17.7
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NOC[3]								
Minimum	Power at MPP[2]	P_{MPP}	[W]	199	202	206	210	213
Minimum	Short Circuit Current*	I_{SC}	[A]	7.34	7.44	7.52	7.56	7.67
Minimum	Open Circuit Voltage*	V_{OC}	[V]	35.5	35.6	35.7	35.9	36.1
Minimum	Current at MPP*	I_{MPP}	[A]	6.90	6.99	7.06	7.14	7.22
Minimum	Voltage at MPP*	V_{MPP}	[V]	28.8	29.0	29.2	29.3	29.5

[1] 1000 W/m², 25 °C, spectrum AM 1.5 G [2] Measurement tolerances STC ±3 %; NOC ±5 % [3] 800 W/m², NOCT, spectrum AM 1.5 G * typical values, actual values may differ

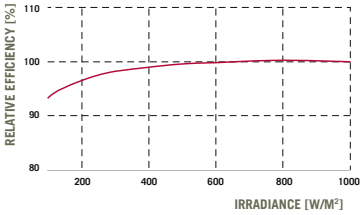
Q CELLS PERFORMANCE WARRANTY



At least 97.0 % of nominal power during first year. Thereafter max. 0.7 % degradation per year.
At least 90.7 % of nominal power up to 10 years.
At least 81.5 % of nominal power up to 25 years.

All data within measurement tolerances. full warranties in accordance with the warranty terms of the Q CELLS sales organization of your respective country.

PERFORMANCE AT LOW IRRADIANCE



Typical module performance under low irradiance conditions in comparison to STC conditions (25 °C, 1000 W/m²).

TEMPERATURE COEFFICIENTS

Temperature Coefficient of I_{SC}	α	[%/K]	+0.05	**Temperature Coefficient of V_{OC}**	β	[%/K]	-0.31
Temperature Coefficient of P_{MPP}	γ	[%/K]	-0.40	**Normal Operating Cell Temperature**	NOCT	[°C]	45±3

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage	V_{SYS}	[V]	1000 (IEC), 1500 (IEC)	**Safety Class**	II
Maximum Reverse Current	I_R	[A]	20	**Fire Rating**	C
Push/Pull Load (Test-load in accordance with IEC 61215)		[Pa]	5400/4000	**Permitted Module Temperature On Continuous Duty**	-40 °C up to +85 °C

QUALIFICATIONS AND CERTIFICATES

IEC 61215, IEC 61730, Conformity to CE, Application Class A

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**