

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 warranty¹.



¹ See data sheet on rear for further information.

THE IDEAL SOLUTION FOR:



Rooftop arrays on residential buildings



Ground-mounted solar power plants



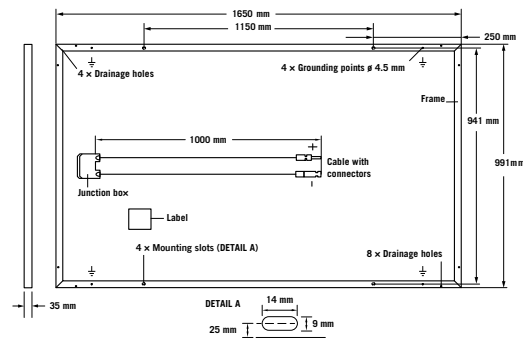
Rooftop arrays on commercial/industrial buildings

Engineered in **Germany**

Q CELLS

MECHANICAL SPECIFICATION

Format	1650mm × 991mm × 35mm (including frame)
Weight	18kg ± 5%
Front Cover	3.2mm 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	4mm ² Solar cable; (+) ≥ 1000mm, (-) ≥ 1000mm
Connector	Tonglin TL-Cable01S, IP67 or IP68

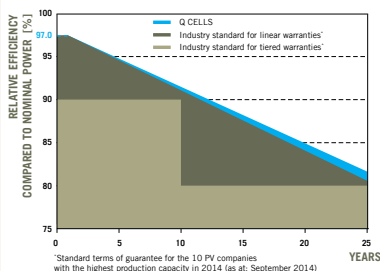


ELECTRICAL CHARACTERISTICS

POWER CLASS			270	275	280	285	290
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5W / -0W)							
Minimum	Power at MPP²	P_{MPP} [W]	270	275	280	285	290
	Short Circuit Current*	I_{SC} [A]	9.08	9.20	9.30	9.35	9.48
	Open Circuit Voltage*	V_{OC} [V]	37.8	38.0	38.1	38.3	38.5
	Current at MPP*	I_{MPP} [A]	8.63	8.74	8.84	8.94	9.04
	Voltage at MPP*	V_{MPP} [V]	31.3	31.5	31.7	31.9	32.1
	Efficiency²	η [%]	≥16.5	≥16.8	≥17.1	≥17.4	≥17.7
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NOC³							
Minimum	Power at MPP²	P_{MPP} [W]	199	202	206	210	213
	Short Circuit Current*	I_{SC} [A]	7.34	7.44	7.52	7.56	7.67
	Open Circuit Voltage*	V_{OC} [V]	35.5	35.6	35.7	35.9	36.1
	Current at MPP*	I_{MPP} [A]	6.90	6.99	7.06	7.14	7.22
	Voltage at MPP*	V_{MPP} [V]	28.8	29.0	29.2	29.3	29.5

¹1000W/m², 25°C, spectrum AM 1.5G ²Measurement tolerances STC ±3%; NOC ±5% ³800W/m², NOCT, spectrum AM 1.5G * typical values, actual values may differ

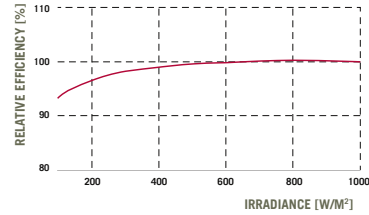
Q CELLS PERFORMANCE WARRANTY



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, 1000W/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.

Made in China

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