

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.



LOW LEVELIZED COST OF ELECTRICITY

Higher yield per surface area and lower BOS costs and 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).



MAXIMUM COST REDUCTIONS

Lower logistics costs due to higher module capacity per box.



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



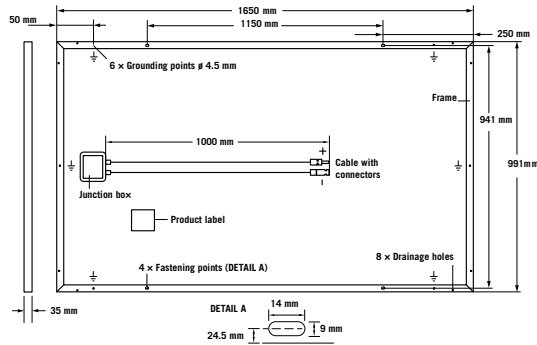
Rooftop arrays on commercial/industrial buildings

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, with bypass diodes
Cable	4mm ² Solar cable; (+) ≥ 1000mm, (-) ≥ 1000mm
Connector	Intermateable connector with H4, MC4

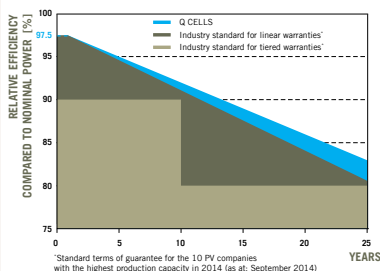


ELECTRICAL CHARACTERISTICS

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

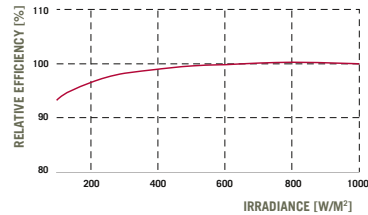


At least 97% of nominal power during first year. Thereafter max. 0.7% degradation per year.
At least 90.5% of nominal power up to 10 years.
At least 82% of nominal power up to 25 years.

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

*Standard terms of guarantee for the 10 PV companies with the highest production capacity in 2014 (as at: September 2014)

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

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 (Test-load in accordance with IEC 61215)	[Pa]	4000/5400	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.

Hanwaha Q CELLS GmbH

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