

# 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<sup>1</sup>.



<sup>1</sup> See data sheet on rear for further information.

### THE IDEAL SOLUTION FOR:



Rooftop arrays on residential buildings



Ground-mounted solar power plants



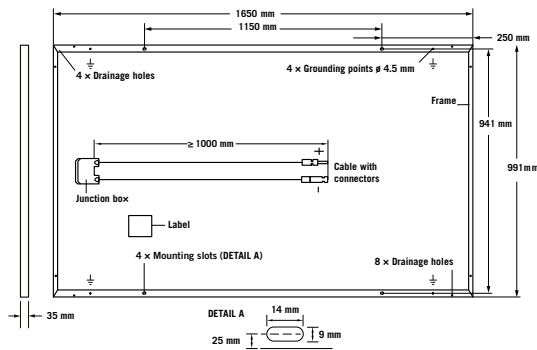
Rooftop arrays on commercial/industrial buildings

Engineered in **Germany**

**Q CELLS**

## MECHANICAL SPECIFICATION

<b>Format</b>	1650mm × 991mm × 35mm (including frame)
<b>Weight</b>	18kg ± 5%
<b>Front Cover</b>	3.2mm thermally pre-stressed glass with anti-reflection technology
<b>Back Cover</b>	Multi-layer composite sheet
<b>Frame</b>	Anodised aluminium
<b>Cell</b>	6 × 10 monocrystalline solar cells
<b>Junction box</b>	Protection class IP67 or IP68, with bypass diodes
<b>Cable</b>	4 mm <sup>2</sup> Solar cable; (+) ≥ 1000mm, (-) ≥ 1000mm
<b>Connector</b>	Multi-Contact MC4, HQC4, Tonglin TL-Cable01S, Amphenol UTX; IP68

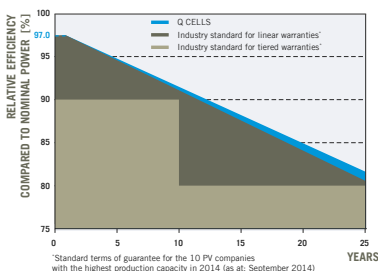


## ELECTRICAL CHARACTERISTICS

POWER CLASS			270	275	280	285	290
<b>MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC<sup>1</sup> (POWER TOLERANCE +5W/-0W)</b>							
Minimum	<b>Power at MPP<sup>1</sup></b>	<b>P<sub>MPP</sub></b> [W]	270	275	280	285	290
	<b>Short Circuit Current<sup>1</sup></b>	<b>I<sub>SC</sub></b> [A]	9.08	9.20	9.30	9.35	9.48
	<b>Open Circuit Voltage<sup>1</sup></b>	<b>V<sub>OC</sub></b> [V]	37.8	38.0	38.1	38.3	38.5
	<b>Current at MPP</b>	<b>I<sub>MPP</sub></b> [A]	8.63	8.74	8.84	8.94	9.04
	<b>Voltage at MPP</b>	<b>V<sub>MPP</sub></b> [V]	31.3	31.5	31.7	31.9	32.1
	<b>Efficiency<sup>1</sup></b>	<b>η</b> [%]	≥16.5	≥16.8	≥17.1	≥17.4	≥17.7
<b>MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT<sup>2</sup></b>							
Minimum	<b>Power at MPP</b>	<b>P<sub>MPP</sub></b> [W]	200	204	208	212	215
	<b>Short Circuit Current</b>	<b>I<sub>SC</sub></b> [A]	7.34	7.43	7.51	7.55	7.66
	<b>Open Circuit Voltage</b>	<b>V<sub>OC</sub></b> [V]	35.70	35.90	36.00	36.20	36.40
	<b>Current at MPP</b>	<b>I<sub>MPP</sub></b> [A]	6.90	6.99	7.06	7.14	7.22
	<b>Voltage at MPP</b>	<b>V<sub>MPP</sub></b> [V]	29.0	29.2	29.4	29.6	29.8

<sup>1</sup>Measurement tolerances P<sub>MPP</sub> ±3%; I<sub>SC</sub>; V<sub>OC</sub> ±5% at STC: 1000W/m<sup>2</sup>, 25±2°C, AM 1.5G according to IEC 60904-3 • 800W/m<sup>2</sup>, NMOT, spectrum AM 1.5G

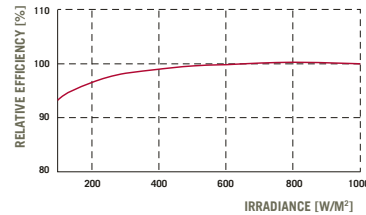
## Q CELLS PERFORMANCE WARRANTY



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/m<sup>2</sup>).

## TEMPERATURE COEFFICIENTS

<b>Temperature Coefficient of I<sub>SC</sub></b>	<b>α</b> [%/K]	+0.05	<b>Temperature Coefficient of V<sub>OC</sub></b>	<b>β</b> [%/K]	-0.31
<b>Temperature Coefficient of P<sub>MPP</sub></b>	<b>γ</b> [%/K]	-0.40	<b>Normal Module Operating Temperature</b>	<b>NMOT</b> [°C]	43±3

## PROPERTIES FOR SYSTEM DESIGN

<b>Maximum System Voltage</b>	<b>V<sub>sys</sub></b> [V]	1000	<b>Safety Class</b>	II
<b>Maximum Reverse Current</b>	<b>I<sub>R</sub></b> [A]	20	<b>Fire Rating</b>	C
<b>Max. Design Load, Push/Pull</b>	[Pa]	3600/2667	<b>Permitted Module Temperature On Continuous Duty</b>	-40°C up to +85°C
<b>Max. Test Load, Push/Pull</b>	[Pa]	5400/4000		

## QUALIFICATIONS AND CERTIFICATES

IEC 61215:2016; IEC 61730:2016, Conformity to CE, Application Class II  
This data sheet complies with DIN EN 50380.



## 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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Engineered in Germany

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