

# Q.POWER-G5 260-280

## POLYCRYSTALLINE SOLAR MODULE

The new **Q.POWER-G5** is the result of the continued evolution of our polycrystalline solar modules. Thanks to improved power yield, excellent reliability and high-level operational safety, the new **Q.POWER-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 LEVELISED COST OF ELECTRICITY

Higher yield per surface area, lower BOS costs, higher power classes and an efficiency rate of up to 17.4 %.



### INNOVATIVE ALL-WEATHER TECHNOLOGY

Optimal yields, whatever the weather with excellent low-light and temperature behaviour.



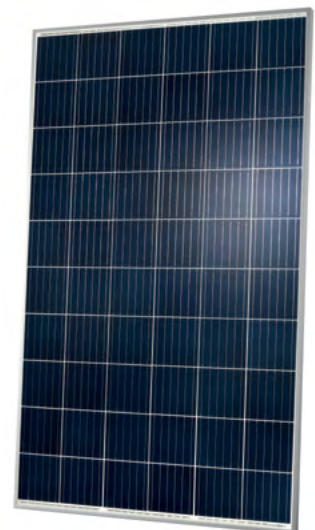
### EXTREME WEATHER RATING

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



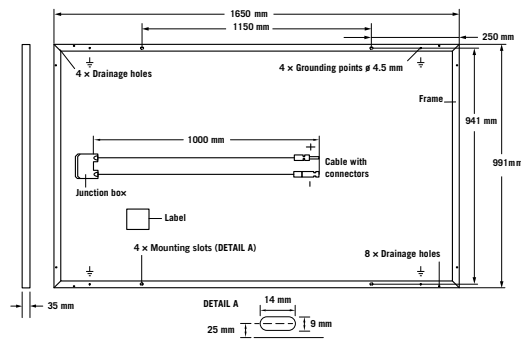
Rooftop arrays on commercial/industrial buildings

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 polycrystalline solar cells
<b>Junction box</b>	Protection class IP67 or IP68, with bypass diodes
<b>Cable</b>	4mm <sup>2</sup> Solar cable; (+) ≥ 1000mm, (-) ≥ 1000mm
<b>Connector</b>	Tonglin TL-Cable01S, IP67 or IP68

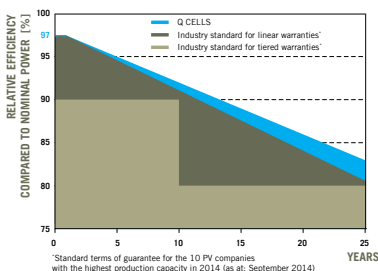


## ELECTRICAL CHARACTERISTICS

POWER CLASS			260	265	270	275	280
<b>MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC<sup>1</sup> (POWER TOLERANCE +5W / -0W)</b>							
Minimum	<b>Power at MPP<sup>2</sup></b>	<b>P<sub>MPP</sub></b> [W]	260	265	270	275	280
	<b>Short Circuit Current*</b>	<b>I<sub>SC</sub></b> [A]	9.05	9.20	9.23	9.27	9.29
	<b>Open Circuit Voltage*</b>	<b>V<sub>OC</sub></b> [V]	37.7	38.0	38.1	38.3	38.5
	<b>Current at MPP*</b>	<b>I<sub>MPP</sub></b> [A]	8.45	8.58	8.69	8.79	8.87
	<b>Voltage at MPP*</b>	<b>V<sub>MPP</sub></b> [V]	30.8	30.9	31.1	31.3	31.6
	<b>Efficiency<sup>2</sup></b>	<b>η</b> [%]	≥15.9	≥16.2	≥16.5	≥16.8	≥17.1
<b>MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NOC<sup>3</sup></b>							
Minimum	<b>Power at MPP<sup>2</sup></b>	<b>P<sub>MPP</sub></b> [W]	191	195	199	202	206
	<b>Short Circuit Current*</b>	<b>I<sub>SC</sub></b> [A]	7.32	7.44	7.47	7.50	7.51
	<b>Open Circuit Voltage*</b>	<b>V<sub>OC</sub></b> [V]	35.4	35.6	35.7	35.9	36.1
	<b>Current at MPP*</b>	<b>I<sub>MPP</sub></b> [A]	6.75	6.86	6.95	7.02	7.09
	<b>Voltage at MPP*</b>	<b>V<sub>MPP</sub></b> [V]	28.3	28.4	28.6	28.8	29.1

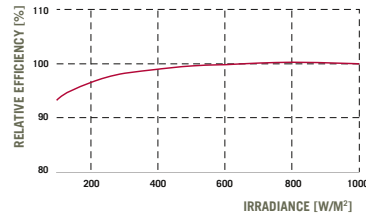
<sup>1</sup>1000W/m<sup>2</sup>, 25°C, spectrum AM 1.5G    <sup>2</sup>Measurement tolerances STC ±3%; NOC ±5%    <sup>3</sup>800W/m<sup>2</sup>, NOCT, spectrum AM 1.5G    \* typical values, actual values may differ

## Q CELLS PERFORMANCE WARRANTY



At least 97% of nominal power during first year. Thereafter max. 0.6% degradation per year.  
At least 91.6% of nominal power up to 10 years.  
At least 83.0% 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 Operating Cell Temperature</b>	<b>NOCT</b> [°C]	45±3

## PROPERTIES FOR SYSTEM DESIGN

<b>Maximum System Voltage</b>	<b>V<sub>sys</sub></b> [V]	1000 (IEC), 1500 (IEC)	<b>Safety Class</b>	II
<b>Maximum Reverse Current</b>	<b>I<sub>R</sub></b> [A]	20	<b>Fire Rating</b>	C
<b>Push/Pull Load (Test-load in accordance with IEC 61215)</b>	[Pa]	5400/4000	<b>Permitted Module Temperature On Continuous Duty</b>	-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

Hanwha Q CELLS Australia Pty Ltd  
1402, 20 Berry St., North Sydney NSW 2060, Australia | TEL +61 (0) 29016 3033 | FAX +61 (0) 29016 3032 | EMAIL q-cells-australia@q-cells.com | WEB www.q-cells.com/au

Engineered in Germany

