

# 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



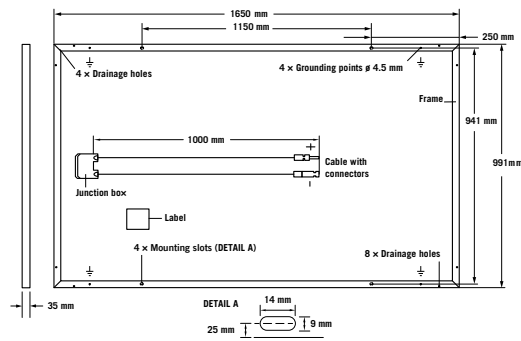
Rooftop arrays on commercial/industrial buildings

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>	Intermateable connector with H4, MC4

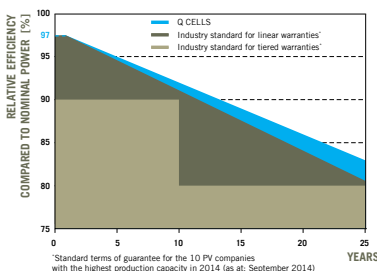


## ELECTRICAL CHARACTERISTICS

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

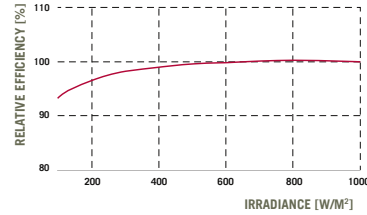


At least 97% of nominal power during first year. Thereafter max. 0.6% degradation per year.  
At least 91.6% of nominal power up to 10 years.  
At least 83.0% of nominal power up to 25 years.

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

\*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/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.

Hanwha Q CELLS (Qidong) Co., Ltd.  
No. 888 Linyang Road, Qidong City, Jiangsu Province, China | EMAIL sales@hanwha-qcells.com | WEB www.q-cells.com

Engineered in Germany

**Q CELLS**