

## **POLYCRYSTALLINE SOLAR MODULE**

The new Q.PRO-G4/SC is the reliable evergreen for all applications, with a black Zep Compatible™ frame design for improved aesthetics, optimized material usage and increased safety. The 4th solar module generation from Q CELLS has been optimised across the board: improved output yield, higher operating reliability and durability, quicker installation and more intelligent design.

### INNOVATIVE ALL-WEATHER TECHNOLOGY

- Maximum yields with excellent low-light and temperature behaviour.
- Certified fully resistant to level 5 salt fog

### **ENDURING HIGH PERFORMANCE**

- Long-term Yield Security due to Anti PID Technology<sup>1</sup>, Hot-Spot Protect, and Traceable Quality Tra.Q™.
- Long-term stability due to VDE Quality Tested – the strictest test program.

### **SAFE ELECTRONICS**

· Protection against short circuits and thermally induced power losses due to breathable junction box and welded cables.

### PROFIT-INCREASING GLASS TECHNOLOGY

- Reduction of light reflection by 50%, plus long-term corrosion resistance due to high-quality
- Sol-Gel roller coating processing.

### **EXTENDED WARRANTIES**

• Investment security due to 12-year product warranty and 25-year linear performance warranty<sup>2</sup>.



















- <sup>1</sup> APT test conditions: Cells at -1000V against grounded, with conductive metal foil covered module surface, 25°C, 168h
- <sup>2</sup> See data sheet on rear for further information.



Format	$65.7\text{in}\times39.4\text{in}\times1.57\text{in}$ (including frame) (1670 mm $\times$ 1000 mm $\times$ 40 mm)	4.68" 65.7" (1670 mm) 37.40" (950 mm)
Weight	44.09 lb (20.0 kg)	6 x Grounding points ø 0.177* (4.5 mm)
Front Cover	0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology	Product label Frame 37.24* (946 mm)
Back Cover	Composite film	47.24" (1200 mm) + + + + + + + + + + + + + + + + + +
Frame	Black anodized ZEP compatible frame	Junction box
Cell	$6 \times 10$ polycrystalline solar cells	
Junction box	Protection class IP67, with bypass diodes	4 × Fastening points (DETAIL A)
Cable	4 mm <sup>2</sup> Solar cable; (+) $\geq$ 47.24 in (1200 mm), (-) $\geq$ 47.24 in (1200 mm)	DETAIL A 0.433* (11 mm)
Connector	Amphenol, Helios H4 (IP68)	1.062*(27 mm) T

ELECTRICAL CHARACTERISTICS							
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PERFORMANCE AT STANDARD TEST CONDITIONS (STC: 1000 W/m², 25°C, AM 1.5G SPECTRUM) <sup>1</sup>							
POWER CLASS (+5W/-0W)	[W]	255	260	265			
Nominal Power	P <sub>MPP</sub> [W	255	260	265			
Short Circuit Current	I <sub>sc</sub> [A]	9.07	9.15	9.23			
Open Circuit Voltage	V <sub>oc</sub> [V]	37.54	37.77	38.01			
Current at P <sub>MPP</sub>	I <sub>MPP</sub> [A]	8.45	8.53	8.62			
Voltage at P <sub>MPP</sub>	V <sub>MPP</sub> [V]	30.18	30.46	30.75			
Efficiency (Nominal Power)	η [%]	≥15.3	≥15.6	≥15.9			
PERFORMANCE AT NORMAL OPERATING CELL TEMPERATURE (NOCT: 800 W/m², 45 ± 3 °C. AM 1.5 G SPECTRUM)²							
POWER CLASS (+5W/-0W)	[W]	255	260	265			
Nominal Power	P <sub>MPP</sub> [W	188.3	192.0	195.7			
Short Circuit Current	I <sub>sc</sub> [A]	7.31	7.38	7.44			
Open Circuit Voltage	V <sub>oc</sub> [V]	34.95	35.16	35.38			
Current at P <sub>MPP</sub>	I <sub>MPP</sub> [A]	6.61	6.68	6.75			
Voltage at P <sub>MPP</sub>	V <sub>MPP</sub> [V]	28.48	28.75	29.01			
$^{1} \text{ Measurement tolerances STC:} \pm 3 \% \text{ (P}_{mpp}); \pm 10 \% \text{ (I}_{sc}, V_{oc}, I_{mpp}, V_{mpp}) \\ \qquad ^{2} \text{ Measurement tolerances NOCT:} \pm 5 \% \text{ (P}_{mpp}); \pm 10 \% \text{ (I}_{sc}, V_{oc}, I_{mpp}, V_{mpp}) \\ \qquad ^{3} \text{ Measurement tolerances NOCT:} \pm 5 \% \text{ (P}_{mpp}); \pm 10 \% \text{ (I}_{sc}, V_{oc}, I_{mpp}, V_{mpp}) \\ \qquad ^{4} \text{ Measurement tolerances NOCT:} \pm 5 \% \text{ (P}_{mpp}); \pm 10 \% \text{ (I}_{sc}, V_{oc}, I_{mpp}, V_{mpp}) \\ \qquad ^{4} \text{ (I}_{sc}, V_{oc},$							

### **Q CELLS PERFORMANCE WARRANTY**

# To the companies with the largest production appared in 2014 Glatins. September 2014)

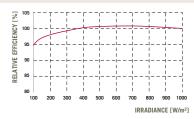
At least 97 % of nominal power during first year. Thereafter max. 0.6 % degradation per year.

At least 92% of nominal power after 10 years.

At least 83 % of nominal power after 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.

### PERFORMANCE AT LOW IRRADIANCE



The typical change in module efficiency at an irradiance of 200 W/m² in relation to 1000 W/m² (both at 25 °C and AM  $1.5 \rm G$  spectrum) is -2 % (relative).

### TEMPERATURE COEFFICIENTS (AT 1000 W/M², 25 °C, AM 1.5 G SPECTRUM)

Temperature Coefficient of I <sub>sc</sub>	α	[%/K]	+0.04	Temperature Coefficient of $\mathbf{V}_{\mathrm{oc}}$	β	[%/K]	-0.30
Temperature Coefficient of P <sub>MPP</sub>	γ	[%/K]	-0.41	NOCT		[° <b>F</b> ]	113 ± 5.4 (45 ± 3°C)

PROPERTIES FOR SYSTEM D	ESIGN			
Maximum System Voltage V <sub>SYS</sub>	[ <b>V</b> ]	1000 (IEC) / 1000 (UL)	Safety Class	II
Maximum Series Fuse Rating	[A DC]	20	Fire Rating	C / TYPE 1
Max Load (UL) <sup>2</sup>	[lbs/ft²]	50 (2400 Pa)	Permitted module temperature on continuous duty	-40°F up to +185°F (-40°C up to +85°C)
Load Rating (UL) <sup>2</sup>	[lbs/ft²]	50 (2400 Pa)	<sup>2</sup> see installation manual	

## UL 1703; VDE Quality Tested; CE-compliant; IEC 61215 (Ed.2); IEC 61730 (Ed.1) application class A UL 1703; VDE Quality Tested; CE-compliant; IEC 61215 (Ed.2); IEC 61730 (Ed.1) application class A Number of Modules per Pallet Number of Pallets per 53' Container Number of Pallets per 40' Container Pallet Dimensions (L × W × H) Pallet Weight 1254 lb (569 kg)

**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. Warranty void if non-ZEP-certified hardware is attached to groove in module frame.

### Hanwha Q CELLS USA Corp.

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