

# Q.PRO-G4.1 255-265

## POLYCRYSTALLINE SOLAR MODULE

The new Q.PRO-G4.1 is the result of the continued evolution of our Q.PRO family. Thanks to improved power yield, excellent reliability, and high-level operational safety, the new Q.PRO-G4.1 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 thanks to higher power classes and an efficiency rate of up to 16.2%.



### INNOVATIVE ALL-WEATHER TECHNOLOGY

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



### ENDURING HIGH PERFORMANCE

Long-term yield security with Anti-PID Technology<sup>1</sup>, Hot-Spot-Protect and Traceable Quality Tra.Q™.



### LIGHT-WEIGHT QUALITY FRAME

High-tech aluminium alloy frame, certified for high snow (5400 Pa) and wind loads (4000 Pa).



### MAXIMUM COST REDUCTIONS

Up to 10% lower logistics costs due to higher module capacity per box.



### SAFE ELECTRONICS

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



### A RELIABLE INVESTMENT

Inclusive 12-year product warranty and 25-year linear performance guarantee<sup>2</sup>.



### THE IDEAL SOLUTION FOR:



Rooftop arrays on residential buildings



Rooftop arrays on commercial/industrial buildings



Ground-mounted solar power plants

Engineered in **Germany**

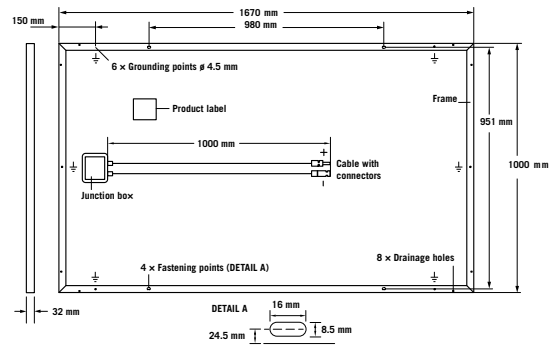
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<sup>1</sup> APT test conditions: Cells at -1000V against grounded, with conductive metal foil covered module surface, 25 °C, 168h

<sup>2</sup> See data sheet on rear for further information.

## MECHANICAL SPECIFICATION

<b>Format</b>	1670 mm × 1000 mm × 32 mm (including frame)
<b>Weight</b>	18.8 kg
<b>Front Cover</b>	3.2 mm thermally pre-stressed glass with anti-reflection technology
<b>Back Cover</b>	Composite film
<b>Frame</b>	Anodised aluminium
<b>Cell</b>	6 × 10 polycrystalline solar cells
<b>Junction Box</b>	110 mm × 115 mm × 23 mm Protection class IP67, with bypass diodes
<b>Cable</b>	4 mm <sup>2</sup> Solar cable; (+) ≥ 1000 mm, (-) ≥ 1000 mm
<b>Connector</b>	Tyco Solarlok PV4, IP68

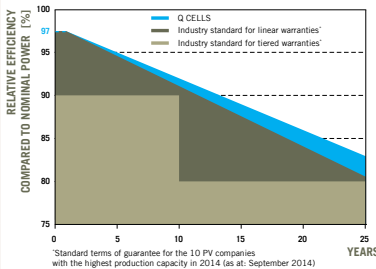


## ELECTRICAL CHARACTERISTICS

POWER CLASS			255	260	265
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC <sup>1</sup> (POWER TOLERANCE +5 W /- 0 W)					
Minimum	Power at MPP <sup>2</sup>	$P_{MPP}$ [W]	255	260	265
	Short Circuit Current*	$I_{SC}$ [A]	9.07	9.15	9.23
	Open Circuit Voltage*	$V_{OC}$ [V]	37.54	37.77	38.01
	Current at MPP*	$I_{MPP}$ [A]	8.45	8.53	8.62
	Voltage at MPP*	$V_{MPP}$ [V]	30.18	30.46	30.75
	Efficiency <sup>2</sup>	$\eta$ [%]	≥15.3	≥15.6	≥15.9
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NOC <sup>3</sup>					
Minimum	Power at MPP <sup>2</sup>	$P_{MPP}$ [W]	188.3	192.0	195.7
	Short Circuit Current*	$I_{SC}$ [A]	7.31	7.38	7.44
	Open Circuit Voltage*	$V_{OC}$ [V]	34.95	35.16	35.38
	Current at MPP*	$I_{MPP}$ [A]	6.61	6.68	6.75
	Voltage at MPP*	$V_{MPP}$ [V]	28.48	28.75	29.01

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

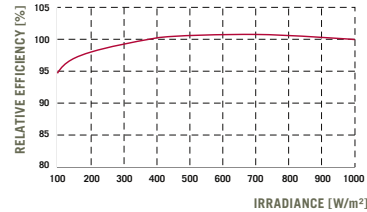
## Q CELLS PERFORMANCE WARRANTY



At least 97 % of nominal power during first year. Thereafter max. 0.6 % degradation per year.  
At least 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/m<sup>2</sup> in relation to 1000 W/m<sup>2</sup> (both at 25 °C and AM 1.5 G spectrum) is -2 % (relative).

## TEMPERATURE COEFFICIENTS

<b>Temperature Coefficient of <math>I_{SC}</math></b>	$\alpha$	[%/K]	+0.04	<b>Temperature Coefficient of <math>V_{OC}</math></b>	$\beta$	[%/K]	-0.30
<b>Temperature Coefficient of <math>P_{MPP}</math></b>	$\gamma$	[%/K]	-0.41	<b>Normal Operating Cell Temperature</b>	<b>NOCT</b>	[°C]	45

## PROPERTIES FOR SYSTEM DESIGN

<b>Maximum System Voltage</b>	$V_{SYS}$	[V]	1000	<b>Safety Class</b>	II
<b>Maximum Reverse Current</b>	$I_r$	[A]	20	<b>Fire Rating</b>	C
<b>Wind/Snow Load (in accordance with IEC 61215)</b>		[Pa]	4000/5400	<b>Permitted Module Temperature On Continuous Duty</b>	-40 °C up to +85 °C

## QUALIFICATIONS AND CERTIFICATES

VDE Quality Tested, IEC 61215 (Ed. 2); IEC 61730 (Ed. 1), Application class A  
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.

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Engineered in Germany

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