

# Q.PRO L-G3 300-315

## POLYCRYSTALLINE SOLAR MODULE

The polycrystalline solar module **Q.PRO L-G3** with power classes up to 315 W is the strongest module of its type on the market globally. Powered by 72 Q CELLS solar cells and with a size of 1.9 m<sup>2</sup> **Q.PRO L-G3** was specially designed for large solar power plants to reduce BOS costs. Only Q CELLS offers German engineering quality with our unique triple Yield Security.



### LOW ELECTRICITY GENERATION COSTS

Higher yield per surface area and lower BOS costs thanks to higher power classes and an efficiency rate of up to 16.4 %.



### INNOVATIVE ALL-WEATHER TECHNOLOGY

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



### 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 aluminum 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 guarantee<sup>2</sup>.



### THE IDEAL SOLUTION FOR:



Engineered in **Germany**

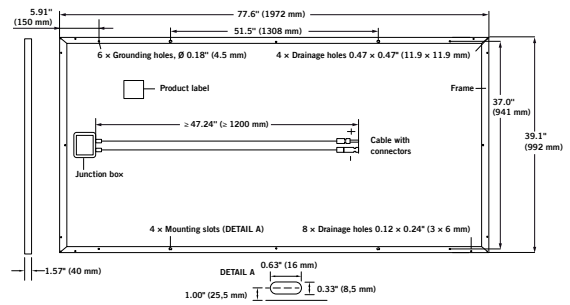
<sup>1</sup> APT test conditions: Cells at -1000V against grounded, with conductive metal foil covered module surface, 25 °C, 168h

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

**Q CELLS**

## MECHANICAL SPECIFICATION

<b>Format</b>	77.6 in × 39.1 in × 1.57 in (including frame) (1972 mm × 992 mm × 40 mm)
<b>Weight</b>	50.7 lb (23 kg)
<b>Front Cover</b>	0.12 in (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 × 12 polycrystalline solar cells
<b>Junction box</b>	4.33 in × 4.53 in × 0.91 in (110 mm × 115 mm × 23 mm) Protection class IP67, with bypass diodes
<b>Cable</b>	4 mm <sup>2</sup> Solar cable; (+) ≥ 47.24 in (1200 mm), (-) ≥ 47.24 in (1200 mm)
<b>Connector</b>	Amphenol H4, IP68



## ELECTRICAL CHARACTERISTICS

POWER CLASS			300	305	310	315
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]	300	305	310	315
	Short Circuit Current*	$I_{SC}$ [A]	8.92	8.99	9.06	9.12
	Open Circuit Voltage*	$V_{OC}$ [V]	44.90	45.14	45.37	45.61
	Current at MPP*	$I_{MPP}$ [A]	8.31	8.38	8.45	8.52
	Voltage at MPP*	$V_{MPP}$ [V]	36.09	36.39	36.68	36.97
	Efficiency <sup>2</sup>	$\eta$ [%]	≥ 15.3	≥ 15.6	≥ 15.8	≥ 16.1
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NOC <sup>3</sup>						
Minimum	Power at MPP <sup>2</sup>	$P_{MPP}$ [W]	221.6	225.3	228.9	232.6
	Short Circuit Current*	$I_{SC}$ [A]	7.19	7.25	7.30	7.36
	Open Circuit Voltage*	$V_{OC}$ [V]	41.80	42.02	42.24	42.46
	Current at MPP*	$I_{MPP}$ [A]	6.50	6.56	6.61	6.67
	Voltage at MPP*	$V_{MPP}$ [V]	34.08	34.35	34.62	34.88

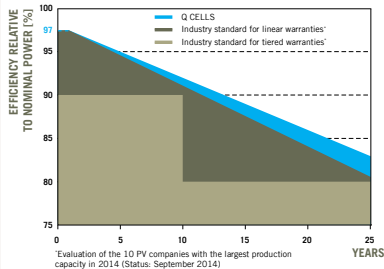
<sup>1</sup> 1000 W/m<sup>2</sup>, 25°C, spectrum AM 1.5 G

<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

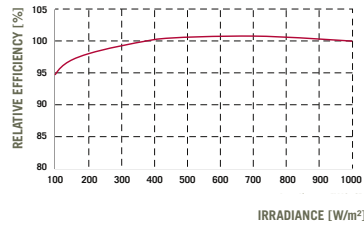
## Q CELLS PERFORMANCE WARRANTY



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

Temperature Coefficient of $I_{SC}$	$\alpha$ [%/K]	+0.04	Temperature Coefficient of $V_{OC}$	$\beta$ [%/K]	-0.30
Temperature Coefficient of $P_{MPP}$	$\gamma$ [%/K]	-0.41	Normal Operating Cell Temperature	NOCT [°F]	113 ± 5.4 (45 ± 3°C)

## PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage $V_{SYS}$	[V]	1000 (IEC) / 1000 (UL)	Safety Class	II
Maximum Series Fuse Rating	[A DC]	15	Fire Rating	C / TYPE 1
Max Load (UL) <sup>2</sup>	[lbs/ft <sup>2</sup> ]	75 (3600 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/ft <sup>2</sup> ]	55.6 (2666 Pa)		<sup>2</sup> see installation manual

## QUALIFICATIONS AND CERTIFICATES

IEC 61215 (Ed. 2); IEC 61730 (Ed. 1), Application class A  
This data sheet complies with DIN EN 50380.



## PACKAGING INFORMATION

Number of Modules per Pallet	25
Number of Pallets per 40' Container	22
Pallet Dimensions (L × W × H)	79.9 in × 44.1 in × 47.2 in (2030 × 1120 × 1200 mm)
Pallet Weight	1400 lb (635 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.

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