

# Q.PLUS L-G4.2 320-345

## Q.ANTUM SOLAR MODULE

The **Q.ANTUM** solar module **Q.PLUS L-G4.2** with power classes up to 345 Wp is the strongest module of its type on the market globally. Powered by 72 Q CELLS solar cells **Q.PLUS L-G4.2** was specially designed for large solar power plants to reduce BOS costs. But there is even more to our polycrystalline modules. 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 17.6 %.



### 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 (2400 Pa).



### A RELIABLE INVESTMENT

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



### THE IDEAL SOLUTION FOR:



Ground-mounted  
solar power plants

Engineered in **Germany**

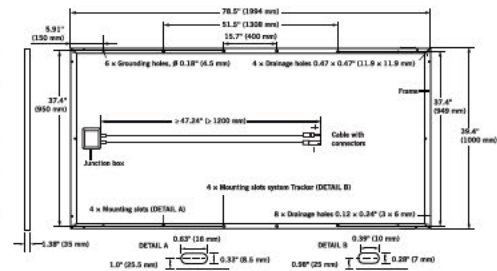
**Q CELLS**

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

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

## MECHANICAL SPECIFICATION

<b>Format</b>	78.5 in × 39.4 in × 1.38 in (including frame) (1994 mm × 1000 mm × 35 mm)
<b>Weight</b>	52.9 lb (24 kg)
<b>Front Cover</b>	0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology
<b>Back Cover</b>	Composite film
<b>Frame</b>	Anodised aluminum
<b>Cell</b>	6 × 12 Q.ANTUM solar cells
<b>Junction box</b>	3.35-4.13 in × 2.36-3.15 in × 0.59-0.67 in (85-105 mm × 60-80 mm × 15-17 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



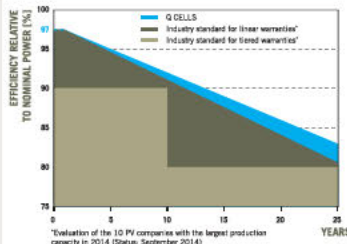
## ELECTRICAL CHARACTERISTICS

POWER CLASS			320	325	330	335	340	345
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC <sup>1</sup> (POWER TOLERANCE +5 W / -0 W)								
Minimum	Power at MPP <sup>2</sup>	P <sub>MPP</sub> [W]	320	325	330	335	340	345
	Short Circuit Current*	I <sub>SC</sub> [A]	9.39	9.44	9.49	9.54	9.59	9.64
	Open Circuit Voltage*	V <sub>OC</sub> [V]	46.17	46.43	46.68	46.94	47.20	47.46
	Current at MPP*	I <sub>MPP</sub> [A]	8.79	8.85	8.91	8.97	9.03	9.09
	Voltage at MPP*	V <sub>MPP</sub> [V]	36.39	36.70	37.02	37.33	37.63	37.93
	Efficiency <sup>3</sup>	η [%]	≥ 16.0	≥ 16.3	≥ 16.5	≥ 16.8	≥ 17.1	≥ 17.3
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NOC <sup>3</sup>								
Minimum	Power at MPP <sup>2</sup>	P <sub>MPP</sub> [W]	237.2	241.0	244.7	248.4	252.1	255.8
	Short Circuit Current*	I <sub>SC</sub> [A]	7.57	7.61	7.65	7.69	7.73	7.77
	Open Circuit Voltage*	V <sub>OC</sub> [V]	43.08	43.32	43.56	43.81	44.05	44.29
	Current at MPP*	I <sub>MPP</sub> [A]	6.89	6.94	6.99	7.04	7.09	7.14
	Voltage at MPP*	V <sub>MPP</sub> [V]	34.44	34.72	35.01	35.29	35.56	35.83

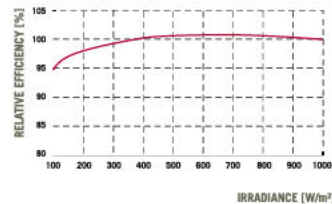
<sup>1</sup> 1000 W/m<sup>2</sup>, 25°C, spectrum AM 1.5 G<sup>2</sup> Measurement tolerances STC ± 3%; NOC ± 5%<sup>3</sup> 800 W/m<sup>2</sup>, NOCT, spectrum AM 1.5 G

\* typical values, actual values may differ

## Q CELLS PERFORMANCE WARRANTY



## PERFORMANCE AT LOW IRRADIANCE



## TEMPERATURE COEFFICIENTS

Temperature Coefficient of I <sub>sc</sub>	α	[%/K]	+0.04	Temperature Coefficient of V <sub>oc</sub>	β	[%/K]	-0.29
Temperature Coefficient of P <sub>MPP</sub>	γ	[%/K]	-0.40	Normal Operating Cell Temperature	NOCT	[°F]	113 ± 5.4 (45 ± 3 °C)

## PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V <sub>sys</sub>	[V]	1500 (IEC) / 1500 (UL)	Safety Class	II
Maximum Series Fuse Rating	[A DC]	15	Fire Rating	C / Type 1
Max Load (UL) <sup>2</sup>	[lbs/R <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/R <sup>2</sup> ]	33 (1600 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	29
Number of Pallets per 40' Container	22
Pallet Dimensions (L × W × H)	81.3 × 45.3 × 46.9 in (2065 × 1150 × 1190 mm)
Pallet Weight	1671 lbs (758 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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Engineered in Germany



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