



# Q.PLUS L-G4.2 345-355

## Q.ANTUM SOLAR MODULE

The Q.ANTUM solar module Q.PLUS L-G4.2 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. Only Q CELLS offers German engineering quality with our unique triple Yield Security.



### Q.ANTUM TECHNOLOGY: LOW LEVELIZED COST OF ELECTRICITY

Higher yield per surface area and lower BOS costs and higher power classes.



### 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™.



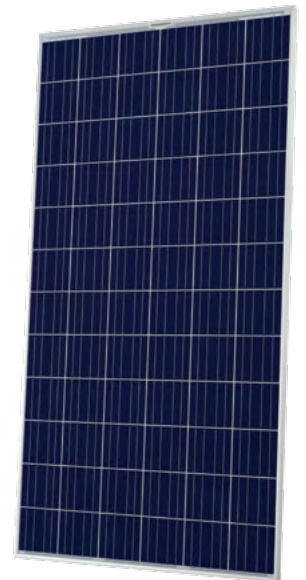
### EXTREME WEATHER RATING

High-tech aluminium 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 warranty<sup>2</sup>.



### THE IDEAL SOLUTION FOR:



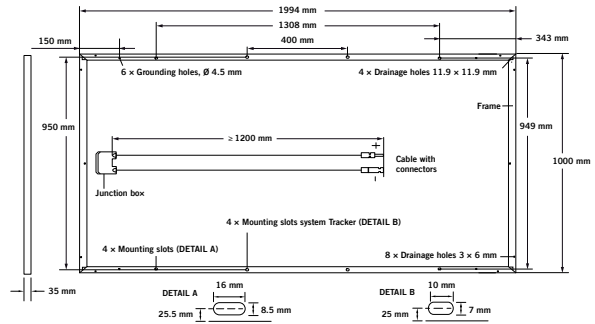
Engineered in **Germany**

<sup>1</sup> APT test conditions according to IEC/TS 62804-1:2015, method B (-1500V, 168h)

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

## MECHANICAL SPECIFICATION

<b>Format</b>	1994 mm × 1000 mm × 35 mm (including frame)
<b>Weight</b>	24 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 × 12 Q.ANTUM solar cells
<b>Junction box</b>	85-115 × 60-80 × 15-19 mm, Protection class ≥ IP67, with bypass diodes
<b>Cable</b>	4 mm <sup>2</sup> Solar cable; (+) ≥ 1200 mm, ≥ (-) 1200 mm
<b>Connector</b>	MC4** or MC4-EVO 2, IP65 and IP68

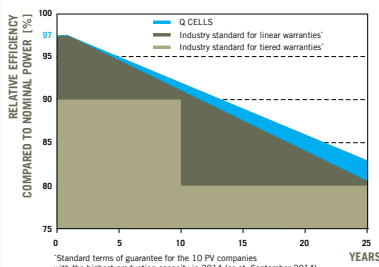


## ELECTRICAL CHARACTERISTICS

POWER CLASS		345	350	355	
<b>MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC<sup>1</sup> (POWER TOLERANCE +5W / -0W)</b>					
<b>Minimum</b>	<b>Power at MPP<sup>2</sup></b>	<b>P<sub>MPP</sub></b>	345	350	355
	<b>Short Circuit Current*</b>	<b>I<sub>SC</sub></b>	9.64	9.69	9.74
	<b>Open Circuit Voltage*</b>	<b>V<sub>OC</sub></b>	47.46	47.71	47.97
	<b>Current at MPP*</b>	<b>I<sub>MPP</sub></b>	9.09	9.15	9.21
	<b>Voltage at MPP*</b>	<b>V<sub>MPP</sub></b>	37.93	38.23	38.52
	<b>Efficiency<sup>2</sup></b>	<b>η</b>	≥ 17.3	≥ 17.6	≥ 17.8
<b>MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NOC<sup>3</sup></b>					
<b>Minimum</b>	<b>Power at MPP<sup>2</sup></b>	<b>P<sub>MPP</sub></b>	255.8	259.5	263.2
	<b>Short Circuit Current*</b>	<b>I<sub>SC</sub></b>	7.77	7.81	7.85
	<b>Open Circuit Voltage*</b>	<b>V<sub>OC</sub></b>	44.29	44.53	44.77
	<b>Current at MPP*</b>	<b>I<sub>MPP</sub></b>	7.14	7.19	7.24
	<b>Voltage at MPP*</b>	<b>V<sub>MPP</sub></b>	35.83	36.10	36.36

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

## Q CELLS PERFORMANCE WARRANTY

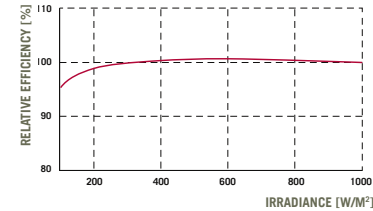


At least 97% of nominal power during first year. Thereafter max. 0.6% degradation per year.  
At least 92% of nominal power up to 10 years.  
At least 83% of nominal power up to 25 years.

All data within measurement tolerances. Full warranties in accordance with the warranty terms of the Q CELLS sales organisation 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, 1000 W/m<sup>2</sup>).

## TEMPERATURE COEFFICIENTS

<b>Temperature Coefficient of I<sub>SC</sub></b>	<b>α</b>	<b>[%/K]</b>	+0.04	<b>Temperature Coefficient of V<sub>OC</sub></b>	<b>β</b>	<b>[%/K]</b>	-0.29
<b>Temperature Coefficient of P<sub>MPP</sub></b>	<b>γ</b>	<b>[%/K]</b>	-0.40	<b>Normal Operating Cell Temperature</b>	<b>NOCT</b>	<b>[°C]</b>	45

## PROPERTIES FOR SYSTEM DESIGN

<b>Maximum System Voltage**</b>	<b>V<sub>sys</sub></b>	<b>[V]</b>	1500 (IEC) / 1500 (UL)	<b>Safety Class</b>	II
<b>Maximum Reverse Current</b>	<b>I<sub>R</sub></b>	<b>[A]</b>	20	<b>Fire Rating</b>	C / TYPE 1
<b>Wind/Snow Load (in accordance with IEC 61215)</b>		<b>[Pa]</b>	2400/5400	<b>Permitted Module Temperature On Continuous Duty</b>	-40 °C up to +85 °C

\*\* Max. system voltage in case of MC4 connector 1000V (IEC)/1500V (UL)

## QUALIFICATIONS AND CERTIFICATES

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.

Hanwha Q CELLS GmbH  
Sonnenallee 17-21, 06766 Bitterfeld-Wolfen, Germany | TEL +49 (0)3494 66 99-23444 | FAX +49 (0)3494 66 99-23000 | EMAIL sales@q-cells.com | WEB www.q-cells.com

Engineered in Germany

