

Pictures:



Q.PLUS L-G4.2 335-350

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 thanks to higher power classes and an efficiency rate of up to 17.8 %.



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 PID¹, Anti LID Technology, Hot-Spot Protect and Traceable Quality Tra.Q™.



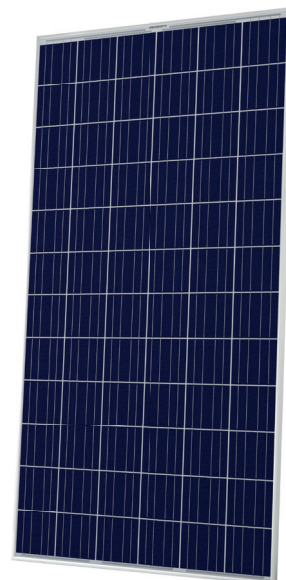
EXTREME WEATHER RATING

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 warranty².



THE IDEAL SOLUTION FOR:



Ground-mounted
solar power plants

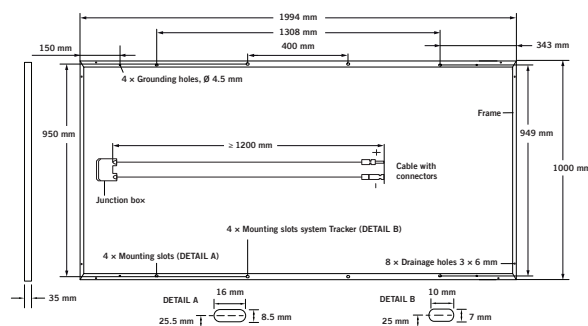
Engineered in **Germany**

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

² See data sheet on rear for further information.

MECHANICAL SPECIFICATION

Format	1994 mm × 1000 mm × 35 mm (including frame)
Weight	23 kg
Front Cover	3.2 mm thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Anodised aluminium
Cell	6 × 12 Q.ANTUM solar cells
Junction box	85-115 × 60-80 × 15-19 mm, Protection class ≥ IP67, with bypass diodes
Cable	4 mm ² Solar cable; (+) ≥ 1200 mm, (−) 1200 mm
Connector	Multi-Contact MC4-EVO2, JMTHY PV-JM601A or Amphenol UTX; IP68

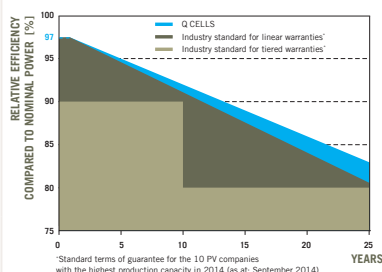


ELECTRICAL CHARACTERISTICS

POWER CLASS			335	340	345	350
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC ¹ (POWER TOLERANCE +5 W / −0 W)						
Minimum	Power at MPP ¹	P _{MPP}	335	340	345	350
	Short Circuit Current ¹	I _{SC}	9.50	9.54	9.59	9.64
	Open Circuit Voltage ¹	V _{OC}	46.10	46.34	46.58	46.82
	Current at MPP	I _{MPP}	8.97	9.03	9.10	9.16
	Voltage at MPP	V _{MPP}	37.36	37.65	37.93	38.20
	Efficiency ¹	η	≥ 16.8	≥ 17.1	≥ 17.3	≥ 17.6
MINIMUM PERFORMANCE AT NORMAL MODULE OPERATING TEMPERATURE, NMOT ²						
Minimum	Power at MPP	P _{MPP}	249.7	253.4	257.1	260.9
	Short Circuit Current	I _{SC}	7.65	7.69	7.73	7.77
	Open Circuit Voltage	V _{OC}	43.28	43.51	43.74	43.97
	Current at MPP	I _{MPP}	7.04	7.10	7.15	7.21
	Voltage at MPP ¹	V _{MPP}	35.46	35.71	35.95	36.19

¹Measurement tolerances P_{MPP} ± 3%; I_{SC}, V_{OC} ± 5% at STC: 1000 W/m², 25 ± 2 °C, AM 1.5 G according to IEC 60904-3 - ²800 W/m², NMOT, spectrum AM 1.5 G

Q CELLS PERFORMANCE WARRANTY

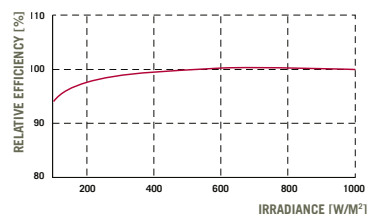


At least 97 % of nominal power during first year. Thereafter max. 0.6 % degradation per year.
At least 92 % of nominal power up to 10 years.
At least 83 % of nominal power up to 25 years.

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/m²).

TEMPERATURE COEFFICIENTS

Temperature Coefficient of I _{SC}	α	[%/K]	+0.04	Temperature Coefficient of V _{OC}	β	[%/K]	−0.29
Temperature Coefficient of P _{MPP}	γ	[%/K]	−0.40	Normal Module Operating Temperature	NMOT	[°C]	43 ± 3 °C

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage	V _{sys}	[V]	1500	Safety Class	II	
Maximum Reverse Current	I _R	[A]	20	Fire Rating	C / TYPE 1	
Max. Design Load, Push / Pull		[Pa]	3600/1600	Permitted Module Temperature On Continuous Duty	−40 °C up to +85 °C	
Max. Test Load, Push / Pull		[Pa]	5400/2400			

QUALIFICATIONS AND CERTIFICATES

IEC 61215:2016; IEC 61730:2016, 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

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