



Q.PLUS L-G4.1 330-340

Q.ANTUM SOLAR MODULE

The **Q.ANTUM** solar module **Q.PLUS L-G4.1** is the strongest module of its type on the market globally. Powered by 72 Q CELLS solar cells **Q.PLUS L-G4.1** 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 Technology¹, 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:



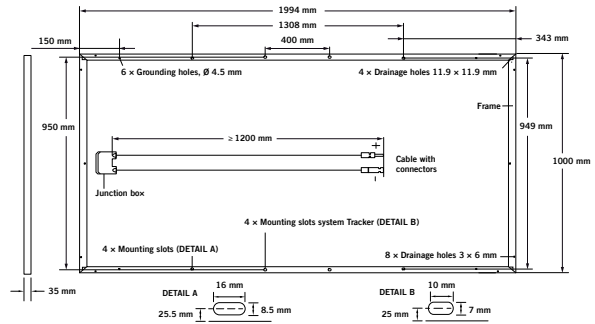
Engineered in **Germany**

¹ APT test conditions: Cells at -1500V against grounded, with conductive metal foil covered module surface, 25 °C, 168h

² See data sheet on rear for further information.

MECHANICAL SPECIFICATION

Format	1994 mm × 1000 mm × 35 mm (including frame)
Weight	24 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	85-111 × 60-80 × 15-19 mm, Protection class ≥ IP67, with bypass diodes
Cable	4 mm ² Solar cable; (+) ≥ 1200 mm, ≥ (-) 1200 mm
Connector	JMTHY PV-JM601 or Tonglin TL-Cable01S, IP67

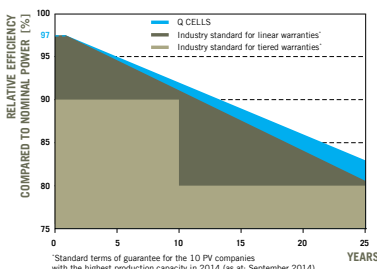


ELECTRICAL CHARACTERISTICS

POWER CLASS		330	335	340	
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC ¹ (POWER TOLERANCE +5 W /- 0 W)					
Minimum	Power at MPP ²	P_{MPP}	330	335	340
	Short Circuit Current*	I_{SC}	9.49	9.54	9.59
	Open Circuit Voltage*	V_{OC}	46.55	46.81	47.07
	Current at MPP*	I_{MPP}	8.91	8.97	9.03
	Voltage at MPP*	V_{MPP}	37.02	37.33	37.63
	Efficiency ²	η	≥16.5	≥16.8	≥17.1
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NOC ³					
Minimum	Power at MPP ²	P_{MPP}	244.7	248.4	252.1
	Short Circuit Current*	I_{SC}	7.65	7.69	7.73
	Open Circuit Voltage*	V_{OC}	43.44	43.68	43.92
	Current at MPP*	I_{MPP}	6.99	7.04	7.09
	Voltage at MPP*	V_{MPP}	35.01	35.29	35.56

¹1000 W/m², 25°C, spectrum AM 1.5 G ² Measurement tolerances STC ±3%; NOC ±5% ³ 800 W/m², NOCT, spectrum AM 1.5 G * typical values, actual values may differ

Q CELLS PERFORMANCE WARRANTY

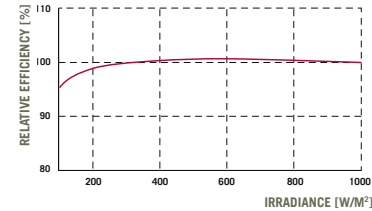


At least 97% of nominal power during first year. Thereafter max. 0.6% degradation per year.
At least 92% of nominal power up to 10 years.
At least 83% of nominal power up to 25 years.

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, 1000W/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 Operating Cell Temperature	NOCT	[°C]	45

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage	V_{SYS}	[V]	1000 (IEC) / 1000 (UL)	Safety Class	II
Maximum Reverse Current	I_R	[A]	15	Fire Rating	C / TYPE 1
Wind/Snow Load (in accordance with IEC 61215)		[Pa]	2400/5400	Permitted Module Temperature On Continuous Duty	-40°C up to +85°C

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.

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