

Q.PLUS L-G4.2 310-345

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 Technology¹, Hot-Spot Protect and Traceable Quality Tra.Q™.



LIGHT-WEIGHT QUALITY FRAME

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:



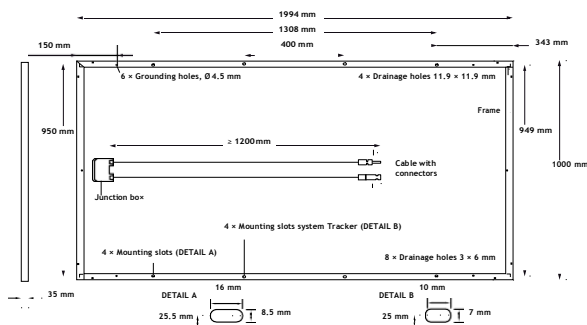
Ground-mounted
solar power plants

¹ APT test conditions: Cells at -1500 V 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	85-105 mm × 60-80 mm × 15-17 mm Protection class ≥IP67, with bypass diodes
Cable	4mm ² Solar cable; (+) ≥1200 mm, ≥(-) 1200 mm
Connector	IP67 or IP68



ELECTRICAL CHARACTERISTICS

POWER CLASS	310	315	320	325	330	335	340	345
-------------	-----	-----	-----	-----	-----	-----	-----	-----

MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5 W / - 0 W)

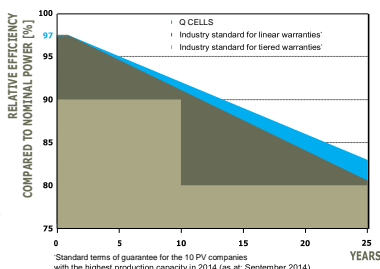
Minimum	Power at MPP ²	P _{MPP}	310	315	320	325	330	335	340	345
	Short Circuit Current*	I _{SC}	9.29	9.34	9.39	9.44	9.49	9.54	9.59	9.64
	Open Circuit Voltage*	V _{OC}	45.53	45.79	46.04	46.30	46.55	46.81	47.07	47.46
	Current at MPP*	I _{MPP}	8.67	8.73	8.79	8.85	8.91	8.97	9.03	9.09
	Voltage at MPP*	V _{MPP}	35.74	36.06	36.39	36.70	37.02	37.33	37.63	37.93
	Efficiency ²	η	≥15.5	≥15.8	≥16.0	≥16.3	≥16.5	≥16.8	≥17.1	≥17.3

MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NOC³

Minimum	Power at MPP ²	P _{MPP}	229.8	233.5	237.2	241.0	244.7	248.4	252.1	255.8
	Short Circuit Current*	I _{SC}	7.49	7.53	7.57	7.61	7.65	7.69	7.73	7.77
	Open Circuit Voltage*	V _{OC}	42.48	42.72	42.96	43.20	43.44	43.68	43.92	44.29
	Current at MPP*	I _{MPP}	6.79	6.84	6.89	6.94	6.99	7.04	7.09	7.14
	Voltage at MPP*	V _{MPP}	33.85	34.15	34.44	34.72	35.01	35.29	35.56	35.83

¹1000W/m², 25 °C, spectrum AM 1.5G ²Measurement tolerances STC ± 3%; NOC ± 5% ³800W/m², NOCT, spectrum AM 1.5G * typical values, actual values may differ

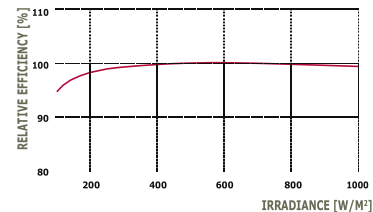
Q CELLS PERFORMANCE WARRANTY



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.

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]	1500 (IEC) / 1500 (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.

Hanwha Q CELLS Malaysia SDN. BHD. (810647-M)

Lot 1, Jalan SP 2, Seksyen 2, Selangor Science Park 2, 63300 Cyberjaya, Selangor Malaysia
TEL +60 (3) 8315 - 0000 | FAX +60 (3) 8320 - 2630 | EMAIL sales@my.q-cells.com | WEB www.q-cells.com

Engineered in Germany

