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[1], 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[2].

EUPD RESEARCH TOP BRAND PV MODULES EUROPE 2015

Q CELLS YIELD SECURITY
- ANTI PID TECHNOLOGY (APT)
- HOT-SPOT PROTECT (HSP)
- TRACEABLE QUALITY (TRA.Q™)

Photon Q CELLS Best polycrystalline solar module 2013 Q.PRO-G2 235 151 modules tested

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

[2] See data sheet on rear for further information.

THE IDEAL SOLUTION FOR:

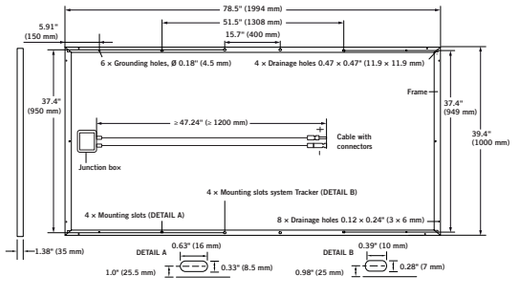
Ground-mounted solar power plants

Engineered in **Germany**

Q CELLS

MECHANICAL SPECIFICATION

Format	78.5 in × 39.4 in × 1.38 in (including frame) (1994 mm × 1000 mm × 35 mm)
Weight	52.9 lb (24 kg)
Front Cover	0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Anodised aluminum
Cell	6 × 12 Q.ANTUM solar cells
Junction box	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
Cable	4 mm² Solar cable; (+) ≥ 47.24 in (1200 mm), (-) ≥ 47.24 in (1200 mm)
Connector	Amphenol H4, IP68

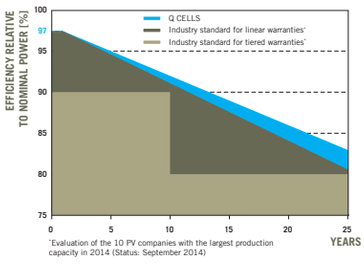


ELECTRICAL CHARACTERISTICS

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

[1] 1000 W/m², 25°C, spectrum AM 1.5G [2] Measurement tolerances STC ±3%; NOC ±5% [3] 800 W/m², NOCT, spectrum AM 1.5G * typical values, actual values may differ

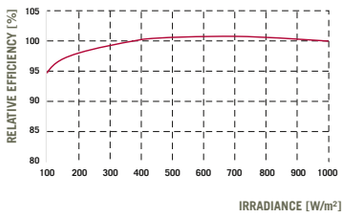
Q CELLS PERFORMANCE WARRANTY



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



The typical change in module efficiency at an irradiance of 200 W/m² in relation to 1000 W/m² (both at 25 °C and AM 1.5G spectrum) is -1.5 % (relative).

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	[°F]	113 ± 5.4 (45 ± 3 °C)

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V_{SYS}	[V]	1500 (IEC) / 1500 (UL)	**Safety Class**	II
Maximum Series Fuse Rating	[A DC]	15	**Fire Rating**	C / Type 1
Max Load (UL)[2]	[lbs/ft²]	75 (3600 Pa)	**Permitted module temperature on continuous duty**	-40 °F up to +185 °F (-40 °C up to +85 °C)
Load Rating (UL)[2]	[lbs/ft²]	33 (1600 Pa)	[2] 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.

C Certified US
UL 1703
(254141)

PACKAGING INFORMATION

Number of Modules per Pallet	29
Number of Pallets per 40' Container	22
Pallet Dimensions (L × W × H)	81.3 x 45.3 x 46.9 in (2065 x 1150 x 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**

Q CELLS