

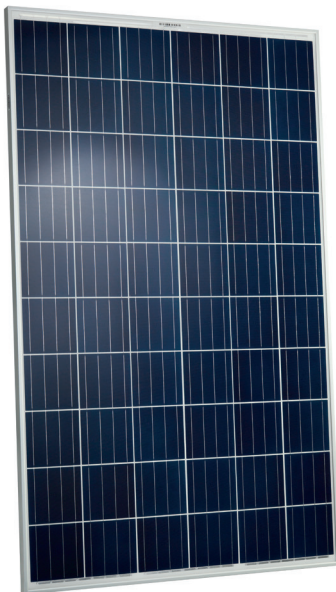
powered by

Q.ANTUM

Q.PLUS-G4.3

280-290

ENDURING HIGH PERFORMANCE



Q.ANTUM TECHNOLOGY: LOW LEVELISED COST OF ELECTRICITY

Higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 17.7%.



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 LID Technology, 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 (4000 Pa).



MAXIMUM COST REDUCTIONS

Up to 10% lower logistics costs due to higher module capacity per box.



A RELIABLE INVESTMENT

Inclusive 12-year product warranty and 25-year linear performance warranty².

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

² See data sheet on rear for further information.

THE IDEAL SOLUTION FOR:



Rooftop arrays on residential buildings



Rooftop arrays on commercial/industrial buildings



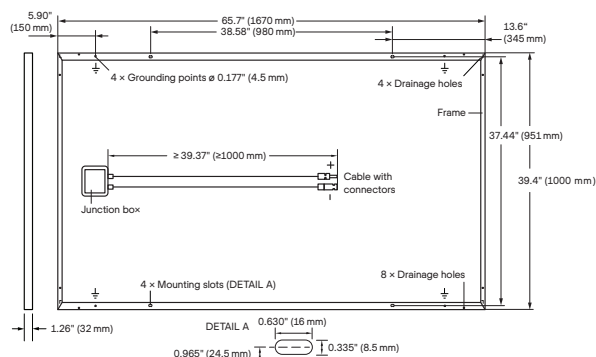
Ground-mounted solar power plants

Engineered in Germany

Q CELLS

MECHANICAL SPECIFICATION

Format	65.7 in × 39.4 in × 1.26 in (including frame) (1670 mm × 1000 mm × 32 mm)
Weight	40.8 lbs (18.5 kg)
Front Cover	0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Anodized aluminum
Cell	6 × 10 Q.ANTUM solar cells
Junction Box	3.35-4.53 in × 2.36-3.15 in × 0.59-0.75 in (85-115 mm × 60-80 mm × 15-20 mm), IP67, with bypass diodes
Cable	4 mm ² Solar cable; (+) ≥ 39.37 in (1000 mm), (-) ≥ 39.37 in (1000 mm)
Connector	Stäubli MC4, Hanwha Q CELLS HQC4, Renhe 05-6, Tongling TL-Cable01S, JMTHY JM601, Amphenol UTX; IP68

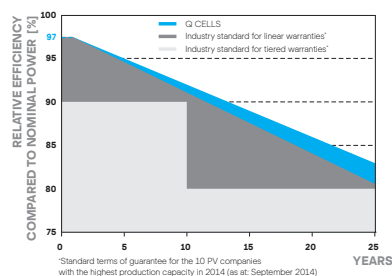


ELECTRICAL CHARACTERISTICS

POWER CLASS		280	285	290	
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC ¹ (POWER TOLERANCE +5 W / -0 W)					
Minimum	Power at MPP ¹	P _{MPP} [W]	280	285	290
	Short Circuit Current ¹	I _{SC} [A]	9.41	9.46	9.52
	Open Circuit Voltage ¹	V _{OC} [V]	38.97	39.22	39.48
	Current at MPP	I _{MPP} [A]	8.84	8.91	8.98
	Voltage at MPP	V _{MPP} [V]	31.67	31.99	32.29
	Efficiency ¹	η [%]	≥ 16.8	≥ 17.1	≥ 17.4
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT ²					
Minimum	Power at MPP	P _{MPP} [W]	209.2	213.0	216.7
	Short Circuit Current	I _{SC} [A]	7.58	7.63	7.67
	Open Circuit Voltage	V _{OC} [V]	36.66	36.90	37.14
	Current at MPP	I _{MPP} [A]	6.93	6.99	7.05
	Voltage at MPP	V _{MPP} [V]	30.18	30.46	30.73

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

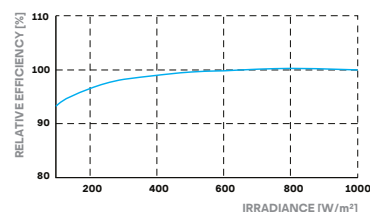
Q CELLS PERFORMANCE WARRANTY



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.

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]	-0.28
Temperature Coefficient of P _{MPP}	γ	[%/K]	-0.39	Normal Module Operating Temperature	NMOT	[°F]	109 ± 5.4 (43 ± 3°C)

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V _{sys}	[V]	1000 (IEC)/1000 (UL)	Safety Class	II
Maximum Series Fuse Rating	[A DC]	20	Fire Rating	C/TYP 2
Max. Design Load, Push / Pull ³	[lbs / ft ²]	75 (3600 Pa) / 55 (2667 Pa)	Permitted Module Temperature on Continuous Duty	-40°F up to +185°F (-40°C up to +85°C)
Max. Test Load, Push / Pull ³	[lbs / ft ²]	113 (5400 Pa) / 84 (4000 Pa)		

³See Installation Manual

QUALIFICATIONS AND CERTIFICATES

VDE Quality Tested, UL 1703, CE-compliant, IEC 61215:2016, IEC 61730:2016, Application Class II



PACKAGING INFORMATION

Number of Modules per Pallet	32
Number of Pallets per 53' Container	30
Number of Pallets per 40' Container	26
Pallet Dimensions (L × W × H)	68.7 × 45.3 × 46.1 in (1725 × 1150 × 1170 mm)
Pallet Weight	1435 lbs (651 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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