

Q.TRON XL-G2 SERIES



615 - 640 Wp | 156 Cells
22.7 % Maximum Module Efficiency

MODEL Q.TRON XL-G2.3/BFG



High performance Qcells N-type solar cells

Q. ANTUM NEO Technology with optimized module layout boosts module efficiency up to 22.7%.



Bifacial energy yield gain of up to 21%

Bifacial Q. ANTUM NEO solar cells make efficient use of light shining on the module rear-side for radically improved LCOE.



A reliable investment

Double glass module design enables extended lifetime with 12-year product warranty and improved 30-year performance warranty¹.



Enduring high performance

Long-term yield security with Anti LeTID and Anti PID Technology², Hot-Spot Protect.



Frame for versatile mounting options

High-tech aluminum alloy frame protects from damage, enables use of a wide range of mounting structures and is certified regarding IEC for high snow (5400 Pa) and wind loads (3750 Pa)³.



Innovative all-weather technology

Optimal yields, whatever the weather with excellent low-light and temperature behavior.



Far beyond the standard

Qcells' comprehensive quality program ensures high long-term yields and the reliability of your solar system.

¹ See data sheet on rear for further information.

² APT test conditions according to IEC/TS 62804-1:2015 method B (-1500V, 168 h) including post treatment according to IEC 61215-1-1 Ed. 2.0 (CD)

³ See Installation Manual for instructions

The ideal solution for:



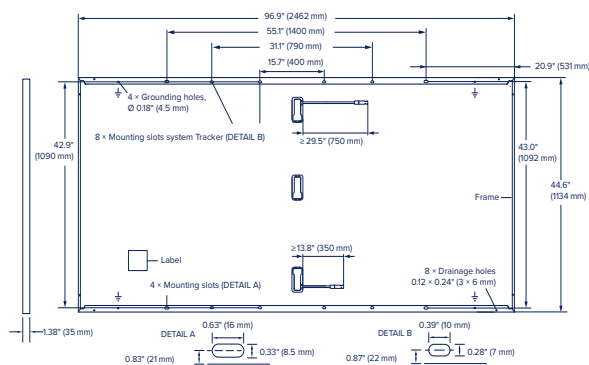
Ground mounted solar panels



Q.TRON XL-G2 SERIES

Mechanical Specification

Format	96.9 in × 44.6 in × 1.38 in (including frame) (2462 mm × 1134 mm × 35 mm)
Weight	78.0 lbs (35.4 kg)
Front Cover	0.08 in (2.0 mm) thermally pre-stressed glass with anti-reflection technology
Back Cover	0.08 in (2.0 mm) semi-tempered glass
Frame	anodized aluminum
Cell	6 × 26 monocrystalline Q.ANTUM NEO solar half cells
Junction box	2.09-3.98 × 1.26-2.36 × 0.59-0.71 in (53-101 mm × 32-60 mm × 15-18 mm), Protection class IP68, with bypass diodes
Cable	4 mm ² Solar cable; (+) ≥ 29.5 in (750 mm), (−) ≥ 13.8 in (350 mm)
Connector	Stäubli MC4-Evo2 ; IP68



Electrical Characteristics

POWER CLASS	615	620	625	630	635	640
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MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5 W/−0 W)

Minimum	BSC*				BSC*		BSC*		BSC*		BSC*		BSC*		
	Power at MPP ¹	P _{MPP}	[W]	615	681.0	620	686.5	625	692.0	630	697.6	635	703.1	640	708.6
	Short Circuit Current ¹	I _{SC}	[A]	13.71	15.19	13.76	15.25	13.82	15.31	13.88	15.38	13.93	15.44	13.99	15.50
	Open Circuit Voltage ¹	V _{OC}	[V]	56.39	56.62	56.67	56.90	56.95	57.18	57.23	57.46	57.51	57.74	57.79	58.03
	Current at MPP	I _{MPP}	[A]	13.00	14.40	13.05	14.46	13.10	14.51	13.15	14.57	13.21	14.62	13.26	14.68
	Voltage at MPP	V _{MPP}	[V]	47.30	47.29	47.50	47.49	47.70	47.69	47.89	47.88	48.09	48.08	48.28	48.27
	Efficiency ¹	η	[%]	22.0		≥ 22.2		≥ 22.4		≥ 22.6		≥ 22.7		≥ 22.9	

Bifaciality of P_{MPP} and I_{SC} 80% ± 5% • Bifaciality given for rear side irradiation on top of STC (front side) • According to IEC 60904-1-2

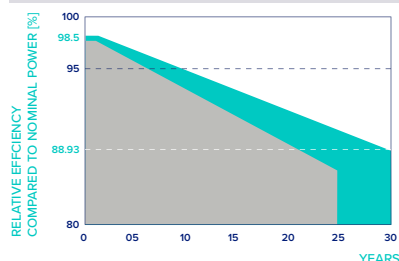
¹Measurement tolerances P_{MPP} ± 3%; I_{SC}, V_{OC} ± 5% at STC: 1000 W/m²; *at BSC²: 1000 W/m² + φ × 135 W/m², φ = 80%, 25 ± 2°C, AM 1.5 according to IEC 60904-3

MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT^{2w}

Minimum	615		620		625		630		635		640	
	BSC ² *		BSC ² *		BSC ² *		BSC ² *		BSC ² *		BSC ² *	
	Power at MPP	P _{MPP} [W]	464.8	468.6	472.4	476.1	479.9	483.7				
	Short Circuit Current	I _{SC} [A]	11.05	11.09	11.14	11.18	11.23	11.27				
	Open Circuit Voltage	V _{OC} [V]	53.51	53.77	54.04	54.31	54.58	54.85				
Minimum	Current at MPP	I _{MPP} [A]	10.22	10.26	10.30	10.34	10.38	10.42				
	Voltage at MPP	V _{MPP} [V]	45.47	45.66	45.85	46.04	46.23	46.42				

²800 W/m², NMOT, spectrum AM 1.5

Qcells PERFORMANCE WARRANTY

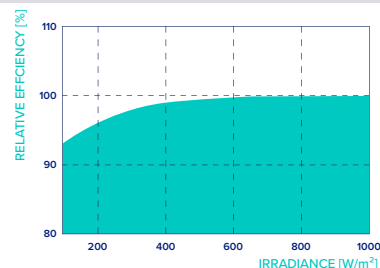


At least 98.5% of nominal power during first year. Thereafter max. 0.33% degradation per year. At least 95.53% of nominal power up to 10 years. At least 88.93% of nominal power up to 30 years.

All data within measurement tolerances. Full warranties in accordance with the warranty terms of the Qcells sales organization of your respective country.

*Standard terms of guarantee for the 5 PV companies with the highest production capacity in 2021 (February 2021)

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]	−0.24
Temperature Coefficient of P _{MPP}	γ	[%/K]	−0.30	Nominal Module Operating Temperature	NMOT	[°F]	109 ± 5.4 (43 ± 3°C)

Properties for System Design

Maximum System Voltage	V _{SYS}	[V]	1500	PV module classification	Class II
Maximum Series Fuse Rating		[A DC]	30	Fire Rating based on ANSI/UL 61730	TYPE 29 ⁴
Max. Push Load ³ , Test/Design		[lbs/ft ²]	113 (5400 Pa)/75 (3600 Pa)	Permitted Module Temperature on Continuous Duty	−40°F up to +185°F (−40°C up to +85°C)
Max. Pull Load ³ , Test/Design		[lbs/ft ²]	78 (3750 Pa)/ 52 (2500 Pa)		

³ See Installation Manual for instructions

⁴ New Type is similar to Type 3 but with metallic frame

Qualifications and Certificates

UL 61730-1 & UL 61730-2, CE-compliant,
IEC 61215:2016, IEC 61730:2016,
U.S. Patent No. 9,893,215(solar cells)



* Contact your Qcells Sales Representative for details regarding the module's eligibility to be Buy American Act (BAA) compliant.

Qcells pursues minimizing paper output in consideration of the global environment.

Note: Installation instructions must be followed. Contact our technical service for further information on approved installation of this product.

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