Q.PEAK DUO XL-G11S SERIES

590 - 605 Wp | 156 Cells
21.7 % Maximum Module Efficiency

MODEL Q.PEAK DUO XL-G11S.3 / BFG

Bifacial energy yield gain of up to 21%

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

Low electricity generation costs

Q.ANTUM DUO technology with optimized module layout to boost module power and improve LCOE.

A reliable investment

Double glass module design enables extended lifetime with 12-year product warranty and improved 30-year performance warranty[1].

Enduring high performance

Long-term yield security with Anti LID and Anti PID Technology[2], 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.

[1] See data sheet on rear for further information.
[2] APT test conditions according to IEC / TS 62804-1:2015 method B (–1500 V, 168 h) including post treatment according to IEC 61215-1-1 Ed. 2.0 (CD)
[3] See Installation Manual for instructions

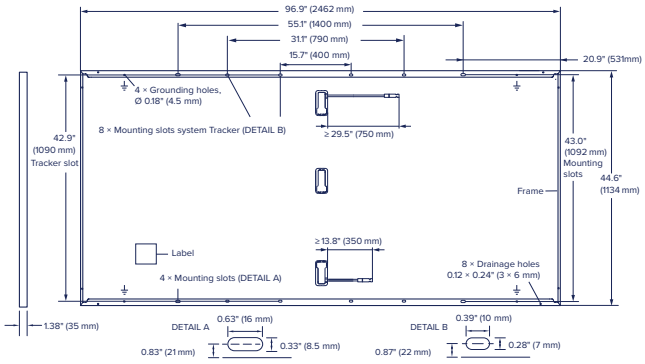
The ideal solution for:

Ground-mounted solar power plants

Q.PEAK DUO XL-G11S SERIES

Mechanical Specification

Format	96.9 in × 44.6 in × 1.38 in (including frame) (2462 mm × 1134 mm × 35 mm)
Weight	76.9 lbs (34.9kg)
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	Anodised aluminium
Cell	6 × 26 monocrystalline Q.ANTUM 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 IP67, with bypass diodes
Cable	4 mm² Solar cable; (+) ≥ 29.5 in (750 mm), (−) ≥ 13.8 in (350 mm)
Connector	Stäubli MC4; Stäubli MC4-Evo2; - IP68



Electrical Characteristics

POWER CLASS | **590** | **595** | **600** | **605**

MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC[1] (POWER TOLERANCE +5 W / −0 W)

					BSTC*		BSTC*		BSTC*		BSTC*
Minimum	Power at MPP[1]	P_{MPP}	[W]	590	645.4	595	650.8	600	656.3	605	661.8
	Short Circuit Current[1]	I_{SC}	[A]	13.74	15.04	13.77	15.07	13.80	15.10	13.82	15.13
	Open Circuit Voltage[1]	V_{OC}	[V]	53.60	53.79	53.63	53.82	53.66	53.85	53.68	53.87
	Current at MPP	I_{MPP}	[A]	13.12	14.36	13.17	14.41	13.22	14.46	13.27	14.52
	Voltage at MPP	V_{MPP}	[V]	44.96	44.95	45.18	45.17	45.39	45.38	45.60	45.59
	Efficiency[1]	η	[%]	≥ 21.1		≥ 21.3		≥ 21.5		≥ 21.7	

Bifaciality of P_{MPP} and I_{SC} 70 % ± 5 % • Bifaciality given for rear side irradiation on top of STC (front side) • According to IEC 60904-1-2

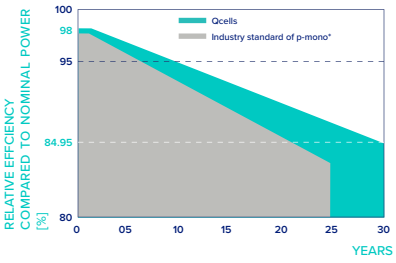
[1]Measurement tolerances P_{MPP} ± 3 %; I_{SC}, V_{OC} ± 5 % at STC: 1000 W/m²; *at BSTC: 1000 W/m² + φ × 135 W/m², φ = 70 %, 25 ± 2 °C, AM 1.5 according to IEC 60904-3

MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT[2]W

Minimum	Power at MPP	P_{MPP}	[W]	444.2	448.0	451.8	455.5
	Short Circuit Current	I_{SC}	[A]	11.07	11.09	11.11	11.13
	Open Circuit Voltage	V_{OC}	[V]	50.69	50.72	50.75	50.77
	Current at MPP	I_{MPP}	[A]	10.34	10.38	10.42	10.47
	Voltage at MPP	V_{MPP}	[V]	42.97	43.15	43.34	43.52

[1]Measurement tolerances P_{MPP} ± 3 %; I_{SC}; V_{OC} ± 5 % at STC: 1000 W/m², 25 ± 2 °C, AM 1.5 according to IEC 60904-3 • [2]800 W/m², NMOT, spectrum AM 1.5

Qcells PERFORMANCE WARRANTY

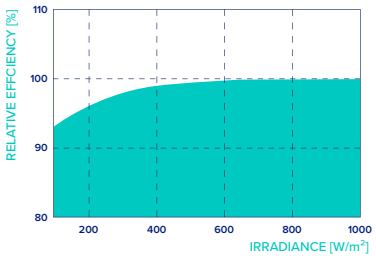


At least 98 % of nominal power during first year. Thereafter max. 0.45 % degradation per year. At least 93.95 % of nominal power up to 10 years. At least 84.95 % of nominal power up to 30 years.

All data within measurement tolerances. Full warranties in accordance with the warranty terms of the Qcells sales organisation 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]	−0.27
Temperature Coefficient of P_{MPP}	γ	[%/K]	−0.34	Nominal Module Operating Temperature	NMOT	[°F]	108 ± 5.4 (42 ± 3 °C)

Properties for System Design

Maximum System Voltage	V_{SYS}	[V]	1500
Maximum Series Fuse Rating		[A DC]	30
Max. Push Load[3], Test/Design		[lbs/ft²]	113 (5400 Pa) / 75 (3600 Pa)
Max. Pull Load[3], Test/Design		[lbs/ft²]	78 (3750 Pa) / 52 (2500 Pa)

[3] See Installation Manual for instructions

PV module classification	Class II
Fire Rating based on ANSI / UL 61730	TYPE 29[4]
Permitted Module Temperature on Continuous Duty	−40 °F up to +185 °F (−40 °C up to +85 °C)

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

Qualifications and Certificates

UL61730-1 & UL61730-2, CE-compliant,
IEC 61215:2016,
IEC 61730:2016,
U.S. Patent No. 9,893,215
(solar cells)

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

Find product recycling details at QR code above

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.

Hanwha Q CELLS America Inc. 400 Spectrum Center Drive, Suite 1400, Irvine, CA 92618, USA | TEL +1 949 748 59 96 | EMAIL hqc-inquiry@qcells.com | WEB www.qcells.com

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