

# 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<sup>1</sup>.



## Enduring high performance

Long-term yield security with Anti LID and Anti PID Technology<sup>2</sup>, 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)<sup>3</sup>.



## Innovative all-weather technology

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

<sup>1</sup> See data sheet on rear for further information.

<sup>2</sup> 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)

<sup>3</sup> See Installation Manual for instructions

### The ideal solution for:



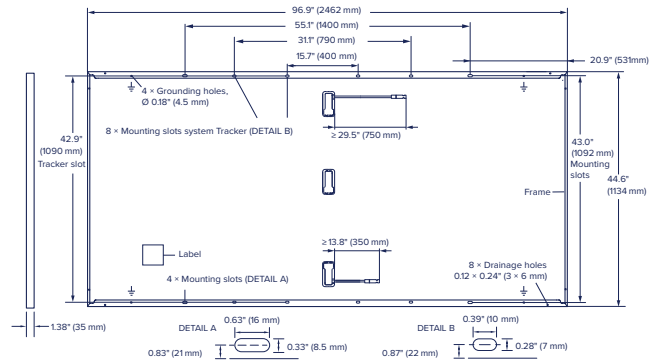
Ground-mounted solar power plants



# 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 (34.9 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	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 mm <sup>2</sup> 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 <sup>1</sup> (POWER TOLERANCE +5W / -0W)						
Minimum	Power at MPP <sup>1</sup>	$P_{MPP}$ [W]	590	595	600	605
	Short Circuit Current <sup>1</sup>	$I_{SC}$ [A]	13.74	13.77	13.80	13.90
	Open Circuit Voltage <sup>1</sup>	$V_{OC}$ [V]	53.60	53.63	53.66	53.69
	Current at MPP	$I_{MPP}$ [A]	13.12	13.17	13.25	13.33
	Voltage at MPP	$V_{MPP}$ [V]	44.96	45.18	45.30	45.40
	Efficiency <sup>1</sup>	$\eta$ [%]	≥ 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

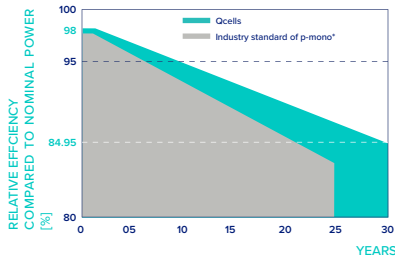
<sup>1</sup>Measurement tolerances  $P_{MPP}$  ± 3%;  $I_{SC}$ ,  $V_{OC}$  ± 5% at STC: 1000 W/m<sup>2</sup>; <sup>2</sup>at BSTC: 1000 W/m<sup>2</sup> +  $\phi$  × 135 W/m<sup>2</sup>,  $\phi$  = 70%, 25 ± 2 °C, AM 1.5 according to IEC 60904-3

MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT<sup>2w</sup>

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	11.20
	Open Circuit Voltage	$V_{OC}$ [V]	50.69	50.72	50.75	50.78
	Current at MPP	$I_{MPP}$ [A]	10.34	10.38	10.45	10.51
	Voltage at MPP	$V_{MPP}$ [V]	42.97	43.15	43.24	43.33

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

## Qcells PERFORMANCE WARRANTY

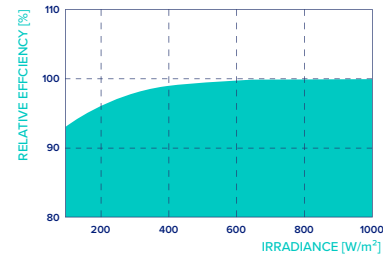


At least 98% of nominal power during first year. Thereafter max. 0.45% degradation per year. At least 93.95% of nominal power up to 10 years. At least 84.95% of nominal power up to 30 years.

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/m<sup>2</sup>).

## TEMPERATURE COEFFICIENTS

Temperature Coefficient of $I_{SC}$	$\alpha$ [%/K]	+0.04	Temperature Coefficient of $V_{OC}$	$\beta$ [%/K]	-0.27
Temperature Coefficient of $P_{MPP}$	$\gamma$ [%/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	PV module classification	Class II
Maximum Series Fuse Rating	[A DC]	25	Fire Rating based on ANSI / UL 61730	TYPE 29 <sup>4</sup>
Max. Push Load <sup>3</sup> , Test/Design	[lbs / ft <sup>2</sup> ]	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 <sup>3</sup> , Test/Design	[lbs / ft <sup>2</sup> ]	78 (3750 Pa) / 52 (2500 Pa)		

<sup>3</sup> See Installation Manual for instructions

<sup>4</sup> 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)



\* 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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