

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 warranty¹.



Enduring high performance

Long-term yield security with Anti LID 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.

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:



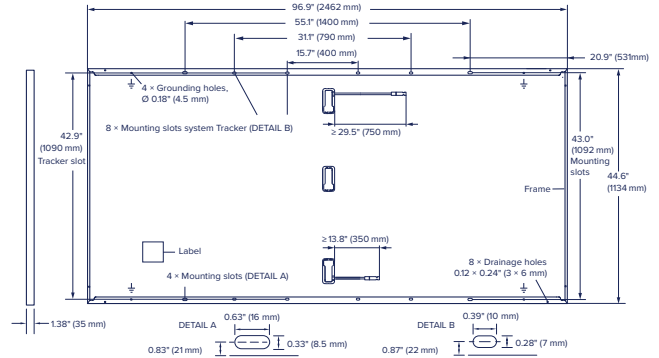
Ground-mounted solar power plants



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 (34.9 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 ² 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 +5W/-0W) | | | | | | | | | | |
| Minimum | Power at MPP ¹ | P_{MPP} [W] | 590 | BSTC* 645.4 | 595 | BSTC* 650.8 | 600 | BSTC* 656.3 | 605 | BSTC* 661.8 |
| | Short Circuit Current ¹ | I_{SC} [A] | 13.74 | 15.04 | 13.77 | 15.07 | 13.80 | 15.10 | 13.90 | 15.21 |
| | Open Circuit Voltage ¹ | V_{OC} [V] | 53.60 | 53.79 | 53.63 | 53.82 | 53.66 | 53.85 | 53.69 | 53.88 |
| | Current at MPP | I_{MPP} [A] | 13.12 | 14.36 | 13.17 | 14.41 | 13.25 | 14.50 | 13.33 | 14.58 |
| | Voltage at MPP | V_{MPP} [V] | 44.96 | 44.95 | 45.18 | 45.17 | 45.30 | 45.27 | 45.40 | 45.39 |
| | 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

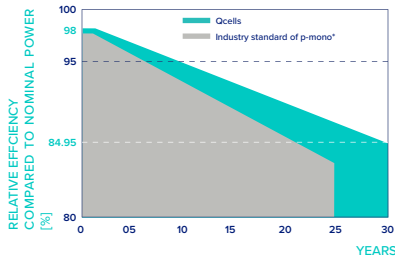
¹Measurement tolerances P_{MPP} ± 3%; I_{SC} , V_{OC} ± 5% at STC: 1000 W/m²; ²at BSTC: 1000 W/m² + ϕ × 135 W/m², ϕ = 70%, 25 ± 2 °C, AM 1.5 according to IEC 60904-3

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

| | | | | | | |
|---------|-----------------------|---------------|-------|-------|-------|-------|
| 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 |

¹Measurement 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 • ²800 W/m², NMOT, spectrum AM 1.5

Qcells PERFORMANCE WARRANTY

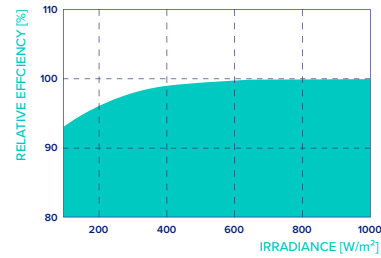


At least 98% of nominal power during first year. Thereafter max. 0.45% degradation per year. At least 93.95% of nominal power up to 10 years. At least 84.95% of nominal power up to 30 years.

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 | 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

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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