

Q.PLUS DUO-G5

300-315

ENDURING HIGH
PERFORMANCE



LOW ELECTRICITY GENERATION COSTS

Higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 19.0%.



INNOVATIVE ALL-WEATHER TECHNOLOGY

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



ENDURING HIGH PERFORMANCE

Long-term yield security with Anti LID and Anti PID Technology¹, Hot-Spot Protect and Traceable Quality Tra.Q™.



EXTREME WEATHER RATING

High-tech aluminum alloy frame, certified for high snow (5400 Pa) and wind loads (4000 Pa).



A RELIABLE INVESTMENT

Inclusive 12-year product warranty and 25-year linear performance guarantee².



STATE OF THE ART MODULE TECHNOLOGY

Q.ANTUM DUO combines cutting edge cell separation and innovative wiring with Q.ANTUM Technology.

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

² See data sheet on rear for further information

THE IDEAL SOLUTION FOR:



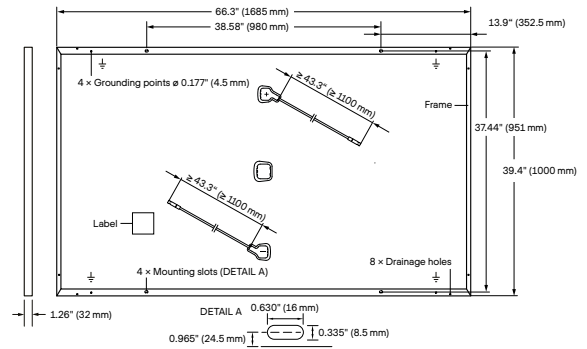
Rooftop arrays on residential buildings



Rooftop arrays on commercial and industrial buildings

MECHANICAL SPECIFICATION

| | |
|--------------|---|
| Format | 66.3in × 39.4in × 1.26in (including frame) (1685mm × 1000mm × 32mm) |
| Weight | 41.2lbs (18.7kg) |
| Front Cover | 0.13in (3.2mm) thermally pre-stressed glass with anti-reflection technology |
| Back Cover | Composite film |
| Frame | Anodized aluminum |
| Cell | 6 × 20 multicrystalline Q.ANTUM solar half cells |
| Junction Box | 2.09-3.98in × 1.26-2.36in × 0.59-0.71in (53-101mm × 32-60mm × 15-18mm), IP67, with bypass diodes |
| Cable | 4mm ² Solar cable; (+) ≥43.3in (1100mm), (-) ≥43.3in (1100mm) |
| Connector | Stäubli MC4, Amphenol UTX, Renhe Q5-6, Tonglin TL-Cable01S, JMTHY JM601; IP68 or Friends PV2e; IP67 |

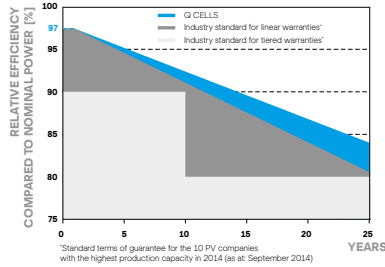


ELECTRICAL CHARACTERISTICS

| POWER CLASS | | 300 | 305 | 310 | 315 | |
|---|------------------------------------|---------------|-------|-------|-------|-------|
| MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC ¹ (POWER TOLERANCE +5W / -0W) | | | | | | |
| Minimum | Power at MPP ¹ | P_{MPP} [W] | 300 | 305 | 310 | 315 |
| | Short Circuit Current ¹ | I_{SC} [A] | 9.87 | 9.93 | 9.98 | 10.04 |
| | Open Circuit Voltage ¹ | V_{OC} [V] | 39.00 | 39.23 | 39.46 | 39.69 |
| | Current at MPP | I_{MPP} [A] | 9.35 | 9.42 | 9.50 | 9.58 |
| | Voltage at MPP | V_{MPP} [V] | 32.10 | 32.37 | 32.63 | 32.89 |
| | Efficiency ¹ | η [%] | ≥17.8 | ≥18.1 | ≥18.4 | ≥18.7 |
| MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT ² | | | | | | |
| Minimum | Power at MPP | P_{MPP} [W] | 224.3 | 228.0 | 231.8 | 235.5 |
| | Short Circuit Current | I_{SC} [A] | 7.95 | 8.00 | 8.04 | 8.09 |
| | Open Circuit Voltage | V_{OC} [V] | 36.69 | 36.91 | 37.12 | 37.34 |
| | Current at MPP | I_{MPP} [A] | 7.35 | 7.41 | 7.48 | 7.54 |
| | Voltage at MPP | V_{MPP} [V] | 30.53 | 30.77 | 31.00 | 31.22 |

¹Measurement tolerances $P_{MPP} \pm 3\%$; I_{SC} ; $V_{OC} \pm 5\%$ at STC: 1000 W/m², 25 ± 2 °C, AM 1.5 according to IEC 60904-3 • 2800 W/m², NMOT, spectrum AM 1.5

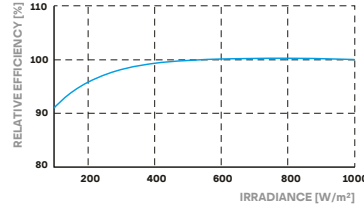
Q CELLS PERFORMANCE WARRANTY



At least 97% of nominal power during first year. Thereafter max. 0.54% degradation per year. At least 92.0% of nominal power up to 10 years. At least 84% 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] | -0.37 | 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 based on ANSI / UL 1703 | C (IEC)/TYPE 2 (UL) |
| 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) | | |

³ See Installation Manual

QUALIFICATIONS AND CERTIFICATES

UL 1703, VDE Quality Tested, CE-compliant, IEC 61215:2016, IEC 61730:2016, Application Class II, U.S. Patent No. 9,893,215 (solar cells)



PACKAGING INFORMATION

| | |
|--|---|
| Number of Modules per Pallet | 32 |
| Number of Pallets per 53' Trailer | 30 |
| Number of Pallets per 40' HC-Container | 26 |
| Pallet Dimensions (L × W × H) | 69.3 × 45.3 × 46.9 in (1760 × 1150 × 1190 mm) |
| Pallet Weight | 1415 lbs (642 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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