

# Q.MAXX-G5+ SERIES



405-415 Wp | 108 Cells  
21.3 % Maximum Module Efficiency

MODEL Q.MAXX-G5+



## A reliable investment

Inclusive 25-year product warranty and 25-year linear performance warranty<sup>1</sup>.



## Enduring high performance

Long-term yield security with Anti LeTID Technology and Hot-Spot Protect.



## The most thorough testing programme in the industry

Qcells is the first solar module manufacturer to pass the most comprehensive quality programme in the industry: The new "Quality Controlled PV" of the independent certification institute TÜV Rheinland.



## More suitable size for residential installation

With its length less than 1722 mm, Q.MAXX-G5+ provides with easier system designs and installations.



## Breaking the 21% efficiency barrier

Q.ANTUM DUO Technology with optimized module layout boosts module power.



## Extreme weather rating

High-tech aluminium alloy frame, certified for high snow (8100 Pa) and wind loads (4000 Pa).



## Innovative all-weather technology

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

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

### The ideal solution for:



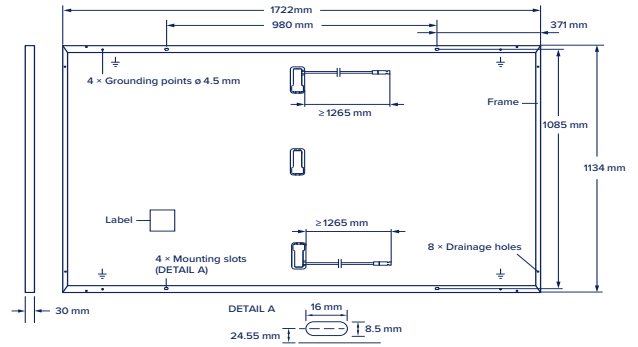
Rooftop arrays on residential buildings



# Q.MAXX-G5+ SERIES

## Mechanical Specification

|              |  |
|--------------|--|
| Format       | 1722 mm × 1134 mm × 30 mm (including frame)                                  |
| Weight       | 21.1kg   |
| Front Cover  | 3.2 mm thermally pre-stressed glass with anti-reflection technology          |
| Back Cover   | Composite film   |
| Frame        | Black anodised aluminium   |
| Cell         | 6 × 18 monocrystalline Q.ANTUM solar half cells                              |
| Junction box | 53-101 mm × 32-60 mm × 15-18 mm<br>Protection class IP67, with bypass diodes |
| Cable        | 4 mm <sup>2</sup> Solar cable; (+) ≥1265 mm, (-) ≥1265 mm                    |
| Connector    | Stäubli MC4, Hanwha Q CELLS HQC4; IP68                                       |

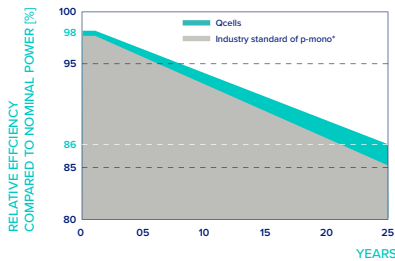


## Electrical Characteristics

| POWER CLASS   |                                    |               | 405   | 415   |
|---|------------------------------------|---------------|-------|-------|
| MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC <sup>1</sup> (POWER TOLERANCE +5W/-5W) |                                    |               |       |       |
| Minimum   | Power at MPP <sup>1</sup>          | $P_{MPP}$ [W] | 405   | 415   |
|   | Short Circuit Current <sup>1</sup> | $I_{SC}$ [A]  | 13.91 | 13.99 |
|   | Open Circuit Voltage <sup>1</sup>  | $V_{OC}$ [V]  | 37.09 | 37.14 |
|   | Current at MPP                     | $I_{MPP}$ [A] | 13.23 | 13.37 |
|   | Voltage at MPP                     | $V_{MPP}$ [V] | 30.62 | 31.05 |
|   | Efficiency <sup>1</sup>            | $\eta$ [%]    | ≥20.7 | ≥21.3 |
| MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT <sup>2</sup>                       |                                    |               |       |       |
| Minimum   | Power at MPP                       | $P_{MPP}$ [W] | 303.8 | 311.3 |
|   | Short Circuit Current              | $I_{SC}$ [A]  | 11.21 | 11.27 |
|   | Open Circuit Voltage               | $V_{OC}$ [V]  | 34.97 | 35.03 |
|   | Current at MPP                     | $I_{MPP}$ [A] | 10.41 | 10.53 |
|   | Voltage at MPP                     | $V_{MPP}$ [V] | 29.20 | 29.56 |

<sup>1</sup>Measurement tolerances  $P_{MPP} \pm 3\%$ ;  $I_{SC}$ ,  $V_{OC} \pm 5\%$  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

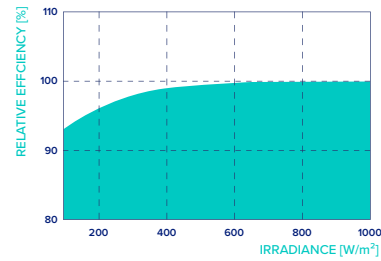


At least 98% of nominal power during first year. Thereafter max. 0.5% degradation per year. At least 93.5% of nominal power up to 10 years. At least 86% of nominal power up to 25 years.

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

<sup>\*</sup>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 [°C]     | 43 ± 3 |

## Properties for System Design

|                             |               |           |   |                 |
|-----------------------------|---------------|-----------|---|-----------------|
| Maximum System Voltage      | $V_{SYS}$ [V] | 1000      | PV module classification                        | Class II        |
| Maximum Reverse Current     | $I_R$ [A]     | 25        | Fire Rating based on ANSI/UL 61730              | C/TYPE 2        |
| Max. Design Load, Push/Pull | [Pa]          | 5400/2665 | Permitted Module Temperature on Continuous Duty | -40 °C - +85 °C |
| Max. Test Load, Push/Pull   | [Pa]          | 8100/4000 |   |                 |

## Qualifications and Certificates

Quality Controlled PV - TÜV Rheinland; IEC 61215:2016; IEC 61730:2016. This data sheet complies with DIN EN 50380.



Made in China

## Packaging Information



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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