

# Q.PEAK DUO M-G11A+ SERIES



390 - 410 Wp | 108 Cells  
21.4 % Maximum Module Efficiency

MODEL Q.PEAK DUO M-G11A+



## Breaking the 21% efficiency barrier

Q.ANTUM DUO Z Technology with zero gap cell layout boosts module efficiency up to 21.4%.



**Warranty**  
Product & Performance

## A reliable investment

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



**qcells**  
Yield Security

## Enduring high performance

Long-term yield security with Anti LeTID Technology, Anti PID Technology<sup>2</sup>, Hot-Spot Protect.



## Extreme weather rating

High-tech aluminium alloy frame, certified for high snow (5400 Pa) and wind loads (3600 Pa).



## Innovative all-weather technology

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



## 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.

<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 A (~1500V, 96h)

### The ideal solution for:



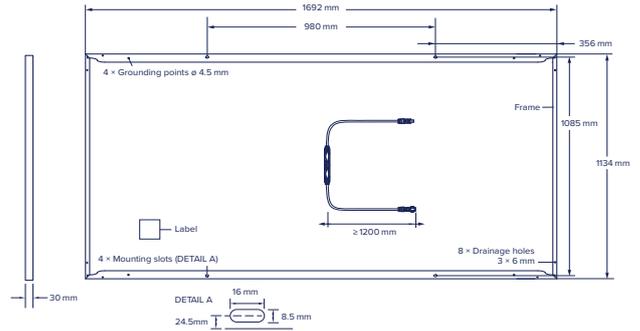
Rooftop arrays on residential buildings



# Q.PEAK DUO M-G11A+ SERIES

## Mechanical Specification

|              |   |
|--------------|---|
| Format       | 1692 mm × 1134 mm × 30 mm (including frame)                         |
| Weight       | 20.9 kg   |
| 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 | 225 mm × 30 mm × 15 mm<br>Protection class IP67, with bypass diodes |
| Cable        | 4 mm <sup>2</sup> Solar cable; (+) ≥1200 mm, (-) ≥1200 mm           |
| Connector    | Stäubli MC4; IP68, Hanwha Q CELLS HQC4; IP68                        |

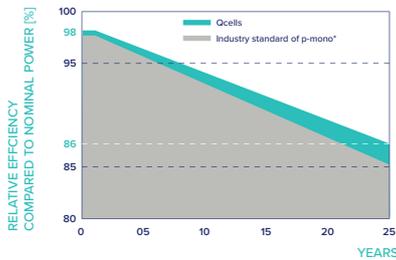


## Electrical Characteristics

| POWER CLASS   |                                    |               | 390   | 395   | 400   | 405   | 410   |
|---|------------------------------------|---------------|-------|-------|-------|-------|-------|
| MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC <sup>1</sup> (POWER TOLERANCE +5 W/-0 W) |                                    |               |       |       |       |       |       |
| Minimum   | Power at MPP <sup>1</sup>          | $P_{MPP}$ [W] | 390   | 395   | 400   | 405   | 410   |
|   | Short Circuit Current <sup>1</sup> | $I_{SC}$ [A]  | 13.46 | 13.50 | 13.54 | 13.57 | 13.61 |
|   | Open Circuit Voltage <sup>1</sup>  | $V_{OC}$ [V]  | 37.10 | 37.13 | 37.16 | 37.18 | 37.21 |
|   | Current at MPP                     | $I_{MPP}$ [A] | 12.76 | 12.83 | 12.90 | 12.97 | 13.04 |
|   | Voltage at MPP                     | $V_{MPP}$ [V] | 30.56 | 30.78 | 31.00 | 31.22 | 31.43 |
|   | Efficiency <sup>1</sup>            | $\eta$ [%]    | ≥20.3 | ≥20.6 | ≥20.8 | ≥21.1 | ≥21.4 |
| MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT <sup>2</sup>                         |                                    |               |       |       |       |       |       |
| Minimum   | Power at MPP                       | $P_{MPP}$ [W] | 292.6 | 296.3 | 300.1 | 303.8 | 307.6 |
|   | Short Circuit Current              | $I_{SC}$ [A]  | 10.85 | 10.88 | 10.91 | 10.94 | 10.97 |
|   | Open Circuit Voltage               | $V_{OC}$ [V]  | 34.99 | 35.01 | 35.04 | 35.07 | 35.09 |
|   | Current at MPP                     | $I_{MPP}$ [A] | 10.03 | 10.10 | 10.16 | 10.22 | 10.28 |
|   | Voltage at MPP                     | $V_{MPP}$ [V] | 29.16 | 29.35 | 29.54 | 29.72 | 29.91 |

<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

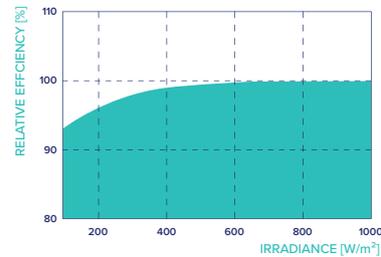


At least 98% of nominal power during first year. Thereafter max. 0.5% degradation per year. At least 93.5% of nominal power up to 10 years. At least 86% of nominal power up to 25 years.

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

<sup>1</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]          | 3600/2400 | Permitted Module Temperature on Continuous Duty | -40 °C - +85 °C |
| Max. Test Load, Push/Pull   | [Pa]          | 5400/3600 |   |                 |

## Qualifications and Certificates

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



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 GmbH Sonnenallee 17-21, 06766 Bitterfeld-Wolfen, Germany | TEL +49 (0)3494 66 99-23444 | FAX +49 (0)3494 66 99-23000 | EMAIL sales@q-cells.com | WEB www.qcells.com

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