

powered by

**Q.ANTUM DUO Z**

PRELIMINARY

# Q.PEAK DUO XL-G11.2

## 570-590

ENDURING HIGH PERFORMANCE



#### BREAKING THE 21% EFFICIENCY BARRIER

Q.ANTUM DUO Z Technology with zero gap cell layout boosts module efficiency up to 21.7%.



#### LOW ELECTRICITY GENERATION COSTS

Higher yield per surface area, lower BOS costs and up to 175 watts more module power than standard 144 half-cell modules.



#### ENDURING HIGH PERFORMANCE

Long-term yield security with Anti LID Technology, Anti PID Technology<sup>1</sup>, Hot-Spot Protect and Traceable Quality Tra.Q™.



#### EXTREME WEATHER RATING

High-tech aluminium alloy frame, certified for high snow (5400 Pa) and wind loads (2400 Pa).



#### A RELIABLE INVESTMENT

Inclusive 12-year product warranty and 25-year linear performance warranty<sup>2</sup>.



#### STATE OF THE ART MODULE TECHNOLOGY

Q.ANTUM DUO combines cutting edge cell separation and innovative 12-busbar design with Q.ANTUM Technology.

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

<sup>2</sup> See data sheet on rear for further information.

#### THE IDEAL SOLUTION FOR:



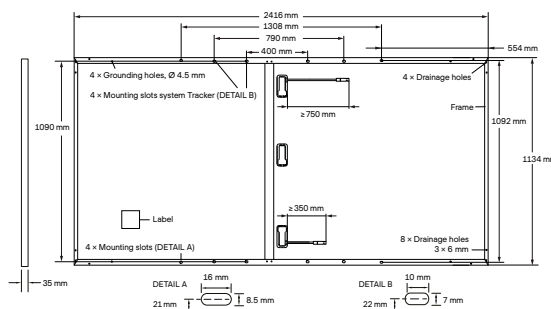
Ground-mounted solar power plants

Engineered in Germany

**Q CELLS**

## MECHANICAL SPECIFICATION

|              |                                                                              |
|--------------|------------------------------------------------------------------------------|
| Format       | 2416 mm × 1134 mm × 35 mm (including frame)                                  |
| Weight       | 31.3 kg                                                                      |
| Front Cover  | 3.2 mm thermally pre-stressed glass with anti-reflection technology          |
| Back Cover   | Composite film                                                               |
| Frame        | Anodised aluminium                                                           |
| Cell         | 6 × 26 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; (+) ≥ 750 mm, (-) ≥ 350 mm                    |
| Connector    | Stäubli MC4-Evo2, Hanwha Q CELLS HQC4; IP68                                  |



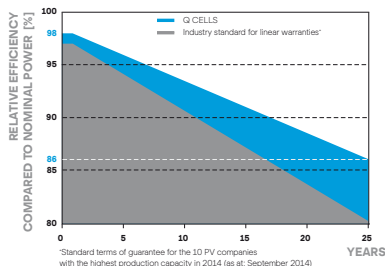
Drawing not to scale

## ELECTRICAL CHARACTERISTICS

| POWER CLASS                                                                                     |                                    | 570                  | 575    | 580    | 585    | 590    |        |
|-------------------------------------------------------------------------------------------------|------------------------------------|----------------------|--------|--------|--------|--------|--------|
| MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC <sup>1</sup> (POWER TOLERANCE +5 W / -0 W) |                                    |                      |        |        |        |        |        |
| Minimum                                                                                         | Power at MPP <sup>1</sup>          | P <sub>MPP</sub> [W] | 570    | 575    | 580    | 585    | 590    |
|                                                                                                 | Short Circuit Current <sup>1</sup> | I <sub>SC</sub> [A]  | 13.49  | 13.51  | 13.54  | 13.57  | 13.59  |
|                                                                                                 | Open Circuit Voltage <sup>1</sup>  | V <sub>OC</sub> [V]  | 53.59  | 53.62  | 53.64  | 53.67  | 53.70  |
|                                                                                                 | Current at MPP                     | I <sub>MPP</sub> [A] | 12.82  | 12.87  | 12.92  | 12.97  | 13.01  |
|                                                                                                 | Voltage at MPP                     | V <sub>MPP</sub> [V] | 44.46  | 44.68  | 44.90  | 45.12  | 45.33  |
|                                                                                                 | Efficiency <sup>1</sup>            | η [%]                | ≥ 20.8 | ≥ 21.0 | ≥ 21.2 | ≥ 21.4 | ≥ 21.5 |
| MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT <sup>2</sup>                           |                                    |                      |        |        |        |        |        |
| Minimum                                                                                         | Power at MPP                       | P <sub>MPP</sub> [W] | 427.6  | 431.4  | 435.1  | 438.9  | 442.6  |
|                                                                                                 | Short Circuit Current              | I <sub>SC</sub> [A]  | 10.87  | 10.89  | 10.91  | 10.93  | 10.95  |
|                                                                                                 | Open Circuit Voltage               | V <sub>OC</sub> [V]  | 50.54  | 50.56  | 50.59  | 50.62  | 50.64  |
|                                                                                                 | Current at MPP                     | I <sub>MPP</sub> [A] | 10.09  | 10.13  | 10.17  | 10.22  | 10.26  |
|                                                                                                 | Voltage at MPP                     | V <sub>MPP</sub> [V] | 42.39  | 42.58  | 42.77  | 42.96  | 43.14  |

<sup>1</sup>Measurement tolerances P<sub>MPP</sub> ± 3%; I<sub>SC</sub>; V<sub>OC</sub> ± 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

### Q CELLS PERFORMANCE WARRANTY

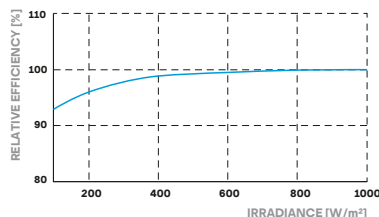


At least 98% of nominal power during first year. Thereafter max. 0.5% degradation per year. At least 93.5% of nominal power up to 10 years. At least 86% of nominal power up to 25 years.

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

<sup>1</sup>Standard terms of guarantee for the 10 PV companies with the highest production capacity in 2014 (as at September 2014)

### 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 <sub>SC</sub>  | α | [%/K] | +0.04 | Temperature Coefficient of V <sub>OC</sub> | β    | [%/K] | -0.27  |
| Temperature Coefficient of P <sub>MPP</sub> | γ | [%/K] | -0.34 | Nominal Module Operating Temperature       | NMOT | [°C]  | 43 ± 3 |

## PROPERTIES FOR SYSTEM DESIGN

|                               |                      |             |                                                 |               |
|-------------------------------|----------------------|-------------|-------------------------------------------------|---------------|
| Maximum System Voltage        | V <sub>sys</sub> [V] | 1500        | PV module classification                        | Class II      |
| Maximum Reverse Current       | I <sub>R</sub> [A]   | 20          | Fire Rating based on ANSI / UL 61730            | C / TYPE 1    |
| Max. Design Load, Push / Pull | [Pa]                 | 3600 / 1600 | Permitted Module Temperature on Continuous Duty | -40°C - +85°C |
| Max. Test Load, Push / Pull   | [Pa]                 | 5400 / 2400 |                                                 |               |

## QUALIFICATIONS AND CERTIFICATES

IEC 61215:2016;  
IEC 61730:2016.  
This data sheet complies  
with DIN EN 50380.



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**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.