

powered by

**Q.ANTUM DUO Z**

# Q.PEAK DUO-G9

## 335-355

ENDURING HIGH  
PERFORMANCE



### BREAKING THE 20% EFFICIENCY BARRIER

Q.ANTUM DUO Z Technology with zero gap cell layout boosts module efficiency up to 20.9%.



### INNOVATIVE ALL-WEATHER TECHNOLOGY

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



### 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 (6000 Pa) and wind loads (4000 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 wiring with Q.ANTUM Technology.

<sup>1</sup> APT test conditions according to IEC / TS 62804-1:2015, method A (-1500 V, 96 h)

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

### THE IDEAL SOLUTION FOR:



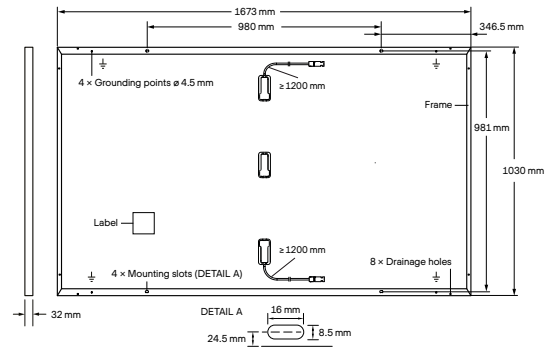
Rooftop arrays on  
residential buildings

Engineered in Germany

**Q CELLS**

## MECHANICAL SPECIFICATION

|              |                                                                              |
|--------------|------------------------------------------------------------------------------|
| Format       | 1673 mm × 1030 mm × 32 mm (including frame)                                  |
| Weight       | 17.5 kg                                                                      |
| Front Cover  | 2.8 mm thermally pre-stressed glass with anti-reflection technology          |
| Back Cover   | Composite film                                                               |
| Frame        | Black anodised aluminium                                                     |
| Cell         | 6 × 20 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; (+) ≥ 1200 mm, (-) ≥ 1200 mm                  |
| Connector    | Stäubli MC4, Hanwha Q CELLS HQC4; IP68                                       |



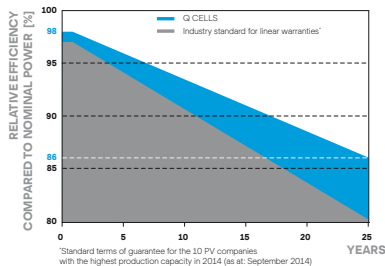
## ELECTRICAL CHARACTERISTICS

| POWER CLASS                                                                                     |                                    | 335                  | 340    | 345    | 350    | 355    |
|-------------------------------------------------------------------------------------------------|------------------------------------|----------------------|--------|--------|--------|--------|
| 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] | 335    | 340    | 345    | 350    |
|                                                                                                 | Short Circuit Current <sup>1</sup> | I <sub>SC</sub> [A]  | 10.58  | 10.61  | 10.64  | 10.68  |
|                                                                                                 | Open Circuit Voltage <sup>1</sup>  | V <sub>OC</sub> [V]  | 40.83  | 40.86  | 40.90  | 40.94  |
|                                                                                                 | Current at MPP                     | I <sub>MPP</sub> [A] | 10.01  | 10.07  | 10.14  | 10.20  |
|                                                                                                 | Voltage at MPP                     | V <sub>MPP</sub> [V] | 33.47  | 33.75  | 34.03  | 34.31  |
|                                                                                                 | Efficiency <sup>1</sup>            | η [%]                | ≥ 19.4 | ≥ 19.7 | ≥ 20.0 | ≥ 20.3 |
| MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT <sup>2</sup>                           |                                    |                      |        |        |        |        |
| Minimum                                                                                         | Power at MPP                       | P <sub>MPP</sub> [W] | 250.9  | 254.6  | 258.4  | 262.1  |
|                                                                                                 | Short Circuit Current              | I <sub>SC</sub> [A]  | 8.52   | 8.55   | 8.58   | 8.60   |
|                                                                                                 | Open Circuit Voltage               | V <sub>OC</sub> [V]  | 38.50  | 38.53  | 38.57  | 38.60  |
|                                                                                                 | Current at MPP                     | I <sub>MPP</sub> [A] | 7.87   | 7.92   | 7.98   | 8.04   |
|                                                                                                 | Voltage at MPP                     | V <sub>MPP</sub> [V] | 31.89  | 32.13  | 32.37  | 32.61  |

<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 • 2800 W/m<sup>2</sup>, NMOT, spectrum AM 1.5

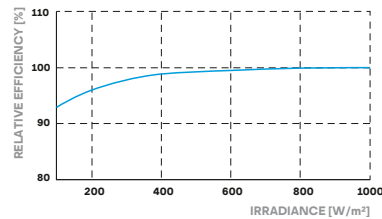
### Q CELLS PERFORMANCE WARRANTY

### PERFORMANCE AT LOW IRRADIANCE



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.



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] | -0.35 | Nominal Module Operating Temperature       | NMOT | [°C]  | 43 ± 3 |

## PROPERTIES FOR SYSTEM DESIGN

|                               |                  |      |             |                                                 |                 |
|-------------------------------|------------------|------|-------------|-------------------------------------------------|-----------------|
| Maximum System Voltage        | V <sub>SYS</sub> | [V]  | 1000        | PV module classification                        | Class II        |
| Maximum Reverse Current       | I <sub>R</sub>   | [A]  | 20          | Fire Rating based on ANSI / UL 61730            | C / TYPE 2      |
| Max. Design Load, Push / Pull |                  | [Pa] | 4000 / 2660 | Permitted Module Temperature on Continuous Duty | -40 °C - +85 °C |
| Max. Test Load, Push / Pull   |                  | [Pa] | 6000 / 4000 |                                                 |                 |

## QUALIFICATIONS AND CERTIFICATES

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



## PACKAGING INFORMATION

|                    |         |         |         |          |            |            |            |
|--------------------|---------|---------|---------|----------|------------|------------|------------|
| Vertical packaging | 1724 mm | 1130 mm | 1200 mm | 619.5 kg | 30 pallets | 26 pallets | 33 modules |
|--------------------|---------|---------|---------|----------|------------|------------|------------|

**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.

### Hanwha Q CELLS GmbH

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