

powered by

**Q.ANTUM DUO**

# Q.PEAK DUO L-G8.2

## 420-435

ENDURING HIGH  
PERFORMANCE



### Q.ANTUM TECHNOLOGY: LOW LEVELISED COST OF ELECTRICITY

Higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 20.5%.



### 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 (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 (-1500 V, 168 h)

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



### THE IDEAL SOLUTION FOR:



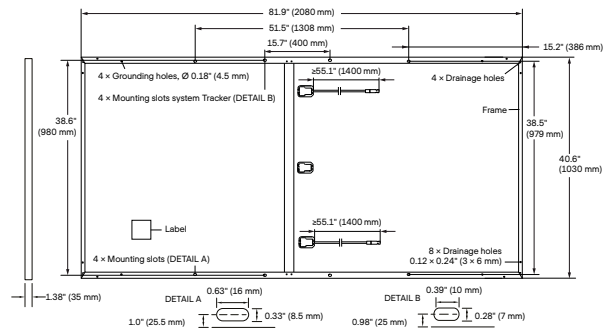
Rooftop arrays on commercial/industrial buildings



Ground-mounted solar power plants

## MECHANICAL SPECIFICATION

|              |  |
|--------------|--|
| Format       | 81.9 in × 40.6 in × 1.38 in (including frame)<br>(2080 mm × 1030 mm × 35 mm)   |
| Weight       | 55.1 lbs (25.0 kg)   |
| Front Cover  | 0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology  |
| Back Cover   | Composite film   |
| Frame        | Anodized aluminum  |
| Cell         | 6 × 24 monocrystalline Q.ANTUM solar half cells  |
| Junction Box | 2.09-3.98 in × 1.26-2.36 in × 0.59-0.71 in<br>(53-101 mm × 32-60 mm × 15-18 mm), IP67, with bypass diodes                      |
| Cable        | 4 mm <sup>2</sup> Solar cable; (+) ≥55.1 in (1400 mm), (-) ≥55.1 in (1400 mm)  |
| Connector    | Stäubli MC4-Evo2, Hanwha Q CELLS HQC4, Amphenol UTX, Renhe 05-8, JMTHY JM601A, Tongling Cable01S-F, IP68 or Friends PV2e; IP67 |

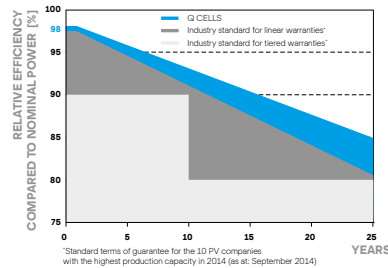


## ELECTRICAL CHARACTERISTICS

| POWER CLASS   |                                    | 420                  | 425   | 430   | 435   |       |
|---|------------------------------------|----------------------|-------|-------|-------|-------|
| 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] | 420   | 425   | 430   | 435   |
|   | Short Circuit Current <sup>1</sup> | I <sub>SC</sub> [A]  | 10.74 | 10.78 | 10.83 | 10.87 |
|   | Open Circuit Voltage <sup>1</sup>  | V <sub>OC</sub> [V]  | 48.84 | 49.09 | 49.33 | 49.58 |
|   | Current at MPP                     | I <sub>MPP</sub> [A] | 10.22 | 10.27 | 10.31 | 10.36 |
|   | Voltage at MPP                     | V <sub>MPP</sub> [V] | 41.08 | 41.39 | 41.70 | 42.00 |
|   | Efficiency <sup>1</sup>            | η [%]                | ≥19.6 | ≥19.8 | ≥20.1 | ≥20.3 |
| MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT <sup>2</sup>                           |                                    |                      |       |       |       |       |
| Minimum   | Power at MPP                       | P <sub>MPP</sub> [W] | 314.5 | 318.3 | 322.0 | 325.8 |
|   | Short Circuit Current              | I <sub>SC</sub> [A]  | 8.65  | 8.69  | 8.72  | 8.76  |
|   | Open Circuit Voltage               | V <sub>OC</sub> [V]  | 46.05 | 46.29 | 46.52 | 46.76 |
|   | Current at MPP                     | I <sub>MPP</sub> [A] | 8.05  | 8.08  | 8.12  | 8.15  |
|   | Voltage at MPP                     | V <sub>MPP</sub> [V] | 39.09 | 39.38 | 39.67 | 39.96 |

<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

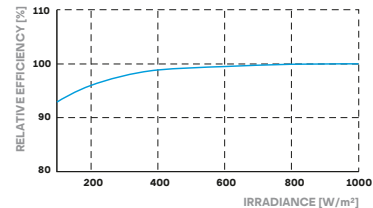
### Q CELLS PERFORMANCE WARRANTY



At least 98% of nominal power during first year. Thereafter max. 0.54% degradation per year. At least 93.1% of nominal power up to 10 years. At least 85% 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/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 [°F] | 109 ± 5.4 (43 ± 3°C) |

## PROPERTIES FOR SYSTEM DESIGN

|  |                        |                              |   |   |
|--|------------------------|------------------------------|---|---|
| Maximum System Voltage V <sub>sys</sub>    | [V]                    | 1500 (IEC)/1500 (UL)         | PV module classification                        | Class II                                  |
| Maximum Series Fuse Rating                 | [A DC]                 | 20                           | Fire Rating based on ANSI / UL 61730            | TYPE 1                                    |
| Max. Design Load, Push / Pull <sup>3</sup> | [lbs/ft <sup>2</sup> ] | 75 (3600 Pa) / 33 (1600 Pa)  | Permitted Module Temperature on Continuous Duty | -40°F up to +185°F<br>(-40°C up to +85°C) |
| Max. Test Load, Push / Pull <sup>3</sup>   | [lbs/ft <sup>2</sup> ] | 113 (5400 Pa) / 50 (2400 Pa) |   |   |

<sup>4</sup> See Installation Manual

## QUALIFICATIONS AND CERTIFICATES

UL 61730, CE-compliant,  
IEC 61215:2016,  
IEC 61730:2016,  
U.S. Patent No. 9,893,215  
(solar cells)



## PACKAGING AND TRANSPORT INFORMATION

|                      | Horizontal packaging | Vertical packaging | 83.9 in<br>2130 mm | 42.5 in<br>1080 mm | 47.1 in<br>1196 mm | 1687 lbs<br>765 kg | 24 pallets | 22 pallets | 29 modules | 30 modules |
|----------------------|----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------------|------------|------------|------------|
| Horizontal packaging | 83.9 in<br>2130 mm   | 42.5 in<br>1080 mm | 47.1 in<br>1196 mm | 1687 lbs<br>765 kg | 24 pallets         | 22 pallets         | 29 modules |            |            |            |
| Vertical packaging   | 84.6 in<br>2150 mm   | 45.3 in<br>1150 mm | 47.2 in<br>1200 mm | 1764 lbs<br>800 kg | 24 pallets         | 22 pallets         | 30 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. Q CELLS supplies solar modules in two different stacking methods, depending on the location of manufacture (modules are packed horizontally or vertically). You can find more detailed information in the document "Packaging and Transport Information", available from Q CELLS.

Hanwha Q CELLS America Inc.

400 Spectrum Center Drive, Suite 1400, Irvine, CA 92618, USA | TEL +1 949 748 59 96 | EMAIL inquiry@us.q-cells.com | WEB www.q-cells.us