

powered by

**Q.ANTUM DUO**

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# Q.PEAK DUO L-G6.3

## 415-435

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 wiring with Q.ANTUM Technology.

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

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



### THE IDEAL SOLUTION FOR:



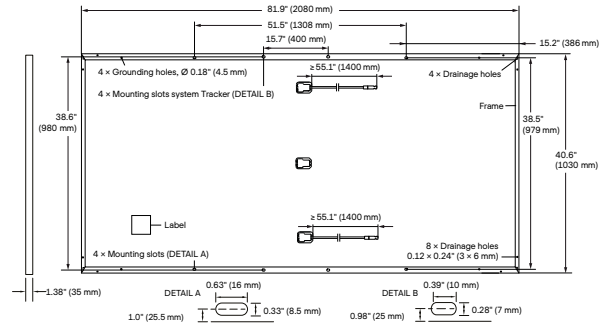
Rooftop arrays on commercial / industrial buildings



Ground-mounted solar power plants

## MECHANICAL SPECIFICATION

Format	81.9 in × 40.6 in × 1.38 in (including frame) (2080 mm × 1030 mm × 35 mm)
Weight	54 lbs (24.5 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 × 1.26-2.36 × 0.59-0.71 in (53-101 × 32-60 × 15-18 mm), Protection class 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

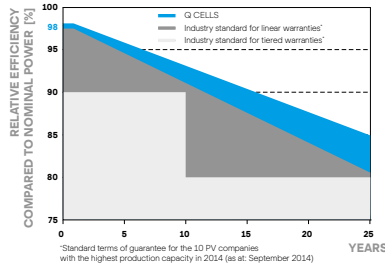


## ELECTRICAL CHARACTERISTICS

POWER CLASS		415	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]	415	420	425	430	435
	Short Circuit Current <sup>1</sup>	I <sub>SC</sub> [A]	10.74	10.79	10.83	10.88	10.92
	Open Circuit Voltage <sup>1</sup>	V <sub>OC</sub> [V]	48.63	48.88	49.13	49.38	49.62
	Current at MPP	I <sub>MPP</sub> [A]	10.23	10.27	10.32	10.36	10.41
	Voltage at MPP	V <sub>MPP</sub> [V]	40.58	40.89	41.20	41.50	41.81
	Efficiency <sup>1</sup>	η [%]	≥19.4	≥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]	310.6	314.4	318.1	321.8	325.6
	Short Circuit Current	I <sub>SC</sub> [A]	8.65	8.69	8.73	8.76	8.80
	Open Circuit Voltage	V <sub>OC</sub> [V]	45.86	46.09	46.33	46.56	46.80
	Current at MPP	I <sub>MPP</sub> [A]	8.05	8.09	8.12	8.16	8.19
	Voltage at MPP	V <sub>MPP</sub> [V]	38.59	38.88	39.17	39.46	39.75

<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 • 800 W/m<sup>2</sup>, NMOT, spectrum AM 1.5

### Q CELLS PERFORMANCE WARRANTY

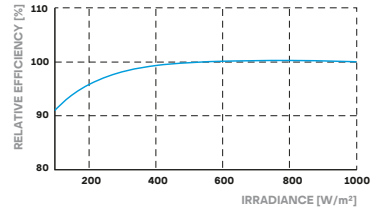


At least 98% of nominal power during first year. Thereafter max. 0.54% degradation per year. At least 93.1% of nominal power up to 10 years. At least 85% of nominal power up to 25 years.

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

\*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]	-0.36	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	C (IEC) / TYPE 1 (UL)
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 (-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>3</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 INFORMATION

	Horizontal packaging	Vertical packaging	Horizontal packaging	Vertical packaging	Horizontal packaging	Vertical packaging	Horizontal packaging	Vertical packaging
Dimensions (in/mm)	83.9 in / 2130 mm	84.6 in / 2150 mm	42.5 in / 1080 mm	45.3 in / 1150 mm	47.1 in / 1196 mm	48.0 in / 1220 mm	1655 lbs / 751 kg	1687 lbs / 765 kg
Weight	24 pallets	26 pallets	22 pallets	22 pallets	29 modules	29 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.**

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