

powered by

**Q.ANTUM DUO**

# Q.PEAK DUO L-G8 415-430

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 20.3 %.



## 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 (-1500V, 168 h)

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

## THE IDEAL SOLUTION FOR:



Rooftop arrays on  
commercial / industrial  
buildings



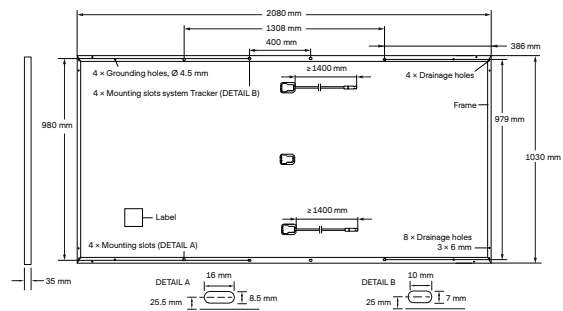
Ground-mounted  
solar power plants

Engineered in Germany

**Q CELLS**

## MECHANICAL SPECIFICATION

Format	2080 mm × 1030 mm × 35 mm (including frame)
Weight	24.5 kg
Front Cover	3.2 mm thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Anodised aluminium
Cell	6 × 24 monocrystalline Q.ANTUM solar half cells
Junction box	53-101 mm × 32-60 mm × 15-18 mm Protection class IP67, with bypass diodes
Cable	4 mm <sup>2</sup> Solar cable; (+) ≥ 1400 mm, (-) ≥ 1400 mm
Connector	Stäubli MC4, Hanwha Q CELLS HQC4, Amphenol UTX, Renhe 05-6, Tongling TL-Cable01S, JMTHY JM601; IP68 or Friends PV2e; IP67

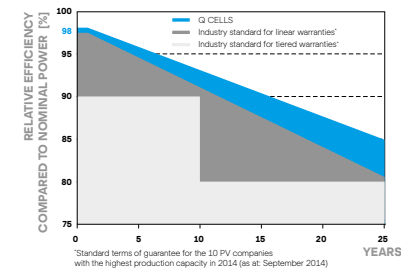


## ELECTRICAL CHARACTERISTICS

POWER CLASS		415	420	425	430
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
	Short Circuit Current <sup>1</sup>	I <sub>SC</sub> [A]	10.69	10.74	10.78
	Open Circuit Voltage <sup>1</sup>	V <sub>OC</sub> [V]	48.59	48.84	49.09
	Current at MPP	I <sub>MPP</sub> [A]	10.18	10.22	10.27
	Voltage at MPP	V <sub>MPP</sub> [V]	40.77	41.08	41.39
	Efficiency <sup>1</sup>	η [%]	≥ 19.4	≥ 19.6	≥ 19.8
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT <sup>2</sup>					
Minimum	Power at MPP	P <sub>MPP</sub> [W]	310.8	314.5	318.3
	Short Circuit Current	I <sub>SC</sub> [A]	8.61	8.65	8.69
	Open Circuit Voltage	V <sub>OC</sub> [V]	45.82	46.05	46.29
	Current at MPP	I <sub>MPP</sub> [A]	8.01	8.05	8.08
	Voltage at MPP	V <sub>MPP</sub> [V]	38.79	39.09	39.38

<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

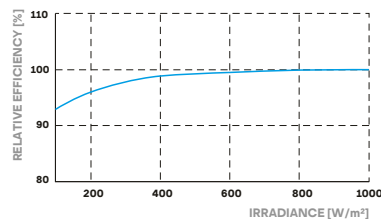


At least 98% of nominal power during first year. Thereafter max. 0.54% degradation per year. At least 93.1% of nominal power up to 10 years. At least 85% of nominal power up to 25 years.

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

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

## PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage	V <sub>SYS</sub> [V]	1000 (IEC) / 1000 (UL)	PV module classification	Class II
Maximum Reverse Current	I <sub>R</sub> [A]	20	Fire Rating based on ANSI / UL 1703	C / TYPE 2
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.



## PACKAGING INFORMATION

Number of Modules per Pallet	30
Number of Pallets per Trailer (24t)	24
Number of Pallets per 40' HC-Container (26t)	22
Pallet Dimensions (L × W × H)	2131 × 1130 × 1200 mm
Pallet Weight	788 kg

**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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Engineered in Germany

**Q CELLS**