

powered by

**Q.ANTUM**

# Q.PEAK-G5.1 300-310

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 18.9%.



#### 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, 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 (4000 Pa).



#### MAXIMUM COST REDUCTIONS

Up to 10% lower logistics costs due to higher module capacity per box.



#### A RELIABLE INVESTMENT

Inclusive 12-year product warranty and 25-year linear performance warranty<sup>1</sup>.

<sup>1</sup> See data sheet on rear for further information.

#### THE IDEAL SOLUTION FOR:



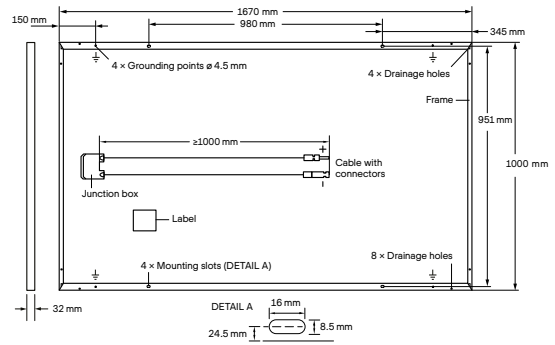
Rooftop arrays on residential buildings



Rooftop arrays on commercial / industrial buildings

## MECHANICAL SPECIFICATION

Format	1670 mm × 1000 mm × 32 mm (including frame)
Weight	18.5 kg ± 5%
Front Cover	3.2 mm thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Black anodised aluminium
Cell	6 × 10 monocrystalline Q.ANTUM solar cells
Junction box	66-77 mm × 90-115 mm × 15-20 mm Protection class ≥ IP67, with bypass diodes
Cable	4 mm <sup>2</sup> Solar cable; (+) ≥ 1000 mm, (-) ≥ 1000 mm
Connector	Stäubli MC4, Tonglin HQC4, Tonglin TL-Cable01S, Amphenol UTX; IP68

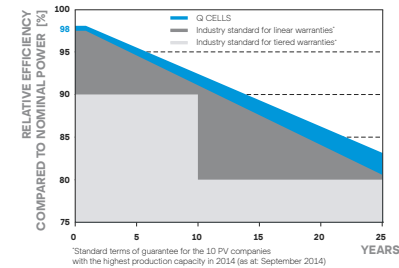


## ELECTRICAL CHARACTERISTICS

POWER CLASS		300	305	310	
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC <sup>1</sup> (POWER TOLERANCE +5 W / -0 W)					
Minimum	Power at MPP <sup>1</sup>	$P_{MPP}$ [W]	300	305	310
	Short Circuit Current <sup>1</sup>	$I_{SC}$ [A]	9.75	9.82	9.89
	Open Circuit Voltage <sup>1</sup>	$V_{OC}$ [V]	39.79	40.08	40.37
	Current at MPP	$I_{MPP}$ [A]	9.24	9.33	9.42
	Voltage at MPP	$V_{MPP}$ [V]	32.46	32.68	32.89
	Efficiency <sup>1</sup>	$\eta$ [%]	≥ 18.0	≥ 18.3	≥ 18.6
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT <sup>2</sup>					
Minimum	Power at MPP	$P_{MPP}$ [W]	223.8	227.6	231.3
	Short Circuit Current	$I_{SC}$ [A]	7.86	7.91	7.97
	Open Circuit Voltage	$V_{OC}$ [V]	37.45	37.72	37.99
	Current at MPP	$I_{MPP}$ [A]	7.26	7.34	7.42
	Voltage at MPP	$V_{MPP}$ [V]	30.81	30.99	31.17

<sup>1</sup>Measurement tolerances  $P_{MPP}$  ± 3%;  $I_{SC}$ ;  $V_{OC}$  ± 5% at STC: 1000 W/m<sup>2</sup>, 25 ± 2°C, AM 1.5G according to IEC 60904-3 • 2800 W/m<sup>2</sup>, NMOT, spectrum AM 1.5G

### Q CELLS PERFORMANCE WARRANTY

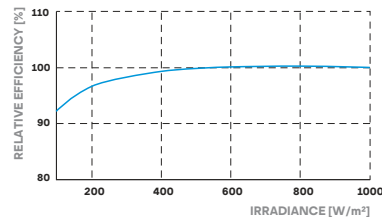


At least 98% of nominal power during first year. Thereafter max. 0.6% degradation per year. At least 92.6% of nominal power up to 10 years. At least 83.6% of nominal power up to 25 years.

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 $I_{SC}$	$\alpha$ [%/K]	+0.04	Temperature Coefficient of $V_{OC}$	$\beta$ [%/K]	-0.28
Temperature Coefficient of $P_{MPP}$	$\gamma$ [%/K]	-0.39	Normal Module Operating Temperature	NMOT [°C]	43 ± 3

## PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage	$V_{SYS}$ [V]	1000	Safety Class	II
Maximum Reverse Current	$I_R$ [A]	20	Fire Rating	C
Max. Design Load, Push/Pull	[Pa]	3600/2667	Permitted Module Temperature on Continuous Duty	-40°C - +85°C
Max. Test Load, Push/Pull	[Pa]	5400/4000		

## QUALIFICATIONS AND CERTIFICATES

IEC 61215:2016; IEC 61730:2016, Application Class II;  
This data sheet complies with DIN EN 50380.



## PACKAGING INFORMATION

Number of Modules per Pallet	32
Number of Pallets per 40' HC-Container (26t)	26
Pallet Dimensions (L × W × H)	1725 × 1118 × 1170 mm
Pallet Weight	632 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.

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Engineered in Germany