

# Q.PEAK-G4.4

## 295-315

ENDURING HIGH  
PERFORMANCE



#### PERC TECHNOLOGY: LOW LEVELISED COST OF ELECTRICITY

Higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 19.2%.



#### INNOVATIVE ALL-WEATHER TECHNOLOGY

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



#### ENDURING HIGH PERFORMANCE

Long-term yield security thanks to regular PID and Hot-Spot tests according to IEC requirements.



#### 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:



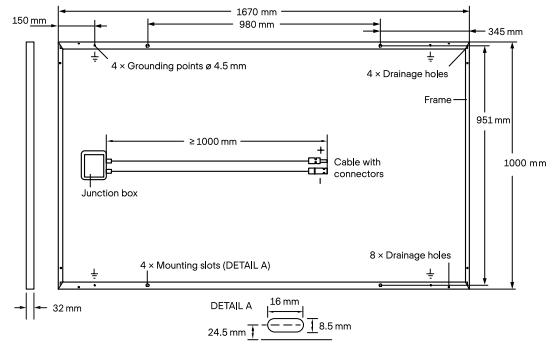
Rooftop arrays on commercial/industrial buildings



Ground-mounted solar power plants

## MECHANICAL SPECIFICATION

Format	1670 mm × 1000 mm × 32 mm (including frame)
Weight	18.5 kg
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 PERC solar cells
Junction box	85-115 mm × 60-80 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; IP68

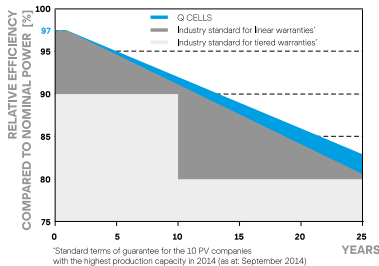


## ELECTRICAL CHARACTERISTICS

POWER CLASS		295	300	305	310	315	
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]	295	300	305	310	315
	Short Circuit Current <sup>1</sup>	$I_{SC}$ [A]	9.76	9.83	9.90	9.97	10.04
	Open Circuit Voltage <sup>1</sup>	$V_{OC}$ [V]	39.37	39.66	39.94	40.22	40.51
	Current at MPP	$I_{MPP}$ [A]	9.19	9.28	9.37	9.46	9.56
	Voltage at MPP	$V_{MPP}$ [V]	32.11	32.33	32.54	32.75	32.96
	Efficiency <sup>1</sup>	$\eta$ [%]	≥ 17.7	≥ 18.0	≥ 18.3	≥ 18.6	≥ 18.9
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT <sup>2</sup>							
Minimum	Power at MPP	$P_{MPP}$ [W]	220.1	223.9	227.6	231.3	235.1
	Short Circuit Current	$I_{SC}$ [A]	7.86	7.92	7.97	8.03	8.09
	Open Circuit Voltage	$V_{OC}$ [V]	37.04	37.31	37.58	37.85	38.12
	Current at MPP	$I_{MPP}$ [A]	7.21	7.29	7.37	7.44	7.52
	Voltage at MPP	$V_{MPP}$ [V]	30.53	30.71	30.89	31.07	31.25

<sup>1</sup>Measurement tolerances  $P_{MPP} \pm 3\%$ ;  $I_{SC}$ ;  $V_{OC} \pm 5\%$  at STC: 1000 W/m<sup>2</sup>, 25 ± 2°C, AM 1.5G according to IEC 60904-3 • <sup>2</sup>800 W/m<sup>2</sup>, NMOT, spectrum AM 1.5G

### Q CELLS PERFORMANCE WARRANTY

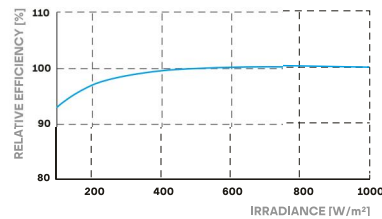


<sup>1</sup>Standard terms of guarantee for the 10 PV companies with the highest production capacity in 2014 (as at September 2014)

At least 97% of nominal power during first year. Thereafter max. 0.6% degradation per year. At least 92% of nominal power up to 10 years. **At least 83% 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 $I_{SC}$	$\alpha$ [%/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 / TYPE 2
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 Trailer (24t)	30
Number of Pallets per 40' HC-Container (26t)	26
Pallet Dimensions (L × W × H)	1745 × 1150 × 1170 mm
Pallet Weight	651 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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