

The new high-performance module Q.PEAK-G4.1 is the ideal solution for all applications thanks to its innovative cell technology Q.ANTUM. The world-record cell design was developed to achieve the best performance under real conditions — even with low radiation intensity and on clear, hot summer days.



#### **LOW ELECTRICITY GENERATION COSTS**

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 behavior.



### **ENDURING HIGH PERFORMANCE**

Long-term yield security with Anti LID technology, Anti PID Technology $^1$ , Hot-Spot Protect and Traceable Quality Tra. $Q^{TM}$ .



#### **EXTREME WEATHER RATING**

High-tech aluminum alloy frame, certified for high snow (5400 Pa) and wind loads (4000 Pa) regarding IEC.



## **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 guarantee<sup>2</sup>.

# THE IDEAL SOLUTION FOR:













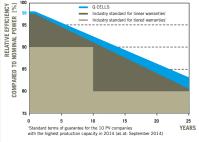
- APT test conditions according to IEC/TS 62804-1:2015, method B (-1500V, 168h)
- See data sheet on rear for further information.



MECHANICAL SPECIFICATION						
Format	$65.7\text{in}\times39.4\text{in}\times1.26\text{in}$ (including frame) (1670 mm $\times$ 1000 mm $\times$ 32 mm)					
Weight	40.78 lbs (18.5 kg)					
Front Cover	0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology					
Back Cover	Composite film					
Frame	Black anodised aluminum					
Cell	$6 \times 10$ monocrystalline Q.ANTUM solar cells					
Junction box	2.60-3.03 in $\times$ 3.54-4.53 in $\times$ 0.59-0.75 in (66-77 mm $\times$ 90-115 mm $\times$ 15-20 mm), Protection class ≥ IP67, with bypass diodes					
Cable	4 mm² Solar cable; (+) $\geq$ 39.37 in (1000 mm), (-) $\geq$ 39.37 in (1000 mm)					
Connector	Multi-Contact, MC4, IP67 and IP68					

EL	ECTRICAL CHARACTERIST	TICS					
POWER CLASS 300 305					310		
MIN	NIMUM PERFORMANCE AT STAND	ARD TEST CONDITIONS, STC1 (	POWER TOLER	ANCE +5 W / -0 W)			
	Power at MPP <sup>2</sup>	P <sub>MPP</sub>	[W]	300	305	310	
	Short Circuit Current*	I <sub>sc</sub>	[A]	9.77	9.84	9.91	
mnu	Open Circuit Voltage*	V <sub>oc</sub>	[V]	39.76	40.05	40.33	
Minimum	Current at MPP*	I <sub>MPP</sub>	[A]	9.26	9.35	9.44	
_	Voltage at MPP*	$V_{\mathrm{MPP}}$	[V]	32.41	32.62	32.83	
	Efficiency <sup>2</sup>	η	[%]	≥18.0	≥18.3	≥18.6	
MIN	MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NOC <sup>3</sup>						
	Power at MPP <sup>2</sup>	P <sub>MPP</sub>	[W]	222.0	225.7	229.4	
Ε	Short Circuit Current*	I <sub>sc</sub>	[A]	7.88	7.94	7.99	
Minimum	Open Circuit Voltage*	V <sub>oc</sub>	[V]	37.19	37.46	37.73	
Ξ	Current at MPP*	I <sub>MPP</sub>	[A]	7.27	7.35	7.43	
	Voltage at MPP*	$V_{MPP}$	[V]	30.52	30.70	30.87	
11000 W/m², 25 °C, spectrum AM 1.5G 2 Measurement tolerances STC ±3%; NOC ±5% 3800 W/m², NOCT, spectrum AM 1.5G *typical values, actual values may differ							
Q CELLS PERFORMANCE WARRANTY PERFORMANCE AT LOW IRRADIANCE							

#### 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 organization of your respective country.



Typical module performance under low irradiance conditions in comparison to STC conditions (25°C, 1000 W/m²).

800

1000 IRRADIANCE [W/m²]

1396 lbs (633 kg)

TEMPERA	TURE	COEFFI	CIENTS

Temperature Coefficient of I <sub>sc</sub>	α	[%/K]	+0.04	Temperature Coefficient of $V_{\text{oc}}$	β	[%/K]	-0.28
Temperature Coefficient of P <sub>MPP</sub>	γ	[%/K]	-0.39	Normal Operating Cell Temperature	NOCT	[°F]	$113 \pm 5.4 (45 \pm 3$ °C)

PROPERTIES FOR SYSTEM DESIGN						
Maximum System Voltage $\mathbf{V}_{\text{sys}}$	[ <b>V</b> ]	1000 (IEC) / 1000 (UL)	Safety Class	II		
Maximum Series Fuse Rating	[A DC]	20	Fire Rating	C (IEC) / TYPE 1 (UL)		
Design load, push (UL) <sup>2</sup>	[lbs/ft²]	75 (3600 Pa)	Permitted module temperature on continuous duty	-40 °F up to $+185$ °F ( $-40$ °C up to $+85$ °C)		
Design load, pull (UL) <sup>2</sup>	[lbs/ft²]	55.6 (2666 Pa)	<sup>2</sup> see installation manual			

QUALIFICATIONS AND CERTIFICATES	PACKAGING INFORMATION	
UL 1703; VDE Quality Tested; CE-compliant;	Number of Modules per Pallet	32
IEC 61215 (Ed.2); IEC 61730 (Ed.1) application class A	Number of Pallets per 53' Container	30
	Number of Pallets per 40' Container	26
C Certified US UI 1703	Pallet Dimensions ( $L \times W \times H$ )	$68.7  \text{in} \times 45.3  \text{in} \times 46.1  \text{in}$ (1745 mm × 1150 mm × 1170 mm)
(254141)		

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.

**Pallet Weight** 

## Hanwha Q CELLS America Inc.