





### **ENDURING HIGH PERFORMANCE**



## **EXTREME WEATHER RATING**

High-tech aluminum alloy frame, certified for high snow (5400 Pa) and wind loads (2400 Pa) regarding IEC.



## A RELIABLE INVESTMENT

Inclusive 12-year product warranty and 25-year linear performance guarantee<sup>2</sup>.



## STATE OF THE ART MODULE TECHNOLOGY

Q.ANTUM DUO combines cutting edge cell separation and innovative wiring with Q.ANTUM Technology.

# THE IDEAL SOLUTION FOR:

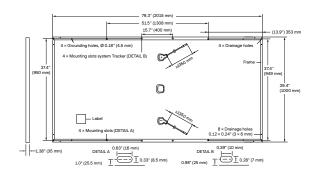


Ground-mounted solar power plants



 $<sup>^{\</sup>rm 1}$  APT test conditions according to IEC/TS 62804-1:2015, method B (–1500 V, 168 h)

<sup>&</sup>lt;sup>2</sup> See data sheet on rear for further information

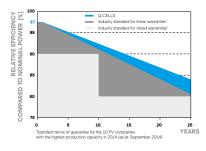


## **ELECTRICAL CHARACTERISTICS**

WER CLASS			360	365	370	375	380
IIMUM PERFORMANCE AT STANDAR	D TEST CONDITIO	NS, STC1 (PO	WER TOLERANCE +	5W/-0W)			
Power at MPP <sup>1</sup>	P <sub>MPP</sub>	[W]	360	365	370	375	380
Short Circuit Current <sup>1</sup>	I <sub>sc</sub>	[A]	9.87	9.92	9.96	10.01	10.06
Open Circuit Voltage <sup>1</sup>	V <sub>oc</sub>	[V]	46.80	47.03	47.26	47.49	47.71
Current at MPP	I <sub>MPP</sub>	[A]	9.35	9.41	9.47	9.54	9.60
Voltage at MPP	$V_{MPP}$	[V]	38.52	38.79	39.05	39.32	39.57
Efficiency <sup>1</sup>	η	[%]	≥17.9	≥18.1	≥18.4	≥18.6	≥ 18.9
IIMUM PERFORMANCE AT NORMAL	OPERATING CONI	DITIONS, NM	OT <sup>2</sup>				
Power at MPP	P <sub>MPP</sub>	[W]	269.1	272.9	276.6	280.3	284.1
Short Circuit Current	I <sub>sc</sub>	[A]	7.95	7.99	8.03	8.06	8.10
Open Circuit Voltage	V <sub>oc</sub>	[V]	44.03	44.25	44.46	44.68	44.90
Current at MPP	I <sub>MPP</sub>	[A]	7.35	7.40	7.46	7.51	7.56
Voltage at MPP	V <sub>MPP</sub>	[V]	36.63	36.87	37.10	37.33	37.56
	Power at MPP¹ Short Circuit Current¹ Open Circuit Voltage¹ Current at MPP Voltage at MPP Efficiency¹ NIMUM PERFORMANCE AT NORMAL Power at MPP Short Circuit Current Open Circuit Voltage Current at MPP	Power at MPP¹ P <sub>MPP</sub> Short Circuit Current¹ I <sub>SC</sub> Open Circuit Voltage¹ V <sub>OC</sub> Current at MPP Voltage at MPP V <sub>MPP</sub> Efficiency¹   NIMUM PERFORMANCE AT NORMAL OPERATING CONT Power at MPP P <sub>MPP</sub> Short Circuit Current I <sub>SC</sub> Open Circuit Voltage V <sub>OC</sub>	Power at MPP	NIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE + Power at MPP¹	NIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC1 (POWER TOLERANCE +5 W / -0 W)   Power at MPP1   PMPP   [W]   360   365   Short Circuit Current1   Isc   [A]   9.87   9.92   Open Circuit Voltage1   Voc   [V]   46.80   47.03   Current at MPP   IMPP   [A]   9.35   9.41   Voltage at MPP   VMPP   [V]   38.52   38.79   Efficiency1   $\eta$   [%]   $\geq$ 17.9   $\geq$ 18.1   NIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT2   Power at MPP   PMPP   [W]   269.1   272.9   Short Circuit Current   Isc   [A]   7.95   7.99   Open Circuit Voltage   Voc   [V]   44.03   44.25   Current at MPP   IMPP   IMPP   [A]   7.35   7.40   NIMPP   IMPP   IMPP   [A]   7.35   7.40   NIMPP   IMPP   IMPP   IMPP   [A]   7.35   7.40   NIMPP   IMPP   IMPP   IMPP   IMPP   IMPPP   IMPPP   IMPPPP   IMPPPPP   IMPPPPPPPPPP	NIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5 W / -0 W)   Power at MPP¹   P <sub>MPP</sub> [W] 360 365 370   Short Circuit Current¹   I <sub>SC</sub> [A] 9.87 9.92 9.96   Open Circuit Voltage¹   V <sub>OC</sub> [V] 46.80 47.03 47.26   Current at MPP   I <sub>MPP</sub> [A] 9.35 9.41 9.47   Voltage at MPP   V <sub>MPP</sub> [V] 38.52 38.79 39.05   Efficiency¹   $\eta$ [%] ≥17.9 ≥18.1 ≥18.4   NIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT²   Power at MPP   P <sub>MPP</sub> [W] 269.1 272.9 276.6   Short Circuit Current   I <sub>SC</sub> [A] 7.95 7.99 8.03   Open Circuit Voltage   V <sub>OC</sub> [V] 44.03 44.25 44.46   Current at MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46   Open Circuit M	NIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5 W / -0 W)   Power at MPP¹   P <sub>MPP</sub> [W] 360 365 370 375   Short Circuit Current¹   I <sub>SC</sub> [A] 9.87 9.92 9.96 10.01   Open Circuit Voltage¹ $V_{OC}$ [V] 46.80 47.03 47.26 47.49   Current at MPP   I <sub>MPP</sub> [A] 9.35 9.41 9.47 9.54   Voltage at MPP   V <sub>MPP</sub> [V] 38.52 38.79 39.05 39.32   Efficiency¹   $\eta$ [%] $\geq$ 17.9 $\geq$ 18.1 $\geq$ 18.4 $\geq$ 18.6   NIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT²   Power at MPP   P <sub>MPP</sub> [W] 269.1 272.9 276.6 280.3   Short Circuit Current   I <sub>SC</sub> [A] 7.95 7.99 8.03 8.06   Open Circuit Voltage   V <sub>OC</sub> [V] 44.03 44.25 44.46 44.68   Current at MPP   I <sub>MPP</sub> [A] 7.35 7.40 7.46 7.51

¹Measurement tolerances P<sub>MPP</sub> ±3%; I<sub>SC</sub>; V<sub>OC</sub> ±5% at STC: 1000 W/m², 25±2 °C, AM 1.5 according to IEC 60904-3 • ²800 W/m², NMOT, spectrum AM 1.5

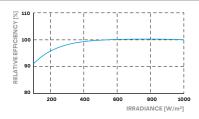
#### Q CELLS PERFORMANCE WARRANTY



At least 97% of nominal power during first year. Thereafter max. 0.54% degradation per year. At least 92.0% of nominal power up to 10 years. At least 84% 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  $^{\circ}C,1000\,W/m^2)$ 

TEMPERATURE COEFFICIENTS							
Temperature Coefficient of I <sub>SC</sub>	α	[%/K]	+0.04	Temperature Coefficient of Voc	β	[%/K]	-0.28
Temperature Coefficient of P <sub>MPP</sub>	γ	[%/K]	-0.37	Nominal Module Operating Temperature	NMOT	[°F]	109±5.4 (43±3°C)

## PROPERTIES FOR SYSTEM DESIGN

${\bf Maximum\ System\ Voltage\ V_{SYS}}$	[V]	1500 (IEC)/1500 (UL)	PV module classification	Class II
Maximum Series Fuse Rating	[A DC]	20	Fire Rating based on ANSI / UL 1703	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	-40°F up to +185°F
Max. Test Load, Push / Pull <sup>3</sup>	[lbs/ft <sup>2</sup> ]	113 (5400 Pa)/50 (2400 Pa)	on Continuous Duty	(-40°C up to +85°C)

Number of Modules per Pallet

## **QUALIFICATIONS AND CERTIFICATES**

## **PACKAGING INFORMATION**

UL 1703, CE-compliant, IEC 61215:2016, IEC 61730:2016; U.S. Patent No. 9,893,215 (solar cells)



3 See Installation Manual





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Number of Pallets per 53' Trailer	27
Number of Pallets per 40' HC-Container	22
Pallet Dimensions (L×W×H)	$81.9 \times 45.3 \times 46.7$ in (2080 × 1150 × 1190 mm)
Pallet Weight	1606 lbs (727 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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