





Higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 20.4%.



## **INNOVATIVE ALL-WEATHER TECHNOLOGY**

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



# **ENDURING HIGH PERFORMANCE**



## **EXTREME WEATHER RATING**

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

## THE IDEAL SOLUTION FOR:



Rooftop arrays on residential buildings

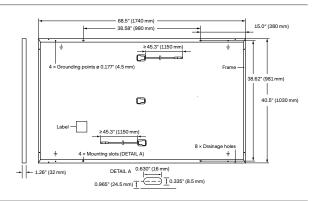


Rooftop arrays on commercial/industrial buildings



 $<sup>^{\</sup>rm 1}$  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

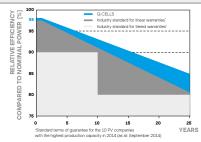


### **ELECTRICAL CHARACTERISTICS**

WER CLASS			345	350	355	360
IIMUM PERFORMANCE AT STANDAF	RD TEST CONDITIO	NS, STC¹ (POWI	ER TOLERANCE +5 W / -0	)W)		
Power at MPP¹	P <sub>MPP</sub>	[W]	345	350	355	360
Short Circuit Current <sup>1</sup>	I <sub>sc</sub>	[A]	10.68	10.74	10.79	10.84
Open Circuit Voltage <sup>1</sup>	V <sub>oc</sub>	[V]	40.45	40.70	40.95	41.19
Current at MPP	I <sub>MPP</sub>	[A]	10.17	10.22	10.28	10.33
Voltage at MPP	$V_{\text{MPP}}$	[V]	33.92	34.24	34.55	34.85
Efficiency <sup>1</sup>	η	[%]	≥19.3	≥19.5	≥19.8	≥20.1
IIMUM PERFORMANCE AT NORMAL	OPERATING CONE	DITIONS, NMOT	2			
Power at MPP	P <sub>MPP</sub>	[W]	258.4	262.1	265.9	269.6
Short Circuit Current	I <sub>sc</sub>	[A]	8.61	8.65	8.69	8.74
Open Circuit Voltage	V <sub>oc</sub>	[V]	38.14	38.38	38.61	38.85
Current at MPP	I <sub>MPP</sub>	[A]	8.00	8.05	8.09	8.13
Voltage at MPP	V <sub>MPP</sub>	[V]	32.28	32.57	32.87	33.16
	Power at MPP¹ Short Circuit Current¹ Open Circuit Voltage¹ Current at MPP Voltage at MPP Efficiency¹ IIMUM PERFORMANCE AT NORMAL Power at MPP Short Circuit Current Open Circuit Voltage Current at MPP	IIIMUM PERFORMANCE AT STANDARD TEST CONDITIO  Power at MPP¹ P <sub>MPP</sub> Short Circuit Current¹ I <sub>SC</sub> Open Circuit Voltage¹ V <sub>OC</sub> Current at MPP I <sub>MPP</sub> Voltage at MPP V <sub>MPP</sub> Efficiency¹   IIMUM PERFORMANCE AT NORMAL OPERATING CONDITION Power at MPP  Short Circuit Current I <sub>SC</sub> Open Circuit Voltage V <sub>OC</sub> Current at MPP I <sub>MPP</sub>	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	IIIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5 W / − C Power at MPP¹	IIIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5 W / -0 W)   Power at MPP¹   P <sub>MPP</sub> [W] 345 350   Short Circuit Current¹   I <sub>SC</sub> [A] 10.68 10.74   Open Circuit Voltage¹   V <sub>OC</sub> [V] 40.45 40.70   Current at MPP   I <sub>MPP</sub> [A] 10.17 10.22   Voltage at MPP   V <sub>MPP</sub> [V] 33.92 34.24   Efficiency¹   $\eta$ [%] ≥19.3 ≥19.5   IIIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT²   Power at MPP   P <sub>MPP</sub> [W] 258.4 262.1   Short Circuit Current   I <sub>SC</sub> [A] 8.61 8.65   Open Circuit Voltage   V <sub>OC</sub> [V] 38.14 38.38   Current at MPP   I <sub>MPP</sub> [A] 8.00 8.05	IIIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5 W / -0 W)   Power at MPP¹   P <sub>MPP</sub> [W] 345 350 355   Short Circuit Current¹   I <sub>SC</sub> [A] 10.68 10.74 10.79   Open Circuit Voltage¹   V <sub>OC</sub> [V] 40.45 40.70 40.95   Current at MPP   I <sub>MPP</sub> [A] 10.17 10.22 10.28   Voltage at MPP   V <sub>MPP</sub> [V] 33.92 34.24 34.55   Efficiency¹   $\eta$ [%] ≥19.3 ≥19.5 ≥19.8   IIIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT²   Power at MPP   P <sub>MPP</sub> [W] 258.4 262.1 265.9   Short Circuit Current   I <sub>SC</sub> [A] 8.61 8.65 8.69   Open Circuit Voltage   V <sub>OC</sub> [V] 38.14 38.38 38.61   Current at MPP   I <sub>MPP</sub> [A] 8.00 8.05 8.09

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

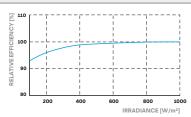
#### Q CELLS PERFORMANCE WARRANTY



At least 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 organization of your respective country.

#### PERFORMANCE AT LOW IRRADIANCE



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

TEMPERATURE COEFFICIENTS								
Temperature Coefficient of I <sub>SC</sub>	α	[%/K]	+0.04	Temperature Coefficient of Voc	β	[%/K]	-0.27	
Temperature Coefficient of P <sub>MPP</sub>	γ	[%/K]	-0.35	Nominal Module Operating Temperature	NMOT	[°F]	109±5.4 (43±3°C)	

## PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage $V_{\mbox{\scriptsize SYS}}$	[V]	1000 (IEC)/1000 (UL)	PV module classification	Class II	
Maximum Series Fuse Rating	[A DC]	20	Fire Rating based on ANSI/UL 61730	TYPE 2	
Max. Design Load, Push / Pull <sup>3</sup>	[lbs/ft <sup>2</sup> ]	75 (3600 Pa) / 55 (2667 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) / 84 (4000 Pa)	on Continuous Duty	(-40°C up to +85°C)	

# **QUALIFICATIONS AND CERTIFICATES**

## PACKAGING AND TRANSPORT INFORMATION

47.6 in

47.2 in

1208 mm

1200 mm

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

3 See Installation Manual









1780 mm

1800 mm

70.9 in



1080 mm

1150 mm

45.3 in





1485 lbs

1505 lbs

674 kg

683 kg



28

28

pallets

pallets



26

26

pallets

pallets



modules

modules

32

32

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. Q CELLS supplies solar modules in two different stacking methods, depending on the location of manufacture (modules are packed horizontally or vertically). You can find more detailed information in the document "Packaging and Transport Information", available from Q CELLS.

Horizontal

packaging

packaging

Vertical

#### Hanwha Q CELLS America Inc.