



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 20.3%.



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 1 , Hot-Spot Protect and Traceable Quality Tra.Q TM .



EXTREME WEATHER RATING

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



A RELIABLE INVESTMENT

Inclusive 12-year product warranty and 25-year linear performance warranty².



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:



Rooftop arrays on commercial/industrial buildings

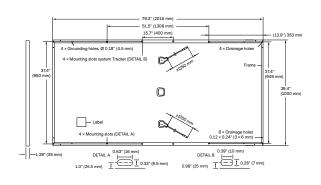


Ground-mounted solar power plants



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

 $^{^{\}rm 2}$ See data sheet on rear for further information.

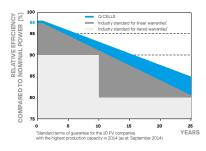


ELECTRICAL CHARACTERISTICS

WER CLASS			380	385	390	395	400	405
IIMUM PERFORMANCE AT STANDAR	D TEST CONDITIO	NS, STC1 (P	OWER TOLERAN	CE+5W/-0W)				
Power at MPP¹	P _{MPP}	[W]	380	385	390	395	400	405
Short Circuit Current ¹	I _{sc}	[A]	10.05	10.10	10.14	10.19	10.24	10.28
Open Circuit Voltage ¹	V _{oc}	[V]	47.95	48.21	48.48	48.74	49.00	49.26
Current at MPP	I _{MPP}	[A]	9.57	9.61	9.66	9.70	9.75	9.79
Voltage at MPP	V_{MPP}	[V]	39.71	40.05	40.38	40.71	41.04	41.36
Efficiency ¹	η	[%]	≥18.9	≥19.1	≥19.4	≥19.6	≥19.9	≥20.1
NIMUM PERFORMANCE AT NORMAL	OPERATING CONI	DITIONS, NN	ЛОТ ²					
Power at MPP	P _{MPP}	[W]	284.4	288.2	291.9	295.6	299.4	303.1
Short Circuit Current	I _{sc}	[A]	8.10	8.14	8.17	8.21	8.25	8.28
Open Circuit Voltage	V _{oc}	[V]	45.21	45.46	45.71	45.96	46.21	46.45
Current at MPP	I _{MPP}	[A]	7.53	7.57	7.60	7.64	7.67	7.71
Voltage at MPP	V _{MPP}	[V]	37.77	38.08	38.40	38.71	39.02	39.33
	Power at MPP¹ Short Circuit Current¹ Open Circuit Voltage¹ Current at MPP Voltage at MPP Efficiency¹ VIMUM PERFORMANCE AT NORMAL of Power at MPP Short Circuit Current Open Circuit Voltage Current at MPP	NIMUM PERFORMANCE AT STANDARD TEST CONDITIO Power at MPP¹ P _{MPP} Short Circuit Current¹ I _{SC} Open Circuit Voltage¹ V _{OC} Current at MPP I _{MPP} Voltage at MPP V _{MPP} Efficiency¹ ¶ NIMUM PERFORMANCE AT NORMAL OPERATING CONDITION Power at MPP P _{MPP} Short Circuit Current I _{SC} Open Circuit Voltage V _{OC} Current at MPP I _{MPP}	NIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC 1 (PPower at MPP 1 P $_{MPP}$ [W] Short Circuit Current 1 I $_{SC}$ [A] Open Circuit Voltage 1 V $_{OC}$ [V] Current at MPP I $_{MPP}$ [A] Voltage at MPP V $_{MPP}$ [V] Efficiency 1 η [%] NIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NN Power at MPP P $_{MPP}$ [W] Short Circuit Current I $_{SC}$ [A] Open Circuit Voltage V $_{OC}$ [V] Current at MPP I $_{MPP}$ [A]	NIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC1 (POWER TOLERANDARD Power at MPP1	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	NIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5 W / -0 W) Power at MPP¹ P _{MPP} [W] 380 385 390 Short Circuit Current¹ I _{SC} [A] 10.05 10.10 10.14 Open Circuit Voltage¹ V _{OC} [V] 47.95 48.21 48.48 Current at MPP I _{MPP} [A] 9.57 9.61 9.66 Voltage at MPP V _{MPP} [V] 39.71 40.05 40.38 Efficiency¹ η [%] ≥18.9 ≥19.1 ≥19.4 SIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT² Power at MPP P _{MPP} [W] 284.4 288.2 291.9 Short Circuit Current I _{SC} [A] 8.10 8.14 8.17 Open Circuit Voltage V _{OC} [V] 45.21 45.46 45.71 Current at MPP I _{MPP} [A] 7.53 7.57 7.60	NIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC1 (POWER TOLERANCE +5W/-0W) Power at MPP1 Power at MPP1 Power at MPP2 Power at MPP3 Power M	NIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5 W / -0 W) Power at MPP¹ Power at MPP¹ Sc [A] 10.05 10.10 10.14 10.19 10.24 10.19 10.24 10.19 10.24 10.19 10.24 10.19 10.24 10.19 10.24 10.19 10.24 10.19 10.24 10.19 10.24 10.19 10.24 10.19 10.24 10.19 10.24 10.19 10.24 10.19 10.24 10.19 10.24 10.19 10.24 10.19 10.24 10.19 10.24 10.10 10.14 10.19 10.24 10.24 10.19 10.24 10.2

¹Measurement tolerances P_{MPP} ±3%; I_{SC}; V_{OC} ±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

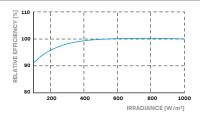
Q CELLS PERFORMANCE WARRANTY



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 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/m²)

TEMPERATURE COEFFICIENTS							
Temperature Coefficient of I _{SC}	α	[%/K]	+0.04	Temperature Coefficient of Voc	β	[%/K]	-0.27
Temperature Coefficient of P _{MPP}	γ	[%/K]	-0.36	Nominal Module Operating Temperature	NMOT	[°F]	109±5.4 (43±3°C)

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V _{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 ³	[lbs/ft ²]	75 (3600 Pa) / 33 (1600 Pa)		-40°F up to +185°F
Max. Test Load, Push / Pull ³	[lbs/ft ²]	113 (5400 Pa)/50 (2400 Pa)	on Continuous Duty	(-40°C up to +85°C)

QUALIFICATIONS AND CERTIFICATES

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

3 See Installation Manual







PACKAGING INFORMATION								
\wedge	\triangle		52					



81.1in

84.6 in

2060mm

2090 mm



40.9 in

45.3 in

1040 mm

1150 mm



1196 mm

1170 mm

46.1 in



706 ka

727 kg

1603lbs



24

27

pallets

pallets



22

22

pallets

pallets



modules

modules

29

29

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.