

EUPD RESEARCH

TOP BRAND PV MODULES

2020





ENDURING HIGH PERFORMANCE



Q.ANTUM TECHNOLOGY: LOW LEVELIZED COST OF ELECTRICITY

Higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 20.1%.



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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 and Anti PID Technology¹, Hot-Spot Protect and Traceable Quality Tra.Q™.



EXTREME WEATHER RATING

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



A RELIABLE INVESTMENT

Inclusive 25-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.

 1 APT test conditions according to IEC/TS 62804-1:2015, method B (–1500 V, 168 h) 2 See data sheet on rear for further information

THE IDEAL SOLUTION FOR: Rooftop arrays on

residential buildings

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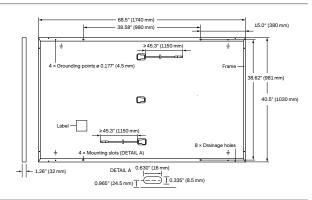


Rooftop arrays on commercial/industrial buildings



MECHANICAL SPECIFICATION

Format	68.5 × 40.6 × 1.26 in (including frame) (1740 × 1030 × 32 mm)
Weight	43.9 lbs (19.9 kg)
Front Cover	0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Black anodized aluminum
Cell	6 × 20 monocrystalline Q.ANTUM solar half cells
Junction Box	2.09-3.98 × 1.26-2.36 × 0.59-0.71 in (53-101 × 32-60 × 15-18 mm), Protection class IP67, with bypass diodes
Cable	4 mm² Solar cable; (+) ≥45.3 in (1150 mm), (-) ≥45.3 in (1150 mm)
Connector	Stäubli MC4; IP68

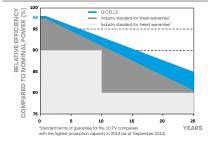


ELECTRICAL CHARACTERISTICS

PO	VER CLASS			340	345	350	355
MIN	IIMUM PERFORMANCE AT STANDARD	TEST CONDITIO	NS, STC ¹ (POW	/ER TOLERANCE +5 W / -0)W)		
Minimum -	Power at MPP ¹	P _{MPP}	[W]	340	345	350	355
	Short Circuit Current ¹	I _{sc}	[A]	10.68	10.73	10.79	10.84
	Open Circuit Voltage ¹	V _{oc}	[V]	40.24	40.49	40.73	40.98
	Current at MPP	IMPP	[A]	10.16	10.22	10.27	10.33
	Voltage at MPP	V _{MPP}	[V]	33.45	33.76	34.07	34.38
	Efficiency1	η	[%]	≥19.0	≥19.3	≥19.5	≥19.8
MIN	IMUM PERFORMANCE AT NORMAL O	PERATING CON	DITIONS, NMO	Γ ²			
Minimum	Power at MPP	P _{MPP}	[W]	254.5	258.2	261.9	265.7
	Short Circuit Current	I _{sc}	[A]	8.60	8.65	8.69	8.74
	Open Circuit Voltage	V _{oc}	[V]	37.94	38.17	38.41	38.65
	Current at MPP	IMPP	[A]	8.00	8.04	8.09	8.13
	Voltage at MPP	V _{MPP}	[V]	31.81	32.10	32.40	32.69

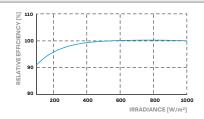
¹Measurement tolerances P_{MPP} ±3%; I_{sc}; V_{oc} ±5% at STC: 1000 W/m², 25±2°C, AM 1.5 according to IEC 60904-3 • ²800 W/m², NMOT, spectrum AM 1.5





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 _{sc}	α	[%/K]	+0.04	Temperature Coefficient of V _{oc}	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 (3600Pa)/55 (2667Pa)	Permitted Module Temperature	-40°F up to +185°F	
Max. Test Load, Push / Pull ³	[lbs/ft ²]	113 (5400 Pa)/84 (4000 Pa)	on Continuous Duty	(-40 °C up to +85 °C)	
³ See Installation Manual			•		

QUALIFICATIONS AND CERTIFICATES

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

PACKAGING INFORMATION



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

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