





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 20.2%.



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 Technology¹, Hot-Spot Protect and Traceable Quality Tra.QTM.



EXTREME WEATHER RATING

High-tech aluminum alloy frame, tested to the extreme in Australia for Australian Conditions at James Cook University Cyclone Testing Station.



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.

THE IDEAL SOLUTION FOR:



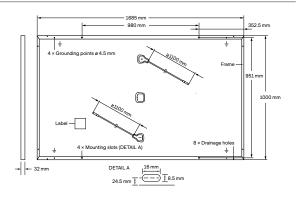
Rooftop arrays on residential buildings





 $^{^{\}rm 1}$ 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.



ELECTRICAL CHARACTERISTICS

PO	WER CLASS			315	320	325	330	335
MIN	IIMUM PERFORMANCE AT STANDAF	D TEST CONDITIO	NS, STC1 (PO	OWER TOLERANCE	+5W/-0W)			
Minimum	Power at MPP¹	P _{MPP}	[W]	315	320	325	330	335
	Short Circuit Current ¹	I _{sc}	[A]	10.04	10.09	10.14	10.20	10.25
	Open Circuit Voltage ¹	Voc	[V]	39.87	40.13	40.40	40.66	40.92
	Current at MPP	I _{MPP}	[A]	9.55	9.60	9.66	9.71	9.76
	Voltage at MPP	V_{MPP}	[V]	32.98	33.32	33.65	33.98	34.31
	Efficiency ¹	η	[%]	≥18.7	≥19.0	≥19.3	≥19.6	≥19.9
MIN	IIMUM PERFORMANCE AT NORMAL	OPERATING COND	DITIONS, NIV	1OT ²				
Minimum	Power at MPP	P _{MPP}	[W]	235.8	239.5	243.2	247.0	250.7
	Short Circuit Current	I _{sc}	[A]	8.09	8.13	8.17	8.22	8.26
	Open Circuit Voltage	V _{oc}	[V]	37.59	37.84	38.09	38.34	38.59
	Current at MPP	I _{MPP}	[A]	7.52	7.56	7.60	7.64	7.69
	Voltage at MPP	V _{MPP}	[V]	31.36	31.68	32.00	32.31	32.62

 $^1\text{Measurement tolerances P}_{\text{MPP}}\pm3\%; I_{\text{SC}}; V_{\text{OC}}\pm5\% \text{ at STC}: 1000 \text{W/m}^2, 25\pm2^{\circ}\text{C}, \text{AM 1.5 according to IEC } 60904-3 \bullet ^2800 \text{W/m}^2, \text{NMOT}, \text{spectrum AM 1.5 according to IEC } 60904-3 \bullet ^2800 \text{W/m}^2, \text{NMOT}, \text{spectrum AM 1.5 according to IEC } 60904-3 \bullet ^2800 \text{W/m}^2, \text{NMOT}, \text{spectrum AM 1.5 according to IEC } 60904-3 \bullet ^2800 \text{W/m}^2, \text{NMOT}, \text{spectrum AM 1.5 according to IEC } 60904-3 \bullet ^2800 \text{W/m}^2, \text{NMOT}, \text{spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{NMOT}, \text{spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{NMOT}, \text{spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{NMOT}, \text{spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{NMOT}, \text{spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{NMOT}, \text{spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{NMOT}, \text{spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{NMOT}, \text{spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{NMOT}, \text{spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{NMOT}, \text{spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{NMOT}, \text{spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{NMOT}, \text{spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{Spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{Spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{Spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{Spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{Spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{Spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{Spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{Spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{Spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{Spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{Spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{Spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{Spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{Spectrum AM 1.5 according } 60904-3 \bullet ^2800 \text{W/m}^2, \text{Spectrum AM 1.5 according }$

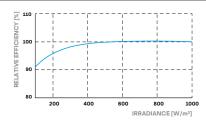
Q CELLS PERFORMANCE WARRANTY

DEPUT OF THE PROPERTY OF THE P

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 $^{\circ}$ 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	Normal Module Operating Temperature	NMOT	[°C]	43±3

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage	V _{sys}	[V]	1000	Safety Class	
Maximum Reverse Current	I _R	[A]	20	Fire Rating based on ANSI/UL 1703	C
Max. Design Load, Push/Pull		[Pa]	3600/2667	Permitted Module Temperature	-40°C - +85°C
Max. Test Load, Push / Pull		[Pa]	5400/4000	on Continuous Duty	

QUALIFICATIONS AND CERTIFICATES

PACKAGING INFORMATION

VDE Quality Tested, IEC 61215:2016; IEC 61730:2016, Application Class II; This data sheet complies with DIN EN 50380.





Number of Modules per Pallet	32
Number of Pallets per Trailer (24t)	30
Number of Pallets per 40' HC-Container (26t)	26
Pallet Dimensions (L × W × H)	1760 × 1150 × 1190 mm
Pallet Weight	642 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.

Made in Korea

Hanwha Q CELLS Australia Pty Ltd

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