

PERFORMANCE









Q.ANTUM TECHNOLOGY: LOW LEVELISED COST OF ELECTRICITY





power classes, and an efficiency rate of up to 19.8%.

Higher yield per surface area, lower BOS costs, higher

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 $^{\text{TM}}$.



EXTREME WEATHER RATING

High-tech aluminium 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 warranty².



STATE OF THE ART MODULE TECHNOLOGY

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

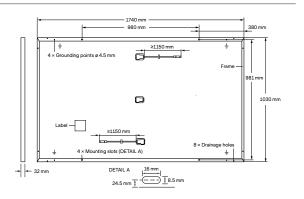
THE IDEAL SOLUTION FOR:





¹ APT test conditions according to IEC/TS 62804-1:2015, method B (-1500 V, 168h)

² See data sheet on rear for further information.



ELECTRICAL CHARACTERISTICS

'ER CLASS			335	340	345	350
MUM PERFORMANCE AT STANDARI	D TEST CONDITIO	NS, STC1 (POW	/ER TOLERANCE +5 W /	-0 W)		
Power at MPP¹	P _{MPP}	[W]	335	340	345	350
Short Circuit Current ¹	I _{sc}	[A]	10.34	10.40	10.45	10.51
Open Circuit Voltage ¹	V _{oc}	[V]	40.44	40.70	40.95	41.21
Current at MPP	I _{MPP}	[A]	9.85	9.90	9.96	10.01
Voltage at MPP	V_{MPP}	[V]	34.01	34.34	34.65	34.97
Efficiency ¹	η	[%]	≥18.7	≥19.0	≥19.3	≥19.5
MUM PERFORMANCE AT NORMAL (OPERATING CONE	DITIONS, NMOT	Γ ²			
Power at MPP	P _{MPP}	[W]	250.9	254.6	258.4	262.1
Short Circuit Current	I _{sc}	[A]	8.33	8.38	8.42	8.47
Open Circuit Voltage	V _{oc}	[V]	38.13	38.38	38.62	38.86
Current at MPP	I _{MPP}	[A]	7.75	7.79	7.84	7.88
Voltage at MPP	V _{MPP}	[V]	32.36	32.67	32.97	33.27
	Power at MPP¹ Short Circuit Current¹ Open Circuit Voltage¹ Current at MPP Voltage at MPP Efficiency¹ MUM PERFORMANCE AT NORMAL of Power at MPP Short Circuit Current Open Circuit Voltage Current at MPP	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 ¶ MUM PERFORMANCE AT NORMAL OPERATING COND Power at MPP P _{MPP} Short Circuit Current I _{SC} Open Circuit Voltage V _{OC} Current at MPP I _{MPP}	Power at MPP¹	Power at MPP¹ P _{MPP} [W] 335 Short Circuit Current¹ I_{SC} [A] 10.34 Open Circuit Voltage¹ V _{oC} [V] 40.44 Current at MPP I_{MPP} [A] 9.85 Voltage at MPP V _{MPP} [V] 34.01 Efficiency¹ η [%] ≥18.7 MUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT² Power at MPP [W] 250.9 Short Circuit Current I _{SC} [A] 8.33 Open Circuit Voltage V _{oC} [V] 38.13 Current at MPP I _{MPP} [A] 7.75	Short Circuit Current¹ I_{SC} [A] 10.34 10.40 Open Circuit Voltage¹ V_{OC} [V] 40.44 40.70 Current at MPP I_{MPP} [A] 9.85 9.90 Voltage at MPP V_{MPP} [V] 34.01 34.34 Efficiency¹ η [%] ≥18.7 ≥19.0 MUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT² Power at MPP I_{MPP} [W] 250.9 254.6 Short Circuit Current I_{SC} [A] 8.33 8.38 Open Circuit Voltage V_{OC} [V] 38.13 38.38 Current at MPP I_{MPP} [A] 7.75 7.79	Power at MPP¹ P _{MPP} [W] 335 340 345 Short Circuit Current¹ I _{SC} [A] 10.34 10.40 10.45 Open Circuit Voltage¹ V _{OC} [V] 40.44 40.70 40.95 Current at MPP I _{MPP} [A] 9.85 9.90 9.96 Voltage at MPP V _{MPP} [V] 34.01 34.34 34.65 Efficiency¹ η [%] ≥18.7 ≥19.0 ≥19.3 MUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT² Power at MPP [W] 250.9 254.6 258.4 Short Circuit Current I _{SC} [A] 8.33 8.38 8.42 Open Circuit Voltage V _{OC} [V] 38.13 38.38 38.62 Current at MPP I _{MPP} [A] 7.75 7.79 7.84

 $^{1}\text{Measurement tolerances P}_{\text{MPP}}\pm3\%; |_{\text{Sc}}; |_{\text{CC}}\pm5\% \text{ at STC}: 1000 \text{ W/m}^{2}, 25\pm2\text{°C}, \text{AM 1.5 according to IEC 60904-3} \bullet ^{2}800 \text{ W/m}^{2}, \text{NMOT, spectrum AM 1.5}$

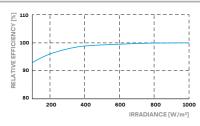
Q CELLS PERFORMANCE WARRANTY

ARED

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]	-0.35	Nominal Module Operating Temperature	NMOT	[°C]	43±3

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage	$V_{\scriptsize \text{SYS}}$	[V]	1000	PV module classification	Class II
Maximum Reverse Current	I _R	[A]	20	Fire Rating based on ANSI/UL 61730	C/TYPE 2
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

IEC 61215:2016; IEC 61730:2016. This data : with DIN





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PACKAGING INFORMATION







TOVPNeintain CERTIFIED CER	Horizontal packaging	1780mm	1080 mm	1208mm	673.8 kg	28 pallets	26 pallets	32 modules
	Vertical packaging	1815 mm	1150mm	1220mm	683kg	28 pallets	24 pallets	32 modules

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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