



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

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

- $^{\rm 1}$ 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.

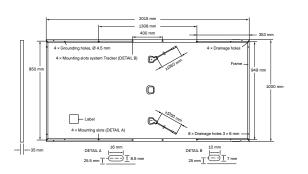
THE IDEAL SOLUTION FOR:





Ground-mounted solar power plants





ELECTRICAL CHARACTERISTICS

PO	VER CLASS			380	385	390	395	400
MIN	IIMUM PERFORMANCE AT STANDAF	RD TEST CONDITIO	NS, STC1 (Po	OWER TOLERANCE	+5W/-0W)			
Minimum	Power at MPP¹	P _{MPP}	[W]	380	385	390	395	400
	Short Circuit Current ¹	I _{sc}	[A]	10.05	10.10	10.14	10.19	10.24
	Open Circuit Voltage ¹	V _{oc}	[V]	47.95	48.21	48.48	48.74	49.00
	Current at MPP	I _{MPP}	[A]	9.57	9.61	9.66	9.70	9.75
	Voltage at MPP	V_{MPP}	[V]	39.71	40.05	40.38	40.71	41.04
	Efficiency ¹	η	[%]	≥18.9	≥19.1	≥19.4	≥19.6	≥19.9
MIN	IIMUM PERFORMANCE AT NORMAL	OPERATING CONE	DITIONS, NN	MOT ²				
Minimum	Power at MPP	P _{MPP}	[W]	284.4	288.2	291.9	295.6	299.4
	Short Circuit Current	I _{sc}	[A]	8.10	8.14	8.17	8.21	8.25
	Open Circuit Voltage	V _{oc}	[V]	45.21	45.46	45.71	45.96	46.21
	Current at MPP	I _{MPP}	[A]	7.53	7.57	7.60	7.64	7.67
	Voltage at MPP	V _{MPP}	[V]	37.77	38.08	38.40	38.71	39.02

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

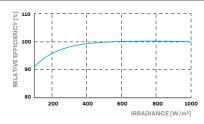
Q CELLS PERFORMANCE WARRANTY

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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 $^{\circ}\text{C}, 1000\,\text{W/m}^2\text{)}.$

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	Normal Module Operating Temperature	NMOT	[°C]	43±3

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage	$V_{\rm SYS}$	[V]	1000 (IEC)/1000 (UL)	Safety Class	II
Maximum Reverse Current	I_R	[A]	20	Fire Rating	C/TYPE 2
Max. Design Load, Push / Pull		[Pa]	3600/1600	Permitted Module Temperature	-40°C - +85°C
Max. Test Load, Push / Pull		[Pa]	5400/2400	on Continuous Duty	

QUALIFICATIONS AND CERTIFICATES

PACKAGING INFORMATION

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







Number of Modules per Pallet	29
Number of Pallets per Trailer (24t)	24
Number of Pallets per 40' HC-Container (26t)	22
Pallet Dimensions (L × W × H)	2080 × 1150 × 1185 mm
Pallet Weight	727kg

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.

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