

Q.ANTUM SOLAR MODULE

The new Q.PEAK DUO-G5 solar module from Q CELLS impresses thanks to innovative Q.ANTUM DUO Technology, which enables particularly high performance on a small surface. Q.ANTUM's world-record-holding cell concept has now been combined with state-of-the-art circuitry half cells and a six-busbar design, thus achieving outstanding performance under real conditions — both with low-intensity solar radiation as well as on hot, clear summer days.



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 19.9%.



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.Q™.



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:











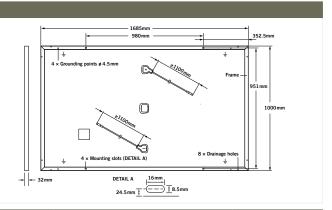




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- ¹ APT test conditions according to IEC/TS 62804-1:2015, method B (-1500 V, 168 h)
- See data sheet on rear for further information.





EL	ECTRICAL CHARACTERISTICS							
P0	WER CLASS			315	320	325	330	
MI	NIMUM PERFORMANCE AT STANDARD TEST COND	ITIONS, STO	C1 (POWER TO	LERANCE +5W/-0W)				
	Power at MPP ²	P_{MPP}	[W]	315	320	325	330	
Minimum	Short Circuit Current*	I _{sc}	[A]	10.04	10.09	10.14	10.20	
	Open Circuit Voltage*	\mathbf{V}_{oc}	[V]	39.87	40.13	40.40	40.66	
Min	Current at MPP*	I _{MPP}	[A]	9.55	9.60	9.66	9.71	
	Voltage at MPP*	\mathbf{V}_{MPP}	[V]	32.98	33.32	33.65	33.98	
	Efficiency ²	η	[%]	≥18.7	≥19.0	≥19.3	≥19.6	
MI	MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NOC ³							
Minimum	Power at MPP ²	P_{MPP}	[W]	233.4	237.2	240.9	244.6	
	Short Circuit Current*	I _{sc}	[A]	8.09	8.14	8.18	8.22	
	Open Circuit Voltage*	\mathbf{V}_{oc}	[V]	37.30	37.54	37.79	38.04	
	Current at MPP*	I _{MPP}	[A]	7.51	7.56	7.60	7.64	
	Voltage at MPP*	\mathbf{V}_{MPP}	[V]	31.07	31.39	31.70	32.01	

1000 W/m², 25 °C, spectrum AM 1.5G 2 Measurement tolerances STC ±3%; NOC ±5% 3 800 W/m², NOCT, spectrum AM 1.5G * typical values, actual values may differ

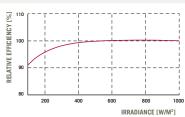
Q CELLS PERFORMANCE WARRANTY

OD 5 10 15 20 25 Standard terms of guarantee for the 10 PV companies with the highest production capacity in 2014 (as at September 2014)

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]	-0.28
Temperature Coefficient of Page	٧	[%/K]	-0.37	Normal Operating Cell Temperature	NOCT	[°C]	45

PROPERTIES FOR SYSTEM DESIGN					
Maximum System Voltage	\mathbf{V}_{sys}	[V]	1000	Safety Class	II
Maximum Reverse Current	I _R	[A]	20	Fire Rating	С
Push/Pull Load (Test-load in accordance with IEC 61215)		[Pa]	5400/4000	Permitted Module Temperature On Continuous Duty	-40°C up to +85°C

QUALIFICATIONS AND CERTIFICATES

PARTNER

VDE Quality Tested, IEC 61215 (Ed. 2); IEC 61730 (Ed. 1), Application class A This data sheet complies with DIN EN 50380.





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.

Hanwha Q CELLS GmbH

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