





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 (2400 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.

- $^{\rm 1}$ 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.

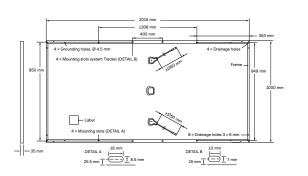
THE IDEAL SOLUTION FOR:





Ground-mounted solar power plants





ELECTRICAL CHARACTERISTICS

PO	WER CLASS			385	390	395	400	405
MIN	IIMUM PERFORMANCE AT STANDARD	TEST CONDITIO	NS, STC1 (PC	OWER TOLERANCE	+5W/-0W)			
Minimum	Power at MPP¹	P _{MPP}	[W]	385	390	395	400	405
	Short Circuit Current ¹	I _{SC}	[A]	10.05	10.10	10.14	10.19	10.23
	Open Circuit Voltage ¹	V _{oc}	[V]	48.17	48.44	48.70	48.96	49.22
	Current at MPP	I _{MPP}	[A]	9.57	9.61	9.66	9.70	9.75
	Voltage at MPP	V_{MPP}	[V]	40.24	40.57	40.90	41.23	41.56
	Efficiency ¹	η	[%]	≥19.1	≥19.4	≥19.6	≥19.9	≥20.1
MIN	IIMUM PERFORMANCE AT NORMAL O	PERATING CONI	DITIONS, NIV	IOT ²				
	Power at MPP	P _{MPP}	[W]	288.3	292.1	295.8	299.6	303.3
Ш	Short Circuit Current	I _{sc}	[A]	8.10	8.14	8.17	8.21	8.24
Minim	Open Circuit Voltage	V _{oc}	[V]	45.42	45.67	45.92	46.17	46.41
	Current at MPP	I _{MPP}	[A]	7.53	7.57	7.60	7.64	7.67
	Voltage at MPP	V _{MPP}	[V]	38.29	38.60	38.92	39.23	39.54

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

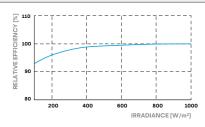
Q CELLS PERFORMANCE WARRANTY

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

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage	V_{sys}	[V]	1500 (IEC)/1500 (UL)	Safety Class	II
Maximum Reverse Current	I _R	[A]	20	Fire Rating based on ANSI/UL 1703	C/TYPE1
Max. Design Load, Push / Pull	ull [Pa] 3600/160		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.

Hanwha Q CELLS GmbH

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