



low-light and temperature behaviour.



ENDURING HIGH PERFORMANCE

Long-term yield security with Anti LID Technology, Anti PID Technology, 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 25-year product warranty and 25-year linear performance warranty¹.



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:

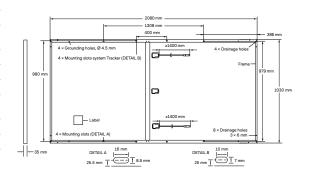




Ground-mounted solar power plants



¹ See data sheet on rear for further information.



ELECTRICAL CHARACTERISTICS

PO	WER CLASS			405	410	415	420	425
MIN	IIMUM PERFORMANCE AT STANDARD	TEST CONDITIO	NS, STC1 (PO	OWER TOLERANCE	+5W/-0W)			
Minimum	Power at MPP¹	P _{MPP}	[W]	405	410	415	420	425
	Short Circuit Current ¹	I _{sc}	[A]	10.65	10.70	10.74	10.79	10.83
	Open Circuit Voltage ¹	V _{oc}	[V]	48.14	48.38	48.63	48.88	49.13
	Current at MPP	I _{MPP}	[A]	10.14	10.18	10.23	10.27	10.32
	Voltage at MPP	V_{MPP}	[V]	39.95	40.27	40.58	40.89	41.20
	Efficiency ¹	η	[%]	≥18.9	≥19.1	≥19.4	≥19.6	≥19.8
MIN	IIMUM PERFORMANCE AT NORMAL O	PERATING CONI	DITIONS, NN	1OT ²		·		
	Power at MPP	P _{MPP}	[W]	303.1	306.9	310.6	314.4	318.1
Minimum	Short Circuit Current	I _{sc}	[A]	8.58	8.62	8.65	8.69	8.73
	Open Circuit Voltage	V _{oc}	[V]	45.38	45.62	45.86	46.09	46.33
	Current at MPP	I _{MPP}	[A]	7.98	8.01	8.05	8.09	8.12
	Voltage at MPP	V _{MPP}	[V]	37.99	38.29	38.59	38.88	39.17

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

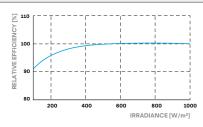
Q CELLS PERFORMANCE WARRANTY

DO THE STANDARD OF THE STANDAR

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]	-0.36	Nominal Module Operating Temperature	NMOT	[°C]	43±3

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage	V_{sys}	[V]	1500	PV module classification	Class II
Maximum Reverse Current	I_R	[A]	20	Fire Rating based on ANSI/UL 1703	C/TYPE 1
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; 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)	2150 × 1150 × 1220 mm
Pallet Weight	779 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

Suite 1, Level 1, 15 Blue Street, North Sydney, NSW 2060, Australia | TEL +61 (0)2 9016 3033 | FAX +61 (0)2 9016 3032 | EMAIL q-cells-australia@q-cells.com | WEB www.q-cells.com/au | WEB www.q-ce

