





ENDURING HIGH PERFORMANCE







#### BREAKING THE 20% EFFICIENCY BARRIER

Q.ANTUM DUO Z Technology with zero gap cell layout boosts module efficiency up to 21.5%.



# INNOVATIVE ALL-WEATHER TECHNOLOGY

Optimal yields, whatever the weather with excellent low-light and temperature behaviour.



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Long-term yield security with Anti LID 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 (4000 Pa).



A RELIABLE INVESTMENT





### STATE OF THE ART MODULE TECHNOLOGY

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

<sup>1</sup> See data sheet on rear for further information.

# THE IDEAL SOLUTION FOR:

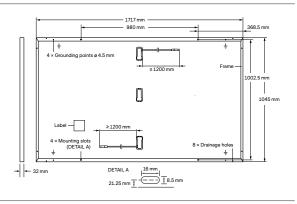


Rooftop arrays on residential buildings



## **MECHANICAL SPECIFICATION**

Format	1717mm × 1045mm × 32mm (including frame)
Weight	19.9kg
Front Cover	3.2 mm thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Black anodised aluminium
Cell	6 × 20 monocrystalline Q.ANTUM solar half cells
Junction box	53-101 mm × 32-60 mm × 15-18 mm Protection class IP67, with bypass diodes
Cable	4 mm² Solar cable; (+) ≥1150 mm, (-) ≥1150 mm
Connector	Stäubli MC4; IP68

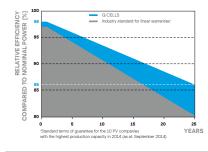


# **ELECTRICAL CHARACTERISTICS**

PO	WER CLASS			360	365	370	375	380
MIN	NIMUM PERFORMANCE AT STANDA	RD TEST CONDITIC	NS, STC <sup>1</sup> (PC	WER TOLERANCE	+5W/-5W)			
Minimum	Power at MPP <sup>1</sup>	P <sub>MPP</sub>	[W]	360	365	370	375	380
	Short Circuit Current <sup>1</sup>	I <sub>sc</sub>	[A]	11.24	11.27	11.31	11.34	11.37
	Open Circuit Voltage <sup>1</sup>	V <sub>oc</sub>	[V]	41.20	41.23	41.26	41.30	41.33
	Current at MPP	IMPP	[A]	10.62	10.68	10.75	10.81	10.87
	Voltage at MPP	V <sub>MPP</sub>	[V]	33.89	34.16	34.43	34.69	34.95
	Efficiency <sup>1</sup>	η	[%]	≥20.1	≥20.3	≥20.6	≥20.9	≥21.2
MIN	MIMUM PERFORMANCE AT NORMAL	OPERATING CONI	DITIONS, NM	OT <sup>2</sup>				
	Power at MPP	P <sub>MPP</sub>	[W]	270.1	273.8	277.6	281.3	285.1
Minimum	Short Circuit Current	Isc	[A]	9.06	9.08	9.11	9.14	9.16
	Open Circuit Voltage	V <sub>oc</sub>	[V]	38.85	38.88	38.91	38.95	38.98
	Current at MPP	IMPP	[A]	8.34	8.40	8.46	8.51	8.57
	Voltage at MPP	V <sub>MPP</sub>	[V]	32.37	32.60	32.83	33.05	33.28

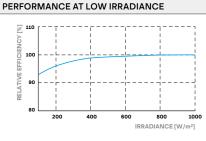
<sup>1</sup>Measurement tolerances P<sub>MPP</sub> ±3 %; I<sub>SC</sub>; V<sub>OC</sub> ±5% at STC: 1000 W/m<sup>2</sup>, 25±2 °C, AM 1.5 according to IEC 60904-3 • <sup>2</sup>800 W/m<sup>2</sup>, NMOT, spectrum AM 1.5

### Q CELLS PERFORMANCE WARRANTY



At least 98% of nominal power during first year. Thereafter max. 0.5% degradation per year. At least 93.5% of nominal power up to 10 years. At least 86% 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.



Typical module performance under low irradiance conditions in comparison to STC conditions (25 °C, 1000 W/m<sup>2</sup>).

#### **TEMPERATURE COEFFICIENTS**

Temperature Coefficient of I <sub>sc</sub>	α	[%/K]	+0.04	Temperature Coefficient of V <sub>oc</sub>	β	[%/K]	-0.27
Temperature Coefficient of P <sub>MPP</sub>	γ	[%/K]	-0.34	Nominal Module Operating Temperature	NMOT	[°C]	43±3

### **PROPERTIES FOR SYSTEM DESIGN**

Maximum System Voltage	$V_{\rm SYS}$	[V]	1000	PV module classification	Class II
Maximum Reverse Current	I <sub>R</sub>	[A]	20	Fire Rating based on ANSI / UL 61730	C/TYPE 2
Max. Design Load, Push/Pull		[Pa]	3600/2660	Permitted Module Temperature	-40°C - +85°C
Max. Test Load, Push / Pull		[Pa]	5400/4000	on Continuous Duty	

# **QUALIFICATIONS AND CERTIFICATES**



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 Malaysia

#### Hanwha Q CELLS Australia Pty Ltd

IEC 61215:2016; IEC 61730:2016

Hanwha Q CELLS Australia Pty Ltd

This data sheet complies

with DIN EN 50380.

Certification holder

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