

powered by

**Q.ANTUM DUO**

# Q.MAXX 320-335

ENDURING HIGH  
PERFORMANCE



## 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 20.2%.



## INNOVATIVE ALL-WEATHER TECHNOLOGY

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



## ENDURING HIGH PERFORMANCE

Long-term performance 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

Inclusive 12-year product warranty and 25-year linear performance warranty<sup>1</sup>.



## 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



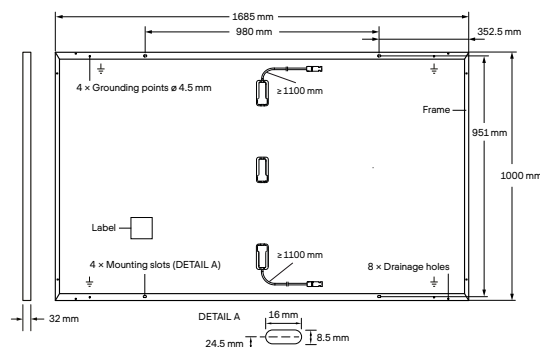
Rooftop arrays on  
commercial/industrial  
buildings

Engineered in Germany

**Q CELLS**

## MECHANICAL SPECIFICATION

Format	1685 mm × 1000 mm × 32 mm (including frame)
Weight	18.7 kg
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 mm <sup>2</sup> Solar cable; (+) ≥ 1100 mm, (-) ≥ 1100 mm
Connector	Stäubli MC4; IP68

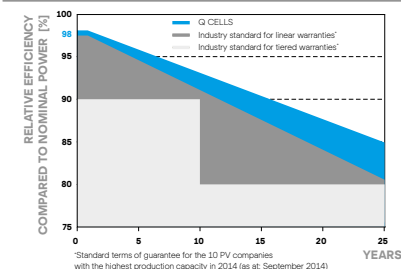


## ELECTRICAL CHARACTERISTICS

POWER CLASS		320	325	330	335
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC <sup>1</sup> (POWER TOLERANCE +5 W / -0 W)					
Minimum	Power at MPP <sup>1</sup>	P <sub>MPP</sub> [W]	320	325	330
	Short Circuit Current <sup>1</sup>	I <sub>SC</sub> [A]	10.04	10.10	10.15
	Open Circuit Voltage <sup>1</sup>	V <sub>OC</sub> [V]	40.10	40.36	40.62
	Current at MPP	I <sub>MPP</sub> [A]	9.56	9.61	9.67
	Voltage at MPP	V <sub>MPP</sub> [V]	33.47	33.81	34.14
	Efficiency <sup>1</sup>	η [%]	≥ 19.0	≥ 19.3	≥ 19.6
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT <sup>2</sup>					
Minimum	Power at MPP	P <sub>MPP</sub> [W]	239.2	242.9	246.6
	Short Circuit Current	I <sub>SC</sub> [A]	8.09	8.14	8.18
	Open Circuit Voltage	V <sub>OC</sub> [V]	37.81	38.06	38.31
	Current at MPP	I <sub>MPP</sub> [A]	7.52	7.57	7.61
	Voltage at MPP	V <sub>MPP</sub> [V]	31.79	32.11	32.42

<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

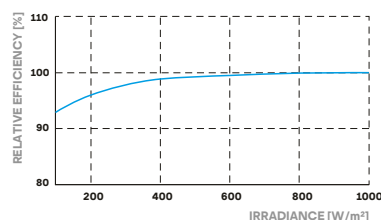
### Q CELLS PERFORMANCE WARRANTY



At least 98% of nominal power during first year. Thereafter max. 0.54% 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°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]	-0.36	Nominal Module Operating Temperature	NMOT	[°C]	43 ± 3

## PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage	V <sub>sys</sub>	[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 / 2667	Permitted Module Temperature on Continuous Duty	-40°C - +85°C
Max. Test Load, Push / Pull		[Pa]	5400 / 4000		

## QUALIFICATIONS AND CERTIFICATES

VDE Quality Tested,  
IEC 61215:2016;  
IEC 61730:2016.  
This data sheet complies  
with DIN EN 50380.



## PACKAGING INFORMATION

Vertical packaging	1745 mm	1130 mm	1170 mm	639 kg	30 pallets	26 pallets	32 modules
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**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 China**

**Hanwha Q CELLS Australia Pty Ltd**

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