

Q.MAXX-G5+ SERIES



415 Wp | 108 Cells
21.3% Maximum Module Efficiency

MODEL Q.MAXX-G5+



A reliable investment

Inclusive 25-year product warranty and 25-year linear performance warranty¹.



Enduring high performance

Long-term yield security with Anti LeTID Technology and Hot-Spot Protect.



The most thorough testing programme in the industry

Qcells is the first solar module manufacturer to pass the most comprehensive quality programme in the industry: The new "Quality Controlled PV" of the independent certification institute TÜV Rheinland.



More suitable size for residential installation

With its length less than 1722 mm, Q.MAXX-G5+ provides with easier system designs and installations.



Breaking the 21% efficiency barrier

Q.ANTUM DUO Technology with optimized module layout boosts module power.



Extreme weather rating

High-tech aluminium alloy frame, certified for high snow (8100 Pa) and wind loads (4000 Pa).



Innovative all-weather technology

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

¹ See data sheet on rear for further information.

The ideal solution for:



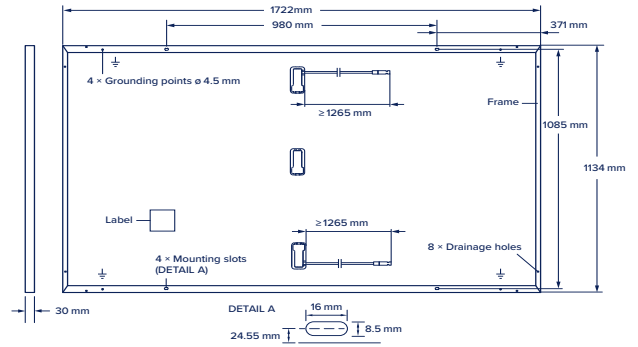
Rooftop arrays on residential buildings



Q.MAXX-G5+ SERIES

Mechanical Specification

Format	1722 mm × 1134 mm × 30 mm (including frame)
Weight	21.1kg
Front Cover	3.2 mm thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Black anodised aluminium
Cell	6 × 18 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 ² Solar cable; (+) ≥1265 mm, (-) ≥1265 mm
Connector	Stäubli MC4, Hanwha Q CELLS HQC4; IP68



Electrical Characteristics

POWER CLASS

415

MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5W/-5W)

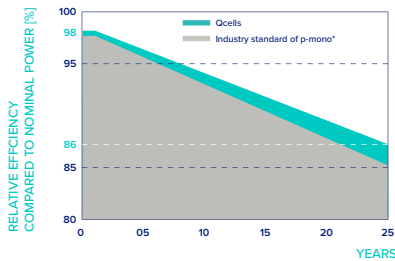
Minimum	Power at MPP ¹	P_{MPP}	[W]	415
	Short Circuit Current ¹	I_{SC}	[A]	13.99
	Open Circuit Voltage ¹	V_{OC}	[V]	37.14
	Current at MPP	I_{MPP}	[A]	13.37
	Voltage at MPP	V_{MPP}	[V]	31.05
	Efficiency ¹	η	[%]	≥21.3

MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT²

Minimum	Power at MPP	P_{MPP}	[W]	311.3
	Short Circuit Current	I_{SC}	[A]	11.27
	Open Circuit Voltage	V_{OC}	[V]	35.03
	Current at MPP	I_{MPP}	[A]	10.53
	Voltage at MPP	V_{MPP}	[V]	29.56

Measurement tolerances $P_{MPP} \pm 3\%$; I_{SC} ; $V_{OC} \pm 5\%$ at STC: 1000 W/m², 25 ± 2 °C, AM 1.5 according to IEC 60904-3 • 2800 W/m², NMOT, spectrum AM 1.5

Qcells PERFORMANCE WARRANTY

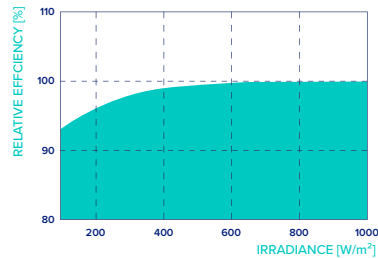


At least 98% of nominal power during first year. Thereafter max. 0.5% degradation per year. At least 93.5% of nominal power up to 10 years. At least 86% of nominal power up to 25 years.

All data within measurement tolerances. Full warranties in accordance with the warranty terms of the Qcells sales organisation of your respective country.

¹Standard terms of guarantee for the 5 PV companies with the highest production capacity in 2021 (February 2021)

PERFORMANCE AT LOW IRRADIANCE



Typical module performance under low irradiance conditions in comparison to STC conditions (25 °C, 1000 W/m²).

TEMPERATURE COEFFICIENTS

Temperature Coefficient of I_{SC}	α	[%/K]	+0.04	Temperature Coefficient of V_{OC}	β	[%/K]	-0.27
Temperature Coefficient of P_{MPP}	γ	[%/K]	-0.34	Nominal Module Operating Temperature	NMOT	[°C]	43 ± 3

Properties for System Design

Maximum System Voltage	V_{SYS}	[V]	1000	PV module classification	Class II
Maximum Reverse Current	I_R	[A]	25	Fire Rating based on ANSI/UL 61730	C/TYPE 2
Max. Design Load, Push/Pull	[Pa]	5400/2665	Permitted Module Temperature on Continuous Duty	-40 °C - +85 °C	
Max. Test Load, Push/Pull	[Pa]	8100/4000			

Qualifications and Certificates

Quality Controlled PV - TÜV Rheinland; IEC 61215:2016; IEC 61730:2016. This data sheet complies with DIN EN 50380.



Made in China

Packaging Information



Qcells pursues minimizing paper output in consideration of the global environment.

Note: Installation instructions must be followed. Contact our technical service for further information on approved installation of this product.

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