Q.MAXX-G4+ SERIES

405 - 415 Wp | 108 Cells
21.6 % Maximum Module Efficiency

MODEL Q.MAXX-G4+

A reliable investment

Inclusive 25-year product warranty and 25-year linear performance warranty[1].

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 1700 mm, Q.MAXX-G4+ provides with easier system designs and installations.

Breaking the 21% efficiency barrier

Q.ANTUM DUO Z technology with zero gap cell layout boosts module efficiency up to 21.6 %.

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:

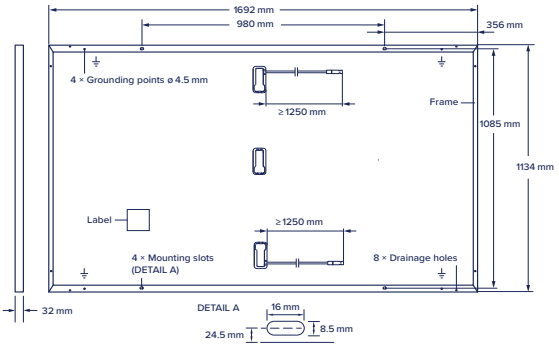
Rooftop arrays on residential buildings

Rooftop arrays on commercial / industrial buildings

Q.MAXX-G4+ SERIES

Mechanical Specification

Format	1692 mm × 1134 mm × 32 mm (including frame)
Weight	20.9 kg
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 mm² Solar cable; (+) ≥1250 mm, (−) ≥1250 mm
Connector	Stäubli MC4, Hanwha Q CELLS HQC4; IP68

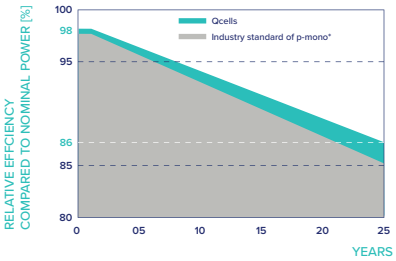


Electrical Characteristics

POWER CLASS			405	415
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC[1] (POWER TOLERANCE +5 W / −5 W)				
Minimum — Power at MPP[1]	P_{MPP}	[W]	405	415
Minimum — Short Circuit Current[1]	I_{SC}	[A]	13.57	13.65
Minimum — Open Circuit Voltage[1]	V_{OC}	[V]	37.18	37.24
Minimum — Current at MPP	I_{MPP}	[A]	12.97	13.11
Minimum — Voltage at MPP	V_{MPP}	[V]	31.22	31.65
Minimum — Efficiency[1]	η	[%]	≥21.1	≥21.6
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT[2]				
Minimum — Power at MPP	P_{MPP}	[W]	303.8	311.3
Minimum — Short Circuit Current	I_{SC}	[A]	10.94	11.00
Minimum — Open Circuit Voltage	V_{OC}	[V]	35.07	35.12
Minimum — Current at MPP	I_{MPP}	[A]	10.22	10.35
Minimum — Voltage at MPP	V_{MPP}	[V]	29.72	30.09

[1]Measurement tolerances P_{MPP} ±3%; I_{SC}; V_{OC} ±5% at STC: 1000 W/m², 25±2 °C, AM 1.5 according to IEC 60904-3 • [2]800 W/m², NMOT, spectrum AM 1.5

Qcells PERFORMANCE WARRANTY

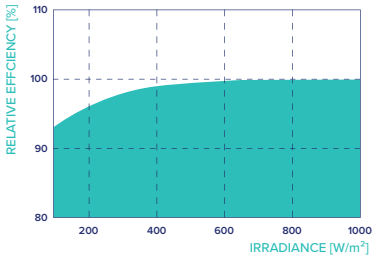


At least 98% of nominal power during first year. Thereafter max. 0.5% degradation per year. At least 93.5% of nominal power up to 10 years. At least 86% of nominal power up to 25 years.

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

*Standard 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 / 2660	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.

TÜV Rheinland CERTIFIED
www.tuv.com ID 1111225531

Made in China

Packaging Information

1734mm	1120mm	1270mm	727kg	30 pallets	26 pallets	33 modules

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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