Q.PEAK DUO ML-G11S+ SERIES

480 - 505 Wp | 132 Cells
21.3 % Maximum Module Efficiency

MODEL Q.PEAK DUO ML-G11S.2+

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.

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 (5400 Pa) and wind loads (2400 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.

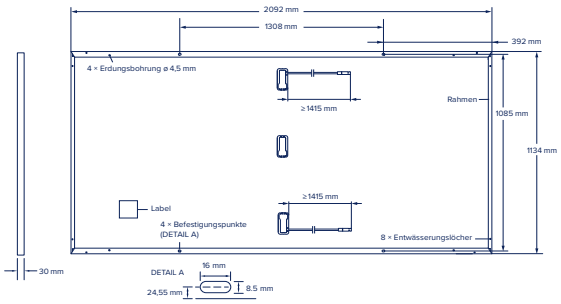
The ideal solution for:

Rooftop arrays on commercial/industrial buildings

Q.PEAK DUO ML-G11S+ SERIES

Mechanical Specification

Format	2092 mm × 1134 mm × 30 mm (including frame)
Weight	25.7 kg
Front Cover	3.2 mm thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Anodized aluminium
Cell	6 × 22 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; (+) ≥1415 mm, (−) ≥1415 mm
Connector	Stäubli MC4-Evo2, Hanwha Q CELLS HQC4; IP68

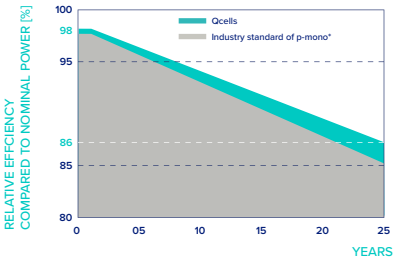


Electrical Characteristics

POWER CLASS				480	485	490	495	500	505
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC[1] (POWER TOLERANCE +5 W / −0 W)									
Minimum	Power at MPP[1]	P_{MPP}	[W]	480	485	490	495	500	505
	Short Circuit Current[1]	I_{SC}	[A]	13.82	13.85	13.88	13.91	13.94	13.97
	Open Circuit Voltage[1]	V_{OC}	[V]	45.24	45.27	45.3	45.32	45.35	45.38
	Current at MPP	I_{MPP}	[A]	13.05	13.11	13.16	13.22	13.28	13.34
	Voltage at MPP	V_{MPP}	[V]	36.79	37.01	37.23	37.44	37.66	37.87
	Efficiency[1]	η	[%]	≥20.2	≥20.4	≥20.7	≥20.9	≥21.1	≥21.3
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT[2]									
Minimum	Power at MPP	P_{MPP}	[W]	360.1	363.9	367.6	371.4	375.1	378.9
	Short Circuit Current	I_{SC}	[A]	11.13	11.16	11.18	11.21	11.23	11.26
	Open Circuit Voltage	V_{OC}	[V]	42.66	42.69	42.72	42.74	42.77	42.79
	Current at MPP	I_{MPP}	[A]	10.25	10.30	10.35	10.4	10.45	10.5
	Voltage at MPP	V_{MPP}	[V]	35.14	35.33	35.52	35.71	35.89	36.07

[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

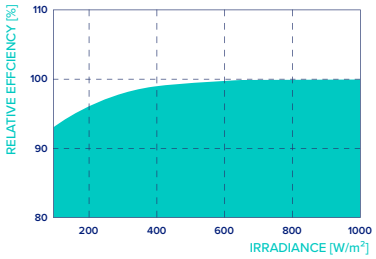


At least 98% of nominal power during first year. Thereafter max. 0.5% degradation per year. At least 93.5% of nominal power up to 10 years. At least 86% of nominal power up to 25 years.

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]	1500	PV module classification	Class II
Maximum Reverse Current	I_R	[A]	25	Fire Rating based on ANSI / UL 61730	C / TYPE 1
Max. Design Load, Push / Pull		[Pa]	3600 / 1600	Permitted Module Temperature on Continuous Duty	−40 °C - +85 °C
Max. Test Load, Push / Pull		[Pa]	5400 / 2400		

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

TÜVRheinland CERTIFIED
www.tuv.com
ID 1111225531

CE

Packaging Information

2138 mm	1130 mm	1270 mm	969.2 kg	24 pallets	22 pallets	36 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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