

# Q.PEAK DUO M-G11S+ SERIES



400 - 420 Wp | 108 Cells  
21.5 % Maximum Module Efficiency

MODEL Q.PEAK DUO M-G11S+



## Breaking the 21% efficiency barrier

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



**Warranty**  
Product & Performance

## A reliable investment

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



## Enduring high performance

Long-term yield security with Anti LeTID Technology, Anti PID Technology<sup>2</sup>, and Hot-Spot Protect.



## Extreme weather rating

High-tech aluminium alloy frame, certified for high snow (5400 Pa) and wind loads (3600 Pa).



## Innovative all-weather technology

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



## 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.

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

<sup>2</sup> APT test conditions according to IEC/TS 62804-1:2015, method A (~1500V, 96h)

### The ideal solution for:



Rooftop arrays on residential buildings



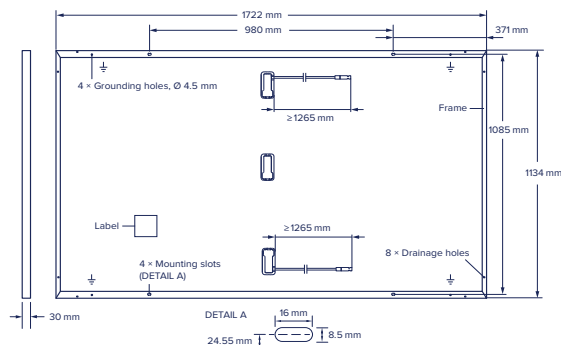
Rooftop arrays on commercial/industrial buildings



# Q.PEAK DUO M-G11S+ SERIES

## Mechanical Specification

Format	1722 mm × 1134 mm × 30 mm (including frame)
Weight	21.1 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 mm <sup>2</sup> Solar cable; (+) ≥1265 mm, (-) ≥1265 mm
Connector	Stäubli MC4, Hanwha Q CELLS HQC4; IP68



## Electrical Characteristics

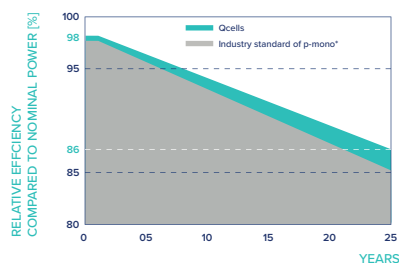
POWER CLASS			400	405	410	415	420
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC <sup>1</sup> (POWER TOLERANCE +5 W/-0 W)							
Minimum	Power at MPP <sup>1</sup>	$P_{MPP}$ [W]	400	405	410	415	420
	Short Circuit Current <sup>1</sup>	$I_{SC}$ [A]	13.88	13.91	13.95	13.99	14.03
	Open Circuit Voltage <sup>1</sup>	$V_{OC}$ [V]	37.06	37.09	37.11	37.14	37.17
	Current at MPP	$I_{MPP}$ [A]	13.16	13.23	13.30	13.37	13.44
	Voltage at MPP	$V_{MPP}$ [V]	30.40	30.62	30.83	31.05	31.26
	Efficiency <sup>1</sup>	$\eta$ [%]	≥20.5	≥20.7	≥21.0	≥21.3	≥21.5

MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT<sup>2</sup>

Minimum	Power at MPP	$P_{MPP}$ [W]	300.1	303.8	307.6	311.3	315.1
	Short Circuit Current	$I_{SC}$ [A]	11.18	11.21	11.24	11.27	11.30
	Open Circuit Voltage	$V_{OC}$ [V]	34.95	34.97	35.00	35.03	35.05
	Current at MPP	$I_{MPP}$ [A]	10.34	10.41	10.47	10.53	10.59
	Voltage at MPP	$V_{MPP}$ [V]	29.01	29.20	29.38	29.56	29.74

<sup>1</sup>Measurement tolerances  $P_{MPP} \pm 3\%$ ;  $I_{SC}$ ;  $V_{OC} \pm 5\%$  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

## Qcells PERFORMANCE WARRANTY

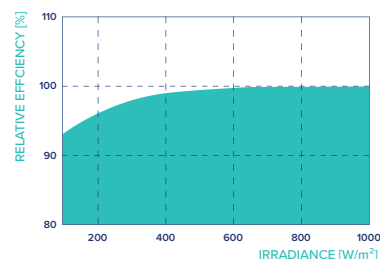


At least 98% of nominal power during first year. Thereafter max. 0.5% degradation per year. At least 93.5% of nominal power up to 10 years. At least 86% of nominal power up to 25 years.

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

<sup>\*</sup>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/m<sup>2</sup>).

## TEMPERATURE COEFFICIENTS

Temperature Coefficient of $I_{SC}$	$\alpha$ [%/K]	+0.04	Temperature Coefficient of $V_{OC}$	$\beta$ [%/K]	-0.27
Temperature Coefficient of $P_{MPP}$	$\gamma$ [%/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]	3600/2400	Permitted Module Temperature on Continuous Duty	-40 °C - +85 °C
Max. Test Load, Push/Pull	[Pa]	5400/3600		

## Qualifications and Certificates

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



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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