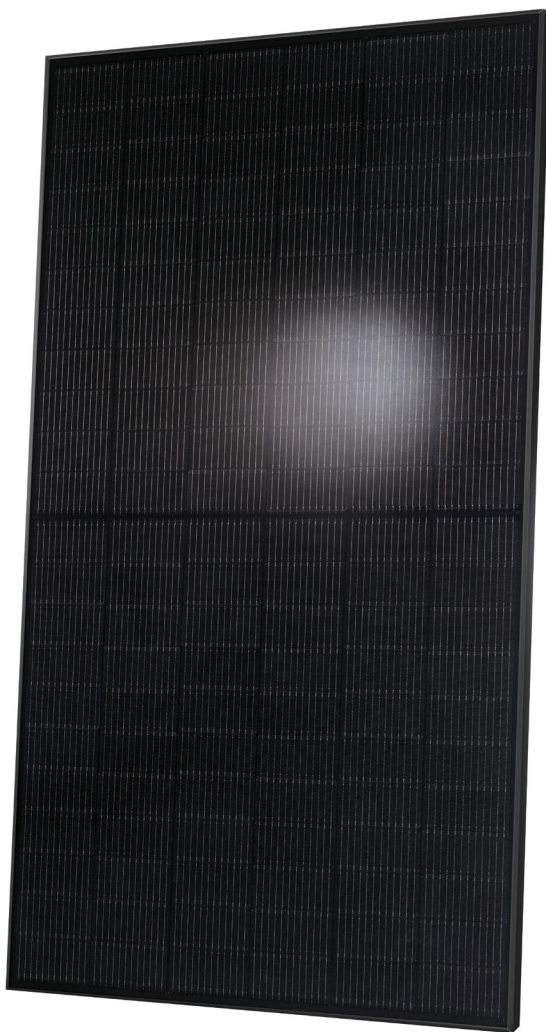


# Q.PEAK DUO BLK ML-G10+ SERIES



390 - 410 Wp | 132 Cells  
20.9% Maximum Module Efficiency

MODEL Q.PEAK DUO BLK ML-G10+/t



## Breaking the 20% efficiency barrier

Q.ANTUM DUO Z Technology with zero gap cell layout boosts module efficiency up to 20.9%.



## 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 (4000 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:



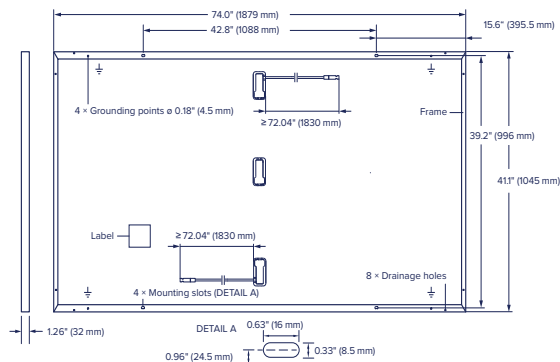
Rooftop arrays on residential buildings



# Q.PEAK DUO BLK ML-G10+ SERIES

## Mechanical Specification

Format	74.0 in × 41.1 in × 1.26 in (including frame) (1879 mm × 1045 mm × 32 mm)
Weight	48.5 lbs (22.0 kg)
Front Cover	0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology
Back Cover	Transparent composite film with black grid
Frame	Black anodised aluminium
Cell	6 × 22 monocrystalline Q.ANTUM solar half cells
Junction box	2.09-3.98 in × 1.26-2.36 in × 0.59-0.71 in (53-101 mm × 32-60 mm × 15-18 mm), IP67, with bypass diodes
Cable	4 mm <sup>2</sup> Solar cable; (+) ≥ 72.04 in (1830 mm), (-) ≥ 72.04 in (1830 mm)
Connector	Stäubli MC4; IP68



## Electrical Characteristics

POWER CLASS		390	395	400	405	410	
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC <sup>1</sup> (POWER TOLERANCE +5W/-0W)							
Minimum	Power at MPP <sup>1</sup>	$P_{MPP}$ [W]	390	395	400	405	410
	Short Circuit Current <sup>1</sup>	$I_{SC}$ [A]	11.01	11.04	11.07	11.10	11.13
	Open Circuit Voltage <sup>1</sup>	$V_{OC}$ [V]	45.49	45.52	45.55	45.59	45.62
	Current at MPP	$I_{MPP}$ [A]	10.39	10.45	10.50	10.56	10.61
	Voltage at MPP	$V_{MPP}$ [V]	37.54	37.81	38.09	38.36	38.63
	Efficiency <sup>1</sup>	$\eta$ [%]	≥ 19.9	≥ 20.1	≥ 20.4	≥ 20.6	≥ 20.9

Bifaciality of  $P_{MPP}$  and  $I_{SC}$  70% ± 10% • Bifaciality given for rear side irradiation on top of STC (front side) • According to IEC 60904-1-2 according to IEC 60904-3

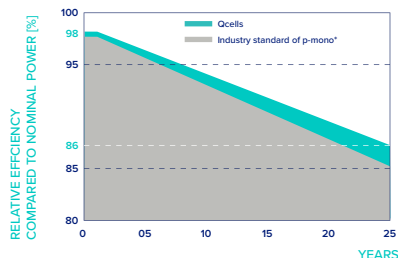
<sup>1</sup>Measurement tolerances  $P_{MPP}$  ± 3%;  $I_{SC}$ ,  $V_{OC}$  ± 5% at STC: 1000 W/m<sup>2</sup>; \*at BSTC: 1000 W/m<sup>2</sup> +  $\phi$  × 135 W/m<sup>2</sup>,  $\phi$  = 70%, 25 ± 2°C, AM 1.5 according to IEC 60904-3

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

Minimum	Power at MPP	$P_{MPP}$ [W]	292.6	296.3	300.1	303.8	307.6
	Short Circuit Current	$I_{SC}$ [A]	8.87	8.89	8.92	8.94	8.97
	Open Circuit Voltage	$V_{OC}$ [V]	42.90	42.93	42.96	42.99	43.03
	Current at MPP	$I_{MPP}$ [A]	8.16	8.21	8.26	8.31	8.36
	Voltage at MPP	$V_{MPP}$ [V]	35.86	36.10	36.33	36.57	36.80

<sup>1</sup>Measurement tolerances  $P_{MPP}$  ± 3%;  $I_{SC}$ ,  $V_{OC}$  ± 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

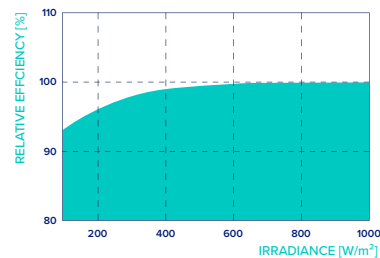


At least 98% of nominal power during first year. Thereafter max. 0.5% degradation per year. At least 93.5% of nominal power up to 10 years. At least 86% of nominal power up to 25 years.

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

\*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 [°F]	109 ± 5.4 (43 ± 3°C)

## Properties for System Design

Maximum System Voltage	$V_{SYS}$ [V]	1000 (IEC)/1000 (UL)	PV module classification	Class II
Maximum Series Fuse Rating	[A DC]	20	Fire Rating based on ANSI/UL 61730	TYPE 2
Max. Design Load, Push/Pull <sup>3</sup>	[lbs/ft <sup>2</sup> ]	75 (3600 Pa)/55 (2660 Pa)	Permitted Module Temperature on Continuous Duty	-40°F up to +185°F (-40°C up to +85°C)
Max. Test Load, Push/Pull <sup>3</sup>	[lbs/ft <sup>2</sup> ]	113 (5400 Pa)/84 (4000 Pa)		

<sup>3</sup> See Installation Manual

## Qualifications and Certificates

UL61730-1 & UL61730-2, CE-compliant, Quality Controlled PV - TÜV Rheinland, IEC 61215:2016, IEC 61730:2016, U.S. Patent No. 9,893,215 (solar cells).



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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