# Q.PEAK DUO BLK ML-G10+ SERIES



385-415 Wp | 132 Cells 21.0% Maximum Module Efficiency

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





# Breaking the 21% efficiency barrier

Q.ANTUM DUO Z Technology with zero gap cell layout boosts module efficiency up to 21.0 %.



## 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.



#### 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 (-1500 V, 96h)



Rooftop arrays on residential buildings





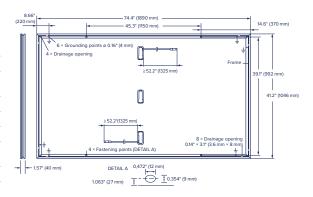






# ■ Mechanical Specification

Format	74.4 in $\times$ 41.2 in $\times$ 1.57 in (including frame) (1890 mm $\times$ 1046 mm $\times$ 40 mm)
Weight	51.8 lbs (23.5 kg)
Front Cover	0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
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	$4  \text{mm}^2$ Solar cable; (+) $\geq$ 52.2 in (1325 mm), (-) $\geq$ 52.2 in (1325 mm)
Connector	Stäubli MC4; IP68



#### **■ Electrical Characteristics**

IINIMUM PERFORMANCE AT STANDARD	TEST CONDITIONS, ST	C1 (POWER	TOLERANCE	+5 W/-0 W)					
Power at MPP <sup>1</sup>	$P_{MPP}$	[W]	385	390	395	400	405	410	415
Short Circuit Current <sup>1</sup>	I <sub>sc</sub>	[A]	11.04	11.07	11.10	11.14	11.17	11.20	11.23
Open Circuit Voltage <sup>1</sup>	V <sub>oc</sub>	[V]	45.19	45.23	45.27	45.3	45.34	45.37	45.41
Current at MPP	I <sub>MPP</sub>	[A]	10.59	10.65	10.71	10.77	10.83	10.89	10.95
Voltage at MPP	$V_{MPP}$	[V]	36.36	36.62	36.88	37.13	37.39	37.64	37.89
Efficiency <sup>1</sup>	η	[%]	≥19.5	≥19.7	≥20.0	≥20.2	≥20.5	≥20.7	≥21.0
IINIMUM PERFORMANCE AT NORMAL O	PERATING CONDITION	S, NMOT <sup>2</sup>							
Power at MPP	P <sub>MPP</sub>	[W]	288.8	292.6	296.3	300.1	303.8	307.6	311.3

8.90

42.62

34.59

8.35

8 92

42 65

8.41

34.81

 $V_{MPP}$ [V] ¹Measurement tolerances P<sub>MPP</sub> ±3%; I<sub>sc</sub>; V<sub>OC</sub> ±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

[A]

[V]

[A]

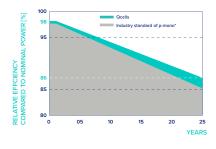
#### **Qcells PERFORMANCE WARRANTY**

**Short Circuit Current** 

**Open Circuit Voltage** 

**Current at MPP** 

Voltage at MPP



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.

 $V_{\text{\tiny OC}}$ 

 $I_{MPP}$ 

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

# PERFORMANCE AT LOW IRRADIANCE

8 95

42.69

8.46

35.03

8 97

42.72

8.51

35.25

9.00

42.76

8.57

35.46

9.03

42.79

8.62

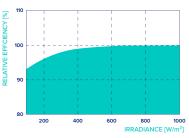
35.68

9.05

42 83

8.68

35.89



Typical module performance under low irradiance conditions in comparison to STC conditions ( $25\,^{\circ}\text{C}$ ,  $1000\,\text{W/m}^2$ ).

*Standard terms of	guarantee t	for the 5 PV	companies with t	
highest production	capacity in	2021 (Febru	Jary 2021)	

TEMPERATURE COEFFICIENTS							
Temperature Coefficient of I <sub>sc</sub>	α	[%/K]	+0.04	Temperature Coefficient of $V_{\rm oc}$	β	[%/K]	-0.27
Temperature Coefficient of P <sub>MPP</sub>	γ	[%/K]	-0.34	Nominal Module Operating Temperature	NMOT	[°F]	109±5.4

## ■ Properties for System Design

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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/ft²]	75 (3600 Pa)/75 (3600 Pa)	Permitted Module Temperature	−40°F up to +185°F
Max. Test Load, Push/Pull <sup>3</sup>		[lbs/ft²]	112 (5400 Pa)/112 (5400 Pa)	on Continuous Duty	(-40°C up to +85°C)

<sup>&</sup>lt;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),







\*Contact your Qcells Sales Representative for details regarding the module's eligibility to be Buy American Act (BAA) compliant.