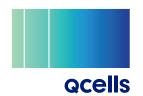
# Q.PEAK DUO BLK ML-G10+ SERIES



385-410 Wp | 132 Cells 20.9 % Maximum Module Efficiency

MODEL Q.PEAK DUO BLK ML-G10+







12 busbar cell technology



### 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  $^{\mbox{\scriptsize 1}}$ .



### **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.











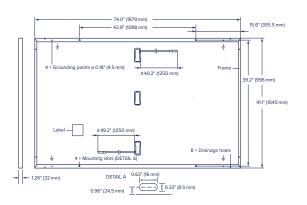
<sup>&</sup>lt;sup>1</sup> See data sheet on rear for further information.

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

### **Q.PEAK DUO BLK ML-G10+ SERIES**

### ■ Mechanical Specification

Format	74.0 in $\times$ 41.1 in $\times$ 1.26 in (including frame) (1879 mm $\times$ 1045 mm $\times$ 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	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	$4 \text{ mm}^2 \text{ Solar cable; (+)} \ge 49.2 \text{ in (1250 mm), (-)} \ge 49.2 \text{ in (1250 mm)}$
Connector	Stäubli MC4; IP68



### ■ Electrical Characteristics

POWER CLASS			385	390	395	400	405	410
INIMUM PERFORMANCE AT STANDARD T	EST CONDITIONS, ST	C1 (POWER	TOLERANCE +5\	W/-0W)				
Power at MPP <sup>1</sup>	P <sub>MPP</sub>	[W]	385	390	395	400	405	410
Short Circuit Current <sup>1</sup>	I <sub>sc</sub>	[A]	11.04	11.07	11.10	11.14	11.17	11.20
Open Circuit Voltage <sup>1</sup>	V <sub>oc</sub>	[V]	45.19	45.23	45.27	45.30	45.34	45.37
Current at MPP	I <sub>MPP</sub>	[A]	10.59	10.65	10.71	10.77	10.83	10.89
Voltage at MPP	V <sub>MPP</sub>	[V]	36.36	36.62	36.88	37.13	37.39	37.64
Efficiency <sup>1</sup>	η	[%]	≥19.6	≥19.9	≥20.1	≥20.4	≥20.6	≥20.9
MINIMUM PERFORMANCE AT NORMAL OPI	ERATING CONDITION	S, NMOT <sup>2</sup>						
Power at MPP	$P_{MPP}$	[W]	288.8	292.6	296.3	300.1	303.8	307.6
Short Circuit Current	I <sub>sc</sub>	[A]	8.90	8.92	8.95	8.97	9.00	9.03
Open Circuit Voltage	V <sub>oc</sub>	[V]	42.62	42.65	42.69	42.72	42.76	42.79

8.35

34.59

 $^{1}\text{Measurement tolerances P}_{\text{MPP}}\pm3\%; I_{\text{SC}}; V_{\text{OC}}\pm5\% \text{ at STC: } 1000 \text{ W/m}^{2}, 25\pm2\text{ °C}, \text{AM 1.5 according to IEC } 60904-3 \bullet ^{2}800 \text{ W/m}^{2}, \text{NMOT, spectrum AM 1.5 according to IEC } 1000 \text{ W/m}^{2}, \text{NMOT, spectrum AM 1.5 according to IEC } 1000 \text{ W/m}^{2}, \text{NMOT, spectrum AM 1.5 } 1000 \text{ W$ 

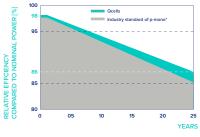
[A]

[V]

### **Qcells PERFORMANCE WARRANTY**

**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.

 $I_{\mathrm{MPP}}$ 

 $V_{MPP}$ 

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



8.46

35.03

8.51

35.25

8.57

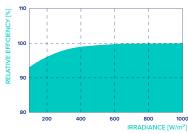
35.46

8.62

35.68

8.41

34.81



Typical module performance under low irradiance conditions in comparison to STC conditions (25°C, 1000 W/m²).

YEARS COL	П
*Standard terms of guarantee for the 5 PV companies with the highest production capacity in 2021 (February 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 (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/ft²]	75 (3600 Pa)/55 (2660 Pa)	Permitted Module Temperature	−40°F up to +185°F
Max Test Load Push / Pull3		[lbs/ft²]	113 (5400 Pa) / 84 (4000 Pa)	on Continuous Duty	(-40°C up to +85°C)

<sup>&</sup>lt;sup>3</sup> See Installation Manual

### ■ Qualifications and Certificates

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











**ocells**