# Q.PEAK DUO BLK ML-G10+ SERIES



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

MODEL Q.PEAK DUO BLK ML-G10+



6 busbar cell technology



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<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 (~1500 V, 96 h)



The ideal solution for:

Rooftop arrays on residential buildings



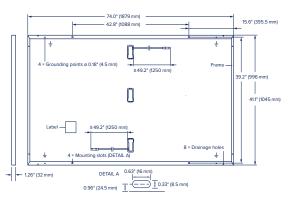




## **Q.PEAK DUO BLK ML-G10+ SERIES**

### 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	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; (+) $\geq$ 49.2 in (1250 mm), (-) $\geq$ 49.2 in (1250 mm)
Connector	Stäubli MC4; IP68



### Electrical Characteristics

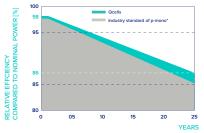
PC	WER CLASS			385	390	395	400	405	410
MIN	VIMUM PERFORMANCE AT STANDARD TEST CONE	DITIONS, ST	C1 (POWER	TOLERANCE +5 V	N/-0W)				
	Power at MPP <sup>1</sup>	P <sub>MPP</sub>	[W]	385	390	395	400	405	410
_	Short Circuit Current <sup>1</sup>	I <sub>sc</sub>	[A]	11.04	11.07	11.10	11.14	11.17	11.20
- nn	Open Circuit Voltage <sup>1</sup>	V <sub>oc</sub>	[V]	45.19	45.23	45.27	45.30	45.34	45.37
linir	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 OPERATING CONDITIONS, NMOT<sup>2</sup>

	Power at MPP	P <sub>MPP</sub>	[W]	288.8	292.6	296.3	300.1	303.8	307.6
Ę	Short Circuit Current	Isc	[A]	8.90	8.92	8.95	8.97	9.00	9.03
Minimu	Open Circuit Voltage	V <sub>oc</sub>	[V]	42.62	42.65	42.69	42.72	42.76	42.79
	Current at MPP	I <sub>MPP</sub>	[A]	8.35	8.41	8.46	8.51	8.57	8.62
	Voltage at MPP	V <sub>MPP</sub>	[V]	34.59	34.81	35.03	35.25	35.46	35.68

 $^{1}\text{Measurement tolerances P}_{\text{\tiny MPP}} \pm 3\%; \text{I}_{\text{sc}}; \text{V}_{\text{oc}} \pm 5\% \text{ at STC: } 1000 \text{ W/m}^2, 25 \pm 2\,^{\circ}\text{C}, \text{AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectrum AM 1.5 according to IEC 60904-3} \cdot ^{2}800 \text{ W/m}^2, \text{NMOT, spectru$ 

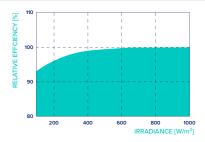
#### **Qcells PERFORMANCE WARRANTY**



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.

#### 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 Temperat

TEMPERATORE COEFFICIENTS							
Temperature Coefficient of I <sub>sc</sub>	α	[%/K]	+0.04	Temperature Coefficient of $V_{oc}$	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

\*Standard terms of guarantee for the 5 PV companies with the highest production capacity in 2021 (February 2021)

Maximum System Voltage	$V_{\text{sys}}$	[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	–40°F up to +185°F
Max. Test Load, Push/Pull <sup>3</sup>		[lbs/ft <sup>2</sup> ]	113 (5400 Pa)/84 (4000 Pa)	on Continuous Duty	(-40°C up to +85°C)

<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),





**Qcells** 

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. Hanwha Q CELLS America Inc. 400 Spectrum Center Drive, Suite 1400, Irvine, CA 92618, USA | TEL +1 949 748 59 96 | EMAIL hqc-inquiry@qcells.com | WEB www.qcells.com