# Q.PEAK DUO BLK ML-G10+ SERIES



385-405 Wp | 132 Cells 20.6 % Maximum Module Efficiency

MODEL

Q.PEAK DUO BLK ML-G10+ Q.PEAK DUO BLK ML-G10.4+





#### Breaking the 20% efficiency barrier

Q.ANTUM DUO Z technology with zero gap cell layout boosts module efficiency up to  $20.6\,\%$ .



#### 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.









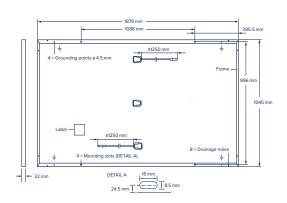
<sup>&</sup>lt;sup>1</sup> See data sheet on rear for further information.

<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	1879 mm × 1045 mm × 32 mm (including frame)
Weight	22.0 kg
Front Cover	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	53-101 mm × 32-60 mm × 15-18 mm Protection class IP67, with bypass diodes
Cable	4 mm² Solar cable; (+) ≥1250 mm, (-) ≥1250 mm
Connector	Stäubli MC4; IP68



#### **■ Electrical Characteristics**

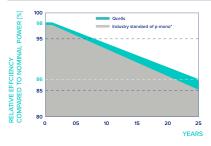
PC	OWER CLASS			385	390	395	400	405		
MIN	MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC1 (POWER TOLERANCE +5 W/-0 W)									
	Power at MPP <sup>1</sup>	P <sub>MPP</sub>	[W]	385	390	395	400	405		
_	Short Circuit Current <sup>1</sup>	I <sub>sc</sub>	[A]	11.04	11.07	11.10	11.14	11.17		
n I	Open Circuit Voltage <sup>1</sup>	V <sub>oc</sub>	[V]	45.19	45.23	45.27	45.30	45.34		
i i	Current at MPP	I <sub>MPP</sub>	[A]	10.59	10.65	10.71	10.77	10.83		
2	Voltage at MPP	V <sub>MPP</sub>	[V]	36.36	36.62	36.88	37.13	37.39		
	Efficiency <sup>1</sup>	η	[%]	≥19.6	≥19.9	≥20.1	≥20.4	≥20.6		

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

Power at MPP  Short Circuit Current  Open Circuit Voltage  Current at MPP  Voltage at MPP	Power at MPP	$P_{MPP}$	[W]	288.8	292.6	296.3	300.1	303.8
	Short Circuit Current	I <sub>sc</sub>	[A]	8.9	8.92	8.95	8.97	9.00
	Open Circuit Voltage	V <sub>oc</sub>	[V]	42.62	42.65	42.69	42.72	42.76
	Current at MPP	I <sub>MPP</sub>	[A]	8.35	8.41	8.46	8.51	8.57
	Voltage at MPP	$V_{MPP}$	[V]	34.59	34.81	35.03	35.25	35.46

 $^{1}\text{Measurement tolerances P}_{\text{MPP}} \pm 3\,\%; I_{\text{SC}}; V_{\text{OC}} \pm 5\,\% \text{ at STC: } 1000\,\text{W/m}^{2}, 25 \pm 2\,^{\circ}\text{C}, \text{AM 1.5 according to IEC 60904-3} \bullet ^{2}800\,\text{W/m}^{2}, \text{NMOT, spectrum AM 1.5}$ 

#### **Qcells PERFORMANCE WARRANTY**

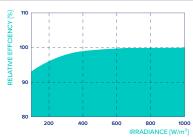


At least 98% of nominal power during first year. Thereafter max. 0.5% degradation per year. At least 93.5% of nominal power up to 10 years. At least 86% of nominal power up to 25 years.

All data within measurement tolerances. Full warranties in accordance with the warranty terms of the Ocells 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 ( $25\,^{\circ}\text{C}$ ,  $1000\,\text{W/m}^2$ ).

TEMPERATURE COEFFICIENTS							
Temperature Coefficient of I <sub>sc</sub>	α	[%/K]	+0.04	Temperature Coefficient of V <sub>oc</sub>	β	[%/K]	-0.27
Temperature Coefficient of P <sub>MPP</sub>	γ	[%/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 <sub>R</sub>	[A]	20	Fire Rating based on ANSI/UL 61730	C/TYPE 2
Max. Design Load, Push/Pull		[Pa]	3600/2660	Permitted Module Temperature	-40°C - +85°C
Max. Test Load. Push/Pull		[Pa]	5400/4000	on Continuous Duty	

#### ■ Qualifications and Certificates

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







*<u>acells</u>*