# Q.PEAK DUO M-G11 **SERIES**



390-410 Wp | 108 Cells 21.4% Maximum Module Efficiency

MODEL Q.PEAK DUO M-G11





## Breaking the 21% efficiency barrier

Q.ANTUM DUO Z technology with zero gap cell layout boosts module efficiency up to 21.4%.



### **Enduring high performance**

Long-term yield security with Anti LeTID Technology, Anti PID Technology<sup>1</sup> and Hot-Spot Protect.



### Extreme weather rating

High-tech aluminium alloy frame, certified for high snow (5400 Pa) and wind loads (3600 Pa).



# Innovative all-weather technology

Optimal yields, whatever the weather with excellent low-light and temperature behaviour.



#### A reliable investment

Inclusive 12-year product warranty and 25-year linear performance warranty<sup>2</sup>.



# 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.











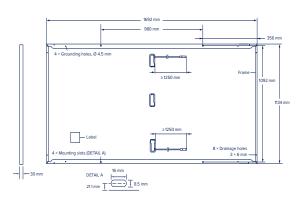


 $<sup>^{\</sup>rm I}$  APT test conditions according to IEC/TS 62804-1:2015, method A (–1500 V, 96 h)  $^{\rm 2}$  See data sheet on rear for further information.

# **Q.PEAK DUO M-G11 SERIES**

## ■ Mechanical Specification

Format	1692 mm × 1134 mm × 30 mm (including frame)
Weight	21.2 kg
Front Cover	3.2 mm thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Black anodised aluminium
Cell	6 × 18 monocrystalline Q.ANTUM solar half cells
Junction box	53-101 mm × 32-60 mm × 15-18 mm Protection class IP67, with bypass diodes
Cable	$4 \text{ mm}^2 \text{ Solar cable; (+)} \ge 1250 \text{ mm, (-)} \ge 1250 \text{ mm}$
Connector	Stäubli MC4, Hanwha Q CELLS HQC4; IP68



### **■ Electrical Characteristics**

POWER CLASS			390	395	400	405	410
MINIMUM PERFORMAN	CE AT STANDARD TEST CONDITIONS, ST	C1 (POWER TOLE	ERANCE +5 W/-0 W)				
Power at MPP <sup>1</sup>	$P_{MPP}$	[W]	390	395	400	405	410
Short Circuit Curre	ent¹ I <sub>SC</sub>	[A]	13.46	13.50	13.54	13.57	13.61
Open Circuit Volta	ge¹ V <sub>oc</sub>	[V]	37.10	37.13	37.16	37.18	37.21
Current at MPP	I <sub>MPP</sub>	[A]	12.76	12.83	12.90	12.97	13.04
Voltage at MPP	$V_{MPP}$	[V]	30.56	30.78	31.00	31.22	31.43
Efficiency <sup>1</sup>	η	[%]	≥20.3	≥20.6	≥20.8	≥21.1	≥21.4
MINIMUM PERFORMAN	CE AT NORMAL OPERATING CONDITION	S, NMOT <sup>2</sup>					
Power at MPP	$P_{MPP}$	[W]	292.6	296.3	300.1	303.8	307.6
Short Circuit Curre	ent I <sub>SC</sub>	[A]	10.85	10.88	10.91	10.94	10.97
Open Circuit Volta	ge V <sub>oc</sub>	[V]	34.99	35.01	35.04	35.07	35.09

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

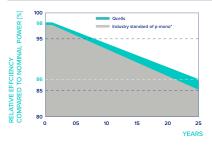
[A]

[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.

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

10.10

29.35

10.16

29.54

10.22

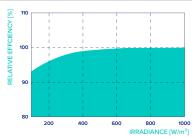
29.72

10.28

29.91

10.03

29.16



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]	25	Fire Rating based on ANSI/UL 61730	C/TYPE 2
Max. Design Load, Push/Pull		[Pa]	3600/2400	Permitted Module Temperature	−40°C - +85°C
Max. Test Load. Push/Pull		[Pa]	5400/3600	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.







**ocells**