

# Q.PEAK DUO BLK ML-G9+

365-385

ENDURING HIGH PERFORMANCE









# **BREAKING THE 20% EFFICIENCY BARRIER**

Q.ANTUM DUO Z Technology with zero gap cell layout boosts module efficiency up to 20.6%.



#### **INNOVATIVE ALL-WEATHER TECHNOLOGY**

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



#### **ENDURING HIGH PERFORMANCE**

Long-term yield security with Anti LID Technology, Anti PID Technology $^{\rm l}$ , Hot-Spot Protect and Traceable Quality Tra.Q $^{\rm TM}$ .



## **EXTREME WEATHER RATING**

High-tech aluminum alloy frame, certified for high snow (6000 Pa) and wind loads (4000 Pa).



#### A RELIABLE INVESTMENT

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



# STATE OF THE ART MODULE TECHNOLOGY

Q.ANTUM DUO combines cutting edge cell separation and innovative 12-busbar design with Q.ANTUM Technology.

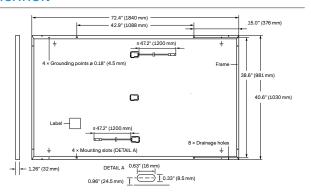


 $<sup>^{\</sup>rm 2}$  See data sheet on rear for further information.

# THE IDEAL SOLUTION FOR:





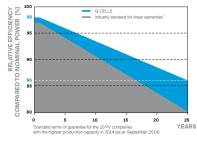


#### **ELECTRICAL CHARACTERISTICS**

WER CLASS			365	370	375	380	385
NIMUM PERFORMANCE AT STANDAR	D TEST CONDITIO	NS, STC1 (PO	WER TOLERANCE +	5W/-0W)			
Power at MPP¹	P <sub>MPP</sub>	[W]	365	370	375	380	385
Short Circuit Current <sup>1</sup>	I <sub>sc</sub>	[A]	10.40	10.44	10.47	10.50	10.53
Open Circuit Voltage <sup>1</sup>	V <sub>oc</sub>	[V]	44.93	44.97	45.01	45.04	45.08
Current at MPP	I <sub>MPP</sub>	[A]	9.87	9.92	9.98	10.04	10.10
Voltage at MPP	$V_{MPP}$	[V]	36.99	37.28	37.57	37.85	38.13
Efficiency <sup>1</sup>	η	[%]	≥19.3	≥19.5	≥19.8	≥20.1	≥20.3
NIMUM PERFORMANCE AT NORMAL	OPERATING CONI	DITIONS, NM	OT <sup>2</sup>				
Power at MPP	P <sub>MPP</sub>	[W]	273.3	277.1	280.8	284.6	288.3
Short Circuit Current	I <sub>sc</sub>	[A]	8.38	8.41	8.43	8.46	8.48
Open Circuit Voltage	V <sub>oc</sub>	[V]	42.37	42.41	42.44	42.48	42.51
Current at MPP	I <sub>MPP</sub>	[A]	7.76	7.81	7.86	7.91	7.96
Voltage at MPP	V <sub>MPP</sub>	[V]	35.23	35.48	35.72	35.96	36.20
	Power at MPP¹ Short Circuit Current¹ Open Circuit Voltage¹ Current at MPP Voltage at MPP Efficiency¹ VIMUM PERFORMANCE AT NORMAL Power at MPP Short Circuit Current Open Circuit Voltage Current at MPP	Power at MPP¹ P <sub>MPP</sub> Short Circuit Current¹ I <sub>SC</sub> Open Circuit Voltage¹ V <sub>OC</sub> Current at MPP I <sub>MPP</sub> Voltage at MPP V <sub>MPP</sub> Efficiency¹   NIMUM PERFORMANCE AT NORMAL OPERATING CONI Power at MPP P <sub>MPP</sub> Short Circuit Current I <sub>SC</sub> Open Circuit Voltage V <sub>OC</sub> Current at MPP I <sub>MPP</sub>	Power at MPP¹ PMPP [W]  Short Circuit Current¹ Isc [A]  Current at MPP Voltage¹ Voc [V]  Efficiency¹ n [%]  SIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NIMO Power at MPP PMPP [W]  Short Circuit Current Isc [A]  Open Circuit Voltage¹ Voc [V]  Current at MPP Voltage at MPP Voltage at MPP Voltage at MPP [W]  SHOULD PERFORMANCE AT NORMAL OPERATING CONDITIONS, NIMO Power at MPP PMPP [W]  Short Circuit Current Isc [A]  Open Circuit Voltage Voc [V]  Current at MPP Isc [A]	NIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE + Power at MPP¹ Power at MPP Pow	NIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC1 (POWER TOLERANCE +5 W / -0 W)   Power at MPP1   PMPP   [W]   365   370   Short Circuit Current1   Isc   [A]   10.40   10.44   Open Circuit Voltage1   Voc   [V]   44.93   44.97   Current at MPP   IMPP   [A]   9.87   9.92   Voltage at MPP   VMPP   [V]   36.99   37.28   Efficiency1   $\eta$   [%]   ≥19.3   ≥19.5   NIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT2   Power at MPP   PMPP   [W]   273.3   277.1   Short Circuit Current   Isc   [A]   8.38   8.41   Open Circuit Voltage   Voc   [V]   42.37   42.41   Current at MPP   IMPP   IMPP   [A]   7.76   7.81   NIMUM PERFORMANCE AT NORMAL OPENATIONS   Impre   [A]   7.76   7.81   NIMUM PERFORMANCE AT NORMAL OPENATIONS   Impre   [A]   7.76   7.81   NIMUM PERFORMANCE AT NORMAL OPENATIONS   Impre   [A]   7.76   7.81   NIMUM PERFORMANCE AT NORMAL OPENATIONS   Impre   [A]   7.76   7.81   NIMUM PERFORMANCE AT NORMAL OPENATIONS   Impre   [A]   7.76   7.81   NIMUM PERFORMANCE AT NORMAL OPENATIONS   Impre   [A]   7.76   7.81   NIMUM PERFORMANCE AT NORMAL OPENATIONS   Impre   [A]   7.76   7.81   NIMUM PERFORMANCE AT NORMAL OPENATIONS   Impre   [A]   7.76   7.81   NIMUM PERFORMANCE AT NORMAL OPENATIONS   Impre   [A]   7.76   7.81   NIMUM PERFORMANCE AT NORMAL OPENATIONS   Impre   [A]   7.76   7.81   NIMUM PERFORMANCE AT NORMAL OPENATIONS   Impre   [A]   7.76   7.81   NIMUM PERFORMANCE AT NORMAL OPENATIONS   Impre   [A]   NIMUM PE	NIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5 W / -0 W)   Power at MPP¹   P <sub>MPP</sub> [W] 365 370 375   Short Circuit Current¹   I <sub>SC</sub> [A] 10.40 10.44 10.47   Open Circuit Voltage¹   V <sub>OC</sub> [V] 44.93 44.97 45.01   Current at MPP   I <sub>MPP</sub> [A] 9.87 9.92 9.98   Voltage at MPP   V <sub>MPP</sub> [V] 36.99 37.28 37.57   Efficiency¹   $\eta$ [%] ≥19.3 ≥19.5 ≥19.8   NIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT²   Power at MPP   P <sub>MPP</sub> [W] 273.3 277.1 280.8   Short Circuit Current   I <sub>SC</sub> [A] 8.38 8.41 8.43   Open Circuit Voltage   V <sub>OC</sub> [V] 42.37 42.41 42.44   Current at MPP   I <sub>MPP</sub> [A] 7.76 7.81 7.86	NIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5 W / -0 W)   Power at MPP¹   P <sub>MPP</sub> [W] 365 370 375 380   Short Circuit Current¹   I <sub>SC</sub> [A] 10.40 10.44 10.47 10.50   Open Circuit Voltage¹   V <sub>OC</sub> [V] 44.93 44.97 45.01 45.04   Current at MPP   I <sub>MPP</sub> [A] 9.87 9.92 9.98 10.04   Voltage at MPP   V <sub>MPP</sub> [V] 36.99 37.28 37.57 37.85   Efficiency¹   $\eta$ [%] ≥19.3 ≥19.5 ≥19.8 ≥20.1   NIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT²   Power at MPP   P <sub>MPP</sub> [W] 273.3 277.1 280.8 284.6   Short Circuit Current   I <sub>SC</sub> [A] 8.38 8.41 8.43 8.46   Open Circuit Voltage   V <sub>OC</sub> [V] 42.37 42.41 42.44 42.48   Current at MPP   I <sub>MPP</sub> [A] 7.76 7.81 7.86 7.91

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

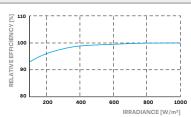
#### Q CELLS PERFORMANCE WARRANTY



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 Q CELLS 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/m²)

TEMPERATURE COEFFICIENTS							
Temperature Coefficient of I <sub>SC</sub>	α	[%/K]	+0.04	Temperature Coefficient of Voc	β	[%/K]	-0.27
Temperature Coefficient of PMDD	V	[%/K]	-0.35	Nominal Module Operating Temperature	NMOT	[°F]	109+5.4 (43+3°C)

# PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage $V_{\scriptsize SYS}$	[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> ]	84 (4000 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> ]	125 (6000 Pa) / 84 (4000 Pa)	on Continuous Duty	(-40°C up to +85°C)	

# **QUALIFICATIONS AND CERTIFICATES**

### PACKAGING AND TRANSPORT INFORMATION

47.6 in

1208 mm

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

3 See Installation Manual









1890mm 1080mm







1458 lbs

661kg



28

pallets



24

pallets



modules

32

Note: Installation instructions must be followed. See the installation and operating manual or contact our technical service department for further information on approved installation and use of this product.

Horizontal

packaging

#### Hanwha Q CELLS America Inc.