





Higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 19.5%.



# 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 and Anti PID Technology ^1, Hot-Spot Protect and Traceable Quality Tra.  $Q^{TM}$ .



# **EXTREME WEATHER RATING**

www.VDEinfo.com ID. 40032587

High-tech aluminum alloy frame, certified for high snow (5400 Pa) and wind loads (4000 Pa).



# A RELIABLE INVESTMENT

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



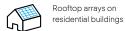
# STATE OF THE ART MODULE TECHNOLOGY

Q.ANTUM DUO combines cutting edge cell separation and innovative wiring with Q.ANTUM Technology.



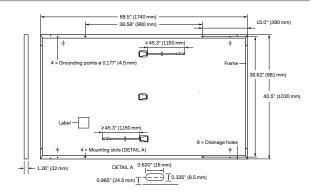
<sup>&</sup>lt;sup>2</sup> See data sheet on rear for further information

# THE IDEAL SOLUTION FOR:





**QCELLS** 

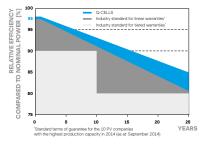


# **ELECTRICAL CHARACTERISTICS**

WER CLASS			330	335	340	345
IIMUM PERFORMANCE AT STANDAF	RD TEST CONDITIO	NS, STC1 (POW	ER TOLERANCE +5 W / -0	OW)		
Power at MPP¹	P <sub>MPP</sub>	[W]	330	335	340	345
Short Circuit Current <sup>1</sup>	I <sub>sc</sub>	[A]	10.41	10.47	10.52	10.58
Open Circuit Voltage <sup>1</sup>	Voc	[V]	40.15	40.41	40.66	40.92
Current at MPP	I <sub>MPP</sub>	[A]	9.91	9.97	10.02	10.07
Voltage at MPP	$V_{MPP}$	[V]	33.29	33.62	33.94	34.25
Efficiency <sup>1</sup>	η	[%]	≥18.4	≥18.7	≥19.0	≥19.3
IIMUM PERFORMANCE AT NORMAL	OPERATING CONE	DITIONS, NMOT	2			
Power at MPP	P <sub>MPP</sub>	[W]	247.0	250.7	254.5	258.2
Short Circuit Current	I <sub>sc</sub>	[A]	8.39	8.43	8.48	8.52
Open Circuit Voltage	V <sub>oc</sub>	[V]	37.86	38.10	38.34	38.59
Current at MPP	I <sub>MPP</sub>	[A]	7.80	7.84	7.89	7.93
Voltage at MPP	V <sub>MPP</sub>	[V]	31.66	31.97	32.27	32.57
	Power at MPP¹ Short Circuit Current¹ Open Circuit Voltage¹ Current at MPP Voltage at MPP Efficiency¹ NIMUM PERFORMANCE AT NORMAL Power at MPP Short Circuit Current Open Circuit Voltage Current at MPP	NIMUM PERFORMANCE AT STANDARD TEST CONDITION  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 ¶  IIMUM PERFORMANCE AT NORMAL OPERATING CONDITION  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>	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	NIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5 W/-CP Power at MPP¹ P <sub>MPP</sub> [W] 330 Short Circuit Current¹ I <sub>SC</sub> [A] 10.41 Open Circuit Voltage¹ V <sub>OC</sub> [V] 40.15 Current at MPP I <sub>MPP</sub> [A] 9.91 Voltage at MPP V <sub>MPP</sub> [V] 33.29 Efficiency¹ $\eta$ [%] ≥18.4 SIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT² Power at MPP P <sub>MPP</sub> [W] 247.0 Short Circuit Current I <sub>SC</sub> [A] 8.39 Open Circuit Voltage V <sub>OC</sub> [V] 37.86 Current at MPP I <sub>MPP</sub> [A] 7.80	NIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5 W / -0 W)   Power at MPP¹   P <sub>MPP</sub> [W]   330   335   Short Circuit Current¹   I <sub>SC</sub> [A]   10.41   10.47   Open Circuit Voltage¹   V <sub>OC</sub> [V]   40.15   40.41   Current at MPP   I <sub>MPP</sub> [A]   9.91   9.97   Voltage at MPP   V <sub>MPP</sub> [V]   33.29   33.62   Efficiency¹   $\eta$ [%]   ≥18.4   ≥18.7   NIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT²   Power at MPP   P <sub>MPP</sub> [W]   247.0   250.7   Short Circuit Current   I <sub>SC</sub> [A]   8.39   8.43   Open Circuit Voltage   V <sub>OC</sub> [V]   37.86   38.10   Current at MPP   I <sub>MPP</sub> [A]   7.80   7.84	NIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC¹ (POWER TOLERANCE +5 W / -0 W)   Power at MPP¹   P <sub>MPP</sub> [W]   330   335   340   Short Circuit Current¹   I <sub>SC</sub> [A]   10.41   10.47   10.52   Open Circuit Voltage¹   V <sub>OC</sub> [V]   40.15   40.41   40.66   Current at MPP   I <sub>MPP</sub> [A]   9.91   9.97   10.02   Voltage at MPP   V <sub>MPP</sub> [V]   33.29   33.62   33.94   Efficiency¹   $\eta$ [%]   ≥18.4   ≥18.7   ≥19.0   NIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT²   Power at MPP   P <sub>MPP</sub> [W]   247.0   250.7   254.5   Short Circuit Current   I <sub>SC</sub> [A]   8.39   8.43   8.48   Open Circuit Voltage   V <sub>OC</sub> [V]   37.86   38.10   38.34   Current at MPP   I <sub>MPP</sub> [A]   7.80   7.84   7.89

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

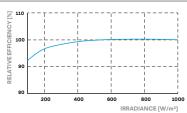
### Q CELLS PERFORMANCE WARRANTY



At least 98% of nominal power during first year. Thereafter max. 0.54% degradation per year. At least 93.1% of nominal power up to 10 years. At least 85% 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 organization of your respective country.

# PERFORMANCE AT LOW IRRADIANCE



Typical module performance under low irradiance conditions in comparison to STC conditions (25  $^{\circ}$ 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 P	v	[%/K]	-0.36	Normal Module Operating Temperature	NMOT	[°F]	109+54(43+3°C)

# PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V <sub>SYS</sub>	[V]	1000 (IEC)/1000 (UL)	Safety Class	II
Maximum Series Fuse Rating	[A DC]	20	Fire Rating based on ANSI/UL 1703	C (IEC)/TYPE 2 (UL)
Max. Design Load, Push / Pull <sup>3</sup>	[lbs/ft <sup>2</sup> ]	75 (3600 Pa) / 55 (2667 Pa)	ermitted 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)

# **QUALIFICATIONS AND CERTIFICATES**

# **PACKAGING INFORMATION**

UL 1703, VDE Quality Tested, CE-compliant, IEC 61215:2016, IEC 61730:2016, Application Class II, U.S. Patent No. 9,893,215 (solar cells)



<sup>3</sup> See Installation Manual





Number of Modules per Pallet	32
Number of Pallets per 53' Trailer	28
Number of Pallets per 40' HC-Container	24
Pallet Dimensions (L×W×H)	$71.5 \times 45.3 \times 48.0$ in $(1815 \times 1150 \times 1220$ mm)
Pallet Weight	1505 lbs (683 kg)

**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.

# specifications subject to technical changes ◎ **Q CELLS** Q.PEAK DUO BLK-G6+\_330-345\_2019-09\_Rev03\_NA