

powered by

Q.ANTUM DUO Z

Q.PEAK DUO BLK ML-G10+

385-405

ENDURING HIGH
PERFORMANCE



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 %.



THE MOST THOROUGH TESTING PROGRAMME IN THE INDUSTRY

Q CELLS 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.



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 Technology¹, Hot-Spot Protect and Traceable Quality Tra.QTM.



EXTREME WEATHER RATING

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 warranty².

¹ APT test conditions according to IEC / TS 62804-1:2015, method A (-1500V, 96h)

² See data sheet on rear for further information.

THE IDEAL SOLUTION FOR:



Rooftop arrays on
residential buildings

Engineered in Germany



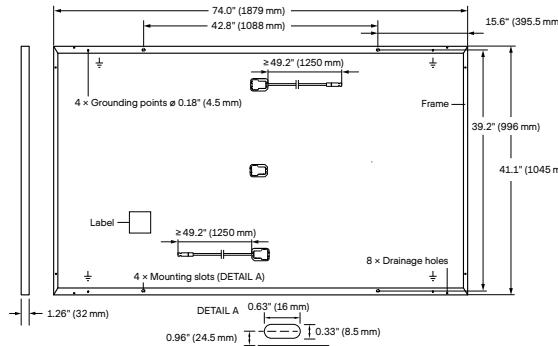
Quality
Controlled PV
www.tuv.com
ID 1111232615



Q CELLS

MECHANICAL SPECIFICATION

Format	74.0in x 41.1in x 1.26in (including frame) (1879 mm x 1045 mm x 32 mm)
Weight	48.5lbs (22.0kg)
Front Cover	0.13in (3.2mm) thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Black anodized aluminum
Cell	6 x 22 monocrystalline Q.ANTUM solar half cells
Junction Box	2.09-3.98in x 1.26-2.36in x 0.59-0.71in (53-101mm x 32-60mm x 15-18mm), IP67, with bypass diodes
Cable	4mm ² Solar cable; (+) ≥49.2in (1250 mm), (-) ≥49.2in (1250 mm)
Connector	Stäubli MC4; IP68



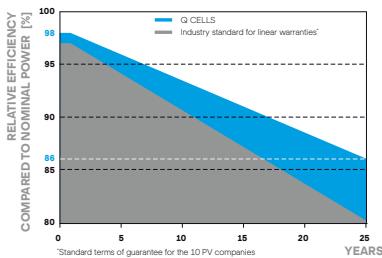
ELECTRICAL CHARACTERISTICS

POWER CLASS	385	390	395	400	405
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC ¹ (POWER TOLERANCE +5W / -0W)					
Power at MPP ¹	P _{MPP} [W]	385	390	395	400
Short Circuit Current ¹	I _{SC} [A]	11.04	11.07	11.10	11.14
Open Circuit Voltage ¹	V _{OC} [V]	45.19	45.23	45.27	45.30
Current at MPP	I _{MPP} [A]	10.59	10.65	10.71	10.77
Voltage at MPP	V _{MPP} [V]	36.36	36.62	36.88	37.13
Efficiency ¹	η [%]	≥19.6	≥19.9	≥20.1	≥20.4
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT ²					
Power at MPP	P _{MPP} [W]	288.8	292.6	296.3	300.1
Short Circuit Current	I _{SC} [A]	8.90	8.92	8.95	8.97
Open Circuit Voltage	V _{OC} [V]	42.62	42.65	42.69	42.72
Current at MPP	I _{MPP} [A]	8.35	8.41	8.46	8.51
Voltage at MPP	V _{MPP} [V]	34.59	34.81	35.03	35.25

¹Measurement tolerances P_{MPP} ±3%; I_{SC}; V_{OC} ±5% at STC: 1000W/m², 25±2°C, AM 1.5 according to IEC 60904-3 • ²800W/m², NMOT, spectrum AM 1.5

Q CELLS PERFORMANCE WARRANTY

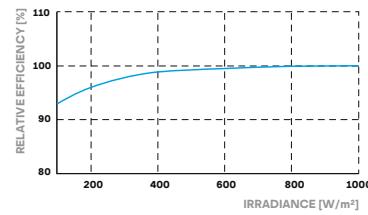
PERFORMANCE AT LOW IRRADIANCE



*Standard terms of guarantee for the 10 PV companies with the highest production capacity in 2014 (as at: September 2014)

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.



Typical module performance under low irradiance conditions in comparison to STC conditions (25°C, 1000W/m²)

TEMPERATURE COEFFICIENTS

Temperature Coefficient of I _{SC}	α [%/K]	+0.04	Temperature Coefficient of V _{OC}	β [%/K]	-0.27
Temperature Coefficient of P _{MPP}	γ [%/K]	-0.34	Nominal Module Operating Temperature	NMOT	[°F]

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V _{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 ³ [lbs/ft ²]	75 (3600 Pa)/55 (2660 Pa)	Permitted Module Temperature on Continuous Duty	-40°F up to +185°F (-40°C up to +85°C)
Max. Test Load, Push / Pull ³ [lbs/ft ²]	113 (5400 Pa)/84 (4000 Pa)		

³ 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),



Horizontal packaging	76.4in 1940mm	43.3in 1100mm	48.0in 1220mm	1656lbs 751kg	24 pallets	24 pallets	32 modules
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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.

Hanwha Q CELLS America Inc.

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