

powered by

Q.ANTUM DUO Z

Q.PEAK DUO BLK ML-G10

385-405

ENDURING HIGH
PERFORMANCE



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.Q™.



EXTREME WEATHER RATING

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



A RELIABLE INVESTMENT

Inclusive 12-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:



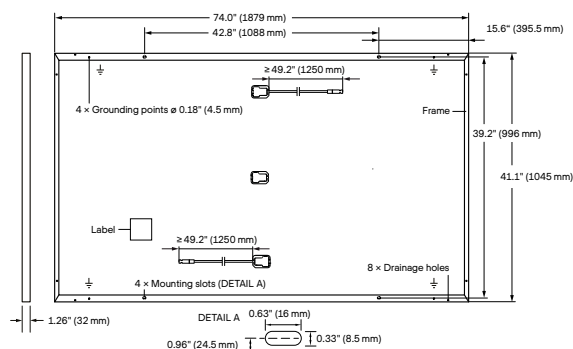
Rooftop arrays on
residential buildings

Engineered in Germany



MECHANICAL SPECIFICATION

Format	74.0in × 41.1in × 1.26in (including frame) (1879mm × 1045mm × 32mm)
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 × 22 monocrystalline Q.ANTUM solar half cells
Junction Box	2.09-3.98in × 1.26-2.36in × 0.59-0.71in (53-101mm × 32-60mm × 15-18mm), IP67, with bypass diodes
Cable	4mm ² Solar cable; (+) ≥ 49.2in (1250mm), (-) ≥ 49.2in (1250mm)
Connector	Stäubli MC4, Hanwha Q CELLS HQC4; IP68



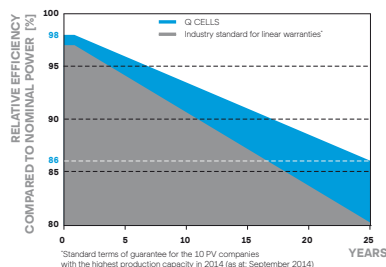
ELECTRICAL CHARACTERISTICS

POWER CLASS		385	390	395	400	405
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC ¹ (POWER TOLERANCE +5W / -0W)						
Minimum	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						
Minimum	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: 1000 W/m², 25 ± 2°C, AM 1.5 according to IEC 60904-3 • 2800 W/m², NMOT, spectrum AM 1.5

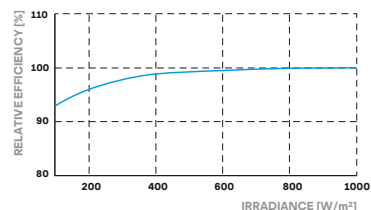
Q CELLS PERFORMANCE WARRANTY

PERFORMANCE AT LOW IRRADIANCE



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, 1000 W/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]	109 ± 5.4 (43 ± 3°C)

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),
QCPV Certification ongoing.



PACKAGING INFORMATION

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