

powered by

Q.ANTUM DUO

Q.PEAK DUO ML-G9 370-390

ENDURING HIGH
PERFORMANCE



Q CELLS

YIELD SECURITY

- ✓ ANTI PID TECHNOLOGY (APT)
- ✓ HOT-SPOT PROTECT (HSP)
- ✓ TRACEABLE QUALITY (TRA.Q™)
- ✓ ANTI LID TECHNOLOGY (ALT)



BREAKING THE 20% EFFICIENCY BARRIER

Q.ANTUM Technology combined with zero gap cell layout boosts module efficiency up to 20.8% absolute.



INNOVATIVE ALL-WEATHER TECHNOLOGY

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



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 aluminium 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.



STATE OF THE ART MODULE TECHNOLOGY

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

¹ APT test conditions according to IEC/TS 62804-1:2015, method B (-1500V, 168h)

² See data sheet on rear for further information.

THE IDEAL SOLUTION FOR:



Rooftop arrays on
residential buildings



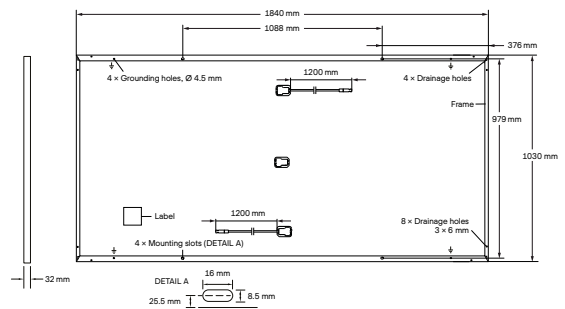
Rooftop arrays on
commercial/industrial
buildings

Engineered in Germany

Q CELLS

MECHANICAL SPECIFICATION

Format	1840 mm × 1030 mm × 32 mm (including frame)
Weight	19.9 kg
Front Cover	2.8 mm thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Black anodised aluminium
Cell	6 × 22 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 mm ² Solar cable; (+) ≥ 1200 mm, (-) ≥ 1200 mm
Connector	Stäubli MC4, Hanwha Q CELLS HQC4; IP68

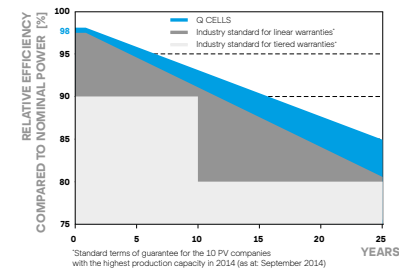


ELECTRICAL CHARACTERISTICS

POWER CLASS			370	375	380	385	390	
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC ¹ (POWER TOLERANCE +5 W / -0 W)								
Minimum	Power at MPP ¹	P _{MPP}	[W]	370	375	380	385	390
	Short Circuit Current ¹	I _{SC}	[A]	10.58	10.62	10.65	10.68	10.71
	Open Circuit Voltage ¹	V _{OC}	[V]	44.92	44.96	44.99	45.03	45.06
	Current at MPP	I _{MPP}	[A]	10.03	10.09	10.14	10.20	10.26
	Voltage at MPP	V _{MPP}	[V]	36.90	37.18	37.46	37.74	38.01
	Efficiency ¹	η	[%]	≥19.5	≥19.8	≥20.1	≥20.3	≥20.6
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT ²								
Minimum	Power at MPP	P _{MPP}	[W]	277.1	280.8	284.6	288.3	292.0
	Short Circuit Current	I _{SC}	[A]	8.53	8.55	8.58	8.60	8.63
	Open Circuit Voltage	V _{OC}	[V]	42.36	42.39	42.43	42.46	42.50
	Current at MPP	I _{MPP}	[A]	7.88	7.93	7.99	8.04	8.09
	Voltage at MPP	V _{MPP}	[V]	35.15	35.39	35.64	35.87	36.11

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

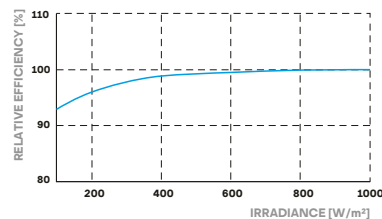
Q CELLS PERFORMANCE WARRANTY



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 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 _{SC}	α	[%/K]	+0.04	Temperature Coefficient of V _{OC}	β	[%/K]	-0.27
Temperature Coefficient of P _{MPP}	γ	[%/K]	-0.35	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 _R	[A]	20	Fire Rating based on ANSI / UL 1703	C / TYPE 2
Max. Design Load, Push / Pull		[Pa]	3600 / 2667	Permitted Module Temperature on Continuous Duty	-40°C - +85°C
Max. Test Load, Push / Pull		[Pa]	5400 / 4000		

QUALIFICATIONS AND CERTIFICATES

IEC 61215:2016; IEC 61730:2016;
This data sheet complies
with DIN EN 50380.



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ID 1111220277

PACKAGING INFORMATION

Number of Modules per Pallet	32
Number of Pallets per Trailer (24t)	28
Number of Pallets per 40' HC-Container (26t)	24
Pallet Dimensions (L × W × H)	1890 × 1080 × 1208 mm
Pallet Weight	674 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.

Hanwha Q CELLS GmbH

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