

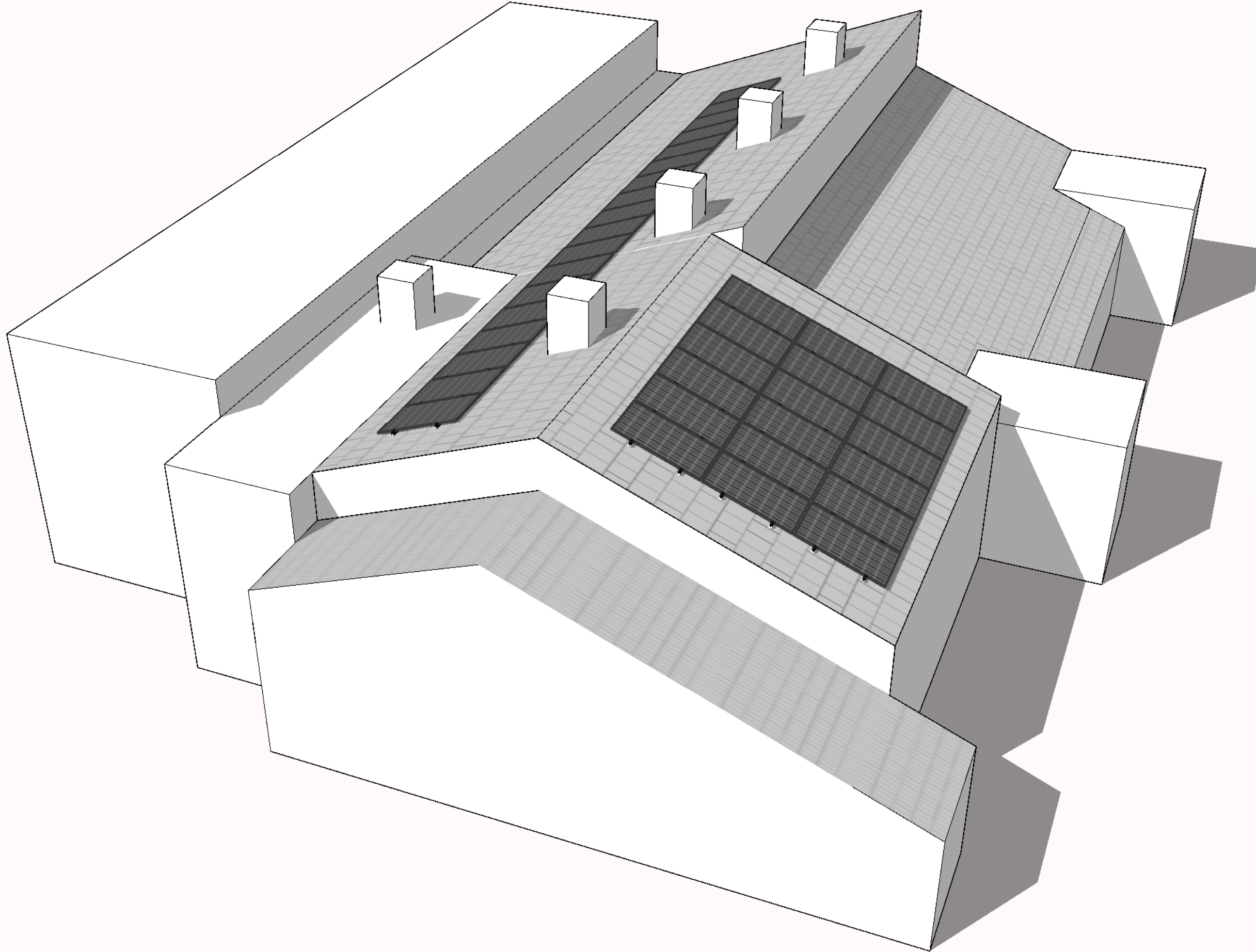


IoS Smart
Energy
Islands
Project

St Marys Airport

11kW East West 9,800kWh Annual generation

Array layout



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Fixing method

K2 End Clamp

K2 Solid rail

Roof hook (Tile)

Solar modules clamped to rail in portrait orientation. Maximum height of module above roof covering <180mm. Rail is fixed to stainless steel roof hooks. Roof hooks screwed to rafters at intervals according to site specific calculated wind loads. Failure consequence class 2. Solar module removed to show fixing method.

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Module Datasheet



The new **Q.PEAK DUO BLK-G5** solar module from Q CELLS impresses with its outstanding visual appearance and particularly high performance on a small surface thanks to the innovative **Q.ANTUM DUO** Technology. Q.ANTUM's world-record-holding cell concept has now been combined with state-of-the-art circuitry half cells and a six-busbar design, thus achieving outstanding performance under real conditions — both with low-intensity solar radiation as well as on hot, clear summer days.



Q.ANTUM TECHNOLOGY: LOW LEVELIZED COST OF ELECTRICITY
Higher yield per surface area, lower BOS costs, higher power classes, and an efficiency rate of up to 19.3 %.



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) regarding IEC.



A RELIABLE INVESTMENT
Inclusive 12-year product warranty and 25-year linear performance guarantee².



STATE OF THE ART MODULE TECHNOLOGY
Q.ANTUM DUO combines cutting edge cell separation and innovative wiring with Q.ANTUM Technology.

THE IDEAL SOLUTION FOR:



Engineered in **Germany**



¹ APT test conditions according to IEC/TS 62804-1:2015, method B (~1500V, 168h)
² See data sheet on rear for further information.

Q CELLS

MECHANICAL SPECIFICATION

Format	1670mm × 1000mm × 32mm (including frame)
Weight	18.8kg
Front Cover	3.2mm thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Black anodised aluminium
Cell	6 × 10 monocrystalline Q.ANTUM solar cells
Junction box	66-77 mm × 115-90mm × 15-19mm Protection class IP67, with bypass diodes
Cable	4mm² Solar cable; (+) 1000 mm, (-) 1000 mm
Connector	Multi-Contact MC4 or MC4 intermateable, IP68

ELECTRICAL CHARACTERISTICS

POWER CLASS		285	290	295	
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC ¹ (POWER TOLERANCE +5W / -0W)					
Minimum	Power at MPP ²	P _{MPP}	285	290	295
	Short Circuit Current ²	I _{sc}	9.56	9.63	9.70
	Open Circuit Voltage ²	V _{oc}	38.91	39.19	39.48
	Current at MPP ²	I _{MPP}	8.98	9.07	9.17
	Voltage at MPP ²	V _{MPP}	31.73	31.96	32.19
	Efficiency ²	η	≥ 17.1	≥ 17.4	≥ 17.7
MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NOC ³					
Minimum	Power at MPP ²	P _{MPP}	210.9	214.6	218.3
	Short Circuit Current ²	I _{sc}	7.71	7.77	7.82
	Open Circuit Voltage ²	V _{oc}	36.38	36.65	36.92
	Current at MPP ²	I _{MPP}	7.04	7.12	7.20
	Voltage at MPP ²	V _{MPP}	29.95	30.14	30.33

¹1000W/m², 25°C, spectrum AM 1.5 G ²Measurement tolerances STC ±3%; NOC ±5% ³800 W/m², NOCT, spectrum AM 1.5 G * typical values, actual values may differ

Q CELLS PERFORMANCE WARRANTY

At least 98% of nominal power during first year. Thereafter max. 0.6% degradation per year.
At least 92.6% of nominal power up to 10 years.
At least 83.6% 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, 1000W/m²).

TEMPERATURE COEFFICIENTS

Temperature Coefficient of I _{sc}	α	[%/K]	+0.04	Temperature Coefficient of V _{oc}	β	[%/K]	-0.28
Temperature Coefficient of P _{MPP}	γ	[%/K]	-0.39	Normal Operating Cell Temperature	NOCT	[°C]	45

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage	V _{MS}	[V]	1000	Safety Class	II
Maximum Reverse Current	I _r	[A]	20	Fire Rating	C
Wind/Snow Load (Test-load in accordance with IEC 61215)		[Pa]	4000/ 5400	Permitted Module Temperature On Continuous Duty	-40°C up to +85°C

QUALIFICATIONS AND CERTIFICATES

VDE Quality Tested, IEC 61215 (Ed.2), IEC 61730 (Ed.1), Application class A
This data sheet complies with DIN EN 50380.

PARTNER

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.

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Q CELLS

Engineered in **Germany**