Q.PRO BFR-G3 245-260

POLYCRYSTALLINE SOLAR MODULE

The new Q.PRO BFR-G3 is the reliable evergreen for all applications, with a black frame design for improved aesthetics. The third module generation from Q CELLS has been optimised across the board: improved output yield, higher operating reliability and durability, quicker installation and more intelligent design.

INNOVATIVE ALL-WEATHER TECHNOLOGY
- Maximum yields with excellent low-light and temperature behaviour.
- Certified fully resistant to level 5 salt fog

ENDURING HIGH PERFORMANCE
- Long-term Yield Security due to Anti PID Technology[1], Hot-Spot Protect, and Traceable Quality Tra.Q™.
- Long-term stability due to VDE Quality Tested – the strictest test program.

SAFE ELECTRONICS
- Protection against short circuits and thermally induced power losses due to breathable junction box and welded cables.
- Increased flexibility due to MC4-intermateable connectors.

PROFIT-INCREASING GLASS TECHNOLOGY
- Reduction of light reflection by 50%, plus long-term corrosion resistance due to high-quality
- Sol-Gel roller coating processing.

LIGHTWEIGHT QUALITY FRAME
- Stability at wind loads of up to 5400 Pa with a module weight of just 19 kg due to slim frame design with high-tech alloy.

MAXIMUM COST REDUCTIONS
- Up to 31% lower logistics costs due to higher module capacity per box.

EXTENDED WARRANTIES
- Investment security due to 12-year product warranty and 25-year linear performance warranty[2].

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Q CELLS YIELD SECURITY: ANTI PID TECHNOLOGY (APT), HOT-SPOT PROTECT (HSP), TRACEABLE QUALITY (TRA.Q™)

VDE Quality Tested: high reliability, low degradation, frequent product surveillance. ID. 40032587

Photon: Q CELLS Best polycrystalline solar module 2013, Q.PRO-G2 235, 151 modules tested

THE IDEAL SOLUTION FOR:

- Rooftop arrays on commercial/industrial buildings
- Ground-mounted solar power plants
- Rooftop arrays on residential buildings

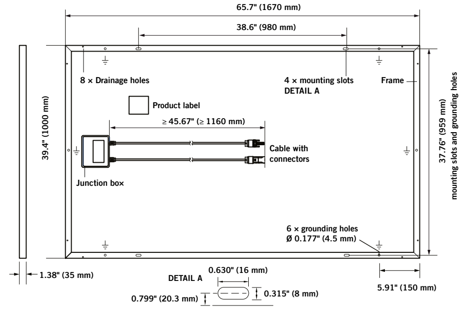
1 APT test conditions: Cells at -1000V against grounded, with conductive metal foil covered module surface, 25°C, 168h

2 See data sheet on rear for further information.

Engineered in **Germany**

MECHANICAL SPECIFICATION

Format	65.7 in × 39.4 in x 1.38 in (including frame) (1670 mm × 1000 mm × 35 mm)
Weight	41.89 lb (19.0 kg)
Front Cover	0.13 in (3.2 mm) thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Black anodized aluminum
Cell	6 × 10 polycrystalline solar cells
Junction box	Protection class IP67, with bypass diodes
Cable	4 mm² Solar cable; (+) ≥45.67 in (1160 mm), (-) ≥45.67 in (1160 mm)
Connector	SOLARLOK PV4, IP68

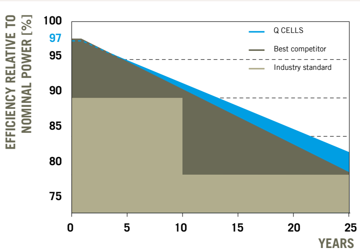


ELECTRICAL CHARACTERISTICS

PERFORMANCE AT STANDARD TEST CONDITIONS (STC: 1000 W/m², 25 °C, AM 1.5 G SPECTRUM)[1]						
NOMINAL POWER (+5 W/-0 W)		[W]	245	250	255	260
Average Power	P_{MPP}	[W]	247.5	252.5	257.5	262.5
Short Circuit Current	I_{SC}	[A]	8.52	8.71	8.90	9.09
Open Circuit Voltage	V_{OC}	[V]	37.15	37.49	37.83	38.18
Current at P_{MPP}	I_{MPP}	[A]	8.05	8.21	8.37	8.53
Voltage at P_{MPP}	V_{MPP}	[V]	30.75	30.76	30.77	30.78
Efficiency (Nominal Power)	η	[%]	14.7	≥ 15.0	≥ 15.3	≥ 15.6
PERFORMANCE AT NORMAL OPERATING CELL TEMPERATURE (NOCT: 800 W/m², 45 ± 3 °C. AM 1.5 G SPECTRUM)[2]						
NOMINAL POWER (+5 W/-0 W)		[W]	245	250	255	260
Average Power	P_{MPP}	[W]	182.4	186.0	189.7	193.4
Short Circuit Current	I_{SC}	[A]	6.87	7.03	7.18	7.33
Open Circuit Voltage	V_{OC}	[V]	34.58	34.90	35.22	35.54
Current at P_{MPP}	I_{MPP}	[A]	6.32	6.44	6.56	6.68
Voltage at P_{MPP}	V_{MPP}	[V]	28.86	28.89	28.92	28.94

[1] Measurement tolerances STC: ± 3 % (P_{mpp}); ± 10 % (I_{sc}, V_{oc}, I_{mpp}, V_{mpp})

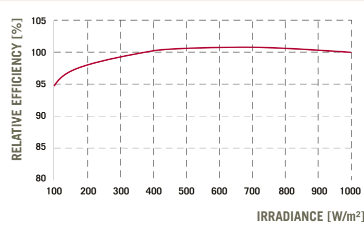
Q CELLS PERFORMANCE WARRANTY



At least 97 % of nominal power during first year. Thereafter max. 0.6 % degradation per year.
At least 92 % of nominal power after 10 years.
At least 83 % of nominal power after 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



The typical change in module efficiency at an irradiance of 200 W/m² in relation to 1000 W/m² (both at 25 °C and AM 1.5 G spectrum) is -2 % (relative).

TEMPERATURE COEFFICIENTS (AT 1000 W/M², 25 °C, AM 1.5 G SPECTRUM)							
Temperature Coefficient of I_{SC}	α	[%/K]	+0.04	Temperature Coefficient of V_{OC}	β	[%/K]	−0.30
Temperature Coefficient of P_{MPP}	γ	[%/K]	−0.42				

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage V_{SYS}	[V]	1000	Safety Class	II
Maximum Reverse Current I_R	[A]	20	Fire Rating	C
Wind/Snow Load (in accordance with IEC 61215)	[Pa]	5400	Permitted module temperature on continuous duty	-40 °F up to 185 °F (-40 °C up to 85 °C)

QUALIFICATIONS AND CERTIFICATES

UL 1703; VDE Quality Tested; CE-compliant;
IEC 61215 (Ed.2); IEC 61730 (Ed.1) application class A

C Certified US UL 1703 (254141)

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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