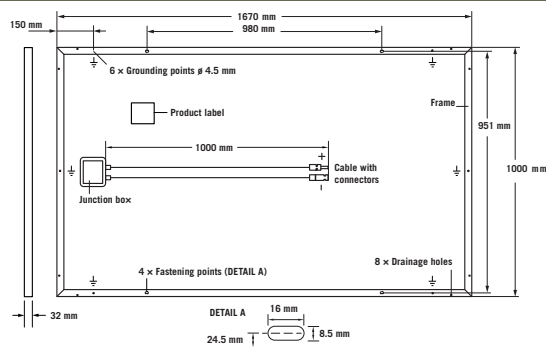


SPECIFICATION B.LINE PRO BFR-G4

MECHANICAL SPECIFICATION

Format	1670 mm × 1000 mm × 32 mm (including frame)
Weight	18.8 kg
Front Cover	3.2 mm thermally pre-stressed glass with anti-reflection technology
Back Cover	Composite film
Frame	Anodised aluminium
Cell	6 × 10 polycrystalline solar cells
Junction Box	110 mm × 115 mm × 23 mm Protection class IP67, with bypass diodes
Cable	4 mm ² Solar cable; (+) ≥ 1000 mm, (-) ≥ 1000 mm
Connector	Tyco, Solarlok PV4, IP68



ELECTRICAL CHARACTERISTICS

POWER CLASS				247	262	277	292
AVERAGE PERFORMANCE AT STANDARD TESTING CONDITIONS, STC ¹ (POWER TOLERANCE (±7.5 W))							
Average	Power at MPP ²	P _{MPP}	[W]	247.5	262.5	277.5	292.5
	Short Circuit Current*	I _{SC}	[A]	8.94	9.19	9.43	9.68
	Open Circuit Voltage*	V _{OC}	[V]	37.19	37.89	38.59	39.28
	Current at MPP*	I _{MPP}	[A]	8.32	8.58	8.83	9.08
	Voltage at MPP*	V _{MPP}	[V]	29.73	30.61	31.43	32.21
	Efficiency ²	η	[%]	≥ 14.8	≥ 15.7	≥ 16.6	≥ 17.5
AVERAGE PERFORMANCE AT NORMAL OPERATING CONDITIONS, NOC ³							
Average	Power at MPP ²	P _{MPP}	[W]	182.8	193.8	204.9	216.0
	Short Circuit Current*	I _{SC}	[A]	7.21	7.41	7.61	7.81
	Open Circuit Voltage*	V _{OC}	[V]	34.62	35.27	35.93	36.58
	Current at MPP*	I _{MPP}	[A]	6.51	6.71	6.91	7.12
	Voltage at MPP*	V _{MPP}	[V]	28.07	28.88	29.64	30.35

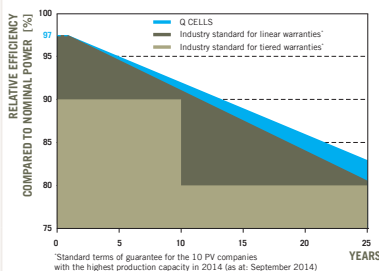
¹ 1000 W/m², 25 °C, spectrum AM 1.5G

² Measurement tolerances STC ± 3 %; NOC ± 5 %

³ 800 W/m², NOCT, spectrum AM 1.5G

* typical values, actual values may differ

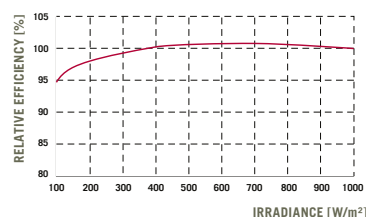
Q CELLS PERFORMANCE WARRANTY



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 1.5G spectrum) is -2 % (relative).

TEMPERATURE COEFFICIENTS

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]	-0.41	Normal Operating Cell Temperature	NOCT [°C]	45

PROPERTIES FOR SYSTEM DESIGN

Maximum System Voltage	V_{SYS} [V]	1000 (IEC) / 1000 (UL)	Safety Class	II
Maximum Reverse Current	I_R [A]	20	Fire Rating	C / TYPE 1
Wind/Snow 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.

Hanwha Q CELLS GmbH

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Q CELLS