

R-BF 108p.3/400-405

Full-black solar module for the highest requirements



Warranty

- 25 year product warranty *)
 - 25 years of linear benefit commitment
 - Guaranteed plus tolerance
- *) with registration of the system. Otherwise 15 years.

Certifications

- IEC 61215:2016 (module reliability)
- IEC 61730:2016 (module safety)
- IEC TS 62804-1:2015 (PID resistance)
- IEC 61701:2020 (salt spray resistance)

Safety

Electrical safety and mechanical robustness in all weather conditions are important aspects when choosing the right solar module.

electric security - The R-BF is approved for a system voltage of up to 1500V. For maximum electrical safety, it is equipped with potted junction boxes rated IP68 and original STÄUBLI MC4 connectors.

Resilient - The specially hardened glass is resistant to the harshest weather conditions. The module is certified for resistance to salty air (class 5) and is therefore approved for use near the coast.

Reliability

A solar system is a long-lasting investment. The durability of the modules is thus a key quality criterion.

Certified production facilities - All SOLYCO solar modules are produced in the most modern, highly automated factories with the highest manufacturing standards to ensure consistent quality.

Performance

A high electricity production under all operating conditions - in addition to the longevity – forms the basis for the economic viability of the solar system.

High specific yield - High power yield even in unfavorable weather conditions - thanks to excellent weak light behavior and a good temperature coefficient.

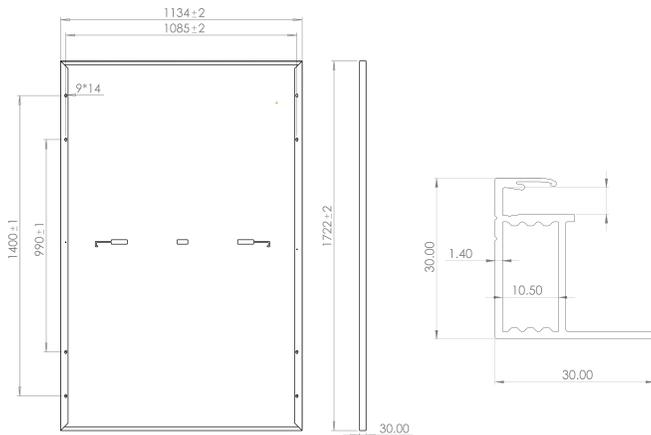
Highly efficient solar cells - Modern half-cell technology with multi-busbar interconnection forms the basis for the outstanding performance of our modules. The half-cell interconnection minimizes internal power losses and the risk of hot spots in the event of partial shade.

3x PID stable - All our modules are certified against potential-induced degradation (PID). The test cycle according to IEC TS 62804-1:2015 was even run 3 times (288h at T = 85°C and RH of 85%) and proves the top performance of the R-BF over a long period of time.

R-BF 108p.3/400-405

PV module with black-back sheet and black frame

Technical data



General data

Cell technology	PERC; monocrystalline
Cell size and number	182mm x 91mm; 108 pcs.
Module dimensions	1722mm x 1134mm x 30mm
Module weight	20.5 kg
Frame	Aluminum anodized (black)
Front glass	3.2mm tempered solar glass with anti-reflective coating
Junction box; IP rating	3 pcs. With one bypass diode each, potted junction box, IP68
Connectors	4mm ² solar cable; length 110cm; original STÄUBLI MC4-Evo 2
Packing	36 modules vertical on pallet, 936 / 40ft.

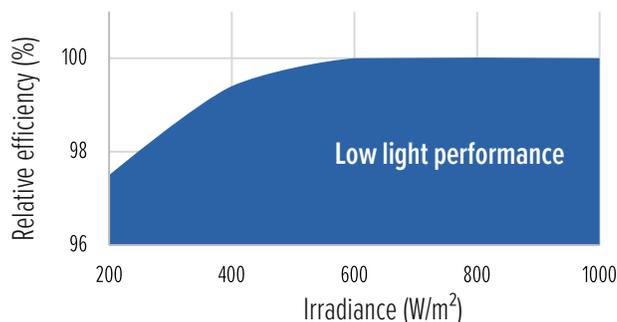
Connection and working conditions

Maximum system voltage	1500V
Temperature range	-40°C ... +85°C
Mechanical resilience ¹	Pressure resistance tested at 5400 Pa Wind suction load capacity tested at 2400Pa
Safety class	II
Reverse current overload	20A
Fire class	C (UL 790)
Hail resistance	Hailstones up to 40mm in size and at a speed of 27.5m/s (HW4)

¹ Specified pressure load resistance: 3600 Pa and suction load resistance: 1600 Pa

Temperature coefficients

TC of maximum power (Pmax)	-0.35% / °C
TC of open circuit voltage (Voc)	-0.28% / °C
TC of short circuit current (Isc)	+0.048% / °C



This data sheet corresponds to DIN EN 50380.
Developed and designed in Germany.

Electrical data (STC)

Nominal data at standard testing conditions (STC): Irradiance 1000W/m²; Spectrum AM 1.5; module temperature 25°C; sorting for Pmax 0 to +5W

Module type	R-BF 108p.3/400	R-BF 108p.3/405
STC power output Pmax (Wp)	400	405
Nominal power voltage Vmp (V)	31.18	31.35
Nominal power current Imp (A)	12.83	12.92
Open circuit voltage Voc (V)	37.21	37.38
Short circuit current Isc (A)	13.67	13.76
Module efficiency (%)	20.5	20.7

Tolerance Pmax: ± 3,0%; tolerances Voc, Vmp, Isc, Imp: ± 5,0%

Electrical data (NMOT)

Nominal data at NMOT (Nominal Module Operation Temperature): Irradiation intensity 800W/m²; spectral distribution AM 1.5; ambient temperature 20°C; wind velocity 1m/s

Module type	R-BF 108p.3/400	R-BF 108p.3/405
Solar cell temperature (°C)	45 +/- 2	45 +/- 2
Power output (Wp)	294	298
Nominal power voltage Vmp (V)	28.65	28.82
Nominal power current Imp (A)	10.26	10.34
Open circuit voltage Voc (V)	34.42	34.58
Short circuit current Isc (A)	11.02	11.09

Tolerance Pmax: ± 3,0%; tolerances Voc, Vmp, Isc, Imp: ± 5,0%

