SOLYCO Design

R-BG 108h.5 /500

Bifacial full-black heterojunction module with top performance: Optimized for large roof areas



Superior temperature resilience

HJT double-glass module with an optimized temperature coefficient of 0.24 %.

Aesthetic roof integration

The aesthetic and appealing full-black design blends well with modern architecture.

Optimized module size

The larger dimensions make the module an ideal choice especially for large roof systems.

Enhanced moisture protection

Added butyl coating provides optimal protection against moisture, extending module durability.

Improved warranty

Up to 30 years product warranty and 90.3 % performance guarantee after 30 years due to exceeded standards.

Certificates

- IEC 61215:2016 (module reliability)
- IEC 61730:2016 (module safety)
- IEC TS 62804-1:2015 (PID resistance)
- IEC 61701:2020 (salt mist resistance)
- IEC 62716:2013 (ammonia resistance)

DE 63944028

Superior Solar Solutions

German Warranty Provider

2,22 m² module size

4-corner clamping approved

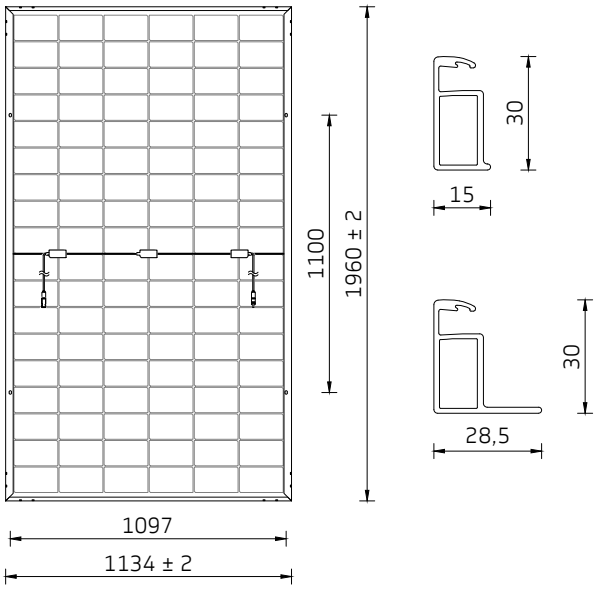
22,5 % module efficiency

MC4-Evo 2 original STÄUBLI

R-BG 108h.5 /500

Mechanical data

Cell technology	HJT, monocrystalline
Cell size and quantity	182 mm x 105 mm; 108 half cells
Module dimensions	1960 mm x 1134 mm x 30 mm
Module weight	27.2 kg
Frame	Black anodised aluminium
Front glass	2.0 mm tempered solar glass with anti-reflective coating
Back glass	2.0 mm tempered solar glass with black mesh
Junction box and IP rating	3 pcs with one bypass diode each, potted in accordance with IP68
Cable and connector	4 mm² solar cable, length 130 cm, STÄUBLI MC4-Evo 2 connector



Electrical data

Conditions	STC	NMOT	BNPI
STC power output Pmax (Wp)	500	381	560
Nominal power voltage Vmp (V)	34,16	32,63	34,28
Nominal power current Imp (A)	14,64	11,70	16,36
Open circuit voltage Voc (V)	40,76	38,90	40,90
Short circuit current Isc (A)	15,48	12,37	17,36
Bifacial coefficient (%)	90 ± 5		
Module efficiency (%)	22,5		

STC (nominal data under standard test conditions): irradiance 1000 W/m2; AM 1.5 spectrum; module temperature 25 °C; sorting for Pmax ±2,0 %. NMOT (nominal data at Nominal Module Operating Temperature): irradiance 800 W/m2; AM 1.5 spectrum; ambient temperature 20 °C; wind velocity 1 m/s. BNPI (Bifacial Nameplate Irradiance): irradiance 1000 W/m2 at the front and 135 W/m2 at the back; applied according to a method defined in IEC TS 60904-1-2. Pmax tolerance: ±3.0 %; Voc, Vmp, Isc, Imp tolerances: ±5.0 %.

Packaging

36 modules vertically per pallet

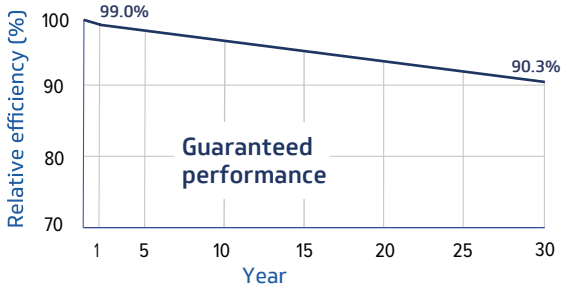
864 modules per truck

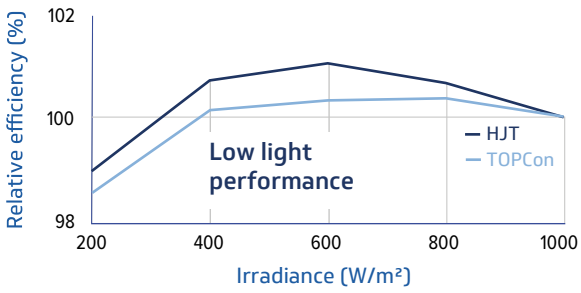
900 kg per pallet

Connection and operating conditions

Maximum system voltage	1500 V
Operating temperature range	-40 °C ... +85 °C
Mechanical resilience[1]	Pressure resistance tested at 5400 Pa Wind suction load resistance tested at 2400 Pa
Safety class	II
Reverse current overload	30 A
Fire classes[2]	A (UL 790) B_{ROOF} (t1) according to DIN EN 13501-5:2016
Hail resistance	Hailstones up to 25 mm in size and at a speed of 23 m/s

[1] Specified pressure load resistance: 3600 Pa and suction load resistance: 1600 Pa;
[2] For all roof slopes.





Temperature coefficients

TC of the maximum power (Pmax)	-0.24 %/°C
TC of open circuit voltage (Voc)	-0.24 %/°C
TC of short circuit current (Isc)	+0.04 %/°C
Nominal module operating temperature (NMOT)	44 ± 2

DS SOLYCO R-BG 108h.5 500 2025-06-v1_en

SOLYCO Solar AG I Flughafen Tegel 1
13405 Berlin I Germany

info@solyco.com
solyco.com