



TOP CON N-TYPE M10

BAUER SOLARTECHNIK

SUPERBLACK

BS-120M10HBB-GG 470 - 480 W

BIFACIAL GLASS-GLASS HALF-CELL MODULE

BAUER SOLAR GERMANY



GRADE "A" N-TYPE BIFACIAL HALF CELLS

Only Grade "A" half-cells are used in the production of all BAUER solar modules and only the blackest are selected. Up to 30% increase in yield through bifacial cells active on both sides and a glass backside.



LOW LIGHT PERFORMANCE

Stronger performance in low lighting conditions than PERC modules, such as overcast days, mornings and evenings helping to ensure a higher energy output than PERC every day.



STABILITY & DURABILITY

2 x 2 mm tempered anti-reflective solar glass; dirt-repellent, scratch-resistant, durable and shock-proof.



CERTIFICATION

Constant in-house quality controls - certified several times over by accredited inspection bodies.



FIRE CLASS A

Maximum fire protection through double glazing according to the highest security requirements.



WARRANTY & GUARANTEE

30 year product warranty and a linear performance guarantee over a period of 30 years.



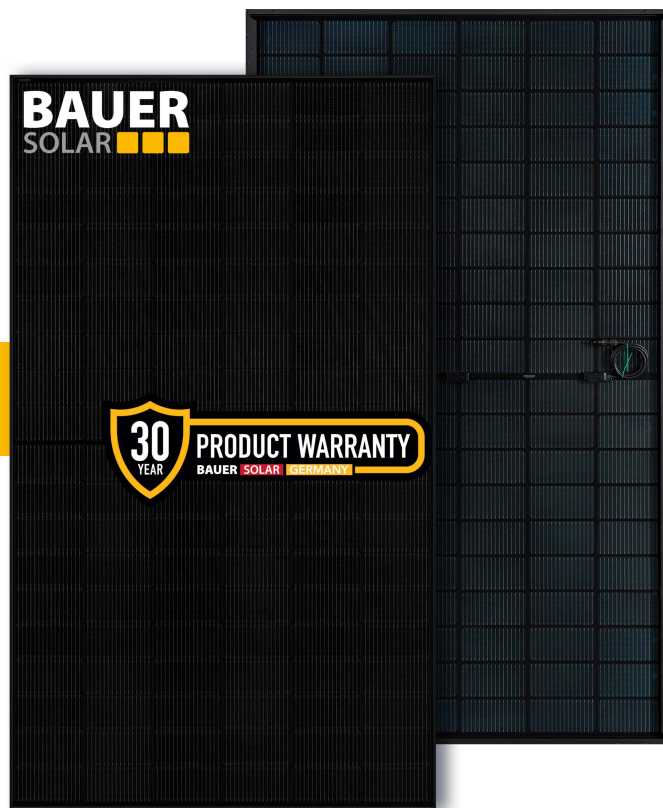
GERMAN GUARANTOR

If necessary, it is guaranteed that a German company takes over any claim settlements.



REINSURANCE COVERAGE

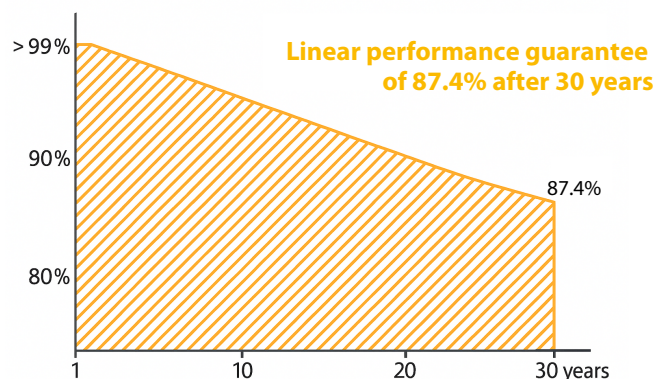
BAUER is re-insured with Munich RE for 15 years of the product warranty & 30 years of the performance guarantee.



BAUER GUARANTEE +

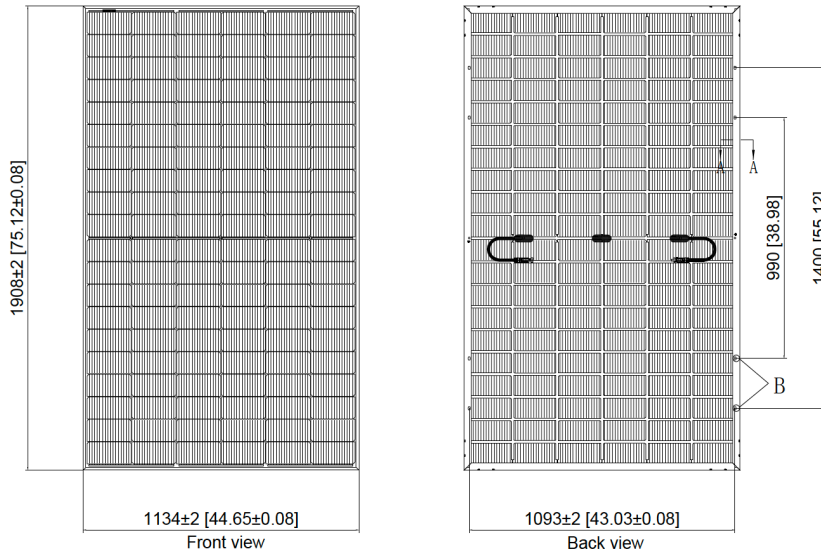
Our extended guarantee covers the module guarantee and a lump-sum compensation for the replacement of a defective module (Guarantee conditions as of 01.12.2023).

BAUER guarantees a minimum performance value of 87.4% after 30 years for the **SUPERBLACK** glass-glass solar modules.



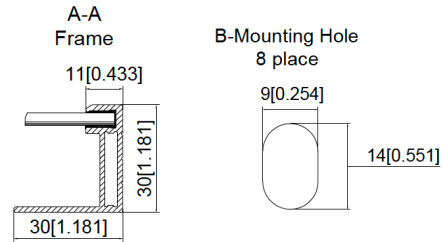


Note: mm[in]



BAUER SOLARTECHNIK SUPERBLACK

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WARRANTIES¹

30 year product warranty

30 year performance guarantee

OPERATING CONDITIONS

Operating temperature -40 to 85°C

Static load 5400 Pa (snow/wind/ice)

Hail test Ø 25 mm at ~ 23 m/s

CERTIFICATION

IEC 61215, 61730-1/2, 61701 (Salt mist), 62716 (Ammonia)
CSA; Fire Class: A (IEC); (USA) Type 29

PACKAGING

Modules per pallet 35

Pallets/modules per truck 24/840

PHYSICAL SPECIFICATIONS

Module dimensions	1908 x 1134 x 30 mm
Weight	26.7 kg
Frame	Black anodized aluminum profile
Frontside	AR-coated heat-strengthened glass, 2 mm
Embedding material	EVA
Backside	Black-glazed & heat-strengthened glass, 2 mm
Solar cells	120 monocrystalline N-type bifacial half-cells
Bifaciality	80 % ± 10 %
Junction box(es)	IP68, 3 bypass diodes
Cable & connector	4 mm ² , 1300 mm, Stäubli MC4/EVO2A

ELECTRICAL CHARACTERISTICS²

		BS-470-120M10HBB-GG	BS-475-120M10HBB-GG	BS-480-120M10HBB-GG
Maximum power	P _{max} (W)	470	475	480
Power output tolerance	P _{max} (%)	0 ~ +3	0 ~ +3	0 ~ +3
Open circuit voltage	V _{oc} (V)	42.37	42.53	42.71
Short circuit current	I _{sc} (A)	14.15	14.23	14.29
Voltage at maximum power	V _{mpp} (V)	35.07	35.23	35.42
Current at maximum power	I _{mpp} (A)	13.41	13.49	13.56
Module efficiency	η _m (%)	21.72	21.95	22.18
Bifaciality performance increase*	10 % P _{mpp} (W)	517 (+47)	522.5 (+47.5)	528 (+48)
	20 % P _{mpp} (W)	564 (+94)	570 (+95)	576 (+96)
	30 % P _{mpp} (W)	611 (+141)	617.5 (+142.5)	624 (+144)
Nominal operating cell temperature	NOCT (°C)	45 +/- 2		
Temperature coefficient of Voc	Tk (Voc)	-0.26 %/°C		
Temperature coefficient of Isc	Tk (Isc)	+0.046 %/°C		
Temperature coefficient of P _{mpp}	Tk (P _{mpp})	-0.30 %/°C		
Maximum system voltage DC (TÜV)	(V)	1500		
Maximum series fuse rating	(A)	30		

*depending on Albedo and irradiation conditions at installation site

¹Nominal value is specified in the written warranty conditions. A possible light-induced degradation in performance is not taken into account.

²Values under Standard Test Conditions (STC): air pressure 1.5 AM, irradiance 1000 W/m², cell temperature 25°C. STC measuring tolerance: ±3 % (P_{max}), ±10 % (V_{mpp}, I_{mpp}, V_{oc}, I_{sc}). The beneficiary under the reinsurance policy is solely Bauer Solar Engineering GmbH. Please contact us to get information on how this insurance coverage benefits you as a customer.

Note: please read the installation manual before using this product. Subject to change.

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