



TOPCON N-TYPE M12

BAUER SOLARTECHNIK

SUPERBLACK

BS-132M12HBB-GG 690 - 700 W

BIFACIAL GLASS-GLASS HALF-CELL MODULE

GERMAN MADE



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.



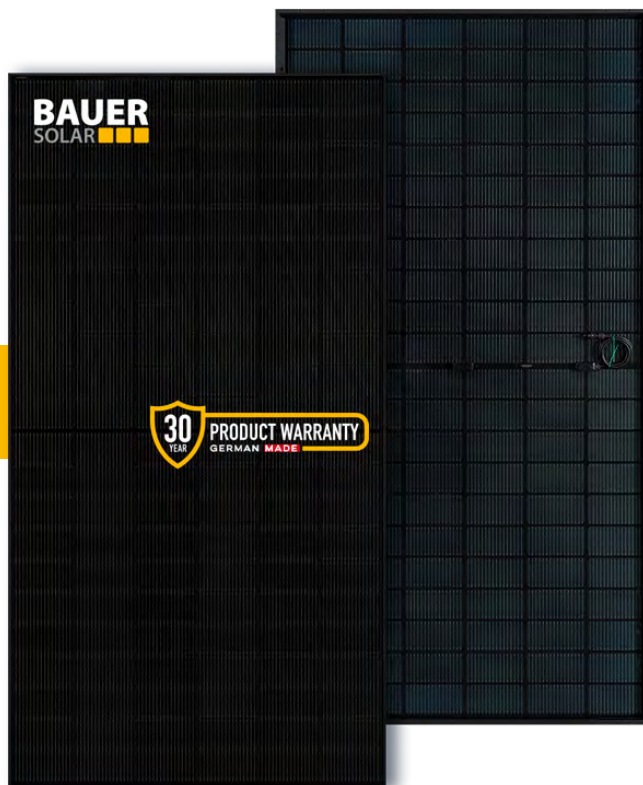
GERMAN GUARANTOR

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



REINSURANCE COVERAGE

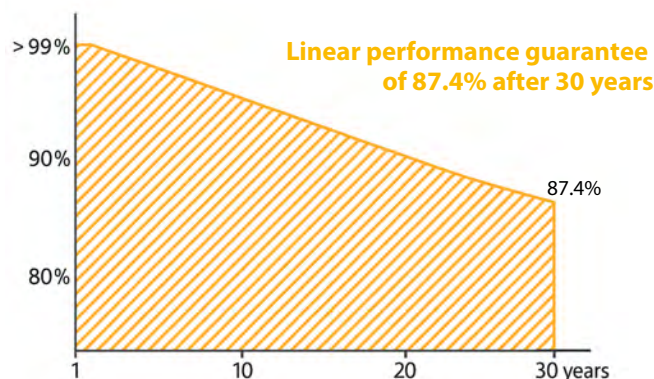
BAUER is re-insured with Munich RE for 15 years of the product warranty & 30 years of the performance guarantee.

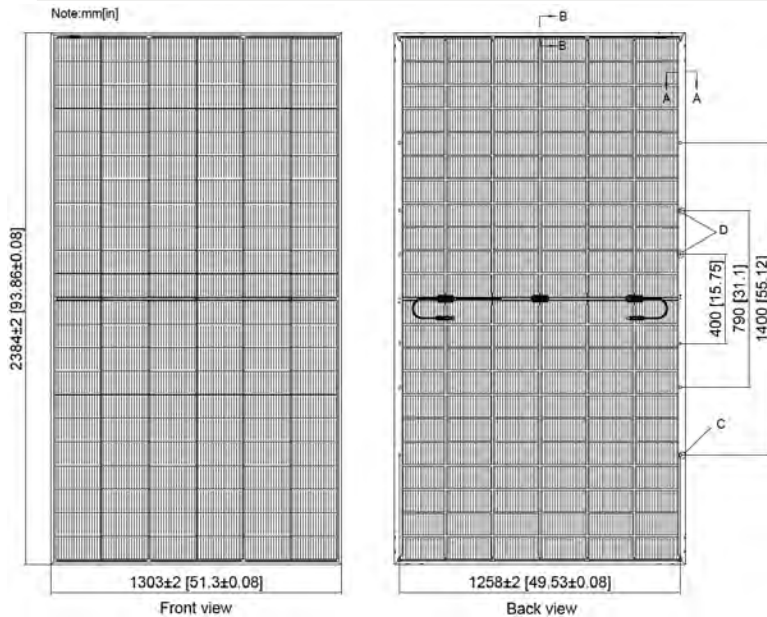


BAUER GUARANTEE +

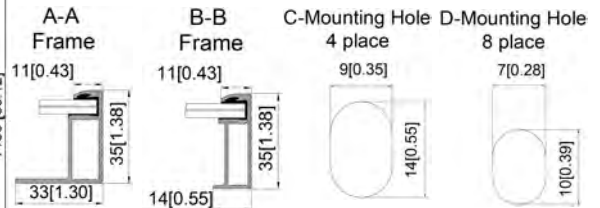
Our extended guarantee covers the module guarantee and a lump-sum compensation for the replacement of a defective module (Guarantee conditions as of 01.12.2023).

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





BAUER SOLARTECHNIK SUPERBLACK BS-132M12HBB-GG 690 - 700 W



PHYSICAL SPECIFICATIONS

Module dimensions	2384 x 1303 x 35 mm
Weight	38.5 kg
Frame	Black anodized aluminum profile
Frontside	AR-coating semi-toughened glass, 2 mm
Embedding material	EVA
Backside	Black-glazed & semi-toughened glass, 2 mm
Solar cells	132 monocrystalline N-type bifacial half-cells
Bifaciality	80 % ± 10 %
Junction box(es)	IP68, 3 bypass diodes
Cable & connector	1x4 mm ² , 1300 mm, Stäubli MC4/EVO2A

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 (USA); UL Type 29

PACKAGING

Modules per pallet	30
Pallets/modules per truck	18/540

ELECTRICAL CHARACTERISTICS²

		BS-690-132M12HBB-GG	BS-695-132M12HBB-GG	BS-700-132M12HBB-GG
Maximum power	P _{max} (W)	690	695	700
Power output tolerance	P _{max} (%)	0 ~ +3	0 ~ +3	0 ~ +3
Open circuit voltage	V _{oc} (V)	47.90	48.30	48.50
Short circuit current	I _{sc} (A)	18.25	18.28	18.32
Voltage at maximum power	V _{mpp} (V)	40.10	40.30	40.50
Current at maximum power	I _{mpp} (A)	17.23	17.25	17.29
Module efficiency	η _m (%)	22.21	22.37	22.53
Bifaciality performance increase*	10 % P _{mpp} (W)	759 (+69)	764.5 (+69.5)	770 (+70)
	20 % P _{mpp} (W)	828 (+138)	834 (+139)	840 (+140)
	30 % P _{mpp} (W)	897 (+207)	903.5 (+208.5)	910 (+210)
*depending on Albedo and irradiation conditions at installation site				
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		

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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