

BAUER

Solartechnik GmbH

BS-144M6HBB-GG 440 - 450 W
glass/glass - transparent



PERFORMANCE GUARANTEE

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



CERTIFICATION

Permanent in-house quality control, multiple certifications by accredited inspection bodies



EFFICIENCY

High efficiency for optimum yield - innovations directly influence the production process



POSITIVE POWER TOLERANCE

Exclusive delivery of solar modules with positive power tolerance only



N-TYPE BIFACIAL TECHNOLOGY

Double-sided solar cells and a transparent back side increase the potential power output by up to 30%



HALF-CELL TECHNOLOGY

Double the amount of cells on the same surface area reduces power loss in case of e.g. shadowing



WEATHERPROOF

Standardized mechanical load test guards against damage from wind and weather



GERMAN GUARANTOR

In case of need it is ensured that a German company assumes the claim settlement



SAFETY

High-quality components ensure maximum protection in all weather conditions



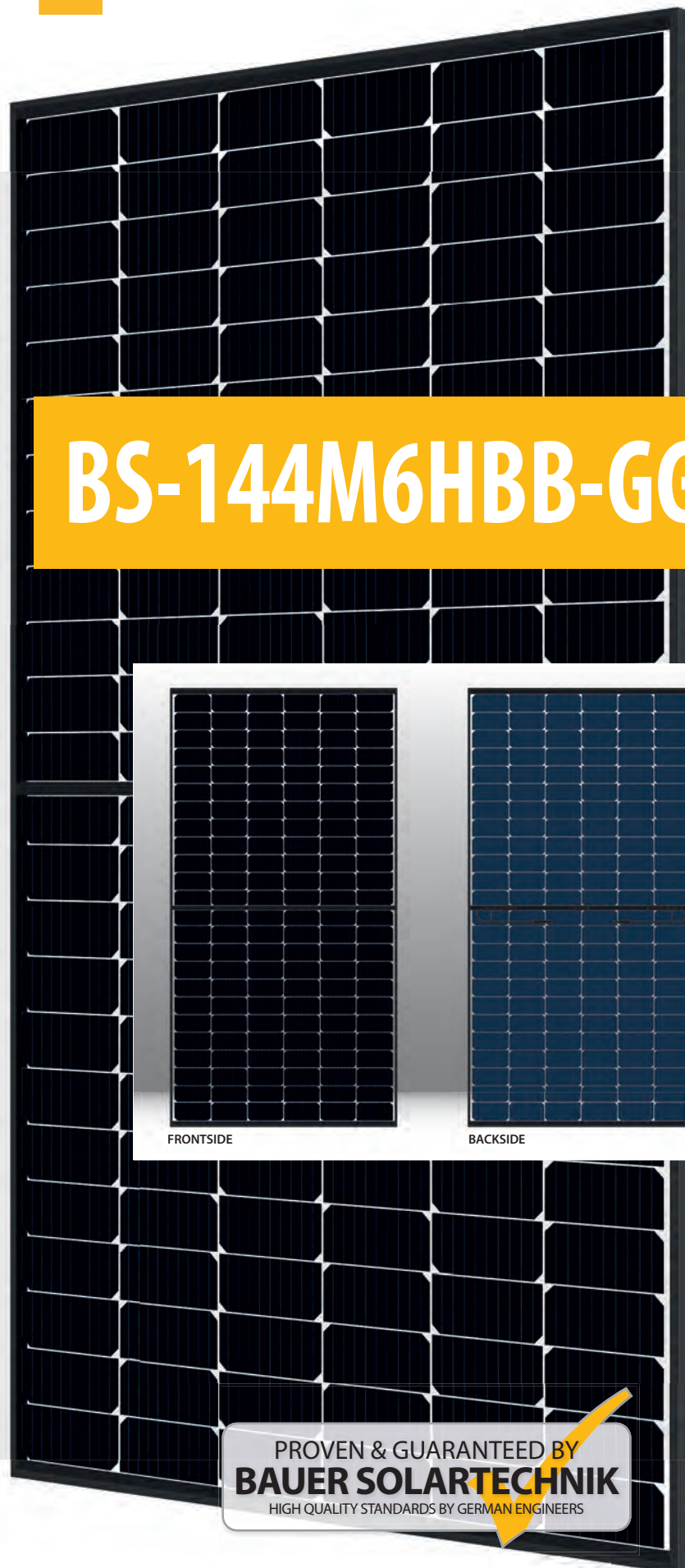
PID TEST

The solar cells of our high performance modules are tested for PID



REINSURANCE COVERAGE

The cooperation with the insurance company is guaranteeing even higher levels of financial stability & reliability - BAUER is insured for 12 years of the product's warranty and 25 years of the product's performance guarantee



BS-144M6HBB-GG

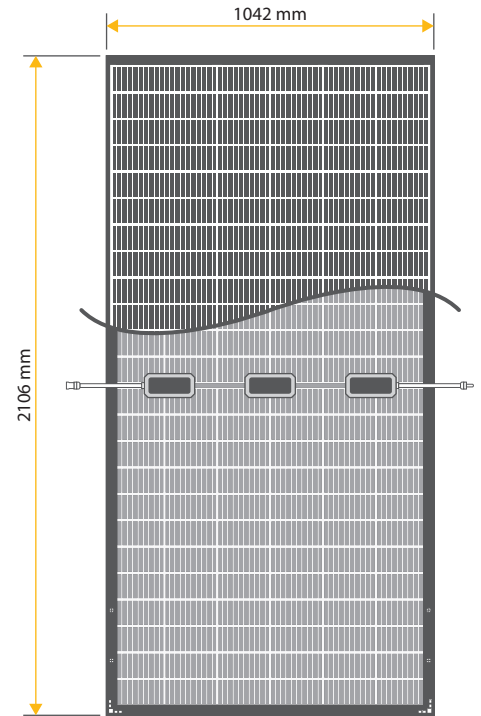
FRONTSIDE

BACKSIDE

PROVEN & GUARANTEED BY
BAUER SOLARTECHNIK
HIGH QUALITY STANDARDS BY GERMAN ENGINEERS

BS-144MHBB5-GG 440 - 450 W

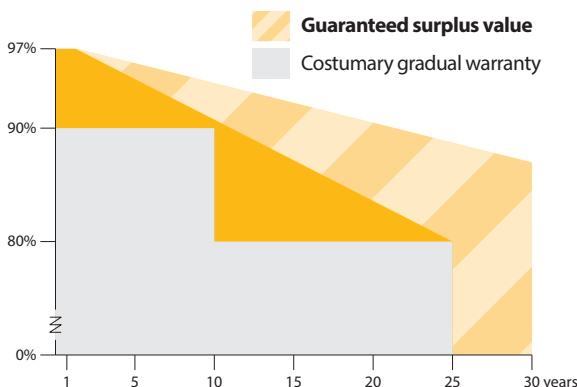
MECHANICAL DATA	
Module dimensions	2106 x 1042 x 30 mm
Weight	28,0 kg
Frame	Anodized aluminium alloy (black)
Frontside	Glass with anti-reflection technology
Embedding material	EVA
Backside	Glass with anti-reflection technology
Solar cells	144 monocrystalline n-type bifacial half-cells 9BB
Bifaciality	80% (bifaciality coefficient = P_{\max} backside (STC) / P_{\max} frontside (STC), tolerance: $\pm 5\%$)
Connection	IP \geq 68, 3 bypass diodes
Cable & connector	1x4 mm ² , 1400 mm, MC4 compatible



OPERATIONAL CONDITIONS	
Operating temperature	-40 to 85°C
Static load	5400 Pa (snow/wind)
Hail	Ø 25 mm at 23 m/s

ELECTRICAL DATA ¹		BS-440-144M6HBB-GG	BS-445-144M6HBB-GG	BS-450-144M6HBB-GG
Maximum power	P_{\max} (W)	440	445	450
Power output tolerance	P_{\max} (%)	0 ~ +3	0 ~ +3	0 ~ +3
Open circuit voltage	V_{oc} (V)	49,60	49,80	50,00
Short circuit current	I_{sc} (A)	11,29	11,36	11,43
Voltage at max. power	V_{mpp} (V)	41,20	41,40	41,60
Current at max. power	I_{mpp} (A)	10,68	10,75	10,82
Module efficiency	η_m (%)	20,05	20,28	20,51
Nominal operating cell temperature	NOCT (°C)	42 \pm 2		
Temperature coefficient of V_{oc}	$T_k (V_{oc})$	-0,260 %/°C		
Temperature coefficient of I_{sc}	$T_k (I_{sc})$	+0,046 %/°C		
Temperature coefficient of P_{mpp}	$T_k (P_{mpp})$	-0,320 %/°C		
Maximum system voltage DC (TÜV)	(V)	1500		
Maximum series fuse rating	(A)	25		

LINEAR PERFORMANCE GUARANTEE



WARRANTY CONDITIONS²

Product warranty	30 years
Performance guarantee	30 years (min. 87% after 30 years)

QUALIFICATION & CERTIFICATION

IEC 61215	IEC 61730	CE	TUV SUD
Fire Class A			

PACKAGING UNITS

Modules per pallet	35 pcs
Modules per truck	700 pcs

¹Values under Standard Test Conditions (STC): air mass 1,5 AM, irradiance 1000 W/m², cell temperature 25°C. STC measuring tolerance: $\pm 3\%$ (P_{\max}), $\pm 10\%$ (V_{\max} , I_{mpp} , V_{oc} , I_{sc}). ²Nominal value is specified in the written warranty conditions. A possible light-induced degradation in power is not taken into account. The beneficiary under the reinsurance policy of MunichRe is solely Bauer Energiekonzepte GmbH. Please contact us to get information on how this insurance coverage benefits you as a customer. Note: Please read safety instructions and installation manual before using this product. Subject to change. © 2021 Bauer Energiekonzepte GmbH. Effective 2nd of september 2021.

