



BAUER SOLARTECHNIK
PREMIUM PROTECT

BS-144M10HBB 540 - 550 W

GLASS/GLASS - WHITE GRID - BLACK FRAME



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



BIFACIAL TECHNOLOGY

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



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



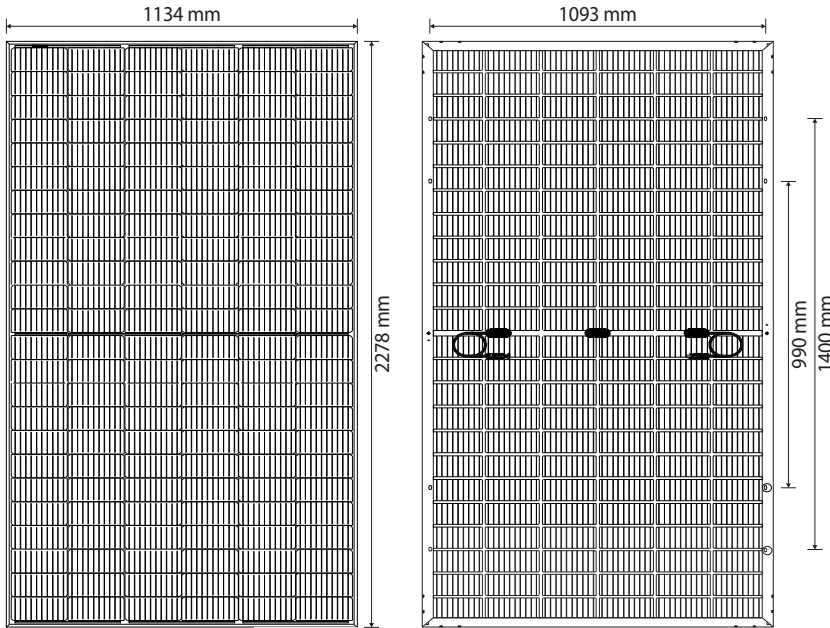
REINSURANCE COVERAGE

BAUER has reinsured the performance guarantee with a german insurance company for 30 years

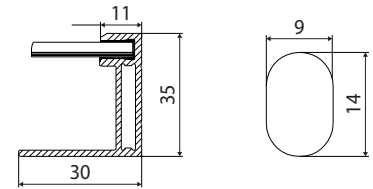
PROVEN & GUARANTEED BY
BAUER SOLARTECHNIK
HIGH QUALITY GERMAN STANDARDS

MECHANICAL DATA	
Module dimensions	2278 x 1134 x 35 mm
Weight	32.7 kg
Frame	Anodized aluminium alloy (black)
Frontside	Anti-reflection safety glass, semi-toughened, 2 mm
Embedding material	EVA
Backside	Anti-reflection safety glass, semi-toughened, 2 mm
Solar cells	144 monocrystalline bifacial half-cells
Bifaciality	70% (bifaciality coefficient = P_{\max} backside (STC) / P_{\max} frontside (STC), tolerance: $\pm 10\%$)
Connection	IP ≥ 68 , 3 bypass diodes
Cable & connector	1x4 mm ² , 1300 mm, MC4 compatible

WARRANTY CONDITIONS ²	
Product warranty	30 years
Performance guarantee	30 years (min. 87,4% after 30 years)
OPERATIONAL CONDITIONS	
Operating temperature	-40 to 85°C
Static load	5400 Pa (snow/wind/ice)
Hail	\varnothing 25 mm at 23 m/s
QUALIFICATION & CERTIFICATION	
IEC 61215, IEC 61730, Fire Class A IEC 61730-2	
PACKAGING UNITS	
Modules per container	600 pcs



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ELECTRICAL DATA ¹		BS-540-144M10HBB-GG	BS-545-144M10HBB-GG	BS-550-144M10HBB-GG
Maximum power	P_{\max} (W)	540	545	550
Power output tolerance	P_{\max} (%)	0 ~ +3	0 ~ +3	0 ~ +3
Open circuit voltage	V_{oc} (V)	49.65	49.81	49.92
Short circuit current	I_{sc} (A)	13.85	13.92	13.99
Voltage at max. power	V_{mpp} (V)	41.65	41.80	42.00
Current at max. power	I_{mpp} (A)	12.97	13.04	13.10
Module efficiency	η_m (%)	20.90	21.10	21.29
Nominal operating cell temperature	NOCT (°C)	45 \pm 2		
Temperature coefficient of V_{oc}	$T_k (V_{oc})$	-0.270 %/°C		
Temperature coefficient of I_{sc}	$T_k (I_{sc})$	+0.048 %/°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)	30		
Bifaciality performance increase:*	10% P_{mpp} (W)	594 (+54)	599 (+54)	605 (+55)
	20% P_{mpp} (W)	648 (+108)	654 (+109)	660 (+110)
	30% P_{mpp} (W)	702 (+162)	708 (+163)	715 (+165)

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. © 2023 Bauer Solar GmbH. Effective 4th of April 2023.

