



BAUER SOLARTECHNIK
SUPERBLACK
BS-120M10HBB 440 - 450 W



PERFORMANCE GUARANTEE

20 years of product warranty and a linear performance guarantee over a period of 25 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



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-120M10HBB

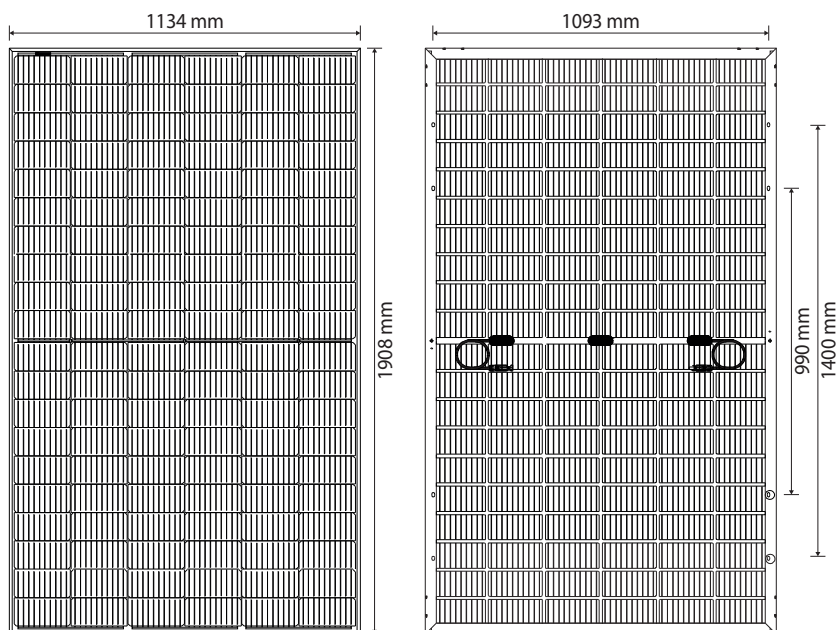
FRONTSIDE

BACKSIDE

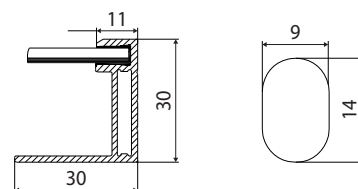
PROVEN & GUARANTEED BY
BAUER SOLARTECHNIK
HIGH QUALITY GERMAN STANDARDS

MECHANICAL DATA	
Module dimensions	1908 x 1134 x 30 mm
Weight	23.9 kg
Frame	Anodized aluminium alloy (black)
Frontside	Anti-reflection safety glass, semi-toughened, 3.2 mm
Embedding material	EVA
Backside	Foil (black)
Solar cells	120 monocrystalline half-cells
Connection	IP ≥ 68, 3 bypass diodes
Cable & connector	1x4 mm ² , 1300 mm, MC4 compatible

WARRANTY CONDITIONS ²	
Product warranty	20 years
Performance guarantee	25 years (min. 80% after 25 years)
OPERATIONAL CONDITIONS	
Operating temperature	-40 to 85°C
Static load	5400 Pa (snow/wind)
Hail	Ø 25 mm at 23 m/s
QUALIFICATION & CERTIFICATION	
IEC 61215, IEC 61730	
PACKAGING UNITS	
Modules per container	864 pcs



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ELECTRICAL DATA ¹		BS-440-M10HBB	BS-445-M10HBB	BS-450-M10HBB
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)	41.70	41.90	42.10
Short circuit current	I _{sc} (A)	13.41	13.48	13.56
Voltage at max. power	V _{mpp} (V)	34.60	34.80	35.00
Current at max. power	I _{mpp} (A)	12.72	12.79	12.86
Module efficiency	η _m (%)	20.34	20.57	20.80
Nominal operating cell temperature	NOCT (°C)	45 ± 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		

¹Values under Standard Test Conditions (STC): air mass 1,5 AM, irradiance 1000 W/m², cell temperature 25°C. STC measuring tolerance: ±3 % (P_{max}), ±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.

