AEG

AEG PREMIUM SERIES



AS-M1089B-GA(M10)/HV / N-TYPE ABC GLASS-GLASS PHOTOVOLTAIC MODULE

CHARACTERISTICS

Power range: 445-455 Wp
Glass-glass and ABC N-type back-contact technology
Suitable for: residential / commercial installations

EXTRA PEACE OF MIND

Extensive certifications and rigorous Quality Control
40 years product warranty
40 years performance warranty

PRODUCT NAME CODE (PNC)

AS-M1089B-GA(M10)-445/450/455/HV
(black rear glass, black frame)

EUPD RESEARCH TOP BRAND PV MODULES NETHERLANDS 2023
EUPD RESEARCH TOP BRAND PV MODULES SWITZERLAND 2023

ADVANTAGES

Superior efficiency (up to 23.3%)
thanks to ABC N-type back-contact technology
Sleek full black look, premium aesthetics
Higher sustainability thanks to silver-free metallization
Outstanding performance / low degradation over product lifetime

AEG

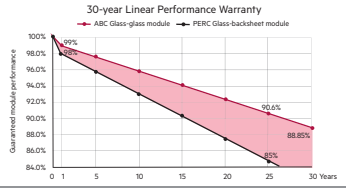
AS-M1089B-GA(M10)/HV / N-TYPE ABC GLASS-GLASS PHOTOVOLTAIC MODULE

PRODUCT SERIES & NAMECODE (PNC)
AEG PREMIUM SERIES
AS-M1089B-GA(M10)/HV-445/450/455/HV
black frame, black rear glass

CERTIFICATIONS		
System	ISO 9001, ISO 14001, ISO 45001	
Product	IEC 61730, IEC 61215	

ELECTRICAL CHARACTERISTICS AT STC[1,2]				
Nominal Power (Pmax)	[Wp]	445	450	455
Power Sorting[3]	[W]	0-5	0-5	0-5
Maximum Power Voltage (Vmp)	[V]	33.79	33.89	33.99
Maximum Power Current (Imp)	[A]	13.18	13.28	13.39
Open Circuit Voltage (Voc)	[V]	40.15	40.25	40.35
Short Circuit Current (Isc)	[A]	13.68	13.74	13.80
Module Efficiency (ηm)	[%]	22.8	23.0	23.3
Maximum System Voltage	[V]	1500	1500	1500
Series Fuse Maximum Rating	[A]	25	25	25

WARRANTIES		
Product warranty[5]	[years]	40
Performance warranty (linear)[6]	[years]	40



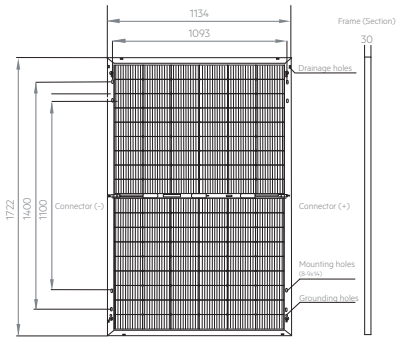
ELECTRICAL CHARACTERISTICS AT NOCT				
Maximum Power (Pmax)	[W]	336	339	343
Maximum Power Voltage (Vmp)	[V]	31.83	31.92	32.01
Maximum Power Current (Imp)	[A]	10.56	10.65	10.73
Open Circuit Voltage (Voc)	[V]	37.82	37.91	38.00
Short Circuit Current (Isc)	[A]	11.03	11.08	11.13

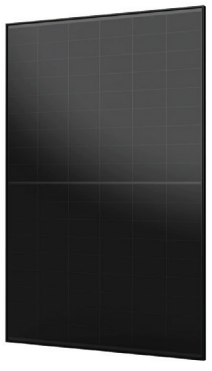
TEMPERATURE CHARACTERISTICS		
NOCT	[°C]	45 (±2)
Pmax Temp. Coefficient (γ)	[%°C]	-0.29
Voc Temp. Coefficient (β)	[%°C]	-0.24
Isc Temp.Coefficient (α)	[%°C]	0,05
Operating temperature	[°C]	–40~+85

MECHANICAL CHARACTERISTICS		
Solar cells	monocrystalline [pcs]	108
	Dimensions [mm]	M10 Half-cut ABC [182 x 91]
Front glass	Coated semi-tempered glass	
	Thickness [mm] / [in]	2.0 / 0.08
Back glass	2.0 / 0.08	Black
Frame	Anodized aluminum alloy	Black
Junction box	Split-type, IP68	
	Bypass diodes	3
UV-resistant cables	Length [mm] / [in]	1200 / 47.24
	Section [mm²]	4
Connectors	MC4 EVO2A	
Dimensions	H x L x W [mm]	1722 x 1134 x 30
	H x L x W [in]	67.80 x 44.65 x 1.18
Weight	[kg] / [lbs]	24 / 52.90
Maximum load	Wind / Snow [Pa]	2400 / 5400
Fire Class	Class A	

PACKAGING		
Packing configuration	[pcs/pallet]	36
Loading capacity	[pcs/40 ft container]	936

TECHNICAL DRAWINGS





NOTES

1-Standard Test Conditions (STC): Irradiance 1000 W/m², Air Mass AM = 1.5, Cell Temperature 25°C)

2-Measurement tolerances (IEC 61215:2016): Pmax±3%, Voc±3%, Isc±3%

3-AEG photovoltaic modules are classified according to a principle of positive power tolerance: the Power Output measured at STC of the delivered modules exceeds their assigned Nameplate Nominal Power

4-NOCT: Nominal operating cell temperature; STC: AM1.5 1000W/m² 25 NOCT:AM1.5 800W/m² 20 1m/s)

5-EXTENDED / Full text of the Warranty Terms available at: https://www.solarsolutions.ag/warranty/aeg/.The Extended Warranty is a separate offer. If not offered by your distributor, the standard warranty conditions apply.

6-(PRE/GG) No less than 99% of the minimum "Peak Power at STC"in the first year; power output decline no more than 0.35% per year thereafter, ending with at least 88.85%.

Dimensions in the technical picture are expressed in mm with tolerance ±2 mm (±0.079 ") / Version 2023.08.V1.EN © Solar Solutions AG. Specifications in this datasheet are subject to change without notice.

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