

# AEG

## AEG PREMIUM SERIES

ABC TECHNOLOGY,  
SUPERIOR EFFICIENCY

EFFICIENCY UP TO  
**23.6%**

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

### CHARACTERISTICS



Power range: 450-460 Wp  
ABC N-type back-contact technology  
Suitable for: residential / commercial installations

### EXTRA PEACE OF MIND



Extensive certifications and rigorous Quality Control  
20 years product warranty  
30 years performance warranty

### PRODUCT NAME CODE (PNC)



AS-M1089B-A(M10)-450/455/460/HV  
(black frame, white module back side)

### ADVANTAGES



Superior efficiency (up to 23.6%)  
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



## AS-M1089B-A(M10)/HV / N-TYPE ABC MODULE PHOTOVOLTAIC MODULE

### PRODUCT SERIES & NAMECODE (PNC)

AEG PREMIUM SERIES  
AS-M1089B-A(M10)-450/455/460/HV  
black frame, white module back side

### ELECTRICAL CHARACTERISTICS AT STC<sup>1,2</sup>

	[Wp]	450	455	460
Nominal Power (Pmax)	[W]	0-5	0-5	0-5
Power Sorting <sup>3</sup>	[W]	33.70	33.80	33.90
Maximum Power Voltage (Vmp)	[V]	13.36	13.47	13.58
Maximum Power Current (Imp)	[A]	40.70	40.80	40.90
Open Circuit Voltage (Voc)	[V]	13.92	13.98	14.04
Short Circuit Current (Isc)	[A]	23.0	23.3	23.6
Module Efficiency (ηm)	[%]	1500	1500	1500
Maximum System Voltage	[V]	25	25	25
Series Fuse Maximum Rating	[A]			

### ELECTRICAL CHARACTERISTICS AT NOCT

	[W]	339	343	346
Maximum Power (Pmax)	[V]	31.82	31.92	32.01
Maximum Power Voltage (Vmp)	[A]	10.66	10.75	10.84
Maximum Power Current (Imp)	[V]	38.44	38.53	38.63
Open Circuit Voltage (Voc)	[A]	11.26	11.31	11.36
Short Circuit Current (Isc)				

### MECHANICAL CHARACTERISTICS

Solar cells	monocrystalline [pcs]	108
	Dimensions [mm]	M10 Half-cut ABC [182 x 91]
Front glass	Tempered glass, AR coating	
	Thickness [mm] / [in]	3.2 / 1.25
Backsheet	White module back side	
Frame	Anodized aluminum alloy	Black
Junction box	Split-type, IP68	
	Bypass diodes	3
UV-resistant cables	Length [mm] / [in]	1200 / 47.24
	Section [mm <sup>2</sup> ]	4
Connectors	MC4 EVO2	
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]	20.5 / 45.19
Maximum load	Wind / Snow [Pa]	2400 / 5400
Fire Class	Class C	

### PACKAGING

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

### NOTES

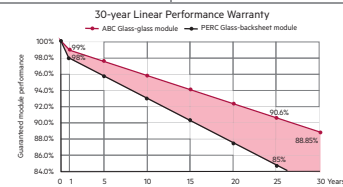
- Standard Test Conditions (STC): Irradiance 1000 W/m<sup>2</sup>, Air Mass AM = 1.5, Cell Temperature 25°C
  - Measurement tolerances (IEC 61215:2016): Pmax±3%, Voc±3%, Isc±3%
  - AEG photovoltaic modules are classified according to a principle of positive power tolerance: the Power Output measured at STC of the delivered modules exceeds their assigned Nameplate Nominal Power
  - NOCT: Nominal operating cell temperature; STC: AM1.5 1000W/m<sup>2</sup> 25 NOCT:AM1.5 800W/m<sup>2</sup> 20 1m/s)
  - Full text of the Warranty Terms available at: [www.aeg-solar.com](http://www.aeg-solar.com). If not offered by your distributor, the standard warranty conditions apply.
  - (PRE/GB) 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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### CERTIFICATIONS

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

### WARRANTIES

Product warranty <sup>5</sup>	[years]	20
Performance warranty (linear) <sup>6</sup>	[years]	30



### 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

### TECHNICAL DRAWINGS

