

# AEG

## AEG PREMIUM SERIES

EFFICIENCY UP TO

# 23.1%

BACK CONTACT  
TECHNOLOGY,  
SUPERIOR EFFICIENCY

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



### TECHNICAL CHARACTERISTICS



Power range: 450-460 Wp  
Single glass Photovoltaic Module,  
N-type back-contact technology  
Efficiency upto 23.1%

### PRODUCT NAME CODE (PNC)

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



### EXTRA PEACE OF MIND

Extensive certifications and rigorous Quality Control  
25 years product warranty  
30 years performance warranty  
\*30 years of free exchange or refund service

### ADVANTAGES



Superior efficiency (up to 23.1%)  
thanks to 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 BACK CONTACT PHOTOVOLTAIC MODULE

PRODUCT SERIES & NAMECODE (PNC)	
AEG PREMIUM SERIES	
AS-M1089B-A(M10)-450/455/460/HV	
black frame, black sheet	

ELECTRICAL CHARACTERISTICS AT STC <sup>1,2</sup>				
Nominal Power (Pmax)	[Wp]	450	455	460
Power Sorting <sup>3</sup>	[W]	0-5	0-5	0-5
Maximum Power Voltage (Vmp)	[V]	33.70	33.80	33.90
Maximum Power Current (Imp)	[A]	13.36	13.47	13.57
Open Circuit Voltage (Voc)	[V]	40.69	40.79	40.89
Short Circuit Current (Isc)	[A]	14.12	14.22	14.32
Module Efficiency (ηm)	[%]	22.6	22.8	23.1
Maximum System Voltage	[V]	1500	1500	1500
Series Fuse Maximum Rating	[A]	25	25	25

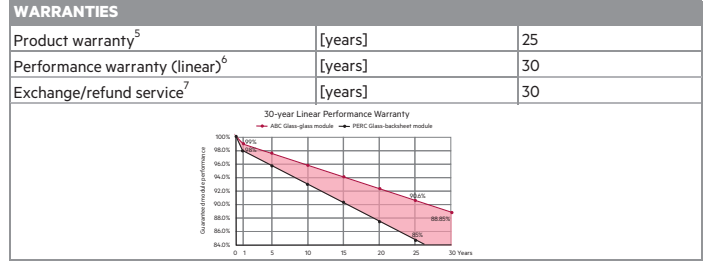
ELECTRICAL CHARACTERISTICS AT NOCT				
Maximum Power (Pmax)	[W]	339	343	346
Maximum Power Voltage (Vmp)	[V]	31.82	31.92	32.01
Maximum Power Current (Imp)	[A]	10.66	10.75	10.84
Open Circuit Voltage (Voc)	[V]	38.44	38.53	38.63
Short Circuit Current (Isc)	[A]	11.26	11.31	11.36

MECHANICAL CHARACTERISTICS		
Solar cells	monocrystalline [pcs]	108
	Dimensions [mm]	M10 Half-cut BC [182 x 91]
Front glass <sup>3</sup>	Tempered glass, AR coating	
	Thickness [mm] / [in]	3.2 / 1.25
Backsheet	Black 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> ]/[AWG]	4/12
Connectors	MC4 EVO2	
Dimensions	H x L x W [mm]	1757 x 1134 x 30
	H x L x W [in]	69.17 x 44.65 x 1.18
Weight	[kg] / [lbs]	21.5 / 47.39
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
1-Standard Test Conditions (STC): Irradiance 1000 W/m <sup>2</sup> , 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, Irradiance 800 W/m <sup>2</sup> , Wind Speed 1m/s, Ambient Temperature 20°C, Air Mass AM=1.5
5-Full text of the Warranty Terms available at: <a href="http://www.aeg-solar.com">www.aeg-solar.com</a> .
6-(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%.
7+*-Terms and conditions apply. For more information please check <a href="http://aeg-solar.com/exchangeservice">aeg-solar.com/exchangeservice</a>
Dimensions in the technical picture are expressed in mm with tolerance ±2 mm (=0.079") / Version 2024.04.V1EN © 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	EN IEC / IEC 61215-1:2021, EN IEC / IEC 61215-2:2021, EN IEC / IEC 61215-1:2021, IEC 61730-1:2016, IEC 61730-2:2016, EN IEC 61730-1:2016, EN IEC 61730-2:2016



TEMPERATURE CHARACTERISTICS		
NOCT	[°C]	45 (±2)
Pmax Temp. Coefficient (γ)	[%/°C]	-0.26
Voc Temp. Coefficient (β)	[%/°C]	-0.22
Isc Temp. Coefficient (α)	[%/°C]	0.05
Operating temperature	[°C]	-40~+85

