

AEG

AEG PREMIUM SERIES

EFFICIENCY UP TO

23.6%

BACK CONTACT
TECHNOLOGY,
SUPERIOR EFFICIENCY

AS-M1089Z-A(M10)/ HV / N-TYPE BACK CONTACT PHOTOVOLTAIC MODULE



TECHNICAL CHARACTERISTICS



Power range: 460-470 Wp
Single glass Photovoltaic Module,
N-type back-contact technology
Efficiency upto 23.6%

PRODUCT NAME CODE (PNC)

AS-M1089Z-A(M10)-460/465/470/HV
(black frame, white module back side)



EXTRA PEACE OF MIND

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

ADVANTAGES

Superior efficiency (up to 23.6%)
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-M1089Z-A(M10) / HV / N-TYPE BACK CONTACT PHOTOVOLTAIC MODULE

PRODUCT SERIES & NAMECODE (PNC)	
AEG PREMIUM SERIES	
AS-M1089Z-A(M10)-460/465/470/HV	
black frame, white module back side	

ELECTRICAL CHARACTERISTICS AT STC ^{1,2}				
Nominal Power (Pmax)	[Wp]	460	465	470
Power Sorting ³	[W]	0-5	0-5	0-5
Maximum Power Voltage (Vmp)	[V]	33.70	33.80	33.90
Maximum Power Current (Imp)	[A]	13.66	13.76	13.87
Open Circuit Voltage (Voc)	[V]	40.69	40.79	40.89
Short Circuit Current (Isc)	[A]	14.41	14.51	14.61
Module Efficiency (ηm)	[%]	23.1	23.3	23.6
Maximum System Voltage	[V]	1500	1500	1500
Series Fuse Maximum Rating	[A]	25	25	25

ELECTRICAL CHARACTERISTICS AT NOCT				
Maximum Power (Pmax)	[W]	346	350	354
Maximum Power Voltage (Vmp)	[V]	31.83	31.92	32.02
Maximum Power Current (Imp)	[A]	10.90	10.98	11.07
Open Circuit Voltage (Voc)	[V]	38.43	38.52	38.62
Short Circuit Current (Isc)	[A]	11.66	11.74	11.82

MECHANICAL CHARACTERISTICS		
Solar cells	monocrystalline [pcs]	108
	Dimensions [mm]	M10 Half-cut BC [182 x 91]
Front glass	Tempered glass, AR coating	
	Thickness [mm] / [in]	3.2 / 0.13
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 ²]/[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 ² , 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 ² , Wind Speed 1m/s; Ambient Temperature 20°C, Air Mass AM=1.5
5-Full text of the Warranty Terms available at: www.aeg-solar.com .
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 aeg-solar.com/exchangeservice
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.
AEG is a registered trademark used under license from AB Electrolux (publ).

CERTIFICATIONS	
System	ISO 9001, ISO 14001, ISO 45001
Product	EN IEC/IEC 61215-1:2021, EN IEC/IEC 61215-2:2021, EN IEC/IEC 61215-1-1:2021, IEC 61730-1:2016, IEC 61730-2:2016, EN IEC 61730-1:2018, EN IEC 61730-2:2018

WARRANTIES		
Product warranty ⁵	[years]	15
Performance warranty (linear) ⁶	[years]	30
Exchange/refund service ⁷	[years]	30

30-year Linear Performance Warranty

Guaranteed Power Output (%)

100%
98.0%
96.0%
94.0%
92.0%
90.0%
88.0%
86.0%
84.0%

0 1 5 10 15 20 25 30 Years

→ AEG Glass-glass module → PERC Glass-backsheet module

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

