

AEG

AEG HIGH EFFICIENCY SERIES

AS-M1088B-BH(M10) /HV / TOPCON BIFACIAL GLASS-GLASS PHOTOVOLTAIC MODULE

CHARACTERISTICS



Power range: 420-430 Wp
Glass-glass and bifacial cell technology
Suitable for: residential / commercial installations

EXTRA PEACE OF MIND



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

PRODUCT NAME CODE (PNC)



AS-M1088B-BH(M10)-420/425/430/HV
(back glass, black frame)

ADVANTAGES



Extra converting surface on the module back thanks to bifaciality;
Outstanding sleek optics
Extra long cables for greater installation flexibility

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PRODUCT SERIES & NAMECODE (PNC)	
AEG HIGH EFFICIENCY SERIES	
AS-M1088B-BH(M10)-420/425/430/HV	
back glass, black frame	

ELECTRICAL CHARACTERISTICS AT STC ^{1,2}				
Nominal Power (Pmax)	[Wp]	420	425	430
Power Sorting ³	[W]	0-5	0-5	0-5
Maximum Power Voltage (Vmp)	[V]	32.1	32.3	32.5
Maximum Power Current (Imp)	[A]	13.08	13.16	13.23
Open Circuit Voltage (Voc)	[V]	37.6	37.8	38.0
Short Circuit Current (Isc)	[A]	13.72	13.78	13.84
Module Efficiency (ηm)	[%]	21.51	21.76	22.02
Maximum System Voltage	[V]	1500	1500	1500
Maximum Fuse Rating	[A]	30	30	30

ELECTRICAL CHARACTERISTICS AT NOCT ⁴				
Maximum Power (Pmax)	[W]	316	320	323
Maximum Power Voltage (Vmp)	[V]	30.50	30.69	30.88
Maximum Power Current (Imp)	[A]	10.36	10.42	10.47
Open Circuit Voltage (Voc)	[V]	35.72	35.91	36.10
Short Circuit Current (Isc)	[A]	11.08	11.13	11.17

ELECTRICAL SPECIFICATIONS - INTEGRATED POWER / POWER GAIN ⁵					
Pmax Gain	420	[%]	10	20	30
Maximum Power		[W]	462	504	546
Pmax Gain	425	[%]	10	20	30
Maximum Power		[W]	467.5	510	552.5
Pmax Gain	430	[%]	10	20	30
Maximum Power		[W]	473	516	559

MECHANICAL CHARACTERISTICS		
Solar cells	monocrystalline [pcs]	108
	Dimensions [mm]	M10 Half-cut [182 x 91]
Front glass	high-transparency	
	Thickness [mm] / [in]	2 / 0.08
Back glass	Transparent	2 / 0.08
Encapsulant	EVA	transparent
Frame	Anodized aluminum alloy	black
Junction box	Standard, IP68	
	Bypass diodes	3
UV-resistant cables	Length [mm] / [in]	1200 / 47.24
	Section [mm ²]	4
Connectors	MC4	Compatible
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

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-Electrical characteristics with different rear power gain	
6-Full text of the Warranty Terms available at: www.aeg-solar.com	
7-(HE/GG) No less than 99% of the minimum "Peak Power at STC" in the first year; power output decline no more than 0.4% per year thereafter, ending with 87.4%.	
Dimensions in the technical picture are expressed in mm with tolerance ±2 mm (+0.079") / Version 2023.09.V1.0EN © Solar Solutions Group. Specifications in this datasheet are subject to change without notice.	
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CERTIFICATIONS		
System	ISO 9001, ISO 14001, ISO 45001	
Product	IEC 61215, IEC 61730	

WARRANTIES		
Product warranty ⁶	[years]	30
Performance warranty (linear) ⁷	[years]	30

TEMPERATURE CHARACTERISTICS		
NOCT	[°C]	45 (±2)
Pmax Temp. Coefficient (γ)	[%°C]	-0.3
Voc Temp. Coefficient (β)	[%°C]	-0.25
Isc Temp. Coefficient (α)	[%°C]	0.046
Operating temperature	[°C]	-40→+85

