

AEG

AEG PREMIUM SERIES



AS-M1082B-BH(RM10)/ HV /N-TYPE TOPCON BIFACIAL GLASS-GLASS PHOTOVOLTAIC MODULE

TECHNICAL CHARACTERISTICS



Power range: 435-450 Wp
Double Glass bifacial Photovoltaic Module,
N-Type TOPCON cell technology
Efficiency up to 22.5%

PRODUCT NAME CODE (PNC)

AS-M1082B-BH(RM10)-435/440/445/450/HV
(black glass, black frame)

EXTRA PEACE OF MIND



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

ADVANTAGES



Extra converting surface on the module back thanks to bifaciality;
Outstanding sleek optics
Extra power thanks to rectangular solar cells

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PRODUCT SERIES & NAMECODE (PNC)	
AEG PREMIUM SERIES	
AS-M1082B-BH(RM10)-435/440/445/450/HV	
Black glass, Black frame	

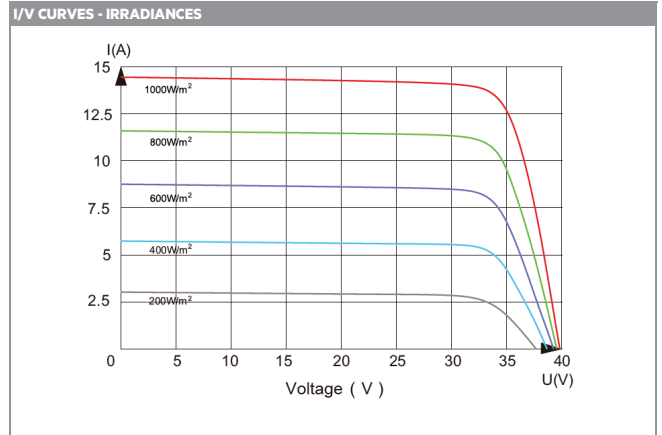
CERTIFICATIONS	
System	ISO 9001, ISO 14001, ISO 45001
Product	IEC/EN 61215-1:2016, IEC/EN 61215-1:2016, IEC 61215-2:2016, EN 61215-2:2017-AC:2017-AC:2018, IEC 61730-1:2016, IEC 61730-1:2016, EN IEC 61730-1:2018-AC:2018, IEC 61730-2:2016 / EN IEC 61730-2:2018-AC:2018

ELECTRICAL CHARACTERISTICS AT STC ^{1,2}					
Nominal Power (Pmax)	[Wp]	435	440	445	450
Power Sorting ³	[W]	0-5	0-5	0-5	0-5
Maximum Power Voltage (Vmp)	[V]	32.64	32.84	33.04	33.24
Maximum Power Current (Imp)	[A]	13.33	13.40	13.47	13.54
Open Circuit Voltage (Voc)	[V]	39.20	39.40	39.60	39.80
Short Circuit Current (Isc)	[A]	13.83	13.90	13.97	14.04
Module Efficiency (ηm)	[%]	21.8	22.0	22.3	22.5
Maximum System Voltage	[V]	1500	1500	1500	1500
Series Fuse Maximum Rating	[A]	30	30	30	30

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

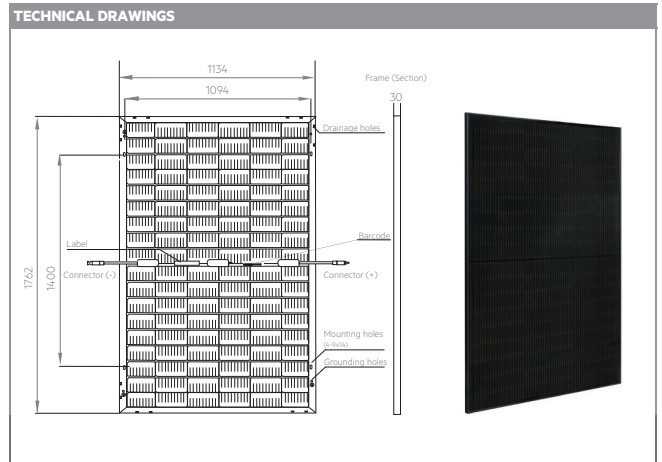
TEMPERATURE CHARACTERISTICS		
NMOT	[°C]	45 (±2)
Pmax Temp. Coefficient (γ)	[%/°C]	-0.29
Voc Temp. Coefficient (β)	[%/°C]	-0.25
Isc Temp. Coefficient (α)	[%/°C]	0.048
Operating temperature	[°C]	-40~+85

ELECTRICAL CHARACTERISTICS AT NMOT ⁴					
Maximum Power (Pmax)	[W]	327	331	335	339
Maximum Power Voltage (Vmp)	[V]	30.49	30.67	30.86	31.05
Maximum Power Current (Imp)	[A]	10.78	10.83	10.89	10.95
Open Circuit Voltage (Voc)	[V]	37.13	37.32	37.51	37.70
Short Circuit Current (Isc)	[A]	11.14	11.19	11.25	11.31



ELECTRICAL SPECIFICATIONS - INTEGRATED POWER / POWER GAIN ⁵					
Bifaciality Factor	80 ± 10 %				
Pmpp Gain	10%	15%	20%	25%	
Maximum Power (Pmax)	[W]	495	518	540	563
Maximum Power Voltage (Vmp)	[V]	37.00	38.22	40.00	42.00
Maximum Power Current (Imp)	[A]	15.00	16.00	16.24	17.00
Open Circuit Voltage (Voc)	[V]	44.00	46.00	48.00	50.00
Short Circuit Current (Isc)	[A]	15.44	16.14	17.00	18.00

MECHANICAL CHARACTERISTICS		
Solar cells	monocrystalline [pcs]	108
	Dimensions [mm]	RM10 Bifacial Half-cut [182 x 199]
Front glass	high-transparency	
	Thickness [mm] / [in]	1.6 / 0.06
Back glass	heat strengthened glass	1.6 / 0.06
Encapsulant	EVA	transparent
Frame	Anodized aluminum alloy	black color
Junction box	Split-type, IP68	
	Bypass diodes	3
UV-resistant cables	Length [mm] / [in]	1100 / 43.31
	Section [mm ²]	4
Connectors	PV-ZH202B or	MC4 EVO2A
Dimensions	H x L x W [mm]	1762x 1134 x 30
	H x L x W [in]	69.37 x 44.64 x 1.18
Weight	[kg] / [lbs]	20.4 / 44.96
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±3.0%, Voc±3.0%, Isc±4.0%	
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-NMOT: Nominal operating temperature of module, 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. Reference to 450 W	
6- Full text of the Warranty Terms available at: www.aeg-solar.com	
7-(PRE/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 2023.12.V2.EN © Solar Solutions Group. Specifications in this datasheet are subject to change without notice.	
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