

AEG

AEG PREMIUM SERIES

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

CHARACTERISTICS



Power range: 435-450 Wp
Glass-glass and bifacial N-Type cell technology
Suitable for: residential installations

EXTRA PEACE OF MIND

30

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

PRODUCT NAME CODE (PNC)



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

ADVANTAGES

+

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

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

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

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

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 ± 5 %				
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 x199]
Front glass	high-transparency	
	Thickness [mm] / [in]	2.0 / 0.08
Back glass	heat strengthened glass	2.0 / 0.08
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 Original
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]	24.5 / 54.00
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±3.0%, 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.V1.EN © Solar Solutions Group. 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	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, EN IEC 61730-1:2016, EN IEC 61730-2:2016, AC:2018, IEC 61730-2:2016, EN IEC 61730-2:2016, AC:2018	

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

