

# AEG

N-TYPE TOPCON BIFACIAL MODULE  
AS-M1082W-BH(RM10)/HV  
AS-M1082Y-BH(RM10)/HV

## CHARACTERISTICS

Power range: 440-455 Wp  
Double glass bifacial Photovoltaic Module  
Half-Cut N-Type TOPCON cell technology  
Efficiency up to 22.80%

2.0 mm glass thickness

2 mm

## ADVANTAGES

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



**30 YEARS PRODUCT WARRANTY AND  
30 YEARS PERFORMANCE WARRANTY  
30 YEARS EXCHANGE AND REFUND SERVICE**

## N-TYPE TOPCON GLAZED GLASS BIFACIAL MODULE AS-M1082W-BH(RM10)/HV | AS-M1082Y-BH(RM10)/HV

PRODUCT SERIES & NAMECODE (PNC)	
AEG HIGH EFFICIENCY SERIES	
AS-M1082W-BH(RM10)-440/445/450/455/HV, white back side pattern (glazed glass), silver frame	
AS-M1082Y-BH(RM10)-440/445/450/455/HV, white back side pattern (glazed glass), black frame	

ELECTRICAL CHARACTERISTICS AT STC <sup>1,2</sup>					
Nominal Power (Pmax)	[Wp]	440	445	450	455
Power Sorting <sup>3</sup>	[W]	0-5	0-5	0-5	0-5
Maximum Power Voltage (Vmp)	[V]	32.84	33.04	33.24	33.44
Maximum Power Current (Imp)	[A]	13.40	13.47	13.54	13.61
Open Circuit Voltage (Voc)	[V]	39.40	39.60	39.80	40.00
Short Circuit Current (Isc)	[A]	13.90	13.97	14.04	14.11
Module Efficiency (ηm)	[%]	22.00	22.3	22.5	22.8
Maximum System Voltage	[V]	1500	1500	1500	1500
Series Fuse Maximum Rating	[A]	30	30	30	30

ELECTRICAL CHARACTERISTICS AT NMOT <sup>4</sup>					
Maximum Power (Pmax)	[W]	331	335	339	343
Maximum Power Voltage (Vmp)	[V]	30.67	30.86	31.05	31.23
Maximum Power Current (Imp)	[A]	10.83	10.89	10.95	11.00
Open Circuit Voltage (Voc)	[V]	37.32	37.51	37.70	37.89
Short Circuit Current (Isc)	[A]	11.19	11.25	11.31	11.36

ELECTRICAL SPECIFICATIONS - INTEGRATED POWER / POWER GAIN <sup>5</sup>					
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	15.00	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]	2.0 / 0.08
Back glass	heat strengthened glass	2.0 / 0.08
Encapsulant	EVA	transparent
Frame	Anodized aluminum alloy	silver or black
Junction box	Split-type, IP68	
	Bypass diodes	3
	Length [mm] / [in]	1100 / 43.31
UV-resistant cables	Section [mm <sup>2</sup> ]	4
Connectors	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]	24.5 / 54.00
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±3.0%, 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 module operating temperature, Irradiance 800 W/m <sup>2</sup> ; 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: <a href="http://www.aeg-solar.com">www.aeg-solar.com</a>
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 2024.02.V2.EN © 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 61215-1:2021, IEC 61215-1:2021, IEC 61215-2:2021, IEC 61730-1:2021a, EN IEC 61215-1:2021, EN IEC 61730-1:2021, EN IEC 61730-1:2021/JAC:2018-04	

WARRANTIES		
Product warranty <sup>6</sup>	[years]	30
Performance warranty (linear) <sup>7</sup>	[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

