

AEG

N-TYPE TOPCON BIFACIAL MODULE

AS-M963B-BH(RM10)/HV

CHARACTERISTICS

Power range: 450-465 Wp
Double glass bifacial Photovoltaic Module
Half-Cut N-Type TOPCON cell technology
Efficiency up to 23.30%

2.0 mm glass thickness

2 mm

ADVANTAGES

Extra converting surface on the module back thanks to bifaciality
High-transparent, anti-reflective coating (reflection <6%)
Zero-busbar integrated interconnection
Extra power thanks to rectangular solar cells



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

N-TYPE TOPCON BIFACIAL MODULE | AS-M963B-BH(RM10)/HV

PRODUCT SERIES & NAMECODE (PNC)	
AEG HIGH EFFICIENCY SERIES	
AS-M963B-BH(RM10)-450/455/460/465/HV	
Black glass, Black frame	

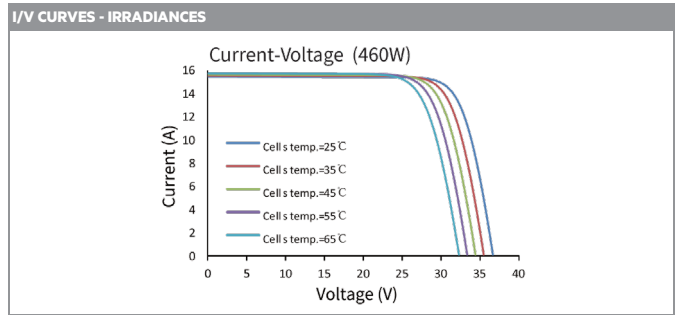
CERTIFICATIONS		
System	ISO 9001, ISO 14001, ISO 45001	
Product	IEC/EN 61215-1:2016 IEC/EN 61215-1-1:2016 IEC 61215-2:2016 IEC/EN 61730-1:2016 IEC 61730-2:2016 EN 61215-2:2017 EN IEC 61730-1:2018 EN	

ELECTRICAL CHARACTERISTICS AT STC ^{1,2}					
Nominal Power (Pmax)	[Wp]	450	455	460	465
Power Sorting ³	[W]	0-5	0-5	0-5	0-5
Maximum Power Voltage (Vmp)	[V]	30.51	60.65	60.78	30.80
Maximum Power Current (Imp)	[A]	14.75	14.85	14.94	15.10
Open Circuit Voltage (Voc)	[V]	36.59	36.75	36.91	36.93
Short Circuit Current (Isc)	[A]	15.61	15.71	15.81	15.84
Module Efficiency (ηm)	[%]	22.5	22.8	23.0	23.3
Maximum System Voltage	[V]	1500	1500	1500	1500
Series Fuse Maximum Rating	[A]	30	30	30	30

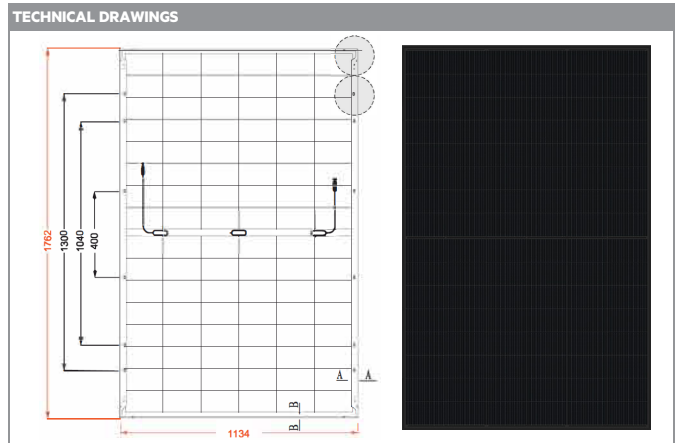
WARRANTIES		
Product warranty ⁵	[years]	30
Performance warranty (linear) ⁶	[years]	30
Exchange and refund service	[years]	40

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]	0.043
Operating temperature	[°C]	-40~+85

ELECTRICAL SPECIFICATIONS - INTEGRATED POWER / POWER GAIN ⁴					
Bifaciality Factor	85 ± 5%				
Pmpp Gain	[%]	10	15	20	25
Maximum Power (Pmax)	[W]	506	529	552	575
Maximum Power Voltage (Vmp)	[V]	34.00	35.39	37.00	38.47
Maximum Power Current (Imp)	[A]	16.43	17.18	18.00	19.00
Open Circuit Voltage (Voc)	[V]	41.00	42.44	44.29	46.13
Short Circuit Current (Isc)	[A]	17.39	18.18	19.00	20.00



MECHANICAL CHARACTERISTICS		
Solar cells	monocrystalline [pcs]	96
	Dimensions [mm]	RM10 Bifacial Half-cut [182 x 199mm]
Front glass	High-transparency (anti-reflective coating)	
	Thickness [mm] / [in]	2 / 0.08
Back glass	Black glass	2 / 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]	
	1200 / 47.24	
	Section [mm ² /AWG]	
	4/12	
Connectors	MC4 Original	
Dimensions	H x L x W [mm]	1762 x 1134 x 30
	H x L x W [in]	69.37 x 44.65 x 1.18
Weight	[kg] / [lbs]	24.5 / 54.00
Maximum load	Wind / Snow [Pa]	4000 / 6000
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±5.0%	
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	
NMOT: Nominal Module Operating Temperature, Irradiance 800 W/m ² , Wind Speed 1m/s, Ambient Temperature 20°C, Air Mass AM=1.5	
4-Electrical characteristics with different rear power gain. Reference to 460 W	
5-Full text of the Warranty Terms available at: www.aeg-solar.com	
6-(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 2025.10.V1.1.EN © Solar Solutions Group. Specifications in this datasheet are subject to change without notice.	
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