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

EUPD RESEARCH
TOP BRAND PV
MODULE
NEDERLAND
2024

40

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 61215-1:2021 IEC/EN 61215-1-1:2021 IEC/EN 61215-2:2021 IEC 61730-1:2023 IEC 61730-2:2023 EN IEC 61730-1:2018 EN IEC 61730-2:2018	

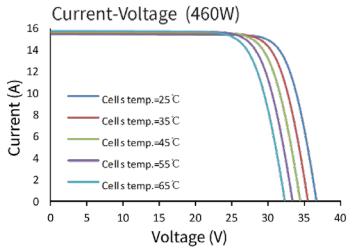
ELECTRICAL CHARACTERISTICS AT STC[1,2]					
Nominal Power (Pmax)	[Wp]	450	455	460	465
Power Sorting[3]	[W]	0-5	0-5	0-5	0-5
Maximum Power Voltage (Vmp)	[V]	30.51	30.65	30.78	30.80
Maximum Power Current (Imp)	[A]	14.75	14.85	14.94	15.10
Open Circuit Voltage (Voc)	[V]	36.59	36.75	36.91	36.93
Short Circuit 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

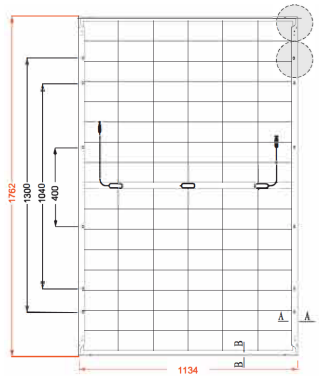
ELECTRICAL SPECIFICATIONS - INTEGRATED POWER / POWER GAIN[4]					
Bificiality Factor	85 ± 5%				
Pmpp Gain	[%]	10	15	20	25
Maximum Power (Pmax)	[W]	506	529	552	575
Maximum Power Voltage (Vmp)	[V]	34.00	35.39	37.00	38.47
Maximum Power Current (Imp)	[A]	16.43	17.18	18.00	19.00
Open Circuit Voltage (Voc)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

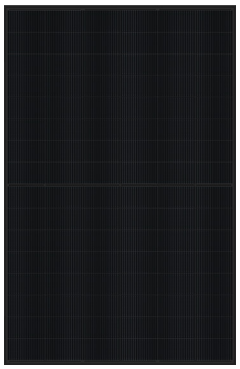
I/V CURVES - IRRADIANCES



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 [mm²/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	

TECHNICAL DRAWINGS





PACKAGING		
Packing configuration	[pcs/pallet]	36
Loading capacity	[pcs/40 ft container]	936

NOTES
1-Standard Test Conditions (STC): Irradiance 1000 W/m², 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/m², 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.
AEG is a pending or registered trademark used under license from AB Electrolux (publ).

SOLAR SOLUTIONS AG

Riedweg 3 | 6418 Rothenthurm | Switzerland
www.aeg-solar.com | info@aeg-solar.com