



AEG

N-TYPE TOPCON HALF-CUT BIFACIAL MODULE

AS-M1443W-BH(M10)/HV

AS-M1443Y-BH(M10)/HV

CHARACTERISTICS

Power range: 585 -600 Wp
Double glass bifacial Photovoltaic Module
Half-Cut N-Type TOPCON cell technology
Efficiency up to 23.20 %

2.0 mm glass thickness

2 mm

ADVANTAGES

Extra converting surface on the module back thanks to bifaciality
Outstanding sleek optics
Extra long cables for greater installation flexibility
Optimized design for more energy output



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



N-TYPE TOPCON BIFACIAL MODULE

AS-M1443W-BH(M10)/HV | AS-M1443Y-BH(M10)/HV

PRODUCT SERIES & NAMECODE (PNC)	
AEG HIGH EFFICIENCY SERIES	
AS-M1443W-BH(M10)-585/590/595/600/HV, white back side pattern (glazed glass), silver frame	
AS-M1443Y-BH(M10)-585/590/595/600/HV, white back side pattern (glazed glass), black frame	

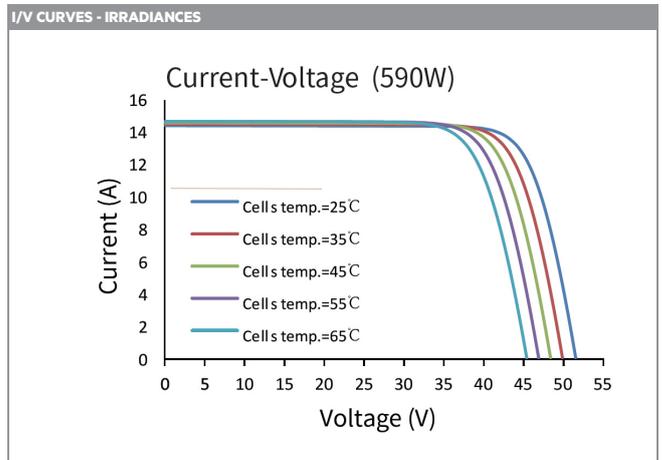
CERTIFICATIONS	
System	ISO 9001, ISO 14001, ISO 45001
Product	IEC/EN 61215-1:2016, IEC/EN 61215-1:2016A, IEC/EN 61215-1:2016B, IEC 61215-2:2016, EN 61215-2:2017, IEC 61730-1:2016 / EN IEC 61730-1:2018, IEC 61730-2:2016 / EN IEC 61730-2:2018

ELECTRICAL CHARACTERISTICS AT STC ^{1,2}					
Nominal Power (Pmax)	[Wp]	585	590	595	600
Power Sorting ³	[W]	0-5	0-5	0-5	0-5
Maximum Power Voltage (Vmp)	[V]	43.27	43.45	43.61	43.78
Maximum Power Current (Imp)	[A]	13.52	13.58	13.64	13.70
Open Circuit Voltage (Voc)	[V]	51.50	51.70	51.90	52.10
Short Circuit Current (Isc)	[A]	14.36	14.45	14.53	14.61
Module Efficiency (ηm)	[%]	22.6	22.8	23.0	23.2
Maximum System Voltage	[V]	1500	1500	1500	1500
Series Fuse Maximum Rating	[A]	30	30	30	30

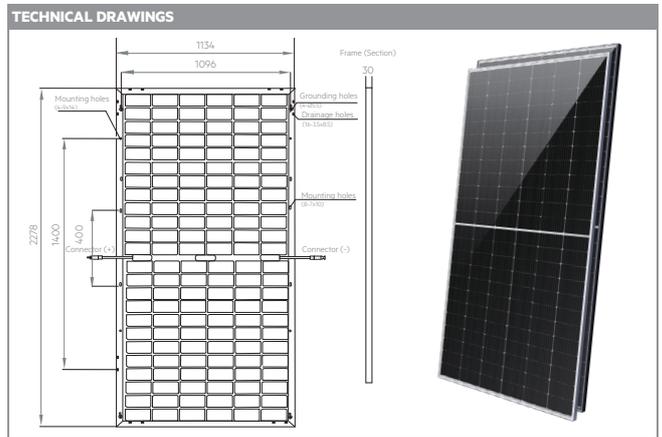
WARRANTIES		
Product warranty ⁴	[years]	30
Performance warranty (linear) ⁷	[years]	30

TEMPERATURE CHARACTERISTICS		
NMOT	[°C]	41 (+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 CHARACTERISTICS AT NMOT ⁴					
Maximum Power (Pmax)	[W]	439.9	443.7	447.4	451.2
Maximum Power Voltage (Vmp)	[V]	40.73	40.89	41.06	41.21
Maximum Power Current (Imp)	[A]	10.80	10.85	10.90	10.95
Open Circuit Voltage (Voc)	[V]	48.92	49.11	49.30	49.49
Short Circuit Current (Isc)	[A]	11.59	11.66	11.73	11.80



ELECTRICAL SPECIFICATIONS - INTEGRATED POWER / POWER GAIN ⁵					
Bifaciality Factor		80±10%			
Pmpp Gain		10%	15%	20%	25%
Maximum Power (Pmax)	[W]	649	679	708	738
Maximum Power Voltage (Vmp)	[V]	48	50	52	54
Maximum Power Current (Imp)	[A]	15	16	16	17
Open Circuit Voltage (Voc)	[V]	57	59	62	65
Short Circuit Current (Isc)	[A]	16	17	17	18



MECHANICAL CHARACTERISTICS		
Solar cells	monocrystalline [pcs]	144
	Dimensions [mm]	M10 Bifacial Half-cut [182x91]
Front glass	high-transparency	
	Thickness [mm] / [in]	2 / 0.08
Back glass	White back side pattern (glazed)	2 / 0.08
Encapsulant	EVA	transparent
Frame	Anodized aluminum alloy	silver or black color
Junction box	Split-type, IP68	
	Bypass diodes	3
UV-resistant cables	Length [mm] / [in]	1400 / 55.12
	Section [mm ²]	4
Connectors	MC4	
Dimensions	H x L x W [mm]	2278 x 1134 x 30
	H x L x W [in]	89.68 x 44.65 x 1.18
Weight	[kg] / [lbs]	32.1 / 70.76
Maximum load	Wind / Snow [Pa]	2400 / 5400
Fire Class	Class A	

PACKAGING		
Packing configuration	[pcs/pallet]	36
Loading capacity	[pcs/40 ft container]	720

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±3.5%, Voc±3.5%, Isc±5%	
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 ² , Wind Speed 1m/s; Ambient Temperature 20°C, Air Mass AM=1.5	
5-Electrical characteristics with different rear power gain. Reference to 590 W	
6-Full text of the Warranty Terms available at: www.aeg-solar.com	
7-(HE/GG) No less than 98% 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 2024.10.V3.EN © Solar Solutions Group. Specifications in this datasheet are subject to change without notice.	
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