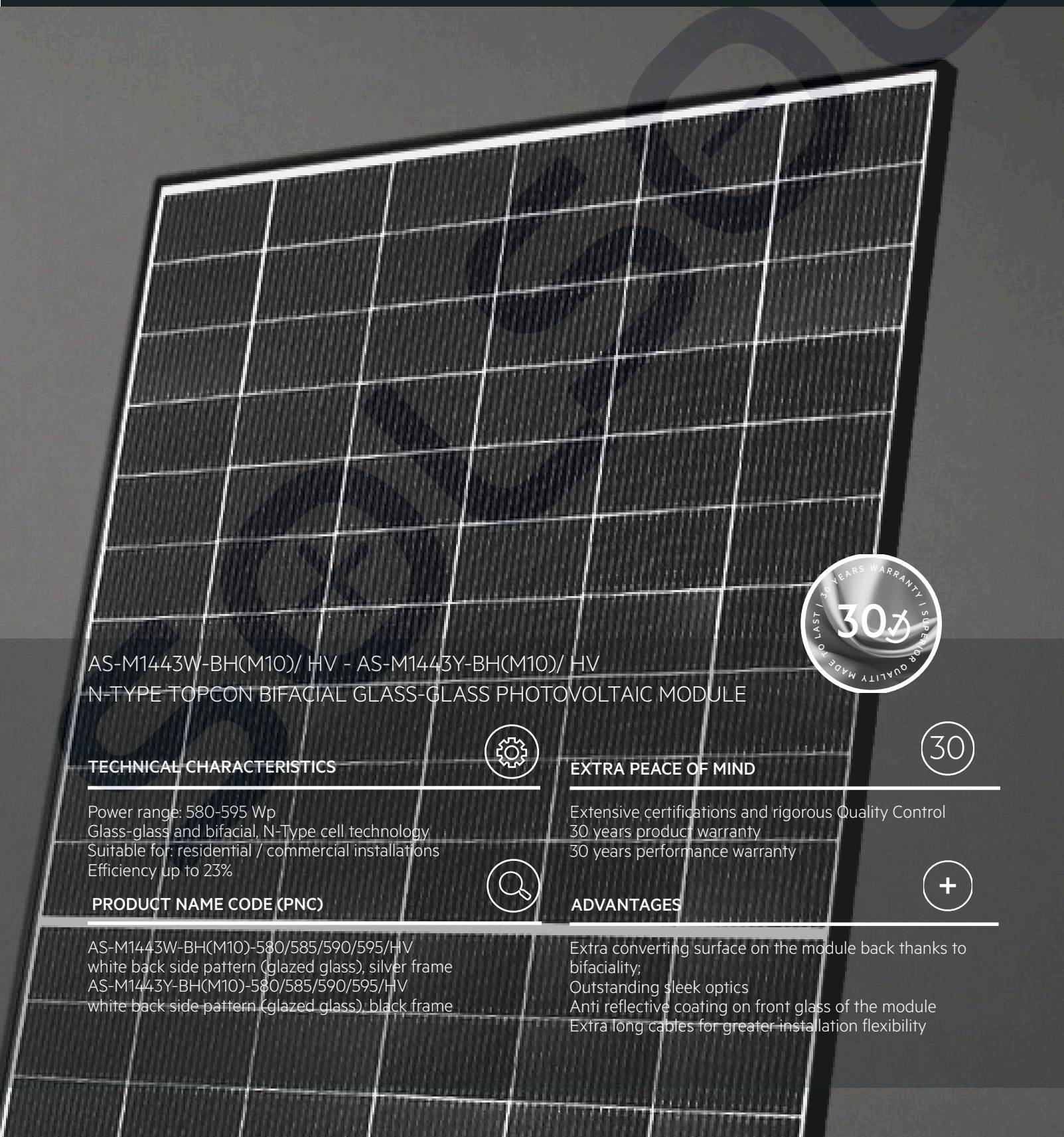
AEG

AEG PREMIUM SERIES



AS-M1443W-BH(M10)/ HV - AS-M1443Y-BH(M10)/ HV
N-TYPE TOPCON BIFACIAL GLASS-GLASS PHOTOVOLTAIC MODULE

TECHNICAL CHARACTERISTICS

Power range: 580-595 Wp
Glass-glass and bifacial, N-Type cell technology
Suitable for: residential / commercial installations
Efficiency up to 23%

PRODUCT NAME CODE (PNC)

AS-M1443W-BH(M10)-580/585/590/595/HV
white back side pattern (glazed glass), silver frame
AS-M1443Y-BH(M10)-580/585/590/595/HV
white back side pattern (glazed glass), black frame

EXTRA PEACE OF MIND

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

ADVANTAGES

Extra converting surface on the module back thanks to bifaciality;
Outstanding sleek optics
Anti reflective coating on front glass of the module
Extra long cables for greater installation flexibility

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AS-M1443W-BH(M10) / HV - AS-M1443Y-BH(M10) / HV
N -TYPE TOPCON BIFACIAL GLASS-GLASS PHOTOVOLTAIC MODULE

PRODUCT SERIES & NAMECODE (PNC)
AEG PREMIUM EFFICIENCY SERIES
AS-M1443W-BH(M10)-580/585/590/595/HV, white back side pattern (glazed glass), silver frame
AS-M1443Y-BH(M10)-580/585/590/595/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 61215-1-1:2016; 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]	580	585	590	595
Power Sorting[3]	[W]	0-5	0-5	0-5	0-5
Maximum Power Voltage (Vmp)	[V]	43.11	43.27	43.45	43.61
Maximum Power Current (Imp)	[A]	13.45	13.52	13.58	13.64
Open Circuit Voltage (Voc)	[V]	51.30	51.50	51.70	51.90
Short Circuit Current (Isc)	[A]	14.28	14.36	14.45	14.53
Module Efficiency (ηm)	[%]	22.5	22.6	22.8	23.0
Maximum System Voltage	[V]	1500	1500	1500	1500
Maximum Series Fuse	[A]	30	30	30	30

WARRANTIES		
Product warranty[6]	[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

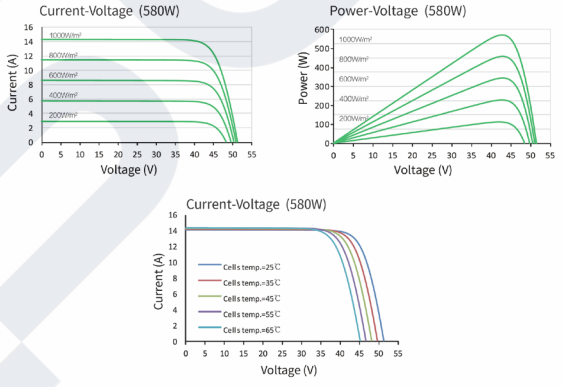
ELECTRICAL CHARACTERISTICS AT NMOT[4]					
Maximum Power (Pmax)	[W]	436.2	439.9	443.7	447.4
Maximum Power Voltage (Vmp)	[V]	40.59	40.73	40.89	41.06
Maximum Power Current (Imp)	[A]	10.75	10.80	10.85	10.90
Open Circuit Voltage (Voc)	[V]	48.73	48.92	49.11	49.30
Short Circuit Current (Isc)	[A]	11.53	11.59	11.66	11.73

ELECTRICAL SPECIFICATIONS - INTEGRATED POWER / POWER GAIN[5]					
Bifaciality factor	80 ± 10%				
Pmpp Gain		10%	15%	20%	25%
Maximum Power (Pmax)	[W]	638	667	696	725
Maximum Power Voltage (Vmp)	[V]	47.42	50.00	52.00	54.00
Maximum Power Current (Imp)	[A]	15.00	15.50	16.14	17.00
Open Circuit Voltage (Voc)	[V]	56.43	59.00	62.00	64.12
Short Circuit Current (Isc)	[A]	16.00	16.42	17.13	18.00

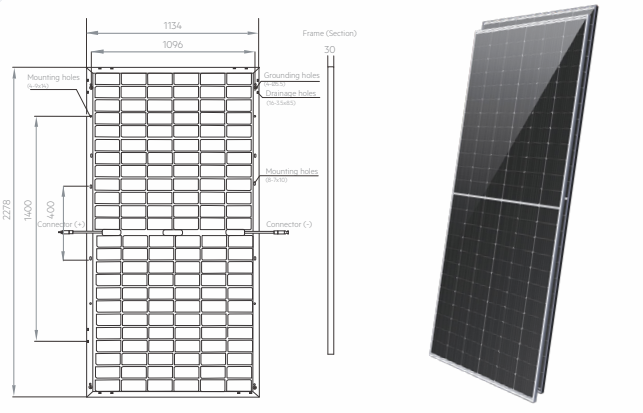
MECHANICAL CHARACTERISTICS		
Solar cells	monocrystalline [pcs]	144
	Dimensions [mm]	M10 Bifacial Half-cut [182 x 91]
Front glass	high-transparency with anti reflective coating	
	Thickness [mm] / [in]	2 / 0.08
Back glass	White back side pattern (glazed)	2 / 0.08
Encapsulant	EVA	transparent
Frame	Anodized aluminum alloy	Silver or Black
Junction box	Split-type, IP68	
	Bypass diodes	3
UV-resistant cables	Length [mm] / [in]	1650/55.12
	Section [mm²]/AWG	4/12
Connectors	MC4 Original	
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

I/V CURVES - IRRADIANCES



TECHNICAL DRAWINGS



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%

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/m², Wind Speed 1m/s; Ambient Temperature 20°C, Air Mass AM=1.5

5-Electrical characteristics with different rear power gain. Reference to 580 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 2024.01.V1.EN

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