



# AEG HIGH EFFICIENCY SERIES

## AS-M1443-H(M10)/HV / HALF-CUT CELLS PHOTOVOLTAIC MODULE

### CHARACTERISTICS

Power range: 540-550 Wp  
Half-Cut-cell technology  
Suitable for: residential / commercial installations



### EXTRA PEACE OF MIND

Extensive certifications and rigorous Quality Control  
15 years product warranty  
25 years performance warranty



### PRODUCT NAME CODE (PNC)

AS-M1443-H(M10)-540/545/550/HV  
(white backsheet, silver frame)  
AS-M1443Z-H(M10)-540/545/550/HV  
(white backsheet, black frame)



### ADVANTAGES

More converting surface, more energy outputs  
Outstanding sleek optics  
Extra long cables for greater installation flexibility



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PRODUCT SERIES & NAMECODE (PNC)			
AEG HIGH EFFICIENCY SERIES			
AS-M1443-H(M10)-540/545/550/HV, silver frame			
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ELECTRICAL CHARACTERISTICS AT STC <sup>1,2</sup>				
Nominal Power (Pmax)	[Wp]	540	545	550
Power Sorting <sup>3</sup>	[W]	0-5	0-5	0-5
Maximum Power Voltage (Vmp)	[V]	41.76	41.93	42.10
Maximum Power Current (Imp)	[A]	12.93	13.00	13.06
Open Circuit Voltage (Voc)	[V]	49.70	49.90	50.10
Short Circuit Current (Isc)	[A]	13.72	13.81	13.90
Module Efficiency (ηm)	[%]	20.9	21.1	21.3
Maximum System Voltage	[V]	1500	1500	1500
Series Fuse Maximum Rating	[A]	25	25	25

ELECTRICAL CHARACTERISTICS AT NMOT <sup>4</sup>				
Maximum Power (Pmax)	[W]	403.5	407.3	411.0
Maximum Power Voltage (Vmp)	[V]	38.92	39.08	39.24
Maximum Power Current (Imp)	[A]	10.37	10.42	10.48
Open Circuit Voltage (Voc)	[V]	46.97	47.16	47.34
Short Circuit Current (Isc)	[A]	11.13	11.20	11.27

MECHANICAL CHARACTERISTICS		
Solar cells	monocrystalline [pcs]	144
	Dimensions [mm]	M10 Half-cut [182 x 91]
Front glass	high-transparency	
	Thickness [mm] / [in]	3.2 / 0.13
Backsheet	white	
Encapsulant	EVA	
Frame	Anodized aluminum alloy	silver or black
	Junction box	Split-type, IP68
UV-resistant cables	Length [mm] / [in]	1400 / 55.12
	Section [mm <sup>2</sup> ]	4 / 0.16
Connectors	xxx	
Dimensions	H x L x W [mm]	2278 x 1134 x 35
	H x L x W [in]	89.78 x 44.64 x 1.37
Weight	[kg] / [lbs]	26.9 / 59.28
Maximum load	Wind / Snow [Pa]	2400 / 5400
Fire Class	Class C	

PACKAGING		
Packing configuration	[pcs/pallet]	31
Loading capacity	[pcs/40 ft container]	620

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%, Voc±3%, 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 operating temperature of module, Irradiance 800 W/m <sup>2</sup> , Wind Speed 1m/s, Ambient Temperature 20°C, Air Mass AM=1.5
5-Full text of the Warranty Terms available at: <a href="http://www.aeg-industrialsolar.de">www.aeg-industrialsolar.de</a> . If not offered by your distributor, the standard warranty conditions apply.
6-(HE/GB) No less than 98% of the minimum "Peak Power at STC" in the first year; power output decline no more than 0.55% per year thereafter, ending with 84.8%.
Dimensions in the technical picture are expressed in mm with tolerance ±2 mm (±0.079") / Version 2023.01.V14.EN © Solar Solutions GmbH. Specifications in this datasheet are subject to change without notice.
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CERTIFICATIONS		
System	ISO 9001, ISO 14001, ISO 45001	
Product	IEC61215-1:2016, IEC61215-2:2016, IEC61730-1:2016, IEC61730-2:2016, EN61215-1:2016, EN61215-2:2016, EN61730-1:2018, EN61730-2:2018	

WARRANTIES		
Product warranty <sup>5</sup>	[years]	15 (opt. ext. to 20)
Performance warranty (linear) <sup>6</sup>	[years]	25

TEMPERATURE CHARACTERISTICS		
NMOT	[°C]	41 (±2)
Pmax Temp. Coefficient (γ)	[%/°C]	-0.34
Voc Temp. Coefficient (β)	[%/°C]	-0.25
Isc Temp. Coefficient (α)	[%/°C]	0.04
Operating temperature	[°C]	-40~+85

