



# AEG HIGH EFFICIENCY SERIES

AS-M1083-MH(M10) /HV/ HALF-CUT CELL TOPCON PHOTOVOLTAIC MODULE

## CHARACTERISTICS



Power range: 425-435 Wp  
Half-Cut cell technology, bifacial n-type cells  
Suitable for: residential / commercial installations

## PRODUCT NAME CODE (PNC)



AS-M1083-MH(M10)-425/430/435/HV (silver frame)  
AS-M1083Z-MH(M10)-425/430/435/HV (black frame)

## EXTRA PEACE OF MIND



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

## ADVANTAGES



Optimized design for more energy output  
Maximum power/efficiency thanks to bifacial n-type cells  
Extra long cables for greater installation flexibility

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PRODUCT SERIES & NAMECODE (PNC)	
AEG HIGH EFFICIENCY SERIES	
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ELECTRICAL CHARACTERISTICS AT STC <sup>1,2</sup>				
Nominal Power (Pmax)	[Wp]	425	430	435
Power Sorting <sup>3</sup>	[W]	0-5	0-5	0-5
Maximum Power Voltage (Vmp)	[V]	32.74	32.87	32.99
Maximum Power Current (Imp)	[A]	12.98	13.08	13.18
Open Circuit Voltage (Voc)	[V]	38.96	39.11	39.26
Short Circuit Current (Isc)	[A]	13.72	13.85	13.97
Module Efficiency (ηm)	[%]	21.8	22.0	22.3
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]	319.6	323.4	327.1
Maximum Power Voltage (Vmp)	[V]	30.82	30.94	31.06
Maximum Power Current (Imp)	[A]	10.37	10.45	10.53
Open Circuit Voltage (Voc)	[V]	37.01	37.15	37.29
Short Circuit Current (Isc)	[A]	11.08	11.18	11.28

MECHANICAL CHARACTERISTICS		
Solar cells	monocrystalline [pcs]	108
	Dimensions [mm]	M10 Half-cut [182 x 91]
Front glass	high-transparency	
	Thickness [mm] / [in]	1.6 / 0.06
Back glass	White	1.6 / 0.06
Encapsulant	EVA	
Frame	Anodized aluminum alloy	Silver or black
Junction box	Split type, IP68	
	Bypass diodes	3
UV-resistant cables	Length [mm] / [in]	1200 / 47.24
	Section [mm <sup>2</sup> ]	4
Connectors	MC4 original	
Dimensions	H x L x W [mm]	1722 x 1134 x 30
	H x L x W [in]	67.80 x 44.65 x 1.18
Weight	[kg] / [lbs]	20.8 / 45.84
Maximum load	Wind / Snow [Pa]	2400 / 5400
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 <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-solar.com">www.aeg-solar.com</a>
6-(H/E/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 87.40%.
Dimensions in the technical picture are expressed in mm with tolerance +2 mm (+0.079") / Version 2023.06.V1.EN © Solar Solutions Group. 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, IEC61215-1-1:2016, IEC61215-2:2016, IEC61730-1:2016, IEC61730-2:2016, EN61215-1:2016, EN61215-1-1:2016, EN61215-2:2017, EN IEC61730-1:2018, EN IEC61730-2:2018

WARRANTIES		
Product warranty <sup>5</sup>	[years]	30
Performance warranty (linear) <sup>6</sup>	[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

