



AEG HIGH EFFICIENCY SERIES



AS-M1083-H(M10) / HV / N-TYPE TOPCON PHOTOVOLTAIC MODULE

TECHNICAL CHARACTERISTICS



Power range: 425-435 Wp
Half-Cut N-Type TOPCON cell technology
Efficiency up to 22.3%

Product Name Code (PNC)



AS-M1083-H(M10)-425/430/435 /HV (silver frame)
AS-M1083Z-H(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
Maximized efficiency thanks to M10 cells

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PRODUCT SERIES & NAMECODE (PNC)

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ELECTRICAL CHARACTERISTICS AT STC^{1,2}

Nominal Power (Pmax)	[Wp]	425	430	435
Power Sorting ³	[W]	0-5	0-5	0-5
Maximum Power Voltage (Vmp)	[V]	32.1	32.27	32.44
Maximum Power Current (Imp)	[A]	13.24	13.33	13.41
Open Circuit Voltage (Voc)	[V]	38.20	38.40	38.60
Short Circuit Current (Isc)	[A]	13.98	14.09	14.19
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 NMOT⁴

Maximum Power (Pmax)	[W]	319.6	323.4	327.1
Maximum Power Voltage (Vmp)	[V]	30.21	30.37	30.53
Maximum Power Current (Imp)	[A]	10.58	10.65	10.71
Open Circuit Voltage (Voc)	[V]	36.29	36.48	36.67
Short Circuit Current (Isc)	[A]	11.28	11.37	11.46

MECHANICAL CHARACTERISTICS

Solar cells	monocrystalline [pcs]	108
	Dimensions [mm]	M10 Half-Cut [182 x 91]
Front glass	high-transparency	
	Thickness [mm] / [in]	3.2 / 0.125
Backsheet	White	
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 ² /AWG]	4/12
Connectors	MC4-EVO2A	
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]	21.3 / 46.96
Maximum load	Wind / Snow [Pa]	2400 / 5400
Fire Class	Class C	

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

5-Full text of the Warranty Terms available at: www.aeg-solar.com

6-(HE/GB) 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 © 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, EN61215-2:2017, EN IEC61730-1:2018, EN IEC61730-2:2018	

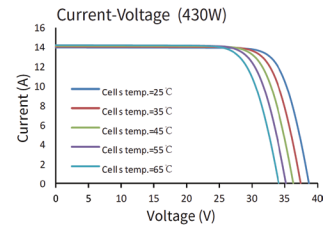
WARRANTIES

Product warranty ⁵	[years]	30
Performance warranty (linear) ⁶	[years]	30

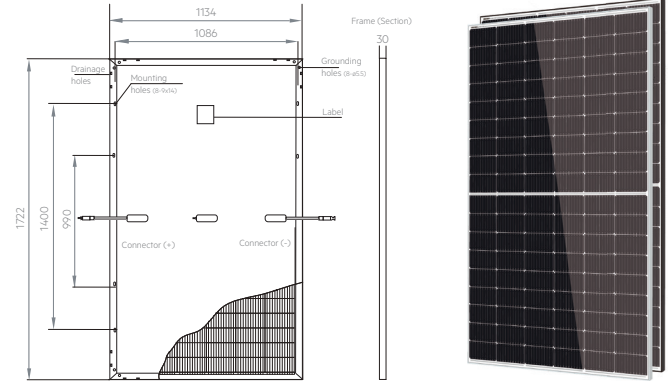
TEMPERATURE CHARACTERISTICS

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

I/V CURVES - IRRADIANCES



TECHNICAL DRAWINGS



CONTACT US

info@aeg-solar.com | www.aeg-solar.com