

AEG

AEG HIGH EFFICIENCY SERIES

AS-M1083-H(M10) / HALF-CUT CELL PHOTOVOLTAIC MODULE

Characteristics

Power range: 405-415 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-M1083-H(M10)-405/410/415 (silver frame)
AS-M1083Z-H(M10)-405/410/415 (black frame)



Advantages

Optimized design for more energy output
Maximized efficiency thanks to M10 cells
Extra long cables for greater installation flexibility



AS-M1083-H(M10) / HALF-CUT CELL PHOTOVOLTAIC MODULE

PRODUCT SERIES & NAMECODE (PNC)	
AEG HIGH EFFICIENCY SERIES	
AS-M1083-H(M10)-405/410/415/HV (silver frame)	
AS-M1083Z-H(M10)-405/410/415/HV (black frame)	

ELECTRICAL CHARACTERISTICS AT STC ^{1,2}				
Nominal Power (Pmax)	[Wp]	405	410	415
Power Sorting ³	[W]	0-5	0-5	0-5
Maximum Power Voltage (Vmp)	[V]	31.26	31.43	31.60
Maximum Power Current (Imp)	[A]	12.96	13.05	13.13
Open Circuit Voltage (Voc)	[V]	37.20	37.40	37.60
Short Circuit Current (Isc)	[A]	13.76	13.88	13.99
Module Efficiency (ηm)	[%]	20.7	21.0	21.3
Maximum System Voltage	[V]	1500	1500	1500
Series Fuse Maximum Rating	[A]	25	25	25

ELECTRICAL CHARACTERISTICS AT NMOT ⁴				
Maximum Power (Pmax)	[W]	302.7	306.4	310.1
Maximum Power Voltage (Vmp)	[V]	29.13	29.29	29.45
Maximum Power Current (Imp)	[A]	10.39	10.46	10.53
Open Circuit Voltage (Voc)	[V]	35.15	35.34	35.53
Short Circuit Current (Isc)	[A]	11.17	11.26	11.35

MECHANICAL CHARACTERISTICS		
Solar cells	monocrystalline [pcs]	108
	Dimensions [mm]	182
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]	4
Connectors	MC4-compatible	
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/m ² , 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 ² , Wind Speed 1m/s, Ambient Temperature 20°C, Air Mass AM=1.5	
5-Full text of the Warranty Terms available at: www.aeg-industrialsolar.de . 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 2023.05.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 ⁵	[years]	15
Performance warranty (linear) ⁶	[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

