



PHOTOVOLTAIC MODULE AS-M1442 (M6 CELLS)



445- 455 Wp
144 MONOCRYSTALLINE HALF-CUT CELLS

AEG solar modules combine the most advanced technology with high reliability in manufacture to offer you a product meant for high achievements.



OPTIMIZED DESIGN
MAXIMUM EFFICIENCY

AEG solar modules with half-cut cells (M6) and 9 busbar technology are designed to maximize efficiency and plant performance. The extra-long cables allow more installation flexibility and comfort.



CAREFUL SELECTION,
PREMIUM LOOK

The careful selection of components (cells, backsheet and frames) ensures a premium product look and provides extra aesthetical value.

COMPREHENSIVELY CERTIFIED

AEG solar modules and production facilities are compliant with the the latest standards to guarantee safety and reliability. Production facilities are certified according to ISO 9001, ISO 14001 and OHSAS 18001. AEG solar products are certified among others by:



www.aeg-industrialsolar.de

HIGH EFFICIENCY SERIES



PRODUCT NAMECODE (PNC)

AS-M1442-H(M6)-445/450/455, silver frame
AS-M1442Z-H(M6)-445/450/455, black frame

PRODUCT SERIES & NAMECODE (PNC)

AEG HIGH EFFICIENCY SERIES
AS-M1442-H(M6)-440/445/450, silver frame
AS-M1442Z-H(M6)-440/445/450, black frame

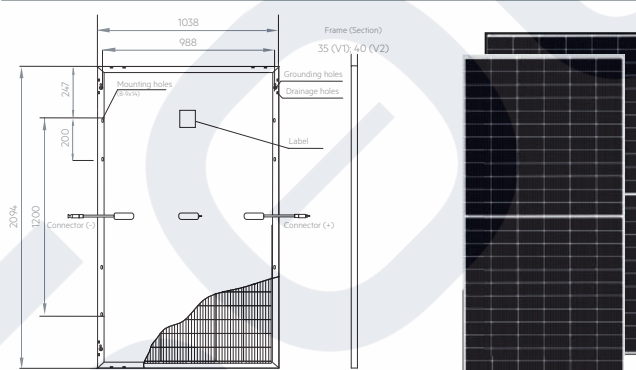
CERTIFICATIONS

System	ISO 9001, ISO 14001, OHSAS 18001
Product	IEC 61215-1/-2:2016, IEC 61215-1-1:2016 IEC 61730-1:2016, IEC 61730-2:2016

ELECTRICAL CHARACTERISTICS AT STC^{1,2}

Nominal Power (P _{max})	[Wp]	445	450	455
Power Sorting ³	[Wp]	-0/+5	-0/+5	-0/+5
Maximum Power Voltage (V _{mp})	[V]	40.77	40.91	41.04
Maximum Power Current (I _{mp})	[A]	10.92	11.01	11.10
Open Circuit Voltage (V _{oc})	[V]	50.12	50.27	50.42
Short Circuit Current (I _{sc})	[A]	11.35	11.43	11.51
Module Efficiency (η _m)	[%]	20.47	20.70	20.93
Maximum System Voltage	[V]	1000	1000	1000
Series Fuse Maximum Rating	[A]	20	20	20

TECHNICAL DRAWINGS



ELECTRICAL CHARACTERISTICS AT NMOT⁴

Maximum Power (P _{max})	[W]	330.3	334.2	338.0
Maximum Power Voltage (V _{mp})	[V]	37.17	37.30	37.42
Maximum Power Current (I _{mp})	[A]	8.89	8.96	9.03
Open Circuit Voltage (V _{oc})	[V]	46.92	47.06	47.20
Short Circuit Current (I _{sc})	[A]	9.15	9.21	9.28

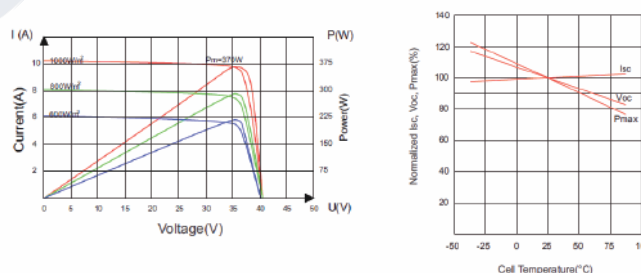
TEMPERATURE CHARACTERISTICS

NMOT	[°C]	42±3
P _{max} Temp. Coefficient (γ)	[%/°C]	-0.365
V _{oc} Temp. Coefficient (β)	[%/°C]	-0.270
I _{sc} Temp. Coefficient (α)	[%/°C]	+0.038
Operating temperature	[°C]	-40~+85

MECHANICAL CHARACTERISTICS

Solar cells	monocrystalline [pcs]	144
	Dimensions [mm]	M6 Half-cut [166 x 83]
Front glass	high-transparency	
	Thickness [mm] / [in]	3.2 / 0.126
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]	1400 / 55.12
	Section [mm ²]	4
Connectors	MC4	compatible
Dimensions	H x L x W [mm] (V1)	2094 x 1038 x 35
	H x L x W [mm] (V2, optional)	2094 x 1038 x 40
Weight	[kg]	24.3 (V1) / 24.6 (V2)
Maximum load	Wind / Snow [Pa]	2400 / 5400

I/V CURVES - IRRADIANCES



WARRANTIES

Product warranty	[years]	25
Performance warranty (linear) ⁵	[years]	25

PACKAGING

Packing configuration	[pcs/pallet]	31 (V1) / 27 (V2)
Loading capacity	[pcs/40 ft container]	682 (V1) / 594 (V2)

CONTACT US

SOL+ SOL-

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1-Standard Test Conditions (STC): Irradiance 1000 W/m², Air Mass AM = 1.5, Cell Temperature 25°C

2-Measurement tolerances (IEC 61215:2016): P_{max}±3%, Voc±3%, Isc±4%

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-(H/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. Full text of the Warranty Terms available at: www.solarsolutionsag/aeg/warranty

6-Dimensions in the technical picture are expressed in mm with tolerance ±2 mm (+0.079 -)

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