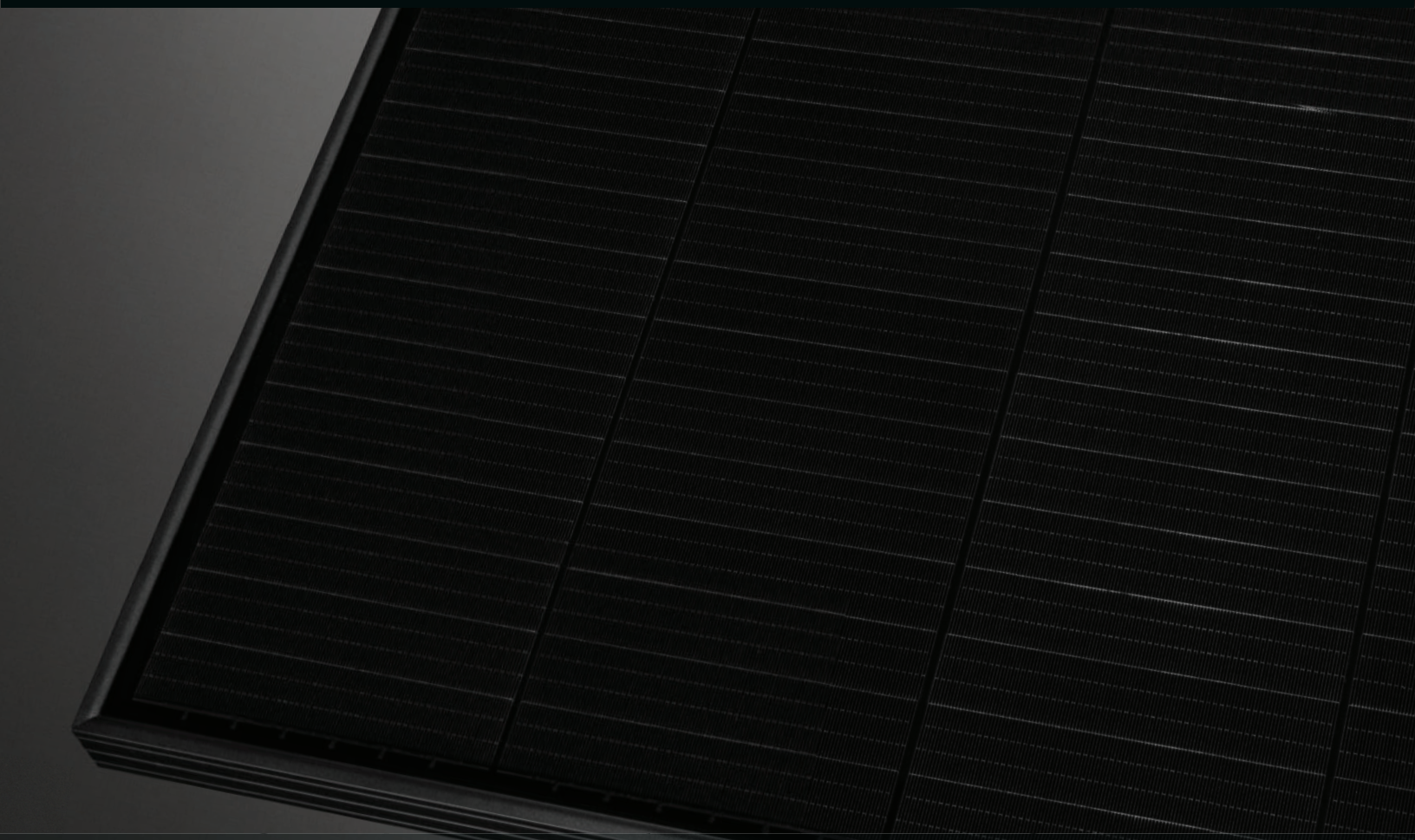
AEG

AEG PREMIUM SERIES



AS-M3057U-S(G12) / ULTRA BLACK SHINGLED PHOTOVOLTAIC MODULE

Characteristics

Power range: 410-420 Wp
Shingled-cell technology
Suitable for: residential / commercial installations

Product Name Code (PNC)

AS-M3057U-S(G12)-410/415/420/HV
(white backsheet, black frame)

Extra peace of mind

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

Advantages

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

AS-M3057U-S(G12) / ULTRA BLACK SHINGLED PHOTOVOLTAIC MODULE

PRODUCT SERIES & NAMECODE (PNC)
AEG PREMIUM SERIES
AS-M3057U-S(G12)-410/415/420/HV
Black frame, Black backsheet

CERTIFICATIONS		
System	ISO 9001, ISO 14001, ISO 45001	
Product	IEC 61215-1:2016; IEC 61215-1-1:2016; IEC 61215-2:2016 / EN 61215-2:2017 + AC:2017 + AC:2018; IEC 61730-1:2016 / EN IEC 61730-1:2018 + AC:2018; IEC 61730-2:2016 / EN IEC 61730-2:2018 +AC:2018	

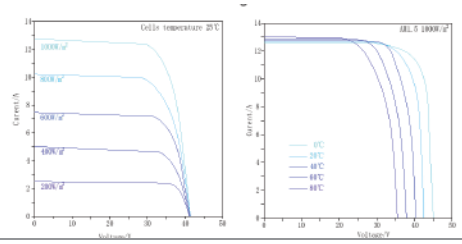
ELECTRICAL CHARACTERISTICS AT STC[1,2]				
Nominal Power (Pmax)	[Wp]	410	415	420
Power Sorting[3]	[W]	0-5	0-5	0-5
Maximum Power Voltage (Vmp)	[V]	34.4	34.4	34.5
Maximum Power Current (Imp)	[A]	11.97	12.08	12.19
Open Circuit Voltage (Voc)	[V]	41.4	41.5	41.6
Short Circuit Current (Isc)	[A]	12.65	12.80	12.92
Module Efficiency (ηm)	[%]	20.6	20.9	21.1
Maximum System Voltage	[V]	1500	1500	1500
Series Fuse Maximum Rating	[A]	25	25	25

WARRANTIES		
Product warranty[5]	[years]	25
Performance warranty (linear)[6]	[years]	25

TEMPERATURE CHARACTERISTICS		
NMOT	[°C]	42.3 (±2)
Pmax Temp. Coefficient (γ)	[%°C]	-0.34
Voc Temp. Coefficient (β)	[%°C]	-0.27
Isc Temp.Coefficient (α)	[%°C]	0.04
Operating temperature	[°C]	–40~+85

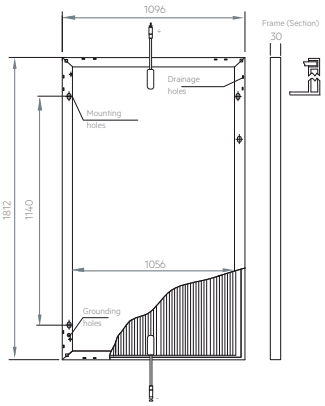
ELECTRICAL CHARACTERISTICS AT NMOT[4]				
Maximum Power (Pmax)	[W]	309	312	316
Maximum Power Voltage (Vmp)	[V]	32.8	32.8	32.9
Maximum Power Current (Imp)	[A]	9.41	9.53	9.62
Open Circuit Voltage (Voc)	[V]	39.5	39.6	39.7
Short Circuit Current (Isc)	[A]	10.19	10.31	10.41

I/V CURVES - IRRADIANCES



MECHANICAL CHARACTERISTICS		
Solar cells	monocrystalline [pcs]	305
	Dimensions [mm]	shingles based on G12 cells
Front glass	high-transparency	
	Thickness [mm] / [in]	3.2 / 0.126
Backsheet	White	
Encapsulant	EVA	
Frame	Anodized aluminum alloy	Black
Junction box	Split-type, IP68	
	Bypass diodes	2
UV-resistant cables	Length [mm] / [in]	1300 / 51.18
	Section [mm²]	4
Connectors	MC4-compatible	
Dimensions	H x L x W [mm]	1812 x 1096 x 30
	H x L x W [in]	71.34 x 43.15 x 1.18
Weight	[kg] / [lbs]	20.8±0.3 / 45.84±0.66
Maximum load	Wind / Snow [Pa]	2400 / 5400
Fire Class	Class C	

TECHNICAL DRAWINGS





PACKAGING		
Packing configuration	[pcs/pallet]	36 (24 pallets) + 30 (2 pallets)
Loading capacity	[pcs/40 ft container]	924

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±3%

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.solarsolutions.ag/aeg/warranty If not offered by your distributor, the standard warranty conditions apply.

6-(PRE/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 2022.08.01.EN © Solar Solutions Group. Specifications in this datasheet are subject to change without notice.

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