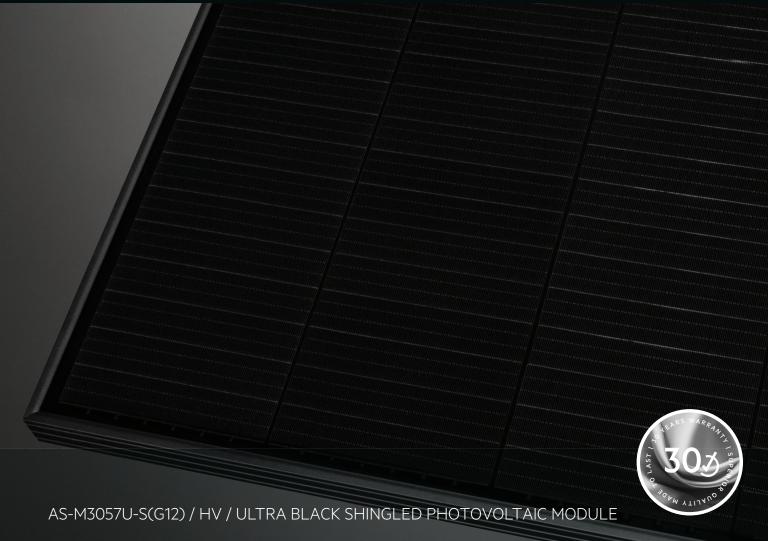
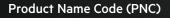
AEG

AEG PREMIUM SERIES



Technical Characteristics

Power range: 410-420 Wp Shingled-cell technology Efficiency up to 21.1%



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

Extra peace of mind

Extensive certifications and rigorous Quality Control 30 years product warranty 30 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) / HV / ULTRA BLACK SHINGLED PHOTOVOLTAIC MODULE

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

	12			
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

ELECTRICAL CHARACTERISTICS AT NMOT				
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

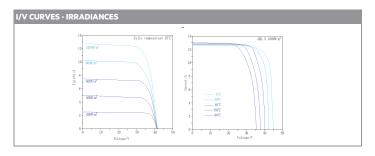
MECHANICAL CHARACTER	ISTICS			
olar cells	monocrystalline [pcs]	305		
Solar cells	Dimensions [mm]	shingles based on G12 cells		
Front glass	high-transparency	high-transparency		
riolli giass	Thickness [mm] / [in]	3.2 / 0.126		
Backsheet	Black	•		
Encapsulant	ncapsulant EVA			
Frame	Anodized aluminum alloy	Black		
Junction box	Split-type, IP68	Split-type, IP68		
JUNCTION DOX	Bypass diodes	2		
JV-resistant cables	Length [mm] / [in]	1300 / 51.18		
O V-Tesistatii Cables	Section [mm ²]	4		
Connectors	MC4-compatible	MC4-compatible		
Dimensions	HxLxW [mm]	1812 x 1096 x 30		
Dimensions	HxLxW [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			

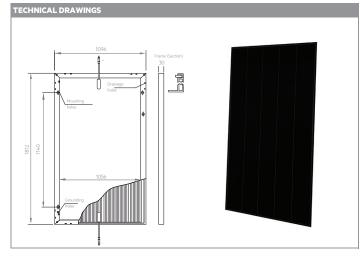
PACKAGING		
Packing configuration	[pcs/pallet]	36 (24 pallets) + 30 (2 pallets)
Loading capacity	[pcs/40 ft container]	924

CERTIFICATIONS		
System	ISO 9001, ISO 14001, ISO 45001	
Drodust	IEC / EN 61215-12016; IEC / EN 61215-1-12016; IEC 61215-2:2016 / EN 6125-2:2017 + 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	

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

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	





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

i-NMOT: Nominal operating temperature of module, Irradiance 800 W/m², Wind Speed 1m/s; Ambient Temperature 20°C, Air Mass AM=1.

5-Full text of the Warranty Terms available at: https://www.aeg-solar.com.The Extended Warranty is a separate offer. 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 82.05% at 30 year.

Dimensions in the technical picture are expressed in mm with tolerance 🗈 mm (±0.079 ") (Version 2022.08.V2EN © Solar Solutions Group. Specifications in this datasheet are subject to change without notice.

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