



AESOLAR

since 2003



HSF2.0

**SMART HOT-SPOT FREE
SHADING RESISTANT TECHNOLOGY**

Maximizing the energy yield

30
years
Performance
Warranty

15
years
Product
Warranty

395W-410W AE SMD-108E Series

MONO-CRYSTALLINE PV MODULES
HALF-CUT CELLS • MONO-FACIAL • BLACK

HOT-SPOT FREE TECHNOLOGY
protects different segments of cells
by dedicated bypass diodes

www.ae-solar.com

Ver. 24.1.1

108

HALF
CELLS

182
mm

CELL
SIZE



SHADING
RESISTANT



HOT SPOT
RESISTANT



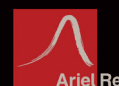
LID
RESISTANT



HIGHLY STABLE
AND TOUGH



IEC 61215 IEC 61730
Regular Production Surveillance
www.tuv.com
ID 1111251295



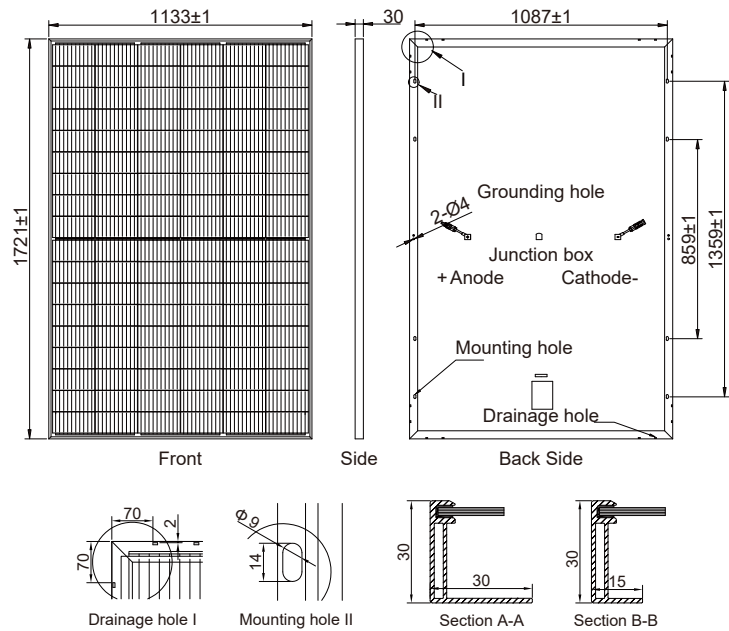
AE SMD-108E Series 395W-410W



MONO-CRYSTALLINE PV MODULES
HALF-CUT CELLS • MONO-FACIAL • BLACK

Mechanical and design specification

Cell type	Gallium-doped Mono c-Si PERC, Half-cut cells, 182 mm
No. of cells	108
Front cover	3.2 mm glass, high transmission, AR coated, tempered
Encapsulation	EVA
Back cover	Backsheet with black color on the solar cell side and white color on the air side
Junction box	IP68 rated, 3 Bypass Diodes
Frame	30 mm anodized Aluminium alloy
Cable	1 x 4 mm ² , 350 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	1721 mm x 1133 mm x 30 mm
Weight	20.3 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa or 244 kg/m ²
Snow load	5400 Pa or 550 kg/m ²
Number of integrated bypass diodes	36

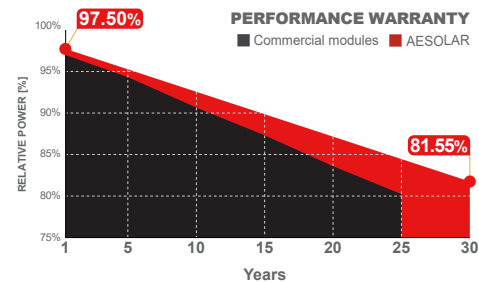
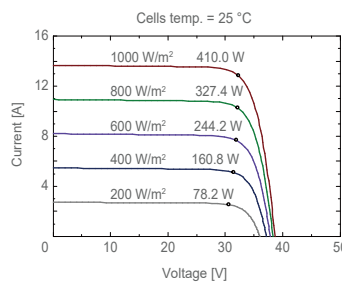


Packaging information

Packaging configuration	36 pcs / pallet
Loading capacity	936 pcs / 40 HQ
Size / Pallet	1755 mm x 1140 mm x 1245 mm
Weight	764 kg / pallet

Temperature ratings

Operating temperature	(°C)	-40 to +85
Temp.coefficient of P _{max}	(%/°C)	-0.35
Temp.coefficient of V _{oc}	(%/°C)	-0.275
Temp.coefficient of I _{sc}	(%/°C)	0.045
Nom. operating temp. NOCT	(°C)	45 ± 2



Electrical specifications (STC*):	AE395SMD-108E	AE400SMD-108E	AE405SMD-108E	AE410SMD-108E	
Nominal Max. Power	P _{max} (Wp)	395	400	405	410
Maximum operating voltage	V _{MPP} (V)	31.08	31.35	31.62	31.88
Maximum operating current	I _{MPP} (A)	12.71	12.76	12.81	12.86
Open-circuit voltage	V _{oc} (V)	37.36	37.69	38.02	38.35
Short-circuit current	I _{sc} (A)	13.47	13.52	13.57	13.62
Module efficiency	η (%)	20.26	20.51	20.77	21.03
Power tolerance	(W)			0~+5	
Maximum system Voltage	(V)			1500	
Maximum series fuse rating	(A)			25	

*STC: Standard test conditions (Irradiance 1000 W/m², Cell temperature 25°C and air mass of AM1.5), measurement tolerance P_{max}: ±3%

Electrical specifications (NMOT*):	AE395SMD-108E	AE400SMD-108E	AE405SMD-108E	AE410SMD-108E	
Nominal Max. Power	P _{max} (Wp)	298	301	304	308
Maximum operating voltage	V _{MPP} (V)	29.30	29.50	29.70	29.90
Maximum operating current	I _{MPP} (A)	10.17	10.21	10.25	10.29
Open-circuit voltage	V _{oc} (V)	35.20	35.40	35.60	35.80
Short-circuit current	I _{sc} (A)	10.78	10.82	10.86	10.90

*NMOT: Normal Module Operating Temperature (Irradiance 800 W/m², Ambient temperature 20°C, air mass of AM1.5 and wind speed of 1 m/s)

The specifications and characteristics contained in this datasheet may deviate slightly from our actual products due to the product developments and uncertainty of measurement devices. The specifications included in the datasheet are subject to change without prior notice.