

AESOLAR

since 2003



AURORA

HIGH ENERGY YIELD
RELIABILITY
DURABILITY

30
years
Performance
Guarantee

15
years
Product
Guarantee

530W-550W
AE MD-144 Series

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

www.ae-solar.com



HALF
CELLS



CELL
SIZE



LID
RESISTANT



PID
RESISTANT



SALT CORROSION
RESISTANT



SAND
RESISTANT



AMMONIA
RESISTANT

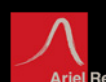


HIGHLY STABLE
AND TOUGH



IEC 61215
IEC 61730
Regular Production Surveillance
Type Tested and Monitored

IEC 62716 (Ammonia corrosion)
IEC 61701 (Salt mist corrosion)
IEC 60068 (Sand and dust)
IEC 62804 (PID resistance)



AE MD-144 Series 530W-550W



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

Mechanical and design specification

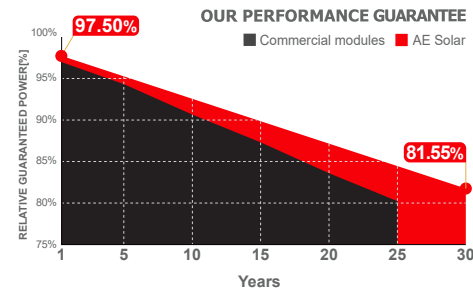
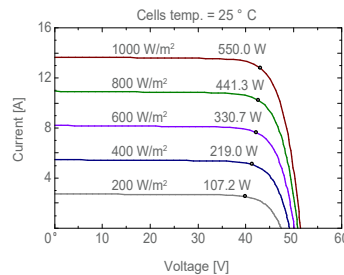
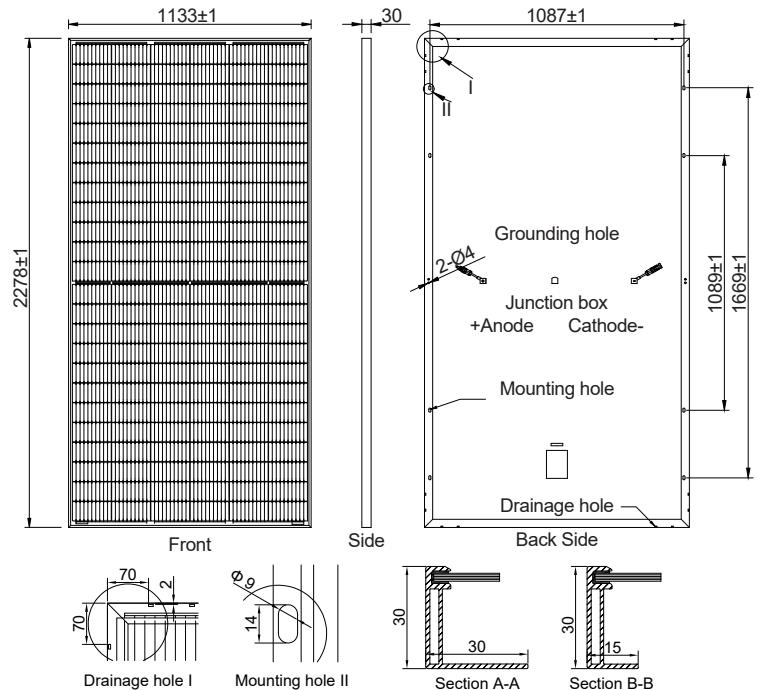
Cell type	Gallium-doped Mono c-Si PERC, Half-cut cells, 182 mm
No. of cells	144
Glass	3.2 mm, high transmission, AR coated, tempered
Encapsulation	EVA
Back cover	White backsheet
Junction box	IP68 rated, 3 Bypass Diodes
Frame	30 mm anodized Aluminium alloy
Cable	1 x 4 mm ² , 350 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	2278 mm x 1133 mm x 30 mm
Weight	26.5 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa/ 244 kg/ m ²
Mechanical load	5400 Pa/ 550 kg/ m ²

Packaging information

Packaging configuration	72 pcs / double pallet
Loading capacity	720 pcs / 40 HQ
Size / Pallet	2310 mm x 1140 mm x 2490 mm
Weight	1996 kg / double pallets

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*):		AE530MD-144	AE535MD-144	AE540MD-144	AE545MD-144	AE550MD-144
Nominal Max. Power	P _{max} (Wp)	530	535	540	545	550
Maximum operating voltage	V _{MPP} (V)	41.70	41.93	42.15	42.38	42.57
Maximum operating current	I _{MPP} (A)	12.71	12.76	12.81	12.86	12.92
Open-circuit voltage	V _{oc} (V)	49.65	49.78	49.90	50.01	51.44
Short-circuit current	I _{sc} (A)	13.47	13.52	13.57	13.62	13.67
Module efficiency	η (%)	20.53	20.73	20.92	21.12	21.31
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)

Electrical specifications (NMOT*):		AE530MD-144	AE535MD-144	AE540MD-144	AE545MD-144	AE550MD-144
Nominal Max. Power	P _{max} (Wp)	400	403	407	410	414
Maximum operating voltage	V _{MPP} (V)	39.30	39.50	39.70	39.90	40.10
Maximum operating current	I _{MPP} (A)	10.17	10.21	10.25	10.29	10.34
Open-circuit voltage	V _{oc} (V)	47.00	47.20	47.40	47.60	47.80
Short-circuit current	I _{sc} (A)	10.78	10.82	10.86	10.90	10.94

*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.

