

Deutsche
Qualität
Garantiert



144

HALF
CELLS

182
mm

CELL
SIZE



LID
RESISTANT



SALT CORROSION
RESISTANT



SAND
RESISTANT



AMMONIA
RESISTANT



HIGHLY STABLE
AND TOUGH



AUROLA

HIGH ENERGY YIELD RELIABILITY DURABILITY

30

years

Performance
Guarantee

30

years

Product
Warranty

30

30

30

30

MONO-CRYSTALLINE PV MODULES
HALF-CUT CELLS • BIFACIAL • DOUBLE-GLASS

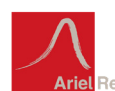
530W-550W

AE MD-144BD Series



IEC 61215
IEC 61730
Regular Production Surveillance
Type Tested and Monitored

IEC 62716 (Ammonia corrosion)(optional)
IEC 61701 (Salt mist corrosion)(optional)
IEC 60068 (Sand and dust)(optional)



www.ae-solar.com

Mechanical and design specification

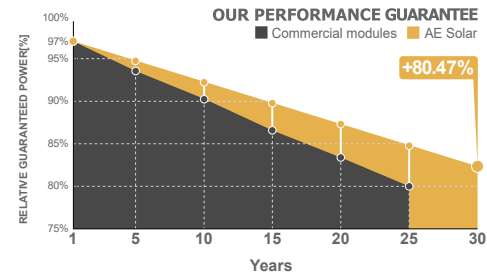
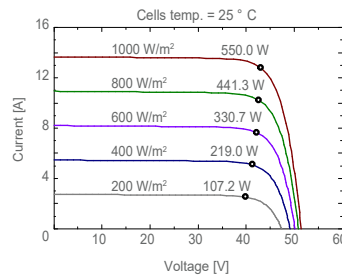
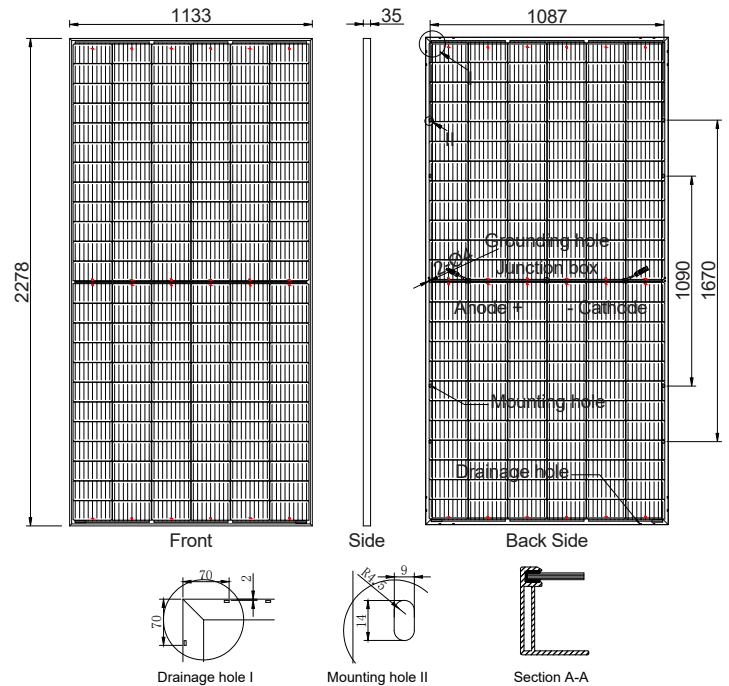
Cell type	Gallium-doped Mono c-Si PERC, Half-cut cells, 182 mm
No. of cells	144
Bifaciality	70±5%
Glass	2.0 mm, high transmission, AR coated, tempered
Encapsulation	POE
Back cover	2.0 mm, high transmission solar glass, tempered
Junction box	IP 68 rated
Frame	35 mm anodized Aluminium alloy
Cable	1 x 4 mm ² , 350 mm length or customized
Connectors	MC 4 - EVO2
Dimension	2278 mm x 1133 mm x 35 mm
Weight	33 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
Fire Rating	Class A (according to UL790)

Packaging information

Packaging configuration	62 pcs / double pallet
Loading capacity	620 pcs / 40 HQ
Size / Pallet	2310 mm x 1140 mm x 2490 mm
Weight	2170 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-144BD	AE535MD-144BD	AE540MD-144BD	AE545MD-144BD	AE550MD-144BD
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)
Power measurement tolerance: ± 3%

Electrical specifications (NMOT*):		AE530MD-144BD	AE535MD-144BD	AE540MD-144BD	AE545MD-144BD	AE550MD-144BD
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)

Country of Manufacturer: China

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.

