

 Deutsche  
 Qualität  
 Garantiert



144

HALF  
CELLS

166  
mm

CELL  
SIZE



LID  
RESISTANT



PID  
RESISTANT



SALT CORROSION  
RESISTANT



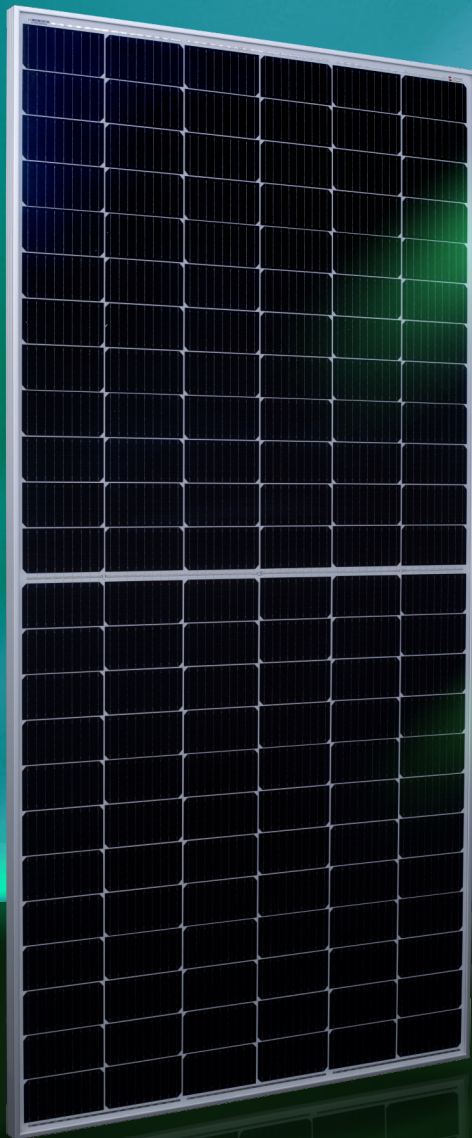
SAND  
RESISTANT



AMMONIA  
RESISTANT



HIGHLY STABLE  
AND TOUGH



# AURORA

**HIGH** ENERGY YIELD  
RELIABILITY  
DURABILITY

30

years

Performance  
Guarantee

15

years

Product  
Warranty

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

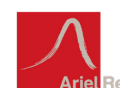
# 440W-450W

## AE MC-144 Series



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)



[www.ae-solar.com](http://www.ae-solar.com)

## AE MC-144 Series 440W-450W

### Mechanical and design specification

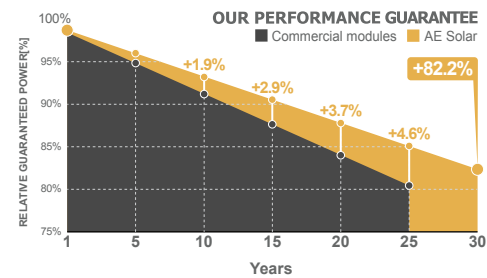
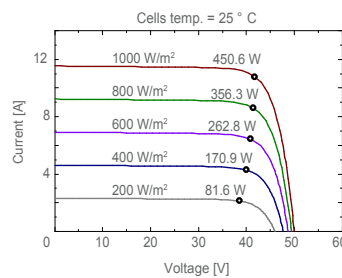
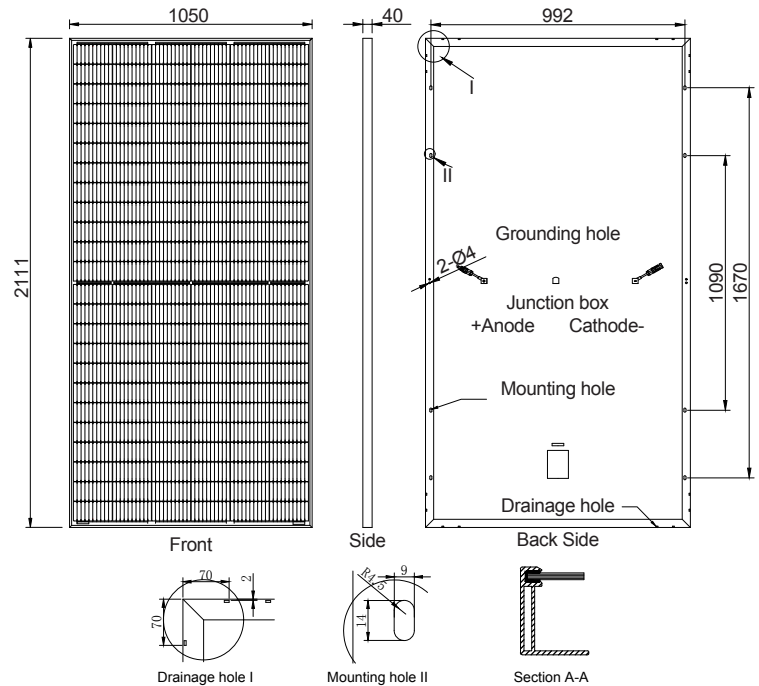
Cell type	Gallium-doped Mono c-Si PERC, Half-cut cells, 166 mm
No. of cells	144
Glass	3.2 mm, high transmission, AR coated, tempered
Encapsulation	EVA
Back cover	White backsheet
Junction box	IP 68 rated
Frame	35 mm anodized Aluminium alloy
Cable	1 x 4 mm <sup>2</sup> , 350 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	2111 mm x 1050 mm x 40 mm
Weight	23 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa/ 244 kg/ m <sup>2</sup>
Mechanical load	5400 Pa/ 550 kg/ m <sup>2</sup>

### Packaging information

Packaging configuration	22 pallets
Loading capacity	594 pcs / 40 HQ
Size / Pallet	2131 mm x 1100 mm x 1200 mm
Weight	781 kg / per pallet

### Temperature ratings

Operating temperature	(°C)	-40 to +85
Temp.coefficient of P <sub>max</sub>	(%/°C)	-0.37
Temp.coefficient of V <sub>oc</sub>	(%/°C)	-0.286
Temp.coefficient of I <sub>sc</sub>	(%/°C)	0.057
Nom. operating temp. NOCT	(°C)	45 ± 2



Electrical specifications (STC*):		AE440MC-144	AE445MC-144	AE450MC-144
Nominal Max. Power	P <sub>max</sub> (Wp)	440	445	450
Maximum operating voltage	V <sub>MPP</sub> (V)	41.0	41.2	41.4
Maximum operating current	I <sub>MPP</sub> (A)	10.74	10.80	10.87
Open-circuit voltage	V <sub>oc</sub> (V)	49.60	49.80	50.0
Short-circuit current	I <sub>sc</sub> (A)	11.33	11.46	11.54
Module efficiency	η (%)	20.24	20.47	20.70
Power tolerance	(W)		0~+5	
Maximum system Voltage	(V)		1500	
Maximum series fuse rating	(A)		20	


\*STC: Standard test conditions (Irradiance 1000 W/m<sup>2</sup>, Cell temperature 25°C and air mass of AM1.5)

Electrical specifications (NMOT*):		AE440MC-144	AE445MC-144	AE450MC-144
Nominal Max. Power	P <sub>max</sub> (Wp)	332	335	339
Maximum operating voltage	V <sub>MPP</sub> (V)	38.60	38.80	39.00
Maximum operating current	I <sub>MPP</sub> (A)	8.59	8.64	8.70
Open-circuit voltage	V <sub>oc</sub> (V)	46.70	46.90	47.10
Short-circuit current	I <sub>sc</sub> (A)	9.06	9.16	9.23

\*NMOT: Normal Module Operating Temperature (Irradiance 800 W/m<sup>2</sup>, 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.



 Deutsche  
 Qualität  
 Garantiert



144

HALF  
CELLS

182  
mm

CELL  
SIZE



LID  
RESISTANT



PID  
RESISTANT



SALT CORROSION  
RESISTANT



SAND  
RESISTANT



AMMONIA  
RESISTANT



HIGHLY STABLE  
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HALF-CUT CELLS • MONO-FACIAL

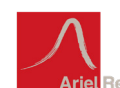
# 530W-550W

## AE MD-144 Series



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)



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## AE MD-144 Series 530W-550W

### Mechanical and design specification

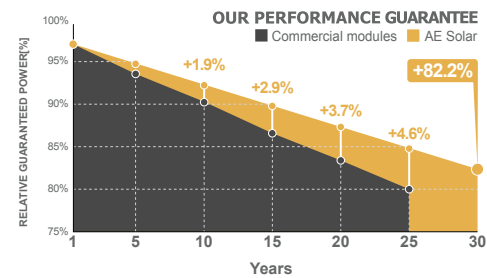
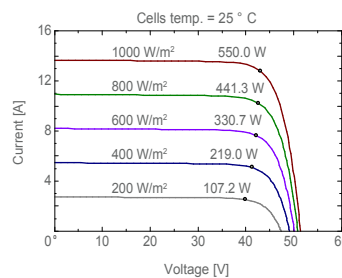
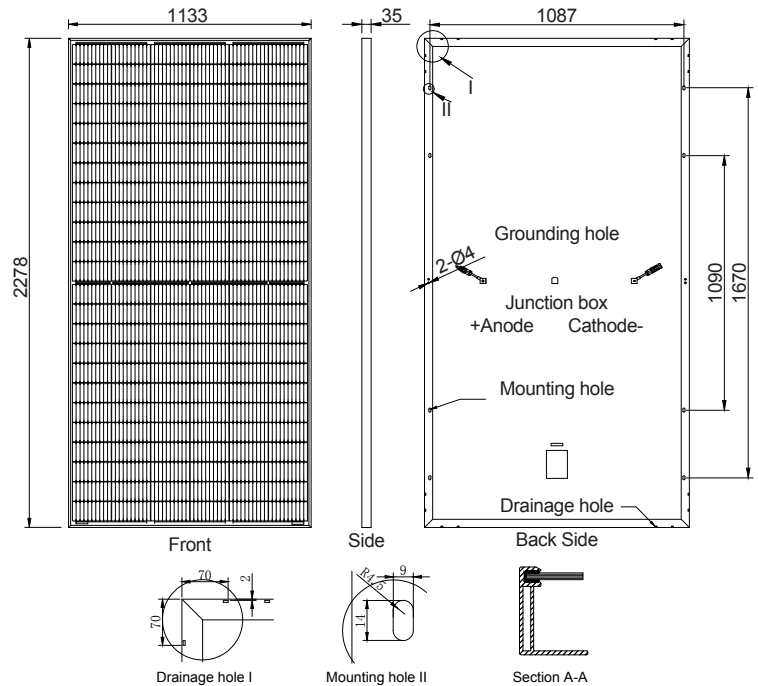
Cell type	Gallium-doped Mono c-Si PERC, Half-cut cells, 182 mm
No. of cells	144
Glass	3.2 mm, high transmission, AR coated, tempered
Encapsulation	EVA
Back cover	White backsheet
Junction box	IP 68 rated
Frame	35 mm anodized Aluminium alloy
Cable	1 x 4 mm <sup>2</sup> , 350 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	2278 mm x 1133 mm x 35 mm
Weight	27 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa/ 244 kg/ m <sup>2</sup>
Mechanical load	5400 Pa/ 550 kg/ m <sup>2</sup>

### 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	1804 kg / double pallets

### Temperature ratings

Operating temperature	(°C)	-40 to +85
Temp.coefficient of P <sub>max</sub>	(%/°C)	-0.35
Temp.coefficient of V <sub>oc</sub>	(%/°C)	-0.275
Temp.coefficient of I <sub>sc</sub>	(%/°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 <sub>max</sub> (Wp)	530	535	540	545	550
Maximum operating voltage	V <sub>MPP</sub> (V)	41.70	41.93	42.15	42.38	42.57
Maximum operating current	I <sub>MPP</sub> (A)	12.71	12.76	12.81	12.86	12.92
Open-circuit voltage	V <sub>oc</sub> (V)	49.65	49.78	49.90	50.01	51.44
Short-circuit current	I <sub>sc</sub> (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/m<sup>2</sup>, 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 <sub>max</sub> (Wp)	400	403	407	410	414
Maximum operating voltage	V <sub>MPP</sub> (V)	39.30	39.50	39.70	39.90	40.10
Maximum operating current	I <sub>MPP</sub> (A)	10.17	10.21	10.25	10.29	10.34
Open-circuit voltage	V <sub>oc</sub> (V)	47.00	47.20	47.40	47.60	47.80
Short-circuit current	I <sub>sc</sub> (A)	10.78	10.82	10.86	10.90	10.94

\*NMOT: Normal Module Operating Temperature (Irradiance 800 W/m<sup>2</sup>, Ambient temperature 20°C, air mass of AM1.5 and wind speed of 1 m/s)

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