

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

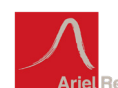
MONO-CRYSTALLINE PV MODULES  
HALF-CUT CELLS • MONO-FACIAL • BLACK

## 430W-450W AE MC-144E Series



IEC 61215  
IEC 61730  
Regular Production Surveillance  
Type Tested and Monitored

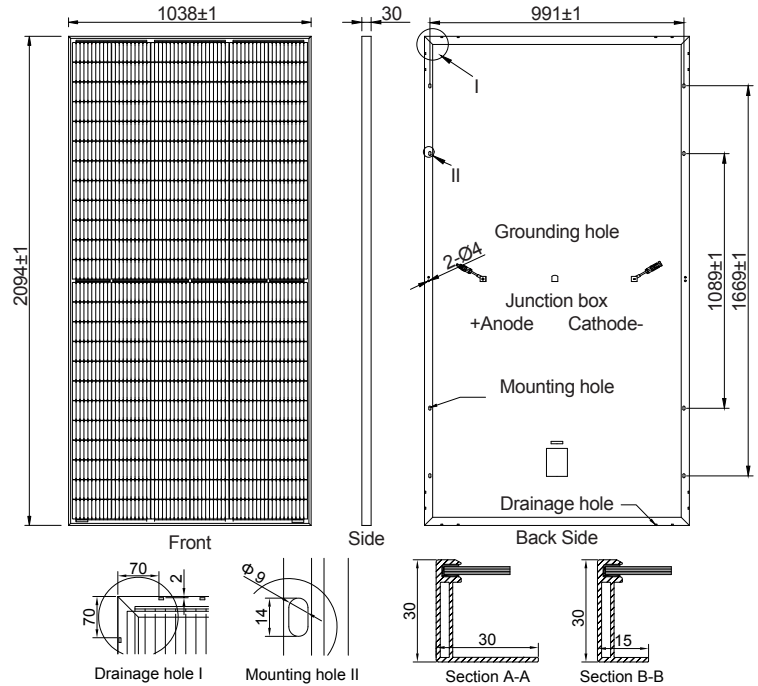
IEC 62716 (Ammonia corrosion)  
IEC 61701 (Salt mist corrosion)  
IEC 60068 (Sand and dust)  
IEC 62804 (PID resistance)



www.ae-solar.com

**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	EVA-side Black, Rear-side White Backsheet
Junction box	IP 68 rated
Frame	30 mm anodized Aluminium alloy
Cable	1 x 4 mm <sup>2</sup> , 350 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	2094 mm x 1038 mm x 30 mm
Weight	22.5 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>

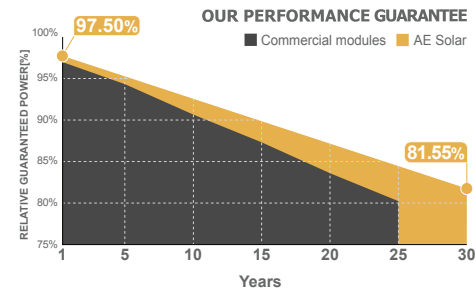
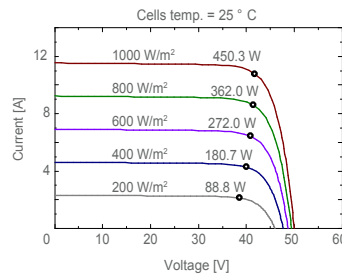


**Packaging information**

Packaging configuration	74 pcs / double pallets
Loading capacity	814 pcs / 40 HQ
Size / Pallet	2125 mm x 1140 mm x 2415 mm
Weight	1748 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)	-0.286
Temp. coefficient of I <sub>sc</sub> (%/°C)	0.057
Nom. operating temp. NOCT (°C)	45 ± 2



Electrical specifications (STC*):		AE430MC-144E	AE435MC-144E	AE440MC-144E	AE445MC-144E	AE450MC-144E
Nominal Max. Power	P <sub>max</sub> (Wp)	430	435	440	445	450
Maximum operating voltage	V <sub>MPP</sub> (V)	40.6	40.8	41.0	41.2	41.4
Maximum operating current	I <sub>MPP</sub> (A)	10.6	10.67	10.74	10.80	10.87
Open-circuit voltage	V <sub>oc</sub> (V)	49.2	49.4	49.6	49.8	50.0
Short-circuit current	I <sub>sc</sub> (A)	11.19	11.26	11.33	11.46	11.54
Module efficiency	η (%)	19.78	20.01	20.24	20.47	20.7
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*):		AE430MC-144E	AE435MC-144E	AE440MC-144E	AE445MC-144E	AE450MC-144E
Nominal Max. Power	P <sub>max</sub> (Wp)	324	328	332	335	339
Maximum operating voltage	V <sub>MPP</sub> (V)	38.2	38.4	38.6	38.8	39.0
Maximum operating current	I <sub>MPP</sub> (A)	8.48	8.54	8.59	8.64	8.7
Open-circuit voltage	V <sub>oc</sub> (V)	46.3	46.5	46.7	46.9	47.1
Short-circuit current	I <sub>sc</sub> (A)	8.95	9.01	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.