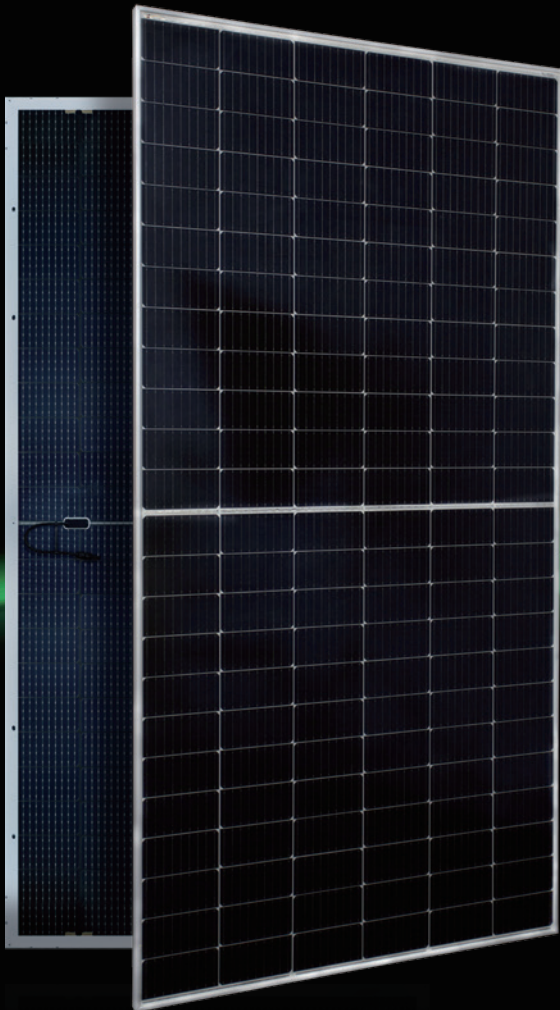




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## 530W-550W

### AE MD-144BD Series

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

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Ver. 24.1.1



144

HALF  
CELLS



182  
mm

CELL  
SIZE



LID  
RESISTANT



PID  
RESISTANT



SALT CORROSION  
RESISTANT



SAND  
RESISTANT



AMMONIA  
RESISTANT

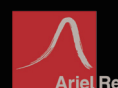


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AND TOUGH



IEC 61215 IEC 61730  
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IEC 62716 (Ammonia corrosion)  
IEC 61701 (Salt mist corrosion)  
IEC 60068 (Sand and dust)  
IEC 62804 (PID resistance)



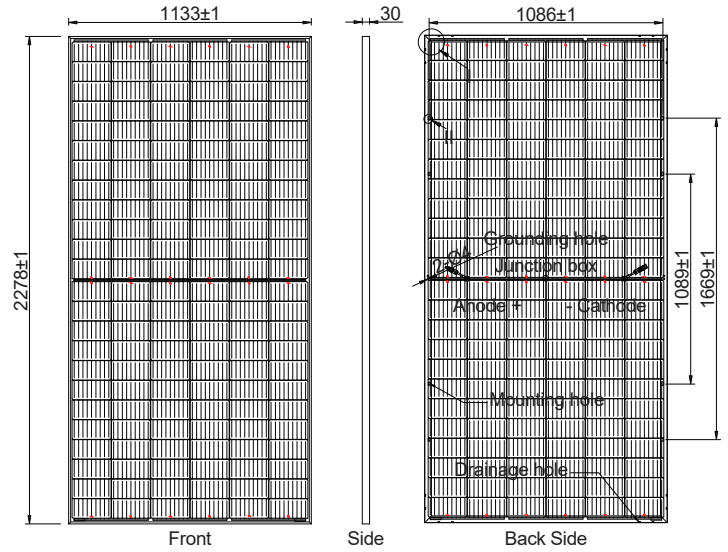
# AE MD-144BD Series 530W-550W



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

## Mechanical and design specification

Cell type	Gallium-doped Mono c-Si PERC, Half-cut cells, 182 mm
No. of cells	144
Bifaciality	70 ± 5%
Front cover	2.0 mm glass, high transmission, AR coated, tempered
Encapsulation	POE
Back cover	2.0 mm, high transmission solar glass, tempered
Junction box	IP68 rated, 3 Bypass Diodes
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	2278 mm x 1133 mm x 30 mm
Weight	31 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa or 244 kg/m <sup>2</sup>
Snow load	5400 Pa or 550 kg/m <sup>2</sup>

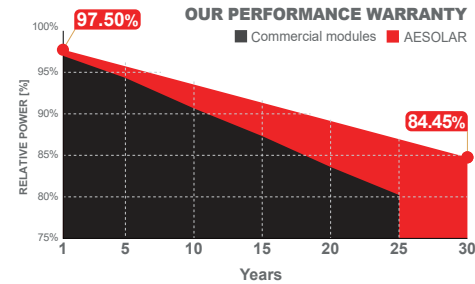
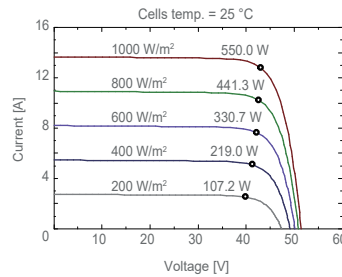
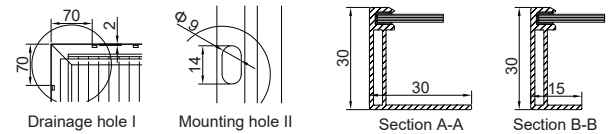


## Packaging information

Packaging configuration	36 pcs / pallet
Loading capacity	720 pcs / 40 HQ
Size / Pallet	2310 mm x 1140 mm x 1245 mm
Weight	1160 kg / pallet

## 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-144BD AE535MD-144BD AE540MD-144BD AE545MD-144BD AE550MD-144BD

Parameter	Symbol	AE530MD-144BD	AE535MD-144BD	AE540MD-144BD	AE545MD-144BD	AE550MD-144BD
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)	30				

\*STC: Standard test conditions (Irradiance 1000 W/m<sup>2</sup>, Cell temperature 25°C and air mass of AM1.5), measurement tolerance P<sub>max</sub>: ±3%

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

Parameter	Symbol	AE530MD-144BD	AE535MD-144BD	AE540MD-144BD	AE545MD-144BD	AE550MD-144BD
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)

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.