



AESOLAR

since 2003



AURORA

HIGH ENERGY YIELD
RELIABILITY
DURABILITY

30
years

Performance
Warranty

15
years

Product
Warranty

485W-505W

AE MD-132BD Series

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

www.ae-solar.com

Ver. 24.1.1



132

HALF
CELLS



182
mm

CELL
SIZE



LID
RESISTANT



PID
RESISTANT



SALT CORROSION
RESISTANT



SAND
RESISTANT



AMMONIA
RESISTANT

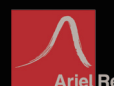


HIGHLY STABLE
AND TOUGH



IEC 61215 IEC 61730
Regular Production Surveillance
www.tuv.com
ID 1111257249

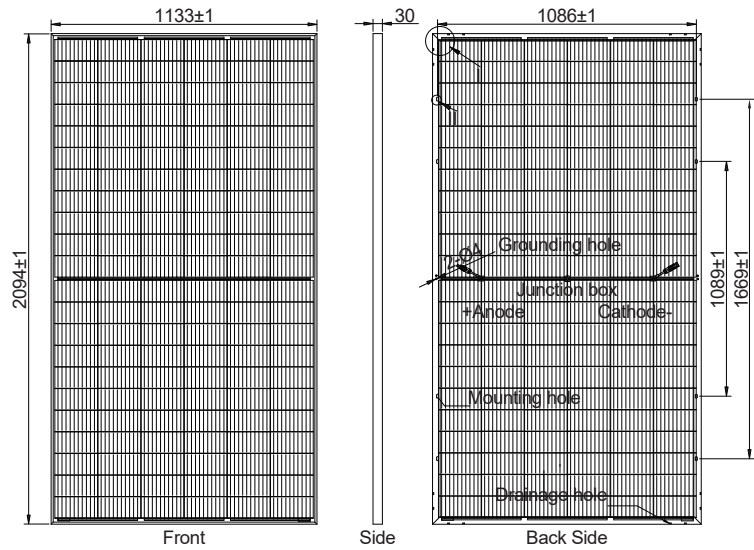
IEC 62716 (Ammonia corrosion)
IEC 61701 (Salt mist corrosion)
IEC 60068 (Sand and dust)
IEC 62804 (PID resistance)



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	132
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 ² , 350 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	2094 mm x 1133 mm x 30 mm
Weight	28 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa or 244 kg/m ²
Snow load	5400 Pa or 550 kg/m ²

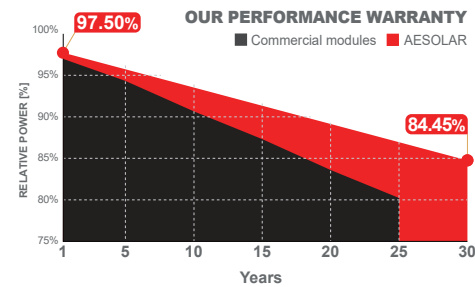
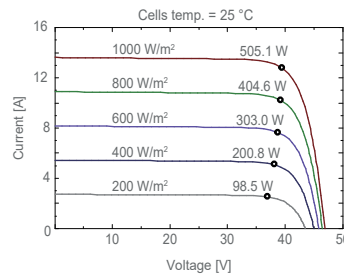
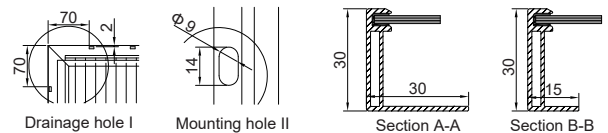


Packaging information

Packaging configuration	36 pcs / pallet
Loading capacity	792 pcs / 40 HQ
Size / Pallet	2125 mm x 1140 mm x 1245 mm
Weight	1048 kg / pallet

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*): AE485MD-132BD AE490MD-132BD AE495MD-132BD AE500MD-132BD AE505MD-132BD

		AE485MD-132BD	AE490MD-132BD	AE495MD-132BD	AE500MD-132BD	AE505MD-132BD
Nominal Max. Power	P_{max} (Wp)	485	490	495	500	505
Maximum operating voltage	V_{MPP} (V)	38.31	38.55	38.79	39.03	39.27
Maximum operating current	I_{MPP} (A)	12.66	12.71	12.76	12.81	12.86
Open-circuit voltage	V_{oc} (V)	45.75	46.05	46.34	46.64	46.93
Short-circuit current	I_{sc} (A)	13.42	13.47	13.52	13.57	13.62
Module efficiency	η (%)	20.44	20.65	20.86	21.07	21.29
Power tolerance	(W)			0~+5		
Maximum system Voltage	(V)			1500		
Maximum series fuse rating	(A)			30		

*STC: Standard test conditions (Irradiance 1000 W/m², Cell temperature 25°C and air mass of AM1.5), measurement tolerance P_{max} : ±3%

Electrical specifications (NMOT*): AE485MD-132BD AE490MD-132BD AE495MD-132BD AE500MD-132BD AE505MD-132BD

		AE485MD-132BD	AE490MD-132BD	AE495MD-132BD	AE500MD-132BD	AE505MD-132BD
Nominal Max. Power	P_{max} (Wp)	363	366	370	373	377
Maximum operating voltage	V_{MPP} (V)	35.80	36.00	36.20	36.40	36.60
Maximum operating current	I_{MPP} (A)	10.13	10.17	10.21	10.25	10.29
Open-circuit voltage	V_{oc} (V)	43.00	43.20	43.40	43.60	43.80
Short-circuit current	I_{sc} (A)	10.74	10.78	10.82	10.86	10.90

*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.