

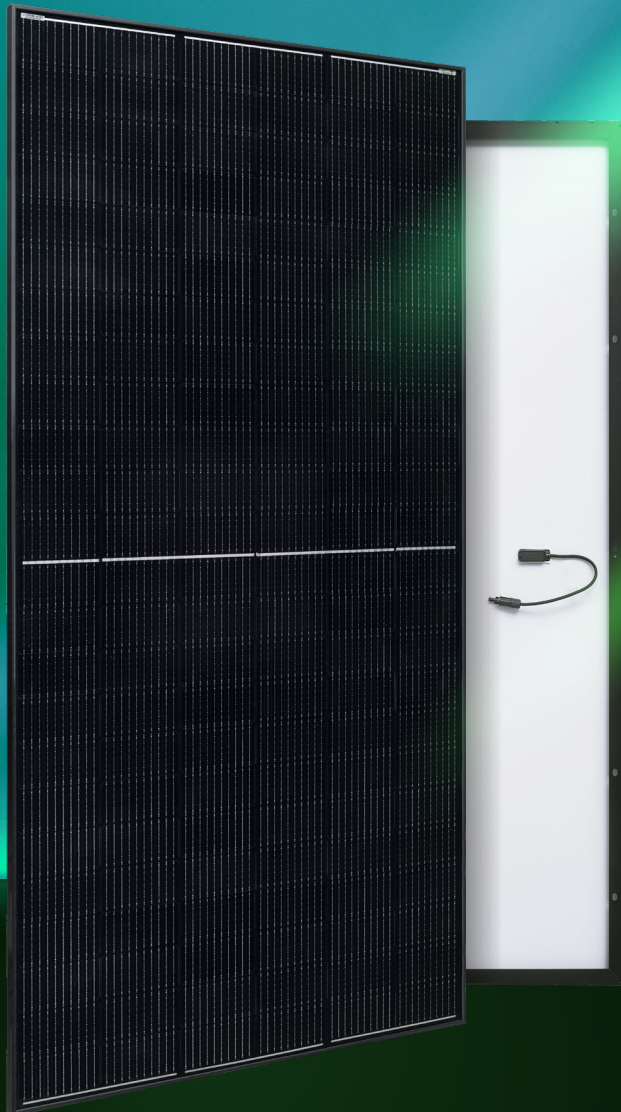
 Deutsche
 Qualität
 Garantiert



AURORA

HIGH ENERGY YIELD
RELIABILITY
DURABILITY

144

HALF
CELLS



PID
RESISTANT



SALT CORROSION
RESISTANT



SAND
RESISTANT



AMMONIA
RESISTANT



HIGHLY STABLE
AND TOUGH

30

years

Performance
Guarantee

15

years

Product
Warranty

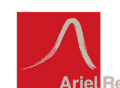
MONO-CRYSTALLINE PV MODULES
HALF-CUT CELLS • MONO-FACIAL • BLACK

405W-415W
AE MB-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

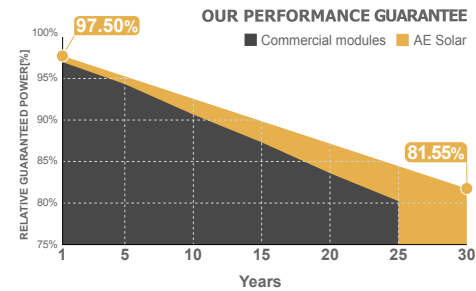
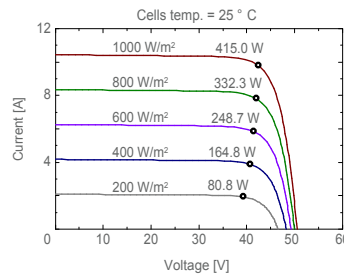
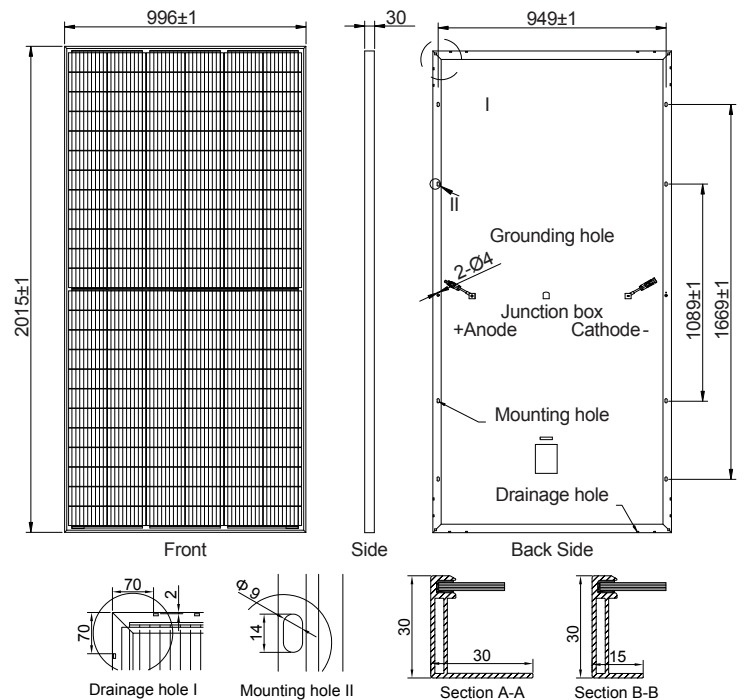
Cell type	Gallium-doped Mono c-Si PERC, Half-cut cells, 158.75 mm
No. of cells	144
Glass	3.2 mm, high transmission, AR coated, tempered
Encapsulation	EVA
Back cover	EVA-side Black, Rear-side White Backsheet
Junction box	IP 68 rated
Frame	30 mm anodized Aluminium alloy
Cable	1 x 4 mm ² , 350 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	2015 mm x 996 mm x 30 mm
Weight	20.5 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

Packaging information

Packaging configuration	76 pcs / double pallet
Loading capacity	836 pcs / 40 HQ
Size / Pallet	2045 mm x 1140 mm x 2395 mm
Weight	1677 kg / double pallets

Temperature ratings

Operating temperature (°C)	-40 to +85
Temp.coefficient of P _{max} (%/°C)	-0.353
Temp.coefficient of V _{oc} (%/°C)	-0.277
Temp.coefficient of I _{sc} (%/°C)	0.040
Nom. operating temp. NOCT (°C)	45 ± 2



Electrical specifications (STC*):		AE405MB-144E	AE410MB-144E	AE415MB-144E
Nominal Max. Power	P _{max} (Wp)	405	410	415
Maximum operating voltage	V _{MPP} (V)	41.59	41.85	42.09
Maximum operating current	I _{MPP} (A)	9.74	9.80	9.86
Open-circuit voltage	V _{oc} (V)	49.53	49.80	50.51
Short-circuit current	I _{sc} (A)	10.31	10.38	10.44
Module efficiency	η (%)	20.18	20.43	20.68
Power tolerance	(W)		0~+5	
Maximum system Voltage	(V)		1500	
Maximum series fuse rating	(A)		15	

*STC: Standard test conditions (Irradiance 1000 W/m², Cell temperature 25°C and air mass of AM1.5)

Electrical specifications (NMOT*):		AE405MB-144E	AE410MB-144E	AE415MB-144E
Nominal Max. Power	P _{max} (Wp)	302	306	309
Maximum operating voltage	V _{MPP} (V)	38.80	39.00	39.20
Maximum operating current	I _{MPP} (A)	7.79	7.84	7.89
Open-circuit voltage	V _{oc} (V)	46.60	46.80	47.00
Short-circuit current	I _{sc} (A)	8.25	8.30	8.35

*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.

