



AESOLAR

since 2003



METEOR

More power, less degradation

30
years
Performance
Warranty

15
years
Product
Warranty

425W-445W

AE CMER-96BDE Series

N-TYPE TOPCON TECHNOLOGY PV MODULES
HALF-CUT CELLS • BLACK • DOUBLE-GLASS

www.ae-solar.com

Ver. 24.1.1



HALF
CELLS



CELL
SIZE



LID
RESISTANT



PID
RESISTANT



SALT CORROSION
RESISTANT



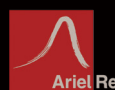
SAND
RESISTANT



AMMONIA
RESISTANT



HIGHLY STABLE
AND TOUGH



AE CMER-96BDE Series 425W-445W



N-TYPE TOPCON TECHNOLOGY PV MODULES
HALF-CUT CELLS • BLACK • DOUBLE-GLASS

Mechanical and design specification

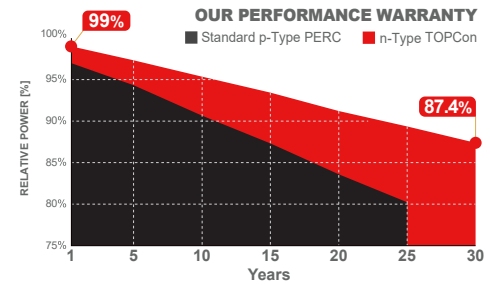
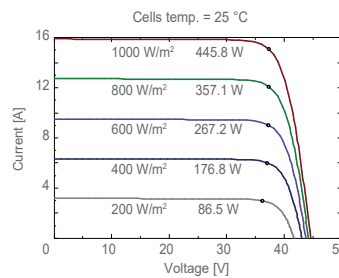
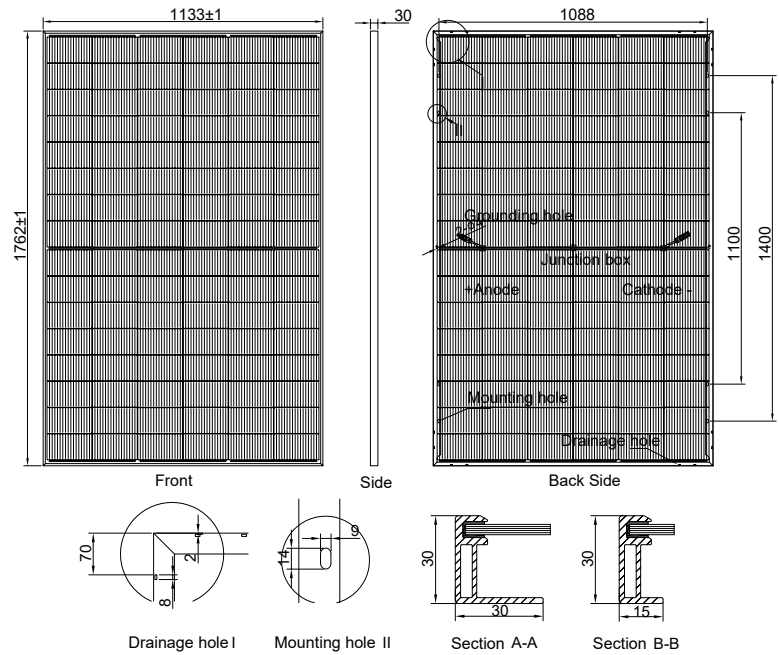
Cell type	n-Type TOPCon Technology, Half-cut cells, 210R mm
No. of cells	96
Bifaciality	80 ± 5%
Front cover	1.8 mm glass, high transmission, AR coated, tempered
Encapsulation	POE
Back cover	1.8 mm black glazed glass, tempered
Junction box	IP68 rated, 3 Bypass Diodes
Frame	30 mm anodized Aluminium alloy
Cable	1 x 4 mm ² , 350 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	1762 mm x 1133 mm x 30 mm
Weight	23 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
Fire Rating	Class A (according to UL 790)

Packaging information

Packaging configuration	36 pcs / pallet
Loading capacity	936 pcs / 40 HQ
Size / Pallet	1790 mm x 1140 mm x 1245 mm
Weight	875 kg / pallet

Temperature ratings

Operating temperature	(°C)	-40 to +85
Temp.coefficient of P _{max}	(%/°C)	-0.30
Temp.coefficient of V _{oc}	(%/°C)	-0.25
Temp.coefficient of I _{sc}	(%/°C)	0.046
Nom. operating temp. NOCT	(°C)	42 ± 2



Electrical specifications (STC*): AE425CMER-96BDE AE430CMER-96BDE AE435CMER-96BDE AE440CMER-96BDE AE445CMER-96BDE

Parameter	AE425CMER-96BDE	AE430CMER-96BDE	AE435CMER-96BDE	AE440CMER-96BDE	AE445CMER-96BDE
Nominal Max. Power	P _{max} (Wp)	425	430	435	440
Maximum operating voltage	V _{MPP} (V)	28.66	28.94	29.22	29.50
Maximum operating current	I _{MPP} (A)	14.83	14.86	14.89	14.92
Open-circuit voltage	V _{oc} (V)	34.29	34.49	34.77	35.05
Short-circuit current	I _{sc} (A)	15.69	15.72	15.76	15.89
Module efficiency	η (%)	21.29	21.54	21.79	22.04
Power tolerance	(W)	0~+5			
Maximum system Voltage	(V)	1500			
Maximum series fuse rating	(A)	35			

*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*): AE425CMER-96BDE AE430CMER-96BDE AE435CMER-96BDE AE440CMER-96BDE AE445CMER-96BDE

Parameter	AE425CMER-96BDE	AE430CMER-96BDE	AE435CMER-96BDE	AE440CMER-96BDE	AE445CMER-96BDE
Nominal Max. Power	P _{max} (Wp)	319	323	327	331
Maximum operating voltage	V _{MPP} (V)	26.54	26.80	27.08	27.36
Maximum operating current	I _{MPP} (A)	12.02	12.05	12.08	12.12
Open-circuit voltage	V _{oc} (V)	31.87	32.15	32.43	32.71
Short-circuit current	I _{sc} (A)	12.62	12.67	12.70	12.79

*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.