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ULTRA BLACK
series

For Elegant Living

30
years

Performance
Guarantee

15
years

Product
Guarantee

425W-445W

AE BME-46F Series

MONO-CRYSTALLINE PV MODULES
SHINGLED TECHNOLOGY • MONO-FACIAL

www.ae-solar.com

320

SHINGLED
CELLS

210
mm

CELL
SIZE



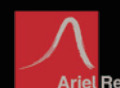
LID
RESISTANT



HIGHLY STABLE
AND TOUGH



IEC 61215
IEC 61730
Regular Production Surveillance
Type Tested and Monitored



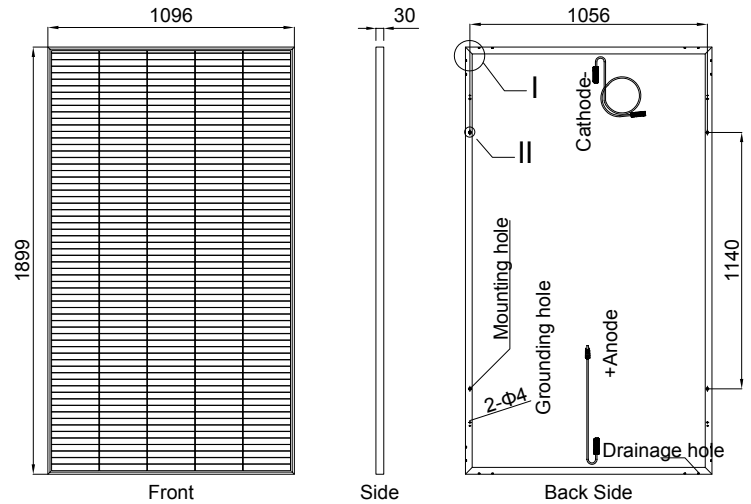
AE BME-46F Series 425W-445W



MONO-CRYSTALLINE PV MODULES
SHINGLED TECHNOLOGY • MONO-FACIAL

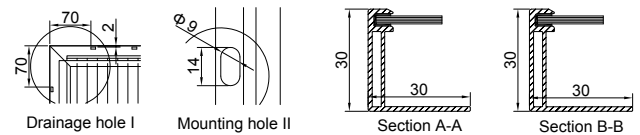
Mechanical and design specification

Cell type	Mono c-Si PERC, Shingled cells, 210 mm
No. of cells	320 (64x5)
Glass	3,2 mm, high transmission, AR coated, tempered
Encapsulation	EVA
Back cover	White Backsheet
Junction box	IP 68 Rated, 2 bypass diodes
Frame	30 mm anodized Aluminium alloy, full black
Cable	Anode 300 mm, Cathode 1000 mm or customized
Connectors	MC 4 / MC 4 compatible
Dimension	1899 mm x 1096 mm x 30 mm
Weight	21.8 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



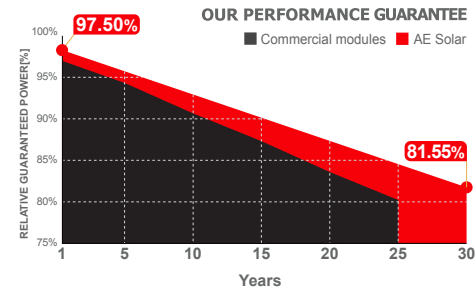
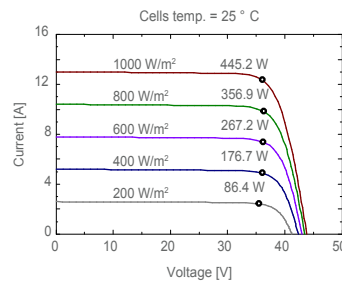
Packaging information

Packaging configuration	72 pcs / Double pallets
Loading capacity	864 pcs / 40 HQ
Size / Double pallets	1916 mm x 1125 mm x 2460 mm
Weight	1650 kg / Double pallets



Temperature ratings

Operating temperature (°C)	-40 to +85
Temp. coefficient of P _{max} (%/°C)	-0.34
Temp. coefficient of V _{oc} (%/°C)	-0.27
Temp. coefficient of I _{sc} (%/°C)	0.040
Nom. operating temp. NOCT (°C)	42.3 ± 2



Electrical specifications (STC*): AE425BME-46F AE430BME-46F AE435BME-46F AE440BME-46F AE445BME-46F

Nominal Max. Power	P _{max} (Wp)	425	430	435	440	445
Maximum operating voltage	V _{MPP} (V)	36.0	36.1	36.2	36.3	36.4
Maximum operating current	I _{MPP} (A)	11.81	11.92	12.02	12.13	12.23
Open-circuit voltage	V _{oc} (V)	43.4	43.5	43.6	43.7	43.8
Short-circuit current	I _{sc} (A)	12.56	12.68	12.79	12.90	13.01
Module efficiency	η (%)	20.42	20.66	20.90	21.14	21.38
Power tolerance	(W)	0~+5				
Maximum system Voltage	(V)	1500				
Maximum series fuse rating	(A)	25				

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

Electrical specifications (NMOT*): AE425BME-46F AE430BME-46F AE435BME-46F AE440BME-46F AE445BME-46F

Nominal Max. Power	P _{max} (Wp)	320	324	328	331	335
Maximum operating voltage	V _{MPP} (V)	34.3	34.4	34.5	34.6	34.7
Maximum operating current	I _{MPP} (A)	9.32	9.41	9.49	9.57	9.66
Open-circuit voltage	V _{oc} (V)	41.4	41.5	41.6	41.7	41.8
Short-circuit current	I _{sc} (A)	10.14	10.23	10.32	10.41	10.50

*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.

