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Qualität
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AESOLAR

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ECLIPSE

ULTRA BLACK
series

For Elegant Living

30
years

Performance
Guarantee

15
years

Product
Guarantee

405W-425W

AE BME-44E Series

MONO-CRYSTALLINE PV MODULES
SHINGLED TECHNOLOGY • MONO-FACIAL

www.ae-solar.com

305

SHINGLED
CELLS

210
mm

CELL
SIZE



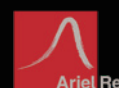
LID
RESISTANT



HIGHLY STABLE
AND TOUGH



IEC 61215
IEC 61730
Regular Production Surveillance
Type Tested and Monitored



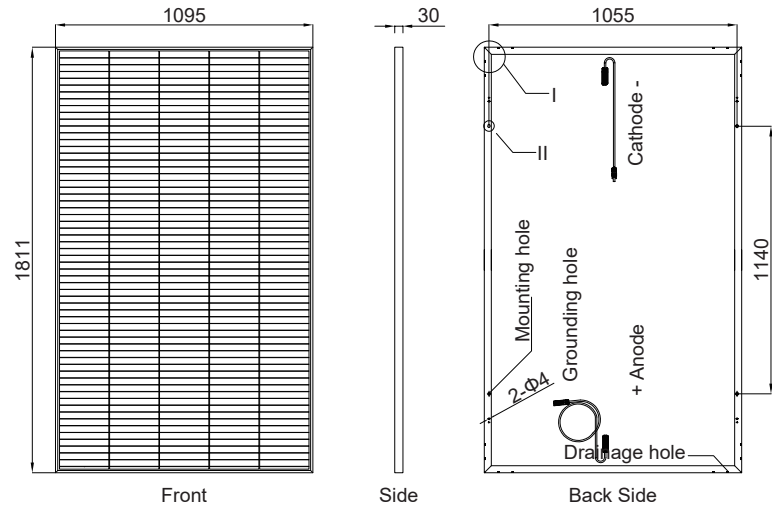
AE BME-44E Series 405W-425W



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SHINGLED TECHNOLOGY • MONO-FACIAL

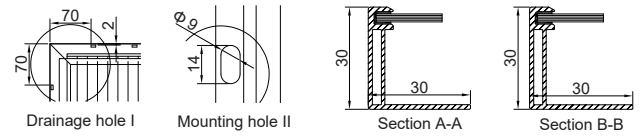
Mechanical and design specification

Cell type	Mono c-Si PERC, Shingled cells, 210 mm
No. of cells	305 (61x5)
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, 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	1811 mm x 1095 mm x 30 mm
Weight	20.8 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



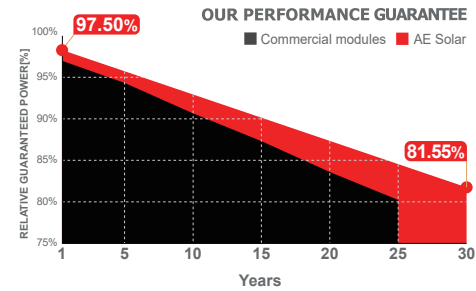
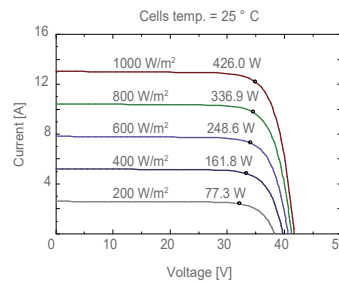
Packaging information

Packaging configuration	72 pcs / double pallets, 60 pcs / double pallets
Loading capacity	924 pcs / 40 HQ
Size / Double pallets	1826 mm x 1125 mm x 2440 mm (72 pcs) 1826 mm x 938 mm x 2440 mm (60 pcs)
Weight	1548 kg (72 pcs), 1298.4 kg (60 pcs)



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*): AE405BME-44E AE410BME-44E AE415BME-44E AE420BME-44E AE425BME-44E

	AE405BME-44E	AE410BME-44E	AE415BME-44E	AE420BME-44E	AE425BME-44E
Nominal Max. Power	P _{max} (Wp) 405	410	415	420	425
Maximum operating voltage	V _{MPP} (V) 34.3	34.4	34.4	34.5	34.6
Maximum operating current	I _{MPP} (A) 11.82	11.93	12.08	12.19	12.30
Open-circuit voltage	V _{oc} (V) 41.3	41.4	41.5	41.6	41.7
Short-circuit current	I _{sc} (A) 12.53	12.65	12.80	12.92	13.03
Module efficiency	η (%) 20.42	20.68	20.93	21.18	21.43
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*): AE405BME-44E AE410BME-44E AE415BME-44E AE420BME-44E AE425BME-44E

	AE405BME-44E	AE410BME-44E	AE415BME-44E	AE420BME-44E	AE425BME-44E
Nominal Max. Power	P _{max} (Wp) 305	309	312	316	320
Maximum operating voltage	V _{MPP} (V) 32.7	32.8	32.8	32.9	33.0
Maximum operating current	I _{MPP} (A) 9.33	9.41	9.53	9.62	9.70
Open-circuit voltage	V _{oc} (V) 39.4	39.5	39.6	39.7	39.8
Short-circuit current	I _{sc} (A) 10.09	10.19	10.31	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.

