



Deutsche  
Qualität  
Garantiert

**AURORA**  
P-TYPE PERC TECHNOLOGY

# MC-144E 430W-450W

High in energy yield, reliability and durability

**20.70%**  
MAXIMUM EFFICIENCY

**144**  
HALF CELLS

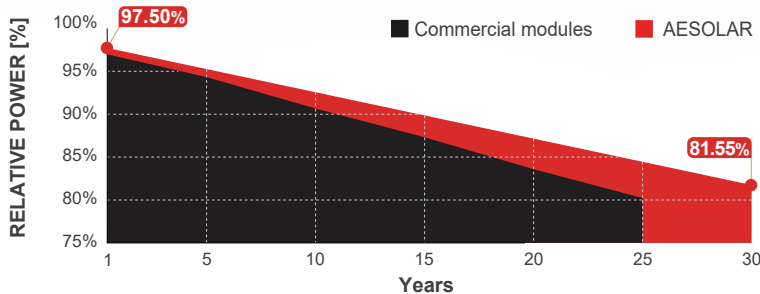
**30 YEARS** Performance Warranty      up to **30 YEARS\*** Product Warranty

\*The regular product warranty is 15 years, please refer to the latest version of AESOLAR Limited Warranty for the duration of the product warranty under special conditions. For extensions, please contact AESOLAR staff.

- LID  
RESISTANT
- PID  
RESISTANT
- SALT CORROSION  
RESISTANT
- SAND  
RESISTANT
- AMMONIA  
RESISTANT
- HIGHLY STABLE  
AND TOUGH



## OUR PERFORMANCE WARRANTY



## SYSTEM AND PRODUCT CERTIFICATIONS



IEC 61215 IEC 61730  
Regular Production Surveillance  
www.tuv.com  
ID 1111251295

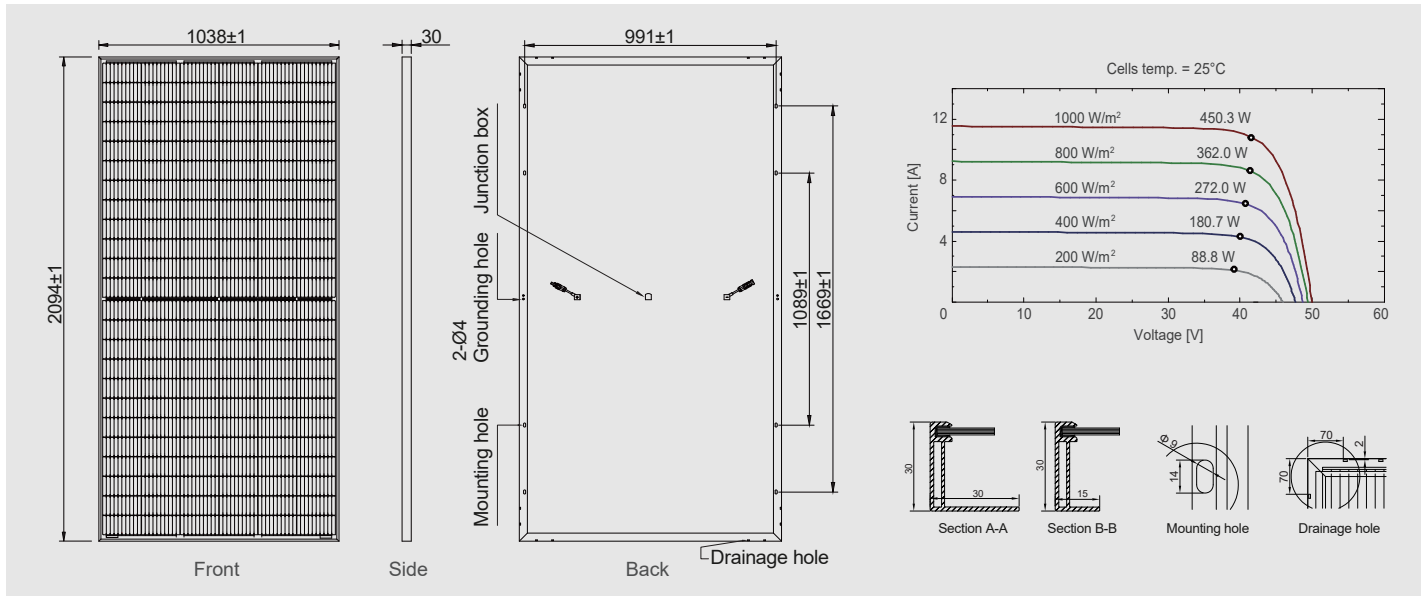


www.ae-solar.com

# AE MC-144E 430W-450W

P-TYPE PERC TECHNOLOGY PV MODULE

MONO-FACIAL • BLACK



## Electrical specifications (STC\*):

Nominal max. power	$P_{max}$ (Wp)	430	435	440	445	450
Maximum operating voltage	$V_{MPP}$ (V)	40.60	40.80	41.00	41.20	41.40
Maximum operating current	$I_{MPP}$ (A)	10.60	10.67	10.74	10.80	10.87
Open-circuit voltage	$V_{oc}$ (V)	49.20	49.40	49.60	49.80	50.00
Short-circuit current	$I_{sc}$ (A)	11.19	11.26	11.33	11.46	11.54
Module efficiency	$\eta$ (%)	19.78	20.01	20.24	20.47	20.70
Power tolerance	(W)			0~+5		
Maximum system voltage	(V)			1500		
Maximum series fuse rating	(A)			20		

\*STC: Standard Test Conditions (irradiance 1000 W/m<sup>2</sup>, cell temperature 25°C and air mass of AM1.5), measurement tolerance  $P_{max}$ : ±3%

## Electrical specifications (NMOT\*):

Nominal max. power	$P_{max}$ (Wp)	324	328	332	335	339
Maximum operating voltage	$V_{MPP}$ (V)	38.20	38.40	38.60	38.80	39.0
Maximum operating current	$I_{MPP}$ (A)	8.48	8.54	8.59	8.64	8.70
Open-circuit voltage	$V_{oc}$ (V)	46.30	46.50	46.70	46.90	47.10
Short-circuit current	$I_{sc}$ (A)	8.95	9.01	9.06	9.16	9.23

\*NMOT: Normal Module Operating Temperature (irradiance 800 W/m<sup>2</sup>, ambient temperature 20°C, air mass of AM1.5 and wind speed of 1 m/s)

## Mechanical and design specification

Cell type	Gallium-doped mono c-Si PERC, half-cut cells
No. of cells	144
Front cover	3.2 mm glass, high transmission, AR coated, tempered
Encapsulation	EVA
Back cover	EVA-side black, rear-side white backsheet
Junction box	IP68 rated, 3 bypass diodes
Frame	30 mm anodized aluminium alloy
Cable	1 x 4 mm <sup>2</sup> , 350 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	2094 mm x 1038 mm x 30 mm
Weight	22 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa or 244 kg/m <sup>2</sup>
Snow load	5400 Pa or 550 kg/m <sup>2</sup>

## Temperature ratings

Operating temperature	-40 to +85°C
Temp. coefficient of $P_{max}$	-0.35 %/°C
Temp. coefficient of $V_{oc}$	-0.286 %/°C
Temp. coefficient of $I_{sc}$	0.057 %/°C
Nom. operating cell temp. NOCT	45 ± 2°C

## Packaging information

Packaging configuration	36 pcs / pallet
Loading capacity	814 pcs / 40 HQ
Size / Pallet	2125 mm x 1140 mm x 1208 mm
Weight	857 kg / pallet

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.