AURORA

P-TYPE PERC TECHNOLOGY

TOP PERFORMER 2025 kiwa PV MODULE RELIABILITY SCORECARD

Wood Mackenzie Grade A | TIER 1 BloombergNEF | SMM TIER 1 GLOBAL TIER 1 AWARD

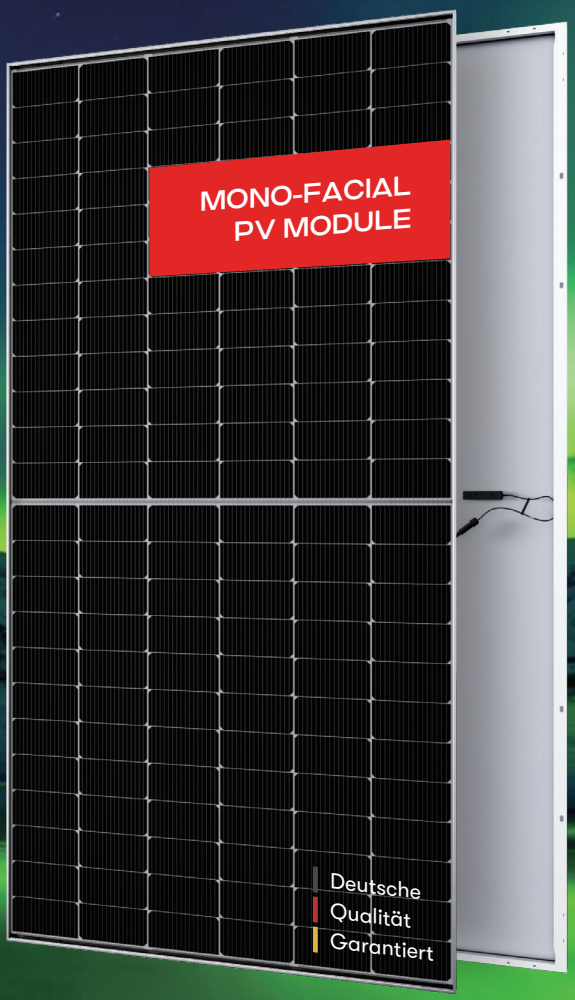
530W-550W

MD-144

21.31%
MAXIMUM EFFICIENCY

144
HALF CELLS

- Established durability and yield data
- High flexibility with BOM



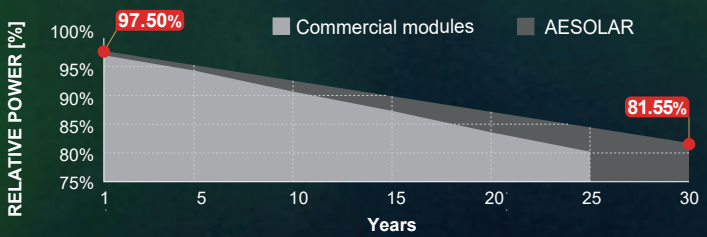
Ver. 26.1.1

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.

OUR PERFORMANCE WARRANTY



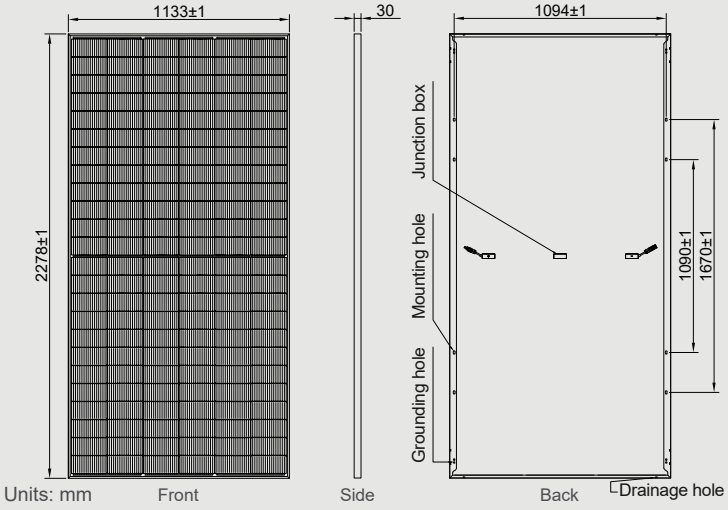
AESOLAR
Since 2003

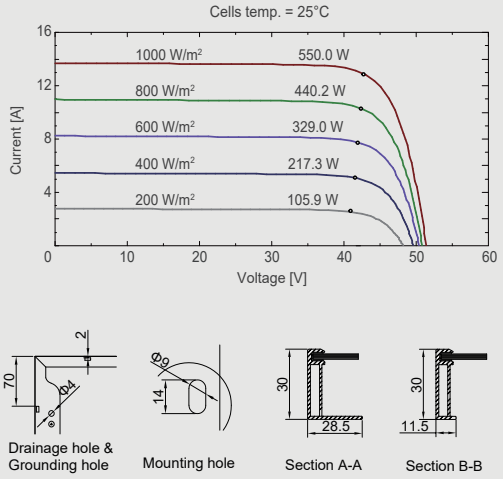
LID RESISTANT | PID RESISTANT | SALT CORROSION RESISTANT | SAND RESISTANT | AMMONIA RESISTANT | HIGHLY STABLE AND TOUGH

AE MD-144 530W-550W

P-TYPE PERC TECHNOLOGY

MONO-FACIAL PV MODULE





Electrical specifications (STC*):

Nominal max. power	P_{max} (Wp)	530	535	540	545	550
Maximum operating voltage	V_{MPP} (V)	41.70	41.93	42.15	42.38	42.57
Maximum operating current	I_{MPP} (A)	12.71	12.76	12.81	12.86	12.92
Open-circuit voltage	V_{oc} (V)	49.65	49.78	49.90	50.01	51.44
Short-circuit current	I_{sc} (A)	13.47	13.52	13.57	13.62	13.67
Module efficiency	η (%)	20.53	20.73	20.92	21.12	21.31
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), measurement tolerance P_{max}: ±3%

Electrical specifications (NMOT*):

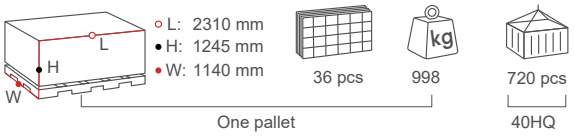
Nominal max. power	P_{max} (Wp)	400	403	407	410	414
Maximum operating voltage	V_{MPP} (V)	39.30	39.50	39.70	39.90	40.10
Maximum operating current	I_{MPP} (A)	10.17	10.21	10.25	10.29	10.34
Open-circuit voltage	V_{oc} (V)	47.00	47.20	47.40	47.60	47.80
Short-circuit current	I_{sc} (A)	10.78	10.82	10.86	10.90	10.94

*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)

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	White backsheet
Junction box	IP68 rated, 3 bypass diodes
Frame	30 mm anodized aluminium alloy
Cable (Including Connector)	1 x 4 mm², 350 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	2278 mm x 1133 mm x 30 mm
Weight	26.5 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa or 244 kg/m²
Snow load	5400 Pa or 550 kg/m²

Packaging information



Temperature ratings

Operating temperature	-40 to +85°C
Temp. coefficient of P_{max}	-0.35 %/°C
Temp. coefficient of V_{oc}	-0.275 %/°C
Temp. coefficient of I_{sc}	0.045 %/°C
Nom. operating cell temp. NOCT	45 ± 2°C

SYSTEM AND PRODUCT CERTIFICATIONS

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

IEC 62716 (Ammonia corrosion)
IEC 61701 (Salt mist corrosion)
IEC 60068 (Sand and dust)
IEC 62804 (PID resistance)

AESOLAR Since 2003

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