

Deutsche  
Qualität  
Garantiert



144

HALF  
CELLS

182  
mm

CELL  
SIZE



LID  
RESISTANT



PID  
RESISTANT



SALT CORROSION  
RESISTANT



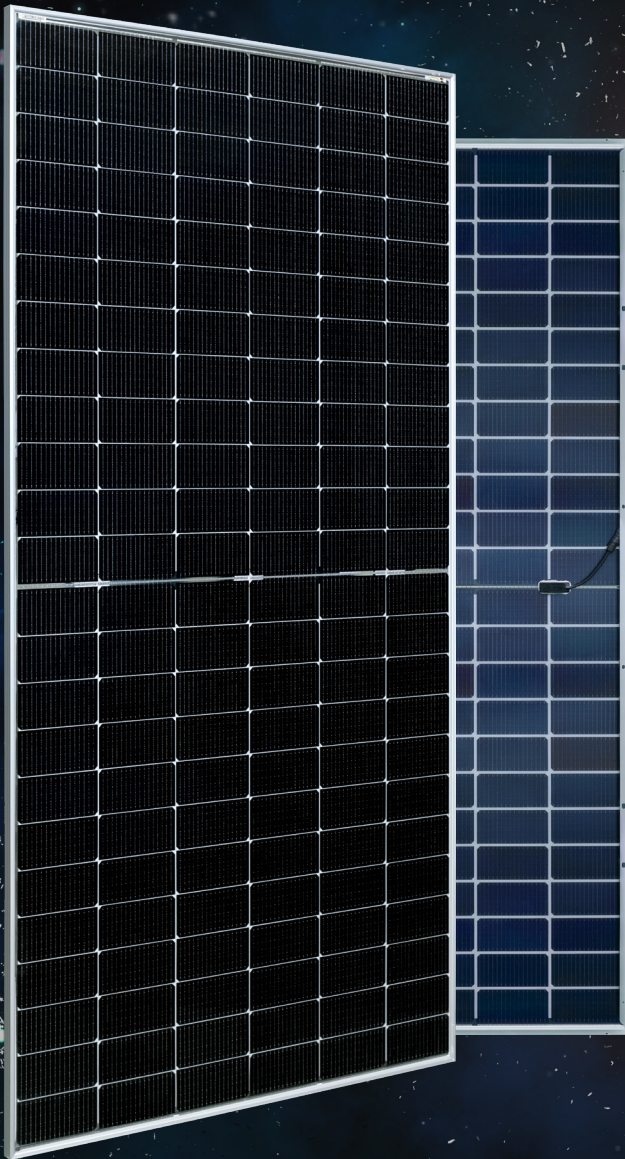
SAND  
RESISTANT



AMMONIA  
RESISTANT



HIGHLY STABLE  
AND TOUGH



mete r

POWER MORE, DEGRADE LESS

30

years

Performance  
Guarantee

15

years

Product  
Warranty

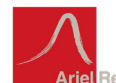
N-TYPE TOPCON TECHNOLOGY PV MODULES  
HALF-CUT CELLS • BIFACIAL • DOUBLE-GLASS

**555W-575W**  
AE CMD-144BDS Series



IEC 61215  
IEC 61730  
Regular Production Surveillance  
Type Tested and Monitored

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



www.ae-solar.com

**Mechanical and design specification**

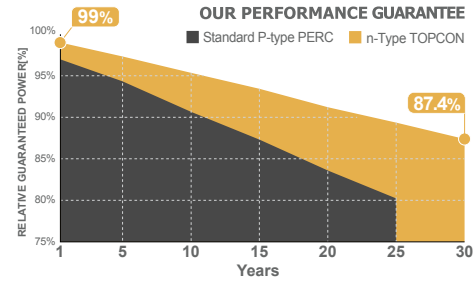
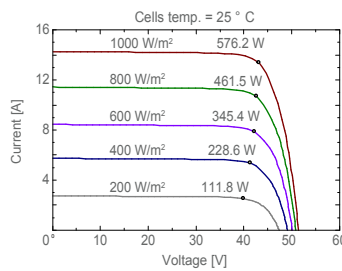
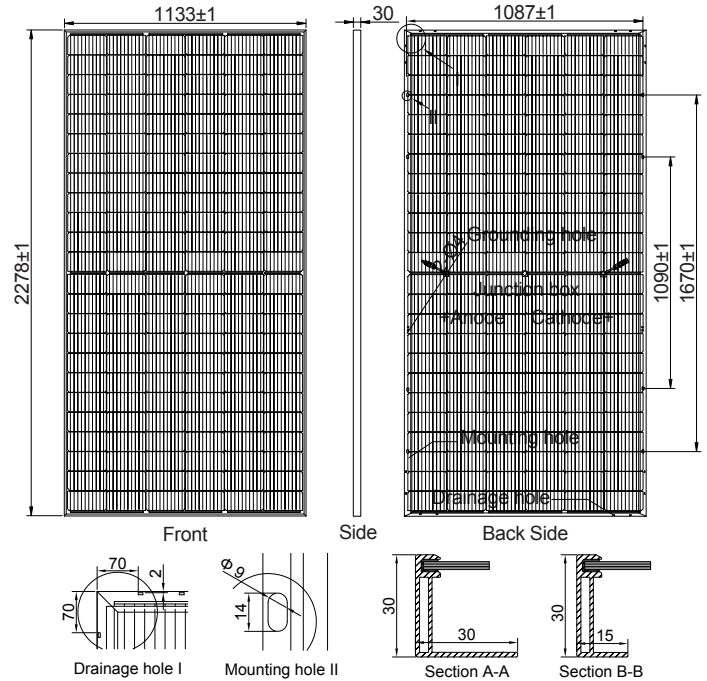
Cell type	N-type TOPCon Technology, Half-cut cells, 182 mm
No. of cells	144
Bifaciality	80±5%
Glass	2.0 mm, high transmission, AR coated, tempered
Encapsulation	POE
Back cover	2.0 mm white glazed glass, tempered
Junction box	IP 68 rated
Frame	30 mm anodized Aluminium alloy
Cable	1 x 4 mm <sup>2</sup> , 1200 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	2278 mm x 1133 mm x 30 mm
Weight	32.5 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa/ 244 kg/ m <sup>2</sup>
Mechanical load	5400 Pa/ 550 kg/ m <sup>2</sup>
Fire Rating	Class A (according to UL 790)

**Packaging information**

Packaging configuration	72 pcs / double pallets
Loading capacity	720 pcs / 40 HQ
Size / Pallet	2310 mm x 1140 mm x 2490 mm
Weight	2464 kg / double pallets

**Temperature ratings**

Operating temperature	(°C)	-40 to +85
Temp.coefficient of P <sub>max</sub>	(%/°C)	-0.31
Temp.coefficient of V <sub>oc</sub>	(%/°C)	-0.26
Temp.coefficient of I <sub>sc</sub>	(%/°C)	0.046
Nom. operating temp. NOCT	(°C)	42 ± 2



**Electrical specifications (STC\*): AE555CMD-144BDS AE560CMD-144BDS AE565CMD-144BDS AE570CMD-144BDS AE575CMD-144BDS**

Nominal Max. Power	P <sub>max</sub> (Wp)	555	560	565	570	575
Maximum operating voltage	V <sub>MPP</sub> (V)	42.24	42.40	42.56	42.72	42.88
Maximum operating current	I <sub>MPP</sub> (A)	13.14	13.21	13.28	13.34	13.41
Open-circuit voltage	V <sub>oc</sub> (V)	50.07	50.23	50.39	50.55	50.68
Short-circuit current	I <sub>sc</sub> (A)	14.07	14.14	14.20	14.26	14.33
Module efficiency	η (%)	21.50	21.70	21.89	22.08	22.28
Power tolerance	(W)	0~+5				
Maximum system Voltage	(V)	1500				
Maximum series fuse rating	(A)	25				

\*STC: Standard test conditions (Irradiance 1000 W/m<sup>2</sup>, Cell temperature 25°C and air mass of AM1.5)

**Electrical specifications (NMOT\*): AE555CMD-144BDS AE560CMD-144BDS AE565CMD-144BDS AE570CMD-144BDS AE575CMD-144BDS**

Nominal Max. Power	P <sub>max</sub> (Wp)	422.8	426.0	430.1	434.0	437.4
Maximum operating voltage	V <sub>MPP</sub> (V)	39.20	39.30	39.50	39.70	39.80
Maximum operating current	I <sub>MPP</sub> (A)	10.79	10.84	10.89	10.94	10.99
Open-circuit voltage	V <sub>oc</sub> (V)	47.40	47.50	47.70	47.80	48.00
Short-circuit current	I <sub>sc</sub> (A)	11.35	11.40	11.45	11.50	11.55

\*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)

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.