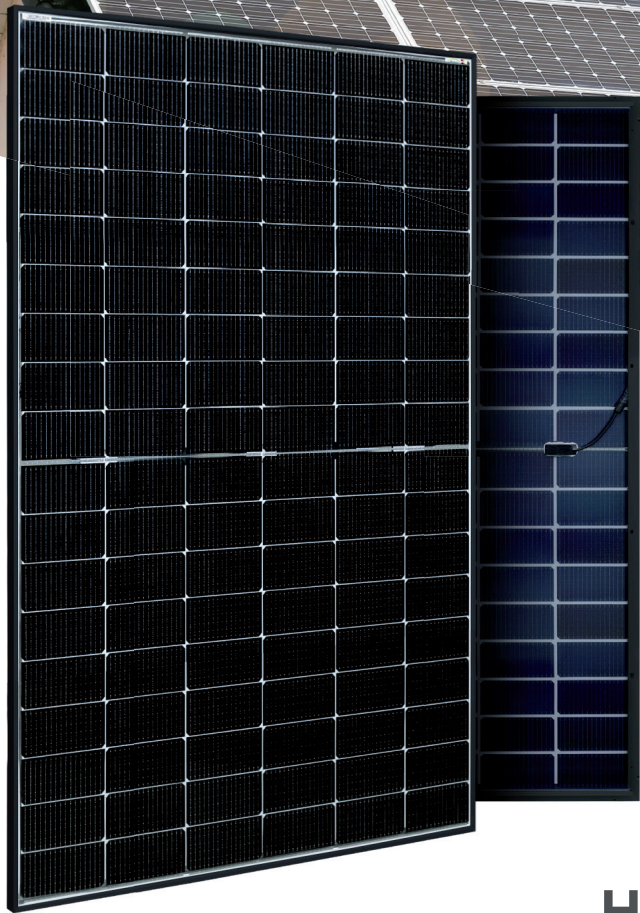


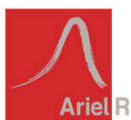
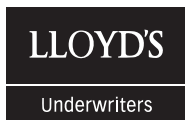


**N-TYPE
TOPCON
TECHNOLOGY
PV MODULES
HALF-CUT CELLS
BIFACIAL
DOUBLE-GLASS**

425 W
AE 4xx CMD-108BDS 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)

108

HALF
CELLS

182
mm

CELL
SIZE



LID
RESISTANT



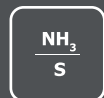
PID
RESISTANT



SALT CORROSION
RESISTANT



SAND
RESISTANT



AMMONIA
RESISTANT



HIGHLY STABLE
AND TOUGH

Mechanical and design specification

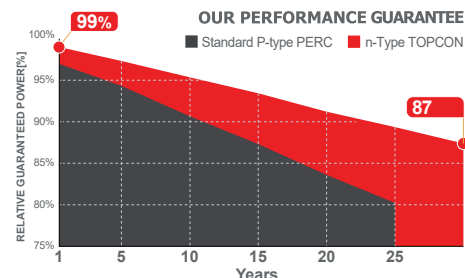
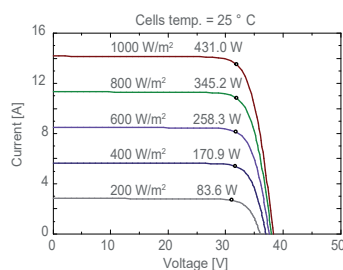
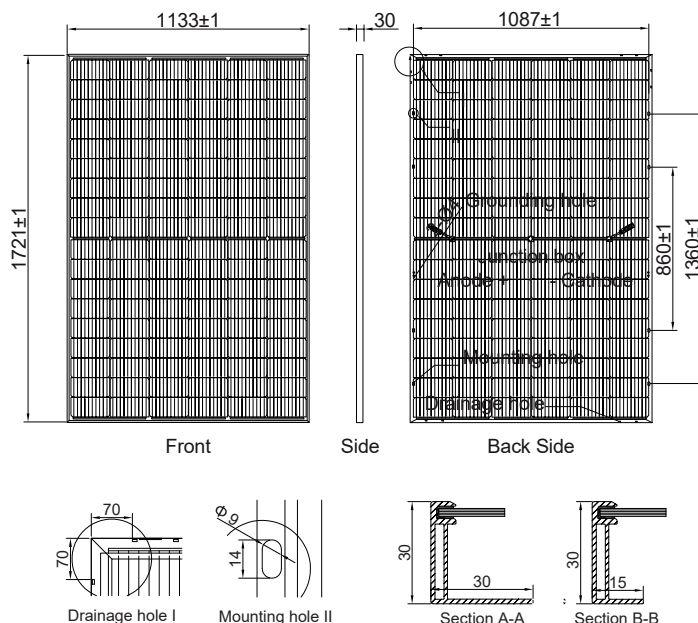
Cell type	N-type TOPCon Technology, Half-cut cells, 182 mm
No. of cells	108
Bifaciality	80±5%
Glass	2.0 mm, high transmission, AR coated, tempered
Encapsulation	POE
Back cover	2.0 mm white glazed glass, tempered
Junction box	IP 68 rated
Frame	30 mm anodized Aluminium alloy
Cable	1 x 4 mm ² , 350mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	1721 mm x 1133 mm x 30 mm
Weight	26 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
Fire Rating	Class A (according to UL 790)

Packaging information

Packaging configuration	72 pcs / double pallets
Loading capacity	936 pcs / 40 HQ
Size / Pallet	1755 mm x 1140 mm x 2490 mm
Weight	1972kg / double pallets

Temperature ratings

Operating temperature	(°C)	-40 to +85
Temp.coefficient of P_{max}	(%/°C)	-0.31
Temp.coefficient of V_{oc}	(%/°C)	-0.25
Temp.coefficient of I_{sc}	(%/°C)	0.046
Nom. operating temp. NOCT	(°C)	42 ± 2



Electrical specifications (STC*): AE410CMD-108BDS AE415CMD-108BDS AE420CMD-108BDS AE425CMD-108BDS AE430CMD-108BDS

Nominal Max. Power	P_{max} (Wp)	410	415	420	425	430
Maximum operating voltage	V_{MPP} (V)	31.59	31.81	32.03	32.25	32.43
Maximum operating current	I_{MPP} (A)	12.98	13.05	13.11	13.18	13.26
Open-circuit voltage	V_{oc} (V)	37.45	37.67	37.86	38.08	38.26
Short-circuit current	I_{sc} (A)	13.88	13.95	14.03	14.10	14.17
Module efficiency	η (%)	21.03	21.28	21.54	21.80	22.05
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*): AE410CMD-108BDS AE415CMD-108BDS AE420CMD-108BDS AE425CMD-108BDS AE430CMD-108BDS

Nominal Max. Power	P_{max} (Wp)	312.2	316.0	320.0	323.5	327.1
Maximum operating voltage	V_{MPP} (V)	29.3	29.5	29.7	29.9	30.1
Maximum operating current	I_{MPP} (A)	10.64	10.7	10.76	10.81	10.87
Open-circuit voltage	V_{oc} (V)	35.4	35.6	35.8	36.0	36.2
Short-circuit current	I_{sc} (A)	11.19	11.25	11.31	11.37	11.42

*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 device. The specifications included in the datasheet are subject to change without prior notice.