



Deutsche  
Qualität  
Garantiert



N-TYPE TOPCON TECHNOLOGY

# CMD-108E 415W-435W

More power, less degradation

**22.31%**

MAXIMUM EFFICIENCY

**108**

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

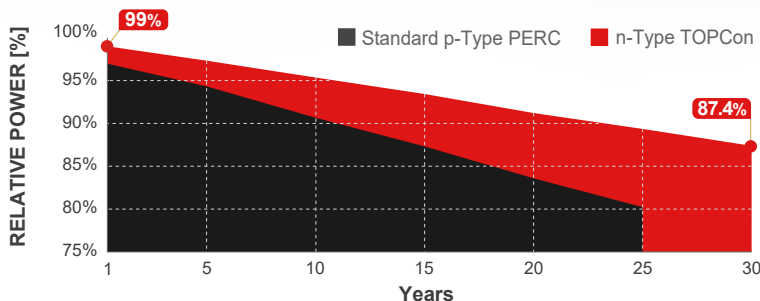


AMMONIA  
RESISTANT

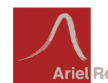


HIGHLY STABLE  
AND TOUGH

## OUR PERFORMANCE WARRANTY



## SYSTEM AND PRODUCT CERTIFICATIONS



IEC 61215 IEC 61730  
Regular Production Surveillance

www.tuv.com  
ID 1111251295



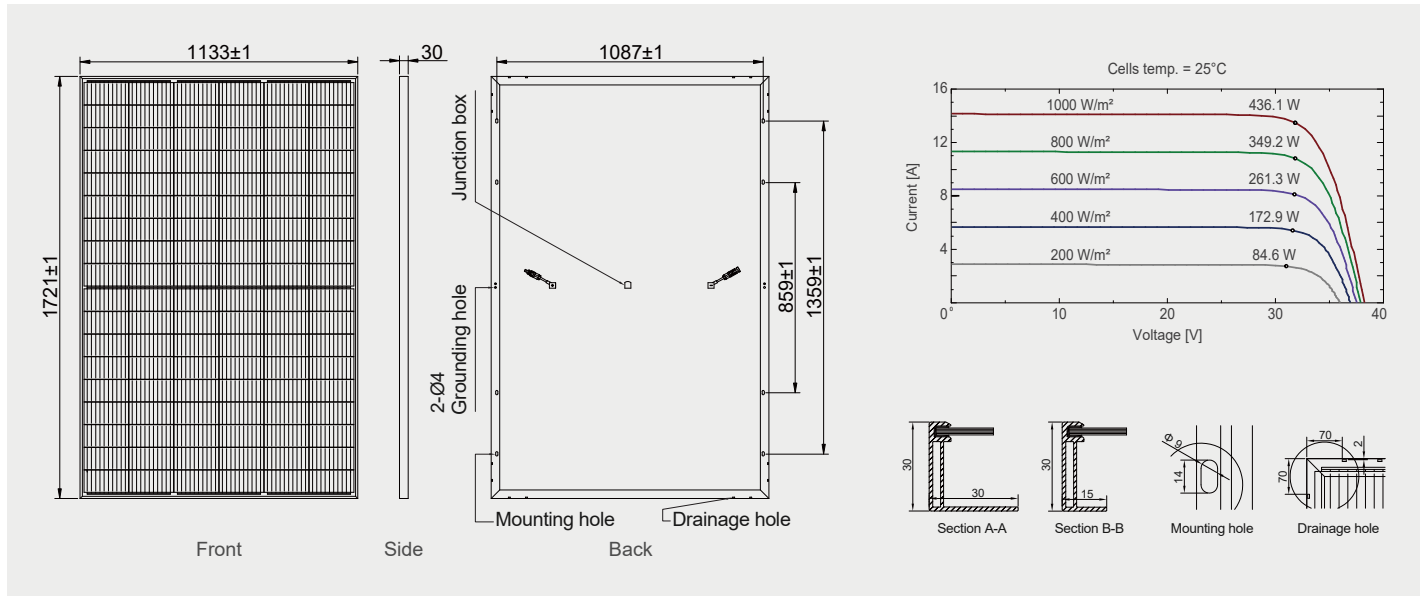
**AESOLAR**

www.ae-solar.com

# AE CMD-108E 415W-435W

N-TYPE TOPCON TECHNOLOGY PV MODULE

MONO-FACIAL • BLACK



## Electrical specifications (STC\*):

	$P_{max}$ (Wp)	415	420	425	430	435
Nominal max. Power	$P_{max}$ (Wp)	415	420	425	430	435
Maximum operating voltage	$V_{MPP}$ (V)	31.81	32.04	32.25	32.43	32.64
Maximum operating current	$I_{MPP}$ (A)	13.05	13.11	13.18	13.26	13.33
Open-circuit voltage	$V_{oc}$ (V)	37.67	37.86	38.08	38.26	38.46
Short-circuit current	$I_{sc}$ (A)	13.95	14.03	14.10	14.17	14.23
Module efficiency	$\eta$ (%)	21.28	21.54	21.80	22.05	22.31
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), measurement tolerance Pmax: ±3%

## Electrical specifications (NMOT\*):

	$P_{max}$ (Wp)	316.0	320.0	323.5	327.1	331.0
Nominal max. Power	$P_{max}$ (Wp)	316.0	320.0	323.5	327.1	331.0
Maximum operating voltage	$V_{MPP}$ (V)	29.50	29.70	29.90	30.10	30.30
Maximum operating current	$I_{MPP}$ (A)	10.70	10.76	10.81	10.87	10.93
Open-circuit voltage	$V_{oc}$ (V)	35.60	35.80	36.00	36.20	36.40
Short-circuit current	$I_{sc}$ (A)	11.25	11.31	11.37	11.42	11.48

\*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	n-Type TOPCon technology, half-cut cells
No. of cells	108
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 (Including Connector)	1 x 4 mm <sup>2</sup> , 350 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	1721 mm x 1133 mm x 30 mm
Weight	20.3 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 $P_{max}$	-0.29 %/°C
Temp. coefficient of $V_{oc}$	-0.25 %/°C
Temp. coefficient of $I_{sc}$	0.046 %/°C
Nom. operating cell temp. NOCT	42 ± 2°C

## Packaging information

Packaging configuration	36 pcs / pallet
Loading capacity	936 pcs / 40 HQ
Size / Pallet	1755 mm x 1140 mm x 1245 mm
Weight	764 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.