

280W-300W

Terra E | CMD-72BD

40%
HIGH TRANSPARENCY

72
HALF CELLS

- ◆ Protects crops from heavy rain, hail, and wind
- ◆ Protects crops against frost and drought under extreme sunshine
- ◆ Suitable for installation on greenhouse roofs
- ◆ 40% light transmission for homogeneous light distribution under the module
- ◆ Highly reliable and durable under mechanical loads



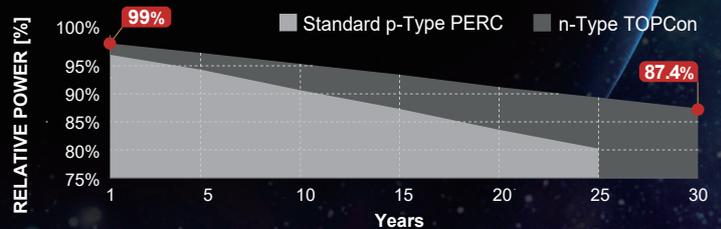
Ver. 25.9.2

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



LID
RESISTANT



PID
RESISTANT



SALT CORROSION
RESISTANT



SAND
RESISTANT



AMMONIA
RESISTANT

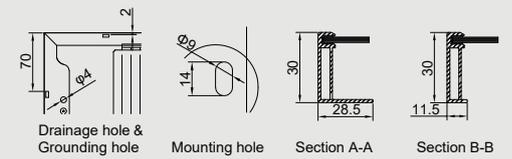
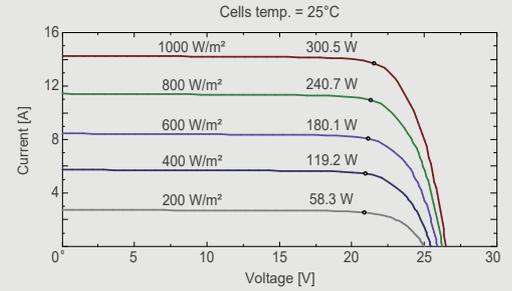
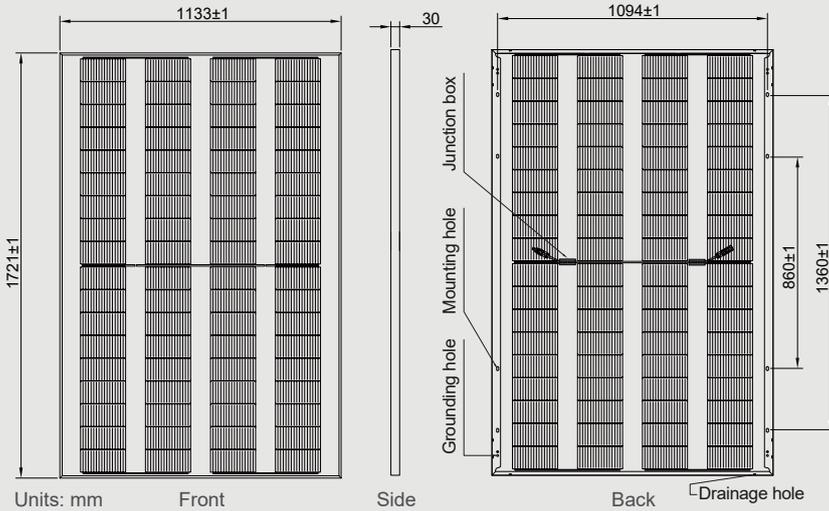


HIGHLY STABLE
AND TOUGH

AE CMD-72BD 280W-300W

PERFECT FOR AGRI-PV SOLUTIONS

BIFACIAL • DOUBLE-GLASS



Electrical specifications (STC*):

Parameter	P_{max} (Wp)	280	285	290	295	300
Nominal max. power	P_{max} (Wp)	280	285	290	295	300
Maximum operating voltage	V_{MPP} (V)	21.36	21.62	21.76	21.88	22.14
Maximum operating current	I_{MPP} (A)	13.11	13.18	13.33	13.48	13.55
Open-circuit voltage	V_{oc} (V)	24.95	25.27	25.47	25.66	25.97
Short-circuit current	I_{sc} (A)	14.03	14.10	14.23	14.37	14.44
Module efficiency	η (%)	14.36	14.62	14.87	15.13	15.39
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*):

Parameter	P_{max} (Wp)	215	220	225	230	235
Nominal max. power	P_{max} (Wp)	215	220	225	230	235
Maximum operating voltage	V_{MPP} (V)	20.25	20.61	20.84	21.06	21.41
Maximum operating current	I_{MPP} (A)	10.62	10.68	10.80	10.92	10.98
Open-circuit voltage	V_{oc} (V)	23.65	24.08	24.40	24.70	25.11
Short-circuit current	I_{sc} (A)	11.36	11.42	11.53	11.64	11.70

*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)

Bifacial electrical specifications

Parameter	280	285	290	295	300
Max. power front-side	280	285	290	295	300
P_{max} front (Wp)					
Backside Power Gain	5% 10%	5% 10%	5% 10%	5% 10%	5% 10%
Total equivalent power	294 308	299 314	305 319	310 325	315 330
P_{max} equ (Wp)					
Module efficiency	15.08 15.80	15.35 16.08	15.62 16.36	15.89 16.64	16.15 16.92
η (%)					

*Bifacial Gain: The additional gain from the back side compared to the power of the front side at the standard test condition. It depends on the mounting (structure, height, tilt angle, etc.) and albedo of the ground.

SYSTEM AND PRODUCT CERTIFICATIONS



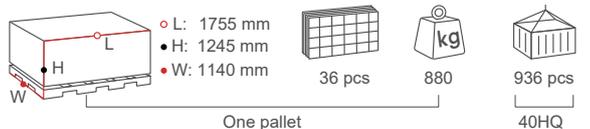
IEC 61215 IEC 61730
Regular Production Surveillance
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IEC 62716 (Ammonia corrosion)
IEC 61701 (Salt mist corrosion)
IEC 60068 (Sand and dust)
IEC 62804 (PID resistance)

Mechanical and design specification

Cell type	n-Type TOPCon technology, half-cut cells
No. of cells	72
Transparency	40%
Bifaciality	80 ± 5%
Front cover	2.0 mm glass, high transmission, AR coated, tempered
Encapsulation	POE
Back cover	2.0 mm transparent glass, tempered
Junction box	IP68 rated, 2 bypass diodes
Frame	30 mm anodized aluminium alloy
Cable (Including Connector)	1 x 4 mm ² , 350 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	1721 mm x 1133 mm x 30 mm
Weight	23.5 kg
Hail resistance	Max. Ø 25 mm at 23 m/s
Wind load	2400 Pa or 244 kg/m ²
Snow load	5400 Pa or 550 kg/m ²
Fire rating	Class A (according to UL 790)

Packaging information



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

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.



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