TERRA

PERFECT FOR AGRI-PV SOLUTIONS

Wood Mackenzie Grade A | TIER1 BloombergNEF | SMM TIER1 GLOBAL TIER 1 AWARD

Deutsche Qualität Garantiert

290W- 310W

Terra E | CMER-64BD



Up to 40%
HIGH TRANSPARENCY

64
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
- Up to 40% light transmission for homogeneous light distribution under the module
- Highly reliable and durable under mechanical loads

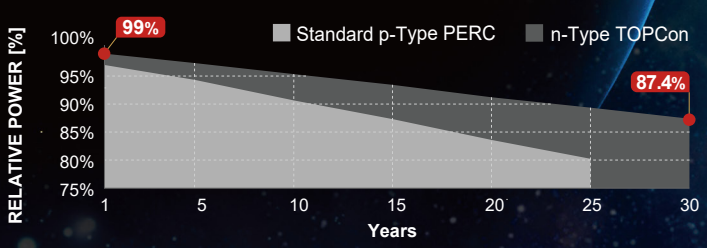
Ver. 26.8.2

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



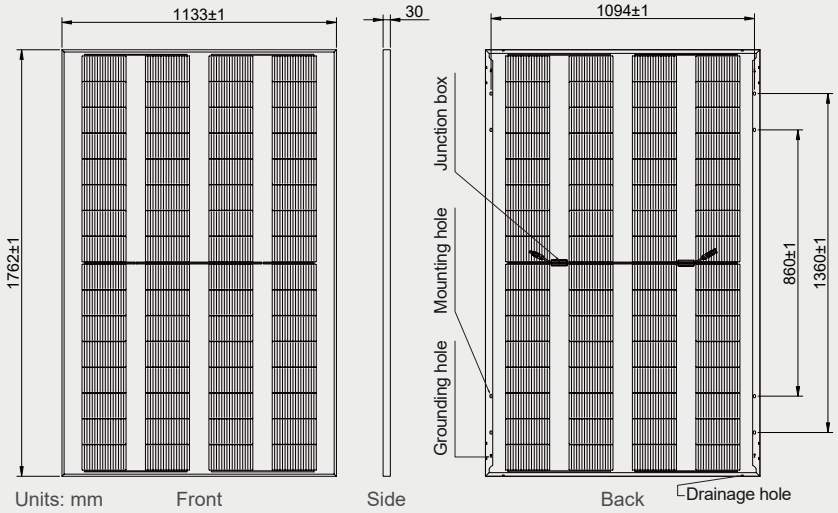
AESOLAR

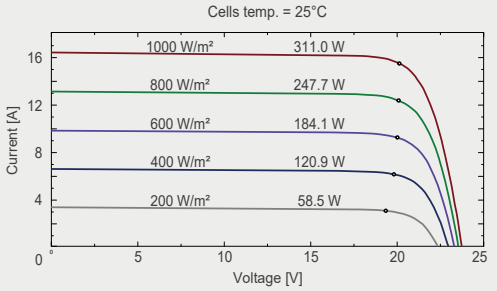
Since 2003

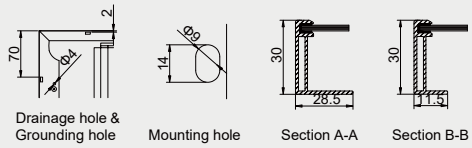
AE CMER-64BD 290W-310W

PERFECT FOR AGRI-PV SOLUTIONS

BIFACIAL • DOUBLE-GLASS







Electrical specifications (STC*):

Nominal max. power	P_{max} (Wp)	290	295	300	305	310
Maximum operating voltage	V_{MPP} (V)	19.48	19.73	20.03	20.28	20.53
Maximum operating current	I_{MPP} (A)	14.89	14.95	14.98	15.04	15.10
Open-circuit voltage	V_{oc} (V)	23.00	23.15	23.50	23.56	23.76
Short-circuit current	I_{sc} (A)	15.76	15.93	15.96	16.18	16.31
Module efficiency	η (%)	14.53	14.78	15.03	15.28	15.53
Power tolerance	(W)			0~+5		
Maximum system voltage	(V)			1500		
Maximum series fuse rating	(A)			30		

*STC: Standard Test Conditions (irradiance 1000 W/m², cell temperature 25°C and air mass of AM1.5), measurement tolerance Pmax: ±3%

Electrical specifications (NMOT*):

Nominal max. power	P_{max} (Wp)	225	230	235	240	245
Maximum operating voltage	V_{MPP} (V)	18.50	18.75	19.03	19.27	19.50
Maximum operating current	I_{MPP} (A)	12.16	12.27	12.35	12.46	12.56
Open-circuit voltage	V_{oc} (V)	21.85	21.99	22.32	22.38	22.57
Short-circuit current	I_{sc} (A)	12.87	13.07	13.16	13.40	13.57

*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

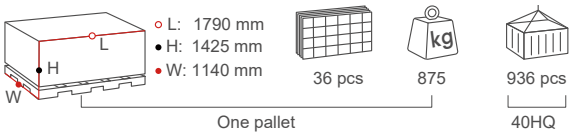
Max.power front-side $P_{max\ front}$ (Wp)	290		295		300		305		310	
Backside Power Gain	5%	10%	5%	10%	5%	10%	5%	10%	5%	10%
Total equivalent power $P_{max\ equ}$ (Wp)	305	319	310	325	315	330	320	336	326	341
Module efficiency η (%)	15.25	15.98	15.52	16.25	15.78	16.53	16.04	16.81	16.30	17.08

*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.

Mechanical and design specification

Cell type	n-Type TOPCon technology, half-cut cells
No. of cells	64
Transparency	Up to 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 mm², 300 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	1762 mm x 1133 mm x 30 mm
Weight	23 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
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}	-0.24 %/°C
Temp. coefficient of I_{sc}	0.04 %/°C
Nom. operating cell temp. NOCT	43 ± 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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