TIER 1 BloombergNEF

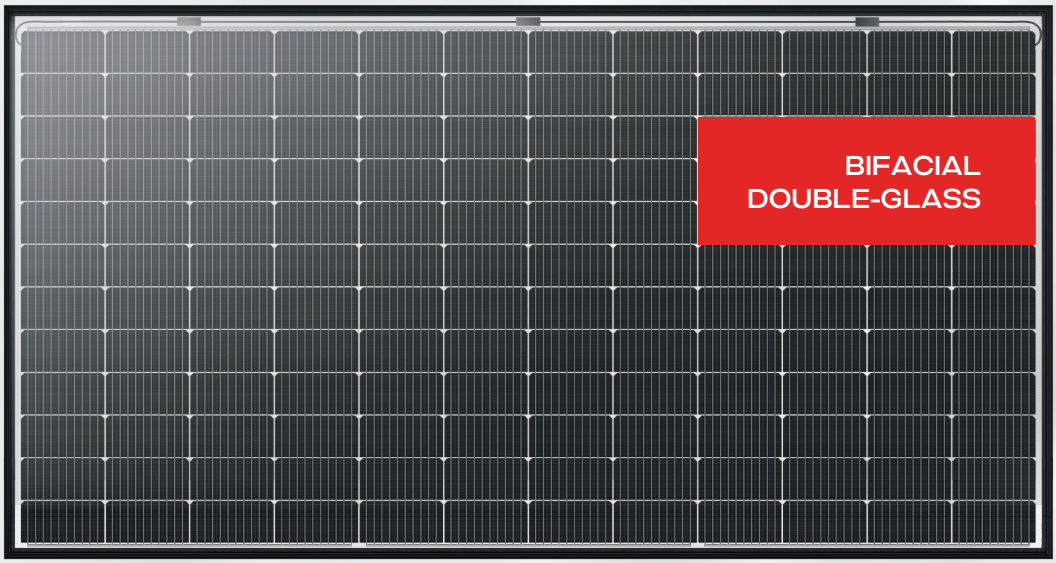
Deutsche
Qualität
Garantiert

SOLSTICE
N-TYPE TOPCON TECHNOLOGY

CMD-L144BD
560W-580W

Extreme resistance to wind and snow

Highest bifaciality in real conditions



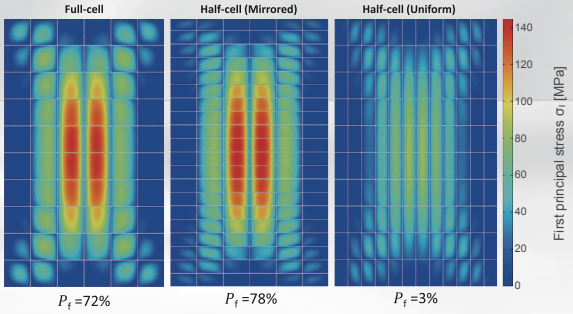
21.96%
Maximum Efficiency

144
Half Cells

30 YEARS
Performance Warranty

up to **30 YEARS***
Product Warranty

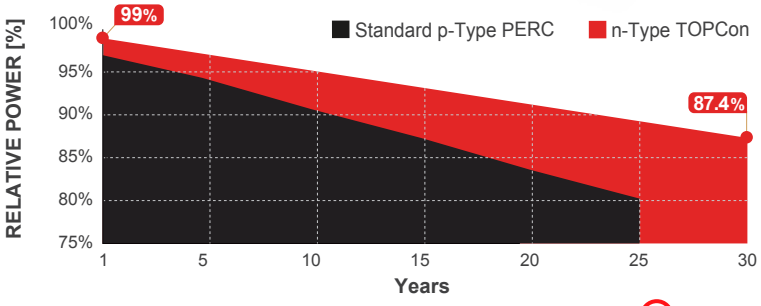
*The regular product warranty is 15 years, please refer to the latest version of AESOLAR Limited Warranty for the duration of the product warranty under special conditions. for extensions, please contact AESOLAR staff.



P_f = cell fracture probability
First principal stress on the back side of the solar cells at 5400 Pa [1]

[1] Beinert et al. Prog. In Photovoltaics, 2023

OUR PERFORMANCE WARRANTY



SYSTEM AND PRODUCT CERTIFICATIONS

IEC 61215 IEC 61730
Regular Production Surveillance
www.tuv.com
ID 1111257249

DEUTSUN®

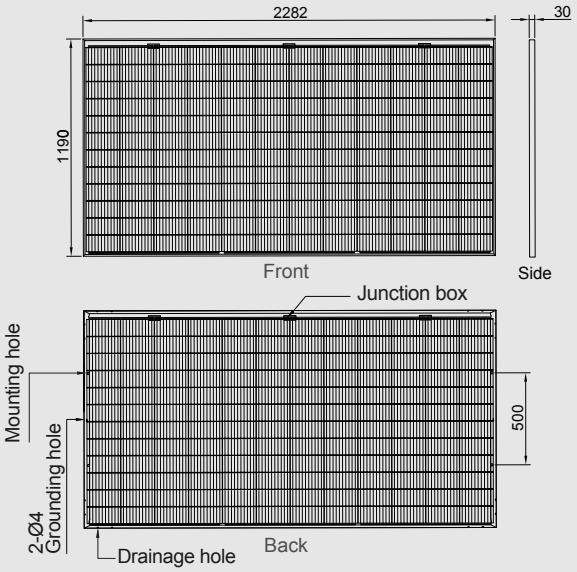
www.deutsun.com

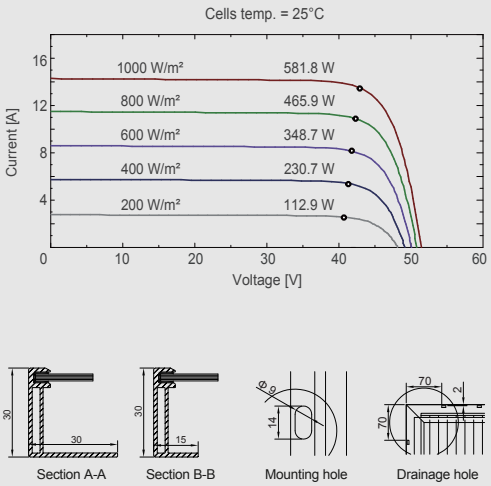
NO SELF-SHADING
LID RESISTANT
PID RESISTANT
EXTREME RESISTANT TO WIND
EXTREME RESISTANT TO SNOW
HIGHLY STABLE AND TOUGH

DS CMD-L144BD 560W-580W

N-TYPE TOPCON TECHNOLOGY PV MODULE

BIFACIAL • DOUBLE-GLASS





Electrical specifications (STC*):

Nominal max. power	P_{max} (Wp)	560	565	570	575	580
Maximum operating voltage	V_{MPP} (V)	42.40	42.56	42.72	42.88	43.04
Maximum operating current	I_{MPP} (A)	13.21	13.28	13.34	13.41	13.49
Open-circuit voltage	V_{oc} (V)	50.38	50.49	50.62	50.73	50.86
Short-circuit current	I_{sc} (A)	14.14	14.20	14.26	14.33	14.40
Module efficiency	η (%)	20.62	20.81	20.99	21.17	21.36
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 Pmax: ±3%

Electrical specifications (NMOT*):

Nominal max. power	P_{max} (Wp)	426	430	434	437	440
Maximum operating voltage	V_{MPP} (V)	39.30	39.50	39.70	39.80	39.90
Maximum operating current	I_{MPP} (A)	10.84	10.89	10.94	10.99	11.04
Open-circuit voltage	V_{oc} (V)	47.50	47.70	47.80	48.00	48.20
Short-circuit current	I_{sc} (A)	11.40	11.45	11.50	11.55	11.60

*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)	560		565		570		575		580	
Backside power gain	5%	10%	5%	10%	5%	10%	5%	10%	5%	10%
Total equivalent power $P_{max\ equ}$ (Wp)	588	616	593	622	598	627	604	633	610	639
Module efficiency η (%)	22.27	23.33	22.47	23.54	22.66	23.74	22.86	23.95	23.09	24.18

*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	144
Bifaciality	80 ± 5%
Front cover	2.0 mm glass, high transmission, AR coated, tempered
Encapsulation	POE
Back cover	2.0 mm, high transmission solar glass, tempered
Junction box	IP68 rated, 3 bypass diodes
Frame	30 mm anodized aluminium alloy
Cable (Including Connector)	1 x 4 mm², 350 mm length or customized
Connectors	MC 4 / MC 4 compatible
Dimension	1190 mm x 2282 mm x 30 mm
Weight	33 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

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	648 pcs / 40 HQ
Size / Pallet	1215 mm x 1140 mm x 2405 mm (upright)
Weight	1210 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.

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