



AESOLAR

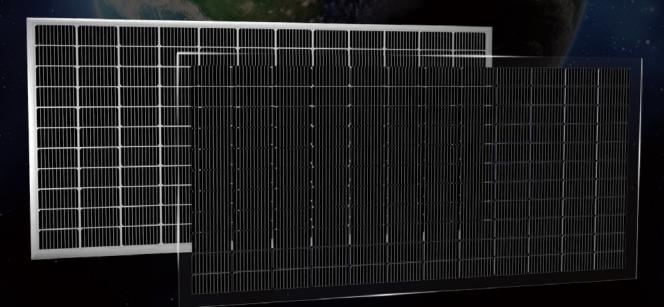
since 2003

TERRA

30 years Performance Warranty 15 years Product Warranty

505W-525WAE CMD-L132BD Series

EXTREME RESISTANCE TO WIND AND SNOW HIGHEST BIFACIALITY IN REAL CONDITIONS



Ver. 24.1.1

www.ae-solar.com







CELL SIZE



SHADING RESISTANT



NO SELF SHADING



LID RESISTANT



EXTREME RESISTANT TO WIND



EXTREME RESISTANT TO SNOW



HIGHLY STABLE AND TOUGH













AE CMD-L132BD Series 505W-525W

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

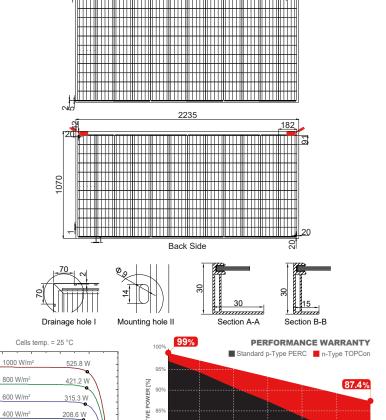


| Mechanical | and design specification |
|-----------------|--|
| Cell type | n-Type TOPCon Technology, Half-cut cells, 182 mm |
| No. of cells | 132 |
| Bifaciality | 80 ± 5% |
| Front cover | 2.0 mm glass, high transmission, AR coated, tempered |
| Encapsulation | POE |
| Back cover | 2.0 mm, high transmission solar glass, tempered |
| Junction box | IP68 rated, 3 Bypass Diodes |
| Frame | 30 mm anodized Aluminium alloy |
| Cable | 1 x 4 mm ² , 350 mm length or customized |
| Connectors | MC 4 / MC 4 compatible |
| Dimension | 1070 mm x 2235 mm x 30 mm |
| Weight | 30.5 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 |

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| | | | | | |

| Packaging information | | | | | |
|-------------------------|-----------------------------|--|--|--|--|
| Packaging configuration | 36 pcs / pallet | | | | |
| Loading capacity | 792 pcs / 40 HQ | | | | |
| Size / Pallet | 2260 mm x 1140 mm x 1190 mm | | | | |
| Weight | 1138 kg / pallet | | | | |

| Temperature ratings | | | | | |
|--------------------------------------|--------|------------|--|--|--|
| Operating temperature | (°C) | -40 to +85 | | | |
| Temp.coefficient of P _{max} | (%/°C) | -0.30 | | | |
| Temp.coefficient of Voc | (%/°C) | -0.25 | | | |
| Temp.coefficient of I _{sc} | (%/°C) | 0.046 | | | |
| Nom. operating temp. NOCT | (°C) | 42 ± 2 | | | |
| | , | | | | |



| Electrical specificat | ions (STC*): | AE505CMD-L132BD | AE510CMD-L132BD | AE515CMD-L132BD | AE520CMD-L132BD | AE525CMD-L132BD |
|----------------------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Nominal Max. Power | P _{max} (Wp) | 505 | 510 | 515 | 520 | 525 |
| Maximum operating voltage | V _{MPP} (V) | 38.23 | 38.40 | 38.61 | 38.78 | 38.92 |
| Maximum operating current | I _{MPP} (A) | 13.21 | 13.28 | 13.34 | 13.41 | 13.49 |
| Open-circuit voltage | V _{oc} (V) | 45.21 | 45.46 | 45.72 | 45.93 | 46.15 |
| Short-circuit current | I _{sc} (A) | 14.14 | 14.20 | 14.26 | 14.33 | 14.40 |
| Module efficiency | η (%) | 21.12 | 21.33 | 21.54 | 21.74 | 21.95 |
| Power tolerance | (W) | | | 0~+5 | | |
| Maximum system Voltage | (V) | | | 1500 | | |
| Maximum series fuse rating | (A) | | | 30 | | |

Current [A]

600 W/m

400 W/m²

102.0 W

Voltage [V]

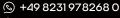
80%

*STC: Standard test conditions (Irradiance 1000 W/m², Cell temperature 25°C and air mass of AM1.5), measurement tolerance Pmax: ±3%

| Electrical specificat | ions (NMOT*): | AE505CMD-L132BD | AE510CMD-L132BD | AE515CMD-L132BD | AE520CMD-L132BD | AE525CMD-L132BD |
|---------------------------|-----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Nominal Max. Power | P _{max} (Wp) | 384 | 388 | 391 | 395 | 399 |
| Maximum operating voltage | V _{MPP} (V) | 35.42 | 35.63 | 35.74 | 35.94 | 36.14 |
| Maximum operating current | I _{MPP} (A) | 10.84 | 10.89 | 10.94 | 10.99 | 11.04 |
| Open-circuit voltage | V _{oc} (V) | 42.64 | 42.89 | 43.04 | 43.29 | 43.54 |
| 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)

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.



20

Years