

Deutsche
Qualität
Garantiert



120

HALF
CELLS

182
mm

CELL
SIZE



LID
RESISTANT



PID
RESISTANT



SALT CORROSION
RESISTANT



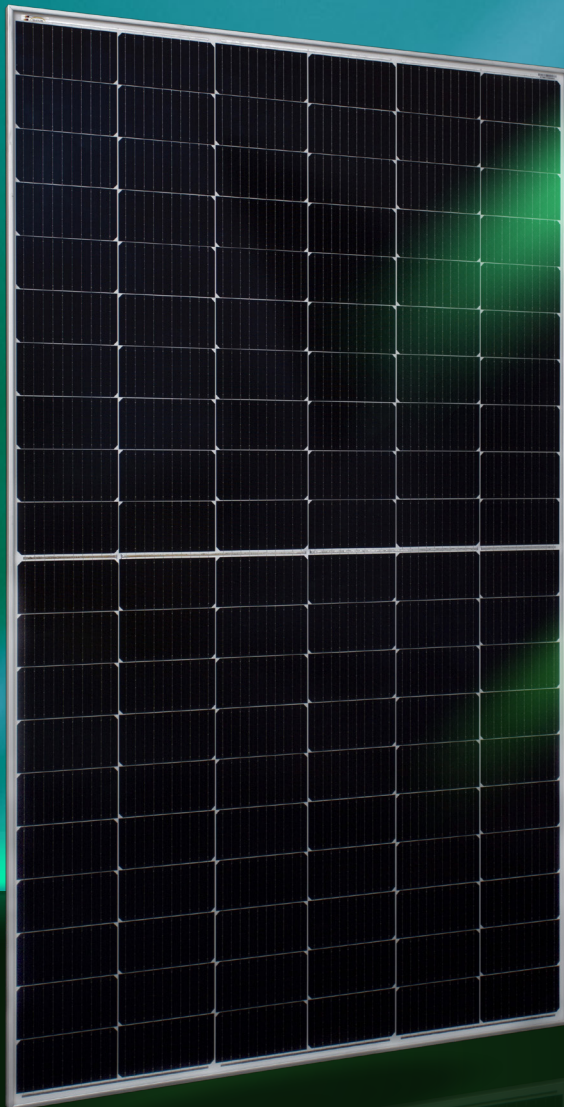
SAND
RESISTANT



AMMONIA
RESISTANT



HIGHLY STABLE
AND TOUGH



AURORA

HIGH ENERGY YIELD
RELIABILITY
DURABILITY

30

years

Performance
Guarantee

15

years

Product
Warranty

MONO-CRYSTALLINE PV MODULES
HALF-CUT CELLS • MONO-FACIAL

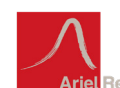
440W-460W

AE MD-120 Series



IEC 61215
IEC 61730
Regular Production Surveillance
Type Tested and Monitored

IEC 62716 (Ammonia corrosion)
IEC 61701 (Salt mist corrosion)
IEC 60068 (Sand and dust)
IEC 62804 (PID resistance)

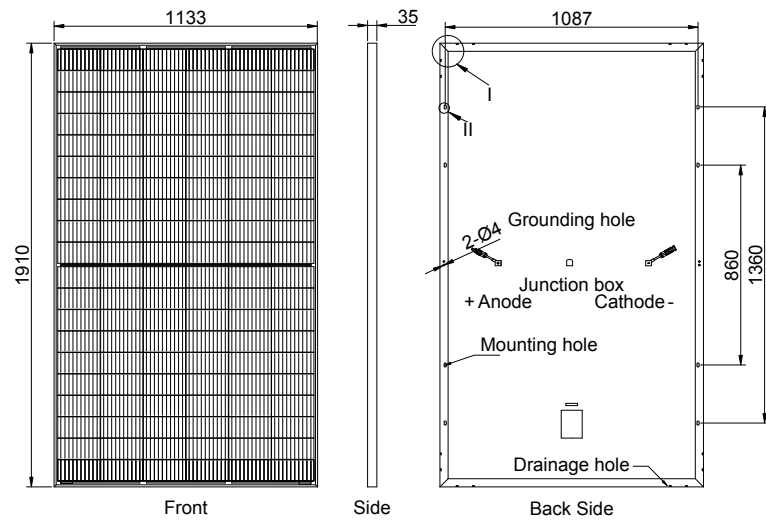


www.ae-solar.com

AE MD-120 Series 440W-460W

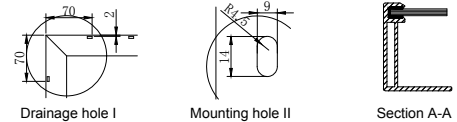
Mechanical and design specification

| | |
|-----------------|------------------------------------------------------|
| Cell type | Gallium-doped Mono c-Si PERC, Half-cut cells, 182 mm |
| No. of cells | 120 |
| Glass | 3.2 mm, high transmission, AR coated, tempered |
| Encapsulation | EVA |
| Back cover | White backsheet |
| Junction box | IP 68 rated |
| Frame | 35 mm anodized Aluminium alloy |
| Cable | 1 x 4 mm ² , 350 mm length or customized |
| Connectors | MC 4 / MC 4 compatible |
| Dimension | 1910 mm x 1133 mm x 35 mm |
| Weight | 24 kg |
| Hail resistance | Max. Ø 25 mm at 23 m/s |
| Wind load | 2400 Pa/ 244 kg/ m ² |
| Mechanical load | 5400 Pa/ 550 kg/ m ² |



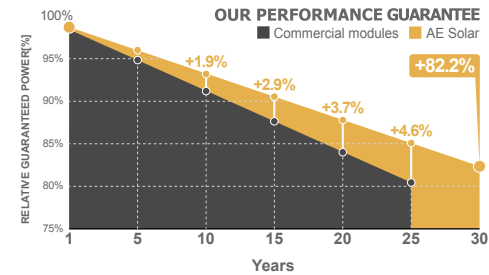
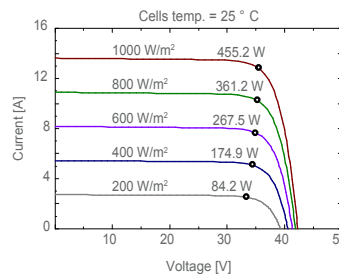
Packaging information

| | |
|-------------------------|-----------------------------|
| Packaging configuration | 62 pcs / double pallet |
| Loading capacity | 744 pcs / 40 HQ |
| Size / Pallet | 2125 mm x 1140 mm x 2490 mm |
| Weight | 1598 kg / double pallets |



Temperature ratings

| | |
|---------------------------------------|------------|
| Operating temperature (°C) | -40 to +85 |
| Temp. coefficient of P_{max} (%/°C) | -0.35 |
| Temp. coefficient of V_{oc} (%/°C) | -0.275 |
| Temp. coefficient of I_{sc} (%/°C) | 0.045 |
| Nom. operating temp. NOCT (°C) | 45 ± 2 |



| Electrical specifications (STC*): | | AE440MD-120 | AE445MD-120 | AE450MD-120 | AE455MD-120 | AE460MD-120 |
|-----------------------------------|----------------|-------------|-------------|-------------|-------------|-------------|
| Nominal Max. Power | P_{max} (Wp) | 440 | 445 | 450 | 455 | 460 |
| Maximum operating voltage | V_{MPP} (V) | 34.62 | 34.87 | 35.13 | 35.38 | 35.60 |
| Maximum operating current | I_{MPP} (A) | 12.71 | 12.76 | 12.81 | 12.86 | 12.92 |
| Open-circuit voltage | V_{oc} (V) | 41.35 | 41.66 | 41.98 | 42.29 | 42.60 |
| Short-circuit current | I_{sc} (A) | 13.47 | 13.52 | 13.57 | 13.62 | 13.67 |
| Module efficiency | η (%) | 20.33 | 20.56 | 20.79 | 21.03 | 21.26 |
| 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)

| Electrical specifications (NMOT*): | | AE440MD-120 | AE445MD-120 | AE450MD-120 | AE455MD-120 | AE460MD-120 |
|------------------------------------|----------------|-------------|-------------|-------------|-------------|-------------|
| Nominal Max. Power | P_{max} (Wp) | 331 | 335 | 338 | 342 | 345 |
| Maximum operating voltage | V_{MPP} (V) | 32.60 | 32.80 | 33.00 | 33.20 | 33.40 |
| Maximum operating current | I_{MPP} (A) | 10.17 | 10.21 | 10.25 | 10.29 | 10.34 |
| Open-circuit voltage | V_{oc} (V) | 38.80 | 39.00 | 39.20 | 39.40 | 39.60 |
| Short-circuit current | I_{sc} (A) | 10.78 | 10.82 | 10.86 | 10.90 | 10.94 |

*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.