



**AESOLAR**

*It's time to save the world.*

# COMPANY PROFILE

[www.ae-solar.com](http://www.ae-solar.com)

# ABOUT US

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AESOLAR, as a BNEF Tier 1 German manufacturer of high-quality PV modules, has proven itself to be a dynamic and progressive enterprise. Since our inception in 2003, we have positioned ourselves to be one of the leaders in the private sector.

AESOLAR is headquartered in Königsbrunn, Germany, with satellite offices in Brazil and Georgia. Our production lines are located in China and Turkey with an annual capacity of 2GW.

We have a global distribution network in more than 100 countries, and our products are available in more than 100 countries and regions around the world as well.

Currently, we have planned 5GW module production plants in Germany, Bulgaria, Czech Republic and Greece, which are expected to be fully completed and operational by 2025.

*Alexander Maier*

**Alexander Maier**  
CEO & Founder





# OUR MISSION

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“

TO PROMOTE AN ECO-FRIENDLY, RISK-FREE, CLEAN AND SAFE ENERGY SOURCE ON A GLOBAL SCALE.

TO DEVELOP SOLAR ENERGY AROUND THE WORLD BY TOP EXPERTISE IN PV.

SERVING OUR CLIENTS BY COST-EFFECTIVE, EFFICIENT AND HIGH-QUALITY PRODUCTS.

”

**STABILITY**

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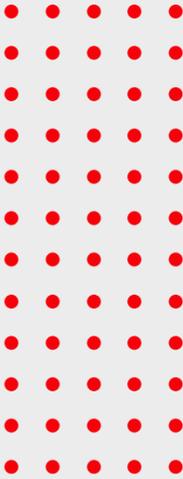
**INNOVATION**

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**DURABILITY & RELIABILITY**

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# GLOBAL PRESENCE



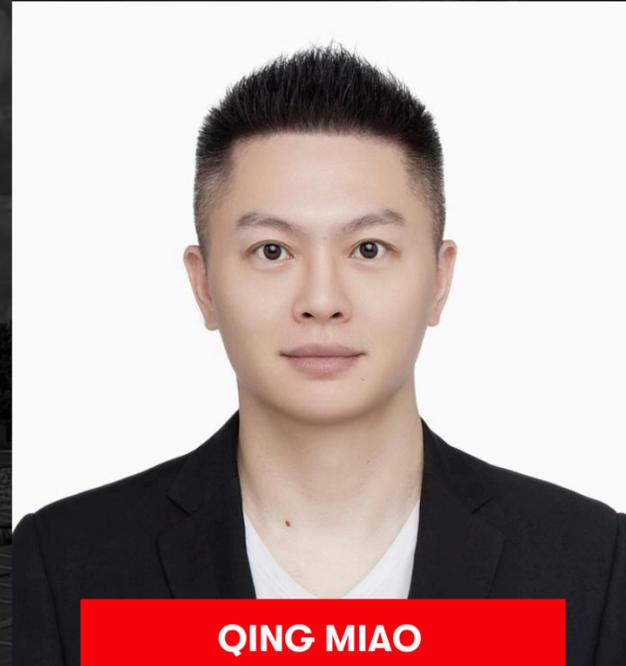
-  Manufacturing Base
-  Branch Office
-  Distributor

# MEET OUR TEAM

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**DR. ALEXANDER MAIER**  
CEO & FOUNDER



**QING MIAO**  
COO



**WALDEMAR HARTMANN**  
SALES DIRECTOR



**WALDEMAR MAIER**  
CTO



**DR. HAMED HANIFI**  
R&D DIRECTOR

We have a clear company structure and experienced management, reliable technicians and engineers in the industry, as well as a professional sales team, who work together to ensure that AESOLAR is a trusted brand.



AESOLAR manufacturing China

# OUR HISTORY



AESOLAR manufacturing Turkey



# AESOLAR

AESOLAR was founded in 2003 by Dr Alexander Maier and his brother in Königsbrunn, Germany. In the 20 years of its existence, AESOLAR has continued to advance in technology and innovation and has had a number of memorable milestones.

# DEVELOPMENT TIMELINE

**2003**

AESOLAR was founded in Königsbrunn, Germany as a family-owned PV systems installation company

**2009**

50MW/year manual assembly mono/poly PV modules manufacturing was established

**2016**

- 250 MW/year automated PV modules manufacturing line was installed
- Shading resistant Hot-Spot Free PV modules invented

**2017**

525 MW/year robotized full automated PV modules manufacturing line was installed in Georgia

**2021**

- AESOLAR ranked on BloombergNEF PV Manufacturer Tier 1 list
- Founding of 1 GW/year modules production line in Turkey

**2022**

- Upgrade in China manufacturing, a total yearly capacity reaches over 2 GW

**2024**

- Start to plan new factories in Germany, Bulgaria, Greece, and the USA



# TOP MANUFACTURING

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The manufacturing of AESOLAR adopts a highly automated process, and the production line makes extensive use of six-axis robots, whose efficiency and precision are superior to that of gantry robots used by most mainstream manufacturers, which guarantees the production efficiency of high-quality modules to the greatest extent possible, and is in line with European standards.

# COMPREHENSIVE CERTIFICATION



From the production process to product quality and supply chain, AESOLAR's solar modules have complete and authoritative third-party certifications, which are sufficient for our customers and partners to have no worries.

# SUPERIOR MATERIALS

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## Frame

Structural support for solar panel

## Back cover

Protects the back of the panel

## Rear encapsulation

Provides insulation and protection

## Solar cells

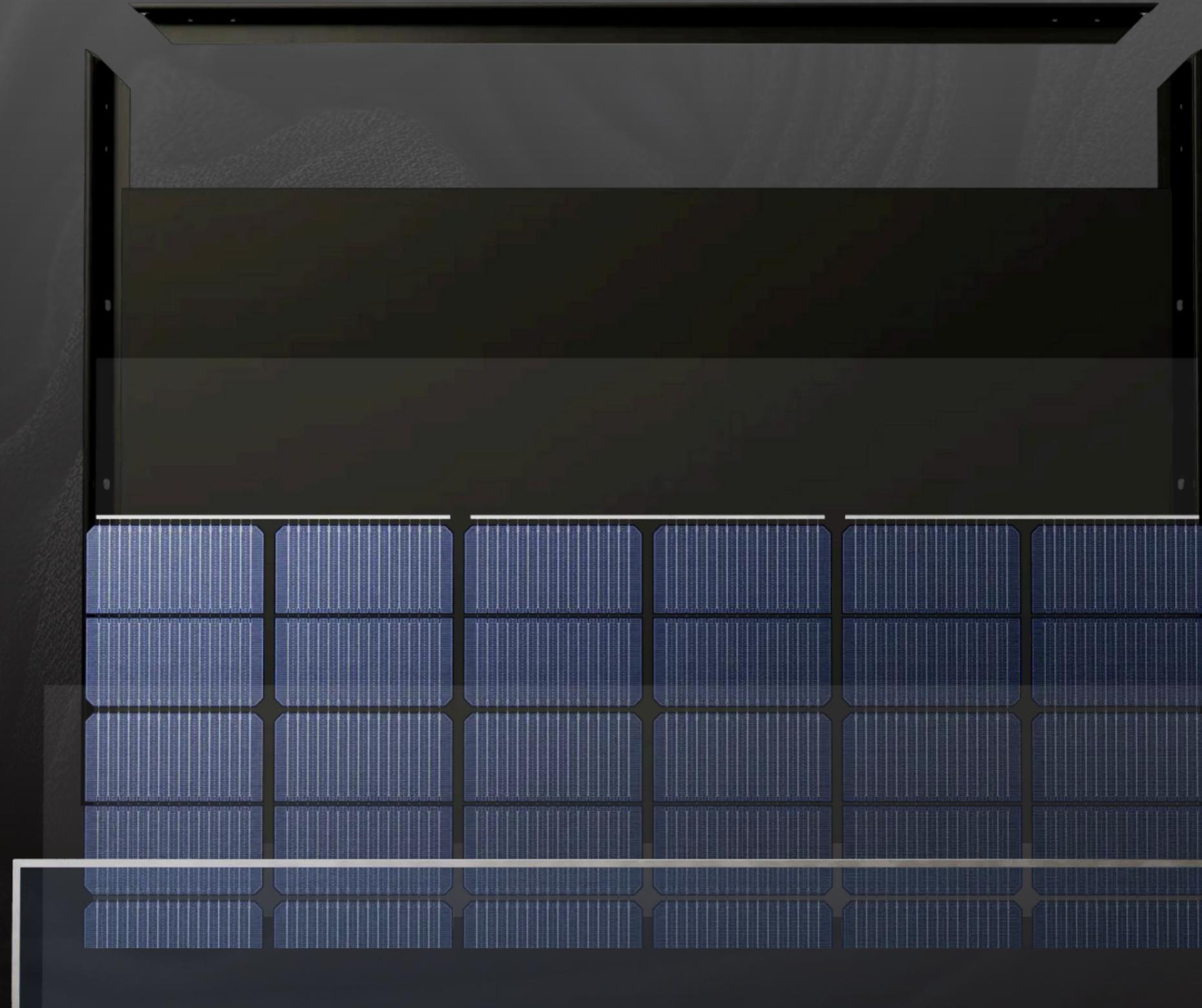
Converts sunlight into electricity

## Front encapsulation

Shields solar cells and seals panel

## Front cover

Protects the panel from external elements





Deutsche  
Qualität  
Garantiert

# ShadeStar

HOT-SPOT FREE TECHNOLOGY  
protects different segments of cells by  
dedicated bypass diodes

## 190W - 410W

mono-crystalline PV module  
full / half-cut cells • mono-facial

**30** YEARS

Performance Warranty

**30** YEARS  
UP TO

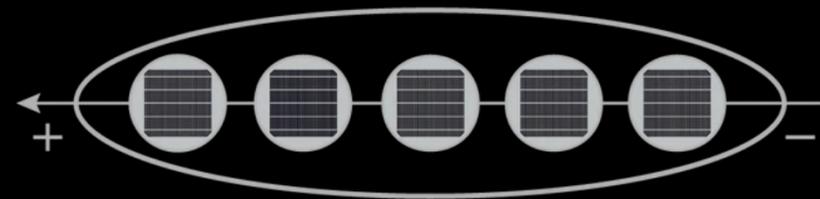
Product Warranty

\* The concept of hot-spot-free module is tested and evaluated by Fraunhofer CSP under partial shading conditions. The report can be found on [ae-solar.com](http://ae-solar.com), and the peer-reviewed publication in Solar Energy Journal can be found on [sciencedirect.com](http://sciencedirect.com), ref: Hanifi et al., Solar Energy, Vol. 193, 2019

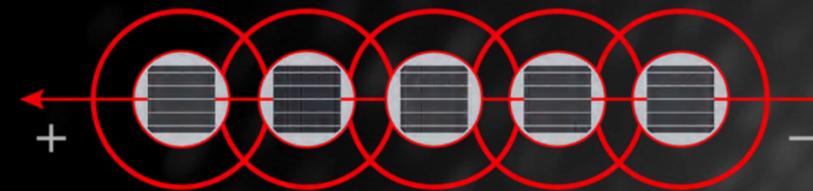
# HOT-SPOT FREE TECHNOLOGY

tested by  
**Fraunhofer**  
CSP

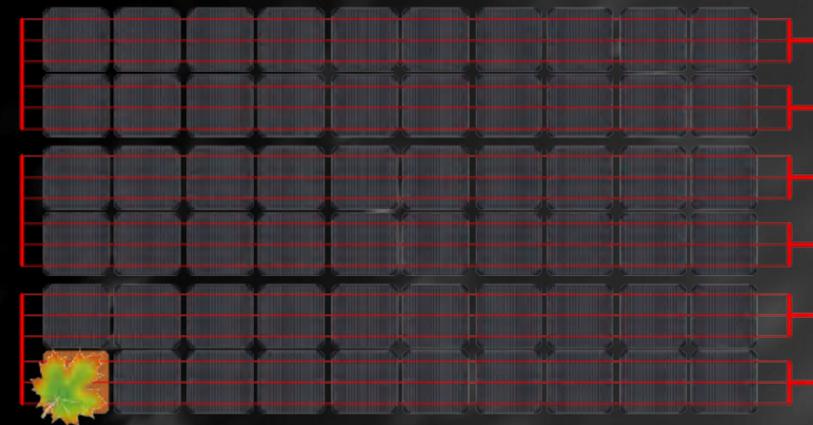
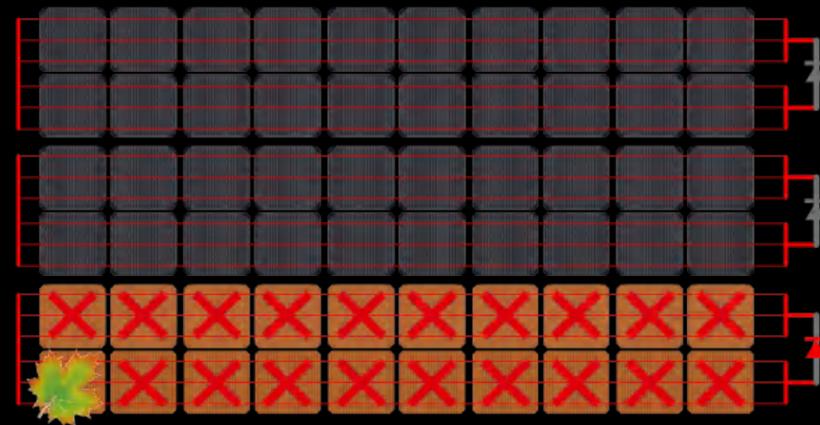
STANDARD MODULE



AESOLAR SMART HOT-SPOT FREE MODULE

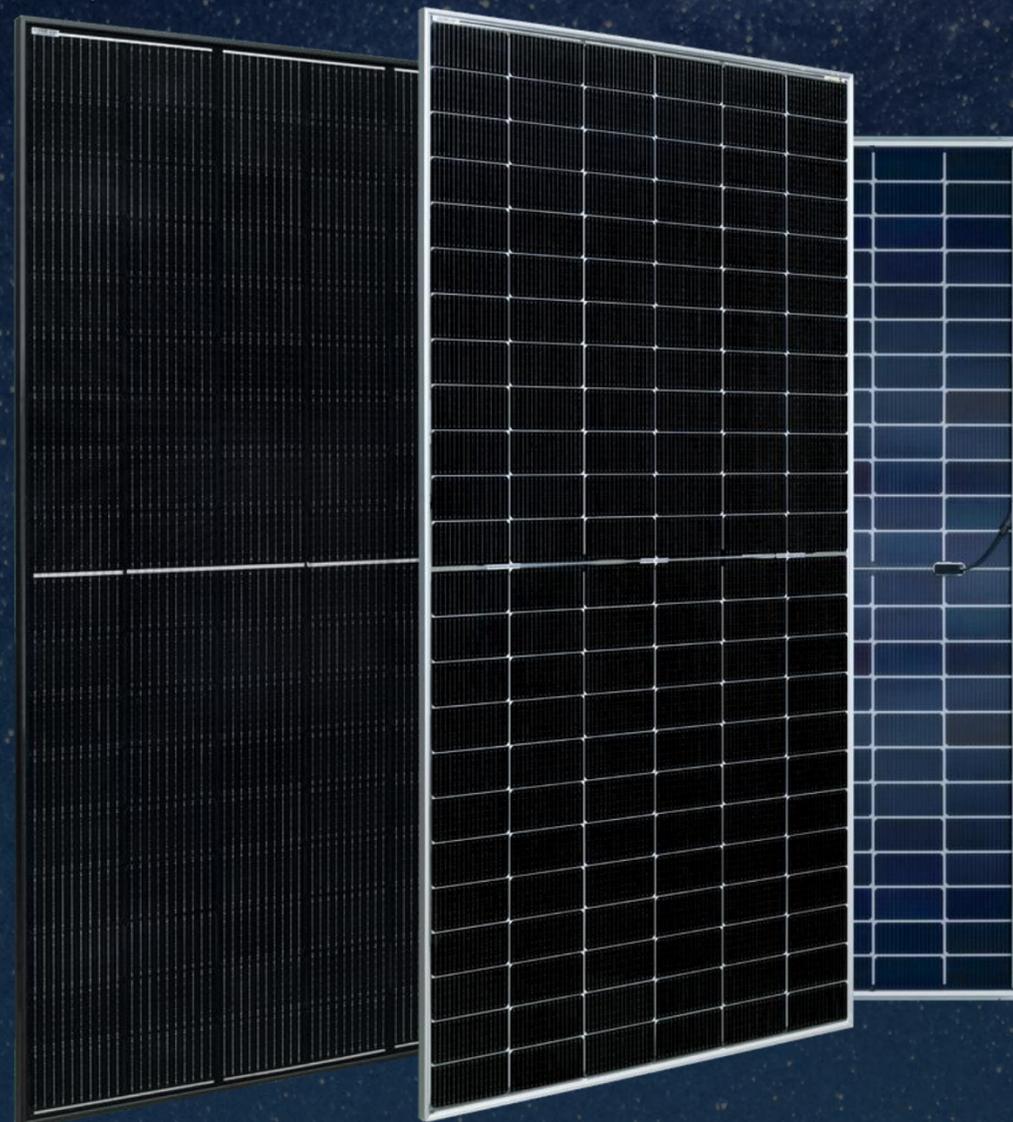


HSF technology protects different segments of cells by dedicated bypass diodes



In a standard module, the impact of shading on a single cell affects a whole string.  
While an AESOLAR smart module with Hot-spot Free technology loses the output of only one single cell during the shading.

\* The concept of hot-spot-free module is tested and evaluated by Fraunhofer CSP under partial shading conditions. The report can be found on [ae-solar.com](http://ae-solar.com), and the peer-reviewed publication in Solar Energy Journal can be found on [sciencedirect.com](http://sciencedirect.com).  
ref: Hanifi et al., Solar Energy, Vol. 193, 2019



# Meteor

MORE POWER  
LESS DEGRADATION

## 415W - 700W

n-Type TOPCon PV module  
mono-facial / bifacial  
white / black frame

Deutsche  
Qualität  
Garantiert

**30** YEARS

Performance Warranty

UP TO **30** YEARS

Product Warranty



# Meteor series catalogue

## Meteor 182mm cell (TOPCon)

MODEL	POWER	DIMENSION	40ft HQ CONTAINER LOAD
<b>MONOFACIAL PV MODULES</b>			
AE440CMD-108	420W - 440W	1721 x 1133 x 30mm	936pcs
AE485CMD-120	465W - 485W	1902 x 1133 x 30mm	864pcs
AE580CMD-144	570W - 590W	2278 x 1133 x 30mm	720pcs
<b>MONOFACIAL PV MODULES (BLACK)</b>			
AE435CMD-108E	415W - 435W	1721 x 1133 x 30mm	936pcs
<b>BIFACIAL DOUBLE GLASS PV MODULES</b>			
AE440CMD-108BDS	420W - 440W	1721 x 1133 x 30mm	936pcs
AE485CMD-120BDS	465W - 485W	1902 x 1133 x 30mm	864pcs
AE580CMD-144BDS	570W - 590W	2278 x 1133 x 30mm	720pcs
<b>BIFACIAL DOUBLE GLASS PV MODULES (BLACK)</b>			
AE435CMD-108BDE	415W - 435W	1721 x 1133 x 30mm	936pcs

## Meteor 210mm cell (TOPCon)

MODEL	POWER	DIMENSION	40ft HQ CONTAINER LOAD
<b>BIFACIAL DOUBLE GLASS PV MODULES</b>			
AE700CME-132BDS	680W - 700W	2383 x 1302 x 30mm	612pcs
<b>MONOFACIAL PV MODULE</b>			
AE700CME-132	680W-700W	2383 x 1302 x 30mm	612pcs



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# Meteor series catalogue

## Meteor G12R rectangular cell (TOPCon)

MODEL	POWER	DIMENSION	40ft HQ CONTAINER LOAD
<b>BIFACIAL DOUBLE GLASS PV MODULES</b>			
AE455CMER-96BDS	435W - 455W	1762 x 1133 x 30mm	936pcs
AE620CMER-132BDS	600W - 620W	2382 x 1133 x 30mm	720pcs
<b>BIFACIAL DOUBLE GLASS PV MODULES (BLACK)</b>			
AE445CMER-96BDE	425W - 445W	1762 x 1133 x 30mm	936pcs



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**TIER 1**  
BloombergNEF



POWER YOUR DRIVE  
WITH THE SUN

**395W - 575W**

n-Type TOPCon PV module  
bifacial  
better light transmission

Deutsche  
Qualität  
Garantiert

**30** YEARS

Performance Warranty

UP TO **30** YEARS

Product Warranty



# Horizon series catalogue

## Horizon 182mm cell (TOPCon)

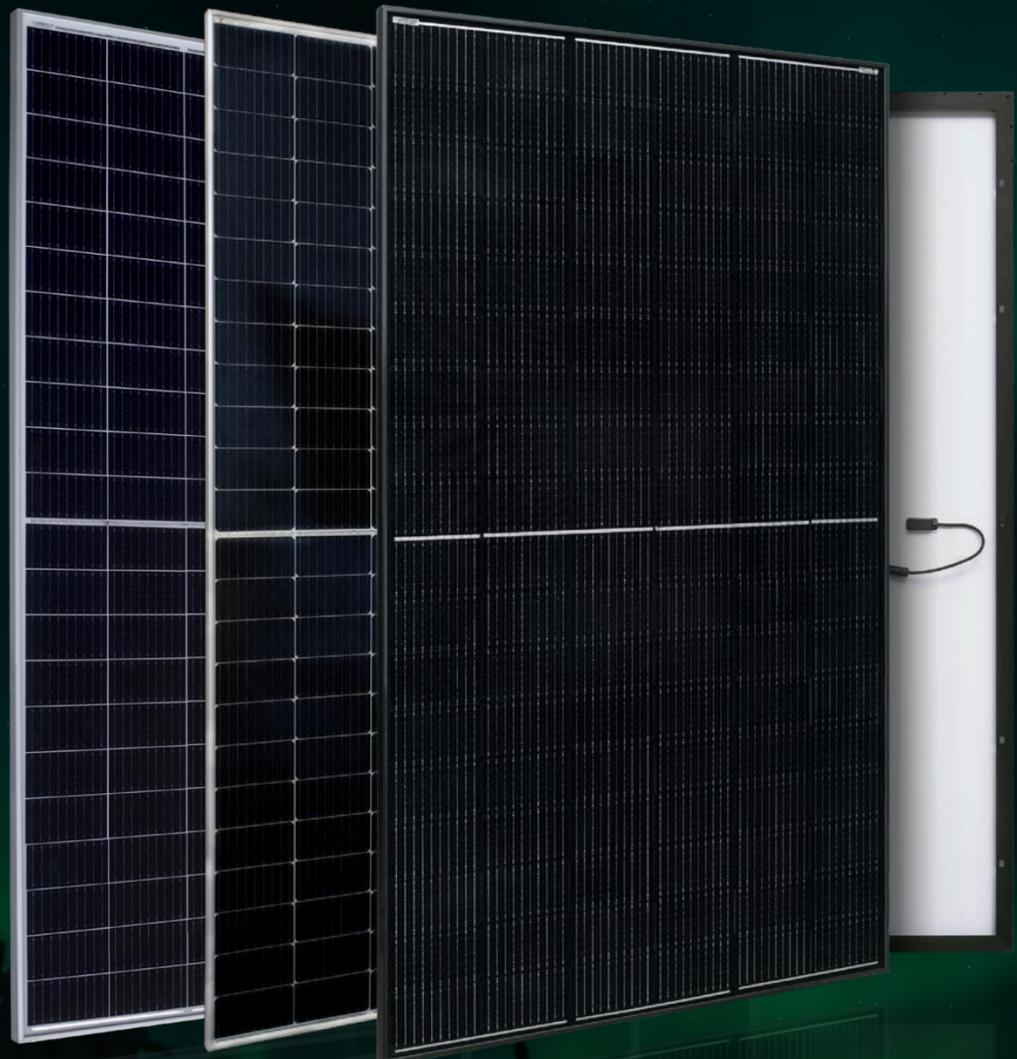
MODEL	POWER	DIMENSION	40ft HQ CONTAINER LOAD
<b>BIFACIAL DOUBLE GLASS PV MODULES</b>			
AE575CMD-144BDS	555W - 575W	2278 x 1133 x 30mm	720pcs
AE435CMD-120BDS	465W - 485W	1721 x 1133 x 30mm	936pcs

## Horizon 182mm cell (PERC)

MODEL	POWER	DIMENSION	40ft HQ CONTAINER LOAD
<b>BIFACIAL DOUBLE GLASS PV MODULES</b>			
AE550MD-144BD	530W - 550W	2278 x 1133 x 30mm	720pcs
AE415MD-108BD	395W - 415W	1721 x 1133 x 30mm	936pcs



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# Aurora

**HIGH** ENERGY YIELD  
FLEXIBILITY  
DURABILITY

**335W - 660W**

mono-crystalline PV module  
mono-facial / bifacial  
single / double glass

Deutsche  
Qualität  
Garantiert

**30** YEARS  
Performance Warranty

**30** YEARS  
Product Warranty



# Aurora series catalogue

## Aurora 182mm cell (PERC)

MODEL	POWER	DIMENSION	20 / 40ft HQ CONTAINER LOAD
<b>BIFACIAL SINGLE GLASS PV MODULES</b>			
AE415MD-108BS	395W - 415W	1721 x 1133 x 30mm	216pcs / 936pcs
AE460MD-120BS	440W - 460W	1902 x 1133 x 30mm	180pcs / 864pcs
AE505MD-132BS	485W - 505W	2094 x 1133 x 30mm	180pcs / 792pcs
AE550MD-144BS	530W - 550W	2278 x 1133 x 30mm	180pcs / 720pcs
<b>BIFACIAL DOUBLE GLASS PV MODULES</b>			
AE415MD-108BD	395W - 415W	1721 x 1133 x 30mm	216pcs / 936pcs
AE460MD-120BD	440W - 460W	1902 x 1133 x 30mm	180pcs / 864pcs
AE505MD-132BD	485W - 505W	2094 x 1133 x 30mm	180pcs / 792pcs
AE550MD-144BD	530W - 550W	2278 x 1133 x 30mm	180pcs / 720pcs

## Aurora 182mm cell (PERC)

MODEL	POWER	DIMENSION	20 / 40ft HQ CONTAINER LOAD
<b>MONOFACIAL PV MODULES</b>			
AE415MD-108	395W - 415W	1721 x 1133 x 30mm	216pcs / 936pcs
AE460MD-120	440W - 460W	1902 x 1133 x 30mm	180pcs / 864pcs
AE505MD-132	485W - 505W	2094 x 1133 x 30mm	180pcs / 792pcs
AE550MD-144	530W - 550W	2278 x 1133 x 30mm	180pcs / 720pcs
<b>MONOFACIAL PV MODULES (BLACK)</b>			
AE415MD-108E	395W - 415W	1721 x 1133 x 30mm	216pcs / 936pcs
AE460MD-120E	440W - 460W	1902 x 1133 x 30mm	180pcs / 864pcs
AE505MD-132E	485W - 505W	2094 x 1133 x 30mm	180pcs / 792pcs



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# Aurora series catalogue

## Aurora 166mm cell (PERC)

MODEL	POWER	DIMENSION	20 / 40ft HQ CONTAINER LOAD
<b>MONOFACIAL PV MODULES</b>			
AE380MC-120	360W - 380W	1754 x 1038 x 30mm	216pcs / 936pcs
AE450MC-144	430W - 450W	2094 x 1038 x 30mm	180pcs / 792pcs
<b>MONOFACIAL PV MODULES (BLACK)</b>			
AE380MC-120E	360W - 380W	1754 x 1038 x 30mm	216pcs / 936pcs
AE450MC-144E	430W - 450W	2094 x 1038 x 30mm	180pcs / 792pcs
<b>BIFACIAL SINGLE GLASS PV MODULES</b>			
AE380MC-120BS	360W - 380W	1754 x 1038 x 30mm	216pcs / 936pcs
AE450MC-144BS	430W - 450W	2094 x 1038 x 30mm	180pcs / 792pcs
<b>BIFACIAL DOUBLE GLASS PV MODULES</b>			
AE380MC-120BD	360W - 380W	1754 x 1038 x 30mm	216pcs / 936pcs
AE450MC-144BD	430W - 450W	2094 x 1038 x 30mm	180pcs / 792pcs

## Aurora 210mm cell (PERC)

MODEL	POWER	DIMENSION	20 / 40ft HQ CONTAINER LOAD
<b>MONOFACIAL PV MODULES</b>			
AE600ME-120	580W - 600W	2171x 1302 x 30mm	180pcs / 612pcs
AE660ME-132	640W - 660W	2383 x 1302 x 30mm	144pcs / 612pcs
<b>BIFACIAL SINGLE GLASS PV MODULES</b>			
AE600ME-120BS	580W - 600W	2171x 1302 x 30mm	180pcs / 612pcs
AE660ME-132BS	640W - 660W	2383 x 1302 x 30mm	144pcs / 612pcs
<b>BIFACIAL DOUBLE GLASS PV MODULES</b>			
AE600ME-120BD	580W - 600W	2171x 1302 x 30mm	180pcs / 612pcs
AE660ME-132BD	640W - 660W	2383 x 1302 x 30mm	144pcs / 612pcs



**AESOLAR**

# Application Scenarios

## Aurora



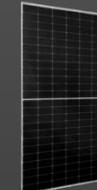
**MD-108/108E**  
415W  
1721×1133×30 mm  
Monofacial



**MD-120**  
460W  
1902×1133×30 mm  
Monofacial



**MD-132**  
505W  
2094×1133×30 mm  
Monofacial

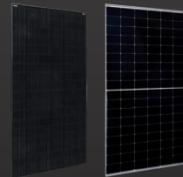


**MD-144**  
555W  
2278×1133×30 mm  
Monofacial



**ME-132**  
660W  
2383×1302×30 mm  
Monofacial

## Meteor



**CMD-108BDE / BDS**  
440W / 450W  
1721×1133×30 mm  
Monofacial / Bifacial



**CMD-120BDS**  
485W  
1902×1133×30 mm  
Monofacial / Bifacial



**CMD-144BDS**  
590W  
2278×1133×30 mm  
Monofacial / Bifacial



**CME-132BDS**  
700W  
2383×1302×30 mm  
Monofacial / Bifacial



**CMER-96BDE / BDS**  
445W  
1762×1133×30 mm  
Bifacial



**CMER-132BDS**  
615W  
2382×1133×30 mm  
Bifacial



Residential



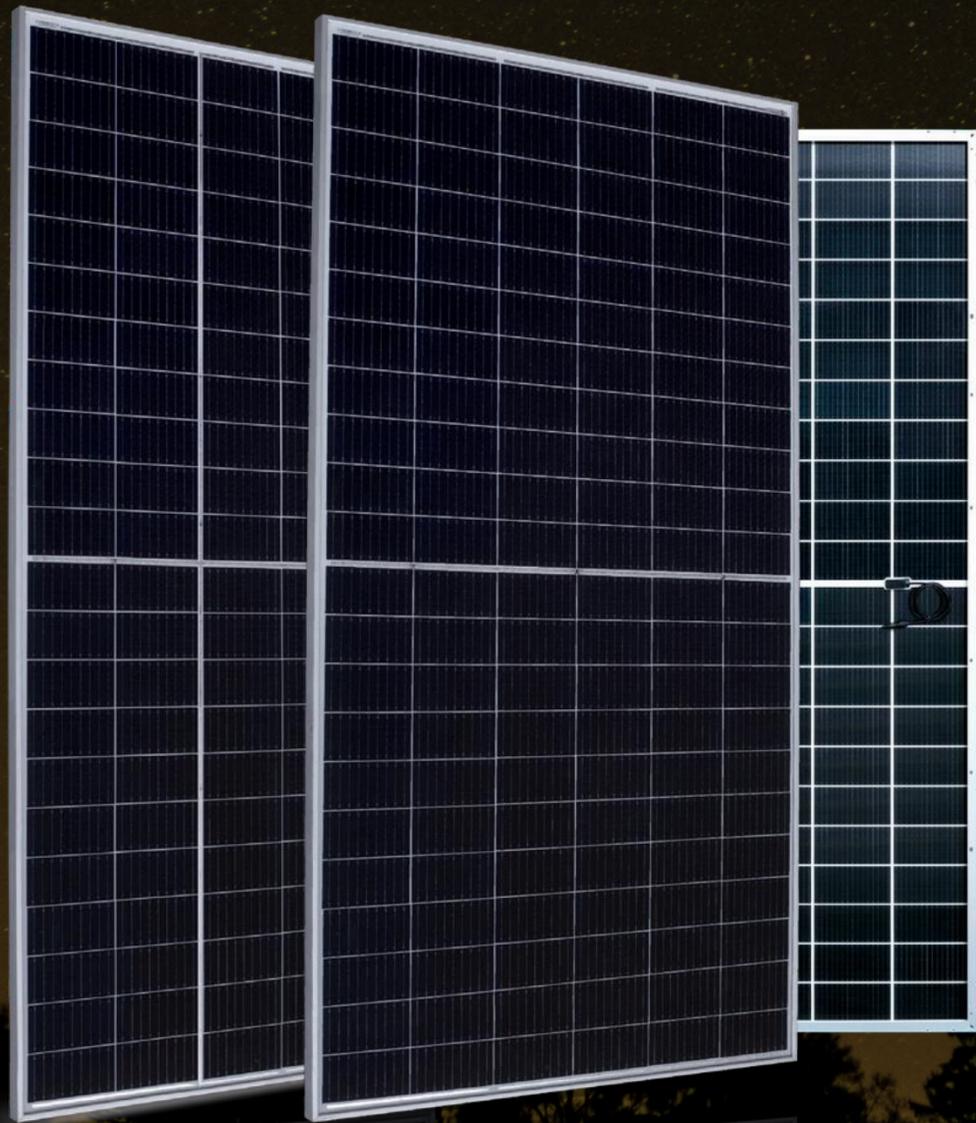
Small-scale C&I



Midium-scale C&I



Utility



# Comet

ENRICH YOUR ENERGY YIELD

## 630W - 720W

silicon heterojunction PV module  
half-cut cells  
bifacial & double glass

Deutsche  
Qualität  
Garantiert

**30** YEARS  
Performance Warranty

UP TO **30** YEARS  
Product Warranty



# Comet series catalogue

## Comet 210mm cell (HJT)

MODEL	POWER	DIMENSION	40ft HQ CONTAINER LOAD
<b>BIFACIAL DOUBLE GLASS PV MODULES</b>			
AE635TME-120BDS	630W - 650W	2171 x 1302 x 35mm	864pcs
AE700TME-132BDS	700W - 720W	2383 x 1302 x 35mm	720pcs



**AESOLAR**



# Terra

505W - 580W

**30** YEARS

Performance Warranty

UP TO **30** YEARS

Product Warranty

Deutsche  
Qualität  
Garantiert

**Extreme** resistance to wind and snow  
**Highest** bifaciality in real conditions



# Terra series catalogue

## Terra 182mm cell (TOPCon)

MODEL	POWER	DIMENSION	40ft HQ CONTAINER LOAD
<b>BIFACIAL DOUBLE GLASS PV MODULES</b>			
CMD-L144BD	560W - 580W	1190 × 2282 × 30 mm	648pcs
CMD-L132BD	505W - 525W	1098 × 2282 × 30 mm	720pcs



**AESOLAR**

# PROJECT REFERENCE

## EUROPE



### **UK, Ravenshorpe 2015**

Distributor: Heinzmann-Gruppe

**39.8** MW



### **Germany, Trinwillershagen 2012**

Distributor: TK-Gruppe Paderborn

**11.5** MW



### **Bulgaria, Sliven 2011**

Distributor: Technomash

**9** MW

**EUROPE**



**Germany, Pritzen**  
**2016**

Distributor: Ahtos-Gruppe

**10** MW



**Germany, Kodersdorf**  
**2012**

Distributor: Reninger

**7.2** MW



**Italy, Bologna**  
**2013**

Distributor: Municipality

**4.5** MW

# PROJECT REFERENCE

## ASIA



### **China, Inner Mongolia** **2023**

Distributor: China Huaneng

**20** MW



### **Japan** **2014**

Distributor: Ms. Voabachi

**12.6** MW



### **Vietnam** **2019**

Distributor: BBCO

**3** MW

**SOUTH AMERICA**



**Brazil, Cuiabá  
2024**

Distributor: TECHNO Solar Brazil

**5 MW**



**Brazil, São João Batista  
2023**

Distributor: JJS Solados

**518 KW**



**Brazil  
2023**

Distributor: Grupo Kyly

**503.2 KW**



destruction of land, and a decrease in species diversity.

We hope that Albert's image will serve as a reminder of the urgent need for new energy transitions, or perhaps in the future, our future generations will only see Albert and not the truly beautiful polar bear.

In order to integrate corporate social responsibility into our daily business, we have committed ourselves to upholding the Ten Principles of the United Nations Global Compact in the areas of human rights, labour, environment and anticorruption.

Our company mascot - Albert the Bear - also represents our most visionary social responsibility.

The use of fossil fuels has had a significant impact on our environment for a long time: global warming, rising sea levels,



# CSR & ALBERT THE BEAR

# AWARDS



**2024**  
PV Magazine Test “Very Good” Module



**2023**  
PVEL Top Performer



**2022**  
Solar Future Awards 2022  
Smart Technology Innovation  
of the Year



**2021**  
Solar Energy Innovation and  
Business Excellence Awards  
(MENA)



**2021**  
Top Renewable Energy  
Solution Provider in Europe



**2021**  
UN Global Compact  
Partnership for Sustainability  
Planet Category



**2021**  
Top PV Brand in Vietnam



**2021**  
Forefront of providing Solar  
Tech solutions and  
transforming businesses



**2020**  
Top Design Award 2020



**2019**  
Intersolar 2019 Photovoltaics  
Award Finalist



**2018**  
PV Magazine 2018 Top  
Innovation Award



**2017**  
SNEC 2017 PV Power Expo  
Top 10 Highlights Award

**HEAD OFFICE**

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**AESOLAR**

**THANK  
YOU**



www.ae-solar.com