AESOLAR

Deutsche
Qualität
Garantiert

Since 2003

PV MODULE
MANUFACTURER



AESOLAR

Wood Mackenzie Grade A | TIER1 BloombergNEF | SMM TiER1 GLOBAL TIER 1 AWARD

AESOLAR
GERMANY

Senefelderstraße 23,
86368, Gersthofen, Germany

Phone: +49 8231 978268 0
Fax: +49 8231 978268 9
E-Mail: info@ae-solar.com
Web: www.ae-solar.com

AESOLAR
BRAZIL

Rua Serra de Bragança, 1492 Jd.
Anália Franco - São Paulo / SP
E-Mail: vendas@ae-solar.com
Tel.: +55 11 3172 1991
Cel.: +55 11 98890 6142 (WhatsApp)

AESOLAR
CHINA

Jingyi Road 26, Hongze District,
Huai'an, Jiangsu Province, China
E-Mail: sales@ae-solar.com.cn
Tel.: +86 0517 87538800

AESOLAR
TURKEY

AESOLAR Günes Enerjisi San. Tic. A.S.
Office: AESOLAR GÜNEŞ ENERJİSİ SAN. TİC. A.Ş.
Yenidoğan Mh.1139 Sk. N:2/5H 35180 Konak İZMİR

Factory: MOSAB 3.Kısım, Mustafa Çapra Cd.
No.1, 45030 Yunusemre/Manisa
Tel.: +90 236 232 05 55

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ABOUT »AESOLAR

DR. ALEXANDER MAIER
CEO & Founder

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AESOLAR's engineering expertise goes beyond modules. We provide full-scenario PV system development—from residential and commercial rooftops to utility-scale plants and off-grid applications. Our team delivers complete turnkey solutions including system design, installation, and technical support, built around the unique needs of our customers.

In our two-decade journey, AESOLAR has continuously introduced technical breakthroughs. Certified under ISO 9001, 14001, and 45001, we hold a wide array of product certifications including TÜV, CQC, and INMETRO. This foundation is reinforced by premier industry rankings and awards — including BloombergNEF Tier 1, Wood Mackenzie Grade A, SMM Global Tier 1, and EUPD Research Top PV Innovation awards. In 2016, we developed the world's first mass-producible, hot-spot-free smart module. In 2025, our Horizon carport series earned DIBt certification, making AESOLAR the first Tier 1 PV manufacturer globally to meet this benchmark.

Unlike most sales-oriented companies in the industry, AESOLAR focuses more on listening to the needs of its customers and researching and developing accordingly. Making clean energy available to our customers all over the world is our starting point and our goal!

Founded in 2003 and headquartered in Augsburg, Bavaria, AESOLAR is a German solar enterprise committed to advancing high-quality photovoltaic technology and sustainable energy solutions. With manufacturing facilities in China and Turkey, and branch offices in the United States, Brazil, Switzerland, AESOLAR operates a global network that extends to more than 120 countries and regions.

AESOLAR has focused on long-term value through technological innovation. Our comprehensive product line covers all mainstream PV technologies, designed and manufactured to meet the strictest quality standards. Through fully automated 6-axis robots production lines, advanced encapsulation techniques, and precision-controlled cleanroom environments, we ensure the consistent delivery of durable, high-efficiency modules to meet diverse energy needs.

2003
EXPERIENCE SINCE

4000 +
SUCCESSFUL PV INSTALLATIONS

120 +
COUNTRIES



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.

AESOLAR

DEVELOPMENT MILESTONES

2003

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

2009

50 MW/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

Awarded Five-Star rating in PV Magazine Test for N-type module category

Ranked as the Top 1 year-over-year improvement manufacturer on BloombergNEF's Solar Module Bankability

2025

Became the first Tier 1 PV module manufacturer in the world to receive certificate from DIBt (Deutsches Institut für Bautechnik).

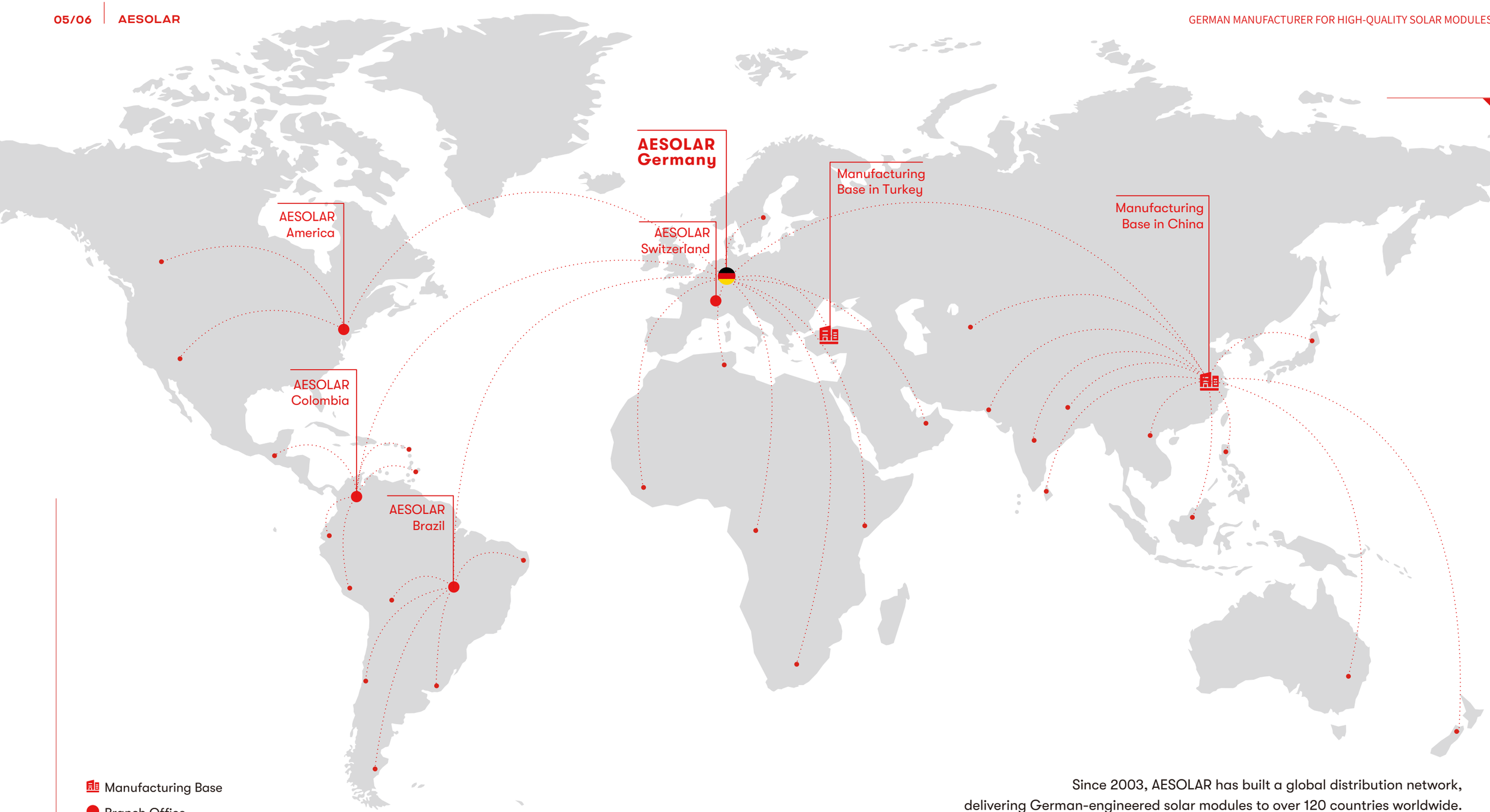
Established a new office in the US to provide direct service to North American distributors and customers.

AESOLAR recognized as Wood Mackenzie Grade A solar module manufacturer and SMM Global Tier 1 PV module supplier

2026

Global distribution expanded to 120+ countries and regions.

Expanded the portfolio with BC and Quarter-cut modules and residential ESS



Since 2003, AESOLAR has built a global distribution network, delivering German-engineered solar modules to over 120 countries worldwide.

GLOBAL PRESENCE

TOP MANUFACTURING

SMART MANUFACTURING FACTORY

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.

CHINA
Manufacturing Line

TURKEY
Manufacturing Line











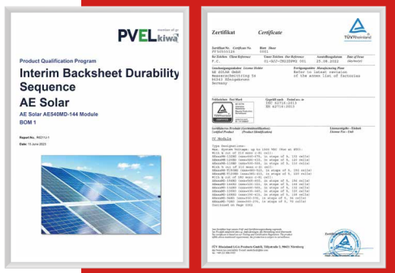


CORPORATE & PRODUCT CERTIFICATION

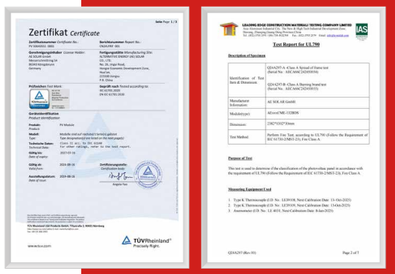
AESOLAR operates under a full suite of globally recognized management systems, including ISO 9001 for quality management, ISO 14001 for environmental sustainability, and ISO 45001 for occupational health and safety. These certifications reflect our ongoing commitment to operational excellence, responsible manufacturing, and employee well-being.

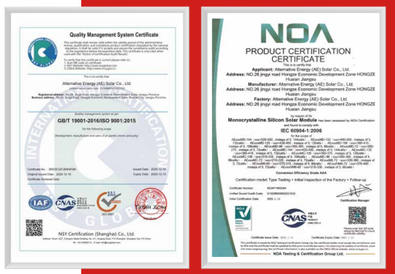
Our products undergo rigorous third-party testing and are certified across all major global markets. From TÜV and CQC to INMETRO and the China Energy Label “Top Runner,” AESOLAR modules are verified for safety, durability, and long-term performance. Notably, AESOLAR is the world’s first Tier 1 solar module manufacturer to receive DIBt certification, validating the suitability of our products for architectural applications under Germany’s strict building code.

With a robust end-to-end certification framework—spanning R&D, production, and quality control—we ensure our modules meet the evolving technical, compliance, and financing requirements of diverse global markets.









RECOGNITION & INDUSTRY LEADERSHIP

Recognized By Experts, Trusted By Market

AESOLAR has been 19-time listed since Q1 2021 on the BloombergNEF Tier 1 list, underscoring our bankability and supply chain credibility.

In 2023, AESOLAR was named “Top Performer” by Kiwa PVEL in its Product Reliability Scorecard, a testament to the durability and field-tested resilience of our modules. In 2025, we were honored with the “Top Innovation PV Brand in Germany” award by EUPD Research, further establishing our leadership in module design and innovation.

From rigorous lab evaluations to real-world energy yield testing, AESOLAR modules have consistently outperformed in both indoor and outdoor benchmarks—proving their value across residential, commercial, and utility-scale applications.

Through ongoing innovation and strict quality governance, AESOLAR continues to deliver German-engineered PV solutions with long-term performance, investor confidence, and environmental responsibility at their core.

METEOR

N-TYPE TOPCON TECHNOLOGY

VERY GOOD pv magazine test MODULE

METEOR III

QUARTER-CUT CELL TECHNOLOGY



415W-730W

01 N-Type cell technology

02 No LID or LeTID

03 High efficiency and power output

04 Cost-effective scalability and market dominance

05 Low degradation and high durability

475W-670W

01 Enhanced Rear-Side Generation

02 Lower LCOE, Greater Value

03 Higher CTM Performance

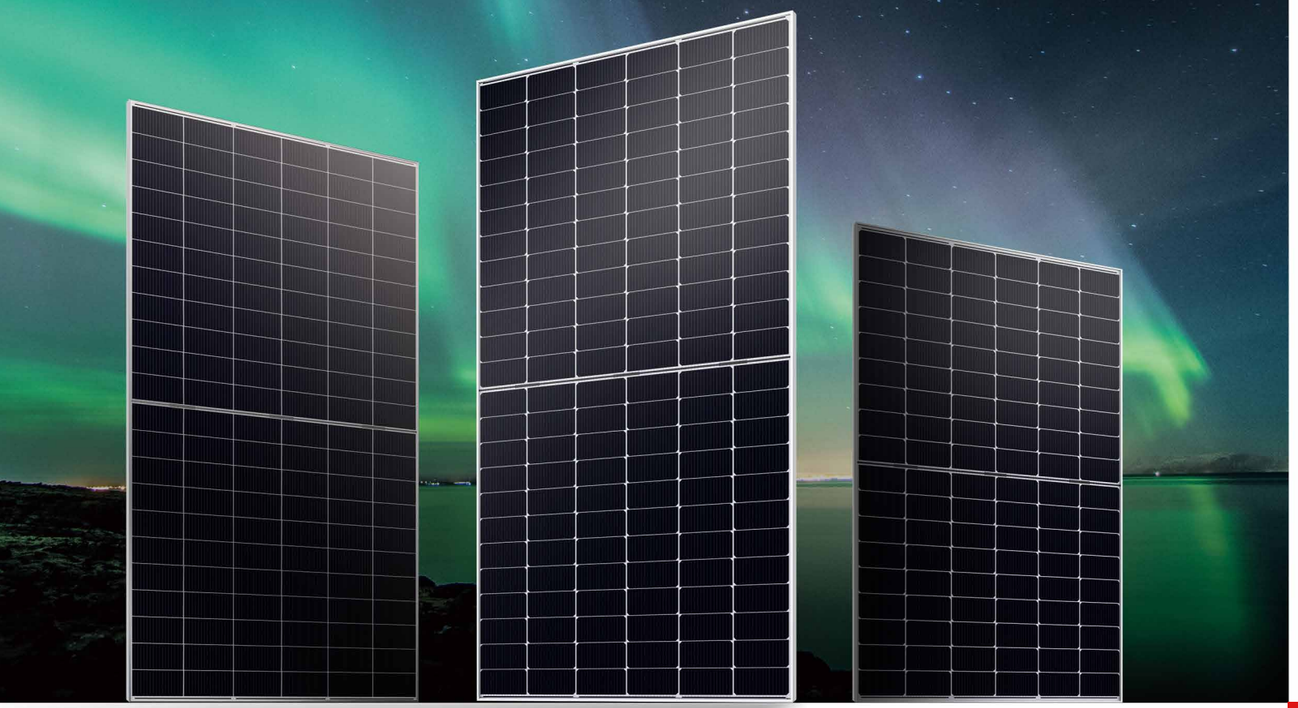
04 Advanced N-TOPCon: Evolved TOPCon Cell Technology

05 Better Performance Under Low-light Conditions

AURORA

P-TYPE PERC TECHNOLOGY

TOP PERFORMER 2025 kiwa PV MODULE RELIABILITY SCORECARD



395W-660W

01
Established durability
and yield data

02
High flexibility
with BOM

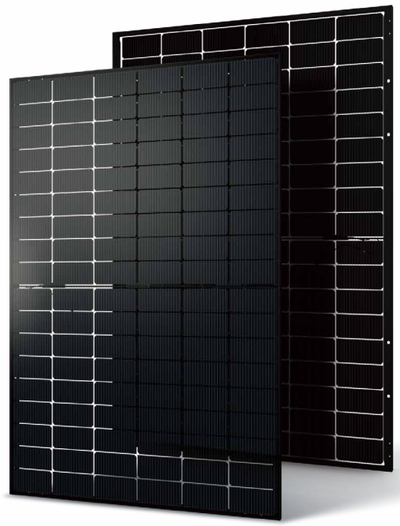
HORIZON

Deutsches Institut für Bautechnik DIBt

EUPD RESEARCH TOP INNOVATION MODULES GERMANY 2025

Solar Panels Designed for Carports

420W-590W



- Exceeds PV durability standards as per DIN ISO 12543-4
- Module overhead safety ensured by extended adhesion test as per DIN EN ISO 8510-2
- Fire resistant according to DIN 4102-1
- Highly resistant to impact according to DIN EN 12600
- Highly durable under mechanical loads as per DIN EN 18008-1 & 2
- **DIBt** certified
(from the German Institute for Construction Technology)
for safety, durability, and compliance in building-integrated applications



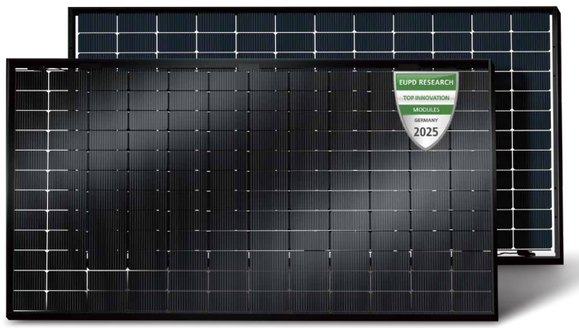
TERRA

HIGH TRANSPARENCY

TERRA V

460W-580W

- Up to 75% less cell breakage probability under mechanical loads
- Highly durable against wind and snow
- Higher energy yield due to the elimination of self-shading from cables, junction boxes or frames
- Ideal for AgriPV & sound barriers, as well as other vertical installations



PERFECT FOR AGRI-PV SOLUTIONS

TERRA E

280W-430W



- Protects crops from heavy rain, hail, and wind
- Protects crops against frost and drought under extreme sunshine
- Suitable for installation on greenhouse roofs
- 40% light transmission for homogeneous light distribution under the module
- Highly reliable and durable under mechanical loads

ECLIPSE

N-TYPE **BACK CONTACT** TECHNOLOGY



470W-660W

01
5% higher power density per unit area versus conventional modules

02
>88.8% power retention guaranteed after 30 years – industry-leading durability

03
Hotspot-resistant design prevents fire risks under shading conditions

04
-0.26%/°C temperature coefficient ensures superior performance in heat

ALPINE

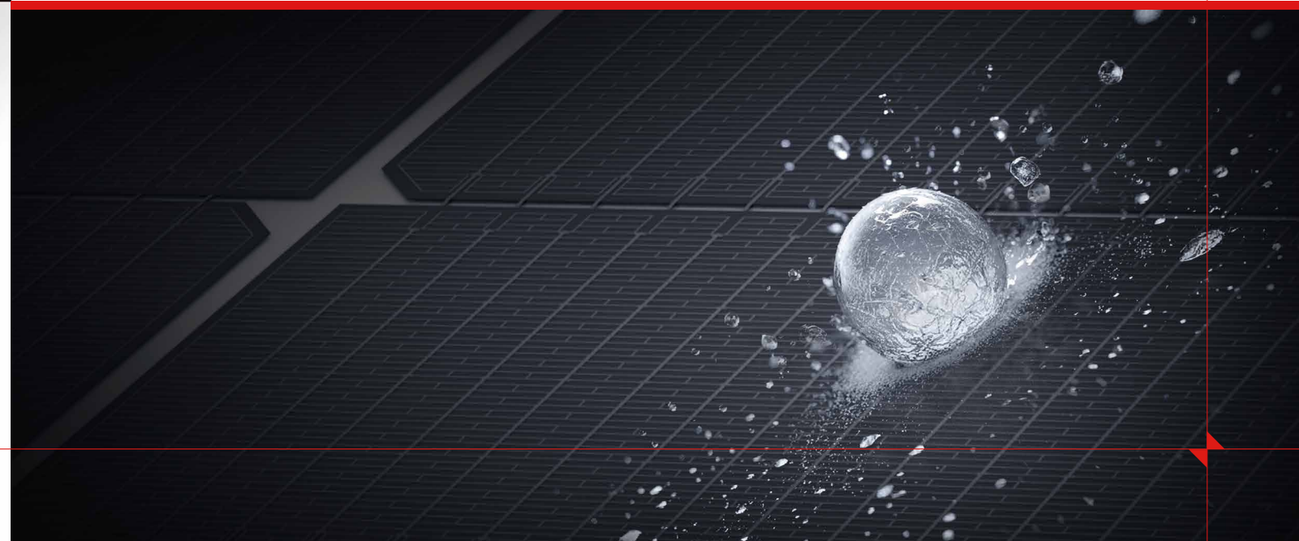
N-TYPE TOPCON TECHNOLOGY

Redefining Resilience in Extreme Weather

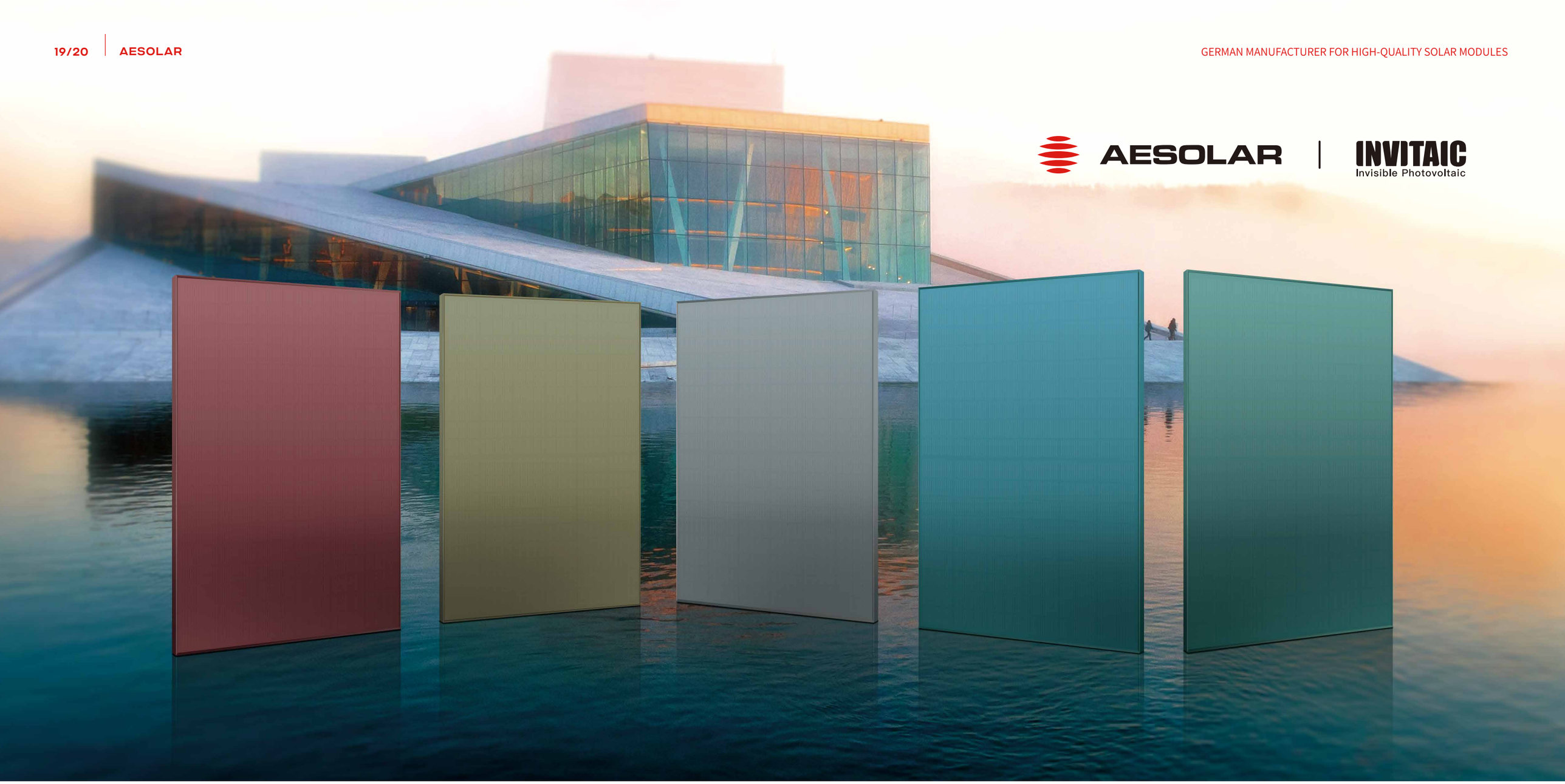
315W-595W

- Certified to endure 40mm hailstones (HW4)
- T6 high-strength anodized aluminum alloy frame, ensuring stability in harsh conditions
- 3.2 mm glass thickness on the front, offering exceptional durability
- Reducing maintenance costs, offering long-term reliability for hail-prone regions





AESOLAR | INVITAIC
Invisible Photovoltaic



MIRAGE

Colorful Single-glass Module

GERMAN DESIGN AWARD WINNER 2026

355W-530W

Customizable Aesthetic PV for Perfect Architectural Integration

01
Multiple levels of light transmittance and a wide architectural color palette

02
Optimized acoustic and thermal insulation

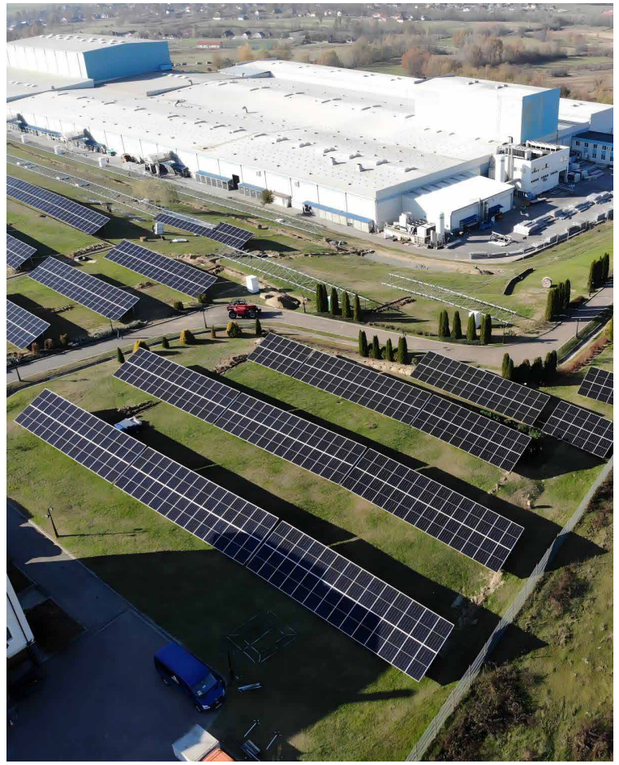
03
Quick installation and self-cleaning design

04
Mechanical durability increased by at least 50%

PROJECT REFERENCE

With a global perspective, AESOLAR delivers customized energy solutions through clean electricity generation. Driven by innovation in renewable energy, we actively contribute to the global energy transition—bridging regions and cultures with advanced solar technology to foster a low-carbon lifestyle. Backed by extensive international project experience, AESOLAR has successfully developed and supported the construction of thousands of photovoltaic power stations across more than 120 countries, continuously advancing green energy deployment through cross-border collaboration.

EUROPE



30 MW **Romania**
2025



1.25 MW **Switzerland**
2025



1.34 MW
Germany
2025



1.022 MW
Serbia
2024



960 KW
Romania
2024



115 KW
Germany
2025



10 MW
Germany
2016



1 MW Poland
2026



2.5 MW Slovenia
2026



8 MW
Ukraine
2026



6 MW
Ukraine
2026





EUROPE



29.95 MW

Philippines
2024



1.25 MW

Vietnam
2023

ASIA



515 KW

Thailand
2025



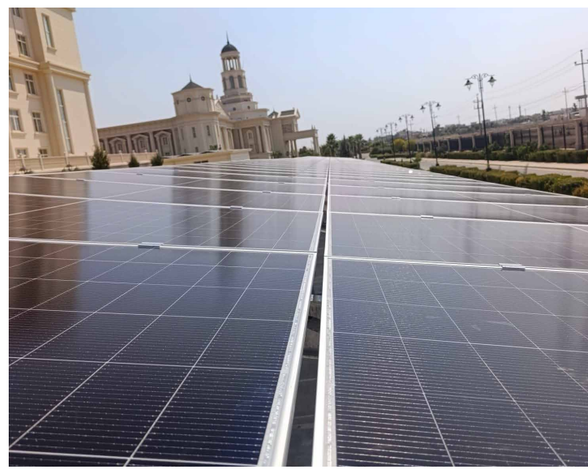
1.2 MW

Sri Lanka
2025



20.86 MW

China
2023



1 MW

Iraq
2026

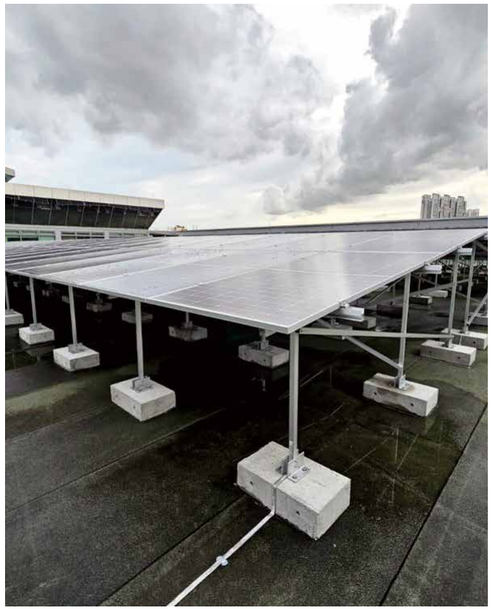
1.5 MW

China
2025



500 KW

Singapore
2026





282 KW

Malaysia
2025





3.5 MW

Iraq
2025

999 KW

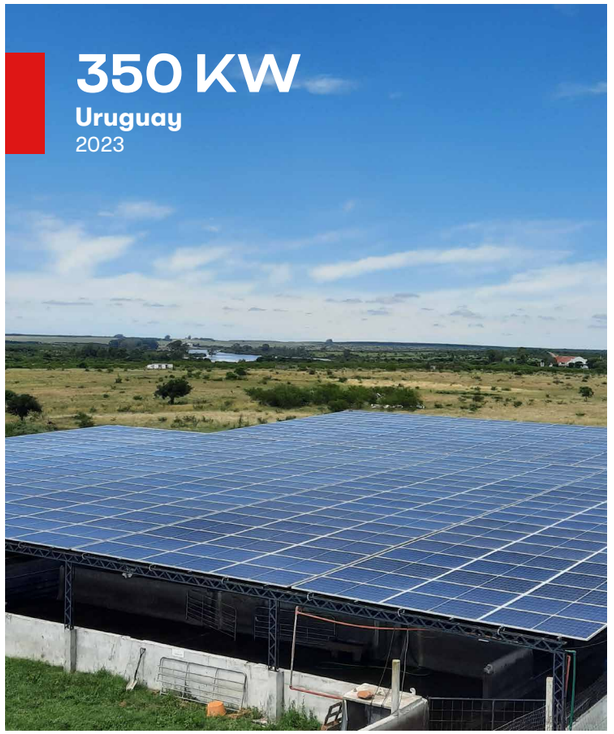
Thailand
2025

ASIA

LATIN AMERICA



3 MW
Brazil
2024



350 KW
Uruguay
2023



105 KW
Brazil
2024



353 KW
Brazil
2023

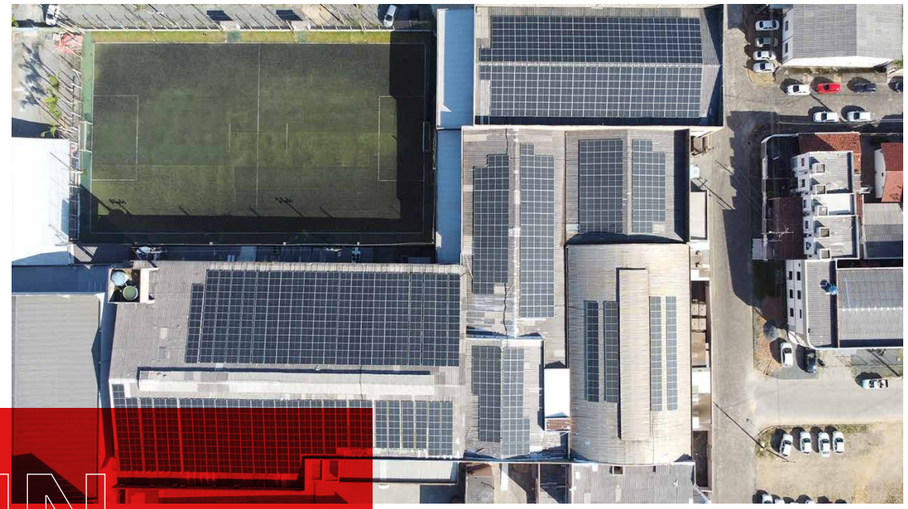


399.3 KW
Brazil
2024



700 KW
Uruguay
2024

LATIN AMERICA



518 KW **Brazil**
2023



157 KW
Brazil
2024



303.6 KW
Brazil
2023



2 MW
Egypt



1.8 MW
Dominican Republic



1.2 MW
Dominican Republic

OTHERS



Our mascot, Albert the Polar Bear, stands as a gentle reminder of what is at stake. For AESOLAR, social responsibility and environmental stewardship are inseparable — shaping a cleaner, fairer, and more resilient world for generations to come.

CSR & ESG

At AESOLAR, sustainability is not an afterthought but the foundation of our mission — it's time to save the world. Our ESG roadmap, released in 2024, commits us to full value chain carbon neutrality by 2050, aligning with global climate goals while driving innovation in low-carbon solar technologies.



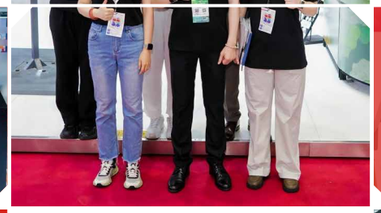


Our commitment extends beyond technology to communities around the world. In Brazil, we supported AMAC, an organization protecting women in Rio de Janeiro's favelas, by donating solar modules to lower costs and empower their work in fighting against domestic violence.
In Thailand, we supported the Red Skirt School and the homeless shelter Center of Dreams in Bangkok, supplying renewable energy and educational resources to empower disadvantaged children.
In Vietnam, we installed a solar-plus-storage system for a mountain kindergarten in Hà Giang Province, ensuring reliable electricity for daily learning and living.









we are a cohesive force driving innovation, reliability, and growth.
AESOLAR









MEET OUR TEAM






IT'S TIME TO SAVE THE WORLD.

