



## **The solar modules that make a difference for your business.**

Develop your activity and reputation with our premium solar modules.

**aleo**



**We make your customers love you.  
And we make your business thrive.**

You want your business to be as successful as possible, and so do we. At aleo we think solar panels define customer satisfaction and enhance business reputation. That's why we focus on making solar panels reliable and going solar an easy experience for end customers. Because there is nothing they desire more when going solar. They want it to work perfectly. Give them what they want. They will love you and your business will thrive. This is what we help you achieve.

## We provide the centerpiece of a reliable PV system. A solar module made to last. MADE IN GERMANY.

There is one simple rule to make your business successful and your customers thankful.  
Choose a module that is made to last.

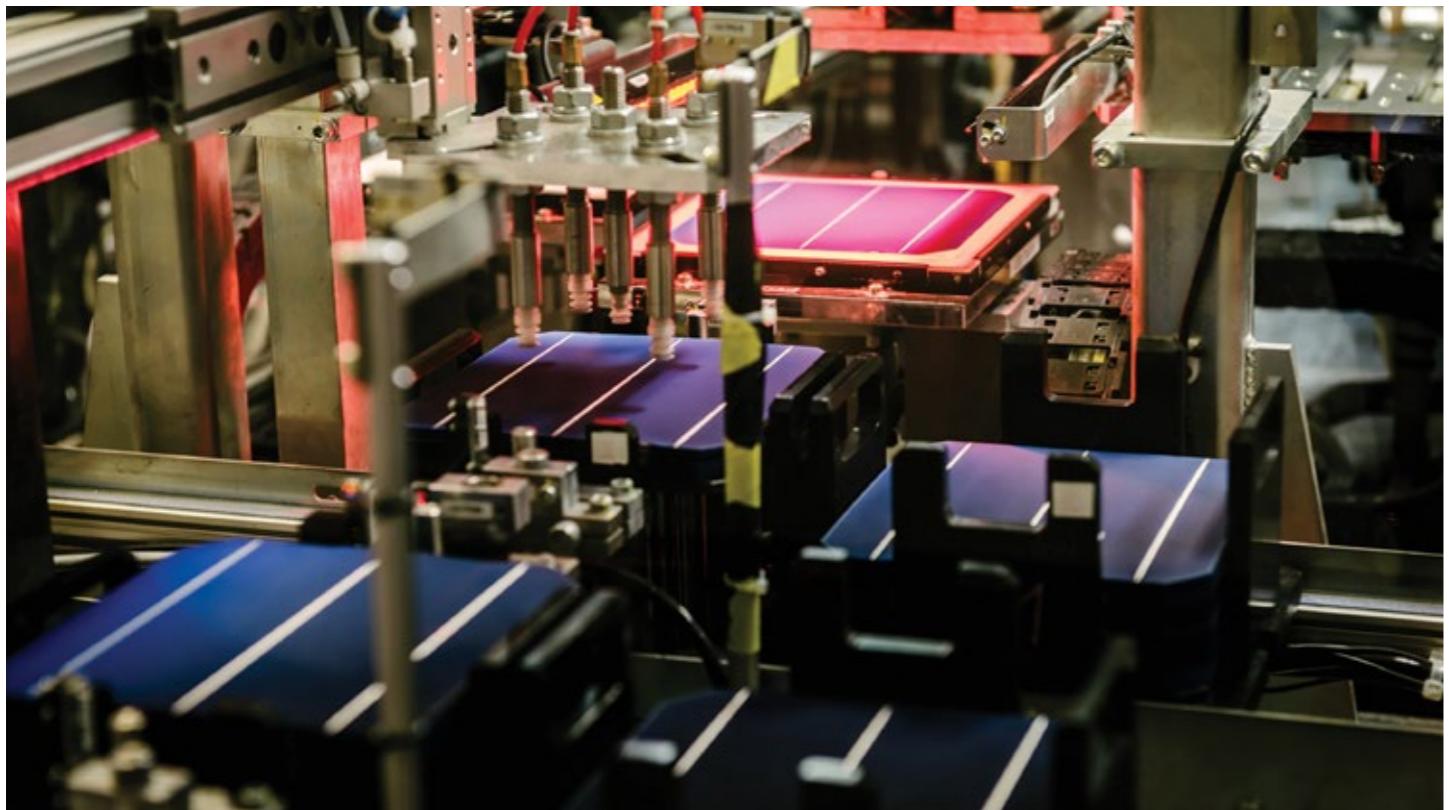
When investing in a solar power system, there are only two ways to decide: you are either looking for the smallest investment or you are looking for the smallest total cost of ownership. Of course, the second option leads to the highest profitability. The centerpiece of such an approach is a module whose performance and behavior are stable for more than two decades. When the time comes to choose a supplier, relying on data sheets and IEC certifications is not enough to be sure that a module will last for two decades. And in an industry so

prompt to cut corners at the expense of quality, what remains is trust. Who can you trust? Who will have the values and processes to ensure reliable behavior and performances? Since our inception in 2001 in Germany, we have assembled a team of passionate people, who constantly strive for excellence and care for customers by building the most durable modules. You can trust us as a partner that will help grow your business, not the other way around.

# 100%

of independent tests proved that our modules were among the most reliable of the solar industry.

These tests include the Fraunhofer PVDI and Sgurr Energy.



## PREMIUM CRAFTMANSHIP IS OUR CULTURE.

### WE COMBINE THE BEST COMPONENTS

The know-how behind the selection and association of components makes the difference between modules. Selecting the right bill of materials will ensure the stability and performance of our products. It takes time and dedication to make those decisions. But it is for the sake of your business and your customers.

In order to simulate the expected lifetime of modules, international standards are not stringent enough. That's why, over the years, we have set our own standards that go much further than any official requirement. We test at least every new material twice as much the IEC standards and even far beyond when we consider it necessary.

### WE TEST WAY BEYOND STANDARDS

### OUR PLANT IS UNDER CONTROL

All our modules are produced in our unique plant in Germany. Well-established processes, recognized as state of the art by independent auditors over and over again, as well as intense internal tests designed to provide you with homogeneous and repeatable high quality, which you won't get from a supplier managing complex supply chains, ensure that all modules leaving our plant are free of faults.

- + 100% diodes tested
- + Salt mist corrosion resistance
- + Ammonia corrosion resistance
- + Sand and dust resistance
- + ISO 9001
- + ISO 14001
- + ISO 50001
- + OHSAS compliant
- + PID free

### OUR QUALITY IS CERTIFIED

## Our trademark?

### High yields.

The job of a solar panel is to produce as much electricity as possible. This is what our leading PERC technology does. In our business, there is one winning formula. high yields = customer satisfaction = your success.

Solar technology evolves. Like in any other industry. New and higher performing technologies replace old ones. Now it is time for you to work with what is steadily becoming the new standard: PERC technology. Based on an improved solar cell architecture, it allows higher efficiency, higher power classes and higher yields. At

aleo, we are industry leaders in this field. We can rely on the know-how of our mother company, Sino-American Silicon Products, which was the first to bring PERC technology to a commercial scale in 2007 and is still recognized as the technological leader.

## ALEO HE TEC. DESIGNED TO PERFORM.

aleo produces the most powerful 60-cell PERC modules of the market. We rely on our HE Tec platform to achieve such performances. HE Tec is based on the association of high performance and highly reliable components.

# 98%

of the nominal power guaranteed after the first two years.

## A long history in high-efficiency technologies

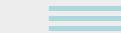
Dr. Szpitalak, Dr. Beilby and Dr. Tjahjono are solar pioneers. Esteemed alumni of the Center of Excellence for Photovoltaics and Photonics at the University of New South Wales in Australia, they have been spearheading PERC technology for over 30 years and have set multiple world records. Responsible not only for implementing CELCO® technology at SAS, but for introducing groundbreaking new developments to the industry at large, we're proud to call them the driving force behind our solar science.

### CELCO® TECHNOLOGY

Our HE Tec modules utilize the CELCO® PERC technology developed by our mother company Sino-American Silicon Products.

### LOW LIGHT INDUCED DEGRADATION

STANDARD    CELCO



With superior efficiency and LID behavior, CELCO® cells are the best guarantee for above-average yields in operation.

### HIGHLY STABLE FRAME\*

We don't compromise on sturdiness. Our frames have some of the highest mechanical load resistances on the market.

### LHS TECHNOLOGY

Solar modules look the same and it is often difficult to perceive their differences. HE Tec modules feature exclusive LHS busbar technology. They reflect incident light towards the solar cells for increased output. Take a laser and observe premium technology for yourself and know-how that make a difference.

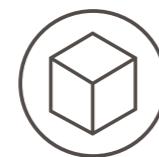


## We make solar energy synonymous with serenity.

We want your customers to never regret their choice to go solar. We do this first by manufacturing reliable products. And secondly by standing behind our craft. No matter what happens. That's why you and your customers can rely on industry-leading warranties and the reliability of an established group.

When going solar, your customers want to be independent and produce their own electricity while contributing to create a cleaner world. They have simple yet challenging expectations. As they are told solar panels work for decades, they expect their solar power system to work properly over the years. Even if we always

strive for excellence, we are aware failures might occur. That's why we design the most durable solar panels that come together with up to a 25-year product guarantee. Just in case. And we cover all the costs related to an after-sales case under warranty.



### UP TO A 25-YEAR PRODUCT GUARANTEE\*\*

Our solar modules have a standard 12-year product guarantee that can be extended to 25 years.

### 100% OF COSTS COVERED IN CASE OF FAILURE\*\*

If our modules should ever fail because of internal defects, we cover the costs of module replacement, transportation and labor costs.

## Customer friendly warranties

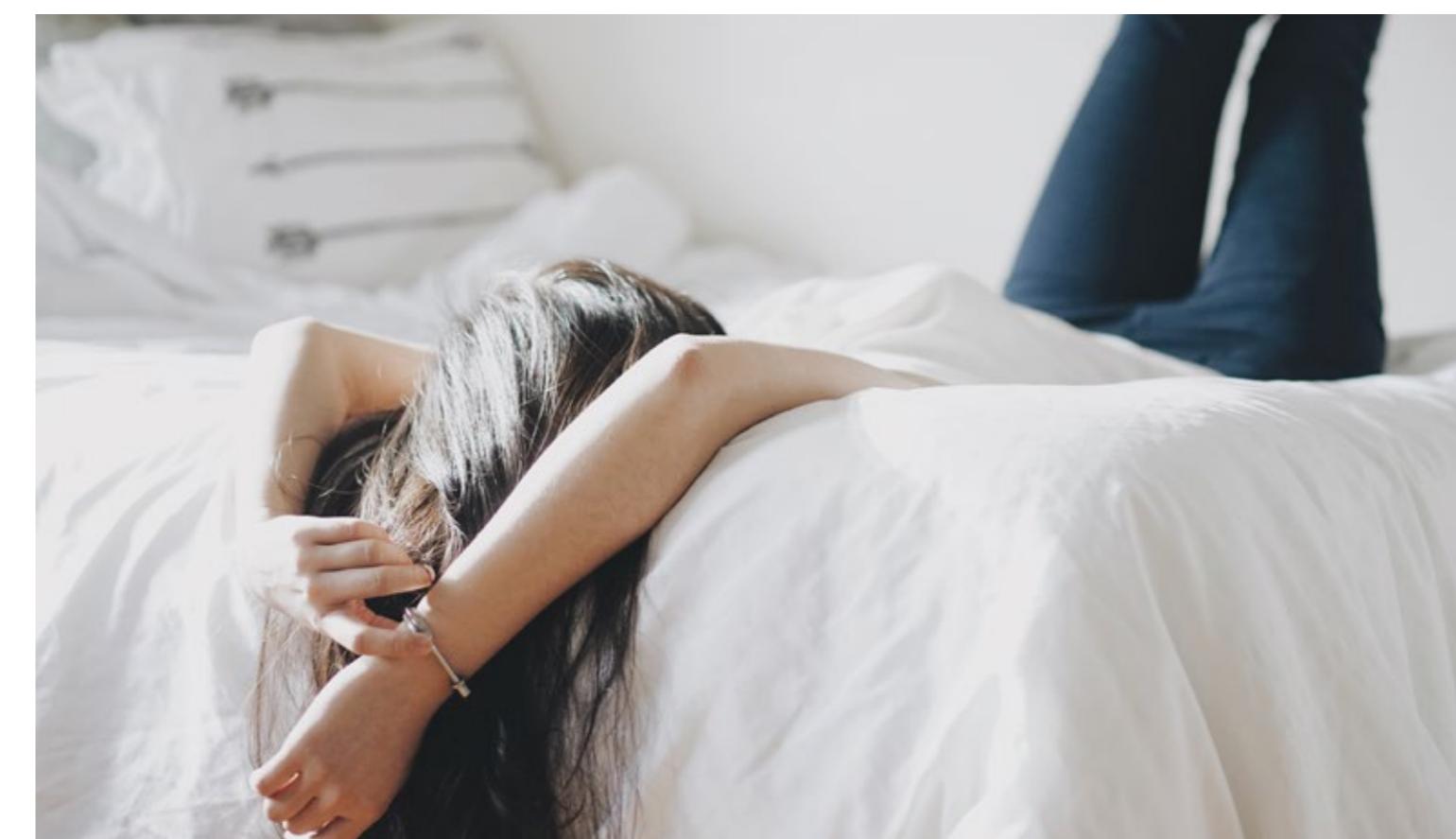
In its May 2017 issue, the German magazine Photon reviewed the warranties of more than 20 manufacturers and ranked aleo among the 4 with the most customer friendly. We don't only offer the warranties. We also care about executing them properly when needed for our customers to ensure they always have their system running properly.



### 25 YEARS PERFORMANCE GUARANTEE\*\*

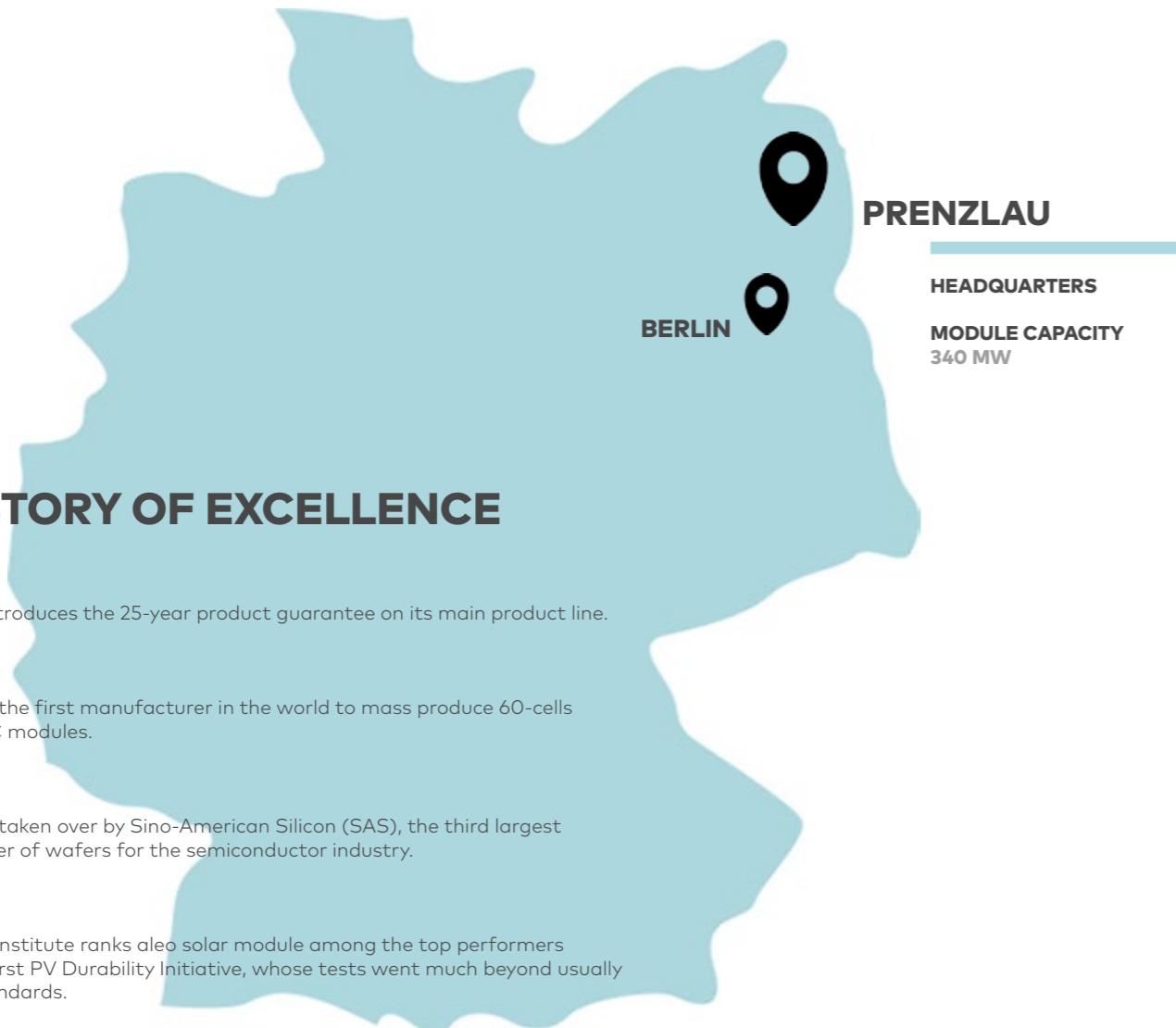
Our solar modules have a linear a 25-year performance guarantee.

# We make your customers enjoy their solar powered life easily



## Made in Germany expertise. Since 2001.

Incorporated in 2001, aleo is recognized as one of the most trustworthy manufacturer of solar modules. The company produces all its products in its plant in Germany. aleo lives by strong values that pushes the company to pursue industrial excellence to always make solar energy more reliable so that citizens can go solar with confidence.



## A HISTORY OF EXCELLENCE

### 2016

aleo solar introduces the 25-year product guarantee on its main product line.

### 2015

aleo solar is the first manufacturer in the world to mass produce 60-cells 300W PERC modules.

### 2014

aleo solar is taken over by Sino-American Silicon (SAS), the third largest manufacturer of wafers for the semiconductor industry.

### 2012

Fraunhofer Institute ranks aleo solar module among the top performers during the first PV Durability Initiative, whose tests went much beyond usually required standards.

### 2010

aleo solar S18 module receives the top score following a test performed by Öko-Test.

### 2009

The BOSCH Group takes a majority stake in the company.

### 2006

aleo solar S16 module receives the best grade (1.9) following a test performed by Stiftung Warentest.

### 2001

aleo solar is founded by Marius Eriksen, a German pioneer and a committed citizen and is awarded the "Order of Merit of the Federal Republic of Germany" for its social engagement.

**OUR GROUP  
ALREADY BUILDS YOUR  
CLIENT'S WORLD.  
LET IT POWER IT WITH  
SOLAR ENERGY.**



### A WORLDWIDE LEADER IN SEMICONDUCTOR AND SOLAR ENERGY

In 2014, aleo joined the Sino-American Silicon Products (SAS) Group as a wholly owned subsidiary. SAS is the third largest manufacturer in the world of silicon wafers. With more than 8500 employees and USD 2 billion in turnover in 2017, the group manufactures the components used in computers, phones, cars, trains, cameras, connected devices, etc. that you use in your everyday life. It is also a recognized technological leader in high-efficiency solar cells and wafers.

**8500**  
employees

**USD 2 billion**  
turnover in 2017

**THEY TRUST THE SAS GROUP.  
WHY WOULDN'T YOU?**

Leading brands trust the SAS Group to supply components used in the electronic devices that people use every day all around the world. So your customers can trust aleo solar modules as well to reliably produce solar electricity for decades.

# **Stay tuned**

Follow us on social media and read our blog to get all our latest news and insights about the solar industry.