DAS Energy

AUSTRIA

SOLAR REVOLUTION
MADE IN AUSTRIA

INNOVATIVE PV SOLUTIONS FOR EVERY TYPE OF ROOF

www.das-energy.com

CONTENT






DAS ENERGY SINCE 2010

Innovative photovoltaic technology, opens up new perspectives for sustainable energy generation

DAS Energy is an Austrian green tech company specializing in the development and production of lightweight and flexible photovoltaic modules. With a clear focus on development and innovation, state-of-the-art fiberglass materials from aircraft construction are combined with highly efficient monocrystalline silicon cells at the production site in Wiener Neustadt. With this patented technology, DAS Energy is a global pioneer in the next generation of photovoltaic modules: flexible, lightweight, and durable.

OUR VISION

„Delivering energy where it is needed. That is our vision. We meet the demands of future energy supply and open new possibilities for integrating photovoltaic solutions into architecture. Our mission is to lead the global transition to green energy by developing and manufacturing the most innovative photovoltaic products.

CHRISTIAN DRIES

FOUNDER, DAS ENERGY

DAS ENERGY TECHNOLOGY

The patented technology developed by DAS Energy in Austria features our proprietary composite reinforcement. This composite reinforcement is essential for the flexibility and stability of the photovoltaic (PV) module. It ensures that the solar panels are significantly lighter, thinner, and more flexible than conventional PV modules.

With a weight of just 3.8 kg/m^2, our panels outperform the typically heavier alternatives. Their flexibility allows them to be installed on curved surfaces. No mounting system is needed, as the solar panels are directly bonded to the surface. The low weight and no need for any mounting system make our PV modules a perfect solution for load-limited roofs and allow quick and easy installation on various roof types, including waterproof membranes, metal roofs, and many other surfaces.

Produced without glass and therefore non-reflective, our PV modules are suitable for installation near airports and other glare-sensitive areas. They use high-efficiency conventional monocrystalline cells, ensuring high energy yield.

GOOD TO KNOW

Since the fiberglass materials we use are sourced from the aerospace industry and have endured significant stresses for over 25 years, we offer a 40-year performance warranty (85%) for our PV modules installed on buildings. Our solar panels have undergone extensive testing in various environmental simulations, including UV-resistance and climate chamber evaluations.

INSTALLATION

No mounting system required

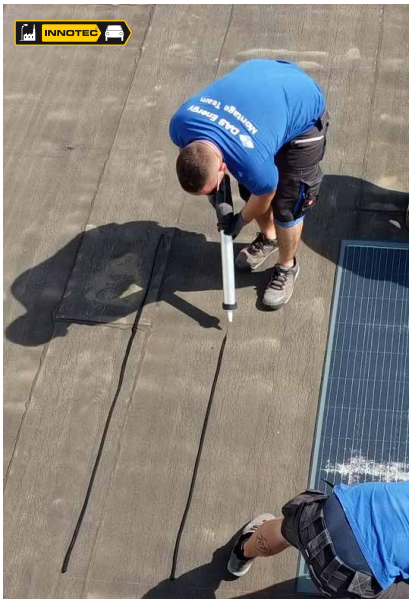
Quick installation time

High-quality bonding with premium adhesives

Installation without any mounting system.
No additional ballast required.
Reduced installation time.

For installation on industrial and commercial roofing materials - such as PVC membranes, bitumen membranes, metal roofing systems and glass surfaces - the DAS Energy PV modules do not require any mounting system or additional fastening when directly glued.
This approach greatly reduces installation time and avoids damage from roof surface penetrations, leaving the roof unaffected. Thanks to their lightweight design, the DAS Energy PV modules are ideal for roofs and facades with low-bearing capacity or with challenging physical conditions.

Premium bonding with Innotec

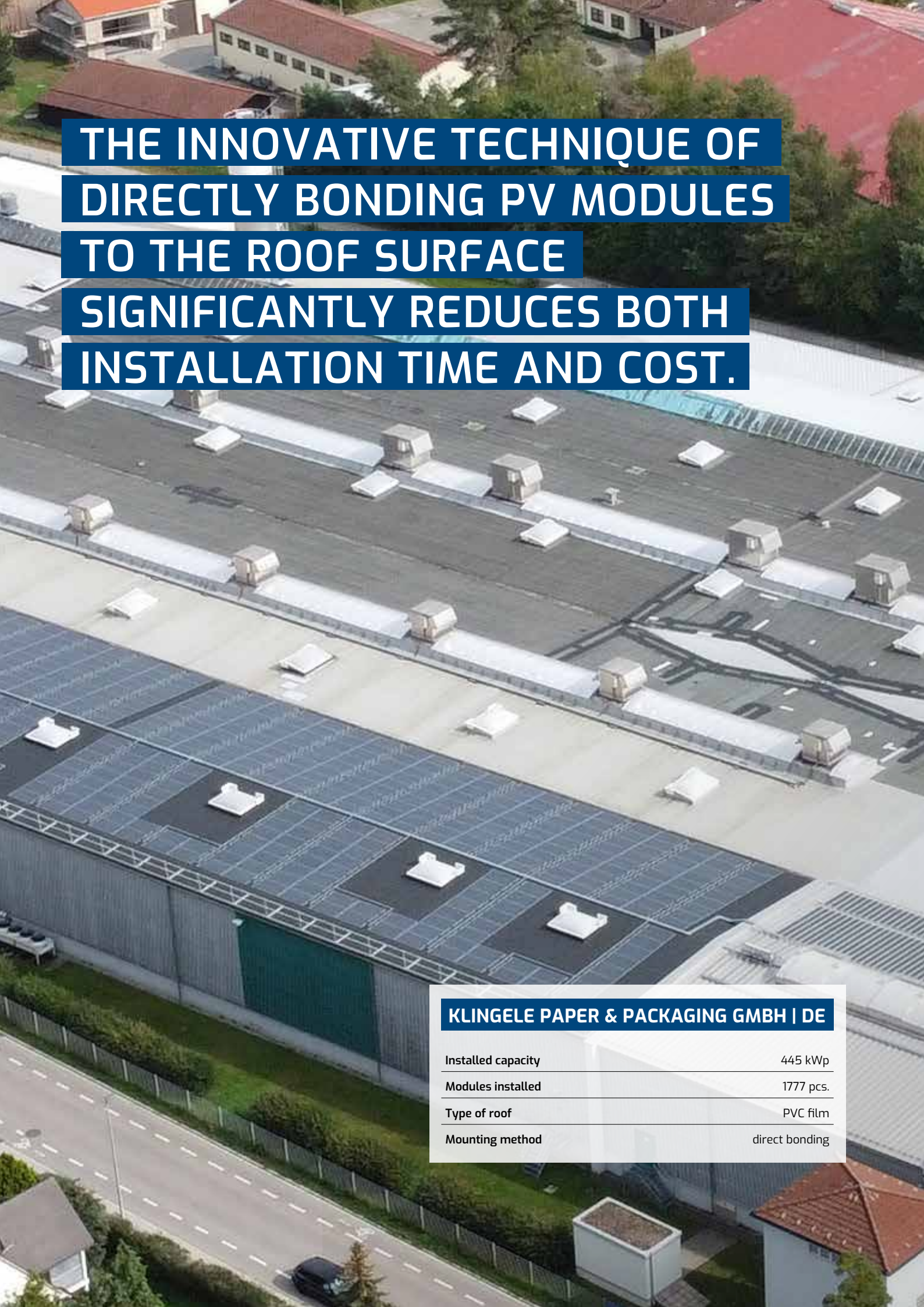


Applying the Innotec adhesive


The DAS Energy modules are bonded directly to the substrate.


DAS Energy modules mounted on bitumen

THE INNOVATIVE TECHNIQUE OF DIRECTLY BONDING PV MODULES TO THE ROOF SURFACE SIGNIFICANTLY REDUCES BOTH INSTALLATION TIME AND COST.



KLINGELE PAPER & PACKAGING GMBH | DE

Installed capacity	445 kWp
Modules installed	1777 pcs.
Type of roof	PVC film
Mounting method	direct bonding

INDUSTRIAL ROOFS

DAS Energy provides the ideal PV solution for roofs with limited load-bearing capacity.

Since 2016, DAS Energy has been developing and producing innovative solar panels, designed specifically for installation on roofs with limited load-bearing capacity. These panels are significantly lighter than conventional glass modules, weighing just a fraction (7.2 kg for the 330 Wp project module) compared to the 20 kg and more of conventional modules, including mounting system. **Their lightweight design makes them ideal for installation on commercial roofs and storage warehouses.** The panels are directly bonded to the roof surface – whether it's **metal, bitumen, or synthetic membranes** – allowing for a **fast and simple installation process** without the need for a mounting system or additional fasteners.

The **11x6M 330 Wp composite super-light module** for **bitumen and membrane roofing** is specifically engineered for large-scale photovoltaic projects. With 66 monocrystalline silicon cells, each module delivers a **power output of 330 Wp**. The **low-glare surface of all DAS Energy PV modules** makes them suitable f**or installation on buildings located near airports**, ensuring compliance with safety regulations.

Reference examples:
Vöslauer GmbH, Klingele GmbH, Kugeltanz GmbH

The **12x2M 120 Wp composite super-light module**, designed specifically for metal and standing seam roofing systems, is ideal for standing seam structures and other metal surfaces. With 24 monocrystalline silicon cells, each module generates an output of 120 Wp. During installation, the modules are directly adhered to the roof profiles between the standing seams, enabling large industrial roofs and facades to be swiftly transformed into solar power plants.

Reference image: Trumpf GmbH (top image)

Lightweight

High efficiency silicon cell

Customized options available

Extreme weather resistant

DAS ENERGY TRANSFORMS INDUSTRIAL ROOF SPACES **INTO POWERFUL ENERGY SOURCES**.

PERLINGER GEMÜSEBAU GMBH | AT

Installed capacity	260 kWp
Modules installed	614 pcs.
Type of roof	industrial roof and sheet metal roof
Mounting method	direct bonding

INTERQUELL GMBH | AT

Installed capacity	265 kWp
Modules installed	802 pcs.
Type of roof	industrial Roof, PVC film
Mounting method	direct bonding

METALINE Surface Protection GmbH | DE

Installed capacity	65 kWp
Modules installed	588 pcs.
Type of roof	industrial Roof, Standing seam roof
Mounting method	direct bonding

BUSINESS PARK MUNSTER | DE

Installed capacity	320 kWp
Modules installed	968 pcs.
Type of roof	industrial Roof, PVC film
Mounting method	direct bonding

AFAS SOFTWARE STADIUM | NL (ABOVE)

Installed capacity	400 kWp
Modules installed	1147 pcs.
Type of roof	PVC membrane
Mounting method	direct bonding

STADION BAD HONNEF | DE (BELOW)

Installed capacity	260 kWp
Modules installed	614 pcs.
Type of roof	industrial roof and sheet metal roof
Mounting method	direct bonding

SOLAR POWER SYSTEMS FOR STADIUM & HALL ROOFS

DAS Energy provides the ideal PV solution for roofs with limited load-bearing capacity.

DAS Energy has revolutionized the use of photovoltaic (PV) systems, making them a viable solution for large-scale applications such as stadium roofs. The company's lightweight, flexible solar panels can be seamlessly integrated into existing stadium structures, providing a sustainable energy source without adding significant weight.

As more and more stadiums worldwide adopt DAS Energy's technology, they not only support environmental efforts but also enhance their energy efficiency.

Reference: Schools's sport hall in Kremen; DE

EISSPORT ARENA SPITTAL | DE

In 2021, the ice sports arena in Spittal an der Drau underwent an energy-efficient modernization, to generate its own solar power. A 320 kWp PV system, consisting of nearly 1,000 super-lightweight DAS Energy PV modules, was installed on the roof (with low load-bearing capacity). Of the generated solar power, 44 kWp is directly fed into the arena's operational system. An additional 276 kWp is transmitted via an underground cable to the nearby "Drautal Perle" swimming pool, located on an adjacent property.

EISWELT STUTTGART | DE

Eiswelt Stuttgart, a popular ice rink and winter attraction, has embraced sustainability by partnering with DAS Energy to integrate a 300 kWp photovoltaic (PV) system into its infrastructure. With the installation of DAS Energy's cutting-edge solar panels, Eiswelt Stuttgart is reducing its energy consumption and carbon footprint while maintaining the facility's operations.

SOLAR FACADE SYSTEMS

Power generation with DAS Energy's building-integrated photovoltaics (BIPV) unlocks significant energy potential.

TRAPEZOIDAL AND STANDING SEAM ROOF SYSTEMS

Composite super light PV module perfectly integrated

The modules are designed to be integrated into any aluminium roof and facade system. The reference project in Poland shows an example of a DAS Energy PV system integrated into a standing seam facade. The 12x2M project modules are installed onto straight, convex and concave aluminium surfaces of the south facade.

SOLAR FACADE

DAS Energy specializes in advanced photovoltaic solutions, including innovative PV facades.

These facades integrate solar technology into building exteriors, transforming them into energy-generating surfaces. The colorful and visually striking PV facades not only enhance the aesthetic appeal of buildings but also contribute to sustainable energy production. these systems, DAS Energy demonstrates its commitment to both cutting-edge design and environmental responsibility. The company's approach highlights how modern architecture can seamlessly incorporate renewable energy technologies.

DAS ENERGY PRODUCTION FACILITY | NORTH AND WEST FACADE | WIENER NEUSTADT | AT

Over the years, DAS Energy has equipped its own facades with PV systems. At the production site in Wiener Neustadt, 180 kWp of solar power have been installed using DAS Energy lightweight PV modules in different sizes and formats.

In 2024 the sales location in Leobersdorf, has been fitted with an impressive and colorful PV facade.

DAS KRAFTWERK GMBH | INSTALLATION & DISTRIBUTION PARTNER OF DAS ENERGY | LEOBERSDORF | AT

DAS Energy and its Swiss distribution partner are showcasing an innovative PV facade project on a commercial building. Thanks to the intelligent tracking system of the slats, an annual yield of up to 76,000 kWh can be achieved with the 58.7 kWp installation. Various customized formats of PV modules were used.

RAIFFEISEN BANK WIESELBURG | AT

Installed capacity	22 kWp
Modules installed	143 pcs. / 'all black', 43 different formats
Type of surface	facade
Mounting method	direct bonding

STAR MOVIE STEYR + STAR MOVIE WELS | AT

Installed capacity	30 kWp + 125 kWp
Modules installed	in total 380 pcs / 11x6M 330 Wp
Type of surface	corrugated metal facade + concrete wall
Mounting method	direct bonding

A SUSTAINABLE ENERGY SOLUTION **ON PUBLIC BUILDINGS, SCHOOLS AND UNIVERSITIES**

DAS Energy provides innovative photovoltaic (PV) modules that are particularly well-suited for use on public buildings. Thanks to their lightweight and flexible design, these PV modules can be easily installed on roofs with limited load-bearing capacity, making them ideal for schools, government offices, hospitals, and sports facilities.

ALBERT-LUDWIG UNIVERSITY OF FREIBURG | PHYSICAL INSTITUTE | DE

In spring 2022, a DAS Energy PV solution was installed on the west building of the Institute of Physics at the University of Freiburg. With a capacity of 54 kWp, the system generates approximately 50,000 kWh of electricity annually, reducing CO_2 emissions by up to 17 tons each year.

UNIVERSITY OF MUSIC | FREIBURG | DE

In spring 2022, a DAS Energy PV solution was installed on the west building of the Institute of Physics at the University of Freiburg. With a capacity of 54 kWp, the system generates approximately 50,000 kWh of electricity annually, reducing CO2 emissions by up to 17 tons each year.

CARE AND SUPPORT CENTER LAND NÖ | AT

Installed capacity	127 kWp
Modules installed	1059 pcs / 12x2M 120Wp
Type of roof	aluminium roof
Mounting method	direct bonding

AUSTRIAN ECONOMIC CHAMBER WIEN & LINZ | AT

Installed capacity	74 kWp & 27 kWp
Modules installed	11x3M 165Wp
Type of roof	aluminium roof
Mounting method	direct bonding

SECONDARY SCHOOL GYMN. HEMER | DE

Installed capacity	46,8 kWp
Modules installed	120 pcs / 12x2M 120Wp
Type of roof	metal standing seam roof
Mounting method	Kalzip Solar Clad

ELEMENTARY SCHOOL WRIEDEL | DE

Installed capacity	28 kWp
Modules installed	246 pcs / 12x2M 120Wp
Type of roof	aluminium roof
Mounting method	direct bonding

FIRE DEPARTMENT BELLIN | DE

Installed capacity	13,4 kWp
Modules installed	112 pcs / 12x2M 120Wp
Type of roof	metal standing seam roof
Mounting method	Kalzip Solar Clad

DISTRICT ADMINISTRATION BUILDING | AT

Installed capacity	47 kWp
Modules installed	311 pcs. / 12x3P 180 Wp
Type of roof	aluminium rooftop
Mounting method	direct bonding

CASTLE ‘YBURG’ | BADEN-WÜRTTEMBERG | DE
BUILDING UNDER MONUMENT PROTECTION

Since 2024, the YBurg, a historic landmark in the wine-growing region of Baden-Württemberg, has combined the preservation of cultural heritage with cutting-edge energy technology through an innovative photovoltaic project using DAS Energy PV modules. This forward-thinking initiative sets a strong example for the sustainable use of renewable energy in historical settings, benefiting both environmental protection and regional energy supply.

Installed capacity	14,37 kWp
Modules installed	101 pcs. / 10x2M 100 Wp
Type of roof	building under monument protection, metal standing seam roof
Mounting method	direct bonding

PV SOLUTIONS FOR HISTORIC AND HERITAGE BUILDINGS

Photovoltaic technology is becoming increasingly vital for energy generation in urban environments. With the appropriate solar solutions, even listed buildings can be upgraded for the future.

The preservation of **historical monuments and ensembles** is a significant concern in cities worldwide. Often, listed buildings are not utilized for electricity generation, and the protection of these sites can hinder progress toward energy transition. However, with DAS Energy's advanced technology, **lightweight and flexible PV modules can be seamlessly integrated into sensitive conservation areas.**

In 2019, a nearly 10 kWp PV system with lightweight, and flexible 12x2M DAS Energy solar panels was approved and installed on the green **standing seam roof of a historic building ensemble in Vienna**. The state-of-the-art system was installed in just two days and now generates 10,400 kWh annually.

Since 2022, a privately constructed DAS Energy PV system has been showcased as a model for future **photovoltaic projects in the listed old town of Augsburg.** In the same year, a DAS Energy PV system was installed on the roof of the historic Predigerkloster. This solar installation blends modern technology with the architecture of the **400-year-old monastery**, generating environmentally friendly electricity. It represents a successful integration of historic preservation with sustainable energy production, demonstrating how traditional buildings can be harmoniously enhanced with innovative technology.

OLD BUILDING ENSEMBLE | AT

Installed capacity	10 kWp
Modules installed	87 pcs, 12x2M 120 Wp.
Type of roof	viennese Ensemble, standing seam roof
Mounting method	direct bonding

MONASTERY "HET PREDIKHEREN"

Installed capacity	22 kWp
Modules installed	180 pcs.
Type of roof	historical Monastery, Kalzip AluPlusSolar roof
Mounting method	direct bonding

SOLAR NOISE BARRIERS

The highway as a solar power plant – 1,400 kilometers of noise barriers along Austria's roads could be harnessed to generate electricity for the communities they border.

DAS Energy solar panels are ideally suited for integration into noise barriers due to their lightweight design.

In a collaborative project, the Lower Austrian company Calma-Tec advanced the ulmerwelle® noise barrier into a solar power plant. The lightweight and flexible solar panels seamlessly conform to the undulating contours of the modern noise barrier design. With an output of 370 Wp, these panels are well-suited for challenging road environments, including highways.

Noise barriers hold significant potential for generating sustainable energy in various countries.

Extremely weather resistant

non-reflective surface

Easy installation

With their dual purpose, the 1,400 kilometers of noise barriers in Austria could be equipped with photovoltaic modules, potentially supplying electricity to 150,000 households.

DAS ENERGY PV NOISE PROTECTION WALL HIMBERG | LAND NIEDERÖSTERREICH

"The energy transition is a central component for a climate-friendly future. Noise barriers, that can produce solar power and thus enable us to use large areas in various ways are exactly that. A simple-sounding idea that we are now turning into reality. Together with ASFINAG, we are launching a pilot test today, and I hope that this innovation will soon be adopted throughout Austria," Climate Protection Minister Leonore Gewessler.

"For the supply of electricity, we are increasingly relying on the generation of renewable energies along our network"

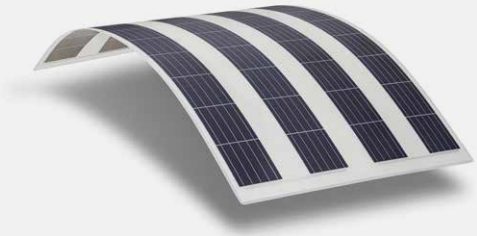
ASFINAG Board Member Hartwig Hufnagl

DAS ENERGY PILOT PROJECT | ASFINAG

In 2021, seven different photovoltaic systems were tested at the "photovoltaic test field" along the S1 freeway, including DAS Energy PV modules with an installed capacity of 4.8 kWp. Over the following months, various factors were analyzed, such as glare effects, impacts on the structural integrity and functionality of the noise barriers, and energy yield.

Additional solar noise barrier projects using DAS Energy PV modules have since been completed in Himberg and Wiener Neustadt, Lower Austria.

AGRI-PV APPLICATIONS



GREENHOUSE PV MODULES

Light, flexible & semi-transparent

Agri-photovoltaic modules are designed for environments where sunlight is essential, such as in greenhouses. These structures depend on sunlight and the greenhouse effect to support plant growth, but they can become excessively hot during summer, especially in warmer regions. DAS Energy offers an effective solution with its light-weight, semi-transparent solar panels. These panels provide shade while generating electricity, ensuring adequate diffuse light for plant growth and reducing excessive heat. The energy produced can be used to power electronic systems like ventilation, irrigation, and lighting. The 11x6M Composite super-light PV module is highly versatile, suitable for greenhouses or even as solar fencing, thanks to its low weight and easy bonding technology.

COMPOSITE SUPER LIGHT PV-MODULE 11x6M

ENERGY SQUARE

Experience energy in color

Only 2,8 kg

HIGH-EFFICIENCY
Monocrystalline cells, no thin film!

HIGH RELIABILITY
Minimum 85 % yield after 10 years

ETFE FRONT SHEET
LOW REFLECTION
Soil-repellent & Hydrophobic
UV & salt resistant
Optimal heat dissipation

HIGH YIELD
Multi-directional lens structure

BENDABLE
Smallest bending radius 2 m

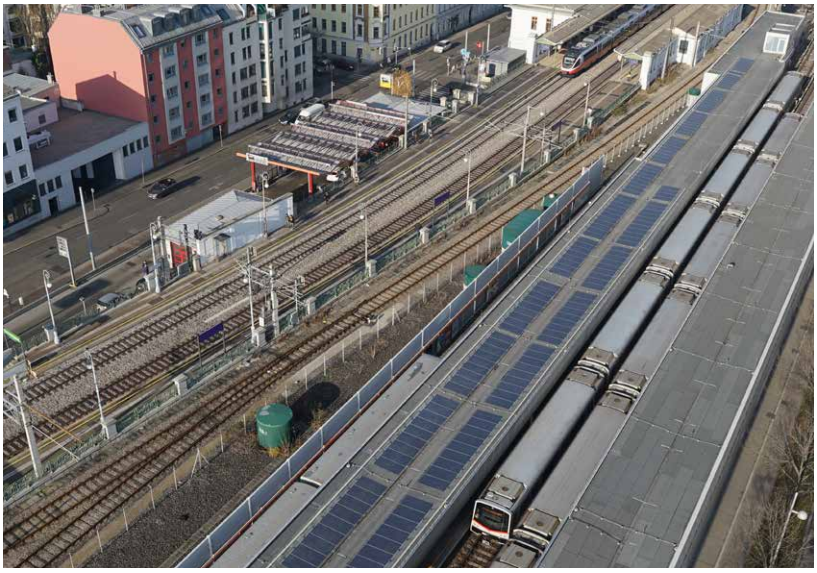
EASY TO INSTALL
Easy yet sturdy attachment using tension straps or cable ties
Direct bonding possible

IN ALL WEATHER CONDITIONS
Stable performance in heat, storm and dust

Versatile mobile photovoltaic module DAS Energy QUADRAT is an extremely versatile photovoltaic module for a wide range of applications: Balcony power station: Bring color to your balcony! Mobile energy source for camping and boating Aesthetic integration into the design of buildings and structures The choice of colors makes it possible to use solar modules in different environments and situations. For example, they can be used in urban areas, where aesthetics play an important role, or in rural areas, where they blend in better with the natural surroundings. The colorful Energy squares are also available without eyelets for gluing.

In addition, DAS Energy QUADRAT is easy to install and transport thanks to its 1 m^2 format.

CREATIVE PV INTEGRATION IN THE CITY



METRO STATION U3 OTTAKRING | VIENNA

In 2019, Wiener Linien, the municipal transportation company in Vienna, installed in collaboration with Wien Energie (the energy supplier and service provider for the city of Vienna) the first photovoltaic system on the U3-Station Ottakring as part of a pilot project.

wienerlinien.at/solarenergie

STREET LIGHTS

DAS Energy solar panels can be installed on streetlights for a sustainable energy source.

www.ecolights.at

SUSTAINABLE PUBLIC STATION

DAS Energy modules can be installed for energy generation in public infrastructure, e.g. at bus and tram stops with roofing.

ILLUMINATED ADVERTISING

Epamedia's outdoor advertising is illuminated with sustainable and clean electricity – produced with DAS Energy PV modules.

www.epamedia.at

SOLAR CAR PORT

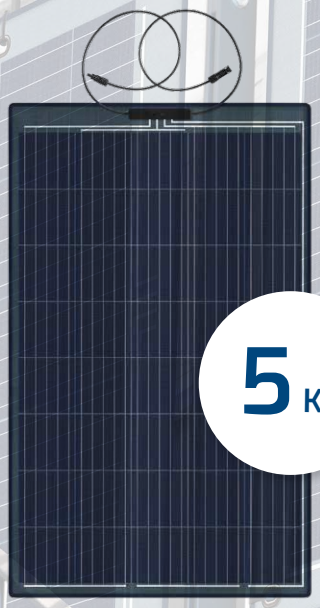
The lightweight PV modules can be integrated into carports, generating sustainable electricity for electric vehicles. The 12x2M PV modules can be integrated into various standing seam systems. The 11x6 can be installed on flat car port roofs.

BOATHOUSE ON THE RIVER ALSTER | DE

The project in Hamburg was carried out through the University of Hamburg, and the boathouse is located on the Alster. The installed capacity consists of 120 modules, each with 120 Wp. The system also operates with battery storage.

BALCONY POWER SYSTEM

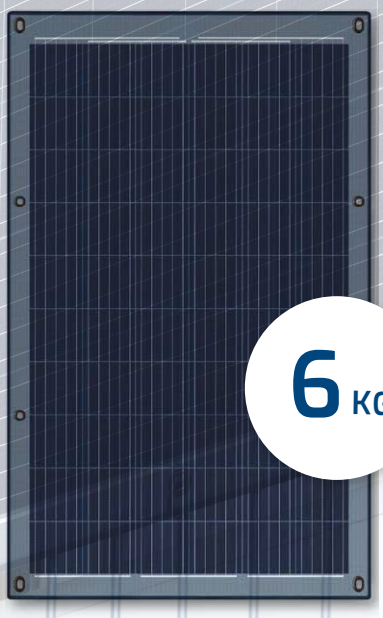
* Permit-free and expandable mini solar systems for balconiesdirect connection to Schuko plug with up to 800 watts feed-in



5 KG

200 Wp

1434 x 925mm



6 KG

300 Wp

1775 x 1020mm

- Inverter included
- Junction box available on the back or front
- With this mobile and lightweight balcony solarpower innovation, anyone can generate their own solar power directly on their balcony or terrace
- **Cost-effective with DIY installation**

Available at our partner **DAS Kraftwerk**

www.daskraftwerk-pv.com

GOLF CART SOLAR ROOF

Self-sufficient on the golf course

Especially for golf carts DAS Energy has developed a perfect PV solution that can be mounted on almost all golf cart types used on the market. The light, thin, flexible and at the same time robust construction of the PV module allows roof mounting with minimal effort. The PV roof extends the range by up to 15% and increases the battery life by up to 2 years compared to a conventional golf cart.

MARITIME PV FOR BOATS AND YACHTS

ENERGY INDEPENDENT ON BOARD

DAS Energy PV modules guarantee permanently high energy generation even for locations with high salt and ammonia gas concentrations.

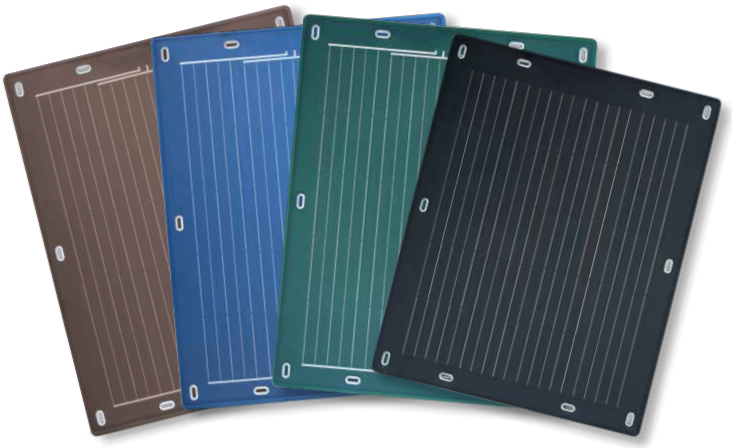
OUR PRODUCT PORTFOLIO

330 Wp

Our 330 Wp project module is specifically designed for large photovoltaic projects. At just 3.8 kg/m², its lightweight design ensures easy handling during installation, while the bonding technology greatly reduces installation time. This allows large industrial roof areas to be swiftly and efficiently converted into energy-generating roofs. This module features 66 monocrystalline silicon cells with a power output of 330 Wp. The junction box can be mounted either on the back or front, but is typically positioned at the center of the module. The 11x6M project module offers the ideal combination of economic efficiency, power output, and ease of installation.

120 Wp

Our 120 Wp project module was specifically developed for roof-integrated PV solutions, such as standing seam systems (e.g., Kalzip AluPlusSolar). Each module is equipped with 24 monocrystalline cells, delivering an output of 120 Wp. The junction box can be mounted on either the front or back, but is generally centered on the PV module. During installation, the modules are bonded to the roof profiles between the metal seams. Thanks to the lightweight design (only 3.8 kg/m²) and innovative bonding system, large industrial areas and facades can be effortlessly converted into solar power plants.



BLACK & COLOUR editions

330 Wp | 120 Wp | 100 Wp

Black PV modules are designed to meet aesthetic demands in architecture. The variety of module sizes provides greater creative freedom with their dark color scheme and are used in architectural applications and the protection of historic ensembles.

HYBRID module

330 Wp | 120Wp

The best of both worlds – with a weight of only 7 kg/m², the Hybrid PV module remains lightweight and can be installed on roofs with lower load-bearing capacity. It offers a wide range of application options: direct bonding to trapezoidal sheet systems, installation on flat roofs (bitumen or membrane), and on facades.

BALCONY PV system

200 Wp | 300 Wp

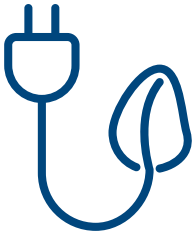
The balcony power system can be easily mounted on a balcony or terrace railing, providing your own electricity source at home. The system is available with 200 Wp or 300 Wp modules and can be ordered as a set, including two or more modules, an inverter, and an installation kit. The system can be expanded, but for capacities of 800 Wp or higher, registration with the local energy provider is required.

GREENHOUSE module

180 Wp

Semi-transparent and light PV modules provide enough diffuse light for plants in greenhouses to grow and protect the plants from too much heat in summer. The sustainable energy produced on the roof can be used for charging electronic systems such as ventilation, irrigation and lighting.

DID YOU KNOW THAT PHOTOVOLTAIC SYSTEMS...



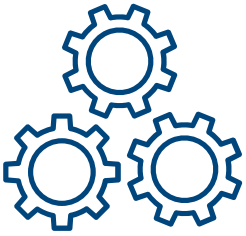
generate clean electricity without noise, odor, or particulate emissions, directly contributing to the fight against climate change?

enhance independence in crisis regions, thereby promoting peace?

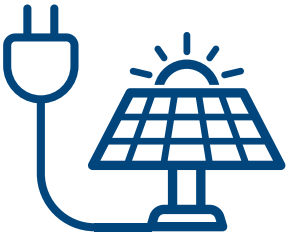
generate regional value through both construction and ongoing electricity production worldwide?

are the most promising industry in terms of growth and future potential, revitalizing Austria's economic and technological sector?

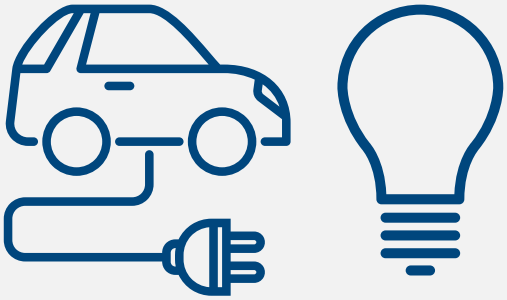
can be applied to almost any surface and are available without restriction across all continents?



support a robust business sector, driving employment growth, strengthening small and medium-sized enterprises, and creating and securing new jobs in production, installation, and operation & maintenance in Austria?



can be used directly where electricity is consumed, eliminating the need for long transport distances?



You can even use the battery as a storage unit for your PV system from the roof.

For this to work, the battery must be capable of not only drawing power from the car but also delivering it. Bidirectional charging technology, also known as Vehicle-to-Grid (V2G) or Vehicle-to-Home (V2H), is already integrated into many new car models. When your electric vehicle is connected to the grid, the battery can either charge or supply power to your home. With typically 50-100 kWh of storage, e-cars are ideally suited for use as power storage for PV systems, making them particularly useful during power outages.

Source: pvaustria.at

FOR MORE INFORMATION

www.das-energy.com

download datasheets

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