

SEN solar technology
with system



Your wholesale for solar, mounting and storage systems

- strong brands and the highest standards
- expert advice and personal contacts
- own large warehouse and 24/7 online shop
- SOLDraft PV planning tool

About us

With the SEN company group, you are choosing a partner with over 30 years of experience in the industry on whom you can rely at all times. We have the ambition to provide quality in all areas of expertise. By this we mean not only our premium installation system SOL-50, but all SEN service and product areas.

As a craftsman's business and especially an installation company in the solar industry, you find yourself today more than ever in a field of tension between end customers, wholesalers, further technical development, energy policy and subsidies, complaints, difficult market conditions, further training and ultimately the professional installation of the systems for the building owner. In these challenging times, it is all the more important to know that you have a strong partner at your side on whom you can rely in all areas of business. This includes fast response times, good creditworthiness, uncomplicated order processing and always an open ear for customer wishes and market requirements.





1986

Foundation of SEN under the name Osmer Elektrotechnik by Klaus-Dieter Osmer und Jeanette Osmer-Soujon

1990

Construction of the first grid-connected photovoltaic systems as part of the „1,000 roofs programme“

1990-2000

Realisation of various projects in the field of building integration and other special solutions realised. Special photovoltaic projects include the ADAC building in Hanover and the Hundertwasser railway station in Uelzen

2000

Development and distribution of the SOL-50 mounting system

2005

New construction of the SEN company headquarters in Grasberg

2006

Change of name to specialist wholesaler
SEN Solare Energiesysteme Nord

2008

Introduction of the SOL-50 mounting system in the European market

2008

Launch of the planning tool SOLDraft 1.0

2010

Sales launch of the SOL-50 solar carports

2011

New construction of the warehouse and logistics centre with 6.000 m² of floor space

2014

Launch of the online shop with linked document database for mobile devices

2023

Launch of the new SEN online shop



We focus on brand quality and durability

Only those who prioritize quality save in the long run.
That's why we choose the most trusted brands in the solar industry.



Efficient modules, for excellent electricity yields

The quality of the solar modules determines the yield of the photovoltaic system. SEN only offers branded (high quality) modules. Ask the SEN sales team for the current range of brands.



The right inverter for every system

The inverter is the heart of every photovoltaic system. It converts the direct current generated by the solar modules into standard household alternating current, which can be fed into the public grid or can be consumed by the user.



Intelligent storage solutions

Tests have shown that the electricity needs of a 4-person household on sunny summer days can be covered 95 percent with solar power without drawing electricity from the public grid. In this way, customers with a solar power storage solution can protect themselves against rising electricity prices and also make a significant contribution to relieving the strain on the grid and to a clean environment.



E-charging stations

Charging stations can be publicly or non-publicly accessible and consist in the simplest case of a socket at which the vehicle can be charged via a cable connection and a charger.

Always the right solution



Single-family homes

In just 8 minutes of sunshine, Germany receives as much solar energy as industry, households and transport worldwide together consume in a year. So there is no question of an energy shortage - provided that the free solar energy is used.

SEN has a perfectly suitable solar power solution for every area. With the distribution of branded (high quality) products, you get all the necessary components for a photovoltaic system from a single source.

Homeowners who have a photovoltaic system installed today basically have the choice of feeding the electricity generated into the grid or consuming it themselves on a pro rata basis. From today's point of view, it is advisable for anyone interested in photovoltaics to opt for self-consumption.



Important system components:



Solar modules

Converts the sun's light into direct current.



Mounting systems

SOL-50 fixes and secures the solar modules optimally on the roof surface - regardless of whether it is an on-roof, in-roof or flat roof.



Inverters

Converts direct current into grid-compliant alternating current.



Feed-in meter

Documents the amount of energy fed into the public grid.



Storage systems

Intelligent storage solutions help to use decentrally generated solar electricity power directly on-site.



E-charging station

The electric filling station for efficient mobility at home.

Always the right solution



Solar carport

It is a classic shelter, electric filling station and your own small energy power plant for feeding electricity into your own household or into the public grid.

The SOL-50 solar carport is almost infinitely expandable. It can be realised as a single, double or group carport - if desired also with storage room.

The completely pre-assembled kit consists of the solar modules, inverter, SOL-50 mounting system, H-anchors and the wooden construction.

100% technology

- pre-assembled premium kit (transport-friendly)
- for solar modules up to 50mm frame height suitable
- fulfils requirements according to Eurocode 1 and 9 ecologically, by avoiding the use of toxicological materials
- no additional sub-roof necessary - Premium mounting System

100% safety

- Premium mounting system
- VDE tested and certified
- exclusively corrosion-resistant materials
- complete system documentation

100% aesthetics & quality

- visible components available in any RAL colour
- powder-coated aluminium
- incl. high quality cover masks and end caps
- optimised against dirt deposits

100% performance

- quick installation due to insertion technology
- Time saving during maintenance or service work
- Optimum rear ventilation
- thus higher yields are guaranteed



Always the right solution



Agricultural buildings / businesses

Thanks to large barn and hall roofs, agricultural and commercial operations offer ideal conditions for solar power systems. In addition, there is often a large electricity base load due to cooling, lighting, servers, machines, heating and ventilation.

Especially due to the rising energy prices, photovoltaics makes sense for many businesses. The self-generated energy can be used directly in the own company. In this way, companies can become a little more independent of the public power supply and contribute to sustainable operations.

Further advantages for commercially generated solar energy:

- cheaply generated electricity for direct own use
- due to rising electricity prices still very good yield possibilities
- uninterruptible power supply through back-up systems. Grid failures can be minimised and the operational reliability can be increased
- calculable electricity price development thanks to own production

Industry / solar plants from 30 KWP

Industrial roofs usually consist of large areas with little shading and are therefore ideally suited as locations for high-performance solar systems. These surfaces are an important element of decentralised energy supply.

However, every industrial roof is a bit of a challenge for planners and installers. The roofs often have a low load-bearing capacity and roof penetration is usually not desired. In addition, the solar system must not negatively affect the company's business operations in any way.

SEN is a competent full-service provider for all PV solutions. As an authorised dealer of well-known manufacturers such as SolarEdge, LG Electronics, JA Solar, KOSTAL, Fronius, Meyer Burger, BYD and more...we consistently have quality products in our range which, together with our premium SOL-50 mounting system, cover all components of a high-quality and sustainable solar power system.

SEN photovoltaic systems are high-tech: they meet the highest quality standards and work for decades as a safe and clean energy source. Responsible for this are not only our engineers, developers and technicians, but also you - the SEN system partners: specialist installer companies that realize solar power systems throughout Germany with the support of SEN.

Photovoltaik mounting system SOL-50



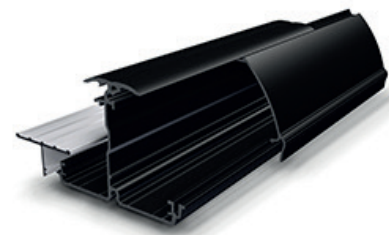
The best decision for your solar power system.

SOL-50 photovoltaic mounting systems are distinguished by their unbeatable, aesthetic appearance and an uniform module field. With the SOL-50 mounting system for photovoltaic modules, solar power systems do not look like a foreign body on the roof.

SOL-50 advantages at a glance

- The SOL-50 mounting system for photovoltaic systems offers an integrated anti-theft device as standard. The mandatory anti-slip device of the solar-modules offers protection against falling modules and is also included.
- DIBt (German Institute for Building Technology) - building authority approval for SOL-50 photovoltaic mounting system compliant with state building regulations, Approval no.: Z-14.4-726
- Durability of connections / electrical cables due to innovative cable routing system according to VDE (Association for Electrical Engineering)
- Optimised flow behaviour, reduced wind and whistling noise due to closed module field and adapted profile terminations
- Installation of the SOL-50 photovoltaic mounting system is also possible in island and coastal regions (wind load zone 4)
- More energy yields in winter due to slightly slipping snow layer
- More than 100.000 successful photovoltaic installations worldwide for over 20 years.
- Installation test winner, tested by DGS Berlin photovoltaik 10/2013 and pv magazine 03/2014

SYSTEM SOL-50



The SOL-50 photovoltaic mounting system is an insertion system. The photovoltaic modules are floating in the SOL-50 mounting system, no module clamps are used, expansion-related glass breakage / micro-cracks in the cells are minimised.

SOL-50 solar power systems are always customised for your photovoltaic project with the SOLDraft planning software with all relevant structural details for your photovoltaic project.



Our services for you



Workshops

The rapid development and upheaval in the photovoltaic industry is a challenge for everyone involved. With seminars and practical workshops at SEN, you can maintain your expertise on market and product developments, laws and requirements always up to date. The workshops are specially tailored to installers, specialist companies and planners.

Marketing & Sales

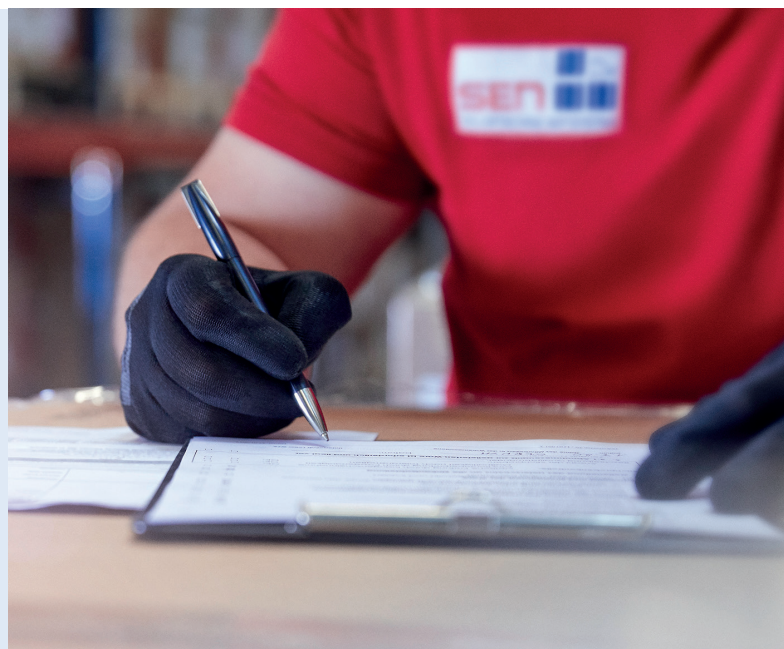
We would also like to support you in the area of marketing. For the right trade fair outfit, we offer you the rental of various trade fair exhibits and display items - simply contact us with your requirements and wishes. Beyond that we would also be happy to support you with various brochures, data sheets and other materials to actively acquire new customers.

SEN Training and Exhibition Centre

In our SEN training and exhibition centre we have the possibility to host and cater for up to 20 participants. In the adjoining exhibition rooms, there are many sample units displayed, which can be watched and „tried out“. This enables us to pass on our expertise and experience to you in the best possible and most practical way.

Manufacturer support

With us, you will find quick solutions to concerns about our brands and manufacturers.



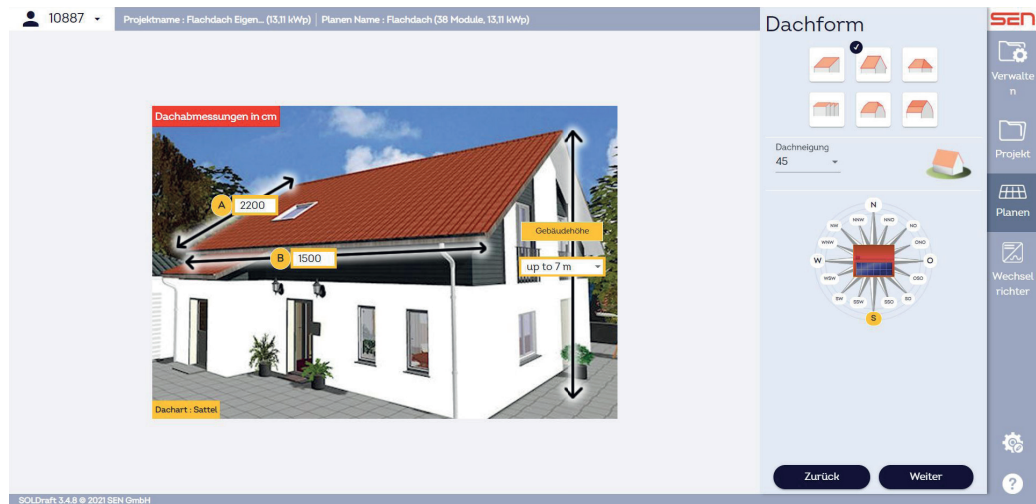
SOLDraft - Planning software for PV

No matter how extensive your photovoltaic project is or how often customer requirements change - with SOLDraft you can always achieve success in just a few steps.

Easy planning

From the static calculation of wind and snow loads according to DIN1055 to string assignment and DC component selection - with SOLDraft, planning solar installations is a piece of cake. Automatically generated proposals can be changed manually at any time - the planning process is not subject to any restrictions and can be carried out independently. The intuitive user interface and the multitude of automated processes promote productivity like no other planning software.

By using SOLDraft, you significantly shorten the planning and quotation preparation phases of your photovoltaic project. Whether at the customer, on the road or in the office - you can access your projects at any time. All you need is a browser and your access data. As a web-based software solution, SOLDraft is always up to date - time-consuming installations or updates are a thing of the past.



Create documentation

Professional documentation is as much a part of a photovoltaic system as the inverter and the solar module. SOLDraft generates the documents and forms selected by the user in the blink of an eye - regardless of whether it is a plant passport, inspection certificates, measurement and acceptance protocol, EVU application, Federal Network Agency application or plant images.

Forecast profitability

By entering just a few project and financing parameters, you can quickly and easily obtain important key points for preparing a quotation for your customer: The property and equity return, the investment and financing plan as well as the surplus or shortfall after taxes. Of course, the calculation of profitability is based on the current remuneration rates of the Renewable Energy Sources Act.

Order directly

SOLDraft generates complete parts lists that make your ordering process much easier. The data is quickly and securely transferred to the SEN online shop and the ordering process is processed at your wholesaler.

Newsletter

Stay up to date with us. We will inform you in good time about technical innovations, new products or seminars at the SEN Solar Centre.

Become an authorised SEN partner



Your SEN advantages at a glance

SOL-50 mounting system

- ✓ Premium system (incl. DIBT)
- ✓ Fast and safe installation
- ✓ Uniform module surface
- ✓ Aesthetic appearance
- ✓ One system for all roof types
- ✓ Tension-free installation
- ✓ No micro cracks & glass breakage
- ✓ Few components

Storage area

- ✓ Own large warehouse 6.000 m²
- ✓ Core range always in stock
- ✓ Fast delivery times
- ✓ Pick-up service possible
- ✓ Project commissioning
- ✓ Europe-wide dispatch / construction site delivery

Advertising & Marketing

- ✓ Comprehensive information material
- ✓ Instructions / brochures
- ✓ Product videos / documentation
- ✓ Mobile SEN exhibition stand
- ✓ Informative newsletter
- ✓ Media support
- ✓ Attractive special offers

Workshops / seminars

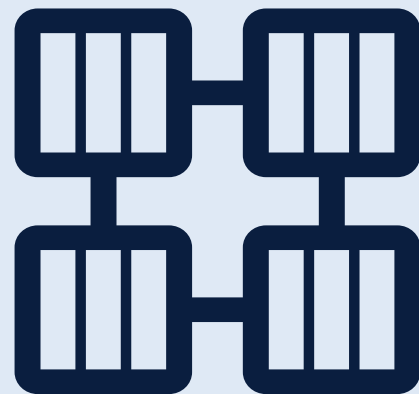
- ✓ Large training centre
- ✓ Up-to-date seminar program
- ✓ Practical SEN workshops
- ✓ Partner workshops
- ✓ Modern equipment
- ✓ Constant knowledge updates
- ✓ Practice assembly hall

SOLDraft

- ✓ Project planning tool
- ✓ Intuitive user interface
- ✓ Fast & uncomplicated
- ✓ Online version, always up to date
- ✓ Available everywhere via web
- ✓ Complete documentation
- ✓ Integrated online shop

100% quality

- ✓ Strong range of brands
- ✓ Innovative partners
- ✓ Constant product innovation
- ✓ Own quality controls
- ✓ External inspection bodies - external testing centres
- ✓ Important certifications
- ✓ DIBt approval



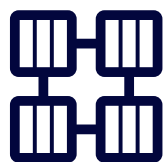
Sales team

- ✓ Office & field service team
- ✓ Personal contact persons
- ✓ Competent advice
- ✓ Fast response time
- ✓ Fast quotation
- ✓ Fast project planning
- ✓ 24/7 SEN online shop

Click here to register

- www.sen.de
- [Become an authorised SEN partner](#)

It only takes 2 minutes to fill in all the registration data.



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