

Partner of the crafts

More quality and service
for solar professionals.



EWS

Specialist wholesaler since 1985

 **photovoltaics.eu**
The best brands from one source

Trinasolar

Solar
JinKO

LONGI

LUXOR
solar module manufacturer since 1977

 **REC**

SMA

Fronius

KOSTAL

solar**edge**

 **HUAWEI**

 **solis**

KACO 
new energy

 **NELTA**

Tigo[®]



 **LG**
Life's Good

 **fenecon**

RCT
power


K2
systems

ALTEC
METALLTECHNIK

ESDEC
INNOVATIVE MOUNTING SYSTEMS

 **MENNEKES**
MY POWER CONNECTION

HARDY BARTH
emobilität

Our services



Your way to business success

We are a specialist wholesaler for photovoltaic components and see ourselves first and foremost as a partner to the crafts. We support solar installers in many ways. This allows you to assert your position in the market and present yourself to your customers in the best possible way.

We offer you:

- **planning and distribution of high-quality solar electric systems and single components**
- **practical experience since 1985**
- **a team of experts and one personal contact**
- **local support from our field sales force**
- **attractive sales conditions and terms of payment**
- **just-in-time delivery from EWS warehouse**
- **individual sales support**



Marketing packages and sales aids

Support at in-house exhibitions and with customer acquisition, e.g. loaning of exhibits, print templates and much more



Technical information

Regular newsletters and mailings as well as professional knowledge in our EWS partner area



Advanced training & tutorials

Numerous special events and presentations at fairs, in our suppliers' and in our own seminar rooms



Professional information

EWS partner login and regular e-mail newsletters



Customer leads

Forwarding prospective customer leads to partner companies with QuickPlan, our planning and communication tool for photovoltaic projects



Our requirements to photovoltaic products

When selecting our suppliers we attach great importance to many years of production experience, a well-established quality management and unique selling points.

These include among others:

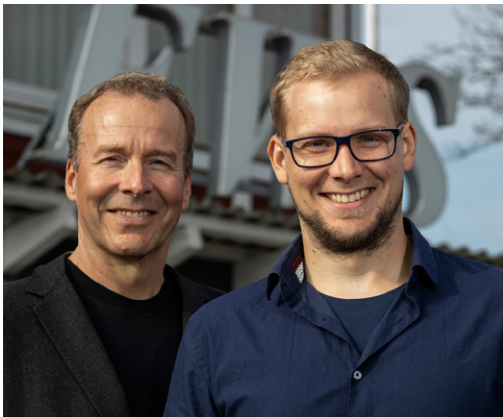
- Outstanding product quality
- Best price-performance ratio
- Reliable long-term warranty commitments
- Resource-conserving and sustainable production and recycling processes

As a general rule, at EWS, we only offer those products and services to our customers which meet all requirements, including our own.

In our exclusive EWS partner area we offer you quick access to the latest product information, sales aids, seminar offers and our free online tools.



On the following pages, see for yourself the advantages of the photovoltaic components and services we offer, which will make your work easier.



Managing Director Kai Lippert and his son Jan Paul Dahm

Partner of the crafts

We are system providers

A solar installation is only as efficient as its weakest component. Therefore, we only combine the high-quality and long-term tested components from leading manufacturers to customised systems.

EWS – a reliable partner

EWS has been an industry leader since 1985. As a specialist wholesaler, we maintain long-standing and successful partnerships with a steadily growing number of specialist companies in Germany and Northern Europe.





Our online tools

We program our software solutions ourselves so we can always adapt our digital tools to our customers' needs and wishes. This way you work faster and more securely! Use our knowledge and digitalise all processes in sales and in communication with customers and suppliers with our online tools.

All free and without license fees!

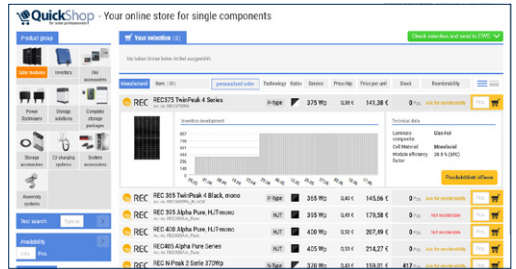
Less work for you

Our online tools reduce your efforts in customer acquisition, project planning, calculation and purchasing.

- **Centralised product data**
- **Keep your data always up-to-date**
- **Keep track of all projects**
- **Connect project data through all online tools**



Our prices

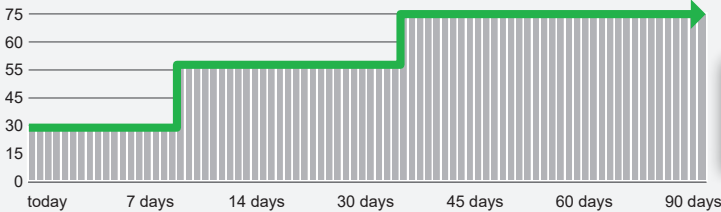


Curated shopping experience online

In **QuickShop**, PV professionals see everything in one place, not only product features, prices and stock, but also the availability prognosis of

all products in the coming months. This allows you to plan quickly and reliably.

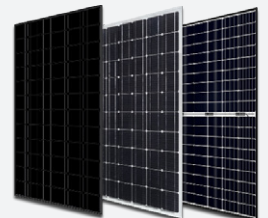
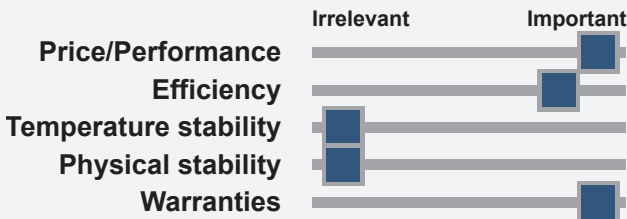
Availability over time

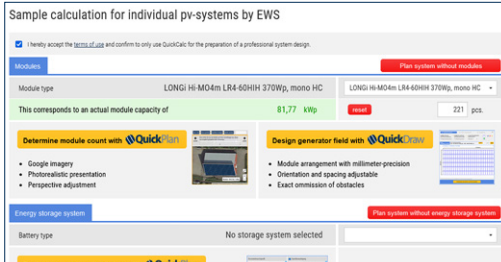


For the first time, you can influence the product recommendations by personal preference. This way, QuickShop is sure to become the perfect expert advisor for purchasing and component selection for you, too.

- Convenient sorting and filter functions
- Suggestions for alternatives and accessories
- Shopping cart with component comparison
- Automatic freight cost calculation

Individualised recommendations





Complete systems quickly calculated and individually designed

So that you can always calculate your purchase prices for complete systems quickly and up to date, we provide you with our online calculation tool **QuickCalc** in our exclusive EWS partner area.

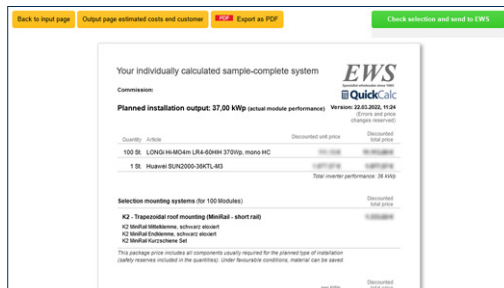
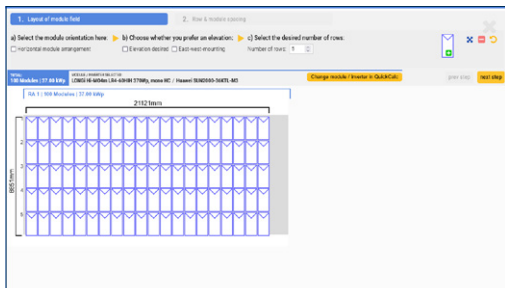
With just a few clicks, you can estimate the total costs of a PV system in any system size and product combination you want – including a detailed storage design if desired.

QuickDraw And our tool can do much more: With the QuickDraw drawing tool, which is embedded directly in QuickCalc, you can design the module array down to the millimetre and create a technical inverter design including string diagram in no time at all.

If you wish, you can also create a non-binding cost estimate for the end customer right away, taking into account your margin and assembly costs.

Feature overview:

- **Simple customisation of complete systems**
- **Module array layout accurate to the millimetre incl. string diagram**
- **Technical inverter design/ recommendation**
- **Detailed, informative project documentation in no time**
- **Personalised end customer offer with custom letterhead**



Our planning and communication tools



More time – more security – more success

With **QuickPlan**, our design tool for solar projects, you create project drafts, evaluations and documentations in no time.

This does not replace the professional planning following an on-site visit. However, QuickPlan creates a meaningful overall picture out of the most important success factors and provides the data basis for the detailed project planning in case of an order. If desired, the module field can be designed via Google Maps.

The collected project data can be shared between you, your customers and the EWS tendering department via the QuickPlan project administration in a convenient, time-saving and well-organised way.

In addition, we offer you the opportunity to integrate our planning tool on your website, thus, providing you with a nice online upgrade. The integration as well as the use of the tool are free of charge. All inquiries generated there will reach you directly.

For more information on QuickPlan and your direct access to the tool, please go to:
www.photovoltaics.eu/quickplan

- **All-in-one solution: photovoltaic planning tool and communication platform**
- **Intuitive to use, no special training required**
- **No license and maintenance costs**
- **Quick cost estimate with calculation tool QuickCalc which is integrated seamlessly**

Object data |

Type of object: Saddle roof

Type of constructions: New system

Calculate module field: 42.1 m²

Roof pitch: 30°

South-deviation: East West

Horizontal power output of the solar panels: 370 Wp

System location: **Handwitt (24913)**

Effective annual solar radiation at the location: 1462.88 kWh/m²

Estimation of system size, yield and price

Parameter	Value
System size	8.1 kWp
Annual system yield	8,058 kWh
Annual CO ₂ savings	2,984 kg

Calculation: gree4 (including VAT) | VAT: 25 %

Comparison of your solar electric system with/without 5 kWh-battery storage system

Metric	With battery storage system	Without battery storage system
Level of self-sufficiency	46.94%	43.84%
Return on investment	2.26%	1.73%
System price	16,302 €	12,737 €

Energy storage systems may provide emergency power (when needed) and reduce grid expansion costs and grid fees.



Free, substantial content for your website

With **QuickContent**, our website configurator for solar professionals, we provide you with a tool to keep your website up-to-date and to give it a professional look.

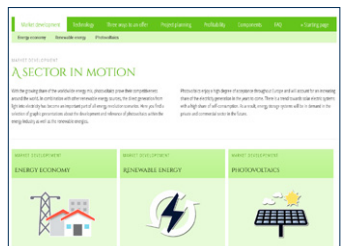
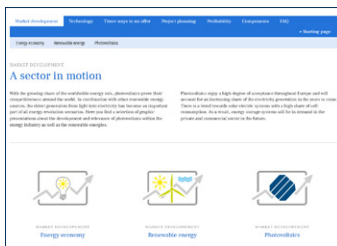
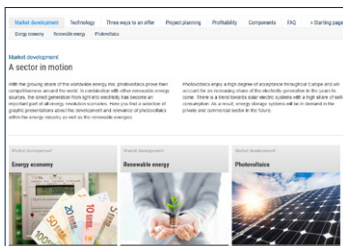
QuickContent contains a wide range of ready-to-use content elements on the aspects of solar power, e.g. informative texts, 3D animations and diagrams. These can easily and seamlessly be integrated into your website. All contents, technical data and general framework are constantly updated by us.

With just a few clicks, you can easily select, test and alter the composition of the contents without any obligation and at any time.

Simply log into our exclusive partner area (www.photovoltaics.eu/login) and customise your content package. It does not get any easier and more comfortable than that.

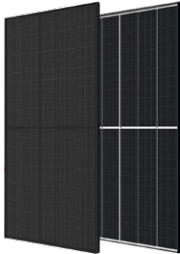
- **Automatic update of your website – without any investments or usage fees**
- **Planning and communication platform QuickPlan is integrated**
- **Viewable and usable on all mobile devices**
- **Create your customised design from a wide variety of styles, colours and fonts**

Our know-how tailored to your website design!



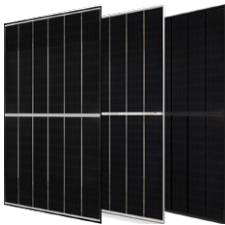
Our solar modules

Trinasolar



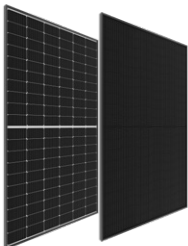
Trina Solar is a global leader in integrated solar energy solutions. The company was founded in 1997 and is active in more than 100 countries and regions today. Trina Solar develops photovoltaic modules, energy storage systems, intelligent system and operator solutions and offers its customers customised solutions for system integration. As a vertically integrated manufacturer, Trina Solar focuses on the constant advancement of products, manufacturing processes and innovative technology.

JinKO Solar



Since its foundation in 2006, **JinkoSolar** has become one of the largest and most innovative manufacturers of solar modules worldwide. The listed corporation (NYSE: JKS) with its headquarters in Shanghai produces and distributes high-quality solar products to an international customer base for utility, commercial and residential applications. In addition, JinkoSolar runs one of the largest R & D centers in the business as well as UL certified testing labs for solar modules – ensuring the highest possible quality standards.

LONGi



LONGi Solar, founded in 2000, is a leading global manufacturer of high-efficiency monocrystalline solar cells and modules. The company with headquarters in Xian (China) was initially involved in semiconductor technology research and today covers the entire value chain, from ingot, wafer, cell and module production to downstream energy services. This enables competitive cost structures and highest quality standards.

EWS

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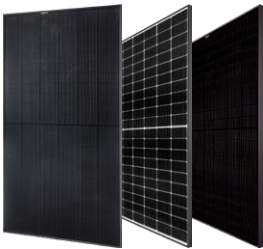
LUXOR

solar module manufacturer since 2007



Luxor Solar is an owner-managed medium-sized company with headquarters in Stuttgart. The module manufacturer places special emphasis on the durability and reliability of its products. Strict standards with 100 % optical and technical quality controls of incoming cells and outgoing modules ensure an outstanding performance over the entire operating time, which is of major importance for safety-oriented solar plant operators. Sustainable management and innovative products are the basis for the company's long-term success.

REC



Founded in Norway in 1996, the **REC Group** is one of the leading European brands for solar PV panels. The company owes its success to consistently high quality standards in terms of products, manufacturing, reliability and the responsible use of resources along the entire value chain.

In addition, REC is widely regarded as a trusted partner, thanks to its Solar Professional Partner Program for installers.



Our inverters



With innovative solutions for all photovoltaic applications and an extensive service concept the **SMA Solar Technology AG** provides its customers all over the world with more independence in the use of energy.

The company, which was founded in 1981, offers the right product for all module types and sizes, from kilowatt to megawatt. The production, e.g. in Niestetal (Germany), ensures extreme flexibility, high efficiency as well as low costs.



The **Fronius** Business Unit Solar Energy has developed solar energy solutions since 1992. With its vision of “24 hours of sun” the company works every day to create a future in which the world’s energy needs are covered by 100 percent renewables. Fronius offers a comprehensive product portfolio with broad monitoring and communication functions. The inverters, EV chargers and storage solutions allow for intelligent supply concepts, which include e.g. heat generation or electric mobility.

KOSTAL



KOSTAL Solar Electric is one of the leading suppliers of innovative string inverters and storage systems for private and small commercial photovoltaic systems. As a provider of intelligent energy production and its use, the Freiburg-based company cooperates closely with various partners, e.g. in the field of smart home or e-mobility. The solutions for the future energy are developed and produced in Germany. In doing so, the KOSTAL Group benefits from its experience of more than 100 years as a supplier in the automobile industry.

solar**edge**



In 2006, **SolarEdge** revolutionised the solar industry with the invention of a more efficient system for power generation and energy management of photovoltaic systems. Today, SolarEdge is a global leader in intelligent power engineering. In contrast to traditional inverter systems, the company relies on decentralised control and monitoring of module-level energy production. At the heart of it all are power optimisers. These are combined with a monitoring platform and an inverter which is reduced to the core functions and therefore less expensive.

HUAWEI



Known as one of the leading global providers of information and communication technology, **Huawei** offers a wide range of smart inverters, optimisers, storage systems and the comprehensive FusionSolar management system. Their portfolio covers private households, industrial and commercial systems as well as ground-mounted systems equally. The focus is on customised inverter and storage solutions with high flexibility, compatibility and easy handling in everyday life.

DELTA



The **Delta Group**, founded in Taipeh in 1971, develops and produces electronic components for energy management and power optimisation. It is the global leader in switching power supplies and DC brushless fans, which are used in a broad range of IT, telecommunication, automotive, industrial and consumer electronics products and devices. Since 1999, the subsidiary Delta Electronics has invested in the development and global marketing of highly efficient solar inverters for residential, industrial and commercial applications.

Our inverters



Ginlong Technologies was founded in 2005 in Ningbo, China, and is today one of the world's leading manufacturers of hybrid and solar inverters. The listed company markets its solutions for private households, companies and large-scale power plants under the brand name **Solis**. Solis inverters, based on innovative string technology, offer first-class reliability confirmed by the most stringent international certifications. Thanks to a global supply chain and first-class capacities for research, development and manufacturing, Ginlong can optimise its products for each regional market. Customers can rely on support of local teams of experts.



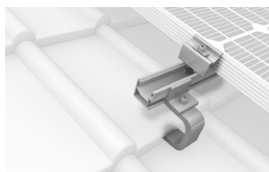
KACO new energy is a German company that develops and manufactures inverters, monitoring devices and PV accessories "Made in Germany". The company, founded in Heilbronn in 1984, has been a subsidiary of Siemens AG since 2019 and is its specialist for power electronics and decentralised energy supply.

The focus is firmly on outstanding quality, social and ecological commitment and customer and employee satisfaction. Once a medium-sized company, KACO new energy has grown into an international market leader for inverter technology.



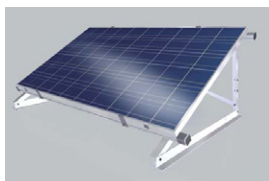
Our mounting systems

EWS
Specialist wholesaler since 1985



As a rooftop specialist, **K2 Systems** has developed economical system solutions for the international solar industry since 2004. The product portfolio of the medium-sized company from Renningen, Baden-Württemberg, includes high-quality mounting systems for pitched and flat roofs as well as for special projects.

The installation of the modular mounting systems is fast and simple as the systems have uniform components.



ALTEC Metalltechnik GmbH is a globally successful provider of solar mounting systems as well as a supplier in the field of metal sheet processing. With more than 20 years of experience in the metal industry and a fascination for solar energy, the company is a competent partner for solar mounting systems, customer-oriented concepts and solutions. ALTEC does not offer one system, but complete solutions – from planning and construction through statics to customer service. This is the guarantee for effective and professional solutions.



ESDEC develops, manufactures and supplies innovative and time-saving mounting systems for the installation of solar modules on flat and pitched roofs. The company was founded in 2004 by Dutch installers and has become the global leader for high-quality rooftop projects and mounting solutions. Primary focus of the Deventer-based company is a high reliability of all products in all weather conditions and their sustainability from manufacturing to shipping. ESDEC has international expertise and continuously invests in innovation and R&D. ESDEC products secure millions of modules in Europe, North America and Asia.

Our storage solutions



The **BYD Company Ltd.** is the world's largest manufacturer of rechargeable batteries and leading provider of electric vehicles. The Chinese company from Shenzhen, which was founded in February 1995, has today over 230,000 employees worldwide. Among others, BYD has production sites and sales offices in Europe, America, Japan and India. As the first major corporation BYD ("Build Your Dreams") covers the entire energy chain – from generation over storage to consumption.

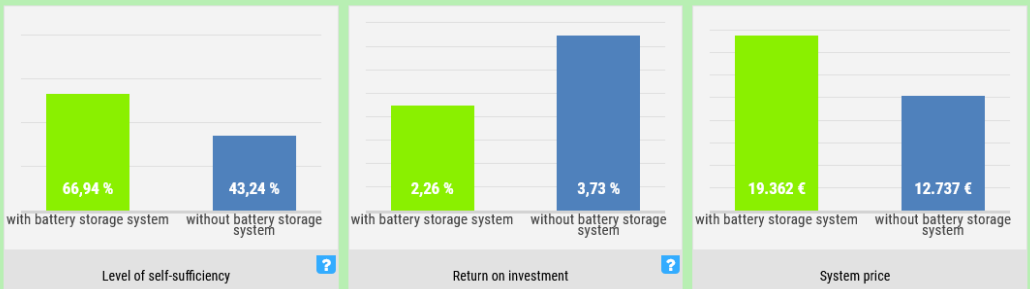
LG Energy Solution




LG Energy Solution, a subsidiary of the Korean chemical company LG Chem, is one of the leading international manufacturers of lithium-ion batteries.

Under the brand RESU the company produces different series and models of stationary energy storage systems. They are especially valued for their technical sophistication and innovation combined with a compact design and easy installation.

Comparison of your solar electric system with/without 5 kWh-battery storage system *(Estimate based on assumptions which you can compare with your data)*



 Energy storage systems may provide emergency power (when needed) and reduce grid expansion costs and grid fees.

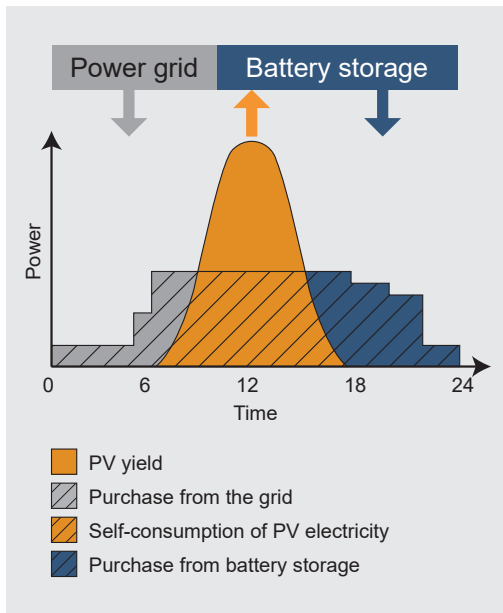
Screenshots from QuickPlan showing level of self-sufficiency, return on investment and system price

Commercial storage – simply economical, simply safe

Whether for peak load shaving, increasing self-consumption, emergency power supply or avoiding grid expansion costs, **FENECON's** Commercial 30 and Commercial 50 series and **SMA's** SMA Energy System Business offer individual and pragmatic storage solutions as a modular system for the various areas of application in the commercial sector.

These complete systems consist of battery inverters, a solar battery of suitable capacity and a smart energy management system. Extensive warranty services as well as support during planning and commissioning complete the offer.

- Self-consumption optimisation**
 Use more cheap, self-generated solar power and reduce operating costs with an electricity storage system
- Emergency power supply**
 Use battery storage to safeguard against power outages and create more comfort and security
- Peak load shaving**
 Reduce load peaks via an electrical storage system and optimise the electricity tariff
- Avoidance of grid expansion costs**
 Invest profitably in an electricity storage system instead of a new grid connection



Our storage packages

RCT
power



RCT Power GmbH is a manufacturer of inverters and stationary high-voltage storage solutions for private residential buildings and small commercial applications - and one of the few suppliers that develops and calibrates them themselves.

Since its foundation at the end of 2015, an experienced team of experts from the field of high performance electronics has been working on innovative solutions for a better and long-term use of solar energy at the company's headquarters in Constance on Lake Constance.

 **fenecon**



Founded in 2011 with headquarters in Deggendorf (Germany), the management-owned **FENECON GmbH** is a leading provider of energy storage systems of all sizes. In particular, the market for commercial storage systems has been defined by this innovation leader from the start. The stationary energy storage packages include high-performance batteries, efficient inverters and the FENECON Energy Management System (FEMS) which is flexible and modularly expandable at any time.

 **LG**
Life's Good








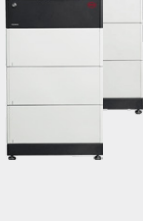







LG Electronics, founded in 1958 in Seoul in South Korea, is a globally active company for consumer electronics, telecommunications and household appliances with a great deal of experience in mass production. In the solar sector, the listed company offers fully integrated battery storage systems. The storage solutions of the LG ESS Home label are particularly suitable for maximising self-consumption in the home and are characterised by simple battery expansion and high flexibility in design. A reliable emergency power supply is optionally available.

All-In-One or Mix & Match – your choice




Whether hybrid DC combination and AC retro-fit solution from scratch or all components from a single source: Our storage packages leave nothing to be desired and allow you maximum flexibility for individual scenarios. All solutions are scalable in terms of inverter and storage capacity, and the capacity can also be expanded at a later date. In this way, the system also

grows with future requirements for self-consumption and self-sufficiency. Some system combinations even enable backup power supply from PV generation and already stored energy. All systems can be monitored via dedicated platforms and smartphone apps and the energy flows can be clearly displayed - for more transparency and operational reliability.

 <p>Fronius Fronius GEN24</p>	+	 <p>BYD Battery-Box Premium HVS</p>
 <p>SMA SMA Tripower Smart Energy</p>		 <p>BYD Battery-Box Premium HVC</p>
 <p>KOSTAL KOSTAL PLENTICORE plus</p>		 <p>BYD Battery-Box Premium HVC</p>
 <p>solis RHI-3P(5-10) K-HVES-5G</p>		 <p>BYD Battery-Box Premium HVC</p>
 <p>KACO blueplanet hybrid 10.0 TL3</p>		

 <p>solar edge SolarEdge HD-Wave</p>	+	 <p>LG RESU Prime</p>
 <p>SMA SMA Sunny Boy Storage</p>		 <p>LG Energy Solution</p>

 <p>Huawei SUN2000- 3-10KTL-M1</p>	+	 <p>Huawei LUNA2000</p>
		 <p>HUAWEI</p>

 <p>SolarEdge Home Hub-Wechselrichter</p>	+	 <p>SolarEdge Home Battery</p>
		 <p>solar edge</p>

Our EV charging systems

 **MENNEKES**
MY POWER CONNECTION



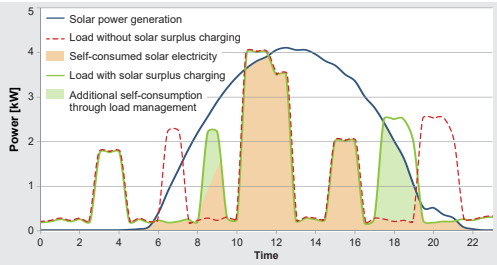
MENNEKES Elektrotechnik GmbH & Co. KG is a leading manufacturer of industrial plugs and sockets and also a provider of automotive and electromobility solutions. MENNEKES attaches particular importance to the manufacturing quality and safety of its products. In the e-mobility sector the family business, established in 1935, offers many technologically advanced and practical wallboxes, smart and connected charging stations, vehicle connectors and charging cables and billing solutions.

HARDY BARTH
emobilität



Hardy Barth GmbH specialises in electrical engineering, energy and electrical design as well as e-mobility. The medium-sized company develops and manufactures a wide range of modern wallboxes and charging stations as well as components for energy management for private and public applications. Hardy Barth places special importance to providing products for integrated systems. In-house production enables Hardy Barth to respond quickly to customer demands and pursue constant innovation in their product lines.





E-mobility and photovoltaics

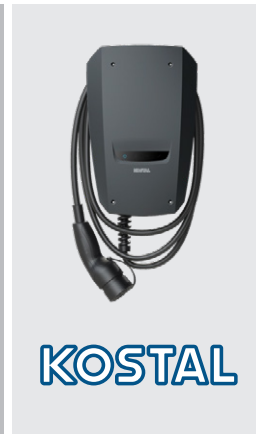
Increase self-consumption and drive green: The combination of electromobility and photovoltaics offers a variety of synergy effects. Electromobility gets even better when environmentally friendly and economically generated electricity is used, for example from a photovoltaic system.

The investment is quickly recouped in the form of the fuel costs saved, provided the company's own solar power is used to charge the battery.

Smart EV chargers utilise solar surplus

Our available EV chargers are designed for solar surplus charging and have the corresponding features:

- **Automatic phase switching enables optimisation of PV self-consumption**
- **Intelligent energy management with forecast-based charging**
- **Fast charging possible even without PV power from the grid**



Also in our portfolio

Tigo®



Founded in 2007, **Tigo Energy** is the worldwide leader of optimizers. Its mission is to deliver smart PV solutions that enhance safety, optimise performance and ensure long-term monitoring. The company's headquarters are in Silicon Valley. Tigo's modular TS4 platform maximises the benefits of PV systems and provides a scalable, versatile and reliable MLPE (Module Level Power Electronics) solution.

 **Solar-Log**™



Solar-Log is one of the leading providers of solutions for PV monitoring, smart energy and feed-in management from Geislingen-Binsdorf in Swabia. Founded as a start-up in 2007, the company has been a subsidiary of BKW AG based in Bern since 2015. As an universal solution for intelligent and inverter-independent energy management "Made in Germany", Solar-Log products can be customised for every system size, from private domestic systems to large commercial ones.

 **LAPP**



Since its foundation in 1959, **LAPP Germany** has stood for innovative connection solutions. With the help of state-of-the-art production technology, the Stuttgart-based company manufactures durable solar cables in a wide range of cross-sections and colours. Every product shares the uncompromising quality "Made in Germany" and is always available quickly and easily thanks to a global network of specialist partners and logistics centres.

EWS

Specialist wholesaler since 1985

HIS

we connect solar energy



As one of the leading international manufacturers of battery cables, string collection boxes, surge protectors and wiring systems, the family-owned company **HIS Renewables** from Oberzent in Hesse is the contact for ready-to-plug solutions in the PV sector. The product range extends from components for systems in private households, industrial and commercial solutions to cables for EV chargers and systems for fast and uncomplicated electromobility - on small and larger scale.

enwitec

electronic



This manufacturer provides decades of experience in complete AC and DC connection technology for PV systems. For Bavarian **Enwitec Electronic**, quality is at the top of its company hierarchy, followed by innovation, sustainability and service in all aspects of solar system wiring. Their grid switch boxes offer backup power operation. The patented “BAT Breaker” provides additional protection for battery storage units from many leading manufacturers.





photovoltaics.eu

The best brands from one source



Benefit from us!

*"As a partner of the crafts,
my team and I are ready
and glad to help you."*

Give us a call!



Stefan Ebert
Sales & Marketing Director

EWS

Specialist wholesaler since 1985

Am Bahnhof 20
DE-24983 Handewitt
www.photovoltaics.eu

Tel.: +49 46 08 - 67 81
Fax: +49 46 08 - 16 63
info@photovoltaics.eu