



SMA COMMERCIAL ENERGY SOLUTION

My business. My energy. Our climate.

Save up to 80% on energy costs with solar power.



Generate solar power for optimal consumption



Store solar power and use it flexibly



Manage and distribute solar energy



Refuel with solar power



Heat with solar power



Sell your solar power directly and with ease



Grid independence with solar power





SMA Commercial Energy Solution

The sun delivers valuable energy to your home every single day – completely free of charge. A PV rooftop system allows you to generate electricity for your business, save up to 80% on your energy costs, and actively help shape the energy transition.



**One solution.
Everything from a single source.**

The **SMA Commercial Energy Solution** is the perfect combination of high-quality equipment, smart software and exceptional service. Its modular design means that getting started is easy, and your solution can be upgraded to suit your budget and individual needs at anytime and with zero hassle.



Generate solar power
for optimal consumption

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Store solar power
and use it flexibly

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Manage and distribute
solar power

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directly and with ease

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Grid independence
with solar power

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Generate solar power for optimal consumption.

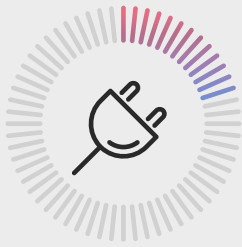
The SMA Commercial Energy Solution helps you cut your energy costs permanently, starting now. Harness the unlimited power of the sun to generate cost-effective and sustainable solar power. That means less dependence on power companies and no more worries about rising electricity prices.

The driving force behind your business.

SMA Energy Systems specialize in making practical use of as much self-generated power as possible. The more of your energy needs that you can cover yourself, the less you are forced to buy from the utility grid. This means that your PV system will pay off much more quickly than if you feed most of your power into the utility grid. After all, you receive only a fraction of the electricity price as a feed-in tariff. Alternatively, you can store the electricity in a battery for later use. On the following pages, you will learn how a storage solution can make you even more independent of utility companies.

Benefits

- Reliable and consistent energy yields thanks to up to 150% overdimensioning of the PV array
- Covers a broad range in the power classes 12 kW, 15 kW, 20 kW, 25 kW, 50 kW and 100 kW
- Intelligence installed by default with the integrated system manager and modular design enables expansion to accommodate future energy management functions at any time



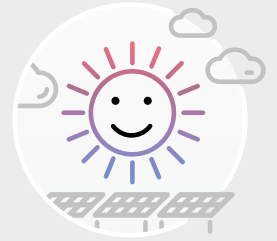
Lower energy costs by up to 80%.*



Planning reliability and protection against rising energy prices.



Rapid ROI (return on investment) and potentially very high yields.



Enhanced corporate image due to demonstrated commitment to climate protection and active conservation of resources.

* If you implement all SMA Commercial Energy Solution applications.

SMA Sunny Tripower X inverter

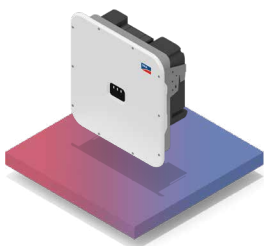
The driving force behind your business.

The Sunny Tripower X is the latest in commercial energy use and the new centerpiece of our proven SMA Commercial Energy Solution. Development has incorporated 40 years of experience in photovoltaics, opening up all kinds of opportunities for utilizing solar power both now and in the future. Thanks to the integrated system manager, it ensures that small and medium-sized businesses as well as large-scale private systems are ideally prepared for the energy market.

State-of-the-art technology coupled with the usual high standard of service from SMA enables comprehensive, cost-effective and climate-neutral energy generation that will insulate you from the effects of rising energy prices. The modular system structure allows for varied and personalized usage as well as seamless integration in the overall system, optimized to suit the energy management functions of the future.

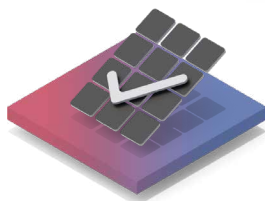


Components of the solution.



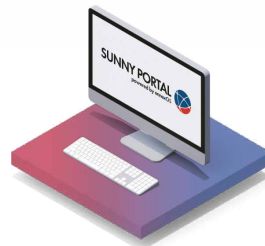
PV inverter

The Sunny Tripower X is the solution for commercial energy generation with intelligence pre-installed. In addition to the Sunny Tripower X, the Sunny Tripower CORE1 and Sunny Tripower CORE2 round off the product range up to 110 kW.



SMA ShadeFix

SMA ShadeFix is a proprietary and integrated inverter capability that optimizes the yield of PV systems in every situation – Even in the shade.



Sunny Portal

Enables easy and efficient online monitoring of your SMA Commercial Energy Solution.



SMA Smart Connected

Premium monitoring service for reliable system monitoring.



Store solar power and use it flexibly.

Your PV system sometimes generates more power than you need. A battery storage system allows you to store solar energy so you can use it precisely when you need it. That way, you can significantly cut your energy purchase costs.

Plan your energy costs for the long term and achieve maximum savings.

Combining photovoltaics with a battery-storage system is a worthwhile endeavor. You'll be able to declare independence from rising energy costs and have a secure supply of electricity even if there's an outage in the utility grid.* Reap the benefits of more self-generated solar power in your company's energy mix, avoid peak demand and enjoy cost-effective electricity rates. Using solar power doesn't get any more efficient than that.

*In preparation; as of 2024

Benefits

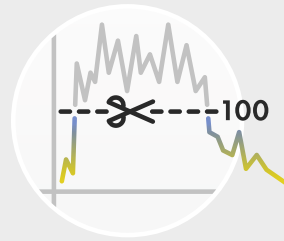
- Optimize your self-consumption, avoid peak demand – and even combine both these benefits through multiuse
- Take advantage of cost-effective electricity rates
- Less hardware thanks to integrated intelligence
- Can be used as a standby power source to safeguard your electricity supply even when the utility grid is down*
- Can also be used without photovoltaics



Lower energy costs by up to 80%.*



Optimize self-consumption and cut energy purchase costs.



Avoid peak demand and plan your energy costs for the long term.



Optimize your use of time-dependent and power-dependent electricity rates.

* If you implement all SMA Commercial Energy Solution applications.

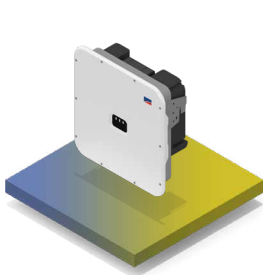
SMA Commercial Storage Solution

Packed with power—as much as you need.

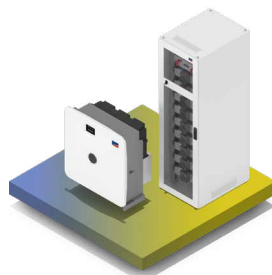
With the SMA Commercial Storage solution, you can take control of your own energy costs right now. Whether you need to charge your company cars, commercial vehicles, or your employees' own electric cars our solution keeps you on the move in a climate-neutral and cost-effective way and is capable of modular expansion. Here's something that's good to know: if your demand increases, you can upgrade your energy system to the megawatt range anytime. Up to 8,000 battery cycles and the robust product design allow for an extra long service life of up to 30 years for the storage solution. That makes for a particularly efficient energy supply with good returns. You can use SMA Sunny Portal or the SMA Energy app to keep an eye on your energy system at all times.



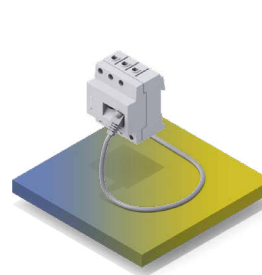
Components of the solution.



PV inverter
Sunny Tripower X, Sunny Tripower CORE1 or Sunny Tripower CORE2 convert solar power (direct current) to usable alternating current.



SMA Commercial Storage Solution
Temporarily stores solar power and makes it available as needed.



SMA Energy Meter
Monitors all energy flows in the system.



Sunny Portal & SMA Energy app
Set up simple and efficient online monitoring of your SMA Commercial Energy solution.



Manage and distribute solar energy.

Supply your operational loads with solar power, charge your electric vehicles in a climate-neutral way and manage your heating to optimize costs. Your SMA Commercial Energy Solution can even partially automate these processes. Intelligent energy management allows you to use your valuable solar energy with maximum efficiency.

Optimally coordinate all energy flows.

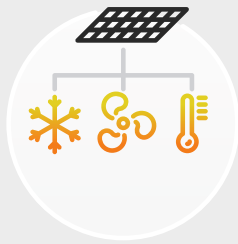
Get the most out of your energy system with the SMA Commercial Energy Solution. Intelligent energy management lets you use the maximum possible amount of your own solar power, charge your electric vehicle fleet in a climate-neutral way, cap expensive load peaks and benefit from inexpensive solar power.

Benefits

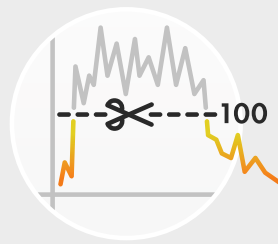
- Monitors, analyzes and controls all energy flows in your company
- Increases self-consumption of the energy you have generated and caps load peaks
- Thanks to initial consumption monitoring, the deployment schedule for the operational loads optimizes the costs incurred



Lower energy costs by up to 80%.*



Boost self-consumption of solar power with smart energy management.



Harmonize and partially automate control of energy flows to avoid load peaks.



One contact person for large parts of your energy supply.

* If you implement all SMA Commercial Energy Solution applications.

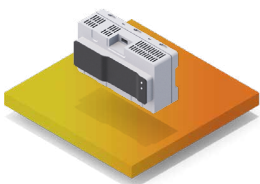
SMA Data Manager M

The brain of your SMA Commercial Energy Solution.

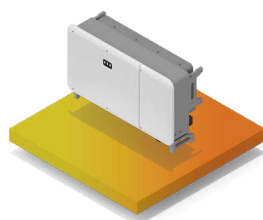
The intelligent solution staggers the times at which energy-intensive devices start, which helps to prevent load peaks. It stores unused solar power in the battery for later use. In this way, the SMA Data Manager M controls the entire energy system of your business and optimizes your costs.



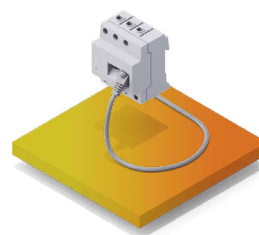
Components of the solution.



SMA Data Manager M
Energy manager that operates in conjunction with SMA Monitoring and is responsible for communication and overall system monitoring.



PV inverter
Sunny Tripower X, Sunny Tripower CORE1 or Sunny Tripower CORE2 convert solar power (direct current) to usable alternating current.



SMA Energy Meter
Monitors all energy flows in the system.



Sunny Portal
Enables easy and efficient online monitoring of your SMA Commercial Energy Solution.



Refuel with solar power.

Kick-start your company's mobility transition with the SMA Commercial eMobility Solution. It's a straightforward and convenient way of charging your company cars directly at your business location using electricity from your PV system. In doing so, you can save costs while integrating your e-vehicle fleet.

Turning solar power from your roof into kilometers on the road

Whether company cars, commercial vehicles or your employees' electric cars – our solution, which is capable of modular expansion, allows you to be on the move in a climate-neutral and cost-effective way. The SMA Commercial eMobility Solution uses the solar power from your PV system to charge your electric vehicles, allowing you to reduce your mobility costs and end your dependence on fossil fuels. The SMA Commercial eMobility Solution can be seamlessly integrated into your existing PV system.

Benefits

- Integrated approach with all-round support from planning to operation
- System capable of expansion with up to 20 charging points
- Double charging station including charging cable with a type 2 plug or type 2 charging socket
- Fast charging up to 2 x 22 kW
- Configurable charging power and dynamic charging load management
- Transparent charging costs for each charging process
- You can easily control, monitor and update remotely using SMA eMobility Portal (5 years free of charge)



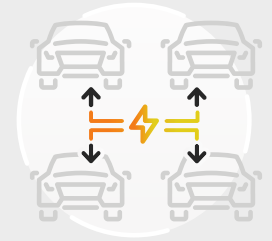
Protect the climate and reduce mobility costs



Fast charging with up to 2 x 22 kW



Free use of back end for five years



Increased safety thanks to charging load management

SMA Commercial eMobility Solution

Get the mobility transition moving today and benefit from many other advantages going forward.

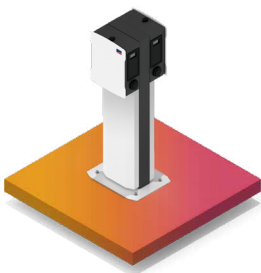
With your SMA eMobility Solution, you can boost-charge your electric vehicles with up to 2 x 22 kW - two vehicles at a time, if needed. The integrated dynamic charge load management function automatically protects your system against overload.

We are continuously upgrading our charging solution for you. To give your charging solution the flexibility to grow along with your company, we are working on a number of other attractive functions:

- Compliance with calibration laws
- GHG quota trading
- PV-optimized charging
- Energy management



Components of the solution.



SMA EV Charger Business
Charges your electric fleet quickly and conveniently.



SMA eMobility Portal
Lets you visualize your loading processes and manage your user profiles.



SMA Onboarding Service
Provides expert advice and assistance with setting up user profiles.



Heat with solar power.

With the SMA Commercial Energy Solution, you can use your self-generated solar power for heating and hot water. You'll save on heating costs and help protect the environment.

Minimize your heating bill and increase self-consumption.

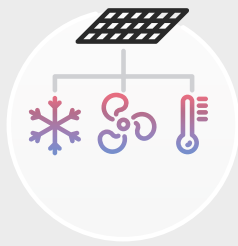
Combine your SMA Commercial Energy Solution with a heat pump to utilize your self-generated electricity for emission-free heating. This is not only environmentally friendly but also saves on the cost of buying fossil fuels. Instead of feeding unused solar power into the utility grid at unfavorable prices, you store it in your thermal energy storage system and so increase your self-consumption.

Benefits

- Keep a constant eye on your energy system via the online portal and SMA Energy app
- The yield forecast shows how much solar power your PV system is expected to generate over different time periods
- Your heat pump charges the thermal storage system when sufficient solar power is available and is not required by any other appliances



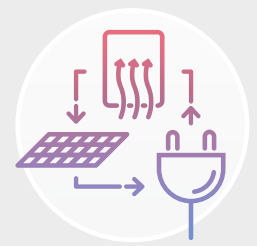
Lower energy costs by up to 80%.*



Boost self-consumption of solar power with smart energy management.



Heat your premises in an eco-friendly manner and reduce costs at the same time.



Integrate heating, power generation and consumption to create a holistic system.

* If you implement all SMA Commercial Energy Solution applications.

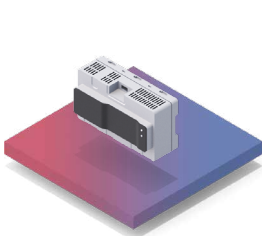
SMA Data Manager M

Cool calculations for your heating supply.

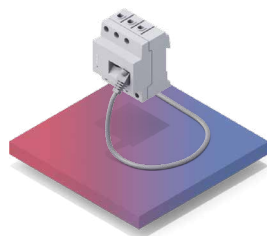
The SMA Data Manager M is also the core of your energy system when it comes to the heating supply. It ensures that solar power is prioritized for running the heat pump and surplus energy is stored in a buffer storage system. You can also integrate a combined heat and power plant or a boiler in the system.



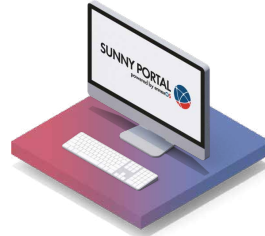
Components of the solution.



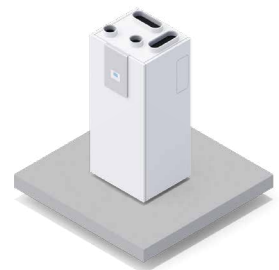
SMA Data Manager M
Energy manager that operates in conjunction with SMA Monitoring and is responsible for communication and overall system monitoring.



SMA Energy Meter
Monitors all energy flows in the system.



Sunny Portal
Set up simple and efficient online monitoring of your SMA Commercial Energy Solution.



Compatible heat pump
Or other power-consuming heating systems that need power to operate.

■ Basic component ■ External component



Sell your solar power directly with ease.

SMA SPOT makes direct selling remarkably easy. With perfectly harmonized system technology including remote control capability and online data monitoring, it lets you easily and sustainably integrate your PV system into your direct selling.

Turn your electricity into money.

SMA SPOT lets you easily enter the energy market by integrating your PV system into direct selling. One signature, one click, and that's it – the rest is taken care of automatically by your SMA Commercial Energy Solution in conjunction with the SMA Data Manager M. SMA SPOT can be activated at no extra cost and with just a few clicks when the SMA Data Manager M is commissioned. Electricity that you cannot utilize more cost-effectively or store yourself is fed into the utility grid – and you receive the corresponding yields. With the Sunny Tripower X, this function is all part of the package – thanks to the integrated System Manager. You do not need an SMA Data Manager M.

Benefits

- Cost advantage thanks to integrated remote control
- Perfectly matched system technology for fast commissioning and future-proof system operation
- Your own electricity demand can be flexibly adjusted
- Reliable feed-in tariff for the solar power fed into the grid



Additional yields through direct selling from PV systems starting at 100 kWp.



Become an energy trader with one signature, one click – and you're done! Find out more at **SMA-SPOT.de**



No extra hardware required means no extra costs.



Receive your revenue reliably and automatically.

SMA SPOT

Direct selling with one click.

According to the Renewable Energy Sources Act (EEG), new PV systems from 100 kWp are required to sell surplus power directly and cannot simply feed it into the grid for a fixed feed-in tariff. Many PV system operators avoid the time and effort for doing this by planning systems that remain just below this threshold – but they miss out on potential added income they could generate through direct selling.

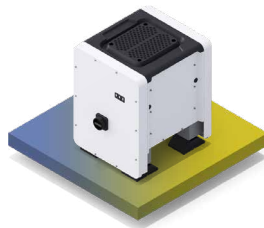


Components of the solution.



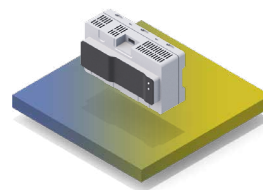
SMA SPOT

This direct selling service from SMA and the MVV direct marketer is the best way to sell your solar power on the energy exchange.



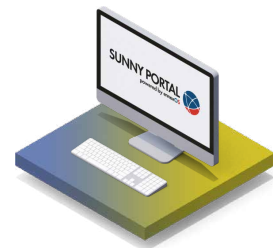
PV inverter

Sunny Tripower X, Sunny Tripower CORE1 or Sunny Tripower CORE2 convert solar power (direct current) to usable alternating current.



SMA Data Manager M

This energy manager operates in conjunction with SMA Monitoring and is responsible for communication and overall system monitoring.



Sunny Portal

Set up simple and efficient online monitoring of your SMA Commercial Energy Solution.



Grid independence with solar power.

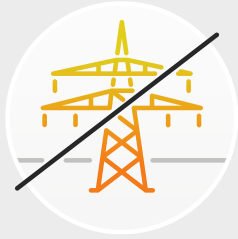
From a chalet in the Alps to an entire village – autonomous solar power supply systems work anywhere the sun shines.

Grid-quality solar power.

The SMA Commercial Energy Solution with battery-storage system provides reliable, grid-quality solar power for homes, lodges, commercial and industrial enterprises, and even remote islands. In regions with low electrification rates, they enable sustainable economic development without diesel fuel.

Benefits

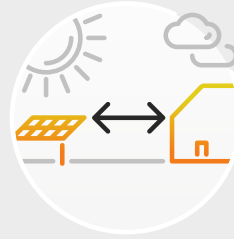
- Flexible options: single-phase operation or single-cluster system for three-phase off-grid and backup systems
- Reliable energy supply thanks to high overload capability
- Two AC connections for an uninterruptible stand-alone grid supply
- 10-year warranty when registering the product
- Reduced CO2 emissions
- Modular expansion at any time



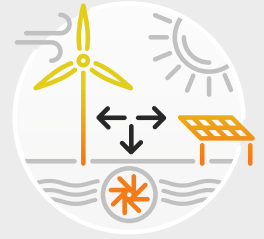
100% independence from the grid. Electricity and diesel cost savings.



Modular systems can be expanded if energy consumption rises.



AC coupling allows for long distances between energy sources and loads.



Multiple energy sources can be combined.

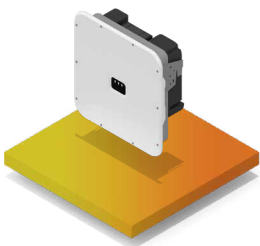
SMA Sunny Island battery inverter

Stand-alone grid without a diesel generator.

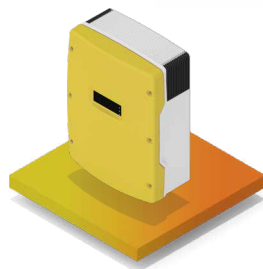
The SMA Sunny Island battery inverter is the heart and brain of any off-grid system. With its high overload capacity, this robust device reliably takes care of all load and generator management and can be expanded on a modular basis at any time.



Components of the solution.



PV inverter
Sunny Tripower X, Sunny Tripower CORE1 or Sunny Tripower CORE2 convert solar power (direct current) to usable alternating current.



Battery inverter
Sunny Island manages the off-grid system and ensures grid quality.



Battery
Stores solar power with exceptional efficiency and balances energy in the system.



Sunny Portal
Set up simple and efficient online monitoring of your SMA Commercial Energy Solution.



Independent thanks to its own PV and commercial storage systems.

Michael Nägele wanted his farm in the Allgäu region to be largely self-sufficient and to generate his own clean electricity. He installed a PV system on the roof of his dairy farm with an output of 100 kW.

Facts and figures

- Dairy farm (80 cows) with a milking machine, feeding robot, etc.
- Annual consumption of around 40,000 kWh
- 100 kW roof-mounted PV system
- Commercial storage solution enables higher self-consumption
- Up-front investment cost €130,000 (turnkey solution)
- Annual return: 6.4%
- Payback time: 11 years
- Self-sufficiency quota: 83%

80 cows, annual consumption of 40,000 kWh and an intelligent energy system.

Nägele gets by with almost zero electricity purchased from the utility grid thanks to his SMA Commercial Energy Solution that includes a commercial storage system. His energy system serves a variety of loads including the milking machine and feeding robots for 80 cows. Electricity that is not consumed immediately is fed to the commercial storage system and can be accessed whenever it is needed – in the evening or during the day, if the sun is not shining.

Thanks to the intelligent energy system, the dairy farm is currently 83% self-sufficient.

How the business produces, stores and consumes its own solar power:

The roof-mounted PV system covers almost all the business's energy requirements.

- A PV system with a nominal output of 99.9 kWp was installed on the roof.
- Two Sunny Tripower CORE1 devices convert the solar power to usable alternating current.

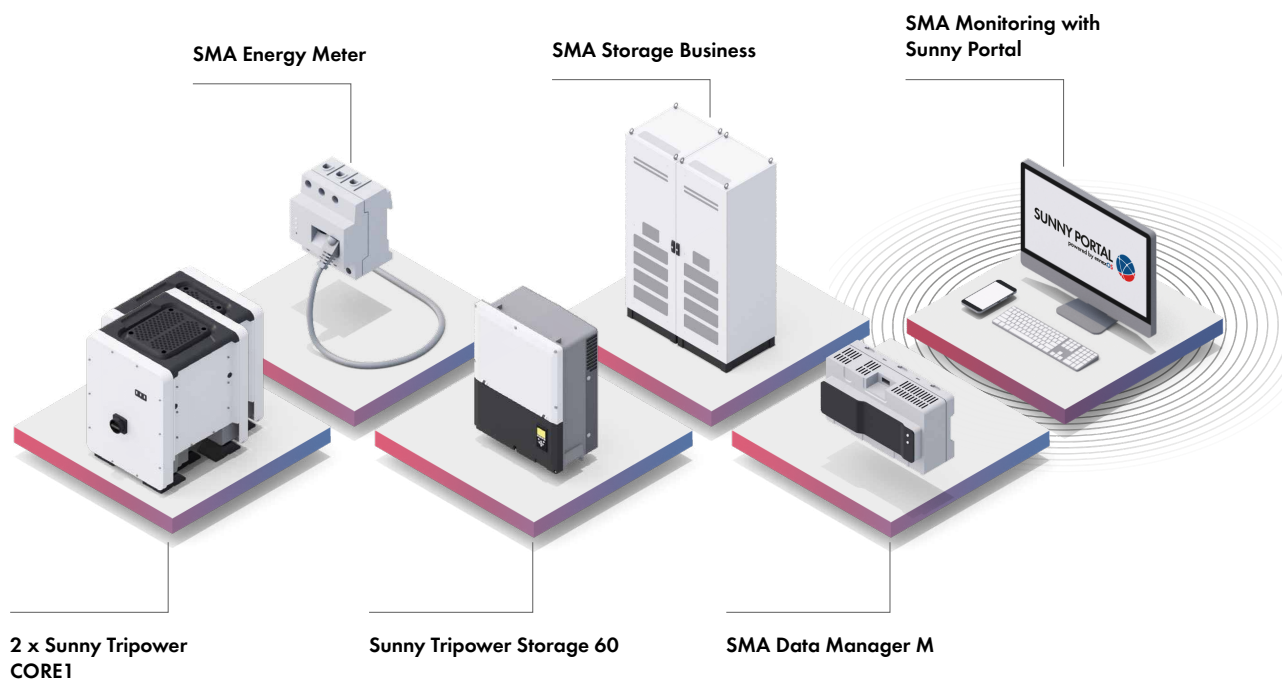
The commercial storage system boosts independence.

- Unused electricity is stored and can be accessed as needed at any time.
- Instead of purchasing additional electricity, the business can utilize the stored electricity and save money.
- The electricity from the battery-storage system cushions load peaks that would otherwise force up the electricity tariff.

The intelligent energy manager helps make the best possible use of the electricity.

- The SMA Data Manager M monitors and analyzes energy consumption.
- The start times of electricity-intensive processes such as cleaning the milking machine or mixing the feed are staggered.
- All the energy system activities are clearly displayed in the Sunny Portal.

The SMA Commercial Energy Solution at the Nägele dairy farm





118 GW

Around 118 GW of total installed SMA PV inverter power helps prevent more than 60 million tons of CO₂ emissions each year.

5,400 tons

Around 5,400 tons of CO₂ is the amount of carbon dioxide that our own PV systems, with a total output of 9.7 MW, save per year.

1.4 kg/kW

By reducing the amount of materials used in our products, we save resources and thus protect the environment. In 2022, we further reduced the average weight of our inverters to 1.40 kg/kW of inverter power produced.

Solutions suitable for global use.

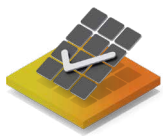
For 40 years, our products and solutions have been paving the way for a climate-friendly, decentralized energy supply of the future. In private homes, hotels, agricultural or commercial enterprises, and in power plants. In cities, in the country, in deserts, on islands and on mountaintops, even in Antarctica. Our devices and solutions function reliably even under the toughest conditions and comply with all international standards.

State-of-the-art test centers guarantee supreme quality.

Our inverters undergo extensive tests and quality checks in our certified test centers and our own PV systems. We can simulate the entire service life of our equipment in an accelerated process. This is how we continually increase the longevity of our inverters in extreme weather conditions – from intense heat or biting cold to high humidity, in sandstorms and where there are ground vibrations.

Your SMA inverter contains all key functions.

With SMA inverters, you benefit from an exceptionally streamlined system design. Our devices already contain everything you need for a secure and sustainable energy supply. Smart software features optimize the yield of your PV systems in every situation and at no extra cost.



SMA ShadeFix

It is not always possible to prevent dormer windows, chimneys, trees and other obstructions from casting shadows on PV modules. The proprietary integrated software feature optimizes your energy yield automatically and in every situation – even in the shade.



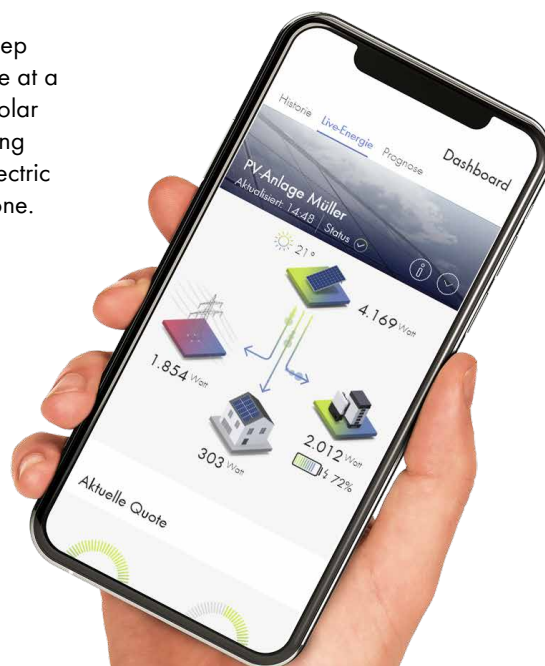
SMA Smart Connected

In case of malfunction, our free inverter monitoring function automatically provides your installer with the right diagnosis so they can service the device with pinpoint accuracy, minimizing downtimes for your system.



SMA Energy app

The SMA Energy app allows you to keep track of your business's energy balance at a glance. You can see exactly whether solar power or grid current are currently being used and you can also charge your electric vehicle conveniently via your smartphone.





SMA services and warranties.

Our SMA warranty gives you peace of mind.

- Free replacement inverter with all necessary updates, spare parts or repair provided according to service requirement
- Minimum downtime and safeguarding of your yields
- Optional extended warranty

From hotline support to reliable service on-site, we are there for you when you need us. To enable us to process your inquiries more quickly, please register in the SMA Online Service Center.



SMA Online
Service Center



SMA.de/en

