



StoraXe®
Home & Small Business
Battery storage systems
for professionals



Lithium-ion battery storage systems **Home & Small Business**

The StoraX[®] Home & Small Business product portfolio has been specially developed for the professional and demanding use of battery storage systems. High-quality battery cells from the industrial sector ensure higher power output and lower capacity losses throughout their operational life than is the case for systems with commercially available consumer cells.

The scalable AC-coupled StoraX[®] products are available with the SMA Sunny Island inverter family or, in the case of higher power outputs, with directly integrated power electronics.

StoraX[®] products from ADS-TEC allow your applications to grow with your needs. The possibilities are endless – from local energy management with PV systems, complex hybrid power plants up to central connection to extensive cloud services via Big-Lin[®].

Typical areas of use **Efficient energy management**

- Large single-family houses and villas
- Guest houses and hotels
- Public buildings, kindergartens, schools, etc.
- Workshops and commercial businesses
- Farms and isolated properties
- Self-contained systems such as stand-alone solutions or mountain lodges, etc.

Advantages of professional battery storage systems **Secure investment for the future**

- Industrial battery cells instead of »consumer« cells from a notebook
- Consistently high level of current carrying capacity and performance
- Low capacity losses
- Systems are also suitable for harsh environments
- Certified individual testing by accredited laboratories instead of simple assessment

StoraXe® Home & Small Business

Battery systems for continuously high power and professional use



StoraXe® Home & Small Business **Storage**

Battery storage system with optimized control system for the SMA Sunny Island product family

- Battery storage system with 6 or 9 kWh nominal capacity
- Control via ADS-TEC or SMA Energy Management System
- Continuous utilisation of the inverter power
- Worldwide SMA inverter service
- Connects to all suitable battery inverter
- Professional combination for scalable on-grid or off-grid solutions



StoraXe® Home & Small Business **System**

Complete system with integrated inverter, control system and battery

- High-performance AC-coupled complete package
- Three-phase inverter with 20 kW power output
- Integrated 19, 28 or 47 kWh battery storage system
- Parallel operation with existing PV systems of any size
- Emergency power capability without mains with simultaneous PV use
- Up to 100 % unbalanced load in emergency power mode
- Internal or external system protection (GS protection)
- Grid formation for self-contained, isolated systems (black start)
- ADS-TEC Energy Management System with high-performance apps
- Compact design and easy to install

Awards apply for
SRB1021



For more
information,
visit our website:
[www.ads-tec.de/
energy-storage](http://www.ads-tec.de/energy-storage)



Safety through expertise and experience

Technology and processes »made in Germany«

Safety of high-energy systems **Tried, tested and trusted for generations**

In extreme cases, high energy densities can always be released in an uncontrolled manner. Nevertheless, gas, hydrogen and millions of mobile petrol tanks are an accepted part of our day-to-day infrastructure. We trust these »made in Germany« systems because research, development, safety analyses, standards and continuous quality assurance have maximised the benefits and minimised the risks. This process also applies for the battery storage solutions from ADS-TEC.

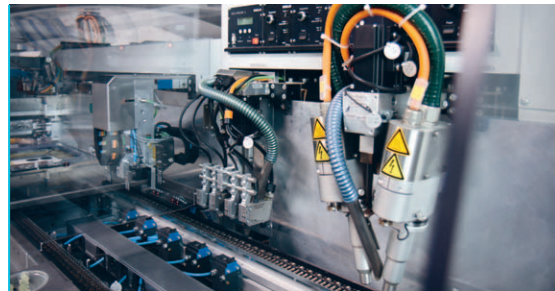
Lithium-ion batteries **Many years of experience**

- Since 2004, ADS-TEC has been developing and supplying intelligent lithium-ion batteries for the automotive industry and medical technology
- The experience from more than 100,000 battery packs in operation worldwide is the basis of our continued development work



100% depth of development **Detailed expertise**

- Development of everything from electronics, mechanics and software to complete systems takes place in-house
- Self-developed cell bonding and cooling are the result of years of research and development
- Multi-stage and redundant monitoring devices ensure safe operation at module and system level



Final assembly, logistics and service **Under one roof**

- Key process steps of module assembly take place on automation lines developed by ADS-TEC for this purpose
- Final assembly and testing are monitored and documented with the aid of »in-line« measurement methods and processes



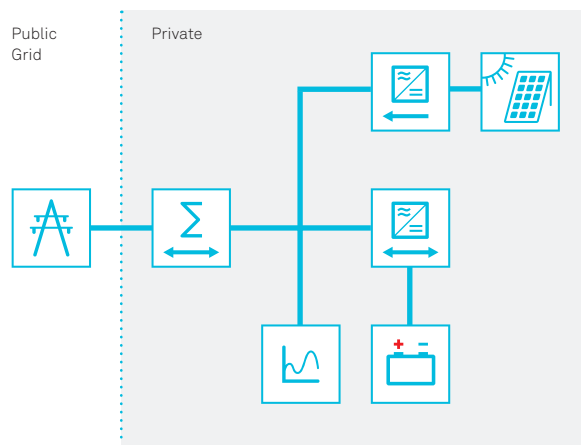
Quality and certification **The basis of all high-end products**

- System-guided development, production and testing processes
- Selected technologies from renowned cell manufacturers
- Extensive tests in in-house laboratory facilities
- Each cell is individually measured, tested and documented automatically prior to installation
- Documentation of all relevant parameters throughout the entire life cycle of the product
- External tests in accredited test laboratories
- Certification by renowned accredited testing laboratories, such as the VDE
- Active involvement in standardisation bodies

System arrangements and applications

Home & Small Business storage solutions **System arrangements and energy apps**

Depending on the present application scenario, various features and energy apps are available for trouble-free operation. With Big-LinX® Simulation, the individual design and function can be simulated in advance in the cloud.



Example **Storage with PV system**

- Integration of the storage system into the private grid
- Connection of a local PV system (AC- or DC-coupling)
- Control of the energy storage system with the ADS-TEC Energy Management System or existing EMS

Other application cases

- Creation of an isolated grid including black start capacity
- Fully fledged emergency power function in the event of power failure
- Connection of a wide range of local generation systems (PV, CHP, etc.)

Energy apps **For the optimum control of your energy storage system**

The energy apps from ADS-TEC are an integral component of the Home & Small Business systems. The simple app control enables the optimum use of your energy storage system for your application.



Personal consumption Our storage system automatically helps you maximise usage of your self-produced energy.



Power consumption limiting Avoid high power prices. Our storage system makes power available when you need it.



Isolated / emergency power Become your own energy provider should your provider not be available. Our storage system reserves the necessary power.



Feed-in limiting You are not able to completely feed the energy you produce back into the public grid? Our storage system prevents the loss of your valuable excess energy.

Caption



Counter bidirectional



AC/DC bidirectional



Electric car



Solar inverter



ADS-TEC Battery



PV-modules



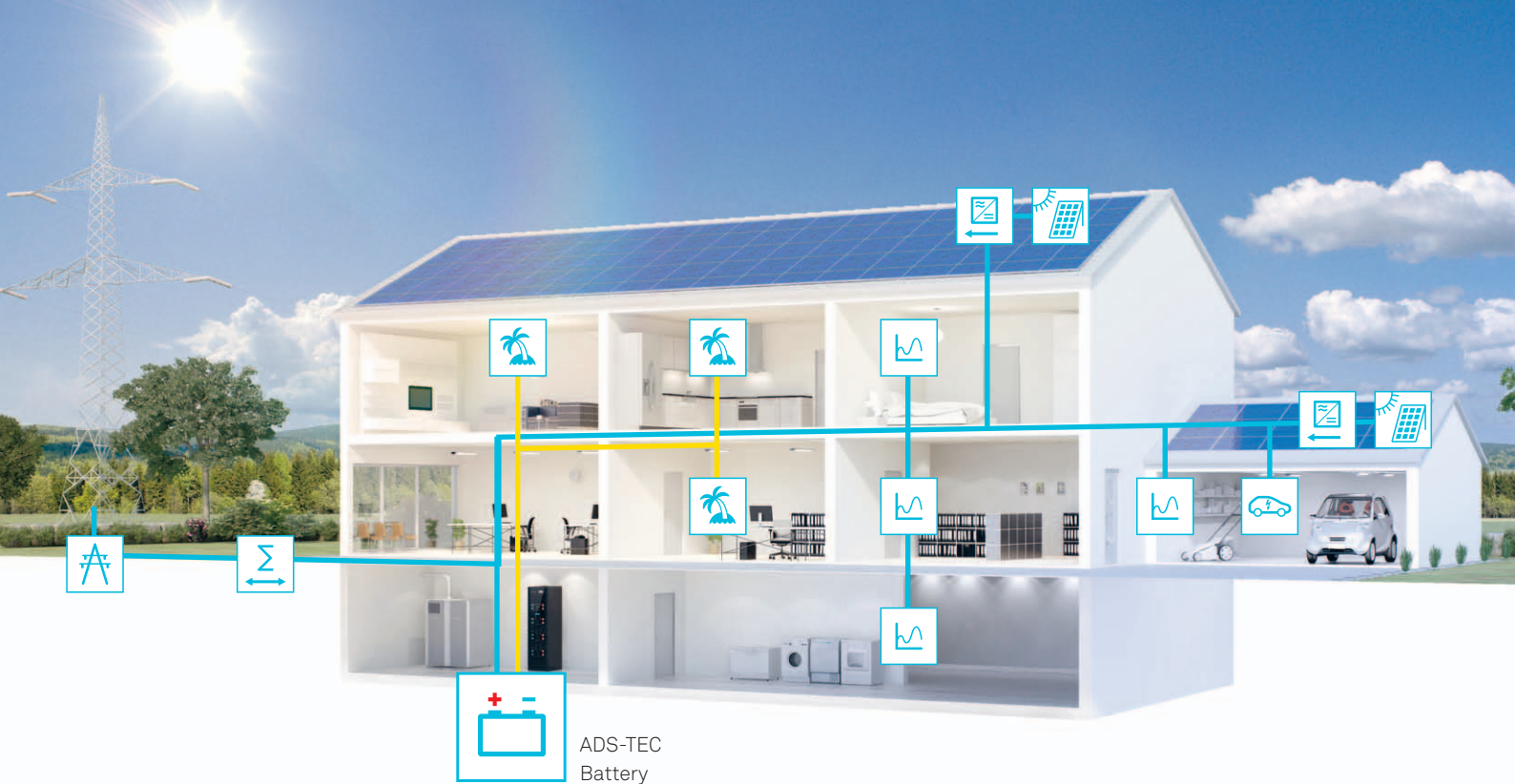
Load profile / Consumption



Grid / supplier



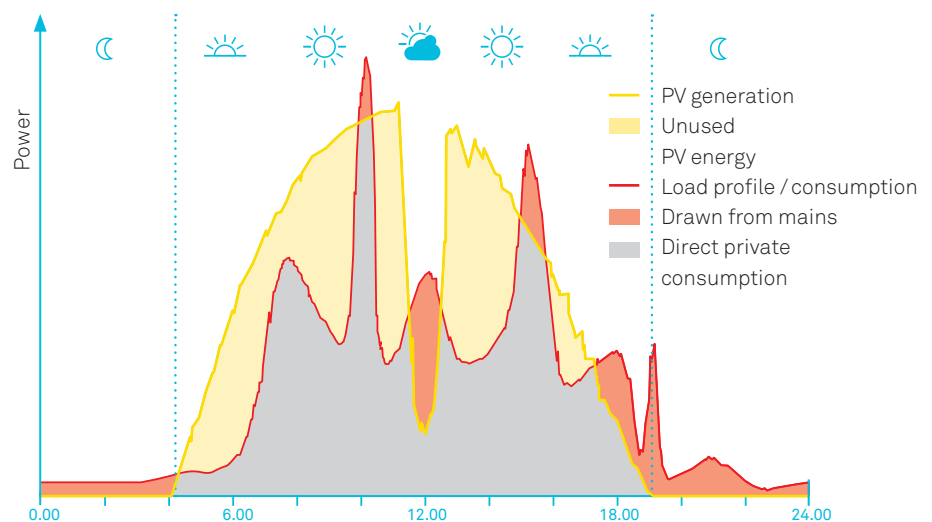
Isolated / Emergency power



Solar system without energy storage system

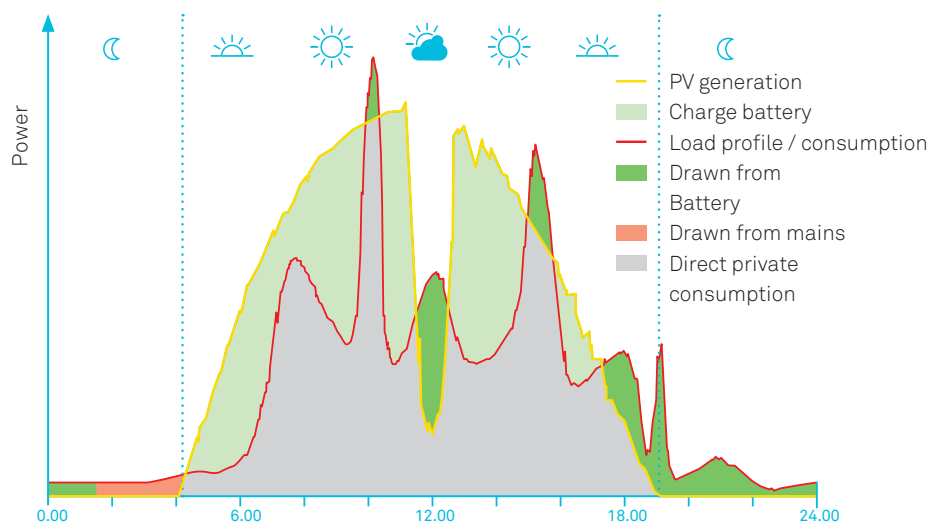
Dependence on grid operators

- Only a small portion of the self-produced PV energy can be directly consumed
- During periods when no PV power is available, power must be drawn from the public grid



Solar system with energy storage system **For your independence**

- The StoraXe Home & Small Business solutions store excess PV energy and make it available again when the PV energy supply is insufficient
- This frees you from rising power prices



Local energy management, hybrid power plants and central cloud management via Big-LinX®

Big-LinX® The platform for central and decentralised energy management

From the offline version of a decentralised individual system to complex, interconnected online-coupled systems.



StoraXe®

You can download the StoraXe app free of charge in Apple's App Store and in the Google Play Store:



StoraXe® Home & Small Business With local EMS and central cloud-based EMS

With the ADS-TEC Big-LinX platform, the Energy Management System (EMS) can be scaled for any application type.

- Preinstalled energy apps provide extensive configuration options
- Operation and visualisation via PC, tablet or smartphone
- Priority definition for the optimum control of the StoraXe system
- Big-LinX ready for connection to the Big-LinX energy cloud for unlimited application possibilities
- Recognised and highest IT security standards enable distributed energy systems, swarm applications, the integration in virtual power plants and complex hybrid power plants
- Thanks to modern OSGi™ framework technology, applications can be executed locally or centrally in the cloud
- Common tasks such as peak-shaving, self-consumption optimisation or emergency power can be controlled using standard ADS-TEC apps
- Individual applications are easy to adapt on the platform



Optimum storage design with Big-LinX® Simulation

Big-LinX® The cloud solution for monitoring the StoraXe® Home & Small Business system from anywhere

For all dealers and professional users who want to be able to know the current state of their StoraXe Home & Small Business system at any time.

- Simple login to the Big-LinX web portal for full access to the EMS
- Global access to the energy storage system via smart-card-secured VPN
- Maximum security for your data based on hosting in a German data centre
- Administration and management of all installed Home & Small Business systems via a central Big-LinX access point
- Determination of the optimum storage size with Big-LinX Simulation
- Additional intelligent storage applications are available in Big-LinX



Head office (above) Nürtingen near Stuttgart, production site Wilsdruff near Dresden

ADS-TEC GmbH **A strong partner**

- Products from ADS-TEC have been developed in-house for over 35 years
- 100% depth of development is the basis for long-term and individual solutions
- Services: concept, excellent design, development, fabrication and long-term support
- Modern processes for development, supply chain management, production and service
- References and applications, e.g., automation, logistics, medicine and the construction equipment industry as well as network operators, energy suppliers and public utilities
- International certifications for IT products and battery storage
- In-house laboratory and testing facilities
- Highest safety standards
- Leading technology and current standards
- Permanent technology transfer in cooperation with universities
- Involvement in networks and associations
- Numerous ADS-TEC research projects funded by the federal and state governments

Technology 100% made in Germany

StoraXe® **We would be happy to advise you**

- Individual design and planning of the system by ADS-TEC specialists
- Speak with us – together we can specify your solution

StoraXe® Industrial & Infrastructure **Large-format storage solutions**

- You can find services for applications up to the multi-MW range in the **Industrial & Infrastructure** portfolio
- Visit us at www.ads-tec.de/energy-storage/industrial-infrastructure

Supported by:



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ads-tec GmbH
Heinrich-Hertz-Straße 1
D-72622 Nürtingen
Phone +49 70 22 25 22-201
Fax +49 70 22 25 22-406
energy-storage@ads-tec.de
www.ads-tec.de



Energy Storage

