StoraXe® Energy Storage Solutions
Home & Small Business
StoraXe® Home & Small Business System

The product portfolio is intended for larger houses, multi-family dwellings as well as workshops, businesses and public facilities. With these applications, PV generators are manage the energy beyond pure day to night shifting.

**Highlights**

- Your all around, carefree, complete system
- Through AC integrating for new and existing systems
- 25 kWh nominal system capacity
- Integrated inverter

StoraXe® Home & Small Business System

- The all around, carefree storage solution for seamless integration in existing building installations
- AC battery storage system with integrated inverter
- Integrated Energy Management System (EMS)
- Fully fledged emergency power function in the event of power failure
- 3-phase, with up to 100% unbalanced load in emergency power operation

Energy storage systems Security in the future

- High-performance Lithium-Polymer technology for a life cycle of 20 years
- Satisfy current standards and certifications and meet future expectations

EMS The local Energy Management System

- EMS is the local Energy Management System for simple and intelligent control
- Operation and visualisation via PC, tablet or smartphone

Big-LinX® The cloud solution for monitoring from anywhere

- Global access to the energy storage system via smart-card-secured VPN
- Administration and management of all installed systems

KFW subsidies The ads-tec energy storage systems are eligible for subsidies¹

- The StoraXe® Home & Small Business systems satisfy all requirements of the subsidy program

¹ Awards received for SRB1021 Subject to legislative changes ² See data sheet provided by Kokam
## System Technical Data

### Grid

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid type</td>
<td>3-phase, TN-S</td>
</tr>
<tr>
<td>Mains voltage</td>
<td>400 V AC</td>
</tr>
<tr>
<td>Grid frequency</td>
<td>50 / 60 Hz</td>
</tr>
<tr>
<td>PV connection</td>
<td>AC-coupled</td>
</tr>
<tr>
<td>Effective power</td>
<td>18 kW (6 kW per phase)</td>
</tr>
<tr>
<td>Apparent power</td>
<td>20 kVA (6.6 kW per phase)</td>
</tr>
</tbody>
</table>

### Emergency power

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid type</td>
<td>3-phases, TN-S</td>
</tr>
<tr>
<td>Mains voltage</td>
<td>400 V AC / 230 V AC</td>
</tr>
<tr>
<td>Grid frequency</td>
<td>50 / 60 Hz</td>
</tr>
<tr>
<td>Effective power</td>
<td>18 kW (6 kW per phase)</td>
</tr>
<tr>
<td>Apparent power</td>
<td>20 kVA (6.6 kW per phase)</td>
</tr>
<tr>
<td>Black start capacity</td>
<td>Yes</td>
</tr>
<tr>
<td>Integration of external</td>
<td>Yes, e.g., photovoltaic systems can be</td>
</tr>
<tr>
<td>producers</td>
<td>integrated in isolated operation</td>
</tr>
<tr>
<td>Unbalanced load</td>
<td>max. 100% (6.6 kW between the phases)</td>
</tr>
<tr>
<td>Switching time on isolated</td>
<td>max. 100 ms</td>
</tr>
</tbody>
</table>

### Battery

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cell type</td>
<td>Kokam 75Ah Lithium Polymer</td>
</tr>
<tr>
<td>Chemistry</td>
<td>NMC</td>
</tr>
<tr>
<td>Nominal storage energy</td>
<td>25 kWh</td>
</tr>
<tr>
<td>Specified cycles</td>
<td>8,000 (80% DoD)</td>
</tr>
<tr>
<td>Expected lifetime</td>
<td>20 years</td>
</tr>
</tbody>
</table>

### System

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection class</td>
<td>IP 20</td>
</tr>
<tr>
<td>Temperature range</td>
<td>10 to 30°C</td>
</tr>
<tr>
<td>Humidity</td>
<td>&lt; 90% non-condensing</td>
</tr>
<tr>
<td>Local network connection</td>
<td>Ethernet RJ45</td>
</tr>
<tr>
<td>Operation and visualisation</td>
<td>PC; iOS + Android App</td>
</tr>
<tr>
<td>Energy Management</td>
<td>ads-tec Energy APPs (Big-LinX®-ready)</td>
</tr>
</tbody>
</table>

### Standards

<table>
<thead>
<tr>
<th>Specification</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport</td>
<td>UN38.3 transport directive for Lithium batteries</td>
</tr>
<tr>
<td>Isolation and fire protection</td>
<td>DIN EN 60664-1, VDE 0110-1, DIN VDE 0298-4, VDE 0471 DIN EN 60695-11-10 and -20</td>
</tr>
<tr>
<td>Grid directive</td>
<td>VDE-AR-N-4105</td>
</tr>
</tbody>
</table>

### Dimensions / weight

<table>
<thead>
<tr>
<th>Specification</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>WxHxD (in mm)</td>
<td>620 x 1800 x 650 / approx. 390 kg</td>
</tr>
</tbody>
</table>
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.
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 Kokam 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.)

Kokam energy apps For the optimum control of your energy storage system
The energy apps from Kokam 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.

Self-sufficiency Do you want to become an independent of your energy provider? Our storage assures your independence.

Isolated / emergency power Our storage system reserves the necessary power.

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

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 energy.

Caption

Counter bidirectional | AC/DC bidirectional | Electric car | Solar inverter | Kokam Battery | PV-modules | Load profile / Consumption | Grid / supplier | Isolated / Emergency power
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® Home & Small Business with local EMS and central cloud-based EMS
EMS is the local Energy Management System for simple and intelligent control of the StoraXe® Home & Small Business system. Control takes place via Energy APPs.
- Pre-installed Energy APPs offer extensive options for configuring according to requirements
- Priority definition for the optimum control of the StoraXe® system
- Operation and visualisation via PC, tablet or smartphone (in the home environment)
- Big-LinX® is ready for connection to the Big-LinX® Energy Cloud and, thus, even more innovative and unlimited applications for the operation of an energy storage system
- More innovative and unlimited applications for operating energy storage system made possible by connecting Big-LinX® to the Big-LinX® Energy Cloud

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

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 log in 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®

Optimum storage design with Big-LinX® Simulation
**StoraXe® Home & Small Business**

Your Custom Lithium-Polymer Storage Solution

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**StoraXe® Home & Small Business System**

Complete system with integrated inverter, control system and battery.
- High-performance AC-coupled complete package
- Three-phase inverter with 20kW power output
- Integrated 25kWh 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
- Network formation for self-contained, isolated systems (black start)
- Kokam energy management system with high-performance apps
- Compact design and easy to install

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**StoraXe® Home & Small Business Storage**

Battery storage system with control system for connection to the SMA Sunny Island product family.
- Battery storage system with 8 or 16kWh
- Control via SMA or Kokam energy management systems
- Continuous utilisation of the inverter power
- Worldwide SMA inverter service
- Single-phase, two-phase or three-phase
- Professional combination for scalable on-grid or off-grid solutions

Find more information on our website:
www.kokam.com
Possible areas of use  Efficient Energy Management
- Large single-family homes
- Multi-family dwellings
- Boarding houses and small hotels
- Public facilities, nursery schools, community centres
- Workshops and smaller business enterprises
- Farms and remote rural units
- Complete «isolated solutions» (with 100 % self-sufficient supply)

- High-performance Lithium-Polymer technology for a life cycle of 20 years
- Selected cells from renowned manufacturers
- Satisfy current and future standards and certifications

Lithium-Polymer Battery Storage Systems  Home & Small Business
The StoraXe’ Home & Small Business product portfolio is intended for larger houses, multi-family dwellings as well as workshops, businesses and public facilities. With various operating modes, optimizations are available for your selection. The goal is to optimally synchronise production and consumption, taking into account within the given boundary conditions and dynamic behavior.