Robust converters and controllers for stationary energy storage devices

Industrial standard components – everything you need from a single source and globally available
The right technology for a stable and reliable power supply

Multiple challenges for the modern power supply

For municipalities, agriculture, commercial and industrial companies alike, a reliable and continuous power supply is essential for all processes, from production through data processing to communications. At the same time, it is important to use energy as efficiently and economically as possible. As the types of energy sources increase, the power supply is facing new challenges. Among other things, the changeover from fossil fuels to renewable sources of energy for a sustainable power supply means that an increasing number of distributed power generators for solar and wind energy or hydropower need to be integrated into the grid. Energy storage devices play a key role in the conversion of these energy systems.

Energy storage devices perform a wide variety of different functions at distributed and central levels, for example:
• Permanently integrating renewable energies
• Backup for higher network stability
• Covering load and production peaks
• Implementing stand-alone networks for greater autonomy
• Protection in the event of blackouts
• Relieving the load on supply systems
• Optimizing consumption profiles

The ideal solution with the right technology

Your stationary energy storage devices provide the most innovative answer to these challenges. The Siemens standard product range for automation technology and power electronics offers you highly reliable components that you can use to control and monitor your stationary energy storage devices as well. Thanks to SCADA technology, you can also use them in systems that are geographically widely distributed. All components are ideally matched to each other and have already proven their value a thousand times over in highly challenging industrial environments. In addition, as part of the standard range they are always in stock. This is ideal for fast procurement of spare parts because they can be delivered immediately. The Siemens global network also provides a reliable spare parts and repair service worldwide.

Siemens solutions provide ideal benefits for your energy storage devices, such as:
• Shorter time to market with lower expenditure
• Efficient and ergonomic engineering
• Simple installation
• Reliable operation even in harsh environments
• Comprehensive support from Siemens

Your advantages at a glance

- Rugged, industry-compatible, and reliable standard components for an open controllable system
- Modular, scalable portfolio for a wide variety of different storage applications
- Shorter time to market thanks to support by our Application Center and Customer Support
- Remote real-time monitoring and diagnostics for globally distributed systems
- Open standard architecture for the integration of third party components, for example sector-specific field busses
- Experienced and reliable partner for the complete power electronics and automation technology from a single source
- Global spare part and repair service, thanks to our worldwide presence
Intelligent power electronics – constant voltage and frequency

Converter components for renewable energies
- With SINAMICS G120, you can create cost-effective, scalable, and highly efficient converter systems. The high-voltage input voltage and modern central control modules can be optimally designed to the particular requirements of your storage device.
- With the right converter technology, you can create cost-effectively, scalable, and highly efficient converter systems. The high-voltage input voltage and modern central control modules can be optimally designed to the particular requirements of your storage device.

Proven control technology – efficient controlling of processes

Converter components for renewable energies
- With their high efficiency, their network quality, and their energy storage devices even more economical due to their high efficiency, their network quality, and their energy storage devices even more economical.
- For renewable energy systems, SINAMICS G120 is the central control for the complete range, from logic modules through classic automation concepts, to embedded variants – and panel PC systems.
- For local storage devices and geographically distributed systems, the scalable SCADA system can be seamlessly integrated in all energy storage devices.

SIMATIC WinCC Open Architecture – the limitless SCADA system

For local storage devices and geographically distributed systems, the scalable SCADA system can be seamlessly integrated in all energy storage devices.

- The system offers a comprehensive range of human-machine interface (HMI) solutions, from single panels and local systems to complete systems that are set up for wide geographic distribution and for power generation plants as required, making it ideal for modular structure, the scalable SCADA system can be seamlessly integrated in all energy storage devices.
- Everything in order – and under control.
- SIMATIC WinCC offers you comprehensive range of human-machine interface (HMI) solutions, from single panels and local systems to complete systems that are set up for wide geographic distribution and for power generation plants as required, making it ideal for modular structure, the scalable SCADA system can be seamlessly integrated in all energy storage devices.

Scalable control technology – Top service – all round the globe

- SIMATIC WinCC Open Architecture is the leader when it comes to the combination of narrow-band communication protocols, diagnostics, and a user-friendly HMI design.
- Everything in view – and under control.
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- Everything in order – and under control.
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