

Energy storage solutions

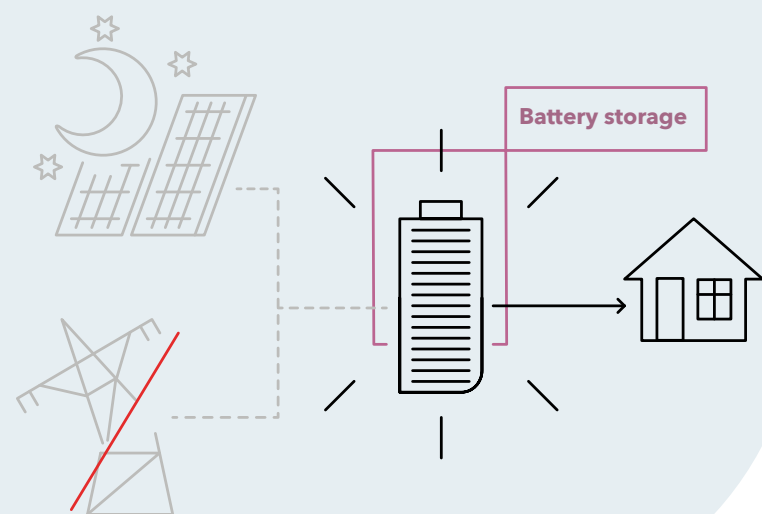
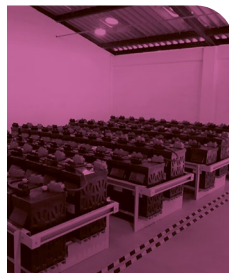
Accurate and sustainable management
of stored energy



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By adding battery storage to an energy system, the produced energy can be used at any time according to user needs, providing flexibility and energetic independence.

In a renewable energy system, the battery storage is the most costly part. studer power electronics maximize battery lifetime and obtains its maximum amount of energy, optimising the use of the renewable energy resources in the battery. In addition, the battery storage provides a reliable backup power and uninterrupted power supply for sensitive loads.



- aj series**
- aj 275-12(-S)
 - aj 350-24(-S)
 - aj 400-48(-S)
 - aj 500-12(-S)
 - aj 600-24(-S)
 - aj 700-48(-S)
 - aj 1000-12(-S)
 - aj 1300-24(-S)
 - aj 2100-12(-S)
 - aj 2400-24(-S)
- (-S) = Optional Built-In Solar Charge Controller

- variotrack series**
- vt 40
 - vt 65
 - vt 80

- variostring series**
- vs 70
 - vs 120

- xtender series**
- xth 3000-12
 - xth 5000-24
 - xth 6000-48
 - xth 8000-48
 - xtm 1500-12
 - xtm 2000-12
 - xtm 2400-24
 - xtm 2600-48
 - xtm 3500-24
 - xtm 4000-48
 - xts 900-12
 - xts 1200-24
 - xts 1400-48

Smart battery management

Many battery manufacturers recommend using their batteries with studer inverters and charge controllers.

A standard installation only takes a minute to set up with studer's configuration assistant available on the remote control, **rcc**.

For advanced installations an extended menu with specific parameters for the configuration of battery management and cycles are available.

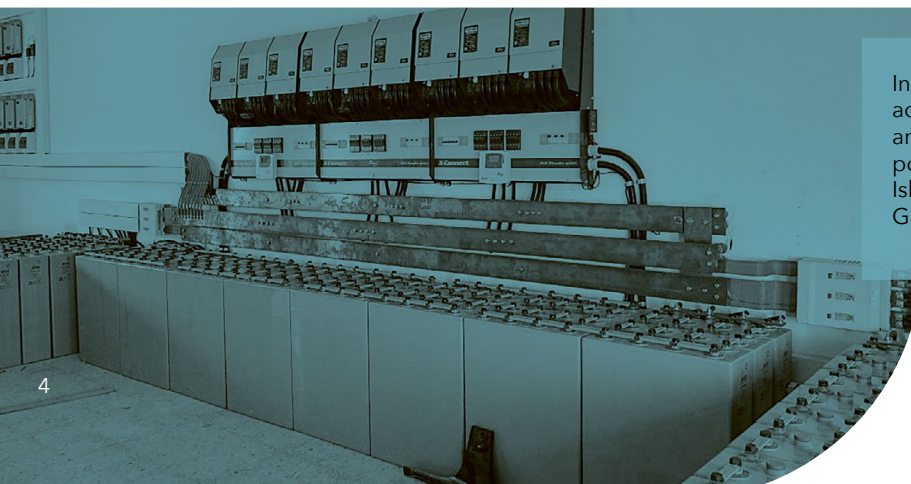


Freedom to choose any battery storage with studer

Lead-acid, redox-flow, hydrogen or lithium batteries? In installations with studer power electronics you can choose any type of battery storage.



Installation with nickel-iron batteries for self-consumption in an offgrid family house in Austria



Installation with lead-acid batteries for backup and uninterrupted power supply in the Islamic University of Gaza in Palestine



Installation with lithium batteries for an electric vehicle charging station in Spain



Lithium batteries

Lithium batteries are being used more and more in offgrid, self-consumption, mobile and energy storage applications. There are two main types of lithium batteries: with and without communication. Most lithium batteries require communication between their Battery Management System (BMS) and the rest of the system for an optimal management of the battery (safety and lifetime). Every battery uses its own specific protocol for communication.

For an effective communication with lithium batteries studer has conceived the **xcom CAN**, which creates a bridge between the BMS and the studer bus. The **xcom CAN** has several protocols implemented for lithium battery management, making studer products compatible and highly effective with many lithium batteries.



In short, the B.L.O. function protects the battery by teaching the user how to treat the battery better by temporarily restricting the battery use and gently increasing the LVD-level until the batteries are fully recharged again.

To cycle a battery operating in a low state-of-charge drastically reduce the battery lifetime. studer's inverters and inverterchargers are equipped with a special function, B.L.O (Battery Lifetime Optimizer), that significantly increase battery lifetime by gradually adjusting the battery's LVD-level (Low Voltage Disconnect).

Key advantages using the B.L.O function

Capacity recovery

Rising the LVD



Longer life-time

Lower DOD (Depth of Discharge), higher cycle rate

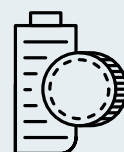


Improved protection

Avoid hard sulfation and corrosion, loss of active material of plates, short circuit and energy loss.

Cost saving

Save up to 25% of battery costs



B.L.O. function for a longer battery lifetime

By making certain measurements directly in the battery, it is possible to know a battery's state-of-charge (SOC) in real-time, giving an indication to the user/installer regarding the battery status. The **bsp** (Battery Status Processor) is designed to monitor lead-acid batteries within an **xtender/vario** system, using an advanced algorithm. The **bsp** also acts as a centralised charging current controller, preventing the battery from being charged with too high currents, thereby avoiding an early ageing of the battery.



Advanced battery management



Installation with lead-acid batteries for offgrid street lighting and security CCTV system in Egypt

The **bsp** offers precise voltage, current and temperature measurements for 12, 24 and 48 V batteries, making it the ideal accessory to monitor and to take care of lead-acid batteries.

Built to last.

All our products are designed and manufactured in our factory in Sion in Switzerland and come with an exceptional warranty of 10 years.

Studer Innotec SA
Rue des Casernes 57
1950 Sion, Switzerland
+41 (0)27 205 60 80



ISO certified factory
9001:2020/14001:2020.

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