



SMART BATTERY SOLUTIONS GMBH

POWER WHEREVER YOU WANT.



solutions.de
seal is broken or removed!

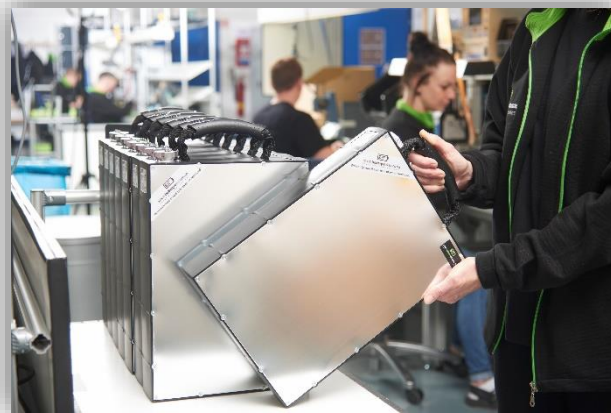
COMPANY

FLEXIBILITY, ACCESSIBILITY, SUSTAINABILITY

Smart Battery Solutions (sbs) is your energy storage partner. We offer intelligent energy storage systems supporting your idea from design and prototype to production as either single batch or mass series.

Your individually designed battery management system (BMS), case and charger will be made for your needs and application. Our in-house development department will identify the best solution for you.

Alternatively, our product line “UniPower” offers a modular technical configuration of our BMS to fit into your application. Our development team will design a suitable solution for your needs with no upfront investment on your end.



YOU HAVE SPECIAL REQUIREMENTS?

Not a problem! We are independent of cell chemistry, manufacturers and cell sizes. Only physics can stop us to find the best solution for you!

COMPANY

EXPERTISE & KNOW-HOW

The founders of sbs combine years of battery and mobile power experience. Since 2010, they have applied this expertise to progress sbs to the innovative and successful company it is today.



C-Suite: Christopher Fecher, Timo Hasenöhrl, Christian Lieb, Jens Pohl (from left)

Multiple awards prove our strength of know-how and innovation (e.g. "Growth Champion" (FOCUS BUSINESS 2020 & 2021), "Top Innovator 2022" (TOP 100), Bavaria's "Best 50"). Moreover, our quality management is certified according to DIN ISO 9001.



PRODUCTION

CONSTANTLY IMPROVING PROCESSES

We manufacture your products „Made in Germany“ at our production site in Kleinostheim, Bavaria using modern tools and following respective legislation and official standards.

Based upon this, we can implement your requirements at a detailed level. A modern ERP system in combination with a highly trained and experienced production team allow for appropriate production periods and high flexibility.

The sbs production lines manufacture in “one-piece-flow”. We work with modern equipment, weld and torque monitoring, using laser machinery as well as fully automated end-of-line testing (EOL).

Safety is a top priority: the EOL tests involve an extremely large variety of electrical, optical or mechanical controls. Additionally, systems can be tested against impermeability.



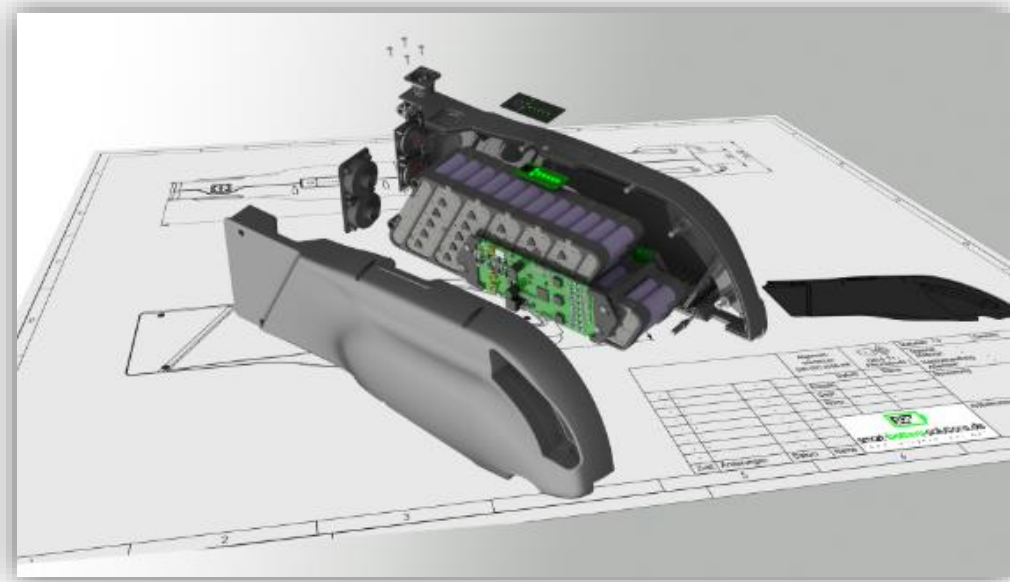
DEVELOPMENT & CONSTRUCTION

ROBUSTNESS, FUNCTIONALITY AND DESIGN

Thorough understanding of the parameters is key to innovation and success. We start from a clear idea about the intended result, no matter the requirements: new development or improvement, service or software.

Starting from ideation using prototypes to the final series production, every step of a project will be coordinated by a dedicated project manager until successful completion.

Various functions are involved, with a focus on CAD construction, project management, hard- and software development.



SERVICES

SUPPORT BEYOND DEVELOPMENT AND DELIVERY

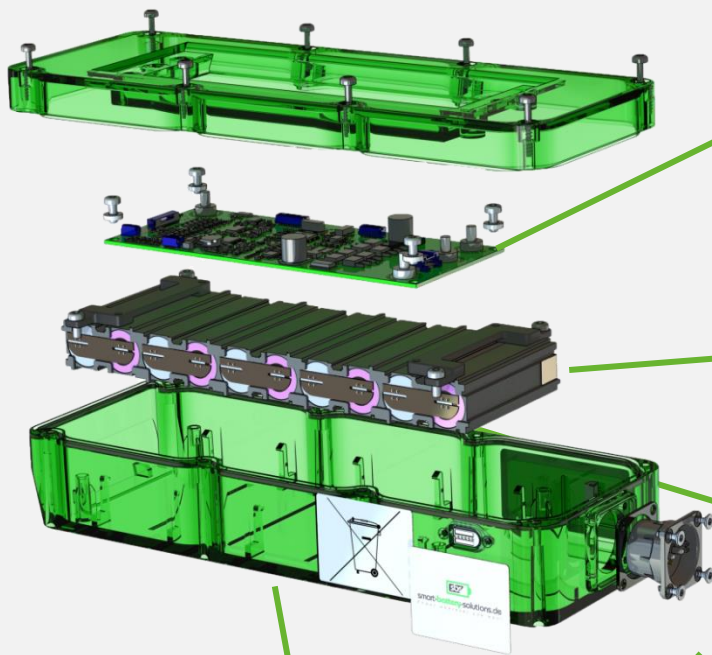
- » All services created, developed and delivered in Germany.
- » We develop our own and customer-specific systems, as well as modular systems.
- » Our mechanical department is equipped with state-of-the-art modern CAD systems, 3D tools and simulation tools.
- » We offer in-house electronic development for hard-, soft- and firmware, BMS and peripherals.
- » The project management leads and coordinates time and budget plans.



CUSTOMER-SPECIFIC BATTERIES

SIMPLE AND MODULAR

Our mechanical and electronic modular system is your easy solution to develop a smart battery system. The system is based on lithium-ion cells. We offer universal components for many cell configurations $\leq 60V$. This reduces development costs and time considerably. We ensure high quality and flexibility as the components are already tested and in use with a variety of applications.



1. BMS

- » wide range of different BMS systems
- » various voltage classes
- » parameterizable
- » various communication systems

2. CELL HOLDER

- » universal and modular

3. CELL CONNECTOR

- » various types of connections

4. POWER PLUG

- » up to 72A consistently
- » free IO possible

5. CASE

- » standard cases
- » color and logo customizable

Additionally, we enable the choice of specific parts for this modular system to integrate with your own developments, thus granting maximum flexibility and individualization for you.

UNIPOWER

FLEXIBLE POWER AND CONTROL

We love progress in technical development. The UniPower family battery system is at the heart of our range. The main advantage of this model is simplicity and a universal configuration capability in both technology and design. Areas of use for UniPower batteries include e-scooters, light electric vehicles (LEV), storage applications and industrial applications amongst others. You have got the choice of a quick, flexible and affordable solution.

A further result of our unstoppable drive to reimagine battery technology is the UniPower XL. The standardized system is highly popular and advanced among customers due to its limited space requirements and impressive performance.

Based on our experience in the field we evolved the series to the next level with a slider system and a customized self-finding plug concept. Additionally, a cluster management system is integrated enabling control of multiple batteries in one system. A new addition to the family is the docking station for loading purposes.



BASIC INFORMATION

- » Voltages: 24V, 36V & 48V (<60V)
- » Energy: up to 2kwh
- » Power: up to 5kw
- » Connectors and interfaces variety

CERTIFICATION

You need approval, certification or homologation for your products? No problem!

We can organize all tests with certified external laboratories; thus, your products will meet the requirements according to UN38.3, IEC 62133, UL2271 and DIN EN 15194 or other specifications.



CELLS

POWER FOR YOU – CONSISTENT AND HIGH VALUE

We leave nothing to chance: when crafting batteries, we use high-quality cells to guarantee maximum power, irrespective of technology, manufacturer and size.

We focus primarily on advanced lithium-ion cells like manganese, cobalt, nickel and iron phosphate. Additionally, we can consult and search for other cell types, including nickel metal hydride or lithium primary systems.



SMART BATTERY INTERFACE



FEATURES:

- » All important features for your battery system in one application
- » Optimized with your own configuration file
- » Supports standard CAN and CANopen protocol
- » Logging battery data in CSV files and graph images
- » Different views und graphics for a convenient synopsis of incoming data

PURPOSE:

- » Monitoring software for development and service
- » Updating battery configurations and firmware
- » Faster detection and recognition of battery faults in cooperation with our development staff

UNIPOWER FAMILY SYNOPSIS

CRITERIA	UniPower S (Light)	UniPower M (SlideIn - 10p)
Cell quantity	18650: 84 pcs.	18650: 140 pcs.
Max. energy	up to 1kWh	up to 1.67kWh
Plugs	<ul style="list-style-type: none"> • Chogori 	<ul style="list-style-type: none"> • Smart Connector • Adapter board (customer specific)
Specifics	<ul style="list-style-type: none"> • 2 different sealings available 	<ul style="list-style-type: none"> • Cluster manager • Guiding slopes • Requires docking station
Components consistency	<ul style="list-style-type: none"> • Various BMS from our modular tool set applicable • Second electronic placeable • Capacity indication • Handle variable 	



UNIPOWER FAMILY SYNOPSIS

CRITERIA	UniPower L	UniPower XL (slideIn 21700er)
Cell quantity	18650: 168 pcs.	21700: 126 pcs.
Max. energy	up to 2kWh	up to 2.27kWh
Plugs	<ul style="list-style-type: none"> • Weipu • Chogori • Adapter board (customer specific) 	<ul style="list-style-type: none"> • Smart Connector • Adapter board (customer specific)
Specifics	<ul style="list-style-type: none"> • Many different plugs available 	<ul style="list-style-type: none"> • Horizontal positioning enabled • Interlock possible • Bumper and sealing separated • Automation-ready • Preparation for alternative cell connectors possible • High current connectors • Same as UniPower M
Components consistency	<ul style="list-style-type: none"> • Various BMS from our modular tool set applicable • Second electronic placeable • Capacity indication • Handle variable 	



FEATURES:

- BATTERY SYSTEMS
- ACCUMULATORS
- DEVELOPMENT
- CELLS
- CAD CONSTRUCTION
- CHARGER

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