



Battery pack developments · Rechargeable batteries · Batteries · Accessories

Our partners



Battery pack developments

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Welcome to Battery-Kutter

Battery-Kutter is a DIN EN ISO 9001 certified family business with more than 30 years of experience in the production and distribution of batteries, rechargeable batteries and battery packs of any type, size and performance. We specialise both in lead-acid battery sales and in the development and assembly of customised battery packs. We always strive for the best solutions for our customers.



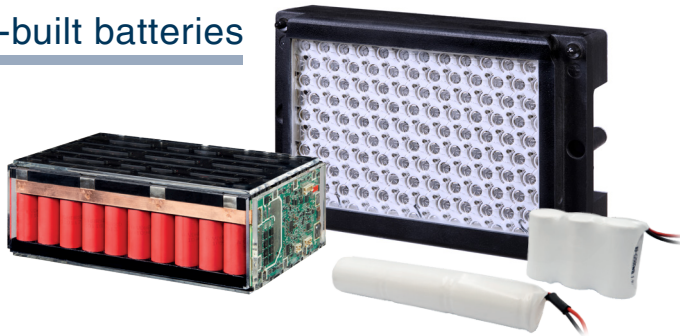
Application areas of our products

- Development and production of special battery packs
- UPS systems
- Emergency and security lighting
- Fire and burglar alarm systems
- Smoke and heat extraction systems
- Access control systems
- Video monitoring systems
- Rehab and medical technology
- Warehouse logistics
- Emobility
- Robotics
- Track, scan, RFID
- Mobile workstations
- Power tools
- Telecommunications
- Energy storage systems
- Solar technology
- etc.

This brochure shows you a selection of our product range. For an overview of all our products, please visit our website at **www.battery-kutter.com**, or call us on **+49 40 611 631-0**.

We look forward to hearing from you!

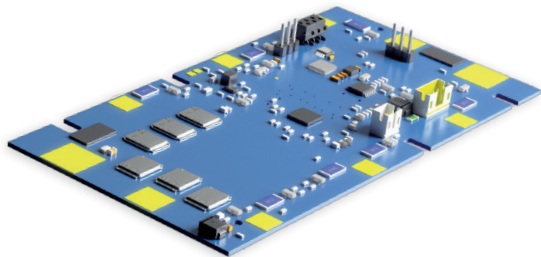
Custom-built batteries



Together with our EN ISO 9001 certified sister company Wamtechnik based in Poland, we have been developing individual battery packs and system solutions for our customers for over 30 years. Thanks to our in-depth knowledge of charging technology, motors, controls and UPS systems, we are able to optimise a complete system – electromechanical or design-related – and make it production-ready to suit your requirements. For this purpose, we deliver a holistic approach with CAD drawings, prototypes and load profile tests to develop a product that is perfectly tailored to your specifications.

Our range	batteries of all well-known manufacturers such as Panasonic, Saft, LG, Samsung, Kokam, Murata, Moli, BAK and many more
Voltage/capacity	1.2 V to 3.7 V / 10 mAh to 300 Ah per single battery, assembled into packs as per customers' request
Design	all chemistries including lithium, NiCd, NiMH, VL, lead, titanate
Condition	as per customer's request
Accessories	protection electronics, cables, connectors, housings, chargers, GSM and GPRS monitoring, etc.
Characteristics	based on the customer's project, batteries are selected and installed according to the customer's requirements, including documentation and certificates, if necessary
Application	for all applications

Battery Management Systems (BMS)



Our Battery Management Systems (BMS) can be considered a logical evolution of the classic protection circuitry. In addition to the standard functions of protection circuitry, a BMS provides more relevant data, such as the current charge state, temperature, number of charge cycles and other information for further processing. This data can be read via an SM, I²C or CAN bus. The BMS is therefore able to provide all necessary functions for the safe operation of a lithium battery. We will set up the BMS specifically for your application.

Functions and features of a BMS:

- Voltage monitoring of each individual cell
- Monitoring of the battery temperature at up to 5 points (working range from -40°C to +85°C)
- Load control – to prevent a deep discharge
- Charger control – to prevent overloading
- Control of the battery temperature
- Passive balancing of the cells
- Charge quantity counter SOC, SOH determination
- Calculation and output of the parameters: SOH, SOC, I, U, T via CAN, RS232, analogue
- Communication interfaces
- Programmable via PC
- ESD protected
- Cascadable up to 2000 V pack voltage
- Galvanic isolation cells / interfaces

Standardised and individually customisable energy systems



Whether you require lithium-ion battery packs for standard applications, assembly to suit individual customer requirements or innovative energy systems for quick and easy configuration – our intelligent battery systems impress with their versatile interface communication, high cycle stability and performance, functional design and low weight. Also, sophisticated components and flame-retardant encapsulation (depending on the version) ensure the highest level of quality and safety. Our standardised power systems are comprehensively certified.

Brands	LiBrick, Battery-Kutter
Voltage/Capacity	3.2 V to 51.2 V / 1.5 Ah to 150 Ah / 1S1P – 16S
Type	lithium-ion technology
Quality	CE, RoHS, REACH, UN-38.3, optional IEC 62133, UKCA, UL
Usage	high cycle stability
Accessories	suitable chargers, converters and system holders depending on configuration
Storability	up to 12 months
Features	high charge/discharge rates, cycle resistant, low self-discharge, excellent safety due to integrated protective circuit or BMS
Application	rehab/nursing, test and measurement instruments, e-mobility, emergency systems, power tools, UPS & ESS and many more

SUN Battery



Our brand name SUN Battery stands for AGM batteries of the highest quality and latest technology and offers a wide range of VdS-approved batteries. The maintenance-free lead-acid batteries of the SUN Battery series are characterised by high energy density and a wide range of dimensions and connection technologies. For years we have successfully contributed to the OEM equipment of renowned manufacturers of safety-related systems with our own brand SUN Battery.

Brand	SUN Battery
Capacity / voltage	6 V and 12 V / 0.8 Ah up to 210 Ah
Type	AGM (glass fibre)
Condition	sealed and charged
Accessories	optional
Features	low self-discharge, absolutely maintenance-free
Application	alarm systems, fire alarm equipment, emergency lighting, cleaning equipment, solar, UPS and many more
Battery life	3–5 years, 6–9 years and 10–12 years in accordance with EUROBAT
Cycle stability	normal to high
Quality	OEM quality
Degassing	valve regulated
Charging voltage	13.8 V to 14.8 V

SSB Battery



Our brand SSB Battery represents the highest level of quality and reliability. The SSB Battery range features a large selection of VdS-approved batteries as well as fast discharging units in high current applications for UPS uses. We also offer SSB batteries with extended autonomy time for emergency lighting applications. The batteries combine a very high and efficient energy density with an extended service life.

Brand	SSB Battery
Capacity / voltage	6 V and 12 V / 1.2 Ah up to 270 Ah
Type	AGM (glass fibre)
Condition	sealed and charged
Accessories	optional
Features	low self-discharge, absolutely maintenance-free
Application	UPS, emergency lighting, alarm systems, fire alarm systems, cleaning equipment, solar and many more
Battery life	6–9 years and 10–12 years in accordance with EUROBAT
Cycle stability	normal to high
Quality	OEM quality
Degassing	valve regulated
Charging voltage	13.8 V to 14.8 V

SSB Battery Grid Power



The SSB Grid Power series stands for high-temperature lead-acid batteries representing an excellent product alternative to conventional sealed batteries. The batteries boast a high performance and a long service life of up to 15 years under extreme ambient temperatures of 35 °C. The SSB Grid Power series is absolutely maintenance-free and offers high savings potential for energy and maintenance costs as well as a reduction of the CO₂ footprint.

Brand	SSB Battery Grid Power
Capacity / voltage	2 V / 200 to 3000 Ah 12 V / 100 to 200 Ah
Type	AGM (glass fibre)
Condition	sealed and charged
Accessories	optional
Features	absolutely maintenance-free high-temperature lead-acid batteries; long service life; high savings potential for energy and maintenance costs
Application	emergency power, UPS and CPS systems, emergency and safety lighting, switchgear, emergency generator with diesel and many more
Battery life	up to 15 years at ambient temperatures of 35 °C (EUROBAT classification: >12 years, Very Long Life)
Cycle stability	normal to high
Quality	OEM quality
Degassing	valve regulated
Charging voltage	13.8 V to 14.8 V

Pure lead battery



LEOCH Pure Lead High Rate batteries of the PLX series are valve regulated AGM batteries that have been optimised for applications with particularly high discharge over a short period of time. The pure lead batteries of the PLX series offer high life expectancy under extreme conditions, very good temperature resistance and fast rechargeability.

Brand	LEOCH Pure Lead High Rate PLX series
Capacity / voltage	12 V / 38 Ah up to 200 Ah (C10)
Power	149 to 730 W (15 min)
Type	pure lead
Condition	sealed and charged
Accessories	optional
Application	emergency power / UPS systems, emergency and security lighting; applications with particularly high discharge over short periods of time
Battery life	>12 years in accordance with EUROBAT
Cycle stability	very high
Quality	OEM quality
Degassing	valve regulated
Charging voltage	13.8 V to 14.8 V

Further AGM batteries



AGM batteries are also referred to as lead-fleece batteries and are sealed, valve-regulated batteries. Thanks to the built-in glass fibre fleece, AGM batteries are protected against leakage of the electrolytes (acid) for use in all situations. For use in backups and security and for many other applications, we offer AGM batteries between 0.8 Ah and 200 Ah – some with VdS certification – from various manufacturers.

Brands	Yuasa, Panasonic, Exide, Intact and many more
Capacity / voltage	6 V and 12 V / 0.8 Ah up to 200 Ah
Type	AGM (glass fibre)
Condition	sealed and charged
Accessories	optional
Features	low self-discharge, absolutely maintenance-free
Application	alarm systems, fire alarm systems, emergency lighting, cleaning equipment, solar, UPS and many more
Battery life	3–5 years, 6–9 years and 10–12 years in accordance with EUROBAT
Cycle stability	depending on the series from normal to very high
Quality	OEM quality
Degassing	valve regulated
Charging voltage	13.8 V to 14.8 V

GEL batteries



The lead-gel battery, filled with a gel-like mass, can be operated in any situation and impresses with its leakage protection. In applications such as electric cars, wheelchairs or camper vans, the lead-gel battery is increasingly popular.

Brands	Exide Sonnenschein, Intact, MK Battery
Capacity / voltage	2 V to 12 V / 0.8 Ah up to 3000 Ah
Type	GEL (lead-gel)
Condition	sealed and charged
Accessories	optional
Application	cyclic applications
Cycle stability	very high
Quality	OEM quality
Degassing	valve regulated
Charging voltage	13.8 V to 14.8 V

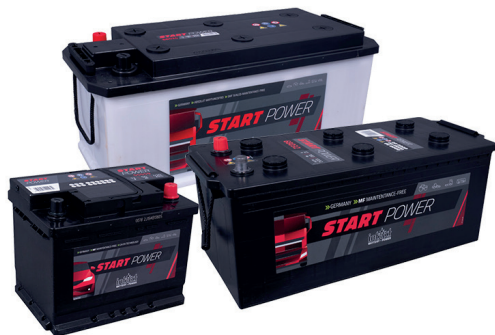
Traction batteries



Traction batteries are used for high cycle applications, e.g. for cleaning machines, forklifts or wheelchairs. These traction batteries require a special design. Therefore, the acquisition costs may seem higher at A-grade manufacturers at first glance, but the investment pays off through longer usage times, less maintenance and a longer life. Traction batteries are available in the following versions: AGM (glass fibre), wet (lead acid) and GEL (lead gel).

Brands	SUN Battery HC series, Hawker, Exide Hoppecke, Sonnenschein, Trojan, Intact and many more
Capacity / voltage	2 V to 12 V / 60 Ah up to 3000 Ah
Type	AGM (glass fibre), wet (lead acid) and GEL (lead gel)
Condition	sealed or VRLA, filled and charged or pre-charged dry
Accessories	optional, block connector usually available
Features	extremely high-quality cells; durable, secure and reliable
Application	cleaning machines, forklifts, wheelchairs and many more
Battery life	8–15 years
Cycle stability	very high
Quality	very high
Degassing	valve regulated
Charging voltage	2.2 V to 2.5 V / cell

Starter batteries



When starting your vehicle, you need a reliable battery – regardless of the weather. A very high performance in the capacity, as well as the extremely high power of our starter batteries are the result of carefully selected materials and special alloys. Our starter batteries are available both as filled and charged (calcium / calcium technology), as well as dry and pre-charged (hybrid technology).

Brands	Intact, Varta, Banner and many more
Capacity / voltage	6 V and 12 V / 5 Ah up to 225 Ah
Type	AGM (glass fibre), wet (lead acid) and GEL (lead gel)
Condition	filled and charged, pre-charged dry
Accessories	optional
Features	top start performance, very durable and reliable, completely maintenance-free depending on the type
Application	all vehicles: marine, aviation, generators, construction machinery
Quality	OEM quality
Degassing	valve regulated or degassing hose

LiFePO4 batteries



Our brand name SUN Battery stands for the latest and most innovative technology. It offers a good alternative to conventional lead-acid batteries with all the advantages of lithium-iron-phosphate technology. The LiFePO4 batteries are characterised by high energy density, extreme cycle stability, long service life at high temperatures and low weight. The LiFePO4 SMART version has integrated intelligent communication interfaces for easy and complete monitoring of the individual blocks.

Brands	SUN Battery
Voltage / capacity* LiFePO4 LiFePO4 SMART	12.8 V / 4.5 Ah up to 200 Ah 25.6 V / 10 Ah, 20 Ah, 40 Ah *at 1h discharge
Type	lithium-iron-phosphate technology
State	sealed and charged
Characteristics	1:1 interchangeable with lead batteries, high energy density (3 times higher than AGM batteries), operation in wide temperature range (-30°C to +60°C), long service life even at high temperatures, extremely low self-discharge, very high intrinsic safety (no risk of fire or explosion), low weight, fast charging
Application	emergency and security lighting, cyclical applications, UPS, solar etc.
Service life	up to 20 years
Cycle stability	very high (7000 cycles at 50% discharge depth)
Quality	OEM quality

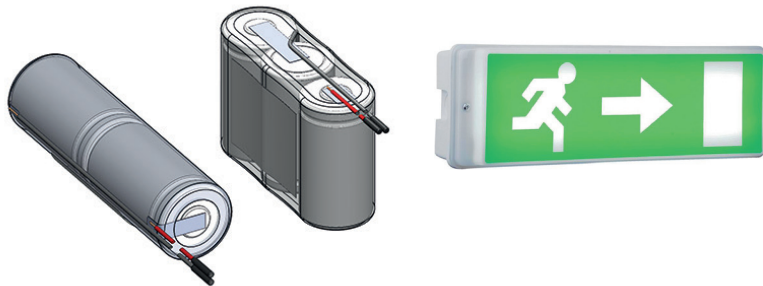
Industrial batteries



Industrial cells are usually indistinguishable in the battery packs of notebooks, scanners, radio devices or other mobile applications, installed in a plastic housing or in the device. The pre-selection of the correct cell for the monitoring and charging electronics is essential to make the entire application functional. The battery is often the core device and should be well thought out. We have hundreds of cells and different technologies available: Let us give you in-depth advice when choosing a Li-ion, NiMH or NiCd.

Brands	Panasonic, Samsung, LG, Murata (Sony), BAK, Saft, Nife, Moli E-One, A123, Varta, BYD and many more
Capacity / voltage	1.2 V to 3.7 V / 30 mAh up to 300 Ah
Type	NiCd, NiMH, Li-ion LiFe, LiPo, VL-Vanadium
Accessories	cables, plugs, soldering lugs, shrink hose, protective circuit, charging technology
Features	high-quality batteries with a long service life; for use between -50°C and +120°C
Application	Scanners, mobile devices, vehicles, backup, emergency lighting, alarm systems, measuring technology, medical technology
Service life	up to 20 years
Charging voltage	1.4 V to 4.2 V / cell

Battery packs for emergency and escape route lighting



In an emergency, battery packs for emergency and escape route lighting ensure that escape routes are clearly and instantly visible for all occupants in a building. Our battery packs are made of robust cells and offer very good performance. Due to their low internal resistance, NiCd / NiMH battery packs can also supply high currents and are ideal for emergency and escape route lighting.

Brands	Battery-Kutter battery packs for self-contained luminaires
Capacity / voltage	2.4 V and 12 V / 800 mAh to 4500 mAh and many more
Type	NiCd and NiMH
Cell sizes	AA, Sub-C, C, D and many more
Shapes	bar, row and special shapes
Connection types	cable, solder tag and fast-on +6.3 / -4.8 mm
Application	emergency and escape route lighting
Quality	OEM quality

Consumer batteries (zinc carbon and alkaline)



For long-term applications such as remote controls, alarm clocks, flash-lights and the like, we recommend primary batteries, since the use of rechargeable batteries is not worthwhile here. We offer a large selection from different manufacturers – always the right one for your device.

Brands	Panasonic, Duracell, Varta, Camelion and many more
Capacity / voltage	1.5 V to 12 V / 5 mAh up to 30 Ah
Type	all sizes in zinc carbon, alkaline
Application	for all standard devices
Battery life	up to 15 years
Quality	high-quality OEM quality

Lithium batteries



Lithium batteries are everywhere, yet invisible to the user. The small batteries have a service life of up to 20 years and can be used within a temperature range from -20°C to $+80^{\circ}\text{C}$. The areas of operation are diverse and they are most commonly used in long-term applications such as heat meters, smoke detectors or backup systems.

Brands	SUN Battery, BAK, Saft, Tadiran, EVE, Maxell, Ultralife and many more
Capacity / voltage	3 V to 9 V / 1 mAh to 60 Ah
Type	Li-SOCL ² , Li-MnO ² , Li-CFn, LiFeS ²
Features	extremely long service life due to very low self-discharge
Application	backup and standby applications, devices with low power consumption, service life of up to 20 years

Button cells



In virtually every small electronic device, button cells are used to power LEDs or to maintain the memory functions of chips. In this segment, there are extreme price and quality differences. However, the storage of your data is important. Let us advise you on how to choose the best product for your application.

Brands	Varta, Maxell, Panasonic, Camelion
Capacity / voltage	1.5 V to 3.6 V / 1 mAh up to 2 Ah
Type	Li-SOCL ² , Li-MnO ² , Li-CFn, LiFeS ² , zinc air, alkaline manganese, silver oxide
Condition	also available with soldering tags / pins or as cable with plug
Accessories	depending on customer requirements, either in blister or industrial palletising
Features	diverse applications with varying qualities
Application	backup and standby applications, devices with low power consumption
Battery life	up to 20 years
Quality	from very low (AG-type alkaline) to very high-quality Li-MnO ² or silver oxide

Chargers



Professional battery chargers with the right specifications for your application are essential for an optimal use of the capacity and for a long battery life. Unfortunately, far too little attention is often paid to charging technology. The correct fit for your battery is critical for optimal performance. Our product range includes high-quality manufacturers, who will, depending on the project, also develop custom-made types for you.

Brands	4Load, Fronius, Ctek, Mascot, Mec and many more
Capacity / voltage	0.5 V up to 760 V / 10 mA to 200 A
Type	based on customer requirements for all battery packs
Condition	industrial or consumer packaging
Accessories	cables, terminals, screws, etc.
Features	custom-made programming or production available
Application	car, UPS, forklifts, cleaning equipment, battery-operated machines and more

Power supplies / transformers



Brands	Samlex, Mascot, Fronius, Meanwell, inhouse development
Type	protection class and DIN according to customer requirements
Application	industrial equipment, shipbuilding, small devices, diesel start and many more

For power supplies, we can also provide alternatives for your devices or a custom-made solution tailored to your application. Especially in the field of transformers, we can develop solutions to dramatically reduce the power consumption of your devices.

Miscellaneous accessories



Of course, we also offer all kinds of accessories from the world of batteries and accumulators. We provide and assemble special cables, plugs and soldering lugs according to customer requirements. Racks for your UPS system are custom-made for you with the appropriate electrolyte bath. You can order CAD drawings or tools for cases as well as simple pole caps, block connectors or terminal grease.

Shipping

Our standard range of products is constantly available and is usually shipped within 24 hours.

We ship with reputable logistics partners such as Schenker, DPD or transmed. We thus offer versatile solutions beyond the normal package, to get your goods to any destination safely and on time. Individual shipment requests are no problem for us, whether it is a delivery to a remote field with a telecommunications mast or directly to your technicians' vehicles.



Visit our online shop!

Our entire product range can be found in our online shop at:

www.battery-kutter.com

Here, you can comfortably shop 24 hours a day. If you require any help, our competent sales team is always happy to assist you.



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