



**RKB electronic AG**

Battery assembly  
Cable assembly  
System solutions



[www.rkb-ag.de](http://www.rkb-ag.de)

# The Company



## With innovation and determination to success

### **Together we can be successful**

Your competitive advantage is our interest – or in other words – our success is your success. With this philosophy we face the challenge to produce unique and outstanding products that exceed our customers' expectations. Our high level of expertise, speed and flexibility as well as working efficiently and economically in the interest of our customers is the key to success. Our actions not only focus on one section but rather on the whole value added chain.

Every single day we do our best to achieve our goal to become one of the leading system suppliers for customized battery systems in Europe.

### **Made in Germany**

With about 70 employees in our manufacturing plant in Germany we develop, manufacture and distribute our innovative and high-quality products. With over 10 years of experience in the field of customised battery systems, cable assembly as well

as our in-house research and development department, they enable us to accomplish any difficult task promptly.

Additionally it is our ambition to keep our product range up to date and to take on the latest technologies and innovations so we are always one step ahead. Relieving your purchasing, production and engineering department with our know-how and industry knowledge, RKB electronic AG are an ideal partner in the world of electrical engineering.



## Our values

### Quality with a system

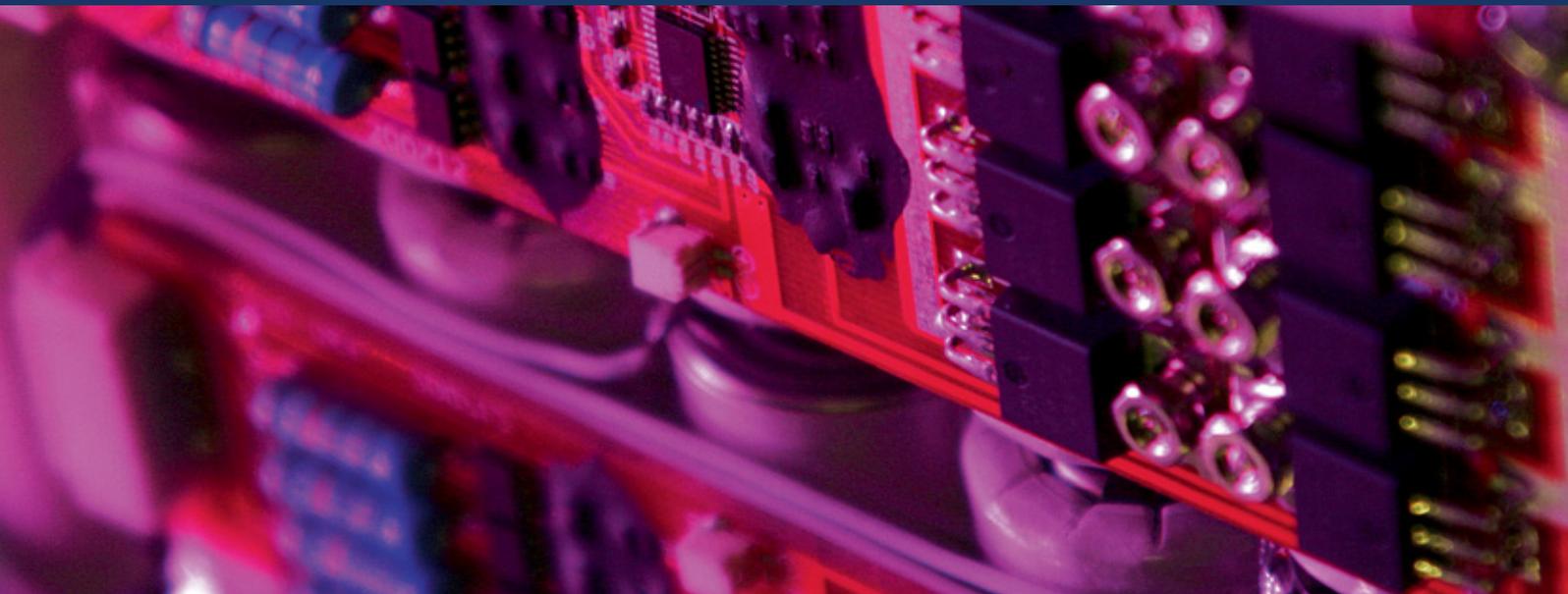
Our products not only meet simple standards they also satisfy the highest quality requirements. Nothing is left to chance – this is our understanding of quality. Our certified quality management system ensures error free deliveries as well as absolute transparency and traceability in every step of the way. Satisfied customers are our top priority. Our focus on quality includes all employees of all departments. Therefore, quality is an obligation for each employee.

### Sustainable actions

As a customer focused supplier of services and products we always aim for the best possible quality of our work. Thus we define new quality goals in regular periods. Due to the fact of changing requirements a quality management system is never perfect, so we work on a continuous improvement process. To us, this means a constant improvement of our actions with sustainable effect.



# Battery assembly

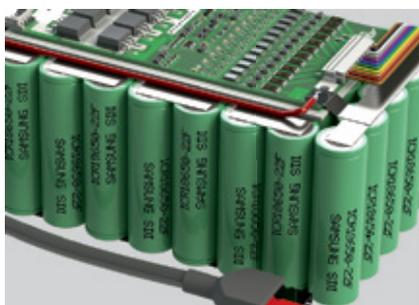


## Smart battery systems



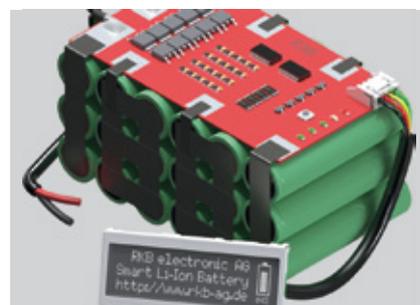
### Battery technologies

As an innovative system supplier in the field of battery assembly we can offer you all popular battery technologies currently available on the market. Our main focus lies in the lithium-ion technology with its different subcategories. Currently the proportion of lithium-ion battery systems is about 90%. We acquire our selection of battery cells from well-known manufacturers like Samsung SDI and LG Chemical. Furthermore we assemble NiCd, NiMH and other battery technologies.



### Versions

The basic versions of our battery systems range from 1S to 14S (3,7V – 51,8V nominal voltage). Capacities within this range can be selected freely as a result of individually designed parallel arrangements. We manufacture any other configuration by the customer's request. Depending on the different power requirements in combination with the requested operating time of the battery system, we classify our battery systems in High-Power and High-Energy versions.



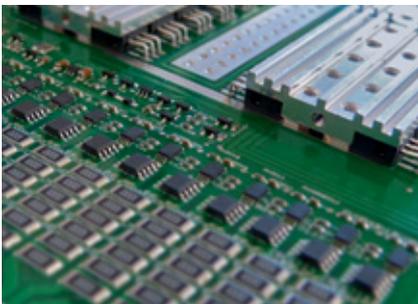
### Field of applications

The rapid growth of portable applications offers an endless number of areas that use our battery systems. Frequently our battery systems are used in: communication devices, electric tools, household- and gardening tools, measurement devices, industrial applications, medical applications, electric vehicles, e-bikes, golf caddies, diving lamps, lighting and sound technologies.

# Development



## Protection circuit modules and battery management systems



### Custom made electronics

In our development department our technicians and engineers create customised solutions that comply with the current legal regulations. Besides protective circuits and battery management systems these solutions contain the battery system itself and possible additional system components. The computer-based development guarantees highest quality standards. The serial production of our electronics takes place in Germany.

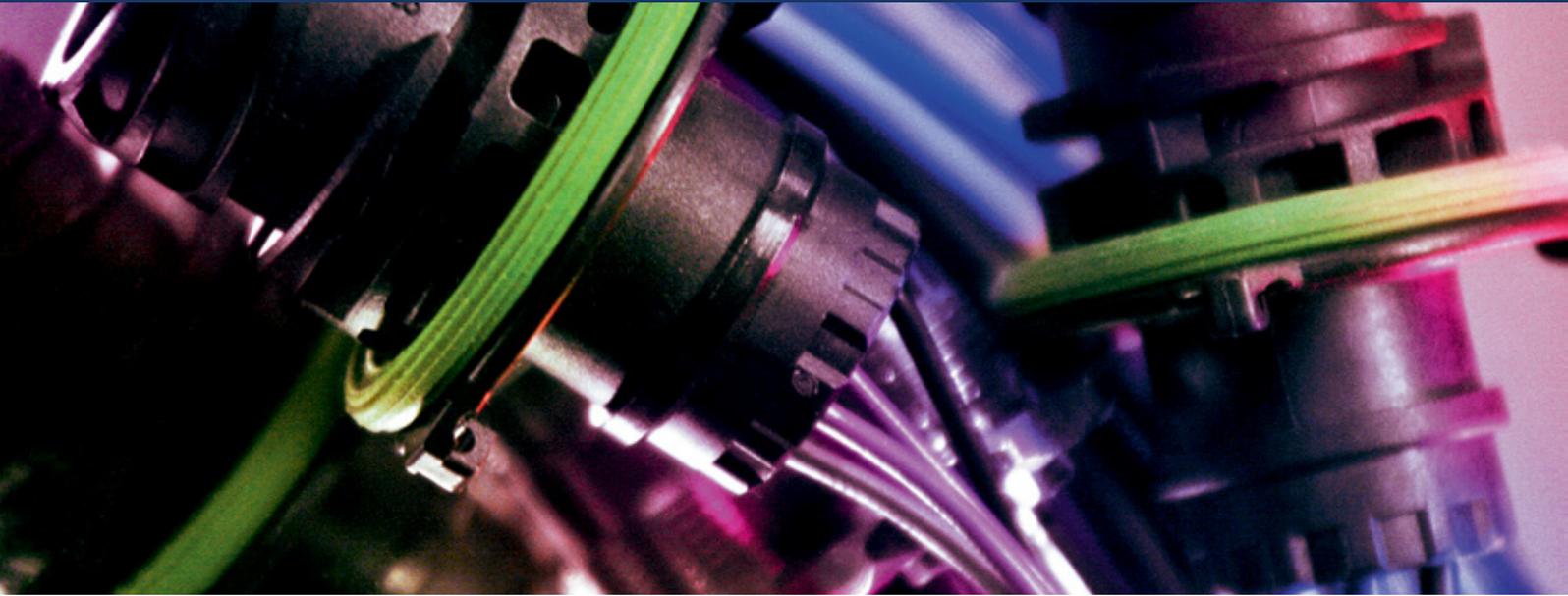
### Protective circuits

Lithium-ion battery systems require a mandatory protective circuit in order to prevent potential overload, deep discharge, over current as well as other possible short-circuits. At the same time the protective circuits should not consume large amounts of power to avoid additional discharge of the battery. Therefore RKB electronic AG develops state of the art protective circuits exclusively with mass production proved brand components.

### Battery management systems

Our battery management systems can be seen as a consistent improvement of the classical protective circuit. Complementary to the standard features, a BMS can log further information for example charging condition, current temperature, number of discharge cycles and lots of other information for further processing. These data can be retrieved via SM-, I<sup>2</sup>C- or HDQ-Bus.

# Cable assembly

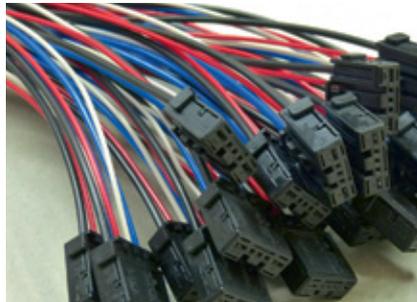


## Set of cables, cable harnesses, machine wiring



### Always well-connected

In our cable division we develop, manufacture and sell high-quality sets of cable and cable harnesses since 2000. Primarily they are used in agricultural and construction machinery, special purpose machinery as well as civil aviation. The latter shows the high quality demands of our cable assembly. Furthermore we manufacture standardised sets of cable and cable harnesses for connecting a variety of electronic devices.



### Sets of cable

Due to continuous proceeding of automation in all branches of industries the demand of cable sets increases daily. In this area we manufacture: LiYY, LiYCY, Cat5-7, ribbon cable, modular cable and data cable. The possibilities of the application-specific connectors are almost endless. With our sets of cable every electrical signal will be forwarded optimally to the next electronic assembly. A 100% electrical final check is self-evident for us.



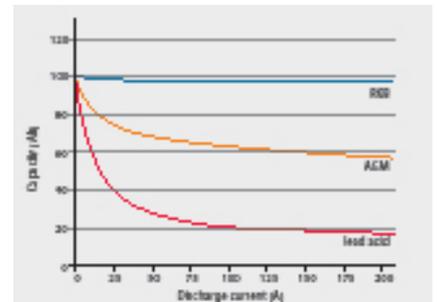
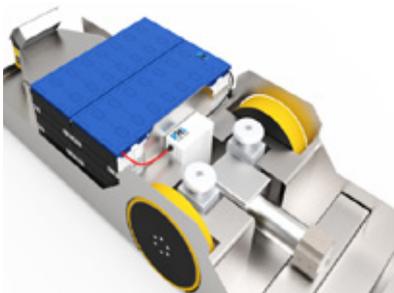
### Cable harnesses

Our cable harnesses are used in applications with multiple point-to-point or point-to-area connections. Due to the construction method they are able to transfer larger amounts of electrical charge than sets of cable. Additionally our cable harnesses withstand higher mechanical loads. Similar to our sets of cable our cable harnesses use connectors from wellknown manufacturers like Molex, Amp, Deutsch and many more.

# System solutions



## Lithium-based battery solutions – the alternative to the traditional lead acid battery



### Automated Guided Vehicles

We develop customized solutions for Automated Guided Vehicles with high performance battery systems. Use the new powerful and light Lithium technology to optimize the idle time of your systems, up to 5-times faster charging and double the endurance in comparison to average lead batteries. Your new development benefits from the high performance and light weight Lithium technology

### Charging technology

We offer a variety of chargers to match our intelligent battery systems. They generally feature a wide-range input (110 – 240 VAC) allowing worldwide use of the chargers. Depending on the power range our chargers have a plastic or aluminum protection housing. The charging process is microprocessor controlled according to the required charging method (e.g. CC/CV for Li-Ion).

### Advantages

- Optimized idle time
- Increased productivity
- Low self-discharge
- Long cycle life
- High energy density allows small designs
- High current load capacity
- Large operating temperature range
- Low weight



**RKB electronic AG**

Otto-Hahn-Str. 19  
75248 Ölbronn-Dürrn  
Germany

Tel: +49 (0) 7237-48634 0  
Fax: +49 (0) 7237-48634 181  
Mail: [info@rkb-ag.de](mailto:info@rkb-ag.de)

[www.rkb-ag.de](http://www.rkb-ag.de)

