



RKB electronic AG

Li-Ion battery systems

with PCMs or
battery management systems
in high energy
or high power applications



Customized battery systems with lithium-ion technology

As one of the leading system suppliers for intelligent battery systems in Germany, we offer you a broad product portfolio which includes customized battery systems, protective circuit modules and charging technology. For quality reasons, all offered lithium-ion battery systems are developed, manufactured and tested exclusively in our manufacturing plant in Oelbronn-Duerrn, Germany.



As an "All-In-One" service provider we gladly take care of the technical realization of your products, such as development, prototypes and serial production. You benefit from years of experience in battery assembly as well as our consistent business relations with well-known battery manufacturers. We complete our range of battery products by providing all significant certificates including the latest standards and laws.



High energy and high power systems

Theoretically there is an endless variety of lithium-ion battery systems. However, we generally distinguish between two types. On the one hand "high energy" battery systems with a high volume energy in reference to volume and weight and on the other hand "high power" battery systems which allow a discharge up to 30C. As of late, we produce battery systems that allow both medium capacity paired with medium discharge rate (approx. 4-5C). These mixed systems are successfully used in e-bikes and pedelecs, however they can be used for a large number of other applications. The functional range of those battery systems depends on the configuration of the battery management system. Besides the elementary protection functions, it also takes care of other tasks, for example calculating the remaining capacity or logging the actual discharge cycles.

Lithium technologies

As an innovative company, we can offer you all popular battery technologies available on the market, which currently are: Lithium-Cobalt-Oxide (LiCoO_2), Lithium-Manganese-Oxide (LiMn_2O_4), Lithium-Nickel-Oxide (LiNiO_2), Lithium-Iron-Phosphate (LiFePO_4), Lithium-Nickel-Cobalt-Aluminum-Oxide (LiNiCoAlO_2) as well as the popular and most common used Lithium-Nickel-Cobalt-Manganese-Oxide (LiNiCoMnO_2) system.

Examples of use



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 torches, lighting technology and many other application areas.

Charging technology and power supplies

Matching our intelligent battery systems, we offer a variety of chargers that fulfill all relevant requirements for European, American and Asian markets. Additionally our chargers feature a wide-range input and an exchangeable primary power cord allowing a worldwide use.



Our lithium-ion chargers charge with the highest precision with CC/CV method. Depending on their purpose the chargers are divided into different power ranges. The end-of-charge voltage ranges between 3,60V and 4,20V per cell according to the used lithium-technology. Upon request, the standard DC-plug can be exchanged by a secondary plug which matches your device respectively your battery system.



Protective circuits and battery management systems

Lithium-ion battery systems require a mandatory protective circuit in order to prevent potential overload, deep discharge or over current as well as possible short-circuits. At the same time the embedded electronics should not consume large amounts of power to avoid additional discharge. Therefore, RKB electronic AG develops state of the art protective circuits and battery management systems at our manufactory in Germany..



During development, we can take specific demands as well as your own requirements like communication via SM-, I²C- or HDQ-Bus among battery system and your device into account. In addition to the earlier mentioned protective circuits these intelligent battery management systems can log further information for example charging condition, current temperature, number of discharge cycles and lots of other relevant information for further processing. The range of performance and application of our protective circuits and battery management systems are nearly unlimited. Even applications in the kilowatt area can be realized with our devices.



Your expert for intelligent li-ion battery systems



RKB electronic AG was founded in 2000 and produces customized battery systems since 2003. Our main focus is the development, production and distribution of high-tech lithium-ion battery systems. At the moment, RKB electronic AG has more than fifty employees on hand to fulfill this

challenging task. Supported by efficient and elaborate manufacturing techniques as well as modern machinery, it became our mission to keep our product range up to date. Therefore, we can offer you the latest technology at the best possible price. Your satisfaction comes first. Our quality management ensures an error free production process, absolute transparency and retraceability in every procedure.



All manufactured battery systems and chargers run through electrical and visual final inspection. During the electrical inspection future applications are realistically simulated to ensure a practical test of all components. Trained and

experienced employees are the key to avoid errors. Competence, speed, flexibility, a customer oriented and innovative product range combined with a quality oriented and wide manufacturing range makes RKB electronic AG a powerful partner for you. It is our ambition to take on the latest technologies and innovations in order to turn our customers' requirements into solutions with optimized technological and economical performance.



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