

Battery Management System Market by Type (Motive Battery and Stationary Battery), Battery Type (Lithium-ion, Lead-acid, Nickel-based, Solid-state, Flow battery), Topology (Centralized, Distributed and Modular), Application and Region - Global Forecast to 2028

Market Report | 2023-01-06 | 227 pages | MarketsandMarkets

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Report description:

The global battery management system (BMS) market is expected to grow from USD 7.8 billion in 2023 to USD 18.4 billion by 2028, at a CAGR of 18.7% from 2023 to 2028. The battery management system is implemented to manage high-energy batteries efficiently. The functions of the battery management system may vary according to the properties and requirements of the battery it is incorporated into.

The battery management system market based on battery type has been segmented into lithium-ion, lead-acid, nickel-based batteries, and others. Most end users choose the most suitable battery type according to their requirements and the nature of the application. Lithium-ion is a widely used battery in applications such as automobiles and renewable energy systems.

"Renewable energy application to hold a significant share of battery management system market in 2028"

Both on-grid and off-grid renewable energy deployments are witnessing steady growth, with batteries being used for energy storage applications for many years. However, battery storage technology has gained greater traction and supports higher electricity generation levels from renewable energy-particularly wind and solar. The rapid fall in battery cost has increased the popularity of battery storage as an option for storing electricity from renewable sources at the household, business, and community levels. These batteries need battery management systems for efficient operations, tracking battery voltage, the amount of power consumed, the state of charge of the battery, etc. In addition, the battery management system in renewable energy is required for PV time shift, peak shaving, and grid support.

"Europe is expected to grow at an impressive CAGR during the forecast period"

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Germany, France, and the UK are among the major European economies. These countries are technologically developed and are also major manufacturing hubs for the automotive and aerospace & defense verticals. Five countries, Germany, France, the Netherlands, Sweden, and Belgium, accounted for more than three-quarters of all electrically chargeable cars in the EU. As there is a growing trend of adoption for electric vehicles in Europe, the requirement for battery management systems is also expected to increase to effectively manage batteries in electric vehicles.

Major players profiled in this report are: Sensata Technologies, Inc. (Japan), Eberspacher (Germany), Panasonic Holdings Corporation (Japan), and LG Energy Solution, Ltd. (South Korea).

Research Coverage

This report covers the battery management system market in detail, with segmentation based on type, battery type, topology, application, and region. The type segment includes motive battery and stationary battery type. The battery types include lithium-ion, lead-acid, nickel-based batteries, and others. The topology segment includes centralized, modular, and distributed topologies. Further, automotive, industrial, renewable energy, telecommunications, military & defense, and other applications of battery management systems have been covered in this report. The market has also been segmented into four regions-North America, Asia Pacific, Europe, and RoW.

Key Benefits of Buying the Report:

The report would help market leaders/new entrants in this market in the following ways:

- This report comprehensively segments the battery management system market and provides the closest approximation of the overall market size and subsegments that include type, battery type, topology, application, and region.
- The report would help stakeholders understand the pulse of the market and provide them with information on key drivers, restraints, challenges, and opportunities pertaining to the battery management system market.
- This report would help stakeholders understand their competitors better and gain more insights to enhance their position in the business.
- The competitive landscape section includes the competitor ecosystem and growth strategies, such as product launches and acquisitions conducted by major market players.

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