

Electric Vehicle Battery Management System Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)

Market Report | 2023-01-23 | 100 pages | Mordor Intelligence

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Report description:

The Electric vehicle battery management system market was valued at USD 2696.3 million in 2021 and is expected to reach USD 12010.6 million in 2027, registering a CAGR of around 28% during the forecast period (2023 - 2028).

Despite the negative COVID-19 impact on the global automotive industry, electric vehicle sales for the year 2020 witnessed significant growth worldwide. This was primarily attributed to government subsidies, expanding electric vehicle charging infrastructure, and a rise in fuel prices. The same growth trend was witnessed for 2021 and will likely continue during the forecast period. This is likely to remain a major driving factor during the forecast period.

Over the medium term, factors such as the rise in the adoption of electric vehicles (EVs) and hybrid electric vehicles (HEVs) and the surge in industry preference for lithium-ion batteries are expected to drive the growth of the battery management system market.

However, the rise in the overall price of products with the addition of a battery management system hinders the market's growth.

Europe is anticipated to remain the largest market, followed by Asia-Pacific for the battery management system due to several leading manufacturers. Adopting electric vehicles (EVs), plug-in electric vehicles, and hybrid electric vehicles (HEVs) technology is expected to rise considerably across small and medium-sized businesses in European countries.

Electric Vehicle Battery Management System Market Trends

Battery Electric Vehicle Segment Anticipated to Dominate the Market

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With Electric mobility swiftly growing worldwide, governments have also been proactive in enacting policies to encourage the adoption of electric vehicles. China, India, France, and the United Kingdom have announced plans to phase out the petrol and diesel vehicles industry entirely before 2040.

China is, by far, the most advanced country with regard to the production of electric cars globally due to subsidies and supportive government policies, which started more than ten years ago. In April 2021, the United States launched an infrastructural plan of USD 174 billion to promote electric vehicles and EV charging stations.

Moreover, growing investments in electric vehicle manufacturing and its associated components like batteries are expected to create a positive outlook for demand in the market. For instance,

Daimler announced a new investment plan worth EUR 70 billion or USD 85 billion for 2021 through 2025 for bringing 30 electric vehicles to market, including 20 all-electric battery vehicles. In December 2020, Volkswagen raised its planned investment in digital and electric vehicle technologies to EUR 73 billion over the next five years and earmarked EUR 60 billion for all-electric vehicles.

Thus, based on the abovementioned factors, growing investments in electric vehicle manufacturing and the government's EV supporting policies worldwide will likely drive the electric vehicle battery management system market over the forecast period.

Europe Expected to Hold Significant Share in the Market

Europe is one of the largest markets for electric vehicles worldwide, where the demand for electric cars is snowballing in every country, fueling the demand for battery management systems in the region. Growing sales of hybrid and electric passenger cars and rising government aid are expected to drive demand in the market. For instance, France signed in favor of the global electric mobility initiative, which aimed to make 20% of the vehicles on the road non-polluting by 2030.

In addition, a growing priority for weight saving, i.e., as demand for light vehicles is increasing, EV (Electric Vehicle) battery management systems are also witnessing a transition phase where several players are focusing on the same. In March 2020, LION E Mobility AG and Sogefi announced an agreement to combine LION's battery management systems and module design technology with Sogefi's industrial, automotive cooling components and global sales and distribution capabilities. As the market is becoming lucrative, several local manufacturers are entering into a joint venture with other companies in the market. For instance,

In June 2021, Hella announced its joint venture (JV) with Evergrande Group, HELLA Evergrande Electronics (Shenzhen) Co., to develop and produce high-voltage battery management systems. Hella is primarily contributing to the field of battery electronics and jointly developing high-class battery management systems.

In June 2021, STMicroelectronics announced its collaboration with Arrival to provide semiconductor technologies and products for Arrival's vehicles, including automotive microcontrollers and power and battery-management devices. Arrival has chosen ST as one of its key partners in bringing its connected EVs (Electric Vehicles) to market.

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On the basis of the aforementioned factors, it is evident that Europe is likely to hold a significant market share over the forecast period.

Electric Vehicle Battery Management System Market Competitor Analysis

The Electric Vehicle Battery Management System Market is moderately consolidated as several global players dominate it. Moreover, the market tends to be highly attractive for new players, and companies operating in the market have been focusing on launching advanced technologies to gain a competitive advantage. For instance,

In May 2021, Vitesco won a contract to supply Hyundai's new EV platform with 800-volt inverters with silicon carbide technology in significant quantities for the new electric vehicle platform of the Hyundai Motor Group, underlining its intention to launch a total of 23 battery-powered models by 2025, 11 of which may be exclusively battery-powered.

In April 2021, Silicon Labs announced that the company entered a definitive asset purchase agreement to sell its Infrastructure & Automotive (I&A) businesses to Skyworks Solutions Inc. for USD 2.75 billion.

In October 2020, NXP partnered with Volkswagen for Electric Vehicle Battery Solutions with a focus on delivering up to 75 full-electric vehicle models to market by 2029.

Some of the major players in the market include Renesas Electronics Corporation, NXP Semiconductors, Keihin Corporation, TE Connectivity, and Analog Devices Inc.

Additional Benefits:

The market estimate (ME) sheet in Excel format
3 months of analyst support

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