

# US Electric Vehicle Power Inverter Market Size study, by Propulsion Type (Hybrid Electric Vehicles, Plug-in Hybrid Electric Vehicle, Battery Electric Vehicle, Fuel Cell Electric Vehicle) by Vehicle Type (Passenger Cars, Commercial Vehicles) Forecasts 2022-2032

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# **Abstracts**

US Electric Vehicle Power Inverter Market is valued approximately at USD 930 million in 2023 and is anticipated to grow with a healthy growth rate of more than 25.52% over the forecast period 2024-2032. An electric vehicle (EV) power inverter is a crucial component of electric vehicle that translates the direct current (DC) stored in the vehicle's battery into alternating current (AC) to drive the electric motor. This conversion is essential because most electric motors operate on AC, while batteries store energy in DC form. Additionally, it can convert AC back to DC during regenerative braking, recharging the battery and enhancing the vehicle's efficiency and range. With growing concerns about climate change and the push towards sustainable transportation, the adoption of electric vehicles is on the rise. Furthermore, technological advancement in power electronics are continually improving the efficiency and performance of power inverters used in electric vehicles. Manufacturers are focusing on developing inverters with higher power density, improved thermal management, and enhanced reliability. These trends expected to drive demand for US Electric Vehicle Power Inverter Market.

Advancements in power electronics are playing a pivotal role in driving demand for the US electric vehicle (EV) power inverter market. As electric vehicles become increasingly prevalent, there's a growing emphasis on enhancing the efficiency, performance, and reliability of power conversion systems. Technological breakthroughs, such as the adoption of silicon carbide (SiC) and gallium nitride (GaN) semiconductors, are revolutionizing power electronics by offering higher efficiency and power density compared to traditional silicon-based inverters. These advancements result in more



energy-efficient electric vehicles, longer driving ranges, and faster charging times, all of which are critical factors in accelerating EV adoption. Moreover, the integration of advanced thermal management systems and the use of smart algorithms for optimal power delivery further enhance the appeal of EVs. As a result, the demand for innovative power inverters is on the rise, driven by the need to meet the evolving requirements of the expanding electric vehicle market in the United States. However, demand for power inverters and a concern about range anxiety and charging times can stifle market growth between 2022 and 2032.

Major market player included in this report are:

CWB Automotive Electronics Co., Ltd.

**Lear Corporation** 

John Deere Electronic Solutions

Company 4

Company 5

Company 6

Company 7

Company 8

Company 9

Company 10

The detailed segments and sub-segment of the market are explained below:

By Propulsion Type
Hybrid Electric Vehicles
Plug-in Hybrid Electric Vehicle
Battery Electric Vehicle
Fuel Cell Electric Vehicle

By Vehicle Type
Passenger Cars
Commercial Vehicles

Years considered for the study are as follows: Historical year – 2022 Base year – 2023 Forecast period – 2024 to 2032

# Key Takeaways:



Market Estimates & Forecast for 10 years from 2022 to 2032.

Annualized revenues and Country level analysis for each market segment.

Detailed analysis of geographical landscape with Country level analysis of major regions.

Competitive landscape with information on major players in the market.

Analysis of key business strategies and recommendations on future market approach.

Analysis of competitive structure of the market.

Demand side and supply side analysis of the market.



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