



Electrification Systems

We have downsized and improved the performance and fuel efficiency of major products that are essential in mobility solutions, in order to provide electrification systems that contribute to carbon neutrality.

Leveraging DENSO's broad business domains, we connect various systems and products within the vehicle to efficiently manage electrical and thermal energy, thereby improving fuel economy, extending driving distance, and shortening charging time for enhanced convenience.

Tsuneo Maebara Head of Business Group

Business Strengths	Opportunities	Risks
- Technological capabilities honed through vertical integration and a lineup of high-quality products that meet customer expectations - Ability to create systems that optimize energy management in the entire vehicle - A global five-pole production and supply system that meets regional needs around the world	- Growing global demand for electric powertrains suited to diversified forms of mobility as electrification trends take different tracks - Increasing demand for systems that optimally control power sources and thermal energy in response to needs for better electric mileage and autonomous driving	- Demand fluctuations and supply chain disruptions caused by geopolitical risks and government policy uncertainties in various countries - Intensifying competition as start-ups and companies from other industries enter the global electrification market at low cost

Business Strategy

Even as the trend toward electric vehicles becomes more complex, we aim to achieve a 30% share of the electrification domain by fiscal 2031 through the development of technologies ahead of our competitors, the establishment of supply capabilities that meet customer expectations, and the provision of quality that exceeds customer expectations. This is how we are contributing to the realization of a sustainable carbon-neutral society. We are further enhancing the competitiveness of our widely adopted products, such as inverters and motor generators, while advancing the development of technologies for power supply systems and energy management systems and continuing to expand our product lineup. Furthermore, we are extending our electrification technologies to support all types of electric mobility solutions beyond passenger vehicles—including two-wheelers; in-plant automated conveyance (telemotion) for factories and warehouses; compact mobility solutions; commercial, agricultural, and construction machinery; and air mobility—so that we can continue to lead the global electrification market.

Progress on Mid-term Policy for 2025 and Outlook

In fiscal 2025, sales expanded for inverters and other electrification products, with revenue reaching approximately ¥1.4 trillion. This represented a 6.9% year-on-year increase on a volume basis, excluding foreign currency effects, driving overall growth.

System Creation Capabilities

To provide safe, secure, and highly convenient mobility solutions to customers, DENSO's core strategy is centered on vertical integration, spanning from semiconductors to inverters and complete systems, covering all layers in-house.

By sharing technical expertise across these layers, we have enhanced our competitiveness at each level and provided products and systems tailored to customer needs for more than 25 years. As demand grows for improved energy efficiency and autonomous driving, integrated energy management systems are becoming increasingly important in order to maximize the efficiency of electrical, thermal, and kinetic energy in the entire vehicle. We have long provided power source products that enable safe battery usage through battery condition monitoring, diagnostics, and control. Going forward, we will integrate these products to create more compact, higher-precision systems for managing battery energy. By combining these capabilities with our in-house thermal technologies, we will create unique system-level value that sets us apart from competitors.

Product Lineup and Technology Development

DENSO is one of a few suppliers capable of offering a broad range of electrification products for HEVs, PHEVs, and BEVs. In recent years, the competitive strength of our products has been demonstrated by the adoption of our new inverter for eAxle by multiple customers. Our inverters using SiC semiconductors contribute to both downsizing and improved energy efficiency. Even amid a temporary slowdown in the BEV market, we are able to consistently demonstrate strong overall competitiveness. In addition, our proprietary high-speed winding technology using flat conductors enables compact and high-efficiency motor generators, which are deployed in electrified vehicles worldwide. This technology was jointly recognized with Toyota Motor Corporation as a recipient of the One Step on Electro Technology award.* Going forward, we will continue to lead in the development of key electrification technologies and expand the adoption of a diverse range of products to help realize a carbon-neutral society.

* An award system by The Institute of Electrical Engineers of Japan that recognizes the most significant electrical technologies of the 20th century for their outstanding contributions to society

Global Five-Pole Production and Supply Network

To address regional needs around the world while hedging supply against risks, in 2024 we expanded production capacity in Europe (Hungary), China (Nansha, Guangzhou), and Japan (Fukushima), and commenced production of inverters. In preparation for future market expansion, we plan to develop business in India in 2026 and the ASEAN region (Thailand) in 2027, while also strengthening our production and supply capabilities in western Japan based on developments at customers.

