

## **Automotive Micro Motor - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)**

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### **Report description:**

Automotive Micro Motor Market Analysis

The automotive micromotor market size stood at USD 16.23 billion in 2025 and is forecast to reach about USD 20.96 billion by 2030, advancing at a 5.25% CAGR. Gains stem from fast-rising electric-vehicle (EV) volumes, the migration to 48 V mild-hybrid architectures and growing content per vehicle across powertrain, safety and comfort modules. Manufacturers are scaling regional production hubs to meet local sourcing rules; Nidec alone earmarked more than USD 7 billion for expanded E-Axle capacity to capture additional automotive micromotor market share. Asia-Pacific remains the demand epicentre, helped by China's export leadership, while higher-voltage platforms spur the fastest adoption of brushless motor technologies in North America and Europe.

Global Automotive Micro Motor Market Trends and Insights

Surge in EV Production Volumes

Global EV shipments continue to outpace overall light-vehicle growth, and each pure battery model relies on dozens of auxiliary micromotors for thermal management, aerodynamics, steering, braking and battery-pack cooling. Assembly Magazine forecasts a fourfold jump in traction-motor output to more than 120 million units by 2034, a trend that cascades into parallel demand for smaller motors across sub-systems. China's rise to 4.91 million vehicle exports in 2023, surpassing Japan, reflects this shift and concentrates much of the automotive micromotor market in the region. Higher 800 V architectures in premium EVs further raise the performance bar for micromotor control electronics built around silicon-carbide devices, pushing suppliers toward robust,

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high-frequency driver modules.

### Rise in 48V Mild-Hybrid Architectures

Moving from traditional 12 V electrics to 48 V boards allows automakers to cut fuel use by up to 15% while unlocking new micromotor applications in active suspension, start-stop and electric superchargers. CLEPA projects 48 V systems in one out of every ten new cars by 2025. The accompanying 48 V battery segment is anticipated to climb, giving the automotive micromotor market a sizeable design-in opportunity. Tesla's adoption of 48 V wiring in the Cybertruck accelerates industry conversion, although legacy manufacturers must overhaul harnesses, connectors and validation tools to cope with higher voltages.

### Up-trend in Rare-Earth Magnet Prices

Permanent-magnet pricing volatility is the most acute cost challenge for automotive micromotor suppliers. Neodymium spot values slid 42% over the past year, yet long-term supply risk looms as China tightens export controls. Vehicle programmes already report production pauses, such as Suzuki's Swift line in Japan, when magnet shipments stalled. Industry players are diversifying sourcing: Nidec signed a 2025 deal to adopt Noveon Ecoflux magnets produced in the United States, buffering currency and geopolitical shocks.

Other drivers and restraints analyzed in the detailed report include:

Growing Demand for Luxury & Premium Interiors / Vehicle Lightweighting & Component Miniaturisation Push / Constant Tech Upgrades Inflating Unit Costs /

For complete list of drivers and restraints, kindly check the Table Of Contents.

### Segment Analysis

The 12 to 24 V class held 42.44% of the 2024 automotive micromotor market share, reflecting legacy electrical architectures across the light-vehicle parc. Higher-voltage (More than 48 V) segments, however, register the fastest 5.78% CAGR as OEMs adopt mild-hybrid and 800 V EV drivetrains for efficiency gains. This shift enlarges the automotive micromotor market size for high-torque brushless units paired with low-gauge wiring harnesses, cutting resistive losses and easing thermal loads. Tesla's 48 V harness rollout underscores broad industry alignment on the next electrical standard.

CLEPA confirms that 48 V technology can trim fuel use by up to 15%, accelerating its inclusion in European CO<sub>2</sub>-compliance strategies. Suppliers therefore scale modular stator families that cover 24 V blower motors through 400 V traction auxiliaries, maximising platform reuse. Emerging low-power (Less than 11 V) niches remain relevant for sensor nodes yet represent a limited portion of revenue.

DC motors commanded 59.65% of 2024 revenue thanks to cost-effective designs for window lifts, seat adjusters and HVAC flaps. Nevertheless, AC machines record a robust 6.5% CAGR because variable-speed operation reduces energy draw in steering, braking and coolant pumps. The automotive micromotor market therefore witnesses a balanced portfolio where DC platforms remain viable for on-off actuation, while inverter-driven AC options satisfy efficiency targets in electric power steering.

Nidec's SynRA line illustrates the push toward synchronous-reluctance architectures that remove rare-earth magnets, boosting supply resilience. Johnson Electric's FY23/24 sales indicate sustained OEM uptake across both motor types, validating a multi-technology roadmap.

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The Automotive Micro Motors Market Report is Segmented by Power Consumption (Below 11V, 12 To 24V, and More), Motor Type (DC Motor and AC Motor), Technology (Brushed Micromotor and Brushless Micromotor), Application (Body Electronics and More), Vehicle Type (Passenger Cars and Commercial Vehicles), Sales Channel (OEM and Aftermarket), and Geography. The Market Forecasts are Provided in Terms of Value (USD) and Volume (Units).

## Geography Analysis

Asia-Pacific generated 48.48% of global revenue in 2024, and its 6.20% CAGR to 2030 keeps the region at the forefront of the automotive micromotor market. Chinese exporters shipped 4.91 million vehicles in 2023, surpassing Japan and consolidating a broad supply base for micromotors, semiconductors and magnets. Nidec plans to raise headcount at its Dalian complex by up to 50%, turning it into the world's largest EV-motor site capable of one-million-unit output a year. Thailand and Indonesia court fresh investment to create integrated EV supply chains, broadening regional sourcing options.

Europe advances at a steady rate as strict emissions targets spur 48 V roll-outs and premium OEMs adopt active aerodynamics. CLEPA's promotion of mild-hybrid powertrains and Schaeffler's 2024 merger with Vitesco bolster local motor expertise. German start-up DeepDrive secured USD 33.5 million to commercialise dual-rotor designs using 50% fewer magnets, highlighting Europe's push for material-light innovations.

North America is powered by reshoring policies and Tesla-led voltage standardisation. KPS Capital Partners' EUR 3.5 billion takeover of Siemens' Innomatics division signals private equity appetite for high-value motor brands. South America exhibits the high growth off a smaller base, aided by rising electronics content in Brazilian and Argentine production.

## List of Companies Covered in this Report:

Nidec Corporation / Johnson Electric Holdings Ltd. / Mabuchi Motor Co., Ltd. / Maxon Motor AG / Mitsuba Corporation / Buhler Motor GmbH / Denso Corporation / Robert Bosch GmbH / Continental AG / Valeo SA / Brose Fahrzeugteile SE / Ametek Inc. / MinebeaMitsumi Inc. / Mitsumi Electric Co., Ltd. / Shenzhen Kinmore Motor Co. / Constar MicroMotor / Wellings Holdings Ltd. /

## Additional Benefits:

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

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