

China Automotive Heat Exchanger - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts 2019 - 2029

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Report description:

The China automotive heat exchanger market is valued at USD 9.13 billion in the current year. It is expected to reach a market value of USD 11.46 billion by the end of the forecast period, registering a CAGR of 3.85% during the forecast period.

An automotive heat exchanger is used to transfer heat between two mediums at different temperatures that are in thermal contact with each other. For example, in an internal combustion engine, the coolant flows in a circular motion through the radiator coils, and air flows past these coils to cool the engine. Moreover, the increased adoption of comfort and convenience features such as HVAC systems in the vehicle is one of the major driving factors in the market.

China continues to be the world's largest automobile vehicle market by both annual sales and manufacturing output, with domestic production expected to reach 35 million vehicles by 2025. Based on data from the China Association of Automobile Manufacturers, over 26.9 million vehicles were sold in 2022, an increase of 3.46% from 2021. These increasing domestic sales of motor vehicles are anticipated to boost the Chinese automotive heat exchanger market in the forecast period.

Key Highlights

-As these motor vehicle sales are increasing in the country, the heat exchanger market is experiencing rapid growth. The country increased its market share significantly since the early 2000s and today holds the highest market share of more than 30% in automotive heat exchangers in the world and 50% in Asia respectively.

The country is also home to more than 500 heat exchanger manufacturers. The increasing demand for a reduction in the weight of automobiles made original equipment manufacturers replace heavier materials such as iron and steel with lighter materials like

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plastics and aluminum. This trend is also followed in the automotive heat exchanger market.

Moreover, previous designs and structures of the heat exchanger caused corrosion, decomposition, and settlement of sludge and dust particles. It leads to fouling, which results in reduced heat transfer and restricted throughput, and this leads to higher fuel consumption. Increasing innovation and developments in material science technologies and rising sales of passenger cars and light commercial vehicles in the country are expected to grow the market over the forecast period.

China Automotive Heat Exchanger Market Trends

Increasing Electric Vehicle Sales in the Country Boosts the Market-

The automotive industry is actively shifting toward sustainable, clean fuels. The sales and the production of electric vehicles are further expected to witness a phenomenal growth rate. Increasing awareness about environmental concerns led to the adoption of new energy vehicles. The rising adoption of electric vehicles in China compelled manufacturers of traditional heat exchangers to develop efficient battery thermal management systems like liquid-cooled plate heat exchangers and expand their product portfolio. For instance,

- In July 2023, Magneti Marelli launched a new integrated thermal management module for electric vehicles to improve the vehicle's efficiency, safety, and driving range by up to 20%.

The increasing sales of electric vehicles such as battery electric vehicles, hybrid electric vehicles, and plug-in hybrid electric vehicles led to an increase in the demand for Lithium-ion batteries. These batteries can store energy in a small space. However, there are various issues associated with Lithium-ion batteries used in electric vehicles. For instance, if the charging limit exceeds 4.2 volts, then it could cause overheating of the lithium plating.

It damages the cells and reduces the overall performance and battery life. The battery thermal management system plays a significant role in improving the performance and efficiency of the electric vehicle. Such advantages of battery thermal management systems are expected to boost the market for China's automotive heat exchangers during the forecast period.

Demand for Passenger Cars and Light Commercial Vehicles Drive the Demand-

Demand for passenger cars and light commercial vehicles in China is expected to grow during the forecast period, leading to a high demand for automotive heat exchanger units in China. The country is home to more than 500 heat exchanger manufacturers, with a massive presence of domestic players. The increased penetration of passenger vehicles over the last three years in the country drove the growth of the automotive heat exchanger.

China continues to be the world's largest automobile vehicle market by both annual sales and manufacturing output, with domestic production expected to reach 35 million vehicles by 2025. Based on data from the China Association of Automobile Manufacturers, over 27 million vehicles were sold in 2022, including 23.24 million passenger vehicles, an increase of 8.19% from 2021. These increasing domestic sales of passenger vehicles are anticipated to boost the Chinese automotive heat exchanger market in the forecast period.

Moreover, several automobile manufacturers are focusing on hybrid technology, which uses both gasoline or diesel-powered and electric power. The increasing country's sales and production of motor vehicles led to a consistent increase in demand for automotive components such as radiators, condensers, evaporators, heaters, intercoolers, battery thermal systems, HVAC

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systems, and oil coolers, among others. It, in turn, is expected to drive the China automotive heat exchanger market during the forecast period.

China Automotive Heat Exchanger Industry Overview

The China automotive heat exchanger market is moderately fragmented, with a few major players including DENSO Corporation, Magneti Marelli, Hanon System, Jiangsu Jiahe, Ningbo Lurun Cooler, Pierburg China, and others. Several key automotive heat exchanger manufacturers are focused on adopting expansion strategies like collaborative agreements, product development, mergers, acquisitions, etc., to explore the market and are actively focused on market expansion. For instance,

- In February 2023, SANHUA Holding Group announced the launch of the Braze Plate Heat Exchanger. It contains a designed working pressure of up to 50 Bar. and R410A, R32, R454B, R290, and others are the Refrigerant to be used.
- In December 2022, Conflux Technology launched a Cartridge heat exchanger developed with 3D printing technology. The Cartridge heat exchanger embeds an additively manufactured core into traditionally manufactured housings. Its scalable design and rapid configuration make the Cartridge heat exchanger suitable for the automotive, electric vehicle, defense, aerospace, and energy sectors, per Conflux.

Additional Benefits:

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

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