

# **Global Electric Vehicle Battery Thermal Management Systems Market Size, Share & Trends Analysis Report, By System (Active, Passive), By Application (Passenger Vehicles, Commercial Vehicles), and Regional Forecasts 2022-2032**

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## **Abstracts**

Global Electric Vehicle Battery Thermal Management Systems Market is valued at approximately USD 4.08 billion in 2023 and is anticipated to grow with a healthy growth rate of more than 32.9% over the forecast period 2024-2032. The global shift toward electric vehicles (EVs) has significantly propelled the demand for efficient battery thermal management systems (BTMS). These systems are crucial for ensuring optimal battery performance, safety, and lifespan. The transition from conventional vehicles to EVs is further supported by increasing environmental concerns and government policies favoring sustainable transportation solutions.

Electric vehicle batteries, particularly lithium-ion variants, are highly sensitive to temperature fluctuations, necessitating robust BTMS solutions. These systems help maintain optimal temperature ranges, ensuring consistent performance, enhanced energy efficiency, and improved vehicle range. Rising EV sales, which reached 16.7 million units in 2024 according to BloombergNEF, are driving the need for advanced BTMS. Automakers are increasingly focusing on the development of larger battery packs with greater energy densities to improve EV range, creating additional demand for effective thermal management solutions.

The market is segmented into active and passive systems, with the passive segment accounting for a dominant share of 78.2% in 2023. Passive systems' simplicity, cost-effectiveness, and low maintenance requirements drive their adoption, particularly in budget-friendly EV models popular in emerging markets. However, the active systems

segment is projected to grow at the highest CAGR during the forecast period, fueled by the increasing popularity of high-performance EVs requiring precise thermal management solutions.

Asia Pacific dominated the market in 2023, accounting for 41.4% of the global revenue share, driven by robust EV production in countries like China, India, and Japan. Rapid urbanization and expanding fast-charging networks further support this growth. North America and Europe also hold significant market shares, with strong investments in advanced thermal management technologies and a growing focus on sustainable mobility solutions.

Major market player included in this report are:

1. Robert Bosch GmbH
2. GENTHERM
3. Valeo
4. Dana Limited
5. MAHLE GmbH
6. Hanon Systems
7. VOSS Automotive, Inc
8. 3M
9. Grayson Automotive Services Limited
10. Polymer Science, Inc.
11. PARKER HANNIFIN CORP
12. NeoGraf
13. Panasonic Corporation

14. Hitachi Automotive Systems, Ltd.

15. LG Chem Ltd.

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

#### By System

Active

Passive

#### By Application

Passenger Vehicles

Commercial Vehicles

#### By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

ROE

Asia Pacific

China

India

Japan

Australia

South Korea

RoAPAC

Latin America

Brazil

Mexico

Middle East & Africa

Saudi Arabia

South Africa

RoMEA

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 regional 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.

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