

Electric Powertrain Market by Component (Motor/Generator, Battery, BMS, Controller, PDM, Inverter/Converter, On Board Charger), Type (BEV, MHEV, Series, Parallel & Series-Parallel Hybrid), Vehicle (BEV, FCEV, PHEV, MHEV), & Region - Global Forecast to 2030

<https://marketpublishers.com/r/E365F8468033EN.html>

Date: July 2023

Pages: 466

Price: US\$ 4,950.00 (Single User License)

ID: E365F8468033EN

Abstracts

The electric powertrain market is projected to grow from USD 96.7 Billion in 2023 to USD 230.5 Billion by 2030, at a CAGR of 13.2% during the forecast period. The market is anticipated to grow as more consumers and businesses recognize the benefits of electric vehicles. With aggressive targets set for zero-emission vehicles to achieve net-zero emissions targets, the demand for Battery electric vehicles (BEV) will be gaining a major market share in the future. According to IEA, BEV sales accounted for over 70% of the total stock of electric cars in 2022. According to MnM analysis, the Motor/generator, control unit, and power distribution module are components that will dominate the EV powertrain market by 2030, making a major market share in the BEV powertrain market. Fuel-Cell electric vehicles (FCEVs) are estimated to be the fastest-growing vehicle type owing to recent investments in the technology by many key OEMs such as Toyota, Hyundai, and Honda. According to MarketsandMarkets analysis, North America is estimated to be the fastest growing market for FCEVs as the sales of FCEVs in the United States increased by more than 20%. Globally, the FCEV market grew by 40% in 2022 as compared to 2021. This growth is expected to continue in the future in all regions, with Asia Pacific being the largest market. China dominates the battery market and is home to many major automakers, which drives the electric powertrain market in this region.

“DC-DC Converter is estimated to be the fastest growing market for 48V MHEV

powertrain.”

DC-DC converters are used to convert DC voltage from one level to another according to circuit requirements. This is the basic part of the power supply that changes the voltage value to power various applications requiring low DC voltage or high DC voltage. It is the main component of MHEV and consists of a battery that supplies a high DC voltage. The demand for 48V MHEV vehicles is growing rapidly as governments across the world are introducing policies to promote the adoption of these vehicles. This technology has the capacity to deliver around 70% of the performance as compared to a conventional ICE-electric hybrid for about 30 percent of the cost. It allows the integration of the 48V electrical system with the existing 12V electrical architecture in conventional vehicles. Considering all these factors, the DC-DC converter is a key component in EV powertrains. The DC-DC converter contributed to XX% of total EV Components by value in 2022. Considering the ongoing research and development efforts in the DC-DC converter technology market are concentrated by a few major players such as Bosch and Valeo. For instance, Valeo developed a range of solutions for efficient and affordable electric vehicles, which includes DC/DC converters, eAxe, eMotor, Inverters, and On-Board Chargers. With the growing demand for electric vehicles, the demand for DC-DC converters is expected to continue to grow in the coming years.

'Fuel Stacks are estimated to be the largest market in FCEV powertrain market.“

FCEVs are growing rapidly as governments in several countries are introducing policies to promote the adoption of these vehicles. Countries and regions with strict emission regulations have shown interest in FCEVs as a clean transportation solution. According to MnM analysis, Asia Pacific is estimated to be the largest market for FCEVs owing the presence of dominant markets like China and Japan, also the automakers in this region like BYD, CATL, Toyota, Hyundai, etc. The fuel cell stack is a critical component of FCEVs and is responsible for the electrochemical reaction that converts hydrogen and oxygen into electricity, powering the vehicle's electric motor. China, followed by Korea, was historically the biggest market for FCEVs, which shows huge demand for these vehicles in this region. Although the technology is expensive as compared to other EVs, some automakers, fuel cell manufacturers, and other industry players have been investing in fuel cell stack research and development, driving innovation and cost reductions in this segment. For instance, Toyota will be launching the Crown Sedan with a hydrogen version in Japan. Hyundai also announced an investment of USD 1.1 billion in new hydrogen fuel cell plants. The expansion of hydrogen refueling infrastructure will support the growth of FCEVs, creating a conducive environment for fuel cell stack

market expansion.

“Europe is anticipated to be the fastest growing market for BEVs.”

Europe is one of the largest market automotive industries and home to some of the biggest automakers, including Volkswagen, BMW, Mercedes-Benz, Stellantis, etc. Europe alone contributed to the production of 19% of all passenger cars produced globally. Europe's EV market continues to grow as the sales of BEVs cover a market share of 12.1%, and hybrids cover a market share of 22.6%. Germany is estimated to be the largest market for electric powertrains as electric cars are being widely adopted by consumers. The German government offers a 10-year tax exemption for BEV ownership till 2030, Tax reduction for PHEVs, subsidies for EV manufacturers, etc. The availability of charging infrastructure is another concern affecting the adoption of EVs. In Europe, around 535,700 public charging stations for electric vehicles are available, which increases the adoption of EVs in the region. Some popular models in the region include Tesla Model Y, Tesla Model 3, Volkswagen ID.4, Volkswagen ID.3, and Ford Kuga PHEV. The presence of major automakers supports the growing demand for EVs. For instance, Volkswagen plans to start a production site in Europe to build six battery factories totaling 240 gigawatts (GWh) of capacity by 2030. France, one of the fastest-growing markets in this region, will be undergoing a joint venture with ACC (Automotive Cells Company) to build three gigafactories in Europe. All other countries like Spain, Netherlands, and UK are making significant growth in the EV market, which will drive the electric powertrain market in Europe, making it the fastest-growing market.

Breakdown of primaries

The study contains various industry experts' insights, from component suppliers to Tier 1 companies and OEMs. The break-up of the primaries is as follows:

By Company Type: Tier I - 70%, and OEM - 30%

By Designation: C Level - 40%, D Level - 35%, and Others - 25%

By Region: North America - 5%, Europe - 20%, Asia Pacific - 60%, and Rest of the World – 15%

The key players in the electric powertrain market comprise major manufacturers such as Robert Bosch GmbH (Germany), Mitsubishi Electric (Japan), Magna International Inc.

(Canada), Continental AG (Germany), and Hitachi Astemo Ltd. (Japan). etc. Major companies' key strategies to maintain their position in the global e-bike market are strong global networking, mergers and acquisitions, partnerships, and technological advancement.

Research Coverage

The electric powertrain market is segmented based on vehicle type (PHEV, BEV, MHEV, FCEV), PHEV component (motors/generators, batteries, battery management systems, control units, inverters, power distribution modules, on-board chargers, BEV component (motors/generators, batteries, battery management systems, control units, inverters, power distribution modules, on-board chargers), 48V mild hybrid vehicle (MHEV) component (batteries, battery management systems, inverters, DC-DC converters), FCEV component (Fuel stacks, fuel processors, power conditioners, air compressors, humidifiers), powertrain type (BEV powertrain, MHEV powertrain, series hybrid powertrain, parallel hybrid powertrain, and series-parallel hybrid powertrain) and region (Asia Pacific, Europe, North America, and Rest of the world). The report's scope covers detailed information regarding the major factors, such as influencing factors for the growth of the electric powertrain market. A detailed analysis of the key industry players has been done to provide insights into their business overview, solutions, and services; key strategies; contracts, partnerships, agreements, new product & service launches, mergers and acquisitions, recession impact, and recent developments associated with the electric powertrain market.

Key Benefits of Buying the Report:

The report will help the market leaders/new entrants with information on the closest approximations of the revenue numbers for the overall electric powertrain and the sub-segments. This report will help stakeholders understand the competitive landscape and gain more insights to position their businesses better and plan suitable go-to-market strategies. The report also helps stakeholders understand the market pulse and provides information on key market drivers, restraints, challenges, and opportunities.

The report provides insights on the following pointers:

Analysis of key drivers (Stringent emission norms, Growing vehicle electrification demand in the automobile industry), restraints (Lack of infrastructure for electric vehicle charging, Emerging competing technologies in conventional engines), opportunities (Developments in lithium-ion batteries, Extended range offered by

FCEVs), and challenges (High cost of electrical components, Technological challenges with electric powertrains) influencing the growth of the electric powertrain market.

Product Development/Innovation: Detailed insights on new products such as eBeam Technology by Magna International Inc. in March 2023 and e-motor Rotor Position Sensor (eRPS) launched by Continental AG in February 2023.

Market Development: The growing demand for vehicle electrification and stringent emission norms is driving the market – the report analyses the electric powertrain market across varied regions.

Market Diversification: Exhaustive information about new products & services, untapped geographies, recent developments, and investments in the electric powertrain market.

Competitive Assessment: In-depth assessment of market shares, growth strategies, and service offerings of leading players like Robert Bosch GmbH (Germany), Mitsubishi Electric (Japan), Magna International Inc. (Canada), Continental AG (Germany), Hitachi Astemo Ltd., (Japan) among others in the electric powertrain market.

The report also helps stakeholders understand the pulse of the electric powertrain market & electric vehicle market by providing information on recent trends and technologies.

Contents

1 INTRODUCTION

1.1 STUDY OBJECTIVES

1.2 MARKET DEFINITION

1.2.1 INCLUSIONS AND EXCLUSIONS

TABLE 1 SEGMENT-WISE INCLUSIONS & EXCLUSIONS

1.3 MARKET SCOPE

FIGURE 1 MARKET SEGMENTATION: ELECTRIC POWERTRAIN MARKET

1.4 STAKEHOLDERS

1.5 SUMMARY OF CHANGES

2 RESEARCH METHODOLOGY

2.1 RESEARCH DATA

FIGURE 2 ELECTRIC POWERTRAIN MARKET: RESEARCH DESIGN

FIGURE 3 RESEARCH METHODOLOGY MODEL

2.1.1 SECONDARY DATA

2.1.1.1 Key secondary research referred for vehicle production

2.1.1.2 Key secondary research referred for market sizing

2.1.1.3 Key data from secondary research

2.1.2 PRIMARY DATA

FIGURE 4 BREAKDOWN OF PRIMARY INTERVIEWS

2.1.2.1 Sampling techniques and data collection methods

2.1.3 PRIMARY PARTICIPANTS

2.2 MARKET SIZE ESTIMATION

2.2.1 ELECTRIC POWERTRAIN MARKET: BOTTOM-UP APPROACH

2.2.2 ELECTRIC POWERTRAIN MARKET: TOP-DOWN APPROACH

2.3 MARKET BREAKDOWN AND DATA TRIANGULATION

FIGURE 5 ELECTRIC POWERTRAIN MARKET: DATA TRIANGULATION

2.4 RESEARCH ASSUMPTIONS

2.4.1 RESEARCH ASSUMPTIONS FOR PHEV AND BEV POWERTRAIN COMPONENTS

TABLE 2 RESEARCH ASSUMPTIONS FOR PHEV AND BEV POWERTRAIN COMPONENTS

2.5 LIMITATIONS

3 EXECUTIVE SUMMARY

FIGURE 6 ELECTRIC POWERTRAIN MARKET OUTLOOK

FIGURE 7 ELECTRIC POWERTRAIN MARKET, BY REGION, 2023–2030

4 PREMIUM INSIGHTS

4.1 ATTRACTIVE OPPORTUNITIES FOR PLAYERS IN ELECTRIC POWERTRAIN MARKET

FIGURE 8 STRINGENT EMISSION NORMS AND GROWING DEMAND FOR ELECTRIC VEHICLES TO DRIVE MARKET

4.2 PHEV POWERTRAIN MARKET, BY COMPONENT

FIGURE 9 BATTERIES SEGMENT TO LEAD MARKET FROM 2023 TO 2030

4.3 BEV POWERTRAIN MARKET, BY COMPONENT

FIGURE 10 BATTERY PACKS SEGMENT TO DOMINATE MARKET DURING FORECAST PERIOD

4.4 MHEV POWERTRAIN MARKET, BY COMPONENT

FIGURE 11 DC-DC CONVERTERS SEGMENT TO REGISTER HIGHEST CAGR DURING FORECAST PERIOD

4.5 FCEV POWERTRAIN MARKET, BY COMPONENT

FIGURE 12 FUEL STACKS SEGMENT TO LEAD MARKET DURING FORECAST PERIOD

4.6 ELECTRIC POWERTRAIN MARKET, BY TYPE

FIGURE 13 BEV POWERTRAIN SEGMENT TO DOMINATE MARKET FROM 2023 TO 2030

4.7 ELECTRIC POWERTRAIN MARKET, BY VEHICLE TYPE

FIGURE 14 FCEVS SEGMENT TO REGISTER HIGHEST CAGR DURING FORECAST PERIOD

4.8 ELECTRIC POWERTRAIN MARKET, BY REGION

FIGURE 15 ASIA PACIFIC ACCOUNTED FOR LARGEST MARKET SHARE IN 2023

5 MARKET OVERVIEW

5.1 INTRODUCTION

5.2 MARKET DYNAMICS

FIGURE 16 ELECTRIC POWERTRAIN MARKET: DRIVERS, RESTRAINTS, OPPORTUNITIES, AND CHALLENGES

5.2.1 DRIVERS

5.2.1.1 Stringent emission norms

FIGURE 17 EURO EMISSION NORMS LIMIT OF NOX: EURO V VS. EURO VII

FIGURE 18 CHINA EMISSION NORMS LIMIT OF NOX: CHINA V VS. CHINA VI

FIGURE 19 GLOBAL BEV SALES, 2019-2023 (THOUSAND UNITS)

5.2.1.2 Growing vehicle electrification demand in automobile industry

TABLE 3 MODELS WITH ELECTRIC POWERTRAINS, 2023

TABLE 4 MODELS WITH ELECTRIC POWERTRAINS, 2022

5.2.2 RESTRAINTS

5.2.2.1 Lack of infrastructure for electric vehicle charging

FIGURE 20 WIRELESS CHARGING FOR ELECTRIC VEHICLE MARKET, BY VEHICLE TYPE, 2022 VS. 2027 (USD MILLION)

5.2.2.2 Emerging competing technologies in conventional engines

5.2.3 OPPORTUNITIES

5.2.3.1 Developments in lithium-ion batteries

TABLE 5 BATTERY TECHNOLOGIES USED IN ELECTRIC CAR MODELS

5.2.3.2 Extended range offered by FCEVs

5.2.4 CHALLENGES

5.2.4.1 High cost of electrical components

5.2.4.2 Technological challenges with electric powertrains

5.3 SUPPLY CHAIN ANALYSIS

5.3.1 ELECTRIC POWERTRAIN MARKET: SUPPLY CHAIN ANALYSIS

5.3.2 ELECTRIC POWERTRAIN RAW MATERIAL SUPPLIERS

5.3.3 ELECTRIC POWERTRAIN COMPONENT MANUFACTURERS

5.3.4 ELECTRIC POWERTRAIN MANUFACTURERS

5.3.5 OEMS

5.3.5.1 Technologies used by OEMs

5.3.6 ELECTRIC POWERTRAIN MARKET: ROLE OF COMPANIES IN SUPPLY CHAIN

5.4 ECOSYSTEM

FIGURE 21 ELECTRIC POWERTRAIN MARKET ECOSYSTEM

5.5 TRENDS/DISRUPTIONS IMPACTING ELECTRIC POWERTRAIN MARKET

FIGURE 22 ELECTRIFICATION TREND PRESENTS NEW REVENUE SHIFT FOR ELECTRIC POWERTRAIN MANUFACTURERS

5.6 AVERAGE SELLING PRICE ANALYSIS OF BATTERY ELECTRIC POWERTRAIN (BEV), BY REGION

TABLE 6 BEV POWERTRAIN: AVERAGE PRICE ANALYSIS, 2022 (USD)

5.7 AVERAGE SELLING PRICE ANALYSIS OF PLUG-IN HYBRID ELECTRIC POWERTRAIN (PHEV), BY REGION

TABLE 7 PHEV ELECTRIC POWERTRAIN, BY REGION: AVERAGE PRICE ANALYSIS, 2022 (USD)

5.8 TRADE ANALYSIS

5.8.1 IMPORT DATA

5.8.1.1 US

TABLE 8 US: IMPORT SHARE, BY COUNTRY (VALUE %)

5.8.1.2 France

TABLE 9 FRANCE: IMPORT SHARE, BY COUNTRY (VALUE %)

5.8.1.3 Germany

TABLE 10 GERMANY: IMPORT SHARE, BY COUNTRY (VALUE %)

5.8.1.4 Mexico

TABLE 11 MEXICO: IMPORT SHARE, BY COUNTRY (VALUE %)

5.8.1.5 Belgium

TABLE 12 BELGIUM: IMPORT SHARE, BY COUNTRY (VALUE %)

5.8.2 EXPORT DATA

5.8.2.1 US

TABLE 13 US: EXPORT SHARE, BY COUNTRY (VALUE %)

5.8.2.2 France

TABLE 14 FRANCE: EXPORT SHARE, BY COUNTRY (VALUE %)

5.8.2.3 Germany

TABLE 15 GERMANY: EXPORT SHARE, BY COUNTRY (VALUE %)

5.8.2.4 Mexico

TABLE 16 MEXICO: EXPORT SHARE, BY COUNTRY (VALUE %)

5.8.2.5 Belgium

TABLE 17 BELGIUM: EXPORT SHARE, BY COUNTRY (VALUE %)

5.9 PATENT ANALYSIS

TABLE 18 INNOVATION & PATENT REGISTRATIONS, 2018–2022

5.10 CASE STUDY ANALYSIS

5.10.1 CASE STUDY 1

5.10.2 CASE STUDY 2

5.11 REGULATORY LANDSCAPE

TABLE 19 SAFETY REGULATIONS, BY COUNTRY/REGION

5.12 TECHNOLOGY OVERVIEW

5.12.1 ROBERT BOSCH GMBH: ELECTRIFIED POWERTRAIN SOLUTIONS

5.12.2 MITSUBISHI ELECTRIC CORPORATION: NEW E-AXLE

5.12.3 MAGNA INTERNATIONAL INC.: ALL-ELECTRIC CONNECTED POWERTRAIN – ETELLIGENTREACH

5.12.4 MAGNA INTERNATIONAL INC.: E-BEAM TECHNOLOGY

5.12.5 DENSO CORPORATION: INVERTER USING SIC POWER SEMICONDUCTORS

5.12.6 DANA INCORPORATED: DRIVE TECHNOLOGIES

5.12.7 VALEO: ELECTRIC MOTOR WITHOUT RARE EARTH MOTOR

5.13 KEY BUYING CRITERIA FOR ELECTRIC POWERTRAINS

FIGURE 23 KEY BUYING CRITERIA FOR ELECTRIC POWERTRAINS

TABLE 20 KEY BUYING CRITERIA FOR DIFFERENT ELECTRIC POWERTRAINS

5.14 KEY STAKEHOLDERS IN BUYING PROCESS

TABLE 21 INFLUENCE OF STAKEHOLDERS ON BUYING PROCESS FOR ELECTRIC POWERTRAINS

5.15 KEY CONFERENCES AND EVENTS 2023–2024

5.15.1 ELECTRIC POWERTRAIN MARKET: KEY CONFERENCES AND EVENTS

TABLE 22 ELECTRIC POWERTRAIN MARKET: KEY CONFERENCES AND EVENTS

5.16 WHO SUPPLIES TO WHOM (2021–2024)

5.17 BILL OF MATERIALS ANALYSIS

FIGURE 24 COMPARISON OF BILL OF MATERIALS OF ICE AND EVS: 2023 VS 2030

5.17.1 B- SEGMENT

TABLE 23 B-SEGMENT: BILL OF MATERIALS, 2023

5.17.2 C- SEGMENT

TABLE 24 C-SEGMENT: BILL OF MATERIALS, 2023

5.17.3 D-SUV

TABLE 25 D-SUV: BILL OF MATERIALS, 2023

5.17.4 F-SUV

TABLE 26 F-SUV: BILL OF MATERIALS, 2023

5.18 IMPACT OF ELECTRIFICATION ON VEHICLE COST

6 ELECTRIC POWERTRAIN MARKET, BY VEHICLE TYPE

6.1 INTRODUCTION

6.1.1 INDUSTRY INSIGHTS

FIGURE 25 ELECTRIC POWERTRAIN MARKET, BY VEHICLE TYPE, 2023 VS. 2030 (USD MILLION)

6.2 OPERATIONAL DATA

6.2.1 LITHIUM-ION BATTERY REQUIREMENT FOR VARIOUS VEHICLE TYPES

TABLE 27 REQUIREMENT OF LITHIUM-ION BATTERY SIZES ACROSS DIFFERENT POWERTRAINS

TABLE 28 ELECTRIC POWERTRAIN MARKET, BY VEHICLE TYPE, 2018–2022 ('000 UNITS)

TABLE 29 ELECTRIC POWERTRAIN MARKET, BY VEHICLE TYPE, 2023–2030 ('000 UNITS)

TABLE 30 ELECTRIC POWERTRAIN MARKET, BY VEHICLE TYPE, 2018–2022 (USD MILLION)

TABLE 31 ELECTRIC POWERTRAIN MARKET, BY VEHICLE TYPE, 2023–2030 (USD MILLION)

6.3 PHEVS

6.3.1 HIGHER FUEL EFFICIENCY AND INCREASING DEMAND FOR DOWNSIZED ENGINES TO DRIVE MARKET FOR PHEV POWERTRAINS

TABLE 32 PHEVS: ELECTRIC POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 33 PHEVS: ELECTRIC POWERTRAIN MARKET, BY REGION, 2023–2030 ('000 UNITS)

TABLE 34 PHEVS: ELECTRIC POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 35 PHEVS: ELECTRIC POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

6.4 BEVS

6.4.1 INNOVATIONS IN BATTERIES TO DRIVE DEMAND FOR BEV POWERTRAIN

TABLE 36 BEVS: ELECTRIC POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 37 BEVS: ELECTRIC POWERTRAIN MARKET, BY REGION, 2023–2030 ('000 UNITS)

TABLE 38 BEVS: ELECTRIC POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 39 BEVS: ELECTRIC POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

6.5 48V MHEVS

6.5.1 EASIER INTEGRATION OF MHEV ARCHITECTURE TO DRIVE 48V MHEV POWERTRAIN MARKET

TABLE 40 MHEVS: ELECTRIC POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 41 MHEVS: ELECTRIC POWERTRAIN MARKET, BY REGION, 2023–2030 ('000 UNITS)

TABLE 42 MHEVS: ELECTRIC POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 43 MHEVS: ELECTRIC POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

6.6 FCEVS

6.6.1 LONG DRIVING RANGE OFFERED BY FCEVS TO DRIVE MARKET

TABLE 44 FCEVS: ELECTRIC POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 45 FCEVS: ELECTRIC POWERTRAIN MARKET, BY REGION, 2023–2030

('000 UNITS)

TABLE 46 FCEVS: ELECTRIC POWERTRAIN MARKET, BY REGION, 2018–2022
(USD MILLION)

TABLE 47 FCEVS: ELECTRIC POWERTRAIN MARKET, BY REGION, 2023–2030
(USD MILLION)

7 PHEV POWERTRAIN MARKET, BY COMPONENT

7.1 INTRODUCTION

7.1.1 INDUSTRY INSIGHTS

FIGURE 26 PHEV POWERTRAIN MARKET, BY COMPONENT, 2023 VS. 2030 (USD MILLION)

TABLE 48 PHEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022 (USD MILLION)

TABLE 49 PHEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030 (USD MILLION)

7.2 MOTORS/GENERATORS

7.2.1 DEVELOPMENTS IN MOTORS/GENERATORS TO DRIVE MARKET

TABLE 50 MOTORS/GENERATORS: PHEV POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 51 MOTORS/GENERATORS: PHEV POWERTRAIN MARKET, BY REGION, 2023–2030 ('000 UNITS)

TABLE 52 MOTORS/GENERATORS: PHEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 53 MOTORS/GENERATORS: PHEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

7.3 BATTERIES

7.3.1 ONGOING R&D IN BATTERIES TO DRIVE MARKET

TABLE 54 BATTERIES: PHEV POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 55 BATTERIES: PHEV POWERTRAIN MARKET, BY REGION, 2023–2030 ('000 UNITS)

TABLE 56 BATTERIES: PHEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 57 BATTERIES: PHEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

7.4 BATTERY MANAGEMENT SYSTEMS

7.4.1 SAFETY RISKS ASSOCIATED WITH BATTERIES TO DRIVE DEMAND FOR BATTERY MANAGEMENT SYSTEMS

TABLE 58 BATTERY MANAGEMENT SYSTEMS: PHEV POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 59 BATTERY MANAGEMENT SYSTEMS: PHEV POWERTRAIN MARKET, BY REGION, 2023–2030 ('000 UNITS)

TABLE 60 BATTERY MANAGEMENT SYSTEMS: PHEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 61 BATTERY MANAGEMENT SYSTEMS: PHEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

7.4.2 BATTERY CASINGS

7.4.3 BUS BARS

7.4.4 FUSES

7.4.5 THERMAL PROPAGATION

7.4.6 CONNECTORS

7.4.7 BATTERY THERMAL MANAGEMENT SYSTEMS

7.5 CONTROL UNITS

7.5.1 INNOVATIONS IN MOTOR ELECTRONICS TO DRIVE DEMAND FOR CONTROL UNITS

TABLE 62 CONTROL UNITS: PHEV POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 63 CONTROL UNITS: PHEV POWERTRAIN MARKET, BY REGION, 2023–2030 ('000 UNITS)

TABLE 64 CONTROL UNITS: PHEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 65 CONTROL UNITS: PHEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

7.6 INVERTERS

7.6.1 RAPID TECHNOLOGICAL DEVELOPMENTS IN INVERTER TECHNOLOGIES TO DRIVE MARKET

TABLE 66 INVERTERS: PHEV POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 67 INVERTERS: PHEV POWERTRAIN MARKET, BY REGION, 2023–2030 ('000 UNITS)

TABLE 68 INVERTERS: PHEV POWERTRAIN MARKET, BY REGION, BY COMPONENT, 2018–2022 (USD MILLION)

TABLE 69 INVERTERS: PHEV POWERTRAIN MARKET, BY REGION, BY COMPONENT, 2023–2030 (USD MILLION)

7.7 POWER DISTRIBUTION MODULES

7.7.1 NEED FOR PROPER MAINTENANCE OF DIFFERENT CONTROL UNITS TO DRIVE DEMAND FOR POWER DISTRIBUTION MODULES

TABLE 70 POWER DISTRIBUTION MODULES: PHEV POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 71 POWER DISTRIBUTION MODULES: PHEV POWERTRAIN MARKET, BY REGION, 2023–2030 ('000 UNITS)

TABLE 72 POWER DISTRIBUTION MODULES: PHEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 73 POWER DISTRIBUTION MODULES: PHEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

7.8 ON-BOARD CHARGERS

7.8.1 DUAL ROLE OF ON-BOARD CHARGERS TO DRIVE MARKET

TABLE 74 ON-BOARD CHARGERS: PHEV POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 75 ON-BOARD CHARGERS: PHEV POWERTRAIN MARKET, BY REGION, 2023–2030 ('000 UNITS)

TABLE 76 ON-BOARD CHARGERS: PHEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 77 ON-BOARD CHARGERS: PHEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

8 BEV POWERTRAIN MARKET, BY COMPONENT

8.1 INTRODUCTION

8.1.1 INDUSTRY INSIGHTS

FIGURE 27 BEV POWERTRAIN MARKET, BY COMPONENT, 2023 VS. 2030 (USD MILLION)

TABLE 78 BEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022 (USD MILLION)

TABLE 79 BEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030 (USD MILLION)

8.2 MOTORS/GENERATORS

8.2.1 RISING DEMAND FOR MOTORS/GENERATORS IN BEVS TO DRIVE MARKET

TABLE 80 MOTORS/GENERATORS: BEV POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 81 MOTORS/GENERATORS: BEV POWERTRAIN MARKET, BY REGION, 2023–2030 ('000 UNITS)

TABLE 82 MOTORS/GENERATORS: BEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 83 MOTORS/GENERATORS: BEV POWERTRAIN MARKET, BY REGION,

2023–2030 (USD MILLION)

8.3 BATTERY PACKS

8.3.1 ONGOING DEVELOPMENTS IN LITHIUM-ION BATTERIES TO DRIVE DEMAND FOR BATTERY PACKS

TABLE 84 BATTERY PACKS: BEV POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 85 BATTERY PACKS: BEV POWERTRAIN MARKET, BY REGION, 2023–2030 ('000 UNITS)

TABLE 86 BATTERY PACKS: BEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 87 BATTERY PACKS: BEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

8.4 BATTERY MANAGEMENT SYSTEMS

8.4.1 GROWING PREFERENCE FOR HIGH-PERFORMANCE EVS TO DRIVE DEMAND FOR BATTERY MANAGEMENT SYSTEMS

TABLE 88 BATTERY MANAGEMENT SYSTEMS: BEV POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 89 BATTERY MANAGEMENT SYSTEMS: BEV POWERTRAIN MARKET, BY REGION, 2023–2030 ('000 UNITS)

TABLE 90 BATTERY MANAGEMENT SYSTEMS: BEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 91 BATTERY MANAGEMENT SYSTEMS: BEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

8.5 CONTROL UNITS

8.5.1 INCREASING USE OF MOTORS TO IMPROVE BEV PERFORMANCE TO DRIVE DEMAND FOR CONTROL UNITS

TABLE 92 CONTROL UNITS: BEV POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 93 CONTROL UNITS: BEV POWERTRAIN MARKET, BY REGION, 2023–2030 ('000 UNITS)

TABLE 94 CONTROL UNITS: BEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 95 CONTROL UNITS: BEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

8.6 INVERTERS

8.6.1 INNOVATIONS IN INVERTERS TO DRIVE MARKET

TABLE 96 INVERTERS: BEV POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 97 INVERTERS: BEV POWERTRAIN MARKET, BY REGION, 2023–2030

('000 UNITS)

TABLE 98 INVERTERS: BEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 99 INVERTERS: BEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

8.7 POWER DISTRIBUTION MODULES

8.7.1 NEED FOR SAFETY OF DRIVERS AND PROPER FUNCTIONING OF ELECTRONIC COMPONENTS TO DRIVE MARKET

TABLE 100 POWER DISTRIBUTION MODULES: BEV POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 101 POWER DISTRIBUTION MODULES: BEV POWERTRAIN MARKET, BY REGION, 2023–2030 ('000 UNITS)

TABLE 102 POWER DISTRIBUTION MODULES: BEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 103 POWER DISTRIBUTION MODULES: BEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

8.8 ON-BOARD CHARGERS

8.8.1 NEED FOR SAFE AND EFFECTIVE CHARGING OF BATTERIES TO DRIVE DEMAND FOR ON-BOARD CHARGERS

TABLE 104 ON-BOARD CHARGERS: BEV POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 105 ON-BOARD CHARGERS: BEV POWERTRAIN MARKET, BY REGION, 2023–2030 ('000 UNITS)

TABLE 106 ON-BOARD CHARGERS: BEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 107 ON-BOARD CHARGERS: BEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

9 FCEV POWERTRAIN MARKET, BY COMPONENT

9.1 INTRODUCTION

9.1.1 INDUSTRY INSIGHTS

FIGURE 28 FCEV POWERTRAIN MARKET, BY COMPONENT, 2023 VS. 2030 (USD MILLION)

TABLE 108 FCEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022 (USD MILLION)

TABLE 109 FCEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030 (USD MILLION)

9.2 FUEL STACKS

9.2.1 GROWING DEMAND FOR FUEL CONVERSION IN FCEVS TO DRIVE MARKET

TABLE 110 FUEL STACKS: FCEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 111 FUEL STACKS: FCEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

9.3 FUEL PROCESSORS

9.3.1 AVAILABILITY OF HYDROGEN FUEL AND REFUELING STRUCTURE TO DRIVE MARKET

TABLE 112 FUEL PROCESSORS: FCEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 113 FUEL PROCESSORS: FCEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

9.4 POWER CONDITIONERS

9.4.1 INCREASING NEED FOR EFFICIENT POWER MANAGEMENT IN FCEV TO DRIVE MARKET

TABLE 114 POWER CONDITIONERS: FCEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 115 POWER CONDITIONERS: FCEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

9.5 AIR COMPRESSORS

9.5.1 ADVANCEMENTS IN FUEL CELL TECHNOLOGY TO DRIVE MARKET

TABLE 116 AIR COMPRESSORS: FCEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 117 AIR COMPRESSORS: FCEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

9.6 HUMIDIFIERS

9.6.1 NEED FOR HYDRATED PEM FUEL CELLS TO DRIVE MARKET FOR HUMIDIFIERS

TABLE 118 HUMIDIFIERS: FCEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 119 HUMIDIFIERS: FCEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

10 48V MHEV POWERTRAIN MARKET, BY COMPONENT

10.1 INTRODUCTION

10.1.1 INDUSTRY INSIGHTS

FIGURE 29 48V MHEV POWERTRAIN MARKET, BY COMPONENT, 2023 VS. 2030

(USD MILLION)

TABLE 120 48V MHEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022 (USD MILLION)

TABLE 121 48V MHEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030 (USD MILLION)

10.2 BATTERIES

10.2.1 DEVELOPMENTS IN LITHIUM-ION BATTERY TECHNOLOGY TO DRIVE DEMAND FOR 48V MHEV ARCHITECTURE

TABLE 122 BATTERIES: 48V MHEV POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 123 BATTERIES: 48V MHEV POWERTRAIN MARKET, BY REGION, 2023–2030 ('000 UNITS)

TABLE 124 BATTERIES: 48V MHEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 125 BATTERIES: 48V MHEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

10.3 BATTERY MANAGEMENT SYSTEMS

10.3.1 NECESSITY TO MAINTAIN OPTIMUM TEMPERATURE AND PRESSURE IN BATTERIES TO DRIVE MARKET FOR BATTERY MANAGEMENT SYSTEMS

TABLE 126 BATTERY MANAGEMENT SYSTEMS: 48V MHEV POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 127 BATTERY MANAGEMENT SYSTEMS: 48V MHEV POWERTRAIN MARKET, BY REGION, BY REGION, 2023–2030 ('000 UNITS)

TABLE 128 BATTERY MANAGEMENT SYSTEM: 48V MHEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 129 BATTERY MANAGEMENT SYSTEMS: 48V MHEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

10.4 INVERTERS

10.4.1 INNOVATIONS IN POWER ELECTRONICS TO DRIVE DEMAND FOR INVERTERS

TABLE 130 INVERTERS: 48V MHEV POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 131 INVERTERS: 48V MHEV POWERTRAIN MARKET, BY REGION, 2023–2030 ('000 UNITS)

TABLE 132 INVERTERS: 48V MHEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 133 INVERTERS: 48V MHEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

10.5 DC-DC CONVERTERS

10.5.1 ELECTRIFICATION OF HYBRIDS TO DRIVE DEMAND FOR DC-DC CONVERTERS

TABLE 134 DC-DC CONVERTERS: 48V MHEV POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 135 DC-DC CONVERTERS: 48V MHEV POWERTRAIN MARKET, BY REGION, 2023–2030 ('000 UNITS)

TABLE 136 DC-DC CONVERTERS: 48V MHEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 137 DC-DC CONVERTERS: 48V MHEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

11 ELECTRIC POWERTRAIN MARKET, BY TYPE

11.1 INTRODUCTION

11.1.1 INDUSTRY INSIGHTS

FIGURE 30 ELECTRIC POWERTRAIN MARKET, BY TYPE, 2023 VS. 2030 (USD MILLION)

TABLE 138 ELECTRIC POWERTRAIN MARKET, BY TYPE, 2018–2022 ('000 UNITS)

TABLE 139 ELECTRIC POWERTRAIN MARKET, BY TYPE, 2023–2030 ('000 UNITS)

TABLE 140 ELECTRIC POWERTRAIN MARKET, BY TYPE, 2018–2022 (USD MILLION)

TABLE 141 ELECTRIC POWERTRAIN MARKET, BY TYPE, 2023–2030 (USD MILLION)

11.2 BEV POWERTRAIN

11.2.1 INCREASE IN BEV SALES TO DRIVE BEV POWERTRAIN MARKET

TABLE 142 BEV POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 143 BEV POWERTRAIN MARKET, BY REGION, 2023–2030 ('000 UNITS)

TABLE 144 BEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 145 BEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

11.3 MHEV POWERTRAIN

11.3.1 EASE OF INTEGRATION OF 48V MHEV POWERTRAIN ARCHITECTURE IN EXISTING ICE ARCHITECTURE TO DRIVE SEGMENT

TABLE 146 MHEV POWERTRAIN MARKET, BY REGION, 2018–2022 ('000 UNITS)

TABLE 147 MHEV POWERTRAIN MARKET, BY REGION, 2023–2030 ('000 UNITS)

TABLE 148 MHEV POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 149 MHEV POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

11.4 SERIES HYBRID POWERTRAIN

11.4.1 NEED FOR HIGHER POWER APPLICATIONS TO DRIVE SERIES HYBRID POWERTRAIN MARKET

TABLE 150 SERIES HYBRID POWERTRAIN MARKET, BY REGION, 2018–2022
(‘000 UNITS)

TABLE 151 SERIES HYBRID POWERTRAIN MARKET, BY REGION, 2023–2030
(‘000 UNITS)

TABLE 152 SERIES HYBRID POWERTRAIN MARKET, BY REGION, 2018–2022 (USD
MILLION)

TABLE 153 SERIES HYBRID POWERTRAIN MARKET, BY REGION, 2023–2030 (USD
MILLION)

11.5 PARALLEL HYBRID POWERTRAIN

11.5.1 BETTER PERFORMANCE DURING HIGHWAY DRIVING TO INCREASE
DEMAND FOR PARALLEL HYBRID POWERTRAIN

TABLE 154 PARALLEL HYBRID POWERTRAIN MARKET, BY REGION, 2018–2022
(‘000 UNITS)

TABLE 155 PARALLEL HYBRID POWERTRAIN MARKET, BY REGION, 2023–2030
(‘000 UNITS)

TABLE 156 PARALLEL HYBRID POWERTRAIN MARKET, BY REGION, 2018–2022
(USD MILLION)

TABLE 157 PARALLEL HYBRID POWERTRAIN MARKET, BY REGION, 2023–2030
(USD MILLION)

11.6 SERIES-PARALLEL HYBRID POWERTRAIN

11.6.1 ADVANTAGE OF DUAL OPERATION MODE TO DRIVE DEMAND FOR
SERIES-PARALLEL POWERTRAIN

TABLE 158 SERIES-PARALLEL HYBRID POWERTRAIN MARKET, BY REGION,
2018–2022 (‘000 UNITS)

TABLE 159 SERIES-PARALLEL HYBRID POWERTRAIN MARKET, BY REGION,
2023–2030 (‘000 UNITS)

TABLE 160 SERIES-PARALLEL HYBRID POWERTRAIN MARKET, BY REGION,
2018–2022 (USD MILLION)

TABLE 161 SERIES-PARALLEL HYBRID POWERTRAIN MARKET, BY REGION,
2023–2030 (USD MILLION)

12 ELECTRIC POWERTRAIN MARKET, BY REGION

12.1 INTRODUCTION

12.1.1 INDUSTRY INSIGHTS

FIGURE 31 ELECTRIC POWERTRAIN MARKET, BY REGION, 2023 VS 2030 (USD
MILLION)

TABLE 162 ELECTRIC POWERTRAIN MARKET, BY REGION, 2018–2022 (‘000
UNITS)

TABLE 163 ELECTRIC POWERTRAIN MARKET, BY REGION, 2023–2030 ('000 UNITS)

TABLE 164 ELECTRIC POWERTRAIN MARKET, BY REGION, 2018–2022 (USD MILLION)

TABLE 165 ELECTRIC POWERTRAIN MARKET, BY REGION, 2023–2030 (USD MILLION)

12.2 ASIA PACIFIC

FIGURE 32 ASIA PACIFIC: ELECTRIC POWERTRAIN MARKET SNAPSHOT

TABLE 166 ASIA PACIFIC: ELECTRIC POWERTRAIN MARKET, BY COUNTRY, 2018–2022 ('000 UNITS)

TABLE 167 ASIA PACIFIC: ELECTRIC POWERTRAIN MARKET, BY COUNTRY, 2023–2030 ('000 UNITS)

TABLE 168 ASIA PACIFIC: ELECTRIC POWERTRAIN MARKET, BY COUNTRY, 2018–2022 (USD MILLION)

TABLE 169 ASIA PACIFIC: ELECTRIC POWERTRAIN MARKET, BY COUNTRY, 2023–2030 (USD MILLION)

12.2.1 CHINA

12.2.1.1 Stringent emission norms to drive market

TABLE 170 CHINA: PHEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022 (USD MILLION)

TABLE 171 CHINA: PHEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030 (USD MILLION)

TABLE 172 CHINA: BEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022 (USD MILLION)

TABLE 173 CHINA: BEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030 (USD MILLION)

12.2.2 INDIA

12.2.2.1 Introduction of BS VI norms to drive market

TABLE 174 INDIA: PHEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022 (USD MILLION)

TABLE 175 INDIA: PHEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030 (USD MILLION)

TABLE 176 INDIA: BEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022 (USD MILLION)

TABLE 177 INDIA: BEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030 (USD MILLION)

12.2.3 JAPAN

12.2.3.1 Electrification of automotive components by major players to drive market

TABLE 178 JAPAN: PHEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022

(USD MILLION)

TABLE 179 JAPAN: PHEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030

(USD MILLION)

TABLE 180 JAPAN: BEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022

(USD MILLION)

TABLE 181 JAPAN: BEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030

(USD MILLION)

12.2.4 SOUTH KOREA

12.2.4.1 Attractive government incentives to drive market

TABLE 182 SOUTH KOREA: PHEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022 (USD MILLION)

TABLE 183 SOUTH KOREA: PHEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030 (USD MILLION)

TABLE 184 SOUTH KOREA: BEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022 (USD MILLION)

TABLE 185 SOUTH KOREA: BEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030 (USD MILLION)

12.3 EUROPE

FIGURE 33 EUROPE: ELECTRIC POWERTRAIN MARKET, 2023 VS. 2030 (USD MILLION)

TABLE 186 EUROPE: ELECTRIC POWERTRAIN MARKET, BY COUNTRY, 2018–2022 ('000 UNITS)

TABLE 187 EUROPE: ELECTRIC POWERTRAIN MARKET, BY COUNTRY, 2023–2030 ('000 UNITS)

TABLE 188 EUROPE: ELECTRIC POWERTRAIN MARKET, BY COUNTRY, 2018–2022 (USD MILLION)

TABLE 189 EUROPE: ELECTRIC POWERTRAIN MARKET, BY COUNTRY, 2023–2030 (USD MILLION)

12.3.1 FRANCE

12.3.1.1 Increasing investment in electrified powertrain components production to drive market

TABLE 190 FRANCE: PHEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022 (USD MILLION)

TABLE 191 FRANCE: PHEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030 (USD MILLION)

TABLE 192 FRANCE: BEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022 (USD MILLION)

TABLE 193 FRANCE: BEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030 (USD MILLION)

12.3.2 GERMANY

12.3.2.1 Government funding for charging infrastructure development to drive market

TABLE 194 GERMANY: PHEV POWERTRAIN MARKET, BY COMPONENT,
2018–2022 (USD MILLION)

TABLE 195 GERMANY: PHEV POWERTRAIN MARKET, BY COMPONENT,
2023–2030 (USD MILLION)

TABLE 196 GERMANY: BEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022
(USD MILLION)

TABLE 197 GERMANY: BEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030
(USD MILLION)

12.3.3 ITALY

12.3.3.1 Government incentives and investments in charging infrastructure to drive market

TABLE 198 ITALY: PHEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022
(USD MILLION)

TABLE 199 ITALY: PHEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030
(USD MILLION)

TABLE 200 ITALY: BEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022
(USD MILLION)

TABLE 201 ITALY: BEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030
(USD MILLION)

12.3.4 NETHERLANDS

12.3.4.1 Increasing sales of electric vehicles to drive market

TABLE 202 NETHERLANDS: PHEV POWERTRAIN MARKET, BY COMPONENT,
2018–2022 (USD MILLION)

TABLE 203 NETHERLANDS: PHEV POWERTRAIN MARKET, BY COMPONENT,
2023–2030 (USD MILLION)

TABLE 204 NETHERLANDS: BEV POWERTRAIN MARKET, BY COMPONENT,
2018–2022 (USD MILLION)

TABLE 205 NETHERLANDS: BEV POWERTRAIN MARKET, BY COMPONENT,
2023–2030 (USD MILLION)

12.3.5 NORWAY

12.3.5.1 High demand for pure EVs to drive market

TABLE 206 NORWAY: PHEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022
(USD MILLION)

TABLE 207 NORWAY: PHEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030
(USD MILLION)

TABLE 208 NORWAY: BEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022
(USD MILLION)

TABLE 209 NORWAY: BEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030
(USD MILLION)

12.3.6 SPAIN

12.3.6.1 Incentives and policies to promote EV adoption to drive market

TABLE 210 SPAIN: PHEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022
(USD MILLION)

TABLE 211 SPAIN: PHEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030
(USD MILLION)

TABLE 212 SPAIN: BEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022
(USD MILLION)

TABLE 213 SPAIN: BEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030
(USD MILLION)

12.3.7 SWEDEN

12.3.7.1 Experimentation in innovative electric charging technology to drive market

TABLE 214 SWEDEN: PHEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022
(USD MILLION)

TABLE 215 SWEDEN: PHEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030
(USD MILLION)

TABLE 216 SWEDEN: BEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022
(USD MILLION)

TABLE 217 SWEDEN: BEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030
(USD MILLION)

12.3.8 UK

12.3.8.1 Government initiatives toward establishing charging infrastructure and encouraging start-ups to drive market

TABLE 218 UK: PHEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022 (USD MILLION)

TABLE 219 UK: PHEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030 (USD MILLION)

TABLE 220 UK: BEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022 (USD MILLION)

TABLE 221 UK: BEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030 (USD MILLION)

12.4 NORTH AMERICA

FIGURE 34 NORTH AMERICA: ELECTRIC POWERTRAIN MARKET, 2023 VS. 2030
(USD MILLION)

TABLE 222 NORTH AMERICA: ELECTRIC POWERTRAIN MARKET, BY COUNTRY, 2018–2022 (USD MILLION)

TABLE 223 NORTH AMERICA: ELECTRIC POWERTRAIN MARKET, BY COUNTRY,

2023–2030 (USD MILLION)

12.4.1 US

12.4.1.1 Government support and availability of EV models to drive market

TABLE 224 US: PHEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022 (USD MILLION)

TABLE 225 US: PHEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030 (USD MILLION)

TABLE 226 US: BEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022 (USD MILLION)

TABLE 227 US: BEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030 (USD MILLION)

12.4.2 CANADA

12.4.2.1 Government incentives and investments by automotive OEMs to promote EV adoption

TABLE 228 CANADA: PHEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022 (USD MILLION)

TABLE 229 CANADA: PHEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030 (USD MILLION)

TABLE 230 CANADA: BEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022 (USD MILLION)

TABLE 231 CANADA: BEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030 (USD MILLION)

12.5 REST OF THE WORLD

FIGURE 35 REST OF THE WORLD: ELECTRIC POWERTRAIN MARKET, 2023 VS. 2030 (USD MILLION)

TABLE 232 REST OF THE WORLD: ELECTRIC POWERTRAIN MARKET, BY COUNTRY, 2018–2022 (USD MILLION)

TABLE 233 REST OF THE WORLD: ELECTRIC POWERTRAIN MARKET, BY COUNTRY, 2023–2030 (USD MILLION)

12.5.1 BRAZIL

12.5.1.1 Stringent emission norms with increasing presence of EV manufacturers to drive market

TABLE 234 BRAZIL: PHEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022 (USD MILLION)

TABLE 235 BRAZIL: PHEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030 (USD MILLION)

TABLE 236 BRAZIL: BEV POWERTRAIN MARKET, BY COMPONENT, 2018–2022 (USD MILLION)

TABLE 237 BRAZIL: BEV POWERTRAIN MARKET, BY COMPONENT, 2023–2030

(USD MILLION)

I would like to order

Product name: Electric Powertrain Market by Component (Motor/Generator, Battery, BMS, Controller, PDM, Inverter/Converter, On Board Charger), Type (BEV, MHEV, Series, Parallel & Series-Parallel Hybrid), Vehicle (BEV, FCEV, PHEV, MHEV), & Region - Global Forecast to 2030

Product link: <https://marketpublishers.com/r/E365F8468033EN.html>

Price: US\$ 4,950.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/E365F8468033EN.html>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name:
Last name:
Email:
Company:
Address:
City:
Zip code:
Country:
Tel:
Fax:
Your message:

****All fields are required**

Customer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <https://marketpublishers.com/docs/terms.html>

To place an order via fax simply print this form, fill in the information below
and fax the completed form to +44 20 7900 3970