



# China EV (Electric Vehicle) Motor Controller Market Report, 2015

Oct. 2015

## STUDY GOAL AND OBJECTIVES

This report provides the industry executives with strategically significant competitor information, analysis, insight and projection on the competitive pattern and key companies in the industry, crucial to the development and implementation of effective business, marketing and R&D programs.

## REPORT OBJECTIVES

- ◆ To establish a comprehensive, factual, annually updated and cost-effective information base on market size, competition patterns, market segments, goals and strategies of the leading players in the market, reviews and forecasts.
- ◆ To assist potential market entrants in evaluating prospective acquisition and joint venture candidates.
- ◆ To complement the organizations' internal competitor information gathering efforts with strategic analysis, data interpretation and insight.
- ◆ To suggest for concerned investors in line with the current development of this industry as well as the development tendency.
- ◆ To help company to succeed in a competitive market, and

## METHODOLOGY

Both primary and secondary research methodologies were used in preparing this study. Initially, a comprehensive and exhaustive search of the literature on this industry was conducted. These sources included related books and journals, trade literature, marketing literature, other product/promotional literature, annual reports, security analyst reports, and other publications. Subsequently, telephone interviews or email correspondence was conducted with marketing executives etc. Other sources included related magazines, academics, and consulting companies.

## INFORMATION SOURCES

The primary information sources include Company Reports, and National Bureau of Statistics of China etc.

## Abstract

From January to August of 2015, China sold 108,654 new energy vehicles, showing a skyrocketing growth of 270% year on year. Benefiting from the rapid development of new energy vehicles, the motor controller market will value more than RMB1.8 billion in 2015. It is projected that by 2017 this figure will rise to 280,000 sets and that the market size will hit RMB4.6 billion, with an AAGR of as much as 93%.

Currently, there are over 30 electric vehicle drive motor manufacturers in China, which can be divided into three strategic groups by strategic positions within the industry:

Group A consists of carmakers veteran in the production of conventional vehicles and auto parts;

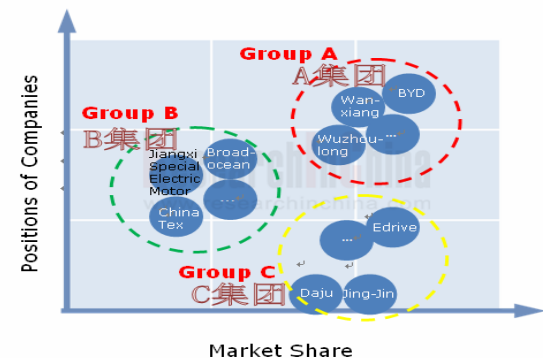
Group B consists of enterprises with experience in the production of other types of motors;

Group C consists of motor enterprises established especially for electric vehicle.

With the ballooning of automotive drive motor system, these three strategic groups not only compete with each other, but also realize win-win by giving full play to their advantages.

By capacity, all manufacturers are lavishing more capital to expand production lines, and enhancing their core competitiveness even through mergers and acquisitions, take example for Broad-ocean Motor that acquired Shanghai Edrive in 2015 for RMB3.5 billion to fetch more than 30% market share and become a new overlord of motor drive system; the electric vehicle manufacturing base Phase II of CSR Times was completed in December 2014, and will develop annual capacity of 10,000 electric buses as well as 20,000 sets of powertrain assembly and key components after going into operation; Jing-Jin Electric Technologies will produce 100,000 sets of products and export them to the US at the end of 2015 as scheduled.

### Strategic Groups of Motor Drive System



Source: China EV (Electric Vehicle) Motor Controller Market Report, 2015 by ResearchInChina

Copyright 2012ResearchInChina

As for business focus, the domestic passenger car companies have mostly built their own drive system production lines, while independent drive system suppliers primarily compete in large and medium-sized buses. A few independent motor manufacturers such as Broad-ocean Motor, Shanghai Edrive and Hangzhou Devos have entered the supply chain of mainstream passenger car makers.

**Main Motor and Controller Suppliers of Major Electric Bus Manufacturers in China**

<i>Bus Company</i>	<i>Motor Suppliers</i>	<i>Motor Controller Suppliers</i>
FAW New Energy Vehicle	American Innova, Shanghai Edrive, New-Power, Zhongshan Broad-ocean Motor	FAW, New-Power, Zhongshan Broad-ocean Motor
BAIC Foton	American Eaton, Zhongshan Broad-ocean Motor, New-Power	Zhongshan Broad-ocean Motor, Shanghai Edrive
Wuzhoulong	Dalian Tianyuan Electrical Machinery, Shanghai Dajun, Wuzhoulong	Wuzhoulong, Shanghai Dajun, V&T Technologies
Hunan CSR Times Electronic Vehicle	Hunan CSR Times Electric Vehicle	Hunan CSR Times Electric Vehicle
Ankai	DEC Dongfeng Electric Machinery, Siemens	V&T Technologies, DEC Dongfeng Electric Machinery, Siemens
Yutong	Wanxiang Qianchao, Jiangxi Special Electric Motor, Tianjin Santroll	Tianjin Santroll, Fugong, V&T Technologies
Xiamen Golden Dragon Bus	Xiamen Golden Dragon Bus, UDE Motor	Xiamen Golden Dragon Bus, Fugong, V&T Technologies
Zhongtong Bus	Shanghai Dajun, Shanghai Nanyang Electrical Machinery, Tianjin Santroll	Shanghai Dajun, Shanghai Ruihua, Tianjin Santroll

Source: China EV (Electric Vehicle) Motor Controller Market Report, 2015 by ResearchInChina

Regarding competition, foreign motor companies are ambitious. For example, Bosch, Continental, SKF, Hitachi, Fuji Electric, Mitsubishi Electric and other companies only export motors to China now instead of producing drive motors in China. But, they quickly seized the orders for the first batch of new energy vehicles (especially hybrid buses), marking a big challenge for Chinese local players.

From the perspective of products, drive motor technology will head toward permanent magnet, digitization and integration in the next five to ten years. Enterprises mainly compete with each other in motor control and integrated technology, while China still lags far behind foreign counterparts dramatically in terms of critical IGBT chip packaging technology and R & D of the 3rd-generation silicon carbide (SiC) IGBT.

### 1. Electric Vehicle Market

- 1.1 Sales Volume
- 1.2 Chinese and Foreign EVs
- 1.3 Market Structure
- 1.4 Major Policies
  - 1.4.1 Fiscal Subsidy Policy
  - 1.4.2 Demonstration & Promotion Policy
  - 1.4.3 Other Policies

### 2 Overview of Motor Controller

- 2.1 Product Definition
- 2.2 Working Principle
- 2.3 Product Classification
- 2.4 Policy Environment
- 2.5 Development Trend
  - 2.5.1 Market Trend
  - 2.5.2 Technology Trend

### 3 Drive Motor Controller Market

- 3.1 Market Size
- 3.2 Industry Profits
- 3.3 Modes of Supply
- 3.4 Competitive Landscape
- 3.5 Development of Major Players
- 3.6 IGBT Market

### 4 Controller Manufacturers in China

- 4.1 Shanghai Edrive Co., Ltd.
  - 4.1.1 Profile
  - 4.1.2 Operation
  - 4.1.3 EV Controller Business
- 4.2 Shenzhen Inovance Technology Co., Ltd.
  - 4.2.1 Profile
  - 4.2.2 Operation
  - 4.2.3 EV Controller Business

- 4.3 Shanghai Dajun Technologies, Inc.
  - 4.3.1 Profile
  - 4.3.2 Operation
  - 4.3.3 Electric Vehicle Business
  - 4.3.4 EV Development Strategy
- 4.4 Tianjin Santroll Electric Automobile Technology Co., Ltd.
  - 4.4.1 Profile
  - 4.4.2 EV Controller Business
- 4.5 Beijing Siemens Automotive E-Drive System Co., Ltd.
- 4.6 Broad-Ocean Motor EV Co., Ltd.
  - 4.6.1 Profile
  - 4.6.2 Operation
  - 4.6.3 EV Controller Business
- 4.7 Hunan CSR Times Electric Vehicle Co., Ltd.
  - 4.7.1 Profile
  - 4.7.2 Operation
  - 4.7.3 EV Controller Business
- 4.8 BYD Company Limited
  - 4.8.1 Profile
  - 4.8.2 Operation
  - 4.8.3 EV Controller Business
- 4.9 Jing-Jin Electric Technologies (Beijing) Co., Ltd.
  - 4.9.1 Profile
  - 4.9.2 EV Controller Business
- 4.10 DEC Dongfeng Electric Machinery Co., Ltd.
  - 4.10.1 Profile
  - 4.10.2 EV Controller Business
- 4.11 China Tex Mechanical & Electrical Engineering Ltd.
  - 4.11.1 Profile
  - 4.11.2 Operation
  - 4.11.3 EV Controller Business
- 4.12 Shenzhen V&T Technologies Co., Ltd.
  - 4.12.1 Profile

- 4.12.2 Revenue
- 4.12.3 Sales Mode
- 4.12.4 Main Clients
- 4.13 Fujian Fugong EV Tech Co., Ltd.
- 4.14 Prestolite E-Propulsion Systems (Beijing) Limited (PEPS)
- 4.15 Chroma ATE Inc.
  - 4.15.1 Profile
  - 4.15.2 Operation
  - 4.15.3 Electric Vehicle Business
  - 4.15.4 EV Development Strategy
- 4.16 Delta Electronics, Inc.
  - 4.16.1 Profile
  - 4.16.2 Operation
  - 4.16.3 EV Controller Business

### 5 IGBT Suppliers

- 5.1 Fuji Electric
- 5.2 Infineon
- 5.3 Denso
- 5.4 ROHM
- 5.5 IR
- 5.6 Semikron International

### 6 Inverter Manufacturers

- 6.1 Hitachi Automotive Systems
- 6.2 Mitsubishi Electric
- 6.3 Meidensha
- 6.4 Toshiba
- 6.5 Hyundai Mobis
- 6.6 Delphi
- 6.7 Bosch
- 6.8 Continental

- China's Electric Vehicle Sales Volume, 2011-2017E
- Share of Electric Vehicle in China Automobile Market, 2011-2014
- Share of Electric Vehicle in U.S. Automobile Market, 2011-2014
- Sales Volume of Electric Vehicles in Europe, USA, Japan and China, Jan.-Jun. 2015
- Market Structure of Electric Vehicles in China by Power Type, 2013-2017E
- Market Structure of Electric Vehicles in China by Model, 2013-2017E
- Subsidy Standards for Electric Passenger Car in China, 2013-2020
- Subsidy Standards for Electric Bus in China, 2016
- Subsidy Standards for Electric Bus in China, 2014-2015
- Subsidy Standards for Fuel Cell Vehicle in China, 2016
- EV Promotion Plan and Completion Progress in Chinese Cities (Clusters), 2013-2015
- EV Promotion Plan (Public Transport and Private Consumption) in China, 2014-2015
- EV Promotion Quantities in Chinese Cities (Clusters), 2014
- Models among 1st Three Batches of Purchase Duty-Free Catalog Approved by MIIT
- Principles of EV Motor Controllers
- Classification of EV Motor Controllers
- Policies on EV Motor Controllers in China
- R&D and Status Quo of Chinese and Foreign EV Motors and Controllers
- Demand and Market Size of EV Motor Controllers in China, 2013-2017E
- Gross Margins for Motor Controllers of Shenzhen Inovance Technology and Shenzhen V&T Technologies, 2011-2014
- EV Motor Controllers' Supply Modes in China
- Market Share of Some EV Motor Controller Manufacturers in China, 2015
- Motor and Controller Suppliers of Major Electric Bus Manufacturers in China
- Major EV Motor Controller Manufacturers in China
- Major Global Electric Vehicle IGBT (Insulated Gate Bipolar Transistor) Device Manufacturers

- Equity Structure of Shanghai Edrive (before Acquisition)
- EV Drive Motor System Shipments of Shanghai Edrive, 2013-2015Q1
- Financial Indicators of Shanghai Edrive, 2009-2015
- Main Products of Shanghai Edrive
- Top 5 Customers of Shanghai Edrive, 2014-2015Q1
- Top 5 Suppliers of Shanghai Edrive, 2014-2015Q1
- Revenue and Net Income of Shenzhen Inovance Technology, 2009-2015H1
- Gross Margin of Shenzhen Inovance Technology, 2009-2015H1
- Revenue of Shenzhen Inovance Technology by Product, 2012-2015H1
- Gross Margin of Shenzhen Inovance Technology by Product, 2012-2015H1
- EV Motor Controller Project Progress of Shenzhen Inovance Technology, 2014
- Key R&D Project Progress of Shenzhen Inovance Technology, 2015
- Main Financial Indicators of Shanghai Dajun Technologies, 2012-2015H1
- Revenue and Operating Costs of Main Products of Shanghai Dajun Technologies, 2012-2014
- Motor Drive System Capacity, Output, and Sales Volume of Shanghai Dajun Technologies, 2012-2014
- Major Clients of Shanghai Dajun Technologies, 2012-2014
- Top Five Suppliers of Shanghai Dajun Technologies, 2013-2014H1
- Development Course of Shanghai Dajun Technologies
- Subsidiaries of Shanghai Dajun Technologies
- Unprocessed Orders of Shanghai Dajun Technologies as of the End of 2014H1
- Financial Indicators of Broad-Ocean Motor EV, 2012-2014
- Financial Indicators of Hunan CSR Times Electric Vehicle, 2011-2014
- Motor Controller Products of Hunan CSR Times Electric Vehicle
- BYD's Headcount, 2007-2014
- Output and Sales Volume of BYD, 2010-2015H1



- Revenue, Net Income & Gross Margin of BYD, 2007-2015H1
- Revenue Breakdown of BYD by Product, 2007-2015H1
- Gross Margin of BYD by Product, 2008-2015H1
- Revenue Breakdown of BYD by Region, 2008-2015H1
- Motor Controller Products of DEC Dongfeng Electric Machinery
- New-energy Vehicle SRD Motors of China Tex Mechanical & Electrical Engineering
- Revenue and Profit of Shenzhen V&T Technologies, 2011-2014
- Revenue of Shenzhen V&T Technologies by Product, 2011-2014
- Product Sales Mode of Shenzhen V&T Technologies, 2011-2014
- Shenzhen V&T Technologies' Top 5 Clients, 2011-2014
- Major EV Motor Controller Clients of Shenzhen V&T Technologies
- ATE's Footprint Worldwide
- ATE's Financial Indicators (Consolidated), 2009-2015H1
- ATE's Revenue by Division, 2015H1
- EVT Technology's Development History
- Financial Indicators of Delta Electronics, 2009-2015H1
- Delta Electronics' Capacity, Output, and Output Value by Product, 2012-2014
- Sales Volume of Delta Electronics by Product, 2012-2014
- Main Financial Indicators of Fuji Electric, FY2010-FY2015
- Fuji Electric's Revenue and Operating Income by Division, FY2013-FY2015
- Fuji Electric's Revenue by Region, FY2011-FY2015
- Infineon's Global Ranking in Three Businesses, 2013
- Infineon's Revenue (by Region), FY2012-FY2014
- Infineon's Revenue (by Division), FY2012-FY2014
- Infineon's Main EV IGBT Products



- Denso's Headcount, FY2009-FY2014
- Denso's Revenue and Profit, FY2013-FY2015
- Denso's Operating Income and Net Income, FY2011-FY2015
- Denso's Revenue Structure by Division, FY2013-FY2015Q1
- Denso's Revenue Breakdown by Division, FY2013-FY2015Q1
- Denso's Revenue and Operating Profit (by Region), FY2013-FY2015
- Denso's Revenue Breakdown by Client, FY2010-FY2014
- Denso's Client Structure, FY2013-FY2014
- NEDO's Power Electronics Projects
- ROHM's Financial Indicators, FY2010-FY2015
- ROHM's Revenue Structure by Division, FY2014
- ROHM's Revenue Breakdown by Division, FY2014
- IR's Revenue by Division, FY2012-FY2014
- Hitachi Automotive Systems' Revenue, FY2011-FY2015
- Major EV Inverter Clients of Hitachi Automotive Systems
- Mitsubishi Electric's Financial Indicators, FY2010-FY2015
- Mitsubishi Electric's Revenue by Division, FY2014
- Mitsubishi Electric's Major EV Inverter Clients
- Meidensha's Financial Indicators, FY2010-FY2015
- Meidensha's Revenue and Profit by Division, FY2014-FY2015
- Meidensha's Major EV Inverter Clients
- Toshiba's Revenue and Net Income, FY2010-FY2014
- Toshiba's Sales Structure by Division, FY2010-FY2014
- Revenue of Toshiba's Electronic Devices & Components Division, FY2010-FY2014
- Toshiba's Major EV Inverter Clients

- Hyundai Mobis' Revenue and Operating Margin, FY2005-FY2015Q1
- Hyundai Mobis' Major EV Inverter Clients
- Delphi's Headcount, 2011-2013
- Delphi's Revenue and Gross Margin, 2004-2015H1
- Delphi's Revenue and Operating Margin, 2007-2015H1
- Delphi's Revenue and EBITDA Ratio, 2007-2015
- Delphi's Revenue Structure by Division, 2012-2015H1
- Delphi's Revenue and Gross Margin by Division, 2010-2015H1
- Delphi's Major Growth Areas by Division, 2013-2016E
- Delphi's Revenue by Region, 2010-2014
- Delphi's Major Clients and Their Regional Distribution
- Name list and Revenue Contribution of Delphi's Top 5 Clients, 2012-2013
- Delphi's EV Product Distribution
- Delphi's Major EV Inverter Clients
- Bosch's Headcount, 2009-2014
- Bosch's Revenue & EBIT, 2009-2014
- Bosch's Revenue Structure by Division, 2012-2014
- Bosch's Revenue & EBIT from Automobile Division, 2012-2014
- Bosch's Revenue Structure by Region, 2012-2014
- Bosch's Revenue in Major Countries, 2012-2014
- Bosch's Major EV Inverter Clients
- Continental's Headcount, 2009-2014
- Continental's Revenue & EBIT, 2009-2015H1
- Continental's Revenue Structure by Division, 2009-2013
- Continental's Revenue Structure by Region, 2009-2013
- Continental's Major EV Inverter Clients

**You can place your order in the following alternative ways:**

1. Order online at [www.researchinchina.com](http://www.researchinchina.com)
2. Fax order sheet to us at fax number: +86 10 82601570
3. Email your order to: [report@researchinchina.com](mailto:report@researchinchina.com)
4. Phone us at +86 10 82600828/ 82601561

<b>Party A:</b>			
Name:			
Address:			
Contact Person:		Tel	
E-mail:		Fax	

<b>Party B:</b>			
Name:	Beijing Waterwood Technologies Co., Ltd (ResearchInChina)		
Address:	Room 502, Block 3, Tower C, Changyuan Tiandi Building, No. 18, Suzhou Street, Haidian District, Beijing, China 100080		
Contact Person:	Liao Yan	Phone:	86-10-82600828
E-mail:	report@researchinchina.com	Fax:	86-10-82601570
Bank details:	Beneficial Name: Beijing Waterwood Technologies Co., Ltd Bank Name: Bank of Communications, Beijing Branch Bank Address: NO.1 jinxiyuan shijicheng, Landianchang, Haidian District, Beijing Bank Account No #: 110060668012015061217 Routing No #: 332906 Bank SWIFT Code: COMMCNSHBJG		

Title	Format	Cost
<i>Total</i>		

**Choose type of format**

- PDF (Single user license) .....2,500 USD
- Hard copy ..... 2,700 USD
- PDF (Enterprisewide license)..... 3,900 USD

**※ Reports will be dispatched immediately once full payment has been received.**  
**Payment may be made by wire transfer or credit card via PayPal.**

### **About ResearchInChina**

ResearchInChina ([www.researchinchina.com](http://www.researchinchina.com)) is a leading independent provider of China business intelligence. Our research is designed to meet the diverse planning and information needs of businesses, institutions, and professional investors worldwide. Our services are used in a variety of ways, including strategic planning, product and sales forecasting, risk and sensitivity management, and as investment research.

### **Our Major Activities**

- *Multi-users market reports*
- *Database-RICDB*
- *Custom Research*
- *Company Search*

**RICDB** (<http://www.researchinchina.com/data/database.html>), is a visible financial data base presented by map and graph covering global and China macroeconomic data, industry data, and company data. It has included nearly 500,000 indices (based on time series), and is continuing to update and increase. The most significant feature of this base is that the vast majority of indices (about 400,000) can be displayed in map.

After purchase of our report, you will be automatically granted to enjoy 2 weeks trial service of RICDB for free.

After trial, you can decide to become our formal member or not. We will try our best to meet your demand. For more information, please find at [www.researchinchina.com](http://www.researchinchina.com)

For any problems, please contact our service team at: