

Lithium-ion Battery Market – Global Industry Size, Share, Trends, Opportunity, and Forecast, 2018–2028F Segmented By Type (Lithium cobalt oxide (LCO), Lithium iron phosphate (LFP), Lithium Nickel Cobalt Aluminum Oxide (NCA), Lithium Manganese Oxide (LMO), Lithium Titanate (LTO), Lithium Nickel Manganese Cobalt (LMC)), By Power Capacity (0-3,000 mAh, 3,000-10,000 mAh, 10,000-60,000 mAh, 60,000 mAh, and above), By Voltage (Upto 12V, 12V-36V, and Above 36V), By End User (Consumer Electronics, Automotive, Aerospace, Marine, Medical, Industrial, Power, Telecommunications, and Others), By Region

<https://marketpublishers.com/r/LF9172A3041CEN.html>

Date: October 2023

Pages: 180

Price: US\$ 4,900.00 (Single User License)

ID: LF9172A3041CEN

Abstracts

Global Lithium-ion Battery market is expected to thrive during the forecast period 2024-2028. The market for lithium-ion batteries has experienced phenomenal growth as a result of the high demand from consumer electronics and automobile industries. As more products come in the market that require a portable power source, lithium-ion batteries have emerged as an excellent alternative.

A lithium-ion battery, often known as a Li-ion battery, is a type of rechargeable battery that stores energy by reversible reduction of lithium ions. Graphite, a kind of carbon, is generally used as negative electrode of normal lithium-ion cell. Rechargeable Li-ion batteries, often known as LIBs, are found in hybrid and electric vehicles, as well as in computers and cellphones. Since Li-ion batteries are lightweight, have a high energy

density to extend battery life, and can be recharged, their use is expanding across a variety of applications.

Growing Applications in the Energy Sector

The grid-level energy storage system is crucial to maintaining a balance between power generation and consumption during the electrical energy transformation process. Because of their quick response, modular design, and adaptable installation, batteries have a lot of potential for usage in grid-level energy storage systems. Lithium-ion batteries have exceptional benefits for energy storage applications, including high energy density, high energy efficiency, and long cycle life, due to which lithium-ion batteries, among other battery technologies, are garnering a lot of attention as supporting devices in the grid. Currently, lithium-ion batteries are used in 77% of electrical power storage systems in USA to stabilise the grid. Lithium-ion battery use is expanding in the energy industry, which opens up new market expansion prospects.

Increasing R&D for Advancements In Technologies and Battery Life

Several firms conduct R&D to create lithium-ion batteries that are dependable and secure. In order to develop various battery chemistries, battery makers have significantly increased their R&D efforts as the world transitions to sustainable energy. For example, leading companies like Amprius Inc. in the US and Nexxon Corporation in the UK are working to build silicon anode batteries with improved features. In the upcoming years, it is anticipated that these cutting-edge silicon anode batteries are going to be adopted globally for energy storage applications. Additionally, to power electric vehicles, Tesla (US) and Panasonic Corporation (Japan) are conducting research and development on silicon anode and lithium-air batteries. Due to above factors, the market for Lithium-ion Battery is expected to growth drastically in near future.

Declining Prices of Li-ion Batteries Have Catalyzed Adoption in Various Sector

The cost of these batteries was the main issue preventing their widespread use after 1990. Li-ion batteries (LIB) are made up of a variety of parts, but the cell which makes up the majority of any LIB's cost is its primary constituent. However, new innovations by LIB manufacturing firms have contributed to falling prices for these batteries, which will continue to fall in the future. The use of cutting-edge technology to improve battery capacity and the falling costs of components are major driver in the rise of lithium-ion batteries market, globally.

Growing Demand for High Power and High Capacity Lithium-Ion Batteries in Electric Vehicles

The consumer electronics industry was the main consumer of batteries in the early years of lithium-ion battery industry. However, the main source of electricity for electric vehicles is lithium-ion batteries. The use of lithium-ion batteries has unavoidably increased due to the increasing use of EVs and plug-in hybrid electric vehicles, and this trend is predicted to continue in the future. Due to the rise in EV sales in recent years, EV makers have emerged as the largest buyers of lithium-ion batteries. Compared to conventional internal combustion engine (ICE) vehicles, EVs have a lower environmental impact as they produce no CO₂, NO_x, or other greenhouse gases. Due to this benefit, many nations are promoting the use of EVs through the introduction of subsidies and government initiatives. A number of nations have made plans to prohibit the sale of ICE automobiles in the future. Sales of ICE vehicles will be prohibited in Norway by 2025, France by 2040, and the UK by 2050. India, likewise, has plans to phase out ICE engines by 2030, and China is presently conducting the necessary research for a similar strategy. The number of electric vehicles on the market in the world increased from 1.24 million in 2015 to 16.49 million, by the end of 2021.

The market for these eco-friendly and pollution-free automobiles has grown as a result of consumers' growing adoption of EVs. Additionally, a number of countries are developing laws to promote the usage of electric vehicles. Furthermore, lithium batteries, which have a life expectancy of 10 years, power RVs and electric vehicles more successfully than lead-corrosive batteries since they are more modest and lighter. As a result, over the projection period, there will be an increase in demand for lithium-ion batteries with high power and high capacity.

Increasing Penetration into Large Applications will Fuel the Lithium-ion Battery Market in the Forecast Period

Applications for lithium-ion batteries are numerous, ranging from high-end yachts to life-saving medical devices. Electric mobility, energy storage systems, power backups/ups, mobile, laptops, and other frequently used consumer electronics are some of the most popular uses for lithium-ion batteries. Power from lithium batteries is dependable, consistent, and long-lasting. Additionally, lithium batteries are utilised with solar panels because they charge quickly, increasing the potential storage of solar energy.

In addition, they are superior to lead-acid batteries in terms of weight, longevity, quick

charging, low self-discharge rate, and prolonged operating duration, making them the best option for mobility equipment like electric wheelchairs and stairlifts. In addition, lithium-ion (Li-ion) batteries are utilised in a wide range of goods, including electric vehicles, toys, wireless headphones, small and large appliances, electronics, and portable power tools. As a result, the growing use of lithium-ion batteries in big applications will boost the market for batteries in the years to come.

Market Segmentation

Global Lithium-ion Battery market is segmented based on type, power capacity, voltage, and end user. Based on type, the market is segmented into Lithium cobalt oxide (LCO), Lithium iron phosphate (LFP), Lithium Nickel Cobalt Aluminum Oxide (NCA), Lithium Manganese Oxide (LMO), Lithium Titanate (LTO), Lithium Nickel Manganese Cobalt (LMC). Based on power capacity, the market is segmented into 0-3,000 mAh, 3,000-10,000 mAh, 10,000-60,000 mAh to 60,000 mAh, and above. Based on voltage, the market is segmented into Upto 12V, 12V-36V, and Above 36V. Based on end user, the market is segmented into Consumer Electronics, Automotive, Aerospace, Marine, Medical, Industrial, Power, Telecommunications, and Others. Based on region, the market is further divided into North America, Asia-Pacific, Europe, South America, and Middle East & Africa.

Market player

Major market players in the Global lithium-ion battery market are BYD Company Limited, Contemporary Amperex Technology Co. Limited, LG Chem Ltd, Panasonic Corporation, Samsung SDI, Sony Corporation, Tesla Inc., Tianjin Lishen Battery Joint-Stock Co. Ltd.

Report Scope:

In this report, the Global lithium-ion battery market has been segmented into the following categories, in addition to the industry trends which have also been detailed below:

Lithium-ion Battery Market, By Type:

Lithium cobalt oxide (LCO)

Lithium iron phosphate (LFP)

Lithium Nickel Cobalt Aluminum Oxide (NCA)

Lithium Manganese Oxide (LMO)

Lithium Titanate (LTO)

Lithium Nickel Manganese Cobalt (LMC)

Lithium-ion Battery Market, By Power Capacity:

0-3,000 mAh

3,000-10,000 mAh

10,000-60,000 mAh

60,000 mAh

Above 60,000 mAh

Lithium-ion Battery Market, By Voltage:

Upto 12V

12V-36V

Above 36V

Lithium-ion Battery Market, By End User:

Consumer Electronics

Automotive

Aerospace

Marine

Medical

Industrial

Power

Telecommunications

Others

Lithium-ion Battery Market, By Region:

North America

United States

Canada

Mexico

Asia-Pacific

China

India

Japan

South Korea

Australia

Europe

Germany

United Kingdom

France

Spain

Italy

South America

Brazil

Argentina

Colombia

Middle East

Saudi Arabia

South Africa

UAE

Competitive Landscape

Company Profiles: Detailed analysis of the major companies present in the Global lithium-ion battery market.

Available Customizations:

With the given market data, Tech Sci Research offers customizations according to a company's specific needs. The following customization options are available for the report:

Company Information

Detailed analysis and profiling of additional market players (up to five).

Contents

1. PRODUCT OVERVIEW

- 1.1. Market Definition
- 1.2. Scope of the Market
 - 1.2.1. Markets Covered
 - 1.2.2. Years Considered for Study
 - 1.2.3. Key Market Segmentations

2. RESEARCH METHODOLOGY

- 2.1. Baseline Methodology
- 2.2. Key Industry Partners
- 2.3. Major Association and Secondary Sources
- 2.4. Forecasting Methodology
- 2.5. Data Triangulation & Validation
- 2.6. Assumptions and Limitations

3. EXECUTIVE SUMMARY

4. VOICE OF CUSTOMERS

5. GLOBAL LITHIUM-ION BATTERY MARKET OUTLOOK

- 5.1. Market Size & Forecast
 - 5.1.1. By Value
- 5.2. Market Share & Forecast
 - 5.2.1. By Type (Lithium cobalt oxide (LCO), Lithium iron phosphate (LFP), Lithium Nickel Cobalt Aluminum Oxide (NCA), Lithium Manganese Oxide (LMO), Lithium Titanate (LTO), Lithium Nickel Manganese Cobalt (LMC))
 - 5.2.2. By Power Capacity (0-3,000 mAh, 3,000-10,000 mAh, 10,000-60,000 mAh, 60,000 mAh and above 60,000 mAh)
 - 5.2.3. By Voltage (Upto 12V, 12V-36V, Above 36V)
 - 5.2.4. By End User (Consumer Electronics, Automotive, Aerospace, Marine, Medical, Industrial, Power, Telecommunications, Others)
 - 5.2.5. By Region

5.3. By Company (2022)

5.4. Market Map

6. NORTH AMERICA LITHIUM-ION BATTERY MARKET OUTLOOK

6.1. Market Size & Forecast

6.1.1. By Value

6.2. Market Share & Forecast

6.2.1. By Type

6.2.2. By Power Capacity

6.2.3. By Voltage

6.2.4. By End User

6.2.5. By Country

6.3. North America: Country Analysis

6.3.1. United States Lithium-ion Battery Market Outlook

6.3.1.1. Market Size & Forecast

6.3.1.1.1. By Value

6.3.1.2. Market Share & Forecast

6.3.1.2.1. By Type

6.3.1.2.2. By Power Capacity

6.3.1.2.3. By Voltage

6.3.1.2.4. By End User

6.3.2. Canada Lithium-ion Battery Market Outlook

6.3.2.1. Market Size & Forecast

6.3.2.1.1. By Value

6.3.2.2. Market Share & Forecast

6.3.2.2.1. By Type

6.3.2.2.2. By Power Capacity

6.3.2.2.3. By Voltage

6.3.2.2.4. By End User

6.3.3. Mexico Lithium-ion Battery Market Outlook

6.3.3.1. Market Size & Forecast

6.3.3.1.1. By Value

6.3.3.2. Market Share & Forecast

6.3.3.2.1. By Type

6.3.3.2.2. By Power Capacity

6.3.3.2.3. By Voltage

6.3.3.2.4. By End User

7. ASIA-PACIFIC LITHIUM-ION BATTERY MARKET OUTLOOK

7.1. Market Size & Forecast

7.1.1. By Value

7.2. Market Share & Forecast

7.2.1. By Type

7.2.2. By Power Capacity

7.2.3. By Voltage

7.2.4. By End User

7.2.5. By Country

7.3. Asia-Pacific: Country Analysis

7.3.1. China Lithium-ion Battery Market Outlook

7.3.1.1. Market Size & Forecast

7.3.1.1.1. By Value

7.3.1.2. Market Share & Forecast

7.3.1.2.1. By Type

7.3.1.2.2. By Power Capacity

7.3.1.2.3. By Voltage

7.3.1.2.4. By End User

7.3.2. India Lithium-ion Battery Market Outlook

7.3.2.1. Market Size & Forecast

7.3.2.1.1. By Value

7.3.2.2. Market Size & Forecast

7.3.2.2.1. By Type

7.3.2.2.2. By Power Capacity

7.3.2.2.3. By Voltage

7.3.2.2.4. By End User

7.3.3. Japan Lithium-ion Battery Market Outlook

7.3.3.1. Market Size & Forecast

7.3.3.1.1. By Value

7.3.3.2. Market Size & Forecast

7.3.3.2.1. By Type

7.3.3.2.2. By Power Capacity

7.3.3.2.3. By Voltage

7.3.3.2.4. By End User

7.3.4. South Korea Lithium-ion Battery Market Outlook

7.3.4.1. Market Size & Forecast

7.3.4.1.1. By Value

7.3.4.2. Market Size & Forecast

- 7.3.4.2.1. By Type
- 7.3.4.2.2. By Power Capacity
- 7.3.4.2.3. By Voltage
- 7.3.4.2.4. By End User
- 7.3.5. Australia Lithium-ion Battery Market Outlook
 - 7.3.5.1. Market Size & Forecast
 - 7.3.5.1.1. By Value
 - 7.3.5.2. Market Share & Forecast
 - 7.3.5.2.1. By Type
 - 7.3.5.2.2. By Power Capacity
 - 7.3.5.2.3. By Voltage
 - 7.3.5.2.4. By End User

8. EUROPE LITHIUM-ION BATTERY MARKET OUTLOOK

- 8.1. Market Size & Forecast
 - 8.1.1. By Value
- 8.2. Market Share & Forecast
 - 8.2.1. By Type
 - 8.2.2. By Power Capacity
 - 8.2.3. By Voltage
 - 8.2.4. By End User
 - 8.2.5. By Country
- 8.3. Europe: Country Analysis
 - 8.3.1. Germany Lithium-ion Battery Market Outlook
 - 8.3.1.1. Market Size & Forecast
 - 8.3.1.1.1. By Value
 - 8.3.1.2. Market Share & Forecast
 - 8.3.1.2.1. By Type
 - 8.3.1.2.2. By Power Capacity
 - 8.3.1.2.3. By Voltage
 - 8.3.1.2.4. By End User
 - 8.3.2. United Kingdom Lithium-ion Battery Market Outlook
 - 8.3.2.1. Market Size & Forecast
 - 8.3.2.1.1. By Value
 - 8.3.2.2. Market Share & Forecast
 - 8.3.2.2.1. By Type
 - 8.3.2.2.2. By Power Capacity
 - 8.3.2.2.3. By Voltage

- 8.3.2.2.4. By End User
- 8.3.3. France Lithium-ion Battery Market Outlook
 - 8.3.3.1. Market Size & Forecast
 - 8.3.3.1.1. By Value
 - 8.3.3.2. Market Share & Forecast
 - 8.3.3.2.1. By Type
 - 8.3.3.2.2. By Power Capacity
 - 8.3.3.2.3. By Voltage
 - 8.3.3.2.4. By End User
- 8.3.4. Italy Lithium-ion Battery Market Outlook
 - 8.3.4.1. Market Size & Forecast
 - 8.3.4.1.1. By Value
 - 8.3.4.2. Market Share & Forecast
 - 8.3.4.2.1. By Type
 - 8.3.4.2.2. By Power Capacity
 - 8.3.4.2.3. By Voltage
 - 8.3.4.2.4. By End User
- 8.3.5. Spain Lithium-ion Battery Market Outlook
 - 8.3.5.1. Market Size & Forecast
 - 8.3.5.1.1. By Value
 - 8.3.5.2. Market Share & Forecast
 - 8.3.5.2.1. By Type
 - 8.3.5.2.2. By Power Capacity
 - 8.3.5.2.3. By Voltage
 - 8.3.5.2.4. By End User

9. SOUTH AMERICA LITHIUM-ION BATTERY MARKET OUTLOOK

- 9.1. Market Size & Forecast
 - 9.1.1. By Value
- 9.2. Market Share & Forecast
 - 9.2.1. By Type
 - 9.2.2. By Power Capacity
 - 9.2.3. By Voltage
 - 9.2.4. By End User
 - 9.2.5. By Country
- 9.3. South America: Country Analysis
 - 9.3.1. Brazil Lithium-ion Battery Market Outlook
 - 9.3.1.1. Market Size & Forecast

- 9.3.1.1.1. By Value
- 9.3.1.2. Market Share & Forecast
 - 9.3.1.2.1. By Type
 - 9.3.1.2.2. By Power Capacity
 - 9.3.1.2.3. By Voltage
 - 9.3.1.2.4. By End User
- 9.3.2. Argentina Lithium-ion Battery Market Outlook
 - 9.3.2.1. Market Size & Forecast
 - 9.3.2.1.1. By Value
 - 9.3.2.2. Market Share & Forecast
 - 9.3.2.2.1. By Type
 - 9.3.2.2.2. By Power Capacity
 - 9.3.2.2.3. By Voltage
 - 9.3.2.2.4. By End User
- 9.3.3. Colombia Lithium-ion Battery Market Outlook
 - 9.3.3.1. Market Size & Forecast
 - 9.3.3.1.1. By Value
 - 9.3.3.2. Market Share & Forecast
 - 9.3.3.2.1. By Type
 - 9.3.3.2.2. By Power Capacity
 - 9.3.3.2.3. By Voltage
 - 9.3.3.2.4. By End User

10. MIDDLE EAST & AFRICA LITHIUM-ION BATTERY MARKET OUTLOOK

- 10.1. Market Size & Forecast
 - 10.1.1. By Value
- 10.2. Market Share & Forecast
 - 10.2.1. By Type
 - 10.2.2. By Power Capacity
 - 10.2.3. By Voltage
 - 10.2.4. By End User
 - 10.2.5. By Country
- 10.3. Middle East & Africa: Country Analysis
 - 10.3.1. Saudi Arabia Lithium-ion Battery Market Outlook
 - 10.3.1.1. Market Size & Forecast
 - 10.3.1.1.1. By Value
 - 10.3.1.2. Market Share & Forecast
 - 10.3.1.2.1. By Type

- 10.3.1.2.2. By Power Capacity
- 10.3.1.2.3. By Voltage
- 10.3.1.2.4. By End User
- 10.3.2. South Africa Lithium-ion Battery Market Outlook
 - 10.3.2.1. Market Size & Forecast
 - 10.3.2.1.1. By Value
 - 10.3.2.2. Market Share & Forecast
 - 10.3.2.2.1. By Type
 - 10.3.2.2.2. By Power Capacity
 - 10.3.2.2.3. By Voltage
 - 10.3.2.2.4. By End User
- 10.3.3. UAE Lithium-ion Battery Market Outlook
 - 10.3.3.1. Market Size & Forecast
 - 10.3.3.1.1. By Value
 - 10.3.3.2. Market Share & Forecast
 - 10.3.3.2.1. By Type
 - 10.3.3.2.2. By Power Capacity
 - 10.3.3.2.3. By Voltage
 - 10.3.3.2.4. By End User

11. MARKET DYNAMICS

- 11.1. Drivers
- 11.2. Challenges

12. MARKET TRENDS & DEVELOPMENTS

13. COMPANY PROFILES

- 13.1. BYD Company Limited
 - 13.1.1. Business Overview
 - 13.1.2. Key Revenue and Financials
 - 13.1.3. Recent Developments
 - 13.1.4. Key Personnel
 - 13.1.5. Key Product/Services
- 13.2. Contemporary Amperex Technology Co. Limited
 - 13.2.1. Business Overview
 - 13.2.2. Key Revenue and Financials

- 13.2.3. Recent Developments
- 13.2.4. Key Personnel
- 13.2.5. Key Product/Services
- 13.3. LG Chem Ltd
 - 13.3.1. Business Overview
 - 13.3.2. Key Revenue and Financials
 - 13.3.3. Recent Developments
 - 13.3.4. Key Personnel
 - 13.3.5. Key Product/Services
- 13.4. Panasonic Corporation
 - 13.4.1. Business Overview
 - 13.4.2. Key Revenue and Financials
 - 13.4.3. Recent Developments
 - 13.4.4. Key Personnel
 - 13.4.5. Key Product/Services
- 13.5. Samsung SDI
 - 13.5.1. Business Overview
 - 13.5.2. Key Revenue and Financials
 - 13.5.3. Recent Developments
 - 13.5.4. Key Personnel
 - 13.5.5. Key Product/Services
- 13.6. Sony Corporation
 - 13.6.1. Business Overview
 - 13.6.2. Key Revenue and Financials
 - 13.6.3. Recent Developments
 - 13.6.4. Key Personnel
 - 13.6.5. Key Product/Services
- 13.7. Tesla Inc.
 - 13.7.1. Business Overview
 - 13.7.2. Key Revenue and Financials
 - 13.7.3. Recent Developments
 - 13.7.4. Key Personnel
 - 13.7.5. Key Product/Services
- 13.8. Tianjin Lishen Battery Joint-Stock Co. Ltd
 - 13.8.1. Business Overview
 - 13.8.2. Key Revenue and Financials
 - 13.8.3. Recent Developments
 - 13.8.4. Key Personnel
 - 13.8.5. Key Product/Services

14. STRATEGIC RECOMMENDATIONS

About Us & Disclaimer

I would like to order

Product name: Lithium-ion Battery Market – Global Industry Size, Share, Trends, Opportunity, and Forecast, 2018–2028F Segmented By Type (Lithium cobalt oxide (LCO), Lithium iron phosphate (LFP), Lithium Nickel Cobalt Aluminum Oxide (NCA), Lithium Manganese Oxide (LMO), Lithium Titanate (LTO), Lithium Nickel Manganese Cobalt (LMC)), By Power Capacity (0-3,000 mAh, 3,000-10,000 mAh, 10,000-60,000 mAh, 60,000 mAh, and above), By Voltage (Upto 12V, 12V-36V, and Above 36V), By End User (Consumer Electronics, Automotive, Aerospace, Marine, Medical, Industrial, Power, Telecommunications, and Others), By Region

Product link: <https://marketpublishers.com/r/LF9172A3041CEN.html>

Price: US\$ 4,900.00 (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/LF9172A3041CEN.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