



product

company

recruit

product

Energy Solutions

Automotive Battery



# Automotive Battery

---

## World's No. 1 automotive battery supplier

The rechargeable battery for automobile is a mid- to large-sized lithium ion battery used to provide power to an electric vehicle. Lithium ions move between the (+)/(-) electrodes to produce electricity. Based on its cutting-edge technologies, LG Chem has lead the global market by supplying batteries for electric vehicles to the global automobile manufacturers.

Product

Differentiation

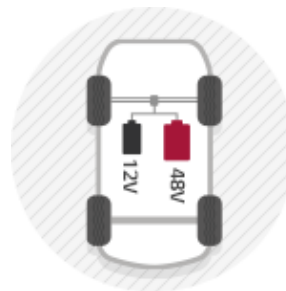
Batteries for electric vehicles demand high stability, high output and high energy density, and, in this regard, LG Chem's products are fully recognized for their performance and quality.

For Hybrid Vehicle(HEV)

Micro HEV

**Energy Source** Electricity, fossil fuel  
**Driving Characteristics** Improves fuel efficiency by providing supplementary power to the engine.  
**Battery Characteristics** The motor supplements the engine when the engine is running. It is possible to stop or start the engine while driving. The battery supplies electricity to electric components.

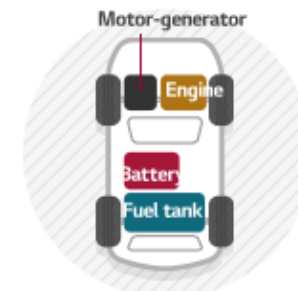
Operation



Pure HEV

**Energy Source** Electricity, fossil fuel  
**Driving Characteristics** Improves fuel efficiency through optimized driving where the power is generated by either the engine or the motor according to the driving conditions.  
**Battery Characteristics** The main role of the rechargeable battery is to supplement the engine, so it produces high output.

Operation



Models equipped with LG Chem's battery



Hyundai Sonata

A significant improvement in fuel efficiency through output increase.  
 Excellent instantaneous output/charging performance.  
 Long lifespan despite the frequent charging/discharging thanks to the little distortion/degeneration of electrodes.

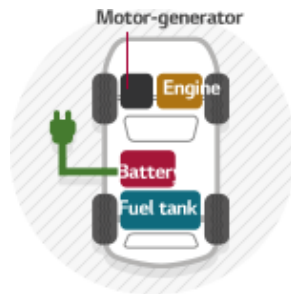
**For Plug-in Hybrid Vehicle(PHEV)**

**Energy Source** Electricity, fossil fuel (when discharged)

**Driving Characteristics** Having the characteristics of both a hybrid vehicle and an electric vehicle, the PHEV uses only electricity for short-distance travels and the engine for long-distance travels.

**Battery Characteristics** It has high energy density and produces high output.

**Operation**



**Models equipped with LG Chem's battery**



**GM Volt**

Realized high energy density for the same volume. Outstanding driving performance in the EV mode due to the high output.

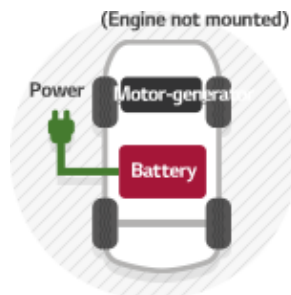
**For Electric Vehicle(EV)**

**Energy Source** Electricity

**Driving Characteristics** Driven only with the electricity. Zero pollution.

**Battery Characteristics** It is important to secure enough driving distance. Therefore, high energy density is the most important feature of the battery.

**Operation**



Models equipped  
with LG Chem's battery



Secured high capacity per unit weight thanks to the light battery, increasing the travel distance. Uniform temperature ensures sufficient cooling with a small amount of energy, extending the lifespan of the battery.

\* In addition to the examples listed above, LG Chem can provide automotive batteries in the form of cell, module or pack depending on the vehicle.

## Electric Vehicle Battery Solution

LG Chem has a product portfolio encompassing all products related to car batteries from cells to modules, BMS, packs and technical support.

### Cell

- Excellent stability based on the proprietary separator technology
- Lightweight pouch that generates little heat
- Secured competitiveness in the materials through raw material development and independent production

### Pack

- Efficient cooling system and the highest stability

### Technical Support

- Comprehensive consulting services based on the expertise accumulated through product development

## Module

Easy to change the designs according to customers' requirements  
A variety of cooling systems can be applied

## BMS

Accurate battery management through LG's proprietary algorithm  
Smooth communication between the automobile and battery software (AUTOSAR: automotive open system architecture)

## Contact

Automotive Battery\_CHINA

---

Automotive Battery\_JAPAN

---

Automotive Battery\_USA

---

Automotive Battery\_Europe

---

Automotive Battery\_KOREA

---

---

[Ask Us](#)

[Contact](#)

[Privacy policy](#)

[Rejection of unauthorized e-mail collection](#)

[Ethics Hotline](#)

[Related Sites](#)

Copyright © 2016 LG Chem. All Rights Reserved.