

# Ultium lithium ion battery





## Overview

---

Ultium is characterized by a modular layout, using an Ultium battery to supply power to one or two Ultium Drive unit(s) using a common set of power electronics (charging, battery management system, and inverter).

Ultium is an and architecture developed by . It is being deployed for from General Motors portfolio brands along with vehicles from and .

Ultium DriveUltium vehicles are powered by a modular family of five drive units and three electric traction motors, known.

• • .

General Motors revealed the Ultium battery and platform technologies during a week-long March 2020 event held at the in ;

What are GM ultium batteries?

Ultium batteries are at the core of GM's future EV lineup. Confirmed applications: GM Ultium Battery technology is an energy resource used to power the drive units and motors that comprise the modular propulsion system in GM's EV strategy.

What is an ultium battery?

The Ultium cell relies on a nickel-cobalt-manganese-aluminum chemistry, and requires 70 percent less cobalt than the cells used in the current Bolt EV. The Ultium cells can be installed in different positions (flat or upright), giving engineers flexibility in designing a battery pack to fit the available space in a vehicle.

How much energy does a ultium battery have?

The heart of the Ultium system is a pouch-type lithium-ion cell, 23 x 4 x 0.4 inches in size, weighing about 3 pounds, with a gross energy capacity of 0.37 kWh. Each Ultium pack will have a usable capacity between 50 kWh (144 cells) and 200 kWh (576 cells), enabling up to 450 miles of range.



Will ultium battery power a new EV?

Ultium battery technology will power every new General Motors electric vehicle, as Ultium is flexible enough to build a wide range of EVs - including cars, trucks, SUVs and even autonomous vehicles. Ultium batteries are at the core of GM's future EV lineup. Confirmed applications:.

Who makes ultium battery cells?

Ultium battery cells feature nickel-cobalt-manganese-aluminum (NCMA) chemistry, and will be manufactured by Ultium Cells LLC, a joint-venture of GM and LG Energy Solution as large format pouch cells. Battery materials will be supplied by LG Chem and POSCO Chemical (cathode active materials) and Livent (lithium hydroxide).

How much does a GM ultium battery cost?

Ultium battery price is less than \$100 per kWh. GM's Ultium battery technology boasts a modular design to optimize energy density. The battery module that will sit beneath the floor of GM's next-generation EVs is made up of long pouch cells that can be stacked to meet the vehicle's demand.



## Ultium lithium ion battery

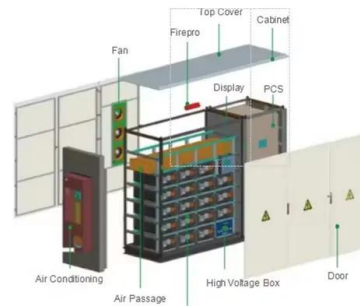


### Ultium CAM

Overview Ultium CAM is a joint venture between POSCO FUTURE MATERIALS CANADA INC. and GM CANADA. Located in Becancour, Quebec, Canada, we specialize in battery materials, focusing primarily on cathode active materials, essential for Lithium Ion

### Why GM Says Its Ultium Batteries Will Lead It To EV Dominance

vows that its new Ultium battery platform will drive that dominance. But what mak General Motors says it wants to lead EV sales in North America by 2025, and vows that its new Ultium battery



### How GM's Ultium Battery Will Help It Commit to an ...

The packs will have net capacities between 50 kilowatt-hours (144 cells) and 200 kilowatt-hours (576 cells), put out between 235 and 1000 horsepower, and provide up to 450 miles of range. GM claims

### ULTIUM CELLS

In December 2022, the Department of Energy announced the closing of a \$2.5 billion loan to Ultium Cells LLC to help finance the construction of new lithium-ion battery cell manufacturing facilities in Ohio, Tennessee, and Michigan. Ultium ...



### The Complete Breakdown: Pros and Cons of Lithium Ion Batteries

The lifespan of a battery isn't merely a technical specification; it's a financial and environmental commitment. Lithium-ion batteries possess a significant edge here, offering up to 1,000 to 2,000 full charge cycles before reaching 80% of their original capacity,

### Cadillac Lyriq Reveals New Details of GM's Ultium ...

However, the company did use the Lyriq's media debut to reveal additional details of GM's next-generation Ultium batteries. Ultium cells are flat pouch-style cells, developed in partnership with LG Chem and they will be ...



### The GM Ultium Platform: Better EV Profits Through Engineering

The Ultium Battery Cell Design: Using laptop-style cylindrical battery cells got Tesla into the market lickety-split, but the Ultium battery uses large (23.0-by-4.0-by-0.4-inch) pouch-type cells



### Energizer Ultimate Lithium AA Batteries, Double A Batteries (12 ...

Energizer Ultimate Lithium AA batteries are the world's longest lasting AA batteries Superior performance in extreme temperatures from -40 degrees F to 140 degrees F ensure reliable use in all seasons These double A batteries are leak proof batteries, based on

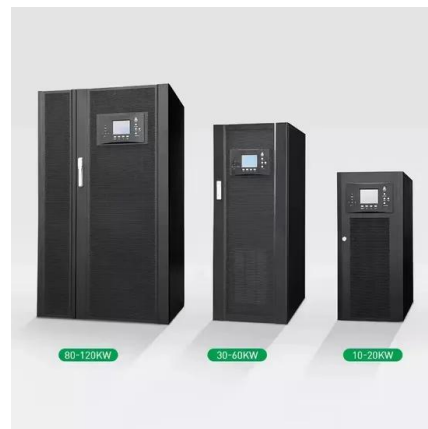


### New Tennessee Ultium Cells LLC Battery Plant , General Motors

The \$2.3B Ultium Cells LLC battery plant in Tennessee will create 1,300 new jobs and supply batteries for GM's future Ultium-powered electric vehicles. Tennessee The new \$2.3 billion Ultium Cells LLC battery plant will create 1,300 new jobs and supply Ultium battery cells to GM's Spring Hill Manufacturing assembly plant, which will build the Cadillac LYRIQ .

### Lithium-based batteries, history, current status, challenges, and

Among rechargeable batteries, Li-ion batteries have a number of advantageous electrochemical properties over other chemistries, which has contributed to their higher energy and power densities compared to other rechargeable batteries. 33 Hence, their current



### How do lithium-ion batteries work?

How lithium-ion batteries work Like any other battery, a rechargeable lithium-ion battery is made of one or more power-generating compartments called cells.Each cell has essentially three components: a positive electrode (connected to the battery's positive or + terminal), a negative electrode (connected to the negative or - terminal), and a chemical called ...



### Everything You Ever Wanted To Know About GM's Ultium ...

The Ultium battery packs will operate at 400 volts and be capable of DC fast charging at up to 250 kW. The Hummer EV will use two of those 400 volt packs virtually wired in series to simulate an

**LIQUID COOLING ENERGY STORAGE SYSTEM**  
 EMS real-time monitoring  
 No container design  
 flexible site layout

Cycle Life **≥ 8000**      Nominal Energy **200kwh**      IP Grade **IP55**



### How to Charge Lithium-Ion Batteries: Best Practices

Not sure the best practices for charging lithium-ion batteries? Learn everything you need to know to extend your battery life through best practices in battery charging. Lithium batteries have revolutionized the way we power our devices, providing longer life and higher energy density compared to other rechargeable batteries. . But with great power comes great ...

### [GM invests in U.S.-based lithium production](#)

Lithium is a key battery material used in the cathodes and electrolytes of GM EVs like the Chevrolet Bolt EV and Bolt EUV. Lithium will become even more important in battery ...

LiFePo<sub>4</sub> Battery  
 -20°C to 55°C  
 Modular Design

**10**  
 Year Warranty  
 EXTENDED WARRANTY

### Li-Cycle

Operations will Utilize Li-Cycle's Patented Spoke Technology and will be Located On-Site at Ultium Cells' Plant in Warren, Ohio Leverages Li-Cycle's Existing Long-Term Agreement to Process Ultium Cells' Battery Cell Manufacturing Scrap from the Ohio Plant New Spoke will Increase Li-Cycle's Processing Capacity by up to 15,000 tonnes of Lithium-ion ...



### General Motors Ultium Battery Technology

GM's Ultium Battery technology is an energy resource used to power Ultium Drive technology, which are the drive units and motors that comprise the modular propulsion system in GM's EV



### **Our Stories**

Read the stories shaping the future of General Motors mobility - from electrification and autonomy to safety, inclusion, sustainability, culture and more. Read about the people, technologies and commitments shaping the future of GM mobility.

### **Lithium-Ion Battery**

Compared to other high-quality rechargeable battery technologies (nickel-cadmium, nickel-metal-hydrate, or lead-acid), Li-ion batteries have a number of advantages. They have some of the highest energy densities of any ...





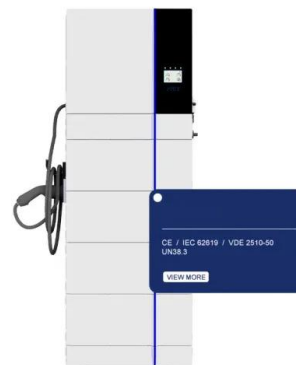
### GM reveals more technical details of its Ultium battery packs

The heart of the Ultium system is a pouch-type lithium-ion cell, 23 x 4 x 0.4 inches in size, weighing about 3 pounds, with a gross energy capacity of 0.37 kWh. Each ...



### BU-808: How to Prolong Lithium-based Batteries

If this were true, then a Li-ion battery cycled within 75%-25% SoC (blue) would fade to 74% capacity after 14,000 cycles. Hi I want to use an ultimate lithium battery in a camera trap for 30-days continuously. How long would it last? On October 3, 2018,



### [Is Lithium-ion the Ideal Battery?](#)

My father has purchased a Lithium Ion battery for use with a powered wheel. The battery is rated for 48 volt and the charger used was the same charger supplied with the battery by the manufacturer. There have been problems with the project; however, one very



### [Lithium vs. Lithium Ion Batteries](#)

Lithium and lithium ion batteries, or cells, provide portable electricity. They both work by storing electric charges chemically; when you connect their electrodes with a wire, the charges flow from the battery's cathode to its anode, producing an electrical current. Each





### Energizer Energizer Ultimate Lithium AA Batteries (12 Pack), 1.5V

Nothing outlasts Energizer Ultimate Lithium AA Batteries. These household batteries are not only the world's longest lasting AA batteries, but they also feature leak resistant construction and superior performance in extreme temperatures ranging from -40 degrees F to 140 degrees F. Use these AA lithium batteries to power a variety of high tech and household items, whether you

...



### GM Tweaks Battery Strategy, Downplaying Much Ballyhooed Ultium Lithium

Versions of Ultium's batteries and other components were to have powered all GM BEVs. Model of Ultium While GM so far has manufactured lithium-ion "pouches" as the primary component of



### Battery comparison chart

Battery Comparison Chart Facebook Twitter With so many battery choices, you'll need to find the right battery type and size for your particular device. Energizer provides a battery comparison chart to help you choose. There are two basic battery types: Primary batteries have a finite life and need to be replaced. These include alkaline [...]

### Li-ion Tamer and Ultium Battery Manufacturing Plant Case Study

Li-ion Tamer is extremely proud of our recent work with a tier 1 OEM battery manufacturer. What follows is a case study produced by our partner Xtralis. A joint venture between an American auto maker and tier 1 OEM battery manufacturer has deployed one of the





### The GM Ultium Platform: Better EV Profits Through ...

The Ultium Battery. Cell Design:Using laptop-style cylindrical battery cells got Tesla into the market lickety-split, but the Ultium battery uses large (23.0-by-4.0-by-0.4-inch)

### Prospects for lithium-ion batteries and beyond--a 2030 vision

It would be unwise to assume 'conventional' lithium-ion batteries are approaching the end of their era and so we discuss current strategies to improve the current and next generation systems



### GM Develops Lower Cost Ultium Lithium-Ion Batteries To Power ...

At the core of BEV3 is what GM is calling its Ultium battery system. This is based on a newly developed chemistry for the lithium-ion cells that helps reduce the cost and improve

### The Ultimate Guide to GM Ultium Chargers: Everything You ...

Understanding State of Charge (SOC) for Ultium Batteries Comprehending the State of Charge (SOC) is crucial for electric car owners, especially when it comes to GM Ultium Chargers. SOC is an indicator of the current energy level in your vehicle's power source, expressed as a percentage.





## GM Ultium



The GM Ultium is a flexible battery pack architecture destined for a number of vehicles with a total of 1 million EV's a year by 2025. Skip to content Battery Design from chemistry to pack Menu Chemistry Roadmap Lead Acid Lithium Ion Chemistry Lithium Sulfur

## Contact Us

---

For catalog requests, pricing, or partnerships, please visit:  
<https://vdbconstruction.co.za>