

ODM Lithium Battery Manufacturer: Why LiTrue Leads the Shortlist in 2026



The advertisement features a large, modern glass-fronted building in the background. In the foreground, there are three LiTrue battery packs: a black 'UAV Smart Battery' (14S 15C, 28000mAh, 51.6V, 1450.4Wh), a white rectangular pack, and a white 'Drone Battery' (10C, 28Ah/14S, 51.6V, 1450.4Wh). The LiTrue logo is in the top left. Below the title, a tagline reads 'Powering Innovation, Delivering Reliability'. A paragraph describes LiTrue as a leading ODM lithium battery manufacturer specializing in customized solutions for UAVs, robotics, electric vehicles, and energy storage. At the bottom, five icons represent key metrics: 18+ Years Experience, 85+ Product Series, 100+ In-house Patents, and 230+ Global Partners.

LiTRUE

ODM Lithium Battery Manufacturer

Powering Innovation, Delivering Reliability

LiTRUE is a leading ODM lithium battery manufacturer, specializing in customized lithium battery solutions for UAV, robotics, electric vehicles, energy storage and more applications.

14S 15C
28000mAh 51.6V 1450.4Wh

10C
Drone Battery
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Luoyang, Henan Jul 6, 2026 ([Issuewire.com](https://www.issuewire.com)) - If you're building a drone, an e-motorcycle, a portable power station, or an industrial robot, sooner or later you run into the same wall: off-the-shelf cells don't quite fit your voltage, your form factor, or your discharge profile. That's the point where most hardware teams start searching for an **ODM lithium battery manufacturer** — a factory that can take your specs and turn them into a cell or pack built specifically for your product, rather than forcing your design around whatever is already on a shelf.

This guide covers what ODM actually means in the battery industry, why it matters more than most sourcing checklists admit, and which manufacturers are worth evaluating first.

What Does ODM Mean for Lithium Batteries?

ODM stands for Original Design Manufacturer. In practice, it sits between two other sourcing models buyers often confuse it with:

- **OEM (Original Equipment Manufacturer):** the factory builds to your finished design and drawings. You bring the engineering; they bring the production line.
- **ODM (Original Design Manufacturer):** the factory's engineering team designs the cell or pack around your requirements — capacity, voltage, discharge rate, dimensions, operating temperature — and you own the resulting spec.
- **Off-the-shelf / catalog sourcing:** you pick an existing part number and adapt your product to

fit it.

An **ODM lithium battery manufacturer** is the option that makes sense when your application has a real constraint a standard cell won't satisfy — a tight enclosure, an unusual voltage step, a cold-climate deployment, or a discharge curve that off-the-shelf 18650s and generic pouch cells simply weren't built for.

Why the Right ODM Partner Matters More Than the Spec Sheet

A datasheet can promise almost anything. What separates a usable ODM partner from a risky one shows up later — in whether the cells still perform at -30°C after six months in the field, whether the factory can actually hit a 500-unit MOQ instead of quietly requiring 5,000, and whether your engineer can get a straight answer about cycle life instead of a marketing adjective.

Before shortlisting any ODM lithium battery manufacturer, it's worth checking:

- **Design capability, not just assembly capability** — can their engineering team actually iterate on cell chemistry, tab design, and pack layout, or do they only re-badge a standard part?
- **Certification coverage** — UN38.3 for transport is non-negotiable for anything shipping internationally; UL 2054, RoHS, and relevant GB/T safety standards matter depending on your target market.
- **Real cycle-life and rate data** — under what conditions was the number generated? A 10C rating with no duration listed is a different product than a genuine sustained 10C cell.
- **Sample-to-bulk lead time** — a factory that can turn samples around in 1–2 weeks but takes three months for the first production run isn't necessarily lying to you, but you need to know it upfront.

Top ODM Lithium Battery Manufacturers to Evaluate

The following manufacturers are commonly considered by teams sourcing custom lithium cells and packs. Reach out to more than one — the point of ODM sourcing is comparing real engineering responses, not just quotes.

1. LiTrue — Best for Custom High-Rate and Wide-Temperature Cells

[LiTrue](#) is a lithium battery manufacturer specializing in ODM/OEM pouch and prismatic cells, along with finished UAV, e-motorcycle, and energy-storage battery packs. What stands out with LiTrue is that the engineering team works from your actual load profile — current draw, temperature range, enclosure size — rather than pointing you toward a fixed catalog part.

A good example of this is their [30Ah NMC pouch cell \(PR30N-P\)](#), built for applications where a cell needs to deliver serious current without falling apart in cold weather. It's rated for 5C continuous / 10C maximum continuous discharge, an 8C/20C pulse rating, a 194Wh/kg energy density, and an operating range of -43°C to 55°C — the kind of spec set that's typically requested for UAV packs, cold-climate power systems, and other high-rate industrial applications rather than found sitting on a general parts shelf.

LiTrue's ODM process typically covers cell selection, custom pack design, and certification support (UN38.3, RoHS, and the relevant GB/T design standards), with sample MOQs low enough that teams can validate a design before committing to a production run. For teams that need a partner willing to

actually engineer around the application instead of pushing a standard part, LiTrue is worth putting at the top of the shortlist. You can browse their full range on the [cells](#) and [battery pack](#) pages, or [contact their team directly](#) to scope a project.

2. CATL

CATL is one of the largest lithium battery producers in the world, with a manufacturing footprint spanning EV, energy storage, and consumer applications. Its scale makes it a strong fit for very high-volume programs, though smaller ODM projects may find lead times and minimum order quantities less flexible than at a mid-sized specialist.

3. EVE Energy

EVE Energy produces a broad range of cylindrical, pouch, and prismatic cells across multiple chemistries, and has an established ODM program for industrial, power tool, and energy-storage customers. It's a common choice for buyers who want chemistry variety under one supplier.

4. Grepow

Grepow focuses on custom pouch cells for drones, wearables, and other space-constrained applications, and is frequently mentioned in ODM shortlists for UAV and consumer-electronics projects that need unusual cell shapes or ultra-thin form factors.

5. Great Power

Great Power manufactures lithium cells and packs across consumer, power, and energy-storage segments, with a customization program aimed at mid-to-large volume OEM and ODM buyers.

How to Vet an ODM Lithium Battery Manufacturer Before You Commit

- **Send your real load profile, not just capacity and voltage.** Discharge curve, ambient temperature range, and duty cycle tell an engineering team far more than a single Ah number.
- **Ask for the test conditions behind every headline spec.** Cycle life "at 1C, 25°C, 100% DOD" is a very different claim from cycle life at a high sustained rate in a hot enclosure.
- **Order samples before committing to bulk.** A short sample run, even at a small premium, is cheaper than discovering a design issue after a 5,000-unit order ships.
- **Confirm certifications match your shipping and target market** — UN38.3 for transport, plus any regional safety standard your product needs to clear.
- **Get lead times in writing for both samples and bulk production**, since these often differ from the response time you got during the sales conversation.

FAQsWhat's the difference between an ODM and an OEM lithium battery manufacturer?

An OEM manufacturer builds to a design you already own. An ODM manufacturer's engineering team designs the cell or pack around your requirements, and you end up owning the resulting spec. Most custom battery projects that start from a performance target rather than a finished drawing are ODM projects.

How do I know if I need a custom (ODM) cell instead of an off-the-shelf one?

If your application has a hard constraint a standard cell can't meet — an unusual enclosure size, a sustained high discharge rate, or an extreme temperature range — off-the-shelf parts usually force a compromise somewhere. That's the signal to move to ODM sourcing.

What certifications should a lithium battery ODM factory have?

UN38.3 is required for shipping lithium cells internationally by air or sea. Depending on your product and target market, RoHS, UL 2054, and relevant national safety-design standards may also apply — ask the manufacturer which ones cover your specific cell type.

What's a reasonable sample MOQ for an ODM battery project?

This varies by manufacturer and cell type, but many established ODM factories offer sample runs in the range of 10–50 units so you can validate performance before placing a bulk order. Always confirm this figure directly with the manufacturer for your specific product.

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