



# PRODUCT BROCHURE

## 2024

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A bright future energized by  
opportunities for all.



**CM BATTERIES**  
BOOST YOUR ENERGY

# WELCOME

## Product Brochure

At CM Batteries, we're here to boost your energy - from the chemical energy that powers your devices to the ethereal energy that powers you. We create custom battery packs that bring lasting energy to devices of all shapes, sizes, and functions. But our purpose as a company extends beyond the high-quality products we design and manufacture.



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# CHERRY YI

## MESSAGE FROM THE CEO

I want to energize others through my company's products and initiatives, as well as my own daily actions.



At the center of CM Batteries is Cherry (our founder) and Max (our head of production). You guessed it – that's what the "C" and "M" stand for in "CM Batteries". Cherry and Max are fueled by their desire not only to produce the highest quality and most dependable batteries on the market, but also to energize those around them and make a difference in the world in any way they can.

That's why, as CM Batteries continues to grow, we strive to share the energy we're amassing. Our charge on initiatives allow us to share our good fortune with the people who need it most, and our responsible recycling and sourcing processes help us curb tech waste's impact and protect Mother Earth. We're on a mission to energize products, people, and the planet with our high-quality batteries and moral-driven actions. Join us! It's time to boost your energy.



### Manufacturing

- One-stop manufacturer for custom battery design and production over 15 years.
- Production digital chain quality monitoring system to track products from CMB.
- ISO 9001:2015 quality management system.



### Engineering

- Our engineering team is at the core of CMB's work. Our chief technology officer (CTO) has more than 15 years of experience in the lithium ion battery industry and has previously worked with ATL, BYD, and BAK (three established battery pack companies).
- Battery pack technology: double discharge and charge protection in high and low temperature environment for safety. And heat insulation and suppressive heat for safety and longer cycles.



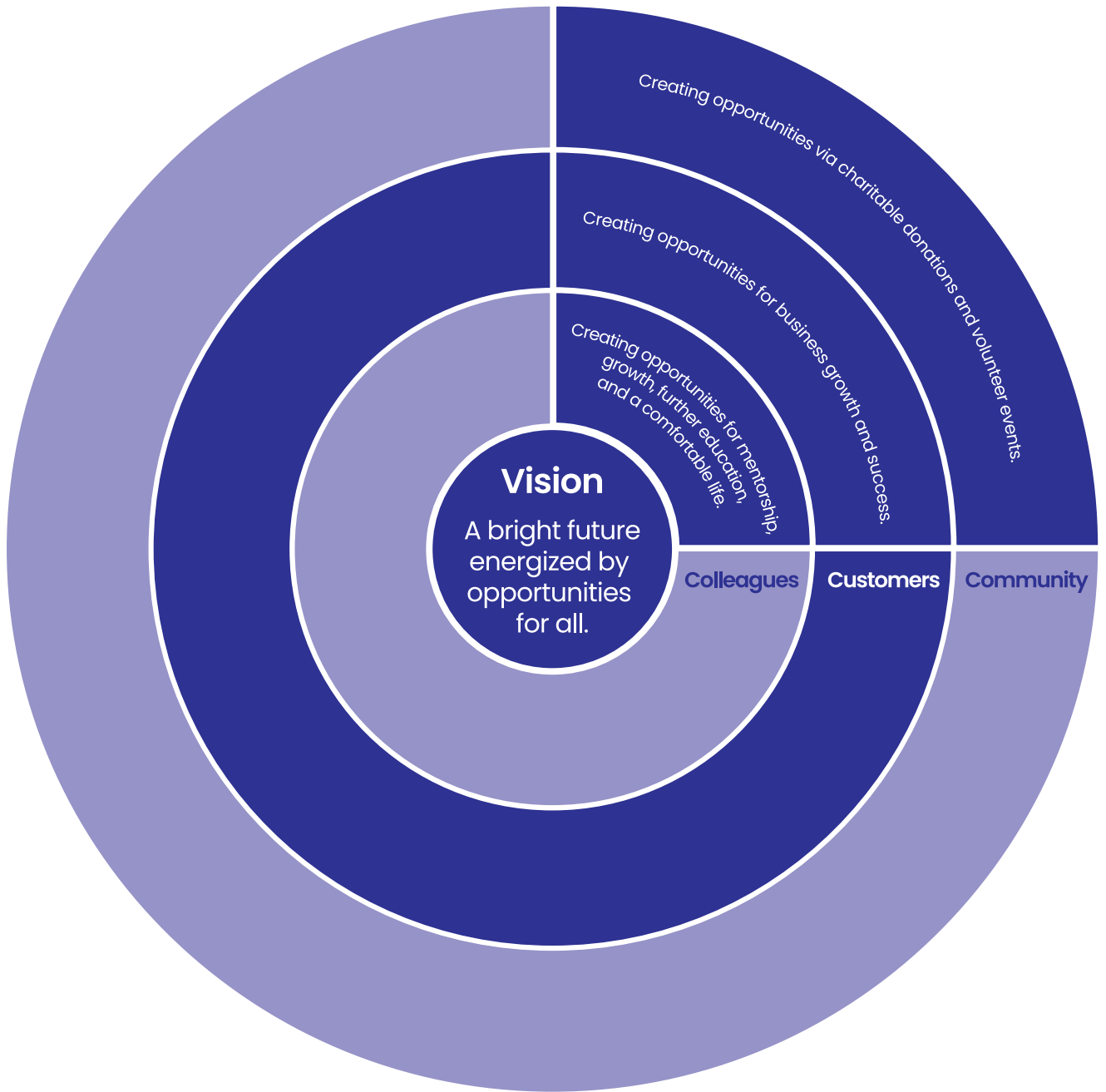
### Service

- Efficient battery pack project management
- Two years warranty for CMB's batteries.
- Free battery pack technology and workmanship's modification per year.
- Batteries technology and guideline to our customers every year.



## MISSION

To energize products and people with our high-quality batteries and moral-driven actions.







# Waterproof Electric Surfboard Battery Pack Solution

## Project:

Battery cell type: INR 18650 25R 3.7V 2500mAh

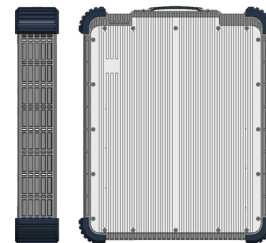
Specification: 43.2V 35Ah 1512Wh

Discharge current: 130A max

Dimension: 240\*200\*75(mm)

Weight: 14.2kg

Certificate: CE/FCC/RoHs/UN38.3



## Features:

1. To reduce the high temperature, we add the aluminum plate technology for the heat dissipation. Besides, we use the phase change materials to store the temperature. When the batteries work with high discharge current, it will make the batteries the temperature which affect the performance of the batteries.
2. When the electric surfboards has a large capacitive load, it will cause a very large instantaneous current. To solve this issue, we design the BMS with pre-discharge function and special BMS management strategy.
3. Special BMS management strategy, monitoring the real-time of the battery working, water leakage and solving the large instantaneous current.
4. Waterproof IP68



## Medical Device Battery Pack Solution

### Project:

Nominal voltage: 11.1V

Nominal capacity: 3.5Ah

Resistance:  $\leq 150\text{m}\Omega$

Charge temperature:  $0\sim 45^{\circ}\text{C}$

Discharge temperature:  $-20\sim 60^{\circ}\text{C}$

Weight: 180g

### Features:

1. Made by Panasonic 3.7V 18650 3500mAh cell
2. PCB solution: famous international IC, like Seiko, Ricoh and IT
3. Temperature monitoring or protection: NTC 10K solution
4. With Molex connector
5. Through our Charge Less program, CMB offers discounts on battery packs for individuals and organizations conducting research in the medical field with battery-operated medical devices or equipment. It's our small way of contributing to a noble cause.







# Cleaning Equipment Battery Pack Solution

## Project:

Nominal voltage: 36V

Nominal capacity: 15.6Ah

Resistance:  $\leq 200\text{m}\Omega$

Charge temperature: 0~45°C

Discharge temperature: -20~60°C

Weight: 3kg

## Features:

1. Made by DMEC or EVE 3.7V 18650 2600mAh cells
2. Built with UL BMS, continuous discharge current: 20A and pulse discharge current: 170A
3. Double discharge protection
4. Low temperature charge protection
5. OEM custom battery pack solution for cleaning machines





# Date Capture System Battery Pack Solution

## Project:

7.4V 2900mAh High Temperature Battery

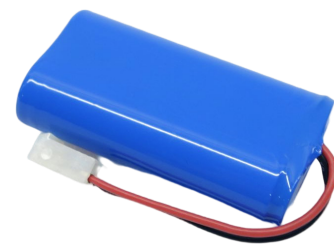
Battery type: high temperature battery

Nominal voltage: 7.4V

Nominal capacity: 2.9Ah

Dimension: 20\*39\*70(mm)

Weight: 100g



## Features:

- Ambient temperature discharge:  $-40\sim 85^{\circ}\text{C}$ 
  - $0 < T \leq 85^{\circ}\text{C}$ ; 2.75V
  - $-20 < T \leq 0^{\circ}\text{C}$ ; 2.5V
  - $-40 \leq T \leq -20^{\circ}\text{C}$ ; 2.0V
- Ambient temperature charge:  $-20\sim 60^{\circ}\text{C}$ 
  - $-20 < T \leq -10^{\circ}\text{C}$ ; 0.05C to 4.1V
  - $-10 < T \leq 0^{\circ}\text{C}$ ; 0.1C to 4.1V
  - $0 < T \leq 10^{\circ}\text{C}$ ; 0.2C to 4.2V
  - $10 < T < 60$ ; 0.5C to 4.2V
- Famous brand NTC
- Warranty: 3 years



## Industrial & Commercial Application

### Project:

12V 100Ah /200Ah LiFePO4 Battery

### Features:

1. Max discharge current: 120A~300A
2. Pulse current: 300A~500A
3. Waterproof IP: IP65/IP67/IP68
4. Discharge temperature : -20~60°C
5. Charge temperature range of standard 12V 100Ah LiFePO4 battery: 0~45°C
6. Charge temperature range of customize 12V 100Ah LiFePO4 battery: -20~45°C
7. Series & parallel connection: max 4 series connection and unlimited parallel connection.  
Batteries must be same voltage before series or parallel connection.







## Electric Grinder Li ion Battery Pack Solution

### Project:

Battery type: 4S1P li ion battery

Nominal voltage: 14.8V

Nominal capacity: 2.9Ah

Charge temperature range: 0~50°C

Discharge temperature range: -20~60°C

Dimension: 39\*39\*70(mm)

Weight: 200g



### Process Features:

1. Certificates: UN38.3, CE, IEC62133, UKCA
2. Made by high discharge 3C rate cell
3. Customized battery bracket
4. Safe pcb solution designed by CMB CTO



## Forklift Truck Battery Pack Solution

### Project:

12V 200Ah LiFePO4 Battery Pack

Battery type: liFePO4

Nominal voltage: 12.8V

Nominal capacity: 200Ah

Discharge current: 100A

Max discharge current: 200A

Charging temperature: 0~45°C

Discharging temperature: -20~60°C

Dimension: 535\*208\*216(mm)

Weight: 21kg



### Features:

1. Longer lifespan 3-4 times longer lead-acid lifespan-reduces overall battery investment
2. More environmental: liFePO4 battery is more environmental than lead acid battery
3. Lithium batteries are lightweight and compact in structure, making them easy to install and transport.
4. Built in protection-Intelligent Battery Management System (BMS) automatically prevents excessive discharge, charging, voltage, and temperature, and almost eliminates misuse.





## Electric Golf Cart Lithium Ion Battery Pack Solution

### Project:

24V 10.4Ah Lithium Ion Battery Pack

Battery type: 18650

Nominal voltage: 25.9V

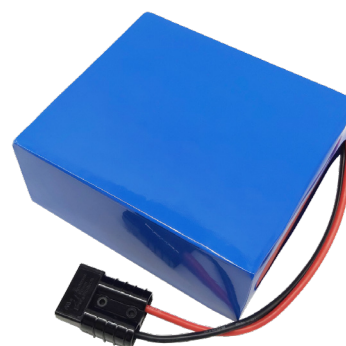
Nominal capacity: 10.4Ah

Discharge current: 5-8A

Max discharge current: 10-15A

Dimension: 76\*130\*70(mm)

Weight: 1400g



### Process Features:

1. Made by 3.7V 18650 2600mAh cell
2. More lighter than lead acid battery which is used for electric golf cart
3. When you are planning to choose lithium ion battery solution instead of the lead battery, you can fill our charge again program to get 10% discount for your purchase order.





# Electric Wheelchair Battery Pack Solution

## Project:

24V 20Ah Li Ion Battery

Nominal voltage: 25.2V

Nominal capacity: 20.3Ah

Discharge current: 5-8A

Max discharge current: 10-15A

Dimension: 130\*168\*70(mm)

Weight: 2850g



## Process Features:

1. Suitable for 500W motor
2. CANBUS or URAT communication protocol
3. Made by DMEC 3.7V 18650 2900mAh cell
4. 2 years warranty
5. Through our Charge Less program, CMB offers discounts on battery packs for individuals and organizations conducting research in the medical field with battery-operated medical devices or equipment. It's our small way of contributing to a noble cause.



## Drones Battery Pack Solution

### Project:

Nominal voltage: 36V

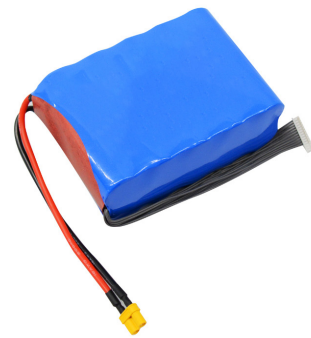
Nominal capacity: 2.5Ah

Discharge continuous current: 10A

Peak discharge continuous current: 20A

Dimension: 92.5\*74\*70(mm)

Weight: 1kg



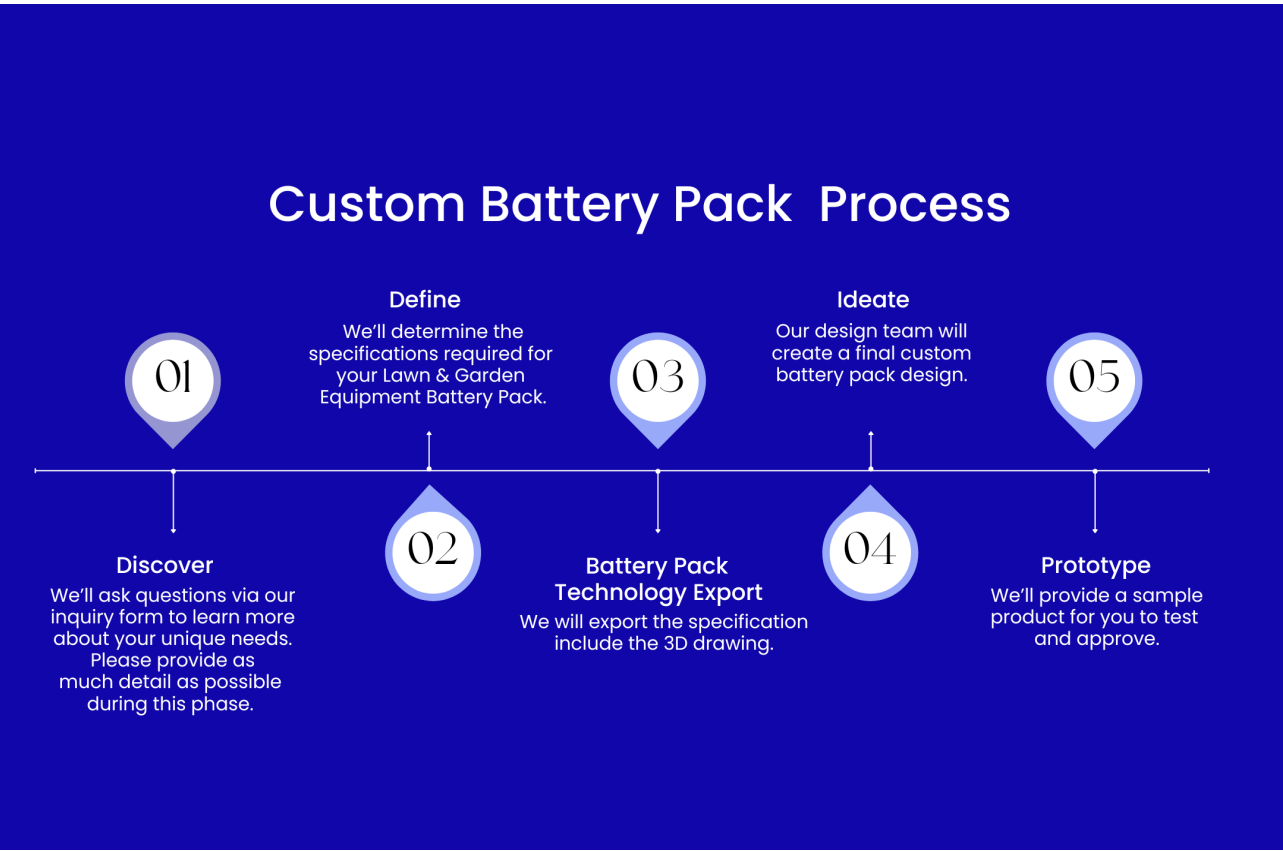
### Process Features:

1. The battery pack is used for Mapping and surveillance drones, Consumer drones, Autonomous electric aircraft drones.
2. Customized battery packs solution meets customers' needs.
3. Main BMS and subsidiary BMS solution.
4. If your drones are used for Medical emergency in poverty-stricken areas, we will donate 1% of the sales to support the Children's life and study from the poor areas.

# Energize CMB Products

We have decades of superb battery production technology and insist on independent research and development, innovation, manufacturing and sales of batteries.

We take research and development seriously, and we're always looking for the best methods and designs to prolong battery life, increase durability, and lower tech waste.







**Q** Are you a manufacturer or trader?

**A** We are a one-stop shop for custom battery pack manufacturing with more than 15 years of experience. We specialize in producing custom battery pack solutions for industrial applications.

**Q** What brand of cells do you use in your battery packs ?

**A** In our products, we use cells from Panasonic Samsung, LG, and other well known Chinese brands. The most important process is determining the right cells for each customers unique battery pack needs, and our Research Development team is well equipped to make those determinations.

**Q** What is the lead time ?

**A** For a standard custom battery pack, you can expect the development, production, and delivery process to take 25-30 business days from beginning to end. If you have more complex technological requirements for your battery pack, that timeline may be extended

**Q** Do CMB batteries have UN38.3 certification?

**A** In order to obtain UN38.8 certification, lithium batteries must undergo a rigorous series of tests performed by an approved independent testing laboratory. Because all of our batteries are custom made for each order, our products do not have current UN38.3 certification. That being said, we take 100% responsibility for the safety of every CMB product and have insurance in place should any unexpected and unlikely issues arise.



## **CM BATTERIES**

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