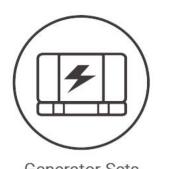
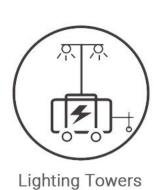


### MPMC GROUP OF COMPANIES











Hybrid Energy Solutions

Reefer Container Gensets

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# MPMC LI-ION BATTERIES

EVs / Electric Forklifts
Uninteruppted Power Supply / Electric Boats
Automated Guided Vehicles/Power Tools/Drones

MPMC LI-ION BATTERY CO., Ltd. is a clean energy technology enterprise integrating R&D, manufacture and sales, who committed to becoming a global professional lithium-ion battery provider. We has independent lithium battery PACK technology, which focuses on reducing potential safety hazards and greatly improving the reliability of lithium-ion battery packs. Various battery cells can be combined arbitrarily according to customer needs to meet various needs. The technology has been successfully applied to electric trucks, two-wheel electric vehicles, electric motorcycles, electric low-speed vehicles, utility electric vehicles, electric boats, AGVs, drones, energy storage and other fields.

The controlling shareholder of MPMC LI-ION BATTERY CO., LTD. is MPMC POWERTECH CORP., an international high-tech enterprise in Shanghai, and a world-class hybrid energy and battery storage solution innovator. MPMC has established holding subsidiaries and offices in United States, South Africa, United Kingdom, United Arab Emirates and China. Through taking full advantages of its independent R&D, productive intellectual property, full-process manufacturing and global marketing & services, we will penetrates global market resources.

At present, dealers of MPMC have spread all over the Americas, Europe, Oceania, Africa, the Middle East and Southeast Asia and other regions, and the products have been sold to more than 120 countries and regions. As a new energy technology enterprise, MPMC LI-ION BATTERY CO., LTD, adhering to the concept of green environmental protection, is committed to promoting the vigorous development of the global new energy industry, and makes continuous efforts for environmental protection and carbon reduction.



# Applications

#### Two-wheel EVs

....P3

#### LEVs & UEVs

....P5

UPS

.....P7

#### **Electric Boats**

.....pg

**AGVs** 

•••••P1

#### **Power Tools**

•••••P1

Drones

· · · · · · P12

















The lithium-ion batteries independently developed by MPMC LI-ION for two-wheel electric vehicles can meet the different needs of users. It adopts a full range of high-energy-density lithium iron phosphate batteries, which is smaller in size, lighter in weight, and safer to use. Good battery performance can ensure that even if it is not used for two months, its power can stay at not less than 80%, and the cycle life is up to 2000 times. MPMC LI-ION lithium-ion battery is equipped with an exclusive BMS to comprehensively protect the battery's charging, discharging and use safety, and ensure the safety of users' riding.











#### **Key Features**

- 1. ≥ 2000 cycle life
- 2. Good low-temperature performance
- 3. Capacity Attenuation is below 20% after 2 months
- 4. Quick-charging time only takes 2-3 hours
- 5. Light in weight and long in service time
- 6. Environment friendly





# Two-Wheel EVs Battery

Cell Chemistry	LiFePO4		
System Capacity	614.4Wh	921.6Wh	1536Wh
Rated Voltage	51.2V		
Rated Capacity	12Ah	18Ah	30Ah
Charging Current	5A		
Operating Temperature	-10°C∼+50°C		
Humidity	10%~90%		
Altitude	≤2000m		
IP Protection	IP65		
Cycle Life	≥2000		
BMS protection function	Overcharge protection, over discharge protection, over voltage protection, over temperature protection, over current protection, short circuit protection, balance		
Weight	7kg	10kg	15kg



## Electric Motorcycle Battery

Cell Chemistry	LiFe PO4			
System Capacity	1152Wh	1536Wh	1843.2Wh	2304Wh
Norminal Voltage	64V		76.8V	
Norminal Capacity	18Ah	24Ah	24Ah	30Ah
Charging Current	10A			
Operating Temperature	-10°C∼+50°C			
Humidity	10%~90%			
Altitude	≤2000m			
IP Protection	IP65			
Cycle Life	≥2000			
BMS Protection Function	Overcharge protection, over discharge protection, over voltage protection, over temperature protection, over current protection, short circuit protection, balance			
Weight	12kg	15kg	20kg	23kg



In order to meet various applications, MPMC LI-ION independently put out lithium-ion battery packs for light electric vehicles, various electric special vehicles, including electric tricycles, electric low-speed vehicles, electric utility vehicles and electric forklifts. Its adopts the safer and smaller lithium iron phosphate batteries with high energy density, which have a longer cycle life and provide users with more and safer power.









LOW-SPEED EVS 72V 100AH STORAGE
Lithium-ion Battery



### **Key Features**

- 1. ≥ 2000 cycle life
- 2. Good low-temperature performance
- 3. Capacity Attenuation is below 20% in 2 months
- 4. Quick-charging time only takes 2-3 hours
- 5. Light in weight and long in service time





### **Light Electric Vehicles Battery**

Cell Chemistry	LiFePO4				
System Capacity	1440Wh	2880Wh	2304Wh	4608Wh	11.52kWh
Norminal Voltage	48V			76.8V	
Norminal Capacity	30Ah	60Ah	30Ah	60Ah	150Ah
Charging Current	10A	20A	10A	20A	50A
Operating Temperature	-10°C∼+50°C				
Humidity	10%~90%				
Altitude	≤2000m				
IP Protection	IP65				
Cycle Life	≥2000				
BMS Protection Function	Overcharge protection, over discharge protection, over voltage protection, over temperature protection, over current protection, short circuit protection, balance				
Weight	15kg	30kg	23kg	45kg	120kg



### Electric Forklifts Battery

Cell Chemistry	LiFePO4		
System Capacity	14.4kWh	24kWh	
Norminal Voltage	48V	80V	
Norminal Capacity	300Ah		
charging current	150A		
Discharge current	200A		
Operating Temperature	-10°C∼+50°C		
Humidity	10%~90%		
Altitude	≤2000m		
IP Protection	IP54		
Cycle Life	≥2000		
BMS protection function	Overcharge protection, over discharge protection, over voltage protection, over temperature protection, over current protection, short circuit protection, balance		



# UPS Backup Power

LiFePO4



Every year it costs \$1.25 to \$2.5 billion dollars on an average on unplanned downtime caused by power outages for Fortune 1000 companies. A recent study initiated by Ponemon Insitute indicated that average costs of data center downtime alone can reach an alarming \$5,600 per minute or \$336,000 per hour. It also indicated 29% of the root causes are UPS system Failure.

MPMC LI-ION Batteries solution for UPS system maintains steady performance with high density batteries, improving space utilization for concatenating lesser series batteries.

Sophisticated solutions ensure MPMC UPS back-up power to provide reliability, resiliency and security of data to a wide range of applications.



#### **Key Features**

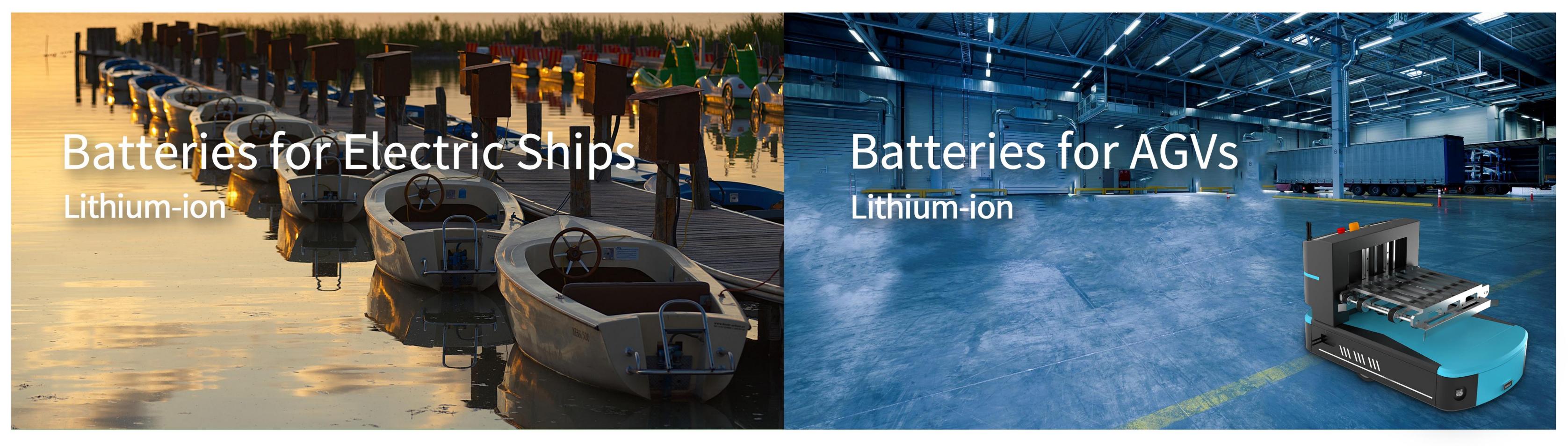
- 1.Stable uninterrupted power supply responding to unplanned power outages.
- 2. Cabinet with mesh to ensure good heat dissipation and safety.
- 3. Aluminium made, light in weight. Easy to move and operate.
- 4.Smart touch screen to monitor operation status, including system voltage, system current, cell voltage and temperature.5. Long lifespan.

- Server Room
- Network Closets
- Data Centers
- Telecommunication Utilities
- Industrial Power Solutions



\*Customization Available

N-		
Cell Chemistry	Lithium-ion	
System Capacity	14.4kWh	
Charging Current	100A	
Output Power	15kW	
Operating Temperature	-10°C~+50°C	
Humidity	10%~90%	
Altitude	≤2000m	
IP Protection	IP54	
Cycle Life	10 years	
BMS	Overcharge protection, over discharge protection, over voltage protection,	
<b>Protection Function</b>	over temperature protection, over current protection, short circuit protection, balance	



At present, lead-acid batteries are still mainly used on electric ships such as tourist ships and small sightseeing ships. However, due to their poor safety performance, low capacity density, and short life, it is easy to cause explosions and other safety accidents. Compared with lead-acid batteries, lithium iron phosphate batteries not only have the advantages of zero emission, high safety, but also have small size, fast charging speed, and can adjust the capacity freely, and have high use value.

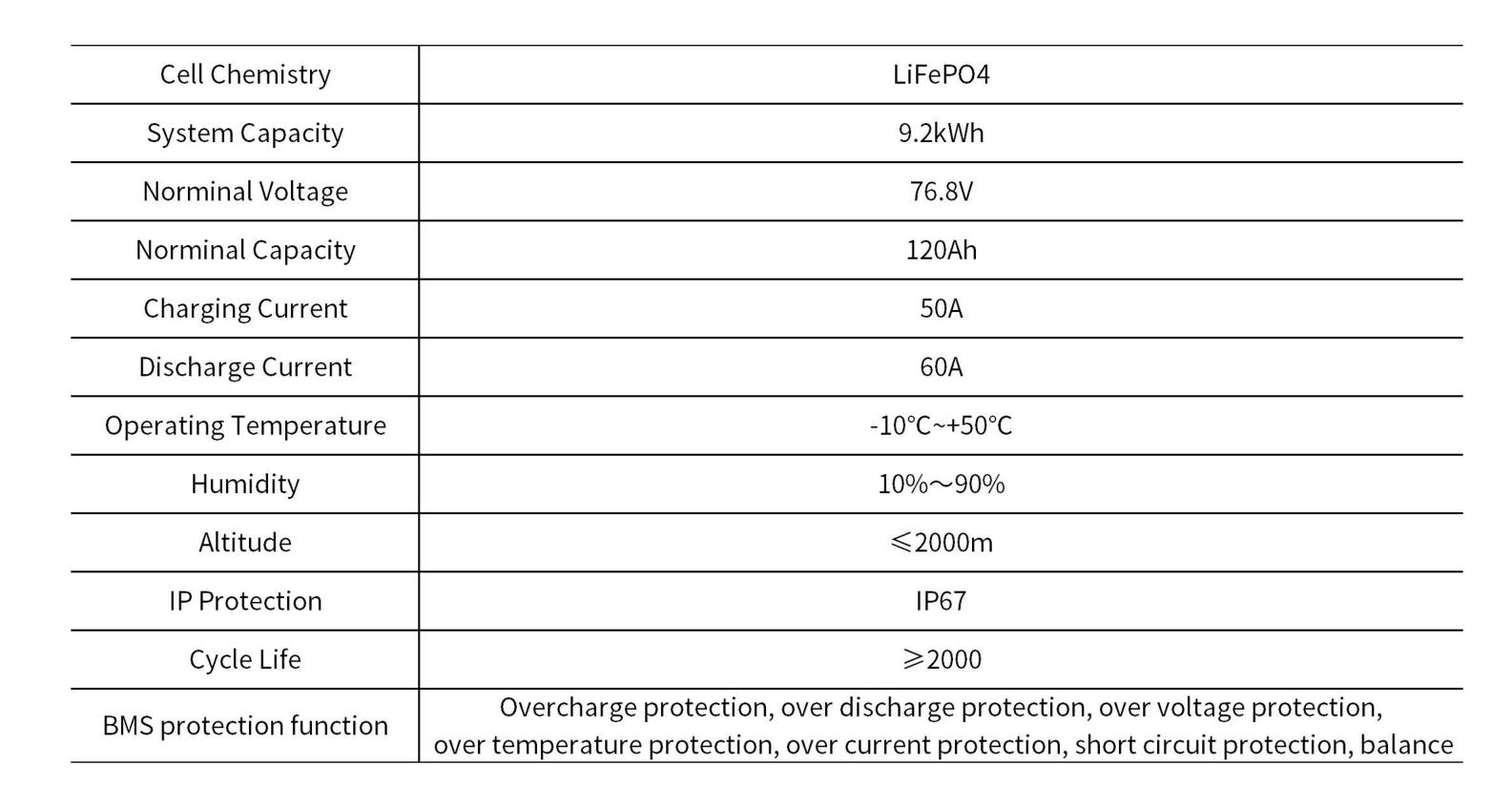












Nowadays, AGV, automated guided vehicles are more and more widely used in industrial production. MPMC LI-ION independently developed and manufactured a lithium battery energy storage system that accept customization. For various application scenarios, the use of high energy density lithium iron phosphate batteries has the characteristics of large capacity, small size, light weight, long cycle life, good performance, etc., which can reduce the number of charging times and maintenance costs.

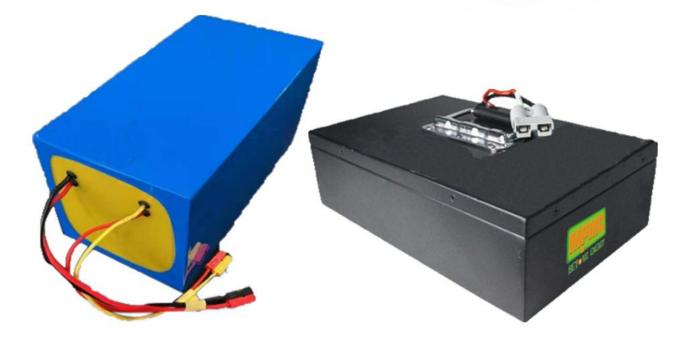












## Specification

Cell Chemistry	LiFePO4		
System Capacity	512Wh	1536Wh	
Norminal Voltage	25.6V	51.2V	
Norminal Capacity	20Ah	30Ah	
charging current	10A		
Discharge current	15A	20A	
Operating Temperature	-10°C∼+50°C		
Humidity	10%~90%		
Altitude	≤2000m		
IP Protection	IP54		
Cycle Life	≥2000		
BMS protection function	Overcharge protection, over discharge protection, over voltage protection, over temperature protection, over current protection, short circuit protection, balance		



Batteries for Drones Lithium-ion

Regarding the power consumption characteristics of power tools, MPMC LI-ION put out a specific lithium-ion battery that can discharge quickly and has a long service life. It's also featured by excellent performance in extreme hot or cold weather and multiple protection of the BMS. We not only select well-known battery cells, but also accept customization according to customers' requirement.











#### Specification

Cell Chemistry	Ternary lithium	
System Capacity	72Wh	
Norminal Voltage	12V	
Norminal Capacity	6Ah	
charging current	3A	
Discharge current	10C	
Operating Temperature	-10°C∼+50°C	
Humidity	10%~90%	
Altitude	≤2000m	
IP Protection	IP54	
Cycle Life	≥2000	
BMS protection function	Overcharge protection, over discharge protection, over voltage protection, over temperature protection, over current protection, short circuit protection, balance	

The drone needs to overcome its own weight to fly, which has high requirements on the weight of the battery, as well as battery capacity. The battery power will increase rapidly when the drone is rapidly rising from the hovering state to the maximum speed. MPMC LI-ION lithium battery uses a high-energy density ternary lithium-ion battery to provide sufficient power while having a smaller size and lighter weight, and can meet several times of power changes in a short period of time.











## Specification

Cell Chemistry	Ternary lithium		
System Capacity	37Wh	220Wh	
Norminal Voltage	7.4V	22.2V	
Norminal Capacity	5Ah	10Ah	
charging current	2A	5A	
Discharge current	5A	10A	
Operating Temperature	-10°C~+50°C		
Humidity	10%~90%		
Altitude	≤2000m		
IP Protection	IP54		
Cycle Life	≥2000		
BMS protection function	Overcharge protection, over discharge protection, over voltage protection, over temperature protection, over current protection, short circuit protection, balance		

