

ROYPOW TECHNOLOGY CO., LTD. has a policy of improving products continuously. All the information in this catalogue is provided for reference only. We reserve the right to make corrections as well as product alterations and improvements at any time without notice. Trademarks are the property of ROYPOW TECHNOLOGY CO., LTD. or their respective owners.



RoyPow®
Get powered. Get inspired

LiFePO₄ battery

for material handling equipments

Drop-in lithium-ion
for lead-acid
alternatives

RoyPow Technology Co., Ltd.

Tel: +86 (0) 752 3888 690

Email: sales@roypowtech.com

Web: www.roypowtech.com

Add: RoyPow Industrial Park, #8, Huifeng 2nd East Road, Zhongkai
High-Tech District, Huizhou, Guangdong, China

RoyPow (USA) Technology Co., Ltd.

Tel: (+1) 512 688 5555

Email: sales@roypowusa.com

Technical Support: (+1) 626 269 0547

Email: support@roypowusa.com

Web: www.roypowusa.com

California Office: 1267 Johnson Dr., City of Industry, CA 91745, USA

Florida Office: 3920 Anchuca Dr. #8, Lakeland, FL 33811, USA

Texas Office: 107 Halmar Cove #131, Georgetown, TX 78628, USA

RoyPow Technology UK Limited

Tel: +44 (0) 7592 198 258

Email: sales@roypow.co.uk

Add: Unit G25 Waterfront Studios, 1 Dock Road,
London, E16 1AH, UK

RoyPow (Europe) Technology B.V.

Email: sales@roypoweurope.com

Add: High Tech Campus 95656 AE Eindhoven, Netherlands

RoyPow 株式会社

Tel: (+81) 080 6561 0909

Email: info@roypow.co.jp

Web: www.roypow.co.jp

Add: 横浜市神奈川区ニッ谷町2-8加瀬ビル175 3F



LI-ION
technology

www.roypowtech.com

Contents

New technology. Create great value for your business 3

An unmatched power with high compatibility for multi-shift applications 7

LiFePO₄ forklift batteries - 24 V system 9

LiFePO₄ forklift batteries - 36 V system 11

LiFePO₄ forklift batteries - 48 V system 13

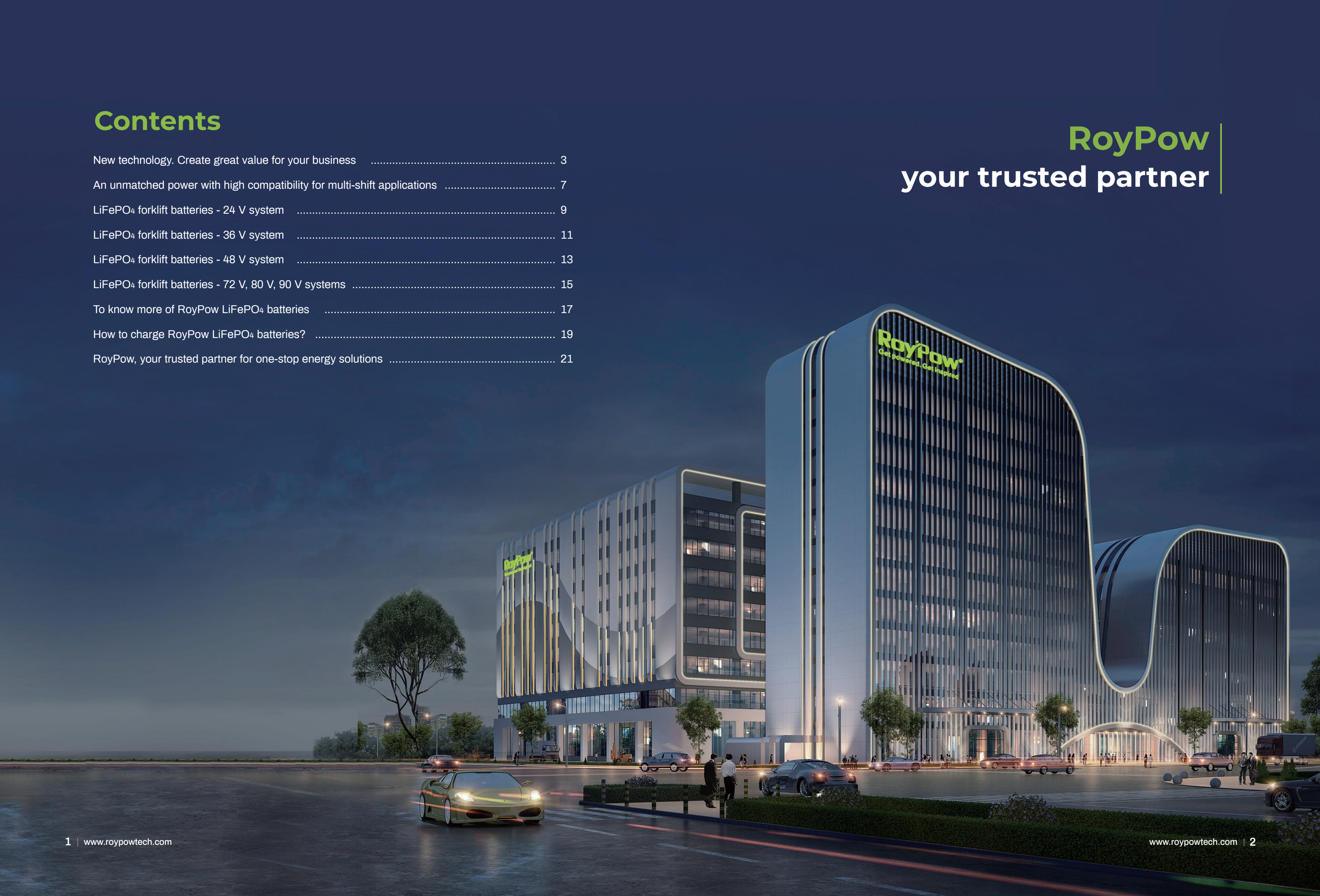
LiFePO₄ forklift batteries - 72 V, 80 V, 90 V systems 15

To know more of RoyPow LiFePO₄ batteries 17

How to charge RoyPow LiFePO₄ batteries? 19

RoyPow, your trusted partner for one-stop energy solutions 21

RoyPow
your trusted partner









New technology. Create great value for your business

Converting from lead-acid to lithium-ion is easy, cost effective and increases the productivity of the truck and the operator.



Retrofit your fleet to lithium-ion batteries.

Benefits of lithium-ion batteries

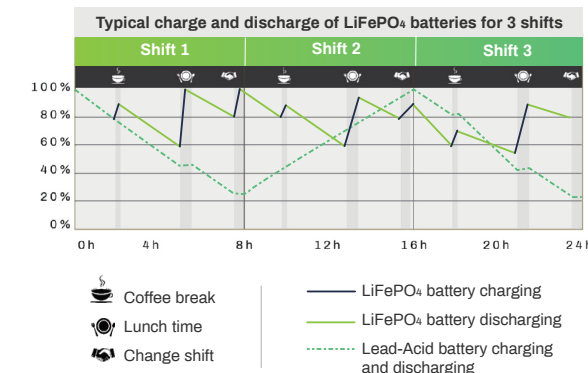
Lead-acid	LiFePO4 battery	
 3 years design life	 up to 10 years design life	Longer life 3 to 4 times lead-acid lifespan <ul style="list-style-type: none"> ✓ Reduces overall battery investment ✓ Eco-friendly ✓ Minimise the need for spares
 Frequent maintenance	 No maintenance	0 maintenance no need for regular filling of distilled water and electrolyte <ul style="list-style-type: none"> ✓ No regular filling of distilled water ✓ Saving costs on labor and maintenance ✓ Less unplanned downtime and improved productivity ✓ No frequent battery replacements
 1-2 years warranty	 5 years warranty	Extended warranty bring you peace of mind <ul style="list-style-type: none"> ✓ Durable and reliable ✓ Reduces maintenance and labor costs ✓ Quality guarantee

RoyPow
Get powered. Get inspired.

Equipments always remain in service when needed

In the context of day-to-day operations, battery can be charged even during short breaks, such as taking a rest or changing shifts, effectively increasing productivity.

- ✓ Reduces the need for a full charge everytime.
- ✓ Eliminates the need for frequent time-consuming of battery swaps.
- ✓ Eliminates the risk of battery changing accidents.
- ✓ The battery in the truck can be charged directly during short breaks, and can be recharged at any time.



Rapid charging

Whether you have a single-shift or a large fleet working 24/7, fast charge is one of the most important advantages.



TIPS

Why choose LiFePO₄ batteries for industrial applications?

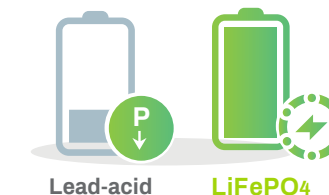
There are a lot of lithium-ion chemistries are for choices. RoyPow uses one of the most thermally stable and safe lithium-ion chemistries for industrial applications - lithium iron phosphate (LiFePO₄ or LFP).

Except providing longer life, it is more energy dense, more stable and compact than lead-acid.

The battery packs are sealed unit requiring no water filling and no maintenance. It is ideal for batteries used in industrial applications.

Consistent power

Lithium-ion batteries deliver consistent high performance which maintain greater productivity even toward the end of a shift.



No specific charging room required and frequent battery swaps

- ✓ Minimise the need to buy, store and maintain spares.
- ✓ Eliminate the cost and storage space required for additional lead-acid batteries.
- ✓ No gas or acid spills, no ventilation system needed when charging.



Small investment, big return

Converting your battery to lithium-ion may require a higher initial investment, but its ongoing savings on energy, equipment, labour and downtime, can give you a more cost-effective bill in opposite.

The LiFePO₄ batteries can offer you...











- ✓ Longer life reduces overall battery investment.
- ✓ No maintenance saves labor and maintenance costs.
- ✓ No gas or acid spills, avoids the space, equipment and running costs of a battery room and ventilation system.
- ✓ Energy saving and less downtime, improve productivity.



5-year cost comparison to increase your overall return on investments.

Below is the 5-year expenditure table comparing RoyPow LiFePO₄ batteries with lead-acid batteries.

Save **70%**
expenses in 5 years

Purchases over 5 years	Lead-acid battery	LiFePO ₄ battery
Battery cost	 5yr 	
Maintenance	 5yr 	
Electricity waste	 5yr 	
Installation	 5yr 	
Shipping	 5yr 	

Remark: Actual costs may vary according to local conditions.

RoyPow batteries with smart & integrated systems

can provide exceptional performance to get the job done and improve your productivity, which means less hours of unplanned downtime and more productive hours on your working.

0 Maintenance
5yr Warranty
Up to **3,500+** Life cycles
Up to **10**yr Design life



Durable

RoyPow batteries are waterproof and dust-proof, they can always maintain excellent performance and stable discharge rate under all-weather working condition.

4G modules

Enables you to monitor the battery's charge and temperature and so on. 4G modules are for remote monitoring and diagnosing, and remote software upgrades to solve software problems in time.

Inbuilt protection

- ✓ Intelligent BMS is automatically for cell balancing and advanced battery management.
- ✓ The LiFePO₄ batteries have greater thermal and chemical stability.

An unmatched power with high compatibility for multi-shift applications.

Our batteries have wide ranges for different forklift applications and brands. Applications like logistics, manufacturing, daily goods etc.



RoyPow
Get powered. Get inspired

RoyPow delivers solutions for every brand and size of vehicle, they are generally applied in these famous forklift brands: Toyota, Yale, Hyster, Crown, TCM, Linde, Doosan, Heli, Jungheinrich.....



Which LiFePO₄ battery is suitable for your forklifts

To cover most of the forklift ranges, our batteries are generally divided into 6 systems:

Do not be hesitate, your ideal batteries are definitely here.

24 V battery system

For electric order pickers, end riders, center riders, walkie stackers.



36 V battery system

For electric pallet trucks, narrow aisle forklifts.



48 V battery system

For small & medium counterbalance forklifts.



72 V, 80 V, 90 V battery system

For heavy duty counterbalance forklifts.



LiFePO₄ forklift batteries 24 V system

Retrofit your fleet to lithium-ion batteries.

Lithium drop-in replacements for lead-acid batteries.

✓ For higher productivity, retrofit your fleet to lithium-ion batteries. These batteries keep your equipments in passions all day long.

✓ Power your equipments up to 3 shifts a day!

Solutions for CLASS 3

electric order pickers, end riders, center riders, walkie stackers



Advanced lithium-ion power solutions



Efficient power

- ✓ High sustained power.
- ✓ 3,500+ life cycles at 80% depth discharge.
- ✓ Up to 10 years design life.



Safe power

- ✓ No acid spills, no combustible gases emissions.
- ✓ Automotive-grade components with advanced quality.
- ✓ More thermal & chemical stability.



Flexible power

- ✓ Zero maintenance, no need for water top-ups or electrolyte checks.
- ✓ No battery swapping for multi-shift operations.
- ✓ No ventilation systems required.

Save **70%**
expenses
in 5 years

Specifications for 24 V system



	Technical specification						Discharge current		General	
Model	Nominal voltage	Nominal capacity	Stored energy	Life cycles	Dimensions (L×W×H)	Weight lbs. (kg)	Continuous discharge	Maximum discharge	Casing material	IP rating
F24100	25.6 V	100 Ah	2.56 kWh	>3,500 times	25.0×7.1×21.2 inch (635×180×538 mm)	110 lbs. (50 kg)	100 A	210 A (5 s)	Steel	IP65
F24105		105 Ah	2.68 kWh		25.6×7.9×21.3 inch (650×200×540 mm)	110 lbs. (50 kg)	105 A	210 A (5 s)		
F24160		160 Ah	4.09 kWh		22.0×6.5×20.1 inch (560×165×510 mm)	121 lbs. (55 kg)	160 A	320 A (5 s)		
F24210		210 Ah	5.37 kWh		29.5×7.1×19.9 inch (750×180×505 mm)	143 lbs. (65 kg)	200 A	420 A (5 s)		
F24280		280 Ah	7.16 kWh		31.9×8.4×25.4 inch (810×212×645 mm)	191 lbs. (87 kg)	200 A	420 A (5 s)		
F24315		315 Ah	8.06 kWh		29.5×12.6×19.7 inch (750×320×500 mm)	319 lbs. (145 kg)	200 A	450 A (5 s)		
F24560		560 Ah	14.33 kWh		32.5×19.1×24.6 inch (825×485×624 mm)	582 lbs. (264 kg)	320 A	480 A (5 s)		
Environment temp. range		Charge -4°F~131°F (-20°C ~ 55°C)		Discharge -4°F~131°F (-20°C ~ 55°C)		Storage (1 month) -4°F~131°F (-20°C ~ 55°C)		Storage (1 year) 32°F~95°F (0°C~35°C)		



5 years warranty

5 years warranty and timely technical support.



Steady output

LiFePO₄ batteries possess a steady power output, which will not dramatically drop like lead-acid batteries.



Life cycles

RoyPow LiFePO₄ batteries last so long that outperform traditional batteries.



Built-in battery management system (BMS)

All time cell balancing and with multiple built-in protections including short circuit protection, high temperature protection, high voltage protection and so on, to get better performance and longer life.



4G module

For software upgrading, remote monitoring and diagnosing.

They are all tested and certified:



LiFePO₄ forklift batteries

36 V system

Retrofit your fleet to lithium-ion batteries.

Lithium drop-in replacements for lead-acid batteries.

- ✓ For higher productivity, put LiFePO₄ to your fleets.
- ✓ Power your passion, boost your business!

Solutions for CLASS **2**
Electric pallet trucks, narrow aisle forklifts.



An upgraded battery solution

RoyerPow
Get powered. Get inspired



Robust and reliable

- ✓ High sustained power.
- ✓ 3,500+ life cycles at 80% depth discharge.
- ✓ Up to 10 years design life.



Green and stable

- ✓ No acid spills, no noxious gas emissions.
- ✓ Automotive-grade components with advanced quality.
- ✓ More thermal & chemical stability.



Cost-effective and convenient

- ✓ Zero maintenance, no need for water top-ups or electrolyte checks.
- ✓ No frequent battery replacements.
- ✓ No ventilation systems required.
- ✓ Opportunity charge enables a flexible work style.

Save **70%**
expenses
in 5 years

Specifications for 36 V system

RoyerPow
Get powered. Get inspired

	Technical specification						Discharge current		General	
Model	Nominal voltage	Nominal capacity	Stored energy	Life cycles	Dimensions (L×W×H)	Weight lbs. (kg)	Continuous discharge	Maximum discharge	Casing material	IP rating
F36560	38.4V	560 Ah	21.5 kWh	>3,500 times	38.2×15.9×30.7 inch (970×403×780 mm)	628 lbs. (285 kg)	320 A	480 A (5 s)	Steel	IP65
F36690		690 Ah	26.49 kWh		38.1×20.3×30.7 inch (968×516×780 mm)	727 lbs. (330 kg)	320 A	480 A (5 s)		
Environment temp. range		Charge -4°F~131°F (-20°C ~ 55°C)		Discharge -4°F~131°F (-20°C ~ 55°C)		Storage (1 month) -4°F~131°F (-20°C ~ 55°C)		Storage (1 year) 32°F~95°F (0°C~35°C)		



5 years warranty

5 years warranty bring you hassle free experiences.



Steady output

LiFePO₄ batteries keep a steady power output, which will not dramatically drop like lead-acid batteries.



Life cycles

RoyerPow LiFePO₄ batteries last so long that outperform traditional batteries.



Built-in battery management system (BMS)

The smart and reliable BMS can ensure a better performance, and delivers longer battery run time and lifespan.



4G module

For software upgrading, remote monitoring and diagnosing.

They are all tested and certified:



LiFePO₄ forklift batteries 48 V system

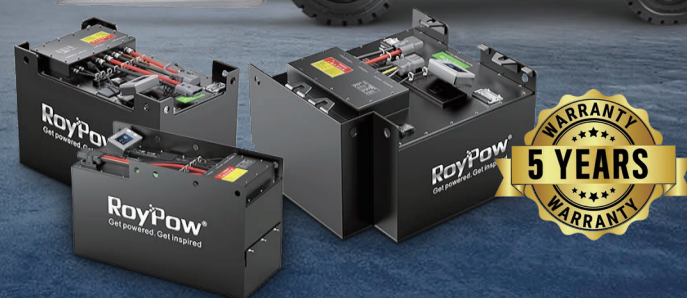
Retrofit your fleet to lithium-ion batteries.

Lithium drop-in replacements for lead-acid batteries.

- ✓ Not just a battery, but a new work style.
- ✓ Increased productivity and better performance for your fleets!

Solutions for CLASS 1

Small & medium electric counterbalance forklifts



A better solution for your forklifts

RoyPow®
Get powered. Get inspired



Strong and durable

- ✓ High sustained power.
- ✓ 3,500+ life cycles at 80% depth discharge.
- ✓ 10 years design life.



Safe and green

- ✓ No acid spills, no noxious gas emissions.
- ✓ Automotive-grade components with advanced quality.
- ✓ More thermal & chemical stability.



Flexible and easy

- ✓ Zero maintenance, no need for water top-ups or electrolyte checks.
- ✓ No battery swapping for multi-shift operations.
- ✓ No ventilation systems required.

Save **70%**
expenses
in 5 years

Specifications for 48 V system

RoyPow®
Get powered. Get inspired

	Technical specification						Discharge current		General	
Model	Nominal voltage	Nominal capacity	Stored energy	Life cycles	Dimensions (L×W×H)	Weight lbs. (kg)	Continuous discharge	Maximum discharge	Casing material	IP rating
F48210	51.2 V	210 Ah	10.75 kWh	>3,500 times	37.4×14.8×21.7 inch (950×375×550 mm)	440 lbs. (200 kg)	200 A	420 A (5 s)	Steel	IP65
F48280		280 Ah	14.33 kWh		31.5×20.5×17.7 inch (800×520×450 mm)	462 lbs. (210 kg)	200 A	420 A (5 s)		
F48315		315 Ah	16.1 kWh		36.8×22.2×27.8 inch (935×565×707 mm)	661 lbs. (300 kg)	315 A	450 A (5 s)		
F48420		420 Ah	21.50 kWh		38.9×24.8×25.0 inch (988×629×635 mm)	850 lbs. (386 kg)	320 A	450 A (5 s)		
F48560		560 Ah	28.67 kWh		35.6×32.0×16.9 inch (905×812×429 mm)	661 lbs. (300 kg)	320 A	480 A (5 s)		
F48608		608 Ah	31.1 kWh		39.4×29.9×23.4 inch (1,000×760×595 mm)	930 lbs. (422 kg)	320 A	480 A (5 s)		
Environment temp. range		Charge -4°F~-131°F (-20°C ~ 55°C)		Discharge -4°F~-131°F (-20°C ~ 55°C)		Storage (1 month) -4°F~-131°F (-20°C ~ 55°C)		Storage (1 year) 32°F~95°F (0°C~35°C)		



5 years warranty

5 years warranty for every single battery.



Steady output

They can keep a steady power output and suitable for 48 V forklifts of most leading brands.



Life cycles

RoyPow LiFePO₄ batteries last much longer than traditional batteries.



Built-in battery management system (BMS)

All-time cell balancing and with various protections for better performance and longer life.



4G module

For software upgrading, remote monitoring and diagnosing.

They are all tested and certified:



LiFePO₄ forklift batteries

72 V, 80 V, 90 V systems

Lithium drop-in replacements for lead-acid batteries.

- ✓ Switch to lithium-ion batteries - the new technology will upgrade your fleets dramatically.
- ✓ Ideal for multi-shift operation.

Solutions for CLASS 1

Electric heavy duty counterbalance forklifts

Retrofit your fleet to lithium-ion batteries.



A new power and a new work style

RoyPow®
Get powered. Get inspired



Ideal for industry applications

- ✓ High sustained power.
- ✓ 3,500+ life cycles at 80% depth discharge.
- ✓ Up to 10 years design life.



High quality and stability

- ✓ Automotive-grade components with advanced quality.
- ✓ More thermal & chemical stability.



Easy and safe to use

- ✓ Zero maintenance, no need for water top-ups or electrolyte checks.
- ✓ No battery swapping for multi-shift operations.
- ✓ No ventilation systems required.
- ✓ No acid spills, no noxious gas emissions.

Save **70%**
expenses
in 5 years

About counterbalance

Different forklifts may have different requirements, RoyPow batteries can be customised according to your needs. Kindly consult the sales team for details.

Specifications for 72 V, 80 V, 90 V systems

RoyPow®
Get powered. Get inspired

	Technical specification						Discharge current		General	
Model	Nominal voltage	Nominal capacity	Stored energy	Life cycles	Dimensions (L×W×H)	Weight lbs. (kg)	Continuous discharge	Maximum discharge	Casing material	IP rating
F72420	73.6 V	420 Ah	30.9 kWh	>3,500 times	35.4×19.7×23.2 inch (900×500×590 mm)	683 lbs. (310 kg)	320 A	480 A (5 s)	Steel	IP65
F80315	80 V	315 Ah	25.2 kWh		37.5×27.6×29.0 inch (953×700×736 mm)	761 lbs. (345 kg)	320 A	480 A (5 s)		
F80420		420 Ah	33.6 kWh		36.9×31.4×30.6 inch (938×798×778 mm)	903 lbs. (410 kg)	320 A	450 A (5 s)		
F80460		460 Ah	36.8 kWh		40.3×33.6×31.1 inch (1,025×853×789 mm)	992 lbs. (450 kg)	320 A	450 A (5 s)		
F80560		560 Ah	44.8 kWh		40.2×39.0×30.5 inch (1,020×990×775 mm)	1,543 lbs. (700 kg)	320 A	450 A (5 s)		
F80690		690 Ah	55.2 kWh		40.4×33.6×33.6 inch (1,026×854×854 mm)	1,322 lbs. (600 kg)	320 A	480 A (5 s)		
F90460	89.6 V	460 Ah	41.2 kWh		40.5×27.9×24.9 inch (1,028×708×632 mm)	1,036 lbs. (470 kg)	320 A	480 A (5 s)		
Environment temp. range		Charge -4°F~-131°F (-20°C ~ 55°C)		Discharge -4°F~-131°F (-20°C ~ 55°C)		Storage (1 month) -4°F~-131°F (-20°C ~ 55°C)		Storage (1 year) 32°F~95°F (0°C~-35°C)		



5 years warranty

High consistent power with 5 years warranty.



Steady output

LiFePO₄ batteries can keep a steady power output, which will not dramatically drop like lead-acid batteries.



Life cycles

RoyPow LiFePO₄ batteries last so long that outperform traditional batteries.



Built-in battery management system (BMS)

Ensures the batteries with optimal performance and longer lifespan.



4G module

for software upgrading, remote monitoring and diagnosing.

They are all tested and certified:



To know more of RoyPow LiFePO4 batteries

Quality and safety always come first. Except those benefits, we also have intelligent design from our professional R&D team.



Maintenance free



Opportunity charge



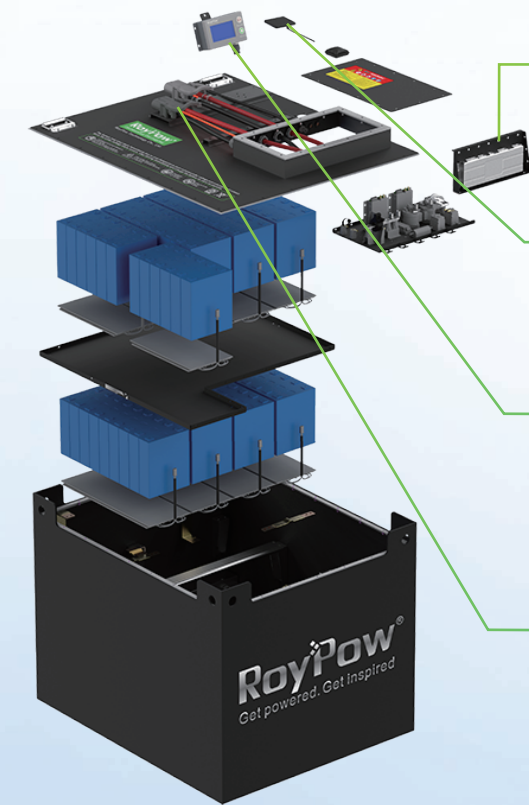
Long life



Ultra safe



Intelligent design



Built-in BMS

For cell balancing and advanced battery management.

4G module included

For software upgrading, remote monitoring and diagnosing.

Control panel included

Showing all critical battery functions in real-time, voltage, current, and remaining charging time and fault alarm.

REMA plug

Separate high current charging plug with integrated blocking system for unintended startup and transferring the signal.

Battery management system (BMS)

The built-in BMS is equipped with automotive-grade components assuring safe, top quality and high energy density. To provide a fully optimized solution for demanding material handling applications.

BMS software ensures the battery to provide peak performance when in operation, to deliver longer run times between charges, to maximize the total battery lifespan and to communicate well between charger, battery and users.



4G module



RoyPow smart 4G module can realize remote monitoring in real-time even in different countries. If some faults occur, you can get an alarm intime. Once the faults can not be solved, you can get a remote diagnose online from us to solve the problems as soon as possible.

With OTA (over the air), remote software upgrades can solve software problems in time and GPS can lock the forklift automatically if necessary.

The BMS can offer:

All-time cell balancing and battery management.

Through the intelligent balancing strategy, balancing between individual cells can be realized. The BMS can keep the battery's consistency at all times when in operation, maximizing the battery efficiency and improve the battery's working life.

Battery real-time monitoring and communication through CAN.

Monitoring cell voltage, electric current and battery temperature, so that any movement outside of normal range disconnects the cell or the entire battery.

Fault alarm and safety protection.

When the battery is less than 10%, it will beep to prompt for charging in case of stopping somewhere far away from charge station suddenly without notice. Over/under voltage, low/over temperature, over current or other faults will prompt to make the battery safe. Safety always comes first.

Smart on-line cloud platform

TIPS



It provides integrated battery system management information including battery quantities, real-time data and status, positions and trajectory, alarm record etc. One phone or one computer can monitor all the batteries no matter where you are, very easy and convenient to manage.

Original chargers for forklift

To equipped with RoyPow professional charger enables optimal battery performance and the best communication between the charger and the battery.



Intelligent charging management

To use RoyPow charger, the battery management system (BMS) can control the charging current according to different temperatures and SOC of the batteries.

RoyPow's intelligent BMS ensures the safety of the battery and improves the charging efficiency.

When the battery is at low voltage, the battery can be charged at low current to ensure battery safety.

When the battery is less than 10%, it will beep to prompt for charging.

Over-temperature protection

Short-circuit protection

Anti-reverse connection function

Over-charge protection

Smart display

Current limiting function

Automatic power off

Over-current protection

Over-voltage protection

Timing protection

Wide voltage operation

Constant current constant voltage

How to charge? Easy and safe

01 Drive to the forklift battery station
Drive to the forklift battery station, switch off, plug in the charging cable and apply the parking brake.

02 Automatically monitor
The charger and forklift will automatically monitor whether the safety environment and battery condition are suitable for charging, and if ok, the charger and forklift will automatically start charging.

03 Fully charged
When the battery is fully charged, charging will stop automatically.

i During charging process, without disconnect the plug, the forklift cannot be started.

Smart display

Once the charger is connected, it will show the battery status and the operator can leave the truck between shifts or have a rest.



Where does RoyPow lithium-ion batteries to charge? Flexible

- ✓ The batteries can be charged on the truck, no frequent battery swaps or no extra battery storage room needed.
- ✓ The charging stations do not need a specific location with adequate ventilation system cause of no noxious gas emissions when charging.
- ✓ The chargers can be using anywhere convenient for the working areas of the electric forklifts.

TIPS

Compare to the charging location for lead-acid batteries:

Needs extra batteries and battery storage room for swapping.
Needs specific charging room with ventilation system for noxious gas when charging.

RoyPow, your trusted partner for one-stop energy solutions

RoyPow is founded in Huizhou City, Guangdong Province, China, with manufacturing center in China and subsidiaries in the USA, Europe, Japan, the UK, Australia, South Africa, etc., to settle global sales and service network.

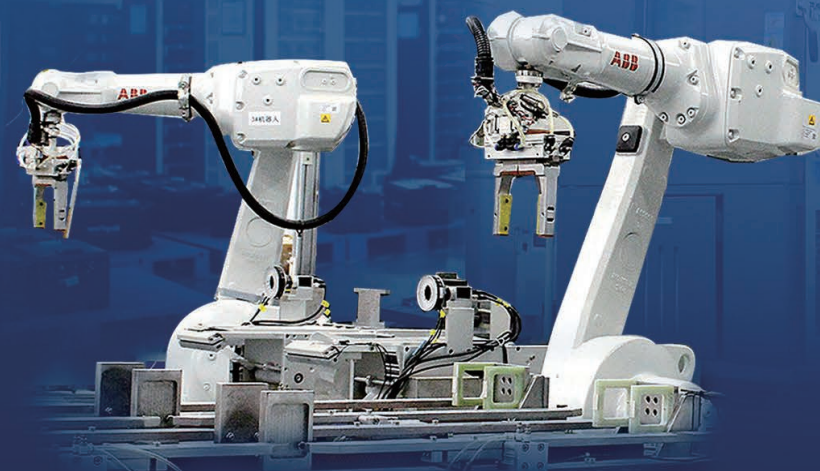
We have specialized in the R&D and manufacturing of lithium replacements for lead-acid batteries for years, and we have developed a portfolio of intellectual property and an integrated design and manufacturing capability that spans all aspects of the business from electronics and software design to module and battery assembly and testing. We are vertically integrated, and this gives us the ability to provide a wide range of application specific solutions to our customers.



R&D and manufacturing highlights

- Persistent technology innovation.
- All-round testing.
- Integrated design.
- Advanced MES system.
- Fully automatic production line.
- IATF16949 system.
- QC system.

By virtue of all this, RoyPow is capable of “end-to-end” integrated delivery, and makes our products out-performing industry norms.



Global sales and service network system

- Timely delivery.
- Hassle-free after-sale service.
- Fast response technical support.

RoyPow has comprehensively unfolded its overseas market layout to realize the localization of R&D, manufacturing, marketing and service, then become your most reliable partner.



Upgrading to new technology, with our turnkey solutions.

Years of dedication on lithium-ion battery solutions. we are proud to offer customers professional battery solutions for:



- ✓ **Low speed vehicles (LSVs)** including golf carts and sightseeing cars;
- ✓ **Industrial applications** including forklifts, aerial work platforms and floor cleaning machines;
- ✓ **Residential energy storage & portable power unit** including home storage and portable energy storage products, as well as off-grid energy storage (for forest cabin, island villa without electricity, etc.);
- ✓ **Marine** including trolling motors, fish finders, other off-grid energy storage systems for marine, and marine power system;
- ✓ **Corresponding original chargers** for forklifts, aerial work platforms, floor cleaning machines, golf carts and various marine batteries.
- ✓ **Vehicle-mounted energy storage & HVAC system** including RV and truck energy storage and air conditioning system, as well as off-grid solar system for RV;

