RoyPow®
Get powered. Get inspired

LiFePO4 battery
for material handling equipments

Drop-in lithium-ion for lead-acid alternatives

LI-ION technology

www.roypowtech.com

RoyPow Technology Co., Ltd.

Tel: +86 (0)752 3888 690

Email: sales@roypowtech.com
service@roypowtech.com
marketing@roypowtech.com

Web: www.roypowtech.com

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

RoyPow (Europe) Technology B.V.

Email: sales@roypowtech.eu

Tel: +31 611 225 936

Add: Tauber 52, 2491 DA, The Hague, The Netherlands

RoyPow Australia Technology Pty Ltd

Tel: +61 29185 0814

Add: Suite 803a, 18 Orion Road, Lane Cove, NSW, 2066 Australia

RoyPow Battery Technology (Pty) Ltd

Tel: +27 71 434 3769

Add: Unit 8 Bridgeway Business Park 434 Sam Green Rd, Rietfontein 63-Ir, Germiston, 1401 Johannesburg, South Africa

RoyPow (USA) Technology Co., Ltd.

Tel: +1 512 688 5555 (Texas Office)
+1 626 295 2527 (California Office)

Email: sales@roypowusa.com

Technical Support: +1 626 269 0547
Email: service@roypowtech.com

Web: www.roypowusa.com

Head Office: 2350 Campbell Creek Blvd #100 Richardson, TX 75082, USA
California Office: 1267 Johnson Dr., City of Industry, CA 91745, USA
Florida Office: 277 Douglas Avenue, Unit 1004, Altamonte Springs, FL 32714, USA

RoyPow Technology UK Limited

Tel: +44 (0) 7592 198 258
Email: sales@roypow.co.uk
Add: 291 Brighton Road, South Croydon, United Kingdom, CR2 6EQ, UK

RoyPow株式会社

Tel: +81 090 7092 6969

Email: info@roypow.co.jp

Web: www.roypow.co.jp

Add: 横浜市神奈川区二ッ谷町 2-8加瀬ビル175 3F

Contents

New technology. Create great value for your business 3

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

$LiFePO_4$ forklift batteries - 24 V system 9

$LiFePO_4$ forklift batteries - 36 V system 11

$LiFePO_4$ forklift batteries - 48 V system 13

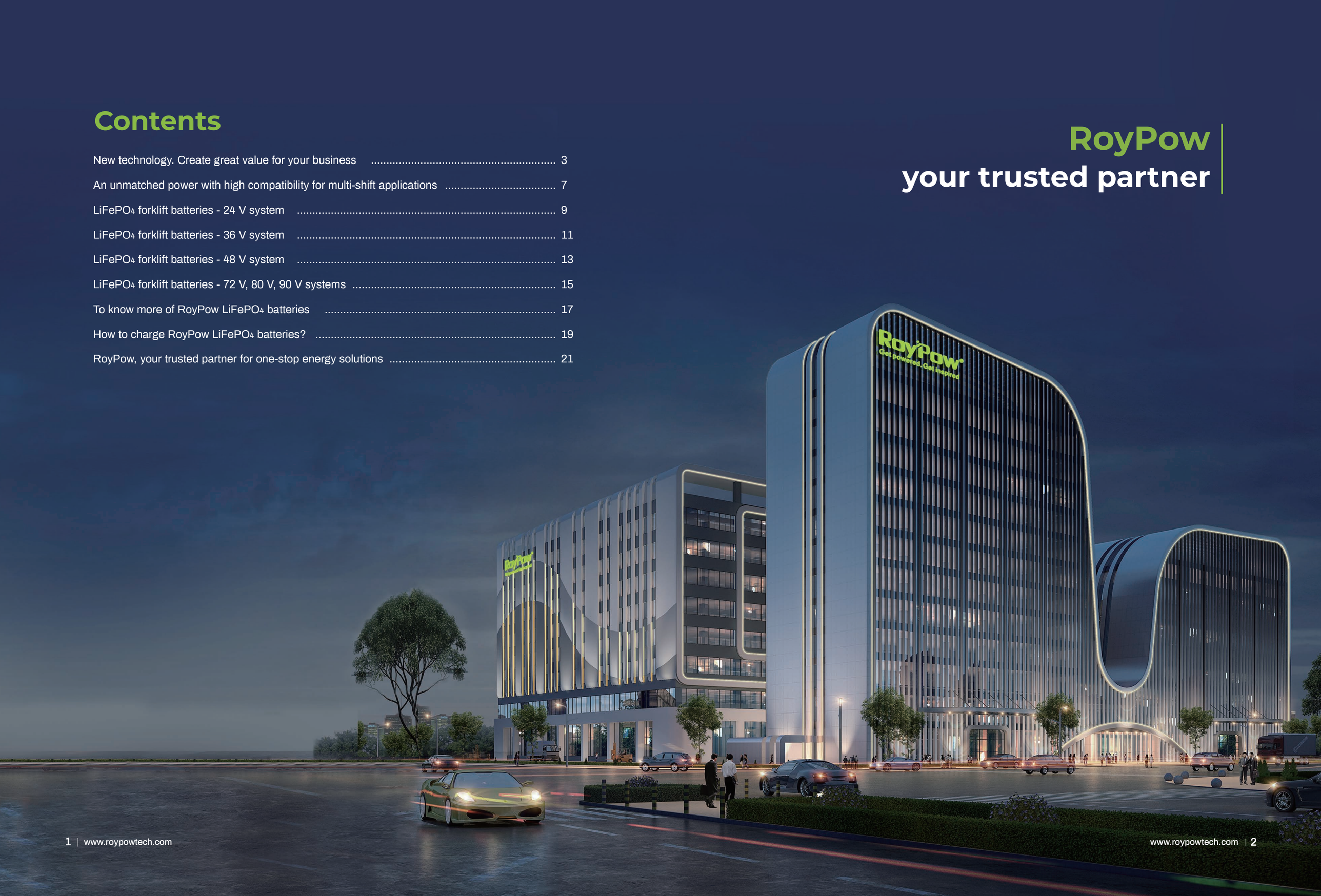
$LiFePO_4$ forklift batteries - 72 V, 80 V, 90 V systems 15

To know more of RoyPow $LiFePO_4$ batteries 17

How to charge RoyPow $LiFePO_4$ 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

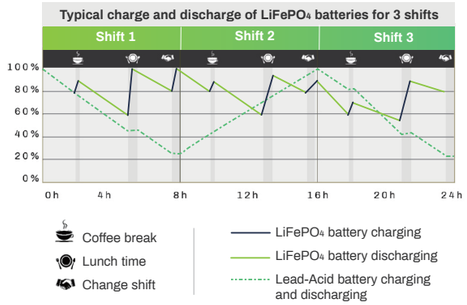
RoyPow
Get powered. Get inspired

Lead-acid	LiFePO4 battery		
3 years design life	up to 10 years design life	**Longer life** 3 to 4 times lead-acid lifespan	✓ 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	✓ 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	✓ Durable and reliable ✓ Reduces maintenance and labor costs ✓ Quality guarantee

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?

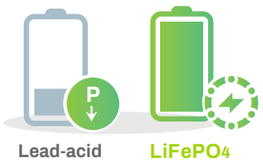
There are a lot of lithium-ion chemistries are for choices. RoyPow uses one of the most thermally stable and safe lithium-ion chemistries for industrial applications - lithium iron phosphate (LiFePO4 or LFP).

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 $LiFePO_4$ 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 $LiFePO_4$ batteries with lead-acid batteries.

Save 70% expenses in 5 years

Purchases over 5 years	Lead-acid battery	LiFePO4 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 **10yr** 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 $LiFePO_4$ batteries have greater thermal and chemical stability.

LiFePO4 batteries for ***forklift***

Retrofit your fleet to lithium-ion batteries.

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

RoyPow
Get powered. Get inspired

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

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**
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)		
F24160F		160 Ah	4.09 kWh		24.6x11.2x24.7 inch (624x284x627mm)	163.1 ± 22.0 lbs. (74 ± 10 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	Discharge	Storage (1 month)	Storage (1 year)
	-4°F~131°F (-20°C ~ 55°C)	-4°F~131°F (-20°C ~ 55°C)	-4°F~131°F (-20°C ~ 55°C)	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

RoyPow
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

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**
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**	**Discharge**	**Storage (1 month)**	**Storage (1 year)**
	-4°F~131°F (-20°C ~ 55°C)	-4°F~131°F (-20°C ~ 55°C)	-4°F~131°F (-20°C ~ 55°C)	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

RoyPow 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:

FC UL CE RoHS REACH UK CA

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)		
F48560P		560 Ah	28.67 kWh		48.1x20x30.9 inch (1223*355*784mm)	2072.3 ± 110.2 lbs. 940 ± 50 kg	320 A	480 A (5 s)		
F48560Q		560 Ah	28.67 kWh		32.7x20.6x24.9 inch (830*522*632mm)	1560.8 ± 55.1 lbs. (708 ± 25 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	Discharge	Storage (1 month)	Storage (1 year)
	-4°F~131°F (-20°C ~ 55°C)	-4°F~131°F (-20°C ~ 55°C)	-4°F~131°F (-20°C ~ 55°C)	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:

$LiFePO_4$ forklift batteries

Retrofit your fleet to lithium-ion 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

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

Model	Technical specification						Discharge current		General	
	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	Discharge	Storage (1 month)	Storage (1 year)
	-4°F~131°F (-20°C ~ 55°C)	-4°F~131°F (-20°C ~ 55°C)	-4°F~131°F (-20°C ~ 55°C)	32°F~95°F (0°C~35°C)

5 years warranty
High consistent power with 5 years warranty.

Steady output
$LiFePO_4$ batteries can keep a steady power output, which will not dramatically drop like lead-acid batteries.

Life cycles
RoyPow $LiFePO_4$ 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.

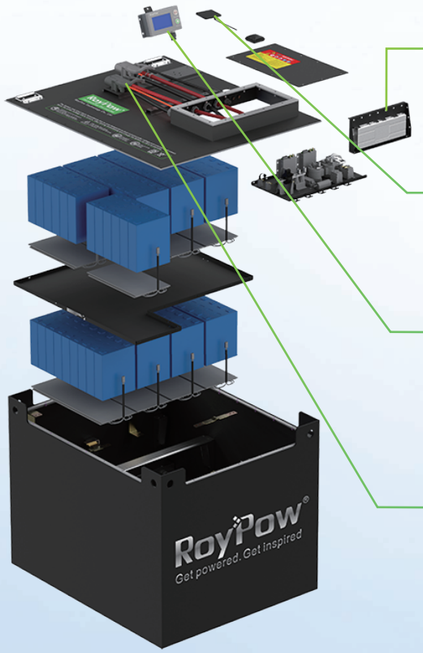
Maintenance free

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 transfering 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.

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.

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.

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.

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

Smart dispaly

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. Dedicated to renewable energy solutions for years, 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 ensures us to provide a wide range of application specific solutions to our customers.

R&D and manufacturing highlights

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

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

Global sales and service network system

- Timely delivery.
- Hassle-free after-sales 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 new energy solutions, we are proud to offer customers professional solutions for:

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