



Powering the future
with safe, sustainable
and smart lithium energy

Lithium battery solutions

LiFePO₄ BATTERY FOR GOLF CARTS

DROP-IN REPLACEMENTS



BW LITHIUM BATTERIES



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technology leader in lithium battery R&D and manufacturing

BW Lithium Batteries is a company specialising in high-quality Lithium battery solutions. Our goal is to provide reliable, efficient and eco-friendly power solutions tailored for homeowners, installers and golf businesses.

Our products include a range of Lithium batteries suitable for solar systems, backup power and golf carts. Each battery is built with advanced BMS protection, long lifespan and fast-charging capability.

We are the only golf cart battery supplier in South Africa that uses EVE® primary LiFePO₄ prismatic cells.

Company profile

The team comprise of more than 20 years' experience in design, manufacturing, technology research and development.

BW Lithium batteries continues to adhere to product reliability, safety, and strict quality management to bring great benefits and guarantees to customers in terms of financial performance and after sales support.



Why choose a BW Lithium battery?

- Expert-backed solutions custom designed by former golf professionals and chemical engineers.
- High discharge capacity for rugged terrains up to 3C.
- Proven reliability and long-lasting performance.
- Environmentally friendly and certified safe energy storage technology.
- 5 Year warranty underwritten by our OEM.
- Local after sales support through our nationwide network of approved partners and installers.

BENEFITS OF LiFePO₄ BATTERY



LOW SELF-DISCHARGE

Holds charge about 8 months



ULTRA SAFE

Multiple protection, thermal and chemical stability



LONG LIFE

Up to 3,500 life cycles



LIGHT WEIGHT

Up to 50% saving in space and 70% saving in weight



FAST CHARGING

Up to 2.5 hrs fast charging time



ZERO MAINTENANCE

No daily maintenance work and costs



COST EFFECTIVE

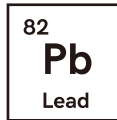
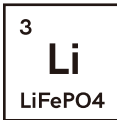
Up to 70% saving in expenditures



EXTREME TEMP. PERFORMANCE

Discharge rate up to 85% at -4°F(-20°C)

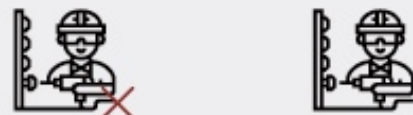
BW Lithium batteries compared to lead acid batteries



LEAD-ACID BATTERY
(48V 175AH)



DESIGN LIFE



NO
MAINTENANCE

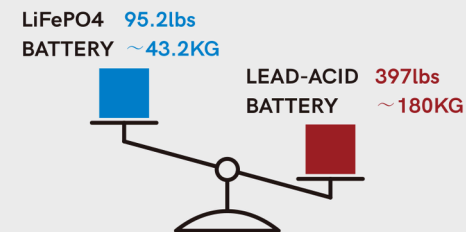
LiFePO4 BATTERY

LEAD-ACID BATTERY

CHARGING TIME



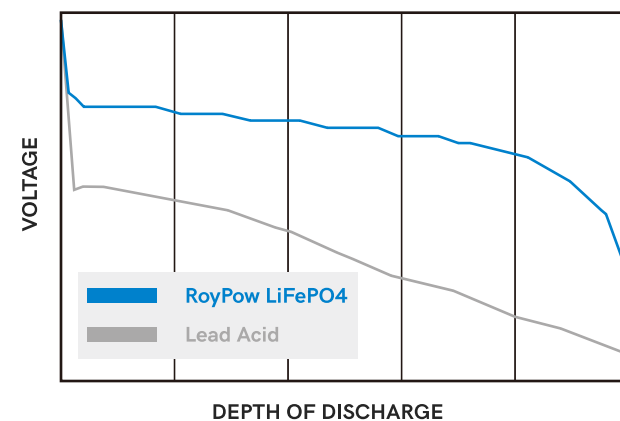
BATTERY WEIGHT FOR GOLF CART



LEAD-ACID BATTERY
(48V 175AH)

CYCLE LIFE	> 3500 times	< 500 times
SAFETY	Multiple built-in protection	Gas inside may cause explosion
ECO FRIENDLY	No pollution	Lead is harmful
COST EFFECTIVE	More benefits, less man-hours costs	Less benefits, more man-hours costs
CHARGING FREQUENCY	No memory, charge any time	Charge everyday after using

DISCHARGE VOLTAGE



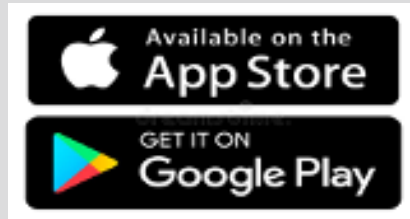
BW Lithium batteries uses certified cells equipped with redundant safety features and is the safest in the market today. These batteries are specifically designed to withstand harsh operating environments of any vehicle applications and can last up to 4000 cycles compared to the traditional lead acid battery.

The BW Lithium battery range features Lithium phosphate (LifePo4) batteries constructed utilising individual 3.2 V 200mAh cells in series and parallel. These cells are controlled by the Battery Management system (BMS) which allows the battery to perform safely without the risk of thermal explosion. The BMS also equalise all individual Lithium cells in the battery to ensure longevity.

With BW Lithium batteries customisation we can ensure that the battery range can be retrofitted into a range of space restrictive areas. With Bluetooth connection enabled gathering real time data from the battery is simple and accurate.



Smart Bluetooth monitoring



Bluetooth Mobile app:
KINGOR BW Battery

Track your battery status in real-time on your phone, including SOC, battery status, voltage, and current and control discharge and shutdown remotely.

Strong, efficient and reliable.

Our Lithium batteries are engineered for maximum performance across multiple applications:



Golf businesses and installers



Golf courses



Residential communities



Large institutions:
shopping malls,
hospitals, airports,
military bases,
colleges/campuses,
resorts and parks

- **Real-time Monitoring:** The app serves as a virtual dashboard, allowing users to monitor critical data points from their phone or tablet without needing physical access to the battery.
- **Enhanced Safety and Protection:** The app works in tandem with the battery's integrated Battery Management System (BMS) to ensure safe operation.
 - **Smart Alerts & Notifications:** Users receive immediate alerts if any parameter exceeds safe limits, such as overheating, over-voltage, or excessive discharge, preventing potential damage.
 - **Preventive Maintenance:** Early detection of issues (e.g., a single cell imbalance or an unusual temperature trend) allows users to address problems before they become catastrophic failures.
 - **Remote Shutdown:** The app allow the user to remotely engage a deep sleep or discharge switch for storage or safety, offering an additional layer of control.
- **Convenience and Control:** The wireless connection removes the need for separate, dedicated monitors or manual testing with multimeters.
- **Data Logging and Analysis:** The app logs historical performance data, charging trends and usage history, which helps in:
 - **Predictive Maintenance:** Analysing trends allows users to plan maintenance schedules and optimise usage patterns for a longer battery lifespan.
 - **Usage Optimisation:** Users can see how different appliances affect battery life and adjust their power consumption to extend runtime.

Benefits of connecting my phone to the BW Lithium battery?

HOW TO REPLACE YOUR LEAD-ACID BATTERIES WITH BW LITHIUM BATTERIES

Battery Replacement Steps

01

Open the golf cart compartment, you will see the original lead-acid batteries.

02

Disconnect all the wires safely, and pull the batteries out.

03

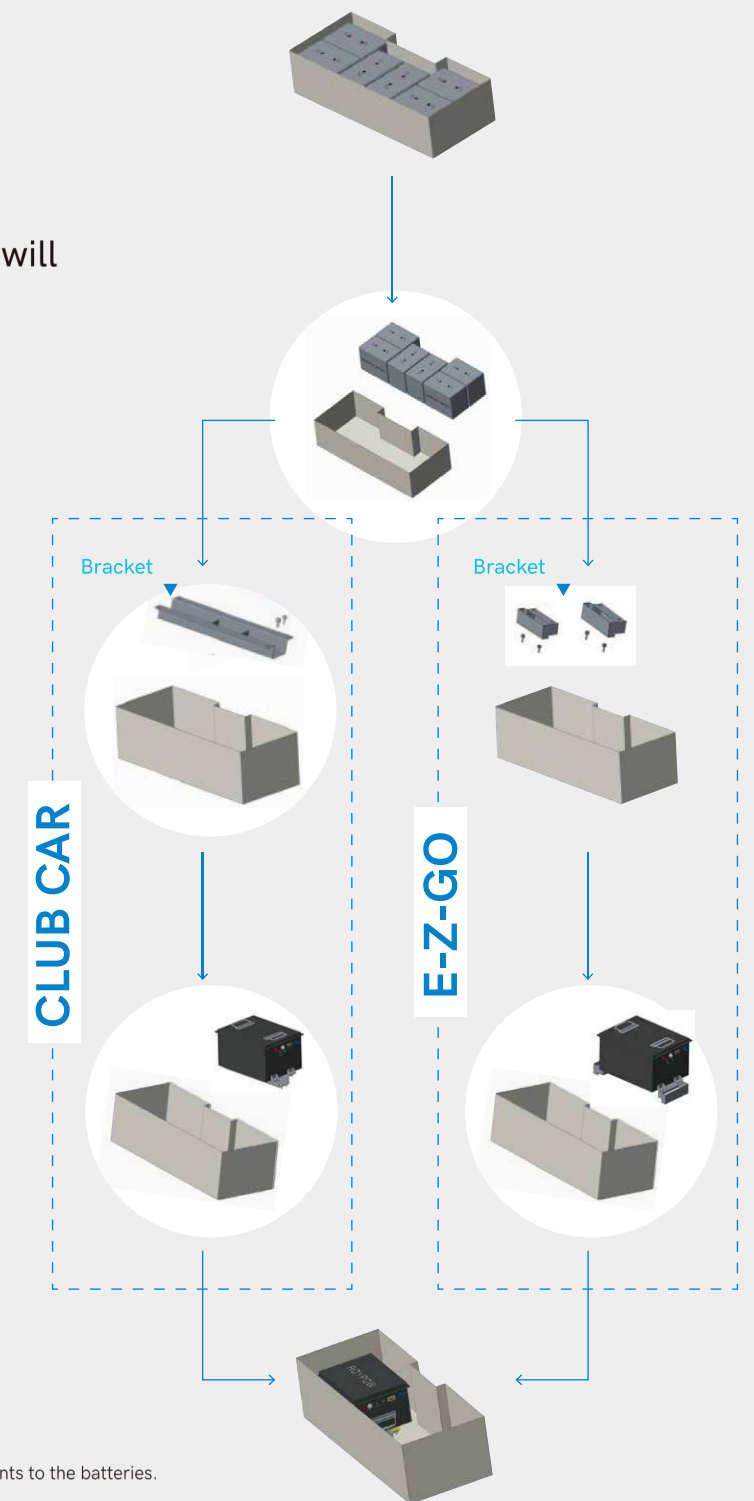
Fasten the bracket on the tray as the base.

04

Put the BW Lithium battery pack inside and fasten the pack to the bracket base.

05

Connect the wires safely, then you are ready to go.



BW Lithium batteries are designed to easily replace the lead-acid batteries and are available as a drop-in replacement in Club Car, EZ-GO, Yamaha, STARev, Tomberlin and other brands.



The Right Choice for Your Golf Cart



ZERO
MAINTENANCE

UP TO
10YRS
BATTERY LIFE

UP TO
70MI.
MILEAGE



Our LiFePO4 batteries are designed to replace the lead-acid batteries. They can deliver the sort of hassle-free experience customers increasingly demand - batteries that are longer lasting, longer range, free from daily maintenance and have a designed life-span of 10 years. They also offer high charging efficiency and less power consumption.

Affordable, Durable, Reliable

SAVE MONEY AND STAFF TIME



You don't need to pay man-hours costs of regular water filling, maintenance, checks, and expensive recycling costs. No battery acid stains on driveway pavers or garage floor.

MORE RUNTIME, MORE MILEAGE



Top class performance delivers battery with no money, you can charge any time, and with a full charge time, you can run longer and up to 70 miles mileage.

FAST CHARGING AND STABLE OPERATION



More thermal and chemical stability and multiple built-in protection functions make this battery reliable and stable with enjoying faster charging time.

UP TO
8.2
KWH

2.5HRS
FAST CHARGING

UP TO
315
AMP

Over 4000
life cycles

The "S series" covers the most popular golf cart brands and models. If this doesn't fit your requirements, with our wide product range, advanced technology and continuous R&D, we will be happy to discuss alternative solutions or bespoke engineered options.

MODEL	VOLTAGE	Capacity	Energy	Dimensions	Weight	Range	Charging	State	Discharge
36V									
S3856	38V	56Ah	1.92kWh	38.5*33.8*24.5	59 (27)	Up to 15-20 miles	22A	50A	200A (10S)
S38105	38V	105Ah	4.03kWh	38.5*33.8*24.5	75 (34)	Up to 30-40 miles	22A	100A	200A (10S)
48V									
S5156	51V	56Ah	2.6kWh	46*33.4*23.2	77 (35)	Up to 20-30 miles	22A	50A	200A (10S)
S51105	51V	105Ah	5.3kWh	46*33.4*23.2	96 (43.6)	Up to 40-50 miles	22A	100A	200A (10S)
S51105P	51V	105Ah	5.3kWh	58.5*33*25	103 (46.8)	Up to 40-50 miles	22A	105A	315A (30S)
S51160	51V	160Ah	8.2kWh	80*36*22.1	159 (72)	Up to 60-70 miles	22A	100A	200A (10S)
S51160P	51V	160Ah	8.2kWh	80*32*23.2	165 (75)	Up to 60-70 miles	22A	160A	315A (30S)
72V									
S72105P	72V	105Ah	8.06kWh	74*32*24.6	159 (72)	Up to 60-70 miles	14A	105A	315A (30S)

Note: 1. Only authorized personnel are allowed to operate or make adjustments to the batteries.

CHARGING TIME		GENERAL						ENVIRONMENT TEMP. RANGE			
QUICK CHARGE	STANDARD CHARGE	LIFE CYCLES	SELF DISCHARGE PER MONTH	CELL COMBINATION	CELL ASSEMBLY	CASING MATERIAL	IP RATING	CHARGE	DISCHARGE	STORAGE (1 MONTH)	STORAGE (1 YEAR)
2.0h	2.5h	> 3500 times	Max 3%	12S1P	LF50K (3.2V 50Ah)	Metal	IP67	32°F~131°F (0°C ~ 55°C)	-4°F~131°F (-20°C ~ 55°C)	-4°F~113°F (-20°C ~ 45°C)	-32°F~95°F (0°C ~ 35°C)
2.0h	5.0h	> 3500 times	Max 3%	12S1P	LF105 (3.2V 50Ah)	Metal	IP67	32°F~131°F (0°C ~ 55°C)	-4°F~131°F (-20°C ~ 55°C)	-4°F~113°F (-20°C ~ 45°C)	-32°F~95°F (0°C ~ 35°C)
2.0h	2.5h	> 3500 times	Max 3%	16S1P	LF50K (3.2V 50Ah)	Metal	IP67	32°F~131°F (0°C ~ 55°C)	-4°F~131°F (-20°C ~ 55°C)	-4°F~113°F (-20°C ~ 45°C)	-32°F~95°F (0°C ~ 35°C)
2.5h	5.0h	> 3500 times	Max 3%	16S1P	LF105 (3.2V 105Ah)	Metal	IP67	32°F~131°F (0°C ~ 55°C)	-4°F~131°F (-20°C ~ 55°C)	-4°F~113°F (-20°C ~ 45°C)	-32°F~95°F (0°C ~ 35°C)
2.0h	5.0h	> 3500 times	Max 3%	16S1P	LF105 (3.2V 105Ah)	Metal	IP67	32°F~131°F (0°C ~ 55°C)	-4°F~131°F (-20°C ~ 55°C)	-4°F~113°F (-20°C ~ 45°C)	-32°F~95°F (0°C ~ 35°C)
3.0h	8.0h	> 3500 times	Max 3%	16S2P	LF80A (3.2V 82Ah)	Metal	IP67	32°F~131°F (0°C ~ 55°C)	-4°F~131°F (-20°C ~ 55°C)	-4°F~113°F (-20°C ~ 45°C)	-32°F~95°F (0°C ~ 35°C)
3.0h	8.0h	> 3500 times	Max 3%	16S2P	LF80A (3.2V 82Ah)	Metal	IP67	32°F~131°F (0°C ~ 55°C)	-4°F~131°F (-20°C ~ 55°C)	-4°F~113°F (-20°C ~ 45°C)	-32°F~95°F (0°C ~ 35°C)
2.5h	8.0h	> 3500 times	Max 3%	24S1P	LF105 (3.2V 105Ah)	Metal	IP67	32°F~131°F (0°C ~ 55°C)	-4°F~131°F (-20°C ~ 55°C)	-4°F~113°F (-20°C ~ 45°C)	-32°F~95°F (0°C ~ 35°C)

Accessory - Charger

IT IS DESIGNED FOR OUR BW LITHIUM GOLF CART BATTERY



HIGH EFFICIENCY

Fast charging reaches up to 30A output current, high-efficiency performance for electricity savings and shorter charge times. Active cooling enables optimal peak performance.

GLOBAL USED

Capable of operating reliably on any single-phase grid worldwide.

HIGH RELIABILITY

Manufactured in a world-class facility specializing in high-reliability solutions. Rugged, IP66 sealed aluminum die-cast enclosure protects against vibration, shock, dirt, fluids and chemicals.

INTELLIGENT

Compact, light, automatic trickle charge function. Automatically charges batteries and keeps them at full charge even when you're away from your home/work so they never die and can give your batteries longer overall life.

Product Specification

DC OUTPUT	MAXIMUM DC OUTPUT VOLTAGE	58.2V
	MAXIMUM DC OUTPUT CURRENT	22.0A
	MAXIMUM DC OUTPUT POWER	1704W
	NOMINAL DC OUTPUT CURRENT	"30A @ 220VAC 22A @ 110VAC"
AC INPUT	BATTERY TYPE	Lithium
	AC INPUT VOLTAGE RANGE	85-270VAC
	NOMINAL AC INPUT VOLTAGE	100-240VAC
	NOMINAL AC INPUT FREQUENCY	50 / 60Hz
	MAXIMUM AC INPUT CURRENT	11A
	NOMINAL AC INPUT CURRENT	10A
	POWER FACTOR	>0.9
MECHANICAL	DIMENSIONS	28.2 x 16.7 x 11.4cm (11.1 x 6.57 x 4.5")
	WEIGHT	10.4 lbs (4.7kg)
	COOLING	Active cooling with fan
ENVIRONMENTAL	ENCLOSURE	IP66
	HUMIDITY	5% – 95%
	OPERATING TEMPERATURE	"-40°F to 149°F (-40°C to +65°C) Derated at >104°F (40°C)"
	STORAGE TEMPERATURE	-40°F to 185°F (-40°C to +85°C)

Contact us



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