

# POWER with the Abi Li³ ty to Outshine

# ONE CHARGE. ONE COMPLETE CLEAN.

RELION'S UN and UL-certified lithium batteries were built specifically to meet the power and energy requirements in commercial floor machines. By eliminating the "opportunity charge" often required with lead-acid batteries, operators can complete their task in one spotless sweep!

Got a schedule to keep and a large area to cover? Your floor machines need batteries that can keep up. Premium RELiON Lithium Iron Phosphate (LiFePO4) batteries give you 2-3x the floor cleaning capability of lead-acid batteries in the same size case, and they're maintenance-free, making them the best solution to power floor cleaning devices.



Premium RELiON LiFePO4 batteries are all equipped with a built-in battery management system (BMS). A well-designed battery management system can help maximize lifetime and ensure safe operation over a wide range of conditions.



## Li<sup>3</sup> THIUM ADVANTAGES **FOR FLOOR MACHINES**

Compared to lead-acid and other lithium batteries, lithium iron phosphate batteries offer significant advantages, making them a worthwhile investment and a smart long-term solution.

#### FEATURES AND BENEFITS



#### **HIGHLY EFFICIENT**

Fast recharge time and a 99% efficient recharge process, which means less wasted electricity.



#### **MORE USEABLE CAPACITY**

A 25-50% higher capacity than leadacid batteries with full power available throughout discharge.



#### **ROBUST**

Lithium iron phosphate batteries are difficult to damage. If they are under-charged or left in a partial state of charge, they will not be damaged.



#### **ECO-FRIENDLY**

No gassing, no fumes and no pollution. Protect the environment, using these non-hazardous batteries.



#### **MAINTENANCE-FREE**

RELiON lithium batteries are maintenance free - no watering; no corrosion.



#### PARTIAL STATE OF CHARGE (PSOC) TOLERANT

If operated in PSOC there is no damage. This is one of the leading causes of early failure in lead-acid batteries.



#### **SAFETY**

Inherently safe chemistry. BMS provides extra protection.



#### **LOWER TOTAL COST OF OWNERSHIP**

Changing batteries less often means fewer replacement and labor costs.



#### **LONGER LIFE**

Up to 10X longer life span compared to lead-acid batteries.

## **LEAD IS DEAD**

Check out the chart below to compare the performance advantages of advanced lithium technology versus traditional lead-acid batteries.

## LITHIUM VS. LEAD-ACID COMPARISON FOR FLOOR MACHINES

EATURE Maintenance	High	Low	Zero
	High		
Life	2-4x	-	10-20x
Cost	0.5x	1x	4x
Sizes	Standard	Standard	Standard
Safe	Yes	Yes	Yes
Power	Declining	Declining	High & Constant
HARGE			
Capacity	Partial	Partial	Full Rated
Charge Rate	Slow (10%)	Slow (20%)	Fast (100%)
Charge Time	Long	Long	Moderate (50%)
Charge Level	Full	Full	Partial/Full
Charge Frequency	Every Cycle	Every Cycle	Whenever
Partial State of Charge Tolerant	No	No	Yes

## **OUR PRODUCTS**



It's time to **reduce labor costs** and **increase operational efficiency!** We have one of the largest LiFePO4 product offerings available with both 12V and 24V batteries in a variety of BCI standard sizes for easy drop-in replacement.

#### LITHIUM BATTERIES FOR FLOOR MACHINES

BATTERY	BCI SIZE	VOLTAGE (V)	CAPACITY (AH)	ENERGY (W)	CONTINUOUS CURRENT (A)	WEIGHT (LBS (KG))	DIMENSIONS
INSIGHT SERIES 24V-060	GC2	25.6	60	1536	100	34.4 (15.6)	10.2 X 7.1 X 10.9 IN (260 X 180 X 276 MM)
RB80	27	12.8	80	1024	80	24.9 (11.3)	12.0 X 6.6 X 8.2 IN (305 X 168 X 210 MM)
RB100	31	12.8	100	1280	100	26.4 (11.9)	13.0 X 6.8 X 8.8 IN (329 X 172 X 223 MM)
RB24V52	31	25.6	52	1280	50	29.1 (13.2)	13.0 X 6.8 X 8.4 IN (329 X 172 X 214 MM)
RB24V200	NA	25.6	200	5120	200	110.2 (50)	16.1 X 14.44 X 16.4 IN (410 X 367 X 417 MM)
24V-060 RB80 RB100 RB24V52	27 31 31	12.8 12.8 25.6	80 100 52	1024 1280 1280	80 100 50	24.9 (11.3) 26.4 (11.9) 29.1 (13.2)	12.0 X 6.6 X 8.2 (305 X 168 X 210 13.0 X 6.8 X 8.8 (329 X 172 X 223 13.0 X 6.8 X 8.4 (329 X 172 X 214 16.1 X 14.44 X 16

#### WE STAND BEHIND OUR PRODUCT!

#### **10 YEAR WARRANTY**



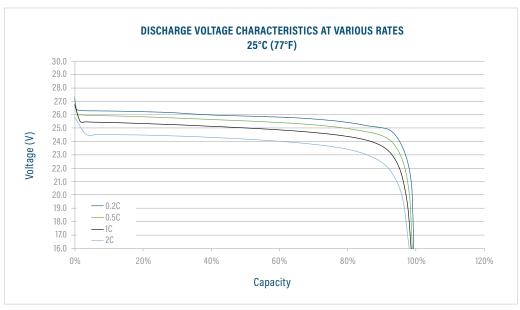
**Scan the QR** to learn more about which RELiON lithium battery is right for your equipment.

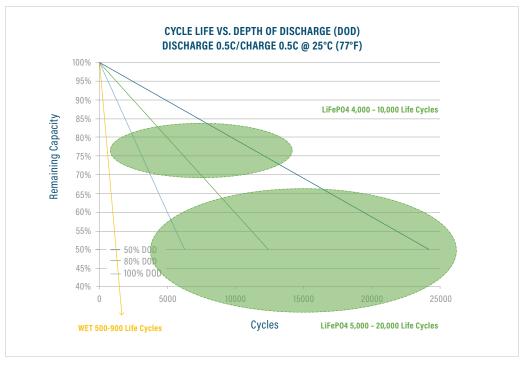
Plus, you can see how easy installation will be!



## INCREASED RUNTIME INCREASED PRODUCTIVITY.

Lithium batteries charge quickly and can be opportunity charged without damaging the battery. This can significantly extend the range of your LiFePO4 battery per shift.





## WHY PAY MORE FOR LIFEP04?

RELiON's long-lived LiFeP04 batteries reduce the inconvenience and expense of replacement and service calls, and they lend peace of mind to many users when it comes to demanding applications.

Our calculation compares the total cost of ownership of RELiON's RB100, a 12V 100 Ah LiFePO4 battery, to three equivalent size (BCI Group 31) off-the-shelf lead-acid battery technologies. Using measured lifetimes taken from the manufacturer's published specifications of each battery, our analysis shows that the RB100 costs at least 51% less over life than even the most cost-effective lead-acid battery.

#### **TOTAL COST OVER LIFE COMPARISON**

COST FACTOR	FLA	AGM	GEL	RELION RB100
PURCHASE COST	\$185	\$270	\$400	\$1,050
INSTALLATION COST	\$25	\$25	\$25	\$25
MAINTENANCE COST	\$525	\$40	\$40	\$0
CHARGING COST	\$970	\$970	\$970	\$850
REPLACEMENT COST	\$2,600	\$5,450	\$3,000	\$0
REPLACEMENT LABOR	\$700	\$1,000	\$375	\$0
# OF REPLACEMENTS	(14)	(20)	(7)	(0)
# OF CYCLES OF LIFE	(500)	(400)	(1,000)	(7,100)
TOTAL COST OVER LIFE	\$5,005	\$7,775	\$4,435	\$1,925
COST PER CYCLE	\$0.67	\$0.92	\$0.55	\$0.27





# CUSTOM BUILT TO YOUR STANDARDS

#### **OEM Solutions**

Our passion for quality, innovation, and changing the lithium battery market is a mission that starts at the top and permeates everything we do. At RELiON, our turnkey power solutions are perfect for high volume projects, optimized to your product, and come with dedicated engineering support. We also invest considerable effort and resources in new product development, to help our OEM partners meet their long-term energy goals no matter what the application.



# WORK WITH THE LEADERS IN LITHIUM

#### **Distributor & Dealer Network**

We approach every partnership with openness: so we can understand your needs and you can understand our competencies, standards and commitment to delivery. Our resellers make all the difference and enjoy unparalleled support from our team of accomplished industry leaders. As a partner, we strive to understand everything about your needs today to help you anticipate tomorrow. And we invest heavily in continuous training to ensure your business's growth and success.



## WHO IS RELION?

Our Mission: To power the world's transition to Lithium energy storage, ethically.

We've been in the battery business over 25 years and have learned how to build on success. Partner with RELiON and we'll work closely with you to build on yours. Not just by supplying batteries, but also with unmatched service, training and on-going support. Our product is batteries, but our business is relationships and helping yours succeed.





# PARTNER WITH A GLOBAL LEADER

Add the RELiON team and you'll add critical capacity, experience, and engineering talent across the entire development cycle. Leverage our expertise to innovate faster, shorten time to revenue growth, and minimize costly delays across planning, design, prototyping, proof-of-concept, and testing.

As a brand under **Advanced Systems Group**, our combined focus is on the success of our customers, our partners, our employees and our future. This partnership strengthens our ability to provide the best products and services to our customers.



#### WITH GLOBAL SKILL AND SCOPE IN:



**ENGINEERING** 



**QUALITY** 



**SOURCING** 



**LOGISTICS** 

#### WE USE OUR BUSINESS FOR GOOD

RELiON is more than a manufacturer of lithium batteries. We are stewards of our environment and use our business as a force for good in everything we do. We call this Limitless Blue. We challenge ourselves to improve our planet and, hopefully, inspire others to do the same.

As 1% for the Planet members, we donate 1% of our revenue each year to non-profits solving the most pressing environmental challenges of our time.





#### relionbattery.com

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UN38.3 UL16

UL1642 & UL2580 (cells)

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ISO 9001:2015 Quality Management System
ISO/TS 16949:2009 Quality Management System
ISO 14001:2004 Environmental Management System

OHSAS 18001:2007 Occupational Health and Safety Management System

Certifications Applicable to the Design and Manufacture of Lithium Iron Phosphate Batteries



RELION Battery provides our customers with the highest quality and safest lithium products, in compliance with all regulatory standards.

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