

# The **POWER**Behind the Li<sup>3</sup>ft





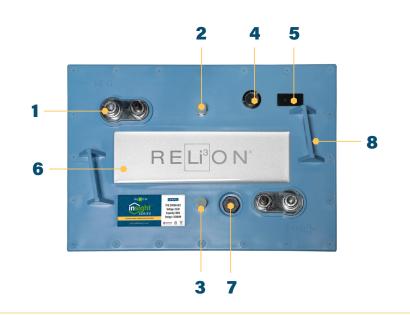
### LONGER LIFE. BETTER INVESTMENT.



Designed and engineered from the ground up by a team of battery experts, RELiON's InSight 24V UL-certified lithium battery was built specifically to meet the power and energy requirements in electric motorized hand trucks and walk behind pallet jacks. By eliminating the "opportunity charge" often required with lead-acid batteries, operators can complete their task without having to stop, charge and wait!

InSight features all the benefits of lithium batteries – longer life, no maintenance, faster charging – with even more intelligent features built-in. From its superior battery design to its one-of-a-kind BMS and intuitive software, InSight 24V batteries offer exclusive advantages you won't find in competitive products. Making it an exceptional return on your investment for years to come.

### **INTELLIGENT DESIGN**



- **1.** Dual M8 Terminals (insert & stud)
- 2. CANbus Input
- 3. CANbus Output
- 4. Power Button
- 5. SOC/Status LEDs
- 6. Heatsink
- 7. Vent
- 8. Lifting Brackets

## Li<sup>3</sup> THIUM VS. LEAD-ACID BATTERIES

Compared to lead-acid and other lithium batteries, lithium iron phosphate batteries offer significant advantages, including improved discharge and charge efficiency, longer life span and the ability to deep cycle while maintaining power. Many flooded lead acid batteries off put gas fumes that can create an unpleasant work environment without proper ventilation. RELiON's InSight Series batteries offer the safest lithium chemistry by being inherently stable and non-combustible and free from dangerous and messy outgassing, fumes, and leaks.

### **FEATURES AND BENEFITS - LITHIUM**



### LONGER LIFE

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



### **HIGHLY EFFICIENT**

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



### LIGHTWEIGHT

Lithium batteries are typically half the weight of lead-acid batteries.



### **MORE USEABLE CAPACITY**

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



### **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.

### WHY CHOOSE RELION'S INSIGHT **24V LITHIUM BATTERY?**

### **MORE HOURS OF POWER**

Lithium Iron Phosphate batteries are extremely efficient and provide their rated capacity, at any rate of discharge. This means much more hours of productivity compared to lead-acid batteries. And, you will get sustained power throughout the discharge.

### **EASY INSTALLATION**

InSight is a true drop-in solution for many walk-behind and rider model pallet jacks. It's a 24V, 60Ah battery, in a standard GC2 size case, it will fit in your existing battery compartment so there are no tray modifications needed. The most challenging part will be removing the heavy lead-acid batteries from the machine!

### **ULTRA LONG LIFE**

Rechargeable RELiON lithium batteries cycle 5,000 times or more, compared to lead-acid batteries which typically deliver only 300-500 cycles. Not only is the Lithium Iron Phosphate technology longer lasting due to its chemistry, it is not prone to the abuse that significantly shortens the life of lead-acid batteries such as improper watering or charging. In fact, partial states of charge do not damage LiFePO4 batteries at all!

### **TEMPERATURE TOLERANT**

2.5x more efficient operation at low temperatures, InSight batteries have significantly more capacity and voltage retention in the cold when compared to lead-acid batteries and are safely operational up to 149° (65°C).

### **SUPERSMART BMS™**

InSight batteries have numerous advantages over competitors, starting with its SuperSmart BMS and intuitive Software - the most crucial components in a lithium battery. Learning algorithms make InSight the only lithium battery capable of calculating state of charge and state of health that gets even more accurate over time.



### **INTELLIGENT COOLING**

Unlike other lithium batteries that can trap heat, the InSight Series uses a carefully engineered cooling management system to quickly remove heat from inside the battery during conditions of high discharge and recharge currents. This prevents over-heating of critical components, which also extends the life of the battery.

### **SCALABLE SYSTEM**

InSight batteries offer freedom and flexibility. They are connected in parallel (up to 4) which means you can scale your system to provide increased power and energy (up to 240Ah) as needed.

### **EXPERT ENGINEERING**

Batteries are a critical yet commonly overlooked part of product design. RELiON's engineers are the industry's best and brightest in battery design, and our product development and manufacturing expertise keeps us ahead of our competition. Plus, our dedicated testing and R&D facility gives us the tools we need to perform at the highest level. The result is a lithium battery that solves the challenges of power, capacity, ease of use and reliability – unlike any other lithium battery.

### WE STAND BEHIND OUR PRODUCT! 10 YEAR WARRANTY



### **GO FURTHER WITH INSIGHT**

- → Fuel gauge provides real-time State of Charge so you don't unexpectedly run out of energy.
- Remote button allows you to turn the battery off and save energy and then turn on when needed without having to access the battery.



<sup>\*</sup> Check with your equipment manufacturer if additional ballast weight is required.





### PARTNER WITH A GLOBAL LEADER

### **UNPARALLELED EXPERTISE**

When you become a RELiON customer, know that you have a talented team of experts behind you. Our team has been in the industry for 20+ years with over 190 years of combined battery experience. We only invest in people with the industry experience which is why we can say our technical know-how is truly unmatched.

### PRODUCT INNOVATION

Today, the industry demands innovation that delivers unmatched power, performance, and life. RELiON LiFePO4 batteries accomplish this and surpass existing batteries in the market due to our focus on product development. We have one of the largest LiFePO4 product offerings available with 12V, 24V and 48V batteries that power a range of applications.

### PRODUCTS ENGINEERED IN THE USA

Our Seattle-based engineering team works hand-in-hand with our manufacturing facilities to ensure quality products that perform. Not only are we committed and able to deliver the best products, but we are proud to say our factory is ISO 9001:20015 certified.

### PERFORMANCE WITH PEACE OF MIND

Not only do RELiON lithium batteries work hard, they're an inherently safe chemistry and engineered with exclusive safety measures, including a state-of-the-art battery management system (BMS) that protects against over-charge, over-discharge, over-temperature and short circuit conditions. At RELiON, safety comes standard, so you never have to worry.

### **TECHNICAL SUPPORT TEAM**

We are a global company with a team of customer service representatives and engineers located in the United States, giving you quick and easy access when you need help.

### **GLOBAL PRESENCE**

Being on all 7 continents isn't what makes RELiON a global company; sharing information and expertise in real-time, across teams and time zones worldwide, is what makes us a truly global company. Acting globally improves product consistency and allows us to make improvements quickly, so we can deliver the best possible products.





Blue Battery. Blue Sky. Blue Ocean.

### **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

### **INDUSTRY CERTIFICATIONS**



UL2580 (Cell) – File Number: MH63797 UL2271 (Battery Pack) – Pending CE IEC 62133 UN38.3

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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