

USER GUIDE

24VDC 9.0Ah Wall Mount Li-Ion Battery Pack

Ideal for Temporary Power Backup for Critical Communication Equipment

The RLH 24V 9.0Ah battery pack contains two 12 volt lithium-ion (LiFePO4) batteries mounted inside a powder coated steel housing with a hinged door secured with thumb screws. These battery packs are commonly used with AC/DC power supplies and a charge controller to provide uninterrupted backup power in the event of a power outage.

It is designed to be easily mounted using the quick-mount plate that is first attached to the wall, then the battery housing is hooked onto the plate and secured with mounting screws. The battery back is designed to be used indoors, or in a weatherproof enclosure.

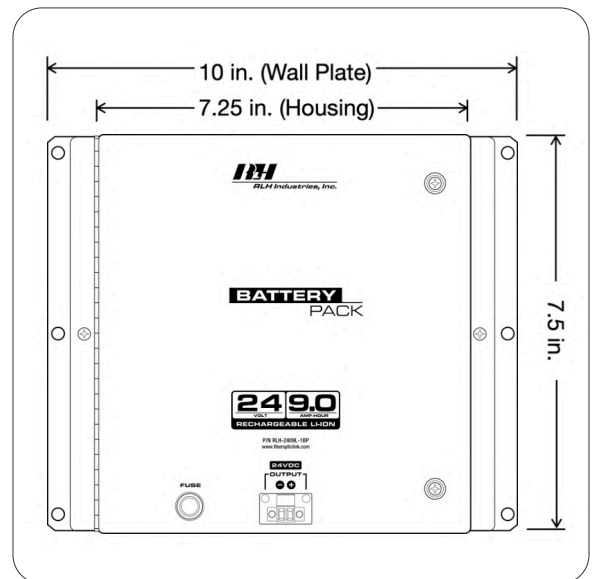
The life expectancy of the internal Li-ion batteries is approximately 5 years at one cycle per day. This high cycle count is well suited for demanding UPS applications, or where rapid charge time and deep discharge cycles are expected. Excessive hot or cold temperatures will decrease battery power and life. Depleted batteries may be replaced in the field by qualified personnel.

Key Features

- Ideally suited for industrial 24VDC UPS systems
- Durable powder coated steel construction
- RLH quick-mount system for easy installation
- Safe & reliable lithium iron phosphate (LiFePO4) chemistry
- Built-in Battery Management System (BMS) optimizes battery performance
- BMS protects batteries against over-charging, over-discharging
- Fast charging with low self-discharge
- Delivers twice the power of SLA batteries
- Up to 10 times more cycles than SLA batteries
- Only 40% of the weight of standard SLA batteries
- Batteries and fuse are user replaceable



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Dimensions

Installation

Prior to installation:

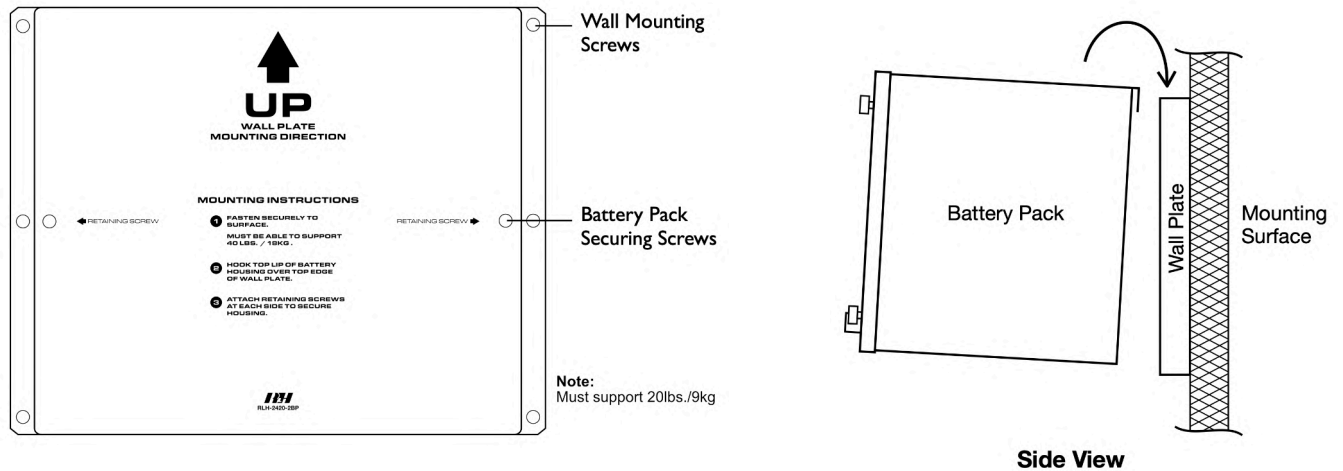
- Check for shipping damage
- Check the contents to ensure correct model and capacity
- Have a clean, dry installation environment ready

Required for installation:

- Sufficient mounting space
- Mounting surface must support 20lbs./ 9kg

Wall Mounting

- Fasten quick-plate securely to surface
- Hook top lip of battery housing over top edge of wall plate
- Attach retaining screws at each side to secure housing



Connect Contact Wires

Connect the battery wiring to the screw down terminal on the front. Observe the polarity markings next to the terminal block. The terminal may be removed for ease of installation by loosening the slotted head retaining screws and pulling straight out. Tighten the retaining screws after replacing the terminal block.

Install Fuse

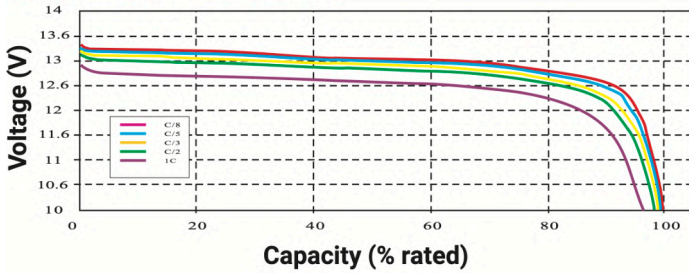
Remove the fuse holder cover and install the included fuse. Refer to the specifications section for the replacement fuse rating.

Note: Power is applied to the screw down terminals once the fuse is inserted.

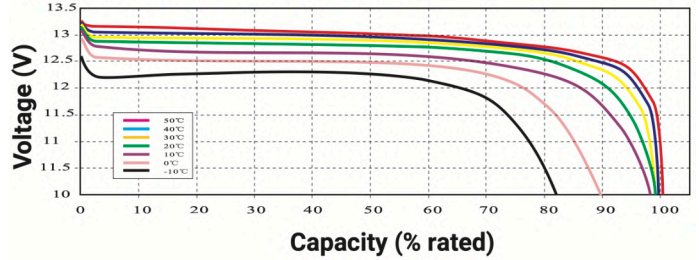
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Charging & Discharging

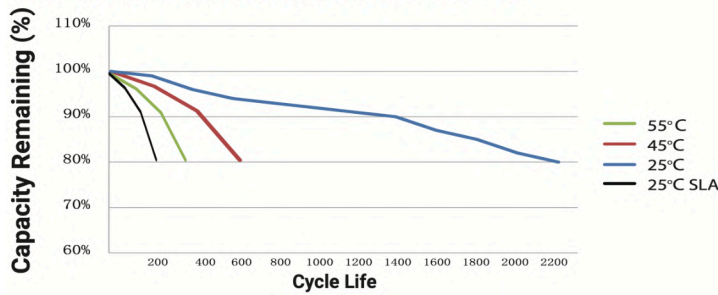
**DISCHARGE VOLTAGE PROFILES AT VARIOUS RATES
25°C AMBIENT TEMPERATURE**



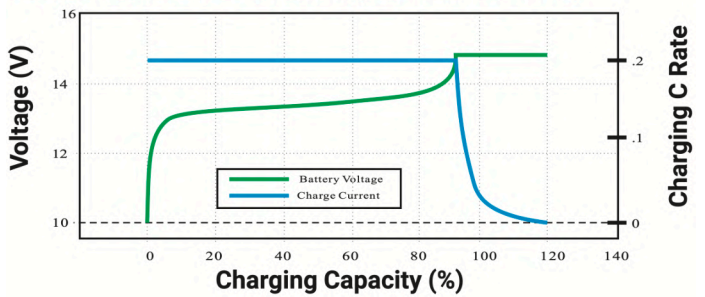
**DISCHARGE VOLTAGE PROFILES AT 0.5C DISCHARGE RATE
VARIOUS AMBIENT TEMPERATURES**



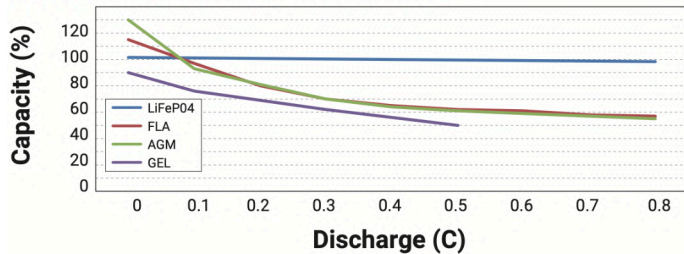
**CYCLE LIFE vs. VARIOUS TEMPERATURE
0.2C CHARGE/0.5C DISCHARGE @ 100% DOD**



CHARGING CHARACTERISTICS (0.2C AMP @ 25°C)



**CAPACITY OF LiFePO4 vs. LEAD ACID
AT VARIOUS CURRENTS OF DISCHARGE**



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Key Specifications

Battery Pack Construction:	Durable powder coated steel with hinged door and thumb screws
Dimensions:	10" (W) x 5.25" (D) x 7.5" (H), (254mm x 133mm x 191mm) *including mounting wall plate
Weight:	5.5 kg/12 lbs.
Mounting:	Wall or panel mount
Power Connection:	Screw down power terminals
Internal Batteries:	Quantity 2, 12VDC, 9Ah
Battery Type:	Lithium (LiFeP04) with BMS, High Cycle, Maintenance Free
Nominal Voltage:	25.6V
Capacity:	9Ah @ 25°C
Included Fuse:	15A, user replaceable
Operating Temperature Range:	Charge: 32°F (0°C) to 113°F (45°C) Discharge: 4°F (-20°C) to 140°F (60°C) Recommended: 59°F (15°C) to 95°F (35°C)
Over-Temperature Protection:	65°C
Release Temperature:	55°C
Max Charge Current:	9.0A
Max Discharge Current:	15A
Charge Cutoff Voltage:	29.2V
Self Discharge Rate:	≤3%/month
Long Term Storage:	Charge every 6 months or as soon as OCV is 12.8V
Cycle Life (@DOD100%):	2000 cycles
Life Expectancy (Years):	5 years at one cycle per day

Ordering Information

Description	Part Number
24 Volt Lithium-ion Battery Pack, 9.0Ah Capacity, Wall Mount	RLH-2409L-1BP
Replacement Battery Set For RLH-2409L-1BP	RLH-2409L-1RB

Contact

By Mail: Att: Sales
RLH Industries, Inc.
936 N. Main St.
Orange, CA 92867

By Phone: Local 714-532-1672
Sales / Service
Mon - Fri, 6am - 6pm, PST
Toll Free 800-877-1672
866-DO-FIBER

By Email: info@fiberopticlink.com

By FAX: 714-532-1885

Tech Support

By Email: support@fiberopticlink.com

By Phone: Toll Free 855-754-2497
855-RLH-24X7