

LiFePO₄ Batteries

PRODUCT DESCRIPTION

Luxbox high-temperature Lithium Iron Phosphate batteries have been specifically selected and tested for use with self-contained emergency lighting.

Lithium iron phosphate batteries offer an operational life up to double that of NiCd batteries. Due to the extremely low self-discharge rate, power consumption under standby conditions is reduced by up to 70%.



KEY FEATURE AND BENEFIT

- 3 year warranty

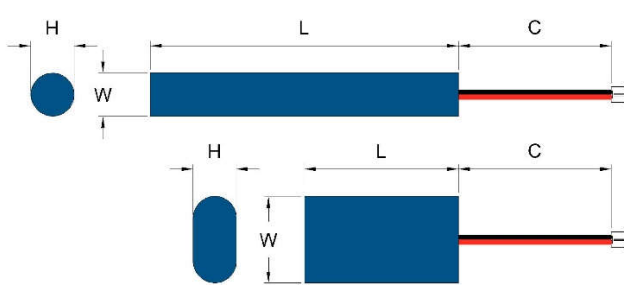
LiFePO₄ Battery Products

Product Group	Product Code	Description
Pack	14-12-0002	Battery LiFePO ₄ 1865 3.2V 3.0Ah 2-Cell Pack – 310mm JST-EH
	14-12-0004	Battery LiFePO ₄ 1865 3.2V 4.5Ah 3-Cell Pack – 210mm JST-EH
Stick	14-12-0001	Battery LiFePO ₄ 1865 3.2V 1.5Ah 1-Cell Stick – 250mm JST-EH
	14-12-0003	Battery LiFePO ₄ 1865 3.2V 3.0Ah 2-Cell Stick – 250mm JST-EH
	14-12-0005	Battery LiFePO ₄ 1865 3.2V 4.5Ah 3-Cell Stick – 250mm JST-EH
Accessories	14-95-0001	Battery End Cap -1865 Cell
	14-98-0001	Battery Extension Cable – 250mm JST-JST

LiFePO₄ Battery Technical Specification

Name of manufacturer	Elubat
Cell Type	Lithium Iron Phosphate
Rated capacity at C/5	3.2V 1.5Ah
Design life under following conditions;	>4 Years
• Max. continuous temperature	50°C
• Max. temperature (occasional excursions)	65°C
• Max. charging current	0.5C
• Full discharge frequency	Annually
• Max. discharge rate for 1 hour	0.6C
• Max. discharge rate for 3 hours	0.25C
Approvals and Certificates	IEC62133 / IEC62620 / UN38.3 / UN3481

LiFePO₄ Battery Dimensions



Stick dimensions mm				
Cells No	H	W	L	C
1	18	18	65	300
2	18	18	130	300
3	18	18	195	300

Pack dimensions mm				
Cells No	H	W	L	C
2	18	130	65	300
3	18	195	65	300

LiFePO₄ Battery Management

Overcharge	Designed to be overcharged, the battery accepts overcharging up to 0.1C at 30°C without damage.
Deep discharge	A deep discharge or 'over discharge' may damage the cell performance so it is recommended to disconnect the lighting load at the end of discharge and reconnected to the equipment charger to fully recharge the battery. In addition, at the start of the first charge following full discharge, the voltage may exceed the maximum allowed value.
Normal storage	Store the battery within a temperature range of +5°C to +25°C in a 65±5% relative humidity atmosphere.
Long term storage (up to 6 months)	After long term storage in open circuit, up to 5 IEC cycle may be required to recover the initial performance of the battery.
Service life	Exceeding stated limits for charging, discharge, storage or temperature range can reduce the service life and damage the cell performances.

LiFePO₄ Battery CAUTIONARY NOTES

- Batteries should be charged prior to use.
- Before using a new battery for the first time or after long term storage, fully charge the battery (see above note).
- **IMPORTANT** - Use the correct charger for LiFePO₄ batteries.
- Do not short circuit batteries, permanent damage to batteries may result.
- Do not damage or incinerate batteries, they may burst or release toxic material.
- Do not solder directly to cells or batteries.
- Do not subject batteries to extremes of temperature, excessive over charging or over discharging.
- Store batteries in cool dry place.
- Avoid batteries being used in an airtight compartment. Ventilation should be provided from inside the battery compartment (batteries may generate hydrogen gas, which could cause an explosion if exposed to an ignition source).
- When connecting a battery pack to a charger or device, ensure correct polarity.
- If any noise, excessive temperature or leakage from a battery is observed, **DO NOT USE**.
- When the battery is hot, please do not touch it and handle it, until it has cooled down.
- Do not remove the outer sleeve from a battery pack or cut into its housing.
- Unplug a battery by holding the connector itself and not by pulling at its cord.
- After use, if the battery is hot, before recharging it, allow it to cool in a well-ventilated place out of direct sunlight.
- Never put a battery into water or seawater.
- Do not attempt to take batteries apart or subject them to pressure or impact. Heat may be generated and may result in a fire.
- Keep batteries away from children. If cells or batteries are swallowed, contact a physician at once.