

DESIGNED FOR  $\text{LiFePO}_4$

## Smart charge, maximizing charging efficiency

### Ektor Professional implements smart charging, specifically designed for Lithium batteries

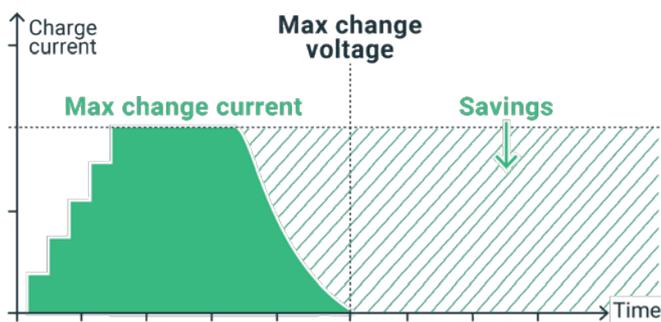
It uses an optimal charge algorithm designed to maximise the charging efficiency whilst ensuring the battery is charged in a minimal time. The smart charge system continually monitors the battery to ensure it is always performing at its peak and ready for the next emergency.

#### LITHIUM BATTERIES

Introduced in Gen III, and now a standard of Ektor products, our Lithium Ion Phosphate batteries are **fully compliant with IEC 60598-2-2**, the emergency lighting equipment standard. These  $\text{LiFePO}_4$  batteries replace older NiMH, NiCd and lead-acid types typically found in emergency devices.

As part of Ektor's commitment to **environmentally friendly** products the new battery technology contains no known carcinogens or toxic heavy metal contaminants, the same cannot be said for previous generations.

The Lithium batteries also **last up to twice as long** as older technologies extending service intervals and further reducing environmental impact.

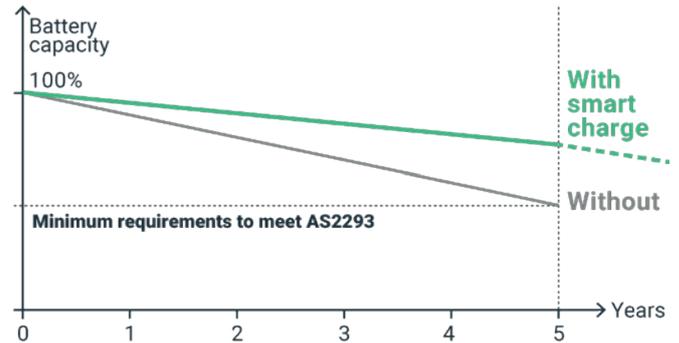


Optimal  $\text{LiFePO}_4$  Charge algorithm

### INCREASED SERVICE LIFE

The advanced smart charging increases the service life of the battery by optimising the charging periods of the battery and thus reducing the chemical process internal to the battery.

The reduction in charge current, when approaching full charge, helps **preserve the battery's internal chemistry and reduce the performance degradation** and possible overheating that can occur when continually charged.



Extended battery service life with  $\text{LiFePO}_4$  and smart charging

### AUDITABLE PERFORMANCE

The technology built into Ektor Professional products and the through-life traceability of the products can prove the performance of the platform. Before a product is shipped from our **quality certified factory**, it undergoes a full range of testing and recording which is stored directly to the Cloud.

Over the life of the **product compliant monitoring systems**, our self-testing app and our afterlife reporting tools can sync with the Cloud to report on the state of the unit. This statistical information can show the lifetime and overall performance of the platform.

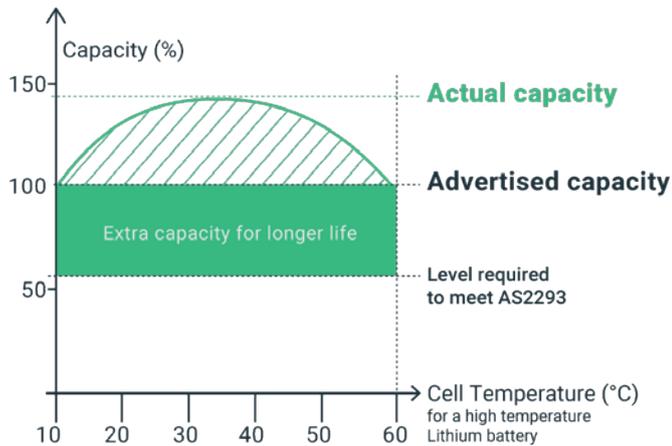
### REDUCED POWER CONSUMPTION

Due to the smart charging that only charges the battery when it needs to, **no power is wasted** charging a battery that is already full. This gives excellent power savings compared to traditional NiMH and NiCd type emergency products that continually charge even once a battery is fully charged.

### SOFT-START CHARGING

Normally, the time directly after an emergency is the time where current draws are the largest as all systems are returning to normal. At this time the Ektor Professional products are designed to slowly start the battery charging, increasing the current draw over the first 10 minutes.

## Ektor Professional introduces a soft-start battery charging technology to reduce start-up currents in a building after a power failure.



**THERMAL MANAGEMENT**

Thermal battery management **ensures that the battery cell temperature is as close to the ambient temperature as possible.** During normal charging operation the battery cell temperature does not exceed 3°C over ambient, excluding the initial fast charge period preceding a discharge.

Ensuring that the battery cell temperature is close to the ambient temperature allows greater overhead in battery cell capacity, which decreases at higher and lower temperature ranges.

You can learn more about our compliance and quality control on our website [ektor.com.au/compliance/](http://ektor.com.au/compliance/)

**Guaranteed battery performance and through-life reporting gives Ektor Professional the edge.**

**CONTACT US TO DISCUSS THE BEST SOLUTION FOR YOUR PROJECT**

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