

Li-Ion Capacitor UPS

Li-Ion UPS technology

Powerful and reliable solution for applications requiring short back-up times



your energy
our expertise



 **socomec**
Innovative Power Solutions

Outstanding **reliability** and **protection** against power outages

LI-ION CAPACITOR UPS is the innovative energy storage solution providing reliable back-up power for protecting any critical application from frequent outages.



Power outages lasting a few seconds to several minutes may cause damage, loss in production and cost increases to applications and processes sensitive to short duration downtime.

To ensure the optimum availability and a long-life cycle for batteries, the power supply has to be protected by a powerful UPS back-up storage solution with:

- very short recharging time,
- low maintenance,
- constant monitoring.

LI-ION CAPACITOR UPS is the innovative UPS back-up storage solution specifically designed to protect:

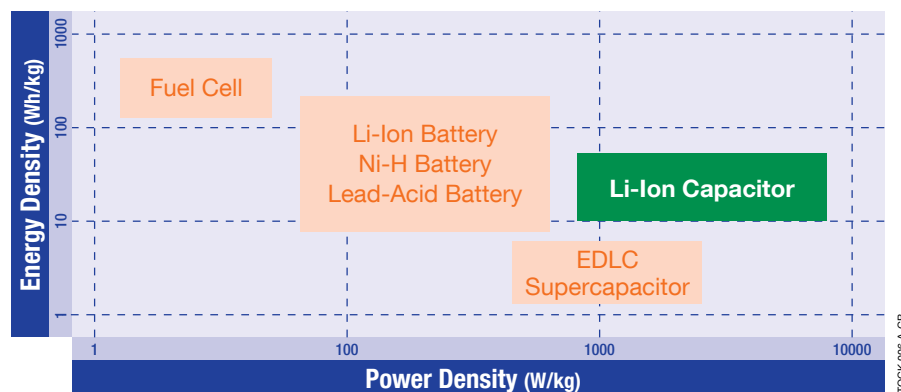
- applications requiring back-up times of a few seconds to several minutes,
- processes sensitive to frequent micro interruptions,
- applications working in critical environments where hazardous substances are not allowed,
- applications with severe ambient conditions.

The solution for

- > Data centres
- > IT infrastructures
- > Industrial processes

Why choose Socomec?

- **Independent manufacturer**
Founded in 1922, 3000+ employees, 30 subsidiaries across five continents.
- **Specialist**
Solutions for power availability, control, safety and energy efficiency.
- **Expert**
Manufacturer of energy conversion solutions for over 40 years.
- **At your service**
A global network of consulting, inspection and maintenance teams.
- **Flexible**
Adapted solutions to suit the specific needs of our customers.
- **Innovative**
Nearly 10 % of the sales turnover is dedicated to R&D.



Bridging the gap between batteries and supercapacitors.

The benefit of LI-ION CAPACITOR UPS



Lithium-Ion capacitor module.



Lithium-Ion capacitor cells.



LI-ION CAPACITOR UPS is designed and developed in Europe by Socomec in partnership with JSR, Japanese leader in materials innovation.



Maximum availability

- Ultra-fast recharge.
- Ensured scalability for capacity or redundancy.
- Fire-safe construction.



Extreme reliability

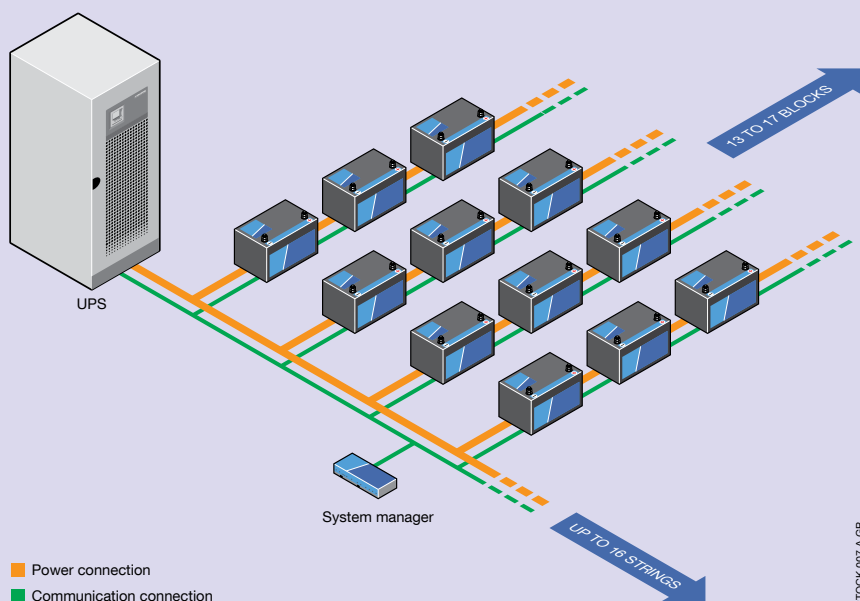
- Optimum performance in all critical operating conditions.
- Ageing-free in any frequent process micro interruption.
- Wide operating temperature range.
- Embedded cell-to-cell monitoring.



Cost-effective solution

- Ultra-high power density in a reduced footprint.
- 15+ years' service life.
- Easy and extremely low maintenance.

High modularity and granularity



BMS - Battery Monitoring System

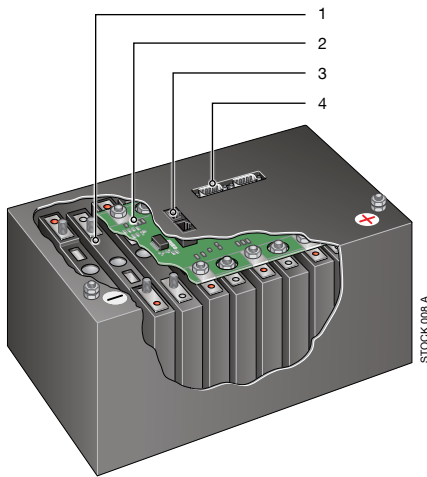
BMS - Socomec's Battery Monitoring System - maximises the availability of the supply in applications where power continuity is vital.

By performing a constant preventive battery monitoring, BMS:

- eliminates any unscheduled power cut due to battery failure,
- improves UPS uptime,
- reduces maintenance operations
- maximises battery return on investment.



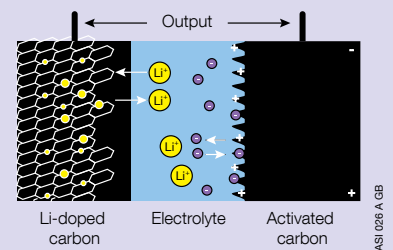
Technical data



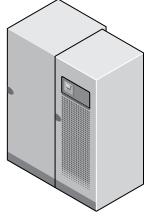
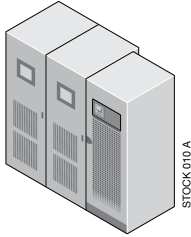
1. Lithium-Ion capacitor cells
2. Control and communication board
3. RJ45 interface for battery blocks communication
4. RS485 interface for battery strings communication

LI-ION CAPACITOR UPS: the operating principle

- The activated carbon is a capacitor cathode.
- The Li-doped carbon anode is a battery anode, undergoing Li doping during charge and dedoping during discharge.
- Hybrid construction creates a capacitor which yields the best performance features of batteries and capacitors.



The advantages of LI-ION CAPACITOR UPS vs. Flywheel UPS

	 LI-ION CAPACITOR UPS	 FLYWHEEL UPS
UPS	1x DELPHYS GP 200	1x DELPHYS GP 200
UPS power	200 kW/kVA	200 kW/kVA
Back-up storage	1x LI-ION CAPACITOR UPS	2x Flywheel cabinet
Back-up time	30 s @ 200 kW	30 s @ 200 kW
Footprint	1.15 m ² -38 % compared to Flywheel UPS solution: more space left to server racks	1.85 m ²
Weight	1190 kg -44 % compared to Flywheel UPS solution: no technical floor oversize for heavy weights	2110 kg

High sustainability

Socomec is committed to developing solutions that reduce the environmental impact from the design stage and throughout their entire life cycle.

LI-ION CAPACITOR UPS is the latest solution designed for helping environmental sustainability:

- safe, low-toxic materials,
- REACH/RoHS compliant materials,
- no gas emission,
- no risk of acid leakage.

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