

# *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.



SITE 790 A



SITE 858 A



SITE 747 A

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:

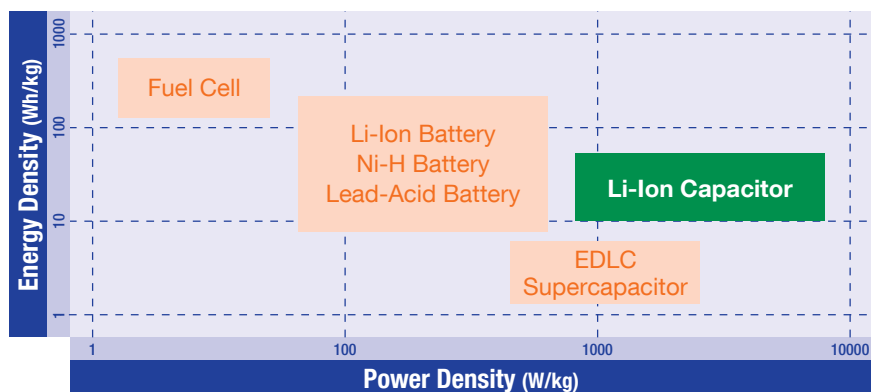
- applications requiring back-up times of a few seconds to several minutes,
- processes sensitive to frequent micro interruptions,
- applications working in critical environments where hazardous substances are not allowed,
- applications with severe ambient conditions.

## 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.



STOCK 008 A GB

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

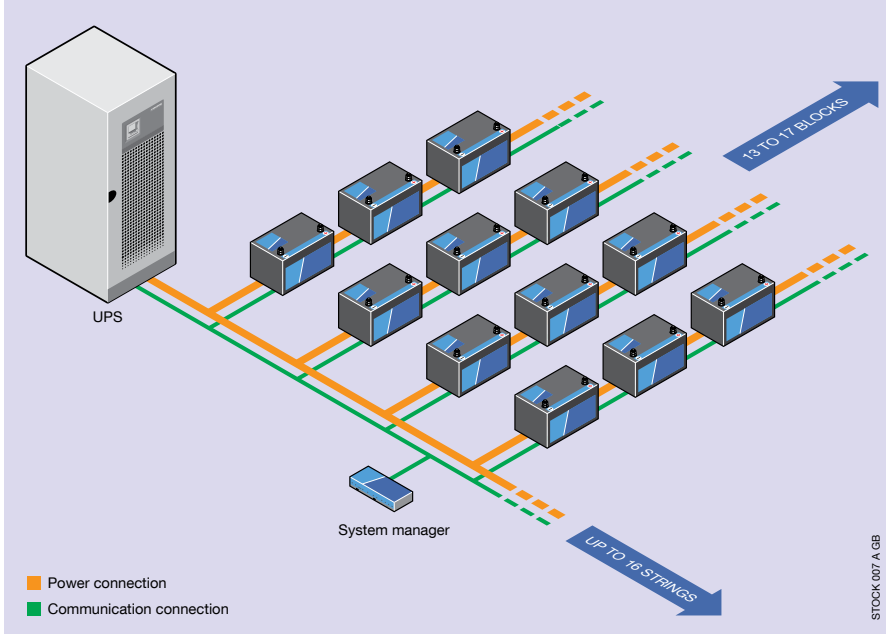
- Optimum performance in all critical operating conditions.
- Ageing-free in any frequent process micro interruption.
- Wide operating temperature range.
- Embedded cell-to-cell monitoring.



## 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

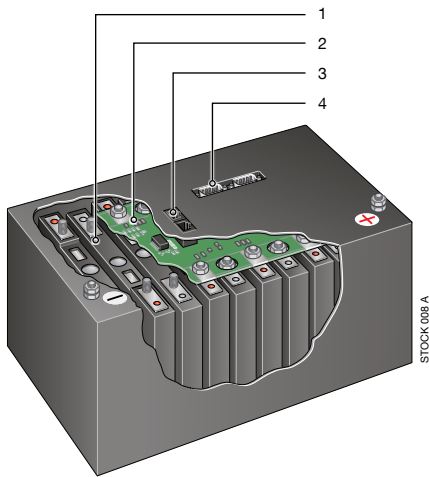
BMS - Socomec's Battery Monitoring System - maximises the availability of the supply in applications where power continuity is vital.

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.



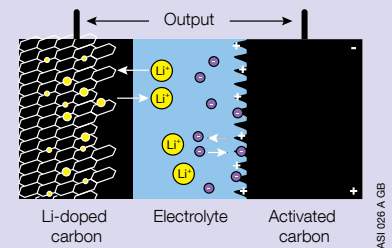
# Technical data



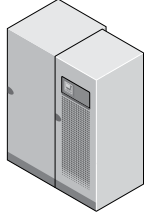
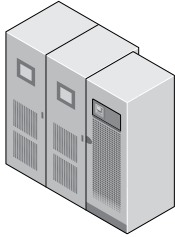
1. Lithium-Ion capacitor cells
2. Control and communication board
3. RJ45 interface for battery blocks communication
4. RS485 interface for battery strings communication

## 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 <sup>2</sup> -38 % compared to Flywheel UPS solution: more space left to server racks	1.85 m <sup>2</sup>
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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