



SUNSYS Mobile

200 kVA/330 kWh mobile energy storage system
Reduce your CO₂ emissions



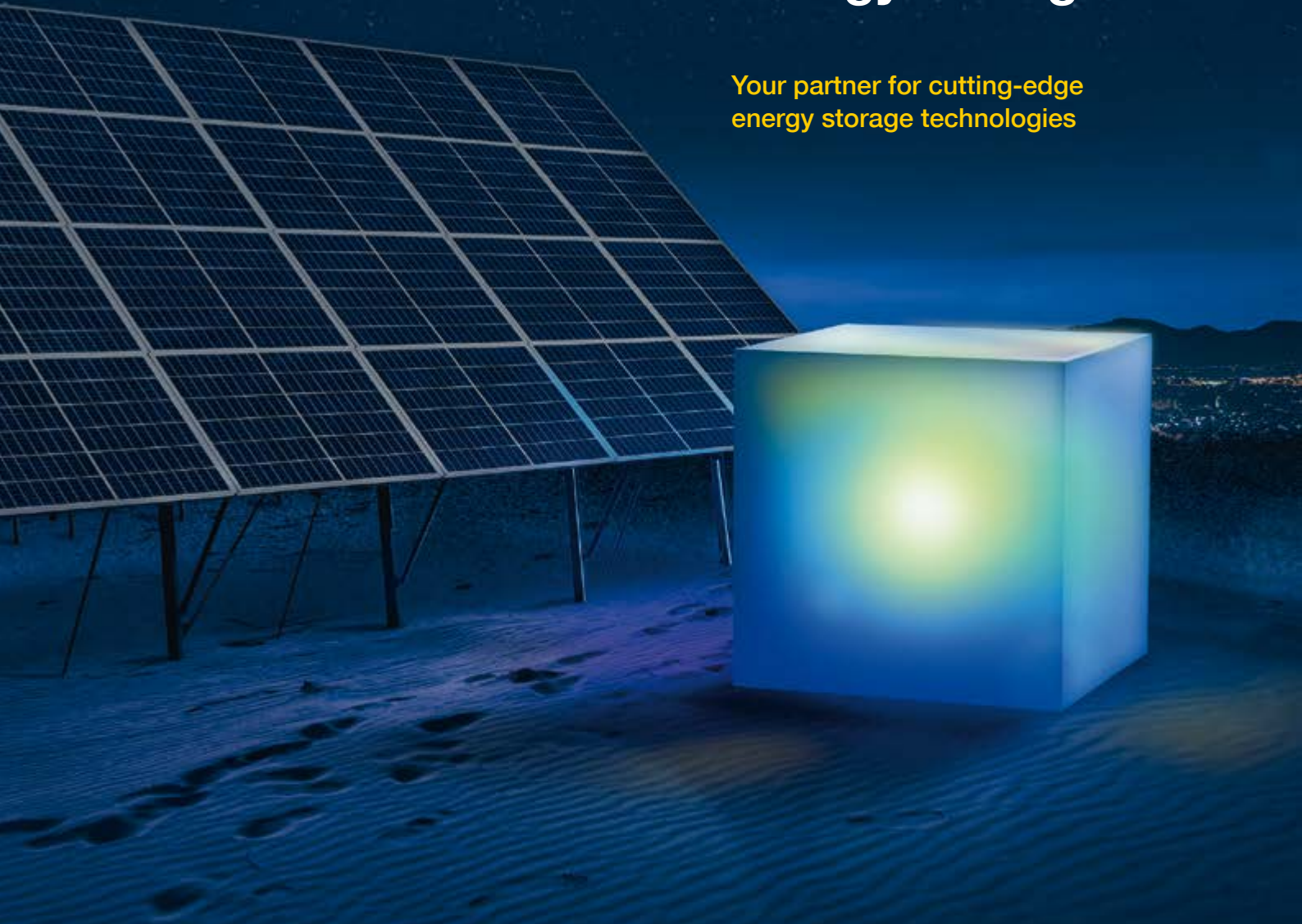
When **energy** matters





Mastering energy storage

Your partner for cutting-edge energy storage technologies



Founded in 1922, Socomec is an industrial group with a workforce of over 3600 people around the world in 28 subsidiaries.

Our core business: the availability, control and safety of low voltage electrical networks to increase our customers' power performance.

Since 2013, Socomec has developed and integrated stationary energy storage solutions, some of them used in European prototypes (Nice Grid and Nice Smart Valley). These are managed by Enedis and have achieved 10 hours of islanding.



Today, more than 180 Socomec stationary electricity storage systems are installed worldwide.

The combined expertise of Socomec and IBS, **your best asset “made in Europe”**

**Because collaboration means innovation,
Socomec presents IBS, our partner at the
forefront of custom batteries.**

**Ion Battery Systems (IBS) designs,
develops and manufactures custom
lithium batteries for mobile use.**

These batteries are integrated into
professional and consumer vehicles –
bicycles, scooters, cars.

IBS has developed mobile electricity
storage ranging from 2 kWh to 20 kWh,
integrated in cases and mobile bays to
bring clean energy right to where it is
needed.



Socomec and IBS, a fantastic initiative for mobile energy storage solutions, ahead of their time.

2019 saw Socomec and IBS join forces
to develop the E'car prototype.

With it, they achieved a world first –
providing a fully mobile energy storage
solution to power electric vehicles on a
number of motor racing circuits.

Following this success, Socomec and
IBS continued their dedicated drive
to create SUNSYS Mobile, the first
ultra-mobile, zero-emission, all-terrain,
robust electricity storage solution,
designed and manufactured in France.



The E'Car prototype consists of a mobile energy storage truck and an electric race car powered by that same truck. A Socomec project designed in partnership with IBS.



In Partnership with **socomec**
Innovative Power Solutions

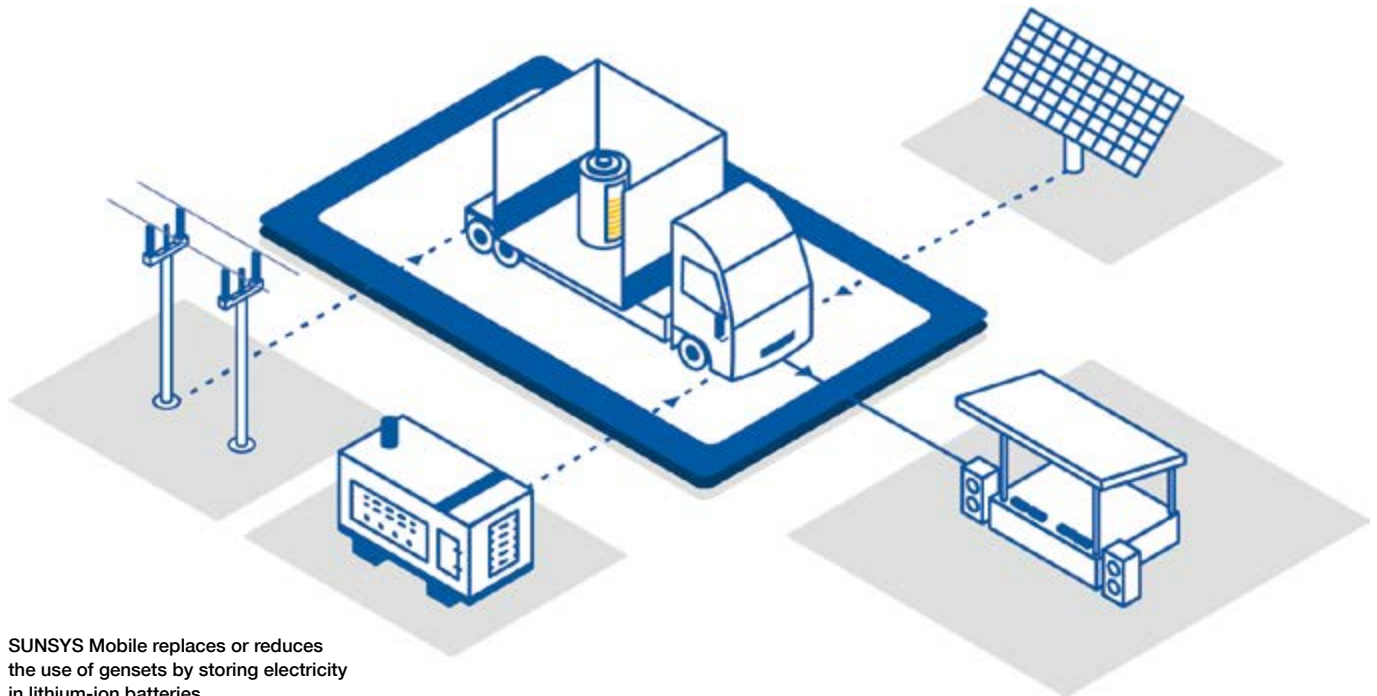


To learn more about the E'Car prototype, visit:
www.socomec.com/mobile-energy-storage_en.html



Mobile energy storage

A responsible alternative or addition to the use of gensets



SUNSYS Mobile replaces or reduces the use of gensets by storing electricity in lithium-ion batteries.

SUNSYS 301 A

Find out how *SUNSYS Mobile* reduces your carbon emissions:

On-grid applications:



Additional power

In cases where network power is too low for a pop-up event, the SUNSYS Mobile system provides an electrical boost for the facility so it can power the loads. The system automatically controls the charging and discharging of batteries based on consumption, PV production and network supply.



Back-up power

The continuity of power supplied to temporary facilities is often critical. In the event that the grid goes down, the SUNSYS Mobile system guarantees power is continuously supplied. With its "black start" function, it can resume power without resorting to an oversized installation to meet the power demands of inductive loads.

Off-grid applications:



Autonomous power

The SUNSYS Mobile system can supply an isolated network in a completely autonomous way by functioning as a voltage generator for a limited time.



Renewable energy

In combination with a photovoltaic installation, the voltage-generating SUNSYS Mobile system supplies the power to isolated sites with 100 % energy from renewable sources.



Optimising diesel generators

In cases where a diesel generator is essential to ensure the power supply to an isolated site, SUNSYS Mobile reduces diesel consumption and improves the genset's service life by operating more efficiently.

Meets all your needs, in any environment



SITE 1080 A

Electric vehicles

With electric vehicles multiplying around the world, our infrastructures need to adapt.

- Simplified installation of fast charging stations by temporarily providing the required power.
- Quick-charging of electric vehicles at motoring events.



SITE 1051 A

Events

Electricity production is now the main source of pollution for events that need more than the mains can provide.

- Fewer greenhouse gas emissions.
- Less noise pollution from the genset.
- Secured power supply.



SITE 1052 A

Construction

More and more district councils are banning the use of gensets while seeing increases in electrical equipment on construction sites.

- Powering base camps.
- Quick recharging of any type of electrical equipment on site (cranes, excavators, loaders, etc.).



SITE 1083 A

Off-grid camps

Many temporary facilities require efficient and safe power supplies, including field hospitals, military operation camps and refugee camps.

- Safe and clean power.
- Off-grid management.
- Diesel savings when coupled with gensets.



SITE 1054 A

Emergency deployment

Maintenance work and emergency operations on the public or private electricity distribution network require enough energy to ensure the continuity of the power supply.

- Continuity of power on your networks.
- Clean and noise-free.



SITE 1039 A

Commercial and industrial

Businesses and industry could require temporary electrical support for example to regulate the temperature of the facilities or to face a production peak.

- Reduces carbon emissions.
- Autonomous operation.

A container measuring just 10' but with so much to offer



SUNSYS Mobile 200kVA/330 kWh built into a 10' ISO High Cube container



The perfect ultra-mobile electricity storage solution: zero-emission, all-terrain, robust, designed and manufactured in Europe

1 **SUNSYS PCS² IM:** Bidirectional Power Converter

Maximum uptime:

- Modular and independent architecture.
- Easy, quick and safe to maintain thanks to hot-swap power modules.
- No downtime during maintenance.

Islanding capability – voltage generator:

- Automatic balancing between production and consumption.
- Black-start functionality.
- Seamless return to on-grid mode.

2 **Rack IBS 14S24P:** Battery Cabinet

High performance

- ECE R100 Rev2-approved battery module (electric car approval: fire safety, crash test, etc.).
- High depth of discharge (DoD): 90%.

High availability:

- Safe to use: if one rack fails, the other racks continue to work.
- Easy, quick and safe to maintain replaceable battery modules in less than 30 minutes.

3 **SUNSYS MCM:** Control cabinet

Automatic electrical charge management:

- Monitor the charging / discharging of batteries by consumption and production.
- Automatically disconnects from the grid when the power fails, automatically reconnects to the grid when power is restored.

Local or remote management:

- Local: internal / external monitoring screen (optional).
- Remote: built-in web server to control and monitor the system.

4 **AC distribution**

Multiple inputs

- 2x 250A Powerlock inputs to connect directly to the network or genset and a solar installation or other renewable energies.

Customisable output:

- 1x 400A Powerlock output compatible with any type of external cabinets – 1x 32A industrial outlet available at all times.
- Possibility to add a specific distribution box straight to the container, which you can remove as needed.

5 **Thermal regulation**

High-performance climate control:

- Integrated industrial air conditioning.
- Ambient temperature range: -20 °C to +45 °C (+50 °C according to customer specifications).

Maximum fire protection:

- Automatic fire detection.
- Multi-zone and multi-mode gas self-extinguishing function (NOVEC1230).
- Valve for firefighter, Europe standard.



Retrouvez la fiche technique complète sur :
bit.ly/SunsysMobileEN



SITE 1095 A

Your benefits with **SUNSYS Mobile**



The first ultra-mobile power supply system that respects its environment

- Zero-emission system that works either autonomously or in combination with a photovoltaic installation.
- Reduces carbon dioxide emissions by up to 60 % when the system is coupled with a genset.
- Silent solution: less than 60 dB at 1 metre. Decentralises electrical distribution by installing the system as close as possible to electrical loads.



A robust, all-terrain system developed for the most extreme environments

- SilentBlock-mounted elements to withstand all shocks and vibrations: resistant up to 8G for 8 ms in all directions.
- Industrial air conditioning to withstand extreme temperatures: up to +50 °C.
- Temperature, shock and vibration sensors to monitor these critical parameters.
- Mobility-enabled batteries that meet the safety standards of the automotive industry.



A versatile system designed to adapt quickly to any situation

- Plug-and-Play: set up in less than 30 minutes with Powerlock connectors.
- Automation developed for the common use cases, with or without a network:
 - Peak shaving and back-up functions.
 - Fully autonomous.
 - Can be linked to PVs or gensets.
- Compatible with all types of EMS.
- Develop/adapt automated functions to your specific needs.



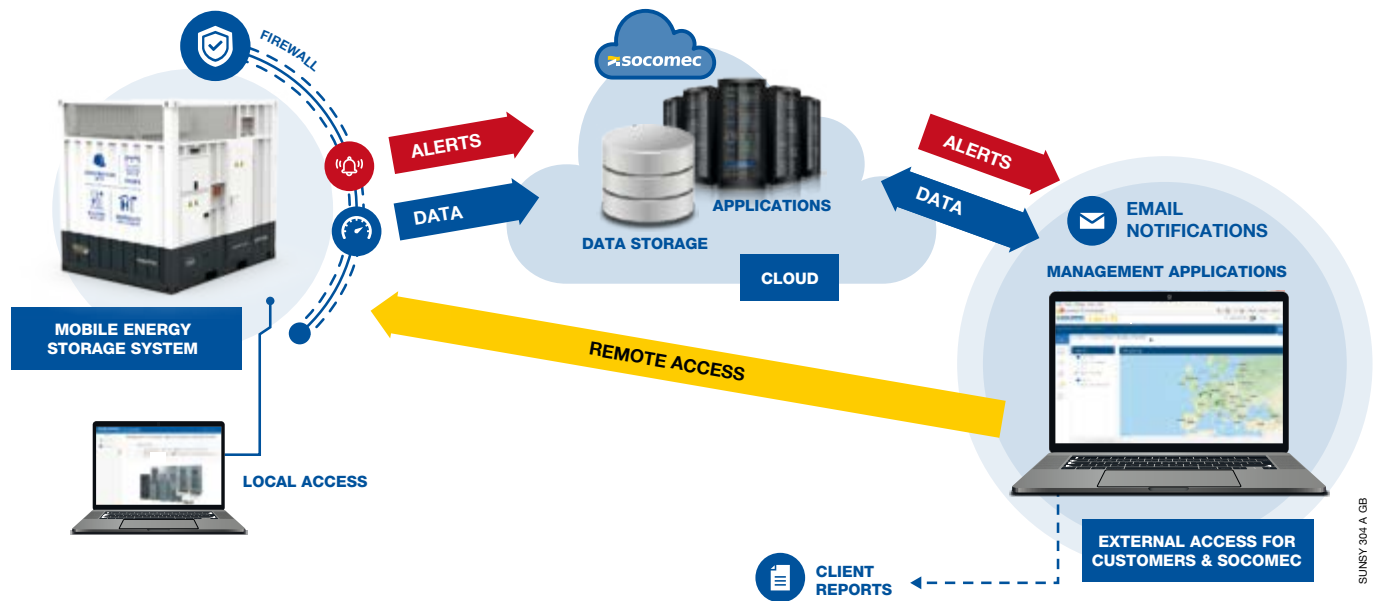
Treat yourself to something better

- Made in Europe and EU certified.
- The guarantee of a reliable and continuous power supply: redundancy of critical elements.
- Opens up new possibilities to boost your return on investment:
 - The system can be used to provide grid services (e.g. set the frequency/voltage).
 - Attach banner ads to communicate at your events, customise the outside of the container to suit your needs.



In Partnership with **socomec**
Innovative Power Solutions

A digital services and maintenance package tailored to your needs



SUNSYS Mobile was designed to be connected and controlled remotely.

The availability of your mobile energy storage system is critical. No matter where you are:

- Remote access and control through a dedicated web server: 3G modem and GPS chip.
- The IBS mobile application to monitor battery settings via Bluetooth (remaining energy, voltage, battery cabinet temperature, etc.).
- Subscribe to the IoT Socomec solution to remotely track your consumption with customised dashboards and real-time notifications.



Supporting you is our mission

We provide high value-added services to support the study, implementation, operation and maintenance of our solutions. The expertise and proximity of our specialists ensure the reliability and durability of your equipment with:

- Training for your technicians.
- An onsite troubleshooting service with our international network of 370 technicians.
- Maintenance and warranty contracts tailored to your needs.

SUNSYS Mobile

A Socomec success story

After 15 years with Socomec, including 6 years as Technical and Marketing Manager for stationary energy storage, Giovanni has taken on a new personal and technical challenge: developing a mobile energy storage system. In charge of the development of the E'Car and SUNSYS Mobile projects, he reveals how the last few months of this amazing adventure have unfolded.

10 years
of experience in
energy storage

40
people involved
in development

4300
hours of
development



interview with

Giovanni DIQUEREAU
Project Director

Why venture into mobile energy storage?

G.D. : I was immediately fascinated by the innovation itself and the technological challenge of it. When Socomec offered me this project, there was no mobile storage on the market. After several years in charge of stationary systems, I wanted to take a whole fresh approach to how our solutions are built. We have been working on a system capable of withstanding extreme usage conditions to make it operational at events like the Dakar Rally. Today, I'm proud to be able to present to our customers a product that is inherently mobile, robust and environmentally friendly.

What are the main challenges the team faced?

G.D. : Without doubt, development time! We mobilised all of Socomec's expertise in storage, energy conversion, power switching and electrical measuring to see this project through. In total, more than 40 people were involved in the development. In less than a year, we have created a product that aims to become the new market benchmark. The Socomec teams have demonstrated incredible creativity and a strong collaborative spirit to work hand-in-hand with our partner IBS.

How did the collaboration with IBS go?

G.D. : This collaboration has been one of the keys to our success. We have managed to bring together the best of both worlds – the agility of a start-up and the expertise of a century-old group.

Working with a battery-making partner has allowed us to co-develop a battery module that's fully adapted to our use and the needs of our customers.

We have really focused on the mechanical and thermal robustness of the e-mobility battery. It can still maintain the temperature at 60% charge, for example.

How does SUNSYS Mobile bring particular value in today's climate?

G.D. : This product was designed as an alternative or responsible addition to the use of the genset. Many events and companies work hard to reduce their environmental impact. An ecological revolution is underway and the government is encouraging us all to limit the use of diesel. Until now, temporary electricity production was still mainly provided by diesel generators, as there were no viable alternatives. Now, we have one.

What makes the SUNSYS Mobile product stand out?

G.D. : This product is unique on the market! And I'm its biggest fan!
It's the first storage system designed to be inherently mobile and firmly developed according to this principle. Customer needs have always been at the heart of our problem-solving. We developed the user experience based on the "proof of concept" E'Car project, involving customers who are event experts. To ensure the reliability and flawless safety of our system, we took inspiration from the automotive and rail industry.

Any plans for the future?

G.D. : We are already thinking about expanding our range, especially in terms of power or energy. We would also like to find new integration options other than the container. Watch this space...





Socomec,
an industrial expert at your service

Flawless power supply
for temporary loads,
it's that simple.



**Any questions,
any problems?**

Contact the
SUNSYS Mobile experts
mobile.storage@socomec.com



Socomec: our innovations supporting your energy performance

1 independent manufacturer

3,600 employees
worldwide

10 % of sales revenue
dedicated to R&D

400 experts
dedicated to service provision

Your power management expert



POWER
SWITCHING



POWER
MONITORING



POWER
CONVERSION



ENERGY
STORAGE



EXPERT
SERVICES

The specialist for critical applications

- Control, command of LV facilities
- Safety of persons and assets
- Measurement of electrical parameters
- Energy management
- Energy quality
- Energy availability
- Energy storage
- Prevention and repairs
- Measurement and analysis
- Optimisation
- Consultancy, commissioning and training

A worldwide presence

12 production sites

- France (x3)
- Italy (x2)
- Tunisia
- India
- China (x2)
- USA (x3)

28 subsidiaries and commercial locations

- Algeria • Australia • Belgium • China • Canada
- Dubai (United Arab Emirates) • France • Germany
- India • Indonesia • Italy • Ivory Coast • Netherlands
- Poland • Portugal • Romania • Serbia • Singapore
- Slovenia • South Africa • Spain • Switzerland
- Thailand • Tunisia • Turkey • UK • USA

80 countries

where our brand is distributed

HEAD OFFICE

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