SUNSYS STD

Create your energy storage solution
from standard equipment
for on-grid and off-grid applications

When **energy** matters

socomec
Innovative Power Solutions

Socomec, your technology partner for energy storage

As a specialist in energy management, we understand that you strive to offer safe, reliable and standard compliant Energy Storage Solutions and services that will improve your customers' energy performance. Discover SUNSYS STD, the 1st modular system for indoor or outdoor, on or off-grid Energy Storage solutions.

SITE 911 A

Perfectly suited for Commercial & Industrial Building challenges

- Reduce your energy costs by limiting power demand peaks.
- Shift your energy consumption to off peak hours.
- Maximization self-consumption of your renewable energy generation.
- Eliminate your reactive power penalties.
- Increase your EV charging capacity.
- Limit power interruption from blackout or brownouts.
- Benefit from revenues for grid stabilization services.

SITE 1026 A

Unrivalled services for hybrid microgrids

- Supply the microgrid with reliable, high quality energy.
- Manage multiple local production sources.
- Maximize the renewable production.
- Limit greenhouse gases emissions.
- Optimize the diesel generators life time and save money by reducing fuel consumptions.
- Limit noise pollution.

Ensure safety, power quality and continuity of service from your electrical energy storage solution

Safety

A storage system is made of low voltage AC & DC equipment that deserve special attention.

- Full compliance with the LV protection plan for people protection.
- Implementation of a set of devices to guarantee the integrity of electrical equipment (surge arresters, fuses, load break switches, circuit breakers).
- Accurate Power Monitoring based on Diris Digiware multipoint monitoring system.

Power quality

- P/Q regulation for
  - Ensuring the Demand / Response balance.
  - Managing reactive power.
- Voltage and frequency regulation to ensure the quality of the distributed energy compliant with EN 50160 standard (OffGrid applications).
- Permanent power monitoring and metering thanks to DIRIS Digiware.
- Source management with P (f) function for the regulation of renewable energy production, the control of diesel generators and the control of circuit breakers.

SUNSY 298 A GB

Continuity of service

Power backup: multiple islanding options after power interruption without the loss of supply
Modular and redundant hardware :

- Distributed and modular architecture for connection between converter and battery to ensure maximum operation.
- Maximize storage converter efficiency and lifetime with Dynamic Power Control function.
- Independent hot swappable power modules for maintenance operation without interruption.

Specific consideration for Lithium-Ion Batteries

- Power converters with the lowest common mode noise on the market, preserving battery integrity.
- Insulation monitoring on DC side.
- Recording and monitoring of battery data.

And for configurations delivered in fully integrated outdoor containers

- Specific Battery compartment with external access.
- Fire detection and extinguishing system.
- Cooling system.

Standards compliant

- Converter product & installation: IEC 62909-1.
- Converter safety: EN 60950-1/A2; EN 62477-1.
- Lithium cells and battery safety: IEC 62619.
- EMC: EN 61000-3-11: EN 61000-3-12/ EN 61000-6-2/EN 61000-6-4.
- Interconnection & interoperability: IEEE 1547.
- Grid code: contact us to discuss your specific Grid Code requirement.

SUNSYS STD
Energy storage modular architecture
From 33 to 400 kVA/92 to 730 kWh

SUNSYS STD is constructed of standard equipment: bi-directional converters, battery racks, AC & DC protection panels and with an unique Power Management System, able to operate independently or easily integrated to your EMS.

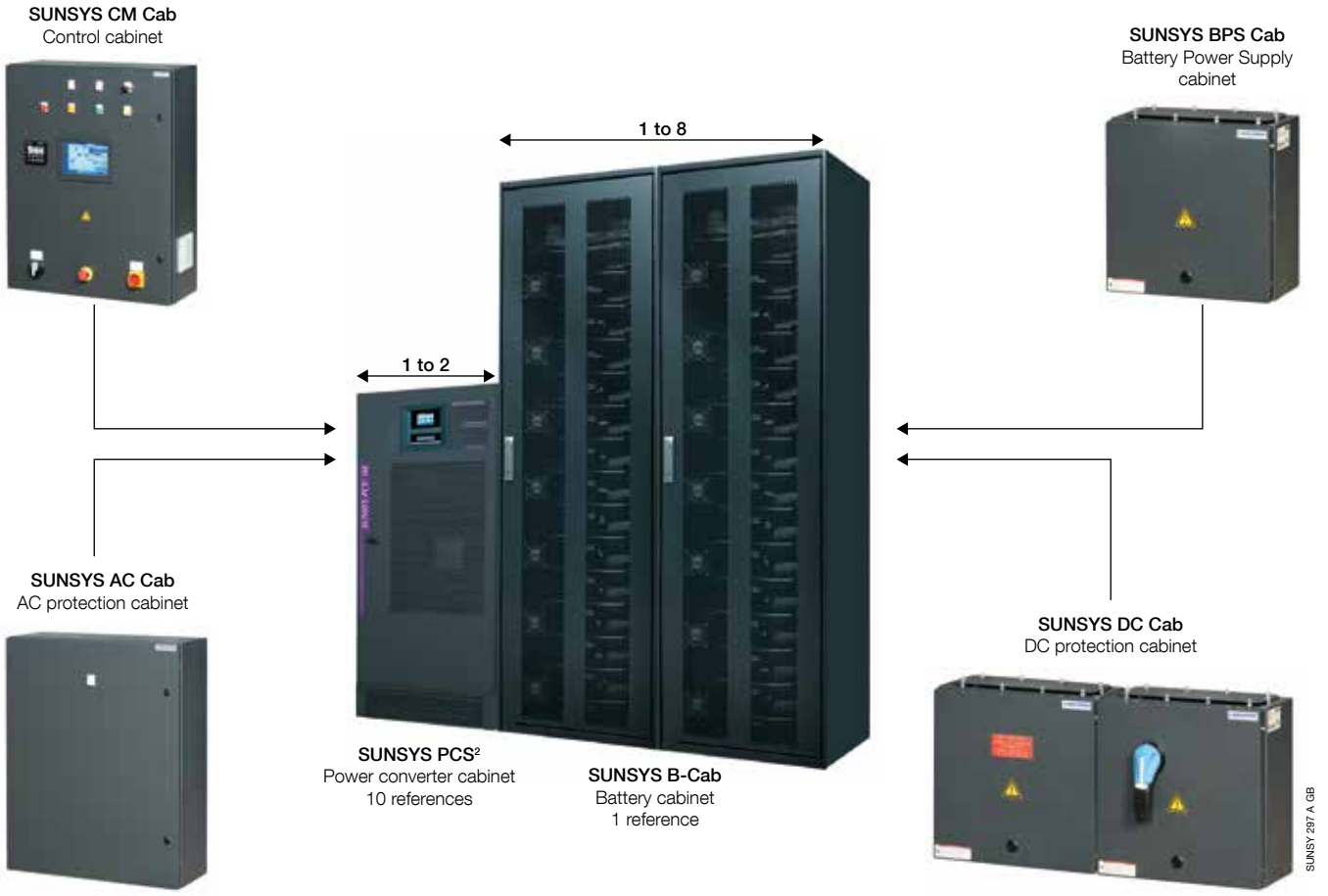
A complete offer

Custom with standard equipment
Equipment can be combined in a multitude of configurations, from 33 to 400 kVA, and from 92 to 730 kWh, suitable for most microgrid and C&I applications.

Shorter project lead time
Based on standard equipment and pre-tested configurations, the design and quotation, installation and commissioning process is much faster.

Tested, validated and documented
Each configuration is tested and documented, making electrical & mechanical installation fast and safe and easy to maintain.

On-site commissioning
Socomec experts attend site to commission each installation and for any last minute trouble shooting.



Energy storage services

Our standard equipment and various configurations are able to perform the state of the art Energy Storage functionalities to maximize the return on investment.

On-grid functions

Peak shaving Limit power demand of the grid to a maximum value	• Eliminate penalties in case of higher power demand
Energy shifting Shift energy consumption over time	• Store grid energy when the price is low and consume it when price is high (Price arbitrage) • Increase energy supply during periods of high demand (example EV Charging)
Self-consumption Maximize the consumption of the energy produced locally	• Reduce the energy bill by consuming renewable energy cheaper than the energy drawn from the grid
Power Factor Correction Consumes and injects reactive power, in accordance with the grid code	• Eliminate reactive power penalties
Grid services Help operators to stabilize the grid by drawing or injecting energy	• Generate additional revenue (participation in tenders from grid operators or aggregators for voltage/frequency regulation, demand/response programs or capacity market)

Full off-grid functions

Voltage & frequency regulation Guarantee the power quality of the microgrid in accordance with the standard EN 50160	• Ensure the proper functioning of the microgrid • Optimize the lifetime of the electrical equipment
Production/consumption balancing Use the storage system as microgrid balancing means by charging or discharging the battery	• Stabilize the microgrid • Avoid blackout
PV production control Control PV production with P(f) function	• Microgrid stabilization by balancing production
Diesel generator control Limit the use of the diesel generator and only to nominal power	• Increase the genset lifetime • Reduce fuel consumption
Black start Manage startups depending on production sources and loads	• Guarantees the start of microgrids disconnected from the grid • Optimize the lifetime of the electrical equipment

Resilience functions

Unplanned islanding Manage grid disconnection after grid failure, black start and grid coupling in accordance with the grid code, thanks to the synchro-coupling card	• Backup and grid coupling without interruption
Planned islanding Manage a planned islanding with a P=0 function and a grid coupling, thanks to the synchro-coupling card	• Totally transparent backup for the electrical system

Select your integration mode

Indoor building integration

Installation and cabling performed by the integrator in accordance with Socomec guidelines.

- Delivery of standard equipement.
- Full documentation including Installation guides, Electrical wiring diagrams, Cabinet drawings, Recommendations for the cooling and fire safety systems.
- Site acceptance tests and commissioning.

Outdoor integration in 10 and 20 Ft containers

Fully integrated solution provided by Socomec.

- Integration of an insulated container with all storage equipment, fire safety system, cooling service, lighting.
- Factory acceptance tests.
- Delivery to customer site.
- Full solution documentation and grid connection grid connection guidelines.
- Site acceptance tests and commissioning.

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

If you have a specific project?
If you would like to become a preferred partner of Socomec?
If you would like to know more about our possible configurations and standard equipment features and characteristics?

Our team of dedicated ESS specialists will enjoy discussing this with you!
To contact us, scan the QR code or visit us at www.socomec.com/ess

Scan me

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