

# UPS and Critical Power Solutions



POWER  
CONVERSION

2025  
2026

When **energy** matters



When **energy** matters

 **socomec**  
Innovative Power Solutions

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## Ultimate

### Fault-tolerant power without compromise

Modular and redundant solutions strongly designed to anticipate an event and predict a fault in order to ensure maximum availability.



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### Optional services for maintenance contract

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## Superior

### Unrivalled power performance

Best-in-class solutions with certified performance, tailored to optimise the usage for a profitable Total Cost of Ownership (TCO).



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### Optional services for maintenance contract

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High performance UPS  
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## Prime

### Trustworthy power

UPS and AC/DC solutions providing a reliable and cost effective protection to assure operational power continuity.



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## Complementary solutions

Innovative back-up storage solutions for UPS systems, Power Distribution Units to distribute electricity to servers and IT equipment, communication and connectivity solutions for system management and data integrity.

### Communication and connectivity

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## Manufacturer maintenance and services

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### Optional services for maintenance contract

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### Customer training

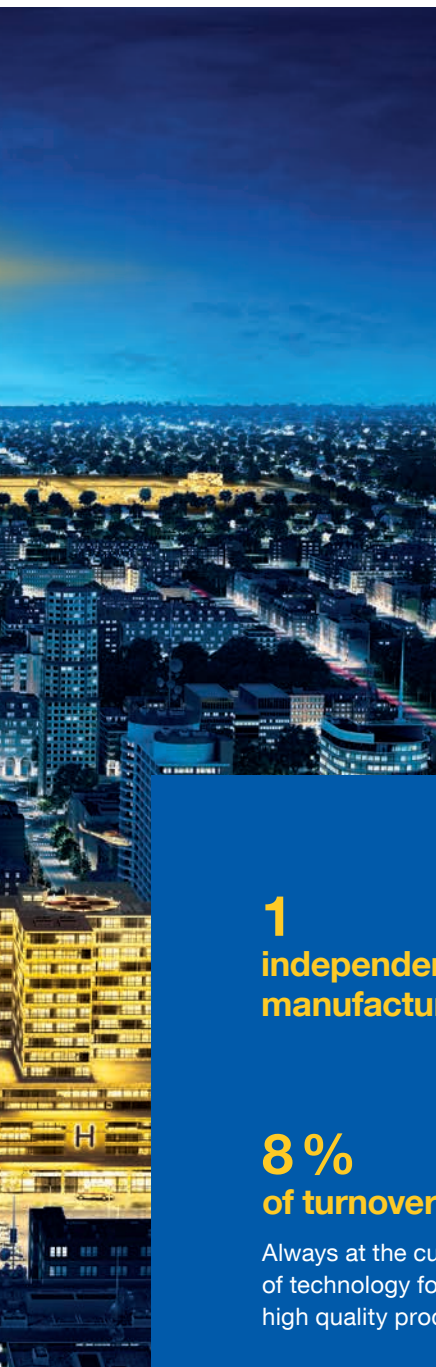
For STATYS Static Transfer System (STS) ... p.133

Ensuring the energy performance  
of your installations,  
wherever it is critical

When **energy** matters







SYD/514

**For more than a centenary, Socomec, a family-owned industrial group, has been designing, manufacturing and selling electrical equipments: inverters, measuring stations, energy storage, switches, automatic source switches...**

**With a strong expertise in critical power applications, Socomec is an innovative player in energy transition and renewable energy.**

Throughout its history, Socomec has constantly anticipated market changes by developing cutting-edge technologies, providing solutions that are adapted to customer requirements and fully in keeping with international standards. Expert in electrical networks and installations performance, Socomec improve the energy efficiency of electrical installations wherever it is critical: industry, infrastructure, healthcare, data center, energy and C&I buildings. With 12 production sites, 30 subsidiaries, products and services distributed in 80 countries by more than 100 distributors, Socomec accompanies you for a more secure, flexible and efficient energy.

**100 years**  
OF SHARED ENERGY

**1**  
**independent**  
**manufacturer**

**3,500 m<sup>2</sup>**  
**of test platforms**

One of the leading independent power testing labs in Europe

**8 %**  
**of turnover invested in R&D**

Always at the cutting-edge of technology for innovative, high quality products

**110,000**  
**on-site interventions per year**

Nearly 400 experts in commissioning, technical audit, consultancy and maintenance

# Your energy, our expertise



## Power switching

### Managing power and protecting people, equipment and installations

Active in the industrial switching market since its foundation in 1922, Socomec is today an undisputed leader in the field of low voltage switchgear, providing expert solutions that ensure:

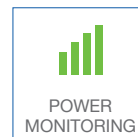
- isolation and on load breaking for the most demanding switching applications,
- continuity of the power supply to electrical facilities via manual remotely operated or automatic transfer switching equipment,
- protection of persons and assets via fusebased and other specialist solutions.

## Power monitoring

### Improving energy performance and monitoring installations

Socomec solutions - from current sensors to power meters and from IOT to energy management software - are driven by experts in energy performance. They meet the requirements of facility managers and operators of commercial, industrial and critical buildings to enable and facilitate:

- the measurement of energy consumption, the identification of sources of excess consumption and the generation of awareness amongst occupants as to their impact,
- the utilisation of the best available tariffs, utility bill checks and the accurate distribution of energy billing between consumer entities,
- the limitation of reactive energy and avoidance of associated tariff penalties,
- capacity management and the evolution of the electrical installation,
- improvements to power availability by monitoring and detecting insulation faults.







# Power conversion

## Ensuring the availability and storage of high quality power

With its wide range of continuously evolving products, solutions and services, Socomec are recognised experts in the cutting-edge technologies used for ensuring the highest availability of the electrical power supply to critical facilities and buildings, including:

- static uninterruptible power supplies (UPS) for high-quality power free of distortions and interruptions occurring on the primary power supply,
- changeover of static, high availability sources for transferring the supply to an operational back-up source,
- permanent monitoring of the electrical facilities to prevent failures and reduce operating losses,
- energy storage for ensuring the proper energy mix of buildings and for stabilisation of the power grid.

# Expert services

## Enabling available, safe and efficient energy

Socomec is committed to delivering a wide range of value-added services to ensure the reliability and optimisation of end-users' equipment:

- prevention and service operations to lower the risks and enhance the efficiency of operations, for high-quality power free of distortions and interruptions occurring on the primary power supply,
- measurement and analysis of a wide range of electrical parameters leading to recommendations for improving the site's power quality,
- optimisation of the total cost of ownership and support for a safe transition when migrating from an old to a new generation of equipment,
- consultancy, deployment and training from the project engineering stage through to final procurement,
- performance assessment of the electrical installation throughout the life cycle of the products via analysis of data transmitted by connected devices.





# Your partner in expert services

**Socomec is committed to delivering a wide range of value-added services to ensure the reliability and optimisation of end-users' equipment during its life cycle**

- Prevention and service operations to reduce risk and enhance equipment efficiency.
- Measurement and analysis of a wide range of electrical parameters leading to recommendations for power quality improvement.
- Consultancy, deployment and training from the project engineering stage to the final procurement stage.



## Specialists - at your service

Our Services team comprises qualified engineers whose mission is to ensure the correct operation of your equipment. We offer a comprehensive support service package which gives you complete peace of mind: commissioning, on-site testing, preventive maintenance visits, 24-hour call out and rapid on-site repairs, original spare parts, power quality and energy efficiency audits, consultancy, design and implementation of installation modifications and updates.

Our Services team is the most reliable partner when it comes to advising you on the maintenance of Socomec equipment and providing resolution to any problems in accordance with current environmental standards and procedures.



## Professional tools

Our Services team is provided with the latest essential equipment including:

- Personal Protective Equipment (protective goggles, helmet, insulated gloves, fireproof jacket, safety shoes, earplugs...),
- laptop embedded with all software required to optimise equipment performance,
- measuring equipment calibrated annually by our metrology department (multimeter, digital scope, current clamps, infra-red camera, power analyser).



## Reports

An exhaustive report is generated for each intervention (including commissioning, preventive maintenance and troubleshooting) which is then automatically sent to the customer and synchronised with our systems.



## Remote diagnostics

In case of any anomaly, an automatic notification is sent to a local call centre for proactive online troubleshooting.



## Availability of original spare parts

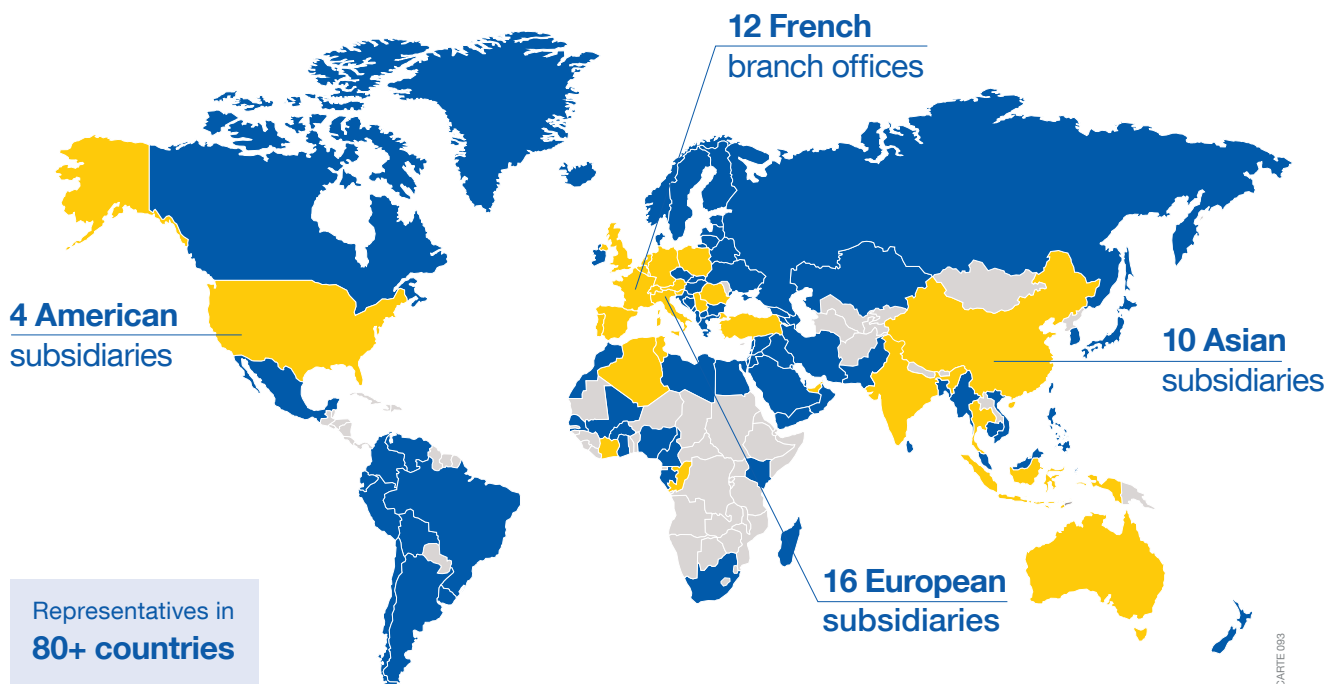
The various original parts and components that we stock guarantee that any faulty equipment can be rapidly brought back online, whilst maintaining its original performance and reliability.



## Key figures

Nearly 400 Socomec experts - supported by 200 engineers and technicians from across our distributor network - can provide the solutions to your specific needs.

- Subsidiaries
- Distributors
- Contact us



### On-site service management



**110,000**

service operations per year  
(mainly preventive visits)

**98%**

Service Level Agreement  
compliance rate

### Technical hotline network



**25+**

languages spoken

**3**

advanced technical support centres

**110,000+**

incoming calls handled per year

### Certified expertise



**8,000**

hours of technical training  
undertaken every year  
(product, methodology and safety)

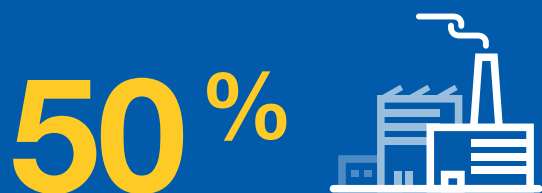
# A company committed to sustainable growth for nearly 20 years



“Our family-owned and independent Group is founded on its culture and values. We favour a mid to long-term vision for the company that will assure sustainable growth whilst respecting the interests of people, society and the environment. Aware of current environmental and societal challenges and the company responsibility, CSR was integrated as one of the pillars of the Group’s new Strategy during its 2021 recast.”

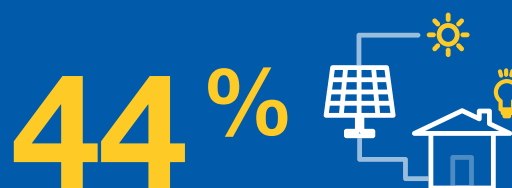
**Ivan Steyert**  
Chairman & CEO

## Sustainability key facts



**50 %**

**of production sites** have  
**ISO 14001** certification  
Target 2030: 100%



**44 %**

**of renewable energy**  
in the group total  
electricity consumption



**73 %**

**of recovery** of group  
total industrial waste  
Target 2030: 80%



## A “Gold” supplier according to EcoVadis



Now that corporate responsibility has taken a prominent place in the media and in societal challenges, it has become essential to provide a fact-based overview of a company's commitment, actions and results in sustainability. Since 2014, Socomec has decided to be audited by EcoVadis, an agency specialising in corporate social responsibility.

The assessment given by EcoVadis has enabled Socomec to identify its areas for improvement and to implement appropriate action plans.

**In 2023, Socomec obtains a score of 73/100**, based on 2021 data, and maintains its position in the **top 5% of companies assessed by EcoVadis** (100,000 companies audited across all sectors). EcoVadis reinforces its audit each year: recently the requirements concerning the fight against climate change increased.

## A United Nations Global Compact engagement since 2003

Socomec is committed to respecting and promoting the fundamental principles of international laws:

- Universal Human Rights
- International Labour Principles and Rights
- The Rio Declaration on the Environment and Development
- The United Nations Convention against Corruption



Among the 17 Sustainable Development Goals (SDGs), Socomec undertakes to meet 10 of the agenda 2030 goals.



**A department dedicated to the eco-design of our products**

**90 %**



**completion rate** for the annual people engagement survey workplace

**75 %**



**PEP  
ECO  
PASS  
PORT®**

**of turnover** made by manufactured product ranges covered by a PEP

Target 2030: 100%

Certified  
**Top Employer**

**France 2023**

Data 2023

# Expert in power conversion

maximising power quality and availability



**3 levels of protection**  
according to your criticality

**Prime | Superior | Ultimate**

## Socomec at the forefront of innovation

### European design and production

Socomec's products are designed and developed by our talented team of in-house engineers with their real depth and wide knowledge in power electronics and digital controls. Our expertise in manufacturing - combined with the use of only the highest quality components in the most efficient production and testing processes - means that when it comes to reliability our products are unrivalled.

### Socomec factories join the digital world

Since 2014, Socomec has been investing to bring its manufacturing facilities in line with industry 4.0 standards. Beyond lean manufacturing, the digitalisation of production means that we can ensure the delivery of a competitive offering with continuously improving service levels whilst also supporting the creation of more personalised products.

### Factory Acceptance Test (FAT)

The FAT service is available to all customers who want to audit their order before it leaves the factory. With the support of Socomec Platform Engineers and dedicated infrastructure, several live product tests are available, including:

- standard tests to verify product performance,
- custom tests according to your precise requirements.



**ELITE UPS:**  
a mark of  
efficiency

Socomec, as CEMEP UPS manufacturer member, has signed a Code of Conduct put forward by the Joint Research Centre of the European Commission (JRC), to ensure the protection of critical applications and processes ensuring 24/7 continuous high quality supply. The JRC commits to mitigating energy losses and gas emissions caused by UPS equipment, therefore maximising UPS efficiency.

## 3 levels of UPS protection to keep your business up and running



**PRIME**

### Trustworthy power

Reliable and cost effective UPS to assure operational continuity.



**SUPERIOR**

### Unrivalled power performance

Best in class & certified UPS performance to optimise usage and Total Cost of Ownership (TCO).



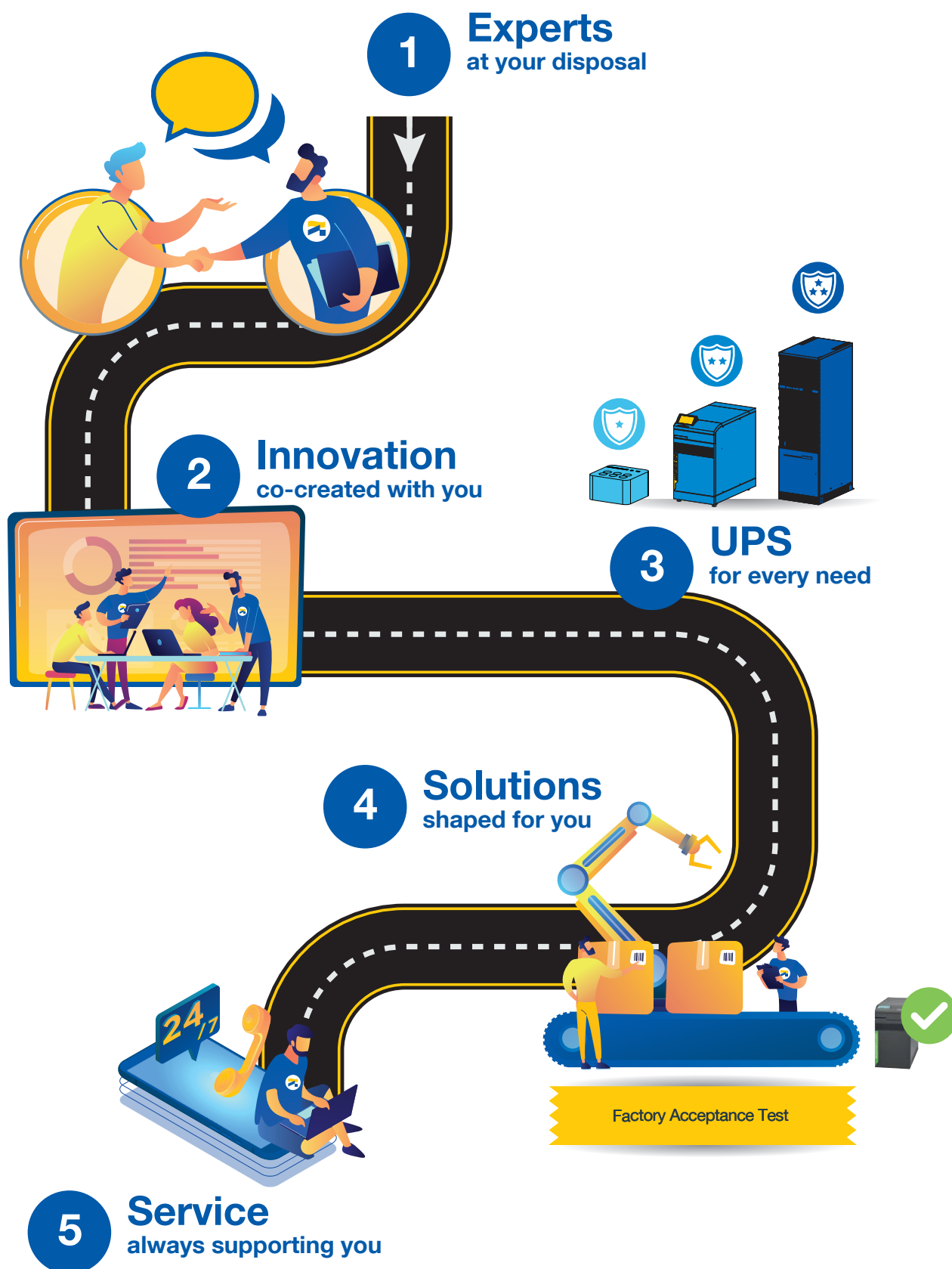
**ULTIMATE**

### Fault tolerant power without compromise

Ultimate UPS with fully redundant architecture for maximum availability, minimum MTTR and risk free maintenance.

# Supporting your projects

anytime, anywhere, every time





# Connected services

Digital platforms for UPS selection, installation and operation



## Selection

### *UPS selector*

Choose the ideal UPS solution  
for your application  
- today and tomorrow  
- from 600 VA to 120 kVA



## Design

### *eRULER*



eRULER specifies the key  
electrical and physical  
parameters to prepare and size  
the UPS installation

## Installation

### *eWIRE*

eWIRE application provides clear and  
comprehensive guidance via your mobile  
phone for an easy and foolproof  
UPS installation activity



## Operation

### *SoLive UPS*

SoLive UPS is a mobile application to  
monitor the UPS:

- Overview of all installed units
- Real-time alarm and notification
- Dashboard with operating parameters



## Maintenance

### *SoLink*

SoLink is the Socomec 24/7  
Remote Monitoring Service  
connecting your UPS to the  
nearest Socomec Service Centre



“ By combining the SoLive UPS mobile app with SoLink, I can now dramatically reduce my MTTR and maximise my uptime. ”





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or object to mirror  
\_mod.mirror\_object

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or_mod.use_y = False  
or_mod.use_z = False  
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or_mod.use_x = False  
or_mod.use_y = True  
or_mod.use_z = False  
eration == "MIRROR_Z":  
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or_mod.use_y = False  
or_mod.use_z = True
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or X"
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# Ultimate

## UPS - Modular solutions



**MODULYS XS**  
2,5 to 20 kVA  
*p. 18*



**MODULYS GP**  
25 to 200 kVA/kW  
*p. 22*



**MODULYS XM**  
up to 2 MW  
*p. 28*



**MODULYS XL**  
200 to 4800 kVA/kW  
*p. 32*

## STS - Static Transfer System



**STATYS**  
200 to 1600 A  
*p. 38*



**STATYS Chassis**  
200 to 1800 A  
*p. 40*



**STATYS Rack**  
32 to 100 A  
*p. 42*



**STATYS HC**  
63 to 100 A  
*p. 44*

## Fault-tolerant power without compromise



Modular and redundant solutions strongly designed to anticipate an event and predict a fault in order to ensure maximum availability.

## Optional services for maintenance contract

Power module as a spare for MODULYS XL modular UPS system

# MODULYS XS

The ultimate modularity for the most critical environments  
from 2.5 to 20 kVA/kW



View our video  
to discover more

## Function

Designed with no single point of failure, the MODULYS XS offers high availability and redundant power supply to very critical applications.

With its flexible modularity providing seamless and risk-free power scalability up to 20 kW, the MODULYS XS range is the ideal solution for unscheduled site upgrades or incremental power evolutions. The installed power can be increased up to 20 kW by adding hot-swap plug-in power modules for incremental steps of either 2.5 kW or 5 kW.

## Advantages

### Fully modular system

- Pluggable and hot-swapped power module with system's self-setting during installation.
- All the modules can be swapped without switching to external manual bypass.
- Hot swappable battery module designed to be installed with power module in the same UPS enclosure.

### 'Forever Young' concept

- Eliminates end-of-life criticality.
- Module compatibility guaranteed for 20+ years.
- Allows for the implementation of future module technology.

### Totally redundant design

- N+1, N+X redundancy level.
- Totally independent power modules to avoid any single point of failure.
- Real selective module disconnection with galvanic separation.
- Distributed parallel control.

### Enhanced serviceability performance

- Fast & safe maintenance based on hotswap modules.
- Designed for concurrent maintenance.

## The solution for

- > Healthcare
- > Industry

## Strong points

- > Fully modular system
- > 'Forever Young' concept
- > Totally redundant design
- > Enhanced serviceability performance

## Conformity to standards

- > IEC 62040-1, IEC 62040-2
- > CE
- > RCM
- > EAC

## Certifications and attestations



MODULYS XS is certified by TÜV SÜD with regard to product safety (EN 62040-1)



## Advantages



## SoLive UPS





## General characteristics

- Dual input mains.
- Built-in backfeed protection.
- EPO (Emergency Power Off).
- EBS (Expert Battery System) for battery management.
- Tropicalised (Conformal Coating) boards.

## Standard communication features

- User-friendly 7" touch-screen multilingual colour graphic display (MC models).
- LCD multilingual graphic display (RM & TC models).
- 2 slots for communication options.
- USB port to download UPS report and log file.
- Ethernet port for service purpose.

## Communication options

- Dry-contact interface (configurable voltage-free contacts).
- MODBUS RTU RS485 or MODBUS TCP.
- BACnet/IP interface.
- NET VISION: professional WEB/SNMP Ethernet interface for secure UPS monitoring and remote automatic shutdown.
- IoT gateway for Socomec cloud services and SOLIVE UPS mobile app.
- Remote touch-screen panel.

## Remote monitoring and cloud services

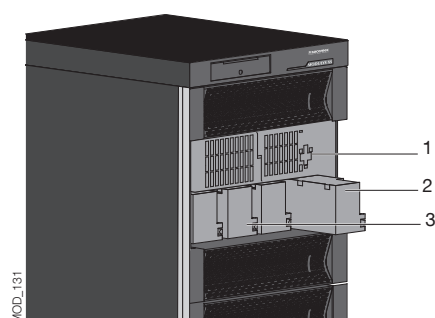
- SoLink: Socomec 24/7 remote monitoring service connecting your installation to the nearest Socomec Service Centre.
- SoLive UPS: mobile app enabling the monitoring of the UPS systems from a smartphone.

## Technical data

| MODULYS XS <sup>(1)</sup>     |   |                                                            |      |      |              |
|-------------------------------|---|------------------------------------------------------------|------|------|--------------|
| UPS SYSTEM                    |   |                                                            |      |      |              |
| Model                         |   | MC                                                         |      | RM   |              |
| Power slot                    |   | 9                                                          | 6    | 4    | 3            |
| Power (Sn)                    |   | up to 20 kVA                                               |      |      | up to 15 kVA |
| Power (Pn)                    |   | up to 20 kW                                                |      |      | up to 15 kW  |
| Power factor                  |   | 1                                                          |      |      |              |
| Number of power modules       |   | 4                                                          |      |      | 3            |
| Input/Output                  |   | X/1                                                        |      |      |              |
| Redundant configuration       |   | N+x                                                        |      |      |              |
| INPUT                         |   |                                                            |      |      |              |
| Rated voltage                 |   | 230 V 1ph+N (±20%), 400 V 3ph+N (±20%)                     |      |      |              |
| Frequency                     |   | 50/60 Hz ±10%                                              |      |      |              |
| Power factor                  |   | > 0.99                                                     |      |      |              |
| OUTPUT                        |   |                                                            |      |      |              |
| Voltage                       |   | 230 V (1ph) ± 3% (can be set 208/220/240 V)                |      |      |              |
| Frequency                     |   | 50/60 Hz ±2% (±0.1% in battery mode)                       |      |      |              |
| Overload                      |   | 110% for 1 minutes, 130% for 10 seconds, 200% for 5 cycles |      |      |              |
| BYPASS                        |   |                                                            |      |      |              |
| Voltage                       |   | rated output voltage ±15%                                  |      |      |              |
| Frequency                     |   | 50/60 Hz ±2% (configurable for GenSet compatibility)       |      |      |              |
| EFFICIENCY                    |   |                                                            |      |      |              |
| Online double conversion mode |   | up to 92.8%                                                |      |      |              |
| ENVIRONMENT                   |   |                                                            |      |      |              |
| Ambient temperature           |   | 0 to 40 °C (15 to 25 °C for maximum battery life)          |      |      |              |
| Relative humidity             |   | 0 to 95% without condensation                              |      |      |              |
| Maximum altitude              |   | 2000 m without derating                                    |      |      |              |
| UPS CABINET                   |   |                                                            |      |      |              |
| Display                       |   | 7" touch                                                   |      | 3.5" |              |
| Dimensions (mm)               | W | 550                                                        | 550  | 449  | 449          |
|                               | D | 635                                                        | 635  | 570  | 570          |
|                               | H | 1460                                                       | 1060 | 708  | 575          |
| Weight (kg) (empty cabinet)   |   | 120                                                        | 90   | 50   | 44           |
| Colour                        |   | RAL 7016                                                   |      |      |              |
| Degree of protection          |   | IP20                                                       |      |      |              |
| STANDARDS                     |   |                                                            |      |      |              |
| Safety                        |   | IEC 62040-1: 2017 (CB Report)                              |      |      |              |
| EMC                           |   | IEC 62040-2: 2005                                          |      |      |              |
| Product declaration           |   | CE, RCM (E2376), UKCA, EAC                                 |      |      |              |

(1) Longer back-up time available on demand.

## Unit dimensions and weights



1. Plug-in Power Module
2. Plug-in Battery Module
3. Plug-in Battery Pack

|                           | POWER MODULES |             |
|---------------------------|---------------|-------------|
| Power (kVA/kW)            | 2.5           | 5           |
| Input/Output              | 1/1           | X/1         |
| Dimensions (mm) W x D x H | 446x475x131   | 446x475x131 |
| Weight (kg)               | 14            | 18          |

|                           | BATTERY MODULE |
|---------------------------|----------------|
| Battery voltage           | 48 V           |
| Dimensions (mm) W x D x H | 446x475x131    |
| Weight (kg)               | 10             |

|                 | BATTERY PACK                               |
|-----------------|--------------------------------------------|
| Type            | sealed lead-acid (normal-life & long-life) |
| Battery voltage | 48 V                                       |
| Weight (kg)     | 9                                          |

# MODULYS XS

Single-phase UPS

from 2.5 to 20 kVA/kW

MODULYS XS MC:  
for critical IT & non-IT applications



## Total resilience

- Electronics-free (failure-free) cabinet.
- Totally independent and self-sufficient power modules.
- No centralised control for parallel and load sharing management.

## Maximum availability

- Fast recovery of lost redundancy thanks to minimum MTTR (Mean Time To Repair).
- No risk of downtime during power upgrading and maintenance.
- No risk of failure propagation.

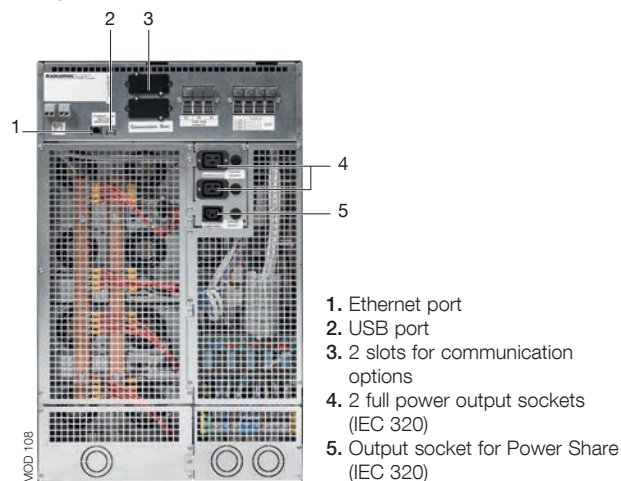
MODULYS XS RM:  
for integration in 19" rack cabin



## Easy to integrate

- Specifically designed for integration in 19" standard rack cabinets.
- Adjustable rails and mounting accessories.
- Easy to manage, integrate and customise.
- Flexible simplified cabling

## Compact sub-rack enclosure

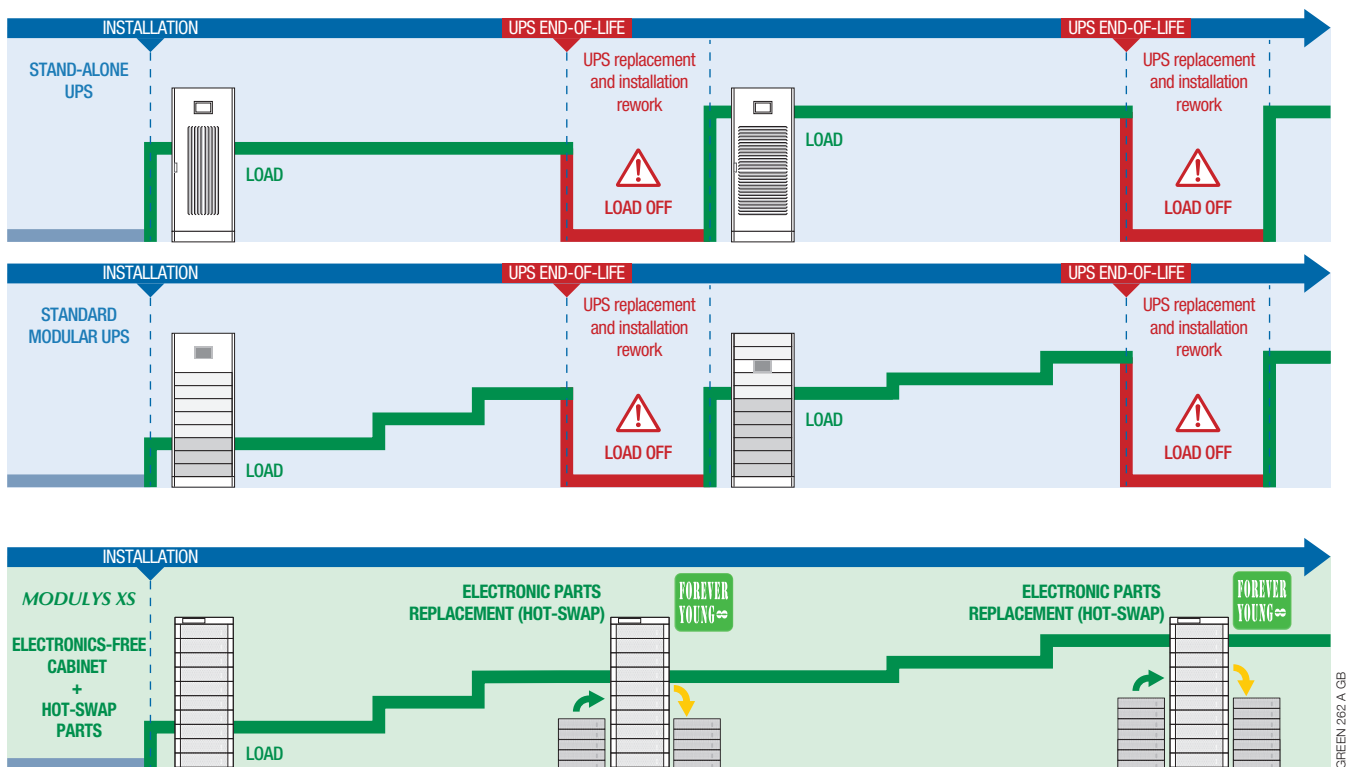


## On-demand solution

For long back-up time, MODULYS XS system can be equipped with high capacity battery for your specific requirement. To discover more, please contact your Socomec expert.

## MODULYS XS "Forever Young" concept

- It eliminates issues surrounding the criticality of the UPS system's end-of-life.
- It is based on:
  - a modular, electronics-free UPS cabinet - thus failure-free and with no ageing,
  - plug-in components - quick and easy to replace avoiding ageing issues.
- It allows the life-cycle of the MODULYS XS to be extended via periodic hot-swap replacement of power modules and other electronic parts before they start to age and wear out.
- Each renewal:
  - ensures a new start for the MODULYS XS system's life-cycle,
  - avoids all the problems and risks associated with substituting the UPS,
  - provides an always up-to-date system, as the new parts will incorporate the latest technology.





# MODULYS GP

Unique, fully modular and redundant solution  
from 25 to 200 kVA/kW



GREEN\_203



View  
our video  
to discover  
more

## Function

With its flexible modularity providing seamless and risk-free power scalability up to 200 kW, the MODULYS GP range is the ideal solution for unscheduled site upgrades or incremental power evolutions. The installed power can be increased up to 200 kW by adding hot-swap plug-in power modules for incremental steps of 25 kW.

Designed with no single point of failure, the MODULYS GP offers all the advantages of the Green Power 2.0 technology.

## Advantages

### Fully modular system

- Plug-in power module.
- Plug-in battery module.
- Plug-in auxiliary mains bypass module.
- Top or bottom connection.
- Top-air exhaust module.

### Totally redundant design

- N+1, N+x redundancy level.
- Designed for no single point of failure.
- No centralised parallel control.
- Totally independent power modules.
- Redundant parallel bus connection (ring configuration).

### Automatic firmware alignment

- Without human intervention.
- Completely risk-free.
- Load protected in inverter mode.

### Enhanced serviceability performance

- Power module automatic firmware alignment.
- Fast & safe maintenance based on hotswap parts (power modules, auxiliary mains bypass, electronic boards).
- Battery can be hot-swapped without shutting down the connected equipment.
- Ready for concurrent maintenance.

### 'Forever Young' concept

- Exclusive life cycle extension programme.
- Eliminates end-of-life criticality.
- Based on an electronics-free cabinet + a set of plug-in parts.
- Module compatibility guaranteed for 20+ years.
- Allows for the implementation of future module technology.
- Company declaration of 20-year compatibility.

## The solution for

- > Healthcare
- > Industry

## Strong points

- > Fully modular system
- > Totally redundant design
- > Automatic firmware alignment
- > Enhanced serviceability performance
- > 'Forever Young' concept

## Conformity to standards

- > IEC/EN 62040-1, IEC/EN 62040-2, IEC/EN 62040-3, IEC 60068-2-57, IEC/EN 62040-4
- > AS 62040.1.1, AS 62040.1.2, AS 62040.2, AS 62040.3
- > CE
- > RCM (E2376)
- > EAC

## Certifications and attestations



Green Power 2.0 MODULYS GP is certified by TÜV SÜD with regard to product safety (EN 62040-1). Green Power 2.0 MODULYS GP efficiency & performance are tested and verified by TÜV SÜD.



SERMA TECHNOLOGIES

Green Power 2.0 MODULYS GP power module MTBF is calculated and verified higher than 1,000,000 hours by SERMA TECHNOLOGIES (IEC 62380)



MODULYS GP has been tested by CESI in compliance with the standard test procedure for the seismic qualification of electrical cabinets. MODULYS GP has successfully passed severe tests to verify its resistance to withstand Zone 4 seismic events.

## Advantages



Ready for Li-Ion battery

### General characteristics

- Dual input mains.
- Internal maintenance auxiliary mains bypass.
- Backfeed protection: detection circuit.
- EBS (Expert Battery System) for battery management.
- Battery temperature sensor.
- Energy saver mode.

### Electrical options

- External battery cabinet.
- High capacity battery charger.
- ACS synchronisation system.
- Internal backfeed isolation device.

### Standard communication features

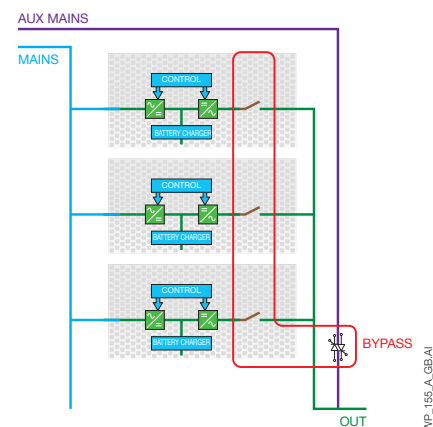
- User-friendly 7" touch-screen multilingual colour graphic display.
- 2 slots for communication options.
- USB port to download UPS report and log file.
- Ethernet port for service purpose.
- Commissioning wizard.

### Communication options

- Dry-contact interface. (configurable voltage-free contacts).
- MODBUS RTU RS485 or MODBUS.
- BACnet/IP interface.
- NET VISION: professional WEB/SNMP
- Ethernet interface for secure UPS monitoring and remote automatic shutdown.
- REMOTE VIEW PRO supervision software.
- IoT gateway for Socomec cloud services and SOLIVE UPS mobile app.
- Remote touch-screen panel.

### Hybrid bypass architecture

- Distributed Inverter bypasses in parallel to segregated centralized Aux Mains bypass creating a redundant solution.



### Technical data

| MODULYS GP<br>UPS SYSTEM      |                                                                     |
|-------------------------------|---------------------------------------------------------------------|
| Power                         | 25 to 200 kVA/kW                                                    |
| Number of power modules       | 1 to 8                                                              |
| Input / output                | 3/3                                                                 |
| Redundant configuration       | N+x                                                                 |
| INPUT                         |                                                                     |
| Voltage                       | 400 V 3ph+N (340 V to 480 V)                                        |
| Frequency                     | 50/60 Hz $\pm 10\%$                                                 |
| Power factor / THDI           | > 0,99 / < 1,5 %                                                    |
| OUTPUT                        |                                                                     |
| Power factor                  | 1 (according to IEC/EN 62040-3)                                     |
| Voltage                       | 380/400/415 V $\pm 1\%$ 3 ph+N                                      |
| Frequency                     | 50/60 Hz $\pm 0,1\%$                                                |
| Voltage distortion            | < 1% (linear load), < 3% (non-linear load according to IEC 62040-3) |
| Overload                      | 125% for 10 minutes, 150% for 1 minute                              |
| BYPASS                        |                                                                     |
| Voltage                       | rated output voltage $\pm 15\%$ (configurable with from 10% to 20%) |
| Frequency                     | 50/60 Hz $\pm 2\%$ (configurable for GenSet compatibility)          |
| EFFICIENCY (TÜV SÜD VERIFIED) |                                                                     |
| Online double conversion mode | up to 96,5 %                                                        |
| ENVIRONMENT                   |                                                                     |
| Ambient temperature           | 0 °C to 40 °C (15 to 25 °C for maximum battery life)                |
| Relative humidity             | 0 to 95% without condensation                                       |
| Maximum altitude              | 1000 m without derating (3000 m max)                                |
| Acoustic level at 1 m         | < 55 dBA                                                            |
| SYSTEM CABINET                |                                                                     |
| Width                         | 600 mm                                                              |
| Depth                         | 890 mm                                                              |
| Height                        | 1990 mm                                                             |
| Weight (empty cabinet)        | 210 kg                                                              |
| Degree of protection          | IP20                                                                |
| STANDARDS                     |                                                                     |
| Safety                        | IEC/EN 62040-1, AS 62040.1.1, AS 62040.1.2                          |
| EMC                           | IEC/EN 62040-2 Class C2, AS 62040.2                                 |
| Performance                   | VFI-SS-111 - IEC/EN 62040-3, AS 62040.3                             |
| Seismic compliance            | Uniform Building Code UBC:1997, CEI 60068-2-57:2013                 |
| Environmental                 | IEC/EN 62040-4                                                      |
| Product declaration           | CE, RCM (E2376), EAC, UKCA                                          |
| POWER MODULE                  |                                                                     |
| Height                        | 3U                                                                  |
| Weight                        | 34 kg                                                               |
| Type                          | Hot plug-in / Hot-swappable                                         |
| MTBF                          | > 1 000 000 hours (calculated and verified)                         |

### Best practice award



Frost & Sullivan has awarded SOCOMECS with its prize for Innovation & Excellence in Developing Scalable, Best-in-Class Products and Solutions.

SOCOMECS's vast expertise and technological know-how in modular UPS solutions have enabled it to develop a new modular, three-phase UPS that employs the latest cutting-edge technology combined in a unique design and architecture.

### Expert services

Our services guarantee the highest level of availability to your UPS:

- Technical advice
- Commissioning
- Manufacturer training
- Maintenance contracts including digital services



### The benefit of a fully modular system

#### Easy to manage

- Totally modular system for power scaling or for quickly adapting to business changes.
- Standardised system and modules covering a wide range of power and back-up times.
- Repeatable and standardised scalable architecture for time-saving design for different configuration & architecture requirements.

#### Pay as you need

- No prior expenditure for unpredictable future extensions in power and back-up time.
- Space saving thanks to reduced footprint and front access.
- Eliminates installation rework costs when new capacity is required from IT physical infrastructure.
- No risk of design oversizing due to project data uncertainty.

#### Everything front-access

- Connections, switches, manual bypass, auxiliary mains static bypass, power modules and all the electric parts have front-access.
- Total footprint is not increased as rear extra clearance for maintenance is not needed.
- Easy, quick, comfortable, safe and risk-free installation and maintenance.
- More reliable system.

### The benefit of a totally redundant design

#### Total resilience

- Electronics-free (failure-free) cabinet.
- Totally independent and self-sufficient modules.
- Real module selective disconnection (automatic inverter bypass with galvanic separation).
- No centralised control for parallel and load sharing management.
- Totally segregated, fully sized and centralised auxiliary mains bypass.
- Configurable N+1 to N+x redundancy (power & battery).
- No single point of failure.
- Redundant parallel bus connection (ring configuration).

#### Optimum reliability

- Power module designed for superior robustness proved by an independent body (MTBF > 1,000,000 hr).
- Hybrid bypass architecture with distributed module's bypass and centralised mains bypass for ultimate reliability and robustness.
- Highly robust auxiliary mains bypass (MTBF > 10,000,000 hr).
- Acid leak-proof modular battery box.

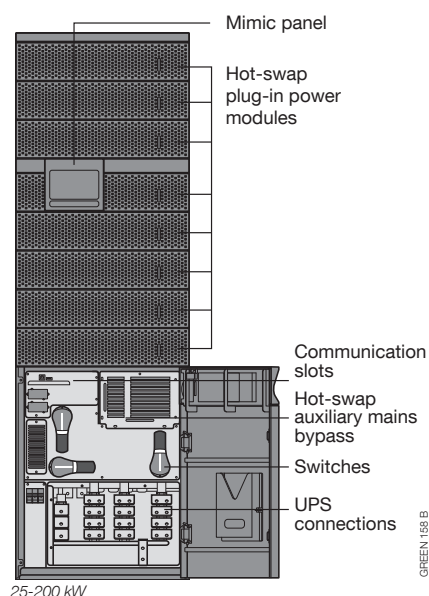
#### Maximum availability

- Fast recovery of lost redundancy thanks to minimum MTTR (Mean Time To Repair).
- No risk of downtime during power upgrading and maintenance.
- No risk of failure propagation.

#### Cost-effective redundancy

- No need to duplicate the system hardware to get redundancy.
- Redundancy achievable simply by adding one more power and battery module.
- Redundancy can be easily combined with power scalability.
- Upgrading and/or power module replacement can be done by simple plug-in without any commands to the system.

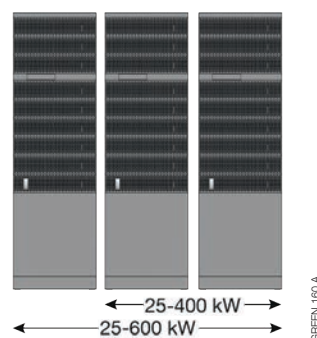
### A flexible modular UPS system



#### Combinable parallel system

Our combinable parallel system enables the creation of a solution that's ideal for:

- the refurbishment of existing installations with distributed protection architecture
- 1+1 redundancy system configuration
- coupling cabinets with specific configuration requirements.



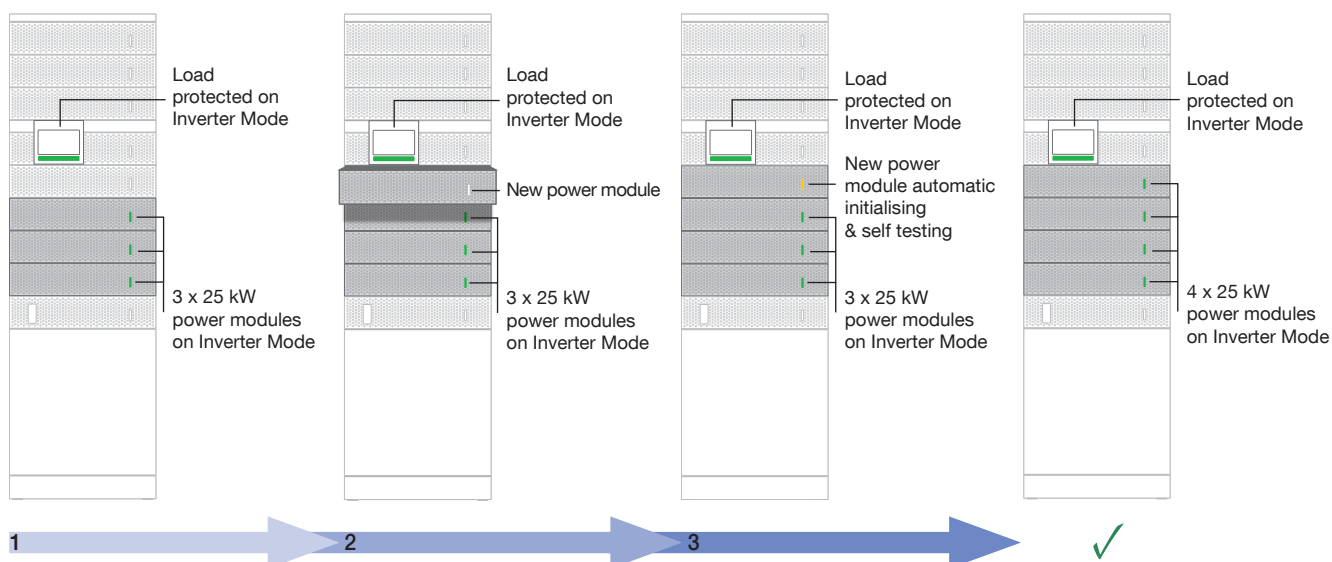


## Seamless and risk-free scalability & upgrading

- MODULYS GP protects critical loads in all conditions, including power upgrading and maintenance procedures.
- No risk of human error and downtime.

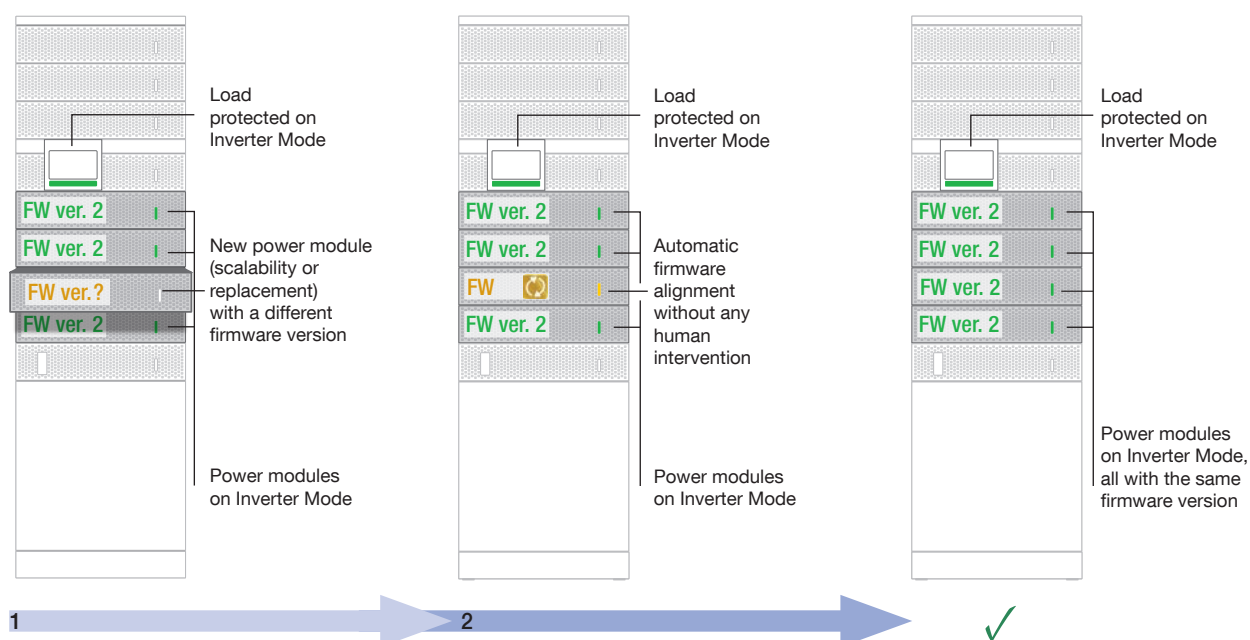
### On-line power scalability

- MODULYS GP allows you to increase power scalability and redundancy while keeping the load protected on inverter mode simply by plugging-in a new power module and waiting for its automatic self-configuration, without any human intervention.



### Power module automatic firmware alignment

- Even the power module firmware alignment is totally risk free.
- When a new power module is plugged in, the system checks what firmware version is embedded and if it is different automatically aligns it to one of the other modules. The load is protected at all times while running on inverter mode.



### On-line global firmware update

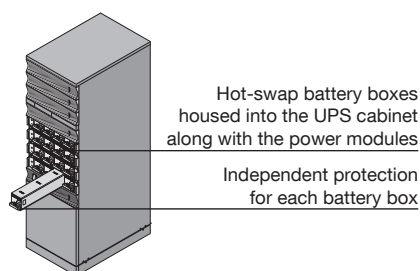
- It is also possible to upgrade the global firmware without switching to bypass to keep the load protected on Inverter mode.
- Automatic procedure for a risk-free firmware upgrade.

### Flexible and modular back-up times

MODULYS GP offers modular solutions to meet all your requirements for back-up times (whether a few minutes or several hours) without compromising flexibility and scalability.

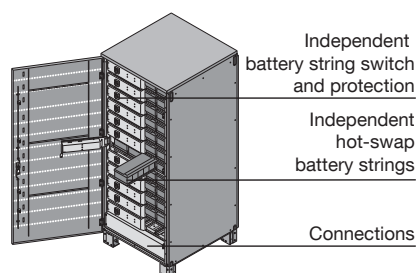
#### Internal hot swap battery

- Designed for short back-up time.
- Long-Life batteries available as standard.
- Compact solution with a small footprint.



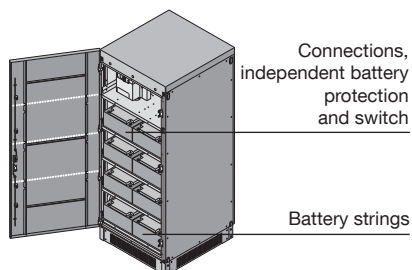
#### Modular hot-swap battery cabinets

- Designed for medium and long back-up times.
- Long-Life batteries available as standard.
- Vertical and horizontal modularity ensuring flexible back-up times.



#### Modular battery cabinet

- Designed for long back-up times.
- Long-Life batteries available as standard.
- Horizontal modularity ensuring flexible back-up times.

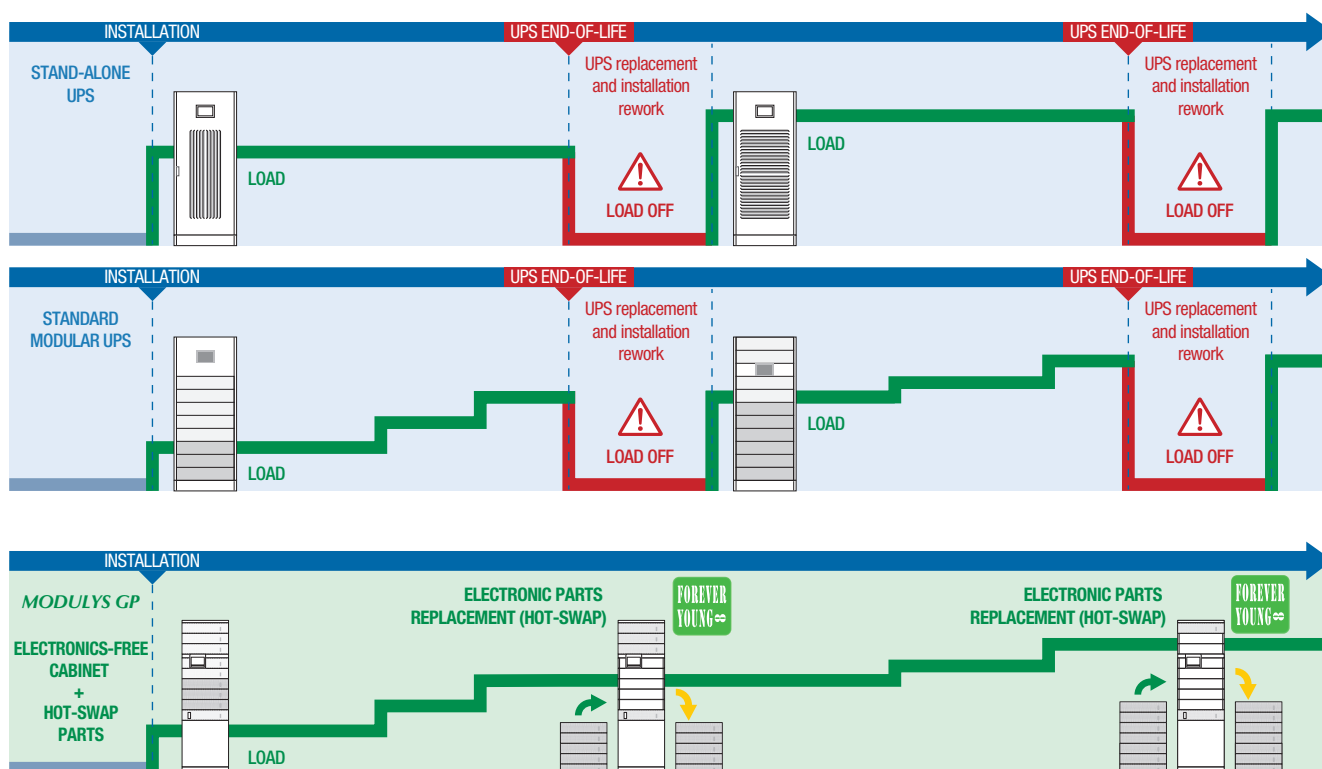


## MODULYS GP "Forever Young" concept

- MODULYS GP excels not only in efficiency, flexibility, capacity management and sustainability - five aspects that are crucial for optimum performance.
- It employs an exclusive concept called 'Forever Young' which allows the life-cycle extension of MODULYS GP and eliminates the criticality of system end-of-life.
- It also keeps the system open for the implementation of future technology improvements without modifying the infrastructure.

The 'Forever Young' concept:

- Is based on electronics-free (failure-free) cabinets where the components that are subject to ageing are all plug-in and therefore quick and easy to replace.
- Allows life-cycle extension via periodic replacement of power modules before they start ageing.
- Provides an always up-to-date system that uses the latest technology.
- Assures power modules and spare part compatibility and availability for more than 20 years.





# MODULYS XM

Ultra-reliable and flexible UPS – built to last  
up to 2 MW



GAMME 382 PSD

## Function

As flexible as it is reliable, the MODULYS XM – a medium power modular UPS - can be configured to order. This smart and modular system has been designed with longevity in mind. With a proven design life of more than 20 years, it's built to last.

## Advantages

### Proven ultimate reliability

- Power modules with more than 1,000,000 h MTBF – 3rd party certified.
- Power modules with embedded upstream and downstream galvanic separation and fast fuses.
- Smart selective disconnection of electronic parts: any potential fault is isolated inside the affected power module, without affecting the remaining modules.
- Totally independent power modules with distributed parallel control (no single point of failure, centralised control).
- Redundant parallel bus connection (ring configuration).

### Minimum MTTR

- Fast and safe maintenance based on parts that can be all hot-swapped (like power modules, auxiliary mains bypass, electronic boards).
- Full frontal access to all components and subassemblies.
- Add or remove power modules in just only 2 minutes.
- Certified by third party for safe and completely automatic hot-swap.
- Automatic power module self-configuration and testing.
- Automatic firmware alignment - whatever the version - without any human intervention.

### High flexibility

- Easy to customise: complete set of preengineered and pre-tested parts to meet any customer need.
- Flexible Bypass short-circuit current withstanding that can be increased with the addition of extra plug-in «Bypass Module».
- Flexible options for top, bottom and mixed top / bottom cabling.
- Flexibility to work on any grounding system: TN-S, TN-C, IT.
- Flexibility in terms of energy storage technologies (VRLA, Li-Ion, Ni-Cd, ...).

### Environmentally friendly

- Reduced ageing: 20 year designed life – that's proven.
- Life cycle extension: "Forever Young" concept: modules and all subassemblies are plug-in, with compatibility guaranteed for 20+ years.
- Eco-design concept: designed with the environment in mind, the system's components are easy to recycle.
- Remote diagnostics and troubleshooting for zero transport-related carbon emissions.

### Parallel capability up to 2 MW

- Up to 6 x 300 kW units or 4 x 500 kW units.
  - Adaptable to all aspects of parallel architecture, various arrangements and designs.
- Whether the project calls for increased capacity, enhanced redundancy or unique parallel configurations, the MODULYS XM is engineered to meet and exceed every requirement, offering a future-proof solution for critical power needs.

## The solution for

- > Data centre
- > Healthcare
- > Energy
- > Infrastructure & Transport
- > Building

## Strong points

- > Proven ultimate reliability
- > Minimum MTTR
- > High flexibility
- > Environmentally friendly
- > Parallel capability up to 2MW

## Conformity to standards

- > EN/IEC 62040-1
- > AS 62040-1 EN/IEC 62040-2
- > AS 62040-2 IECCE CB Scheme EN/IEC 62040-3
- > AS 62040-3

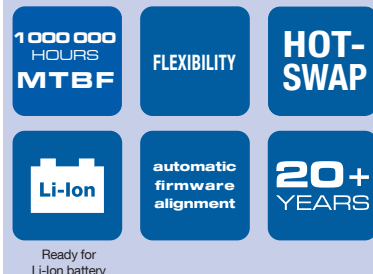
## Certifications and attestations



MODULYS XM is certified by TÜV SÜD with regard to product safety (EN 62040-1)



## Advantages



Ready for Li-Ion battery

## General characteristics

- Dual input mains.
- Internal maintenance auxiliary mains bypass.
- Backfeed protection: detection circuit.
- EBS (Expert Battery System) for battery management.
- Auto battery test.
- Battery temperature sensor.
- Energy saver mode.
- Seismic resistant (certified).

## Electrical options

- ACS synchronisation system.
- Internal backfeed isolation device.
- N+1 Bypass.
- Cold start.
- PEN kit for TN-C grounding system.
- Connection kit for common mains.

## Standard communication features

- User-friendly 7" touch-screen multilingual colour graphic display.
- Power Slot tricolour led indicating the Power Module status.
- 3 slots for communication options.
- USB port to download the UPS reports and log files.
- Ethernet port for service purposes.

## Communication options

- Dry-contact interface (configurable, voltage-free contacts).
- MODBUS RTU RS485 or MODBUS TCP.
- BACnet/IP interface.
- NET VISION: professional WEB/SNMP Ethernet interface for secure UPS monitoring and remote automatic shutdown.
- REMOTE VIEW PRO supervision software.
- IoT gateway for Socomec cloud services and the SoLive UPS mobile app.
- Remote touch-screen panel.

## Technical data

| MODULYS XM                                                          |                                                                     |                             |                                           |                                            |
|---------------------------------------------------------------------|---------------------------------------------------------------------|-----------------------------|-------------------------------------------|--------------------------------------------|
| Architecture                                                        | Modular stand-alone                                                 |                             | Modular units for parallel                |                                            |
| Parallelability                                                     | -                                                                   |                             | up to 6 units                             | up to 4 units                              |
| System capability                                                   | 50 to 250 +50 kVA/kW                                                | 100 to 600 + 50 kVA/kW      | 50 to 1800 kVA/kW                         | 50 to 2000 kVA/kW                          |
| Module power                                                        | 50 kW (up to 40° ambient temperature)                               |                             |                                           |                                            |
| Number of power modules                                             | 1 to 6                                                              | 2 to 13                     | 1 to 6                                    | 1 to 10                                    |
| Input / output                                                      | 3/3                                                                 |                             |                                           |                                            |
| INPUT                                                               |                                                                     |                             |                                           |                                            |
| Voltage frequency                                                   | 400 V 3ph+N (340 V to 480 V) 40/70 Hz                               |                             |                                           |                                            |
| Power factor / THDI                                                 | > 0.99 / < 1.5%                                                     |                             |                                           |                                            |
| OUTPUT                                                              |                                                                     |                             |                                           |                                            |
| Power factor voltage                                                | 1 (according to IEC/EN 62040-3) 380/400/415 V ±1% 3ph+N             |                             |                                           |                                            |
| Frequency                                                           | 50/60 Hz (configuarble) ±0.1% free running                          |                             |                                           |                                            |
| Voltage distortion                                                  | < 1% (linear load), < 3% (non-linear load according to IEC 62040-3) |                             |                                           |                                            |
| Overload                                                            | 125% for 10 minutes, 150% for 1 minute                              |                             |                                           |                                            |
| BYPASS                                                              |                                                                     |                             |                                           |                                            |
| Voltage                                                             | rated output voltage ±15% (configurable from 10% to 20%)            |                             |                                           |                                            |
| Frequency                                                           | 50/60 Hz ±2% (configurable for GenSet compatibility)                |                             |                                           |                                            |
| Bypass short-circuit capability (ITSM)                              | up to 28 kA <sub>pk</sub>                                           | up to 40 kA <sub>pk</sub>   | 15 kA <sub>pk</sub> <sup>(1)</sup>        | 21 kA <sub>pk</sub> <sup>(1)</sup>         |
| EFFICIENCY (TÜV SÜD VERIFIED)                                       |                                                                     |                             |                                           |                                            |
| Online double conversion mode                                       | up to 96.5%                                                         |                             |                                           |                                            |
| SHORT CIRCUIT PERFORMANCE                                           |                                                                     |                             |                                           |                                            |
| Conditional short circuit current (I <sub>cc</sub> ) <sup>(2)</sup> | up to 65 kA <sub>rms</sub>                                          | up to 100 kA <sub>rms</sub> | up to 65 kA <sub>rms</sub> <sup>(1)</sup> | up to 100 kA <sub>rms</sub> <sup>(1)</sup> |
| Short circuit current withstand (I <sub>cw</sub> ) <sup>(3)</sup>   | up to 50 kA <sub>rms</sub>                                          | up to 65 kA <sub>rms</sub>  | up to 50 kA <sub>rms</sub> <sup>(1)</sup> | up to 65 kA <sub>rms</sub> <sup>(1)</sup>  |
| ENVIRONMENT                                                         |                                                                     |                             |                                           |                                            |
| Ambient temperature                                                 | 0 °C to 40 °C (15 to 25 °C for maximum battery life)                |                             |                                           |                                            |
| Relative humidity                                                   | 0 to 95% without condensation                                       |                             |                                           |                                            |
| Maximum altitude                                                    | 1000 m without derating (3000 m max)                                |                             |                                           |                                            |
| Acoustic level at 1 m                                               | < 57 dBA                                                            | < 64 dBA                    | < 57 dBA <sup>(1)</sup>                   | < 62 dBA <sup>(1)</sup>                    |
| SYSTEM CABINET                                                      |                                                                     |                             |                                           |                                            |
| Width                                                               | 600 mm                                                              | 1200 mm                     | 600 mm                                    | 800 mm                                     |
| Depth                                                               | 890 mm                                                              | 950 mm                      | 890 mm                                    | 950 mm                                     |
| Height                                                              | 1990 mm                                                             | 1990 mm                     | 1990 mm                                   | 1990 mm                                    |
| Weight (empty cabinet)                                              | 253 kg                                                              | 675 kg                      | 253 kg                                    | 380 kg                                     |
| Degree of protection                                                | IP20                                                                |                             |                                           |                                            |
| STANDARDS                                                           |                                                                     |                             |                                           |                                            |
| Safety EMC                                                          | IEC/EN 62040-1, AS 62040-1 IEC/EN 62040-2 Class C3, AS 62040-2      |                             |                                           |                                            |
| Performance                                                         | VFI-SS-11 - IEC/EN 62040-3, AS 62040-3                              |                             |                                           |                                            |
| Environmental                                                       | IEC/EN 62040-4                                                      |                             |                                           |                                            |
| Product declaration                                                 | CE, RCM, EAC, CMIM, UKCA                                            |                             |                                           |                                            |
| POWER MODULE                                                        |                                                                     |                             |                                           |                                            |
| Height                                                              | 3U                                                                  |                             |                                           |                                            |
| Weight                                                              | 36 kg                                                               |                             |                                           |                                            |
| Type                                                                | Hot plug-in / Hot-swappable                                         |                             |                                           |                                            |
| MTBF                                                                | > 1 000 000 hours (calculated and verified)                         |                             |                                           |                                            |

(1) For a single unit. (2) According to IEC/EN 62040-1. (3) According to IEC/EN 62040-1 - certified.

## Expert services

Our services guarantee the highest level of availability to your UPS:

- Technical advice
- Commissioning
- Manufacturer training
- Maintenance contracts including digital services

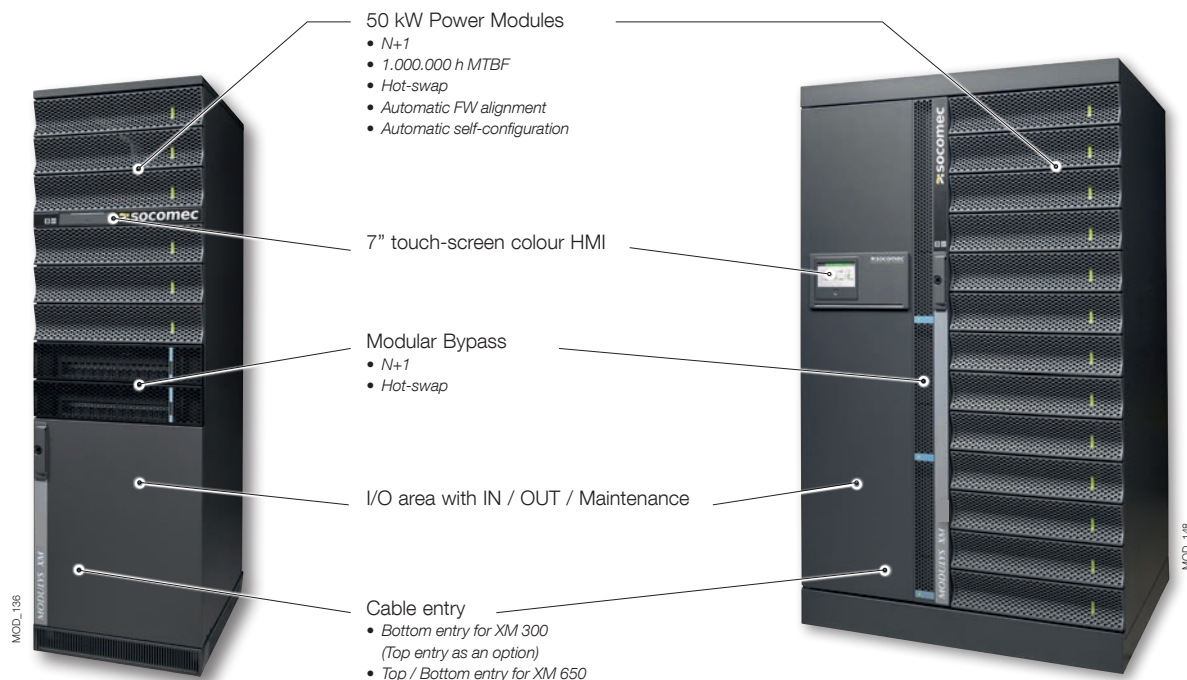


# MODULYS XM

Three-phase UPS

up to 2 MW

## A fully modular system



## The benefit of a fully modular system

### Easy to manage

- Totally modular system ideal for power scaling and quickly adapting to business changes.
- Standardised system and modules covering a wide range of power and back-up times.
- Repeatable and standardised scalable architecture for time-saving designs, ideal for various configuration and architecture requirements.

### Pay as required / Pay for what you use

- No prior expenditure on unpredictable future extensions to power and back-up time.
- Space saving design with reduced footprint and front access.
- Eliminates installation rework costs when new capacity is required from IT physical infrastructure.
- No risk of design oversizing due to project data uncertainty.

### Everything front-access

- Connections, switches, manual bypass, auxiliary mains static bypass, power modules and all the electric parts have front-access.
- Total footprint is not increased as rear extra clearance for maintenance is not needed.
- Easy, quick, comfortable, safe and risk-free installation and maintenance.
- More reliable system.

## The benefit of a totally redundant design

### Total resilience

- Electronics-free (failure-free) cabinet.
- Totally independent and self-sufficient modules.
- Real module selective disconnection (automatic inverter bypass with galvanic separation).
- No centralised control for parallel and load sharing management.
- Totally segregated, fully sized and centralised auxiliary mains bypass.
- Configurable N+1 to N+x redundancy (power & battery).
- No single point of failure.
- Redundant parallel bus connection (ring configuration).

### Optimum reliability

- Power module designed for superior robustness proved by an independent body (MTBF > 1,000,000 h).
- Hybrid bypass architecture with distributed module's bypass and centralised mains bypass for ultimate reliability and robustness.
- Highly robust auxiliary mains bypass (MTBF > 10,000,000 h).
- Acid leak-proof modular battery box.

### Maximum availability

- Fast recovery of lost redundancy thanks to minimum MTTR (Mean Time To Repair).
- No risk of downtime during power upgrading and maintenance.
- No risk of failure propagation.

### Cost-effective redundancy

- No need to duplicate the system hardware to get redundancy.
- Redundancy achievable simply by adding one more power and battery module.
- Redundancy can be easily combined with power scalability.
- Upgrading and/or power module replacement can be done by simple plug-in without any commands to the system.



## Seamless and risk-free scalability & upgrades

- MODULYS XM protects critical loads in all conditions, including power upgrades and maintenance procedures.
- No risk of human error and downtime.

### On-line power scalability

MODULYS XM allows you to increase power scalability and redundancy while keeping the load protected on inverter mode by simply plugging-in a new power module and waiting for it to automatically self-configure, self update the firmware and self test without any human intervention.

### Power module automatic firmware alignment

- Even the power module firmware alignment is totally risk-free.
- When a new power module is plugged in, the system checks which firmware version is embedded and, if it is different, it will be automatically aligned to one of the other modules. The load is protected at all times while running on inverter mode.

### On-line global firmware update

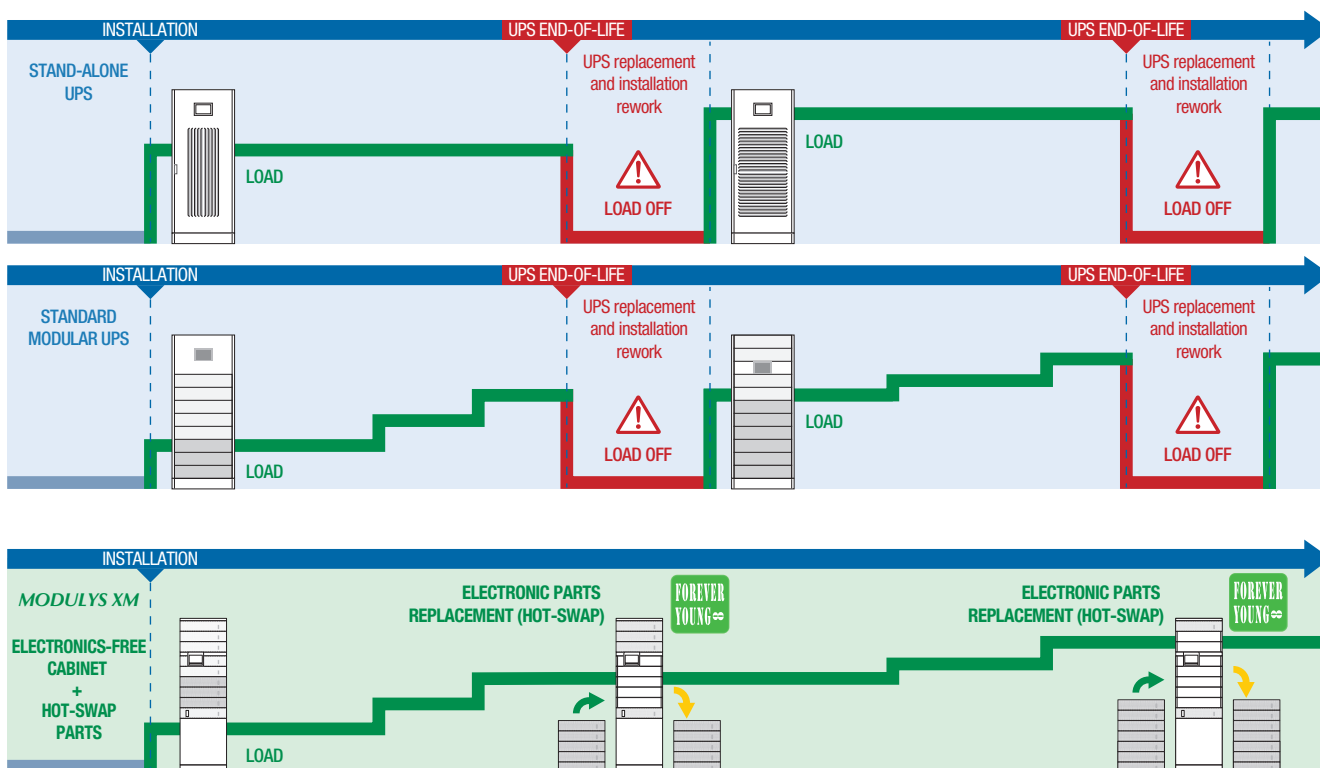
- It is also possible to upgrade the global firmware without switching to bypass to keep the load protected on Inverter mode.
- Automatic procedure for a risk-free firmware upgrade.

## MODULYS XM "Forever Young" concept

- 'Forever Young' is an exclusive concept which extends the life-cycle of MODULYS XM and eliminates the criticality of system end-of-life, via the periodic replacement of power modules and electronic parts before they start to age.
- The concept also keeps the system open to the implementation of future technology improvements without modifying the infrastructure.

The 'Forever Young' concept:

- Is based on electronics-free (failure-free) cabinets where all the components that are subject to ageing are plug-in and, therefore, quick and easy to replace.
- Provides a system that is always up-to-date and uses the latest technology.
- Assures power modules, spare part compatibility and availability for more than 20 years.



# MODULYS XL

The ultimate modularity for the most critical environments  
from 200 to 4800 kVA/kW



## Function

The MODULYS XL is a modular UPS based on 200 kW power modules. The power of a single UPS unit can be increased up to 1200 kW and the system can include up to 4 units in parallel. The innovative MODULYS XL concept allows for the constant protection of the load in online mode, whether to respond to load growth or to manage all aspects of the system's lifecycle, in a secure way and with impressive rapidity.

Associated with a variety of adapted Services, the MODULYS XL provides unprecedented availability and flexibility to fulfil the requirements of today's highly critical applications.

## Advantages

### 3 standard bricks for your very own system

- UPS configurations based on 3 standard bricks for a simplified installation process.
- Repeatable and standardised assets to meet different configuration and architectural requirements.
- An adjustable number of empty power slots to match different scalability and redundancy needs.
- Complete UPS customisation without modifying the core standardised bricks.
- Quality, simplicity of construction and ease of operation.

### 5-minute plug-in

- Power module addition or removal in only 5 minutes by one person.
- Simple and safe power module plug-in: no power or communication bus cabling required.
- Load fully protected in double conversion mode during the power extension or module swap.
- Hot-scale and swap process in incremental steps of 200 kW to reduce time and optimise costs.
- Automatic power module self-configuration and testing before connection.
- Firmware auto-alignment.
- No installation rework when a new capacity is required.
- Off-powered connection of the power module to prevent electrical arcing upon plug-in and plug-out.

### Safe and easy deployment

- Specifically engineered to eliminate unexpected installation errors.
- Easy power slot positioning and perfect alignment including on uneven floors.
- Power slots with pre-engineered builtin bus bars for quick, easy and clean interconnections.
- A full frontal access installation so the UPS can be installed against a wall.
- The power slots set up during the installation stage are ready for future hot plug-in power modules.
- Safe and easy power module handling.
- Full system heat-run test capability during commissioning without the need for an external load bench.

### Concurrent and risk-free maintenance

- Specifically engineered to eliminate unexpected installation errors.
- Easy power slot positioning and perfect alignment including on uneven floors.
- Power slots with pre-engineered builtin bus bars for quick, easy and clean interconnections.
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- Full system heat-run test capability during commissioning without the need for an external load bench.

## The solution for

- > Data centres
- > Buildings
- > Industry

## Strong points

- > 3 standard bricks for your very own system
- > 5-minute plug-in
- > Safe and easy deployment
- > Concurrent and risk-free maintenance

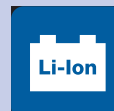
## Compliance with standards

- > IEC/EN 62040-1, IEC/EN 62040-2, IEC/EN 62040-3, IEC/EN 62040-4
- > CE
- > EAC

## Certifications and attestations



## Advantages



Ready for Li-Ion battery

## Expert services

Our services guarantee the highest level of availability to your UPS:

- > Technical advice
- > Commissioning
- > Manufacturer training
- > Maintenance contracts including digital services
- > Optional power module as a spare
- > Optional predictive maintenance of consumables



## General characteristics

- Separated inputs (rectifier, bypass).
- Top or bottom cable entry.
- Backfeed protection: detection circuit.
- Redundant bypass cooling.
- Distributed batteries (1 per module).
- Battery temperature sensor.
- Module heat-run test(3).
- Full system heat run test(3).
- 63 A three-phase plug.

## Standard communication features

- User-friendly 7" touch-screen multilingual colour graphic display (Power Hub).
- Tricolour display with a number indicating the Power Module status (Power Slot).
- 2 slots for communication options.
- USB port to download the UPS reports and log files.
- Ethernet port for service purposes.

## Technical data

| MODULYS XL                                 |                                                                           |
|--------------------------------------------|---------------------------------------------------------------------------|
| <b>UPS UNIT</b>                            |                                                                           |
| Power Module rated power                   | 200 kVA/kW                                                                |
| Unit rated power                           | 200 to 1200 kVA/kW                                                        |
| Number of Power Modules                    | 1 to 6                                                                    |
| Number of Power Slots                      | 1 to 6                                                                    |
| Number of Units per System                 | up to 4 units in parallel                                                 |
| Redundant configuration                    | N+x                                                                       |
| <b>RECTIFIER INPUT</b>                     |                                                                           |
| Voltage                                    | 400 V 3ph (200 to 480 V <sup>(1)</sup> )                                  |
| Frequency                                  | 50/60 Hz $\pm 5$ Hz                                                       |
| Power factor/THDI                          | >0.99 / <2.5% <sup>(2)</sup>                                              |
| <b>OUTPUT</b>                              |                                                                           |
| Power factor                               | 1 (according to IEC/EN 62040-3)                                           |
| Voltage                                    | 400 V 3ph+N (380/415 V configurable)                                      |
| Frequency                                  | 50/60 Hz (configurable) $\pm 0.01$ Hz - free-running                      |
| Voltage distortion (Ph/Ph)                 | ThdU $\leq 1.5\%$ (linear load)                                           |
| <b>BYPASS</b>                              |                                                                           |
| Voltage                                    | Rated output voltage $\pm 15\%$ (configurable)                            |
| Frequency                                  | rated output frequency $\pm 5$ Hz (configurable for Genset compatibility) |
| <b>POWER HUB</b>                           |                                                                           |
| Dimensions W x D x H                       | 1200 x 975 x 2120 mm                                                      |
| Weight                                     | 750 kg                                                                    |
| <b>POWER SLOT</b>                          |                                                                           |
| Dimensions W x D x H                       | 550 x 975 x 2120 mm                                                       |
| Weight                                     | 130 kg                                                                    |
| <b>POWER MODULE</b>                        |                                                                           |
| Dimensions W x D x H                       | 500 x 950 x 1940 mm                                                       |
| Weight                                     | 450 kg                                                                    |
| Type                                       | Hot plug-in / Hot-swappable                                               |
| MTBF                                       | 1,000,000 hrs                                                             |
| Online efficiency (double conversion mode) | up to 97%                                                                 |
| <b>ENVIRONMENT</b>                         |                                                                           |
| Operating ambient temperature              | from 0 °C to +40 °C                                                       |
| Relative humidity                          | 0-95 % without condensation                                               |
| Maximum altitude                           | 1000 m without derating                                                   |
| Acoustic level at 1 m                      | <75 dBA                                                                   |
| Short-circuit withstanding (Icw)           | 100 kA - Symmetrical                                                      |
| <b>STANDARDS</b>                           |                                                                           |
| Safety                                     | IEC/EN 62040-1                                                            |
| EMC                                        | IEC/EN 62040-2                                                            |
| Performance                                | IEC/EN 62040-3                                                            |
| Environmental                              | IEC/EN 62040-4                                                            |
| Product declaration                        | CE, EAC, UKCA                                                             |

(1) Conditions apply.

(2) At full rated voltage; with input THDV <1%

(3) Without dummy load bench.

## Electrical options

- Input, output and maintenance bypass switches.
- 3-wire bypass and output distribution kit.
- PEN kit for TN-C grounding system.
- 4-wire rectifier (neutral connection kit).
- Shared batteries (1, 2 or 3 per unit).
- Enhanced battery charger.
- Battery tripping kit.
- Unit parallelisation kit.
- Redundant electronic power supplies.
- BCR (Battery Capacity Re-injection).
- ACS synchronisation system.
- Cold start.
- Top roof.

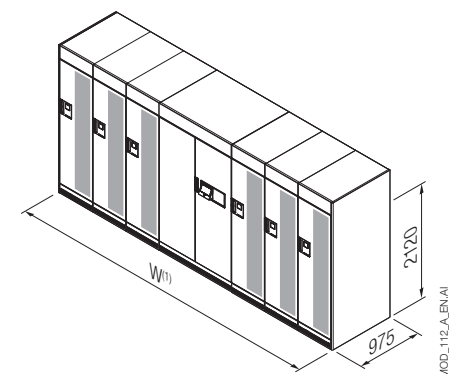
## Communication options

- Dry-contact interface (configurable, voltage-free contacts).
- MODBUS RTU RS485 or MODBUS TCP.
- PROFIBUS / PROFINET gateway.
- BACnet/IP interface.
- NET VISION: professional
- WEB/SNMP Ethernet interface for secure UPS monitoring and remote automatic shutdown.
- REMOTE VIEW PRO supervision software.
- IoT gateway for Socomec cloud services and the SoLive UPS mobile app.
- Remote touch-screen panel.
- Additional Com-slot extension.

## Flexible UPS architecture

- Hot-scalable power capability.
- Adjustable redundancy level.
- Common or separated rectifier and bypass mains.
- Compatible with different energy storage technologies (e.g. Li-Ion, Ni-Cd...).

## Unit dimensions and weights



|                            | Unit |      |      |      |
|----------------------------|------|------|------|------|
|                            | 3    | 4    | 5    | 6    |
| Number of Power Slots      | 3    | 4    | 5    | 6    |
| Maximum power (kVA/kW)     | 600  | 800  | 1000 | 1200 |
| Width <sup>(1)</sup> (mm)  | 2890 | 3440 | 3990 | 4540 |
| Weight <sup>(2)</sup> (kg) | 2500 | 3100 | 3650 | 4250 |

(1) Width includes left and right side panels.

(2) Weight for the unit fully equipped with power modules.

## Best practice award



Frost & Sullivan has awarded SOCOMECS with its prize for Innovation & Excellence in Developing Scalable, Best-in-Class Products and Solutions.



# MODULYS XL

Three-phase UPS

from 200 to 4800 kVA/kW

## A modular UPS system designed for simplicity

The flexibility of a tailored solution combined with the advantages of standardised assets: MODULYS XL can be fine-tuned to the precise requirements of any electrical infrastructure. This approach saves time and money during both the project design and its deployment – with the option to pay as you go.

### Power HUB



#### Power HUB for the UPS Unit

- Up to 1200 kVA/kW.
- Input, output and battery connections to the UPS unit.
- Remote communication interfaces.
- User interface.
- Full rated centralized static bypass.
- 63 A three-phase plug for advanced maintenance services.

### Power SLOT



#### Power SLOT

- For 200 kVA/kW plug-in Power Module.
- Pre-engineered built-in bus bars interconnection between the Power Hub and the others Power Slots.
- Pre-connected communication bus.

### Power MODULE



#### Power MODULE

- Rated for 200 kVA/kW permanent operating.
- Single and full rated rectifier, inverter and battery charger.
- Double conversion side bypass.
- Selective disconnection (contactors and fuses) at input and output stages.
- Local battery disconnection switch.
- Patented plug-in system (power and control) to connect to the Unit.

## Flexible power & scalability

- A flexible combination of power slots to address different needs.
- Installation of the power slots at the initial stage allows for quick and safe scalability.
- A power increase to meet changing capacity demands.
- The load is fully protected in double conversion mode during power extensions and maintenance.



| 3 POWER SLOTS | 4 POWER SLOTS | 5 POWER SLOTS | 6 POWER SLOTS |
|---------------|---------------|---------------|---------------|
|               |               |               |               |
|               |               |               |               |
|               |               |               |               |
|               |               |               |               |

|                                                              |                          |                                                  |                                    |                                     |                                      |
|--------------------------------------------------------------|--------------------------|--------------------------------------------------|------------------------------------|-------------------------------------|--------------------------------------|
| Power slots installed and pre-connected at the initial stage | Hot-scalability up to... | 600 kVA/kW (N)<br>400 kVA/kW (N+1)               | 800 kVA/kW (N)<br>600 kVA/kW (N+1) | 1000 kVA/kW (N)<br>800 kVA/kW (N+1) | 1200 kVA/kW (N)<br>1000 kVA/kW (N+1) |
| Power slots can be easily added later (in off-line mode)     | Scalability up to...     | Up to 1200 kVA/kW (N)<br>Up to 1000 kVA/kW (N+1) |                                    |                                     |                                      |

## Ultimate resilience

### A granularity of 200 kW

- Perfect balance between MTBF and intrinsic redundancy.
- Reduced losses in available power due to missing modules.
- Minimised number of potential problems and associated maintenance costs compared to solutions with an excessive numbers of modules.

### No single point of failure

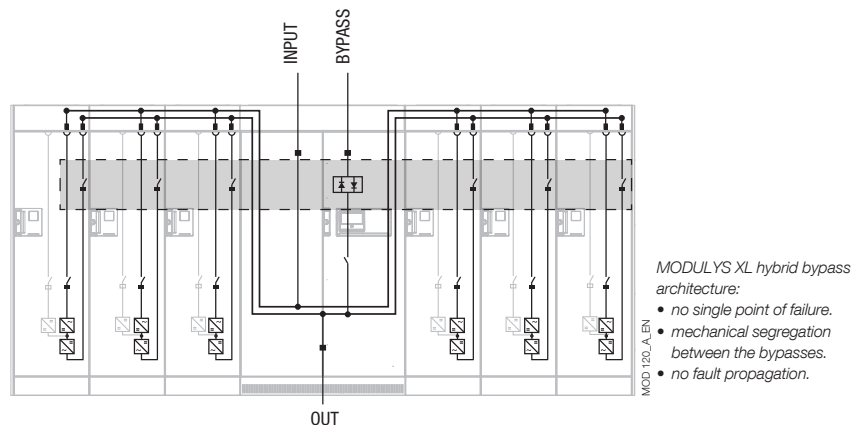
- The control system is not centralised to eliminate the typical weak point of some modular UPS systems.
- Like for monolithic UPSs, the Power Modules and the static bypass operate on a peer-to-peer basis to avoid any single point of failure and to ensure the maximum system availability.

### Clean installation

- The MODULYS XL pre-engineered power and control interconnections make for an extremely clean UPS system – essential for guaranteeing maximum availability.

### The right granularity and no single point of failure at system level

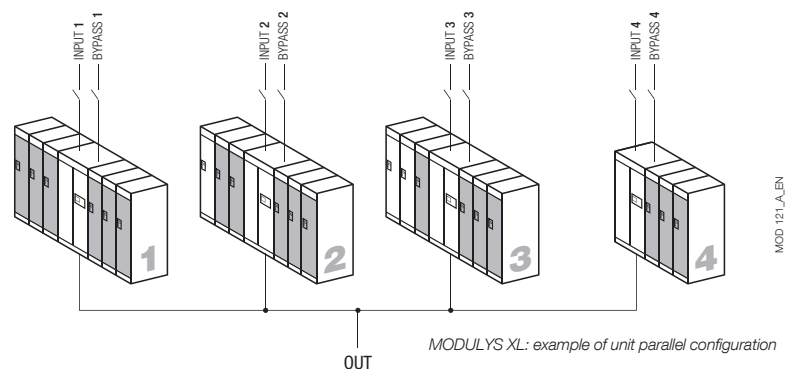
- 200 kVA/kW power module built by single and full rated power converters.
- Totally independent and self-sufficient power modules.
- Hybrid bypass: fully sized (up to 1200 kVA) centralised static bypass - together with distributed modules bypasses.
- Real power module selective disconnection (input and output controlled galvanic disconnectors).
- Straightforward interconnections resulting in a clean installation.
- Mechanical segregation between each of the sub-asset building the UPS unit.



## Flexible parallel configurations

To provide maximal flexibility and guaranty system availability when maintaining a single power module, the MODULYS XL units can be parallelised without restriction on the number of installed power slots or power modules.

- Parallel configuration up to 4 units.
- Free unit(s) configuration.
- Free number of power modules at each unit level.



## Move to a permanent uptime mode with an innovative service approach



### The availability of your critical application restored in a few minutes

To maximise your MTTR, in a matter of minutes, an emergency power module – located near your premises – can be used to replace another one.



### First time fix rate

The power module is repaired while disconnected from the live UPS system, thus maintaining the critical load safely supplied. The online repair guide and full power warm-up test provide reliable and certified results.



### Fast and safe maintenance operation

MODULYS XL is engineered for quick and simplified module plug-in without being in bypass mode - avoiding load downtime risk.



### 24/7 monitoring<sup>(1)</sup>

In the event of any type of anomaly, the system will instantly notify the nearest Socomec Service Centre and an engineer will be dispatched immediately along with any spare parts that may be needed.

(1) After subscribing to a Socomec Maintenance Contract with SoLink option.

# Optional services for maintenance contract

power module as a spare for MODULYS XL modular UPS system



The addition of the Power module as a spare option to the maintenance contract of MODULYS XL will always allow to maintain the level of availability of the installation.

A spare power module will be to hand next to the MODULYS XL so that the module can be swapped in case of failure in less than 5 minutes.

The module can also be used during the preventive maintenance visit - to be inserted instead of the maintained module and therefore ensure the same level of availability.

The price is "all inclusive" and comprises:

- a maintenance slot and a spare power module rental,
- training to enable the customer to change the module by himself and avoid any problems,
- the maintenance of the spare module (spare parts and consumables).

## Key points

- > Spare power module available 24/7 on customer site
- > Price all inclusive covering training in how to swap the module, module rental & its maintenance

## Benefits

- > "Ready to use" spare power module always available on customer site
- > Ensures the same level of secured availability during maintenance operations and in case of critical failure
- > No downtime during maintenance operations
- > Maintenance slot provided to test & repair the power module outside of the UPS system





A man and a woman, both wearing white shirts and lanyards with ID badges, are walking through a server room. The man is gesturing with his hand while talking to the woman. The room is filled with rows of server racks, and the lighting is a cool blue. A bright yellow light flare is positioned behind the text.

# When **energy** matters

**MODULYS XL** has been recognised with New Product Innovation by Frost&Sullivan.

With a track record in UPS innovation spanning 5 decades - the truly high power modular UPS, **MODULYS XL** – is a proven winner with the market as well as with Frost&Sullivan.



**MODULYS XL**

F R O S T & S U L L I V A N



# STATYS Cabinet

Static Transfer System (STS): ensuring optimal redundancy for critical loads

from 200 to 1600 A (1800 A catcher)



## The solution for

- > Data centre
- > Healthcare
- > Infrastructure & Transport
- > Industry
- > Building

## Strong points

- > Best resiliency for optimal power availability
- > Advanced Transformer Switching Management (ATSM)
- > Designed to fit your installation
- > 35 years of innovation driven by the field

## Conformity to standards

- > IEC 62310 – 1
- > IEC 62310 – 2
- > IEC 60529
- > CE
- > UKCA

## Expert services

We offer services to ensure your system highest availability:

- > Commissioning
- > On-site intervention
- > Maintenances packages with scheduled preventive visits
- > 24-hour call out and rapid on-site repairs
- > Warranty extensions
- > Training

## Function

STATYS Cabinet is an intelligent static transfer system (STS) that provides increased supply availability, automatically transferring its loads to alternative power sources when the primary source falls out of set values.

STATYS Cabinet offers the highest protection against main power source outages, failure in the upstream power distribution system, malfunctions due to defective devices, or operator errors.

## Advantages

### Best resiliency for optimal power availability

STATYS Cabinet is designed to ensure the best power availability by eliminating all traditional single points of failure thanks to:

- Dual redundant electronic power supply (4x).
- Micro controller redundancy, including history log and settings, physically separated for additional safety.
- SCR driver integrates both independent and redundant power supplies, incorporating SCR fault sensing.
- An «auto-hold» function included to guarantee power continuity, even if an internal problem occurs.
- Cooling redundancy with fan failure monitoring.
- Segregation of main functions to prevent internal fault propagation.

### Advanced Transformer Switching Management (ATSM)

ATSM is an embedded transfer method developed by Socomec to manage downstream magnetic loads such as transformers present in PDU.

This function protects current occurring after source transfer on a magnetic load.

By specifically managing the phases sequence ATSM protects the installation from high transient overvoltages causing protection tripping linked to load transfer.

### Designed to fit your installation

STATYS Cabinet offers the opportunity to implement a redundant architecture ensuring availability while providing more site flexibility:

- Compliant with all distribution architecture including Catcher.
- Available in 3 or 4-wire arrangement with or without neutral.
- Flexible digital control capacity that can adapt to any operational or electrical environment conditions.
- Capability to manage synchronised and non-synchronised sources according to load specificity, non-linear loads compatibility.

### 35 years of innovation driven by the field

A Firmware based on thousands of units installed and millions of operating hours to achieve the best level of availability:

- Source independance.
- Short circuit detection.
- ATSM integrated as a standard feature.
- Worldwide coverage of products and services.

### General characteristics

- A smart and flexible transfer system that can be configured according to the type of load.
- Synchronized and non-synchronized source compatibility (configurable synchronisation tolerance and switching management).
- ATSM.
- Output fault current sensing.
- Internal CAN Bus.
- Double maintenance bypass.
- Embedded Inputs, output and maintenance bypass switches.

### Standard communication features

- LCD or user-friendly 7» touch-screen multilingual graphic colour display.
- Dry-contact interface (configurable voltage-free contacts).
- Free ComSlot available for communication option.
- Full digital configuration and setting.

### Remote monitoring and cloud services

- SOLIVE : mobile app enabling the monitoring of the STS systems from a smartphone.

### Electrical options

- Available in fused or fusless version.
- 4W (3 Ph+N) or 3W (3 Ph).
- Advanced redundant design.

### Communication options

- Dry-contact interface (configurable voltage-free contacts).
- MODBUS RTU RS485.
- MODBUS TCP.
- REMOTE VIEW PRO supervision software.
- NET VISION: Professional WEB/SNMP Ethernet interface for secure STS monitoring.

### Technical data

| Applicable to Chassis/rack/cabinet/HC |                                                           |                                 |     |                                 |     |                                  |      |                   |      |      |
|---------------------------------------|-----------------------------------------------------------|---------------------------------|-----|---------------------------------|-----|----------------------------------|------|-------------------|------|------|
| STATYS Cabinet                        |                                                           |                                 |     |                                 |     |                                  |      |                   |      |      |
| Rating (A)                            | 200                                                       | 300                             | 400 | 600                             | 630 | 800                              | 1000 | 1250              | 1400 | 1600 |
| ELECTRICAL CHARACTERISTICS            |                                                           |                                 |     |                                 |     |                                  |      |                   |      |      |
| Rated voltage                         | 208 - 220 / 380 - 415 / 440 V                             |                                 |     |                                 |     |                                  |      |                   |      |      |
| Non-synchronized sources management   | Configurable up to ± 180° (No restriction)                |                                 |     |                                 |     |                                  |      |                   |      |      |
| Frequency                             | 50 Hz or 60 Hz (±5 Hz configurable)                       |                                 |     |                                 |     |                                  |      |                   |      |      |
| Number of phases                      | 3ph+N or 3ph (+ PE)                                       |                                 |     |                                 |     |                                  |      |                   |      |      |
| Number of poles switching             | 3 or 4 poles                                              |                                 |     |                                 |     |                                  |      |                   |      |      |
| Maintenance bypass                    | Integrated                                                |                                 |     |                                 |     |                                  |      |                   |      |      |
| Overload                              | 150 % for 2 minutes - 110 % for 60 minutes <sup>(1)</sup> |                                 |     |                                 |     |                                  |      |                   |      |      |
| Efficiency                            | 99%                                                       |                                 |     |                                 |     |                                  |      |                   |      |      |
| Admissible power factor               | No restrictions                                           |                                 |     |                                 |     |                                  |      |                   |      |      |
| ENVIRONMENT                           |                                                           |                                 |     |                                 |     |                                  |      |                   |      |      |
| Operating ambient temperature         | From 0°C to 40°C                                          |                                 |     |                                 |     |                                  |      |                   |      |      |
| Relative humidity                     | 95% non-condensing                                        |                                 |     |                                 |     |                                  |      |                   |      |      |
| Maximum altitude                      | 1000 m (3300 ft) without downgrading                      |                                 |     |                                 |     |                                  |      |                   |      |      |
| Acoustic level at 1 m (ISO 3746)      | ≤ 60 dBA                                                  |                                 |     |                                 |     |                                  |      | ≤ 84 dBA          |      |      |
| STANDARDS                             |                                                           |                                 |     |                                 |     |                                  |      |                   |      |      |
| Safety                                | IEC 62310, IEC 60529                                      |                                 |     |                                 |     |                                  |      |                   |      |      |
| EMC                                   | Classe C2 (IEC 62310-2)                                   |                                 |     |                                 |     |                                  |      |                   |      |      |
| Product declaration                   | CE, RCM (E2376), UKCA                                     |                                 |     |                                 |     |                                  |      |                   |      |      |
| Degrees of protection                 | IP20                                                      |                                 |     |                                 |     |                                  |      |                   |      |      |
| DIMENSIONS                            |                                                           |                                 |     |                                 |     |                                  |      |                   |      |      |
| Rating (A)                            | 200                                                       | 300                             | 400 | 600                             | 630 | 800                              | 1000 | 1250              | 1400 | 1600 |
| WxDxH (mm)                            | 500 x 600 <sup>(2)</sup> x 1930                           | 700 x 600 <sup>(2)</sup> x 1930 |     | 900 x 600 <sup>(2)</sup> x 1930 |     | 1400 x 950 <sup>(2)</sup> x 1930 |      | 2010 x 815 x 1955 |      |      |
| Weight (kg)                           | 195                                                       | 270                             |     | 345                             |     | 685                              |      | 1200              |      |      |

(1) For 630 A only: 150% for 1 minute - 105% for 60 minutes.

(2) Depth does not include handles (+40 mm).

# STATYS Chassis

**Integrable Static Transfer System (STS) for easy and seamless panel integration**

from 200 to 1800 A



STATYS\_016.BPS

## The solution for

- > Data centre
- > Healthcare
- > Infrastructure & Transport
- > Industry
- > Building

## Strong points

- > Pre engineered form factor for seamless integration
- > Advanced Transformer Switching Management (ATSM)
- > Best in class power availability integrated in your equipment
- > 35 Years of Field-Driven Innovation

## Conformity to standards

- > IEC 62310 – 1
- > IEC 62310 – 2
- > IEC 60529
- > CE
- > UKCA

## Expert services

We offer services to ensure your system highest availability:

- > Commissioning
- > On-site intervention
- > Maintenances packages with scheduled preventive visits
- > 24-hour call out and rapid on-site repairs
- > Warranty extensions
- > Training

## Function

STATYS Chassis is a Static Transfer System (STS) that provides protection against power source outage, failures in the upstream power distribution system or human errors.

Supplied by two independent alternate sources, it significantly increases the reliability of the electrical infrastructure and saves you both time and effort during integration.

Developed for seamless installation in Distribution Panels/PDUs, it comes in two design options:

- chassis frame up to 630 A,
- standalone chassis from 800 A.

## Advantages

### Pre engineered form factor for seamless integration

The STATYS Chassis's frame structure is developed to address mechanical integration challenges:

- Portable ComSlot and HMI accessible on cabinet's front door.
- Multiple fixation points to fit simpler within your cabinet.
- adaptable to any switch configuration.
- Switch position information monitoring.
- Flexible digital control capacity that can adapt to any operational or electrical environment conditions.

### Advanced Transformer Switching Management (ATSM)

ATSM is an embedded transfer method developed by Socomec to manage downstream magnetic loads such as transformers present in PDU.

This function protects current occurring after source transfer on a magnetic load.

By specifically managing, the phrases protects the installation from high transient overvoltages causing protection tripping linked to load transfer.

### Best in class power availability integrated in your equipment

The STATYS Chassis meets the most demanding customers expectations by guaranteeing the highest power availability eliminating all traditional single points of failure:

- Dual redundant electronic power supply (4x).
- Micro controller redundancy, physically separated for additional safety.
- SCR driver integrates both independent and redundant power supplies, incorporating SCR fault sensing.
- An «auto-hold» function included to guarantee power continuity, even if an internal problem occurs.
- Cooling redundancy with fan failure monitoring.
- Segregation of main functions to prevent internal fault propagation.

### 35 Years of Field-Driven Innovation

A Firmware based on the experience through thousands of units installed and millions of operating hours.

The best level of availability on the market:

- Power sources segregation.
- Short circuit detection.
- ATSM.
- Worldwide coverage of products and services.



### General characteristics

- A smart and flexible transfer system that can be configured according to the type of load.
- Synchronized and non-synchronized source compatibility (configurable synchronization tolerance and switching management).
- ATSM.
- Output fault current sensing.
- Internal CAN Bus.
- Double maintenance bypass.
- Multiple fixation points.

### Standard communication features

- LCD or user-friendly 7» touch-screen multilingual graphic colour display.
- Dry-contact interface (configurable voltage-free contacts).
- Portable screen.
- Free ComSlot available for communication option.
- Full digital configuration and setting.

### Electrical options

- Available in fused or fusless version.
- 4W (3 Ph+N) or 3W (3 Ph).
- Advanced redundant design.

### Communication options

- Dry-contact interface (configurable voltage-free contacts).
- MODBUS RTU RS485.
- MODBUS TCP.
- REMOTE VIEW PRO supervision software.

### Technical data

| STATYS Chassis                      |                                                           |                 |     |                 |     |                                  |      |                  |      |      |      |  |
|-------------------------------------|-----------------------------------------------------------|-----------------|-----|-----------------|-----|----------------------------------|------|------------------|------|------|------|--|
| Rating [A]                          | 200                                                       | 300             | 400 | 600             | 630 | 800                              | 1000 | 1250             | 1400 | 1600 | 1800 |  |
| ELECTRICAL CHARACTERISTICS          |                                                           |                 |     |                 |     |                                  |      |                  |      |      |      |  |
| Rated voltage                       | 208 - 220 / 380 - 415 / 440 V                             |                 |     |                 |     |                                  |      |                  |      |      |      |  |
| Non-synchronized sources management | Configurable up to ± 180° (No restriction)                |                 |     |                 |     |                                  |      |                  |      |      |      |  |
| Frequency                           | 50 Hz or 60 Hz (±5 Hz configurable)                       |                 |     |                 |     |                                  |      |                  |      |      |      |  |
| Number of phases                    | 3ph+N or 3ph (+ PE)                                       |                 |     |                 |     |                                  |      |                  |      |      |      |  |
| Number of poles switching           | 3 or 4 poles                                              |                 |     |                 |     |                                  |      |                  |      |      |      |  |
| Overload                            | 150 % for 2 minutes – 110 % for 60 minutes <sup>(1)</sup> |                 |     |                 |     |                                  |      |                  |      |      |      |  |
| Efficiency                          | 99%                                                       |                 |     |                 |     |                                  |      |                  |      |      |      |  |
| Admissible power factor             | No restrictions                                           |                 |     |                 |     |                                  |      |                  |      |      |      |  |
| ENVIRONNEMENT                       |                                                           |                 |     |                 |     |                                  |      |                  |      |      |      |  |
| Operating ambient temperature       | From 0°C to 40°C                                          |                 |     |                 |     |                                  |      |                  |      |      |      |  |
| Relative humidity                   | 95% non-condensing                                        |                 |     |                 |     |                                  |      |                  |      |      |      |  |
| Maximum altitude                    | 1000 m without downgrading                                |                 |     |                 |     |                                  |      |                  |      |      |      |  |
| Acoustic level at 1 m (ISO 3746)    | ≤ 60 dBA                                                  |                 |     |                 |     |                                  |      | ≤ 84 dBA         |      |      |      |  |
| STANDARDS                           |                                                           |                 |     |                 |     |                                  |      |                  |      |      |      |  |
| Safety                              | IEC 62310, IEC 60529                                      |                 |     |                 |     |                                  |      |                  |      |      |      |  |
| EMC                                 | Classe C2 (IEC 62310-2)                                   |                 |     |                 |     |                                  |      |                  |      |      |      |  |
| Product certification               | CE, RCM (E2376), UKCA                                     |                 |     |                 |     |                                  |      |                  |      |      |      |  |
| Degrees of protection               | IP20                                                      |                 |     |                 |     |                                  |      |                  |      |      |      |  |
| DIMENSIONS                          |                                                           |                 |     |                 |     |                                  |      |                  |      |      |      |  |
| Rating [A]                          | 200                                                       | 300             | 400 | 600             | 630 | 800                              | 1000 | 1250             | 1400 | 1600 | 1800 |  |
| W x D x H (mm)                      | 400 x 586 x 765                                           | 600 x 586 x 765 |     | 800 x 586 x 765 |     | 1000 x 950 <sup>(2)</sup> x 1930 |      | 910 x 815 x 1955 |      |      |      |  |
| Weight (kg)                         | 70                                                        | 105             |     | 130             |     | 495                              |      | 570              |      |      |      |  |

(1) For 630 A only: 150% for 1 minute - 105% for 60 minutes.

(2) Depth does not include handles (+40mm)

# STATYS Rack

**Static Transfer Switch (STS): Providing optimal redundancy directly into your rack**  
from 32 to 100 A



GAMME\_416\_A\_EFS

## The solution for

- > Industry
- > Infrastructure & Transport
- > Healthcare
- > Building
- > Data center

## Strong points

- > Advanced redundancy for optimal power availability
- > More flexibility for various applications
- > 35 years of experience
- > ATSM

## Conformity to standards

- > IEC 62310 – 1
- > IEC 62310 – 2
- > IEC 60529
- > CE
- > UKCA

## Expert services

We offer services to ensure the highest availability for your system:

- > Commissioning
- > On-site intervention
- > Maintenance packages with scheduled preventive visits
- > 24-hour call out and rapid on-site repairs
- > Warranty extensions
- > Training

## Function

STATYS Rack is an intelligent Static Transfer Switch (STS) designed to increase power supply availability by seamlessly transferring the load to a redundant source.

In Data Centres, STATYS Rack makes use of the dual feed capability of your infrastructure allowing single-corded loads to access redundant power.

In industry, healthcare, infrastructure and other applications, STATYS Rack enhances availability of critical loads by bringing redundant power to any equipment.

## Advantages

### Advanced redundancy for optimal power availability

The STATYS Rack provides advanced level of redundancy in common with the entire STATYS Range, ensuring high power availability with no single point of failure.

- Dual redundant power supplies for control boards.
- Micro controller redundancy including history log & settings, physically separated.
- Independent and redundant power supplies for the SCR driver, which include SCR fault sensing.
- An 'auto-hold' feature that ensures continuity of power under any circumstances.
- Redundant cooling systems equipped with fan failure monitoring. Segregation of main functions to prevent internal fault propagation.

### 35 years of innovation driven by the field

Our technology is built on the experience gained from thousands of units installed and millions of hours of operation, ensuring the highest level of availability.

### More flexibility for various applications

STATYS Rack offers configurations with 2, 3, or 4 wires, with or without a neutral wire. Also available in cabinet version for non-rack applications.

- Flexible digital controls to adapt to any operational or electrical conditions.
- Greater versatility for direct integration into a standard 19" cabinet.
- Can to manage both synchronised and non-synchronised power sources.
- Tailored to specific electrical environment.
- Non-linear loads compatibility.

### Advanced Transformer Switching Management (ATSM)

ATSM, a unique transfer method for the rackable solution developed by Socomec, manages magnetic loads such as transformers in power distribution systems. This feature protects against high transient currents after source transfers by controlling phase sequences, preventing high transients and spurious protection tripping during load transfers.

### Standard Electrical features

- A smart and flexible transfer system that can be configured according to the type of load.
- Synchronised and non-synchronised sources compatibility (configurable synchronisation tolerance and switching management).
- Advanced Transformer Switching Management (ATSM)
- Output fault current sensing.
- Internal CAN Bus.
- Front accessible maintenance bypass with hot-swappable module.
- Mechanically & electronically secured bypass operation avoiding manipulation errors.
- Integrated Backfeed protection for single phase solution.

### Standard communication features

- Slots for communication options.
- Dry-contact interface (configurable voltage-free contacts).
- Ethernet interface for STS monitoring via WEB pages.
- MODBUS TCP.
- Full digital configuration.

### Electrical options

- Fused or fuseless 3-phase only.
- 2-wire, 3-wire or 4-wire configuration.
- Advanced redundant design.

### Communication options

- Dry-contact interface (configurable voltage-free contacts).
- MODBUS RTU RS485.
- PROFIBUS / PROFINET gateway.
- REMOTE VIEW PRO supervision software.

## Technical data

| STATYS Rack                         |                                             |    |                                      |     |
|-------------------------------------|---------------------------------------------|----|--------------------------------------|-----|
| Rating (A)                          | 32                                          | 63 | 63                                   | 100 |
| ELECTRICAL CHARACTERISTICS          |                                             |    |                                      |     |
| Rated voltage                       | 120 - 127 / 220 - 240 / 254V (±10 %)        |    | 208 - 220 / 380 - 415 / 440V (±10 %) |     |
| Non-synchronised sources management | Configurable up to ± 180 ° (no restriction) |    |                                      |     |
| Frequency                           | 50 Hz ou 60 Hz (±5 Hz configurable)         |    |                                      |     |
| Number of phases                    | ph+N or ph-ph (+PE)                         |    | 3ph+N or 3ph (+ PE)                  |     |
| Number of poles switching           | 2 pole switching                            |    | 3 or 4 pole switching                |     |
| Overload                            | 150 % for 2 minutes – 110 % for 60 minutes  |    |                                      |     |
| Efficiency                          | 99 %                                        |    |                                      |     |
| Admissible power factor             | No restrictions                             |    |                                      |     |
| ENVIRONMENT                         |                                             |    |                                      |     |
| Operating ambient temperature       | From 0°C to 40°C                            |    |                                      |     |
| Relative humidity                   | 95 % non-condensing                         |    |                                      |     |
| Maximum altitude                    | 1 000 m a.s.l without derating              |    |                                      |     |
| Acoustic level at 1 m (ISO 3746)    | ≤ 45 dBA                                    |    | ≤ 60 dBA                             |     |
| STANDARDS                           |                                             |    |                                      |     |
| Safety                              | IEC 62310, IEC 60529                        |    |                                      |     |
| EMC                                 | C2 category (IEC 62310-2)                   |    |                                      |     |
| Product certification               | CCE, RCM (E2376)                            |    |                                      |     |
| Degrees of protection               | IP 20                                       |    |                                      |     |
| DIMENSIONS                          |                                             |    |                                      |     |
| Width (mm)                          | 483                                         |    | 483                                  |     |
| Depth (mm)                          | 747                                         |    | 648                                  |     |
| Height (mm)                         | 89                                          |    | 400                                  |     |
| Weight (kg)                         | 26                                          |    | 58                                   |     |

# STATYS HC

Static transfer system for operating theatres and intensive care units  
from 63 to 100 A



## The solution for

> Healthcare

## Strong points

- > Robust design
- > Unique downstream transformer management
- > Power continuity
- > High reliability

## Advantages

**NON-STOP**

**19"**



**HOT-SWAP**

## Conformity to standards

- > IEC 62310
- > IEC 60364-7-710
- > NF C15-211

## Expert services

Our expert services ensure your system's highest availability:

- > Commissioning
- > On-site intervention
- > Preventive maintenance visits
- > 24-hour call out and rapid on-site repairs
- > Maintenance packages
- > Training



[www.socomec.com/services](http://www.socomec.com/services)

## Function

STATYS HC exists as a single-phase or three-phase static transfer system. Supplied by two independent sources it ensures the power continuity of medical locations by transferring to the available source without interruption. STATYS HC has been especially designed to comply with the applicable criteria of the IEC 60364-7-710 and the NFC 15-211 standards.

## Advantages

### Robust design

- Specifically designed for use in medical locations.
- Compliant with the applicable criteria of the IEC 60364-7-710 and the NFC 15-211 standards..
- Dedicated overload management ensuring power continuity in the event of an overload.
- Overload information available through BMS and local alarms.
- Robust SCR topology ensuring high overload and short-circuit withstand.
- Simplified sizing of the upstream protection without compromising the selectivity.
- Integrated bypass switch for periodic tests without risking the load supply.

### Unique downstream transformer management

- Limiting start up and transfers transient currents.
- Prevent spurious tripping of the upstream protection.
- Advanced Transformer Switching Management (ATSM).

### Power continuity

- A redundant power supply to mission critical loads in order to ensure their availability even in the case of abnormal events.
- Main power source outages.
- Failures in the upstream power distribution system.
- Failures caused by faulty equipment supplied by the same source.
- Operator errors.
- Increased power supply availability by choosing the best power supply quality.
- Load segregation preventing fault propagation between the applications.
- An embedded bypass switch ensuring power availability during critical medical operations.

### High reliability

- Redundant control system using double microprocessor control boards.
- Dual redundant power supplies for control boards.
- Individual control board with redundant power supply for each SCR path.
- Integrated «auto-hold» feature to ensure load continuity in case of internal failure.
- Redundant cooling with fan failure monitoring.
- Real-time SCR fault sensing.
- Separation of main functions to prevent internal fault propagation.
- Robust internal field communication bus.
- Internal monitoring of sensors to ensure maximum system reliability.



## Hot-swappable design

- Compact Hot Swap 19" rack system.
- Integrated double maintenance bypass, front accessible and secured against human error.
- Faster maintenance with fully extractable power brick.
- No electronics within the fixed part.

## General characteristics

- Robust design compliant with operating theatre standards.
- Unique downstream transformer management.
- Power continuity.
- High reliability - internal redundant design.

## Standard communication features

- Combined LED and LCD graphic display for easy visualisation of the powerpath.
- Slots for communication options.
- Dry-contact interface (configurable voltage-free contacts).
- Ethernet interface for STS monitoring via WEB pages.
- Full digital configuration and settings.

## Communication options

- Additional dry-contact interface (configurable voltage-free contacts).
- MODBUS TCP.
- MODBUS RTU RS485.
- REMOTE VIEW PRO supervision software.

## Technical data

| STATYS HC                            | 19" rack - hot swap -1ph                   | 19" rack - hot swap -3ph |     |
|--------------------------------------|--------------------------------------------|--------------------------|-----|
| Rating [A]                           | 63                                         | 63                       | 100 |
| ELECTRICAL SPECIFICATIONS            |                                            |                          |     |
| Rated voltage                        | 120-127/220<br>240/254 V                   | 208-220/380-415/440 V    |     |
| Voltage tolerance                    | ± 10% (configurable)                       |                          |     |
| Non-synchronized sources management  | configurable up to +/- 180°                |                          |     |
| Frequency                            | 50 Hz or 60 Hz (± 5 Hz (configurable))     |                          |     |
| Number of phases                     | ph+N or ph-ph (+ PE)                       | 3ph+N or 3ph (+ PE)      |     |
| Number of poles switching            | 2-pole switching                           | 3 or 4-pole switching    |     |
| Maintenance bypass (cabinet version) | interlocked and secured                    |                          |     |
| Overload                             | 150 % for 2 minutes - 110 % for 60 minutes |                          |     |
| Efficiency                           | 99%                                        |                          |     |
| Admissible power factor              | no restrictions                            |                          |     |
| ENVIRONMENT                          |                                            |                          |     |
| Operating ambient temperature        | from 0°C up to 40°C                        |                          |     |
| Relative humidity                    | 95%                                        |                          |     |
| Maximum altitude                     | 1000 m a.s.l. without derating             |                          |     |
| Acoustic level at 1 m (ISO 3746)     | <45 dBA                                    |                          |     |
| STANDARDS                            |                                            |                          |     |
| Safety                               | IEC 62310, IEC 60529                       |                          |     |
| EMC                                  | C2 /C3 category (IEC 62310-2)              |                          |     |
| Product declaration                  | CE, RCM (E2376), UKCA                      |                          |     |

## Dimensions

| Model    |          | Range (A) | Width (mm) | Depth (mm) | Height (mm) |
|----------|----------|-----------|------------|------------|-------------|
| 1 phase  | 19" Rack | 63        | 483 (19")  | 747        | 89 (2U)     |
| 3 phases |          | 63 - 100  | 483 (19")  | 648        | 400 (9U)    |

EXIT



1. Safety
2. Availability
3. Efficiency

Opis  
3b





# Superior

## UPS - Single-phase



**NETYS RT**  
1100 to 11000 VA  
p. 48



**NETYS RT-M**  
1100 to 3300 VA  
p. 52

## UPS - Three-phase



**MASTERYS GP4 RK**  
10 to 40 kVA/kW  
p. 54



**MASTERYS GP4**  
10 to 160 kVA/kW  
p. 56



**DELPHYS GP**  
160 to 1000 kVA/kW  
p. 58



**DELPHYS XM**  
300 to 800 kVA/kW  
p. 60



**DELPHYS XL**  
1000 and 1200 kVA/kW  
p. 62

## UPS - Transformer-based



**MASTERYS IP+**  
10 to 80 kVA  
p. 66



**DELPHYS MX Elite+**  
60 to 600 kVA  
p. 68

## STS - Transfer System



**STATYS XS**  
16 and 32 A  
p. 70

## Unrivalled power performance



Best-in-class solutions with certified performance, tailored to optimise the usage for a profitable Total Cost of Ownership (TCO).

## Optional services for maintenance contract

power brick as a spare for DELPHYS XL UPS

# NETYS RT

Single-phase UPS rack/tower  
from 1 to 10 kVA



## Function

NETYS RT is the fourth generation of single-phase rack-tower UPS, ensuring the protection and availability of IT infrastructure that meets the demands of both power reliability and installation flexibility.

## Advantages

### Best-in-class design

- True online double conversion technology with sinusoidal waveform; completely filters out all disturbances from / to the mains power supply and ensures maximum protection of the utility.
- Wide tolerance of the input voltage reduces switchovers to battery mode, prolonging battery life.
- Potential for N+1 parallel and redundant configuration to maximise the availability of critical utilities (up to 30 kVA).
- Li-ion battery option for greater compactness and reduced maintenance.
- Robust coated versions for highly demanding applications.
- Performance tested and verified by third party independent laboratory.
- Wide operating ambient temperature up to 45°C.

### Up to 5-year warranty

- Lead-acid battery: 2-year UPS warranty, with the option of a 3-year extension.
- Lithium-ion battery: 3-year UPS warranty with the option of a 2-year extension. The battery is also covered by the warranty if the UPS is connected to Socomec's cloud.
- In the event of failure, a replacement product will be sent to site within 48 hours (Europe). You will have 1 month to return the faulty product to Socomec.

### Ease of use

- Multi-language LCD display.
- Large LED status bar.
- Load segmentation function to prioritise loads and manage critical situations.

- Wide range of communication protocols for integration into LAN networks or Building Management Systems.

### Optimum battery management

- Lead-acid and Li-ion battery technology management.
- Hot-swap modular battery extension (EBM) to meet all back-up time requirements - even after installation.
- Battery ageing detection function.
- Fast recharge – even for very long back-up time.

### IoT and cybersecurity

- Potential to add Net Vision network card for a direct and secure connection between the UPS and the Ethernet network, and for access to a full panel of digital services such as the SoLive remote monitoring app.
- Conformance to the cybersecurity guidelines of ISO/IEC 62443-4-2 standard.
- Cybersecurity test certified by a third party company.

### Simple installation within any operating environment

- Quick and simple installation: no configuration necessary on first start up, avoiding risk of human error.
- Full set of accessories for easy and safe installation.
- Easy switch from rack to tower mode will suit most environments - even with limited space and specific needs.
- Compact footprint in tower mode.
- High density module saving valuable cabinet rack space.

## The solution for

- > Data centre
- > Healthcare Facilities
- > Infrastructure & Transport
- > Industry
- > Buildings

## Strong points

- > Best-in-class design
- > Optimum battery management
- > Up to 5-year warranty
- > Simple installation within any operating environment
- > Ease of use
- > IoT and cybersecurity

## Compliance with standards

- > IEC 62040-1
- > IEC 62040-2
- > IEC 62040-3 (efficiency tested)
- > AS 62040.1.1
- > AS 62040.1.2
- > AS 62040.2
- > RCM (E2376)

## Certifications and attestations





## General characteristics

- Rack/Tower convertible.
- Embedded dry-contact interface.
- Input/Output cables (1000-3000 VA).
- Rail kit and rack ears.
- USB cable.
- Tower stands.
- Cable lockers.
- Connection for battery extension modules.
- Port for parallel operation (5000 - 10000 VA).
- Internal temperature sensor.
- Power off the UPS remotely.
- Cold start.
- Auto and Manual battery test.

## Electrical options

- UPS models with tropicalised (Conformal Coating) boards.
- Hot-swap battery extension modules.
- External Manual By-pass.
- Longer battery cable, 1 side free for special cabinets.

## Standard communication features

- 1 slot for communication options.
- USB port for UPS management.
- MODBUS RTU (RS232).
- RS485 for Li-ion Offer (BMS).
- LOCAL VIEW software for local UPS monitoring and shutdown for Windows, Linux and MAC OSX.

## Communication options

- Dry-contact card.
- NET VISION Card or NET VISION Box: professional WEB/SNMP, ethernet interface for UPS monitoring and remote automatic shutdown (MODBUS TCP).
- Environmental Monitoring Device (EMD).
- REMOTE VIEW PRO supervision software.

## Remote monitoring and cloud services

- SoLive UPS: free mobile app enabling UPS systems to be monitored from a smartphone, anywhere, anytime.

## Technical data

| NETYS RT                         |                                                                                     |           |                                                                             |           |                                                                     |           |           |           |                                                                       |           |
|----------------------------------|-------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------|-----------|---------------------------------------------------------------------|-----------|-----------|-----------|-----------------------------------------------------------------------|-----------|
| Model                            | NRT4-U010                                                                           | NRT4-U015 | NRT4-U020                                                                   | NRT4-U030 | NRT4-050K                                                           | NRT4-060K | NRT4-080K | NRT4-100K | NRT4-108K                                                             | NRT4-110K |
| Sn                               | 1000 VA                                                                             | 1500 VA   | 2000 VA                                                                     | 3000 VA   | 5000 VA                                                             | 6000 VA   | 8500 VA   | 10000 VA  | 8500 VA                                                               | 10000 VA  |
| Pn                               | 1000 W                                                                              | 1500 W    | 2000 W                                                                      | 3000 W    | 5000 W                                                              | 6000 W    | 8500 W    | 10000 W   | 8500 W                                                                | 10000 W   |
| Architecture                     | Online duple conversion VFI with input PFC and automatic bypass                     |           |                                                                             |           |                                                                     |           |           |           |                                                                       |           |
| Parallel redundant function      | -                                                                                   |           |                                                                             |           | Up to 3                                                             |           |           |           |                                                                       |           |
| Input/output                     | 1/1                                                                                 |           |                                                                             |           |                                                                     |           |           |           | 1/1 or 3/1                                                            |           |
| INPUT                            |                                                                                     |           |                                                                             |           |                                                                     |           |           |           |                                                                       |           |
| Voltage                          | 230 V 1/1<br>110 V ÷ 300 V ; (160 V÷ 300 V @100% load)                              |           |                                                                             |           | 230 V 1/1<br>110V ÷ 276V; (160 V ÷ 276 V @100% load)                |           |           |           | 230 V 1/1 or<br>400 V 3/1 110 V ÷ 276 V;<br>(160 V÷ 276 V @100% load) |           |
| Frequency                        | 40/70 Hz (50/60 Hz +/-10% auto-selectable)                                          |           |                                                                             |           |                                                                     |           |           |           |                                                                       |           |
| Power Factor                     | >0.99                                                                               |           |                                                                             |           |                                                                     |           |           |           |                                                                       |           |
| Surge Protection                 | 296J                                                                                |           |                                                                             |           |                                                                     |           |           |           | 405J L1-L2-L3<br>445J L1/L2/L3 - PE                                   |           |
| Input socket                     | 10 A IEC 320-C14                                                                    |           | 16 A IEC 320-C20                                                            |           | Terminals block                                                     |           |           |           |                                                                       |           |
| OUTPUT                           |                                                                                     |           |                                                                             |           |                                                                     |           |           |           |                                                                       |           |
| Voltage                          | 230 V (1ph) selectable 200/208/220/230/240 V ±1% (derating 10% @208 V / 20% @200 V) |           |                                                                             |           |                                                                     |           |           |           |                                                                       |           |
| Efficiency                       | Up to 94.6% online mode                                                             |           |                                                                             |           | Up to 95.6% online mode                                             |           |           |           |                                                                       |           |
| Overload capability              | Up to 105% continuously; 125% x 5 min; 150% x 30 sec;<br>> 150% 500 ms              |           |                                                                             |           | Up to 105% continuously; 125% x 10 min; 150% x 30 sec; >150% 500 ms |           |           |           |                                                                       |           |
| Output connections               | 1 main group (4x IEC C13)<br>1 programmable group (4x IEC C13)                      |           | 1 main group (1x IEC C19 + 4x IEC C13)<br>1 programmable group (4x IEC C13) |           | Terminals block                                                     |           |           |           |                                                                       |           |
| BATTERY                          |                                                                                     |           |                                                                             |           |                                                                     |           |           |           |                                                                       |           |
| Standard autonomy <sup>(1)</sup> | 15                                                                                  | 9         | 16                                                                          | 10        | 13                                                                  | 10        | 14        | 11        | 14                                                                    | 11        |
| Voltage                          | 36 VDC                                                                              |           | 72 VDC                                                                      |           | 192 VDC                                                             |           | 240 VDC   |           |                                                                       |           |
| Type                             | Sealed lead-acid maintenance free - expected life 3 / 5 years                       |           |                                                                             |           |                                                                     |           |           |           |                                                                       |           |
| COMMUNICATION                    |                                                                                     |           |                                                                             |           |                                                                     |           |           |           |                                                                       |           |
| Mimic panel                      | LCD with menu available in 11 languages                                             |           |                                                                             |           |                                                                     |           |           |           |                                                                       |           |
| RS232 MODBUS protocol            | •                                                                                   | •         | •                                                                           | •         | •                                                                   | •         | •         | •         | •                                                                     | •         |
| USB port                         | •                                                                                   | •         | •                                                                           | •         | •                                                                   | •         | •         | •         | •                                                                     | •         |
| WEB/SNMP                         | Option                                                                              | Option    | Option                                                                      | Option    | Option                                                              | Option    | Option    | Option    | Option                                                                | Option    |
| COMM slot                        | •                                                                                   | •         | •                                                                           | •         | •                                                                   | •         | •         | •         | •                                                                     | •         |
| Dry contacts                     | •                                                                                   | •         | •                                                                           | •         | •                                                                   | •         | •         | •         | •                                                                     | •         |
| EPO input                        | •                                                                                   | •         | •                                                                           | •         | •                                                                   | •         | •         | •         | •                                                                     | •         |
| Parallel port                    | -                                                                                   | -         | -                                                                           | -         | •                                                                   | •         | •         | •         | •                                                                     | •         |
| STANDARDS                        |                                                                                     |           |                                                                             |           |                                                                     |           |           |           |                                                                       |           |
| Safety                           | IEC/EN 62040-1, AS 62040.1.1, AS 62040.1.2                                          |           |                                                                             |           |                                                                     |           |           |           |                                                                       |           |
| EMC                              | IEC/EN 62040-2, AS 62040.2                                                          |           |                                                                             |           |                                                                     |           |           |           |                                                                       |           |
| Performance                      | IEC/EN 62040-3 (efficiency tested by an external independent body)                  |           |                                                                             |           |                                                                     |           |           |           |                                                                       |           |
| Product declaration              | CE, RCM, UKCA, CMIM                                                                 |           |                                                                             |           |                                                                     |           |           |           |                                                                       |           |
| ENVIRONMENT                      |                                                                                     |           |                                                                             |           |                                                                     |           |           |           |                                                                       |           |
| Operating ambient temperature    | From 0° C to +45° C <sup>(2)</sup>                                                  |           |                                                                             |           | From 0° C to +45° C                                                 |           |           |           |                                                                       |           |
| Relative Humidity                | 0 to 95% (non-condensing)                                                           |           |                                                                             |           |                                                                     |           |           |           |                                                                       |           |
| Noise level (ISO 3746)           | <45 dB                                                                              |           | <50 dB                                                                      |           |                                                                     |           | <55 dB    |           |                                                                       |           |

## Technical data

### UPS CABINET

|                             |                  |                  |                  |                  |                  |                  |                  |                  |                  |                  |
|-----------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| UPS size std mm (W x D x H) | 438 x 445 x 85.5 | 438 x 445 x 85.5 | 438 x 600 x 85.5 | 438 x 600 x 85.5 | 438 x 570 x 86.3 | 438 x 570 x 86.3 | 438 x 570 x 86.3 | 438 x 570 x 86.3 | 438 x 570 x 86.3 | 438 x 570 x 86.3 |
| UPS size RACK               | 2U               | 2U               | 2U               | 2U               | 2U               | 2U               | 2U               | 2U               | 2U               | 2U               |
| UPS weight std (kg)         | 15.5             | 15.7             | 25.6             | 26.1             | 13.7             | 13.7             | 15.2             | 15.3             | 15.8             | 15.8             |
| IP rating                   | IP20             |                  |                  |                  |                  |                  |                  |                  |                  |                  |

### EXTERNAL BATTERY MODULE (EBM)

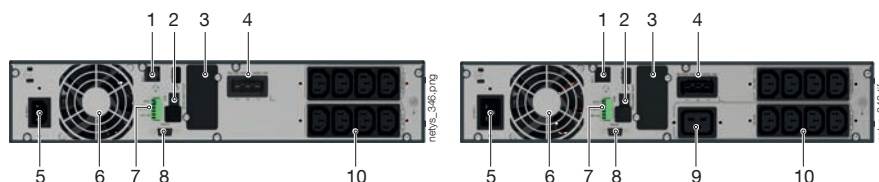
|                         |                  |                  |                  |                  |                  |                  |                 |                 |                 |                 |
|-------------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|-----------------|-----------------|-----------------|
| EBM size mm (W x D x H) | 438 x 445 x 85.5 | 438 x 445 x 85.5 | 438 x 600 x 85.5 | 438 x 600 x 85.5 | 438 x 600 x 85.5 | 438 x 600 x 85.5 | 438 x 590 x 129 | 438 x 590 x 129 | 438 x 590 x 129 | 438 x 590 x 129 |
| EBM RACK                | 2U               | 2U               | 2U               | 2U               | 2U               | 2U               | 3U              | 3U              | 3U              | 3U              |
| EBM weight (kg)         | 22.3 Kg          | 22.3 Kg          | 39.8 Kg          | 39.8 Kg          | 40.8 Kg          | 40.8 Kg          | 60 Kg           | 60 Kg           | 60 Kg           | 60 Kg           |

### KIT MODEL (UPS + EBM)

|                         |   |   |   |   |                   |                   |                   |                   |                   |                   |
|-------------------------|---|---|---|---|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| EBM size mm (W x D x H) | - | - | - | - | 438 x 600 x 171.8 | 438 x 600 x 171.8 | 438 x 590 x 215.3 | 438 x 590 x 215.3 | 438 x 590 x 215.3 | 438 x 590 x 215.3 |
| EBM RACK                | - | - | - | - | 2U+2U             | 2U+2U             | 2U+3U             | 2U+3U             | 2U+3U             | 2U+3U             |
| EBM weight (kg)         | - | - | - | - | 13.7 + 40.8       | 13.7 + 40.8       | 15.2 + 60         | 15.3 + 60         | 15.8 + 60         | 15.8 + 60         |

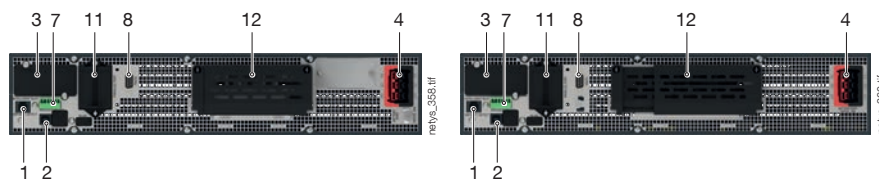
(1) Typical: @75% of rated load PF 0.7. (2) Conditions apply.

## Connections



1 - 1.5 kVA

2 - 3 kVA



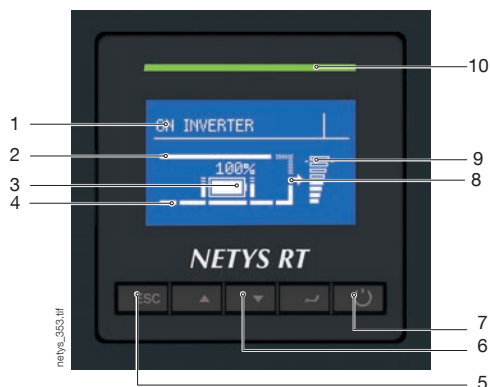
5 - 6 kVA

8.5 - 10 kVA

1. RJ50 (for EBM detect /RT MBP detect)
2. USB port
3. Slot for optional communication boards
4. Connector for external battery extension
5. Mains input socket <sup>(1)</sup>
6. Fan
7. Dry contact interface
8. RS232 interface (MODBUS protocol)
9. Output socket (full power)
10. Output sockets (IEC 320 - 10 A)
11. Parallel slot
12. AC Input /Output port (Terminal Block)

(1) 1-1.5 kVA IEC 320 10 A - 2-3 kVA IEC 320 16 A

## Control panel



1. UPS status
2. Bypass input
3. Battery status
4. Main input
5. Exit button
6. Navigator button
7. On/off button
8. Output
9. Load status
10. Led bar

## NETYS RT - Li-Ion battery UPS



The Li-Ion Battery solution, available for NETYS RT 1-3 kVA, provides higher back-up power density and much longer battery life than traditional lead-acid batteries. The Li-Ion Battery solution is equipped with an embedded interactive BMS (Battery Monitoring System) that provides accurate and individual cell monitoring and coordinates the recharging profile with the UPS to maximise the back-up power availability.

### Compact and lightweight

- Lithium-ion batteries weigh much less than their VRLA counterparts, typically being between 40% and 60% lighter. Thanks to their higher energy density and resulting compactness, they are also easier to install - especially in spaced-constrained environments.

### Faster to recharge

- Lithium-ion batteries will recharge in just 4 – 5 hours, while VRLA batteries can take over 12 hours. This enables much quicker recovery after discharge, which is crucial in applications requiring continuous uptime.

### Higher resiliency

- Lithium-ion batteries allow up to 10 times more charge/discharge cycles compared to VRLA batteries. They also have a wide operating temperature range without sacrificing performance.
- Lithium-ion UPS with tropicalised boards as a standard.

### Longer lifespan

- Lithium-ion batteries have a significantly longer lifespan than VRLA batteries - around 2 or 3 times on average. This means fewer or even zero replacements during the lifetime of the UPS and consequently lower maintenance costs.

### Up to 5-year warranty

- Lithium-ion battery: 3-year UPS warranty with the option of a 2-year extension. The battery is also covered by the warranty if the UPS is connected to Socomec's cloud.
- In the event of failure, a replacement product will be sent to site within 48 hours (Europe). You will have 1 month to return the faulty product to Socomec.

## Technical data

| NETYS RT                         |                                                                                        |                                                                      |                  |
|----------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------|------------------|
| Model                            | NRT4-Li-U010                                                                           | NRT4-Li-U020                                                         | NRT4-Li-U030     |
| Sn                               | 1000 VA                                                                                | 2000 VA                                                              | 3000 VA          |
| Pn                               | 1000 W                                                                                 | 2000 W                                                               | 3000 W           |
| Architecture                     | Online double conversion VFI with input PFC and automatic bypass                       |                                                                      |                  |
| Input socket                     | 1/1                                                                                    |                                                                      |                  |
| INPUT                            |                                                                                        |                                                                      |                  |
| Voltage                          | 230 V 1/1<br>110 V ÷ 300 V; (160 V ÷ 300V @100% load)                                  |                                                                      |                  |
| Frequency                        | 40/70 Hz (50/60 Hz +/-10% Auto-Selectable)                                             |                                                                      |                  |
| Power Factor                     | > 0.99                                                                                 |                                                                      |                  |
| Surge Protection                 | 296J                                                                                   |                                                                      |                  |
| Input socket                     | IEC 320-C14 (10 A)                                                                     | IEC 320-C20 (16 A)                                                   |                  |
| OUTPUT                           |                                                                                        |                                                                      |                  |
| Voltage                          | 230 V (1ph) selectable 200/208/220/230/240 V ±1%<br>(derating 10% @208 V / 20% @200 V) |                                                                      |                  |
| Efficiency                       | Up to 94,6% online mode                                                                |                                                                      |                  |
| Overload capability              | Up to 105% continuously; 125% x 5 min; 150% x 30 sec                                   |                                                                      |                  |
| Output connections               | 1 main group (4x IEC C13)<br>1 prog. group (4 x IEC C13)                               | 1 main group (1x IEC C19 + 4x IEC C13)<br>1 prog. group (4x IEC C13) |                  |
| BATTERY                          |                                                                                        |                                                                      |                  |
| Type                             | Lithium Battery, LiFePO4                                                               |                                                                      |                  |
| Standard autonomy <sup>(1)</sup> | 36 min                                                                                 | 29 min                                                               | 19 min           |
| Voltage                          | 48 VDC                                                                                 | 76.8 VDC                                                             |                  |
| Recharge time                    | 3.5 hours                                                                              | 4.5 hours                                                            |                  |
| COMMUNICATION                    |                                                                                        |                                                                      |                  |
| Mimic panel                      | LCD with menu available in 11 languages                                                |                                                                      |                  |
| RS232 MODBUS protocol            | •                                                                                      | •                                                                    | •                |
| USB port                         | •                                                                                      | •                                                                    | •                |
| WEB/SNMP<br>(Ethernet RJ45 port) | Option                                                                                 | Option                                                               | Option           |
| COMM slot                        | •                                                                                      | •                                                                    | •                |
| Dry contacts                     | •                                                                                      | •                                                                    | •                |
| EPO input                        | •                                                                                      | •                                                                    | •                |
| STANDARDS                        |                                                                                        |                                                                      |                  |
| Safety                           | IEC/EN 62040-1; AS62040.1; IEC62619:2022; UN38.3                                       |                                                                      |                  |
| EMC                              | IEC/EN 62040-2; AS 62040.2                                                             |                                                                      |                  |
| Performance                      | IEC/EN 62040-3 (efficiency tested by an external independent body)                     |                                                                      |                  |
| Product declaration              | CE, RCM, UKCA, CMIM                                                                    |                                                                      |                  |
| ENVIRONMENT                      |                                                                                        |                                                                      |                  |
| Operating ambient temperature    | From 0 °C to +45 °C <sup>(2)</sup>                                                     |                                                                      |                  |
| Relative Humidity                | 0-95% non-condensing                                                                   |                                                                      |                  |
| Noise level (ISO 3746)           | < 45 dBA                                                                               | < 50 dBA                                                             |                  |
| UPS CABINET                      |                                                                                        |                                                                      |                  |
| UPS size std (W x D x H)         | 438 x 445 x 85.5                                                                       | 438 x 600 x 85.5                                                     | 438 x 600 x 85.5 |
| UPS size RACK                    | 2U                                                                                     | 2U                                                                   | 2U               |
| UPS weight std                   | 15.1                                                                                   | 21.3                                                                 | 21.3             |
| IP rating                        | IP20                                                                                   |                                                                      |                  |
| EXTERNAL BATTERY MODULE (EBM)    |                                                                                        |                                                                      |                  |
| EBM size mm (W x D x H)          | 438 x 445 x 43                                                                         | 438 x 600 x 43                                                       |                  |
| EBM RACK                         | 1U                                                                                     | 1U                                                                   |                  |
| EBM weight (kg)                  | 12 Kg                                                                                  | 17.4 Kg                                                              |                  |

(1) Typical: @75% of rated load PF 0.7. (2) Conditions apply.

# NETYS RT-M

Solution for marine applications  
from 1100 to 3300 VA



GAMME 593

## Strong points

- > High availability in marine environments
- > Easy to use
- > Meets practical needs

## Conformity to standards

- > IEC/EN 62040-1, IEC/EN 62040-2, IEC/ EN 62040-3
- > AS 62040.1.1, AS 62040.1.2, AS 62040.2
- > CE
- > RCM (E2376)

## Certifications and attestations



## Function

NETYS RT M is an easy to use, high-performance single-phase rack-tower UPS certified for marine applications.

## Advantages

The marine industry calls for reliable equipment which is able to supply applications operating in harsh environments. In such a context, power outages cause extremely serious problems to critical equipment for the navigation system, and communication and engine controls, which leads to costs increasing.

In line with the company's commitment to develop innovative solutions to ensure availability, improve energy efficiency and reduce costs, Socomec has introduced NETYS RT-M, high-performance UPS DNV GL standard certified.

### Easy to use

- Easy configurable frequency converter operation (50 Hz, 60 Hz).
- No configuration necessary on first startup.
- Wide range of communication protocols (including TCP/IP and SNMP) for integration into LAN networks or building management systems (BMS).

### Meets practical needs

- Online double conversion technology with sinusoidal waveform, to completely filter out all disturbances from / to the mains power supply and to ensure maximum protection of the equipment.
- Optional battery extension modules (EBM) to meet wide back-up time requirements, even after installation.
- Clear and uncluttered LCD interface, with buzzers that immediately indicate the operating status of the UPS, even for less specialist users.



## General characteristics

- Built-in backfeed protection.
- Protection against atmospheric phenomena (NTP) for telephone/ADSL modems.
- RJ11 connection for Emergency Power Off (EPO).
- Connection for battery extension modules.

## Electrical options

- Battery extension modules.

## Standard communication features

- 1 slot for communication options.
- RT-VISION: professional WEB/SNMP interface for UPS monitoring and shutdown management of several operating systems (5000-11000 VA).
- USB port for UPS management based on HID protocol.
- MODBUS RTU (RS232).
- LOCAL VIEW software for local UPS monitoring and shutdown for Windows, Linux and MAC Osx.

## Technical data

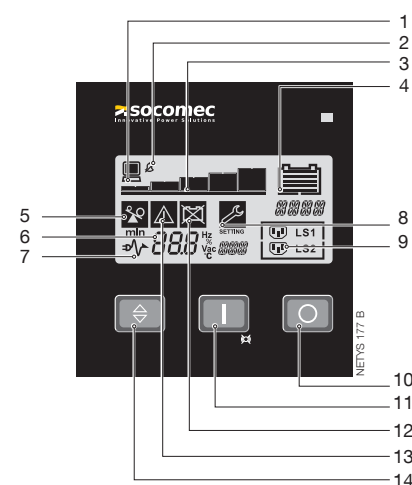
| NETYS RT-M                       |                                                                                                                                                          |                                                 |                  |                   |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------|-------------------|
| Model                            | NRT2-U1100C                                                                                                                                              | NRT2-U1700C                                     | NRT2-U2200C      | NRT2-U3300C       |
| Sn                               | 1100 VA                                                                                                                                                  | 1700 VA                                         | 2200 VA          | 3300 VA           |
| Pn                               | 900 W                                                                                                                                                    | 1350 W                                          | 1800 W           | 2700 W            |
| Architecture                     | on-line double conversion VFI with input PFC and automatic bypass                                                                                        |                                                 |                  |                   |
| INPUT                            |                                                                                                                                                          |                                                 |                  |                   |
| Rated voltage                    | 230 V (1ph)                                                                                                                                              |                                                 |                  |                   |
| Voltage tolerance                | 175÷280 V; up to 120 V @70% load                                                                                                                         |                                                 |                  |                   |
| Rated frequency                  | 50/60 Hz                                                                                                                                                 |                                                 |                  |                   |
| Frequency tolerance              | ± 10% (Auto-Selectable)                                                                                                                                  |                                                 |                  |                   |
| Power factor / THDI              | > 0.99 / < 5%                                                                                                                                            |                                                 |                  |                   |
| OUTPUT                           |                                                                                                                                                          |                                                 |                  |                   |
| Rated voltage                    | 230 V (1ph)                                                                                                                                              |                                                 |                  |                   |
| Voltage tolerance                | selectable 200/208/220/240 V                                                                                                                             |                                                 |                  |                   |
| Rated frequency                  | 50 or 60 Hz                                                                                                                                              |                                                 |                  |                   |
| Frequency tolerance              | ± 2% (± 0.05 Hz in battery mode)                                                                                                                         |                                                 |                  |                   |
| Power factor                     | 0.9<br>@ 1000 VA                                                                                                                                         | 0.9<br>@ 1500 VA                                | 0.9<br>@ 2000 VA | 0.9<br>@ 3000 VA  |
| Efficiency                       | up to 93% online mode                                                                                                                                    |                                                 |                  |                   |
| Overload capability              | up to 105% continuously; 125% for 3 min; 150% for 30 s                                                                                                   |                                                 |                  |                   |
| Connections                      | 6 x IEC 320-C13 (10 A)                                                                                                                                   | 6 x IEC 320-C13 (10 A) + 1 x IEC 320-C19 (16 A) |                  |                   |
| BATTERY                          |                                                                                                                                                          |                                                 |                  |                   |
| Standard autonomy <sup>(1)</sup> | 8 min                                                                                                                                                    | 12 min                                          | 8 min            | 10 min            |
| Voltage                          | 24 VDC                                                                                                                                                   | 48 VDC                                          |                  | 72 VDC            |
| Recharge time                    | < 6 hours to recover 90% capacity                                                                                                                        |                                                 |                  |                   |
| COMMUNICATION                    |                                                                                                                                                          |                                                 |                  |                   |
| Interfaces                       | RS232 (DB9 port) MODBUS protocol, USB HID protocol                                                                                                       |                                                 |                  |                   |
| Ethernet                         | WEB / SNMP (Ethernet RJ45 port) - option                                                                                                                 |                                                 |                  |                   |
| COMM slots                       | 1 available as standard                                                                                                                                  |                                                 |                  |                   |
| Dry contacts card                | option                                                                                                                                                   |                                                 |                  |                   |
| EPO input                        | RJ11 port                                                                                                                                                |                                                 |                  |                   |
| ENVIRONMENT                      |                                                                                                                                                          |                                                 |                  |                   |
| Operating ambient temperature    | from 0 °C up to +40 °C (from 15 °C to 25 °C for maximum battery life)<br>Temperature class A according to DNV GL                                         |                                                 |                  |                   |
| Relative humidity                | 5-95% non-condensing                                                                                                                                     |                                                 |                  |                   |
| Maximum altitude                 | 1000 m without derating (max. 3000 m)                                                                                                                    |                                                 |                  |                   |
| Noise level (ISO 3746)           | < 45 dBA                                                                                                                                                 | < 50 dBA                                        |                  |                   |
| UPS CABINET                      |                                                                                                                                                          |                                                 |                  |                   |
| Dimensions W x D x H             | 89 x 333 x 440 mm                                                                                                                                        | 89 x 430 x 440 mm                               |                  | 89 x 608 x 440 mm |
| Dimensions RACK U                | 2U                                                                                                                                                       |                                                 |                  |                   |
| Weight                           | 13 kg                                                                                                                                                    | 18 kg                                           | 19 kg            | 30 kg             |
| Degree of protection             | IP20                                                                                                                                                     |                                                 |                  |                   |
| EBM - EXTERNAL BATTERY MODULE    |                                                                                                                                                          |                                                 |                  |                   |
| Dimensions W x D x H             | 89 x 333 x 440 mm                                                                                                                                        | 89 x 430 x 440 mm                               |                  | 89 x 608 x 440 mm |
| Dimensions RACK U                | 2U                                                                                                                                                       |                                                 |                  |                   |
| Weight                           | 16 kg                                                                                                                                                    | 29 kg                                           |                  | 43 kg             |
| STANDARDS                        |                                                                                                                                                          |                                                 |                  |                   |
| Safety                           | IEC/EN 62040-1, AS 62040.1.1, AS 62040.1.2                                                                                                               |                                                 |                  |                   |
| EMC                              | IEC/EN 62040-2, AS 62040.2                                                                                                                               |                                                 |                  |                   |
| Performance                      | IEC/EN 62040-3 (efficiency tested by an external independent body)<br>Applicable tests according to Class Guideline DNVGL-CG-0339, Edition November 2015 |                                                 |                  |                   |
| Maritime certification           | and EN 62040-1:2008/A1:2013.                                                                                                                             |                                                 |                  |                   |
| Product declaration              | CE, RCM (E2376), UKCA                                                                                                                                    |                                                 |                  |                   |

(1) @ 75% of rated load PF 0.7.

## Communication options

- Dry-contact interface.
- RT-VISION: professional WEB/SNMP interface for UPS monitoring and shutdown management of several operating systems (1100-3300 VA).
- Environmental Monitoring Device (EMD).
- REMOTE VIEW PRO supervision software.

## Control panel



1. Load present
2. Buzzer off
3. Load level (5 steps)
4. Battery status
5. Overload
6. Input value
7. Normal mode / Battery mode (flashing)
8. Configuration
9. Programmable outlets
10. OFF button
11. ON/TEST and buzzer override button
12. Battery fault / Replace the battery
13. General alarm
14. Navigator button

# MASTERYS GP4 RK

Tailored protection for Edge computing  
from 10 to 40 kVA/kW



## The solution for

> Industry

## Strong points

- > Certified performance
- > Embedded digital technology
- > Engineered for easy integration
- > Front access maintenance

## Conformity to standards

- > IEC/EN 62040-1,  
IEC/EN 62040-2,
- > IEC/EN 62040-3
- > CE
- > UKCA

## Certifications and attestations



The MASTERYS GP4 series is certified by TÜV SÜD with regard to product safety (EN 62040-1).



## Advantages



Ready for Li-Ion battery

## Designed for availability

> MTBF VFI\*: 500,000 hrs

\* Officially attested.

## SoLive UPS



## Experts services



[www.socomec.com/services](http://www.socomec.com/services)

## Function

Whilst organisations are outsourcing to colocation and cloud service providers, they are also investing heavily in local Edge computing to meet new and evolving requirements: data security, analytics, maintaining control of mission-critical applications, IoT development programmes and augmented reality experience.

## Advantages

### Certified performance

- Full performance up to 40 °C without derating.
- Energy savings - without compromise: 96.5% efficiency in VFI.
- Up to 99% efficiency in "ECO" mode.
- Performance tested and verified by TÜV SÜD.

### Embedded digital technology

- IoT-ready device for access to connected services .
- SOLIVE UPS mobile app for remote control and anomaly notification.
- Easy integration in LAN/WAN and virtual environments.
- Safe guided repair procedure.

### Engineered for easy integration

- Fits within existing 19" cabinet.
- Lithium battery option.
- Fast recharge - even for very long back-up time.

### Front access maintenance

- Easy maintenance - innovative brick swap architecture.
- Power brick replacement without rack disconnection.
- Minimized risk of human error.
- Rapid repairs: 5 time faster than legacy UPS.

## General characteristics

- Dual input mains.
- Internal maintenance bypass switch.
- Input mains switch breaker.
- Output switch breaker.
- Auxiliary mains switch breaker.
- Backfeed protection: detection circuit.
- Full compatibility with generators.

## Standard communication features

- 3.5" multilanguage graphic display.
- 2 slots for communication options.
- USB port for downloading UPS report and log.

## Electrical options

- 3-phase input without neutral.
- Internal backfeed isolation device.
- Common mains coupling bars.
- TN-C grounding system.
- ACS synchronisation system.

## Communication options

- Dry-contact interface (configurable voltage-free contacts).
- MODBUS RTU RS485 or TCP.
- PROFIBUS / PROFINET gateway.
- BACnet/IP interface.
- NET VISION: professional WEB/ SNMP Ethernet interface for secure UPS monitoring and remote automatic shutdown.
- REMOTE VIEW PRO supervision software
- IoT gateway for Socomec cloud services and SOLIVE UPS mobile app.
- Remote touch-screen panel.

## Remote monitoring and cloud services

- SoLink: Socomec 24/7 remote monitoring service connecting your installation to the nearest Socomec Service Centre.
- SoLive UPS: mobile app enabling the monitoring of the UPS systems from a smartphone.

## Technical data

| MASTERYS GP4 RK               |                                                                                              |    |    |    |    |
|-------------------------------|----------------------------------------------------------------------------------------------|----|----|----|----|
| Sn [kVA]                      | 10                                                                                           | 15 | 20 | 30 | 40 |
| Pn [kW]                       | 10                                                                                           | 15 | 20 | 30 | 40 |
| Input / output 3/1            | •                                                                                            | •  | •  | -  | -  |
| Input / output 3/3            | •                                                                                            | •  | •  | •  | •  |
| Parallel configuration        | up to 6 units                                                                                |    |    |    |    |
| INPUT                         |                                                                                              |    |    |    |    |
| Rated voltage                 | 400 V 3ph+N                                                                                  |    |    |    |    |
| Voltage tolerance             | 240 V to 480 V                                                                               |    |    |    |    |
| Rated frequency               | 40-70 Hz                                                                                     |    |    |    |    |
| OUTPUT                        |                                                                                              |    |    |    |    |
| Power factor                  | 1 (according to IEC / EN 62040-3)                                                            |    |    |    |    |
| Rated voltage                 | 1ph + N: 230 V (can be configured 220/240 V)<br>3ph + N: 400 V (can be configured 380/415 V) |    |    |    |    |
| Rated frequency               | 50/60 Hz                                                                                     |    |    |    |    |
| EFFICIENCY (TÜV SÜD VERIFIED) |                                                                                              |    |    |    |    |
| Double conversion VFI mode    | up to 96.5%                                                                                  |    |    |    |    |
| Eco Mode                      | up to 99%                                                                                    |    |    |    |    |
| BATTERY                       |                                                                                              |    |    |    |    |
| Technologies                  | VRLA, NiCd, Li-Ion Battery                                                                   |    |    |    |    |
| Battery type                  | normal life - long life                                                                      |    |    |    |    |
| Configuration                 | external<br>separated or shared                                                              |    |    |    |    |
| RELIABILITY (MTBF)            |                                                                                              |    |    |    |    |
| MTBF (VFI)                    | > 500,000 hrs (attested)                                                                     |    |    |    |    |
| MTBF (UPS)                    | > 12,000,000 hrs (attested)                                                                  |    |    |    |    |
| ENVIRONMENT                   |                                                                                              |    |    |    |    |
| Operating ambient temperature | full performance up to +40 °C (without specific conditions)                                  |    |    |    |    |
| UPS CABINET                   |                                                                                              |    |    |    |    |
| 19" rack height               | 7U                                                                                           |    |    |    |    |
| Dimensions W x D x H (mm)     | 442 x 820 x 305                                                                              |    |    |    |    |
| Weight                        | 79 kg max <sup>(1)</sup>                                                                     |    |    |    |    |
| Display                       | 3.5"                                                                                         |    |    |    |    |
| Backup battery                | external batteries                                                                           |    |    |    |    |
| Degree of protection          | IP20                                                                                         |    |    |    |    |
| Colours                       | RAL 7016                                                                                     |    |    |    |    |
| ADVANCED SERVICE PERFORMANCE  |                                                                                              |    |    |    |    |
| Life extension                | service programme to avoid end of life                                                       |    |    |    |    |
| Quick repair                  | 5 times less MTTR than legacy UPS by removable front access parts                            |    |    |    |    |
| STANDARDS                     |                                                                                              |    |    |    |    |
| Safety                        | IEC/EN 62040-1                                                                               |    |    |    |    |
| EMC                           | IEC/EN 62040-2                                                                               |    |    |    |    |
| Performance                   | IEC/EN 62040-3                                                                               |    |    |    |    |
| Environmental                 | full compliance with the RoHS EU directive                                                   |    |    |    |    |
| Seismic compliance            | on demand, in accordance with the Uniform Building Code UBC-1997 Zone 4                      |    |    |    |    |
| Product declaration           | CE, EAC, UKCA                                                                                |    |    |    |    |

(1) According to the model.

# MASTERYS GP4

Superior reliability and performance  
from 10 to 160 kVA/kW



gamma\_755.jpg

## Function

MASTERYS GP4 is the most advanced medium power monolithic UPS solution. With reliability engineered-in - to guarantee uptime, innovative features to maximise energy efficiency and intelligent capability fit for the future.

## Advantages

### Superior design and reliability

- Oversized design margin: reliability first.
- Certified seismic resistance.
- Superior and officially attested MTBF.
- Long product life expectancy.

### Unrivalled serviceability

- UPS architecture eliminates single point of failure associated with traditional monolithic UPS.
- Fault tolerant concept provides double conversion mode redundancy to a minimum of 50% of rated power in the worst case scenario (60-160 kW).
- Self-sufficient power bricks.
- Based on our field proven medium power platform.
- Limited number of power converters - each designed to eliminate potential fault propagation for best MTBF.
- Powerful and robust static bypass.
- Innovative maintenance thanks to brick architecture.
- Rapid repairs: 5 times faster than legacy UPS.
- Totally front access maintenance.

### Embedded digital technology

- IoT ready device for access to connected services.
- eWIRE mobile app for AR guided installation and reporting.
- SoLive UPS mobile app for remote control and anomaly notification.
- Easy integration in LAN/WAN and virtual environments.

### Certified performance

- Full performance up to 40 °C without derating and without specific conditions.
- Energy savings - without compromise: 96.5% efficiency in VFI.
- Up to 99% efficiency in "ECO" mode.
- Performance tested and verified by TÜV SÜD.

### User and environmentally friendly

- Ergonomics designed to simplify usage.
- Ready for upcoming eco-regulations.
- RoHS compliant.
- Halogen-free cables.
- 25+ languages available on the mimic panel.

### Extended and flexible back-up time

- High density internal battery engineering reduces footprint significantly.
- Internal battery up to 80 kW included.
- Fast recharge - even for very long back-up time.
- Li-Ion battery technology-ready.

## The solution for

- > Healthcare
- > Industry

## Strong points

- > Superior design and reliability
- > Unrivalled serviceability
- > Embedded digital technology
- > Certified performance
- > User and environmentally friendly
- > Extended and flexible back-up time

## Conformity to standards

- > IEC/EN 62040-1, IEC/EN 62040-2
- > EN 62040-3
- > CE
- > UKCA
- > EAC

## Certifications and attestations



The **MASTERYS GP4** series is certified by TÜV SÜD with regard to product safety (EN 62040-1).



The **MASTERYS GP4** units have successfully passed severe tests to verify their resistance to withstand Zone 4 seismic events.



## Advantages



Ready for Li-Ion battery

## eWIRE



qr code 219 a gb



### General characteristics

- Dual input mains.
- Internal maintenance bypass switch.
- Input mains switch breaker.
- Output switch breaker.
- Auxiliary mains switch breaker.
- Backfeed protection: detection circuit.
- Full compatibility with generators.
- Normal and long-life battery up to 80 kW.
- Distributed or shared battery for energy storage optimization on parallel systems.

### Standard communication features

- User-friendly 7" touch screen with multilingual colour graphic display (60-160 kVA/kW).
- 2 slots for communication options.
- USB port for downloading UPS report and log file.
- Ethernet port for service purposes.

### Electrical options

- 3-phase input without neutral.
- Internal backfeed isolation device.
- Common mains coupling bars.
- TN-C grounding system.
- ACS synchronization system.
- IP21 degree of protection.
- Top cabling kit.
- Top ventilation kit.
- Redundant bypass fan.
- Seismic bracing kit.

### Communication options

- Dry-contact interface (configurable voltage-free contacts).
- MODBUS RTU RS485 or TCP.
- PROFIBUS / PROFINET gateway.
- BACnet/IP interface.
- NET VISION: professional WEB/ SNMP Ethernet interface for secure UPS monitoring and remote automatic shutdown.

### Technical data

| MASTERYS GP4                                   |                                                                                              |    |    |    |    |    |    |     |     |     |
|------------------------------------------------|----------------------------------------------------------------------------------------------|----|----|----|----|----|----|-----|-----|-----|
| Sn [kVA]                                       | 10                                                                                           | 15 | 20 | 30 | 40 | 60 | 80 | 100 | 120 | 160 |
| Pn [kW]                                        | 10                                                                                           | 15 | 20 | 30 | 40 | 60 | 80 | 100 | 120 | 160 |
| Input / output 3/1                             | •                                                                                            | •  | •  | -  | -  | -  | -  | -   | -   | -   |
| Input / output 3/3                             | •                                                                                            | •  | •  | •  | •  | •  | •  | •   | •   | •   |
| Parallel configuration                         | up to 6 units                                                                                |    |    |    |    |    |    |     |     |     |
| INPUT                                          |                                                                                              |    |    |    |    |    |    |     |     |     |
| Rated voltage                                  | 400 V 3ph+N (3 wire input also available on demand)                                          |    |    |    |    |    |    |     |     |     |
| Voltage tolerance                              | 240 V to 480 V                                                                               |    |    |    |    |    |    |     |     |     |
| Rated frequency                                | 40-70 Hz                                                                                     |    |    |    |    |    |    |     |     |     |
| OUTPUT                                         |                                                                                              |    |    |    |    |    |    |     |     |     |
| Power factor                                   | 1 (according to IEC / EN 62040-3)                                                            |    |    |    |    |    |    |     |     |     |
| Rated voltage                                  | 1ph + N: 230 V (can be configured 220/240 V)<br>3ph + N: 400 V (can be configured 380/415 V) |    |    |    |    |    |    |     |     |     |
| Rated frequency                                | 50/60 Hz                                                                                     |    |    |    |    |    |    |     |     |     |
| EFFICIENCY (TÜV SÜD VERIFIED)                  |                                                                                              |    |    |    |    |    |    |     |     |     |
| Double conversion VFI mode                     | up to 96.5%                                                                                  |    |    |    |    |    |    |     |     |     |
| Eco Mode                                       | up to 99%                                                                                    |    |    |    |    |    |    |     |     |     |
| BATTERIES                                      |                                                                                              |    |    |    |    |    |    |     |     |     |
| Technologies                                   | VRLA, NiCd, Li-Ion Battery                                                                   |    |    |    |    |    |    |     |     |     |
| INTERNAL BACK-UP TIME (MINUTES) <sup>(1)</sup> |                                                                                              |    |    |    |    |    |    |     |     |     |
| S4                                             | 31                                                                                           | 19 | 13 | 7  | 5  | -  |    |     |     |     |
| M4                                             | 90                                                                                           | 57 | 40 | 24 | 17 | -  |    |     |     |     |
| T6                                             | -                                                                                            |    |    |    |    | 11 | 8  | -   |     |     |
| ENVIRONMENT                                    |                                                                                              |    |    |    |    |    |    |     |     |     |
| Operating ambient temperature                  | full performance up to +40 °C                                                                |    |    |    |    |    |    |     |     |     |
| UPS CABINET                                    |                                                                                              |    |    |    |    |    |    |     |     |     |
| Weight                                         | depends on the number of batteries installed - contact us                                    |    |    |    |    |    |    |     |     |     |
| Degree of protection                           | IP20 (IP21 on demand)                                                                        |    |    |    |    |    |    |     |     |     |
| Colours                                        | RAL 7016                                                                                     |    |    |    |    |    |    |     |     |     |
| ADVANCED SERVICE PERFORMANCE                   |                                                                                              |    |    |    |    |    |    |     |     |     |
| Life extension                                 | service programme to avoid end of life                                                       |    |    |    |    |    |    |     |     |     |
| Quick repair                                   | 5 times less MTTR than legacy UPS by removable front access parts                            |    |    |    |    |    |    |     |     |     |
| STANDARDS                                      |                                                                                              |    |    |    |    |    |    |     |     |     |
| Safety                                         | IEC/EN 62040-1                                                                               |    |    |    |    |    |    |     |     |     |
| EMC                                            | IEC/EN 62040-2                                                                               |    |    |    |    |    |    |     |     |     |
| Performance                                    | EN 62040-3                                                                                   |    |    |    |    |    |    |     |     |     |
| Environmental                                  | full compliance with the RoHS EU directive                                                   |    |    |    |    |    |    |     |     |     |
| Seismic compliance                             | on demand, in accordance with the Uniform Building Code UBC-1997 Zone 4                      |    |    |    |    |    |    |     |     |     |
| Product declaration                            | CE, EAC, UKCA                                                                                |    |    |    |    |    |    |     |     |     |

(1) @80% of rated load PF 1.

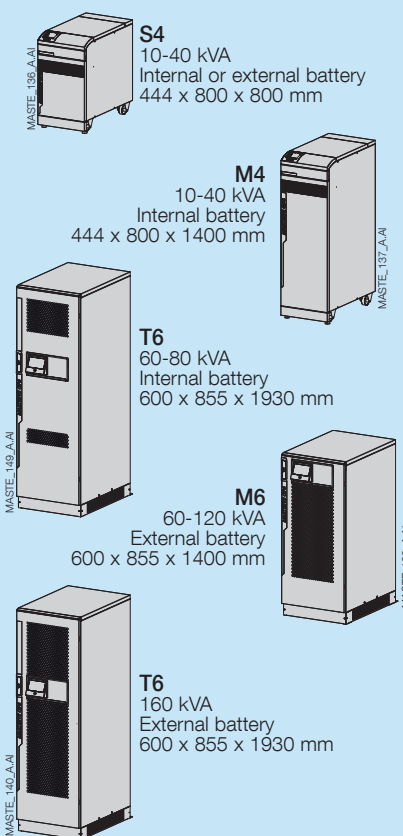
- REMOTE VIEW PRO supervision software.
- IoT gateway for Socomec cloud services and SoLive UPS mobile app.
- Remote touch-screen panel.
- User-friendly 7" touch screen with multilingual colour graphic display (10-40 kVA/kW).

### Designed for availability

> MTBF VFI\*: 350,000 hrs

\* Officially attested.

### UPS dimensions (WxDxH)



### Expert services

Our services guarantee the highest level of availability to your UPS:

- > Technical advice
- > Commissioning
- > Manufacturer training
- > Maintenance contracts including digital services



# DELPHYS GP

High-efficiency protection without compromise  
from 160 to 800 kVA/kW



GAMME 739 PSD

## The solution for

- > Healthcare
- > Industry

## Strong points

- > Energy saving: high efficiency without compromise
- > Full rated power: kW=kVA
- > Significant cost-saving (TCO))

## Conformity to standards

- > IEC/EN 62040-1
- > AS 62040.1.1
- > AS 62040.1.2
- > IEC/EN 62040-2
- > AS 62040,2
- > IEC/EN 62040-3
- > AS 62040,3
- > CE, RCM (E2376)

## Certifications and attestations



**BUREAU  
VERITAS**  
DELPHYS GP  
is attested by  
Bureau Veritas



**VIRLAB**  
DELPHYS GP  
160, 200 and  
500 kVA/kW are  
seismic certified  
by Virlab



## Energy saving + Full rated power = reduced TCO

### Function

The Delphys Green Power range is a monolithic UPS solution designed to meet performance and service continuity requirements.

Scalable up to 4MW, the Delphys GP covers a wide range of power which has proven itself to the most demanding customers in different types of high criticality applications.

### Advantages

#### Energy saving: high efficiency without compromise

- LeOffers the highest efficiency in the market using VFI – Double Conversion Mode, the only UPS working-mode that assures total load protection against all mains quality problems.
- Ultra high efficiency output independently tested and verified by an international certification organization in a wide range of load and voltage operating condition.
- Ultra high efficiency in VFI mode is provided by an innovative topology (3-Level technology) that has been developed for all the Green Power 2.0 UPS ranges.

#### Full rated power: kW=kVA

- No power downgrading when supplying the latest generation of servers (leading or unity power factor).
- Real full power, according to IEC 62040: kW=kVA (unity power factor design) means 25% more active power available compared to legacy UPS.
- Suitable also for leading power factor loads down to 0.9 without apparent power derating.

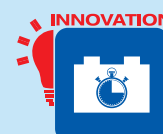
#### Significant cost-saving (TCO)

- Maximum energy saving thanks to 96% efficiency in true double conversion mode: 50% saving on energy losses compared to legacy UPS gives significant savings in energy bill.
- Up to 99% efficiency with FAST ECOMODE.
- UPS «self-paying» with energy saving.
- Energy Saver mode for global efficiency improvement on parallel systems.
- kW=kVA means maximum power available with the same UPS rating: no overdesign cost and therefore less €/kW.
- Upstream infrastructure cost optimization (sources and distribution), thanks to high performance IGBT rectifier.
- Extended battery life and performance: long life battery and very wide input voltage and frequency acceptance, without battery use.
- EBS (Expert Battery System) charging management improves battery service life.
- BCR (Battery Capacity Re-injection) removes the constraints of using an additional load bank for the battery discharge test: it consists in re-injecting the energy stored in the batteries to other applications.

## Advantages



Ready for Li-Ion battery



Battery Capacity Re-injection

## Parallel systems

To fulfil the most demanding needs for power supply availability, flexibility and the installation to be upgraded.

- Modular parallel configurations up to 4MW, development without constraint.
- Distributed or centralized bypass flexibility to ensure a perfect compatibility with the electrical infrastructure.
- Twin channel architecture with Static Transfer Systems.
- Distributed or shared battery for energy storage optimization on parallel systems.

## General characteristics

- Integrated maintenance bypass for single unit (and 1+1 system).
- Backfeed protection: detection circuit.
- EBS (Expert Battery System) for battery management.
- Redundant cooling.
- Battery temperature sensor.

## Electrical options

- Separated or common input mains.
- External maintenance bypass.
- Extended battery charger capability.
- Shared battery.
- Compatible with different battery technologies (e.g. Li-Ion, Ni-Cd...).
- Galvanic isolation transformer.
- Backfeed isolation device.
- ACS synchronisation system.
- BCR (Battery Capacity Re-injection).
- FAST ECOMODE.

## Technical data

| DELPHYS GP                                                     |                                                                                                                             |          |          |        |         |          |         |          |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|----------|----------|--------|---------|----------|---------|----------|
| Sn [kVA]                                                       | 160                                                                                                                         | 200      | 250      | 300    | 400     | 500      | 600     | 800      |
| Pn [kW]                                                        | 160                                                                                                                         | 200      | 250      | 300    | 400     | 500      | 600     | 800      |
| Input/output                                                   | 3/3                                                                                                                         |          |          |        |         |          |         |          |
| Parallel configuration                                         | up to 4 MW                                                                                                                  |          |          |        |         |          |         |          |
| INPUT                                                          |                                                                                                                             |          |          |        |         |          |         |          |
| Rated voltage                                                  | 400 V 3ph                                                                                                                   |          |          |        |         |          |         |          |
| Voltage tolerance                                              | 200 V to 480 V <sup>(1)</sup>                                                                                               |          |          |        |         |          |         |          |
| Rated frequency                                                | 50/60 Hz                                                                                                                    |          |          |        |         |          |         |          |
| Frequency tolerance                                            | ± 10 Hz                                                                                                                     |          |          |        |         |          |         |          |
| Power factor / THDI                                            | > 0.99 / < 2.5% <sup>(3)</sup>                                                                                              |          |          |        |         |          |         |          |
| OUTPUT                                                         |                                                                                                                             |          |          |        |         |          |         |          |
| Power factor                                                   | 1 (according to IEC/EN 62040-3)                                                                                             |          |          |        |         |          |         |          |
| Rated voltage                                                  | 3ph + N 400 V                                                                                                               |          |          |        |         |          |         |          |
| Voltage tolerance static load                                  | ±1 % dynamic load in accordance with VFI-SS-111                                                                             |          |          |        |         |          |         |          |
| Rated frequency                                                | 50/60 Hz                                                                                                                    |          |          |        |         |          |         |          |
| Frequency tolerance                                            | ± 2% (configurable for GenSet compatibility)                                                                                |          |          |        |         |          |         |          |
| Total output voltage distortion linear load                    | ThdU < 1.5%                                                                                                                 |          |          |        |         |          |         |          |
| Total output voltage distortion non-linear load (IEC 62040-3 ) | ThdU < 3%                                                                                                                   |          |          |        |         |          |         |          |
| Short-circuit current <sup>(2)</sup>                           | up to 3.4 x In                                                                                                              |          |          |        |         |          |         |          |
| BYPASS                                                         |                                                                                                                             |          |          |        |         |          |         |          |
| Rated voltage                                                  | rated output voltage                                                                                                        |          |          |        |         |          |         |          |
| Voltage tolerance                                              | ± 15% (configurable from 10% to 20%)                                                                                        |          |          |        |         |          |         |          |
| Rated frequency                                                | 50/60 Hz                                                                                                                    |          |          |        |         |          |         |          |
| Frequency tolerance                                            | ± 2% (configurable for GenSet compatibility)                                                                                |          |          |        |         |          |         |          |
| EFFICIENCY                                                     |                                                                                                                             |          |          |        |         |          |         |          |
| Online mode @ 40 % of load                                     | up to 96%                                                                                                                   |          |          |        |         |          |         |          |
| Online mode @ 75 % of load                                     | up to 96%                                                                                                                   |          |          |        |         |          |         |          |
| Online mode @ 100 % of load                                    | up to 96%                                                                                                                   |          |          |        |         |          |         |          |
| Fast EcoMode                                                   | up to 99%                                                                                                                   |          |          |        |         |          |         |          |
| ENVIRONMENT                                                    |                                                                                                                             |          |          |        |         |          |         |          |
| Operating ambient temperature                                  | from 0 °C up to +40 <sup>(1)</sup> °C (from 15 °C to 25 °C for maximum battery life)                                        |          |          |        |         |          |         |          |
| Relative humidity                                              | 0 % - 95 % without condensation                                                                                             |          |          |        |         |          |         |          |
| Maximum altitude                                               | 1000 m without derating (max. 3000 m)                                                                                       |          |          |        |         |          |         |          |
| Acoustic level at 1 m (ISO 3746)                               | < 65 dBA                                                                                                                    | < 67 dBA | < 70 dBA |        |         | < 72 dBA |         | < 74 dBA |
| UPS CABINET                                                    |                                                                                                                             |          |          |        |         |          |         |          |
| Dimensions                                                     | W                                                                                                                           | 700 mm   | 1000 mm  |        | 1400 mm | 1600 mm  | 2800 mm | 3510 mm  |
|                                                                | D                                                                                                                           | 800 mm   | 950 mm   |        | 800 mm  | 950 mm   | 950 mm  |          |
|                                                                | H                                                                                                                           | 1930 mm  |          |        |         |          | 2060 mm |          |
| Weight                                                         | 470 kg                                                                                                                      | 490 kg   | 850 kg   | 900 kg | 1000 kg | 1500 kg  | 2300 kg | 2800 kg  |
| Degree of protection                                           | IP20 (other IP as option)                                                                                                   |          |          |        |         |          |         |          |
| Colours                                                        | cabinet: RAL 7012, door: silver grey                                                                                        |          |          |        |         |          |         |          |
| STANDARDS                                                      |                                                                                                                             |          |          |        |         |          |         |          |
| Safety                                                         | IEC/EN 62040-1, AS 62040.1.1, AS 62040.1.2                                                                                  |          |          |        |         |          |         |          |
| EMC                                                            | IEC/EN 62040-2, AS 62040.2                                                                                                  |          |          |        |         |          |         |          |
| Performance                                                    | IEC/EN 62040-3, AS 62040.3                                                                                                  |          |          |        |         |          |         |          |
| Seismic compliance <sup>(4)</sup>                              | Uniform Building Code UBC-1997, EN 60068-3-3/1993 (seismic), EN 60068-2-6/2008 (sinusoidal), EN 60068-2-47/2005 (mounting). |          |          |        |         |          |         |          |
| Product declaration                                            | CE, RoHS (E2376), UKCA                                                                                                      |          |          |        |         |          |         |          |

(1) Conditions apply. (2) Worst condition (Auxiliary Mains not available). (3) With input THDI < 1%. (4) 160, 200 and 500 kVA/kW models.

## Standard communication features

- User-friendly 7" touch-screen multilingual colour graphic display.
- 2 slots for communication options.
- USB port to download UPS report and log file.
- Ethernet port for service purpose.

## Communication options

- Dry-contact interface (configurable voltage-free contacts).
- MODBUS RTU RS485 or MODBUS TCP.
- PROFIBUS / PROFINET gateway.
- BACnet/IP interface.
- NET VISION: professional WEB/SNMP Ethernet interface for secure UPS monitoring and remote automatic shutdown.
- REMOTE VIEW PRO supervision software.
- IoT gateway for Socomec cloud services and SOLIVE UPS mobile app.
- Remote touch-screen panel.
- Additional Com-slot extension.

## Expert services

Our services guarantee the highest level of availability to your UPS:

- Technical advice
- Commissioning
- Manufacturer training
- Maintenance contracts including digital services



# DELPHYS XM

## High power density and superior efficiency UPS

### 300 to 800 kVA/kW



DELPHYS\_XM.PNG



Energy efficient

#### The solution for

- > Data centers
- > Building
- > Industry – light environment
- > Infrastructure

#### Strong points

- > Elevating efficiency: sustainable by nature, designed for performance
- > Redefining power density
- > Best in class adaptability for multiple applications
- > Ensuring proactive and easy maintenance
- > Guaranteeing uptime with superior resiliency

#### Conformity to standards

- > EN/IEC 62040-1
- > EN/IEC 62040-2
- > EN/IEC 62040-3

#### Advantages

DELPHYS XM efficiency in Smart Conversion Mode



42 tons of CO<sub>2</sub> saved considering 50% average load <sup>(1)</sup>

1. Yearly values calculated for DELPHYS XM 800 kW compared to 97% efficiency UPS.

#### Expert services

Guarantee proactive maintenance and maximum uptime without compromises with built-in connected services such as:

- > Data collect and storage
- > Live monitoring
- > Expert monitoring 24/7
- > Remote diagnostic & troubleshooting



#### Function

**DELPHYS XM** is a high-efficiency UPS designed with cutting-edge technology to reduce Total Cost of Ownership (TCO). Its ultra-compact footprint, combined with energy efficiency, adaptability, and modular design, creates a perfect synergy that maximises overall performance and benefits.

#### Advantages

##### Elevating efficiency: sustainable by nature, designed for performance

High UPS efficiency ratings enabling reduced energy consumption, cooling requirements and CO<sub>2</sub> emissions:

- Up to 99% thanks to Smart Conversion Mode to transfer from line interactive to double conversion mode in 0 ms.
- Up to 97,1% in online double conversion (VFI).
- Energy Saver Mode to maximise the efficiency under low load conditions.

High service efficiency: sustainability performance is further enhanced by digital services, making operations even more efficient and helping to reduce your carbon footprint.

##### Ensuring proactive and easy maintenance

Optimised maintenance MTTR (Mean Time to Repair) thanks to:

- Upgraded UPS and services connectivity for advanced monitoring and reactive maintenance.
- User-friendly 10" HMI – easy to operate.
- Full front access and hot-swappable 100 kW modules – easy to maintain.
- No need to access the inside of the UPS – all maintenance can be performed without any cabling work.

##### Redefining power density

- DELPHYS XM delivers up to 800 kW in just 0.8m<sup>2</sup>, setting a new industry standard.
- Optimised operational footprint: no lateral/rear space required with a dedicated cooling kit.

##### Best in class adaptability for multiple applications

From ordering to commissioning, DELPHYS XM ensures perfect integration:

- Standardised design and wide range of standard options.
- Lead & Lithium battery compatibility with wide operating voltage range.
- Versatile integration: top or bottom cable entry, common or separated.
- Conformal-coated electronics and IP rating to adapt to site environment.

##### Guaranteeing uptime with superior resiliency

Designed to eliminate any single point of failure:

- Modular design based on 100 kW modules engineered to avoid fault propagation.
- Intrinsic redundancy (N or N+1) to ensure high protection level under abnormal event.
- Robust and full rated static bypass to sustain abnormal load conditions.



### Standard electrical features

- Smart conversion mode.
- Energy saver mode.
- Separated or common input mains.
- Top entry connection.
- Withdrawable static bypass.
- Inputs and output switches for single and parallel units (300-600 kVA).
- Maintenance bypass switch for single unit (300-600 kVA).
- TNS grounding system.
- Backfeed protection: detection circuit.
- Conformal-coated PCBs.
- UPS Heat-run mode.
- Cold start.

### Electrical options

- Bottom entry connection (side cabinet).
- Kit for top air outlet.
- PEN kit for TN-C grounding system.
- ACS synchronization between two DELPHYS XM systems.
- Battery temperature sensor for lead batteries.

### Standard communication features

- User-friendly 10" touch-screen multilingual color graphic display.
- 3 COM slots for communication optional card.
- Ethernet port for service purpose.

### Communication options

- +3 COM slots extension kit.
- Dry-contact interface (configurable voltage-free contacts).
- MODBUS RTU RS485 or TCP.
- NET VISION: professional WEB/ SNMP Ethernet interface for secure UPS monitoring and remote automatic shutdown.
- NET VISION EMD: Environment Temperature and Humidity sensor with 2 inputs.
- Remote View Pro supervision software.

### Technical data

|                                                      |                       |                                                                  |     |     |     |                    |
|------------------------------------------------------|-----------------------|------------------------------------------------------------------|-----|-----|-----|--------------------|
| UPS MODEL                                            |                       | 300                                                              | 400 | 500 | 600 | 800                |
| Number of 100kW power conversion modules             |                       | 3                                                                | 4   | 5   | 6   | 8                  |
| Rated Power                                          | (N configuration)     | 300                                                              | 400 | 500 | 600 | 800                |
|                                                      | (N + 1 configuration) | 200                                                              | 300 | 400 | 500 | 700                |
| Efficiency in Double Conversion Mode(VFI)            |                       | Up to 97,1%                                                      |     |     |     |                    |
| Efficiency in Smart Conversion Mode                  |                       | Up to 99%                                                        |     |     |     |                    |
| Parallel capability                                  |                       | Up to 6                                                          |     |     |     | Up to 4            |
| INPUTS                                               |                       |                                                                  |     |     |     |                    |
| Nominal input voltage                                |                       | 380/400/415 V (3Ph+N+PE)                                         |     |     |     |                    |
| Input voltage tolerance <sup>(1)</sup>               |                       | 140 to 485 V                                                     |     |     |     |                    |
| Input connection                                     |                       | Common or separated / top or bottom <sup>(2)</sup>               |     |     |     |                    |
| Frequency range                                      |                       | 50/60 Hz                                                         |     |     |     |                    |
| Input power factor / THDi                            |                       | > 0.99 / < 3% @ full load                                        |     |     |     |                    |
| OUTPUT                                               |                       |                                                                  |     |     |     |                    |
| Nominal output voltage                               |                       | 380/400/415 V configurable / (3ph + N)                           |     |     |     |                    |
| Frequency range                                      |                       | 50/60 Hz ± 0.02 Hz                                               |     |     |     |                    |
| Voltage regulation                                   |                       | Static load ±1%,                                                 |     |     |     |                    |
| Output voltage distortion (THDv)                     |                       | ≤ 1,5 % with rated linear load                                   |     |     |     |                    |
| Output voltage performance (load variation 0 - 100%) |                       | Complies with IEC 62040-3 Class 1 (VFI-SS-111)                   |     |     |     |                    |
| Inverter overload capability                         |                       | 125% 10 min / 150% 1 min                                         |     |     |     |                    |
| Bypass overload capability                           |                       | 110% permanent / 125% 10 min                                     |     |     |     |                    |
| BATTERIES                                            |                       |                                                                  |     |     |     |                    |
| Battery type                                         |                       | 2 wires, VRLA/Lithium-ion                                        |     |     |     |                    |
| Battery connection capability                        |                       | 40-50 Lead battery blocks without derating                       |     |     |     |                    |
| Battery charge current capacity - per module         |                       | Configurable up to 30A without UPS power derating <sup>(3)</sup> |     |     |     |                    |
| ENVIRONMENT                                          |                       |                                                                  |     |     |     |                    |
| Operating temperature                                |                       | 0 - 40° C                                                        |     |     |     |                    |
| Humidity                                             |                       | 0 - 95% without condensation                                     |     |     |     |                    |
| Air flow                                             |                       | From front to rear in STD, from front to top with WALL KIT       |     |     |     | From front to rear |
| Maximum altitude without derating                    |                       | 1500 m (4,900 ft)                                                |     |     |     |                    |
| Standard protection rating                           |                       | IP20                                                             |     |     |     |                    |
| Frame colour                                         |                       | RAL 7016                                                         |     |     |     |                    |
| DIMENSIONS AND WEIGHT                                |                       |                                                                  |     |     |     |                    |
| UPS dimensions mm (W x D x H) <sup>(2)</sup>         |                       | 800 x 1000 x 2000                                                |     |     |     |                    |
| Weight kg                                            |                       | 515                                                              | 565 | 650 | 730 | 900                |
| Clearance                                            | Standard              | No rear or lateral clearance for installation and maintenance    |     |     |     |                    |
|                                                      | Optional              | 300 mm rear clearance for air flow                               |     |     |     |                    |
|                                                      |                       | No rear clearance (top air outlet kit)                           |     |     |     | N/A                |

(1) Conditions apply.

(2) Standard top entry configuration.

(3) Up to 100 A with power de-rating.

# DELPHYS XL

## High Power UPS

1000 and 1200 kVA/kW



DELPHYS\_207.EPS



### Function

DELPHYS XL is a highly compact UPS with best in class efficiency offering inherent redundancy and allowing by design, fast & safe maintenance operation. A fully resilient UPS architecture eliminating traditional single points of failure.

### Advantages

#### Flexible integration with an optimised footprint

- High power UPS packed into a compact and optimised design.
- Highly flexible connection to your electrical environment.
- Easy and fast deployment of the entire UPS system.
- Up to 70% space saving when combined with lithium-ion batteries.
- Advanced on-site testing features to certify commissioning.

#### Unmatched resiliency to maximise availability

- UPS architecture eliminates single point of failure related to traditional monolithic UPS.
- Fault tolerant concept provides double conversion mode redundancy up to 80% of the rated power.
- Self-sufficient power bricks with advanced selective disconnection.
- Based on our field proven high power XL platform.
- Limited number of power converters - each designed to eliminate potential fault propagation for best MTBF.
- Powerful and robust static bypass.

#### Best in class energy management & savings

- 99,1% efficiency with our Smart Conversion Mode.
- 97,1% VFI mode as standard.
- ENERGY SAVER for higher system efficiency under low load conditions (bricks in hot stand-by).
- Multiple advanced operating and testing mode to minimise TCO.
- Ready for grid support functionalities.

#### Critical chain interoperability

- Designed to fit any data centre power distribution architecture.
- Advanced functionalities to ensure Genset stability upon restart or significant variation in loads.
- Designed to coordinate perfectly with our downstream connected STS.
- Supports even the most challenging load variation.

#### Easy and safe maintenance supporting low MTTR

- Reduced MTTR supported by coldextractable power bricks.
- No cabling operation required to slide-out a power brick.
- Front access to all components.
- Safe servicing thanks to "hands outside" maintenance.
- Maintenance station with embedded operating power brick as a spare.
- Option to test the UPS and batteries without load when carrying out maintenance activities.

### The solution for

- > Data centre
- > Industry
- > Building

### Strong points

- > Flexible integration with an optimised footprint
- > Unmatched resiliency to maximise availability
- > Best in class energy management & savings
- > Critical chain interoperability
- > Easy and safe maintenance supporting low MTTR

### Conformity to standards

- > EN/IEC 62040-1
- > EN/IEC 62040-2
- > EN/IEC 62040-3
- > EN/IEC 62040-4

### Certifications and attestations



### Advantages

**99.1%**  
smart  
conversion

**97.1%**  
EFFICIENCY

**PF 1**

**kW = kVA**

### UPS flexibility

- Common or separate rectifier and mains bypass.
- Top and bottom cable entry or bus bar flanges.
- Multiple DC connection capability
- Compatible with different energy storage technologies (e.g. Li-Ion, VRLA, Ni-Cd...).

### General characteristics

- Intrinsic redundancy with selective fault disconnection.
- Redundant cooling.
- Unit heat run test - without dummy load bench.
- External breakers position management.
- Backfeed protection: detection circuit.
- Energy saver mode.
- Rails and trolley for power brick extraction or cold-swap.

### Electrical options

- Input, output and maintenance bypass switches.
- PEN kit for TN-C grounding system.
- Reinforced battery charger.
- Battery protection tripping kit.
- SMART CONVERSION mode.
- BCR (Battery Capacity Re-injection).
- ACS synchronisation system.
- Cold start.
- Maintenance Station with spare power conversion brick.
- Advanced Genset Management..

### Standard communication features

- User-friendly 7" touch-screen multilingual colour graphic display.
- USB port to download UPS reports and log files.
- Ethernet port for service purposes..

### Communication options

- Dry-contact interface (configurable voltage-free contacts).
- MODBUS RTU RS485 or TCP.
- BACnet/IP interface.
- NET VISION: professional WEB/ SNMP Ethernet interface for secure UPS monitoring and remote automatic shutdown.
- NET VISION EMD: Environment Temperature and Humidity sensor with 2 inputs.
- Remote View Pro supervision software.
- Remote touch-screen panel.

### Technical data

|                                                      |                                                                |                                        |
|------------------------------------------------------|----------------------------------------------------------------|----------------------------------------|
| UPS power rating                                     | 1 000 kVA / kW                                                 | 1 200 kVA / kW                         |
| Efficiency in Double Conversion Mode                 | Up to 97,1% - certified by third party (Bureau Veritas or TÜV) |                                        |
| Efficiency in Smart Conversion Mode                  | Up to 99,1% - certified by third party (Bureau Veritas or TÜV) |                                        |
| Parallel capability                                  | Up to 4 units                                                  |                                        |
| INPUTS                                               |                                                                |                                        |
| Nominal input voltage                                | 380 / 400 / 415V - 3Ph or 3Ph+N                                |                                        |
| Input voltage tolerance*                             | 200 to 480V                                                    |                                        |
| Input connection                                     | Common or separated / top or bottom                            |                                        |
| Frequency range                                      | 50/60Hz ± 10%                                                  |                                        |
| Input power factor / THDi                            | > 0.99 / < 1.5% @ full load                                    |                                        |
| Power walk-in on Genset                              | Linear ramp - from 1A/sec to 1000A/sec                         |                                        |
| OUTPUTS                                              |                                                                |                                        |
| Nominal output voltage                               | 400 V (380 / 415) - 3Ph or 3Ph+N                               |                                        |
| Frequency range                                      | 50/60Hz ± 0.01% (free running)                                 |                                        |
| Voltage regulation                                   | ± 1% steady state                                              |                                        |
| Output voltage distortion (THDv)                     | < 1%                                                           |                                        |
| Output voltage performance (load variation 0 - 100%) | Complies with IEC 62040-3 Class 1 (VFI-SS-111)                 |                                        |
| Inverter overload capability                         | 110 % 1h / 125% 10 min /<br>144% 1 min                         | 110 % 1h / 125% 10 min /<br>150% 1 min |
| Bypass overload capability                           | 110% continuous / 125% 10 min / 150% 1 min                     |                                        |
| Inverter short circuit capability                    | up to 3230 A                                                   | up to 4090 A                           |
| Bypass short circuit selectivity                     | Fuseless architecture (I <sub>sw</sub> 65kA)                   |                                        |
| BATTERIES                                            |                                                                |                                        |
| Battery type - 2 wires (+/-)                         | VRLA / Lithium-ion                                             |                                        |
| Battery voltage range                                | Up to 705 V                                                    |                                        |
| Battery connection capability                        | Up to 10 strings (w/o extra cabinet)                           |                                        |
| Lithium-ion communication                            | Modbus TCP / dry contact                                       |                                        |
| ENVIRONMENT                                          |                                                                |                                        |
| Operating temperature                                | 0 - 40°C                                                       |                                        |
| Humidity                                             | 0 - 95% without condensation                                   |                                        |
| Air flow                                             | From front to top                                              |                                        |
| Maximum altitude without derating                    | 1000m (3,300 ft)                                               |                                        |
| Standard protection rating                           | IP20 / IP21 (optional)                                         |                                        |
| Seismic rating                                       | Zone 2 / Zone 4 (optional)                                     |                                        |
| Frame colour                                         | RAL 7016                                                       |                                        |
| DIMENSIONS AND WEIGHT                                |                                                                |                                        |
| UPS dimensions (W x D x H)                           | 2625 x 1000 x 2005                                             | 3003 x 1000 x 2005                     |
| Weight                                               | 2600 kg                                                        | 3200 kg                                |
| Clearance                                            | No rear or lateral clearance for installation and maintenance  |                                        |



### Expert services

Our services guarantee the highest level of availability to your UPS:

- > Technical advice
- > Commissioning
- > Manufacturer training
- > Optional power brick as a spare
- > Optional predictive maintenance of consumables
- > Maintenance contracts including digital services



# Optional services for maintenance contract

power brick as a spare for DELPHYS XL UPS



Take advantage of the "Power brick as a spare" option of your service contract and maximise the availability of your DELPHYS XL UPS.

Coupled with a maintenance station, you can have a spare power brick kept in working order at all times near your DELPHYS XL.

## Maintaining availability

With its internal redundancy, should a power brick fail the DELPHYS XL UPS will continue to operate in double conversion mode provided that the operating load does not exceed 80% of the nominal load.

## "All inclusive" option

We provide the spare brick and maintenance station, with a Socomec expert carrying out the maintenance (including brick spare parts and consumables).

## Minimises MTTR

In case of failure or breakdown, having an operational spare power module on-site ensures the restoration of the UPS during the first intervention by a Socomec expert.

## A solution that counts as an operating expense (OPEX)

With this option, you can keep on top of your finances without impacting your cashflow.

## Key points

- > Reduced MTTR
- > Operational power brick kept at the customer's site
- > Manage a complete brick rather than spare parts
- > Use this option to cover the needs of multiple machines installed at the same site
- > Socomec accepts ownership and liability for the brick





For outstanding resiliency -  
that's rightsized...

... and for unsurpassed  
efficiency - that's proven.

Having received the 2022 Global UPS  
Customer Value Leadership award from  
Frost & Sullivan, as well as being part of Elite  
UPS, we're raising the bar to create an evolution  
in Data Centre critical power architecture.



"Smart, secure, sustainable.  
A mark of UPS efficiency that's fit  
for the future."



"Businesses and products  
that demonstrate excellence  
in innovation and that leverage  
developmental technologies."



**DELPHYS XL**

DELPHYS 207

# MASTERYS IP+

Robust, highly reliable protection for harsh environments  
from 10 to 80 kVA



## The solution for

- > Energy

## Strong points

- > Designed for the most demanding applications
- > Process continuity
- > Easy integration into industrial networks

## Conformity to standards

- > IEC/EN 62040, IEC/EN 62040-1, IEC/EN 62040-3
- > AS 62040.1.1, AS 62040.1.2, AS 62040.2, AS 62040.3
- > CE
- > RCM (E2376)

## Certifications and attestations



The MASTERYS IP+ series is certified by TUV SUD with regard to product safety (EN 62040-1).

## Advantages



## Expert services

We offer services to ensure your UPS highest availability:

- > Commissioning
- > On-site intervention
- > Preventive maintenance visits
- > 24-hour call out and rapid on-site repairs
- > Maintenance packages
- > Training



[www.socomec.com/services](http://www.socomec.com/services)

## Function

Specially engineered to power and protect typical industrial equipments such as motors, motor speed drivers, lamps, non linear loads, welding equipments, power supplies, MASTERYS IP+ is also perfectly able to supply control equipments like programmable controllers, sensors and measurement apparatus and integrates perfectly into the most demanding industrial environments.

## Advantages

### Designed for the most demanding applications

- Designed to protect industrial processes.
- A compact solution with isolation transformer and integrated batteries.
- Robust enclosure (2 mm thick heavy steel structure).
- Floor anchoring (to prevent tilting).
- Standard IP31 protection degree.
- Dust and water splash resistant enclosure (IP52) with easy replaceable dust filters (option).
- Operation at temperature up to 50 °C.
- Wide input voltage tolerance from -40 % up to +20 % of nominal voltage.
- Double EMC immunity compared to UPS international standard IEC 62040-2.
- Double overvoltage protection.

### Process continuity

- Frontal access for input/output cabling, spares replacement and preventative maintenance.
- Scalable power and high availability (using redundancy), with the facility to parallel up to 6 units.

### Easy integration into industrial networks

- Input power factor - 0.99 and input current harmonic distortion < 3% thanks to IGBT rectifier.
- Compatible with Open Vented Lead Acid, Valve Regulated Lead Acid (VRLA) and Nickel Cadmium batteries.
- User-friendly multilingual interface with graphic display.
- Flexible communication boards for every industrial communication need: dry contacts, MODBUS, PROFIBUS, etc.
- Fully compatible with generator sets.
- K-rated galvanic isolation transformer embedded.
- Adaptation to typical industrial voltages (input and output).



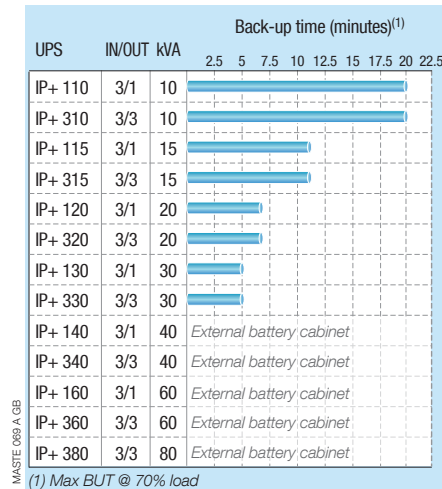
## For industrial loads

- 100 % non-linear loads.
- 100 % unbalanced loads.
- 100 % "6-pulse" loads (motor speed drivers, welding equipment, power supplies...).
- Motors, lamps, capacitive loads.

## General characteristics

- Dual input mains.
- Internal maintenance bypass.
- Backfeed protection: detection circuit.
- EBS (Expert Battery System) for battery management.

## UPS and batteries



## Technical data

| MASTERYS IP+ 10-80                                |                                                                                         |        |          |        |                      |                      |        |  |
|---------------------------------------------------|-----------------------------------------------------------------------------------------|--------|----------|--------|----------------------|----------------------|--------|--|
| Sn [kVA]                                          | 10                                                                                      | 15     | 20       | 30     | 40                   | 60                   | 80     |  |
| Pn [kW] - 3/1                                     | 9                                                                                       | 13.5   | 18       | 27     | 32                   | 48                   | -      |  |
| Pn [kW] - 3/3                                     | 9                                                                                       | 13.5   | 18       | 27     | 36                   | 48                   | 64     |  |
| Parallel configuration <sup>(1)</sup>             | up to 6 units                                                                           |        |          |        |                      |                      |        |  |
| INPUT                                             |                                                                                         |        |          |        |                      |                      |        |  |
| Rated voltage                                     | 400 V                                                                                   |        |          |        |                      |                      |        |  |
| Voltage tolerance                                 | ± 20% <sup>(2)</sup> (up to -40% @ 50% of rated power)                                  |        |          |        |                      |                      |        |  |
| Rated frequency                                   | 50/60 Hz                                                                                |        |          |        |                      |                      |        |  |
| Frequency tolerance                               | ± 10%                                                                                   |        |          |        |                      |                      |        |  |
| Power factor / THDI <sup>(3)</sup>                | 0.99 / < 3%                                                                             |        |          |        |                      |                      |        |  |
| OUTPUT                                            |                                                                                         |        |          |        |                      |                      |        |  |
| Rated voltage                                     | 1ph + N: 230 V (can be configured 220/240 V)<br>3ph + N: 400 V (380/415 V configurable) |        |          |        |                      |                      |        |  |
| Voltage tolerance                                 | ± 1%                                                                                    |        |          |        |                      |                      |        |  |
| Rated frequency                                   | 50/60 Hz                                                                                |        |          |        |                      |                      |        |  |
| Frequency tolerance                               | ± 2% (configurable from 1% to 8% with generating set)                                   |        |          |        |                      |                      |        |  |
| Total output voltage distortion - linear load     | < 1%                                                                                    |        |          |        |                      |                      |        |  |
| Total output voltage distortion - non-linear load | < 5%                                                                                    |        |          |        |                      |                      |        |  |
| Overload                                          | 125% for 10 minutes, 150% for 1 minute <sup>(2)</sup>                                   |        |          |        |                      |                      |        |  |
| Crest factor                                      | 3:1 (complying with IEC 62040-3)                                                        |        |          |        |                      |                      |        |  |
| BYPASS                                            |                                                                                         |        |          |        |                      |                      |        |  |
| Rated voltage                                     | 1ph + N: 230 V, 3ph + N: 400 V                                                          |        |          |        |                      |                      |        |  |
| Voltage tolerance                                 | ± 15% (configurable from 10% to 20% with generating set)                                |        |          |        |                      |                      |        |  |
| Rated frequency                                   | 50/60 Hz                                                                                |        |          |        |                      |                      |        |  |
| Frequency tolerance                               | ± 2% (configurable from 1% to 8% with generating set)                                   |        |          |        |                      |                      |        |  |
| ENVIRONMENT                                       |                                                                                         |        |          |        |                      |                      |        |  |
| Operating ambient temperature                     | from 0 °C up to +50 °C <sup>(2)</sup> (from 15 °C to 25 °C for maximum battery life)    |        |          |        |                      |                      |        |  |
| Relative humidity                                 | 0% - 95% without condensation                                                           |        |          |        |                      |                      |        |  |
| Maximum altitude                                  | 1000 m without derating (max. 3000 m)                                                   |        |          |        |                      |                      |        |  |
| Acoustic level at 1 m (ISO 3746)                  | < 52 dBA                                                                                |        | < 55 dBA |        | < 65 dBA             |                      |        |  |
| UPS CABINET                                       |                                                                                         |        |          |        |                      |                      |        |  |
| Dimensions (3/1) W x D x H                        | 600 x 800 x 1400 mm                                                                     |        |          |        | 1000 x 835 x 1400 mm | -                    |        |  |
| Dimensions (3/3) W x D x H                        | 600 x 800 x 1400 mm                                                                     |        |          |        |                      | 1000 x 835 x 1400 mm |        |  |
| Weight (3/1)                                      | 230 kg                                                                                  | 250 kg | 270 kg   | 330 kg | 490 kg               | 540 kg               | -      |  |
| Weight (3/3)                                      | 230 kg                                                                                  | 250 kg | 270 kg   | 320 kg | 370 kg               | 500 kg               | 550 kg |  |
| Degree of protection (according to IEC 60529)     | IP31 and IP52                                                                           |        |          |        |                      | IP31                 |        |  |
| Colours                                           | RAL 7012                                                                                |        |          |        |                      |                      |        |  |
| STANDARDS                                         |                                                                                         |        |          |        |                      |                      |        |  |
| Safety                                            | IEC/EN 62040-1, AS 62040.1.1, AS 62040.1.2                                              |        |          |        |                      |                      |        |  |
| EMC                                               | IEC/EN 62040-2, AS 62040.2                                                              |        |          |        |                      |                      |        |  |
| Performance                                       | IEC/EN 62040-3, AS 62040.3                                                              |        |          |        |                      |                      |        |  |
| Product declaration                               | CE, RCM (E2376), UKCA                                                                   |        |          |        |                      |                      |        |  |

(1) With transformer on input/bypass side. - (2) Conditions apply.

(3) At source THDV < 2% and nominal load.

## Electrical options

- Long-life batteries.
- External battery cabinet (degree of protection up to IP32).
- External temperature sensor.
- Additional battery chargers.
- Additional transformer.
- Parallel kit.
- Cold start.
- ACS synchronization system.
- Neutral creation kit for mains without neutral.
- Tropicalization and anti-corrosion protection for electrical boards.

## Standard communication features

- Multilanguage graphic display.
- MODBUS RTU.
- Dry-contact interface (configurable voltagefree contacts).
- Ethernet interface for UPS monitoring via WEB pages.

## Communication options

- 2 slots for communication options.
- MODBUS RTU RS485 or MODBUS TCP.
- PROFIBUS / PROFINET gateway.
- BACnet/IP interface.
- NET VISION: professional WEB/ SNMP Ethernet interface for secure UPS monitoring and remote automatic shutdown.
- REMOTE VIEW PRO supervision software
- IoT gateway for Socomec cloud services and SOLIVE UPS mobile app.

## Remote monitoring and cloud services

- SoLink: Socomec 24/7 remote monitoring service connecting your installation to the nearest Socomec Service Centre.
- SoLive UPS: mobile app enabling the monitoring of the UPS systems from a smartphone.

# DELPHYS MX Elite+

High performance UPS with an embedded galvanic isolation transformer to meet your requirements from 60 to 600 kVA



GAMME 926 PSD

## The solution for

- > Healthcare
- > Energy
- > Infrastructure & Transport
- > Industry
- > Building

## Strong points

- > The best protection for your load
- > Robust & resilient design
- > User-friendly
- > High availability and cost-effective equipment

## Conformity to standards

- > IEC 62040-1
- > IEC 62040-2

## Expert services

We offer services to ensure your UPS has the highest availability:

- > Commissioning
- > On-site intervention
- > Preventive maintenance visits
- > 24-hour call out and rapid on-site repairs
- > Maintenance packages
- > Training

## Function

DELPHYS MX Elite+ is a Three-phase UPS with a embedded transformerbased inverter designed to provide a continued power supply for your most critical installations. The isolation transformer provides galvanic isolation between the power converters and the user output.

## Advantages

### The best protection for your load

- Permanent operation in VFI mode (online double conversion).
- Provide accurate output voltage under all load conditions.
- High short-circuit current capacity, which facilitates the selection of protection devices in downstream distribution.

### Robust & resilient design

- Isolation transformer embedded with the inverter to ensure complete electrical isolation between the DC circuit and the load output.
- Fault-tolerant architectures with essential functional redundancy.
- Rugged mechanical and electrical properties for industrial environments.
- Redundant LED display for consistent UPS control.
- Standard PCB tropicalisation.

### User-friendly

- 10-inch color touch screen.
- User friendly HMI.
- Communication upgradable.

### High availability and cost-effective equipment

- IGBT rectifier with PFC controller: high efficiency, high and constant input power factor, low current harmonic content.
- These features help limit the size of the upstream network infrastructure.
- ECO Mode with 99% efficiency.
- Accurate diagnosis ensures the power supply of the load.
- Prevent cascading failures of parallel systems.
- Rectifier soft start function, prevents generators loadstep ensuring smooth operation.
- Specifically designed to be adapted to different industrial environments: higher IP protection capability, longer backup time.
- Field-proven technology.
- Easy maintainability reduces MTTR thanks to pull-out sub-assemblies and full front accessible components.



### General characteristics

- 10-inch touch screen display.
- Backfeed protection: detection circuit.
- Customizable IP protection solution.
- N+X redundant parallel architecture.
- Up to 6 units can be connected in parallel.

### Electrical options

- Extended top outlet solution
- Higher IP protection level.

### Standard communication features

- Full communication function, RS485, RS232 and other communication interfaces.
- Dry contact board with 8 NO/NC contacts.

### Communication options

- NET VISION: professional WEB/SNMP Ethernet interface for secure UPS monitoring and remote automatic shutdown.
- REMOTE VIEW PRO supervision software.
- IoT gateway for Socomec cloud services and SoLive UPS mobile app.

### Technical data

| DELPHYS MX Elite+                                |                                              |        |         |         |                   |     |         |                    |         |                    |     |
|--------------------------------------------------|----------------------------------------------|--------|---------|---------|-------------------|-----|---------|--------------------|---------|--------------------|-----|
| Sn [kVA]                                         | 60                                           | 80     | 100     | 120     | 160               | 200 | 250     | 300                | 400     | 500                | 600 |
| Pn [kW]                                          | 54                                           | 72     | 90      | 108     | 144               | 180 | 225     | 270                | 360     | 450                | 540 |
| Input / Output                                   | 3/3                                          |        |         |         |                   |     |         |                    |         |                    |     |
| Parallel configuration                           | Up to 6 units                                |        |         |         |                   |     |         |                    |         |                    |     |
| INPUTS                                           |                                              |        |         |         |                   |     |         |                    |         |                    |     |
| Rated voltage                                    | 380 V - 400 V - 415 V                        |        |         |         |                   |     |         |                    |         |                    |     |
| Voltage tolerance                                | ± 20% <sup>(1)</sup>                         |        |         |         |                   |     |         |                    |         |                    |     |
| Rated frequency                                  | 50/60 Hz                                     |        |         |         |                   |     |         |                    |         |                    |     |
| Frequency tolerance                              | +/- 10%                                      |        |         |         |                   |     |         |                    |         |                    |     |
| Power factor                                     | ≥ 0.99 @ full load                           |        |         |         |                   |     |         |                    |         |                    |     |
| Current harmonic content (THDI)                  | ≤ 3% full load                               |        |         |         |                   |     |         |                    |         |                    |     |
| OUTPUTS                                          |                                              |        |         |         |                   |     |         |                    |         |                    |     |
| Rated voltage                                    | 380 V - 400 V - 415 V                        |        |         |         |                   |     |         |                    |         |                    |     |
| Voltage tolerance                                | ± 1%                                         |        |         |         |                   |     |         |                    |         |                    |     |
| Rated frequency                                  | 50/60 Hz                                     |        |         |         |                   |     |         |                    |         |                    |     |
| Frequency tolerance                              | Self-Oscillation ± 0.1%                      |        |         |         |                   |     |         |                    |         |                    |     |
| Total output voltage distortion - Linear load    | ≤ 1%                                         |        |         |         |                   |     |         |                    |         |                    |     |
| Total output voltage distortion - Nonlinear load | ≤ 5%                                         |        |         |         |                   |     |         |                    |         |                    |     |
| Overload                                         | up to 150% for 1 minute, 125% for 10 minutes |        |         |         |                   |     |         |                    |         |                    |     |
| Crest factor                                     | 3 : 1                                        |        |         |         |                   |     |         |                    |         |                    |     |
| Short circuit current                            | Up to 3.5 In (100 ms)                        |        |         |         |                   |     |         |                    |         |                    |     |
| BYPASS                                           |                                              |        |         |         |                   |     |         |                    |         |                    |     |
| Rated voltage                                    | 380 V - 400 V - 415 V                        |        |         |         |                   |     |         |                    |         |                    |     |
| Rated frequency                                  | 50/60 Hz                                     |        |         |         |                   |     |         |                    |         |                    |     |
| Frequency tolerance                              | ± 5%                                         |        |         |         |                   |     |         |                    |         |                    |     |
| EFFICIENCY                                       |                                              |        |         |         |                   |     |         |                    |         |                    |     |
| Online mode                                      | Up to 94 %                                   |        |         |         |                   |     |         |                    |         |                    |     |
| Eco mode                                         | Up to 99 %                                   |        |         |         |                   |     |         |                    |         |                    |     |
| ENVIRONMENT                                      |                                              |        |         |         |                   |     |         |                    |         |                    |     |
| Ambient operating temperature                    | from 0 °C up to +40 °C <sup>(1)</sup>        |        |         |         |                   |     |         |                    |         |                    |     |
| Humidity                                         | 0% ~ 95% without condensation                |        |         |         |                   |     |         |                    |         |                    |     |
| Maximum altitude without derating                | 1000 m                                       |        |         |         |                   |     |         |                    |         |                    |     |
| Acoustic level (as per ISO3746)                  | 71 dBA                                       |        |         | 73 dBA  |                   |     |         | 75 dBA             |         | 80 dBA             |     |
| UPS CABINET                                      |                                              |        |         |         |                   |     |         |                    |         |                    |     |
| UPS dimensions (W x D x H)                       | 800 x 850 x 1900                             |        |         |         | 1000 x 850 x 1900 |     |         | 1500 x 1000 x 1900 |         | 2200 x 1000 x 1900 |     |
| Weight                                           | 800 kg                                       | 900 kg | 1000 kg | 1350 kg |                   |     | 2000 kg |                    | 2800 kg | 3000 kg            |     |
| Standard protection rating                       | IP20 / IP21 (optional)                       |        |         |         |                   |     |         |                    |         |                    |     |
| Colours                                          | RAL 9006                                     |        |         |         |                   |     |         |                    |         |                    |     |
| COMPLIANCE TO STANDARDS                          |                                              |        |         |         |                   |     |         |                    |         |                    |     |
| Safety / EMC                                     | IEC 62040-1, IEC 62040-2                     |        |         |         |                   |     |         |                    |         |                    |     |

(1) Conditions apply.

# STATYS XS

Reliable transfer system for redundant power supply

16 and 32 A - Rack mounted



GAMME\_B90\_PSD

## The solution for

- > Data centre
- > Industry

## Strong points

- > Ensured power continuity
- > Easy rack integration
- > Hot-swappable version
- > Agility and ease of use
- > Flexible remote management

## Conformity to standards

- > IEC 60950-1
- > IEC/EN 62310-2
- > DEEE
- > ROHS
- > CE

## Advantages



## Certifications et attestations



## Function

Provides redundant power supply to single-corded It equipment.

## Advantages

### Ensured power continuity

- Powered by two independent sources.
- A competitive alternative to redundant power supply (dual-corded) in the equipment cabinet in terms of price and features.
- Fast transfer time without source overlapping (ITIC curve compliant).
- Maintenance-free equipment.

### Easy rack integration

- Easy installation in 19" rack cabinets.
- Compact enclosure saving valuable cabinet rack space.
- Plug and Play devices pre-configured according to Socomec's STS field experience.
- Easy and quick connection of the loads via multiple IEC 320 outlets.
- Integrated backfeed protection device for even easier electrical integration.

### Hot-swappable version

- Easy extraction and replacement of control and power unit without load interruption.
- Reduced MTTR.
- Front mounted double bypass protected against miss manipulation.
- Flexible load connection via fully rated terminal (up to 35 mm<sup>2</sup>) or locking IEC sockets.

### Agility and ease of use

- Front panel with LCD display for intuitive control and easy management
- Source selection from the front panel without modifying the cabling
- Automatic and manual transfer
- Synchronised and non-synchronised source management
- LCD display of all input and output values
- Configuration tool for easy customisation of rated voltage, monitoring parameters/ tolerances, functionalities and operation.

### Flexible remote management

- Remote management via LAN networks (SNMP).
- Real-time monitoring (RS485).
- Configurable dry contacts communication port via local setup connection port.
- USB port & RS232 port for STATYS XS local monitoring.

## General characteristics

- Competitive alternative to redundant power supply at IT equipment level (dual corded).
- Easy to install and use (Plug and play).
- Ease of use - Intuitive operation.
- Numerous outlets to connect IT equipment.
- Ethernet connection capability for remote monitoring.
- Fast and secured module replacement with no load interruption.

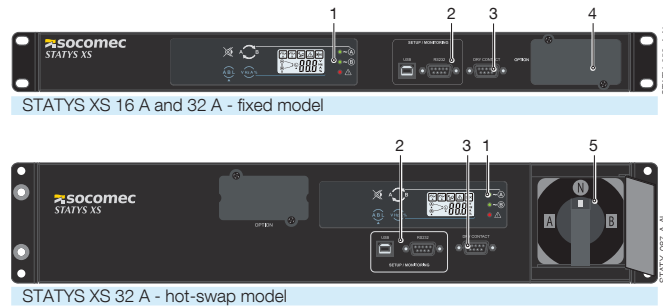
## Standard communication features

- 1 slot for communication options.
- USB & MODBUS RTU (RS232) port for local management

## Communication options

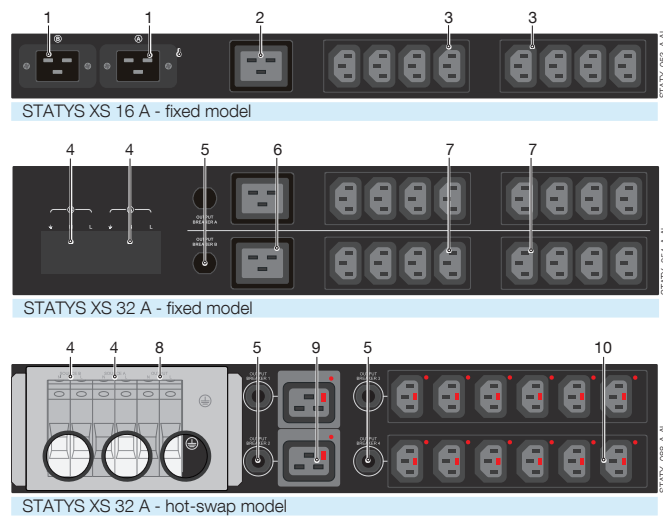
- SNMP option card: WEB/SNMP interface for remote monitoring and management.
- Serial link option card: RS485 interface for real time monitoring

## Front view



1. Control and monitoring panel
2. Setup connection ports
3. Dry contacts port
4. Slot for RS485 or SNMP board
5. Front-mounted bypass

## Connections



1. Source input sockets (2x IEC 320-C20)
2. 16 A output socket (IEC 320-C19)
3. 10 A output sockets (2x 4x IEC 320-C13)
4. Source input terminals
5. Output protections
6. 16 A output sockets (2x IEC 320-C19)
7. 10 A output sockets (2x 8x IEC 320-C13)
8. Source output terminals
9. 16 A locking output sockets (2x IEC 320-C19)
10. 10 A locking output sockets (2x 6x IEC 320-C13)

## Technical data

| STATYS XS                         |                                                                                                                                  |                                         |                                                                                         |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------------------------------------------------------|
| Model                             | 16 A - fixed model                                                                                                               | 32 A - fixed model                      | 32 A - hot-swap model                                                                   |
| INPUT / OUTPUT                    |                                                                                                                                  |                                         |                                                                                         |
| Rated current                     | 16 A (configurable 10 to 16 A)                                                                                                   | 32 A (configurable 20 to 32 A)          | 32 A (configurable 16 to 32 A)                                                          |
| Rated voltage                     | 200 / 208 / 220 / 230 / 240 V                                                                                                    |                                         |                                                                                         |
| Voltage tolerance                 | ± 10% (configurable)                                                                                                             |                                         |                                                                                         |
| Rated frequency                   | 50/60 Hz                                                                                                                         |                                         |                                                                                         |
| Frequency tolerance               | ± 10% (configurable)                                                                                                             |                                         |                                                                                         |
| Transfer time                     | ITIC curve compliant                                                                                                             |                                         |                                                                                         |
| Admitted overload                 | 125% for 1 minute, 150% for 30 seconds                                                                                           |                                         |                                                                                         |
| CONNECTIONS                       |                                                                                                                                  |                                         |                                                                                         |
| Input                             | 2 x IEC C20 (16 A)                                                                                                               | Terminal 1x 6P (10 mm²)                 | Terminal 1x4P (up to 35 mm²)                                                            |
| Output                            | 1 x IEC C19 (16 A), 8 x IEC C13 (10 A)                                                                                           | 2 x IEC C19 (16 A), 16 x IEC C13 (10 A) | 2 x locking IEC C19 (16 A), 12 x locking IEC C13 (10 A), terminal 1 x 2P (up to 35 mm²) |
| COMMUNICATION AND USER INTERFACES |                                                                                                                                  |                                         |                                                                                         |
| Display                           | LCD display                                                                                                                      |                                         |                                                                                         |
| Standard communication features   | slot for optional communication board, 5 dry contacts (voltage-free, configurable), setup connection port for configuration tool |                                         |                                                                                         |
| Communication options             | SNMP card, RS485 card                                                                                                            |                                         |                                                                                         |
| ENVIRONMENT                       |                                                                                                                                  |                                         |                                                                                         |
| Operating ambient temperature     | up to +40 °C                                                                                                                     |                                         |                                                                                         |
| Relative humidity                 | 5% to 90% without condensation                                                                                                   |                                         |                                                                                         |
| Acoustic level at 1 m (ISO 3746)  | < 25 dBA                                                                                                                         |                                         |                                                                                         |
| MECHANICAL SPECIFICATIONS         |                                                                                                                                  |                                         |                                                                                         |
| Dimensions W x D x H              | 440 (19") x 285 x 44 mm (1U)                                                                                                     | 440 (19") x 360 x 88 mm (2U)            | 440 (19") x 420 x 88 mm (2U)                                                            |
| Weight                            | 4 kg                                                                                                                             | 6 kg                                    | 9 kg                                                                                    |
| STANDARDS                         |                                                                                                                                  |                                         |                                                                                         |
| Directives                        | 2014/35/UE, 2014/30/UE                                                                                                           |                                         |                                                                                         |
| Standards                         | IEC60950-1, CEI/EN 62310-2                                                                                                       |                                         |                                                                                         |
| Environmental                     | WEEE, ROHS                                                                                                                       |                                         |                                                                                         |
| Product declaration               | CE                                                                                                                               |                                         |                                                                                         |





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## Single-phase UPS



**NETYS PL**  
from 600 to 800 VA  
*p. 75*



**NETYS PE**  
from 600 to 2000 VA  
*p. 77*



**NETYS PR MT**  
Mini Tower  
from 1000 to 2000 VA  
*p. 78*



**NETYS PR RT**  
Rack/Tower  
from 1700 to 3300 VA  
*p. 80*



**OFYS RT**  
from 1 to 6 kVA  
*p. 82*



**ITYS**  
from 1 to 10 kVA  
*p. 84*



**ITYS E**  
from 1 to 10 kVA  
*p. 86*



**ITYS ES**  
from 1000 to 3000 kVA  
*p. 88*

## Three-phase UPS



**MASTERYS BC+ FLEX**  
from 10 to 40 kVA  
*p. 90*



**MASTERYS BC+**  
from 10 to 160 kVA  
*p. 92*



**DELPHYS BC**  
from 200 to 300 kVA  
*p. 94*

## Transformer-based UPS



**ITYS EM+**  
2 and 6 kVA  
*p. 96*



**MASTERYS EM+**  
from 10 to 120 kVA  
*p. 98*



**DELPHYS EM**  
160 and 200 kVA  
*p. 100*

## Trustworthy power



UPS and AC/DC solutions providing a reliable and cost effective protection to assure operational power continuity.

# NETYS PL

User-friendly multi-socket protection  
600 and 800 VA



## Strong points

- > An innovative solution and superior design
- > Adapted protection to meet all your needs
- > Easy to use

## Conformity to standards

- > IEC/EN 62040-1, IEC/EN 62040-2
- > AS 62040.1.1, AS 62040.1.2, AS 62040.2
- > CE
- > RCM (E2376)

## Technology

- > VFD "offline"

## Certifications and attestations



## Function

Compact and practical pluggable power protection integrating a larger number of sockets adapted to computer and IT peripherals in small office and home office environments, facilitating connection and tidier cabling.

## Advantages

### An innovative solution and superior design

- Modern design suitable for positioning over/under the desk or floor installations.
- Complementary USB port on the top for recharging mobile devices (e.g. phones, MP3, etc.).

### Easy to use

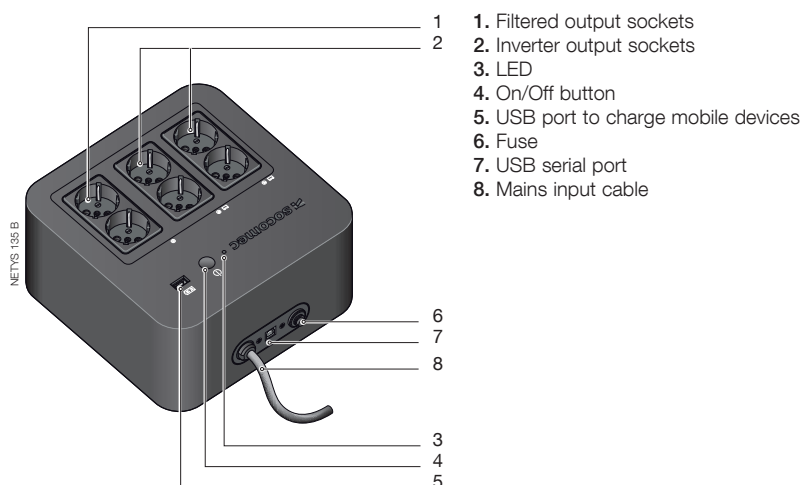
- Operating mode indicated by means of the smart LED indicator lights.
- Easy battery maintenance and replacement.
- Integrated mains input cable on the side, allowing all six sockets to be used.

### Adapted protection to meet all your needs

6 output sockets (French or German standards) for easy distribution directly to your applications:

- 4 sockets protected against power cuts and overvoltages, aimed at your most sensitive applications (professional desk top systems, workstation and monitors). The back-up time (up to 30 minutes) enables standard PC tasks and configuration to be saved.
- 2 sockets protected against overvoltage alone for use with less critical applications and high absorption consumers (e.g. laser printers).

## Connections



## Socket types



## General characteristics

- USB port to charge mobile devices



## Technical data

| NETYS PL                     |                                                                        |            |            |            |
|------------------------------|------------------------------------------------------------------------|------------|------------|------------|
| Model                        | NPL-0600-D                                                             | NPL-0600-F | NPL-0800-D | NPL-0800-F |
| Sn                           | 600 VA                                                                 |            | 800 VA     |            |
| Pn                           | 360 W                                                                  |            | 480 W      |            |
| Power (surge)                | 1200 VA                                                                |            |            |            |
| Input/output                 | 1/1                                                                    |            |            |            |
| INPUT                        |                                                                        |            |            |            |
| Rated voltage                | 230 V                                                                  |            |            |            |
| Voltage tolerance            | 180 ÷ 270 V                                                            |            |            |            |
| Rated frequency              | 50/60 Hz with automatic selection                                      |            |            |            |
| Mains connection             | Cable with plug                                                        |            |            |            |
| OUTPUT                       |                                                                        |            |            |            |
| Rated voltage                | 230 V ±10%                                                             |            |            |            |
| Rated frequency              | 50/60 Hz ±1%                                                           |            |            |            |
| Wave form                    | Step wave                                                              |            |            |            |
| Protection                   | Overload, significant discharge and short circuit                      |            |            |            |
| Sockets                      | 4 sockets for UPS and surge protection, 2 sockets for surge protection |            |            |            |
| Socket standard              | German                                                                 | French     | German     | French     |
| BATTERIES                    |                                                                        |            |            |            |
| Type                         | Sealed lead-acid maintenance free - expected life 3/5 years            |            |            |            |
| Back-up time <sup>(1)</sup>  | 15 min                                                                 |            | 20 min     |            |
| COMMUNICATION                |                                                                        |            |            |            |
| Interfaces                   | USB                                                                    |            |            |            |
| Local communication software | Local View                                                             |            |            |            |
| UPS CABINET                  |                                                                        |            |            |            |
| Dimensions W x D x H         | 220 x 220 x 123 mm                                                     |            |            |            |
| Weight                       | 3.6 kg                                                                 |            | 4.1 kg     |            |
| Colour                       | Black                                                                  |            | White      |            |
| STANDARDS                    |                                                                        |            |            |            |
| Safety                       | IEC/EN 62040-1, AS 62040.1.1, AS 62040.1.2                             |            |            |            |
| EMC                          | IEC/EN 62040-2, AS 62040.2                                             |            |            |            |
| Product declaration          | CE, RCM (E2376), UKCA                                                  |            |            |            |

(1) PC + 17" LCD monitor.

## Standard communication features

- USB port for UPS management based on HID protocol.
- LOCAL VIEW software for local UPS monitoring and shutdown for Windows, Linux and MAC OSX.

# NETYS PE

Practical and cost-effective protection  
from 600 to 2000 VA



## Strong points

- > Ideal and cost-effective protection for SOHO or POS applications
- > Easy to use
- > A solution for network power cuts and voltage fluctuations
- > Simplified connection
- > Protection for your data line

## Conformity to standards

- > IEC/EN 62040-1, IEC/EN 62040-2
- > AS 62040.1.1, AS 62040.1.2, AS 62040.2
- > CE
- > RCM (E2376)

## Technology

- > VI "line interactive" with AVR, step wave

## Certifications and attestations



## Function

Protection for small office, personal or point-of-sale applications.

## Advantages

### Ideal and cost-effective protection for SOHO or POS applications

- Adapted to protect IT applications in home, office and retail environments.
- A complete range of six models to adapt the power to the equipment's consumption or to required back-up time

### Easy to use

- Control panel with graphical icons LCD/LEDs allowing the operating mode to be easily monitored.

### A solution for network power cuts and voltage fluctuations

The integrated AVR function (Automatic Voltage Regulation) stabilizes the output voltage and avoids the switching to Battery Mode operation, therefore saving the battery to support critical power cut events.

### Simplified connection

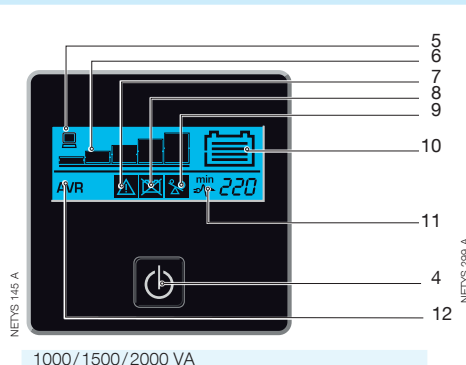
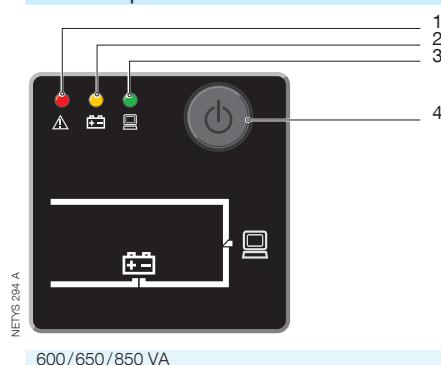
Several IEC 320 sockets (IT standard) simplify the connectivity to computer and IT peripherals.

### Protection for your data line

Integrated NTP protection for LAN/ADSL connection against the risk of data line overvoltage.

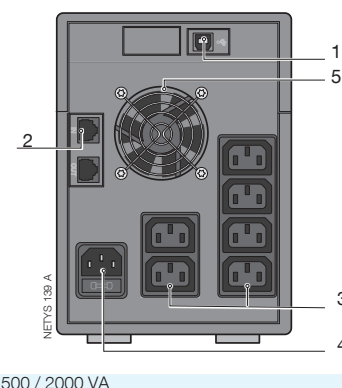
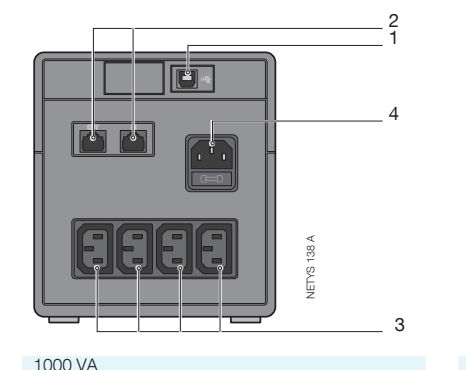
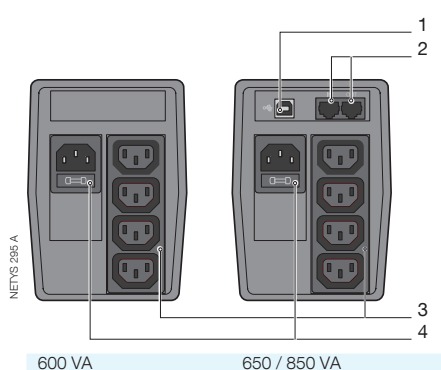


## Control panel



1. Alarm
2. Operation with battery
3. Normal operation
4. On / Off
5. Load present
6. Load level (5 steps)
7. General Alarm
8. Battery fault / Replace the battery
9. Overload
10. Battery capacity
11. Normal mode / Battery mode (flashing)
12. Automatic Voltage / Regulation active

## Connections



1. USB serial port
2. NTP data line suppressor
3. UPS output sockets
4. Input socket and fuse
5. Fan / air vents

## Technical data

| NETYS PE                           |                                                             |          |          |                          |                                  |              |
|------------------------------------|-------------------------------------------------------------|----------|----------|--------------------------|----------------------------------|--------------|
| Model                              | NPE-B600                                                    | NPE-0650 | NPE-0850 | NPE-1000-LCD             | NPE-1500-LCD                     | NPE-2000-LCD |
| Sn                                 | 600 VA                                                      | 650 VA   | 850 VA   | 1000 VA                  | 1500 VA                          | 2000 VA      |
| Pn                                 | 360 W                                                       | 360 W    | 480 W    | 600 W                    | 900 W                            | 1200 W       |
| Input/output                       | 1/1                                                         |          |          |                          |                                  |              |
| INPUT                              |                                                             |          |          |                          |                                  |              |
| Rated voltage                      | 230 V                                                       |          |          |                          |                                  |              |
| Voltage tolerance                  | 170 - 280 V                                                 |          |          |                          |                                  |              |
| Rated frequency                    | 50/60 Hz with automatic selection                           |          |          |                          |                                  |              |
| Mains connection                   | IEC320 socket                                               |          |          |                          |                                  |              |
| OUTPUT                             |                                                             |          |          |                          |                                  |              |
| Automatic Voltage Regulation (AVR) | •                                                           | •        | •        | •                        | •                                | •            |
| Rated voltage (Battery Mode)       | 230 V ±10%                                                  |          |          |                          |                                  |              |
| Rated frequency                    | 50/60 Hz ±1%                                                |          |          |                          |                                  |              |
| Wave form                          | Step wave                                                   |          |          |                          |                                  |              |
| Protection                         | Overload, significant discharge and short circuit           |          |          |                          |                                  |              |
| Connections                        | 4 x IEC 320 (C13) <sup>(1)</sup>                            |          |          |                          | 6 x IEC 320 (C13) <sup>(1)</sup> |              |
| BATTERIES                          |                                                             |          |          |                          |                                  |              |
| Type                               | Sealed lead-acid maintenance free - expected life 3/5 years |          |          |                          |                                  |              |
| Back-up time <sup>(2)</sup>        | 15 min                                                      | 15 min   | 20 min   | 45 min                   | 55 min                           | 60 min       |
| COMMUNICATION                      |                                                             |          |          |                          |                                  |              |
| Interfaces                         | -                                                           | -        | -        | USB                      |                                  |              |
| Local communication software       | -                                                           | -        | -        | Local View               |                                  |              |
| Data Line protection               | -                                                           | -        | -        | NTP data line suppressor |                                  |              |
| UPS CABINET                        |                                                             |          |          |                          |                                  |              |
| Dimensions W x D x H               | 100 x 300 x 145 mm                                          |          |          | 145 x 345 x 165 mm       | 145 x 390 x 205 mm               |              |
| Weight                             | 5.0 kg                                                      | 5.2 kg   | 6.0 kg   | 9.7 kg                   | 11.2 kg                          | 12 kg        |
| STANDARDS                          |                                                             |          |          |                          |                                  |              |
| Safety                             | IEC/EN 62040-1, AS 62040.1.1, AS 62040.1.2                  |          |          |                          |                                  |              |
| EMC                                | IEC/EN 62040-2, AS 62040.2                                  |          |          |                          |                                  |              |
| Product declaration                | CE, RCM (E2376), UKCA                                       |          |          |                          |                                  |              |

(1) Australian standard sockets on Netys PE models specific for Australia.

(2) PC + 17" LCD monitor.

## General characteristics

- Minitower case.
- Step Wave, AVR function (Automatic Voltage Regulation).
- Control panel with LCD display.
- LOCAL VIEW software for local UPS monitoring.
- NTP data line suppressor.
- Up to 6 UPS output sockets.

## Standard communication features

- USB port for UPS management based on HID protocol.
- LOCAL VIEW software for local UPS monitoring and shutdown for Windows, Linux and MAC Osx.

# NETYS **PR** Mini Tower

Space saving reliable protection  
from 1000 to 2000 VA



## Strong points

- > Professional line interactive UPS
- > A solution for network power cuts and voltage fluctuations
- > Easy to use
- > Simplified connection
- > Protection for your data line

## Conformity to standards

- > IEC/EN 62040-1, IEC/EN 62040-2
- > AS 62040.1.1, AS 62040.1.2, AS 62040.2
- > CE
- > RCM (E2376)

## Technology

- > VI "line interactive" with AVR, sine wave

## Certifications and attestations



## Function

The NETYS PR is the ideal solution for protecting small servers and high performance CAD or graphic workstations

## Advantages

### Professional line interactive UPS

- Assures service continuity to critical applications.
- Designed for professional applications: the sinewave inverter technology assures full compatibility with any kind of load and power supply.
- Minitower case to easily fit close to the IT load to be supplied and protected.

### A solution for network power cuts and voltage fluctuations

The integrated AVR function (Automatic Voltage Regulation) stabilizes the output voltage and avoids the switching to Battery Mode operation, therefore saving the battery to support critical power cut events.

### Easy to use

Control panel with graphical icons LCD allowing the operating mode to be easily monitored.

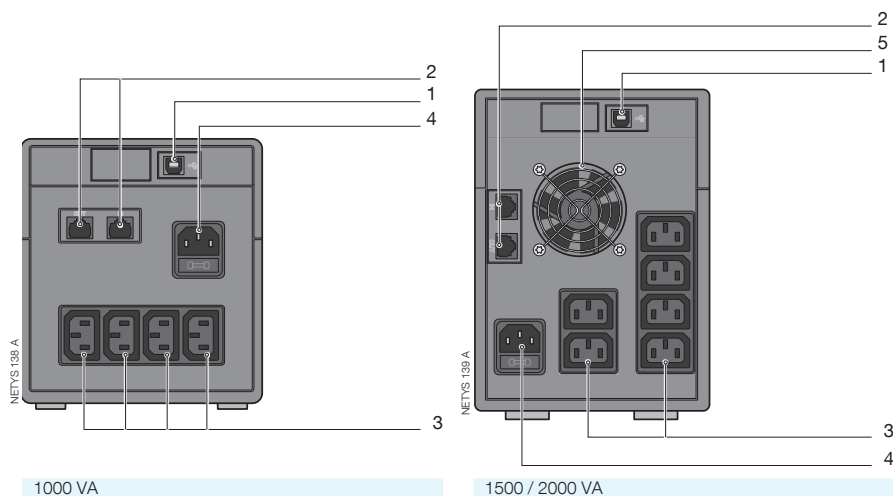
### Simplified connection

Several IEC 320 sockets (IT standard) simplify the connectivity to computer and IT peripherals.

### Protection for your data line

Integrated NTP protection for LAN/ADSL connection against the risk of data line overvoltage.

## Connections



- 1000 VA
1. USB serial port
  2. NTP data line suppressor
  3. UPS output sockets

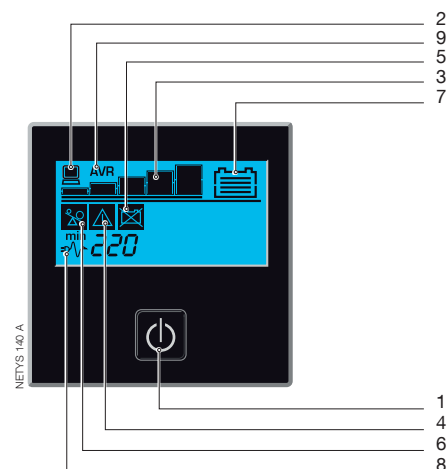
- 1500 / 2000 VA
4. Input socket and fuse
  5. Fan / air vents

## Technical data

| NETYS PR Mini Tower                |                                                             |                    |             |
|------------------------------------|-------------------------------------------------------------|--------------------|-------------|
| Model                              | NPR-1000-MT                                                 | NPR-1500-MT        | NPR-2000-MT |
| Sn                                 | 1000 VA                                                     | 1500 VA            | 2000 VA     |
| Pn                                 | 700 W                                                       | 1050 W             | 1400 W      |
| Input / output                     | 1/1                                                         |                    |             |
| INPUT                              |                                                             |                    |             |
| Rated voltage                      | 230 V                                                       |                    |             |
| Voltage tolerance                  | 170 - 280 V                                                 |                    |             |
| Rated frequency                    | 50/60 Hz with automatic selection                           |                    |             |
| Mains connection                   | IEC320 socket                                               |                    |             |
| OUTPUT                             |                                                             |                    |             |
| Automatic Voltage Regulation (AVR) | •                                                           | •                  | •           |
| Rated voltage                      | 230 V ±10%                                                  |                    |             |
| Rated frequency                    | 50/60 Hz ±1%                                                |                    |             |
| Wave form                          | Sine wave                                                   |                    |             |
| Protection                         | Overload, significant discharge and short circuit           |                    |             |
| Connections                        | 4 x IEC 320 (C13)                                           | 6 x IEC 320 (C13)  |             |
| BATTERIES                          |                                                             |                    |             |
| Type                               | Sealed lead-acid maintenance free - expected life 3/5 years |                    |             |
| Back-up time <sup>(1)</sup>        | 45 min                                                      | 55 min             | 60 min      |
| COMMUNICATION                      |                                                             |                    |             |
| Interfaces                         | USB                                                         |                    |             |
| Local communication software       | Local View                                                  |                    |             |
| Data Line protection               | NTP data line suppressor                                    |                    |             |
| UPS CABINET                        |                                                             |                    |             |
| Dimensions W x D x H               | 145 x 345 x 165 mm                                          | 145 x 390 x 205 mm |             |
| Weight                             | 9.2 kg                                                      | 12.3 kg            | 13.2 kg     |
| STANDARDS                          |                                                             |                    |             |
| Safety                             | IEC/EN 62040-1, AS 62040.1.1, AS 62040.1.2                  |                    |             |
| EMC                                | IEC/EN 62040-2, AS 62040.2                                  |                    |             |
| Product declaration                | CE, RCM (E2376), UKCAE                                      |                    |             |

(1) PC + 17" LCD monitor.

## Control panel



1. On / Off
2. Load present
3. Load level (5 steps)
4. General Alarm
5. Battery fault / Replace the battery
6. Overload
7. Battery capacity
8. Normal mode / Battery mode (flashing)
9. Automatic Voltage / Regulation active

## General characteristics

- Minitower case to easily fit close to the IT load.
- Sine Wave, AVR function (Automatic Voltage Regulation).
- Control panel with LCD display.
- LOCAL VIEW software for local UPS monitoring.
- NTP data line suppressor.
- Up to 6 UPS output sockets.

## Standard communication features

- USB port for UPS management based on HID protocol.
- LOCAL VIEW software for local UPS monitoring and shutdown for Windows, Linux and MAC OSX.

# NETYS **PR** Rack/Tower

High performance protection on rack or tower  
from 1700 to 3300 VA



## Strong points

- > A secure and professional supply continuity
- > Tailored to IT networking
- > Simple to install
- > Protection for your data line
- > Meets practical needs
- > Easy to use and to integrate

## Conformity to standards

- > IEC/EN 62040-1, IEC/EN 62040-2
- > AS 62040.1.1, AS 62040.1.2, AS 62040.2
- > CE
- > RCM (E2376)

## Technology

- > VI "line interactive" with AVR, sine wave

## Certifications and attestations



## Function

The NETYS PR is the ideal solution for protecting small servers, networking devices and peripherals.

## Advantages

### A secure and professional supply continuity

- Assures service continuity to critical applications.
- Designed for professional applications: the sine wave inverter technology assures full compatibility with any kind of load and power supply.

### Tailored to IT networking

- The space and time-saving tower/rack conversion option means it can be installed easily either in tower mode or inside standard 19" rack cabinets depending on the user's needs.

### Simple to install

- No configuration needed on first startup.
- Compact footprint (2U/89 mm) for installation in rack cabinets.
- Attractive design for visible installation in offices.
- USB port and HID protocol as standard for direct interfacing with Windows® systems, without the need for additional specialist software.

### Protection for your data line

- Integrated NTP protection for LAN/ADSL connection against the risk of data line overvoltage.

### Meets practical needs

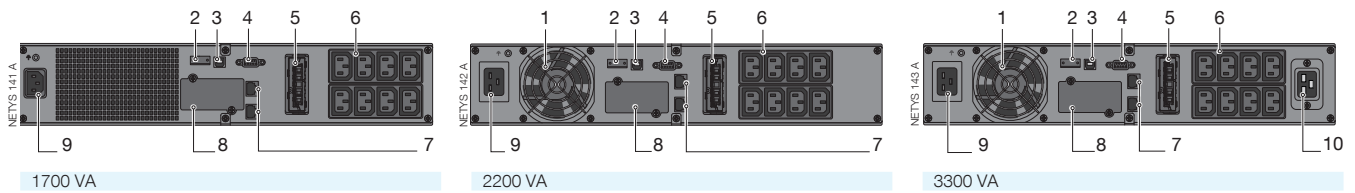
- Optional battery extension modules (EBM) to meet all back-up time requirements, even after installation.
- Clear and uncluttered LCD interface, with buzzers that immediately indicate the operating status of the UPS, even for less specialist users.
- Simplified maintenance and Battery 'hot swap', without closing down other applications.

### Easy to use and to integrate

- Wide range of communication protocols available in options (including JBUS, TCP/IP and SNMP) for integration into LAN networks or building management systems (BMS).
- Easy connections to the applications (depending on power) via 8 or 8+1 IEC 320 (IT standard) sockets.
- Load segmentation function to prioritize loads and manage critical situations.
- EPO (Emergency Power Off) emergency stop.
- RS232 advanced connections for the management of the power supply and local/remote shutdown of applications.

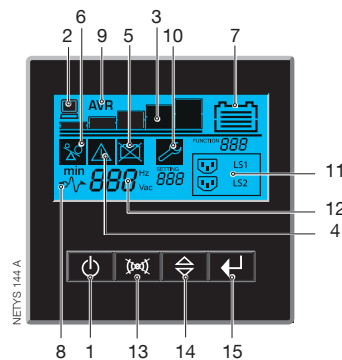


## Connections



1. Fan / air vents
2. EPO Emergency Power Off
3. USB serial port
4. RS232 serial port
5. Connector for external battery extension
6. UPS output sockets (2 segments)
7. NTP protections (RJ45)
8. Slot for optional communication boards
9. Input socket
10. UPS full power output socket

## Control panel



1. On / Off
2. Load present
3. Load level (5 steps)
4. General Alarm
5. Battery fault / Replace the battery
6. Overload
7. Battery capacity
8. Normal mode / Battery mode (flashing)
9. Automatic Voltage / Regulation active
10. Configuration
11. Programmable outlets
12. Input value
13. UPS test / Buzzer off
14. Navigator button
15. Enter

## Technical data

| NETYS PR Rack/Tower                |                                                                                                                                                                                                                                         |                   |                                          |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------------------------|
| Model                              | NPR-1700-RT                                                                                                                                                                                                                             | NPR-2200-RT       | NPR-3300-RT                              |
| Sn                                 | 1700 VA                                                                                                                                                                                                                                 | 2200 VA           | 3300 VA                                  |
| Pn                                 | 1350 W                                                                                                                                                                                                                                  | 1800 W            | 2700 W                                   |
| Input/output                       | 1/1                                                                                                                                                                                                                                     |                   |                                          |
| INPUT                              |                                                                                                                                                                                                                                         |                   |                                          |
| Rated voltage                      | 230 V                                                                                                                                                                                                                                   |                   |                                          |
| Voltage tolerance                  | 161 V ±4% (selecting wide mode) -276 V ±4%                                                                                                                                                                                              |                   |                                          |
| Rated frequency                    | 50/60 Hz with automatic selection                                                                                                                                                                                                       |                   |                                          |
| Mains connection                   | IEC320-C14 (10 A)                                                                                                                                                                                                                       | IEC320-C20 (16 A) |                                          |
| OUTPUT                             |                                                                                                                                                                                                                                         |                   |                                          |
| Automatic Voltage Regulation (AVR) | The AVR increases (boost 1) the output voltage by 14% when the input voltage drops below 90% of the nominal value.<br>The AVR decreases (bucks) the output voltage by 12% when the input voltage rises above 106% of the nominal value. |                   |                                          |
| Rated voltage                      | 230 V ±5%                                                                                                                                                                                                                               |                   |                                          |
| Rated frequency                    | 50/60 Hz ±0.1%                                                                                                                                                                                                                          |                   |                                          |
| Power factor                       | 0.9<br>@ 1500 VA                                                                                                                                                                                                                        | 0.9<br>@ 2000 VA  | 0.9<br>@ 3000 VA                         |
| Wave form                          | Sine wave                                                                                                                                                                                                                               |                   |                                          |
| Protection                         | Normal Mode: overload (110% for 3 minutes)<br>Battery Mode: overload (110% for 30 seconds); shortcircuit protected                                                                                                                      |                   |                                          |
| Connections                        | 8 (10 A) x IEC 320                                                                                                                                                                                                                      |                   | 8 (10 A) x IEC 320<br>1 (16 A) x IEC 320 |
| BATTERIES                          |                                                                                                                                                                                                                                         |                   |                                          |
| Type                               | Sealed lead-acid maintenance free - expected life 3/5 years                                                                                                                                                                             |                   |                                          |
| Back-up time <sup>(1)</sup>        | 6 min                                                                                                                                                                                                                                   | 8 min             | 6 min                                    |
| COMMUNICATION                      |                                                                                                                                                                                                                                         |                   |                                          |
| Interfaces                         | RS232 - USB                                                                                                                                                                                                                             |                   |                                          |
| Ethernet adapter                   | NET VISION (TCP/IP & SNMP) optional card                                                                                                                                                                                                |                   |                                          |
| Local communication software       | Local View                                                                                                                                                                                                                              |                   |                                          |
| Data line protection               | NTP data line suppressor: RJ45 10 Base T                                                                                                                                                                                                |                   |                                          |
| UPS CABINET                        |                                                                                                                                                                                                                                         |                   |                                          |
| Dimensions W x D x H               | 440 x 436 x 87 mm                                                                                                                                                                                                                       | 440 x 608 x 87 mm |                                          |
| Weight                             | 18 kg                                                                                                                                                                                                                                   | 28.2 kg           | 31.5 kg                                  |
| STANDARDS                          |                                                                                                                                                                                                                                         |                   |                                          |
| Safety                             | IEC/EN 62040-1, AS 62040.1.1, AS 62040.1.2                                                                                                                                                                                              |                   |                                          |
| EMC                                | IEC/EN 62040-2, AS 62040.2                                                                                                                                                                                                              |                   |                                          |
| Product declaration                | CE, RCM (E2376), UKCA                                                                                                                                                                                                                   |                   |                                          |

(1) @ 75% of load.

## General characteristics

- 19" Rack & Rack/Tower convertible UPS
- Sine Wave, AVR function (Automatic Voltage Regulation)
- Clear and uncluttered LCD interface
- Wide range of communication protocols available in options
- NTP data line suppressor
- Up to 9 UPS output sockets.

## Standard communication features

- 1 slot for communication options.
- USB port for UPS management based on HID protocol.
- MODBUS RTU (RS232).
- LOCAL VIEW software for local UPS monitoring and shutdown for Windows, Linux and MAC Osx.

## Communication options

- Dry-contact interface.
- NET VISION: professional WEB/ SNMP Ethernet interface for secure UPS monitoring and remote automatic shutdown.
- Environmental Monitoring Device (EMD).
- REMOTE VIEW PRO supervision software.
- Rails.

## Battery extensions

| NETYS PR | + 1 (NPR-B1700-RT) | + 2 (NPR-B1700-RT) |
|----------|--------------------|--------------------|
| 1700 VA  | 22 min             | 42 min             |
| NETYS PR | + 1 (NPR-B3300-RT) | + 2 (NPR-B3300-RT) |
| 2200 VA  | 37 min             | 72 min             |
| 3300 VA  | 22 min             | 43 min             |

# OFYS RT

Reliable protection for critical equipment  
from 1 to 6 kVA



GAMME\_973.PSD

## Function

OFYS RT is a single-phase UPS range designed to protect professional IT infrastructures, ensuring cost competitive solutions.

## Advantages

### Fast and easy installation

- No configuration needed on first startup.
- Compact footprint (2U/89 mm) for installation in rack cabinets.
- Space saving and flexible "tower-to-rack" conversion mode.
- Easy connections to the applications via IEC 320 sockets or terminals.

### Easy to use

- Clear and uncluttered LCD interface with buzzers that immediately indicates the operating status of the UPS, even for less specialist users.
- The communication package provides connection via USB, with optional drycontact card and SNMP interfaces.

### Reliable power protection

- Double conversion technology guarantees voltage and frequency stability whatever the mains condition.
- Wide tolerance of the input voltage limits the number of switchovers to battery mode, prolonging the battery life.
- In the event of a power failure, the service continuity is guaranteed by the inverter powered by rechargeable batteries.
- The automatic bypass takes over immediately in the event of overloads or faults, ensuring continuous power supply to the loads.

## Strong points

- > Fast and easy installation
- > Easy to use
- > Reliable power protection

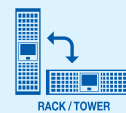
## Conformity to standards

- > IEC 62040-1
- > IEC 62040-2
- > IEC 62040-3

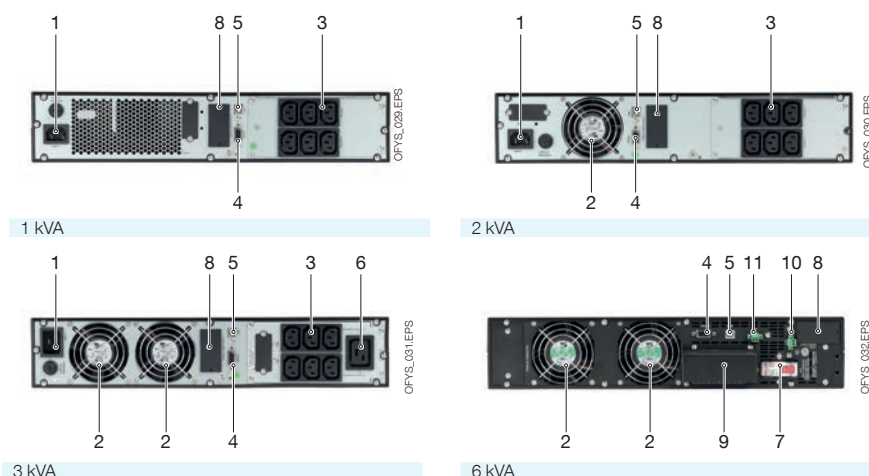
## Certifications and attestations



## Advantages



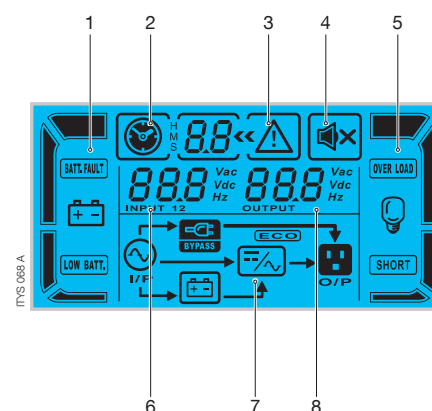
## Connections



1. Mains input socket
2. Fan
3. Output socket
4. RS232 interface
5. USB port
6. Output sockets (full power)

7. Input protection
8. Slot for optional communication boards
9. Input and output terminals
10. External maintenance bypass port
11. EPO (Emergency Power Off)

## Control panel



1. Battery level/Battery Status
2. Backup time info
3. General Alarm
4. Buzzer off
5. Load level / Load status
6. Input value
7. UPS mode
8. Output value

## Technical data

| OFYS RT                       |                                                                               |                                          |                                                      |                                                              |
|-------------------------------|-------------------------------------------------------------------------------|------------------------------------------|------------------------------------------------------|--------------------------------------------------------------|
| Model                         | U1000                                                                         | U2000                                    | U3000                                                | U6000                                                        |
| Sn                            | 1000 VA                                                                       | 2000 VA                                  | 3000 VA                                              | 6000 VA                                                      |
| Pn                            | 900 W                                                                         | 1800 W                                   | 2700 W                                               | 6000 W                                                       |
| Input/output                  | 1/1                                                                           |                                          |                                                      |                                                              |
| Architecture                  | online double conversion VFI with input PFC and automatic bypass              |                                          |                                                      |                                                              |
| INPUT                         |                                                                               |                                          |                                                      |                                                              |
| Rated voltage                 | 208/220/230/240 V                                                             |                                          |                                                      |                                                              |
| Voltage tolerance             | 180÷280 VAC (100% load);<br>120÷300 VAC (50% load)                            |                                          |                                                      | 176÷300 VAC ± 3% (100% load);<br>110÷300 VAC ± 3% (50% load) |
| Frequency                     | 50/60 Hz with automatic selection                                             |                                          |                                                      |                                                              |
| Mains connection              | IEC 320 (10 A)                                                                | IEC 320 (16 A)                           | terminals                                            |                                                              |
| OUTPUT                        |                                                                               |                                          |                                                      |                                                              |
| Rated voltage                 | 208/220/230/240 V                                                             |                                          |                                                      |                                                              |
| Frequency                     | 50/60 Hz ± 8 % (± 0.1 % in battery mode)                                      |                                          |                                                      |                                                              |
| Overload capability           | <105% continuously; <130% for 30 sec; <150% for 3 sec;<br>>150% immediate off |                                          | <110% for 10min; <130% for 1 min;<br>>130% for 1 sec |                                                              |
| Connections                   | 6 x IEC 320 (10 A)                                                            | 6 x IEC 320 (10 A)<br>1 x IEC 320 (16 A) | terminals                                            |                                                              |
| COMMUNICATION                 |                                                                               |                                          |                                                      |                                                              |
| Interfaces                    | RS232 - USB                                                                   |                                          |                                                      |                                                              |
| Local communication software  | Local View                                                                    |                                          |                                                      |                                                              |
| ENVIRONMENT                   |                                                                               |                                          |                                                      |                                                              |
| Operating ambient temperature | from 0 °C to +40 °C (from 15 °C to 25 °C for optimal battery life)            |                                          |                                                      |                                                              |
| Storage temperature           | from -15 °C to +50 °C (from 15 °C to 25 °C for optimal battery life)          |                                          |                                                      |                                                              |
| Relative humidity             | 20-90% non-condensing                                                         |                                          |                                                      | 0 - 95% no condensing                                        |
| Noise level                   | < 50 dB                                                                       |                                          |                                                      | < 55 dB                                                      |
| UPS CABINET                   |                                                                               |                                          |                                                      |                                                              |
| Dimensions W x D x H          | 438 x 310 x 89 mm                                                             | 438 x 410 x 89 mm                        | 438 x 630 x 89 mm                                    | 438 x 610 x 89 mm                                            |
| Weight                        | 10.8 kg                                                                       | 18.2 kg                                  | 29.3 kg                                              | 17 kg                                                        |
| EXTERNAL BATTERY MODULE       |                                                                               |                                          |                                                      |                                                              |
| Model                         | -                                                                             |                                          | OFYS-RT-B192V2U <sup>(1)</sup>                       | OFYS-RT-B240V3U <sup>(1)</sup>                               |
| Dimensions W x D x H          | -                                                                             |                                          | 438 x 688 x 89 mm                                    | 438 x 610 x 133 mm                                           |
| Weight                        | -                                                                             |                                          | 48 kg                                                | 65 kg                                                        |
| STANDARDS                     |                                                                               |                                          |                                                      |                                                              |
| Safety                        | EN 62040-1                                                                    |                                          |                                                      |                                                              |
| EMC                           | EN 62040-2                                                                    |                                          |                                                      |                                                              |
| Performance                   | EN 62040-3                                                                    |                                          |                                                      |                                                              |
| Product certification         | CE, RCM (E2376), UKCA                                                         |                                          |                                                      |                                                              |

(1) @80% of rated load.

## General characteristics

- No configuration needed on first startup.
- 19" Rack & Rack/Tower convertible UPS.
- True online double conversion technology (VFI).
- Clear and uncluttered LCD interface.
- Up to 7 UPS output sockets.

## Standard communication features

- 1 slot for communication options.
- LOCAL VIEW software for local UPS monitoring and shutdown for Windows, Linux and MAC Osx.
- LCD interface for UPS monitoring.

## Communication options

- Relay board card for UPS remote diagnostic.
- WEB/SNMP interface for UPS monitoring and management.

## Electrical options

- Rail kit.
- Hot-swap manual bypass (MBP-1U-IEC).

# ITYS

Reliable and versatile power protection  
from 1 to 10 kVA



## Strong points

- > Robust and easy to install
- > High protection and availability
- > Certified product
- > Wide battery configurability)

## Conformity to standards

- > IEC 62040-1
- > IEC 62040-2
- > IEC 62040-3
- > RCM (E2376)

## Certifications and attestations



## Function

Compact tower UPS system saves space in the operating environment.

## Advantages

### Robust and easy to install

- Quick and simple installation: no configuration necessary on first startup.
- Easy connections via IEC 320 sockets or terminals.
- Wide input voltage tolerance limits the switchovers to battery mode prolonging the battery life.
- Wide operating ambient temperature up to 45°C.
- Single and three-phase input with automatic configuration (8-10 kVA).

### High protection and availability

- True online double conversion technology (VFI) assures high availability and total load protection.
- Compatible with different applications, operating environments and generator sets.
- Automatic bypass supplies the loads in the event of overloads or faults.
- Manual bypass for periodic or emergency maintenance.
- Standard Over Voltage Control Device (OVCD) protects the UPS and the load from dangerous mains peak-voltages.

### Certified product

- Safety compliance certified by TÜV.
- Performance tested and verified by third independent laboratory.

### Wide battery configurability

- Modular battery extension flexibility enables limitless autonomy configuration.
- Hot-swap modular battery extension increases back-up times even after installation according to the load criticality to be supplied.
- Modular battery extension enables models with integrated powerful battery charger ensure constant and reliable operation using external high capacity batteries, provide power supply continuity during long outages and assure a fast recharging.

## Autonomy configurations (1/1 models)

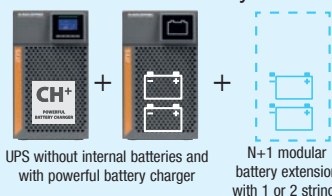
### > Flexible autonomy



UPS with internal batteries  
(standard model)

Modular battery extension  
with 1 or 2 strings

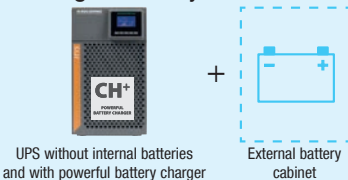
### > Extendable autonomy



UPS without internal batteries and  
with powerful battery charger

N+1 modular  
battery extension  
with 1 or 2 strings

### > Long autonomy



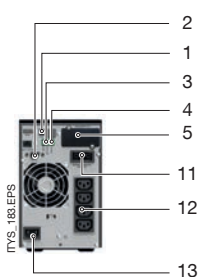
UPS without internal batteries  
and with powerful battery charger

External battery  
cabinet



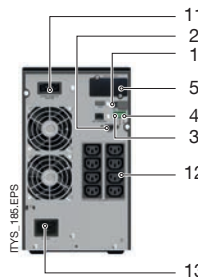
## Connections

|              |  | Output Connections |                         |                           |           |           |
|--------------|--|--------------------|-------------------------|---------------------------|-----------|-----------|
| IEC Standard |  | 1 kVA              | 2 kVA                   | 3 kVA                     | 6 kVA     | 10 kVA    |
|              |  | 4x (C13)           | 8x                      | 8x (C13)<br>+<br>1x (C19) | terminals | terminals |
| AU Standard  |  | 2x                 | 4x<br>+<br>1x IEC (C19) | 4x<br>+<br>1x IEC (C19)   | terminals | terminals |



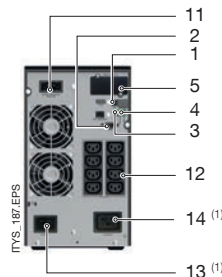
ITYS 1 kVA

1. USB serial port
2. RS232 serial port
3. Power off the UPS remotely.



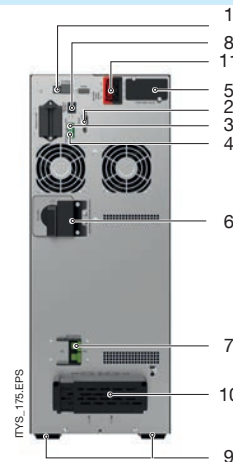
ITYS 2 kVA

4. Dry contact interface
5. Slot for optional communication boards
6. Manual bypass



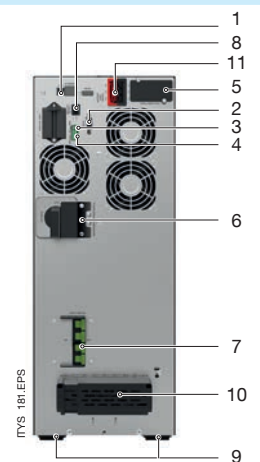
ITYS 3 kVA

7. Input switch
8. Battery detection
9. Wheels



ITYS 6 - 10 kVA - 1/1

10. Input and output terminal board
11. Connection for modular battery extension



ITYS 8.5 - 10 kVA - 1/1 or 3/1

12. Output sockets
  13. Input socket
  14. Output socket
- (1) Input and output terminal (3 kVA-model without internal batteries)

## Technical data

|                                |              | ITYS - UPS                                                         |                 |                |                                                          |             |                          |             |
|--------------------------------|--------------|--------------------------------------------------------------------|-----------------|----------------|----------------------------------------------------------|-------------|--------------------------|-------------|
| Model                          | IEC standard | ITY3-TW010B                                                        | ITY3-TW020B     | ITY3-TW030B    | ITY3-TW060B                                              | ITY3-TW100B | ITY3-TW108B              | ITY3-TW110B |
|                                | AU standard  | ITY3-TW010B-AU                                                     | ITY3-TW020B-AU  | ITY3-TW030B-AU |                                                          |             |                          |             |
| Sn/Pn                          |              | 1000 VA/W                                                          | 2000 VA/W       | 3000 VA/W      | 6000 VA/W                                                | 10000 VA/W  | 8500 VA/W                | 10000 VA/W  |
| Input/output                   |              | 1/1                                                                |                 |                |                                                          |             |                          | 1/1 or 3/1  |
| INPUT                          |              |                                                                    |                 |                |                                                          |             |                          |             |
| Rated voltage                  |              | 230 V (1/1)<br>110÷300 V; (160÷300 V @100% load)                   |                 |                | 230 V (1/1)<br>110÷276 V; (160÷276 V @100% load)         |             | 400 V (3/1), 230 V (1/1) |             |
| Rated frequency                |              | 40-70 Hz (50/60 Hz +/-5% Auto-Selectable)                          |                 |                |                                                          |             |                          |             |
| Power factor                   |              | >0,99                                                              |                 |                |                                                          |             |                          |             |
| OUTPUT                         |              |                                                                    |                 |                |                                                          |             |                          |             |
| Rated voltage                  |              | 220 / 230 / 240 V (± 1 %)                                          |                 |                |                                                          |             |                          |             |
| Rated frequency                |              | 50/60 Hz (± 0.1 Hz in battery mode)                                |                 |                |                                                          |             |                          |             |
| Overload                       |              | up to 105% continuously; 125% x 3 min;<br>150% x 30 sec            |                 |                | up to 105% continuously; 125% x 10 min;<br>150% x 30 sec |             |                          |             |
| Crest factor                   |              | 3:1                                                                |                 |                |                                                          |             |                          |             |
| BATTERIES                      |              |                                                                    |                 |                |                                                          |             |                          |             |
| Type                           |              | sealed lead-acid maintenance free - expected life 3 / 5 years      |                 |                |                                                          |             |                          |             |
| Voltage                        |              | 36 V DC                                                            | 72 V DC         |                | 192 V DC                                                 |             |                          |             |
| Back-up time <sup>(1)(2)</sup> |              | 12 min                                                             | 16 min          | 9 min          | 11 min                                                   | 7 min       | 9 min                    | 7 min       |
| Battery charger <sup>(3)</sup> |              | 8 A                                                                |                 | 12 A           |                                                          |             |                          |             |
| COMMUNICATION                  |              |                                                                    |                 |                |                                                          |             |                          |             |
| Interfaces                     |              | RS232 - USB - Dry contact                                          |                 |                |                                                          |             |                          |             |
| Ethernet adapter               |              | NET VISION (TCP / IP & SNMP) optional card                         |                 |                |                                                          |             |                          |             |
| Local communication software   |              | Local View                                                         |                 |                |                                                          |             |                          |             |
| EFFICIENCY                     |              |                                                                    |                 |                |                                                          |             |                          |             |
| Online mode                    |              | up to 93 %                                                         |                 |                | up to 95 %                                               |             |                          |             |
| ENVIRONMENT                    |              |                                                                    |                 |                |                                                          |             |                          |             |
| Ambient service temperature    |              | from 0 °C to +40 °C (up to 45 °C <sup>(4)</sup> )                  |                 |                |                                                          |             |                          |             |
| Relative humidity              |              | < 95 % non-condensing                                              |                 |                |                                                          |             |                          |             |
| Maximum altitude               |              | 1000 m without de-rating                                           |                 |                |                                                          |             |                          |             |
| Noise level at 1 m             |              | < 50 dBA                                                           |                 |                | < 55 dBA                                                 |             |                          |             |
| UPS CABINET                    |              |                                                                    |                 |                |                                                          |             |                          |             |
| Dimensions W x D x H (mm)      |              | 145 x 404 x 224                                                    | 192 x 428 x 322 |                | 225 x 416 x 589                                          |             |                          |             |
| Weight <sup>(2)</sup>          |              | 14.4 kg                                                            | 26 kg           |                | 53 kg                                                    | 61 kg       | 58 kg                    | 61 kg       |
| Weight <sup>(3)</sup>          |              | 8 kg                                                               | 11 kg           |                | 13.5 kg                                                  | 15.8 kg     | -                        |             |
| Degree of protection           |              | IP20                                                               |                 |                |                                                          |             |                          |             |
| EXTERNAL BATTERY MODULE (EBM)  |              |                                                                    |                 |                |                                                          |             |                          |             |
| EBM size (W x D x H)           |              | 145x404x224                                                        | 192x428x322     |                | 225x416x589                                              |             |                          |             |
| EBM 1 string (kg)              |              | 11                                                                 | 23.3            |                | 55.2                                                     |             |                          |             |
| EBM 2 strings (kg)             |              | 17.3                                                               | 38.3            |                | 95.2                                                     |             |                          |             |
| STANDARDS                      |              |                                                                    |                 |                |                                                          |             |                          |             |
| Safety                         |              | IEC/EN 62040-1, AS 62040.1.1, AS 62040.1.2                         |                 |                |                                                          |             |                          |             |
| EMC                            |              | IEC/EN 62040-2, AS 62040.2                                         |                 |                |                                                          |             |                          |             |
| Performance                    |              | IEC/EN 62040-3 (efficiency tested by an external independent body) |                 |                |                                                          |             |                          |             |
| Product declaration            |              | CE, RCM (E2376), UKCA                                              |                 |                |                                                          |             |                          |             |

(1) @75 % of rated load (models with internal batteries) PF 0.7. (2) Models with internal batteries. (3) Models without batteries (4) Conditions apply.

## Standard communication features

- 1 slot for communication options.
- USB port for UPS management based on HID protocol.
- MODBUS RTU (RS232).
- LOCAL VIEW software for local UPS monitoring and shutdown for Windows, Linux and MAC Osx.
- Clear and uncluttered LCD interface for easy UPS monitoring, even for less specialist users.



## General characteristics

- Embedded dry-contact interface.
- Input mains switch breaker.
- Connection for battery extension modules.
- Power off the UPS remotely.
- Internal temperature sensor.

## Communication options

- Dry-contact card.
- NET VISION: professional WEB/ SNMP Ethernet interface for secure UPS monitoring and remote automatic shutdown.
- Environmental Monitoring Device (EMD).
- REMOTE VIEW PRO supervision software.

# ITYS E

Affordable and reliable protection  
from 1 to 10 kVA



ITYS069 A - ITYS070 A - ITYS071 A

## Function

Compact tower UPS system saves space in the operating environment.

## Advantages

### Best electrical protection

- True online double conversion technology (VFI) assures high availability and total load protection.
- Constant output voltage and frequency regulation makes ITYS E compatible with different applications, operating environments and GenSets.
- Automatic bypass supplies the loads in the event of overloads or faults.

### Robust and versatile

- Compact tower UPS system saves space in the operating environment.
- No particular configuration on first startup.
- Easy connections via IEC 320 sockets or terminals.
- Wide input voltage tolerance limits the switchovers to battery mode prolonging the battery life.
- Manual bypass for periodic or emergency maintenance.

*Some models may not be available in your country – please check with your local sales office.*

### The solution for

- > Energy
- > Industry

### Strong points

- > Best electrical protection
- > Robust and versatile

### Conformity to standards

- > EN 62040-1
- > EN 62040-2
- > CE

### Technology

- > VFI "online double conversion"

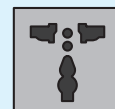
### Certifications



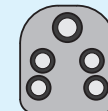
### Output connections



- > IEC socket 320 (C13)

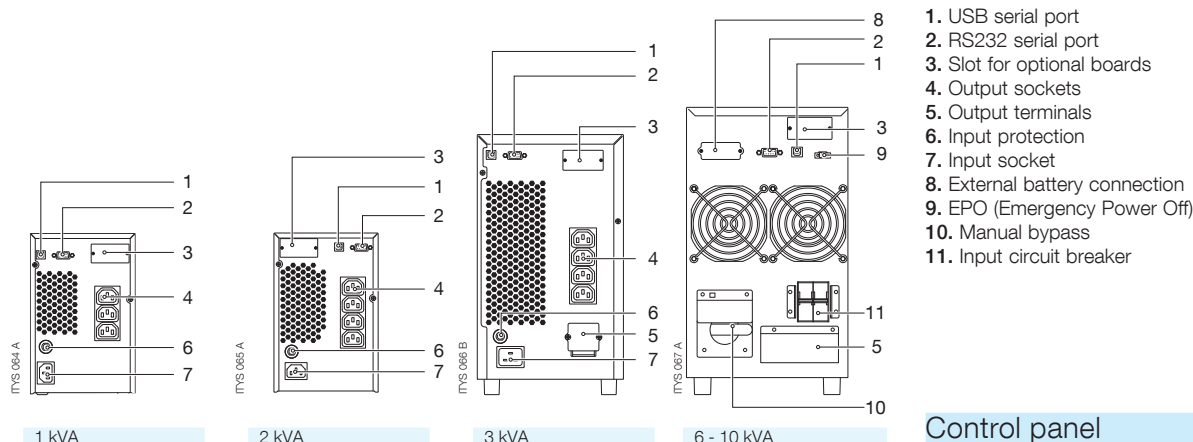


- > Universal socket



- > Indian standard (BIS compliant)

## Connections



## Technical data

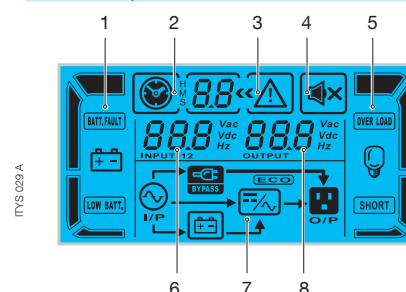
| ITYS E                                                   |                                                                 |                 |                         |                 |                 |
|----------------------------------------------------------|-----------------------------------------------------------------|-----------------|-------------------------|-----------------|-----------------|
| Sn (VA)                                                  | 1000                                                            | 2000            | 3000                    | 6000            | 10000           |
| Pn (W)                                                   | 800                                                             | 1600            | 2400                    | 4800            | 8000            |
| INPUT                                                    |                                                                 |                 |                         |                 |                 |
| Voltage                                                  | 230 V (1ph) 160÷300 V up to 110 V @ 60% load                    |                 |                         |                 |                 |
| Rated frequency                                          | 50/60 Hz                                                        |                 |                         |                 |                 |
| Power factor                                             | 0.99                                                            |                 |                         |                 |                 |
| OUTPUT                                                   |                                                                 |                 |                         |                 |                 |
| Rated voltage                                            | 208/220/230/240 V                                               |                 |                         |                 |                 |
| Voltage tolerance                                        | ± 1%                                                            |                 |                         |                 |                 |
| Rated frequency                                          | 50/60 Hz (46÷54 Hz / 56÷64 Hz) (in battery mode 50/60 ± 0.1 Hz) |                 |                         |                 |                 |
| Overload                                                 | Up to 130% for 1 minute                                         |                 |                         |                 |                 |
| Crest factor                                             | 3:1                                                             |                 |                         |                 |                 |
| CONNECTIONS                                              |                                                                 |                 |                         |                 |                 |
| IEC standard                                             | 3 x IEC 320                                                     | 4 x IEC 320     | 4 x IEC 320 + terminals | terminals       |                 |
| Universal standard                                       | 2 sockets                                                       | 2 sockets       | 2 sockets + terminals   | terminals       |                 |
| Indian standard                                          | 3 sockets                                                       | 4 sockets       | 4 sockets + terminals   | terminals       |                 |
| BATTERIES                                                |                                                                 |                 |                         |                 |                 |
| Type                                                     | sealed lead-acid maintenance free - expected life 3/5 years     |                 |                         |                 |                 |
| Back-up time @75% of rated VA load pf 0.7 <sup>(1)</sup> | 8 min                                                           |                 |                         | 9 min           |                 |
| Voltage <sup>(2)</sup>                                   | 36 VDC                                                          | 96 VDC          |                         | 192 VDC         | 240 VDC         |
| Battery charger <sup>(2)</sup>                           | Setting up to 6 A                                               |                 |                         |                 |                 |
| COMMUNICATION                                            |                                                                 |                 |                         |                 |                 |
| Interfaces                                               | RS232 - USB                                                     |                 |                         |                 |                 |
| Local communiacion software                              | LOCAL VIEW                                                      |                 |                         |                 |                 |
| EFFICIENCY                                               |                                                                 |                 |                         |                 |                 |
| Online mode                                              | up to 90%                                                       |                 |                         |                 |                 |
| ENVIRONMENT                                              |                                                                 |                 |                         |                 |                 |
| Ambient temperature                                      | 0 to 40°C (15 to 25 °C for maximum battery life)                |                 |                         |                 |                 |
| Relative humidity                                        | 0 to 95% without condensation                                   |                 |                         |                 |                 |
| Maximum altitude                                         | 1000 m without derating                                         |                 |                         |                 |                 |
| Noise level at 1 m                                       | < 55 dBA                                                        |                 |                         | < 59 dBA        |                 |
| UPS CABINET                                              |                                                                 |                 |                         |                 |                 |
| Dimensions <sup>(1)</sup> W x D x H (mm)                 | 145 x 285 x 220                                                 | 145 x 400 x 220 | 190 x 425 x 320         | 190 x 370 x 640 | 190 x 450 x 640 |
| Weight <sup>(1)</sup> (kg)                               | 10                                                              | 17              | 28                      | 60              | 75              |
| Dimensions <sup>(2)</sup> W x D x H (mm)                 | 145 x 285 x 220                                                 | 145 x 400 x 220 | 145 x 400 x 220         | 190 x 370 x 320 | 190 x 450 x 320 |
| Weight <sup>(2)</sup> (kg)                               | 5                                                               | 7               | 8                       | 12              | 16              |
| Degree of protection                                     | IP20                                                            |                 |                         |                 |                 |
| STANDARDS                                                |                                                                 |                 |                         |                 |                 |
| Safety <sup>(3)</sup>                                    | EN 62040-1                                                      |                 |                         |                 |                 |
| EMC <sup>(3)</sup>                                       | EN 62040-2                                                      |                 |                         |                 |                 |
| Product declaration <sup>(3)</sup>                       | CE                                                              |                 |                         |                 |                 |
| BIS certification                                        | R-41030651                                                      |                 |                         | R-41120790      |                 |

(1) Models with internal batteries.

(2) Models without batteries.

(3) Models with IEC output sockets.

## Control panel



## General characteristics

- True online double conversion technology (VFI)
- Constant output voltage and frequency regulation
- Automatic bypass supplies the loads in the event of overloads or faults
- Compact tower UPS system
- Easy connections via sockets or terminals
- Wide input voltage tolerance
- Manual bypass for periodic or emergency maintenance

## Standard communication features

- LOCAL VIEW: ideal UPS monitoring and shutdown point-to-point solution for Windows®, Linux and Mac OS X® operating systems.
- HID: UPS management based on Windows® and Mac OS X® embedded service - USB interface.

## Communication options

- Dry-contact card for UPS remote diagnostic (ITY-E-OP-REL).

# ITYS ES

Solution for electrical substations  
from 1000 to 3000 VA



GAMME\_850/PSD

## Function

Compact tower UPS system saves space in the operating environment.

## Advantages

### High protection and high availability

- The ITYS ES series is a range of compact UPS systems available in 1000, 2000 and 3000 VA models with on-line double conversion technology (VFI) with sinusoidal absorption.
- ITYS ES guarantees permanent regulation of the output voltage and frequency. This technology is compatible with all IT and industrial applications and operating environments, installations with generator sets included.
- Wide tolerance on input voltage ensures that switchovers to battery mode are infrequent, significantly prolonging battery lifetime.
- Wide operating ambient temperature up to 45°C.
- Standard Over Voltage Control Device (OVCD) protects the UPS and the load from dangerous mains peak-voltages.
- UPS models with tropicalised (Conformal Coating) boards.

### Straightforward to install and easy to use

- The UPS is shipped ready for connection with internal batteries connected and charged.
- ITYS ES, with the manual bypass option is easy to install without any special plant engineering preparation, as it is equipped with built-in thermal protection.
- The LCD monitoring/control panel and a buzzer make the equipment extremely easy and intuitive to use. The graphic indicating the power distribution path shows at a glance whether or not the system is working as it should.
- Battery efficiency can be tested via the control panel or using dedicated software.

### Operating efficiency and versatility

- The versatility of these models makes them suitable for protecting critical devices in the industrial field.
- The standard equipment and communication accessories have been specially designed to satisfy the typical needs of installation or use in transformer cabins (i.e. tropicalized boards).
- In situations where automatic power management procedures are required, the communication software can be used to programme scheduled start-up and shutdown times.
- Restarting the UPS from the battery to power the DG before closing the main isolator.

## The solution for

- > Industry

## Strong points

- > High protection and high availability
- > Straightforward to install and easy to use
- > Operating efficiency and versatility

## Conformity to standards

- > IEC 62040-1
- > IEC 62040-2
- > IEC 62040-3
- > CEI 016
- > RCM (E2376)

## Certifications and attestations



## Tech info

The IEC 016 STANDARD for auxiliary cabin equipment requires an uninterrupted power supply to the control circuits for the General Protection and Medium Voltage Switch.

The control circuits for the General Protection, Medium Voltage Switch and coil must be powered by the same auxiliary voltage when there is no power. The power supply must be guaranteed for a back-up time of 1 hour, either by the UPS or by buffer batteries.

The Medium Voltage Switch must be powered up by skilled personnel if out of service for a long time due to maintenance or failure.

It is necessary to power the General Protection before closing the Medium Voltage Switch.

The required protection comprises:

- Mains power cuts due to poor maintenance of the user's system.
- Inappropriate tripping of the Medium Voltage Switch because of faults in the trip circuit.
- Alert signalling if the Medium Voltage Switch trips due to a power failure (system with regular maintenance).



## UPS - Technical data

| ITYS ES                                         |                                                                 |                     |                             |
|-------------------------------------------------|-----------------------------------------------------------------|---------------------|-----------------------------|
| Model                                           | ITY3-TW010B-ES                                                  | ITY3-TW020B-ES      | ITY3-TW030K-ES              |
| Sn [VA]                                         | 1000                                                            | 2000                | 3000                        |
| Pn [W]                                          | 1000                                                            | 2000                | 3000                        |
| Input/output                                    | 1/1                                                             |                     |                             |
| INPUT                                           |                                                                 |                     |                             |
| Rated voltage                                   | 230 V (1ph) 110÷300 V; (160÷300 V @100% load)                   |                     |                             |
| Rated frequency                                 | 40-70Hz (50/60 Hz +/-5% Auto-Selectable)                        |                     |                             |
| Power factor                                    | >0,99                                                           |                     |                             |
| OUTPUT                                          |                                                                 |                     |                             |
| Rated voltage                                   | 220 / 230 / 240 V (± 1 %)                                       |                     |                             |
| Rated frequency                                 | 50/60 Hz (± 0.1 Hz in battery mode)                             |                     |                             |
| Overload                                        | up to 105% continuously; 125% x 3 min; 150% x 30 sec            |                     |                             |
| Crest factor                                    | 3:1                                                             |                     |                             |
| Connections                                     | 4 x IEC 320 (C13)                                               | 8 x IEC 320 (C13)   | 8 x IEC 320 (C13) + 1 (C19) |
| BATTERIES                                       |                                                                 |                     |                             |
| Type                                            | sealed lead-acid maintenance free - expected lifetime 3-5 years |                     |                             |
| Back-up time <sup>(1)</sup>                     | 12 minutes                                                      | 16 minutes          | 23 minutes                  |
| Sized for a back-up time of                     | 108 minutes @ 50 W                                              | 130 minutes @ 150 W | 156 minutes @ 300 W         |
| Back-up time <sup>(2)</sup> + switching back on | 60 minutes @ 50 W                                               | 60 minutes @ 150 W  | 60 minutes @ 300 W          |
| Battery test                                    | •                                                               | •                   | •                           |
| COMMUNICATION                                   |                                                                 |                     |                             |
| Interfaces                                      | RS232 - USB - Dry contact                                       |                     |                             |
| Ethernet adapter                                | NET VISION (TCP / IP & SNMP) optional card                      |                     |                             |
| Local communication software                    | Local View                                                      |                     |                             |
| EFFICIENCY                                      |                                                                 |                     |                             |
| Online mode                                     | up to 93%                                                       |                     |                             |
| ENVIRONMENT                                     |                                                                 |                     |                             |
| Ambient service temperature                     | from 0 °C to +40 °C (up to 45 °C <sup>(4)</sup> )               |                     |                             |
| Relative humidity                               | < 95 % non-condensing                                           |                     |                             |
| Maximum altitude                                | 1000 m without de-rating                                        |                     |                             |
| Noise level at 1 m                              | < 50 dBA                                                        |                     |                             |
| UPS                                             |                                                                 |                     |                             |
| Dimensions W x D x H                            | 145 x 404 x 224 mm                                              | 192 x 428 x 322 mm  | 384 x 428 x 322 mm          |
| Weight                                          | 14,4 kg                                                         | 26 kg               | 49,3 kg                     |
| Degree of protection                            | IP20                                                            |                     |                             |
| COMPLIANCE WITH STANDARDS                       |                                                                 |                     |                             |
| Safety                                          | IEC/EN 62040-1, AS 62040.1.1, AS 62040.1.2                      |                     |                             |
| EMC                                             | IEC/EN 62040-2, AS 62040.2                                      |                     |                             |
| Product declaration                             | CE, RCM (E2376), UKCA                                           |                     |                             |
| ITYS ES - Manual bypass <sup>(3)</sup>          |                                                                 |                     |                             |
| Sn [VA]                                         | 1000                                                            | 2000                | 3000                        |
| INPUT                                           |                                                                 |                     |                             |
| Type of terminals                               | CBD6                                                            |                     |                             |
| Wire size                                       | 6 mm² max                                                       |                     |                             |
| BYPASS                                          |                                                                 |                     |                             |
| Switching positions                             | 1: UPS - 2: MAINS                                               |                     |                             |
| Switching time                                  | 6 ms max                                                        |                     |                             |
| LOAD OUTPUT                                     |                                                                 |                     |                             |
| Type of terminals                               | CBD6                                                            |                     |                             |
| Wire size                                       | 6 mm² max                                                       |                     |                             |
| UPS SUPPLY OUTPUT                               |                                                                 |                     |                             |
| Type of socket                                  | IEC 320 10 A                                                    |                     | IEC 320 16 A                |
| SURGE ARRESTORS (on request)                    |                                                                 |                     |                             |
| Type                                            | "L" in compliance with CEI EN 61643-11                          |                     |                             |
| L/N pulse current                               | 40 kA (8/20) max                                                |                     |                             |
| VAC N/GND                                       | 255 V max                                                       |                     |                             |
| VAC L/N                                         | 320 V max                                                       |                     |                             |

(1) @75 % of rated load (models with internal batteries) PF 0.7.

(2) Factory setting: back-up time limited to 60 minutes to permit subsequent restarting with battery.

(3) Upon request.

(4) Conditions apply.

## General characteristics

- UPS models with tropicalised (Conformal Coating) boards.
- Embedded dry-contact interface.
- Input mains switch breaker.
- Connection for battery extension modules.
- Power off the UPS remotely.
- Internal temperature sensor.

## Standard communication features

- Embedded dry-contact interface.
- Input mains switch breaker.
- Power off the UPS remotely.
- Internal temperature sensor.
- 1 slot for communication options.
- USB port for UPS management based on HID protocol.
- MODBUS RTU (RS232).
- LOCAL VIEW software for local UPS monitoring and shutdown for Windows, Linux and MAC Osx.
- Clear and uncluttered LCD interface for easy UPS monitoring, even for less specialist users.

## Communication options

- Dry-contact card.
- NET VISION: professional WEB/SNMP Ethernet interface for secure UPS monitoring and remote automatic shutdown.
- Environmental Monitoring Device (EMD).
- REMOTE VIEW PRO supervision software.

## Electrical options

Specially designed for ITYS ES, the manual bypass option enables:

- Simplified installation: connection to the system is made with industrial grade terminals, while connection to the UPS is via the pre-wired plug and socket supplied.
- Easy maintenance and uninterrupted operation: thanks to the manual bypass isolator it is possible to service or replace the UPS while maintaining the power supply to the devices downstream in complete safety for the operator. This operation has been specially devised to be simple to carry out, even in an emergency.
- Increased level of equipment immunity to surge voltages, typical for this type of application, thanks to suitable surge arrestors included in addition to standard UPS protection.



# MASTERYS BC+ FLEX

Designed for easy integration and use  
from 10 to 40 kVA



## Function

MASTERYS BC+ FLEX fits every space and needs.

Easy to customize on site and with several mounting configurations, it's ready for every situation.

## Advantages

### A flexible and cost-effective solution

- The Flex model eliminates space and installation restrictions with the «3-in-1» solution.
- Equipped with an output and manual bypass breaker in standard mode.
- Mimic panel can be rotated to enable the information displayed to be read easily.
- High recharging current option for very long back-up time.

### Fast and easy installation

- Easy to configure for retrofit in existing installations.
- Free eRULER online sizing tool to get dimensions and electrical information in advance before installation.
- Quickly get online product documentation by simply inputting the Serial Number.

### User and environmentally friendly

- 25+ languages available in the mimic panel.
- Ergonomics designed to simplify usage.
- Anticipates eco-regulations and is RoHS compliant.



Example of top-mounted installation.

## The solution for

- > Industry

## Strong points

- > A flexible and cost-effective solution
- > Fast and easy installation
- > User and environmentally friendly

## Conformity to standards

- > IEC/EN 62040-1, IEC/EN 62040-2
- > IEC/EN 62040-3
- > CE
- > EAC

## Certifications and attestations



The MASTERYS BC+ FLEX series is certified by TÜV SÜD with regard to product safety (EN 62040-1).



## Advantages



## SoLive UPS



## Expert services



[www.socomtec.com/services](http://www.socomtec.com/services)

## Maximum versatility



**Free-standing**  
Adaptable to the available space



**Wall-mounted**  
Zero floor space



**Top-mounted**  
Easy built-in solution

## Technical data

| MASTERYS BC+ FLEX             |                                                                                              |    |    |    |    |
|-------------------------------|----------------------------------------------------------------------------------------------|----|----|----|----|
| Sn [kVA]                      | 10                                                                                           | 15 | 20 | 30 | 40 |
| Pn [kW]                       | 10                                                                                           | 15 | 20 | 30 | 40 |
| Input / output 3/1            | •                                                                                            | •  | •  | –  | –  |
| Input / output 3/3            | •                                                                                            | •  | •  | •  | •  |
| Parallel configuration        | up to 6 units                                                                                |    |    |    |    |
| INPUT                         |                                                                                              |    |    |    |    |
| Rated voltage                 | 3ph + N: 400 V (can be configured 380/415 V)                                                 |    |    |    |    |
| Voltage tolerance             | 240 V to 480 V                                                                               |    |    |    |    |
| Rated frequency               | 40-70 Hz                                                                                     |    |    |    |    |
| OUTPUT                        |                                                                                              |    |    |    |    |
| Power factor                  | 0.9 (according to IEC / EN 62040-3)                                                          |    |    |    |    |
| Rated voltage                 | 1ph + N: 230 V (can be configured 220/240 V)<br>3ph + N: 400 V (can be configured 380/415 V) |    |    |    |    |
| Rated frequency               | 50/60 Hz                                                                                     |    |    |    |    |
| EFFICIENCY (TÜV SÜD VERIFIED) |                                                                                              |    |    |    |    |
| Double conversion VFI mode    | up to 95 %                                                                                   |    |    |    |    |
| Eco Mode                      | up to 99 %                                                                                   |    |    |    |    |
| BATTERY                       |                                                                                              |    |    |    |    |
| Technologies                  | VRLA, NiCd                                                                                   |    |    |    |    |
| Battery type                  | Normal life                                                                                  |    |    |    |    |
| Configuration                 | External batteries                                                                           |    |    |    |    |
| ENVIRONMENT                   |                                                                                              |    |    |    |    |
| Operating ambient temperature | up to +40 °C <sup>(2)</sup>                                                                  |    |    |    |    |
| UPS CABINET                   |                                                                                              |    |    |    |    |
| Dimensions W x D x H (mm)     | 442 x 830 x 305                                                                              |    |    |    |    |
| Weight                        | 79 kg max <sup>(1)</sup>                                                                     |    |    |    |    |
| Display                       | 3.5"                                                                                         |    |    |    |    |
| Degree of protection          | IP20 (IP21 on demand)                                                                        |    |    |    |    |
| Colours                       | metallised grey E150HVR                                                                      |    |    |    |    |
| STANDARDS                     |                                                                                              |    |    |    |    |
| Safety                        | IEC/EN 62040-1                                                                               |    |    |    |    |
| EMC                           | IEC/EN 62040-2                                                                               |    |    |    |    |
| Performance                   | IEC/EN 62040-3                                                                               |    |    |    |    |
| Environmental                 | full compliance with the RoHS EU directive                                                   |    |    |    |    |
| Product declaration           | CE, EAC, UKCA                                                                                |    |    |    |    |

(1) According to the model. (2) Conditions apply.

## General characteristics

- Dual input mains (30-40 kVA).
- Internal maintenance bypass switch.
- Output switch breaker.
- Auxiliary mains switch breaker.
- Backfeed protection: detection circuit.
- Full compatibility with generators.
- Internal normal-life batteries.

## Standard communication features

- 3.5" multilanguage graphic display.
- 2 slots for communication options.
- USB port for downloading log file.
- Ethernet port for service purposes.

## Electrical options

- Internal backfeed isolation device.
- Common mains coupling bars.
- TN-C grounding system.
- ACS synchronisation system.
- High capacity battery charger.
- Free-standing kit.
- Top-mounted kit.

## Communication options

- Dry-contact interface (configurable voltage-free contacts).
- MODBUS RTU RS485 or TCP.
- PROFIBUS / PROFINET gateway.
- BACnet/IP interface.
- NET VISION: professional WEB/ SNMP Ethernet interface for secure UPS monitoring and remote automatic shutdown.
- REMOTE VIEW PRO supervision software.
- IoT Gateway for Socomec cloud services and SoLive UPS mobile app.
- Remote touch-screen panel.

## Remote monitoring and cloud services

- SoLink: Socomec 24/7 remote monitoring service connecting your installation to the nearest Socomec Service Centre.
- SoLive UPS: mobile app enabling the monitoring of the UPS systems from a smartphone.

# MASTERYS BC+

Designed for easy integration and use  
from 10 to 160 kVA



## The solution for

- > Healthcare
- > Industry

## Strong points

- > A flexible and cost-effective solution
- > Long back-up time engineered-in
- > Embedded digital technology
- > Fast and easy installation
- > Fast delivery
- > User and environmentally friendly

## Conformity to standards

- > IEC/EN 62040-1, IEC/EN 62040-2
- > EN 62040-3
- > CE
- > UKCA
- > EAC

## Certifications and attestations



The MASTERYS BC+ series is certified by TUV SUD with regard to product safety (EN 62040-1).



## Advantages



## eWIRE



QR CODE 219 A GB

## Function

MASTERYS BC+ is a cost effective solution, easy to configure and to order, and has been designed to meet specific customer needs within commercial, light industrial and public sector organisation. Thanks to an innovative approach - based on modern web and mobile digital tools - every step of the life cycle has been simplified. From the upstream product selection stage and configuration, to the sizing, installation and optimisation of the operation, this new system delivers easyness and effectiveness to every hardworking infrastructure.

## Advantages

### A flexible and cost-effective solution

- A compact range of standard product references with a variety of add-on options to adapt to every customer's site.
- Easy to configure for retrofit in existing installations.
- Equipped with manual bypass breaker in standard mode.

### Long back-up time engineered-in

- Several optimised choices for standard internal battery configuration.
- Increased internal battery density for reduced footprint and simplified installation.
- Internal basic back-up time available up 80 kVA, without additional external battery cabinet.
- High recharging current option for very long back-up time.

### Embedded digital technology

- Digital Native UPS generation.
- IoT ready device for access to connected services.
- Easy integration in LAN/WAN and virtual environments.

### Fast and easy installation

- A wide range of UPS from 10 to 160 kVA with the same performance and functionality.
- Free eRULER online sizing tool to get dimensions and electrical information in advance before installation.
- Tutored UPS installation with eWIRE mobile app.
- Quickly get online product documentation by simply inputting the Serial Number.

### Fast delivery

- "Fast track manufacturing" option available for urgent projects or lastminute requirements.
- Fast delivery even for highly customised configurations thanks to easily combined options.

### User and environmentally friendly

- 25+ languages available in the mimic panel.
- Ergonomics designed to simplify usage.
- Anticipates eco-regulations and is RoHS compliant.
- Units provided with wheels for easy positioning.



## General characteristics

- Dual input mains (30-120 kVA).
- Internal maintenance bypass switch.
- Output switch breaker.
- Auxiliary mains switch breaker.
- Backfeed protection: detection circuit.
- Full compatibility with generators
- Internal normal-life batteries up to 80 kVA.

## Standard communication features

- 3.5" multilanguage graphic display.
- 2 slots for communication options.
- USB port for downloading log file.
- Ethernet port for service purposes.

## Electrical options

- 3-phase input without neutral.
- Internal backfeed isolation device.
- Common mains coupling bars.

- TN-C grounding system.
- ACS synchronisation system.
- IP21 degree of protection.
- High capacity battery charger.
- Internal long-life batteries.

## Communication options

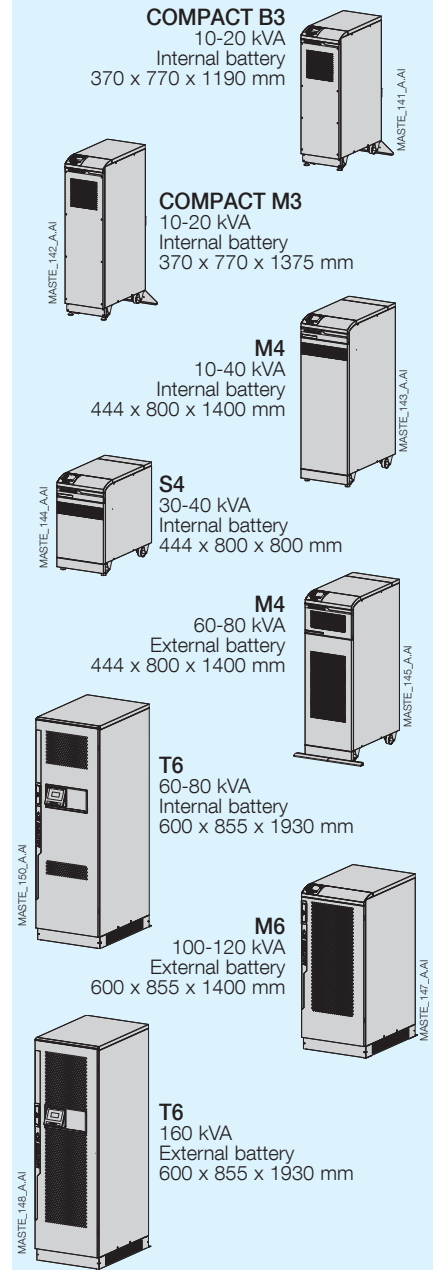
- Dry-contact interface (configurable voltage-free contacts).
- MODBUS RTU RS485 or TCP.
- PROFIBUS / PROFINET gateway.
- BACnet/IP interface.
- NET VISION: professional WEB/ SNMP Ethernet interface for secure UPS monitoring and remote automatic shutdown.
- REMOTE VIEW PRO supervision software.
- IoT Gateway for Socomec cloud services and SoLive UPS mobile app.
- Remote touch-screen panel.

## Technical data

| MASTERYS BC+                                   |                                                                                              |    |    |    |    |    |    |     |     |     |
|------------------------------------------------|----------------------------------------------------------------------------------------------|----|----|----|----|----|----|-----|-----|-----|
| Sn [kVA]                                       | 10                                                                                           | 15 | 20 | 30 | 40 | 60 | 80 | 100 | 120 | 160 |
| Pn [kW]                                        | 10                                                                                           | 15 | 20 | 30 | 40 | 60 | 72 | 90  | 108 | 144 |
| Input / output 3/1                             | •                                                                                            | •  | •  | -  | -  | -  | -  | -   | -   | -   |
| Input / output 3/3                             | •                                                                                            | •  | •  | •  | •  | •  | •  | •   | •   | •   |
| Parallel configuration                         | up to 6 units <sup>(1)</sup>                                                                 |    |    |    |    |    |    |     |     |     |
| INPUT                                          |                                                                                              |    |    |    |    |    |    |     |     |     |
| Rated voltage                                  | 400 V 3ph+N (3 wire input also available on demand)                                          |    |    |    |    |    |    |     |     |     |
| Voltage tolerance                              | 240 V to 480 V                                                                               |    |    |    |    |    |    |     |     |     |
| Rated frequency                                | 40-70 Hz                                                                                     |    |    |    |    |    |    |     |     |     |
| OUTPUT                                         |                                                                                              |    |    |    |    |    |    |     |     |     |
| Rated voltage                                  | 1ph + N: 230 V (can be configured 220/240 V)<br>3ph + N: 400 V (can be configured 380/415 V) |    |    |    |    |    |    |     |     |     |
| Rated frequency                                | 50/60 Hz                                                                                     |    |    |    |    |    |    |     |     |     |
| EFFICIENCY                                     |                                                                                              |    |    |    |    |    |    |     |     |     |
| Double conversion VFI mode                     | up to 95%                                                                                    |    |    |    |    |    |    |     |     |     |
| Eco Mode                                       | up to 99%                                                                                    |    |    |    |    |    |    |     |     |     |
| BATTERY                                        |                                                                                              |    |    |    |    |    |    |     |     |     |
| Technologies                                   | VRLA, NiCd                                                                                   |    |    |    |    |    |    |     |     |     |
| INTERNAL BACK-UP TIME (MINUTES) <sup>(2)</sup> |                                                                                              |    |    |    |    |    |    |     |     |     |
| COMPACT B3                                     | 22                                                                                           | 13 | 9  | -  |    |    |    |     |     |     |
| COMPACT M3                                     | 35                                                                                           | 22 | 15 | -  |    |    |    |     |     |     |
| M4                                             | 101                                                                                          | 66 | 46 | 28 | 20 | -  |    |     |     |     |
| S4                                             | -                                                                                            |    |    | 9  | 6  | -  |    |     |     |     |
| T6                                             | -                                                                                            |    |    |    |    |    | 13 | 9   | -   |     |
| ENVIRONMENT                                    |                                                                                              |    |    |    |    |    |    |     |     |     |
| Operating ambient temperature                  | up to +35 °C <sup>(3)</sup>                                                                  |    |    |    |    |    |    |     |     |     |
| UPS CABINET                                    |                                                                                              |    |    |    |    |    |    |     |     |     |
| Weight                                         | depends on the number of batteries installed - contact us                                    |    |    |    |    |    |    |     |     |     |
| Degree of protection                           | IP20 (IP21 on demand)                                                                        |    |    |    |    |    |    |     |     |     |
| Colours                                        | metallised grey E150HVR                                                                      |    |    |    |    |    |    |     |     |     |
| STANDARDS                                      |                                                                                              |    |    |    |    |    |    |     |     |     |
| Safety                                         | IEC/EN 62040-1                                                                               |    |    |    |    |    |    |     |     |     |
| EMC                                            | IEC/EN 62040-2                                                                               |    |    |    |    |    |    |     |     |     |
| Performance                                    | EN 62040-3                                                                                   |    |    |    |    |    |    |     |     |     |
| Environmental                                  | full compliance with the RoHS EU directive                                                   |    |    |    |    |    |    |     |     |     |
| Product declaration                            | CE, EAC, UKCA                                                                                |    |    |    |    |    |    |     |     |     |

(1) Up to 4 units for MASTERYS BC+ compact (2) @80% of rated power with load PF 0.9. (3) Max +50 °C conditions applied

## UPS dimensions (WxDxH)



## Expert services

Our services guarantee the highest level of availability to your UPS:

- Technical advice
- Commissioning
- Manufacturer training
- Maintenance contracts including digital services



# DELPHYS BC

Reliable, simple and ready-to-use power protection  
from 200 to 300 kVA



GAMME\_430 PSD

## The solution for

- > Data centre
- > Healthcare
- > Energy
- > Infrastructure & Transport
- > Industry

## Strong points

- > A complete, cost-effective solution
- > Tailored to your environment

## Conformity to standards

- > IEC/EN 62040-1, AS 62040.1.1, AS 62040.1.2
- > CEM IEC/EN 62040-2, AS 62040.2
- > IEC/EN 62040-3, AS 62040.3
- > CE, RCM (E2376)

## Certifications and attestations



## Expert services

We offer services to ensure your UPS highest availability:

- > Commissioning
- > On-site intervention
- > Preventive maintenance visits
- > 24-hour call out and rapid on-site repairs
- > Maintenance packages
- > Training



[www.socomec.com/services](http://www.socomec.com/services)

## Function

DELPHYS BC is the complete cost-effective solution for the protection of business critical applications.

## Advantages

### A complete, cost-effective solution

- Online double conversion mode with an output power factor of 0.9 providing 12 % more active power compare to UPS with a power factor of 0.8.
- Dual input mains allows you to manage independent power sources.
- Increased system availability placing two UPS in parallel for 1+1 redundancy.
- Internal manual bypass for easy maintenance without power interruption (1+1 configuration).
- Multilanguage display.

### Tailored to your environment

- Saves space with a reduced footprint and optimized cabinet size.
- Low noise level.
- Compact, lightweight and easy to install.
- No neutral required on rectifier input.
- Two-wire battery connection (only +/-).
- Extended battery life and performance with exclusive EBS battery charging management for increased battery life.

## General characteristics

- Dual input mains.
- Integrated maintenance bypass.
- Backfeed protection: detection circuit.
- EBS (Expert Battery System) for battery management.

## Electrical options

- External battery cabinet.
- External temperature sensor.
- Additional battery chargers.
- Shared battery.
- Galvanic isolation transformer.
- Parallel kit.
- ACS synchronization system.

## Standard communication features

- User-friendly 7" touch-screen multilingual colour graphic display.
- 2 slots for communication options.
- USB port to download UPS report and log file.

## Communication options

- Dry-contact interface.  
(configurable voltage-free contacts).
- MODBUS RTU RS485 or MODBUS TCP.
- PROFIBUS / PROFINET gateway.
- BACnet/IP interface.
- NET VISION: professional WEB/SNMP Ethernet interface for secure UPS monitoring and remote automatic shutdown.
- REMOTE VIEW PRO supervision software.
- IoT gateway for Socomec cloud services and SoLive UPS mobile app.
- Remote touch-screen panel.
- Additional Com-slot extension.

## Remote monitoring and cloud services

- SoLink: Socomec 24/7 remote monitoring service connecting your installation to the nearest Socomec Service Centre.
- SoLive UPS: mobile app enabling the monitoring of the UPS systems from a smartphone.

## Technical data

|                                  |                                                                                      |                      |
|----------------------------------|--------------------------------------------------------------------------------------|----------------------|
| DELPHYS BC                       |                                                                                      |                      |
| Sn [kVA]                         | 200                                                                                  | 300                  |
| Pn [kW]                          | 180                                                                                  | 270                  |
| Parallel configuration           | up to 6 units                                                                        |                      |
| INPUT                            |                                                                                      |                      |
| Rated voltage                    | 400 V 3ph                                                                            |                      |
| Voltage tolerance                | 240 V to 480 V <sup>(1)</sup>                                                        |                      |
| Rated frequency                  | 50/60 Hz ± 10 %                                                                      |                      |
| Power factor/THDI                | 0.99/< 3 %                                                                           |                      |
| OUTPUT                           |                                                                                      |                      |
| Rated voltage                    | 400 V                                                                                |                      |
| Voltage tolerance                | static load ±1 % dynamic load in accordance with VFI-SS-111                          |                      |
| Rated frequency                  | 50/60 Hz                                                                             |                      |
| Frequency tolerance              | ± 2 % (configurable from 1 % to 8 %)                                                 |                      |
| Crest factor                     | 3:1                                                                                  |                      |
| BYPASS                           |                                                                                      |                      |
| Rated voltage                    | rated output voltage                                                                 |                      |
| Voltage tolerance                | ± 15 % (configurable with from 10 % to 20 %)                                         |                      |
| Rated frequency                  | 50/60 Hz                                                                             |                      |
| Frequency tolerance              | ± 2 % (configurable for Genset compatibility)                                        |                      |
| EFFICIENCY                       |                                                                                      |                      |
| Online mode @ 100 % of load      | up to 95 %                                                                           |                      |
| ENVIRONMENT                      |                                                                                      |                      |
| Operating ambient temperature    | from 0 °C up to +40 <sup>(2)</sup> °C (from 15 °C to 25 °C for maximum battery life) |                      |
| Relative humidity                | 0 % - 95 % without condensation                                                      |                      |
| Maximum altitude                 | 1000 m without derating (max. 3000 m)                                                |                      |
| Acoustic level at 1 m (ISO 3746) | < 68 dBA                                                                             | < 71 dBA             |
| UPS CABINET                      |                                                                                      |                      |
| Dimensions W x D x H             | 700 x 800 x 1930 mm                                                                  | 1000 x 950 x 1930 mm |
| Weight                           | 500 kg                                                                               | 830 kg               |
| Degree of protection             | IP20                                                                                 |                      |
| Colours                          | RAL 7012, silver grey frontal door                                                   |                      |
| STANDARDS                        |                                                                                      |                      |
| Safety                           | IEC/EN 62040-1, AS 62040.1.1, AS 62040.1.2                                           |                      |
| EMC                              | IEC/EN 62040-2, AS 62040.2                                                           |                      |
| Performance                      | IEC/EN 62040-3, AS 62040.3                                                           |                      |
| Product declaration              | CE, RCM (E2376), UKCA                                                                |                      |

(1) Conditions apply.

# ITYS EM+

Secure power supply for single-phase emergency systems  
2 and 6 kVA



## The solution for

> Industry

## Strong points

- > EN 50171 compliant
- > Robust with high availability
- > Flexible autonomy
- > Easy and error-free installation

## Conformity to standards

> EN 50171

## Certifications and attestations



## Expert services

We offer services to ensure your UPS' highest availability:

- > Commissioning
- > On-site intervention
- > Preventive maintenance visits
- > 24-hour call out and rapid on-site repairs
- > Maintenance packages
- > Training



[www.socomec.com/services](http://www.socomec.com/services)

## Function

The EMergency CPSS range (Emergency Central Power Supply System) has been designed to answer your needs in terms of power supply for your safety system. All our Emergency products are compliant with standard EN 50171.

## Advantages

### EN 50171 compliant

- IP20 enclosure compliant with EN 60598-1.
- Fast battery charge: 80% in 12 hours.
- Battery protection against damage due to a polarity inversion.
- Battery protection against deep discharge.
- Long-life battery with 10-year life expectancy (only for 6 kVA).
- Designed to withstand 120% of the nominal charge during the entire back-up period.

### Robust with high availability

- True online double conversion technology (VFI) assures high availability and total load protection in any environmental conditions.
- Reliable solution in a wide operating ambient temperature up to 45°C.
- Standard Over Voltage Control Device (OVCD) protects the UPS and the load from dangerous mains peak-voltages.

### Flexible autonomy

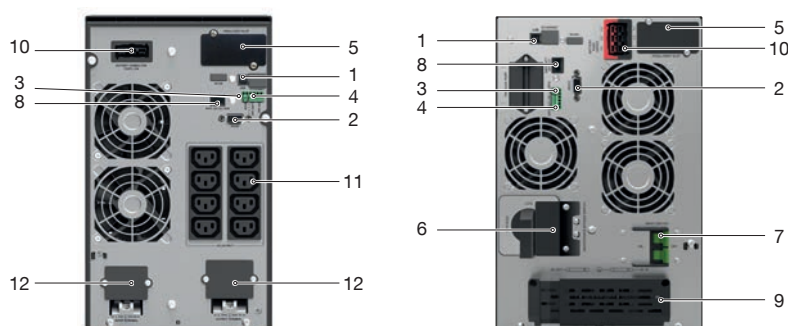
- Modular battery extension flexibility enables limitless autonomy configuration.
- Hot-swap modular battery extension increases back-up - even after installation according to the load criticality to be supplied.
- UPS with powerful battery charger for modular battery extension to:
- ensure constant and reliable operation using external high capacity batteries,
- provide power supply continuity during long outages,
- ensure a fast recharging.

### Easy and error-free installation

- Quick and simple installation: no configuration necessary on first startup.
- Compact tower UPS system saves space in the operating environment.
- Installation according to the load criticality to be supplied.



## Connections



2 kVA

1. USB serial port
2. RS232 serial port
3. Power off the UPS remotely
4. Dry-contact interface
5. Slot for optional communication boards
6. Manual bypass

6 kVA

7. Input protection (thermal breaker)
8. Battery detection
9. Input and output terminal board
10. Connection for modular battery extension
11. Output sockets
12. Input and output terminal

## Technical data

| ITYS EM+                                   |                                  |                                   |
|--------------------------------------------|----------------------------------|-----------------------------------|
| Model                                      | ITY3-EM020LB-K                   | ITY3-EM060LB-K                    |
| Sn (kVA)                                   | 2                                | 6                                 |
| Pn (kW)                                    | 2                                | 6                                 |
| Pn according to EN 50171 (kW)              | 1.5                              | 5                                 |
| Inverter max withstand power EN 50171 (kW) | 2                                | 6                                 |
| Input / output                             | 1/1                              |                                   |
| INPUT                                      |                                  |                                   |
| Rated voltage                              | 230 V (1ph+N)                    |                                   |
| Voltage tolerance                          | 160 V to 300 V                   | 160 V to 276 V                    |
| Rated frequency                            | 50/60 Hz                         |                                   |
| Frequency tolerance                        | ± 2%                             |                                   |
| Power factor / THDI                        | > 0.98% / < 5% > 0.99            |                                   |
| OUTPUT                                     |                                  |                                   |
| Rated voltage                              | 220/230/240 V                    |                                   |
| Voltage tolerance                          | ± 1%                             |                                   |
| Rated frequency                            | 50/60 Hz                         |                                   |
| Frequency tolerance                        | ± 0.1%                           |                                   |
| Overload UPS designed @ Pn                 | 110% for 5 min. 130% for 5 sec   |                                   |
| Crest factor                               | 3:1                              |                                   |
| UPS CABINET                                |                                  |                                   |
| Dimensions W x D x H                       | 192x428x322 mm                   | 225x416x354 mm                    |
| Weight                                     | 11 kg                            | 13.5 kg                           |
| Protection degree                          | IP20 (EN 50171)                  |                                   |
| Acoustic level (dBA) 1m (ISO 3756)         | < 52                             |                                   |
| BATTERY                                    |                                  |                                   |
| Type                                       | VRLA with 5-year life expectancy | VRLA with 10-year life expectancy |
| Charging capability                        | 80% of back-up time in 12h       |                                   |
| STANDARDS                                  |                                  |                                   |
| CPSS                                       | EN 50171                         |                                   |
| Safety                                     | EN 62040-1                       |                                   |
| EMC                                        | EN 62040-2                       |                                   |
| Performance                                | EN 62040-3                       |                                   |
| Product certification                      | CE, UKCA                         |                                   |

## General characteristics

- Embedded dry-contact interface.
- Input mains switch breaker.
- Connection for battery extension modules.
- Power off the UPS remotely.
- Internal temperature sensor.

## Standard communication features

- 1 slot for communication options.
- Dry-contact card according to EN 50171.
- USB port for UPS management based on HID protocol.
- MODBUS RTU (RS232).
- LOCAL VIEW software for local UPS monitoring and shutdown for Windows, Linux and MAC OSX.
- Clear and uncluttered LCD interface for easy UPS monitoring, even for less specialist users.



EN 039 A

## Communication options

- NET VISION: professional WEB/ SNMP Ethernet interface for secure UPS monitoring and remote automatic shutdown.
- Environmental Monitoring Device (EMD).
- REMOTE VIEW PRO supervision software.

# MASTERYS EM+

Reliable central power supply system  
from 10 to 120 kVA



## The solution for

- > Healthcare
- > Infrastructure & Transport
- > Industry

## Strong points

- > EN 50171 compliant
- > Easy and error - free installation
- > Simplified maintenance
- > Ready to be connected

## Conformity to standards

- > EN 50171

## Certifications and attestations



## Expert services

Our services guarantee the highest level of availability to your UPS:

- > Technical advice
- > Commissioning
- > Manufacturer training
- > Maintenance contracts including digital services



## Function

The EMergency CPSS range (Emergency Central Power Supply System) has been designed to answer your needs in terms of power supply for your safety system. All our Emergency products are compliant with standard EN 50171.

## Advantages

### EN 50171 compliant

- IP20 enclosure compliant with EN 60598-1.
- Fast battery charge: 80% in 12 hours.
- Battery protection against damage due to a polarity inversion.
- Battery protection against deep discharge.
- Long-life battery with 10-year life expectancy.
- Designed to withstand 120% of the nominal charge during the entire back-up period.

### Easy and error-free installation

- All-in-one solution: for internal batteries configurations (10/15/20 kVA), the UPS and batteries are in the same cabinet (only 1 cabinet to connect).
- Simplified connections: the connections are carried out in the factory and the batteries are pre-tested and ready to work.

### Simplified maintenance

- Innovative maintenance thanks to brick swap architecture that limits the MTTR - the repairs are 5 times faster than legacy UPS.
- Totally front access maintenance for quick and easy repairs.
- Standard Over Voltage Control Device (OVCD) protects the UPS and the load from dangerous mains peak-voltages.

### Ready to be connected

- IoT ready device for access to connected services.
- Real time UPS monitoring thanks to the SoLive App:
  - current UPS status,
  - alarm history,
  - battery level,
  - UPS temperature,
  - battery back-up time in minutes.
- SoLink 24/7: remote monitoring connected service is a permanent connection between the CPSS and the nearest Socomec Service Centre.

## General characteristics

- Dual input mains.
- Internal maintenance bypass switch.
- Input mains switch breaker.
- Output switch breaker.
- Auxiliary mains switch breaker.
- Backfeed protection: detection circuit.
- Power walk-in ramp for full compatibility with generators.
- Long-life battery.

## Standard communication features

- 3.5" multilanguage graphic display.
- 2 slots for communication options.
- USB port for downloading UPS report and log file.
- Ethernet port for service purposes.

## Electrical options

- Internal backfeed isolation device.
- Common mains coupling bars.
- ACS synchronization system.
- IP21 degree of protection.

## Communication options

- Dry-contact interface (according to EN 50171).
- MODBUS RTU RS485 or TCP.
- PROFIBUS gateway.
- BACnet/IP interface.
- NET VISION: professional WEB/SNMP Ethernet interface for secure UPS monitoring and remote automatic shutdown.
- REMOTE VIEW PRO supervision software.
- IoT gateway for Socomec cloud services and SOLIVE UPS mobile app.
- Remote touch-screen panel.

## Technical data

| MASTERYS EM+                               |                                                                                          |    |                       |                                                                |      |                 |        |        |
|--------------------------------------------|------------------------------------------------------------------------------------------|----|-----------------------|----------------------------------------------------------------|------|-----------------|--------|--------|
| Sn (kVA)                                   | 10                                                                                       | 15 | 20                    | 25                                                             | 30   | 40              | 80     | 120    |
| Pn (kW)                                    | 10                                                                                       | 15 | 20                    | 25                                                             | 27   | 36              | 72     | 108    |
| Pn according to EN 50171 (kW)              | 10                                                                                       | 15 | 20                    | 25                                                             | 27   | 36              | 72     | 108    |
| Inverter max withstand power EN 50171 (kW) | 12                                                                                       | 18 | 24                    | 30                                                             | 32.4 | 43.2            | 86.4   | 129.6  |
| Input / output                             | 3/1<br>3/3                                                                               |    | 3/3                   |                                                                |      |                 |        |        |
| INPUT                                      |                                                                                          |    |                       |                                                                |      |                 |        |        |
| Rated voltage                              | 400 V (3ph+N)                                                                            |    |                       |                                                                |      |                 |        |        |
| Voltage tolerance                          | 3ph + N 400 Vac (-15/+20%)<br>up to -40% @ 70% of nominal load                           |    |                       | 3ph + N 400 Vac (-10/+20%)<br>up to -40% @ 70% of nominal load |      |                 |        |        |
| Rated frequency                            | 50/60 Hz                                                                                 |    |                       |                                                                |      |                 |        |        |
| Frequency tolerance                        | 45 ÷ 66 Hz                                                                               |    |                       |                                                                |      |                 |        |        |
| Power factor / THDI                        | > 0.98% / < 3% > 0.99                                                                    |    |                       |                                                                |      |                 |        |        |
| OUTPUT                                     |                                                                                          |    |                       |                                                                |      |                 |        |        |
| Rated voltage                              | 220/230/240 V (1ph+N)<br>380/400/415 V (3ph+N)                                           |    | 380/400/415 V (3ph+N) |                                                                |      |                 |        |        |
| Voltage tolerance                          | Static: ±1%<br>Dynamic: VFI-SS-111 (EN62040-3) compliant                                 |    |                       |                                                                |      |                 |        |        |
| Rated frequency                            | 50/60 Hz                                                                                 |    |                       |                                                                |      |                 |        |        |
| Frequency tolerance                        | ±0.01% (on mains power failure)                                                          |    |                       |                                                                |      |                 |        |        |
| Overload UPS designed @ Pn                 | 125% for 10 min. 150% for 1 min                                                          |    |                       |                                                                |      |                 |        |        |
| Crest factor                               | 3:1                                                                                      |    |                       |                                                                |      |                 |        |        |
| UPS CABINET                                |                                                                                          |    |                       |                                                                |      |                 |        |        |
| Dimensions W x D x H                       | 444x800x1400 mm                                                                          |    |                       |                                                                |      | 600x850x1400 mm |        |        |
| Weight                                     | without batteries 89 kg<br>with internal batteries<br>333/430/527/624 (2/3/4/5 shelf) kg |    |                       | 89 kg                                                          |      | 95 kg           | 186 kg | 240 kg |
| Protection degree                          | IP20 (EN 50171)                                                                          |    |                       |                                                                |      |                 |        |        |
| Acoustic level (dBA) 1m (ISO 3756)         | < 43                                                                                     |    |                       |                                                                |      | < 49            | 59     | 63     |
| BATTERY                                    |                                                                                          |    |                       |                                                                |      |                 |        |        |
| Type                                       | VRLA with 10-year life expectancy                                                        |    |                       |                                                                |      |                 |        |        |
| Charging capability                        | 80% of back-up time in 12h                                                               |    |                       |                                                                |      |                 |        |        |
| STANDARDS                                  |                                                                                          |    |                       |                                                                |      |                 |        |        |
| CPSS                                       | EN 50171                                                                                 |    |                       |                                                                |      |                 |        |        |
| Safety                                     | EN 62040-1                                                                               |    |                       |                                                                |      |                 |        |        |
| EMC                                        | EN 62040-2                                                                               |    |                       |                                                                |      |                 |        |        |
| Performace                                 | EN 62040-3                                                                               |    |                       |                                                                |      |                 |        |        |
| Product certification                      | CE, UKCA                                                                                 |    |                       |                                                                |      |                 |        |        |

# DELPHYS EM

Secure power supply for emergency systems  
160 and 200 kVA



## The solution for

- > Healthcare
- > Industry

## Strong points

- > A complete solution for your emergency systems

## Conformity to standards

- > EN 50171
- > IEC/EN 62040-1, IEC/EN 62040-2
- > CE



## Certifications and attestations



## Expert services

We offer services to ensure your UPS highest availability:

- > Commissioning
- > On-site intervention
- > Preventive maintenance visits
- > 24-hour call out and rapid on-site repairs
- > Maintenance packages
- > Training



[www.socomec.com/services](http://www.socomec.com/services)

## Function

The EMergency CPSS range (Emergency Central Power Supply System) has been designed to answer your needs in terms of power supply for your safety system. All our EMergency products are compliant with standard EN 50171.

## Advantages

### A complete solution for your emergency systems

The EMergency CPSS products are intended to ensure energy supply to emergency escape lighting in the event of mains supply failure.

Depending on the local legislation, it may be suitable for energizing other essential safety equipment, such as:

- electric circuits of automatic fire extinguishing installations,
- paging systems and signaling safety installations,

- smoke extraction equipment,
- carbon monoxide warning systems,
- special safety installations related to specific buildings, e.g. high-risk areas.

The wide range is suitable for all standard needs. For non-standard requests, our team of experts is on hand to adapt the products to your needs.



## General characteristics

- IP20 metal enclosure compliant with EN60598-1.
- Battery charging: 80% in 12 hours.
- Battery protection against the damage due to a polarity inversion.
- Battery protection against deep discharge.
- Long-life battery with 10-year life expectancy.
- Designed to withstand 120% of the nominal charge during the entire back-up period.
- Specific dry contacts & monitoring for EMergency system.

## Electrical options

- Transformer embedded in the UPS enclosure.
- Connection to downstream IT earthing system.
- Eco mode to reach up to 98% efficiency.
- Other types of battery available.

## Standard communication features

- User-friendly 7" touch-screen multilingual colour graphic display.
- Slots for communication options.
- Dry-contact interface (configurable voltage-free contacts).

## Communication options

- Dry-contact interface (configurable voltage-free contacts).
- MODBUS RTU RS485 or MODBUS TCP.
- NET VISION: professional WEB/SNMP
- Ethernet interface for secure UPS monitoring and remote automatic shutdown.
- REMOTE VIEW PRO supervision software.

## Technical data

| DELPHYS EM                       |                                                                  |        |  |
|----------------------------------|------------------------------------------------------------------|--------|--|
| Sn (kVA)                         | 160                                                              | 200    |  |
| Pn (kW)                          | 144                                                              | 180    |  |
| Pn according to EN 50171 (kW)    | 120                                                              | 150    |  |
| Input / output                   | 3/3                                                              |        |  |
| INPUT                            |                                                                  |        |  |
| Rated voltage                    | 400 V 3ph                                                        |        |  |
| Voltage tolerance <sup>(1)</sup> | 240 V to 480 V <sup>(1)</sup>                                    |        |  |
| Rated frequency                  | 50/60 Hz                                                         |        |  |
| Frequency tolerance              | ± 10%                                                            |        |  |
| Power factor / THDI              | 0.99 / < 3%                                                      |        |  |
| OUTPUT                           |                                                                  |        |  |
| Rated voltage                    | 400 V                                                            |        |  |
| Voltage tolerance                | static load ±1 % dynamic load in accordance with VFI-SS-111      |        |  |
| Rated frequency                  | 50/60 Hz                                                         |        |  |
| Frequency tolerance              | ± 2 % (configurable from 1 % to 8 %)                             |        |  |
| Overload UPS designed @ Pn       | 110% for 10 min, 135% for 1 min                                  |        |  |
| Crest factor                     | 3:1                                                              |        |  |
| UPS CABINET                      |                                                                  |        |  |
| Dimensions W x D x H             | 700 x 800 x 1930 mm                                              |        |  |
| Weight                           | 480 kg                                                           | 500 kg |  |
| Protection degree                | IP20 (EN 50171)                                                  |        |  |
| Acoustic level 1m (ISO 3756)     | < 68 dBA                                                         |        |  |
| BATTERY                          |                                                                  |        |  |
| Type                             | VRLA with 10-year life expectancy (optional in external cabinet) |        |  |
| Charging capability              | 80% of back-up time in 12h                                       |        |  |
| STANDARDS                        |                                                                  |        |  |
| CPSS                             | EN 50171                                                         |        |  |
| Safety                           | EN 62040-1                                                       |        |  |
| EMC                              | EN 62040-2                                                       |        |  |
| Performace                       | EN 62040-3                                                       |        |  |
| Product certification            | CE                                                               |        |  |

(1) Condition apply







# Complementary solutions

## Communication and connectivity

|                         |        |
|-------------------------|--------|
| NET VISION.....         | p. 104 |
| UPS connection kit..... | p. 105 |

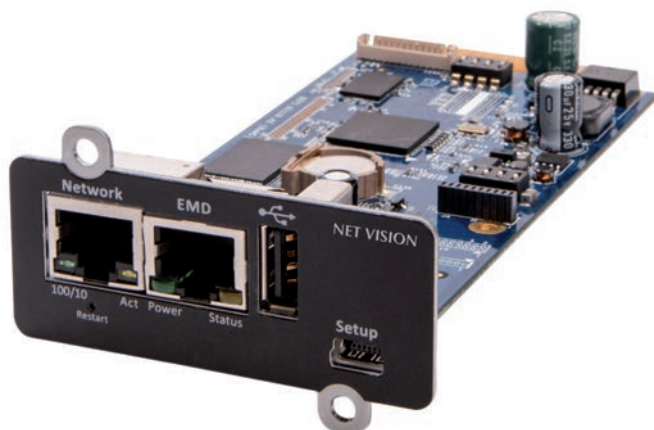
## Back-up storage

|                                     |        |
|-------------------------------------|--------|
| Battery storage systems.....        | p. 106 |
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| <b>W-BMS</b> .....                  | p. 110 |
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| Communication and connectivity..... | p. 114 |

Innovative back-up storage solutions for UPS systems, Power Distribution Units to distribute electricity to servers and IT equipment, communication and connectivity solutions for system management and data integrity.

# NET VISION

Network card for UPS management IoT Gateway for access to digital services



NETV\_001\_EPS

## The solution for

- > Data centre
- > Industry
- > Building

## Strong points

- > Simplified equipment management
- > Secure access and encrypted connections
- > Access to digital services

## Function

Net Vision is a communication interface designed for enterprise networks that enables a direct and secure connection between the UPS and the Ethernet network. This connection provides a wide range of network services, including UPS monitoring, event notifications, the automatic shutdown of servers powered by the UPS and many other services. Net Vision also serves as an IoT gateway, granting access to a comprehensive array of digital services. It is compatible with all UPS ranges equipped with a communication slot.

## Advantages

### Simplified equipment management

- Ethernet 10 / 100 Mb / 1Gb (RJ 45) connectivity.
- User-friendly web interface dedicated to UPS monitoring.
- UPS supervision via SNMP protocols v1, v2c, and v3.
- Remote shutdown of standalone servers (compatible with JNC software) or virtual environments (compatible with VIRTUALJNC software).
- Event notification via email.
- Additional services available, such as SYSLOG, RADIUS, NTP, and SSH.
- Environmental monitoring (temperature and humidity sensor with the EMD option).

### Secure access and encrypted connections

- Enhanced security with encrypted protocols (TLS 1.3).
- Usage of certificates for HTTPS connection.
- Robust password policy: access blocked after multiple attempts, access for a limited period.
- Adherence to the cybersecurity guidelines of ISO/IEC 62443-4-2 standard.
- Cybersecurity test certificate by a thirdparty company.

### Access to digital services

As an IoT gateway, Net Vision grants access to a comprehensive array of digital services through the Socomec cloud environment, including:

- SoLive, Socomec's free mobile app for the remote monitoring of your UPS.
- 24/7 UPS remote monitoring by Socomec experts with a quarterly health status report for your UPS.
- SoLive Pro, enabling you to create custom dashboards within the Socomec cloud environment.
- SoData, a cloud-to-cloud solution that integrates your UPS into your cloud environment using data stored in the Socomec cloud.



# UPS connection kit

All-in-one package to enable digital connections and IoT services for your UPS



GAMME\_B93.PSD

## Strong points

- > Simplified digital services integration & seamless scalability
- > Cyber security attested
- > Wide compatibility

## Function

This UPS connection kit provides key interfaces and gateways, facilitating communication with external systems such as local edge, cloud and mobile services in order to gather the real-time data necessary for the improvement of asset management and service performance - unlocking the true power of your digital transformation. The kit includes:

- NetVision Ethernet card:
  - EDGE connectivity via LAN for UPS local monitoring and orderly shutdown.
  - Permanent Cloud IoT connectivity for UPS remote monitoring combining 24/7 expert service monitoring and free download mobile app.
- USB-Bluetooth dongle:
  - Temporary on-demand connection via Mobile Telecom Network.
  - Innovative remote service operation – whether planned or unplanned troubleshooting.

## Advantages

### Simplified digital services integration & seamless scalability

Access to the full suite of smart digital services that accompany lifecycle management for deployment at any time:

- Installation.
- Operation.
- Maintenance.

The kit includes simplified and visual documentation to kick-start the digital experience with user-friendly guides and illustrations.

### Cyber security attested

Third-party certifications.

### Wide compatibility

The connection kit integrates your UPS into the digital ecosystem and has been designed to be compatible with most Socomec UPS ranges:

- MASTERYS BC+, GP4, EM.
- MODULYS XS, GP, XM, XL.
- DELPHYS GP, XL.

For new generation UPS, the kit enables access to all digital services for asset lifecycle management and even remote service operation.

Furthermore, it also enables previously installed units to be easily retrofitted, providing access to the main digital functionalities.

*Contact us for more details.*

# Battery storage systems

## Batteries

These are electrochemical devices that store energy chemically and convert it into electricity.

Their use with UPS systems involves several batteries being connected in series (string) to reach the DC stage voltage required by the UPS. Strings are often connected in parallel to increase runtime in the event of a mains outage and/or for redundancy.

Batteries can be installed within the UPS (normally for small UPS systems) or assembled in external cabinets or on shelving. The batteries available for use with UPS systems include:

- Normal/long life VRLA batteries with flame-retardant containers.
- Long life open-vented lead batteries with flame-retardant containers.
- Long life nickel-cadmium (NiCd) batteries for special applications.
- Lithium-ion (Li-ion) batteries with integrated monitoring and equalisation system.

### VRLA batteries

VRLA (Valve Regulated Lead Acid) batteries are lead batteries with a sealed safety valve container for releasing excess gas in the event of internal overpressure.

Their development was aimed at limiting the emission of hydrogen into the atmosphere and to avoid the use of liquid electrolyte. The liquid electrolyte is replaced by gel electrolyte (GEL technology) or absorbed inside the separators (AGM technology) to prevent acid leaking.

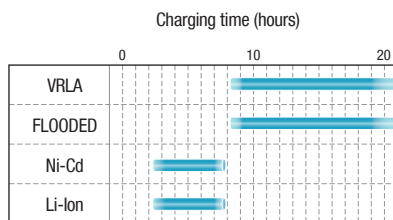
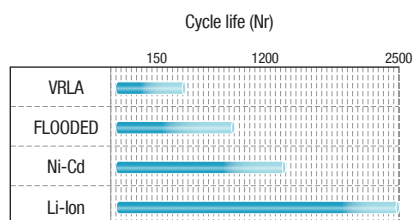
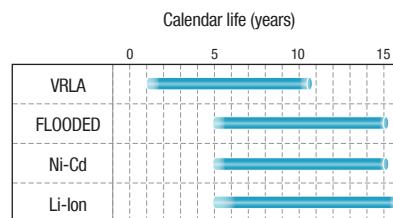
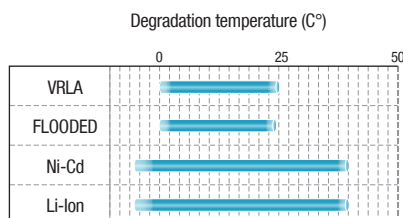
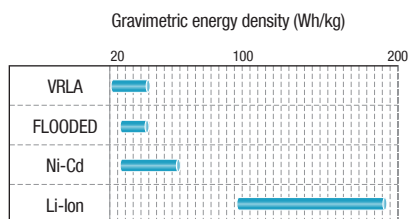
Sealed batteries do not allow for water to be added to the electrolyte, therefore the evaporation of the water contained in the electrolyte, due for example to high room temperatures or internal heating as a result of charging/discharging cycles, decreases their lifetime.

### Open-vented lead batteries

These batteries are made with lead-based electrodes and immersed in a liquid electrolyte comprising water and sulphuric acid. They have an expected lifetime of 15-20 years and statistically are very reliable until at least halfway through their lifetime. Subsequently, a cell short circuit may occur, causing a slight reduction in the runtime but this does not cause a critical situation. Using a liquid electrolyte has some disadvantages, such as shelf installation instead of cabinets to enable electrolyte top-ups and regular inspections, and requires a suitably ventilated dedicated room for reasons of safety.

### Nickel-Cadmium batteries

NiCd technology uses alkaline liquid electrolyte and is especially robust and reliable. These batteries are designed to operate in difficult environmental conditions and support demanding work cycles (frequent charging/discharging), and are usually installed in dedicated rooms on shelving that enables the electrolyte to be topped up. As Cadmium is toxic the use of this type of battery is limited. Furthermore, the requirement for regular complete discharge cycles restricts the number of possible applications with UPS systems.



## Lithium-ion batteries

The Lithium-Ion battery (or Li-Ion battery or LIB), introduced commercially in 1991, has three main components: the positive and negative electrodes and the electrolyte.

The negative electrode (anode) is primarily composed of graphite. A Li-Titanate anode (which can be combined with any other cathode) has also been developed for better safety and battery performance, but with a significantly lower energy density.

The positive electrode (cathode) is composed of a metal oxide.

The Lithium-Cobalt oxide (LCO) offers a higher energy density but presents safety risks, especially when damaged. This chemical composition is widely used in consumer electronics.

The lithium iron phosphate (LFP), the lithium manganese oxide (LMO) and the lithium nickel manganese cobalt oxide (NMC) batteries offer a lower energy density, but are inherently safer.

The electrolyte is composed of a lithium salt in an organic solvent.

The rapid evolution of the Lithium-Ion battery technology over the last decade - due to its wide use in many markets such as electric vehicles, Energy Storage Systems and consumer electronics - has provided several advantages, such as energy efficiency, environmental friendliness, and space savings. These aspects contribute to the reduction of the Total Cost of Ownership of many UPS applications and provide a reliably available back-up power solution in a reduced footprint, with an extended life time and reduced maintenance.

Ensuring permanent power supply for business continuity whilst reducing the Total Cost of Ownership is a main concern for any critical infrastructure.

Li-Ion batteries bring significant advantages in UPS applications, including the considerable reduction in weight and floor space for the same runtime, the possibility of recharging them quickly, and their long cyclic and calendar lifetime.

# VRLA battery cabinets

The value of your back-up time  
from 10 to 900 kVA



## Complementary pages

- > DELPHYS BC
- > DELPHYS GP
- > DELPHYS MP Elite+
- > DELPHYS MX
- > MASTERYS BC+
- > MASTERYS BC+ FLEX
- > MASTERYS GP4
- > MASTERYS GP4 RACK
- > MASTERYS IP+
- > MODULYS GP
- > MODULYS RM GP
- > MODULYS XS
- > MODULYS XL
- > EMERGENCY CPSS

## Total protection during downtime

- Designed to satisfy and respect safety protection standards.
- The right size of protection device tailored to your power rating.
- Robust cabinet.
- Normal and long-life batteries.
- Compatible with different battery brands.
- Chemical safety means shelves protected against corrosion of  $H_2SO_4$  that can cause risks of electric shock and short circuit (fire).
- Designed according to the specific UPS model for easy connections, correct recharge current and appropriate discharge rating to optimize battery life.
- Modular hot-swap battery cabinets with string protection and individual string disconnection.

## Easy installation and maintenance

- Frontal switch/breaker protection.
- Frontal input output connections.
- Easy battery replacement.
- Suitable for rigid cables and cable-glands.
- Suitable for tripping coil contact (on request).
- Height aligned with UPS.

## Electrical protection coordination for your safety

Battery protection is essential for safety. We perform tests in our laboratories under abnormal conditions (i.e. short-circuit) to guarantee the maximum safety for the installation.

As batteries can cause fire if the protection is not adequate, we test all battery protections in real operating conditions.

- Switch/Breaker with fuse.
- Magnetothermal MCCB.

The protective devices are sized according to the UPS and to the battery short-circuit current.

## Technical data

|                                           |                                                                            |
|-------------------------------------------|----------------------------------------------------------------------------|
| Standard degree of protection             | IP20 (according to IEC 60529)                                              |
| Optional degree of protection             | IP32 <sup>(1)</sup>                                                        |
| Operating temperature                     | 0 ÷ 40 °C (+15 ÷ +25 °C recommended for long battery life <sup>(1)</sup> ) |
| Ambient storage and transport temperature | -5 °C ÷ +40 °C max (recommended: 25 °C)                                    |
| Relative humidity (condensation-free)     | up to 95%                                                                  |
| Product declaration                       | CE                                                                         |

(1) Versions with a higher degree of protection and versions with a wider operating temperature range are available on request.

Please contact SOCOMEC for specific battery brands and custom solutions.

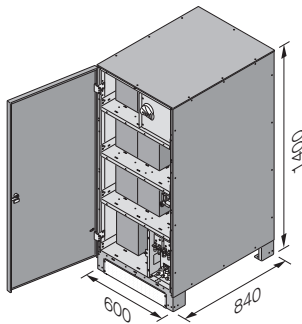


# VRLA battery cabinets

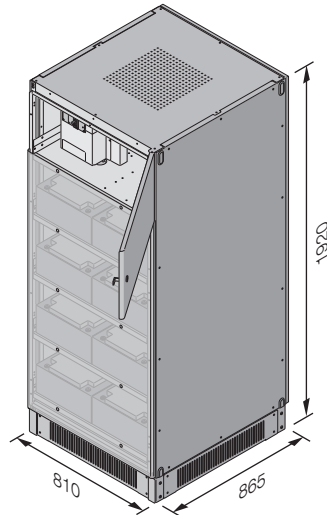
The value of your back-up time  
from 10 to 900 kVA

## Dimensions<sup>(1)</sup>

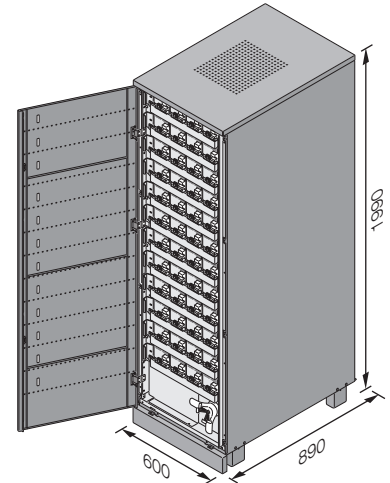
Small Masters battery cabinet



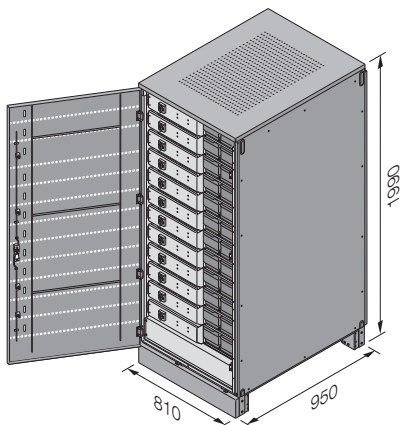
Masters and Delphys battery cabinet



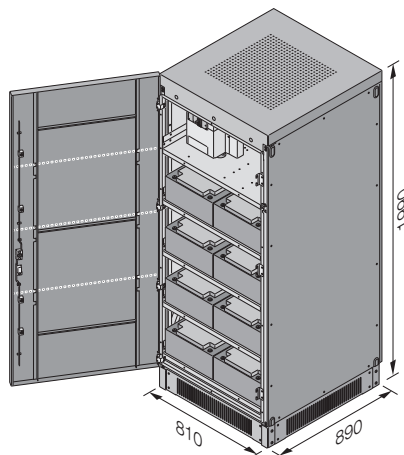
Modular hot-swap battery cabinet - small capacity



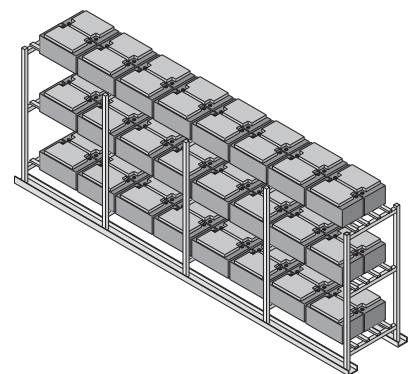
Modular hot-swap battery cabinet - medium capacity



Modular battery cabinet - large capacity



Battery Rack



<sup>(1)</sup> The dimensions specified refer to standard battery cabinets.  
Custom solutions are available on request. Please check with your local sales office.

# W-BMS

## Wireless Battery Monitoring System for VRLA batteries



COLU 187 A

### The battery is a key component in the operation of a UPS

W-BMS, the SOCOMEC Battery Monitoring System, is an effective battery monitoring solution which maximizes the availability of the supply in applications where power continuity is vital.

Because 75 % of uninterruptible power supply (back-up power supply) system breakdowns are down to batteries, the reliability of these components is a key feature of your electrical system. Therefore, accurate, detailed monitoring of their operating condition is vital. This actually guarantees maximum continuity of the supply to the system's critical loads, loads which cannot tolerate even a brief interruption let alone a prolonged power cut.

### Anticipate malfunctions

W-BMS is a vital tool in the continuous supply of critical systems and performs preventative battery monitoring.

This solution provides the opportunity to eliminate any unscheduled power cut due to battery failure.

### Make cost savings

W-BMS enables you to make operating savings by:

- Improving UPS uptime.
- Reducing maintenance operations by 75%.
- Maximizing battery return on investment.
- Anticipating battery malfunctions.
- Guaranteeing the safety of maintenance personnel.

### Ensure the continuity and safety of the supply to critical loads

It is vital to always know the operating status of the lead acid batteries supplying critical applications. W-BMS ensures that these are in good condition and will work when you need them. Unlike other battery monitoring systems, W-BMS has been specifically designed to monitor the impedance of the different battery monoblocs every day. By avoiding the time-consuming and potentially dangerous manual method of testing individual batteries, W-BMS increases the likelihood of identifying a power failure and greatly increases the safety of maintenance personnel.

#### Technology

- > Radio frequency

#### Technical advantages

- > Easy to use
- > Easy to set up
- > Trend analysis to guard against breakdowns
- > Remote monitoring
- > Remote alarm notification
- > Data acquisition
- > Analysis software

#### The three W-BMS components

##### > CU (Control Unit):

- Collects and stores the DAM and IDAM data.
- Manages the communication with the PC.
- Sends SMS/E-Mail notifications.

##### > DAM (Data Acquisition Module):

- Measures the voltage, the temperature and the internal resistance of each battery.
- Stores the most significant data.

##### > IDAM (Current Acquisition Module):

- Measures the current of either a battery or a string of batteries.
- Stores the most significant data.

### Close battery monitoring

Most battery monitoring systems perform an impedance test once a week or once a month. However, a battery can fail in as little as two days. It is therefore vital that your system monitors your batteries much more frequently.

W-BMS has been designed to monitor the impedance of each of the battery packs or cells 24/7.

### Modular design and central monitoring

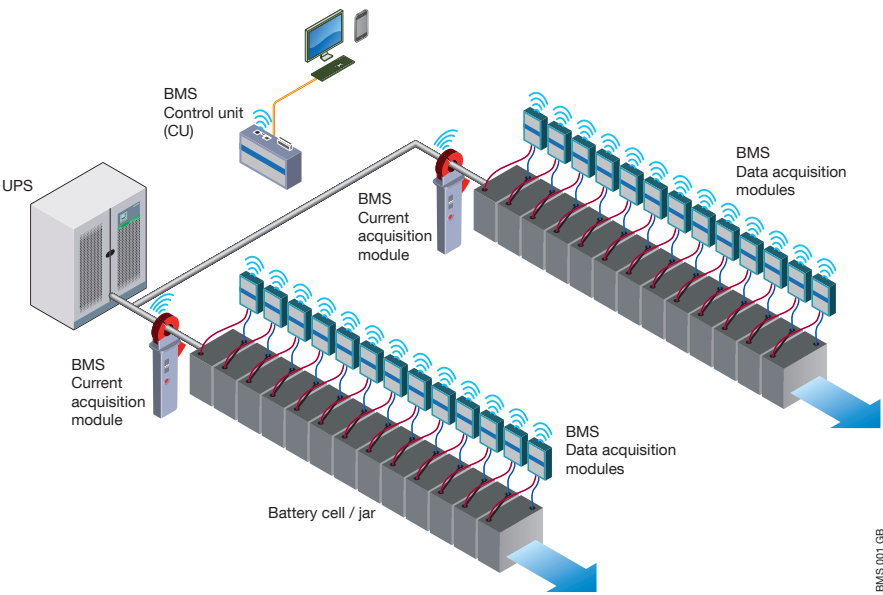
W-BMS is the only battery monitoring system that can monitor different voltage monoblocs or different types of batteries (for example generator batteries) centrally.

W-BMS is the easiest battery monitoring system to install and maintain.

### Scalable and simple

Whether you want to add a battery branch, a part or a building, the W-BMS system offers you a vital modular system to future-proof your system.

With only three main components, expanding your system is easy. No rewiring is required and the components can even be moved to cope with your new architecture. Similarly, you can extend your system to cover your auxiliary batteries (for generator batteries, for example). W-BMS can be adjusted to cope with any changes and is a flexible, permanent solution. Your return on investment is thus guaranteed.



| Control Unit (CU)                 |                                                        |                |
|-----------------------------------|--------------------------------------------------------|----------------|
| Supply voltage                    | 4.5 ÷ 5.5 VDC (external power supply or USB port)      |                |
| Current consumption               | 500 mA max                                             |                |
| Digital input                     | 2x (opto-isolated)                                     |                |
| Digital output                    | 2x (dry-contact)                                       |                |
| Data storage                      | microSD card                                           |                |
| Number of battery blocks          | up to 1024 (full version), up to 50 (light version)    |                |
| Connectivity                      | Ethernet, Modbus/TCP, USB, GSM (SIM-card not included) |                |
| Data Acquisition Module (DAM)     |                                                        |                |
| Model                             | L type                                                 | H type         |
| Rated voltage                     | 2 VDC                                                  | 12 VDC         |
| Voltage range                     | 1.5 ÷ 5.5 VDC                                          | 5 ÷ 18 VDC     |
| Acoustic level at 1 m (ISO 3746)  | 80 mA @ 2 VDC                                          | 30 mA @ 12 VDC |
| Measurements                      | voltage, impedance, temperature                        |                |
| Battery connection                | blade connector (faston), ring or alligator clip       |                |
| Current Acquisition Module (IDAM) |                                                        |                |
| Model                             | type 1                                                 | type 2         |
| Rated current                     | 300 A                                                  | 600 A          |
| Supply voltage                    | 9 ÷ 18 VDC (external power supply or battery)          |                |
| Current consumption               | 50 mA                                                  |                |
| Current range                     | up to 300 A                                            | up to 600 A    |

# Li-Ion Battery UPS

## Compact innovative power protection solution

Based on field proven technology, Socomec's LI-ION BATTERY UPS provides a robust and sustainable solution that offers several advantages over traditional valve-regulated, lead acid batteries.

To maximise the power system's availability and reduce the consequences of battery failure, the LI-ION BATTERY UPS is equipped with an embedded interactive control system that provides accurate and individual cell monitoring.



### The solution for

- > Data centres
- > IT infrastructures

### High sustainability

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

The LI-ION BATTERY UPS energy system is the latest solution designed for helping environmental sustainability:

- > No toxic materials.
- > REACH / RoHS compliant materials.
- > No gas emissions.
- > No risk of acid leakage.

Thanks to its high energy density, the LI-ION BATTERY UPS saves footprint leaving free space for additional IT equipment or additional rooms to accommodate future power upgrades.

Less sensitive to higher temperatures, the LI-ION BATTERY UPS requires less cooling and hence reduces energy costs.

|  |                                              |   |                                 |
|--|----------------------------------------------|---|---------------------------------|
|  | High power / energy density                  | » | More space for servers & IT     |
|  | Longer life span                             | » | Save replacement costs          |
|  | Higher working ambient temperature           | » | CAP & OPEX savings              |
|  | Short recharge time<br>High cycling capacity | » | Higher UPS availability         |
|  | Embedded monitoring                          | » | Increased reliability           |
|  | Eco friendly                                 | » | Suitable for green data centres |



## UPS interaction

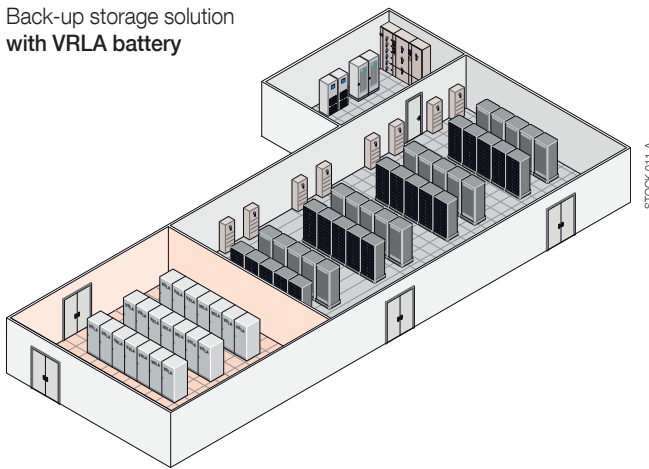
The LI-ION BATTERY UPS solution includes two communication modes depending on the customer's requirements. A basic communication via dry-contacts or an interactive control system to check and manage all the parameters of the Li-Ion cells (temperature, voltage, current, charging status, etc.) and to dynamically adapt how the UPS operates depending on the status of the LI-ION BATTERY.

The UPS interaction guarantees the most reliable performance and improves the system's availability by:

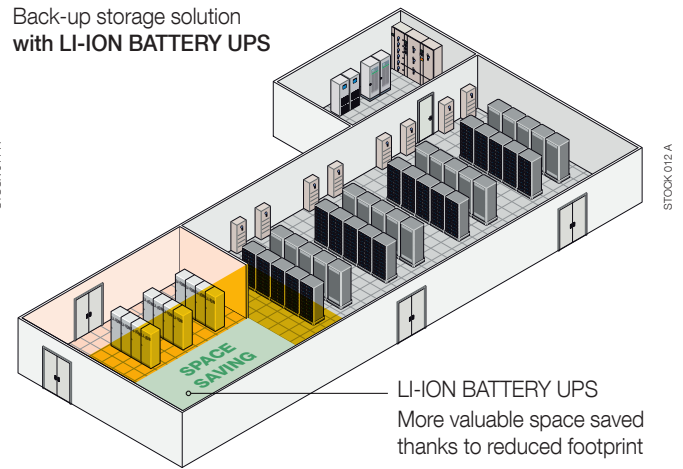
- ensuring a proper control of the LI-ION BATTERY,
- preventing any irreversible overcharge failure,
- performing automatic corrective actions in case of any critical conditions that can affect battery performance.

## Footprint comparison with VRLA battery

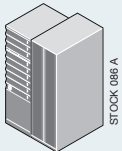
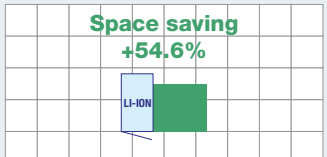
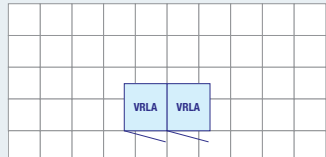
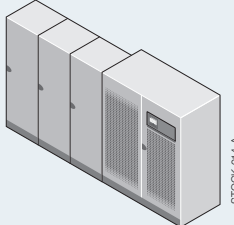
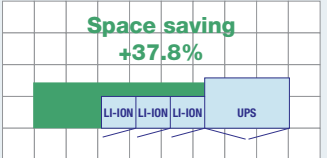
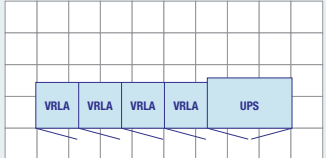
Back-up storage solution  
with VRLA battery



Back-up storage solution  
with LI-ION BATTERY UPS



LI-ION BATTERY UPS  
More valuable space saved  
thanks to reduced footprint

| LI-ION BATTERY UPS<br>Examples of configurations <sup>(1)</sup>                                                              | Footprint                                                                                                 |                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
|                                                                                                                              | LI-ION BATTERY UPS                                                                                        | VRLA BATTERY                                                                                                |
| <br>Power: 200 kW<br>Back-up time: 13 min | <br>Footprint: 0.95 m² | <br>Footprint: 1.96 m² |
| <br>Power: 450 kW<br>Back-up time: 9 min  | <br>Footprint: 2.69 m² | <br>Footprint: 4.32 m² |

(1) Other configurations: please contact us.

# Communication and connectivity

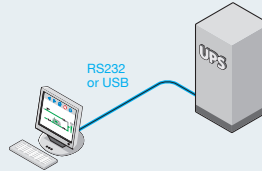
The ideal solution for integrated system management and data integrity

| Your application                                                                    | Your need                                                                                                                                                                                                                            | Our Communication solution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <ul style="list-style-type: none"> <li>Local UPS monitoring</li> <li>Local PC shutdown management</li> </ul>                                                                                                                         | <b>LOCAL VIEW</b> <ul style="list-style-type: none"> <li>Local UPS monitoring software.</li> <li>USB or RS-232 serial port.</li> <li>Clear, immediate and detailed information on the status of the UPS.</li> <li>Automatic system shutdown in the event of a prolonged power cut.</li> <li>Protection from data loss and system damage.</li> <li>For Microsoft Windows, Linux and MacOS.</li> <li>Free download from <a href="http://www.socomec.com">www.socomec.com</a></li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|   | <ul style="list-style-type: none"> <li>Remote UPS monitoring</li> <li>Remote server shutdown management</li> </ul><br><ul style="list-style-type: none"> <li>Remote server, hosts and virtual machine shutdown management</li> </ul> | <b>NET VISION</b> <ul style="list-style-type: none"> <li>Ethernet interface for remote UPS monitoring and server-based workstations shutdown management via web browser.</li> <li>Specifically designed for business networks.</li> <li>Direct interface between the UPS and Ethernet network with no dependence on the server.</li> <li>Compatible with all networks and most operating systems.</li> <li>IoT ready for Socomec Cloud Applications</li> <li>Solve UPS mobile app' compliance.</li> </ul><br><b>JNC</b> <ul style="list-style-type: none"> <li>Software for controlled network server shutdown.</li> <li>Shutdown Client installed on the remote server:               <ul style="list-style-type: none"> <li>- warns user during shutdown procedure,</li> <li>- can execute specific script before shutting down the Operating System,</li> <li>- performs Operating System shutdown.</li> </ul> </li> <li>For Microsoft Windows, Linux and MacOS operating systems.</li> <li>Free download from <a href="http://www.socomec.com">www.socomec.com</a></li> </ul> |
|  | <ul style="list-style-type: none"> <li>UPS and STS supervision</li> </ul>                                                                                                                                                            | <b>REMOTE VIEW PRO</b> <ul style="list-style-type: none"> <li>Supervision software dedicated to UPS or STS provided with Ethernet connection and SNMP protocol.</li> <li>Remote UPS and STS monitoring from any computer connected on the same network, LAN or WAN architecture via web browser.</li> <li>Compliant with all SOCOMECS UPS and STS and with almost all UPS manufacturers using RFC1628 MIB file.</li> <li>Compliant with Windows server with Internet Information Service.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|  | <ul style="list-style-type: none"> <li>Communication capability in various environments</li> </ul>                                                                                                                                   | <b>COMMUNICATION INTERFACES</b> <ul style="list-style-type: none"> <li>Compatible with industrial PROFIBUS and PROFINET systems.</li> <li>Compatible with BACNET BMS monitoring.</li> <li>MODBUS TCP compliancy for SCADA system.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

## UPS range compatibility

### Main features

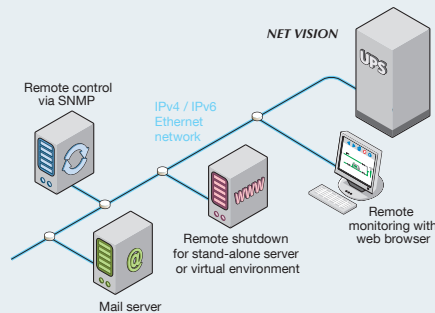
- Automatic UPS recognition.
- UPS, battery and load monitoring.
- Alarms notification on local screen.
- Battery test control.
- Local PC shutdown + test procedure.
- Measurements and UPS event logs.
- Email notification.
- Automatic updates via Internet.



- NETYS PL
- NETYS PE
- NETYS PR
- NETYS RT
- OFYS RT
- ITYS
- MODULYS

### Main features

- Secure network connection.
- Multi-user login.
- Email notification.
- SNMP agent TRAP notification.
- WakeOnLan to restart server.
- Control access protected by firewall.
- NTP to synchronise UPS clock.
- JNC protocol for servers shutdown, in addition to JNC or VIRTUAL-JNC shutdown software.



- NETYS PR
- NETYS RT
- OFYS RT
- ITYS
- MODULYS
- MASTERYS
- DELPHYS

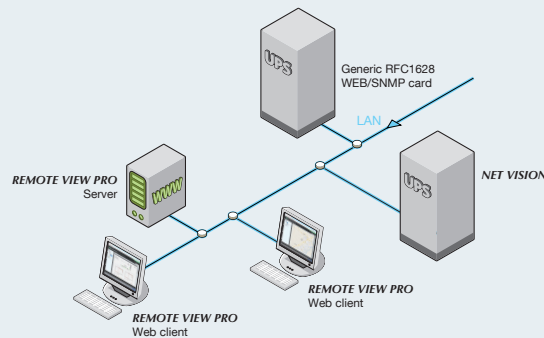
## VIRTUAL JNC

- Software for controlled virtual machines and Hosts shutdown.
- Shutdown Client installed on a Windows Virtual Machine:
  - warns user during shutdown procedure,
  - stops Virtual Machines in specific order or time delay,
  - performs Host shutdown.
- For Microsoft Hyper-V, VMware, XenServer and NUTANIX.
- Free download from [www.socomec.com](http://www.socomec.com)



### Main features

- Browser user interface.
- UPS and STS synoptic display.
- Event and history log.
- Multi-user and Multi-site access.
- Picture or Google map background.
- Reports and email notification.
- License:
  - Free (up to 10 devices)
  - Silver (up to 200 devices)
  - Gold (more than 200 devices)



- NETYS PR
- NETYS RT
- ITYS
- MODULYS
- MASTERYS
- DELPHYS
- STATYS

### MODBUS TCP and BACnet

Ethernet interface to communicate with BMS systems.  
All UPS information can be remotely accessed.



### PROFIBUS / RS485 MODBUS RTU

Communicate with PLC or automation systems.  
All UPS information can be remotely accessed.



- MODULYS
- MASTERYS
- DELPHYS







# Manufacturer maintenance and service

## Commissioning

- For single-phase and three-phase Uninterruptible Power Supply (UPS)..... *p. 118*
- For MASTERYS UPS from 10 to 40 kVA..... *p. 119*
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# Commissioning

for single-phase and three-phase Uninterruptible Power Supply (UPS)



APPL 1079-EP5

The commissioning of a UPS covers start-up of the equipment, verification of its functions according to its design specifications, and to ensure that it is compatible with the customer's working environment.

Socomtec performs the commissioning service within a quality process standard by ensuring that your equipment will be delivered in a safe, reliable and operational condition.



INNOVATIVE POWER SOLUTIONS

PLACE YOUR  
CERTIFICATION  
HERE

**CERTIFICATION OF "SAFE AND RELIABLE INSTALLATION"**

TECHNICAL SUPPORT: \_\_\_\_\_

HOT LINE: \_\_\_\_\_

CONTRACT N°: \_\_\_\_\_

|                                             |       |
|---------------------------------------------|-------|
| UPS TYPE                                    | _____ |
| POWER                                       | _____ |
| SERIAL NUMBER                               | _____ |
| CONFIGURATION (single/parallel)             | _____ |
| COMMISSIONING DATE (UPS)                    | _____ |
| COMMISSIONING DATE (Battery)                | _____ |
| VALIDITY OF THE CERTIFICATE (check renewal) |       |
| _____                                       |       |

SOCOMTEC (www.socomtec.com) declares the system has been checked and certified for high quality and availability supply and reserves the right to limit the responsibility in case the start up and the maintenance is not performed by authorised personnel. The present certificate should be renewed on yearly basis.

\* Personnel is authorised only if trained by the manufacturer and enabled by a certificate released by the manufacturer. Only authorised personnel can insure Competence, Original spare parts, global diagnostic through appropriate tools, Update of the unit according to new releases.

## Key points

- > Work environment inspection
- > Electrical installation check (isolator switch, cabling, circuit breakers etc.)
- > UPS internal and external check
- > System power on and set up
- > Operating test on single UPS and/or parallel system
- > Load bank test (on request)

## Benefits

- > Compliance with the various installation standards
- > Completes the Factory Acceptance Test
- > Commissioning traceability
- > Conformity certificate

# Remote commissioning

for MASTERYS UPS from 10 to 40 kVA



The remote commissioning is a service dedicated to installers and system integrators and guarantees that UPS starts up on time.

From now on, this service allow you to benefit an easier scheduling, an operational efficiency and a better time optimisation for you and your customers.

Using an exclusive technology, remote commissioning allows expert Socomec engineers to remotely access your UPS and perform all commissioning tasks with the same level of quality, security and reliability as if they were with you in person.

## Maximum speed and flexibility

- Quick commissioning using your mobile phone.
- Eliminate red-tape and bureaucracy.
- No more site access restrictions.
- Intervention scheduling becomes easier to manage.

## Access to the best experts

- Remote connection to the product by certified Socomec experts.
- Simple and fully-assisted procedure.

## Secure and reliable commissioning

- Highest standard protocols.
- UPS remote access via OTP code.
- On-demand encrypted connection.
- Cyber security audit by certified independent organization.

## Reduced costs and carbon impact

- Time saving.
- More cost-effective and eco-friendly than on-site intervention.

## Keys points

- > Quick, remote commissioning – anywhere, at any time
- > Same level of services than on-site commissioning
- > Support from certified Socomec specialists
- > Cost efficiency and lower carbon impact



# Commissioning

## for STATYS Static Transfer System (STS)



The commissioning of an STS covers start-up of the equipment, verification of its functions according to its design specifications, and to ensure that it is compatible with the customer's working environment.

SOCOMECC performs the commissioning service within a quality process standard by ensuring that your equipment will be delivered in a safe, reliable and operational condition.

### Key points

- > Work environment inspection
- > Electrical installation check
- > STS internal and external check
- > System power on and set up
- > Ventilation check
- > Operating test

### Benefits

- > Commissioning performed in compliance with applicable quality and safety standards
- > Compatibility with your work environment
- > Compliance with the various installation standards
- > Conformity certificate



# Maintenance contracts

for STATYS Static Transfer System (STS)



Silver, Gold, Platinum and Platinum+ are the Maintenance service contracts suitable for standard STS.

50+ years of manufacturer's experience is at your disposal to provide you with a comprehensive support package which affords you complete peace of mind.

| SERVICE DESCRIPTION                                                             | SILVER | GOLD | PLATINUM | PLATINUM+ |
|---------------------------------------------------------------------------------|--------|------|----------|-----------|
| 1 Annual preventive maintenance visit                                           | •      | •    | •        | •         |
| Labour & Mileage for corrective maintenance                                     |        | •    | •        | •         |
| Original spare parts                                                            |        |      | •        | •         |
| Hot-line availability                                                           | •      | •    | •        | •         |
| Emergency hot-line 24/7                                                         | ○      | ○    | ○        | •         |
| Response time to site within next working day                                   | •      | •    | •        |           |
| Response time to site within 6h*                                                | ○      | ○    | ○        | •         |
| Response time to site within 4h*                                                | ○      | ○    | ○        | ○         |
| Preventive replacement of consumables (fans and capacitors)                     | ○      | ○    | ○        | ○         |
| Additional preventive maintenance visit                                         | ○      | ○    | ○        | ○         |
| Out of hours preventive maintenance visit during night, week-end, bank holidays | ○      | ○    | ○        | ○         |
| Thermal imaging                                                                 | ○      | ○    | ○        | ○         |

•: included.

○: optional.

\* Please check the service coverage in your area.

## Key points

- > Original spare parts
- > Expert engineers equipped with professional tools and software
- > Safety procedures

## Benefits

- > Improves system availability
- > Optimises product lifespan
- > On-site interventions guaranteed

# Maintenance contracts

for single and three-phase UPS



APPL 1084-EP-S

Our service contracts are tailored to customer needs, taking into account individual operational constraints, business processes and the unique level of criticality associated with specific applications.

Whatever the issue, our internal escalation process from local specialist support teams up to corporate R&D and expert engineering teams, gives us access to different levels of expertise to respond as quickly as possible. Our service teams are trained and equipped with certified equipment to provide the highest levels of expertise.

| SERVICE DESCRIPTION                                | SILVER | GOLD | PLATINUM |
|----------------------------------------------------|--------|------|----------|
| Annual preventive maintenance visit <sup>(1)</sup> | •      | •    | •        |
| Hotline 8x5 + response to site by next working day | •      | •    | •        |
| Hotline 24x7 + response to site in 6 hours         | ○      | ○    | ○        |
| Labour from Socomec specialist (onsite & remote)   |        | •    | •        |
| Original spare parts                               |        |      | •        |
| Ready-to-use spare power brick/module onsite       | ○      | ○    | ○        |
| Native cyber-secure cloud services <sup>(2)</sup>  |        |      |          |
| • SoLive monitoring application                    |        |      |          |
| • Remote cloud surveillance 24x7                   |        |      |          |
| • Access to log interactive web dashboard          |        |      |          |
| • Annual Health Check report                       | •      | •    | •        |
| • Proactive alarm management                       |        |      |          |
| • Remote response and diagnosis within 2 hours     |        |      |          |
| • Remote troubleshooting <sup>(3)</sup>            |        |      |          |

•: included.

○: optional.

<sup>(1)</sup> Remote preventive visits are possible with certain UPS models. Contact us for more information.

<sup>(2)</sup> Available for UPS equipped with a Net Vision network card and connected to Socomec's cloud.

<sup>(3)</sup> Upon end-user confirmation, a Socomec specialist will be available to activate a direct-to-machine temporary remote connection in order to perform an in-depth diagnosis and carry out troubleshooting where possible. This service is available for certain UPS models. Contact us for more information.

## Key points

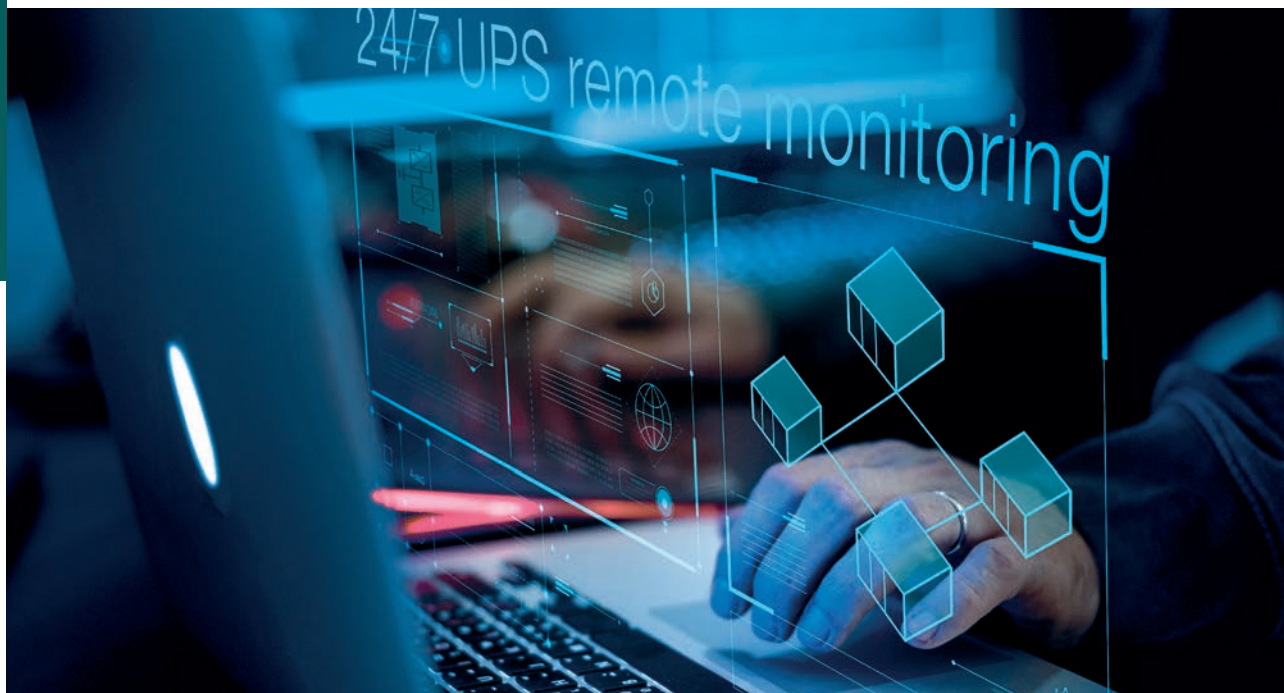
- > Original spare parts
- > Expert engineers equipped with professional tools and software
- > Safety procedures
- > Access to different levels of expertise in order to respond as quickly as possible
- > Native cyber-secure cloud services

## Benefits

- > Minimum downtime and extended lifespan
- > Maximum peace of mind
- > Precise budget control

# Services natively included for maintenance contract

**SoLink** - Socomec experts 24/7 UPS remote monitoring



STYLING: A.G.B. UPS

SoLink is one of the services included in a Socomec Maintenance Contract. When the application is critical, you can be assured of immediate and expert attention via SoLink. SoLink will automatically identify the anomaly and notify the nearest Socomec Service Centre when the UPS' operating parameters fall outside the permitted range - providing you with a permanent and direct connection to Socomec's expert technical team.

## Restore your systems in record time

**Proactive alarm check:** When your UPS alarm is activated, SoLink will instantly notify the nearest Socomec Service Centre. The supervisor technician will carry out an initial check-up by accessing the UPS dashboard on the Cloud platform.

**Remote troubleshooting:** In the event that more in-depth analysis is required, a Socomec expert engineer will connect to your UPS through remote access in order to run tests and diagnostic tasks directly on your machine, in complete security.

**First-time-fix intervention:** In the event that on-site intervention is required a Socomec on-call engineer will be dispatched immediately with a full brief from the Socomec Service Centre, along with any spare parts that may be needed.

## Improve future performance

**Periodic reporting:** Socomec experts will provide you a periodic UPS health-check report with event statistics, trend analysis and technical recommendations to improve overall system availability.

**Interactive web dashboard:** The IoT cloud-connectivity allows you access to an intuitive, interactive dashboard that gives a view of the equipment's historical data and performance trends.

**SoLive App:** Remote UPS monitoring from a smartphone – anytime, anywhere. With real-time alarm notifications and detailed status updates for each UPS, it's now possible to manage unexpected events and develop a real insight into the operating environment.

### Key points

- > **Effective:** if an anomaly occurs, MTTR is drastically reduced
- > **Secure:** data is hosted on Socomec-owned cloud infrastructure, Cyber security is certified by a third-party company
- > **Affordable:** proposed as an optional extra on the Maintenance Contract at an attractive price



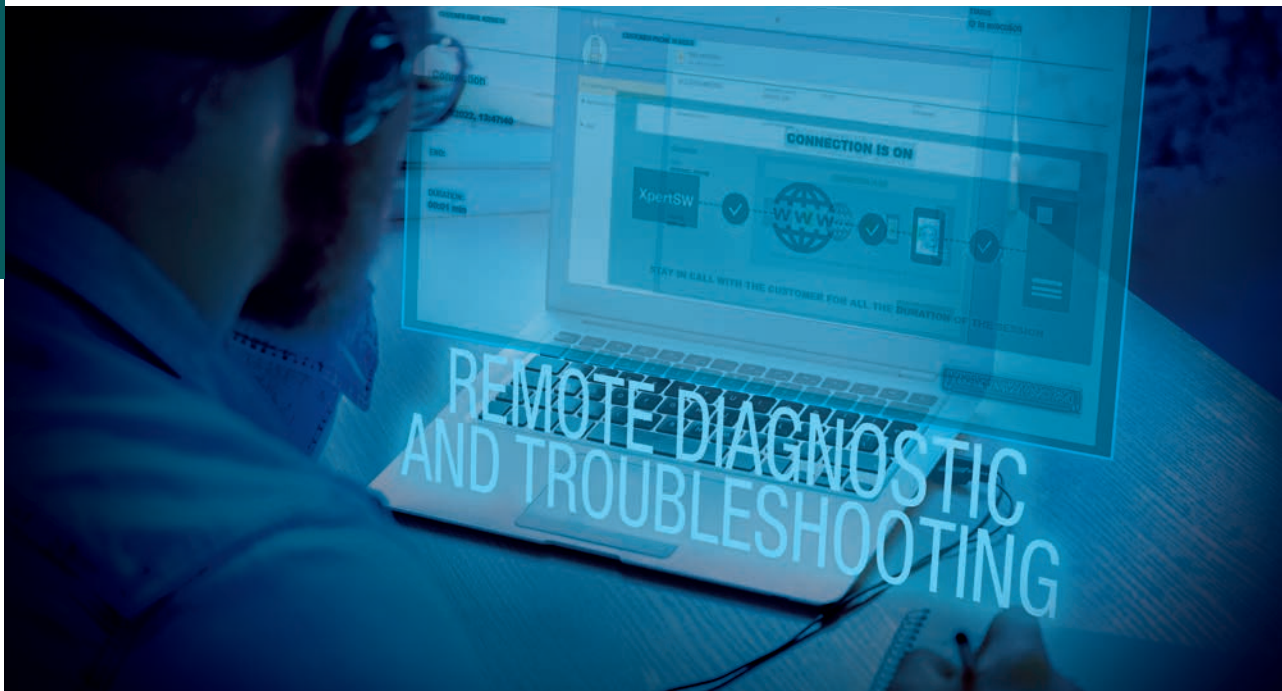
### Benefits

- > Prevents problems from occurring
- > Increases system availability
- > Saves downtime costs



# Services natively included for maintenance contract

## Remote diagnosis and troubleshooting



SDXL\_005

As soon as a problem occurs, Socomec's expert engineers are available upon request - and in collaboration with the end-user - to conduct diagnostics and root cause analysis, restoring the system in record time. The engineer connects to the UPS through remote access in order to run tests and diagnostic tasks directly on the machine - in complete security.

Problem solving interventions can be carried out with the same efficiency as if in front of the equipment.

### Fast intervention

- Easy scheduling activity.
- Direct remote access to the UPS in order to solve issues at distance.

### Access to the best experts

- Equipment looked after remotely by experienced Socomec specialists.
- Experts will meet precise requirements and standards as per on-site visits.

### Real-time issue analysis

- Remote diagnostics and tests are as effective as if in front of the UPS.
- Fast root cause analysis.

### Reduced costs and carbon impact

- Time saving.
- More cost-effective and eco-friendly than on-site intervention.

### Key points

- > Direct access to UPS
- > Immediate response time
- > Same level of service as with on-site intervention
- > Issue analysis in real time
- > On-demand encrypted connection
- > Cyber security audit by certified independent organisation
- > Available under maintenance contract

Contact us to find out which UPS ranges and models are compatible with this service.



# Optional services for maintenance contract

## Additional preventive maintenance visit

APPLI 724 A



The service life of equipment depends on the operating environment (temperature, humidity, dust).

To keep equipment running at maximum levels of efficiency and to avoid system downtime with possible risks and damage to loads, it is important to have the manufacturer's expertise to perform regular preventive maintenance.

This is the best way to ensure the reliability of your equipment over time and the most cost-effective solution to keep the Total Cost of Ownership under control.

### Key points

- > Inspections: mechanical, electrical, battery
- > Dust removal / equipment cleaning
- > Software updates
- > Electronics testing
- > Environmental checks
- > Battery check\*
- > Communication test
- > Maintenance report

\*Only for UPS.

### Benefits

- > Helps reduce equipment malfunction
- > Optimises operating efficiency
- > Extends equipment lifetime
- > Improves system availability

# Optional services for maintenance contract

emergency service 24/7



SITE 598-A

The response time to site is vital for business continuity; limiting as much as possible any downtime, in order to avoid any risk of severe system anomaly.

It is, therefore, essential to have the expertise of a maintenance service provider who fully understands your equipment, knows your working environment and who can respond to emergencies within a time guaranteed by a bespoke Service Level Agreement (SLA).

Proximity and emergency service carried out by the manufacturer are the best guarantees for fast troubleshooting and real problem solving.

## Key points

- > Specialist team of engineers on call 24/7
- > Technical expertise on-site within 4 hours\* guaranteed
- > Remote monitoring and proactive troubleshooting with SoLink
- > 24/7 original spare part stock availability with high priority shipment

\* Please check the service coverage in your area.

## Benefits

- > High quality technical support
- > Fast and precise diagnostic
- > Real problem solving

# Optional services for maintenance contract

## consumables replacement



APPL 1085 EFS

The components of each equipment are designed to operate reliably during the product's normal lifecycle, in the electrical environments and environmental conditions stated in the installation and operating manual.

To reduce the impact of ageing on your system, which could affect the efficiency and availability of the installation, it is vital to carry out the regular preventive replacement of parts subject to wear and tear such as fans and capacitors for UPS, and fans for STS, COSYS and MEDSYS products.

### Key points

- > Original spare parts

### Benefits

- > Prevents equipment instability and malfunctions
- > Avoids risk of system breakdown
- > Saves downtime costs



Fans and capacitors must be replaced by qualified personnel only. Only Socomtec personnel are authorised to make recommendations for any replacement parts.



# Optional services for maintenance contract

## Battery care<sup>(1)</sup>



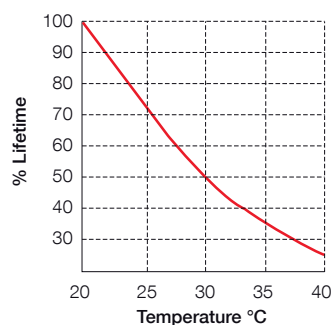
Batteries are a key element of UPS systems. Their efficiency and availability are important for preventing load downtime, but at the same time batteries are the most vulnerable and failure-prone component of such systems.

Battery failures are mainly caused by the premature “end of life” of a few battery blocks. A corrupted battery block, if not detected early and not replaced, can accelerate ageing within the rest of the battery string, therefore jeopardizing the integrity of the system.

The level of predictability for failure detection on a battery block depends on the number of measurements, tests and analyses that are performed on every single block.

Main factors for the premature end-of-life of battery blocks:

- High temperatures
- Frequent number of cycles
- Discharge too deep
- Recharging with high voltage
- Lack of regular maintenance



Source: Eurobat

### Key points

- Impedance test, thermal imaging, temperature, voltage measurement block by block
- Faulty / weak block detection
- Back-up time measurement (optional)

### Benefits

- Information on the battery's state of health
- Estimation of the optimum time for battery replacement
- Optimisation of the battery's useful working life

<sup>(1)</sup> Only for UPS.



# Optional services for maintenance contract

Battery care<sup>(1)</sup>

Battery Care is a brand new set of service packages that complements the standard battery check service (at string level) during the UPS preventive maintenance visit.

The packages will ensure the integrity of your business continuity by performing the highest level of inspection on your battery blocks.

## Features:

The Battery Care offering is designed around 3 packages: IMP (IMPedance), TEMP (TEMPerature) and PRIME (the full package).

| ACTIONS                                           | WHERE      | BATTERY CHECK | BATTERY CARE |      |       |
|---------------------------------------------------|------------|---------------|--------------|------|-------|
|                                                   |            |               | IMP          | TEMP | PRIME |
| Visual inspection check for leakage and corrosion | string     | •             | •            | •    | •     |
| Cleaning                                          | string     | •             | •            | •    | •     |
| Measurement with partial discharge of V & I       | string     | •             | •            | •    | •     |
| Environment temperature check                     | string     | •             | •            | •    | •     |
| Control of floating voltage and max current*      | string     | •             | •            | •    | •     |
| Impedance test                                    | each block |               | •            | •    | •     |
| Temperature measurement                           | each block |               |              | •    | •     |
| Voltage measurement*                              | each block |               |              | •    | •     |
| Thermal imaging                                   | each block |               |              |      | •     |
| Torque setting                                    | each block |               |              |      | •     |
| Back-up time measurement**                        | string     |               | ○            | ○    | ○     |

•: inclusive.

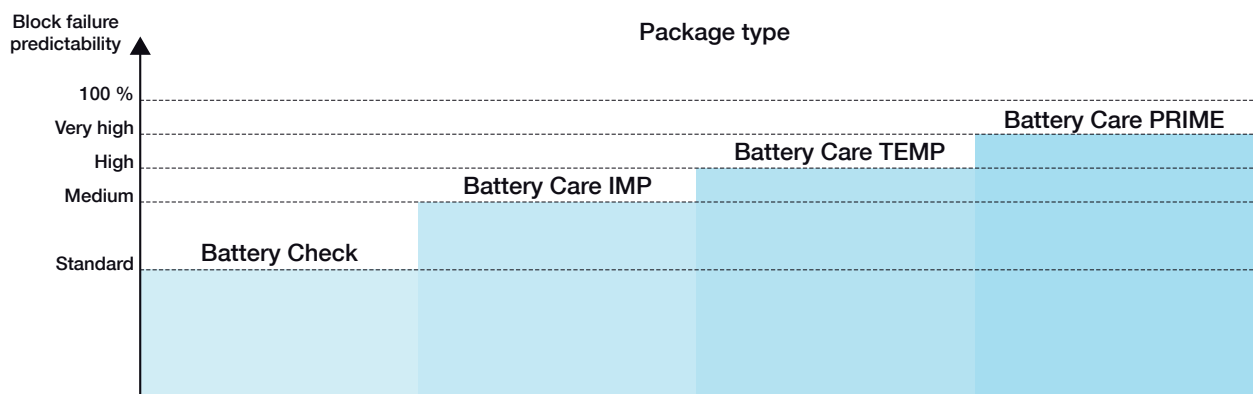
○: optional.

\* during battery charge. \*\*: by performing the end of discharge voltage test.

Depending on the package chosen (IMP, TEMP, PRIME), a set of accurate measurements, tests and analyses will be performed on each single block across all battery strings by Socomec trained engineers.

An in-depth report will provide information about:

- the health of each single battery string/block,
- the faulty blocks that need to be replaced,
- the real "back-up time" of the battery system (optional).



SVC 007 A GB

## Do you know your real back-up time?

- > For various external factors, your real back-up time could be much less than the one declared by the battery manufacturer.
- > Thanks to a specific set of measurements and analyses, Socomec can provide you with the exact back-up time of your battery system.

# Optional services for maintenance contract

## Battery replacement<sup>(1)</sup>



(1) Only for UPS.

The majority of batteries used in UPS applications (VRLA - Valve Regulated Lead Acid) normally have a calendar life of 5-10 years, depending on the local operating conditions. The calendar life is the actual time span from the date of installation until the end of life, when battery capacity drops below 80 % of its rating. VRLA batteries that are well maintained and installed in a properly conditioned environment, typically have a service life of 70 % to 80 % of their calendar life. This explains why the UPS back-up time could differ from the one declared by the battery manufacturer.

For the integrity of business continuity, it is essential to know the estimated end-of life of the battery system and to be correctly advised concerning the best time for its replacement.

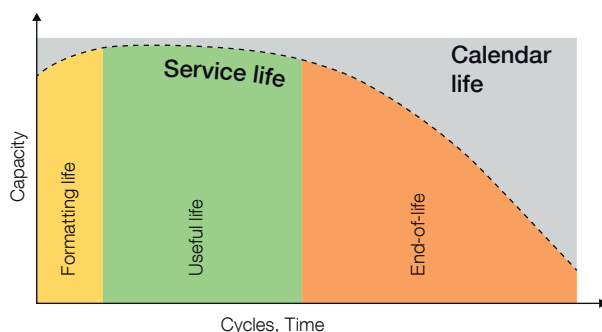
The expertise of the UPS manufacturer is the best guarantee for carrying out any battery replacement operations. An expert that understands your equipment and how it is integrated into your unique working environment and who can respond effectively to any anomaly should any occur.

### Key points

- > Checking and recalibration of battery charger setting
- > Fully secure battery discharge test
- > Battery disposal according to local regulations

### Benefits

- > Prevents unexpected early shutdown of the UPS
- > Saves downtime costs
- > Advice for the optimisation of the battery back-up time



The battery is a critical component of the UPS system: according to a study by the Ponemon Institute, 65 % of Uninterruptible Power Supply (UPS) system failures are due to batteries. The reliability and availability of these components are vital to ensuring the energy supply to the load.

In the case of a failure, the economic impact of an outage can dramatically increase to hundreds of thousands of euros for the UPS owner.

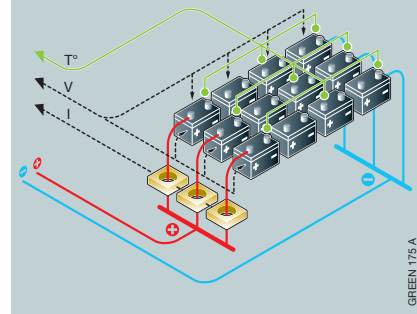
Within the UPS system, the battery represents the weakest and least sophisticated component, while its cost represents an important part of the investment. It is therefore crucial to reduce the number of maintenance operations, maximise the battery's return on investment and anticipate battery malfunctions.

This can be implemented by following the rules described in the IEEE standard 1188 (IEEE Recommended Practice for Maintenance, Testing and Replacement of Valve-Regulated Lead-Acid (VRLA) Batteries for Stationary Applications), whilst a more accurate preventive maintenance program can be carried out using a BMS (Battery Monitoring System) which provides all the parameters of the individual battery blocks, continuously checks the battery's efficiency and identifies anomalies in advance.

### What is a battery ?

A battery is made up of a collection of:

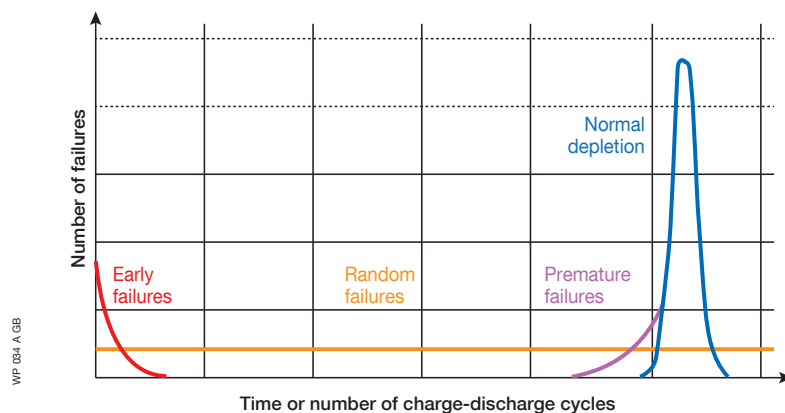
- > blocks (typically 12 VDC), which can be assembled in series to form a string,
- > several identical strings, which can be assembled in parallel to form a battery.



### Main reasons for battery block failures

For a battery operating in real life conditions, there are 4 types of failures which can create a defective block:

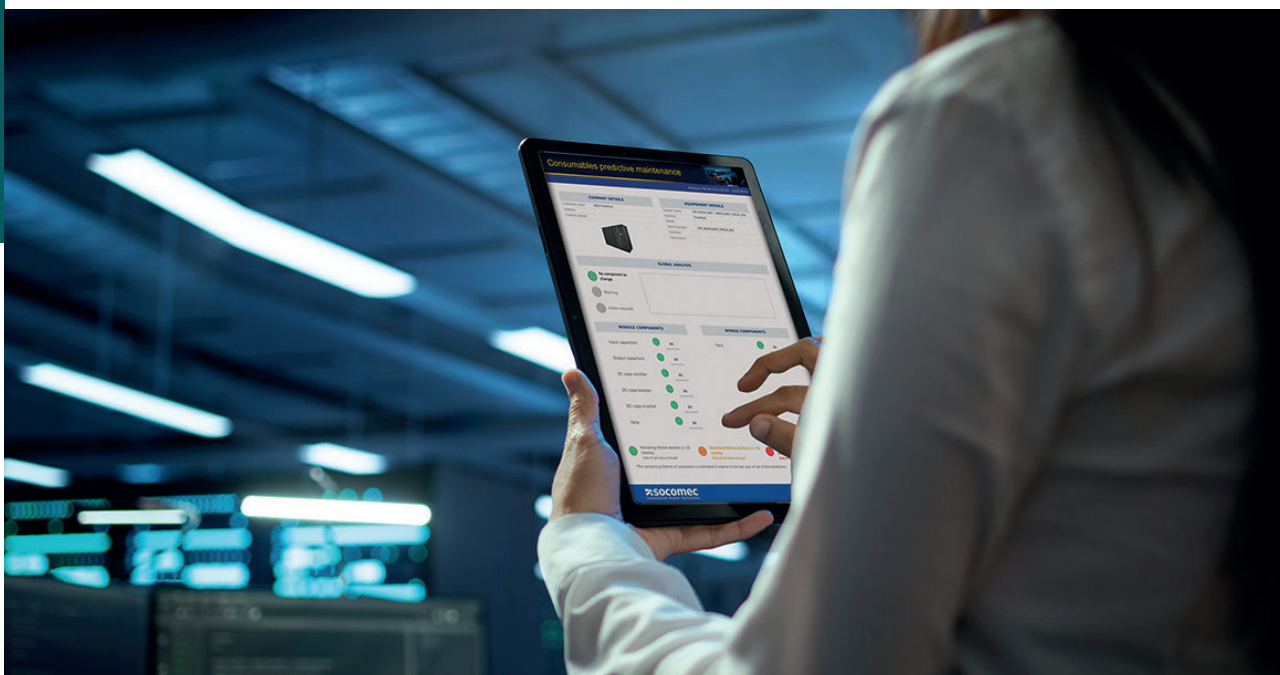
1. Early failures, which are mainly due to defects introduced during the manufacturing process. They generally appear during the first discharge cycle.
2. Random failures, which can appear at any time during the life of the battery.
3. Premature failures.
4. End-of-life failures, both of which are due to latent defects or environmental conditions, such as a high ambient temperature, which can shorten the battery's operational life time. If this type of failure appears, it means that the health of the battery string is seriously compromised and the battery cannot be relied upon for autonomy.



Block failures description.

# Optional service for maintenance contract

## Predictive maintenance of consumables on DELPHYS XL and MODULYS XL



The predictive maintenance service for UPS consumables is available as an optional add-on to the maintenance contract for DELPHYS XL and MODULYS XL. With continuous UPS monitoring and an advanced algorithm, this service enables Socomec experts to identify the ideal time to replace consumables, such as AC/DC capacitors and fans. Socomec provides easy-to-interpret periodic reports that offer clear insights into component health, allowing you to schedule maintenance only when needed and ensuring your UPS consistently operates under optimal conditions.

### Improve business continuity

Our advanced monitoring and algorithm enable continuous calculation of the actual ageing of UPS wear parts, allowing us to anticipate potential component failures before they occur. This proactive approach minimises unexpected downtime and ensures continuous, reliable power for critical systems.

### Reduce carbon footprint

By optimising the replacement of your UPS consumables, you extend the lifespan of your UPS and reduce component waste by replacing parts only at the right time.

Reducing on-site maintenance visits also lowers your carbon footprint from transportation and resource use, supporting more sustainable operations and minimising your overall environmental impact.

### Optimise on-site clearance

Consumables replacement is based on the actual conditions of use, avoiding routine on-site actions. This service helps you limit maintenance visits to only essential actions, while maximising safety by reducing the risk of errors caused by external personnel entering your premises.

### Manage maintenance budget

By including the cost of consumables in the price of this option, you can avoid unexpected expenses.

We enhance your financial planning and help you master your total cost of ownership (TCO).

### Strong points

- > Full consumables replacement and associated costs are managed by Socomec.
- > Real-time monitoring and calculation of the remaining lifetime of wear parts, based on specific usage conditions.
- > Data is stored in the secure Socomec cloud and analysed by Socomec experts.
- > Periodic reports are sent once a year or whenever an alarm signal is detected.



# Customer training

certified manufacturer's training programme for UPS and STS



CORPO\_270\_A-ERS

Socomec specialists can help you gain the necessary skills to operate your equipment efficiently and to increase its availability.

Socomec technical training courses can take place either at your site or in Socomec's dedicated training centre.

Available on MASTERYS, MODULYS, DELPHYS, STATYS and communication products.

## Key points

- > Practical training
- > Either in Socomec factories or at customer's site
- > Open discussions and participants' feedback
- > Many types of configurations covered
- > Real-case simulations based on customer's actual installation
- > Experienced 'field-tested' trainers

## Benefits

- > Helps you to really know your equipment
- > Real "hands-on" practice on your UPS
- > Understand the alarms

## Notes

Model: SOCOMEC  
Production: SOCOMEC  
Photography: Martin Bernhart et Studio Objectif  
Printing:

# Socomec: our innovations supporting your energy performance

**1** independent manufacturer

**4,200** employees  
worldwide

**8** % 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 (x2)
- Canada

**30** subsidiaries and commercial locations

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

**80** countries

where our brand is distributed

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