

BROCHURE

# ***DELPHYS XL***

High power UPS  
1200 kVA



Discover all our solutions  
for Data Centres  
[bit.ly/DatacentreEN](https://bit.ly/DatacentreEN)



When **energy** matters

 **socomec**  
Innovative Power Solutions

# Let's partner to ensure the availability and energy performance of your Data Centre

From concept to commissioning - and beyond - Socomec has the expertise to guarantee the performance of your electrical installations.

By delivering the most innovative solutions matched to your precise requirements – with systems that are rightsized for you and easy to scale - we ensure the power availability and energy performance of your Data Centre. With an unwavering focus on efficiency and usage, we can help you face rising energy costs by designing and implementing systems that reduce operational expenditure whilst minimising harmful emissions.

Our experts are always close at hand to deliver ongoing preventive maintenance – a vital component when it comes to ensuring availability and guaranteeing the continuity of critical infrastructure. Furthermore, by managing the end-of-life of power assets it is possible to improve availability and operating efficiency – extending the installation's lifetime and reducing your carbon footprint.



**4,000 MW**

protected by UPS every year within tailor made critical power installations for Data Centres

**6.5%**

growth in the Data Centre market

**1,000**

Static Transfer Switches designed and manufactured every year since 1985



## Iconic products, sustainably renewed

We help our customers to design low voltage electrical facilities that consume less energy, are easier to manage and are kinder to the environment.

Environmental compliance is key when it comes to regulations and standards such as ISO14001 and PEP Ecopassport – but when it comes to sustainability, we think generations ahead. That's why we are working continuously to increase our range of eco-designed products to ensure a better future:

- safe products, limiting the use of hazardous substances,
- cost effective products, with improved energy and material efficiency,
- recyclable products, anticipating end-of-life.

# DELPHYS XL

For outstanding resiliency - that's rightsized

**DELPHYS XL** - a compact and highly efficient UPS - has been specifically engineered to secure the most critical applications, offering inherently superior protection and supporting fast and safe maintenance operations by design. Based on a fully resilient architecture, **DELPHYS XL** provides outstanding resiliency to meet the particular requirements of colocation markets and Data Centres.



DELPHYS 207



**Flexible integration**

with an optimised footprint.



**Best in class energy management**

for maximum savings with certified efficiencies.



**Unmatched resiliency**

No single point of failure based on a unique brick concept.



**Critical chain interoperability**

designed to fit any Data Centre power distribution architecture.



**Easy and safe maintenance**

supporting low MTTR with connected services.

**Find out more**



**DELPHYS XL** catalogue page and technical data

# Flexible integration

## with an optimised footprint

Today's critical infrastructures need to accommodate rapid deployment requirements. Delivering far greater benefits than classic monolithic systems, **DELPHYS XL** packs 1200 kW into an overall space-saving design while ensuring that integration within your existing architecture is simple and flexible. Meeting the high power installation space constraints of very critical applications, **DELPHYS XL** has been designed to fit within your Data Centre - whatever your power distribution.

### Flexible and adaptable integration

- **Footprint**  
3 m x 1 m
- **Positioning**  
No lateral or rear clearance required
- **Power distribution**  
Top or bottom cable entry  
Compatible with busbar flanges
- **Battery capability**  
No extra cabinet for DC coupling  
Connect up to 10 strings

### Easy and fast deployment

- **Transportation**  
2 cabinets fully equipped and delivered on site
- **Installation & commissioning**  
Straightforward interconnection - requiring front access only
- **Site Acceptance Test**  
Final 1.2 MW heat run test without the need of a load bank

## Up to 70% space saving combined with **Socomec lithium-ion solution**

Ensuring the highest level of availability and reliability while reducing the Total Cost of Ownership, **DELPHYS XL** - combined with the Socomec lithium offer - provides you with an optimised package to meet your installation constraints and free up space for revenue generating equipment.



### Optimised footprint

More space for servers and IT.



### Reduce your TCO by up to 50%

No battery replacement for up to 15 years even in high cycling conditions.



### High working T°

Save CAPEX and OPEX by reducing the cost of cooling.



### Embedded monitoring

Increase reliability and availability thanks to continuous battery monitoring.



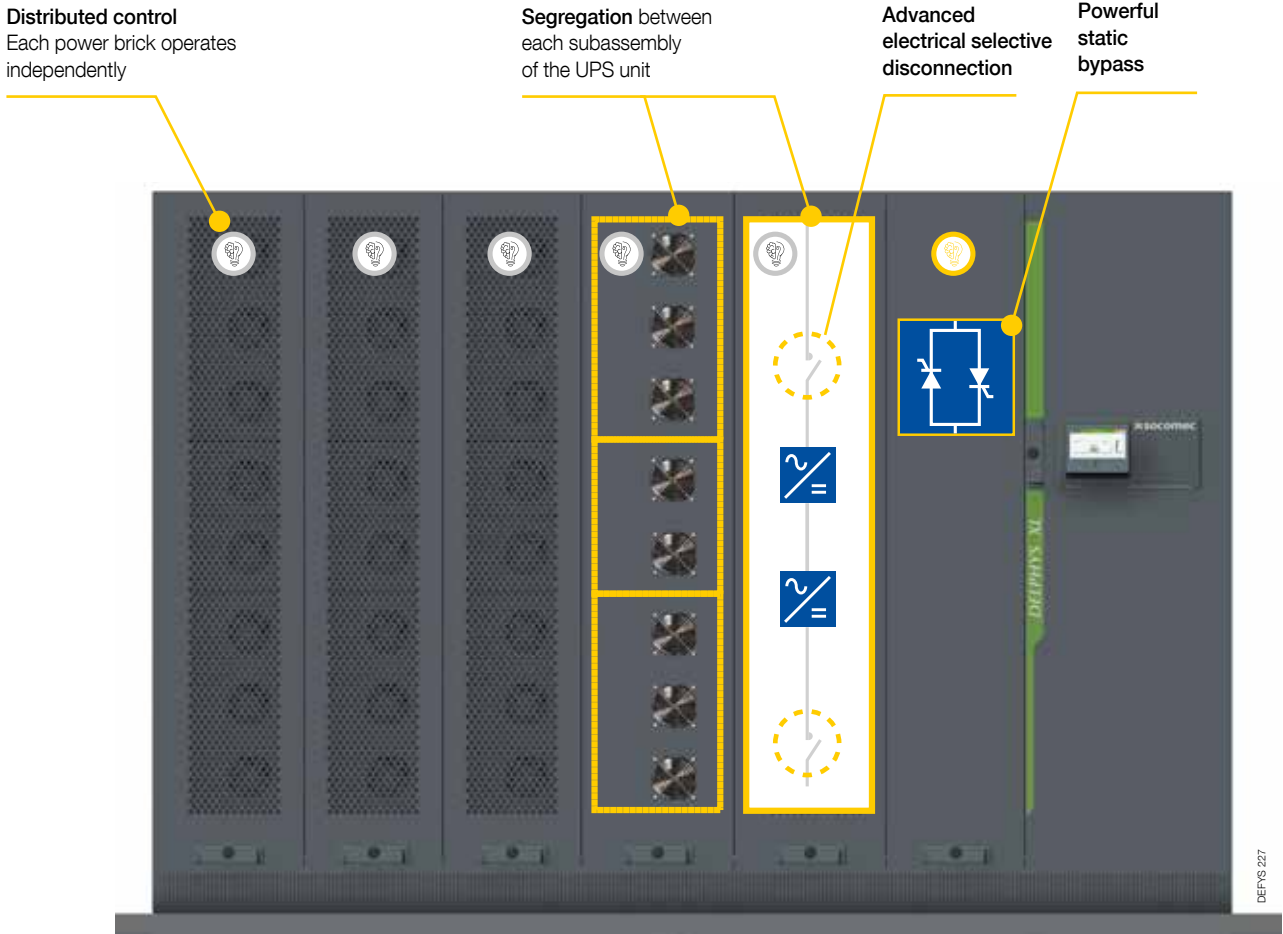
### Eco friendly

Sustainable solution with lower environmental impact over the life cycle vs VRLA.

# Unmatched resiliency

## to maximise availability

**DELPHYS XL** leverages the strengths and uniqueness of our High Power XL platform - a field-proven control and power electronic architecture providing outstanding resiliency. Eliminating traditional monolithic UPS single points of failure, **DELPHYS XL** guarantees the highest level of service continuity. **DELPHYS XL** is a fault tolerant UPS system assuming complete redundancy under real-world operating conditions. This intrinsic redundancy reinforces the inherent reliability, bringing the Mean Time Between Critical Failure to several million hours.



### Unique Socomec brick architecture

The UPS architecture has advanced mechanical and electrical segregation in order to avoid fault propagation inside the system.

The system can isolate a faulty power brick thanks to its internal contactors and fast fuses on the AC and DC side, allowing the critical load to continue to be protected by the remaining bricks in double conversion mode.

The power conversion bricks and static switch operate intelligently on a peer-to-peer basis, providing a resilient solution with no single point of failure.

## +

Combining a resilient architecture with a robust design, **DELPHYS XL** guarantees the best selectivity for your critical application by providing the highest clearance capability upon downstream short-circuit thanks to a fuseless static switch architecture.

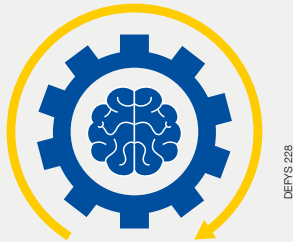
# Best in class efficiencies

## for maximum savings

Rising energy costs and a premium on floor space mean that every facility is focused on efficiency and usage in order to help reduce operational expenditure and CO<sub>2</sub> emissions. That's why **DELPHYS XL** combines several advanced working modes to optimise efficiencies within your Data Centre - without sacrificing power quality.

### Smart Conversion Mode

A specific algorithm continuously monitors the quality of the network and selects - in real time - the optimum working mode between **Double Conversion (VFI)** and **Line Interactive**.



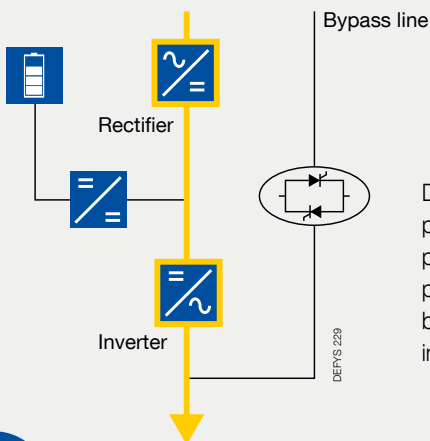
DELPHYS 228

0 ms transfer

**Instantaneous transfer without output voltage disturbances between working modes.**

Inverters are always activated, taking the load in double conversion with a certified class 1 transfer according to the IEC 62040-3 requirement in case of grid disturbances.

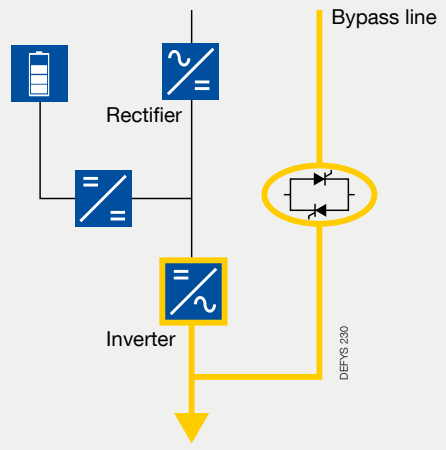
#### Full Double Conversion Mode (VFI) 97% efficiency



DELPHYS 229

Double conversion mode (VFI) provides the ultimate level of protection. It ensures high quality power to critical loads – without being impacted by input disturbances.

#### Line interactive 99% efficiency



DELPHYS 230

The Line Interactive mode combines the high efficiency of the static bypass in parallel with the inverter working as an active filter, together supplying the critical load.



#### Energy Saver feature in VFI Mode

- Maximise UPS global efficiency - under partial load rate conditions.**
- Load always protected in online double conversion mode (VFI).
  - Automatic adaptation of the number of power bricks in hot stand-by mode.
  - Up to 96.5% efficiency from 10% load rate.
  - Load step management feature.
  - Ensure permanent battery charge.
  - Rotating algorithm to guarantee homogenous power brick ageing.

# Easy and safe maintenance

## supporting low MTTR

Based on our modular expertise, **DELPHYS XL** has been engineered with ease of servicing and secure maintenance in mind - supporting low MTTR through an innovative and unique service concept.

## Fully extractable power bricks and static bypass



### Minimum MTTR

- Easy front access subassembly extraction.
- 360° direct access to all components for fast replacement.



### Risk-free intervention

- Hands outside servicing without cabling.
- No risk of human error.



### Full confidence

- 1.2 MW system pre-test to certify the maintenance operation before supplying critical loads.



DELPHYS 2023

### What's more... ready to use POWER BRICK ON SITE

To deliver a fast MTTR, the deployment of an innovative and unique onsite maintenance station - including a spare power brick - enables recovery from abnormal situations in a limited time once the Socomec expert is on site.

The power brick is available for purchase or as an option - called "Power brick as spare" - as part of any maintenance contract.

### Find out more...



about using a power brick as a spare

# Critical chain compatibility

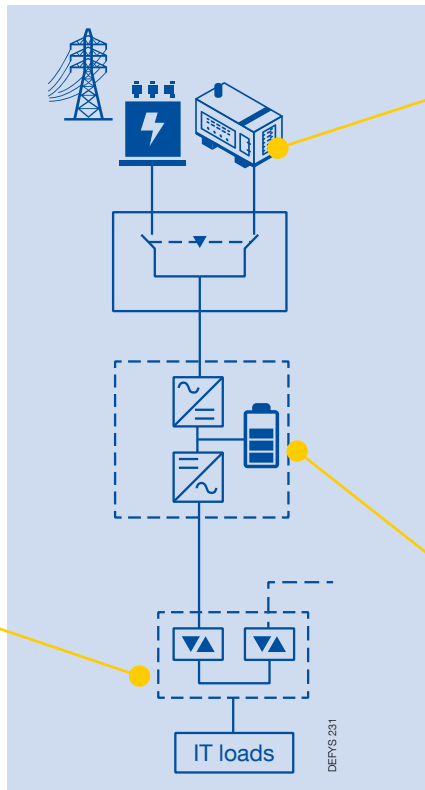
not only a matter of combining a number of assets

Today's architectures require appropriate coordination between the sources and the load, taking into account a range of potential events, operating behaviours and maintenance activities which may lead to a blackout.

Socomec has decades of expertise in the integration of UPS, STS and ATS within different power distribution architectures, which translates into demonstrable value in a critical chain operation.

## STS coordination

**DELPHYS XL** has been designed to take Socomec STS usage into account – all parameters are well coordinated to cover all possible scenarios, avoiding any unpredictable or unwanted effects.



## Advanced Genset Management function

A reduction in Genset sizing is becoming a common cost effective choice in DTC architecture, however, it may lead to a complete blackout in the event of significant load steps if not properly managed.

To ensure perfect coordination between the UPS and Generators, **DELPHYS XL** continuously monitors the Genset's stability. If required, the UPS' algorithm automatically adjusts its input consumption to let the Genset return under normal conditions.

## Load steps

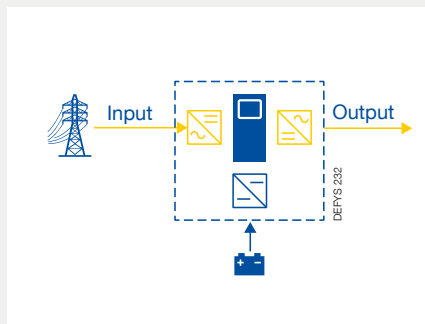
**DELPHYS XL** ensures no disturbances for the customer load even under the most challenging load variation conditions. Dynamic output voltages are compliant with the certified Class 1 requirement (IEC 62040-3).

# Flex UPS – turn your UPS solution into a financial asset

Grid support activities have emerged as a very important part of the future smart grid to enhance fast access to energy sources that can be controlled to compensate - in real time - the gap between generation and demand.

Leveraging lithium ion technology, **DELPHYS XL** – thanks to a fully bidirectional architecture – is able to support access to new revenue streams without compromising on the main priority – protecting critical loads by preserving the necessary battery energy in the event of an outage.

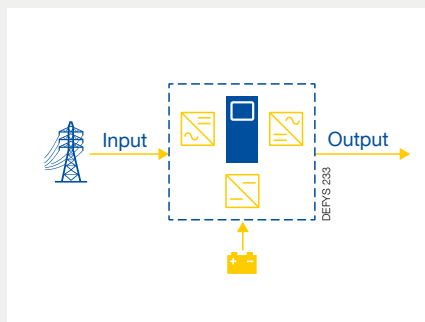
Based on our extensive experience in storage applications, **DELPHYS XL** provides valuable grid support services to improve network resiliency by sharing energy stored in its batteries.



Standard double conversion mode (VFI).

## Normal mode

The UPS uses energy from the grid to supply the critical loads with perfect power quality. The input consumption is directly related to the load's consumption plus the additional losses.



Flex mode activated.

## UPS Flex mode – power input management

The UPS is able to temporarily reduce or increase its input consumption by controlling the energy stored in the batteries while prioritising the supply of critical loads.



# Expert services

manufacturer's maintenance for trouble-free UPS operation

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 gives us access to different levels of expertise to respond as quickly as possible. Our service teams are fully trained and provided with certified equipment in order to deliver the highest levels of expertise.

## How does it work?

### SILVER

The ideal plan for **preventive maintenance**: inspection visits, access to the Socomec office hours hotline (8x5) and response times within 24 hours.

### GOLD

Prevent and cure: this package includes everything from the Silver plan, and also covers the cost of responding to breakdowns.

### PLATINIUM

The PLATINIUM plan includes spare parts.

For the most critical applications, the PLATINIUM+ plan comes with a 6 hour response time and 24/7 hotline.



## Optimise your experience thanks to connectivity

### SoLive

#### UPS monitored anywhere, anytime (cloud)

- Mobile App to monitor the UPS
- Overview of all installed units
- Real-time alarms and notifications
- Dashboard with operating parameters

### SoLink

#### Proactive acknowledgement

- Alarm directly notifies the expert
- Proactive alarm check by the expert
- Expert calls and briefs the end user

### Remote troubleshooting

#### Remote troubleshooting

- Quick intervention via remote access
- Immediate diagnosis and root cause analysis
- Only one on-site visit is required

# Technical data

## General characteristics

UPS power rating (35 °C)	1200 kVA / kW
Efficiency in Double Conversion Mode	Up to 97.1% - certified by third party (TÜV)
Efficiency in Smart Conversion Mode	Up to 99.1% - certified by third party (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	400V (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 (under rated conditions)	110% 1h / 125% 10 min / 150% 1 min
Bypass overload capability (under rated conditions)	110% continuous / 125% 10 min / 150% 1 min
Inverter short circuit capability	Up to 4090A
Bypass short circuit selectivity	Fuseless architecture

## Batteries

Battery type - 2 wires (+/-)	VRLA / Lithium-ion
Battery voltage range	Up to 700V
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
Seismic rating	Zone 2 / Zone 4 (optional)
Frame colour	RAL 7016

## Compliance with standards

Safety	IEC/EN 62040-1
EMC	IEC/EN 62040-2
Performance	IEC/EN 62040-3

## Dimensions and weight

UPS dimensions (W x D x H)	3003 x 1000 x 2005
Weight	3200 kg
Clearance	No rear or lateral clearance for installation and maintenance



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.”



DEFYS 207

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# Socomec: our innovations supporting your energy performance

**1** independent manufacturer

**3,900** employees  
worldwide

**10** % of sales revenue  
dedicated to R&D

**400** experts  
dedicated to service provision

## Your power management expert



POWER  
SWITCHING



POWER  
MONITORING



POWER  
CONVERSION



ENERGY  
STORAGE



EXPERT  
SERVICES

## The specialist for critical applications

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

## A worldwide presence

**12** production sites

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

**28** subsidiaries and commercial locations

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

**80** countries

where our brand is distributed

### HEAD OFFICE

#### SOCOMEK GROUP

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**100** years  
OF SHARED ENERGY

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Innovative Power Solutions