

# MODULYS XL

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

Ultimate



## 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

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

## 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.
- 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.

### 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<sup>(1)</sup>.
- Full system heat run test<sup>(1)</sup>.
- 63 A three-phase plug.

(1) Without dummy load bench.

### 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 ±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) ±0.01 Hz - free-running
Voltage distortion (Ph/Ph)	ThdU ≤ 1.5% (linear load)
<b>BYPASS</b>	
Voltage	Rated output voltage ±15% (configurable)
Frequency	rated output frequency ±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%.

### 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.

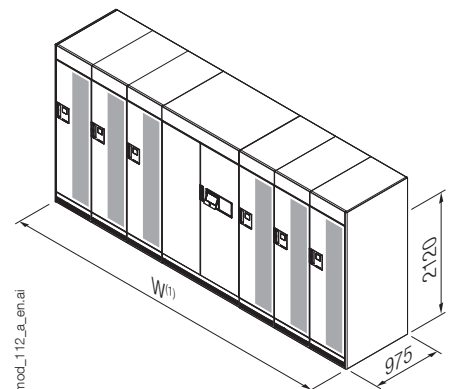
### Communication options

- Dry-contact interfac (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



mod\_113.eps

#### 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



mod\_115.eps

#### 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



mod\_114.eps

#### 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.



appl\_969.eps

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) 400 kVA/kW (N+1)	800 kVA/kW (N) 600 kVA/kW (N+1)	1000 kVA/kW (N) 800 kVA/kW (N+1)	1200 kVA/kW (N) 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) 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

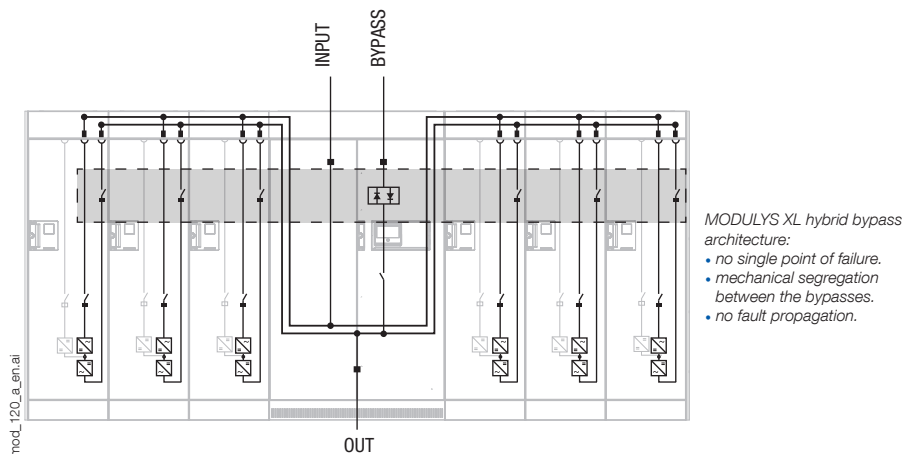
- The control system is not centralised to eliminate the typical weak point of some modular UPS systems.
- Like for monolithic UPSs, the Power Modules and the static bypass operate on a peer-to-peer basis to avoid any single point of failure and to ensure the maximum system availability.

### 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

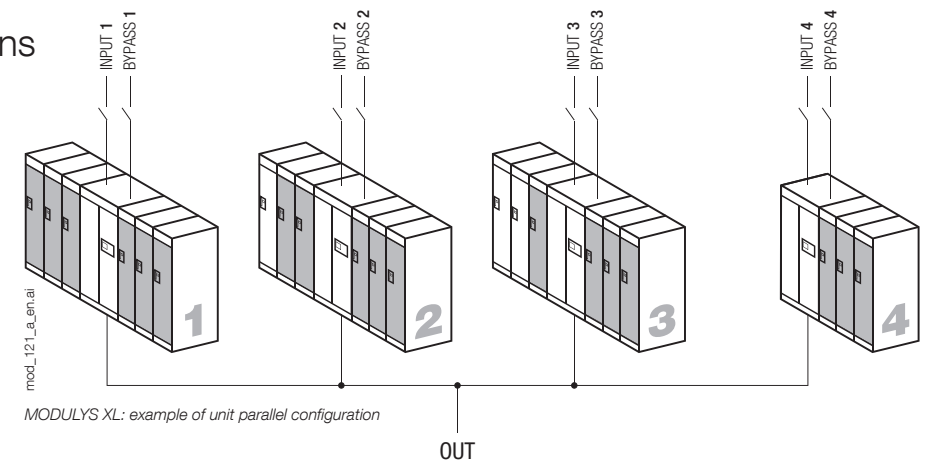
- 200 kVA/kW power module built by single and full rated power converters.
- Totally independent and self-sufficient power modules.
- Hybrid bypass: fully sized (up to 1200 kVA) centralised static bypass - together with distributed modules bypasses.
- Real power module selective disconnection (input 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.



### 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.



### 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.



### 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.

<sup>(1)</sup> After subscribing to a Socomec Maintenance Contract with SoLink option.