MODULYS XL

The ultra-modular UPS for large-scale critical applications

from 200 to 4800 kVA/kW



Function

MODULYS XL is an ultra-modular UPS built on 200 kW power modules. Each unit can be scaled up to 1200 kW, with up to 4 units operating in parallel. It ensures continuous online protection while allowing safe, rapid expansion and straightforward lifecycle management.

Advantages

Flexible power and scalability
Built from three standard functional blocks (Power HUB, Power SLOT and Power MODULE): a simple and robust foundation for any UPS configuration.

- Standardised yet flexible: these repeatable elements can be arranged to meet specific architectural layouts and power requirements.
- Scalable structure: the number of empty Power SLOTs can be adjusted to match redundancy or capacity needs, enabling growth without redesigning the system.
- Customisable without complexity: configurations are adapted through standard components — no bespoke engineering required.

Reliable by design
Designed with a clear focus on reliability, its architecture and features minimise risk and support continuous operation throughout the system's lifecycle.

- Distributed control of modules to eliminate every single point of failure.
- Galvanic separation of power modules to prevent failures from cascading.

Unique hot-swappable process for minimum MTTR
The system allows for the safe and simple replacement or addition of modules directly on-site: risk-free, no technical expertise required and no interruption to the load.

- Automatic alignment of firmware for optimal MTTR
- Self-setting and built-in self-test functions to minimise complex manual configurations.
- System firmware can be updated automatically in online mode, avoiding manual bypass operations and further reducing risks.

Maintenance made easy

- Full-frontal access simplifies maintenance.
- Power slots with pre-engineered built-in bus bars for quick, easy and clean interconnections.
- 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.

The solution for

- Colocation & Hyperscale Data Centres
- Healthcare
- Infrastructure & Industry

Norms

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

Certificate

- EU Elite UPS
- ROHs, Reach
- PEP ecopassport

Expert services

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

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

Sustainability advantages

- Potential for up to 84.8% recyclability
- Manufactured in line with ISO 14001 and ISO 50001 certification
- Predictive maintenance to extend product longevity

socomec
Innovative Power Solutions

General characteristics

- Dual input mains.
- 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(1).
- Full system heat-run test(1).
- 63 A three-phase plug.

(1) Without dummy load bench.

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...).

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.

Technical data

	MODULYS XL
UPS UNIT	
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
RECTIFIER INPUT	
Voltage	400 V 3ph (200 to 480 V(1))
Frequency	50/60 Hz ±5 Hz
Power factor/THDI	>0.99 / <2.5%(2)
OUTPUT	
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)
BYPASS	
Voltage	Rated output voltage ±15% (configurable)
Frequency	Rated output frequency ±5 Hz (configurable for Genset compatibility)
POWER HUB	
Dimensions WxDxH	1200x975x2120 mm
Weight	750 kg
POWER SLOT	
Dimensions WxDxH	550x975x2120 mm
Weight	130 kg
POWER MODULE	
Dimensions WxDxH	500x950x1940 mm
Weight	450 kg
Type	Hot plug-in / hot-swappable
MTBF	1,000,000 hrs
Online efficiency (double conversion mode)	Up to 97%
ENVIRONMENT	
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
STANDARDS	
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%.

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.

Standard communication features

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

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

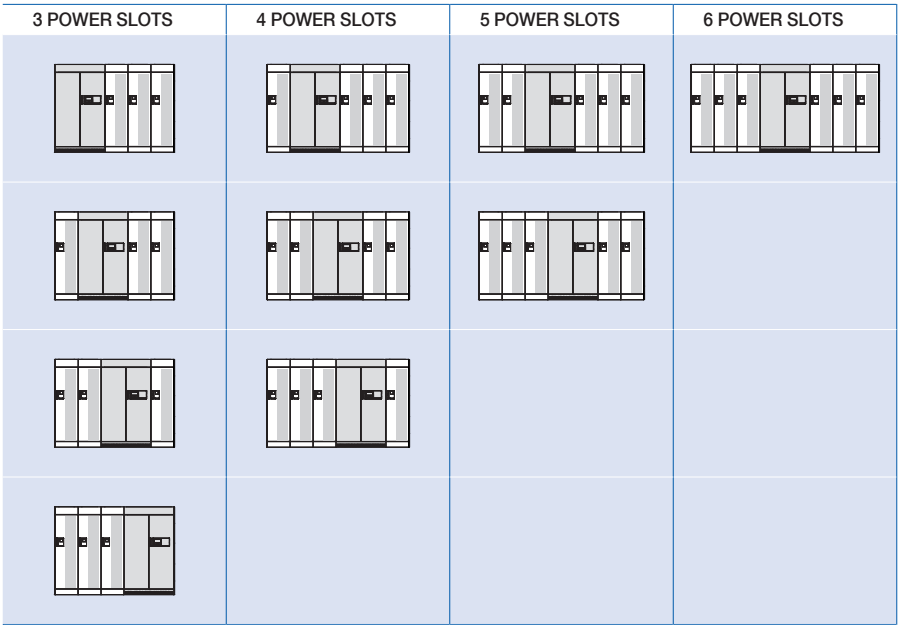
- Rated for 200 kVA/kW permanent operating.
- Single and full rated rectifier, inverter and battery charger.
- Double conversion side bypass.
- Selective disconnection (contactors and fuses) at input and output stages.
- Local battery disconnection switch.
- Patented plug-in system (power and control)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



appli_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)			

socomec Innovative Power Solutions

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

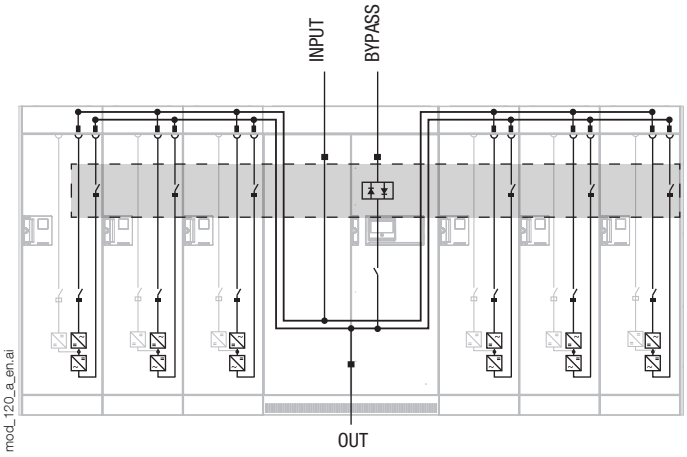
- The control system is not centralised to eliminate the typical weak point of some modular UPS systems.
- Like for monolithic UPSs, the Power Modules and the static bypass operate on a peer-to-peer basis to avoid any single point of failure and to ensure the maximum system availability.

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.

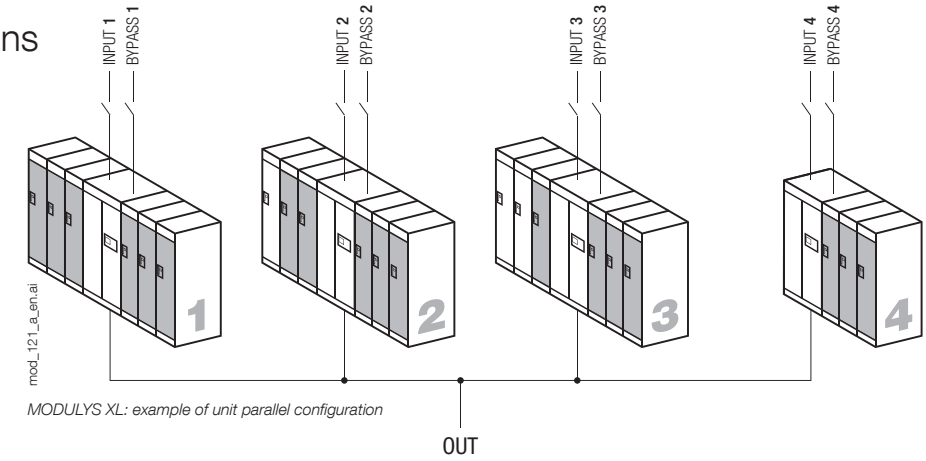


MODULYS XL hybrid bypass architecture:
- *no single point of failure.*
- *mechanical segregation between the bypasses.*
- *no fault propagation.*

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.



MODULYS XL: example of unit parallel configuration

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(1)

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.