

# MODULYS XM

Ultra modular UPS created for total peace of mind  
up to 2 MW

Ultimate



## Function

MODULYS XM is a medium-power, ultra-modular UPS designed for unmatched system reliability. With market-leading MTBF, a 2-minute MTTR and never-ending flexibility, it ensures long-term performance with zero compromise - from day one to year 20+.

## Advantages

### System-wide proven reliability - MTBF 4x higher than the market standard

Power module:

- MTBF >1,000,000 hours (third party certified) for maximum uptime.
- Embedded upstream and downstream galvanic separation.
- Smart fault isolation at module level - the rest of the system remains fully protected.

No single point of failure:

- Totally independent intelligence per module with distributed parallel control.
- Seismic resistance - third party certified by an independent laboratory.

### Application availability restored in 2 minutes - by you, safely, and without technical knowledge

Hot-swappable power modules, auxiliary mains bypass and electronic boards.

- Electronics-free cabinet - zero risk of failure.
- Full front access.

Unique on the market completely riskless & automatic hot-swappable process:

- Safe at every step.
- Self-configuration, firmware auto-alignment, self-testing - no human intervention required.
- Off-powered connection to prevent electrical arcing.

### Never-ending flexibility to fit your needs - 100+ configurations

Easy personalisation: complete set of pre-engineered and pre-tested parts to meet every customer need.

Full design flexibility at each level:

- Short-circuit withstand configurable via plug-in bypass module.
- Cabling: top, bottom and/or combined top/bottom.
- Compatible with all grounding systems: TN-S, TN-C, IT, TT.
- Energy storage technologies: VRLA, Li-Ion, Ni-Cd, ...

### The only UPS you won't need to replace - engineered to last 20+ years

Forever Young concept ensures longevity of your investment and sustainability:

- Guaranteed compatibility for 20+ years.
- Full access to spare parts and technical support.
- Extend UPS lifecycle by swapping aged components during operation - with no system shutdown.
- Modernise the UPS (e.g. with future super high-efficiency power modules) through simple swaps, without changing the entire system or installation.

### Parallel capability up to 2 MW

Whether it's for more capacity, redundancy, or custom setups, MODULYS XM meets all your needs:

- Up to 6 x 300 kW units or 4 x 500 kW units.
- Adaptable to all aspects of parallel architecture, various arrangements and designs.

## The solution for

- > Building
- > Enterprise & Edge Data Centres
- > Healthcare
- > Infrastructure & Industry

## Norms

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

## Certification

### > TUV SÜD

(Product Safety EN 62040-1  
Safe and automatic module  
hot swap, efficiency)



- > SERMA (1,000,000H MTBF)
- > TeslaLab (short-circuit capability)
- > KEMA seismic
- > EU Elite UPS
- > ROHs, Reach
- > PEP ecopassport

## Eligible Services

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

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

## Sustainability advantages

- > Up to 77,9% recyclability potential
- > Energy saver mode to maximise UPS energy efficiency under low load
- > Up to 99.1% energy efficiency with Smart Conversion mode
- > Built to last 20+ years: UPS lifecycle extended thanks to Forever Young concept
- > 75% fewer replacements thanks to an exceptional MTBF
- > Manufactured in line with ISO 14001 certification
- > Remote maintenance for reduced transport costs

### 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.
- Smart Conversion mode.
- Seismic resistant (certified).

### 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.

### 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 standalone		Modular units to 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	100 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			
<b>INPUT</b>				
Voltage frequency	400 V 3ph+N (340 V to 480 V) 40/70 Hz			
Power factor / THDI	> 0.99 / < 1.5%			
<b>OUTPUT</b>				
Power factor voltage	1 (according to IEC/EN 62040-3) 380/400/415 V ±1% 3ph+N			
Frequency	50/60 Hz (configurable) ±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			
<b>BYPASS</b>				
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>
<b>EFFICIENCY (TÜV SÜD VERIFIED)</b>				
Online double conversion mode	up to 96.5%			
<b>SHORT CIRCUIT PERFORMANCE</b>				
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>
<b>ENVIRONMENT</b>				
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>
<b>SYSTEM CABINET</b>				
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			
<b>STANDARDS</b>				
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			
<b>POWER MODULE</b>				
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.

### 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.

### Environment adaptation options

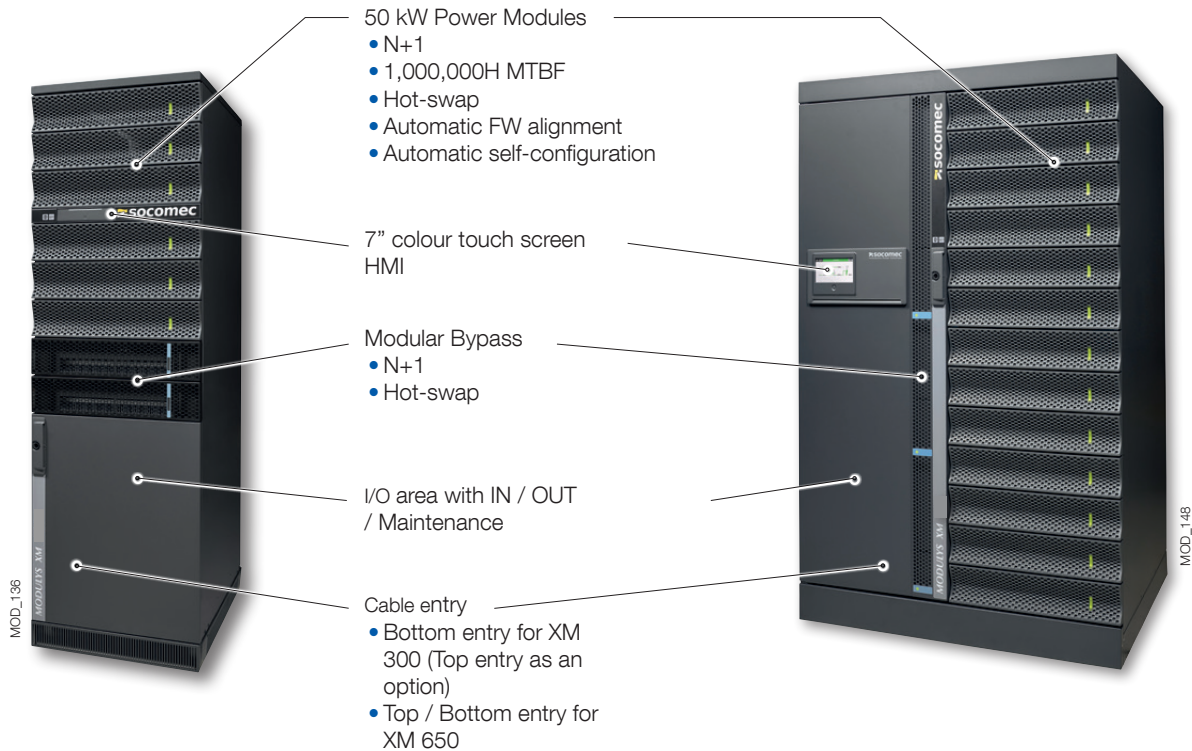
- IP21 protection kit.
- Seismic kit.
- Top cabling cabinet.
- Top exhausted air cabinet.
- Lifting bolts.
- Environment temperature and humidity sensors.

# MODULYS XM

Three-phase UPS

up to 2 MW

## A fully modular system



## The benefits 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 backup times.
- Repeatable and standardised scalable architecture for time-saving designs, ideal for various configuration and architecture requirements.

### Pay for what you use

- No prior expenditure on unpredictable future extensions to power and backup 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.

### Complete front access

- Connections, switches, manual bypass, auxiliary mains static bypass, power modules and all electric parts are accessible from the front.
- Total footprint is not increased as no additional rear clearance is required for maintenance.
- Easy, quick, comfortable, safe and risk-free installation and maintenance.
- A more reliable system.

## The benefits 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 hours).
- Hybrid bypass architecture with distributed module bypass and centralised mains bypass the ultimate reliability and robustness.
- Highly robust auxiliary mains bypass (MTBF > 10,000,000 hours).
- Acid leak-proof modular battery box.

### Maximum availability

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

### Cost-effective redundancy

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

### Seamless and risk-free scalability and upgrades

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

#### Online power scalability

MODULYS XM allows you to increase power scalability and redundancy while keeping the load protected in 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 in inverter mode.

#### Online global firmware update

It is also possible to upgrade the global firmware without switching to bypass in order to keep the load protected in inverter mode.

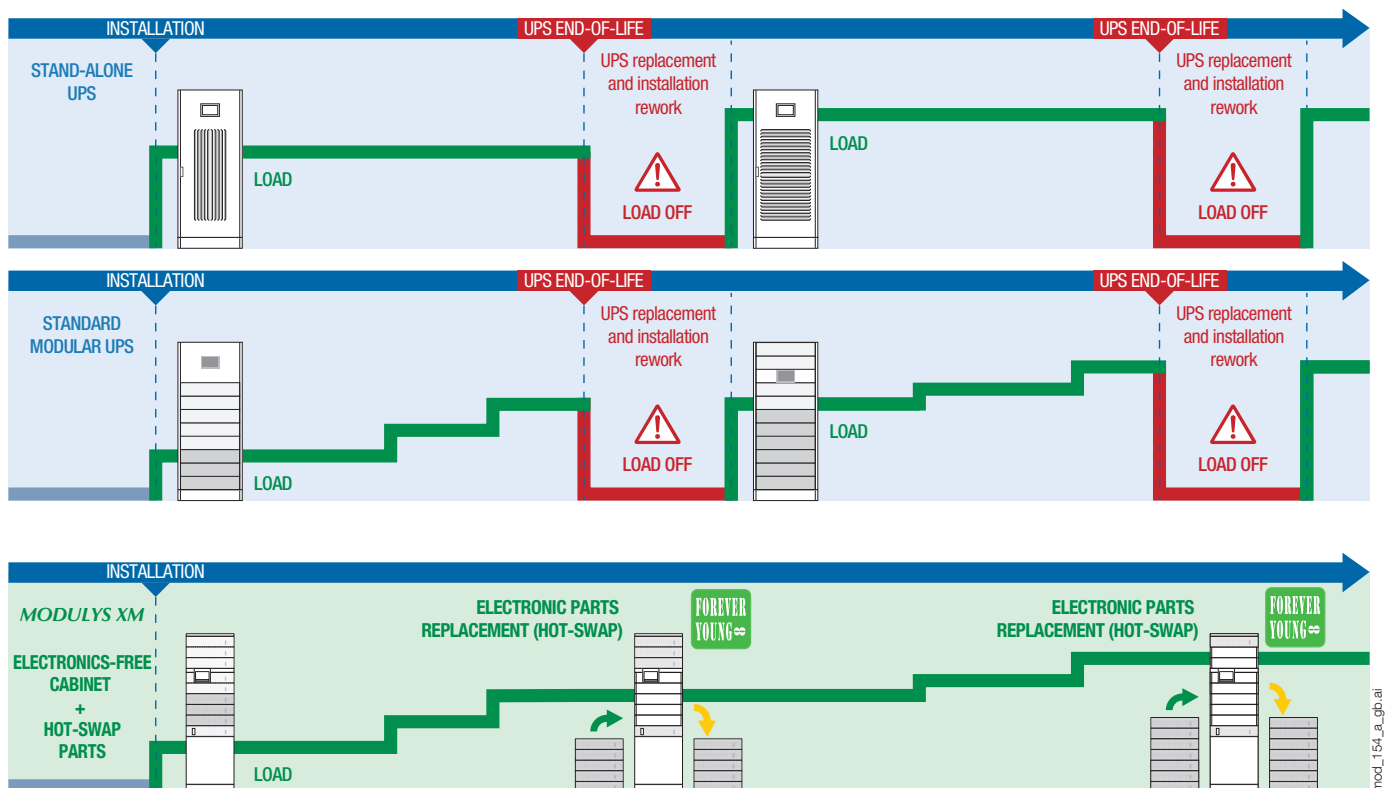
- Automatic procedure for a risk-free firmware upgrade.

### MODULYS XM “Forever Young” concept

- ‘Forever Young’ is an exclusive concept which extends the lifecycle 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 the need for infrastructure modification.

#### The ‘Forever Young’ concept:

- 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.



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