

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

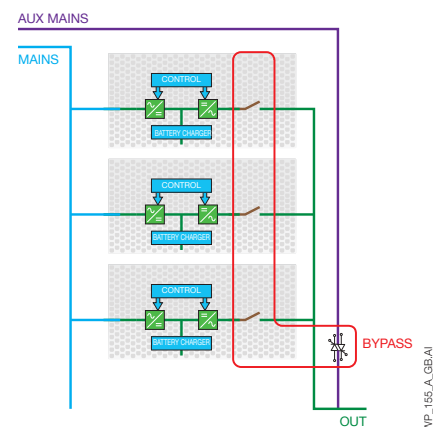
- User-friendly 7» touch-screen multilingual colour graphic display.
- 2 slots for communication options.
- USB port to download UPS report and log file.
- Ethernet port for service purpose.
- Commissioning wizard.

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
	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.

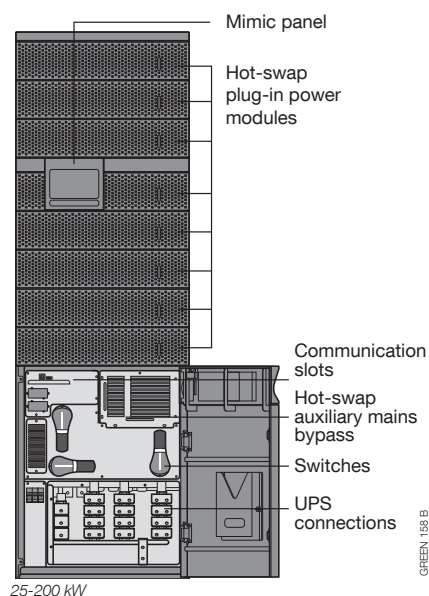
Maximum availability

- 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.

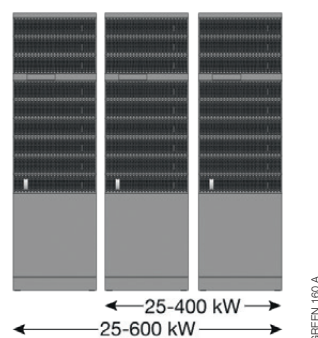
A flexible modular UPS system



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.

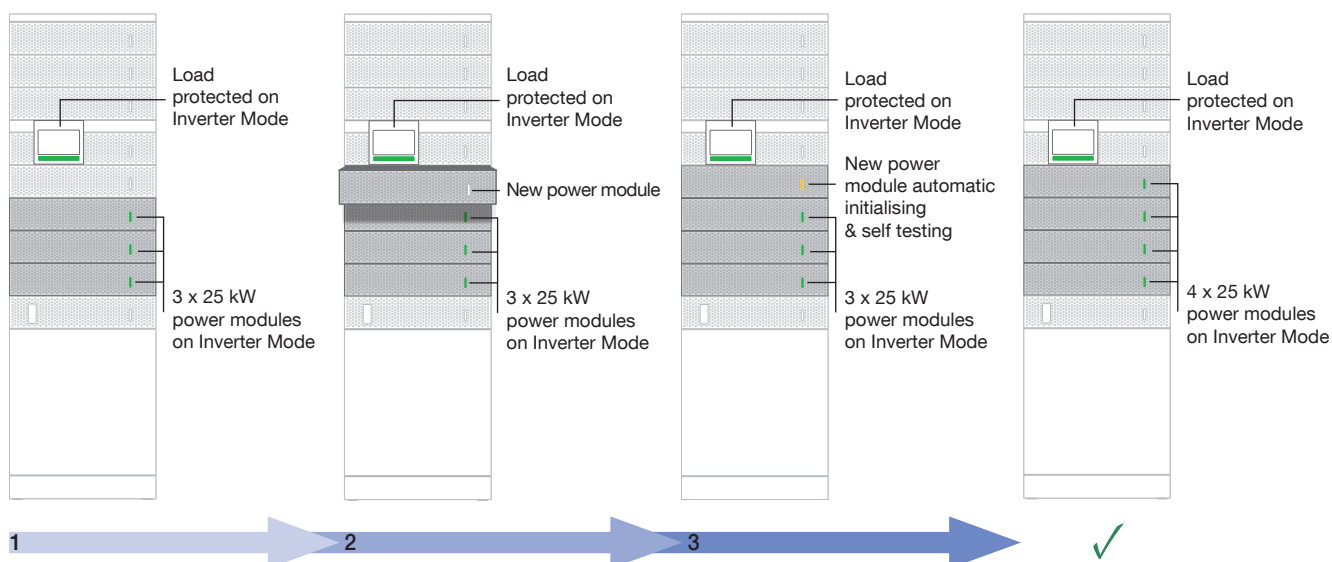


Seamless and risk-free scalability & upgrading

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

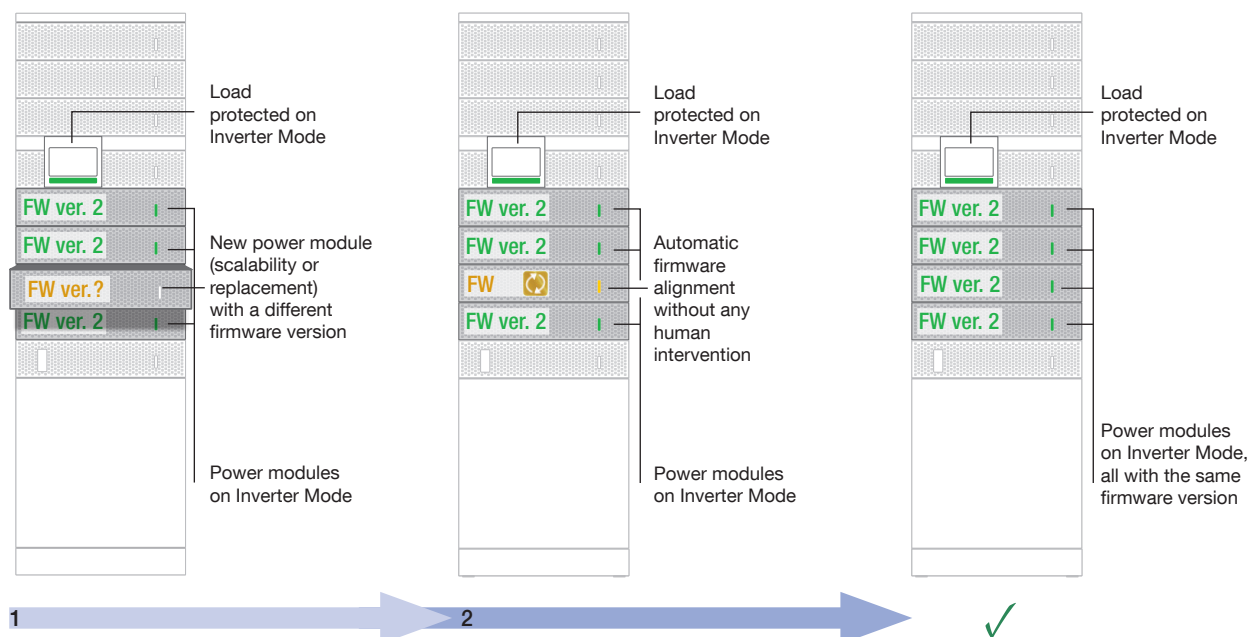
On-line power scalability

- 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

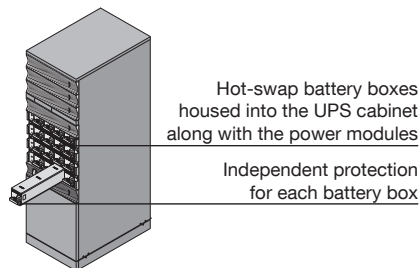
- It is also possible to upgrade the global firmware without switching to bypass to keep the load protected on Inverter mode.
- Automatic procedure for a risk-free firmware upgrade.

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.

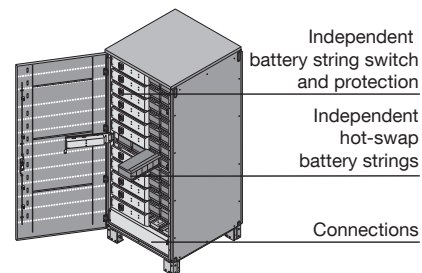
Internal hot swap battery

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



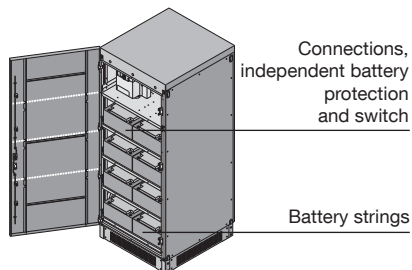
Modular hot-swap battery cabinets

- 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.

