MODULYS GP

Modular UPS
from 25 to 100 + 25 kW - UL

When **energy** matters

socomec
Innovative Power Solutions

Keep up with unpredictable evolutions in your infrastructure

Companies running high-performance computing systems or critical automated processes need solutions that match their application requirements. The constant changes involved means that facility managers face a complex balancing act: maximizing availability, keeping costs down and maintaining a flexible infrastructure.

SITE 832 A

APPLI 647 A

Delivering high energy efficiency

Providing high quality power is the first step to ensure the longevity and efficiency of your sensitive equipment.
The hot swappable modules **avoid any down time of your application**, even during maintenance operations.

Ensuring absolute business continuity

Maintaining the uptime of your critical applications is a major concern for facility managers.
Availability, reliability and quality as well as quick and risk-free maintainability of the power supply system are key factors in achieving this target.

Optimizing costs over the full life cycle

Several challenges have to be met to **optimize the cost** of the power infrastructure, from design through installation and operation.
Optimizing costs while meeting changes in performance demand and ensuring life-cycle extensions are key issues in critical applications.

Access the expertise of the leading player in critical power infrastructure

Socomec is a multi-technology specialist in power, electronics and energy performance systems with many years of experience in providing high availability power solutions.

Socomec's commitment to continuous innovation provides customers with solutions and services that meet the increasing technological complexity and evolving power requirements of facilities with critical equipment.

PEP eco PASS PORT®

CODE OF CONDUCT DATA CENTRES

EUROPEAN DATA CENTRE ASSOCIATION

the green grid™ member

Responsible and sustainable

In joining the United Nations Global Compact in July 2003, the Socomec Group has committed the company to respecting and promoting the ten universally accepted principles in the areas of human rights, labour, the environment and anti-corruption in its business activities and sphere of influence.
Socomec's policy for sustainable minerals procurement is to avoid the use of minerals from conflict zones.
Hence, in line with US and European regulations, Socomec asks the following of its direct suppliers:

- to comply with existing regulations and provide all the necessary declarations,
- to buy only from responsible suppliers who also have a conflict-free minerals policy.

High availability for your business, cost-effective protection and flexible response to unpredictable demands

Fully modular system

- Hot swappable, self setting power module.
- Hot swappable Safe plug-in & acid proof battery module.
- Hot swappable safe plug-in bypass module.

Redundant design

- N+1, N+2 redundancy level.
- No centralized parallel control.
- Totally independent power modules.
- Designed for no single point of failure.

'Forever Young' concept

- Based on set of modules + electronics-free cabinet.
- Eliminates end-of-life criticality.
- Module compatibility guaranteed for 20 years.
- Allows for the implementation of future module technology.

Enhanced serviceability performance

- Fast and safe maintenance based on hot-swap modules.
- Power module automatic firmware alignment.
- No risk of human error and downtime.

Manufactured in Europe

Designed, developed and produced by Socomec, a European specialist manufacturer with more than 20 years of experience in supplying modular solutions.

Total protection during downtime

- High capacity battery charger (up to 80 A).
- Designed to provide very long backup time.
- Suitable to overcome long outages when a GenSet can not be used.

GREEN 193 US

Innovative solution

MODULYS GP is the innovative solution for protecting critical applications in computer rooms, data centers, banks, healthcare facilities, insurance, telecom.

96% EFFICIENCY

Minimized energy consumption and cooling costs

kW = kVA

Unity power factor provides the best $/kW ratio

Seismic resistant

The benefit of a fully modular system

Easy to adapt

- Totally modular rack-mounting system for power scaling or for quickly adapting to business changes.
- Flexible design for sizing adaptations each time project is revised.
- Easy integration with physical IT infrastructures.

Easy to manage

- Standardized rack system and modules covering a wide range of power and back-up times.
- Repeatable and standardized scalable architecture.
- Hot swap plug-in modules.
- Network connectivity for the integration of power system in physical or virtualized environments.

LOGIC 020 A

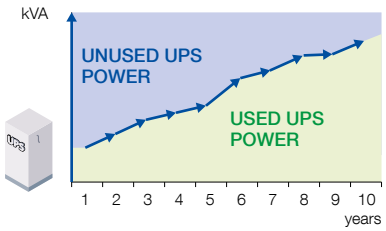
NET VISION interface allows:

- UPS connection to the Ethernet network.
- Installation supervision through web server or SNMP protocol.
- Alarm notification through e-mail.

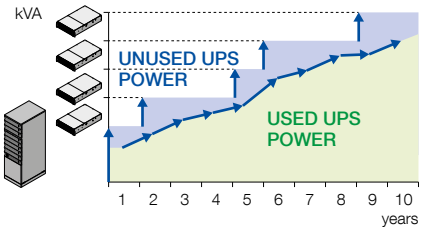
Pay as you need

- No prior expenditure for unpredictable future extensions in power and back-up time.
- Space saving due to reduced footprint with vertical modularity.
- Eliminate installation rework costs when new capacity is required.
- No risk of design oversizing due to project data uncertainty.

STAND-ALONE UPS



MODULYS GP



Easy to install

- Light, empty cabinets and independent modules for easy moving, on-site positioning and system assembling.
- Flexible solutions for adaptation to all types of infrastructure and environments: top or bottom entry cable management, integrated PDU for easy distribution to the IT racks.
- Flexible heat management for top air exhaust:
  - wall configuration,
  - supporting slim chimney for in-row configuration allowing busway, distribution on the top of the unit.
- On-site last minute modifications to meet any possible changes to power and back-up time.
- Automatic self-configuration power modules.

GREEN 195 A

A user-friendly graphic LCD panel provides easy access to detailed operating information. A brightly colored light bar allows quick status determination even across a dark room.

GREEN 110 B

Compactness and reduced footprint: power modules and battery packs can be installed together in the system cabinet (MODULYS GP 40 kW UL only).

The benefit of a totally redundant design

Total resilience

- Electronics-free (failure-free) cabinet.
- Totally independent and self-sufficient modules.
- Real selective module disconnection with galvanic separation.
- No centralized control for parallel and load sharing management.
- Configurable N+1 to N+x redundancy (power & battery).
- Redundant parallel bus connection (ring configuration).

Optimum reliability

- Each module is checked by automatic testing systems.
- Power module designed for superior robustness proved by field data (MTBF > 1,000,000 hr).
- Acid leak-proof modular battery box.

Maximum availability

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

Modular battery cabinet (MODULYS GP 25-100 kW UL only)

Modular UPS system

Modular UPS system

1. Mimic panel
2. - MODULYS 40 kW UL: up to 2 and up to 3 hot-swap battery pack.
- MODULYS 25-100 kW UL: up to 5 hot-swap plug-in power modules.
3. Switches
4. UPS connections
5. Communication

Modular battery cabinet

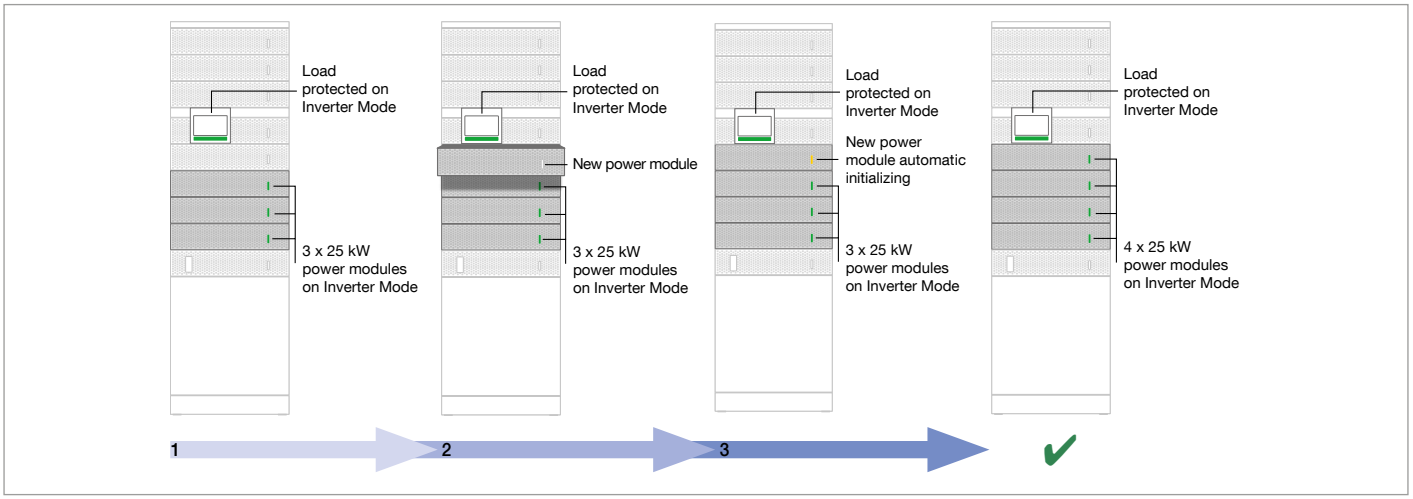
6. Battery connections
7. Battery string protection
8. Battery string switches
9. Bays for hosting hot-swap battery strings

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.

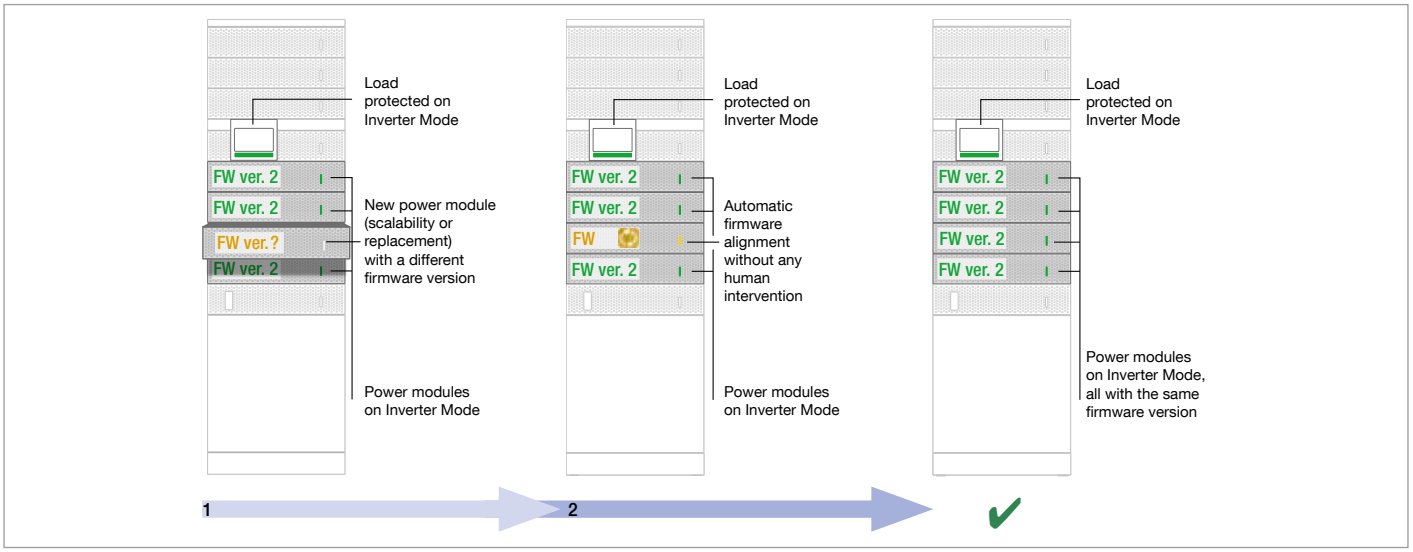
On-line power scalability

- 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.

Technical specifications

UPS model		MODULYS GP 40 kW UL				MODULYS GP 25-100 kW UL				
Number of power modules		1	2	3	4	1	2	3	4	5
Power (Sn) - kVA		25	40	40	40	25	50	75	100	100
Power (Pn) - kW		25	40	40	40	25	50	75	100	100
Input										
Voltage		3ph 480 V (+15/-15%) up to -40% @ 50% of nominal load				3ph 480 V (+15/-15 %) up to -40 % @ 50 % of nominal load				
Frequency		60 Hz ±10 %								
Input power factor		≥ 0.99[1]								
Total harmonic input current distortion (THDi)		≤ 3% (@: Pn, Resistive load, Mains THDv ≤ 1%)								
Output										
Voltage		400 V 3ph+N				480 V 3ph				
Frequency		60 Hz								
Total output voltage distortion (THDv)		≤ 1% (@ Pn, Resistive load)								
Overload[2]	10 min	31.25	60	60	60	125				
	1 min	37.5	75	100	100	150				
Crest Factor		≥ 2.7	≥ 3.3	≥ 5	≥ 7	≥ 2.7				≥ 3.3
Static bypass[3]										
Bypass input voltage		nominal output voltage ±15%								
Bypass input frequency		60 Hz ±2 % selectable (±8% if GenSet is used)								
Stored energy mode of operation										
Number of battery blocks (VRLA)		from 18+18 to 24+24								
Environment										
Operating temperature		32 to 104 °F[3][4] / 0 to +40 °C[3][4]								
Storage temperature		23 to 122 °F / -5 to +50 °C								
Relative humidity		95 % without condensation								
Altitude (max)		3,280 ft (9,840 ft. with derating)								
Acoustic level at 1 m		≤ 56 dBA				≤ 58 dBA				
Required air capacity - CFM		470		710	940	1178				
Dissipated power (max)		3,500 W @ Pn / 11,950 BTU @ Pn				5,200 W @ Pn / 17,750 W @ Pn				
Dimensions and weight										
Dimensions (W x D x H)		2' 2" 39/64 x 2' 11" 7/64 x 6' 6" 15/32 ft - 676 x 900 x 1993 mm								
Empty cabinet		1,380 lbs / 626 kg				1,043 lbs / 473 kg				
UPS module		75 lbs / 34 kg								
Bypass module		55 lbs / 25 kg								
Battery module		220.5 lbs / 100 kg				-[5]				
Standard										
Safety		UL1778, CSA C22.2 N. 107.3-05								
EMC		FCC part15 Class A								
Performance		IEC 62040-3 (VFI-SS-111)								
Degree of protection standard		NEMA 1 (IP20)								
SEISMIC		OSHPD pre-approval (optional)[6]								

(1) Pout ≥ 50% Sn.
(2) Initial Condition Pout ≤ 80% Pn.
(3) For best battery lifetime the suggested temperature range is 59 °F ÷ 77 °F.
(4) According to IEC62040-3.
(5) Modular battery cabinet.
(6) Not for 8 slot version (M4-S-040-HCA8).

Electrical options

- External battery cabinet.
- High capacity battery charger.
- ACS synchronisation system.
- Internal backfeed isolation device.

Standard communication features

- User-friendly multilingual interface with color graphic display.
- Commissioning wizard.
- 2 slots for communication options.

Communication options

- Dry-contact, RS232 / 485 interfaces.
- MODBUS RTU.
- MODBUS TCP.
- BACnet / IP interface.
- NET VISION: professional WEB / SNMP interface for UPS monitoring and shutdown management of several operating systems.

Best practice award

Frost & Sullivan has awarded Socomec with its prize for Innovation & Excellence in Developing Scalable, Best-in-Class Products and Solutions.

Socomec'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.

Socomec: our innovations supporting your energy performance

1 independent manufacturer

3,600 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
- Optimization
- 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

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