MODULYS RM GP

Rack-mounted modular UPS system

Green Power 2.0 range up to 4 x 25 kW

CRITICAL POWER

socomec
Innovative Power Solutions

19” rack integration capabilities for protecting critical loads

MODULYS RM GP is a 3-phase modular UPS system designed for 19” rack integration. Easy to integrate and install whilst simple to manage and maintain, it provides maximum availability and power protection in a compact design leaving free space for other rack-mounted devices.

Easy and no-risk integration

IT networking, data server racks, critical power distribution, process control and protection… There are many sorts of applications and levels of customisation when it comes to a 19” rack cabinet arrangement.
MODULYS RM GP is designed for providing **easy** and **fully-assured rack integration** to meet all requirement across multiple applications, even for existing installations.

Flexibility and fewer parts

The integration of different items of equipment in common racks requires different installation modes which can be hard to carry out and time consuming. It also means a complex Bills of Materials to manage.
MODULYS RM GP has been specifically engineered to **simplify** and **optimise** every step of **the integration process** - from sizing to installation, including the logistics, making project management easy, risk-free and economic.

Total power protection

The availability of a reliable electrical power supply is essential for critical applications and has to be ensured in all conditions.
MODULYS RM GP is a totally modular UPS system. With its no single point of failure design, it provides **reliable power** whilst **ensuring optimum load protection** even during power upgrades or maintenance procedures.

Benefit from 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 data centre customers with solutions and services that meet the increasing technological complexity and evolving power requirements of cloud computing facilities.

EUROPEAN DATA CENTRE ASSOCIATION

the green grid™ member

Socomec for sustainability

The entire Green Power 2.0 UPS range is designed to operate in compliance with the EU Code of Conduct governing data centres for reducing energy consumption and associated carbon emissions.
A fully accredited PEP Product Environmental Passport is available.

GO GREEN

afaq ISO 14001 Environnement AFNOR CERTIFICATION

MODULYS RM GP

Rack-mounted modular UPS system for easy, fully-assured and time-saving integration

MADE IN EUROPE

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

Full rack integration

- Designed for easy and no-risk integration in 19" rack cabinets.
- Total compatibility with any 19" standard rack cabinet.
- High power density.
- Easy to manage, integrate and customise.
- Flexible simplified cabling.

Overall cost optimisation

- Time saving integration process.
- No risk of cost and budget overruns.
- Compact solution saving valuable space.
- Simplified logistics.
- Easy integration: avoids costly set-up and reworking.

Totally redundant design

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

Enhanced serviceability performance

- Fast & safe maintenance based on hot-swap modules.
- Ready for concurrent maintenance.
- Exclusive life cycle extension programme.

'Forever Young' concept

- Based on an electronics-free sub-rack enclosure + a set of plug-in parts.
- Eliminates end-of-life criticality.
- Module compatibility guaranteed for 20+ years.
- Allows for the implementation of future module technology.

To find out more

Visit our website

www.socomec.com/modular-scalable-ups-systems_en.html

FLQD-URL 132 A GB

The benefit of a system designed for 19” rack integration

Easy to integrate

- Specifically designed for integration in 19” standard rack cabinets.
- Comes with with adjustable rails and mounting accessories.
- High power density (>6 kW/U).
- Low weight for easy integration.
- Pre-cabled system for simplified connections.
- Flexible cabling management for top, bottom and mixed top/bottom entry cable.
- Integrated cables organiser for tidy connections.
- Low power dissipation (<40 W per supplied kW).

No-risk integration

- Assured compatibility with any 19” standard rack cabinet.
- Pre-engineered and lab-tested parts assuring total system reliability.
- Automatic self-configuration power modules.
- No risk of design oversize due to project data uncertainty thanks to power module scalability.

Pre-cabled system for simplified connections

Easy to customise

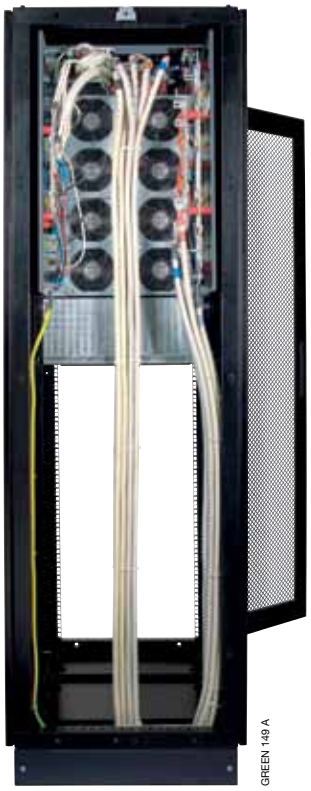
Complete set of pre-engineered and pre-tested parts to meet any customer need:

- modular Power Modules,
- special power modules with extra battery charger for extremely long BUT,
- plug-in J-BUS communication board for BMS integration,
- plug-in SNMP board for UPS monitoring and shutdown management,
- plug-in programmable dry-contact board,
- environmental sensors,
- blank panels (covers for empty slots),
- rack-mounted battery modules,
- external battery cabinet,
- isolation transformer,
- bypass redundant cooling.

Example of integration (3x25 kW).
Only 15 U of rack space occupied: space-saving design leaving free space for other rack-mounted devices. One empty slot in the MODULYS RM GP sub-rack remains available for power upgrade or redundancy.

Easy to manage

- Full documentation package including schematics, integration instructions, technical sheets, etc.
- Factory-set configurations for easy model selection.
- Full set of pre-engineered options for easy product customisation.



Rear view (before adding rear protective cover).
Flexible cabling management for easy connections and tidier cabling.

Overall cost optimisation

- Compact sub-rack enclosure saving valuable cabinet rack space.
- 2 sub-rack enclosure models for optimum sizing.
- Best-in-class €/kW ratio thanks to high power density and PF=1.
- Cost-optimised solution for minimum initial investment.
- Plug & Play and self-configuration power modules for easy and time saving system set up.
- Pre-engineered and lab-tested parts for easy and time saving customisation.
- Repeatable and standardised architecture for time saving design and know-how capitalisation.

Simplified logistics

- Fewer standardised parts for easy ordering.
- Parts always in stock for fast procurement.
- Fewer parts covering a wide range of configurations, power, back-up time and options.
- Once integrated in the 19" rack cabinet, MODULYS RM GP can be safely shipped with the power modules plugged in.

Compact 15U sub-rack enclosure

Designed for complete integration in any 19" standard rack cabinet.

GREEN 153 A

Pre-cabled rack with maintenance bypass

M4-R-075-82B0	15U rack, 4 slots
M4-R-050-82B0	9U rack, 2 slots

Plug-in boards

CP-OP-ADC+SL	Programmable IN/OUT dry contact + serial link
CP-OP-MODTCP	MODBUS TCP interface
NET-VISION6CARD	NET VISION card, WEB/SNMP interface IPV4/IPV6

Other options

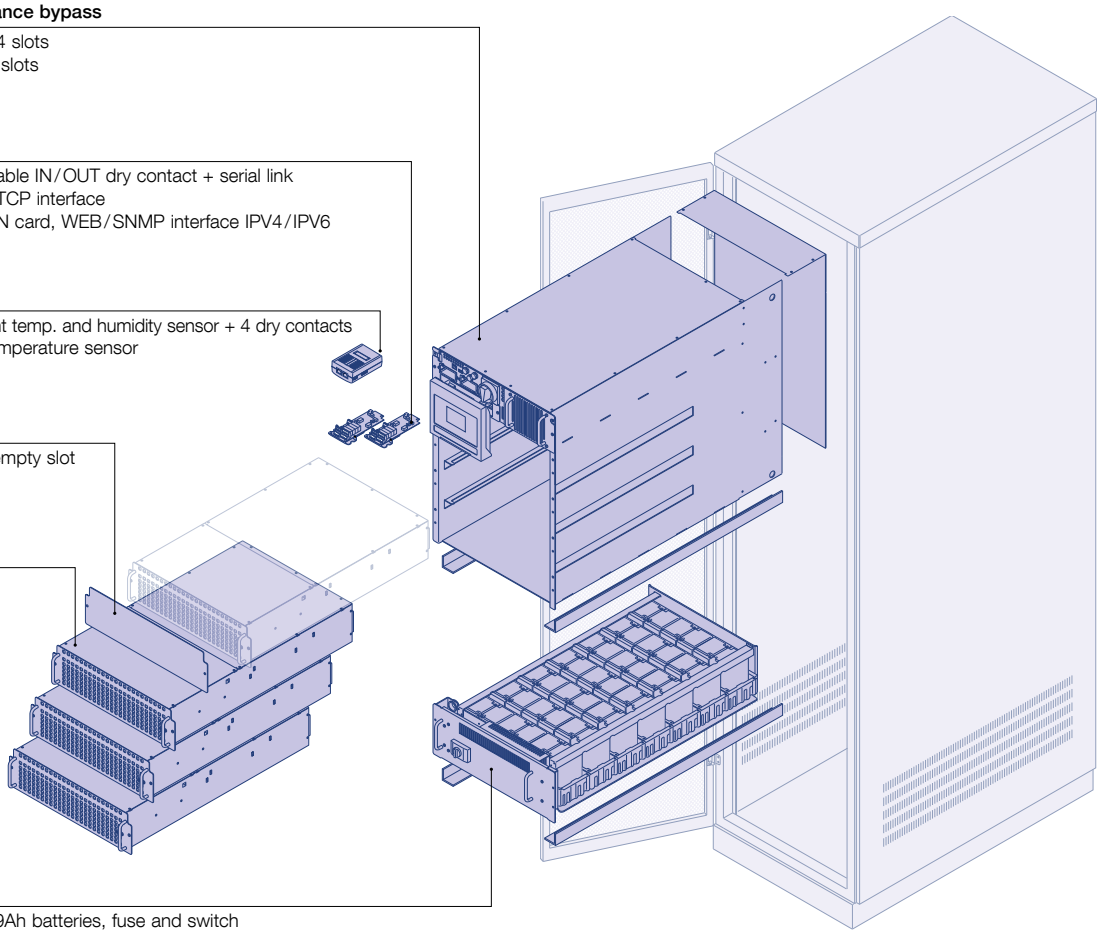
NET-VISION-EMD	Environment temp. and humidity sensor + 4 dry contacts
MAS-OP-TEMP	External temperature sensor

Blank panel

MOD-RI-OP-SSC	Cover for empty slot

Power module - 25 kW

M4-RI-25



GREEN 155 A

4U battery rack

M4-BR-009L	With 42 x 9Ah batteries, fuse and switch
M4-BR-009L-B	Empty, for 42 x 9Ah including interconnections, fuses and switch

The benefit of a system designed to assure absolute business continuity

Total resilience

- Electronics-free (failure-free) sub-rack enclosure.
- Totally independent and self-sufficient modules.
- Real selective module disconnection with galvanic separation.
- No centralised control for parallel and load sharing management.
- Totally segregated, fully sized and centralised auxiliary mains bypass and distributed inverter bypass.
- Configurable N+1 redundancy (power & battery).
- No single point of failure.
- Redundant parallel bus connection (ring configuration).

Pay as you need

- Totally modular rack-mounting system for power scaling or for quickly adapting to business changes.
- No prior expenditure for unpredictable future extensions in power and back up time.
- No need to duplicate the system hardware to get redundancy.

Enhanced serviceability performance

- Electronics-free (failure-free) sub-rack enclosure with plug-in bricks.
- Fast and safe maintenance based on hot-swap parts (power modules, bypass, electronic boards, batteries).
- Safe and risk-free maintenance:
  - only sealed box is replaced,
  - no exposed live parts.
- Concurrent maintenance: no need to switch on static bypass or maintenance bypass.
- Battery can be hot-swapped without shutting down the connected equipment.

Optimum reliability

- Power module designed for superior robustness verified by an independent body (MTBF > 1,000,000 hr).
- Highly robust 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.

Hot-swap power modules, bypass and batteries in an electronics-free system: no single point of failure and risk-free maintenance.

50 years manufacturer expertise in Critical Power care

Expert service engineers

- 370 Socomec service engineers in 20+ subsidiaries.
- 175 Business Partner service engineers in 70+ countries.
- 3,500 hours of technical training provided per year (product, methodology and safety).

Technical hotline network

- 20+ languages spoken by Socomec's technical hotline staff.
- 3 advanced technical support centres.
- 90,000+ incoming calls handled per year.

Services

- Specialist team of engineers on-call 24/7.
- Technical expertise on-site in under 6 hours guaranteed(1).
- Power quality and thermal imaging audit.
- On-site tests, commissioning and training.
- Certified preventive maintenance visit.
- Remote monitoring and proactive diagnostic.
- Corrective maintenance with original spare parts.
- 24/7 original spare part stock availability.
- High priority spare part shipment.

(1) Please check the service coverage in your area.

Technical specifications

References

ARTICLE	DESCRIPTION
M4-R-075-82B0	15U rack - 4 slots - Pre-cabled with maintenance bypass switch
M4-R-050-82B0	9U rack - 2 slots - Pre-cabled with maintenance bypass switch
M4-RI-25	Plug-in power module 25 kW
M4-BR-009L	4U battery rack 42 x 9 Ah with fuses and switch
M4-BR-009L-B	Empty 4U battery rack ready for 42 x 9 Ah, including interconnections, fuses and switch
CP-OP-ADC+SL	Plug-in board - Programmable IN/OUT dry-contact + serial link
CP-OP-MODTCP	Plug-in board - MODBUS TCP interface
NET-VISION6CARD	Plug-in board - NET VISION card WEB/SNMP interface IPV4/IPV6
NET-VISION-EMD	Environment temperature and humidity sensor + 4 input dry contacts
MAS-OP-TEMP	External temperature sensor

Technical data

	MODULYS RM GP	
Model	9U	15U
Number of power modules	1 to 2 x 25 kW	1 to 4 x 25 kW
Configuration	N, N+1 redundant	
Power (Sn)	25 to 50 kVA	25 to 75 kVA
Power (Pn)	25 to 50 kW	25 to 75 kW
Input/output	3/3	
INPUT		
Voltage	400 V 3ph (340 V to 480 V)	
Frequency	50/60 Hz ±10 %	
Power factor/THDI	> 0.99/< 3 %	
OUTPUT		
Voltage	380/400/415 V ±1 % 3ph+N	
Frequency	50/60 Hz ±0.1 %	
Voltage distortion	< 1 % (linear load), < 4 % (non-linear load according to IEC 62040-3)	
Short-circuit current	up to 3 x In	
Overload	125 % for 10 minutes, 150 % for 1 minute	
Crest factor	3:1	
HOT-SWAP BYPASS		
Voltage	Rated output voltage ±15 % (configurable from 10 % to 20 %)	
Frequency	50/60 Hz ±2 % (configurable for GenSet compatibility)	
Weight	7 kg	7.5 kg
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	< 53 dBA	
UPS RACK		
Dimensions W x D x H	442 mm x 920 mm x 9 U	442 mm x 920 mm x 15 U
Weight (empty cabinet)	36 kg	42 kg
Degree of protection	IP20	
HOT-SWAP POWER MODULE		
Height	3U	
Weight	34 kg	
Type	Hot plug-in/Hot-swappable	
MTBF	> 1000000 hours (calculated and verified)	
HOT-SWAP BATTERY RACK		
Type	Acid leak-proof - Long Life batteries	
Protection	Independent protection for each battery string	
Dimensions W x D x H	442 mm x 890 mm x 4 U	
Weight (empty rack)	15 kg	
STANDARDS		
Safety	EN 62040-1, EN 60950-1	
EMC	EN 62040-2 Class C2	
Performance	EN 62040-3 (VFI-SS-111)	
Product certification	CE	

Innovative solution

Up to 4 x 25 kW.

Highest rack-mounted UPS power density on the market.

High efficiency minimises energy consumption and reduces energy costs.

Unity power factor provides the best €/kW ratio.

Ready for Li-Ion battery. Ultra-fast recharge function.

Certifications and attestations

Green Power 2.0 MODULYS RM GP module is certified by TÜV SÜD with regard to product safety (EN 62040-1).

Green Power 2.0 MODULYS module efficiency & performance are tested and verified by TÜV SÜD.

SERMA TECHNOLOGIES

Green Power 2.0 MODULYS RM GP module MTBF is calculated and verified higher than 1,000,000 hours by SERMA TECHNOLOGIES (IEC 62380).

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