

MODULYS RM GP

Rack-mounted modular UPS system
from 25 to 75 kVA/kW



GAMME_562_PSD

Function

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 rackmounted devices.

Advantages

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.

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, bypass, electronic boards, batteries).
- Ready for concurrent maintenance.
- Load fully protected in double conversion mode (VFI) during power module replacement.
- 3-colour LED bar for quick and easy detection of the power module status.
- Battery can be hot-swapped without shutting down the connected equipment.
- Totally front access operation.

'Forever Young' concept

- Exclusive life cycle extension programme.
- Eliminates end-of-life criticality.
- Based on an electronics-free sub-rack enclosure + 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

- > Data center

Strong points

- > Full rack integration
- > Overall cost optimisation
- > Totally redundant design
- > Automatic firmware alignment
- > Enhanced serviceability performance
- > 'Forever Young' concept

Conformity to standards

- > EN 62040-1, EN 60950-1, EN 62040-2, EN 62040-3 (VFI-SS-111)
- > CE
- > RCM (E2376)
- > EAC

Certifications and attestations

TÜV SÜD Production monitored Safety tested

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 1,000,000 hours by SERMA TECHNOLOGIES (IEC 62380).

RoHS COMPLIANT

EU CODE OF CONDUCT ELITE UPS

1000 000 HOURS MTBF

Advantages

HOT-SWAP → **HIGH POWER DENSITY** ← **PF 1**

Highest rack-mounted UPS power density on the market

automatic firmware alignment

96.5% EFFICIENCY

High efficiency minimises energy consumption and reduces energy costs

Li-Ion

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

General characteristics

- Dual input mains.
- Internal maintenance bypass.
- Backfeed protection: detection circuit.
- EBS (Expert Battery System) for battery management.
- Battery temperature sensor.

Electrical options

- 19" 4U battery rack.
- External battery cabinet.
- High capacity battery charger.

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 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 SoLive UPS mobile app.
- Remote touch-screen panel.

Remote monitoring and cloud services

- SoLink: Socomec 24/7 remote monitoring service connecting your installation to the nearest Socomec Service Centre.
- SoLive UPS: mobile app enabling the monitoring of the UPS systems from a smartphone.

Total resilience

- Electronics-free (failure-free) sub-rack enclosure.
- 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 redundancy (power & battery).
- No single point of failure.
- Redundant parallel bus connection (ring configuration).

Optimum reliability

- Power module designed for superior robustness verified 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 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.

Technical data

MODULYS RM GP		
Model	9U	15U
Number of power modules	1 to 2 x 25 kW	1 to 4 ⁽¹⁾ x 25 kW
Configuration	N, N+1 redundant	
Power	25 to 50 kVA/kW	25 to 75 kVA/kW
Input/output	3/3	
INPUT		
Voltage	400 V 3ph+N (340 V to 480 V)	
Frequency	50/60 Hz ±10%	
Power factor/THDI	> 0.99/< 1.5%	
OUTPUT		
Voltage	380/400/415 V ±1 % 3ph+N	
Frequency	50/60 Hz ±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	
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 declaration	CE, RCM (E2376), EAC, UKCA	

(1) 4th module is for redundancy.

Expert services

We offer services to ensure your UPS highest availability:

- > Commissioning
- > On-site intervention
- > Preventive maintenance visits
- > 24-hour call out and rapid on-site repairs
- > Maintenance packages
- > Training
- > Remote monitoring service



www.socomec.com/services

MODULYS RM GP

Three-phase UPS

from 25 to 75 kVA/kW

The benefit of a system designed for 19" rack integration

Easy to integrate

- Specifically designed for integration in 19" standard rack cabinets.
- 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.

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.

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.

Pre-cabled system for simplified connections

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



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.



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.



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

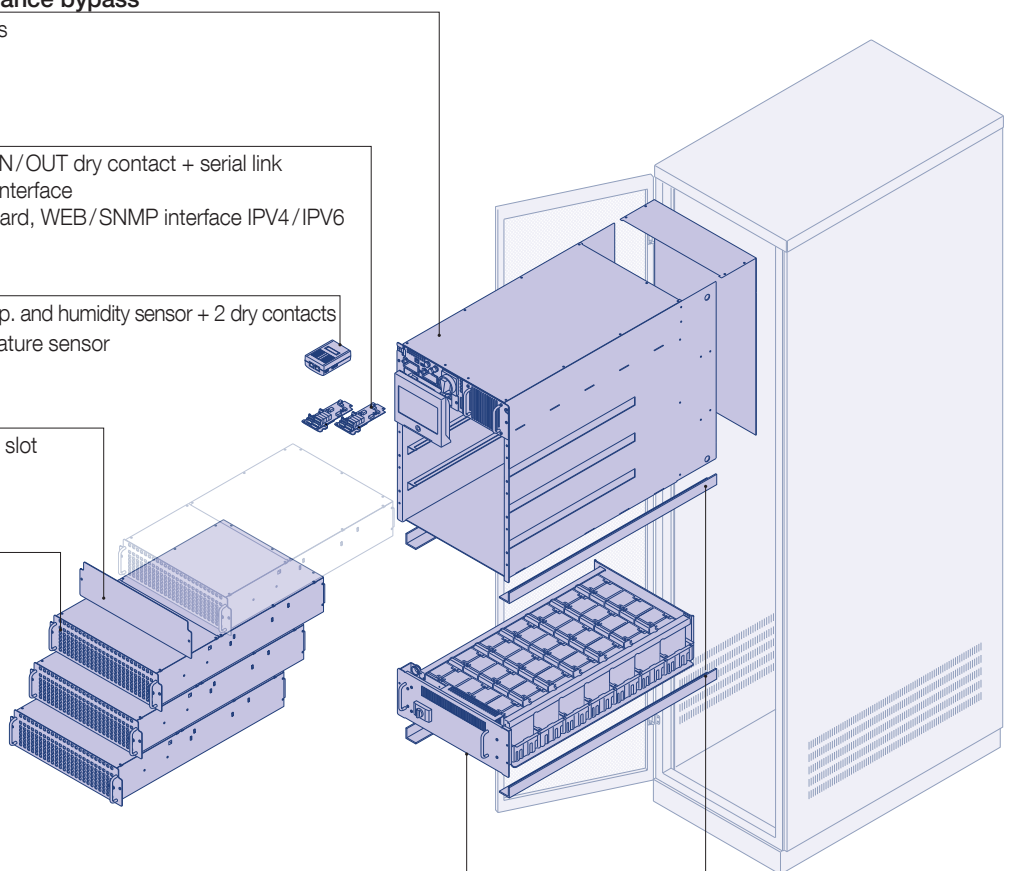
NET-VISION-EMD Environment temp. and humidity sensor + 2 dry contacts
MAS-OP-TEMP External temperature sensor

Blank panel

M4-RI-OP-SSC Cover for empty slot

Power module - 25 kW

M4-RI-25



4U battery rack

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

Mounting accessories

M4-RI-OP-RAIL Adjustable rails for rack mounting support