MODULYS RM GP
Rack-mounted modular UPS system
Green Power 2.0 range up to 4 x 25 kW
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.

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.
MODULYS RM GP

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

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.

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.

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.

Visit our website
www.socomec.com/modular-scalable-ups-systems_en.html

To find out more
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

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.

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

4U battery rack

- M6-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
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).

**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.

**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.

**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.

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

### References

<table>
<thead>
<tr>
<th>ARTICLE</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>M4-R-075-82B0</td>
<td>19U rack - 4 slots - Pre-cabled with maintenance bypass switch</td>
</tr>
<tr>
<td>M4-R-050-82B0</td>
<td>9U rack - 2 slots - Pre-cabled with maintenance bypass switch</td>
</tr>
<tr>
<td>M4-R-25</td>
<td>Plug-in power module 25 kW</td>
</tr>
<tr>
<td>MOD-RP-SSC</td>
<td>Blank panel - Cover for empty slot</td>
</tr>
<tr>
<td>M4-BR-009L</td>
<td>4U battery rack 42 x 9 Ah with fuses and switch</td>
</tr>
<tr>
<td>M4-BR-009L-B</td>
<td>Empty 4U battery rack ready for 42 x 9 Ah, including interconnections, fuses and switch</td>
</tr>
<tr>
<td>M4-RP-RAIL</td>
<td>Adjustable rails for rack mounting support</td>
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<tr>
<td>CP-OP-ADC-SL</td>
<td>Plug-in board - Programmeable IN/OUT dry-contact + serial link</td>
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<td>NET-VISIONCARD</td>
<td>Plug-in board - NET VISION card WEB/SNMP interface IPV4/IPV6</td>
</tr>
<tr>
<td>NET-VISION-EMD</td>
<td>Environment temperature and humidity sensor + 4 input dry contacts</td>
</tr>
<tr>
<td>EEM-CP-TEMP</td>
<td>External temperature sensor</td>
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</table>

### Technical data

<table>
<thead>
<tr>
<th>MODULYS RM GP</th>
<th><strong>Model</strong></th>
<th>9U</th>
<th>15U</th>
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<tbody>
<tr>
<td><strong>Number of power modules</strong></td>
<td>1 to 2 x 25 kW</td>
<td>1 to 4 x 25 kW</td>
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<tr>
<td><strong>Configuration</strong></td>
<td>N, N+1 redundant</td>
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<tr>
<td><strong>Power (Sn)</strong></td>
<td>25 to 50 kVA</td>
<td>25 to 75 kVA</td>
<td></td>
</tr>
<tr>
<td><strong>Power (Pn)</strong></td>
<td>25 to 50 kW</td>
<td>25 to 75 kW</td>
<td></td>
</tr>
<tr>
<td><strong>Input/output</strong></td>
<td>3/3</td>
<td></td>
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</tr>
</tbody>
</table>

**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)
- **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**

- **Type**: 3U
- **Weight**: 34 kg
- **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 (V5-SS-111)
- **Product certification**: CE

### Innovative solution

- **Up to 4 x 25 kW.**
- **Highest rack-mounted UPS power density on the market.**
- **96% efficiency.**
- **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.**
- **Green Power 2.0 MODULYS RM GP module MTBF is calculated and verified 1,000,000 hours by SERMA TECHNOLOGIES (IEC 62380).**