# MODULYS RM GP

# Rack-mounted modular UPS system

from 25 to 75 kVA/kW



# 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

- Integration in 19" standard rack cabinets
- Computer rooms
- Data centers
- > Edge Computing
- > Banks
- > Healthcare facilities
- > Insurance
- > Telecom
- > Infrastructures

## **Certifications and attestations**



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

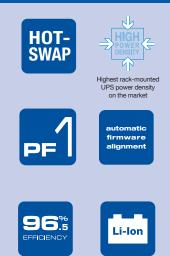
Green Power 2.0 MODULYS module efficiency & performance are tested and verified by TÜV SÜD.



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



#### Advantages



High efficiency minimises energy consumption and educes energy costs



# MODULYS RM GP Three-phase UPS from 25 to 75 kVA/kW

#### Standard electrical features

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

#### Technical data

Number of power modules

Model

#### 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.

1511

1 to  $4^{(1)}$  x 25 kW

MODULYS RM GP

911

1 to 2 x 25 kW

## 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.

#### 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+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 % < 1 % (linear load), < 3 % (non-linear load according to IEC 62040-3) Voltage distortion Short-circuit current up to 3 x In Overload 125 % for 10 minutes, 150 % for 1 minute Crest factor 3.1 HOT-SWAP BYPASS Rated output voltage ±15% (configurable from 10% to 20%) Voltage Frequency 50/60 Hz $\pm 2\%$ (configurable for GenSet compatibility) Weight 7.5 ka 7 ka EFFICIENCY (TÜV SÜD VERIFIED) Online double conversion mode up to 96.5% ENVIRONMENT 0 °C to 40 °C (15 to 25 °C for maximum battery life) Ambient temperature 0 to 95 % without condensation Relative humidity Maximum altitude 1000 m without derating (3000 m max) < 53 dBA Acoustic level at 1 m UPS BACK 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 ka 42 ka Degree of protection IP20 HOT-SWAP POWER MODULE Height 311 Weight 34 ka Hot plug-in/Hot-swappable Type > 1000000 hours (calculated and verified) MTBF HOT-SWAP BATTERY RACK Acid leak-proof - Long Life batteries Type 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

# Our dedicated Expert Services for UPS

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



(1) 4<sup>th</sup> module is for redundancy.



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# 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.



# MODULYS RM GP Three-phase UPS from 25 to 75 kVA/kW

#### 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
- 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 REN 155 E 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

