MASTERYS
4th generation digital native UPS from 60 to 160 kVA

Smart design for infinite possibilities
Increasing demand for critical power supplies

Digitalization is impacting every industry. Existing business models are changing, and every industrial sector is under pressure to rethink business processes in order to manage risk and reward – as well as leveraging the opportunity to increase scope and competitiveness. When an organization becomes digital, connectivity is greater than ever before and must be guaranteed. In the new electrical ecosystem, power continuity, reliability and optimized efficiency are key drivers of competitiveness – in an increasingly competitive world.
**MASTERYS** - A digital native proven technology protecting people and assets since 2004

The MASTERYS UPS range has been efficiently protecting the supply of critical applications around the world since its inception in 2004 as the first 3-level topology system. With more than 90,000 units deployed in the field across three generations, it is recognized as a high performance, ultra-reliable system – winning the trust, approval and certification from the most demanding users.

- **FIELD-PROVEN RELIABILITY**
  - 90,000+ UPS units operating in the field
- **FIRST IN INNOVATION**
  - 1st UPS in the market to adopt the 3-level technology (100-120 kVA)
  - 96% ultra-high UPS efficiency in VFI
- **ENVIRONMENTALLY FRIENDLY**
  - 700,000,000+ kWh of saved energy
  - 455,000+ tons of CO₂ emissions avoided
- **WIDER MIDI UPS INSTALLED BASE**
  - 2.3+ GW of installed power

Process control systems
IoT systems
Edge computing
Cloud service access

Smart Manufacturing
When intuitive design, intelligence and elegance collide to create infinite possibilities

**MASTERYS GP4**
from 60 to 160 kVA/kW

**MASTERYS BC+**
from 100 to 160 kVA
collide to create infinite possibilities

Performance beyond all expectations

- Continuity assured - without compromise
- Lowest electrical and cooling expenses
- Performance certified by independent body
- Designed to manage Lithium backup storage

Extremely reliable, robust and durable

- Completely designed and manufactured in Europe
  - Best in class and officially attested MTBF
    - Certified seismic resistance
  - Life extension program doubles life expectancy

Surprisingly clever

- Exclusive eWIRE APP for tutoring the installation
  - Native Digital & IoT ready for cloud services
- Aesthetics and ergonomics combine to simplify usage
- Large 7” touch screen display facilitates system control

Tailor-made - as standard

- Easy configurable for retrofit in existing installations
- Catalogue base flexibility to meet specific needs
- Fast delivery time for a fully personalized solution
- Ready for integration in LAN and Industry 4.0 ecosystem
The digital revolution demands a new level of performance. A true digital native, the fourth generation MASTERYS is a comprehensive offering that delivers the highest possible performance for the protection of mission critical equipment. Unique in the market, MASTERYS offers the optimum combination in terms of adaptability, simplicity of installation, operating efficiency, reliability, energy efficiency and reduced operating costs – and will support you through the digital transformation.

Enhanced performance without condition apply

- Unity input power factor.
- 96.5% efficiency in double conversion.
- 98% efficiency in “always on” mode.
- Full performance up to 40 °C without derating.

Flexible installation, fast deployment, reduced costs

- Increased power density up to 36%.
- 4 or 3-wire input connection.
- Distributed or shared battery.
- Excellent integration with generators.

Ready for new backup storage technology

- High capacity and adaptable charger.
- Li-Ion battery ready.
- Li-Ion capacitor ready.

Optimised maintenance operations

- Designed for 5 times lower MTTR.
- Completely front access maintenance.
- Remote diagnostic and monitoring services.

Anticipates changing eco-regulations

- Environmental friendly.
- RoHS compliant.
- Halogen-free cables.

Native digital solution

- Multiprocessor intelligent product.
- IoT ready and remote cloud services.
- eWIRE installation tutoring mobile app.

Aesthetically beautiful and ergonomic

- Fits with both hi-tech IT and EL environments.
- 7” touchscreen display: intelligent, intuitive and user-friendly.
- Easy access to detailed status information.
- User selectable HMI position.
- LED indicator bar for quick and easy detection of the system status and simplified troubleshooting.
Extremely reliable, robust and durable

**Designed and produced in Europe**

Our expertise in production and design - combined with the use of only the highest quality components and manufacturing processes operated by specialists in their field - means that our product reliability is unrivalled. Our rigorous testing systems and run-in processes prove it. The new MASTERYS range has been designed and produced in our European manufacturing facility, where attention to detail and quality - as well as customer service - have been at the heart of what we do for over 50 years.

**Superior certified reliability**

Reliability is the most critical factor for any UPS solution designed to protect and manage the continuity of activities and services. MASTERYS MTBF exceeds the market standard, and uniquely Socomec officially declares its MTBF data.

<table>
<thead>
<tr>
<th>MTBF</th>
<th>MTBF</th>
</tr>
</thead>
<tbody>
<tr>
<td>VFI</td>
<td>UPS</td>
</tr>
<tr>
<td>&gt; 300,000 hours</td>
<td>&gt; 10,000,000 hours</td>
</tr>
</tbody>
</table>

**Seismic resistant**

The 4th generation MASTERYS units have successfully passed severe tests to verify resistance to withstand seismic events. Tests have been performed by accredited laboratories according to the standards covering zones with the highest level of seismic activity: Zone 4. The test requires that the UPS system, working at full load and provided with floor fixing devices, must resist the stresses and the accelerations defined by the test protocol. When the test has been completed, the UPS must be intact and working perfectly.

**Life extension program**

MASTERYS GP4 excels in terms of reliability, efficiency and flexibility - crucial for optimum performance. Furthermore, it is now possible to extend the life of the UPS and eliminate end-of-life criticality as a result of an exclusive Socomec service. By performing a complete swap of aged internal parts - during a quick and simple operation - it is possible to leverage the innovative product architecture. This operation doubles product life - and removes the need to modify electrical plant, maximizing the investment in both the UPS as well as the electrical infrastructure.
Surprisingly clever

The installation and commissioning of any UPS is fundamental to ensuring reliability, functionality and optimized performance: it requires checks to ensure correct positioning, electrical connectivity, the correct sizing and battery protection.

To guarantee a correct installation and to ensure user safety, we have created a disruptive approach to the way that UPS are installed and are the first company in the world to provide an exclusive tutoring APP based on Augmented Reality technology.

Exclusive intuitive tutoring APP for a simplified installation

- Step by step support of the UPS installation.
- A report is produced automatically.
- Socomec’s Service Center fully supports and verifies the installation process.

Download on the App Store | Get it on Google Play
UPS recognition and data acquisition
Using Augmented Reality technology, eWIRE recognizes the UPS to be installed by simply focusing the UPS with the installer’s smartphone camera. All the device information will be automatically acquired by the app to properly manage the installation.

Cabling and connection
eWIRE provides step-by-step instructions to correctly position the UPS, verify electrical protection and guide the cabling of both the UPS and battery.

Verification of the installation
Nothing is left to chance: when the installation is complete, eWIRE guides the installer to perform a series of checks, including electrical measurements, to confirm that the installation has been carried out correctly.

Validation for commissioning
Once the installation is complete, eWIRE sends a detailed report to the Socomec Services Center to validate the installation report and authorize the commissioning to be performed by the Socomec Services team – for your complete peace of mind.
The new generation of MASTERYS equipment puts the customer’s needs first. With a tailor-made approach, it is possible to meet precise requirements from a high performance base solution - or to provide more general purpose solutions that represent excellent value, for every budget.

Both families - BC+ and GP4 - have been designed to be easily configured during order processing - making it easy to design for retrofit within existing installations or to replace obsolete UPS equipment.

**Ready to retrofit within existing installations**

- Suitable for the replacement of obsolete UPS.
- Reduced footprint saving valuable space.
- Reduced rear clearance distance and no side clearance distance.
- 3W+N/3W input compatibility.
- Flexible battery voltage.

**Exceptional flexibility - to meet specific needs**

- Complete catalogue-base set of options.
- Seismic fixing kit.
- Top cabling kit.
- Top ventilation kit.
- Extra battery charger option.
- Common or separate input mains.
- IP21 degree of protection.
- Redundant cooling.

**Ready for the digital transformation**

- Advanced power management.
- Proactive remote monitoring.
- IoT ready by secure gateway.
- Cloud services.
- eWIRE mobile APP.

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### Technical data

#### MASTERYS GP4

High performance UPS solution from 60 to 160 kVA/kW

<table>
<thead>
<tr>
<th>Sn [kVA]</th>
<th>60</th>
<th>80</th>
<th>100</th>
<th>120</th>
<th>160</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pn [kW]</td>
<td>60</td>
<td>80</td>
<td>100</td>
<td>120</td>
<td>160</td>
</tr>
<tr>
<td>Input / output</td>
<td>3/3</td>
<td>3/3</td>
<td>3/3</td>
<td>3/3</td>
<td>3/3</td>
</tr>
<tr>
<td>Parallel configuration</td>
<td>up to 6 units: scalability or redundancy</td>
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**Output**

- Power factor: 1 (according to IEC / EN 62040-3)
- Efficiency (TÜV SÜD verified)
  - Double conversion VFI mode: up to 96.5%
  - Always On Mode / Eco Mode: up to 99%

**Back-up**

- Technologies: VRLA, NiCd, Li-ion Battery, Li-ion Capacitor
- Configuration: separate or shared

**HMI (Human Machine Interface)**

- Display: 7" touch screen
- IoT: ready for cloud services

**Environment and special features**

- Operating ambient temperature: up to +40 °C without condition apply
- RoHS: fully compliant with RoHS EU directive
- Seismic compliance: on demand according to Uniform Building Code UBC-1997 Zone 4
- MTBF (hrs, attested): > 300,000 hrs

**UPS cabinet**

<table>
<thead>
<tr>
<th>Dimensions (mm)</th>
<th>W</th>
<th>600</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>D</td>
<td>855</td>
</tr>
<tr>
<td></td>
<td>H</td>
<td>1400</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>174</td>
<td>186</td>
</tr>
<tr>
<td>Colours</td>
<td>RAL 7016</td>
<td></td>
</tr>
</tbody>
</table>

**Advanced service performance**

- Life extension: service program to avoid end of life
- Quick repair: 5 times less MTTR by removable front access key parts

#### MASTERYS BC+

General purpose UPS solution from 100 to 160 kVA

<table>
<thead>
<tr>
<th>Sn [kVA]</th>
<th>100</th>
<th>120</th>
<th>160</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pn [kW]</td>
<td>90</td>
<td>108</td>
<td>144</td>
</tr>
<tr>
<td>Input / output</td>
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</tr>
</tbody>
</table>

**Output**

- Power factor: 0.9 (according to IEC / EN 62040-3)
- Efficiency (TÜV SÜD verified)
  - Double conversion VFI mode: up to 95%
  - Always On Mode / Eco Mode: up to 99%

**Back-up**

- Technologies: VRLA, NiCd, Li-ion Battery, Li-ion Capacitor
- Configuration: separate or shared

**HMI (Human Machine Interface)**

- Display: graphical LCD
- IoT: ready for cloud services

**Environment**

- Operating ambient temperature: up to +35 °C without condition apply
- RoHS: fully compliant with RoHS EU directive
- Seismic compliance: on demand according to Uniform Building Code UBC-1997 Zone 4

**UPS cabinet**

<table>
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<td>1400</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>220</td>
<td>232</td>
</tr>
<tr>
<td>Colours</td>
<td>metallised Grey E150HVR</td>
<td></td>
</tr>
</tbody>
</table>

**Advanced service performance**

- Quick repair: 5 times less MTTR by removable front access key parts
Your uptime, our priority

The primary goal of every UPS system is to ensure maximum power availability. Every organisation concerned with the protection of people and assets - and business continuity - wants to detect issues before they arise, react quickly when a problem occurs and reduce the MTTR as far as possible.

How? By simply combining the 4th generation MASTERYS with cloud-based remote diagnosis - and a customised Service Level Agreement - your uptime is guaranteed.

Remote Diagnosis & Services
Continuous remote monitoring prevents problems before they occur and reduces the MTTR - increasing uptime. LINK-UPS provides a permanent connection between MASTERYS, the Socomec Cloud and the nearest Socomec Service Centre. Designed to provide 24/7 support to guarantee availability - and avoid costly downtime.

The benefit of LINK-UPS:
- instant notification
- proactive remote diagnosis
- immediate Technical Support intervention.

Service Level Agreement
A rapid response to unforeseen events is vital in terms of guaranteeing business continuity - and minimising costly downtime. MASTERYS Maintenance Service Packages combine the advantages of preventive maintenance with emergency response and can be accessed by upgrading during the warranty period in order to maximise operational uptime.

The benefit of the Service Level Agreement:
- priority hotline,
- emergency service 24/7,
- response Time to Site up to 4 hours.

Enhanced Service Performance
Guaranteed protection - and maximum availability - is dependent on simple maintenance processes and the availability of spare parts. MASTERYS has been engineered specifically for ease - and speed - of maintenance. All spare parts are available in-stock, ready to be fast-tracked to site for rapid remedial action.

The benefit of the MASTERYS design:
- advanced component swap,
- enhanced First Time Fix Rate,
- on site repairs 5x faster than standard UPS.

Global presence
Nearly 400 Socomec experts - supported by 200 distributor engineers and technicians - will solve your specific requirements.

Our global presence includes:
- 10 branches in France,
- 12 European subsidiaries,
- 8 Asian subsidiaries,
- representation in 70+ countries.

Find out more:
www.socomec.com/services
Socomec: our innovations supporting your energy performance

1 independent manufacturer
3,200 employees worldwide
10% of sales revenue dedicated to R&D
400 experts dedicated to service provision

Your power management expert

- Energy quality
- Energy availability
- Energy storage
- Prevention and repairs
- Measurement and analysis
- Optimisation
- Consultancy, commissioning and training

The specialist for critical applications

- Control, command of LV facilities
- Safety of persons and assets
- Measurement of electrical parameters
- Energy management
- Measurement of electrical parameters
- Energy management
- Prevention and repairs
- Measurement and analysis
- Optimisation
- Consultancy, commissioning and training

A worldwide presence

8 production sites
- France (x3)
- Italy
- Tunisia
- India
- China (x2)

27 subsidiaries
- Australia
- Belgium
- China
- France
- Germany
- India
- Italy
- Netherlands
- Poland
- Romania
- Singapore
- Slovenia
- Spain
- Switzerland
- Thailand
- Tunisia
- Turkey
- UK
- USA

80 countries where our brand is distributed