

# ***MASTERYS BC+***

UPS from 10 to 160 kVA

Prime



When **energy** matters

 **socomec**  
Innovative Power Solutions

## The solution for

SME IT networking / computer rooms  
Building automation  
Control room  
Emergency service  
Payment system  
Public sector  
Security control





# Socomec at the forefront of innovation

## Socomec and UPS: more than 50 years of history

Critical equipment requires high quality energy which, in turn, depends upon a faultless - continuous - power supply. Our Uninterruptible Power Systems (UPS), Static Transfer Systems (STS) and AC/DC converters make up the most innovative and comprehensive product portfolio in the industry, covering a wide range of applications and meeting the unique and exacting requirements of every sector.

The new three phase, medium power UPS MASTERYS range has been designed in our European centre of excellence. Produced in our European manufacturing facility, our attention to detail and focus on quality – as well as customer service - have been at the heart of what we do for over 50 years.



## European design and production

Socomec's products are designed and developed by our talented team of in-house engineers with their real depth and wide knowledge in power electronics and digital controls.

Our expertise in manufacturing - combined with the use of only the highest quality components in the most efficient production and testing processes – means that when it comes to reliability our products are unrivalled.

## Socomec factories join the digital world

Since 2014, Socomec has been investing to bring its manufacturing facilities in line with industry 4.0 standards. Beyond lean manufacturing, the digitalisation of production means that we can ensure the delivery of a competitive offering with continuously improving service levels whilst also supporting the creation of more personalised products.



## Factory Acceptance Test (FAT)

The FAT service is available to all customers who want to audit their order before it leaves the factory. With the support of Socomec Platform Engineers and dedicated infrastructure, several live product tests are available, including:

- standard tests to verify product performance,
- custom tests according to your precise requirements.

# MASTERYS range

Proven technology protecting people and assets since 2004

Every organisation is concerned with the protection of people and assets whilst guaranteeing business continuity.

Since its inception in 2004, the MASTERYS UPS, medium power UPS, has been protecting the supply of critical applications around the world as the first high efficiency 3-level topology system.

With more than 95,000 units deployed in the field across three generations, it is recognised as a high performance, ultra-reliable system – winning the trust, approval and certification from the most demanding users.

The 4<sup>th</sup> generation of **MASTERYS** has arrived...



General purpose UPS solution  
**MASTERYS BC+**  
from 10 to 160 kVA



High performance UPS solution  
**MASTERYS GP4**  
from 10 to 160 kVA / kW

## The **MASTERYS** track record

### FIELD-PROVEN RELIABILITY



**95,000+**  
units operating  
in the field

### WIDER MIDI UPS INSTALLED BASE



**2.5+ GW**  
of installed power

### FIRST IN INNOVATION



**1<sup>st</sup> UPS**  
in the market  
3-level technology  
96 % high efficiency

### ENVIRONMENTALLY FRIENDLY



**1,050,000.000+ kWh**  
of energy savings  
**500,000+ tons**  
of CO<sub>2</sub>  
emissions avoided

### DIGITAL PIONEER



World-first  
**installation**  
**AR tutoring**  
application

# MASTERYS BC+

UPS from 10 to 160 kVA

Trustworthy power



The new generation of MASTERYS BC+ is a cost effective solution that's easy to configure and order, and has been designed to meet specific customer needs within SMEs, commercial, light industrial and public sector organisation. Thanks to an innovative approach - based on modern web and mobile digital tools - every step of the life cycle has been simplified. From the upstream product selection stage and configuration, to the sizing, installation and optimisation of the operation, this new system delivers easyness and effectiveness to every hard-working infrastructure.



## Flexible and cost-effective solution

- Compact range of standard product references with a variety of add-on options to adapt to every customer's site.
- Easy to retrofit within existing installations.
- Fully equipped with input, output and manual bypass breaker in standard models.
- "Flex" model overcome space and installation constraints with "3-in-1" solution.



## Long autonomy engineered-in

- Several optimised choices for standard internal battery configuration.
- Increased internal battery density for reduced footprint and simplified installation.
- Internal basic autonomy available up to 80 kVA - without additional - external battery cabinets.
- High recharging current option for very long autonomy.



## Embedded digital technology

- Digital Native UPS generation.
- IoT ready device for access to connected services.
- Easy integration in LAN/WAN and virtual environment.



## Fast professional installation – made simple

- Wide UPS range 10-160 kVA with unified performance and functionality.
- Free web sizing tool eRULER to obtain physical and electrical information in advance before installation.
- Tutored UPS installation with eWIRE mobile application.
- Easy to get online product documentation by simply inputting the Serial Number.



## Fast delivery time

- "Fast track manufacturing" option available for urgent projects or last-minute requirements.
- Fast delivery time even for deeply personalised configurations thanks to set of fast combinable options.



## User and environmentally friendly

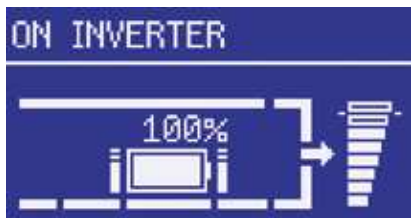
- 25+ languages available in the mimic panel.
- Ergonomics designed to simplify usage.
- Anticipates eco-regulations and RoHS compliant.
- Units provided with wheel for easy positioning.



# Designed for ease of integration and use

## Mimic panel

- Streamlined LCD interface for easy UPS monitoring.
- Large colored LED bar to indicate the UPS status.
- Intuitive interface for all - even less specialist users.



## Optional communication interface



### Net Vision

Ethernet interface for remote UPS monitoring via Web browser and server-based workstations shutdown management.

### EMD (Environmental Monitoring Device)

- Temperature and humidity measurements.
- Inputs and alarms from other devices.
- Environmental alarm notification by e-mail.

### Advanced communication board

The dry contacts interface enables signaling and control by 3 digital inputs and 4 relay outputs.

### Modbus TCP card

Communication cards are compliant with popular Modbus industrial communication protocol.

### BACnet card

BACnet card (Building Automation and Control) is compliant with the ISO 16484-5 standard protocol. It permits the management of UPS integration in building automation and control systems.

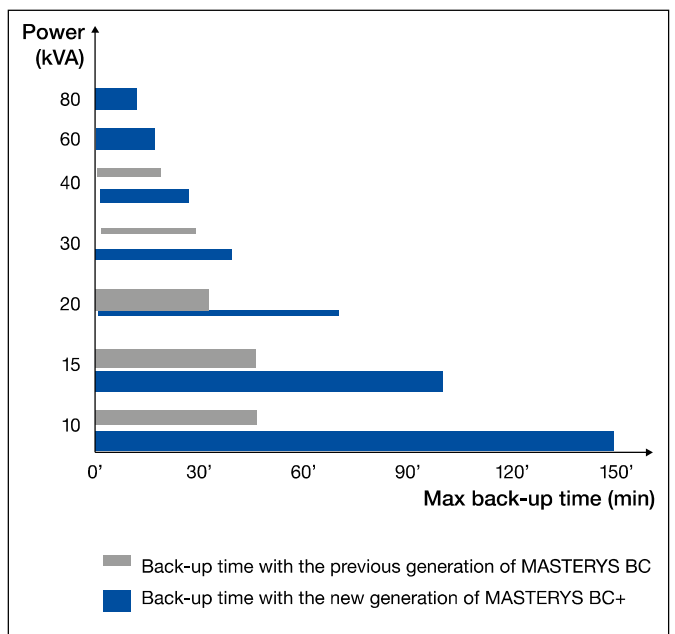
## Battery shelves

### High quality battery

Only the highest quality batteries are used within Socomec UPS. This means that battery durability is optimised and that performance can be guaranteed over time.

### Battery protected for maximum safety

To ensure safety around the UPS, the batteries are protected by retention tanks to prevent any acid leakage.



Best in class internal battery autonomy.

# Flex solution ; finally a system that fits every space

Those responsible for the installation of a new UPS typically face a range of constraints. From floor area, to the height of the electrical room, the positioning of existing electrical equipment or the presence of additional furniture the role of the installer is to overcome such challenges within each unique operating environment.

To support skilled engineers through this installation process, Socomec has designed an extremely flexible solution that can be placed and positioned in 3 different ways for maximum versatility.



## Front access

Everything is accessible via the front of the system for quick and easy handling: switches, mimic panel, communication board.



## Rotation of the mimic panel

Positioned vertically or horizontally, the mimic panel can be rotated to enable the information displayed to be read easily.



## Self-adaptive according to size

With the UPS mounted on top of the battery cabinet, the unit adapts itself to the available width with the addition of side brackets.

## Flex-UPS

Choose the perfect configuration at the last minute - on-site - with Flex-UPS, the first device that adapts to the environment rather than requiring the environment to adapt to the device. Three positioning choices are available depending upon the technical room space and the type of battery frame. Flex-UPS delivers a unique freedom to get building UPS and battery solution.



### 1: Free-standing

Adaptable to the available space



### 2: Wall-mounted

Zero floor space



### 3: Top mounted

Easy built-in solution

# The support and proximity at the heart of Socomec's values

The correct installation sizing and execution of any UPS are fundamental to ensure reliability, functionality and optimised performance. To go a step further – and with a view to supporting consultants and electrical installers in their day to day activity - we have developed a disruptive approach to the way that UPS equipment is sized and installed. Socomec is the first company on the market to provide a complete web sizing tool and a tutoring application based on Augmented Reality technology. This guarantees the correct installation and safe operation of the UPS – providing an unique level of support for which we have become renowned.



## UPS installation automatic sizing

### Run a configuration

eRULER is a free application accessible on a laptop, tablet and smartphone. It's easy to make a new configuration by simply selecting the power size, voltage and UPS performance level.

### Information gathering

eRULER provides information for installation planning:

- Electrical diagram,
- UPS dimensions,
- protection sizing,
- terminal type,
- heat dissipation.

### Detailed technical documents

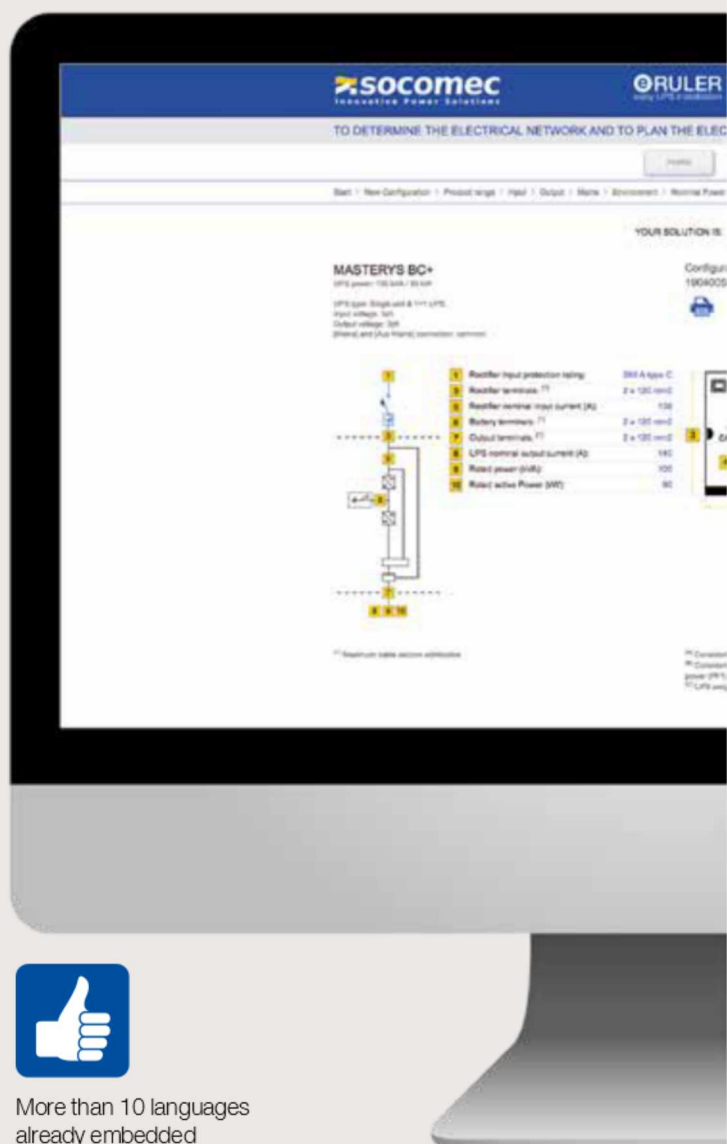
Providing easy access to the complete suite of documentation, eRULER makes it possible to download the technical library and reference material for the specific UPS model in question.

### Request for quotation

To complete the process, it's also possible to submit a direct request for quotation.



[ups-ruler.com](http://ups-ruler.com)







More than 20 languages  
already embedded



## Exclusive intuitive tutoring APP for a simplified installation

### 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.



Activation code:

Contact the nearest agency to find out the availability of this service.

# MASTERYS BC+ product specification

## Performances

Product form factor	Flex mounting (top, wall and free standing)					Enclosure cabinet type S B M T according battery configuration									
Sn [kVA]	10	15	20	30	40	10	15	20	30	40	60	80	100	120	160
Pn [kW]	9	13.5	18	27	36	9	13.5	18	27	36	54	72	90	108	144
Input / output 3/1	•	•	•			•	•	•							
Input / output 3/3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Parallel configuration	up to 6 units: scalability or redundancy
<b>Input</b>	
Rated voltage	400 V 3ph+N (3 wire input also available on demand)
Voltage tolerance	240 V to 480 V
Rated frequency	50/60 Hz ± 10 %
<b>Output</b>	
Power factor	0.9 (according to IEC / EN 62040-3)
Rated voltage	3ph + N: 400 V (can be configured 380/415 V)
Rated frequency	50/60 Hz
<b>Efficiency (TÜV SÜD verified)</b>	
Double conversion VFI mode	up to 95 %
Eco Mode	up to 99 %
<b>Back-up</b>	
Technologies	VRLA, NiCd
Configuration	internal or external
<b>Environment and special features</b>	
Operating ambient temperature	up to +35 °C without condition apply
<b>Standards</b>	
Safety	EMC IEC/EN 62040-1, AS 62040.1.1, AS 62040.1.2
Performance	IEC/EN 62040-3, AS 62040.3
Environmental	full compliance with the RoHS EU directive
Seismic compliance	on demand, in accordance with the Uniform Building Code UBC-1997 Zone 4
Product declaration	CE, RCM (E2376)

## Standard

### System features

- Dual input mains (above 20 kVA).
- Internal maintenance bypass switch.
- Output switch breaker.
- Auxiliary mains switch breaker.
- Backfeed protection: detection circuit.
- Power walk-in ramp for excellent compliance with generators.
- Normal life internal battery.

### Communication features

- 3,5" graphical multilanguage display.
- 2 Com-Slots for communication options.
- USB port to download log file.
- Ethernet port for service purpose.

## Options






### System features





- 3-phase input without neutral.
- Internal backfeed isolation device.
- Common mains coupling bars.
- TN-C grounding system.
- ACS synchronisation system.
- IP21 degree of protection.
- Top cabling kit.
- Top ventilation kit.
- High capacity battery charger.
- Free standing kit (Flex).
- Top mounted kit (Flex).

### Communication features

- Dry-contact interface (configurable voltage-free contacts).
- MODBUS RTU RS485 or TCP.
- PROFIBUS / PROFINET gateway.
- 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.

## Physical & battery data

		 WASTE 093		 WASTE 092		 WASTE 095		 WASTE 094		 WASTE 095		 WASTE 092							
		<b>B3</b>		<b>M3</b>		<b>M4</b>		<b>S4</b>		<b>M4</b>		<b>T6</b>							
Model		10-20						30-40						60-80					
Backup battery		internal batteries																	
Battery type		normal life																	
IP degree of protection		IP20 (IP21 on demand)																	
Colours		metallised Grey E150HVR																	
Display		3.5"																	
Dimensions (mm)	W	370		370		444		444		444		600							
	D	803		803		793		793		793		855							
	H	1170		1360		1400		800		1400		1930							
Max back-up time (minutes)																			
Power (kVA / kW)		100 %	80 %	Typical	100 %	80 %	Typical	100 %	80 %	Typical	100 %	80 %	Typical	100 %	80 %	Typical	100 %	80 %	Typical
10		17	22	29	26	36	46	90	100	120	-	-	-	-	-	-	-	-	-
15		10	13	19	17	22	30	46	68	90	-	-	-	-	-	-	-	-	-
20		6	9	13	12	15	21	35	45	66	-	-	-	-	-	-	-	-	-
30		-	-	-	-	-	-	-	-	-	6	9	12	21	28	39	-	-	-
40		-	-	-	-	-	-	-	-	-	4	6	9	15	20	27	-	-	-
60		-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	13	19	
80		-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	9	12	

		 WASTE 097	 WASTE 096	 WASTE 093	 WASTE 092
		<b>FLEX</b>	<b>M4</b>	<b>M6</b>	<b>T6</b>
Model		10-40	60-80	100-120	160
Backup battery		external batteries			
Battery type		normal life			
IP degree of protection		IP20 (IP21 on demand)			
Colours		metallised grey E150HVR			
Display		3.5"			
Dimensions (mm)	W	442	444	600	600
	D	812	793	855	855
	H	304	1400	1400	1930



# Proximity and expertise to support your business



## Link-UPS: remote monitoring connected service

Continuous remote monitoring prevents problems before they occur and reduces the overall MTTR – increasing the application's uptime. Link-UPS Service provides a permanent connection between MASTERYS UPS and the nearest Socomec Service Centre. This service is designed to provide 24/7 support in order to guarantee availability and avoid costly downtime.

### Benefits of Link-UPS

- Instant, real-time notification of anomalies.
- Proactive remote expert diagnosis.
- Immediate Technical Support intervention with appropriate and original spare parts.

### Regular checks and reports

- 24/7 data collection.
- Periodic remote checks.
- Periodic reports with technical recommendations.

## Expert services

Our technicians' expertise and proximity are fundamental to ensure equipment reliability, durability and optimised performance.

Socomec offers a comprehensive support service package:

- commissioning,
- on-site testing,
- certified preventive maintenance visits,
- 24-hour call out and rapid on-site repairs,
- genuine spare parts,
- power quality and energy efficiency audits.



## Global presence

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

Our global presence includes:

- 3 advanced technical support center,
- 12 European subsidiaries,
- 8 Asian subsidiaries,
- representation in 70+ countries.

Find out more:

[www.socomec.com/services](http://www.socomec.com/services)



QR CODE 200 A GB

Subsidiaries

Distributors

Contact us



CARTE 000 A

## On-site service management

- 65,000 service operations per year (mainly preventive visits).
- 98 % Service Level Agreement compliance rate.



APPLI 571 A

## Technical hotline network

- 20+ languages spoken.
- 3 advanced technical support centres.
- 100,000+ incoming calls handled per year.



SITE 500 A

## Certified expertise

- 5,000 hours of technical training deployed per year (product, methodology and safety).



CCP000 200 A

# Socomec: our innovations supporting your energy performance

**1** independent manufacturer

**3,600** employees  
worldwide

**10** % of sales revenue  
dedicated to R&D

**400** experts  
dedicated to service provision

## Your power management expert



POWER  
SWITCHING



POWER  
MONITORING



POWER  
CONVERSION



ENERGY  
STORAGE



EXPERT  
SERVICES

## The specialist for critical applications

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

## A worldwide presence

**12** production sites

- France (x3)
- Italy (x2)
- Tunisia
- India
- China (x2)
- USA (x3)

**28** subsidiaries and commercial locations

- Algeria • Australia • Belgium • China • Canada
- Dubai (United Arab Emirates) • France • Germany
- India • Indonesia • Italy • Ivory Coast • Netherlands
- Poland • Portugal • Romania • Singapore • Slovenia
- South Africa • Spain • Switzerland • Thailand
- Tunisia • Turkey • UK • USA

**80** countries

where our brand is distributed

### HEAD OFFICE

#### SOCOMECH GROUP

SAS SOCOMECH capital 10 633 100 €  
R.C.S. Strasbourg B 548 500 149  
B.P. 60010 - 1, rue de Westhouse  
F-67235 Benfeld Cedex  
Tel. +33 3 88 57 41 41 - Fax +33 3 88 57 78 78  
info.scp.isd@socomec.com

### YOUR DISTRIBUTOR / PARTNER

[www.socomec.com](http://www.socomec.com)

