MASTERYS GP4

UPS from 10 to 160 kVA/kW

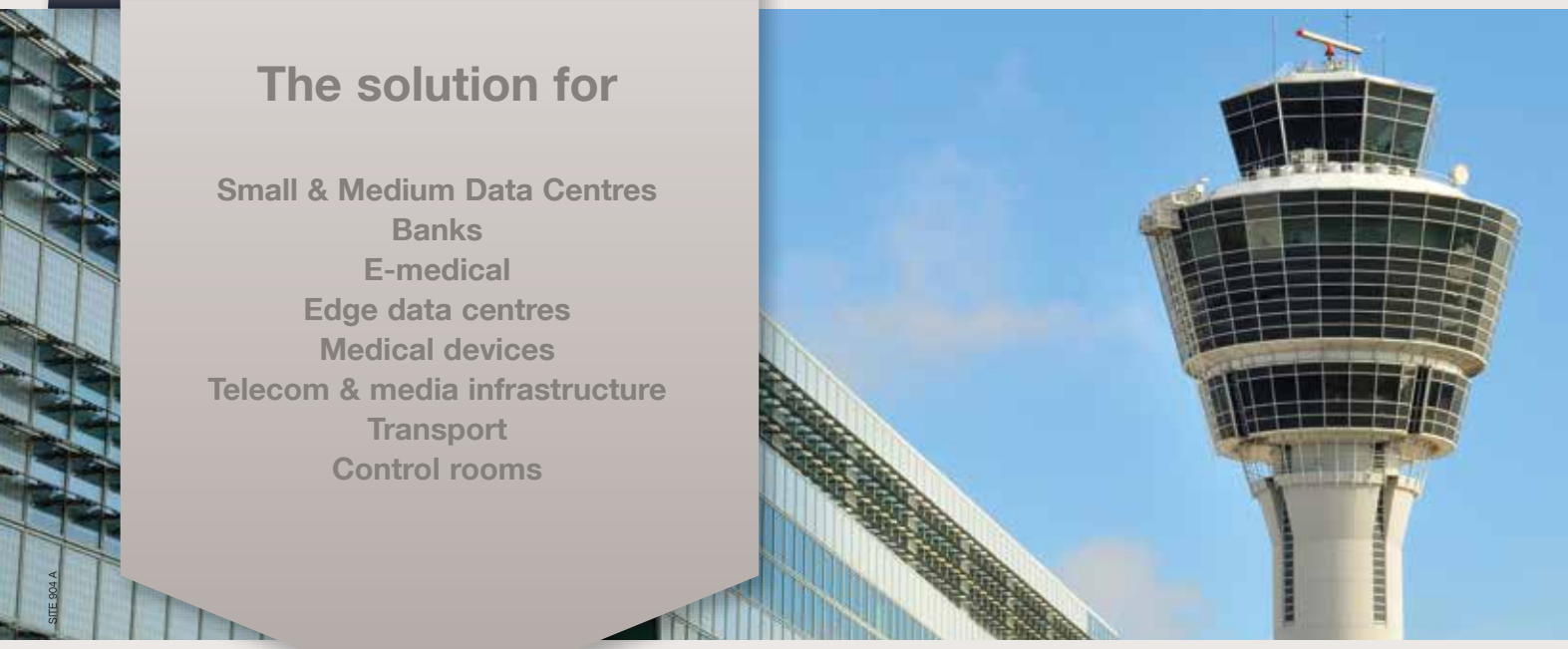
Superior

When **energy** matters

socomec
Innovative Power Solutions

The solution for

Small & Medium Data Centres
Banks
E-medical
Edge data centres
Medical devices
Telecom & media infrastructure
Transport
Control rooms


SITE 904 A


SITE 1019 A


SITE 1021 A

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.

SITE 1020 A

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.

APPLI 815 A

APPLI 730 A

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 4th 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

Midi UPS

2.5+ GW
of installed power

FIRST IN INNOVATION

1st 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_2
emissions avoided

DIGITAL PIONEER

World-first
installation AR tutoring
application

MASTERYS GP4

UPS from 10 to 160 kVA/kW

Unrivalled power performance

Every industry is increasingly reliant upon critical systems, for both the significant value they create and the disruption that they prevent. When downtime is simply not an option, Socomec has developed the MASTERYS GP4; the most advanced medium power monolithic UPS solution. With reliability engineered-in - to guarantee uptime, innovative features - to maximise energy efficiency and intelligent capability -fit for the future.

Superior design and reliability

- Oversized design margin: reliability first.
- Certified seismic resistance.
- Superior and officially attested MTBF.
- Long product life expectancy.

Certified performance

- Full performance up to 40 °C without derating and without condition applied.
- Energy savings - without compromise: 96.5 % efficiency in VFI.
- Up to 99 % efficiency in “ECO” mode.
- Performance tested and verified by TÜV SÜD.

Unrivalled serviceability

- Innovative maintenance thanks to brick architecture.
- Rapid repairs 5 time faster than legacy UPS.
- Totally front access maintenance.
- 3+ years warranty with connect package.

Extended and flexible backup time

- High density internal battery engineering dramatically reduces footprint.
- Internal battery available up to 80 kW model.
- Fast recharge - even for very long autonomy.
- Li-Ion battery technology-ready.

Embedded digital technology

- IoT-ready device for access to connected services.
- Mobile application eWIRE for AR guided installation and reporting.
- Mobile application SoLive UPS for remote control and anomaly notification.
- Easy integration in LAN/WAN and virtual environment.

User and environmentally friendly

- 25+ languages embedded on the mimic panel.
- Ergonomics designed to simplify usage.
- Anticipates eco-regulations and RoHS compliant.
- 20+ add-on options.

Your uptime, our priority

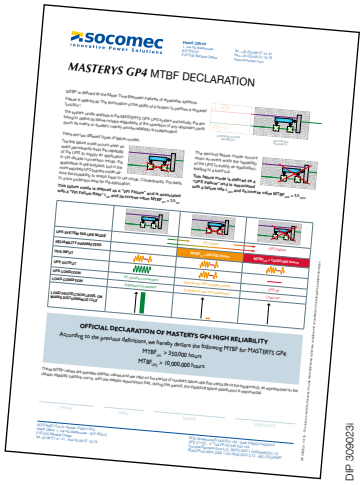
Designed for availability

The primary goal of every UPS system is to ensure power availability. To achieve maximum system availability, it is necessary to deliver high reliability (MTBF) and to reduce repair times (MTTR) as much as possible.

$$\text{Availability} = \left(1 - \frac{\text{MTTR}}{\text{MTBF}}\right)$$

Reliability is the most critical factor in the design and manufacture of any UPS. The end result is a combination of know-how, design margin and material quality along with excellence throughout the production process.
The MASTERYS GP4 range exceeds the market standard with a MTBF VFI* officially certified over 350.000 hours.

** VFI (Voltage and Frequency Independent) is the only UPS working-mode that assures total load protection against all possible mains quality problems.*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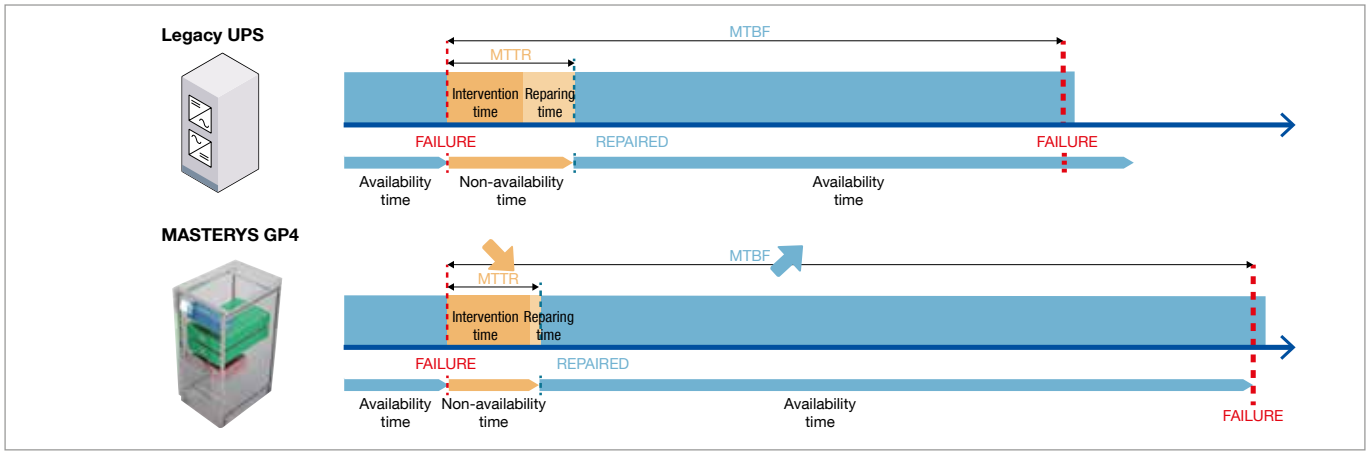
Innovative Power Solutions
MASTERYS GP4 MTBF DECLARATION
OFFICIAL DECLARATION OF MASTERYS GP4 HIGH RELIABILITY
DIP 309023i



GREEN 244 A GB

Even though high reliability limits the likelihood of failure, it is essential to respond quickly to unforeseen events in order to guarantee continuity and minimise the risk of downtime. The proximity of a service technician is vital to ensure rapid repair. Furthermore, both UPS design and construction are critical success factors when it comes to serviceability and performance.
That's why MASTERYS GP4 has been specifically engineered for safe and fast maintenance by advanced brick replacement - with on site repairs 5x faster than standard UPS and an enhanced First Time Fix Rate.

Seismic resistant


Test Report
CESI
GREEN 243 A

MASTERYS GP4 units have successfully passed severe testing programmes to verify their 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.

Withstand
Zone 4
seismic activity

MASTERYS GP4 RK

Tailored protection for Edge computing

Whilst organisations are outsourcing to colocation and cloud service providers, they are also investing heavily in local Edge computing for new and evolving needs: data security, analytics, maintaining control of mission-critical applications, IoT development programmes, virtual and augmented reality experience.
5G cellular networks will increasingly rely on Edge IT technologies to enable applications such as the Internet of Things, autonomous vehicles and smart cities. Edge solutions can provide faster data analysis – as close as possible to the data source.
To play a part in this movement – and to achieve expected system availability – industry must transition to a new distributed architecture and invest in technologies that are wholly reliable and designed to support future evolutions.

APPLI 937 A

Accompanied by cooling capability and a server, Socomec's UPS solution perfectly suits this application thanks to ultra-high reliability, considerable power density and a front access rack-mounted structural design.

APPLI 941 A

Ultra-high reliability

- MTBF VFI > 500.000 hours.
- MTBF UPS > 12.000.000 hours.
- MTTR ≈ 30 min (compared to 6 hours with current technologies).

Engineered for easy integration

UNIQUE ON THE MARKET

- Fits within existing 19" cabinet.
- Lithium battery option.
- Front access operation.

Front access maintenance

- Easy maintenance - innovative brick swap architecture.
- Power brick replacement without rack disconnection.
- Safe guided fixing procedure.
- Minimized risk of human error.

Learn more about Edge application by watching our videos on YouTube: bit.ly/mgp4-edge-en

Tailor-made as standard

The new generation of MASTERYS GP4 equipment puts the customer's needs first. With a tailor-made approach, it is possible to meet the precise requirements or specific installation constraints with a high performance solution at the core. What makes the difference? It's easy to configure the final solution by choosing from a large catalogue of base options. The manufacturing plant is organised to remain efficient, whilst managing product personalisation and guaranteeing very short lead times.

SYDV 596 A

Designed for optimisation

- Compatibility with existing installation.
- Reduced footprint saving valuable space.
- Reduced rear clearance and no side clearance.

Designed for flexibility

UNIQUE ON THE MARKET

- 20+ options of brick and accessory.
- Flexible battery run-time and type.
- Parallel configuration up to 6 units.
- Easy integration into the IT LAN.

Designed for adaptability

- Common or separate input mains.
- 3W+N/3W input compatibility.
- TN-C/TN-S/IT/TT grounding compatible.
- IP21 degree of protection.

Compatibility with Li-Ion battery technology for the most demanding applications

MASTERYS GP4, fully compatible with the Li-Ion Battery, when connected, includes an interactive control system to check and manage all the Li-Ion cells and system parameters. The UPS interactivity guarantees the most reliable performance and improves the system's availability by:

- ensuring proper and faster charging of the Li-Ion battery cells,
- preventing any irreversible overcharge failure,
- performing automatic corrective actions in case of any critical conditions that can affect battery performance.

HIGH POWER DENSITY	High power/energy density	»	More space for servers & IT
10 + YEARS	Longer life span	»	Save replacement costs
40 °C	Higher working ambient temperature	»	CAP & OPEX savings
	Short recharge time High cycling capacity	»	Higher UPS availability
WWW	Embedded monitoring	»	Increased reliability
	Eco friendly	»	Suitable for green data centres

Li-Ion batteries deliver significant advantages in UPS applications, thanks to the considerable reduction in weight and floor space for the same runtime, fast recharge times and their long cyclic and calendar lifetime. Moreover, Li-Ion batteries are less sensitive to higher temperatures and require less cooling – therefore reducing associated energy costs.

All connected for the ultimate control and a better experience

Installation with eWIRE

eWIRE mobile app makes installations simple with step-by-step instructions to ensure the correct positioning of the UPS as well as the verification of electrical protection - eWIRE even guides the cabling of both the UPS and battery.
Using Augmented Reality technology, eWIRE recognises the UPS being installed by simply focusing the UPS with the smartphone's camera. Once the installation is complete, eWIRE sends a detailed report to the Socomec Service Centre to validate the installation and authorise the commissioning, performed by the Socomec Services team.
eWIRE provides the foundations to assure optimised and long lasting functionality.

To use this application, simply contact a Socomec sales representative, request an activation code and dowload the app.

Download on the App Store

GET IT ON Google Play

Activation code:

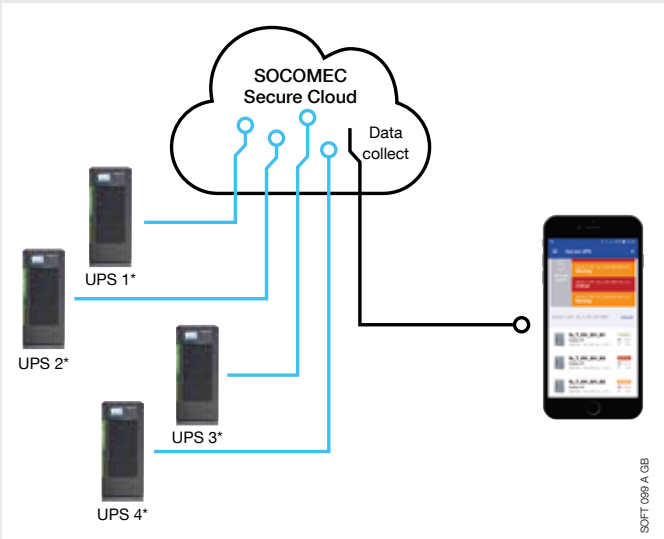
Operation with SoLive UPS

SoLive UPS is a mobile app that provides a permanent connection between the UPS and the user's mobile phone – either the IT or Facilities Manager – using Socomec cloud platform services. The mobile app automatically reports the latest status of your installed UPS, displays alarms and displays instant notifications of any unexpected event:

- current status of the UPS,
- battery level,
- battery back-up time in minutes,
- UPS operating temperature.

Download on the App Store

GET IT ON Google Play



** SoLive UPS requires a gateway to be installed in the UPS (provided by Socomec) and the appropriate LAN on site to connect the UPS to a proprietary cloud server.*

MASTERYS GP4 product specification

Performances

Product form factor	Rack 19" 7U					Enclosure cabinet type S M T according battery configuration									
Sn [kVA]	10	15	20	30	40	10	15	20	30	40	60	80	100	120	160
Pn [kW]	10	15	20	30	40	10	15	20	30	40	60	80	100	120	160
Input/output 3/1	•	•	•	-	-	•	•	•	-	-	-	-	-	-	-
Input/output 3/3	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

Parallel configuration	up to 6 units		
Input			
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%		
Output			
Power factor	1 (according to IEC/EN 62040-3)		
Rated voltage	1ph + N: 230 V (can be configured 220/240 V) 3ph + N: 400 V (can be configured 380/415 V)		
Rated frequency	50/60 Hz		
Efficiency (TÜV SÜD verified)			
Double conversion VFI mode	up to 96.5%		
Eco Mode	up to 99%		
Back-up			
Technologies	VRLA, NiCd, Li-Ion Battery		
Configuration	external	internal or external	external
	separated or shared		
Reliability (MTR)			
MTBF (VFI)	> 500,000 hrs (attested)	> 350,000 hrs (attested)	
MTBF (UPS)	> 12,000,000 hrs (attested)	> 10,000,000 hrs (attested)	
Environment and special features			
Operating ambient temperature	full performance up to +40 °C without condition apply		
Advanced service performance			
Life extension	service program to avoid end of life		
Quick repair	5 times less MTTR by removable front access parts		
Standards			
Safety	IEC/EN 62040-1		
EMC	IEC/EN 62040-2		
Performance	EN 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, EAC		

Standard

System features

- Dual input mains.
- Internal maintenance bypass switch.
- Input mains switch breaker.
- Output switch breaker.
- Auxiliary mains switch breaker.
- Backfeed protection: detection circuit.
- Power walk-in ramp for excellent compliance with generators.
- Normal and long life internal battery.
- Common or shared battery for parallel N+1 configuration.

Communication features

- User-friendly 7" touch screen with multilingual colour graphic display (60-160 kVA/kW).
- 2 slots for communication options.
- USB port to download log file.
- Ethernet port for service purpose.

Physical and battery data

		 S4	 M4	 T6
Model		10-40	10-40	60-80
Backup battery		internal batteries		
Battery type		normal life - long life		
Degree of protection		IP20 (IP21 on demand)		
Colours		RAL 7016		
Display		3.5" (7" touch optional)		7" touch
Dimensions (mm)	W	444	444	600
	D	800	800	855
	H	800	1400	1930
Max back-up time (minutes)				
Power (kVA)		**100%**	**80%**	**Typical**	**100%**	**80%**	**Typical**	**100%**	**80%**	**Typical**
10		24	33	51	76	101	154	-	-	-
15		15	19	31	47	62	97	-	-	-
20		10	13	22	33	43	69	-	-	-
30		5	8	13	19	25	41	-	-	-
40		3	5	9	13	18	29	-	-	-
60		-	-	-	-	-	-	8	11	18
80		-	-	-	-	-	-	5	8	12

	 RK	 S4	 M6	 T6
Model	10-40	10-40	60-120	100-160
Backup battery	external batteries			
Battery type	normal life - long life			
Degree of protection	IP20 (IP21 on demand)			
Colours	RAL 7016			
Display	3.5"	3.5" (7" touch optional)	7" touch	
Dimensions (mm) W	442	444	600	600
D	830	800	855	855
H	305	800	1400	1930

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.
- Bypass redundant cooling.
- Seismic fixing kit.
- High capacity battery charger.

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.
- User-friendly 7" touch screen with multilingual colour graphic display (10-40 kVA/kW).

Proximity and expertise to support your business

A PPLI 940

SoLink: remote monitoring connected service

Continuous remote monitoring prevents problems before they occur and reduces the overall MTTR – increasing the application's uptime. SoLink 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 SoLink

- 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.

SITE 982 A

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

QRCODE 200 A GB

CARTE 089 A

On-site service management

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

Technical hotline network

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

Certified expertise

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

APPLI 571 A

SITE 588 A

CORPO 269 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 • Serbia • Singapore
- Slovenia • South Africa • Spain • Switzerland
- Thailand • Tunisia • Turkey • UK • USA

80 **countries**
where our brand is distributed

HEAD OFFICE

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