

Charging Range

A global battery-maintenance solution





More than 50 years of professional manufacturing experience

Founded in 1964, GYS was created to develop and manufacture energy conversion products for the agricultural sector. Electric fences and transformers were the first products to ever leave the factory. The family business naturally evolved over time, adapting their specialist expertise to include maintaining and servicing lead-acid starter batteries. The battery charger was born. The 90s went on the be the decade of mainstream electronics and our GYS products stepped out into this new world to quickly become a part of this market-leading technology.

The 2000s saw the arrival of fully automated chargers that could protect a new vehicle's on-board electronics, avoid power surges and offer complete automatic charging thanks to the equipment's automatic shut-down feature. The following years were marked by major technological developments, such as major breakthroughs in charge-retention technology (ideal for overwintering a vehicle), desulphating damaged batteries and the introduction of inverter technology, which offered increased performance during the charging process.

Today, the GYSFLASH range is our most popular line of products offering a battery-charging solution for all vehicles, ranging from electric scooters to HGVs. These smart chargers feature sevenor eight-stage charging curves for fast and reliable recharging. Available for both lead and lithium batteries, the GYSFLASH range resolves complex charging issues alongside providing incomparable quality. More recently, and designed specifically to resolve issues for automotive professionals, the GYSFLASH PRO range has been developed to compensate for battery energy loss during diagnostics and when the vehicle is in showroom mode. As these appliances become increasingly connected, they now boast incredibly advanced technologies making them ultra-efficient and, therefore, well suited to the automotive industry.

In the years to come, we at GYS have made it our goal to **develop** and produce more industrial battery-maintenance equipment; most notably, for industrial cleaning products and forklifts.

Charging Range CATALOGUE

Smart chargers developed for all working environments









GYSFLASH

- . Urban mobility
- . Motorcycles
- . Motorcycle racing
- Off-road vehicles
- . Vintage vehicles
- . Road vehicles
- Recreational vehicles
- . Agricultural machinery
- . Construction equipment
- . HGVs / Buses
- Challenging environments

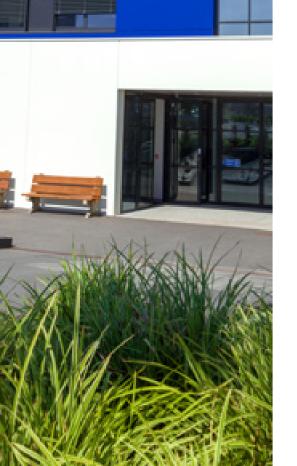


GYSFLASH PRO

- . Industrial solutions
- Solutions for automotive professionals



. Workshop special





GYS

Why choose a GYSFLASH charger?

Maintaining the battery

The battery is the heart of any vehicle and is put to the test during its life cycle. Long periods of inactivity, internal resistance that increases with significant temperature drops, increasingly energy-intensive electrical consumers in vehicles as well as increased self-discharge in hot weather will all have a serious impact on its lifespan. Whether in winter or summer, a battery can discharge and require specialist maintenance. It is important to note that all batteries lose capacity, even when they are not connected to a vehicle. It is, therefore, a wise choice to spend a little time on battery maintenance.

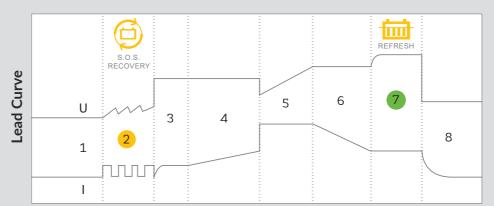
The first positive consequence of maintaining your batteries will be extending their working lifespan. Using a GYSFLASH charger, with its seven- or eight-stage load curve, can double or even triple the working life cycle of your equipment's batteries. This means that a GYSFLASH charger will pay for itself very quickly. Beyond cost saving, reducing waste is also a crucial environmental issue.



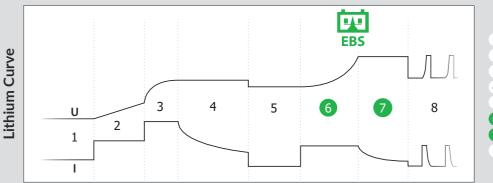


GYSFLASH, high-quality recharging in seven or eight stages

In order to guarantee the best possible charging process, the new GYSFLASH range boasts up to eight separate cycles for lead and lithium batteries. Each stage of the cycle is dependent on the previous one. Indeed, the constant monitoring of the batteries' condition impacts the next cycle, the cycle can be adjusted at any time according to the batteries' real operating needs. Our specialist GYS engineers performed a whole multitude of tests on our GYSFLASH range and integrated the algorithmic results into the microcontroller; this means that the cutting-edge range is able to operate in every conceivable scenario.



- Battery condition analysis
- 2 S.O.S. Recovery
- 3 Battery capacity test
- 4 Desulphation
- ⁵ Quick charge at maximum power
- 7 Refresh: rebalancing the battery cells
- 8 Floating: maintaining the load at 100%



- 1 Analysis
- 2 Recovery
- 3 Charging
- 4 Absorption
- 5 Testing
- 6 Supplemental charging
- 7 Balancing
- 8 Charge holding



GYSFLASH, a complete charging range

Depending on the type of vehicle, the battery's capacity will differ and require an appropriately adjusted charging current. From electric scooters to construction equipment, our GYSFLASH products offer complete charging solutions to keep your equipment's batteries at the highest performance level.



GYSFLASH LEAD

GYSFLASH devices are designed to charge 6, 12 or 24 V lead batteries. These devices guarantee unparalleled charging with their eight-stage load curve; in fact, the GYSFLASH range charges batteries twice as fast as a traditional charger.



GYSFLASH LITHIUM

Principally intended for the world of competitive vehicle racing, our GYSFLASH LITHIUM chargers offer a highquality full charge with their advanced load curve which even incorporates a cell-balancing phase (EBS). Boasting capacities of 1 - 10 Ah for two-wheel vehicles and 15 - 25 Ah for cars, the GYSFLASH range is on the cutting edge of current market trends. Our models, designed in house at our design office, are already market-leading devices.



GYSFLASH PL FOR LEAD AND LITHIUM **BATTERIES**

Designed to cover each and every vehicle type's energy requirements, the GYSFLASH PL offers all of GYS' latest technologies, such as a lithium cell balancing phase (EBS) and a smart battery-management system (BMS). With lithium batteries becoming more and more popular and lead batteries found throughout the market, the GYSFLASH PL appliances offer a versatile solution to ensure rigorous and safe battery servicing.

High-tech chargers

Our GYSFLASH range is already looking to the future; in fact, our future-proofed products are currently equipped with various state-of-the-art technologies offering a more powerful and optimised charging process. The latest features include cell rebalancing during the recharging process, sulphated-battery recovery and adjustable, ambient-temperature-dependant parameter settings.



Self Start Memory (SSM)

Memory settings. Automatically restarts in the event of

Start-Stop Engine

Start-Stop technology for compatible vehicles.

CAN Bus Ready 😽

GYSFLASH appliances plug directly into a motorcycle's 12 V socket (optional cable) making it fully compatible with CAN bus technology.

Auto Recovery

Recovers deeply discharged battery parts (less than 2 V) and/or sulphated batteries.

Cold Charge Mode

Optimises the charging process for cold or freezing conditions.

High-Sensitivity Sensors

Fitted with a high-sensitivity sensor, the GYSFLASH range automatically adjusts the charging settings depending on the ambient temperature.

REFRESH Refresh Mode

Rebalances battery cells for a longer working lifespan (depending on the model).

Power Source

A maintenance mode that guarantees an optimal state-of-charge. Ideal for vehicles being overwintered, demonstration vehicles or for replacing batteries.

LiFePO₄

This function reactivates batteries that have gone into protection following a deep discharge and automatically starts recharging them.

Equalising Balancing System

Equalises cells to increase a battery's working lifespan.

GYSFLASH products guarantee your urban mobility

The collective awareness of our planet's future has changed the urban landscape as well as the way we travel. Electric mobility is booming and GYS products can now support electric bikes, scooters, hoverboards and other battery-powered means of transport.

□ 24 V / 6 A

15 Ah	125 Ah	Lead
2 Ah	425.41	115.00
2 An	125 Ah	LiFePO ₄

GYSFLASH 6.24 PL



Compatible with				
		5)		

GYSFLASH 10.36/48 PL

□ 36 & 48 V	√ 8/10 A	
36 V		
20 Ah	230 Ah	Lead
10 Ah	230 Ah	Lithium
48 V		
15 Ah	160 Ah	Lead



Compatible with		
D.	\$ 5	

GYSFLASH 3.48 PL

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6 Ah	60 Ah	Lead
3 Ah	60 Ah	Lithium



Compatible with A 000 ST

GYSFLASH, for two-wheel vehicles

GYSFLASH 1.12





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GYSFLASH 1.12 PL



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Succeed with GYSFLASH!

The lithium-iron phosphate (LiFePO₄) battery, which is very popular in the world of competition racing, offers a higher energy density than its lead-based predecessor.

It is capable of delivering an even higher, instantaneous current despite being approximately four times lighter. These features give it an ideal power-to-weight ratio for car and motorcycle racers as well as motor-sport enthusiasts.

GYSFLASH 1.12 lithium





Off-road vehicles

An off-road charger: quad bikes, jet skis and snowmobiles etc.

The GYSFLASH 4.12

is an excellent choice for those with multiple vehicles. This charger is able to charge your recreational vehicles, such as quad bikes, jet skis, snowmobiles and large motorcycles; furthermore, it will also work on your small, city car as well as vehicles that do not require the driver to have a license. It's the ideal battery charger for the entire family's transport needs.





Automobiles

Each vehicle has its very own GYSFLASH!

Just like the batteries of two-wheel vehicles, car batteries are also subject to temperature changes and self-discharge. To help avoid this, invest in a cutting-edge GYSFLASH charger that is gentle on your battery thanks to its eight-step charging curve. The versatile GYSFLASH 6.12 and 8.12 can be used to charge two-wheel vehicles, city cars, saloons, multi-purpose vehicles and even vans. The GYSFLASH range can handle it all.



GYSFLASH 6.12

□ 12 V / 0.8/6 A

GYSFLASH 6.12 lithium

□ 12 V / 4/6 A

GYSFLASH 8.12

□ 12 V / 8 A

Maintain your vintage vehicles' batteries

Vintage vehicles





The GYSFLASH 6 HERITAGE is particularly well suited to flooded batteries. Stage seven of the 'Refresh' battery cycle comes built into this device; it allows the device to regenerate flooded batteries and thus extend their working life. During this phase, the charger injects enough energy into the battery to mix the electrolyte and, therefore, recondition the cells.









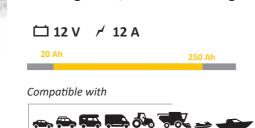




Agriculture

A specialist, agricultural charger

An invaluable asset in the agricultural sector, the GYSFLASH 12.12 is capable of recharging heavy farming equipment, such as tractor and combine harvester batteries. As they are left unused for long periods of time during the year, these agricultural machines are more likely to suffer from battery failure. Choosing a GYSFLASH 12.12 means that your farming equipment is always ready to go thanks to its charge-holding function. This means that everything will be in working order, even after a long winter.



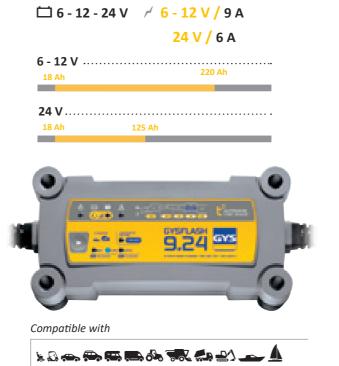
Specialist construction-equipment BSUs

GYSFLASH 6.24

 \Box 6 - 12 - 24 V \neq 6 - 12 V / 0.8 / 6 A 24 V / 0.8 / 4 A 24 V



GYSFLASH 9.24



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Recreational vehicles

Effortlessly recharge your campervan's leisure battery

The GYSFLASH 18.12 PL and 32.12 PL are highly recommended for charging leisure batteries in both campervans and boats. This means that you can use the electrical appliances in your recreational vehicle without the risk of discharging or damaging your starter battery. The chargers' showroom mode is particularly useful for exhibition areas. The Battery Support Unit (BSU) protects the battery while the vehicle's electronics are being used. The connectors can be discreetly positioned inside the engine compartment and the charger can be attached when required.

GYSFLASH 18.12 PL



GYSFLASH 32.12 PL

□ 12 V	r 7 - 15 - 30 A			
15 Ah		375	Ah	Lead
7 Ah		375	Ah	Leau
				LiFePO

Built-in showroom mode Compatible with

GYSFLASH 18.12 PL-E, travel light with this on-board charger

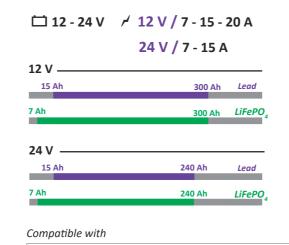
	270 Ah	36 Ah
Lead	_	_
	270 Ah	18 Ah
LiFeP		

Fitted with high-efficiency inverter technology, the GYSFLASH 18.12 PL-E offers an unrivalled performance. With an efficiency rate of 91%, it halves energy loss during the charging process and reduces energy consumption by 15%. This charger is, therefore, both economical and ecological.

Not only is this BSU solid and robust thanks to its aluminium, vent-free design, it is also very quiet which helps to create a calm atmosphere inside the vehicle.

The GYSFLASH 20.12/24 PL, an essential tool for HGV and bus batteries

Equipped with three charging options (7, 15 and 20 A) in both 12 and 24 V, this charger is suitable for lorries, construction equipment and buses.



Challenging environments

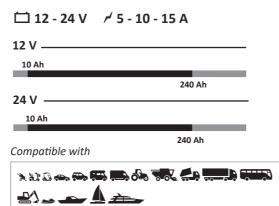
GYSFLASH

Extreme resistance to harsh environments



The GYSFLASH 15.24 Xtrem is

designed for use in very demanding surroundings, such as quarries, heavily polluted areas or in military situations. This charger is shock resistant and protected against the ingress of both solids and liquids (IP65).





Why use a GYSFLASH PRO?

The role of a vehicle's battery is not limited to starting the engine. It is the nerve centre for every electrical component that is vital for your safety and comfort. The Battery Support Unit (BSU) is crucial for supplying energy when the engine is switched off, for example during diagnostics or when exhibiting vehicles in a showroom. The wide range of GYSFLASH PRO products perfectly represents the wide array of battery-maintenance procedures that can be carried out using these machines; the range even offers multiple setting configurations to suit every type of user.

Demand market-leading technology for your workshop

+ Maintain traceability for each job

- Save more than 1,000 lines of data that can be exported to a USB stick and used in a simple spreadsheet thanks to its Flash memory
- The associated modules and accessories (printer, keypad and bar-code reader, etc.) allow data to be recovered and load reports to be printed out on receipt paper

+ Connect and personalise your GYSFLASH PRO

- Configure your GYSFLASH PRO according to your own requirements
- Add customised, specific load curves
- Combine additional modules to broaden the functionality and power of your BSU system
- Keep up to date with the latest software updates via the USB port

+ Solve all your charging problems

- Twelve specific lead / lithium load curves according to the battery type as well as six preset setting configurations tailored to each individual application
- The tester mode evaluates the status of a vehicle's starting system
- Advanced connectivity (SMC and USB) to link together multiple modules and accessories

+ Incorporate it into your manufacturing process

- The GYSFLASH PRO CNT assimilates the manufacturer-designed load curves thanks to its USB connection
- Internet-connected and able to communicate through its SMC link, this equipment sends out load data and alerts the user of any anomalies

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GYSFLASH

Incorporate a GYSFLASH PRO into your manufacturing process



Production



Showrooms



Changing batteries



Diagnostic +



Power Supply



6 V - 12 V - 24 V - 36 V - 48 V Charging current **30 A** → **100 A** depending on the model Charging current **400 → 1,200 Ah** *depending on the model*

A car manufacturer has a deep knowledge of the batteries in their own vehicles. On the production line, each battery requires a precise charging cycle based on its type, capacity and future use. Thanks to its USB connection, the GYSFLASH PRO is able to accommodatemanufacturer-designed load curves in order to meet a defined set of requirements. Internetconnected and able to communicate through its SMC

this BSU sends load data and detects anomalies. Having it on the production line provides the best possible conditions for testing the batteries during the computer's or consumers' set-up process.



↑GYSFLASH 158.12 CNT



Carrying out secure diagnostics

Locating a fault and reprogramming a vehicle's various component parts requires a diagnostic phase. This requires the involvement of all the consumers and can take anywhere between several minutes and a few hours to complete. All the energy is supplied by the battery and is likely to cause the battery to completely discharge. This necessitates a full recharge and another testing procedure, which is a waste of the mechanic's time. The GYSFLASH PRO can supply up to 120 A to compensate for this and can, therefore, carry out a full analysis without damaging the batteries. A real safety device for automotive workshops!





		12 V
	Charging current	30 → 120 A depending on the model
	Charging current	400 → 1,500 Ah depending on the model



Showrooms



Changing batteries



Diagnostic +



Power Supply

Fully operational showroom vehicles

Displaying different car models allows customers to imagine themselves in their future purchases, this is especially true in dealerships. With the engine switched off, the alternator is unable to fulfil its role as a power source. Simply leaving the headlights on will draw heavily on the battery. A BSU* device, such as a GYSFLASH PRO, can easily and discreetly slide underneath a vehicle to provide the necessary energy without having to worry about battery consumption.



* Battery Support Unit



Why use a workshop charger?

Workshop special

Fully automatic and robust equipment for your workshops

Our BATIUM devices form a range of extremely versatile and powerful automated chargers. They are capable of maintaining 6 and 12 V batteries, with some of the range's bigger units able to handle up to 24 V. Boasting charging times up to 50% faster than traditional chargers, the BATIUM range recovers sulphated batteries and allows batteries left unattended to be safely charged. These robust tools are the perfect asset for automotive, agricultural or HGV workshops.



Charing Range Start-up solutions

Start up instantly every time









CHARGER / STARTERS

- . Traditional charger / starters
- . Specialist diagnostic charger / starters



- . Traditional
- . For vintage vehicles
- . Off-road vehicles
- . Supercapacitors
- Breakdown professionals



Why use a charger / starter?



What is a charger / starter?

These were originally classic or automatic battery chargers with an additional feature, starting vehicles. When the battery is slightly depleted and no longer capable of normal starting (e.g. after having left on the headlights), a charger / starter can restart the motor in just a few seconds.

Using a simple mains plug, starting a vehicle has never been quicker or easier.

Suitable for domestic users and professionals

GYS has developed two charger / starter ranges designed for both private and professional use. The STARTIUM range's industrial robustness makes it the perfect solution for farmers as well as earth-moving contractors and transporters.

A specialist product range for automotive workshops has also been developed offering all the same features as a charger / starter, however, it can also supply power to vehicles during the diagnostic phase.





Why use a self-starter?

What is a booster?

These are free-standing, start-up stations. In fact, because they have a lead or lithium battery, they can be completely self-sufficient in terms of energy. Once connected to the vehicle using the clamps, the booster will help the defective battery to start the engine.

Their performance is directly linked to the quality of the devices' in-built battery. The boosters fitted to this compact and mobile machine are capable of delivering high starting currents. These units come supplied with a charger to keep the internal battery functioning while the boosters have the advantage of being 100% autonomous; therefore, they provide a practical, portable starting system.

SELF-STARTERS

A range of starters designed for three different uses



Private Individuals

GYS offers a range of portable boosters for everyday use. These boosters combine several features that can be very useful to individuals in the event of a breakdown. They even come equipped with additional features, such as an emergency lamp and an self-contained power supply for electrical appliances like mobile phones.



Workshop Professionals

A practical tool for car repair workshops, the GYSPACK PRO can be easily employed in workshops and garages as well as on farms. This invaluable equipment is powerful enough to start every type of vehicle, including tractors.



Breakdown Professionals

Ultra-strong and mobile, our range of off-road boosters is ideal for breakdown professionals. With a very powerful starting current, these boosters are able to start all vehicles, even lorries, in a matter of seconds.

Safe starting

With their fast load curves, STARTIUM machines can even regenerate latest-generation, sulphated batteries. Its precharge time is greatly reduced and so is the required starting power. The STARTIUM line has been engineered for intensive, reliable use.

	12 - 24 V depending on the model
Starting power	up to 500 A depending on the model
Charging current	20 → 750 Ah depending on the model

	12 - 24 V depending on the model
Starting power	up to 500 A depending on the model
Charging current	20 → 750 Ah depending on the model



DIAG STARTIUM, a mechanic's companion

Diagnostic starters special

With a large, digital control panel to guide the user, the DIAG-STARTIUM 60-12 and 60-24 offer bespoke solutions for automotive workshops. In addition to having all the same features as the STARTIUM range, DIAG-STARTIUM charger / starters also guarantee a constant voltage during diagnostics, which in turn guarantees a charged battery after maintenance operations.

	6 - 12 - 24 V depending on the model
Starting power	up to 310 A depending on the model
Charging current	20 → 900 Ah depending on the model



√ Ideal for car workshops

✓ Electronic safety

√ Suitable for powerful engines



Stabilised power supply

During diagnostics and internal vehicle-software updates, the DIAG-STARTIUM 60-12 and 60-24 models supply power to the vehicle at up to 60 A thanks to the DIAG+ feature (only on 12 V batteries).

Plug in safely

DIAG-STARTIUM products deliver a continuous 60 A of power without triggering the substation's thermal-safety system.



NATO-cable compatible

These charger / starters are compatible with specialist army outlet connections.



Digital display

The STARTIUM range displays the voltage on a digital display that is more accurate than its analogue equivalent.



unattended.

This equipment comes with a feature which evaluates the status and performance of the vehicle's charging system.



Internet Connected

Smart Auto Start

vehicle's ignition.

100% Charge

batteries.

Timer

This device does not require a remote control to start a vehicle, it only delivers

power when the user switches on the

A constant voltage ensures a full and safe

charge for all latest-generation, lead-acid

The 'Timer' function allows you to manually select an adjustable charging

Automatic Charging

to the vehicle's battery when

time from between 10 - 120 minutes.

The device can remain safely connected

STARTIUM devices are microprocessor controlled meaning they continuously analyse the state of the battery and regulate the charge as required.

Traditional boosters

GYSPACK boosters, a start-up solution already within reach!

GYSPACK boosters are the best way to start your vehicle. Self-contained and portable, they have a built-in, lead-acid battery that doubles as a power source. For both professionals and hobbyists, GYS' complete booster range covers all vehicles.

	12 V
Starting power	up to 3,100 A depending on the model
Internal battery capacity	18 → 30 Ah depending on the model

Specialist vintage-vehicle boosters

GYSPACK Heritage, a collector's companion

With only one booster, it can start both vintage vehicles fitted with a 6 V battery as well as modern vehicles equipped with a 12 V battery. It also supplies all types of devices with a 12 V, DC thanks to its two internal 20 Ah batteries.

> **□**6 V / 12 V **3,200 A / 1,600 A**





All-terrain boosters

STARTPACK, powerful all-terrain boosters!

STARTPACK devices are recommended for professional users due to their high-performance lead batteries, making these boosters ultra-powerful.

These off-road specialist appliances are perfect for onsite interventions. Thanks to their high starting current, they are suitable for HGVs, agricultural vehicles and construction machinery.





12 V / 24 V

Starting power

1,600 → 8,500 A depending on the model

Internal battery capacity

 $2 \times 22 \text{ Ah} \Rightarrow 2 \times 50 \text{ Ah}$ depending on the model





BOOSTERS

GYS

Supercapacitor boosters

The STARTRONIC range's batteryless boosters. No need to recharge!

Designed for 12 V vehicles, STARTRONIC devices are smart, self-contained starters without an internal battery. These units, equipped with supercapacitors, use the residual voltage of the vehicle's battery to recharge and start the engine within seconds. Mains recharging is no longer necessary.

Batteryless technology

- + Quick, high-power starting
- + No maintenance required
- + Ready for use even after years of storage
- + Not affected by extreme temperatures (-40°C +65°C)
- + This equipment has a long service life and can be used 100,000 times without any performance loss.



800 - 950 A depending on the model

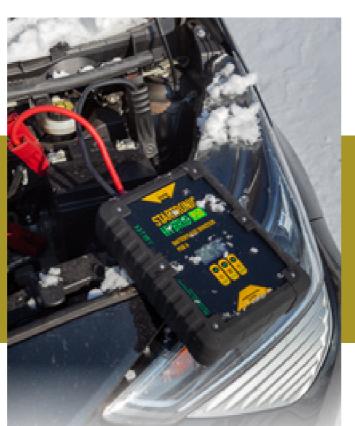
5 > 90 Ah / 5 > 100 Ah depending on the model







If the supercapacitors fail to use the battery's residual voltage when precharging, the user can request that the lithium-ion battery intervenes to support the batteryless technology. At 100% capacity, it can recharge the supercapacitors 5 times over.



NOMAD POWER, a travel emergency kit!

Multifunctional and mobile boosters

- + 12 V vehicle booster
- + A self-contained power supply for small, electronic devices
- + Emergency / signalling lamp
- + Safe starting: protected against short circuits, reverse polarity, excessive starting currents and temperature rises.
- + Portable and autonomous: USB ports (x2)



NOMAD POWER PRO, business trip security

Have you ever found that your battery is so unresponsive that you can't start your work vehicle? Obviously, this situation always comes at exactly the wrong time! Using a mobile power source, such as a NOMAD POWER PRO booster, ensures that vehicles ranging from small city cars to heavy goods vehicles can be repaired in a matter of seconds in all possible environments.

☐ 12 V / 24 V depending on the model

600 → **1,400** A depending on the model





GYS

BOOSTERS

Accessories

All additional accessories are available in our extensive collection!

The GYS accessory range can be adapted to your specific needs. This large collection will fit perfectly on your display shelves. Complete with electrical cables, clamps, jumper cables, connected modules, fuses and connectors, our charging accessory range is complete and comprehensive.



GYS charging catalogue



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Made in France since 1964