



Automotive Battery Range



**POWERING HIGH PERFORMANCE
FOR OVER 100 YEARS**



ASIA'S LEADING AUTOMOTIVE BATTERY, NOW AVAILABLE IN EUROPE

Designed to meet the demanding needs of modern vehicles, the new GS automotive range provides superior performance & excellent value.

GS is the leading automotive battery brand in Asia & many other parts of the world. European customers can now enjoy outstanding reliability & power, perfected over a century of GS battery development.



A GS YUASA GROUP COMPANY

The GS Yuasa Group consists of 65 subsidiaries and 33 affiliates in countries throughout the world.

For over 100 years, the GS Yuasa Group has continually contributed to economic development and the improvement of living standards through the development and manufacture of batteries, power supply systems and lighting equipment.

We are a major force in the market as the world's leading manufacturers of automotive and motorcycle batteries.

Responding to today's increasingly sophisticated needs, our extensive range of next generation energy system lithium-ion batteries encompasses not only vehicle use but also products in a wide range of fields, from deep sea to aerospace, to meet the ever more sophisticated needs of the times.

GS YUASA BATTERY EUROPE

For over 30 years, GS Yuasa Battery Europe Ltd have been Europe's leading battery supplier. From sales and distribution centres in Swindon, Milan, Lyon, Madrid and Düsseldorf, GS Yuasa supply European markets with an extensive range of high-quality energy storage and network stabilisation solutions.

Supported by experienced Quality Assurance, Technical Support, Marketing and Customer Service teams, our industry leading service and distribution network continues to set new standards in customer care, choice and year-round availability



FIND THE RIGHT BATTERY & DETAILED FITTING INFORMATION FAST

With the GS Online Trade Battery Lookup

- Mobile optimised with no login required
- Super-fast number plate, VIN and make/model lookup for automotive, motorcycle and commercial vehicles
- Cross reference search for all DIN, JIS and ETN numbers plus other battery brands & OE references
- Estimated fitting time, battery location and detailed fitting instructions
- Dynamic technical data sheets
- Comprehensive auxiliary and backup battery application information
- Full coverage of the European vehicle parc
- Advanced battery browse function



Used by over 80,000 mechanics and technicians, GS's Online Battery Lookup is Europe's most powerful battery lookup system.

With a host of unique advanced features, it allows users to not only find the right battery, but also access detailed technical and fitting information. It is designed to save users considerable time and money.

Available for all major European markets and languages, the system is free to use online at

batterylookup.gs-battery.com

GS's USB Smart Button provides ultra-fast workshop access to the entire system, just by pushing the button.



YOUR CUSTOMERS CAN FIND THE INFORMATION THEY NEED

With the GS Consumer Website

The dynamic consumer GS website is packed with information. Including a powerful battery finder, full product listings, company information, downloadable resources and a distributor locator.

The site is mobile optimised so looks great on any device. It is designed to give trade and end users a host of information about GS batteries.

Discover more at

www.gs-battery.com



FOR STANDARD IGNITION VEHICLES

Cars and Light Vans



SMF

- Approximately 40,000 starts
- Sealed maintenance free lid
- Calcium/Calcium plates
- State of Charge Indicator (SOCi)
- Integrated carrying handle & flame arrestor

Product Type	Voltage (V)	Capacity (A)	CCA (EN1)	Case Type	Dimensions (mm)			Layout	Hold-down	Terminal	SOCi	Mean Weight (kg)	Performance Marking			
					Length	Width	Height						Water Loss	Charge Retention	Vibration	Endurance
SMF056	12	35	300	JIS NS40 + B1	187	135	224	0	B1	T1/T3	*	9.4	W4	C2	V2	E1
SMF054	12	36	330	JIS B19	187	127	223	0	N	T1/T3	*	9	W4	C2	V3	E1
SMF055	12	36	330	JIS B19	187	127	223	1	N	T1/T3	*	9	W4	C2	V3	E1
SMF202	12	40	330	L0	175	175	190	0	B3	T1		10	W4	C2	V2	E1
SMF077	12	44	360	L1	207	175	190	1	B3	T1	*	12.2	W4	C2	V2	E1
SMF053	12	45	400	JIS B24	238	129	224	0	N	T1/T3	*	12.1	W4	C2	V2	E1
SMF057	12	45	400	JIS B24	238	129	224	1	N	T1/T3	*	12.1	W4	C2	V2	E1
SMF063	12	46	425	LB1	207	175	175	0	B3/4	T1	*	12.2	W4	C2	V2	E1
SMF108	12	50	420	JIS D20	200	175	225	0	B1	T1	*	12.9	W4	C2	V2	E1
SMF113	12	50	530	US Gp 58	236	182	177	1	B1	T1	*	12.9	W4	C2	V3	E1
SMF012	12	52	460	L1	207	175	190	0	B3	T1	*	13	W4	C2	V2	E1
SMF075	12	60	540	LB2	242	175	175	0	B3/4	T1	*	14.6	W4	C2	V2	E1
SMF078	12	60	540	L2	242	175	190	1	B3	T1	*	15.1	W4	C2	V2	E1
SMF005	12	60	540	JIS D23	232	173	225	0	N	T1	*	15.8	W4	C2	V2	E1
SMF014	12	60	540	JIS D23	232	173	225	1	N	T1	*	15.8	W4	C2	V2	E1
SMF027	12	62	540	L2	242	175	190	0	B3/4	T1	*	15.1	W4	C2	V2	E1
SMF068	12	72	600	JIS D26 + B7	264	175	220	0	B07	T1	*	17.6	W4	C2	V2	E1
SMF069	12	72	600	JIS D26 + B7	264	175	220	1	B07	T1	*	17.6	W4	C2	V2	E1
SMF100	12	72	700	LB3	278	175	175	0	B3/4	T1	*	17.3	W4	C2	V2	E1
SMF086	12	75	650	L3	278	175	190	1	B3	T1	*	18.3	W4	C2	V3	E1
SMF096	12	75	700	L3	278	175	190	0	B3	T1	*	18.4	W4	C2	V2	E1
SMF110	12	80	740	LB4	315	175	175	0	B3	T1	*	19.3	W4	C2	V2	E1
SMF115	12	82	740	L4	315	175	190	0	B3	T1	*	20.1	W4	C2	V2	E1
SMF017	12	90	760	LB5	353	175	175	0	B3	T1	*	21.3	W4	C2	V2	E1
SMF334	12	95	800	JIS D31 + BH	306	175	222	1	B1	T1	*	22.5	W4	C2	V2	E1
SMF335	12	95	800	JIS D31 + BH	306	175	222	0	B1	T1	*	22.5	W4	C2	V2	E1
SMF019	12	95	800	L5	353	175	190	0	B3	T1	*	23.2	W4	C2	V2	E1
SMF020	12	110	900	L6	394	175	190	0	B3	T1	*	26.3	W4	C2	V3	E2
MF038*	12	35	330	A	243	135	202	1	B12	T1		11.1	W3	C2	V2	E1
MF048*	12	45	350	E	220	135	225	0	B1	T1		13.1	W3	C2	V2	E1
MF049*	12	45	350	E	220	135	225	1	B1	T1		13.1	W3	C2	V2	E1
MF072*	12	70	570	Volvo	258	173	206	1	N	T1		18.8	W3	C2	V2	E1

*Approx. 20,000 starts

FOR NEXT GENERATION & START - STOP VEHICLES

Cars and Light Vans



EFB START STOP

- Approximately 270,000 starts
- High cyclic durability & dynamic charge acceptance
- For lower spec Start - Stop vehicles
- Sealed tip/tilt double lid:
 - Reduces water loss by up to 30%
 - VDA roll over test compliant
- High charge acceptance type separators
- Anti-sulphation technology
- Carbon/Lithium plate additives
- Integrated flame arrestor

Product Type	Voltage (V)	Capacity (A)	CCA (EN1)	Case Type	Dimensions (mm)			Layout	Hold-down	Terminal	SOCl	Mean Weight (kg)	Performance Marking			
					Length	Width	Height						Water Loss	Charge Retention	Vibration	Micro-Cycle
EFB027	12	60	560	L2 EFB	243	175	190	0	B3	T1	*	16.2	W4	C2	V3	M2
EFB005	12	64	620	JIS D23 EFB (Q55/Q85)	232	173	225	0	N	T1		16.8	W4	C2	V3	M1
EFB100	12	65	650	LB3 EFB	277	175	175	0	B3	T1	*	17.6	W4	C2	V3	M2
EFB096	12	70	650	L3 EFB	278	175	190	0	B3	T1	*	18.8	W4	C2	V3	M2
EFB110	12	75	730	LB4 EFB	315	175	175	0	B3	T1	*	19.8	W4	C2	V3	M2
EFB115	12	80	730	L4 EFB	315	175	190	0	B3	T1	*	21.2	W4	C2	V3	M2
EFB030	12	80	760	JIS D26 EFB (S95)	260	173	225	0	N	T1		19.3	W4	C2	V3	M1
EFB335	12	80	780	JIS D31 EFB (T110)	305	172	225	0	N	T1		22.5	W4	C2	V3	M1



FOR NEXT GENERATION & START STOP VEHICLES

Cars and Light Vans



AGM START STOP

- Approximately 360,000 starts
- High cyclic durability
- Improved dynamic charge acceptance
- For high specification Start - Stop vehicles
- Absorbed Glass Mat

Product Type	Voltage (V)	Capacity (A)	CCA (EN1)	Case Type	Dimensions (mm)			Layout	Hold-down	Terminal	SOCl	Mean Weight (kg)	Performance Marking			
					Length	Width	Height						Water Loss	Charge Retention	Vibration	Micro-Cycle
AGM027	12	60	640	L2 AGM	243	175	190	0	B3	T1		17.7	W5	C2	V3	M3
AGM096	12	70	760	L3 AGM	278	175	190	0	B3	T1		20.5	W5	C2	V3	M3
AGM115	12	80	800	L4 AGM	317	175	190	0	B3	T1		23.2	W5	C2	V3	M3
AGM019	12	95	850	L5 AGM	353	175	190	0	B3	T1		25.6	W5	C2	V3	M3
AGM020	12	105	950	L6 AGM	393	175	190	0	B3	T1		29.6	W5	C2	V3	M3

GS YU-FIT BATTERY CONFIGURATOR

Battery replacement validation made easy

Most new vehicles have Battery Management Systems (BMS). Failure to reprogram the BMS via the on-board diagnostics (OBD) port when a new battery has been fitted can cause serious errors such as loss of the Start - Stop system.

With a robust design and simple operation, the Yu-Fit offers great value for money and is one of the most user friendly diagnostic tools on the market. Validate battery replacement quickly and simply with the GS Yu-Fit Battery Configurator.

Although workshops may already own diagnostic equipment capable of this, to have such a centrally important tool tied up on a relatively straightforward task is not ideal.



AUXILIARY, BACKUP & SPECIALIST

Batteries for next generation Cars and Light Vans



Features

- 9 AGM auxiliary batteries
- 2 Flooded auxiliary batteries
- 3 AGM starter batteries

Fitment examples

- Toyota, Honda & Lexus Hybrids
- Mercedes E & S Class
- Volvo DRIVE
- BMW 7 series
- Mitsubishi & PSA Electric Vehicle

Product Type	Voltage (V)	Capacity (A)	CCA (EN1)	Case Type	Dimensions (mm)			Layout	Hold-down	Terminal	Mean Weight (kg)
					Length	Width	Height				
GTX4L-BS(CP)	12V	3.2	50	M/C AGM (GS)	114	71	86.5	0	N	8	1.6
CB4L-B(CP)	12V	4.2	45	M/C (GS)	121	71	94	0	N	8	1.7
GTX9-BS(CP)	12V	8.4	135	M/C AGM (GS)	151	88	108	1	N	8	3.2
GTX14-BS(CP)	12V	12.6	200	M/C AGM (GS)	151	88	146	1	N	8	5
HJ-LB20L	12V	35	272	JIS B20 AGM	198	130	202	0	N	T1	10.5
HJ-S34B20L	12V	35	272	JIS B20 AGM	197	129	227	0	N	T3	10.5
HJ-S34B20L-A	12V	35	272	JIS B20 AGM	197	129	227	0	N	T3	10.5
HJ-S34B20R	12V	35	272	JIS B20 AGM	197	129	227	1	N	T3	10.5
HJ-A24L	12V	40	310	JIS A24 AGM	238	129	187	0	N	T1	10.5
HJ-S46B24R	12V	45	325	JIS B24 AGM	238	129	227	1	N	T3	11.5
HJ-S46B24L(S)	12V	45	325	JIS B24 AGM	238	129	227	0	N	T1	11.5
HJ-LD26L	12V	55	450	JIS D26 AGM	260	173	202	0	N	T1	18

GS YUASA ARE ORIGINAL EQUIPMENT MANUFACTURERS

To the world's top vehicle brands



OESAA Member

Vehicle manufacturers demand the best, so overwhelming choose GS Yuasa.

Automotive:

BMW, Daihatsu, Daimler, General Motors, Honda, Infiniti, Isuzu, Land Rover, Lexus, Mazda, Mercedes-Benz, Mitsubishi, Nissan, PSA Peugeot Citroen, Subaru, Suzuki, TATA

Motorcycle:

Aprilia, BMW, Ducati, Harley-Davidson, Honda, Kawasaki, KTM, Moto Guzzi, MV Augusta, Piaggio, Suzuki, Triumph, Vespa, Yamaha



UNDERSTANDING BATTERY RATINGS

Batteries are rated according to a range of specifications and standards. Understanding these ratings and their relevance to the battery's application and operating conditions is key to selecting the right battery.

CCA (Cold Cranking Amperes)

Is a measurement of the maximum current a fully charged battery can deliver at -18°C. It is used to determine a battery's ability to supply high cranking current to start the vehicle's engine and maintain sufficient voltage to power the ignition requirements under severe cold starting conditions. Temperature plays a key role in a battery's ability to deliver CCA.

700
A (EN)

Ampere-Hour @ 20hr (Ah)

Ah refers to the battery's storage capacity. At 25°C, the battery must achieve greater than 20 hours of discharge time at a given load, down to a cut-off voltage of 10.5V. For example, a 60Ah battery will deliver a current of 3A for 20 hours. The more accessories that are in use, the faster available battery energy is consumed. Consumption of the battery's capacity is referred to as 'discharging' the battery.

75
Ah

New Battery Performance Markings

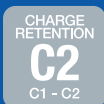
Alongside the common voltage (V), capacity (Ah) and cold cranking amps (A) ratings, all GS automotive batteries carry recently introduced EN50342-1/6 European Standard performance markings.

Every battery in the range has undergone extensive testing to determine its performance. Having passed the requirements of several stringent tests, each battery has earned a classification number for the following criteria:



Water Loss: rated W1 – W5

The ability to retain water content. The better a battery performs, the less water it will lose in service.
W1 (Traditional lead-acid battery) - W5 (Premium next generation battery technology)



Charge Retention: rated C1 - C2

The ability of the battery to retain stored chemical energy (charge) when not in use.
C1 (Traditional lead-acid) - C2 (Modern calcium)



Vibration Level: rated V1 – V4

The battery's physical ability to resist the potentially damaging effects of vibration.
V1 (Traditional car and light van) - V4 (Extreme heavy duty plant and commercial vehicle)



Endurance: rated E1 – E4 (Conventional types only)

The ability to withstand repeated charge/discharge cycles to 50% depth of discharge without failure.
E1 (Conventional car and light van) - E4 (Extreme heavy duty plant and commercial vehicle)



Micro - Cycle: rated M1 – M3 (EFB & AGM types only)

The ability of the battery to provide power to restart the engine after frequent stop phases, its ability to recover state of charge afterwards and the aging effects due to shallow pulse loads.
M1 (Basic start - stop) - M3 (High end start - stop and hybrid)

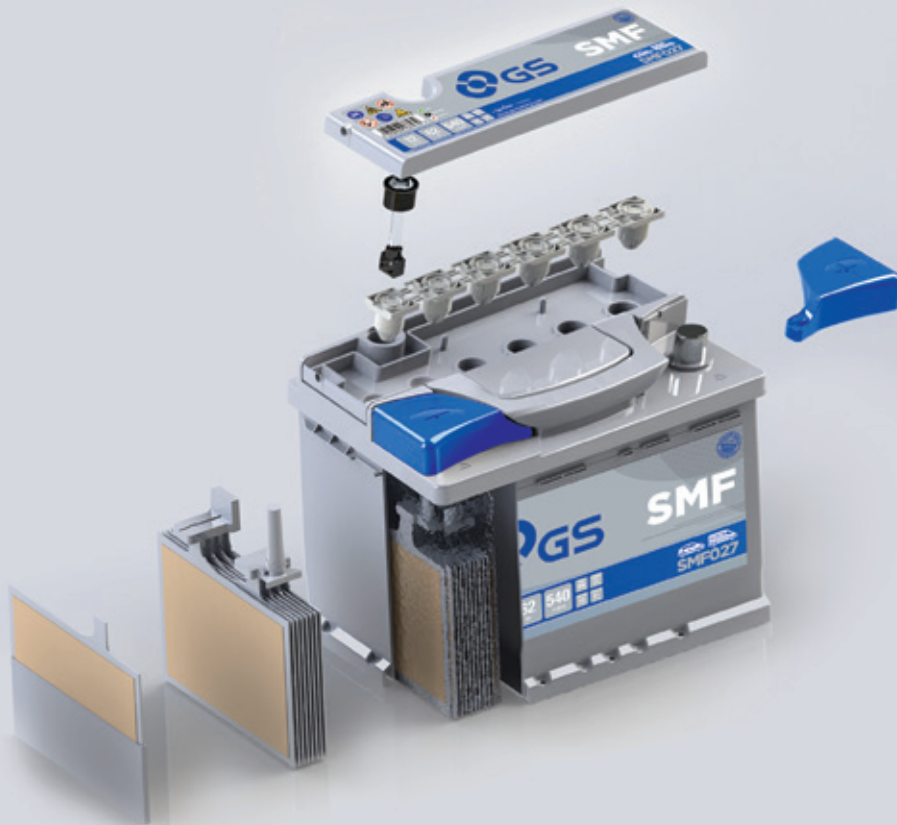
GUARANTEED QUALITY

GS Yuasa Battery Sales UK Ltd uses the internationally recognised quality management system ISO 9001 to provide the framework for consistent performance and reliable service in the supply of automotive, motorcycle and industrial batteries to our customers.

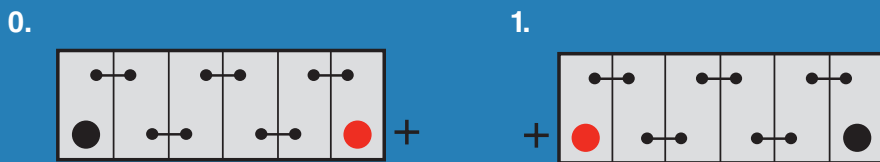
GS Yuasa customers can be confident that we have the tools in place to ensure customer satisfaction in products, supply and service.



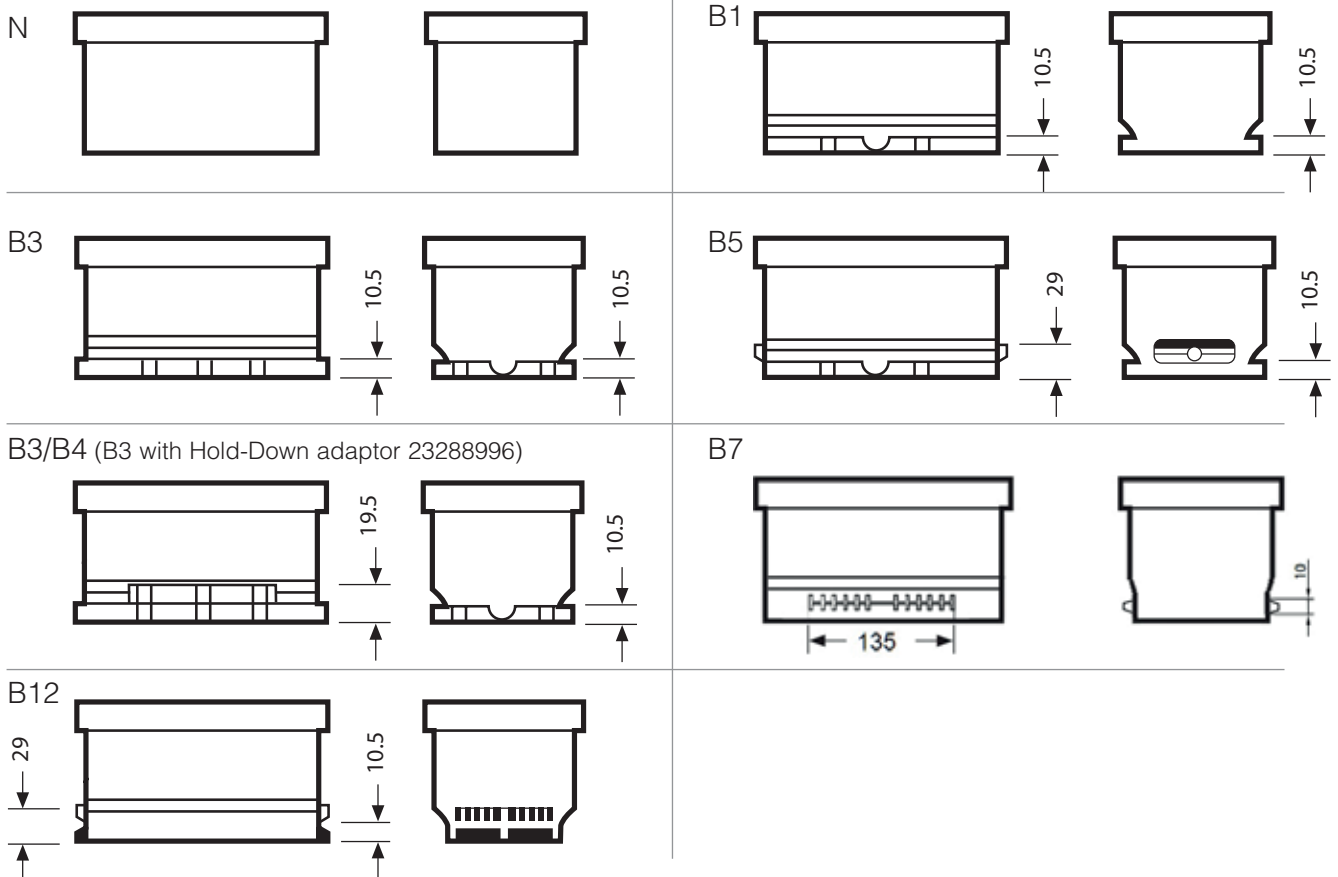
FM: 585105



CELL ASSEMBLY LAYOUTS



HOLD DOWN & CONTAINER FEATURES



THE FULL GS BATTERY RANGE

Overview



LEISURE Caravan and Motorhome

Features

- Caravan/leisure use
- Long storage life
- Deep cycle
- State of Charge Indicator (SOC)
- Enhanced safety venting
- Integrated flame arrestor



MARINE Boats and Watercraft

Features

- Marine & leisure craft use
- Dual terminal
- Sealed lid (Leak/spill proof, tip-tilt)
- Vibrolock plate fixing
- Deep cycle
- 45° tilt angle
- State of Charge Indicator (SOC)
- Enhanced safety venting
- Integrated flame arrestor



GARDEN Machinery

Features

- Powered gardening equipment use
 - Ride on mowers etc



PRO-SPEC Deep Cycle

Features

- Deep cycle
- Easy maintenance vent caps
- Glass Mat/porous rubber separator
- Three terminal types available
- Special lid/case design
- Enhanced life cycle over competitors

Fitment examples

- Electric vehicles (golf carts/mobility)
- Warehouse equipment (fork lifts/access platforms)

GO TO WWW.GS-BATTERY.COM

For more details

CARGO Deep Cycle Glass Mat

Features

- Increased service life over SHD
- Ultimate deep cycle capabilities
- Glass mat separators
- Vibrolock plate fixing
- Vibration Resistant – V3 (EN50342.1 A1 2011)
- OE Quality, Performance & Specification



CARGO Super Heavy Duty

Features

- Advanced plate design
- Increased service life over HD
- Deep cycle capabilities
- Vibration Resistant – V2 (EN50342.1 A1 2011)
- OE Quality, Performance & Specification

Performance

- Up to 30% increase in cranking power over Cargo HD



CARGO Heavy Duty

Features

- Advanced plate design
- Deep cycle capabilities
- Vibration Resistant – V2 (EN50342.1 A1 2011)
- OE Quality, Performance & Specification



MOTORCYCLE And Powersport Batteries

Features

- World number one manufacturer
- 100% vehicle park coverage
- Exact fit, not 'will fit'
- OE for all major motorcycle, ATV, Jet Ski and Snowmobile manufacturers



ASIA'S LEADING AUTOMOTIVE BATTERY NOW AVAILABLE IN EUROPE



**Find the right battery &
detailed fitting information.**

Trade lookup: batterylookup.gs-battery.com
Consumer website: www.gs-battery.com

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