

Invented for life



BOSCH

Constant performance for high demands

Bosch passenger-car batteries



Batteries

Overview

Modern cars are equipped with more and more components running on electric energy. They need to be supplied by reliable sources of energy with high performance. Equipped with modern technology and featuring a corrosion-proof design, Bosch batteries provide different types of vehicles with the energy they need – over long periods.

Passenger-car starter batteries since 1927

Back in 1922, Bosch produced early motorcycle batteries. The first battery for cars was launched in 1927.

Increased energy demand of vehicles

The energy demand of today's motor vehicles is much higher. More and more vehicles – of almost all vehicle segments – are equipped with safety systems, convenience and comfort functions. The powerful Bosch batteries S5 A with AGM technology and S4 E with EFB technology are particularly well-suited for modern vehicles.

Special grid design

Compared to conventional grids, a special grid design ensures a higher corrosion resistance and at the same time a particularly high conductivity – as has been proven by durability tests in line with the SAE J240 standard performed at 75°C. Furthermore, the special grid design also generates continuously high starting power thus contributing to a long service life.

Spare parts, diagnostics and services

Bosch provides workshops and retailers with full support for their battery business – from a single source. This includes a complete battery range, efficient diagnoses and reliable services.



S5 A with AGM technology¹⁾

Product range and details



S5 A	
<p>The premium Bosch battery with AGM technology provides enough power for frequent starts and stops, supports regenerative braking (recuperation) and is a reliable source of power for electrical consumers during the stop phase.</p>	
Technology	 <p>AGM: Absorbent Glass Mat⁽¹⁾</p>
Scope of application	 <p>Recent vehicle models and upmarket models with start/stop systems and regenerative braking (recuperation) with several electrical consumers</p>
Service life	● ● ●
Cold starting performance	● ● ●
Deep-cycle resistance	● ● ●
Number of electrical consumers	● ● ●
Suitability for short distances	● ● ●
Maintenance	Absolutely maintenance-free
Installation inside the vehicle	Yes
Installation angle	Up to 90°
Shelf life	18 months

(1) AGM (Absorbent Glass Mat): acid absorbed by micro-fiberglass mat allows more energy to pass through

Advantages at a glance

- **Constant power even for short trips, stop-and-go traffic or high consumption in stationary mode:** acid absorbed by micro-fiberglass mats allow higher amounts of energy to be provided
- **Longer service life and up to 4 times higher deep-cycle resistance than conventional starter batteries:** in case of AGM technology⁽¹⁾, the acid is absorbed by micro-fiberglass mats thus keeping the self-discharge rates low
- **Reliable starting even under extreme temperatures and with several electrical consumers:** ensured by even acid distribution preventing stratification
- **Excellent charge acceptance:** the special grid design for optimized current flow and less corrosion increases the cold start performance
- **Particularly high corrosion resistance:** ensured by optimized production processes
- **Absolutely maintenance-free:** the double lid with labyrinth design returns condensed water to the battery thus reducing the water consumption; and preventing sudden leaks of acid if tilted

S5 A with AGM technology

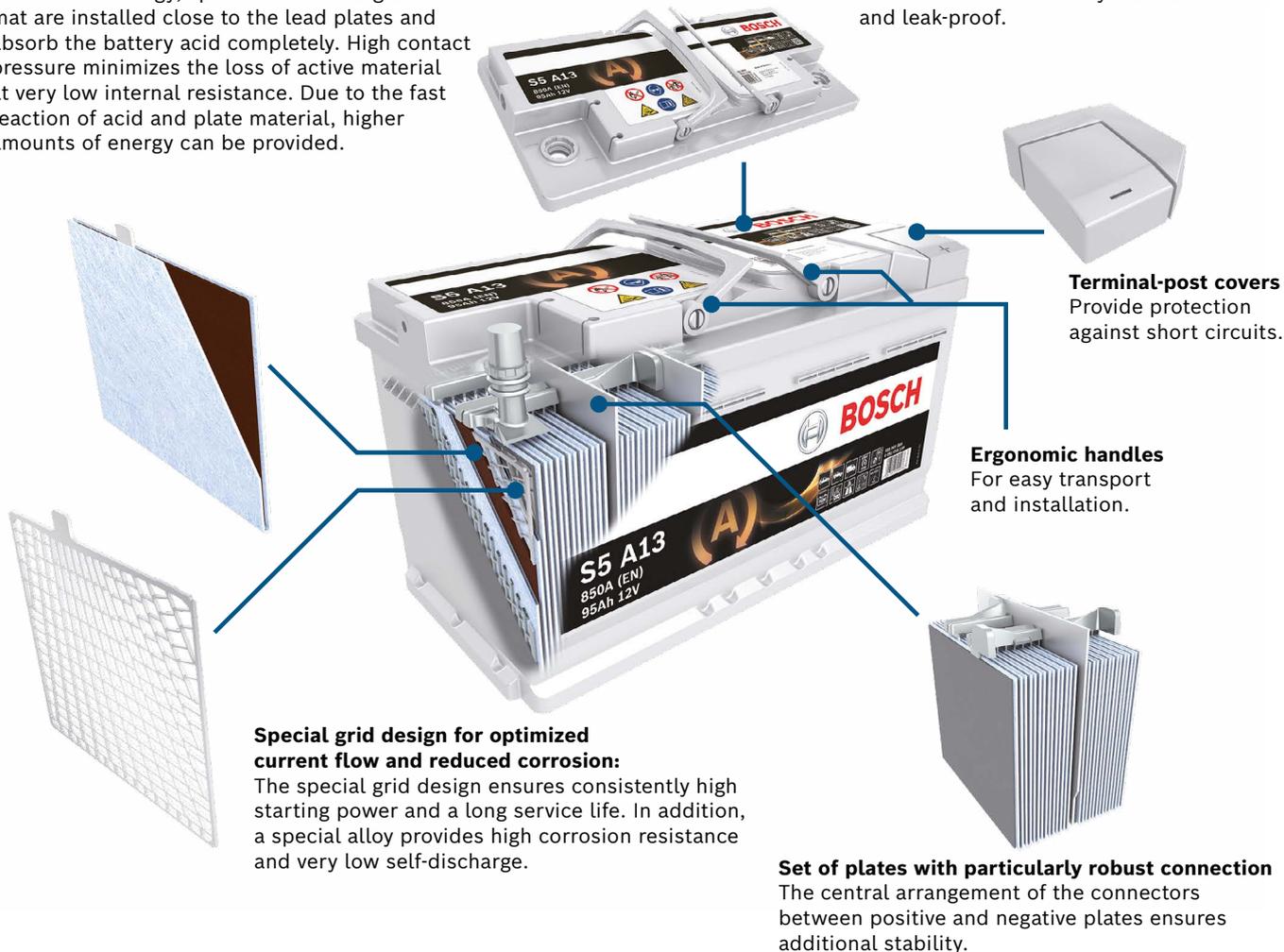
Technology

AGM (Absorbent Glass Mat) – acid absorbed by micro-fiberglass mats

In AGM technology, special micro-fiberglass mats are installed close to the lead plates and absorb the battery acid completely. High contact pressure minimizes the loss of active material at very low internal resistance. Due to the fast reaction of acid and plate material, higher amounts of energy can be provided.

Special lid design for high operational safety

The safety valve and the central degassing make the S5 A absolutely maintenance-free and leak-proof.

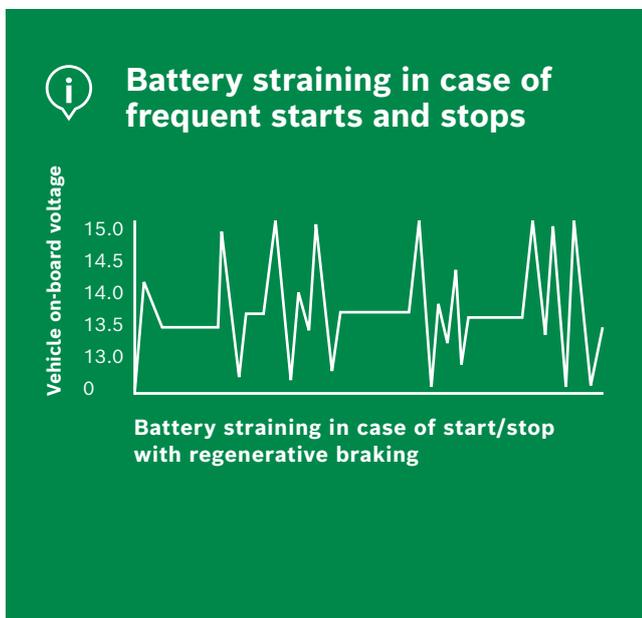


Special grid design for optimized current flow and reduced corrosion:

The special grid design ensures consistently high starting power and a long service life. In addition, a special alloy provides high corrosion resistance and very low self-discharge.

Set of plates with particularly robust connection

The central arrangement of the connectors between positive and negative plates ensures additional stability.



Did you know?

The battery service presents demanding challenges for the testers used today.

No voltage spikes that can result in sensor malfunctions may occur during charging.

Bosch battery chargers allow starter batteries to be charged carefully even while installed.

S4 E with EFB technology¹⁾

Product range and details



	S4 E
	The powerful Bosch battery with EFB technology is customized to meet the requirements of cars with start/stop systems. It endures safe starting – even if the vehicle operates several electric consumers.
Technology	 EFB: Enhanced Flooded Battery ⁽¹⁾
Scope of application	 Recent vehicle models and upmarket models with start/stop systems and several electrical consumers
Service life	● ● ●
Cold starting performance	● ●
Deep-cycle resistance	● ● ●
Number of electrical consumers	● ●
Suitability for short distances	● ● ●
Maintenance and water consumption	Absolutely maintenance-free
Installation inside the vehicle	Yes
Installation angle	0°
Shelf life	18 months

(1) EFB (Enhanced Flooded Battery): positive plate coated with polyester scrim ensures additional retention of the active material and a high deep-cycle resistance

Advantages at a glance

- Longer service life and twice the deep-cycle resistance of conventional starter batteries:** in case of EFB technology⁽¹⁾, the positive plate is coated with a polyester scrim, providing additional hold for the active material thus keeping the self-discharge rates low
- Reliable starting even under extreme temperatures and with several electrical consumers:** thanks to optimized active material
- Excellent charge acceptance:** the special grid design for optimized current flow and less corrosion increases the cold start performance
- Particularly high corrosion resistance:** ensured by optimized production processes
- Absolutely maintenance-free:** the double lid with labyrinth design returns condensed water to the battery thus reducing the water consumption; and preventing sudden leaks of acid if tilted

S4 E with EFB technology

Technology

Set of plates with particularly robust connection

The central arrangement of the connectors between positive and negative plates ensures additional stability.

Labyrinth lid for high operational safety

The double lid with labyrinth design ensures that evaporated liquid remains inside the battery. This makes the S4 E battery absolutely maintenance-free and leak-proof.

Terminal-post covers

Provide protection against short circuits.

Ergonomic handles

For easy transport and installation.

EFB (Enhanced Flooded Battery) – positive plate coated with polyester scrim

In EFB technology, the positive plate is coated with a so-called polyester scrim providing additional retention of the active material on the plate. The S4 E battery therefore features an improved deepcycle resistance compared to conventional batteries and remains operational even if there are strong vibrations.

Special grid design for optimized current flow and reduced corrosion:

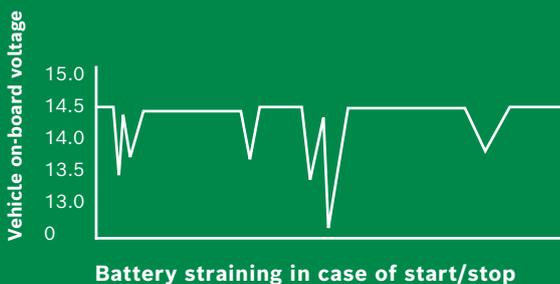
The special grid design ensures consistently high starting power and a long service life. In addition, a special alloy provides high corrosion resistance and very low self-discharge.

Universal adapter bottom rail with high degree of vehicle compatibility

For safe, precisely fitting installation.



Battery straining in case of frequent starts and stops



ESI[tronic] software for diagnosis and servicing

With ESI[tronic] software, Bosch offers workshops an excellent solution for effective and efficient vehicle diagnosis for repair or servicing.

Advantages:

- Easy operation
- Standardized system
- Comprehensive vehicle coverage
- Modular design

S5/S4/S3 with SLI technology

Product range and details



	S5	S4	S3
Efficient Bosch quality for a wide range of requirements and vehicle types – that is what Bosch SLI batteries stand out for. The specially designed grid is crucial for performance and reliability.			
Technology	 Lead-acid SLI: Starting-lighting-ignition/starter battery with labyrinth lid ⁽¹⁾		
Scope of applications	 Recent vehicle models and upmarket models with several electrical consumers	 All vehicles, also for Asian models	 Older vehicles with fewer electrical consumers
Service life	●●●	●●●	●●
Cold starting performance	●●●	●●	●
Deep-cycle resistance	●●	●●	●
Number of electrical consumers	●●	●	●
Suitability for short distances	●●	●	●
Maintenance and water consumption	Absolutely maintenance-free	Absolutely maintenance-free	Absolutely maintenance-free
Installation inside the vehicle	Yes	Yes	Yes
Installation angle	0°	0°	0°
Shelf life	18 months	15 months	12 months

(1) Labyrinth lid: returns condensed water to the battery; integrated central degassing, backfire protection and an additional sealing ring ensure high operational safety

Advantages at a glance

- Outstanding starting power and a long service life:** the special grid design for optimized current flow and less corrosion increases the cold start performance
- Particularly high corrosion resistance:** ensured by optimized production processes
- Absolutely maintenance-free:** the double lid with labyrinth design returns condensed water to the battery thus reducing the water consumption; and preventing sudden leaks of acid if tilted
- High safety:** ensured by double backfire protection and integrated central degassing

S5/S4/S3 with SLI technology

Technology

Set of plates with particularly robust connection

The central arrangement of the connectors between positive and negative plates ensures additional stability.

Labyrinth lid for high operational safety

The double lid with labyrinth design ensures that evaporated liquid remains inside the battery. This makes the SLI batteries absolutely maintenance-free and leak-proof.

Terminal-post covers

Provide protection against short circuits.

Ergonomic handles

For easy transport and installation.

Ion-permeable pocket separator

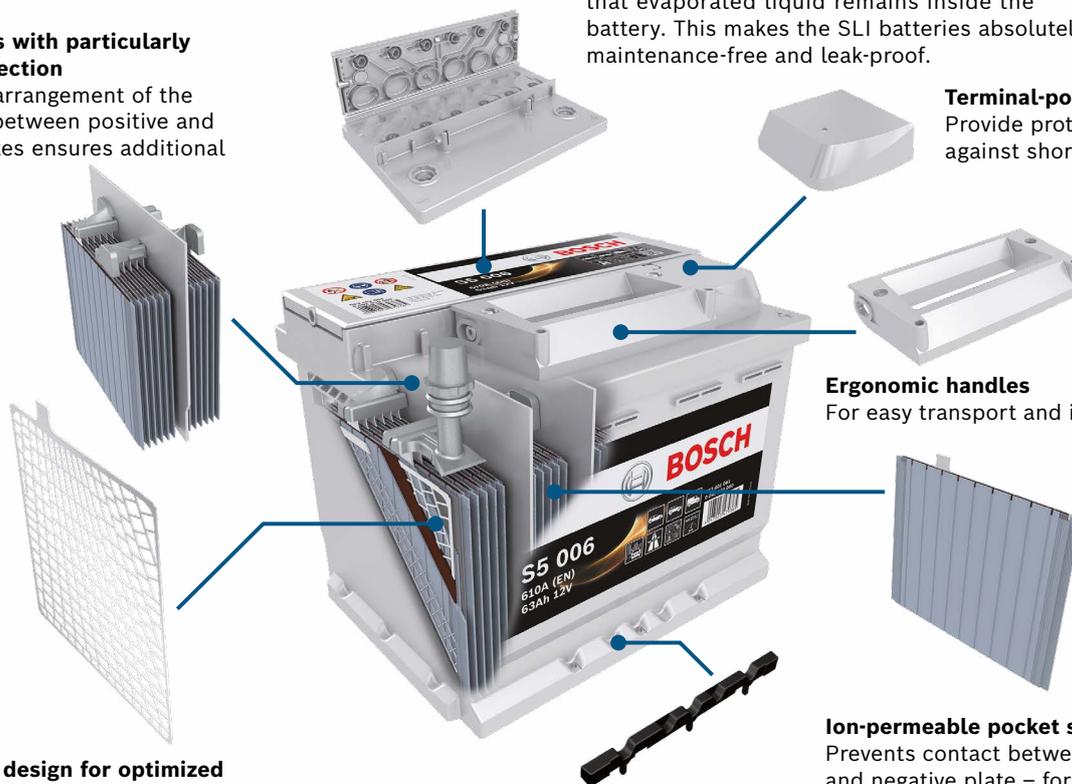
Prevents contact between positive and negative plate – for longer service life and higher starting power.

Special grid design for optimized current flow and reduced corrosion:

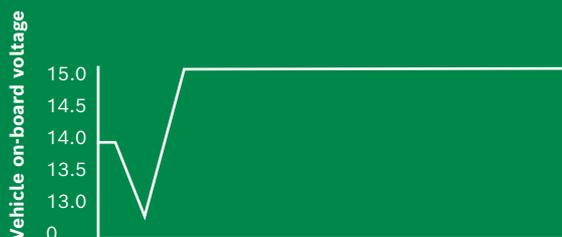
The special grid design ensures consistently high starting power and a long service life. In addition, a special alloy provides high corrosion resistance and very low self-discharge.

Universal adapter bottom rail with high degree of vehicle compatibility

For safe, precisely fitting installation.



Battery straining in case of conventional vehicles



Characteristic: A single start-up procedure followed by recharging



Preventing battery-related breakdowns

Defective batteries are one of the most common causes of breakdowns. Multiple electrical consumers, numerous short trips or long stationary periods all place a lot of demand on batteries. The result is that the battery loses more energy than it can regenerate from the alternator. Regularly checking the charge status at home or in the workshop helps prevent battery-related breakdowns.

S5 A with AGM technology¹⁾

Product details

The premium Bosch battery with AGM technology provides enough power for frequent starts and stops, supports regenerative braking (recuperation) and is a reliable source of power for electrical consumers during the stop phase.



(1) AGM (Absorbent Glass Mat): acid absorbed by micro-fiberglass mat allows more energy to pass through

Advantages at a glance

- **Constant power even for short trips, stop-and-go traffic or high consumption in stationary mode:** acid absorbed by micro-fiberglass mats allow higher amounts of energy to be provided
- **Longer service life and up to 4 times higher deep-cycle resistance than conventional starter batteries:** in case of AGM technology⁽¹⁾ the acid is absorbed by micro-fiberglass mats thus keeping the self-discharge rates low
- **Reliable starting even under extreme temperatures and with several electrical consumers:** ensured by even acid distribution preventing stratification
- **Excellent charge acceptance:** the special grid for optimized current flow and less corrosion increases the cold start performance
- **Particularly high corrosion resistance:** ensured by optimized production processes
- **Absolutely maintenance-free:** the double lid with labyrinth design returns condensed water to the battery thus reducing the water consumption; and preventing sudden leaks of acid if tilted

S4 E with EFB technology¹⁾

Product details

The powerful Bosch battery with EFB technology is customized to meet the requirements of cars with start/stop systems. It ensures safe starting – even if the vehicle operates several electrical consumers.



(1) EFB (Enhanced Flooded Battery): positive plate coated with polyester scrim ensures additional retention of the active material and a high deep-cycle resistance

Advantages at a glance

- **Longer service life and twice the deep-cycle resistance of conventional starter batteries:** in case of EFB technology⁽¹⁾ the positive plate is coated with a polyester scrim, providing additional hold for the active material thus keeping the self-discharge rates low
- **Reliable starting even under extreme temperatures and with several electrical consumers:** thanks to optimized active material
- **Excellent charge acceptance:** the special grid for optimized current flow and less corrosion increases the cold start performance
- **Particularly high corrosion resistance:** ensured by optimized production processes
- **Absolutely maintenance-free:** the double lid with labyrinth design returns condensed water to the battery thus reducing the water consumption; and preventing sudden leaks of acid if tilted

S5 AX with AGM technology¹⁾

Product details

Equipped with modern technology and featuring a corrosion-proof design, Bosch auxiliary batteries provide different types of vehicles with the energy they need – over long periods.



(1) AGM (Absorbent Glass Mat): acid absorbed by micro-fiberglass mat allows a longer service life and a high deep-cycle resistance

Advantages at a glance

- **Reliable power even for load peaks caused by very high consumption:** stabilizing the 12 V on-board network and extending the start-stop moment
- **Reliable starting even under extreme temperatures and with several electrical consumers:** ensured by even acid distribution preventing stratification
- **Absolutely maintenance-free:** the special lid design keeps condensed water in the battery thus reducing the water consumption
- **Longer service life and up to 4 times higher deep-cycle resistance than conventional starter batteries:** in case of AGM technology⁽¹⁾, the acid is absorbed by micro-fiberglass mats thus keeping the self-discharge rates low
- **Particularly good charge acceptance and corrosion resistance:** optimized grid design and production process for better currentflow and reduced corrosion

What drives you drives us

Bosch technologies are used in most vehicles worldwide.
People, and assuring their mobility, is what we are focused on.

Therefore, we have dedicated over 130 years of pioneering spirit
and expertise in research and manufacturing to achieving this.

We provide the aftermarket and workshops worldwide with modern diagnostic and workshop
equipment and a wide range of spare parts for passenger cars and commercial vehicles:

- solutions for efficient vehicle repairs
- innovative workshop equipment and software
- one of the world's most comprehensive ranges of new and exchange parts
- large network of wholesale customers, for quick and reliable parts supply
- competent hotline support
- comprehensive educational and training offers
- targeted sales and marketing support

Find out more at:
boschaftermarket.com

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