

# Perfect power for all heavy duty vehicles:

# Bosch battery overview

An increasing number of electric power components, long idle times and extreme temperature conditions can push heavy duty vehicle batteries to the limit. Bosch batteries ensure a reliable power supply at all times. Thanks to advanced technologies, they are absolutely maintenance-free and feature a long service life – saving fleet operators both time and money.

## Line

Battery

**Technology** 

**Application Characteristics** 

#### Maintenance

**Installation Inside the Vehicle** 

**Cold-start Performance** 

**Capacity for Electronic Demand** 

**Deep-cycle Resistance** 

**Suitability for Short Distances** 

**Vibration Resistance** 

**Installation Angle** 



<sup>\*</sup> AGM (Absorbent Glass Mat)

### **T6**

The T6 battery with AGM technology produces extremely high starting power and a reliable supply for a large number of applications under tough and straining conditions.

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### **T5**

The T5 dual-purpose battery provides maximum performance and cycle stability, especially for vehicles with a high energy demand and frequent discharge cycles.

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## **T4**

The T4 battery supplies power to all running applications in heavy duty vehicle operations that require a normal level of energy – even with the engine shut off or in instances of frequent discharge.

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AGM*	SLI**					
Т6	Т5	Т4				
AGM/Full Frame	Flooded/Full Frame	Flooded/Full Frame				
Long-haul trucks with sleeper cabs, distribution trucks with tail lifts, fire-fighting vehicles, construction machinery, off-road trucks, coaches and buses, municipal vehicles with a high rate of city traffic	Long-haul trucks with sleeper cabs, distribution trucks with tail lifts, fire-fighting vehicles, coaches and buses, municipal vehicles with a high rate of city traffic	Construction machines and off-road vehicles and applications requiring a high level of power for starting				
Absolutely maintenance-free – reduces fleet operating costs	Absolutely maintenance-free – reduces fleet operating costs	Absolutely maintenance-free – reduces fleet operating costs				
Yes	Yes	Yes				
• •	• •	•				
• •	• •	•				
• •	•	•				
• •	•	•				
• •	• •	•				
0° – 90°	0°	0°				



# **T6 High Performance AGM:**

# Innovation for extreme demands



The Bosch T6 Battery with AGM technology is designed to meet especially high performance demands. It provides dependable energy for extremely demanding starting conditions, while ensuring the reliable supply of a large number of applications – even under extremely tough and straining conditions.

AGM (Absorbent Glass Mat) is among the latest cutting-edge technologies for batteries. Special micro-fiberglass mats are installed close to the lead plates of the battery and completely absorb the battery acid. High contact pressure minimizes the loss of active material with very low internal resistance. In demanding situations, larger amounts of energy can pass through as the reaction between the acid and the plate is faster.





## **AGM (Absorbent Glass Mat) Technology**



## Set of plates with extra robust design

Special AGM design includes an Enhanced Electrolyte Suspension system to completely absorb the acid and protect the battery plates. The plates and glass mats are tightly arranged with an optimal level of compression to ensure premium performance and reinforced durability.



## Full Frame grid for optimum current flow and reduced corrosion

The flow-optimized grid design guarantees consistently high starting power and a long service life. In addition, a special alloy ensures a high corrosion resistance and significantly lower self-discharge.



# AGM — acid absorbed by micro-fiber glass mats

Special micro-fiber glass mats completely absorb all the battery acid. High contact pressure strengthens the power-producing component while resisting dryout for extended cycle service. A lower internal resistance provides an optimized power flow throughout the battery.

## Advantages of the Bosch T6 High Performance AGM Battery:

- Very long service life and doubled deep-cycle resistance compared to conventional batteries
- ► Absolutely maintenance-free

- ▶ Better vibration resistance
- ► Superior performance under extreme climates
- ► Excellent charge acceptance and starting power for vehicles with the highest electronic demands
- ► 2-year free replacement warranty

### Typical battery load during city driving



Frequent starts and stops in urban traffic and high electric use often result in a negative energy balance. The Bosch T6 Battery has a high capacity for enhanced feasibility of frequent charging and discharging. This significantly increases, for instance, the energetic efficiency during start/stop operations. The high deep-cycle resistance is especially beneficial for long-haul trucks with batteries that support various convenience functions. The outcome: reliable long-term operation.

# **T5 Dual Purpose and T4 Batteries:**

# Reliability from departure to arrival



The Bosch T5 and T4 Batteries feature massive power reserves. The Full Frame technology facilitates optimum current flow and ensures an extraordinarily long service life. T5 and T4 batteries are absolutely maintenance-free, saving fleet operators both time and money.

**Full Frame technology** provides the Bosch T5 and T4 Batteries with the perfect structure to perform reliably in heavy-duty applications. The negative Full Frame grids enhance efficiency of current flow and resist vibration

damage for trouble-free service. The positive Full Frame grids direct more current to the terminals to deliver maximum starting power. Designed to resist plate growth, self-discharge, and corrosion for extended life.





## **Flooded Technology**





# Full Frame grid for optimum current flow and reduced corrosion

The flow-optimized grid design guarantees consistently high starting power and a long service life. In addition, a special alloy ensures a high corrosion resistance and significantly lower self-discharge.



# Highly protective pocket separator

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

### Advantages of the Bosch T5 Dual Purpose Battery:

- ► Extended service life and deep-cycle resistance compared to conventional batteries
- ► Very high starting power: reliable starting even after extended idle times
- ► Absolutely maintenance-free
- ► Faster re-charging capabilities compared to conventional batteries
- ► Flushed tops for minimized risk of acid leakage
- ► Dual-purpose functionality provides reliable power supply for all electronic demands, even with the engine shut off
- ▶ 18 months free replacement warranty

### Advantages of the Bosch T4 Battery:

- Long service life and improved deep-cycle resistance compared to conventional batteries
- ► High starting power: reliable starting even after extended idle times
- ► Absolutely maintenance-free
- ► Faster re-charging capabilities compared to conventional batteries
- Flushed tops for minimized risk of acid leakage
- ▶ 18 months free replacement warranty

# The Bosch T5 and T4 Batteries for heavy-duty operation — safety without compromise

There's no leaking battery acid — even when operating on slopes — which prevents corrosion damage. The solid battery design prevents changes to the mechanical structure, even when subject to extended periods of vibration. The result is a constant, safe, and reliable power supply.



# **Full-service Support from Bosch:**

# Top performance from a single source



## **Battery Maintenance**

Battery Chargers/Maintainers from Bosch

## **SmartCharge Pro**

PN: SCPRO



- ▶ 12/24V
- ► 7A
- 6 charging modes, including backup and regeneration
- ► Digital display

## **SmartCharge Plus**

PN: SCPLUS



- ▶ 6/12V
- ▶ 3.8A
- 4 charging modes, including specific motorcycle modes
- ► Digital display

## **SmartCharge**

PN: SCBASIC



- ▶ 12V
- ▶ 3.5A
- 2 charging modes (Flooded/AGM)

- ► Professional and smart handheld charging devices for 6/12/24V VRLA batteries, including gel and AGM
- ► Includes advanced safety functions: Spark Protection, Reverse Polarity Protection, Overcharge Protection, Overheating Protection
- ► Includes high-quality accessories: Quick-connect harness, SAE adapter, fully-isolated clamps and cables, additional cable fuse, mounting hook
- ► Certified for secure usage: UL, CEC, FCC, IP65



## **Parts**



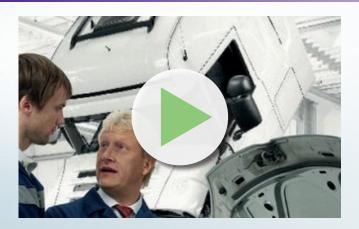
- Complete range of batteries
- ► Cutting-edge technologies
- ► First-class quality and reliability
- Extensive system expertise and a wide range of products for start/stop systems

# **Diagnostics**



- ► Professional battery chargers
- ► KTS diagnostic and BAT battery tester for changing batteries
- ► ESI[tronic] diagnostic software with detailed, vehicle-specific service and repair instructions, system information and spare-part catalogs for all vehicles

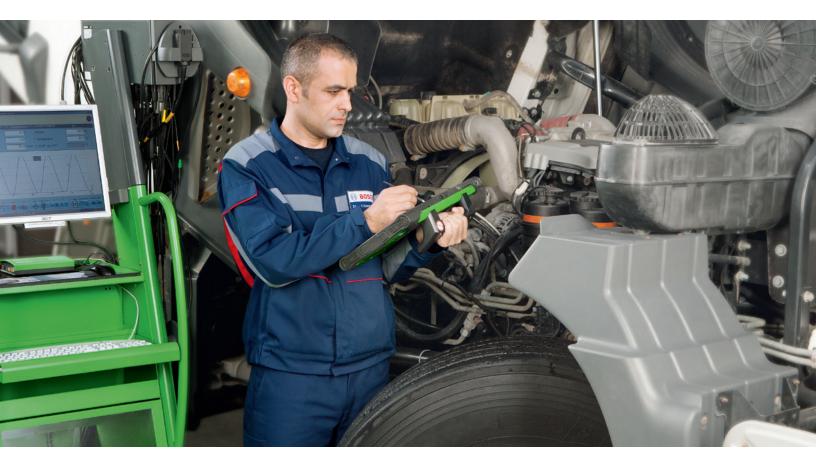
# **Services**



- ► Training sessions and workshops
- ► Training and product videos
- Visit www.boschautoparts.com for details

# **Bosch HD Battery Program:**

# Technical data and order numbers



## **T6 High Performance AGM Battery**

Class	Catalog Number	Bosch 13 Digit Part Number	UPC	BCI Size	CCA	CA	RC	Length (mm)	Width (mm)	Height (mm)	Weight (lb)
Т6	T6-31	0092T650497HH	077212207145	31	925	1050	190	330	171	241	66.5
	T6-31P	0092T650517HH	077212207152	31P	925	1050	190	330	171	241	66.5
	T6-31DC	0092T650507HH	077212207169	31	800	1000	200	330	171	241	69

## **T5 Dual Purpose Battery**

Class		Bosch 13 Digit Part Number	UPC	BCI Size	CCA	CA	RC	Length (mm)	Width (mm)	Height (mm)	Weight (lb)
Т5	T5-31	0092T550497HH	077212207176	31	730	900	190	330	171	241	62
	T5-31P	0092T550507HH	077212207183	31P	730	900	190	330	171	241	62

## **T4 Battery**

Class	Catalog Number	Bosch 13 Digit Part Number	UPC	BCI Size	CCA	СА	RC	Length (mm)	Width (mm)	Height (mm)	Weight (lb)
Т4	T4-4D	0092T450137HH	077212207190	4D	1050	1290	290	527	216	258	97
	T4-4DLT	0092T450147HH	077212207206	4DLT	850	1045	240	508	206	206	80
	T4-8D	0092T450217HH	077212207213	8D	1425	1755	440	527	279	254	127
	T4-31	0092T450497HH	077212207220	31	760	935	170	330	171	241	55.5
	T4-31+	0092T450507HH	077212207237	31	1000	1230	185	330	171	241	60
	T4-31P	0092T450517HH	077212207244	31P	760	935	170	330	171	241	55.5
	T4-31P+	0092T450527HH	077212207251	31P	1000	1230	185	330	171	241	60

# **The Benefits of Bosch**

# Did you know?

- ➤ Brand of choice and best/better segment leader in Europe
- ► Battery distribution in 105 countries worldwide
- ► 30% of OE market share on start/stop systems and connected diagnostics
- Awarded best brand for batteries in Germany for the past 10 years

# Bosch has the battery to fit your needs

Bosch batteries start vehicles and a wide range of equipment in all kinds of weather conditions. Their innovative technology makes these energy packs resistant to high temperatures in the engine compartment. At the same time, acid consumption and corrosion are minimized. This translates into minimum self-discharge, extreme tolerance for short-distance driving and reliable operational safety throughout the battery's service life.

#### **Longer Service Life**

Today, car and heavy duty batteries are exposed to ever increasing underhood temperatures. In fact, an engine compartment can reach temperatures well above 212 °F/100 °C. Corrosion resistant technology resists damage caused by heat and significantly increases the service life of the batteries.

### **Quick and Reliable Starting**

Bosch batteries are designed to operate in all climates.

#### **Top Performer**

Bosch passenger car batteries have been recognized as "top performers" by consumer magazines.

## **Easy to Choose**

Bosch batteries are simple to select based on your vehicle's needs.

### **Extensive Market Coverage**

Bosch has a battery for virtually every vehicle and a wide range of equipment. If you need it, Bosch has it.

#### **Recognized for Quality and Innovation**

Bosch has more than 80 years of experience in batteries, with extensive knowledge in auto parts and diagnostics.



# What drives you, drives us.

Technology from Bosch is used in practically every vehicle in the world. For us, the focus is on people and helping them to stay mobile.

We have been dedicated to people for more than 130 years with our pioneering spirit, research, production and expertise.

Our dedication is an unwavering commitment to providing a unique combination of parts, diagnostics, workshop equipment and services:

- ► State-of-the-art solutions for efficient vehicle repairs
- ► Innovative workshop equipment and software also available on favorable lease terms
- ▶ The world's largest range of new and remanufactured spare parts
- ► Fast, reliable delivery service
- ► Expert customer care via our hotline 1-888-715-3616
- ► Extensive range of training courses
- ▶ Specific sales and marketing support
- ▶ Plus many other services



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#### **Bosch products and services**

- Diagnostics
- ▶ Diesel systems
- ▶ Gasoline systems
- ▶ Brake systems
- ► Spark plugs
- ► Energy systems
- ▶ Batteries
- ► Filters
- Wiper systems
- ► Light technology
- ► Comfort electronics
- ► Hybrid/e-mobility
- ▶ Technical hotline
- ► Knowledge database
- ▶ Service training
- ▶ Workshop concepts

Subject to technical and program changes.