

Invented for life



**BOSCH**

# A/C compressors and condensers

in the Bosch spare-parts program

**New!**



# A/C components

## Overview

For the maintenance of air conditioning systems, with its A/C service units, Bosch is already a competent and reliable partner for workshops. From now on, A/C compressors and condensers will also be offered in the Bosch spare parts range to also support workshops in case of repairs.

### Driving comfort and safety through air conditioning

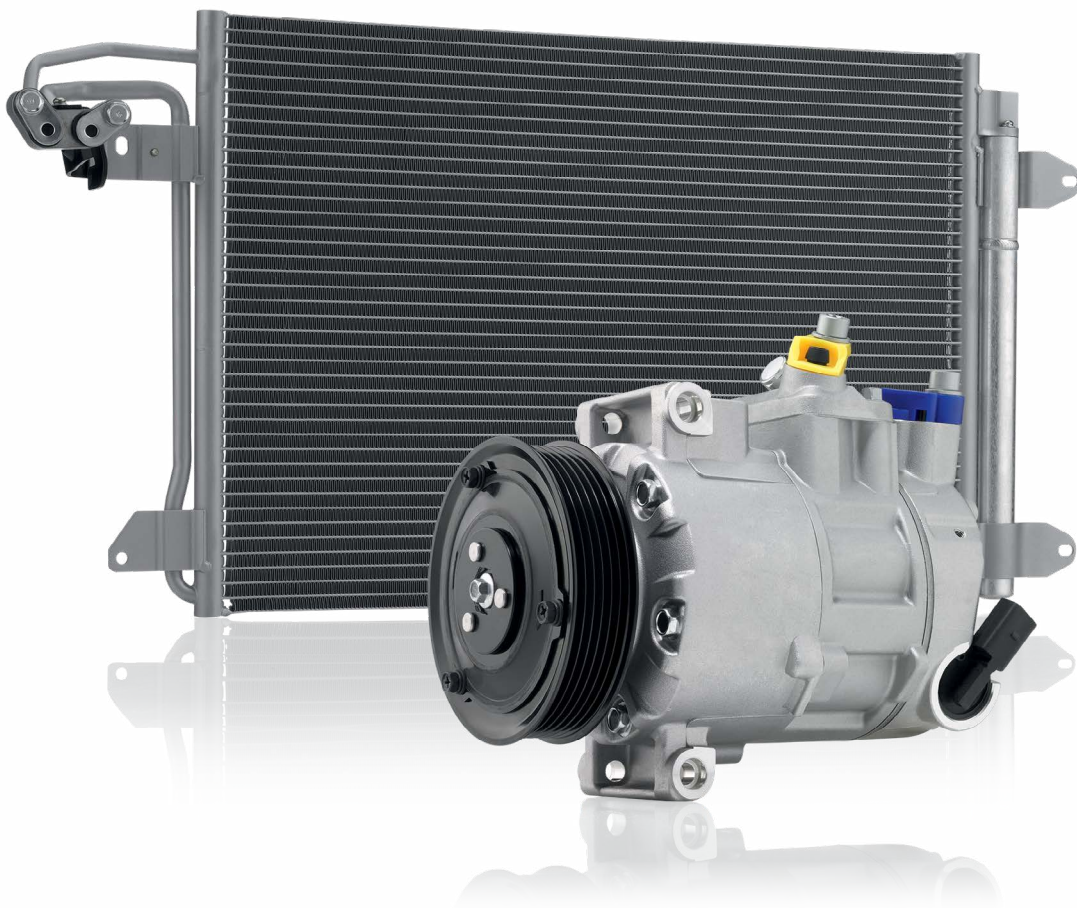
Air conditioning systems used to be reserved mainly for vehicles in the luxury class. Meanwhile they became standard equipment in most vehicles. Well-maintained air conditioning systems not only ensure pleasant temperatures and relaxed driving. They also prevent fogged windows and thus contribute to better visibility.

### Reliable and long lasting

Compressors and condensers from Bosch undergo stringent endurance and leak tests before being included in the program. The result are products of proven Bosch quality with high reliability and a long service life.

### Thermal management know-how

The thermal management system in the vehicle ensures that components operate in the optimal temperature range and that the temperatures are comfortable for the occupants inside the cabin. In-depth knowledge of thermal systems in vehicles, decades of development and manufacturing experience as well as an extensive range of spare parts make Bosch an experienced partner in this field. As a contribution to efficient and economical mobility, Bosch is developing further thermal management products for the original equipment of hybrid and battery-electric vehicles.





# Compressor

## Product details

The compressor is the heart of the closed air-conditioning circuit. Bosch A/C compressors reliably ensure the compression and circulation of the refrigerant in the system. They are subject to strict quality tests and available for all common refrigerants on the market.



### Advantages at a glance:

- **Reliable performance and long service life** through rigorous endurance and leak testing based on the high Bosch quality standards
- **Easy installation** due to precise fit and prefilling with the correct amount of functioning oil
- **Protected and safe delivery** in reinforced and robust packaging
- **Comprehensive assistance during installation** by multilingual installation instructions



### Accessory drive

Bosch offers an extensive range of V-belts, ribbed V-belts, tensioner and idler pulleys, torsional vibration dampers and overrunning alternator pulleys.



# Condenser

## Product details

The condenser is an important component of the closed air conditioning system. As so-called heat exchangers, the Bosch condensers liquefy the hot refrigerant coming under high pressure from the compressor with the help of the airstream. They are subject to strict quality tests and available in different designs to fit the respective vehicle.

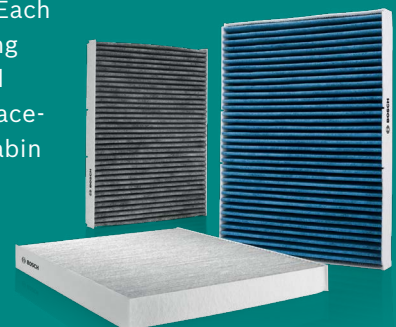


Advantages at a glance:

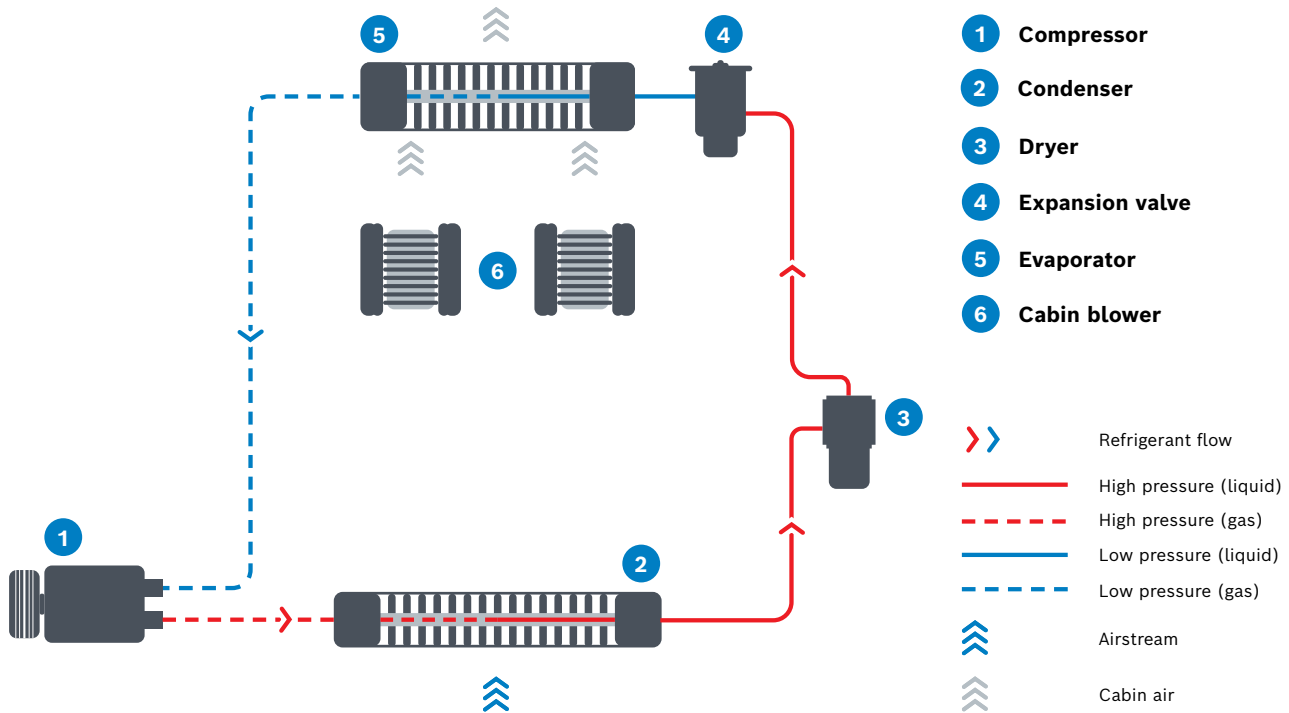
- **Reliable performance and weather resistance** through stringent leakage and corrosion testing based on the high Bosch quality standards
- **Easy installation** due to precisely fitting connections for the respective application
- **Protected delivery and space-saving storage** in tight and customized packaging
- **Comprehensive assistance during installation** by multilingual installation instructions

### Cabin filters

Bosch recommends changing the **cabin filter** once a year or every 15,000 km. In addition, the vehicle manufacturer's specifications must be observed. Each air conditioning service should include a replacement of the cabin filter.



# Air conditioning Technology



## Function of the air conditioning system

When the air conditioning system is activated while the engine is running, the belt-driven **compressor (1)** starts compressing the gaseous refrigerant within the closed air conditioning loop.

During this process, the gas heats up and is then under high pressure going into the **condenser (2)**, where it is cooled by the passing outside air and condenses.

Any water or impurities introduced into the liquid refrigerant are then removed in the **dryer (3)**.

From the dryer, the liquid refrigerant, which is under high pressure, is injected through a narrow **expansion valve (4)** into the **evaporator (5)**. Here it expands and starts to evaporate already at low temperatures.

The heat required for the evaporation process is extracted from the passing air and cools it down. Since cold air can bind less moisture than warm air, condensation forms on the fins of the evaporator, which is conducted to the outside through a hose. This explains puddles of condensation water under parked vehicles.

The **cabin blower (6)** then conveys the cold air into the interior of the vehicle. The compressor sucks in the gaseous refrigerant again and the cycle starts all over again.



## Professional air conditioning service

For easy and efficient maintenance of R134a and R1234yf air conditioning systems Bosch offers an extensive range of **A/C service units** and **compressor oils**.



# 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](https://boschaftermarket.com)

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