

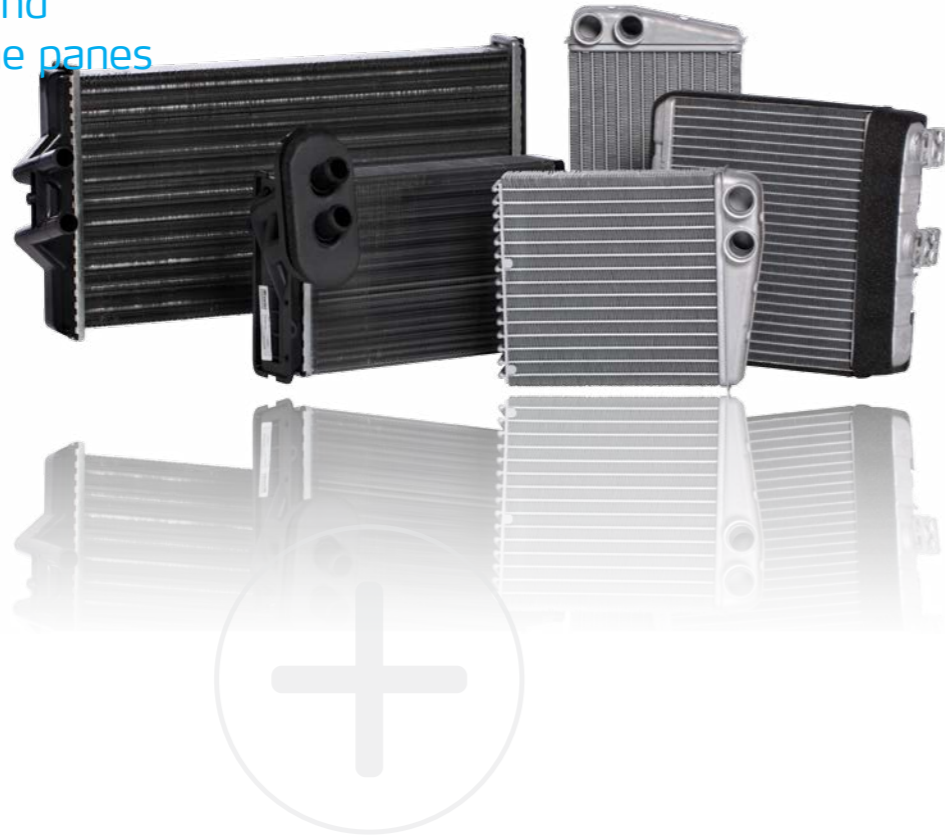
# Heater

## Warm air production and safety by demisting the panes

The heater is an integral part of the engine cooling system. However, it contributes significantly to the climate system ensuring the production of warm air. The heater is often located behind the dashboard or in the HVAC module.

Hot coolant from the engine block passes through the heater, warming up the intake air blown on its surface by the interior blower. The air gets warmer and can be forwarded into the car cabin.

As heater produces warm air during cold days in autumn and winter, it significantly improves safety by shortening the demisting of the vehicle's panes.



PROGRAM FOR  
CARS  
VANS  
TRUCKS

### Optimized Airflow

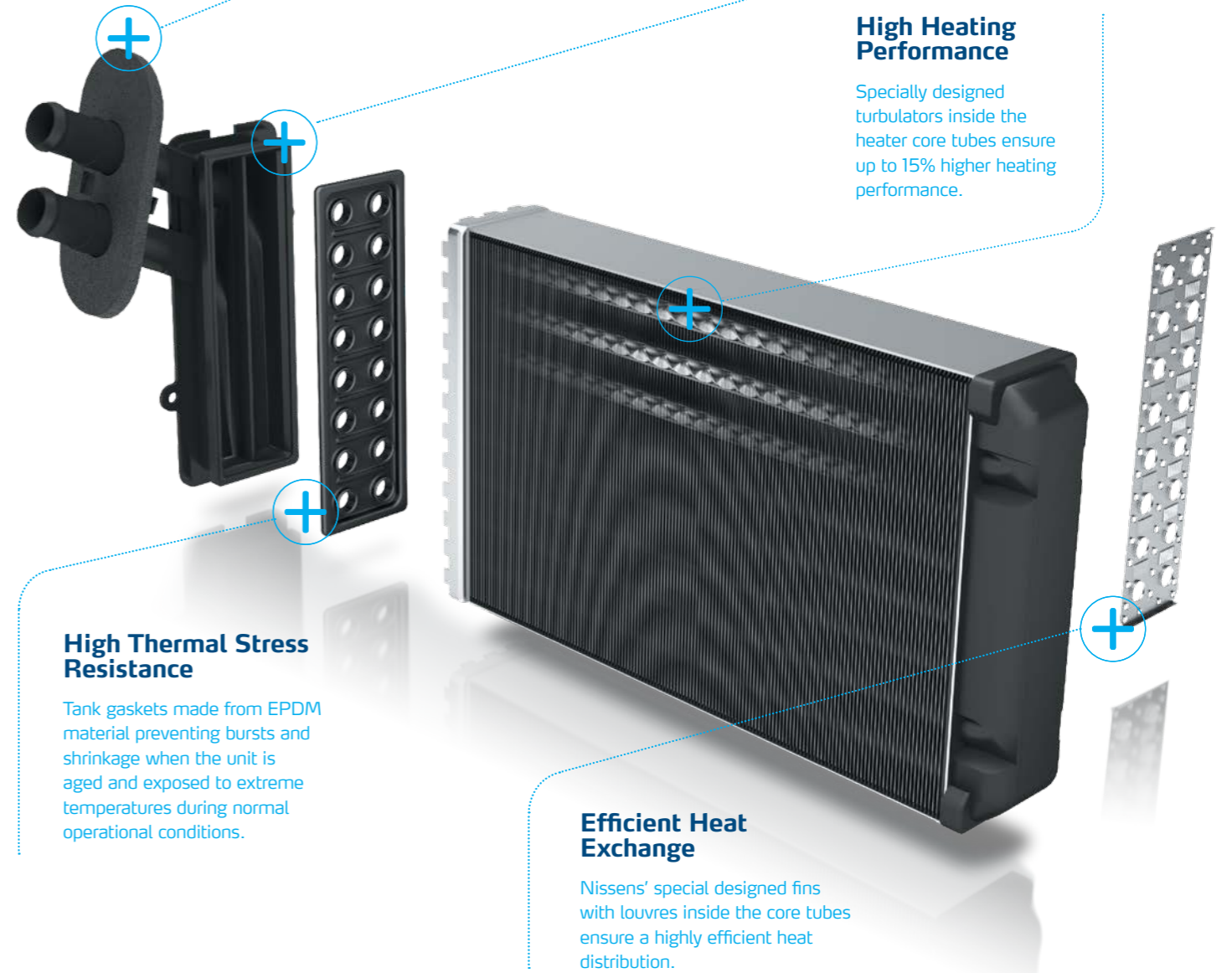
Extra foam added on selected heater models to ensure an optimized airflow.

### Better Mechanical and Thermal Stress Resistance

Tanks made of high-quality plastics, no recycled plastic mixtures applied, to ensure strong mechanical and thermal stress resistance.

### High Heating Performance

Specially designed turbulators inside the heater core tubes ensure up to 15% higher heating performance.



### High Thermal Stress Resistance

Tank gaskets made from EPDM material preventing bursts and shrinkage when the unit is aged and exposed to extreme temperatures during normal operational conditions.

### Efficient Heat Exchange

Nissens' special designed fins with louvres inside the core tubes ensure a highly efficient heat distribution.

### OE Quality

All Nissens' heaters are designed, manufactured and tested 100% according to OE requirements. The heater development process includes a number of life tests, examined and tested by means of vibration, pressure impulse, thermal expansion, corrosion and bursting eliminating the risk of leakage, insufficient heating performance or quality problems such as odours or oil residues etc.

### Easy Installation

Nissens' heaters are thoroughly finished in every detail. They fit smoothly into the mounting cassette in the dashboard/HVAC module, thus ensuring a smooth and quick installation. If required, selected heater models are equipped with additional connections and extra foam rubber.

### Competitive Range

Product range with +450 items covering more than 780 OE numbers of cars, vans and trucks.

### Important to know

- Scale that precipitates from water applied instead of a proper coolant may block the heater core limiting the coolant flow. Sediment and grime from poor quality coolants, wrong coolant mixtures or residues of cooling system leak stops will also accumulate in the heater tubes limiting flow thus operation.
- Worn-out or broken thermostat valve may cause a restricted coolant flow thus preventing the heater to operate properly.
- Due to its position in a damp environment, the heater is often exposed to corrosion which may cause leakages.
- Lack of coolant caused by leakages (in other components as well) will result in improper heater operation.

# AC Fan

An important player of the air conditioning system

The fan plays an important, supportive role for the effective operation of the engine cooling and climate systems of the vehicle. In the climate system, the AC fan forces air through the condenser.

High operation pressures inside the condenser and the temperature produced by the condensation process require an additional air flow supporting the heat exchange between the ambient air and the refrigerant inside. Cooling produced by the fan is crucial for proper condenser operation.



## Important to know

- A nonperforming AC fan has a very negative impact on the condensation process inside the condenser thus the entire AC system performance
- As an electrical device, the fan is often exposed to failure due to problems with the vehicle's electrical system, e.g. overvoltage, bad fuse, nonperforming alternator
- Depending on the vehicle application, the AC fan can be engaged by means of: pressure switch, indirect connection to the compressor clutch, the vehicle's Electronic Control Module (ECM) or signals sent from the AC-ON button

### Reliability & Performance

High-quality fan assemblies and fan components offering proven cooling performance and stable, long-life operation.

### OE Quality

100% OE equivalent. Conforms with the ISO 7637, ISO 16750 standards and the directive of Electromagnetic Compatibility (EMC).

### Competitive Range

Fan program perfectly matching the IAM needs: Product range with +500 items covering more than 1,500 OE numbers and a varied selection of fan components (e.g. motor and fan blade). Highly competitive prices.



### Improved Resistance to Mechanical Damage and Wear

Material matching OE 100%. Only high-quality plastics, no recycled plastic mixtures.

### Smooth Operation of the Electrical Motor

High-quality electric motor armature ensuring reliable operation of the motor and strong protection against destructive current peaks and overvoltage..

### Corrosion Protection

Special, anti-corrosive treatment of the motor cover according to the strict REACH regulation to avoid any electromagnetic disturbance to other electronic elements.

### Trouble-free Operation

A special material mixture applied to the carbon brushes developed by Nissens ensuring excellent reliability and supreme overvoltage protection.

### Trouble-free Installation

High-quality wirings and electrical connections enabling a smooth installation.

PROGRAM FOR  
CARS  
VANS

# Interior Blower

Ensures a proper air intake, flow and distribution which are required for the climate system to operate

The interior blower ensures a proper amount of ambient air intake and flow of air throughout heat exchangers – heater and evaporator. Flowing through the heat exchangers, the air can be either warm or cold and thanks to the blower, the air is distributed in the car cabin.

Typically, the blower is situated in the HVAC (Heat-Ventilation-Air-Conditioning) module located between the cabin and the engine compartment.

The interior blower is an electrical device considered fragile, due to plastic elements, and electrically sensitive to vehicle system failures.



## **i** Important to know

- Clogged or worn cabin air filter reduce the interior blower lifespan significantly
- Most common reasons for interior blower failure are failures in the vehicle's electrical system, reduced flow in the air intake system and improper product handling during installation
- The interior blower in commercial vehicle applications (taxis, buses etc.) is often exposed to faster wear (mileage and working hours)

## Reliability & Performance

Advanced in-house performance, mechanical and electrical test series ensuring a high-quality, long-life product characterized by reliable, high-performing operation as well as minimized noise emission.

## OE Quality

100% OE equivalent. Conforms with the ISO 7637, ISO 16750 standards and the directive of Electromagnetic Compatibility (EMC).

## Easy Installation

Plug & Play modules ready for an instant installation. Nissens' online catalogues with detailed product information, high-quality technical drawings and rotational 360° pictures as well as close-up pictures of electrical connections/sockets. Installation videos for the most demanding and popular blower models.

## Competitive Range

Product range with +125 items covering more than 450 OE numbers and constantly being broadened to incorporate the most popular market applications within the car, van and truck segments.



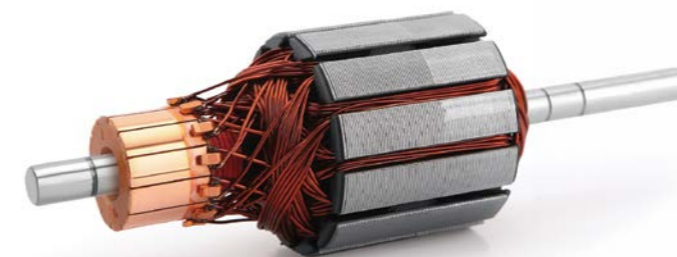
## Improved Resistance to Mechanical Damage and Wear

Material matching OE 100%. Only high-quality plastics, no recycled plastic mixtures.

PROGRAM FOR  
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TRUCKS

## High Precision Speed Control

OE control unit and electrical resistors to ensure high performance.



## Smooth Operation of the Electrical Motor

High-quality electric motor armature ensuring reliable operation of the motor and strong protection against destructive current peaks and overvoltage.



## Trouble-free Operation

A special material mixture applied to the carbon brushes developed by Nissens ensuring excellent reliability and supreme overvoltage protection.