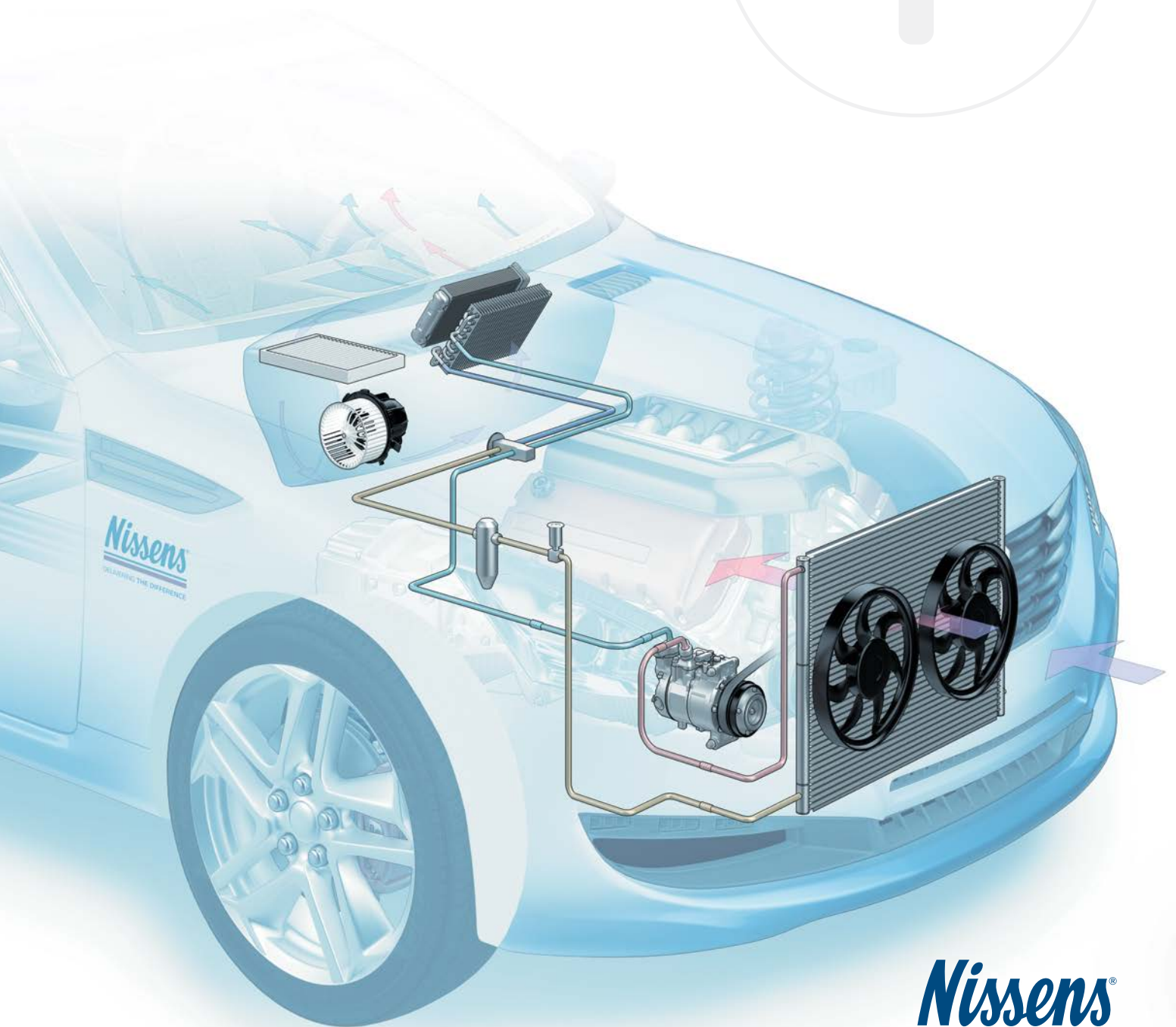


AUTOMOTIVE
THERMAL
SYSTEMS

CLIMATE SYSTEM COMPONENTS



Every day
while
you drive...

we enable your climate system to perform for you.

Today, most modern cars are equipped with an air-conditioning system. The improved cabin comfort and the increased quality of the air intake have become a standard that is no longer considered a luxury. From passenger cars to commercial heavy-duty machinery, the automotive climate systems, today, are an integrated part of the vehicle's comfort and safety.

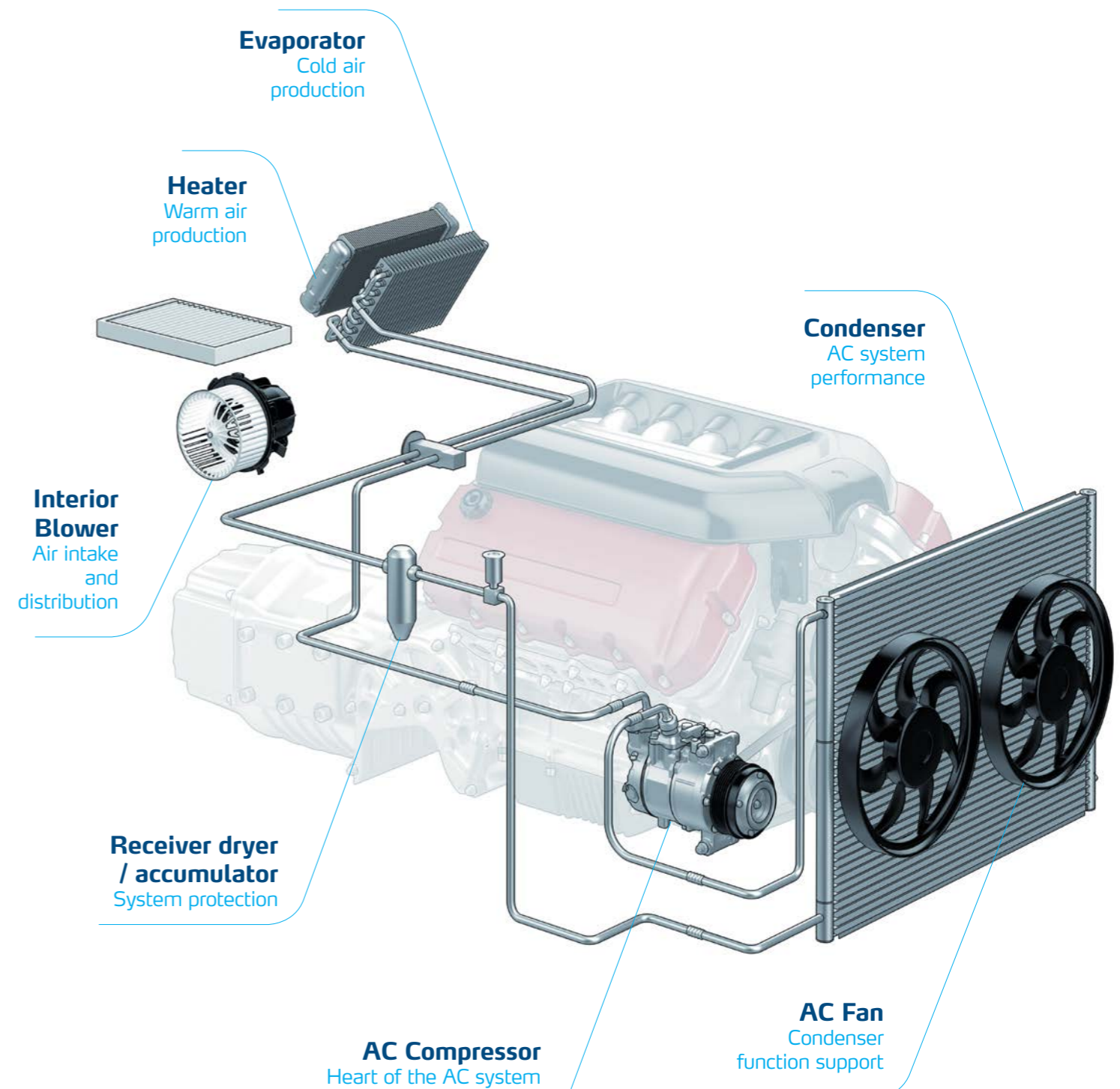
Over the last years, Nissens has invested a significant amount of resources in research on and development of climate system components for the automotive segment. Years of thermal know-how and manufacturing experience mean that we are able to meet the emerging market need for a comprehensive range of high-quality air conditioning spare parts, whilst, at the same time, being a market educator for technical insight into the climate systems field.

As a market leading manufacturer of most essential climate system components, Nissens offers a comprehensive product portfolio, covering more than 9,600 OE numbers. Covering everything from the fast moving to the more exotic parts of the European, Asian and American vehicle brands, Nissens is the ideal choice for quality, range and expertise.

Focusing on added features, such as 'First Fit' and 'First to Market', our partners in the IAM are always up to date and in line with the latest market trends, securing them the right position for growing and developing their markets.

Every time it involves your AC system, Nissens is right there with you - contributing to the comfort and safety of your journey.
**Experience the difference.
Enjoy the ride.**

More than 3,000 High-quality
Climate System Components
for Cars, Vans and Trucks



Know-How

Manufacturer, reengineering and critical component improvement, wide product range

Quality

The best raw materials, design that matches OE 100%, advanced life & performance test series

Easy installation

Product features reducing installation time, professional knowledge sharing to avoid common installation problems, excellent product catalogues

Durability & Performance

Special features improving the product lifespan, supreme thermal performance product test series



experience
the real
difference

Condenser

Heat exchanger - crucial for the refrigerant state change in the system.

The condenser is placed at the front of the car and is typically attached to other heat exchangers in the engine compartment like engine cooling radiator or intercooler.

The role of the condenser is to ensure that the state of the refrigerant changes from gaseous to liquid form. The change of state is called the condensation process where the refrigerant heat is extracted and exchanged with the ambient air.



Important to know

- The condenser is a component particularly exposed to corrosion, which, quickly, may weaken the mechanical construction and performance of the component as well as reduce its tightness.
- Corroded or missing fins significantly reduce the performance of the condenser thus the reliability of the entire AC system.
- A leaking or non-performing condenser leads to an excessive overload of the other AC loop components – mainly the compressor, exposing it to overheating and, in extreme cases, to seize up.

Extended durability

Extended product lifespan thanks to a special protection applied to condenser models particularly exposed to corrosion.

OE quality

Designed, manufactured and tested 100% according to OE requirements. Packaging with excellent protection against transport damages.

Easy Installation

Perfect finish and product fit, enabling a quick and smooth product installation.

IAM's bestseller

O-rings included in the product box (First Fit).

Very competitive product range covering +97% of the European vehicle fleet, +1,100 models in range, +100 new models added each season.



Long-life Product

High resistance corrosion protection technology applied to selected condenser models.



PROGRAM FOR
CARS
VANS
TRUCKS

Transport Protection

Inlet and outlet connections covered by tight closures protecting against impurities and moist absorption.

Perfect Surface Finish

Optimized aluminum brazing processes significantly reduce surface impurities caused by residues of brazing pre-treatment agents.

Easy Installation with First Fit

All what is needed for a proper installation included in the product box.



Easy Fit

Perfect finish in every detail such as connections, threads, bolts, mountings etc. smoothly fitting the vehicle mounting points..

Compressor

The heart of the air conditioning system

The refrigerant is compressed by the compressor and transported through the system to create high and low pressure.

The compressor is crucial for the efficiency of the AC system. During an AC cycle, the compressor enables the refrigerant to change its state from gas to liquid and to flow through the different components of the system as well as through high and low pressure sides.



PROGRAM FOR
CARS
VANS
TRUCKS

Easy Installation with First Fit

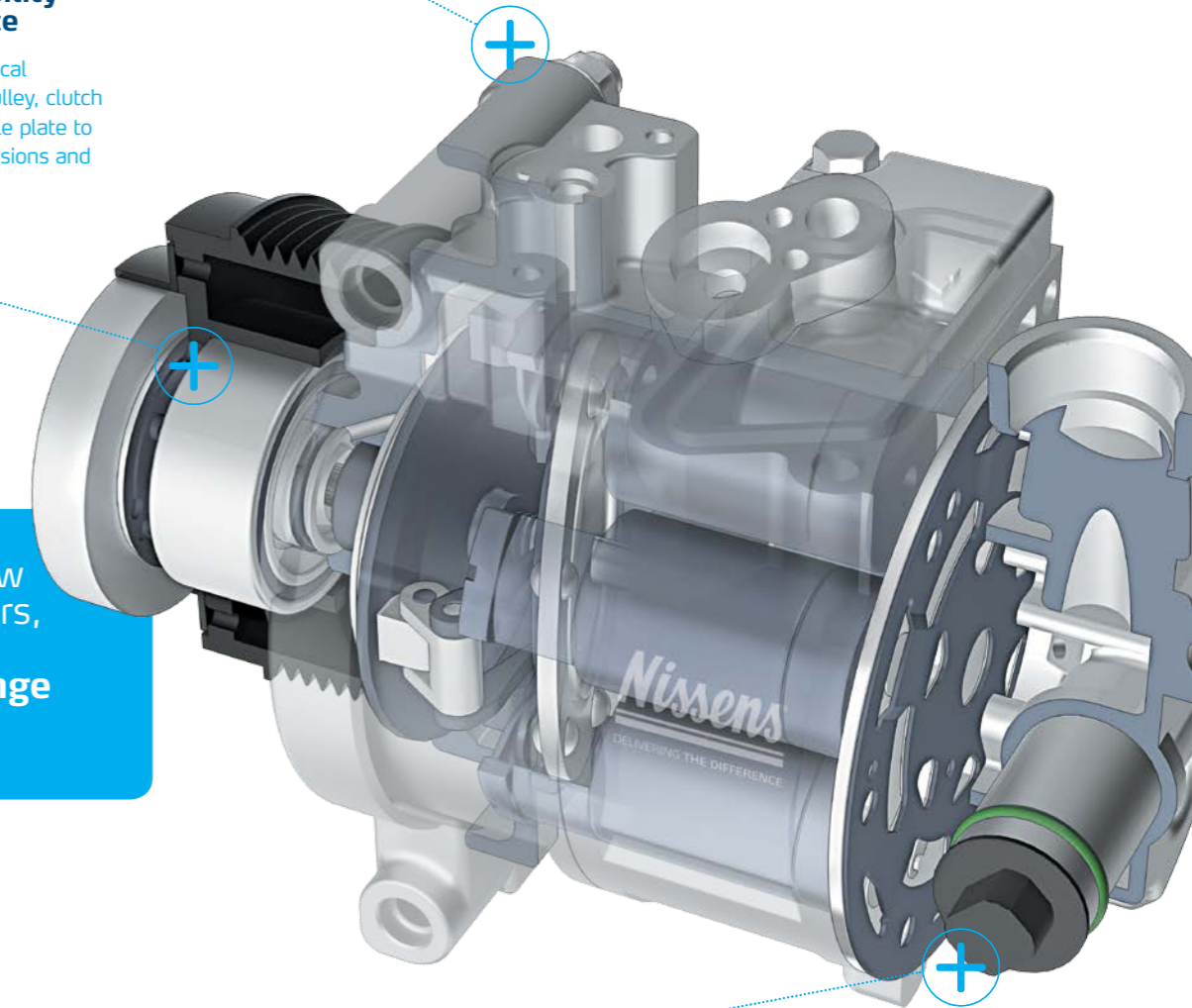


All what is needed for a proper installation included in the product box.

-  PREFILLED PAG OIL
-  O-RINGS
-  ELECTRICAL ADAPTER (MULTI FIT APPLICATIONS)
-  PRE-FILTER (WHEN NEEDED)

Improved Durability and Performance

Improved design of critical components such as pulley, clutch hub, bearing and wobble plate to resist higher stress, tensions and temperatures.



Factory new compressors, no need for exchange

Important to know

- Proper lubrication is a must for the product vitality and lifespan
- Proper installation procedure including system flushing is crucial for the compressor vitality
- Condenser performance influences the compressor performance and workload

OE Quality Advanced life & performance test series and back-to-back test against OE. 100% OE equivalent.

Easy Installation First Fit - all what is needed in the product box. Warranty & installation guide, installation video and Nissens' technical support are available.

Reliability & Performance Test-proven excellent pumping performance, minimized noise and vibration levels, supreme product durability.

Competitive Range Product range with +400 items covering more than 2,000 OE numbers.



New to range

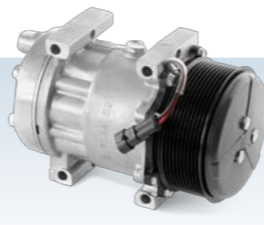
Novelties in season 2016



Fully electrical compressors and compressors for hybrid cars



Universal compressors with fittings to fit more OE applications



Agricultural compressors for popular agricultural vehicles

High Precision Displacement Control

Valves of OE quality (MCV/ECV), 100% tested before and when placed in the compressor. Additionally, random stock tests performed.



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
CARS
VANS
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.

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

Receiver Dryer / Accumulator

AC loop protection.

PROGRAM FOR
CARS
VANS
TRUCKS

i Important to know

- The receiver dryer/accumulator must be replaced every two years or whenever the circuit has been opened.
- The inside filtering and desiccant layers can be worn out, after a long period, and cause the receiver dryer to lose its ability to properly filter the refrigerant and oil.
- The receiver dryer condition is crucial for the compressor vitality - a high level of moisture in the AC system can cause corrosion and reduce compressor lubrication significantly. Unfiltered particles, debris, metal chips etc. flowing in the loop are the main causes for the compressor to fail and in worst case to seize up.
- Too much oil in the system reduces the dryer ability to filter the system properly - desiccant gets too oily.

The receiver dryer is a filtering unit located on the high-pressure side of the AC loop between the condenser and the expansion valve. The role of the receiver is to filter particles and debris flowing in the circuit as well as to absorb any moisture. Furthermore, it also stores oil and refrigerant.

The accumulator is a similar filtering device but applied only in vehicles with orifice tube as an expansion device. The accumulator is located on the system low-pressure side and besides the filtering and the lubricant/refrigerant storing function as in the receiver dryer, it also ensures that no liquid form of the refrigerant gets into the compressor.

Wide Product Range

Nissens' receiver dryer (and accumulator) range covers the market's most popular applications within cars, vans and trucks. +270 items covering more than 800 OE numbers..

Perfect Transportation and Storage Protection

All Nissens receiver dryers and accumulators are thoroughly packed to avoid any transportation damage. Furthermore, to ensure the product usability after an extended period of storage, all inlets and outlets are protected by means of special caps that prevent any impurities and moisture to enter the receiver dryer.

OE Quality

Designed, manufactured and tested 100% according to OE requirements.

Evaporator

Cabin heat exchanger producing cold air.

PROGRAM FOR
CARS
VANS

A heat exchanger in the low-pressure side of the AC system, installed between the expansion valve and the compressor. Typically, located in a HVAC (Heat-Ventilation-Air-Conditioning) module behind the vehicle dashboard.

The evaporator ensures the refrigerant to evaporate, thus change its state from a liquid to a gaseous form. Ambient air blown on the evaporator's surface enables the evaporation process inside, and during the transition process of the refrigerant's state, the blown air flowing through the evaporator's surface turns cold and can be directed into the vehicle cabin.

Furthermore, the evaporator dehumidifies the intake air, which is of high importance for the system's ability to demist the vehicle panes.

Reliability & Performance

Test-proven, long-life and reliable operation 100% according to OE requirements.

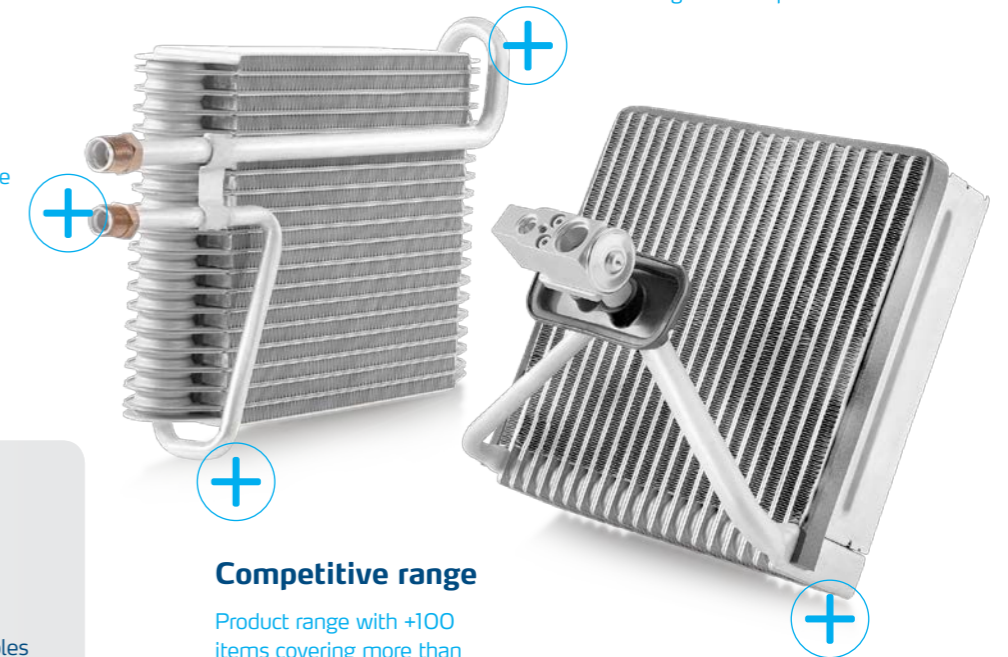
i Important to know

- A nonperforming interior blower disables the evaporator's functionality and may lead to serious damage to the compressor.
- Clogged or worn out cabin air filter, as well as a soiled, contaminated evaporator surface will limit the evaporator's operation ability significantly.
- Internal contaminated and clogged or mechanically damaged or corroded evaporator cannot be repaired and must always be replaced. A new expansion device must follow the new evaporator installation



OE Quality

Designed, manufactured and tested 100% according to OE requirements.



Competitive range

Product range with +100 items covering more than 280 OE numbers.

Easy Installation

Perfect finish thus easy fit, turns the installation of Nissens' evaporator into a smooth process. The part fits ideally to the HVAC's / mounting cassette.



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

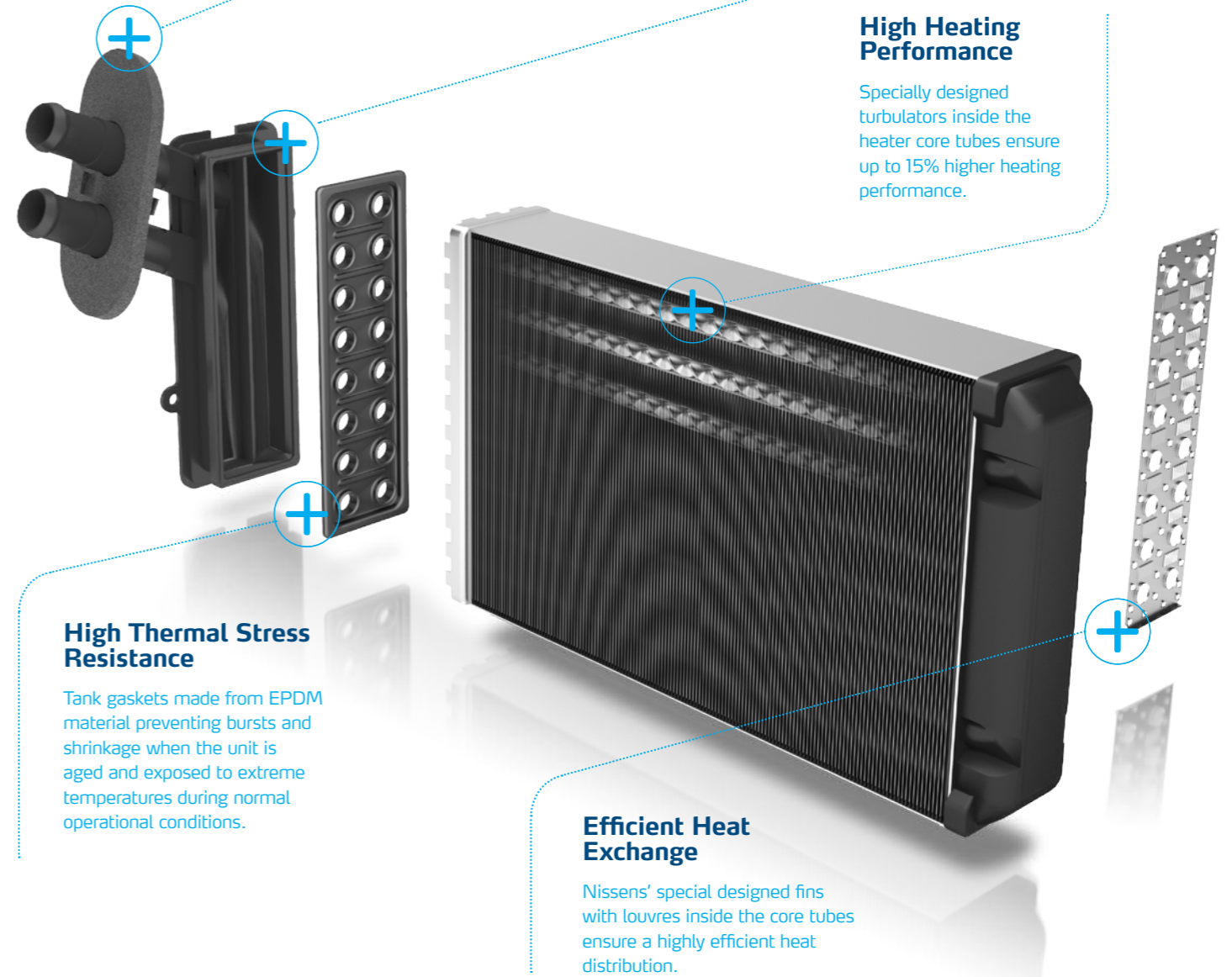
Extra foam added on selected heater models to ensure an optimized airflow.

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.

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.

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

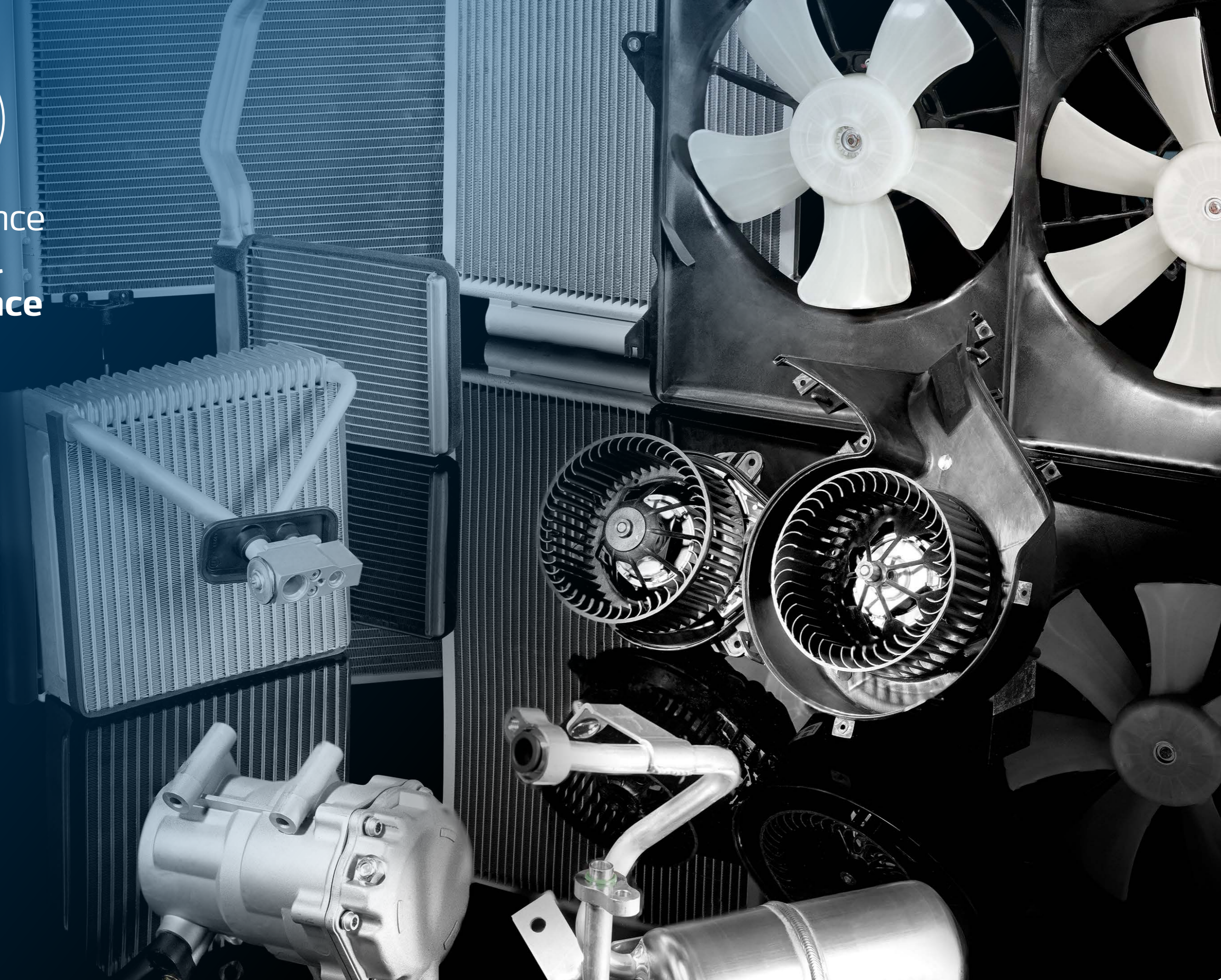
Nissens' heaters are thoroughly finished in every detail. They fit smoothly into the mounting cassette in the dashboard/HVAC module, thus ensuring a smooth and quick installation. If required, selected heater models are equipped with additional connections and extra foam rubber.

Competitive Range

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



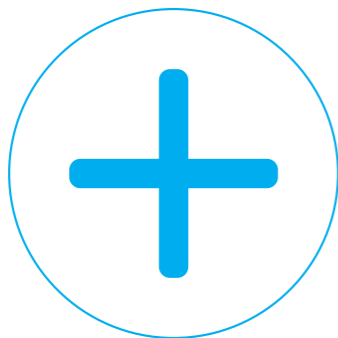
Experience
the real
difference





Excellent Product Concept

Real benefits for all players of
the Independent Aftermarket



We offer an effective and easy business concept that meets the most advanced standards and demands of the IAM

100%
conformity
with

- OE/OES/OEM standards
- REACH regulations
- MVBBER Block Exemption Regulation (European GVO)
- RTR Right to Repair
- ISO9001/TS16949
- ISO 14001
- CLEPA & FIGIEFA



Easy, Intuitive & Accurate Product Selection

Nissens' excellent and very efficient catalogue & webshop system enables fast and exact product selection and purchase:

- Detailed technical product data, including OE, IAM alternative product numbers a.o.
- High-quality and detailed technical drawings with various and useful dimensions
- High-quality color pictures (compressors, blowers)
- Close-up pictures of the electrical connections (blowers)
- Rotational 360° pictures (blowers)
- Installation videos (for the most demanding installations and for popular blower models)



Nissens' entire product range data is available on the professional cataloguing industry platforms TecDoc/TecCom, and Nissens is acknowledged as a TecDoc certified data supplier.

We share high-quality and complete up-to-date master data based on OE with our customers as well as offer a wide range of e-commerce tools and integrations



Supreme Product Availability & Efficient Logistical Solutions to develop our Partners' Business

Tailor-made logistical solutions, including supply-chain cost & time optimization. We always offer a highly flexible delivery - orders ranging from one item to entire containers and stock management support to ensure high stock rates at season peaks.



Excellent Packaging System

Careful protection from transport damage and easy product handling from supply processes to final destination delivery.

- Solid cardboard boxes
- Environmental friendly cardboard materials
- Elegant and unified design across all categories
- Easy and unified product identifying label system
- Protective inserts and profiles whenever needed
- Desiccant bags protecting the electrical components from moisture
- Tight sealings preventing impurities from entering the components
- Whenever applicable, user installation and warranty guide included in the product box



Technical Knowledge & Support Available

Nissens Training Concept enables you and your customers to benefit from Nissens' technical expertise within automotive thermal systems. Nissens' dedicated trainers are qualified to conduct technical training sessions for you to understand the system and all technical aspects of its operation. Furthermore, technical support and technical marketing materials are available to our customers worldwide.

Today, the Training Concept Consists of the following Elements:

- Technical training academy covering most relevant topics within AC system components, operation, troubleshooting as well as consumables, service and maintenance
- Personal technical support and warranty assessment (available on selected markets)
- Technical marketing materials for workshops (installation guides, posters, etc.)

Do you wish to apply for a training session for your organization or customers or order some technical marketing materials, please visit www.nissens.com/training



Guidelines for compressors

Identifying & solving typical failures of the compressors



Remember during installation

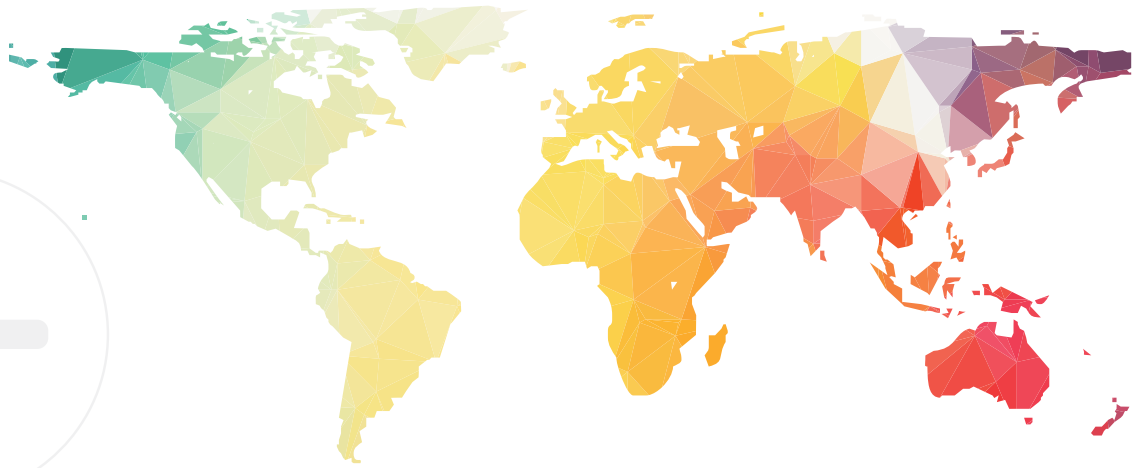
• Nissens' installation and warranty guide is always included in the box of all Nissens' compressors or available online at www.nissens.com/guides or by scanning the QR code.

• Safety first - wear protection glasses and gloves



DELIVERING THE DIFFERENCE

NISSENS' GLOBAL PRESENCE



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