

# Discover ebm-papst at the supermarket.

Innovative ventilation and drive solutions for increased efficiency.

# ebmpapst

The engineer's choice



# About ebm-papst.

*As a responsible leader in ventilation and drive technology, our thoughts and actions have always been guided by considerations of environmental compatibility and sustainability. For decades, we have worked according to the simple but strict conviction of our co-founder Gerhard Sturm: "Every new product we develop has to be economically and ecologically superior to its predecessor." GreenTech is the ultimate expression of this corporate philosophy – to the benefit of the environment and our customers.*



## **Top ventilation and drive technology.**

The ebm-papst product portfolio includes over 14,500 products, so we can offer the right solution for almost any ventilation and drive engineering task. In consultation with you, we can also work out custom solutions that go beyond our regular product portfolio thanks to our diversified team of more than 500 engineers and technicians at our three locations in Germany.

## **Global presence.**

Being a specialist for customised solutions around the world calls for strong partners. Being globally local, i.e. present all over the world while acting as a local company in each country, is how we have established ourselves with successful subsidiaries in all of the world's important markets. And it's why you can always get advice and information from local partners. In addition, our worldwide production alliance serves as a basis for competitive pricing. Our global services and logistics offerings ensure quick responses and just-in-time delivery.

## **Core competencies: motor technology, aerodynamics and electronics.**

Our innovative technologies regularly become industry standards. Our advantage: We take a comprehensive approach to aerodynamic processes, combining standard-setting motor technology with sophisticated electronics and aerodynamically optimised designs. The system solutions that result from these core competencies generate unique synergy effects worldwide.

## **Passion, quality, responsibility: three factors for success.**

Our passion for fans and motors is the key to top performance. With our clear organisational structure, flat hierarchies and high degree of individual responsibility, we establish a basis not only for technological innovations but also for outstanding service and active cooperation with our customers.

And of course our products are manufactured according to the highest quality standards – at 18 production facilities around the world. Our quality management is uncompromising, everywhere and in every process step, as confirmed by our certification according to the international standards DIN EN ISO 9001, ISO/TS 16949-2 and DIN EN ISO 14001.



# No closing time for energy savings.



## 70% savings

### with W1G200 axial fan

In a small supermarket, 200 fans operate in refrigerated display cases. Their higher efficiency and the resulting reduction in heat generated by their energy-saving motors make it possible to reduce operating time by up to 30%. This leads to potential savings of 38 MWh and 22 tonnes of CO<sub>2</sub>. Cost saving: 4,400 euros\*.

\*Based on CO<sub>2</sub> emissions of 600 kg/MWh (German energy mix) and an assumed price of 11.69 cents/kWh, average price paid by industry for electricity in Germany.

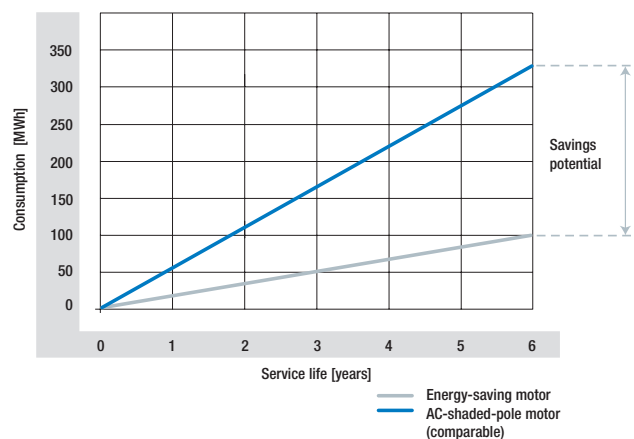


Fans and drives from ebm-papst are predestined for use in supermarkets since one of their outstanding characteristics is their tremendous energy efficiency. And the more fans there are in service, the greater the potential for savings. Refrigerated display cases are the best example:

For every metre of length, they typically have two fans in operation. If 200 GreenTech EC fans (size 200) were installed in a typical supermarket with a total of 100 metres of display cases, their energy savings compared with conventional shaded-pole motors would be around 70%, corresponding to 38 MWh of electricity per year. For the environment, that means a reduction in CO<sub>2</sub> emissions of over 22 tonnes (with a typical energy mix). For the user, at an electricity price of 11.69 cents/kWh it means savings of over 4,400 euros per year. That also means that retrofitting existing systems is worthwhile since the investment would pay for itself in less than 12 months.

### Special solutions for special requirements.

Besides good energy efficiency, many supermarket applications also place special demands on the technologies used. For example, hygiene and food safety are an absolute must in food refrigeration. Refrigeration systems that are operated near residential areas need to run as quietly as possible. In other applications, extreme temperatures or especially confined spaces may prevail. Discover the highly innovative and reliable solutions offered by ebm-papst for these applications.



# ebm-papst technology in supermarkets: potential energy savings everywhere.

There are many applications for ebm-papst motors and fans in supermarkets, from central air conditioning to check-out conveyors to complete cooling systems. All of our solutions have something in common: they always set new standards, such as reduced energy

consumption, longer system service life or noise reduction. Our fans and drive systems for refrigeration and air conditioning can look back on a long history of success. Write the next chapter yourself!



## 1 Evaporators.

Evaporators in supermarkets have to meet especially high hygiene standards. The ideal solution is our compact AxiCool fan unit. In addition to its high energy efficiency and reliability, it is full of innovative details for optimum food safety such as side hinges for better cleaning or an air-guiding system that ensures high air throw and ideal distribution of cold air.



## 2 Condensers.

ebm-papst fans for condensers provide high cooling performance with low noise levels and minimal energy consumption. The fans can also be fitted with the AxiTop diffuser and the FlowGrid air inlet grille; in combination with operation at partial load, these can reduce noise and energy consumption even further – a particular benefit when in the vicinity of residential areas.



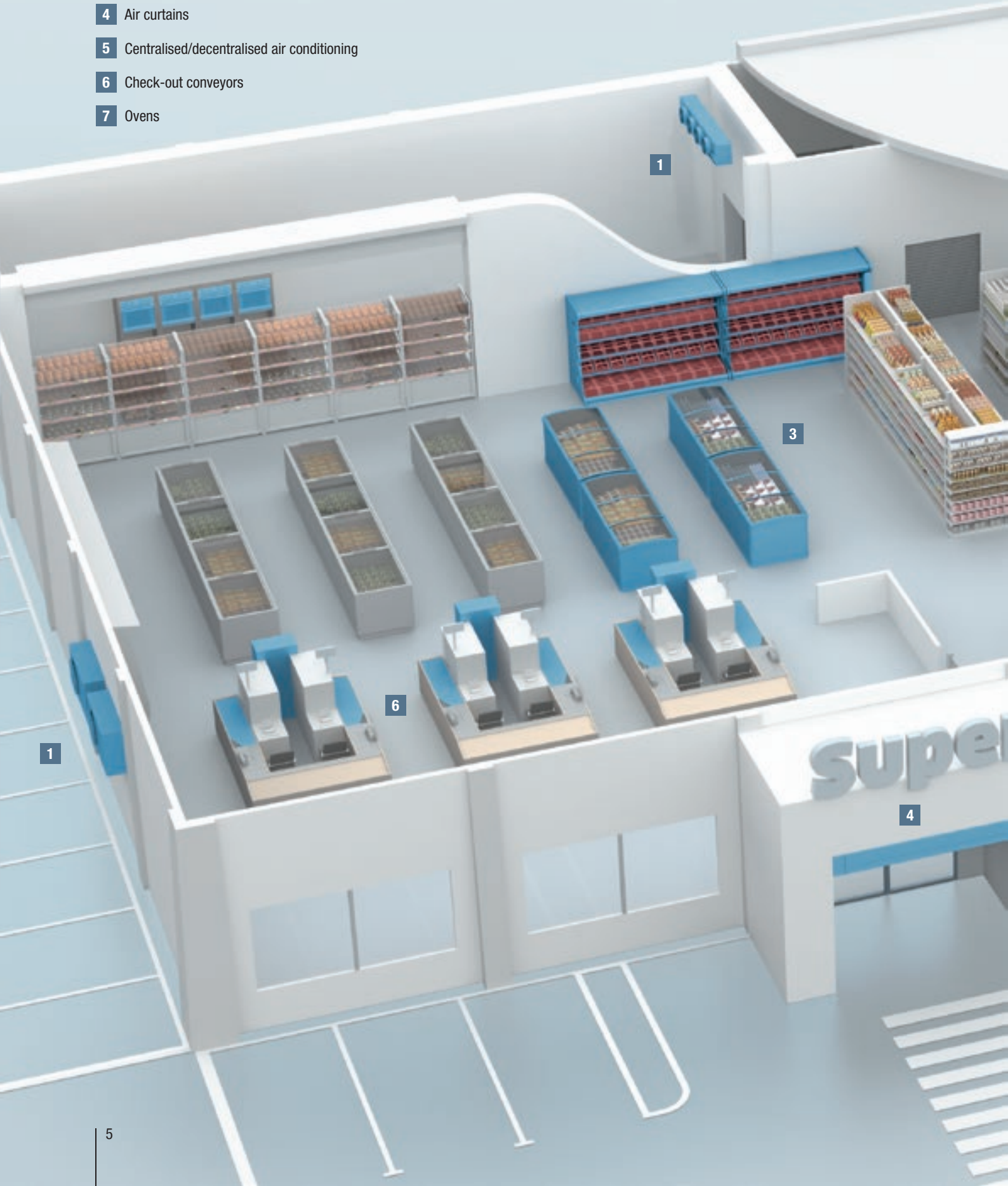
## 3 Chiller cabinets.

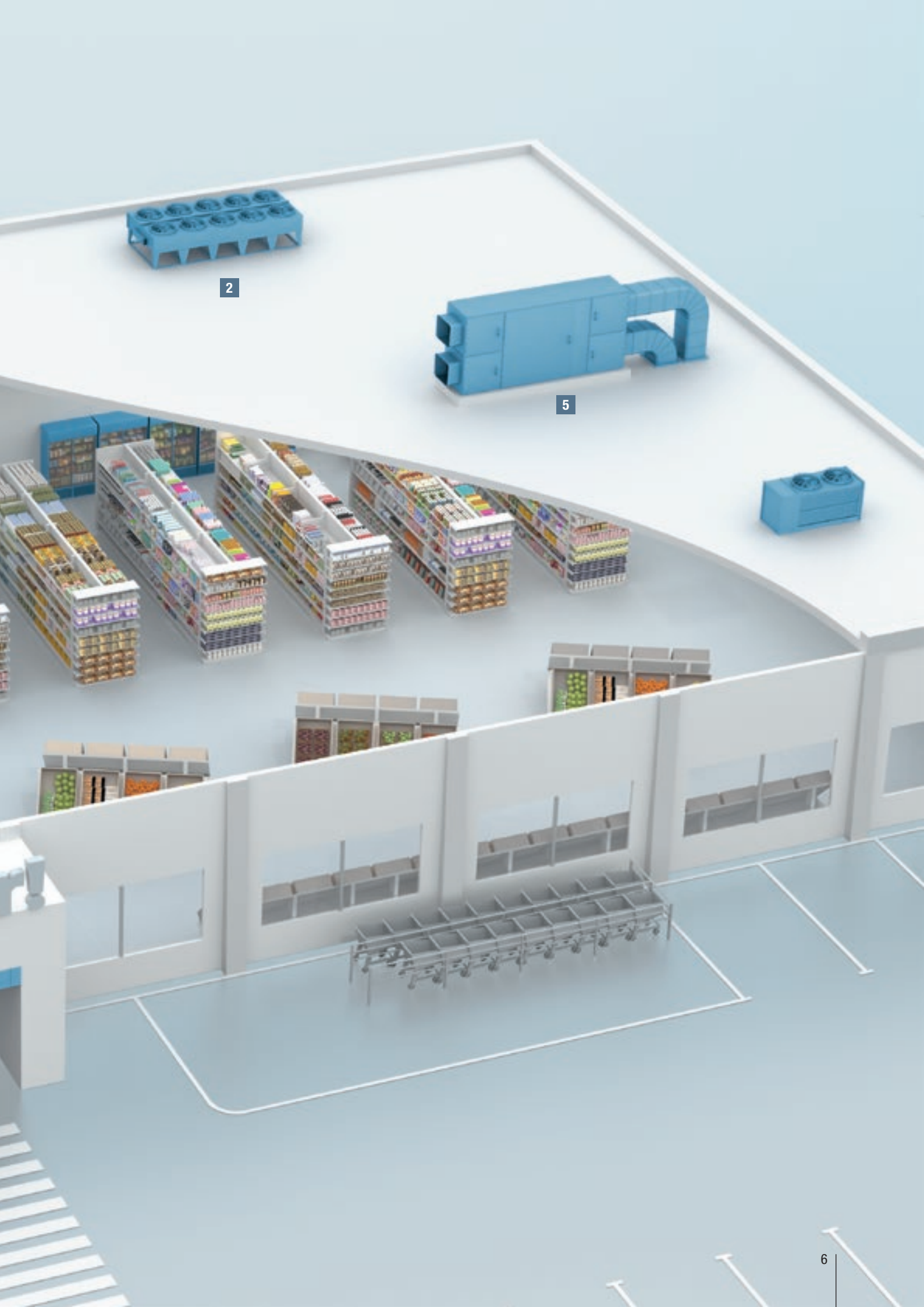
Many chiller cabinets still work with conventional shaded-pole motors, using up a lot of energy. Our energy-saving motors (ESM) have an efficiency of over 70% and need only around a tenth of the power. Our iQ motors are also based on the highly efficient GreenTech EC technology – and they're very smart as well. Depending on requirements, they can be equipped with various additional functionality such as two preprogrammed speed settings for day and night operation. Replacement is easy since they have the same dimensions as the existing Q motors.



**Examples of applications for ebm-papst products.**

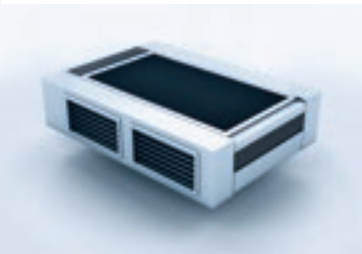
- 1** Evaporators
- 2** Condensers
- 3** Chiller cabinets
- 4** Air curtains
- 5** Centralised/decentralised air conditioning
- 6** Check-out conveyors
- 7** Ovens





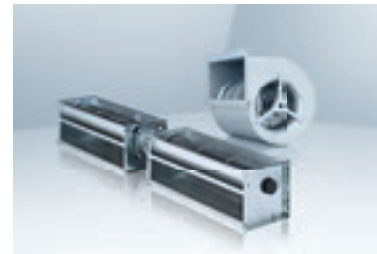
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#### 4 Air curtains.

Air curtains are designed to prevent cold air in areas such as cold stores from mixing with the warm air in adjoining areas. They use powerful tangential and centrifugal fans with GreenTech EC technology and motors that are extremely efficient and virtually silent.



#### 5 Centralised/decentralised air conditioning.

We offer the RadiPac and RadiFit centrifugal fan series as compact system solutions for centralised and decentralised air conditioning in supermarkets. These smoothly adjustable fans allow exact adjustment of the air flow. Both systems feature easy plug-and-play connection, making them ideally suited to retrofitting of existing systems. In addition, the impeller, motor and electronics are already perfectly matched in the RadiPac's practical cubic design.



#### 6 Check-out conveyors.

Our compact external rotor motors are the ideal choice for check-out conveyors with their integrated K4 control electronics for speed, positioning and torque control. They feature high performance and breakaway torque in a small package with long service life and high reliability.



#### 7 Ovens.

Working at high temperatures is always a major challenge for fans. For use in the high ambient temperatures typical of ovens, ebm-papst has developed a special series of fans that is extremely rugged, reliable and energy-efficient.



#### Would you like to find out more?

Visit our website feature "ebm-papst in supermarkets" with videos, energy savings calculator, product details, interesting references and much more:

[discover.ebmpapst.com/refrigeration\\_technology](https://discover.ebmpapst.com/refrigeration_technology)



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