The straight way to energy efficiency
is all in the details

systemair

Intelligent and energy-efficient fans

Intelligent use of modern technique, by means of integral electronic control ensures that the motor always runs optimally. All our fans displayed in this folder are equipped with state-of-the-art EC-motors. The advantages are many, and will soon be clear. Please read on.

EC-fans from Systemair are also economical and reliable

Our EC-fans are your first choice when it comes to economical use of energy and simple demand controlled ventilation.

These fans are driven by energy-saving EC-motors with built in electronic control to keep them running in the optimal operating range. They are an excellent solution for demand-responsive ventilation systems.

EC-motors are permanent magnet motors where the mechanical commutation has been replaced by electronic circuitry which supplies the correct amount of armature current in the right direction at precisely the right time for accurate motor control.

EC motors run silently in a controlled operating condition. And they have longer service life due to lower winding temperatures and lower wearout.

EC-motors with integrated electronic control can easily be varied in speed to match air-flow demand. For the same air volume, they consume distinctly less energy than AC fan drives.

Our EC-motors have high energy-saving potential not only at full load, but especially at part load, where the loss of efficiency is very much lower than with an asynchronous motor with the same output.

Top advantages of fans with EC-motors from Systemair:

1. Up to 90% higher efficiency than conventional systems
2. Higher efficiency throughout the entire fan perfomance diagram
3. Less energy use, resulting in lower energy costs
4. Less energy use means lower CO_2 emissions; lower emissions means lower global warming
5. Easy to control by 0-10 V signal
6. Long service life
7. Low sound level throughout the entire fan perfomance diagram
8. All control and protection electronics are integrated in the motor
9. Easy electrical connection
10. Ventilation on demand - easy to adjust ventilation rate to actual need

EC-Vent raises energy efficiency and indoor comfort to new levels

Systemair´s new EC-Vent greatly simplifies demand-controlled ventilation.

This intelligent controller effectively adjusts the air volume based on sensor input on humidity, CO_2 level, presence detectors, temperature or timers. Different sensors can be connected to the system, the highest value is controlling the system. EC-Vent is easy to install and reduces operating costs. It also provides lower noise levels and longer service life.

Energy-efficient ventilation for healthy buildings

Today buildings account for approximately 40 percent of total energy usage in Europe. Ventilation of buildings accounts for a significant portion of this energy, in the form of energy for operating fans and losses which occur when warm air is exhausted and replaced with cool air.

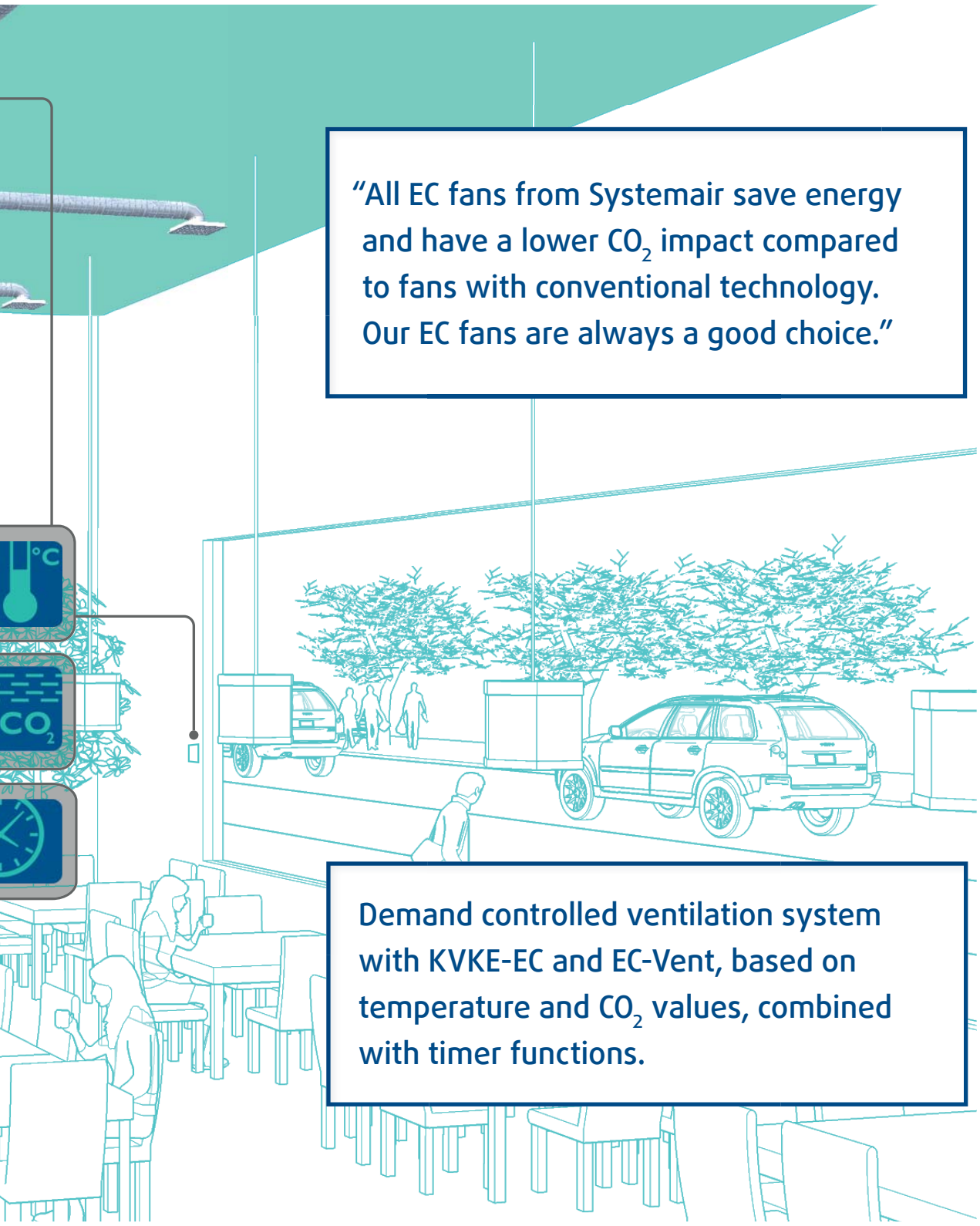
One of the targets for the EU climate and energy forum is for energy efficiency to increase by 20 % by the year 2020. In order to reach that target, requirements for existing buildings and new construction will be steadily tightened.

Examples of this would be a significant increase and demand in the construction of “low energy” buildings. These buildings will have significantly lower energy requirements compared to current building regulation standards. This will result in a drive for well insulated and airtight buildings and higher demands for effective ventilation with energy recovery. A further example would be to improve energy efficiency of existing buildings. Up to 90% of ventilation losses can be recovered by installing a supply and exhaust energy recovery system.

For several years, our strategy has been to develop effective air handling units with energy recovery and fans with EC technology for minimum energy use. We have a product portfolio that fully satisfies the requirements of today and tomorrow.

from Systemair

systemair



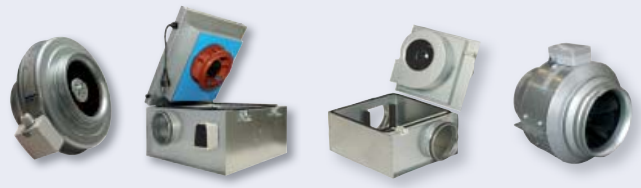
"All EC fans from Systemair save energy and have a lower CO_2 impact compared to fans with conventional technology. Our EC fans are always a good choice."

Demand controlled ventilation system with KVKE-EC and EC-Vent, based on temperature and CO_2 values, combined with timer functions.

We offer you the best range of EC fans

For all fans in common:
- High efficiency, energy saving EC-motors
- 100% speed controllable
- Integrated motor protection

Circular duct fans



K-EC **KVKE-EC** **KVO-EC** **KD-EC**

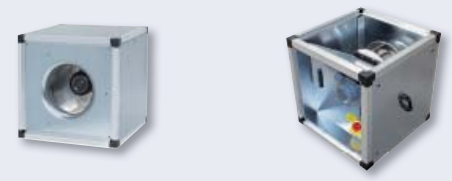
- With potentiometer in the terminal box to calibrate the system

Thermo fans

KBR-EC /KBT-EC

- Motor outside the airstream
- For up to 120°C medium temperature

Square duct fans

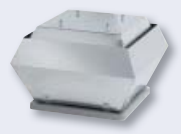


MUB-EC **MUB/T-EC**

- Panels removable for flexible airflow direction
- MUB/T for up to 100°C medium temperature and motor outside the airstream

Roof fans

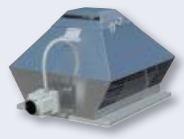
TFSK-EC **DVC** **DVCI-POC**



DVC-POC

- TFSK with swingout function
- DVC with accessory for swingout function
- DVCI-POC with outlet silencer for low sound levels
- DVC-POC with outdoor temperature compensation

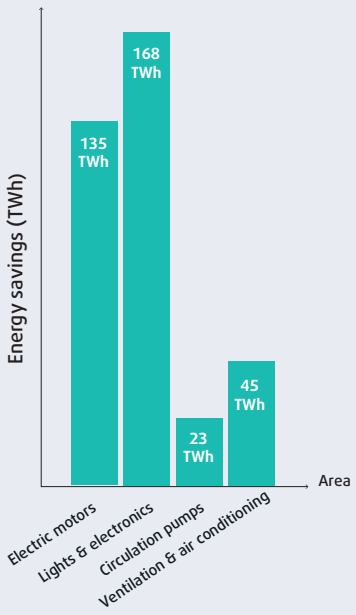
Smoke extract EC- roof fans



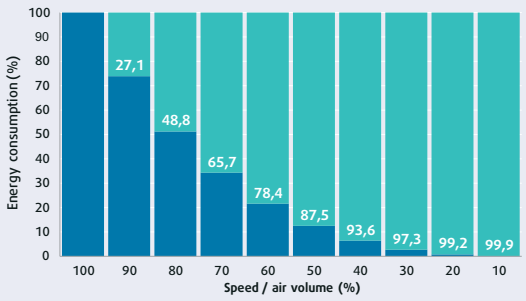
DVG-EC

- 400°C/2h
- EN12101-3 certification

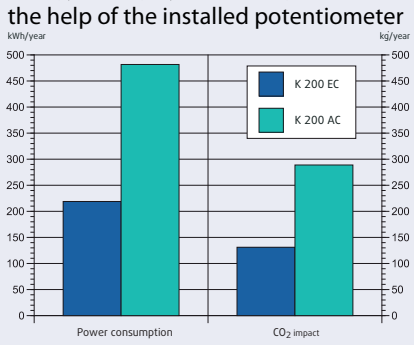
Projected energy savings in the EU by 2020



Energy saving by demand control with EC-fan and EC-Vent



Energy saving by calibrating the fan with the help of the installed potentiometer



Power consumption and CO_2 impact of circular duct fan K-EC.

40%
Buildings account for 40% of the EU´s primary energy use

20%
EU directive to reduce energy use by 20% by 2020.

At Systemair, we are aware of our responsibilities. Our contribution to modern environmental protection is efficient use of energy. The 'Green Ventilation' symbol identifies intelligent technology in harmony with the environment. It shows that our products are suitable for the future. In this way we offer our customers a means of combining sustainability with economy, and reaping the benefit from straightforward, well-planned installations.

systemair

www.systemair.com

Systemair AB • Inhouse studio • March 2012 • E8217