**Using electricity and heat efficiently: Energy company Stockholm Exergi is modernizing residential buildings in Sweden's capital with gateways and sensors from ebm-papst neo and EC roof fans specially developed in Sweden by ebm-papst. The solution enables demand-based ventilation and saves up to 40 % heating energy and other costs thanks to digitalization.**

Energy company Stockholm Exergi is working to make the supply of heat to a total of 800,000 people and the generation of electricity for the energy market more sustainable and efficient. In doing so, the company is pursuing the goal of becoming climate neutral by 2032.

**Making better use of energy thanks to a digital retrofit**

Driven by this vision, Stockholm Exergi is concentrating on renewable and recycled energy and on modernizing the city with innovative technologies. In addition to new district heating connections, the energy supplier is focusing on modern ventilation and air conditioning systems with heat recovery for its building retrofits. These systems are particularly needed on cold Scandinavian days. After all, ventilating with open windows would cool down interiors too much and require too much energy to heat them up again. In an older residential building in the Östermalm district, Stockholm Exergi shows how “efficient ventilation” can set a precedent. For the retrofit project in Gyllenstiernsgatan, the company is relying on a complete solution from ebm-papst incorporating a Swedish MXRC III EC roof fan, which consumes around 60% less energy than the previous solution, and the new IntelliGate Air X gateway controller including sensors and cloud integration. The roof fan operates with impressive energy efficiency, on demand and with low vibration, so residents are not disturbed.

**Improving living comfort thanks to intelligence**

The gateway controller also connects the fan to various external sensors and the cloud. Thanks to the integrated Narrow Band IoT modem, the system can communicate with the cloud and transmit sensor data independently of the local network. “This also means that the gateway controller can send data without having to access the local network,” says Erik Brisenheim, Technical Manager at ebm-papst in Sweden. The transmitted data can be used to monitor the ventilation system remotely and control it continuously and automatically. The sensors and gateway controllers ensure that the air flow in the ventilation system is controlled as required, which saves costs. Operators have a perfect overview of how often the building is ventilated and how much energy is consumed thanks to a wealth of measurement data and analyses via the cloud. For residents, the main benefit of the new system is greater living comfort because air quality is guaranteed. The residential building in Gyllenstiernsgatan was just the beginning of the process of modernizing other buildings and making them more energy-efficient – all with the major goal of further reducing Stockholm's emissions.

# 



Image 1 a + b: Data from the ventilation system can be viewed and analyzed live via the cloud.

# 

Image 2: The retrofit project in Gyllenstiernsgatan was just the beginning: Stockholm Exergi and ebm-papst are planning to make other buildings in Stockholm more energy efficient.

# Image 1 Lasse Burell for ebm-papst

# IMage 2 Lasse Burell for ebm-papst

# Characters approx. 2,900, including headings and sub-headings

# Tags EC technology, intelligence, IntelliGate Air X, gateway, sensors, epCloud, energy efficiency

# Link [ebmpapst.com/residential](http://www.ebmpapst.com/residential)

**About ebm-papst**

The ebm-papst Group, a family-run company headquartered in Mulfingen, Germany, is the world’s leading manufacturer of fans and motors. Since it was founded in 1963, the technological leader has set international industry standards with its core competencies in motor technology, electronics, digitalization, and aerodynamics. ebm-papst offers sustainable, intelligent, and tailor-made solutions for virtually every requirement in ventilation and heating technology.

In the 2022/23 financial year, the Group generated turnover of EUR 2.540 billion. It employs just under 15,000 people at 30 production sites (including in Germany, China, and the U.S.) and in 50 sales offices worldwide. ebm-papst sets the benchmark in almost all sectors, such as ventilation, air conditioning and refrigeration technology, heating technology, information technology, mechanical engineering, intralogistics, and medical technology.