**Air/water heat pumps enjoy a high level of acceptance in heating systems. Demand for them is rising; with output from 3 to 30 kW, they are a useful solution for single- and multi-family homes. Modern EC fans play an important role in ensuring that such systems run very efficiently and economically.**

Axial or centrifugal fan?

Air/water heat pumps are available for indoor and outdoor installation and ebm-papst has the right fan solution for every variant in its product range. Suitable for outdoor installation are smooth-running axial fans such as the AxiBlade series with diameters from 350 to 630 mm, and now completely new – the AxiEco Protect with diameters from 300 to 500 mm. With its great efficiency, it has a much steeper characteristic curve and thus increases the efficiency of the entire system. The compact RadiCal centrifugal fans are ideal for indoor installation and combined devices (heat pump with residential ventilation), as they are designed for higher pressure requirements.

Energy-efficient and quiet

These centrifugal and axial fans are the driving force behind modern EC motors that operate at high efficiency. Since the noise characteristics of heat pumps play a very important role especially at night, the geometry of the blades and impellers has been aerodynamically optimized. The fans can also be combined with the FlowGrid air inlet grille, which reduces noise due to the installation situation. The EC motors used in the fans are easy to control, which enables demand-based speed adjustment, e.g. at night (night temperature reduction).

GreenIntelligence solution

The electronics integrated into the EC fans enable the networking of multiple fans via a MODBUS interface. This way, motor data can be read out and used for maintenance measures. If the heat pump’s evaporator is deiced when needed rather than cyclically, the current speed of the fan can be used for monitoring; it is also possible to read out error messages from the internal sensors and monitor the fans remotely.

The EC fans are also ideally equipped for the future, as the use of natural refrigerants is not a problem for them. Their energy efficiency and low noise emissions make them a future-proof solution for the heat pump sector.



Image 1: The new AxiEco Protect axial fan is ideal for outdoor installation



Image 2: The compact RadiCal centrifugal fans are especially well-suited for indoor installation.

# Photos ebm-papst

# Characters approx. 2,500, including headings and sub-headings

# Tags EC technology, axial fan, centrifugal fan, HyBlade, AxiBlade, AxiEco Protect, RadiCal

# Link <https://www.ebmpapst.com>

**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 the technology company was founded in 1963, it has continuously set the global industry standard. With over 20,000 products in its range, ebm-papst provides the best energy-efficient, intelligent solution for virtually every ventilation or drive engineering task.

In fiscal year 2018/19, industry leader ebm-papst generated revenues of 2.18 billion euros. It employs over 15,000 people at 28 production sites (e.g. in Germany, China and the US) and in 48 sales offices worldwide. Fans and motors from the world market leader are used in most industries, including ventilation, air conditioning and refrigeration, household appliances, heating, automotive and drive engineering.