Intelligently interconnected complete solutions

GreenIntelligence takes economy and ecology a step further

ebm-papst turns energy-efficient fans and drives into intelligently interconnected complete solutions. "GreenIntelligence", to be presented for the first time at the Chillventa trade show in Nuremberg, is an impressive expression of this.

When it comes to choosing the right drive or fan, it is important to not just look at the product properties such as energy efficiency and performance values, these days the optimum interaction of all components is crucial as well. All products with GreenIntelligence from ebm-papst have IoT capability and can be interconnected with any system – quickly and easily thanks to plug & play.

Condition monitoring courtesy of GreenIntelligence

The AxiBlade axial fan illustrates one particularly impressive example of GreenIntelligence. Condition monitoring permits remote monitoring of the operation of the fans in the condenser and thus early recognition of imbalance caused by dirt, for instance. This makes it possible to avoid bearing damage and so ensure operational reliability. Further advantages offered by condition monitoring include indication of required maintenance work or the automatic de-icing of fans in evaporators by way of heating tapes integrated into the fan housing. Energy-efficient fan operation is thus guaranteed at all times, and there is no risk of the blades freezing to the fan housing.

Fail-safe operation thanks to intelligent interconnection

Modular FanGrid solutions are yet another example of intelligent, interconnected fans. They are primarily employed in situations where redundancy is employed to ensure maximum fail-safe operation. With an appropriate number of fans, the necessary air flow can always be attained even if one fan is out of operation. The speed of the other, interconnected, fans is then automatically increased to compensate for the missing air quantity. EC technology thus permits demand-based, energy-efficient control of an entire installation, and critical – i.e. inefficient – motor speed ranges can be avoided.

GreenIntelligence is self-enhancing

The digital interconnection of all components makes it possible to plan processes more efficiently, detect malfunctioning sooner and optimize the overall interaction of all components. Intelligent control technology means that optimization potential can be recognized and automatically implemented if required. Communication takes place via the MODBUS RTU communication protocol, for example. ebm-papst fans come ready equipped with the appropriate interface.

GreenIntelligence is the next step

Since the company was established in 1963, ebm-papst has stood for sustainability, both in its philosophy and in practice – in keeping with the principle "Each new product must surpass its predecessor economically and ecologically". Alongside an early focus on highly efficient EC technology, the company also recognized the opportunities offered by industrial digitization. In 2009, ebm-papst established "GreenTech" as a symbol of energy efficiency as well as sustainable products and manufacturing. With the addition of digital intelligent concepts, this has now developed into "GreenIntelligence" solutions made by ebm-papst.
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Picture 1: GreenIntelligence stands for intelligently interconnected complete solutions from ebm-papst.

About ebm-papst
The ebm-papst Group is the world's leading manufacturer of fans and motors. Since it was founded, the technology company has continuously set global industry standards: from the digital interconnection of electronically controlled EC fans to aerodynamic improvements for fan blades to the use of eco-friendly materials.

In fiscal year 2017/18, the company achieved sales of over € 2 billion. ebm-papst employs over 15,000 people at 27 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 many industries, including ventilation, air conditioning and refrigeration, household appliances, heating, automotive and drive engineering.