


REDUCED ENERGY CONSUMPTION WITH ZERAX® AND EC+ CONCEPT



92% x 95% x 98% = EC+ 85,5%

NEW PARTNERSHIP TO OPTIMISE AHU SYSTEMS

Today's high cost of energy as well as the increasing level of environmental awareness and political measures, spiral the search for modern and more efficient solutions in the field of energy saving.

Danfoss and NOVENCO have joined forces to offer the market's most efficient system solutions comprising fans, motors and frequency drives (VFDs) for AHUs and other ventilation applications.

The environmentally responsible Danfoss EC+ concept in combination with NOVENCO ZerAx® fans is the latest response to growing demands for energy saving. Precisely conceived to increase the efficiency of HVAC systems, the EC+ concept facilitates design of topmost

efficient AHUs and offers to boost energy efficiency of existing systems radically.

The concept prescribes components for optimum system design - the ZerAx series of high efficiency fans, high efficiency IE4 or IE5 PM motors and the intelligent and high efficiency Danfoss VFDs. The combined system has the potential to deliver efficiencies in the range of 80 - 85%, which is 15 - 25 percentage points better than the closest alternative solutions such as direct-driven centrifugal plug fans with EC motors.

THE EC+ CONCEPT

The concept builds on the idea of optimisation of the components that have the greatest effect on the overall system efficiency. In this context, the most efficient technologies are prescribed in the form of PM

motors, Danfoss VFDs and the ZerAx fans. The combined system efficiency results from the following equation.

$$\eta_{fan} \times \eta_{motor} \times \eta_{drive} = \eta_{system}$$

With motor and frequency drive efficiencies both reaching above 95%, the ZerAx efficiency of 92% brings the overall system efficiency to an impressive 85%.



REDUCED ENERGY CONSUMPTION WITH ZERAX[®] AND EC⁺ CONCEPT

FACTS

- ENERGY SAVING OF UP TO 50%
- 20+ YEARS OF LIFETIME
- COMPACT AND EASY TO INSTALL OR RETROFIT
- VERY LOW FAN SECTION SOUND LEVELS
- ROI BETWEEN 12-18 MONTHS

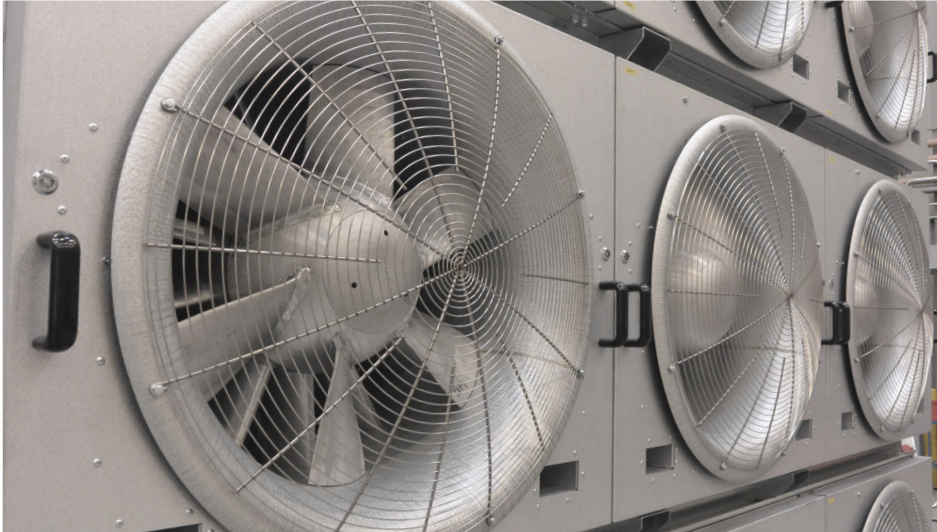
EC⁺ REFERENCES

One of the largest Data Centres in Scandinavia, The University of Copenhagen and The Randers Hospital in Denmark, were among the first to install the new and innovative system consisting of the highly efficient ZerAx fans, high efficiency PM motors and the intelligent and high efficiency Danfoss VFDs.

In all three installations the system radically lowers energy consumption, ensures very low sound levels and secures quick repayment.

With the energy saving of 20%, 20+ years lifetime and ROI between only 12-18 months, the system is certainly worth a look for many retrofit projects and new builds.

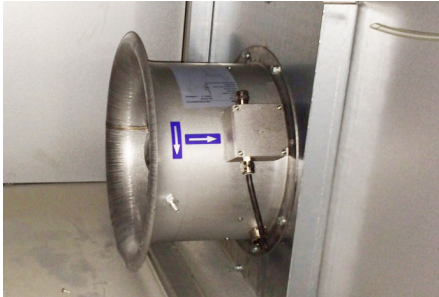
In the three installations presented here, the use of energy is radically reduced, sound levels are lowered substantially and return on investment is satisfactorily high to ensure a short repayment period.



Data Centre, Scandinavia



University of Copenhagen, Denmark



Randers Regionalhospital, Denmark