SAVE • **SAVE MORE** • **SAVE MOST**

DA 600 LPC fan

Low **P**ower **C**onsumptions






SKOV

Climate for Growth

Save up to 75% on ventilation energy consumption

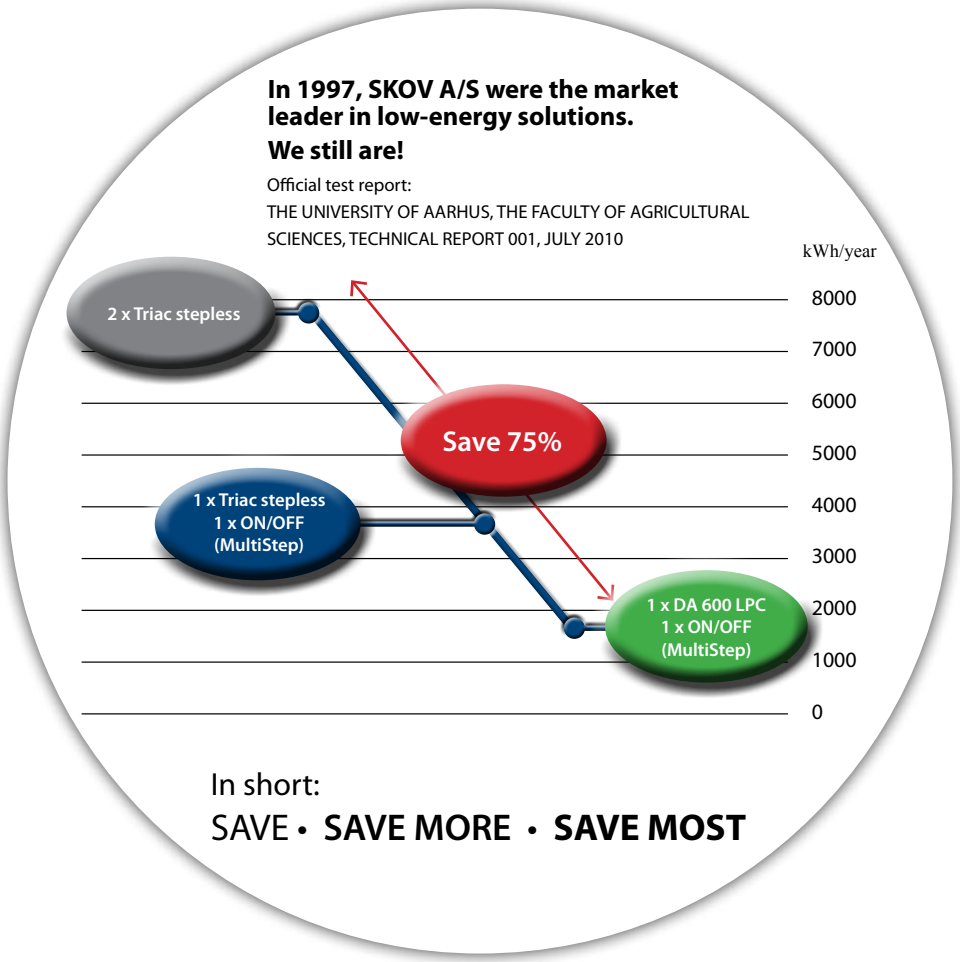
DA 600 LPC (Low Power Consumption) is SKOV's new low-energy fan, which can reduce ventilation energy consumption with as much as 75%.

From MultiStep to LPC

In 1997, SKOV introduced the Multi-Step exhaust principle, which received the Agromek award that same year for setting a new standard for energy-efficient ventilation systems.

In 2009, we took the next step and introduced a prototype for a new super low-energy fan. This is the fan that we have now named DA 600 LPC.

DA 600 LPC has been developed specifically for ventilation systems. Motor, regulating unit and fan blade have been developed and optimised in relation to the DA 600 exhaust unit, and the result is a highly energy-saving, pressure stable and low-noise fan unit.



Savings of up to 75%

Compared with other low-energy fans, the DA 600 LPC fan offers savings of up to 75% if, for instance, it is installed in combination with MultiStep in a section with two exhaust units in replacement of an older triac-regulated ventilation system.

The amount saved will be a little less if the producer has already introduced the energy-saving MultiStep. If DA 600 LPC is installed in a MultiStep system with two exhaust units, it is possible to save approx. 50% of the energy consumption.

Less sensitive to wind

The newly developed fan is also more pressure stable and therefore less sensitive to wind than the frequency-regulated fans that are used as low-energy fans today.

Pressure stability is of great significance to minimum ventilation, where strong wind impacts may have severe consequences for the welfare of the animals and for the producer's heating bill.

Reduced CO_2 emissions

DA 600 LPC reduces energy consumption by 1,500 to 2,000 kWh per unit per year. A saving of this size also has a significant impact on the amount of CO_2 that is emitted. For each DA 600 LPC installed, CO_2 emissions are reduced by approx. 1 ton.
In order to put this reduction into perspective, it is worth mentioning that a petrol-efficient car that is driven some 20,000 km per year emits approx. 3 tons of CO_2 per year.

The Danish Energy Association's Research Award

The DA 600 LPC project has been completed in collaboration with the Faculty of Agricultural Sciences at Aarhus University, DXT, the energy consultants Lokalenergi and the Danish Technological Institute. The DA 600 LPC project won the Danish Energy Association's Research Award, the Elforsk-prisen, in 2010. This award was given for the most innovative, cost-saving and usable project completed with support from Elforsk during the period 1 April 2008 to 31 March 2010. The project has to document effect and results, e.g. in the form of concrete new saleable products.

DA 600 outlet - optimised unit

Previous solution:

- Optimised DA 600 outlet
- Selecting a standard fan blade
- Selecting a standard motor
- Selecting the frequency converter

Energy-wise solution

DA 600 LPC solution:

- Optimised DA 600 outlet
- Designing a fan blade for the outlet
- Designing a motor for the fan blade
- Development of a controller for the motor

Low-energy solution - based on DA 600 LPC fan

Quick payback of the investment

In cooperation with the energy company EnergiMidt situated in the middle of Jutland, SKOV has completed a test of the energy consumption in connection with different fan combinations.

The test was carried out under the following conditions:

- Five sections of finishers at the same production site
- Same house layout in all sections
- Two air outlets in each section
- Five different constellations of fans
- Identical animal material and management in these five sections

We have updated the test with the technical data for DA 600 LPC fan. The results show that the surplus investment in DA 600 LPC fans under the above-mentioned conditions will be paid back in approx. 2½ years.

System	kWh/year	Yearly power saving in %	* Surplus investment per section Index	*Repayment of surplus investment Year
1 x Triac stepless 1 x ON/OFF (MultiStep)	3854	-	100	-
1 x EC stepless 1 x ON/OFF (MultiStep)	2947	25	200	+ 5 år
1 x Frequency stepless 1 x ON/OFF (MultiStep)	3466	10	150	+ 6 år
2 x EC stepless parallel	2610	30	300	+ 7 år
2 x Frequency stepless parallel	3324	15	200	+ 8 år
1 x DA 600 LPC ** **1 x ON/OFF (MultiStep)	**1870**	**52**	**200**	**+2,5**

Test based on 2½ years of measurements and a price equal to 0.8 DKK/kWh
* Exclusive of electric installation
** Calculated in StaldVent with measured energy characteristics (field test 1/11/2009)



SKOV supply climate and production management systems for animal production the world over. Our solutions are technologically advanced, user friendly and individually adapted to meet the needs of our customers.

SKOV A/S • Hedelund 4 • DK-7870 Roslev
Tel. +45 72 17 55 55 • info@skov.com • www.skov.com

20091119 . Print: SKOV A/S

SKOV
Climate for Growth