



Movement by Perfection



The Royal League in ventilation, control and drive technology

Fcontrol

Frequency inverters for agriculture

Fcontrol: Frequency inverter for agriculture

Intelligent control of fans in agriculture

ZIEHL-ABEGG is the only fan manufacturer who develops and produces its own devices for speed control of fans and motors. The result is a perfectly matched product range, which allows ZIEHL-ABEGG to provide smart system solutions from a single source.

Fcontrol frequency inverters are specially designed for the demands of agriculture and with their multiple functions suitable for any stable or ventilation design.

Benefits of Fcontrol:

- Very energy-efficient
- Operates without shielded motor cables
- No limitation on the motor cable length
- Can be retrofitted by using existing cables and already existing fans
- Integrated, all-pole sine filter for particularly gentle and quiet motor operation – even for older fans



An example of energy-saving control for your fans 1 ~ 230 V

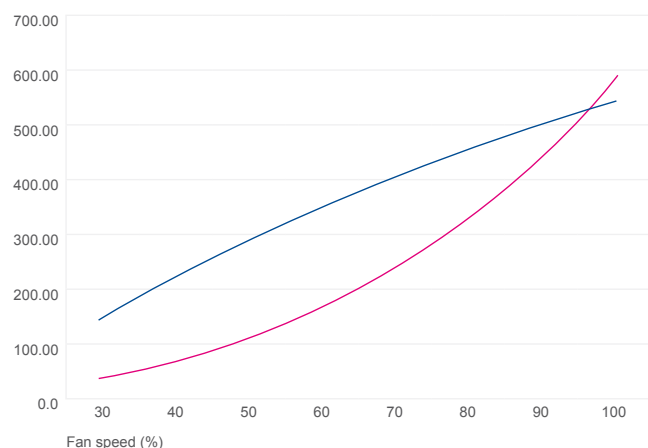


Diagram: Power consumption comparison
— Acontrol
— Fcontrol

Fan 1~230V 50Hz FC063 6-pole.
 Acontrol phase control vs. Fcontrol frequency inverter

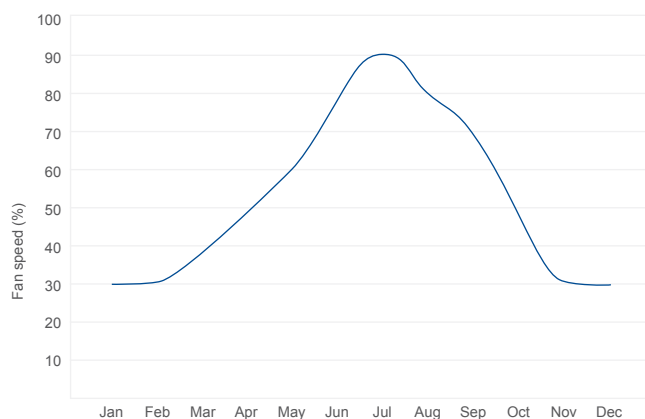


Diagram: Assumed capacity of a ventilation system

Energy consumption depending on the fan level of the system. This example shows the fan level of a ventilation system over the course of a year.



Fcontrol overview: Frequency inverter 1 ~ 230V

"Ventilation computer" – Frequency inverter as an air-conditioning control module

The Fcontrol, with its range of functions such as an integrated multi-function display, growth curve and direct selection keys for simple operation, is well-suited for air conditioning in livestock farming.

Furthermore it is perfectly suited for controlling fans, ventilation dampers, heating plate for young pigs, heat exchangers and can also be networked for central exhaust air systems, etc.



Universal frequency inverter as a temperature controller with additional functions

In individual partitions, the Fcontrol is used for temperature control, e.g. for controlling fans, ventilation dampers, heating, etc.



Frequency inverter as speed controller

Fcontrol in the configuration as speed controller can be used universally, such as in combination with the ZIEHL-ABEGG control module UNIcon.

Optionally available with integrated bypass main switch, or external bypass main switch S-E-20



Fcontrol 1 ~ 230 V 50/60 Hz, power range: 4 to 10 amperes

Frequency inverter 3 ~ 400 V



Universal frequency inverter as a temperature controller with additional functions

In individual partitions, the Fcontrol is used for temperature control, e.g. for controlling fans, ventilation dampers, heating, etc.

Can also be used as a speed controller.

External main switches are also available: S-D-25, 50, 80.



Frequency inverter as a speed controller with integrated 5-stage switch

Fcontrol as a speed controller for manual adjustments of fan and motor speeds. These configurations are perfectly suited for replacing transformer control units with modern and energy-saving frequency inverters.

Speed controller

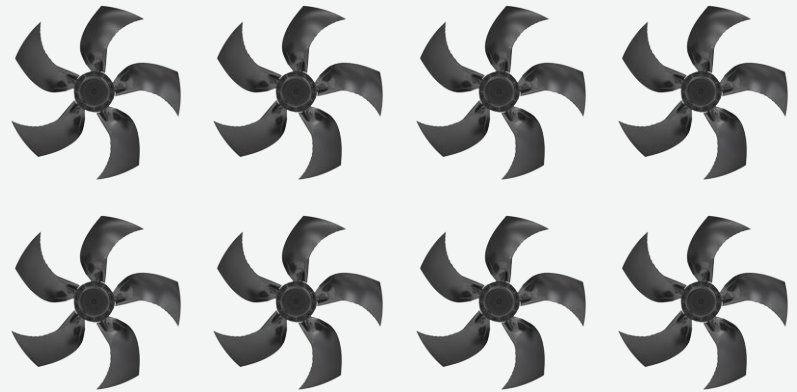
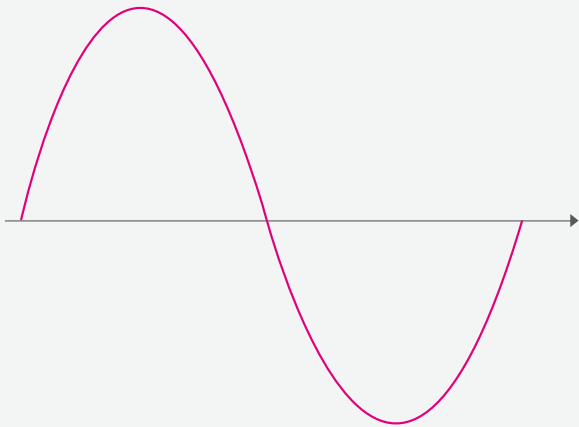
Fcontrol in the configuration as speed controller can be used universally, such as in combination with the ZIEHL-ABEGG control module UNIcon. Available both with or without integrated display.

External main switches are also available: S-D-25, 50, 80.



Example: Combination of Fcontrol as speed controller with overriden UNIcon control module

Fcontrol 3 ~ 400 V 50/60 Hz, power range: 2.5 to 50 amperes



For the well-being of your animals: Gentle, energy-saving and almost silent control of fans in single or parallel operation

The energy-saving frequency inverter Fcontrol is a pays off!

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
kWh	65.1	65.1	84.9	105.6	119.1	95.8	47.2	95.8	119.5	105.6	65.1	65.1
kWh x €0.2	€13.01	€13.01	€16.99	€21.12	€23.82	€19.17	€9.43	€19.17	€23.91	€21.12	€13.01	€13.01

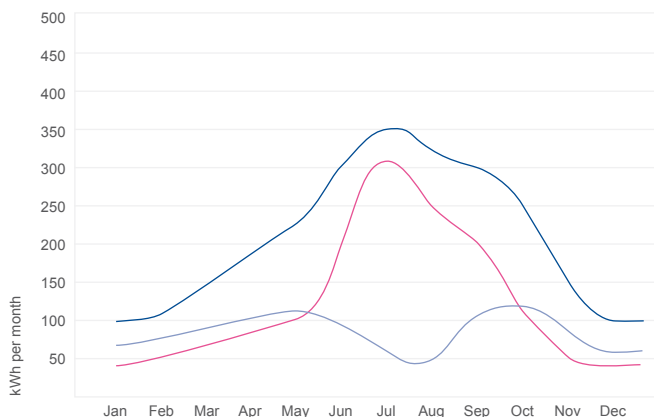


Diagram:
1x FC063-6EQ (1~230V)
Energy consumption

— Acontrol
— Fcontrol
— Difference

Phase angle controllers, such as Acontrol, consume more energy than Fcontrol frequency inverters. The difference is shown as a separate line (light blue).

The chart shown above illustrates the enormous energy and cost savings with the use of a fan, e.g., 1~ 230V 50Hz FC063 6-pole.

That means with several fans, also in parallel, on one **Fcontrol**, the savings potential increases accordingly.

1 fan € 206,78
2 fans on 1 **Fcontrol** € 413,56

Our sample calculation for you

Assumed installation costs:
Fcontrol for 6 amps € 1.000,00
Divided by the annual savings € 413,00

The result is your profit

Less than 2.5 years after retrofitting with Fcontrol, your investment has paid off.

100% operational safety / reliability
with bypass main switch

With the special S-E-bypass main switches for 1~ 230V or S-D- for 3~ 400V, even if the electronics fail (thunderstorm, lightning strike, etc.), operative fans can continue to run directly on the mains (accessories: S-E-20, S-D-25, S-D-50).



The Royal League

