

EC-Duct Fans with backward curved centrifugal impeller KHAG...



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KHAG – EC-Duct Fans

with backward curved centrifugal impellers

- easy installation (DIN standard flange)
- backward curved impeller
- extremely low starting current
- with energy saving EC-Technology
- motor protection by thermal contact
- energy saving with EC-motors



Description:

The Rosenberg EC-duct fans provide a distinctive advantage of axial fans, i.e. straight airflow and easy installation, high pressure stability, low noise level and high efficiency of the centrifugal fan.

Application Areas:



Casing:



Casing

Casings are made of galvanized sheet steel, formed as a rectangular duct, for direct installation into air ducts. Mounting possible in any position. Standard flanges are installed on inlet and outlet side. Equipped with complete swing-out motorized impellers for easy inspection cleaning and maintenance.

Casing KHAG... _S:

Sound attenuated duct fans with 40mm isolation. The sound attenuated duct fans offer with a space saving and sound absorbing casing extremely low noise levels.

Impellers:

The backward curved impellers are directly mounted to the rotor of the external rotor motor and are balanced dynamically together with the rotor according to quality level G2.5/G6.3 DIN ISO 21940-11.



Type KHAG...W:

Impeller made of aluminum (AlMg3) with 8 backward curved blades, compact and flexible design.

Type KHAG...R:

Impeller Evolution series made of black, UV-stabilized and long glass fiber reinforced Propylen (PP) with 7 backward curved, profiled blades and narrow efficiency optimized circulating diffusor, sound optimized, weight optimized, corrosion resistant and compact design for Air Flow orientated behaviour.

Motor and Motor Protection:

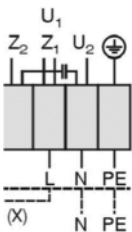
EC external rotor motors according to DIN EN 60034-5 are used, ball bearing mounted and with integrated thermal contact for motor protection.



The sleeplessly controllable EC motors are characterized by a very high degree of efficiency, even in the partial load range, as well as good control and regulation behavior. They are easy to connect, individually preconfigured, compact in design and demonstrate a high power density. The implementation of additional functions (e.g. volume flow and pressure control) is possible. All motors can be speed controlled in the range 0-100 %.

The motor protection is integrated. All necessary parameters such as temperature, blocked rotor, over- and undervoltage and power are continuously checked and monitored via intelligent fault management.

Electrical Connection:



The electrical connection can be made by a terminal box (supplied loose).

400V Types:

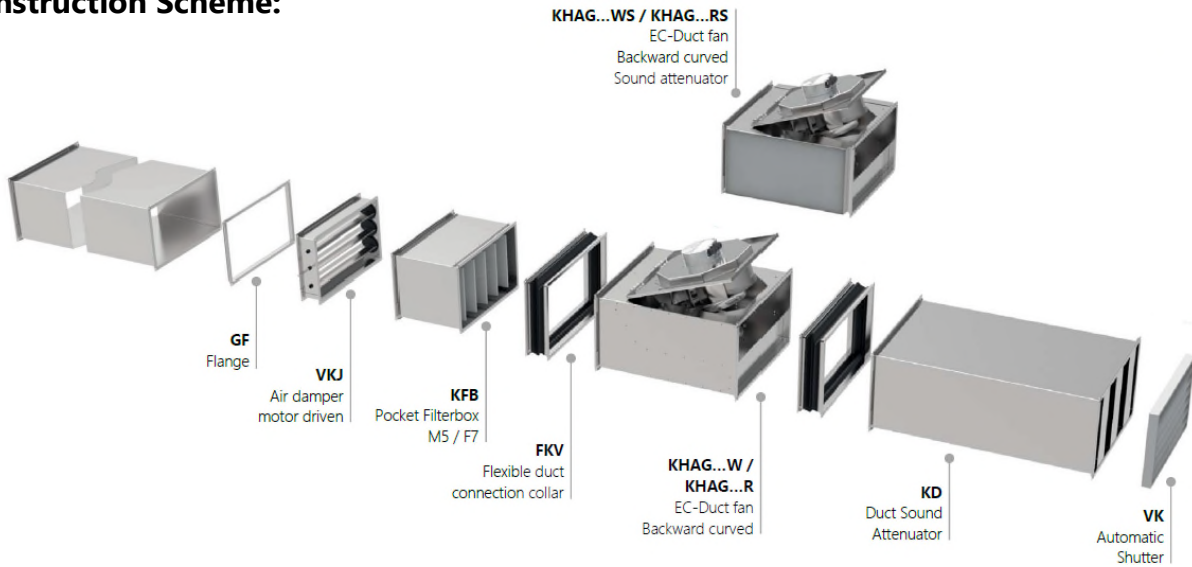
The electrical connection can be made by an integrated terminal box on the EC motor.

Installation:



The EC-duct fans are mounted with the desired accessory (duct silencer, filterbox, etc.) in the ductwork. To avoid possible vibration onto the channel system, we recommend the use of flexible connections (optional).

Construction Scheme:



Air Volume Control:

For more information see accessories!



Open-loop control

For example with a potentiometer 0-10V signal

Closed-loop control

For example with a temperature sensor 0-10V

Scope of Delivery:

- EC-Duct fan (KHAG)
- Documentation