

*Centrifugal Fans with free running impellers*



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### Warranty Guidelines

The customer is responsible for the project design, selection and operation of the fans. The supplier gives warranty for faulty products, excluding further claims, in accordance with valid terms and conditions of business.

Warranty will not be given in the following instances:

- (I) Unfitted or inappropriate usage, incorrect mounting or faulty installation by the purchaser or a third party, normal wear and tear, incorrect or negligent handling, improper maintenance, unsuitable operating material, unsuitable ground and chemical, electrochemical or electrical influence as long as they are not the responsibility of the supplier.
- (II) If the goods delivered from the manufacturer are faulty, the customer has the right to receive a replacement or replacement of the faulty parts to the maximum value of the purchase price. The manufacturer also has the right to get the product repaired within a reasonable time period. The manufacturer must be informed immediately in the case of damage.
- (III) The obligation to replace additional faults is herewith excluded. Our general terms of business are the basis for all further agreements for example: time periods to repair or replace. The general terms of business are available on our website [www.rosenberg.eu](http://www.rosenberg.eu) or direct from one of our sales representatives.

### The Rosenberg Group

Since the company's foundation in 1981, **Rosenberg Ventilation GmbH** has developed into an important center for the heat, ventilation and air conditioning industry in Europe through the development and manufacturing of speed controllable external rotor motors, fans, blowers, air handling units, and motor speed control devices.

Our aim is for high quality production backed by our top class service for our clients. Thus a continuous flow of information and good cooperation between you, dear customers, and us is important to jointly achieve a continuous evolution of our products and their quality.

Modern test chambers and equipment, as well as computer controlled production handled by self-responsible working teams are part of our philosophy, as the control of high quality and environmental protection measures.

60% of Rosenberg's total revenue is in export sales. Currently Rosenberg has 240 employees at the company's headquarter in Kunzelsau and more than 1,400 worldwide. Further production facilities are located in Glaubitz (GER), Waldmünchen (GER), Hungary, Czech Republic, Slovakia France, Italy and China.



Headquarter in Kunzelsau, Germany

### Centrifugal fans with free-running impellers

The impellers were designed for installation in appliances such as air handling units, hygienic and clean room filters units, as well as for RTL units. The fans are suitable for handling air and other non-aggressive gases or fumes. More variants are possible on request (for ex. Custom painting).

The motors are available as asynchronous external rotors motors or as electronically commutated (EC) external rotor motors.

Depending on the type of motor and the fan construction, the following fans are available:

- + **\_KHR/RRE:** motorized impeller with or without inlet cone (external rotor motor)
- + **\_KHM/RRM:** Fan module type "module" (external rotor motor)
- + **\_GKHS:** Fan module type "spider" (EC external rotor motor)
- + **\_GKHB:** Fan module type with mounting stand. (EC external rotor motor)

### Directions of Rotation

Proper direction of the rotation of the impellers viewed from the inlet side is clockwise. Improper direction of rotation can overload the motor (not possible with EC motors integrated electronics); therefore it is essential to check the direction of rotation before initial operation.



Rosenberg East Asia Pte Ltd certifies that the GKHM 500-CIB.160.6IF IE shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program.

### Impellers

The impellers with backward curves blades are statically and dynamically balanced with hubs according to quality level G6.3 DIN ISO 1940. It should be noted that, for this impeller range B, the impellers sizes does not correspond to the external diameter of the impeller. For special projects other blade widths can be manufactured.

### Inlet Cones.

The inlet cones are made of galvanized steel sheet metal. They are fluidic optimized and offer good air flow to the impeller. The optimal immersion depth of the impeller is shown on the corresponding dimensional drawings. Air flow control and monitoring can be done through the circular lead included in the scope of delivery of GKHM/S/B.

### Air performance curves

Performance curves and technical specifications are based upon tests carried out in accordance to AMCA standard 210 by an independence laboratory.

The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and comply with the requirements of the AMCA Certified Ratings Program. Performance certified is for installation type A - Free inlet, Free outlet. Performance rating do not include the effects of appurtenances (accessories).

The curves are valid for air with a density of 1.2kg/m<sup>3</sup> at a temperature of 20°C. The curves in this catalogue shows the increase of the static and the dynamic pressure in Pascal (Pa) as a function of the airflow in cubic meter per hour (m<sup>3</sup>/h).

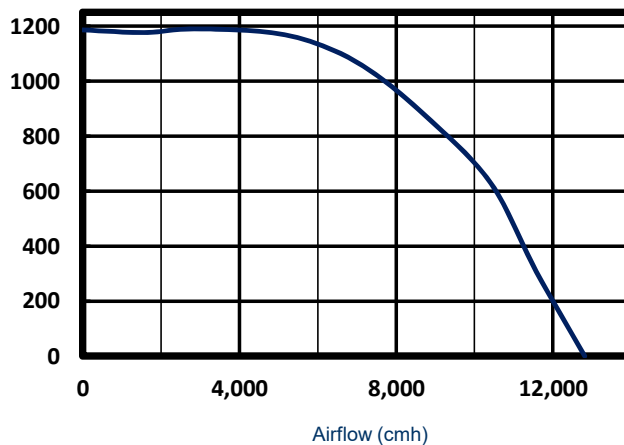
Comparatively standards are ISO 5801, BS 848 Part 1 and DIN 24163.



- + integrated control system (EC controller).
- + backward curved high efficiency aluminum impeller.
- + simple setting and adjustment of the complete system.
- + speed is 100% infinitely variable.
- + compact and space saving design.

## Technical Data:

Static Pressure (Pa)



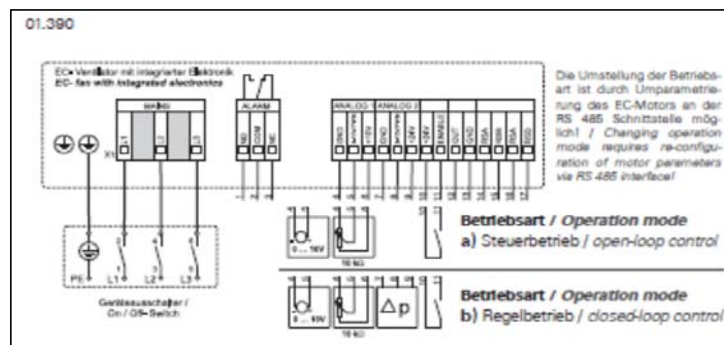
Impeller speed 1750rpm

Maximum input power is 3.6 kw, 400V/3/50Hz  
Performance certified is for installation type A  
free inlet, free outlet.

Performance ratings do not include the effects  
of appurtenances (accessories).

| Fan Type                | U<br>( V )  | f<br>(Hz) | P<br>(kW) | In  | n<br>(rpm) | t <sub>R</sub><br>(°F) | t <sub>R</sub><br>(°C) | IP | Wiring<br>Diagram | Weight<br>(kg) |
|-------------------------|-------------|-----------|-----------|-----|------------|------------------------|------------------------|----|-------------------|----------------|
| GKHM 500-CIB.160.6IF IE | 3 - 380-480 | 50/60     | 3.6       | 5.3 | 1750       | 104                    | 40/60                  | 54 | 01.390            | 55             |

## Wiring diagram:



## Dimensions:

(all dimensions in mm)

