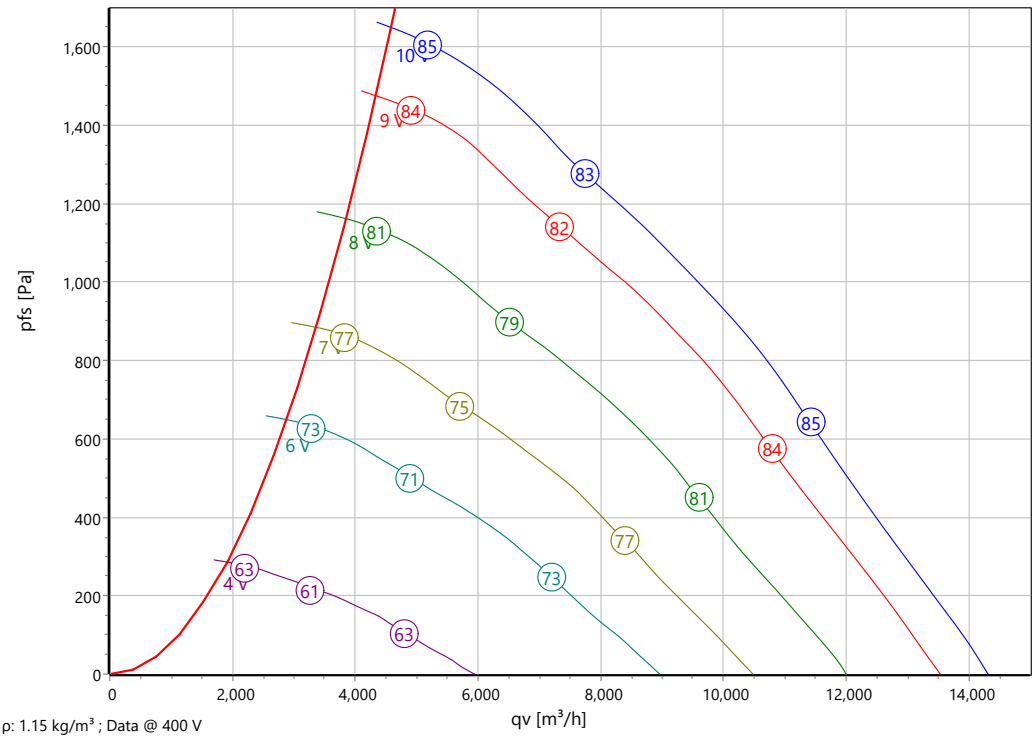
Type: **GKHM 450-CII.147.6FF IE Gen3**
Module Classic
Part no.: N88-45701

Curve:



ρ: 1.15 kg/m³ ; Data @ 400 V

ErP-Data:

ErP 2026 (EU) 2024/1834 (Lot11, BC)		
q_v	9298	m³/h
p_{fs}	1049	Pa
η_{fs}	68.9	%
P_{ed}	4.11	kW
n	2400	r/min
N	73	N
v	10.5	m/s

Nominal Data:

U [V]	f [Hz]	Data @ [V]	P_{ed} [kW]	I_N [A]	n_N [r/min]	t_R [°C]	k_{10} [m²s/h]	Eff.-Rating	IP	m [kg]
3~380-480	50/60	400	4.22	6.7	2400	-25 .. +40	191	IE5	IP 54	38
		460		5.7						

Sound Data:

Frequency	Σ	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Distances	1 m	4 m
LwA(A,in) [dB(A)]		-34	-22	-7	-7	-6	-6	-11	-16	LpA(A,in) [dB(A)]	-7	-17
LwA(A,out) [dB(A)]	6	-28	-18	0	0	-1	-1	-5	-13	LpA(A,out) [dB(A)]	-1	-11

ErP-Data @ Modul Classuc
Attention: Start-up times up to ~ 20 - 60 sec. depending on motor-impeller combination, motor load and number of operation.
Please note during project planning (e.g. for condenser units in refrigeration circuits)!

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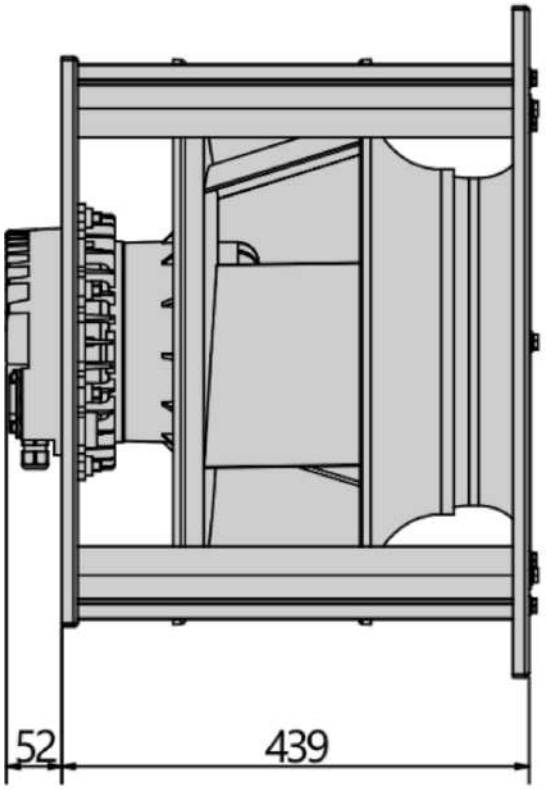

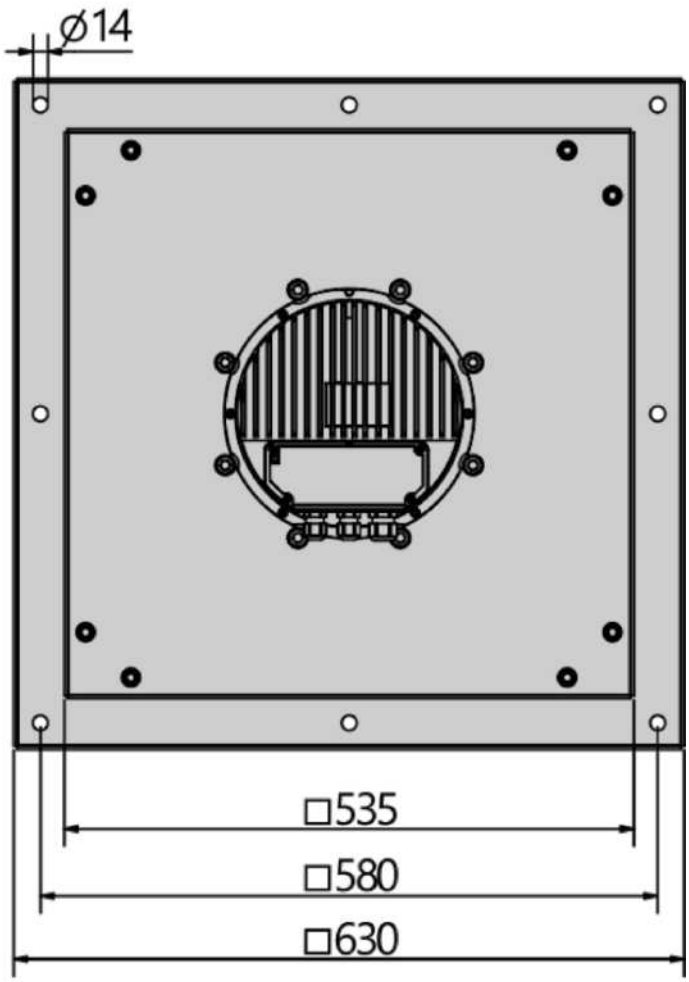

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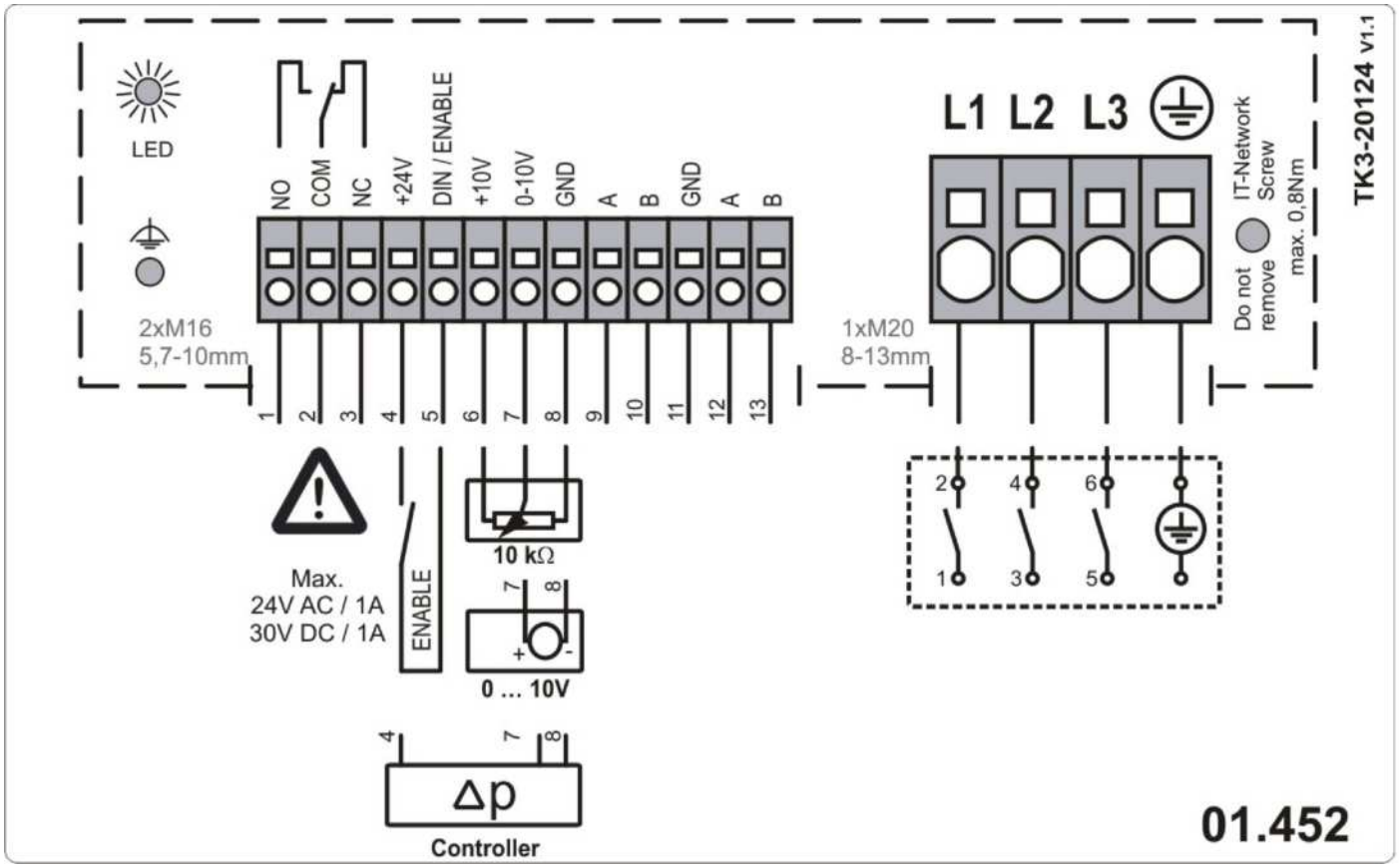
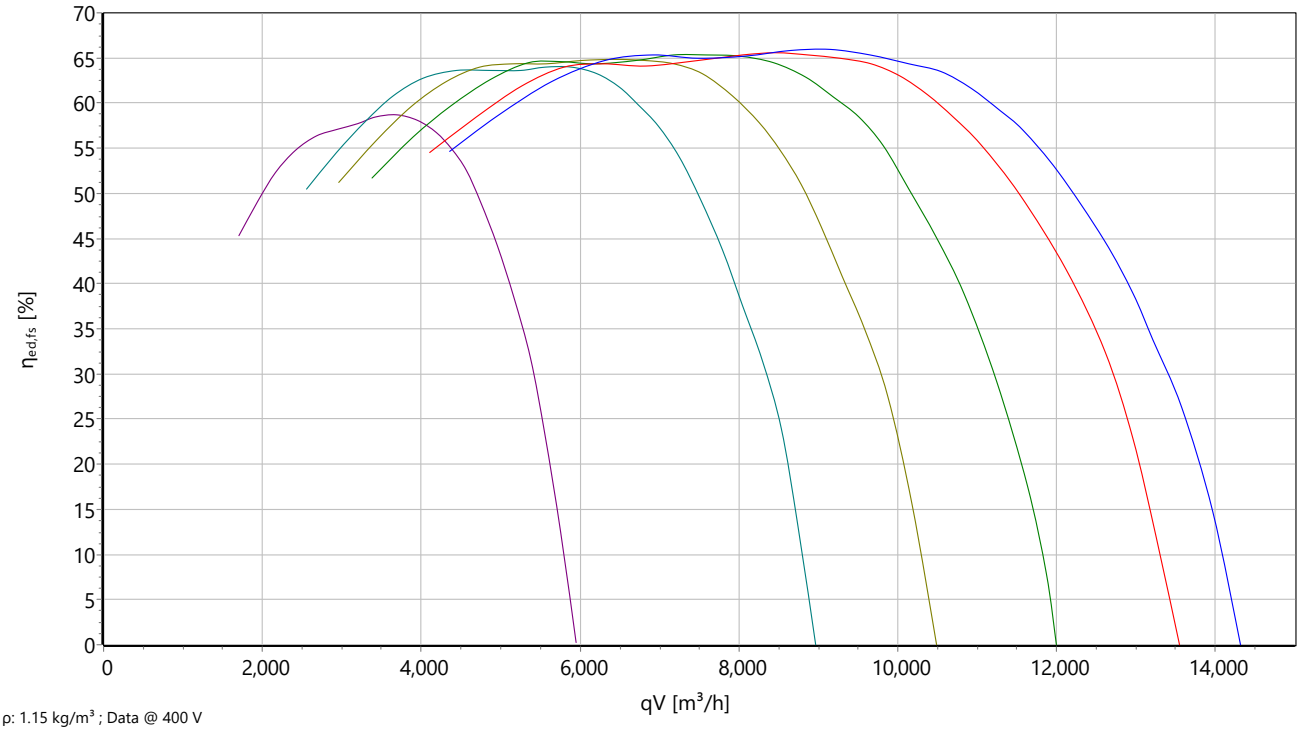


Type: **GKHM 450-CII.147.6FF IE Gen3**

Module Classic

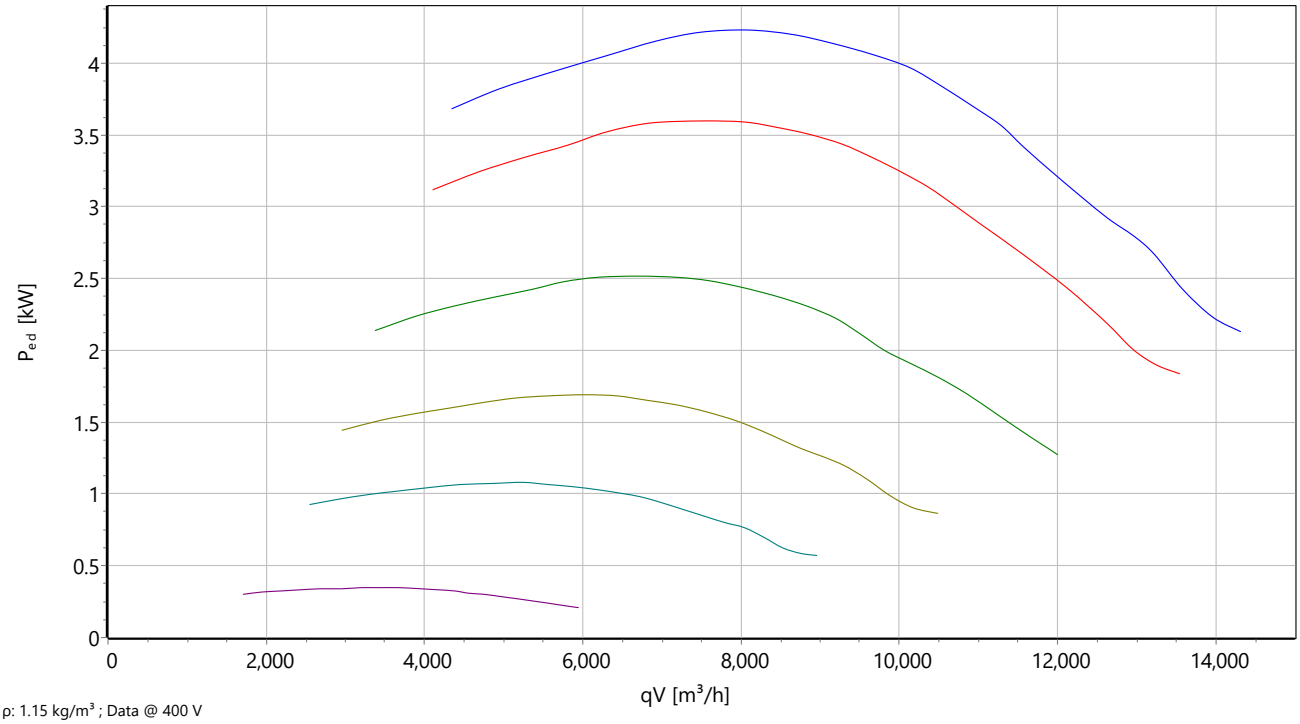
Part no.: N88-45701

stat. Efficiency



ρ: 1.15 kg/m³ ; Data @ 400 V

Input power



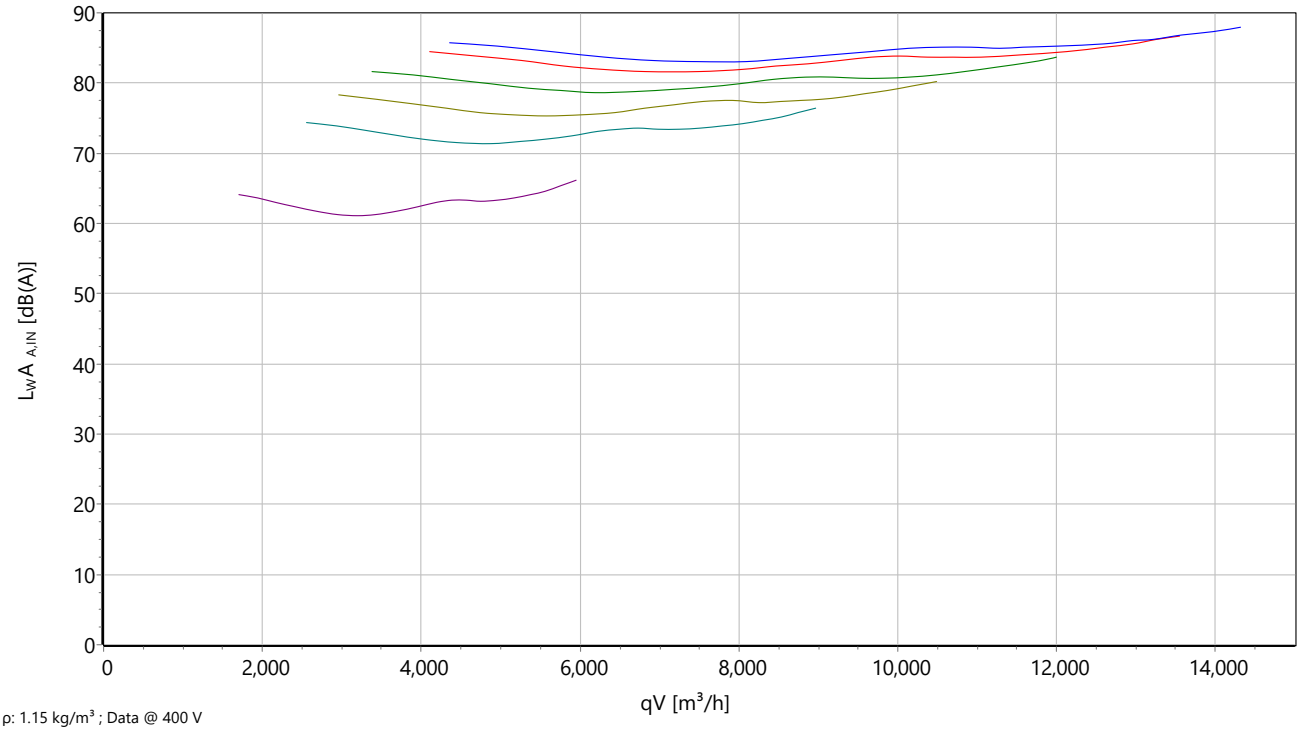
ρ: 1.15 kg/m³ ; Data @ 400 V

Type: **GKHM 450-CII.147.6FF IE Gen3**

Module Classic

Part no.: N88-45701

Sound power



ρ: 1.15 kg/m³ ; Data @ 400 V

EC-Plug Fan
with backward curved impeller

Impeller made of aluminum (AlMg3) with 5 backward curved, profiled blades and efficiency optimized circumferential diffusor. Sound optimized design. Volumeflow orientated behaviour. Fluidic optimized inlet cone made of galvanised sheet steel. Air Flow measuring equipment with one pressure connection. Compact, weight -reduced fan module "Classic". Consisting of motor, impeller, nozzle and module construction. Motor and nozzle support plate made of galvanized sheet steel with aluminium retaining profiles. Plug & Play. Extra coating on request. Suitable for installation in any position. Motorized Impeller statically and dynamically balanced according to DIN ISO 21940 -11 at least with quality level G6.3. Energy saving EC external rotor motor. Exceeds efficiency classification IE4. Maintenance -free, double-sealed bearings with long-term lubrication. Magnets manufactured without the use of rare earth elements. Motor size 5 painted black or Motor size 6 made of die -cast aluminum. Protection class IP54 and insulation class F. Single-phase versions equipped with control and power cables and integrated active PFC (Power Factor Correction). Three-phase versions with terminal box and weather -resistant cable glands (3x M20x1.5). Fully speed -controllable with integrated motor protection and soft start.
ModBus RTU interface included; bus configuration can be performed on -site. Potential-free alarm contact and integrated 24 V power supply for optional accessories. Suitable for all standard power networks. Low -noise commutation.

The Fan complies with the guidelines required (Machinery -, EMC- and Low Voltage Directive) to comply with installation and conformity declaration as well as CE marking. Standard version with UL motor approval.

Nominal Data:
Voltage [U]
3~380-480 V
Frequency [f]
50/60 Hz
Input power [P]
4.22 kW
Current [I]
6.7 / 5.7 A
Speed [n]
2400 r/min
Medium temperature [tR]
40 °C
Protection Mode
IP 54
Efficiency Class
IE5
K-Factor
191
Weight [m]
38 kg
Dimensions [L / W / H]
630 mm / 630 mm / 491 mm

Contact:
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Maybachstraße 1

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www.rosenberg-gmbh.com

Type:
GKHM 450-CII.147.6FF IE Gen3
Article-No.:
N88-45701

GKH... - Plug Fan

with EC-Motor and I-Impeller

- airflow orientated high performance impeller
- speed infinitely adjustable
- fast start-up (due to pre-configured system)
- different mechanical configurations available
- maintenance free operation through lifetime lubricated ball bearings
- high operating efficiency due to EC drives
- constant high degree of efficiency (even under partial load)

Description:

Rosenberg EC-Plug fans combined with electronically commutated motors (EC -motors), form a very compact, efficient and optimized fan unit. They impress with low installation depth and a simple installation. Fast start-up is ensured because of well-integrated components.

Applications:

Air Handling Units / Wind Power / Compressors / Transformer cooling

Mechanical Configuration:

Plug fans, in dependence of the fan type, are available in different mechanical designs. Mounting either with horizontal or vertical motor shaft.

_KH**R**, RR**E**	= Motorized Impeller (Inlet Cone Accessory)
_KH**M**, RR**M**	= Fan Module type "Classic" cone and supporting frame included
_KH**C**	= Fan Module type "Slim" cone and supporting frame included
_KH**Q**	= Fan Module type "Qube" cone and supporting frame included
_KH**D**	= Module with forwarding device "High Performance"

Impeller:

Impeller made of aluminum (AlMg3) with 5 backward curved, profiled blades and efficiency optimized circumferential diffusor. Sound optimized design. Volumeflow orientated behaviour.

Product range: 355, 400, 450, 500, 560 and 630 mm.

Motors:

The EC motors used are characterized by a very high degree of efficiency, even in partial load ranges, as well as good controlling and regulation behavior. They are easy to connect, individually preconfigured, compact in design and show

a high power density. The implementation of additional functions (e.g. air flow and pressure control) is possible. All motors are infinitely adjustable via Modbus or 0 –10 V signal.

Integrated Motor Protection:
The motor protection is integrated with Rosenberg EC motors. All necessary parameters, such as temperature, blocked rotor, over and undervoltage and power are continuously checked and monitored via an intelligent failure management.

Electrical connection:

1~phase Variants:
The electrical connection is made via cables from the motor.
3~phase Variants:
The electrical connection is made via cable glands from the integrated terminal box of the motor.

Air volume control:

For more information see accessories.

Infinitely variable controlling:
via Potentiometer or external set point
Constant-Air Flow-Control:
via pressure controller in combination with air flow measuring points integrated in the inlet cone
Constant-Pressure-Control:
via pressure controller
Constant-Temperature-Control:
via temperature controller

Important notes:

Air performance curves:
The air performance curves have been established using the intake test method in the test chamber according to DIN EN ISO 5801. They show pressure increase as a function of the volume flow. Performance curves were recorded in installation type A.

Sound levels:
The tests and their performance curves were conducted according to DIN 45635 part 38 or. ISO 133347 -3 and DIN EN ISO 3744/ 3745 in accordance with the envelope surface method.

Erp-Information:
Rosenberg fans have a specific (pressure-) ratio < 1,05 (pressure < 5000 Pa).

The ErP - Data applies to Rosenberg modules as complete fans within the meaning of Commission Regulation (EU) 2024/1834

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and does not apply to the motorized impeller version.

Service life:
For maximum service life of Rosenberg products please beware of the maintenance hints on the manual for each product type.

Recycling and disposal:
For recycling and disposal of Rosenberg products comply with applicable locally requirements and regulations.

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