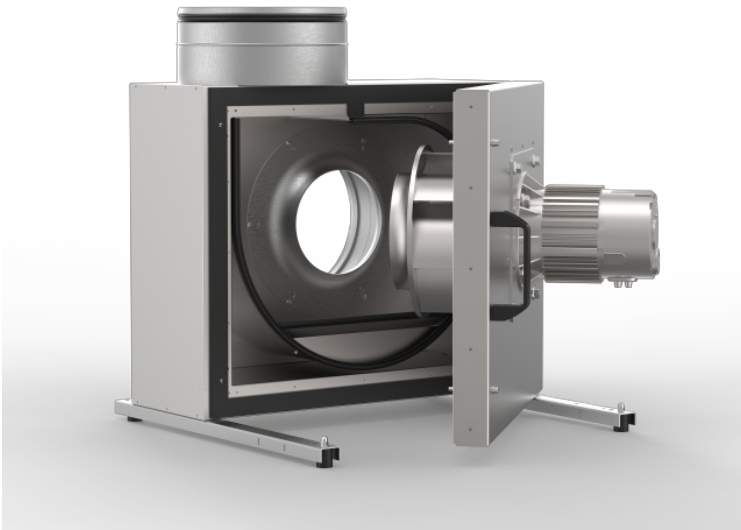


KBR Centrifugal Fans

Powerful and efficient exhaust fans for medium temperatures up to 120°C

- Up to 120°C medium temperature, continuous operation
- Acoustic and thermal insulation 50 mm
- Excellent for commercial kitchens and process exhaust systems
- Easy to service and maintain due to the swing-out inspection door

[Find more details in our online catalogue](#)



Reliability

The KBR box fans are designed for reliable, continuous use with medium temperatures up to 120°C.

The combination of reliable casing and motor construction ensure minimize the need for maintenance of the fans and allows long **continuous operation**.

Performance

High performance impeller together with **high efficient** motors are designed to ensure high-level performance to **minimize power consumption** and **maximize efficiency**.

Noise

The **casing** of **KBR** models have perfect **acoustic** and **thermal** insulation capacity.

Features

Construction

The KBR casing is manufactured from doubleskinned galvanised sheet steel and is insulated with 50 mm mineral wool. The fan is isolated from the casing via connectors and anti-vibration dampers are incorporated into the base frame. Standard is that the motor is outside the air stream. The KBR fans have a swing-out door for easy inspection and service.

Impeller

The KBR fans use **radial** impeller with **backward curved blades**. These are made out of galvanised steel, dynamically **balanced** and paired with corresponding **IEC motor** with efficiency **IE3 or EC motor**.

Motor

Depending on the type, KBR fans are equipped with **AC** or **EC** external rotor motors. Motors are suitable for **50Hz** and **60Hz**.

Motor protection

Depending on the type, **AC** motors have an **integrated** thermal protection with manual (electrical) reset, prewired integral **thermocontact TK** or **thermistor PTC** with leads to a **motor protection device**. Fans with **EC** motors have an **integrated** electronic **thermal protection** including **locked-rotor protection** and **soft-start**.

Control

EC motors with **built-in potentiometer** to adjust working point can be also controlled by external **signal 0-10V**. **EC motors, depending on the type** are also equipped with **ModBus** communication or **alarm signal**. **AC motors** can be controlled by **5-step, stepless** speed regulator, **D/Y** switch or **frequency converter**.

Installation

The fans can be used **indoor** or with **specific accessories** also **outdoor**. Due to the mounted **base frame the fan** can stand **on floor**. For **preventing vibration** to the duct is recommended to use **flexible connection**.

Technical parameters

Nominal data

Voltage (nominal)	230	V
Frequency	50; 60	Hz
Phases	1~	
Input power	103	W
Input power kW	0.103	kW
Input current	1.01	A
Impeller speed	1,513	rpm
Air flow	max 1,535	m³/h
Temperature of transported air	max 120	°C
Max temperature of transported air, when speed controlled	120	°C

Protection/Classification

Enclosure class, motor	IP55
Insulation class	F

Data according to ErP

ErP ready	Not ErP relevant
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Dimensions and weights

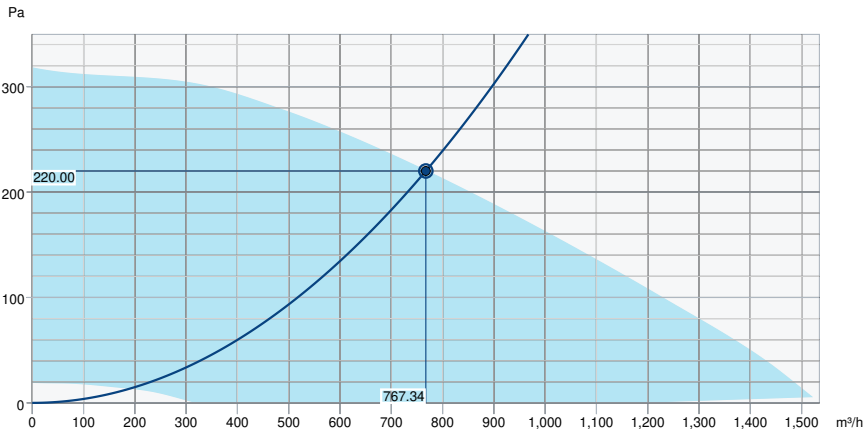
Duct dimension; Circular, inlet	280	mm
Duct dimension; Circular, outlet	280	mm
Weight	46.1	kg

Others

Duct connection type	Circular
Motor type	EC

Performance

Performance curve

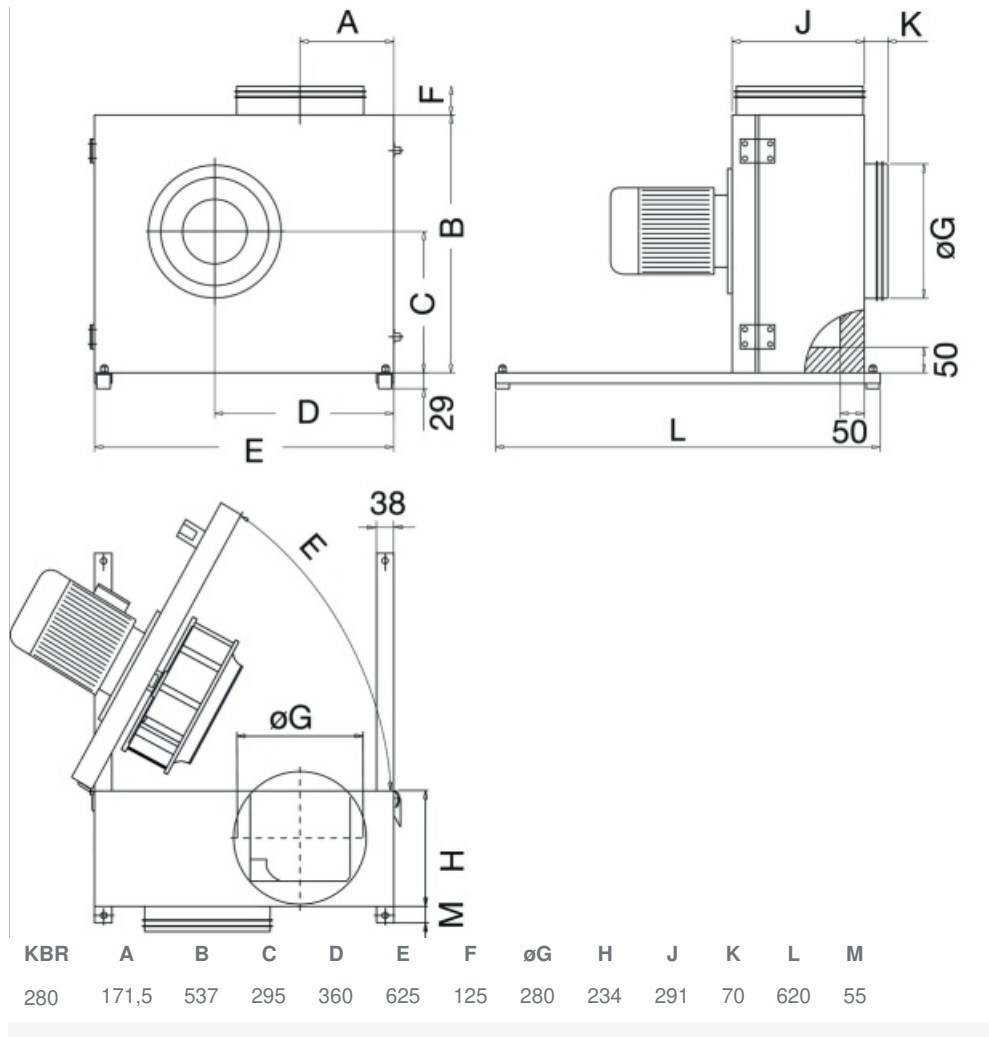


Hydraulic data

Required air flow	767 m³/h
Required static pressure	220 Pa
Working air flow	767 m³/h
Working static pressure	220 Pa
Air density	1.204 kg/m³
Power	99.2 W
Fan control - RPM	1,510 rpm
Current	0.98 A
SFP	0.466 kW/m³/s
Control voltage	10.0 V
Supply voltage	230 V

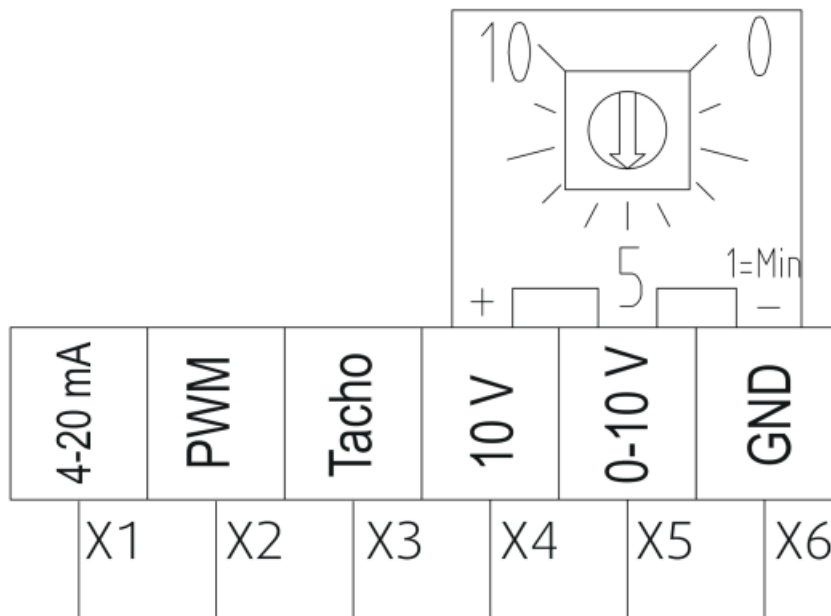
Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	47	54	63	57	57	56	51	52	66
Outlet	dB(A)	49	55	65	58	58	57	52	53	67
Surrounding	dB(A)	36	40	60	38	47	42	40	57	62
Sound pressure level at 3m (20m² Sabine)	dB(A)	-	-	-	-	-	-	-	-	55
Sound pressure level at 3m free field	dB(A)	-	-	-	-	-	-	-	-	41

Dimension



Wiring

A



B



A Terminal box (control)

4–20 mA	X1	red	DC current [4 — 20 mA]
PWM	X2	brown	<p>PWM- signal input with 80 Hz and voltage 10 to 24 Vpk The motor speed can be set via the duty cycle. When the duty cycle is changed from 10 to 95% the motor changes speed from 0% to 100% of the maximal speed.</p> <p>Start fire mode: apply +10V to PM for longer than 5 seconds, e.g. by bridging against +10V (X4). Attention! in fire mode, all motor protection functions are disabled!</p>
Tacho	X3	white	Tacho (details, see manual)
10 V	X4	yellow	10 V DC [max. 25 mW or 2.5 mA]
0–10 V	X5	blue	DC voltage [2 — 10 V]
GND	X6	black	Common (Ground)

B Terminal box (mains)

L	brown	220-277 V~ // 50/60 Hz
N	blue	
PE	green-yellow	

Accessories

- ASF 280/KB Flex. connection (2717)
- EC-Basic-CO2 and temperature (24808)
- EC-Basic-T temperature (24805)
- EC-Selector (9908)
- EC-Vent Room Unit (3018)
- MTV-1/010 Controller 0..10V+ (30650)
- REV-3POL/03-7,5kW R/Y (33978)
- WSD KBR-1 Weather roof f.motor (2728)
- Presence detector/IR24-P (6995)
- ALS-KBR drain plug (2727)
- Free cooling control FCC (238089)
- CXE/AVC Modbus (37256)
- EC-Basic-H humidity (24807)
- EC-Basic-U universal 0-10V (24806)
- EC-Vent control board (3115)
- MTP 10, 10K, Speed control (32731)
- Potentiometer MTP 20, 0-10V (310220)
- Step switch S-5EC-2, 0-10V (449084)
- MF 280 (210395)
- RT 0-30 Room Thermostat (5151)
- WBK 225/280 Wall bracket (2720)
- Presence detector DBWF-W (382780)

Documents

- Installation, Operation and Maintenance instruction_005
- COMMISSIONING REPORT_FANS_160628_EN_001.PDF