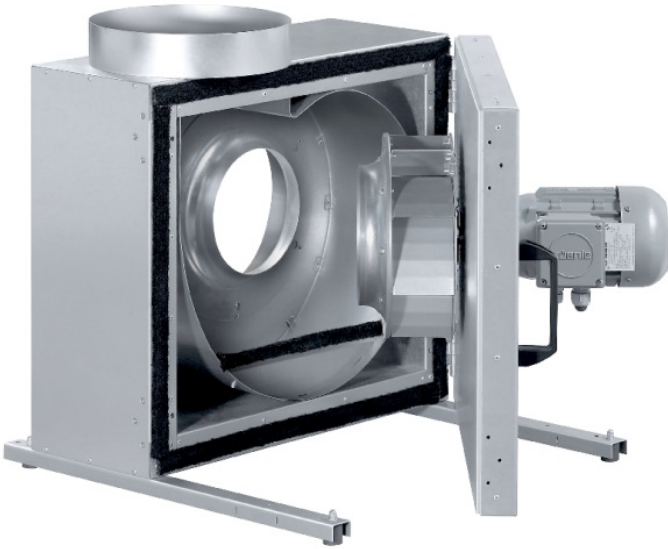


## KBR/F Centrifugal Fans

**High-performing smoke extract fans for harsh working conditions in the event of a fire**

- Continuous medium temperature up to 200°C
- Smoke extraction 400°C/2h (F400)
- Acoustic and thermal insulation 50 mm
- Easy to service and maintain due to the swing-out inspection door

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



### Powerful smoke extraction

The smoke extract units KBR/F are used in case of fire to extract smoke gases and also during normal working conditions for temperature up to 200°C continuously.

### Hard-wearing design

The KBR casing is manufactured from doubleskinned galvanised sheet steel and is insulated with 50 mm mineral wool.

### Performance

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

## Certifications



## Features

### Construction

The KBR/F 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/F fans have a swing-out door for easy inspection and service. Tested according to EN 12101- 3. CE-Certification according to EN 12101-3 ;2002-06 through TÜV Süd.

### Impeller

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

### Motor

High temperature motors for temperature classification F400 (400°C/120 min).

### Motor protection

Fans with **AC** motors have an **integrated** thermal protection with manual (electrical) reset, **thermistor PTC** for connection to a motor protection device. Fans with **EC** motors have an **integrated** electronic **thermal protection** including **locked-rotor protection** and **soft-start**.

### Control

The **AC motors** can be controlled by **5-step, stepless** speed regulator, **D/Y** switch or **frequency converter**. **EC motors** with **built-in potentiometer** to adjust working point can be also controlled by external **signal 0-10V**.

### 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**.

## Technical parameters

### Nominal data

Voltage (nominal)	400	V
Frequency	50	Hz
Phases	3~	
Motor circuit connection	Y	
Input power	783	W
Input power kW	0.783	kW
Starting current	11.4	A
Input current	1.2	A
Impeller speed	2,796	rpm
Air flow	max 2,952	m³/h
Max. Temperature of transported air for 120 min	400	°C
Temperature of transported air	max 200	°C

### Sound data

Sound pressure level at 10m (free field)	36	dB(A)
Sound pressure level at 4m (free field)	44	dB(A)

### Protection/Classification

Enclosure class, motor	IP55
Insulation class	F

### Dimensions and weights

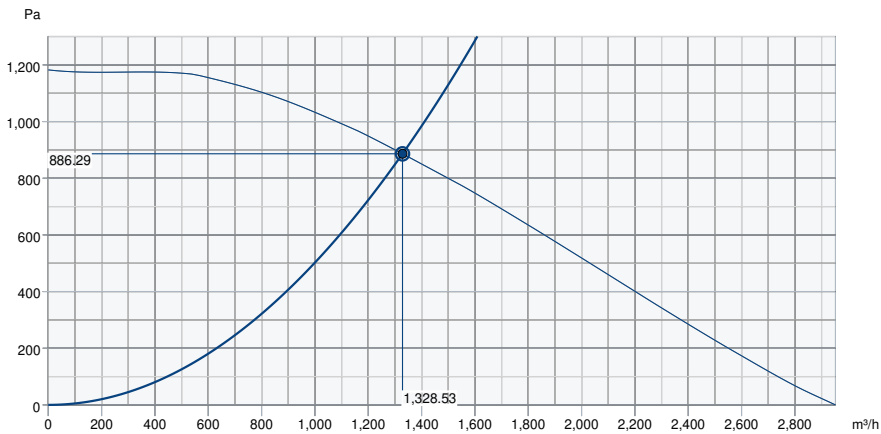
Duct dimension; Circular, inlet	280	mm
Duct dimension; Circular, outlet	280	mm
Weight	47.5	kg

### Others

Duct connection type	Circular
Motor type	AC

## Performance

### Performance curve



#### Hydraulic data

Required air flow	1,328 m³/h
Required static pressure	886 Pa
Working air flow	1,329 m³/h
Working static pressure	886 Pa
Air density	1.204 kg/m³
Power	695.0 W
Fan control - RPM	2,806 rpm
Current	1.05 A
SFP	1.883 kW/m³/s
Control voltage	400.0 V
Supply voltage	400 V

## Acoustic

280D4	Hz	Tot	125	250	500	1k	2k	4k	8k
LwA Inlet	dB(A)	74	68	66	62	59	57	53	49
LwA Outlet	dB(A)	76	70	68	64	61	59	55	51
LwA Surrounding	dB(A)	56	50	48	44	41	39	35	31

Measuring point:  $qv = 0,22 \text{ m}^3/\text{s}$ ,  $Ps = 220 \text{ Pa}$

### Mid-frequency band, Hz

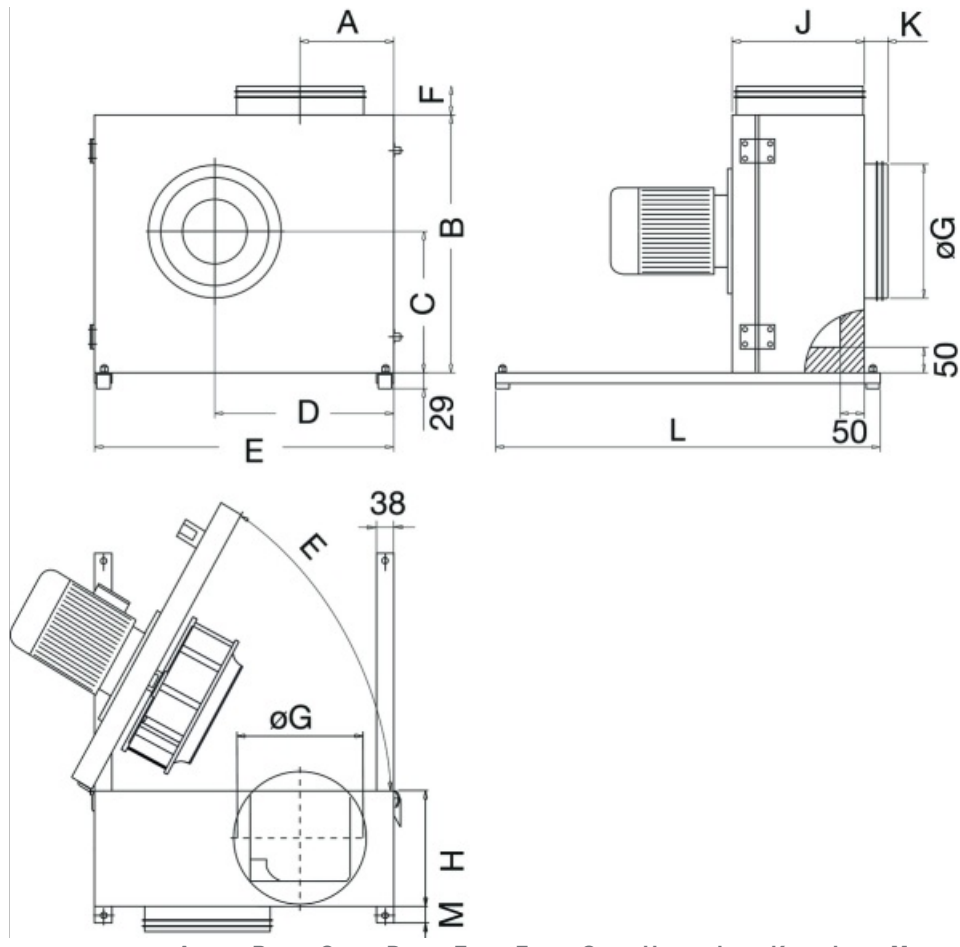
280D2	Hz	Tot	125	250	500	1k	2k	4k	8k
LwA Inlet	dB(A)	86	80	78	74	71	69	65	61
LwA Outlet	dB(A)	88	82	80	76	73	71	67	61
LwA Surrounding	dB(A)	67	61	59	55	52	50	46	42

Measuring point:  $qv = 0,42 \text{ m}^3/\text{s}$ ,  $Ps = 800 \text{ Pa}$

4-pol

2-pol

**Dimension**

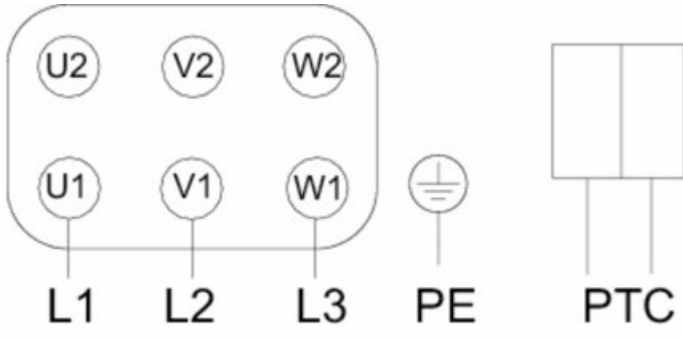


	A	B	C	D	E	F	øG	H	J	K	L	M
KBR/F 280	171,5	537	295	360	625	60	280	234	291	50	620	35

**Wiring**

**Y 400V**

low speed

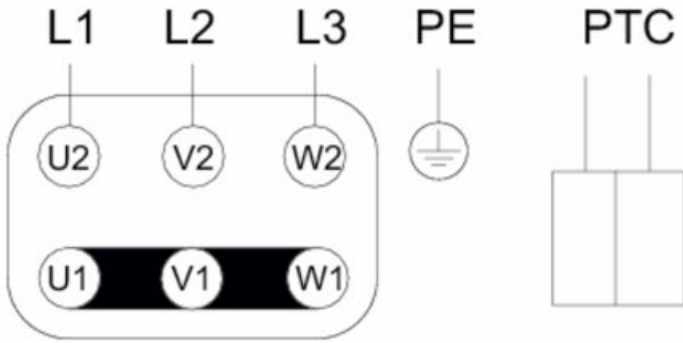


max. 2,5V

**Dahlander**

**YY 400V**

high speed



cir-dia\_kbr d2\_160511\_en\_001

## Accessories

- EVH 315 flex.conn. AXC 400°C (8364)
- LRK 315(F) air oper. damper (8316)
- RSA 315/315/070 (F) (311346)
- RSA 315/630/070 (F) (311348)
- UGF 280 Transition flange (305492)
- MF 280 (210395)
- ALS-KBR drain plug (2727)
- REV-5POL/07-EMV-7,5kW B/G (281744)
- Frequency converter FRQS-4A (36231)
- REV-5POL/05-7,5kW R/Y (33979)
- RSA 315/472,5/070 (F) (311347)
- U-EK230E Motor protection (30199)
- WSD KBR-2 Weather roof f.motor (2729)
- REV-5POL/07-EMV-7,5kW R/Y (34549)
- WBK 225/280 Wall bracket (2720)

## Documents

- Installation, Operation and Maintenance instruction\_005
- 2797\_CPR\_719672.PDF
- eu\_declaration\_of\_conformity\_smoke\_extract\_fans\_en\_003.pdf