

## BKF

Smoke extract duct fan

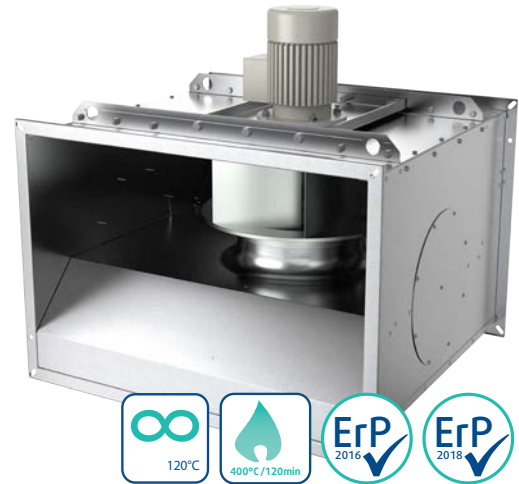


# BKF

## Smoke extract duct fan

### Features:

- 400°C/120 min (F400)
- Continuous operation up to 120°C media
- Casing made of zinc-magnesium coated steel (ZM)
- Backward curved impeller made from pre-galvanised steel (size 355, 450) respectively from steel and galvanised
- Motor outside the air stream
- Single speed IE2 motors resp. two speed motors
- PTC serial built-in motor
- Certified according EN 12101-3 by BSI, UK
- Dual purpose (normal ventilation plus smoke and heat extract)
- ErP compliance 2018
- Installation possible in all positions, flange connection 30 mm
- Installation outside building or inside building, outside fire zone in well ventilated rooms
- Applications: malls, garages, warehouses, kitchen exhaust (upon request)



BKF smoke and heat extract fans are used in case of fire to extract smoke gases and also during normal working conditions for standard ventilation.

Smoke free escape routes assist egress and provide clear access points for fire departments. Extracting poisonous and hot gases also make fire extinguishing easier and reduce

the damage on the building.

For speed control of single speed motors use combination of frequency converter and appropriate filter to motor side (sine or du/dt), respectively observe instructions. Tested to 400°C/2h together with frequency converter. However, we recommend bridging of frequency converter in case of fire to eliminate possible risk

of malfunction of frequency converter. In case of fire all motor protective devices and thermal protections must be bridged or disabled to guarantee functional capability. When choosing AES control accessory please observe serial connecting capability of the motor (instructions).

### Accessories



#### Protective grid PG-BKF

Protective grid is used, if the fan is installed at the end of duct. It prevents risk of contact with impeller. Bird protection. Made of zinc-magnesium coated steel (ZM).



#### Weather protection WPR BKF

Weather protection is used to prevent direct rain/snow impact on the motor, when the fan is installed outdoor, with vertical motor axis on the upper side. Made from seawater resistant aluminium.

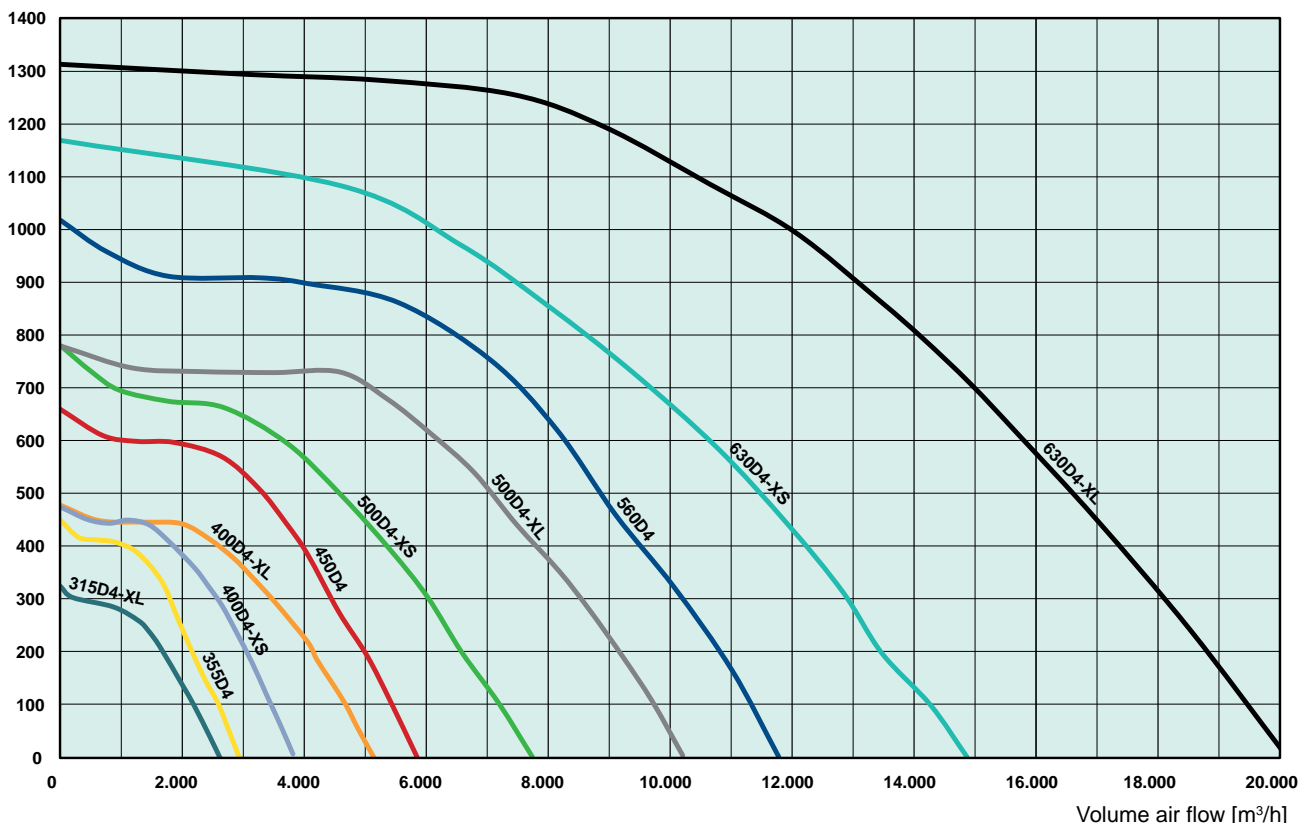


#### Flexible connection FLC BKF

It prevents transmission of vibrations to the duct system. The flanges are made of pre-galvanized steel. A high temperature resistant glass tissue with silicon is used for the flexible part. Sealing tape and fastening material is not provided. Tested to 400°C, 120 min, together with the fans.

## Performance

Static pressure [Pa]



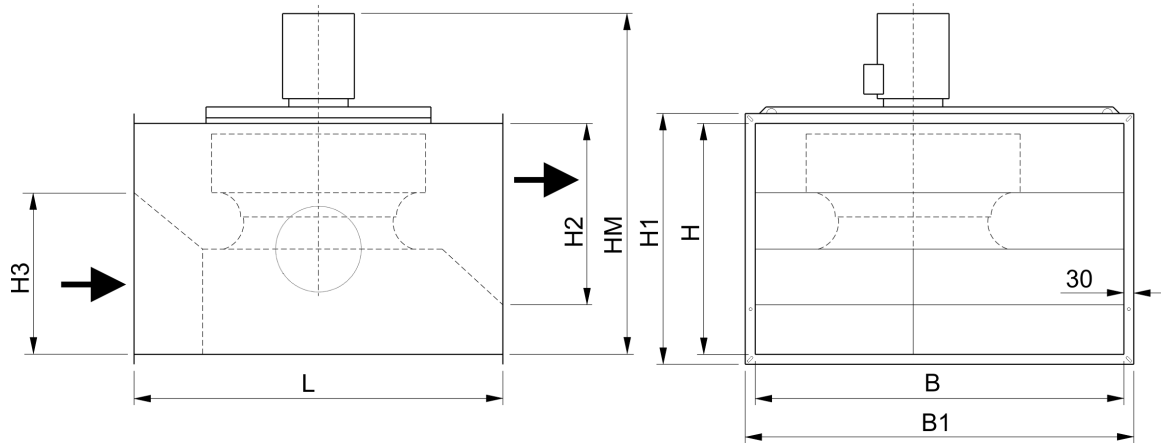
## Technical data

Model BKF/F400		BKF 315D4-XL	BKF 355D4	BKF 400D4-XS	BKF 400D4-XL	BKF 450D4	BKF 500D4-XS	BKF 500D4-XL	BKF 560D4	BKF 630D4-XS	BKF 630D4-XL
Item no.		95687	95691	95695	95698	95702	95706	95709	95713	95717	95725
Voltage	V	400	400	400	400	400	400	400	400	400	400
Frequency	Hz	50	50	50	50	50	50	50	50	50	50
Phase	~	3	3	3	3	3	3	3	3	3	3
Input power (P1)	kW	0.24	0.34	0.43	0.60	0.86	1.23	1.83	2.50	3.10	5.85
Current	A	0.6	0.7	0.85	1.1	1.8	2.0	3.3	4.7	5.7	10.2
Max. airflow	m³/h	2630	2930	3800	5140	5860	7750	10220	11800	14900	20200
Fan impeller speed	r. p. m.	1453	1436	1409	1407	1440	1400	1417	1446	1445	1460
Weight	kg	50	52	65	69	71	94	97	102	141	161
Wiring diagram		WD1	WD1	WD1	WD1	WD1	WD1	WD1	WD1	WD2	WD3
<b>Sound data</b>											
SPL	dB(A)	57.8	55	59.8	61.1	63.3	64.1	63	72	73	70.1
SWL (L <sub>WA</sub> inlet)	dB(A)	74	73	79	79	79	83	83	87	91	92
SWL (L <sub>WA</sub> outlet)	dB(A)	78	76	81	81	83	86	87	89	94	97
SWL (L <sub>WA</sub> surrounding)	dB(A)	65	62	67	68	70	71	70	79	80	77
<b>Protection / Classification</b>											
Insulation class		F	F	F	F	F	F	F	F	F	F
Enclosure class, motor	IP	55	55	55	55	55	55	55	55	55	55

SPL = Sound pressure level at 3 m (20 m² Sabin)

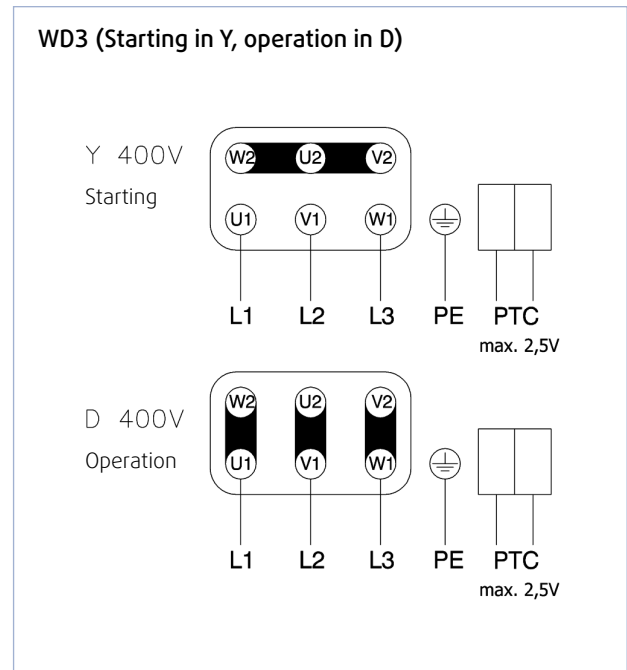
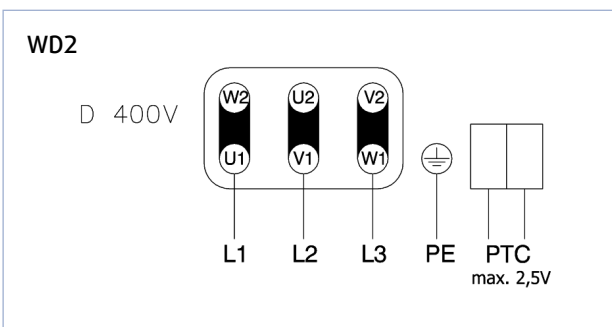
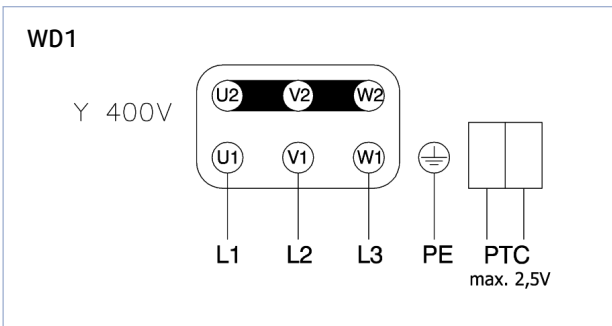
SWL = Sound power level

Dimensions



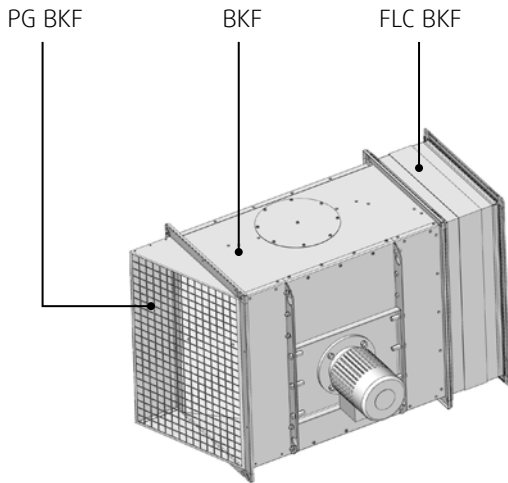
Size	B	H	L	B1	H1	H2	H3	~HM
315-355	630	400	710	690	460	-	-	641
400-450	800	500	780	860	560	420	420	741
500	900	630	900	960	690	520	520	920
560	900	630	900	960	690	520	520	947
630D4-XS	1120	700	1120	1180	760	570	570	1037
630D4-XL	1120	700	1120	1180	760	570	570	1109

Wiring diagram\*

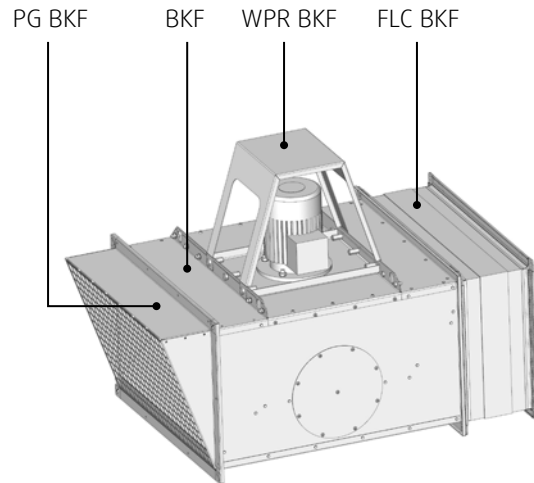


\* Connection in the motor terminal box.

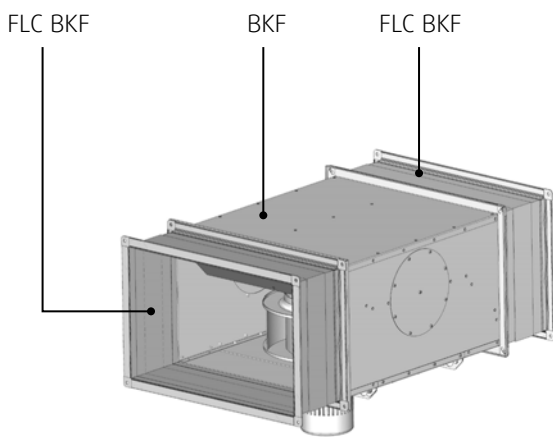
**Installation examples**



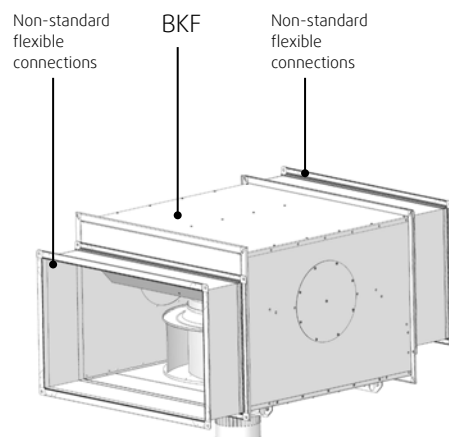
Horizontal motor shaft, with outlet protective grid PG BKF and flexible connection FLC BKF.



Vertical motor shaft, with outlet protective grid PG BKF, flexible connection FLC BKF and weather protection WPR BKF.



Vertical motor shaft, with flexible connections FLC BKF.



Vertical motor shaft, with duct or flexible connection on the height H2/H3 (see dimensions). Non-standard dimensions of flexible connections are available on request.

