

BKF

Smoke extract duct fan

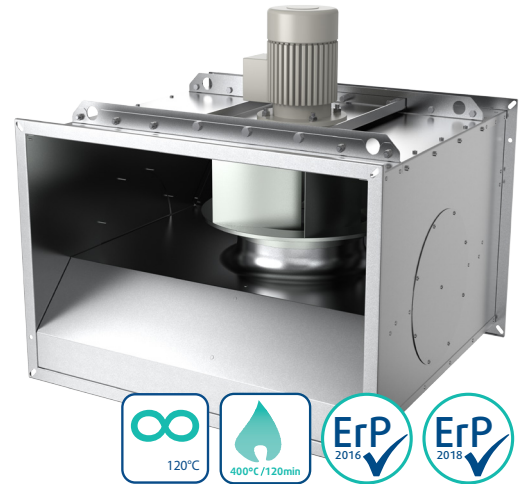


BKF

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



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.

About installation possibilities, especially inside building please see instructions.

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).

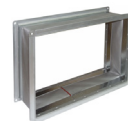
Accessories



PG-BKF
Protective grid



WPR BKF
Weather protection



FLC BKF
Flexible connection

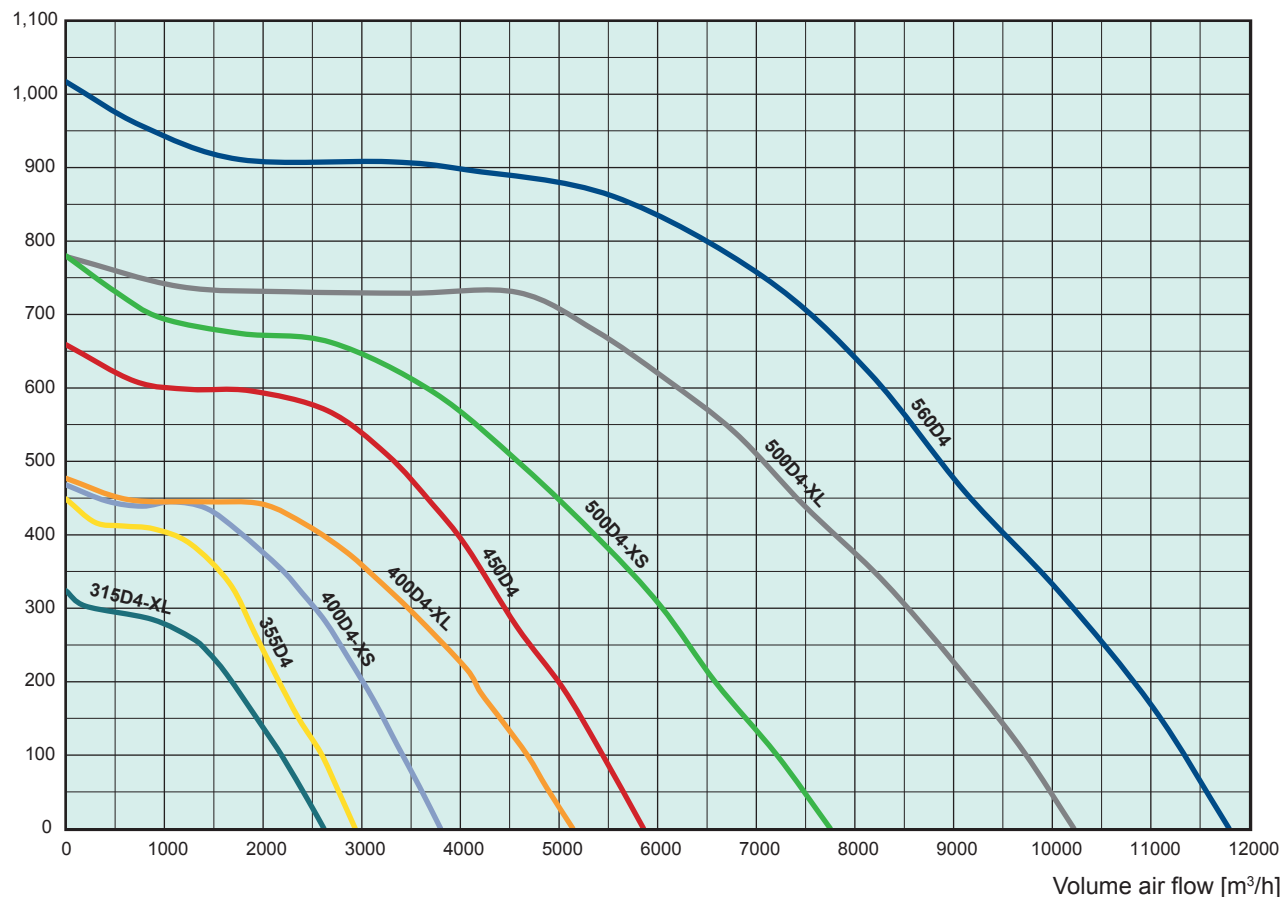


Drain nipple BKF

* Accessories details available on page 7.

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
Item no.		95687	95691	95695	95698	95702	95706	95709	95713
Voltage	V	400	400	400	400	400	400	400	400
Frequency	Hz	50	50	50	50	50	50	50	50
Phase	~	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
Current	A	0.6	0.7	0.85	1.1	1.8	2.0	3.3	4.7
Max. airflow	m ³ /h	2630	2930	3800	5140	5860	7750	10220	11800
Fan impeller speed	r. p. m.	1453	1436	1409	1407	1440	1400	1417	1446
Weight	kg	50	52	65	69	71	94	97	102
Wiring diagram		WD1	WD1	WD1	WD1	WD1	WD1	WD1	WD1
Sound data									
SPL	dB(A)	57.8	55	59.8	61.1	63.3	64.1	63	71
SWL (L _{WA} inlet)	dB(A)	74	73	79	79	79	82	83	87
SWL (L _{WA} outlet)	dB(A)	78	76	81	81	83	86	88	88
SWL (L _{WA} surrounding)	dB(A)	65	62	67	68	71	71	70	78
Protection / Classification									
Insulation class		F	F	F	F	F	F	F	F
Enclosure class, motor	IP	55	55	55	55	55	55	55	55

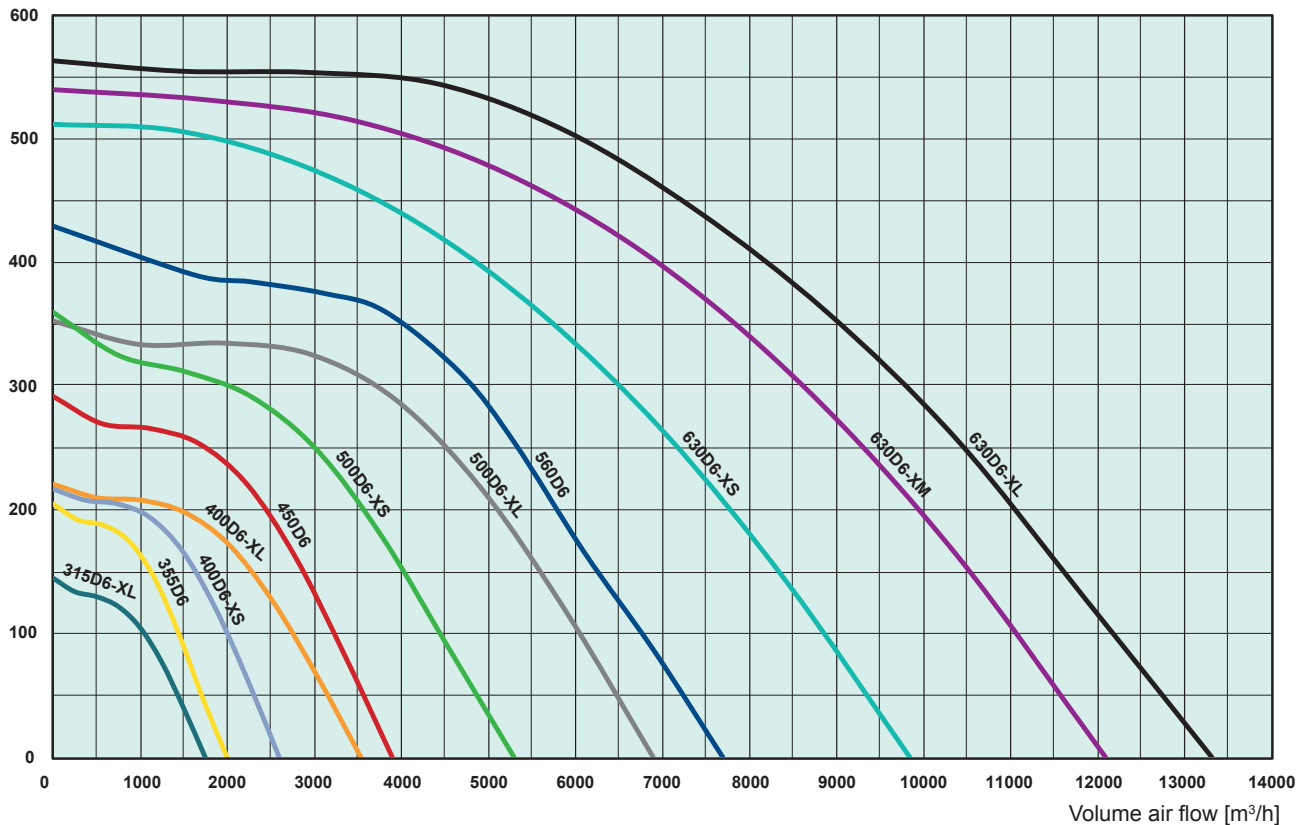
SPL = Sound pressure level at 3 m (20 m² Sabin)

SWL = Sound power level

Note: motors of different suppliers may slightly vary in actual current and input power.

Performance

Static pressure [Pa]



Technical data

Model BKF/F400		BKF 315D6-XL	BKF 355D6	BKF 400D6-XS	BKF 400D6-XL	BKF 450D6	BKF 500D6-XS	BKF 500D6-XL	BKF 560D6	BKF 630D6-XS	BKF 630D6-XM	BKF 630D6-XL
Item no.		95688*	95692*	95696	95699	95703	95707	95710	95714	95718	95722	95726
Voltage	V	400	400	400	400	400	400	400	400	400	400	400
Frequency	Hz	50	50	50	50	50	50	50	50	50	50	50
Phase	~	3	3	3	3	3	3	3	3	3	3	3
Input power (P1)	kW	0.17	0.21	0.21	0.27	0.35	0.49	0.62	0.74	0.96	1.48	1.7
Current	A	1	1	1	1	1.1	1.8	1.9	1.7	3	3.4	4.3
Max. airflow	m³/h	1750	2000	2600	3540	3900	5300	6900	7600	9850	12100	13320
Fan impeller speed	r. p. m.	976	976	968	968	956	962	949	958	964	955	968
Weight	kg	50	52	65	69	69	94	94	95	139	139	146
Wiring diagram		WD1	WD1	WD1	WD1	WD1	WD1	WD1	WD1	WD1	WD1	WD1
Sound data												
SPL	dB(A)	48	47	48	51	52	54	53	58	61	59	62
SWL (L _{WA} inlet)	dB(A)	64	63	69	66	67	71	72	75	80	78	82
SWL (L _{WA} outlet)	dB(A)	69	68	72	72	73	77	78	78	85	85	89
SWL (L _{WA} surrounding)	dB(A)	55	54	55	58	59	61	60	65	68	66	69
Protection / Classification												
Insulation class		F	F	F	F	F	F	F	F	F	F	F
Enclosure class, motor	IP	55	55	55	55	55	55	55	55	55	55	55

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

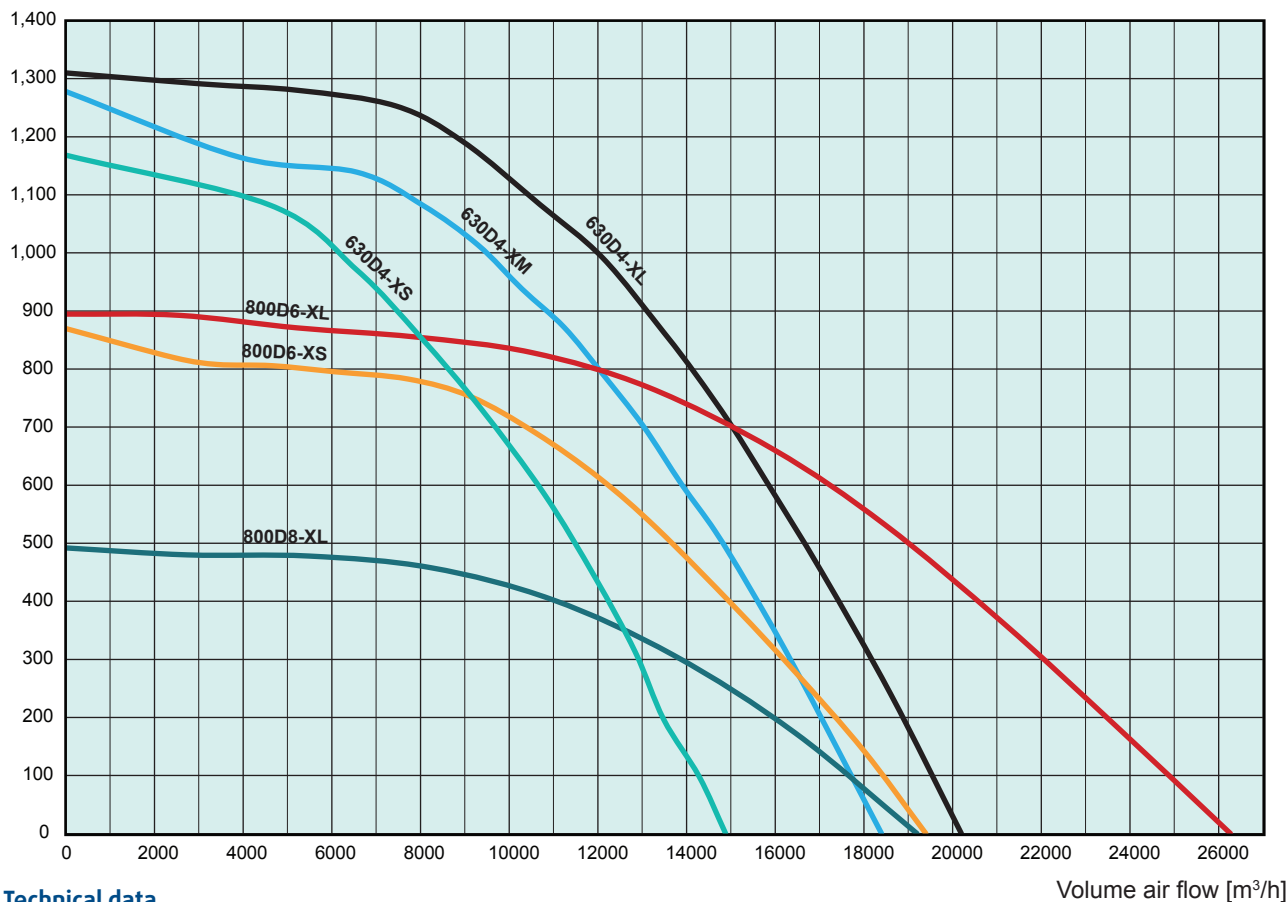
SWL = Sound power level

* Does not comply with ErP

Note: motors of different suppliers may slightly vary in actual current and input power.

Performance

Static pressure [Pa]



Technical data

Volume air flow [m³/h]

Model BKF/F400		BKF 630D4-XS	BKF 630D4-XM	BKF 630D4-XL	BKF 800D6-XS	BKF 800D8-XL	BKF 800D6-XL
Item no.		95717	95721	95725	95729	95732	95731
Voltage	V	400	400	400	400	400	400
Frequency	Hz	50	50	50	50	50	50
Phase	~	3	3	3	3	3	3
Input power (P1)	kW	3.1	4.8	5.85	3.3	2.45	5.1
Current	A	5.7	8.4	10.2	6.3	4.8	11
Max. airflow	m ³ /h	14900	18400	20200	19400	19200	26260
Fan impeller speed	r. p. m.	1445	1448	1460	985	707	969
Weight	kg	143	143	168	193	190	215
Wiring diagram		WD2	WD3	WD3	WD1 or WD2**	WD1	WD3
Sound data							
SPL	dB(A)	73.5	69	70.1	73.3	63	68.8
SWL (L _{WA} inlet)	dB(A)	91	89	93	90	81	89
SWL (L _{WA} outlet)	dB(A)	94	94	98	90	87	93
SWL (L _{WA} surrounding)	dB(A)	81	76	78	81	70	76
Protection / Classification							
Insulation class		F	F	F	F	F	F
Enclosure class, motor	IP	55	55	55	55	55	55

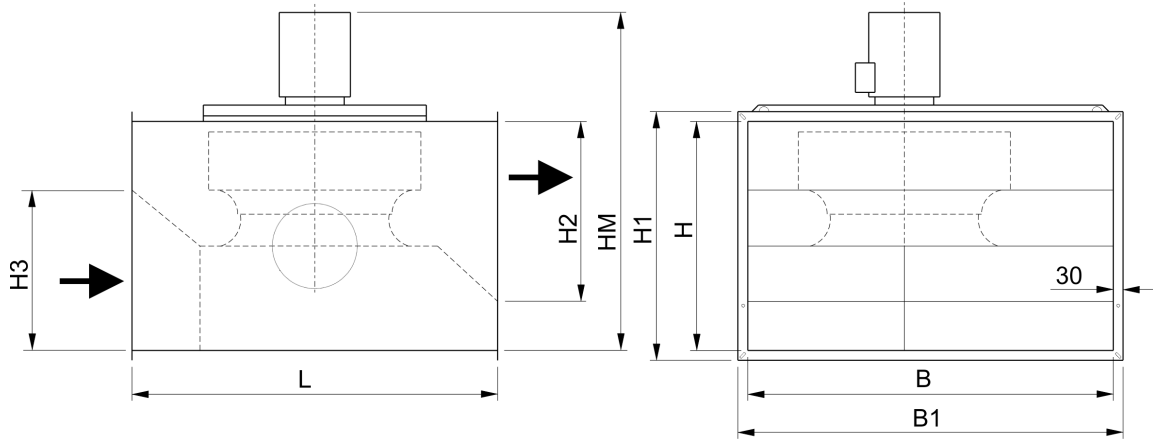
SPL = Sound pressure level at 3 m (20 m² Sabin)

SWL = Sound power level

** Two different motor connections, depending on the motor supplier; please observe the label of the delivered fan!

Note: motors of different suppliers may slightly vary in actual current and input power.

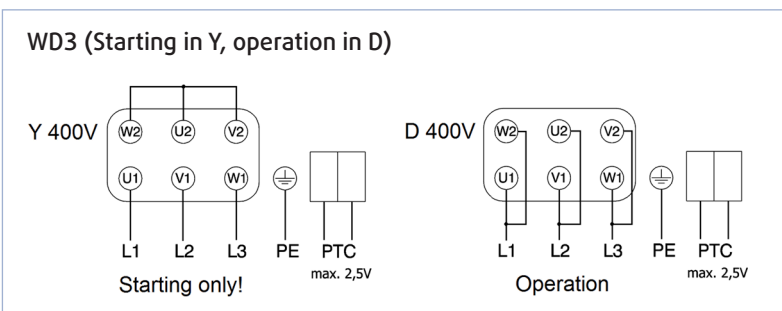
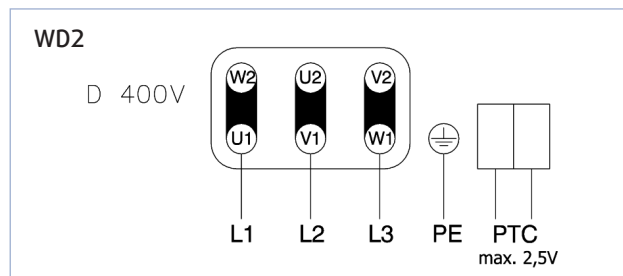
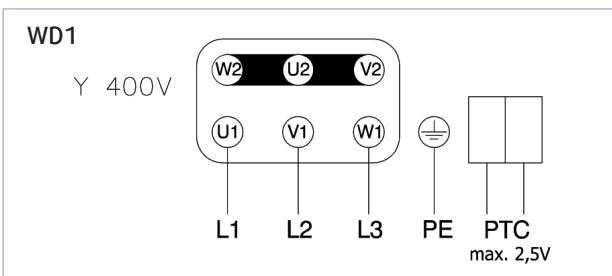
Dimensions



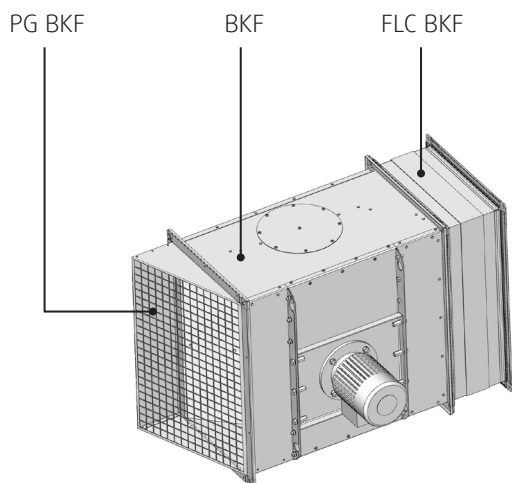
Size	B	H	L	B1	H1	H2	H3	~HM
315D4-XL, D6-XL	630	400	710	690	460	-	-	641
355D4, D6	630	400	710	690	460	-	-	641
400D4-XS, D6-XS	800	500	780	860	560	420	420	741
400D4-XL, D6-XL	800	500	780	860	560	420	420	741
450D4, D6	800	500	780	860	560	420	420	741
500D4-XS, D6-XS	900	630	900	960	690	520	520	905
500D4-XL, D6-XL	900	630	900	960	690	520	520	920
560D4, D6	900	630	900	960	690	520	520	947
630D6-XS	1120	700	1120	1180	760	570	570	1019
630D4-XS	1120	700	1120	1180	760	570	570	1037
630D6-XM	1120	700	1120	1180	760	570	570	1019
630D4-XM	1120	700	1120	1180	760	570	570	1055
630D6-XL	1120	700	1120	1180	760	570	570	1044
630D4-XL	1120	700	1120	1180	760	570	570	1109
800D6-XS	1250	800	1250	1310	860	655	655	1239
800D6-XL, D8-XL	1250	800	1250	1310	860	655	655	1277

Wiring diagram

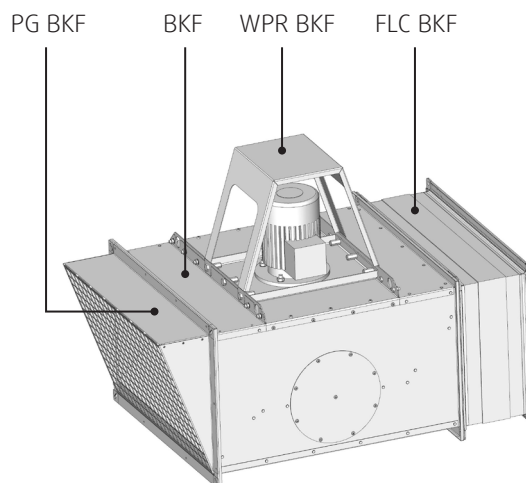
Connection in the motor terminal box.



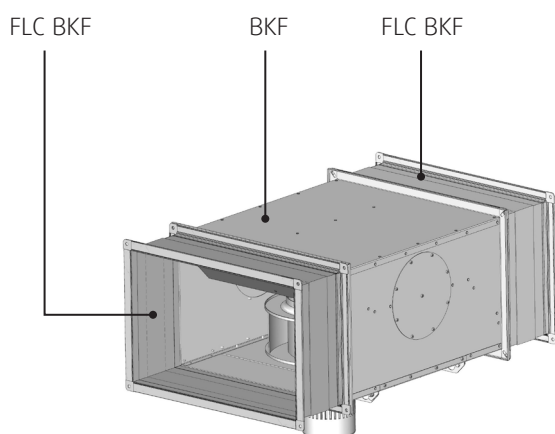
Installation examples



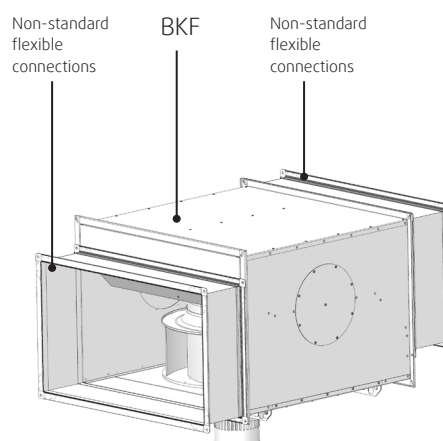
Horizontal motor shaft, with outlet protective grid PG BKF and flexible connection FLC BKF.



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.

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).

Drain nipple BKF

Used when cleaning accumulated waste liquid and sludge from the casing (heavy kitchen use). On the fan's casing a hole needs to be drilled (with a pyramid drill). Observe slope to drain. Not to be used with motor pointing downwards. The nipple is made of stainless steel. To be fastened with self-drilling screws onto the casing. Sealing tape/silicone sealant and fastening material is not provided.

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.

