

Technical Submittal Sheet



Job Ref:	ROCHE – Kitchen Ventilation Modifications		Job No.:	4388
Submittal Ref:	4388-TS-00-001	Revision:	-	
Submittal Title:	Kitchen Extract fan	Date Issued:	23/01/2026	
Issued To:	Parkeray			
Reference:	KE-1	Compliant (Y/N)	Y	

Description of Technical Submittal for Approval:

Fire rated extract fan with motor outside air stream suitable for kitchen extract use.

Systemair BKF 500D4-8-XL-F400

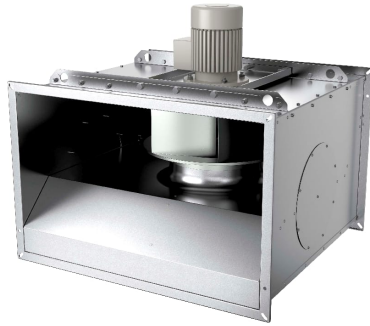
Details on attached data sheet/s

Response By:			Date:	
Status:	A Proceed no Comments	B Proceed subject to comments		C Rejected Please Resubmit

Technical Submittal Sheet



Comments:



BKF Rectangular Duct Fans

Reliable smoke and heat extraction for emergency and daily use

- Energy-Efficient
- High Performance
- Dual-Purpose
- Robust

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

Robust

The unit features a zinc-magnesium coated steel casing and an external motor to simplify inspections and reduce the risk of fouling.

Efficient

The units are equipped with an IEC flange motor of efficiency class IE3, paired with a backward-curved steel impeller.

High Performance

The BKF system is able to extract hot smoke and gases at 400°C for 120 min at a time and continuously filter media at 120°C for daily use.

Certifications



BSI Kitemark

The Kitemark is a product and service quality trade mark which is owned and operated by the British Standards Institution (BSI Group). The Kitemark is most frequently used to identify products where safety is paramount.

The BKF line of dual-purpose fans is designed to support daily ventilation needs and emergency smoke and heat extraction in the event of an accident or emergency. This makes it suitable for professional use along with commercial and residential spaces. Units can support the creation of smoke-free escape routes to allow for safe egress and the extraction of dangerous or poisonous gases to help reduce the risk involved with extinguishing and incident management.

Units are built around single speed IE3 or two speed IE1 motor to support efficiency and utilise a backward curved impeller made from either pre-galvanised steel or from steel and galvanised. This is protected by a zinc-magnesium coated steel casing that allows the unit to carry out its work continuously extracting 120°C of media or 400°C of air for up to 120 min.

Units can be speed controlled through a combination of frequency converters with filters. They are also compatible with the Systemair accessory range, allowing for the addition of motor protectors, weather protectors, protection guards, and more.

Technical parameters

Nominal data

Voltage (nominal)	400	V
Frequency	50	Hz
Phases	3~	
Motor circuit connection	YY	
Input power	1949	W
Input power kW	1.949	kW
Starting current	14	A
Input current	3.6	A
Impeller speed	1398	rpm
Air flow	max 2.839	m ³ /s
Max. Temperature of transported air for 120 min	400	°C
Temperature of transported air	max 120	°C
Motor power	XL	

Sound data

Sound pressure level at 3m (20m ² Sabin)	63	dB(A)
---	----	-------

Protection/Classification

Enclosure class, motor	IP55
Insulation class	F

Data according to ErP

ErP ready	Not ErP relevant
-----------	------------------

Dimensions and weights

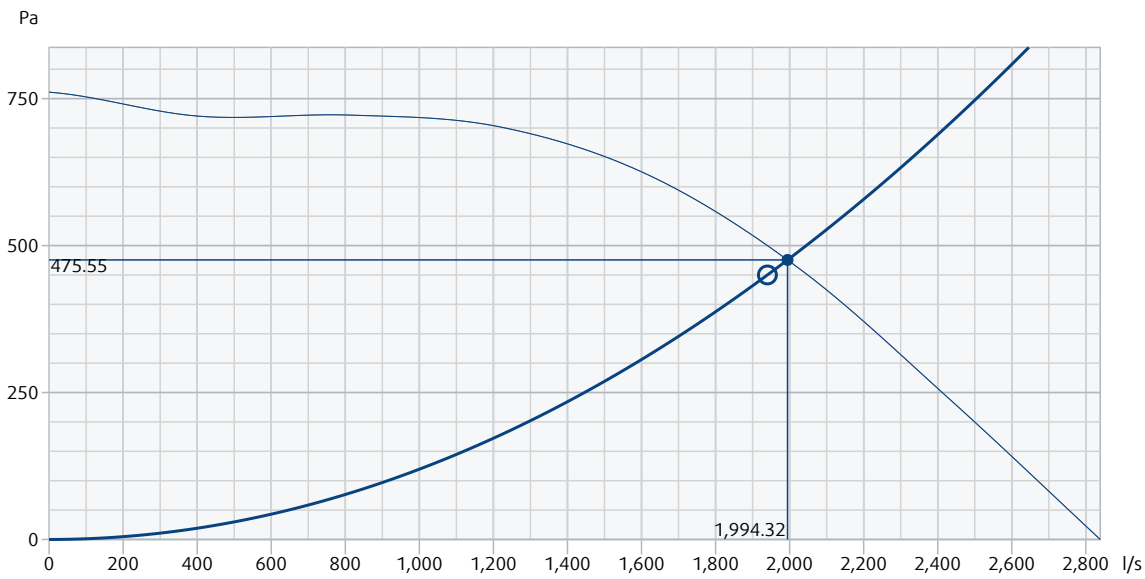
Weight	96	kg
--------	----	----

Others

Duct connection type	Rectangular
Motor type	AC

Performance

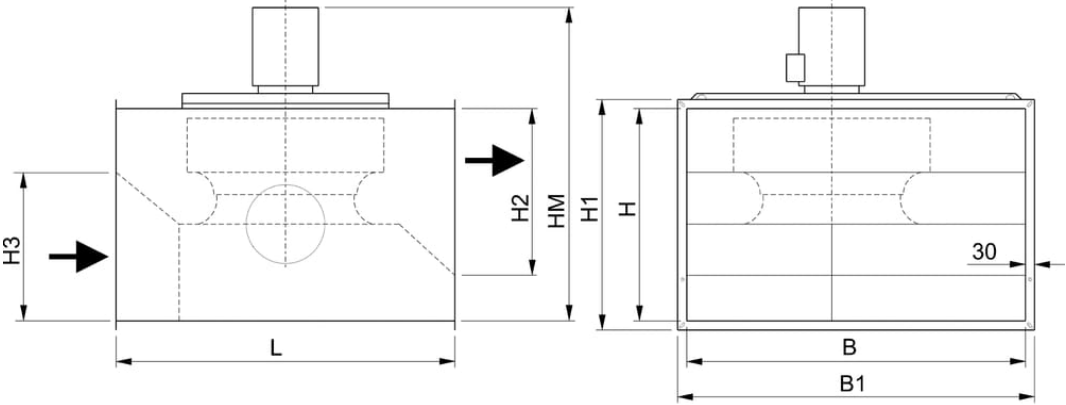
Performance curve



Hydraulic data

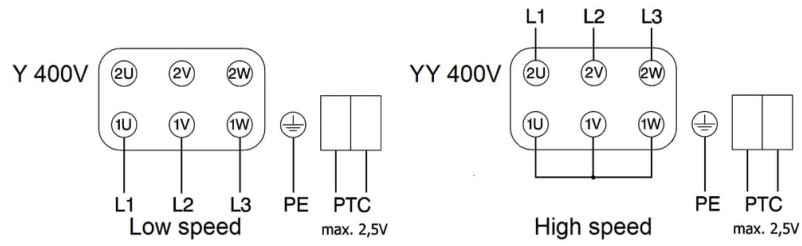
Required air flow	1,940.00 l/s
Required static pressure	450 Pa
Working air flow	1,994.32 l/s
Working static pressure	476 Pa
Air density	1.204 kg/m ³
Power	1,893.8 W
Fan control - RPM	1,399 rpm
Current	3.52 A
SFP	0.950 kW/m ³ /s
Control voltage	400.0 V
Supply voltage	400 V

Dimension



	B	H	L	B1	H1	H2	H3	~HM
BKF 500D4-XL, D6-XL, D4-6-XL, D4-8-XL	900	630	900	960	690	520	520	947

Wiring



Left connection: low speed

Right connection: high speed

AHU Accessories

- DRAIN NIPPLE BKF, 95458 (95458)
- PG-BKF 500-560, 95746 (95746)
- FLC BKF 500-560, 95736 (95736)
- U-EK230E EX Motorprotec., 30199 (30199)

Documents

- BKF_500_560_00.dxf
- BKF_E8306_15_06_2017.pdf
- IMO_BKF

Specification

BKF smoke and heat extract fans

are intended to extract smoke gases in case of fire and also during normal working conditions for standard ventilation. Fire rating: 400°C/120 min (F400). Certified according EN 12101-3. Continuous operation up to 120°C media. Casing made of zinc-magnesium coated steel (ZM). Backward curved impeller made from galvanised or pre-galvanised steel. Equipped with single speed IE2 motor outside the air stream resp. two speed motor. PTC serial built-in motor. Installation possible in all positions, flange connection 30 mm. Installation outside building or inside building, outside fire zone in well ventilated rooms. 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 in frequency converter must be bridged or disabled to guarantee functional capability. When choosing AES control accessory please observe serial connecting capability of the motor (instructions).