

BKF 630D4-XM/F400 IE3

Centrifugal rectangular duct fan 400°C/2h

Item number: 9995021

Variant: 400V 3~ 50Hz - D (Delta)



Dual purpose fans: normal ventilation plus smoke and heat extract

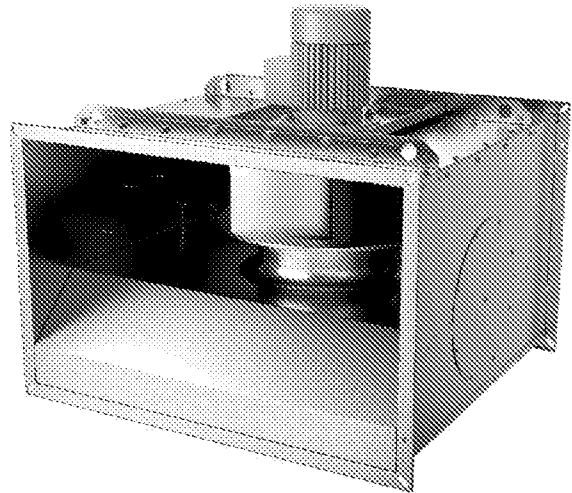
- 400°C/120 min (F400)
- Continuous operation up to 120°C media
- Casing made of zinc-magnesium coated steel (ZM)
- Backward curved impeller made from pre-galvanized steel or from steel and galvanized
- Motor outside the air stream
- Single speed IE3 motor
- PTC serial built-in motor
- Certified according EN 12101-3 by BSI
- Installation possible in all positions, flange connection 30 mm
- Installation outside building or inside building, outside fire zone in well ventilated rooms

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.

Applications: malls, garages, warehouses, kitchen exhaust...

Generally suitable for ambient temperature -20 to +40°C (depending on specific motor load the permissible ambient temperature may be increased - on request)

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. Not suitable for voltage control. Working points within blue area of diagrams of single speed fans can be achieved with frequency converter. 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).

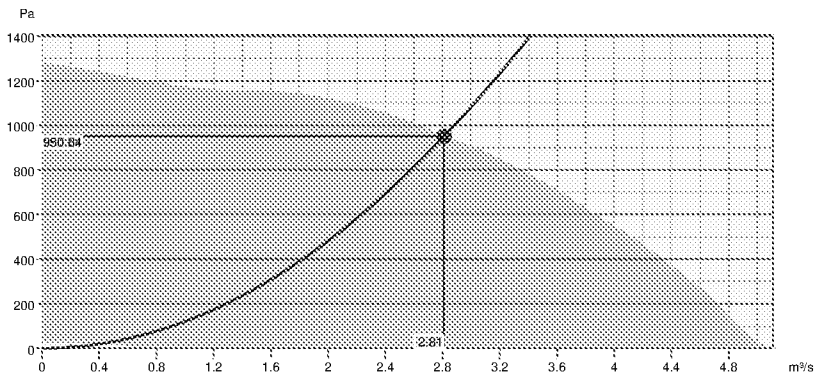


Technical parameters

Nominal data		
Voltage (nominal)	400	V
Frequency	50	Hz
Phase(s)	3~	
Motor circuit connection	D	
Input power	4,800	W
Starting current	61.8	A
Starting current (Y - D starting)	21	A
Input current	8.4	A
Impeller speed	1,448	r.p.m.
Air flow	max ; 18,400;	m³/h
Max. Temperature of transported air for 120 min	400	°C
Temperature of transported air	max 120	°C
Max temperature of transported air, when speed controlled	120	°C
Sound data		
Sound pressure level at 3m (20m² Sabin)	69	dB(A)
Protection/Classification		
Enclosure class, motor	IP55	
Insulation class	F	
Data according to ErP		
ErP ready	Not ErP relevant	
Dimensions and weights		
Weight	143	kg
Others		
Motor type	AC	

Performance

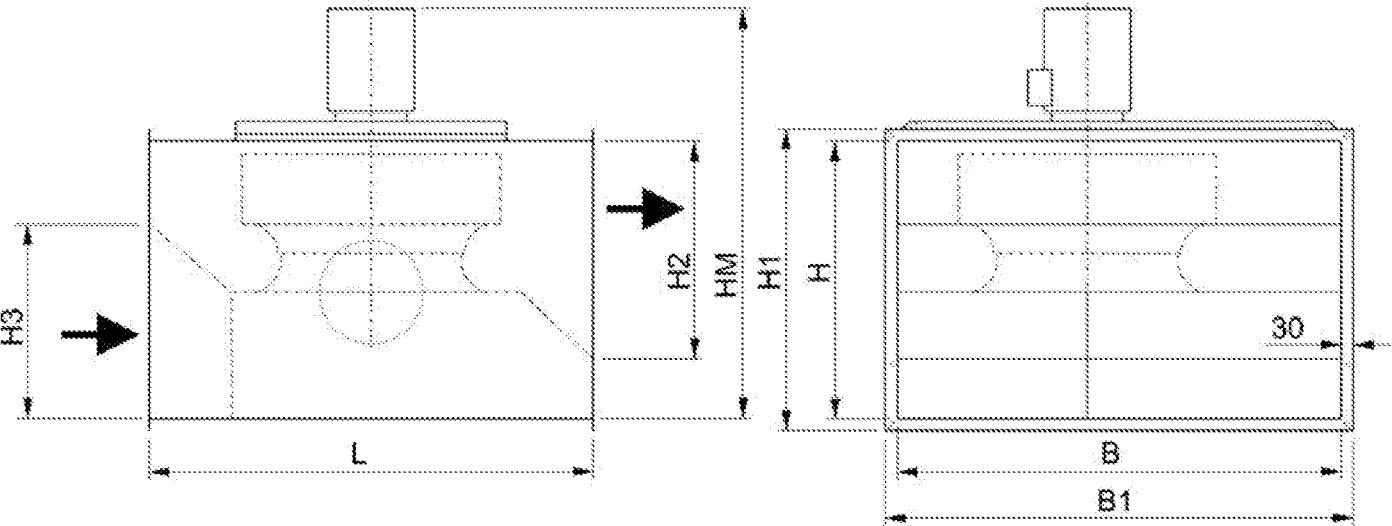
Performance curve



Hydraulic data	
Required air flow	2.81 m³/s
Required static pressure	951 Pa
Working air flow	2.81 m³/s
Working static pressure	951 Pa
Air density	1.204 kg/m³
Power	4689.3 W
Fan control - RPM	1449 rpm
Current	8.17 A
SFP	1.668 kW/m³/s
Control voltage	10.0 V
Supply voltage	400 V

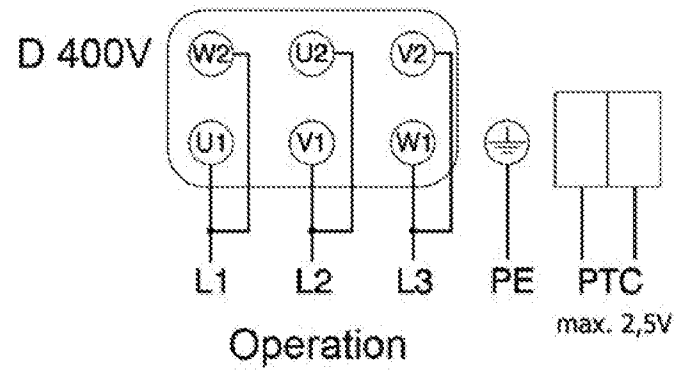
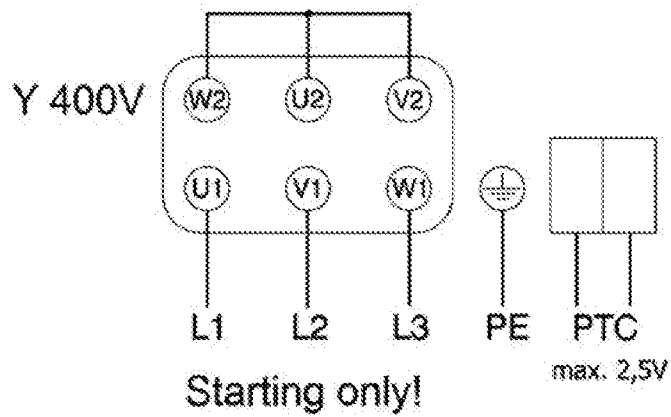
Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	68	72	83	82	83	83	79	70	89
Outlet	dB(A)	67	75	87	89	89	86	82	73	94
Surrounding	dB(A)	59	64	69	71	70	67	64	61	76
Sound pressure level at 3m (20m² Sabine)	dB(A)	-	-	-	-	-	-	-	-	69
Sound pressure level at 3m free field	dB(A)	-	-	-	-	-	-	-	-	55

Dimension



BKF type	B	H	L	B1	H1	H2	H3	-HM
BKF 630D4-XM IE3	1120	700	1120	1180	760	570	570	1055

Wiring



Left connection: starting in star (not for continuous operation!)

Right connection: operation in delta

Connection in the motor terminal box.

Motors of different suppliers may slightly vary in actual current and power.

Ecodesign

Product		
Trade name	Systemair	
Product name	BKF 630D4-XM/F400 IE3	
Ecodesign		
ErP compliance	2016/2018	
Unit category	NRVU	
Drive	External MSD or VSD	
Unit type	UVU	
Heat recovery type	None	
Temperature ratio (UVU)	Not applicable	
qv nom	3.111	m³/s
P nom	4.8	kW
Ps nom	875	Pa
Fan efficiency	56.6	%
External Leakage	0.1	%
Sound power level LWA	76	dB(A)

Accessories

- AES3.2-4KW.D, control unit (77091)
- FXDM14AM Frequency inv. IP54 (31389)
- FRQS-10A V2 (36232)
- FC102-4,0kW/10A-IP55, 150/50m (36162)
- PG-BKF 630 (95747)
- FRQ5S-10A-LED V2 (36234)
- U-EK230E Motor protection (30199)
- DRAIN NIPPLE BKF (95458)
- FLC BKF 630 (95737)
- WPR BKF 630 (95742)

Documents

- IMO_BKF
- BKF_630_m100_112_01.dxf
- Certif_DVV_DVAX_DVG_BKF_2020_KM_646474.pdf
- CERTIF_DVV_DVAX_DVG_BKF_2797_CPR_597958.PDF
- CERTIF_DVV_XS_XL_DVAX_DVG_BKF_2015_0086_CPR_597958.PDF
- DoP_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 IE3 motor outside the air stream. 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).