



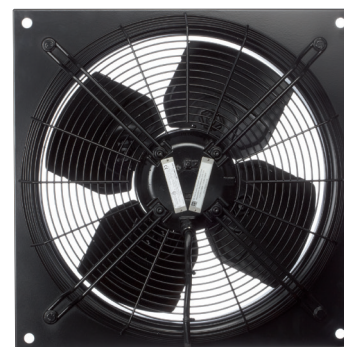
# RAPTOR SFB

ATEX Plate Mounted  
Axial Flow Fan

# RAPTOR SFB

## Product Overview

- 4 standard sizes from 350mm to 650mm
- Air volume flow rates up to 2.57 m<sup>3</sup>/s
- Static pressure up to 125 Pa
- Suitable for operating temperatures up to +40°C
- Suitable for extract or supply systems
- Available in **AC**



**The Raptor SFB is a range of Ziehl-Abegg ATEX rated plate mounted axial fans for internal mounting, manufactured in mild steel with a RAL9005 paint finish. These units are designed to meet the requirements for Hazardous Areas, with protection to Ex II 2G c Ex e IIB T4.**

### Intelligent Design

Classified for constructional safety and the requirements stated in 94/4/EU (ATEX) directive, Gas, Zone and ignition temperature protection to Ex II 2G c Ex e IIB T4.

### Easy Installation

All models are supplied with 650mm long flying lead for direct electrical connection.

### Efficient Performance

High efficiency pressed aluminium impellers are directly driven by an AC external rotor motor, designed to provide high performance characteristics.

### Warranty

Each SFB has a 12 month warranty.

### Construction

Constructed from mild steel and suitably treated to ensure full corrosion protection. Fan plates have a surface coating to fulfil the requirements in DIN EN 13463-1 regarding electrostatic charges with paint finish in black (RAL 9005).

### Motor

Motors are highly efficient, lightweight external rotor motors with sealed for life, maintenance free ball bearings. The fan can be installed at any angle. Motors are all suitable for speed control and each motor has temperature monitoring by integrated PTC Thermistor. Fans are suitable for operating temperatures between -20°C and +40°C.

Motors according to: Gas, Zone and ignition temperature. Protection to Ex II 2G c Ex e IIB T4 classified for constructional safety and fulfil the requirements stated in 94/4/EU (ATEX) directive.

### Impeller

Pressed aluminium impellers providing low noise and increased efficiency with protective measures between rotating and stationary components, dynamically balanced to ISO 14694 Grade G6.3, and finished in black (RAL 9005).

### Typical Applications

- Chemical Process
- Water and Sewage Treatment
- Material and Gas Waste
- Dust and Paint Extraction
- Warehousing

### Contents

Page	Information
3	Performance, SFP & Electrical Data
4	Sound Data
5	Dimensional Data
6	Accessories
9	Notes



Ex II 2G c Ex e IIB T4

# RAPTOR SFB



## Performance, SFP & Electrical Data

**Three Phase** 380V to 415V / 50Hz

Product Code	Speed r/min	Airflow SFP	Airflow m <sup>3</sup> /s @ Static Pressure Pa						At Best Efficiency Point		Electrical Data			dBA @ 3m	
			0	25	50	75	100	125	Overall Eff %	Input kW	Peak Amps	SC	Δ / Y		
SFB035-VDE.4Y.A4P	1428	m <sup>3</sup> /s	<b>0.707</b>	<b>0.649</b>	<b>0.587</b>	<b>0.502</b>	-	-	28.7	0.145	0.27	1.22	Mains	Inlet	51
		W/(L/s)	0.14	0.18	0.21	0.26	-	-							
SFB042-VDE.4Y.A4P	1402	m <sup>3</sup> /s	<b>1.239</b>	<b>1.176</b>	<b>1.093</b>	<b>0.985</b>	<b>0.855</b>	<b>0.655</b>	29.9	0.310	0.60	2.76	Mains	Inlet	55
		W/(L/s)	0.17	0.20	0.23	0.27	0.34	0.47							
SFB056-SDE.4Y.A4P	914	m <sup>3</sup> /s	<b>1.837</b>	<b>1.658</b>	<b>1.419</b>	-	-	-	26.3	0.307	0.58	2.15	Mains	Inlet	49
		W/(L/s)	0.13	0.16	0.20	-	-	-							
SFB065-SDE.4Y.A4P	894	m <sup>3</sup> /s	<b>2.573</b>	<b>2.352</b>	<b>2.103</b>	<b>1.787</b>	-	-	31.6	0.439	0.80	2.96	Mains	Inlet	54
		W/(L/s)	0.12	0.15	0.18	0.24	-	-							

Data provided is at standard air density of 1.2 kg/m<sup>3</sup>.

Data in accordance with ErP 1253/2014 of the European Parliament. Product category is NRVU. Measurement category used to determine energy efficiency: D.

Peak Amps @ 230V / 1PH / 50Hz.

The overall A-weighted sound pressure level is at a distance of 3m with spherical free-field propagation. It is expressed in dB re-20μPa and is presented for comparative purposes only.

# RAPTOR SFB



## Sound Data

**Three Phase** 380V to 415V / 50Hz

Product Code	Speed r/min		Sound Power Level dBW @ Octave Band Hz								Total dB
			63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
<a href="#">SFB035-VDE.4Y.A4P</a>	1428	Inlet	74	75	72	67	66	64	57	48	79
<a href="#">SFB042-VDE.4Y.A4P</a>	1402	Inlet	72	79	75	72	70	69	63	54	82
<a href="#">SFB056-SDE.4Y.A4P</a>	914	Inlet	79	73	69	68	65	57	51	45	81
<a href="#">SFB065-SDE.4Y.A4P</a>	894	Inlet	84	75	73	71	71	69	62	53	85

Data provided at standard air density of 1.2 kg/m<sup>3</sup>.  
The Sound Power Level Spectra are in dB re-1pW.

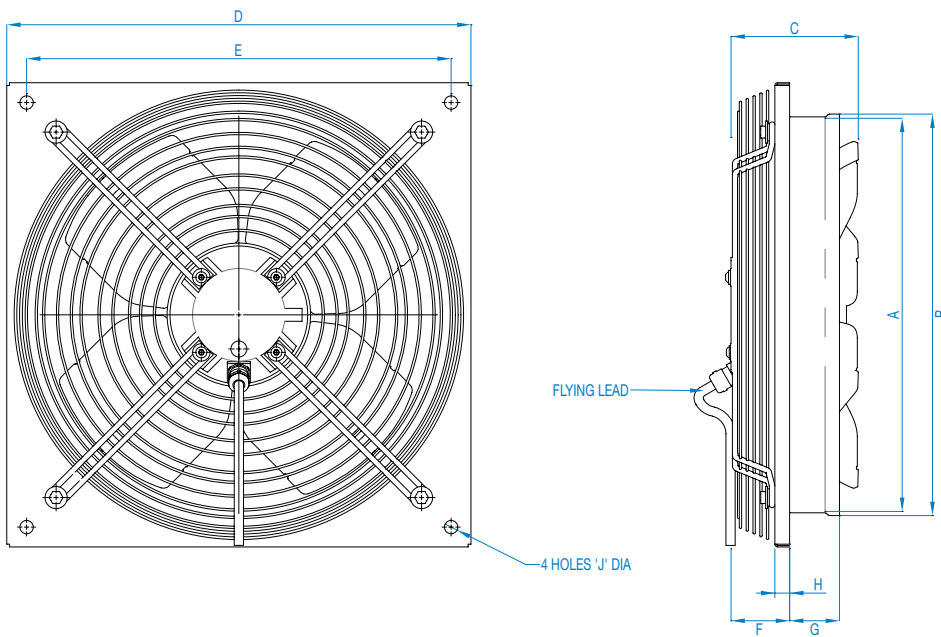
# RAPTOR SFB



## Dimensional Data

### Three Phase

Product Code	A	B	C	D	E	F	G	H	J	Weight kg
SFB035-VDE.4Y.A4P	347	359	135	423	385	56	54	16	12	9
SFB042-VDE.4Y.A4P	416	435	135	503	460	62	54	16	15	12
SFB056-SDE.4Y.A4P	546	567	161	650	610	70	60	18	15	16
SFB065-SDE.4Y.A4P	644	667	182	770	730	80	60	18	15	20



Dimensions are in mm.

### Three Phase

Product Code	Thermistor Protection Relay	Thermistor Protection Relay IP54 Protection Relay Enclosure	Transformer Controller	Wiring Diagram
<a href="#">SFB035-VDE.4Y.A4P</a>	149-U-EK230E	149-U-EK230E-HOUSING	149-TC33	152-109
<a href="#">SFB042-VDE.4Y.A4P</a>	149-U-EK230E	149-U-EK230E-HOUSING	149-TC33	152-109
<a href="#">SFB056-SDE.4Y.A4P</a>	149-U-EK230E	149-U-EK230E-HOUSING	149-TC33	152-109
<a href="#">SFB065-SDE.4Y.A4P</a>	149-U-EK230E	149-U-EK230E-HOUSING	149-TC33	152-109

\* Controller is not ATEX rated and must be mounted outside the hazardous area.

# THERMISTOR PROTECTION RELAY

## Accessories

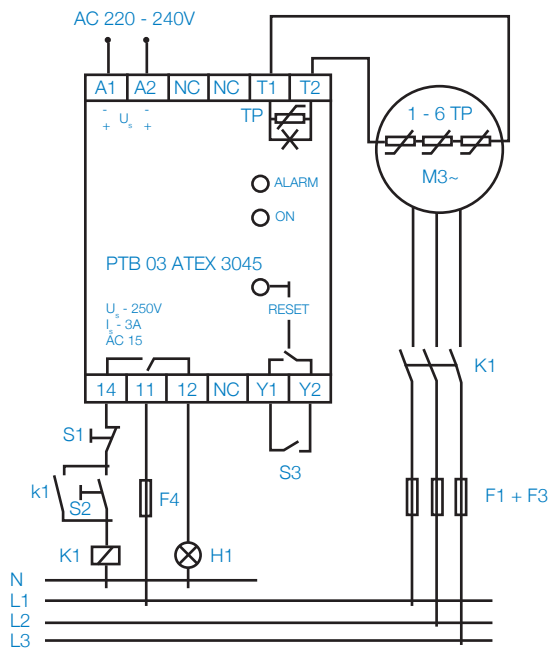
- Motor protection device for use with SFB fans
- ATEX certified
- Monitors PTC thermistor integrated in motor
- Built-in reset button
- IP30 housing / IP20 terminals
- IP54 enclosure available (149-U-EK230E-HOUSING)



Product Code

149-U-EK-230E

### Wiring Diagram



- Us Connection Voltage
- S1 Off Button
- S2 On Button
- S3 External Reset
- H1 Signal Lamp Fault
- F1-F4 Fuses
- K1 Motor Contactor

\*not to be installed in EX atmosphere

# TRANSFORMER CONTROLLER

## Accessories

- IP40 enclosure
- Five speed stepped control
- Illuminated on/off switch (single phase units only)
- Fitted Motor Protection type D MCB (single phase units only)
- Suitable for operating temperatures up to 40°C
- Ideal for environments where noise is a primary consideration as these controls do not create magnetic hum associated with some step-less forms of speed control



### Features & Benefits

A range of transformer voltage controllers used to provide five speed step control of single phase or three phase motors where the peak current of the motor does not exceed the rating of the controller. Speed control is via selector switch. Single phase units are complete with illuminated on/off switch.

### Three Phase 380V to 415V / 50Hz

Product Code	Max Peak Current Amps	Weight kg	IP Rating
149-TC33	3	12	IP40





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