



AXCBF-EX Axial Fans

Bifurcated axial fan for special atmospheres

- ATEX certified
- Bifurcated casing
- Performance tested
- on request available in 460V 60Hz and 380V 60Hz

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

ATEX certified

The AXCBF-EX is suitable for operation in temperatures between -20°C and 60°C and has explosion proof marking: **II 2G Ex h IIB+H2 T4 Gb**. AXC-EX fans are certified under the no TPS 21 ATEX 085751 0010 X.

Application

The AXCBF-EX range is designed for use in **challenging environments** where **explosive atmospheres** can occur. The fans can be used for **zones 1 or 2, field of application II**, for gases of groups **IIA, IIB** and **hydrogen** and temperature classes **T1 to T4**. The fans are classified to category 2G.

Sturdy and dependable design

Corrosion-proof **aluminum impellers**, **IE3** high-efficiency **motors** and a **hot-dip galvanized** steel **casing** ensure **high quality** and a **long life time**.

Tested according to ISO 5801 and AMCA 210

The AXC axial fans have been **performance tested** in accordance with **ISO 5801** and **AMCA 210** standards on the Systemair fan test rig.

Features

Construction

The **bifurcated casing** is made from **hot-dip galvanised steel** according to ISO 1461 with **pre-drilled flanges**. The terminal box with **IP 65** is mounted outside on the casing.

Impeller

The impellers are made of **aluminum** and are **dynamically balanced** in accordance with ISO 21940-11, balancing quality G6,3, and vibration limits according to ISO 14694.

Motor

Standard models are driven by three-phase **AC motors** with efficiency **IE3** suitable for **50Hz**.
The motor is **outside** the **airflow**.

Motor protection

The **motors** are equipped with **PTC thermistors** for motor protection.

Control

Motors can be speed controlled by **frequency inverter** between 10 and 60 Hz.

Installation

The **AXCBF-EX** fans can be installed in different positions **indoor** and **outdoor** (for more information see the manual).
Recommended **accessories**: flexible connections, vibration dampers, mounting feet.

Technical parameters

Nominal data

Voltage (nominal)	415	V
Frequency	50	Hz
Phases	3~	
Input power	224	W
Input power kW	0.224	kW
Input current	0.691	A
Impeller speed	2,958	rpm
Air flow	max 1,440	m³/h
Temperature of transported air	max 60	°C

Protection/Classification

Enclosure class, motor	IP55
Insulation class	F
Explosion proof marking	II 2G Ex h IIB+H2 T4 Gb
Certificate	TPS 21 ATEX 085751 0010 X

Data according to ErP

ErP ready	Not ErP relevant
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Ambient and duct temperature

Ambient and duct temperature	-20 to 60	°C
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Dimensions and weights

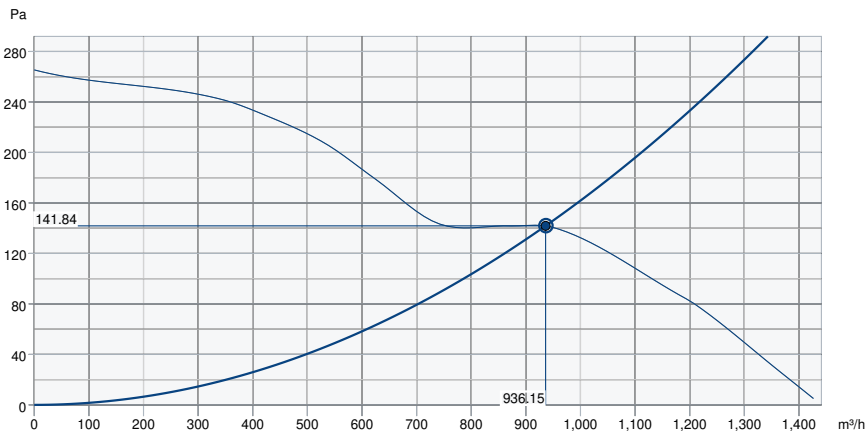
Duct dimension; Circular, inlet	250	mm
Duct dimension; Circular, outlet	250	mm
Weight	34.5	kg

Others

Duct connection type	Circular
Motor type	AC

Performance

Performance curve



Hydraulic data

Required air flow	937 m³/h
Required static pressure	142 Pa
Working air flow	936 m³/h
Working static pressure	142 Pa
Air density	1.204 kg/m³
Power	222.1 W
Fan control - RPM	2,958 rpm
Current	0.69 A
SFP	0.854 kW/m³/s
Control voltage	415.0 V
Supply voltage	415 V

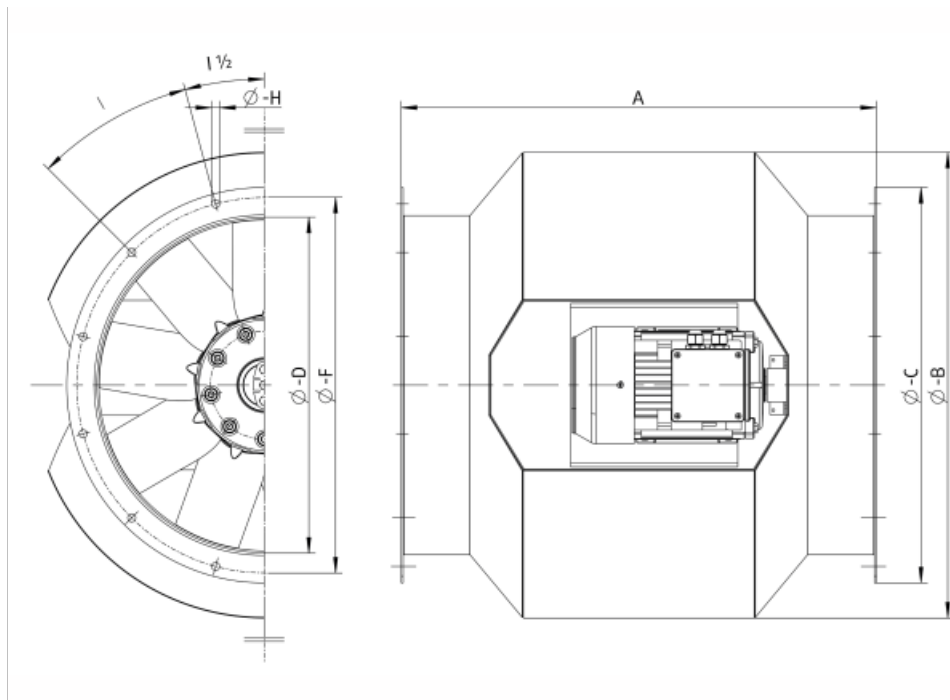
Acoustic

	Hz	Tot	63	125	250	500	1k	2K	4K	8K
LwA inlet /outlet	dB(A)	82	54	64	72	77	77	74	70	63

Measuring point: $q_v = 0,3 \text{ m}^3/\text{s}$, $P_s = 196 \text{ Pa}$

Mid-frequency band, Hz

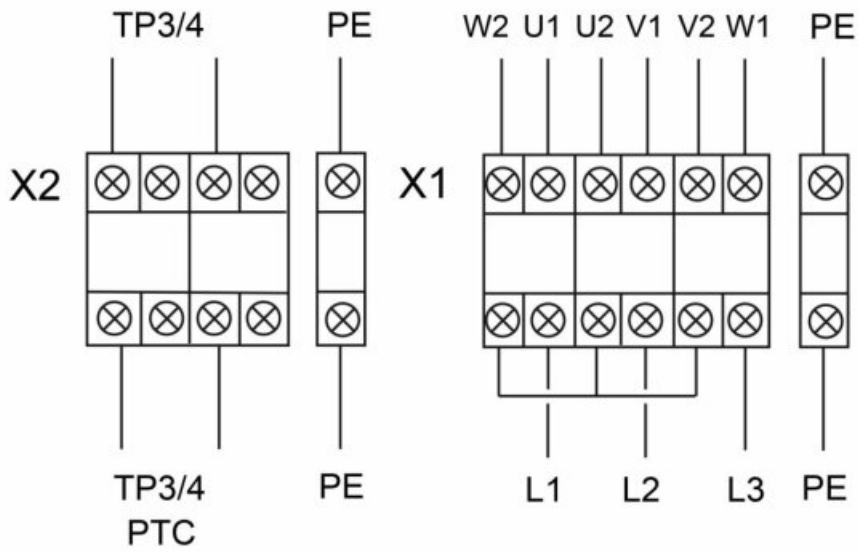
Dimension



	A	$\varnothing B$	$\varnothing C$	$\varnothing D$	$\varnothing F$	$\varnothing H$	I
AXCBF-EX 250	535	448	328	250	280	10	4 x 90°

Wiring

400V 3~ (Y)



Motor cable classification without terminal box

Wire designation nr. Connection designation Extra note

Wire designation nr.	Connection designation	Extra note
1	U1	
2	V1	
3	W1	
4	W2	
5	U2	
6	V2	
7	12	PTC
8	13	PTC

Accessories

- Frequency converter FRQ-4A (36227)
- Frequency converter FRQ5S-4A (36233)
- FSD1 AXC spring set 4 ≤64kg (311438)
- MFA-AR/AXCBF 250 mounting foot (313300)
- REV-3POL/ATEX-11kW R/Y (36414)
- Frequency converter FRQ5-4A (36229)
- Frequency converter FRQS-4A (36231)
- GFL-AR/AXCBF 250 counterflange (311162)
- U-EK230E Motor protection (30199)
- Ex e Terminalbox 4/6mm² 25A (309824)

Documents

- imo_fans_atex_en_008
- Motor certificate IE2
- TPS_21_ATEX_085751_0010_X_ENG.PDF
- EU_DECLARATION_OF_CONFORMITY_ALL_009_314830.PDF