



AW-EX Axial Fans

Explosion proof axial wall fan

- ATEX certified
- Available with AC motors for 50 Hz
- Installation in any position

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

Flexible

The AW-EX fans are **designed** for use in challenging **low pressure environments** where **explosive atmospheres** can occur. They can be installed in **any position** and in a variety of **harsh** and **hazardous** environment.

Safety

The fans are ATEX-certified. The variants **AW-EX 355 / 420** have explosion proof marking: **II 2G Ex e IIB T4** and sizes **AW-EX 550 / 650** have explosion proof marking: **II 2G Ex e IIB T3**.

Features

Construction

The square wall plate is made of galvanized steel with powder coating in RAL9005.

The **complete** range is provided **with inlet protection grid**.

It is recommended to connect the electrical cable from the motor to any device via an **ATEX-certified connection box**.

Impeller

The AW-EX fans use **axial impellers**. These are made of **galvanized steel**, are dynamically **balanced** and are paired with corresponding external rotor motors.

Motor

AW-EX fans are equipped with **AC motors**. The motors are suitable for **50Hz**.

The AW-Ex fan motor is approved according to ATEX. Useful for Zone 1 and 2, groups IIA, IIB and temperature class T1, T2, or T3 (AW 355 and AW 420 also T4), ignition protection "e".

Motor protection

The Motor has a prewired integral **PTC thermistor** with external leads to be connected to a **motor protection device** as **U-EK230**.

Control

The AC motors can be controlled by a **5-step** regulator.

Installation

The AW fans can be installed in **any position** on **wall** or **ceiling** in **indoor** environments.

Technical parameters

Nominal data

Voltage (nominal)	400	V
Frequency	50	Hz
Phases	3~	
Input power	653	W
Input power kW	0.653	kW
Input current	1.233	A
Impeller speed	898	rpm
Air flow	max 10,940	m³/h
Temperature of transported air	max 40	°C
Max temperature of transported air, when speed controlled	40	°C

Sound data

Sound pressure level at 3m (20m² Sabin)	72	dB(A)
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Protection/Classification

Enclosure class, motor	IP44
Insulation class	F
Explosion proof marking	II 2G c Ex e IIB T3
Certificate	ZELM 05ATEX0279X

Data according to ErP

ErP ready	Not ErP relevant
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Ambient and duct temperature

Ambient and duct temperature	-20 to 40	°C
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Dimensions and weights

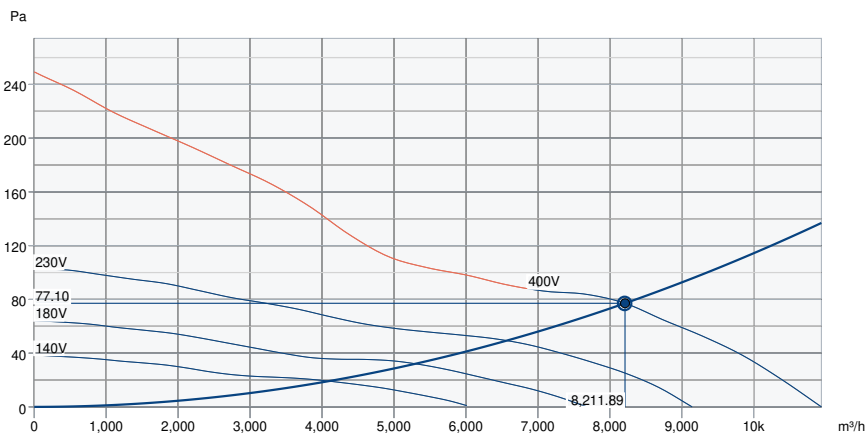
Weight	18.9	kg
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Others

Motor type	AC
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Performance

Performance curve

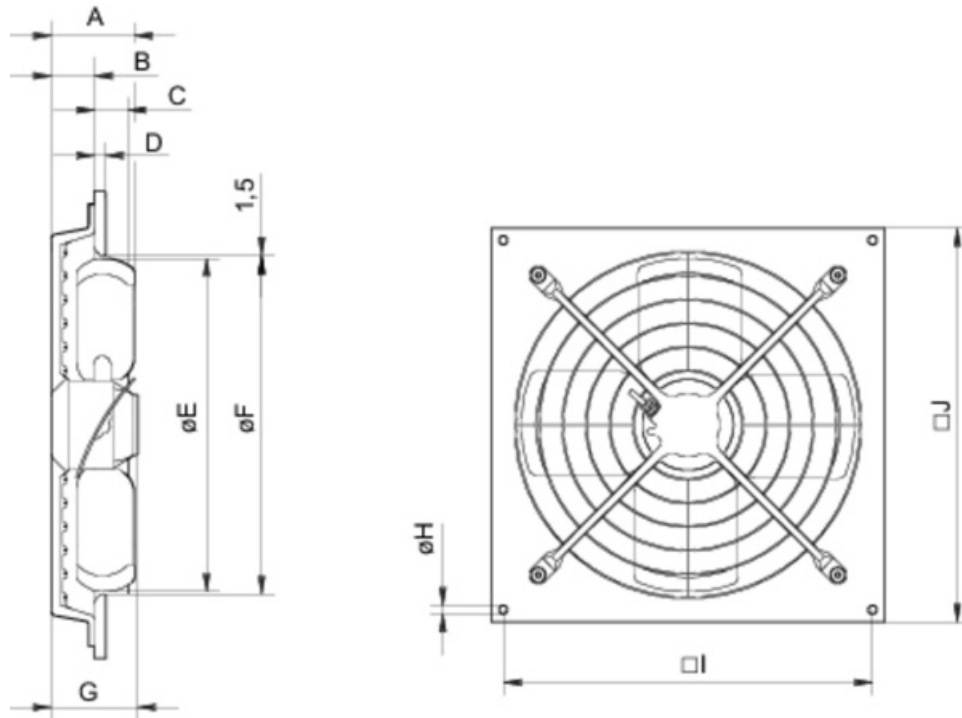


Hydraulic data

Required air flow	8,206 m³/h
Required static pressure	77 Pa
Working air flow	8,212 m³/h
Working static pressure	77 Pa
Air density	1.204 kg/m³
Power	607.4 W
Fan control - RPM	909 rpm
Current	1.19 A
SFP	0.266 kW/m³/s
Control voltage	400.0 V
Supply voltage	400 V

Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	46	58	67	70	71	70	63	55	76

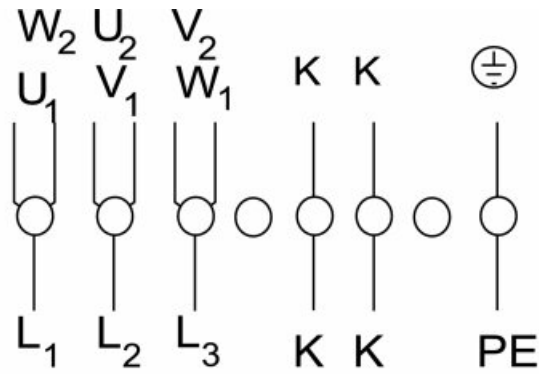
Dimension



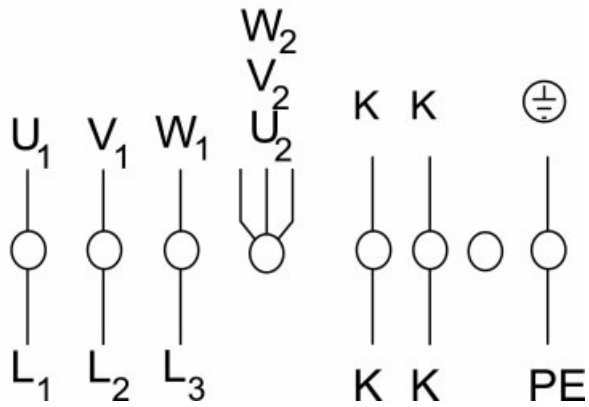
	A	B	C	D	$\varnothing E$	$\varnothing F$	G	$\varnothing H$	I	J
AW 650 EX	162	66	78	18	651	658	161	14.5	730	770

Wiring

Delta connection



Star connection



U1	brown
V1	blue
W1	black
U2	red
V2	grey
W2	orange
K	white
PE	green/yellow

Test-voltage on temperature sensor max. 2,5V.

Accessories

- REV-5POL/07-7,5kW R/Y (33980)
- RTRD 2 Speed Cont. Systemair (5941)
- U-EK230E Motor protection (30199)
- Ex e-Terminal box 1,5/6mm² 32A (2704)
- REV-9POL/12-7,5kW B/G (281743)
- REV-9POL/12-7,5kW R/Y (33981)
- RTRDU 2 Speed contr. Systemair (5945)
- REV-3POL/ATEX-11kW R/Y (36414)
- REV-5POL/07-7,5kW B/G (281742)

Documents

- imo_fans_atex_en_008
- 1.SUPP_ZELM 05 ATEX 0279X_EN.PDF
- Zelm_05_ATEX0279.pdf
- EU_DECLARATION_OF_CONFORMITY_ALL_009_314830.PDF