

AW 420 D4-2-EX Axial fan ATEX

Axial wall fan, explosion proof, II 2G c Ex e IIB T4

Item Number: 5970

Variant: 400V 3~ 50Hz

Certified according to ATEX

Speed-controllable

Integral thermal contact

Explosion proof

The AW - EX fans have speed controllable external rotor motors. The fans have a square plate for wall mounting and are painted in standard black. The casing and impeller is manufactured from sheet steel. To protect the motor from overheating, integral thermistors are fitted with external leads which must be connected to the U-EK230E motor protection relay.

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".

Accessories for Ex-fans only on request.



Technical parameters

| Nominal data | | |
|---|-----------|--------|
| Voltage (Nominal) | 400 | V |
| Frequency | 50 | Hz |
| Phase(s) | 3~ | |
| Input power | 536 | W |
| Input current | 0.943 | A |
| Impeller speed | 1,269 | r.p.m. |
| Air flow | max 1.295 | m³/s |
| 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) | 69 | dB(A) |

Protection/Classification

| | |
|-------------------------|---------------------|
| Enclosure class, motor | IP44 |
| Insulation class | F |
| Explosion proof marking | II 2G c Ex e IIB T4 |
| Certificate | ZELM 05ATEX0279X |

Data according to ErP

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

Controller and Sensors

| | |
|------------------------------|--------------|
| Ambient and duct temperature | -20 to 40 °C |
|------------------------------|--------------|

Dimensions and weights

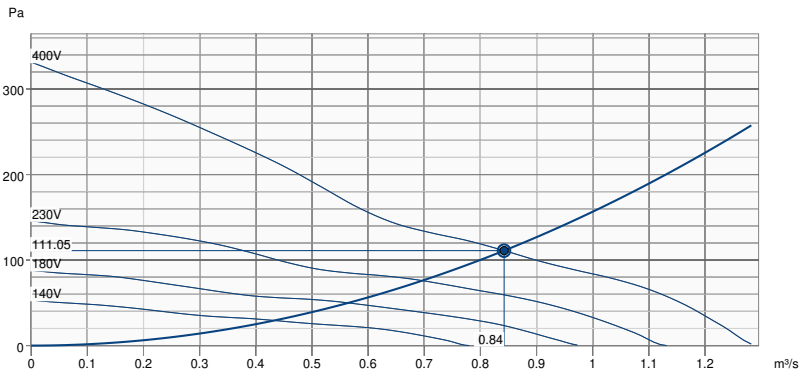
| | |
|--------|---------|
| Weight | 11.8 kg |
|--------|---------|

Others

| | |
|------------|----|
| Motor type | AC |
|------------|----|

Performance

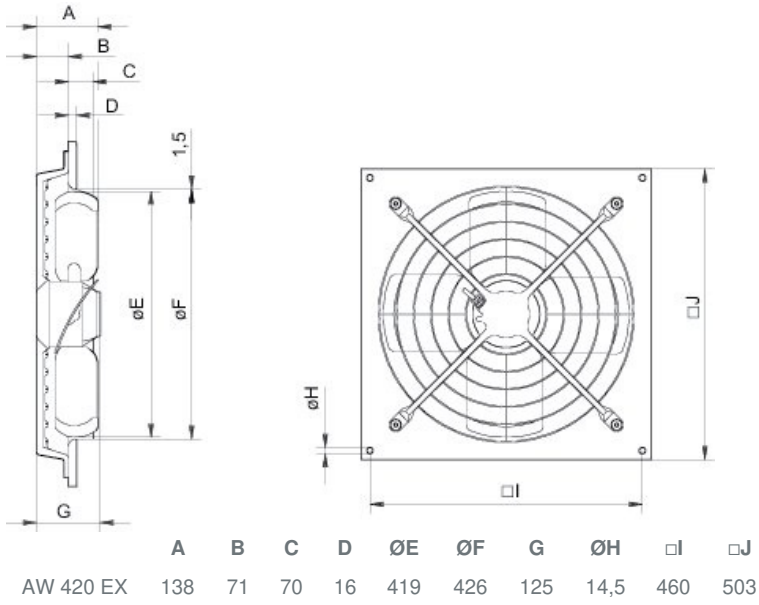
Performance curve



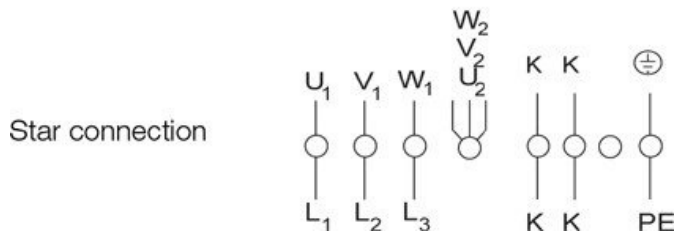
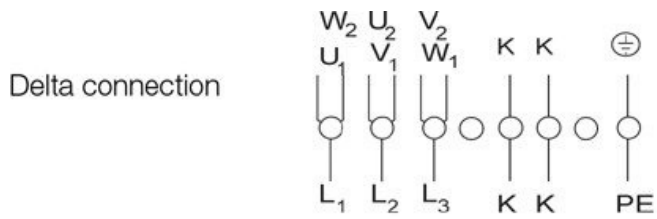
| Hydraulic data | |
|--------------------------|---------------|
| Required air flow | 0.84 m³/s |
| Required static pressure | 111 Pa |
| Working air flow | 0.84 m³/s |
| Working static pressure | 111 Pa |
| Air density | 1.204 kg/m³ |
| Power | 302.5 W |
| Fan control - RPM | 1394 rpm |
| Current | 0.62 A |
| SFP | 0.359 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) | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN | NaN |

Dimension



Wiring



| | |
|----|--------------|
| 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)
- REV-3POL/ATEX-11kW R/Y (36414)
- REV-9POL/12-7,5kW R/Y (33981)
- U-EK230E Motor protection (30199)

Documents

- imo_fans_atex_en_004
- 1.SUPP_ZELM 05 ATEX 0279X_EN.PDF
- Zelm_05_ATEX0279.pdf
- EU_DECLARATION_OF_CONFORMITY_ALL_009_314830.PDF

Specification

The box is made out of electroplated steel plate, powder- coated. Including protection guard. The installation is possible in each fitting position. The fan has an axial impeller with airfoils made out of electroplated, powder- coated steel plate. The actuation is carried out by an explosion- proofed, speed- controllable external rotor motor with completed barretter. A D/Y- capability of connection allows an double- rotation operation of the motor. For annealing the motor is situated inside the air flow. Impeller according to VDI 2060, quality class Q 6,3 and dynamically weigh heavy in two levels. Tested according to ATEX- Guideline 94-9-EG. For the extraction of potentially explosive atmosphere of zone 1, category 2G and zone 2, category 3G. The fans are in zone 1, 2 and for the temperature levels T1, T2 and T3 applicable. The explosion group is "e" elevated safety Eexe II, T3. Appurtenances for the Ex- fan is available on enquiry.