

## DV-EX Roof Fans

### Explosion-proof centrifugal roof fan with vertical discharge

- Certified according to ATEX 2014/34/EU
- Sizes 315 up to 500 inclusive tilting device

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



#### Safety first

DV-EX roof fans are designed for challenging environments where explosive atmospheres can occur. Which is why they are tested according to ATEX directive 2014/34/EU – to ensure they'll perform as intended after installation.

#### Reliability

The casing made out of **seawater resistant aluminium** with an inside **galvanised steel frame** is hard-wearing. This makes the fan also suitable for coastal applications. The combination of casing and motor construction ensures to minimize the need for maintenance of the fans and allows long **continuous operation**.

#### Performance

DV-EX could be used for zone 1 and zone 2; Field of application for gases of groups IIA, IIB and also hydrogen, temperature class T1, T2 and T3.

### Features

#### Construction

The casing casing is manufactured from sea water resistant aluminium. The base frame is manufactured from galvanised steel and the inlet cone from copper. A powder coated bird guard manufactured from galvanised steel is integrated in the casing.

#### Impeller

The DV-EX fans use **radial** impeller with **backward curved blades**. These are made out of alluminum, dynamically **balanced** and paired with corresponding **external rotor** motors.

#### Motor

Voltage controllable, explosion proof, 3-phase external rotor motor. Separate "Ex-e" connection box available as an accessory.

#### Motor protection

Integrated PTC thermistors, to be connected to a motor protection device.

#### Control

Speed controllable by a 5-step transformer

#### Installation

The DVS-EX are for **outside installation**.

## Technical parameters

### Nominal data

Voltage (nominal)	400	V
Frequency	50	Hz
Phases	3~	
Motor circuit connection	Y	
Input power	720	W
Input power kW	0.72	kW
Input current	1.42	A
Impeller speed	1,360	rpm
Air flow	max 4,550	m³/h
Temperature of transported air	max 40	°C
Max temperature of transported air, when speed controlled	40	°C

### Protection/Classification

Enclosure class, motor	IP44
Insulation class	F
Explosion proof marking	II 2G Ex h IIB+H2 T3 Gb
Certificate	TPS 20 ATEX 085751 0007 X

### 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

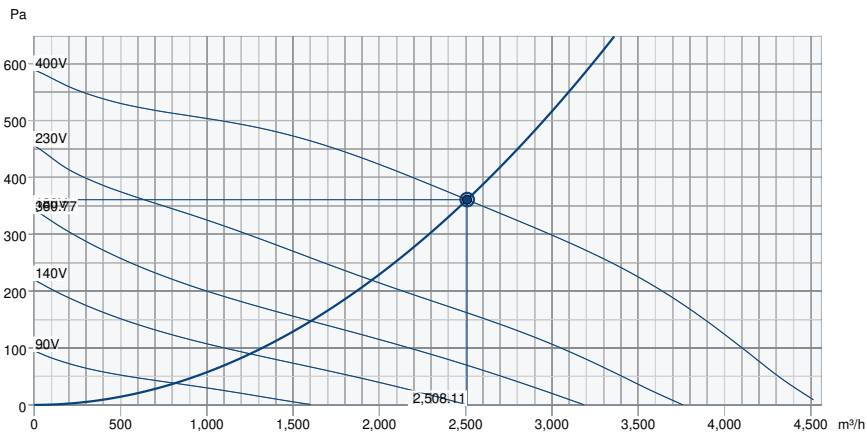
Weight	43	kg
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### Others

Motor type	AC
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## Performance

### Performance curve

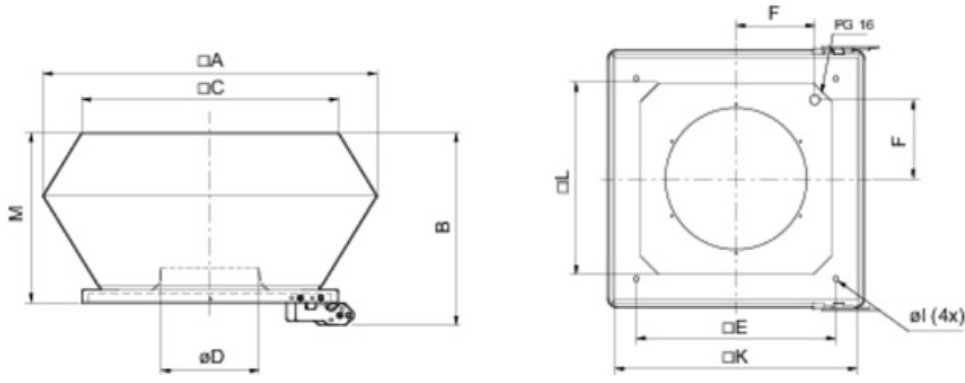


#### Hydraulic data

Required air flow	2,509 m³/h
Required static pressure	361 Pa
Working air flow	2,508 m³/h
Working static pressure	361 Pa
Air density	1.204 kg/m³
Power	669.8 W
Fan control - RPM	1,359 rpm
Current	1.25 A
SFP	0.961 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)	58	64	71	71	68	66	58	52	76
Outlet	dB(A)	58	67	74	75	75	70	62	53	80

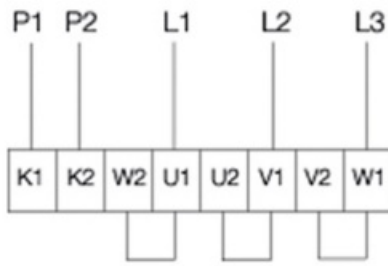
Dimension



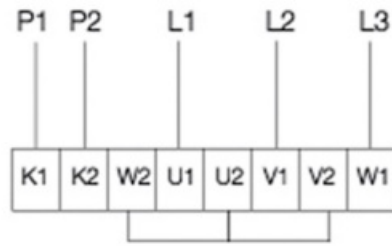
	□A	B	□C	øD	□E	F	øl	□K	□L	M
DVEX 450	900	517	730	289	535	237	12	636	490	465

## Wiring

230V3~ (D)



400V3~ (Y)



U1 brown

V1 blue

W1 black

U2 red

V2 grey

W2 orange

K1 white (PTC)

K2 white (PTC)

## Accessories

- ASF 355-500 inlet flange DVS (9569)
- R-DK4 KT Transformer (302568) (6051)
- RTRD 2 Speed Cont. Systemair (5941)
- SSD 450-500 socket silencer (9563)
- U-EK230E Motor protection (30199)
- FDS 450/500 flat roof socket (9551)
- SSD 450/500 ZM socket sil (95060)
- TG 640-800 Roof curb (1729)
- Ex e-Terminal box 1,5/6mm<sup>2</sup> 32A (2704)
- ASK 450/500 inflow box SSD (300907)
- REV-5POL/07-7,5kW R/Y (33980)
- RTRDU 2 Speed contr. Systemair (5945)
- TDA DV 450-500 Adapter (301394)
- REV-3POL/ATEX-11kW R/Y (36414)
- FDS-L 450/500 flat roof socket (95282)
- TG 640-1230 Roof curb (1728)
- ASS-EX 355-500 flex. con. DVEX (4831)
- VKS-EX 355-500 Back draft da. (8484)

## Documents

- imo\_fans\_atex\_en\_008
- PTB\_08\_ATEX\_3061\_TRANSLATION.PDF
- TPS\_20\_ATEX\_085751\_0007\_X\_EN.PDF
- UPDATE\_PTB\_08\_ATEX\_3060\_3061\_3062.PDF
- EU\_DECLARATION\_OF\_CONFORMITY\_ALL\_009\_314830.PDF