

DV-EX 450D4 Roof fan ATEX

Centrifugal roof fan, expl. proof, II 2G Ex h IIB+H2 T3 Gb

Item Number: 237937

Variant: 400V 3~ 50Hz - Y (Star)

Certified according to ATEX 2014/34/EU

Speed-controllable

Integral thermistors (PTC *)

The DVEX models have impellers with backward-curved blades and external rotor motors. The casing is made from aluminium and the base frame from galvanised steel, with a copper inlet cone.

The DV-EX fans complies with the ATEX regulation. The fans 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.



To protect the motor from overheating these fans have integral thermistors (PTC) with external leads which must be connected to the U-EK230E motor protection relay.

From size 315 up to 450 the tilting device FTG is premounted, at 560 and 630 available as accessory.

Explosions proof version comply with EN 60079-0, 60079-7, EN 14986, DIN EN ISO 80079-36 and DIN EN ISO 80079-37.

* Positive Temperature Coefficient

Technical parameters

Nominal data		
Voltage (Nominal)	400	V
Frequency	50	Hz
Phase(s)	3~	
Motor circuit connection	Y	
Input power	720	W
Input current	1.42	A
Impeller speed	1,360	r.p.m.
Air flow	max 1.2639	m ³ /s
Temperature of transported air	max 40	°C
Max temperature of transported air, when speed controlled	40	°C
Sound data		
Sound pressure level at 10m (free field)	49	dB(A)
Sound pressure level at 4m (free field)	57	dB(A)

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

Controller and Sensors

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

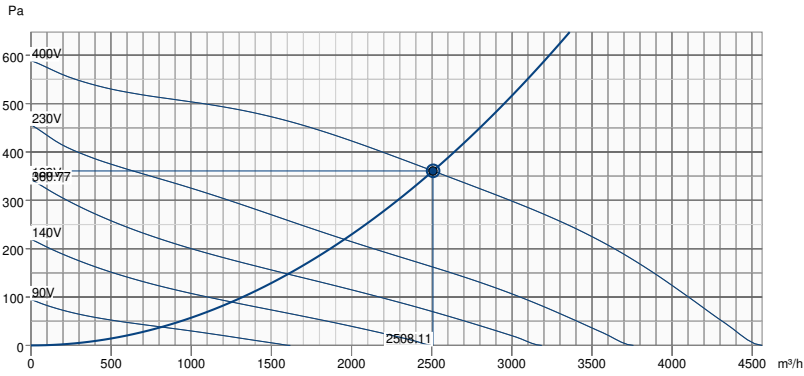
Weight	39 kg
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Others

Motor type	AC
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Performance

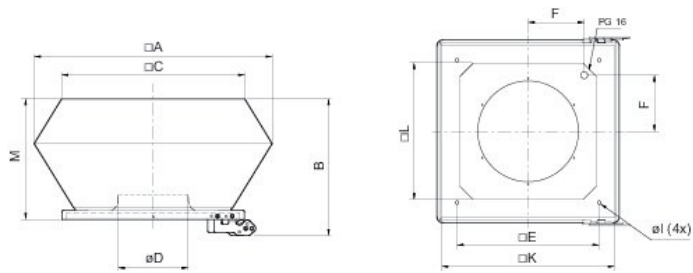
Performance curve



Hydraulic data	
Required air flow	2508.86 m³/h
Required static pressure	361 Pa
Working air flow	2508.11 m³/h
Working static pressure	361 Pa
Air density	1.204 kg/m³
Power	669.8 W
Fan control - RPM	1359 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

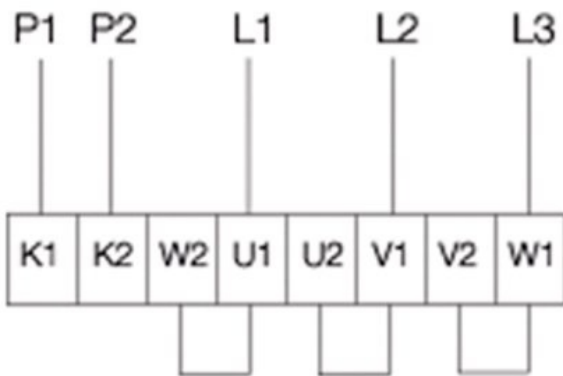
Dimension



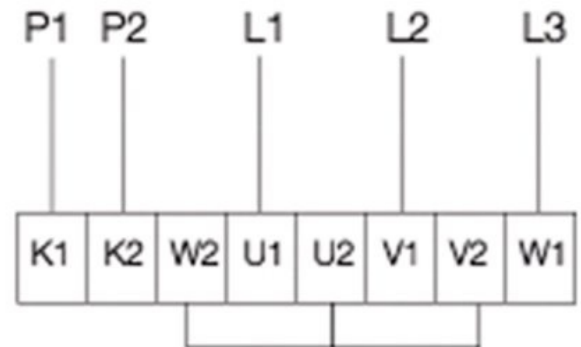
	□A	B	□C	øD	□E	F	øI	□K	□L	M
DVEX 450	900	517	730	289	535	237	12	636	490	465

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 Contr. 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)
- VKS-EX 355-500 Back draft da. (8484)
- ASK 450/500 inflow box SSD (300907)
- REV-5POL/07 ON/OFF (33980)
- RTRDU 2 Speed contr. Systemair (5945)
- TDA DV 450-500 Adapter (301394)
- REV-3POL ATEX 11kW-25A ON/OFF (36414)
- FDS-L 450/500 flat roof socket (95282)
- TG 640-1230 Roof curb (1728)
- ASS-EX 355-500 flex. con. DVEX (4831)

Documents

- EX_Fans_Manual_de,en,se,ru,pl,2020_002
- 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

Specification

Roof fan, vertical discharge. Explosion proof version. Casing made of seawater resistant aluminium.

Base frame made of galvanised steel sheet, copper inlet cone.

With tilting device FTG. Free-running, backward curved centrifugal impeller made of aluminium. Balancing quality G 6.3, dynamically balanced acc. to DIN ISO 1940-1.

Voltage controllable external rotor motor, vibration-free mounted, the motor is placed inside the air flow for cooling. PTC. Supply cable, led out.

For the extraction of potentially explosive atmosphere of zone 1, category 2G and zone 2, category 3G.

Field of application for gases of groups IIA, IIB and hydrogen.

Classification: II 2G Ex h IIB+H2 T3 Gb.

Tested acc. to ATEX Directive 2014/34/EU.

For outdoor installation. Vertical installation position.