



DVS Roof Fans

Centrifugal roof fan with vertical discharge

- DVS is the non-insulated version
- DVSI is the insulated version with acoustic and thermal insulation 50 mm
- Extensive range of accessories
- Available with AC motors for 50 and 60Hz

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

Flexibility

The DVS/DVSI fans are intended to use for **extract** air with **vertical discharge**.

The fans are designed to handle high air volumes at medium pressure without generating excessive noise.

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

The **sound optimized** impellers together with **high efficient** external rotor motors are designed to ensure high-level performance to **minimize power consumption** and **maximize efficiency**.

Accessories

DVS/DVSI fans can be selected together with variety types of **accessories** as roof sockets, tilting devices, dampers, etc.

Features

Construction

The **Casing** is made out of **sea water resistant aluminium**. **Base frame** manufactured from **galvanised steel** with integrated inlet cone. Integrated bird guard manufactured from powder coated, galvanised steel.

DVSI is with **50 mm mineral wool acoustic and thermal insulation**.

Impeller

The DVS/DVSI fans use **radial** impeller with **backward curved blades**. These are out of high-performance composite material or aluminum (from Size 710), dynamically **balanced** and paired with corresponding **AC external rotor** motors.

Motor

DVS/DVSI fans are designed with **AC motors**. Motors are suitable for **50Hz** and **60Hz**.

Motor protection

Depending on the type, **AC** motors have an **integrated** thermal protection with manual (electrical) reset, prewired integral **thermocontact TK** or **thermistor PTC** with leads to a **motor protection device**.

Control

The **AC motors** can be controlled by **5-step, stepless** speed regulator, **D/Y** switch or **frequency converter**.

Installation

The DVS/DVSI are for **outside installation**.

Technical parameters

Nominal data

Voltage (nominal)	230	V
Frequency	50	Hz
Phases	1~	
Input power	580	W
Input current	2.64	A
Impeller speed	1,310	rpm
Air flow	max 4,815	m³/h
Capacitance of capacitor	12	µF
Temperature of transported air	max 60	°C
Max temperature of transported air, when speed controlled	60	°C

Protection/Classification

Enclosure class, motor	IP54
Insulation class	F

Data according to ErP

ErP ready	ErP 2018
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Dimensions and weights

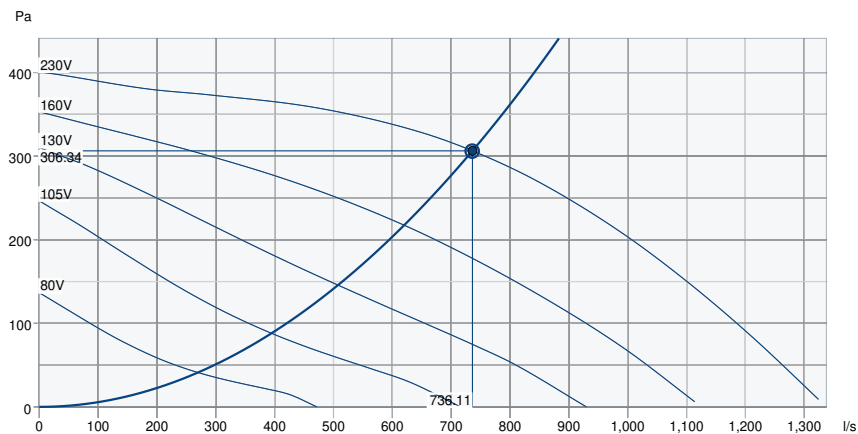
Weight	40	kg
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Others

Motor type	AC
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Performance

Performance curve



Hydraulic data

Required air flow	735.68 l/s
Required static pressure	306 Pa
Working air flow	736.11 l/s
Working static pressure	306 Pa
Air density	1.204 kg/m³
Power	552.7 W
Fan control - RPM	1,322 rpm
Current	2.50 A
SFP	0.751 kW/m³/s
Supply voltage	230 V

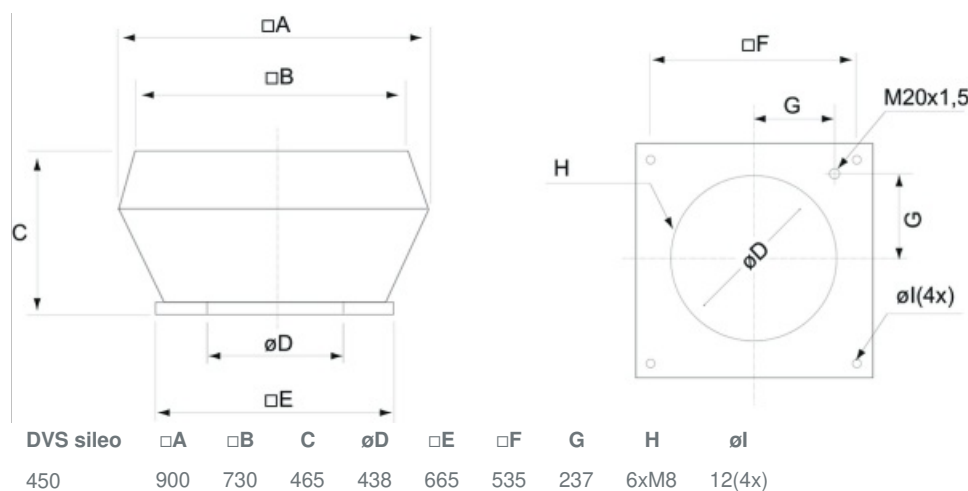
Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	41	56	66	66	71	70	65	56	75
Outlet	dB(A)	42	58	68	68	72	71	66	58	77

Accessories

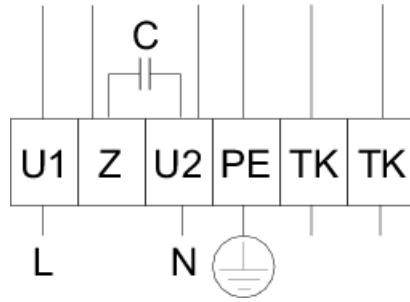
Ecodesign

Product			
Trade name		Systemair	
Product name		DVS 450E4	
Ecodesign			
ErP compliance		2018	
Unit category		NRVU	
Drive		External MSD or VSD	
Unit type		UVU	
Heat recovery type		None	
Temperature ratio (UVU)		Not applicable	
qv nom		0.7361	m³/s
P nom		0.553	kW
Ps nom		306	Pa
Fan efficiency		40.8	%
External Leakage		0	%
Sound power (LWA)		77	dB(A)

Dimension



Wiring



Accessories

- ASF 355-500 inlet flange DVS (9569)
- Frequency converter FRQ5SE-6A (37421)
- REE 4 Speed control (5317)
- RETP 6 Temp/Pressure regulator (32293)
- REV-5POL/05-7,5kW R/Y (33979)
- SSD 450-500 socket silencer (9563)
- Frequency converter FRQSE-6A (37419)
- SSS 450 slant. socket silencer (30078)
- FDS-L 450/500 flat roof socket (95282)
- SSD 450/500 ZM socket sil (95060)
- TG 640-800 Roof curb (1729)
- VKS 355-500 Back draft damper (9544)
- ASS 355-500 flex. con. DVS (9576)
- Motor protect. switch S-ET 10 (161199)
- REPT 6 Digital regulator (5698)
- REU 5 Speed control (5006)
- RTRE 5 Speed control (5010)
- TDA DV 450-500 Adapter (301394)
- SDS 450-500 slant. roof socket (3786)
- FDS 450/500 flat roof socket (9551)
- FTG 450/499/500 Tilting device (30248)
- TG 640-1230 Roof curb (1728)
- VKM 355-500 Back draft damper (9556)
- PKE-2.5V speed controller (30172)

Documents

- [MANUAL_ROOF_FANS_EN_001_.PDF](#)
- [EU DECLARATION OF CONFORMITY_ROOF FANS_EN_004.PDF](#)