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 areintended 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	54	W
Input current	0.23	A
Impeller speed	2,334	rpm
Air flow	max 545	m³/h
Capacitance of capacitor	1.5	µF
Temperature of transported air	max 65	°C
Max temperature of transported air, when speed controlled	65	°C

Protection/Classification		
Enclosure class, motor	IP44	
Insulation class	B	

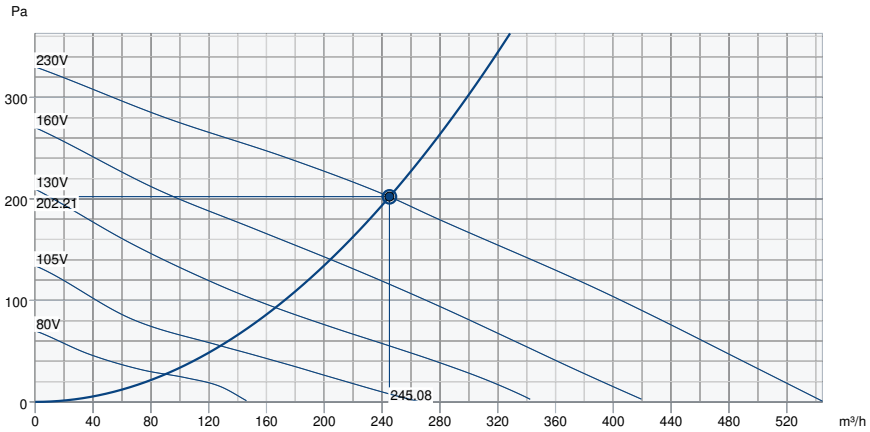
Data according to ErP		
ErP ready	ErP 2018	

Dimensions and weights		
Weight	6.9	kg

Others		
Motor type	AC	

Performance

Performance curve



Hydraulic data	
Required air flow	245 m³/h
Required static pressure	202 Pa
Working air flow	245 m³/h
Working static pressure	202 Pa
Air density	1.204 kg/m³
Power	52.6 W
Fan control - RPM	2,336 rpm
Current	0.20 A
SFP	0.772 kW/m³/s
Supply voltage	230 V

Sound power level		63	125	250	500	1k	2k	4k	8k	Total
Inlet	dB(A)	32	31	43	47	54	54	46	42	58
Outlet	dB(A)	33	32	44	49	55	55	48	44	59

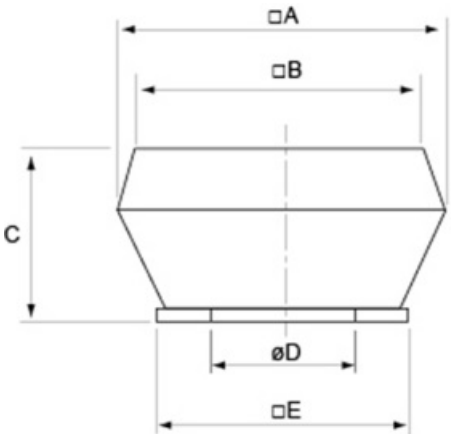
Accessories

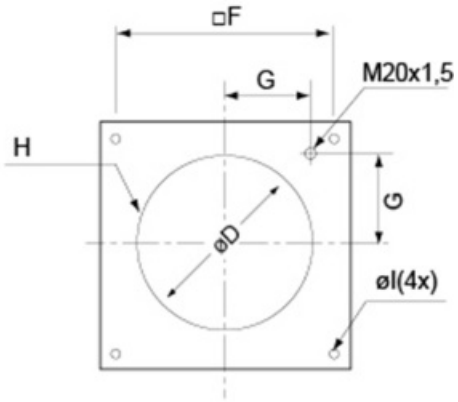
Ecodesign

Product		
Trade name	Systemair	
Product name	DVSI 190EZ sileo roof fan	

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	0.0681	m³/s
P nom	0.053	kW
Ps nom	202	Pa
Fan efficiency	26.1	%
External Leakage	0	%
Sound power (LWA)	59	dB(A)

Dimension

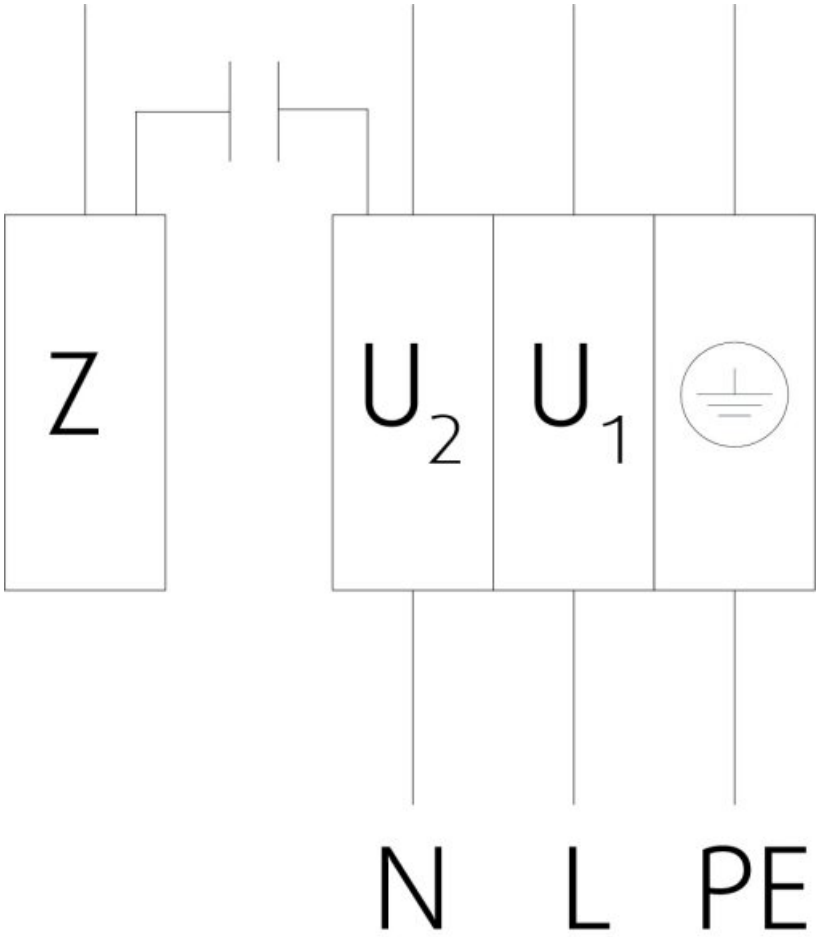




*** diameter D refers to scew-hole-circuit H**

DVSI/DVSI sileo	□A	□B	C	øD	□E	□F	G	H	øI
190-225	497	295	179	213	335	245	105	6xM6	10(4x)

Wiring



.	assignment
L=U1	blue
N=U2	black
Z	brown
PE	green/yellow

Accessories

- ASK 190/225 inflow box SSD (300902)
- Frequency converter FRQ5SE-6A (37421)
- REE 1 Speed control (5314)
- RETP 6 Temp/Pressure regulator (32293)
- REV-3POL/03-7,5kW R/Y (33978)
- SSD 190/225 socket silencer (9560)
- Frequency converter FRQSE-6A (37419)
- Presence detector/IR24-P (6995)
- SDS 190/225 slant. roof socket (3783)
- T 120 Timer (5165)
- FDS 190/225 flat roof socket (9548)
- SSD 190/225 ZM socket sil (95063)
- VKS 190/225 Back draft damper (9539)
- ASS 190/225 flex. inl.con. DVS (9573)
- RE 1,5 Speed control (5000)
- REPT 6 Digital regulator (5698)
- REU 1.5 Speed control (5004)
- REV-5POL/05-7,5kW R/Y (33979)
- CO2RT-R-D Transmitter (6993)
- MicroREX D21 Plus Time Switch (17822)
- RT 0-30 Room Thermostat (5151)
- SSS 190 slant. socket silencer (30075)
- ASF 190/225 inlet flange DVS (9567)
- FDS-L 190/225 flat roof socket (95278)
- SSD-L 190/225 Socket silencer (79855)

Documents

- MANUAL_ROOF_FANS_EN_001_.PDF
- EU DECLARATION OF CONFORMITY_ROOF FANS_EN_004.PDF

Specification

Roof fan, vertical discharge.
Casing made of seawater resistant aluminium. Sound insulated with a 50 mm layer of mineral wool, protected by a perforated sheet, glass mat side coated, non-combustible according to A1 DIN 4102. Base frame with deep-drawn admission nozzle made of galvanised steel sheet. Bird-protection grid made of Aluminium.
Free-running, backward curved circular impeller made of high-performance composite material with highly efficient 3D fan blade profile technology, 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. Motor protection by integral thermal contact with leads to a motor protection device.
Speed control via transformer, 2 speed control by star delta change-over. Controllable via frequency inverter and all-pole sinusoidal filter.
Terminal box (IP54) on the motor.
For outdoor installation.
Vertical installation position.
Low sound level, suitable for noise-sensitive applications.
Conformance: EN 60335-1