

VENTS Stream EC Series



Sound- and heat-insulated mixed flow duct fans with air flow up to **600 m³/h** and with EC motor

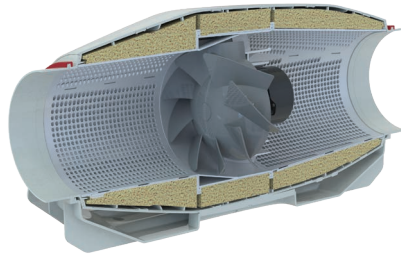
Application

The VENTS Stream EC series of duct fans is available in a special sound-insulated casing that ensures silent fan operation with high aerodynamic performance. Compatible with Ø100, 125, 150, 160 mm air ducts. The VENTS Stream EC fans combine wide capabilities and high technical parameters of axial and centrifugal fans, providing powerful air flow and high pressure as well as cost-effectiveness and manageability of the EC motor. 100% variable speed, multiple fans can be connected to a computer control system equipped with sensors. Application: intended for supply and exhaust ventilation systems of different commercial and industrial premises with high demands on energy efficiency and noise level (libraries, conference halls, educational institutions, kindergartens etc.).

Design

The outer casing is made of high quality and durable plastic. The internal perforation of the casing allows sound waves to pass through, directing them at a certain angle onto a layer of sound-insulating material.

Heat- and sound-insulation of the casing are made of a 50 mm layer of non-flammable mineral wool. The special perforation of the casing and the sound-absorbing material ensure that sound is attenuated over a wide frequency range.



Due to the conic impeller and special blade profiling the circumferential air speed increases thus providing higher air pressure and capacity as compared to standard axial fans. The diffuser, the specially profiled impeller and the directing vanes at the outlet of the fan casing distribute air flow in such a way as to attain the best combination of high performance and high pressure at low noise level. The fan casing is equipped with an outer airtight terminal box for connection to power mains.

Electric motor

The units are equipped with highly efficient electronically commutated EC motors. These state-of-the-art motors are the most advanced solution in energy efficiency today. EC motors are characterised with high performance and optimum control across the entire speed range. In addition to that, the efficiency of the electronically commutated motor reaches very impressive levels of up to 90 %.

Speed control

The fan is controlled with the 0-10 V control signal (capacity control is performed depending on the temperature, humidity, pressure and other parameters). When the value of the control factor changes, the EC fan changes the rotation speed and supplies exactly the amount of air required by the ventilation system. Maximum fan speed does not depend on the

available current frequency and is suitable for operation both at 50 and 60 Hz. Several fans can be integrated into a single computer-driven control system. Custom designed software provides high accuracy control of the fans integrated into a network. The computer display shows all the system parameters and the operation mode can be set individually for each fan in the network.

Mounting

The fans are intended for mounting to round air ducts. The fan casing has mounting brackets for floor, wall or ceiling mounting. Any installation angle relative to the fan axis is permissible. Access for the fan maintenance shall be provided during mounting. For wiring installation and mounting of the fan follow the guidelines in the user's manual and wiring diagram on the terminal box. Several fans may be installed in one system in parallel to attain higher air capacity or in series to increase operating pressure in the system.

Designation key

Series	Air duct diameter	Motor type		Options
VENTS Stream: mixed-flow fan in sound-insulated casing	100/125 150/160	EC: synchronous electronically commutated motor	S: high-powered motor	Un: speed controller with an electronic thermostat and external temperature sensor fixed on 4 m cable. Equipped with a power cord and an electric plug. Temperature-based operation logic. R: power cord with mains plug. P: built-in smooth speed controller.

Accessories



Silencer

Filters

Heaters

Back valve

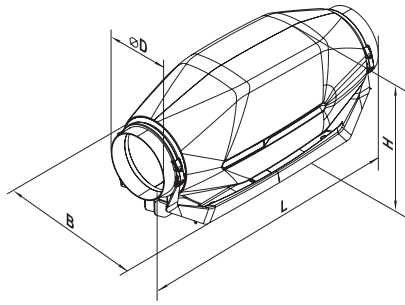
Air damper

Clamps

Speed controller

Overall dimensions of fans

Model	Dimensions [mm]				Weight [kg]
	∅D	B	L	H	
Stream 100/125 EC S (spigot 100 mm)	100		752		5
Stream 100/125 EC S (spigot 125 mm)	125	253	679	273	
Stream 150/160 EC (spigot 150 mm)	150		606		
Stream 150/160 EC (spigot 160 mm)	160		606		



Stream 100/125 EC S (spigot 100 mm)



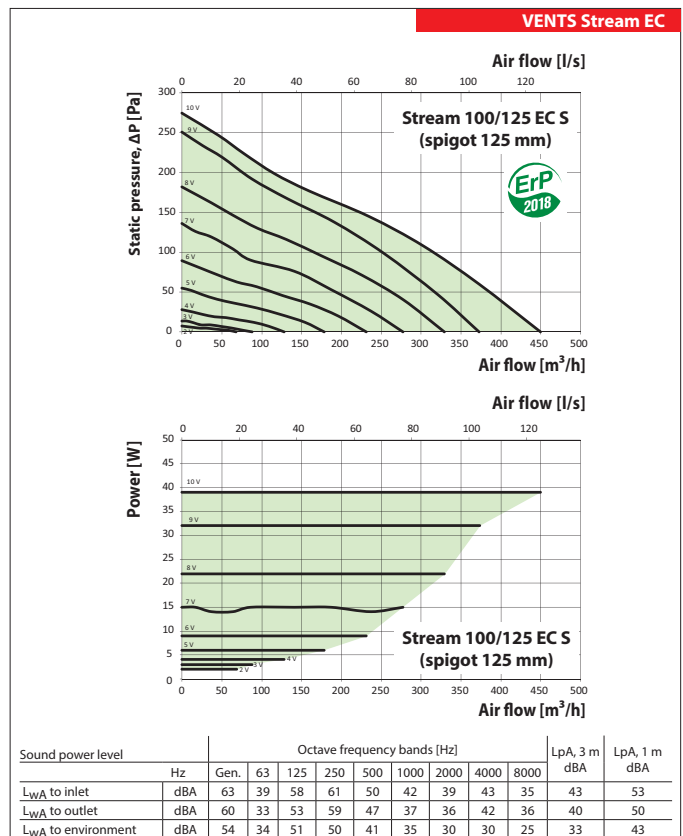
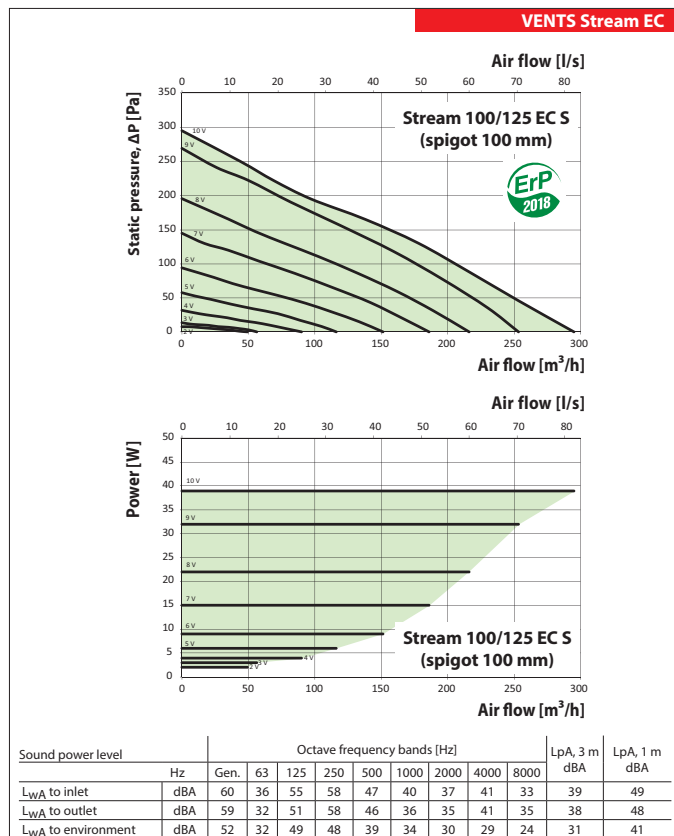
Stream 100/125 EC S (spigot 125 mm)



Stream 150/160 (EC) (spigot 150 mm, spigot 160 mm with a rubber seal)

Technical data

	Stream 100/125 EC S	Stream 100/125 EC S
Spigot diameter	100	125
Unit voltage [V/50 (60) Hz]	1~230	1~230
Power [W]	39	39
Current [A]	0.36	0.37
Maximum air flow [m ³ /h (l/s)]	295 (82)	450 (125)
RPM [min ⁻¹]	3168	3138
Sound pressure level at 3 m distance [dBA]	31	33
Transported air temperature [°C]	-25...+55	-25...+55
Protection class	IPX4	IPX4
Motor protection	IP44	IP44



Technical data

		Stream 150/160 EC
Spigot diameter		150/160
Unit voltage [V/50 (60) Hz]		1~230
Power [W]		55
Current [A]		0.49
Maximum air flow [m ³ /h (l/s)]		600 (167)
RPM [min ⁻¹]		3506
Sound pressure level at 3 m distance [dBA]		38
Transported air temperature [°C]		-25...+55
Protection class		IPX4
Motor protection		IP44

