

Series
VENTS TT Silent-M EC



Mixed-type duct fans with EC motors in casings with noise and heat insulation
Air flow up to **1970 m³/h**

■ **Application**

The new VENTS TT Silent-M EC duct fan series is provided with a special noise-insulated casing which ensures silent operation and excellent aerodynamic characteristics. Compatible with Ø100 up to Ø315 mm air ducts. The VENTS TT Silent-M EC fans combine the versatility and outstanding performance of both axial and centrifugal fans producing a powerful air flow and high pressure while retaining the signature energy-efficiency and response of EC motors. Several fans can be integrated into a single computer-controlled system with sensor feedback combined with speed control across the entire dynamic range. Application: Combined supply and exhaust ventilation systems of various commercial and industrial spaces with stringent noise requirements (such as libraries, conference halls, classrooms, kindergarten playrooms etc.).

■ **Design**

The external casing is made of steel with a polymer coating. The internal casing perforations conduct sound waves and direct them at the noise-absorbing material at a specific angle. Noise and heat insulation is ensured by a mineral wool layer 50 mm in thickness. Wideband noise control is achieved by means of special casing perforation and the use of noise-absorbing material. The inner casing and the impeller are made of durable high-quality plastic. Conical impellers with specially profiled blades help boost angular velocity of the air flow resulting in higher pressure and air flow compared to the conventional designs. The combination of a diffuser, a specially designed impeller and flow straightener vanes at the fan outlet allow for an optimum flow distribution to achieve high capacity and increased air pressure without generating excessive noise. The fan casing is equipped with an external water-tight terminal box for electrical connections.

■ **Motor**

The fans feature high-efficiency electronically commutated (EC) direct current motors. These state-of-the-art units offer excellent energy efficiency. EC motors combine high performance and optimum control across the entire speed range. The performance efficiency of the electronically commutated motors reaches 90 %.

■ **Speed control**

The fans are controlled by means of a 0-10 V control signal while the performance regulation is based on the feedback from the temperature, smoke and other sensors as well as other vital parameter settings. As the control signal changes the EC fan adjusts the speed to supply the exact amount of air required by the ventilation system. The maximum fan speed does not depend on the electric mains frequency enabling compatibility with both 50 Hz and 60 Hz networks. The fans can be

easily combined into a single computer-controlled network. Special software allows for precise control over the operating parameters of the network units. All the system parameters can be monitored from a computer screen allowing to program operating parameters for each fan on the network individually.

■ **Mounting**

The fans are designed to be used with round air ducts. The fan casing has mounting brackets for convenient installation onto the floor, walls or ceiling. The ducts can be fitted at any angle relative to the fan axis. Make sure to provide sufficient maintenance access during fan installation. Electrical connection and installation must be performed in accordance with the instruction manual and the electrical connections diagram applied to the terminal box. A single system may have several fans installed in parallel to boost the output capacity or in series to boost the working pressure.

Designation key

Series	Casing material	Air ducts diameter	Motor type
VENTS TT SILENT-M: mixed-type duct fan in casings with noise and heat insulation	M: metal	100; 125; 150; 160; 200; 250; 315	EC: synchronous electronically commutated motor

Accessories



Silencer

Filters

Heaters

Backdraft damper

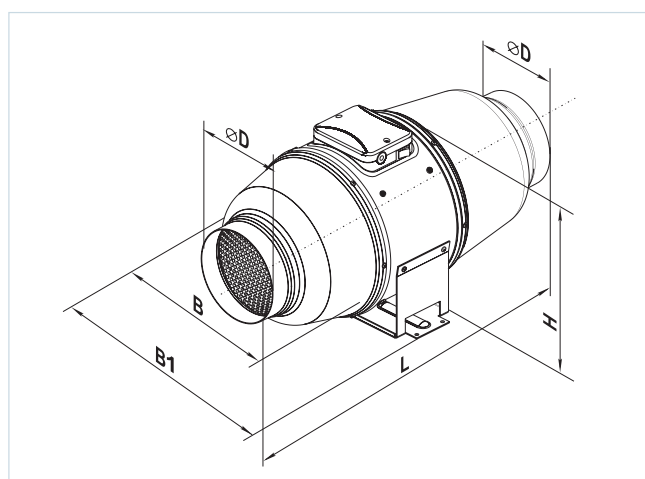
Air shutter

Clamps

Speed controller

Overall dimensions of the fan

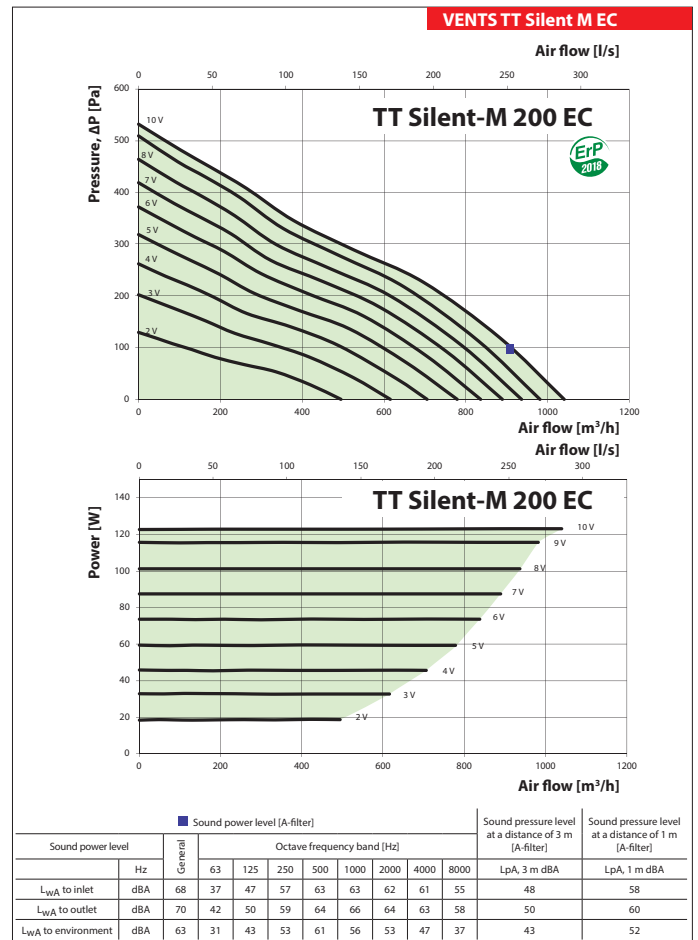
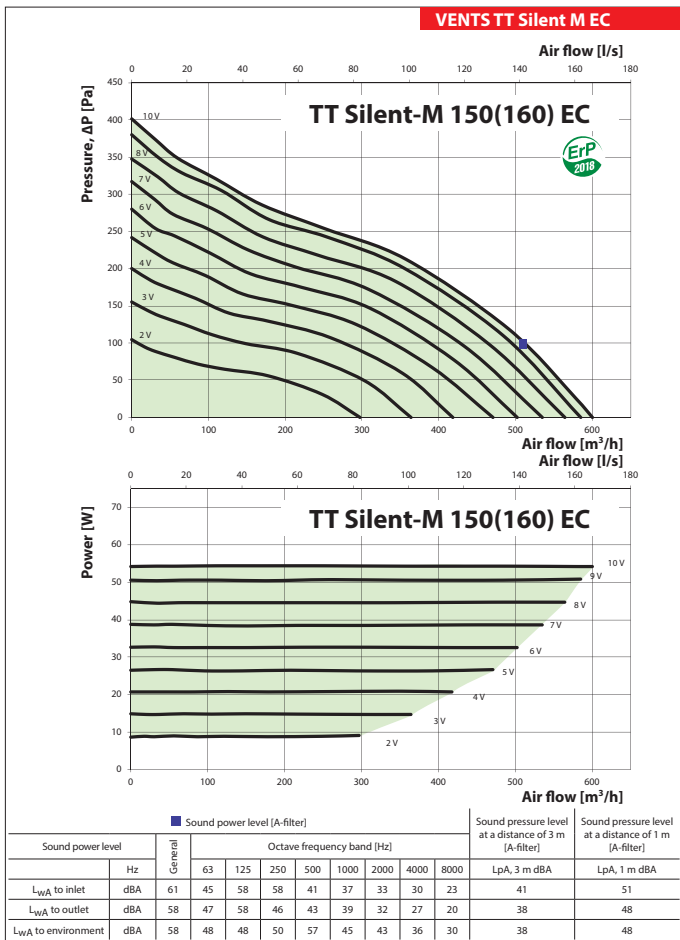
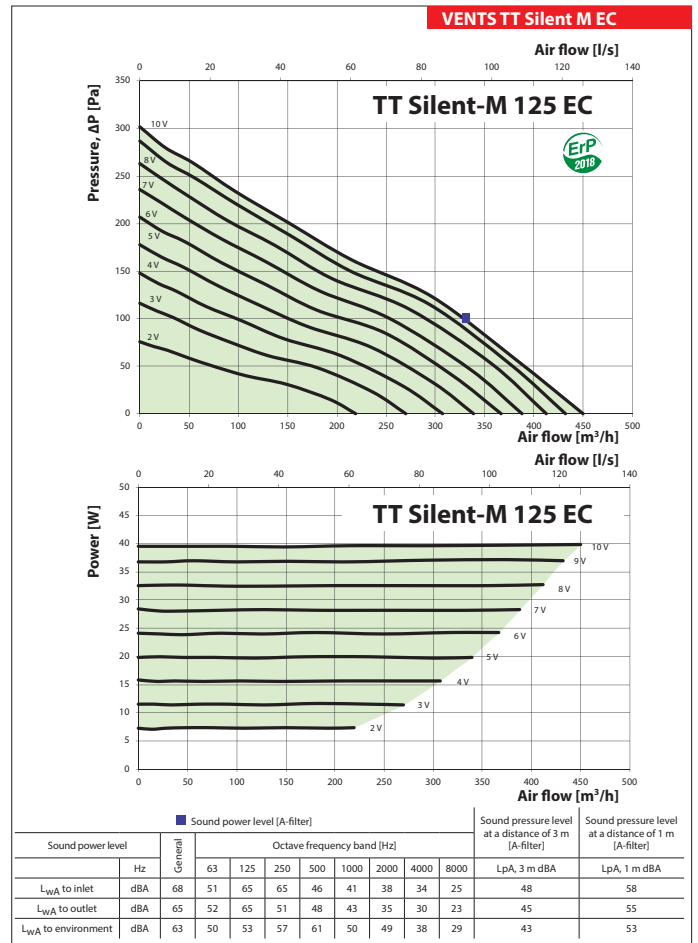
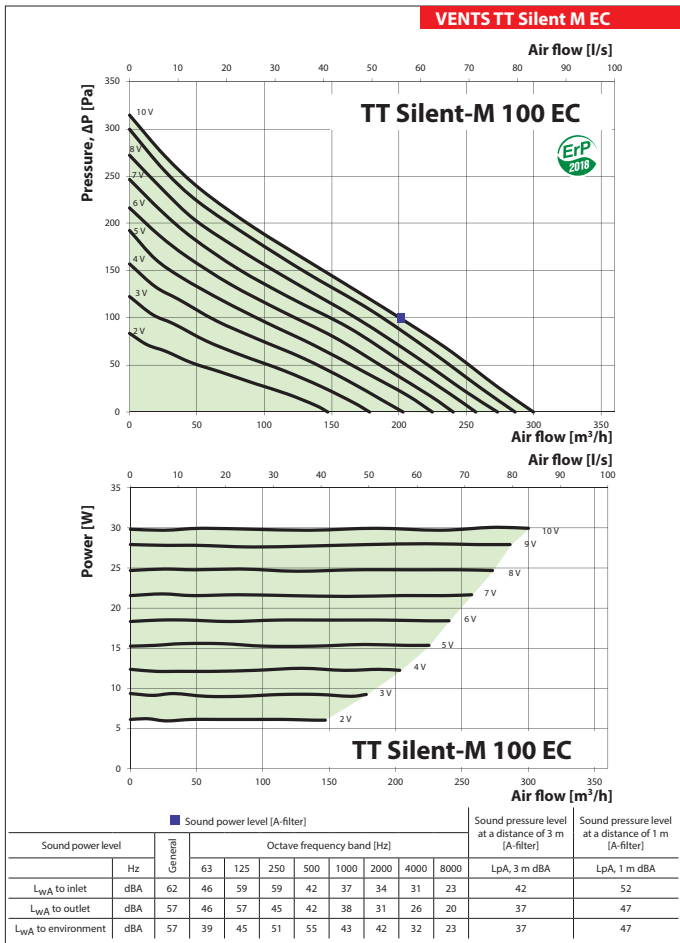
Model	Dimensions [mm]					Mass [kg]
	ØD	B	B1	L	H	
TT Silent M 100 EC	98	215	332	505	247	4.9
TT Silent M 125 EC	123	215	332	474	247	4.8
TT Silent M 150 EC	147	247	372	580	265	6.0
TT Silent M 160 EC	157	247	372	580	265	6.0
TT Silent M 200 EC	198	293	392	558	311	8.6
TT Silent M 250 EC	248	358	451	664	379	12.5
TT Silent M 315 EC	313	432	527	782	455	19.8

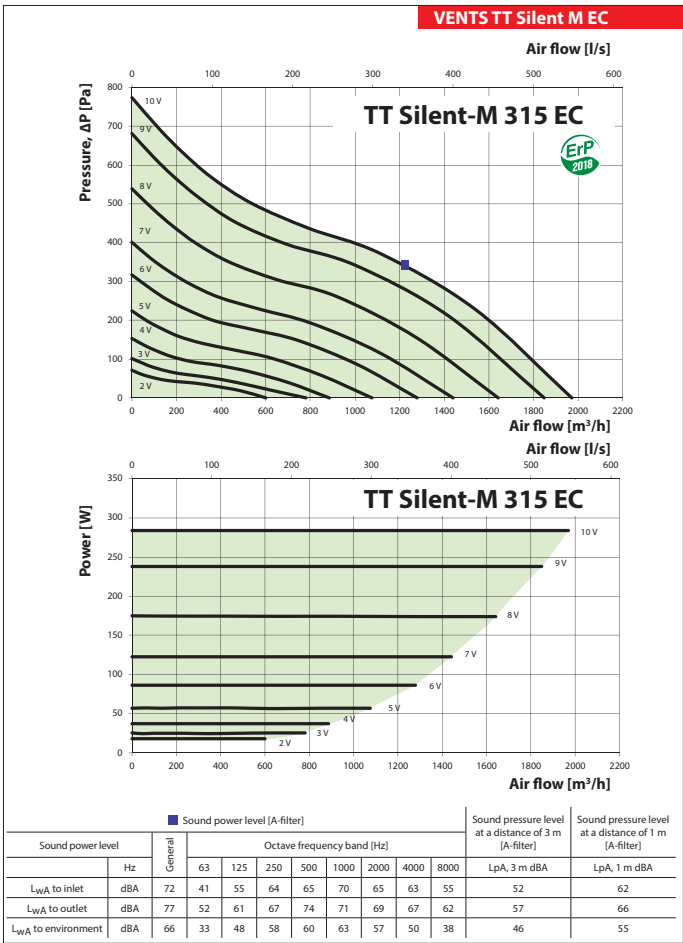
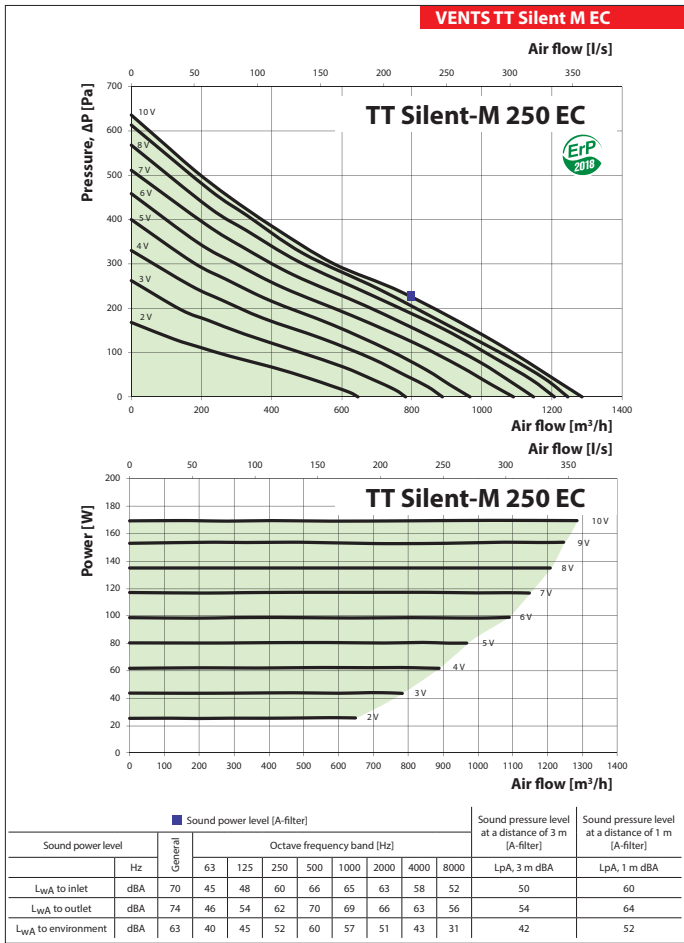


Technical data

	TT Silent M 100 EC	TT Silent M 125 EC	TT Silent M 150(160) EC	TT Silent M 200 EC	TT Silent M 250 EC	TT Silent M 315 EC
Voltage [V/50 (60) Hz]	1~230	1~230	1~230	1~230	1~230	1~230
Power [W]	30	40	55	123	169	284
Current [A]	0.29	0.37	0.48	1.02	1.38	1.25
Max. air flow [m³/h]	300	450	600	1040	1285	1970
RPM [min ⁻¹]	3680	3750	3390	3390	2870	2826
Noise level at 3m [dBA]	37	43	38	43	42	46
Transported air temperature [°C]	-25...+55	-25...+55	-25...+55	-25...+55	-25...+55	-25...+55
Protection rating	IPX4	IPX4	IPX4	IPX4	IPX4	IPX4
SEC class	B	B	B	-	-	-

To meet the requirements of ErP 2018, a speed controller and local demand control typology must be applied (connect a sensor).





VENTS TT SILENT-M EC FAN SERIES