

Series
VENTS VS



Inline centrifugal fans with backward curved blades in heat- and sound-insulated casing with the air flow up to **16 870 m³/h**

Applications

Supply and exhaust ventilation systems for various premises with high noise level requirements. The VS fan design enables to assemble various ventilation configurations due to changeable positions of the removable panels. Such design enables air supply in all directions, both linearly and at the angle 90 °C. The aluzinc casing with high corrosion-resistant properties and heat-insulating material allows outdoor installation of the fan. The fans may be integrated into an assembled supply ventilation system. Compatible with round and rectangular air ducts.

Design

The fan casing is made of double-skinned aluzinc panels, heat- and sound-insulated with 20 mm non-combustible mineral wool. The connecting pipes that also serve as vibration absorbing connectors are available with round and square sections. The round pipes are fitted with rubber sealing rings. The connecting pipes are not included into the delivery set and are available upon separate order!

Motor

4- or 6-pole asynchronous external rotor motor and centrifugal impeller with backward curved blades.

The motors are equipped with overheating protection, which is connected to the external protection device (i.e., the model VS 355 4E has thermal switches with automatic restart). The specially greased ball bearing motor ensures low noise and maintenance-free operation.

Speed control

Smooth or step speed control with a thyristor or autotransformer speed controller. Speed control is adjusted by the supply voltage regulation. Air flow is regulated by the motor speed. Several fans may be connected to one speed controller provided that the total power and operating current do not exceed the rated speed controller parameters.

Mounting

Inline fans are designed for connection to rectangular or round air ducts with a flexible connector of respective cross section. The fan are designed for inline mounting. While connecting the fan to flexible connectors, provide its fixing to a building with supports, suspension or fixing bracket. The fan is suitable for any mounting position, on condition that the pointer on the fan casing matches the air motion direction in the system. While mounting the fan provide enough access for its servicing.



VS fan with VPG flexible anti-vibration connectors



VS fan with KN-VS outer hood

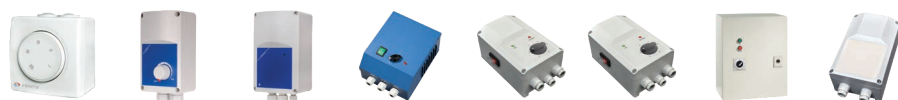


VS fan with VVG flexible anti-vibration connectors

Designation key

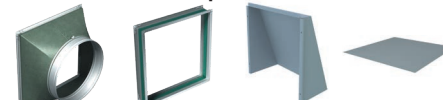
Series	Impeller diameter		Motor		ErP data
		S: high-powered motor	Polarity	Phase	
VENTS VS	355; 400; 450; 500; 560; 630; 710		4, 6	E : single phase D : three phase	Overall efficiency η [%] Measurement category MC Efficiency category EC Efficiency grade N Variable speed drive VSD Power kW Current A Air flow m ³ /h Static pressure Pa Speed n/min ⁻¹ Specific ratio SR

Accessories



Speed controllers

Offered options for fans



VPG

VVG

KN-VS

VPR-VS

Technical data

	VS 355 4E	VS 355 4D		VS 400 4E		VS 400 4D			
Voltage [V]	1~230	3~400 Y		1~230		3~230 Δ		3~400 Y	
Frequency [Hz]	50	50	60	50	60	50	60	50	60
Power [W]	245	230	235	480	700	515	750	385	515
Current [A]	1.12	0,52	0,53	2,4	3,15	1,41	1,44	0,7	0,93
Max. air flow [m³/h] with the air flow:									
	- perpendicularly	2890	2660	2815	3750	4310	3950	4310	3340
- straight forward	2650	2380	2580	3535	4015	3740	4055	3110	3290
RPM [min ⁻¹]	1420	1400	1600	1370	1460	1415	1610	1235	1220
Noise level at 3 m [dBA]	54	53	55	51	52	51	53	47	49
Transported air temperature [°C]	-25...+50	-25...+70	-25...+65	-40...+80	-40...+55	-40...+60	-40...+60	-40...+80	-40...+40
Protection rating	IPX4	IPX4		IPX4		IPX4			

Technical data

	VS 450 4E	VS 450 4D	VS 500 4E	VS 500 4D	VS 560 4D
Voltage [V/50 Hz]	1~230	3~400	1~230	3~400	3~400
Power [W]	680	740	1300	1430	2380
Current [A]	3.00	1.50	5.70	3.00	5.00
Max. air flow [m³/h] with the air flow:					
	- perpendicularly	5630	5700	7330	7940
- straight forward	4930	5080	6680	7200	10490
RPM [min ⁻¹]	1250	1350	1320	1375	1365
Noise level at 3 m [dBA]	53	54	55	58	56
Transported air temperature [°C]	-40...+70	-40...+80	-25...+50	-40...+80	-40...+60
Protection rating	IPX4	IPX4	IPX4	IPX4	IPX4

Technical data

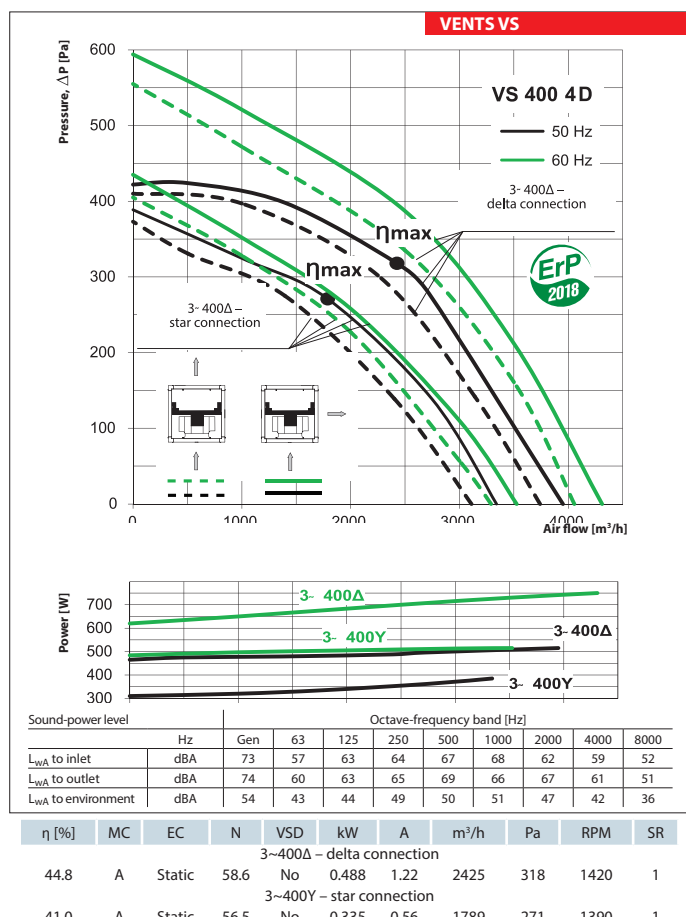
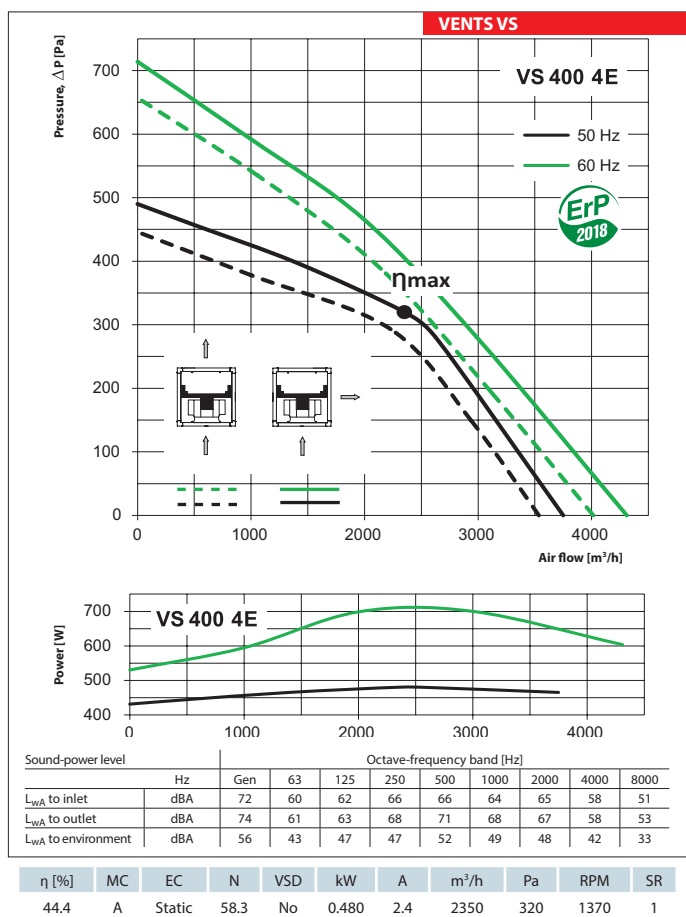
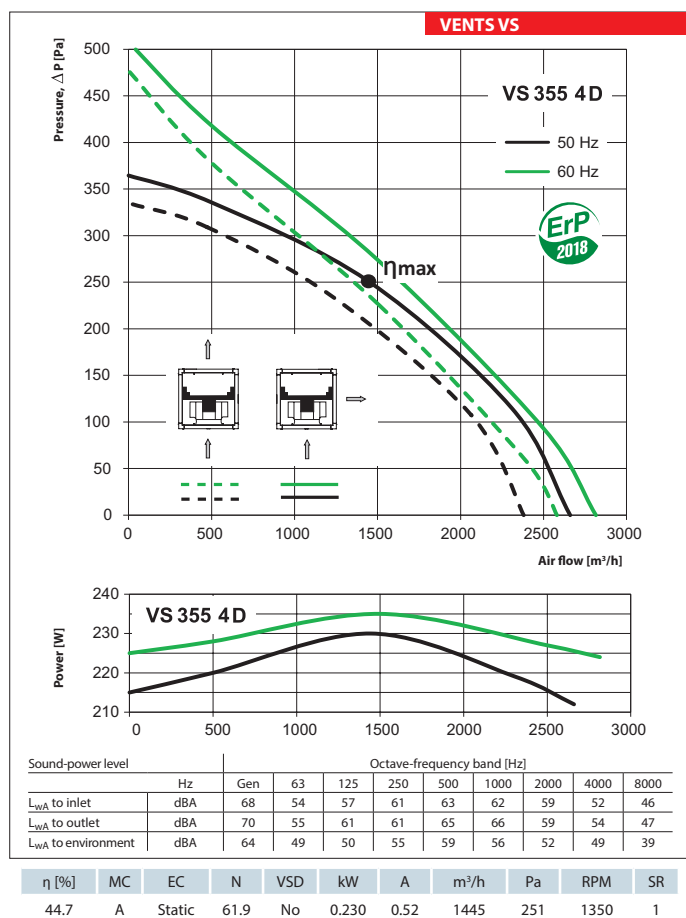
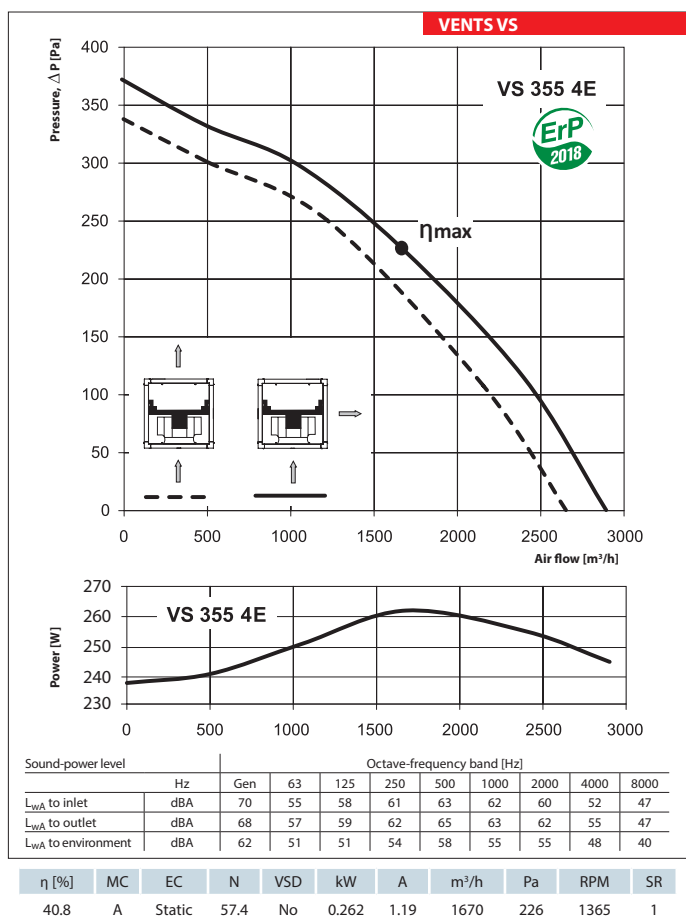
	VS 560 6D	VS 630 4D	VS 630 S 4D	VS 630 6D	VS 710 6D
Voltage [V/50 Hz]	3~400	3~400	3~400	3~400	3~400
Power [W]	780	3310	4250	1310	2000
Current [A]	1.70	6.20	7.55	2.80	3.90
Max. air flow [m³/h] with the air flow:					
	- perpendicularly	7970	15170	16870	12030
- straight forward	7330	13740	14930	10440	14880
RPM [min ⁻¹]	885	1170	1300	880	890
Noise level at 3 m [dBA]	49	67	69	55	59
Transported air temperature [°C]	-40...+55	-40...+35	-40...+60	-40...+60	-20...+40
Protection rating	IPX4	IPX4	IPX4	IPX4	IPX4

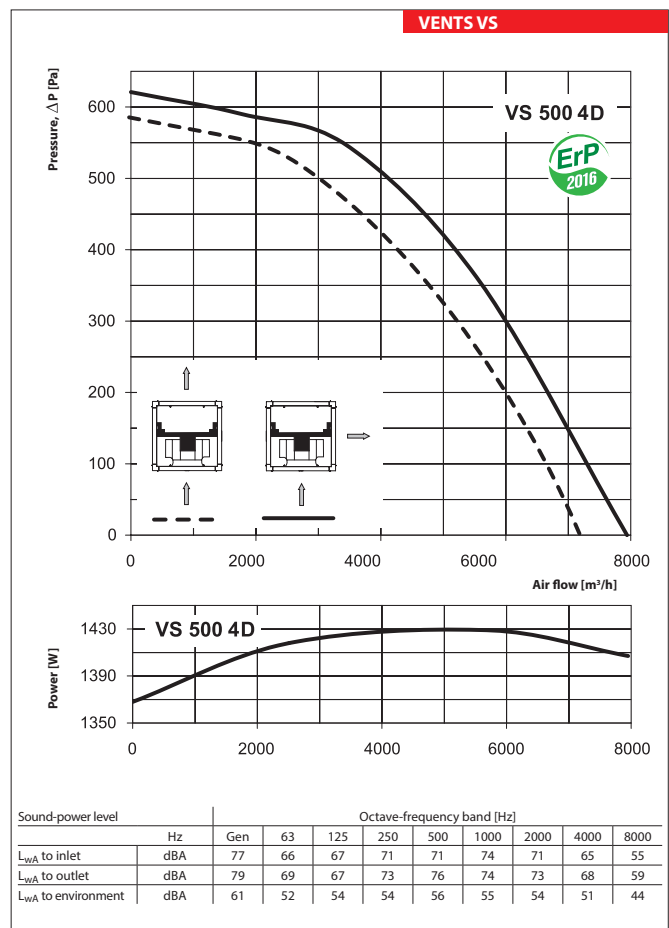
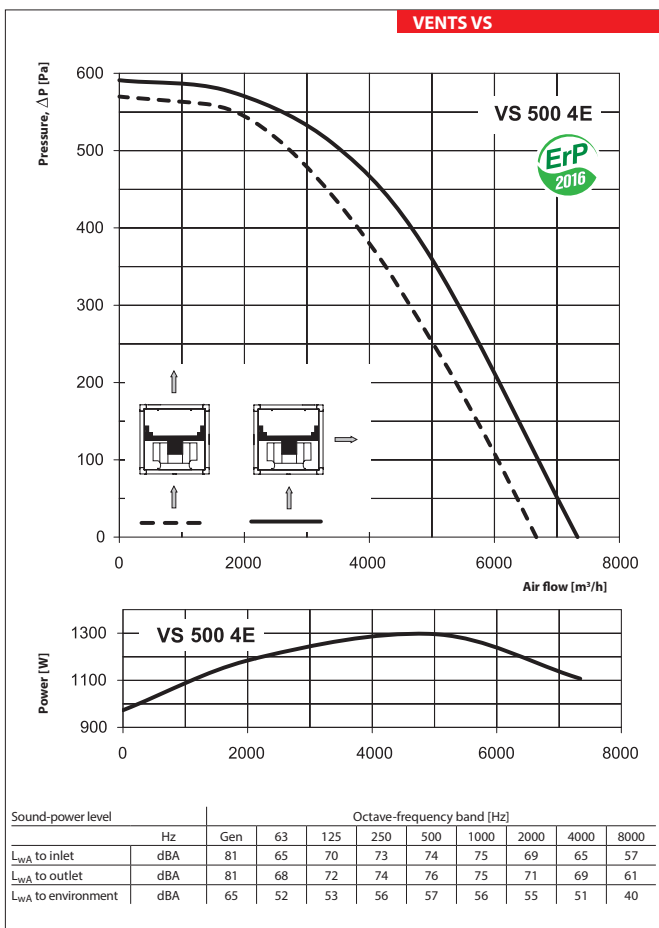
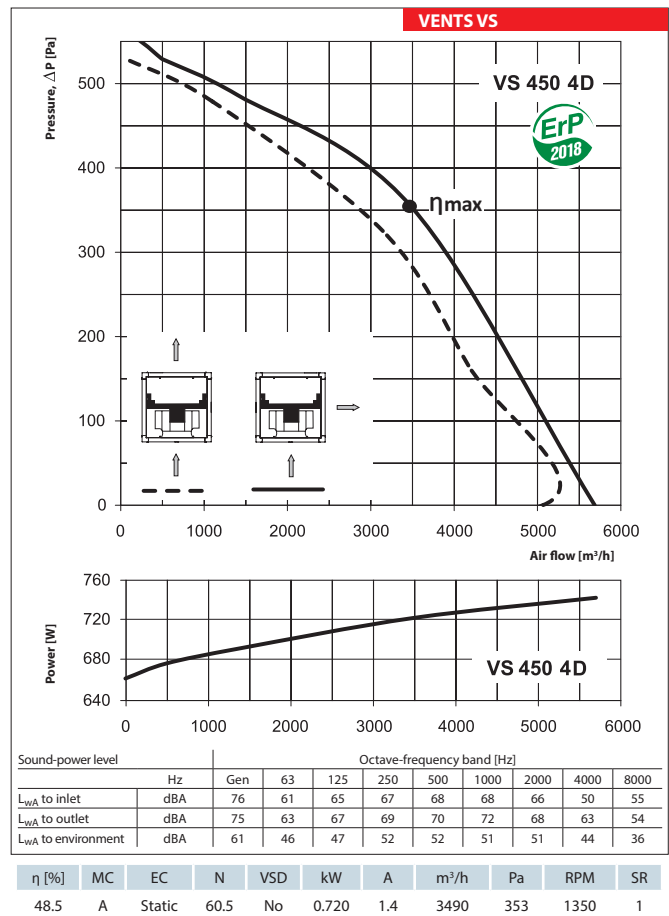
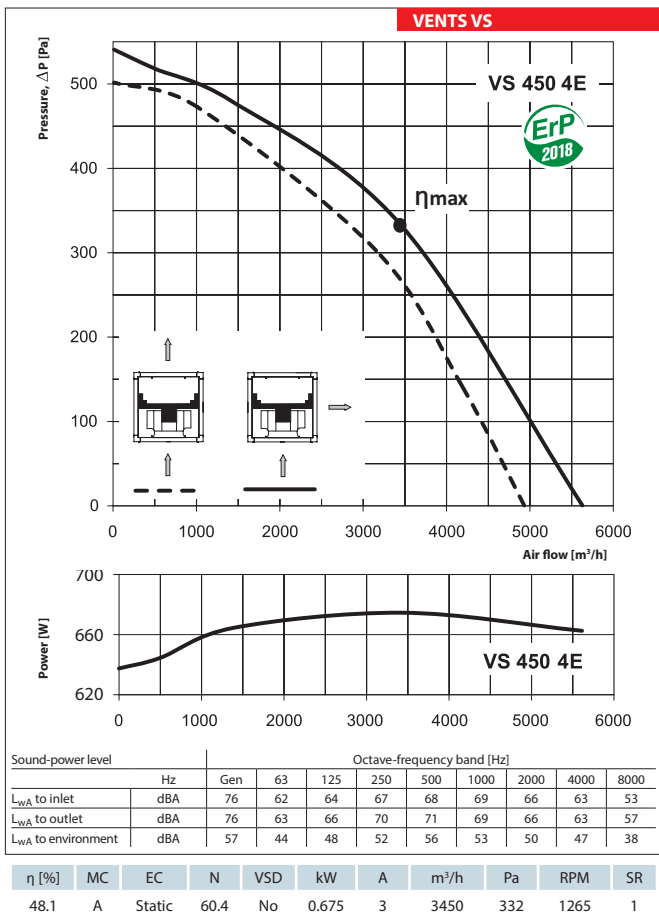


VS fan gym ventilation example



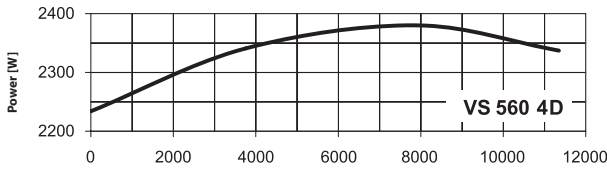
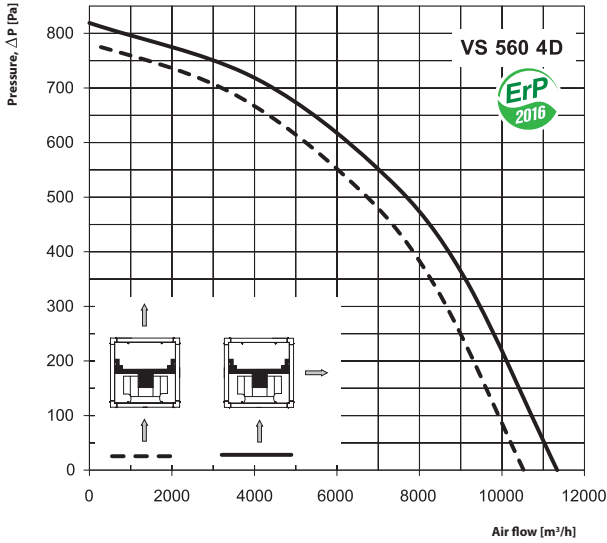
VS fan office ventilation example





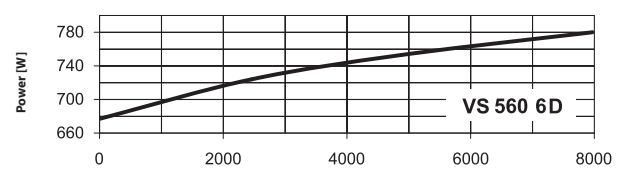
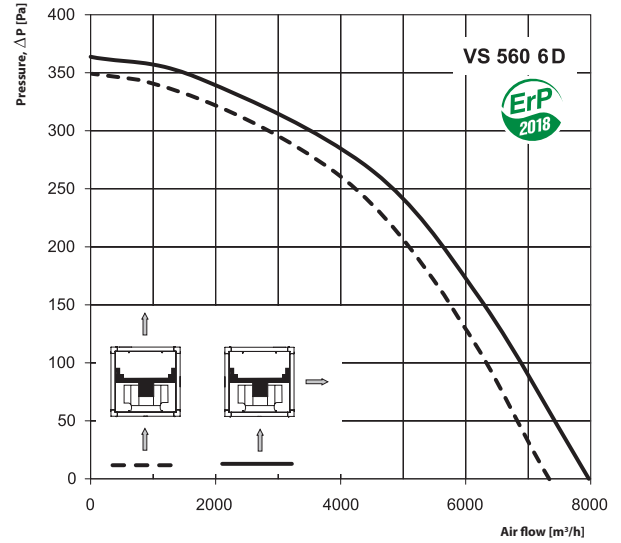
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VENTS VS



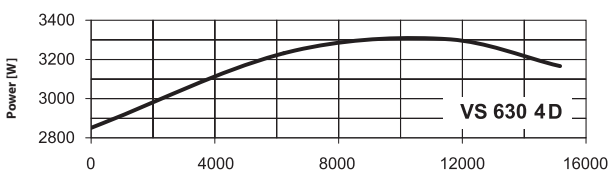
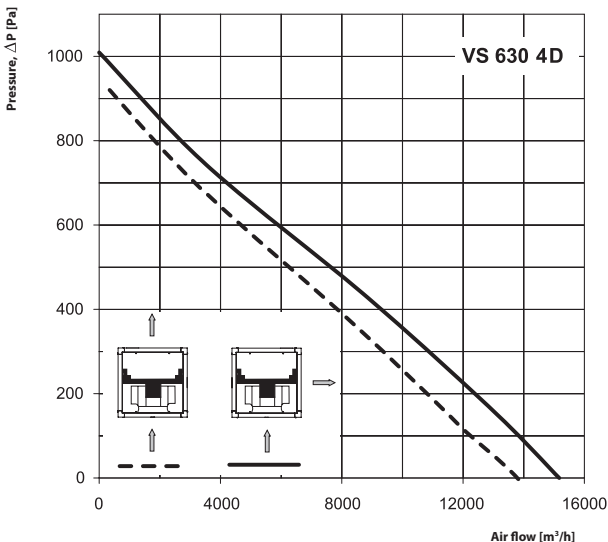
Sound-power level	Hz	Gen	Octave-frequency band [Hz]							
			63	125	250	500	1000	2000	4000	8000
L_{WA} to inlet	dBA	80	66	67	73	75	73	69	67	58
L_{WA} to outlet	dBA	80	67	71	73	77	74	73	65	61
L_{WA} to environment	dBA	63	53	55	59	57	60	53	49	41

VENTS VS



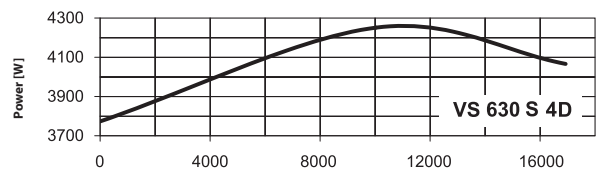
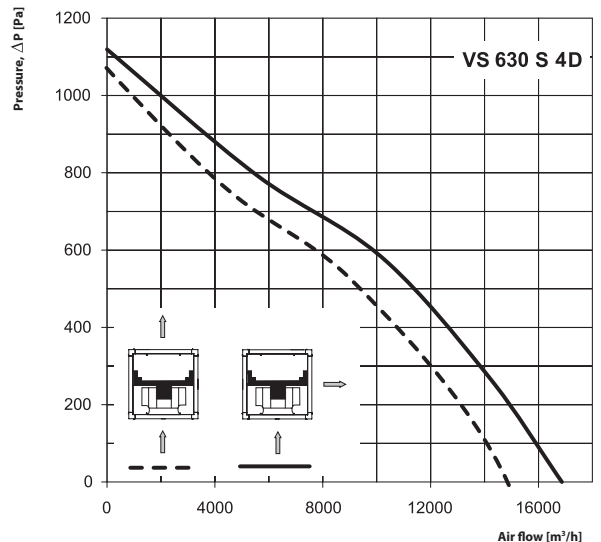
Sound-power level	Hz	Gen	Octave-frequency band [Hz]							
			63	125	250	500	1000	2000	4000	8000
L_{WA} to inlet	dBA	72	59	57	64	67	67	62	56	49
L_{WA} to outlet	dBA	70	58	61	66	68	65	65	60	51
L_{WA} to environment	dBA	56	44	43	48	52	50	46	41	33

VENTS VS

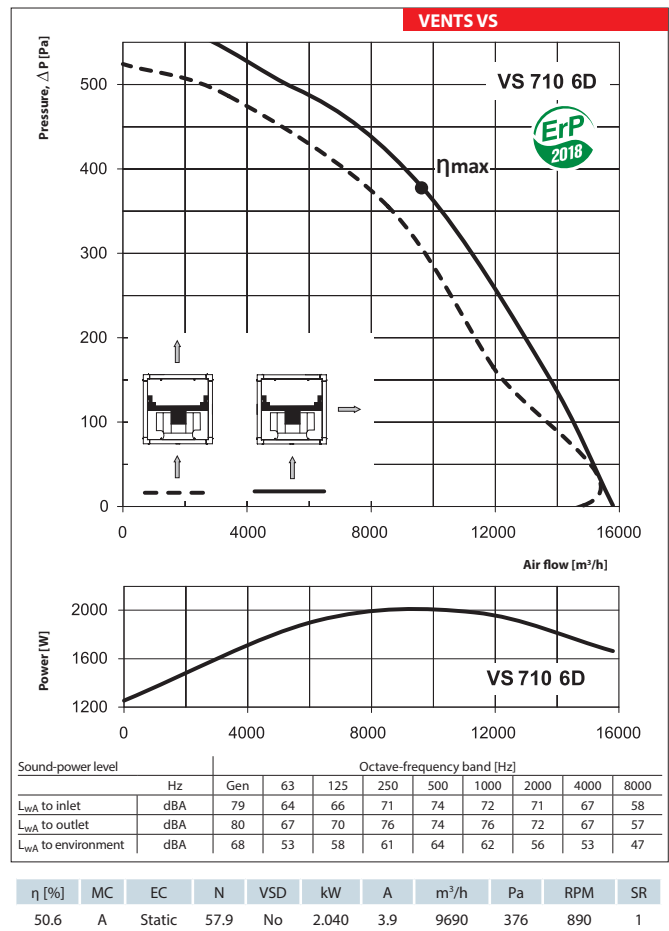
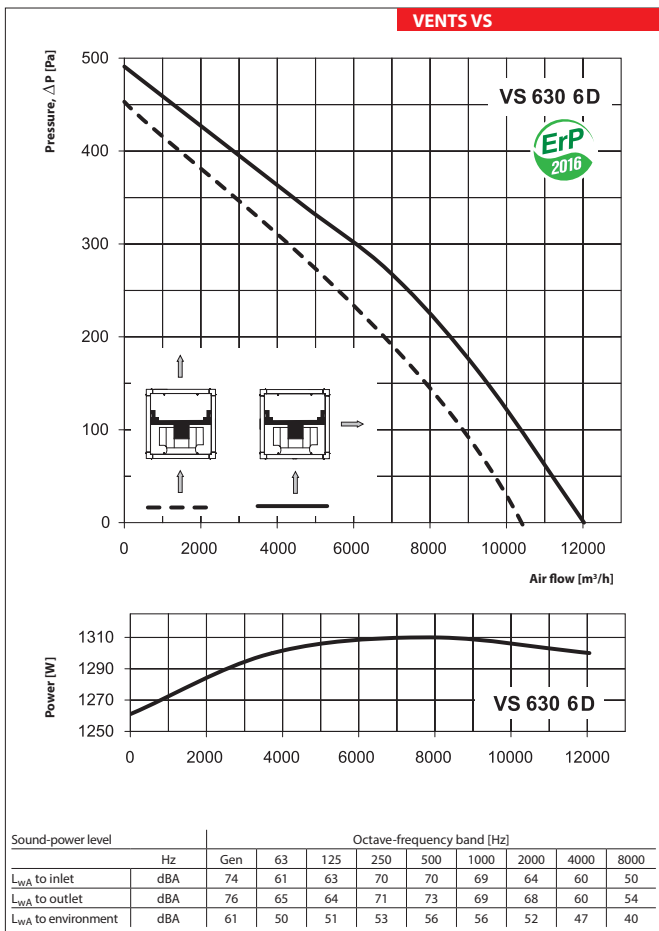


Sound-power level	Hz	Gen	Octave-frequency band [Hz]							
			63	125	250	500	1000	2000	4000	8000
L_{WA} to inlet	dBA	85	76	78	80	80	83	78	75	68
L_{WA} to outlet	dBA	88	76	76	84	86	82	78	77	67
L_{WA} to environment	dBA	76	64	65	67	73	68	69	62	53

VENTS VS



Sound-power level	Hz	Gen	Octave-frequency band [Hz]							
			63	125	250	500	1000	2000	4000	8000
L_{WA} to inlet	dBA	85	76	77	81	83	82	77	72	68
L_{WA} to outlet	dBA	89	77	78	81	85	84	80	73	68
L_{WA} to environment	dBA	78	65	65	70	71	70	69	62	54



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Fan and additional equipment overall dimensions:

Type	Dimensions [mm] A	Mass [kg]	Options				Dimensions [mm]															
			VPG	VVG	KN-VS	VPR-VS	A	A1	B	B1	C	ØD	E	F	G							
VS 355 4E	500	25	VPG	VVG	KN-VS	VPR-VS																
VS 355 4D	500	25	500/355	500x500	315-355	315-355	490	478	470	458	445	355	458	225	600							
VS 400 4E	670	39	VPG	VVG	KN-VS	VPR-VS	660	648	640	628	615	400	628	321	770							
VS 400 4D	670	39	670/400																			
VS 450 4E	670	43	VPG	VVG	KN-VS	VPR-VS	660	648	640	628	615	450	628	321	770							
VS 450 4D	670	43	670/450				670x670	400-500	400-500													
VS 500 4E	670	52	VPG	VVG	KN-VS	VPR-VS	660	648	640	628	615	500	628	321	770							
VS 500 4D	670	56	670/500																			
VS 560 4D	800	99	VPG	VVG	KN-VS	VPR-VS	790	778	770	758	745	560	758	421	900							
VS 560 6D	800	86	800/560																			
VS 630 4D	800	102	VPG	VVG	KN-VS	VPR-VS	790	778	770	758	745	630	758	421	900							
VS 630 S 4D	800	100					800/630															
VS 630 6D	800	98																				
VS 710 6D	1000	136	VPG	VVG	KN-VS	VPR-VS	990	978	970	958	945	710	758	421	900							

