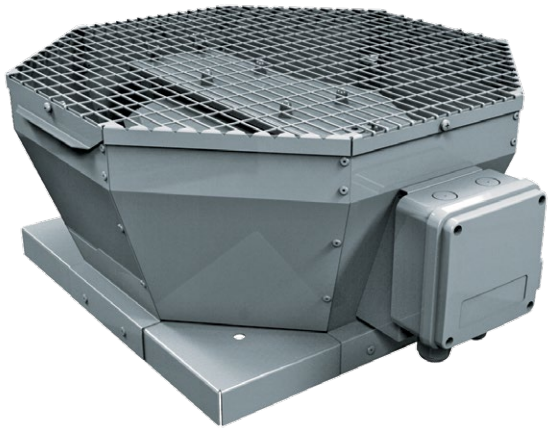
Tower-V

Roof centrifugal fans



Use

- Extract ventilation systems installed in various premises.
- Roof mounting.
- For any types of roofs or vertical ventilation shafts.

Air flow:
up to 17 010 m³/h
4725 l/s

Power:
from 48 W

Noise level:
from 45 dBA

ErP 2018

Design

- Steel casing with a special polymer atmospheric resistant coating.
- Vertical air exhaust.
- The fan is equipped with a terminal block for connection to power mains.
- The fan is rated for continuous operation.
- The upper cover is equipped with two eye bolts for easy fan lifting on the roof with hoisting mechanism.
- A connecting plate with an intake opening is designed to facilitate mounting to the roof surface.

Motor

- Two-, four- or six-pole asynchronous motor with external rotor and centrifugal impeller with backward curved blades.
- Single-phase (**E**) or three-phase (**D**) motor modifications.
- Dynamically balanced impeller.
- Equipped with ball bearings for longer service life.
- Overheating protection with built-in thermal switches with automatic restart or with leaded outside terminals for connection to external protecting controls.
- The thermal switch terminal leads are designed for connection to respective circuit of the overload relay or respective terminals of the auto-transformer or thyristor speed controller.

Speed control

- Step speed control is performed by means of the autotransformer controller. Several fans can be connected to one controller in case the total power and operating current do not exceed the rated controller values.

Mounting

- Roof mounting directly above a ventilation shaft or air duct.
- The fan is connected to the air duct with the intake flange that is fixed to the fan base.
- The fan base has holes for fixing bolts that attach the fan to a stable level surface or a roof frame.
- Roof frame and intake flange available on separate order.
- Power is supplied through an external terminal box.

Designation key

Series	Impeller standard size	Motor		Casing material
		Number of poles	Phase	
Tower-V	190; 220; 225; 250; 280; 310; 355; 400; 450; 500; 560; 630; 710	2; 4; 6	**E:** single-phase **D:** three-phase	**_:** steel with polymeric coating **A:** aluminum

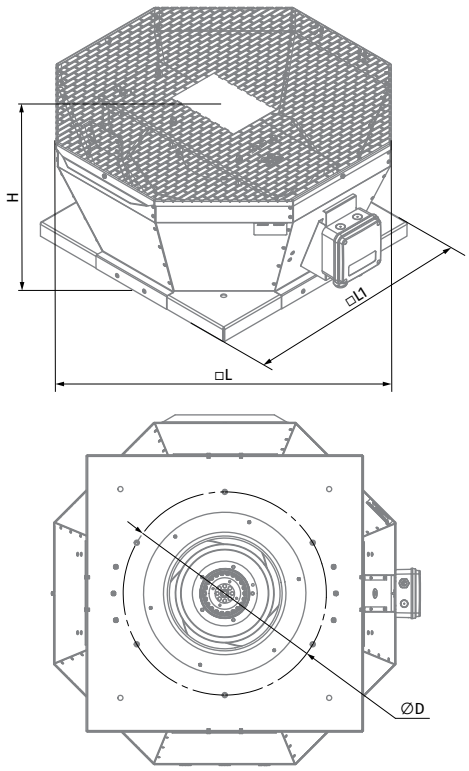
Accessories

Backdraft dampers	Flexible connectors for roof fans	Counterflanges	Mounting frames	Speed controllers	
					
KDL	VDL	FDL	MRDL / MRIDL	CDR5E E... TP	CDR5E D... M

Dimensions [mm]

Type	∅ D	H	L	L1	Weight [kg]
Tower-V 190 2E	213	170	417	355	7
Tower-V 220 2E*	213	190	417	355	7
Tower-V 225 2E*	210	215	417	355	7
Tower-V 225 4E*	210	215	417	355	7
Tower-V 250 2E	285	240	481	425	9
Tower-V 250 4E	285	240	481	425	9
Tower-V 280 4E	291	276	547	425	13
Tower-V 310 2E	285	276	547	425	13
Tower-V 310 4E*	285	300	613	477	20
Tower-V 310 4D*	285	300	613	477	19
Tower-V 355 4E	438	300	738	598	26
Tower-V 355 4D	438	300	738	598	26
Tower-V 400 4E	438	375	738	598	33
Tower-V 400 6E	438	375	738	598	31
Tower-V 400 4D	438	375	738	598	33
Tower-V 450 4E	438	430	738	668	41
Tower-V 450 6E	438	430	738	668	41
Tower-V 450 4D	438	425	738	668	41
Tower-V 500 6E*	445	460	859	668	52
Tower-V 500 4D*	430	460	859	668	52
Tower-V 500 6D*	445	460	859	668	52
Tower-V 560 6E	605	485	859	833	63
Tower-V 560 4D	605	485	859	833	63
Tower-V 560 6D	605	485	859	833	63
Tower-V 630 6D*	600	485	951	939	81
Tower-V 710 6D*	674	485	992	939	114

*The counter flange (not included in the delivery set) should be mounted together with the inlet ring.

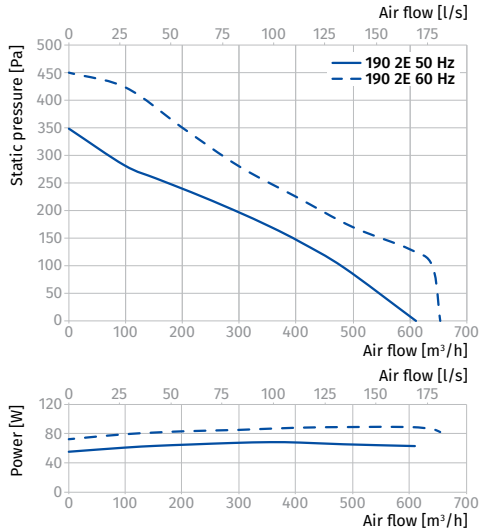


Technical data

Parameters	Tower-V 190 2E		Tower-V 220 2E		Tower-V 225 2E		Tower-V 225 4E
Voltage [V]	1 ~ 230		1 ~ 230		1 ~ 230		1 ~ 230
Frequency [Hz]	50	60	50	60	50	60	50
Power [W]	69	89	108	118	123	169	49
Current [A]	0.30	0.40	0.49	0.54	0.54	0.70	0.22
Maximum air flow [m³/h (l/s)]	610 (169)	654 (182)	880 (244)	883 (245)	915 (254)	1010 (281)	738 (205)
RPM [min⁻¹]	2680	2980	2580	2840	2790	2820	1400
Sound pressure at 3 m [dBA]	48	49	50	51	51	52	45
Max. transported air temperature [°C]	-25...+50		-25...+50		-25...+50		-25...+50
SEC class	C	–	C	–	C	–	C
IP rating	IPX4		IPX4		IPX4		IPX4
Motor IP rating	IP44		IP44		IP44		IP44
ErP	2018	–	2018	–	2018	–	2018

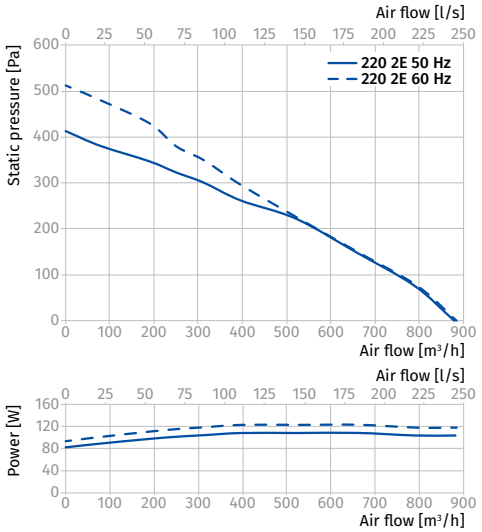
TOWER-V 190 2E

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
L_{WA} to inlet [dBA]	**68**	39	65	63	54	52	49	49	39	**47**	**57**
L_{WA} to environment [dBA]	**69**	28	50	61	64	63	62	54	41	**48**	**58**



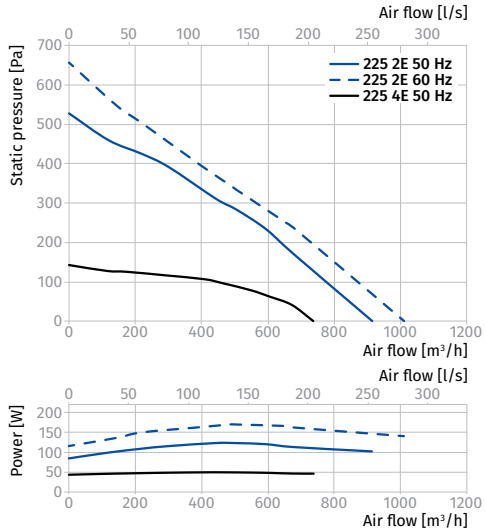
TOWER-V 220 2E

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
L_{WA} to inlet [dBA]	**70**	59	65	65	61	55	55	54	47	**49**	**59**
L_{WA} to environment [dBA]	**71**	46	58	66	65	66	56	51	41	**50**	**60**



TOWER-V 225 2E

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
L_{WA} to inlet [dBA]	**71**	61	66	66	62	57	57	55	48	**51**	**61**
L_{WA} to environment [dBA]	**72**	47	59	67	66	67	57	52	42	**51**	**61**

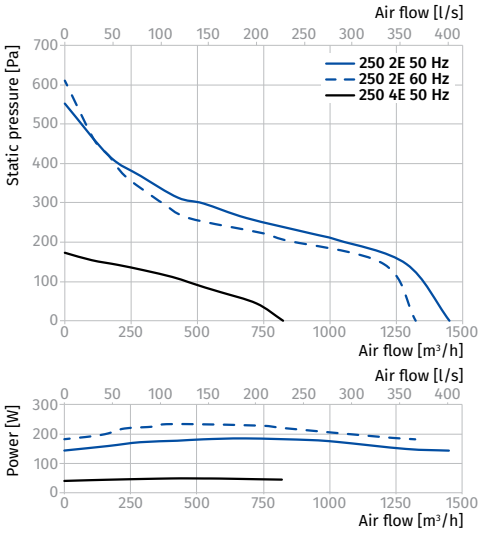


ROOF FANS

Parameters	Tower-V 250 2E		Tower-V 250 4E	Tower-V 280 4E	
Voltage [V]	1 ~ 230		1 ~ 230	1 ~ 230	
Frequency [Hz]	50	60	50	50	60
Power [W]	184	232	48	125	155
Current [A]	0.81	0.90	0.23	0.61	0.99
Maximum air flow [m³/h (l/s)]	1450 (403)	1320 (367)	820 (228)	1490 (414)	1520 (422)
RPM [min⁻¹]	2480	2320	1440	1446	1710
Sound pressure at 3 m [dBA]	54	53	46	46	46
Max. transported air temperature [°C]	-25...+50		-25...+50	-25...+50	
SEC class	–		–	–	
IP rating	IPX4		IPX4	IPX4	
Motor IP rating	IP44		IP44	IP44	
ErP	2018	–	2018	2018	–

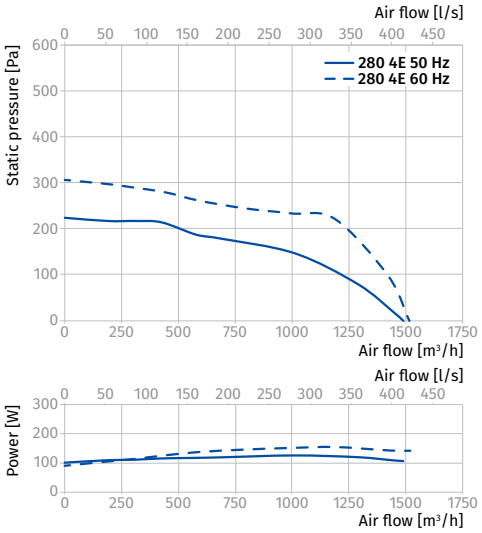
TOWER-V 250 2E, TOWER-V 250 4E

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
Tower-V 250 2E											
L_{WA} to inlet [dBA]	**75**	50	63	70	68	69	66	63	53	**54**	**64**
L_{WA} to environment [dBA]	**75**	51	64	71	67	67	66	62	56	**54**	**64**
Tower-V 250 4E											
L_{WA} to inlet [dBA]	**68**	51	57	60	52	63	62	57	52	**47**	**57**
L_{WA} to environment [dBA]	**67**	29	48	57	60	63	59	51	37	**46**	**56**



TOWER-V 280 4E

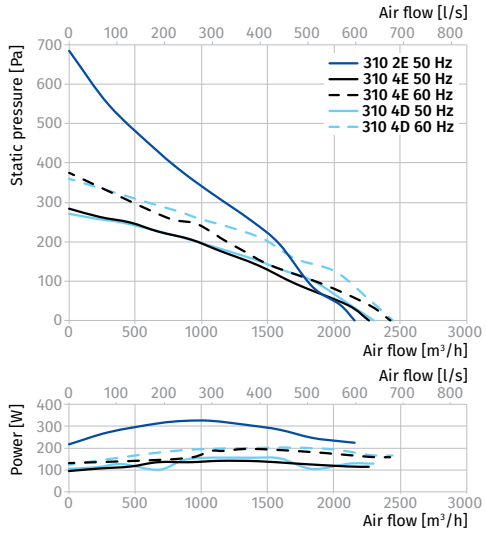
Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
L_{WA} to inlet [dBA]	**66**	46	55	53	59	60	59	55	45	**45**	**55**
L_{WA} to environment [dBA]	**67**	29	48	57	60	63	59	51	37	**46**	**56**



Parameters	Tower-V 310 2E	Tower-V 310 4E		Tower-V 310 4D		Tower-V 355 4E		Tower-V 355 4D	
Voltage [V]	1 ~ 230	1 ~ 230		3 ~ 400		1 ~ 230		3 ~ 400	
Frequency [Hz]	50	50	60	50	60	50	60	50	60
Power [W]	324	141	195	155	202	219	304	264	330
Current [A]	1.42	0.64	0.87	0.29	0.32	0.96	1.33	0.58	0.64
Maximum air flow [m³/h (l/s)]	2150 (597)	2265 (629)	2425 (674)	2300 (639)	2442 (678)	2480 (689)	2976 (827)	3290 (914)	3540 (983)
RPM [min⁻¹]	2620	1420	1740	1410	1550	1420	1580	1430	1650
Sound pressure at 3 m [dBA]	58	47	49	47	48	51	52	52	53
Max. transported air temperature [°C]	-25...+50	-25...+50		-25...+50		-25...+50		-30...+60	
IP rating	IPX4	IPX4		IPX4		IPX4		IPX4	
Motor IP rating	IP44	IP54		IP54		IP54		IP54	
ErP	2018	2018	–	2018	–	2018	–	2018	–

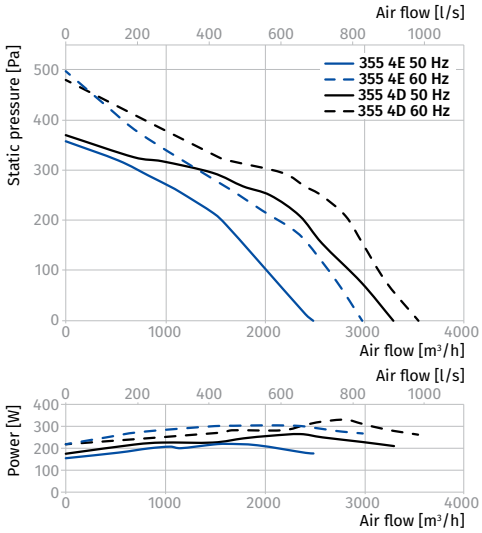
TOWER-V 310 2E, TOWER-V 310 4E, TOWER-V 310 4D

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
Tower-V 310 2E											
L_{WA} to inlet [dBA]	**76**	47	48	56	69	71	71	69	59	**56**	**66**
L_{WA} to environment [dBA]	**79**	40	48	62	73	74	74	66	49	**58**	**68**
Tower-V 310 4E											
L_{WA} to inlet [dBA]	**67**	47	56	54	61	62	61	57	47	**47**	**57**
L_{WA} to environment [dBA]	**68**	30	49	58	61	65	60	52	38	**47**	**57**
Tower-V 310 4D											
L_{WA} to inlet [dBA]	**67**	46	53	56	62	63	58	55	43	**47**	**57**
L_{WA} to environment [dBA]	**67**	55	59	56	58	63	58	58	39	**47**	**57**



TOWER-V 355 4E, TOWER-V 355 4D

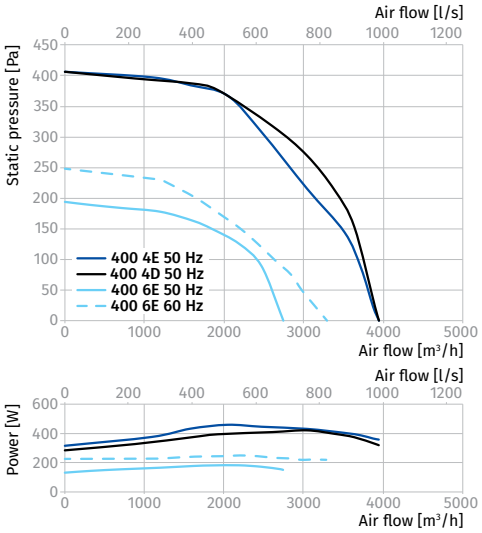
Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
Tower-V 355 4E											
L_{WA} to inlet [dBA]	**69**	42	43	50	62	64	64	62	53	**49**	**59**
L_{WA} to environment [dBA]	**72**	36	43	56	66	67	67	60	44	**51**	**61**
Tower-V 355 4D											
L_{WA} to inlet [dBA]	**71**	43	44	52	63	66	66	64	54	**50**	**60**
L_{WA} to environment [dBA]	**73**	36	44	57	67	68	68	60	45	**52**	**62**



Parameters	Tower-V 400 4E	Tower-V 400 6E		Tower-V 400 4D	Tower-V 450 4E	Tower-V 450 6E	Tower-V 450 4D
Voltage [V]	1 ~ 230	1 ~ 230		3 ~ 400	1 ~ 230	1 ~ 230	3 ~ 400
Frequency [Hz]	50	50	60	50	50	50	50
Power [W]	457	184	249	420	749	268	755
Current [A]	2.00	0.89	1.10	0.99	3.35	1.25	1.50
Maximum air flow [m³/h (l/s)]	3950 (1097)	2740 (761)	3289 (914)	3950 (1097)	6180 (1717)	4380 (1217)	5920 (1644)
RPM [min⁻¹]	1440	945	1071	1440	1400	940	1440
Sound pressure at 3 m [dBA]	55	47	49	55	58	50	57
Max. transported air temperature [°C]	-30...+60	-30...+60		-30...+60	-30...+60	-30...+60	-30...+50
IP rating	IPX4	IPX4		IPX4	IPX4	IPX4	IPX4
Motor IP rating	IP54	IP54		IP54	IP54	IP54	IP54
ErP	2018	2018	–	2018	2018	2018	2018

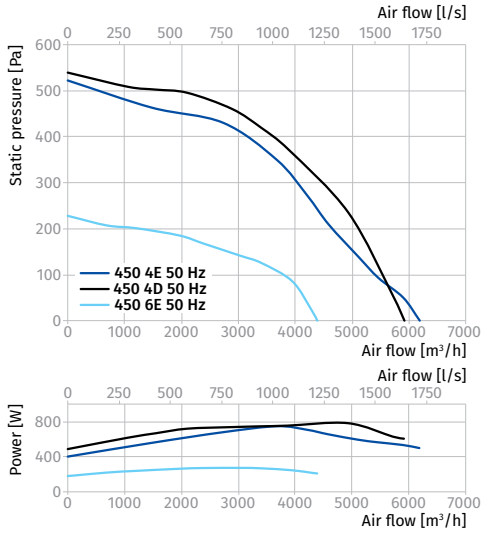
TOWER-V 400 4E, TOWER-V 400 4D, TOWER-V 400 6E

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
Tower-V 400 4E											
L_{WA} to inlet [dBA]	**75**	46	47	55	67	70	70	68	57	**54**	**64**
L_{WA} to environment [dBA]	**76**	38	46	59	70	71	71	63	47	**55**	**65**
Tower-V 400 4D											
L_{WA} to inlet [dBA]	**75**	44	73	70	60	58	55	54	43	**54**	**64**
L_{WA} to environment [dBA]	**76**	30	56	68	71	70	69	60	46	**55**	**65**
Tower-V 400 6E											
L_{WA} to inlet [dBA]	**65**	44	51	54	60	61	56	52	41	**45**	**55**
L_{WA} to environment [dBA]	**67**	55	59	56	58	63	58	58	39	**47**	**57**



TOWER-V 450 4E, TOWER-V 450 4D, TOWER-V 450 6E

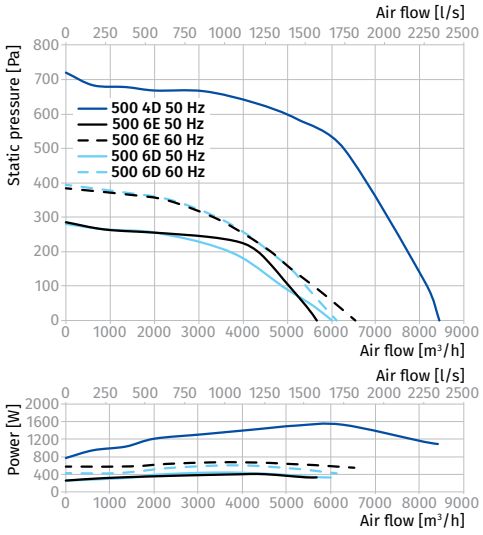
Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
Tower-V 450 4E											
L_{WA} to inlet [dBA]	**78**	45	75	73	62	60	57	56	45	**57**	**67**
L_{WA} to environment [dBA]	**78**	31	58	70	74	73	71	62	47	**58**	**68**
Tower-V 450 4D											
L_{WA} to inlet [dBA]	**77**	45	74	72	61	60	56	55	45	**56**	**66**
L_{WA} to environment [dBA]	**77**	31	57	69	73	71	70	61	46	**57**	**67**
Tower-V 450 6E											
L_{WA} to inlet [dBA]	**68**	46	54	57	63	64	59	55	43	**48**	**58**
L_{WA} to environment [dBA]	**70**	58	62	59	61	66	60	61	41	**50**	**60**



Parameters	Tower-V 500 4D	Tower-V 500 6E		Tower-V 500 6D		Tower-V 560 4D	Tower-V 560 6E	Tower-V 560 6D
Voltage [V]	3 ~ 400	1 ~ 230		3 ~ 400		3 ~ 400	1 ~ 230	3 ~ 400
Frequency [Hz]	50	50	60	50	60	50	50	50
Power [W]	1527	407	673	440	599	1970	613	696
Current [A]	2.64	1.81	3.05	1.23	1.32	3.36	2.70	1.44
Maximum air flow [m³/h (l/s)]	8435 (2343)	5680 (1578)	6532 (1814)	6000 (1667)	6122 (1701)	13 560 (3767)	9560 (2656)	9630 (2675)
RPM [min⁻¹]	1460	970	1120	978	1125	1400	930	970
Sound pressure at 3 m [dBA]	62	52	54	52	54	66	58	58
Max. transported air temperature [°C]	-30...+50	-25...+60		-25...+60		-25...+50	-25...+50	-25...+50
IP rating	IPX4	IPX4		IPX4		IPX4	IPX4	IPX4
Motor IP rating	IP54	IP54		IP54		IP54	IP54	IP54
ErP	2018	2018	–	2018	–	2018	2018	2018

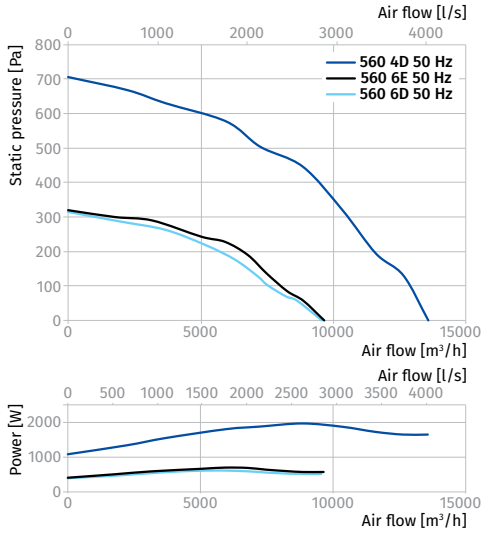
TOWER-V 500 4D, TOWER-V 500 6E, TOWER-V 500 6D

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
Tower-V 500 4D											
LWA to inlet [dBA]	**82**	48	80	77	65	64	60	59	48	**61**	**71**
LWA to environment [dBA]	**83**	33	61	74	78	77	76	65	50	**62**	**72**
Tower-V 500 6E											
LWA to inlet [dBA]	**70**	48	56	59	66	66	61	57	45	**50**	**60**
LWA to environment [dBA]	**72**	60	64	60	63	68	62	63	42	**52**	**62**
Tower-V 500 6D											
LWA to inlet [dBA]	**70**	48	55	58	65	66	61	57	44	**49**	**59**
LWA to environment [dBA]	**72**	60	64	60	63	68	62	63	42	**52**	**62**



TOWER-V 560 4D, TOWER-V 560 6E, TOWER-V 560 6D

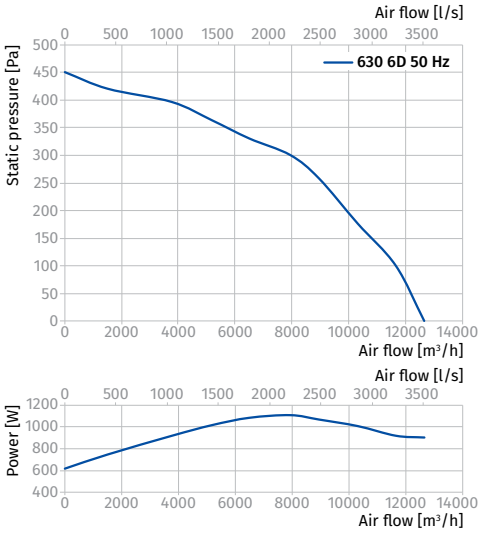
Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
Tower-V 560 4D											
LWA to inlet [dBA]	**85**	50	83	80	68	66	62	61	49	**64**	**74**
LWA to environment [dBA]	**87**	35	65	78	82	81	80	69	53	**66**	**76**
Tower-V 560 6E											
LWA to inlet [dBA]	**77**	64	69	71	70	67	67	66	59	**56**	**66**
LWA to environment [dBA]	**79**	52	65	74	73	74	63	57	46	**58**	**68**
Tower-V 560 6D											
LWA to inlet [dBA]	**77**	65	70	71	71	68	68	67	59	**57**	**67**
LWA to environment [dBA]	**79**	52	65	74	73	74	63	57	46	**58**	**68**



Parameters	Tower-V 630 6D	Tower-V 710 6D
Voltage [V]	3 ~ 400	3 ~ 400
Frequency [Hz]	50	50
Power [W]	1110	2583
Current [A]	2.42	4.87
Maximum air flow [m³/h (l/s)]	12 640 (3511)	17 010 (4725)
RPM [min⁻¹]	957	945
Sound pressure at 3 m [dBA]	64	67
Max. transported air temperature [°C]	-25...+50	-25...+70
IP rating	IPX4	IPX4
Motor IP rating	IP54	IP54
ErP	2018	2018

TOWER-V 630 6D

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
L_{WA} to inlet [dBA]	**82**	69	74	76	75	72	72	71	63	**61**	**71**
L_{WA} to environment [dBA]	**85**	56	70	80	79	80	68	62	50	**64**	**74**



TOWER-V 710 6D

Sound power level, A-weighted	Total	Octave frequency bands [Hz]								LpA 3 m	LpA 1 m
		63	125	250	500	1000	2000	4000	8000		
L_{WA} to inlet [dBA]	**85**	72	78	80	79	76	76	75	66	**65**	**75**
L_{WA} to environment [dBA]	**88**	58	73	83	82	83	71	64	52	**67**	**77**