

Tower-V

Centrifugal roof fans

Use

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



Air flow:
up to 5130 m³/h
1306 l/s



Power:
from 85 W



Noise level:
from 45 dBA



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 turbine.
- 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 autotransformer or thyristor speed controller.

Speed control

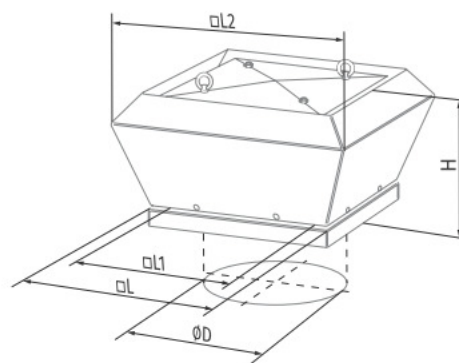
- Smooth speed control with an external thyristor controller or step speed control with an external auto transformer (both available upon separate order).

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.

Overall dimensions [mm]

Type	ØD	H	L2	L1	L	Weight [kg]
Tower-V 220 2E	213	275	460	245	338	8.9
Tower-V 225 2E	213	275	460	245	338	9.6
Tower-V 250 2E	285	275	520	330	425	12.0
Tower-V 280 2E	285	275	520	330	425	12.7
Tower-V 310 4E	285	330	560	330	438	17.8
Tower-V 310 4D	285	330	560	330	438	17.8
Tower-V 355 4E	438	420	783	450	598	22.0
Tower-V 355 4D	438	420	783	450	598	22.0
Tower-V 400 4E	438	420	783	450	598	27.5
Tower-V 450 4E	438	454	872	535	668	30.0
Tower-V 400 4D	438	420	783	450	598	27.5
Tower-V 450 4D	438	454	872	535	668	30.0
Tower-V 500 6E	438	454	872	535	668	33.8



Designation key

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

Accessories

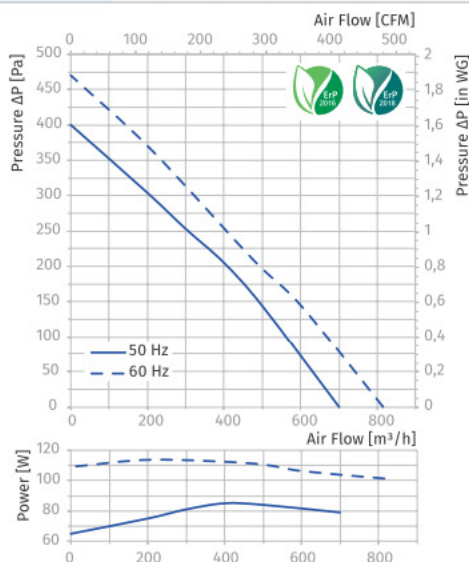
Flexible connector for roof fans	Counterflange	Mounting frame	Silencer	Silencer	Backdraft air damper	Air damper	Speed controller
							
VDL	FDL	MRDL/MRIDL	SD	SDF	VRV	VKA	CDT E1.8

Technical data

Parameters	Tower-V 220 2E		Tower-V 225 2E		Tower-V 250 2E		Tower-V 280 2E	
Voltage [V]	230		230		230		230	
Frequency [Hz]	50	60	50	60	50	60	50	60
Power [W]	85	111	135	142	155	265	225	348
Current [A]	0.38	0.44	0.6	0.65	0.7	1.15	1.0	1.51
Maximum air flow [m³/h (l/s)]	700 (194)	815 (226)	900 (250)	940 (261)	1300 (361)	1480 (411)	1780 (494)	1855 (515)
RPM [min⁻¹]	2700	2810	2650	2830	2600	2640	2700	2790
Sound pressure at 3 m [dBA]	49	51	49	51	65	70	66	69
Max. transported air temperature [°C]	55	50	55	50	50	50	50	50
SEC class	B		B		-		-	
Ingress protection rating	IPX4		IPX4		IPX4		IPX4	
Motor IP rating	IP44		IP44		IP44		IP44	
ErP	2016, 2018		2016, 2018		-		-	

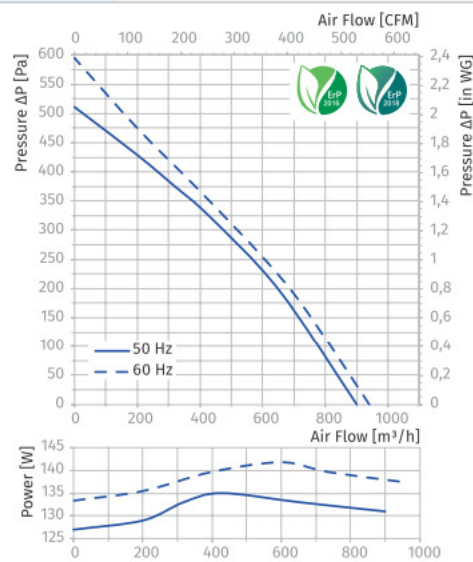
TOWER-V 220 2E

Sound power level, A-weighted	Octave frequency bands [Hz]							
	Gen.	63	125	250	500	1000	2000	4000 8000
L _{WA} to inlet [dBA]	69	42	60	65	68	65	61	59 50
L _{WA} to environment [dBA]	73	42	60	65	67	67	65	57 50



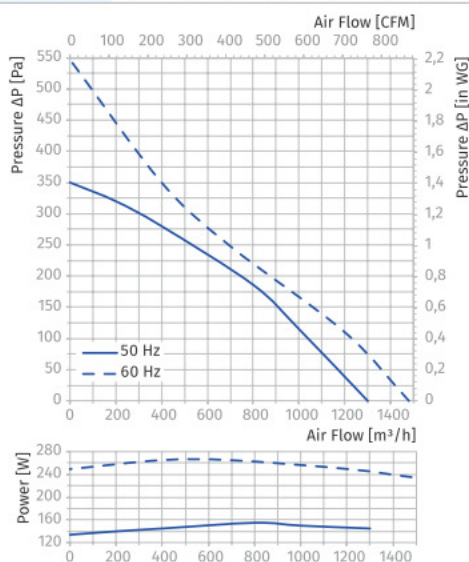
TOWER-V 225 2E

Sound power level, A-weighted	Octave frequency bands [Hz]							
	Gen.	63	125	250	500	1000	2000	4000 8000
L _{WA} to inlet [dBA]	72	41	59	66	68	66	61	57 49
L _{WA} to environment [dBA]	72	42	60	67	69	66	63	58 51



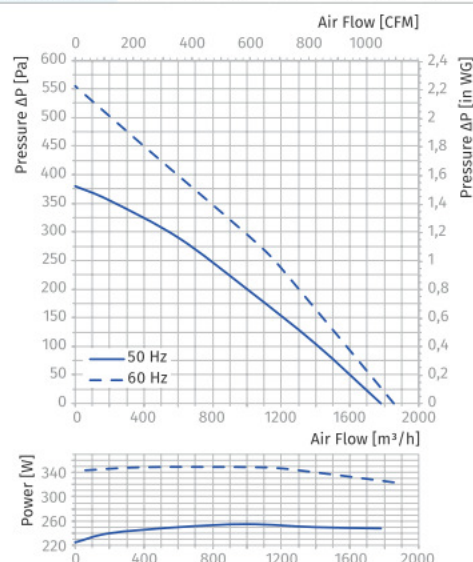
TOWER-V 250 2E

Sound power level, A-weighted	Octave frequency bands [Hz]							
	Gen.	63	125	250	500	1000	2000	4000 8000
L _{WA} to inlet [dBA]	69	40	62	65	66	66	64	57 49
L _{WA} to environment [dBA]	71	44	59	65	68	66	62	60 53



TOWER-V 280 2E

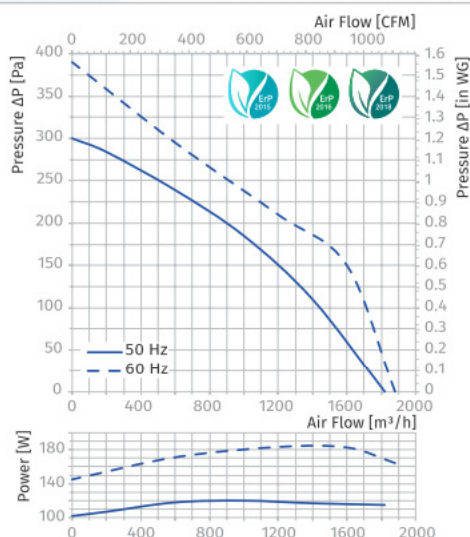
Sound power level, A-weighted	Octave frequency bands [Hz]							
	Gen.	63	125	250	500	1000	2000	4000 8000
L _{WA} to inlet [dBA]	72	42	58	62	64	65	63	56 49
L _{WA} to environment [dBA]	72	45	61	63	66	66	61	60 53



Parameters	Tower-V 310 4E		Tower-V 310 4D		Tower-V 355 4E		Tower-V 355 4D	
Voltage [V]	1~ 230		3~ 400		1~ 230		3~ 400	
Frequency [Hz]	50	60	50	60	50	60	50	60
Power [W]	120	183	110	172	245	305	170	235
Current [A]	0.54	0.79	0.32	0.32	1.12	1.34	0.52	0.5
Maximum air flow [m³/h (l/s)]	1820 (506)	1880 (522)	1950 (542)	2030 (564)	2800 (778)	2920 (811)	2350 (653)	2570 (714)
RPM [min⁻¹]	1370	1420	1400	1480	1420	1530	1400	1600
Sound pressure at 3 m [dBA]	45	46	53	54	46	49	53	55
Max. transported air temperature [°C]	85	50	65	50	50	50	70	50
SEC class	-		-		-		-	
Ingress protection rating	IPX4		IPX4		IPX4		IPX4	
Motor IP rating	IP44		IP44		IP44		IP44	
ErP	2015, 2016, 2018		2016, 2018		2015, 2016, 2018		2015, 2016, 2018	

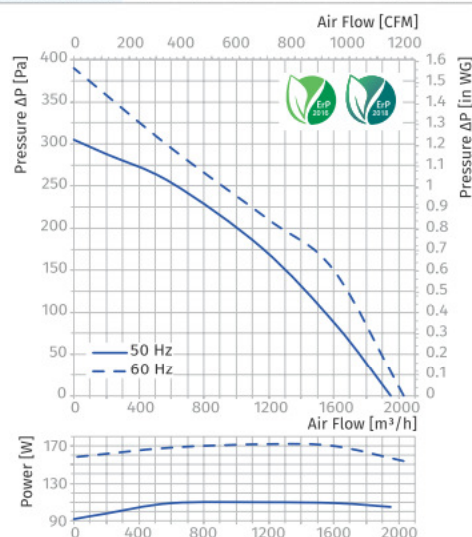
TOWER-V 310 4E

Sound power level, A-weighted	Octave frequency bands [Hz]							
	Gen.	63	125	250	500	1000	2000	4000 8000
L _{WA} to inlet [dBA]	57	44	45	50	53	52	51	43 36
L _{WA} to environment [dBA]	60	47	50	53	56	57	51	45 39



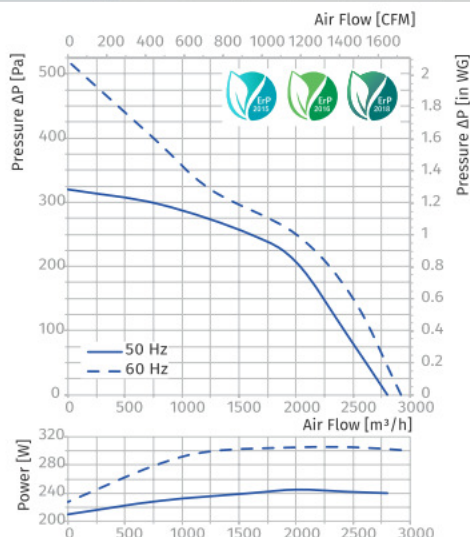
TOWER-V 310 4D

Sound power level, A-weighted	Octave frequency bands [Hz]							
	Gen.	63	125	250	500	1000	2000	4000 8000
L _{WA} to inlet [dBA]	58	45	46	51	55	53	49	45 37
L _{WA} to environment [dBA]	60	48	51	52	54	56	49	44 38



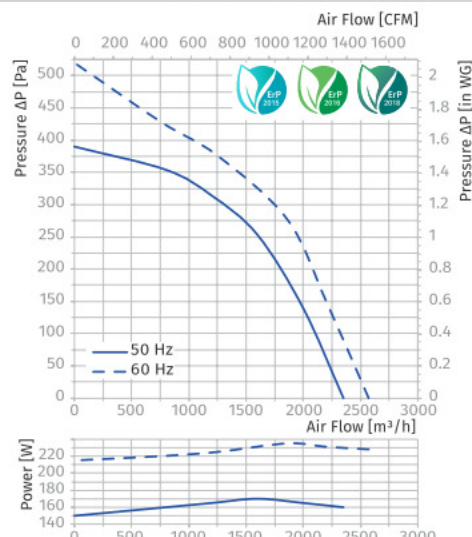
TOWER-V 355 4E

Sound power level, A-weighted	Octave frequency bands [Hz]							
	Gen.	63	125	250	500	1000	2000	4000 8000
L _{WA} to inlet [dBA]	69	53	58	61	62	63	59	54 45
L _{WA} to environment [dBA]	72	57	60	63	65	64	61	55 49



TOWER-V 355 4D

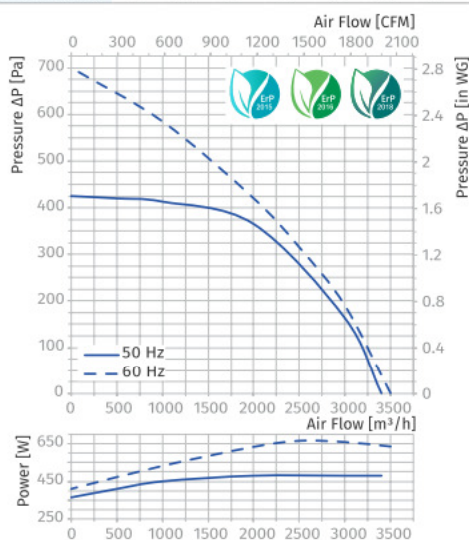
Sound power level, A-weighted	Octave frequency bands [Hz]							
	Gen.	63	125	250	500	1000	2000	4000 8000
L _{WA} to inlet [dBA]	67	56	57	63	65	64	59	54 47
L _{WA} to environment [dBA]	72	56	60	62	66	62	63	55 49



Parameters	Tower-V 400 4E		Tower-V 400 4D				Tower-V 450 4E	Tower-V 450 4D	Tower-V 500 6E	
Voltage [V]	1~ 230		3~ 400 Δ				1~ 230	3~ 400 Y	1~ 230	
Frequency [Hz]	50	60	50	60	50	60	230	400 Y	50	60
Power [W]	480	665	515	750	385	515	640	470	385	475
Current [A]	2.4	2.99	1.41	1.44	0.7	0.93	3.1	0.82	1.82	2.1
Maximum air flow [m³/h (l/s)]	3400 (945)	3500 (972)	3950 (1097)	4200 (1167)	3800 (1056)	3850 (1070)	3850 (1070)	4300 (1195)	4700 (1195)	5130 (1306)
RPM [min⁻¹]	1400	1480	1415	1610	1430	1420	1350	1430	880	850
Sound pressure at 3 m [dBA]	52	53	59	62	52	53	53	53	47	49
Max. transported air temperature [°C]	80	50	-40...+60	-40...+60	-40...+60	-40...+40	50	50	50	40
SEC class	-		-				-	-	-	
Ingress protection rating	IPX4		IPX4				IPX4	IPX4	IPX4	
Motor IP rating	IP44		IP44				IP44	IP44	IP44	
ErP	2015, 2016, 2018		2016, 2018				2015, 2016, 2018	2016	2016, 2018	

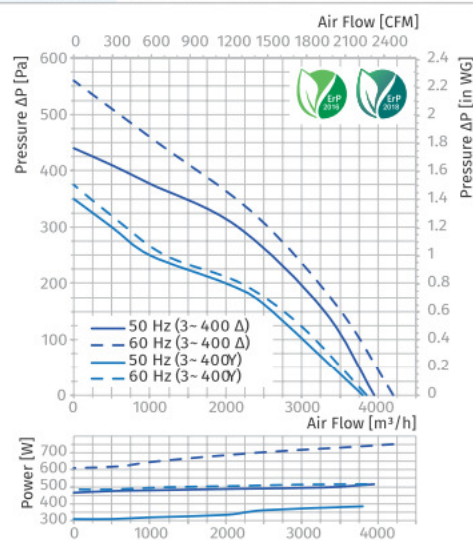
TOWER-V 400 4E

Sound power level, A-weighted	Octave frequency bands [Hz]								
	Gen.	63	125	250	500	1000	2000	4000	8000
L _{WA} to inlet [dBA]	72	58	62	67	69	68	63	58	52
L _{WA} to environment [dBA]	76	61	63	68	70	68	65	60	53



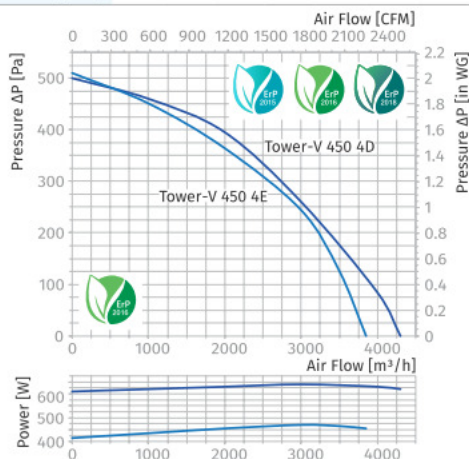
TOWER-V 400 4D

Sound power level, A-weighted	Octave frequency bands [Hz]								
	Gen.	63	125	250	500	1000	2000	4000	8000
L _{WA} to inlet [dBA]	72	59	63	65	67	68	63	58	51
L _{WA} to environment [dBA]	74	59	62	65	69	69	66	59	53



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

Sound power level, A-weighted	Octave frequency bands [Hz]								
	Gen.	63	125	250	500	1000	2000	4000	8000
Tower-V 450 4E									
L _{WA} to inlet [dBA]	63	51	54	58	59	61	56	50	41
L _{WA} to environment [dBA]	68	51	53	60	61	61	58	52	43
Tower-V 450 4D									
L _{WA} to inlet [dBA]	64	49	55	59	60	60	56	48	42
L _{WA} to environment [dBA]	66	51	56	58	61	61	56	52	46



TOWER-V 500 6E

Sound power level, A-weighted	Octave frequency bands [Hz]								
	Gen.	63	125	250	500	1000	2000	4000	8000
L _{WA} to inlet [dBA]	67	54	55	59	61	64	59	55	46
L _{WA} to environment [dBA]	70	56	56	62	64	63	60	56	45

