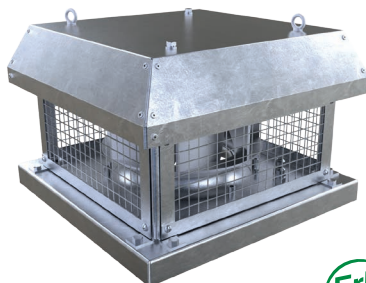


Series
VENTS VKV



Series
VENTS VKH



Centrifugal roof fans with vertical air exhaust and with maximum air flow of up to **17010 m³/h**

Centrifugal roof fans with horizontal air exhaust and with maximum air flow of up to **17010 m³/h**

■ **Application**

Exhaust ventilation system for various premises suitable for roof mounting. Compatible with Ø 200-630 mm air ducts. Suitable for any roof types as well as vertical ventilation shafts.

■ **Design**

The fan casing is made of steel with polymeric coating (VENTS VKV and VENTS VKH models), aluminum (VENTS VKVA, VENTS VKHA), galvanized steel (VENTS VKVz, VENTS VKHz).

■ **Motor**

2-, 4- or 6-pole single- or three-phase asynchronous motors with an external rotor and impeller with backward curved blades. The motor is equipped with thermal overheating protection with automatic restart as well as ball bearings for long service life. For precise features, safe operation and low noise, each turbine is dynamically balanced while assembly. Motors protection rating IP44, IP54.

■ **Speed control**

Both smooth or step speed control is performed by means of the thyristor or 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**

The fan is mounted on the roof directly above the ventilating duct or shaft and is firmly fixed to the flat surface by means of a connecting plate. While mounting VKH fans directly onto the flat roof a supporting block shall be provided to prevent water and snow drops into the vent of the ventilation shaft. Electrical connection and installation shall be performed in compliance with the manual and circuit diagram on the terminal box.

For connection of the fans to round air ducts use the following accessories: KKV damper, GVK flexible connector, FKV counter flange. For mounting of the fans to flat surface use the mounting frame RKV.



VENTS VKV



VENTS VKH

Designation key

| Series and modification | Casing material | Motor modification | | Turbine standard size |
|--|---|----------------------------------|---|---|
| | | Number of poles | Phase | |
| VENTS VKV: vertical air exhaust VENTS VKH: horizontal air exhaust | _: steel with polymeric coating A: aluminum z: galvanized steel | 2 4 6 | E: single-phase D: three-phase | 190; 220; 225; 250; 280; 310; 355; 400; 450; 500; 560; 630; 710 |

Accessories



Flexible connector

Counterflange

Mounting frame

Silencers

Backdraft damper

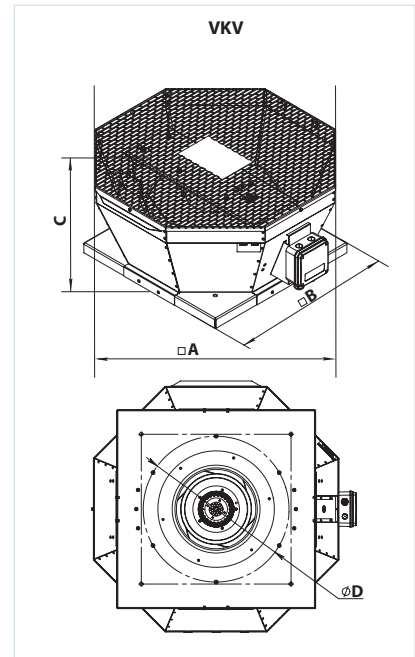
Air shutter

Speed controllers

Fan overall dimensions

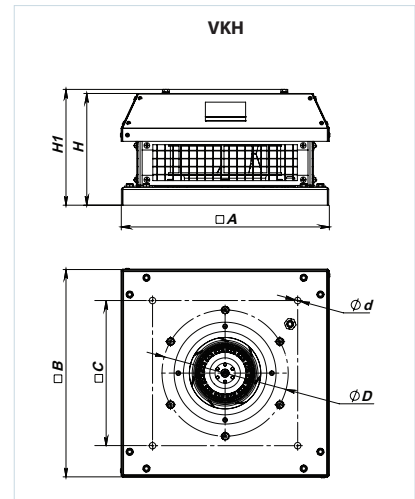
| Type | Dimensions [mm] | | | øD, flange connection dimensions | Mass [kg] |
|-------------|-----------------|-----|-----|----------------------------------|-----------|
| | A | B | C | | |
| VKV 2E 190 | 417 | 355 | 170 | 213 | 7 |
| VKV 2E 220* | | | 190 | | |
| VKV 2E 225* | | | 215 | | |
| VKV 4E 225* | 481 | 425 | 240 | 285 | 9 |
| VKV 2E 250 | | | 276 | | |
| VKV 4E 250 | | | 291 | | |
| VKV 4E 280 | 613 | 477 | 300 | 285 | 20 |
| VKV 2E 310 | | | 330 | | |
| VKV 4E 310* | | | 375 | | |
| VKV 4D 310* | 738 | 598 | 430 | 438 | 33 |
| VKV 4E 355 | | | 31 | | |
| VKV 4D 355 | | | 33 | | |
| VKV 4E 400 | 859 | 668 | 425 | 445 | 41 |
| VKV 6E 400 | | | 430 | | |
| VKV 4D 400 | | | 460 | | |
| VKV 4E 450 | 859 | 833 | 485 | 605 | 63 |
| VKV 6E 450 | | | 445 | | |
| VKV 4D 450 | | | 430 | | |
| VKV 6E 500* | 951 | 939 | 600 | 674 | 81 |
| VKV 4D 500* | | | 445 | | |
| VKV 6D 500* | | | 460 | | |
| VKV 6E 560 | 992 | 939 | 485 | 674 | 114 |
| VKV 4D 560 | | | 605 | | |
| VKV 6D 560 | | | 485 | | |
| VKV 6D 630* | | | 600 | | 81 |
| VKV 6D 710* | | | 674 | | 114 |

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



Fan overall dimensions

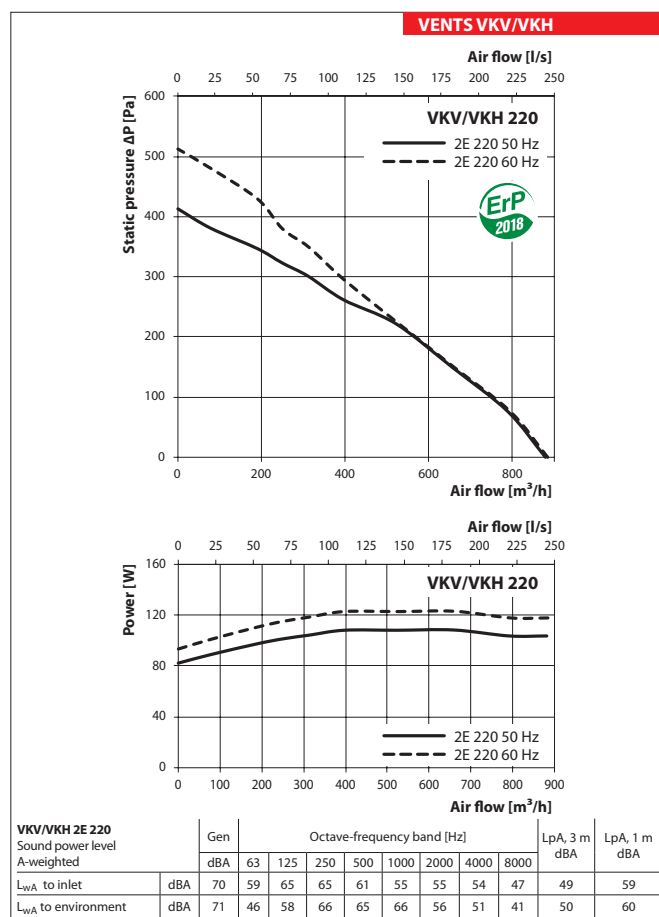
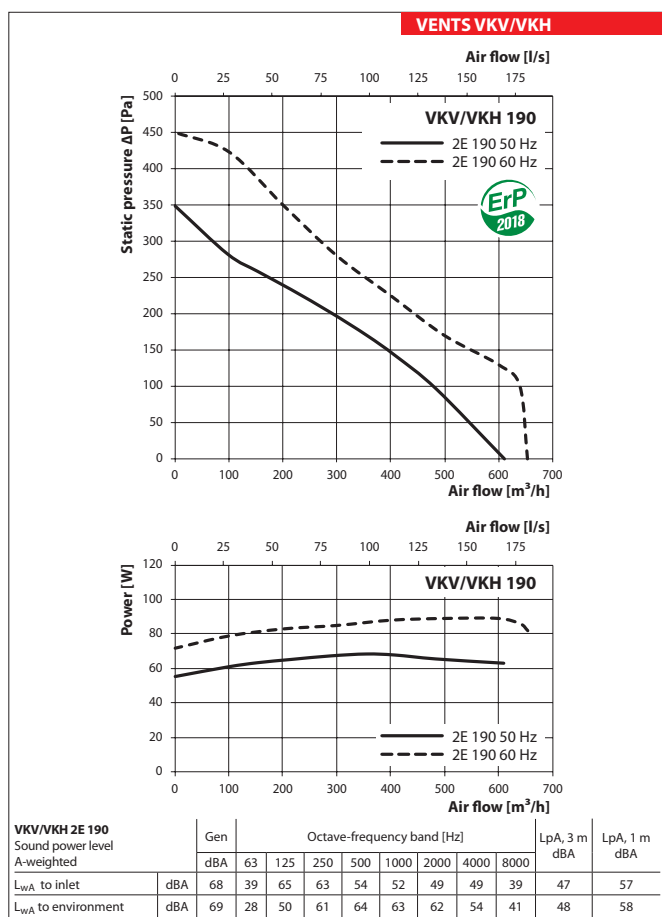
| Type | Dimensions [mm] | | | | | | øD, flange connection dimensions | Mass [kg] | | | |
|------------|-----------------|-----|------|------|-----|----|----------------------------------|-----------|-----|-----|------|
| | H | H1 | A | B | C | ød | | | | | |
| VKH 2E 190 | 189 | 195 | 351 | 350 | 245 | 11 | 213 | 8.2 | | | |
| VKH 2E 220 | 180 | 186 | 337 | 338 | | | | | | | |
| VKH 2E 225 | 210 | 217 | 351 | 350 | | | | | | | |
| VKH 4E 225 | 233 | 240 | 351 | 350 | 11 | 11 | 210 | 9.2 | | | |
| VKH 2E 250 | 237 | 244 | 451 | 450 | | | | | 330 | 285 | 12.7 |
| VKH 4E 250 | 265 | 272 | | | | | | | | | |
| VKH 4E 280 | 251 | 258 | | | | | | | | | |
| VKH 2E 310 | 287 | 294 | 625 | 620 | 450 | 11 | 285 | 14.2 | | | |
| VKH 4E 310 | 322 | 361 | | | | | | | | | |
| VKH 4D 310 | 347 | 386 | | | | | | | | | |
| VKH 4E 355 | 376 | 415 | 710 | 700 | 535 | 11 | 438 | 28.3 | | | |
| VKH 4D 355 | 376 | 415 | | | | | | | | | |
| VKH 4E 400 | 376 | 415 | | | | | | | | | |
| VKH 6E 400 | 420 | 459 | 900 | 895 | 750 | 11 | 605 | 81.4 | | | |
| VKH 4D 400 | 420 | 459 | | | | | | | | | |
| VKH 4E 450 | 420 | 459 | | | | | | | | | |
| VKH 6E 450 | 461 | 501 | 1000 | 990 | 840 | 20 | 674 | 96.3 | | | |
| VKH 4D 450 | 461 | 501 | | | | | | | | | |
| VKH 6E 500 | 461 | 501 | | | | | | | | | |
| VKH 4D 500 | 490 | 530 | 1060 | 1050 | 840 | 20 | 674 | 134 | | | |
| VKH 6D 500 | 490 | 530 | | | | | | | | | |
| VKH 6E 560 | 490 | 530 | | | | | | | | | |
| VKH 4D 560 | 489 | 528 | 1060 | 1050 | 840 | 20 | 674 | 134 | | | |
| VKH 6D 560 | 489 | 528 | | | | | | | | | |
| VKH 6D 630 | 520 | 560 | | | | | | | | | |
| VKH 6D 710 | 570 | 619 | 1060 | 1050 | 840 | 20 | 674 | 134 | | | |



CENTRIFUGAL ROOF FANS

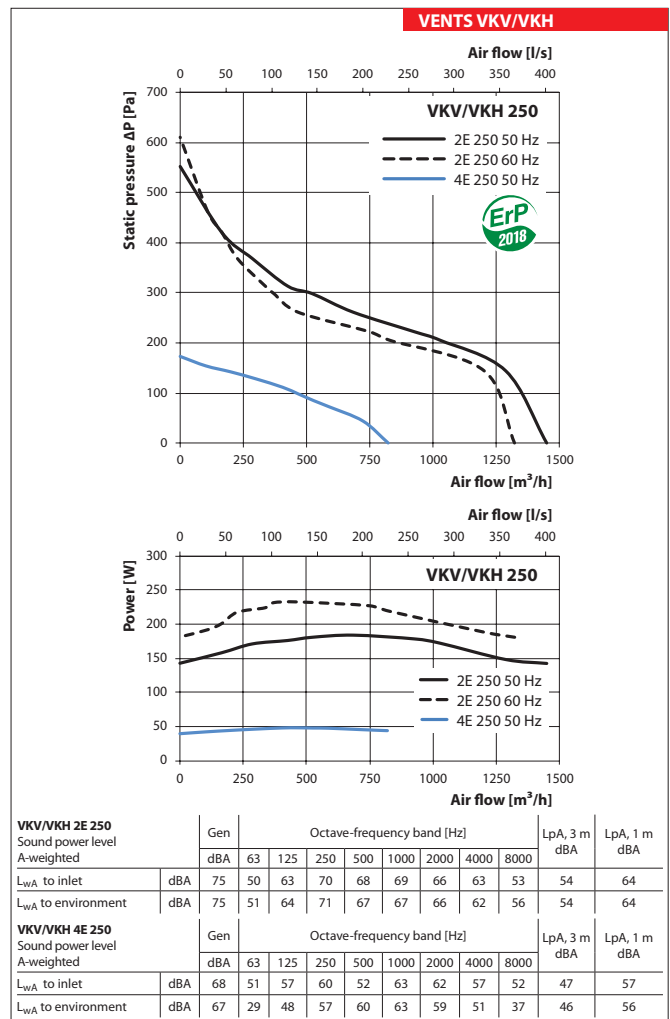
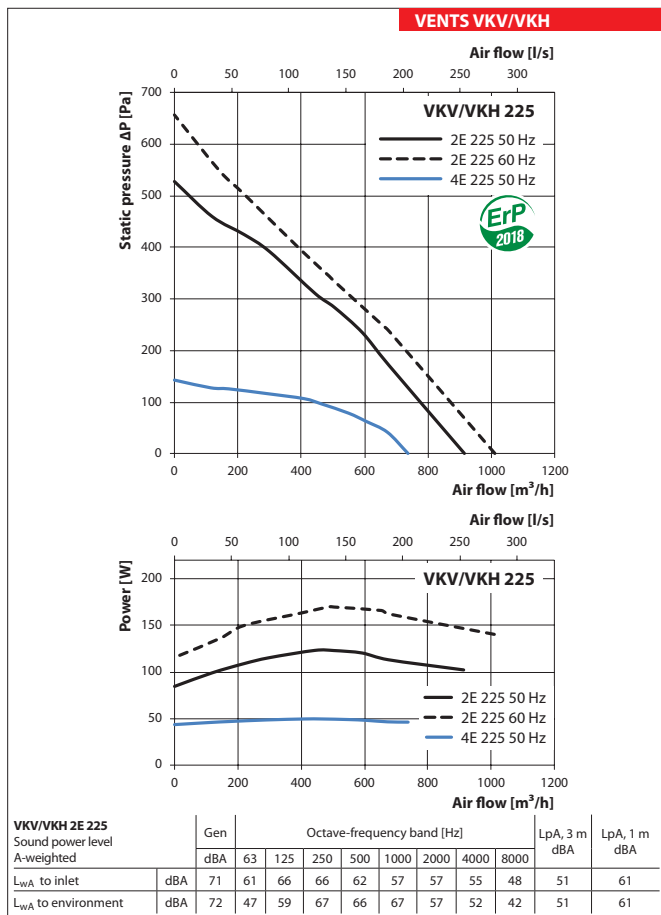
Technical data

| | VKV/VKH 2E 190 | | VKV/VKH 2E 220 | |
|-----------------------------------|-------------------|------|-------------------|------|
| Voltage [V] | 1~230 | | 1~230 | |
| Frequency [Hz] | 50 | 60 | 50 | 60 |
| Power [W] | 69 | 89 | 108 | 118 |
| Current [A] | 0.30 | 0.40 | 0.49 | 0.54 |
| Max. air flow [m ³ /h] | 610 | 654 | 880 | 883 |
| RPM [min ⁻¹] | 2680 | 2980 | 2580 | 2840 |
| Sound pressure level at 3 m [dBA] | 48 | 49 | 50 | 51 |
| Transported air temperature [°C] | -25...+50 | | -25...+50 | |
| Protection rating | IPX4 | | IPX4 | |
| Motor protection rating | IP44 | | IP44 | |
| SEC class | C | - | C | - |



Technical data

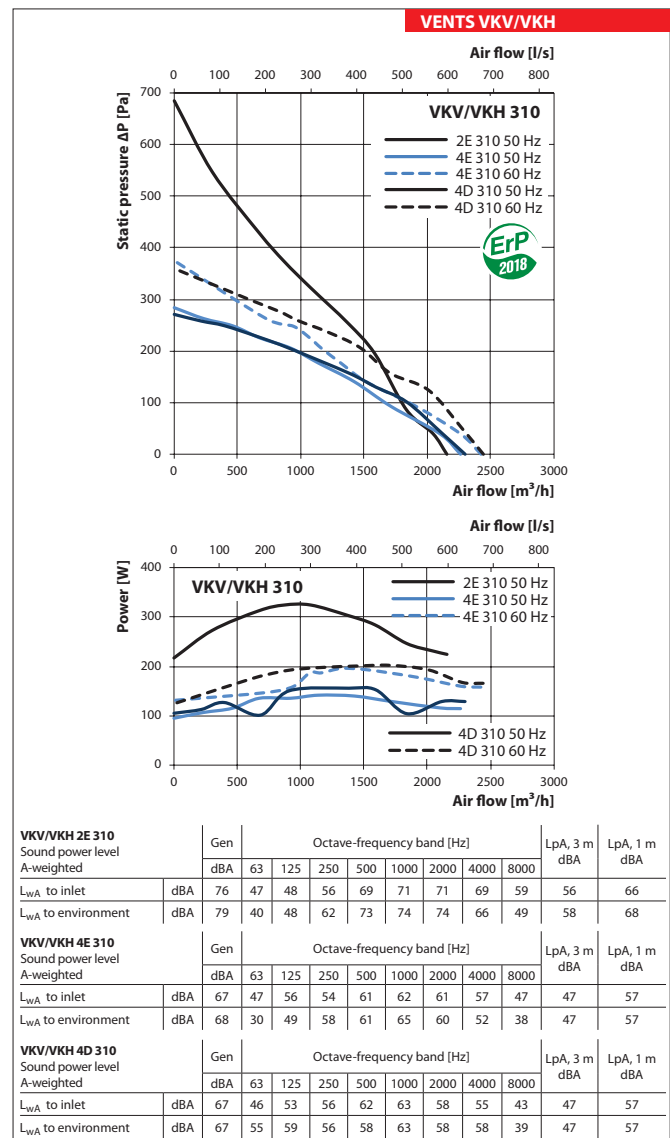
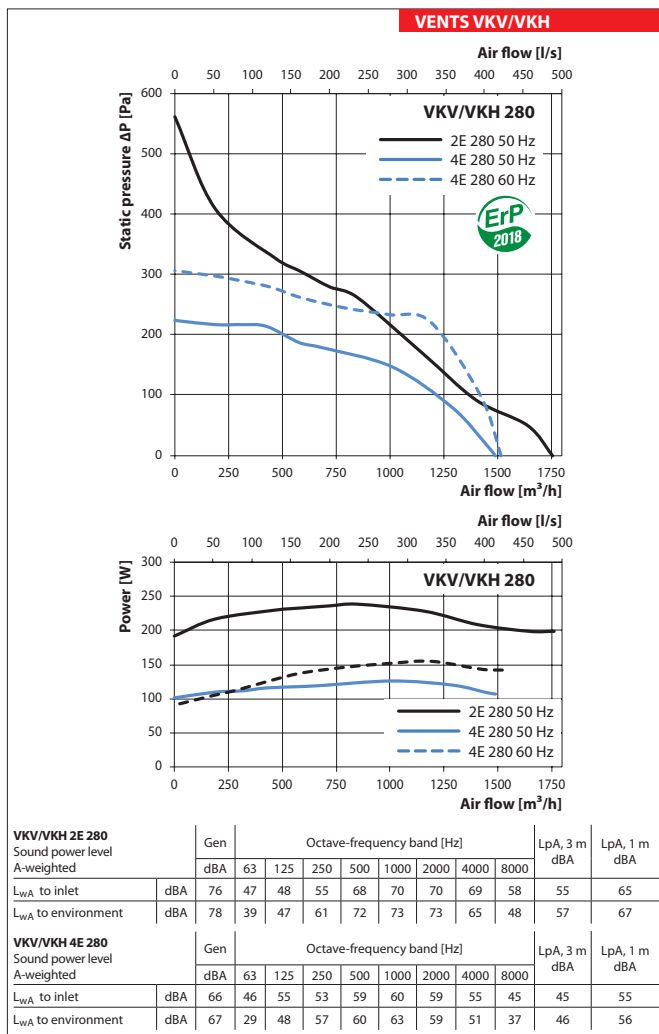
| | VKV/VKH 2E 225 | | VKV/VKH 4E 225 | VKV/VKH 2E 250 | | VKV/VKH 4E 250 |
|-----------------------------------|----------------|-------|----------------|----------------|-------|----------------|
| Voltage [V] | 1~230 | | 1~230 | 1~230 | | 1~230 |
| Frequency [Hz] | 50 | 60 | 50 | 50 | 60 | 50 |
| Power [W] | 123 | 169 | 49 | 184 | 232 | 48 |
| Current [A] | 0.54 | 0.70 | 0.22 | 0.81 | 0.90 | 0.23 |
| Max. air flow [m ³ /h] | 915 | 1 010 | 738 | 1 450 | 1 320 | 820 |
| RPM [min ⁻¹] | 2790 | 2820 | 1400 | 2480 | 2320 | 1440 |
| Sound pressure level at 3 m [dBA] | 51 | 52 | 45 | 54 | 53 | 46 |
| Transported air temperature [°C] | -25...+50 | | -25...+50 | -25...+50 | | -25...+50 |
| Protection rating | IPX4 | | IPX4 | IPX4 | | IPX4 |
| Motor protection rating | IP44 | | IP44 | IP44 | | IP44 |
| SEC class | C | - | B | - | - | B |



CENTRIFUGAL ROOF FANS

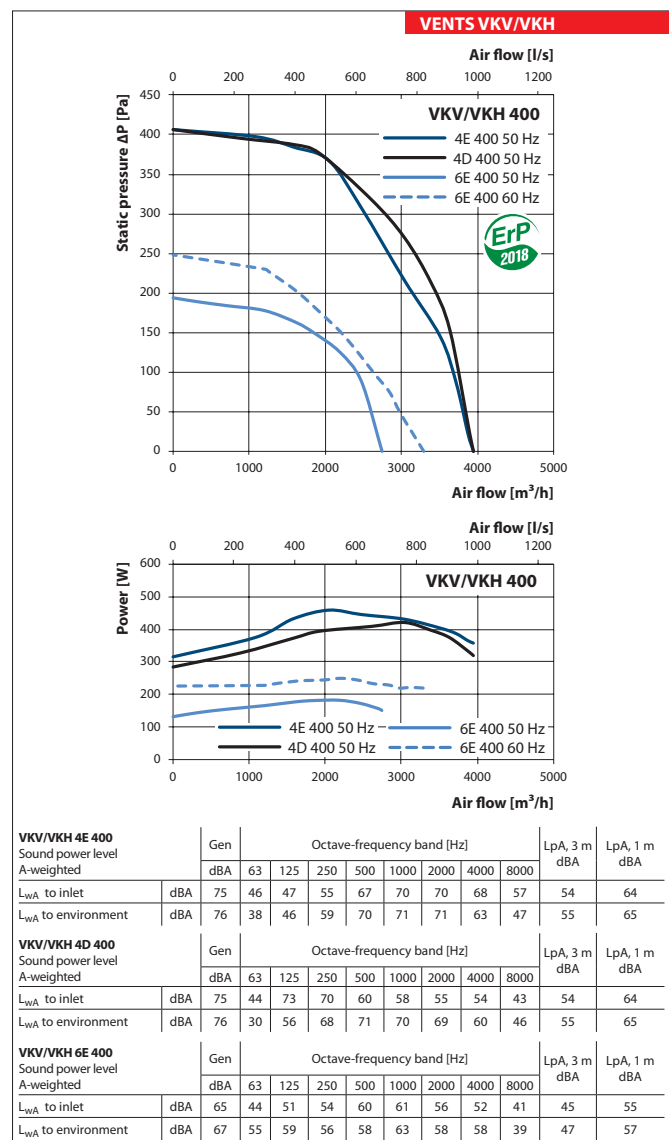
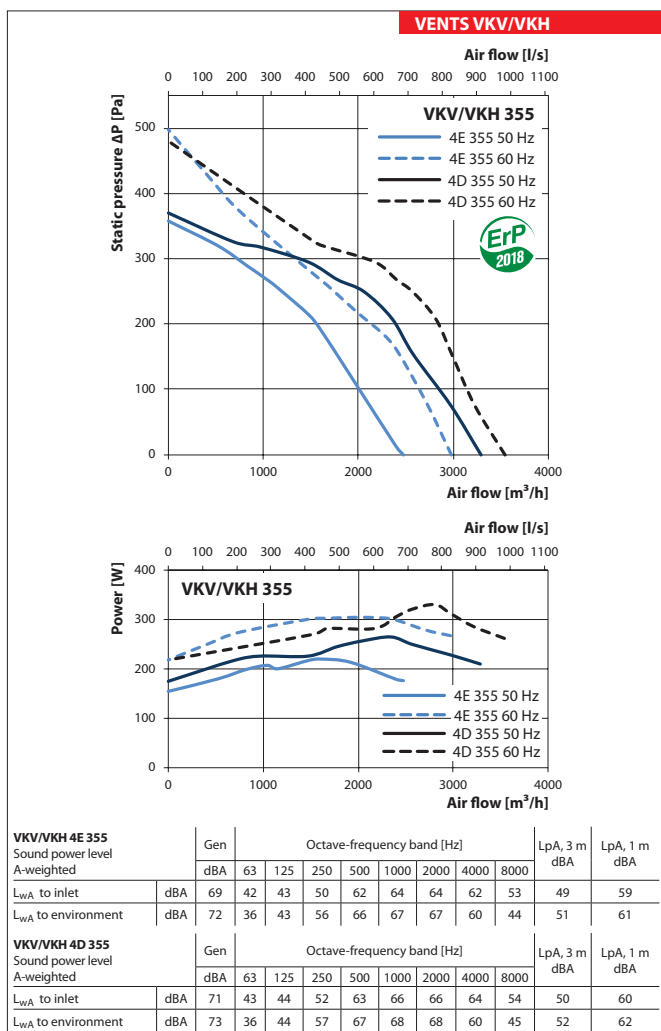
Technical data

| | VKV/VKH 2E 280 | | VKV/VKH 4E 280 | | VKV/VKH 2E 310 | | VKV/VKH 4E 310 | | VKV/VKH 4D 310 | |
|-----------------------------------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|
| Voltage [V] | 1~230 | | 1~230 | | 1~230 | | 1~230 | | 3~400 | |
| Frequency [Hz] | 50 | 50 | 60 | 60 | 50 | 50 | 60 | 60 | 50 | 60 |
| Power [W] | 238 | 125 | 155 | 155 | 324 | 141 | 195 | 195 | 155 | 202 |
| Current [A] | 1.04 | 0.61 | 0.99 | 0.99 | 1.42 | 0.64 | 0.87 | 0.87 | 0.29 | 0.32 |
| Max. air flow [m ³ /h] | 1 760 | 1 490 | 1 520 | 1 520 | 2 150 | 2 265 | 2 425 | 2 425 | 2 300 | 2 442 |
| RPM [min ⁻¹] | 2330 | 1446 | 1710 | 1710 | 2620 | 1420 | 1740 | 1740 | 1410 | 1550 |
| Sound pressure level at 3 m [dBA] | 57 | 46 | 46 | 46 | 58 | 47 | 49 | 49 | 47 | 48 |
| Transported air temperature [°C] | -25...+50 | | -25...+50 | | -25...+50 | | -25...+50 | | -25...+50 | |
| Protection rating | IPX4 | | IPX4 | | IPX4 | | IPX4 | | IPX4 | |
| Motor protection rating | IP44 | | IP44 | | IP44 | | IP54 | | IP54 | |



Technical data

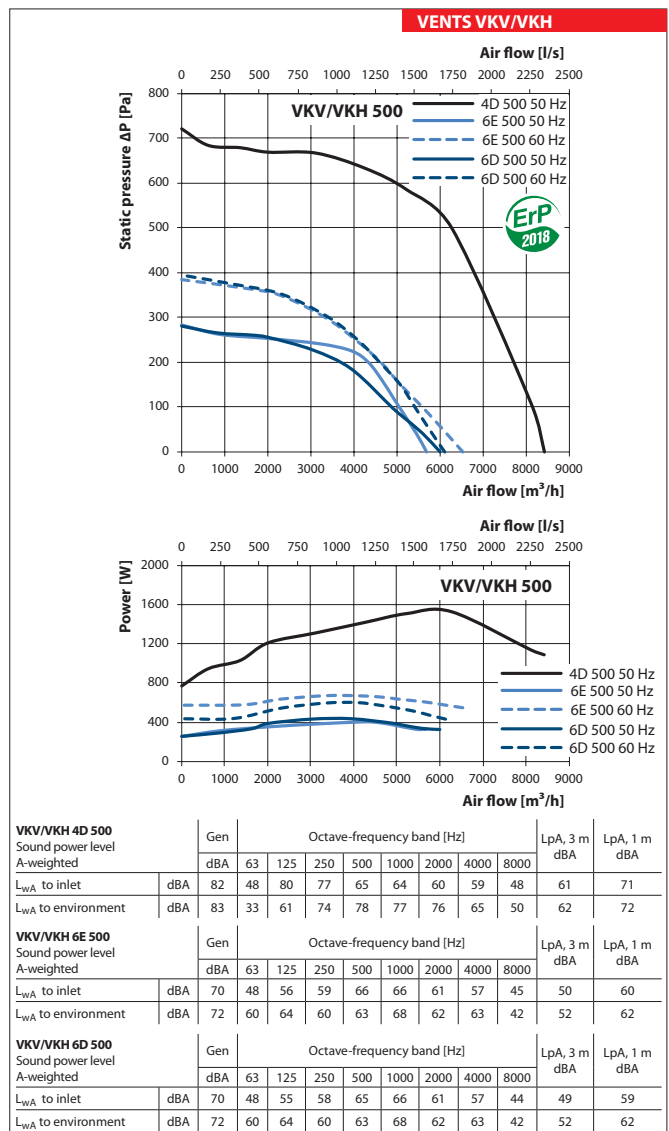
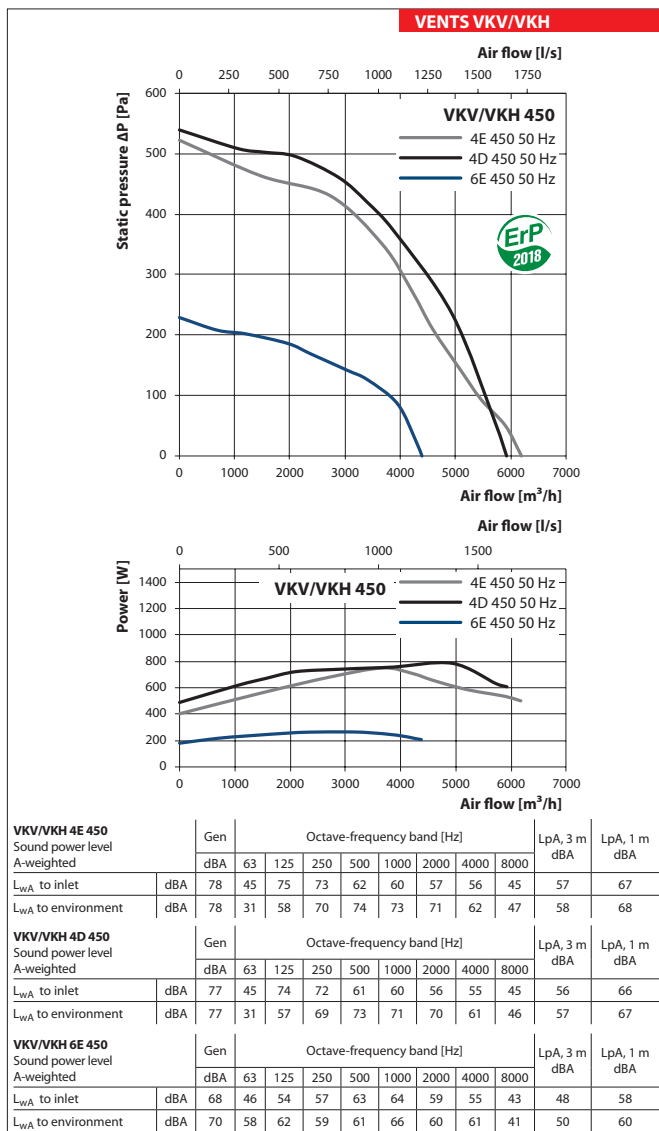
| | VKV/VKH 4E 355 | | VKV/VKH 4D 355 | | VKV/VKH 4E 400 | VKV/VKH 6E 400 | | VKV/VKH 4D 400 |
|-----------------------------------|-------------------|-------|-------------------|-------|-------------------|-------------------|-------|-------------------|
| Voltage [V] | 1~230 | | 3~400 | | 1~230 | 1~230 | | 3~400 |
| Frequency [Hz] | 50 | 60 | 50 | 60 | 50 | 50 | 60 | 50 |
| Power [W] | 219 | 304 | 264 | 330 | 457 | 184 | 249 | 420 |
| Current [A] | 0.96 | 1.33 | 0.58 | 0.64 | 2.00 | 0.89 | 1.10 | 0.99 |
| Max. air flow [m ³ /h] | 2 480 | 2 976 | 3 290 | 3 540 | 3 950 | 2 740 | 3 289 | 3 950 |
| RPM [min ⁻¹] | 1420 | 1580 | 1430 | 1650 | 1440 | 945 | 1071 | 1440 |
| Sound pressure level at 3 m [dBA] | 51 | 52 | 52 | 53 | 55 | 47 | 49 | 55 |
| Transported air temperature [°C] | -25...+50 | | -30...+60 | | -30...+60 | -30...+60 | | -30...+60 |
| Protection rating | IPX4 | | IPX4 | | IPX4 | IPX4 | | IPX4 |
| Motor protection rating | IP54 | | IP54 | | IP54 | IP54 | | IP54 |



CENTRIFUGAL ROOF FANS

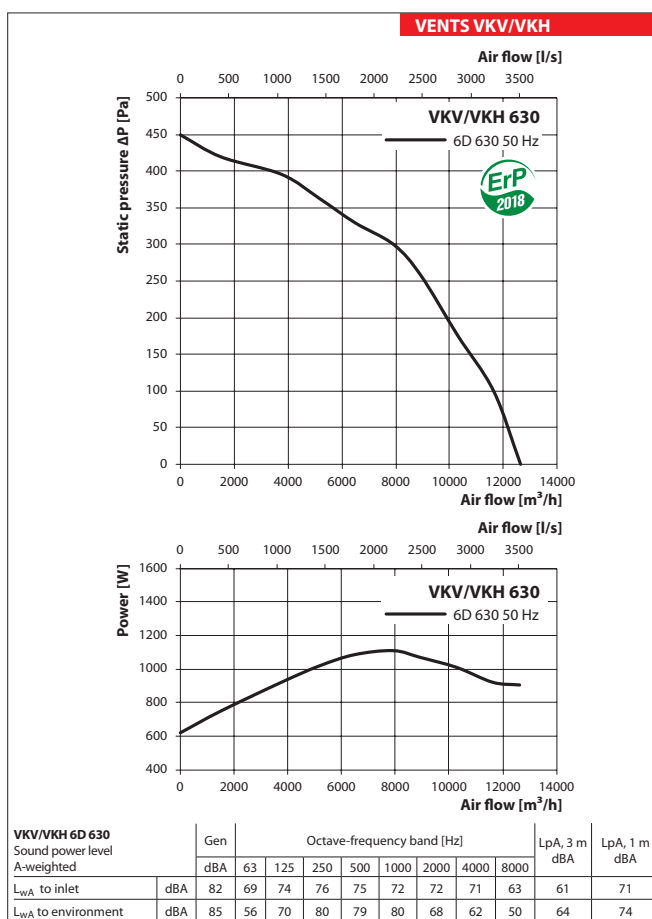
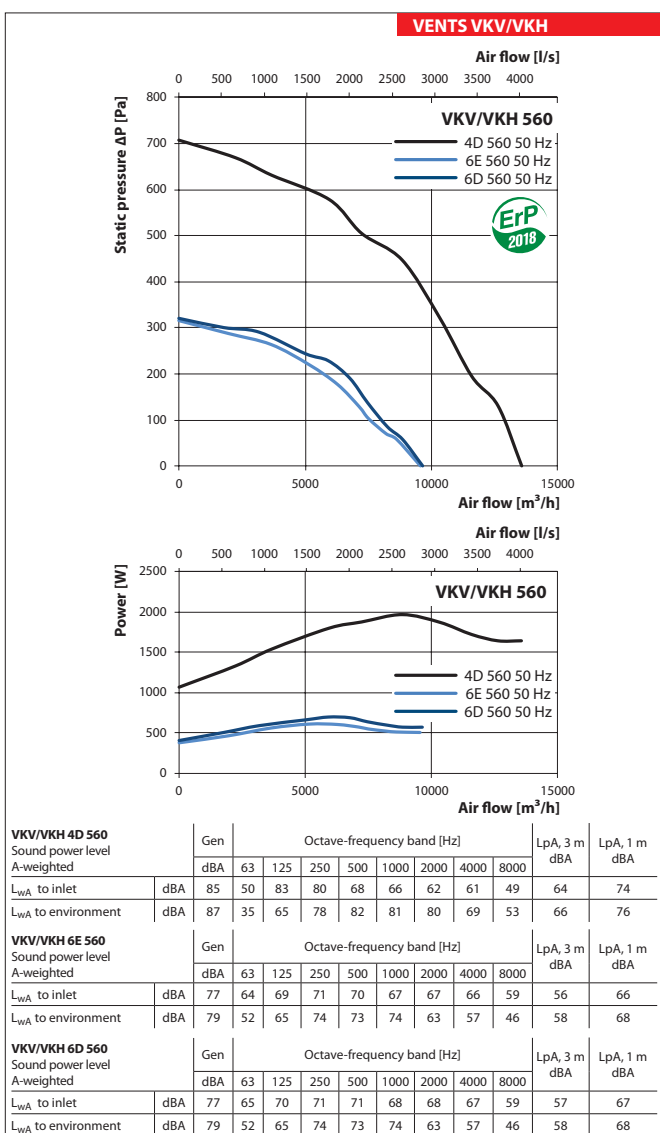
Technical data

| | VKV/VKH 4E 450 | VKV/VKH 6E 450 | VKV/VKH 4D 450 | VKV/VKH 4D 500 | VKV/VKH 6E 500 | | VKV/VKH 6D 500 | |
|-----------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------|-------------------|-------|
| Voltage [V] | 1~230 | 1~230 | 3~400 | 3~400 | 1~230 | | 3~400 | |
| Frequency [Hz] | 50 | 50 | 50 | 50 | 50 | 60 | 50 | 60 |
| Power [W] | 749 | 268 | 755 | 1527 | 407 | 673 | 440 | 599 |
| Current [A] | 3.35 | 1.25 | 1.50 | 2.64 | 1.81 | 3.05 | 1.23 | 1.32 |
| Max. air flow [m ³ /h] | 6 180 | 4 380 | 5 920 | 8 435 | 5 680 | 6 532 | 6 000 | 6 122 |
| RPM [min ⁻¹] | 1400 | 940 | 1440 | 1460 | 970 | 1120 | 978 | 1125 |
| Sound pressure level at 3 m [dBA] | 58 | 50 | 57 | 62 | 52 | 54 | 52 | 54 |
| Transported air temperature [°C] | -30...+60 | -30...+60 | -30...+50 | -30...+50 | -25...+60 | | -25...+60 | |
| Protection rating | IPX4 | IPX4 | IPX4 | IPX4 | IPX4 | | IPX4 | |
| Motor protection rating | IP54 | IP54 | IP54 | IP54 | IP54 | | IP54 | |



Technical data

| | VKV/VKH 4D 560 | VKV/VKH 6E 560 | VKV/VKH 6D 560 | VKV/VKH 6D 630 |
|-----------------------------------|-------------------|-------------------|-------------------|-------------------|
| Voltage [V] | 3~400 | 1~230 | 3~400 | 3~400 |
| Frequency [Hz] | 50 | 50 | 50 | 50 |
| Power [W] | 1970 | 613 | 696 | 1110 |
| Current [A] | 3.36 | 2.70 | 1.44 | 2.42 |
| Max. air flow [m ³ /h] | 13 560 | 9 560 | 9 630 | 12 640 |
| RPM [min ⁻¹] | 1400 | 930 | 970 | 957 |
| Sound pressure level at 3 m [dBA] | 66 | 58 | 58 | 64 |
| Transported air temperature [°C] | -25...+50 | -25...+50 | -25...+50 | -25...+50 |
| Protection rating | IPX4 | IPX4 | IPX4 | IPX4 |
| Motor protection rating | IP54 | IP54 | IP54 | IP54 |



CENTRIFUGAL ROOF FANS

Technical data

| | VKV/VKH 6D 710 |
|-----------------------------------|----------------|
| Voltage [V] | 3~400 |
| Frequency [Hz] | 50 |
| Power [W] | 2583 |
| Current [A] | 4.87 |
| Max. air flow [m ³ /h] | 17 010 |
| RPM [min ⁻¹] | 945 |
| Sound pressure level at 3 m [dBA] | 67 |
| Transported air temperature [°C] | -25...+70 |
| Protection rating | IPX4 |
| Motor protection rating | IP54 |

