VDF-R-KE SERIES

Filtered centrifugal box fans

VDF-R-KE

DIRECT DRIVE

METALLIC GREASE FILTERS



315-1000
Eleven casing sizes

15
Motor variants

50 Hz
Three-phase AC

01 / PRODUCT OVERVIEW

Built for ducted ventilation.



01 Motor outside the airstream

Direct-driven backward-curved centrifugal plug impeller. The motor is outside the transported-air path.

02 Metallic grease filtration

Metal grease filters and an oil collection tray for contaminated extract air and oil mist.

03 Insulated cabinet

Galvanized panels, aluminium profile frame and 25 mm mineral wool insulation. Service doors provide maintenance access.

FILTRATION & PERFORMANCE

Match the model to the extract duty.

Pressure curves follow the listed FSP records for each 50 Hz motor variant. Use only the supplied airflow range. Filter pressure losses depend on the installed filter arrangement and its condition; maintain access for filter cleaning and oil-tray servicing.

Selection parameter	Catalogue basis
Casing size range	315-1000 / 11 casing sizes
Nominal motor power	0.37-22.00 kW
Electrical supply	3~400 V / 50 Hz
Maximum transported-air temperature	+55 °C

Curve data and nominal motor ratings are distinct. Motor current, configuration-specific unit weight and acoustic spectra are not supplied in the current FSP records.

02 / TECHNICAL DATA

Choose the motor configuration.

15 MOTOR VARIANTS / 50 Hz

Model	Motor kW	Curve airflow range / m³/h	Reference speed rpm	Supply V / phase
VDF-R-KE 315	0.37	605-2667	1450	400 / 3
VDF-R-KE 315	1.50	1211-5334	2900	400 / 3
VDF-R-KE 355	0.55	914-3768	1450	400 / 3
VDF-R-KE 355	3.00	1828-7536	2900	400 / 3
VDF-R-KE 400	0.75	1263-6000	1450	400 / 3
VDF-R-KE 400	5.50	2526-10620	2900	400 / 3
VDF-R-KE 450	1.10	1787-7585	1450	400 / 3
VDF-R-KE 450	11.00	3575-15170	2900	400 / 3
VDF-R-KE 500	3.00	2514-10812	1450	400 / 3
VDF-R-KE 560	4.00	3423-15216	1450	400 / 3
VDF-R-KE 630	7.50	5054-21801	1450	400 / 3
VDF-R-KE 710	11.00	5054-21801	1450	400 / 3
VDF-R-KE 800	15.00	0-32000	1440	400 / 3
VDF-R-KE 900	18.50	0-46000	1450	400 / 3
VDF-R-KE 1000	22.00	15000-60000	1450	400 / 3

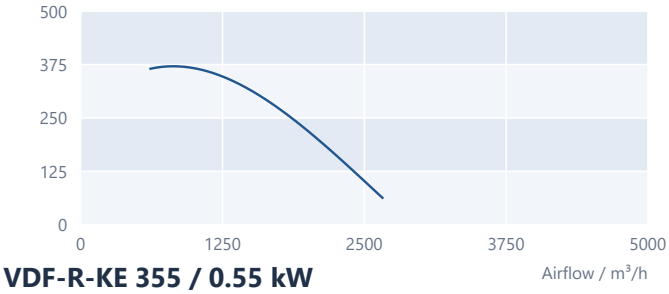
Airflow range: supplied reference curve domain, rounded to the nearest m³/h. Values do not represent a selected operating point. Reference fan speed and nominal motor power follow the FSP records; absorbed power depends on the operating point.

03 / AIR PERFORMANCE / 01

Fan Performance Curves

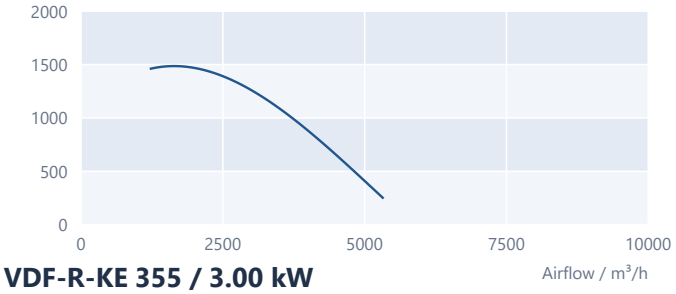
VDF-R-KE 315 / 0.37 kW

3 phase / 50 Hz / reference 1450 rpm



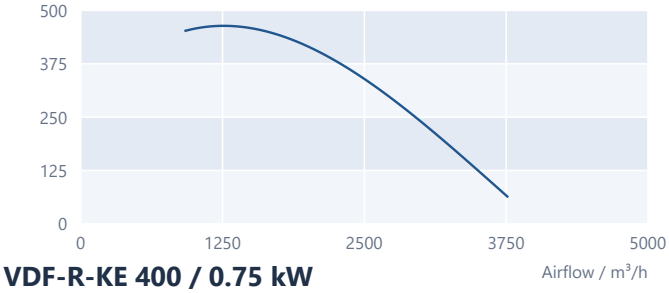
VDF-R-KE 315 / 1.50 kW

3 phase / 50 Hz / reference 2900 rpm



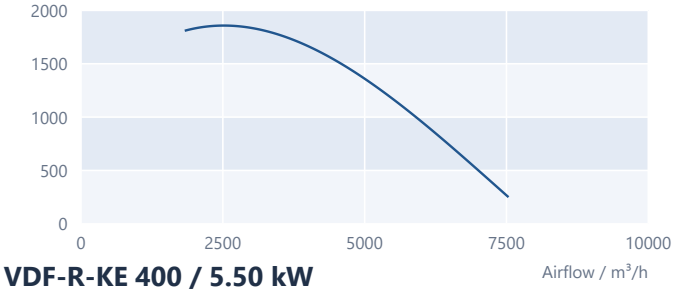
VDF-R-KE 355 / 0.55 kW

3 phase / 50 Hz / reference 1450 rpm



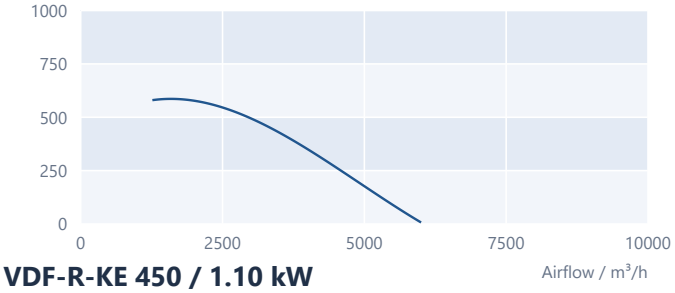
VDF-R-KE 355 / 3.00 kW

3 phase / 50 Hz / reference 2900 rpm



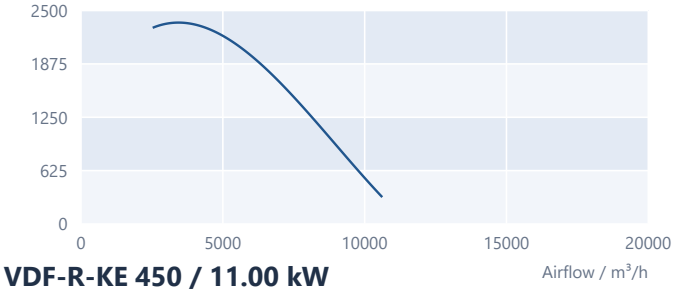
VDF-R-KE 400 / 0.75 kW

3 phase / 50 Hz / reference 1450 rpm



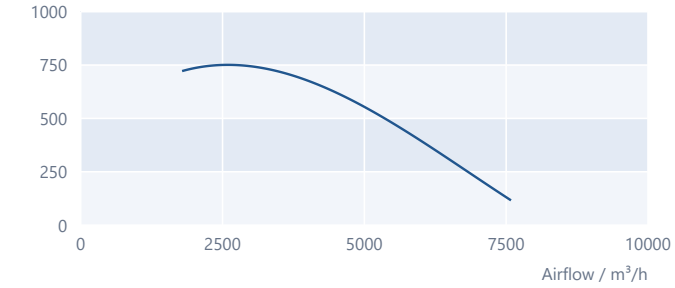
VDF-R-KE 400 / 5.50 kW

3 phase / 50 Hz / reference 2900 rpm



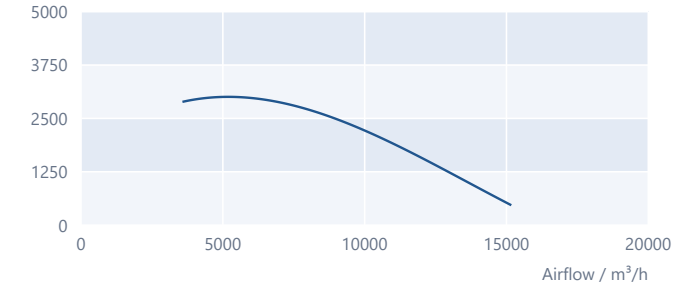
VDF-R-KE 450 / 1.10 kW

3 phase / 50 Hz / reference 1450 rpm



VDF-R-KE 450 / 11.00 kW

3 phase / 50 Hz / reference 2900 rpm



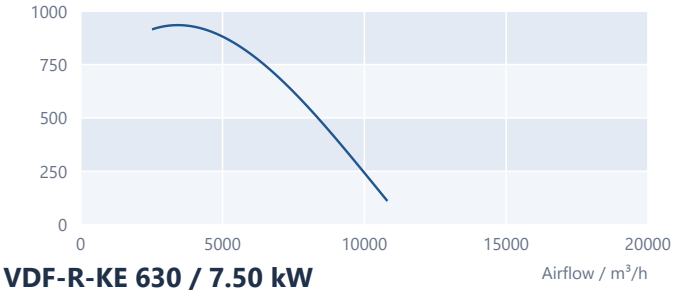
Model-specific scales. Listed 50 Hz reference curves shown within their supplied airflow ranges. Filter losses depend on the installed arrangement and filter condition.

03 / AIR PERFORMANCE / 02

Fan Performance Curves

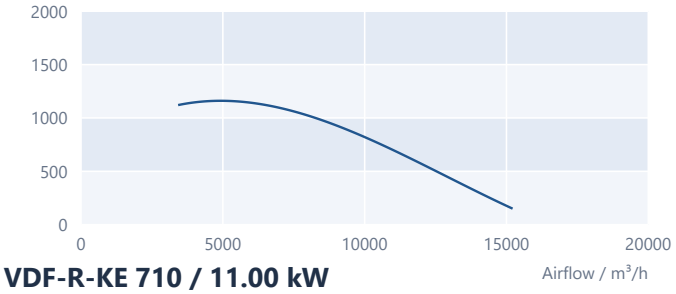
VDF-R-KE 500 / 3.00 kW

3 phase / 50 Hz / reference 1450 rpm



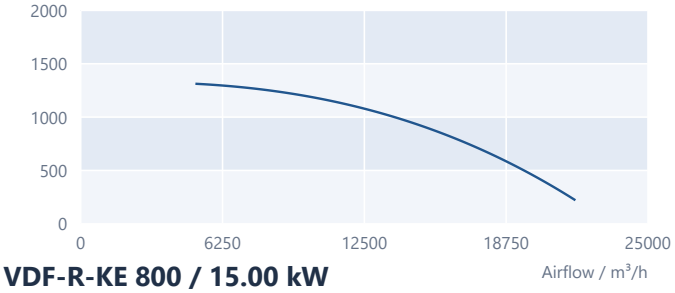
VDF-R-KE 560 / 4.00 kW

3 phase / 50 Hz / reference 1450 rpm



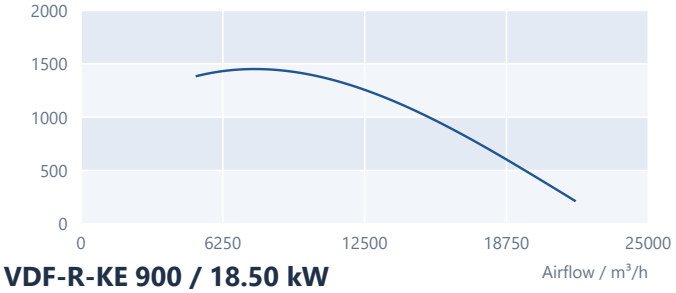
VDF-R-KE 630 / 7.50 kW

3 phase / 50 Hz / reference 1450 rpm



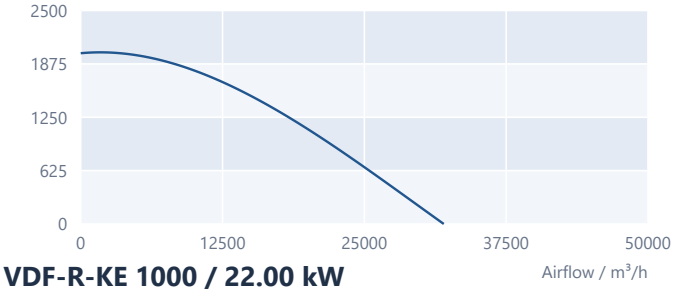
VDF-R-KE 710 / 11.00 kW

3 phase / 50 Hz / reference 1450 rpm



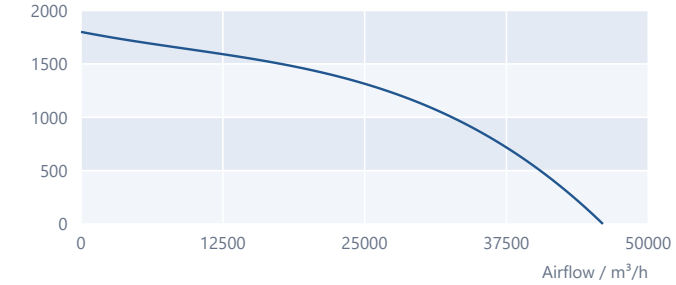
VDF-R-KE 800 / 15.00 kW

3 phase / 50 Hz / reference 1440 rpm



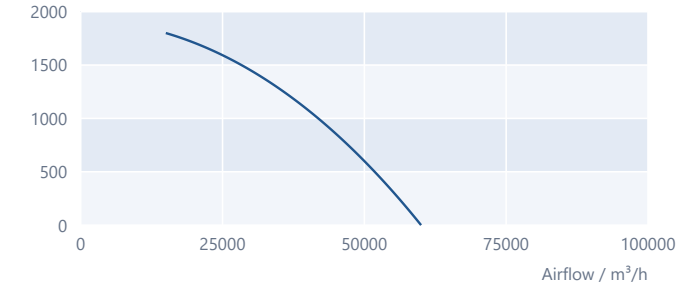
VDF-R-KE 900 / 18.50 kW

3 phase / 50 Hz / reference 1450 rpm



VDF-R-KE 1000 / 22.00 kW

3 phase / 50 Hz / reference 1450 rpm



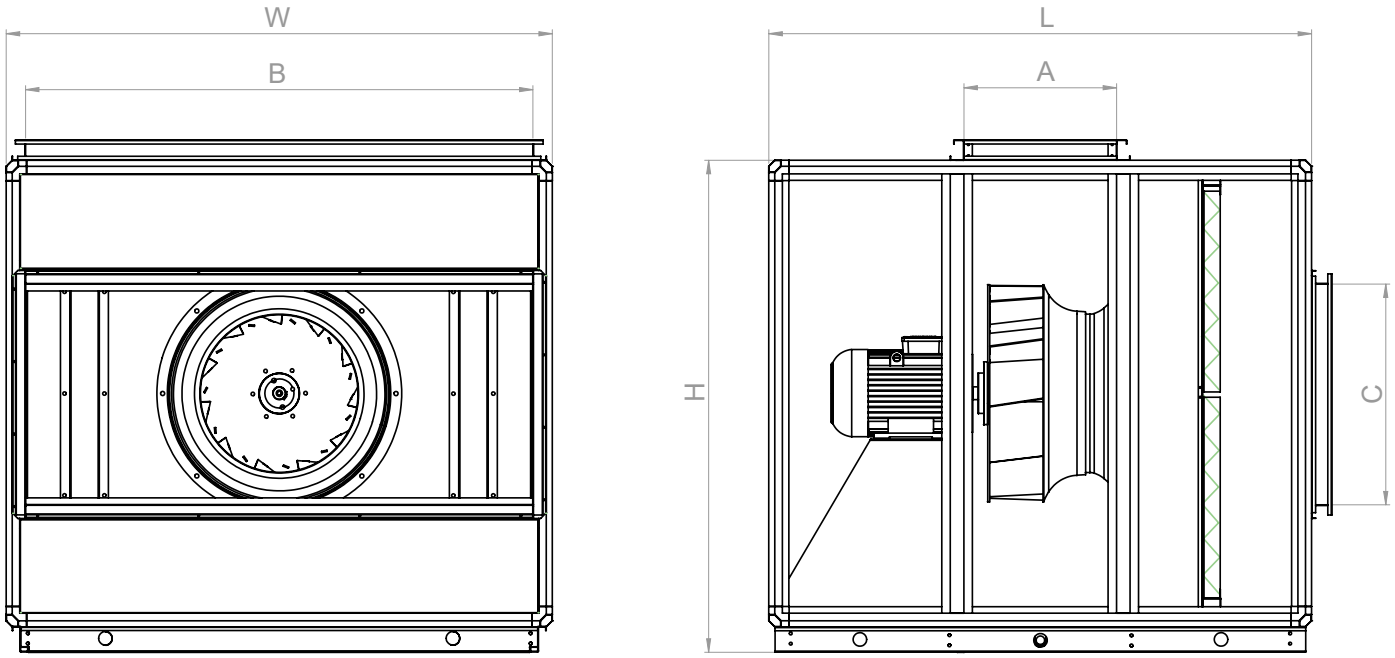
Model-specific scales. Listed 50 Hz reference curves shown within their supplied airflow ranges. Filter losses depend on the installed arrangement and filter condition.

04 / DIMENSIONAL DATA

Plan the installation.

FAMILY DRAWING

All dimensions in mm



Model	A	B	C	D	H	L	W
VDF-R-KE 315	270	515	270	515	600	900	600
VDF-R-KE 355	270	615	270	615	700	900	700
VDF-R-KE 400	310	715	310	715	800	1000	800
VDF-R-KE 450	335	815	335	815	900	1100	900
VDF-R-KE 500	365	915	365	915	1000	1140	1000
VDF-R-KE 560	400	1135	450	1135	1080	1300	1250
VDF-R-KE 630	430	1135	650	1135	1385	1400	1250
VDF-R-KE 710	430	1135	650	1135	1385	1400	1250
VDF-R-KE 800	600	1500	600	1400	1700	2000	1700
VDF-R-KE 900	600	1500	600	1400	1700	2000	1700
VDF-R-KE 1000	600	1500	600	1400	1700	2000	1700

Family drawing; all values follow the model records. Allow additional clearance for service doors, filter removal and oil-tray maintenance. Confirm the selected unit layout before installation.

05 / INSTALLATION & ELECTRICAL DATA

Plan for clean airflow and access.

01 Service access

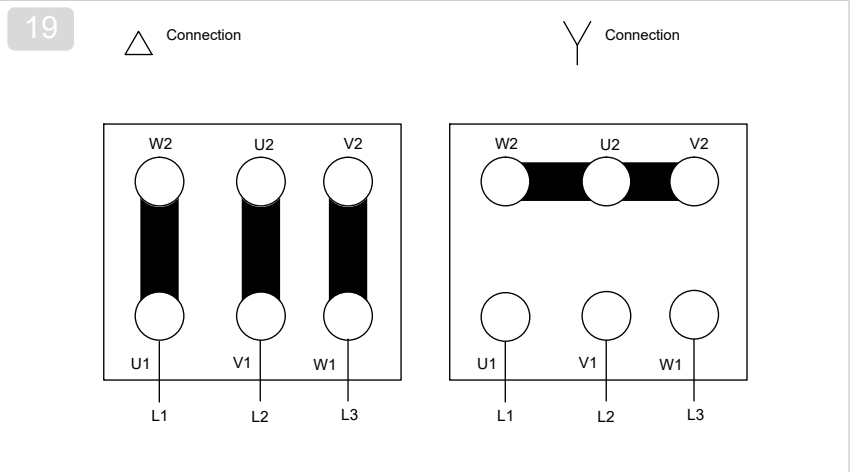
Support the cabinet securely and allow clearance for the service doors, filter removal and oil collection tray. Isolate the supply before opening the unit.

02 Filter care

Inspect and clean the metallic grease filters and service the oil tray. Contaminated filters increase pressure loss and reduce airflow. Confirm the filter arrangement for the selected duty.

Parameter	Selection data
Electrical supply	3~400 V / 50 Hz
Drive / motor	Direct drive / AC
Insulation class	Class F
Maximum transported-air temperature	+55 °C

THREE-PHASE MOTOR / CONNECTION DIAGRAM 19



Delta / star terminal layouts for this family. Select the connection according to the actual motor nameplate voltage and unit diagram. Optional frequency-inverter regulation depends on the selected motor.

VDF-R-KE

Filtered centrifugal box fans

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