VOLTVENT®
VENTILATION SYSTEMS

GENERAL CATALOGUE

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VOLTVENT®
VENTILATION SYSTEMS

VENTILATION FAN

General Catalogue

Fan ranges and ventilation units for commercial, institutional and industrial applications.

Select by application. Confirm by duty.

Browse the category directory, then compare the series data, performance curves and dimensional drawings. Final selection depends on the required airflow, system pressure, operating environment and selected configuration.

READING THIS CATALOGUE

The contents page and category directories link directly to each section. PDF bookmarks provide access to categories, product series and their technical sections.

PRODUCT DATA, SELECTION & DOCUMENTATION

This catalogue presents general product characteristics, standard configurations and selection data. Published values relate to the stated model and reference conditions.

For precise operating-point data, use Voltvent selection software with the required airflow, pressure and selected configuration. Contact Voltvent for project-specific selection support.

Installation, electrical connection, operation and maintenance requirements are given in the product user manual. Visit voltvent.com for the latest available manuals and product documentation.

VOLTVENT®
VENTILATION SYSTEMS

EXPLORE THE RANGE

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13 series

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5 series

06 **EC FANS** 310
5 series

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6 series

09 **SHELTER FANS** 445
6 series

10 **BATHROOM FANS** 480
4 series

Click a category or use the PDF bookmarks.



01

DUCT FANS

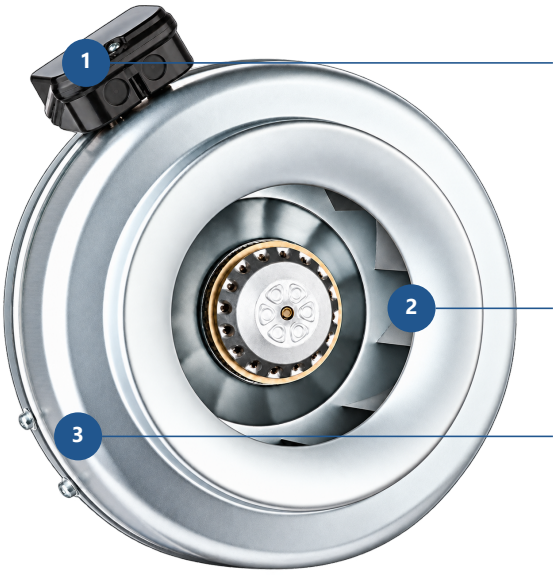
SERIES DIRECTORY

VCF	005	**VKEF**	044
VMF	010	**VDF**	048
VCAF	016	**VDF-R**	055
VBF	020	**VDF-R-KE**	062
VBF-R	026	**VLF-B**	068
VSF	032	**VBX**	087
VKF-R	038		

01 / PRODUCT & TECHNICAL DATA

VCF

Circular Inline Duct Fan



01 Motor & terminal box

External rotor motor with a terminal box for the electrical connection.

02 Centrifugal impeller

Backward-curved blades within the circular inline housing.

03 Galvanized housing

Sheet metal casing. Mounting feet supplied with the unit.

MODEL SPECIFICATIONS

Nominal reference values / 50 Hz

Model	Duct size mm	Max. airflow* m^3/h	Input power W	Current A	Speed rpm	Weight kg
VCF 100	100	240	60	0.3	2610	2.6
VCF 125	125	315	80	0.4	2325	2.7
VCF 150	150	422	78	0.4	2450	3
VCF 160	160	440	85	0.4	2550	3.2
VCF 200	200	875	100	0.51	2530	4.8
VCF 250	250	1150	145	0.74	2650	5.3
VCF 315	315	1750	200	0.87	2500	6.9
VCF 355	355	2620	445	1.94	2450	10

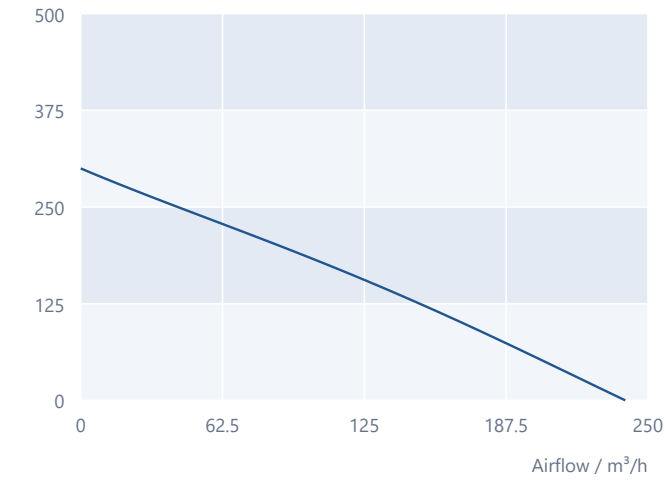
* Maximum airflow is the upper limit of the supplied performance-curve range, rounded to whole m^3/h; it is not a selected duty-point value. Actual power, current and speed depend on the operating point. Use Voltvent Selection Software for model-specific selection.

02 / AIR PERFORMANCE / 01

Fan Performance Curves

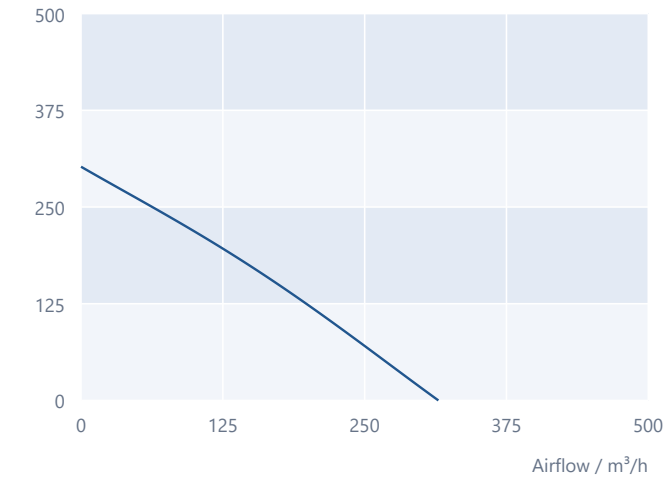
VCF 100

1~230 V / 50 Hz



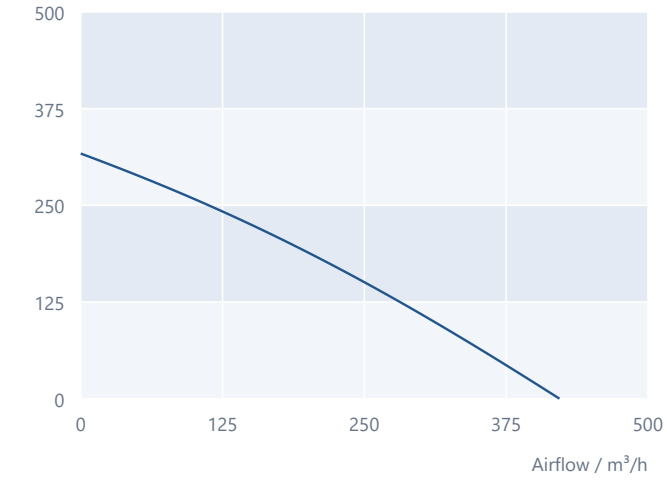
VCF 125

1~230 V / 50 Hz



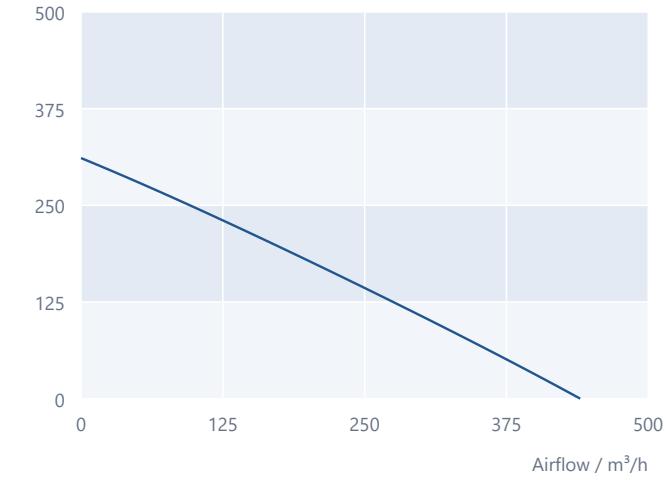
VCF 150

1~230 V / 50 Hz



VCF 160

1~230 V / 50 Hz



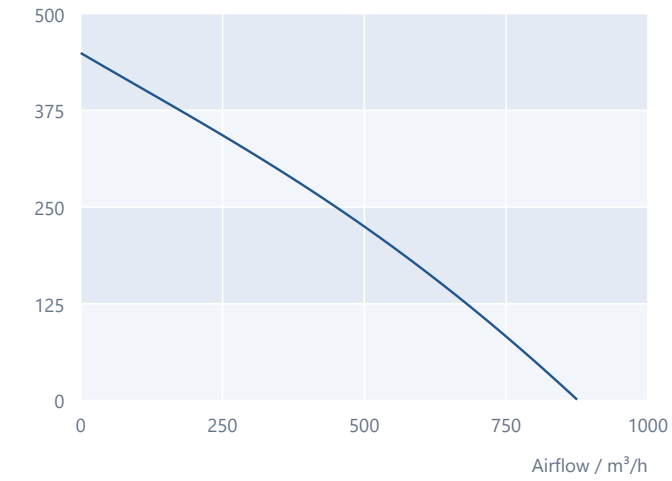
Model-specific axis scales. Listed 50 Hz curves shown only within their ranges. Maximum airflow and pressure are separate endpoints.

02 / AIR PERFORMANCE / 02

Fan Performance Curves

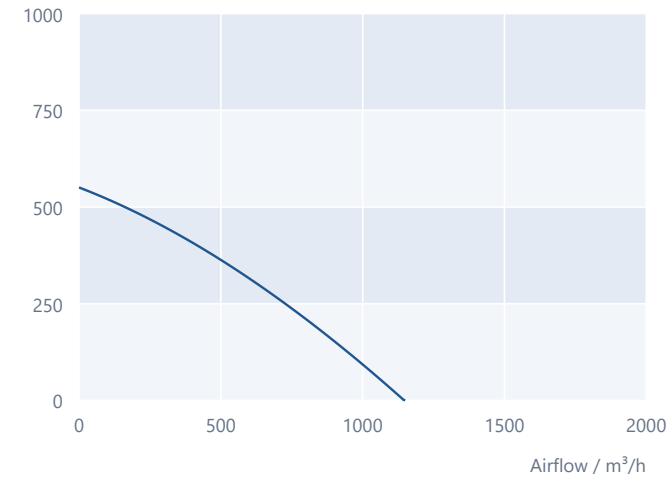
VCF 200

1~230 V / 50 Hz



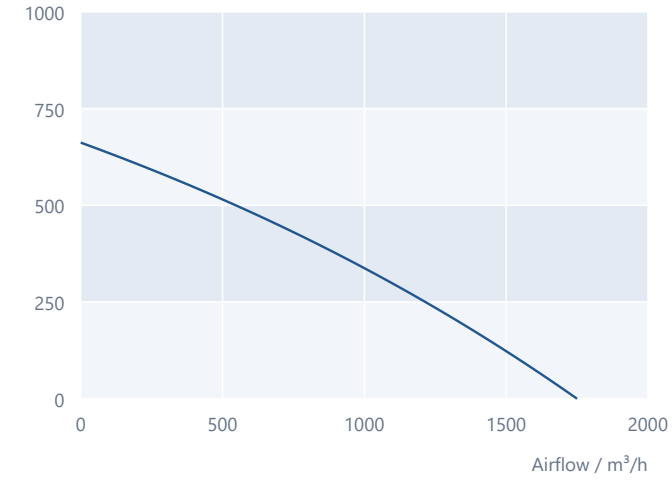
VCF 250

1~230 V / 50 Hz



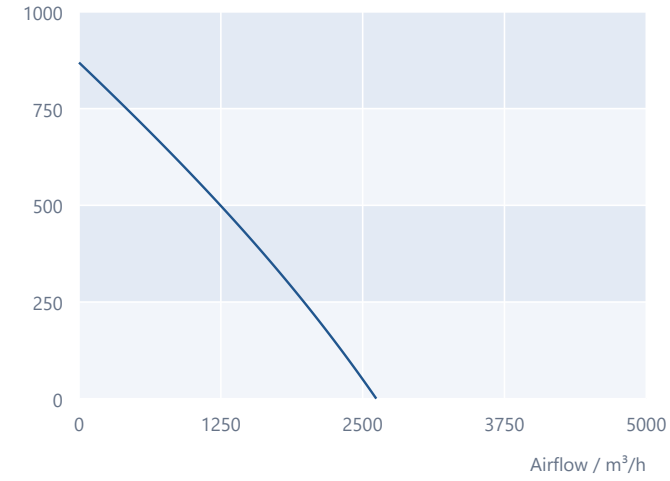
VCF 315

1~230 V / 50 Hz



VCF 355

1~230 V / 50 Hz



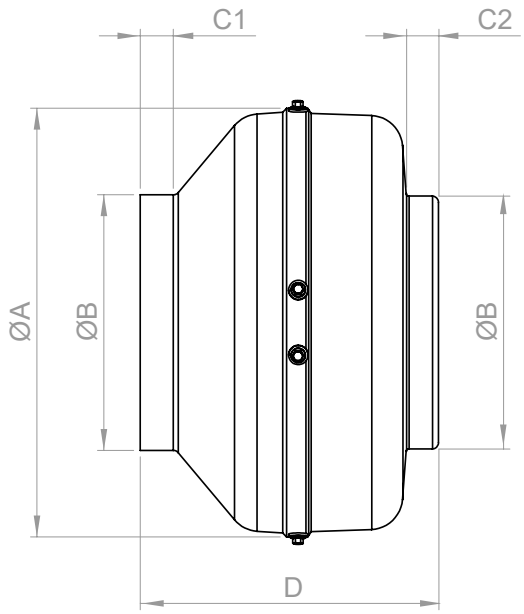
Model-specific axis scales. Listed 50 Hz curves shown only within their ranges. Maximum airflow and pressure are separate endpoints.

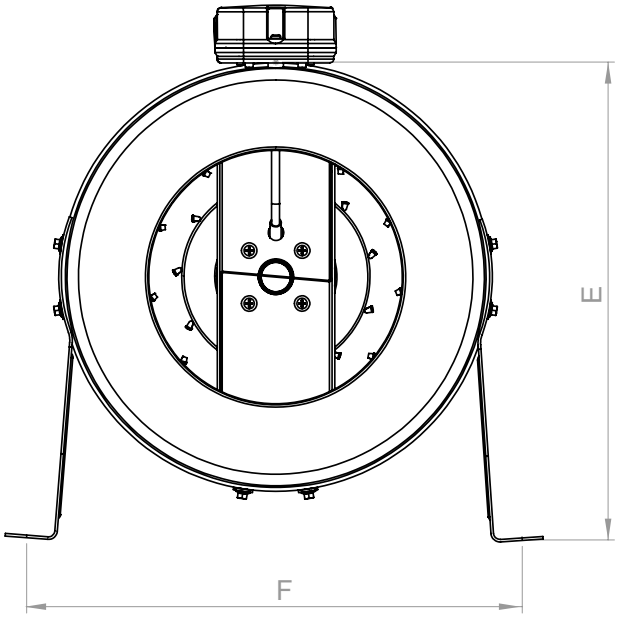
03 / DIMENSIONAL DATA

Plan the installation.

FAMILY DRAWING

All dimensions in mm





Model	Ø A	Ø B	C1	C2	D	E	F
VCF 100	245	97	20	20	197	273	268
VCF 125	245	122	20	20	188	273	268
VCF 150	272	147	23	25	192	286	295
VCF 160	272	157	23	25	192	286	295
VCF 200	330	196	30	28	230	380	352
VCF 250	330	247	30	28	227	380	352
VCF 315	400	313	30	30	285	415	422
VCF 355	400	352	30	30	378	415	422

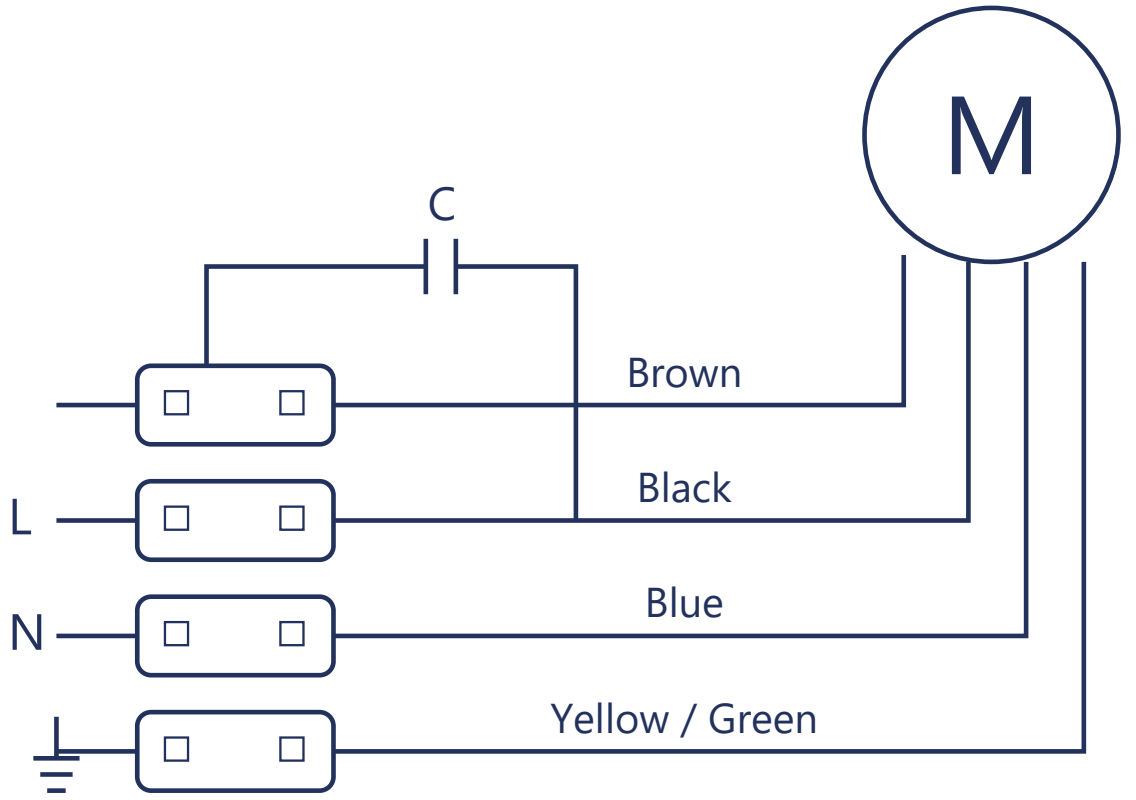
VCF series / nominal duct sizes 100–355 mm

04 / ELECTRICAL CONNECTION

Single-phase connection.

VCF SERIES

1~230 V / 50 Hz



1~230 V / 50 Hz

C: capacitor

DIAGRAM LEGEND

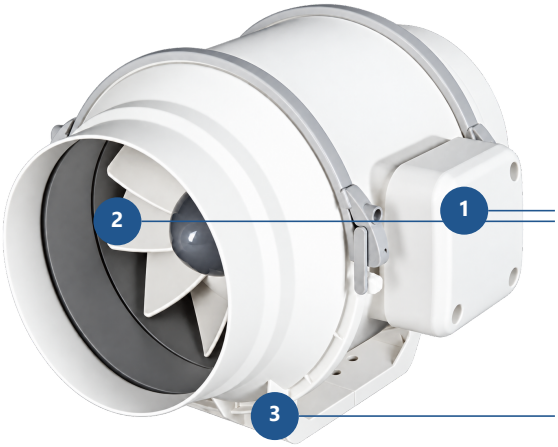
L	Live	N	Neutral	C	Run capacitor

Connection diagram reproduced from Voltvent Selection Software. Refer to the connection diagram supplied with the actual unit before installation.

01 / PRODUCT & TECHNICAL DATA

VMF

Mixed Flow Duct Fan



01 Terminal box

Accessible electrical connection on the side of the casing.

02 Mixed-flow impeller

Combines axial and centrifugal airflow characteristics.

03 Plastic housing & mounting

V0 plastic casing with circular duct connections and an integrated mounting base.

MODEL SPECIFICATIONS

Nominal reference values / 50 Hz

Model	Duct size mm	Max. airflow* m^3/h	Reference input power / W	Reference speed rpm	Weight kg	Protection
VMF 100	100	234	54	2460	1.8	IP44
VMF 125	125	337	56	2560	2	IP44
VMF 150	150	504	75	2490	2.7	IP44
VMF 160	160	560	75	2490	2.7	IP44
VMF 200	200	1012	111	2410	4.8	IP44
VMF 250	250	1300	280	2460	9.4	IP44
VMF 315	315	1970	476	2476	11	IP44

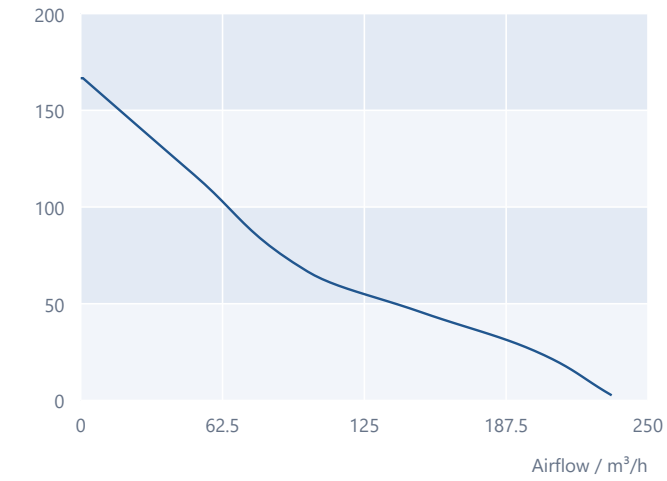
Single-phase 230 V / 50 Hz. Insulation Class F. Operating temperature: -20 to +50 °C.
* Maximum airflow is the upper limit of the supplied performance-curve range, rounded to whole m^3/h; it is not a selected duty-point value. Power and speed are catalogue reference ratings; weight follows the existing Voltvent catalogue.

02 / AIR PERFORMANCE / 01

Fan Performance Curves

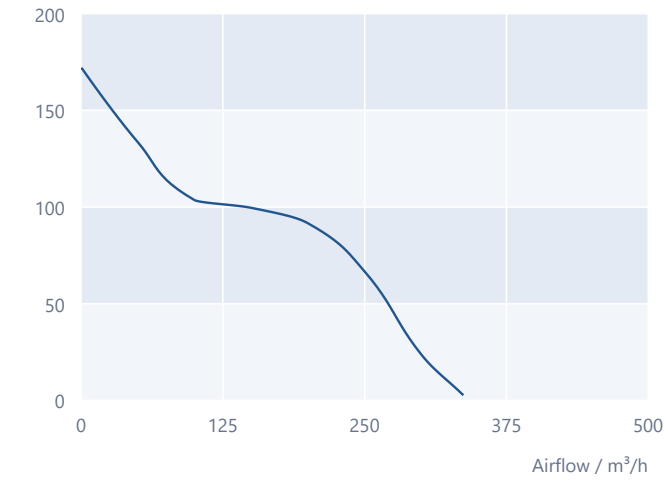
VMF 100

1~230 V / 50 Hz



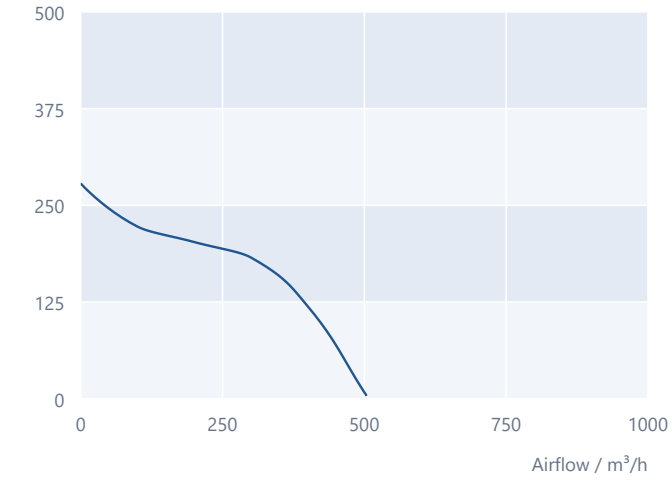
VMF 125

1~230 V / 50 Hz



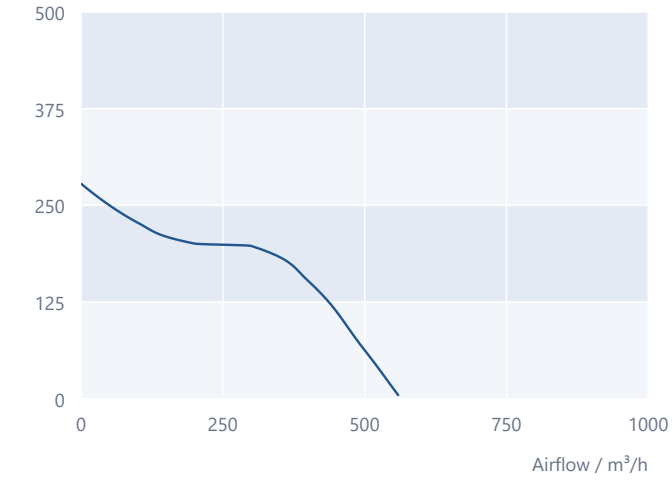
VMF 150

1~230 V / 50 Hz



VMF 160

1~230 V / 50 Hz



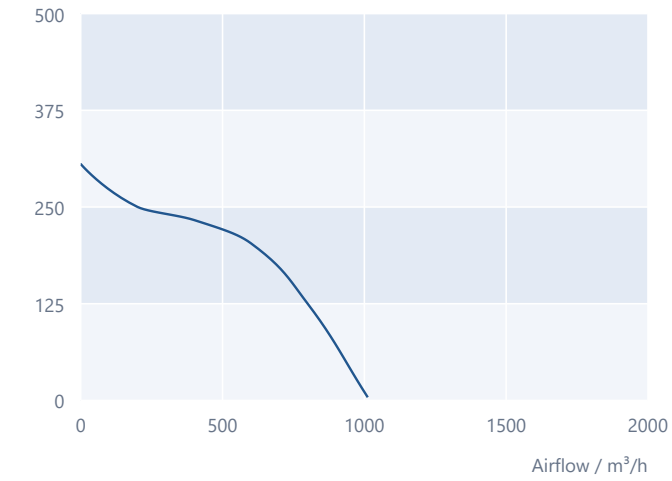
Model-specific axis scales. Listed 50 Hz curves shown only within their ranges. Maximum airflow and pressure are separate endpoints.

02 / AIR PERFORMANCE / 02

Fan Performance Curves

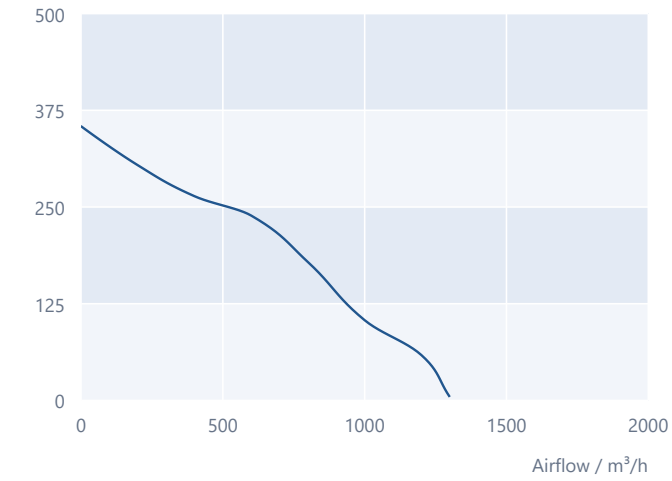
VMF 200

1~230 V / 50 Hz



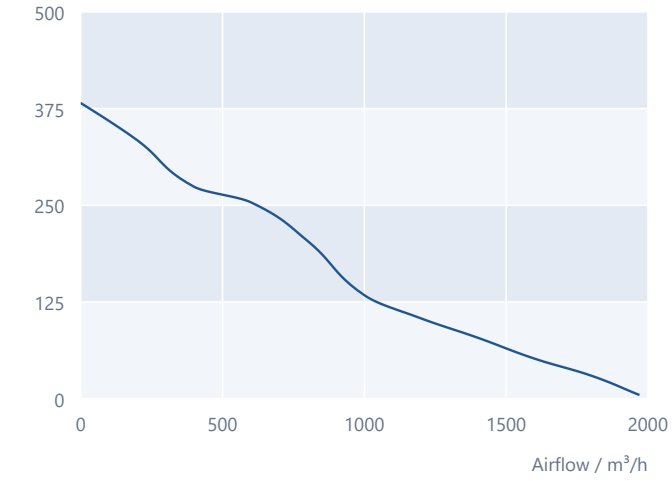
VMF 250

1~230 V / 50 Hz



VMF 315

1~230 V / 50 Hz



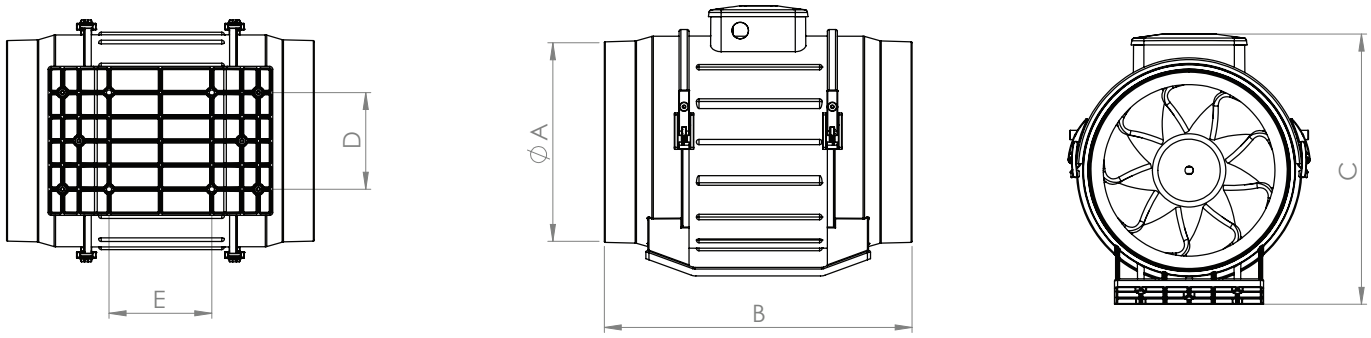
Model-specific axis scales. Listed 50 Hz curves shown only within their ranges. Maximum airflow and pressure are separate endpoints.

03 / DIMENSIONAL DATA

Plan the installation.

FAMILY DRAWING

All dimensions in mm



Model	A	B	C	D	E
VMF 100	96	306.5	215	60	80
VMF 125	121	260	215	60	80
VMF 150	146	290.5	242	60	80
VMF 160	156	271	242	60	80
VMF 200	191	300	263	94	100
VMF 250	246	393	325	110	140
VMF 315	310	450	420	175	180

VMF series / nominal duct sizes 100-315 mm

Family drawing. Dimension values follow the model records in Voltvent Selection Software.

04 / INSTALLATION & ELECTRICAL DATA

Designed for inline installation.

INSTALLATION

1 Circular duct connection

Match the nominal duct size to the system. Use dimensions A-E to plan connections and mounting space.

2 Horizontal or vertical mounting

Support the unit at its mounting base. Allow access to the terminal box and fan assembly for inspection and maintenance.

3 Supply & operating conditions

Single-phase 230 V / 50 Hz. Motor protection IP44; insulation Class F. Stated operating range: -20 to +50 °C.

MOTOR SELECTION DATA

Model	Nominal current A	Capacitor µF	Insulation class
VMF 100	0.5	2.5	F
VMF 125	0.5	2.5	F
VMF 150	0.6	4	F
VMF 160	0.6	4	F
VMF 200	0.64	5	F
VMF 250	1.07	6	F
VMF 315	1.6	8	F

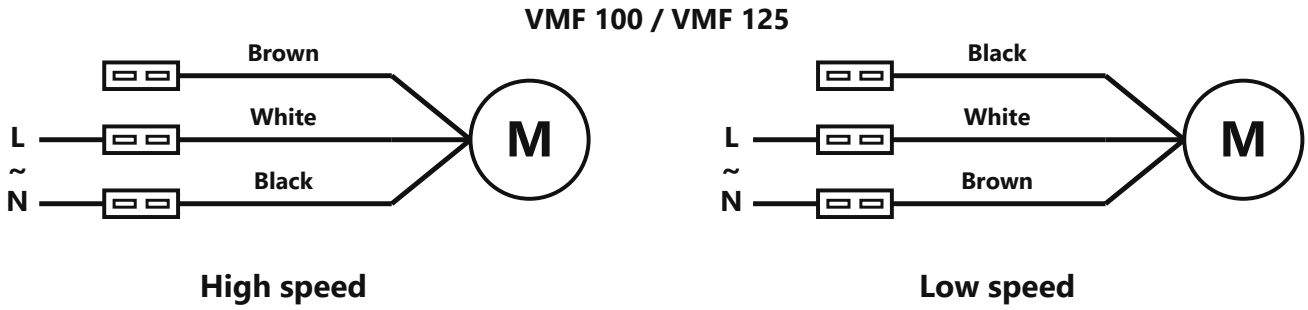
Current and capacitor ratings follow the model records in Voltvent Selection Software. Review the nameplate and supplied instructions for the selected unit.

Use the wiring diagram supplied with the actual unit. Disconnect the electrical supply before inspection or maintenance.

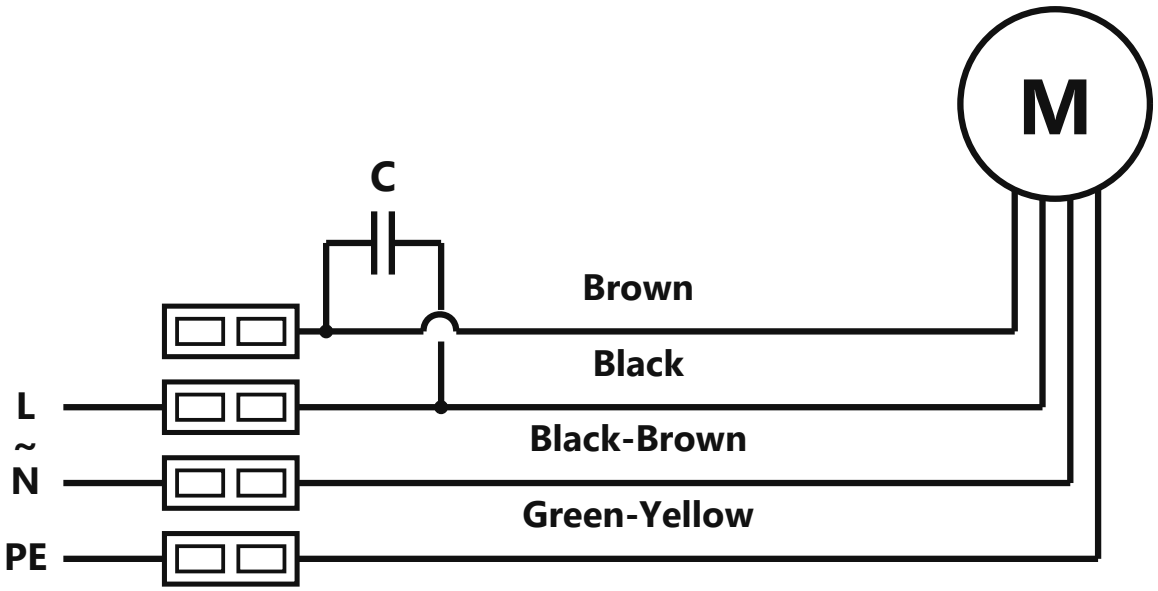
05 / ELECTRICAL CONNECTION

Model-specific connections.

VMF 100 / 125 - TWO SPEEDS



VMF 150 / 160 / 200 / 250 / 315

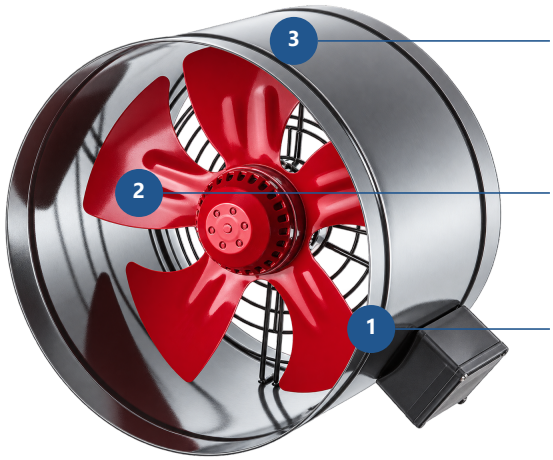


Single-phase 230 V / 50 Hz. Conductor colours follow the supplied model-specific drawings. The 150-315 neutral lead is labelled Black-Brown in the supplied diagram; this label is retained. C denotes the capacitor; use the ratings in the motor table.

01 / PRODUCT & TECHNICAL DATA

VCAF

Circular Axial Duct Fan



01 Motor & terminal box

External rotor AC motor with a run capacitor and accessible electrical connection.

02 Axial impeller

Sheet-steel blades for airflow through circular ducts. Protective wire guard fitted.

03 Steel casing

Powder-coated cylindrical sheet-steel housing for inline installation.

MODEL SPECIFICATIONS

Nominal reference values / 50 Hz

Model	Duct size mm	Max. airflow* m^3/h	Input power W	Current A	Speed rpm	Weight kg
VCAF 200	200	682	63	0.28	2750	2.7
VCAF 250	250	1485	100	0.5	2700	3.6
VCAF 300	300	2020	140	0.6	2600	4.6
VCAF 350	350	3110	200	0.9	2050	5.6

OPERATING CONDITIONS

Single-phase 230 V / 50 Hz. Motor protection IP44, insulation Class B.
Operating range: -20 to +40 °C. Maximum transported-air temperature: 40 °C.
Optional voltage-regulator speed control. Curves show full-voltage operation.

* Maximum airflow is the upper limit of the supplied performance-curve range, rounded to whole m^3/h; it is not a selected duty-point value. Other nominal ratings are reference values; actual power, current and speed depend on the operating point.

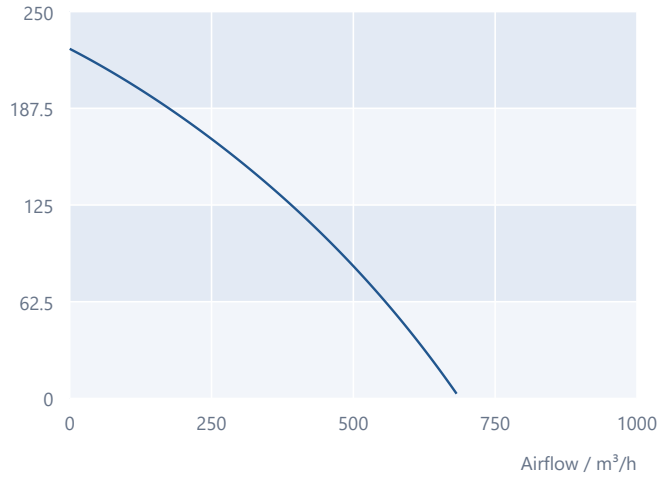
02 / AIR PERFORMANCE / 01

Fan Performance Curves

VCAF 200

1~230 V / 50 Hz

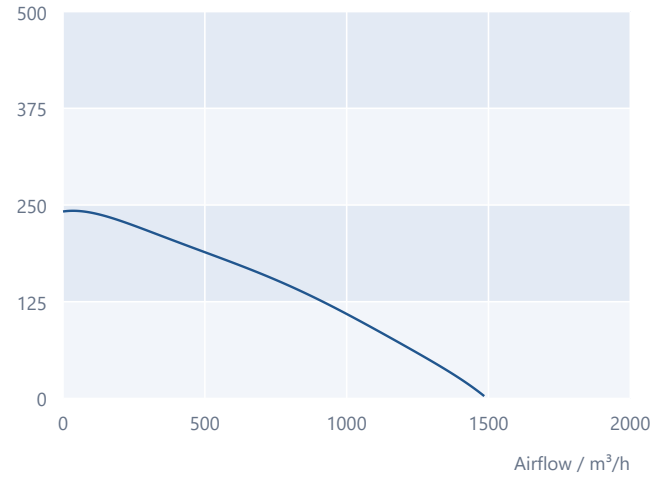
Static pressure / Pa



VCAF 250

1~230 V / 50 Hz

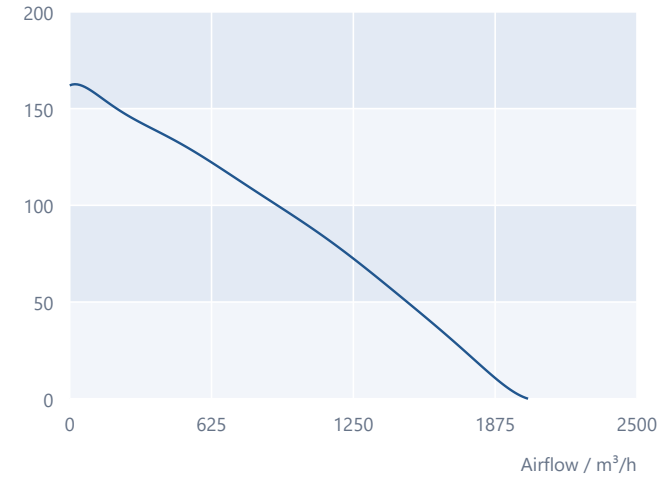
Static pressure / Pa



VCAF 300

1~230 V / 50 Hz

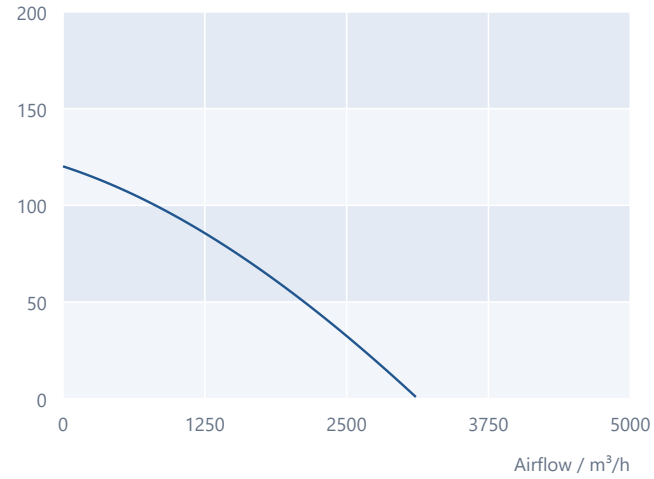
Static pressure / Pa



VCAF 350

1~230 V / 50 Hz

Static pressure / Pa



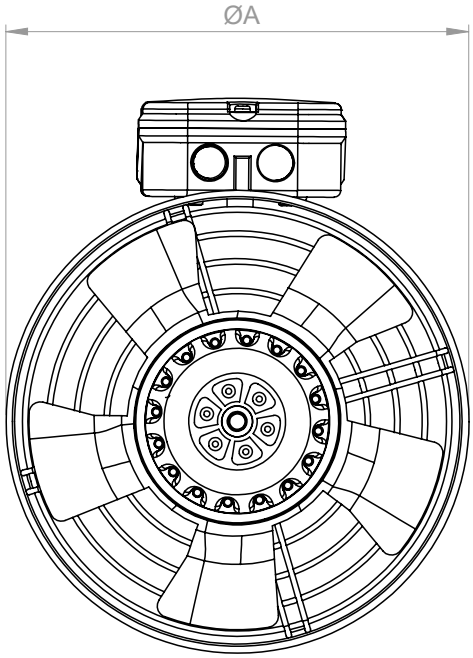
Model-specific axis scales. Listed 50 Hz curves shown only within their ranges. Maximum airflow and pressure are separate endpoints.

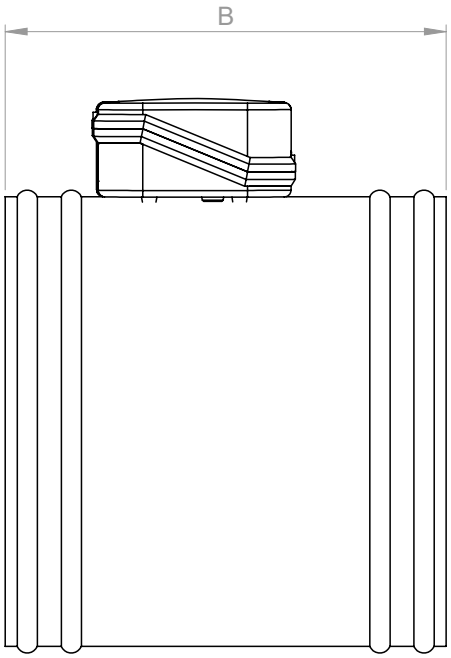
03 / DIMENSIONAL DATA

Plan the installation.

FAMILY DRAWING

All dimensions in mm





Model	Nominal duct size / mm	Ø A / mm	B / mm
VCAF 200	200	200	200
VCAF 250	250	250	250
VCAF 300	300	300	250
VCAF 350	350	355	250

INSTALLATION

Support the casing securely. Allow access to the terminal box, impeller and guard for inspection and maintenance. Dimension A is the actual casing diameter; VCAF 350 uses A = 355 mm.

04 / ELECTRICAL CONNECTION

Single-phase connection.

VCAF SERIES

1~230 V / 50 Hz

1

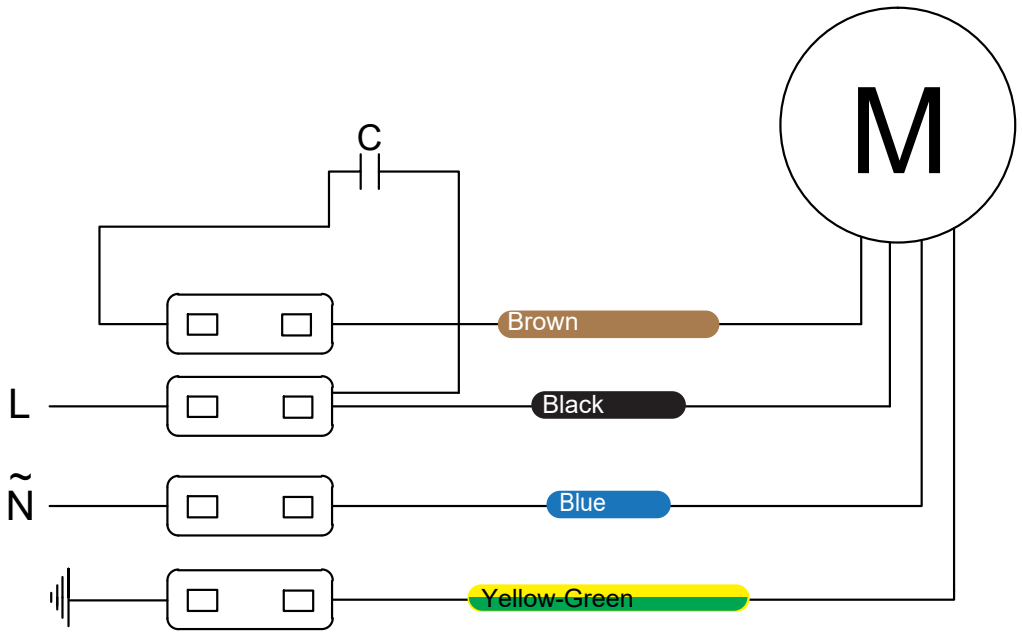


DIAGRAM LEGEND

L	Live	N	Neutral	C	Run capacitor

Capacitor / µF

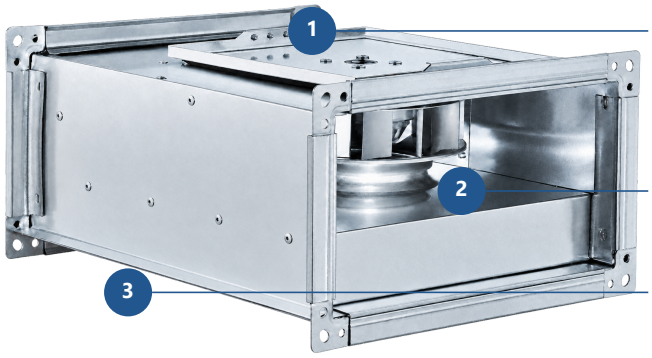
VCAF 200: 2 | VCAF 250: 4 | VCAF 300: 5 | VCAF 350: 5

Refer to the wiring diagram supplied with the actual unit before installation.

01 / PRODUCT & TECHNICAL DATA

VBF

Rectangular Duct Fan



01 Service access

Access lid for inspection and maintenance of the motor and impeller assembly.

02 Centrifugal impeller

Backward-curved blades driven directly by an external-rotor motor.

03 Rectangular steel casing

Galvanized sheet-steel construction with duct connection flanges.

MODEL SPECIFICATIONS

Nominal reference values / 50 Hz

Model	Duct / mm	Max. airflow* m^3/h	Power W	Current A	Speed rpm	Supply V / phase	Weight kg
VBF 30-15M	300x150	450	75	0.37	2450	230 / 1	7
VBF 40-20 A	400x200	950	130	0.55	2650	230 / 1	10.5
VBF 40-20 B	400x200	1150	165	0.73	2650	230 / 1	11
VBF 50-25	500x250	1610	240	1.1	2600	230 / 1	15
VBF 60-30	600x300	1850	190	0.85	1440	230 / 1	29
VBF 60-35M B	600x350	3300	250	1.15	1400	230 / 1	32
VBF 70-40M B	700x400	5400	660	3	1350	230 / 1	46
VBF 80-50T	800x500	7550	1150	2.5	1400	400 / 3	84
VBF 100-50T	1000x500	9600	2000	3.8	1300	400 / 3	84

* Maximum airflow is the upper limit of the supplied performance-curve range, rounded to whole m^3/h; it is not a selected duty-point value. Other ratings are nominal references at 50 Hz. Actual power, current and speed depend on the operating point. Match the model-specific electrical supply to the installation.

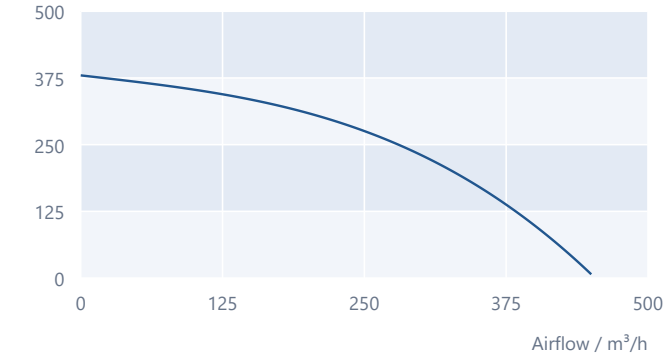
02 / AIR PERFORMANCE / 01

Fan Performance Curves

VBF 30-15M

1~230 V / 50 Hz

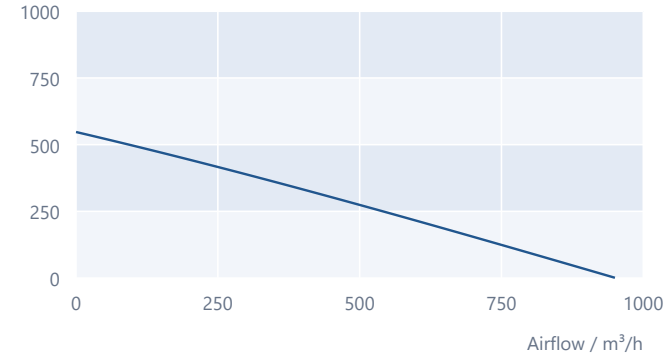
Static pressure / Pa



VBF 40-20 A

1~230 V / 50 Hz

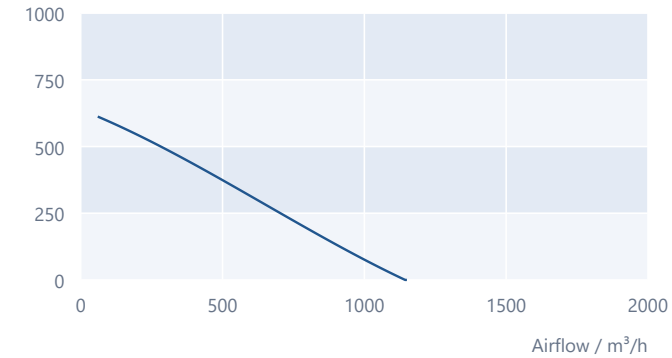
Static pressure / Pa



VBF 40-20 B

1~230 V / 50 Hz

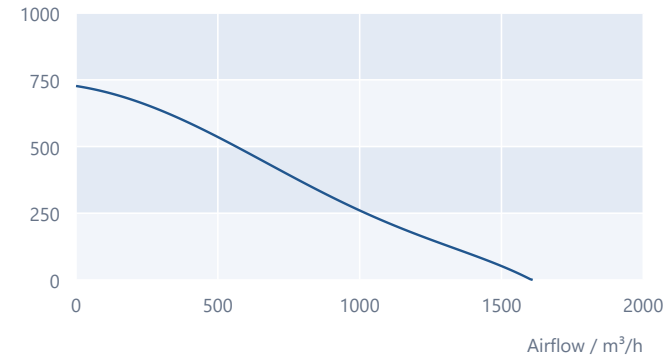
Static pressure / Pa



VBF 50-25

1~230 V / 50 Hz

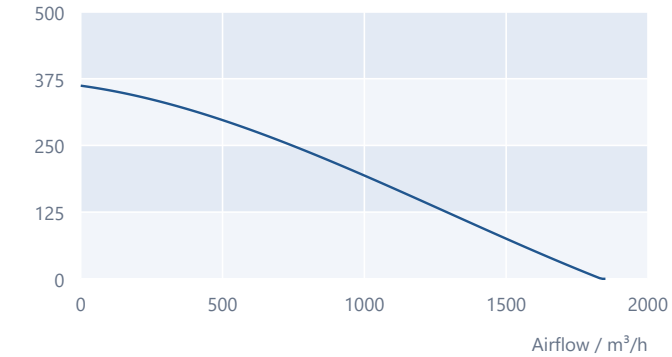
Static pressure / Pa



VBF 60-30

1~230 V / 50 Hz

Static pressure / Pa



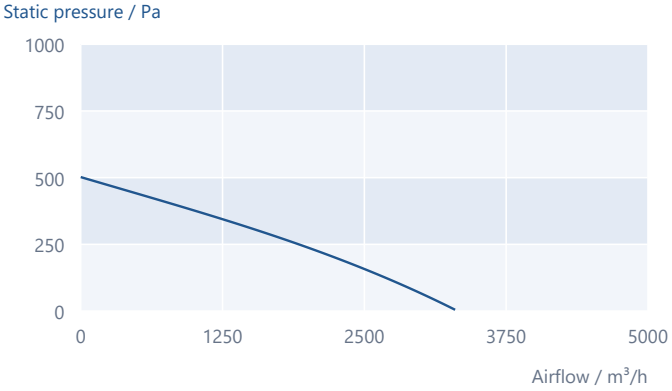
Model-specific axis scales. Listed 50 Hz curves shown only within their ranges.

02 / AIR PERFORMANCE / 02

Fan Performance Curves

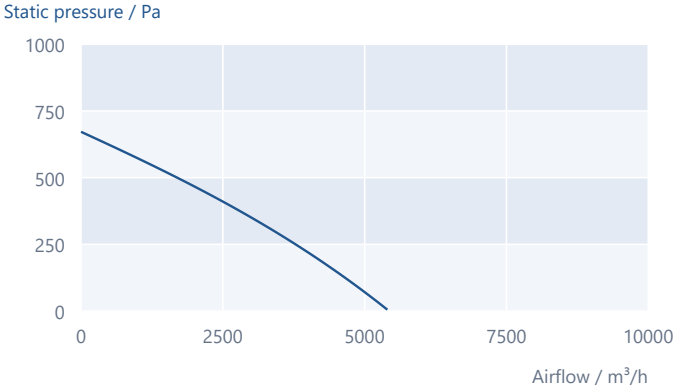
VBF 60-35M B

1~230 V / 50 Hz



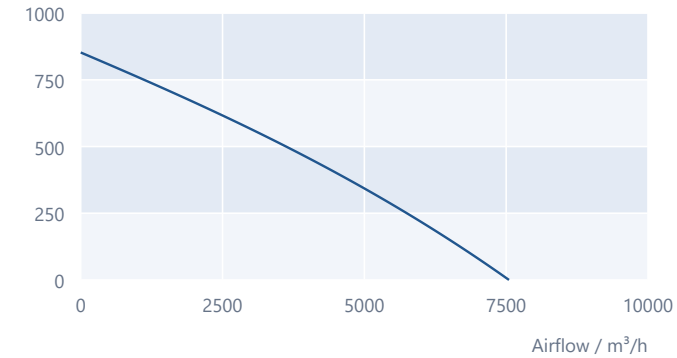
VBF 70-40M B

1~230 V / 50 Hz



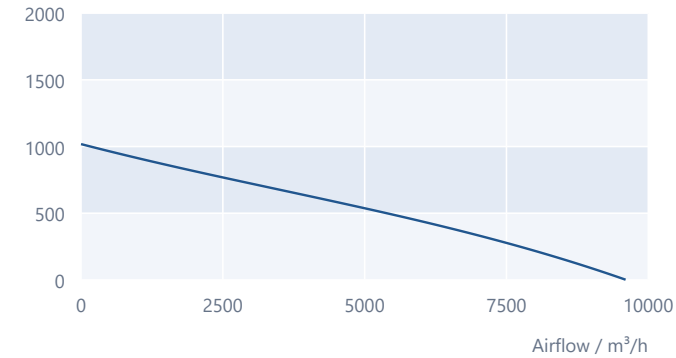
VBF 80-50T

3~400 V / 50 Hz



VBF 100-50T

3~400 V / 50 Hz



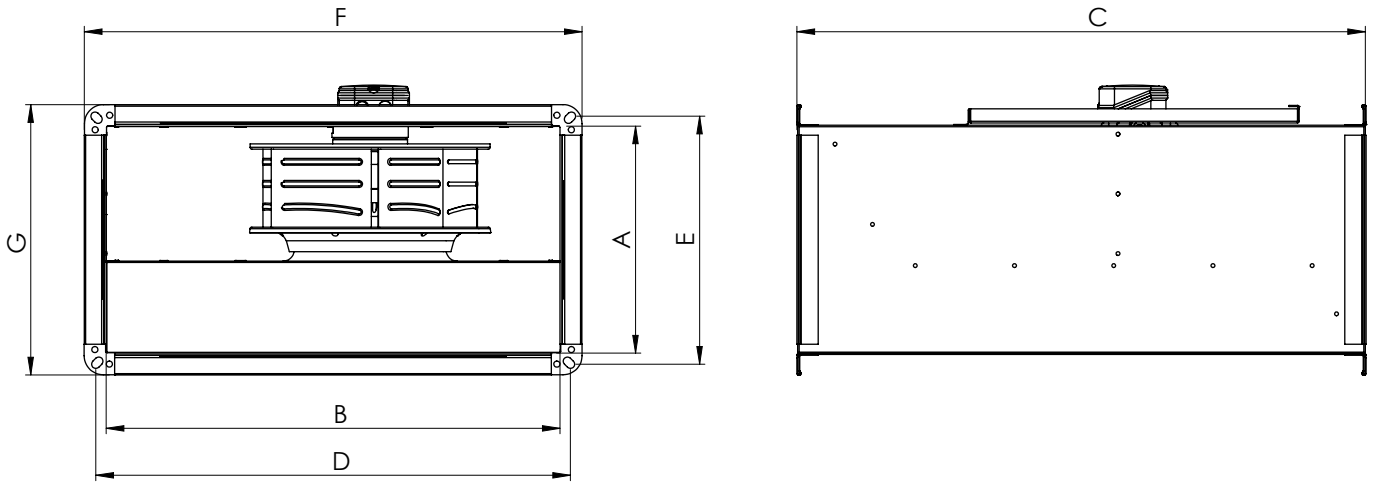
Model-specific axis scales. Listed 50 Hz curves shown only within their ranges.

03 / DIMENSIONAL DATA

Plan the installation.

FAMILY DRAWING

All dimensions in mm



Model	A	B	C	D	E	F	G
VBF 30-15M	150	300	400	320	170	350	200
VBF 40-20 A	200	400	500	420	220	450	250
VBF 40-20 B	200	400	500	420	220	450	250
VBF 50-25	250	500	565	520	270	550	300
VBF 60-30	300	600	750	620	320	660	360
VBF 60-35M B	350	600	750	620	370	660	410
VBF 70-40M B	400	700	800	720	420	770	470
VBF 80-50T	500	800	920	820	520	870	570
VBF 100-50T	500	1000	1050	1030	530	1070	570

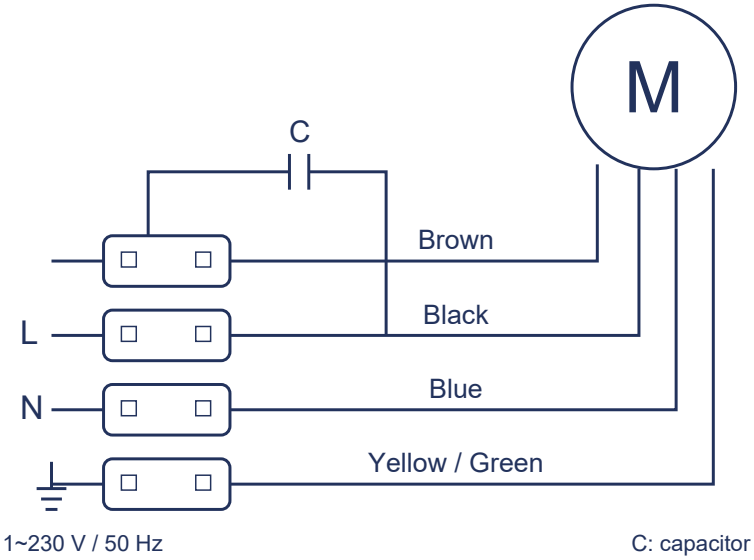
Operating range: -20 to +40 °C. Maximum transported-air temperature: 40 °C. All model-specific flange and casing dimensions follow the Selection Program records.

04 / ELECTRICAL CONNECTION

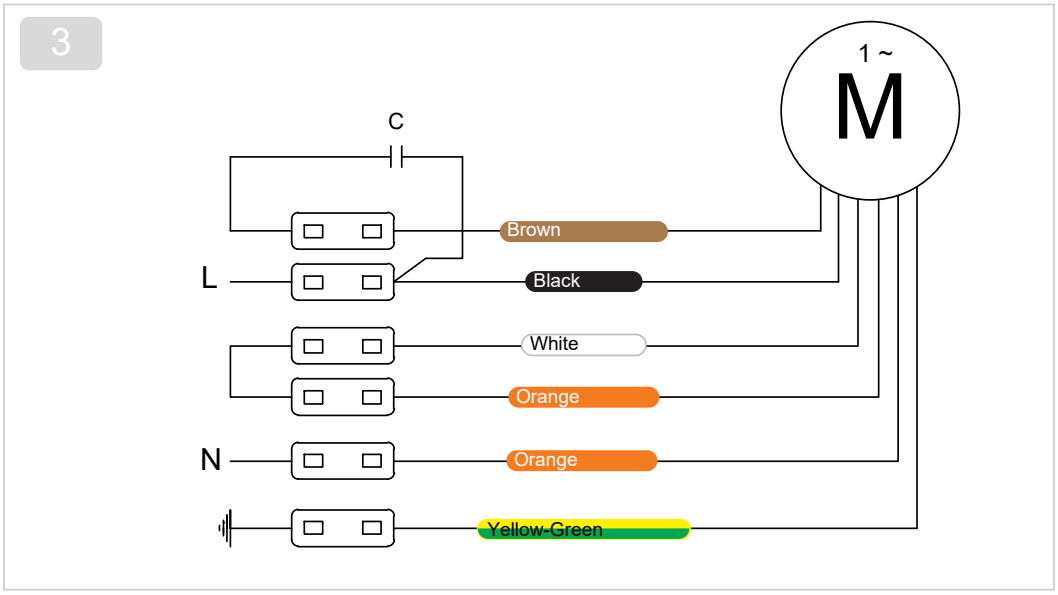
Single-phase models.

1~230 V / 50 Hz

VBF 30-15M / 40-20 A / 40-20 B / 50-25 / 60-30 / 60-35M B



VBF 70-40M B / 1~230 V / 50 Hz



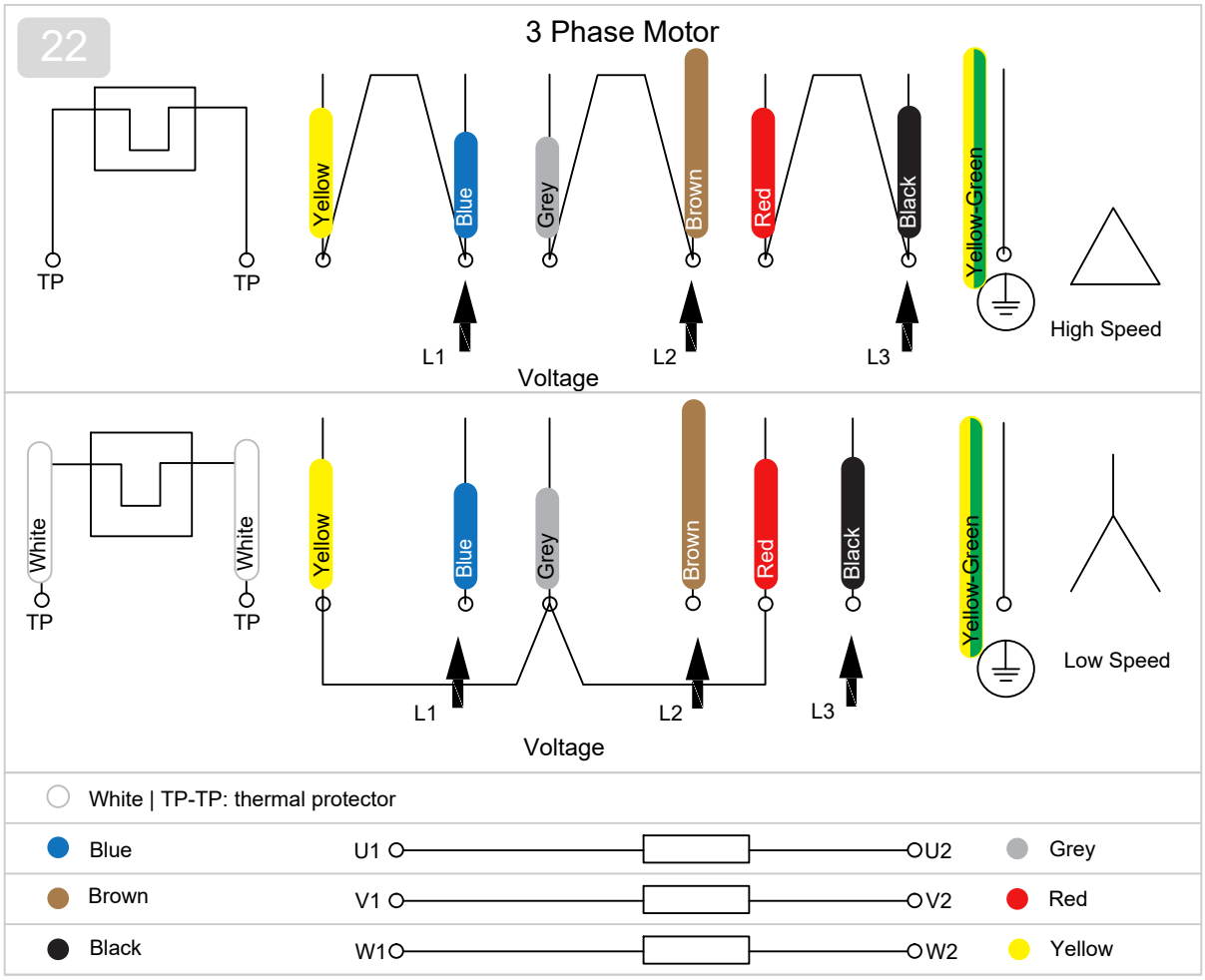
C: run capacitor. Follow the model-specific diagram supplied with the actual unit. Isolate the supply before servicing.

05 / ELECTRICAL CONNECTION

Three-phase models.

VBF 80-50T / VBF 100-50T

3~400 V / 50 Hz



CONNECTION KEY

L1 / L2 / L3: phase conductors. TP / TP: thermal protector terminals. Protective earth: yellow-green.
Winding and terminal connections follow the original data diagram.

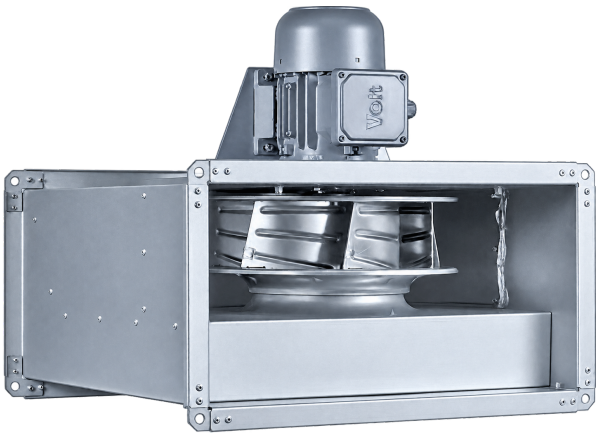
Motor protection: IP44. Insulation Class B: VBF 30-15M, 40-20 A, 40-20 B and 50-25. Insulation Class F: remaining models.

The diagram illustrates high-speed and low-speed winding configurations. Follow the actual motor nameplate and unit instructions when selecting a connection.

01 / PRODUCT & TECHNICAL DATA

VBF-R

Rectangular Duct Fan



01 Motor outside the airstream

Motor positioned outside the transported-air path, with external access for inspection.

02 Centrifugal impeller

Direct motor drive. Materials: galvanized sheet metal and aluminium.

03 Galvanized steel casing

Rectangular duct connections and an inspection hatch for cleaning and maintenance. No additional casing coating.

MODEL SPECIFICATIONS

Nominal reference values / 50 Hz

Model	Duct / mm	Max. airflow* m^3/h	Reference power W / at 0 Pa	Reference speed rpm / at 0 Pa	Supply V / phase
VBF-R 280	500x250	1100	180	1450	380 / 3
VBF-R 315	500x250	1600	250	1469	380 / 3
VBF-R 355	600x300	2300	370	1471	380 / 3
VBF-R 400	600x350	3300	550	1478	380 / 3
VBF-R 450	700x400	5000	750	1454	380 / 3
VBF-R 500	800x500	7000	1100	1462	380 / 3
VBF-R 560	1000x500	9800	1500	1464	380 / 3

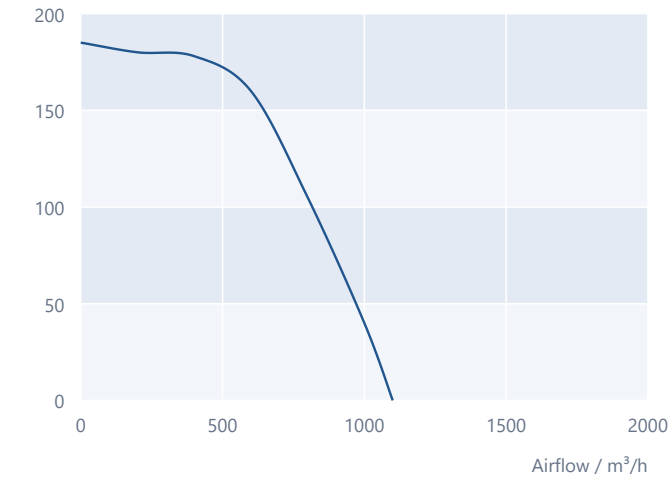
* Maximum airflow is the upper limit of the supplied performance-curve range, rounded to whole m^3/h; it is not a selected duty-point value. Other values are 50 Hz catalogue references at 0 Pa. Actual input power and speed depend on the duty point. Motor current and unit weight were not supplied.

02 / AIR PERFORMANCE / 01

Fan Performance Curves

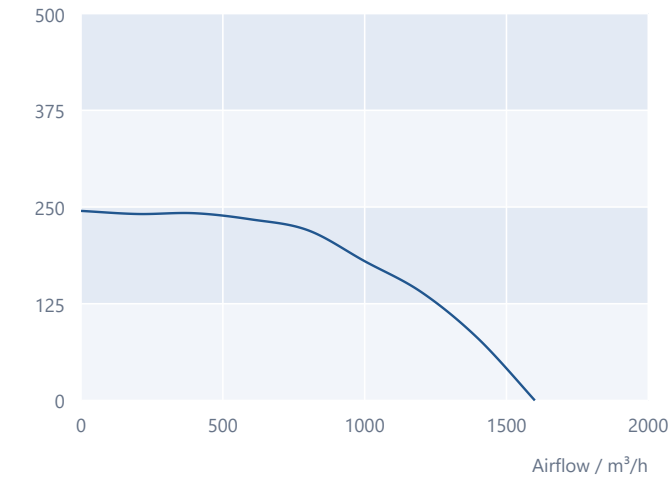
VBF-R 280

3~380 V / 50 Hz



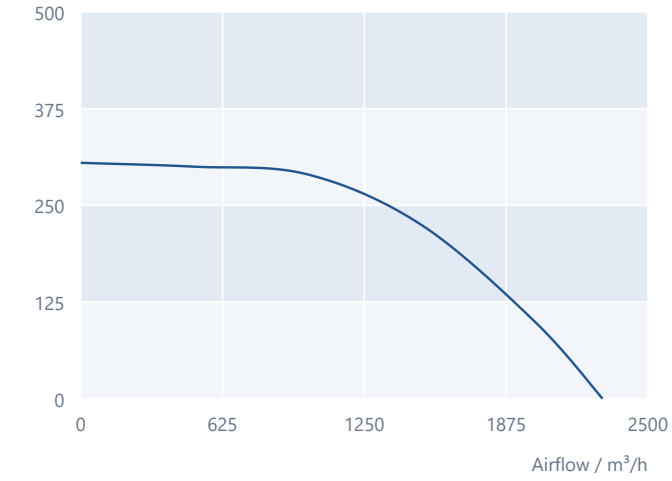
VBF-R 315

3~380 V / 50 Hz



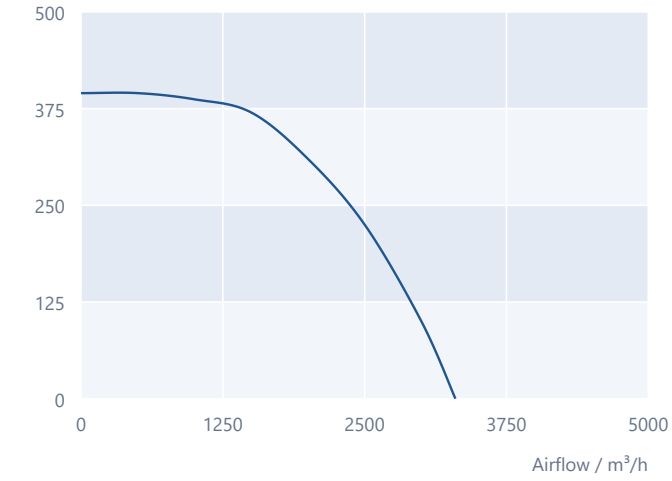
VBF-R 355

3~380 V / 50 Hz



VBF-R 400

3~380 V / 50 Hz



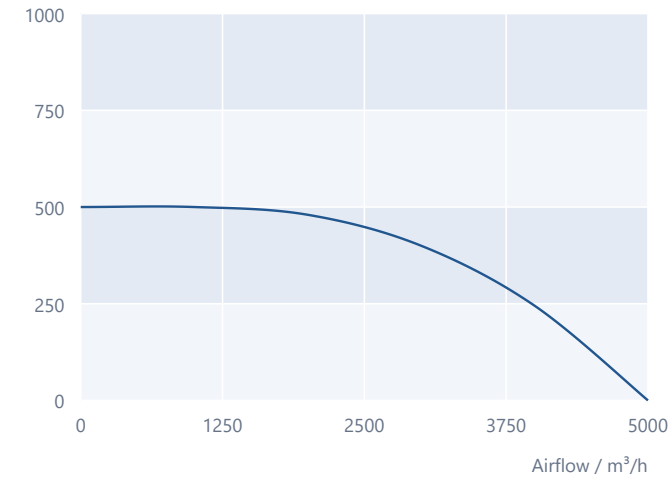
Model-specific axis scales. Listed 50 Hz curves shown only within their ranges. Maximum airflow and pressure are separate endpoints.

02 / AIR PERFORMANCE / 02

Fan Performance Curves

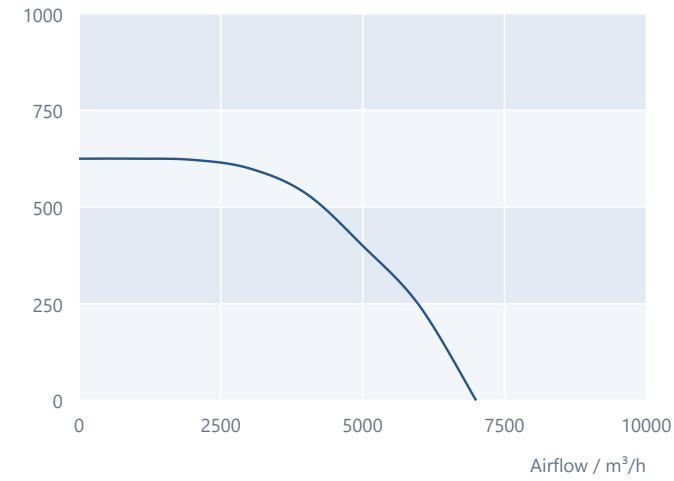
VBF-R 450

3~380 V / 50 Hz



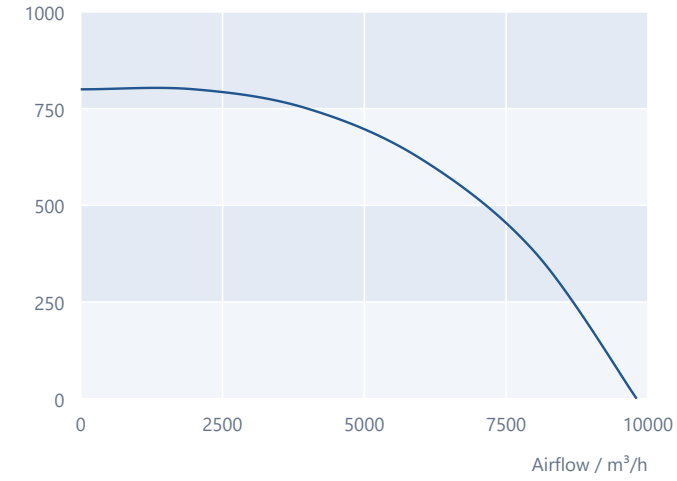
VBF-R 500

3~380 V / 50 Hz



VBF-R 560

3~380 V / 50 Hz



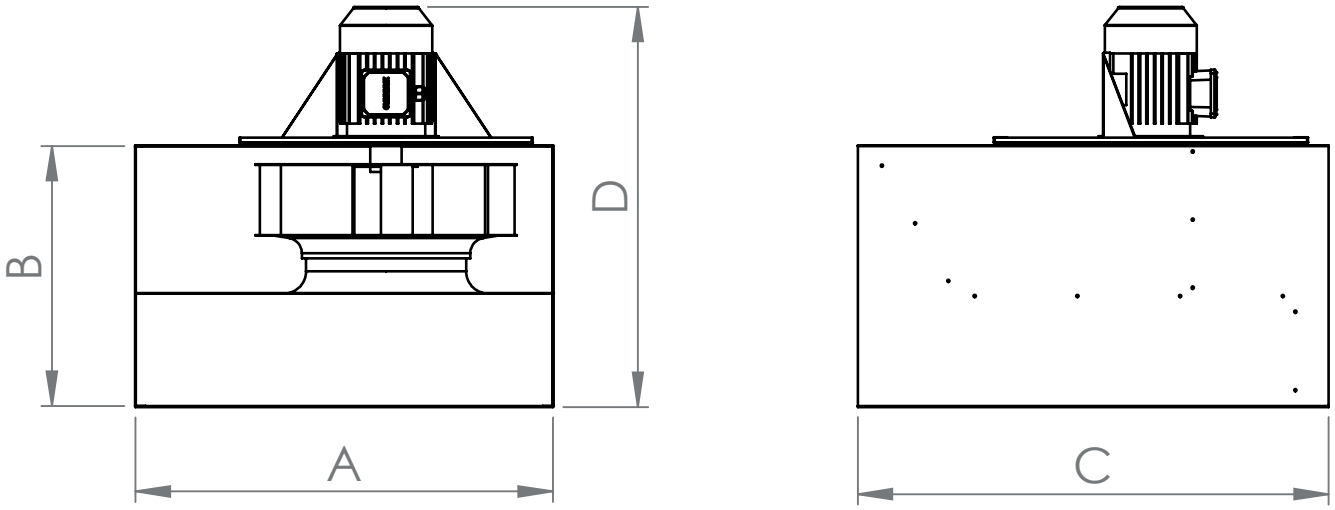
Model-specific axis scales. Listed 50 Hz curves shown only within their ranges. Maximum airflow and pressure are separate endpoints.

03 / DIMENSIONAL DATA

Plan the installation.

FAMILY DRAWING

All dimensions in mm



Model	A	B	C	D
VBF-R 280	500	250	565	450
VBF-R 315	500	250	565	476
VBF-R 355	600	300	760	526
VBF-R 400	600	350	750	590
VBF-R 450	700	400	790	641
VBF-R 500	800	500	900	765
VBF-R 560	1000	500	1050	790

VBF-R series / rectangular duct connections 500 x 250 to 1000 x 500 mm

Family drawing. Dimension values follow the model records in Voltvent Selection Software.

04 / INSTALLATION & MOTOR DATA

Plan for access and service.

01 Duct connection

Match the rectangular A x B connection to the selected model. Use dimensions A-D to plan the casing envelope and mounting space.

02 Installation & access

Support the cabinet securely. Allow clearance around the external motor and inspection hatch for access, cleaning and maintenance.

03 Applications

Duct exhaust and kitchen ventilation applications. Keep the airflow path clear and respect the stated operating temperature range.

MOTOR & OPERATING CONDITIONS

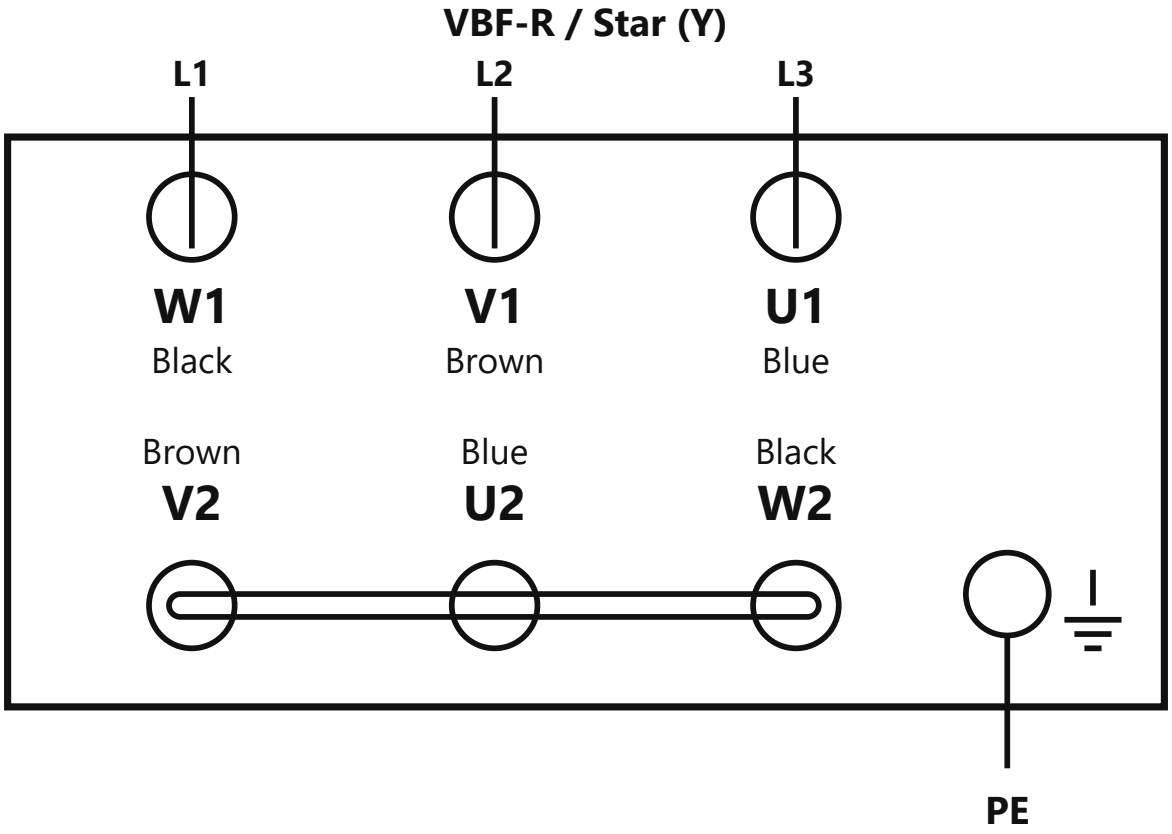
Parameter	Catalogue reference
Electrical supply	3~380 V / 50 Hz
Insulation / protection	Class F / IP55
Motor efficiency class	IE3
Duty classification	S1
Operating temperature	-20 to +50 °C

Use the electrical connection diagram supplied with the actual unit. The supplied star (Y) connection diagram is on the next page. Disconnect the supply before servicing.

05 / ELECTRICAL CONNECTION

Three-phase star connection.

VBF-R / 380 V / 50 Hz - STAR (Y)



CONNECTION KEY

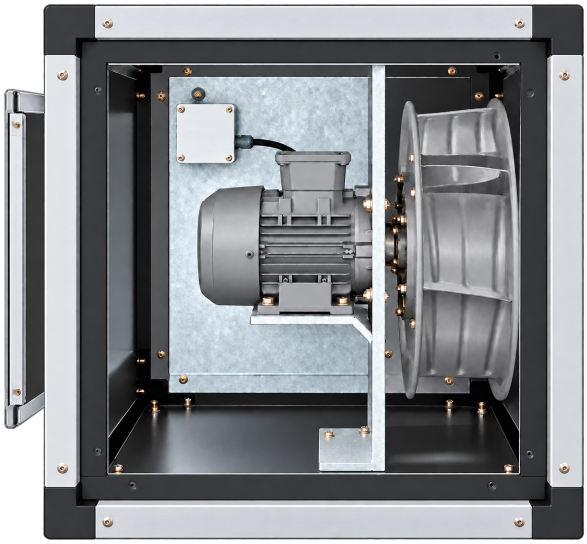
Marking	Function
L1 / L2 / L3	Phase supply
W1 / V1 / U1	Supply-connected terminals, in the shown order
V2 / U2 / W2	Star point / terminals linked as shown
PE	Protective earth

Terminal codes, conductor colours and the star-point link follow the supplied drawing. Use the actual motor nameplate and supplied terminal diagram. Disconnect the electrical supply before servicing.

01 / PRODUCT & TECHNICAL DATA

VSF

Box Duct Fan



01 Service access

Open service door provides access to the fan and motor assembly for inspection and maintenance.

02 Aluminium impeller

Aluminium impeller driven by a motor positioned within the airstream.

03 Powder-coated steel casing

Galvanized sheet-metal casing with an electrostatic powder coating.

MODEL SPECIFICATIONS

Nominal reference values / 50 Hz

Model	Duct / mm	Max. airflow* m^3/h	Reference power W / at 0 Pa	Reference speed rpm / at 0 Pa	Supply V / phase
VSF 280	280	1100	180	1450	380 / 3
VSF 315	315	1600	250	1469	380 / 3
VSF 355	355	2300	370	1471	380 / 3
VSF 400	400	3300	550	1478	380 / 3
VSF 450	450	5000	750	1454	380 / 3
VSF 500	500	7000	1100	1462	380 / 3
VSF 560	560	9800	1500	1464	380 / 3
VSF 630	630	14000	3000	1465	380 / 3
VSF 710	710	13000	4000	950	380 / 3

* Maximum airflow is the upper limit of the supplied performance-curve range, rounded to whole m^3/h; it is not a selected duty-point value. Other values are 50 Hz catalogue references at 0 Pa. Actual input power and speed depend on the duty point. Motor current and unit weight were not supplied.

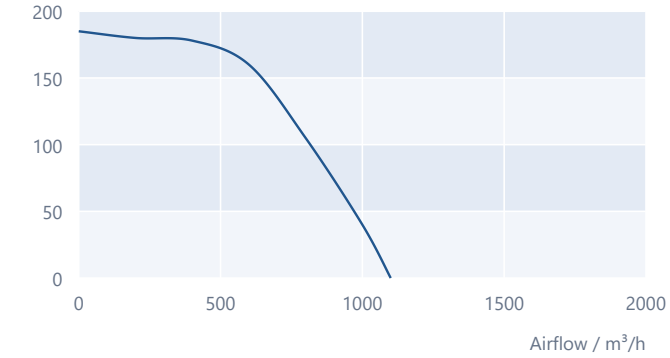
02 / AIR PERFORMANCE / 01

Fan Performance Curves

VSF 280

3~380 V / 50 Hz

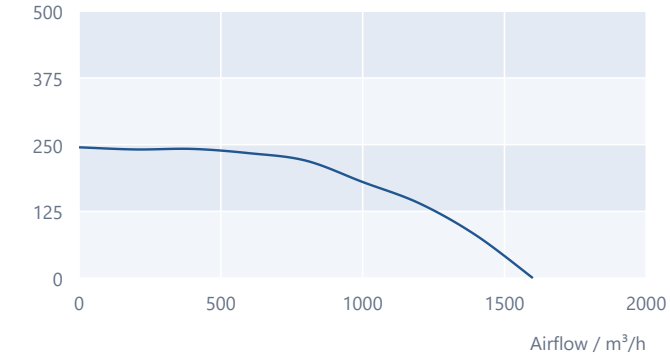
Static pressure / Pa



VSF 315

3~380 V / 50 Hz

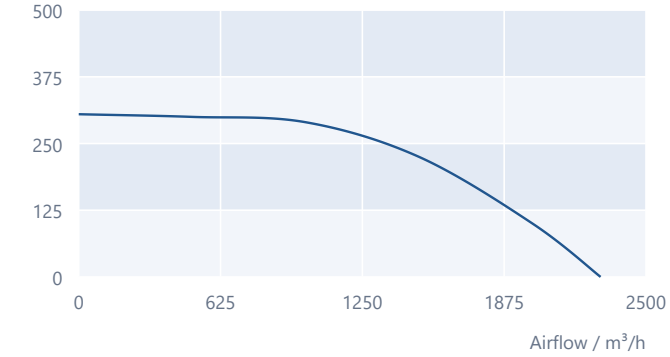
Static pressure / Pa



VSF 355

3~380 V / 50 Hz

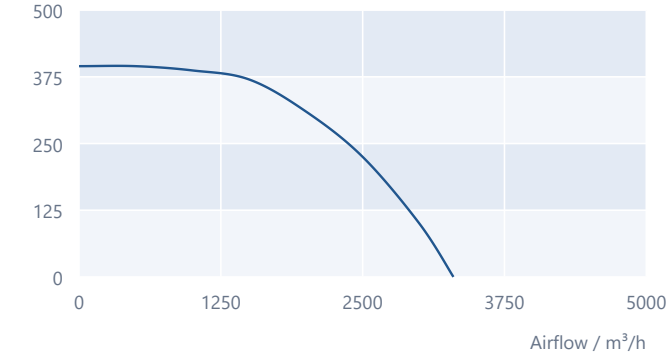
Static pressure / Pa



VSF 400

3~380 V / 50 Hz

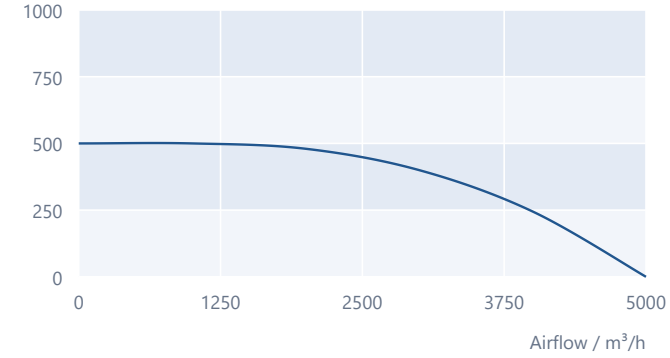
Static pressure / Pa



VSF 450

3~380 V / 50 Hz

Static pressure / Pa



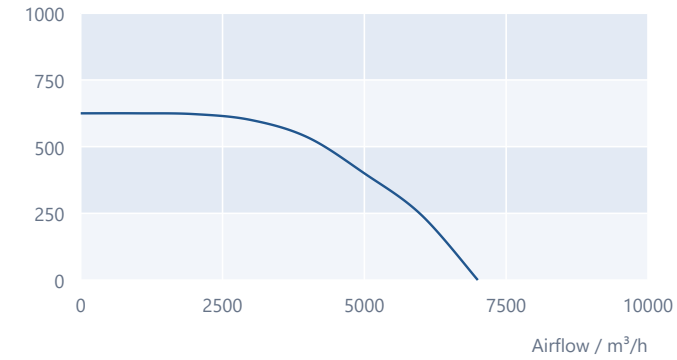
Model-specific axis scales. Listed 50 Hz curves shown only within their ranges. Maximum airflow and pressure are separate endpoints.

02 / AIR PERFORMANCE / 02

Fan Performance Curves

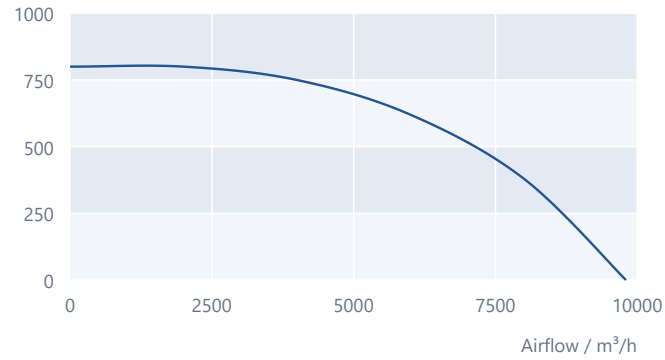
VSF 500

3~380 V / 50 Hz



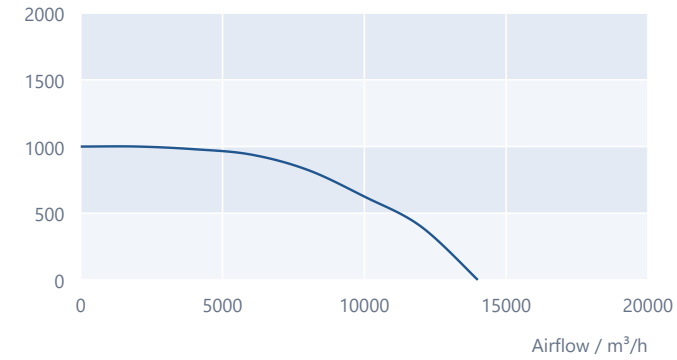
VSF 560

3~380 V / 50 Hz



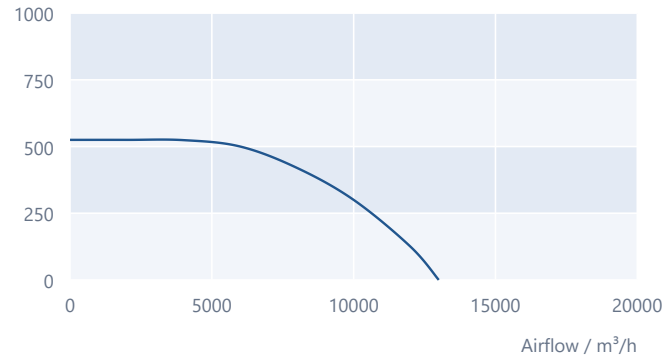
VSF 630

3~380 V / 50 Hz



VSF 710

3~380 V / 50 Hz



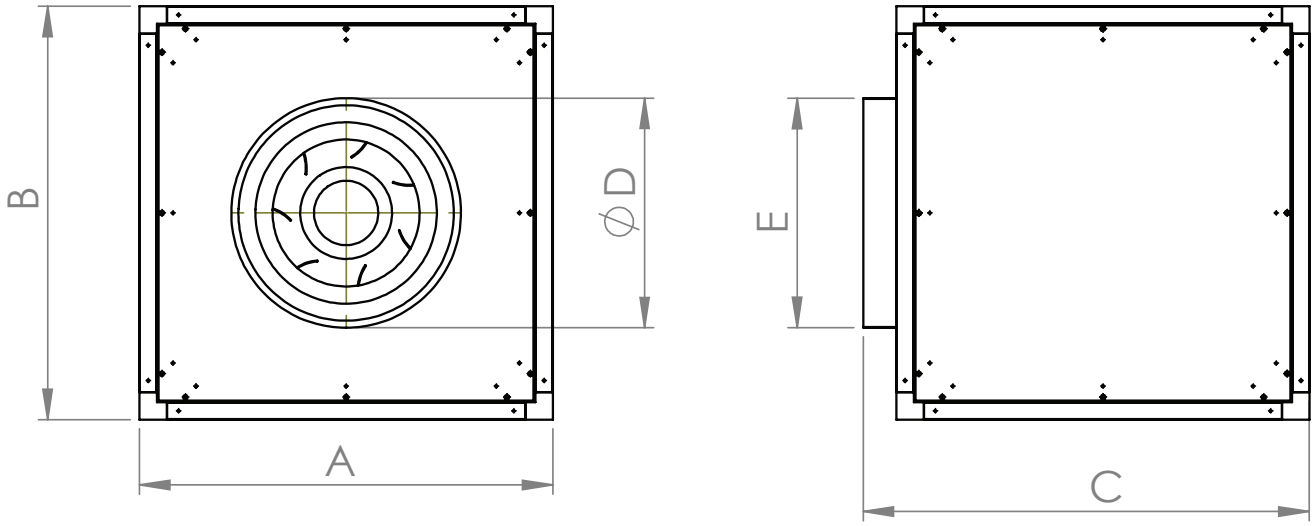
Model-specific axis scales. Listed 50 Hz curves shown only within their ranges. Maximum airflow and pressure are separate endpoints.

03 / DIMENSIONAL DATA

Plan the installation.

FAMILY DRAWING

All dimensions in mm



Model	A	B	C	Ø D	E
VSF 280	450	450	520	280	250
VSF 315	500	500	570	315	300
VSF 355	500	500	570	355	300
VSF 400	600	600	600	400	350
VSF 450	700	700	770	450	400
VSF 500	800	800	870	500	450
VSF 560	900	900	970	560	500
VSF 630	1000	1000	1070	630	600
VSF 710	1100	1100	1170	710	650

VSF series / duct connection range 280-710 mm

Family drawing. Dimension values follow the model records in Voltvent Selection Software.

04 / INSTALLATION & MOTOR DATA

Plan for access and service.

01 Duct connection

Match the circular connection to the selected model. Use dimensions A-E to plan the casing envelope and mounting space.

02 Installation & access

Support the cabinet securely. Keep the service-door opening clear so that the motor and impeller remain accessible for inspection and cleaning.

03 Applications

General exhaust, duct ventilation and pressurization applications. Keep the airflow path clear and respect the stated operating temperature range.

MOTOR & OPERATING CONDITIONS

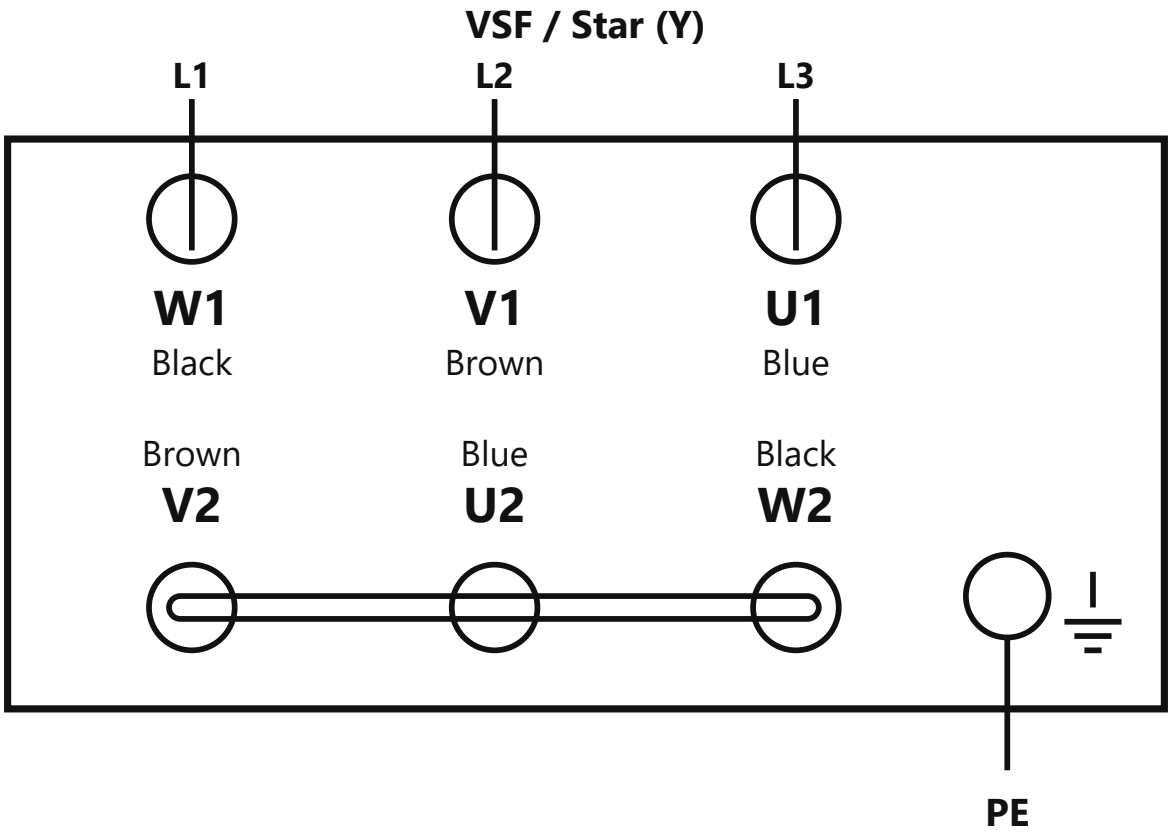
Parameter	Catalogue reference
Electrical supply	3~380 V / 50 Hz
Insulation / protection	Class F / IP55
Motor efficiency class	IE3
Duty classification	S1
Operating temperature	-20 to +50 °C

Use the electrical connection diagram supplied with the actual unit. The supplied star (Y) connection diagram is on the next page. Disconnect the supply before servicing.

05 / ELECTRICAL CONNECTION

Three-phase star connection.

VSF / 380 V / 50 Hz - STAR (Y)



CONNECTION KEY

Marking	Function
L1 / L2 / L3	Phase supply
W1 / V1 / U1	Supply-connected terminals, in the shown order
V2 / U2 / W2	Star point / terminals linked as shown
PE	Protective earth

Terminal codes, conductor colours and the star-point link follow the supplied drawing. Use the actual motor nameplate and supplied terminal diagram. Disconnect the electrical supply before servicing.

01 / PRODUCT & TECHNICAL DATA

VKF-R

Kitchen Exhaust Box Fan



01 Motor outside the airstream

Motor separated from the transported kitchen exhaust air and accessible through the service compartment.

02 Aluminium impeller

Centrifugal impeller for duct exhaust and kitchen hood applications.

03 Powder-coated steel casing

Galvanized sheet-metal cabinet with an inspection hatch and circular duct connections.

MODEL SPECIFICATIONS

Nominal reference values / 50 Hz

Model	Duct / mm	Max. airflow* m^3/h	Reference power W / at 0 Pa	Reference speed rpm / at 0 Pa	Supply V / phase
VKF-R 280	280	1100	180	1450	380 / 3
VKF-R 315	315	1600	250	1469	380 / 3
VKF-R 355	355	2300	370	1471	380 / 3
VKF-R 400	400	3300	550	1478	380 / 3
VKF-R 450	450	5000	750	1454	380 / 3
VKF-R 500	500	7000	1100	1462	380 / 3
VKF-R 560	560	9800	1500	1464	380 / 3
VKF-R 630	630	14000	3000	1465	380 / 3
VKF-R 710	710	13000	4000	950	380 / 3

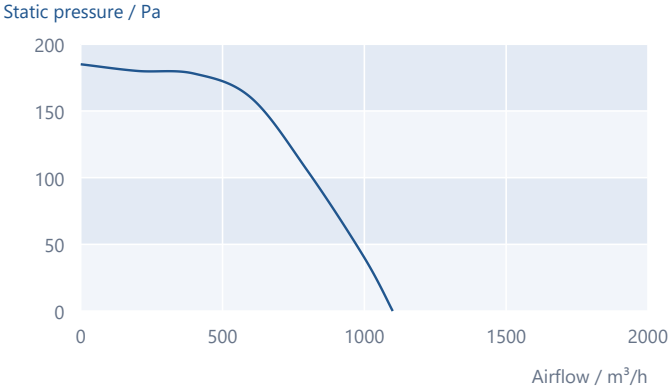
* Maximum airflow is the upper limit of the supplied performance-curve range, rounded to whole m^3/h; it is not a selected duty-point value. Other values are 50 Hz catalogue references at 0 Pa. Actual input power and speed depend on the duty point. Motor current and unit weight were not supplied.

02 / AIR PERFORMANCE / 01

Fan Performance Curves

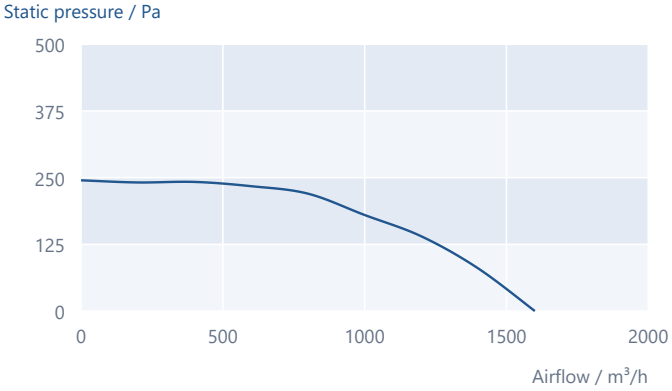
VKF-R 280

3~380 V / 50 Hz



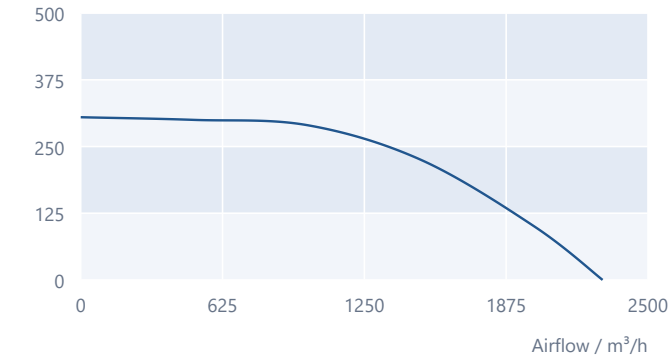
VKF-R 315

3~380 V / 50 Hz



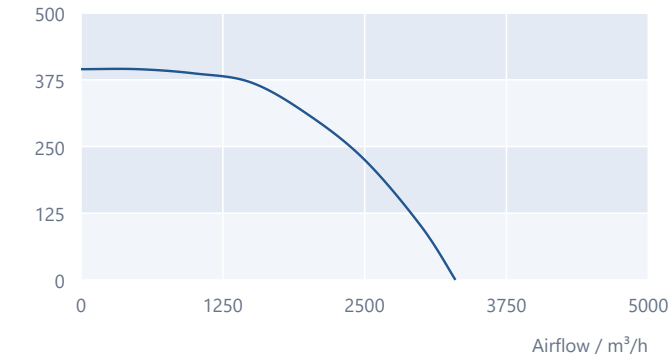
VKF-R 355

3~380 V / 50 Hz



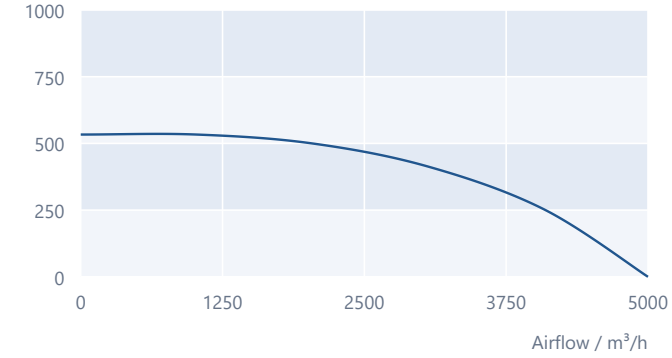
VKF-R 400

3~380 V / 50 Hz



VKF-R 450

3~380 V / 50 Hz



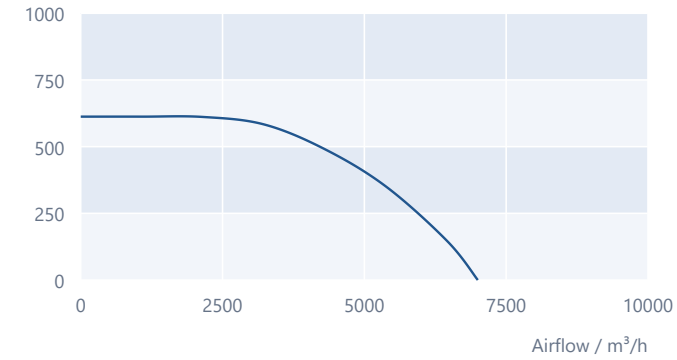
Model-specific axis scales. Listed 50 Hz curves shown only within their ranges. Maximum airflow and pressure are separate endpoints.

02 / AIR PERFORMANCE / 02

Fan Performance Curves

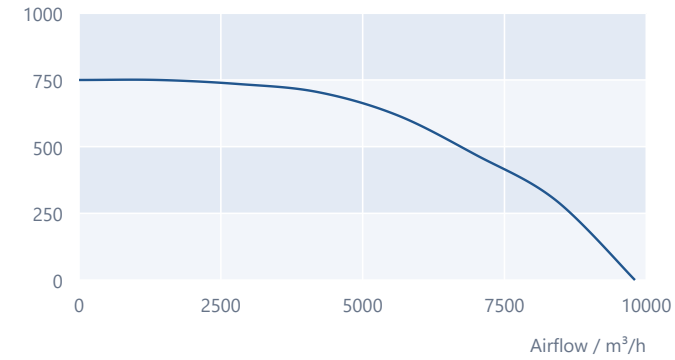
VKF-R 500

3~380 V / 50 Hz



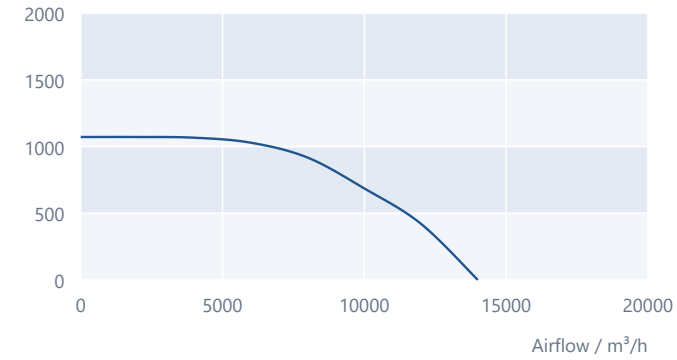
VKF-R 560

3~380 V / 50 Hz



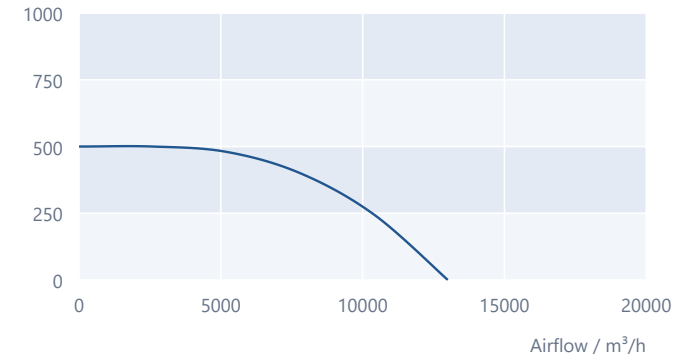
VKF-R 630

3~380 V / 50 Hz



VKF-R 710

3~380 V / 50 Hz



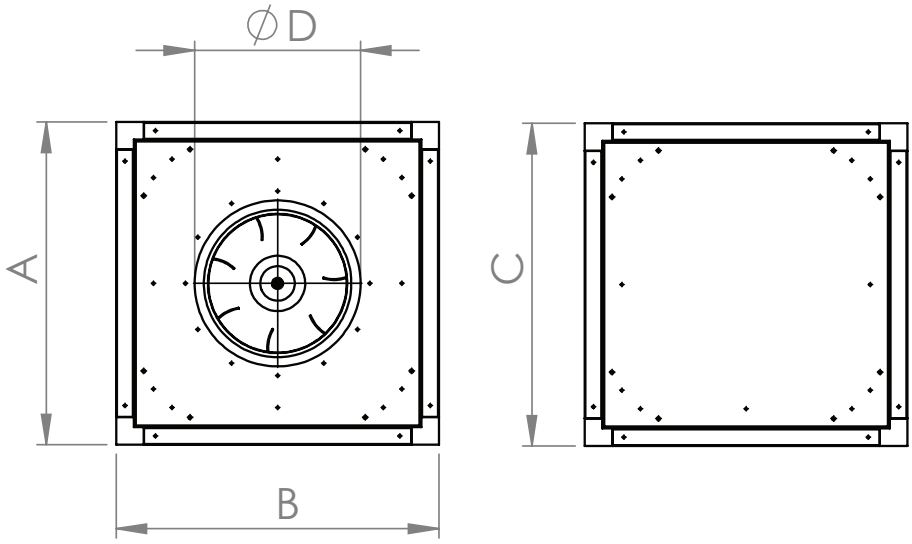
Model-specific axis scales. Listed 50 Hz curves shown only within their ranges. Maximum airflow and pressure are separate endpoints.

03 / DIMENSIONAL DATA

Plan the installation.

FAMILY DRAWING

All dimensions in mm



Model	A	B	C	Ø D
VKF-R 280	450	450	450	280
VKF-R 315	500	500	500	315
VKF-R 355	500	500	500	355
VKF-R 400	600	600	600	400
VKF-R 450	700	700	700	450
VKF-R 500	800	800	800	500
VKF-R 560	900	900	900	560
VKF-R 630	1000	1000	1000	630
VKF-R 710	1100	1100	1100	710

VKF-R series / nominal duct connections 280-710 mm

Family drawing. Dimension values follow the model records in Voltvent Selection Software.

04 / INSTALLATION & MOTOR DATA

Plan for access and service.

01 Duct connection

Match the circular D connection to the selected model. Use dimensions A-D to plan the casing envelope and mounting space.

02 Installation & access

Support the cabinet securely. Allow clearance for the inspection hatch and motor service compartment. Keep access clear for cleaning and maintenance.

03 Applications

Kitchen hood exhaust and duct ventilation applications. Keep the airflow path clear and respect the stated operating temperature range.

MOTOR & OPERATING CONDITIONS

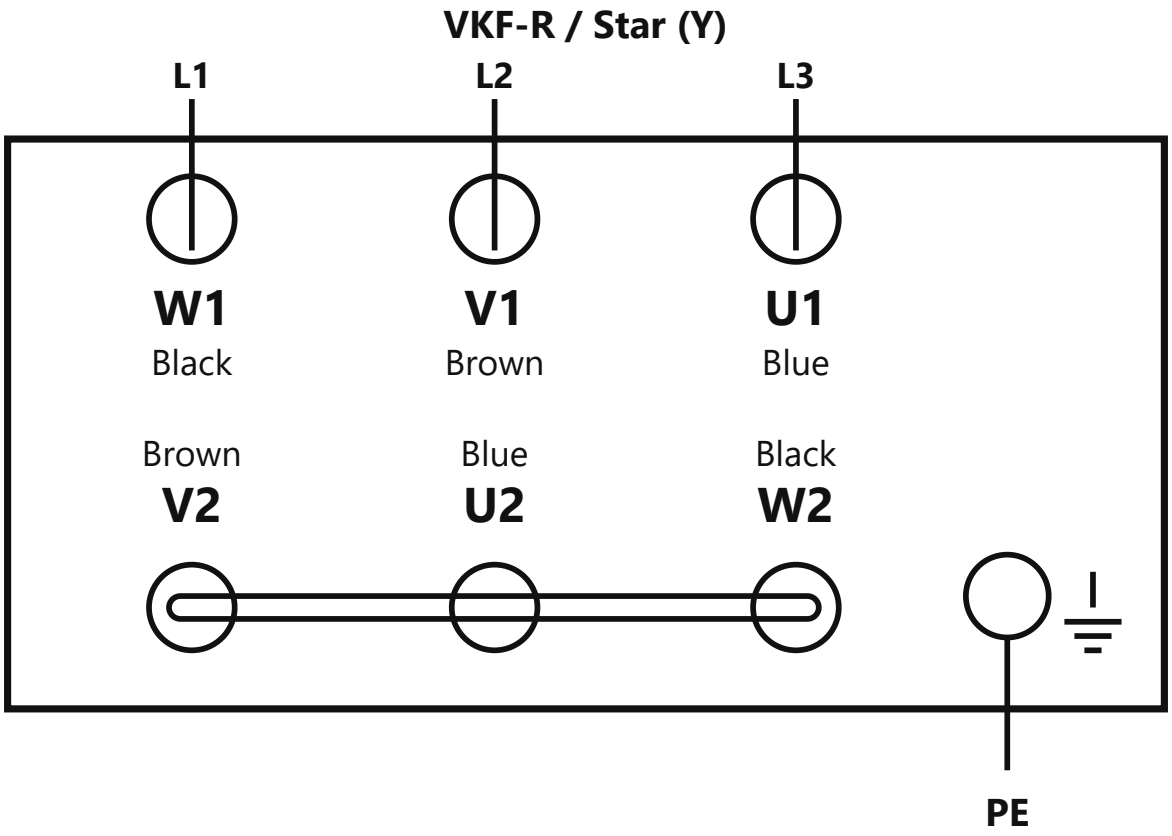
Parameter	Catalogue reference
Electrical supply	3~380 V / 50 Hz
Insulation / protection	Class F / IP55
Motor efficiency class	IE3
Duty classification	S1
Operating temperature	-20 to +50 °C

Use the electrical connection diagram supplied with the actual unit. The supplied star (Y) connection diagram is on the next page. Disconnect the supply before servicing.

05 / ELECTRICAL CONNECTION

Three-phase star connection.

VKF-R / 380 V / 50 Hz - STAR (Y)



CONNECTION KEY

Marking	Function
L1 / L2 / L3	Phase supply
W1 / V1 / U1	Supply-connected terminals, in the shown order
V2 / U2 / W2	Star point / terminals linked as shown
PE	Protective earth

Terminal codes, conductor colours and the star-point link follow the supplied drawing. Use the actual motor nameplate and supplied terminal diagram. Disconnect the electrical supply before servicing.

01 / PRODUCT & TECHNICAL DATA

VKEF

Kitchen Exhaust Fan



01 Motor outside the airstream

Motor separated from the transported kitchen exhaust air and accessible through the service compartment.

02 Aluminium impeller

Centrifugal impeller for duct exhaust and kitchen hood applications.

03 Galvanized steel casing

Sheet-metal casing with an inspection hatch and circular duct connections. No additional coating.

MODEL SPECIFICATIONS

Nominal reference values / 50 Hz

Model	Duct / mm	Max. airflow* m^3/h	Reference power W / at 0 Pa	Reference speed rpm / at 0 Pa	Supply V / phase
VKEF 315	315	1600	250	1469	380 / 3
VKEF 355	355	2300	370	1471	380 / 3
VKEF 400	400	3300	550	1478	380 / 3
VKEF 450	450	5000	750	1454	380 / 3
VKEF 500	500	7000	1100	1462	380 / 3

* Maximum airflow is the upper limit of the supplied performance-curve range, rounded to whole m^3/h; it is not a selected duty-point value. Other values are 50 Hz catalogue references at 0 Pa. Actual input power and speed depend on the duty point. Motor current and unit weight were not supplied.

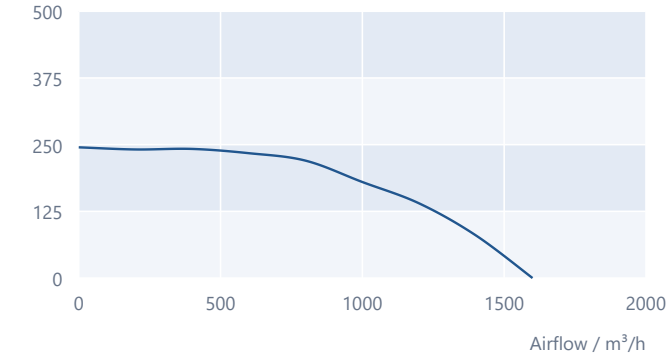
02 / AIR PERFORMANCE / 01

Fan Performance Curves

VKEF 315

3~380 V / 50 Hz

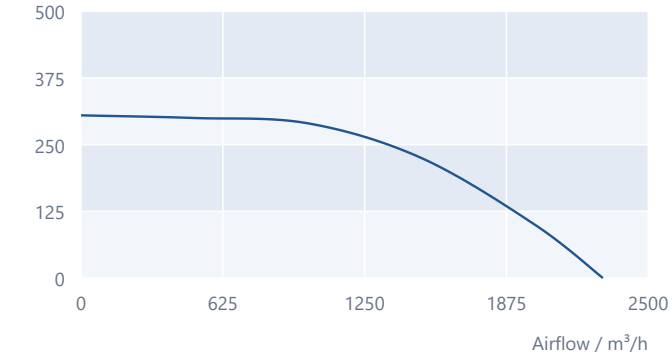
Static pressure / Pa



VKEF 355

3~380 V / 50 Hz

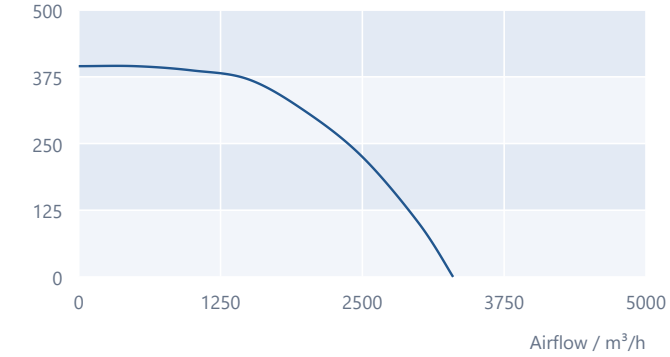
Static pressure / Pa



VKEF 400

3~380 V / 50 Hz

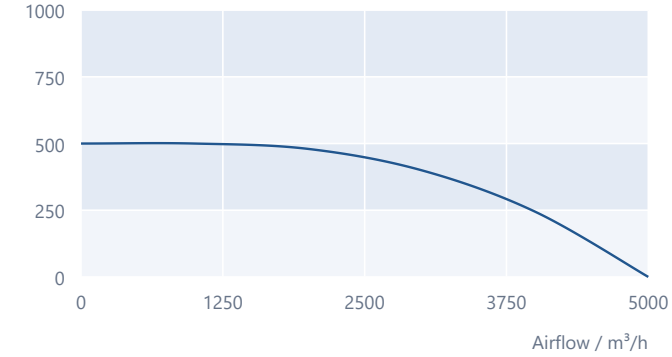
Static pressure / Pa



VKEF 450

3~380 V / 50 Hz

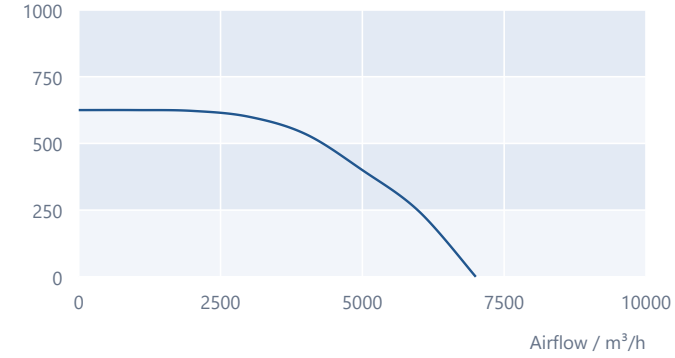
Static pressure / Pa



VKEF 500

3~380 V / 50 Hz

Static pressure / Pa



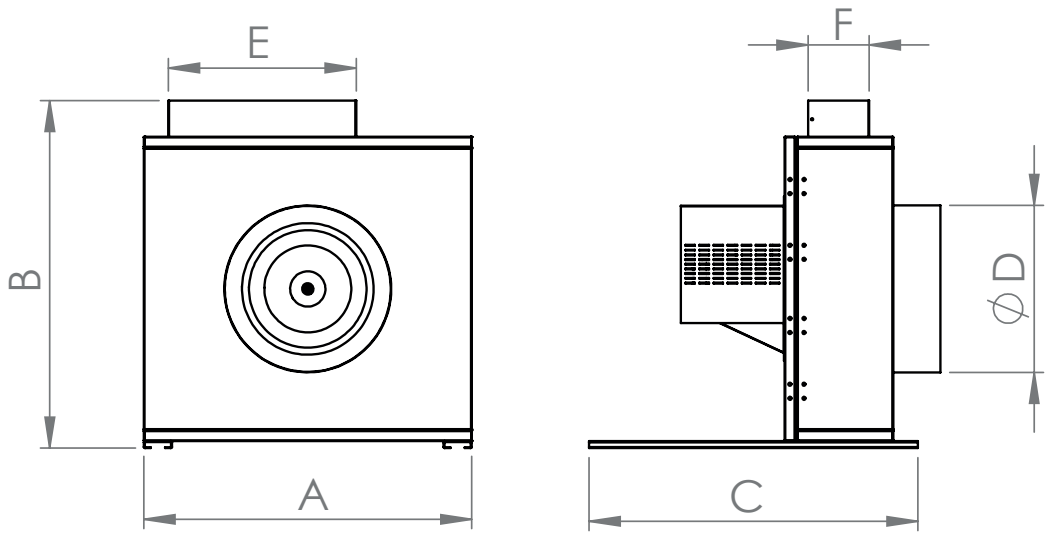
Model-specific axis scales. Listed 50 Hz curves shown only within their ranges. Maximum airflow and pressure are separate endpoints.

03 / DIMENSIONAL DATA

Plan the installation.

FAMILY DRAWING

All dimensions in mm



Model	A	B	C	Ø D	E	F
VKEF 315	650	690	700	315	300	110
VKEF 355	700	740	700	355	400	130
VKEF 400	750	790	700	400	400	150
VKEF 450	800	840	700	450	400	170
VKEF 500	850	890	700	500	440	190

VKEF series / nominal duct connections 315-500 mm

Family drawing. Dimension values follow the model records in Voltvent Selection Software.

04 / INSTALLATION & MOTOR DATA

Plan for access and service.

01 Duct connection

Match the circular D connection to the selected model. Use dimensions A-F to plan the casing envelope and mounting space.

02 Installation & access

Support the cabinet securely. Allow clearance for the inspection hatch and motor service compartment. Keep access clear for cleaning and maintenance.

03 Applications

Kitchen hood exhaust and duct ventilation applications. Keep the airflow path clear and respect the stated operating temperature range.

MOTOR & OPERATING CONDITIONS

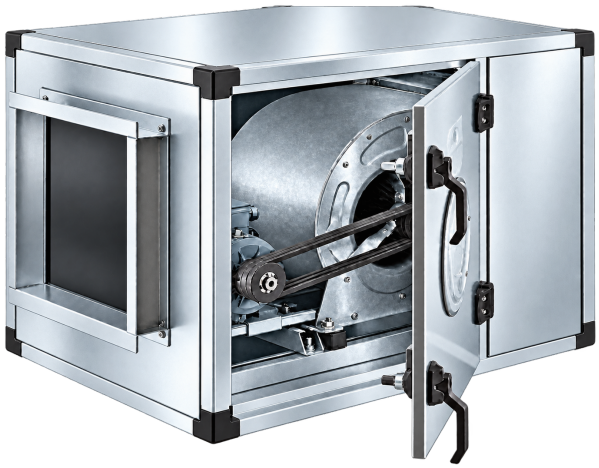
Parameter	Catalogue reference
Electrical supply	3~380 V / 50 Hz
Insulation / protection	Class F / IP55
Motor efficiency class	IE3
Duty classification	S1
Operating temperature	-20 to +50 °C

Use the electrical connection diagram supplied with the actual unit. A model-specific wiring diagram is not available in The available data records. Disconnect the supply before servicing.

01 / PRODUCT OVERVIEW

VDF

Box Duct Fan



01 Belt and pulley drive

Asynchronous motor and adjustable transmission ratio. Selected fan speed must match the final pulley configuration.

02 Forward-curved impeller

Double-inlet centrifugal fan and galvanized steel assembly for rectangular duct systems.

03 Insulated panel construction

Aluminium profile frame with 25 mm mineral wool insulation and service access door.

PERFORMANCE BASIS

Select the motor. Match the fan speed.

Each motor variant has its own calculated pressure curve. Airflow, pressure and absorbed fan power are scaled from the listed reference fan curve using the fan affinity laws. The calculated fan speed respects the listed speed limits and maintains a 10% motor power reserve across the supplied airflow range.

Selection parameter	Catalogue basis
Casing sizes	7, 9, 10, 12, 15 and 18
Nominal motor power	0.75-7.50 kW
Electrical supply	1~230 V / 3~380 V / 50 Hz
Maximum transported-air temperature	+40 °C

Calculated motor and pulley configurations; these are not separately measured motor-variant curves. Motor nameplate power and absorbed fan power are different quantities.

02 / TECHNICAL DATA

Choose the motor configuration.

20 MOTOR VARIANTS / 50 Hz

Model	Motor kW	Supply V / phase	Calculated airflow range / m³/h	Calculated fan speed / rpm	Fan speed limits / rpm
VDF 7	0.75	230 / 1	1067-3408	1367	1000-2000
VDF 7	0.75	380 / 3	1067-3408	1367	1000-2000
VDF 7	1.10	230 / 1	1212-3871	1553	1000-2000
VDF 7	1.10	380 / 3	1212-3871	1553	1000-2000
VDF 9	1.10	230 / 1	2455-4595	1187	900-1600
VDF 9	1.10	380 / 3	2455-4595	1187	900-1600
VDF 9	1.50	230 / 1	2721-5095	1316	900-1600
VDF 9	1.50	380 / 3	2721-5095	1316	900-1600
VDF 10	1.50	230 / 1	2534-6075	1090	800-1400
VDF 10	1.50	380 / 3	2534-6075	1090	800-1400
VDF 10	2.20	230 / 1	2878-6900	1238	800-1400
VDF 10	2.20	380 / 3	2878-6900	1238	800-1400
VDF 12	2.20	230 / 1	3068-8968	944	700-1200
VDF 12	2.20	380 / 3	3068-8968	944	700-1200
VDF 12	3.00	380 / 3	3400-9937	1046	700-1200
VDF 15	3.00	380 / 3	4440-13167	748	500-900
VDF 15	4.00	380 / 3	4885-14487	823	500-900
VDF 18	4.00	380 / 3	6870-17386	667	400-700
VDF 18	5.50	380 / 3	7210-18246	700	400-700
VDF 18	7.50	380 / 3	7210-18246	700	400-700

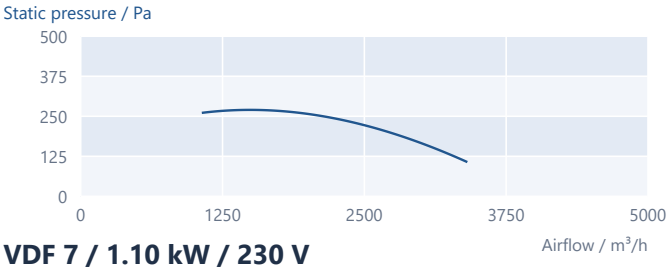
Airflow range: valid calculated curve domain, rounded to the nearest m³/h; not a zero-pressure rating. Calculated fan speed is the blower shaft speed, not the motor shaft speed. Match the final pulley ratio to this speed. Motor shaft speed, motor current, configuration-specific unit weight and acoustic spectra are not supplied.

03 / CALCULATED AIR PERFORMANCE / 01

Fan Performance Curves

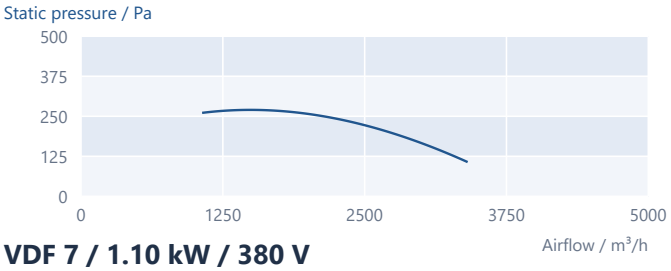
VDF 7 / 0.75 kW / 230 V

1 phase / 50 Hz / calculated 1367 rpm



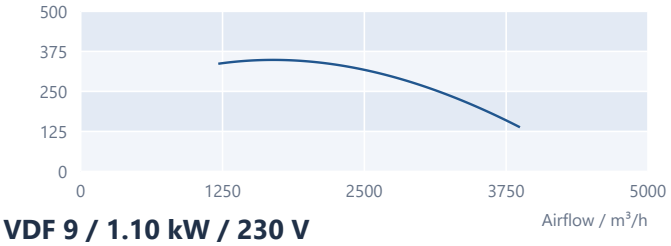
VDF 7 / 0.75 kW / 380 V

3 phase / 50 Hz / calculated 1367 rpm



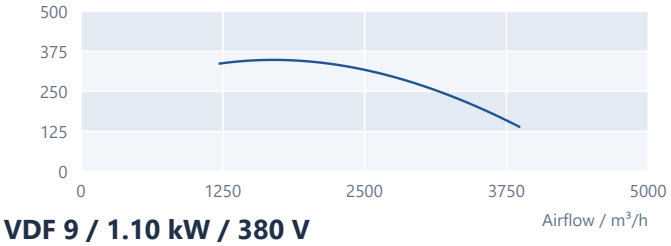
VDF 7 / 1.10 kW / 230 V

1 phase / 50 Hz / calculated 1553 rpm



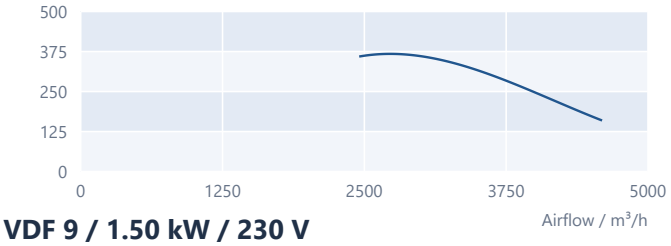
VDF 7 / 1.10 kW / 380 V

3 phase / 50 Hz / calculated 1553 rpm



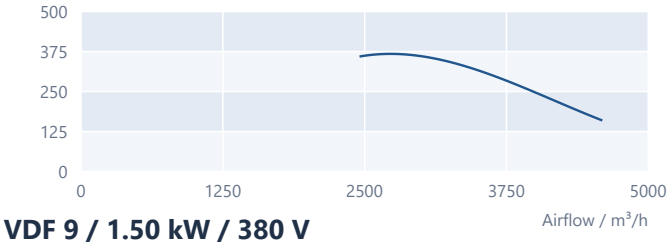
VDF 9 / 1.10 kW / 230 V

1 phase / 50 Hz / calculated 1187 rpm



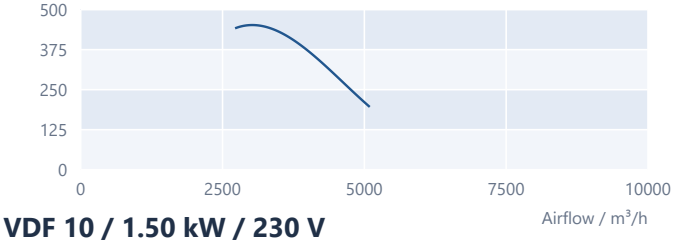
VDF 9 / 1.10 kW / 380 V

3 phase / 50 Hz / calculated 1187 rpm



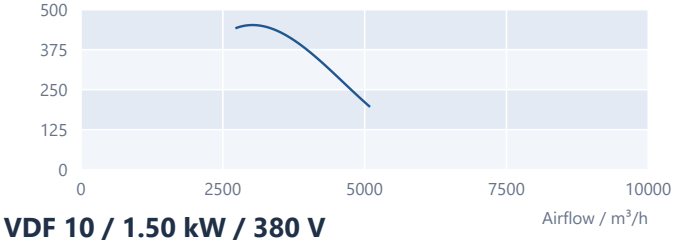
VDF 9 / 1.50 kW / 230 V

1 phase / 50 Hz / calculated 1316 rpm



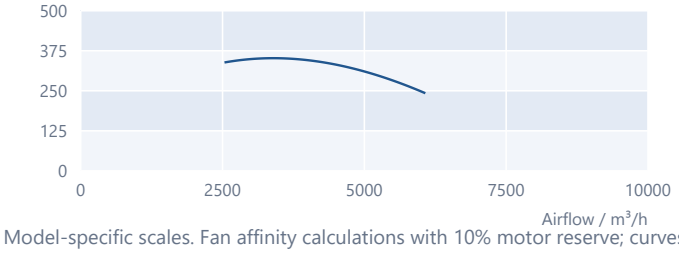
VDF 9 / 1.50 kW / 380 V

3 phase / 50 Hz / calculated 1316 rpm



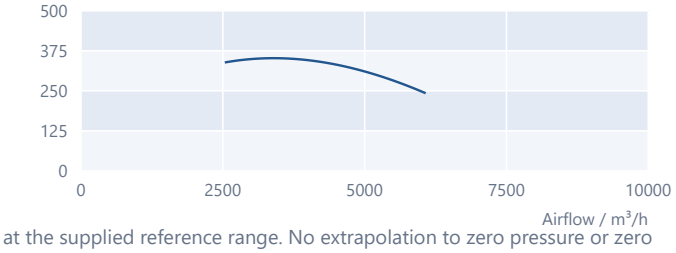
VDF 10 / 1.50 kW / 230 V

1 phase / 50 Hz / calculated 1090 rpm



VDF 10 / 1.50 kW / 380 V

3 phase / 50 Hz / calculated 1090 rpm



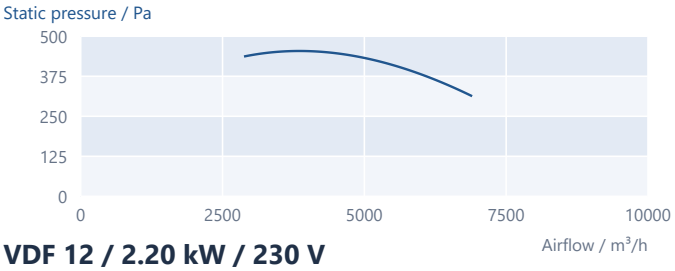
Model-specific scales. Fan affinity calculations with 10% motor reserve; curves end at the supplied reference range. No extrapolation to zero pressure or zero airflow.

03 / CALCULATED AIR PERFORMANCE / 02

Fan Performance Curves

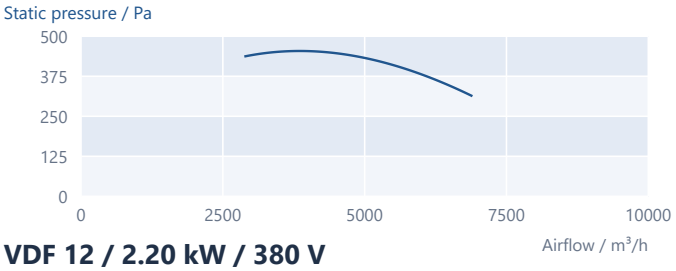
VDF 10 / 2.20 kW / 230 V

1 phase / 50 Hz / calculated 1238 rpm



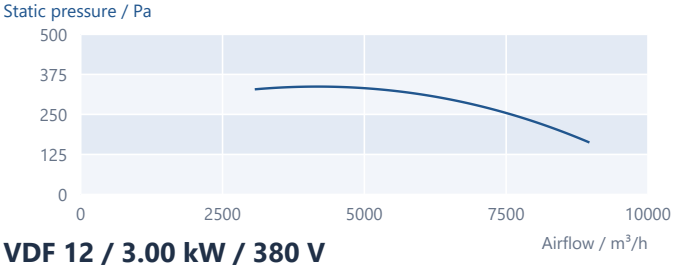
VDF 10 / 2.20 kW / 380 V

3 phase / 50 Hz / calculated 1238 rpm



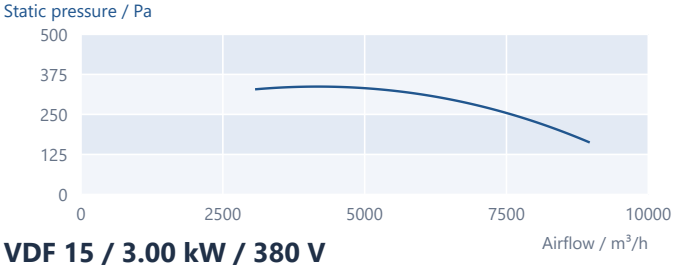
VDF 12 / 2.20 kW / 230 V

1 phase / 50 Hz / calculated 944 rpm



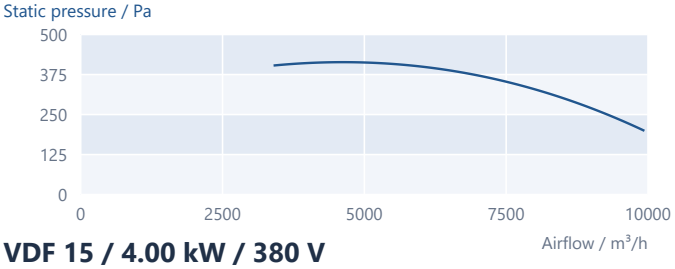
VDF 12 / 2.20 kW / 380 V

3 phase / 50 Hz / calculated 944 rpm



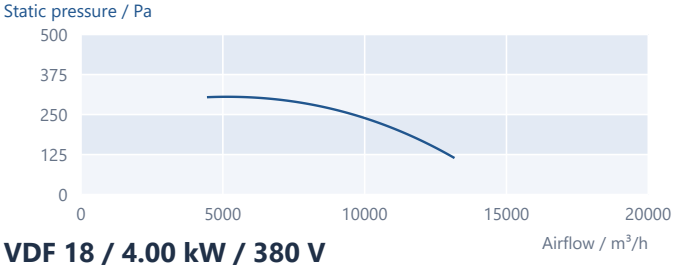
VDF 12 / 3.00 kW / 380 V

3 phase / 50 Hz / calculated 1046 rpm



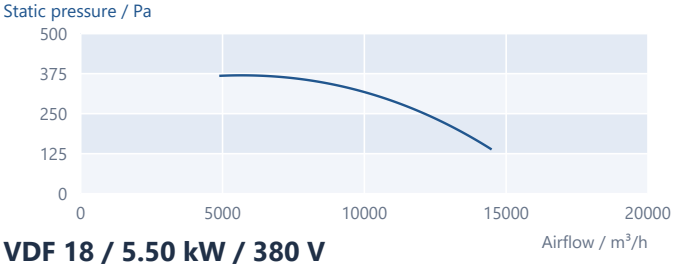
VDF 15 / 3.00 kW / 380 V

3 phase / 50 Hz / calculated 748 rpm



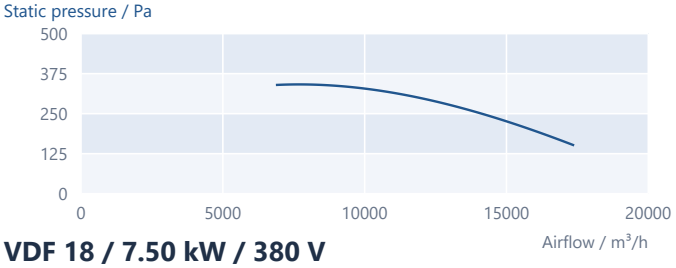
VDF 15 / 4.00 kW / 380 V

3 phase / 50 Hz / calculated 823 rpm



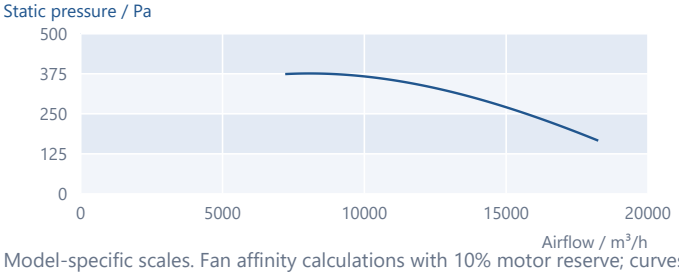
VDF 18 / 4.00 kW / 380 V

3 phase / 50 Hz / calculated 667 rpm



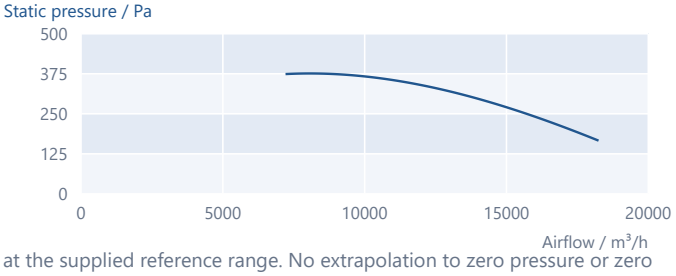
VDF 18 / 5.50 kW / 380 V

3 phase / 50 Hz / calculated 700 rpm



VDF 18 / 7.50 kW / 380 V

3 phase / 50 Hz / calculated 700 rpm



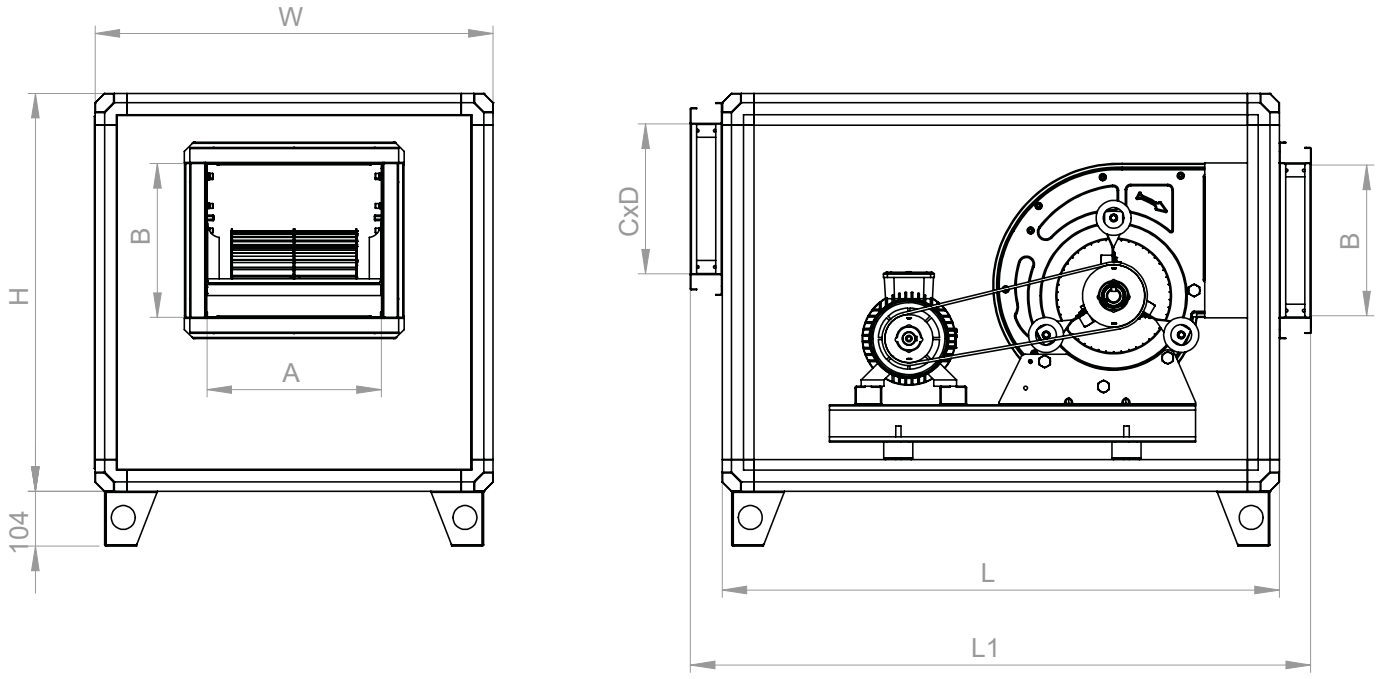
Model-specific scales. Fan affinity calculations with 10% motor reserve; curves end at the supplied reference range. No extrapolation to zero pressure or zero airflow.

04 / DIMENSIONAL DATA

Plan the installation.

FAMILY DRAWING

All dimensions in mm



Model	A	B	C	D	H	L	L1	W
VDF 7	235	205	415	230	500	740	780	500
VDF 9	295	260	615	320	600	800	840	700
VDF 10	335	290	615	330	700	900	940	700
VDF 12	400	335	715	380	800	1000	1040	800
VDF 15	485	408	815	430	900	1100	1140	900
VDF 18	560	480	955	460	1040	1380	1420	1040

A x B: rectangular duct connection. C x D: opposite connection, as shown in the drawing. Dimensions apply to the casing size across its listed motor variants.

Allow additional space for the service door and belt maintenance. Confirm the final motor and pulley arrangement before installation.

05 / INSTALLATION & ELECTRICAL DATA

Access. Alignment. Connection.

01 Service access

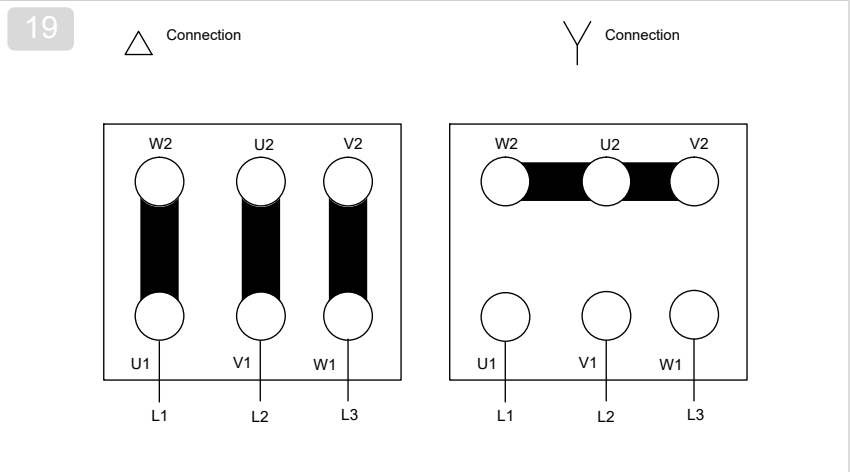
Support the casing securely and keep the service door accessible. Isolate the supply before opening the cabinet.

02 Belt drive setup

Set the pulley ratio to the selected calculated fan speed. Check belt tension and pulley alignment; stay within the permitted fan speed limits.

Parameter	Selection data
Motor type / enclosure	Asynchronous AC / TEFC
Insulation class	Class F
Maximum transported-air temperature	+40 °C
Motor power reserve	10%

THREE-PHASE MOTOR / CONNECTION DIAGRAM 19

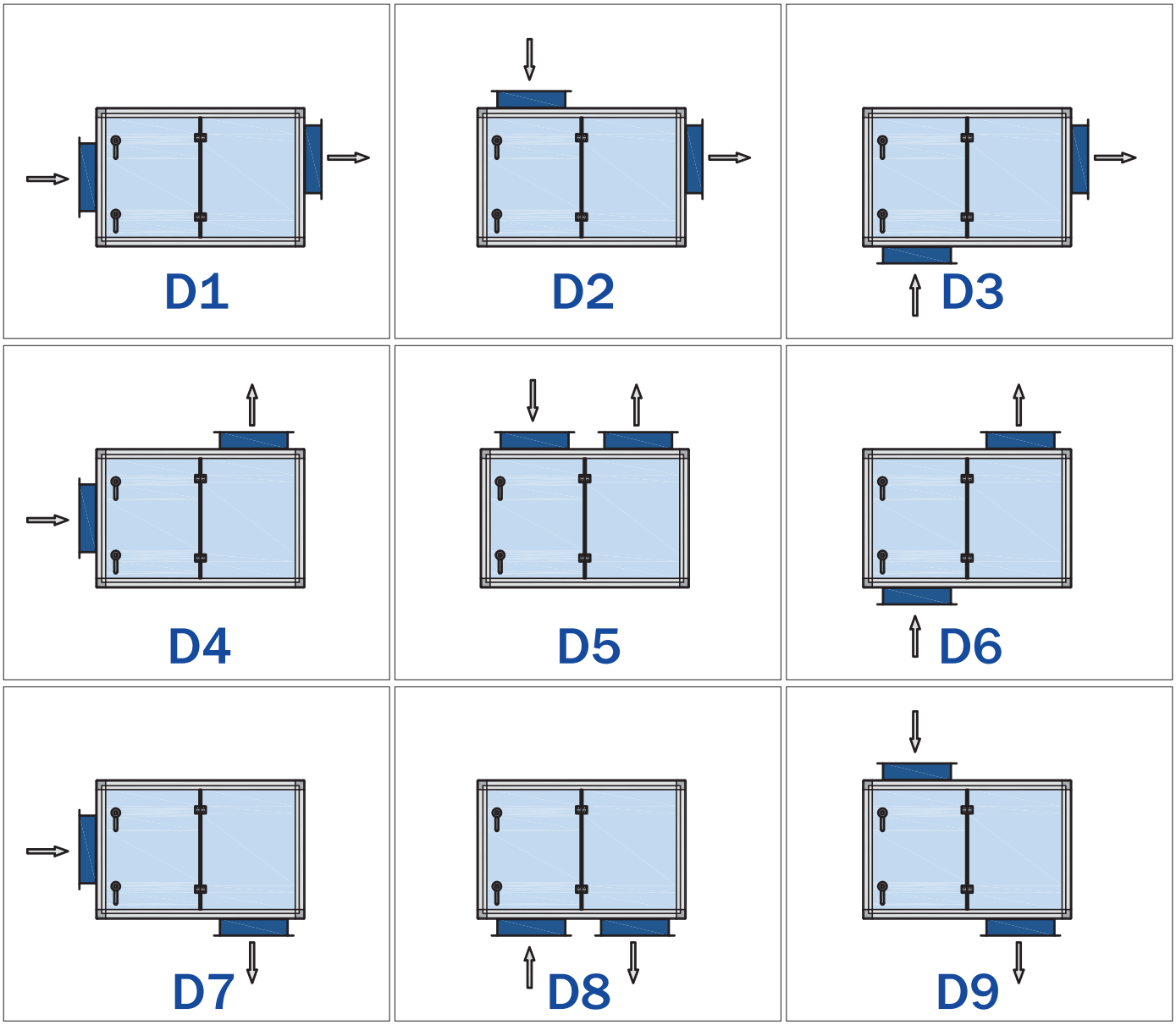


Delta / star terminal layouts for this family. Select the connection according to the actual motor nameplate voltage and unit diagram. Single-phase wiring is not supplied in the series data records.

06 / AIRFLOW CONFIGURATIONS

Air inlet & discharge configurations.

Select the inlet and discharge arrangement for the duct layout. Arrows show the direction of airflow; D1-D9 identify the configuration.

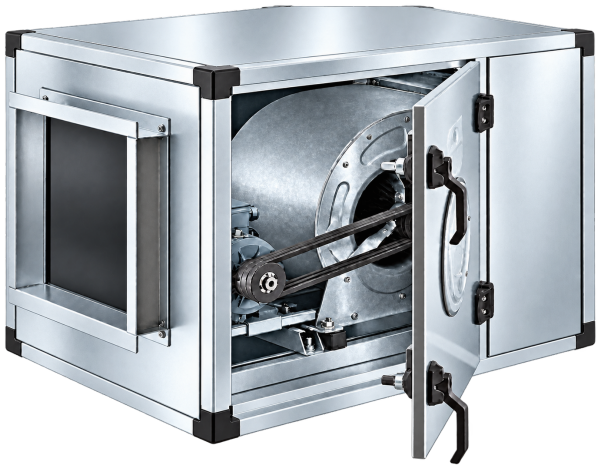


Specify the configuration code when ordering. Confirm connection positions and service-door access for the selected unit.

01 / PRODUCT OVERVIEW

VDF-R

Box Duct Fan



01 Belt and pulley drive

Asynchronous motor and adjustable transmission ratio. Selected fan speed must match the final pulley configuration.

02 Backward-curved impeller

Double-inlet centrifugal fan and galvanized steel assembly for rectangular duct systems.

03 Insulated panel construction

Aluminium profile frame with 25 mm mineral wool insulation and service access door.

PERFORMANCE BASIS

Select the motor. Match the fan speed.

Each motor variant has its own calculated pressure curve. Airflow, pressure and absorbed fan power are scaled from the listed reference fan curve using the fan affinity laws. The calculated fan speed respects the listed speed limits and maintains a 10% motor power reserve across the supplied airflow range.

Selection parameter	Catalogue basis
Casing sizes	280, 315, 355, 400, 450, 500, 560, 630
Nominal motor power	0.75-18.50 kW
Electrical supply	3~380 V / 50 Hz
Maximum transported-air temperature	+40 °C

Calculated motor and pulley configurations; these are not separately measured motor-variant curves. Motor nameplate power and absorbed fan power are different quantities.

02 / TECHNICAL DATA

Choose the motor configuration.

16 MOTOR VARIANTS / 50 Hz

Model	Motor kW	Supply V / phase	Calculated airflow range / m^3/h	Calculated fan speed / rpm	Fan speed limits / rpm
VDF-R 280	0.75	380 / 3	989-5287	2112	1600-3200
VDF-R 280	1.50	380 / 3	1246-6661	2661	1600-3200
VDF-R 280	3.00	380 / 3	1498-8011	3200	1600-3200
VDF-R 315	1.50	380 / 3	2332-7986	2196	1400-3000
VDF-R 315	2.20	380 / 3	2650-9074	2495	1400-3000
VDF-R 315	3.00	380 / 3	2939-10063	2767	1400-3000
VDF-R 355	4.00	380 / 3	3750-12738	2463	1200-2600
VDF-R 400	4.00	380 / 3	3727-13661	2056	1000-2400
VDF-R 400	5.50	380 / 3	4144-15189	2286	1000-2400
VDF-R 450	5.50	380 / 3	4938-16752	1864	1000-2200
VDF-R 450	7.50	380 / 3	5476-18576	2067	1000-2200
VDF-R 500	11.00	380 / 3	7504-26826	1943	900-2000
VDF-R 560	11.00	380 / 3	9477-31449	1630	800-1800
VDF-R 560	15.00	380 / 3	10465-34729	1800	800-1800
VDF-R 630	15.00	380 / 3	12270-44296	1470	700-1700
VDF-R 630	18.50	380 / 3	13163-47520	1577	700-1700

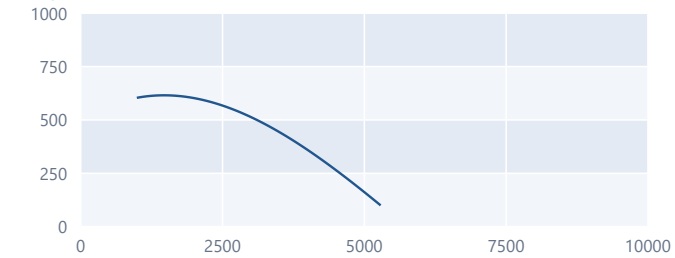
Airflow range: valid calculated curve domain, rounded to the nearest m^3/h; not a zero-pressure rating. Calculated fan speed is the blower shaft speed, not the motor shaft speed. Match the final pulley ratio to this speed. Motor shaft speed, motor current, configuration-specific unit weight and acoustic spectra are not supplied.

03 / CALCULATED AIR PERFORMANCE / 01

Fan Performance Curves

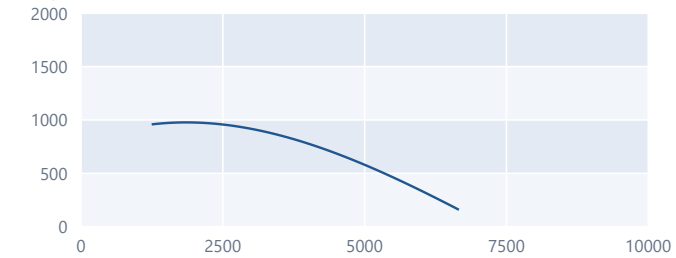
VDF-R 280 / 0.75 kW / 380 V

3 phase / 50 Hz / calculated 2112 rpm



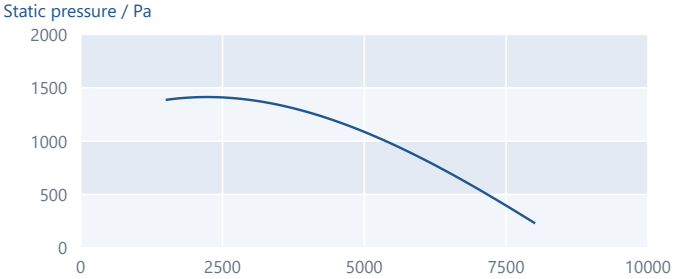
VDF-R 280 / 1.50 kW / 380 V

3 phase / 50 Hz / calculated 2661 rpm



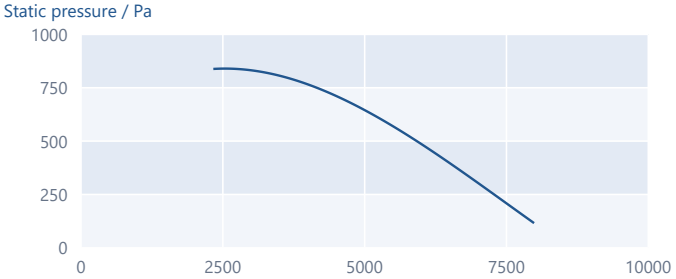
VDF-R 280 / 3.00 kW / 380 V

3 phase / 50 Hz / calculated 3200 rpm



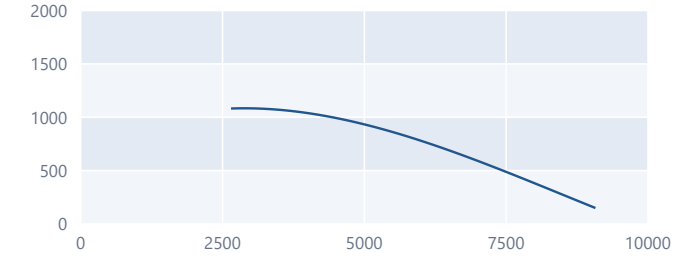
VDF-R 315 / 1.50 kW / 380 V

3 phase / 50 Hz / calculated 2196 rpm



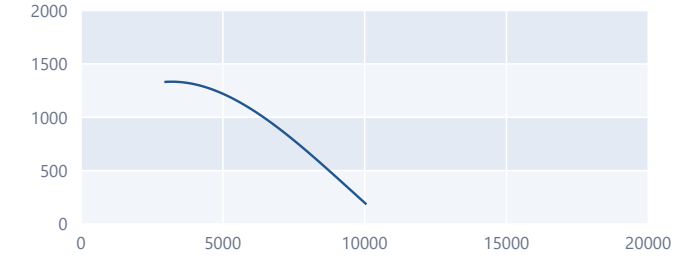
VDF-R 315 / 2.20 kW / 380 V

3 phase / 50 Hz / calculated 2495 rpm



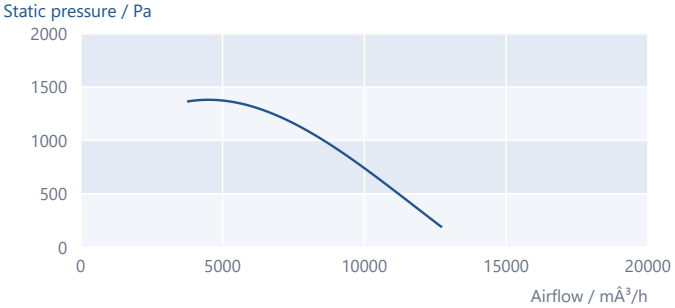
VDF-R 315 / 3.00 kW / 380 V

3 phase / 50 Hz / calculated 2767 rpm



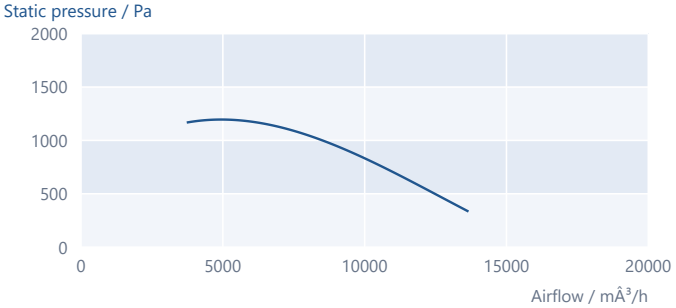
VDF-R 355 / 4.00 kW / 380 V

3 phase / 50 Hz / calculated 2463 rpm



VDF-R 400 / 4.00 kW / 380 V

3 phase / 50 Hz / calculated 2056 rpm



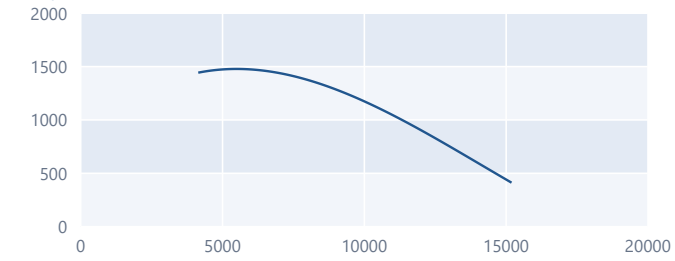
Model-specific scales. Fan affinity calculations with 10% motor reserve; curves end at the supplied reference range. No extrapolation to zero pressure or zero airflow.

03 / CALCULATED AIR PERFORMANCE / 02

Fan Performance Curves

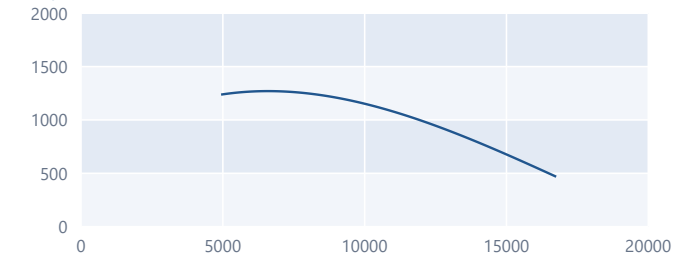
VDF-R 400 / 5.50 kW / 380 V

3 phase / 50 Hz / calculated 2286 rpm



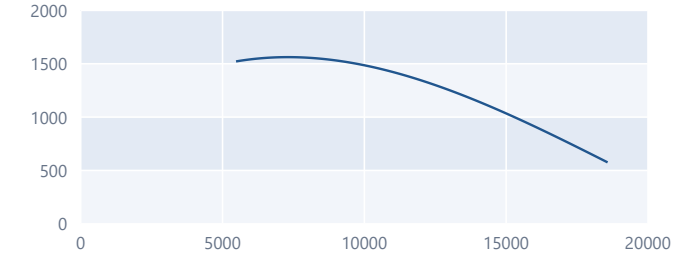
VDF-R 450 / 5.50 kW / 380 V

3 phase / 50 Hz / calculated 1864 rpm



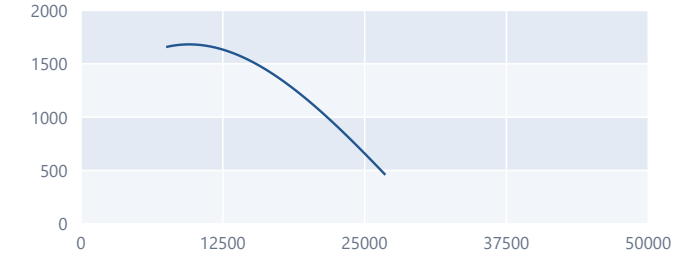
VDF-R 450 / 7.50 kW / 380 V

3 phase / 50 Hz / calculated 2067 rpm



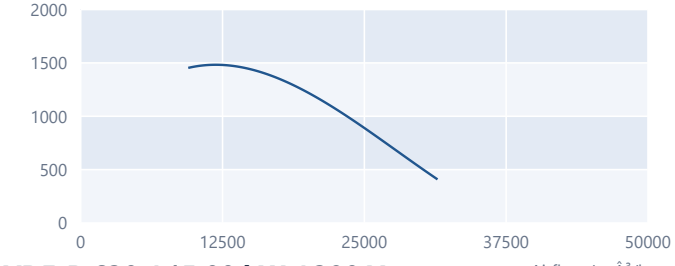
VDF-R 500 / 11.00 kW / 380 V

3 phase / 50 Hz / calculated 1943 rpm



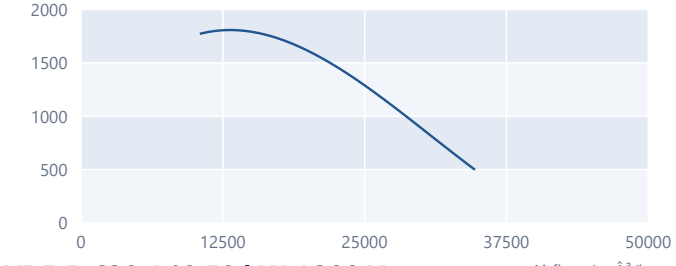
VDF-R 560 / 11.00 kW / 380 V

3 phase / 50 Hz / calculated 1630 rpm



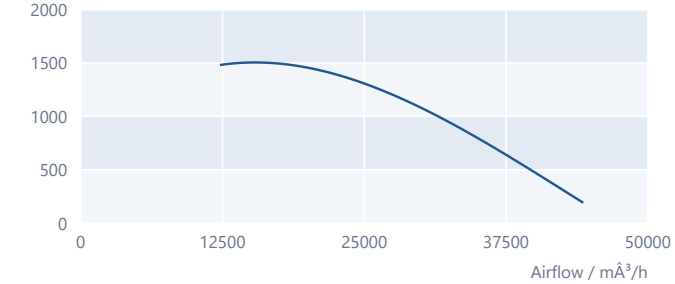
VDF-R 560 / 15.00 kW / 380 V

3 phase / 50 Hz / calculated 1800 rpm



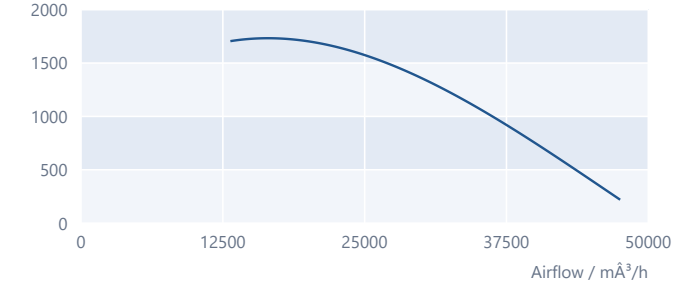
VDF-R 630 / 15.00 kW / 380 V

3 phase / 50 Hz / calculated 1470 rpm



VDF-R 630 / 18.50 kW / 380 V

3 phase / 50 Hz / calculated 1577 rpm



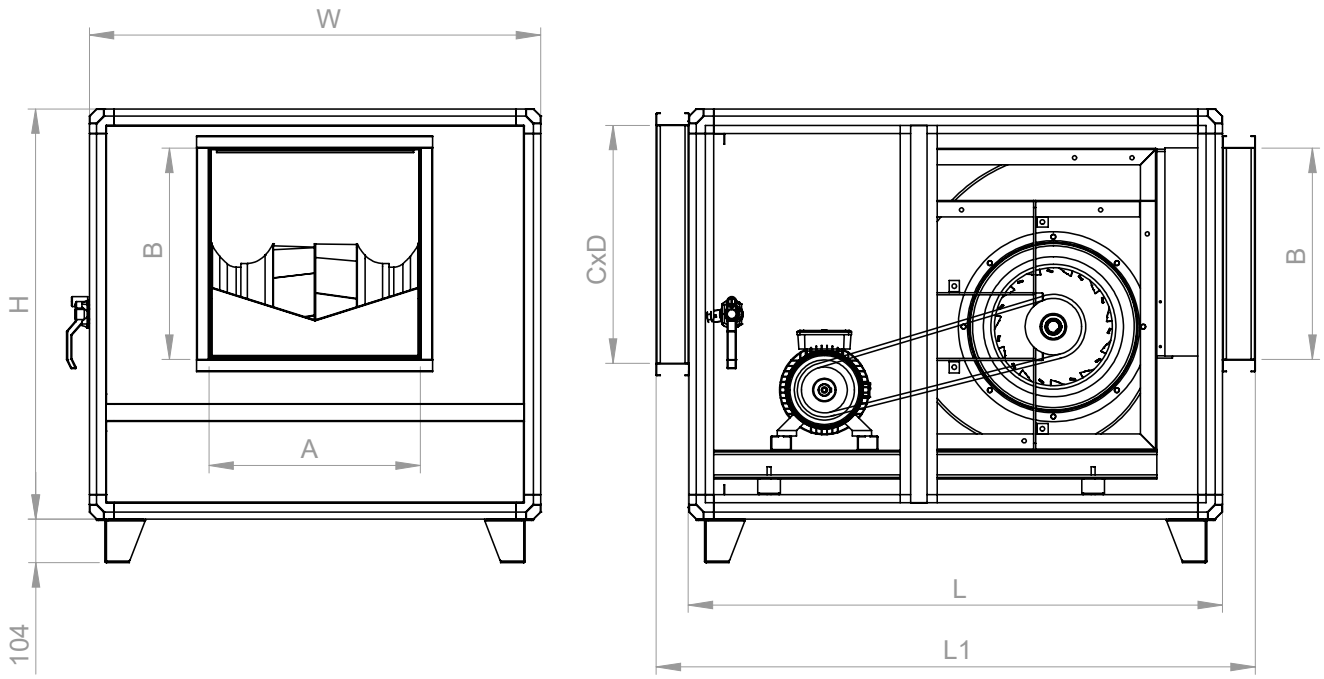
Model-specific scales. Fan affinity calculations with 10% motor reserve; curves end at the supplied reference range. No extrapolation to zero pressure or zero airflow.

04 / DIMENSIONAL DATA

Plan the installation.

FAMILY DRAWING

All dimensions in mm



Model	A	B	C	D	H	L	L1	W
VDF-R 280	361	361	715	380	800	1000	1040	800
VDF-R 315	405	405	815	430	900	1100	1040	900
VDF-R 355	455	455	815	430	900	1100	1140	900
VDF-R 400	510	510	955	490	1040	1380	1420	1040
VDF-R 450	570	570	1155	500	1140	1540	1580	1230
VDF-R 500	640	640	1315	600	1240	1540	1580	1400
VDF-R 560	715	715	1415	600	1440	1740	1780	1500
VDF-R 630	843	843	1510	720	1500	2040	2080	1600

A x B: rectangular duct connection. C x D: opposite connection. Dimensions apply across the listed motor variants. VDF-R 315: listed L1 is 1040 mm while L is 1100 mm; confirm this listed inconsistency before installation.

Allow additional space for the service door and belt maintenance. Confirm the final motor and pulley arrangement before installation.

05 / INSTALLATION & ELECTRICAL DATA

Access. Alignment. Connection.

01 Service access

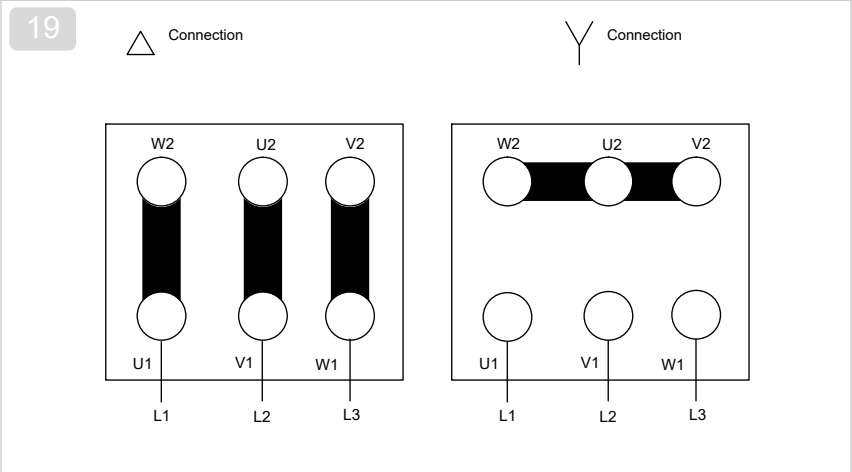
Support the casing securely and keep the service door accessible. Isolate the supply before opening the cabinet.

02 Belt drive setup

Set the pulley ratio to the selected calculated fan speed. Check belt tension and pulley alignment; stay within the permitted fan speed limits.

Parameter	Selection data
Motor type / enclosure	Asynchronous AC / TEFC
Insulation class	Class F
Maximum transported-air temperature	+40 °C
Motor power reserve	10%

THREE-PHASE MOTOR / CONNECTION DIAGRAM 19

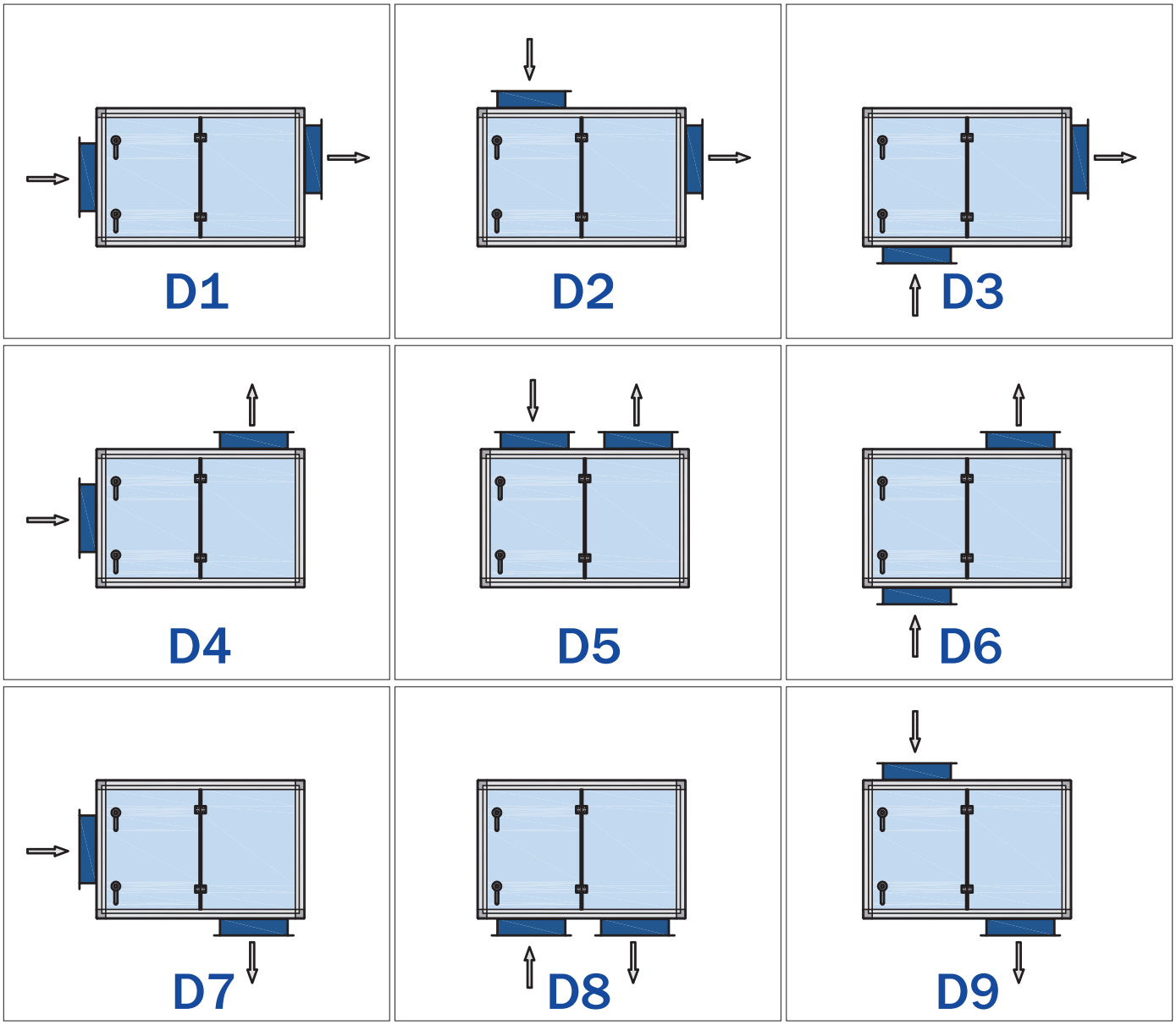


Delta / star terminal layouts for this family. Select the connection according to the actual motor nameplate voltage and unit diagram. All listed variants use three-phase supply.

06 / AIRFLOW CONFIGURATIONS

Air inlet & discharge configurations.

Select the inlet and discharge arrangement for the duct layout. Arrows show the direction of airflow; D1-D9 identify the configuration.



Specify the configuration code when ordering. Confirm connection positions and service-door access for the selected unit.

01 / PRODUCT OVERVIEW

VDF-R-KE

Kitchen Exhaust Box Fan



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

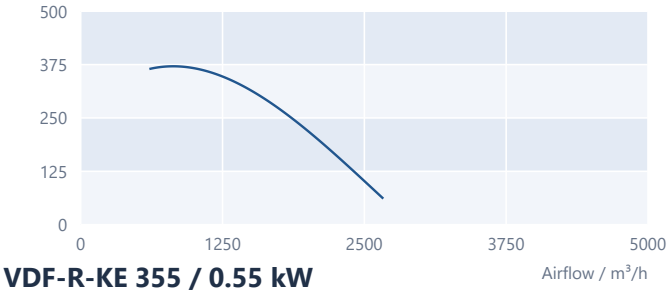
Airflow range: supplied reference curve domain, rounded to the nearest m³/h. Values do not represent a selected operating point. Reference fan speed and nominal motor power follow the FSP records; absorbed power depends on the operating point.

03 / AIR PERFORMANCE / 01

Fan Performance Curves

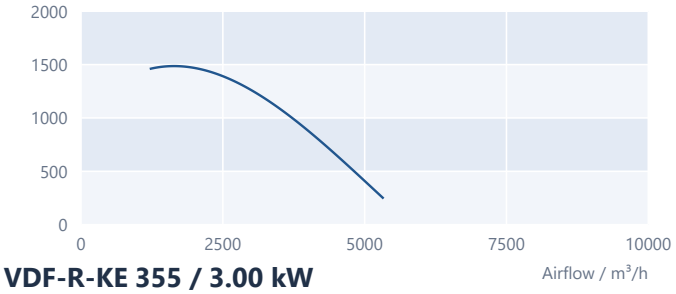
VDF-R-KE 315 / 0.37 kW

3 phase / 50 Hz / reference 1450 rpm



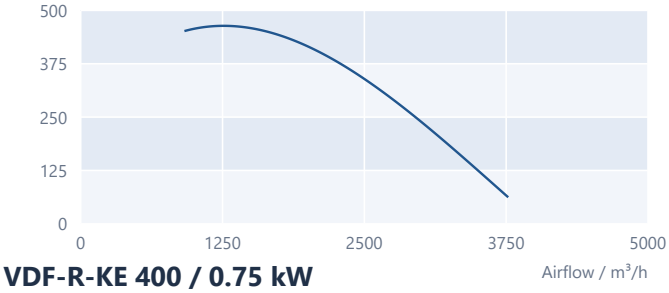
VDF-R-KE 315 / 1.50 kW

3 phase / 50 Hz / reference 2900 rpm



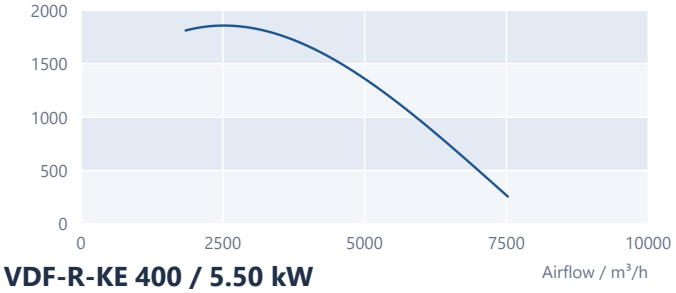
VDF-R-KE 355 / 0.55 kW

3 phase / 50 Hz / reference 1450 rpm



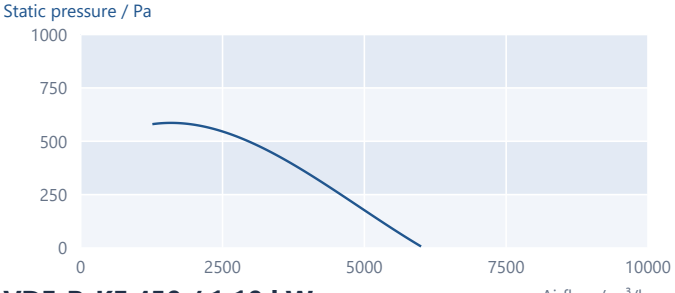
VDF-R-KE 355 / 3.00 kW

3 phase / 50 Hz / reference 2900 rpm



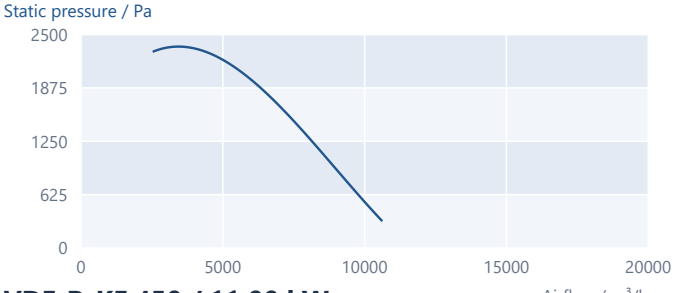
VDF-R-KE 400 / 0.75 kW

3 phase / 50 Hz / reference 1450 rpm



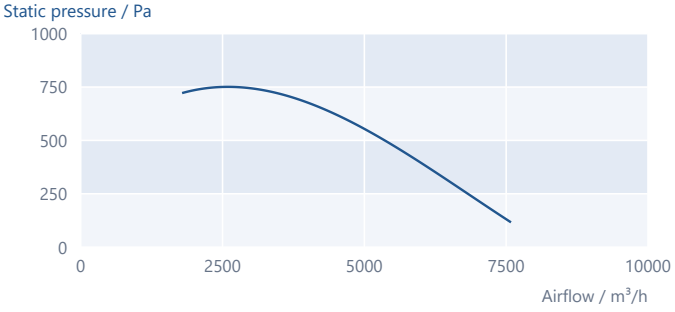
VDF-R-KE 400 / 5.50 kW

3 phase / 50 Hz / reference 2900 rpm



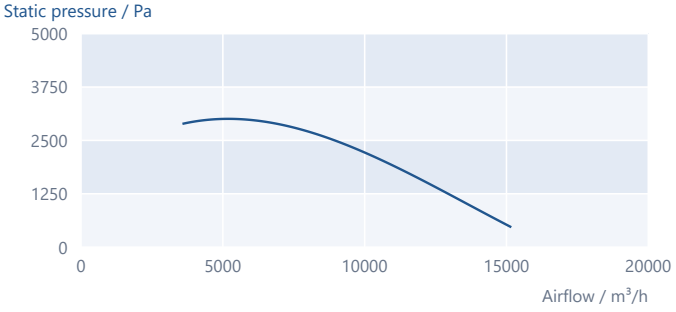
VDF-R-KE 450 / 1.10 kW

3 phase / 50 Hz / reference 1450 rpm



VDF-R-KE 450 / 11.00 kW

3 phase / 50 Hz / reference 2900 rpm



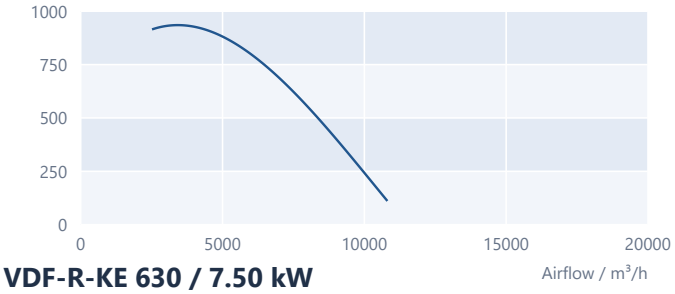
Model-specific scales. Listed 50 Hz reference curves shown within their supplied airflow ranges. Filter losses depend on the installed arrangement and filter condition.

03 / AIR PERFORMANCE / 02

Fan Performance Curves

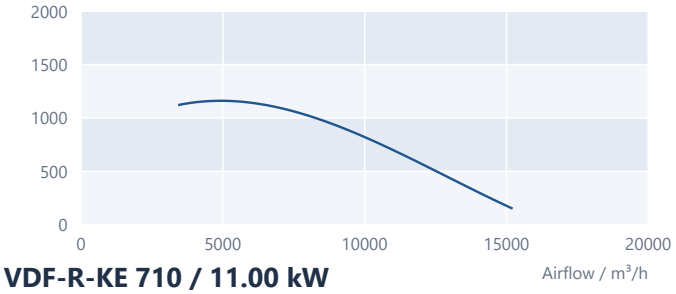
VDF-R-KE 500 / 3.00 kW

3 phase / 50 Hz / reference 1450 rpm



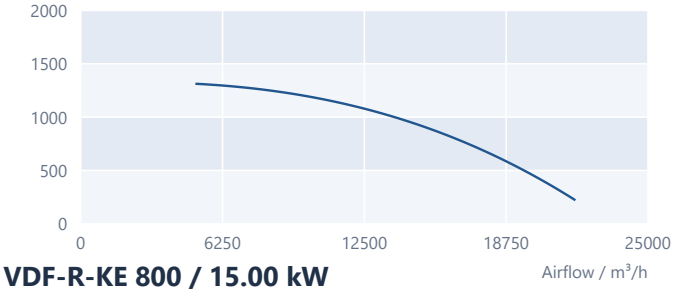
VDF-R-KE 560 / 4.00 kW

3 phase / 50 Hz / reference 1450 rpm



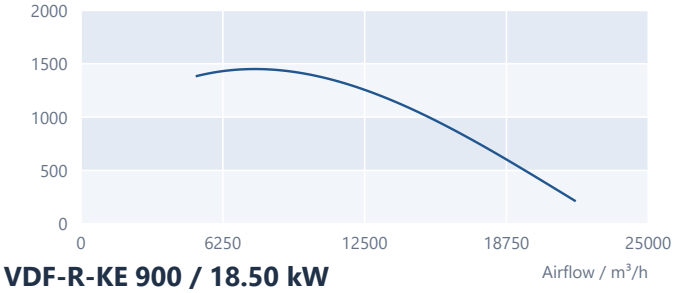
VDF-R-KE 630 / 7.50 kW

3 phase / 50 Hz / reference 1450 rpm



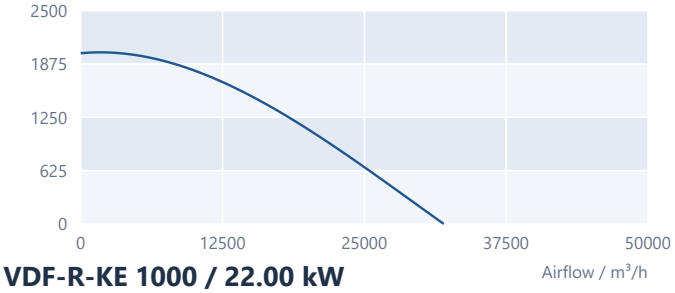
VDF-R-KE 710 / 11.00 kW

3 phase / 50 Hz / reference 1450 rpm



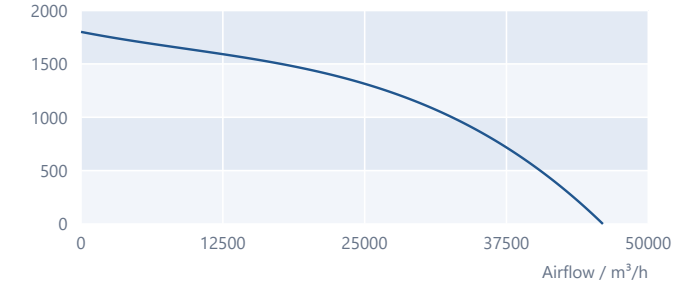
VDF-R-KE 800 / 15.00 kW

3 phase / 50 Hz / reference 1440 rpm



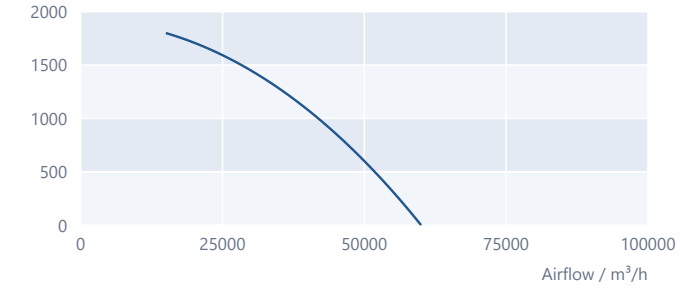
VDF-R-KE 900 / 18.50 kW

3 phase / 50 Hz / reference 1450 rpm



VDF-R-KE 1000 / 22.00 kW

3 phase / 50 Hz / reference 1450 rpm



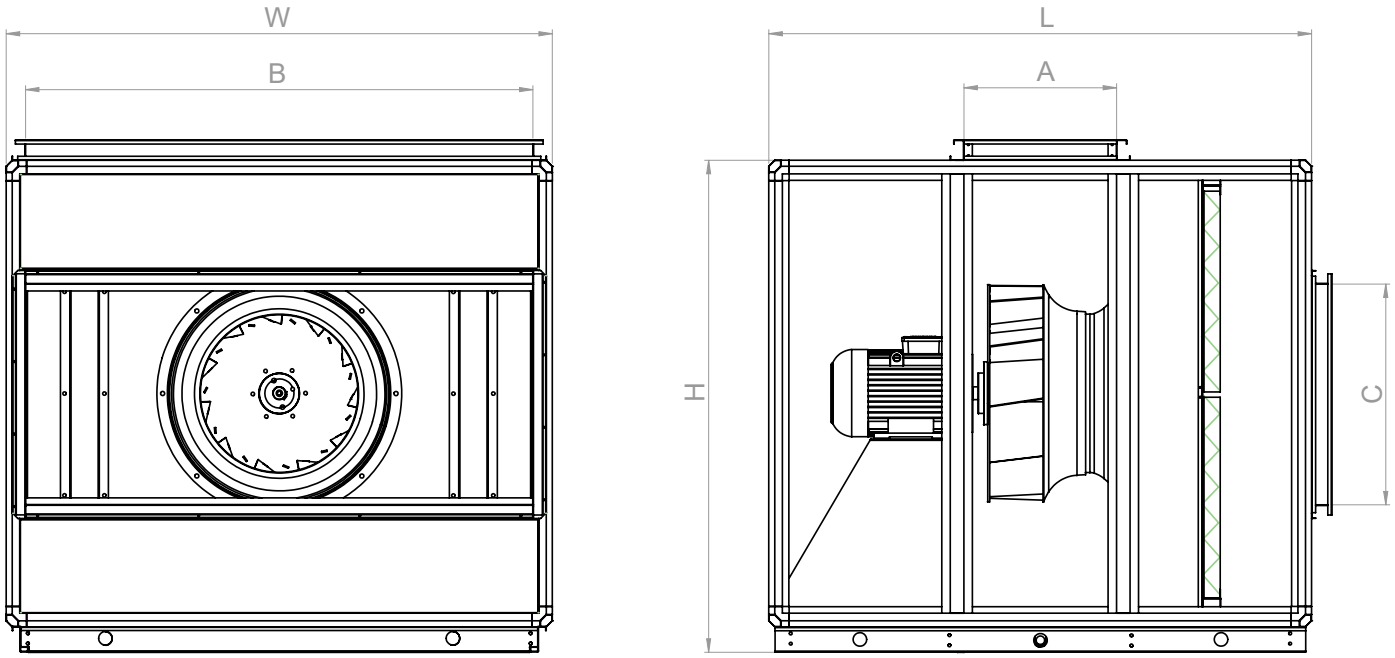
Model-specific scales. Listed 50 Hz reference curves shown within their supplied airflow ranges. Filter losses depend on the installed arrangement and filter condition.

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

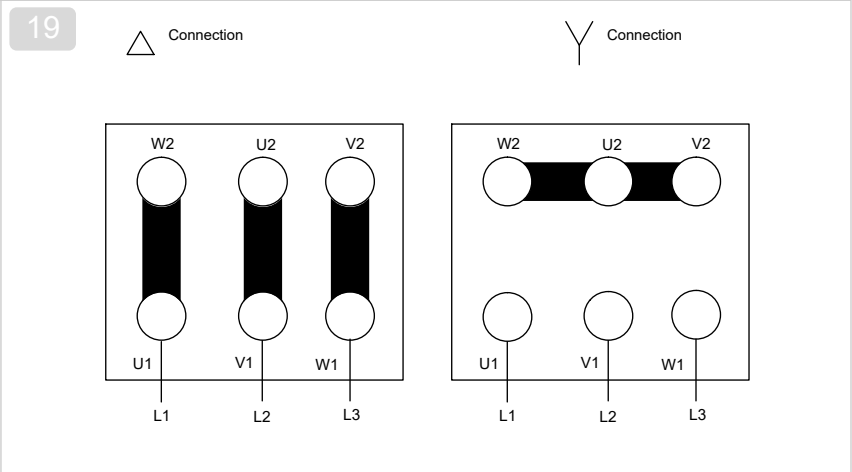
Support the cabinet securely and allow clearance for the service doors, filter removal and oil collection tray. Isolate the supply before opening the unit.

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.

01 / PRODUCT OVERVIEW

VLF-B

Box Axial Flow Fan



01 Adjustable-pitch impeller

Aluminium alloy airfoil blades provide configurable performance. The series range includes 3, 6 and 9 blades across ten diameters.

02 Insulated box casing

Double-skin galvanized sheet steel with glass-wool acoustic and thermal insulation. The access panel supports inspection and maintenance.

03 Duty-based motor selection

FSP selects a blade angle and motor for the required airflow and pressure. Single-speed and two-speed pole configurations are included.

SELECTION & PERFORMANCE

50 configurations. 626 angle curves.

Each configuration identifies fan diameter, blade count and motor poles. The performance section shows every listed blade-angle pressure curve for that configuration. Select the final blade angle and motor in FSP at the required duty; these family curves are not motor-specific operating approvals.

Selection parameter	Catalogue basis
Fan diameter / blade counts	400-1250 mm / 3, 6 and 9 blades
Electrical supply	400 V / 3 phase / 50 Hz
Pole configurations	2P, 4P, 6P, 2-4P and 4-8P
Motor insulation / protection	Class F / IP55 / IE2 or IE3 by configuration
Transported-air limit	+40 °C / listed variant records

Performance data. The approved product photo is shown with its background removed and illustrates a six-blade assembly.

02 / TECHNICAL DATA / 01

Compare the configurations.

400 V / 3 PHASE / 50 Hz

Configuration diameter/blades/poles	Angles deg.	Motor range / kW	Reference airflow envelope / m^3/h	Reserve %	Motor class / max. °C	Curve page
VLF-B 400/6/2P	8-34	0.75-5.5	1 330-9 950	10	IE2 / +55	06
VLF-B 450/6/2P	8-28	1.1-4	2 400-13 500	10	IE2 / +55	06
VLF-B 500/6/2P	8-28	2.2-5.5	3 500-18 300	10	IE2 / +55	06
VLF-B 560/6/2P	8-22	4-7.5	4 000-24 000	6	IE2 / +55	06
VLF-B 630/6/2P	8-20	5.5-11	7 000-31 320	0	IE2 / +55	07
VLF-B 400/6/4P	8-34	0.37-0.37	665-4 975	10	IE2 / +55	07
VLF-B 450/6/4P	8-38	0.37-0.55	1 200-8 212	7	IE2 / +55	07
VLF-B 500/6/4P	8-36	0.55-1.1	1 750-11 800	10	IE2 / +55	07
VLF-B 560/6/4P	8-36	0.55-2.2	2 000-17 140	10	IE2 / +55	08
VLF-B 630/6/4P	8-38	0.75-4	3 500-25 200	10	IE2 / +55	08
VLF-B 710/3/4P	8-32	0.75-3	1 600-27 500	10	IE2 / +55	08
VLF-B 710/6/4P	8-32	1.1-4	1 800-31 200	1	IE2 / +55	08
VLF-B 800/6/4P	8-32	2.2-11	4 500-42 500	3	IE2 / +55	09
VLF-B 800/9/4P	8-30	2.2-11	7 500-43 000	10	IE2 / +55	09
VLF-B 900/6/4P	8-32	4-15	6 000-60 800	10	IE2 / +55	09
VLF-B 900/9/4P	8-32	4-18.5	11 000-63 300	10	IE2 / +40	09
VLF-B 1000/6/4P	8-32	5.5-22	14 000-82 600	3	IE2 / +40	10

Airflow envelope: minimum and maximum listed curve-domain endpoints across blade angles, rounded to whole m^3/h. This is not a duty point or a guaranteed continuous motor-supported operating range. Select the final angle and motor in FSP.

Motor range: product motor-power limits, not a fixed model rating. FSP chooses a listed motor using duty absorbed power and the model-specific reserve. For two-speed entries, the supplied curves describe the high-speed condition only; low-speed curves are not inferred.

Class F / IP55. Motor IE class and upper working temperature are listed per configuration; lower limit -20 °C. Maximum transported air +40 °C. Selected-motor nameplate current and unit weight are not supplied.

02 / TECHNICAL DATA / 02

Compare the configurations.

400 V / 3 PHASE / 50 Hz

Configuration diameter/blades/poles	Angles deg.	Motor range / kW	Reference airflow envelope / m^3/h	Reserve %	Motor class / max. °C	Curve page
VLF-B 1000/9/4P	8-32	7.5-30	15 000-86 000	10	IE2 / +40	10
VLF-B 1250/6/4P	8-32	15-55	25 000-155 000	1	IE3 / +40	10
VLF-B 1250/9/4P	8-24	18.5-55	21 300-138 000	1	IE3 / +40	10
VLF-B 400/6/6P	8-34	0.18-0.18	443-3 317	10	IE2 / +40	11
VLF-B 450/6/6P	8-38	0.18-0.18	800-5 475	10	IE2 / +40	11
VLF-B 500/6/6P	8-36	0.37-0.37	1 167-7 867	10	IE2 / +40	11
VLF-B 560/6/6P	8-36	0.37-0.55	1 333-11 427	7	IE2 / +40	11
VLF-B 630/6/6P	8-38	0.37-1.1	2 333-16 800	10	IE2 / +40	12
VLF-B 710/3/6P	8-32	0.37-1.1	1 067-18 333	10	IE2 / +40	12
VLF-B 710/6/6P	8-32	0.75-1.5	1 200-20 800	10	IE2 / +40	12
VLF-B 800/6/6P	8-32	0.55-3	3 000-28 333	3	IE2 / +40	12
VLF-B 800/9/6P	8-30	0.75-3	5 000-28 667	10	IE2 / +40	13
VLF-B 900/6/6P	8-32	1.1-4	4 000-40 533	5	IE2 / +40	13
VLF-B 900/9/6P	8-32	1.5-5.5	7 333-42 200	10	IE2 / +40	13
VLF-B 1000/6/6P	8-32	1.5-7.5	9 333-55 067	10	IE2 / +40	13
VLF-B 1000/9/6P	8-32	2.2-11	10 000-57 333	10	IE2 / +40	14
VLF-B 1250/6/6P	8-32	4-15	16 667-103 333	10	IE3 / +40	14

Airflow envelope: minimum and maximum listed curve-domain endpoints across blade angles, rounded to whole m^3/h. This is not a duty point or a guaranteed continuous motor-supported operating range. Select the final angle and motor in FSP.

Motor range: product motor-power limits, not a fixed model rating. FSP chooses a listed motor using duty absorbed power and the model-specific reserve. For two-speed entries, the supplied curves describe the high-speed condition only; low-speed curves are not inferred.

Class F / IP55. Motor IE class and upper working temperature are listed per configuration; lower limit -20 °C. Maximum transported air +40 °C. Selected-motor nameplate current and unit weight are not supplied.

02 / TECHNICAL DATA / 03

Compare the configurations.

400 V / 3 PHASE / 50 Hz

Configuration diameter/blades/poles	Angles deg.	Motor range / kW	Reference airflow envelope / m³/h	Reserve %	Motor class / max. °C	Curve page
VLF-B 1250/9/6P	8-24	7.5-15	14 200-92 000	10	IE3 / +40	14
VLF-B 400/6/2-4P	8-34	0.75-5.5	1 330-9 950	10	IE2 / +40	14
VLF-B 450/6/2-4P	8-28	1.1-4	2 400-13 500	10	IE2 / +40	15
VLF-B 500/6/2-4P	8-28	2.2-5.5	3 500-18 300	10	IE2 / +40	15
VLF-B 560/6/2-4P	8-22	4-7.5	4 000-24 000	6	IE2 / +40	15
VLF-B 630/6/2-4P	8-20	5.5-11	7 000-31 320	0	IE2 / +40	15
VLF-B 710/3/4-8P	8-32	0.75-3	1 600-27 500	10	IE2 / +40	16
VLF-B 710/6/4-8P	8-32	1.1-4	1 800-31 200	1	IE2 / +40	16
VLF-B 800/6/4-8P	8-32	2.2-11	4 500-42 500	3	IE2 / +40	16
VLF-B 800/9/4-8P	8-30	2.2-11	7 500-43 000	10	IE2 / +40	16
VLF-B 900/6/4-8P	8-32	4-15	6 000-60 800	10	IE2 / +40	17
VLF-B 900/9/4-8P	8-32	4-18.5	11 000-63 300	10	IE2 / +40	17
VLF-B 1000/6/4-8P	8-32	5.5-22	14 000-82 600	3	IE2 / +40	17
VLF-B 1000/9/4-8P	8-32	7.5-30	15 000-86 000	10	IE2 / +40	17
VLF-B 1250/6/4-8P	8-32	15-55	25 000-155 000	1	IE3 / +40	18
VLF-B 1250/9/4-8P	8-24	18.5-55	21 300-138 000	1	IE3 / +40	18

Airflow envelope: minimum and maximum listed curve-domain endpoints across blade angles, rounded to whole m³/h. This is not a duty point or a guaranteed continuous motor-supported operating range. Select the final angle and motor in FSP.

Motor range: product motor-power limits, not a fixed model rating. FSP chooses a listed motor using duty absorbed power and the model-specific reserve. For two-speed entries, the supplied curves describe the high-speed condition only; low-speed curves are not inferred.

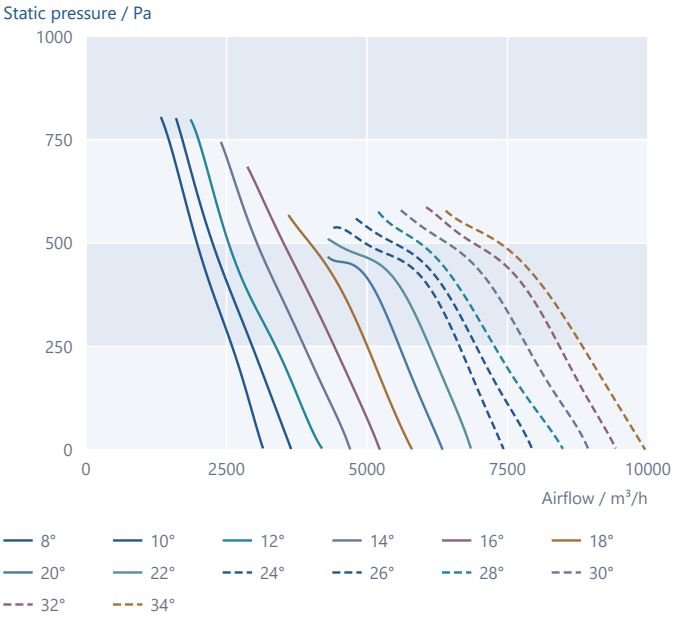
Class F / IP55. Motor IE class and upper working temperature are listed per configuration; lower limit -20 °C. Maximum transported air +40 °C. Selected-motor nameplate current and unit weight are not supplied.

03 / AIR PERFORMANCE / 01

Fan Performance Curves

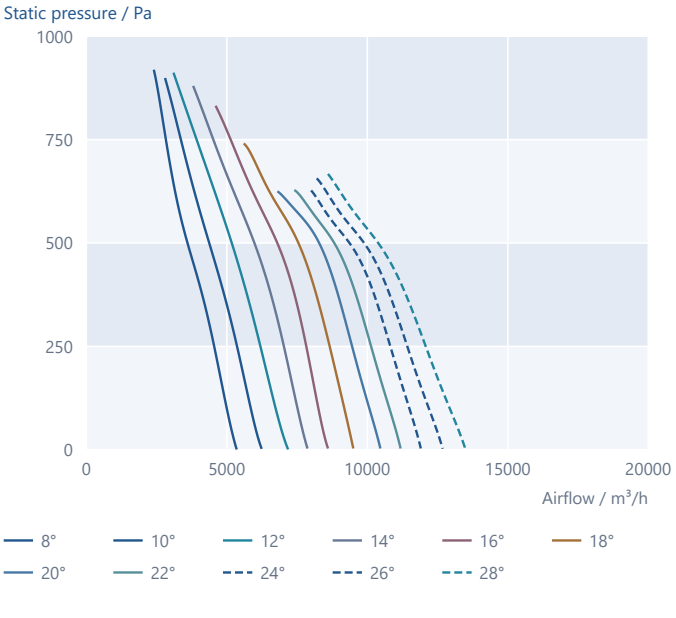
VLF-B 400/6/2P

14 blade angles / 400 V / 50 Hz



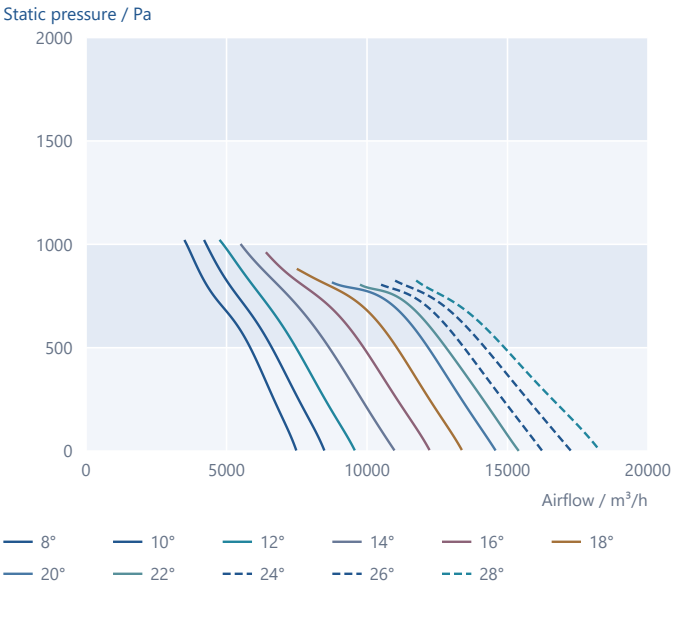
VLF-B 450/6/2P

11 blade angles / 400 V / 50 Hz



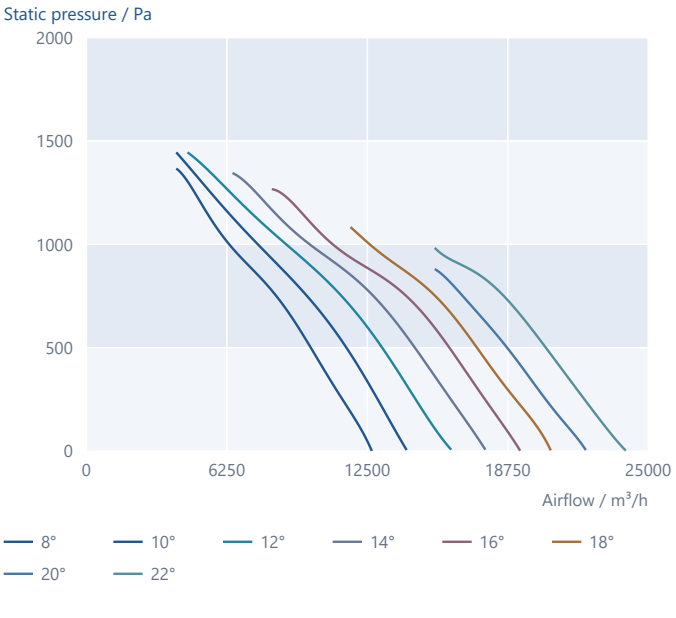
VLF-B 500/6/2P

11 blade angles / 400 V / 50 Hz



VLF-B 560/6/2P

8 blade angles / 400 V / 50 Hz



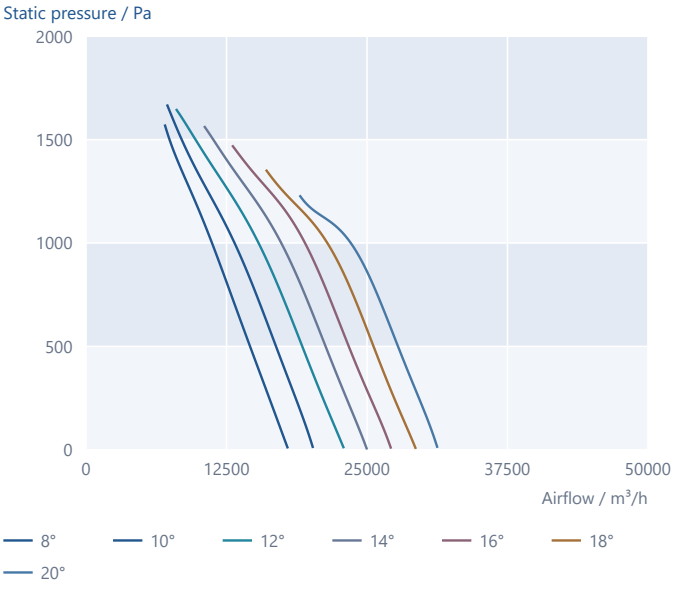
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 02

Fan Performance Curves

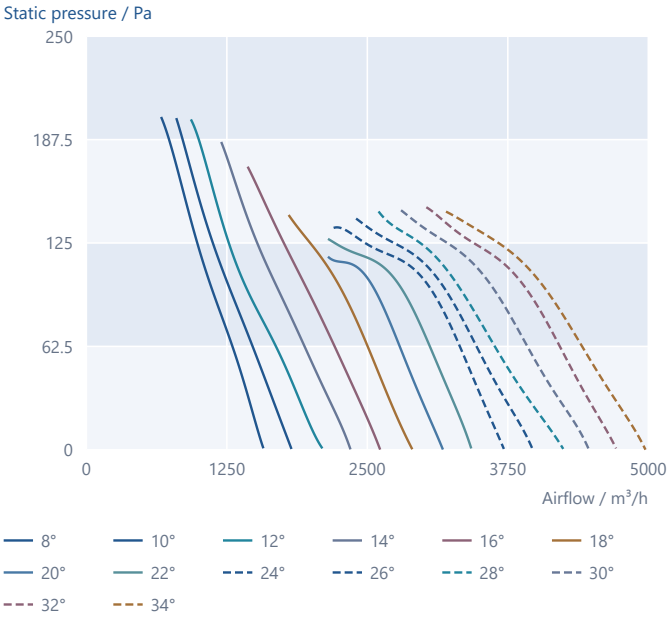
VLF-B 630/6/2P

7 blade angles / 400 V / 50 Hz



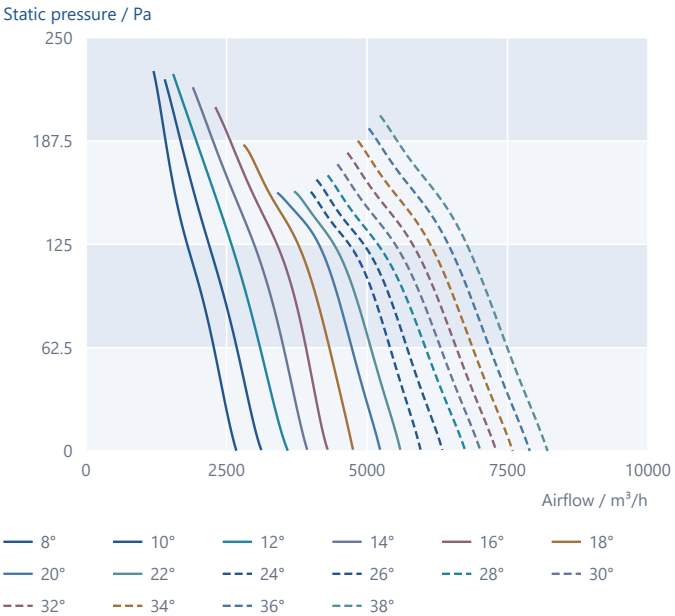
VLF-B 400/6/4P

14 blade angles / 400 V / 50 Hz



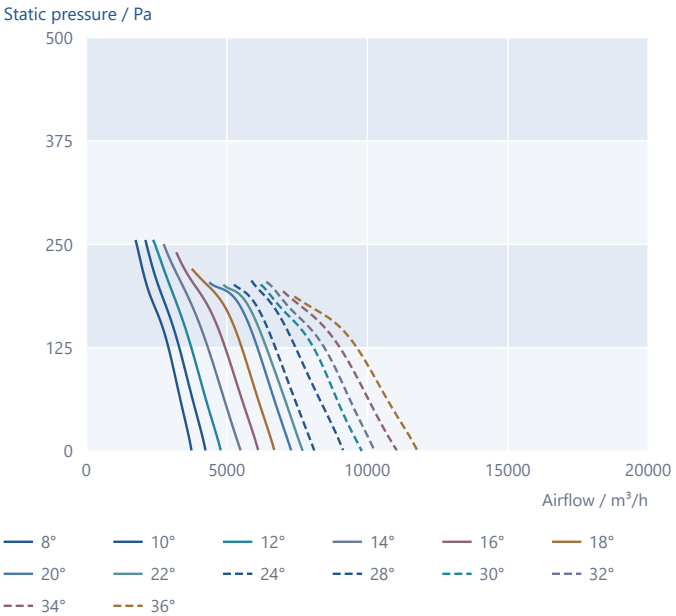
VLF-B 450/6/4P

16 blade angles / 400 V / 50 Hz



VLF-B 500/6/4P

14 blade angles / 400 V / 50 Hz



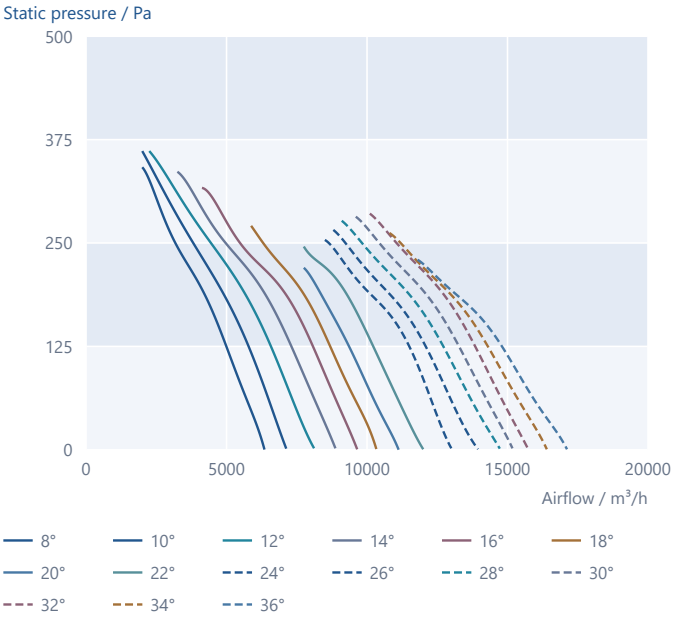
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 03

Fan Performance Curves

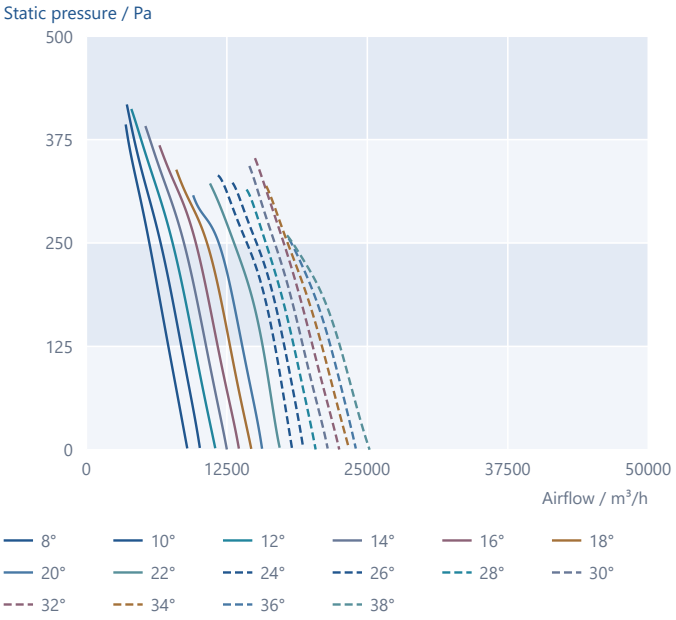
VLF-B 560/6/4P

15 blade angles / 400 V / 50 Hz



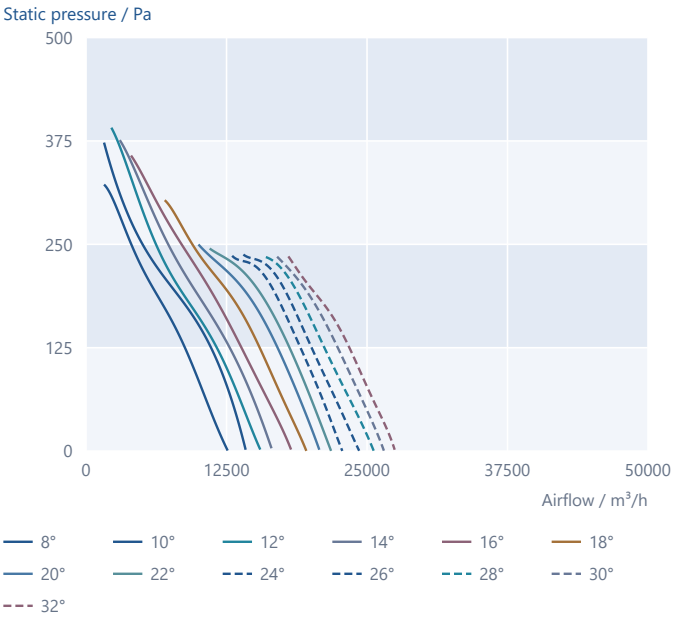
VLF-B 630/6/4P

16 blade angles / 400 V / 50 Hz



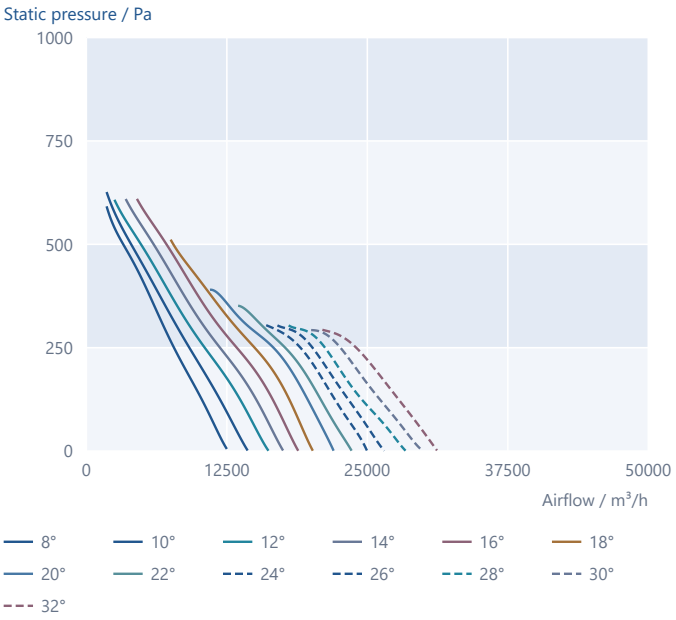
VLF-B 710/3/4P

13 blade angles / 400 V / 50 Hz



VLF-B 710/6/4P

13 blade angles / 400 V / 50 Hz



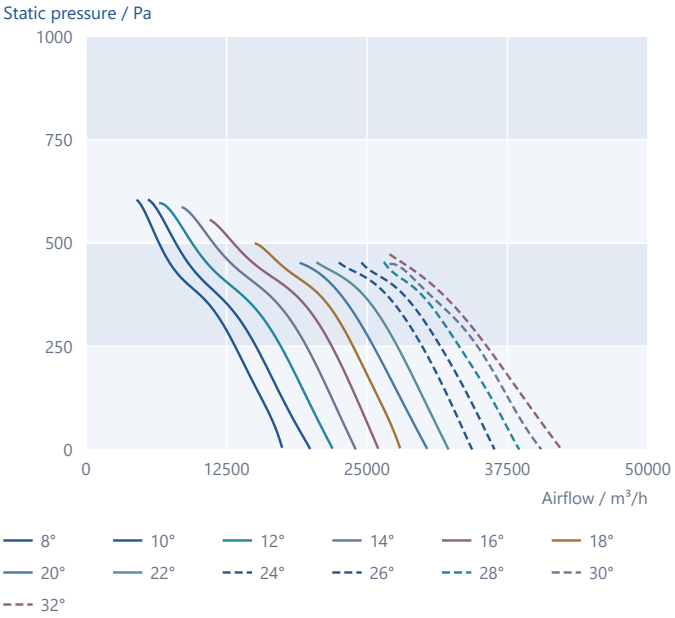
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 04

Fan Performance Curves

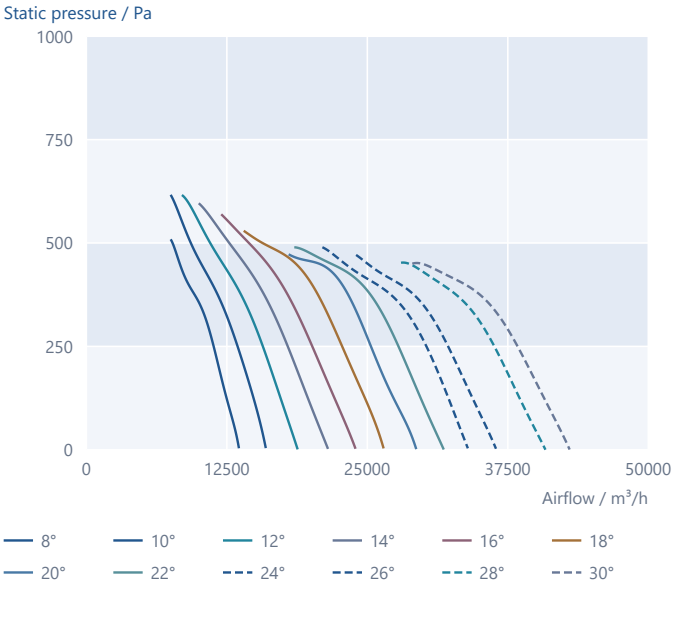
VLF-B 800/6/4P

13 blade angles / 400 V / 50 Hz



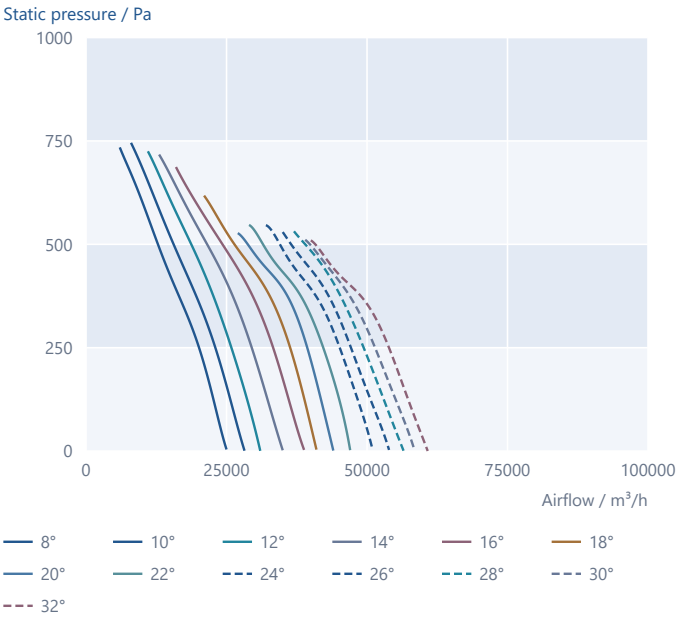
VLF-B 800/9/4P

12 blade angles / 400 V / 50 Hz



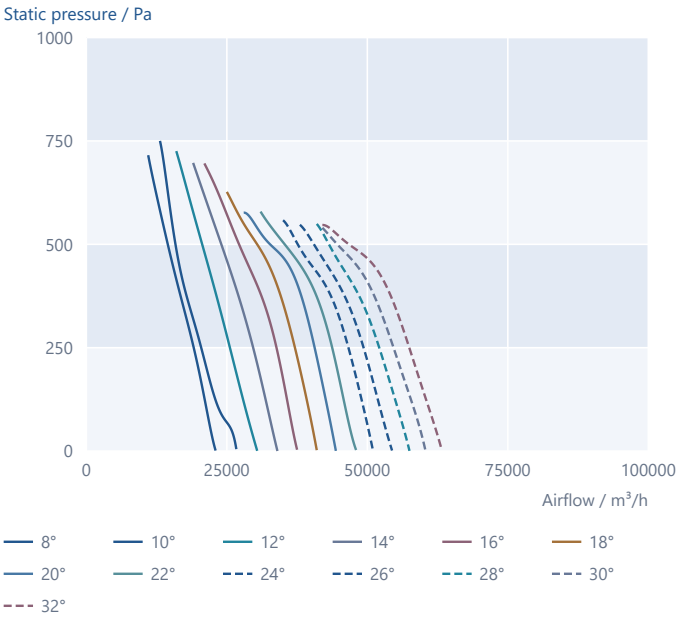
VLF-B 900/6/4P

13 blade angles / 400 V / 50 Hz



VLF-B 900/9/4P

13 blade angles / 400 V / 50 Hz



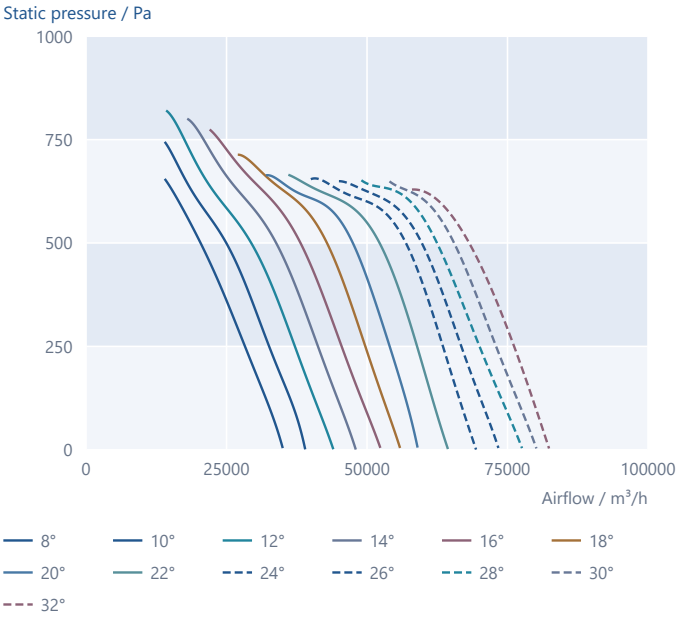
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 05

Fan Performance Curves

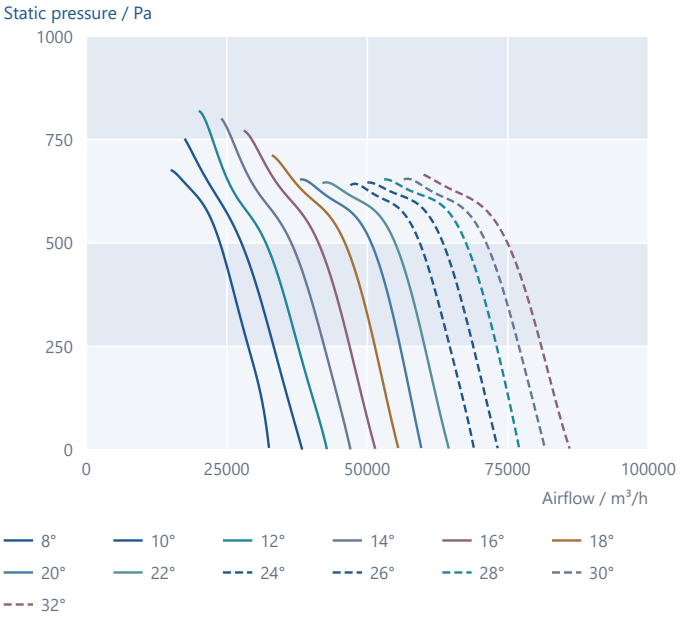
VLF-B 1000/6/4P

13 blade angles / 400 V / 50 Hz



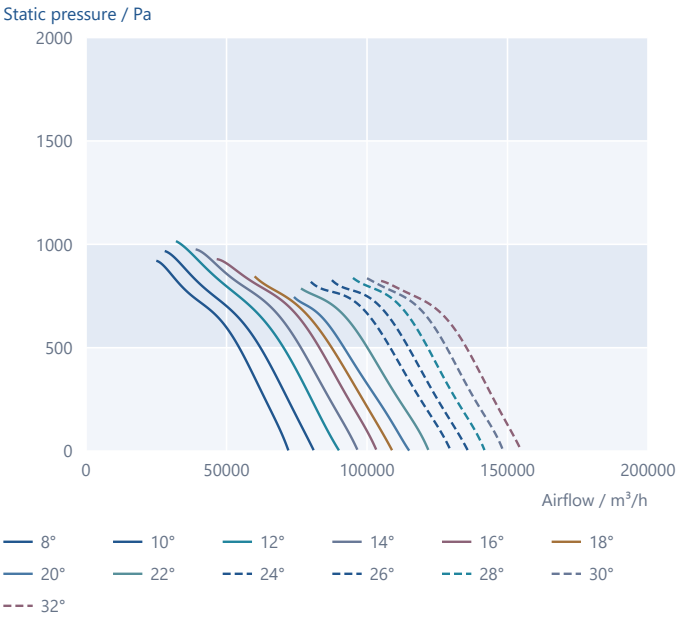
VLF-B 1000/9/4P

13 blade angles / 400 V / 50 Hz



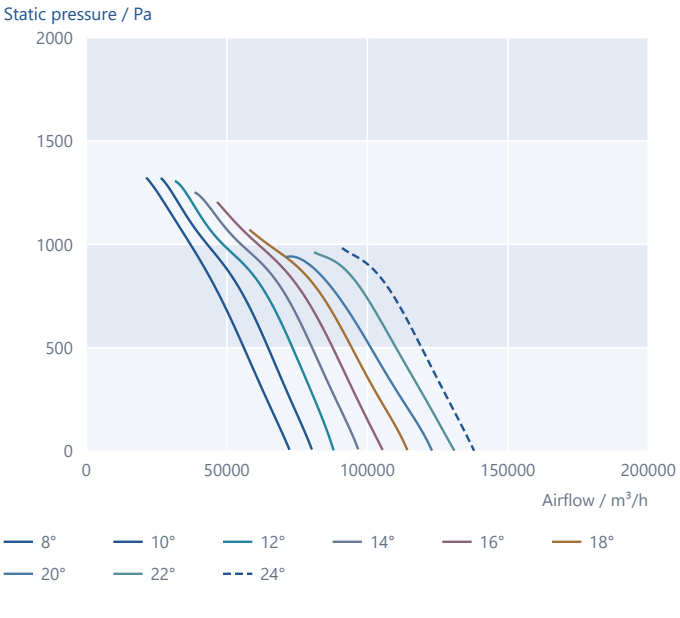
VLF-B 1250/6/4P

13 blade angles / 400 V / 50 Hz



VLF-B 1250/9/4P

9 blade angles / 400 V / 50 Hz



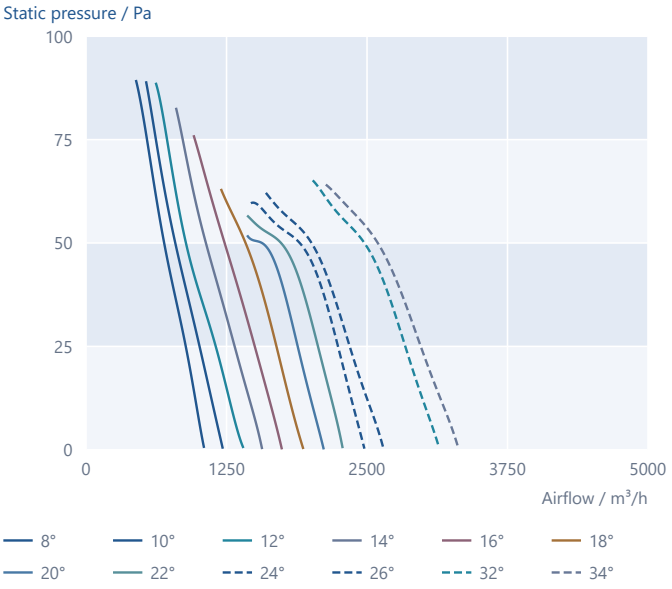
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 06

Fan Performance Curves

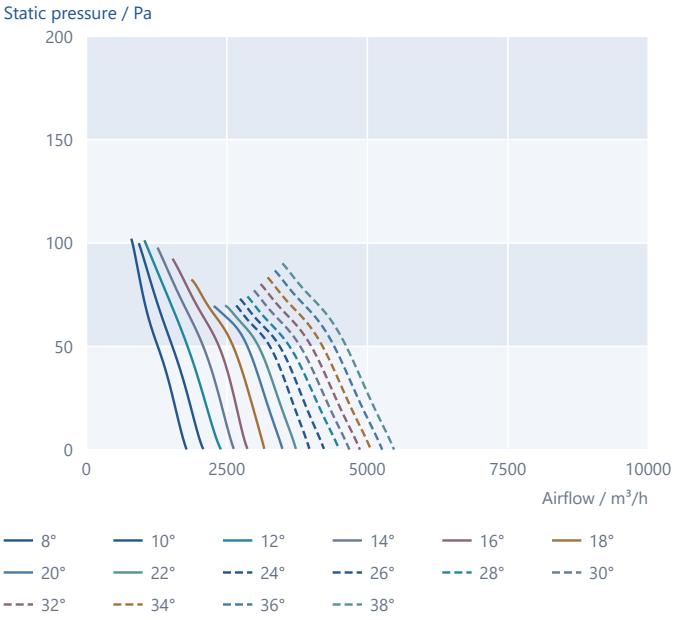
VLF-B 400/6/6P

12 blade angles / 400 V / 50 Hz



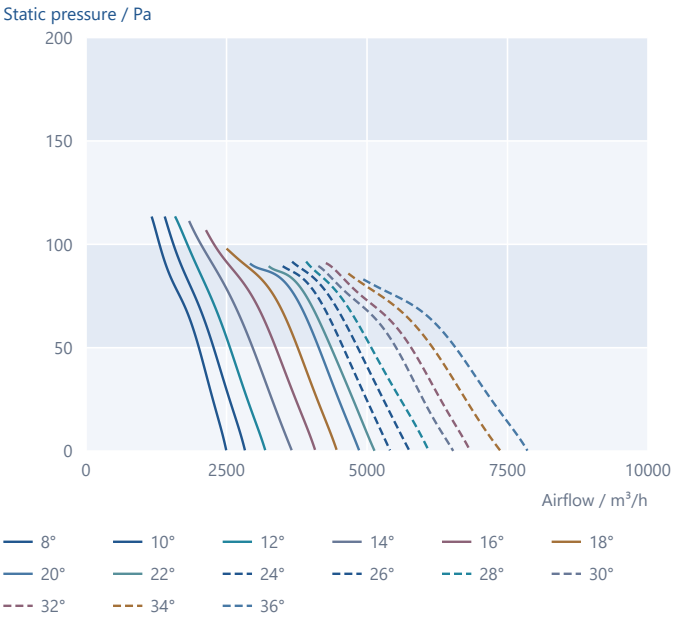
VLF-B 450/6/6P

16 blade angles / 400 V / 50 Hz



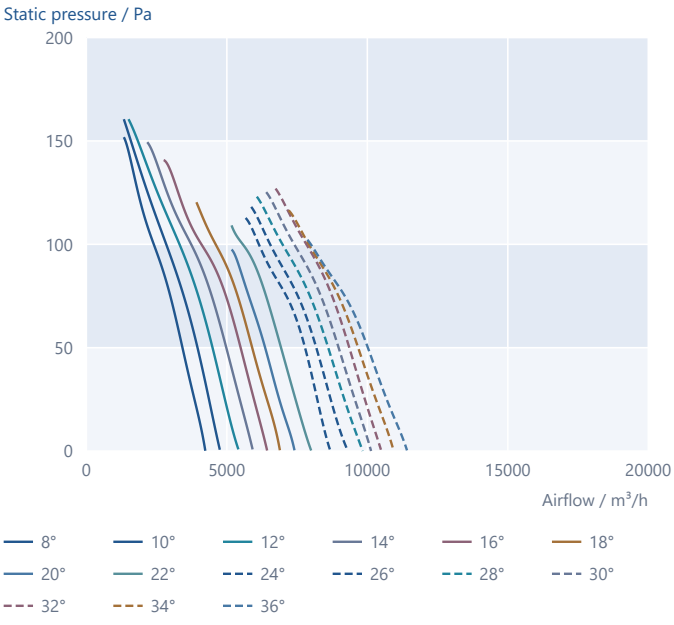
VLF-B 500/6/6P

15 blade angles / 400 V / 50 Hz



VLF-B 560/6/6P

15 blade angles / 400 V / 50 Hz



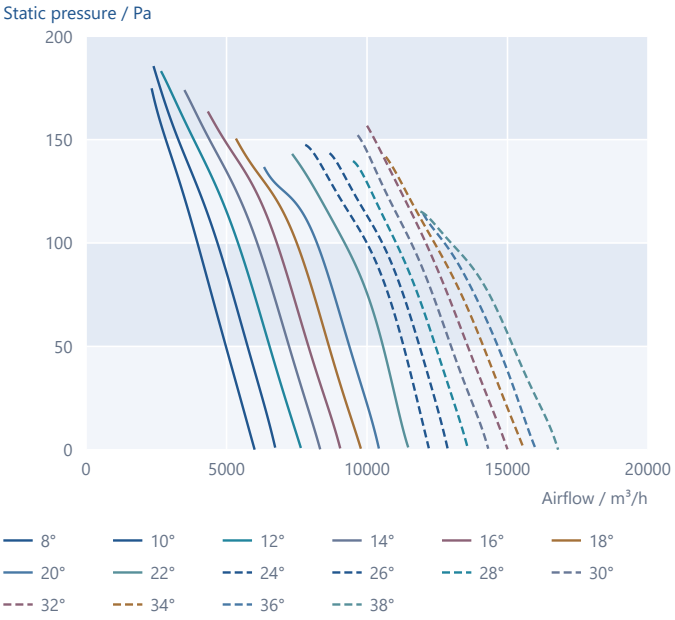
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 07

Fan Performance Curves

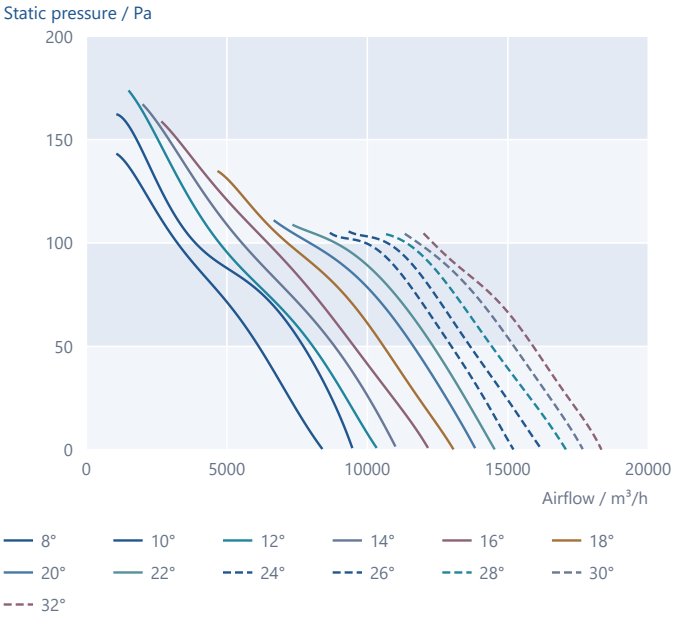
VLF-B 630/6/6P

16 blade angles / 400 V / 50 Hz



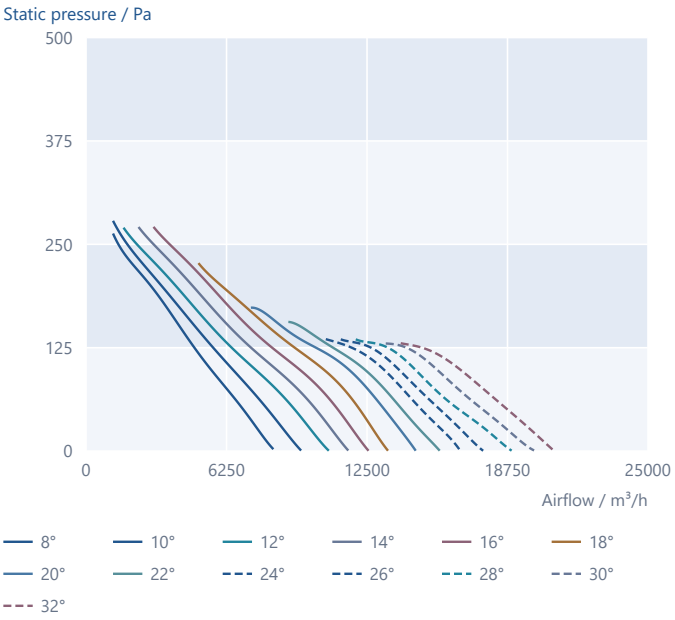
VLF-B 710/3/6P

13 blade angles / 400 V / 50 Hz



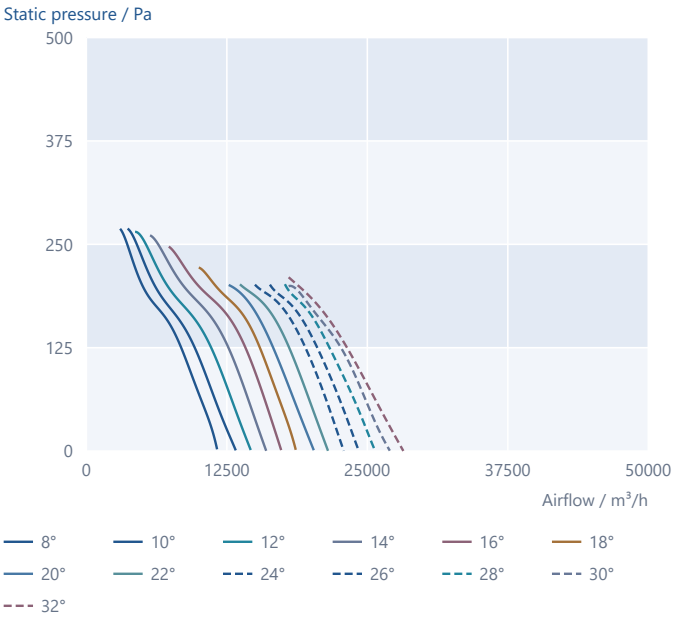
VLF-B 710/6/6P

13 blade angles / 400 V / 50 Hz



VLF-B 800/6/6P

13 blade angles / 400 V / 50 Hz



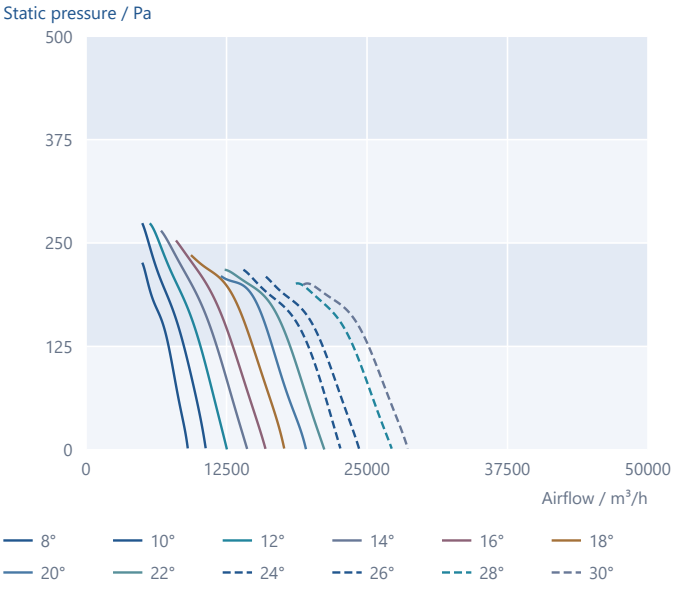
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 08

Fan Performance Curves

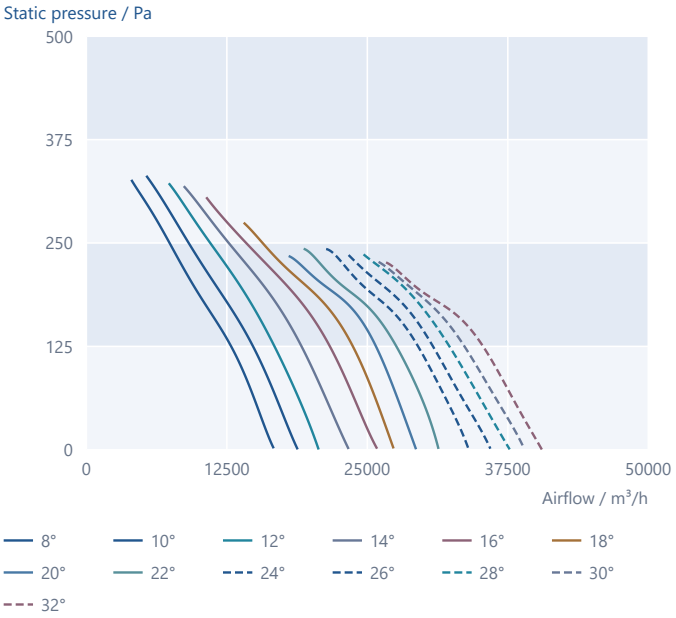
VLF-B 800/9/6P

12 blade angles / 400 V / 50 Hz



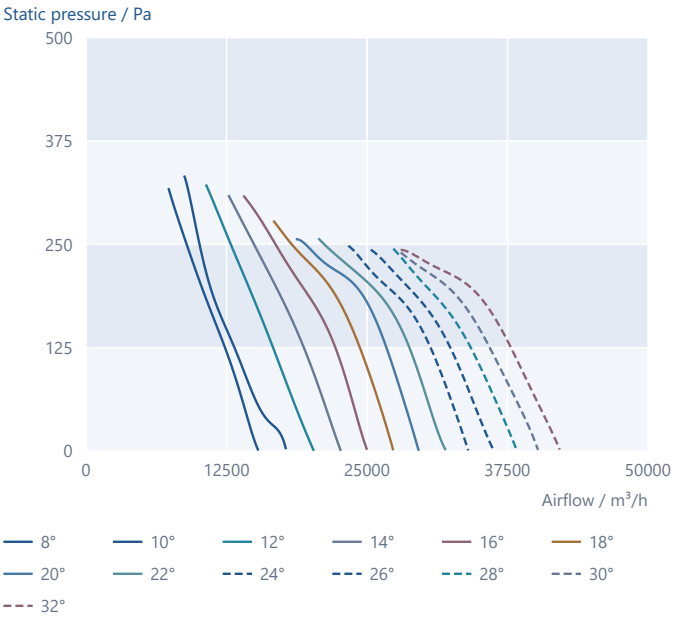
VLF-B 900/6/6P

13 blade angles / 400 V / 50 Hz



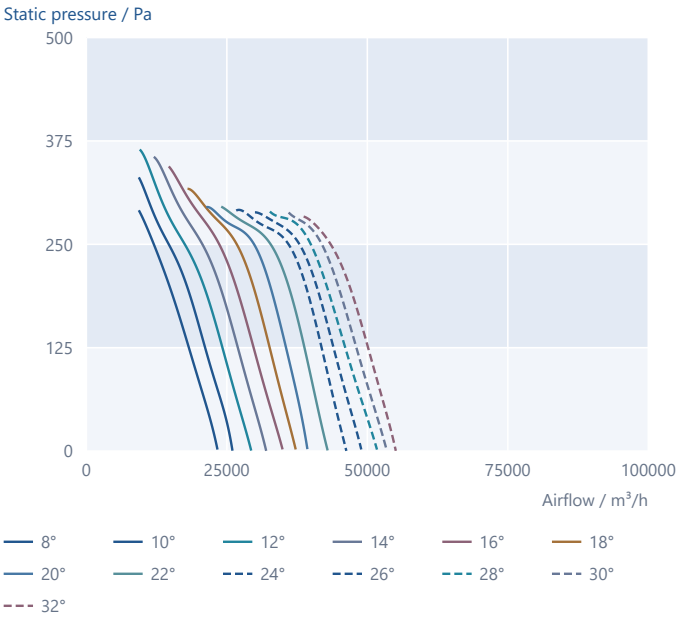
VLF-B 900/9/6P

13 blade angles / 400 V / 50 Hz



VLF-B 1000/6/6P

13 blade angles / 400 V / 50 Hz



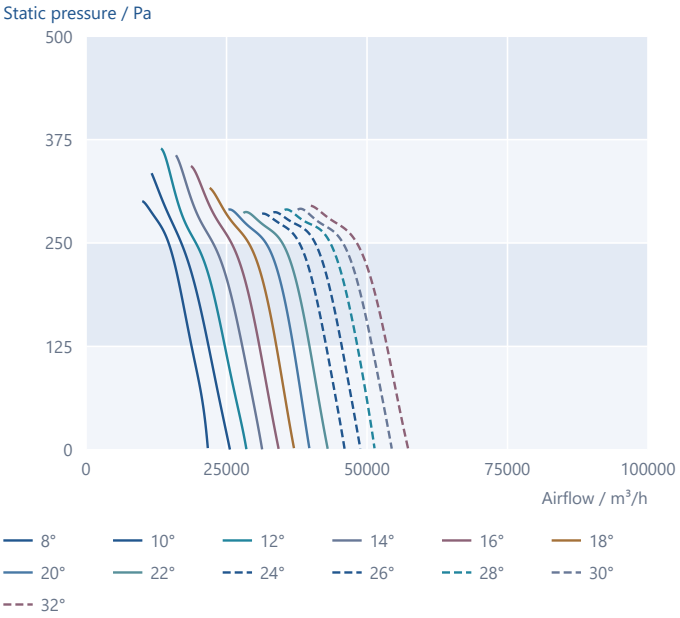
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 09

Fan Performance Curves

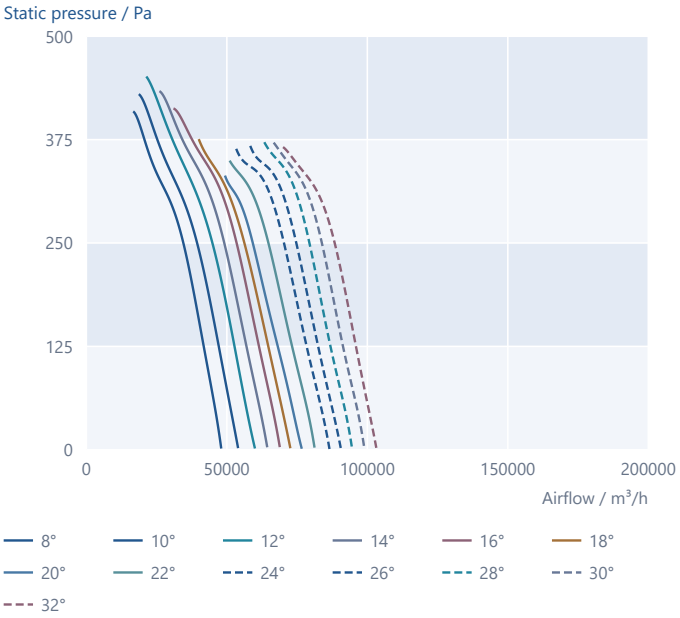
VLF-B 1000/9/6P

13 blade angles / 400 V / 50 Hz



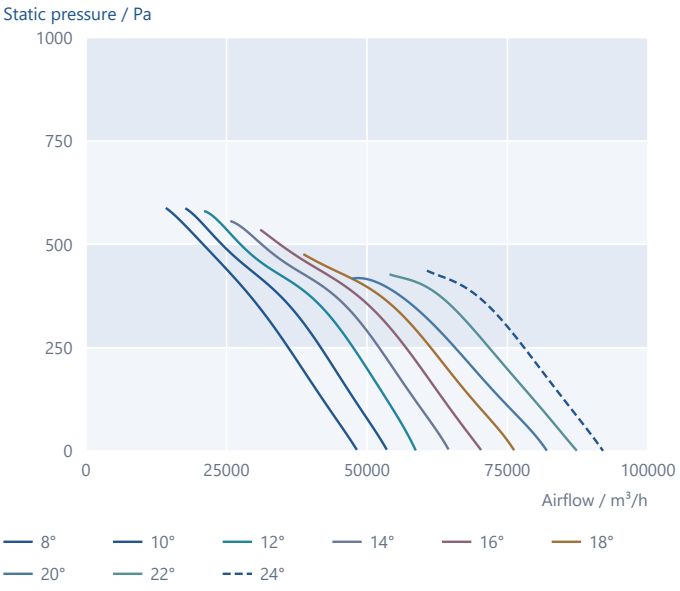
VLF-B 1250/6/6P

13 blade angles / 400 V / 50 Hz



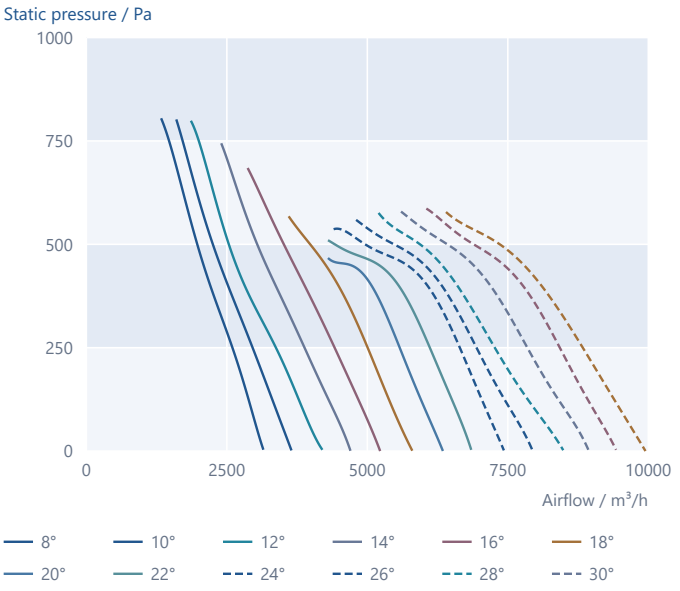
VLF-B 1250/9/6P

9 blade angles / 400 V / 50 Hz



VLF-B 400/6/2-4P

14 blade angles / 400 V / 50 Hz



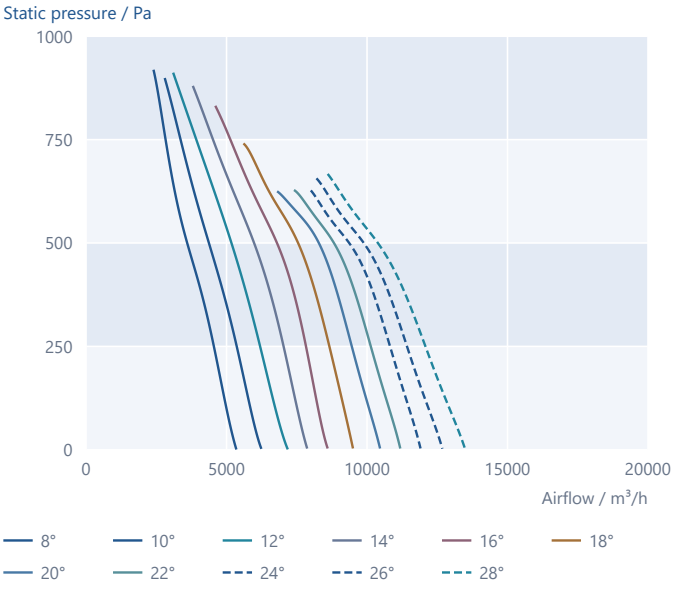
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 10

Fan Performance Curves

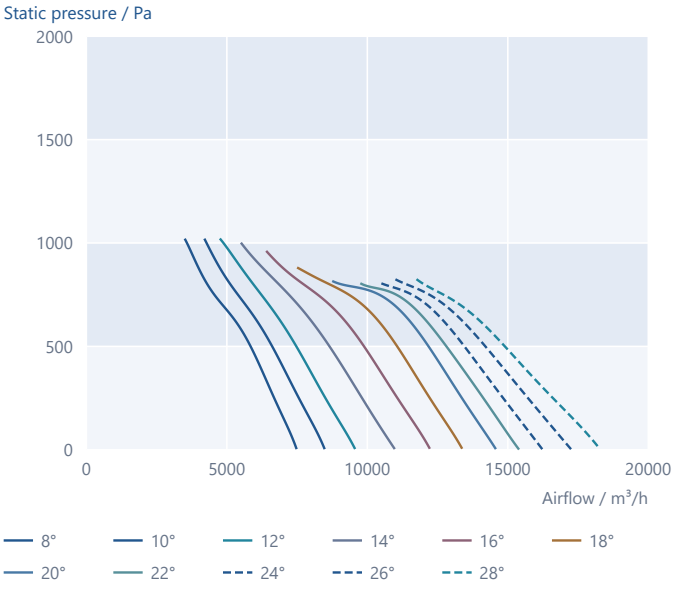
VLF-B 450/6/2-4P

11 blade angles / 400 V / 50 Hz



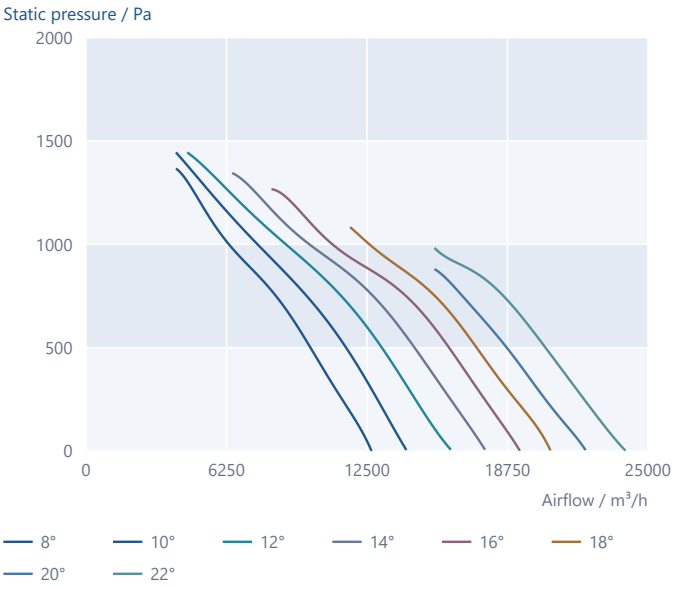
VLF-B 500/6/2-4P

11 blade angles / 400 V / 50 Hz



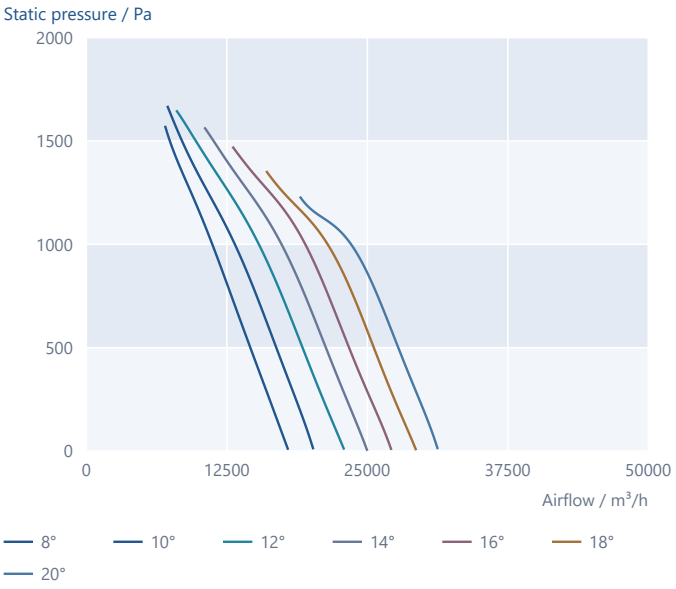
VLF-B 560/6/2-4P

8 blade angles / 400 V / 50 Hz



VLF-B 630/6/2-4P

7 blade angles / 400 V / 50 Hz



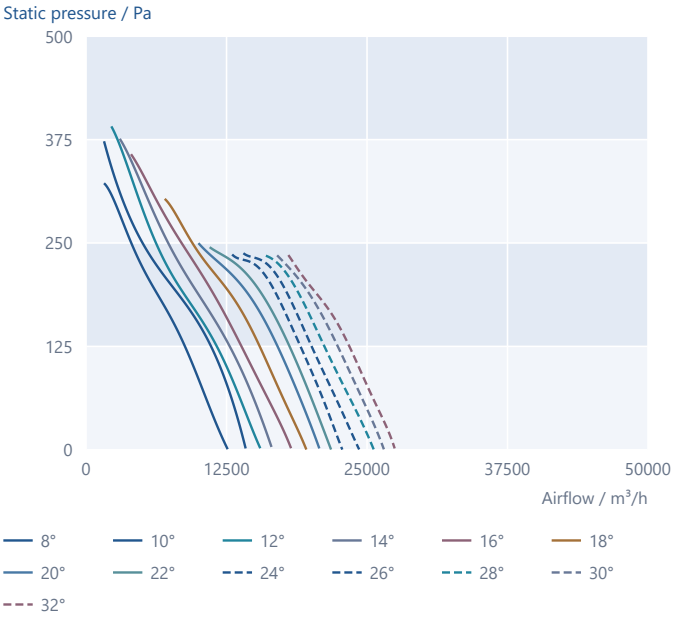
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 11

Fan Performance Curves

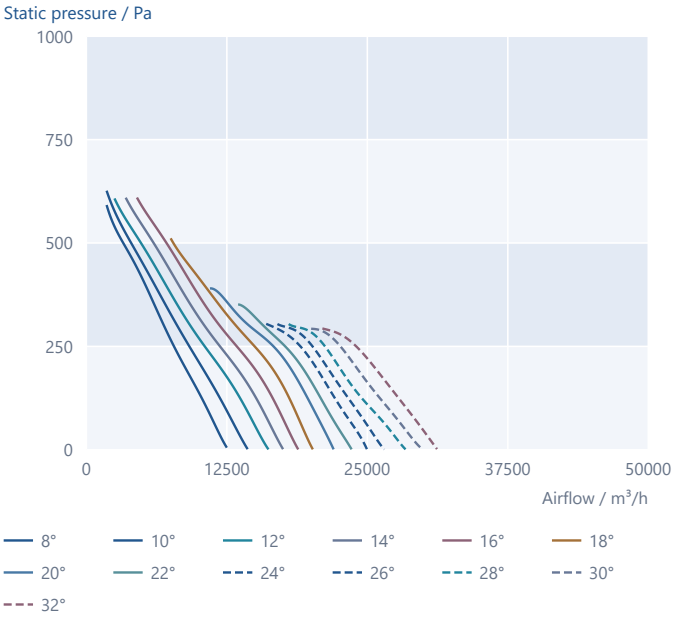
VLF-B 710/3/4-8P

13 blade angles / 400 V / 50 Hz



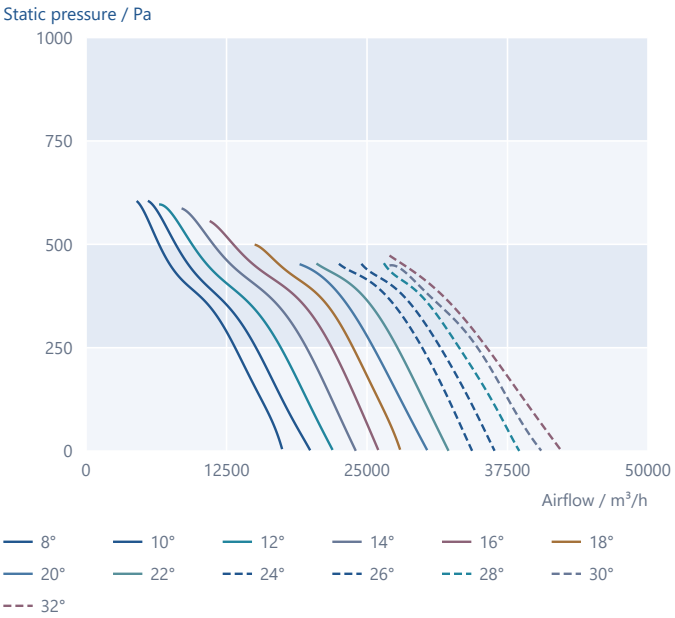
VLF-B 710/6/4-8P

13 blade angles / 400 V / 50 Hz



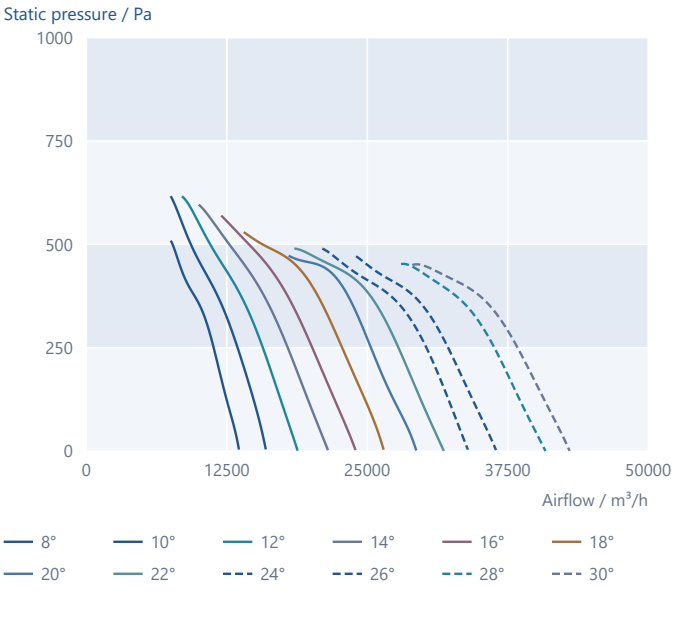
VLF-B 800/6/4-8P

13 blade angles / 400 V / 50 Hz



VLF-B 800/9/4-8P

12 blade angles / 400 V / 50 Hz



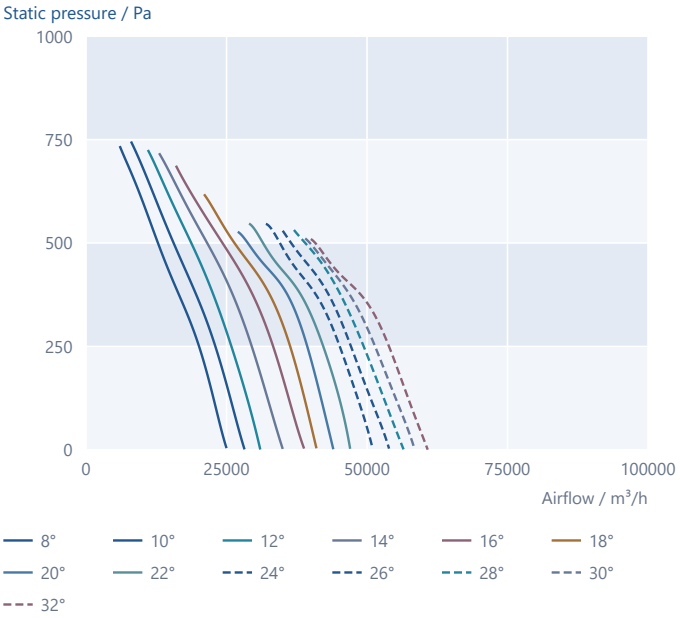
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 12

Fan Performance Curves

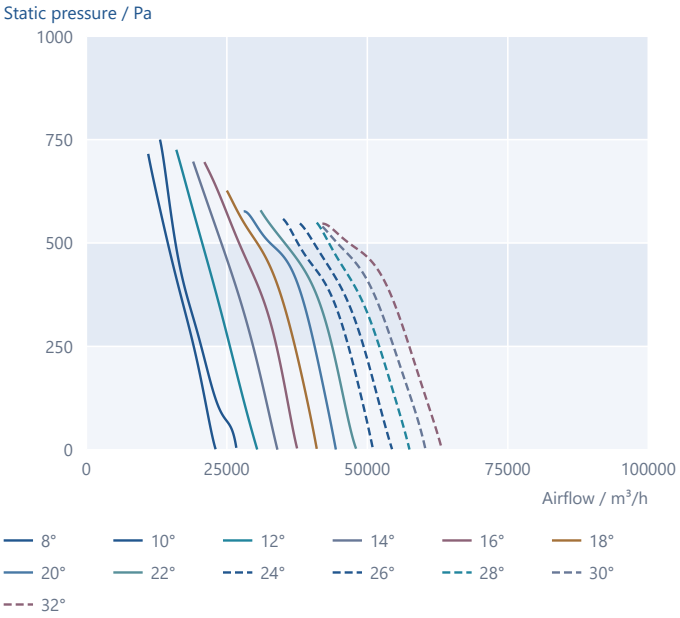
VLF-B 900/6/4-8P

13 blade angles / 400 V / 50 Hz



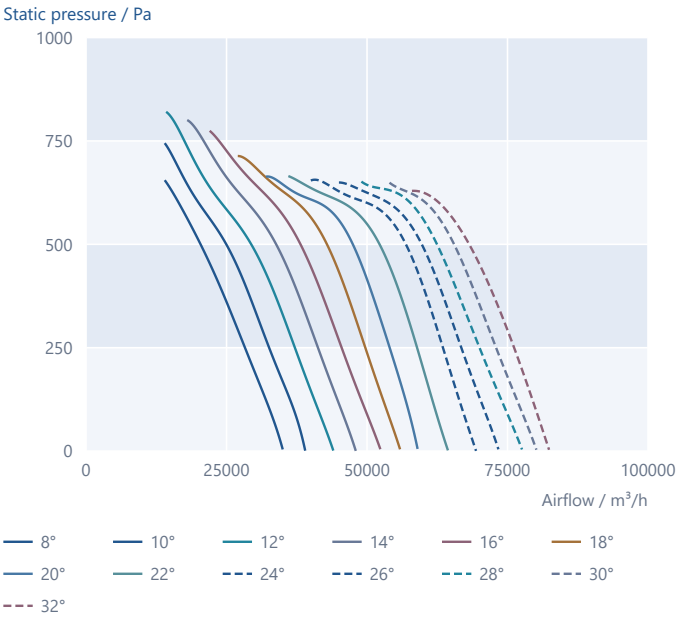
VLF-B 900/9/4-8P

13 blade angles / 400 V / 50 Hz



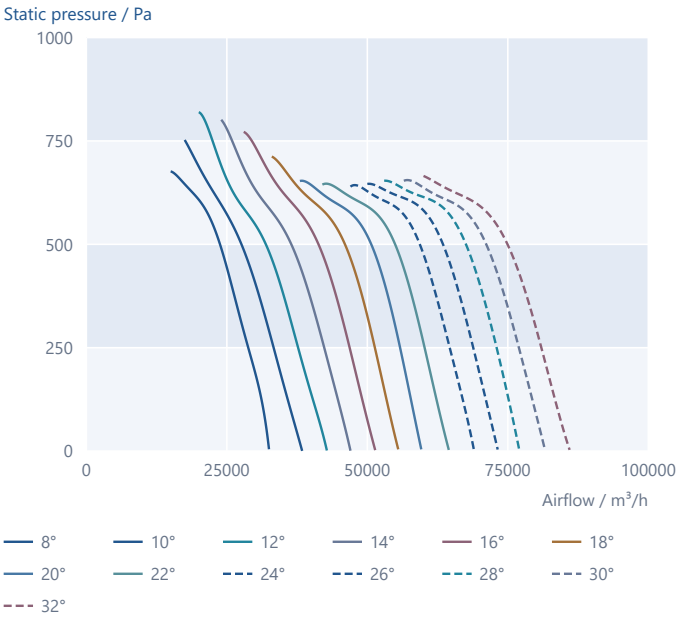
VLF-B 1000/6/4-8P

13 blade angles / 400 V / 50 Hz



VLF-B 1000/9/4-8P

13 blade angles / 400 V / 50 Hz



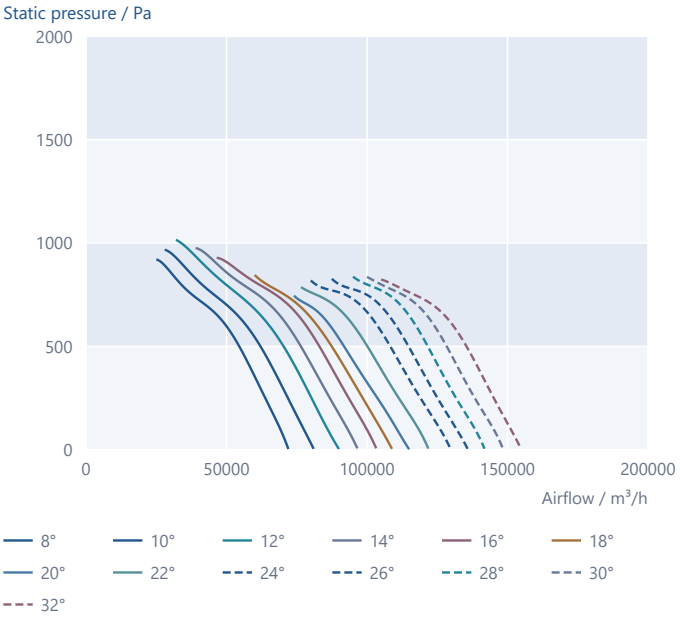
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 13

Fan Performance Curves

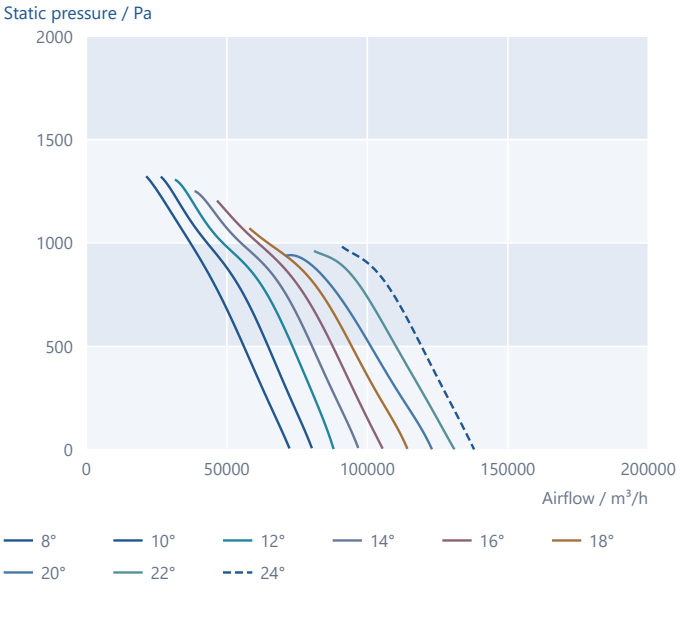
VLF-B 1250/6/4-8P

13 blade angles / 400 V / 50 Hz



VLF-B 1250/9/4-8P

9 blade angles / 400 V / 50 Hz



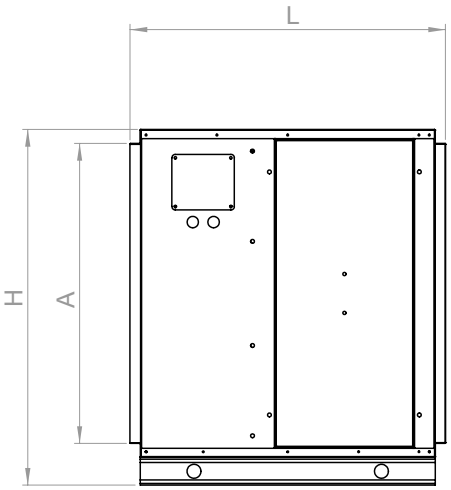
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

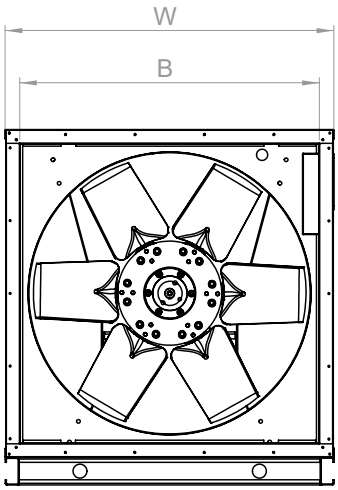
04 / DIMENSIONAL DATA

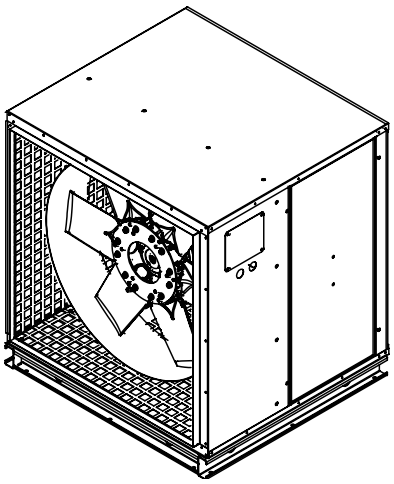
Plan the duct connections.

SERIES DRAWING / 400-1250

All lengths in mm







Size	A	B	H	L	W
400	490	490	640	592	568
450	490	490	640	592	568
500	536	536	686	592	620
560	624	624	775	745	707
630	694	694	845	745	777
710	774	774	925	910	857
800	865	865	1025	910	950
900	965	965	1125	1065	1050
1000	1069	1069	1250	1065	1150
1250	1319	1319	1500	1065	1400

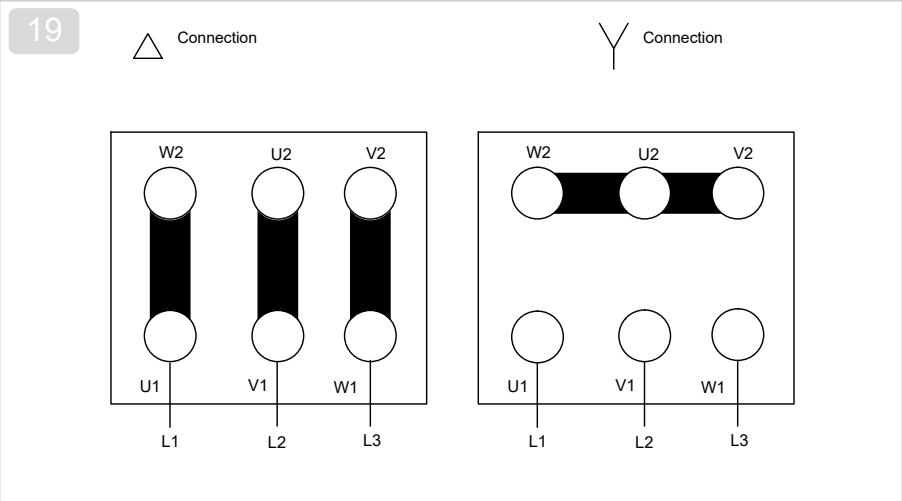
Product vector drawing. A, B, H, L and W retain their definitions and geometry. Cabinet dimensions are common to the supplied configurations at each diameter. Confirm access-panel clearance, mounting orientation and supports for the supplied unit.

05 / ELECTRICAL & INSTALLATION

Connect the selected motor.

Single-speed connection diagram 19. Star or delta connection must match the actual motor nameplate and supplied documentation; 400 V supply alone does not determine the correct connection. This generic diagram does not describe a two-speed motor.

THREE PHASE / SINGLE-SPEED DIAGRAM 19



DUTY-BASED SELECTION

Enter the required airflow and pressure in FSP. The programme selects a suitable blade angle and a listed motor using the listed absorbed-power curve and product-specific motor reserve. Final motor power, current and wiring must follow the selected and supplied configuration.

TWO-SPEED CONFIGURATIONS

Listed 2-4P and 4-8P entries include separate motor-speed designations. Only the listed high-speed performance curves are supplied here. Low-speed curves and a verified two-speed connection diagram are unavailable; use the supplied motor documentation.

Provide suitable supports and clear inlet/discharge paths. Isolate supply before maintenance. Keep the impeller, access cover and flange connections accessible. Smoke duty requires verification of the supplied unit certification.

01 / PRODUCT OVERVIEW

VBX

Acoustic Box Fan



01 Insulated box construction

A galvanized sheet-metal casing incorporates 4 mm XPE acoustic insulation and circular connections for ducted ventilation.

02 Centrifugal airflow

The centrifugal impeller is made from galvanized steel or aluminium. Twelve model sizes cover thirteen electrical variants.

03 Access for maintenance

An inspection hatch provides access for cleaning and servicing. Allow clearance around the cabinet and its duct connections.

SELECTION & PERFORMANCE

Match the fan to the duty point.

Use the individual pressure curves to select the operating point. Catalogue nominal airflow and the plotted zero-pressure endpoint are different values; both are retained in the technical table. The 500 size has two supply variants sharing one curve.

Selection parameter	Catalogue basis
Nominal airflow range	290-9300 m^3/h
Reference input power	80-1460 W / at 0 Pa
Electrical supply	230 V / 1 phase or 380 V / 3 phase
Insulation / protection / duty	Class F / IP44 / S1
Operating temperature	-20 to +50 °C

Catalogue data. Model-specific supply and ratings are listed on the next page.

02 / TECHNICAL DATA

Compare the range.

13 ELECTRICAL VARIANTS / 50 Hz

Model	Supply V / phase	Reference power / W	Nominal airflow m^3/h	Curve endpoint m^3/h	Reference speed / rpm
VBX 100	230 / 1	80	290	341	2600
VBX 125	230 / 1	80	410	486	2600
VBX 150	230 / 1	85	700	848	2600
VBX 160	230 / 1	85	710	848	2600
VBX 200	230 / 1	122	1000	1197	2675
VBX 250	230 / 1	145	1120	1361	2685
VBX 315	230 / 1	210	1750	2054	2615
VBX 355	230 / 1	380	2200	2871	2480
VBX 400	230 / 1	380	3400	4179	1362
VBX 450	230 / 1	690	4900	5836	1367
VBX 500	230 / 1	830	7000	8475	1364
VBX 500	380 / 3	830	7000	8475	1364
VBX 560	380 / 3	1460	9300	11459	1369

Power and speed are catalogue references at 0 Pa. Actual electrical input depends on the operating point. Nominal airflow follows the listed table; curve endpoint is the plotted zero-pressure airflow, rounded to the nearest m^3/h. These values must not be treated as the same rating.

COMMON MOTOR DATA

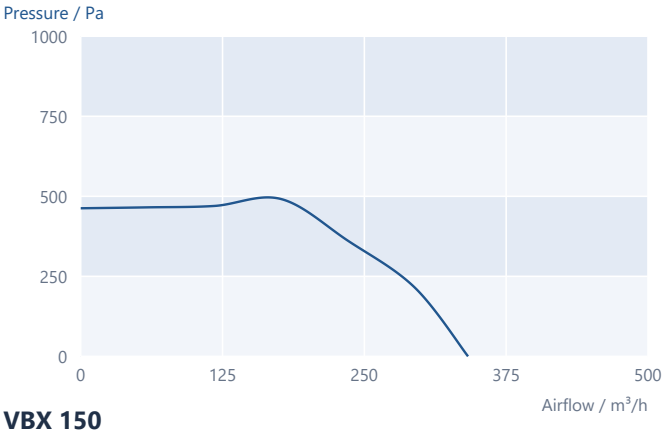
Class F / IP44 / S1 / -20 to +50 °C. Motor current, efficiency class and weight were not supplied. Use the actual unit nameplate for electrical selection.

03 / AIR PERFORMANCE / 01

Fan Performance Curves

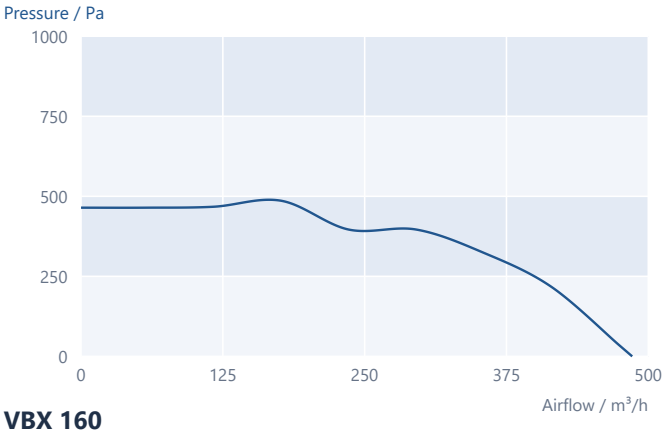
VBX 100

230 V / 1 phase / 50 Hz



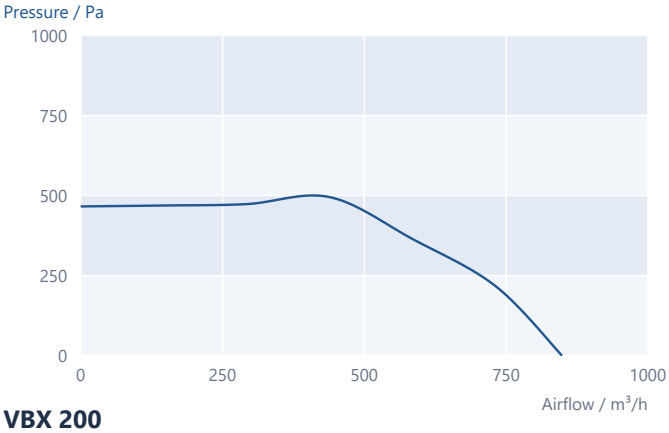
VBX 125

230 V / 1 phase / 50 Hz



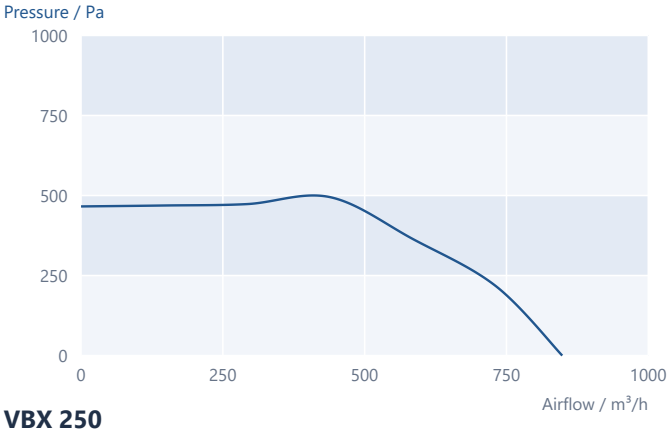
VBX 150

230 V / 1 phase / 50 Hz



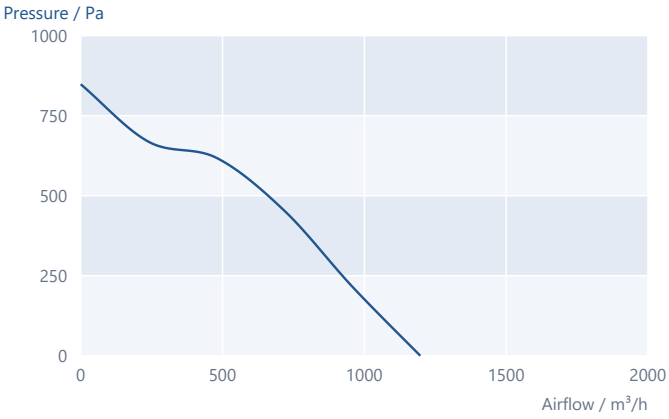
VBX 160

230 V / 1 phase / 50 Hz



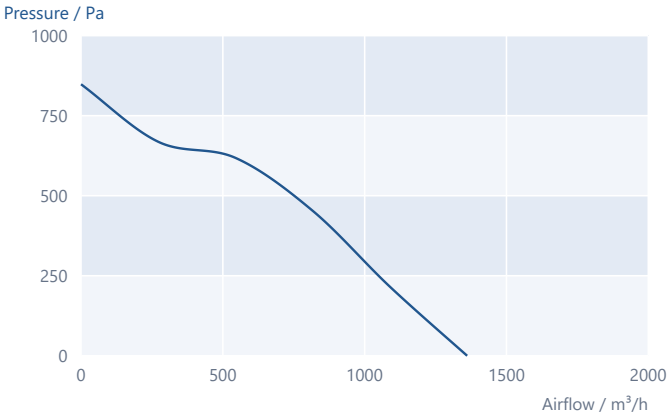
VBX 200

230 V / 1 phase / 50 Hz



VBX 250

230 V / 1 phase / 50 Hz



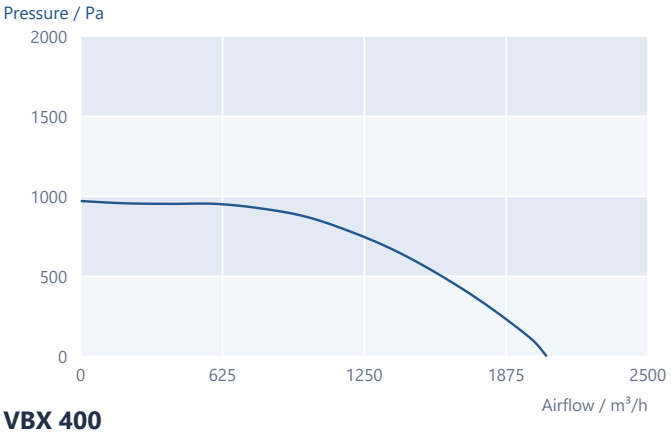
Model-specific scales. Listed pressure curves; no extrapolation. The data specify Pa but do not classify static or total pressure. VBX 500 supply variants share the same curve.

03 / AIR PERFORMANCE / 02

Fan Performance Curves

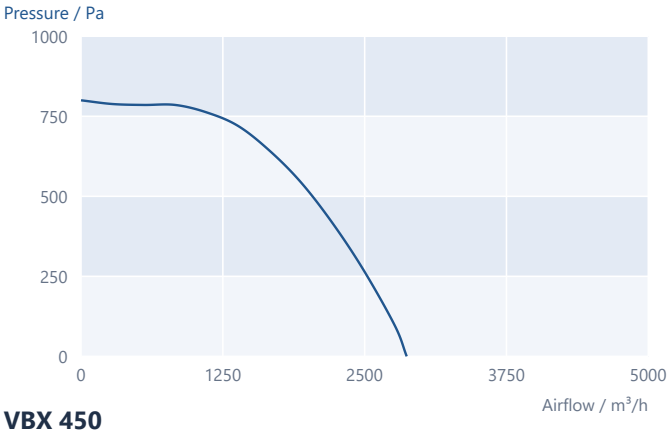
VBX 315

230 V / 1 phase / 50 Hz



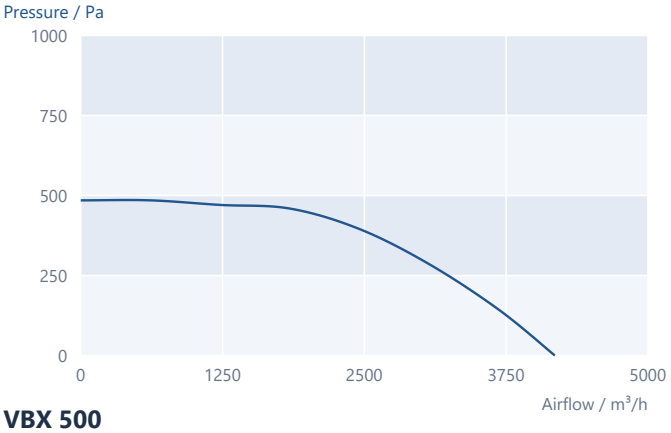
VBX 355

230 V / 1 phase / 50 Hz



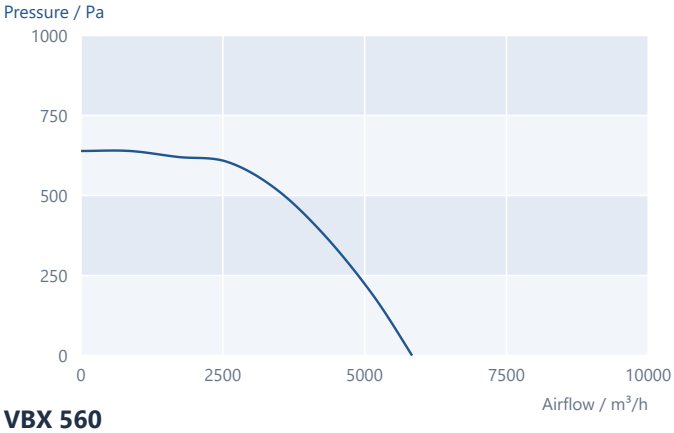
VBX 400

230 V / 1 phase / 50 Hz



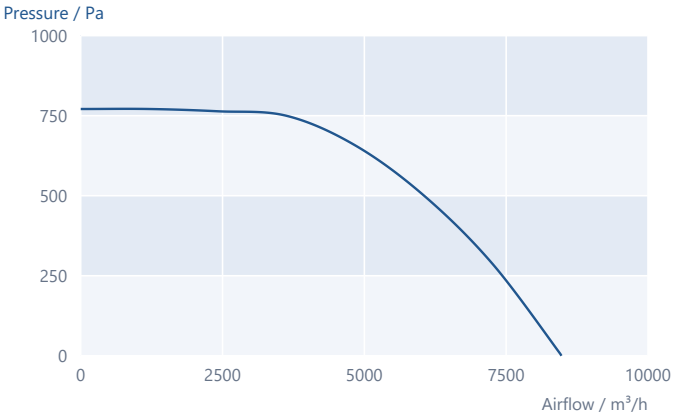
VBX 450

230 V / 1 phase / 50 Hz



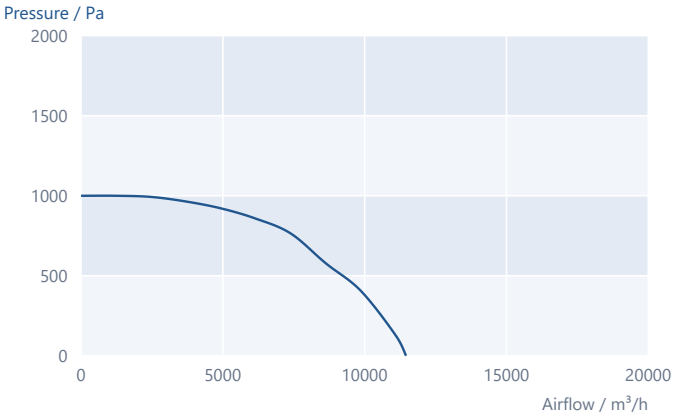
VBX 500

230 / 380 V shared curve / 50 Hz



VBX 560

380 V / 3 phase / 50 Hz



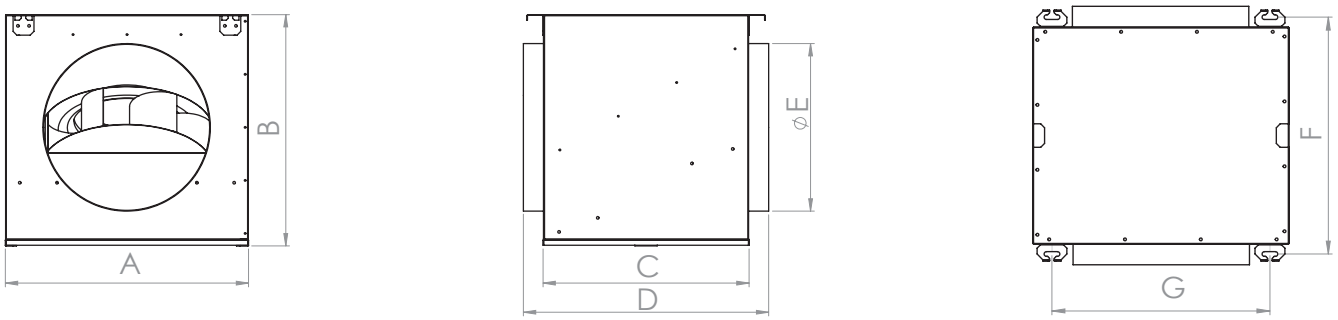
Model-specific scales. Listed pressure curves; no extrapolation. The data specify Pa but do not classify static or total pressure. VBX 500 supply variants share the same curve.

04 / DIMENSIONAL DATA

Plan the duct connections.

ORIGINAL SERIES DRAWING / A-G

All dimensions in mm



Model size	A	B	C	D	E	F	G
VBX 100	342	342	304	410	100	354	246
VBX 125	342	342	304	410	125	354	246
VBX 150	342	361	304	410	150	354	246
VBX 160	342	381	304	410	160	354	246
VBX 200	392	381	354	460	225	404	296
VBX 250	472	422	354	460	250	404	382
VBX 315	502	446	404	510	315	454	406
VBX 355	572	522	454	560	355	504	477
VBX 400	602	622	554	660	400	604	506
VBX 450	652	622	554	660	450	604	556
VBX 500	702	672	604	710	500	606	654
VBX 560	752	802	604	710	560	604	656

Original vector drawing. Electrical variants at the same model size share the cabinet dimensions. E is the duct connection diameter; VBX 200 retains the listed E = 225 mm. Confirm mating connections before installation.

05 / INSTALLATION & MOTOR

Prepare the installation.

01 Cabinet and duct connections

Check the A-G dimensions and the E connection diameter. Support the cabinet securely, connect the circular ducts and provide space to open the inspection hatch.

02 Electrical configuration

Sizes 100-450 use 230 V single-phase supply. Size 500 is offered in 230 V single-phase and 380 V three-phase variants; size 560 uses 380 V three-phase supply. All are 50 Hz.

03 Motor and connection data

Class F insulation, IP44 protection and continuous duty S1 are specified. Supplied single-phase and three-phase diagrams are on the next page; use the diagram and nameplate supplied with the actual unit.

04 Inspection and maintenance

Isolate the electrical supply before servicing. Keep the impeller and duct connections clean, inspect the acoustic lining and check cabinet fixings regularly.

CATALOGUE SOUND LEVELS / dB(A) AT 0 Pa

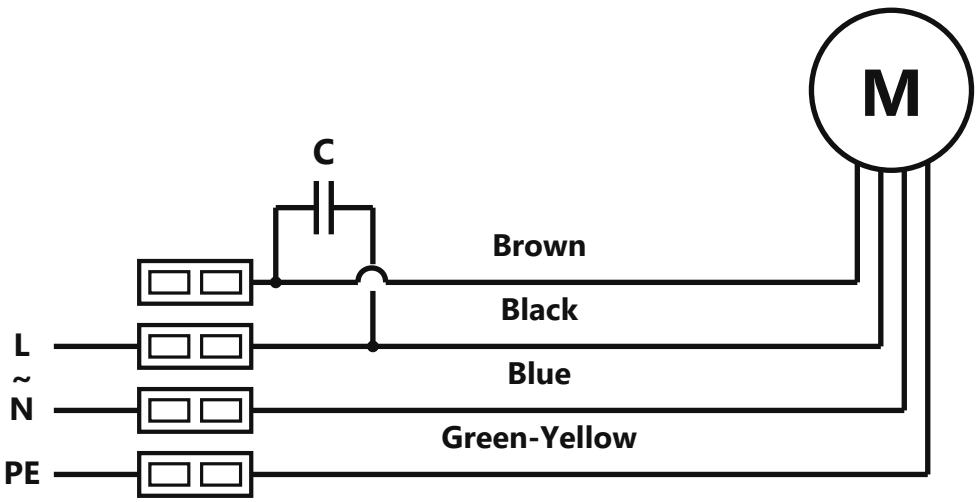
100: 44 / 125: 46 / 150: 50 / 160: 52 / 200: 55 / 250: 62 / 315: 63 / 355: 68 / 400: 70 / 450: 74 / 500: 77 / 560: 79. The data do not identify sound power or sound pressure, measurement distance or octave-band spectra.

06 / ELECTRICAL CONNECTION

Match the supply variant.

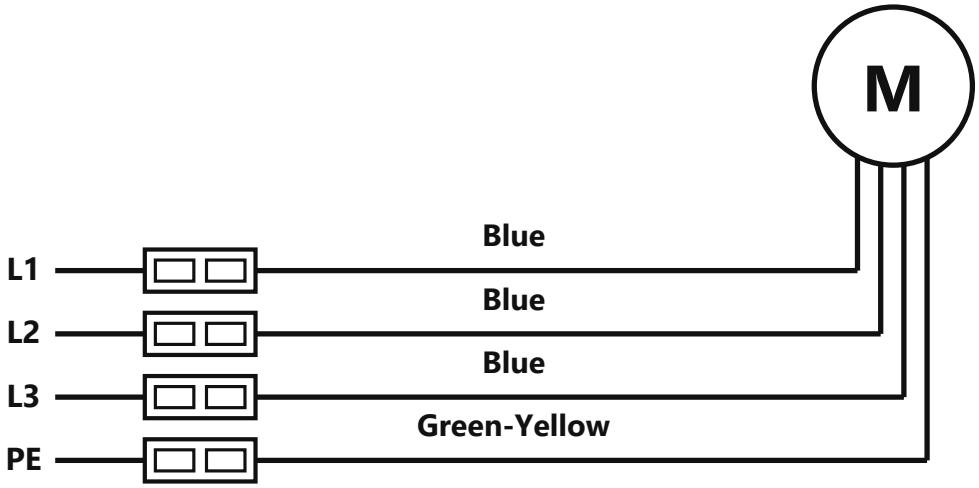
230 V / SINGLE PHASE - VBX 100-450 AND 500 / 230 V

VBX / Single-phase



380 V / THREE PHASE - VBX 500 / 380 V AND 560

VBX / Three-phase



L / N: line / neutral. L1 / L2 / L3: phases. PE: protective earth. C: capacitor. M: motor. All three phase conductors are labelled Blue in the supplied three-phase diagram; the labels are preserved.

VOLTVENT®
VENTILATION SYSTEMS



02

AXIAL FANS

SERIES DIRECTORY

VAF-SF	095	**VLF-W**	124
VAS-X	102	**VLF-BIF**	130
VAS-W	107	**VPAF**	136
VAF-C	112	**VLF-T**	141
VAF-W	118	**VAB**	160

01 / PRODUCT OVERVIEW

VAF-SF

Axial Cooling Fan



01 Direct axial airflow

An external-rotor AC motor directly drives the axial impeller. Seven fan diameters cover the series.

02 Guard and mounting

Powder-coated steel guard and support components. Impeller material depends on the supplied variant.

03 Cooling and ventilation

For refrigeration equipment, industrial chillers and ventilation equipment. Provide unobstructed inlet and outlet paths.

SELECTION & PERFORMANCE

Select by diameter and motor variant.

Fourteen 50 Hz variants combine 4- or 6-pole motors with single- or three-phase supply. Pressure curves show listed performance data and remain within their supplied airflow domains. Observe the selected motor voltage, capacitor and transported-air temperature limit.

Selection parameter	Catalogue basis
Fan diameter range	250-630 mm / 7 diameters
Nominal input power	55-1000 W
Electrical supply	230 V / 1 phase or 400 V / 3 phase
Motor insulation / protection	Class F / IP54

Performance data. Speed control must suit the selected motor.

02 / TECHNICAL DATA

Compare the motor variants.

14 MOTOR VARIANTS / 50 Hz

Model	Poles	V / PH	Input W	Airflow m^3/h	Speed rpm	Current A	Weight kg	Air temp. °C
VAF-SF 250	4	230/1	55	1000	1370	0.26	2.5	55
VAF-SF 300	4	230/1	72	1700	1300	0.32	4	50
VAF-SF 300	6	230/1	80	1350	1050	0.4	4	50
VAF-SF 350	6	230/1	90	2300	1050	0.41	4.7	55
VAF-SF 350	4	230/1	115	3100	1225	0.5	4.7	55
VAF-SF 400	6	230/1	110	2900	1050	0.48	6.1	40
VAF-SF 400	4	400/3	140	4000	1400	0.47	6.1	40
VAF-SF 400	4	230/1	160	4000	1400	0.75	6.1	40
VAF-SF 450	4	400/3	200	5700	1400	0.5	6.9	40
VAF-SF 450	4	230/1	245	5700	1400	1.2	6.9	40
VAF-SF 500	4	230/1	420	6900	1300	2	9.5	40
VAF-SF 500	4	400/3	425	6900	1300	0.75	9.5	80
VAF-SF 630	4	230/1	970	12770	1335	4.55	17	40
VAF-SF 630	4	400/3	1000	13000	1365	2.19	17	40

Airflow: nominal maximum airflow in m^3/h; not a selected duty point. Listed curve domains may differ from nominal airflow. Nominal input power, speed and current are ratings; operating values vary with airflow.

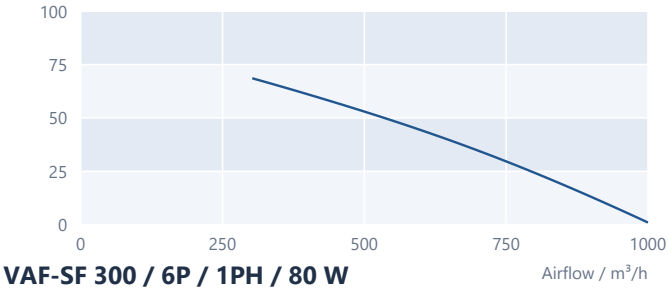
Temperature: maximum transported-air temperature for each variant. Class F / IP54 throughout the supplied records. 4P / 6P: motor poles; 1PH / 3PH: supply phases.

03 / AIR PERFORMANCE / 01

Fan Performance Curves

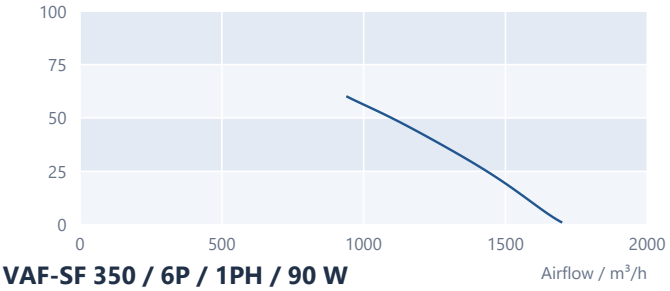
VAF-SF 250 / 4P / 1PH / 55 W

1 phase / 50 Hz / reference 1370 rpm



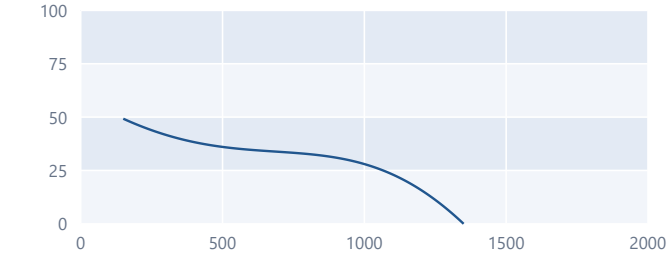
VAF-SF 300 / 4P / 1PH / 72 W

1 phase / 50 Hz / reference 1300 rpm



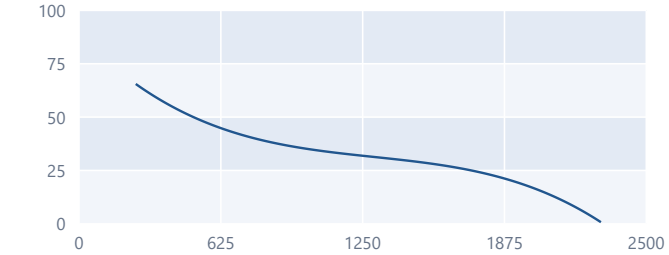
VAF-SF 300 / 6P / 1PH / 80 W

1 phase / 50 Hz / reference 1050 rpm



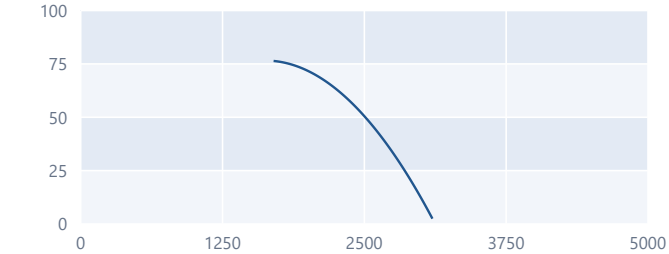
VAF-SF 350 / 6P / 1PH / 90 W

1 phase / 50 Hz / reference 1050 rpm



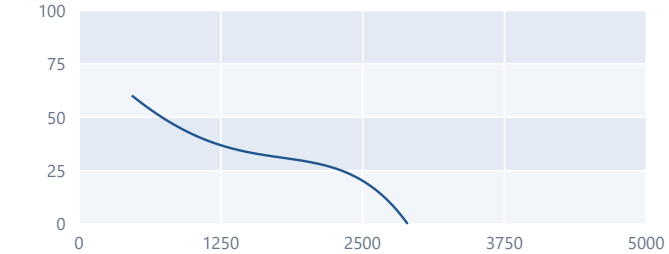
VAF-SF 350 / 4P / 1PH / 115 W

1 phase / 50 Hz / reference 1225 rpm



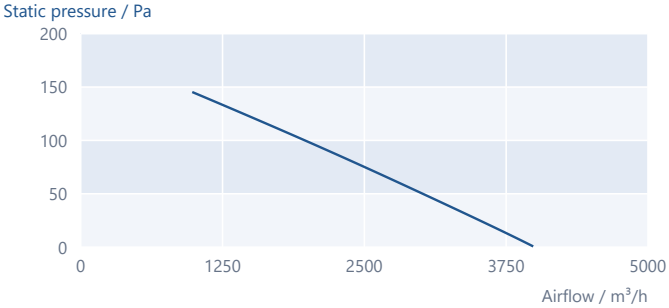
VAF-SF 400 / 6P / 1PH / 110 W

1 phase / 50 Hz / reference 1050 rpm



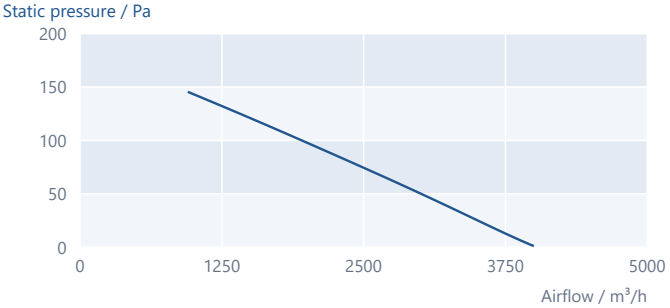
VAF-SF 400 / 4P / 3PH / 140 W

3 phase / 50 Hz / reference 1400 rpm



VAF-SF 400 / 4P / 1PH / 160 W

1 phase / 50 Hz / reference 1400 rpm



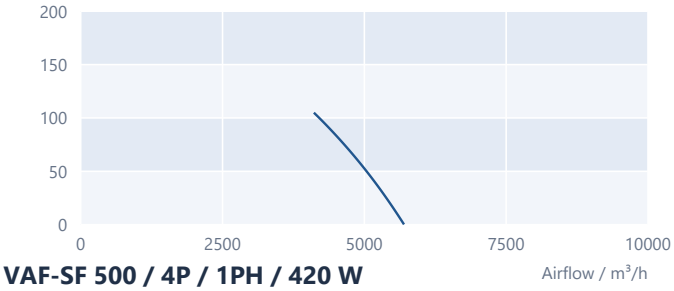
Model-specific scales. Listed 50 Hz pressure curves stay within listed airflow domains; negative-pressure tails are omitted at the zero-pressure crossing. No extrapolation.

03 / AIR PERFORMANCE / 02

Fan Performance Curves

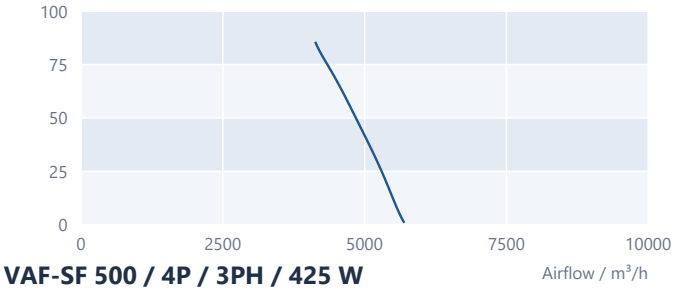
VAF-SF 450 / 4P / 3PH / 200 W

3 phase / 50 Hz / reference 1400 rpm



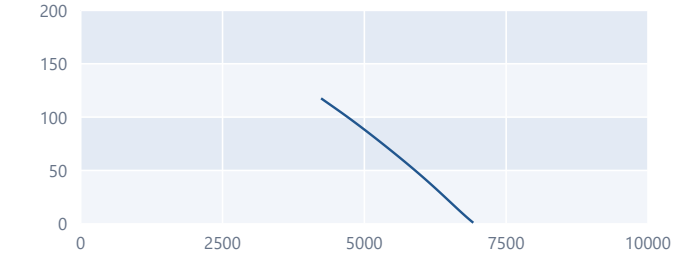
VAF-SF 450 / 4P / 1PH / 245 W

1 phase / 50 Hz / reference 1400 rpm



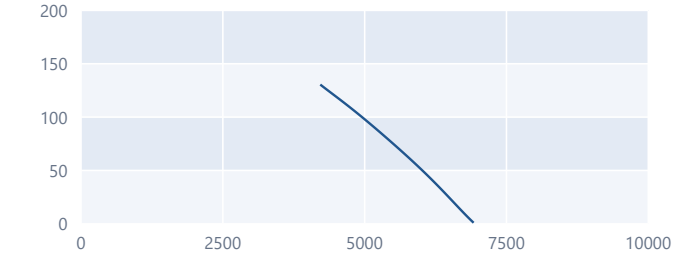
VAF-SF 500 / 4P / 1PH / 420 W

1 phase / 50 Hz / reference 1300 rpm



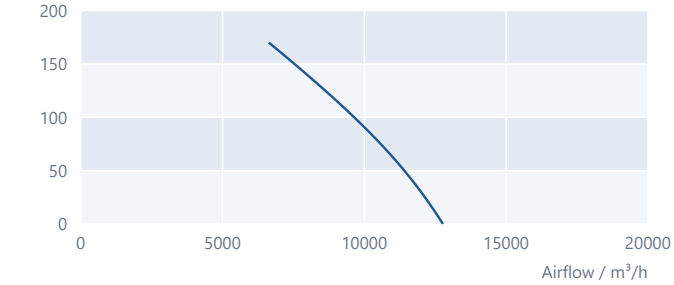
VAF-SF 500 / 4P / 3PH / 425 W

3 phase / 50 Hz / reference 1300 rpm



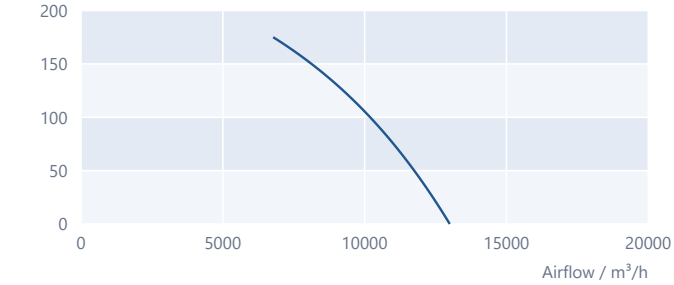
VAF-SF 630 / 4P / 1PH / 970 W

1 phase / 50 Hz / reference 1335 rpm



VAF-SF 630 / 4P / 3PH / 1000 W

3 phase / 50 Hz / reference 1365 rpm



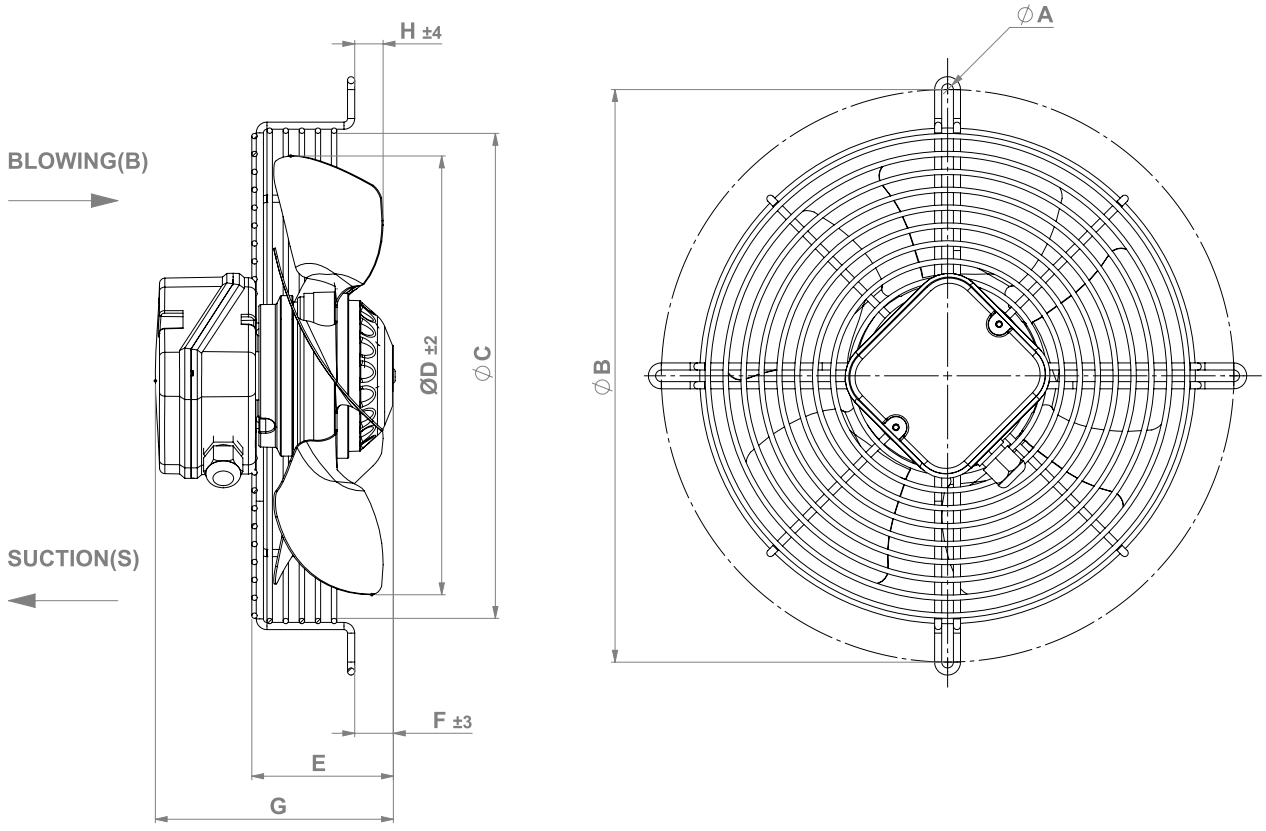
Model-specific scales. Listed 50 Hz pressure curves stay within listed airflow domains; negative-pressure tails are omitted at the zero-pressure crossing. No extrapolation.

04 / DIMENSIONAL DATA / 01

Guard and mounting dimensions.

250 / 300 / 350

All dimensions in mm



Model	A	B	C	D	E	F	G	H
VAF-SF 250	6.5	300	271	250	84	27	128	14 / 23
VAF-SF 300	6.5	360	330	300	105	47	147	20 / 29
VAF-SF 350	6.5	422	374	350	105	47	146	40 / 32

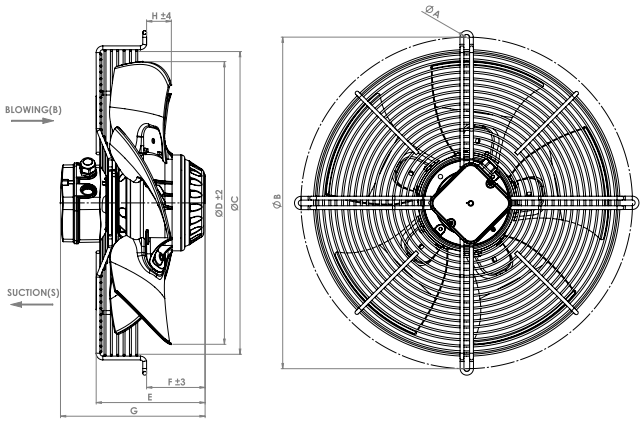
Original data drawing. H values are listed as S / B positions, matching the drawing. Check the selected mounting position and keep the protective guard clear.

04 / DIMENSIONAL DATA / 02

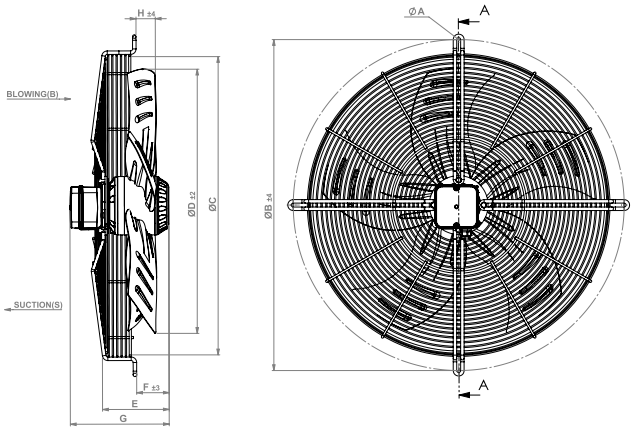
Model-specific mounting details.

All dimensions in mm

400 / 450 / 500



630



Model	A	B	C	D	E	F	G	H
VAF-SF 400	9	470	421	396	147	53	180	20 / 20
VAF-SF 450	9	522	472	444	158	65	190	25 / 17
VAF-SF 500	9	565	525	498	155	48	183	41 / 24
VAF-SF 630	9	760	685	629	153	75	227	44 / 35

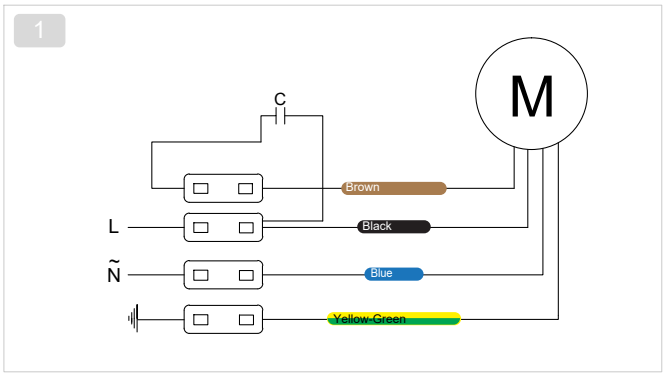
Original data drawings are retained for each construction group. H values: S / B mounting positions. Provide inlet and outlet clearance and confirm the selected unit drawing before installation.

05 / ELECTRICAL & INSTALLATION

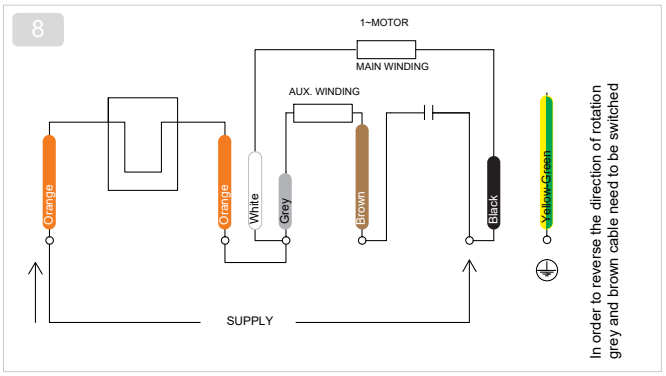
Connect the selected motor.

Isolate the supply before installation or maintenance. Secure all mounting points and check rotation and airflow direction. Single-phase motors require the specified capacitor; suitable voltage control depends on the supplied motor. Confirm inverter suitability for three-phase motors.

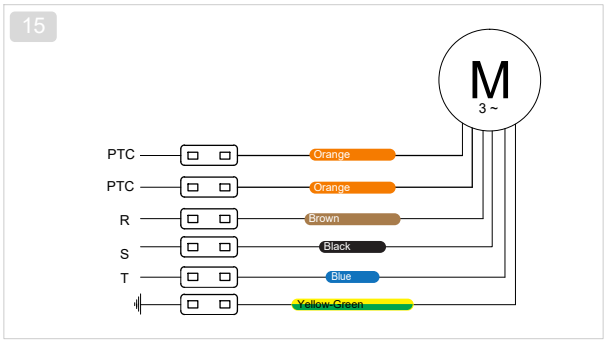
SINGLE PHASE / DIAGRAM 01



SINGLE PHASE / DIAGRAM 08



THREE PHASE / DIAGRAM 15



SINGLE-PHASE CAPACITORS

Model	Poles	Input	Capacitor	Cap. voltage
VAF-SF 250	4P	55 W	1.5 µF	400 V
VAF-SF 300	4P	72 W	2.5 µF	400 V
VAF-SF 300	6P	80 W	1 µF	400 V
VAF-SF 350	6P	90 W	2.5 µF	400 V
VAF-SF 350	4P	115 W	4 µF	400 V
VAF-SF 400	6P	110 W	3.5 µF	400 V
VAF-SF 400	4P	160 W	5 µF	400 V
VAF-SF 450	4P	245 W	7 µF	400 V
VAF-SF 500	4P	420 W	8 µF	400 V
VAF-SF 630	4P	970 W	18 µF	400 V

Diagram 01: sizes 250-450 single phase. Diagram 08: sizes 500 and 630 single phase. Diagram 15: all three-phase variants. Match the actual motor nameplate and supplied unit diagram.

01 / PRODUCT OVERVIEW

VAS-X

Axial Fan



01 Direct axial airflow

A single-phase AC motor directly drives the axial impeller. Four diameters have separate 2- and 4-pole options.

02 Guard and mounting

The casing and axial impeller use powder-coated sheet metal. A protective wire guard covers the motor side.

03 Supply, extract and circulation

For indoor-air extraction, fresh-air supply and machine air circulation. Keep inlet and outlet paths unobstructed.

SELECTION & PERFORMANCE

Select by diameter and motor variant.

Eight 50 Hz models combine four diameters with 2- or 4-pole single-phase motors. Pressure curves show listed performance data and remain within their supplied airflow domains. Observe the selected motor voltage, capacitor and transported-air temperature limit.

Selection parameter	Catalogue basis
Fan diameter range	200-350 mm / 4 diameters
Nominal input power	55-200 W
Electrical supply	230 V / 1 phase / 50 Hz
Motor insulation / protection	Class B / IP44

Performance data. Speed control must suit the selected motor.

02 / TECHNICAL DATA

Compare the motor variants.

8 MODELS / 50 Hz

Model	Poles	V / PH	Input W	Airflow m^3/h	Speed rpm	Current A	Weight kg	Air temp. °C
VAS-X 200-2P	2	230/1	63	680	2750	0.28	2	40
VAS-X 200-4P	4	230/1	55	407	1450	0.26	2.2	40
VAS-X 250-2P	2	230/1	100	1500	2700	0.5	2.7	40
VAS-X 250-4P	4	230/1	55	760	1400	0.28	2.7	40
VAS-X 300-2P	2	230/1	140	2020	2600	0.6	3.5	40
VAS-X 300-4P	4	230/1	65	1410	1360	0.29	3.5	40
VAS-X 350-2P	2	230/1	200	3110	2050	0.9	4.6	40
VAS-X 350-4P	4	230/1	75	2340	1330	0.32	4.6	40

Airflow: nominal maximum airflow in m^3/h; not a selected duty point. Listed curve domains may differ from nominal airflow. Nominal input power, speed and current are ratings; operating values vary with airflow.

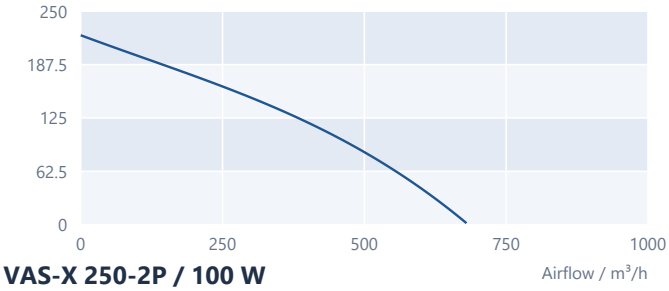
Temperature: maximum transported-air temperature for each variant. Class B / IP44 throughout the supplied records. 2P / 4P: motor poles; all models use single-phase supply.

03 / AIR PERFORMANCE / 01

Fan Performance Curves

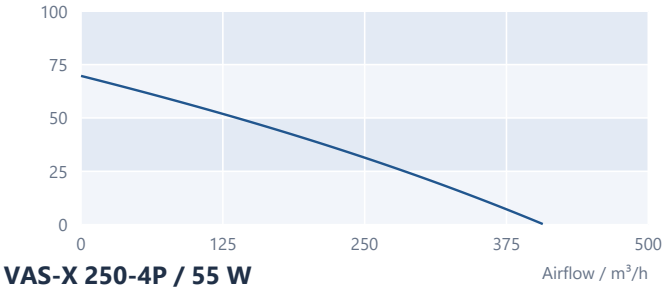
VAS-X 200-2P / 63 W

1 phase / 50 Hz / reference 2750 rpm



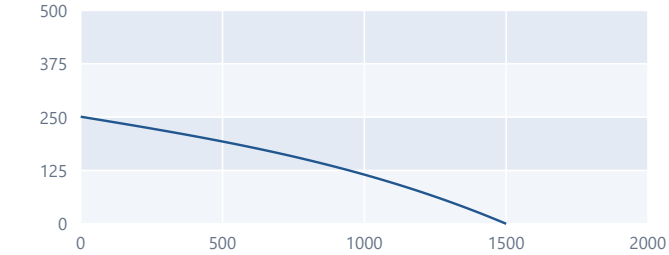
VAS-X 200-4P / 55 W

1 phase / 50 Hz / reference 1450 rpm



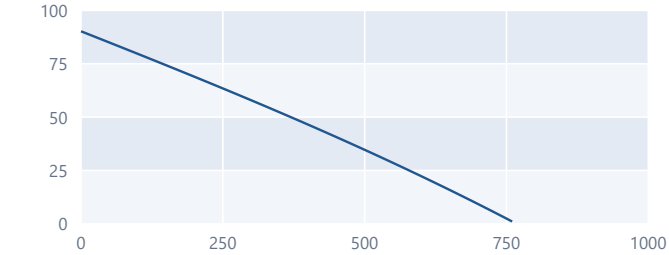
VAS-X 250-2P / 100 W

1 phase / 50 Hz / reference 2700 rpm



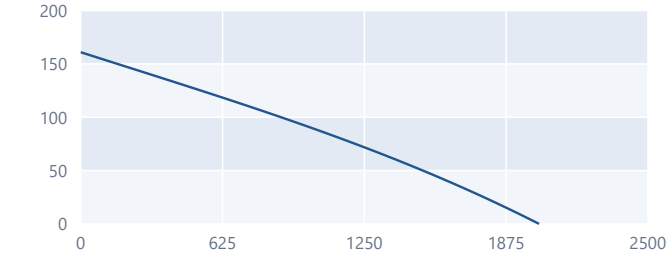
VAS-X 250-4P / 55 W

1 phase / 50 Hz / reference 1400 rpm



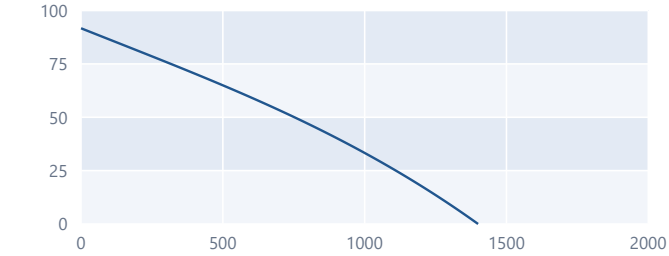
VAS-X 300-2P / 140 W

1 phase / 50 Hz / reference 2600 rpm



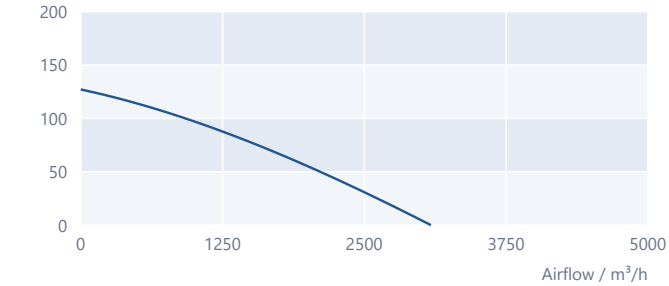
VAS-X 300-4P / 65 W

1 phase / 50 Hz / reference 1360 rpm



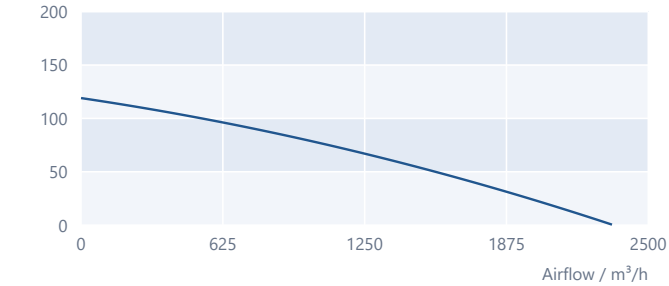
VAS-X 350-2P / 200 W

1 phase / 50 Hz / reference 2050 rpm



VAS-X 350-4P / 75 W

1 phase / 50 Hz / reference 1330 rpm



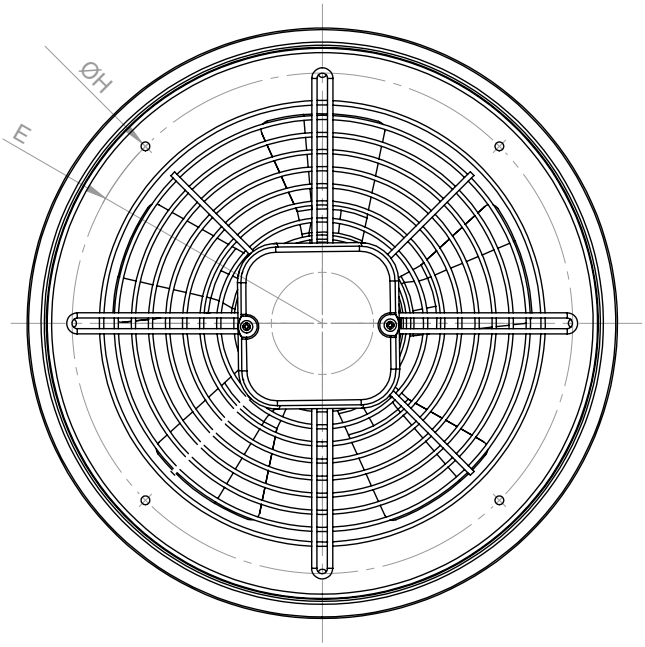
Model-specific scales. Listed 50 Hz pressure curves stay within listed airflow domains; negative-pressure tails are omitted at the zero-pressure crossing. No extrapolation.

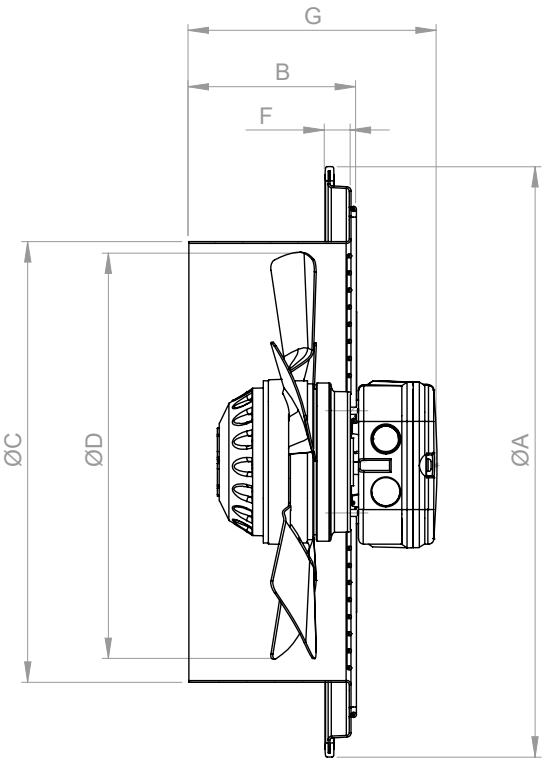
04 / DIMENSIONAL DATA

Plan the mounting points.

SERIES DRAWING / 200-350

All dimensions in mm





Model size	A	B	C	D	E	F	G	H
VAS-X 200	284	95	200	189	229	14	140	5
VAS-X 250	335	95	250	238	284	14	140	5
VAS-X 300	390	95	300	288	332	14	140	5
VAS-X 350	427	100	350	338	398	2	145	5

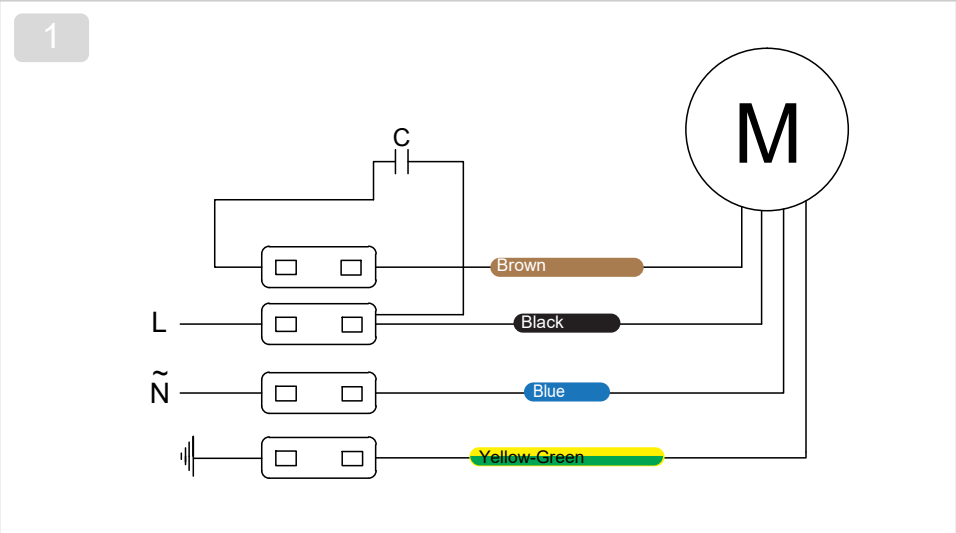
Original data drawing. Both pole options share the listed dimensions for each diameter. Secure the fan at the specified mounting points and allow clearance for the motor-side guard.

05 / ELECTRICAL & INSTALLATION

Connect the single-phase motor.

Isolate the supply before installation or maintenance. Secure the mounting points and confirm the intended airflow direction. Use the specified capacitor and a compatible voltage controller. Keep the fan casing and protective guard clear.

SINGLE PHASE / CONNECTION DIAGRAM 01



Model	Input power	Capacitor	Capacitor voltage
VAS-X 200-2P	63 W	2 µF	400 V
VAS-X 200-4P	55 W	2 µF	400 V
VAS-X 250-2P	100 W	4 µF	400 V
VAS-X 250-4P	55 W	1.5 µF	400 V
VAS-X 300-2P	140 W	5 µF	400 V
VAS-X 300-4P	65 W	2 µF	400 V
VAS-X 350-2P	200 W	5 µF	400 V
VAS-X 350-4P	75 W	3 µF	400 V

All models: 1~230 V / 50 Hz. Original data terminal arrangement; conductor colours and electrical paths are retained. Follow the actual motor nameplate and supplied unit diagram.

01 / PRODUCT OVERVIEW

VAS-W

Wall-Mounted Axial Fan



01 Direct axial airflow

A single-phase AC motor directly drives the axial impeller. Four diameters have separate 2- and 4-pole options.

02 Square plate and guard

Powder-coated sheet-metal casing and impeller. The square plate provides wall mounting; a wire guard protects the motor side.

03 Supply, extract and circulation

For indoor-air extraction, fresh-air supply and machine air circulation. Keep inlet and outlet paths unobstructed.

SELECTION & PERFORMANCE

Select by diameter and motor variant.

Eight 50 Hz models combine four diameters with 2- or 4-pole single-phase motors. Pressure curves show listed performance data and remain within their supplied airflow domains. Observe the selected motor voltage, capacitor and transported-air temperature limit.

Selection parameter	Catalogue basis
Fan diameter range	200-350 mm / 4 diameters
Nominal input power	55-200 W
Electrical supply	230 V / 1 phase / 50 Hz
Motor insulation / protection	Class B / IP44

Performance data. Speed control must suit the selected motor.

02 / TECHNICAL DATA

Compare the motor variants.

8 MODELS / 50 Hz

Model	Poles	V / PH	Input W	Airflow m^3/h	Speed rpm	Current A	Weight kg	Air temp. °C
VAS-W 200-2P	2	230/1	63	680	2750	0.28	2	40
VAS-W 200-4P	4	230/1	55	407	1450	0.26	2.2	40
VAS-W 250-2P	2	230/1	100	1500	2700	0.5	2.7	40
VAS-W 250-4P	4	230/1	55	760	1400	0.28	2.7	40
VAS-W 300-2P	2	230/1	140	2020	2600	0.6	3.5	40
VAS-W 300-4P	4	230/1	65	1410	1360	0.29	3.5	40
VAS-W 350-2P	2	230/1	200	3110	2050	0.9	4.6	40
VAS-W 350-4P	4	230/1	75	2340	1330	0.32	4.6	40

Airflow: nominal maximum airflow in m^3/h; not a selected duty point. Listed curve domains may differ from nominal airflow. Nominal input power, speed and current are ratings; operating values vary with airflow.

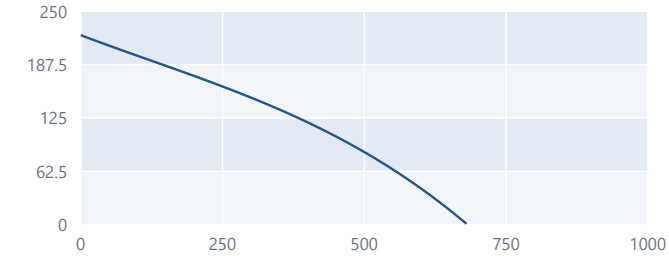
Temperature: maximum transported-air temperature for each variant. Class B / IP44 throughout the supplied records. 2P / 4P: motor poles; all models use single-phase supply.

03 / AIR PERFORMANCE / 01

Fan Performance Curves

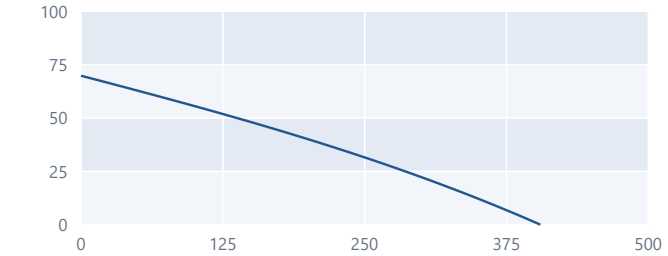
VAS-W 200-2P / 63 W

1 phase / 50 Hz / reference 2750 rpm



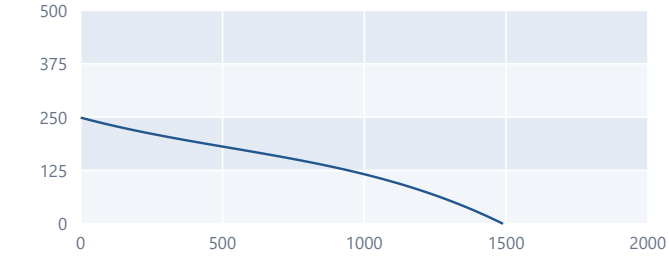
VAS-W 200-4P / 55 W

1 phase / 50 Hz / reference 1450 rpm



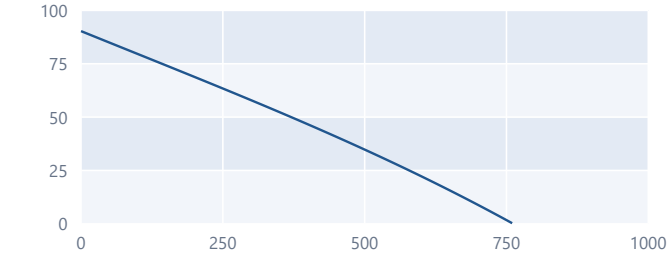
VAS-W 250-2P / 100 W

1 phase / 50 Hz / reference 2700 rpm



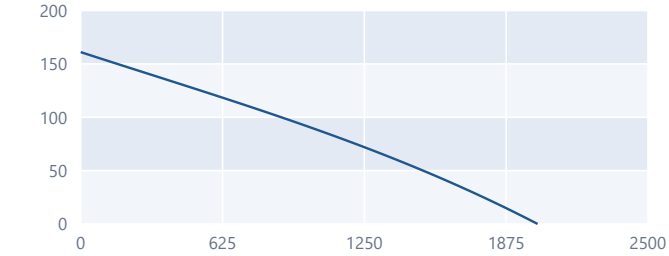
VAS-W 250-4P / 55 W

1 phase / 50 Hz / reference 1400 rpm



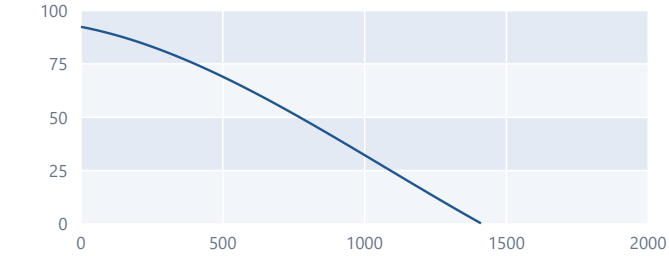
VAS-W 300-2P / 140 W

1 phase / 50 Hz / reference 2600 rpm



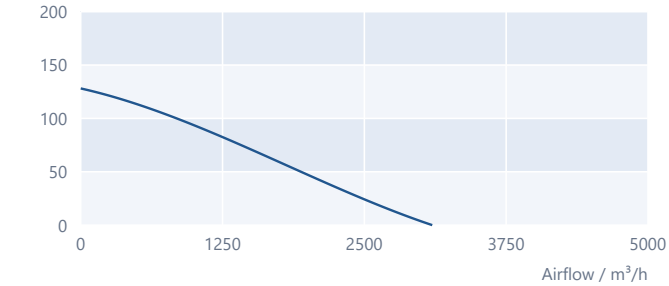
VAS-W 300-4P / 65 W

1 phase / 50 Hz / reference 1360 rpm



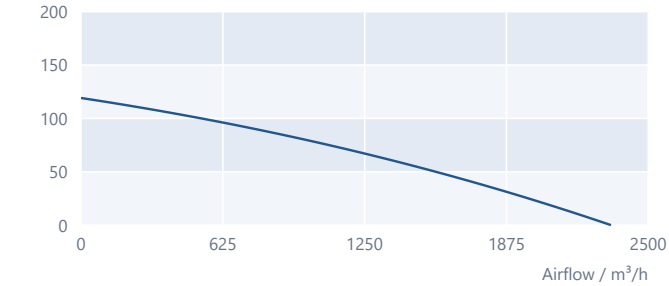
VAS-W 350-2P / 200 W

1 phase / 50 Hz / reference 2050 rpm



VAS-W 350-4P / 75 W

1 phase / 50 Hz / reference 1330 rpm



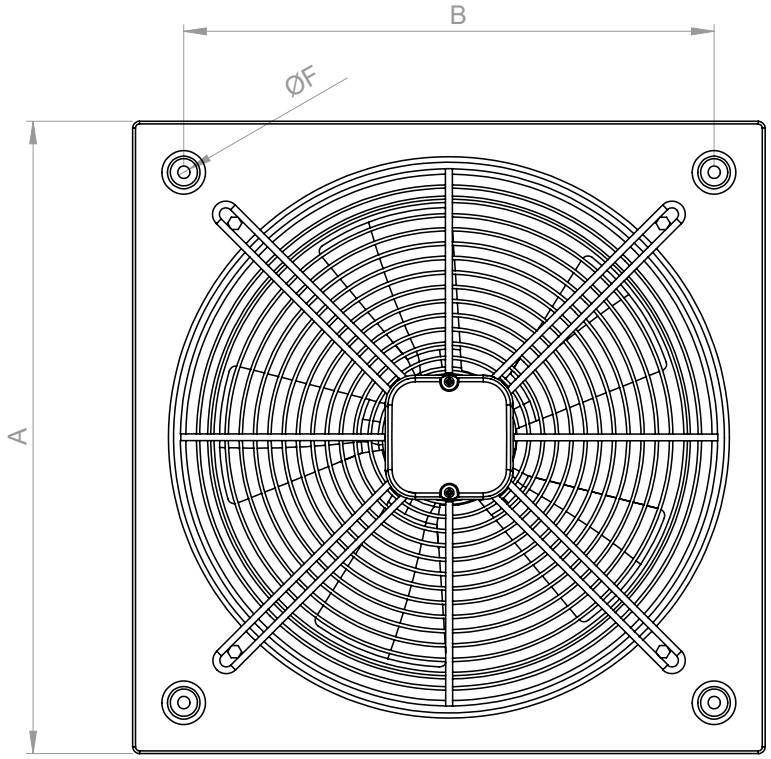
Model-specific scales. Listed 50 Hz pressure curves stay within listed airflow domains; negative-pressure tails are omitted at the zero-pressure crossing. No extrapolation.

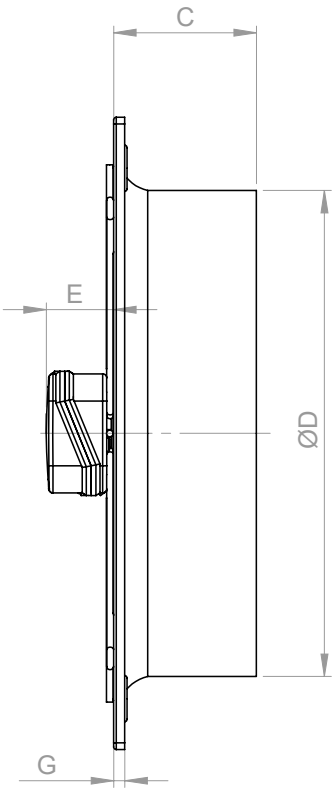
04 / DIMENSIONAL DATA

Plan the mounting points.

SERIES DRAWING / 200-350

All dimensions in mm





Model size	A	B	C	D	E	F	G
VAS-W 200	300	242	95	200	50	8	12
VAS-W 250	333	275	80	261	50	8	10
VAS-W 300	412	336	80	307	50	8	10
VAS-W 350	465	390	90	365	80	8	10

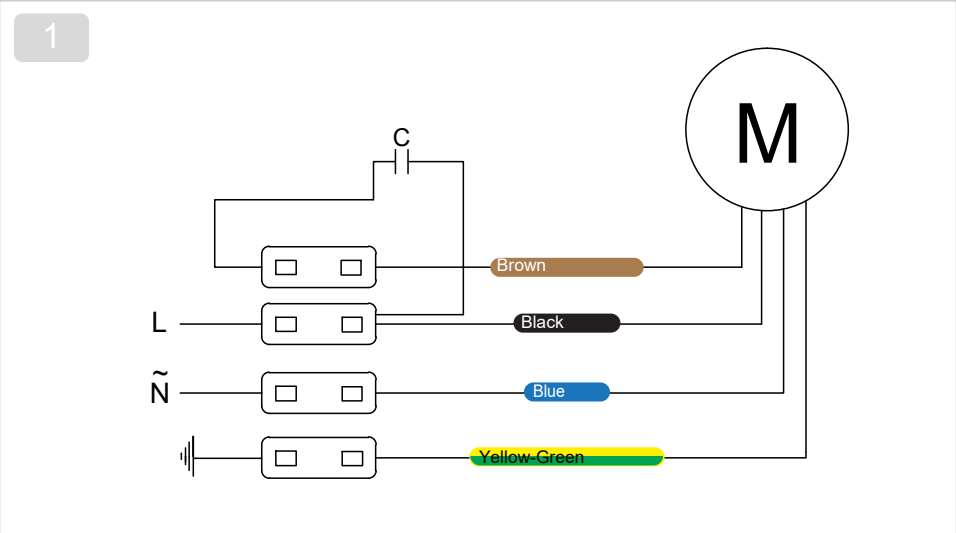
Original data drawing. Both pole options share the listed dimensions for each diameter. Secure the square plate at the specified wall-mounting points and allow clearance for the protective guard.

05 / ELECTRICAL & INSTALLATION

Connect the single-phase motor.

Isolate the supply before installation or maintenance. Secure the mounting points and confirm the intended airflow direction. Use the specified capacitor and a compatible voltage controller. Keep the fan casing and protective guard clear.

SINGLE PHASE / CONNECTION DIAGRAM 01



Model	Input power	Capacitor	Capacitor voltage
VAS-W 200-2P	63 W	2 µF	400 V
VAS-W 200-4P	55 W	2 µF	400 V
VAS-W 250-2P	100 W	4 µF	400 V
VAS-W 250-4P	55 W	1.5 µF	400 V
VAS-W 300-2P	140 W	5 µF	400 V
VAS-W 300-4P	65 W	2 µF	400 V
VAS-W 350-2P	200 W	5 µF	400 V
VAS-W 350-4P	75 W	3 µF	400 V

All models: 1~230 V / 50 Hz. Original data terminal arrangement; conductor colours and electrical paths are retained. Follow the actual motor nameplate and supplied unit diagram.

01 / PRODUCT OVERVIEW

VAF-C

Axial Fan



01 Direct axial airflow

A single-phase AC motor directly drives the axial impeller. Eight diameters cover the series. The 250-2P model is two pole; all unsuffixed models are four pole.

02 Guard and mounting

The casing and axial impeller use powder-coated sheet metal. A protective wire guard covers the motor side.

03 Supply, extract and circulation

For general ventilation in factories, warehouses and commercial spaces. Keep inlet and outlet paths unobstructed.

SELECTION & PERFORMANCE

Select by diameter and motor variant.

Nine 50 Hz models combine eight diameters with single-phase motors. The 250-2P model provides a separate two-pole option. Pressure curves show listed performance data and remain within their supplied airflow domains. Observe the selected motor voltage, capacitor and transported-air temperature limit.

Selection parameter	Catalogue basis
Fan diameter range	250-600 mm / 8 diameters
Nominal input power	125-390 W
Electrical supply	230 V / 1 phase / 50 Hz
Motor insulation / protection	Class B / IP44

Performance data. Speed control must suit the selected motor.

02 / TECHNICAL DATA

Compare the motor variants.

9 MODELS / 50 Hz

Model	Poles	V / PH	Input W	Airflow m^3/h	Speed rpm	Current A	Weight kg	Air temp. °C
VAF-C 250-2P	2	230/1	180	2200	2900	1.6	7	40
VAF-C 250	4	230/1	125	1200	1450	0.6	6	40
VAF-C 300	4	230/1	165	2000	1450	0.79	7	40
VAF-C 350	4	230/1	210	3250	1450	0.92	8	40
VAF-C 400	4	230/1	220	4500	1450	0.97	8.5	40
VAF-C 450	4	230/1	300	5000	1450	1.32	10.3	40
VAF-C 500	4	230/1	320	5500	1435	1.4	12	40
VAF-C 550	4	230/1	375	6000	1425	1.65	14.7	40
VAF-C 600	4	230/1	390	8000	1425	1.71	19.8	40

Airflow: nominal maximum airflow in m^3/h; not a selected duty point. Listed curve domains may differ from nominal airflow. Nominal input power, speed and current are ratings; operating values vary with airflow.

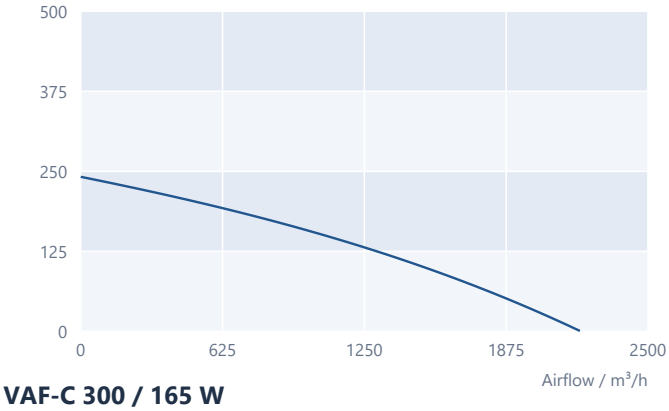
Temperature: maximum transported-air temperature for each variant. Class B / IP44 throughout the supplied records. 250-2P: two poles; unsuffixed models: four poles. All models use single-phase supply.

03 / AIR PERFORMANCE / 01

Fan Performance Curves

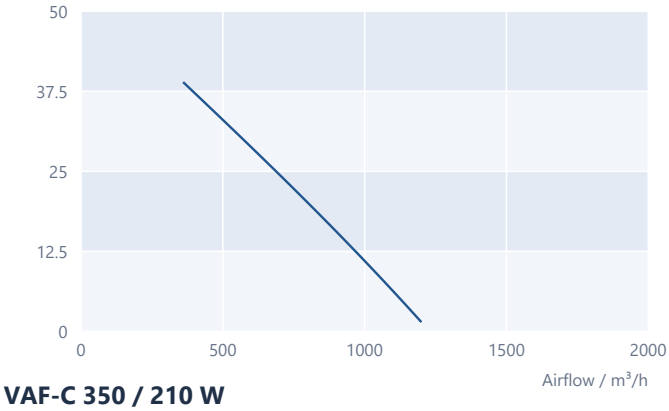
VAF-C 250-2P / 180 W

1 phase / 50 Hz / reference 2900 rpm



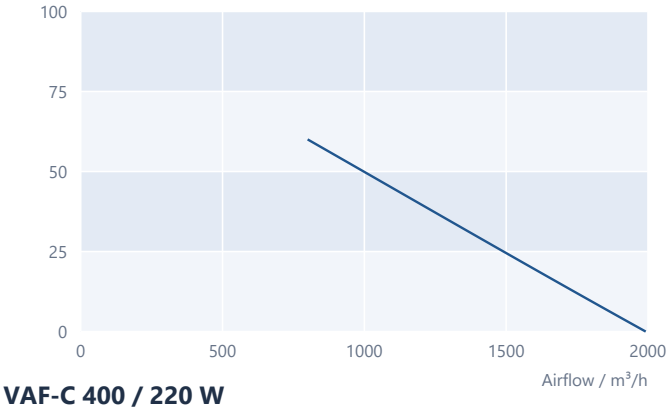
VAF-C 250 / 125 W

1 phase / 50 Hz / reference 1450 rpm



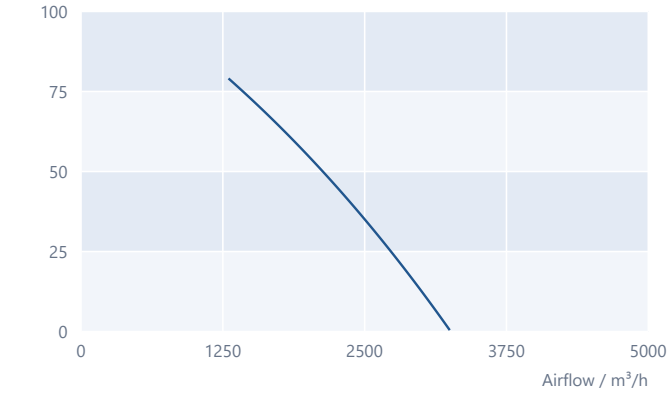
VAF-C 300 / 165 W

1 phase / 50 Hz / reference 1450 rpm



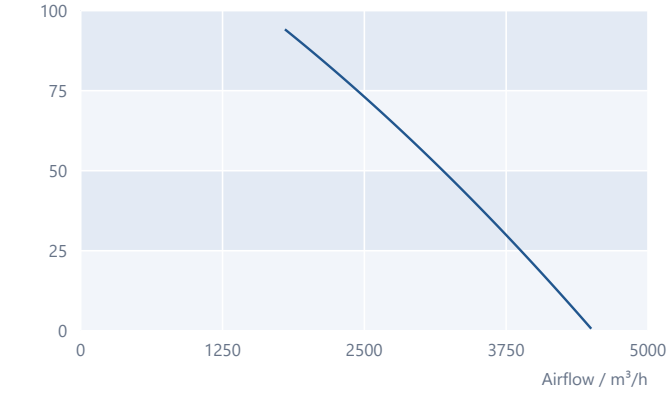
VAF-C 350 / 210 W

1 phase / 50 Hz / reference 1450 rpm



VAF-C 400 / 220 W

1 phase / 50 Hz / reference 1450 rpm



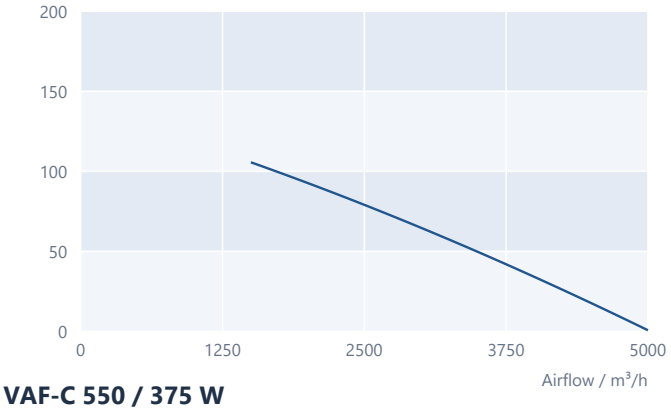
Model-specific scales. Listed 50 Hz pressure curves stay within listed airflow domains; negative-pressure tails are omitted at the zero-pressure crossing. No extrapolation.

03 / AIR PERFORMANCE / 02

Fan Performance Curves

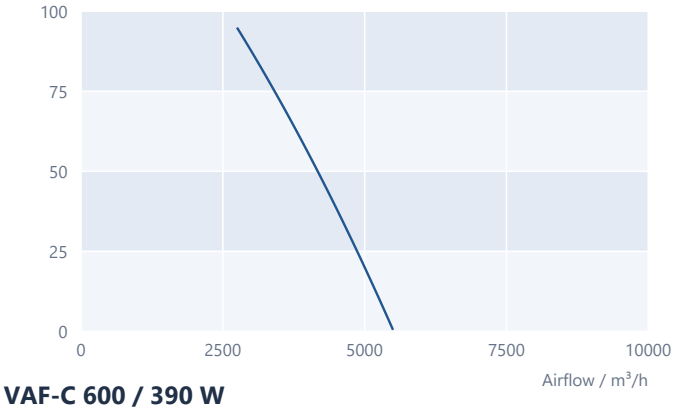
VAF-C 450 / 300 W

1 phase / 50 Hz / reference 1450 rpm



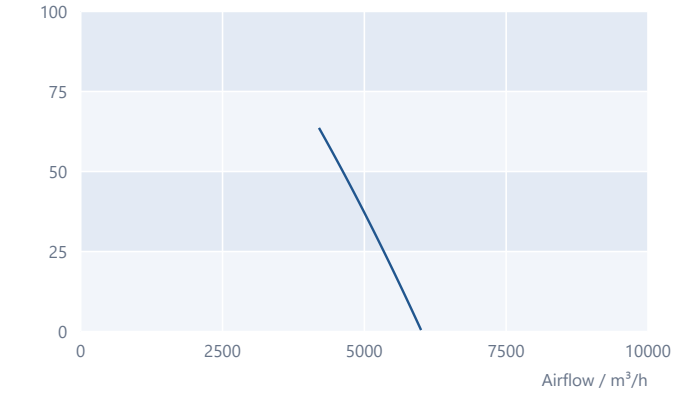
VAF-C 500 / 320 W

1 phase / 50 Hz / reference 1435 rpm



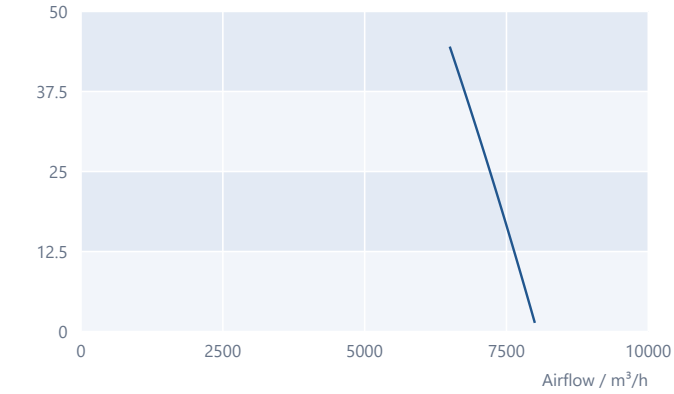
VAF-C 550 / 375 W

1 phase / 50 Hz / reference 1425 rpm



VAF-C 600 / 390 W

1 phase / 50 Hz / reference 1425 rpm



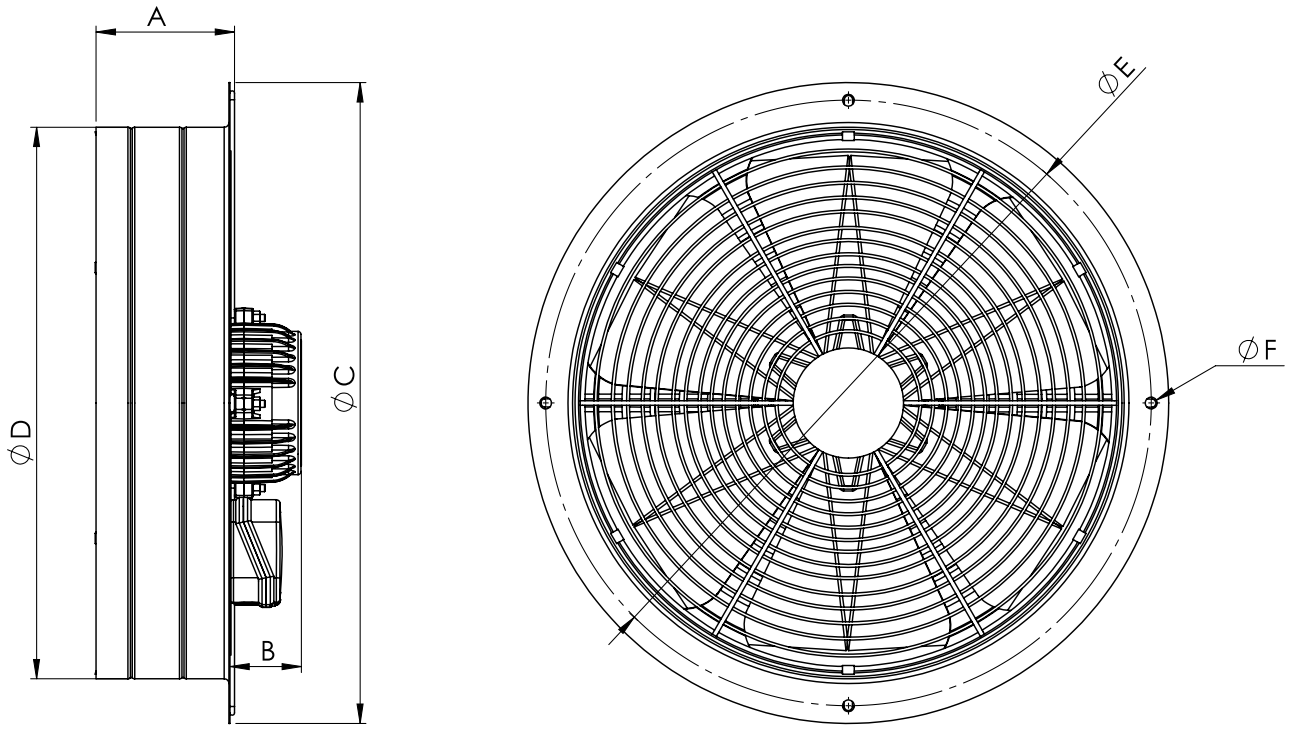
Model-specific scales. Listed 50 Hz pressure curves stay within listed airflow domains; negative-pressure tails are omitted at the zero-pressure crossing. No extrapolation.

04 / DIMENSIONAL DATA

Plan the mounting points.

SERIES DRAWING / 250-600

All dimensions in mm



Model size	A	B	C	D	E	F
VAF-C 250	114	61	304	251	277	10
VAF-C 300	114	61	390	325	360	10
VAF-C 350	114	61	435	374	405	10
VAF-C 400	114	61	485	427	455	10
VAF-C 450	114	61	546	470	516	10
VAF-C 500	125	61	590	518	560	10
VAF-C 550	130	160	624	560	595	10
VAF-C 600	130	160	674	610	645	10

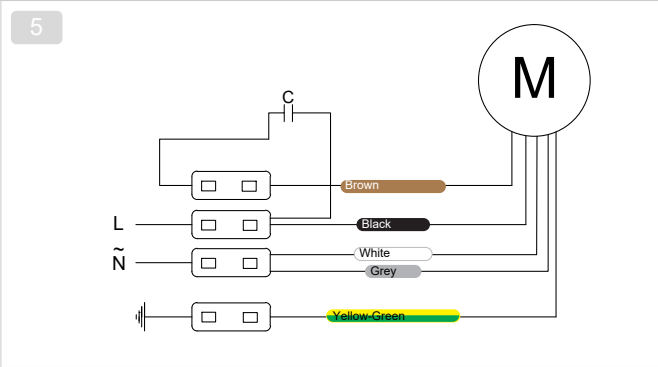
Original data drawing. The 250 and 250-2P share the listed dimensions; other rows are model specific. Secure the fan at the specified mounting points and allow clearance for the motor-side guard.

05 / ELECTRICAL & INSTALLATION

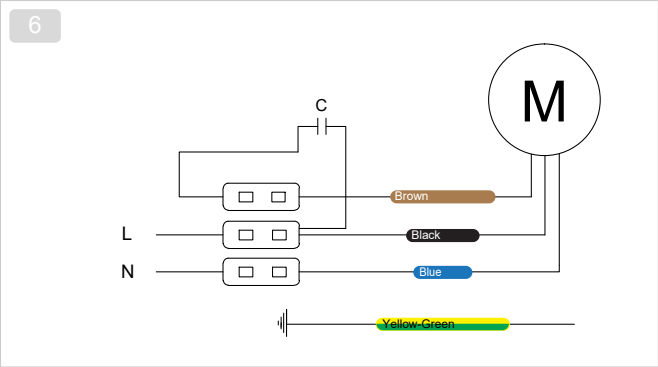
Connect the single-phase motor.

Isolate the supply before installation or maintenance. Secure the mounting points and confirm the intended airflow direction. Use the specified capacitor and a compatible voltage controller. Keep the fan casing and protective guard clear.

SINGLE PHASE / DIAGRAM 05



SINGLE PHASE / DIAGRAM 06



Model	Input power	Capacitor	Capacitor voltage
VAF-C 250-2P	180 W	8 µF	400 V
VAF-C 250	125 W	3 µF	400 V
VAF-C 300	165 W	3 µF	400 V
VAF-C 350	210 W	3 µF	400 V
VAF-C 400	220 W	6 µF	400 V
VAF-C 450	300 W	6 µF	400 V
VAF-C 500	320 W	6 µF	400 V
VAF-C 550	375 W	6 µF	400 V
VAF-C 600	390 W	6 µF	400 V

Schema 05: unsuffixed250-450 models. Schema06: 250-2P and500-600 models. Supply:1~230V/50Hz. Follow the actual motor nameplate and supplied unit diagram.

01 / PRODUCT OVERVIEW

VAF-W

Square Wall Axial Fan



01 Direct axial airflow

A single-phase AC motor directly drives the axial impeller. Eight diameters cover the series. The 250-2P model is two pole; all unsuffixed models are four pole.

02 Square plate and guard

The casing and impeller use powder-coated sheet metal. Steel supports secure the assembly to the square mounting plate.

03 Supply, extract and circulation

For general ventilation in factories, warehouses and commercial spaces. Mount in walls or panels and keep airflow paths clear.

SELECTION & PERFORMANCE

Select by diameter and motor variant.

Nine 50 Hz models combine eight diameters with single-phase motors. The 250-2P model provides a separate two-pole option. Pressure curves show listed performance data and remain within their supplied airflow domains. Observe the selected motor voltage, capacitor and transported-air temperature limit.

Selection parameter	Catalogue basis
Fan diameter range	250-600 mm / 8 diameters
Nominal input power	125-390 W
Electrical supply	230 V / 1 phase / 50 Hz
Motor insulation / protection	Class B / IP44

Performance data. Speed control must suit the selected motor.

02 / TECHNICAL DATA

Compare the motor variants.

9 MODELS / 50 Hz

Model	Poles	V / PH	Input W	Airflow m^3/h	Speed rpm	Current A	Weight kg	Air temp. °C
VAF-W 250-2P	2	230/1	150	2200	2900	1	8	40
VAF-W 250	4	230/1	125	1200	1450	0.6	7	40
VAF-W 300	4	230/1	165	2000	1450	0.79	8	40
VAF-W 350	4	230/1	210	3250	1450	0.92	9	40
VAF-W 400	4	230/1	220	4500	1450	0.97	11	40
VAF-W 450	4	230/1	300	5000	1450	1.32	12.5	40
VAF-W 500	4	230/1	320	5500	1435	1.4	14.5	40
VAF-W 550	4	230/1	375	6000	1425	1.65	16.7	40
VAF-W 600	4	230/1	390	8000	1425	1.71	19.5	40

Airflow: nominal maximum airflow in m^3/h; not a selected duty point. Listed curve domains may differ from nominal airflow. Nominal input power, speed and current are ratings; operating values vary with airflow.

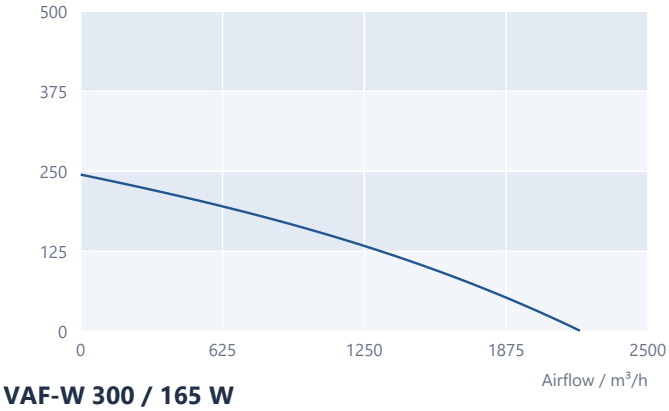
Temperature: maximum transported-air temperature for each variant. Class B / IP44 throughout the supplied records. 250-2P: two poles; unsuffixed models: four poles. All models use single-phase supply.

03 / AIR PERFORMANCE / 01

Fan Performance Curves

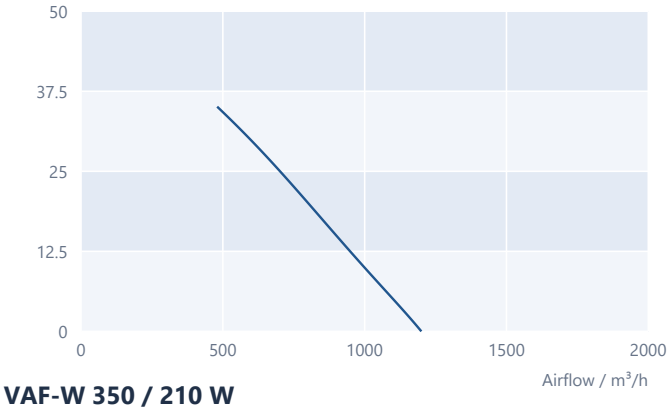
VAF-W 250-2P / 150 W

1 phase / 50 Hz / reference 2900 rpm



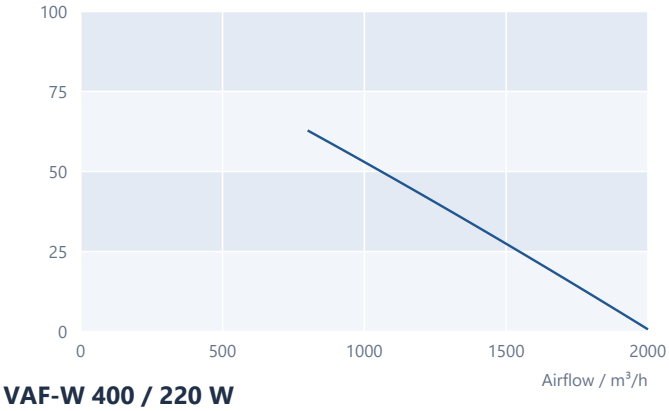
VAF-W 250 / 125 W

1 phase / 50 Hz / reference 1450 rpm



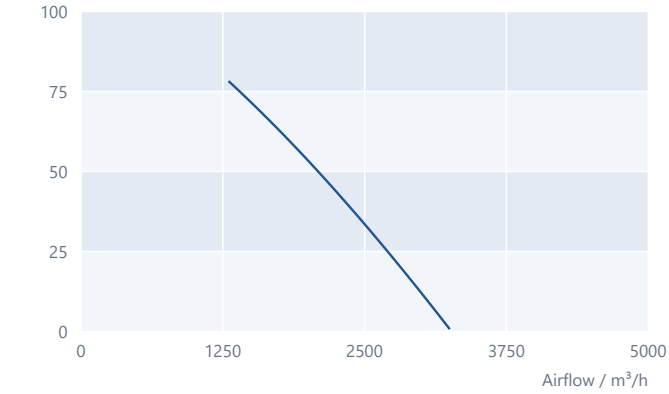
VAF-W 300 / 165 W

1 phase / 50 Hz / reference 1450 rpm



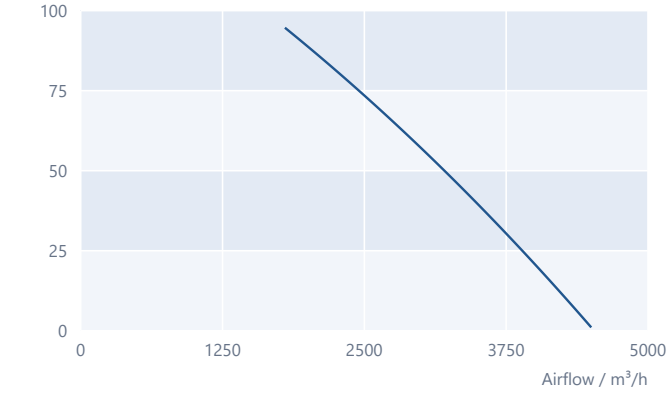
VAF-W 350 / 210 W

1 phase / 50 Hz / reference 1450 rpm



VAF-W 400 / 220 W

1 phase / 50 Hz / reference 1450 rpm



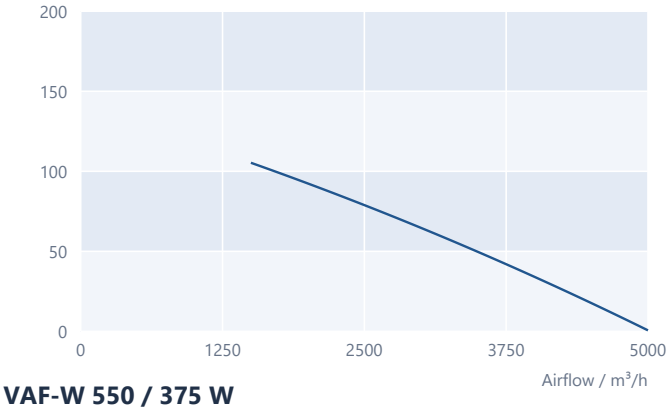
Model-specific scales. Listed 50 Hz pressure curves stay within listed airflow domains; negative-pressure tails are omitted at the zero-pressure crossing. No extrapolation.

03 / AIR PERFORMANCE / 02

Fan Performance Curves

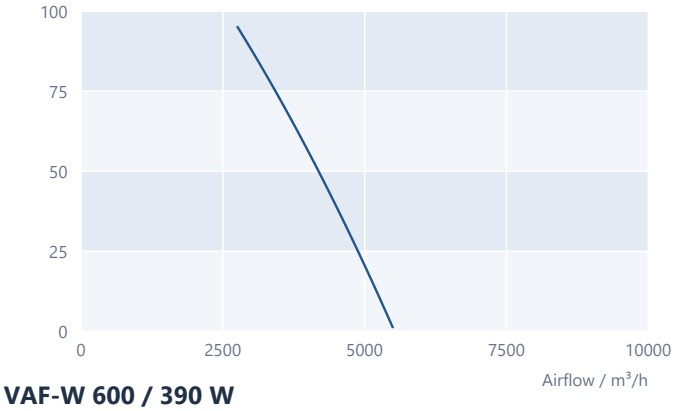
VAF-W 450 / 300 W

1 phase / 50 Hz / reference 1450 rpm



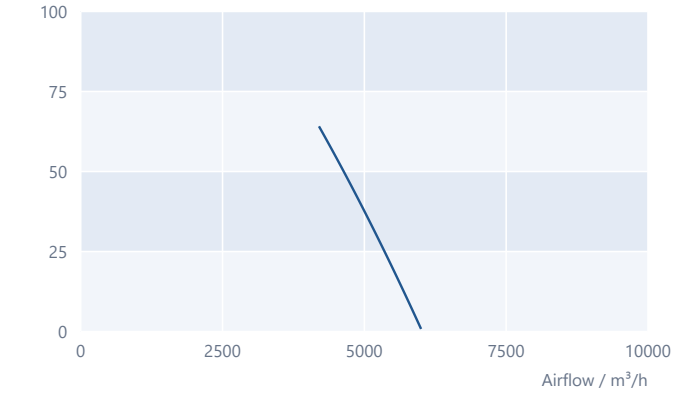
VAF-W 500 / 320 W

1 phase / 50 Hz / reference 1435 rpm



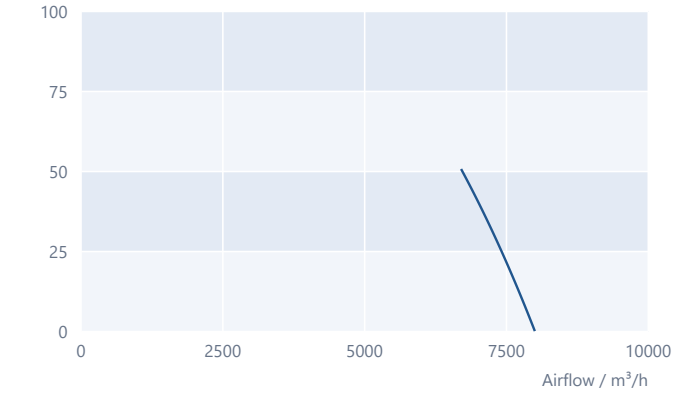
VAF-W 550 / 375 W

1 phase / 50 Hz / reference 1425 rpm



VAF-W 600 / 390 W

1 phase / 50 Hz / reference 1425 rpm



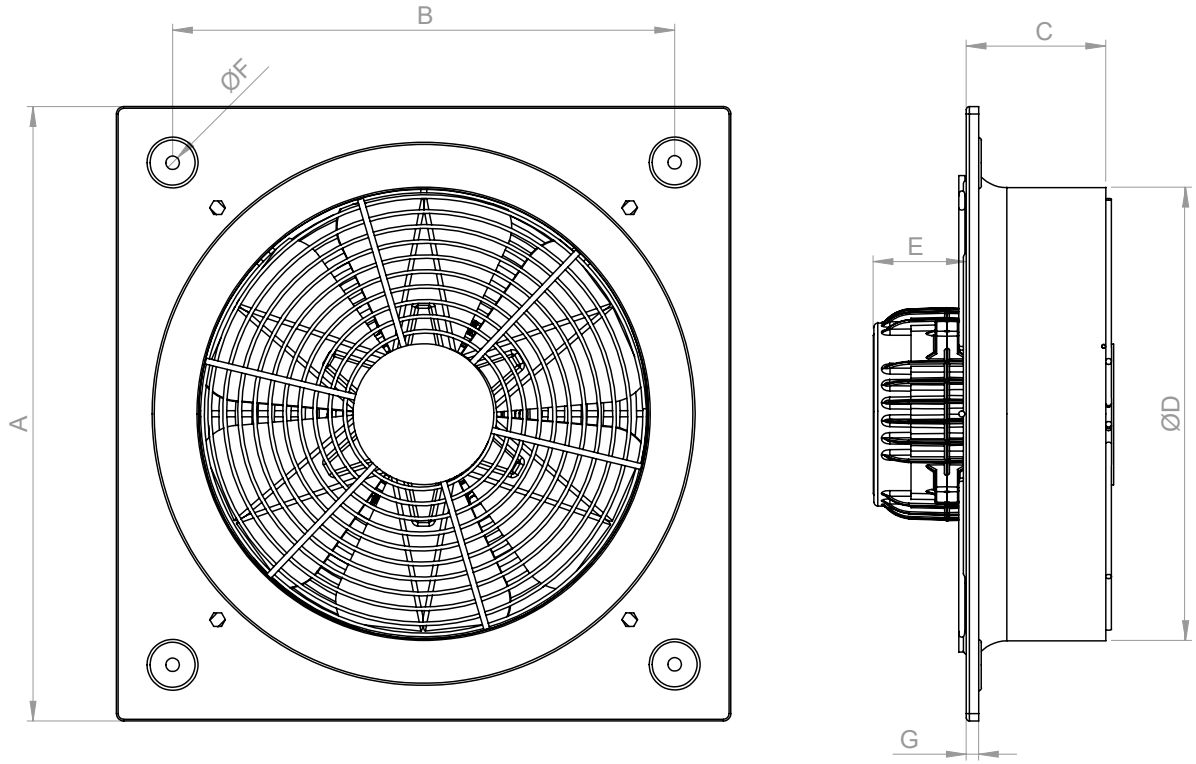
Model-specific scales. Listed 50 Hz pressure curves stay within listed airflow domains; negative-pressure tails are omitted at the zero-pressure crossing. No extrapolation.

04 / DIMENSIONAL DATA

Plan the mounting points.

SERIES DRAWING / 250-600

All dimensions in mm



Model size	A	B	C	D	E	F	G
VAF-W 250	333	275	80	261	80	8	10
VAF-W 300	412	336	80	307	80	8	10
VAF-W 350	465	390	90	365	80	8	10
VAF-W 400	500	420	100	403	80	8	10
VAF-W 450	560	480	105	462	80	8	10
VAF-W 500	630	561	110	513	90	8	10
VAF-W 550	660	585	145	565	135	8	10
VAF-W 600	700	631	145	612	135	8	10

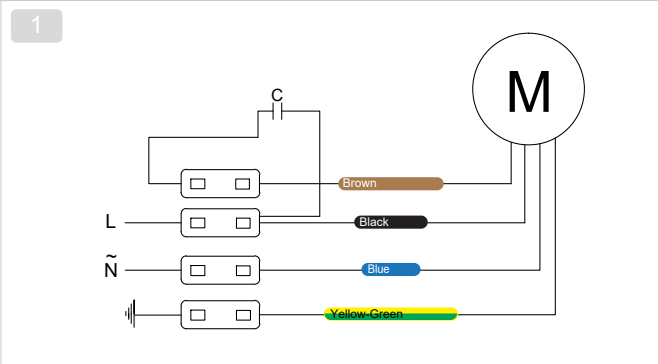
Original data drawing. The 250 and 250-2P share the listed dimensions; other rows are model specific. Secure the square plate at the specified wall-mounting points and keep the protective guard clear.

05 / ELECTRICAL & INSTALLATION

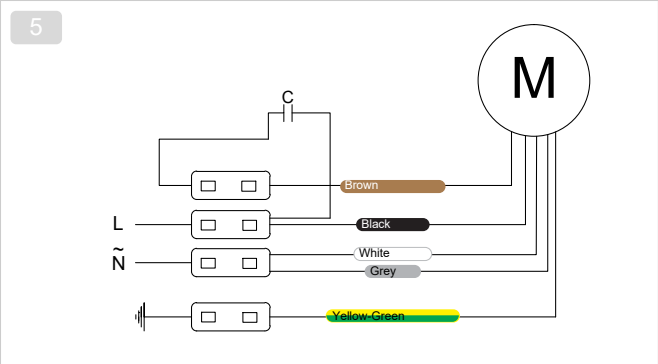
Connect the single-phase motor.

Isolate the supply before installation or maintenance. Secure the mounting points and confirm the intended airflow direction. Use the specified capacitor and a compatible voltage controller. Keep the fan casing and protective guard clear.

SINGLE PHASE / DIAGRAM 01



SINGLE PHASE / DIAGRAM 05



Model	Input power	Capacitor	Capacitor voltage
VAF-W 250-2P	150 W	8 µF	400 V
VAF-W 250	125 W	3 µF	400 V
VAF-W 300	165 W	3 µF	400 V
VAF-W 350	210 W	3 µF	400 V
VAF-W 400	220 W	6 µF	400 V
VAF-W 450	300 W	6 µF	400 V
VAF-W 500	320 W	6 µF	400 V
VAF-W 550	375 W	6 µF	400 V
VAF-W 600	390 W	6 µF	400 V

Schema 01: unsuffixed 250-450 models. Schema 05: 250-2P and 500-600 models. Supply:1~230V/50Hz. Follow the actual motor nameplate and supplied unit diagram.

01 / PRODUCT OVERVIEW

VLF-W

Five-Blade Wall Axial Fan



01 Five-blade configurations

Nine diameters and eleven models cover the range. Blade angles from 25 to 40 degrees identify distinct performance configurations.

02 Square body and grille

The data specify a galvanized sheet-metal body with powder coating, a plastic impeller and a standard grille guard.

03 Wall-mounted ventilation

Designed for exhaust and pressurization applications. The motor sits in the airstream; allow space for access and maintenance.

SELECTION & PERFORMANCE

Match diameter, blade angle and motor.

Choose each diameter and blade-angle configuration using its separate pressure curve. Reference motor ratings and airflow come from the listed catalogue at 0 Pa. The series uses three-phase, four-pole motors; actual operating input depends on the selected duty.

Selection parameter	Catalogue basis
Fan diameter range	400-1000 mm / 9 diameters
Reference motor power	0.37-7.50 kW
Electrical supply	380 V / 3 phase / 50 Hz / 4 poles
Motor insulation / protection	Class F / IP55 / IE3
Operating temperature / duty	-20 to +50 °C / S1

Performance data. The approved product photo is illustrative; material descriptions follow FSP records.

02 / TECHNICAL DATA

Compare the configurations.

11 MODELS / 50 Hz / THREE PHASE

Model / diameter-blades-angle	Angle deg.	Motor kW	Airflow m^3/h	Speed rpm	Supply V / phase
VLF-W 400/5-25	25	0.37	2895	1450	380 / 3
VLF-W 450/5-25	25	0.55	4180	1456	380 / 3
VLF-W 500/5-25	25	0.55	5845	1453	380 / 3
VLF-W 560/5-25	25	0.75	8150	1466	380 / 3
VLF-W 630/5-30	30	1.10	13480	1465	380 / 3
VLF-W 710/5-30	30	1.50	19210	1472	380 / 3
VLF-W 800/5-30	30	2.20	25560	1459	380 / 3
VLF-W 800/5-35	35	3.00	30940	1463	380 / 3
VLF-W 900/5-35	35	4.00	39250	1471	380 / 3
VLF-W 900/5-40	40	5.50	44635	1472	380 / 3
VLF-W 1000/5-40	40	7.50	54570	1478	380 / 3

All models: 4 poles, 50 Hz, Class F insulation, IP55 protection and IE3 motors. Operating range: -20 to +50 °C. Airflow and motor ratings are catalogue references at 0 Pa; airflow is not a selected duty point.

READING THE MODEL CODE

Example: VLF-W 800/5-35/3.00kW/4P identifies an 800 mm fan, five blades, a 35-degree blade angle, a 3.00 kW motor and four poles. The table abbreviates the model code; its motor rating appears in a separate column.

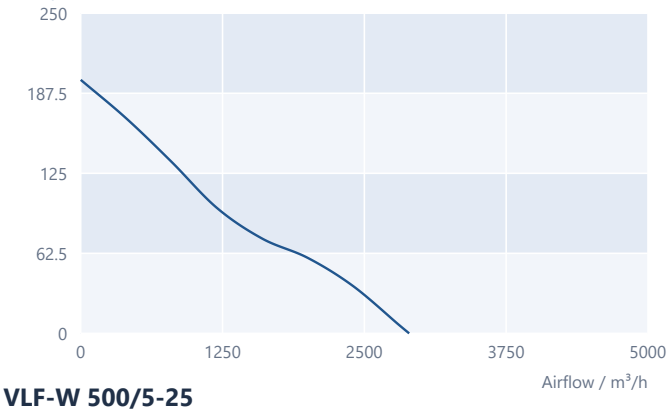
Motor current and weight were not supplied. Unclassified noise totals are omitted because their sound power/pressure basis and measurement distance are unavailable.

03 / AIR PERFORMANCE / 01

Fan Performance Curves

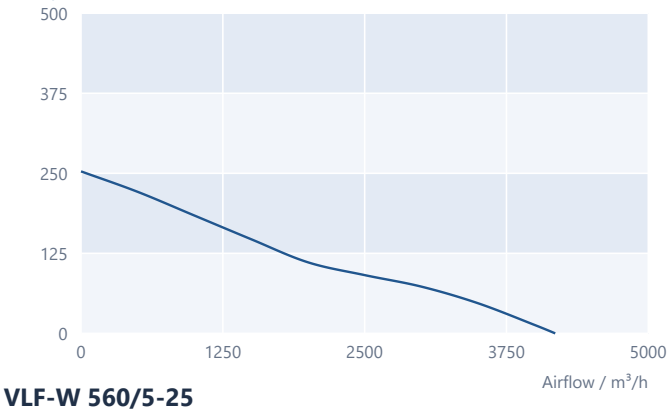
VLF-W 400/5-25

0.37 kW / 4P / 380 V / reference 1450 rpm



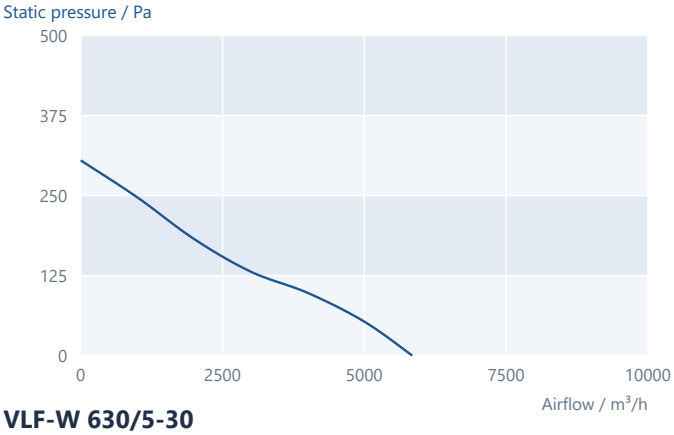
VLF-W 450/5-25

0.55 kW / 4P / 380 V / reference 1456 rpm



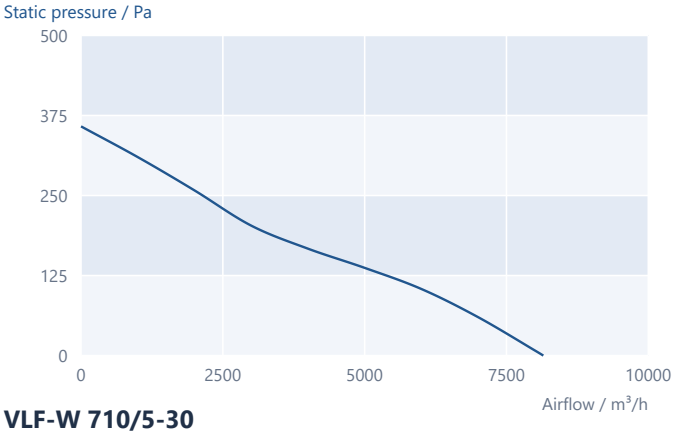
VLF-W 500/5-25

0.55 kW / 4P / 380 V / reference 1453 rpm



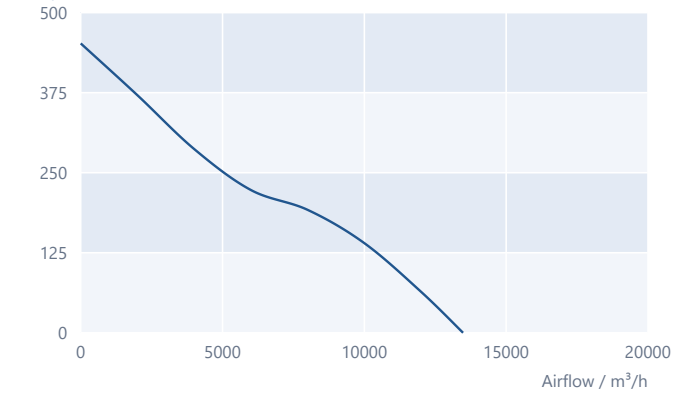
VLF-W 560/5-25

0.75 kW / 4P / 380 V / reference 1466 rpm



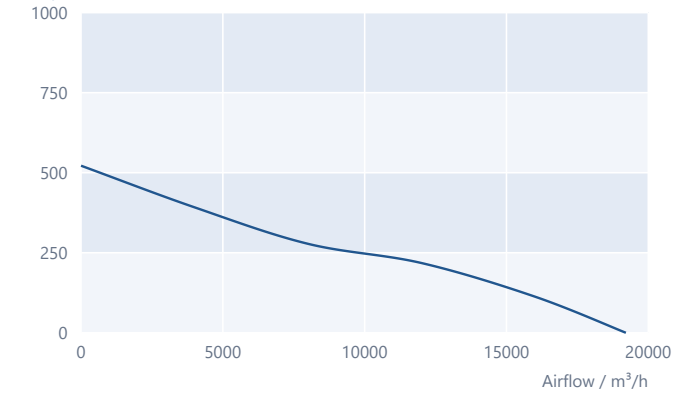
VLF-W 630/5-30

1.10 kW / 4P / 380 V / reference 1465 rpm



VLF-W 710/5-30

1.50 kW / 4P / 380 V / reference 1472 rpm



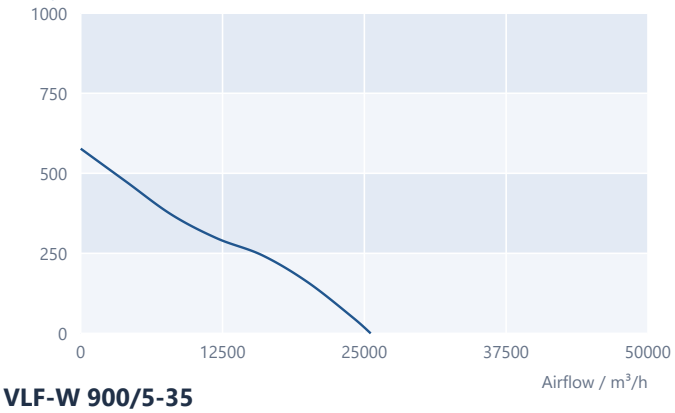
Model-specific scales. Listed catalogue pressure curves follow the original sampled vector paths within the supplied airflow domain. Reference motor ratings are at 0 Pa; no extrapolation.

03 / AIR PERFORMANCE / 02

Fan Performance Curves

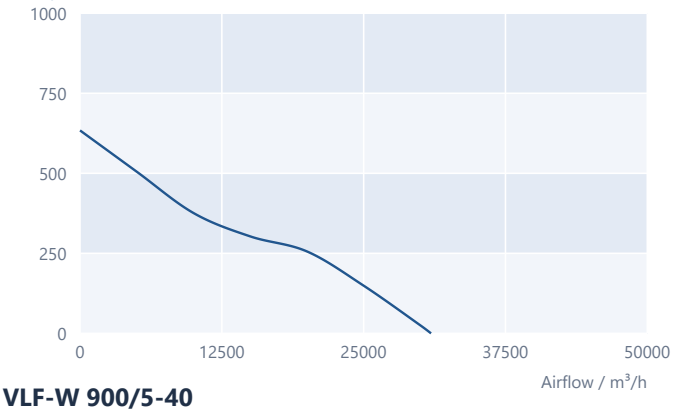
VLF-W 800/5-30

2.20 kW / 4P / 380 V / reference 1459 rpm



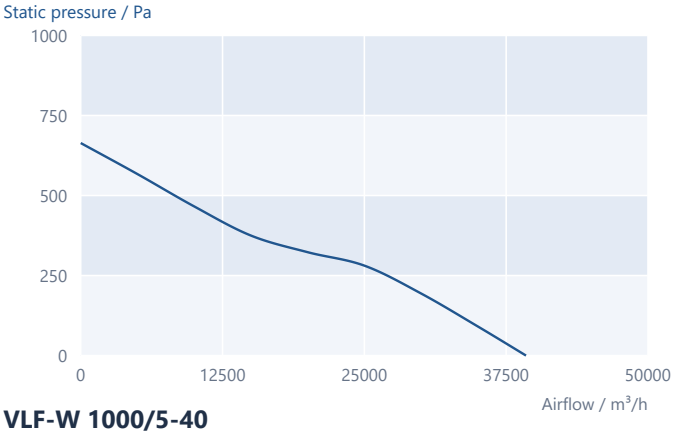
VLF-W 800/5-35

3.00 kW / 4P / 380 V / reference 1463 rpm



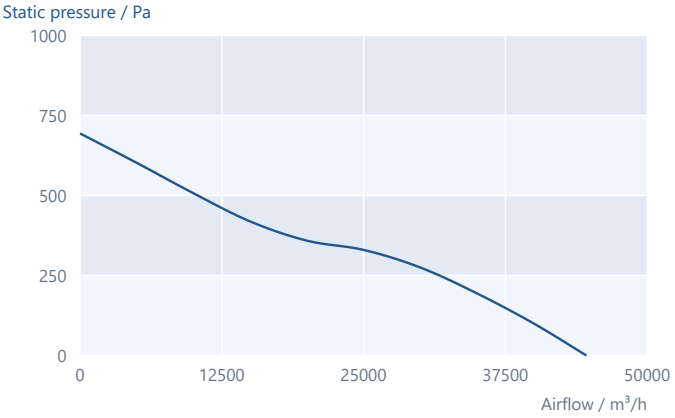
VLF-W 900/5-35

4.00 kW / 4P / 380 V / reference 1471 rpm



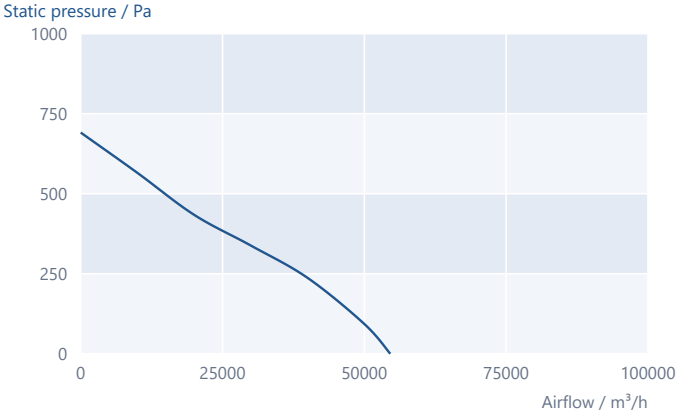
VLF-W 900/5-40

5.50 kW / 4P / 380 V / reference 1472 rpm



VLF-W 1000/5-40

7.50 kW / 4P / 380 V / reference 1478 rpm



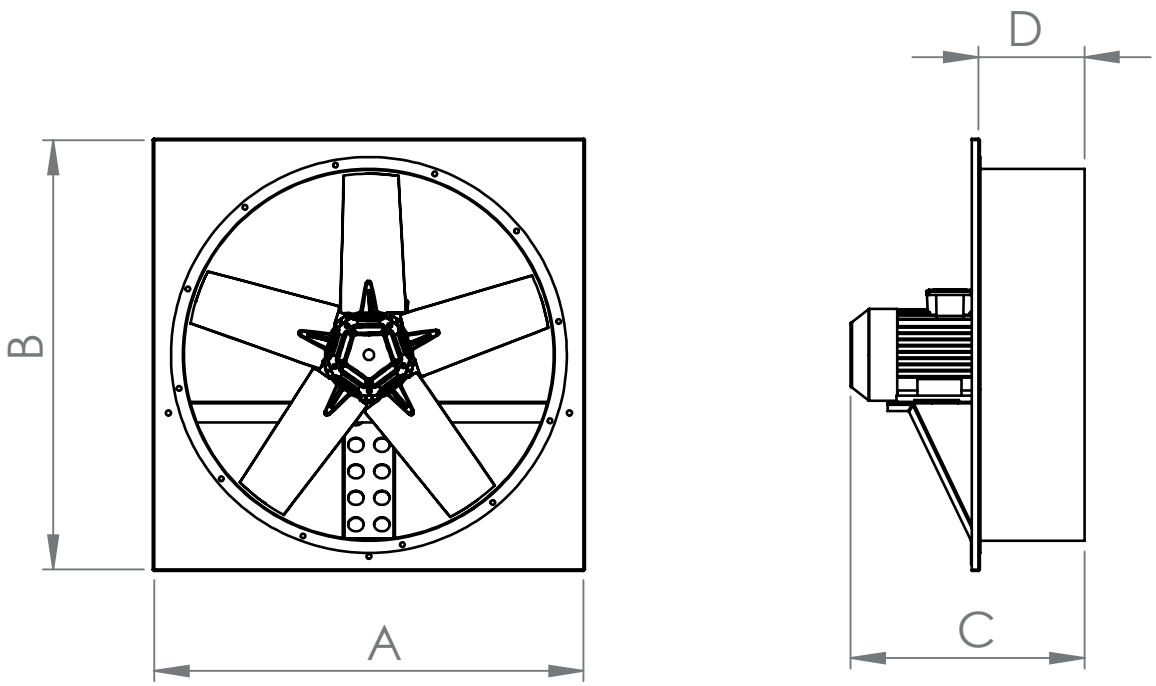
Model-specific scales. Listed catalogue pressure curves follow the original sampled vector paths within the supplied airflow domain. Reference motor ratings are at 0 Pa; no extrapolation.

04 / DIMENSIONAL DATA

Plan the wall opening.

SERIES DRAWING / 400-1000

All dimensions in mm



Model size	A	B	C	D
VLF-W 400	570	570	400	200
VLF-W 450	610	610	410	200
VLF-W 500	650	650	410	200
VLF-W 560	680	680	410	200
VLF-W 630	750	750	420	200
VLF-W 710	830	830	450	200
VLF-W 800	920	920	480	200
VLF-W 900	1020	1020	590	300
VLF-W 1000	1120	1120	700	300

Product vector drawing. Models with different blade angles at the same diameter share the listed A-D dimensions. Confirm the wall opening, fixings and motor clearance before installation.

05 / INSTALLATION & MOTOR

Prepare the installation.

01 Mounting and airflow

Support the square body securely at the wall opening. Confirm the required airflow direction and keep the grille, impeller and motor free of obstructions.

02 Motor configuration

The supplied records specify 380 V, three phase, 50 Hz and four poles. Motor insulation is Class F, protection is IP55 and efficiency class is IE3. Continuous duty is S1.

03 Connection information

A model-specific electrical connection diagram was not supplied. Use the actual motor nameplate and the connection diagram supplied with the unit to determine its terminal connections.

04 Access and maintenance

Allow access for cleaning and inspection. Isolate the electrical supply before maintenance. Keep the impeller and protective grille clean and check that mounting points remain secure.

OPERATING CONDITIONS

Use the operating range of -20 to +50 °C. The motor is in the airstream. Electrical protection, controls and any speed-control arrangement must be suitable for the actual supplied motor.

01 / PRODUCT OVERVIEW

VLF-BIF

Bifurcated Axial Flow Fan



01 Motor outside the airstream

A separate motor compartment isolates the motor from the transported air. Circular flanges connect the cylindrical casing to ductwork.

02 Five- and eight-blade variants

Eleven configurations combine five diameters with distinct blade counts, blade angles and motor ratings. Each configuration has its own pressure curve.

03 Ducted exhaust applications

A galvanized sheet-metal casing and aluminium impeller suit ducted exhaust applications where the motor must remain outside the airstream.

SELECTION & PERFORMANCE

Select the blade configuration.

Choose diameter, blade count, angle and motor rating using the individual pressure curves. The product photograph illustrates the five-blade configuration; eight-blade models are identified by their model codes. Reference motor ratings and airflow are listed at 0 Pa.

Selection parameter	Catalogue basis
Fan diameter range	710-1120 mm / 5 diameters
Reference motor power	1.50-30.00 kW
Electrical supply	380 V / 3 phase / 50 Hz / 4 poles
Motor insulation / protection	Class F / IP55 / IE3
Motor working temperature / duty	-20 to +50 °C / S1

Performance data. The approved product photo is illustrative; material descriptions follow FSP records.

02 / TECHNICAL DATA

Compare the configurations.

11 MODELS / 50 Hz / THREE PHASE

Model / diameter-blades-angle	Blades / angle deg.	Motor kW	Airflow m³/h	Speed rpm	Supply V / phase
VLF-BIF 710/5-30	5 / 30	1.50	17000	1472	380 / 3
VLF-BIF 800/5-30	5 / 30	2.20	22250	1459	380 / 3
VLF-BIF 800/5-35	5 / 35	3.00	26940	1463	380 / 3
VLF-BIF 900/5-35	5 / 35	4.00	34150	1471	380 / 3
VLF-BIF 900/5-40	5 / 40	5.50	40000	1472	380 / 3
VLF-BIF 1000/5-40	5 / 40	7.50	49570	1478	380 / 3
VLF-BIF 900/8-40	8 / 40	11.00	43200	1454	380 / 3
VLF-BIF 1000/8-40	8 / 40	15.00	58850	1456	380 / 3
VLF-BIF 1000/8-45	8 / 45	18.50	66070	1458	380 / 3
VLF-BIF 1120/8-40	8 / 40	22.00	84620	1471	380 / 3
VLF-BIF 1120/8-45	8 / 45	30.00	92270	1474	380 / 3

All models: 4 poles, 50 Hz, Class F insulation, IP55 protection and IE3 motors. Motor working range: -20 to +50 °C. Airflow and motor ratings are catalogue references at 0 Pa; airflow is not a selected duty point.

READING THE MODEL CODE

Example: VLF-BIF 1000/8-45/18.50kW/4P identifies a 1000 mm fan, eight blades, a 45-degree blade angle, an 18.50 kW motor and four poles. The table abbreviates the model code; its motor rating appears in a separate column.

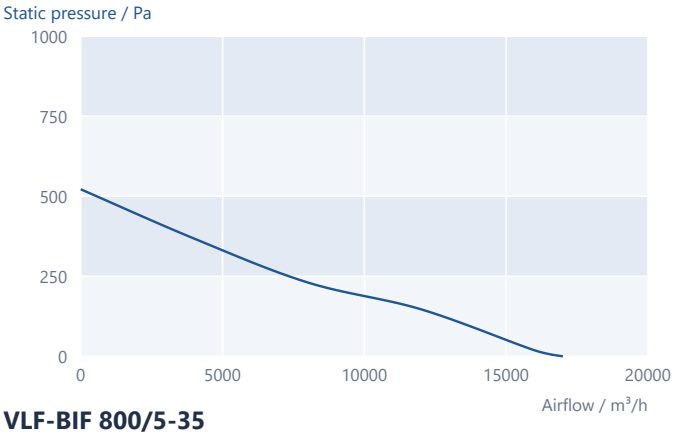
Motor current and weight were not supplied. Unclassified noise totals are omitted because their sound power/pressure basis and measurement distance are unavailable.

03 / AIR PERFORMANCE / 01

Fan Performance Curves

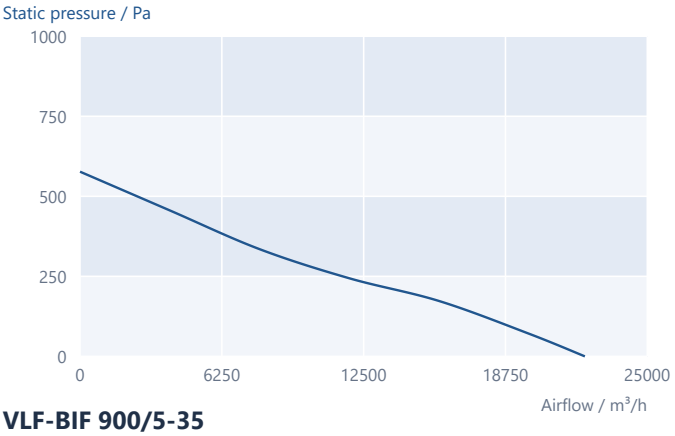
VLF-BIF 710/5-30

1.50 kW / 4P / 380 V / reference 1472 rpm



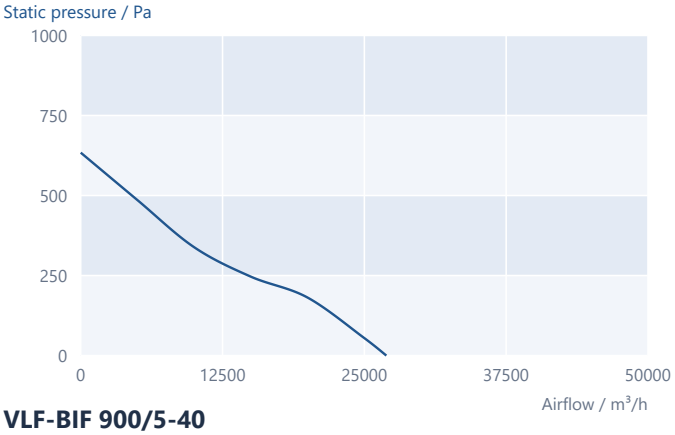
VLF-BIF 800/5-30

2.20 kW / 4P / 380 V / reference 1459 rpm



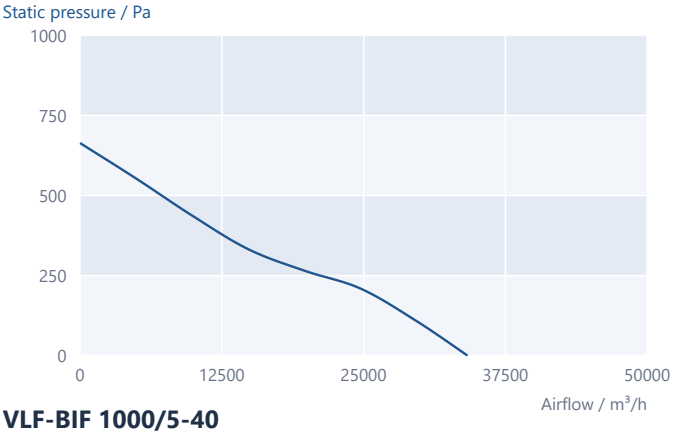
VLF-BIF 800/5-35

3.00 kW / 4P / 380 V / reference 1463 rpm



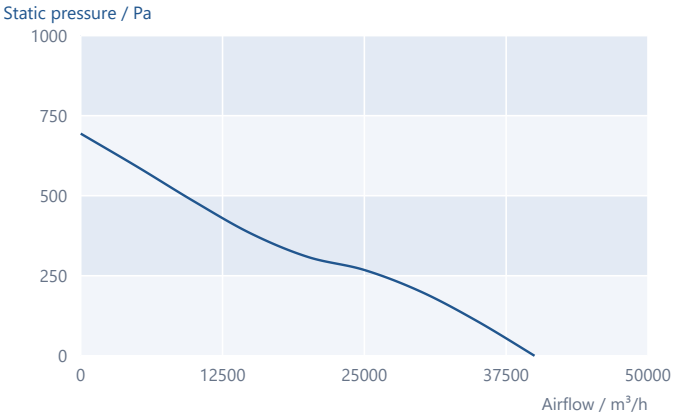
VLF-BIF 900/5-35

4.00 kW / 4P / 380 V / reference 1471 rpm



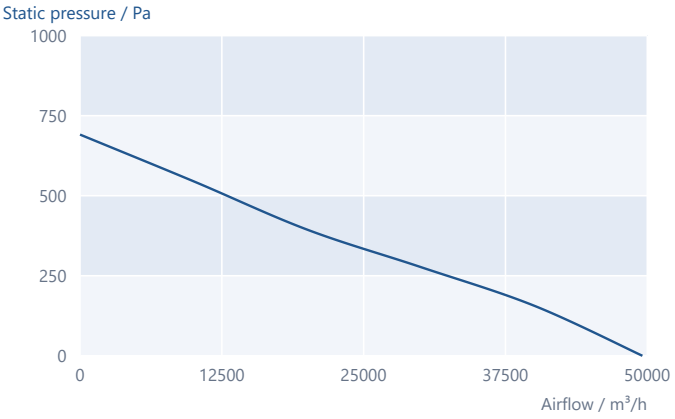
VLF-BIF 900/5-40

5.50 kW / 4P / 380 V / reference 1472 rpm



VLF-BIF 1000/5-40

7.50 kW / 4P / 380 V / reference 1478 rpm



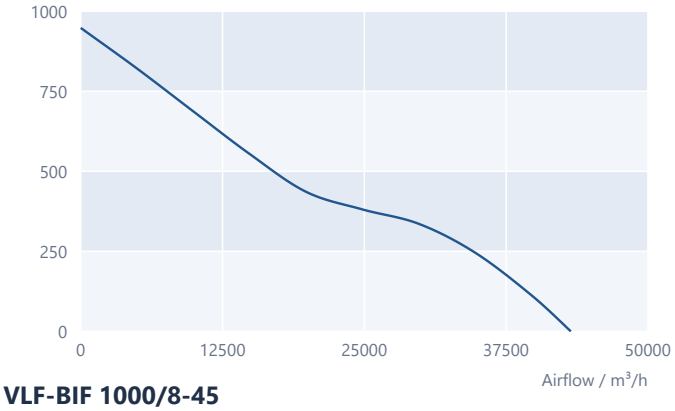
Model-specific scales. Listed catalogue pressure curves follow the original sampled vector paths within the supplied airflow domain. Reference motor ratings are at 0 Pa; no extrapolation.

03 / AIR PERFORMANCE / 02

Fan Performance Curves

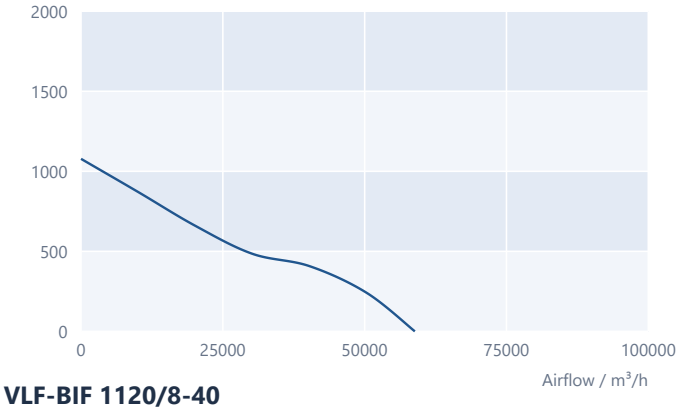
VLF-BIF 900/8-40

11.00 kW / 4P / 380 V / reference 1454 rpm



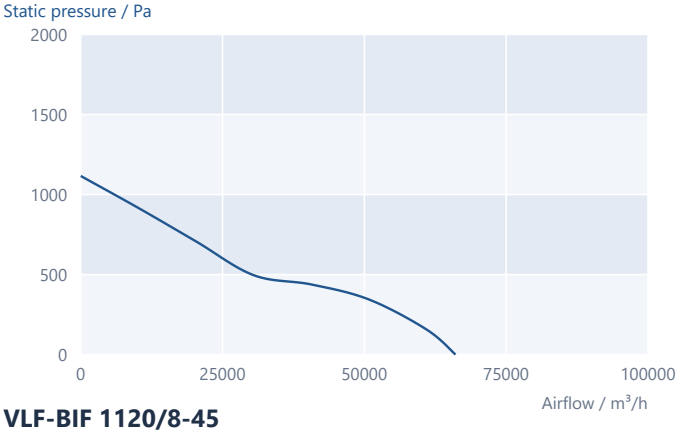
VLF-BIF 1000/8-40

15.00 kW / 4P / 380 V / reference 1456 rpm



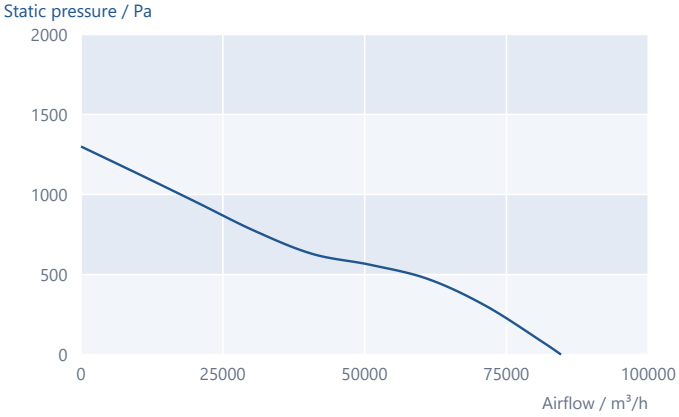
VLF-BIF 1000/8-45

18.50 kW / 4P / 380 V / reference 1458 rpm



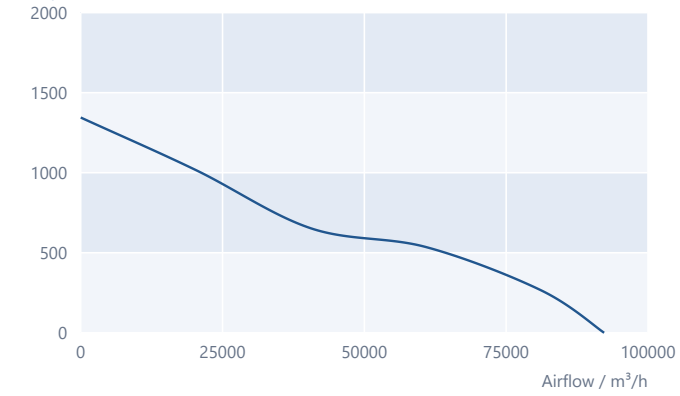
VLF-BIF 1120/8-40

22.00 kW / 4P / 380 V / reference 1471 rpm



VLF-BIF 1120/8-45

30.00 kW / 4P / 380 V / reference 1474 rpm



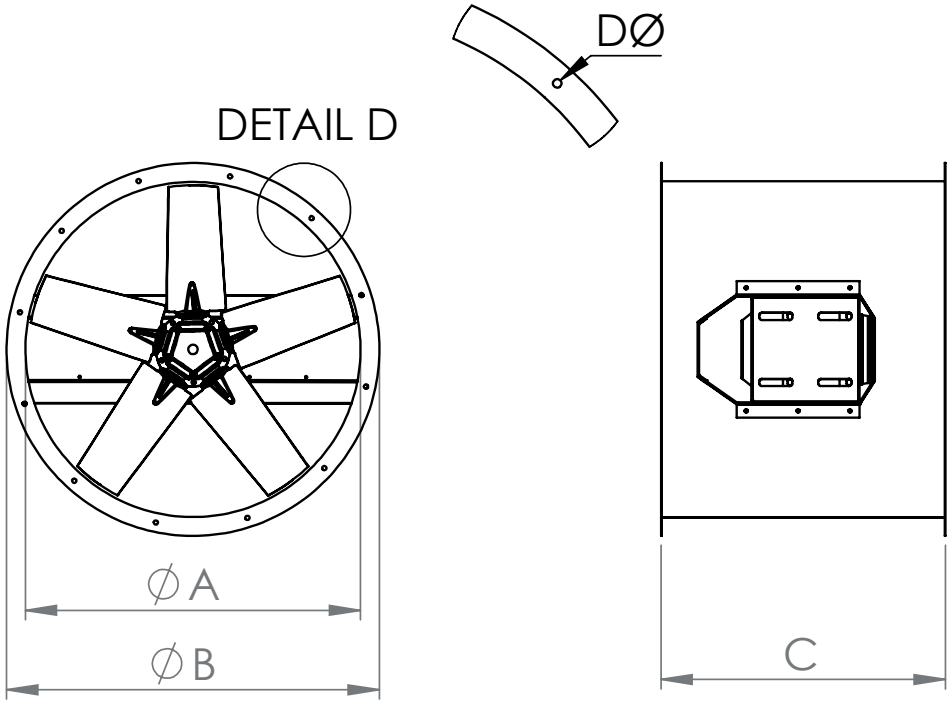
Model-specific scales. Listed catalogue pressure curves follow the original sampled vector paths within the supplied airflow domain. Reference motor ratings are at 0 Pa; no extrapolation.

04 / DIMENSIONAL DATA

Plan the duct connections.

SERIES DRAWING / 710-1120

All dimensions in mm



Model size	A	B	C	D	N
VLF-BIF 710	710	790	600	11	12
VLF-BIF 800	800	880	650	11	16
VLF-BIF 900	900	980	700	11	16
VLF-BIF 1000	1000	1080	740	11	16
VLF-BIF 1120	1120	1200	800	11	16

Product vector drawing. A: nominal diameter; B: flange diameter; C: casing length; D: bolt-hole diameter; N: number of holes. Variants at the same diameter share these dimensions. Drawing illustrates a five-blade configuration.

05 / INSTALLATION & MOTOR

Prepare the installation.

01 Duct connections and support

Match the circular flanges and bolt pattern to the ductwork. Support the casing securely, confirm airflow direction and allow access to the external motor compartment.

02 Motor configuration

The supplied records specify 380 V, three phase, 50 Hz and four poles. Motor insulation is Class F, protection is IP55 and efficiency class is IE3. Continuous duty is S1.

03 Connection information

A model-specific electrical connection diagram was not supplied. Use the actual motor nameplate and the connection diagram supplied with the unit to determine its terminal connections.

04 Cooling and maintenance

Keep motor cooling paths clear and provide access for inspection. Isolate the supply before servicing. Check the impeller, connections and mounting points regularly.

MOTOR & HIGH-TEMPERATURE DUTY

Motor working temperature is -20 to +50 °C. The series data describe 120 °C continuous transported-air service with auxiliary motor cooling. Confirm the required cooling arrangement and supplied configuration before high-temperature operation.

01 / PRODUCT OVERVIEW

VPAF

Portable Axial Flow Fan



01 Mobile wheeled frame

The wheeled frame allows the unit to move between working locations. Position it on a stable surface and secure it before operation.

02 Adjustable discharge direction

The adjustment handwheel changes the direction of discharge. Leave clearance around the fan and its adjustment movement.

03 Axial airflow and controls

A five-blade aluminium impeller operates inside a powder-coated galvanized sheet-metal casing. On/off and emergency-stop controls are standard.

SELECTION & PERFORMANCE

Select the portable fan size.

Four five-blade configurations cover 560, 630, 710 and 800 mm diameters. Select the model using its individual pressure curve and listed airflow. Motor power and speed are catalogue reference ratings at 0 Pa; actual electrical input depends on the operating duty.

Selection parameter	Catalogue basis
Fan diameter range	560-800 mm / 4 diameters
Reference motor power	0.75-2.20 kW
Electrical supply	380 V / 3 phase / 50 Hz / 4 poles
Motor insulation / protection	Class F / IP55 / IE3
Motor working temperature / duty	-20 to +50 °C / S1

Performance data. The approved product photo is illustrative; material descriptions follow FSP records.

02 / TECHNICAL DATA

Compare the configurations.

4 MODELS / 50 Hz / THREE PHASE

Model / diameter-blades-angle	Blades / angle deg.	Motor kW	Airflow m³/h	Speed rpm	Supply V / phase
VPAF 560/5-25	5 / 25	0.75	8150	1466	380 / 3
VPAF 630/5-30	5 / 30	1.10	13480	1465	380 / 3
VPAF 710/5-30	5 / 30	1.50	19210	1472	380 / 3
VPAF 800/5-30	5 / 30	2.20	25560	1459	380 / 3

All models: 4 poles, 50 Hz, Class F insulation, IP55 protection and IE3 motors. Motor working range: -20 to +50 °C. Airflow and motor ratings are catalogue references at 0 Pa; airflow is not a selected duty point.

READING THE MODEL CODE

Example: VPAF 560/5-25/0.75kW/4P identifies a 560 mm fan, five blades, a 25-degree blade angle, a 0.75 kW motor and four poles. The table abbreviates the model code; its motor rating appears in a separate column.

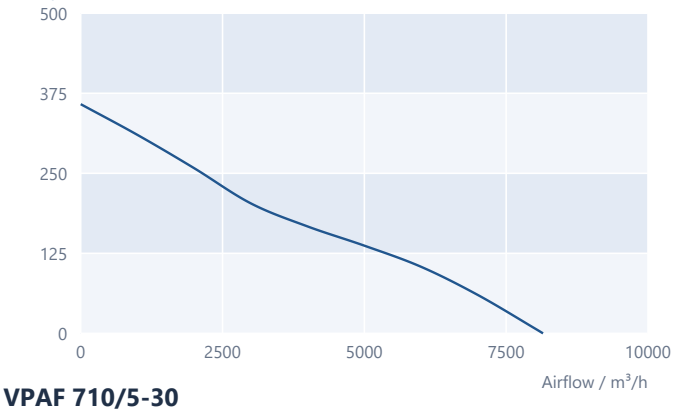
Motor current and weight were not supplied. Unclassified noise totals are omitted because their sound power/pressure basis and measurement distance are unavailable.

03 / AIR PERFORMANCE / 01

Fan Performance Curves

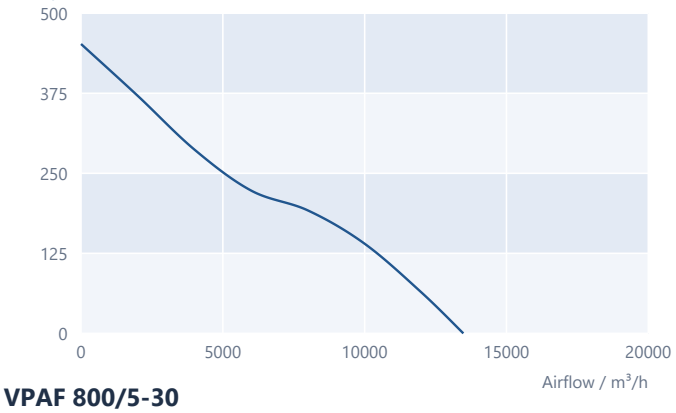
VPAF 560/5-25

0.75 kW / 4P / 380 V / reference 1466 rpm



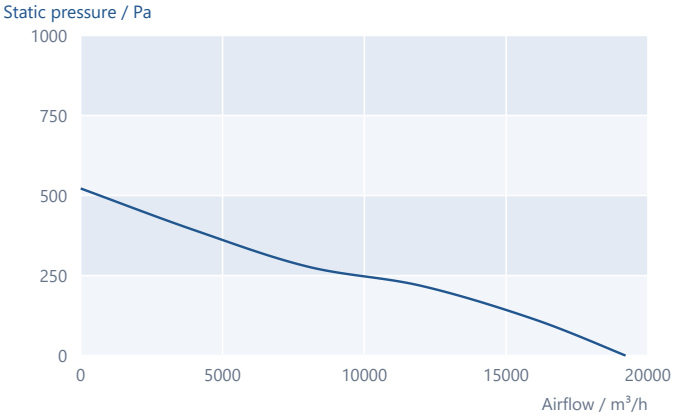
VPAF 630/5-30

1.10 kW / 4P / 380 V / reference 1465 rpm



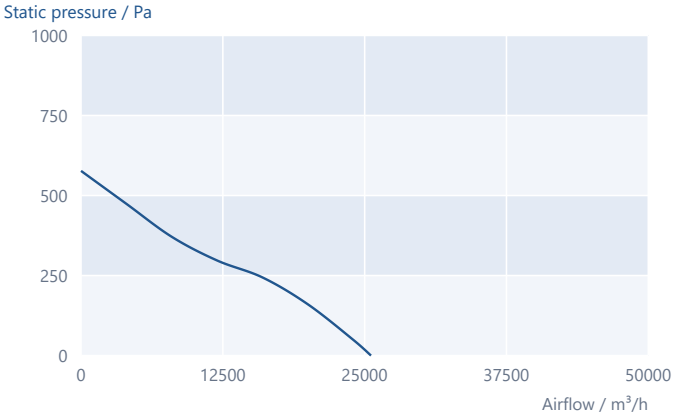
VPAF 710/5-30

1.50 kW / 4P / 380 V / reference 1472 rpm



VPAF 800/5-30

2.20 kW / 4P / 380 V / reference 1459 rpm



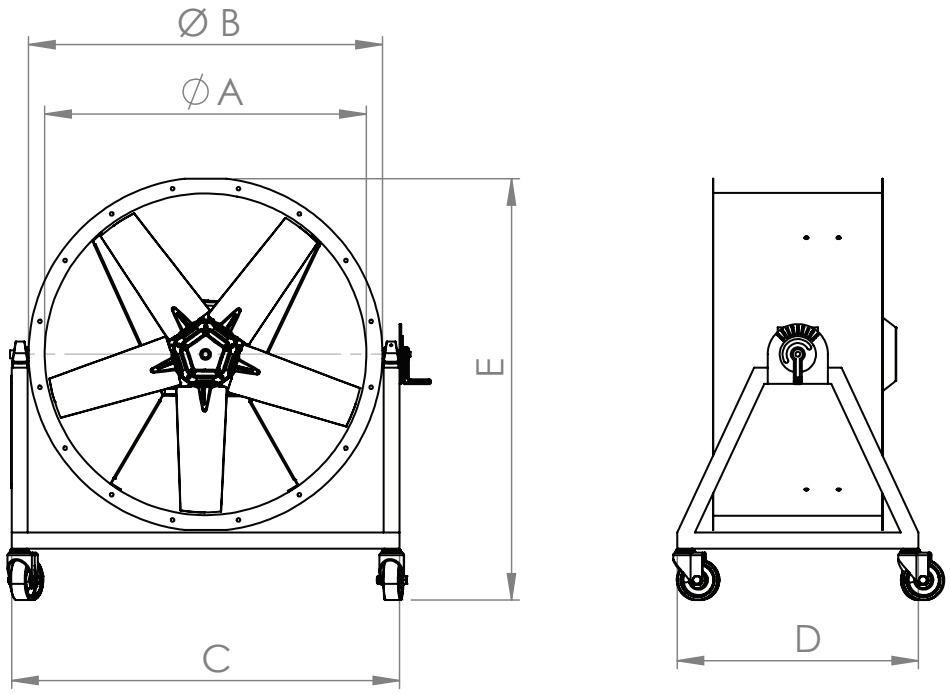
Model-specific scales. Listed catalogue pressure curves follow the original sampled vector paths within the supplied airflow domain. Reference motor ratings are at 0 Pa; no extrapolation.

04 / DIMENSIONAL DATA

Allow room for movement.

SERIES DRAWING / 560-800

All dimensions in mm



Model size	A	B	C	D	E
VPAF 560	560	640	760	500	860
VPAF 630	630	710	830	600	930
VPAF 710	710	790	910	600	1010
VPAF 800	800	880	1000	600	1100

Product vector drawing and model-specific A-E dimensions. Allow clearance for the casing, wheeled frame, control cabinet and adjustment movement. Position the unit on a stable surface.

05 / INSTALLATION & MOTOR

Prepare the installation.

01 Positioning and adjustment

Position the wheeled frame on a stable surface and secure it before use. Adjust the discharge direction using the handwheel and keep the inlet and outlet clear.

02 Motor configuration

The supplied records specify 380 V, three phase, 50 Hz and four poles. Motor insulation is Class F, protection is IP55 and efficiency class is IE3. Continuous duty is S1.

03 Connection information

A model-specific electrical connection diagram was not supplied. Use the actual motor nameplate and the connection diagram supplied with the unit to determine its terminal connections.

04 Controls, guards and maintenance

On/off and emergency-stop controls and a protection grille are listed as standard. Ensure guards are fitted before operation. Isolate power before moving, adjusting or servicing the fan.

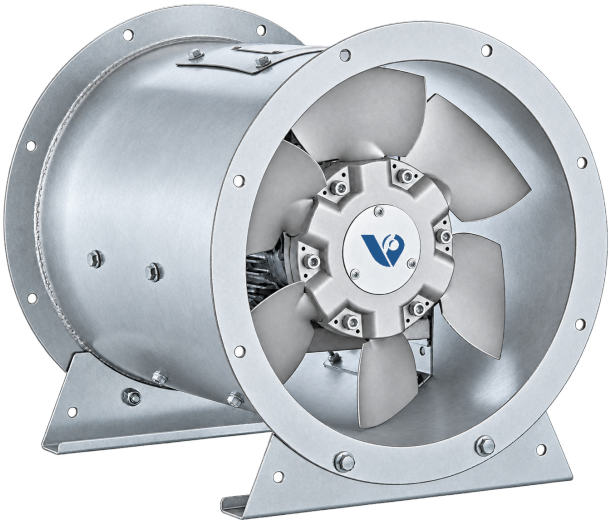
OPERATING CONDITIONS & GUARDING

Use the operating range of -20 to +50 °C. The motor is in the airstream. The approved product photograph shows the impeller for identification; operate the unit with the required protective guards fitted.

01 / PRODUCT OVERVIEW

VLF-T

Tube Axial Flow Fan



01 Adjustable-pitch impeller

Aluminium alloy airfoil blades provide configurable performance. The series range includes 3, 6 and 9 blades across eleven diameters.

02 Flanged galvanized casing

A hot-dip galvanized steel casing connects to ductwork through circular flanges. An access cover supports inspection and maintenance.

03 Duty-based motor selection

FSP selects a blade angle and motor for the required airflow and pressure. Single-speed and two-speed pole configurations are included.

SELECTION & PERFORMANCE

49 configurations. 605 angle curves.

Each configuration identifies fan diameter, blade count and motor poles. The performance section shows every listed blade-angle pressure curve for that configuration. Select the final blade angle and motor in FSP at the required duty; these family curves are not motor-specific operating approvals.

Selection parameter	Catalogue basis
Fan diameter / blade counts	355-1250 mm / 3, 6 and 9 blades
Electrical supply	400 V / 3 phase / 50 Hz
Pole configurations	2P, 4P, 6P, 2-4P and 4-8P
Motor insulation / protection	Class F / IP55 / IE2
Transported-air limit	+55 °C / listed variant records

Performance data. The approved product photo is shown with its background removed and illustrates a six-blade assembly.

02 / TECHNICAL DATA / 01

Compare the configurations.

400 V / 3 PHASE / 50 Hz

Configuration diameter/blades/poles	Angles deg.	Motor range / kW	Reference airflow envelope / m^3/h	Reserve %	Curve page
VLF-T 355/6/2P	10-28	0.18-2.2	1 000-6 860	10	06
VLF-T 400/6/2P	8-34	0.75-3	1 330-9 950	10	06
VLF-T 450/6/2P	8-28	1.1-4	2 400-13 500	10	06
VLF-T 500/6/2P	8-28	2.2-5.5	3 500-18 300	0.5	06
VLF-T 560/6/2P	8-22	4-7.5	4 000-24 000	6	07
VLF-T 630/6/2P	8-20	4-7.5	7 000-31 320	0	07
VLF-T 400/6/4P	8-34	0.37-0.37	665-4 975	10	07
VLF-T 450/6/4P	8-38	0.37-0.55	1 200-8 212	7	07
VLF-T 500/6/4P	8-36	0.55-1.1	1 750-11 800	10	08
VLF-T 560/6/4P	8-36	0.55-2.2	2 000-17 140	10	08
VLF-T 630/6/4P	8-38	0.75-4	3 500-25 200	10	08
VLF-T 710/3/4P	8-32	0.75-3	1 600-27 500	10	08
VLF-T 710/6/4P	8-32	1.1-4	1 800-31 200	1	09
VLF-T 800/6/4P	8-32	2.2-7.5	4 500-42 500	3	09
VLF-T 800/9/4P	8-30	2.2-11	7 500-43 000	10	09
VLF-T 900/6/4P	8-32	4-15	6 000-60 800	10	09
VLF-T 900/9/4P	8-32	4-18.5	11 000-63 300	10	10

Airflow envelope: minimum and maximum listed curve-domain endpoints across blade angles, rounded to whole m^3/h. This is not a duty point or a guaranteed continuous motor-supported operating range. Select the final angle and motor in FSP.

Motor range: product motor-power limits, not a fixed model rating. FSP chooses a listed motor using duty absorbed power and the model-specific reserve. For two-speed entries, the supplied curves describe the high-speed condition only; low-speed curves are not inferred.

All variants: Class F, IP55, IE2; motor working range -20 to +55 °C and maximum transported air +55 °C. Selected motor nameplate current and unit weight are not supplied.

02 / TECHNICAL DATA / 02

Compare the configurations.

400 V / 3 PHASE / 50 Hz

Configuration diameter/blades/poles	Angles deg.	Motor range / kW	Reference airflow envelope / m^3/h	Reserve %	Curve page
VLF-T 1000/6/4P	8-32	5.5-22	14 000-82 600	3	10
VLF-T 1000/9/4P	8-32	7.5-30	15 000-86 000	10	10
VLF-T 1250/6/4P	8-32	15-45	25 000-155 000	1	10
VLF-T 1250/9/4P	8-24	18.5-45	21 300-138 000	1	11
VLF-T 500/6/6P	8-36	0.37-0.37	1 167-7 867	10	11
VLF-T 560/6/6P	8-36	0.55-0.55	1 333-11 427	7	11
VLF-T 630/6/6P	8-38	0.75-1.1	2 333-16 800	10	11
VLF-T 710/3/6P	8-32	0.75-1.1	1 067-18 333	10	12
VLF-T 710/6/6P	8-32	0.75-1.5	1 200-20 800	10	12
VLF-T 800/6/6P	8-32	1.5-2.2	3 000-28 333	3	12
VLF-T 800/9/6P	8-30	2.2-3	5 000-28 667	10	12
VLF-T 900/6/6P	8-32	2.2-4	4 000-40 533	5	13
VLF-T 900/9/6P	8-32	2.2-5.5	7 333-42 200	10	13
VLF-T 1000/6/6P	8-32	2.2-7.5	9 333-55 067	10	13
VLF-T 1000/9/6P	8-32	2.2-11	10 000-57 333	10	13
VLF-T 1250/6/6P	8-32	5.5-15	16 667-103 333	10	14
VLF-T 1250/9/6P	8-24	7.5-15	14 200-92 000	10	14

Airflow envelope: minimum and maximum listed curve-domain endpoints across blade angles, rounded to whole m^3/h. This is not a duty point or a guaranteed continuous motor-supported operating range. Select the final angle and motor in FSP.

Motor range: product motor-power limits, not a fixed model rating. FSP chooses a listed motor using duty absorbed power and the model-specific reserve. For two-speed entries, the supplied curves describe the high-speed condition only; low-speed curves are not inferred.

All variants: Class F, IP55, IE2; motor working range -20 to +55 °C and maximum transported air +55 °C. Selected motor nameplate current and unit weight are not supplied.

02 / TECHNICAL DATA / 03

Compare the configurations.

400 V / 3 PHASE / 50 Hz

Configuration diameter/blades/poles	Angles deg.	Motor range / kW	Reference airflow envelope / m^3/h	Reserve %	Curve page
VLF-T 400/6/2-4P	8-34	0.75-3	1 330-9 950	10	14
VLF-T 450/6/2-4P	8-28	1.1-4	2 400-13 500	10	14
VLF-T 500/6/2-4P	8-28	2.2-5.5	3 500-18 300	0.5	15
VLF-T 560/6/2-4P	8-22	4-7.5	4 000-24 000	6	15
VLF-T 630/6/2-4P	8-20	4-7.5	7 000-31 320	0	15
VLF-T 710/3/4-8P	8-32	0.75-3	1 600-27 500	10	15
VLF-T 710/6/4-8P	8-32	1.1-4	1 800-31 200	1	16
VLF-T 800/6/4-8P	8-32	2.2-7.5	4 500-42 500	3	16
VLF-T 800/9/4-8P	8-30	2.2-11	7 500-43 000	10	16
VLF-T 900/6/4-8P	8-32	4-15	6 000-60 800	10	16
VLF-T 900/9/4-8P	8-32	4-18.5	11 000-63 300	10	17
VLF-T 1000/6/4-8P	8-32	5.5-22	14 000-82 600	3	17
VLF-T 1000/9/4-8P	8-32	7.5-30	15 000-86 000	10	17
VLF-T 1250/6/4-8P	8-32	15-45	25 000-155 000	1	17
VLF-T 1250/9/4-8P	8-24	18.5-45	21 300-138 000	1	18

Airflow envelope: minimum and maximum listed curve-domain endpoints across blade angles, rounded to whole m^3/h. This is not a duty point or a guaranteed continuous motor-supported operating range. Select the final angle and motor in FSP.

Motor range: product motor-power limits, not a fixed model rating. FSP chooses a listed motor using duty absorbed power and the model-specific reserve. For two-speed entries, the supplied curves describe the high-speed condition only; low-speed curves are not inferred.

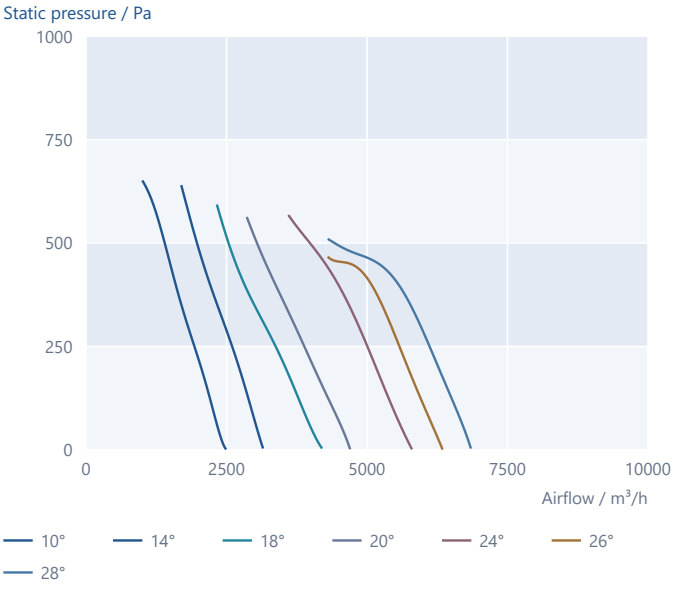
All variants: Class F, IP55, IE2; motor working range -20 to +55 °C and maximum transported air +55 °C. Selected motor nameplate current and unit weight are not supplied.

03 / AIR PERFORMANCE / 01

Fan Performance Curves

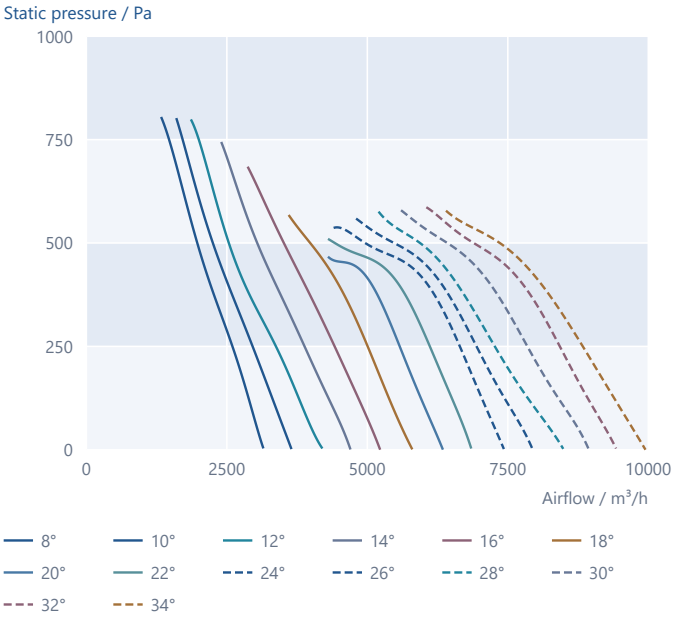
VLF-T 355/6/2P

7 blade angles / 400 V / 50 Hz



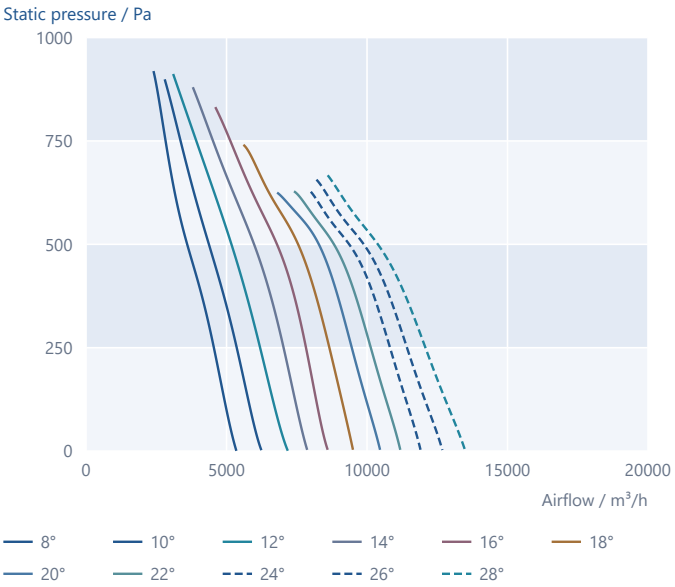
VLF-T 400/6/2P

14 blade angles / 400 V / 50 Hz



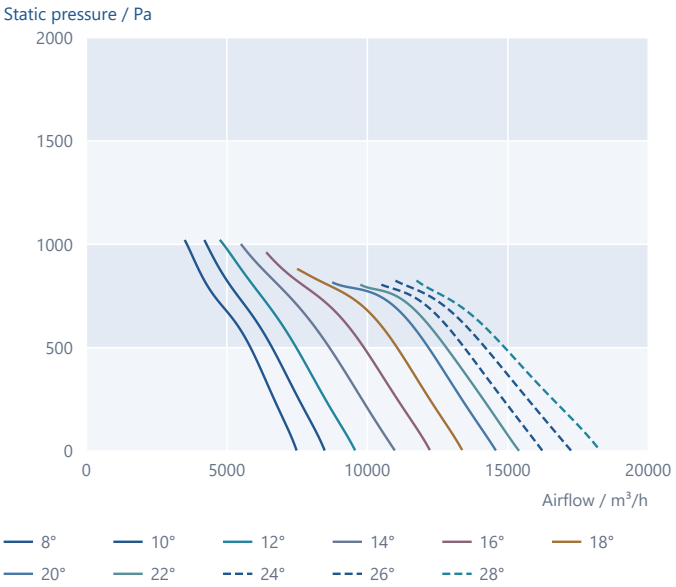
VLF-T 450/6/2P

11 blade angles / 400 V / 50 Hz



VLF-T 500/6/2P

11 blade angles / 400 V / 50 Hz



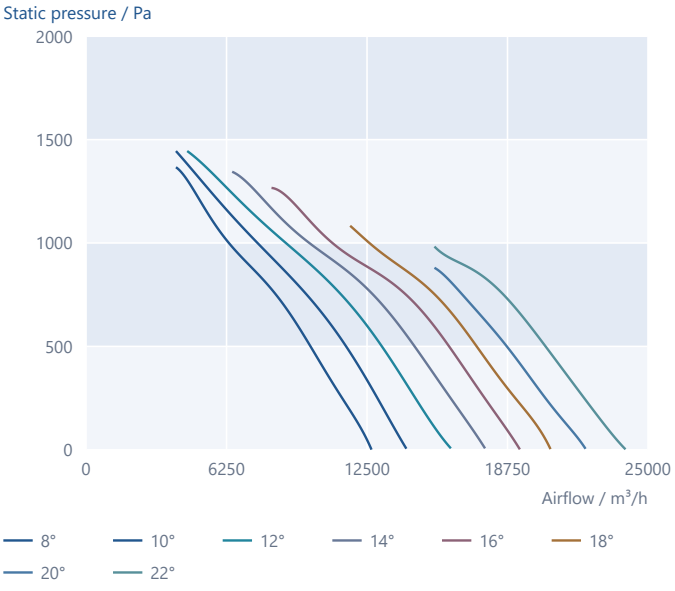
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 02

Fan Performance Curves

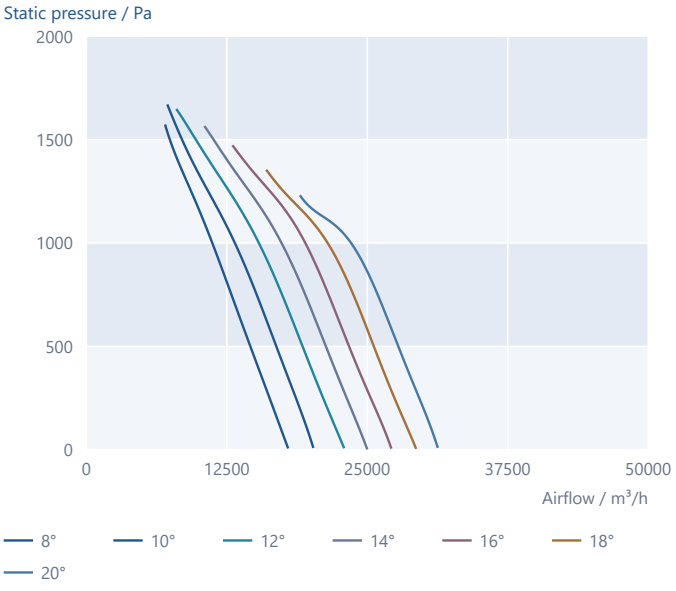
VLF-T 560/6/2P

8 blade angles / 400 V / 50 Hz



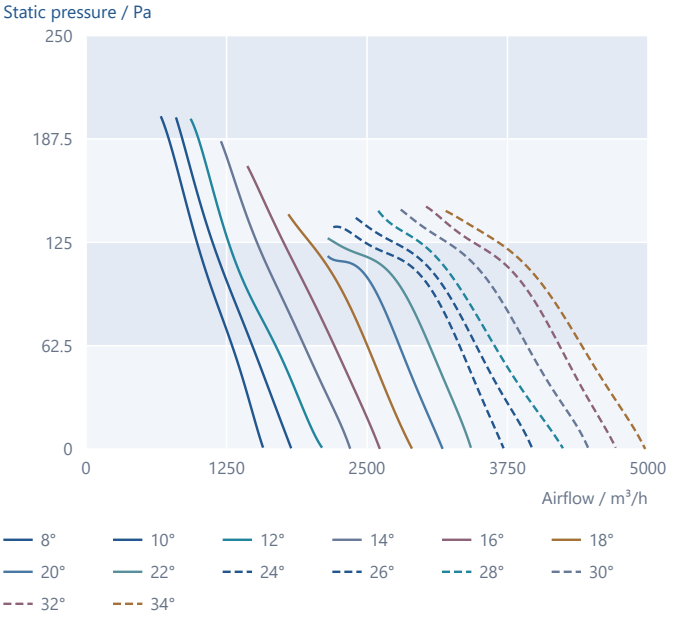
VLF-T 630/6/2P

7 blade angles / 400 V / 50 Hz



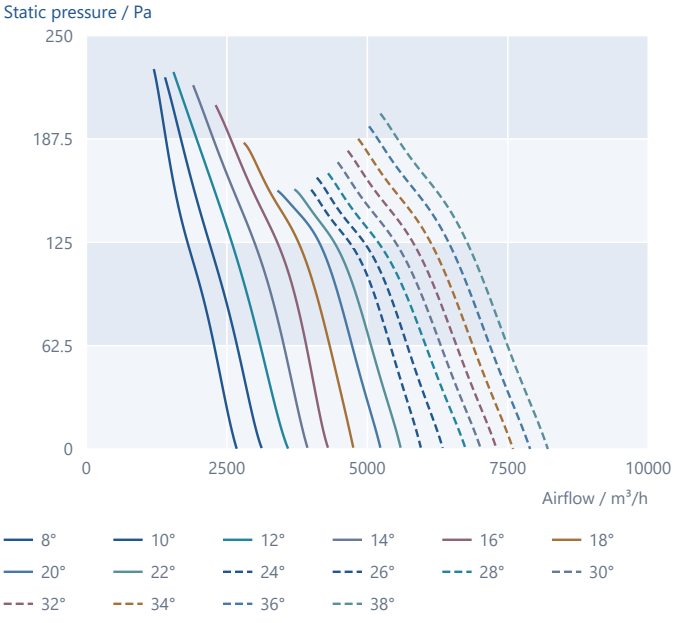
VLF-T 400/6/4P

14 blade angles / 400 V / 50 Hz



VLF-T 450/6/4P

16 blade angles / 400 V / 50 Hz



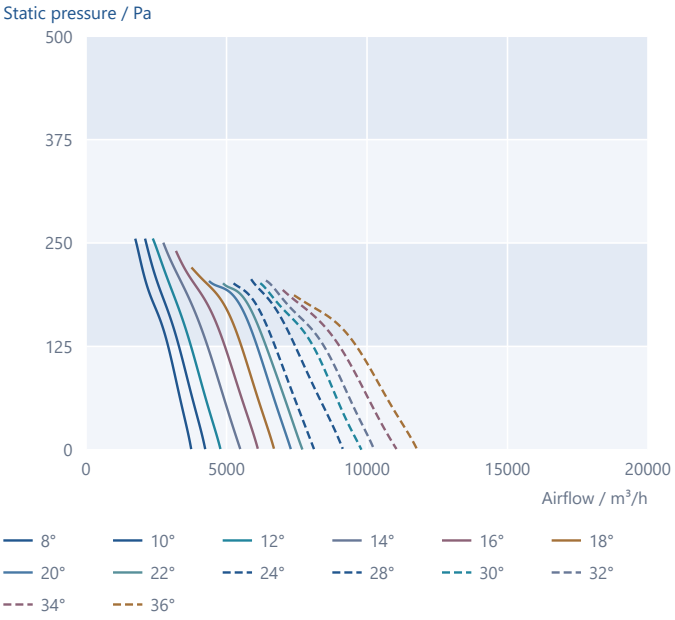
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 03

Fan Performance Curves

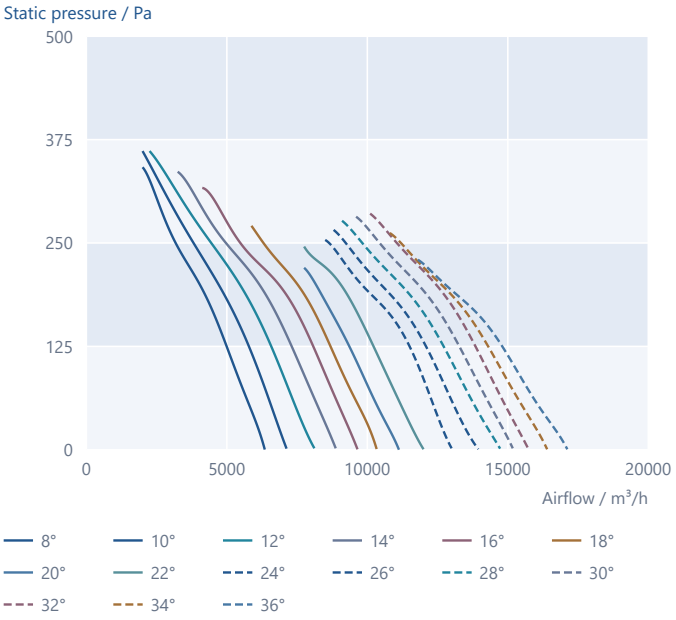
VLF-T 500/6/4P

14 blade angles / 400 V / 50 Hz



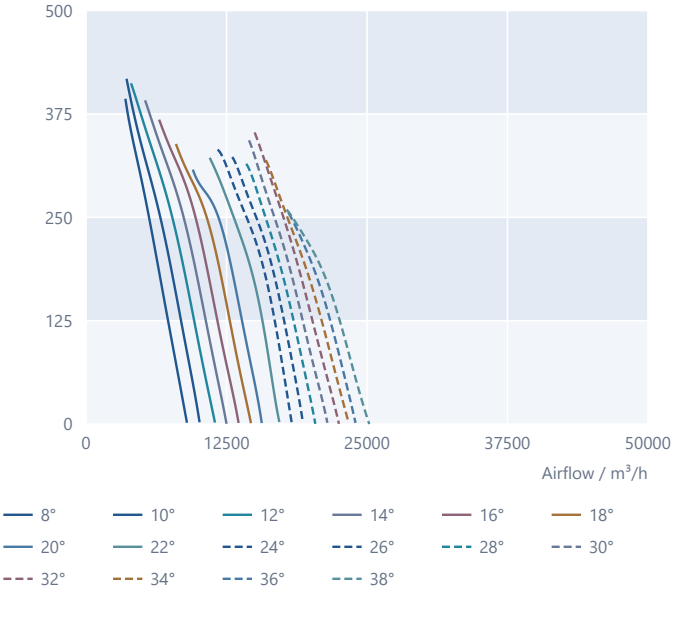
VLF-T 560/6/4P

15 blade angles / 400 V / 50 Hz



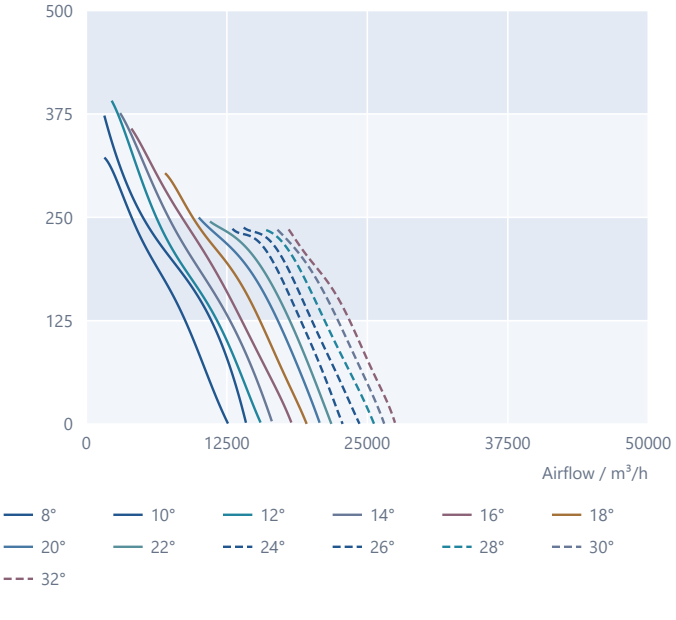
VLF-T 630/6/4P

16 blade angles / 400 V / 50 Hz



VLF-T 710/3/4P

13 blade angles / 400 V / 50 Hz



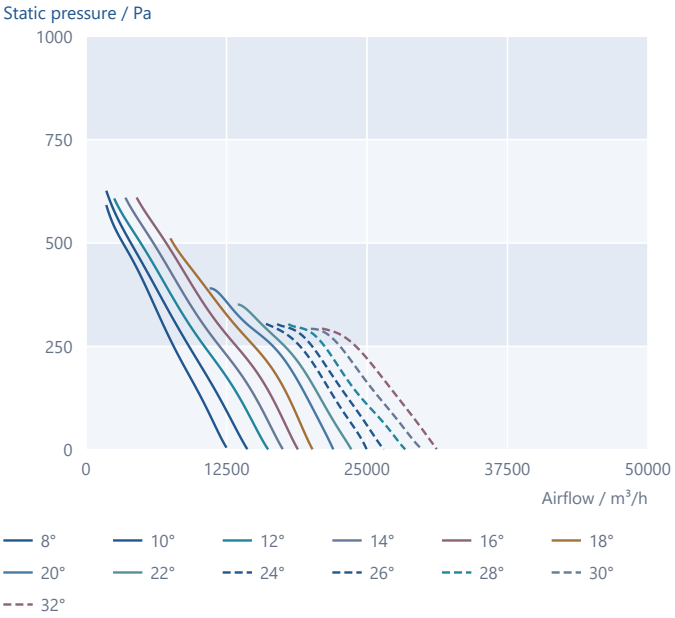
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 04

Fan Performance Curves

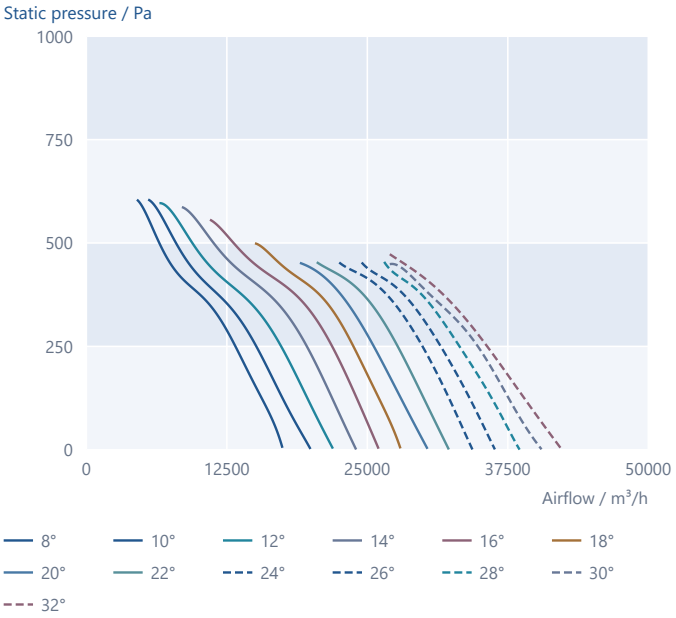
VLF-T 710/6/4P

13 blade angles / 400 V / 50 Hz



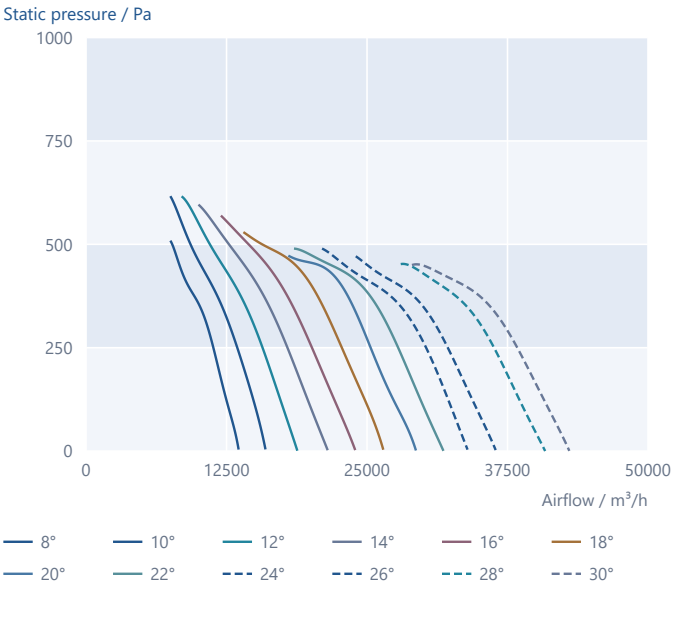
VLF-T 800/6/4P

13 blade angles / 400 V / 50 Hz



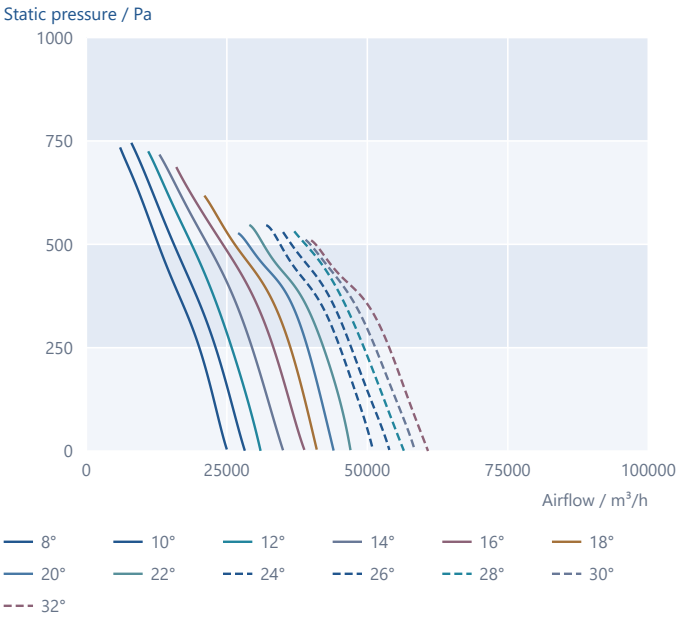
VLF-T 800/9/4P

12 blade angles / 400 V / 50 Hz



VLF-T 900/6/4P

13 blade angles / 400 V / 50 Hz



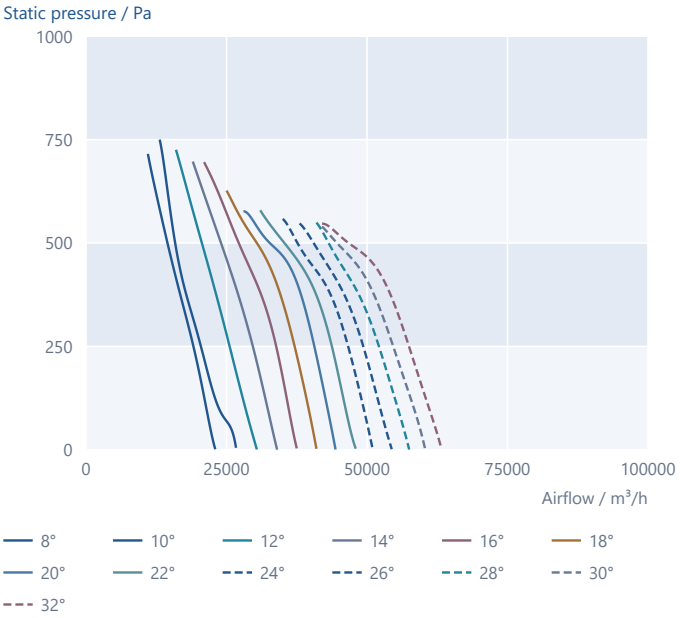
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 05

Fan Performance Curves

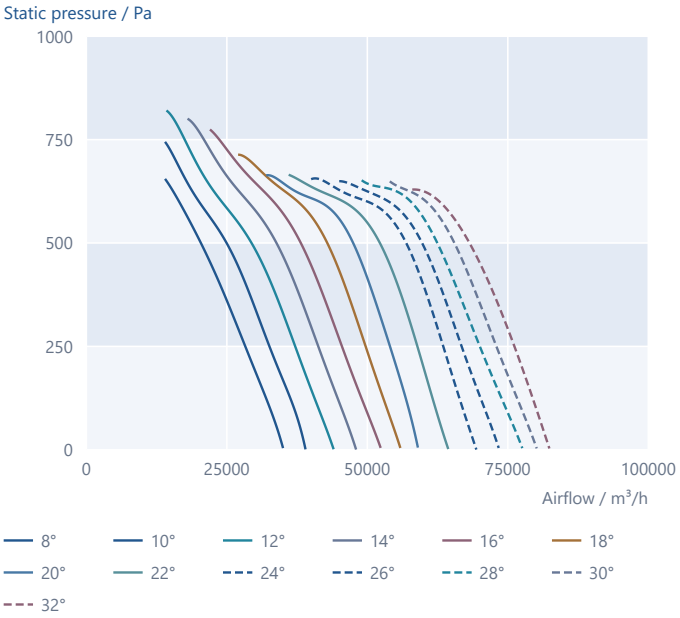
VLF-T 900/9/4P

13 blade angles / 400 V / 50 Hz



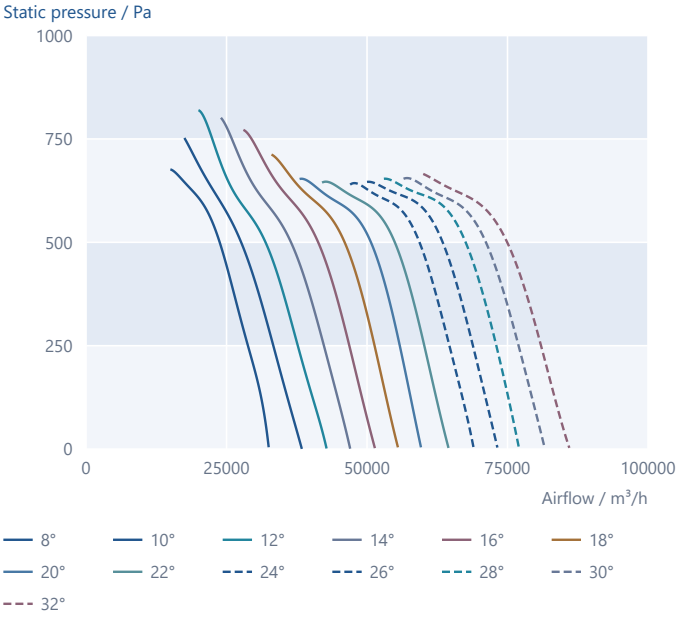
VLF-T 1000/6/4P

13 blade angles / 400 V / 50 Hz



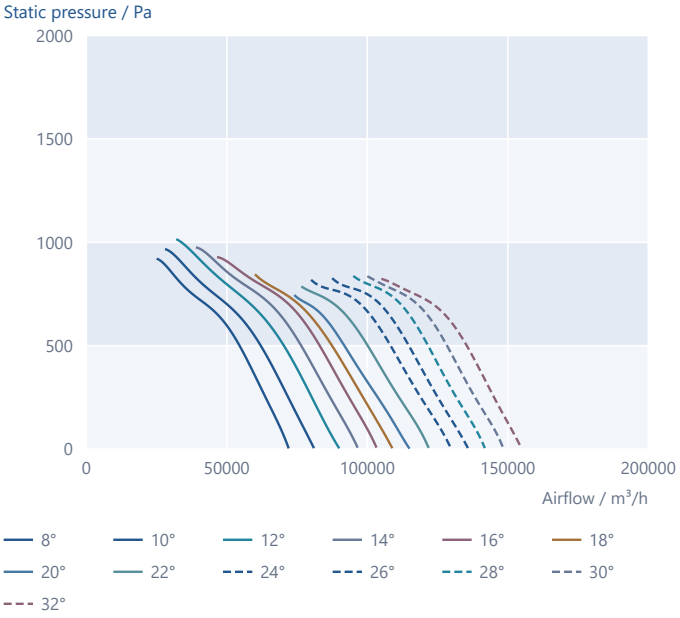
VLF-T 1000/9/4P

13 blade angles / 400 V / 50 Hz



VLF-T 1250/6/4P

13 blade angles / 400 V / 50 Hz



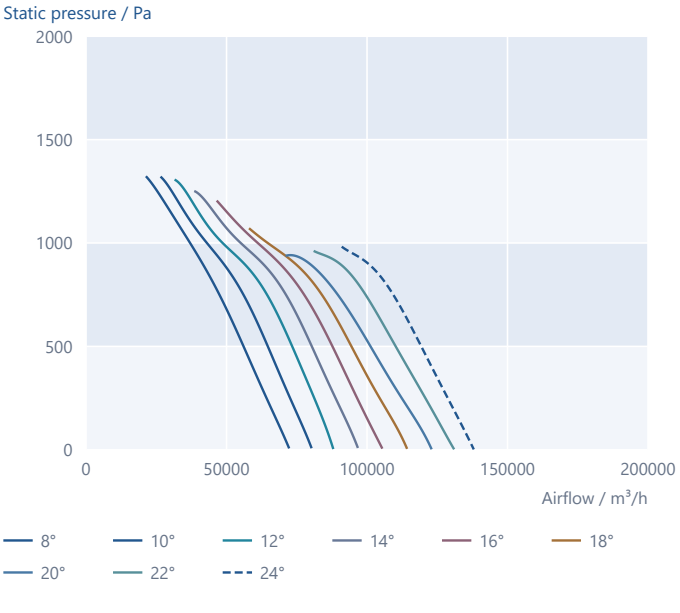
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 06

Fan Performance Curves

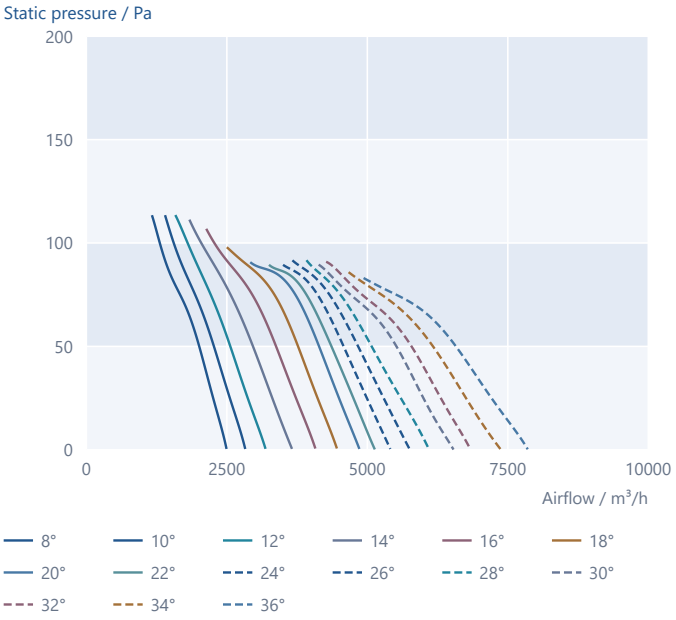
VLF-T 1250/9/4P

9 blade angles / 400 V / 50 Hz



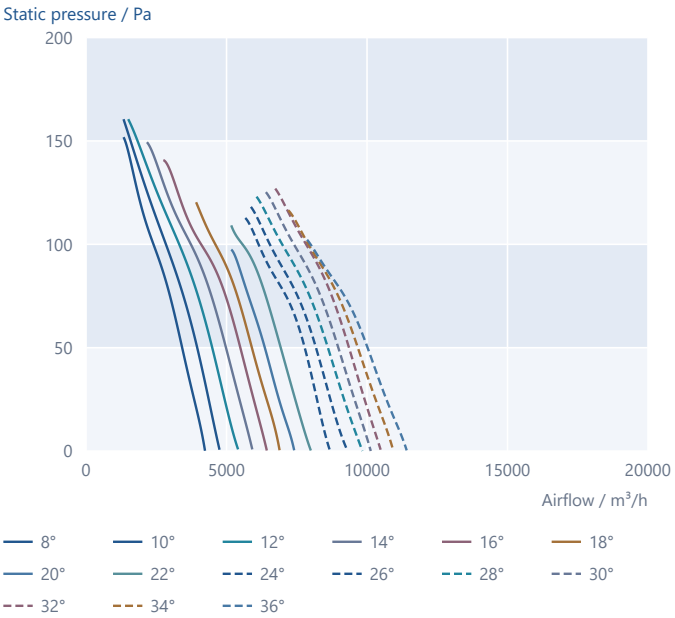
VLF-T 500/6/6P

15 blade angles / 400 V / 50 Hz



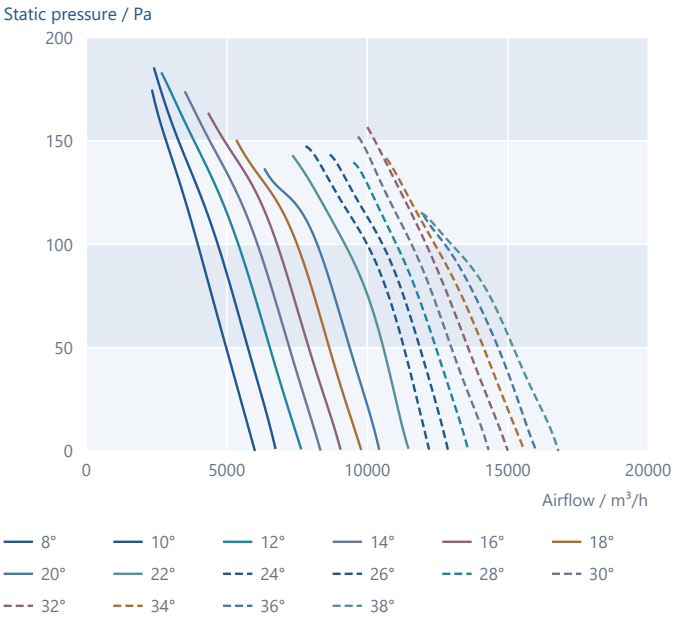
VLF-T 560/6/6P

15 blade angles / 400 V / 50 Hz



VLF-T 630/6/6P

16 blade angles / 400 V / 50 Hz



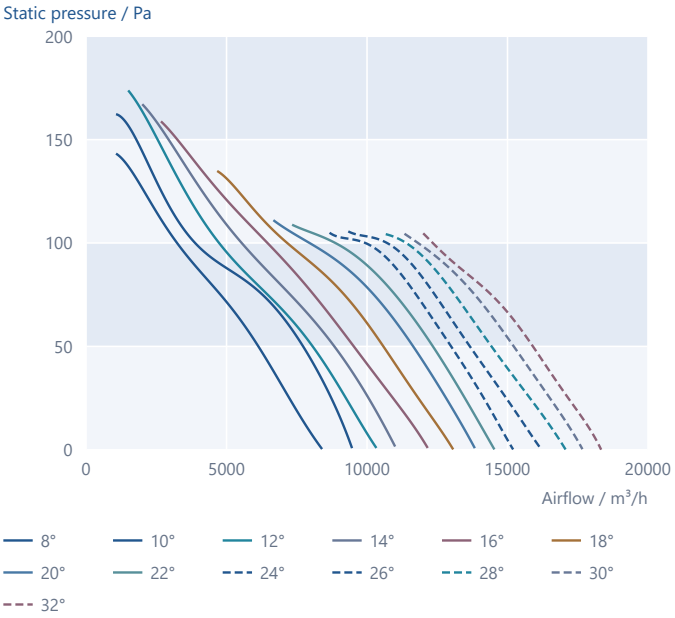
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 07

Fan Performance Curves

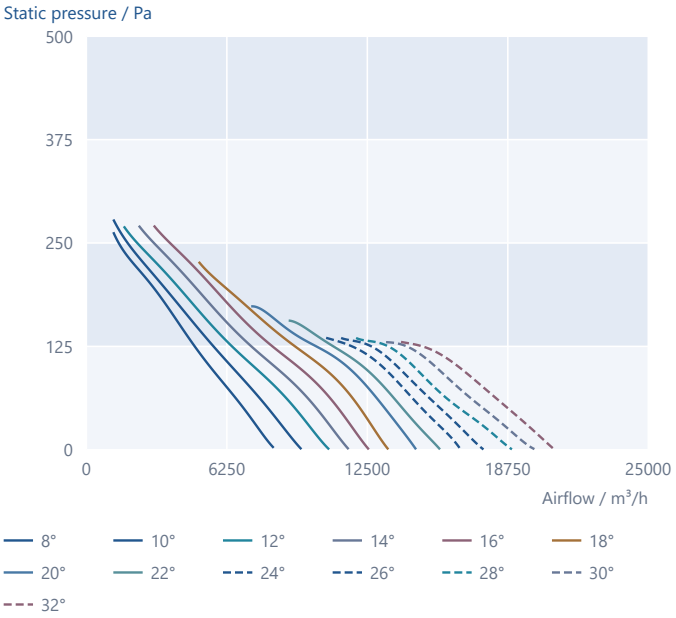
VLF-T 710/3/6P

13 blade angles / 400 V / 50 Hz



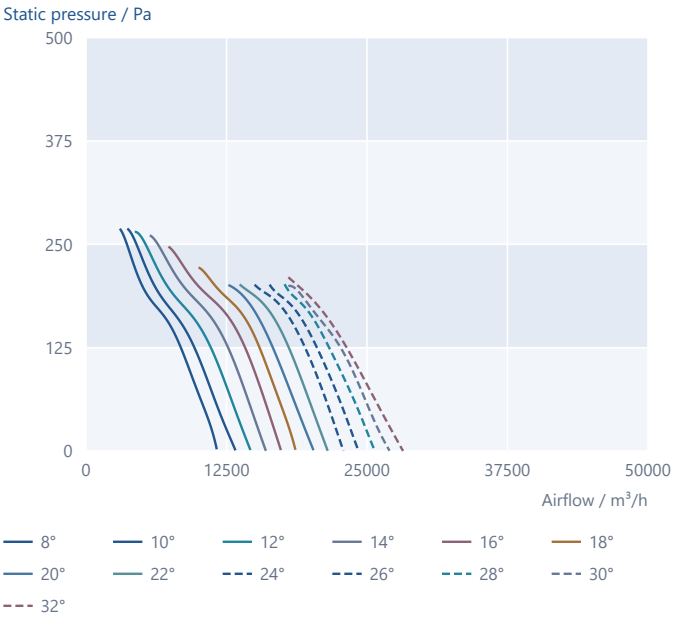
VLF-T 710/6/6P

13 blade angles / 400 V / 50 Hz



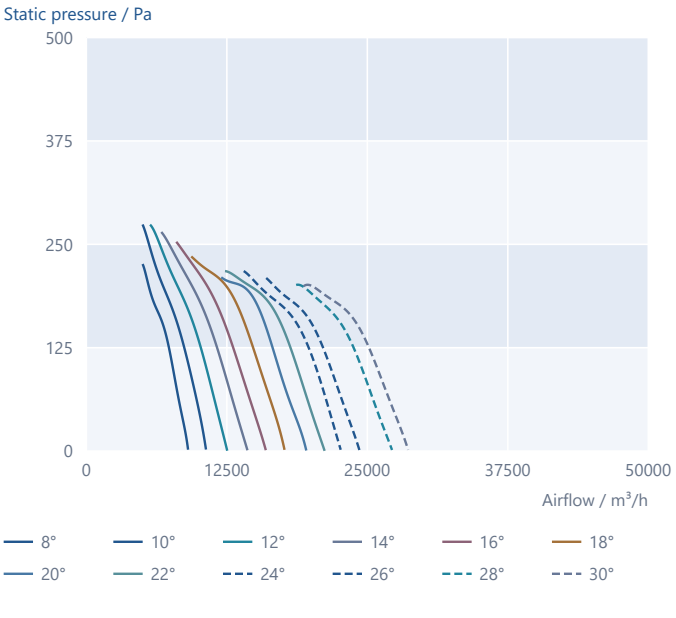
VLF-T 800/6/6P

13 blade angles / 400 V / 50 Hz



VLF-T 800/9/6P

12 blade angles / 400 V / 50 Hz



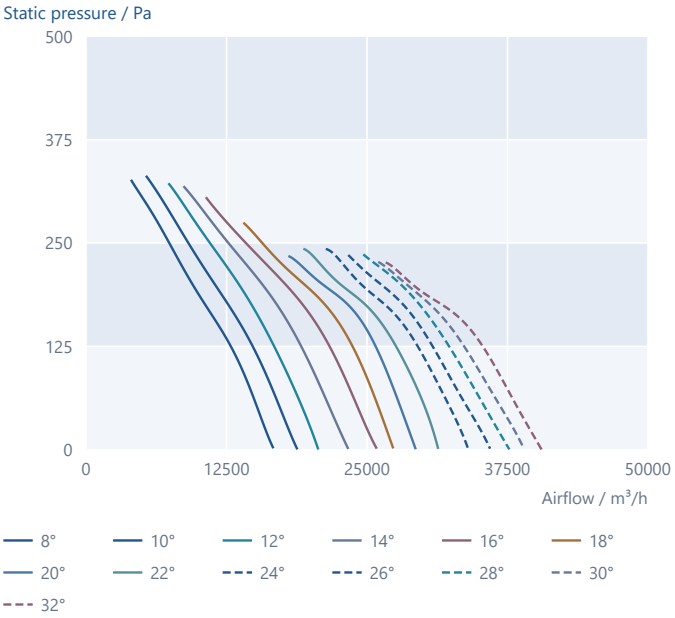
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 08

Fan Performance Curves

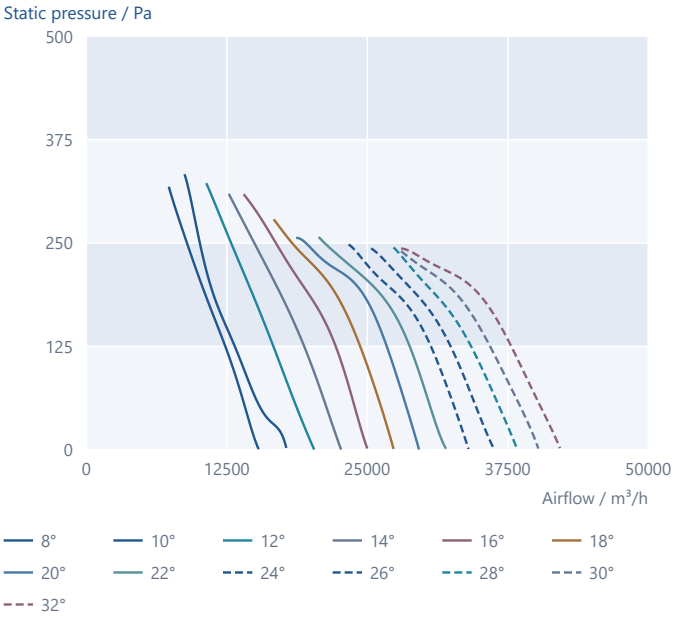
VLF-T 900/6/6P

13 blade angles / 400 V / 50 Hz



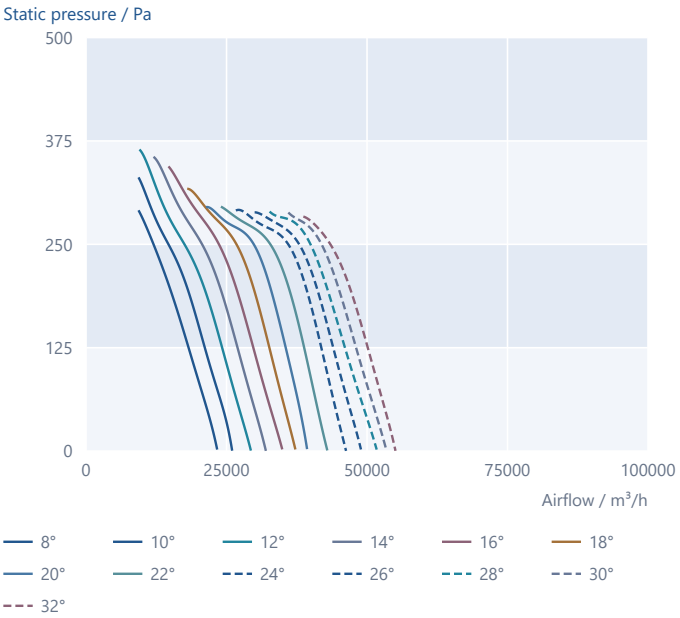
VLF-T 900/9/6P

13 blade angles / 400 V / 50 Hz



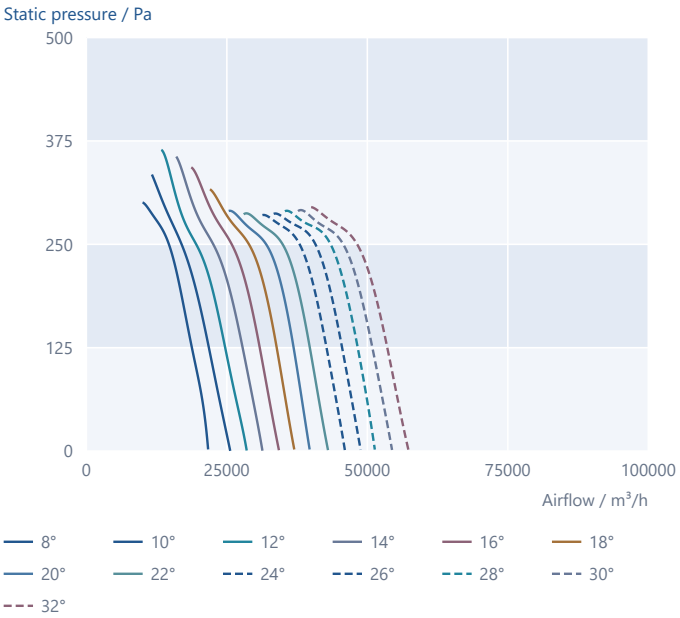
VLF-T 1000/6/6P

13 blade angles / 400 V / 50 Hz



VLF-T 1000/9/6P

13 blade angles / 400 V / 50 Hz



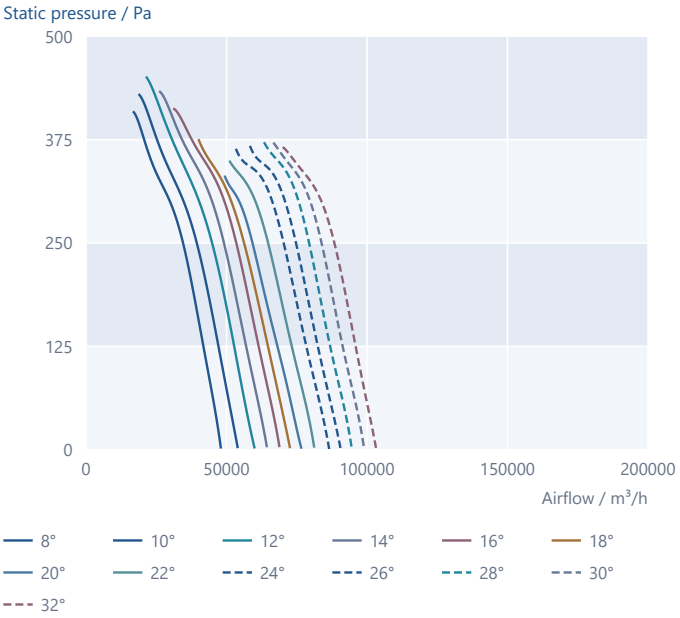
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 09

Fan Performance Curves

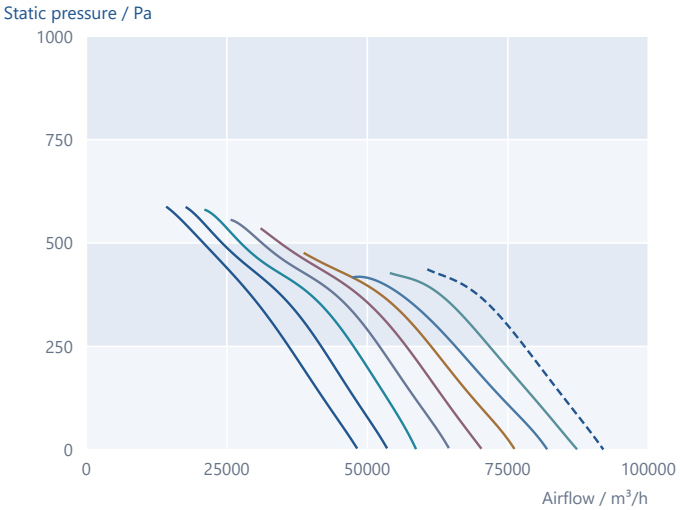
VLF-T 1250/6/6P

13 blade angles / 400 V / 50 Hz



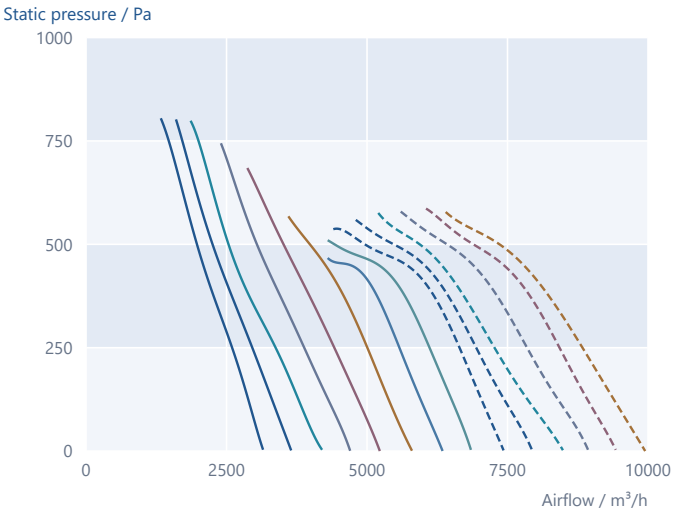
VLF-T 1250/9/6P

9 blade angles / 400 V / 50 Hz



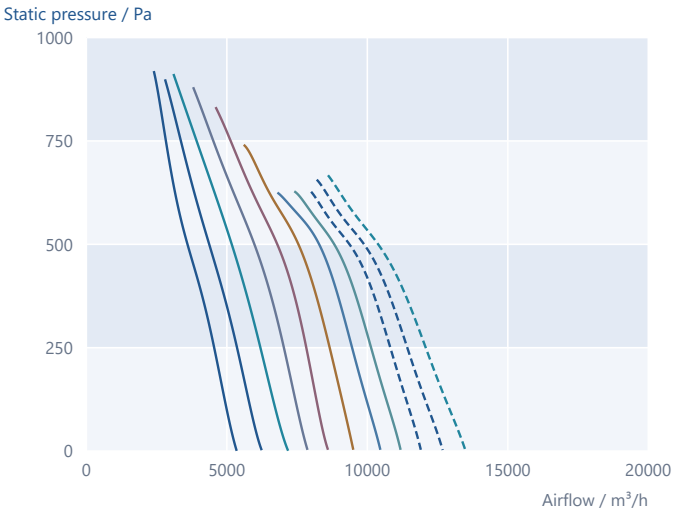
VLF-T 400/6/2-4P

14 blade angles / 400 V / 50 Hz



VLF-T 450/6/2-4P

11 blade angles / 400 V / 50 Hz



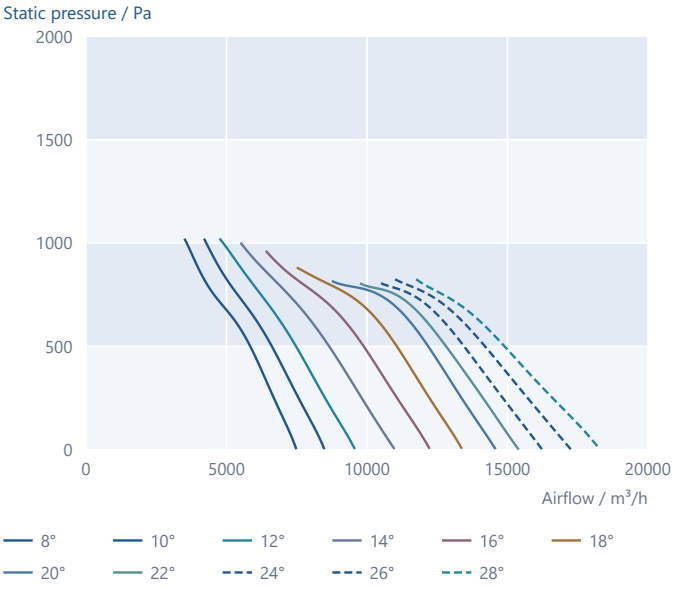
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 10

Fan Performance Curves

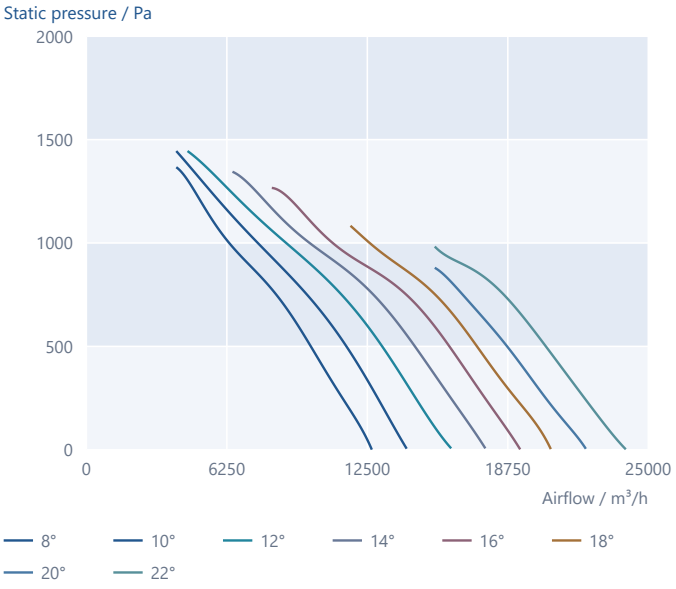
VLF-T 500/6/2-4P

11 blade angles / 400 V / 50 Hz



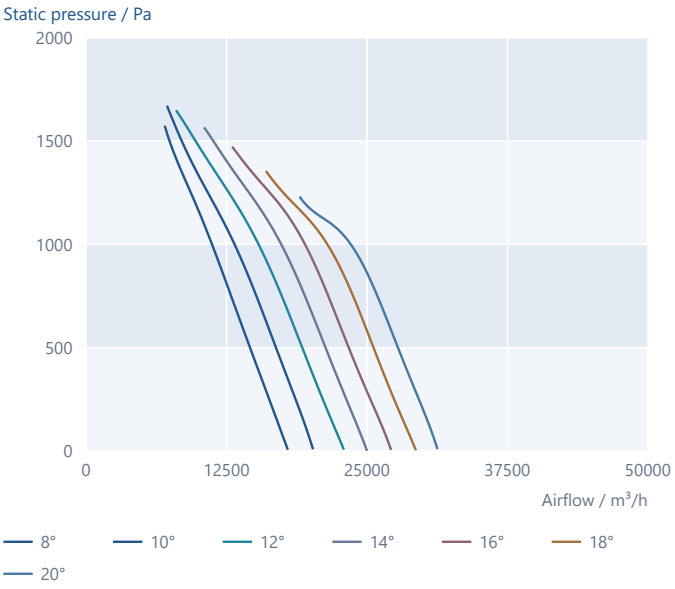
VLF-T 560/6/2-4P

8 blade angles / 400 V / 50 Hz



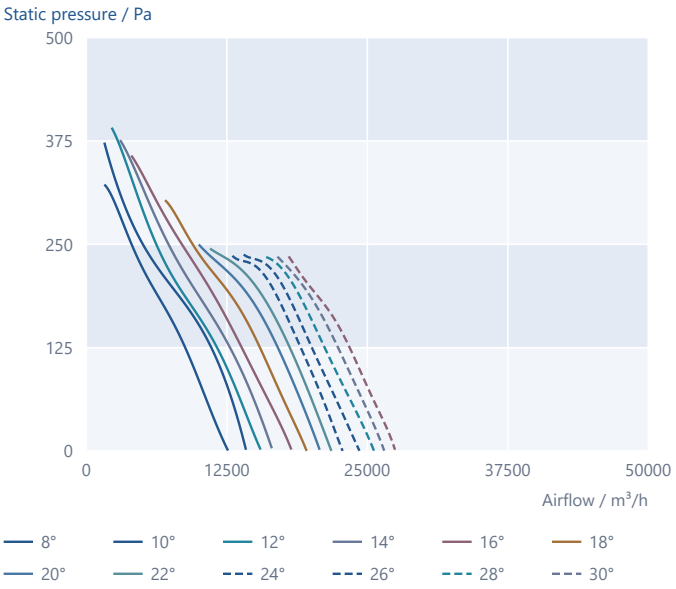
VLF-T 630/6/2-4P

7 blade angles / 400 V / 50 Hz



VLF-T 710/3/4-8P

13 blade angles / 400 V / 50 Hz



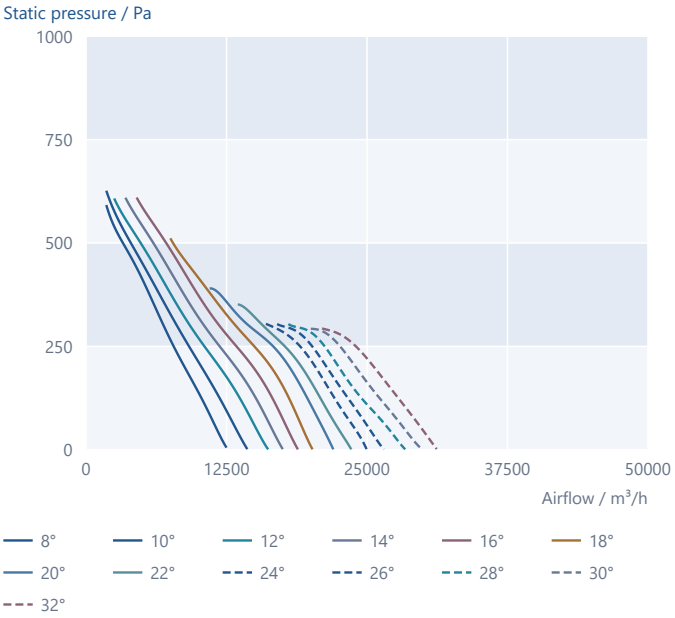
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 11

Fan Performance Curves

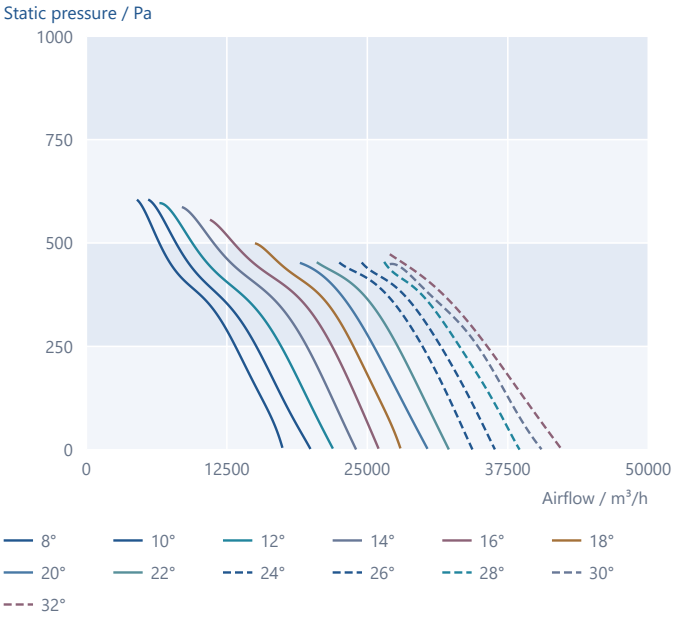
VLF-T 710/6/4-8P

13 blade angles / 400 V / 50 Hz



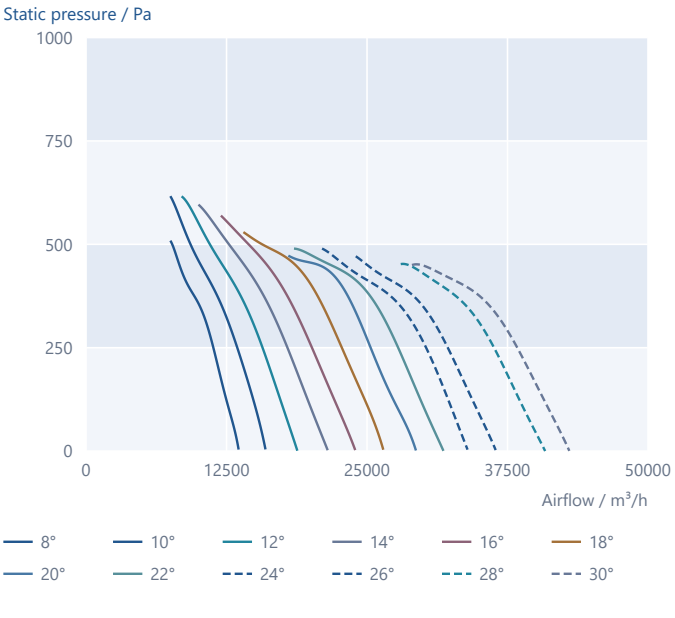
VLF-T 800/6/4-8P

13 blade angles / 400 V / 50 Hz



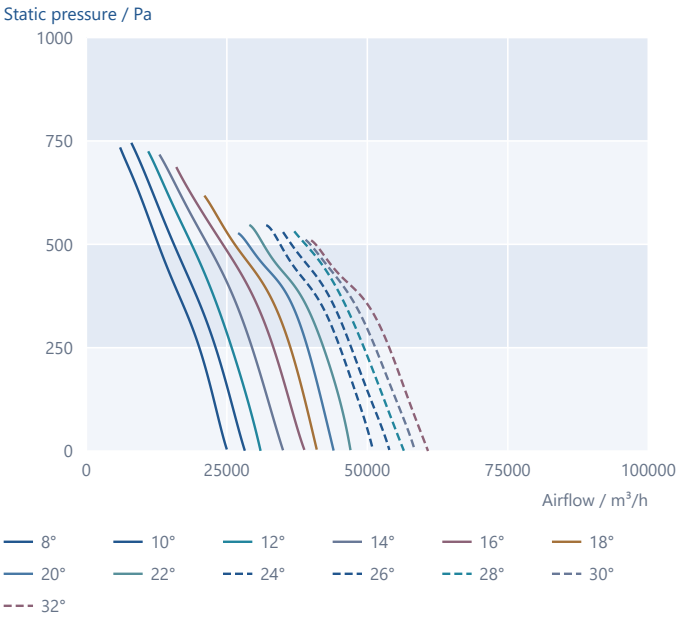
VLF-T 800/9/4-8P

12 blade angles / 400 V / 50 Hz



VLF-T 900/6/4-8P

13 blade angles / 400 V / 50 Hz



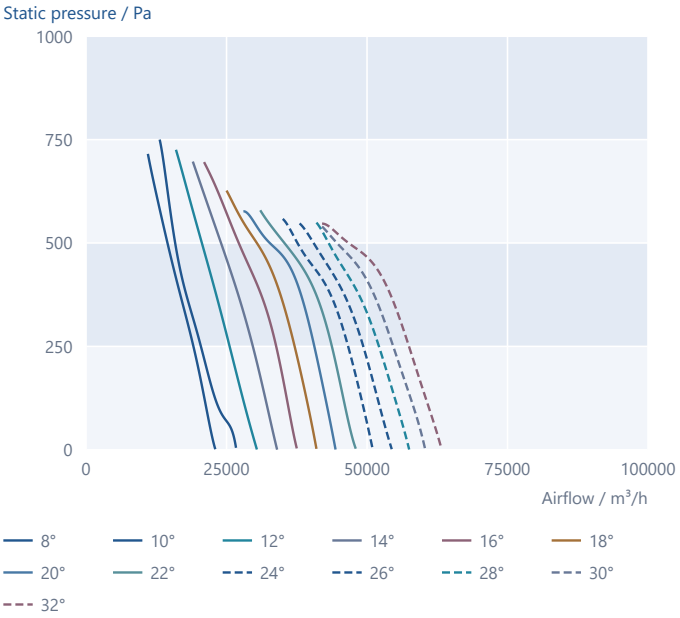
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 12

Fan Performance Curves

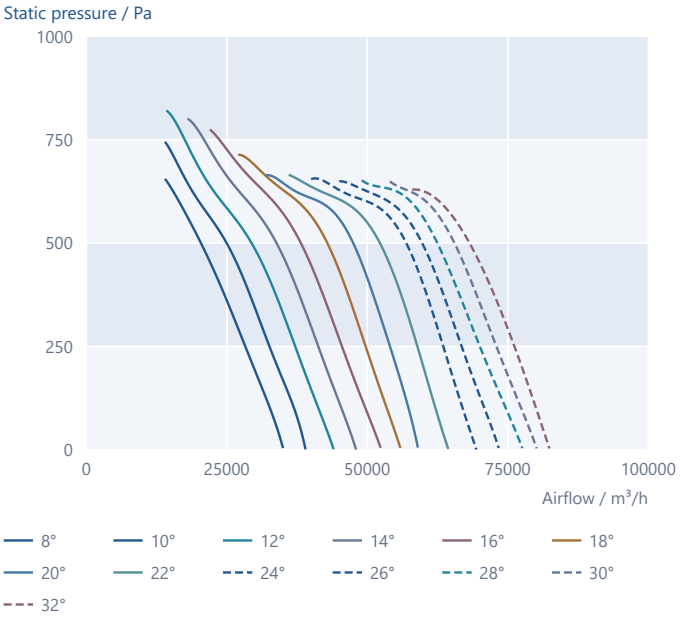
VLF-T 900/9/4-8P

13 blade angles / 400 V / 50 Hz



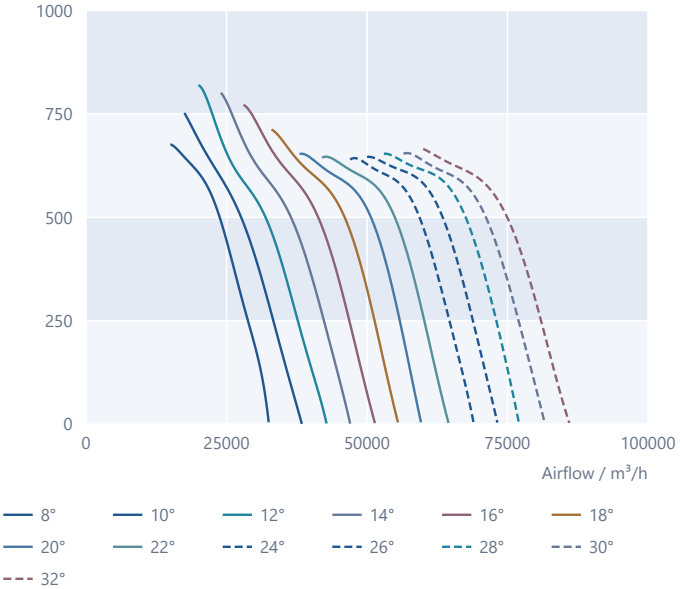
VLF-T 1000/6/4-8P

13 blade angles / 400 V / 50 Hz



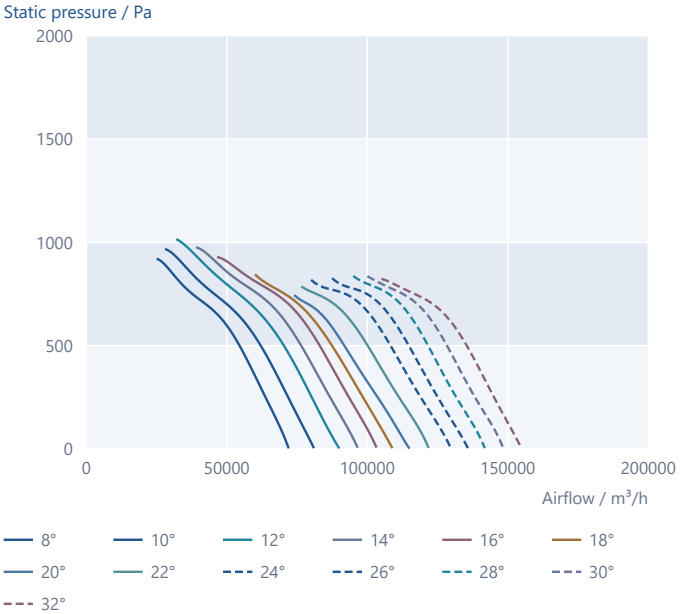
VLF-T 1000/9/4-8P

13 blade angles / 400 V / 50 Hz



VLF-T 1250/6/4-8P

13 blade angles / 400 V / 50 Hz



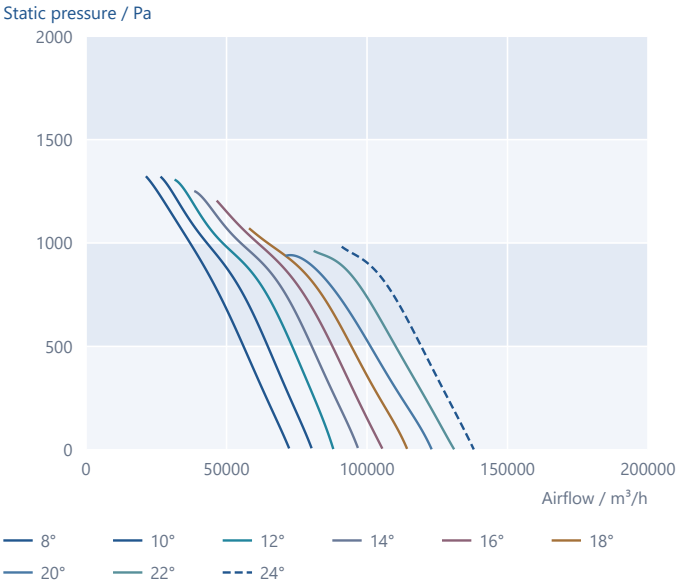
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 13

Fan Performance Curves

VLF-T 1250/9/4-8P

9 blade angles / 400 V / 50 Hz



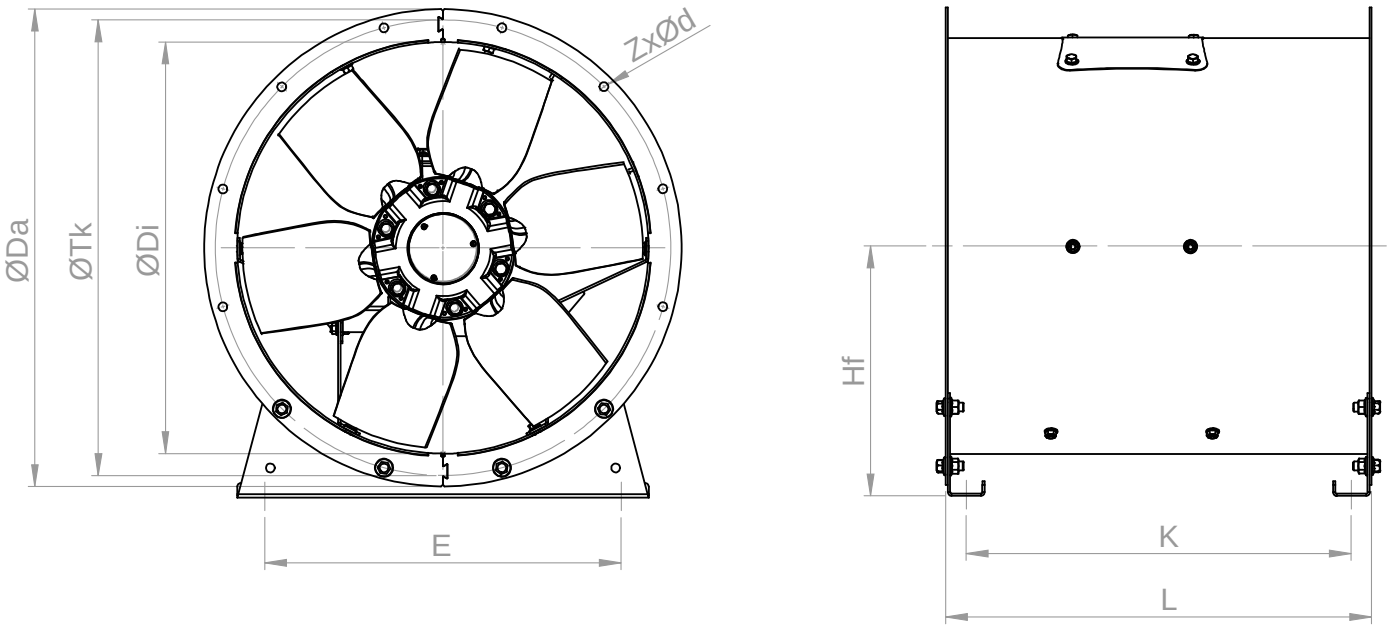
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

04 / DIMENSIONAL DATA

Plan the duct connections.

SERIES DRAWING / 355-1250

All lengths in mm / Z: hole count



Size	Da	Tk	Di	E	Z	d	Hf	K	L
355	430	400	355	310	8	12	232	380	434
400	480	450	400	335	8	12	255	420	474
450	530	500	450	385	8	12	280	420	474
500	590	560	500	425	12	12	310	524	580
560	650	620	560	485	12	12	340	524	580
630	720	690	630	555	12	12	375	544	600
710	800	770	710	595	16	12	420	544	600
800	890	860	800	625	16	12	470	634	700
900	1005	970	900	675	16	15	527	697	775
1000	1105	1070	1000	775	16	15	577	772	850
1250	1390	1320	1250	950	20	15	720	861	949

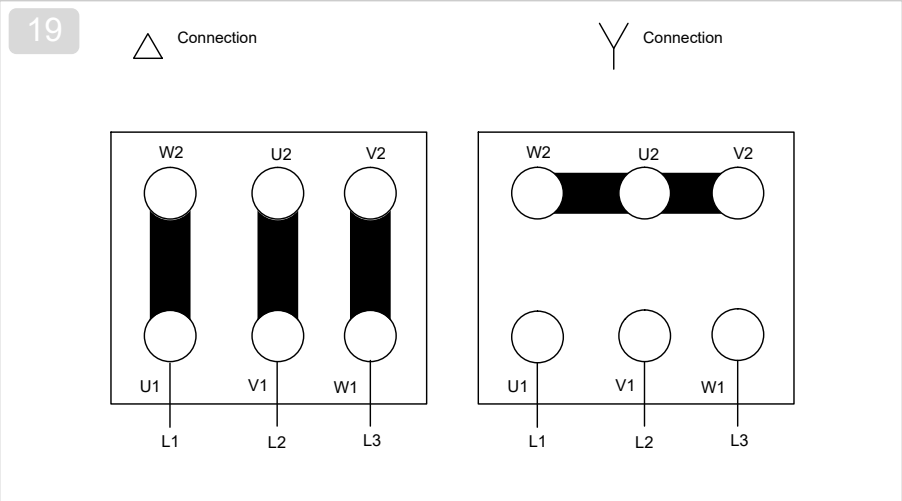
Product vector drawing. Z is the number of flange holes. Other labels retain their definitions and geometry. Dimensions are common to the supplied configurations at each diameter. Confirm mounting orientation and supports for the supplied unit.

05 / ELECTRICAL & INSTALLATION

Connect the selected motor.

Single-speed connection diagram 19. Star or delta connection must match the actual motor nameplate and supplied documentation; 400 V supply alone does not determine the correct connection. This generic diagram does not describe a two-speed motor.

THREE PHASE / SINGLE-SPEED DIAGRAM 19



DUTY-BASED SELECTION

Enter the required airflow and pressure in FSP. The programme selects a suitable blade angle and a listed motor using the listed absorbed-power curve and product-specific motor reserve. Final motor power, current and wiring must follow the selected and supplied configuration.

TWO-SPEED CONFIGURATIONS

Listed 2-4P and 4-8P entries include separate motor-speed designations. Only the listed high-speed performance curves are supplied here. Low-speed curves and a verified two-speed connection diagram are unavailable; use the supplied motor documentation.

Provide suitable supports and clear inlet/discharge paths. Isolate supply before maintenance. Keep the impeller, access cover and flange connections accessible. Smoke duty requires verification of the supplied unit certification.

01 / PRODUCT OVERVIEW

VAB

Wall Mounted Greenhouse Fan



01 Wall-mounted construction

Square galvanized sheet-metal housing with an aluminium impeller. Wall mounting preserves floor space in the greenhouse.

02 Shutters and protection

The approved product photo shows the shuttered configuration. Keep the shutters and protective grille clear for unobstructed airflow.

03 Three-phase motor

380 V / 50 Hz, Class F and IP55. The series data list TEFC enclosure, continuous S1 duty and an IE2-IE3 efficiency range.

SELECTION & PERFORMANCE

Match the fan to the greenhouse.

Four models provide catalogue airflow ratings from 7 000 to 44 500 m^3/h. Compare each model curve with the required operating point and allow adequate replacement air. Nominal motor power and reference speed are catalogue ratings; duty power and speed curves are unavailable.

Selection parameter	Catalogue basis
Housing face / depth	600-1400 mm / 400 mm
Nominal motor power	0.25-1.10 kW
Electrical supply	380 V / 3 phase / 50 Hz
Motor insulation / protection	Class F / IP55 / catalogue IE2-IE3
Working temperature / duty	-20 to +50 °C / S1

Voltvent VAB series data are listed in FSP. Product photograph illustrates the listed model.

02 / TECHNICAL DATA

Compare the four models.

4 MODELS / 50 Hz / THREE PHASE

Model	Motor kW	Catalogue airflow m^3/h	Reference speed rpm	Supply V / phase	Catalogue sound* dB(A)
VAB 60	0.25	7 000	1400	380 / 3	50
VAB 80	0.37	9 500	1400	380 / 3	55
VAB 100	0.37	22 500	1400	380 / 3	63
VAB 140	1.10	44 500	1400	380 / 3	65

All models: 50 Hz, Class F, IP55, TEFC and continuous S1 duty; operating range -20 to +50 °C. The catalogue gives IE2-IE3 as a range; confirm the actual supplied motor efficiency class. Airflow values are catalogue endpoints, not selected duty points.

SOUND DATA

*Sound levels are retained as catalogue values only. Sound power/pressure classification, measurement distance and octave-band spectra are unspecified; do not compare these values as a classified acoustic rating.

MODEL & DIMENSION BASIS

VAB 60, 80, 100 and 140 identify the catalogue housing size codes. Full A/B/C cabinet dimensions are on p. 163.

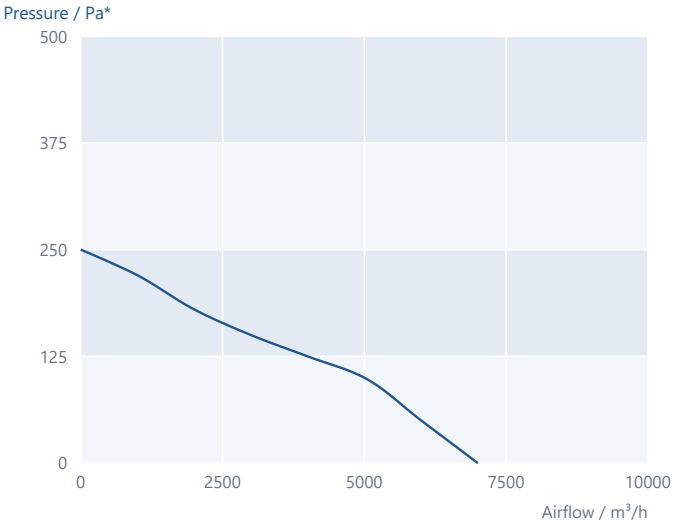
Motor current, unit weight and duty power/speed curves were not supplied.

03 / AIR PERFORMANCE / 01

Fan Performance Curves

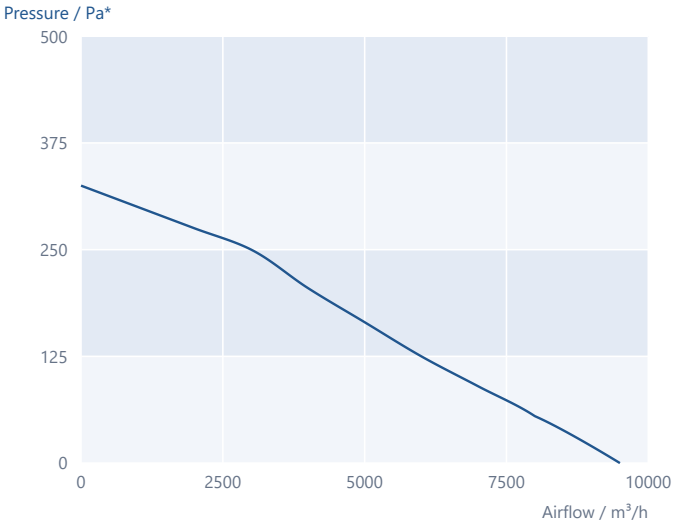
VAB 60

0.25 kW / 380 V / reference 1400 rpm



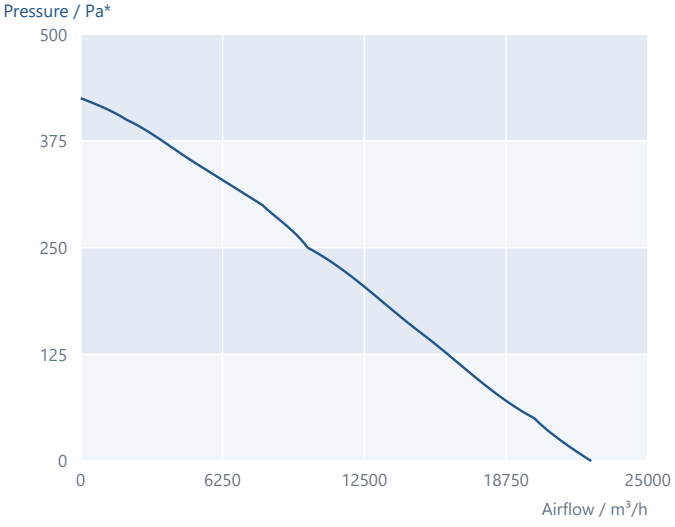
VAB 80

0.37 kW / 380 V / reference 1400 rpm



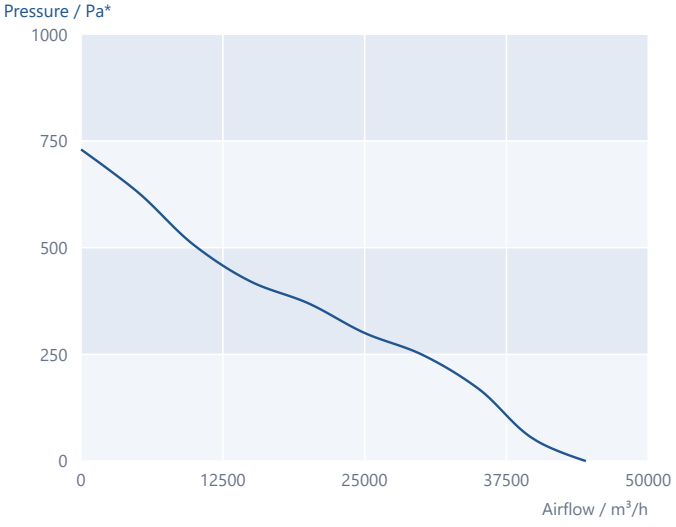
VAB 100

0.37 kW / 380 V / reference 1400 rpm



VAB 140

1.10 kW / 380 V / reference 1400 rpm



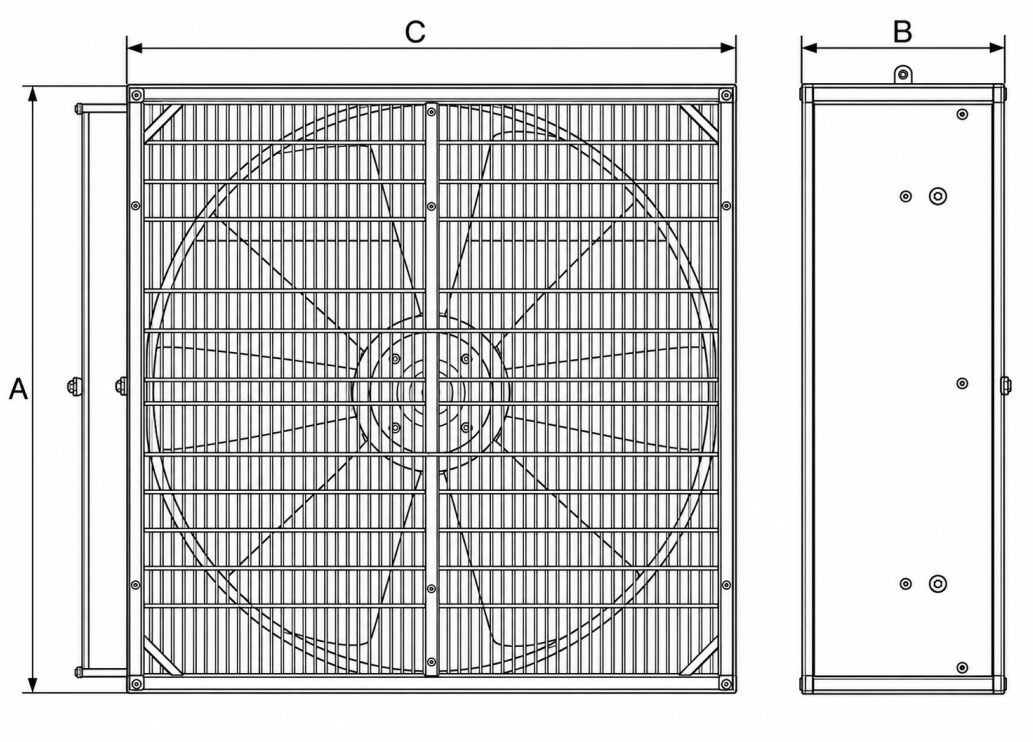
*Pressure unit is not printed in the data; interpreted as Pa. Static/total pressure type is unspecified. Curves reproduce the listed vector paths using calibrated airflow ticks; no extrapolation.

04 / DIMENSIONAL DATA

Plan the wall opening.

SERIES DRAWING / VAB 60-140

All dimensions in mm



Model	A	B	C
VAB 60	600	400	600
VAB 80	800	400	800
VAB 100	1000	400	1000
VAB 140	1400	400	1400

A: housing height. B: housing depth. C: housing width. Dimension values
are listed by model. Confirm installation clearances and the supplied unit before preparing the wall opening.

05 / INSTALLATION & MOTOR

Prepare the installation.

01 Mounting and airflow

Mount securely in a suitable wall opening and provide adequate replacement air. Leave clear inlet and discharge paths and clearance for the shutters to move.

02 Motor configuration

Three-phase 380 V / 50 Hz, Class F, IP55, TEFC and continuous S1 duty. Catalogue reference speed is 1400 rpm; the IE2-IE3 range does not specify an individual motor class.

03 Electrical connection

A verified model-specific electrical diagram was not supplied. Follow the actual motor nameplate and the connection documentation supplied with the unit.

04 Access and maintenance

Isolate electrical power before maintenance. Clean the impeller, grille and shutters, check free shutter movement, and inspect mounting fasteners and connections.

OPERATING & PERFORMANCE BASIS

Operating range: -20 to +50 °C. Catalogue curves do not specify static or total pressure. Duty power, current, speed, efficiency and acoustic spectra are not supplied.



03

RADIAL FANS

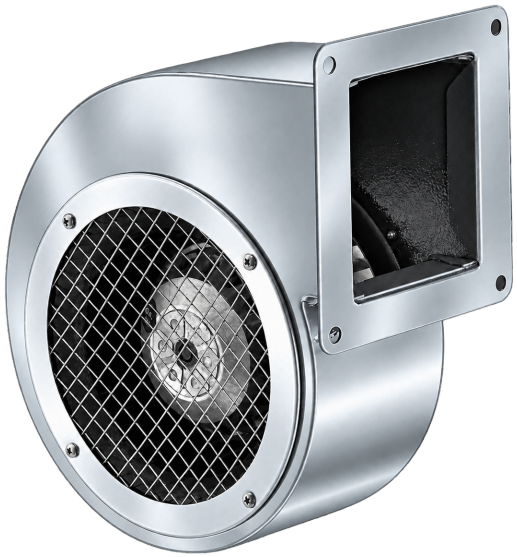
SERIES DIRECTORY

VPS	166	**VBD**	203
VRS	172	**VHPF**	211
VOBR	179	**VMPF**	218
VDC	188	**VLPF**	225
VFD	195		

01 / PRODUCT OVERVIEW

VPS

Single Inlet Centrifugal Blower



01 Single-inlet centrifugal design

A galvanized steel, forward-curved impeller operates inside a compact sheet-metal scroll casing. An inlet wire guard protects the opening.

02 Rectangular discharge flange

The discharge flange connects to equipment or ductwork. Use the model-specific opening and mounting dimensions to plan the connection.

03 Ventilation and combustion air

For fresh-air supply, equipment ventilation and combustion-air applications. Four single-phase models cover the supplied 50 Hz range.

SELECTION & PERFORMANCE

Choose the airflow and pressure.

Select each model using its individual static-pressure curve. Nominal input power, speed, current and airflow are ratings; operating values vary with duty. Compatible voltage regulation is available for speed control; the catalogue curves represent the supplied fixed-speed 50 Hz data.

Selection parameter	Technical overview
Nominal airflow range	250-600 m^3/h
Nominal input power	80-200 W
Electrical supply	230 V / 1 phase / 50 Hz / 2 poles
Motor insulation / protection	Class B / IP44 / TEAO / IE1
Operating / transported-air limit	-20 to +40 °C / max. +40 °C

Performance data. Observe the motor nameplate and supplied connection diagram.

02 / TECHNICAL DATA

Compare the four models.

NOMINAL RATINGS / 230 V / 1 PHASE / 50 Hz

Model	Input W	Airflow m^3/h	Speed rpm	Current A	Weight kg
VPS 120-60	85	275	2250	0.38	2.5
VPS 125-50	80	250	2450	0.35	2.3
VPS 140-60	138	485	2300	0.61	3.2
VPS 160-60	200	600	2250	0.88	4.3

Airflow is the nominal maximum, not a selected duty point. Input power, current and speed are nominal ratings; do not substitute them for operating values from the selection software at the selected duty.

CONNECTIONS & ACOUSTIC REFERENCES

Model	Discharge opening H x E / mm	Sound pressure dB(A) / 3 m	Capacitor µF / V
VPS 120-60	81 x 68.5	46	2.5 / 400
VPS 125-50	66 x 62	42	2.5 / 400
VPS 140-60	83.5 x 91.5	48	4 / 400
VPS 160-60	84 x 92.5	52	6 / 400

Sound pressure is a selection data at 3 m. Sound power and octave-band spectra were not supplied. All models use two-pole AC motors, Class B insulation, IP44 protection, TEAO cooling, IE1 efficiency and S1 continuous duty.

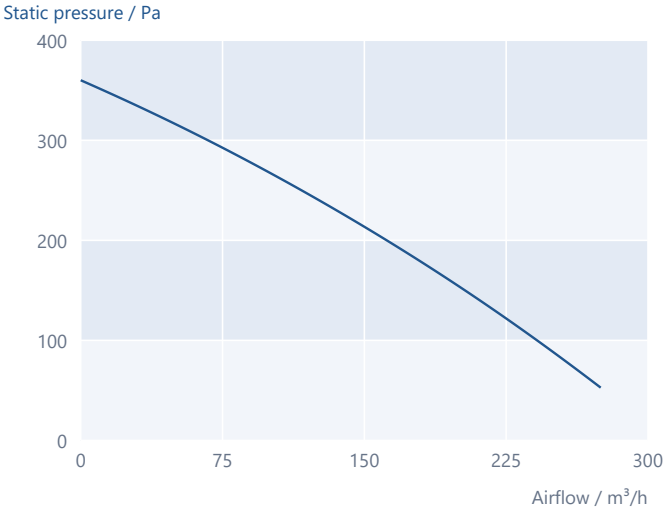
Maximum transported-air temperature: +40 °C. Operating range: -20 to +40 °C. Capacitor voltage is the component rating; supply voltage remains 230 V.

03 / AIR PERFORMANCE

Fan Performance Curves

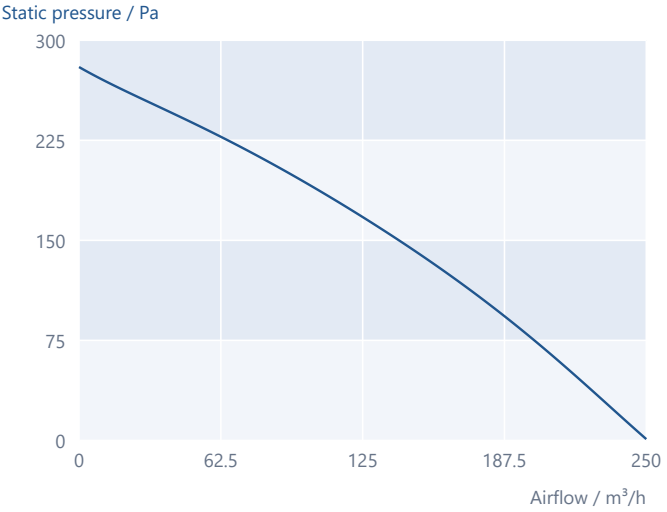
VPS 120-60

230 V / 1 phase / 50 Hz / 85 W nominal



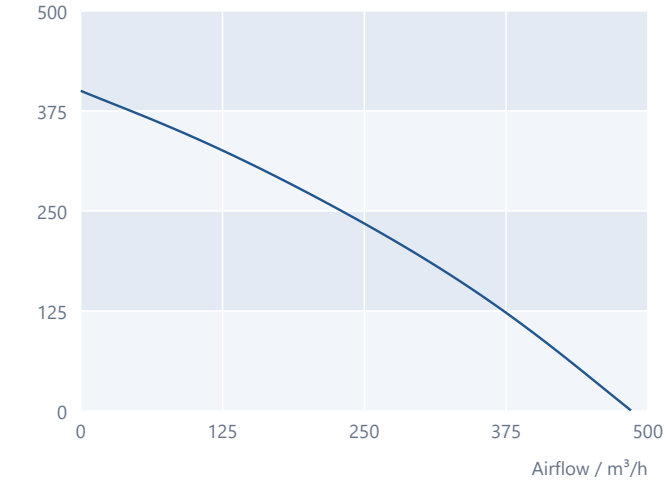
VPS 125-50

230 V / 1 phase / 50 Hz / 80 W nominal



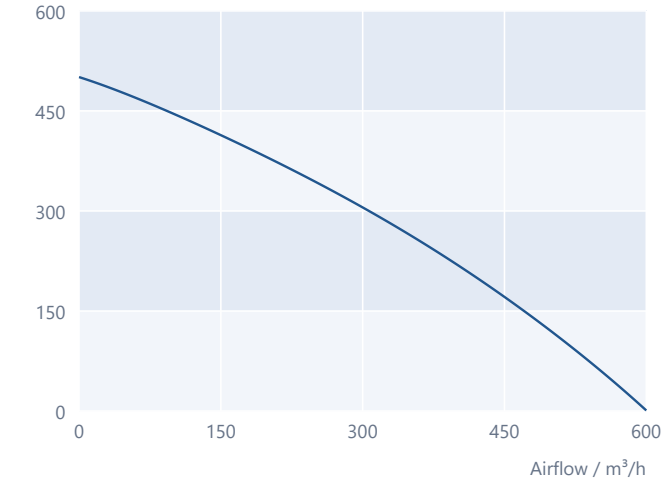
VPS 140-60

230 V / 1 phase / 50 Hz / 138 W nominal



VPS 160-60

230 V / 1 phase / 50 Hz / 200 W nominal



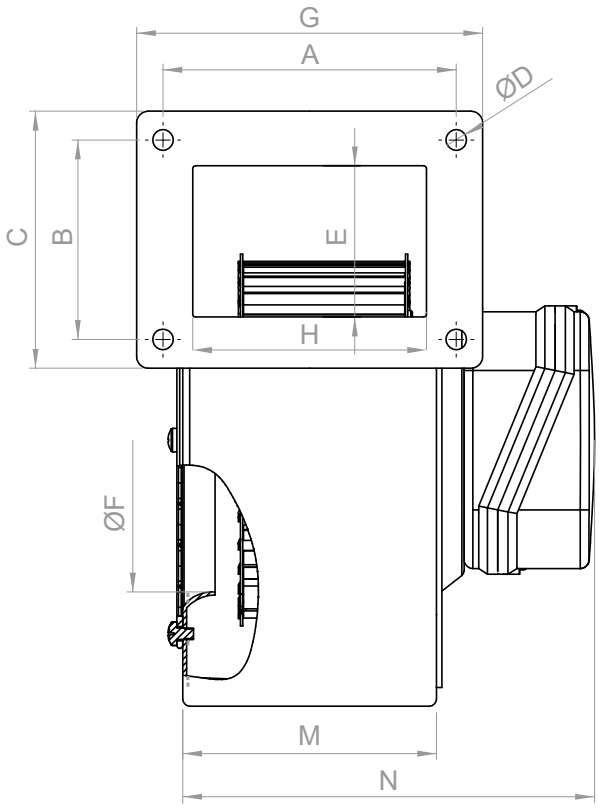
Model-specific scales. Listed reference curves are plotted only within their supplied airflow domains, with no extrapolation. VPS 120-60 ends at 275 m³/h with approximately 53 Pa; the curve differs from its nominal pressure rating.

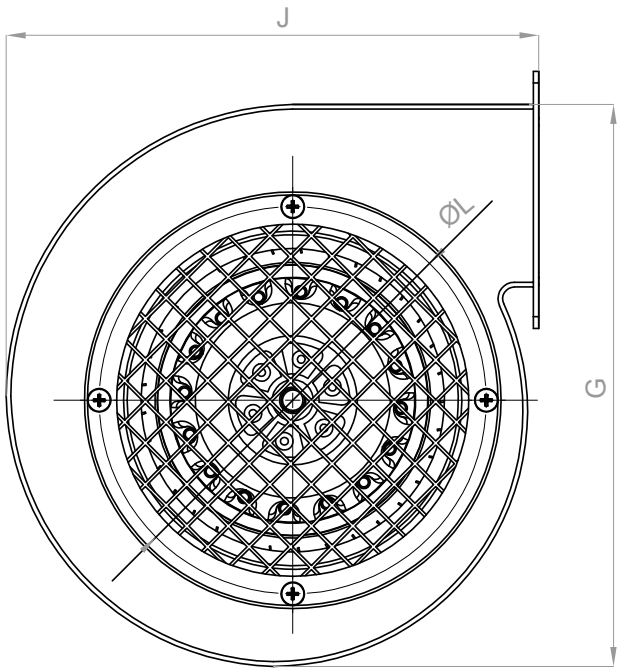
04 / DIMENSIONAL DATA

Plan the discharge connection.

ORIGINAL SERIES DRAWING / A-H, J, L-N

All dimensions in mm





Model	A	B	C	D	E	F	G	H	J	L	M	N
VPS 120-60	98.5	68.5	100	5	68.5	97.5	115.5	81	173	133	86	145
VPS 125-50	77	72	88	5	62	98	86	66	170	128	68	142
VPS 140-60	112	112	129.3	5	91.5	112	129	83.5	206	151	91	148
VPS 160-60	112	112	129.3	5	92.5	130	129	84	270	165	93	152

Product vector drawing. H x E defines the rectangular discharge opening. Dimension K is absent from the supplied drawing and its declared label list; no K dimension is added. Values follow the current FSP records.

05 / INSTALLATION & MOTOR

Prepare the installation.

01 Mounting and airflow

Use the model-specific flange and mounting dimensions. Secure the assembly to a rigid support, keep the inlet guard and outlet clear and allow access for cleaning.

02 Electrical configuration

All supplied models use 230 V single-phase, 50 Hz AC motors with two poles. Match the capacitor to the model: 2.5, 4 or 6 microfarads, rated 400 V.

03 Speed control and duty

Compatible linear voltage regulation can be used for speed control. Confirm controller suitability for the motor. Class B, IP44, TEAO, IE1 and S1 continuous duty follow the FSP records.

04 Inspection and servicing

Isolate the supply before servicing. Clean the impeller and inlet guard, inspect the casing and flange fixings, and keep motor cooling paths clear.

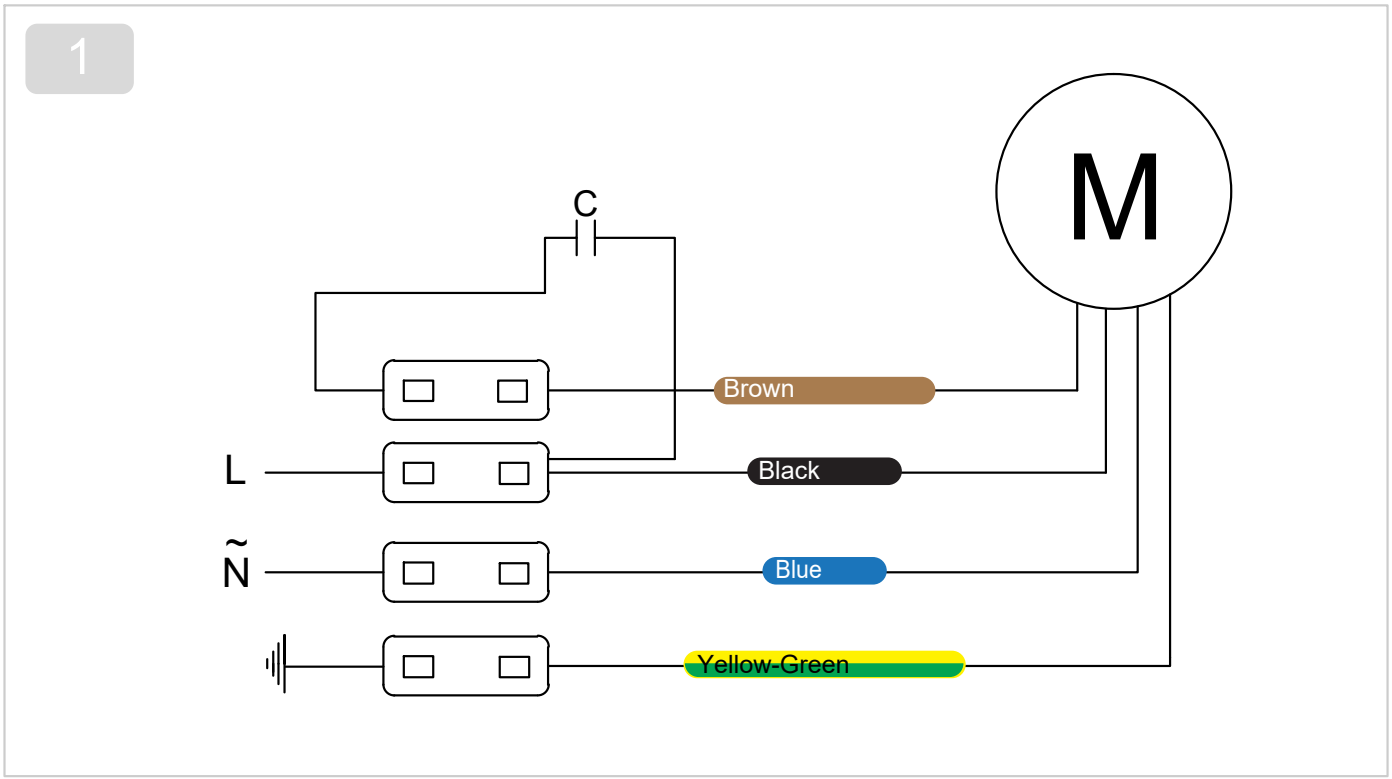
OPERATING LIMITS

Maximum transported-air temperature is +40 °C. Operating range is -20 to +40 °C. Use the actual motor nameplate and the connection diagram on the next page for the supplied unit.

06 / ELECTRICAL CONNECTION

Single-phase connection.

LAYOUT 01 / 230 V / 50 Hz



CONNECTION KEY

Marking	Function
L / N	Line / neutral
Earth symbol	Protective earth / yellow-green
C	Motor capacitor / see model table
M	Motor

Listed conductor colours and connection topology are preserved. Labels are translated into English. Confirm the actual unit nameplate and supplied terminal diagram before connection; electrical work must be performed by qualified personnel.

01 / PRODUCT OVERVIEW

VRS

Aluminium Centrifugal Blower



01 Single-inlet centrifugal design

A forward-curved centrifugal impeller operates inside a rigid cast-aluminium scroll casing. The standard fan is shown with its protective inlet guard, without the optional boiler accessories.

02 Rectangular discharge flange

The rectangular flange connects to equipment or ductwork. Check the drawing dimensions when designing the connection; nominal listed profiles may differ.

03 Ventilation and combustion air

For local cooling, heating systems and combustion-air supply. Optional configurations for solid-fuel and pellet boilers are shown on p. 173.

SELECTION & PERFORMANCE

Choose the airflow and pressure.

Select each model using its individual static-pressure curve. Nominal input power, speed, current and airflow are ratings; operating values vary with duty. Compatible voltage regulation is available for speed control; the catalogue curves represent the supplied fixed-speed 50 Hz data.

Selection parameter	Technical overview
Nominal airflow range	290-600 m^3/h
Nominal input power	85-200 W
Electrical supply	230 V / 1 phase / 50 Hz / 2 poles
Motor insulation / protection	Class B / IP44 / TEAO / IE1
Operating / transported-air limit	-20 to +40 °C / max. +40 °C

Performance data. Observe the motor nameplate and supplied connection diagram.

02 / BOILER ACCESSORIES

Configured for boiler air supply.

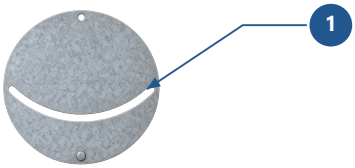
VRS can be supplied with optional accessories for solid-fuel and pellet boilers.

STANDARD FAN



BOILER ACCESSORY CONFIGURATION





1 Manual inlet regulator

Sheet-metal plate for manual adjustment of the inlet opening. Optional mounting orientation can be selected to suit the installation.



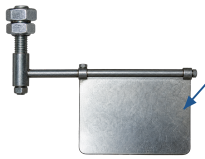
2 Power cable assembly

A pre-assembled cable can be supplied with the accessory configuration. Cable length and connector specification are selected for the equipment.



3 Flange gasket

Placed between the discharge flange and the mating equipment to help protect the contact surfaces during mounting.



4 Air-operated discharge flap

Opens under airflow while the fan is running and closes when airflow stops. Available as an optional accessory.

Optional accessories are specified for the selected model and boiler connection. Illustrations show configuration examples. For combustion-air supply; maximum transported-air temperature +40 °C.

03 / TECHNICAL DATA

Compare the three models.

NOMINAL RATINGS / 230 V / 1 PHASE / 50 Hz

Model	Input W	Airflow m^3/h	Speed rpm	Current A	Weight kg
VRS 120-60	85	290	2400	0.38	2.8
VRS 140-60	138	485	2300	0.61	3.4
VRS 160-60	200	600	2250	0.88	4.3

Airflow is the nominal maximum, not a selected duty point. Input power, current and speed are nominal ratings; operating values vary with duty. The VRS 120-60 nominal airflow is 290 m^3/h; its curve ends at 289.68 m^3/h.

CONNECTIONS & ACOUSTIC REFERENCES

Model	Nominal discharge profile / mm	Drawing opening H x E / mm	Sound pressure dB(A) / 3 m	Capacitor µF / V
VRS 120-60	80 x 49	75.5 x 50	45	2.5 / 400
VRS 140-60	79 x 78	79.5 x 79	47	4 / 400
VRS 160-60	93.5 x 90	93.5 x 90	50	6 / 400

Nominal profile and drawing opening are separate selection datas. They differ for VRS 120-60 and 140-60; confirm the actual flange before making a mating connection. Sound pressure is a selection data at 3 m; sound power and octave-band spectra were not supplied.

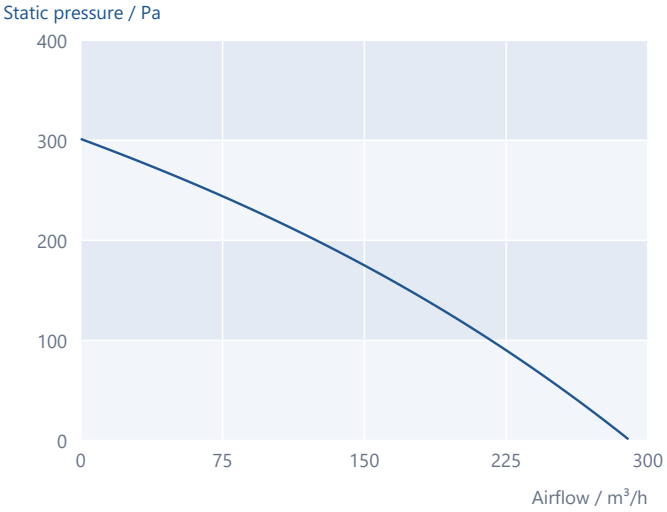
All models: two poles / Class B / IP44 / TEAO / IE1 / S1. Maximum transported-air temperature: +40 °C. Operating range: -20 to +40 °C. Capacitor voltage is the component rating; supply remains 230 V.

04 / AIR PERFORMANCE

Fan Performance Curves

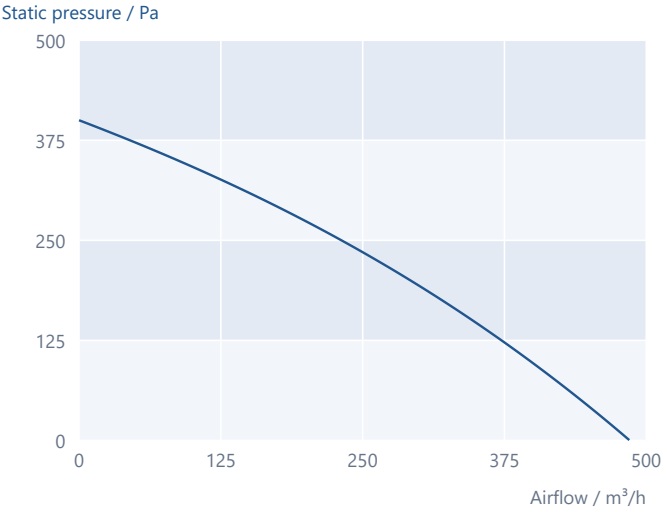
VRS 120-60

230 V / 1 phase / 50 Hz / 85 W nominal



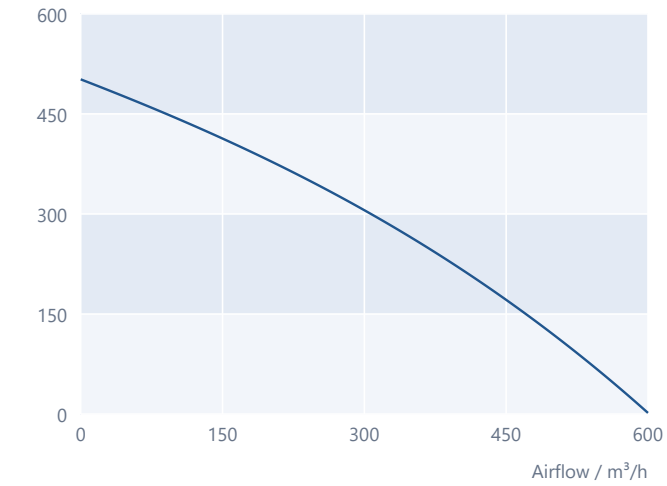
VRS 140-60

230 V / 1 phase / 50 Hz / 138 W nominal



VRS 160-60

230 V / 1 phase / 50 Hz / 200 W nominal



READING THE CURVES

Select the duty point.

Locate the required airflow and static pressure on the model curve. Verify the operating motor values in the selection software and allow for losses in the connected system.

Supply: 230 V / 1 phase / 50 Hz. Curves remain inside their supplied airflow domains.

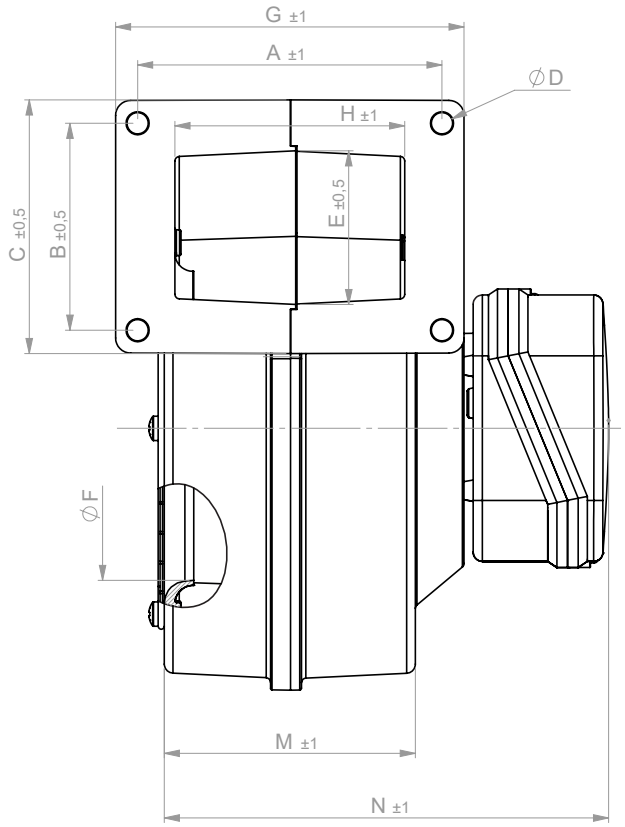
Model-specific scales. Listed static-pressure curves follow the data within their supplied airflow domains, with no extrapolation or rescaling. Nominal table ratings and selected operating values are distinct.

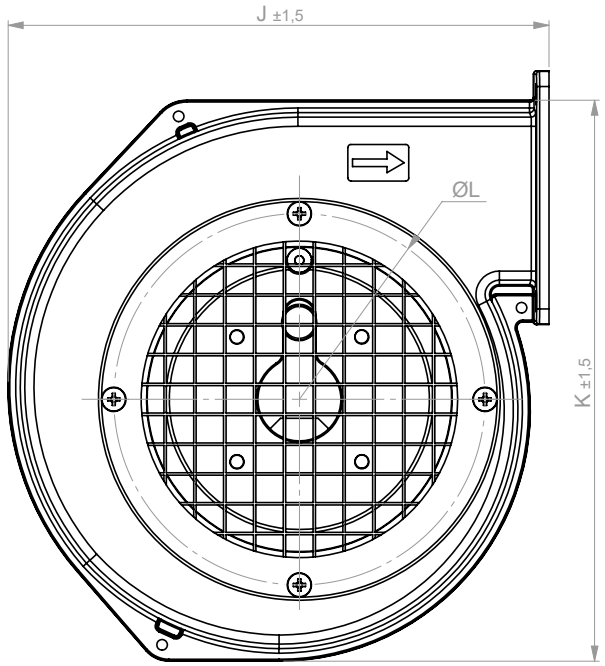
05 / DIMENSIONAL DATA

Plan the discharge connection.

ORIGINAL SERIES DRAWING / A-H, J-N

All dimensions in mm





Model	A	B	C	D	E	F	G	H	J	K	L	M	N
VRS 120-60	99.5	68	83.5	7	50	101	115	75.5	178	184	122	82.5	146
VRS 140-60	123	84	122	7	79	110	154	79.5	203	223	150	86	138
VRS 160-60	114	104	123	7	90	117.5	130	93.5	229	256	164	100.5	142

Product vector drawing; listed tolerances and labels are preserved. H x E defines the drawing opening and may differ from the nominal discharge profile. Confirm the actual unit flange before installation. All dimensions follow current FSP records.

06 / INSTALLATION & MOTOR

Prepare the installation.

01 Mounting and airflow

Use the model-specific drawing dimensions. Confirm the actual rectangular flange where nominal profile and H x E differ. Secure the cast-aluminium housing to a rigid support and keep airflow paths clear. Specify optional boiler accessories with the order.

02 Electrical configuration

All three models use 230 V single-phase, 50 Hz AC motors with two poles. Match the capacitor to the model: 2.5, 4 or 6 microfarads, rated 400 V.

03 Speed control and duty

Compatible linear voltage regulation can be used for speed control. Confirm controller suitability for the motor. Motor data: Class B, IP44, TEAO and IE1. Continuous duty is S1.

04 Inspection and servicing

Isolate the supply before servicing. Clean the impeller and inlet guard, inspect the casing and flange fixings, and keep motor cooling paths clear.

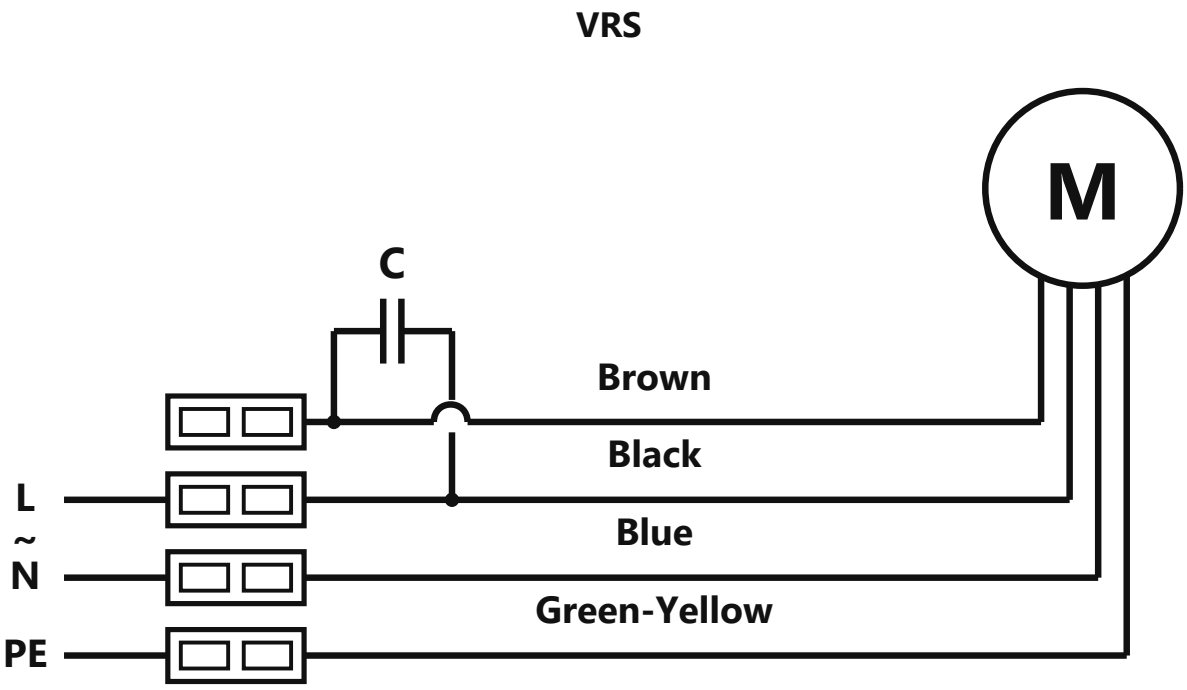
OPERATING LIMITS

Maximum transported-air temperature is +40 °C. Operating range is -20 to +40 °C. Use the actual motor nameplate and the connection diagram on the next page for the supplied unit.

07 / ELECTRICAL CONNECTION

Single-phase connection.

VRS / 230 V / 50 Hz - SUPPLIED WIRING DIAGRAM



CONNECTION KEY

Marking	Function
L / N	Line / neutral
PE	Protective earth / green-yellow
C	Motor capacitor / see model table
M	Motor

Conductor colours and connection topology follow the user-supplied VRS drawing. Labels are in English. Confirm the actual unit nameplate and supplied terminal diagram before connection; electrical work must be performed by qualified personnel.

01 / PRODUCT OVERVIEW

VOBR

Single Inlet Centrifugal Blower



01 Single-inlet scroll casing

Powder-coated sheet-metal construction with a rectangular discharge flange. The product photograph illustrates a protective inlet grille.

02 Two impeller configurations

Forward-curved galvanized-steel impellers serve the standard models. VOBR 200M-2P* is the separate radial-blade listed variant.

03 Motor outside the airstream

For industrial machinery, local ventilation, workshops, warehouses and greenhouses. Match the motor supply and flange dimensions to the selected model.

SELECTION & PERFORMANCE

Select the model at your duty point.

Use the individual static-pressure curves to match airflow and system resistance. Nominal power, speed, current and airflow are ratings; operating values vary with duty. The curves represent the supplied 50 Hz condition.

Selection parameter	Technical overview
Nominal airflow range	550-2700 m^3/h
Nominal input power	130-1500 W
Electrical supply	230 V / 1 phase or 400 V / 3 phase / 50 Hz
Motor configurations	2 or 4 poles / size-specific motor protection
Motor operating range	-20 to +40 °C
Maximum transported-air temperature	+120 °C

Performance data. Motor ambient limits and transported-air temperature are separate ratings.

02 / TECHNICAL DATA

Compare the complete range.

NOMINAL RATINGS / 50 Hz

Model	Supply V / phase	Airflow m^3/h	Input W	Speed rpm	Current A	Weight kg	Sound pressure dB(A) / 3 m
VOBR 140M-2P	230 / 1	1100	200	2930	1.15	7.7	53
VOBR 140M-4P	230 / 1	550	150	1475	1.10	7.7	45
VOBR 200M-2P	230 / 1	1800	400	2900	2.00	9.0	55
VOBR 200M-2P*	230 / 1	1700	200	2950	1.20	9.3	55
VOBR 200T-2P	400 / 3	1800	380	2900	1.10	8.3	60
VOBR 200M-4P	230 / 1	850	150	1475	1.10	8.4	50
VOBR 200T-4P	400 / 3	850	130	1475	0.60	8.4	55
VOBR 260M-2P	230 / 1	2700	1500	2820	9.80	9.5	72
VOBR 260T-2P	400 / 3	2700	1500	2820	3.30	11.2	72
VOBR 260M-4P	230 / 1	1450	320	1350	1.50	12.8	66
VOBR 260T-4P	400 / 3	1450	300	1350	0.65	9.8	66

Airflow is the nominal maximum, not a selected duty point. Input power, current and speed are nominal ratings; operating values vary with duty. Sound pressure is a selection data at 3 m; no sound-power or octave-band data are supplied.

SIZE-SPECIFIC MOTOR DATA

Casing sizes	Insulation	Protection	Cooling	Efficiency
140 / 200	Class B	IP44	TEAO	IE1
260	Class F	IP55	TEFC	IE2

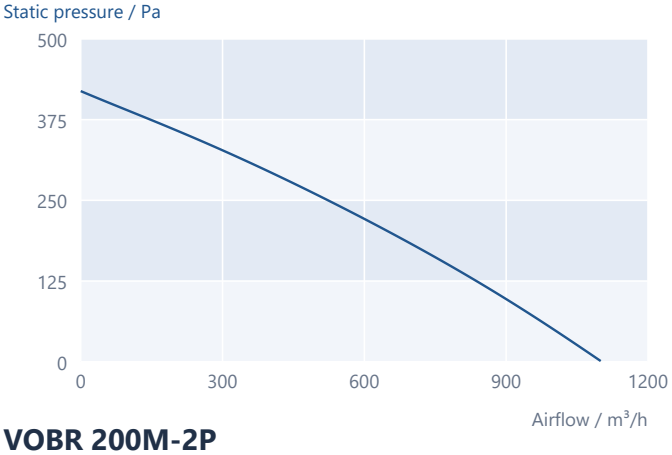
* VOBR 200M-2P* denotes the radial-blade variant. M = single phase; T = three phase. 2P / 4P = two / four poles. All models: motor operating range -20 to +40 °C; maximum transported-air temperature +120 °C.

03 / AIR PERFORMANCE / 1 OF 2

Fan Performance Curves

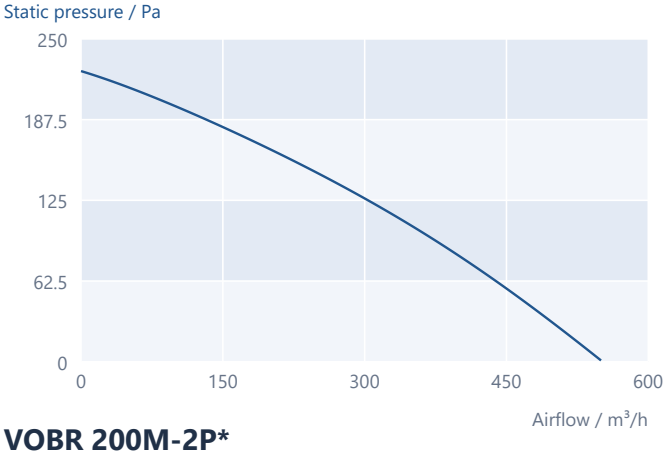
VOBR 140M-2P

230 V / 1 phase / 50 Hz / 200 W nominal



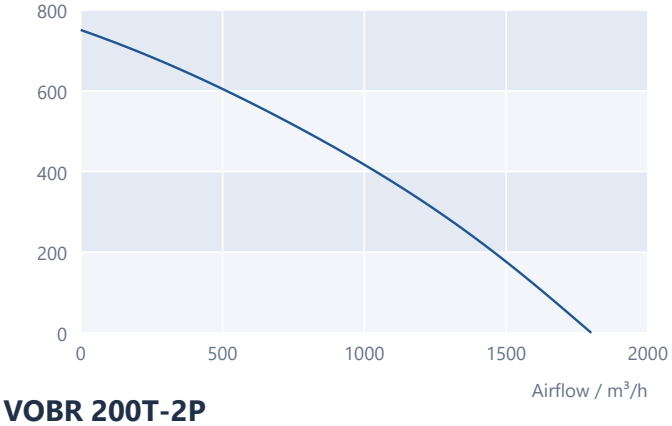
VOBR 140M-4P

230 V / 1 phase / 50 Hz / 150 W nominal



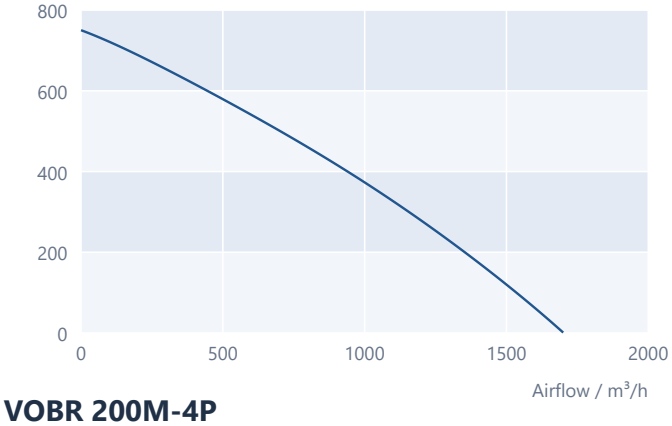
VOBR 200M-2P

230 V / 1 phase / 50 Hz / 400 W nominal



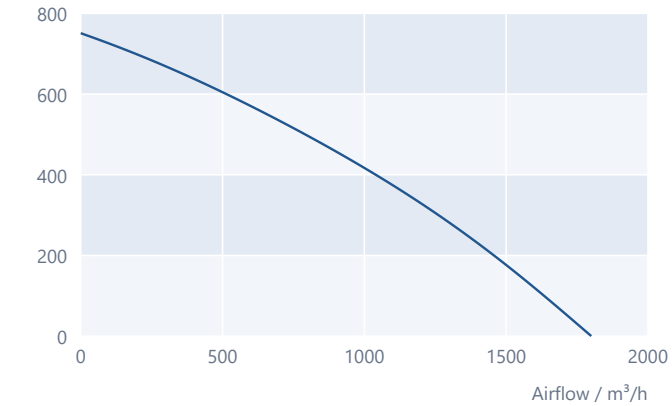
VOBR 200M-2P*

230 V / 1 phase / 50 Hz / 200 W nominal



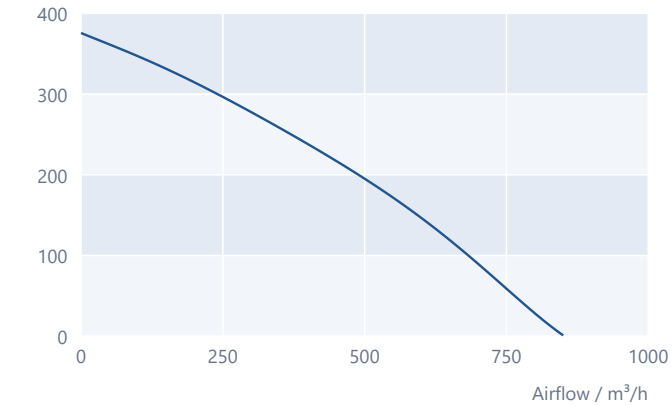
VOBR 200T-2P

400 V / 3 phase / 50 Hz / 380 W nominal



VOBR 200M-4P

230 V / 1 phase / 50 Hz / 150 W nominal



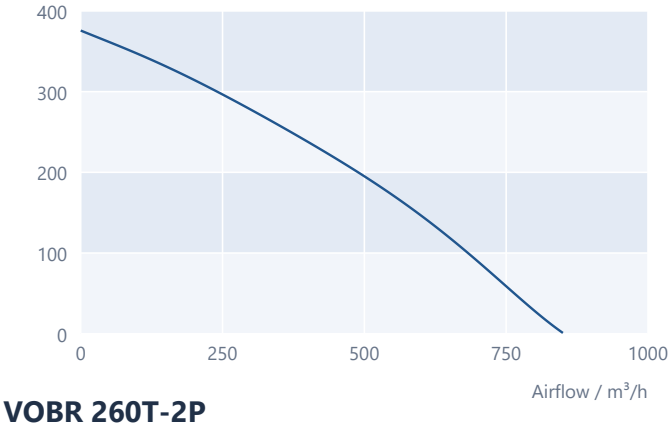
Model-specific scales. Listed static-pressure curves remain within their supplied airflow domains, without extrapolation or rescaling. Nominal table ratings and selected operating values are distinct.

03 / AIR PERFORMANCE / 2 OF 2

Fan Performance Curves

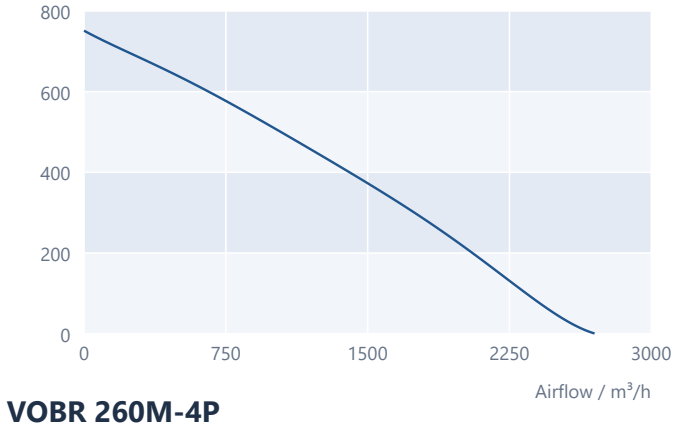
VOBR 200T-4P

400 V / 3 phase / 50 Hz / 130 W nominal



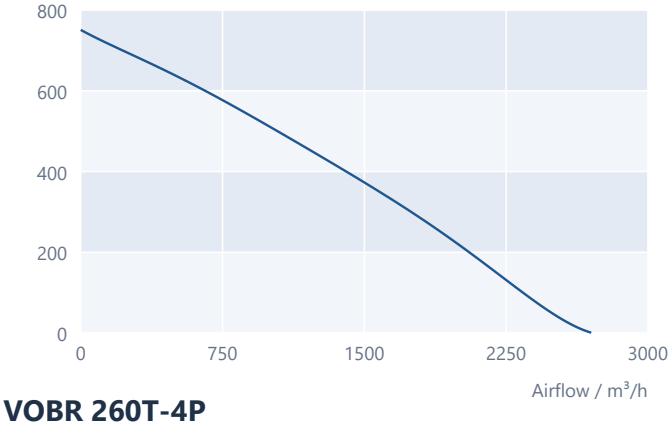
VOBR 260M-2P

230 V / 1 phase / 50 Hz / 1500 W nominal



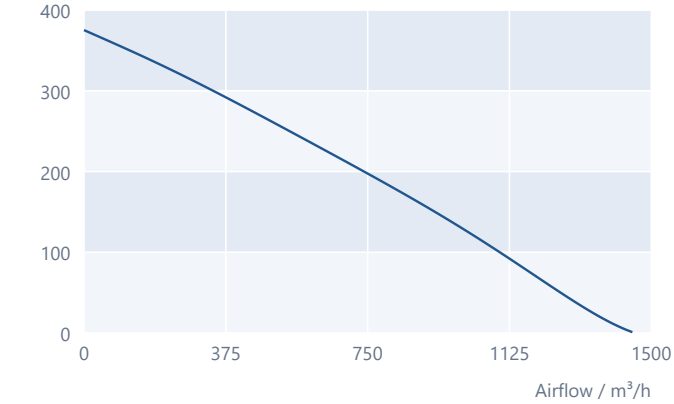
VOBR 260T-2P

400 V / 3 phase / 50 Hz / 1500 W nominal



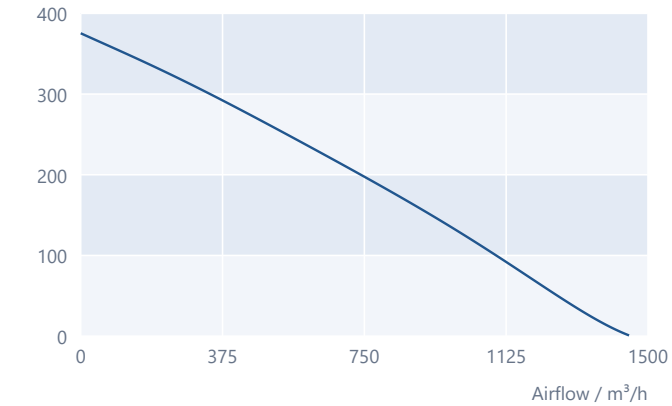
VOBR 260M-4P

230 V / 1 phase / 50 Hz / 320 W nominal



VOBR 260T-4P

400 V / 3 phase / 50 Hz / 300 W nominal



READING THE CURVES

Match airflow and pressure.

Use the scale on each model chart. Confirm the duty point and operating motor values in FSP, allowing for losses in the connected system.

The starred 200M-2P* curve belongs to the separate radial-blade configuration.

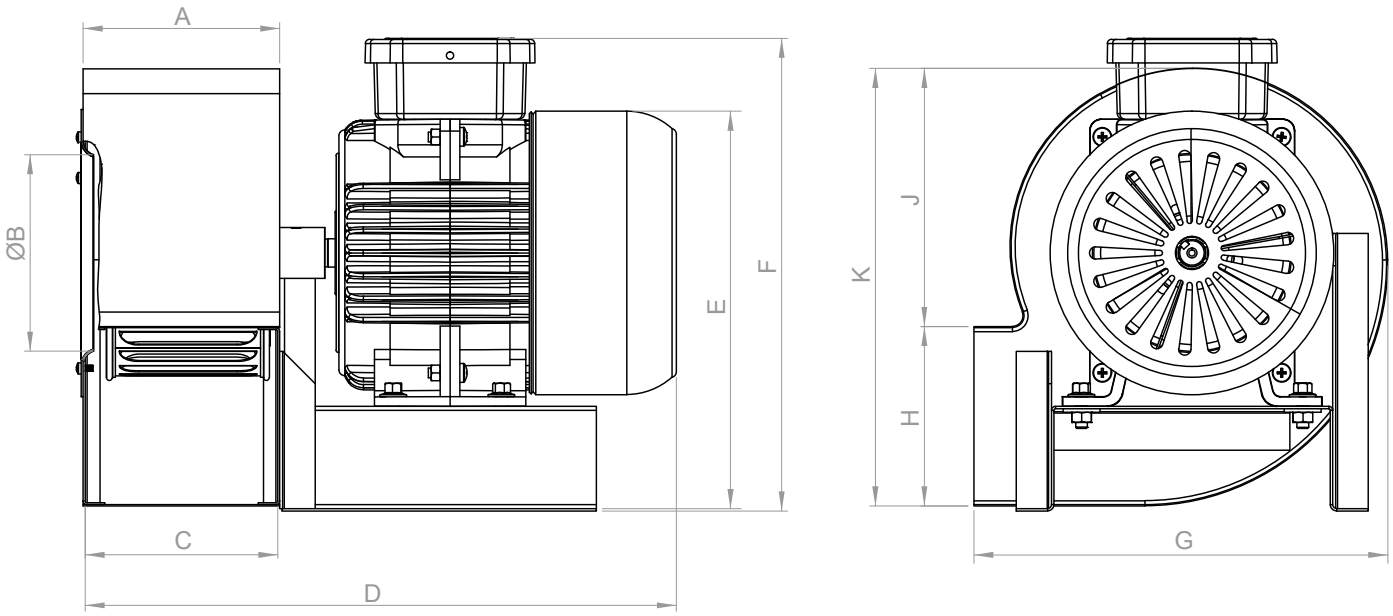
Model-specific scales. Listed static-pressure curves remain within their supplied airflow domains, without extrapolation or rescaling. Nominal table ratings and selected operating values are distinct.

04 / DIMENSIONAL DATA / 140 CASING

Plan the discharge connection.

VOBR 140 / ORIGINAL DATA DRAWING

All dimensions in mm



Casing	A	B	C	D	E	F	G	H	J	K
VOBR 140	103	106	102	294	200	240	204	91	125	216

DISCHARGE REFERENCE

102 x 91 mm

Nominal listed profile: 102 x 91 mm.
Drawing opening: C x H = 102 x 91 mm.

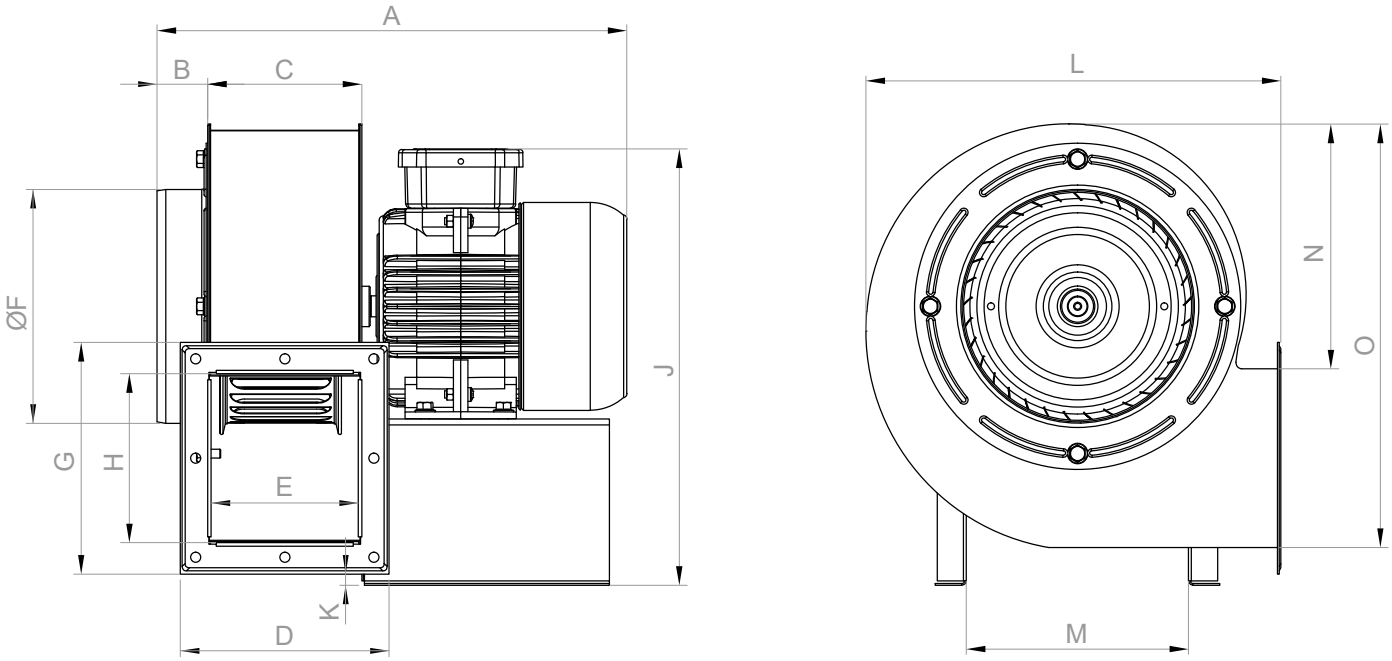
Dimensions apply to both 140 motor variants. Original vector geometry, labels and dimension values are preserved. Confirm the actual unit flange and mounting orientation before installation.

04 / DIMENSIONAL DATA / 200 CASING

Plan the discharge connection.

VOBR 200 / ORIGINAL DATA DRAWING

All dimensions in mm



Casing	A	B	C	D	E	F	G	H	J	K	L	M	N	O
VOBR 200	322	34	109	146	102	163	161	115	310	17	288	150	170	295

DISCHARGE REFERENCE

125 x 102 mm

Nominal listed profile: 125 x 102 mm.
Drawing opening: E x H = 102 x 115 mm.

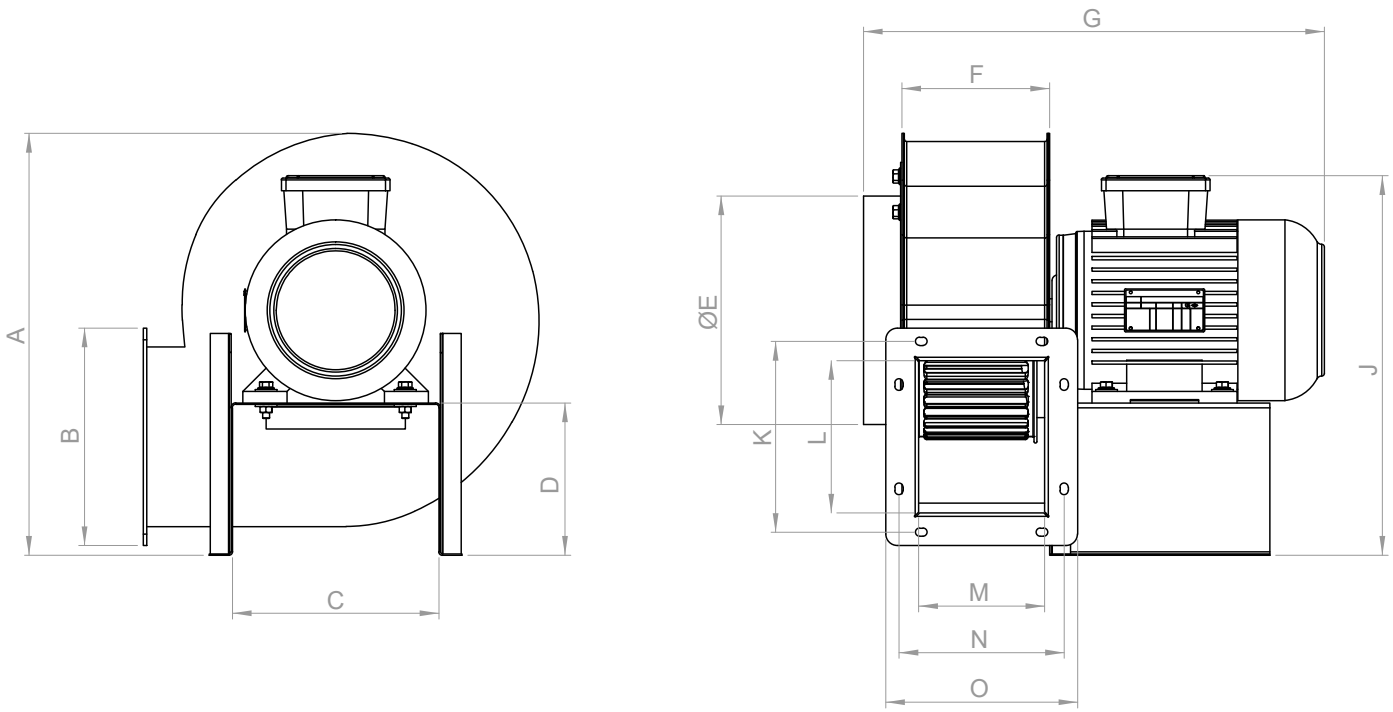
Dimensions apply to all five 200 variants. The nominal profile and drawing opening are distinct selection datas and differ for this casing. Confirm the actual flange before designing a mating connection.

04 / DIMENSIONAL DATA / 260 CASING

Plan the discharge connection.

VOBR 260 / ORIGINAL DATA DRAWING

All dimensions in mm



Casing	A	B	C	D	E	F	G	J	K	L	M	N	O
VOBR 260	361	194	155	119	197	128	405	327	162	137	115	140	163

DISCHARGE REFERENCE

137 x 115 mm

Nominal listed profile: 137 x 115 mm.
Drawing opening: M x L = 115 x 137 mm.

Dimensions apply to all four 260 variants. Drawing width M and height L describe the listed profile in the opposite order. Original vector labels are retained; no H dimension is supplied for this casing.

05 / INSTALLATION & MOTOR

Match motor and installation.

01 Mounting and airflow

Use the casing-specific drawing and confirm the actual rectangular discharge flange. Fix the blower to a rigid support, keep the inlet and discharge clear, and provide suitable guards for accessible moving parts.

02 Supply and speed control

M models use 230 V single-phase motors; T models use 400 V three-phase motors. Compatible voltage regulation can be used on the single-phase range, and compatible inverter control on the three-phase range. Confirm motor and controller suitability.

03 Temperature and motor cooling

Maximum transported-air temperature is +120 °C; motor operating range is -20 to +40 °C. The motor sits outside the airstream. Maintain motor cooling, isolate power before servicing and follow the supplied motor nameplate. Continuous duty: S1.

SINGLE-PHASE CAPACITOR RATINGS

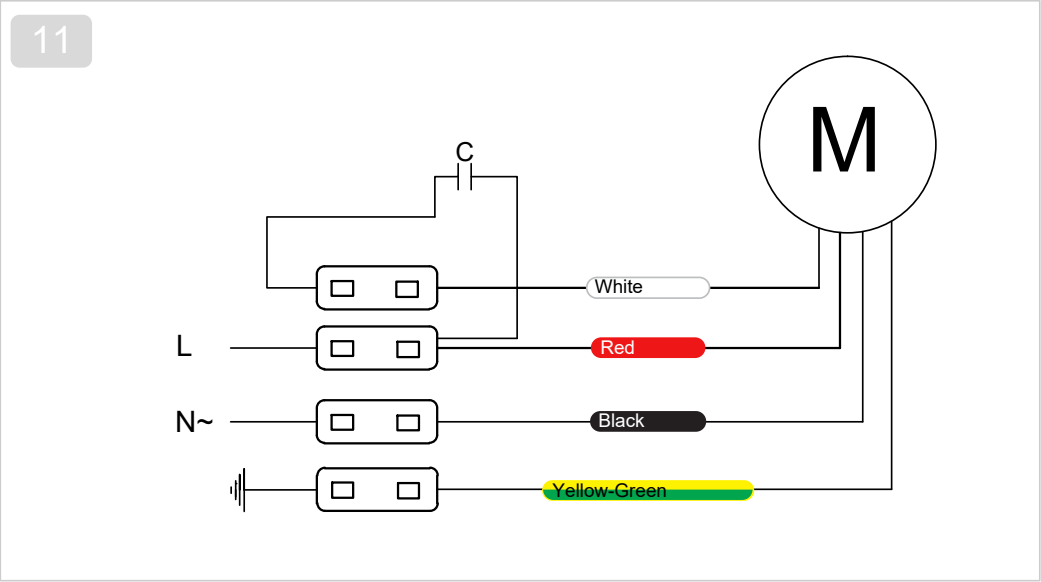
Model	Capacitance / µF	Component rating / V
VOBR 140M-2P	8	400
VOBR 140M-4P	8	400
VOBR 200M-2P	7	400
VOBR 200M-2P*	6	400
VOBR 200M-4P	6	400
VOBR 260M-2P	40	400
VOBR 260M-4P	8	400

Capacitor voltage is the component rating; the single-phase supply remains 230 V. The next page contains the two diagrams supplied for the 140 models. Diagrams for the 200 and 260 models were not supplied.

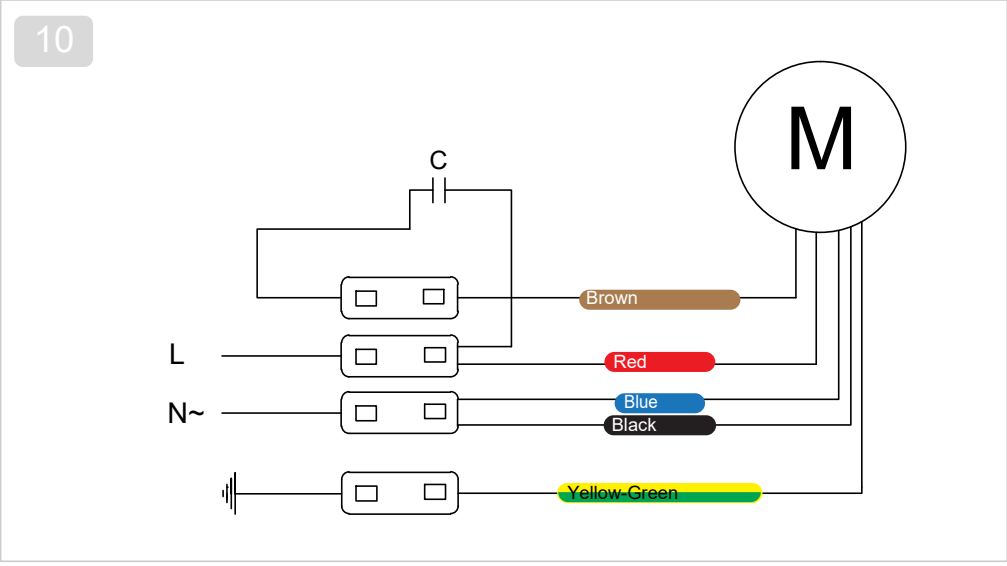
06 / ELECTRICAL CONNECTION

Single-phase connections.

VOBR 140M-2P / LAYOUT 11 / 230 V / 50 Hz



VOBR 140M-4P / LAYOUT 10 / 230 V / 50 Hz



Conductor colours and connection topology are preserved; bilingual labels are translated into English. L / N = line / neutral; C = capacitor. Confirm the actual motor nameplate and supplied terminal diagram before connection.

No listed electrical diagrams were supplied for VOBR 200 or 260. Use the diagram supplied with the selected unit. Electrical work must be performed by qualified personnel.

01 / PRODUCT OVERVIEW

VDC

Aluminium Industrial Centrifugal Fan



01 Cast-aluminium scroll housing

A single-inlet centrifugal design with a rigid cast-aluminium body, rectangular discharge flange and motor outside the transported airstream.

02 Forward-curved impeller

The galvanized-steel centrifugal impeller serves the current two-pole range. The product photograph illustrates an inlet grille and external motor.

03 Equipment and process ventilation

For machinery cooling, boiler air supply, industrial furnaces and resistance-heating equipment. Match the selected model to the stated temperature and duty limits.

SELECTION & PERFORMANCE

Match airflow, pressure and motor.

Use each model's static-pressure curve to select the duty point. Nominal motor power is distinct from absorbed operating power. Verify the selected duty and motor loading in FSP, allowing for losses in the connected system.

Selection parameter	Technical overview
Nominal airflow range	800-8400 m^3/h
Nominal motor power	0.25-5.50 kW
Electrical supply	230 V / 1 phase or 400 V / 3 phase / 50 Hz
Motor configuration	2 poles / Class F / IP55 / TEFC / IE2
Motor operating range	-20 to +40 °C
Maximum transported-air temperature	+40 °C

Performance data. Use the actual unit nameplate, dimensions and supplied terminal diagram.

02 / TECHNICAL DATA

Compare the complete range.

NOMINAL RATINGS / 50 Hz / 2 POLES

Model	Supply V / phase	Airflow m^3/h	Motor kW	Speed rpm	Current A	Weight kg	Sound pressure dB(A) / 3 m
VDC 1M 140-70	230 / 1	800	0.25	2870	1.60	9	50
VDC 1T 140-70	400 / 3	800	0.25	2840	0.67	9	50
VDC 2M 160-90	230 / 1	1700	0.37	2885	2.50	11	55
VDC 2T 160-90	400 / 3	1700	0.37	2800	1.05	11	55
VDC 3M 180-90	230 / 1	2100	0.55	2865	3.50	13	60
VDC 3T 180-90	400 / 3	2100	0.55	2780	1.27	13	60
VDC 4M 225-90	230 / 1	2600	0.75	2770	5.00	18	65
VDC 4T 225-90	400 / 3	2600	0.75	2760	1.75	18	65
VDC 4M 225-102	230 / 1	3200	1.10	2770	7.00	19	68
VDC 4T 225-102	400 / 3	3200	1.10	2770	2.30	19	68
VDC 5M 250-112	230 / 1	3700	1.50	2820	9.80	25	70
VDC 5T 250-112	400 / 3	3700	1.50	2820	3.30	25	70
VDC 6M 268-112	230 / 1	4650	2.20	2800	13.50	31	71
VDC 6T 268-112	400 / 3	4650	2.20	2800	4.50	31	71
VDC 7T 300-112	400 / 3	6200	4.00	2880	7.90	43	72
VDC 8T 315-112	400 / 3	8400	5.50	2900	10.30	48	73

Airflow is the nominal maximum, not a selected duty point. Motor power is the nominal motor rating, not absorbed duty power. Speed and current vary with operation. Sound pressure is the supplied model-specific reference at 3 m.

COMMON MOTOR DATA

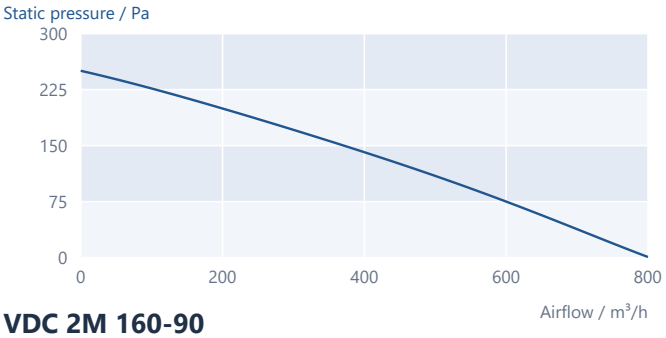
Class F / IP55 / TEFC / IE2 / two poles / S1 continuous duty. Motor operating range: -20 to +40 °C. Maximum transported-air temperature: +40 °C. M = single phase; T = three phase. Verified sound-power and octave-band data are not supplied.

03 / AIR PERFORMANCE / 1 OF 2

Fan Performance Curves

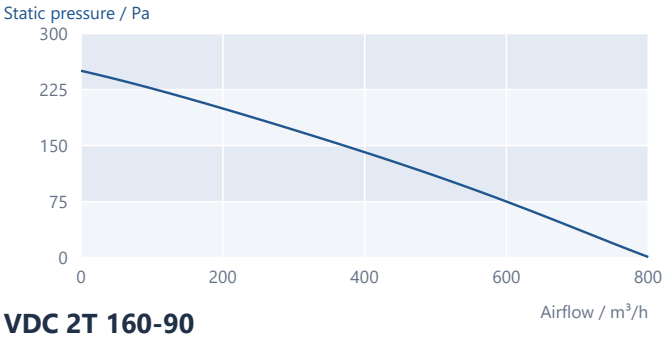
VDC 1M 140-70

230 V / 1 phase / 50 Hz / 0.25 kW motor



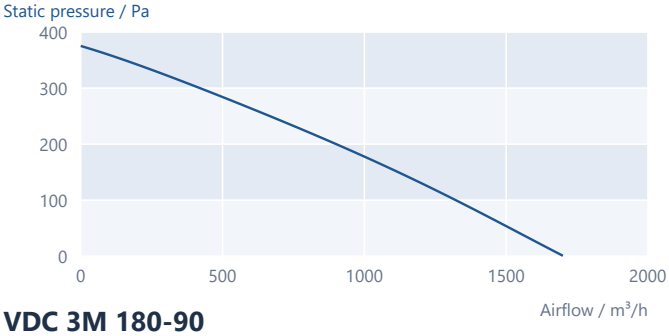
VDC 1T 140-70

400 V / 3 phase / 50 Hz / 0.25 kW motor



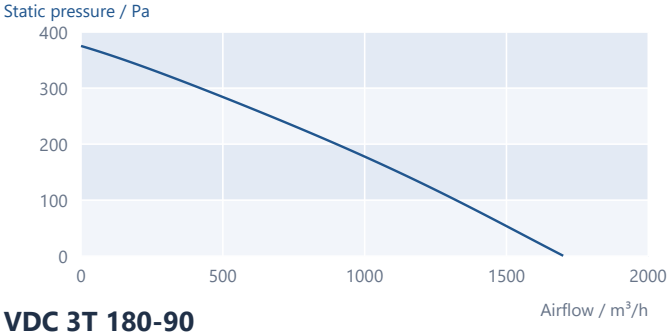
VDC 2M 160-90

230 V / 1 phase / 50 Hz / 0.37 kW motor



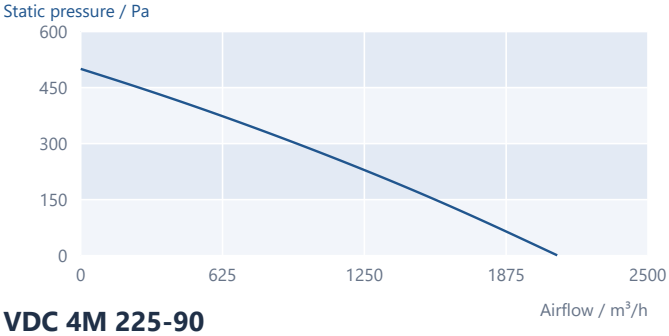
VDC 2T 160-90

400 V / 3 phase / 50 Hz / 0.37 kW motor



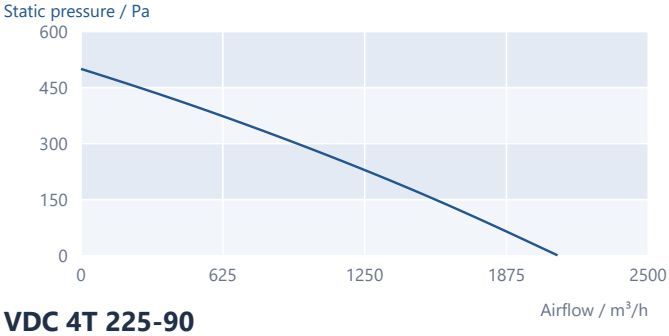
VDC 3M 180-90

230 V / 1 phase / 50 Hz / 0.55 kW motor



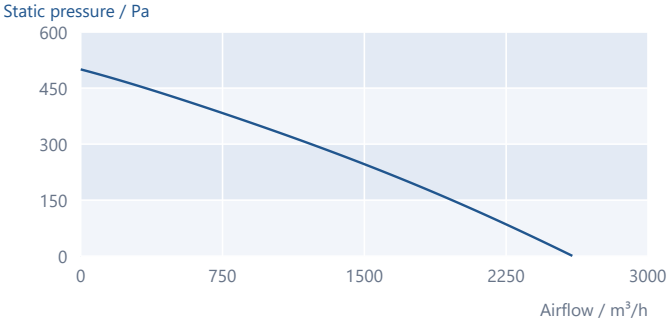
VDC 3T 180-90

400 V / 3 phase / 50 Hz / 0.55 kW motor



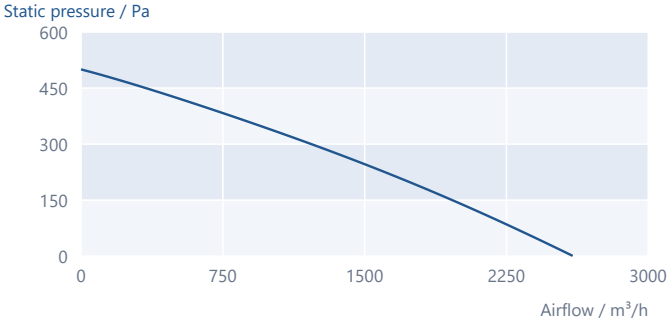
VDC 4M 225-90

230 V / 1 phase / 50 Hz / 0.75 kW motor



VDC 4T 225-90

400 V / 3 phase / 50 Hz / 0.75 kW motor



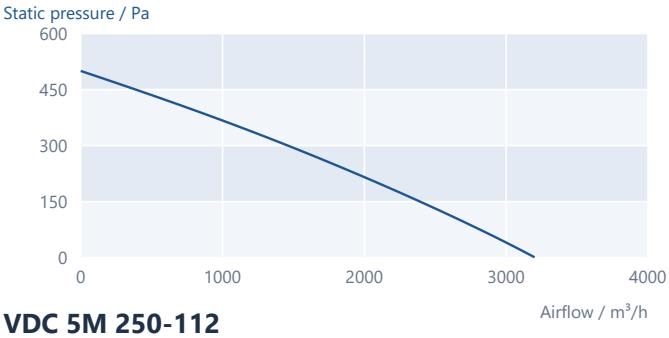
Model-specific scales. Curves stay within their supplied domains. VDC 8T ends at zero pressure before its small negative listed tail; nominal airflow remains in the technical table.

03 / AIR PERFORMANCE / 2 OF 2

Fan Performance Curves

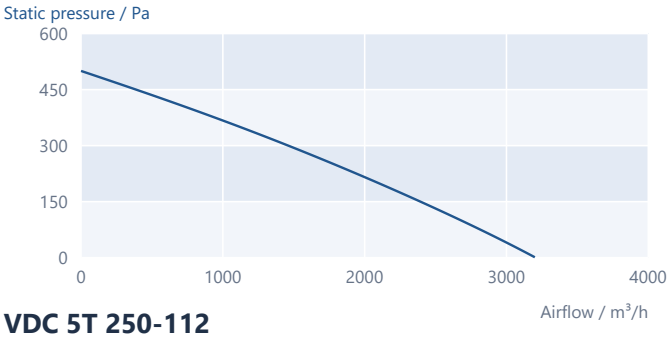
VDC 4M 225-102

230 V / 1 phase / 50 Hz / 1.10 kW motor



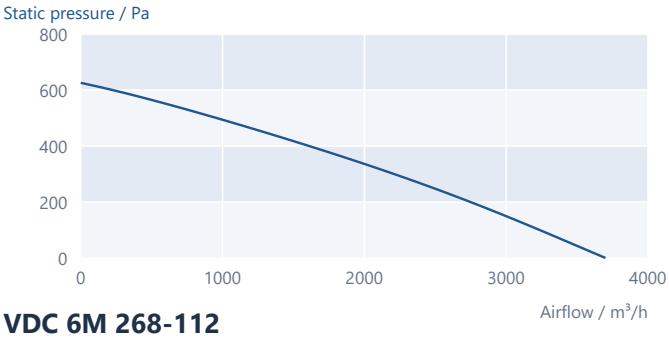
VDC 4T 225-102

400 V / 3 phase / 50 Hz / 1.10 kW motor



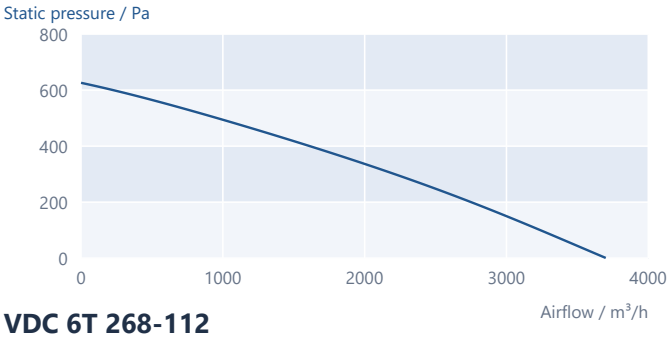
VDC 5M 250-112

230 V / 1 phase / 50 Hz / 1.50 kW motor



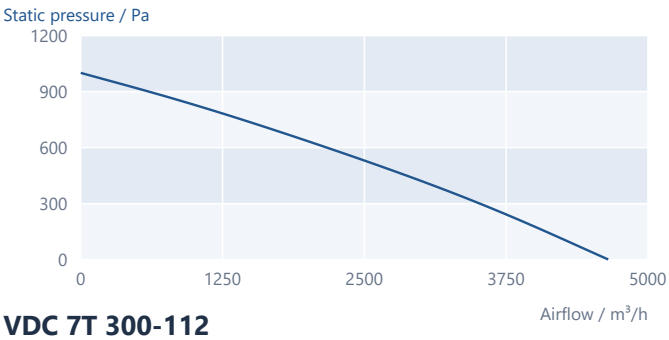
VDC 5T 250-112

400 V / 3 phase / 50 Hz / 1.50 kW motor



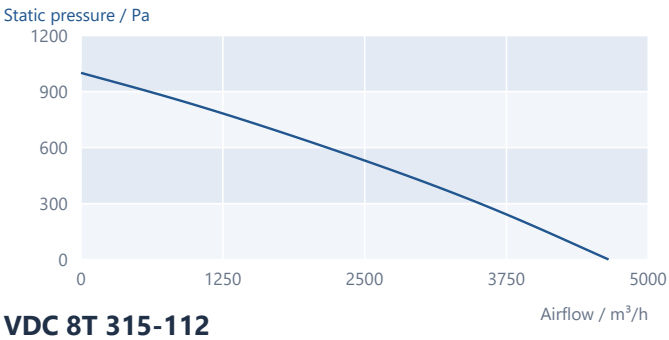
VDC 6M 268-112

230 V / 1 phase / 50 Hz / 2.20 kW motor



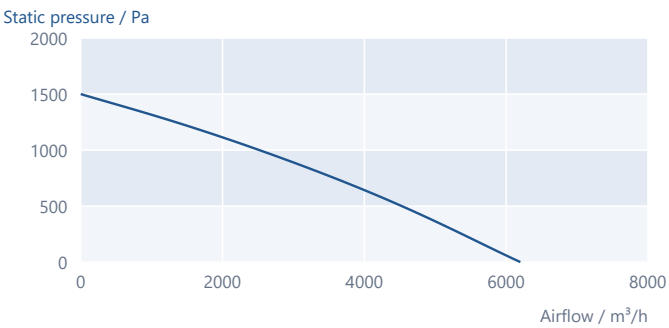
VDC 6T 268-112

400 V / 3 phase / 50 Hz / 2.20 kW motor



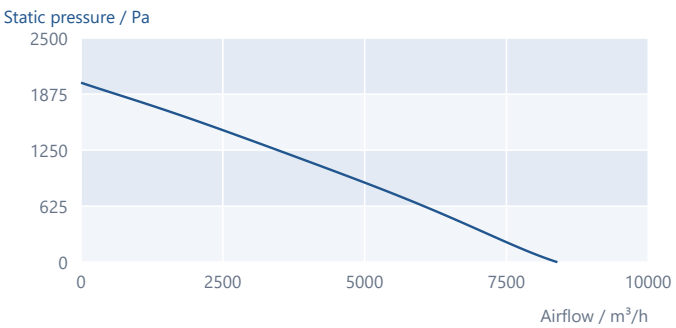
VDC 7T 300-112

400 V / 3 phase / 50 Hz / 4.00 kW motor



VDC 8T 315-112

400 V / 3 phase / 50 Hz / 5.50 kW motor



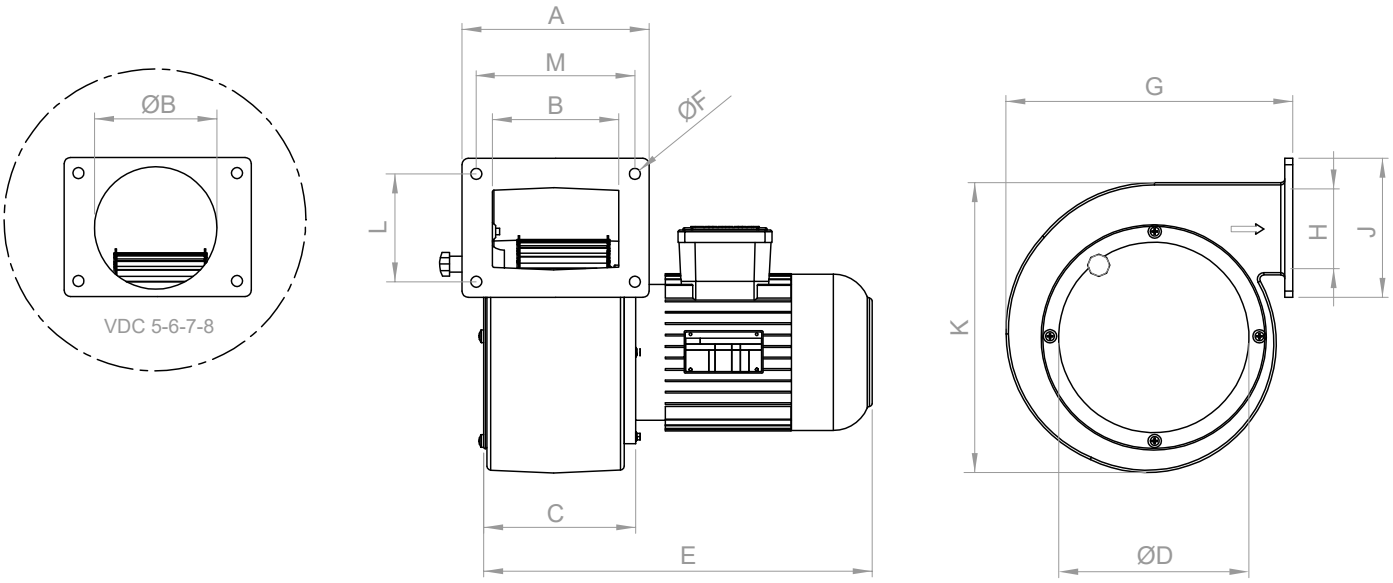
Model-specific scales. Curves stay within their supplied domains. VDC 8T ends at zero pressure before its small negative listed tail; nominal airflow remains in the technical table.

04 / DIMENSIONAL DATA

Plan the flange and mounting.

ORIGINAL SERIES DRAWING / A-H, J-M

All dimensions in mm



Casing / impeller size	A	B	C	D	E	F	G	H	J	K	L	M
VDC 1 / 140-70	133	88.5	124.5	128	302	7	229	68	125	205.5	99.5	110.5
VDC 2 / 160-90	155	95	133	150	332	9	270	112	163	245	129	130
VDC 3 / 180-90	163	101	138	175	333	9	305	108.5	163	270	130	130
VDC 4 / 225-90	190	128	163	220	378	10	370	108	162	354	126	155
VDC 4 / 225-102	190	128	163	220	378	10	370	N/V	162	354	126	155
VDC 5 / 250-112	200	155	178	246	448	9	407	N/V	205	422	165	165
VDC 6 / 268-112	205	160	183	260	472	9	480	N/V	205	420	165	165
VDC 7 / 300-112	240	170	198	236	516	10	480	N/V	250	482	205	200
VDC 8 / 315-112	240	160	199	243	536	10	480	N/V	250	480	205	200

N/V = not supplied in The available data. H is unavailable for 225-102 and all 250-315 sizes; do not infer it from a neighbouring configuration. Each casing row applies to its listed M / T variants. Nominal discharge profiles appear on the next page.

05 / INSTALLATION & MOTOR

Prepare the installation.

01 Mounting, airflow and servicing

Fix the cast-aluminium housing to a rigid support. Follow the selected flange and mounting drawing; keep the inlet guard, discharge and motor cooling paths clear. Isolate the supply before cleaning or inspection. Maximum transported air: +40 °C; motor operating range: -20 to +40 °C.

02 Motor supply and control

M models use 230 V single-phase motors; T models use 400 V three-phase motors. Listed families allow compatible voltage regulation, inverter control or a discharge damper. Confirm the selected motor and controller suitability. Nominal motor ratings and absorbed operating power are distinct.

DISCHARGE PROFILES & SINGLE-PHASE CAPACITORS

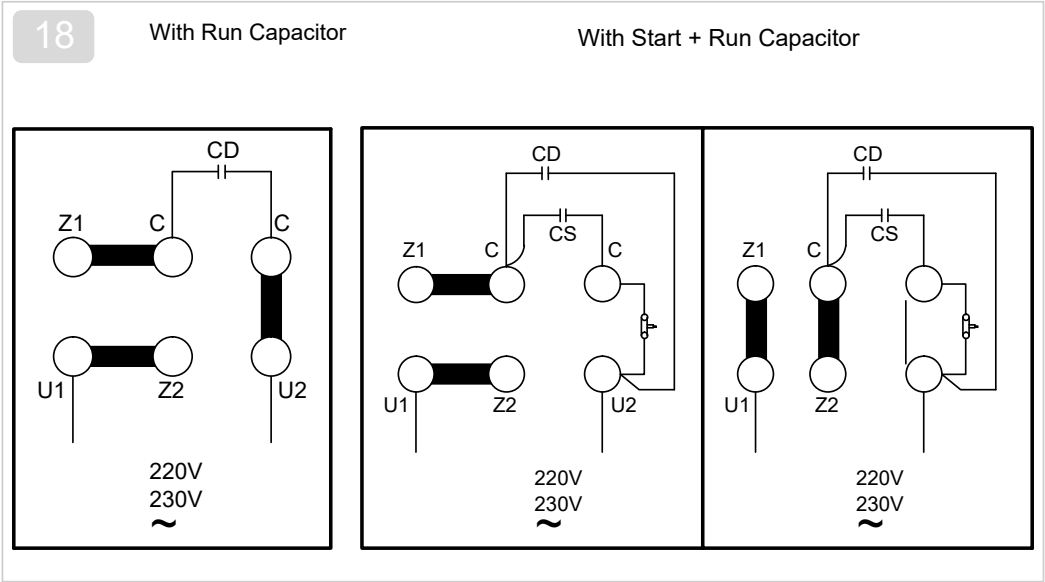
Casing / impeller size	Nominal discharge profile / mm	M motor capacitor / µF / V
VDC 1 / 140-70	133 x 99.5	10 / 400
VDC 2 / 160-90	155 x 129	15 / 400
VDC 3 / 180-90	163 x 130	20 / 400
VDC 4 / 225-90	190 x 126	30 / 400
VDC 4 / 225-102	190 x 126	35 / 400
VDC 5 / 250-112	200 x 165	40 / 400
VDC 6 / 268-112	205 x 165	50 / 400
VDC 7 / 300-112	240 x 205	Not applicable
VDC 8 / 315-112	240 x 205	Not applicable

Profile values are nominal discharge references. Use the original drawing and actual unit flange for mating connections. Capacitor voltage is the component rating; single-phase supply remains 230 V. The 300-112 and 315-112 configurations are three phase only.

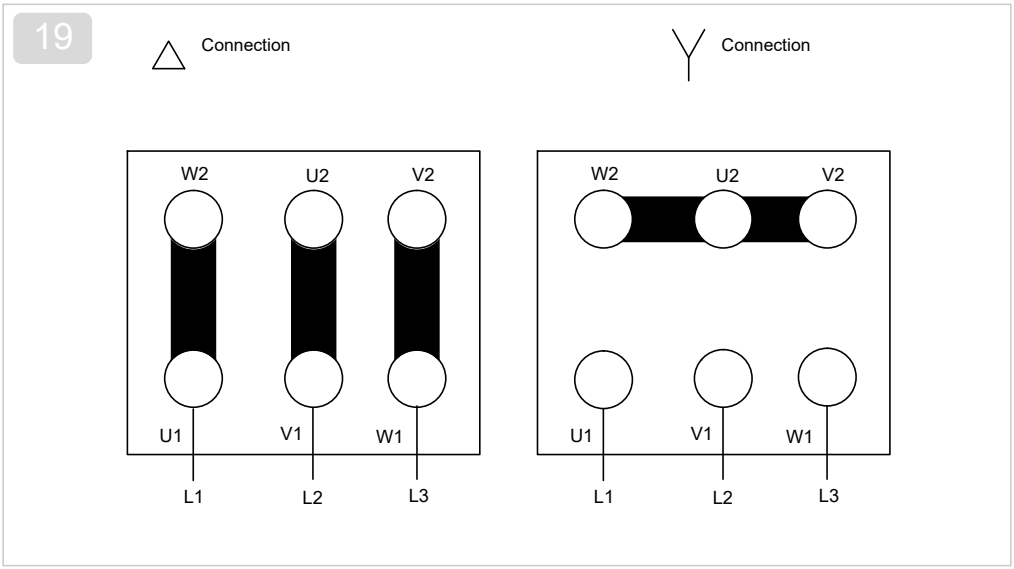
06 / ELECTRICAL CONNECTION

Match the motor terminal layout.

SINGLE PHASE / LAYOUT 18 / 230 V / 50 Hz



THREE PHASE / LAYOUT 19 / 400 V / 50 Hz



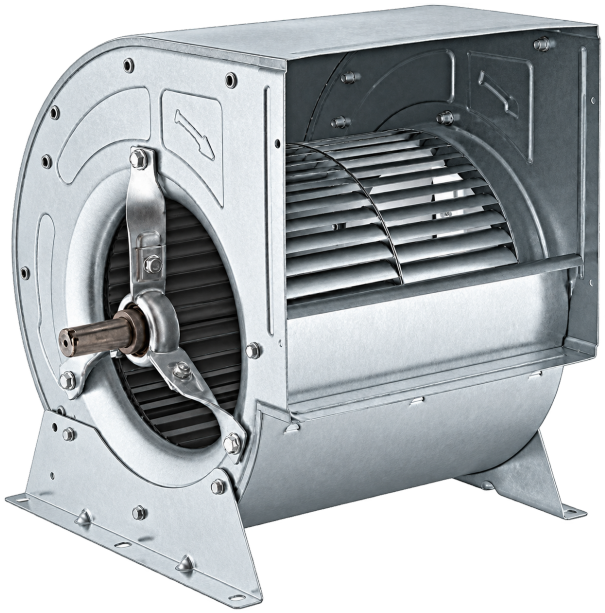
Schema 18 shows listed run-capacitor and start/run-capacitor arrangements. Use only the arrangement supplied for the actual motor. Schema 19 retains the listed delta / star terminal options; the motor nameplate determines the suitable connection at the supply voltage.

Use the terminal arrangement and capacitor specification supplied with the motor. p. 193 gives the capacitor ratings; separate start-capacitor values are not specified. Confirm the unit nameplate and supplied diagram before connection.

01 / PRODUCT OVERVIEW

VFD

Double Inlet Belt Driven Radial Fan



01 Double-inlet centrifugal design

Forward-curved galvanized-steel impeller and scroll housing for ventilation box assemblies and air-handling units.

02 Supported shaft assembly

Two bearings, steel supports and rubber vibration isolators support the fan shaft. Maintain access to both inlets and the transmission.

03 Motor supplied separately

The photograph shows the bare fan. Specify the motor, belt and pulley arrangement for the selected airflow, pressure and fan speed.

AIRFLOW, SPEED & MOTOR

One fan size. A duty-specific drive.

Choose a fan size at the required airflow and static pressure. The pulley ratio sets fan speed within the permitted range; absorbed shaft power determines the motor recommendation. Motor shaft speed and fan speed are separate values.

Selection parameter	Series overview
Catalogue airflow	4800-18250 m^3/h; distinct from reference-curve limits
Permitted fan speeds	400-2000 rpm across the range; model-specific limits
Motor power limits	0.12-7.50 kW across the range; duty-selected
Recommended motor configuration	400 V / 3 phase / 50 Hz / Class F / IP55 / TEFC / IE2
Motor operating range	-20 to +60 °C
Maximum transported-air temperature	+60 °C

Reference curves follow the published series data. Speed variants are calculated using fan affinity laws.

02 / TECHNICAL DATA

Select the fan and the drive.

BARE FAN / RATINGS / 50 Hz

Model	Catalogue airflow / m^3/h	Reference curve airflow / m^3/h	Reference fan rpm	Permitted fan speed / rpm	Motor limits kW	Bare fan kg
VFD 7-7	4800	1093-3490	1400	1000-2000	0.12-2.20	6.1
VFD 9-9	6000	2895-5420	1400	900-1600	0.18-2.20	8.2
VFD 10-10	8000	2790-6688	1200	800-1500	0.18-3.00	9.4
VFD 12-12	12000	3250-9500	1000	700-1200	0.25-4.00	15.5
VFD 15-15	15900	3680-10914	620	500-900	0.37-7.50	20.7
VFD 18-18	18250	5150-13033	500	400-700	0.55-5.50	40.5

Catalogue airflow is the nominal figure. The reference-curve airflow interval belongs to the stated reference fan speed; it is not the selected duty airflow or a zero-pressure rating. Keep selections within the supplied curve domain, permitted fan speed and motor power limits.

MOTOR & DISCHARGE REFERENCES

Model	Motor poles	Nominal discharge profile / mm	Reference motor / kW
VFD 7-7	4 poles	207 x 207	0.75
VFD 9-9	4 poles	261 x 261	1.10
VFD 10-10	4 poles	290 x 290	1.50
VFD 12-12	6 poles	336 x 336	2.20
VFD 15-15	6 poles	402 x 402	2.20
VFD 18-18	8 poles	477 x 477	4.00

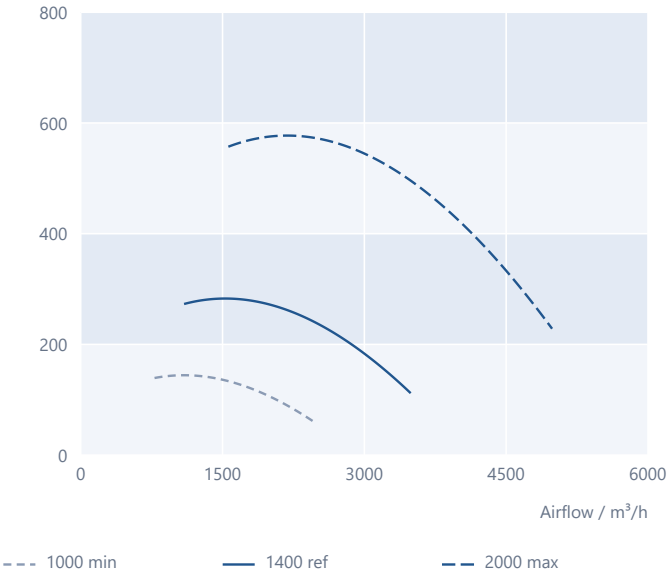
Reference motor power is a selection data configuration, not a motor included with the bare fan or a guarantee for the whole curve. FSP recommends a standard motor rating from the model-specific limits at the selected duty. Current and acoustic ratings are not supplied.

03 / AIR PERFORMANCE / 1 OF 2

Fan Performance Curves

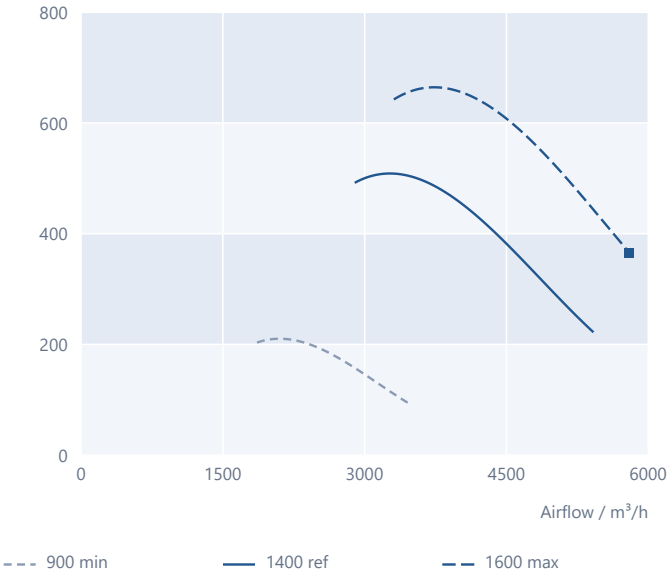
VFD 7-7

Fan speed 1000-2000 rpm / 50 Hz motor supply



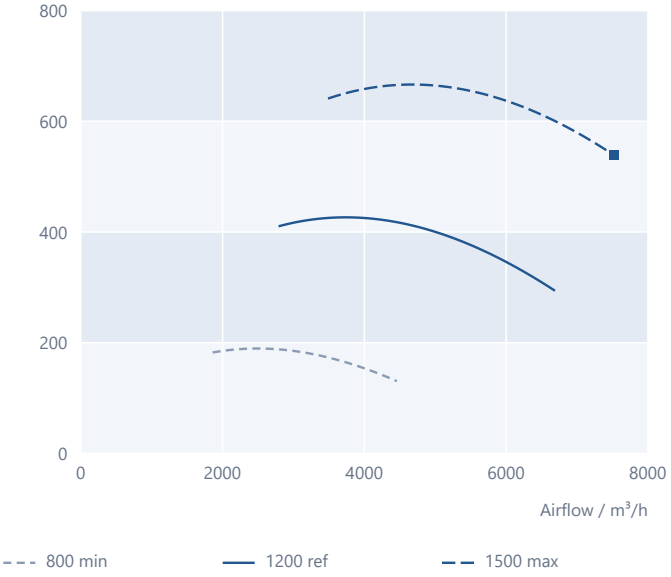
VFD 9-9

Fan speed 900-1600 rpm / 50 Hz motor supply



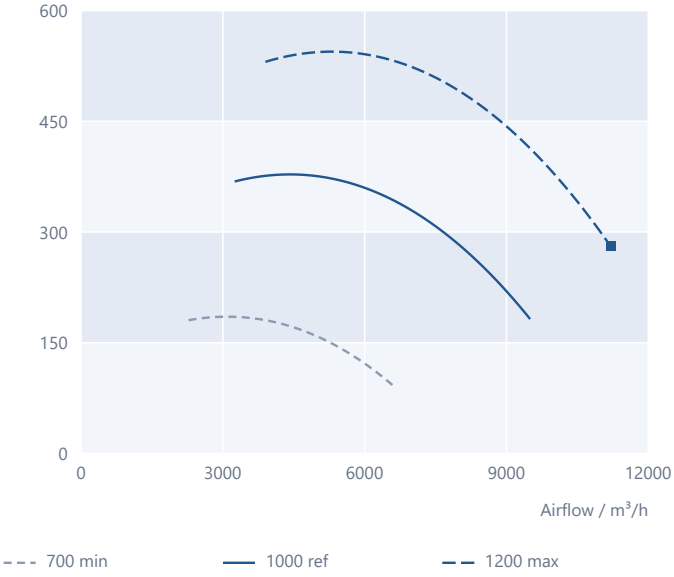
VFD 10-10

Fan speed 800-1500 rpm / 50 Hz motor supply



VFD 12-12

Fan speed 700-1200 rpm / 50 Hz motor supply



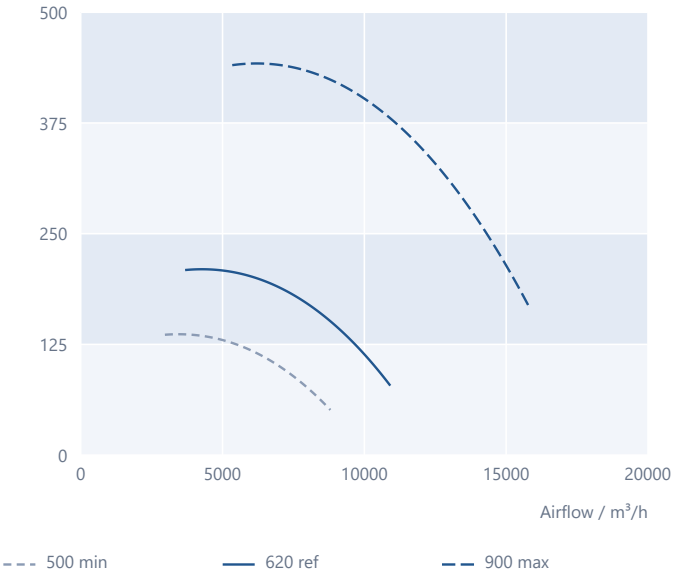
Model-specific scales. Curves stay within the supplied reference domain after speed scaling. Square endpoints mark the maximum motor-power limit; do not extrapolate beyond the plotted line. Select the final drive at the required duty in FSP.

03 / AIR PERFORMANCE / 2 OF 2

Fan Performance Curves

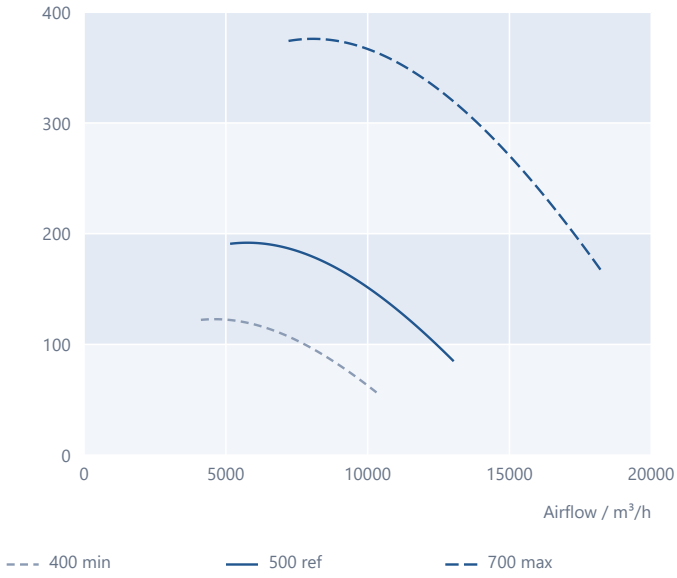
VFD 15-15

Fan speed 500-900 rpm / 50 Hz motor supply



VFD 18-18

Fan speed 400-700 rpm / 50 Hz motor supply



READING THE SPEED CURVES

Match airflow, pressure and shaft power.

Each chart shows the minimum permitted speed, selection data speed and maximum permitted speed. Dashed min / max lines are affinity-scaled from the reference curve. All legends use fan rpm. The motor and pulley arrangement are selected separately.

Change from reference speed	Affinity relationship
Airflow	$Q_2 = Q_1 \times (n_2 / n_1)$
Static pressure	$p_2 = p_1 \times (n_2 / n_1)^2$
Absorbed fan shaft power	$P_2 = P_1 \times (n_2 / n_1)^3$

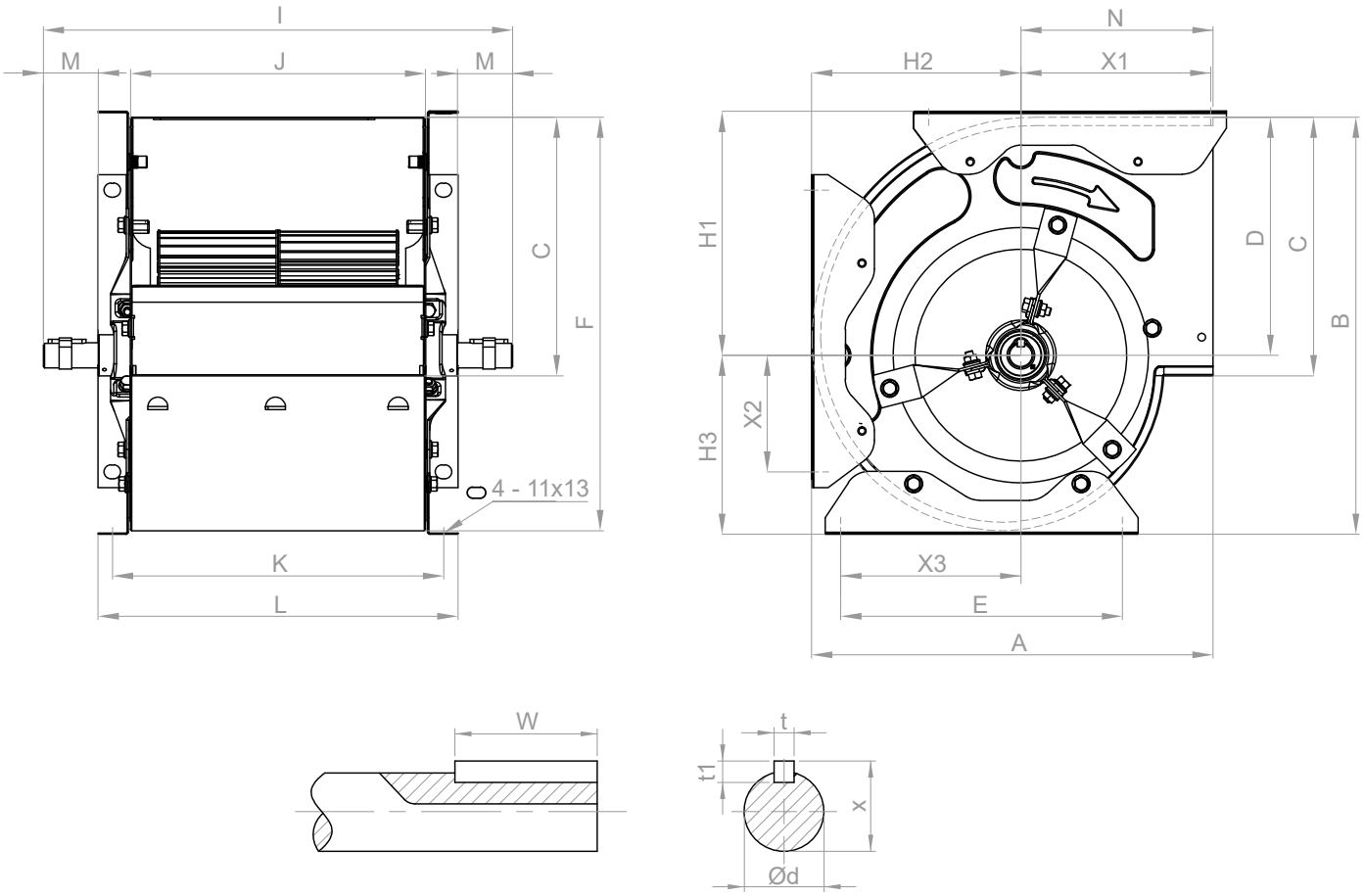
Model-specific scales. Curves stay within the supplied reference domain after speed scaling. Square endpoints mark the maximum motor-power limit; do not extrapolate beyond the plotted line. Select the final drive at the required duty in FSP.

04 / DIMENSIONAL DRAWING

Define the installation envelope.

SERIES OUTLINE / SHAFT & MOUNTING DETAILS

All dimensions in mm



DISCHARGE CONNECTION REFERENCES

Model	Nominal discharge profile / mm	Drawing & dimension table
VFD 7-7	207 x 207	pp. 199-200
VFD 9-9	261 x 261	pp. 199-200
VFD 10-10	290 x 290	pp. 199-200
VFD 12-12	336 x 336	pp. 199-200
VFD 15-15	402 x 402	pp. 199-200
VFD 18-18	477 x 477	pp. 199-200

The series drawing identifies 23 supplied dimension values. Use the selected model table and actual mating flange. The drawing is a dimension reference, not a scale model.

05 / DIMENSIONAL DATA

Every mounting dimension, by size.

HOUSING, FLANGE & HEIGHTS / mm

Model	A	B	C	D	d	E	F	H1	H2	H3	I	J
VFD 7-7	321	333	207	190	20	225	330	195	167	142	375	236
VFD 9-9	390	400	261	218	20	300	390	225	208	182	435	296
VFD 10-10	435	455	290	250	25	339	445	258	238	205	500	333
VFD 12-12	498.5	535	336	292	25	409	630	304	270	243	580	398
VFD 15-15	597	620	402	341	25	497	610	349	324	279	650	476
VFD 18-18	687	753	477	411	25	605.5	732	424.5	375	342	754	559

SHAFT, KEYWAY & MOUNTING DETAILS / mm

Model	K	L	M	N	t	t1	W	X	X1	X2	X3
VFD 7-7	264.5	287.5	44	154	6	6	30	22.5	152	93	144
VFD 9-9	325.5	350.5	44	217	6	6	30	22.5	202	114	184
VFD 10-10	361	386	57	197	8	7	50	28	161	146	200
VFD 12-12	428	453	65	229	8	7	50	28	223	139	257
VFD 15-15	505	531	60	264	8	7	60	28	260	214	301
VFD 18-18	591	614	71	313	8	7	65	28	282	281	330

All values are current FSP listed dimensions. X corresponds to the x keyway dimension on the drawing. VFD 12-12: F = 630 mm in FSP; the separate dimension record shows 520 mm. Confirm F against the supplied unit before finalising the mounting frame.

06 / DRIVE & INSTALLATION

Complete the fan assembly.

01 Set the operating point

Specify airflow and static pressure, then select a fan size within the supplied curve domain. FSP determines the fan/system operating point and scales the reference performance to the permitted fan speed.

02 Choose the motor and pulley ratio

Select the motor rating within the model power limits from absorbed shaft power at duty. The available data applies no additional motor reserve. Confirm the drive design and application allowance. Size the pulleys to deliver the selected fan rpm; motor poles do not identify fan rpm.

03 Keep both inlets clear

Mount the fan on a rigid support using the listed dimensions. Provide clearance at both suction openings and access for the bearings and belt drive. The fan includes steel supports and rubber vibration isolators; the photograph illustrates the bare assembly.

04 Commission and maintain

Follow the marked direction of rotation. Guard the inlets and moving transmission as required by the installation. Isolate the supply before servicing; inspect belt tension, pulley alignment and bearing condition. Maximum transported air: +60 °C.

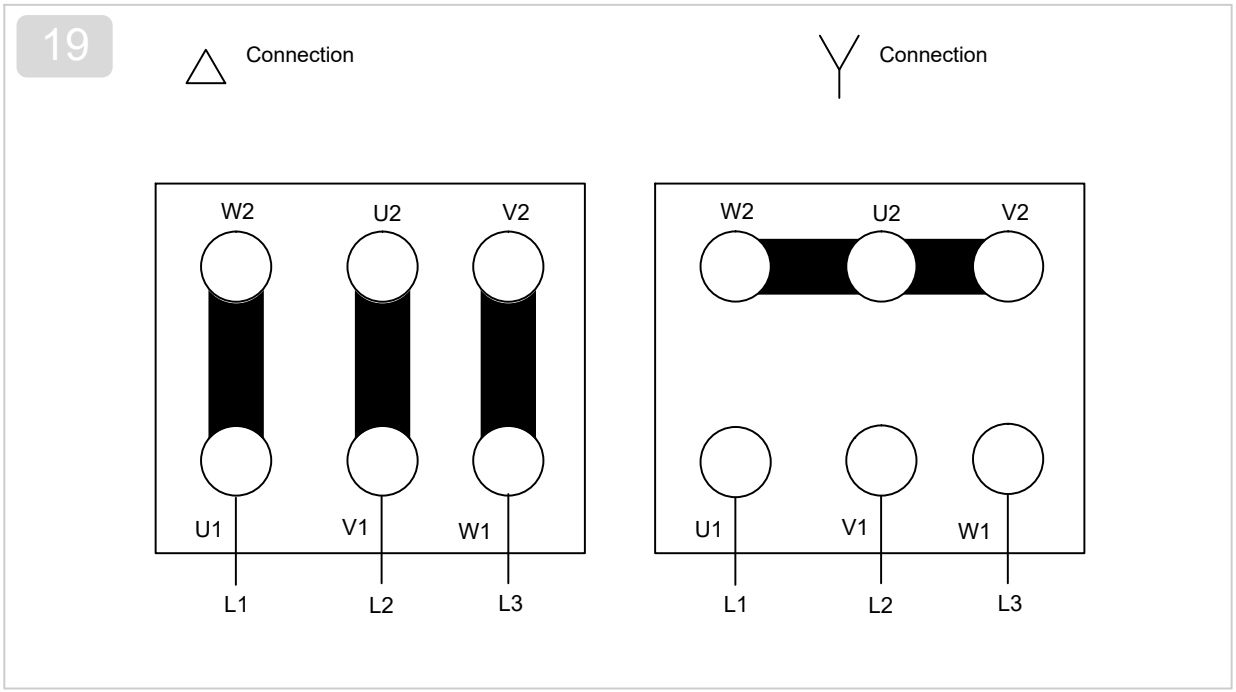
SEPARATE MOTOR CONFIGURATION

Selection data: 400 V / 3 phase / 50 Hz; Class F, IP55, TEFC, IE2; motor operating range -20 to +60 °C. The actual motor nameplate and supplied connection diagram govern the installed assembly.

07 / ELECTRICAL CONNECTION

Connect the selected motor.

THREE PHASE / LAYOUT 19 / 50 Hz



Delta connection **Star connection**

The motor nameplate sets the connection.

The diagram shows delta and star terminal arrangements for the recommended three-phase motor configuration. Rated supply is 400 V, 50 Hz. The bare VFD fan is supplied without a motor; choose the correct motor voltage rating and terminal arrangement for the specified drive.

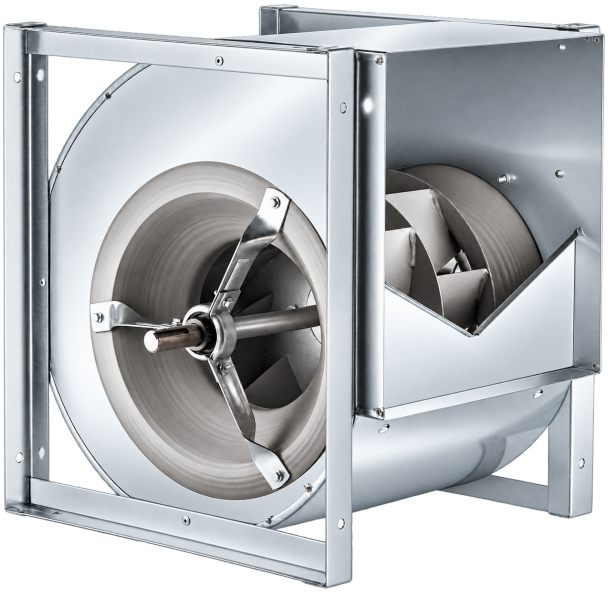
The drawing is a motor-terminal reference, not a complete control-panel or protective-device design. Use the selected motor nameplate and supplied diagram; connect protective earth and verify rotation during commissioning.

The graph caption mentions 230 V, while rated metadata specify three-phase 400 V. This catalogue follows the rated metadata. Motor current, electrical losses and application-specific control wiring are not supplied.

01 / PRODUCT OVERVIEW

VBD

Double Inlet Belt Driven Radial Fan



01 Double-inlet centrifugal design

Backward-curved welded-steel impeller in a corrosion-resistant galvanized-steel scroll housing, for ventilation box assemblies and air-handling units.

02 A drive selected for the duty

The motor is supplied separately. Fan speed follows the chosen belt and pulley ratio; motor speed and fan speed remain distinct.

03 Clearance for both inlets

Provide access to the shaft, bearings and transmission. The outline drawing shows the mounting frame; confirm the supplied assembly configuration.

AIRFLOW, PRESSURE & DRIVE

Choose the fan around the operating point.

Match airflow and static pressure, select the required fan speed within the permitted range, and size the motor from absorbed shaft power plus the allowance. Use the selected fan dimensions and actual drive assembly for installation.

Selection parameter	Series overview
Catalogue airflow	8000-95000 m^3/h; separate from reference-curve limits
Permitted fan speeds	400-3200 rpm across the range; model-specific limits
Motor power limits	0.37-75.00 kW across the range; duty-selected
Recommended motor configuration	400 V / 3 phase / 50 Hz / Class F / IP55 / TEFC / IE2
Motor operating range	-20 to +60 °C
Maximum transported-air temperature	+60 °C

Performance data. Reference curves and calculated speed variants are distinguished.

02 / TECHNICAL DATA

Select the fan and the drive.

BARE FAN / RATINGS / 50 Hz

Model	Catalogue airflow / m³/h	Reference curve airflow / m³/h	Reference fan rpm	Permitted fan speed / rpm	Motor limits kW	Bare fan kg
VBD 280	8000	1129-6038	2412	1600-3200	0.37-3.00	22
VBD 315	11000	2345-8030	2208	1400-3000	0.55-4.00	33
VBD 355	13500	2897-9842	1903	1200-2600	0.55-5.50	45
VBD 400	16000	3085-11309	1702	1000-2400	0.75-7.50	52
VBD 450	19900	4101-13912	1548	1000-2200	1.10-15.00	68
VBD 500	27700	5581-19950	1445	900-2000	1.10-22.00	85
VBD 560	35000	7535-25005	1296	800-1800	1.10-30.00	140
VBD 630	51000	10016-36160	1202	700-1700	1.50-45.00	180
VBD 710	85000	10000-50000	1202	400-2200	5.50-75.00	250
VBD 800	95000	15000-57000	1000	500-1600	7.50-55.00	300

Catalogue airflow is the nominal figure. Reference-curve airflow applies at the stated fan rpm; it is not selected duty airflow or a zero-pressure rating. No fixed motor power, motor current or acoustic rating is supplied for the bare fan.

VBD 630: current FSP bare-fan weight is 180 kg; the separate dimension record lists 170 kg. Current FSP is retained. Confirm the supplied assembly weight for support design.

MOTOR POLES & POWER ALLOWANCE

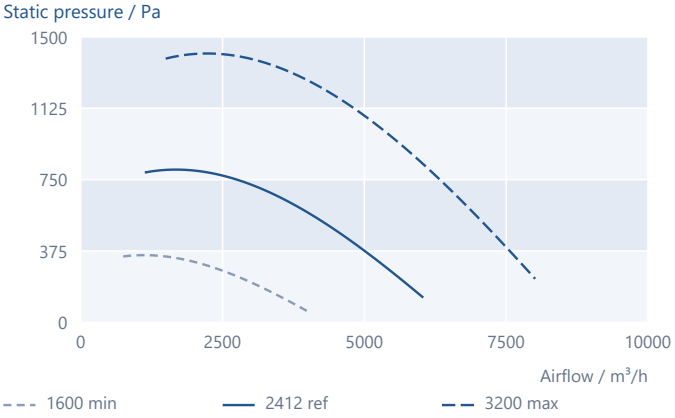
Fan sizes	Motor poles	Additional shaft-power allowance
280 / 315 / 355 / 400	2 poles	10%
450 / 500 / 560 / 630 / 710	4 poles	10%
800	4 poles	5%

03 / AIR PERFORMANCE / 1 OF 2

Fan Performance Curves

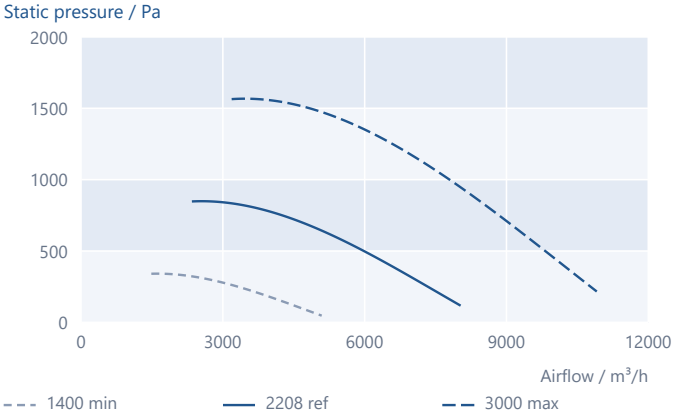
VBD 280

Fan speed 1600-3200 rpm / 50 Hz motor supply



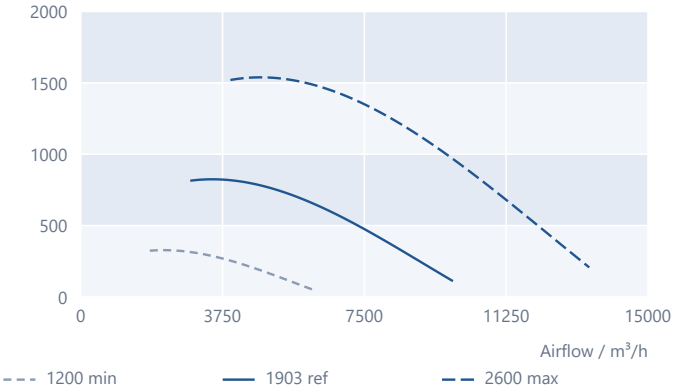
VBD 315

Fan speed 1400-3000 rpm / 50 Hz motor supply



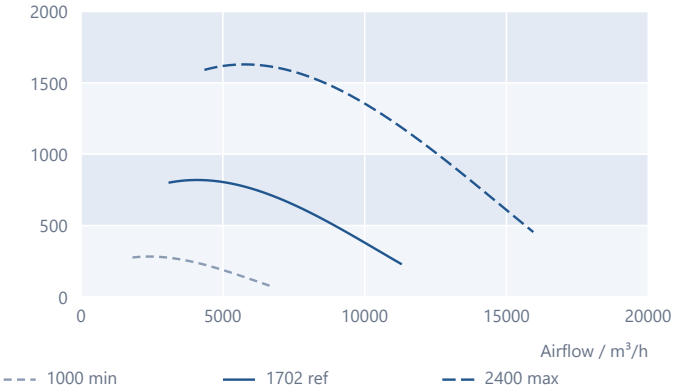
VBD 355

Fan speed 1200-2600 rpm / 50 Hz motor supply



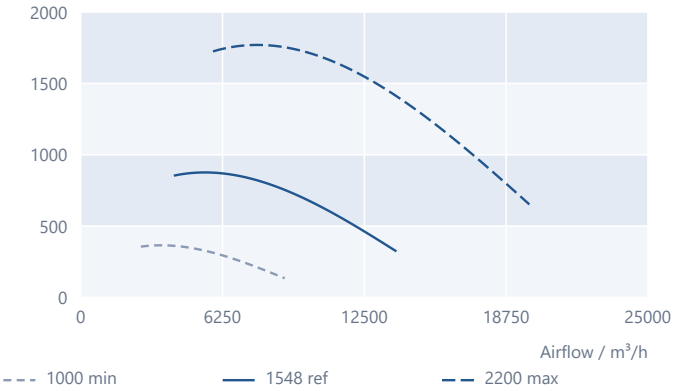
VBD 400

Fan speed 1000-2400 rpm / 50 Hz motor supply



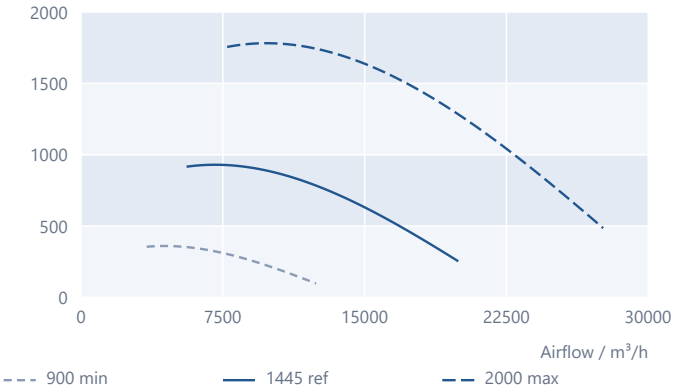
VBD 450

Fan speed 1000-2200 rpm / 50 Hz motor supply



VBD 500

Fan speed 900-2000 rpm / 50 Hz motor supply



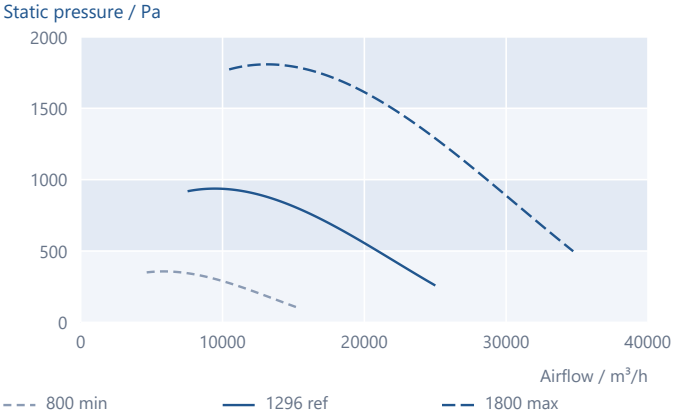
Model-specific scales; legends use fan rpm. No curve extrapolation beyond the supplied domain. Square endpoints mark the motor-power limit including allowance. Select the final motor and pulley ratio at the required duty in FSP.

03 / AIR PERFORMANCE / 2 OF 2

Fan Performance Curves

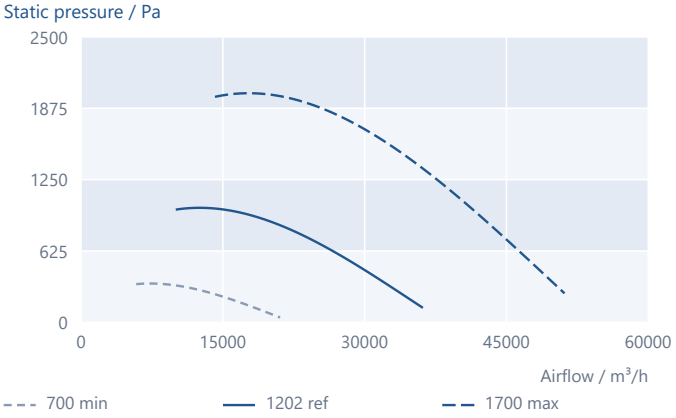
VBD 560

Fan speed 800-1800 rpm / 50 Hz motor supply



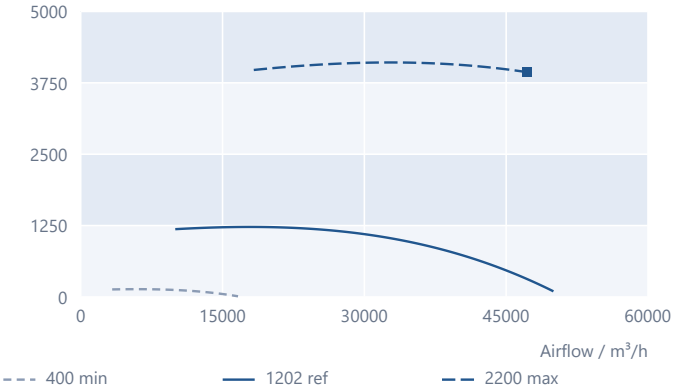
VBD 630

Fan speed 700-1700 rpm / 50 Hz motor supply



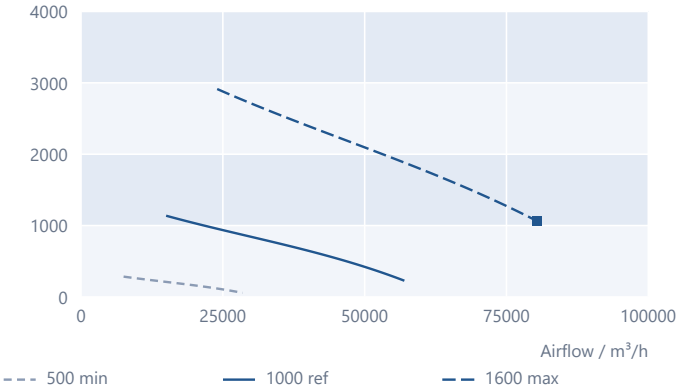
VBD 710

Fan speed 400-2200 rpm / 50 Hz motor supply



VBD 800

Fan speed 500-1600 rpm / 50 Hz motor supply



READING THE SPEED CURVES

Select the motor at the working point.

Solid lines are selection data speeds; dashed min / max lines are calculated by fan affinity laws. Motor selection includes the supplied 10% shaft-power allowance for sizes 280-710 and 5% for size 800, within the listed motor limits.

$Q_2 = Q_1 \times (n_2 / n_1)$ $p_2 = p_1 \times (n_2 / n_1)^2$ $P_2 = P_1 \times (n_2 / n_1)^3$

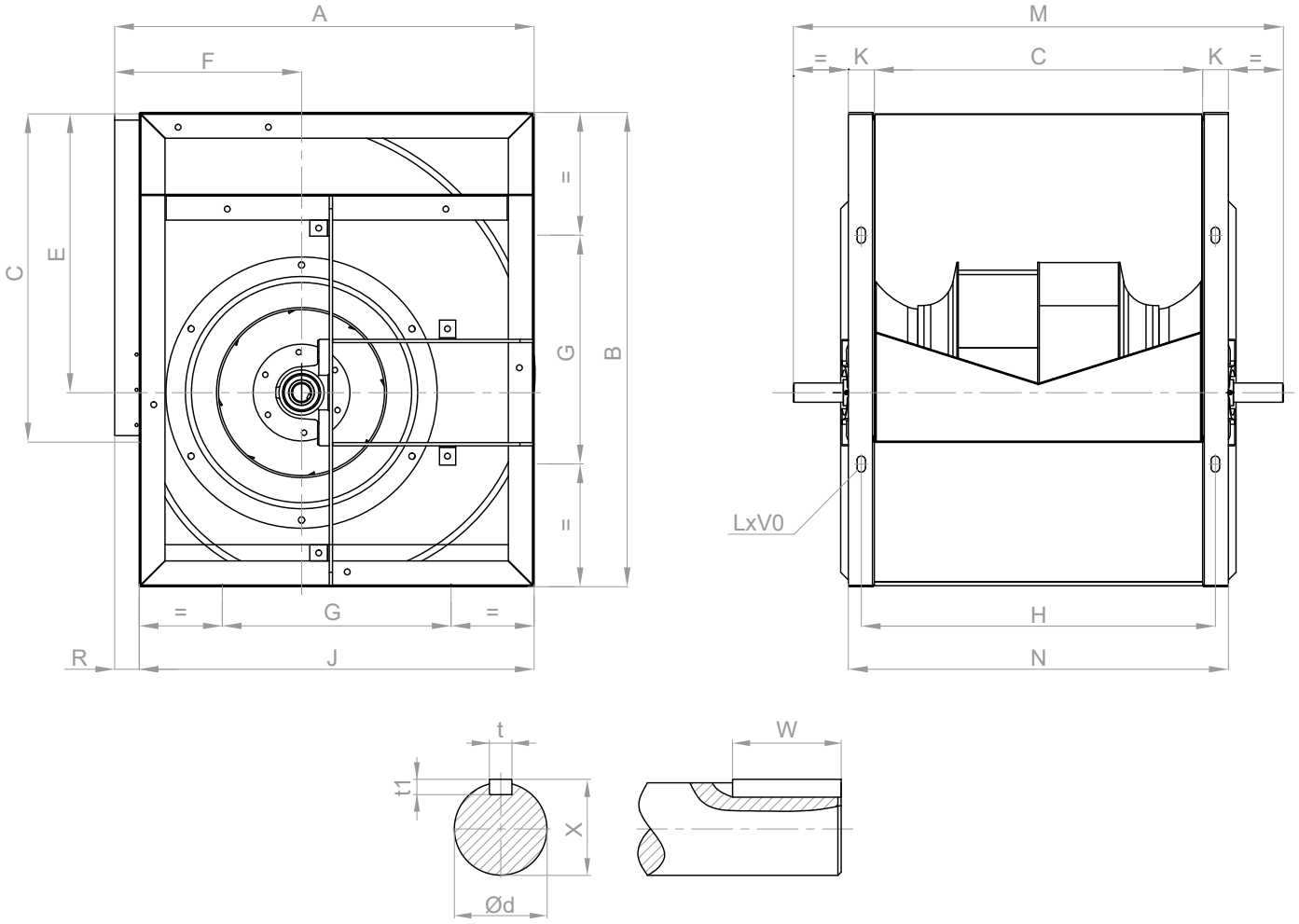
Model-specific scales; legends use fan rpm. No curve extrapolation beyond the supplied domain. Square endpoints mark the motor-power limit including allowance. Select the final motor and pulley ratio at the required duty in FSP.

04 / DIMENSIONAL DRAWING

Define the mounting and shaft.

FRAME, SCROLL & SHAFT DETAILS

All dimensions in mm



MODEL-SPECIFIC DIMENSIONS

Use the selected fan size and assembly.

The drawing shows the mounting-frame and shaft geometry for this family. The table on p. 208 gives all 18 supplied dimensions for every model; nominal discharge profiles are listed separately on p. 209.

The product photograph illustrates the framed fan assembly. Use the selected model dimensions and actual flange for mating parts. Do not scale the drawing to obtain dimensions.

05 / DIMENSIONAL DATA

Every mounting dimension, by size.

HOUSING, SHAFT DIAMETER & FRAME / mm

Model	A	B	C	d	E	F	G	H	J
VBD 280	466	518	361	25	302	215	280	391	432
VBD 315	518	578	404	25	340	263	330	430	484
VBD 355	578	655	453	30	384	261	355	490	548
VBD 400	651	736	507	30	432	290	355	549	613
VBD 450	727	832	569	35	487	322	530	611	681
VBD 500	806	920	640	35	544	352	610	695	754
VBD 560	894	1031	718	40	609	390	685	777	842
VBD 630	996	1157	801	40	685	434	766	866	946
VBD 710	1096	1157	1000	50	685	484	866	1066	1046
VBD 800	1280	1500	1005	50	870	540	800	1160	1200

SLOTS, MOUNTING & KEYWAY / mm

Model	K	LxV0	M	N	R	t	t1	W	X
VBD 280	30	13x18	540	420	34	8	7	40	28
VBD 315	30	13x18	600	460	34	8	7	40	28
VBD 355	32	13x18	700	520	34	8	7	40	33
VBD 400	40	13x18	760	589	38	8	7	40	33
VBD 450	40	13x18	845	613	46	10	8	50	38
VBD 500	45	13x18	924	736	52	10	8	50	38
VBD 560	50	13x18	1000	819	52	12	8	70	43
VBD 630	50	13x18	1092	907	52	12	8	70	43
VBD 710	50	13x18	1292	1100	52	14	9	90	43
VBD 800	50	13x18	1350	1200	50	14	9	90	53.5

All dimensions in mm. d denotes shaft diameter; t, t1 and X identify the keyway section. The slot dimension LxV0 is retained as labelled in the drawing. Use the original outline and selected model values.

06 / DRIVE & INSTALLATION

Complete the fan assembly.

01 Select the motor and transmission

Specify airflow and static pressure; select fan speed within the listed limits. Size the motor from absorbed shaft power plus the model-specific allowance (10%, or 5% for VBD 800), using a supplied motor option. Match the pulley ratio to fan rpm; motor poles do not identify fan rpm.

02 Mount, guard and maintain

Provide a rigid mounting assembly, access to both inlets and bearing/belt service clearance. Follow the rotation marking and guard the inlets and transmission for the installation. Isolate power before maintenance; inspect bearing condition, belt tension and pulley alignment. Maximum transported air: +60 °C.

NOMINAL DISCHARGE PROFILES / MOTOR POLES

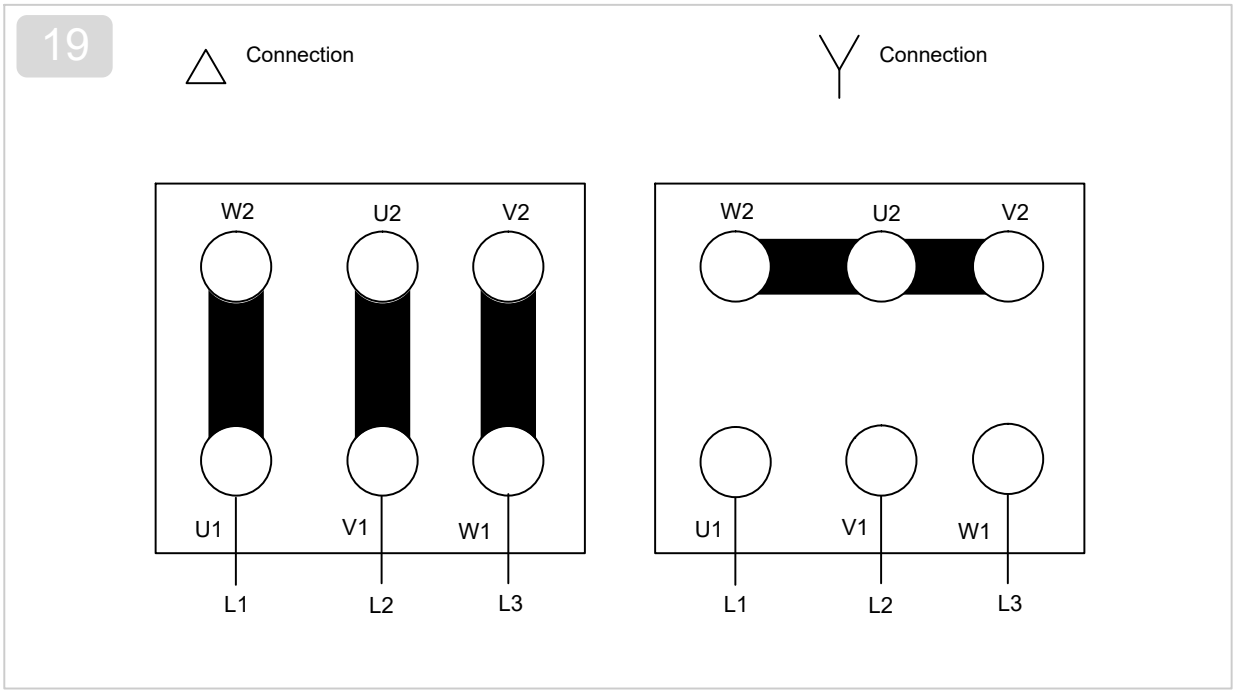
Model	Nominal discharge profile / mm	Motor poles
VBD 280	361 x 361	2 poles
VBD 315	405 x 405	2 poles
VBD 355	455 x 455	2 poles
VBD 400	510 x 510	2 poles
VBD 450	570 x 570	4 poles
VBD 500	640 x 640	4 poles
VBD 560	715 x 715	4 poles
VBD 630	843 x 843	4 poles
VBD 710	1043 x 843	4 poles
VBD 800	900 x 900	4 poles

Nominal profiles are connection references and can differ from drawing dimension C. Use the original outline, selected dimensions and actual flange for mating connections. Motor operating range: -20 to +60 °C; motor supplied separately.

07 / ELECTRICAL CONNECTION

Connect the selected motor.

THREE PHASE / LAYOUT 19 / 50 Hz



Delta connection **Star connection**

The motor nameplate sets the connection.

The diagram shows delta and star terminal arrangements for the recommended three-phase motor configuration. Rated supply is 400 V, 50 Hz. The bare VBD fan is supplied without a motor; specify the correct motor voltage rating and terminal arrangement for the selected drive.

Use the selected motor nameplate and supplied diagram; connect protective earth and verify rotation during commissioning. This is a terminal reference, not a complete control-panel or protective-device design.

Motor configuration: Class F / IP55 / TEFC / IE2. No unavailable motor current, electrical losses or application-specific control wiring is inferred. Supplied curve metadata and final motor configuration remain distinct.

01 / PRODUCT OVERVIEW

VHPF

High Pressure Centrifugal Fan



01 Powder-coated steel construction

Sheet-steel scroll housing and centrifugal impeller. The asynchronous motor and fan assembly mount on a rigid steel base.

02 Direct-drive industrial fan

A single-inlet centrifugal design for high static pressure at relatively low airflow. Select the model from its own 50 Hz performance curve.

03 Process and equipment air supply

For industrial exhaust, dust collection and process air movement. Confirm suitability for the transported material and keep motor and impeller service access clear.

AIRFLOW & STATIC PRESSURE

Select the working point, model by model.

Match the required airflow and static pressure to the selected model curve. Nominal maximum airflow and maximum static pressure are separate ratings; they are not simultaneous working-point values. Allow for the pressure losses in the connected system.

Selection parameter	Series overview
Nominal airflow range	350-1650 m^3/h
Maximum static pressure	2450-9800 Pa; model-specific ratings
Nominal motor power	0.37-7.50 kW
Electrical supply / motor configuration	400 V / 3 phase / 50 Hz / 2 poles
Motor insulation / protection / cooling	Class F / IP55 / TEFC / IE2
Motor range / maximum transported air	-20 to +40 °C / +40 °C

Performance data. Use the actual motor nameplate, selected dimensions and supplied terminal diagram.

02 / TECHNICAL DATA

Compare the complete range.

NOMINAL RATINGS / 400 V / 3 PHASE / 50 Hz

Model	Airflow m^3/h	Max. static pressure / Pa	Motor kW	Speed rpm	Current A	Weight kg	Sound pressure dB(A) / 3 m
VHPF 1T	350	2450	0.37	2800	1.10	20	56
VHPF 2T	420	2900	0.75	2770	1.88	27	59
VHPF 3T	450	3800	1.10	2895	2.46	41	60
VHPF 4T	550	4200	1.50	2845	3.20	46	62
VHPF 5T	620	4900	2.20	2840	4.85	57	64
VHPF 6T	1100	7500	3.00	2850	5.90	61	65
VHPF 7T	1280	7600	4.00	2920	7.80	68	69
VHPF 8T	1360	8600	5.50	2940	9.90	107	72
VHPF 9T	1650	9800	7.50	2930	13.30	135	74

Airflow, maximum static pressure, motor power, speed and current are nominal ratings. Select the actual airflow and pressure on the model curve. Supplied pressure polynomials are retained without rescaling to the separate nominal maximum-pressure fields.

Sound pressure is the supplied model-specific reference at 3 m. Verified sound-power levels and octave-band spectra are not supplied. Constant listed power, speed and current curves are rating references; no variable electrical-performance or measured-efficiency curve is inferred.

COMMON MOTOR & OPERATING DATA

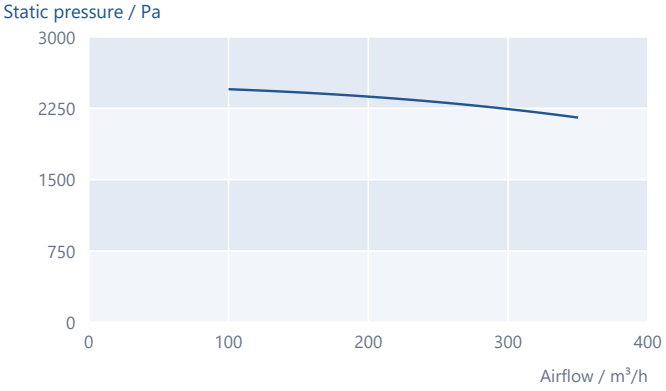
Parameter	Current catalogue basis
Motor	2 poles / Class F / IP55 / TEFC / IE2 / S1
Motor operating range	-20 to +40 °C
Maximum transported-air temperature	+40 °C

03 / AIR PERFORMANCE / 1 OF 2

Fan Performance Curves

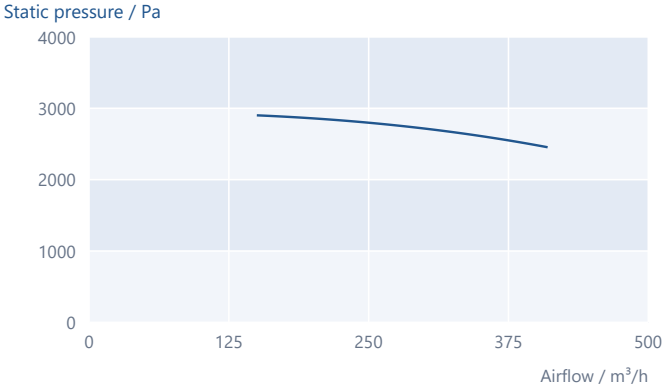
VHPF 1T

3~400 V / 50 Hz / 0.37 kW motor



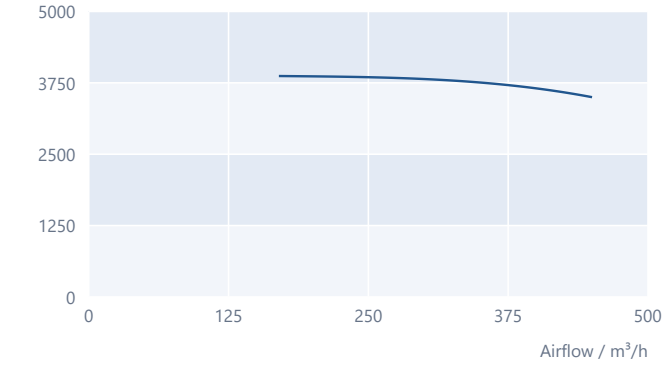
VHPF 2T

3~400 V / 50 Hz / 0.75 kW motor



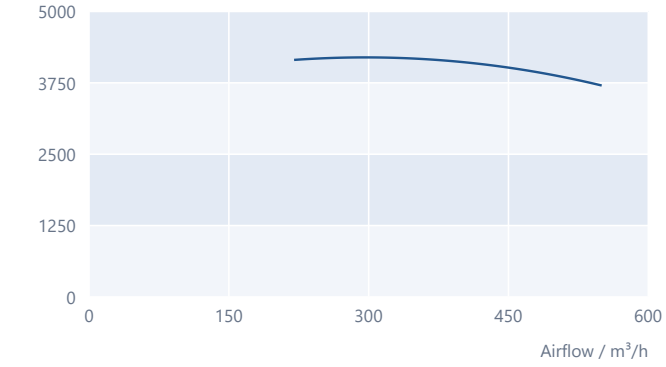
VHPF 3T

3~400 V / 50 Hz / 1.10 kW motor



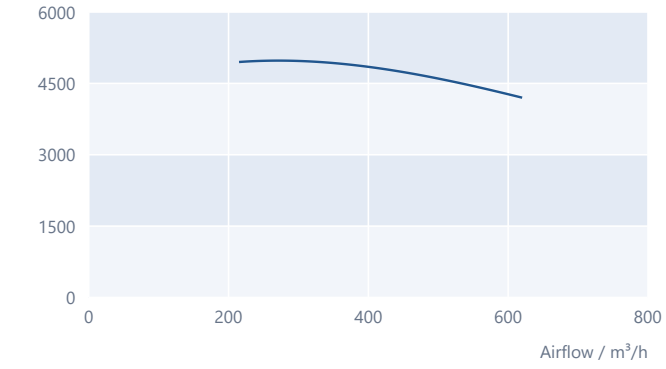
VHPF 4T

3~400 V / 50 Hz / 1.50 kW motor



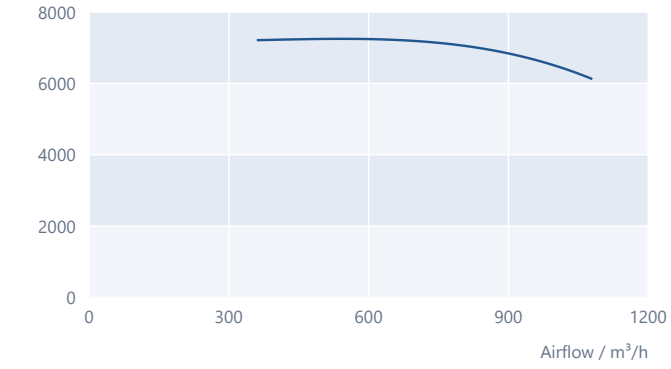
VHPF 5T

3~400 V / 50 Hz / 2.20 kW motor



VHPF 6T

3~400 V / 50 Hz / 3.00 kW motor



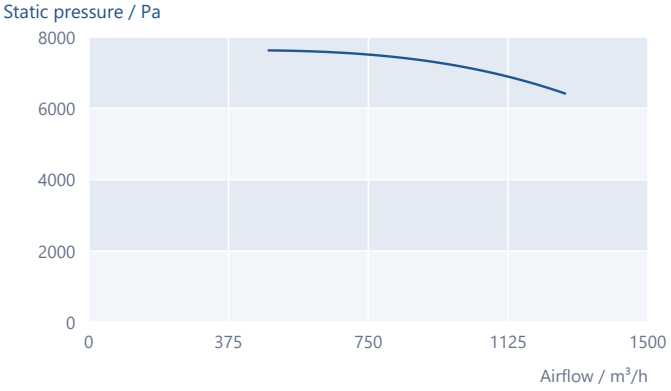
Model-specific scales. Original data pressure polynomials and curve domains are retained. No pressure normalization or extrapolation. Use FSP to check the required working point and selected model.

03 / AIR PERFORMANCE / 2 OF 2

Fan Performance Curves

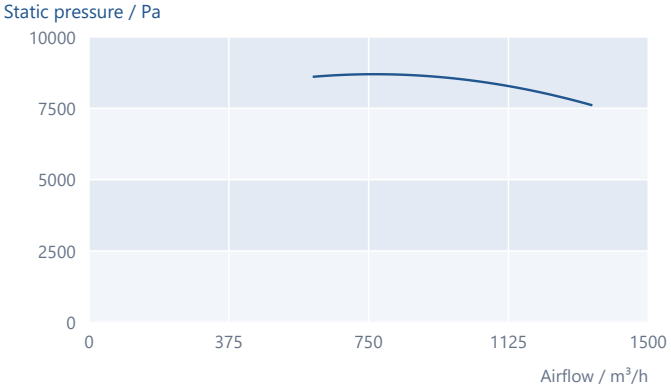
VHPF 7T

3~400 V / 50 Hz / 4.00 kW motor



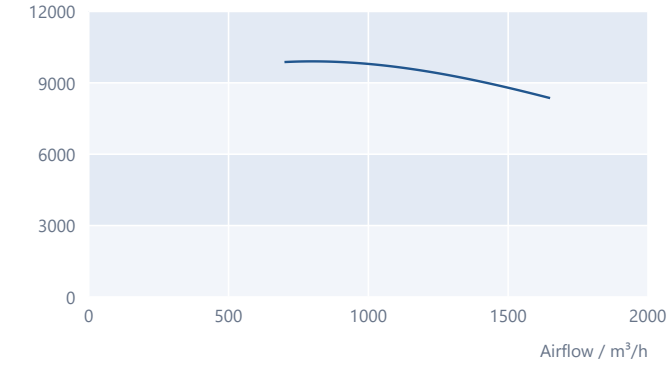
VHPF 8T

3~400 V / 50 Hz / 5.50 kW motor



VHPF 9T

3~400 V / 50 Hz / 7.50 kW motor



READING THE MODEL CURVES

Keep the curve and rating distinct.

Each curve applies to its stated 50 Hz model and supplied airflow interval. These partial curves retain nonzero pressure at their endpoints. They are not extended to zero airflow, zero pressure or a nominal airflow beyond the supplied interval.

VHPF 2T: curve limit 410 / nominal airflow 420 m³/h. VHPF 6T: 1080 / 1100 m³/h. VHPF 8T: 1350 / 1360 m³/h. The table retains the nominal figures.

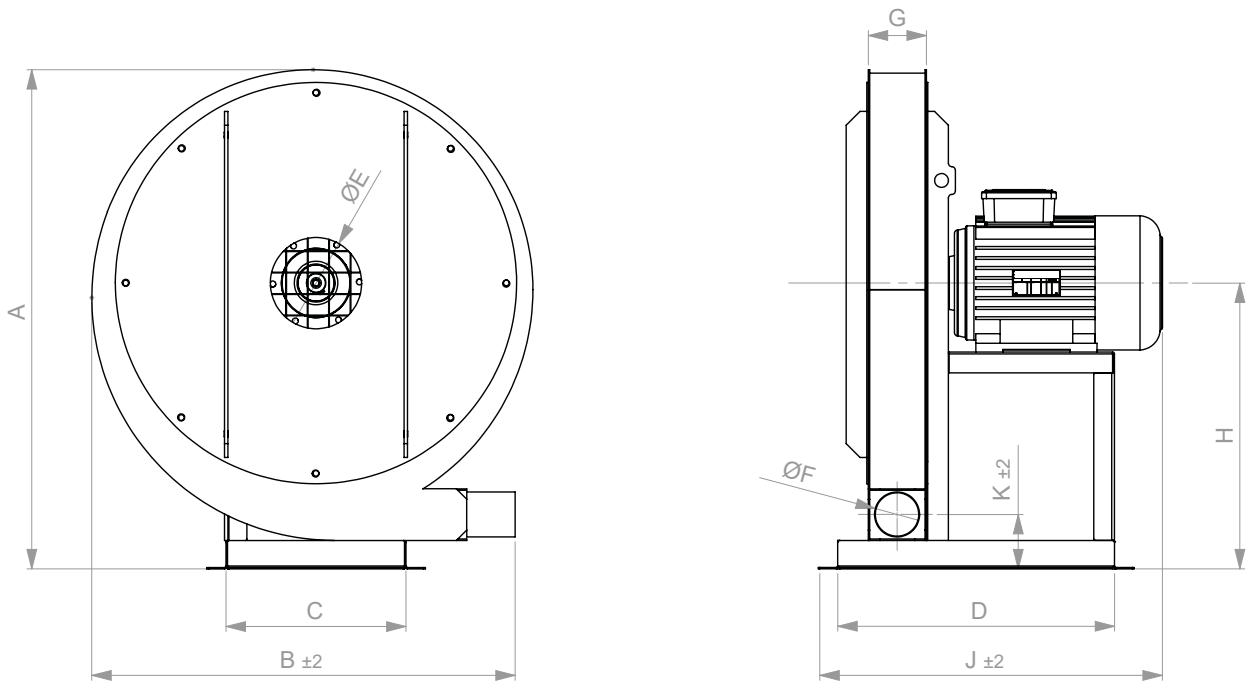
Model-specific scales. Original data pressure polynomials and curve domains are retained. No pressure normalization or extrapolation. Use FSP to check the required working point and selected model.

04 / DIMENSIONAL DATA

Plan the connections and mounting.

ORIGINAL SERIES DRAWING / A-H, J-K

All dimensions in mm



Model	A	B	C	D	E	F	G	H	J	K
VHPF 1T	500	440	210	320	120	60	65	285	400	73
VHPF 2T	575	515	210	320	130	60	65	330	390	73
VHPF 3T	620	580	210	320	130	60	65	355	390	73
VHPF 4T	650	555	210	360	130	60	65	375	415	76
VHPF 5T	685	600	210	360	130	65	75	390	430	76
VHPF 6T	725	615	260	400	130	65	85	415	495	79
VHPF 7T	785	685	300	440	150	75	85	460	500	82
VHPF 8T	855	745	300	480	150	85	105	495	560	86
VHPF 9T	870	860	360	500	150	105	125	465	580	96

All dimensions in mm. E is the inlet diameter and F the circular discharge diameter, as labelled in the outline. Use the selected model and original drawing for mating connections; do not scale the drawing to obtain dimensions.

05 / INSTALLATION & MOTOR

Prepare the process connection.

01 Mounting and airflow

Fix the fan assembly to a rigid support. Keep the inlet, discharge and motor ventilation clear; provide access for inspection and cleaning. Follow the selected inlet/outlet dimensions, connection flange and mounting outline.

02 Supply, control and maintenance

All listed models use 400 V three-phase, 50 Hz motors. A compatible frequency inverter may regulate the motor; published curves apply to the listed 50 Hz condition. Confirm the actual motor and controller suitability. Isolate power before servicing.

INLET & DISCHARGE DIAMETERS / mm

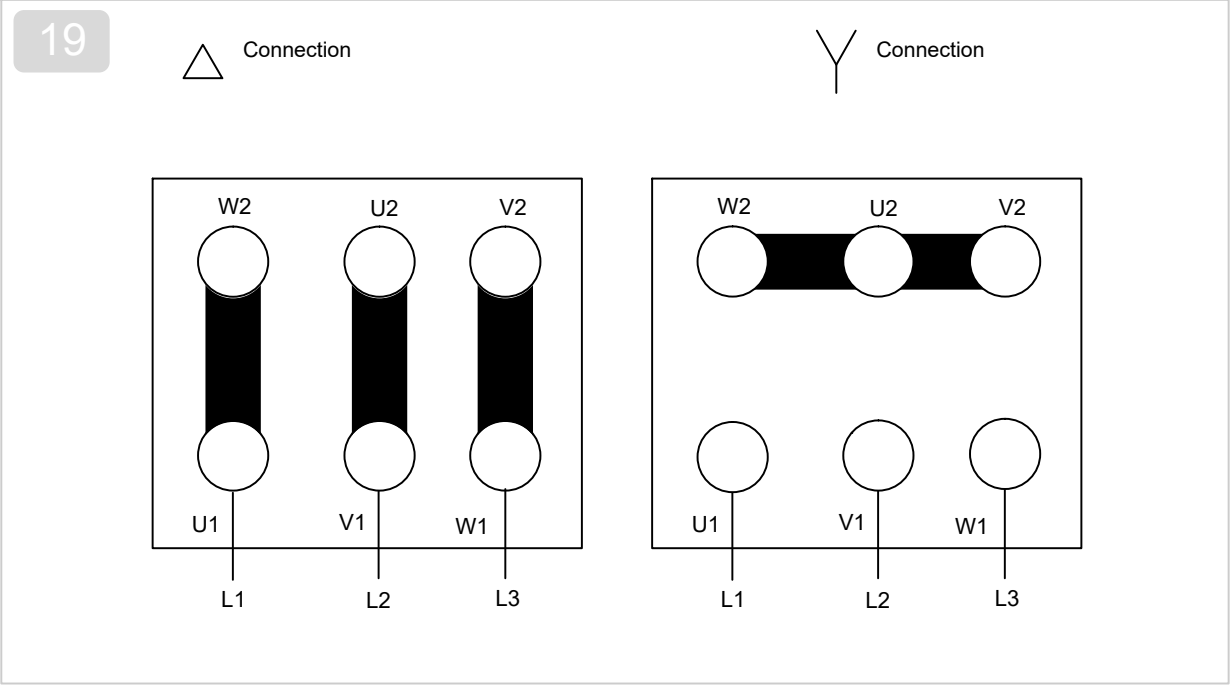
Model	Inlet / E	Discharge / F
VHPF 1T	Ø120	Ø60
VHPF 2T	Ø130	Ø60
VHPF 3T	Ø130	Ø60
VHPF 4T	Ø130	Ø60
VHPF 5T	Ø130	Ø65
VHPF 6T	Ø130	Ø65
VHPF 7T	Ø150	Ø75
VHPF 8T	Ø150	Ø85
VHPF 9T	Ø150	Ø105

Current FSP motor operating range: -20 to +40 °C; maximum transported-air temperature: +40 °C. Confirm compatibility with the transported material and actual installation. Use the model-specific current and motor nameplate for supply design.

06 / ELECTRICAL CONNECTION

Match the motor terminal layout.

THREE PHASE / LAYOUT 19 / 400 V / 50 Hz



Delta connection

Star connection

The motor nameplate sets the connection.

The diagram shows delta and star terminal arrangements for a three-phase motor. Listed supply is 400 V, 50 Hz. Use the voltage rating, terminal arrangement and connection instructions supplied with the actual selected motor.

Connect protective earth, verify rotation during commissioning and specify protection for the actual motor rating and installation. This is a terminal reference, not a complete control-panel or protective-device design.

Motor configuration: 2 poles / Class F / IP55 / TEFC / IE2. All nine catalogue models are three phase; no single-phase connection or capacitor rating is inferred.

01 / PRODUCT OVERVIEW

VMPF

Medium Pressure Centrifugal Fan



01 Powder-coated steel construction

Sheet-steel scroll housing and centrifugal impeller. The asynchronous motor and fan assembly mount on a rigid steel base.

02 Direct-drive industrial fan

A single-inlet centrifugal design for medium-pressure industrial air movement. Select the model from its own 50 Hz performance curve.

03 Process and equipment air supply

For industrial exhaust, dust collection and process air movement. Confirm suitability for the transported material and keep motor and impeller service access clear.

AIRFLOW & STATIC PRESSURE

Select the working point, model by model.

Match the required airflow and static pressure to the selected model curve. Nominal maximum airflow and maximum static pressure are separate ratings; they are not simultaneous working-point values. Allow for the pressure losses in the connected system.

Selection parameter	Series overview
Nominal airflow range	950-4000 m^3/h
Maximum static pressure	1350-6700 Pa; model-specific ratings
Nominal motor power	0.37-7.50 kW
Electrical supply / motor configuration	400 V / 3 phase / 50 Hz / 2 poles
Motor insulation / protection / cooling	Class F / IP55 / TEFC / IE2
Motor range / maximum transported air	-20 to +40 °C / +40 °C

Performance data. Use the actual motor nameplate, selected dimensions and supplied terminal diagram.

02 / TECHNICAL DATA

Compare the complete range.

NOMINAL RATINGS / 400 V / 3 PHASE / 50 Hz

Model	Airflow m^3/h	Max. static pressure / Pa	Motor kW	Speed rpm	Current A	Weight kg	Sound pressure dB(A) / 3 m
VMPF 1T	950	1350	0.37	2800	1.10	30	56
VMPF 2T	1000	2000	0.75	2770	1.88	35	59
VMPF 3T	1300	2230	1.10	2895	2.46	37	60
VMPF 4T	1600	3280	1.50	2845	3.20	53	62
VMPF 5T	1900	3400	2.20	2840	4.85	70	64
VMPF 6T	2200	4000	3.00	2850	5.90	86	65
VMPF 7T	2500	4700	4.00	2920	7.80	96	69
VMPF 8T	3000	5300	5.50	2940	9.90	108	72
VMPF 9T	4000	6700	7.50	2930	13.30	125	74

Airflow, maximum static pressure, motor power, speed and current are nominal ratings. Select the actual airflow and pressure on the model curve. Supplied pressure polynomials are retained without rescaling to the separate nominal maximum-pressure fields.

Sound pressure is the supplied model-specific reference at 3 m. Verified sound-power levels and octave-band spectra are not supplied. Constant listed power, speed and current curves are rating references; no variable electrical-performance or measured-efficiency curve is inferred.

COMMON MOTOR & OPERATING DATA

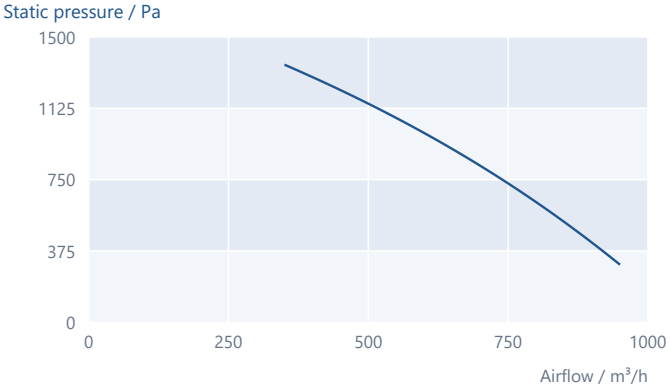
Parameter	Current catalogue basis
Motor	2 poles / Class F / IP55 / TEFC / IE2 / S1
Motor operating range	-20 to +40 °C
Maximum transported-air temperature	+40 °C

03 / AIR PERFORMANCE / 1 OF 2

Fan Performance Curves

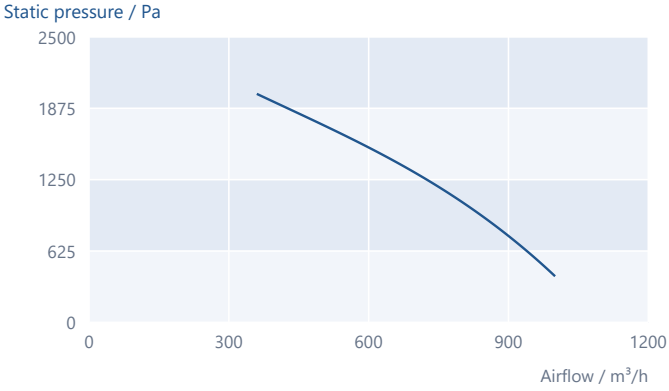
VMPF 1T

3~400 V / 50 Hz / 0.37 kW motor



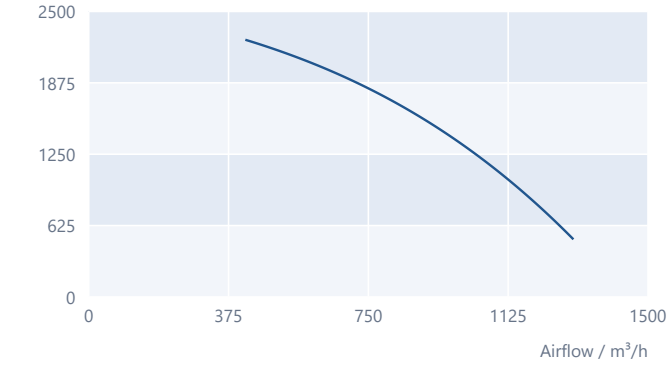
VMPF 2T

3~400 V / 50 Hz / 0.75 kW motor



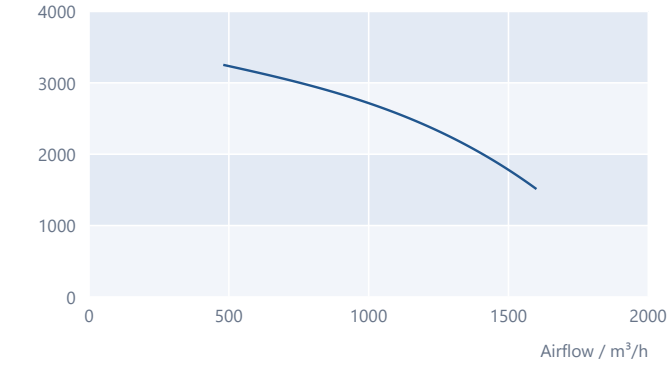
VMPF 3T

3~400 V / 50 Hz / 1.10 kW motor



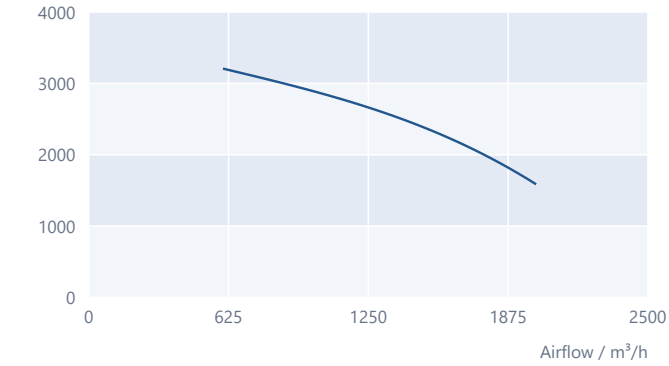
VMPF 4T

3~400 V / 50 Hz / 1.50 kW motor



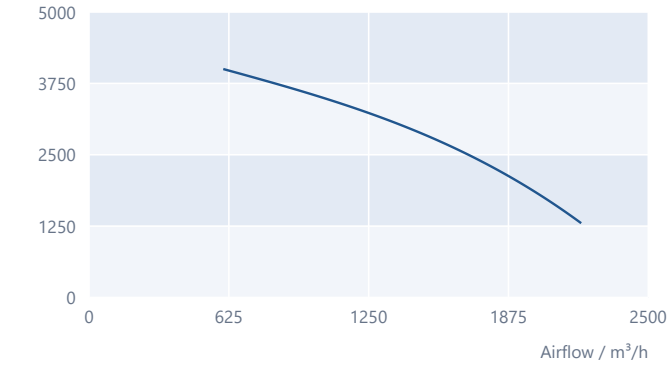
VMPF 5T

3~400 V / 50 Hz / 2.20 kW motor



VMPF 6T

3~400 V / 50 Hz / 3.00 kW motor



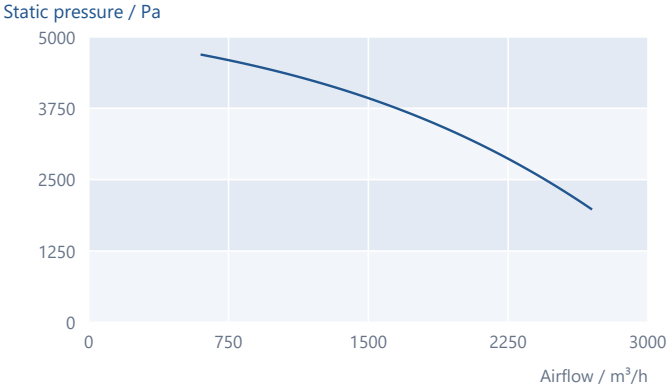
Model-specific scales. Original data pressure polynomials and curve domains are retained. No pressure normalization or extrapolation. Use FSP to check the required working point and selected model.

03 / AIR PERFORMANCE / 2 OF 2

Fan Performance Curves

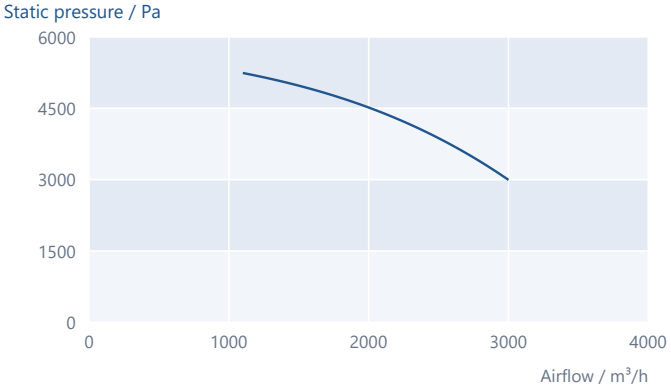
VMPF 7T

3~400 V / 50 Hz / 4.00 kW motor



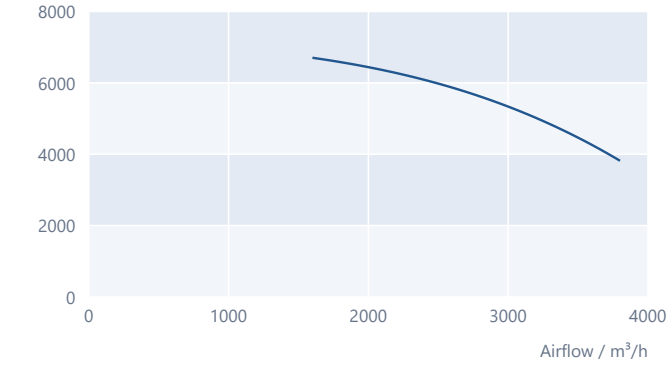
VMPF 8T

3~400 V / 50 Hz / 5.50 kW motor



VMPF 9T

3~400 V / 50 Hz / 7.50 kW motor



READING THE MODEL CURVES

Keep the curve and rating distinct.

Each curve applies to its stated 50 Hz model and supplied airflow interval. These partial curves retain nonzero pressure at their endpoints. They are not extended to zero airflow, zero pressure or a nominal airflow beyond the supplied interval.

VMPF 5T: curve limit 2000 / nominal airflow 1900 m³/h. VMPF 7T: 2700 / 2500 m³/h. VMPF 9T: 3800 / 4000 m³/h. Both values are retained.

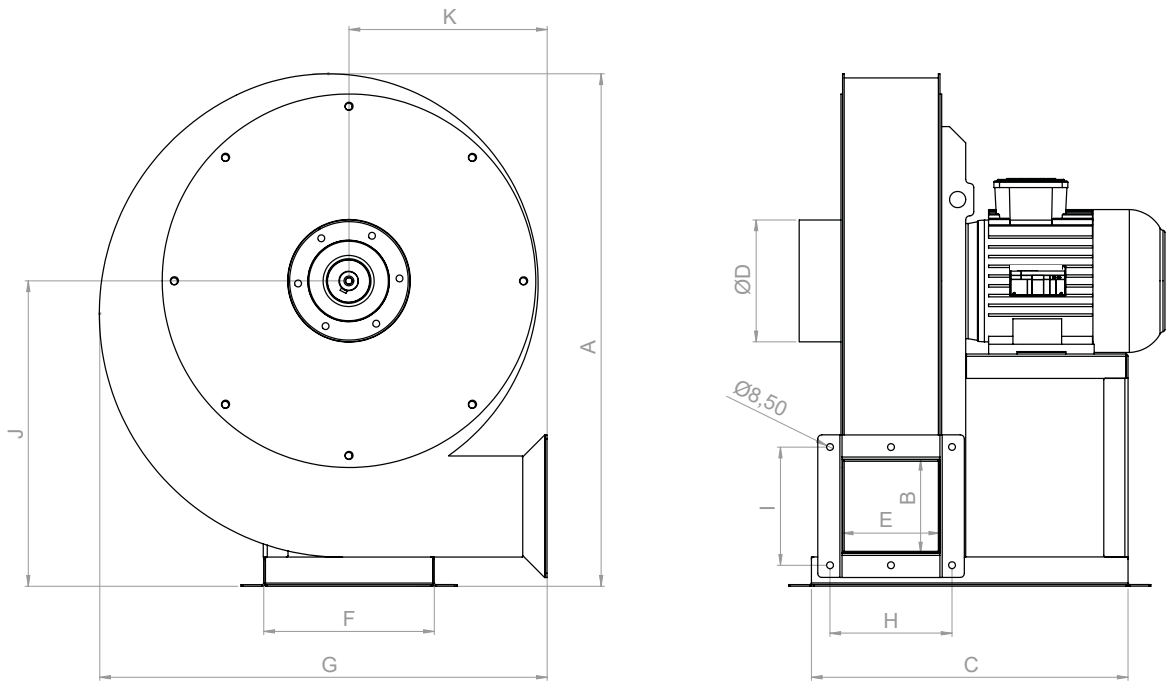
Model-specific scales. Original data pressure polynomials and curve domains are retained. No pressure normalization or extrapolation. Use FSP to check the required working point and selected model.

04 / DIMENSIONAL DATA

Plan the connections and mounting.

ORIGINAL SERIES DRAWING / A-K

All dimensions in mm



Model	A	B	C	D	E	F	G	H	I	J	K
VMPF 1T	425	160	340	120	100	80	360	130	107	260	180
VMPF 2T	560	95	340	120	100	190	485	130	125	335	225
VMPF 3T	575	190	340	150	100	105	500	140	135	345	235
VMPF 4T	630	210	390	150	120	115	550	150	145	375	245
VMPF 5T	665	210	390	150	150	120	550	150	150	395	225
VMPF 6T	665	250	390	150	150	120	550	180	150	395	225
VMPF 7T	755	250	450	150	150	145	660	180	175	435	200
VMPF 8T	785	300	450	200	150	190	700	180	220	435	330
VMPF 9T	815	300	450	200	150	195	730	180	225	445	345

All dimensions in mm. D identifies the inlet. Listed VMPF 2T dimension B is 95 mm, while its nominal discharge profile is 190 x 100 mm. These are retained separately; confirm the actual flange before fabrication. Do not scale the drawing.

05 / INSTALLATION & MOTOR

Prepare the process connection.

01 Mounting and airflow

Fix the fan assembly to a rigid support. Keep the inlet, discharge and motor ventilation clear; provide access for inspection and cleaning. Follow the selected inlet/outlet dimensions, connection flange and mounting outline.

02 Supply, control and maintenance

All listed models use 400 V three-phase, 50 Hz motors. A compatible frequency inverter may regulate the motor; published curves apply to the listed 50 Hz condition. Confirm the actual motor and controller suitability. Isolate power before servicing.

INLET & RECTANGULAR DISCHARGE / mm

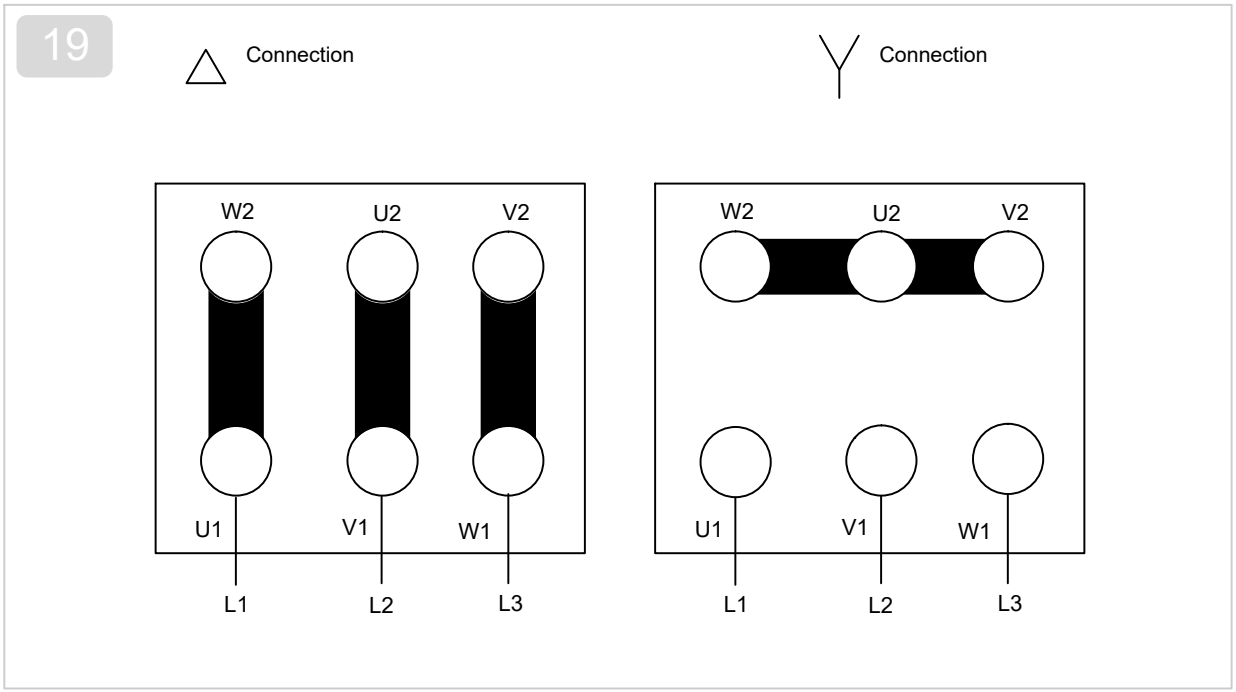
Model	Inlet / D	Nominal discharge / mm
VMPF 1T	Ø120	160 x 100
VMPF 2T	Ø120	190 x 100
VMPF 3T	Ø150	190 x 100
VMPF 4T	Ø150	210 x 120
VMPF 5T	Ø150	210 x 150
VMPF 6T	Ø150	250 x 150
VMPF 7T	Ø150	250 x 150
VMPF 8T	Ø200	300 x 150
VMPF 9T	Ø200	300 x 150

Current FSP motor operating range: -20 to +40 °C; maximum transported-air temperature: +40 °C. Confirm compatibility with the transported material and actual installation. Use the model-specific current and motor nameplate for supply design.

06 / ELECTRICAL CONNECTION

Match the motor terminal layout.

THREE PHASE / LAYOUT 19 / 400 V / 50 Hz



Delta connection

Star connection

The motor nameplate sets the connection.

The diagram shows delta and star terminal arrangements for a three-phase motor. Listed supply is 400 V, 50 Hz. Use the voltage rating, terminal arrangement and connection instructions supplied with the actual selected motor.

Connect protective earth, verify rotation during commissioning and specify protection for the actual motor rating and installation. This is a terminal reference, not a complete control-panel or protective-device design.

Motor configuration: 2 poles / Class F / IP55 / TEFC / IE2. All nine catalogue models are three phase; no single-phase connection or capacitor rating is inferred.

01 / PRODUCT OVERVIEW

VLPF

Low Pressure Backward Curved Centrifugal Fan



01 Welded backward-curved impeller

A single-inlet centrifugal fan with a welded backward-curved wheel, powder-coated DKP sheet-steel scroll and rigid mounting base.

02 Low-pressure industrial ventilation

For clean-air extraction, air-conditioning, exhaust filtration and general process ventilation. Match the required duty to the model-specific curve.

03 Motor and air limits kept separate

The maximum transported-air temperature is +120 °C. Motor operating range is -20 to +55 °C; maintain motor ventilation and service clearance.

CURVES & MODEL SELECTION

Select the fan at the required working point.

Use each model's 50 Hz static-pressure curve. Nominal airflow, motor ratings and listed acoustic references are listed separately. The listed polynomial fits are preserved; final motor loading and application conditions must be checked for the selected duty.

Selection parameter	Series overview
Nominal airflow	2500-40000 m^3/h
Maximum static pressure	400-2400 Pa; model-specific nominal fields
Nominal motor power	0.25-22.00 kW
Electrical supply	230 V / 1 phase or 400 V / 3 phase / 50 Hz
Motor configuration	4 poles / Class F / IP55 / TEFC / IE2 or IE3
Motor range / transported-air maximum	-20 to +55 °C / +120 °C

Performance data. Photograph illustrates the open inlet; use the actual unit nameplate, outline and supplied motor diagram.

02 / TECHNICAL DATA

Compare the electrical configurations.

19 MODELS / 50 Hz / 4 POLES

Model	Supply V / phase	Airflow m^3/h	Max. Ps Pa	Motor kW	Speed rpm	Current A	Weight kg	LpA / 3 m dB(A)	Motor IE class
VLPF 1M	230 / 1	2500	400	0.25	1380	2.10	67	70	IE2
VLPF 2M	230 / 1	3500	525	0.55	1365	3.30	78	72	IE2
VLPF 3M	230 / 1	5000	600	0.75	1410	5.40	91	75	IE2
VLPF 4M	230 / 1	7000	815	1.50	1400	9.80	104	85	IE3
VLPF 5M	230 / 1	10000	1050	2.20	1425	14.00	145	88	IE3
VLPF 6M	230 / 1	12000	1050	3.00	1430	20.00	158	92	IE3
VLPF 1T	400 / 3	2500	400	0.25	1380	0.87	67	70	IE2
VLPF 2T	400 / 3	3500	525	0.55	1365	1.60	78	72	IE2
VLPF 3T	400 / 3	5000	600	0.75	1410	1.92	91	75	IE3
VLPF 4T	400 / 3	7000	815	1.50	1400	3.50	104	85	IE3
VLPF 5T	400 / 3	10000	1050	2.20	1420	4.90	145	88	IE3
VLPF 6T	400 / 3	12000	1050	3.00	1430	6.70	158	92	IE3
VLPF 7T	400 / 3	15000	1320	4.00	1440	8.40	175	95	IE3
VLPF 8T	400 / 3	18000	1350	5.50	1450	11.50	225	98	IE3
VLPF 9T	400 / 3	20000	1630	7.50	1455	16.00	240	100	IE3
VLPF 10T	400 / 3	23000	1650	11.00	1465	21.30	255	102	IE3
VLPF 11T	400 / 3	25000	1700	15.00	1470	29.40	325	103	IE3
VLPF 12T	400 / 3	30000	2200	18.50	1470	34.50	375	105	IE3
VLPF 13T	400 / 3	40000	2400	22.00	1475	43.00	410	105	IE3

Airflow, maximum static pressure and motor data are nominal ratings. M = single phase; T = three phase. LpA is the supplied sound-pressure reference at 3 m; housing sound-power data are listed separately on p. 232.

VLPF 2T: nominal maximum airflow 3500 m^3/h and pressure 525 Pa; the curve starts at 800 Pa and extends to 4300 m^3/h. Both representations are retained. Confirm this model's performance before final duty selection.

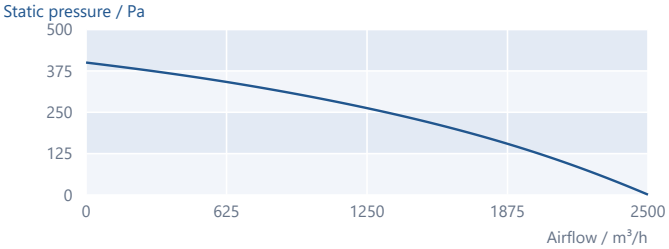
Class F / IP55 / TEFC / S1. Motor range: -20 to +55 °C. Maximum transported air: +120 °C. Listed pressure fits are not normalized to nominal maximum-pressure fields.

03 / AIR PERFORMANCE / 1 OF 2

Fan Performance Curves

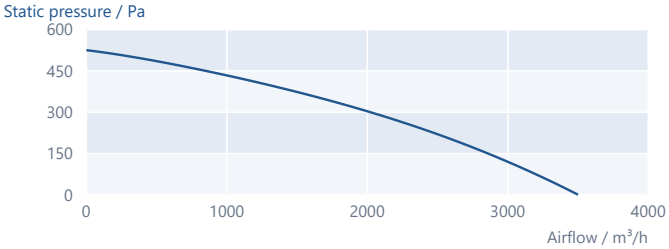
VLPF 1M

230 V / 1 phase / 50 Hz / 0.25 kW



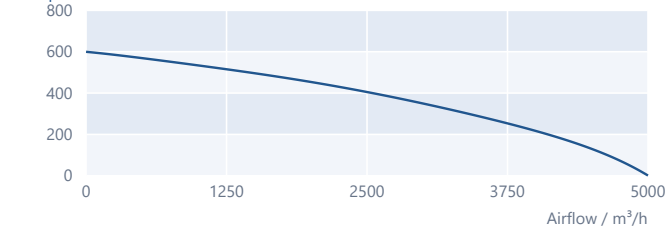
VLPF 2M

230 V / 1 phase / 50 Hz / 0.55 kW



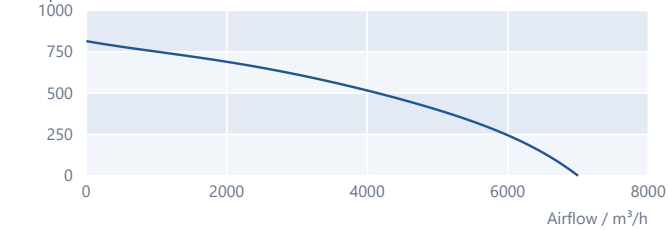
VLPF 3M

230 V / 1 phase / 50 Hz / 0.75 kW



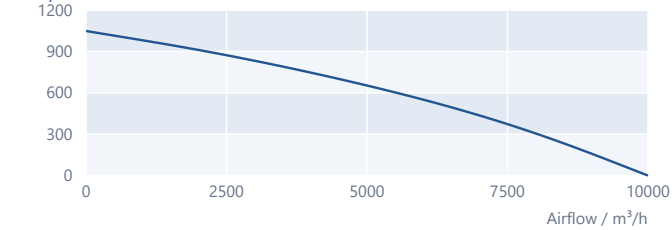
VLPF 4M

230 V / 1 phase / 50 Hz / 1.50 kW



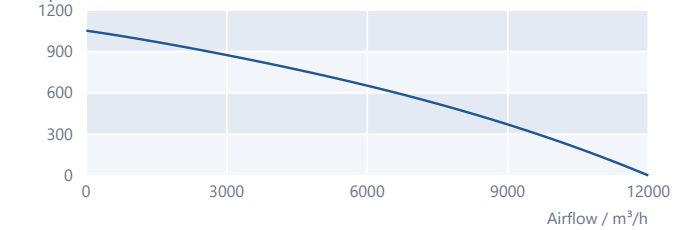
VLPF 5M

230 V / 1 phase / 50 Hz / 2.20 kW



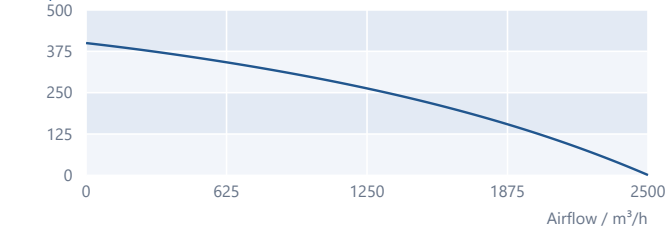
VLPF 6M

230 V / 1 phase / 50 Hz / 3.00 kW



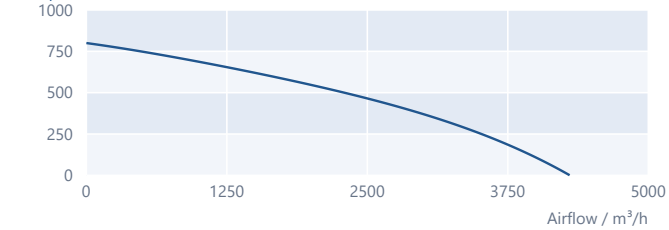
VLPF 1T

400 V / 3 phase / 50 Hz / 0.25 kW



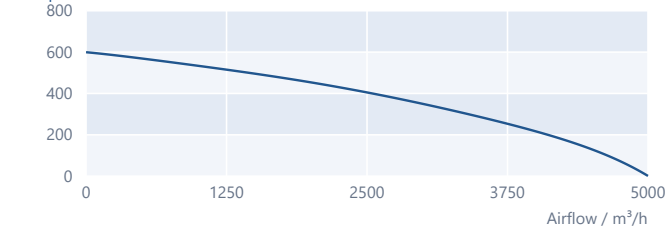
VLPF 2T

400 V / 3 phase / 50 Hz / 0.55 kW



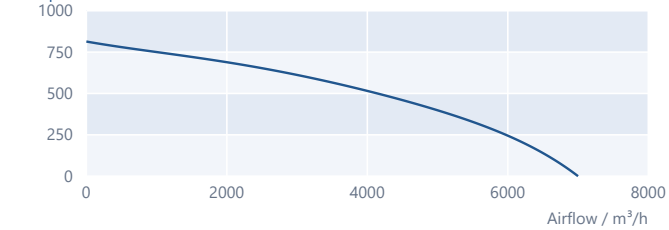
VLPF 3T

400 V / 3 phase / 50 Hz / 0.75 kW



VLPF 4T

400 V / 3 phase / 50 Hz / 1.50 kW



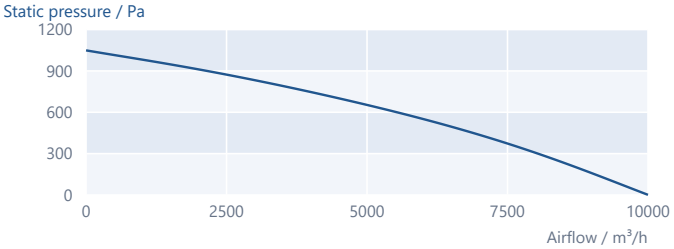
Model-specific scales; listed 50 Hz curves. Tiny negative fit tails stop at zero pressure. No extrapolation. VLPF 2T nominal/curve discrepancy: see p. 226.

03 / AIR PERFORMANCE / 2 OF 2

Fan Performance Curves

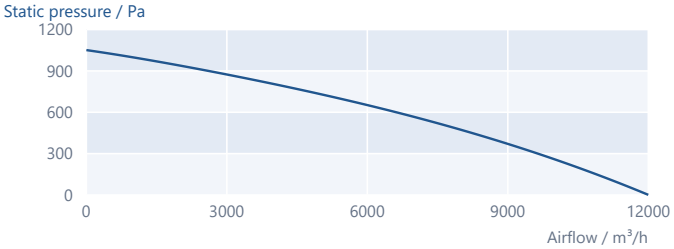
VLPF 5T

400 V / 3 phase / 50 Hz / 2.20 kW



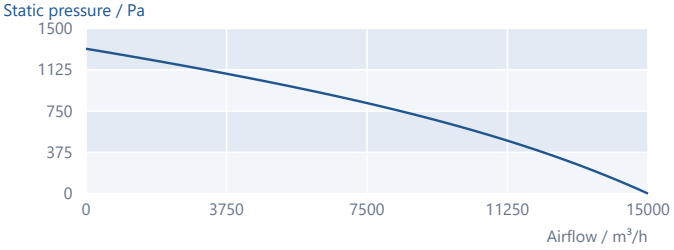
VLPF 6T

400 V / 3 phase / 50 Hz / 3.00 kW



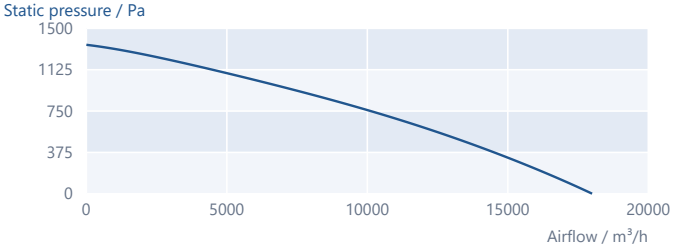
VLPF 7T

400 V / 3 phase / 50 Hz / 4.00 kW



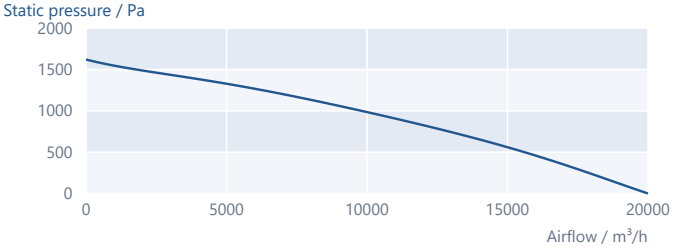
VLPF 8T

400 V / 3 phase / 50 Hz / 5.50 kW



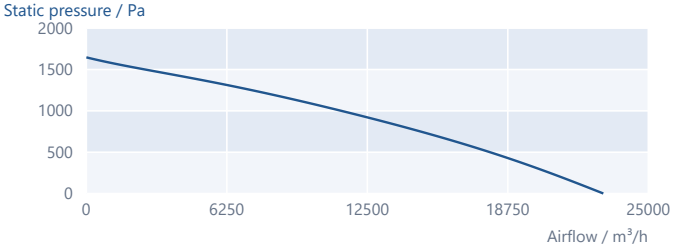
VLPF 9T

400 V / 3 phase / 50 Hz / 7.50 kW



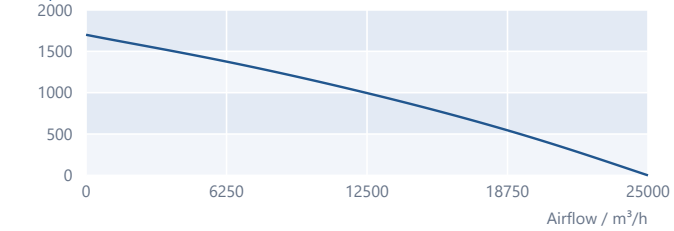
VLPF 10T

400 V / 3 phase / 50 Hz / 11.00 kW



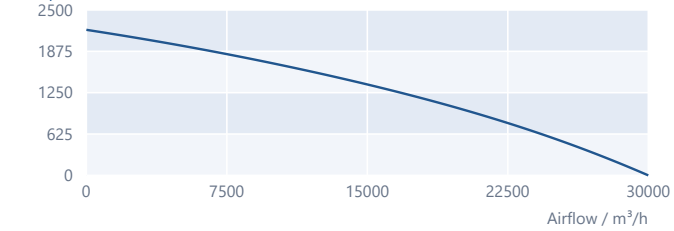
VLPF 11T

400 V / 3 phase / 50 Hz / 15.00 kW



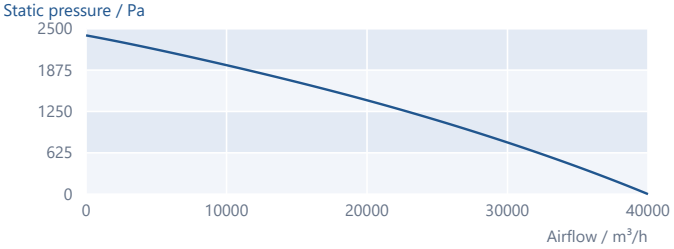
VLPF 12T

400 V / 3 phase / 50 Hz / 18.50 kW



VLPF 13T

400 V / 3 phase / 50 Hz / 22.00 kW



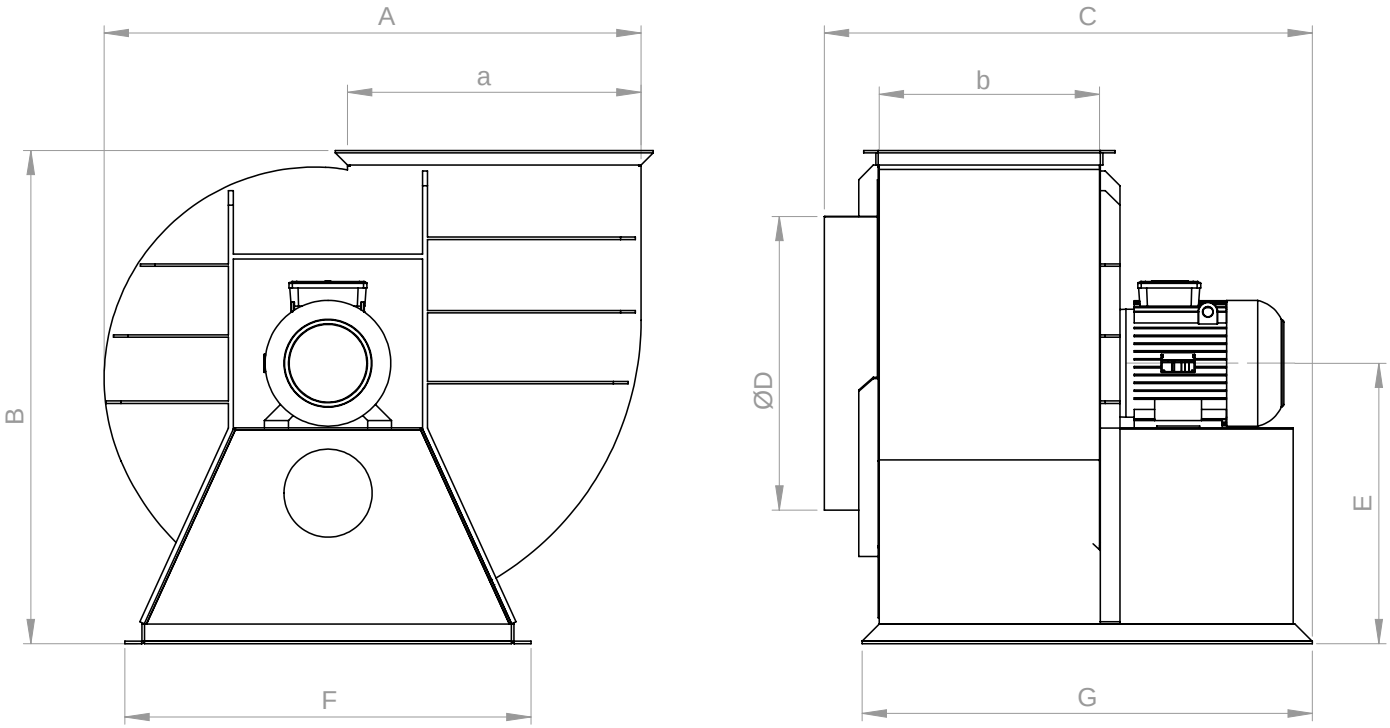
Model-specific scales; listed 50 Hz curves. Tiny negative fit tails stop at zero pressure. No extrapolation.

04 / DIMENSIONAL DRAWING

Define the inlet, discharge and base.

ORIGINAL FAMILY OUTLINE / A-G, a-b

All dimensions in mm



THIRTEEN CASING CONFIGURATIONS

Use the selected casing and model.

The outline defines the circular inlet, rectangular discharge and mounting geometry. p. 230 lists all nine supplied dimensions for each of the thirteen casings. Single-phase and three-phase versions of sizes 1-6 share the supplied outline values.

The product photograph illustrates the fan configuration and viewing angle. Use the selected model dimensions and actual flange for mating connections. Do not scale the drawing to obtain dimensions.

05 / DIMENSIONAL DATA

Every connection, by casing size.

CASING & MOUNTING DIMENSIONS / mm

Casing / models	A	a	B	b	C	D	E	F	G
VLPF 1M / 1T	515	195	507	185	474	225	291	420	445
VLPF 2M / 2T	580	225	584	205	495	260	325	460	460
VLPF 3M / 3T	699	335	680	275	650	310	386	560	590
VLPF 4M / 4T	782	377	760	300	685	350	435	635	615
VLPF 5M / 5T	872	414	883	320	771	400	520	733	696
VLPF 6M / 6T	925	436	900	350	826	450	515	755	755
VLPF 7T	1040	522	1015	396	886	500	602	740	825
VLPF 8T	1100	588	1008	450	997	600	573	830	920
VLPF 9T	1130	588	1080	500	1047	650	632	990	980
VLPF 10T	1272	664	1205	550	1176	700	703	1030	1105
VLPF 11T	1390	786	1265	600	1219	750	763	980	1145
VLPF 12T	1450	788	1365	600	1275	800	815	1050	1275
VLPF 13T	1576	826	1465	600	1275	850	847	1160	1290

All dimensions in mm. Lowercase a x b identifies the rectangular discharge profile; D is the circular inlet dimension shown in the outline. The listed calculation diameter is recorded separately in FSP. Actual mating flanges and installation clearances must follow the selected model.

Casings 1-6 apply to the listed M and T versions. Casings 7-13 are three phase only. All listed dimension values are retained; no missing or neighbouring model dimensions are inferred.

06 / INSTALLATION & MOTOR

Prepare the fan and the supply.

01 Mounting and service access

Fix the fan to a rigid support. Keep the inlet, discharge and motor ventilation clear, and provide access to the impeller and fasteners. Follow the selected outline. Motor operating range is -20 to +55 °C; maximum transported-air temperature is +120 °C.

02 Motor supply and control

M models use 230 V single-phase motors; T models use 400 V three-phase motors. Use compatible voltage control for M and compatible inverter control for T, subject to the actual motor/controller instructions. Published curves apply to 50 Hz. Isolate power before servicing.

SINGLE-PHASE MOTOR CAPACITORS

Model	Capacitor / µF	Capacitor rating / V
VLPF 1M	10	400
VLPF 2M	20	400
VLPF 3M	30	400
VLPF 4M	50	400
VLPF 5M	60	400
VLPF 6M	60	400

Capacitor voltage is the component rating; single-phase supply remains 230 V. Layout 18 shows the motor-terminal alternatives. Apply the diagram and capacitor arrangement supplied with the actual selected motor; three-phase models do not use these capacitor references.

07 / ACOUSTIC REFERENCE

Housing sound power, by model.

HOUSING BAND LEVELS / dB

Model	65 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	LwA dB(A)
VLPF 1M	37	48	61	65	64	63	61	57	70
VLPF 2M	40	51	64	68	67	66	64	60	73
VLPF 3M	44	55	68	72	71	70	68	64	77
VLPF 4M	48	59	72	76	75	74	72	68	81
VLPF 5M	51	62	75	79	78	77	75	71	84
VLPF 6M	53	64	77	81	80	79	77	73	86
VLPF 1T	37	48	61	65	64	63	61	57	70
VLPF 2T	40	51	64	68	67	66	64	60	73
VLPF 3T	44	55	68	72	71	70	68	64	77
VLPF 4T	48	59	72	76	75	74	72	68	81
VLPF 5T	51	62	75	79	78	77	75	71	84
VLPF 6T	53	64	77	81	80	79	77	73	86
VLPF 7T	56	67	80	84	83	82	80	76	89
VLPF 8T	57	68	81	85	84	83	81	77	90
VLPF 9T	59	70	83	87	86	85	83	79	92
VLPF 10T	61	72	85	89	88	87	85	81	94
VLPF 11T	-	-	-	-	-	-	-	-	-
VLPF 12T	63	74	87	91	90	89	87	83	96
VLPF 13T	65	76	89	93	92	91	89	85	98

Housing sound-power bands and totals are supplied selection datas. The first band is labelled 65 Hz in the original data and is retained as supplied. Inlet/outlet sound-power spectra and sound-pressure spectra are not supplied.

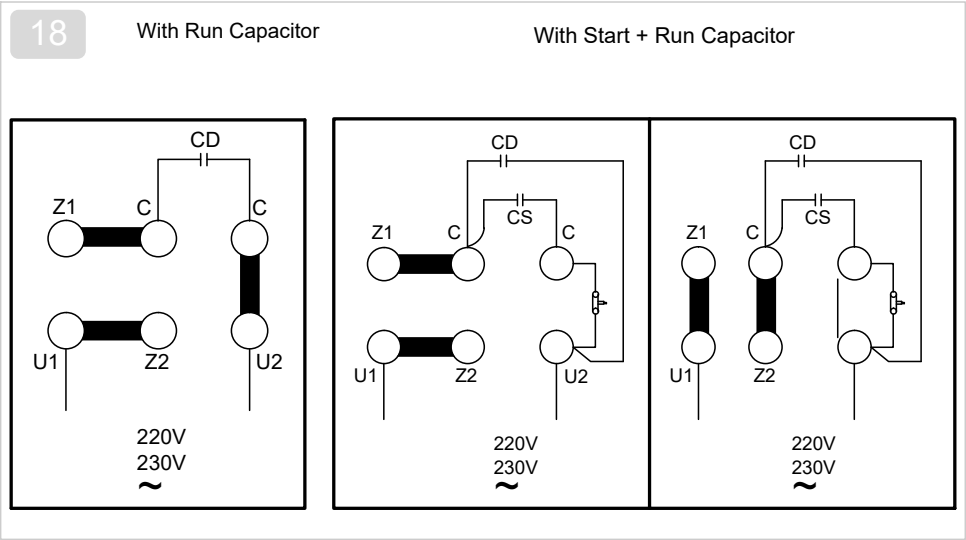
VLPF 11T: housing spectrum and sound-power total are not supplied; no values are inferred. The technical table retains its independent listed LpA reference at 3 m.

Test conditions linking housing LwA and listed LpA are not specified. They remain separate, unreconciled selection datas; confirm acoustic performance for the actual installation.

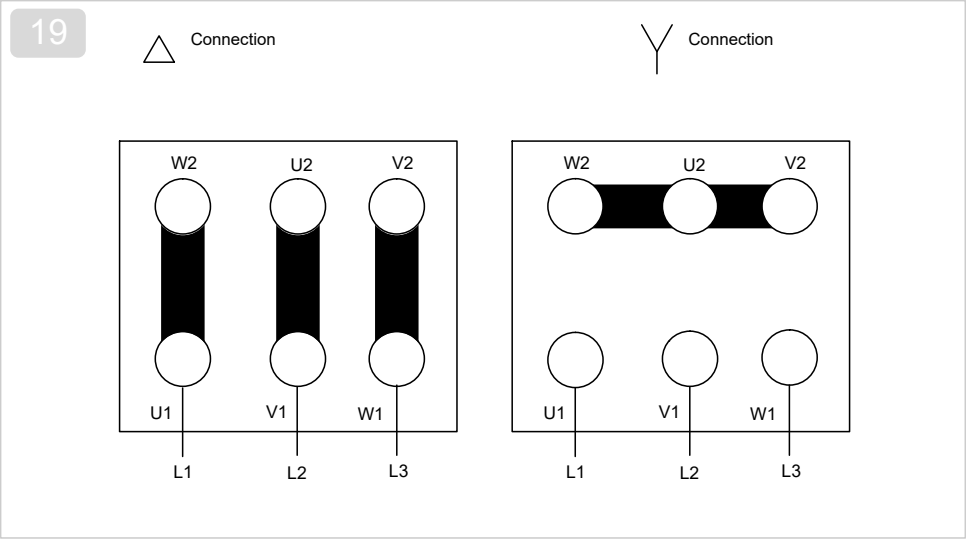
08 / ELECTRICAL CONNECTION

Match the motor terminal layout.

SINGLE PHASE / LAYOUT 18 / 230 V / 50 Hz



THREE PHASE / LAYOUT 19 / 400 V / 50 Hz



Schema 18 shows the capacitor-motor terminal arrangements; use the actual motor's supplied capacitor circuit. Schema 19 shows delta/star three-phase arrangements. The selected motor nameplate determines the correct connection.

Connect protective earth, verify rotation and specify motor protection for the actual unit. These are terminal references, not complete application control-panel designs.



04

ROOF FANS

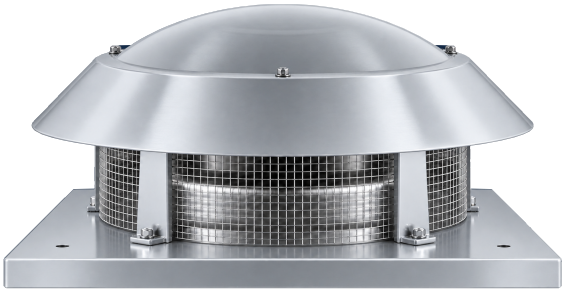
SERIES DIRECTORY

VHF	235
VYF	244
VLF-R	253
VRF	272

01 / PRODUCT OVERVIEW

VHF

Horizontal Discharge Centrifugal Roof Fan



01 Weather cover and roof mounting

A sheet-metal cover and mounting plate form the roof installation. The outlet grille and structural supports are illustrated by the approved product photograph.

02 Backward-curved centrifugal wheel

The construction uses a galvanized backward-curved impeller and enclosed external-rotor motor for roof extraction.

03 Select against the system resistance

Ten 50 Hz models cover nominal airflow from 346 to 9600 m^3/h. Use each listed static-pressure curve to match the connected duct resistance.

MODEL-SPECIFIC RATINGS

One series. Ten configurations.

Selection parameter	Series overview
Nominal airflow	346-9600 m^3/h
Nominal motor power	60-1750 W
Electrical supply	230 V / 1 phase or 400 V / 3 phase / 50 Hz
Motor configuration	2 or 4 poles / Class B or F / IP44 or IP54
Motor range / maximum transported air	-20 to +40 °C / +40 °C
Sound pressure reference	Listed LpA at 4 m; model-specific

Published series data. Use the selected model outline and motor nameplate. The photograph is illustrative of the series configuration.

02 / TECHNICAL DATA

Compare the fan and motor.

10 MODELS / 50 Hz / NOMINAL RATINGS

Model	Supply V / phase	Airflow m^3/h	Max. Ps Pa	Motor W	Speed rpm	Current A	Weight kg	LpA / 4 m dB(A)
VHF 160	230 / 1	346	225	60	2600	0.3	3.5	44
VHF 180	230 / 1	460	290	80	2500	0.35	3.7	49
VHF 225	230 / 1	902	450	130	2750	0.6	7	50
VHF 250	230 / 1	1212	545	190	2800	0.85	8	52
VHF 315	230 / 1	2000	270	160	1450	0.8	12.8	47
VHF 355	230 / 1	2900	320	240	1400	1.1	18	46
VHF 400	230 / 1	4100	540	380	1380	1.65	22	51
VHF 450	230 / 1	5400	540	620	1370	2.8	28	52
VHF 500	400 / 3	7600	720	1200	1400	2.7	45.5	54
VHF 560	400 / 3	9600	880	1750	1400	3.3	48	66

Airflow and maximum static pressure are nominal ratings, not a selected duty point. Motor power, speed and current are nominal values; operating-point values in FSP may differ.

MOTOR & ACOUSTIC REFERENCE

VHF 160-250: 2 poles / Class B. VHF 315-560: 4 poles / Class F. All listed motors are TEAO. VHF 160-450: IP44; VHF 500 and 560: IP54. Motor class, efficiency and capacitor references are listed on p. 240.

LpA is the supplied sound-pressure reference at 4 m. Inlet and housing sound-power bands are listed separately on p. 241. No outlet spectrum or sound-pressure spectrum is inferred.

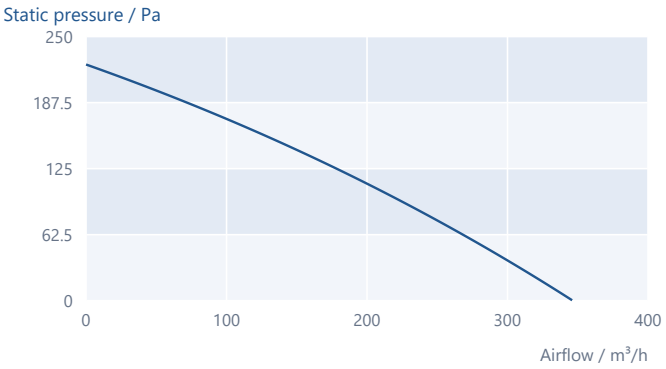
Motor operating range: -20 to +40 °C. Maximum transported-air temperature: +40 °C.

03 / AIR PERFORMANCE / 1 OF 2

Fan Performance Curves

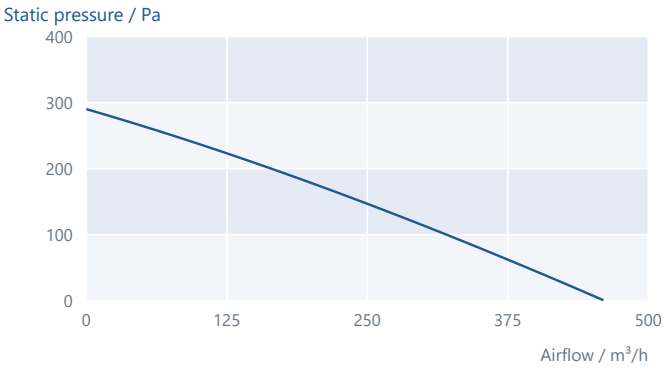
VHF 160

230 V / 1 phase / 50 Hz / 60 W



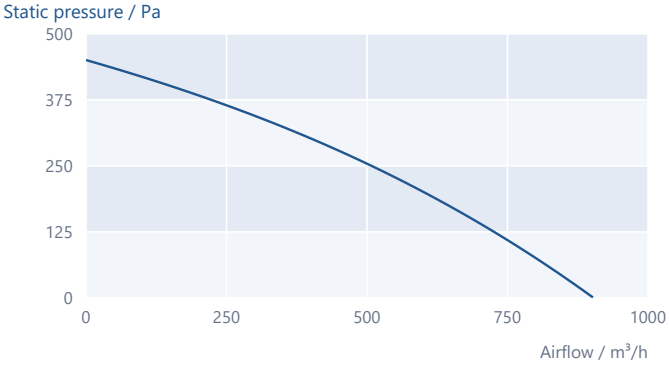
VHF 180

230 V / 1 phase / 50 Hz / 80 W



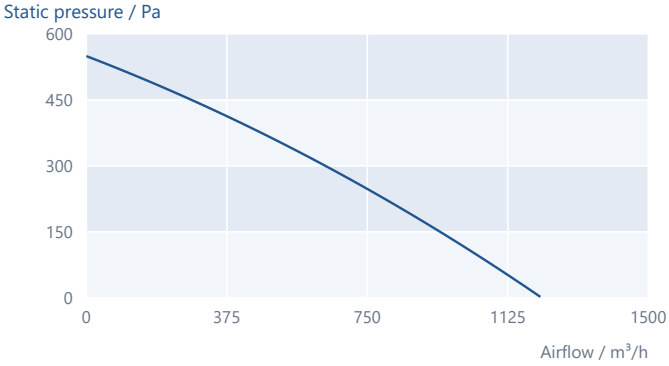
VHF 225

230 V / 1 phase / 50 Hz / 130 W



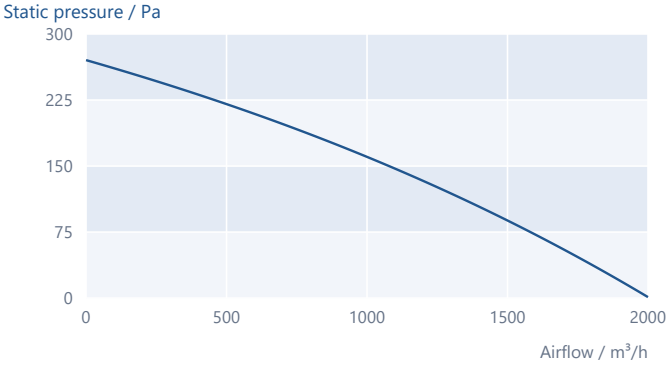
VHF 250

230 V / 1 phase / 50 Hz / 190 W



VHF 315

230 V / 1 phase / 50 Hz / 160 W



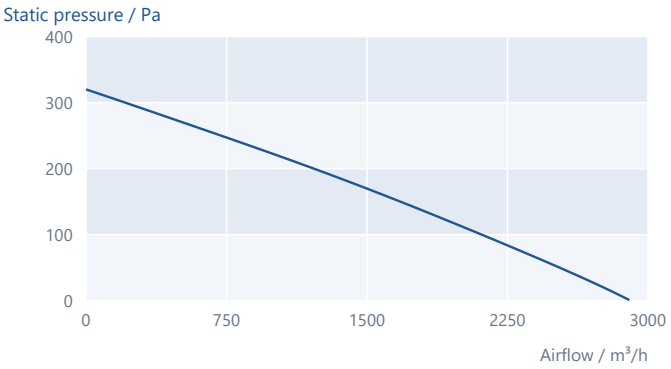
Model-specific scales. Listed 50 Hz fan curves; nominal airflow is listed separately on p. 236.

03 / AIR PERFORMANCE / 2 OF 2

Fan Performance Curves

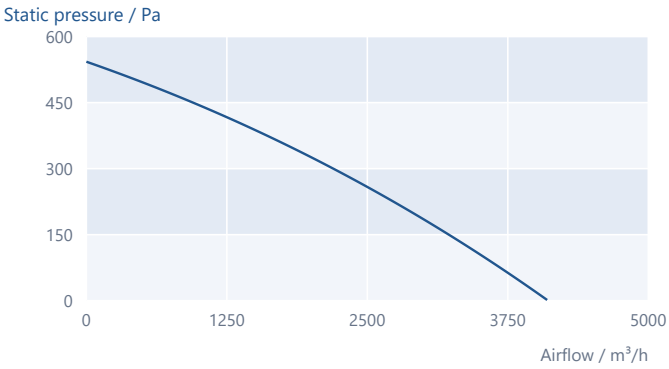
VHF 355

230 V / 1 phase / 50 Hz / 240 W



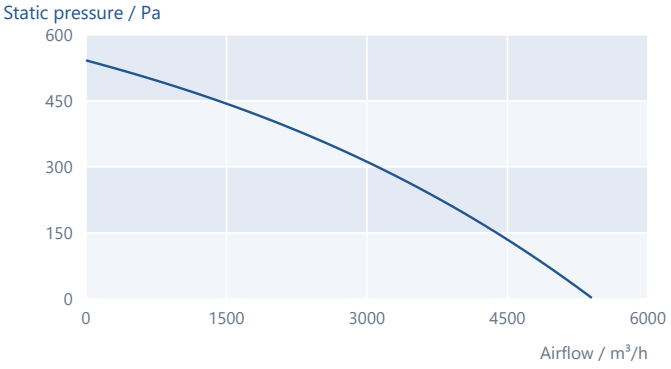
VHF 400

230 V / 1 phase / 50 Hz / 380 W



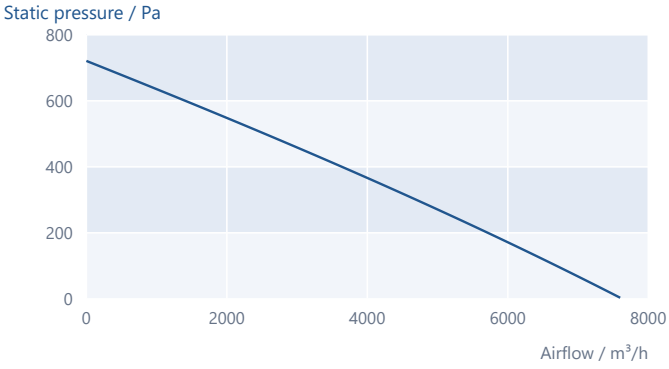
VHF 450

230 V / 1 phase / 50 Hz / 620 W



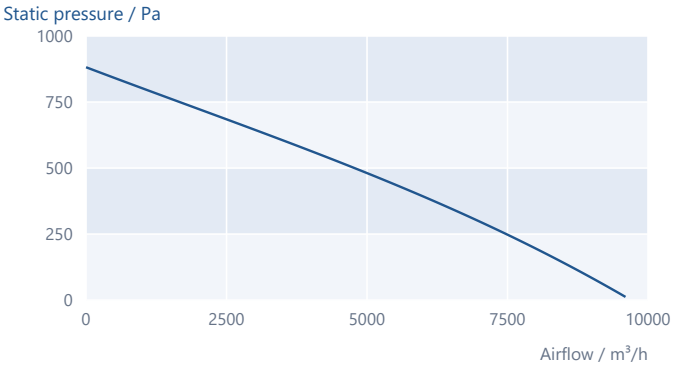
VHF 500

400 V / 3 phase / 50 Hz / 1200 W



VHF 560

400 V / 3 phase / 50 Hz / 1750 W



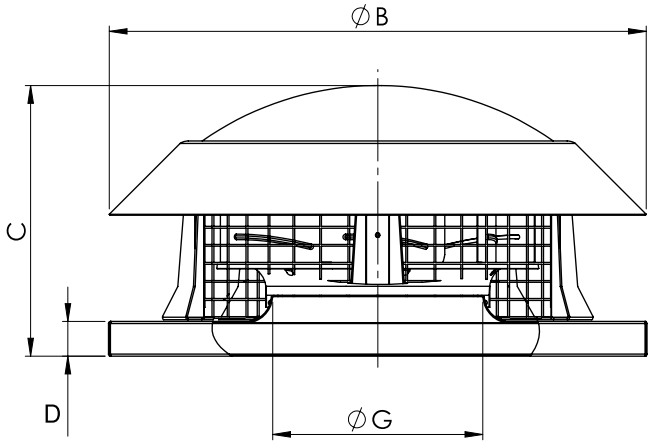
Model-specific scales. Listed 50 Hz fan curves; nominal airflow is listed separately on p. 236.

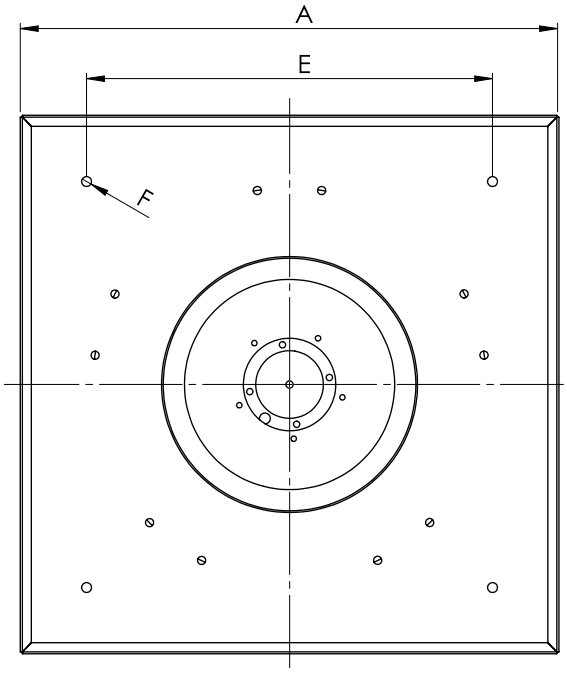
04 / DIMENSIONS

Define the roof connection.

ORIGINAL FAMILY OUTLINE / FRONT & PLAN

All dimensions in mm





Model	A	B	C	D	E	F	G
VHF 160	252	260	140	25	210	6	99
VHF 180	252	260	140	25	210	6	99
VHF 225	336	386	212	35	274	11	144
VHF 250	370	386	225	35	290	11	162
VHF 315	454	443	293	40	333	11	198
VHF 355	595	595	285	40	450	11	234
VHF 400	595	685	355	40	450	12	268
VHF 450	664	685	400	40	450	12	303
VHF 500	798	824	385	40	600	12	342
VHF 560	798	824	400	40	600	12	380

Model codes denote size groups. The drawing defines the actual connection ØG, cover ØB, mounting plate A and fixing pattern E/F. Do not use the model suffix or FSP calculation diameter as the connection size.

05 / INSTALLATION & MOTOR

Prepare the roof and the motor.

01 Roof curb, sealing and access

Mount on a suitable rigid roof curb. Seal the roof connection and keep the horizontal discharge clear. Provide service access and secure supports. Motor range: -20 to +40 °C; maximum transported air: +40 °C.

02 Supply and speed control

Single-phase models use 230 V; three-phase models use 400 V. Use compatible voltage control for single phase or inverter control for three phase, following the actual motor/controller instructions. Isolate power before inspection.

MODEL-SPECIFIC MOTOR REFERENCES / TEAO

Model	Poles	Class	IP	Motor IE class	Capacitor µF	Capacitor rating / V	Layout
VHF 160	2	B	IP44	IE1	2	400	01
VHF 180	2	B	IP44	IE1	2.5	400	01
VHF 225	2	B	IP44	IE1	3	400	01
VHF 250	2	B	IP44	IE1	6	400	01
VHF 315	4	F	IP44	IE1	6	400	01
VHF 355	4	F	IP44	Unverified*	6	400	01
VHF 400	4	F	IP44	IE1	10	400	03
VHF 450	4	F	IP44	IE1	10	400	03
VHF 500	4	F	IP54	IE1	-	-	22
VHF 560	4	F	IP54	IE1	-	-	22

* VHF 355: the raw efficiency field is numeric 2 and does not explicitly identify an IE class; no IE2 claim is inferred. Capacitor voltage is the component rating, not the supply voltage. Use the selected motor diagram on pp. 242-243.

06 / ACOUSTIC REFERENCE

Sound power, by model.

INLET & HOUSING BAND LEVELS / dB

Model	Listed	65 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	LwA dB(A)
VHF 160	Inlet	40	58	62	64	63	60	55	48	69
VHF 160	Housing	41	59	63	65	64	61	56	49	70
VHF 180	Inlet	43	61	65	67	66	63	58	51	72
VHF 180	Housing	44	62	66	68	67	64	59	52	73
VHF 225	Inlet	46	64	68	70	69	66	61	54	75
VHF 225	Housing	47	63	69	71	70	67	62	55	76
VHF 250	Inlet	48	66	70	72	71	68	63	56	77
VHF 250	Housing	49	65	71	73	72	69	64	57	78
VHF 315	Inlet	59	61	65	67	66	63	58	51	72
VHF 315	Housing	61	63	67	69	68	65	60	53	74
VHF 355	Inlet	58	60	64	66	65	62	57	50	71
VHF 355	Housing	60	62	66	68	67	64	59	52	73
VHF 400	Inlet	46	65	73	68	74	61	57	54	78
VHF 400	Housing	50	70	69	73	71	64	59	55	77
VHF 450	Inlet	45	60	67	66	63	61	56	57	72
VHF 450	Housing	47	66	68	72	71	66	61	59	77
VHF 500	Inlet	48	62	72	70	66	63	58	56	75
VHF 500	Housing	46	64	68	73	70	68	61	57	77
VHF 560	Inlet	58	74	78	80	79	75	70	63	85
VHF 560	Housing	58	75	79	81	82	78	72	65	87

Inlet and housing sound-power bands and totals are supplied selection datas. The original first band is labelled 65 Hz and is retained. Blank outlet spectra and placeholder totals are excluded.

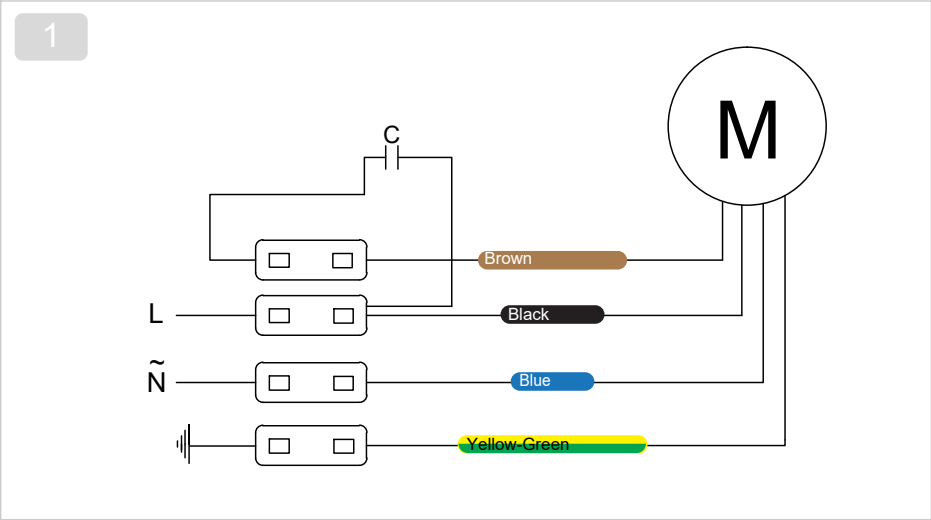
Listed LpA is independently supplied at 4 m in the technical table on p. 236. No sound-pressure spectrum, installation correction or conversion between LwA and LpA is inferred.

07 / ELECTRICAL CONNECTION / SINGLE PHASE

Match the single-phase motor.

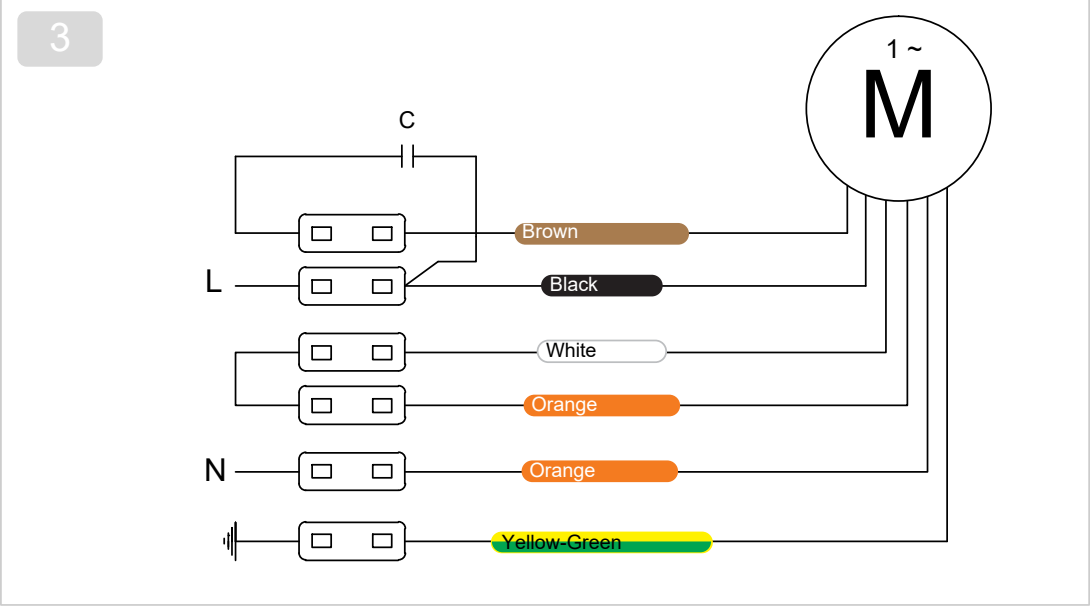
VHF 160 / 180 / 225 / 250 / 315 / 355

Layout 01 / 230 V / 50 Hz



VHF 400 / 450

Layout 03 / 230 V / 50 Hz



The diagrams retain conductor colours, capacitor connections, protective earth and any thermal-protection terminals shown. Use the selected motor nameplate, supplied diagram and capacitor rating.

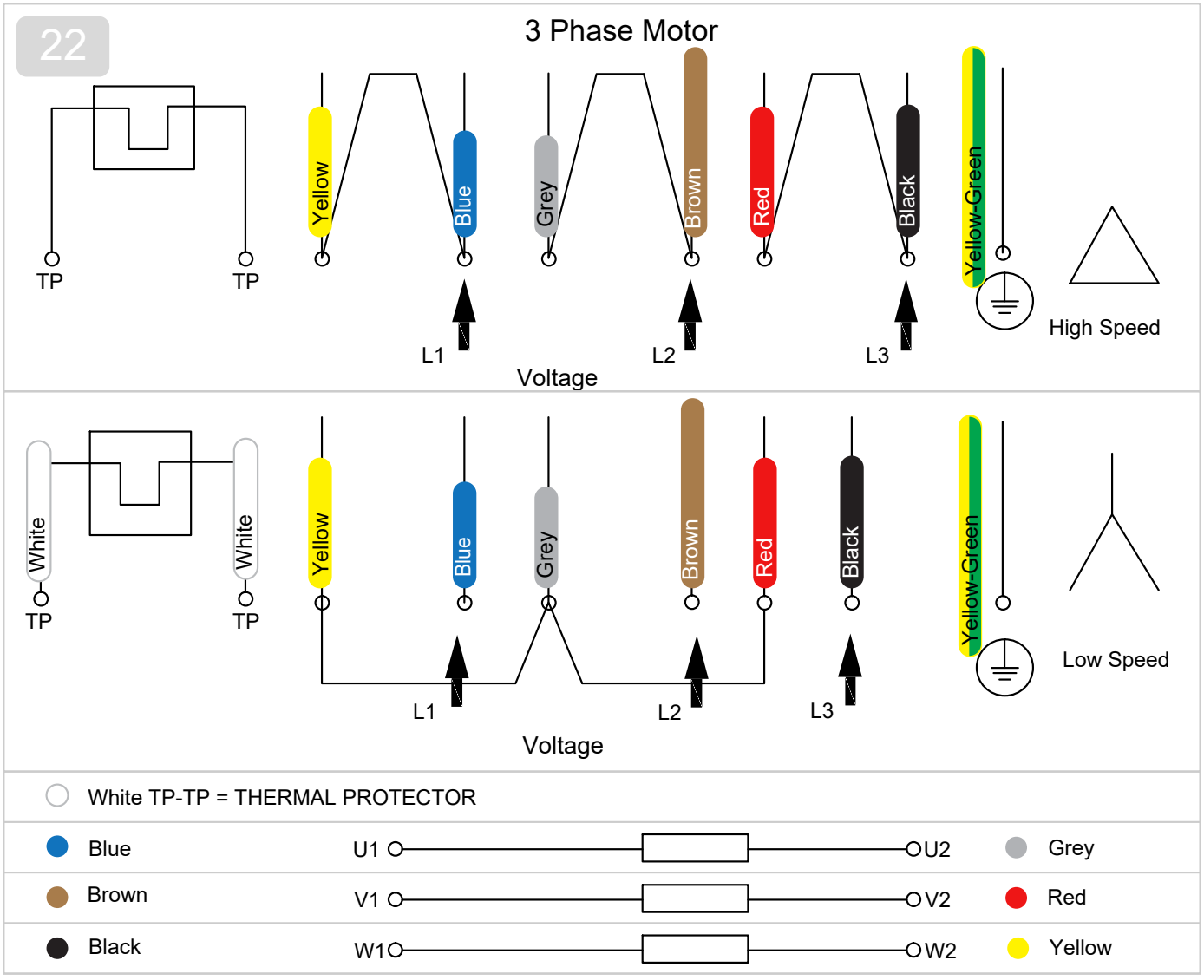
Diagram selection follows each current FSP model record. These are motor connection references, not complete application control-panel designs.

08 / ELECTRICAL CONNECTION / THREE PHASE

Match the three-phase motor.

VHF 500 / 560

Layout 22 / 400 V / 50 Hz



Layout 22 provides the terminal and conductor-colour arrangements for the listed three-phase motors. The selected motor nameplate and supplied connection diagram determine the applicable arrangement.

Connect protective earth, check rotation and specify motor protection for the actual unit. Do not bridge thermal-protection terminals as power conductors.

01 / PRODUCT OVERVIEW

VYF

Direct Drive Centrifugal Roof Fan



01 Roof-mounted centrifugal design

A weather cover, mounting plate and backward-curved impeller form a direct-drive roof fan. The approved photograph illustrates the cover, grille and support structure.

02 Steel construction, by size

The data specify galvanized sheet steel for sizes 280-560 and painted sheet steel for sizes 630-800. The asynchronous motor is outside the transported airstream.

03 Select the fan at the working point

Seventeen 50 Hz motor configurations cover nominal airflow from 1000 to 17000 m³/h. Match the individual static-pressure curve to the system resistance.

MODEL-SPECIFIC RATINGS

Ten casing sizes. Seventeen motor options.

Selection parameter	Series overview
Nominal airflow	1000-17000 m³/h
Nominal motor power	0.25-7.50 kW
Electrical supply	230 V / 1 phase or 400 V / 3 phase / 50 Hz
Motor configuration	4 or 6 poles / Class F / IP55 / TEFC / IE2
Motor and transported-air temperatures	Model-specific; see p. 249
Sound pressure reference	Listed LpA at 3 m; model-specific

Published series data. Use the selected model outline and actual motor nameplate. The photograph illustrates the series configuration.

02 / TECHNICAL DATA

Compare the fan and motor.

17 MODELS / 50 Hz / NOMINAL RATINGS

Model	Supply V / phase	Airflow m^3/h	Max. Ps Pa	Motor kW	Speed rpm	Current A	Weight kg	LpA / 3 m dB(A)
VYF 280M-4P	230 / 1	1000	240	0.25	1390	2.1	35	53
VYF 280T-4P	400 / 3	1000	240	0.25	1380	0.87	35	53
VYF 315M-4P	230 / 1	1950	250	0.25	1380	2.1	42	53
VYF 315T-4P	400 / 3	1950	250	0.25	1380	0.87	42	53
VYF 355M-4P	230 / 1	2900	330	0.25	1380	2.1	50	55
VYF 355T-4P	400 / 3	2900	330	0.25	1380	0.87	50	55
VYF 400M-4P	230 / 1	4000	550	0.37	1390	3.4	55	60
VYF 400T-4P	400 / 3	4000	550	0.37	1390	1.2	55	60
VYF 450M-4P	230 / 1	5550	550	0.55	1365	4.5	62	62
VYF 450T-4P	400 / 3	5550	550	0.55	1365	1.6	62	62
VYF 500M-4P	230 / 1	8300	750	1.10	1410	7.5	68	64
VYF 500T-4P	400 / 3	8300	750	1.10	1410	2.6	68	64
VYF 560M-4P	230 / 1	10800	950	2.20	1420	14.2	75	66
VYF 560T-4P	400 / 3	10800	950	2.20	1420	4.9	75	66
VYF 630T-6P	400 / 3	13000	510	3.00	960	6.6	127	60
VYF 710T-6P	400 / 3	15000	590	4.00	960	8.4	150	63
VYF 800T-6P	400 / 3	17000	700	7.50	960	15.4	216	67

Airflow and maximum static pressure are nominal ratings, not a selected duty point. Power, speed and current are nominal motor values; operating-point values in FSP may differ.

M = single phase; T = three phase. 4P = four poles; 6P = six poles. All listed motors are Class F / IP55 / TEFC / IE2. Temperature limits and single-phase capacitor references are listed by model on p. 249.

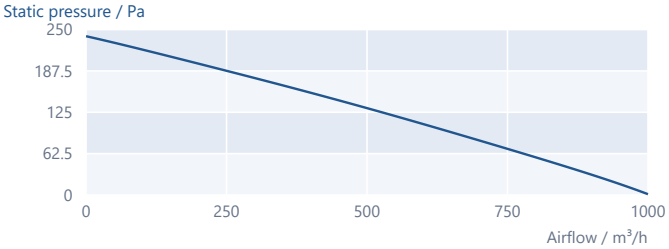
LpA is independently supplied at 3 m. Inlet and housing sound-power bands appear on pp. 250-251; no sound-pressure spectrum is inferred.

03 / AIR PERFORMANCE / 1 OF 2

Fan Performance Curves

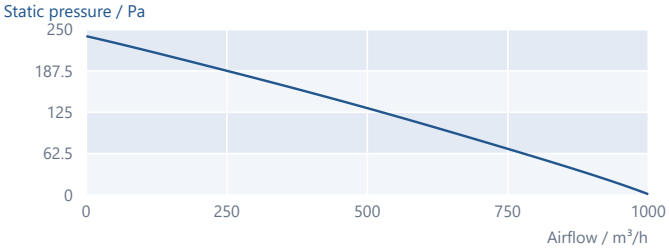
VYF 280M-4P

230 V / 1 phase / 50 Hz / 0.25 kW



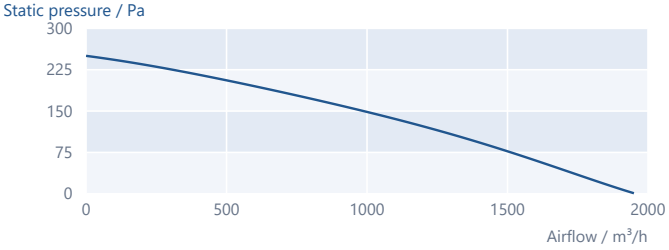
VYF 280T-4P

400 V / 3 phase / 50 Hz / 0.25 kW



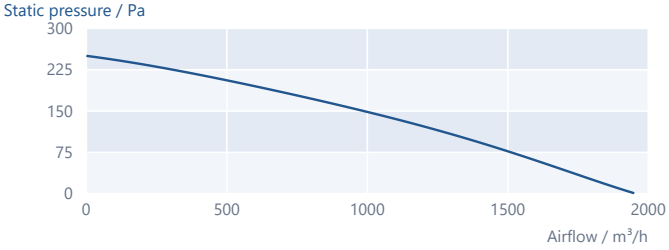
VYF 315M-4P

230 V / 1 phase / 50 Hz / 0.25 kW



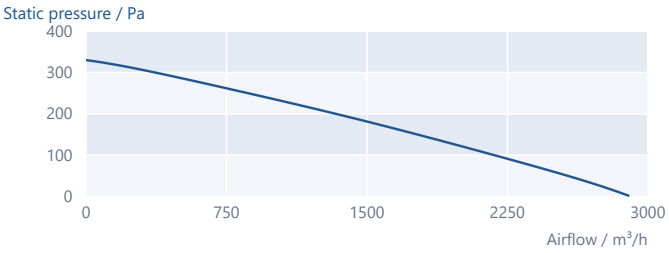
VYF 315T-4P

400 V / 3 phase / 50 Hz / 0.25 kW



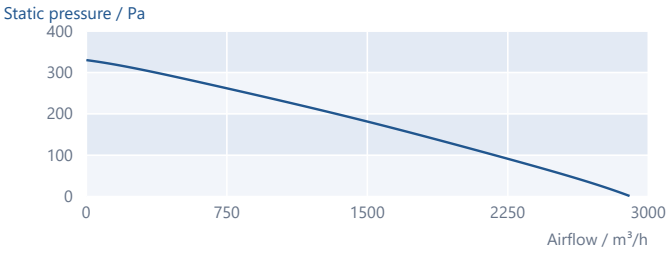
VYF 355M-4P

230 V / 1 phase / 50 Hz / 0.25 kW



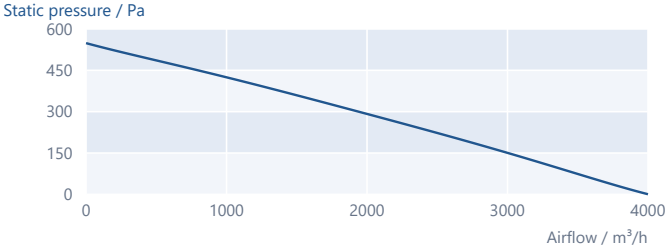
VYF 355T-4P

400 V / 3 phase / 50 Hz / 0.25 kW



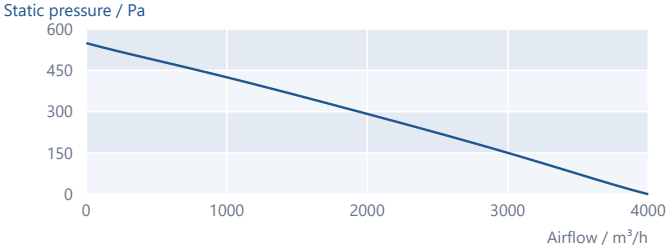
VYF 400M-4P

230 V / 1 phase / 50 Hz / 0.37 kW



VYF 400T-4P

400 V / 3 phase / 50 Hz / 0.37 kW



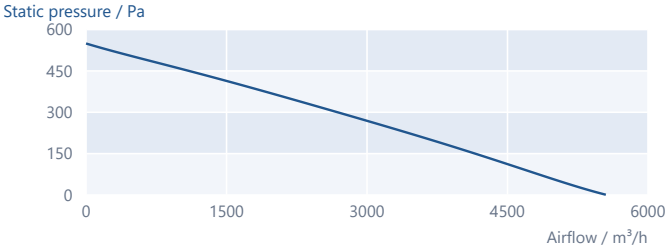
Model-specific scales. Listed 50 Hz curves. VYF 560T-4P stops at zero pressure before its tiny negative fit tail. No extrapolation.

03 / AIR PERFORMANCE / 2 OF 2

Fan Performance Curves

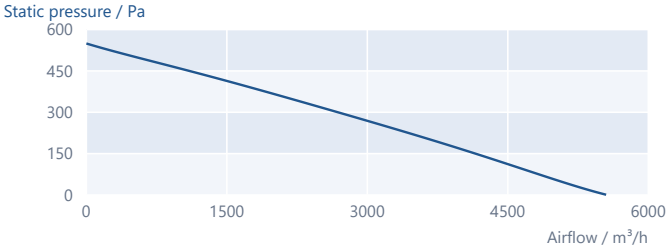
VYF 450M-4P

230 V / 1 phase / 50 Hz / 0.55 kW



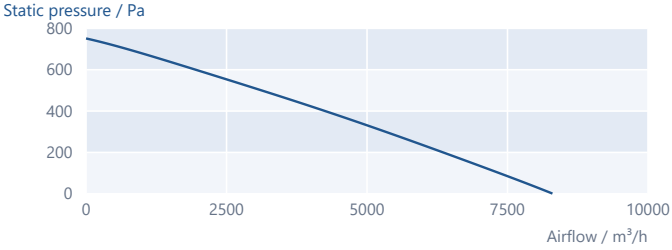
VYF 450T-4P

400 V / 3 phase / 50 Hz / 0.55 kW



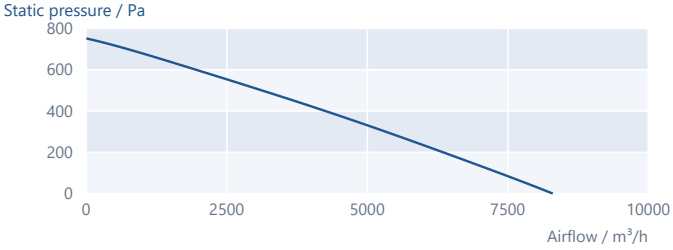
VYF 500M-4P

230 V / 1 phase / 50 Hz / 1.10 kW



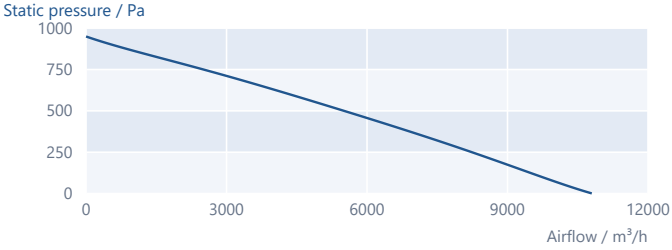
VYF 500T-4P

400 V / 3 phase / 50 Hz / 1.10 kW



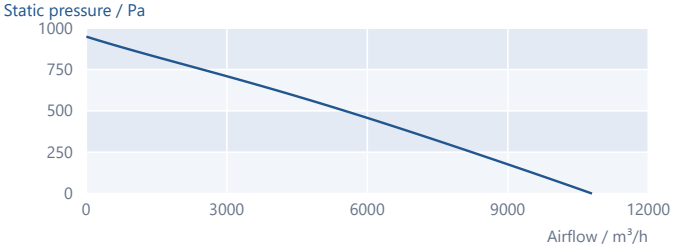
VYF 560M-4P

230 V / 1 phase / 50 Hz / 2.20 kW



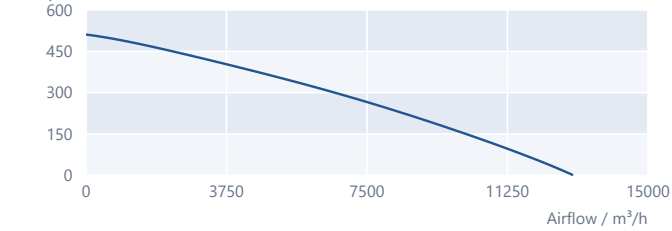
VYF 560T-4P

400 V / 3 phase / 50 Hz / 2.20 kW



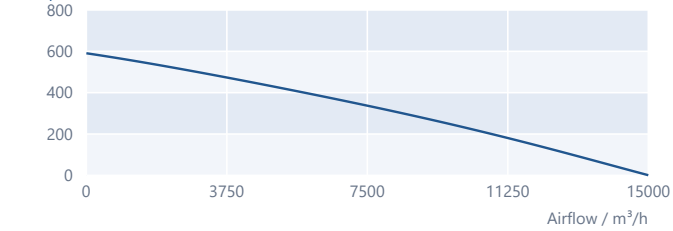
VYF 630T-6P

400 V / 3 phase / 50 Hz / 3.00 kW



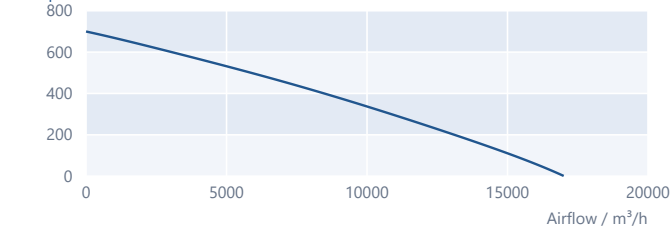
VYF 710T-6P

400 V / 3 phase / 50 Hz / 4.00 kW



VYF 800T-6P

400 V / 3 phase / 50 Hz / 7.50 kW



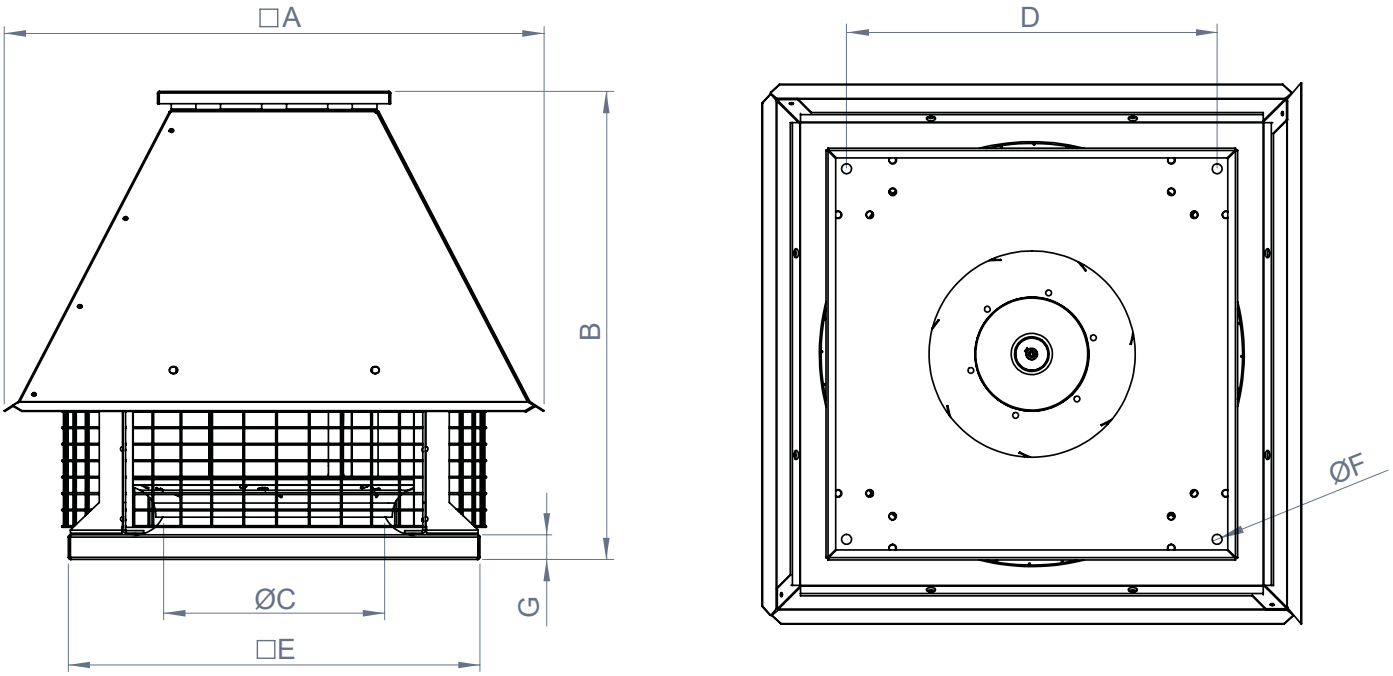
Model-specific scales. Listed 50 Hz curves. VYF 560T-4P stops at zero pressure before its tiny negative fit tail. No extrapolation.

04 / DIMENSIONS

Define the roof connection.

ORIGINAL FAMILY OUTLINE / FRONT & PLAN

All dimensions in mm



Casing / models	A	B	C	D	E	F	G
VYF 280M/T-4P	522	495	165	354	404	10	30
VYF 315M/T-4P	595	555	198	404	454	10	30
VYF 355M/T-4P	656	555	234	450	500	10	30
VYF 400M/T-4P	656	585	268	450	500	12	30
VYF 450M/T-4P	656	616	303	530	580	12	44
VYF 500M/T-4P	766	660	342	590	640	12	44
VYF 560M/T-4P	828	723	380	650	700	12	44
VYF 630T-6P	997	922	445	660	730	12	54
VYF 710T-6P	1095	991	500	710	780	12	54
VYF 800T-6P	1205	1172	542	850	900	12	54

A = square hood; B = height; C = circular connection; D = fixing distance; E = square mounting base; F = fixing-hole diameter; G = base height. M/T versions share listed dimensions. Use actual mating flanges; do not scale the drawing.

05 / INSTALLATION & MOTOR

Prepare the roof and the supply.

ROOF CURB, SEALING & SERVICE ACCESS

Mount on a suitable rigid roof curb, seal the roof connection and keep the discharge and motor ventilation clear. Provide service access and secure supports. Follow the selected model temperature limits below.

SUPPLY & SPEED CONTROL

Use a motor-compatible controller and follow the actual motor/controller instructions. Three-phase inverter control is specified for this family. Isolate power before inspection. The component capacitor voltage is distinct from the fan supply voltage.

MODEL-SPECIFIC REFERENCES / CLASS F / IP55 / TEFC / IE2

Model	Poles	Motor range °C	Max. air °C	Capacitor µF	Capacitor rating / V
VYF 280M-4P	4	-20 / +40	+120	10	400
VYF 280T-4P	4	-20 / +40	+120	-	-
VYF 315M-4P	4	-20 / +40	+120	10	400
VYF 315T-4P	4	-20 / +40	+120	-	-
VYF 355M-4P	4	-20 / +40	+120	10	400
VYF 355T-4P	4	-20 / +40	+120	-	-
VYF 400M-4P	4	-20 / +40	+120	15	400
VYF 400T-4P	4	-20 / +40	+120	-	-
VYF 450M-4P	4	-20 / +40	+120	20	400
VYF 450T-4P	4	-20 / +40	+120	-	-
VYF 500M-4P	4	-20 / +40	+120	35	400
VYF 500T-4P	4	-20 / +40	+120	-	-
VYF 560M-4P	4	-20 / +40	+120	50	400
VYF 560T-4P	4	-20 / +40	+20*	-	-
VYF 630T-6P	6	-20 / +40	+120	-	-
VYF 710T-6P	6	-20 / +40	+120	-	-
VYF 800T-6P	6	-20 / +120**	+120	-	-

* VYF 560T-4P: listed air limit +20 °C differs from the family +120 °C statement. ** VYF 800T-6P: motor limit +120 °C differs from other models' +40 °C. Both original numeric fields are retained; confirm these two limits for the actual unit.

06 / ACOUSTIC REFERENCE / 1 OF 2

Sound power, by model.

INLET & HOUSING BAND LEVELS / dB

Model	Listed	65 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	LwA dB(A)
VYF 280M-4P	Inlet	45	63	67	69	68	65	60	53	74
VYF 280M-4P	Housing	47	65	69	71	70	67	62	55	76
VYF 280T-4P	Inlet	45	63	67	69	68	65	60	53	74
VYF 280T-4P	Housing	47	65	69	71	70	67	62	55	76
VYF 315M-4P	Inlet	46	63	68	69	68	64	59	55	74
VYF 315M-4P	Housing	45	66	70	70	71	67	63	55	76
VYF 315T-4P	Inlet	46	63	68	69	68	64	59	55	74
VYF 315T-4P	Housing	45	66	70	70	71	67	63	55	76
VYF 355M-4P	Inlet	47	65	69	71	70	67	62	55	76
VYF 355M-4P	Housing	49	67	69	73	72	69	64	57	78
VYF 355T-4P	Inlet	47	65	69	71	70	67	62	55	76
VYF 355T-4P	Housing	49	67	69	73	72	69	64	57	78
VYF 400M-4P	Inlet	68	69	74	76	75	72	68	60	81
VYF 400M-4P	Housing	70	72	76	78	77	74	69	62	83
VYF 400T-4P	Inlet	68	69	74	76	75	72	68	60	81
VYF 400T-4P	Housing	70	72	76	78	77	74	69	62	83

Inlet and housing sound-power bands and totals are supplied selection datas. The original first band is labelled 65 Hz and is retained. Blank outlet spectra and placeholder totals are excluded.

Listed LpA is independently supplied at 3 m in the technical table on p. 245. No sound-pressure spectrum, installation correction or conversion between LwA and LpA is inferred.

06 / ACOUSTIC REFERENCE / 2 OF 2

Sound power, by model.

INLET & HOUSING BAND LEVELS / dB

Model	Listed	65 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	LwA dB(A)
VYF 450M-4P	Inlet	69	73	75	77	76	73	68	63	82
VYF 450M-4P	Housing	73	73	77	79	78	75	70	73	85
VYF 450T-4P	Inlet	69	73	75	77	76	73	68	63	82
VYF 450T-4P	Housing	73	73	77	79	78	75	70	73	85
VYF 500M-4P	Inlet	67	69	73	75	74	71	76	59	82
VYF 500M-4P	Housing	74	76	81	82	81	78	73	66	87
VYF 500T-4P	Inlet	67	69	73	75	74	71	76	59	82
VYF 500T-4P	Housing	74	76	81	82	81	78	73	66	87
VYF 560M-4P	Inlet	74	76	80	82	81	78	73	66	87
VYF 560M-4P	Housing	76	78	82	84	83	80	75	68	89
VYF 560T-4P	Inlet	74	76	80	82	81	78	73	66	87
VYF 560T-4P	Housing	76	78	82	84	83	80	75	68	89
VYF 630T-6P	Inlet	67	70	73	75	74	71	66	60	80
VYF 630T-6P	Housing	69	72	75	78	76	73	68	57	83
VYF 710T-6P	Inlet	70	73	76	78	77	74	69	63	83
VYF 710T-6P	Housing	72	75	78	81	79	76	71	60	86
VYF 800T-6P	Inlet	75	77	81	83	82	79	74	67	88
VYF 800T-6P	Housing	77	79	83	85	84	81	76	69	90

Inlet and housing sound-power bands and totals are supplied selection datas. The original first band is labelled 65 Hz and is retained. Blank outlet spectra and placeholder totals are excluded.

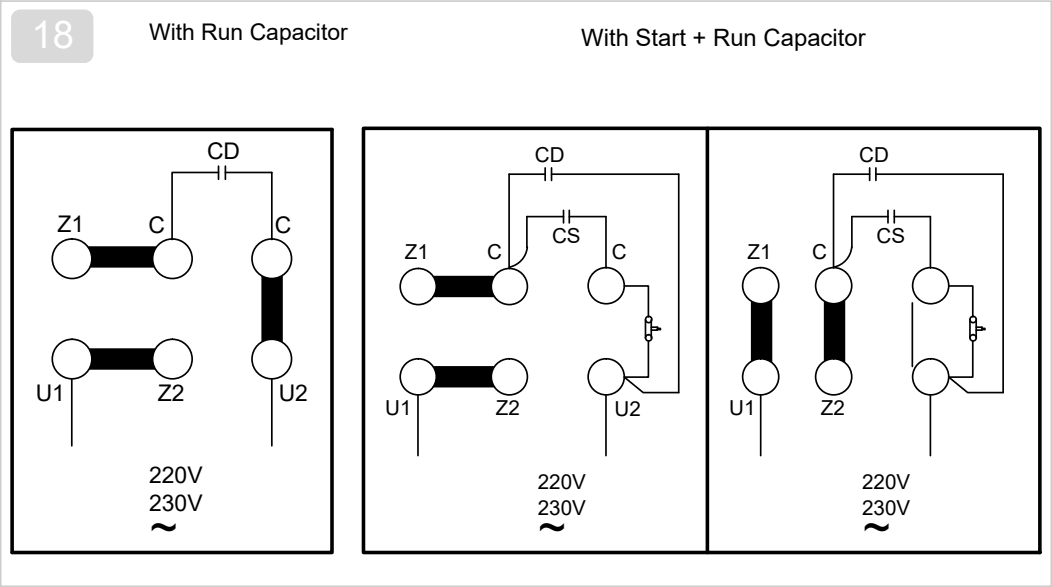
Listed LpA is independently supplied at 3 m in the technical table on p. 245. No sound-pressure spectrum, installation correction or conversion between LwA and LpA is inferred.

07 / ELECTRICAL CONNECTION

Match the motor connection.

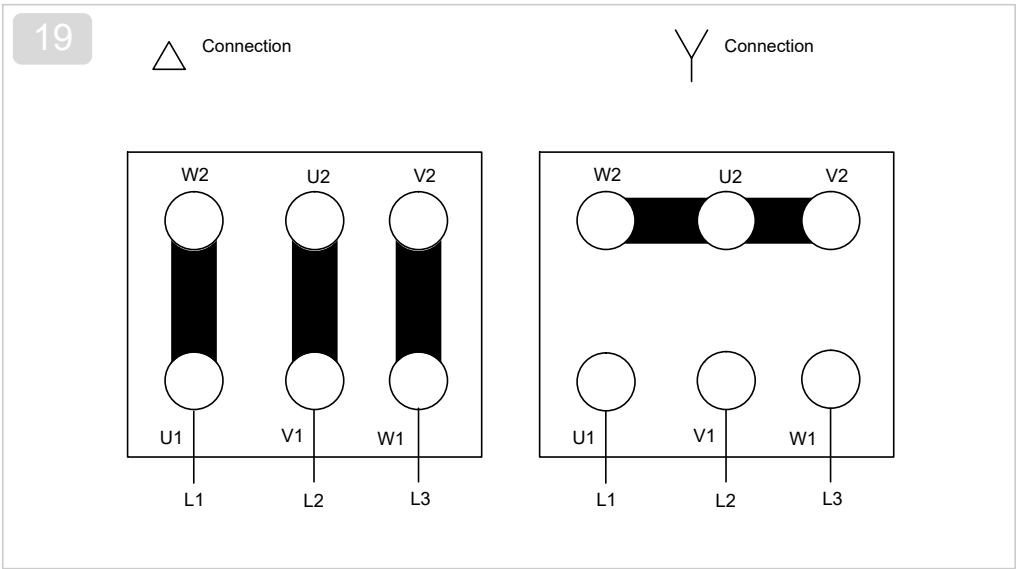
VYF M / SINGLE-PHASE MODELS 280-560

Layout 18 / 230 V / 50 Hz



VYF T / THREE-PHASE MODELS 280-800

Layout 19 / 400 V / 50 Hz



The diagrams preserve the supplied terminal, conductor-colour, capacitor and protective-earth arrangements. The actual motor nameplate and supplied diagram determine the applicable connection.

Use the selected motor capacitor rating, protection and rotation check. These references are not complete application control-panel designs.

01 / PRODUCT OVERVIEW

VLF-R

Axial Roof Fan



01 Adjustable-pitch impeller

Aluminium alloy airfoil blades provide configurable performance. The series range includes 3, 6 and 9 blades across ten diameters.

02 Weather cover & discharge guard

The galvanized sheet-steel housing has a protective upper discharge guard and weather cover. Install on a suitable roof curb with clear air paths and inspection access.

03 Duty-based motor selection

FSP selects a blade angle and motor for the required airflow and pressure. Single-speed and two-speed pole configurations are included.

SELECTION & PERFORMANCE

50 configurations. 626 angle curves.

Each configuration identifies fan diameter, blade count and motor poles. The performance section shows every listed blade-angle pressure curve for that configuration. Select the final blade angle and motor in FSP at the required duty; these family curves are not motor-specific operating approvals.

Selection parameter	Catalogue basis
Fan diameter / blade counts	400-1250 mm / 3, 6 and 9 blades
Electrical supply	400 V / 3 phase / 50 Hz
Pole configurations	2P, 4P, 6P, 2-4P and 4-8P
Motor insulation / protection	Class F / IP55 / TEAO / IE2
Transported-air limit	+40 °C / listed variant records

Performance data. The restored approved FSP photo illustrates the roof-fan housing; blade count follows the selected configuration.

02 / TECHNICAL DATA / 01

Compare the configurations.

400 V / 3 PHASE / 50 Hz

Configuration diameter/blades/poles	Angles deg.	Motor range / kW	Reference airflow envelope / m³/h	Reserve %	Motor class / max. °C	Curve page
VLF-R 400/6/2P	8-34	0.75-3	1 330-9 950	10	IE2 / +55	06
VLF-R 400/6/4P	8-34	0.18-0.37	665-4 975	10	IE2 / +55	06
VLF-R 400/6/6P	8-34	0.18-0.18	443-3 317	10	IE2 / +55	06
VLF-R 400/6/2-4P	8-34	0.75-3	1 330-9 950	10	IE2 / +55	06
VLF-R 450/6/2P	8-28	1.1-4	2 400-13 500	10	IE2 / +55	07
VLF-R 450/6/4P	8-38	0.18-0.55	1 200-8 212	7	IE2 / +55	07
VLF-R 450/6/6P	8-38	0.18-0.18	800-5 475	10	IE2 / +55	07
VLF-R 450/6/2-4P	8-28	1.1-4	2 400-13 500	10	IE2 / +55	07
VLF-R 500/6/2P	8-28	2.2-5.5	3 500-18 300	10	IE2 / +55	08
VLF-R 500/6/4P	8-36	0.55-1.1	1 750-11 800	10	IE2 / +55	08
VLF-R 500/6/6P	8-36	0.37-0.37	1 167-7 867	10	IE2 / +5*	08
VLF-R 500/6/2-4P	8-28	2.2-5.5	3 500-18 300	10	IE2 / +55	08
VLF-R 560/6/2P	8-22	4-11	4 000-24 000	6	IE2 / +55	09
VLF-R 560/6/4P	8-36	0.55-2.2	2 000-17 140	10	IE2 / +55	09
VLF-R 560/6/6P	8-36	0.25-0.55	1 333-11 427	7	IE2 / +55	09
VLF-R 560/6/2-4P	8-22	4-11	4 000-24 000	6	IE2 / +55	09
VLF-R 630/6/2P	8-20	5.5-15	7 000-31 320	0	IE2 / +55	10

Airflow envelope: minimum and maximum listed curve-domain endpoints across blade angles, rounded to whole m³/h. This is not a duty point or a guaranteed continuous motor-supported operating range. Select the final angle and motor in FSP.

Motor range: product motor-power limits, not a fixed model rating. FSP chooses a listed motor using duty absorbed power and the model-specific reserve. For two-speed entries, the supplied curves describe the high-speed condition only; low-speed curves are not inferred.

Class F / IP55 / TEAO / IE2. Motor lower limit -20 °C; maximum air +40 °C. * VLF-R 500/6/6P motor maximum +5 °C requires confirmation; other configurations +55 °C.

02 / TECHNICAL DATA / 02

Compare the configurations.

400 V / 3 PHASE / 50 Hz

Configuration diameter/blades/poles	Angles deg.	Motor range / kW	Reference airflow envelope / m³/h	Reserve %	Motor class / max. °C	Curve page
VLF-R 630/6/4P	8-38	0.75-4	3 500-25 200	10	IE2 / +55	10
VLF-R 630/6/6P	8-38	0.25-1.1	2 333-16 800	10	IE2 / +55	10
VLF-R 630/6/2-4P	8-20	5.5-15	7 000-31 320	0	IE2 / +55	10
VLF-R 710/3/4P	8-32	0.75-3	1 600-27 500	10	IE2 / +55	11
VLF-R 710/3/6P	8-32	0.25-1.1	1 067-18 333	10	IE2 / +55	11
VLF-R 710/3/4-8P	8-32	0.75-3	1 600-27 500	10	IE2 / +55	11
VLF-R 710/6/4P	8-32	1.1-4	1 800-31 200	1	IE2 / +55	11
VLF-R 710/6/6P	8-32	0.75-1.5	1 200-20 800	10	IE2 / +55	12
VLF-R 710/6/4-8P	8-32	1.1-4	1 800-31 200	1	IE2 / +55	12
VLF-R 800/6/4P	8-32	2.2-11	4 500-42 500	3	IE2 / +55	12
VLF-R 800/6/6P	8-32	0.55-3	3 000-28 333	3	IE2 / +55	12
VLF-R 800/6/4-8P	8-32	2.2-11	4 500-42 500	3	IE2 / +55	13
VLF-R 800/9/4P	8-30	2.2-11	7 500-43 000	10	IE2 / +55	13
VLF-R 800/9/6P	8-30	0.75-3	5 000-28 667	10	IE2 / +55	13
VLF-R 800/9/4-8P	8-30	2.2-11	7 500-43 000	10	IE2 / +55	13
VLF-R 900/6/4P	8-32	4-15	6 000-60 800	10	IE2 / +55	14
VLF-R 900/6/6P	8-32	1.1-4	4 000-40 533	5	IE2 / +55	14

Airflow envelope: minimum and maximum listed curve-domain endpoints across blade angles, rounded to whole m³/h. This is not a duty point or a guaranteed continuous motor-supported operating range. Select the final angle and motor in FSP.

Motor range: product motor-power limits, not a fixed model rating. FSP chooses a listed motor using duty absorbed power and the model-specific reserve. For two-speed entries, the supplied curves describe the high-speed condition only; low-speed curves are not inferred.

Class F / IP55 / TEAO / IE2. Motor lower limit -20 °C; maximum air +40 °C. * VLF-R 500/6/6P motor maximum +5 °C requires confirmation; other configurations +55 °C.

02 / TECHNICAL DATA / 03

Compare the configurations.

400 V / 3 PHASE / 50 Hz

Configuration diameter/blades/poles	Angles deg.	Motor range / kW	Reference airflow envelope / m³/h	Reserve %	Motor class / max. °C	Curve page
VLF-R 900/6/4-8P	8-32	4-15	6 000-60 800	10	IE2 / +55	14
VLF-R 900/9/4P	8-32	4-18.5	11 000-63 300	10	IE2 / +55	14
VLF-R 900/9/6P	8-32	1.5-5.5	7 333-42 200	10	IE2 / +55	15
VLF-R 900/9/4-8P	8-32	4-18.5	11 000-63 300	10	IE2 / +55	15
VLF-R 1000/6/4P	8-32	5.5-22	14 000-82 600	3	IE2 / +55	15
VLF-R 1000/6/6P	8-32	1.5-7.5	9 333-55 067	10	IE2 / +55	15
VLF-R 1000/6/4-8P	8-32	5.5-22	14 000-82 600	3	IE2 / +55	16
VLF-R 1000/9/4P	8-32	7.5-30	15 000-86 000	10	IE2 / +55	16
VLF-R 1000/9/6P	8-32	2.2-11	10 000-57 333	10	IE2 / +55	16
VLF-R 1000/9/4-8P	8-32	7.5-30	15 000-86 000	10	IE2 / +55	16
VLF-R 1250/6/4P	8-32	15-45	25 000-155 000	1	IE2 / +55	17
VLF-R 1250/6/6P	8-32	4-15	16 667-103 333	1	IE2 / +55	17
VLF-R 1250/6/4-8P	8-32	15-45	25 000-155 000	1	IE2 / +55	17
VLF-R 1250/9/4P	8-24	18.5-45	21 300-138 000	1	IE2 / +55	17
VLF-R 1250/9/6P	8-24	7.5-15	14 200-92 000	1	IE2 / +55	18
VLF-R 1250/9/4-8P	8-24	18.5-45	21 300-138 000	1	IE2 / +55	18

Airflow envelope: minimum and maximum listed curve-domain endpoints across blade angles, rounded to whole m³/h. This is not a duty point or a guaranteed continuous motor-supported operating range. Select the final angle and motor in FSP.

Motor range: product motor-power limits, not a fixed model rating. FSP chooses a listed motor using duty absorbed power and the model-specific reserve. For two-speed entries, the supplied curves describe the high-speed condition only; low-speed curves are not inferred.

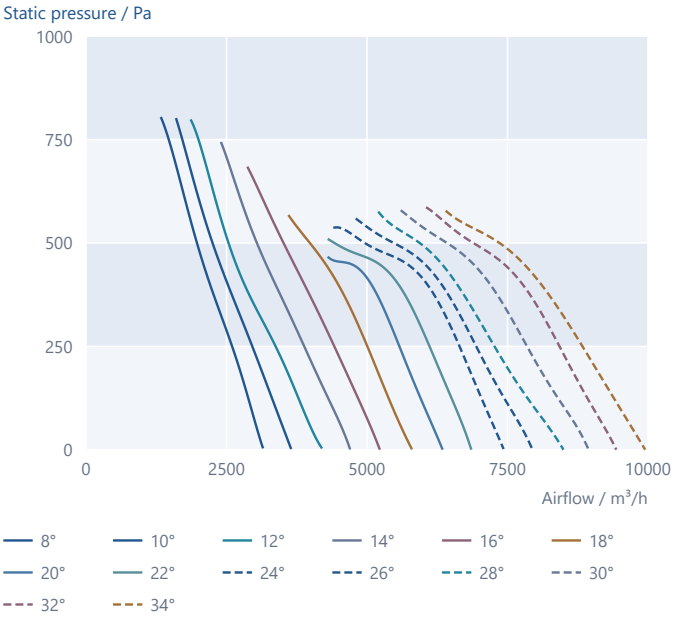
Class F / IP55 / TEAO / IE2. Motor lower limit -20 °C; maximum air +40 °C. * VLF-R 500/6/6P motor maximum +5 °C requires confirmation; other configurations +55 °C.

03 / AIR PERFORMANCE / 01

Fan Performance Curves

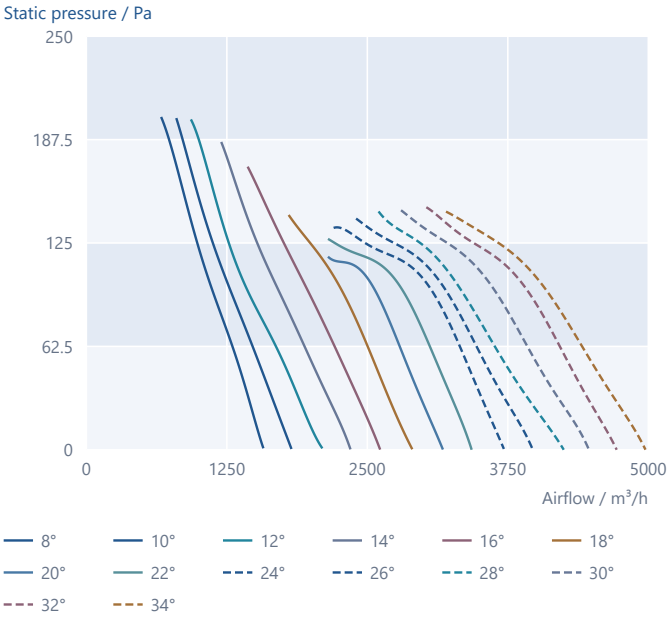
VLF-R 400/6/2P

14 blade angles / 400 V / 50 Hz



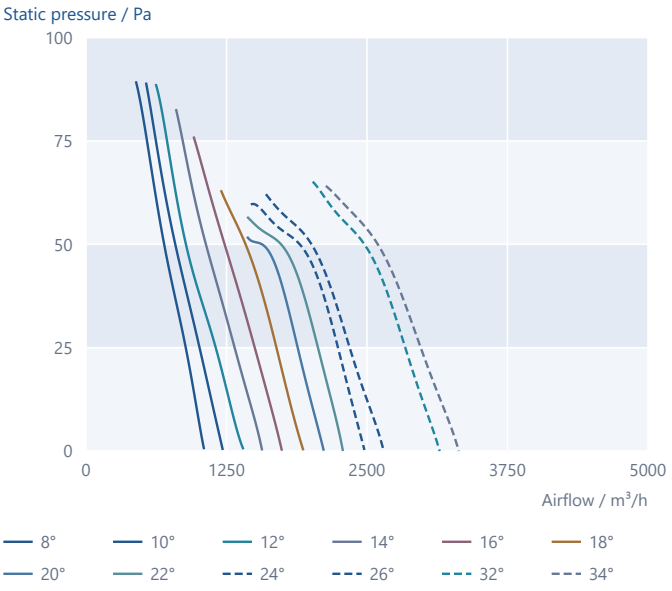
VLF-R 400/6/4P

14 blade angles / 400 V / 50 Hz



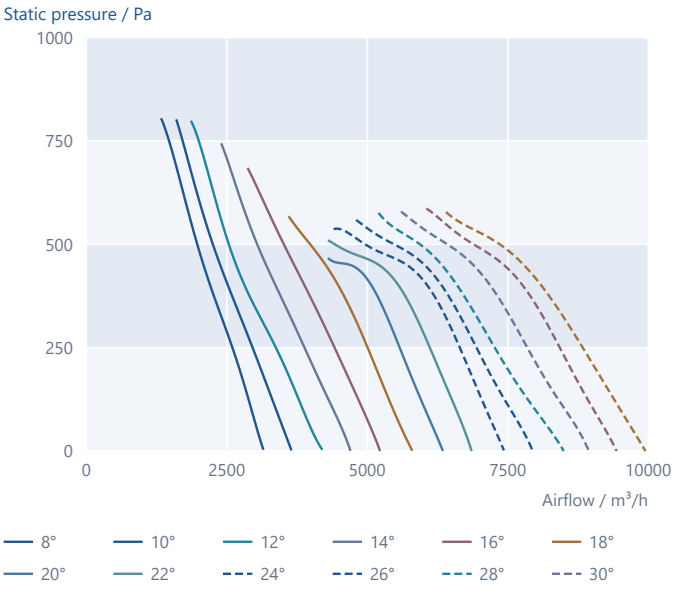
VLF-R 400/6/6P

12 blade angles / 400 V / 50 Hz



VLF-R 400/6/2-4P

14 blade angles / 400 V / 50 Hz



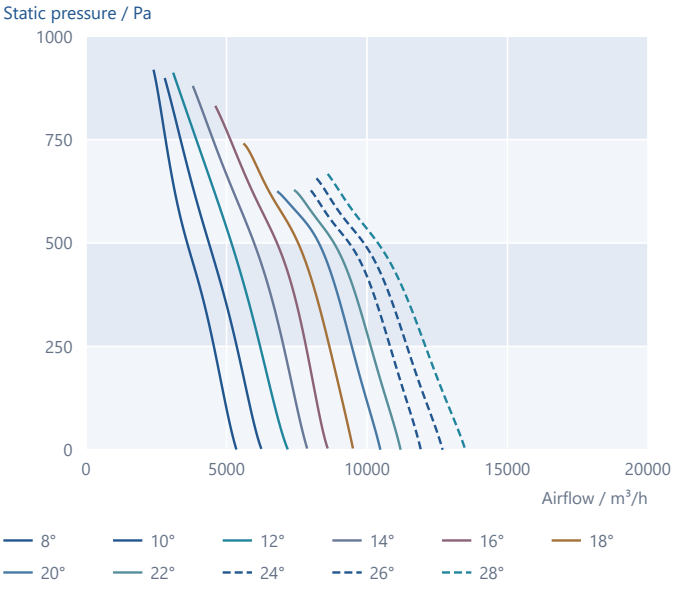
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 02

Fan Performance Curves

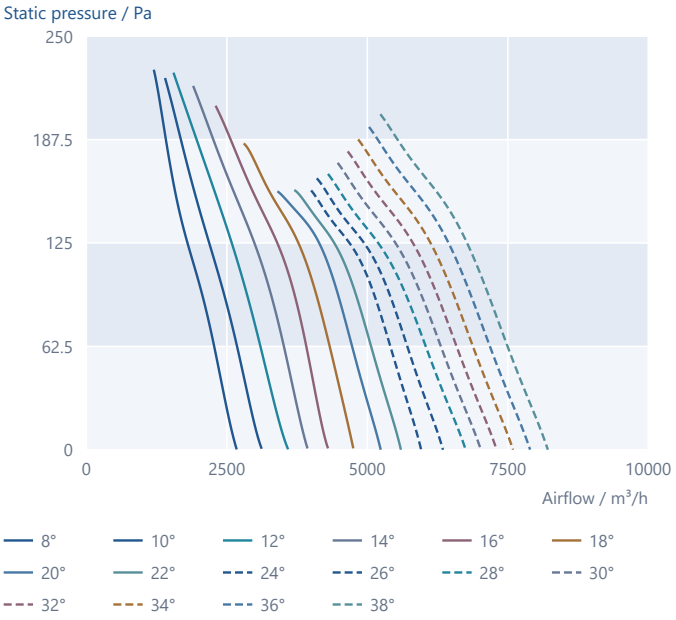
VLF-R 450/6/2P

11 blade angles / 400 V / 50 Hz



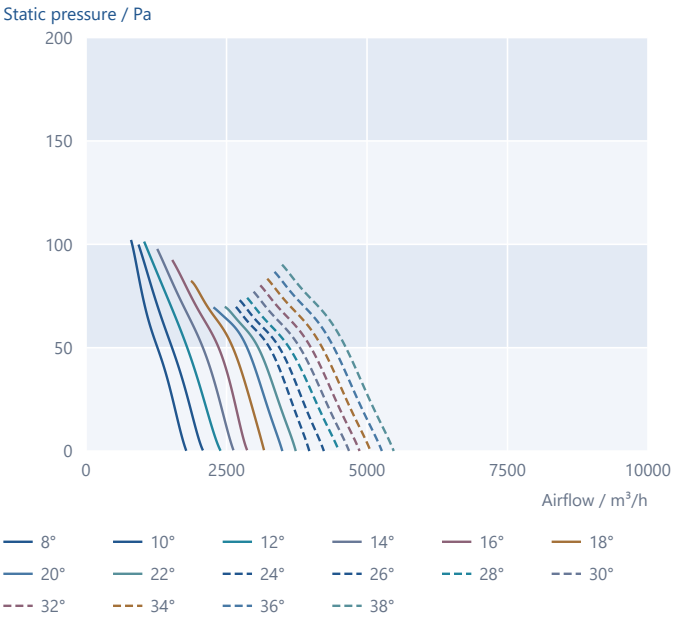
VLF-R 450/6/4P

16 blade angles / 400 V / 50 Hz



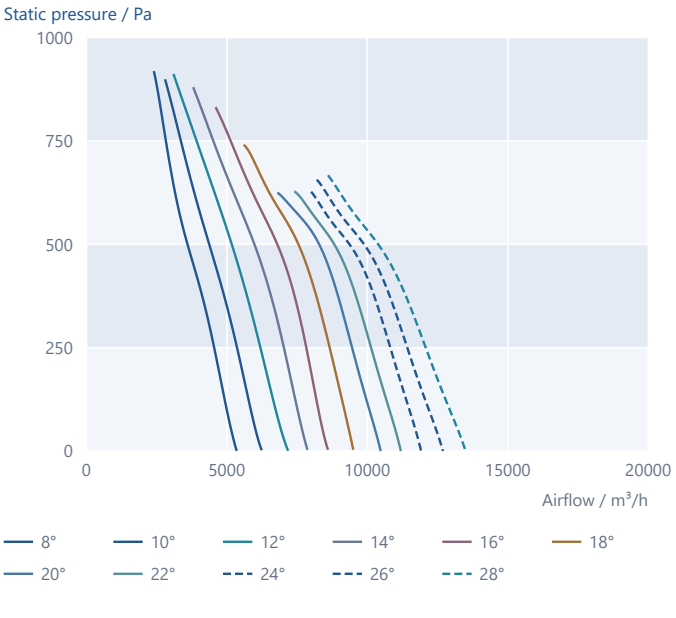
VLF-R 450/6/6P

16 blade angles / 400 V / 50 Hz



VLF-R 450/6/2-4P

11 blade angles / 400 V / 50 Hz



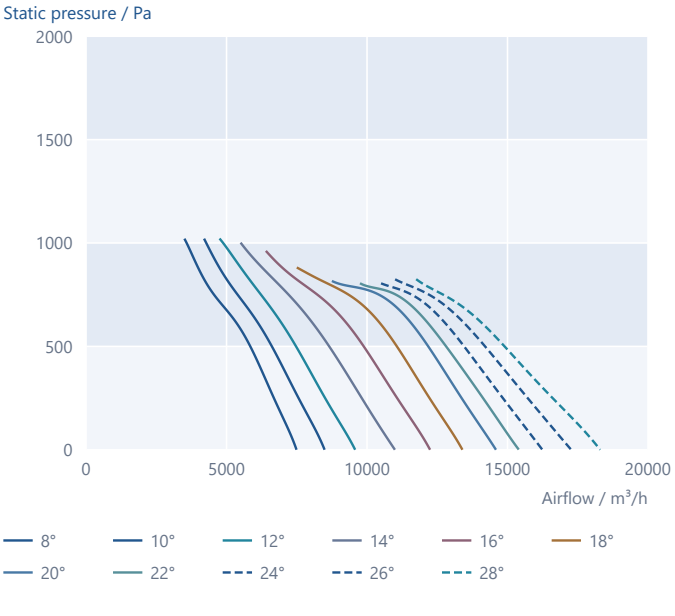
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 03

Fan Performance Curves

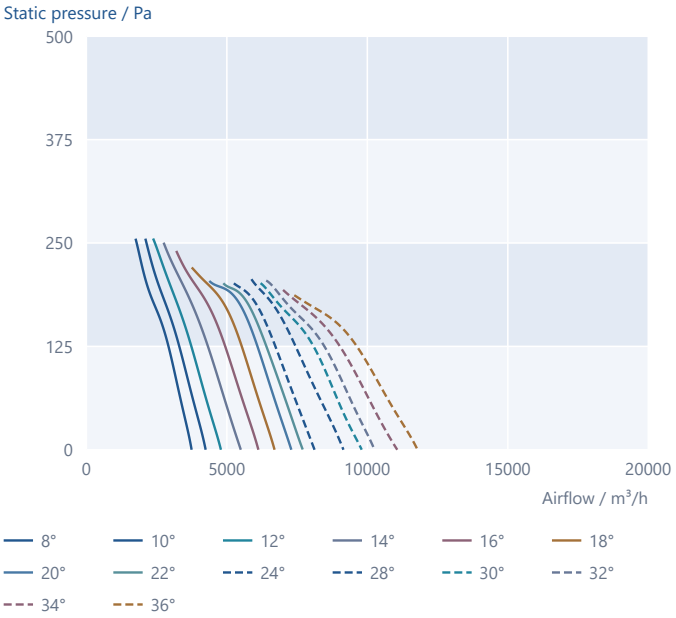
VLF-R 500/6/2P

11 blade angles / 400 V / 50 Hz



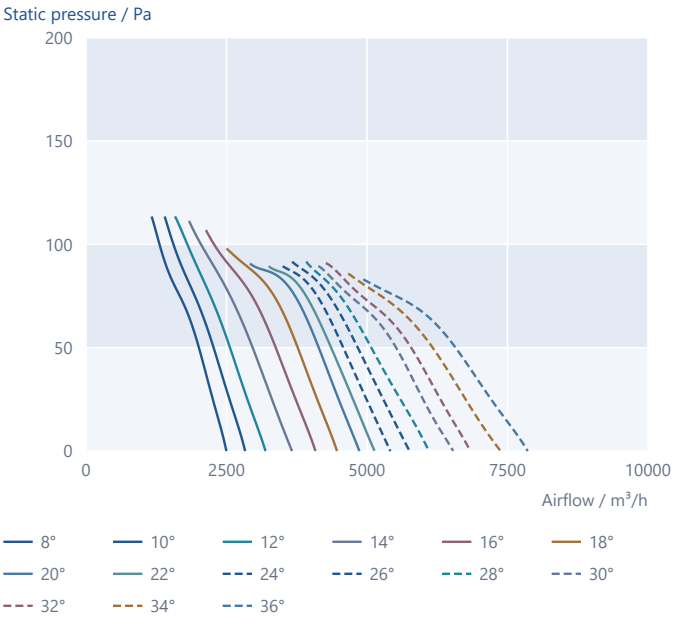
VLF-R 500/6/4P

14 blade angles / 400 V / 50 Hz



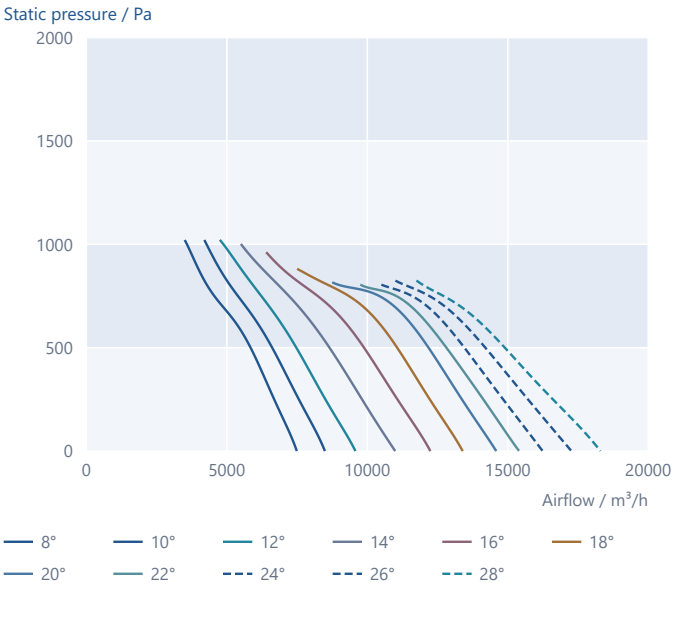
VLF-R 500/6/6P

15 blade angles / 400 V / 50 Hz



VLF-R 500/6/2-4P

11 blade angles / 400 V / 50 Hz



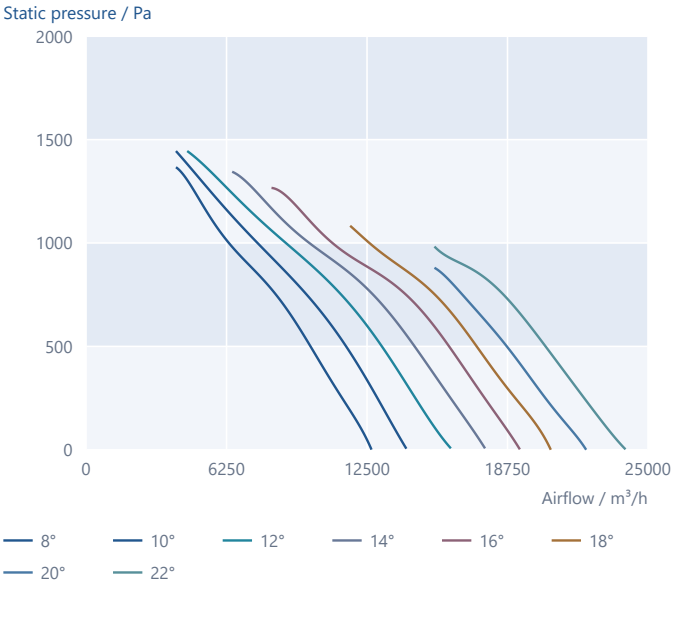
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 04

Fan Performance Curves

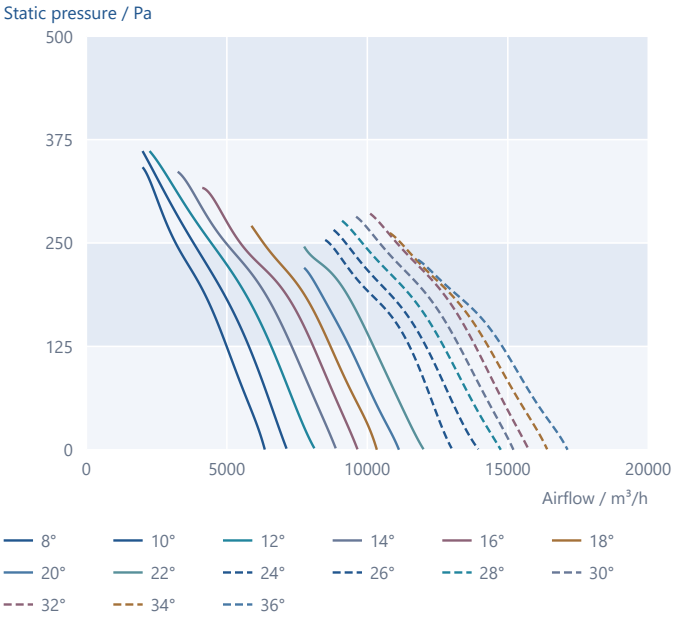
VLF-R 560/6/2P

8 blade angles / 400 V / 50 Hz



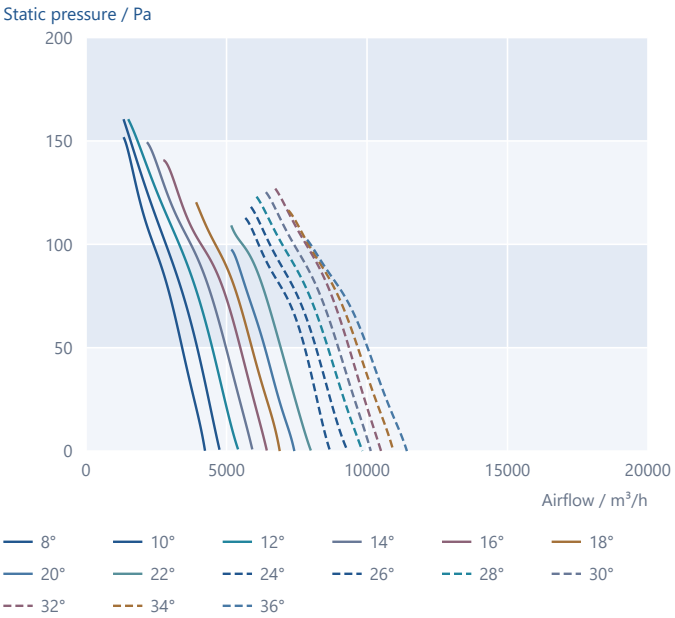
VLF-R 560/6/4P

15 blade angles / 400 V / 50 Hz



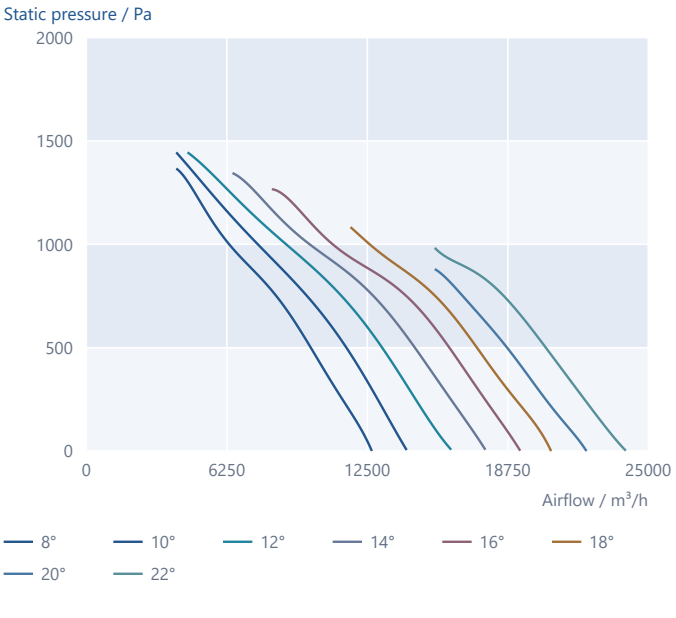
VLF-R 560/6/6P

15 blade angles / 400 V / 50 Hz



VLF-R 560/6/2-4P

8 blade angles / 400 V / 50 Hz



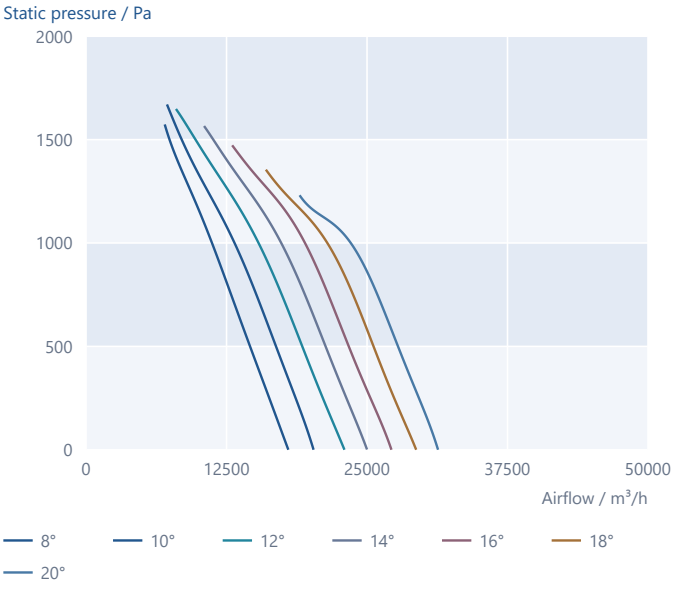
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 05

Fan Performance Curves

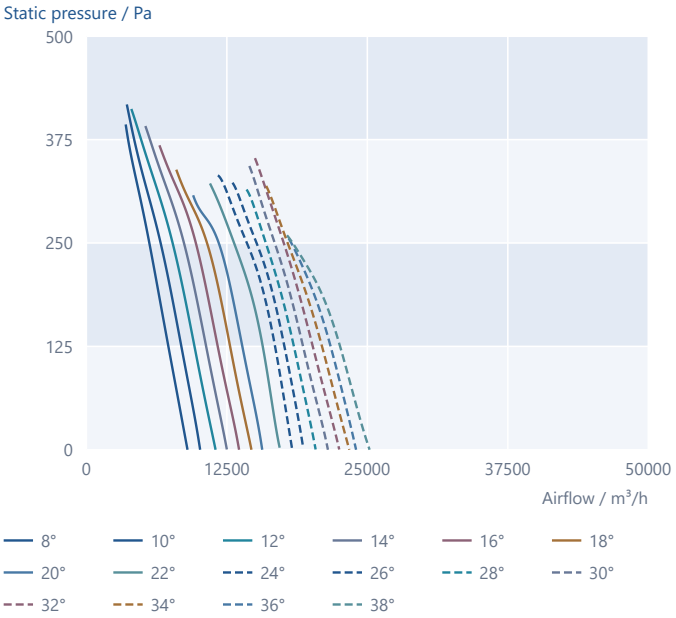
VLF-R 630/6/2P

7 blade angles / 400 V / 50 Hz



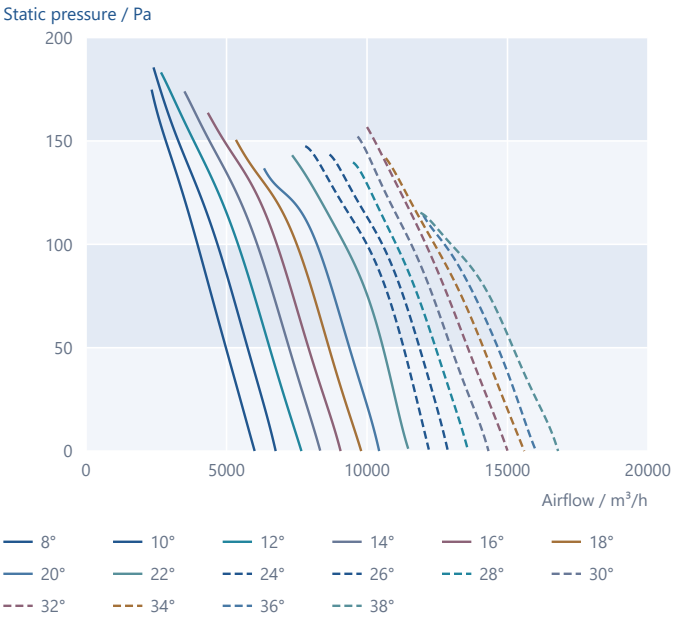
VLF-R 630/6/4P

16 blade angles / 400 V / 50 Hz



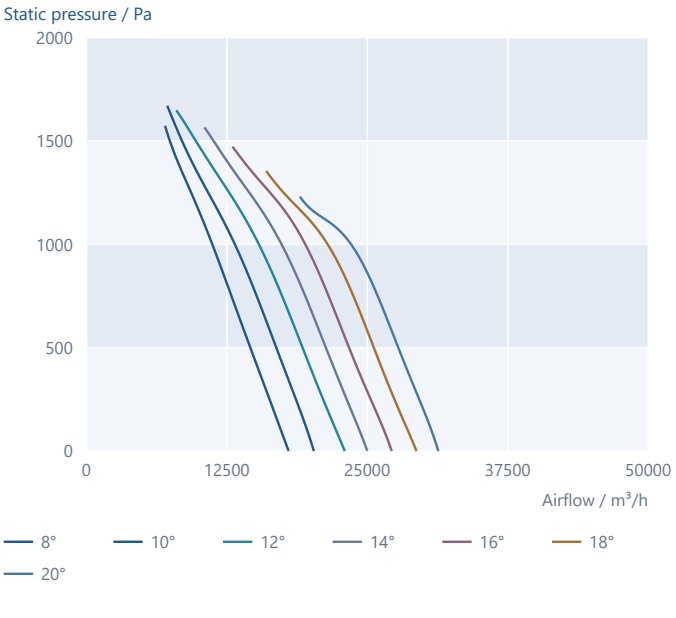
VLF-R 630/6/6P

16 blade angles / 400 V / 50 Hz



VLF-R 630/6/2-4P

7 blade angles / 400 V / 50 Hz



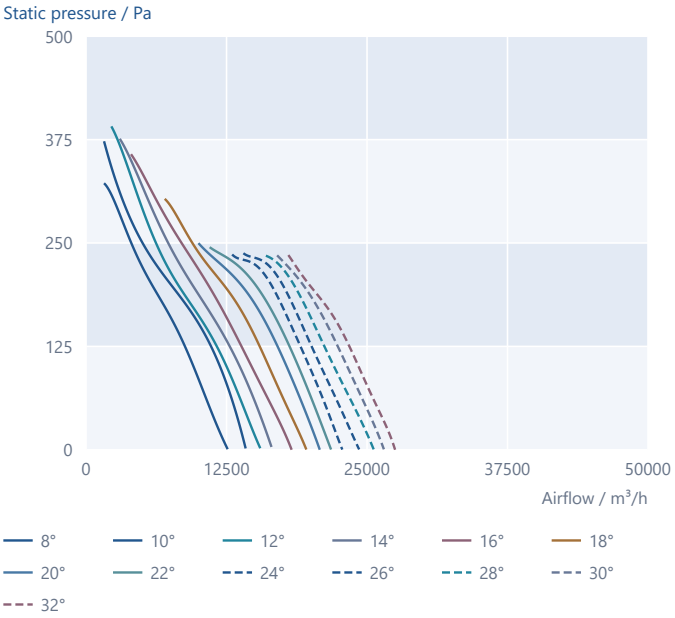
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 06

Fan Performance Curves

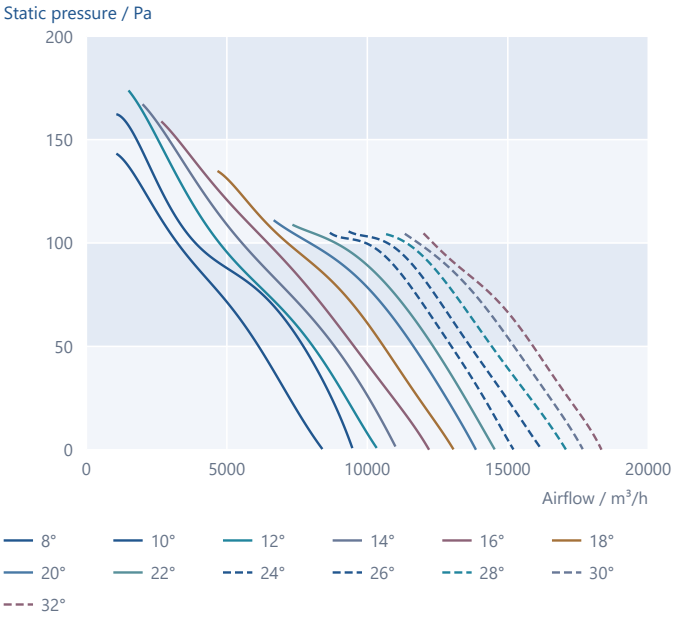
VLF-R 710/3/4P

13 blade angles / 400 V / 50 Hz



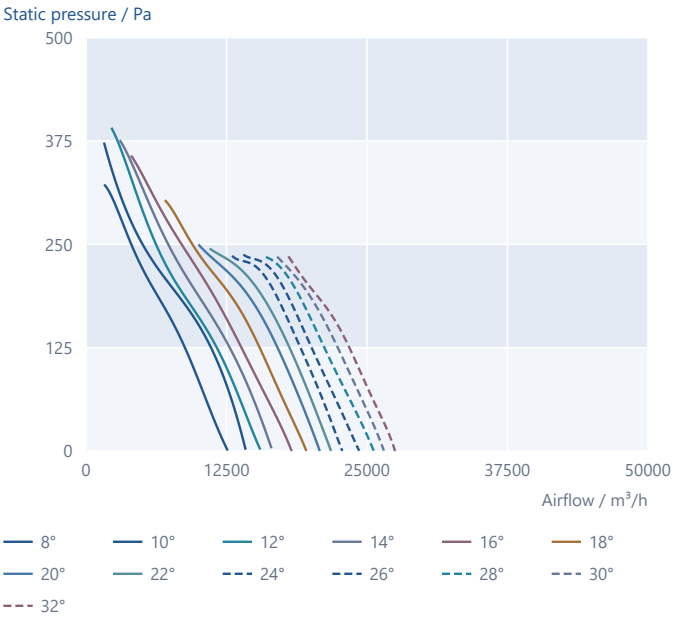
VLF-R 710/3/6P

13 blade angles / 400 V / 50 Hz



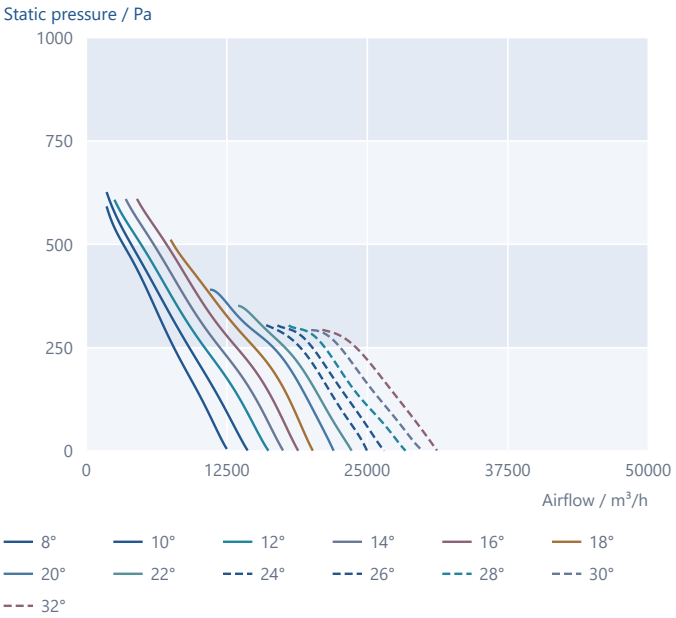
VLF-R 710/3/4-8P

13 blade angles / 400 V / 50 Hz



VLF-R 710/6/4P

13 blade angles / 400 V / 50 Hz



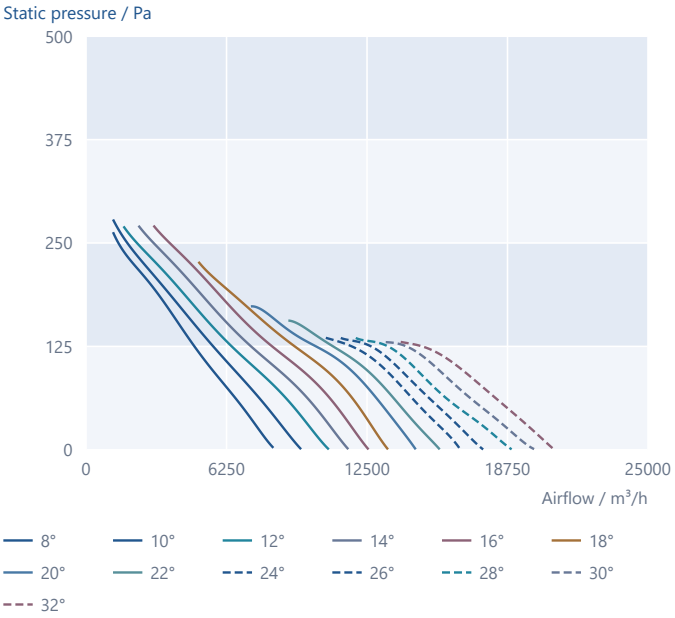
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 07

Fan Performance Curves

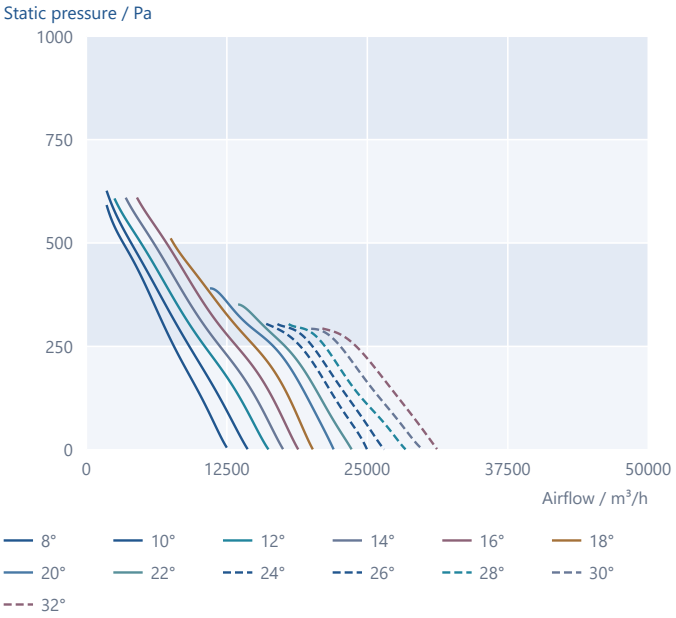
VLF-R 710/6/6P

13 blade angles / 400 V / 50 Hz



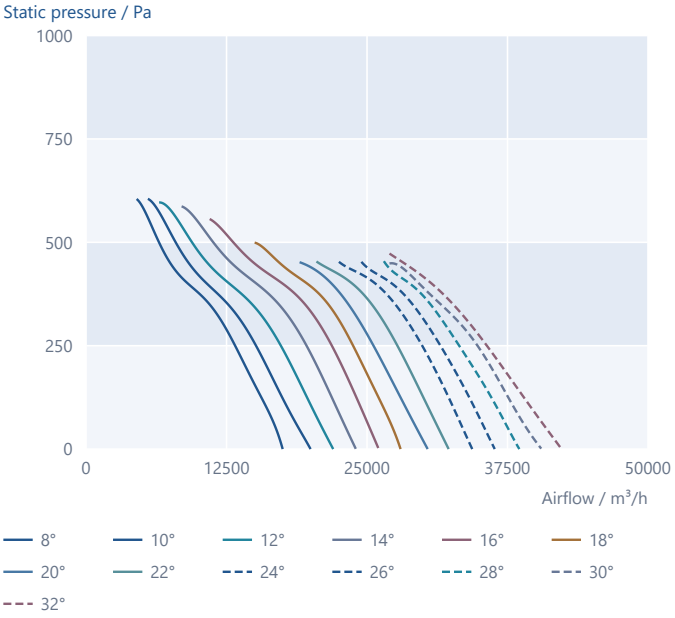
VLF-R 710/6/4-8P

13 blade angles / 400 V / 50 Hz



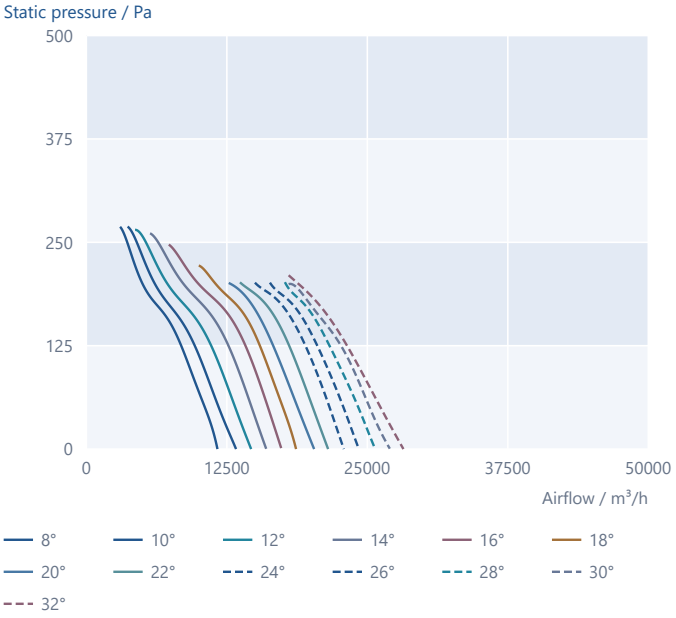
VLF-R 800/6/4P

13 blade angles / 400 V / 50 Hz



VLF-R 800/6/6P

13 blade angles / 400 V / 50 Hz



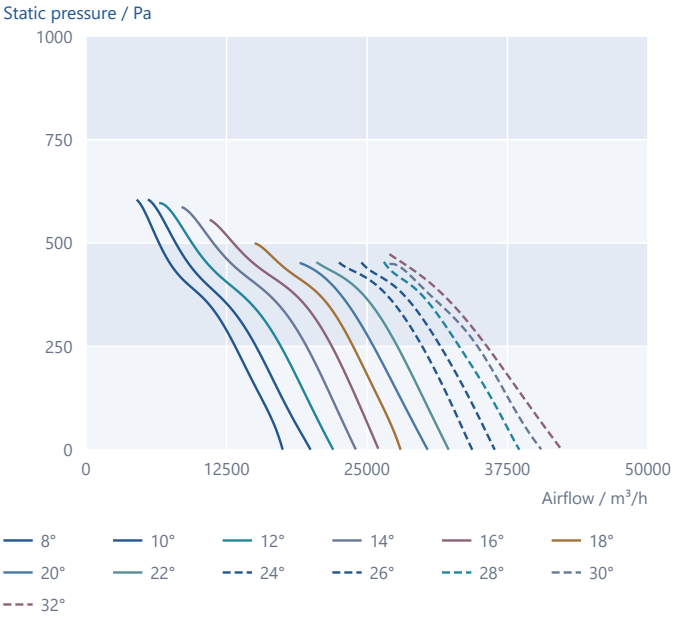
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 08

Fan Performance Curves

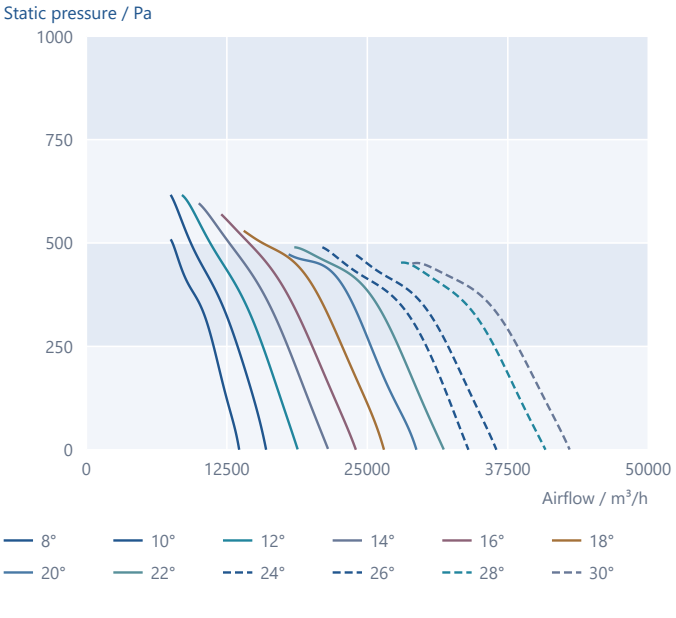
VLF-R 800/6/4-8P

13 blade angles / 400 V / 50 Hz



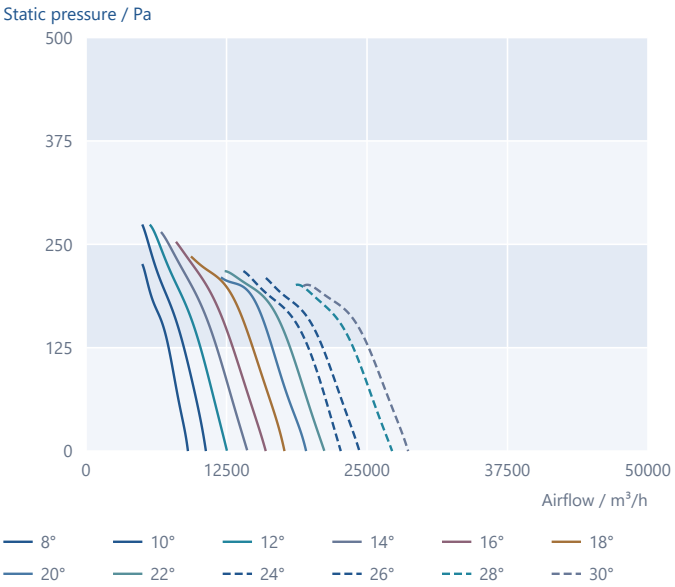
VLF-R 800/9/4P

12 blade angles / 400 V / 50 Hz



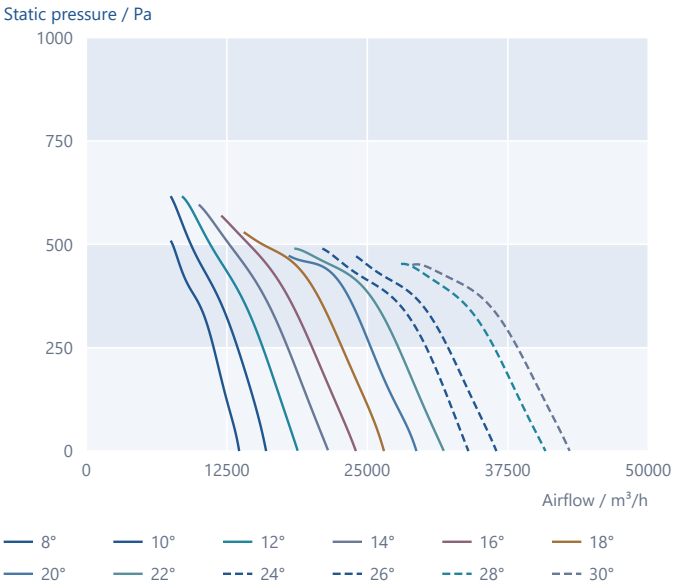
VLF-R 800/9/6P

12 blade angles / 400 V / 50 Hz



VLF-R 800/9/4-8P

12 blade angles / 400 V / 50 Hz



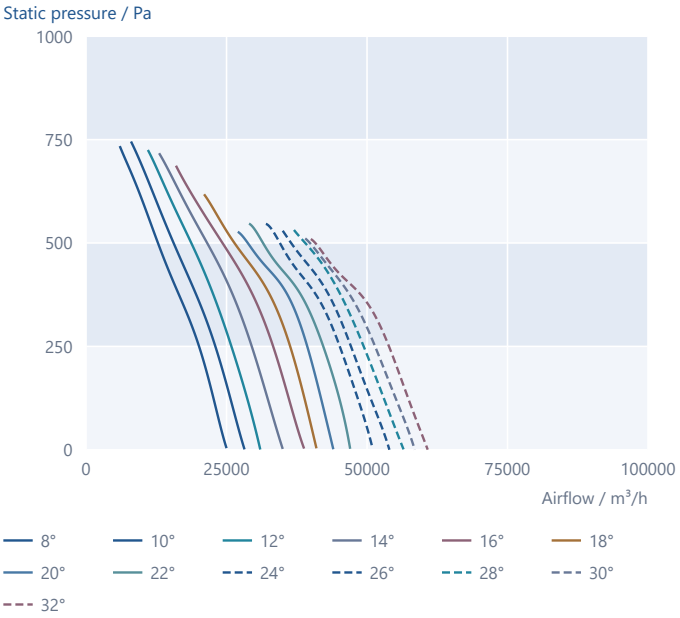
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 09

Fan Performance Curves

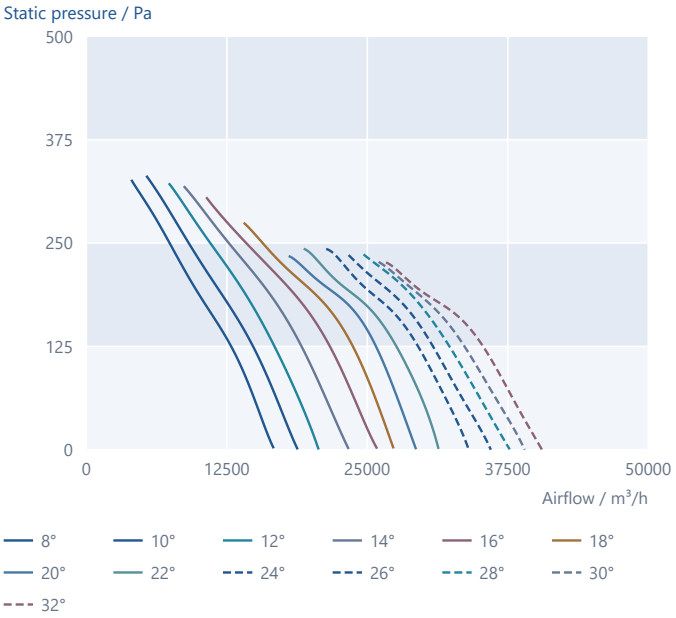
VLF-R 900/6/4P

13 blade angles / 400 V / 50 Hz



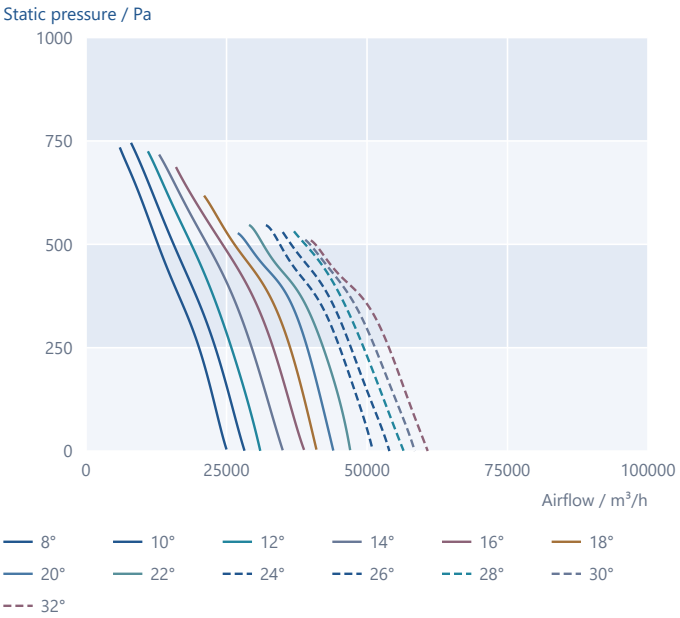
VLF-R 900/6/6P

13 blade angles / 400 V / 50 Hz



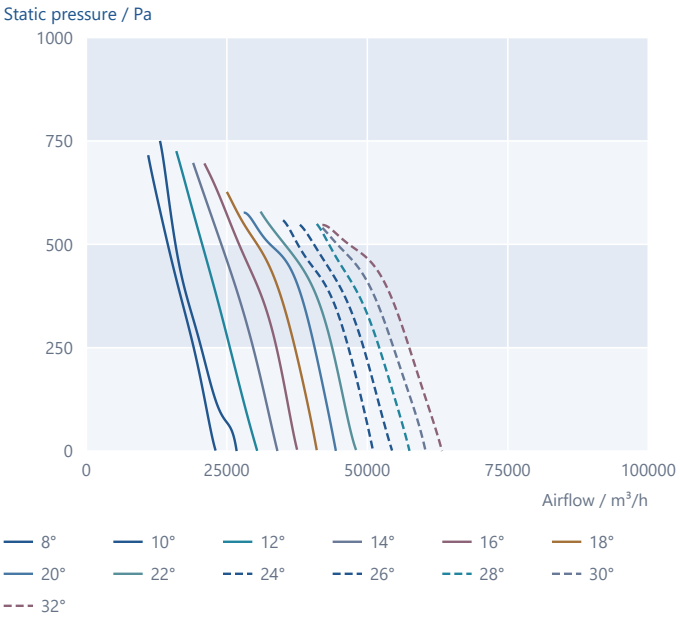
VLF-R 900/6/4-8P

13 blade angles / 400 V / 50 Hz



VLF-R 900/9/4P

13 blade angles / 400 V / 50 Hz



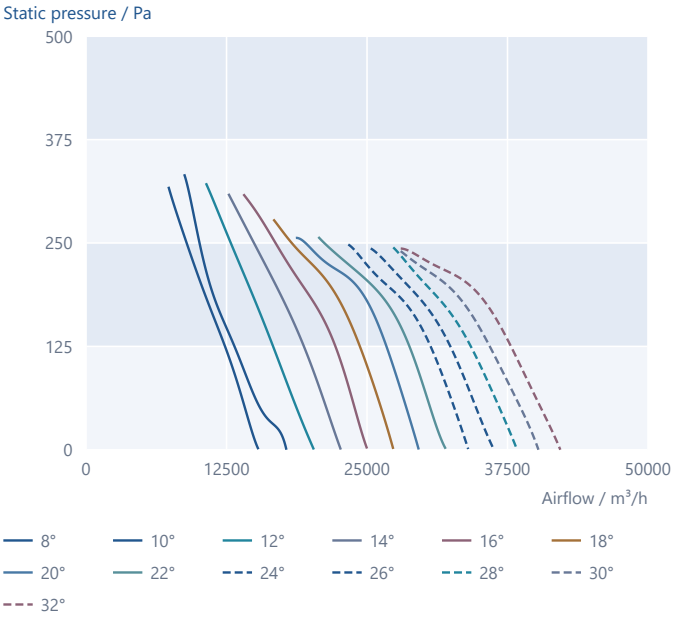
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 10

Fan Performance Curves

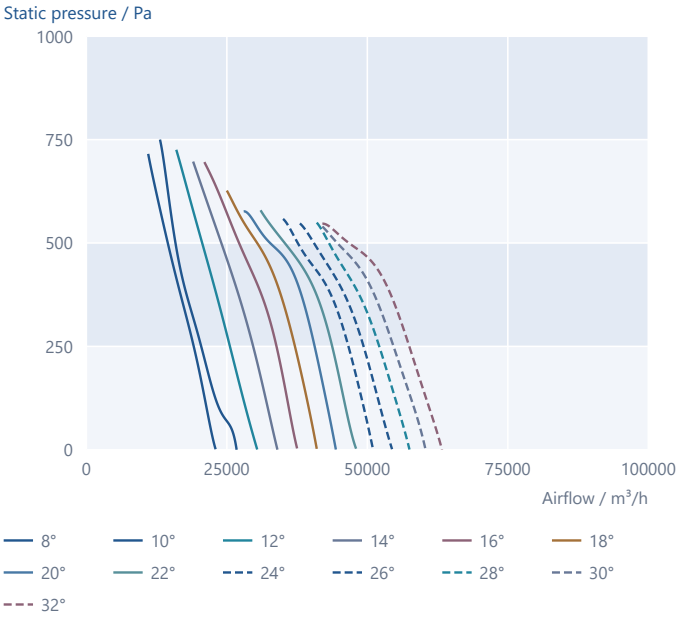
VLF-R 900/9/6P

13 blade angles / 400 V / 50 Hz



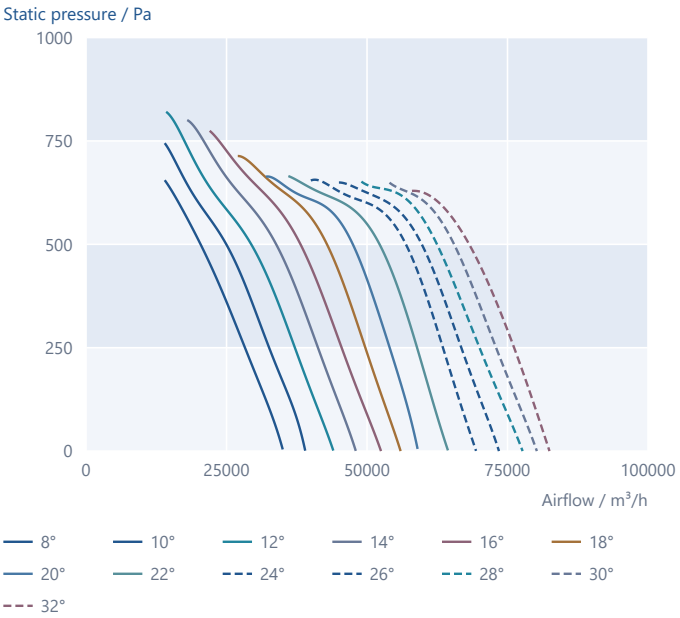
VLF-R 900/9/4-8P

13 blade angles / 400 V / 50 Hz



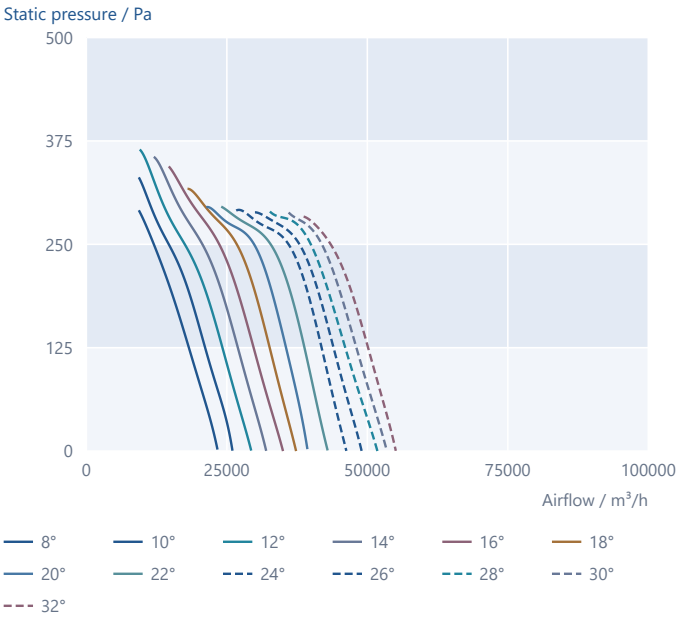
VLF-R 1000/6/4P

13 blade angles / 400 V / 50 Hz



VLF-R 1000/6/6P

13 blade angles / 400 V / 50 Hz



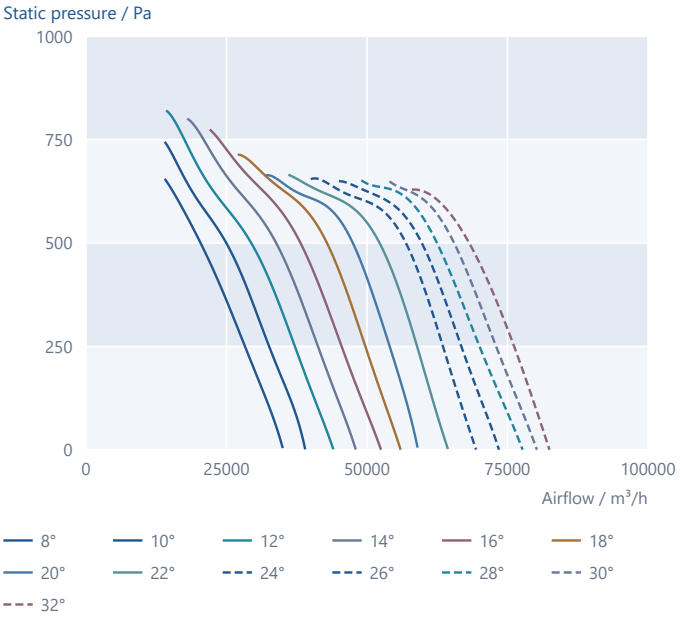
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 11

Fan Performance Curves

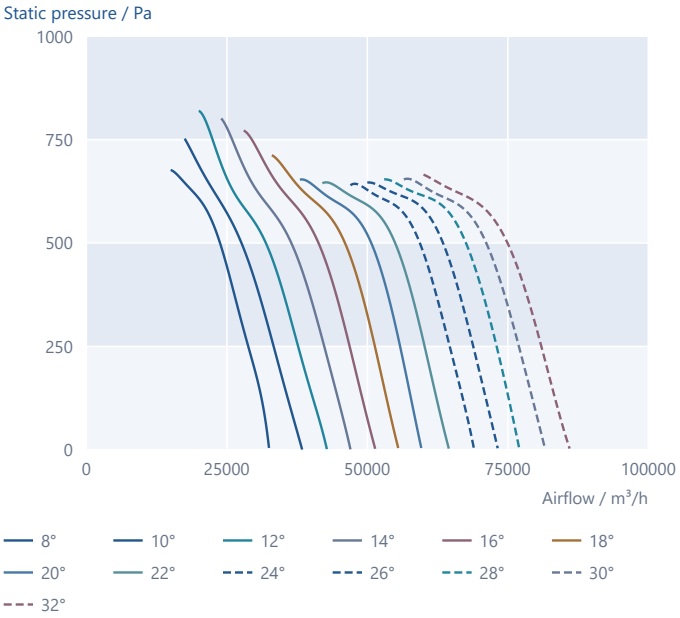
VLF-R 1000/6/4-8P

13 blade angles / 400 V / 50 Hz



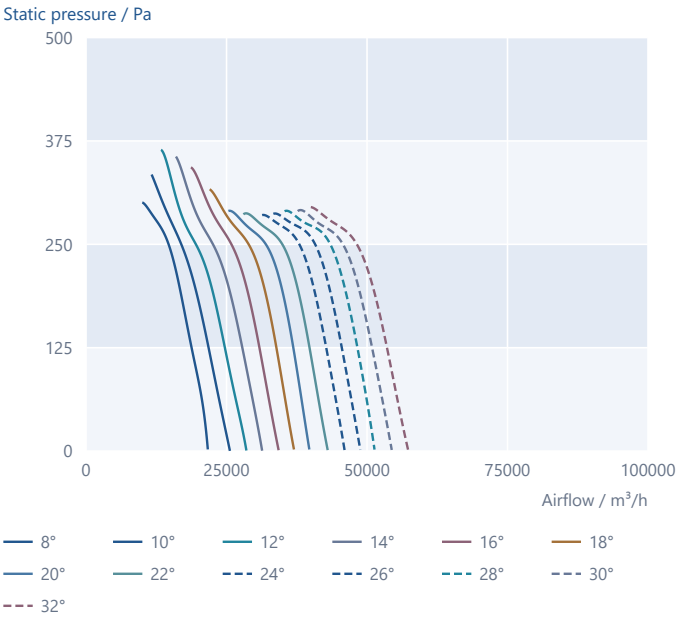
VLF-R 1000/9/4P

13 blade angles / 400 V / 50 Hz



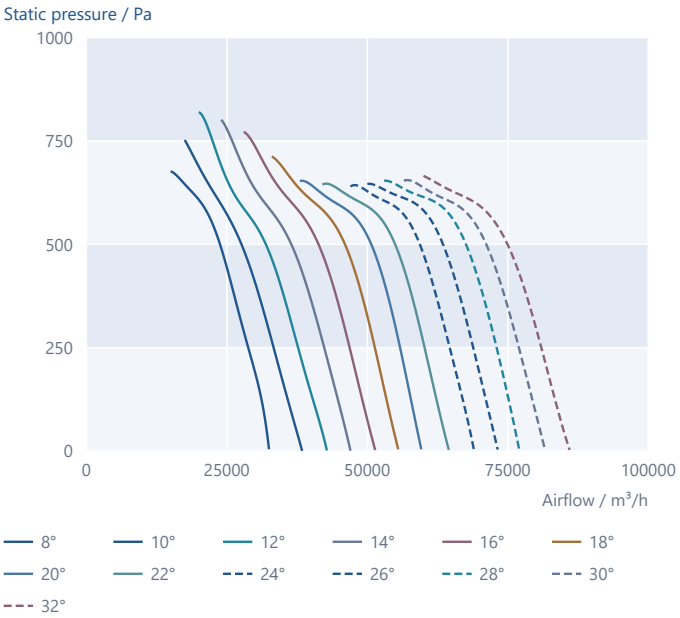
VLF-R 1000/9/6P

13 blade angles / 400 V / 50 Hz



VLF-R 1000/9/4-8P

13 blade angles / 400 V / 50 Hz



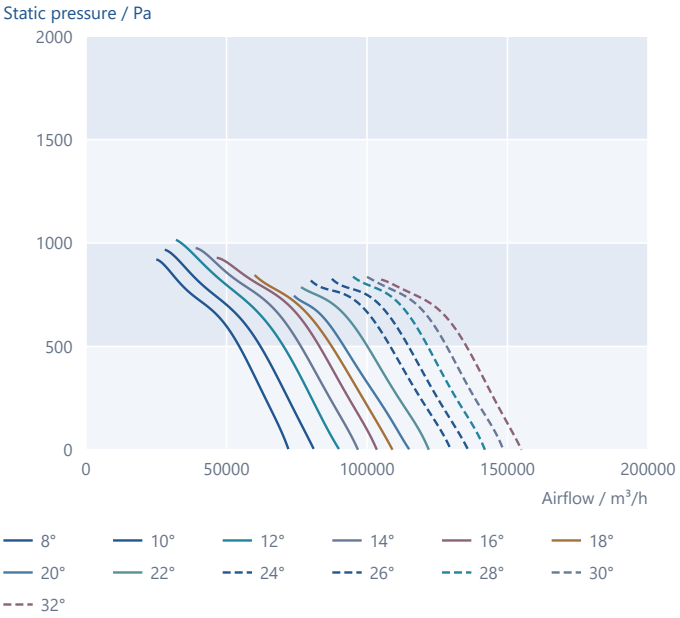
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 12

Fan Performance Curves

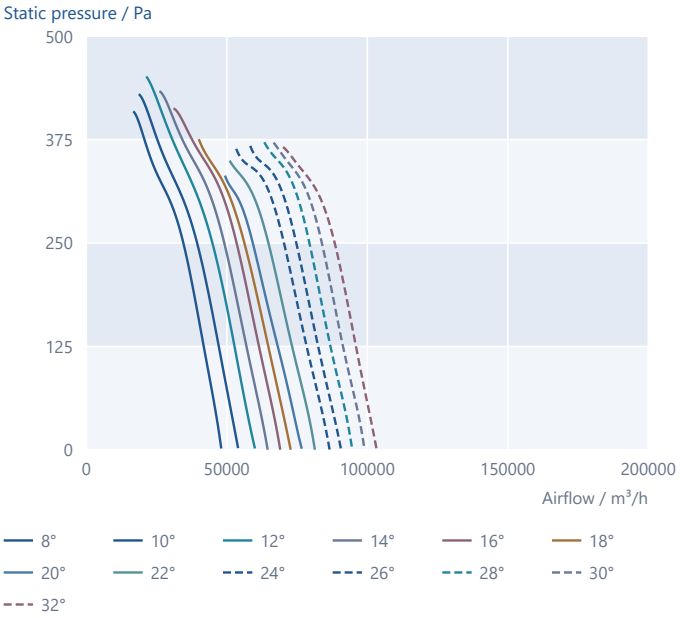
VLF-R 1250/6/4P

13 blade angles / 400 V / 50 Hz



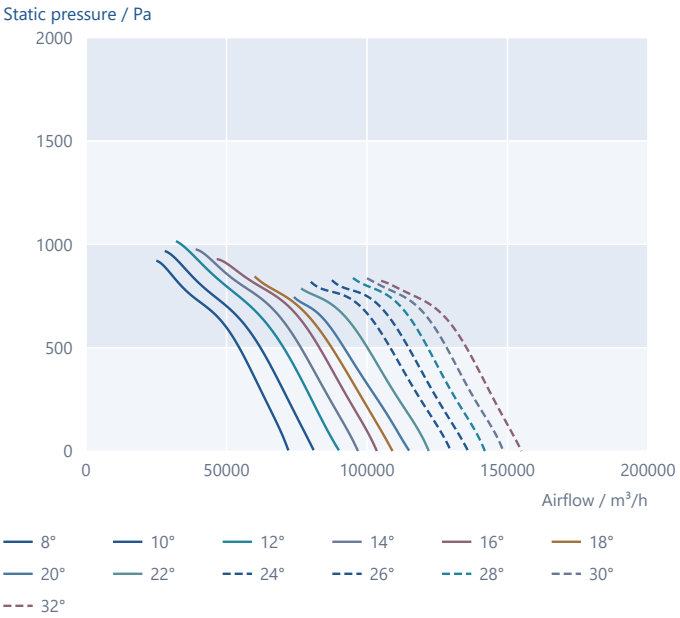
VLF-R 1250/6/6P

13 blade angles / 400 V / 50 Hz



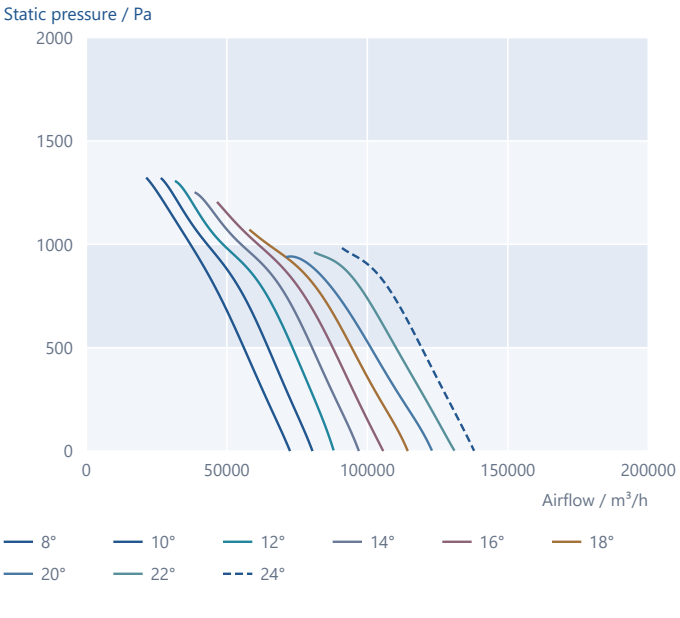
VLF-R 1250/6/4-8P

13 blade angles / 400 V / 50 Hz



VLF-R 1250/9/4P

9 blade angles / 400 V / 50 Hz



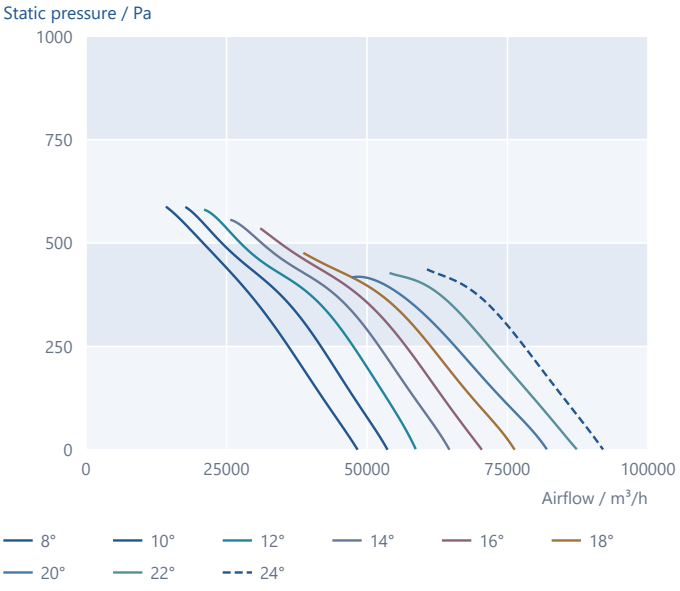
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 13

Fan Performance Curves

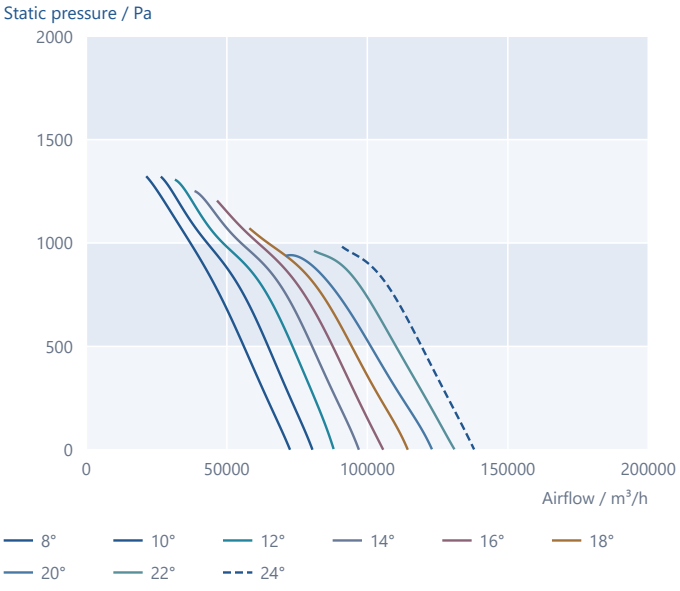
VLF-R 1250/9/6P

9 blade angles / 400 V / 50 Hz



VLF-R 1250/9/4-8P

9 blade angles / 400 V / 50 Hz



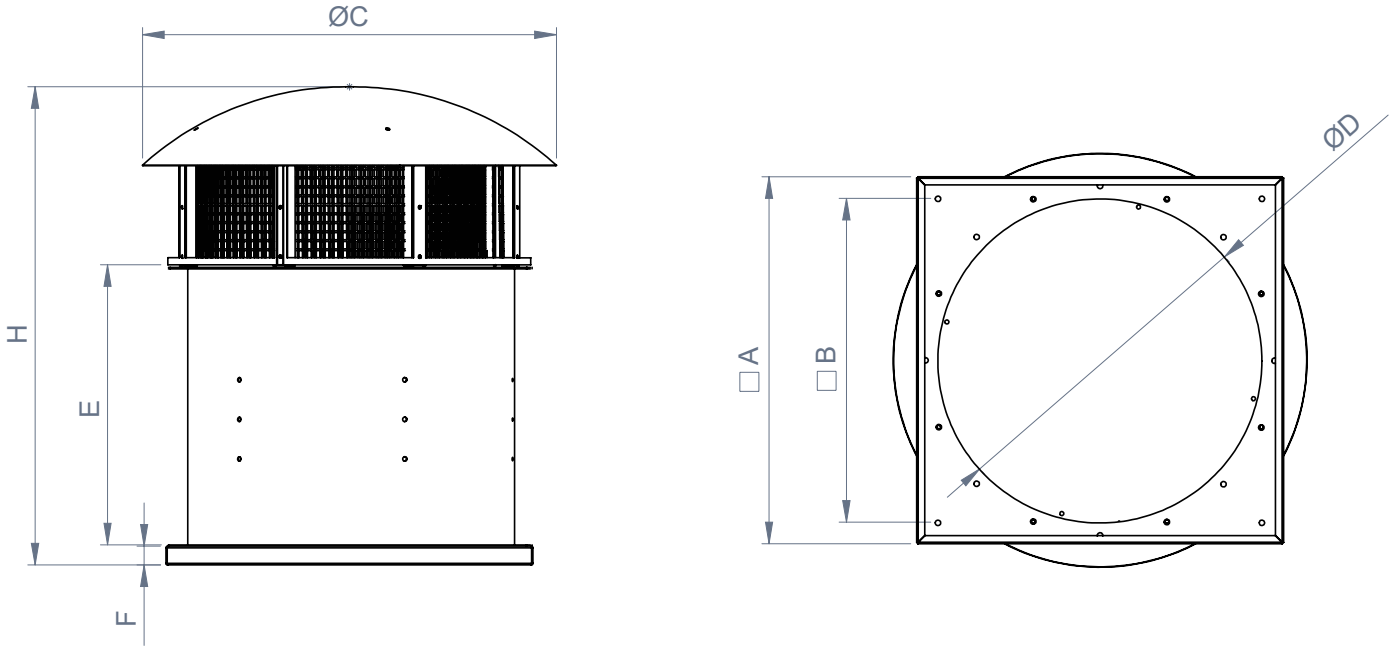
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

04 / DIMENSIONAL DATA

Define the roof connection.

ORIGINAL FAMILY OUTLINE / FRONT & BASE

All lengths in mm



Size / pole configuration	A	B	C	D	E	F	H
400 / all poles	600	495	702	400	474	50	880
450 / all poles	650	545	702	450	474	50	880
500 / all poles	650	545	842	500	580	50	1030
560 / all poles	685	605	842	560	580	50	1030
630 / all poles	780	637	1130	630	600	50	1160
710 / all poles	830	710	1130	710	700	50	1300
800 / 4P, 4-8P	920	800	1130	800	700	50	1300
800 / 6P	920	800	1430	800	700	50	1300
900 / 4P, 4-8P	1020	900	1130	900	775	50	1375
900 / 6P	1020	900	1430	900	775	50	1375
1000 / all poles	1130	1030	1430	1000	850	50	1450
1250 / all poles	1430	1350	1430	1250	950	50	1550

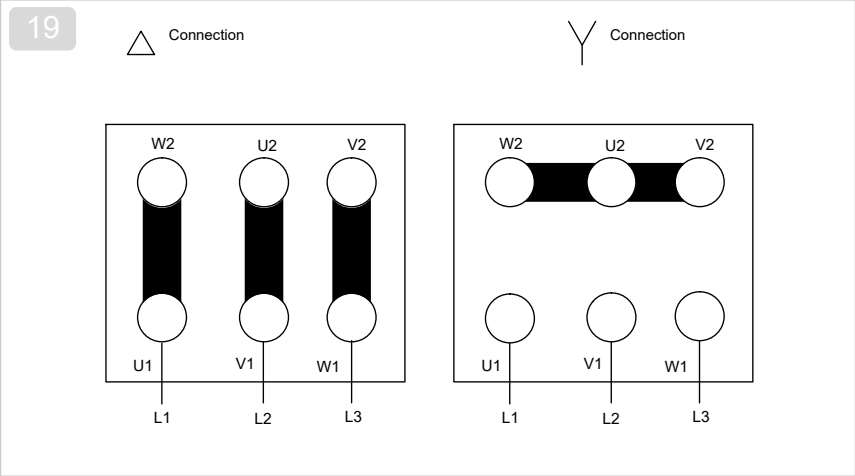
Original vector outline. Listed A, B, C, D, E, F and H definitions are retained. For 800 and 900 mm, 6P uses C = 1430 mm; 4P and 4-8P use C = 1130 mm. Confirm the actual roof curb and mating connections; do not scale the drawing.

05 / ELECTRICAL & INSTALLATION

Connect the selected motor.

Diagram 19 applies to single-speed three-phase motors. Match star or delta connection to the supplied motor nameplate; 400 V supply alone does not determine the correct connection. This diagram does not describe a two-speed motor.

VLF-R / THREE PHASE / SINGLE-SPEED CONNECTION



CLASS F / IP55 / TEAO / IE2 / 400 V / 50 Hz

SELECT AT THE REQUIRED DUTY

FSP selects blade angle and motor using the absorbed-power curve and configuration-specific reserve. Final motor rating, nameplate current and wiring follow that selection. Two-speed 2-4P and 4-8P charts show supplied high-speed curves only; obtain the actual two-speed wiring from the motor documentation.

TEMPERATURE LIMITS & INSTALLATION

Maximum transported air +40 °C. Motor range -20 to +55 °C except VLF-R 500/6/6P: listed upper limit +5 °C, awaiting confirmation. Secure to a suitable roof curb with clear airflow and service access. Smoke-duty temperature/time ratings require supplied-unit certification.

ACOUSTIC & MOTOR REFERENCES

Sound-power spectra in FSP are blade-angle and airflow dependent; no single series sound-pressure rating is supplied. Reference current curves do not replace the selected motor nameplate current. Unit mass is unavailable. Isolate power before inspection and keep the impeller, discharge guard and motor ventilation clear.

01 / PRODUCT OVERVIEW

VRF

Vertical Discharge Centrifugal Roof Fan



01 Upward roof extraction

A vertical-discharge centrifugal roof fan for exhaust applications where horizontal discharge is unsuitable. Mount on a suitable roof curb with clear discharge and service access.

02 Sheet-metal body and centrifugal wheel

A formed sheet-metal casing houses a backward-curved impeller. The approved front-view photograph illustrates the body, top cover, folded panels and mounting frame.

03 Motor outside the transported airstream

Asynchronous motors serve the configurations. Maximum transported air is +120 °C; motor operating range is -20 to +40 °C. Maintain motor ventilation and respect both limits.

MODEL-SPECIFIC RATINGS

Seven casing sizes. Thirteen motor options.

Selection parameter	Series overview
Nominal airflow	1900-13000 m^3/h
Nominal motor power	0.25-3.00 kW
Electrical supply	230 V / 1 phase or 400 V / 3 phase / 50 Hz
Motor configuration	4 or 6 poles / Class F / IP55 / TEFC / IE2
Motor range / maximum transported air	-20 to +40 °C / +120 °C
Sound pressure reference	Listed LpA at 3 m; model-specific

Published series data. Use the selected model outline and actual motor nameplate. The photograph illustrates the series configuration.

02 / TECHNICAL DATA

Compare the fan and motor.

13 MODELS / 50 Hz / NOMINAL RATINGS

Model	Supply V / phase	Airflow m^3/h	Max. Ps Pa	Motor kW	Speed rpm	Current A	Weight kg	LpA / 3 m dB(A)
VRF 315M-4P	230 / 1	1900	285	0.25	1380	2.1	22	48
VRF 315T-4P	400 / 3	1900	285	0.25	1380	0.87	22	48
VRF 355M-4P	230 / 1	2850	350	0.25	1380	2.1	27	50
VRF 355T-4P	400 / 3	2850	350	0.25	1380	0.87	27	50
VRF 400M-4P	230 / 1	4000	480	0.37	1390	3.4	33	51
VRF 400T-4P	400 / 3	4000	480	0.37	1390	1.2	33	51
VRF 450M-4P	230 / 1	5300	530	0.55	1365	4.5	38	54
VRF 450T-4P	400 / 3	5300	530	0.55	1365	1.6	38	54
VRF 500M-4P	230 / 1	8000	690	1.10	1410	7.5	49	56
VRF 500T-4P	400 / 3	8000	690	1.10	1410	2.6	49	56
VRF 560M-4P	230 / 1	10500	880	2.20	1420	14.2	58	65
VRF 560T-4P	400 / 3	10500	880	2.20	1420	4.9	58	65
VRF 630T-6P	400 / 3	13000	550	3.00	960	6.6	70	78

Airflow and maximum static pressure are nominal ratings, not a selected duty point. Power, speed and current are nominal motor values; operating-point values in FSP may differ.

M = single phase; T = three phase. 4P = four poles; 6P = six poles. All listed motors are Class F / IP55 / TEFC / IE2. Motor range is -20 to +40 °C; maximum transported air is +120 °C.

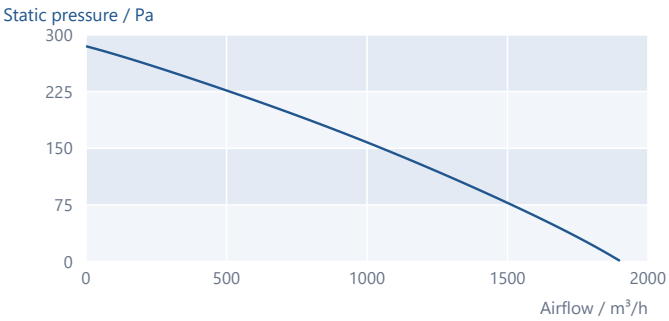
LpA is the independently supplied sound-pressure reference at 3 m. Inlet and housing sound-power bands are listed separately on p. 278; no sound-pressure spectrum is inferred.

03 / AIR PERFORMANCE / 1 OF 2

Fan Performance Curves

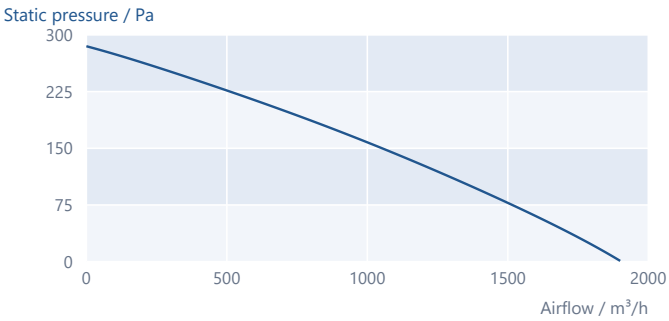
VRF 315M-4P

230 V / 1 phase / 50 Hz / 0.25 kW



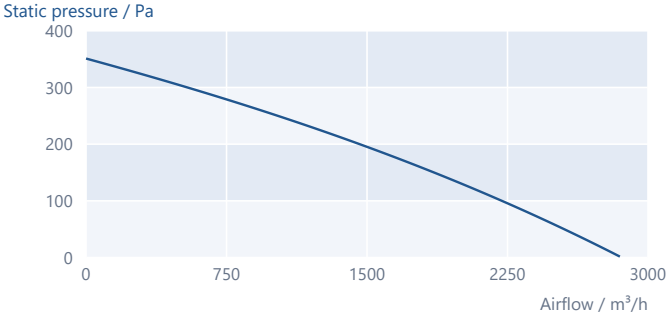
VRF 315T-4P

400 V / 3 phase / 50 Hz / 0.25 kW



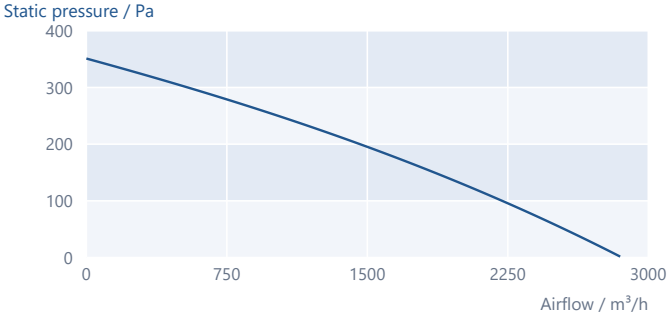
VRF 355M-4P

230 V / 1 phase / 50 Hz / 0.25 kW



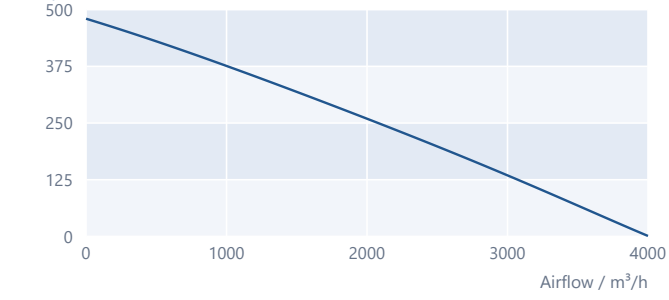
VRF 355T-4P

400 V / 3 phase / 50 Hz / 0.25 kW



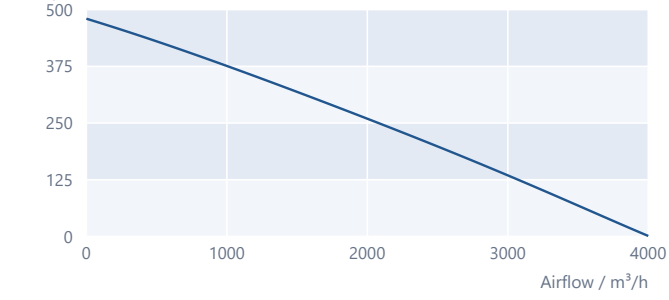
VRF 400M-4P

230 V / 1 phase / 50 Hz / 0.37 kW



VRF 400T-4P

400 V / 3 phase / 50 Hz / 0.37 kW



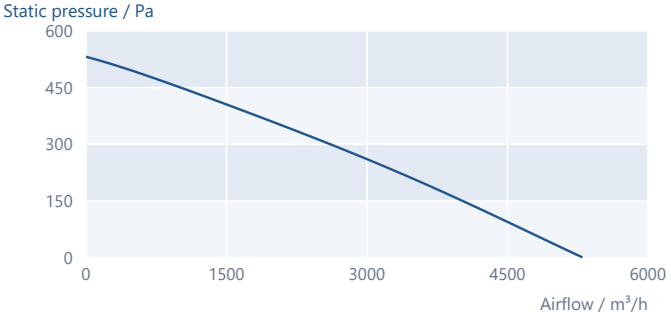
Model-specific scales. Listed 50 Hz curves. VRF 630T-6P stops at zero pressure before its tiny negative fit tail. No extrapolation.

03 / AIR PERFORMANCE / 2 OF 2

Fan Performance Curves

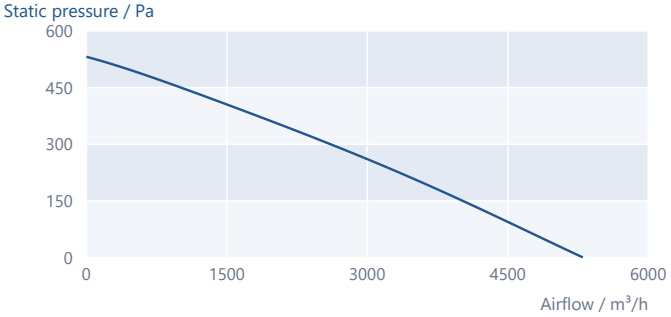
VRF 450M-4P

230 V / 1 phase / 50 Hz / 0.55 kW



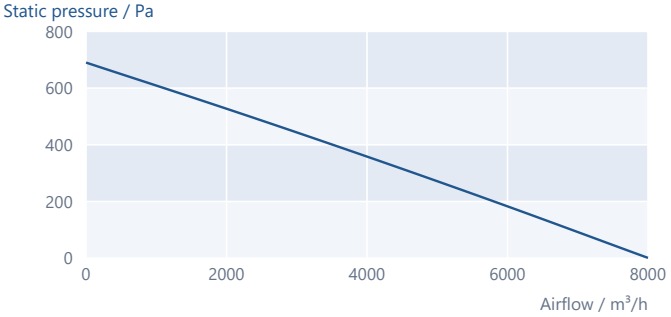
VRF 450T-4P

400 V / 3 phase / 50 Hz / 0.55 kW



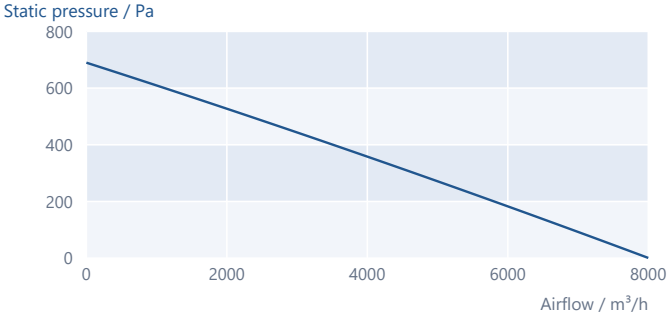
VRF 500M-4P

230 V / 1 phase / 50 Hz / 1.10 kW



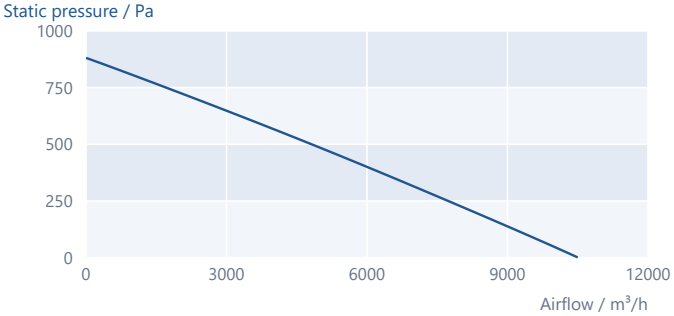
VRF 500T-4P

400 V / 3 phase / 50 Hz / 1.10 kW



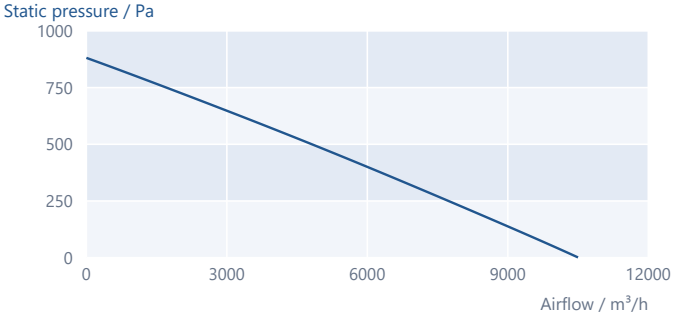
VRF 560M-4P

230 V / 1 phase / 50 Hz / 2.20 kW



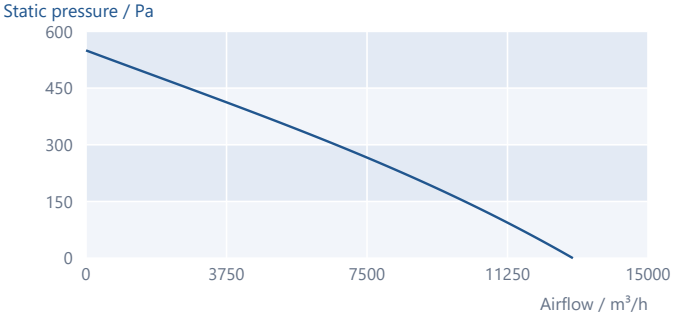
VRF 560T-4P

400 V / 3 phase / 50 Hz / 2.20 kW



VRF 630T-6P

400 V / 3 phase / 50 Hz / 3.00 kW



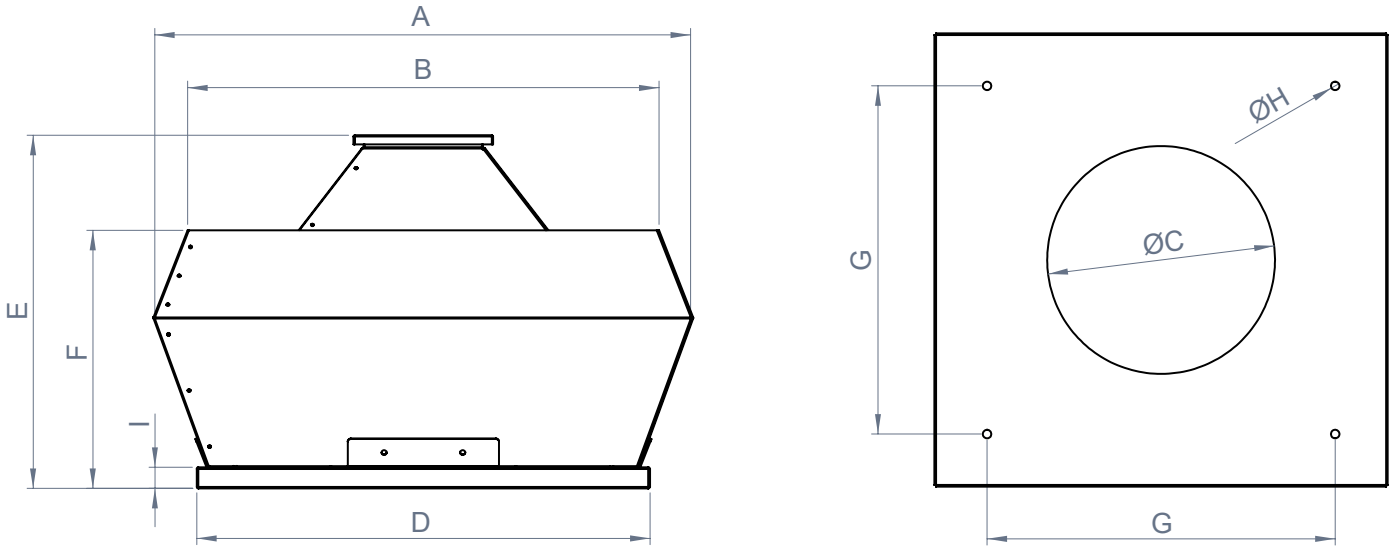
Model-specific scales. Listed 50 Hz curves. VRF 630T-6P stops at zero pressure before its tiny negative fit tail. No extrapolation.

04 / DIMENSIONS

Define the roof connection.

ORIGINAL FAMILY OUTLINE / FRONT & BASE

All dimensions in mm



Casing / models	A	B	C	D	E	F	G	H	I
VRF 315M/T-4P	845	740	198	700	550	395	576	14	35
VRF 355M/T-4P	845	740	234	700	550	395	576	14	35
VRF 400M/T-4P	895	780	268	750	585	430	576	14	35
VRF 450M/T-4P	960	855	303	800	595	440	625	14	35
VRF 500M/T-4P	1030	915	342	850	695	490	675	14	35
VRF 560M/T-4P	1195	960	380	950	820	610	740	14	35
VRF 630T-6P	1195	960	650	950	890	620	740	14	35

A/B = housing widths; C = circular connection; D = mounting-base width; E/F = heights in the outline; G = fixing pattern; H = fixing-hole diameter; I = base height. M/T versions share listed dimensions. Use actual mating flanges; do not scale the drawing.

05 / INSTALLATION & MOTOR

Prepare the roof and the supply.

ROOF CURB, SEALING & SERVICE ACCESS

Mount on a suitable rigid roof curb, seal the roof connection and keep the upward discharge and motor ventilation clear. Provide service access and secure supports. Motor range is -20 to +40 °C; maximum transported air is +120 °C.

SUPPLY & SPEED CONTROL

Three-phase inverter control is specified for this family. Use a motor-compatible controller and follow the actual motor/controller instructions. No fixed control range is inferred. Isolate power before inspection.

MODEL-SPECIFIC REFERENCES / CLASS F / IP55 / TEFC / IE2

Model	Poles	Motor range °C	Max. air °C	Capacitor µF	Capacitor rating / V
VRF 315M-4P	4	-20 / +40	+120	10	400
VRF 315T-4P	4	-20 / +40	+120	-	-
VRF 355M-4P	4	-20 / +40	+120	10	400
VRF 355T-4P	4	-20 / +40	+120	-	-
VRF 400M-4P	4	-20 / +40	+120	15	400
VRF 400T-4P	4	-20 / +40	+120	-	-
VRF 450M-4P	4	-20 / +40	+120	20	400
VRF 450T-4P	4	-20 / +40	+120	-	-
VRF 500M-4P	4	-20 / +40	+120	35	400
VRF 500T-4P	4	-20 / +40	+120	-	-
VRF 560M-4P	4	-20 / +40	+120	50	400
VRF 560T-4P	4	-20 / +40	+120	-	-
VRF 630T-6P	6	-20 / +40	+120	-	-

The capacitor voltage is the component rating, not the fan supply voltage. Match the selected motor nameplate and the supplied diagram on p. 279. Respect both motor and transported-air temperature limits.

06 / ACOUSTIC REFERENCE

Sound power, by model.

INLET & HOUSING BAND LEVELS / dB

Model	Listed	65 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	LwA dB(A)
VRF 315M-4P	Inlet	40	58	62	64	63	60	55	48	69
VRF 315M-4P	Housing	42	60	64	66	65	62	57	50	71
VRF 315T-4P	Inlet	40	58	62	64	63	60	55	48	69
VRF 315T-4P	Housing	42	60	64	66	65	62	57	50	71
VRF 355M-4P	Inlet	42	60	64	66	65	62	57	50	71
VRF 355M-4P	Housing	44	62	66	68	67	64	59	52	72
VRF 355T-4P	Inlet	42	60	64	66	65	62	57	50	71
VRF 355T-4P	Housing	44	62	66	68	67	64	59	52	72
VRF 400M-4P	Inlet	59	61	65	67	66	63	58	51	72
VRF 400M-4P	Housing	61	63	67	69	68	65	60	53	74
VRF 400T-4P	Inlet	59	61	65	67	66	63	58	51	72
VRF 400T-4P	Housing	61	63	67	69	68	65	60	53	74
VRF 450M-4P	Inlet	62	64	68	70	69	66	61	54	75
VRF 450M-4P	Housing	64	66	70	72	71	68	63	56	77
VRF 450T-4P	Inlet	62	64	68	70	69	66	61	54	75
VRF 450T-4P	Housing	64	66	70	72	71	68	63	56	77
VRF 500M-4P	Inlet	59	61	65	67	66	63	58	51	72
VRF 500M-4P	Housing	66	68	73	74	73	70	65	58	79
VRF 500T-4P	Inlet	59	61	65	67	66	63	58	51	72
VRF 500T-4P	Housing	66	68	73	74	73	70	65	58	79
VRF 560M-4P	Inlet	73	75	79	81	80	77	72	65	86
VRF 560M-4P	Housing	75	77	81	83	82	79	74	67	88
VRF 560T-4P	Inlet	73	75	79	81	80	77	72	65	86
VRF 560T-4P	Housing	75	77	81	83	82	79	74	67	88
VRF 630T-6P	Inlet	73	75	79	81	80	77	72	65	86
VRF 630T-6P	Housing	75	77	81	83	82	79	74	67	88

Inlet and housing sound-power bands and totals are selection datas. The original 65 Hz label is retained. Blank outlet spectra and placeholder totals are excluded.

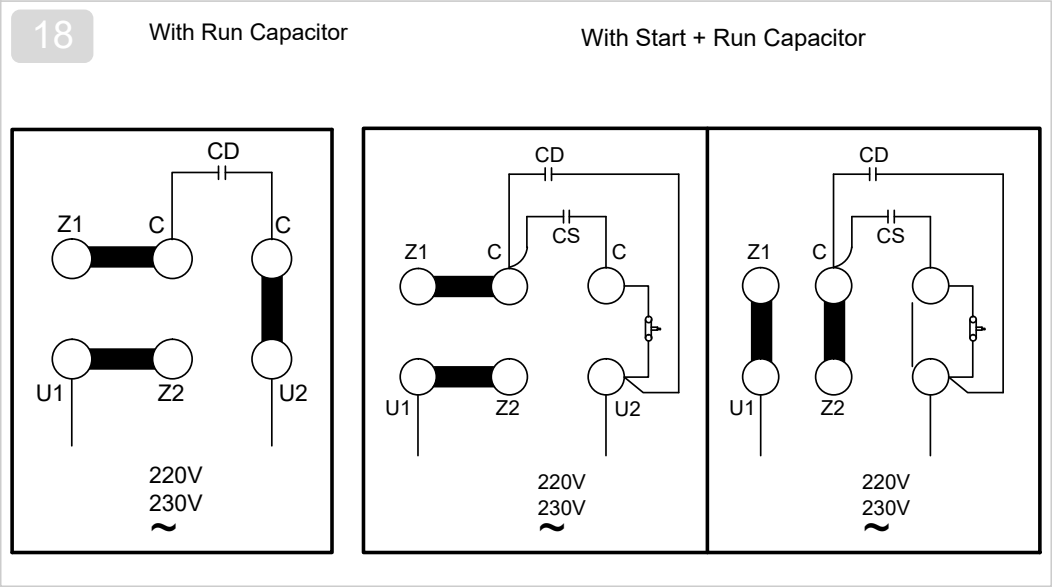
LpA at 3 m is supplied independently on p. 273. No pressure spectrum, installation correction or LwA/LpA conversion is inferred.

07 / ELECTRICAL CONNECTION

Match the motor connection.

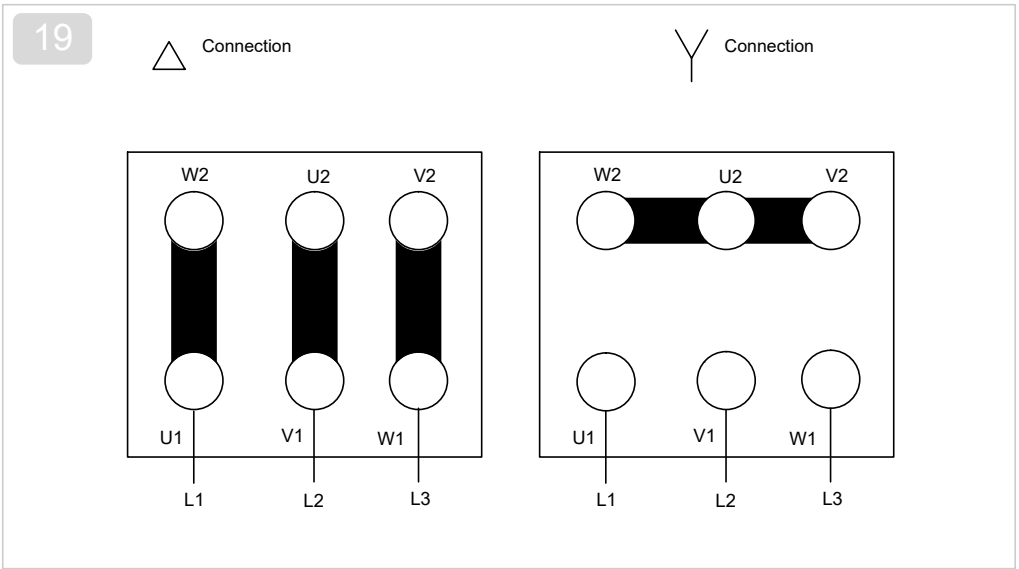
VRF M / SINGLE-PHASE MODELS 315-560

Layout 18 / 230 V / 50 Hz



VRF T / THREE-PHASE MODELS 315-630

Layout 19 / 400 V / 50 Hz



The diagrams preserve the supplied terminal, capacitor and bridge arrangements. The actual motor nameplate and supplied diagram determine the applicable connection.

Use the selected motor capacitor rating, protection and rotation check. These references are not complete application control-panel designs.



05

HEAT RECOVERY UNITS

SERIES DIRECTORY

VHRU-B 281
VHRU 287
HR-ECO 292
VHRU-S 298
VHRU-HP EC 304

01 / PRODUCT OVERVIEW

VHRU-B

Ceiling Heat Recovery Unit



01 Separate supply and extract paths

A plate heat exchanger recovers energy from extract air. The supply and exhaust air streams travel through separate paths within the unit.

02 A cabinet for ceiling installation

The galvanized-steel casing has insulated panels, a condensate tray and service access. Provide suitable supports, drainage and maintenance clearance.

03 Two AC external-rotor fans

The published performance curve describes one air path at the reference 50 Hz setting. Optional electric duct heating is selected and specified separately.

ACCESS FOR MAINTENANCE

Keep fan, filter and heat-exchanger service areas accessible. Confirm the filter specification and replacement access for the selected unit configuration.

SERIES AT A GLANCE

Selection parameter	Series reference
Motor arrangement	Two AC external-rotor fans
Fan electrical supply	230 V / 1 phase / 50 Hz
Motor insulation / protection	Class F / IP44
Maximum air temperature	+40 °C
Thermal recovery	Model-specific percentage not supplied

The performance and electrical ratings refer to the verified fan selection data. Heat-exchanger recovery is separate from fan efficiency; no climate-specific thermal result is inferred.

02 / TECHNICAL DATA

Compare the unit ratings.

FAN SUPPLY 230 V / 1 PHASE / 50 Hz

Model	Nominal airflow m^3/h	Nominal fan power / W	Nominal fan current / A	Speed rpm	Unit weight kg
VHRU-B 1000	1000	370	1.8	1400	80
VHRU-B 2000	2000	520	2.3	1420	113
VHRU-B 3000	3000	800	3.4	1430	160
VHRU-B 4000	4000	1400	6.2	1435	195
VHRU-B 5000	5000	1900	9	1280	215
VHRU-B 6000	6000	2000	9	1250	240

FAN RATING BASIS

Nominal fan power and current follow the published selection data without multiplication. They are not a declared two-fan unit total and exclude optional heating. The pressure curve represents one air path; neither pressure nor airflow is doubled.

Model	Sound pressure at 3 m dB(A)	Optional electric heater kW
VHRU-B 1000	45	3
VHRU-B 2000	46	3
VHRU-B 3000	48	5
VHRU-B 4000	49	8
VHRU-B 5000	54	10
VHRU-B 6000	57	13

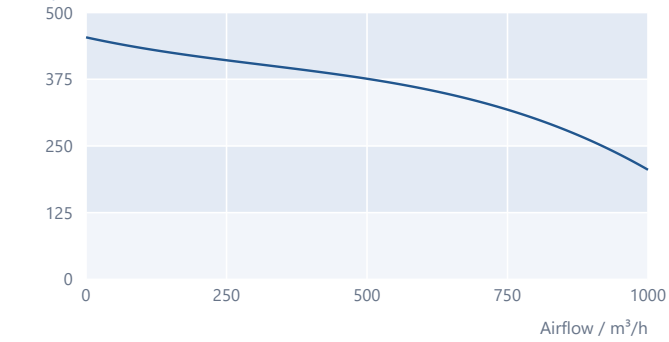
Sound pressure is a catalogue reference measured at 3 m in room conditions. Heater ratings are additional; heater supply, control and installation requirements are specified separately.

03 / AIR PERFORMANCE

Fan Performance Curves

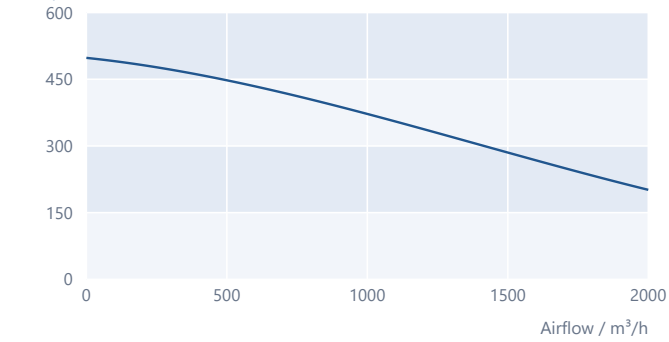
VHRU-B 1000

230 V / 1 phase / 50 Hz / one air path



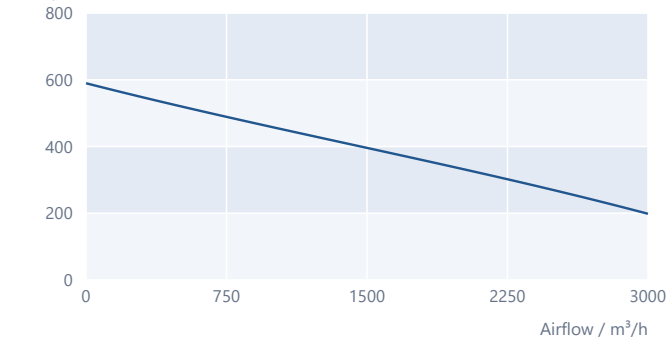
VHRU-B 2000

230 V / 1 phase / 50 Hz / one air path



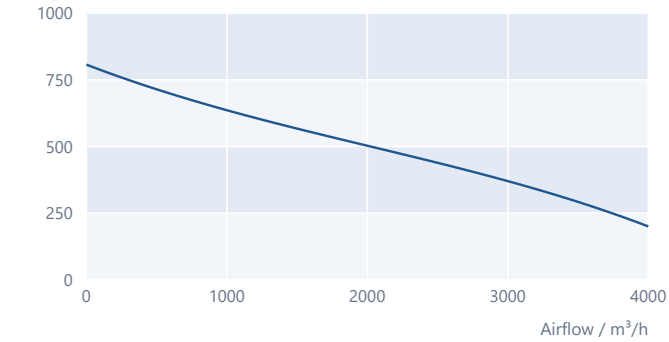
VHRU-B 3000

230 V / 1 phase / 50 Hz / one air path



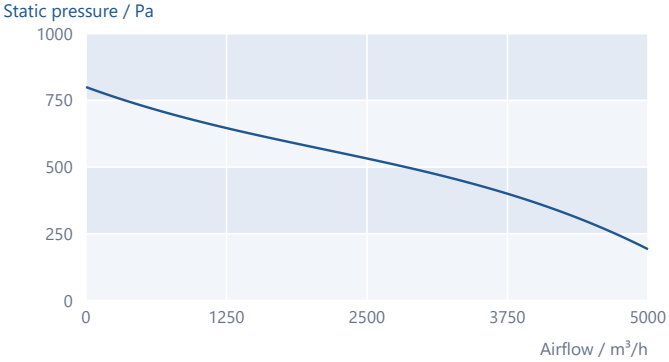
VHRU-B 4000

230 V / 1 phase / 50 Hz / one air path



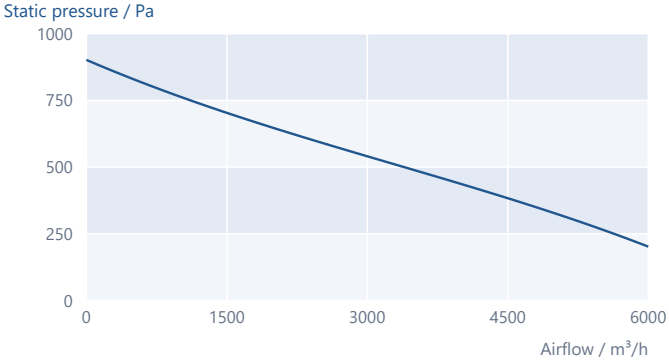
VHRU-B 5000

230 V / 1 phase / 50 Hz / one air path



VHRU-B 6000

230 V / 1 phase / 50 Hz / one air path



One-air-path curves at the published setting. Each chart has its own scale. Curves stop at the published airflow limit, with positive pressure remaining; they are not extended to a zero-pressure intercept.

04 / ACOUSTIC DATA

Understand the sound profile.

REFERENCE SOUND POWER LWA / dB(A)

Model	Path	63 Hz	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	8k Hz	Overall
VHRU-B 1000	Inlet	55	67	64	67	66	62	54	44	73
VHRU-B 1000	Outlet	74	84	78	82	81	78	70	60	88
VHRU-B 1000	Housing	49	37	50	67	66	65	59	47	71
VHRU-B 2000	Inlet	54	66	63	66	65	61	53	43	72
VHRU-B 2000	Outlet	74	84	78	82	81	78	70	60	88
VHRU-B 2000	Housing	50	38	51	68	67	66	60	48	72
VHRU-B 3000	Inlet	46	58	55	58	57	53	45	35	64
VHRU-B 3000	Outlet	70	80	74	78	77	74	66	56	84
VHRU-B 3000	Housing	52	40	53	70	69	68	62	50	74
VHRU-B 4000	Inlet	46	58	55	58	57	53	45	35	64
VHRU-B 4000	Outlet	72	82	76	80	79	76	68	58	86
VHRU-B 4000	Housing	53	41	54	71	70	69	63	51	75
VHRU-B 5000	Inlet	51	63	60	63	62	58	50	40	69
VHRU-B 5000	Outlet	73	83	77	81	80	77	69	59	87
VHRU-B 5000	Housing	58	46	59	76	75	74	68	56	80

REFERENCE CONDITIONS

Inlet, outlet and housing spectra are published sound-power references for one air path. Overall values are retained as supplied. They are separate from the sound-pressure ratings at 3 m on p. 282 and are not recalculated for an installation or duty point.

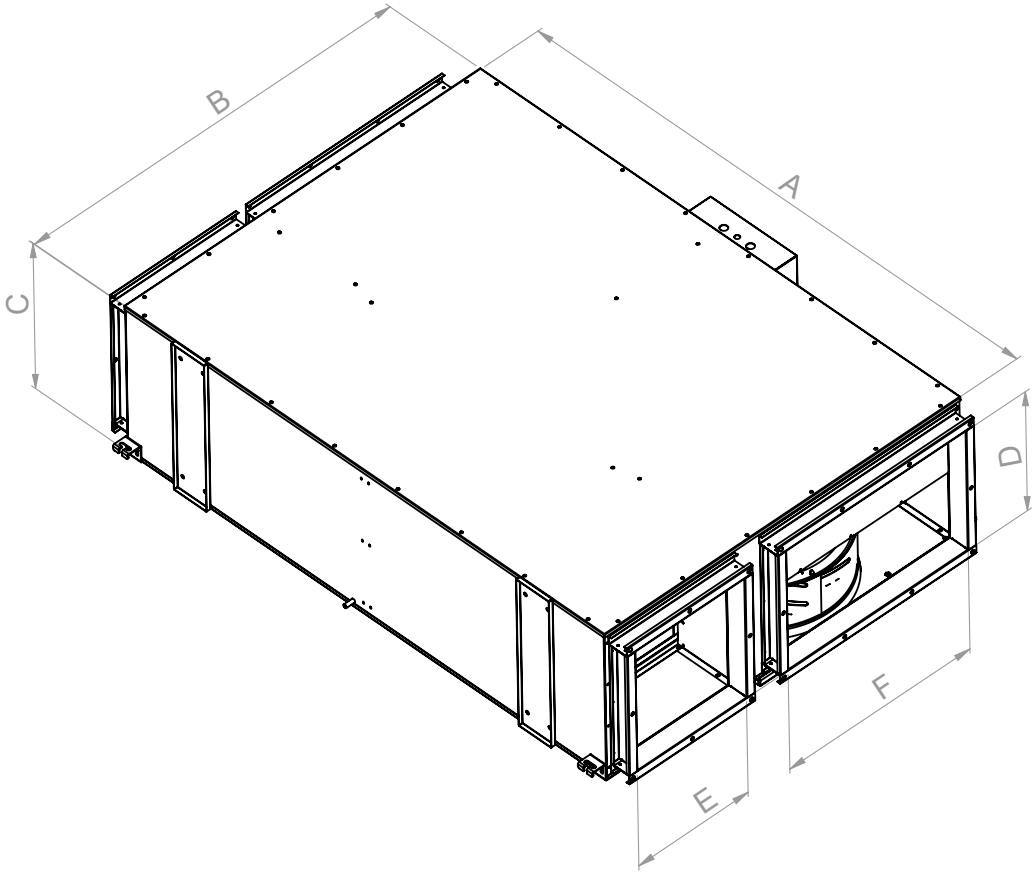
VHRU-B 6000: sound pressure at 3 m is 57 dB(A). A verified octave-band spectrum is not supplied for this model.

05 / DIMENSIONS

Plan the ceiling installation.

ORIGINAL SERIES OUTLINE / A-F

All dimensions in mm



Model	A	B	C	D	E	F
VHRU-B 1000	1100	900	315	220	200	455
VHRU-B 2000	1200	1000	365	270	300	455
VHRU-B 3000	1500	1200	415	320	400	555
VHRU-B 4000	1700	1200	475	380	400	555
VHRU-B 5000	1800	1300	515	420	400	655
VHRU-B 6000	2000	1500	615	520	400	855

Use the selected model values and the original A-F definitions. Provide separate installation, drainage and service clearance; do not scale the drawing.

06 / ELECTRICAL & INSTALLATION

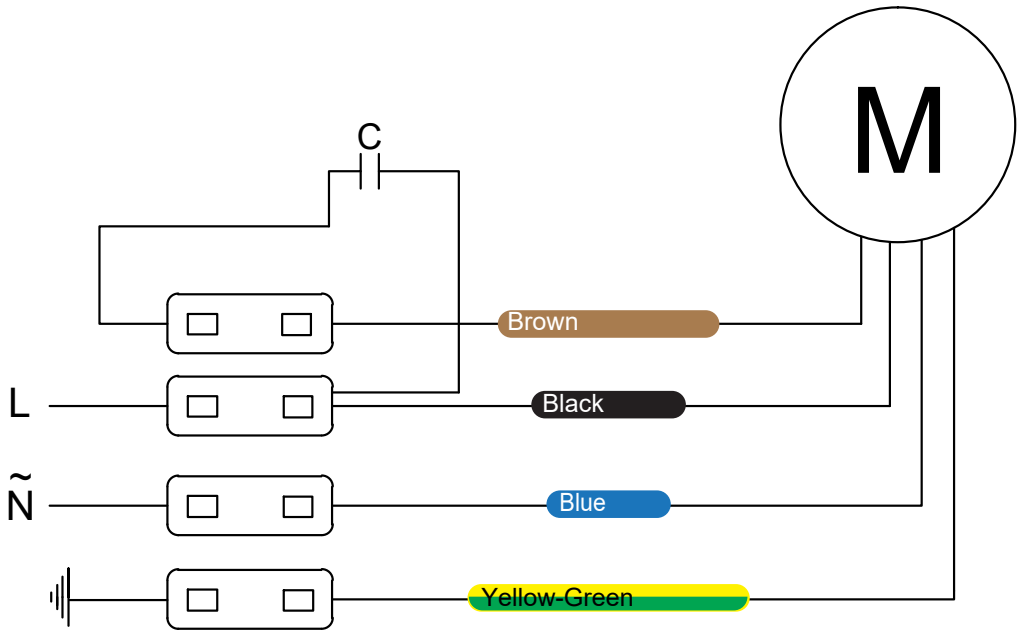
Connect the fan motors.

Fan supply: 230 V / 1 phase / 50 Hz. The verified diagram below shows a single fan motor connection. Complete unit controls and optional heater connections are specified separately.

VHRU-B 1000 / VHRU-B 2000

SINGLE FAN MOTOR

1



VHRU-B 3000 / 4000 / 5000 / 6000

A verified model-specific connection diagram is not supplied for these four sizes. Use the electrical documentation supplied with the selected unit; the diagram above is not assigned to them.

UNIT CONTROLS AND OPTIONAL HEATING

Confirm the fan motor terminals, unit controller and optional heater arrangement for the ordered configuration. Isolate electrical supplies before opening the unit. Keep the electrical enclosure and service panels accessible.

01 / PRODUCT OVERVIEW

VHRU

Ceiling Heat Recovery Unit



01 Separate supply and extract paths

An aluminium plate exchanger transfers heat between separate air streams. Model-specific thermal recovery percentages are not published in the verified data.

02 A casing for ceiling installation

Galvanized sheet steel, circular duct connections and service access form the series configuration. Provide suitable supports and access to filters, fans and the exchanger.

03 AC external-rotor fans

The verified range uses 230 V single-phase AC fans at 50 Hz, Class F insulation and IP44 motor protection. Optional electric duct heating is specified separately.

FIVE VERIFIED CONFIGURATIONS

Size the unit around your duty.

Selection parameter	Series reference
Nominal listed airflow	1000 / 2000 / 3000 / 4000 / 6000 m^3/h
Fan electrical supply	230 V / 1 phase / 50 Hz
Motor insulation / protection	Class F / IP44
Published operating range	-20 to +50 °C
Optional electric heater	3 / 6 / 9 / 12 / 15 kW, by model

The product photograph is the current FSP image. It illustrates the series construction; use the dimensional table for the selected size. Ratings and curves follow the listed configuration.

02 / TECHNICAL DATA

Compare the unit ratings.

FAN SUPPLY 230 V / 1 PHASE / 50 Hz

Model	Airflow m^3/h	Stated power W	Speed rpm	Weight kg	Sound pressure dB(A)	Optional heater kW
VHRU 1000	1000	250	2668	65	50	3
VHRU 2000	2000	400	2396	85	48	6
VHRU 3000	3000	780	1465	126	49	9
VHRU 4000	4000	1300	1410	140	51	12
VHRU 6000	6000	1700	1380	150	58	15

NOMINAL AIRFLOW

Nominal airflow values are listed for each model. VHRU 3000: 3000 m^3/h. The pressure curves on p. 289 retain the published data. Select the unit for the required airflow and system resistance.

FAN POWER AND OPTIONAL HEATING

Stated electrical power is the published catalogue rating. A separate two-fan total is not given, so the values are not doubled. These are not duty-dependent input-power curves. Optional electric heater ratings are additional and are shown separately.

ACOUSTIC AND OPERATING REFERENCES

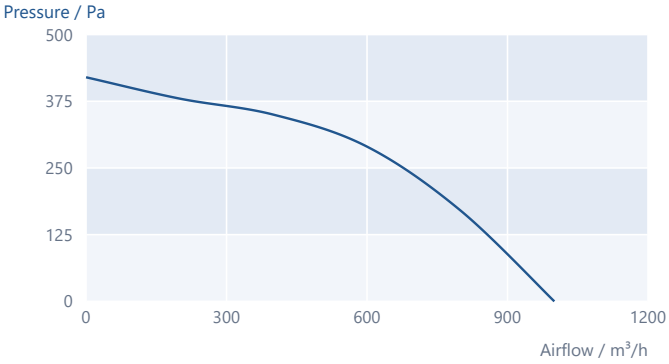
Sound pressure is a catalogue reference; its measurement distance is not stated. No octave-band spectrum or installation correction is inferred. Motor Class F / IP44; published operating range -20 to +50 °C. Model-specific current and thermal recovery percentage are not supplied.

03 / AIR PERFORMANCE

Fan Performance Curves

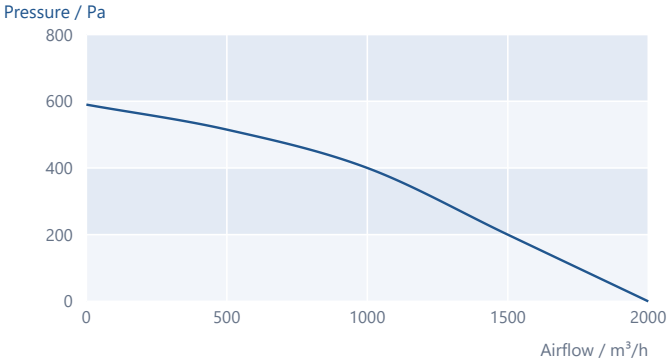
VHRU 1000

230 V / 50 Hz / published curve



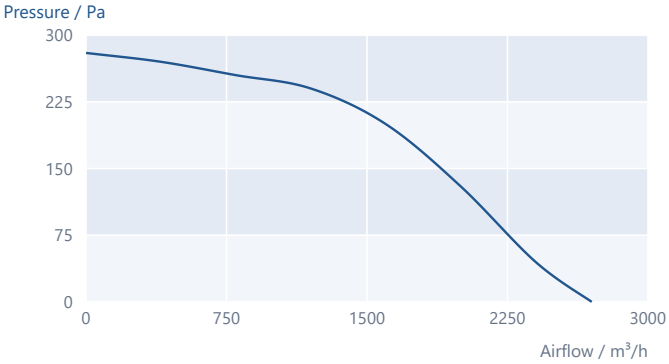
VHRU 2000

230 V / 50 Hz / published curve



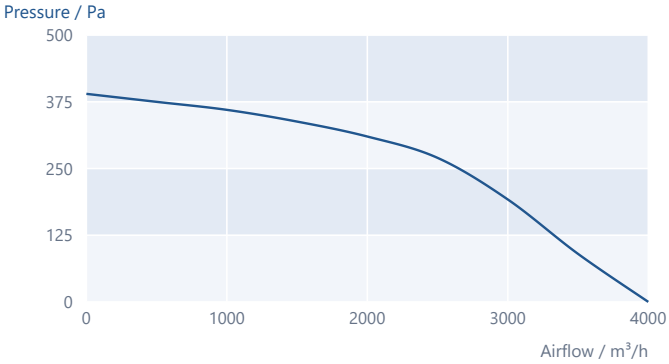
VHRU 3000

230 V / 50 Hz / published curve



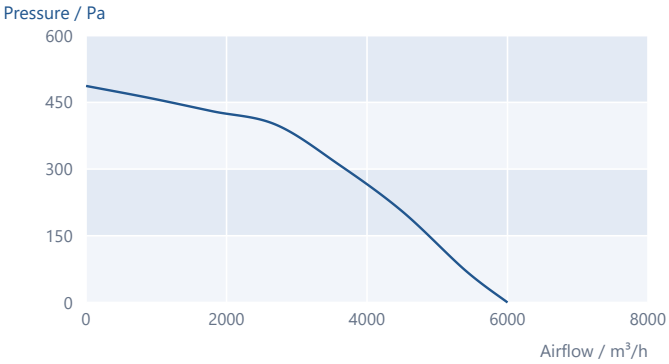
VHRU 4000

230 V / 50 Hz / published curve



VHRU 6000

230 V / 50 Hz / published curve



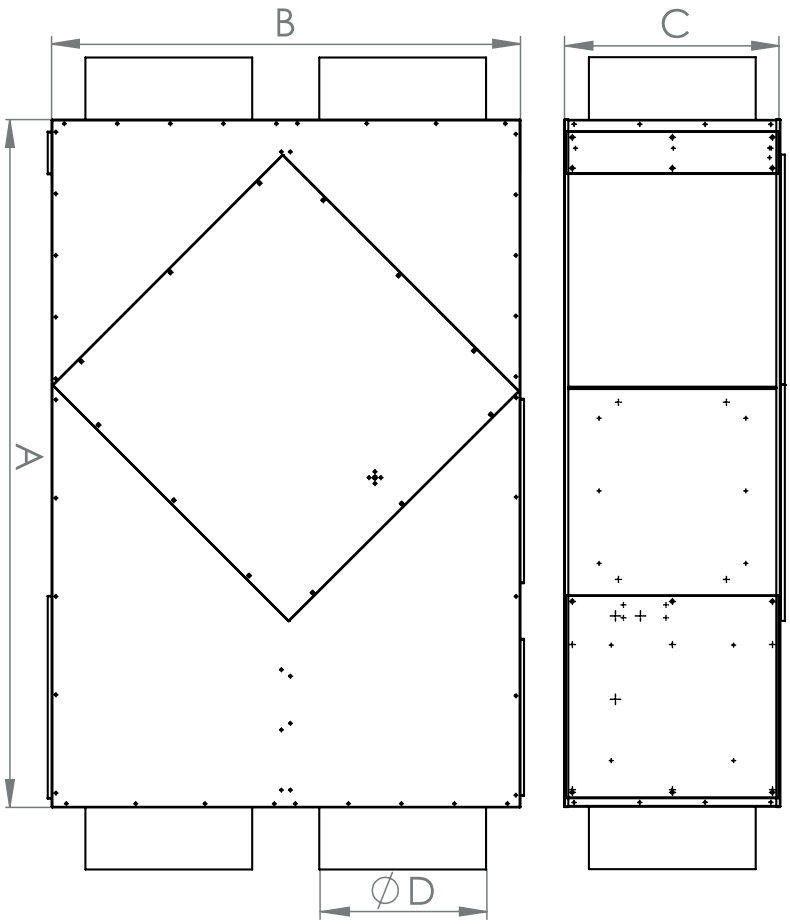
Model-specific scales. Exact pressure point arrays for the listed models; no extrapolation, re-fitting or automatic speed regulation. Thermal recovery efficiency is a separate quantity.

04 / DIMENSIONS

Plan the ceiling connections.

ORIGINAL SERIES OUTLINE / PLAN & SIDE

All dimensions in mm



Model	A	B	C	D
VHRU 1000	967	760	320	250
VHRU 2000	1150	980	405	305
VHRU 3000	1540	1130	505	355
VHRU 4000	1650	1130	520	400
VHRU 6000	1850	1230	550	450

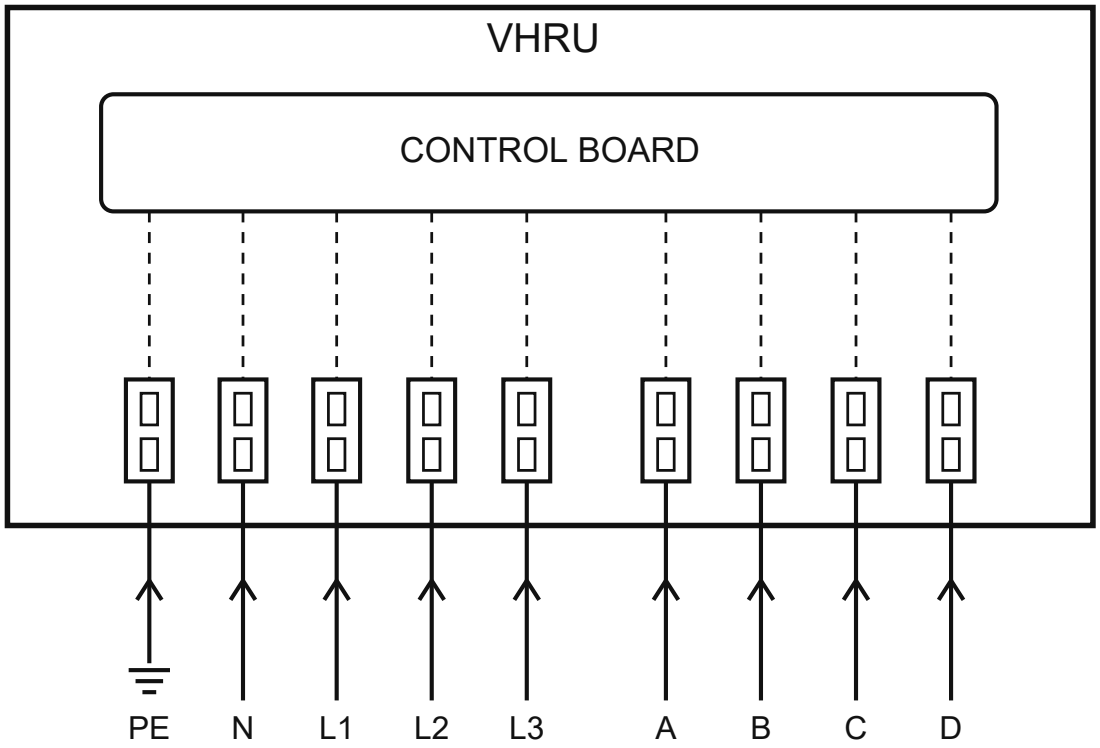
Original mechanical geometry and A-D definitions are retained as native vectors. D identifies the circular duct connection diameter. Use the selected model dimensions and provide installation and service clearance; do not scale the drawing.

05 / ELECTRICAL & INSTALLATION

Connect the unit controls.

Fan supply: 230 V / 1 phase / 50 Hz. The user-supplied diagram below is a control-board terminal layout. It does not define a complete unit wiring design or the supply arrangement of an optional heater.

VHRU / CONTROL BOARD & UNIT TERMINALS



TERMINAL IDENTIFICATION

The supplied PE, N, L1, L2, L3 and A-D labels are retained exactly. Terminal functions and the optional heater supply must follow the supplied unit documentation; do not reinterpret this layout as a fan-only motor connection.

INSTALLATION AND SERVICE ACCESS

Mount on suitable supports with access to service panels and duct connections. Respect the published operating range. Isolate electrical supplies before opening the unit; keep filters, fans and heat exchanger accessible for inspection and cleaning.

01 / PRODUCT OVERVIEW

HR-ECO

Residential Heat Recovery Unit

Residential counterflow
heat recovery unit



SERVICE ACCESS BUILT IN

Allow space in front of the unit for filter and component access. Install the condensate drain and keep it accessible for inspection.

01 Counterflow heat recovery

A plastic counterflow plate exchanger transfers energy between separate supply and extract air streams. Thermal efficiency is stated at the declared reference conditions.

02 A compact insulated cabinet

The powder-coated steel casing contains thermal insulation. Four circular connections serve outdoor, supply, return and exhaust air paths.

03 EC fans and configuration options

EC fans provide speed control. G class filtration is used, with optional F class filtration. Bypass and filter options depend on the selected configuration.

SERIES AT A GLANCE

Selection parameter	Series reference
Fan supply	230 V / 1 phase / 50 Hz
Fan technology	EC / variable speed
Heat exchanger	Plastic counterflow plate
Filter options	G class / optional F class
Minimum front service space	400 mm small body / 600 mm large body

HR-ECO 300, 301 and 302 share the smaller cabinet. HR-ECO 500 and 700 use the larger cabinet, with different duct diameters. Use the model-specific tables for selection.

02 / TECHNICAL DATA

Compare the declared ratings.

DECLARED AIRFLOW AND INPUT POWER / 100 Pa

Model	Airflow at 100 Pa m^3/h	Input power at 100 Pa W	Unit mass kg
HR-ECO 300	220	112	24
HR-ECO 301	195	105	24
HR-ECO 302	225	112	24
HR-ECO 500	370	169	38
HR-ECO 700	570	333	38

Airflow and electrical input power are declared at maximum airflow against 100 Pa. They are not zero-pressure ratings or duty-dependent power curves. The 38 kg mass for HR-ECO 500/700 applies without the bypass module.

THERMAL REFERENCE / 50 Pa

Model	Reference airflow m^3/h	Thermal efficiency %	Reference sound power LWA / dB(A)
HR-ECO 300	154.8	85.8	57.4
HR-ECO 301	136.8	89	57.4
HR-ECO 302	158.4	87.9	57.4
HR-ECO 500	259.2	90.5	57.3
HR-ECO 700	399.6	87.2	57

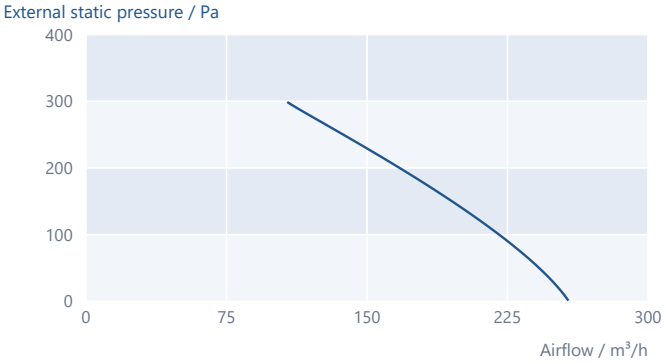
Thermal efficiency is a declared reference value at the airflow shown and 50 Pa reference pressure difference. Sound power is stated at the declared reference airflow. These values are separate from fan efficiency and installation sound pressure.

03 / AIR PERFORMANCE

Fan Performance Curves

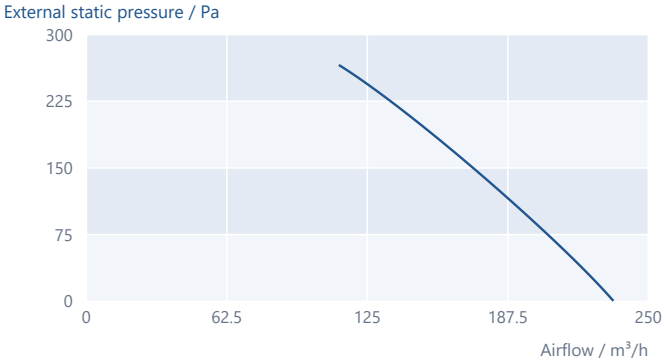
HR-ECO 300

Published maximum-speed setting



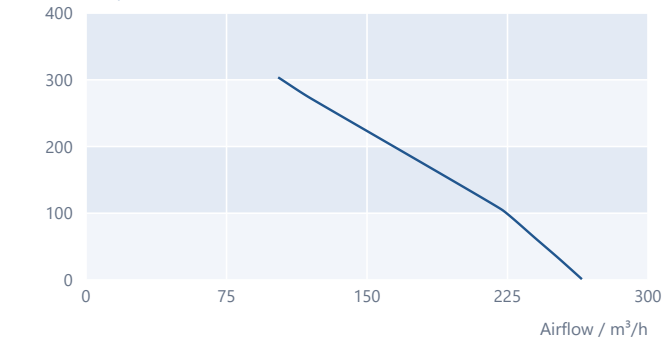
HR-ECO 301

Published maximum-speed setting



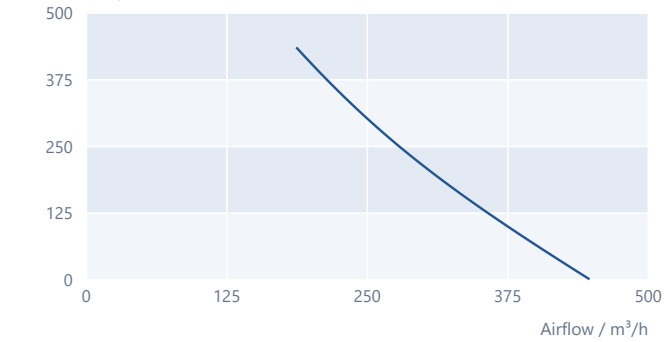
HR-ECO 302

Published maximum-speed setting



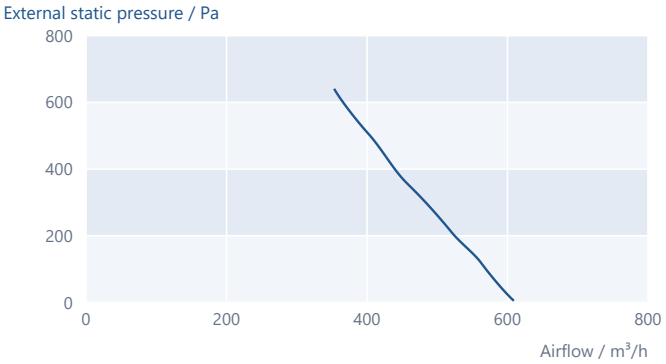
HR-ECO 500

Published maximum-speed setting



HR-ECO 700

Published maximum-speed setting



SELECT WITHIN THE PUBLISHED RANGE

Each curve retains its own published airflow window. A blank part of the plot is outside the available curve; no extension to zero flow or pressure is assumed.

The charts show maximum-speed air performance. Declared 100 Pa ratings and thermal reference values are listed separately on p. 293.

Model-specific scales. Curves preserve the verified numerical data without re-fitting or extrapolation. No automatic speed adjustment or installation correction is applied.

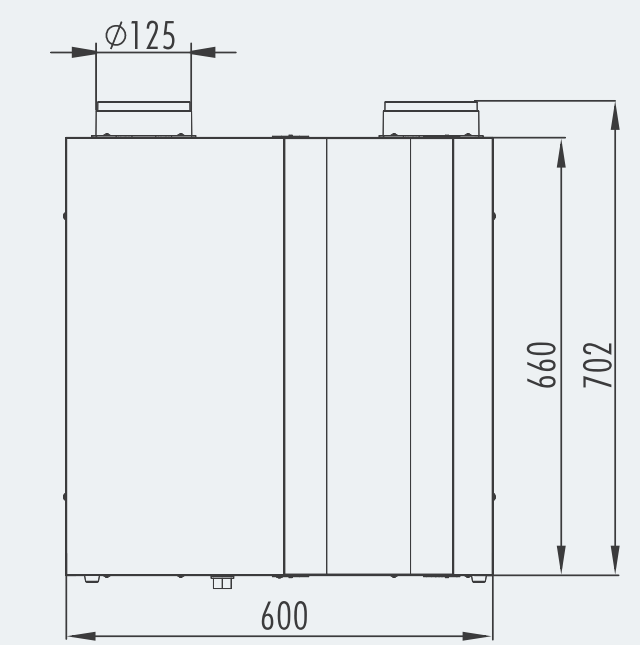
04 / DIMENSIONS

Compact cabinet dimensions.

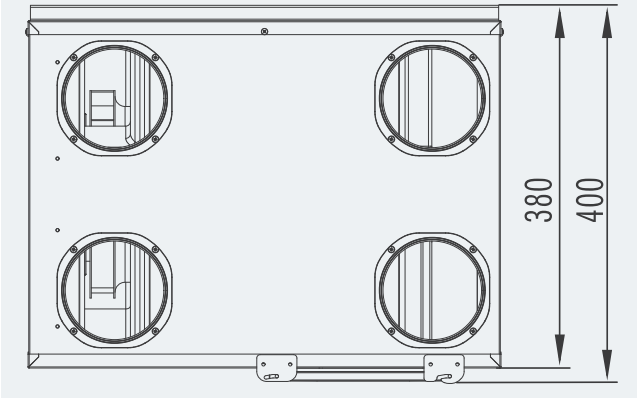
HR-ECO 300 / 301 / 302

All dimensions in mm

FRONT VIEW



TOP VIEW



Model	Width mm	Body height mm	Overall height mm	Duct diameter mm
HR-ECO 300	600	660	702	125
HR-ECO 301	600	660	702	125
HR-ECO 302	600	660	702	125

DEPTH

380 mm body / 400 mm overall

FRONT SERVICE CLEARANCE

400 mm minimum

Original front and top geometry retained. Keep the service area clear and provide a condensate drain; do not scale the drawing.

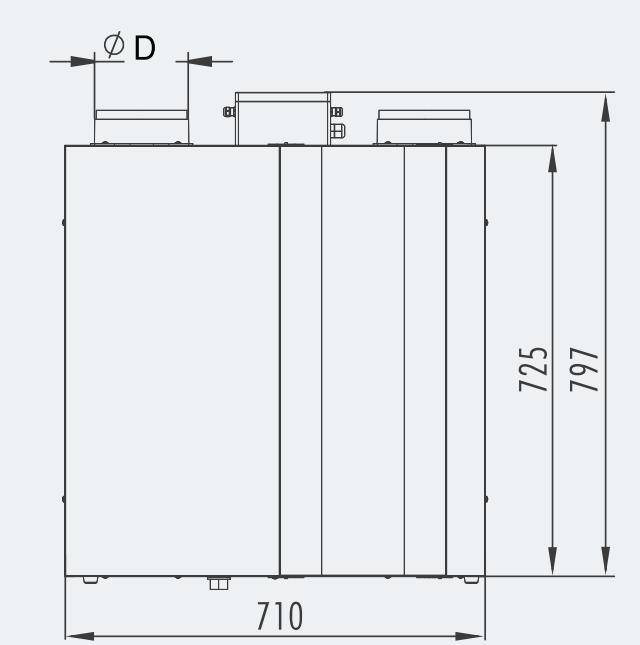
05 / DIMENSIONS

Larger cabinet. Two duct sizes.

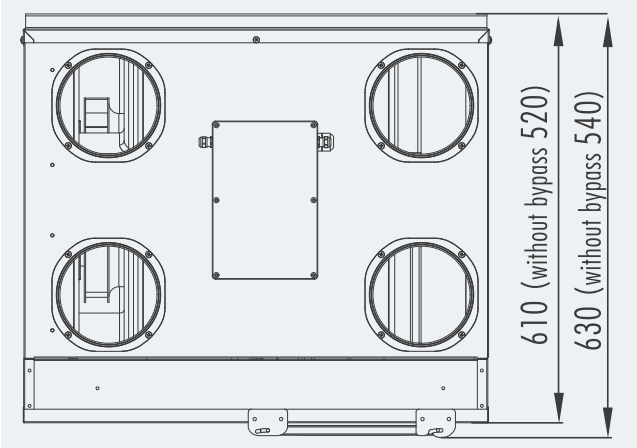
HR-ECO 500 / 700

All dimensions in mm

FRONT VIEW



TOP VIEW



Model	Width mm	Body height mm	Overall height mm	Duct D mm
HR-ECO 500	710	725	797	160
HR-ECO 700	710	725	797	200

DEPTH OPTIONS / BOTH MODELS

Configuration	Body depth / mm	Overall depth / mm
Without bypass	520	540
With bypass	610	630

Front service clearance: 600 mm minimum. The 38 kg mass rating is for the unit without the bypass module. Provide a condensate drain.

06 / INSTALLATION & OPTIONS

Install for easy access.

01 / DUCT CONNECTIONS

Keep the four air streams distinct.

Connect outdoor, supply, return and exhaust ducts to the matching unit ports. Confirm the connection arrangement of the ordered configuration and keep the condensate drain accessible.

Model group	Minimum front service space
HR-ECO 300 / 301 / 302	400 mm
HR-ECO 500 / 700	600 mm

Allow the full service clearance in front of the unit. Plan access for filter replacement, heat-exchanger maintenance and drain inspection.

02 / ELECTRICAL & CONTROLS

Fan supply: 230 V / 1 phase / 50 Hz, with EC fans and speed control. A verified model-specific electrical connection diagram is not available in the current technical record. Use the electrical and control documentation supplied with the ordered unit.

03 / FILTERS & BYPASS

G class filters are provided, with optional F class filtration. Filter and bypass options depend on the selected configuration. Check the chosen filter arrangement, bypass option and cabinet depth before installation.

01 / PRODUCT OVERVIEW

VHRU-S

Ceiling Enthalpy Recovery Unit



01 Sensible and latent recovery

A cellulose crossflow enthalpy exchanger transfers heat and moisture between separate supply and extract air streams.

02 Insulated ceiling installation

The low-profile cabinet provides thermal and acoustic insulation, with service access for filters and internal components.

03 Three published speed settings

Separate AC plug fans serve the supply and extract air paths. High, Medium and Low curves support selection at each setting.

ACCESS FOR MAINTENANCE

Plan both the service opening and the clear space below the unit. Model-specific dimensions and the installation arrangement are shown on pp. 302-303.

SERIES AT A GLANCE

Selection parameter	Series reference
Electrical supply	230 V / 1 phase / 50 Hz
Fan technology	AC plug fans / High, Medium and Low
Heat exchanger	Cellulose crossflow enthalpy
Filters	G class synthetic
Temperature efficiency	Airflow-dependent curve / EN 308 reference

The product image represents the circular-duct configuration. Models 3000 and 4000 have rectangular duct connections. Optional EC variants, heaters and controls require their own verified configuration data.

02 / TECHNICAL DATA

Compare the series at a glance.

NOMINAL AIRFLOW / MAXIMUM UNIT INPUT / 50 Hz

Model	Airflow at 0 Pa m^3/h	Max. unit input W	Current A	Unit mass kg	Sound pressure* dB
VHRU-S 325	400	170	0.74	36.5	35
VHRU-S 650	640	244	1.08	50	36
VHRU-S 1000	1060	350	1.54	84	36
VHRU-S 1500	1400	688	3.02	102	41
VHRU-S 2000	2050	810	3.84	118	45
VHRU-S 2500	2550	810	3.84	122	49
VHRU-S 3000	3250	1040	4.58	225	50
VHRU-S 4000	5000	2640	11.78	280	52

RATING CONDITIONS

Airflow values are the nominal zero-pressure ratings in Fan Selection. Maximum unit input power is the complete unit reference value; it is not a per-fan rating or an input-power curve at the selected duty point.

* Sound pressure is stated at 1.5 m and 250 Hz, in dB. This frequency-specific reference must not be read as an overall A-weighted sound level.

SELECT USING THE CURVES

Nominal airflow ratings and the endpoints of the published High-speed curves can differ. Pressure and temperature-efficiency plots retain their own original airflow ranges. Select only within the available curve data.

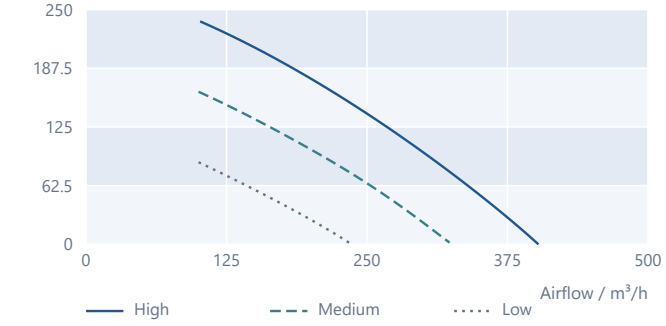
03 / AIR PERFORMANCE

Fan Performance Curves

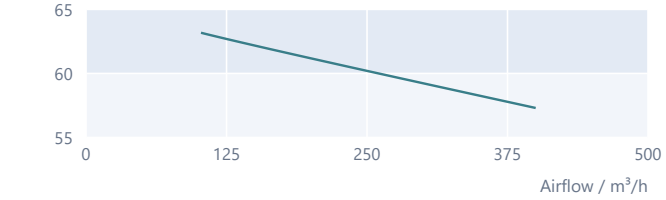
VHRU-S 325

230 V / 1 phase / 50 Hz

Static pressure / Pa



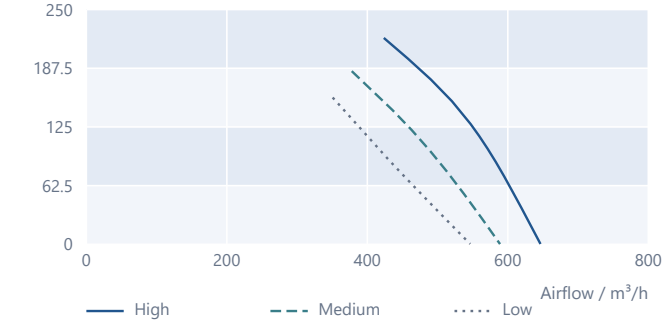
Temperature efficiency / %



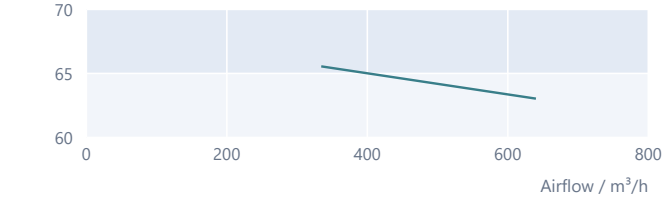
VHRU-S 650

230 V / 1 phase / 50 Hz

Static pressure / Pa



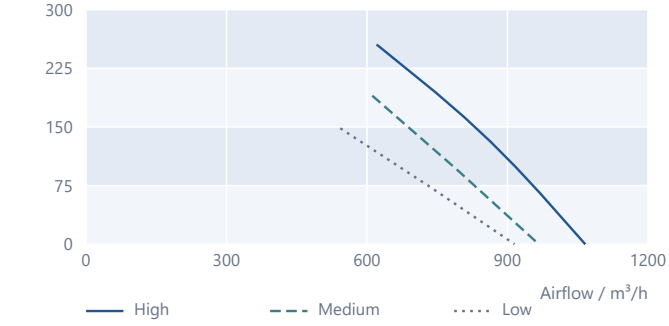
Temperature efficiency / %



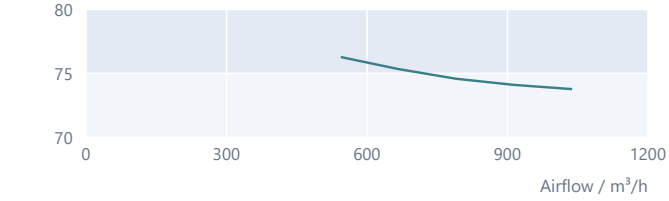
VHRU-S 1000

230 V / 1 phase / 50 Hz

Static pressure / Pa



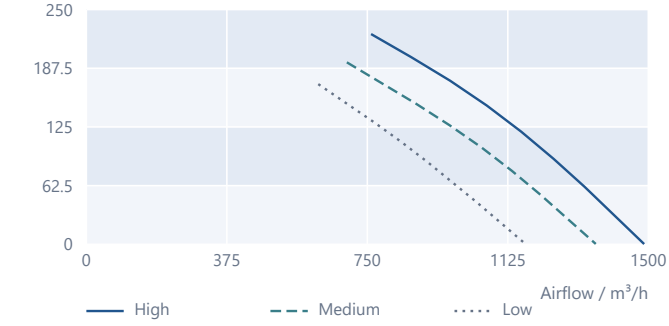
Temperature efficiency / %



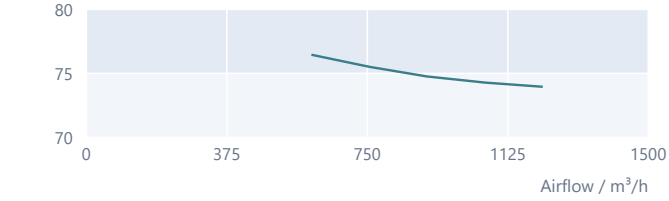
VHRU-S 1500

230 V / 1 phase / 50 Hz

Static pressure / Pa



Temperature efficiency / %



Model-specific scales. Pressure and temperature plots have independent airflow ranges. Original data retained without re-fitting or extrapolation; temperature efficiency follows the EN 308 reference curve.

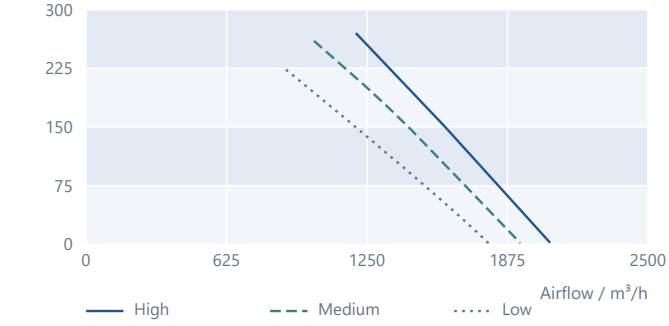
03 / AIR PERFORMANCE

Fan Performance Curves

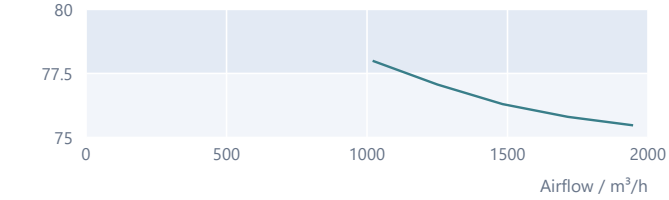
VHRU-S 2000

230 V / 1 phase / 50 Hz

Static pressure / Pa



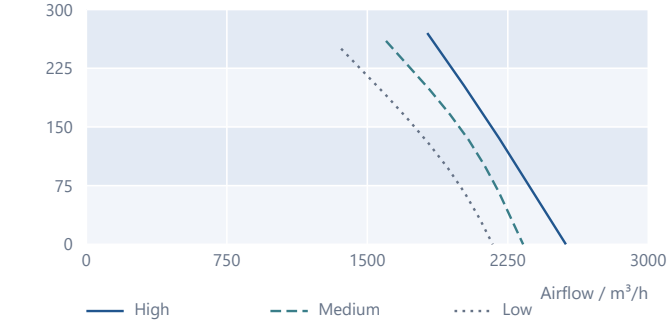
Temperature efficiency / %



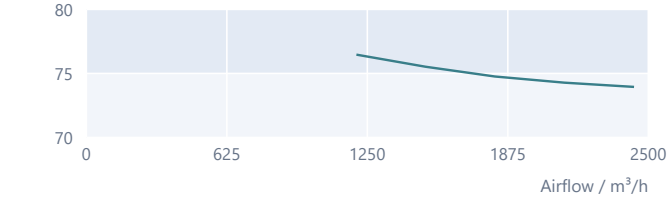
VHRU-S 2500

230 V / 1 phase / 50 Hz

Static pressure / Pa



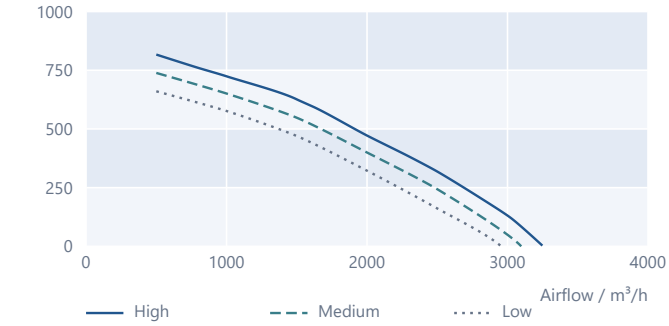
Temperature efficiency / %



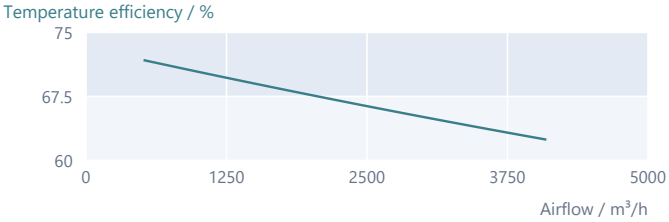
VHRU-S 3000

230 V / 1 phase / 50 Hz

Static pressure / Pa



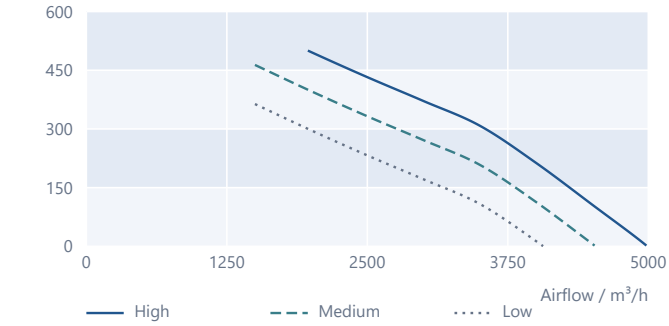
Temperature efficiency / %



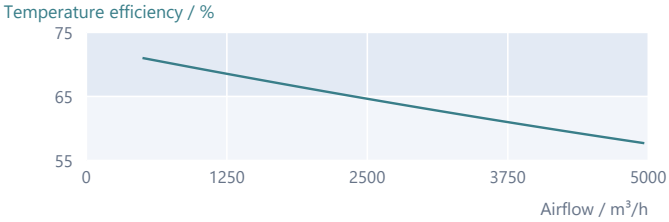
VHRU-S 4000

230 V / 1 phase / 50 Hz

Static pressure / Pa



Temperature efficiency / %



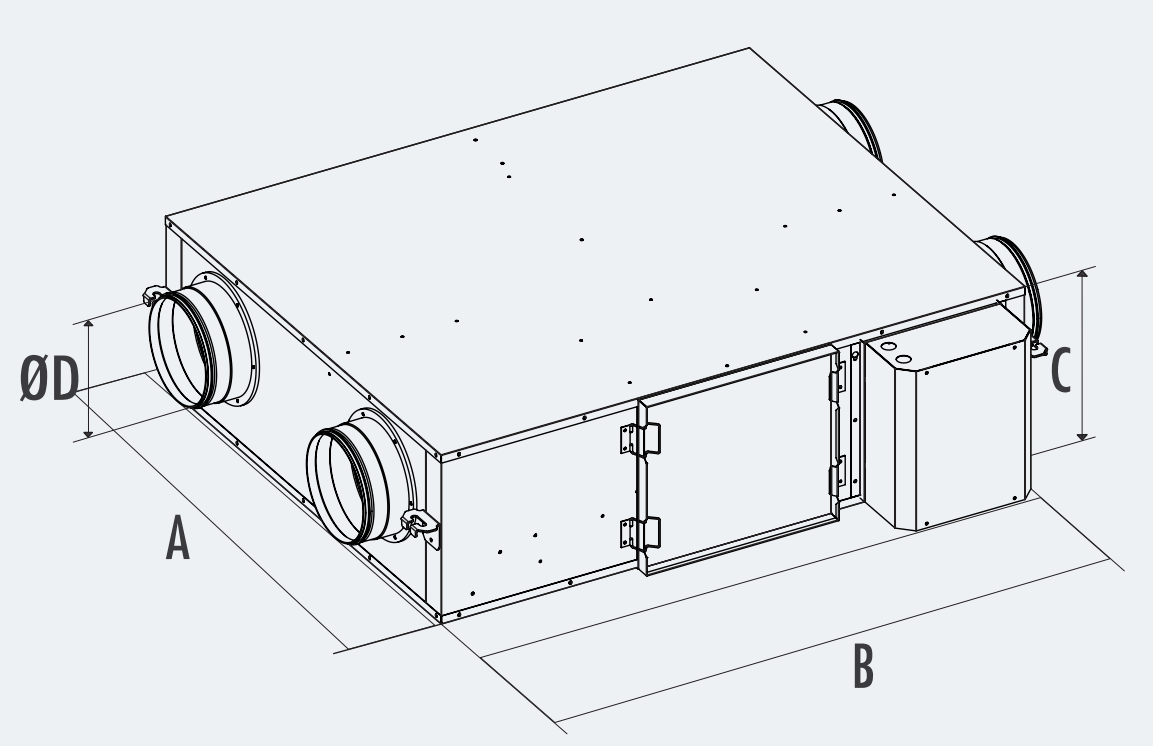
Model-specific scales. Pressure and temperature plots have independent airflow ranges. Original data retained without re-fitting or extrapolation; temperature efficiency follows the EN 308 reference curve.

04 / DIMENSIONS

Plan the space around the unit.

CIRCULAR-DUCT OUTLINE / MODELS 325-2500

All dimensions in mm



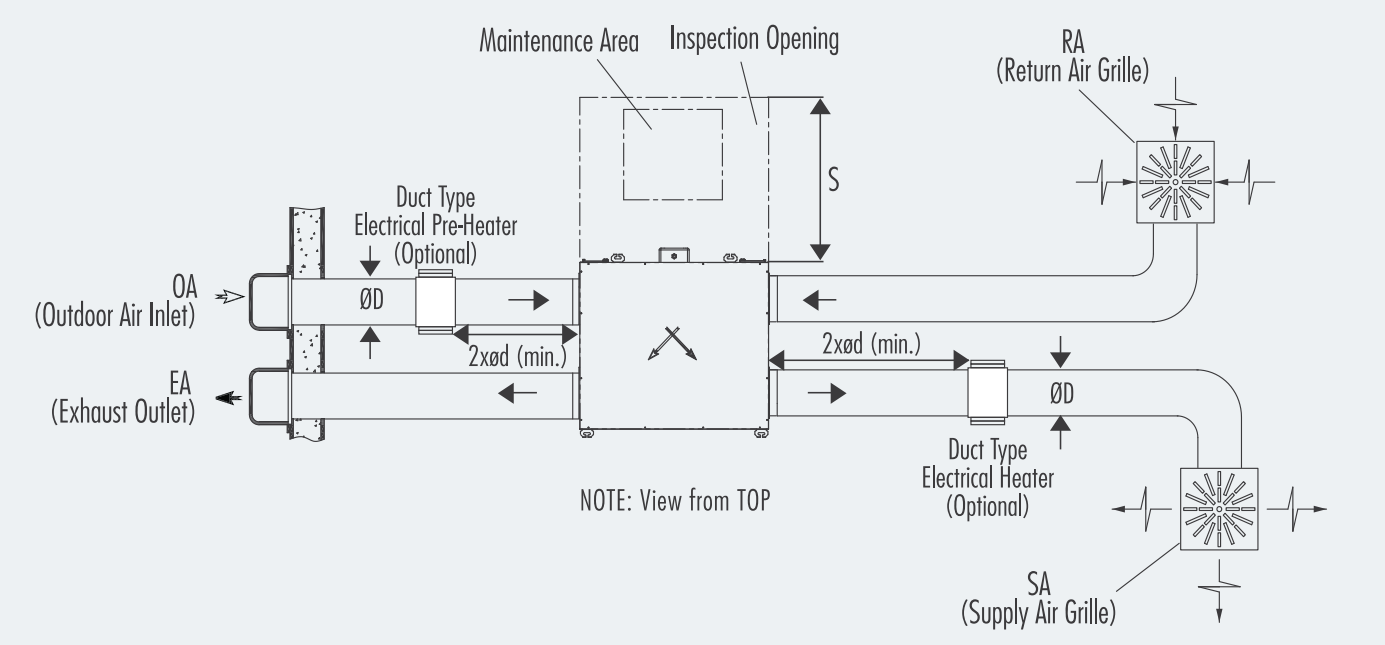
Model	A mm	B mm	C mm	Duct connection(s) mm	Service S mm
VHRU-S 325	758	985	275	Ø160	700
VHRU-S 650	665	1130	330	Ø200	600
VHRU-S 1000	925	1130	330	Ø250	600
VHRU-S 1500	1175	1150	330	Ø250	600
VHRU-S 2000	1125	1650	440	Ø300	700
VHRU-S 2500	1425	1650	440	Ø355	700
VHRU-S 3000	1570	2200	587	500x400 / 800x400	1100
VHRU-S 4000	1651	2200	650	550x450 / 800x450	1100

The outline represents models 325-2500. Models 3000/4000 use the rectangular connection pairs listed above. C is cabinet height; S is the required service area. Do not scale the drawing.

05 / INSTALLATION & SERVICE

Give maintenance room to work.

AIR PATHS AND ACCESS / TOP VIEW



SERVICE CLEARANCE

Provide the service area S listed on p. 302 and an inspection opening for maintenance. For fan service, also leave vertical clearance equal to cabinet height C below the unit. Keep filters and service components accessible.

ELECTRICAL SUPPLY & OPTIONAL HEATERS

Supply: 230 V / 1 phase / 50 Hz. A verified VHRU-S electrical connection diagram is not available in the current technical record; use the documentation supplied with the ordered unit. The duct heater and pre-heater symbols above represent optional equipment, separate from the listed maximum unit input.

FILTER ACCESS

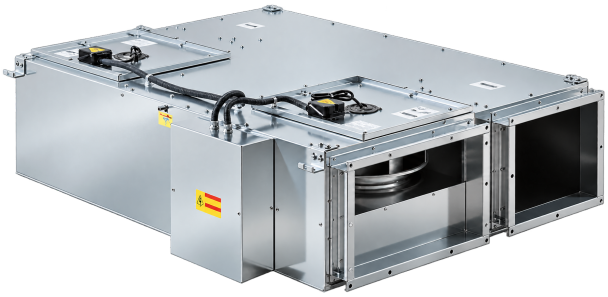
G class synthetic filters require inspection and replacement access. Confirm duct positions, inspection openings and the ordered accessory arrangement before installation.

01 / PRODUCT OVERVIEW

VHRU-HP EC

EC Heat Pump Heat Recovery Unit

EC heat pump
heat recovery unit



01 EC heat recovery ventilation

Supply and extract fans serve separate air paths. A plate heat exchanger recovers energy from extract air, while a bypass damper supports the configured ventilation modes.

02 Counterflow heat exchanger

Energy transfers between separate extract and supply air streams. The stated recovery figure above 80% applies to the counterflow exchanger and remains separate from fan efficiency.

03 EC fans and control

Supply and extract EC fans support PWM control. The performance curves describe the published 10 V setting. Filters are removable; confirm the grades supplied with the chosen configuration.

SERVICE ACCESS

Provide access beneath the unit for fan, filter and exchanger maintenance. The dimension pages distinguish cabinet spans from mounting and component-removal space.

SERIES AT A GLANCE

Selection parameter	Series reference
Fan supply	230 V / 1 phase / 50 Hz
Fan technology	EC / PWM control / published 10 V setting
Heat exchanger	Counterflow / stated recovery above 80%
Filtration	Confirm supplied configuration
Installation	Indoors / service panels accessible below

Exchanger recovery and fan efficiency are separate quantities. Performance figures cover ventilation at the published setting. Confirm the filter arrangement and optional equipment for the supplied configuration.

02 / TECHNICAL DATA

Select the ventilation duty.

Ventilation and exchanger recovery data.

NOMINAL FAN DATA / 230 V / 1 PHASE / 50 Hz

Model	Airflow m^3/h	Fan input W	Fan current A	Fan speed rpm	Max. static Pa	Mass kg
VHRU-HP EC 700	620	217	1.7	4400	770	72
VHRU-HP EC 1000	1000	150	-	2600	700	110
VHRU-HP EC 2000	2000	576	2.45	3000	950	212
VHRU-HP EC 3000	3000	550	2.45	2230	720	262

FAN RATING BASIS

Fan input power, current and speed follow the published selection references without multiplication. They are not a combined two-fan unit total and exclude optional heating. For model 2000, the declared maximum static pressure of 950 Pa is separate from the listed reference curve.

HEAT RECOVERY & OPTIONS

Parameter	Available reference
Heat-exchanger recovery	Above 80% / stated exchanger figure
Filter arrangement	Confirm supplied configuration
Optional electric heating	Power not specified

A dash means the value is not supplied: current for VHRU-HP EC 1000 remains unavailable. Model-specific acoustic levels and optional heater power are not stated in the verified record.

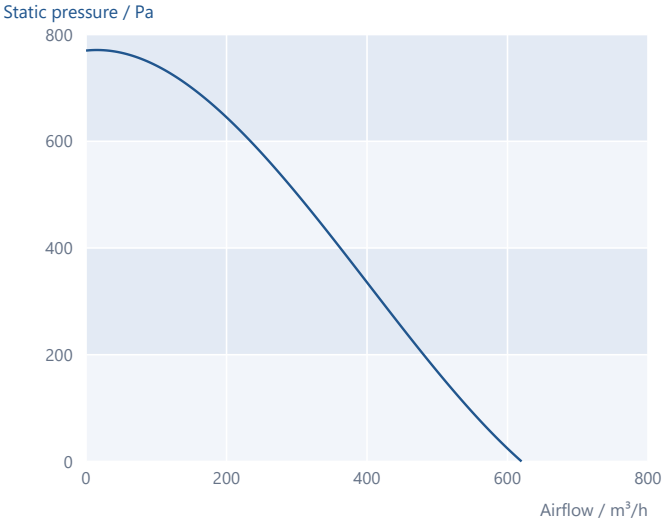
The figures above describe ventilation and exchanger recovery. Heat-pump heating/cooling capacity, system input power, COP and EER are not specified.

03 / AIR PERFORMANCE

Fan Performance Curves

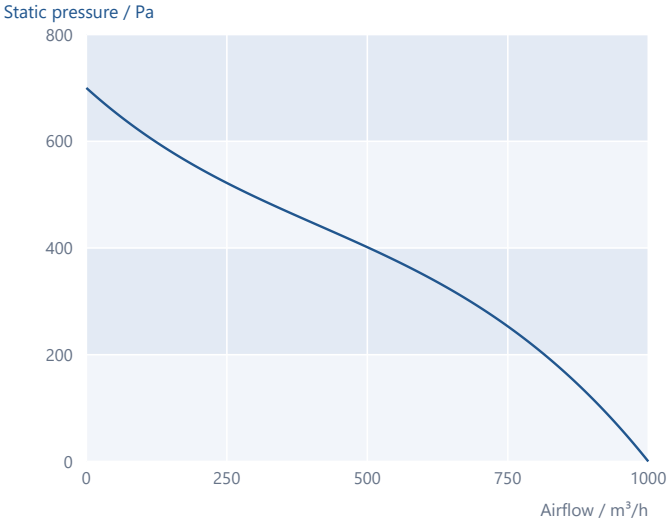
VHRU-HP EC 700

230 V / 1 phase / 50 Hz / 10 V setting



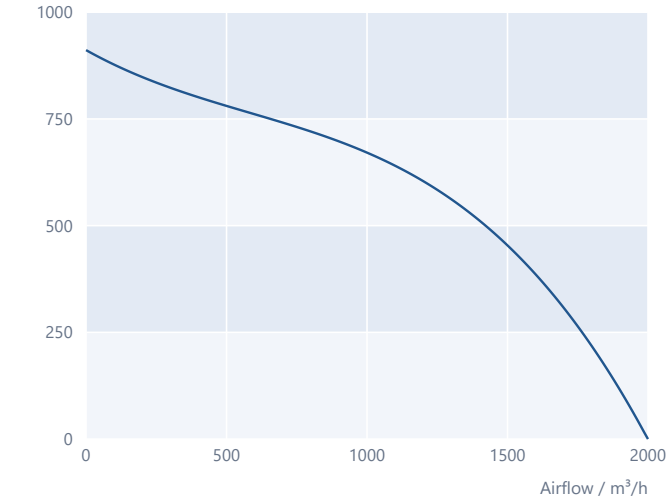
VHRU-HP EC 1000

230 V / 1 phase / 50 Hz / 10 V setting



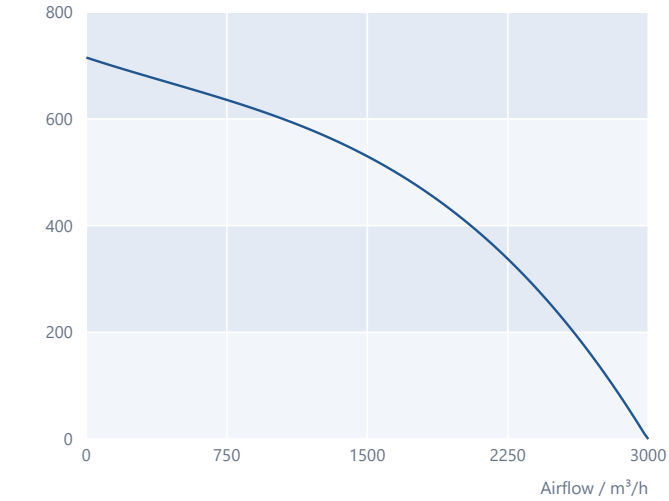
VHRU-HP EC 2000

230 V / 1 phase / 50 Hz / 10 V setting



VHRU-HP EC 3000

230 V / 1 phase / 50 Hz / 10 V setting



Curves apply to the published 10 V setting and stop at each model's stated airflow limit. Model-specific scales are used. No speed regulation, pressure doubling or extension beyond the published airflow range is applied.

Ventilation performance and heat-exchanger recovery are separate quantities.

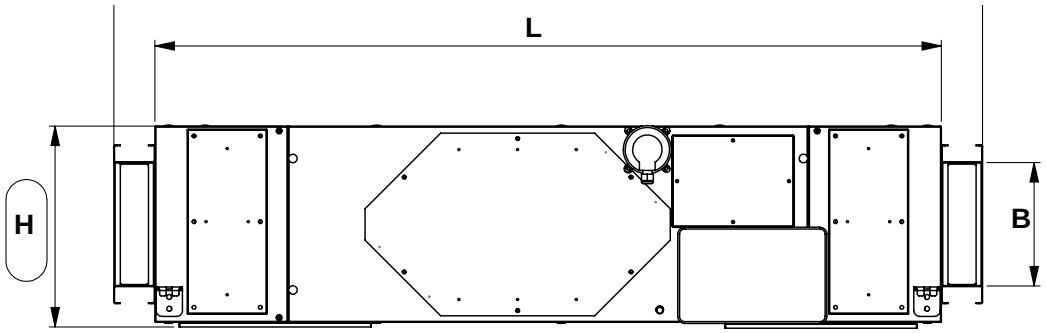
04 / DIMENSIONS

Cabinet and connection spans.

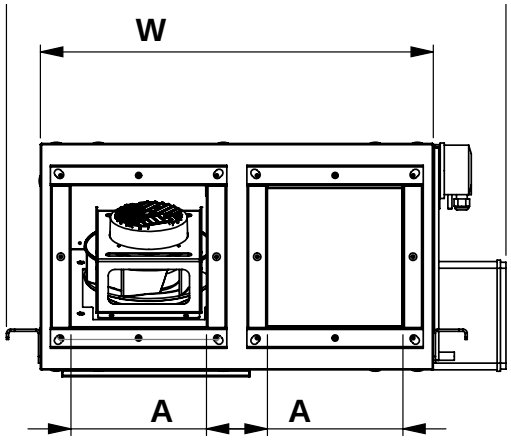
REPRESENTATIVE SERIES OUTLINE

All dimensions in mm

SIDE VIEW



FRONT VIEW



Model	L	W	H	A	B	C*
VHRU-HP EC 700	1340	580	342	200	210	250
VHRU-HP EC 1000	1450	855	383	335	210	300
VHRU-HP EC 2000	2030	1650	443	700	210	460
VHRU-HP EC 3000	1990	2050	515	800	310	550

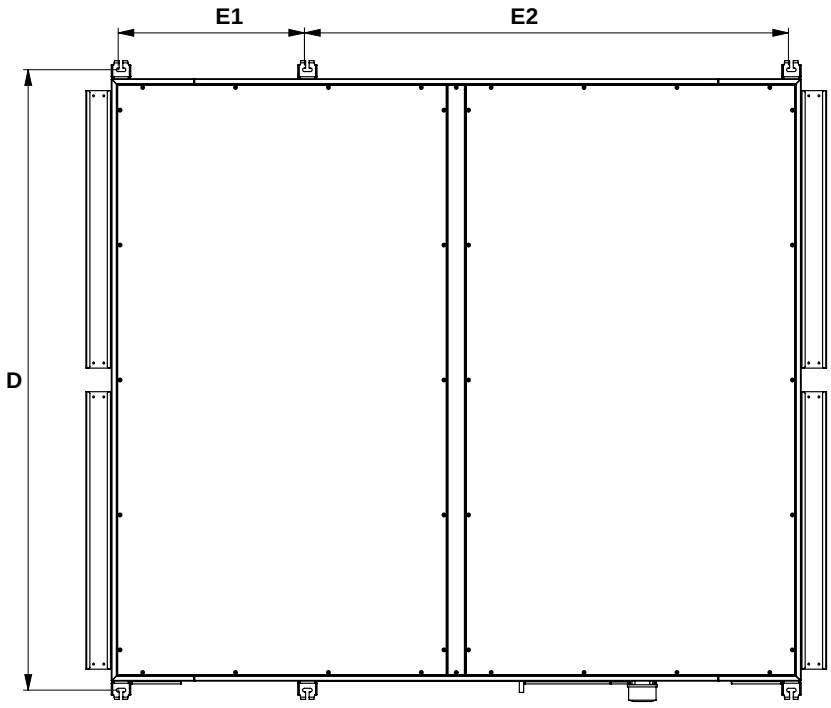
L, W and H identify the cabinet spans; A and B identify the openings. C* is the fan-removal space, given numerically. Original CAD geometry is retained with generic labels; use the model table and do not scale the views.

05 / MOUNTING & SERVICE

Make room for maintenance.

SPLIT MOUNTING SPAN / MODELS 2000-3000

All dimensions in mm



Model	D	E	E1	E2	F*
VHRU-HP EC 700	646	1291	-	-	500
VHRU-HP EC 1000	921	1401	-	-	700
VHRU-HP EC 2000	1704	1837	511	1326	840
VHRU-HP EC 3000	2004	1937	511	1426	1000

Models 700/1000 state E only; a dash indicates that no subdivision is supplied. For 2000/3000, E = E1 + E2. F* is the heat-exchanger removal space. Reserve at least H below the unit and check the component-removal requirements C and F.

Keep service panels facing downward. Install level, with trapped condensate drainage and independently supported ducts.

06 / ELECTRICAL & CONTROLS

Power and control connections.

Series supply: 230 V / 1 phase / 50 Hz. Board terminal functions are listed below.

Pins	Terminals	Board function
1-2	AC1 / N	AC supply fan output / 0-230 V AC
3-4	AC2 / N	AC exhaust fan output / 0-230 V AC
5-6	L / N	Power input / 230 V AC, 50/60 Hz
7-11	REL1-REL4 / COM	Digital outputs / dry contact
12-13	PLC / GND	Two-wire room panel
14-16	A / B / GND	BMS / RS485 MODBUS RTU
17-24	UI1-UI4 / GND	Universal inputs / contact, 0-10 V, NTC thermistor

EC models use the EC1/EC2 fan-control connections below. AC1/AC2 are the board's AC-output references.

EC1 / SUPPLY FAN

(10V_EC1 Input) / 24V Output
PWM1 Output (AO4: PWM)
TACHO1 Input
GND

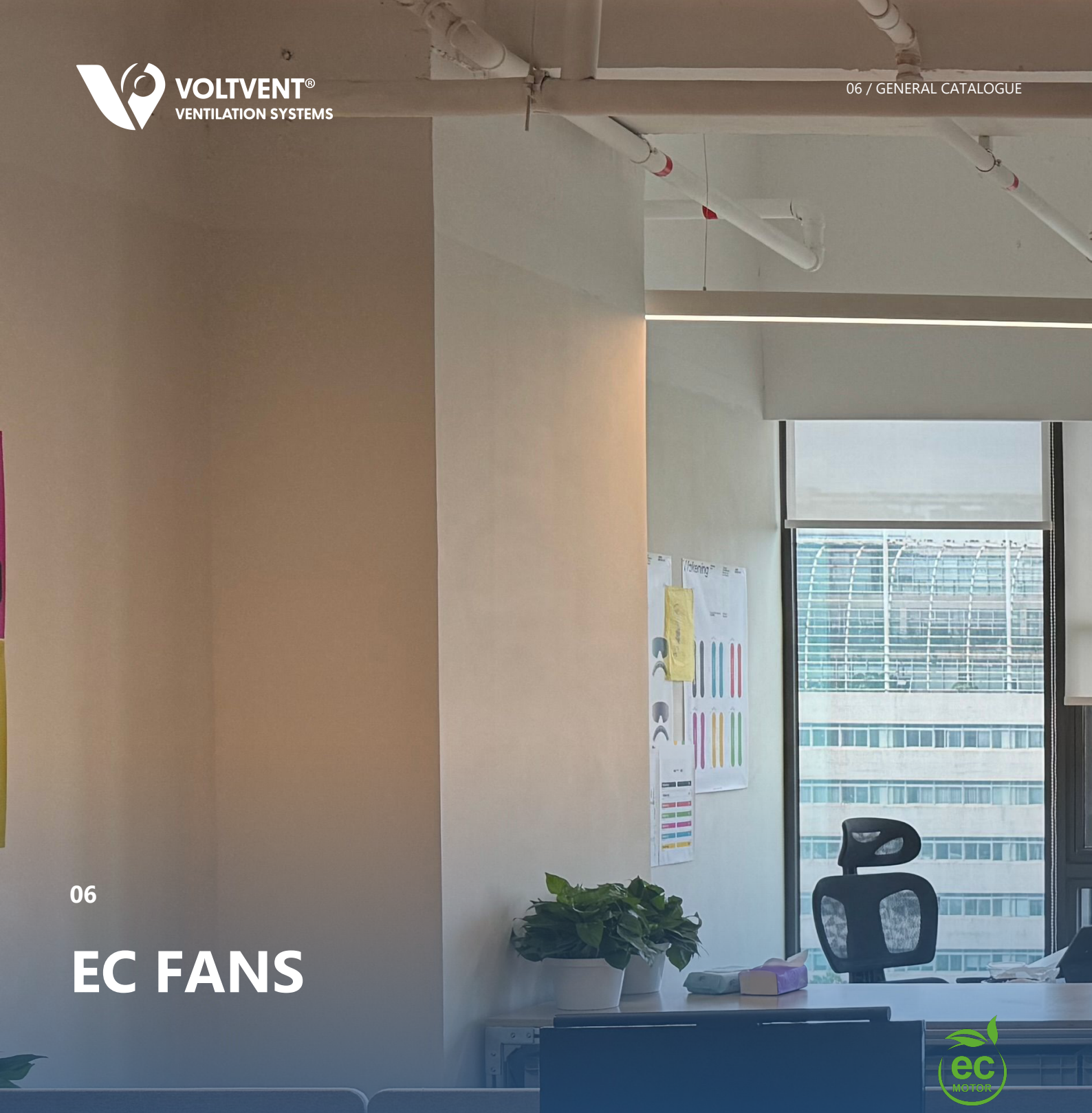
EC2 / EXHAUST FAN

(10V_EC2 Input) / 24V Output
PWM2 Output (AO5: PWM)
TACHO2 Input
GND

SERVICE & EXPANSION

X16 / USB: service and update port. X1/X2: optional I/O expansion with UI5-UI8, DI9-DI14, DO15-DO17 and AO1-AO5.

This is a board terminal reference. Complete unit, mains and accessory wiring must follow the electrical documentation supplied with the ordered configuration.



06

EC FANS

SERIES DIRECTORY

VDF-R-KE EC 311
VCF-EC 316
VYF-EC 322
VBF-EC 328
VRF-EC 334

01 / PRODUCT OVERVIEW

VDF-R-KE EC

EC Kitchen Exhaust Fan

EC kitchen
exhaust fan



01 Insulated cabinet

Galvanized steel panels, an aluminium profile frame and 25 mm rock-wool insulation form the extraction cabinet.

02 Grease extraction

A backward-curved centrifugal impeller works with a metal grease filter and oil-drain tray. The motor is outside the transported-air path.

03 Integrated EC control

Electronic speed regulation uses a 400 V / 3 phase / 50 Hz mains supply. Published performance curves apply to the 10 V setting.

FILTER ACCESS & DRAINAGE

Keep the filter and drainage path clean. Allow clearance for the service cover, motor and electrical connection, and coordinate ductwork with the dimension drawing.

SERIES AT A GLANCE

Selection parameter	Series reference
Mains / performance setting	400 V / 3 phase / 50 Hz / 10 V
Operating temperature	-20 to 55 °C
Medium / ambient maximum	120 °C / 55 °C
Motor protection / insulation	IP55 / class F

A verified EC wiring diagram and terminal assignments are unavailable. Use the electrical documentation supplied with the ordered configuration.

02 / TECHNICAL DATA

Specify the extraction duty.

400 V / 3 PHASE / 50 Hz

Model	Max. airflow m^3/h	Rated input W	Rated A	Rated speed rpm	Max. static Pa	Mass kg
VDF-R-KE EC T 450 6K	5000	850	2.4	960	300	50
VDF-R-KE EC T 500 6K	7000	1200	2.5	960	410	85
VDF-R-KE EC T 560 6K	10500	1375	4.5	960	540	85
VDF-R-KE EC T 710 8K	20000	2400	7	730	450	115
VDF-R-KE EC T 800 8K	25000	3600	9	750	550	120
VDF-R-KE EC T 900 8K	28000	3700	9.5	750	350	135

Maximum airflow, maximum static pressure and rated motor parameters are separate references. Select the operating point from the model curve; the declared motor speed is not used to rescale it.

RATED SPEED & ORIGINAL CURVE REFERENCE

Model	Rated speed / rpm	Curve reference / rpm
VDF-R-KE EC T 500 6K	960	930
VDF-R-KE EC T 560 6K	960	930
VDF-R-KE EC T 710 8K	730	750
VDF-R-KE EC T 900 8K	750	720

T 500 6K: the declared maximum static pressure is 410 Pa; its supplied pressure curve starts at approximately 420 Pa. Both original records are retained. No speed conversion or curve re-fitting is applied.

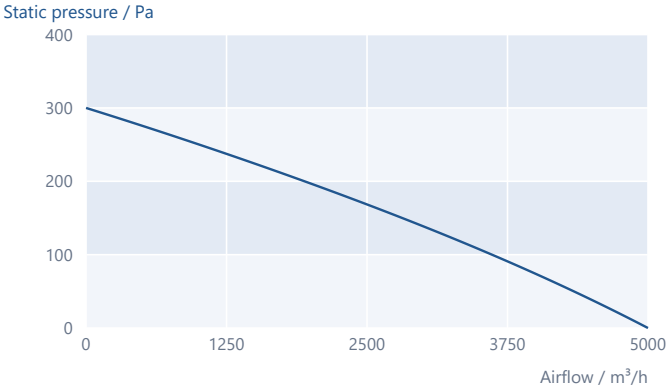
Operating and ambient limits differ from the 120 °C maximum transported-medium temperature. Use the limits stated in the overview for each condition.

03 / AIR PERFORMANCE

Fan Performance Curves

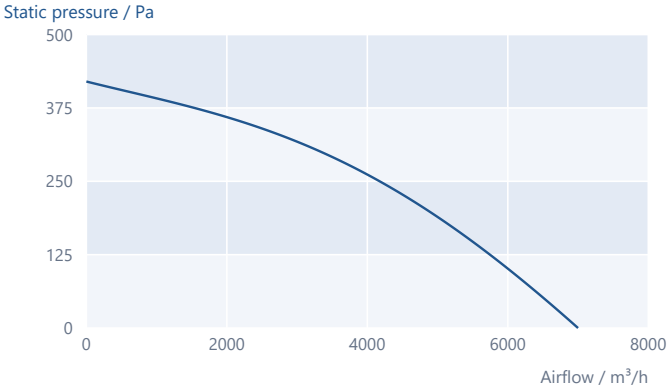
VDF-R-KE EC T 450 6K

50 Hz / 10 V / curve speed: 960 rpm



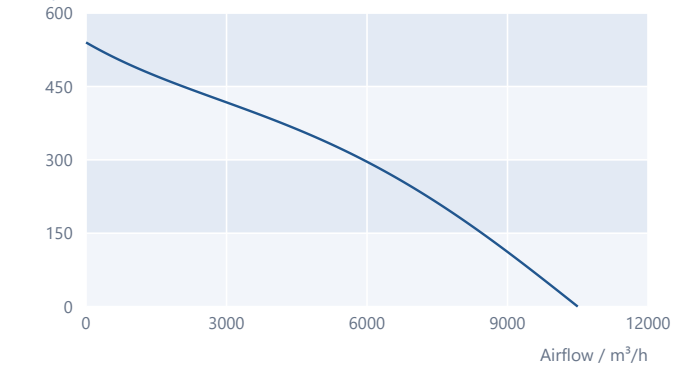
VDF-R-KE EC T 500 6K

50 Hz / 10 V / curve speed: 930 rpm



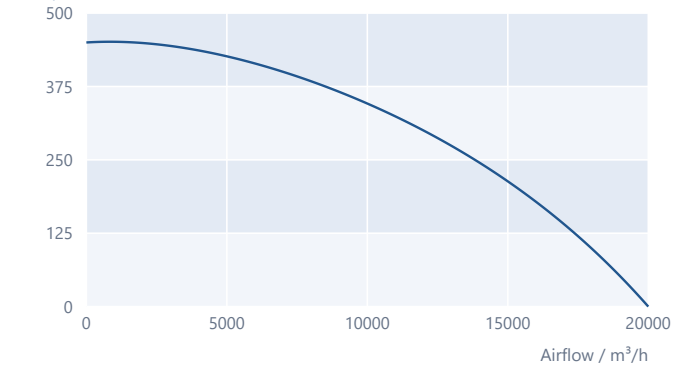
VDF-R-KE EC T 560 6K

50 Hz / 10 V / curve speed: 930 rpm



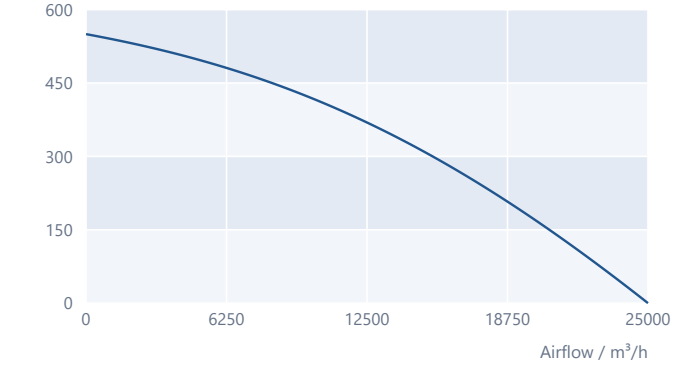
VDF-R-KE EC T 710 8K

50 Hz / 10 V / curve speed: 750 rpm



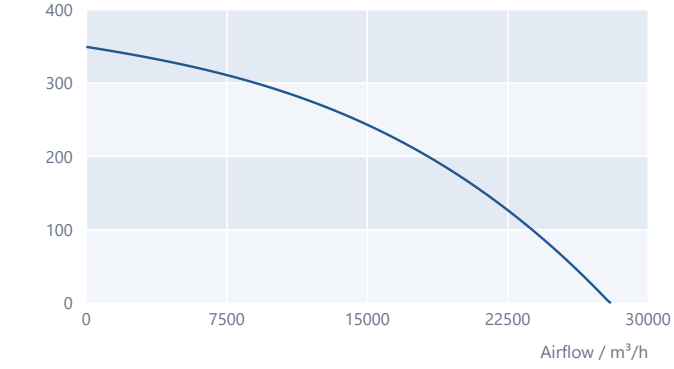
VDF-R-KE EC T 800 8K

50 Hz / 10 V / curve speed: 750 rpm



VDF-R-KE EC T 900 8K

50 Hz / 10 V / curve speed: 720 rpm



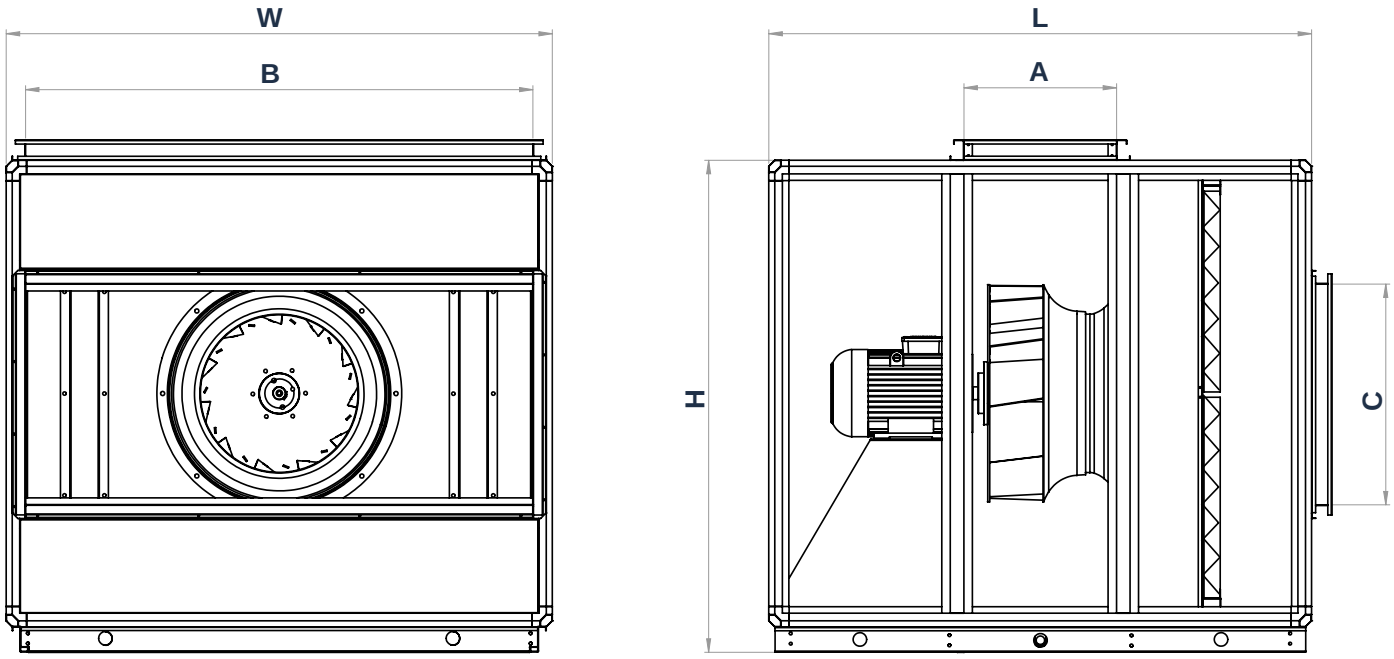
T 500 6K: 410 Pa declared maximum; original curve starts at approximately 420 Pa. Original 10 V coefficients and airflow domains are retained without speed conversion. Model-specific scales.

04 / DIMENSIONS

Plan connections and access.

REPRESENTATIVE SERIES OUTLINE

All dimensions in mm



Model	A	B	C	H	L	W
VDF-R-KE EC T 450 6K	335	815	335	900	1100	900
VDF-R-KE EC T 500 6K	365	915	365	1000	1140	1000
VDF-R-KE EC T 560 6K	365	915	365	1000	1140	1000
VDF-R-KE EC T 710 8K	550	1300	550	1300	1300	1300
VDF-R-KE EC T 800 8K	600	1500	600	1600	1600	1600
VDF-R-KE EC T 900 8K	600	1500	600	1600	1600	1600

Use the row for the selected model. A, B and C are the supplied connection dimensions; H, L and W describe the cabinet. The original drawing is representative and is not drawn to scale. Leave clearance for service access.

05 / ACOUSTIC DATA

Sound power by airflow path.

OCTAVE-BAND SOUND POWER AT 10 V / dB(A)

Model	Path	65 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	Total
VDF-R-KE EC T 450 6K	Inlet	60	66	66	67	66	65	61	55	74
VDF-R-KE EC T 450 6K	Outlet	61	66	66	67	66	65	61	55	74
VDF-R-KE EC T 450 6K	Housing	58	65	64	62	60	56	52	50	70
VDF-R-KE EC T 500 6K	Inlet	60	66	66	67	66	65	61	55	74
VDF-R-KE EC T 500 6K	Outlet	61	66	66	67	66	65	61	55	74
VDF-R-KE EC T 500 6K	Housing	58	65	64	62	60	56	52	50	70
VDF-R-KE EC T 560 6K	Inlet	60	66	66	67	66	65	61	55	74
VDF-R-KE EC T 560 6K	Outlet	61	66	66	67	66	65	61	55	74
VDF-R-KE EC T 560 6K	Housing	58	65	64	62	60	56	52	50	70
VDF-R-KE EC T 710 8K	Inlet	69	73	74	75	74	73	68	62	82
VDF-R-KE EC T 710 8K	Outlet	69	74	74	75	74	73	68	63	82
VDF-R-KE EC T 710 8K	Housing	60	66	65	63	62	57	55	50	72
VDF-R-KE EC T 800 8K	Inlet	69	73	74	75	74	73	68	62	82
VDF-R-KE EC T 800 8K	Outlet	69	74	74	75	74	73	68	63	82
VDF-R-KE EC T 800 8K	Housing	60	66	65	63	62	57	55	50	72
VDF-R-KE EC T 900 8K	Inlet	70	76	76	77	76	75	70	65	84
VDF-R-KE EC T 900 8K	Outlet	71	76	76	77	76	75	70	65	84
VDF-R-KE EC T 900 8K	Housing	62	67	66	64	62	58	55	51	74

Each model retains its supplied inlet, outlet and housing sound-power values. Repeated references remain in their own model rows. Band labels include the supplied first band at 65 Hz; declared totals are not arithmetic sums.

Sound pressure and measurement distance are not supplied. Sound-power references are not installation-specific or selected-duty sound-pressure predictions.

01 / PRODUCT OVERVIEW

VCF-EC

Circular Inline EC Duct Fan

Circular inline
EC duct fan



01 Built for circular ductwork

Galvanized-steel casing and impeller with backward-curved centrifugal blades. Circular inlet and outlet connections integrate with the duct run.

02 Integrated EC electronics

EC motor electronics provide speed regulation. The air-performance curves in this catalogue apply to the published 10 V setting.

03 Access for inspection

Use the mounting supports, align the duct connections and keep the terminal box and connecting joints accessible for inspection and cleaning.

COMPACT INLINE VENTILATION

For circular duct ventilation paths where space for a separate fan cabinet is limited. Select the model using its curve and connection dimensions.

SERIES AT A GLANCE

Selection parameter	Series reference
Mains supply	230 V / 1 phase / 50 Hz
EC performance setting	10 V
Motor protection / insulation	IP55 / class F
Maximum operating temperature	55 °C

An EC-specific wiring diagram and terminal assignments are not supplied in the verified record. Use the electrical documentation provided with the ordered fan.

02 / TECHNICAL DATA

Choose the EC configuration.

230 V / 1 PHASE / 50 Hz

Model	Max. airflow m³/h	Rated input W	Current A	Speed rpm	Max. static Pa	Mass kg	LpA at 3 m dB(A)
VCF-EC 100	360	140	1.25	3900	700	2.5	70
VCF-EC 125	500	150	1.3	3950	660	2.8	67
VCF-EC 150	620	150	1.3	3950	680	3	66
VCF-EC 160	650	96	0.73	3345	650	3.3	66
VCF-EC 200	1100	130	0.87	3000	600	5	61
VCF-EC 250	1700	150	1	2800	650	4.3	64
VCF-EC 315 B	2000	530	2.35	2960	1040	9	73
VCF-EC 355	2700	816	3.6	3050	1000	9	72

Maximum airflow and maximum static pressure are separate limits of the performance envelope. Rated input, current and speed are declared motor references; they are not simultaneous readings at one operating point.

COMMON MOTOR DATA

Parameter	Series value
Technology	EC / integrated electronics
Motor enclosure	IP55
Insulation class	F
Maximum operating temperature	55 °C

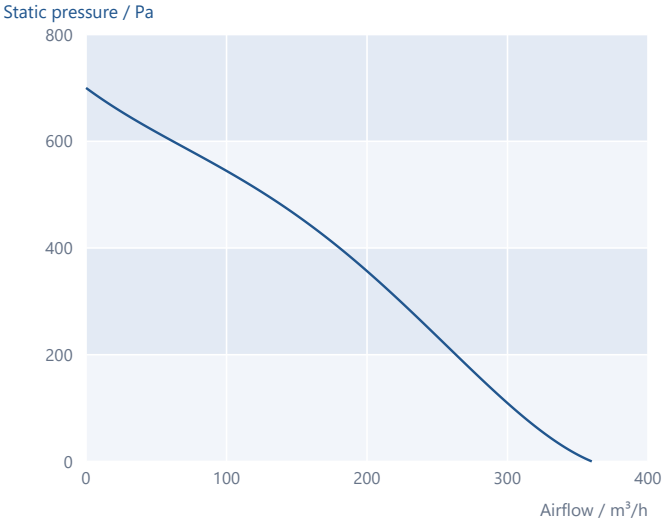
Acoustic pressure is a declared reference at 3 m. Octave-band sound-power values are listed separately on p. 321.

03 / AIR PERFORMANCE

Fan Performance Curves

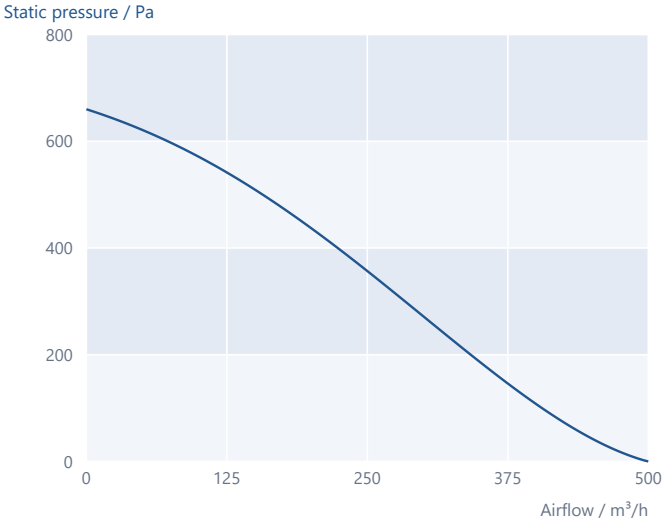
VCF-EC 100

230 V / 1 phase / 50 Hz / 10 V setting



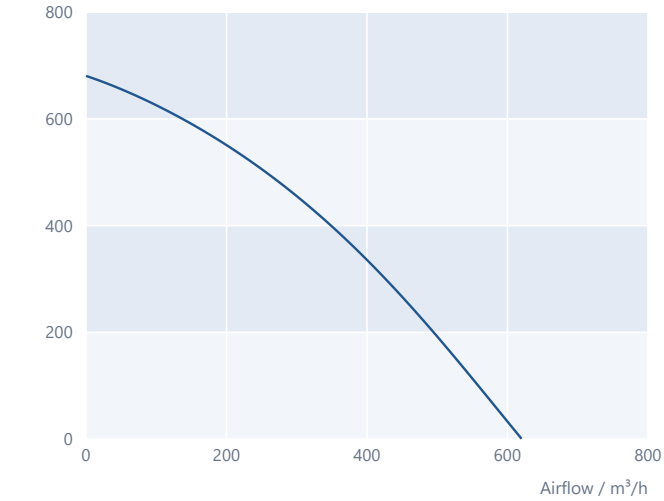
VCF-EC 125

230 V / 1 phase / 50 Hz / 10 V setting



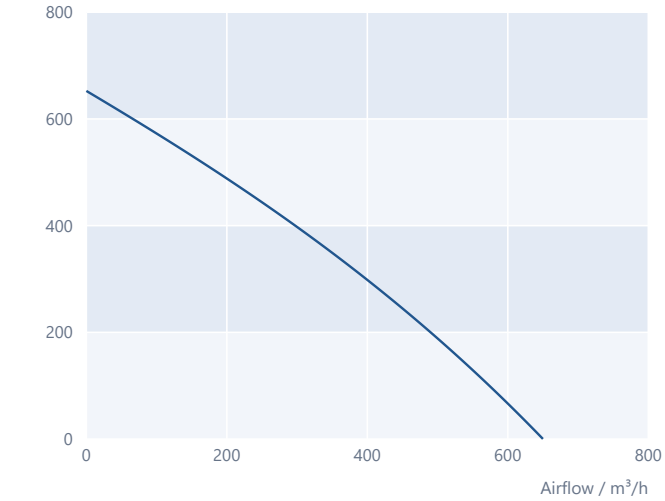
VCF-EC 150

230 V / 1 phase / 50 Hz / 10 V setting



VCF-EC 160

230 V / 1 phase / 50 Hz / 10 V setting



Curves apply to the 10 V setting and retain the published airflow range. Each model uses its own scales. No speed adjustment, curve re-fitting or extension beyond the available range is applied.

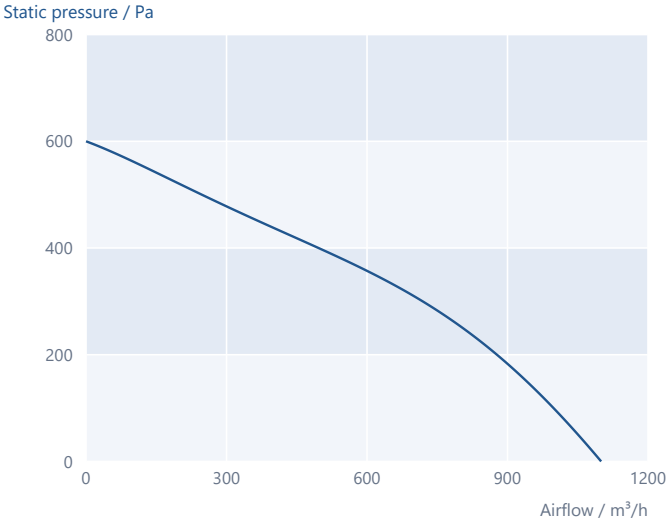
Select the operating point against the system resistance, within the model curve.

03 / AIR PERFORMANCE

Fan Performance Curves

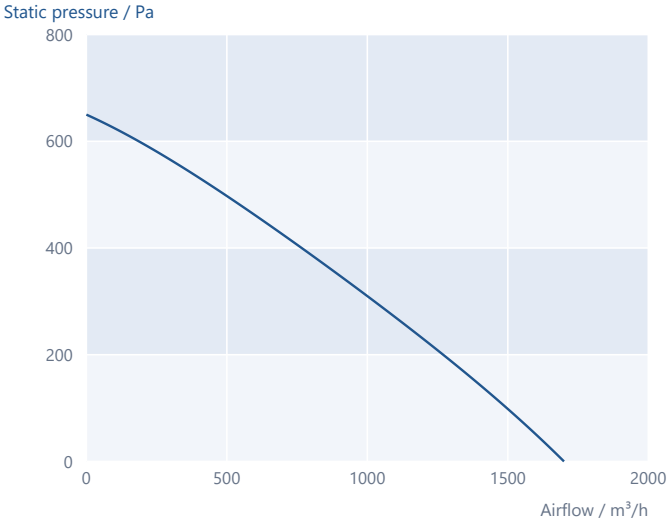
VCF-EC 200

230 V / 1 phase / 50 Hz / 10 V setting



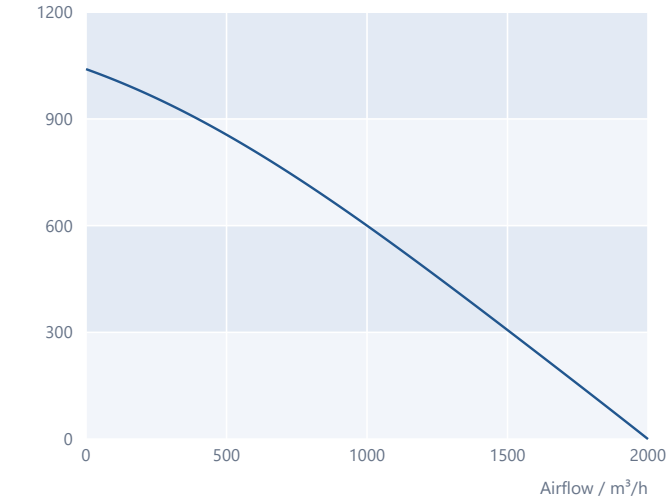
VCF-EC 250

230 V / 1 phase / 50 Hz / 10 V setting



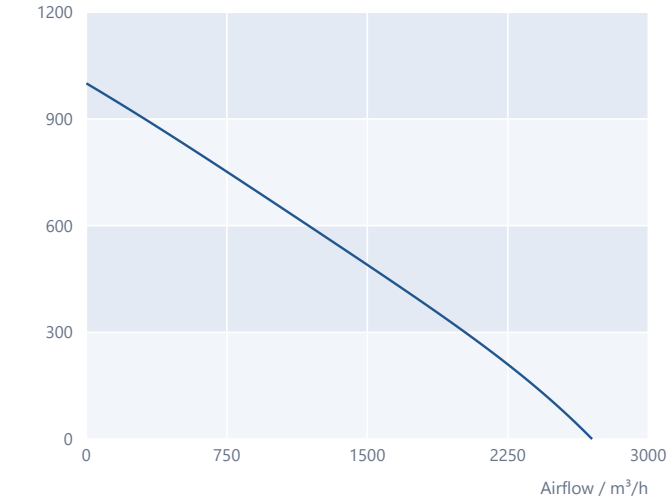
VCF-EC 315 B

230 V / 1 phase / 50 Hz / 10 V setting



VCF-EC 355

230 V / 1 phase / 50 Hz / 10 V setting



Curves apply to the 10 V setting and retain the published airflow range. Each model uses its own scales. No speed adjustment, curve re-fitting or extension beyond the available range is applied.

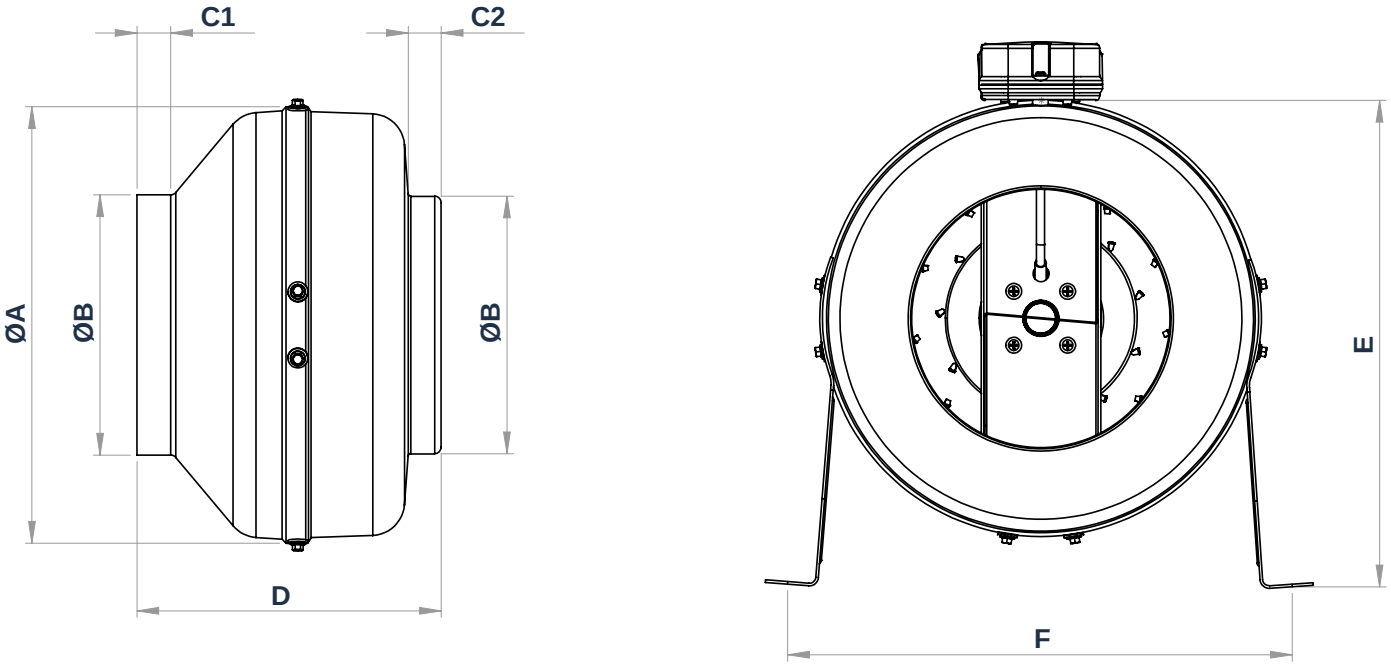
Select the operating point against the system resistance, within the model curve.

04 / DIMENSIONS

Fit the fan to the duct run.

REPRESENTATIVE SERIES OUTLINE

All dimensions in mm



Model	ØA	ØB	C1	C2	D	E	F
VCF-EC 100	245	97	20	20	197	273	268
VCF-EC 125	245	122	20	20	188	273	268
VCF-EC 150	272	147	23	25	192	286	295
VCF-EC 160	272	157	23	25	192	286	295
VCF-EC 200	330	196	30	28	230	380	352
VCF-EC 250	330	247	30	28	227	380	352
VCF-EC 315 B	400	313	30	30	285	415	422
VCF-EC 355	400	352	30	30	378	415	422

The outline uses generic series dimensions; use the row for the selected model. ØA is the casing diameter and ØB is the connection diameter. Do not scale the drawing.

05 / ACOUSTICS

Understand the sound profile.

OCTAVE-BAND SOUND POWER / dB(A)

Model	Path	65 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	Total
VCF-EC 100	Inlet	60	72	69	70	70	67	59	49	77
VCF-EC 100	Outlet	60	72	70	70	71	68	59	49	78
VCF-EC 100	Housing	43	55	52	53	53	52	42	32	60
VCF-EC 125	Inlet	57	69	66	67	67	64	56	46	74
VCF-EC 125	Outlet	52	67	65	65	66	63	54	44	73
VCF-EC 125	Housing	39	51	48	49	49	46	38	28	56
VCF-EC 150	Inlet	54	67	66	65	66	63	54	45	73
VCF-EC 150	Outlet	50	64	63	62	63	62	51	42	72
VCF-EC 150	Housing	34	47	46	45	46	43	34	25	53
VCF-EC 160	Inlet	54	67	66	66	67	63	54	45	73
VCF-EC 160	Outlet	56	67	67	68	68	65	55	47	74
VCF-EC 160	Housing	34	47	46	45	46	43	34	25	53
VCF-EC 200	Inlet	49	62	61	60	61	60	49	43	68
VCF-EC 200	Outlet	50	63	62	61	62	61	50	44	69
VCF-EC 200	Housing	31	44	43	42	43	42	31	25	50
VCF-EC 250	Inlet	50	65	64	63	64	63	52	43	71
VCF-EC 250	Outlet	50	64	63	62	63	62	51	42	70
VCF-EC 250	Housing	30	45	44	43	44	43	32	23	51
VCF-EC 315 B	Inlet	62	74	71	72	72	71	61	51	79
VCF-EC 315 B	Outlet	63	75	72	74	73	72	62	52	80
VCF-EC 315 B	Housing	43	55	52	54	54	50	43	33	60
VCF-EC 355	Inlet	61	73	70	71	71	70	60	52	78
VCF-EC 355	Outlet	62	74	71	72	72	71	61	51	79
VCF-EC 355	Housing	42	54	51	53	53	49	41	32	59

Inlet, outlet and housing values are declared acoustic references. Band labels follow the available data, including the first band at 65 Hz. Totals are retained as declared; they are not arithmetic sums of the bands.

Sound power and sound pressure are different quantities. The 3 m sound-pressure reference is on p. 317; no installation-specific or selected-duty acoustic calculation is implied.

01 / PRODUCT OVERVIEW

VYF-EC

Centrifugal EC Roof Fan

Horizontal discharge
EC roof fan



01 Horizontal roof discharge

A centrifugal roof-mounted fan with sideways exhaust at roof level. Keep the surrounding outlet area clear so the discharge path remains unobstructed.

02 Integrated EC control

EC motor electronics provide speed regulation. Each performance curve applies to the published 10 V setting for its own configuration.

03 Coordinate roof and service access

Match the roof opening and supporting curb to the base dimensions. Provide access around the fan and electrical connection for inspection and cleaning.

KEEP THE OUTLET AREA CLEAR

For building extract-air systems with horizontal roof discharge. Coordinate the support, duct opening and maintenance access before installation.

SERIES AT A GLANCE

Selection parameter	Series reference
Mains supply	230 V / 1 phase or 400 V / 3 phase
EC performance setting	10 V / 50 Hz nominal mains
Motor protection / insulation	IP55 / class F
Operating temperature limit	50 / 55 / 60 °C, by configuration

An EC-specific wiring diagram and terminal assignments are unavailable in the verified record. Use the electrical documentation supplied with the ordered configuration.

02 / TECHNICAL DATA

Choose the roof-fan duty.

NINE EC CONFIGURATIONS / 50 Hz / 10 V SETTING

Model / configuration	Supply V / phase	Max. airflow m^3/h	Rated input W	Speed rpm	Max. static Pa	T max. °C	LpA at 3 m dB(A)
VYF-EC 355M	230 / 1	2500	250	1500	300	50	51
VYF-EC 400M	230 / 1	2600	260	1500	300	50	51
VYF-EC 450T	400 / 3	4500	450	940	260	55	-
VYF-EC 500M	230 / 1	5500	760	1500	530	50	54
VYF-EC 500T / 930 rpm	400 / 3	7000	750	930	410	55	54
VYF-EC 500T / 1500 rpm	400 / 3	5500	770	1500	530	60	54
VYF-EC 560T	400 / 3	10500	1200	990	470	55	-
VYF-EC 710T	400 / 3	20000	2200	750	450	55	-
VYF-EC 800T	400 / 3	25000	3300	730	600	55	-

The two VYF-EC 500T configurations are distinguished by rated speed: 930 rpm and 1500 rpm. Their original curves, airflow limits, power ratings and temperature limits remain separate.

RATING BASIS

Maximum airflow and maximum static pressure are separate envelope limits. Rated motor input and speed are declared references, not simultaneous duty-point readings. Temperature limits apply to each configuration as shown.

UNAVAILABLE VALUES

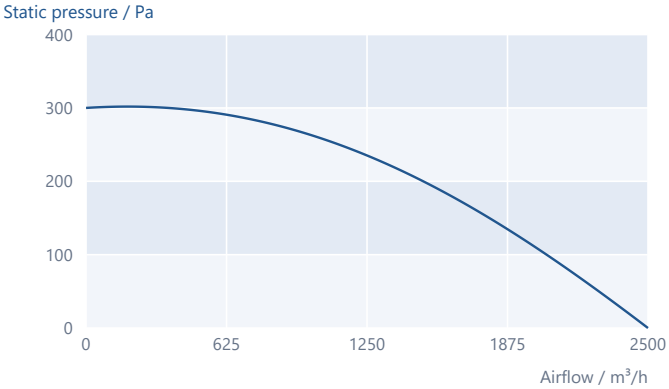
Rated current and mass are not supplied for this series. A dash in the sound-pressure column indicates an unavailable value; no missing value is replaced with zero. Acoustic sound-power bands are listed separately on p. 327.

03 / AIR PERFORMANCE

Fan Performance Curves

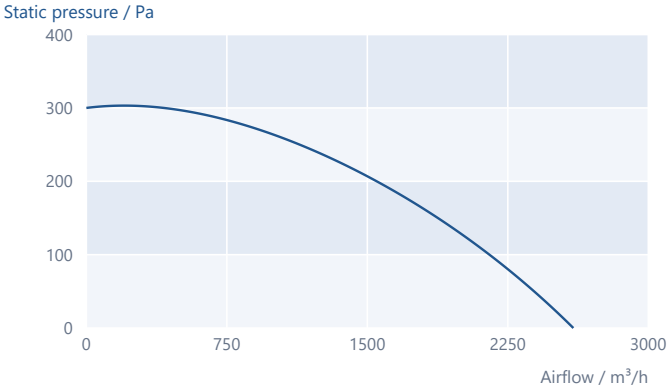
VYF-EC 355M

230 V / 1 phase / 50 Hz / 10 V setting



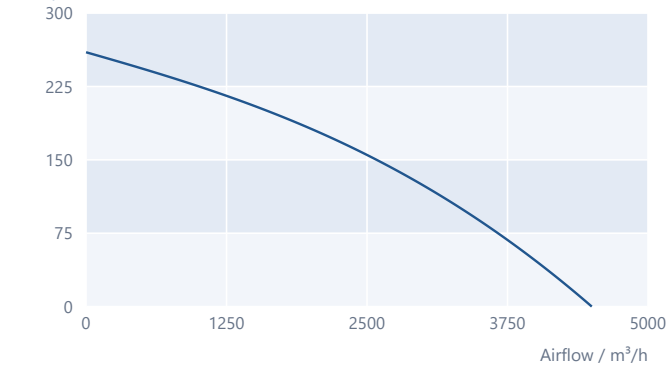
VYF-EC 400M

230 V / 1 phase / 50 Hz / 10 V setting



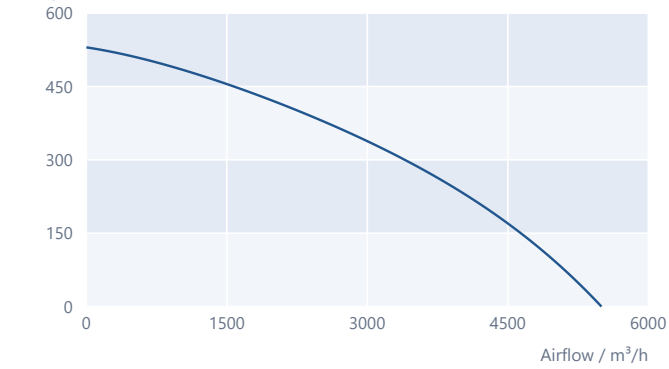
VYF-EC 450T

400 V / 3 phase / 50 Hz / 10 V setting



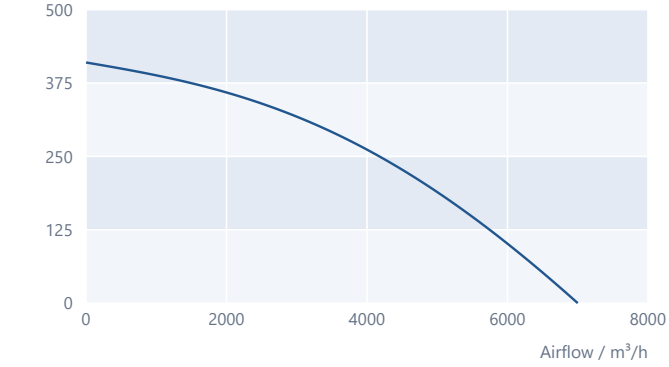
VYF-EC 500M

230 V / 1 phase / 50 Hz / 10 V setting



VYF-EC 500T / 930 rpm

400 V / 3 phase / 50 Hz / 10 V setting



500T / TWO DISTINCT CONFIGURATIONS

Use the rated-speed qualifier to select the correct 500T curve. The 930 rpm and 1500 rpm options retain independent ratings and airflow limits.

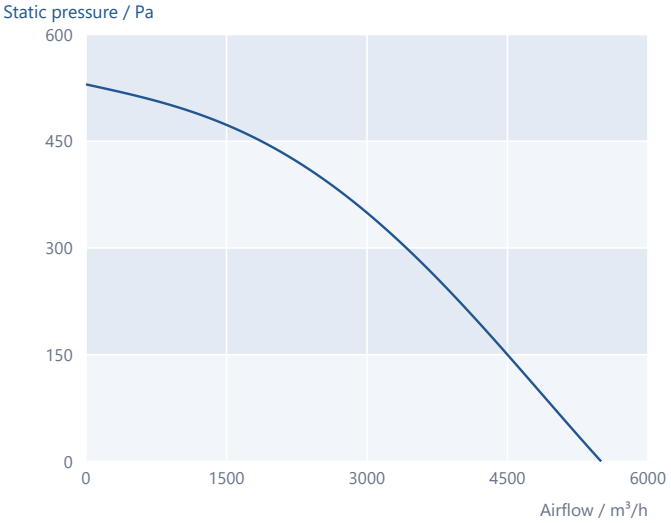
Curves retain the published 10 V setting and airflow range. Each model uses its own scales. No speed adjustment, curve re-fitting or extrapolation is applied.

03 / AIR PERFORMANCE

Fan Performance Curves

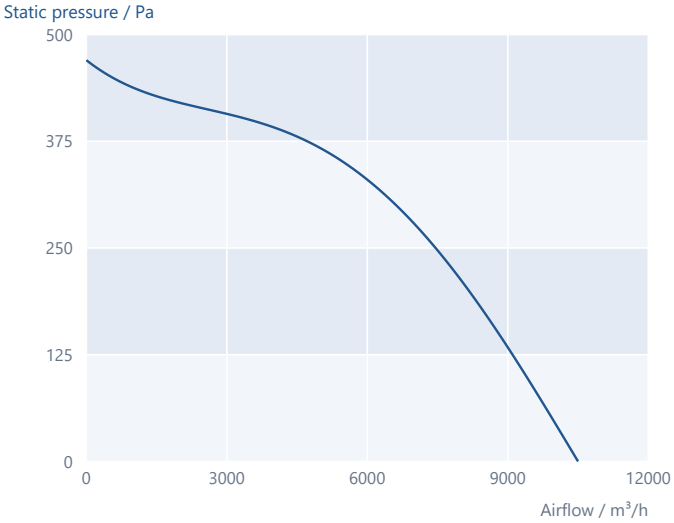
VYF-EC 500T / 1500 rpm

400 V / 3 phase / 50 Hz / 10 V setting



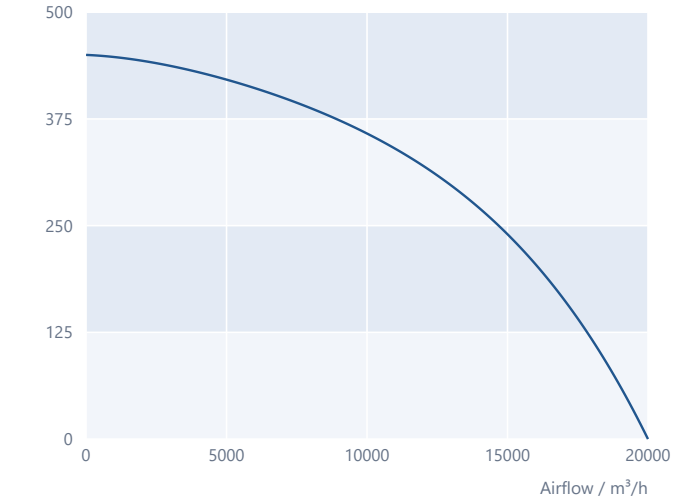
VYF-EC 560T

400 V / 3 phase / 50 Hz / 10 V setting



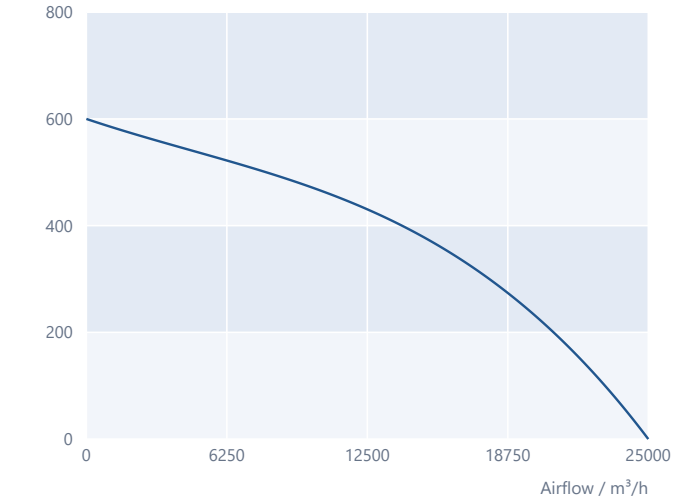
VYF-EC 710T

400 V / 3 phase / 50 Hz / 10 V setting



VYF-EC 800T

400 V / 3 phase / 50 Hz / 10 V setting



Curves retain the published 10 V setting and airflow range. Each model uses its own scales. No speed adjustment, curve re-fitting or extrapolation is applied.

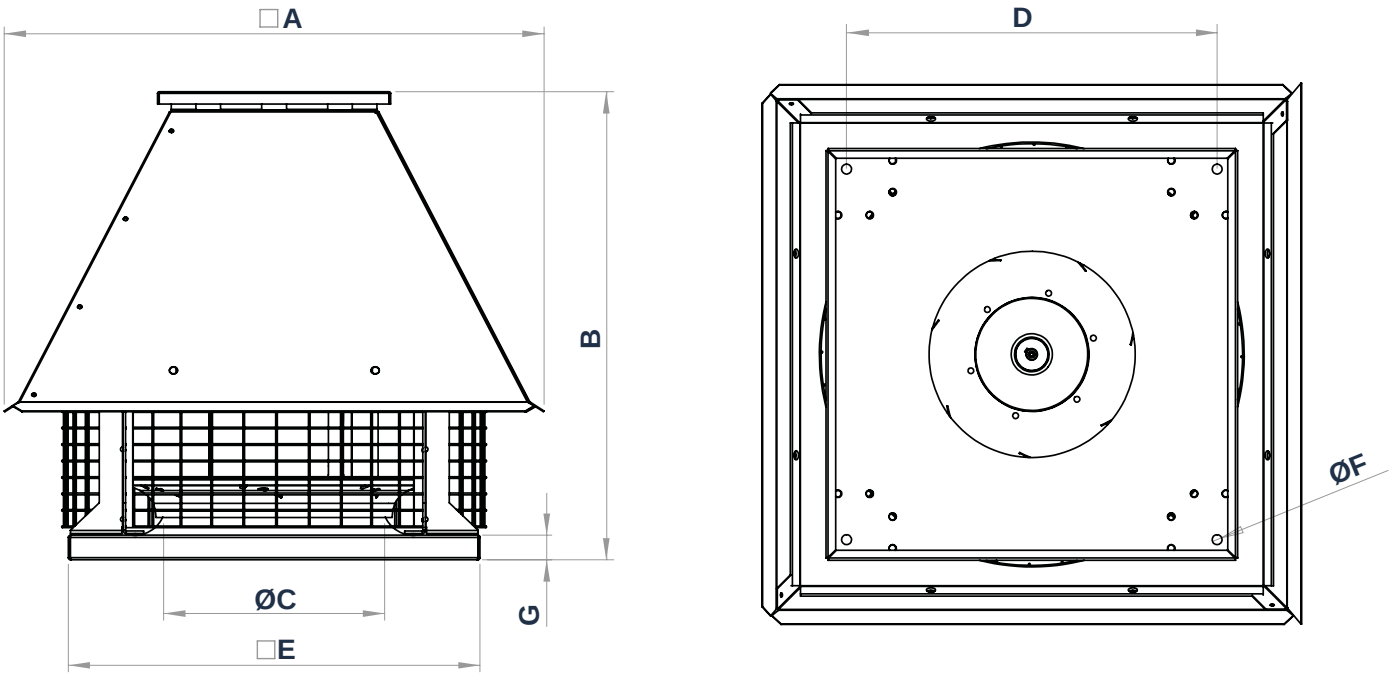
Select the configuration and operating point against the system resistance.

04 / DIMENSIONS

Plan the roof connection.

REPRESENTATIVE SERIES OUTLINE

All dimensions in mm



Model / configuration	A	B	ØC	D	E	ØF	G
VYF-EC 355M	656	555	234	450	500	12	30
VYF-EC 400M	656	555	234	450	500	12	30
VYF-EC 450T	656	616	303	530	580	12	44
VYF-EC 500M	766	660	342	590	640	12	44
VYF-EC 500T / 930 rpm	766	660	342	590	640	12	44
VYF-EC 500T / 1500 rpm	766	660	342	590	640	12	44
VYF-EC 560T	828	723	380	650	700	12	54
VYF-EC 710T	1205	1172	540	850	900	12	54
VYF-EC 800T	1400	1380	550	1050	1100	12	54

Use the dimension row for the chosen configuration. The outline is representative and uses generic labels; do not scale the drawing. Coordinate the base, roof opening and supporting curb.

05 / ACOUSTICS

Understand the sound profile.

OCTAVE-BAND SOUND POWER / dB(A)

Model / configuration	Path	65 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	Total
VYF-EC 355M	Inlet	60	66	66	67	66	65	61	55	74
VYF-EC 355M	Outlet	61	66	66	67	66	65	61	55	74
VYF-EC 355M	Housing	58	65	64	62	60	56	52	50	70
VYF-EC 400M	Inlet	60	66	66	67	66	65	61	55	74
VYF-EC 400M	Outlet	61	66	66	67	66	65	61	55	74
VYF-EC 400M	Housing	58	65	64	62	60	56	52	50	70
VYF-EC 450T	Inlet	60	66	66	67	66	65	61	55	74
VYF-EC 450T	Outlet	61	66	66	67	66	65	61	55	74
VYF-EC 450T	Housing	58	65	64	62	60	56	52	50	70
VYF-EC 500M	Inlet	60	66	66	67	66	65	61	55	74
VYF-EC 500M	Outlet	61	66	66	67	66	65	61	55	74
VYF-EC 500M	Housing	58	65	64	62	60	56	52	50	70
VYF-EC 500T / 930 rpm	Inlet	60	66	66	67	66	65	61	55	74
VYF-EC 500T / 930 rpm	Outlet	61	66	66	67	66	65	61	55	74
VYF-EC 500T / 930 rpm	Housing	58	65	64	62	60	56	52	50	70
VYF-EC 500T / 1500 rpm	Inlet	60	66	66	67	66	65	61	55	74
VYF-EC 500T / 1500 rpm	Outlet	61	66	66	67	66	65	61	55	74
VYF-EC 500T / 1500 rpm	Housing	58	65	64	62	60	56	52	50	70
VYF-EC 560T	Inlet	61	67	67	68	67	66	62	57	75
VYF-EC 560T	Outlet	62	67	67	68	67	66	62	60	75
VYF-EC 560T	Housing	60	66	65	63	61	58	54	52	73
VYF-EC 710T	Inlet	69	73	74	75	74	73	68	62	82
VYF-EC 710T	Outlet	69	74	74	75	74	73	68	63	82
VYF-EC 710T	Housing	60	66	65	63	62	57	55	50	72
VYF-EC 800T	Inlet	70	76	76	77	76	75	70	65	84
VYF-EC 800T	Outlet	71	76	76	77	76	75	70	65	84
VYF-EC 800T	Housing	62	67	66	64	62	58	55	51	74

Declared sound-power references for inlet, outlet and housing. Band labels, repeated reference values and totals are retained as supplied, including the first band at 65 Hz. Totals are not arithmetic sums.

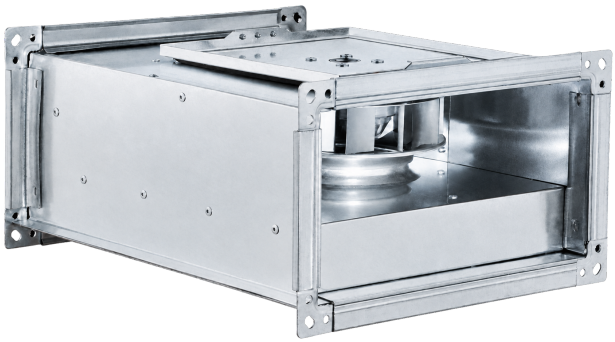
The available 3 m sound-pressure references are on p. 323. These data do not imply an installation-specific or selected-duty acoustic calculation.

01 / PRODUCT OVERVIEW

VBF-EC

Rectangular EC Duct Fan

Rectangular inline
EC duct fan



01 Built for rectangular ductwork

Galvanized-steel rectangular casing with a backward-curved centrifugal impeller. Match the duct opening and fixing points to the dimension drawing.

02 Integrated EC control

Integrated EC electronics provide speed regulation. The performance curves apply to the published 10 V setting and retain each configuration's available range.

03 Access for inspection

Keep the hinged lid clear for inspection and cleaning. Support the fan and duct connections without stressing the casing or obstructing the service opening.

INLINE VENTILATION / SERVICE ACCESS

For rectangular duct systems with limited space for a separate fan assembly. Leave room to open the lid and reach the electrical connection.

SERIES AT A GLANCE

Selection parameter	Series reference
Mains supply	230 V / 1 phase or 400 V / 3 phase
EC performance setting	10 V / 50 Hz nominal mains
Motor protection / insulation	IP54 / class F
Maximum operating temperature	50 °C

An EC-specific wiring diagram and terminal assignments are unavailable in the verified record. Use the electrical documentation supplied with the ordered fan.

02 / TECHNICAL DATA

Match the rectangular duct duty.

AVAILABLE CURVE LIMITS & RATED MOTOR DATA

Model	Curve airflow limit m^3/h	Rated input W	Rated current A	Rated speed rpm	Max. static Pa	Mass kg
VBF-EC M 30-15	800	170	1.3	4300	800	7
VBF-EC M 40-20	1700	225	1.45	2800	650	10.5
VBF-EC M 60-35	3000	550	2.42	2200	735	31
VBF-EC M 70-40	4000	400	1.72	1650	486	44
VBF-EC T 70-40	7400	1000	1.73	1500	660	44
VBF-EC T 80-50	13000	3300	4.95	1800	1300	72
VBF-EC T 100-50	14500	2900	5.4	1500	1200	84

Airflow limits in the table match the available curves. M 60-35 has a separate declared maximum of 4000 m^3/h, but its available curve ends at 3000 m^3/h. No curve is extended to the separate declaration.

SUPPLY & ACOUSTIC REFERENCE / 50 Hz

Model	Mains supply	LpA at 3 m / dB(A)
VBF-EC M 30-15	230 V / 1 phase	69
VBF-EC M 40-20	230 V / 1 phase	63
VBF-EC M 60-35	230 V / 1 phase	63
VBF-EC M 70-40	230 V / 1 phase	57
VBF-EC T 70-40	400 V / 3 phase	62
VBF-EC T 80-50	400 V / 3 phase	61
VBF-EC T 100-50	400 V / 3 phase	60

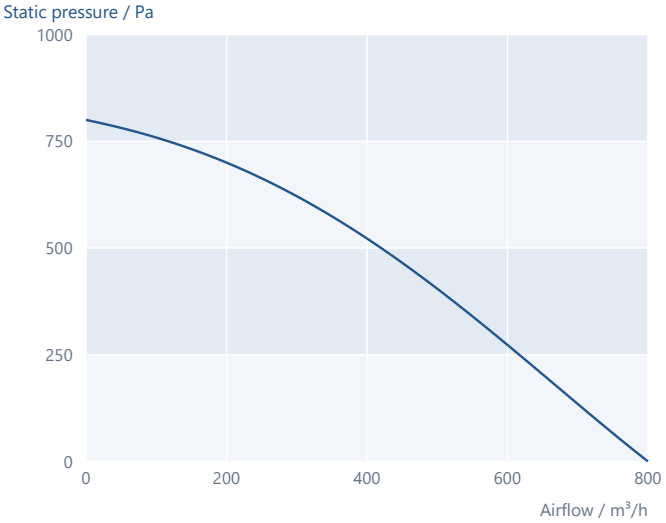
T 80-50 has a declared rated speed of 1800 rpm; its listed performance curve has a 1100 rpm speed reference. These remain distinct. Rated motor values are separate from selected-duty readings.

03 / AIR PERFORMANCE

Fan Performance Curves

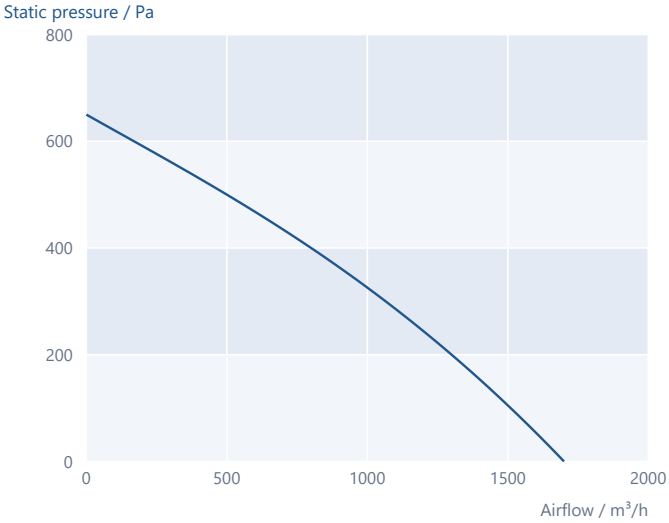
VBF-EC M 30-15

230 V / 1 phase / 50 Hz / 10 V setting



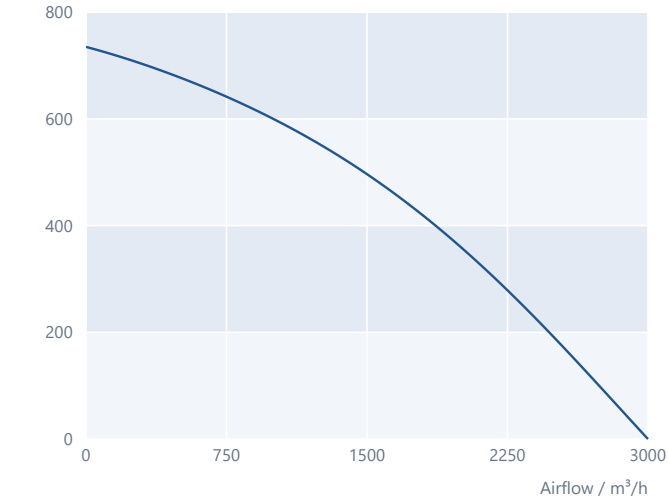
VBF-EC M 40-20

230 V / 1 phase / 50 Hz / 10 V setting



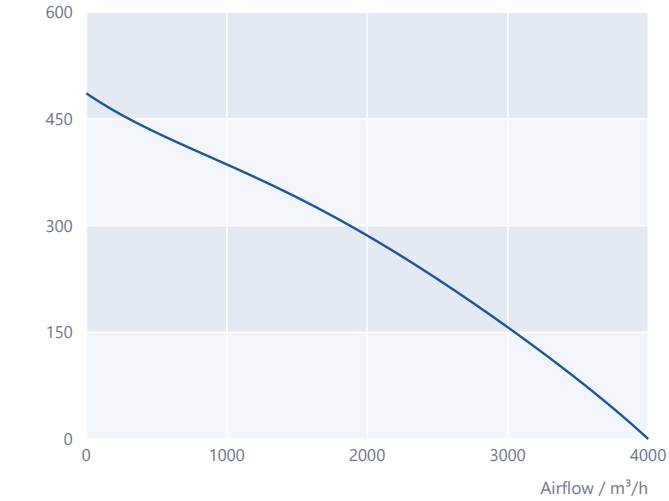
VBF-EC M 60-35

230 V / 1 phase / 50 Hz / 10 V setting



VBF-EC M 70-40

230 V / 1 phase / 50 Hz / 10 V setting



Curves retain the published 10 V setting and airflow range. Each configuration uses its own scales. No re-fitting, speed conversion or extrapolation is applied.

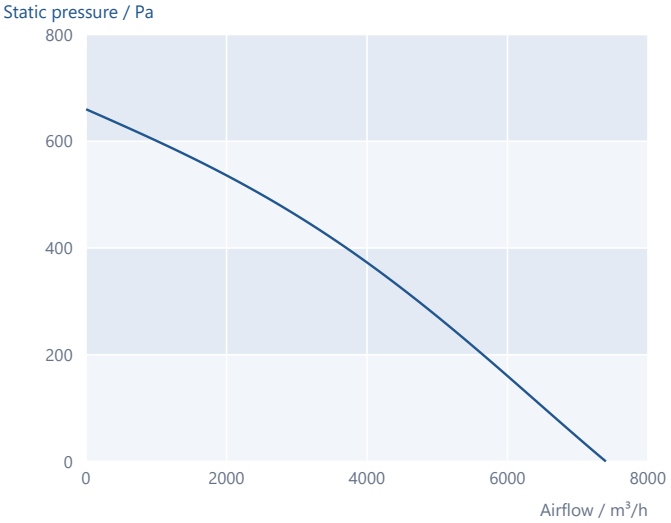
M 60-35 is limited to the available 3000 m³/h curve; its separate 4000 m³/h declaration is not plotted.

03 / AIR PERFORMANCE

Fan Performance Curves

VBF-EC T 70-40

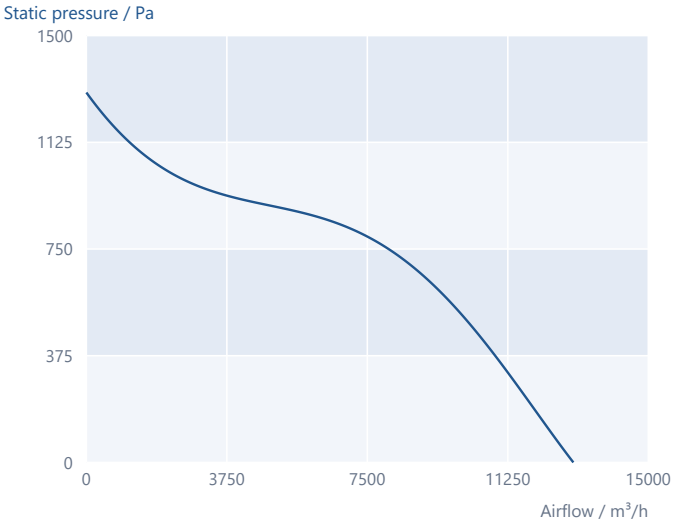
400 V / 3 phase / 50 Hz / 10 V setting



VBF-EC T 80-50

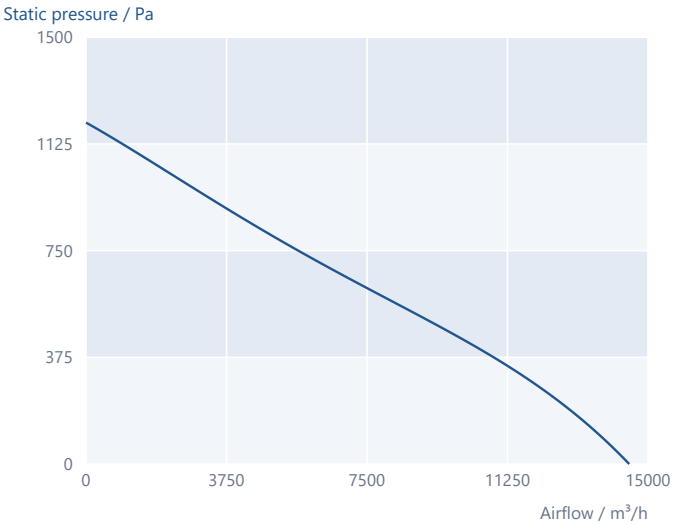
400 V / 3 phase / 50 Hz / 10 V setting

Curve speed reference: 1100 rpm



VBF-EC T 100-50

400 V / 3 phase / 50 Hz / 10 V setting



PERFORMANCE REFERENCES

T 80-50: the curve-speed reference is 1100 rpm. The separate rated motor speed is 1800 rpm; no speed conversion is applied.

T 70-40: the published curve starts at 1 m³/h. Its positive lower limit is retained.

Curves retain the published 10 V setting and airflow range. Each configuration uses its own scales. No re-fitting, speed conversion or extrapolation is applied.

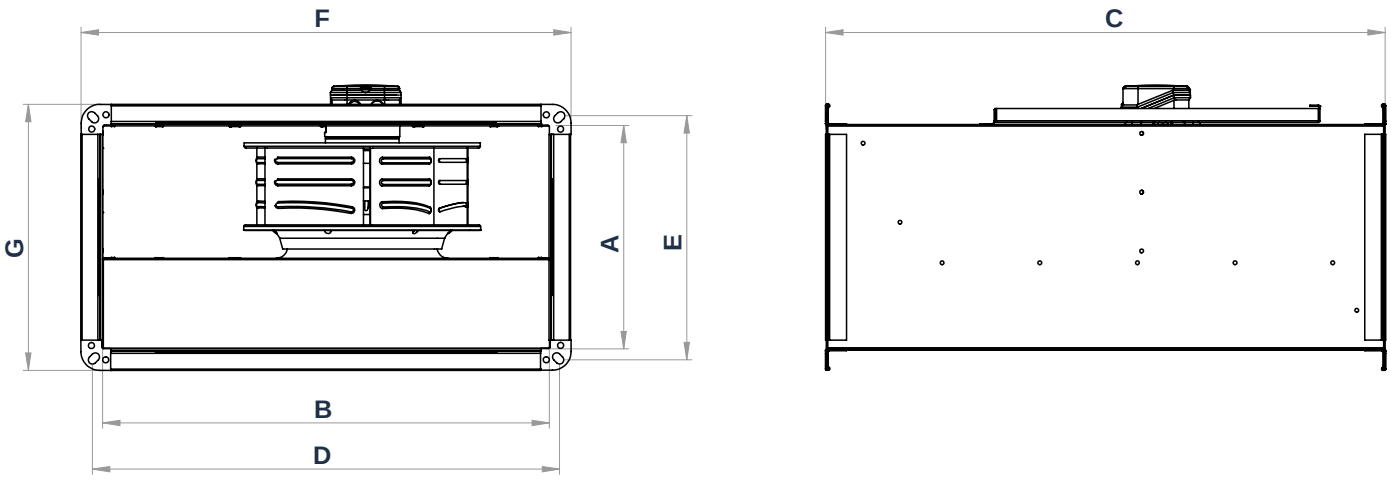
M 60-35 is limited to the available 3000 m³/h curve; its separate 4000 m³/h declaration is not plotted.

04 / DIMENSIONS

Coordinate the duct connections.

REPRESENTATIVE SERIES OUTLINE

All dimensions in mm



Model	A	B	C	D	E	F	G
VBF-EC M 30-15	150	300	400	320	170	350	200
VBF-EC M 40-20	200	400	500	420	220	450	250
VBF-EC M 60-35	350	600	750	620	370	660	410
VBF-EC M 70-40	400	700	800	720	420	770	470
VBF-EC T 70-40	400	700	800	720	420	770	470
VBF-EC T 80-50	500	800	920	820	520	870	570
VBF-EC T 100-50	500	1000	1050	1030	530	1070	570

Use the dimensions for the selected model. The representative outline uses generic letters and is not drawn to scale. Keep the hinged access lid and electrical connection accessible.

05 / ACOUSTICS

Understand the sound profile.

OCTAVE-BAND SOUND POWER / dB(A)

Model	Path	65 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	Total
VBF-EC M 30-15	Inlet	44	56	64	56	55	53	47	38	66
VBF-EC M 30-15	Outlet	48	53	66	63	61	58	51	43	69
VBF-EC M 30-15	Housing	26	33	47	44	42	41	35	27	50
VBF-EC M 40-20	Inlet	44	54	66	58	61	59	55	47	69
VBF-EC M 40-20	Outlet	44	53	67	64	63	66	61	58	72
VBF-EC M 40-20	Housing	20	34	53	45	44	44	38	35	55
VBF-EC M 60-35	Inlet	50	65	61	63	60	61	56	48	70
VBF-EC M 60-35	Outlet	54	72	68	69	68	67	62	54	76
VBF-EC M 60-35	Housing	27	57	53	50	49	48	49	37	60
VBF-EC M 70-40	Inlet	60	70	68	69	66	66	62	52	75
VBF-EC M 70-40	Outlet	60	71	71	73	74	71	38	55	79
VBF-EC M 70-40	Housing	41	62	58	56	56	49	42	36	65
VBF-EC T 70-40	Inlet	60	70	68	69	66	66	62	52	75
VBF-EC T 70-40	Outlet	60	71	71	73	74	71	38	55	79
VBF-EC T 70-40	Housing	41	62	58	56	56	49	42	36	65
VBF-EC T 80-50	Inlet	61	72	71	73	71	71	66	58	79
VBF-EC T 80-50	Outlet	66	75	76	77	79	75	70	61	84
VBF-EC T 80-50	Housing	45	68	64	61	61	60	54	43	71
VBF-EC T 100-50	Inlet	70	77	76	78	78	75	71	65	84
VBF-EC T 100-50	Outlet	71	80	81	82	83	80	74	65	89
VBF-EC T 100-50	Housing	58	69	64	62	60	56	52	50	72

Declared inlet, outlet and housing sound-power references. Band labels, repeated references and totals are preserved as supplied, including the first band at 65 Hz. Totals are not arithmetic sums.

Sound power and sound pressure are different quantities. The 3 m sound-pressure references are on p. 329; no installation-specific or selected-duty noise calculation is implied.

01 / PRODUCT OVERVIEW

VRF-EC

Vertical Discharge EC Roof Fan

Vertical discharge
EC roof fan



01 Vertical roof discharge

A centrifugal EC roof fan arranged for upward exhaust. Keep the air path above the unit clear of overhead obstructions.

02 Integrated EC control

Integrated EC electronics provide speed regulation. Performance curves correspond to the published 10 V setting for the stated frequency record.

03 Coordinate roof and service access

Use the base dimensions to coordinate the support and duct opening. Keep the discharge and electrical connection accessible for inspection and cleaning.

KEEP THE UPWARD AIR PATH CLEAR

For building extract-air systems with vertical roof discharge. Provide safe service access around the fan without obstructing the outlet.

SERIES AT A GLANCE

Selection parameter	Series reference
Mains supply	400 V / 3 phase
Frequency records	50 Hz / 60 Hz, as listed
EC performance setting	10 V
Motor / insulation / temperature	IP55 / class F / maximum 55 °C

A verified EC wiring diagram and terminal assignments are unavailable. Use the electrical documentation supplied with the ordered configuration.

02 / TECHNICAL DATA

Select the frequency record.

400 V / 3 PHASE / 10 V PERFORMANCE SETTING

Model / frequency	Max. airflow m^3/h	Rated input W	Rated speed rpm	Max. static Pa	Mass kg
VRF-EC 450T / 50 Hz	4500	450	940	260	50
VRF-EC 500T / 50 Hz	7000	750	930	410	55
VRF-EC 500T / 60 Hz	7000	750	930	410	60
VRF-EC 560T / 50 Hz	10500	1050	1000	540	60
VRF-EC 560T / 60 Hz	10500	1050	1000	540	60
VRF-EC 630T / 50 Hz	24000	6600	1500	1400	60

VRF-EC 500T: declared mass is 55 kg at 50 Hz and 60 kg at 60 Hz. VRF-EC 630T: declared maximum static pressure is 1400 Pa; the supplied pressure curve peaks at approximately 1553 Pa. Both original records are retained. Maximum airflow, pressure and rated motor values are separate references.

CONTROL SETTING & UNAVAILABLE DATA

Parameter	Available value
Performance input setting	10 V
Rated current	Not supplied
Sound pressure / measurement distance	Not supplied

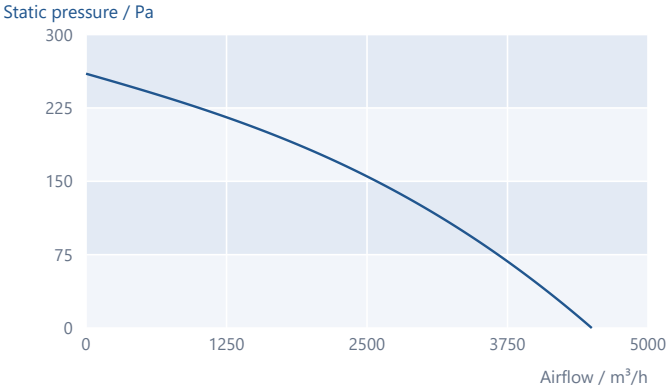
A current curve does not establish a missing rated-current value. No rated current or sound-pressure level is inferred. Use the frequency-specific nameplate and supplied electrical documentation when specifying the ordered fan.

03 / AIR PERFORMANCE

Fan Performance Curves

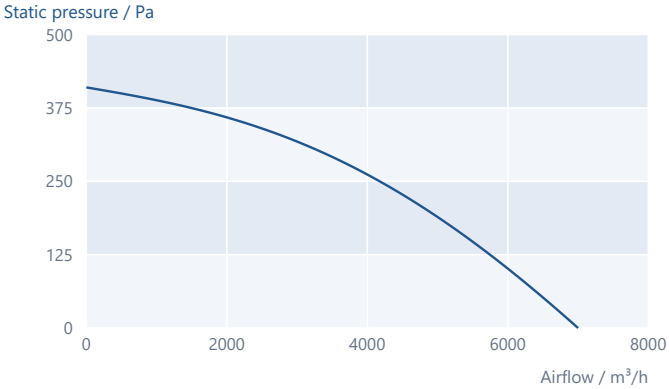
VRF-EC 450T / 50 Hz

400 V / 3 phase / 50 Hz / 10 V setting



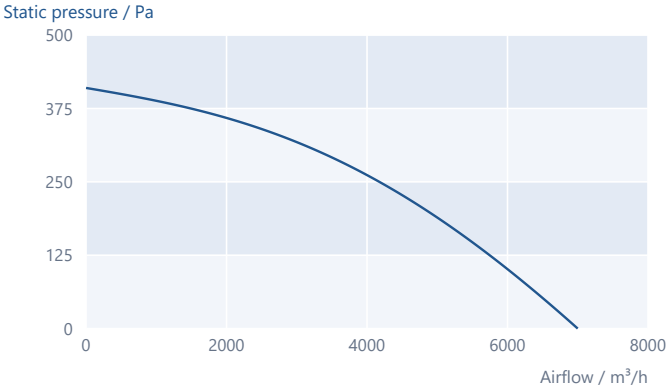
VRF-EC 500T / 50 Hz

400 V / 3 phase / 50 Hz / 10 V setting



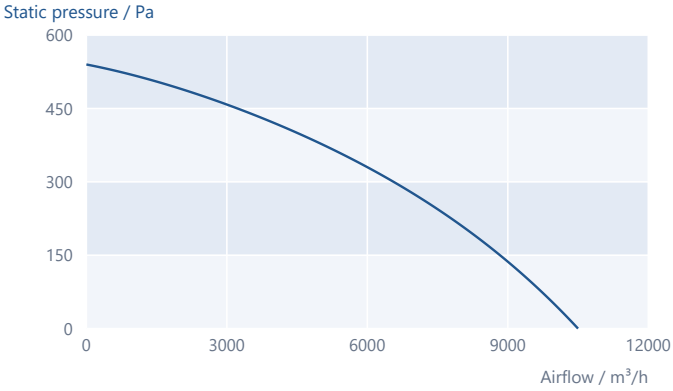
VRF-EC 500T / 60 Hz

400 V / 3 phase / 60 Hz / 10 V setting



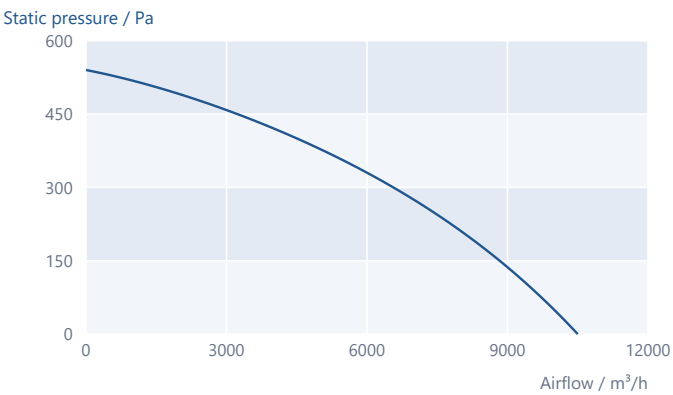
VRF-EC 560T / 50 Hz

400 V / 3 phase / 50 Hz / 10 V setting



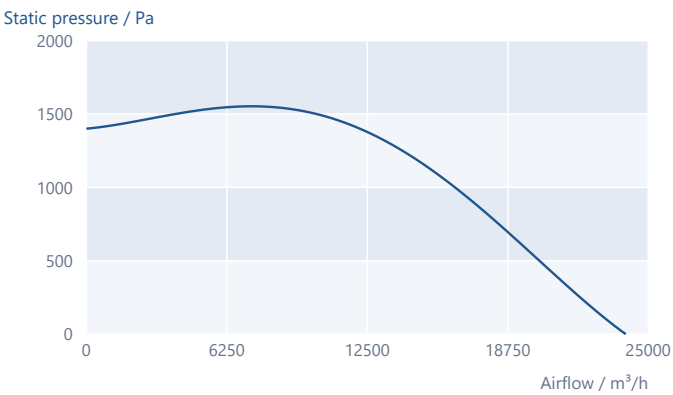
VRF-EC 560T / 60 Hz

400 V / 3 phase / 60 Hz / 10 V setting



VRF-EC 630T / 50 Hz

400 V / 3 phase / 50 Hz / 10 V setting



VRF-EC 630T: declared maximum static pressure 1400 Pa; supplied curve peak approximately 1553 Pa.

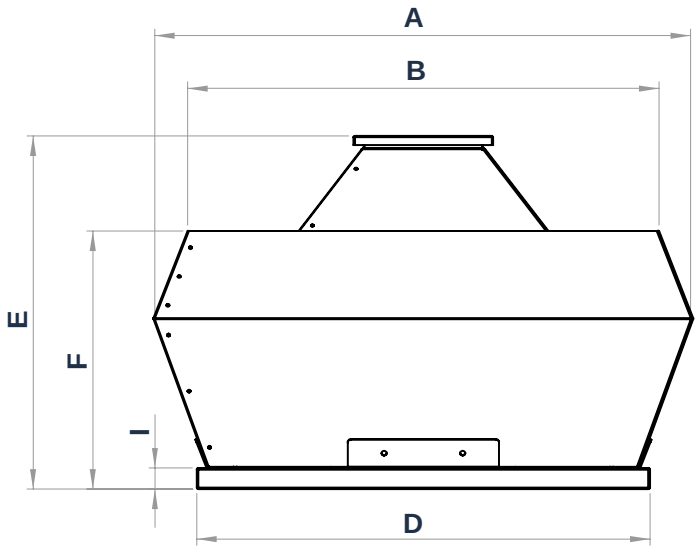
Original 10 V records and airflow limits are retained. The 50/60 Hz pairs share the same supplied performance data; no frequency conversion or curve re-fitting is applied. Model-specific scales.

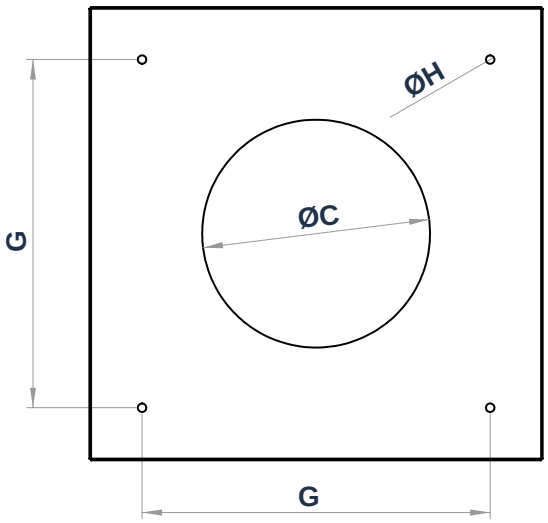
04 / DIMENSIONS

Plan the roof connection.

REPRESENTATIVE SERIES OUTLINE

All dimensions in mm





Model / frequency	A	B	ØC	D	E	F	G	ØH	I
VRF-EC 450T / 50 Hz	960	855	380	800	595	440	625	14	35
VRF-EC 500T / 50 Hz	1030	915	450	850	695	490	675	14	35
VRF-EC 500T / 60 Hz	1030	915	450	850	695	490	675	14	35
VRF-EC 560T / 50 Hz	1195	960	500	950	820	610	740	14	35
VRF-EC 560T / 60 Hz	1195	960	500	950	820	610	740	14	35
VRF-EC 630T / 50 Hz	1400	1100	680	1110	980	740	900	14	40

Use the row for the selected model and frequency. The original outline uses generic dimensions and is not drawn to scale. Coordinate the support, roof opening and duct connection.

05 / ACOUSTICS & SERVICE

Sound references. Service access.

SHARED OCTAVE-BAND SOUND POWER REFERENCE / dB(A)

Path	65 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	Total
Inlet	60	66	66	67	66	65	61	55	74
Outlet	61	66	66	67	66	65	61	55	74
Housing	58	65	64	62	60	56	52	50	70

All six configurations carry the same supplied three-path sound-power reference, presented once here. Band labels and totals are retained, including the first band at 65 Hz. Totals are not arithmetic sums.

Model-specific sound pressure and measurement distance are not supplied. This common reference is not an installation-specific or selected-duty acoustic prediction.

KEEP THE DISCHARGE CLEAR

Maintain an unobstructed upward air path above the fan. Coordinate nearby roof structures with the discharge arrangement.

COORDINATE THE ROOF SUPPORT

Match the support and duct opening to the dimensions. Keep the fan and connecting ductwork securely supported.

ALLOW INSPECTION ACCESS

Leave access around the fan and electrical connection for inspection and cleaning. Follow the electrical documentation supplied with the ordered unit.



07

EX-PROOF FANS

SERIES DIRECTORY

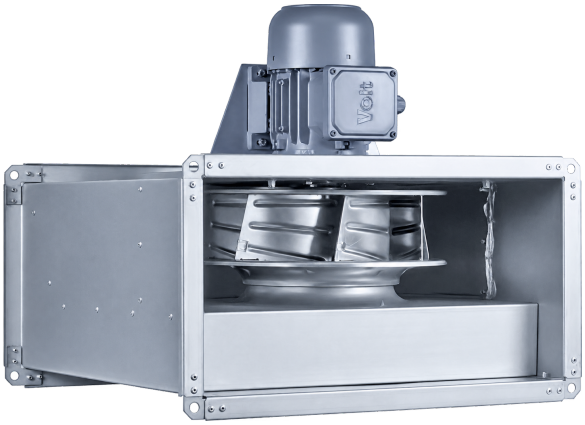
VBF-R-EX 340
VLF-T-EX 346
VLPF-EX 354
VYF-EX 361

01 / PRODUCT OVERVIEW

VBF-R-EX

Ex-proof Rectangular Duct Fan

Ex-proof rectangular duct fan



01 External motor arrangement

Direct-drive extraction with a three-phase Ex-proof motor outside the transported-air path.

02 Casing and copper inlet

Corrosion-resistant sheet-steel casing and backward-curved centrifugal impeller. The Ex-proof arrangement uses a copper inlet.

03 Inspection access

Connect to matching rectangular ducts. Keep space for the inspection cover, external motor and terminal box.

CONFIGURE THE COMPLETE ASSEMBLY

Match the supplied assembly to the intended application. The motor reference and complete fan marking are separate records. Product photographs illustrate the series construction.

Selection parameter	Series reference
Mains reference	400 V / 3 phase / 50 Hz
Motor protection / insulation reference	IP55 / class F
Operating temperature	-20 to 40 °C
Maximum medium temperature	40 °C

Dedicated motor reference: II 2G Ex d IIC T4 Gb. Complete fan marking and certificate: to be confirmed.

02 / TECHNICAL DATA

Select the duct extraction duty.

06 CONFIGURATIONS / 400 V / 3 PHASE / 50 Hz

Model	Max. airflow m^3/h	Rated input W	Rated A	Rated speed rpm	Max. static Pa	Mass kg	LpA / 3 m dB(A)
VBF-R-EX 315T-4P	2000	250	0.87	1380	359	35	53
VBF-R-EX 355T-4P	3000	250	0.87	1380	510	36	58
VBF-R-EX 400T-4P	4100	370	1.2	1390	580	49	56
VBF-R-EX 450T-4P	5500	550	1.6	1395	690	52	58
VBF-R-EX 500T-4P	8000	1100	2.6	1410	870	74	64
VBF-R-EX 560T-4P	10500	2200	4.9	1420	1036	91	66

Maximum airflow, maximum static reference and rated motor values are separate records. Static references follow the highest supplied curve point. Polynomial approximations and nominal declarations can differ slightly. Rated and curve speeds remain independent; no speed scaling is applied.

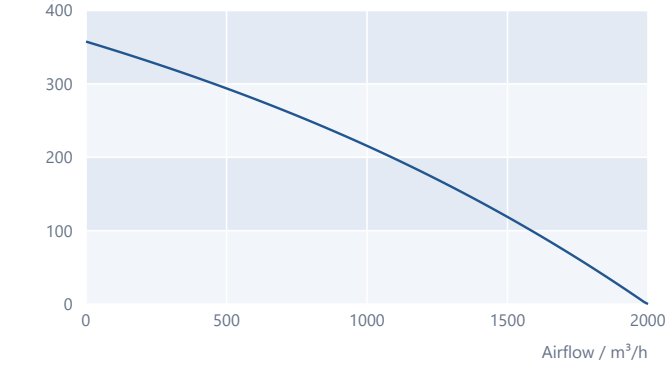
Reference	Available data
Performance basis	Dedicated Ex-proof configuration curves
Acoustic paths	Inlet / outlet / housing
Sound pressure reference	Published total at 3 m

03 / AIR PERFORMANCE

Fan Performance Curves

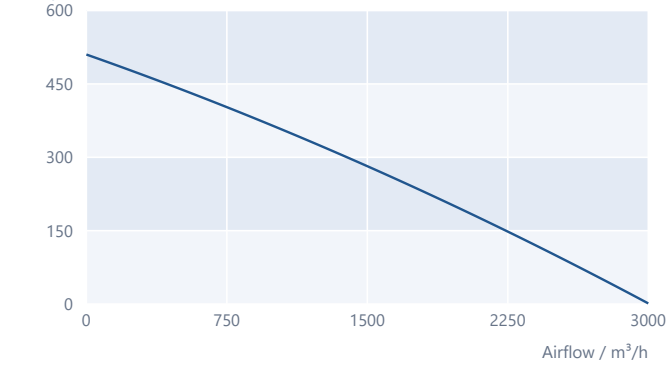
VBF-R-EX 315T-4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



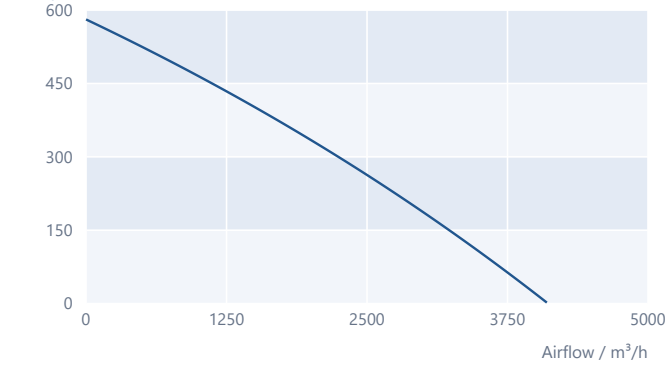
VBF-R-EX 355T-4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



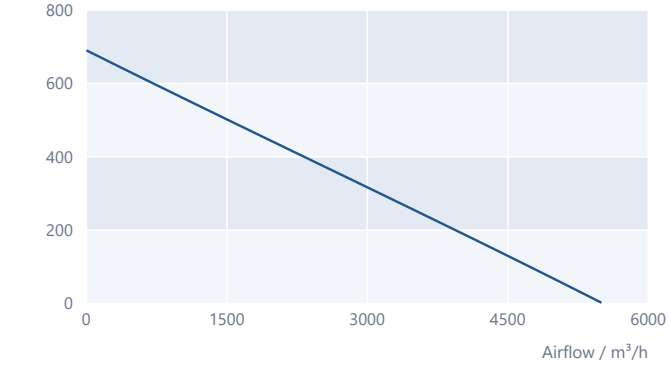
VBF-R-EX 400T-4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



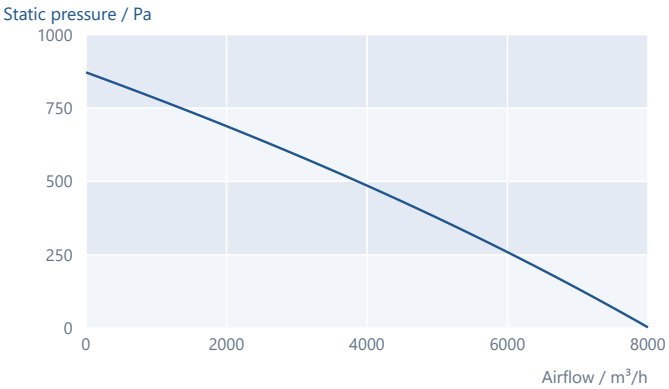
VBF-R-EX 450T-4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



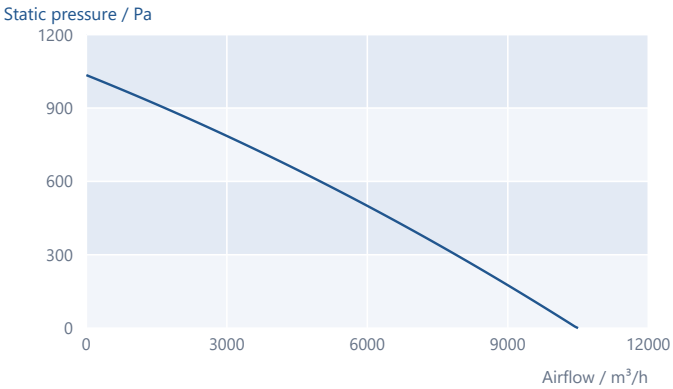
VBF-R-EX 500T-4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



VBF-R-EX 560T-4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



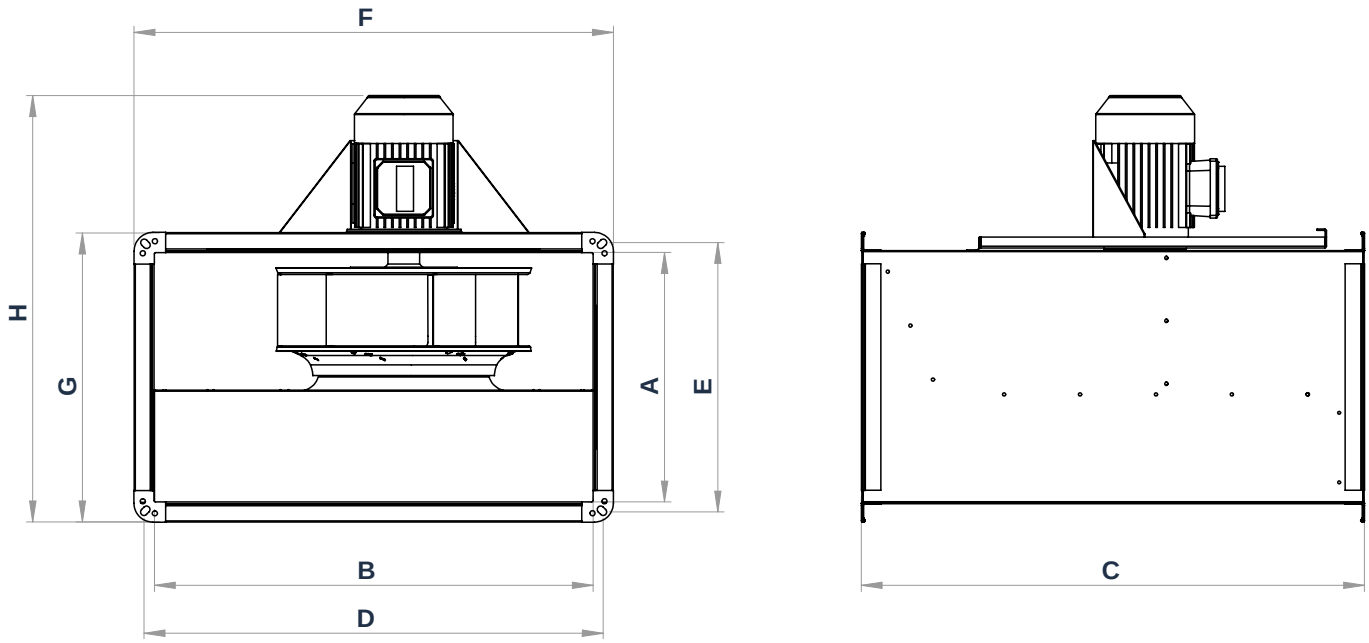
Exact 50 Hz coefficients and airflow domains retained. Model-specific scales. No speed conversion or re-fitting.

04 / DIMENSIONS

Coordinate the duct interface.

REPRESENTATIVE SERIES OUTLINE

All dimensions in mm



Model	A	B	C	D	E	F	G	H
VBF-R-EX 315T-4P	350	600	750	620	370	660	410	550
VBF-R-EX 355T-4P	350	600	750	620	370	660	410	650
VBF-R-EX 400T-4P	400	700	800	720	420	770	470	630
VBF-R-EX 450T-4P	400	700	800	720	420	770	470	630
VBF-R-EX 500T-4P	500	800	920	820	520	870	570	780
VBF-R-EX 560T-4P	500	1000	1050	1030	530	1070	570	780

Select the matching model row. The series outline is representative and is not drawn to scale. Provide fixing and service clearance.

05 / ACOUSTIC DATA

Sound references for each model.

OCTAVE-BAND SOUND POWER / dB(A)

Model	Path	65 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	Total
VBF-R-EX 315T-4P	Inlet	50	65	61	63	60	61	56	48	70
VBF-R-EX 315T-4P	Outlet	54	72	68	69	68	67	62	54	76
VBF-R-EX 315T-4P	Housing	27	57	53	50	49	48	49	37	60
VBF-R-EX 355T-4P	Inlet	50	61	67	65	68	66	63	60	74
VBF-R-EX 355T-4P	Outlet	51	61	69	71	71	73	67	70	78
VBF-R-EX 355T-4P	Housing	33	40	59	57	59	58	50	47	65
VBF-R-EX 400T-4P	Inlet	58	68	64	66	66	62	56	50	73
VBF-R-EX 400T-4P	Outlet	62	68	70	71	71	69	61	55	77
VBF-R-EX 400T-4P	Housing	40	60	57	52	51	46	38	35	63
VBF-R-EX 450T-4P	Inlet	50	65	61	63	60	61	56	48	70
VBF-R-EX 450T-4P	Outlet	54	72	68	69	68	67	62	54	76
VBF-R-EX 450T-4P	Housing	27	57	53	50	49	48	49	37	60
VBF-R-EX 500T-4P	Inlet	61	72	71	73	71	71	66	58	79
VBF-R-EX 500T-4P	Outlet	66	75	76	77	79	75	70	61	84
VBF-R-EX 500T-4P	Housing	45	68	64	61	61	60	54	43	71
VBF-R-EX 560T-4P	Inlet	84	70	77	76	78	75	71	65	84
VBF-R-EX 560T-4P	Outlet	71	80	81	82	83	80	74	65	89
VBF-R-EX 560T-4P	Housing	58	70	65	63	61	58	54	50	73

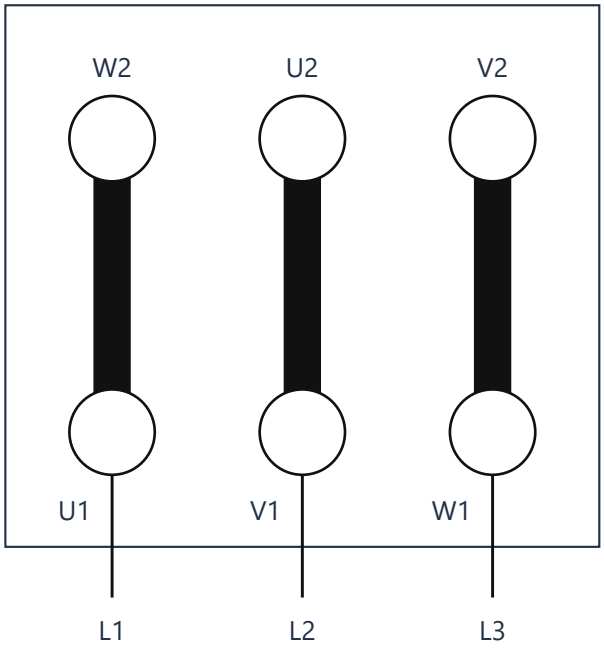
All supplied inlet, outlet and housing spectra are retained. The first band remains 65 Hz as supplied; totals are not arithmetic sums. Published sound-pressure totals at 3 m are listed in the technical table. Missing sound-pressure octave bands are not inferred.

06 / ELECTRICAL & EX-PROOF SCOPE

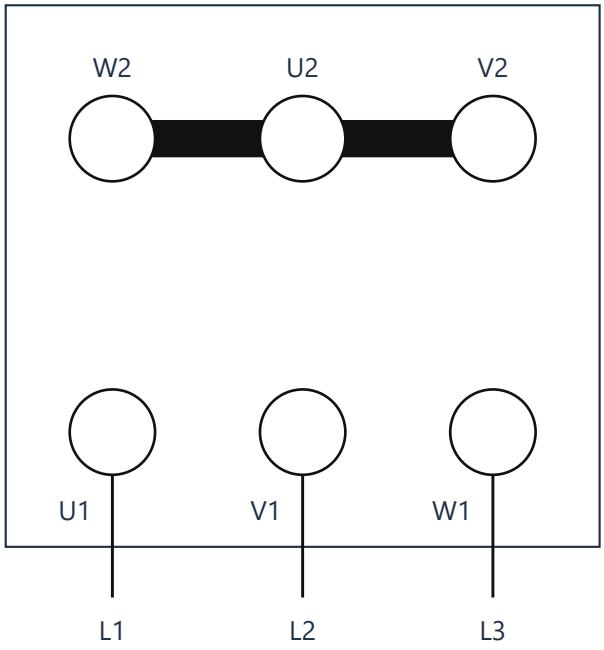
Connect the specified motor.

TERMINAL TOPOLOGY REFERENCE / VBF-R-EX

DELTA CONNECTION



STAR CONNECTION



Terminal topology reference only. Select the final star/delta connection from the supplied Ex-proof motor nameplate and instructions; 400 V alone does not determine the bridge arrangement. Connect protective earth and equipotential bonding as specified.

Reference	Configuration status
Published Ex-proof motor reference	II 2G Ex d IIC T4 Gb
Complete fan marking	To be confirmed
Complete fan certificate	To be confirmed

The motor reference concerns gas; dust approval is not established. Use the speed controller and motor protection permitted for the supplied Ex-proof assembly. Confirm its marking, certificate, temperature class and installation zone against the supplied documentation.

01 / PRODUCT OVERVIEW

VLF-T-EX

Ex-proof Tube Axial Fan

Ex-proof tube
axial fan



01 Tube casing and airfoil blades

Coated steel tube casing and a cast-aluminium airfoil impeller for ducted axial ventilation.

02 Motor and impeller clearance

A direct-drive Ex-proof motor is supported within the casing. An aluminium liner at the blade clearance reduces mechanical sparking risk.

03 Pitch and installation

Use the selected model-specific blade angle, flanges and supports. Keep blade pitch fixed during operation and provide inspection access.

CONFIGURE THE COMPLETE ASSEMBLY

Match the supplied assembly to the intended application. The motor reference and complete fan marking are separate records. Product photographs illustrate the series construction.

Selection parameter	Series reference
Mains reference	400 V / 3 phase / 50 Hz
Motor protection / insulation reference	IP55 / class F
Operating temperature	-20 to 40 °C
Maximum medium temperature	40 °C

Dedicated motor reference: II 2G Ex d IIC T4 Gb. Complete fan marking and certificate: to be confirmed.

02 / TECHNICAL DATA

Select the diameter and blade pitch.

16 CONFIGURATIONS / 400 V / 3 PHASE / 50 Hz

Model: diameter / blades-angle / motor / poles	Nominal Q m^3/h	Curve Q min. m^3/h	Curve Q max. m^3/h	Rated input W	Rated A	Rated rpm	Ps max. Pa
VLF-T-EX 400/6-20°/0.37kW/4P	3500	2150	3173	370	1.2	1390	116
VLF-T-EX 450/6-20°/0.55kW/4P	5300	3400	5240	550	1.6	1365	157
VLF-T-EX 500/6-20°/0.55kW/4P	7000	4375	7300	550	1.6	1365	204
VLF-T-EX 560/6-18°/0.75kW/4P	10000	5875	10350	750	2.1	1405	270
VLF-T-EX 630/6-16°/1.1kW/4P	14000	6500	13600	1100	2.6	1410	368
VLF-T-EX 710/6-14°/1.5kW/4P	17500	3500	17500	1500	3.5	1410	608
VLF-T-EX 800/6-10°/2.2kW/4P	23000	5500	20000	2200	5	1425	608
VLF-T-EX 800/6-14°/3kW/4P	25000	8500	24000	3000	6.6	1425	589
VLF-T-EX 900/6-12°/4kW/4P	35000	11000	31000	4000	8.4	1440	726
VLF-T-EX 900/6-16°/5.5kW/4P	40000	16000	38800	5500	11.2	1465	687
VLF-T-EX 1000/6-14°/7.5kW/4P	50000	18000	48000	7500	15.4	1465	804
VLF-T-EX 1000/6-20°/11kW/4P	60000	32000	59000	11000	21.3	1465	668
VLF-T-EX 1000/6-24°/15kW/4P	70000	40000	69400	15000	29.4	1465	657
VLF-T-EX 1000/6-28°/18.5kW/4P	80000	49000	77700	18500	34.5	1470	649
VLF-T-EX 1250/6-14°/22kW/4P	100000	39000	96800	22000	42.5	1470	981
VLF-T-EX 1250/6-20°/30kW/4P	115000	74000	115000	30000	55	1470	746

Nominal airflow is a separate declaration. The performance curves retain their original minimum and maximum airflow limits; no extrapolation to zero flow or to nominal airflow is applied. Rated motor speeds and polynomial curve-speed references are independent.

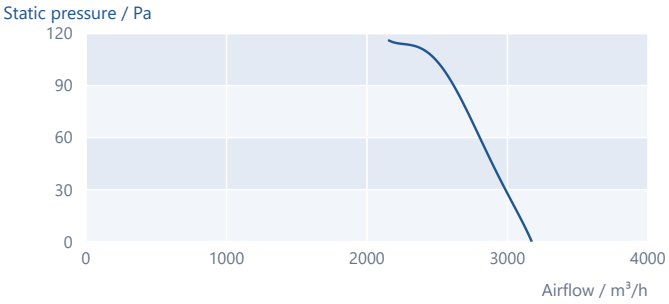
Model code: nominal diameter / number of blades - blade angle / rated motor power / motor poles. All dimensions, mass and published sound-pressure totals are listed separately.

03 / AIR PERFORMANCE

Fan Performance Curves

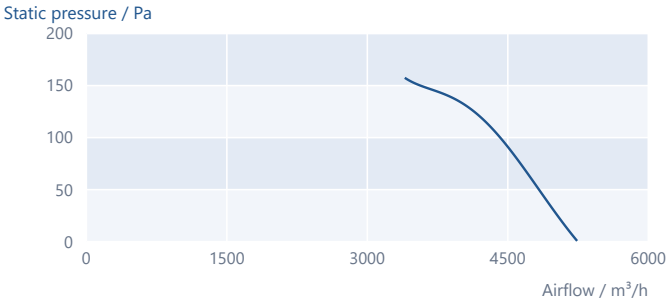
VLF-T-EX 400/6-20°/0.37kW/4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



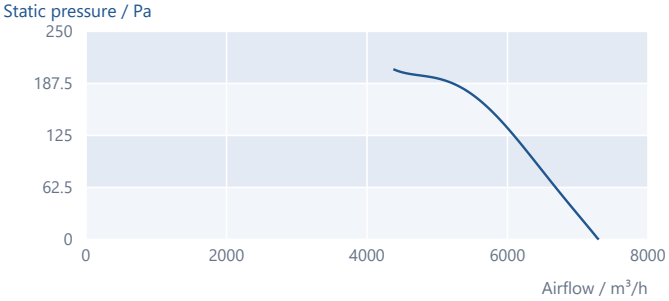
VLF-T-EX 450/6-20°/0.55kW/4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



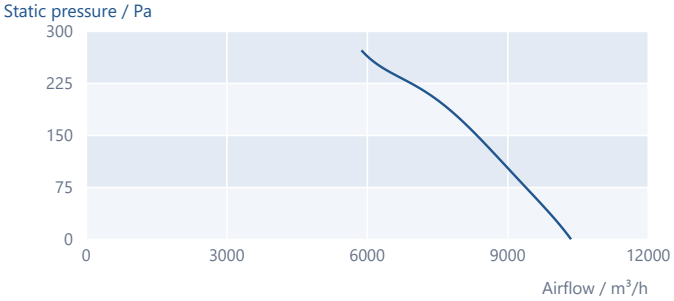
VLF-T-EX 500/6-20°/0.55kW/4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



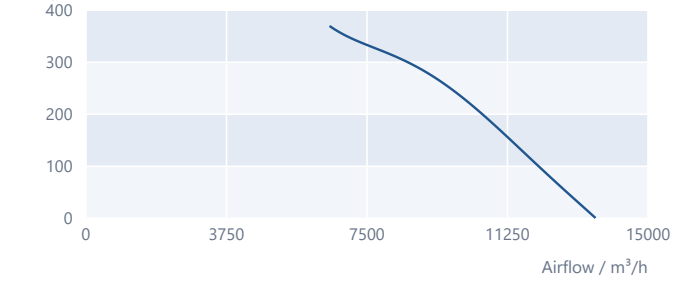
VLF-T-EX 560/6-18°/0.75kW/4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



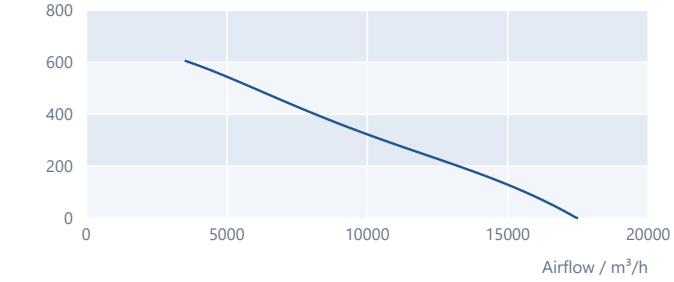
VLF-T-EX 630/6-16°/1.1kW/4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



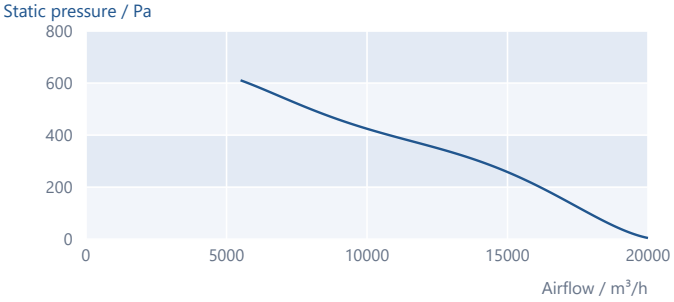
VLF-T-EX 710/6-14°/1.5kW/4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



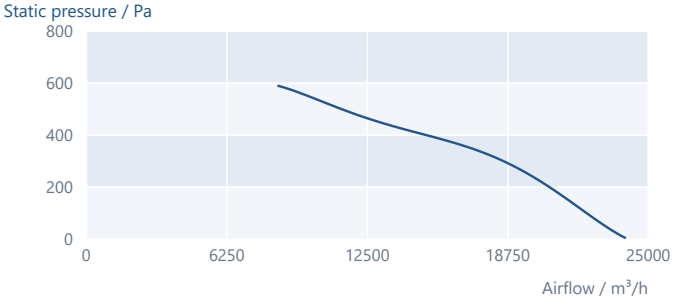
VLF-T-EX 800/6-10°/2.2kW/4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



VLF-T-EX 800/6-14°/3kW/4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



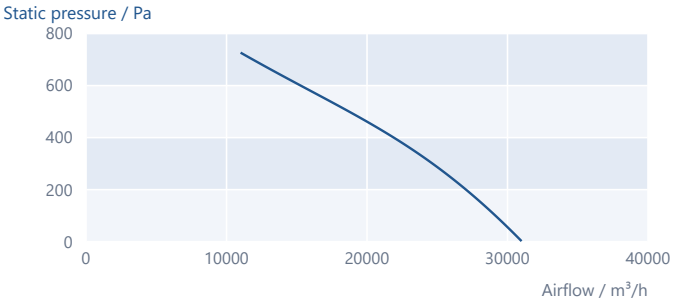
Exact 50 Hz coefficients and airflow domains retained. Model-specific scales. No speed conversion or re-fitting. Curves start at their supplied minimum airflow; blank areas are not extrapolated.

03 / AIR PERFORMANCE

Fan Performance Curves

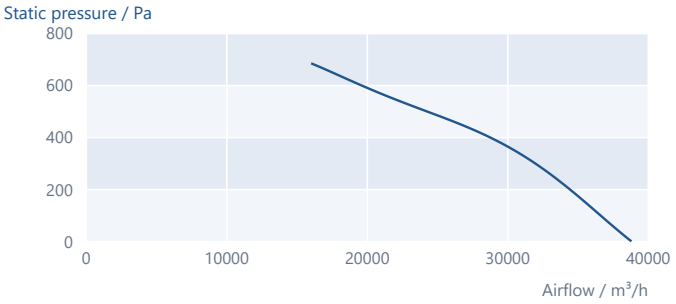
VLF-T-EX 900/6-12°/4kW/4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



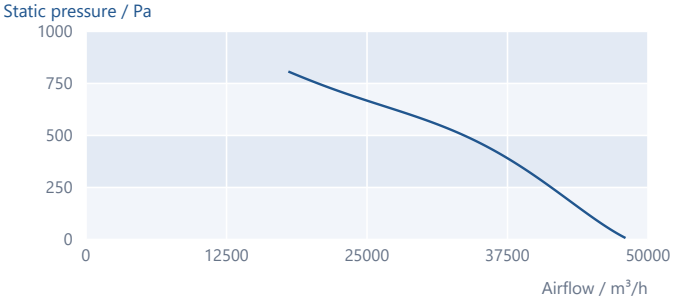
VLF-T-EX 900/6-16°/5.5kW/4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



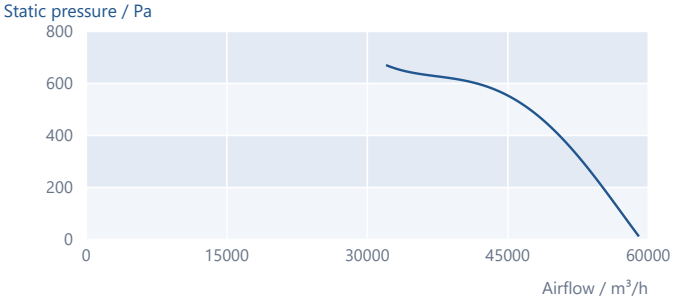
VLF-T-EX 1000/6-14°/7.5kW/4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



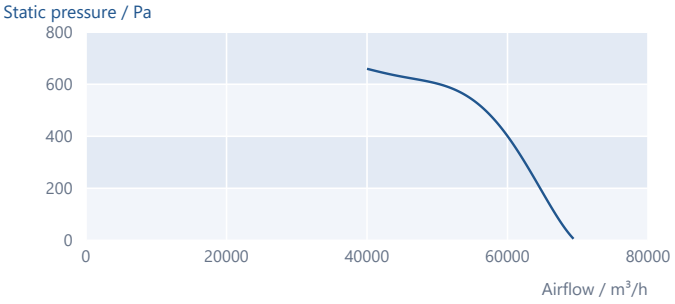
VLF-T-EX 1000/6-20°/11kW/4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



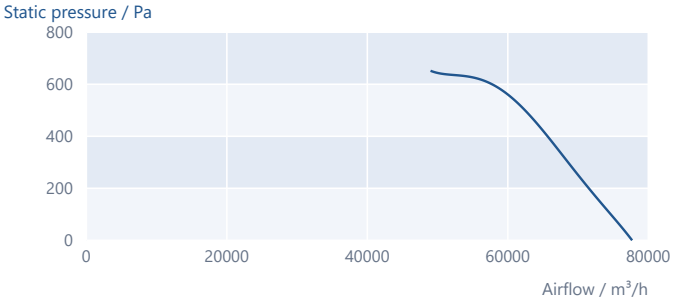
VLF-T-EX 1000/6-24°/15kW/4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



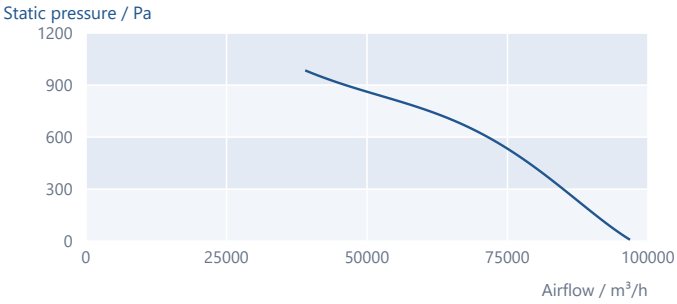
VLF-T-EX 1000/6-28°/18.5kW/4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



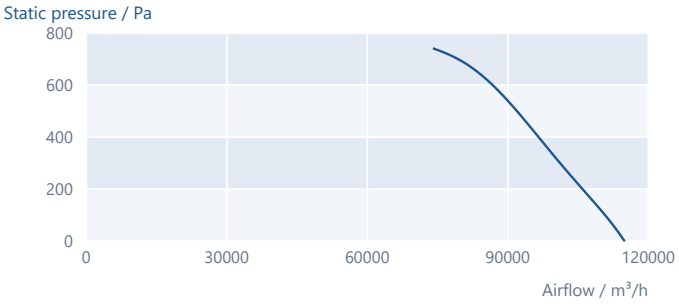
VLF-T-EX 1250/6-14°/22kW/4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



VLF-T-EX 1250/6-20°/30kW/4P

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



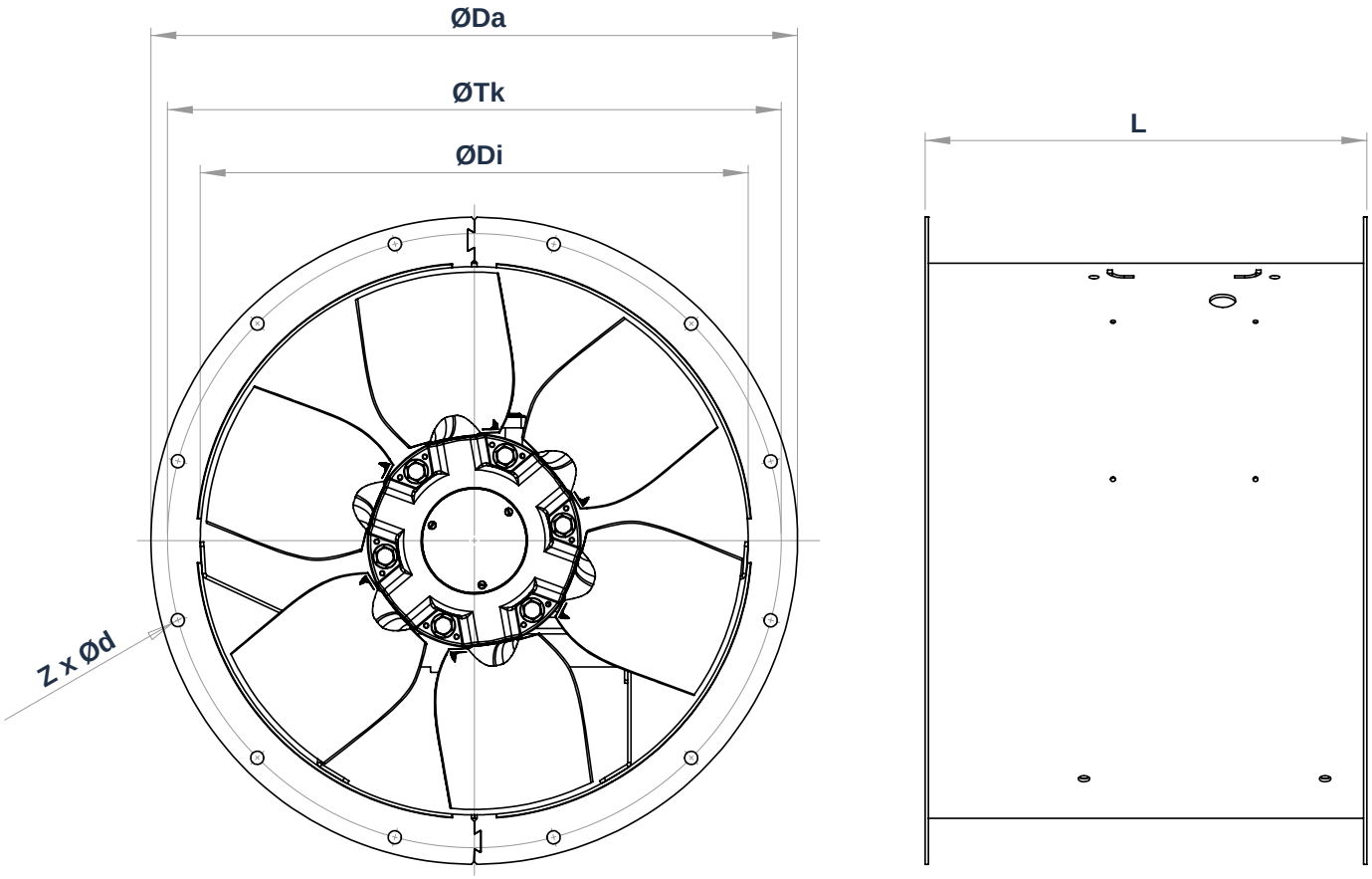
Exact 50 Hz coefficients and airflow domains retained. Model-specific scales. No speed conversion or re-fitting. Curves start at their supplied minimum airflow; blank areas are not extrapolated.

04 / DIMENSIONS

Coordinate the axial connection.

REPRESENTATIVE SERIES OUTLINE

Dimensions in mm; Z = hole count



Outline label	Meaning
ØDa	Outside flange diameter
ØTk	Fixing pitch-circle diameter
ØDi	Internal duct diameter
Z x Ød	Number of fixing holes x hole diameter
L	Casing length

Use the following model-specific table for the selected diameter and motor configuration. The outline is representative and is not drawn to scale.

04 / DIMENSIONS

Match the model to the interface.

MODEL-SPECIFIC FLANGE AND CASING DATA

Model	ØDa	ØTk	ØDi	Z	Ød	L
VLF-T-EX 400/6-20°/0.37kW/4P	480	450	400	8	12	350
VLF-T-EX 450/6-20°/0.55kW/4P	530	500	450	8	12	350
VLF-T-EX 500/6-20°/0.55kW/4P	590	560	500	12	12	400
VLF-T-EX 560/6-18°/0.75kW/4P	650	620	560	12	12	400
VLF-T-EX 630/6-16°/1.1kW/4P	720	690	630	12	12	400
VLF-T-EX 710/6-14°/1.5kW/4P	800	770	710	16	12	450
VLF-T-EX 800/6-10°/2.2kW/4P	890	860	800	16	12	500
VLF-T-EX 800/6-14°/3kW/4P	890	860	800	16	12	500
VLF-T-EX 900/6-12°/4kW/4P	1005	970	900	16	15	550
VLF-T-EX 900/6-16°/5.5kW/4P	1005	970	900	16	15	550
VLF-T-EX 1000/6-14°/7.5kW/4P	1105	1070	1000	16	15	700
VLF-T-EX 1000/6-20°/11kW/4P	1105	1070	1000	16	15	700
VLF-T-EX 1000/6-24°/15kW/4P	1105	1070	1000	16	15	700
VLF-T-EX 1000/6-28°/18.5kW/4P	1105	1070	1000	16	15	700
VLF-T-EX 1250/6-14°/22kW/4P	1390	1320	1250	20	15	850
VLF-T-EX 1250/6-20°/30kW/4P	1390	1320	1250	20	15	850

Dimensions in mm, except Z (number of fixing holes). Equal flange dimensions do not make different blade-angle and motor configurations interchangeable. Retain the full model identity when ordering.

05 / ACOUSTIC DATA

Sound references for each model.

PUBLISHED SOUND-PRESSURE TOTALS / 3 m

Model	Mass kg	LpA dB(A)	Distance m
VLF-T-EX 400/6-20°/0.37kW/4P	30	60	3
VLF-T-EX 450/6-20°/0.55kW/4P	32	62	3
VLF-T-EX 500/6-20°/0.55kW/4P	50	66	3
VLF-T-EX 560/6-18°/0.75kW/4P	55	63	3
VLF-T-EX 630/6-16°/1.1kW/4P	66	70	3
VLF-T-EX 710/6-14°/1.5kW/4P	75	71	3
VLF-T-EX 800/6-10°/2.2kW/4P	103	74	3
VLF-T-EX 800/6-14°/3kW/4P	110	76	3
VLF-T-EX 900/6-12°/4kW/4P	160	79	3
VLF-T-EX 900/6-16°/5.5kW/4P	170	81	3
VLF-T-EX 1000/6-14°/7.5kW/4P	205	84	3
VLF-T-EX 1000/6-20°/11kW/4P	242	86	3
VLF-T-EX 1000/6-24°/15kW/4P	262	87	3
VLF-T-EX 1000/6-28°/18.5kW/4P	302	88	3
VLF-T-EX 1250/6-14°/22kW/4P	373	94	3
VLF-T-EX 1250/6-20°/30kW/4P	388	94	3

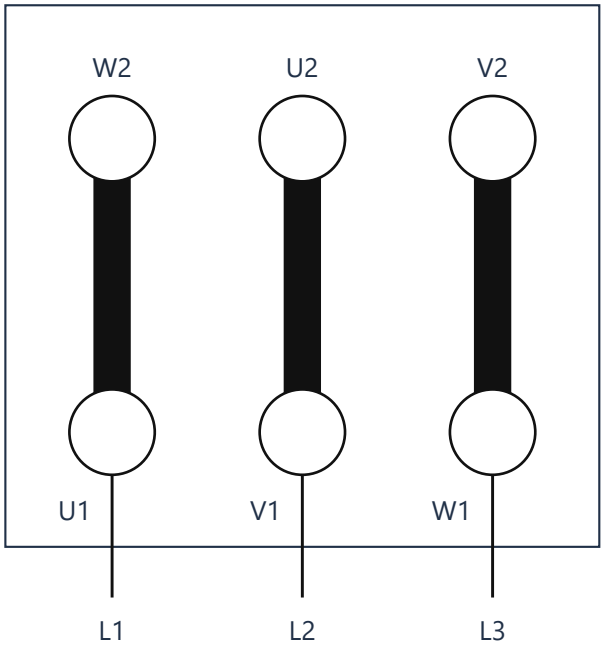
Published sound-pressure totals are retained at their 3 m reference distance. Usable octave-band spectra are not supplied for this Ex-proof series, so no inlet, outlet or housing spectrum is inferred. Installation-specific sound levels require the actual system conditions.

06 / ELECTRICAL & EX-PROOF SCOPE

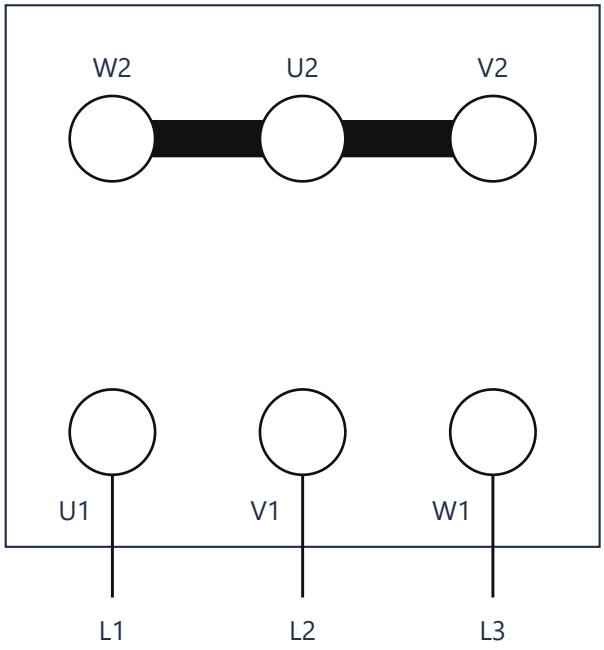
Connect the specified motor.

TERMINAL TOPOLOGY REFERENCE / VLF-T-EX

DELTA CONNECTION



STAR CONNECTION



Terminal topology reference only. Select the final star/delta connection from the supplied Ex-proof motor nameplate and instructions; 400 V alone does not determine the bridge arrangement. Connect protective earth and equipotential bonding as specified.

Reference	Configuration status
Published Ex-proof motor reference	II 2G Ex d IIC T4 Gb
Complete fan marking	To be confirmed
Complete fan certificate	To be confirmed

The motor reference concerns gas; dust approval is not established. Use the speed controller and motor protection permitted for the supplied Ex-proof assembly. Confirm its marking, certificate, temperature class and installation zone against the supplied documentation.

01 / PRODUCT OVERVIEW

VLPF-EX

Ex-proof Low-Pressure Centrifugal Fan

Ex-proof low-pressure centrifugal fan



01 Scroll casing and impeller

Coated steel scroll casing, circular inlet and rectangular discharge. A backward-curved impeller and copper inlet form the Ex-proof arrangement.

02 Installation and service

Support the fan on a rigid base. Avoid duct loads on the casing and provide access for impeller cleaning and motor service.

03 Two performance statuses

Models 6, 11 and 13 have dedicated Ex-proof data. The other ten models retain clearly labelled preliminary standard references.

CONFIGURE THE COMPLETE ASSEMBLY

Match the supplied assembly to the intended application. The motor reference and complete fan marking are separate records. Product photographs illustrate the series construction.

Selection parameter	Series reference
Mains reference	400 V / 3 phase / 50 Hz
Motor protection / insulation reference	IP55 / class F
Operating temperature	Upper operating limit: to be confirmed
Maximum medium temperature	55 °C for dedicated models only
Performance basis	3 dedicated Ex-proof / 10 preliminary references

Dedicated motor reference: II 2G Ex d IIC T4 Gb. Complete fan marking and certificate: to be confirmed. Preliminary models also require Ex-proof motor ratings and limits to be confirmed.

02 / TECHNICAL DATA

Select with the data status in view.

13 CONFIGURATIONS / 400 V / 3 PHASE / 50 Hz

Model	Basis	Nominal Q m^3/h	Curve Q max. m^3/h	Max. static Pa	Rated input W	Rated rpm	Rated A	Mass kg
VLPF-EX 1	P	2500	2500	400	250	1380	0.87	67
VLPF-EX 2	P	3500	4300	525	550	1365	1.6	78
VLPF-EX 3	P	5000	5000	600	750	1410	1.92	91
VLPF-EX 4	P	7000	7000	815	1500	1400	3.5	104
VLPF-EX 5	P	10000	10000	1050	2200	1420	4.9	145
VLPF-EX 6	D	12000	12000	1051	3000	1430	6.7	158
VLPF-EX 7	P	15000	15000	1320	4000	1440	8.4	175
VLPF-EX 8	P	18000	18000	1350	5500	1450	11.5	225
VLPF-EX 9	P	20000	20000	1630	7500	1455	16	240
VLPF-EX 10	P	23000	23000	1650	11000	1465	21.3	255
VLPF-EX 11	D	25000	25000	1700	15000	1470	29.4	325
VLPF-EX 12	P	30000	30000	2200	18500	1470	34.5	375
VLPF-EX 13	D	40000	40000	2400	22000	1475	43	410

D = dedicated Ex-proof data: models 6, 11 and 13. P = preliminary reference from the corresponding standard model. Every value in a P row, including motor ratings and mass, requires confirmation for the final Ex-proof assembly.

Model 2: nominal airflow is 3500 m^3/h; its preliminary curve extends to 4300 m^3/h. The nominal static reference is 525 Pa, while the polynomial starts at approximately 800 Pa. Both supplied records are retained. No curve scaling or re-fitting is applied.

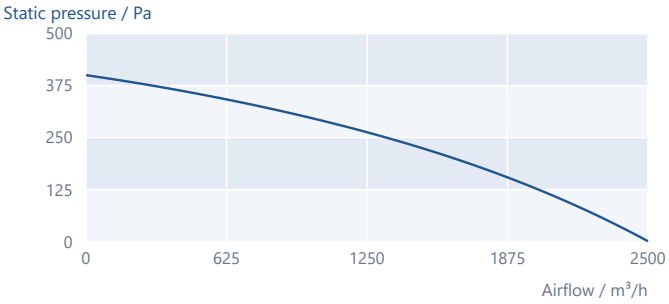
Dedicated model upper operating-temperature limits are not established. The 55 °C medium limit applies only to dedicated Ex-proof models; it does not confirm an ambient temperature limit.

03 / AIR PERFORMANCE

Fan Performance Curves

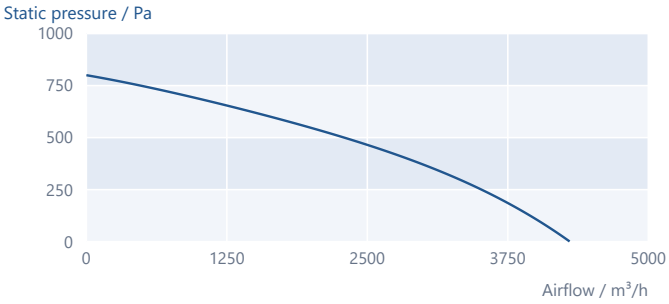
VLPF-EX 1

400 V / 3 phase / 50 Hz / PRELIMINARY STANDARD REFERENCE



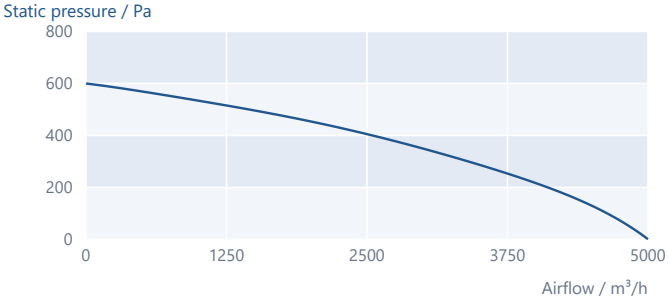
VLPF-EX 2

400 V / 3 phase / 50 Hz / PRELIMINARY STANDARD REFERENCE



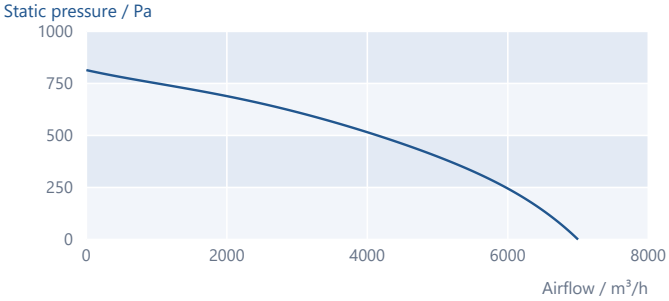
VLPF-EX 3

400 V / 3 phase / 50 Hz / PRELIMINARY STANDARD REFERENCE



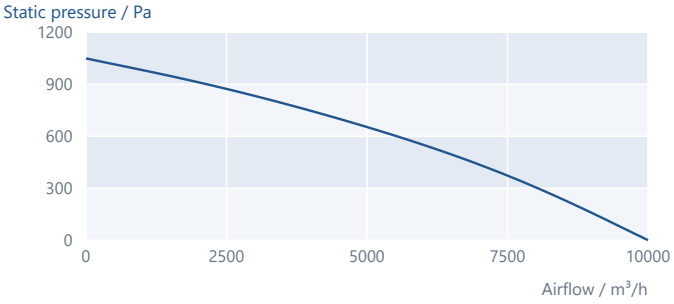
VLPF-EX 4

400 V / 3 phase / 50 Hz / PRELIMINARY STANDARD REFERENCE



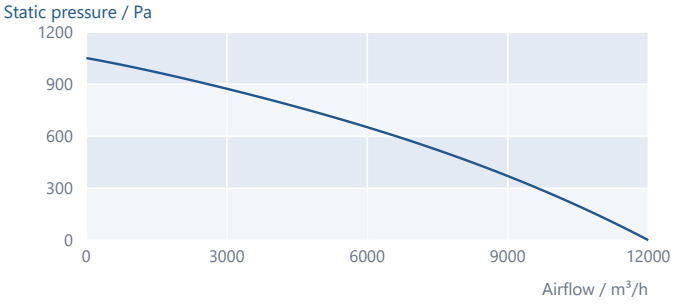
VLPF-EX 5

400 V / 3 phase / 50 Hz / PRELIMINARY STANDARD REFERENCE



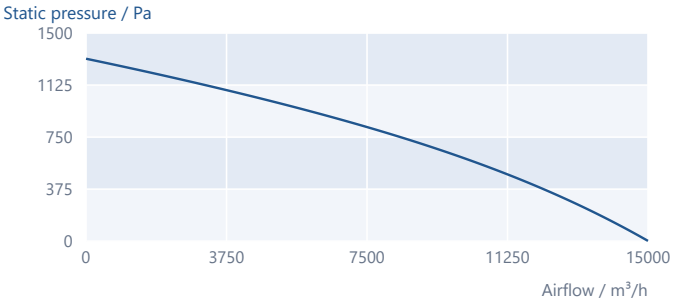
VLPF-EX 6

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



VLPF-EX 7

400 V / 3 phase / 50 Hz / PRELIMINARY STANDARD REFERENCE



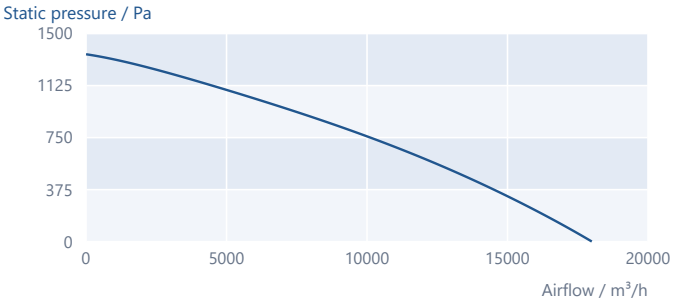
Exact 50 Hz coefficients and airflow domains retained. Model-specific scales. No speed conversion or re-fitting. PRELIMINARY curves are standard references; Ex-proof performance requires confirmation.

03 / AIR PERFORMANCE

Fan Performance Curves

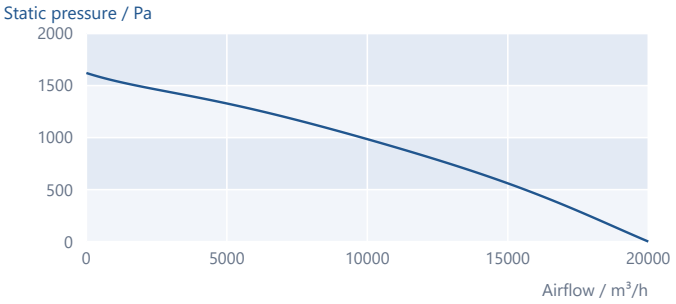
VLPF-EX 8

400 V / 3 phase / 50 Hz / PRELIMINARY STANDARD REFERENCE



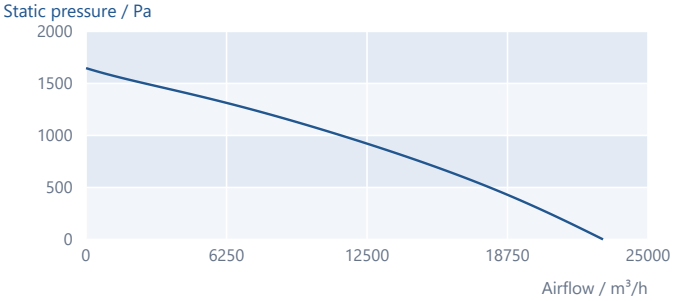
VLPF-EX 9

400 V / 3 phase / 50 Hz / PRELIMINARY STANDARD REFERENCE



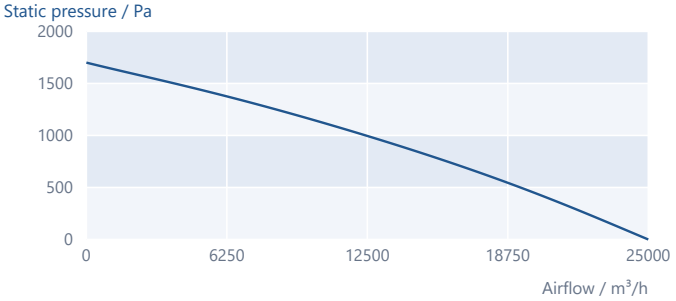
VLPF-EX 10

400 V / 3 phase / 50 Hz / PRELIMINARY STANDARD REFERENCE



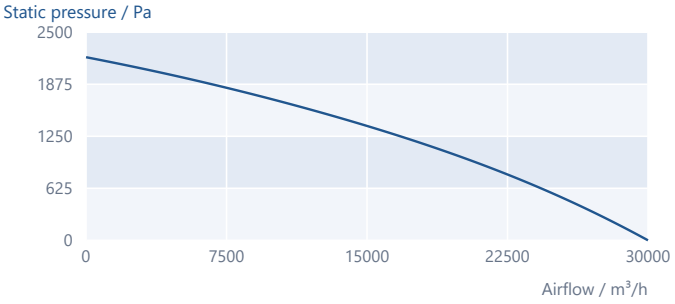
VLPF-EX 11

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



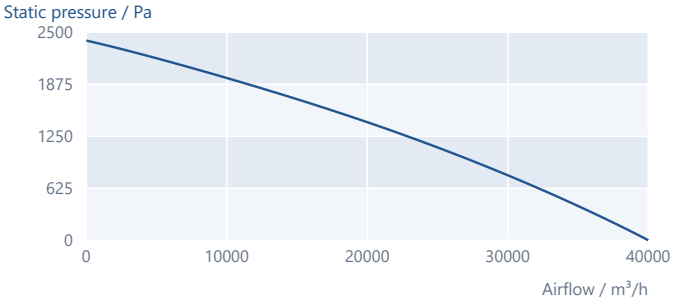
VLPF-EX 12

400 V / 3 phase / 50 Hz / PRELIMINARY STANDARD REFERENCE



VLPF-EX 13

400 V / 3 phase / 50 Hz / Dedicated Ex-proof data



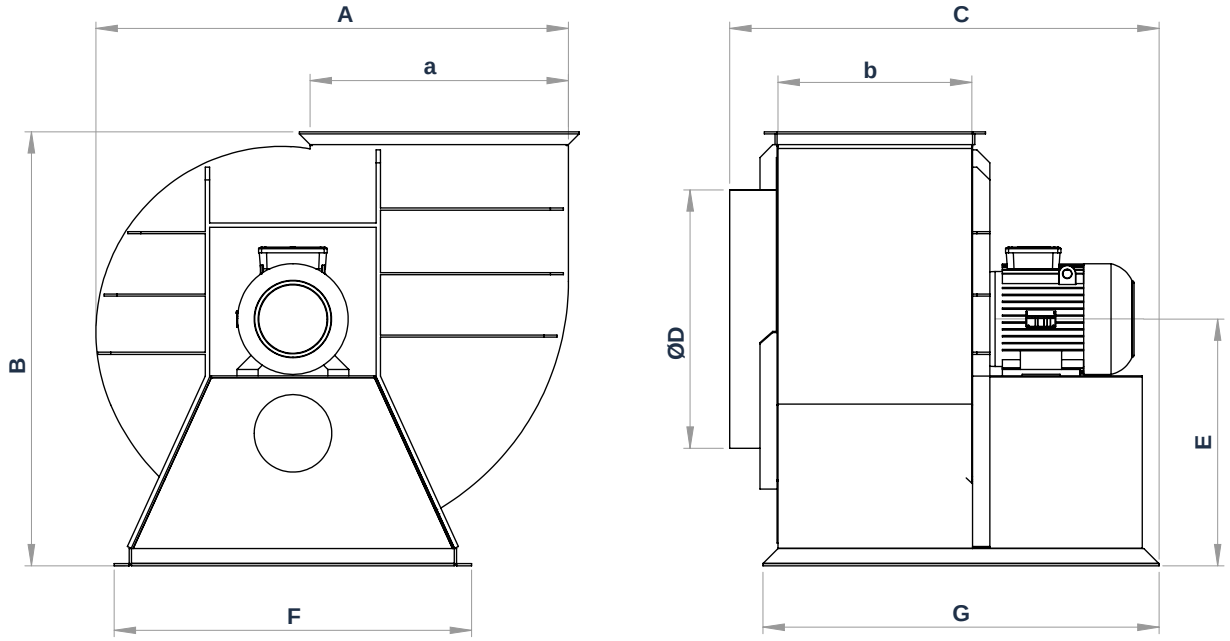
Exact 50 Hz coefficients and airflow domains retained. Model-specific scales. No speed conversion or re-fitting. PRELIMINARY curves are standard references; Ex-proof performance requires confirmation.

04 / DIMENSIONS

Coordinate the casing and flanges.

REPRESENTATIVE SERIES OUTLINE

All dimensions in mm



Model	Basis	A	a	B	b	C	ØD	E	F	G
VLPF-EX 1	P	515	195	507	185	474	225	291	420	445
VLPF-EX 2	P	580	225	584	205	495	260	325	460	460
VLPF-EX 3	P	699	335	680	275	650	310	386	560	590
VLPF-EX 4	P	782	377	760	300	685	350	435	635	615
VLPF-EX 5	P	872	414	883	320	771	400	520	733	696
VLPF-EX 6	D	925	436	900	350	826	450	515	755	755
VLPF-EX 7	P	1040	522	1015	396	886	500	602	740	825
VLPF-EX 8	P	1100	588	1008	450	997	600	573	830	920
VLPF-EX 9	P	1130	588	1080	500	1047	650	632	990	980
VLPF-EX 10	P	1272	664	1205	550	1176	700	703	1030	1105
VLPF-EX 11	D	1390	786	1265	600	1219	750	763	980	1145
VLPF-EX 12	P	1450	788	1365	600	1275	800	815	1050	1275
VLPF-EX 13	D	1576	826	1465	600	1275	850	847	1160	1290

D = dedicated Ex-proof dimensions; P = preliminary standard-model dimensions. Confirm final Ex-proof assembly dimensions before manufacture or installation. Representative outline; not to scale.

05 / ACOUSTIC DATA

Sound references for each model.

OCTAVE-BAND SOUND POWER / dB(A)

Model	Basis	Path	65 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	Total
VLPF-EX 1	P	Housing	37	48	61	65	64	63	61	57	70
VLPF-EX 2	P	Housing	40	51	64	68	67	66	64	60	73
VLPF-EX 3	P	Housing	44	55	68	72	71	70	68	64	77
VLPF-EX 4	P	Housing	48	59	72	76	75	74	72	68	81
VLPF-EX 5	P	Housing	51	62	75	79	78	77	75	71	84
VLPF-EX 6	D	Housing	53	64	77	81	80	79	77	73	86
VLPF-EX 7	P	Housing	56	67	80	84	83	82	80	76	89
VLPF-EX 8	P	Housing	57	68	81	85	84	83	81	77	90
VLPF-EX 9	P	Housing	59	70	83	87	86	85	83	79	92
VLPF-EX 10	P	Housing	61	72	85	89	88	87	85	81	94
VLPF-EX 11	D	Not supplied	--	--	--	--	--	--	--	--	--
VLPF-EX 12	P	Housing	63	74	87	91	90	89	87	83	96
VLPF-EX 13	D	Housing	65	76	89	93	92	91	89	85	98

D = dedicated Ex-proof acoustic reference. P = preliminary acoustic data from the standard model; Ex-proof values require confirmation. Model 11 has no usable octave spectrum. The first band remains 65 Hz as supplied; totals are not arithmetic sums.

PUBLISHED LpA / 3 m / dB(A)

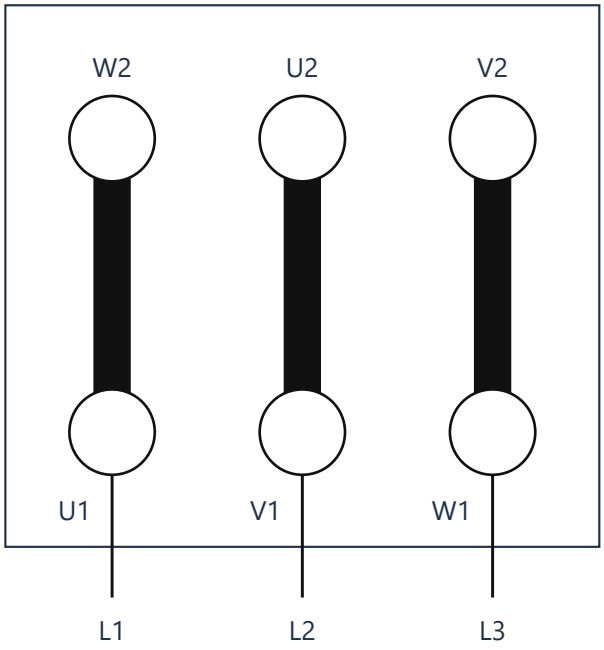
VLPF-EX 1 (P): 70
VLPF-EX 2 (P): 72
VLPF-EX 3 (P): 75
VLPF-EX 4 (P): 85
VLPF-EX 5 (P): 88
VLPF-EX 6 (D): 92
VLPF-EX 7 (P): 95
VLPF-EX 8 (P): 98
VLPF-EX 9 (P): 100
VLPF-EX 10 (P): 102
VLPF-EX 11 (D): 103
VLPF-EX 12 (P): 105
VLPF-EX 13 (D): 105

06 / ELECTRICAL & EX-PROOF SCOPE

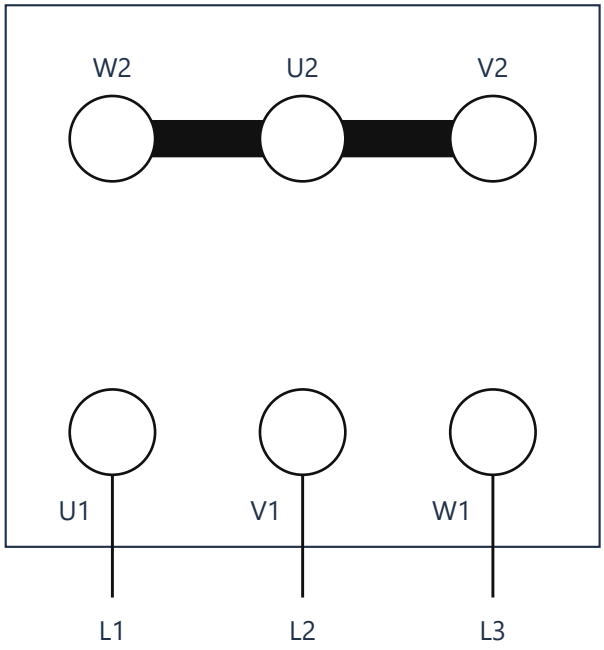
Connect the specified motor.

TERMINAL TOPOLOGY REFERENCE / VLPF-EX

DELTA CONNECTION



STAR CONNECTION



Terminal topology reference only. Select the final star/delta connection from the supplied Ex-proof motor nameplate and instructions; 400 V alone does not determine the bridge arrangement. Connect protective earth and equipotential bonding as specified.

Reference	Configuration status
Motor reference: dedicated models	II 2G Ex d IIC T4 Gb
Motor reference: preliminary models	To be confirmed
Complete fan marking	To be confirmed
Complete fan certificate	To be confirmed

The motor reference concerns gas; dust approval is not established. Use the speed controller and motor protection permitted for the supplied Ex-proof assembly. Confirm its marking, certificate, temperature class and installation zone against the supplied documentation.

01 / PRODUCT OVERVIEW

VYF-EX

Ex-proof Centrifugal Roof Fan

Ex-proof centrifugal roof fan



01 Motor outside the airflow

A directly driven centrifugal roof fan with a three-phase Ex-proof motor outside the transported-air path.

02 Casing and impeller

Sheet-steel casing, mounting plate and backward-curved impeller. A brass-plated inlet reduces mechanical sparking risk.

03 Roof installation & service

Coordinate the roof curb, weather sealing and supports. Keep the discharge clear and provide inspection access to the motor and impeller.

CONFIGURE THE COMPLETE ASSEMBLY

Match the supplied fan assembly and its documentation to the intended application. The published motor reference and the complete fan marking are separate records.

SERIES AT A GLANCE

Selection parameter	Series reference
Mains supply	400 V / 3 phase / 50 Hz
Motor protection / insulation	IP55 / class F
Operating temperature	-20 to 50 °C
Maximum medium temperature	50 °C

Published motor reference: II 2G Ex d IIC T4 Gb. Complete fan marking and certificate: to be confirmed. Refer to the electrical and Ex-proof scope section.

02 / TECHNICAL DATA

Select the roof extraction duty.

THREE-PHASE EX-PROOF CONFIGURATIONS / 50 Hz

Model	Max. airflow m^3/h	Rated input W	Rated A	Rated speed rpm	Max. static Pa	Mass kg	LpA / 3 m dB(A)
VYF-EX 280T-4P	1000	250	0.87	1380	240	35	53
VYF-EX 315T-4P	1950	250	0.87	1380	250	42	53
VYF-EX 355T-4P	2900	250	0.87	1380	330	50	55
VYF-EX 400T-4P	4000	370	1.2	1390	549	55	60
VYF-EX 450T-4P	5550	550	1.6	1365	549	62	62
VYF-EX 500T-4P	8300	1100	2.6	1410	751	68	64
VYF-EX 560T-4P	10800	2200	4.9	1420	950	75	66
VYF-EX 630T-4P	13000	3000	6.6	1425	511	127	60
VYF-EX 710T-4P	15000	4000	8.4	1440	591	150	63
VYF-EX 800T-4P	17000	7500	15.4	1465	700	216	67

Maximum airflow, maximum static reference and rated motor values are separate records. Static references follow the highest supplied curve point; separate nominal declarations may differ by 1 Pa. Polynomial approximations can also differ slightly. Rated and curve speeds remain independent; no rescaling is applied.

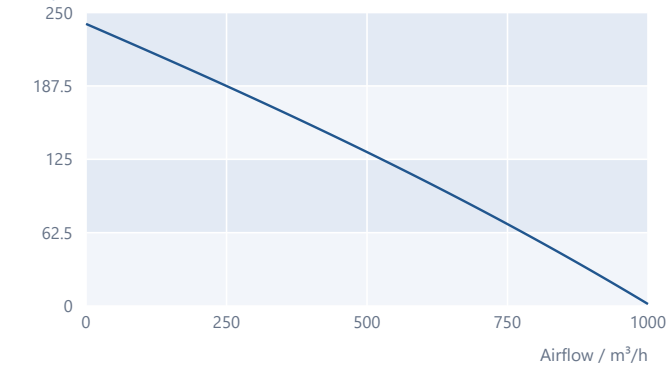
Reference	Available data
Performance basis	Dedicated Ex-proof configuration curves
Sound pressure reference	3 m; published totals
Outlet sound-power spectrum	Not supplied

03 / AIR PERFORMANCE

Fan Performance Curves

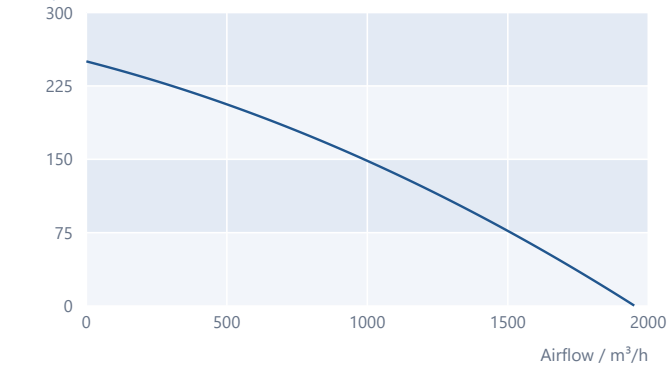
VYF-EX 280T-4P

400 V / 3 phase / 50 Hz / Ex-proof configuration



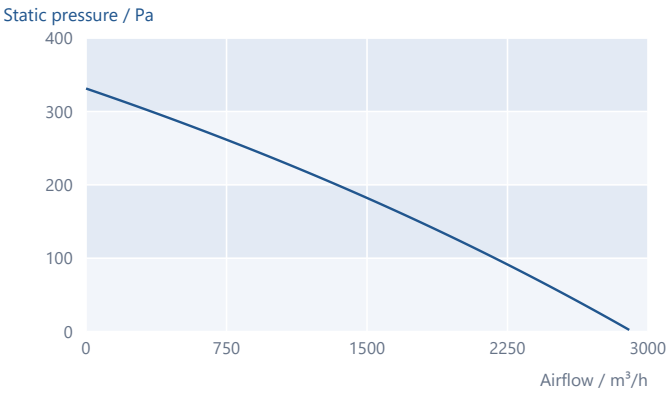
VYF-EX 315T-4P

400 V / 3 phase / 50 Hz / Ex-proof configuration



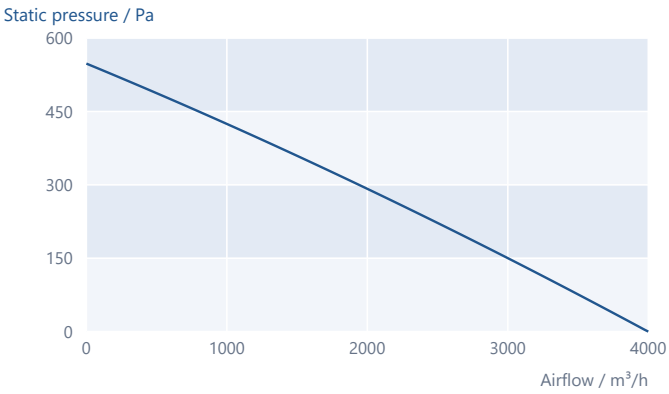
VYF-EX 355T-4P

400 V / 3 phase / 50 Hz / Ex-proof configuration



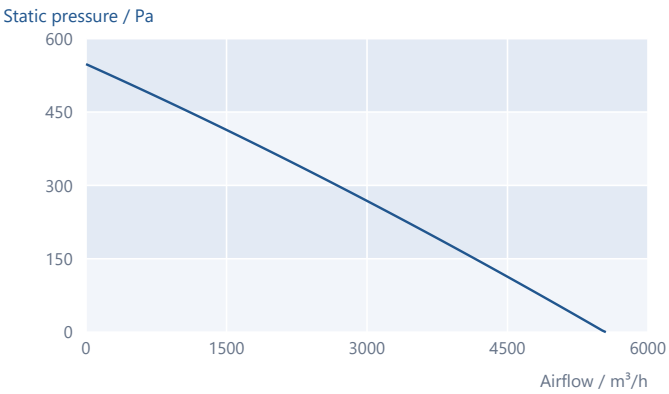
VYF-EX 400T-4P

400 V / 3 phase / 50 Hz / Ex-proof configuration



VYF-EX 450T-4P

400 V / 3 phase / 50 Hz / Ex-proof configuration



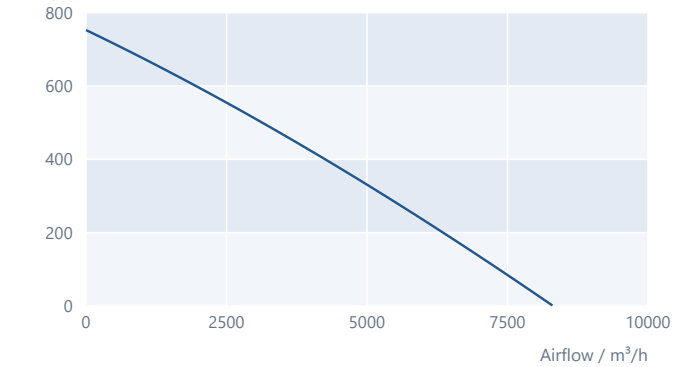
Original 50 Hz Ex-proof pressure data and airflow limits are retained. Rated motor parameters are separate references; no speed scaling or curve re-fitting is applied. Model-specific scales.

03 / AIR PERFORMANCE

Fan Performance Curves

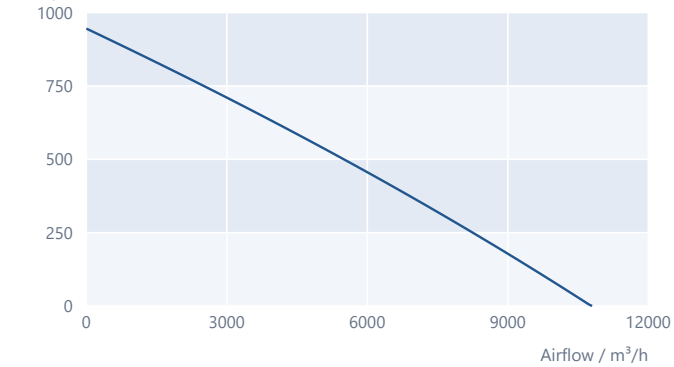
VYF-EX 500T-4P

400 V / 3 phase / 50 Hz / Ex-proof configuration



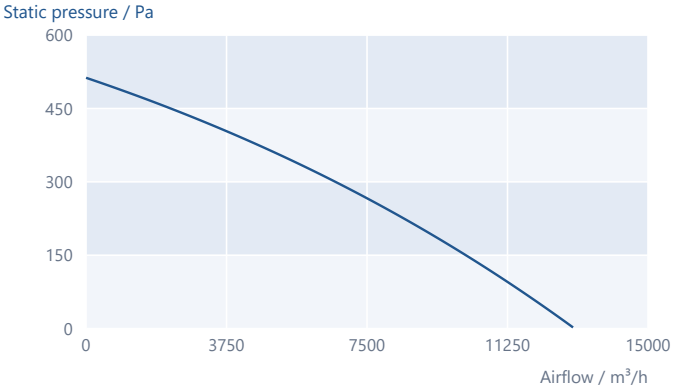
VYF-EX 560T-4P

400 V / 3 phase / 50 Hz / Ex-proof configuration



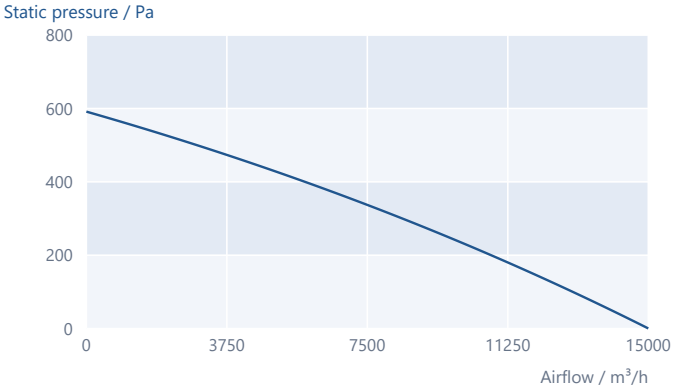
VYF-EX 630T-4P

400 V / 3 phase / 50 Hz / Ex-proof configuration



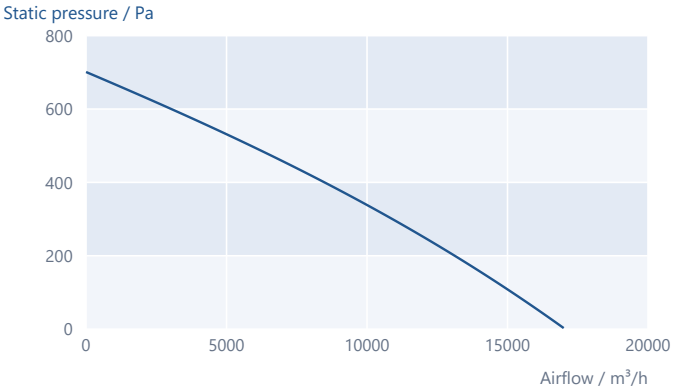
VYF-EX 710T-4P

400 V / 3 phase / 50 Hz / Ex-proof configuration



VYF-EX 800T-4P

400 V / 3 phase / 50 Hz / Ex-proof configuration



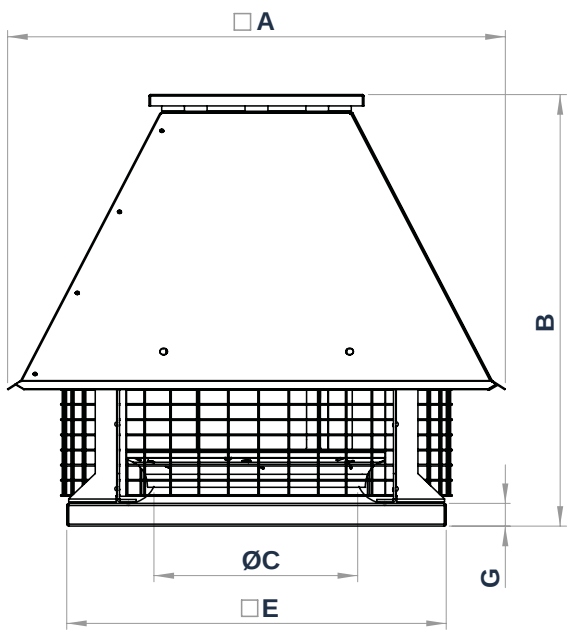
Original 50 Hz Ex-proof pressure data and airflow limits are retained. Rated motor parameters are separate references; no speed scaling or curve re-fitting is applied. Model-specific scales.

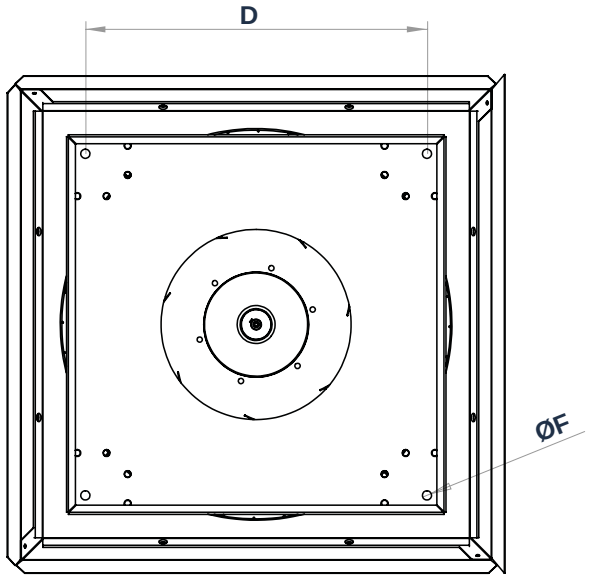
04 / DIMENSIONS

Coordinate the roof interface.

REPRESENTATIVE SERIES OUTLINE

All dimensions in mm





Model	A	B	ØC	D	E	ØF	G
VYF-EX 280T-4P	522	495	165	354	404	10	30
VYF-EX 315T-4P	595	555	198	404	454	10	30
VYF-EX 355T-4P	656	555	234	450	500	10	30
VYF-EX 400T-4P	656	585	268	450	500	12	30
VYF-EX 450T-4P	656	616	303	530	580	12	44
VYF-EX 500T-4P	766	660	342	590	640	12	44
VYF-EX 560T-4P	828	723	380	650	700	12	44
VYF-EX 630T-4P	997	922	445	680	730	12	54
VYF-EX 710T-4P	1095	991	500	710	780	12	54
VYF-EX 800T-4P	1205	1172	542	850	900	12	54

Use the row for the selected model. The original outline is representative and is not drawn to scale. Coordinate the roof opening, fixing points, weather sealing and inspection access.

05 / ACOUSTIC DATA

Sound power by radiation path.

OCTAVE-BAND SOUND POWER / dB(A)

Model	Path	65 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz	Total
VYF-EX 280T-4P	Inlet	45	63	67	69	68	65	60	53	74
VYF-EX 280T-4P	Housing	47	65	69	71	70	67	62	55	76
VYF-EX 315T-4P	Inlet	46	63	68	69	68	64	59	55	74
VYF-EX 315T-4P	Housing	45	66	70	70	71	67	63	55	76
VYF-EX 355T-4P	Inlet	47	65	69	71	70	67	62	55	76
VYF-EX 355T-4P	Housing	49	67	69	73	72	69	64	57	78
VYF-EX 400T-4P	Inlet	68	69	74	76	75	72	68	60	81
VYF-EX 400T-4P	Housing	70	72	76	78	77	74	69	62	83
VYF-EX 450T-4P	Inlet	69	73	75	77	76	73	68	63	82
VYF-EX 450T-4P	Housing	73	73	77	79	78	75	70	73	85
VYF-EX 500T-4P	Inlet	67	69	73	75	74	71	76	59	82
VYF-EX 500T-4P	Housing	74	76	81	82	81	78	73	66	87
VYF-EX 560T-4P	Inlet	74	76	80	82	81	78	73	66	87
VYF-EX 560T-4P	Housing	76	78	82	84	83	80	75	68	89
VYF-EX 630T-4P	Inlet	67	70	73	75	74	71	66	60	80
VYF-EX 630T-4P	Housing	69	72	75	78	76	73	68	57	83
VYF-EX 710T-4P	Inlet	70	73	76	78	77	74	69	63	83
VYF-EX 710T-4P	Housing	72	75	78	81	79	76	71	60	86
VYF-EX 800T-4P	Inlet	75	77	81	83	82	79	74	67	88
VYF-EX 800T-4P	Housing	77	79	83	85	84	81	76	69	90

The supplied inlet and housing sound-power bands and totals are retained for each model. The first band remains 65 Hz as supplied. Totals are not arithmetic sums. An outlet sound-power spectrum is not supplied.

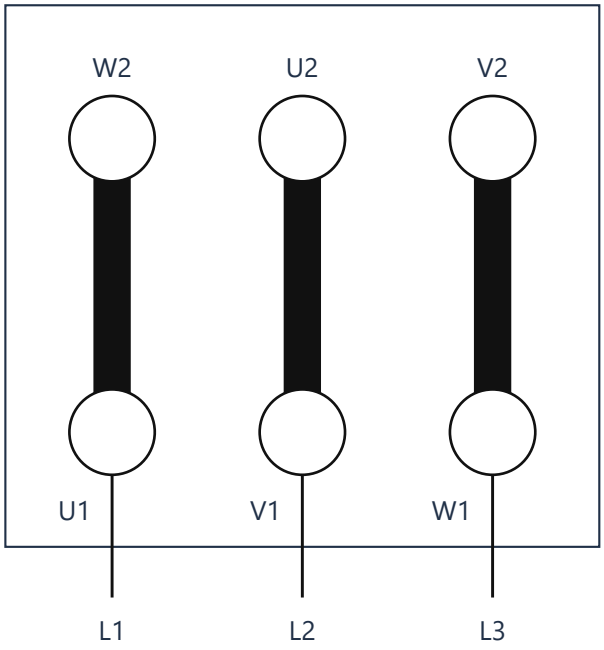
Published sound-pressure totals at 3 m appear in the technical table. Sound-pressure octave bands and installation-specific acoustic predictions are not inferred.

06 / ELECTRICAL & EX-PROOF SCOPE

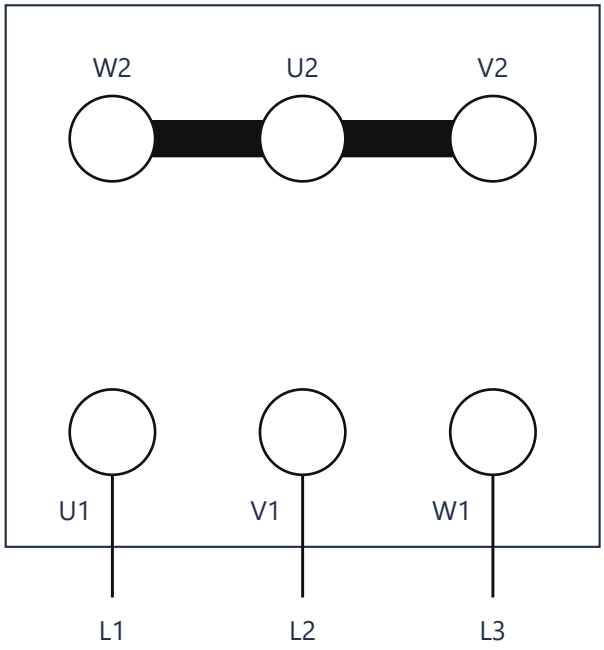
Connect the specified motor.

TERMINAL TOPOLOGY REFERENCE / VYF-EX

DELTA CONNECTION



STAR CONNECTION



Terminal topology reference only. Select the final star/delta connection from the supplied Ex-proof motor nameplate and instructions; 400 V alone does not determine the bridge arrangement. Connect protective earth and equipotential bonding as specified.

Reference	Configuration status
Published Ex-proof motor reference	II 2G Ex d IIC T4 Gb
Complete fan marking	To be confirmed
Complete fan certificate	To be confirmed

The motor reference concerns gas; dust approval is not established. Use the speed controller and motor protection permitted for the supplied Ex-proof assembly. Confirm its marking, certificate, temperature class and installation zone against the supplied documentation.



08

SMOKE EXTRACT FANS

F300/F400°C 2h

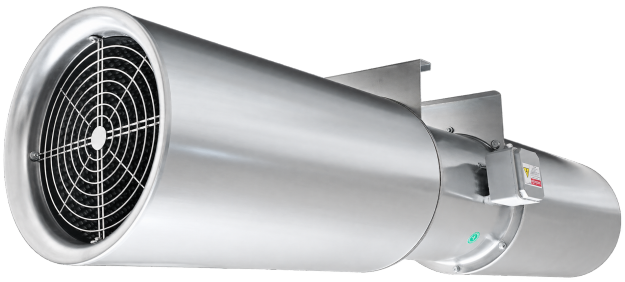
SERIES DIRECTORY

VLF-CP	369
VLF-CC	375
VLF-TNL-JF	381
VLF-TS	388
VLF-BS	407
VLF-RS	426

01 / PRODUCT OVERVIEW

VLF-CP

Axial Jet Fan



01 Impulse ventilation

Ceiling-mounted axial jet fans for car park and tunnel ventilation. A cylindrical casing houses an aluminium-alloy airfoil impeller.

02 Two directional models

UND provides one-way airflow. RVS provides reversible airflow. Select the direction code independently of the pictured configuration.

03 Two nominal speeds

Each model includes the supplied low-speed and high-speed airflow, thrust, motor power, current and sound-pressure values.

F300

300°C / 120 minutes

F400

400°C / 120 minutes

SHARED F300°C / F400°C SELECTION DATA

The two smoke-duty options share nominal performance and dimensions. Specify the required class for the supplied unit. Both VLF-CP and VLF-CPS image configurations are presented on the next page.

Selection parameter	Range
Fan diameters	315 / 355 / 400 mm
Motor supply / poles	400 V / 3 phase / 50 Hz / 2-4 poles
Motor insulation / protection	Class H / IP55

F300°C / F400°C denotes the smoke-duty specification, not the ordinary ambient operating limit. Final classification and motor data follow the supplied unit documentation.

02 / PRODUCT CONFIGURATIONS

Two configurations. One selection range.



Circular grille configuration

Cylindrical casing with a rounded end ring and concentric wire safety grille. Shown with ceiling mounting brackets and an external terminal box.



Guide-bar end configuration

Extended cylindrical end ring with three horizontal guide bars and an inner mesh guard. Shown with ceiling mounting brackets and an external terminal box.

VLF-CP / VLF-CPS identify the pictured configurations. UND / RVS identifies airflow direction independently. Both configurations use the shared nominal selection data; separate VLF-CPS attenuation figures are not specified. Confirm final assembly dimensions and acoustic specification when ordering.

03 / NOMINAL PERFORMANCE

Compare both operating speeds.

SHARED F300°C / F400°C DATA / 400 V / 50 Hz

Model VLF-CP	Speed	Airflow m^3/h	Thrust N	Motor kW	Speed rpm	LpA at 3 m dB(A)
315-UND	Low	2 300	6.3	0.2	1390	49
315-UND	High	4 600	25	0.8	2810	66
315-RVS	Low	2 250	6	0.2	1390	45
315-RVS	High	4 500	24	0.8	2810	62
355-UND	Low	3 450	11.3	0.25	1435	52
355-UND	High	6 900	45	1.1	2900	70
355-RVS	Low	3 270	10	0.25	1435	48
355-RVS	High	6 540	41	1.1	2900	66
400-UND	Low	5 000	18.7	0.37	1420	53
400-UND	High	10 000	75	1.5	2845	72
400-RVS	Low	4 875	17.5	0.37	1420	45
400-RVS	High	9 750	70	1.5	2845	68

NOMINAL SPEED POINTS

Each row is a supplied nominal speed condition. Airflow and thrust refer to the same condition. Pressure curves and fan/system duty calculations are not supplied for this jet fan range.

LpA is the sound-pressure level at 3 m. Octave-band data and separate acoustic attenuation for the VLF-CPS pictured option are not supplied. The table does not infer intermediate speeds or reverse-direction performance beyond the stated RVS model data.

04 / ELECTRICAL & MODEL DATA

Select the direction and motor.

400 V / THREE PHASE / 50 Hz / TWO-SPEED 2-4 POLE MOTOR

Model VLF-CP	Low speed A	High speed A	Weight kg	Protection	Insulation	Efficiency
315-UND	0.6	1.91	91	IP55	Class H	IE1
315-RVS	0.6	1.91	93	IP55	Class H	IE1
355-UND	0.55	2.2	98	IP55	Class H	IE1
355-RVS	0.55	2.2	100	IP55	Class H	IE1
400-UND	0.8	3.4	105	IP55	Class H	IE1
400-RVS	0.8	3.4	107	IP55	Class H	IE1

UND Unidirectional

One-way airflow configuration. The model suffix UND applies at each of the three fan diameters.

RVS Reversible

Bidirectional configuration. Select the RVS model using its own stated nominal values; do not substitute the UND performance.

ORDERING INFORMATION

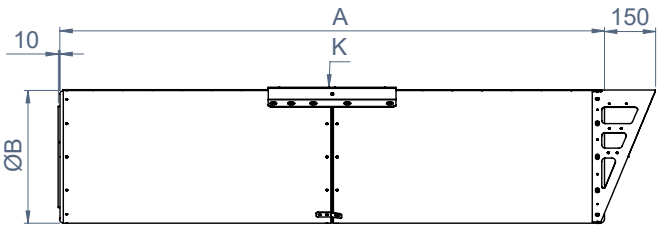
State series, diameter, direction code, pictured configuration and required smoke class. Example: VLF-CP 355-RVS, VLF-CPS image configuration, F400°C / 120 minutes. Confirm the final assembly designation and nameplate before ordering.

Motor efficiency is IE1. The minimum ordinary operating temperature is -20°C; a maximum ordinary ambient limit is not supplied. F300°C / F400°C is a separate smoke-duty rating.

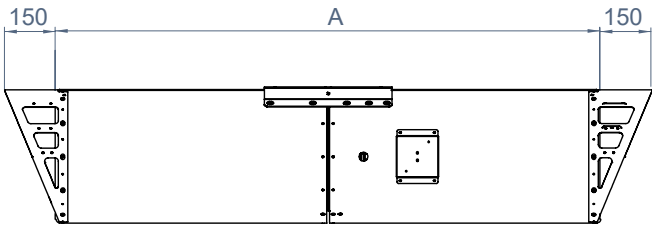
05 / DIMENSIONAL DATA

Plan the ceiling installation.

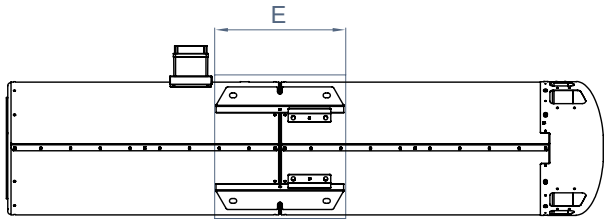
VLF-CP FAMILY DRAWING / ALL DIMENSIONS IN mm

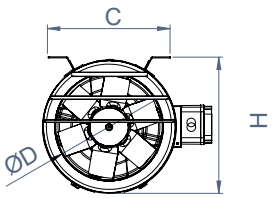


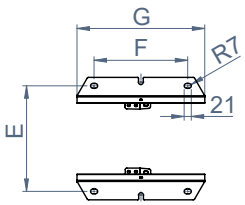
UNIDIRECTIONAL JET FAN



REVERSIBLE JET FAN







View K

Size	A	B	C	D	E	F	G	H
315	1600	390	360	315	310	275	375	400
355	1700	455	410	355	360	275	375	465
400	1850	500	450	400	400	350	450	510

The original vector drawing distinguishes unidirectional and reversible end arrangements. A-H retain the FSP dimension labels and numerical values. The three size rows apply to both direction codes and both smoke-duty options.

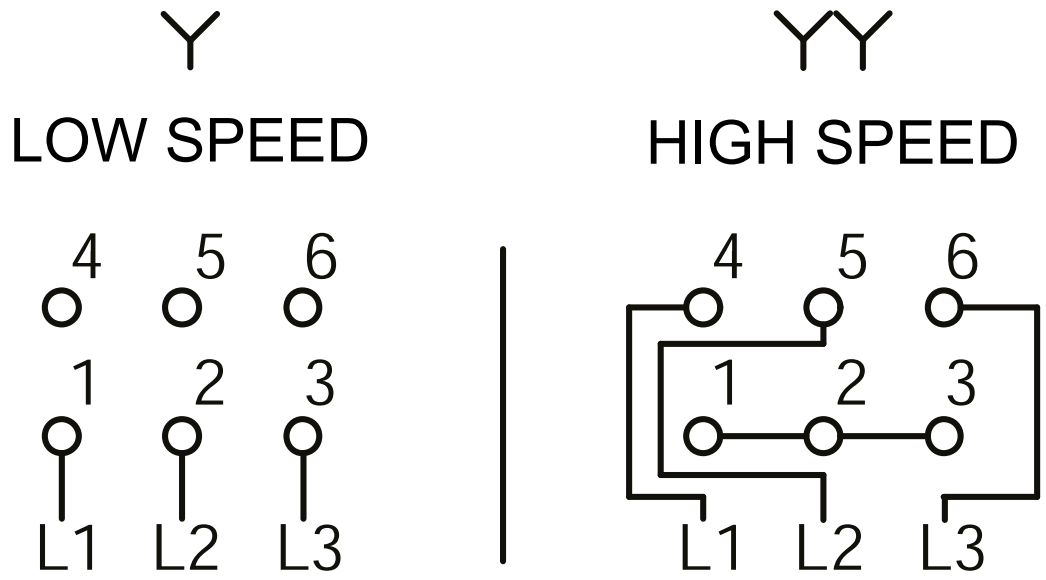
The drawing is the VLF-CP family reference supplied in FSP. A separate dimension drawing for the pictured VLF-CPS arrangement is not available; confirm the final overall size, end arrangement and mounting details for the supplied unit.

06 / CONNECTION & INSTALLATION

Connect the specified two-speed motor.

TWO-SPEED CONNECTION REFERENCE

The diagram shows low-speed star (Y) and high-speed double-star (YY) connections. Terminal numbers, links and phase labels are retained from the original vector diagram.



VLF-CP / 400 V / 3 PHASE / 50 Hz / 2-4 POLES

This is the connection reference supplied for the VLF-CP family. The final two-speed winding and terminal identification must match the supplied motor nameplate and connection sheet. Select UND or RVS and use the corresponding supplied control arrangement.

CEILING SUPPORTS & AIR PATH

Provide suitable ceiling supports and maintenance access. Keep the intake and jet discharge clear. Coordinate fan locations and airflow direction with the car park ventilation design and smoke-control project requirements.

Isolate the supply before installation or inspection. Emergency operation, motor protection and switching follow the supplied unit documentation and project specification.

01 / PRODUCT OVERVIEW

VLF-CC

Radial Jet Fan



01 Low-profile casing

A compact galvanized sheet-steel casing supports ceiling-mounted impulse ventilation in car parks with limited ceiling height.

02 Directed jet discharge

Vertical intake and horizontal jet discharge move air along the planned ventilation route. Provide clear inlet and outlet paths.

03 Three nominal model sizes

50N, 70N and 90N provide two nominal operating speeds. Select using the stated airflow and actual thrust values for each model.

F300

300°C / 120 minutes

F400

400°C / 120 minutes

SHARED F300°C / F400°C SELECTION DATA

Both smoke-duty options use the same nominal performance and dimensions within each model. Motor specifications and acoustic reference distances vary by model; see the following tables.

Selection parameter	Range
Models	50N / 70N / 90N
High-speed airflow	6 750 / 7 009 / 7 641 m^3/h
High-speed thrust	48 / 70 / 90 N

The 50N model designation is retained from FSP; its listed high-speed thrust is 48 N. Product image is a family illustration. Final unit construction and classification follow the supplied documentation.

02 / NOMINAL PERFORMANCE

Compare both operating speeds.

SHARED F300°C / F400°C NOMINAL SPEED POINTS

Model VLF-CC	Speed	Airflow m^3/h	Thrust N	Motor kW	Speed rpm	Velocity m/s	Sound* dB(A)
50N	Low	3 375	12	0.3	705	-	52
50N	High	6 750	48	1.2	1430	-	73
70N	Low	3 500	19	0.55	750	12.2	43
70N	High	7 009	70	2.2	1500	24.4	58
90N	Low	3 800	25	0.55	750	13.3	46
90N	High	7 641	90	2.2	1500	26.6	62

SOUND REFERENCE DISTANCES

* 50N: sound-pressure level at 3 m. 70N and 90N: noise level at 1 m; the data do not further identify the acoustic quantity. These values use different reference distances and should not be compared directly.

SUPPLIED NOMINAL CONDITIONS

Airflow, thrust, motor power and speed are retained at the low/high nominal conditions. No pressure curves, intermediate-speed interpolation or fan/system pressure-duty calculation is supplied. A dash indicates that the listed value is not available.

The 50N and 70N/90N dimension drawings are presented separately. Do not apply the 70N/90N drawing or noise reference to 50N. F300°C and F400°C are alternative specifications for the supplied unit.

03 / ELECTRICAL & MODEL DATA

Check the specified motor.

MODEL-SPECIFIC INFORMATION

Parameter	VLF-CC 50N	VLF-CC 70N / 90N
Supply	400 V / 3 phase	Not supplied
Frequency	50 Hz	Not supplied
Pole configuration	4-8 poles	Not supplied
Insulation	Class H	Class H
Protection	IP55	IP54-IP55
Efficiency	Not supplied	IE1-IE2
Weight / kg	80	Not supplied
Ordinary temperature	Min. -20°C; max. not supplied	-20 to +50°C

Model	Low-speed current / A	High-speed current / A
50N	1.29	2.92
70N / 90N	Not supplied	Not supplied

FINAL MOTOR SPECIFICATION

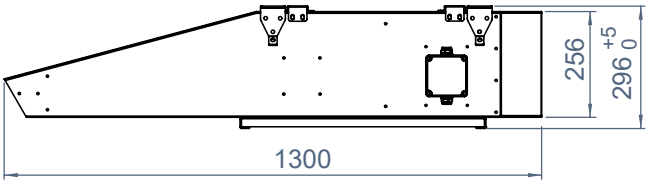
The 70N/90N protection and efficiency entries are ranges, not a confirmed single motor rating. Supply, current, weight and wiring must be confirmed for the selected 70N/90N assembly.

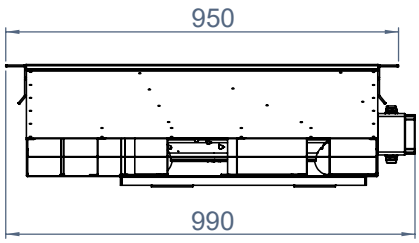
Ordinary operating-temperature limits are separate from F300°C / F400°C smoke duty. Specify the required smoke class and follow the actual unit classification and motor nameplate.

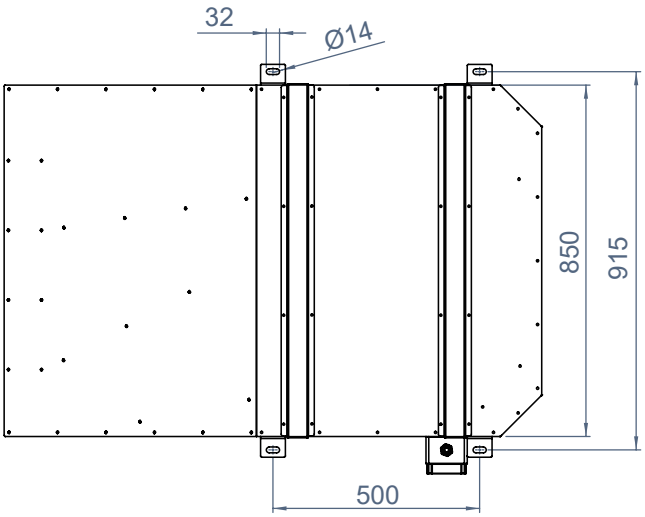
04 / DIMENSIONAL DATA / 50N

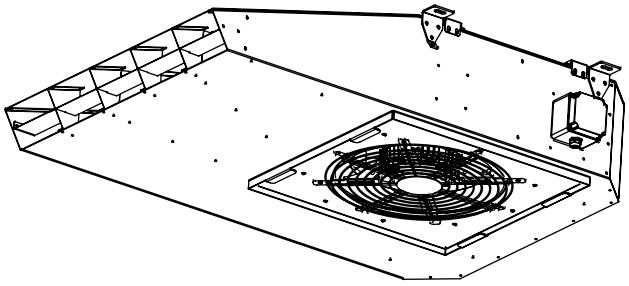
VLF-CC 50N mounting reference.

50N FAMILY DRAWING / ALL DIMENSIONS IN mm









Model	Overall length	Casing width	Overall width
VLF-CC 50N	1 300	950	990

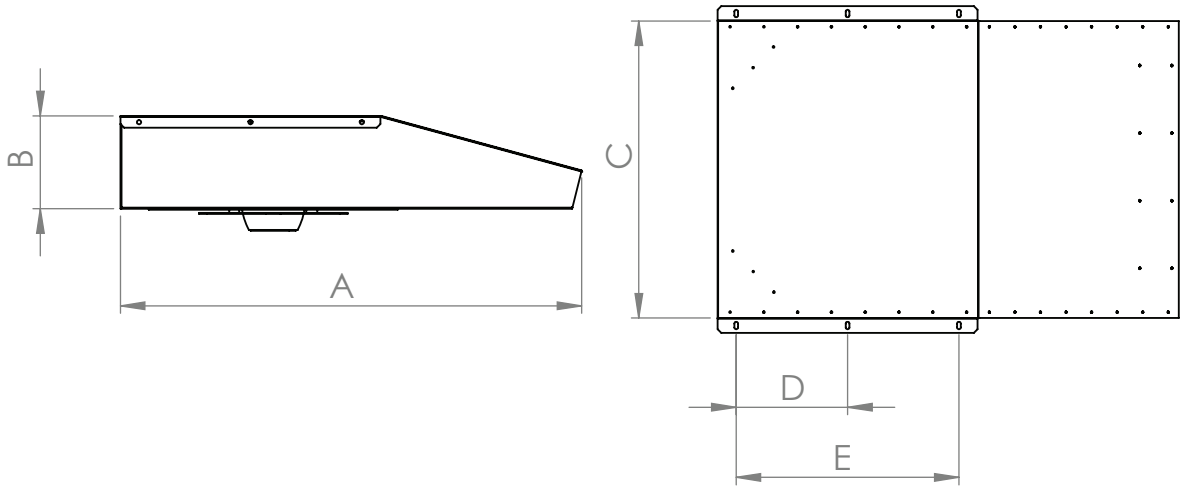
Original vector family drawing with the numerical dimensions retained. Use the marked mounting centres, holes and casing references shown above. This drawing applies to 50N only.

Dimensions shown are the family reference for 50N. Confirm the final assembly and mounting details for the supplied unit before installation.

04 / DIMENSIONAL DATA / 70N & 90N

VLF-CC 70N / 90N mounting reference.

70N / 90N DRAWING / ALL DIMENSIONS IN mm



Model	A	B	C	D	E
VLF-CC 70N	1300	300	840	300	600
VLF-CC 90N	1300	300	840	300	600

Original data vector drawing, shown for the listed models. A-E retain their original definitions. 70N and 90N share these dimensions in both F300°C and F400°C tables.

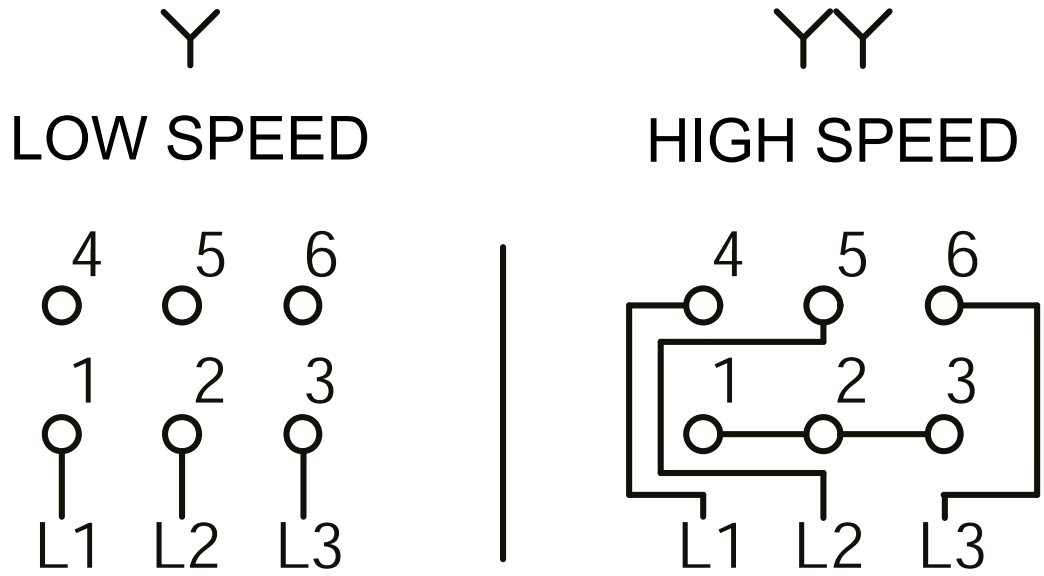
This drawing is separate from the 50N listed family drawing. Confirm the selected assembly, mounting orientation, ceiling supports and maintenance clearance before installation.

06 / CONNECTION & INSTALLATION

Connect the specified two-speed motor.

TWO-SPEED CONNECTION REFERENCE

The diagram shows low-speed star (Y) and high-speed double-star (YY) connections. Terminal numbers, links and phase labels are retained from the original vector diagram.



VLF-CC 50N / 400 V / 3 PHASE / 50 Hz / 4-8 POLES

This diagram is supplied for VLF-CC 50N. Wiring, supply voltage and phase data for 70N and 90N are not supplied in The available data catalogue; obtain the selected motor connection sheet for these models.

CEILING SUPPORTS & AIR PATH

Provide suitable ceiling supports and maintenance access. Keep the intake and jet discharge clear. Coordinate fan locations and airflow direction with the car park ventilation design and smoke-control project requirements.

Isolate the supply before installation or inspection. Emergency operation, motor protection and switching follow the supplied unit documentation and project specification.

01 / PRODUCT OVERVIEW

VLF-TNL-JF

Tunnel Jet Fan



01 Steel casing. Aluminium impeller.

Heavy-gauge tubular steel casing with a cast-aluminium, unidirectional impeller and aerodynamic inlet and discharge.

02 Silencers and mounting assembly

Tubular silencers at both ends. Mounting supports, vibration isolation and safety anchoring form part of the installation assembly.

03 Three-phase motor

50 Hz IE3 motor with class H insulation and IP55 protection. Select the model-specific supply and maximum admissible current.

SELECT BY AIRFLOW AND THRUST

Ten base models. Two electrical choices per model. Nominal performance is shared by the two voltage variants.

SERIES AT A GLANCE

Selection parameter	Series reference
Nominal impeller diameter	560-1250 mm
Nominal thrust	76-1101 N
Installed motor power	1.5-37 kW
Motor / supply reference	IE3 / 3 phase / 50 Hz
Protection / insulation	IP55 / class H
Continuous air temperature	-25 to +40 °C

F300 / F400 configurations are listed together. Confirm the supplied fan marking and model-specific documentation. Warm-climate operation up to +50 °C requires confirmation.

02 / TECHNICAL DATA

Select the airflow and thrust.

10 BASE MODELS / NOMINAL PERFORMANCE / 50 Hz

Model	Motor kW	Speed rpm	Airflow m^3/h	Thrust N	Velocity m/s	Mass* kg	LpA dB(A)
VLF-TNL-JF-560-2P-9.2kW	9.2	2975	29500	312	37.6	273	64
VLF-TNL-JF-560-4P-1.5kW	1.5	1435	14550	76	16.4	197	50
VLF-TNL-JF-630-2P-15kW	15	2935	40050	455	37.1	323	68
VLF-TNL-JF-630-4P-2.2kW	2.2	1450	21550	132	19.2	241	53
VLF-TNL-JF-710-4P-3kW	3	1455	28550	182	20	279	65
VLF-TNL-JF-800-4P-4kW	4	1445	36900	239	20.4	414	63
VLF-TNL-JF-900-4P-7.5kW	7.5	1460	52000	375	22.7	495	65
VLF-TNL-JF-1000-4P-11kW	11	1460	66500	497	23.5	667	63
VLF-TNL-JF-1250-4P-22kW	22	1475	98100	692	22.2	980	59
VLF-TNL-JF-1250-4P-37kW	37	1480	123700	1101	28	1110	62

* Approximate complete-unit mass. Sound pressure LpA is specified at 10 m and at maximum airflow. Octave-band sound power is listed separately on p. 386.

PERFORMANCE BASIS

Nominal operating data.

Values are supplied nominal references. Installed motor power and maximum admissible current are separate electrical ratings. Model-specific pressure, absorbed-power and efficiency curves are not supplied.

03 / ELECTRICAL VARIANTS

Match the model and supply.

20 THREE-PHASE CONFIGURATIONS / 50 Hz

Model	Supply V	Max. admissible current / A	Phases
VLF-TNL-JF-560-2P-9.2kW	400	18.07	3
VLF-TNL-JF-560-2P-9.2kW	690	10.44	3
VLF-TNL-JF-560-4P-1.5kW	230	5.89	3
VLF-TNL-JF-560-4P-1.5kW	400	3.38	3
VLF-TNL-JF-630-2P-15kW	400	26.50	3
VLF-TNL-JF-630-2P-15kW	690	15.35	3
VLF-TNL-JF-630-4P-2.2kW	230	7.86	3
VLF-TNL-JF-630-4P-2.2kW	400	4.52	3
VLF-TNL-JF-710-4P-3kW	230	11.01	3
VLF-TNL-JF-710-4P-3kW	400	6.33	3
VLF-TNL-JF-800-4P-4kW	400	7.95	3
VLF-TNL-JF-800-4P-4kW	690	4.61	3
VLF-TNL-JF-900-4P-7.5kW	400	14.20	3
VLF-TNL-JF-900-4P-7.5kW	690	8.17	3
VLF-TNL-JF-1000-4P-11kW	400	20.70	3
VLF-TNL-JF-1000-4P-11kW	690	11.99	3
VLF-TNL-JF-1250-4P-22kW	400	42.20	3
VLF-TNL-JF-1250-4P-22kW	690	24.44	3
VLF-TNL-JF-1250-4P-37kW	400	66.80	3
VLF-TNL-JF-1250-4P-37kW	690	38.70	3

Use the listed voltage/current pair for the selected model. Three models have 230 / 400 V options; the remaining models have 400 / 690 V options. All supplies are three-phase.

An electrical terminal diagram is not supplied. Confirm the unit nameplate and supplied connection instructions; no star/delta terminal arrangement is inferred.

04 / NOMINAL PERFORMANCE

Nominal airflow and thrust.

10 SUPPLIED OPERATING POINTS / 50 Hz



01 **VLF-TNL-JF-560-2P-9.2kW**
29500 m³/h / 312 N

02 **VLF-TNL-JF-560-4P-1.5kW**
14550 m³/h / 76 N

03 **VLF-TNL-JF-630-2P-15kW**
40050 m³/h / 455 N

04 **VLF-TNL-JF-630-4P-2.2kW**
21550 m³/h / 132 N

05 **VLF-TNL-JF-710-4P-3kW**
28550 m³/h / 182 N

06 **VLF-TNL-JF-800-4P-4kW**
36900 m³/h / 239 N

07 **VLF-TNL-JF-900-4P-7.5kW**
52000 m³/h / 375 N

08 **VLF-TNL-JF-1000-4P-11kW**
66500 m³/h / 497 N

09 **VLF-TNL-JF-1250-4P-22kW**
98100 m³/h / 692 N

10 **VLF-TNL-JF-1250-4P-37kW**
123700 m³/h / 1101 N

Each marker is one supplied nominal operating point, shared by its two electrical variants. Markers are not connected or extrapolated. No model pressure duty point or pressure curve is defined.

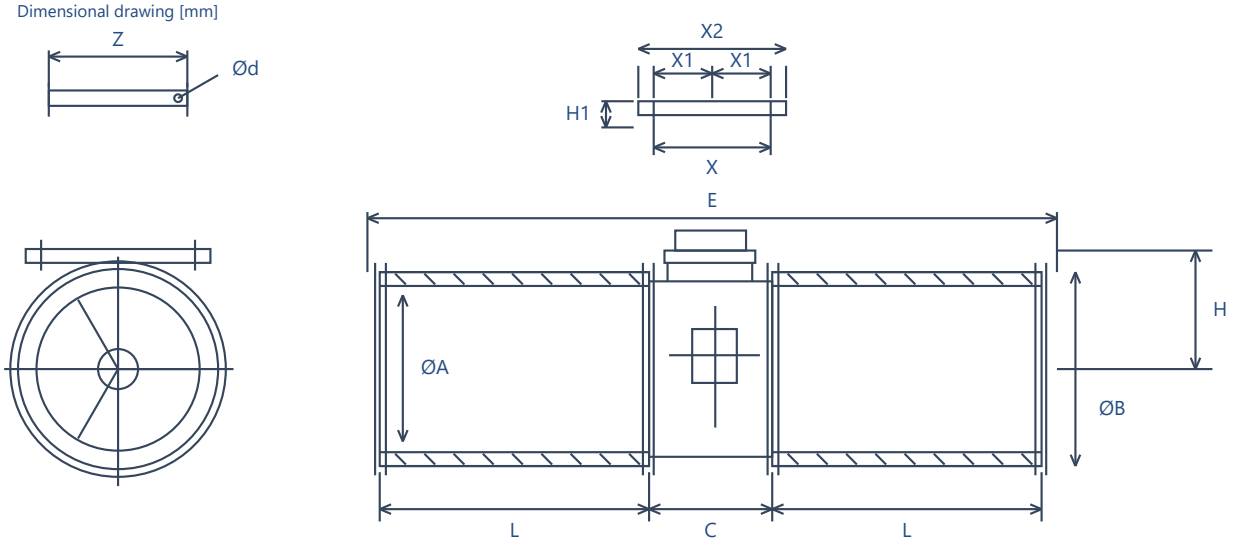
05 / DIMENSIONS

Coordinate the fan and silencers.

SERIES SCHEMATIC / NOT TO SCALE

All dimensions in mm

VLF-TNL-JF
Dimensional drawing [mm]



A, B and d are diameters. Model-specific values are shown in the dimensions table.

Model	ØA	ØB	C	L	Ød	E
VLF-TNL-JF-560-2P-9.2kW	560	750	500	1200	12	3093
VLF-TNL-JF-560-4P-1.5kW	560	750	500	1200	12	3093
VLF-TNL-JF-630-2P-15kW	640	800	650	1200	14	3242
VLF-TNL-JF-630-4P-2.2kW	640	800	650	1200	14	3242
VLF-TNL-JF-710-4P-3kW	710	900	500	1200	14	3092
VLF-TNL-JF-800-4P-4kW	800	1000	600	1200	14	3104
VLF-TNL-JF-900-4P-7.5kW	900	1100	600	1200	14	3105
VLF-TNL-JF-1000-4P-11kW	1000	1200	700	1200	14	3205
VLF-TNL-JF-1250-4P-22kW	1250	1503	650	1350	17	3455
VLF-TNL-JF-1250-4P-37kW	1250	1503	650	1350	17	3455

ØA is the connection diameter; ØB and Ød are also diameter dimensions. The 630 models retain ØA = 640 mm. The schematic provides label locations; it is not manufacturing CAD and supplies no tolerances.

06 / MOUNTING DATA & ACOUSTICS

Mounting detail. Acoustic reference.

MOUNTING DIMENSIONS / mm

Model	H	H1	X	X1	X2	Z
VLF-TNL-JF-560-2P-9.2kW	503	80	558	345	750	465
VLF-TNL-JF-560-4P-1.5kW	503	80	558	345	750	465
VLF-TNL-JF-630-2P-15kW	525	80	706	418	900	545
VLF-TNL-JF-630-4P-2.2kW	525	80	706	418	900	545
VLF-TNL-JF-710-4P-3kW	600	80	558	345	750	465
VLF-TNL-JF-800-4P-4kW	655	80	656	395	855	730
VLF-TNL-JF-900-4P-7.5kW	675	80	677	405.5	876	825
VLF-TNL-JF-1000-4P-11kW	730	80	767	450	965	884
VLF-TNL-JF-1250-4P-22kW	953	100	717	575	1250	1150
VLF-TNL-JF-1250-4P-37kW	953	100	717	575	1250	1150

OCTAVE-BAND SOUND POWER / LwA / dB(A)

Model	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
VLF-TNL-JF-560-2P-9.2kW	66	72	90	79	82	81	79	70
VLF-TNL-JF-560-4P-1.5kW	52	58	76	65	68	67	65	56
VLF-TNL-JF-630-2P-15kW	70	76	94	83	86	85	83	74
VLF-TNL-JF-630-4P-2.2kW	55	61	79	68	71	70	68	59
VLF-TNL-JF-710-4P-3kW	67	73	91	80	83	82	80	71
VLF-TNL-JF-800-4P-4kW	65	71	89	78	81	80	78	69
VLF-TNL-JF-900-4P-7.5kW	67	73	91	80	83	82	80	71
VLF-TNL-JF-1000-4P-11kW	65	71	89	78	81	80	78	69
VLF-TNL-JF-1250-4P-22kW	61	67	85	74	77	76	74	65
VLF-TNL-JF-1250-4P-37kW	64	70	88	77	80	79	77	68

Sound-power bands are A-weighted. Sound pressure at 10 m and maximum airflow appears on p. 382; it is a separate quantity. The two electrical variants share the same dimensional and acoustic references.

07 / CONFIGURATION & INSTALLATION

Specify the supplied configuration.

F300 / F400 OPTIONS IN ONE MODEL RANGE

Configuration / service	Declared range or requirement
F300 configuration	300 °C / 2 h
F400 configuration	400 °C / 2 h
Model availability	Both options listed for all ten base models
Documentation	Confirm supplied fan marking and documents
Continuous air temperature	-25 to +40 °C
Warm-climate option	Up to +50 °C; confirmation required

Configuration availability is listed separately from certification. A model-specific Voltvent certificate has not been verified. Confirm the complete supplied fan configuration and documentation for the intended application.

MOUNTING AND SUPPORT

Coordinate the assembly.

Use the selected model dimensions and approximate mass when coordinating the supports, vibration isolation and safety anchoring. Allow access to the motor and external terminal box.

AIRFLOW AND CONNECTION

Keep both ends clear.

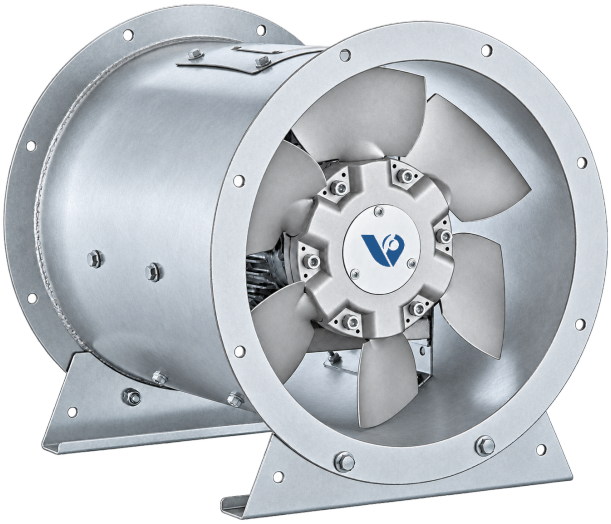
The impeller is unidirectional. Provide unobstructed inlet and discharge paths. Follow the instructions supplied with the unit for installation, electrical connection and maintenance.

Electrical terminal diagrams, model-specific pressure/power/efficiency curves and manufacturing tolerances are not supplied. This catalogue retains the available nominal, dimensional and acoustic references without adding unverified arrangements.

01 / PRODUCT OVERVIEW

VLF-TS

Tube Axial Flow Fan



01 Adjustable-pitch impeller

Aluminium alloy airfoil blades. The reference range includes 3, 6 and 9 blades, with performance selected by blade angle and motor poles.

02 Flanged tube casing

A flanged galvanized steel tube casing connects to circular ductwork. An access cover supports inspection and maintenance.

03 Shared aerodynamic data

F300°C and F400°C options share the product image, dimensional data and performance curves in this catalogue.

F300

300°C / 120 minutes

F400

400°C / 120 minutes

COMMON PERFORMANCE & DIMENSIONS

49 main configurations and 605 listed blade-angle curves. Select the final blade angle and motor at the required duty. F300°C and F400°C are alternative smoke-duty specifications; state the required class when ordering.

Selection parameter	Catalogue basis
Fan diameter / blade counts	355-1250 mm / 3, 6 and 9 blades
Reference electrical supply	400 V / 3 phase / 50 Hz
Pole configurations	2P, 4P, 6P, 2-4P and 4-8P
Smoke-duty specification	F300°C / 120 min or F400°C / 120 min
Final motor and classification	As specified for the supplied unit

Performance curves use the listed 20°C reference basis. Fire-class selection does not change these curves. Final motor specification and classification follow the supplied unit documentation.

02 / TECHNICAL DATA / 01

Compare the configurations.

SHARED F300°C / F400°C SELECTION DATA / 400 V / 50 Hz

Configuration diameter/blades/poles	Angles deg.	Reference motor range / kW	Reference airflow envelope / m³/h	Reserve %	Curve page
VLF-TS 355/6/2P	10-28	0.18-2.2	1 000-6 860	10	06
VLF-TS 400/6/2P	8-34	0.75-3	1 330-9 950	10	06
VLF-TS 400/6/4P	8-34	0.37-0.37	665-4 975	10	06
VLF-TS 400/6/2-4P	8-34	0.75-3	1 330-9 950	10	06
VLF-TS 450/6/2P	8-28	1.1-4	2 400-13 500	10	07
VLF-TS 450/6/4P	8-38	0.37-0.55	1 200-8 212	7	07
VLF-TS 450/6/2-4P	8-28	1.1-4	2 400-13 500	10	07
VLF-TS 500/6/2P	8-28	2.2-5.5	3 500-18 300	0.5	07
VLF-TS 500/6/4P	8-36	0.55-1.1	1 750-11 800	10	08
VLF-TS 500/6/6P	8-36	0.37-0.37	1 167-7 867	10	08
VLF-TS 500/6/2-4P	8-28	2.2-5.5	3 500-18 300	0.5	08
VLF-TS 560/6/2P	8-22	4-7.5	4 000-24 000	6	08
VLF-TS 560/6/4P	8-36	0.55-2.2	2 000-17 140	10	09
VLF-TS 560/6/6P	8-36	0.55-0.55	1 333-11 427	7	09
VLF-TS 560/6/2-4P	8-22	4-7.5	4 000-24 000	6	09
VLF-TS 630/6/2P	8-20	4-7.5	7 000-31 320	0	09
VLF-TS 630/6/4P	8-38	0.75-4	3 500-25 200	10	10

Airflow envelope: minimum and maximum listed curve-domain endpoints across blade angles, rounded to whole m³/h. This is a reference envelope; select the operating point, blade angle and motor for the required duty.

Motor range: listed product motor-power limits. Reference selection uses absorbed power and the configuration-specific motor reserve. Final smoke-duty motor selection and nameplate data follow the supplied unit specification.

For two-speed configurations, these curves describe the supplied high-speed condition only. Low-speed curves are not inferred. F300°C / F400°C classification is a separate specification from the ordinary operating-temperature limits of the listed records.

02 / TECHNICAL DATA / 02

Compare the configurations.

SHARED F300°C / F400°C SELECTION DATA / 400 V / 50 Hz

Configuration diameter/blades/poles	Angles deg.	Reference motor range / kW	Reference airflow envelope / m³/h	Reserve %	Curve page
VLF-TS 630/6/6P	8-38	0.75-1.1	2 333-16 800	10	10
VLF-TS 630/6/2-4P	8-20	4-7.5	7 000-31 320	0	10
VLF-TS 710/3/4P	8-32	0.75-3	1 600-27 500	10	10
VLF-TS 710/3/6P	8-32	0.75-1.1	1 067-18 333	10	11
VLF-TS 710/3/4-8P	8-32	0.75-3	1 600-27 500	10	11
VLF-TS 710/6/4P	8-32	1.1-4	1 800-31 200	1	11
VLF-TS 710/6/6P	8-32	0.75-1.5	1 200-20 800	10	11
VLF-TS 710/6/4-8P	8-32	1.1-4	1 800-31 200	1	12
VLF-TS 800/6/4P	8-32	2.2-7.5	4 500-42 500	3	12
VLF-TS 800/6/6P	8-32	1.5-2.2	3 000-28 333	3	12
VLF-TS 800/6/4-8P	8-32	2.2-7.5	4 500-42 500	3	12
VLF-TS 800/9/4P	8-30	2.2-11	7 500-43 000	10	13
VLF-TS 800/9/6P	8-30	2.2-3	5 000-28 667	10	13
VLF-TS 800/9/4-8P	8-30	2.2-11	7 500-43 000	10	13
VLF-TS 900/6/4P	8-32	4-15	6 000-60 800	10	13
VLF-TS 900/6/6P	8-32	2.2-4	4 000-40 533	5	14
VLF-TS 900/6/4-8P	8-32	4-15	6 000-60 800	10	14

Airflow envelope: minimum and maximum listed curve-domain endpoints across blade angles, rounded to whole m³/h. This is a reference envelope; select the operating point, blade angle and motor for the required duty.

Motor range: listed product motor-power limits. Reference selection uses absorbed power and the configuration-specific motor reserve. Final smoke-duty motor selection and nameplate data follow the supplied unit specification.

For two-speed configurations, these curves describe the supplied high-speed condition only. Low-speed curves are not inferred. F300°C / F400°C classification is a separate specification from the ordinary operating-temperature limits of the listed records.

02 / TECHNICAL DATA / 03

Compare the configurations.

SHARED F300°C / F400°C SELECTION DATA / 400 V / 50 Hz

Configuration diameter/blades/poles	Angles deg.	Reference motor range / kW	Reference airflow envelope / m³/h	Reserve %	Curve page
VLF-TS 900/9/4P	8-32	4-18.5	11 000-63 300	10	14
VLF-TS 900/9/6P	8-32	2.2-5.5	7 333-42 200	10	14
VLF-TS 900/9/4-8P	8-32	4-18.5	11 000-63 300	10	15
VLF-TS 1000/6/4P	8-32	5.5-22	14 000-82 600	3	15
VLF-TS 1000/6/6P	8-32	2.2-7.5	9 333-55 067	10	15
VLF-TS 1000/6/4-8P	8-32	5.5-22	14 000-82 600	3	15
VLF-TS 1000/9/4P	8-32	7.5-30	15 000-86 000	10	16
VLF-TS 1000/9/6P	8-32	2.2-11	10 000-57 333	10	16
VLF-TS 1000/9/4-8P	8-32	7.5-30	15 000-86 000	10	16
VLF-TS 1250/6/4P	8-32	15-45	25 000-155 000	1	16
VLF-TS 1250/6/6P	8-32	5.5-15	16 667-103 333	10	17
VLF-TS 1250/6/4-8P	8-32	15-45	25 000-155 000	1	17
VLF-TS 1250/9/4P	8-24	18.5-45	21 300-138 000	1	17
VLF-TS 1250/9/6P	8-24	7.5-15	14 200-92 000	10	17
VLF-TS 1250/9/4-8P	8-24	18.5-45	21 300-138 000	1	18

Airflow envelope: minimum and maximum listed curve-domain endpoints across blade angles, rounded to whole m³/h. This is a reference envelope; select the operating point, blade angle and motor for the required duty.

Motor range: listed product motor-power limits. Reference selection uses absorbed power and the configuration-specific motor reserve. Final smoke-duty motor selection and nameplate data follow the supplied unit specification.

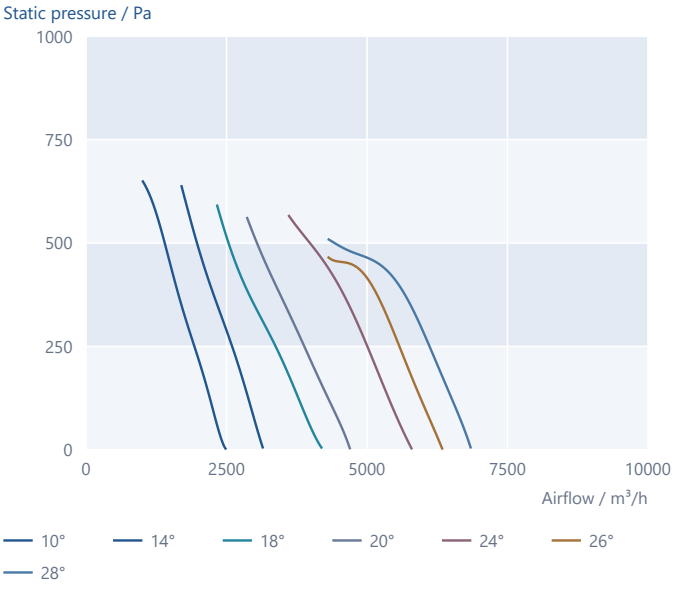
For two-speed configurations, these curves describe the supplied high-speed condition only. Low-speed curves are not inferred. F300°C / F400°C classification is a separate specification from the ordinary operating-temperature limits of the listed records.

03 / AIR PERFORMANCE / 01

Fan Performance Curves

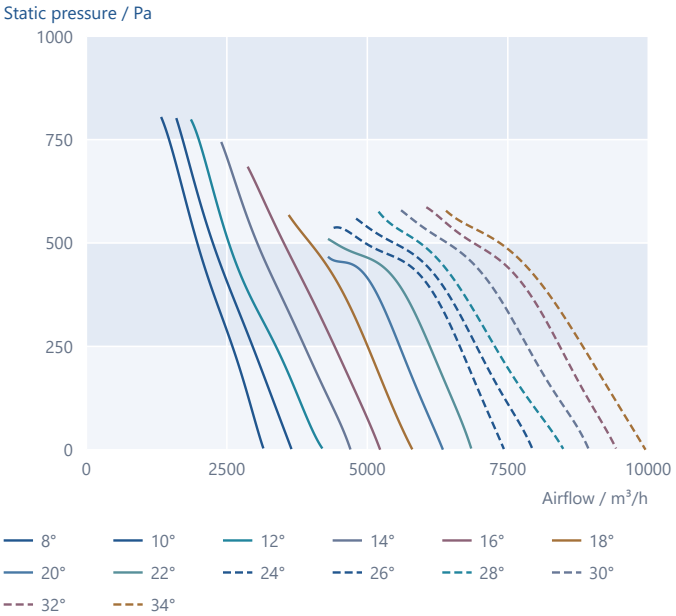
VLF-TS 355/6/2P

7 blade angles / 400 V / 50 Hz



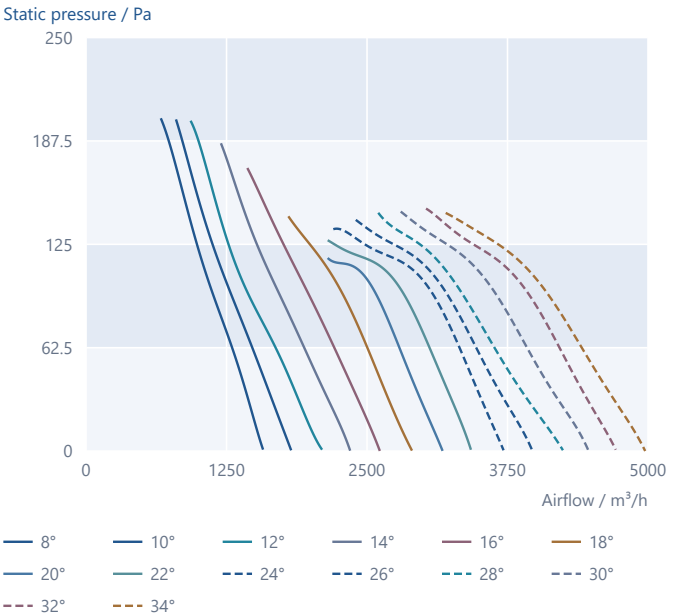
VLF-TS 400/6/2P

14 blade angles / 400 V / 50 Hz



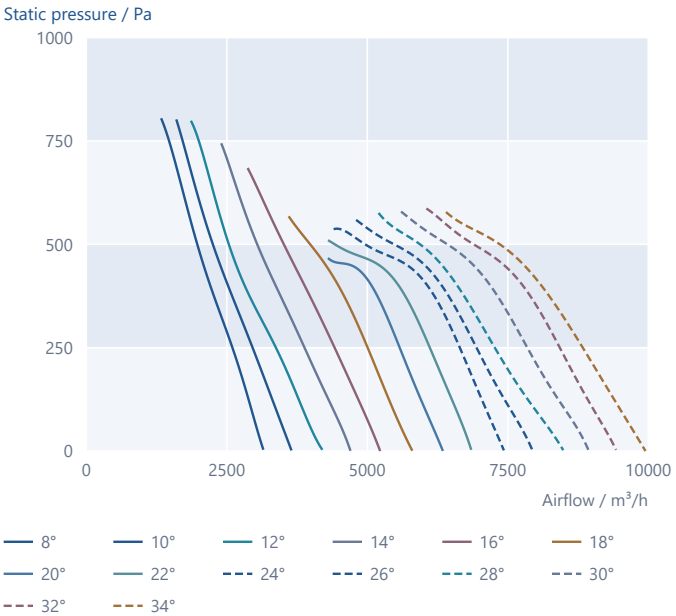
VLF-TS 400/6/4P

14 blade angles / 400 V / 50 Hz



VLF-TS 400/6/2-4P

14 blade angles / 400 V / 50 Hz



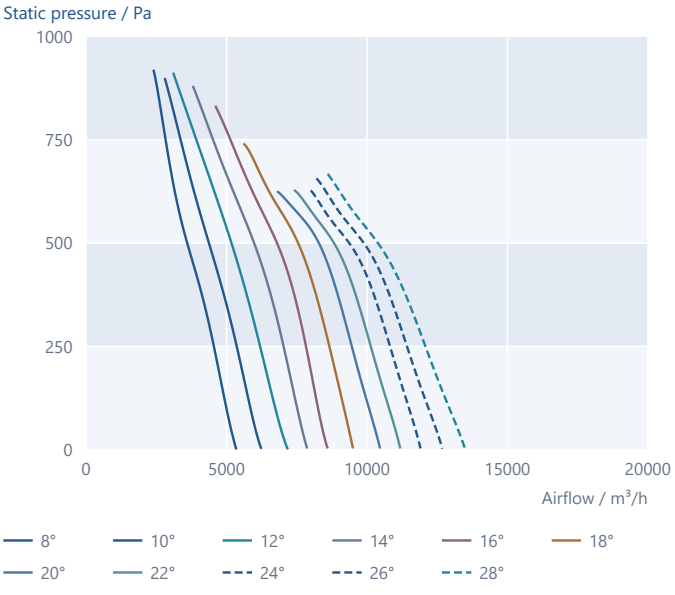
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 02

Fan Performance Curves

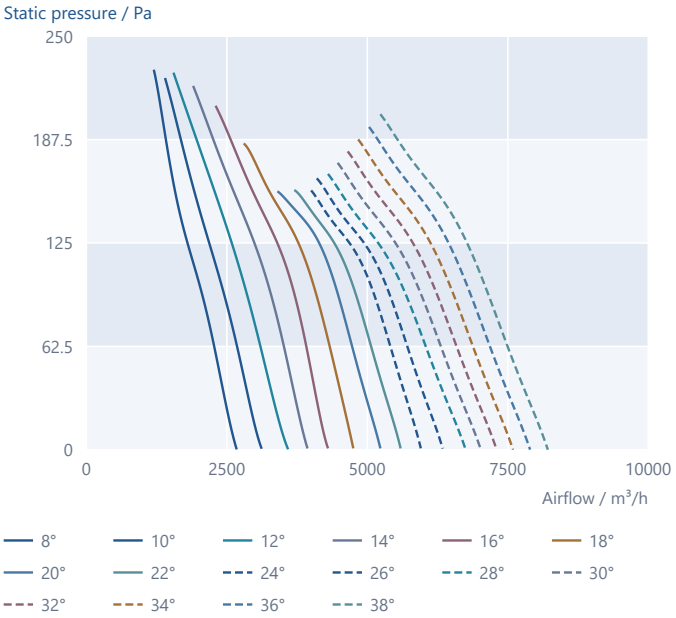
VLF-TS 450/6/2P

11 blade angles / 400 V / 50 Hz



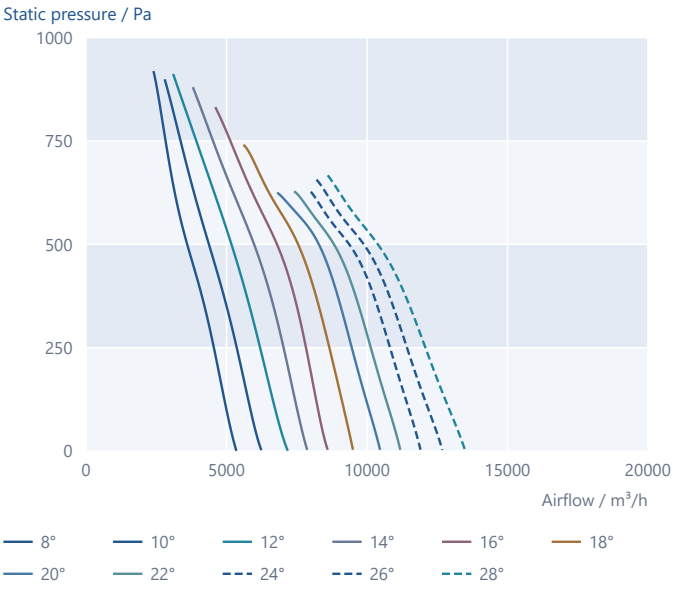
VLF-TS 450/6/4P

16 blade angles / 400 V / 50 Hz



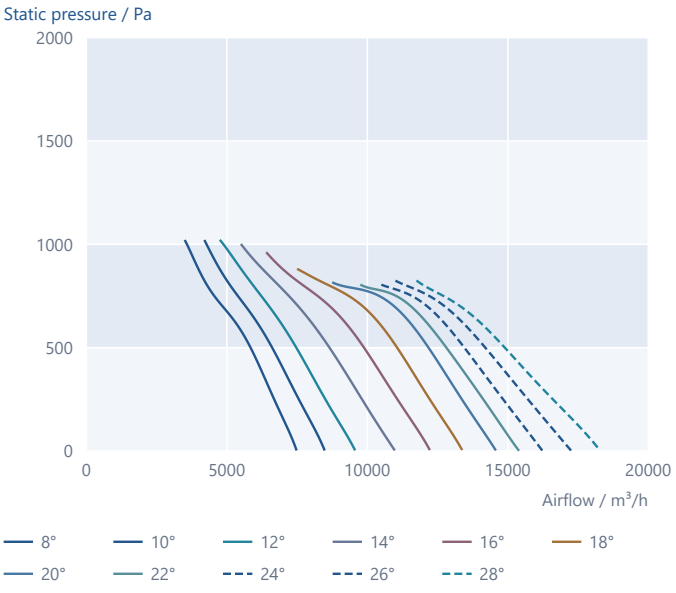
VLF-TS 450/6/2-4P

11 blade angles / 400 V / 50 Hz



VLF-TS 500/6/2P

11 blade angles / 400 V / 50 Hz



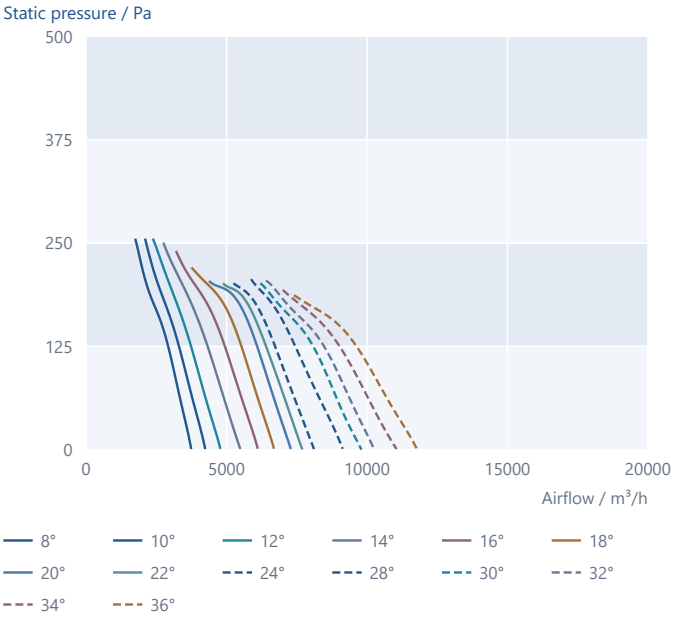
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 03

Fan Performance Curves

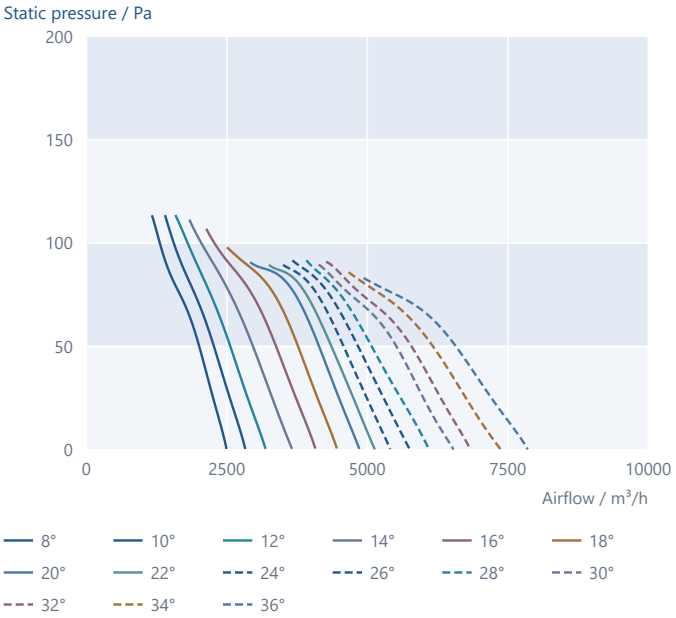
VLF-TS 500/6/4P

14 blade angles / 400 V / 50 Hz



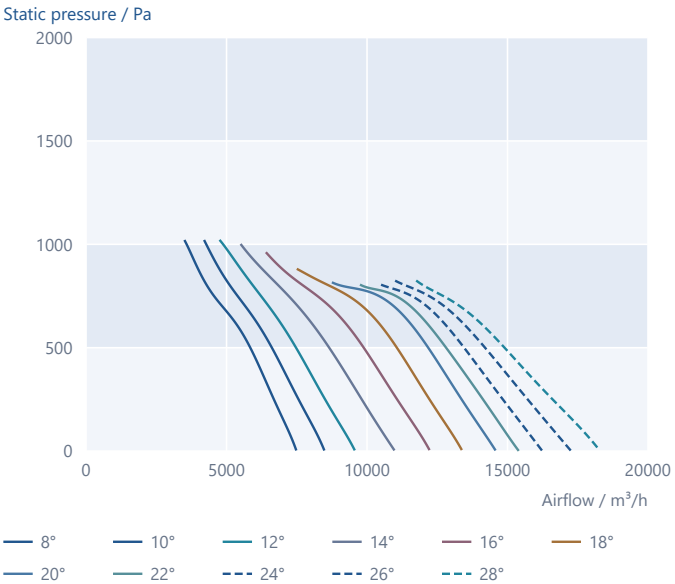
VLF-TS 500/6/6P

15 blade angles / 400 V / 50 Hz



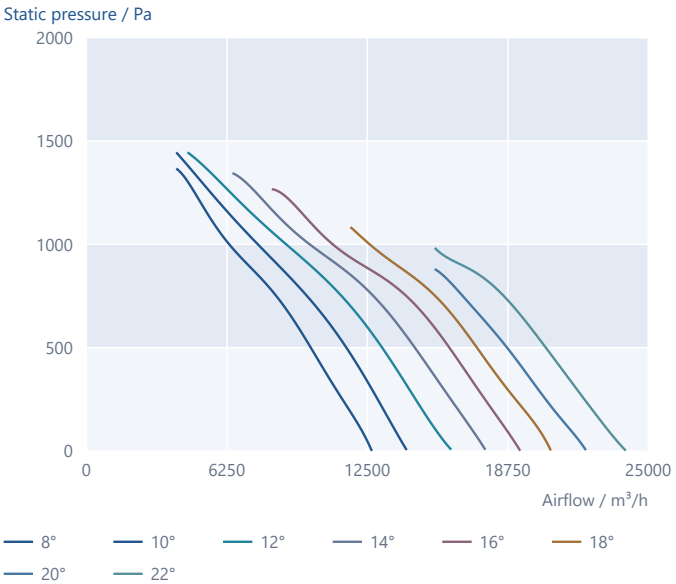
VLF-TS 500/6/2-4P

11 blade angles / 400 V / 50 Hz



VLF-TS 560/6/2P

8 blade angles / 400 V / 50 Hz



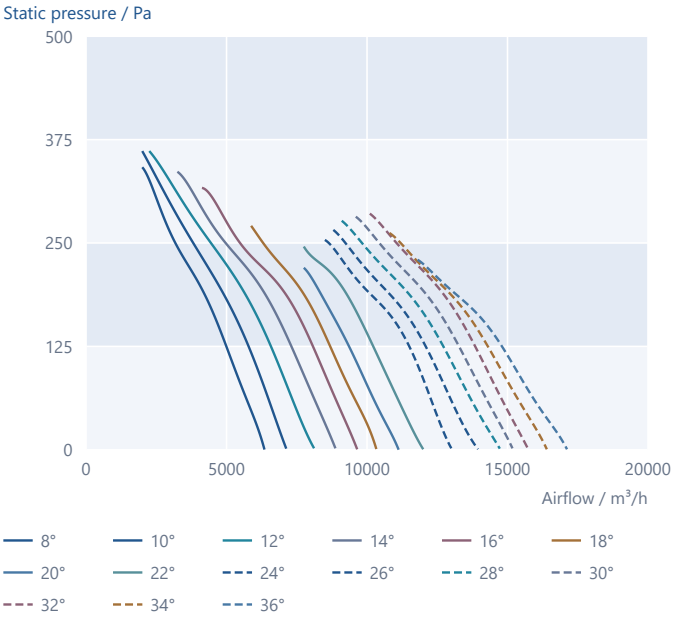
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 04

Fan Performance Curves

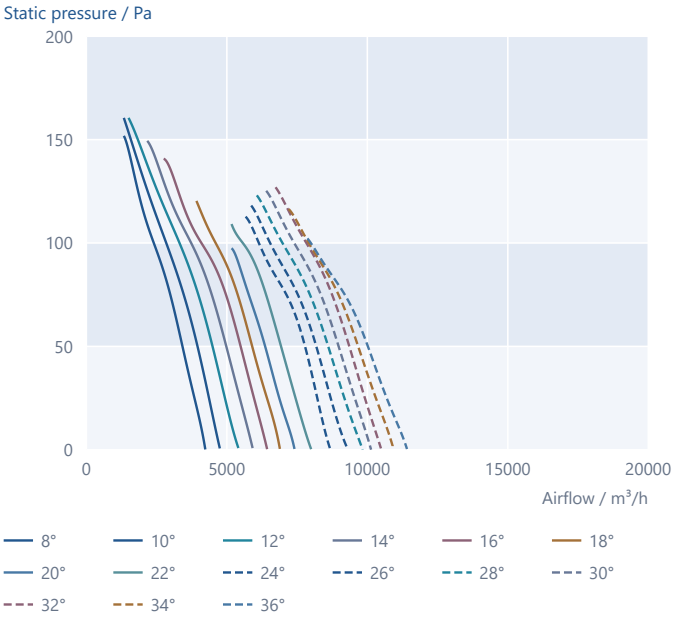
VLF-TS 560/6/4P

15 blade angles / 400 V / 50 Hz



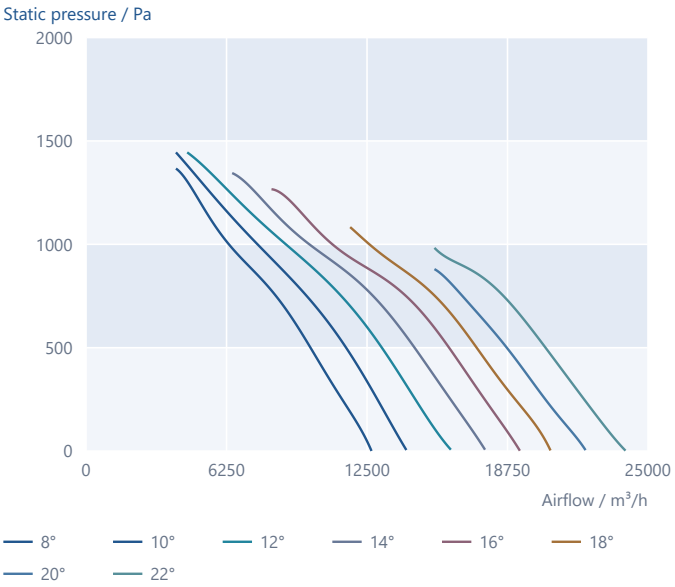
VLF-TS 560/6/6P

15 blade angles / 400 V / 50 Hz



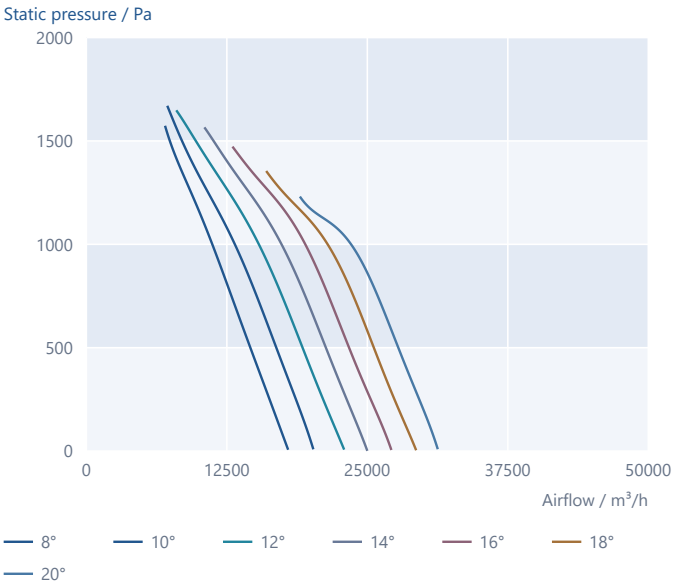
VLF-TS 560/6/2-4P

8 blade angles / 400 V / 50 Hz



VLF-TS 630/6/2P

7 blade angles / 400 V / 50 Hz



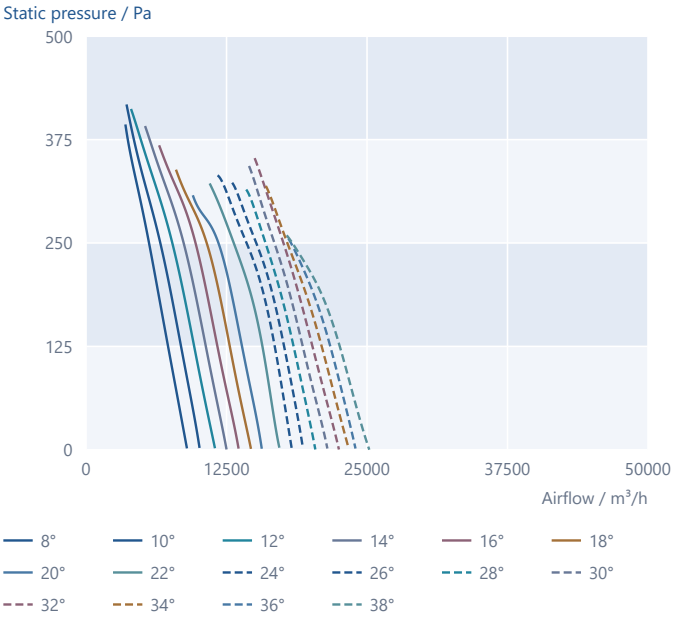
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 05

Fan Performance Curves

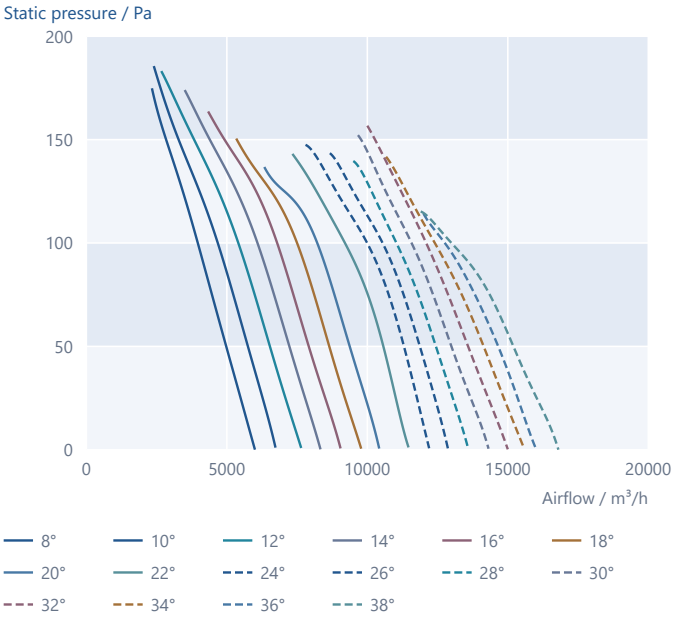
VLF-TS 630/6/4P

16 blade angles / 400 V / 50 Hz



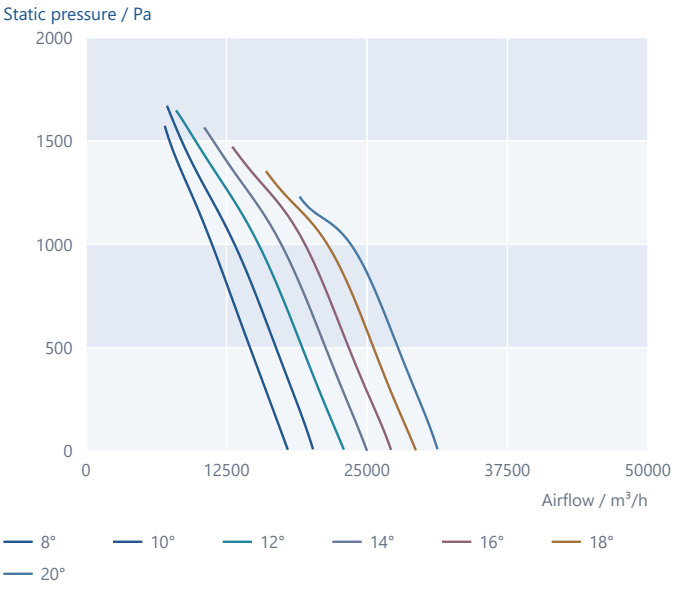
VLF-TS 630/6/6P

16 blade angles / 400 V / 50 Hz



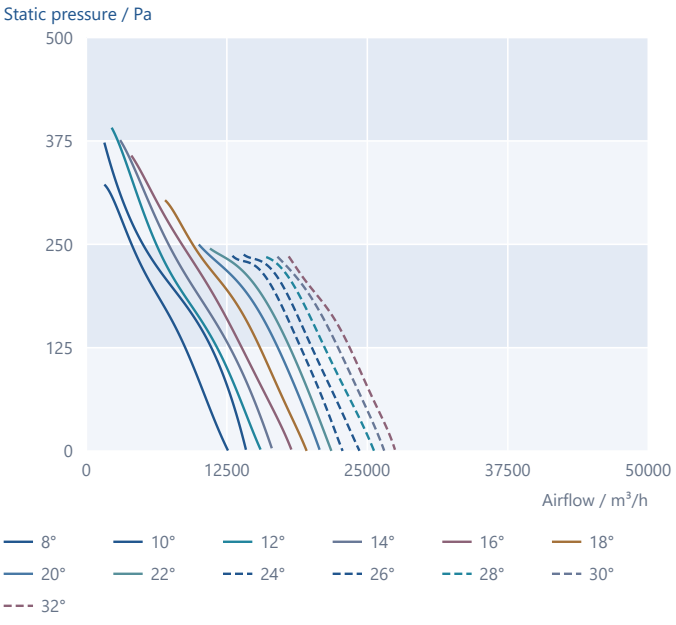
VLF-TS 630/6/2-4P

7 blade angles / 400 V / 50 Hz



VLF-TS 710/3/4P

13 blade angles / 400 V / 50 Hz



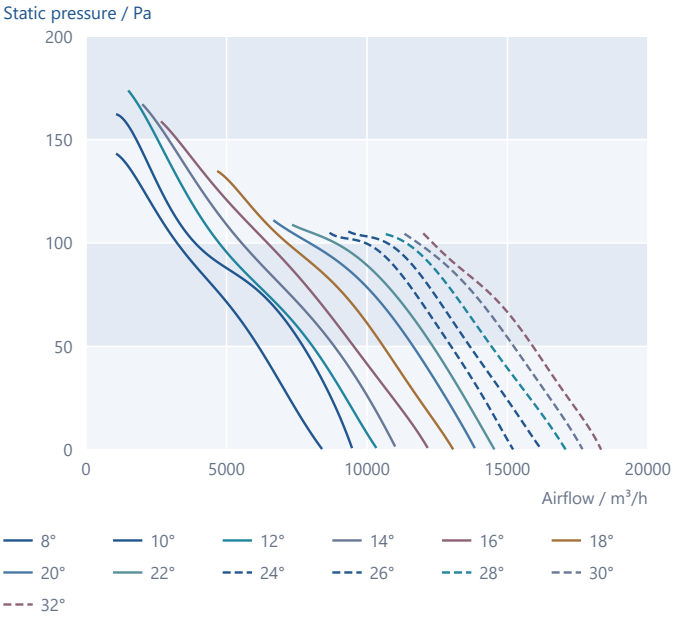
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 06

Fan Performance Curves

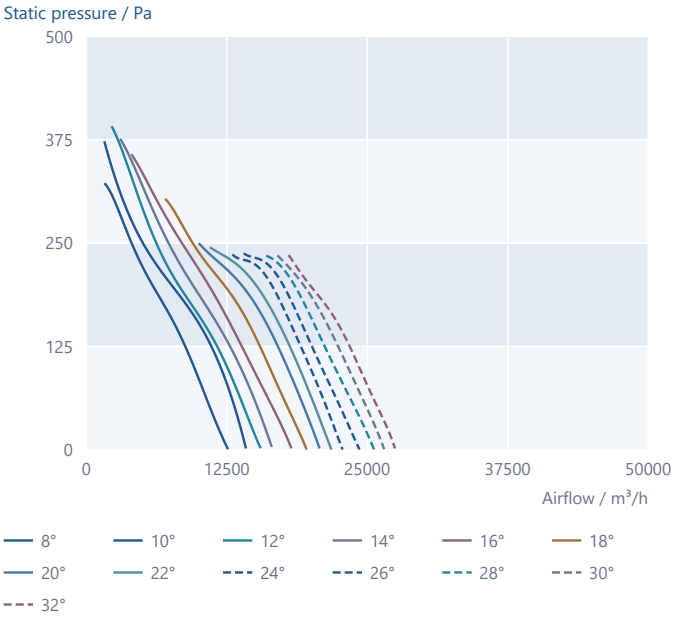
VLF-TS 710/3/6P

13 blade angles / 400 V / 50 Hz



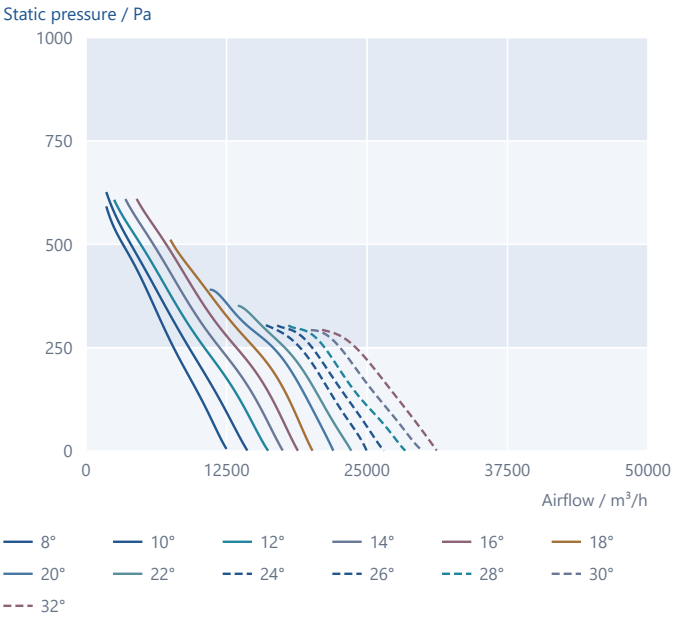
VLF-TS 710/3/4-8P

13 blade angles / 400 V / 50 Hz



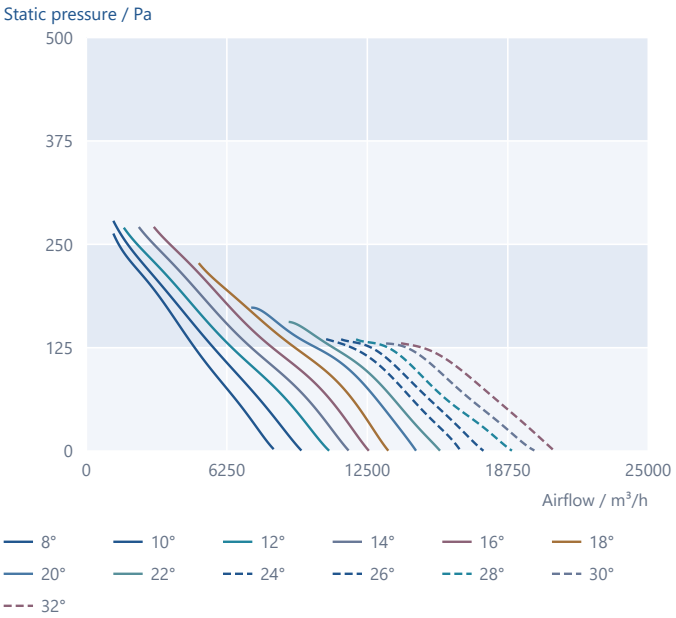
VLF-TS 710/6/4P

13 blade angles / 400 V / 50 Hz



VLF-TS 710/6/6P

13 blade angles / 400 V / 50 Hz



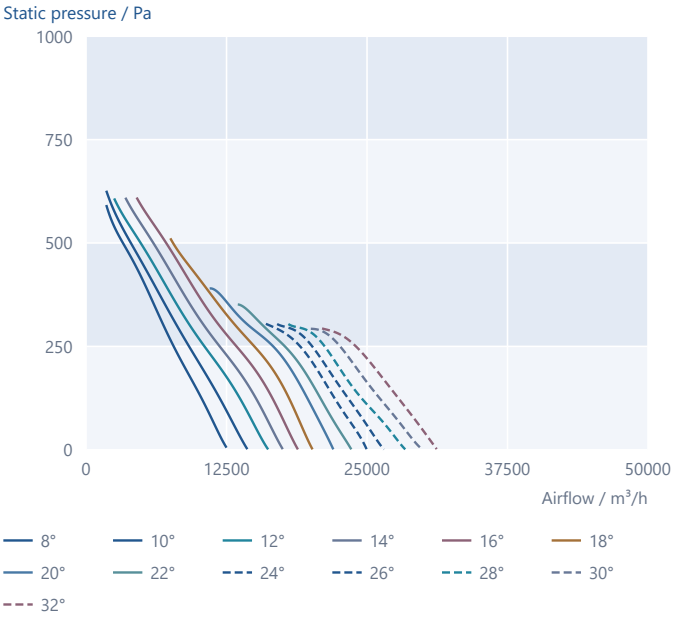
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 07

Fan Performance Curves

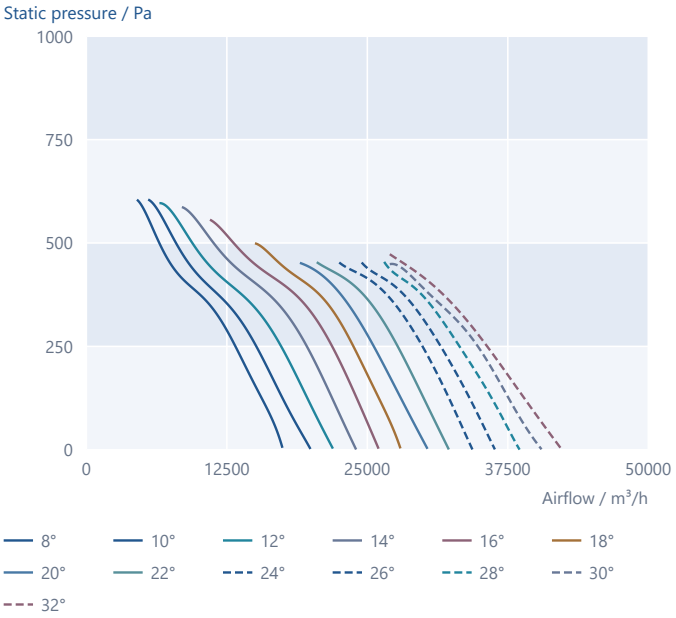
VLF-TS 710/6/4-8P

13 blade angles / 400 V / 50 Hz



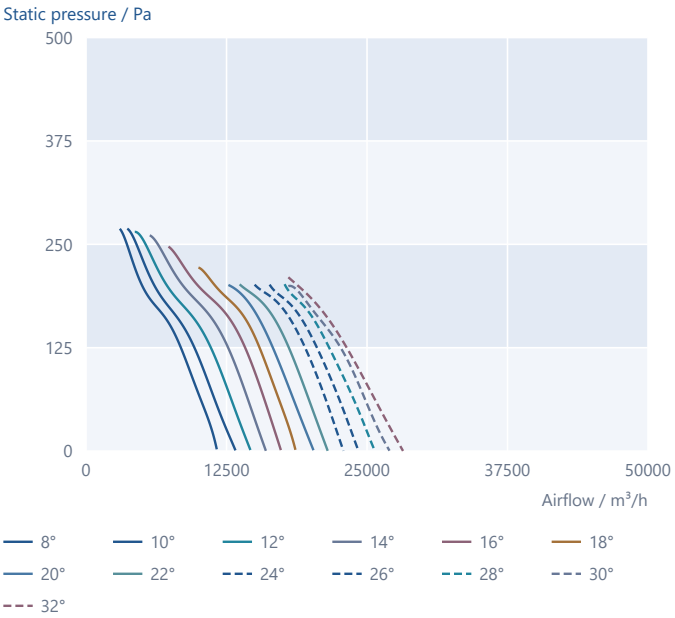
VLF-TS 800/6/4P

13 blade angles / 400 V / 50 Hz



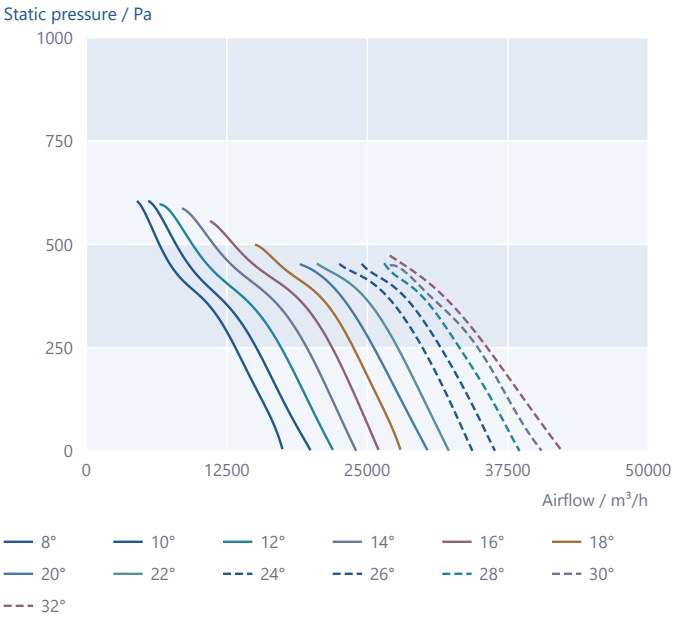
VLF-TS 800/6/6P

13 blade angles / 400 V / 50 Hz



VLF-TS 800/6/4-8P

13 blade angles / 400 V / 50 Hz



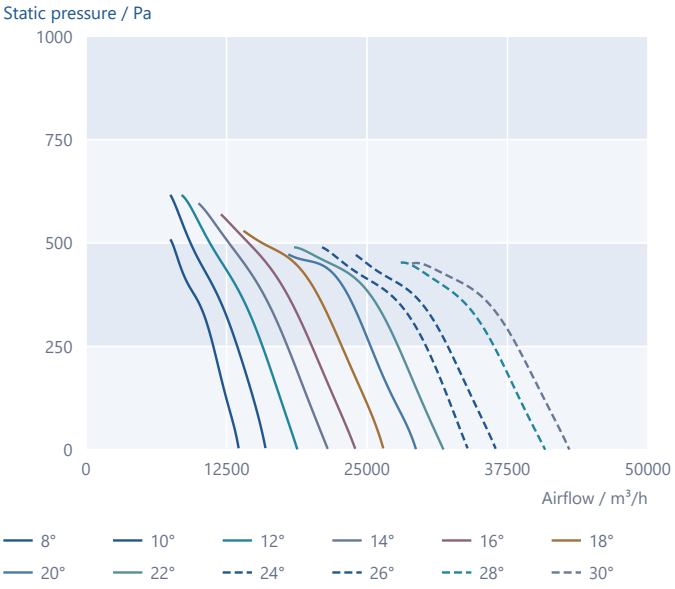
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 08

Fan Performance Curves

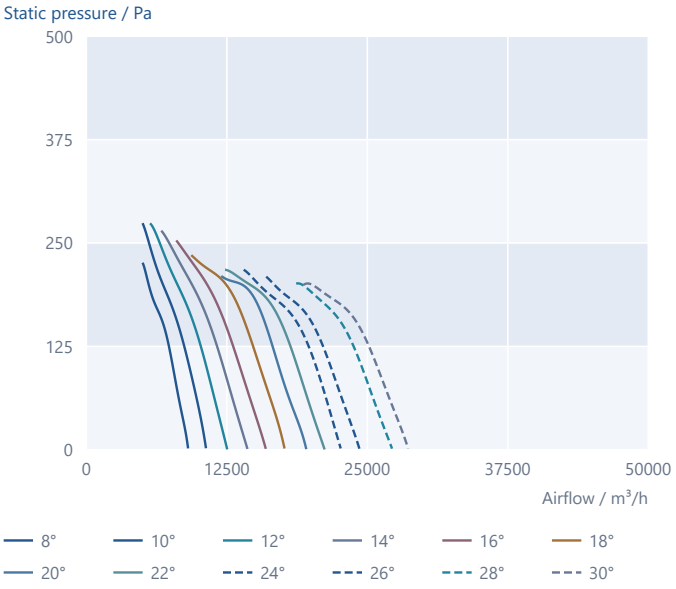
VLF-TS 800/9/4P

12 blade angles / 400 V / 50 Hz



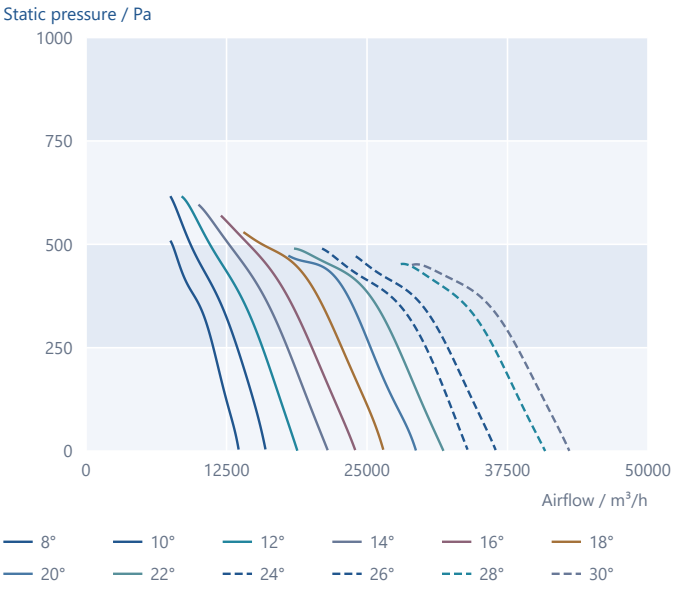
VLF-TS 800/9/6P

12 blade angles / 400 V / 50 Hz



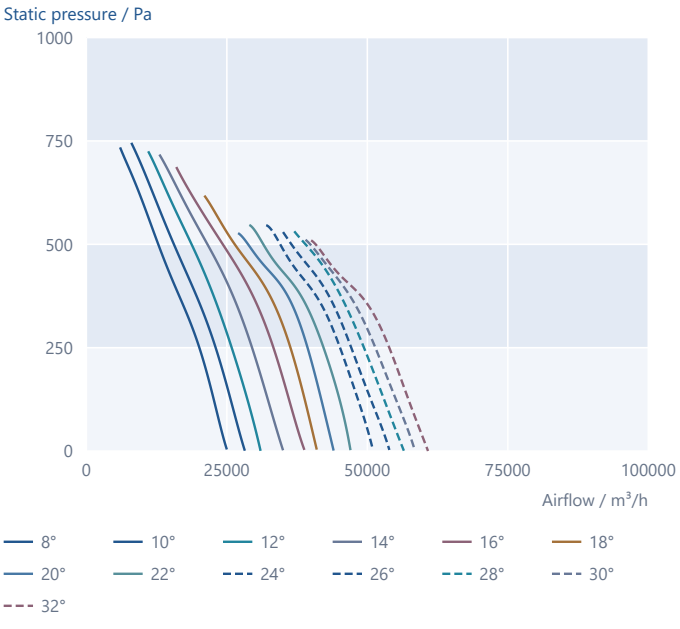
VLF-TS 800/9/4-8P

12 blade angles / 400 V / 50 Hz



VLF-TS 900/6/4P

13 blade angles / 400 V / 50 Hz



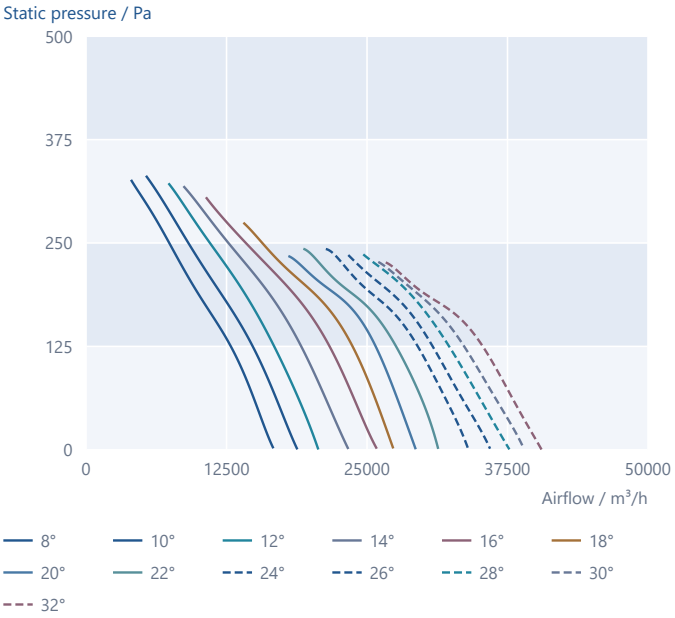
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 09

Fan Performance Curves

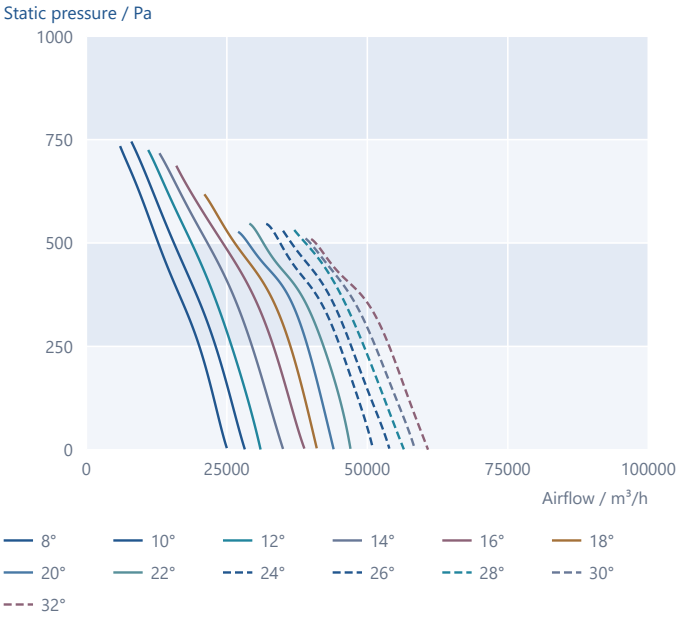
VLF-TS 900/6/6P

13 blade angles / 400 V / 50 Hz



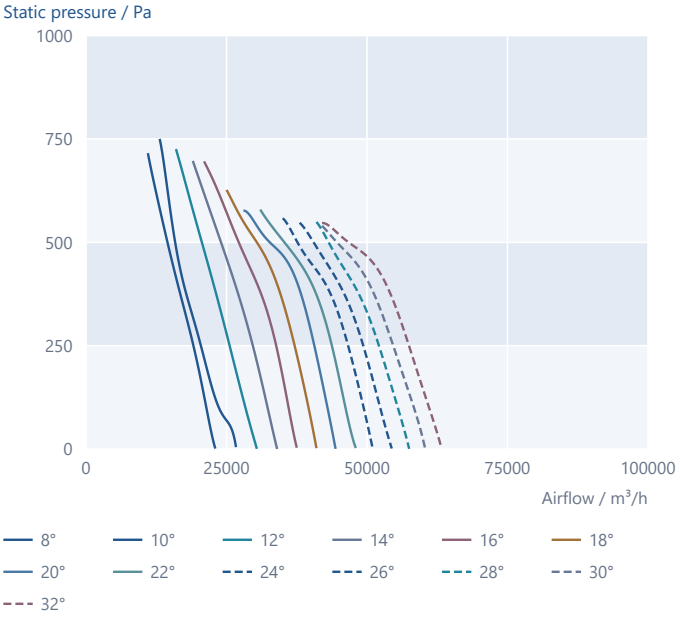
VLF-TS 900/6/4-8P

13 blade angles / 400 V / 50 Hz



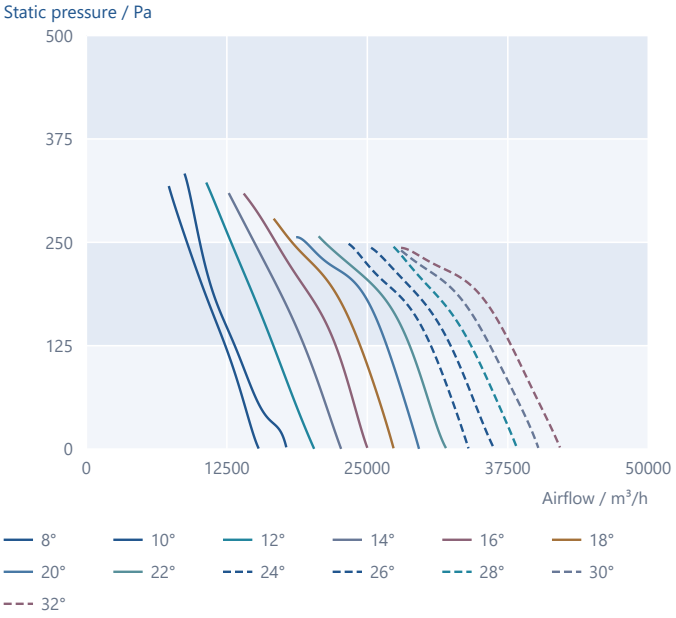
VLF-TS 900/9/4P

13 blade angles / 400 V / 50 Hz



VLF-TS 900/9/6P

13 blade angles / 400 V / 50 Hz



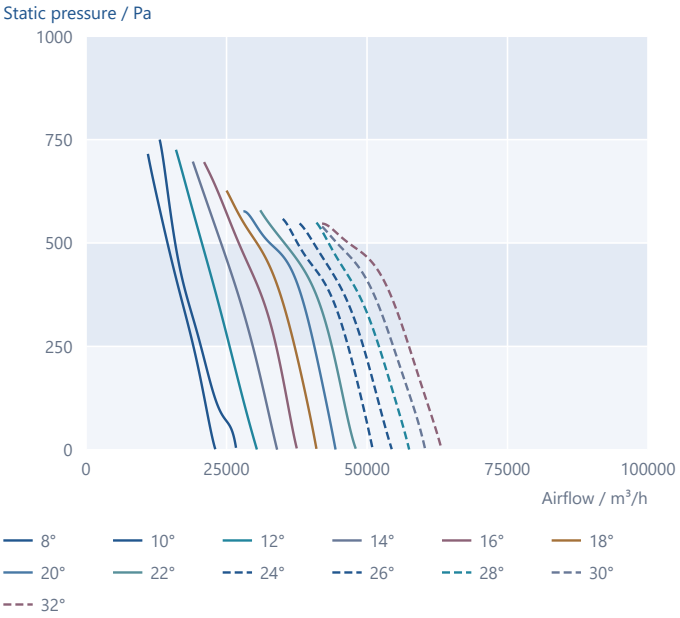
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 10

Fan Performance Curves

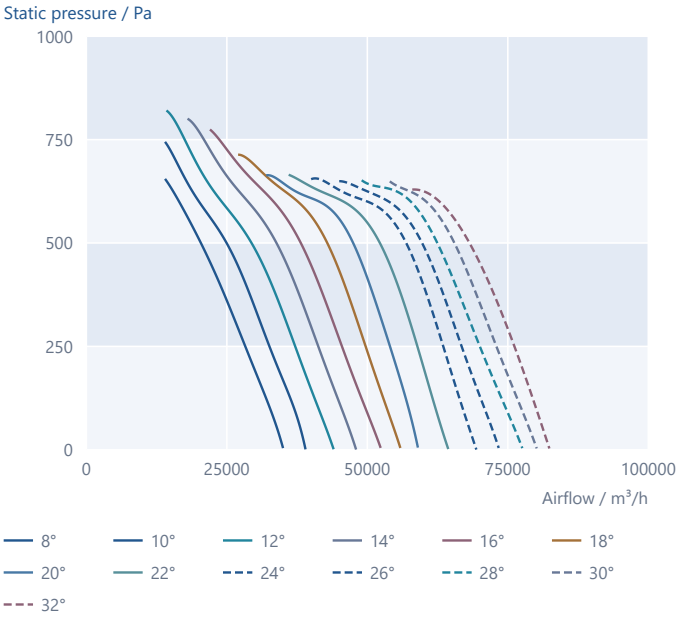
VLF-TS 900/9/4-8P

13 blade angles / 400 V / 50 Hz



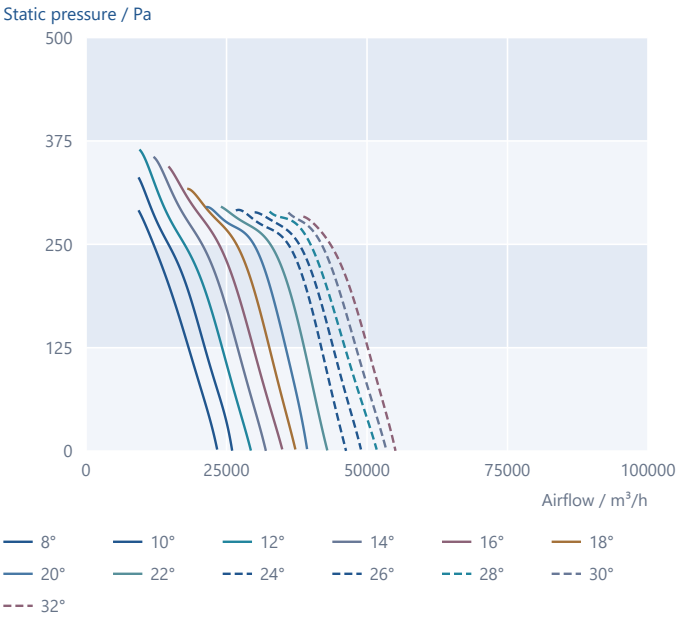
VLF-TS 1000/6/4P

13 blade angles / 400 V / 50 Hz



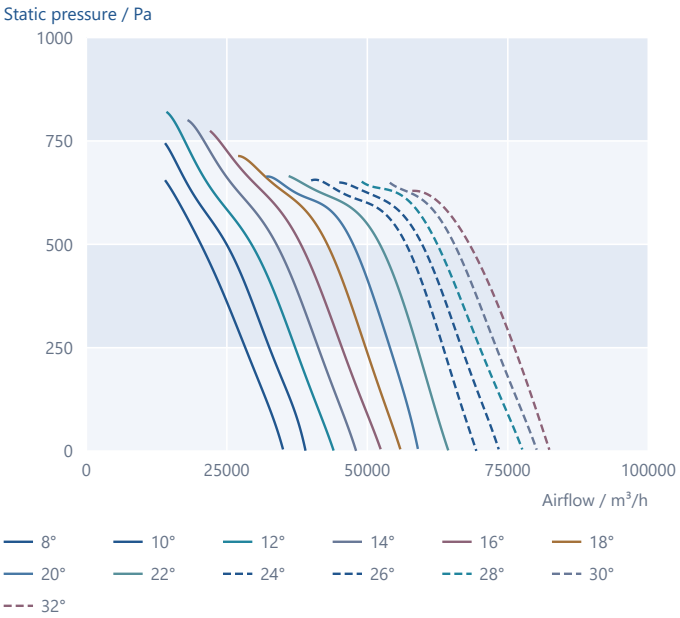
VLF-TS 1000/6/6P

13 blade angles / 400 V / 50 Hz



VLF-TS 1000/6/4-8P

13 blade angles / 400 V / 50 Hz



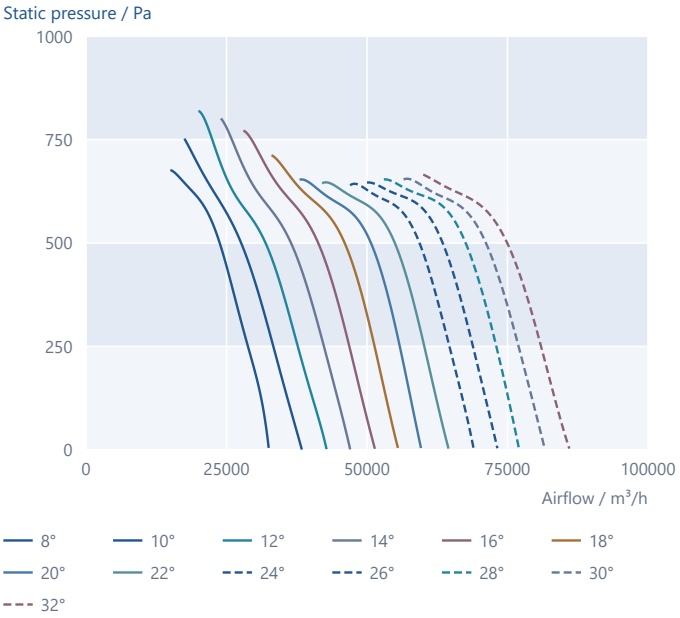
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 11

Fan Performance Curves

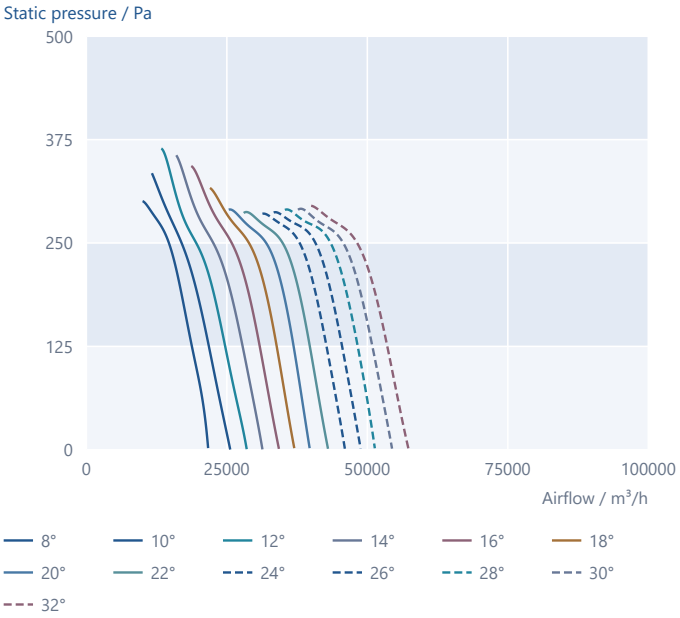
VLF-TS 1000/9/4P

13 blade angles / 400 V / 50 Hz



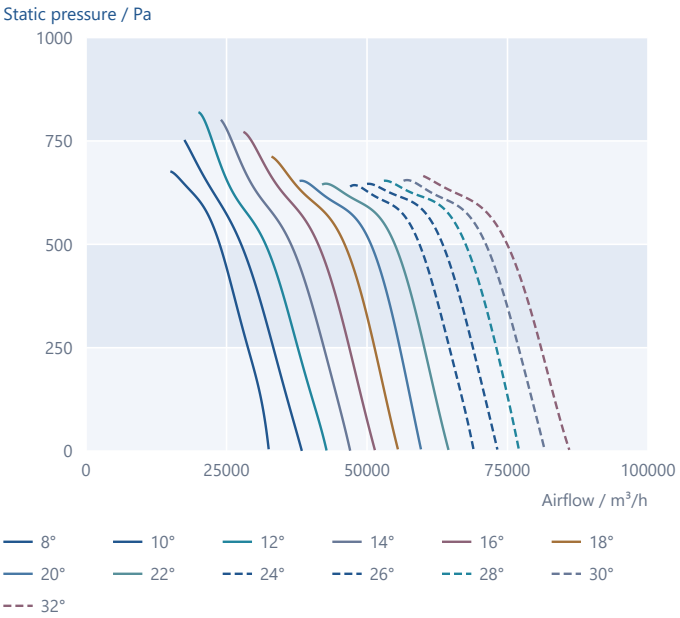
VLF-TS 1000/9/6P

13 blade angles / 400 V / 50 Hz



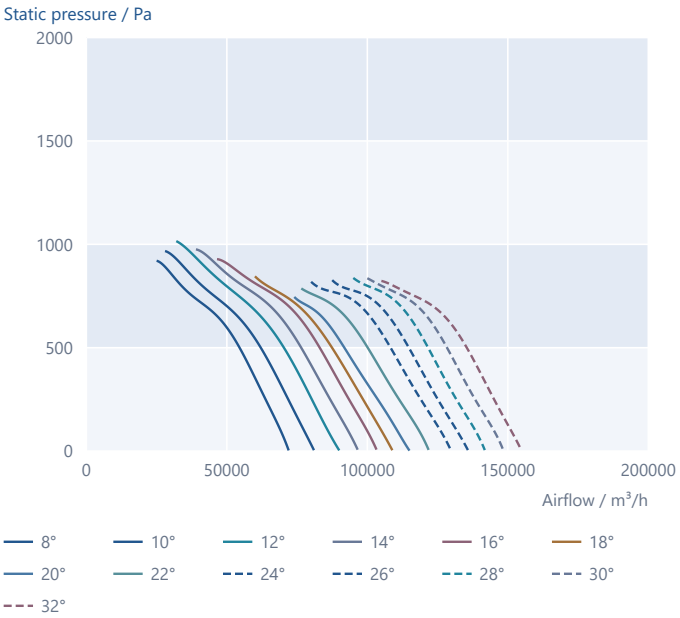
VLF-TS 1000/9/4-8P

13 blade angles / 400 V / 50 Hz



VLF-TS 1250/6/4P

13 blade angles / 400 V / 50 Hz



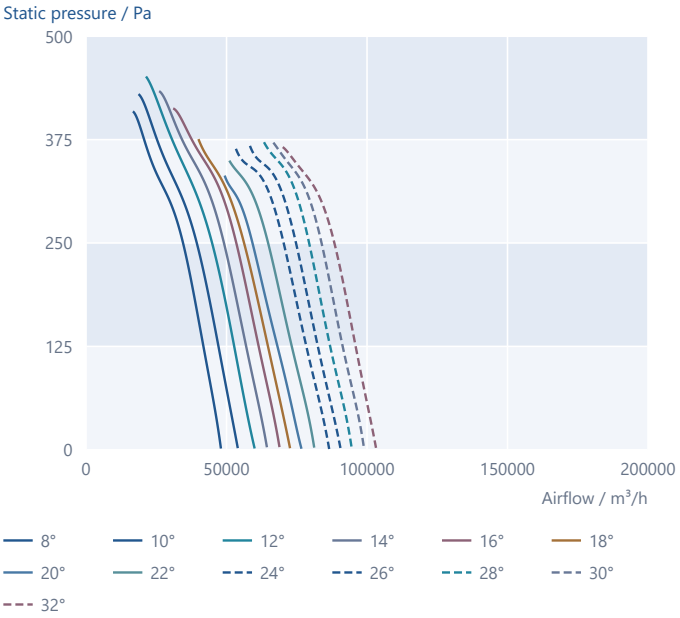
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 12

Fan Performance Curves

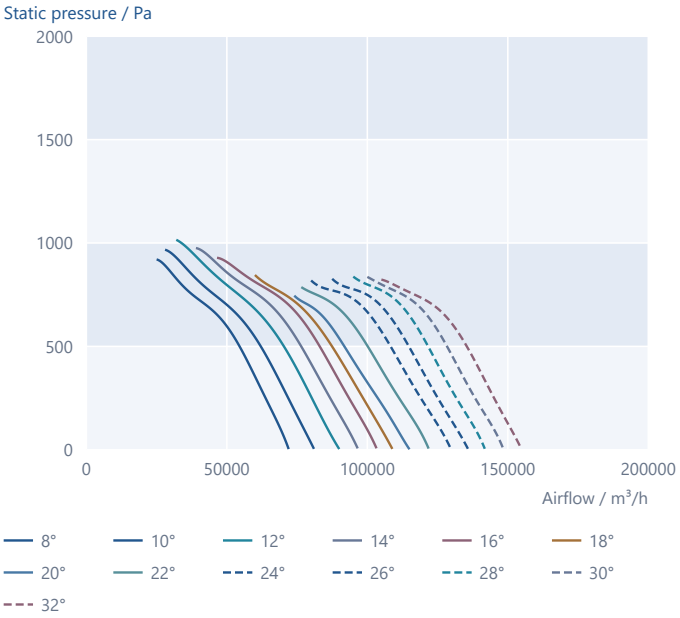
VLF-TS 1250/6/6P

13 blade angles / 400 V / 50 Hz



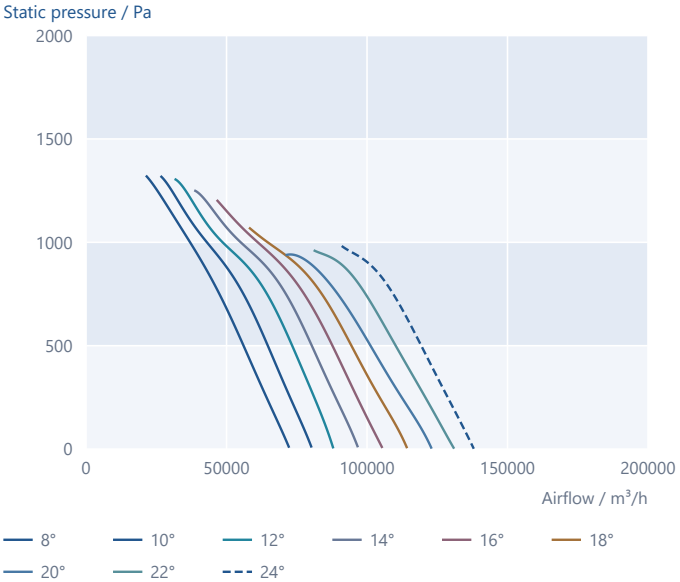
VLF-TS 1250/6/4-8P

13 blade angles / 400 V / 50 Hz



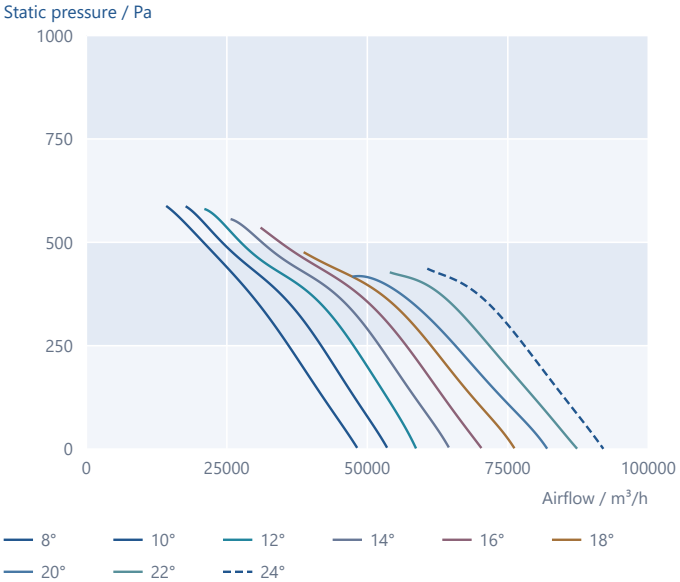
VLF-TS 1250/9/4P

9 blade angles / 400 V / 50 Hz



VLF-TS 1250/9/6P

9 blade angles / 400 V / 50 Hz



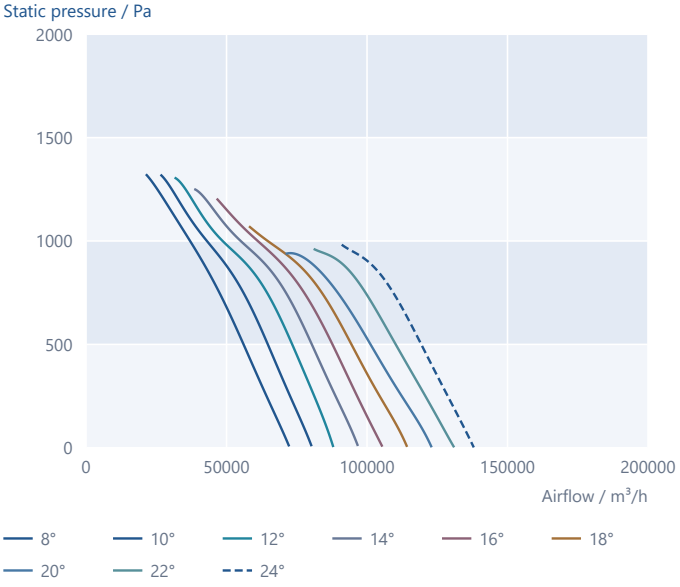
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 13

Fan Performance Curves

VLF-TS 1250/9/4-8P

9 blade angles / 400 V / 50 Hz



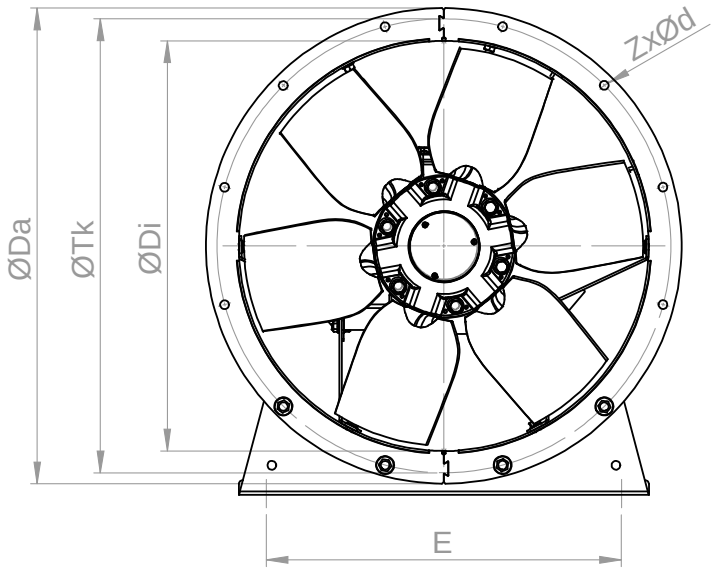
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

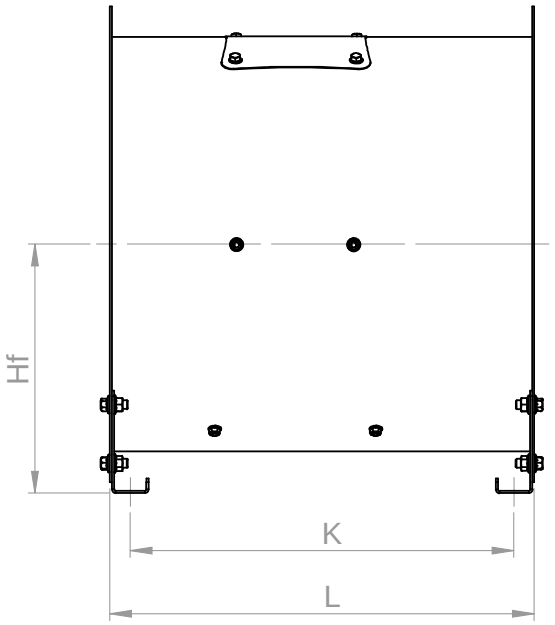
04 / DIMENSIONAL DATA

Plan the mounting connections.

COMMON F300°C / F400°C DIMENSIONS

All lengths in mm





Size	Da	Tk	Di	E	Z	d	Hf	K	L
355	430	400	355	310	8	12	232	380	434
400	480	450	400	335	8	12	255	420	474
450	530	500	450	385	8	12	280	420	474
500	590	560	500	425	12	12	310	524	580
560	650	620	560	485	12	12	340	524	580
630	720	690	630	555	12	12	375	544	600
710	800	770	710	595	16	12	420	544	600
800	890	860	800	625	16	12	470	634	700
900	1005	970	900	675	16	15	527	697	775
1000	1105	1070	1000	775	16	15	577	772	850
1250	1390	1320	1250	950	20	15	720	861	949

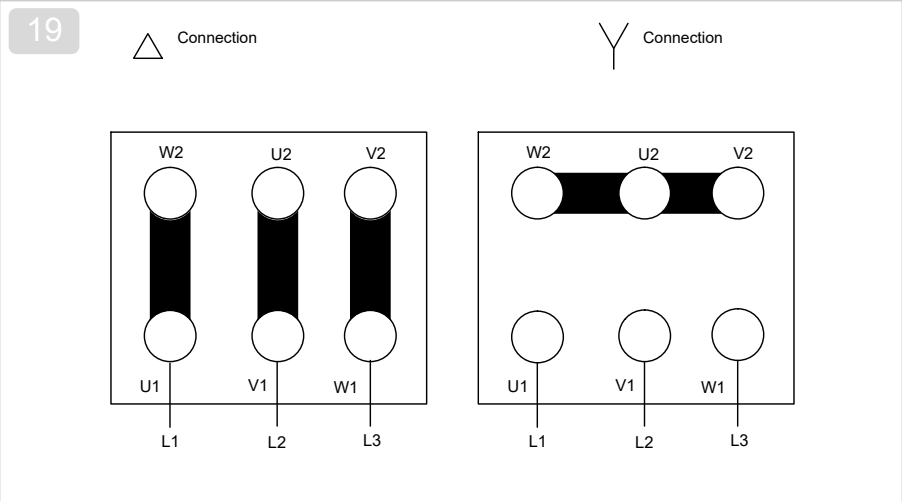
Original vector drawing. Z is the number of flange holes. Other labels retain their original definitions. Dimensions are shared by configurations at each diameter. Confirm mounting orientation and supports for the supplied unit.

05 / ELECTRICAL & INSTALLATION

Connect the specified smoke-duty motor.

Single-speed connection diagram 19. Star or delta connection must match the actual motor nameplate and supplied documentation. This generic diagram does not define the final smoke-duty wiring or a two-speed connection.

THREE PHASE / SINGLE-SPEED REFERENCE DIAGRAM



F300°C / F400°C DUTY SPECIFICATION

Specify F300°C / 120 minutes or F400°C / 120 minutes when selecting the unit. Follow the supplied unit classification and motor documentation for the actual assembly, permitted installation arrangement and emergency operation.

MOTOR SELECTION & INSTALLATION

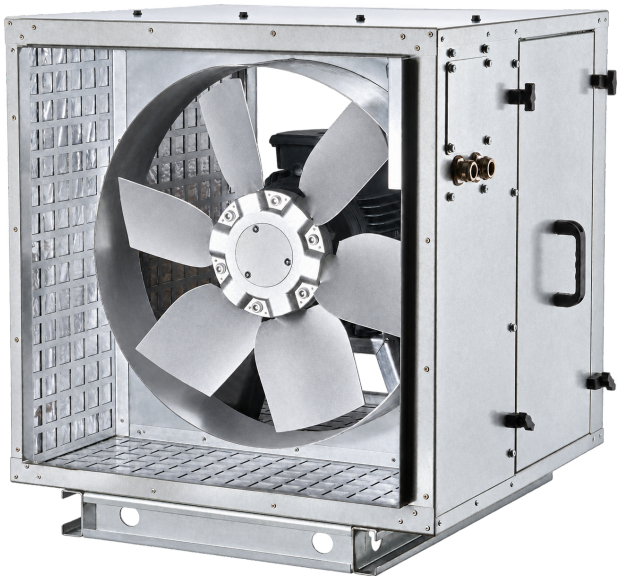
Select blade angle and motor for the required airflow and pressure. Final motor power, current and protection follow the selected unit. Two-speed connections require the supplied motor diagram; the reference curves here describe high-speed operation only.

Provide suitable supports, unobstructed air paths and maintenance access. Isolate the supply before inspection. Keep smoke-control connections consistent with the project specification and supplied unit instructions.

01 / PRODUCT OVERVIEW

VLF-BS

Box Axial Flow Fan



01 Adjustable-pitch impeller

Aluminium alloy airfoil blades. The reference range includes 3, 6 and 9 blades, with performance selected by blade angle and motor poles.

02 Insulated box casing

A double-skin galvanized steel cabinet incorporates glass-wool insulation. The access panel supports inspection and maintenance.

03 Shared aerodynamic data

F300°C and F400°C options share the product image, dimensional data and performance curves in this catalogue.

F300

300°C / 120 minutes

F400

400°C / 120 minutes

COMMON PERFORMANCE & DIMENSIONS

50 main configurations and 626 listed blade-angle curves. Select the final blade angle and motor at the required duty. F300°C and F400°C are alternative smoke-duty specifications; state the required class when ordering.

Selection parameter	Catalogue basis
Fan diameter / blade counts	400-1250 mm / 3, 6 and 9 blades
Reference electrical supply	400 V / 3 phase / 50 Hz
Pole configurations	2P, 4P, 6P, 2-4P and 4-8P
Smoke-duty specification	F300°C / 120 min or F400°C / 120 min
Final motor and classification	As specified for the supplied unit

Performance curves use the listed 20°C reference basis. Fire-class selection does not change these curves. Final motor specification and classification follow the supplied unit documentation.

02 / TECHNICAL DATA / 01

Compare the configurations.

SHARED F300°C / F400°C SELECTION DATA / 400 V / 50 Hz

Configuration diameter/blades/poles	Angles deg.	Reference motor range / kW	Reference airflow envelope / m³/h	Reserve %	Curve page
VLF-BS 400/6/2P	8-34	0.75-5.5	1 330-9 950	10	06
VLF-BS 400/6/4P	8-34	0.37-0.37	665-4 975	10	06
VLF-BS 400/6/6P	8-34	0.18-0.18	443-3 317	10	06
VLF-BS 400/6/2-4P	8-34	0.75-5.5	1 330-9 950	10	06
VLF-BS 450/6/2P	8-28	1.1-4	2 400-13 500	10	07
VLF-BS 450/6/4P	8-38	0.37-0.55	1 200-8 212	7	07
VLF-BS 450/6/6P	8-38	0.18-0.18	800-5 475	10	07
VLF-BS 450/6/2-4P	8-28	1.1-4	2 400-13 500	10	07
VLF-BS 500/6/2P	8-28	2.2-5.5	3 500-18 300	10	08
VLF-BS 500/6/4P	8-36	0.55-1.1	1 750-11 800	10	08
VLF-BS 500/6/6P	8-36	0.37-0.37	1 167-7 867	10	08
VLF-BS 500/6/2-4P	8-28	2.2-5.5	3 500-18 300	10	08
VLF-BS 560/6/2P	8-22	4-7.5	4 000-24 000	6	09
VLF-BS 560/6/4P	8-36	0.55-2.2	2 000-17 140	10	09
VLF-BS 560/6/6P	8-36	0.37-0.55	1 333-11 427	7	09
VLF-BS 560/6/2-4P	8-22	4-7.5	4 000-24 000	6	09
VLF-BS 630/6/2P	8-20	5.5-11	7 000-31 320	0	10

Airflow envelope: minimum and maximum listed curve-domain endpoints across blade angles, rounded to whole m³/h. This is a reference envelope; select the operating point, blade angle and motor for the required duty.

Motor range: listed product motor-power limits. Reference selection uses absorbed power and the configuration-specific motor reserve. Final smoke-duty motor selection and nameplate data follow the supplied unit specification.

For two-speed configurations, these curves describe the supplied high-speed condition only. Low-speed curves are not inferred. F300°C / F400°C classification is a separate specification from the ordinary operating-temperature limits of the listed records.

02 / TECHNICAL DATA / 02

Compare the configurations.

SHARED F300°C / F400°C SELECTION DATA / 400 V / 50 Hz

Configuration diameter/blades/poles	Angles deg.	Reference motor range / kW	Reference airflow envelope / m³/h	Reserve %	Curve page
VLF-BS 630/6/4P	8-38	0.75-4	3 500-25 200	10	10
VLF-BS 630/6/6P	8-38	0.37-1.1	2 333-16 800	10	10
VLF-BS 630/6/2-4P	8-20	5.5-11	7 000-31 320	0	10
VLF-BS 710/3/4P	8-32	0.75-3	1 600-27 500	10	11
VLF-BS 710/3/6P	8-32	0.37-1.1	1 067-18 333	10	11
VLF-BS 710/3/4-8P	8-32	0.75-3	1 600-27 500	10	11
VLF-BS 710/6/4P	8-32	1.1-4	1 800-31 200	1	11
VLF-BS 710/6/6P	8-32	0.75-1.5	1 200-20 800	10	12
VLF-BS 710/6/4-8P	8-32	1.1-4	1 800-31 200	1	12
VLF-BS 800/6/4P	8-32	2.2-11	4 500-42 500	3	12
VLF-BS 800/6/6P	8-32	0.55-3	3 000-28 333	3	12
VLF-BS 800/6/4-8P	8-32	2.2-11	4 500-42 500	3	13
VLF-BS 800/9/4P	8-30	2.2-11	7 500-43 000	10	13
VLF-BS 800/9/6P	8-30	0.75-3	5 000-28 667	10	13
VLF-BS 800/9/4-8P	8-30	2.2-11	7 500-43 000	10	13
VLF-BS 900/6/4P	8-32	4-15	6 000-60 800	10	14
VLF-BS 900/6/6P	8-32	1.1-4	4 000-40 533	5	14

Airflow envelope: minimum and maximum listed curve-domain endpoints across blade angles, rounded to whole m³/h. This is a reference envelope; select the operating point, blade angle and motor for the required duty.

Motor range: listed product motor-power limits. Reference selection uses absorbed power and the configuration-specific motor reserve. Final smoke-duty motor selection and nameplate data follow the supplied unit specification.

For two-speed configurations, these curves describe the supplied high-speed condition only. Low-speed curves are not inferred. F300°C / F400°C classification is a separate specification from the ordinary operating-temperature limits of the listed records.

02 / TECHNICAL DATA / 03

Compare the configurations.

SHARED F300°C / F400°C SELECTION DATA / 400 V / 50 Hz

Configuration diameter/blades/poles	Angles deg.	Reference motor range / kW	Reference airflow envelope / m³/h	Reserve %	Curve page
VLF-BS 900/6/4-8P	8-32	4-15	6 000-60 800	10	14
VLF-BS 900/9/4P	8-32	4-18.5	11 000-63 300	10	14
VLF-BS 900/9/6P	8-32	1.5-5.5	7 333-42 200	10	15
VLF-BS 900/9/4-8P	8-32	4-18.5	11 000-63 300	10	15
VLF-BS 1000/6/4P	8-32	5.5-22	14 000-82 600	3	15
VLF-BS 1000/6/6P	8-32	1.5-7.5	9 333-55 067	10	15
VLF-BS 1000/6/4-8P	8-32	5.5-22	14 000-82 600	3	16
VLF-BS 1000/9/4P	8-32	7.5-30	15 000-86 000	10	16
VLF-BS 1000/9/6P	8-32	2.2-11	10 000-57 333	10	16
VLF-BS 1000/9/4-8P	8-32	7.5-30	15 000-86 000	10	16
VLF-BS 1250/6/4P	8-32	15-55	25 000-155 000	1	17
VLF-BS 1250/6/6P	8-32	4-15	16 667-103 333	10	17
VLF-BS 1250/6/4-8P	8-32	15-55	25 000-155 000	1	17
VLF-BS 1250/9/4P	8-24	18.5-55	21 300-138 000	1	17
VLF-BS 1250/9/6P	8-24	7.5-15	14 200-92 000	10	18
VLF-BS 1250/9/4-8P	8-24	18.5-55	21 300-138 000	1	18

Airflow envelope: minimum and maximum listed curve-domain endpoints across blade angles, rounded to whole m³/h. This is a reference envelope; select the operating point, blade angle and motor for the required duty.

Motor range: listed product motor-power limits. Reference selection uses absorbed power and the configuration-specific motor reserve. Final smoke-duty motor selection and nameplate data follow the supplied unit specification.

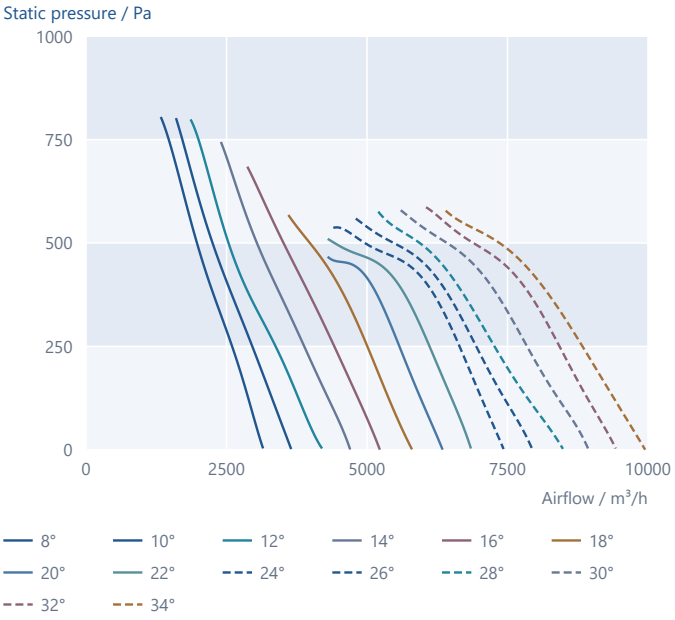
For two-speed configurations, these curves describe the supplied high-speed condition only. Low-speed curves are not inferred. F300°C / F400°C classification is a separate specification from the ordinary operating-temperature limits of the listed records.

03 / AIR PERFORMANCE / 01

Fan Performance Curves

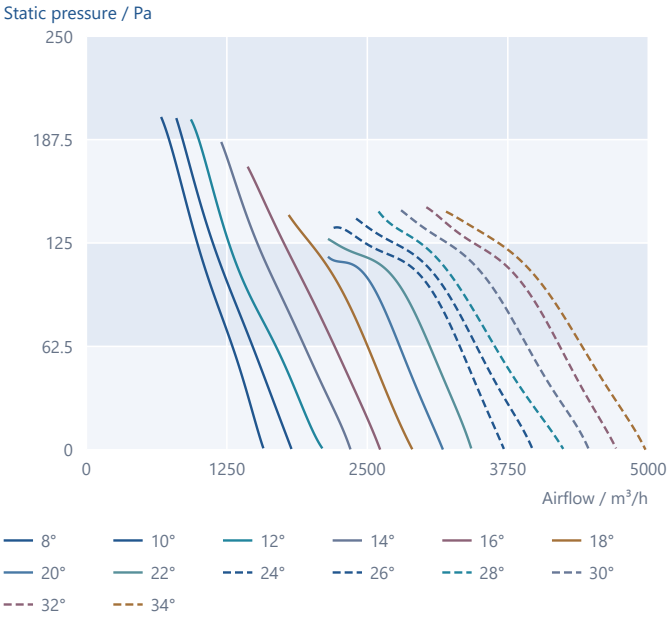
VLF-BS 400/6/2P

14 blade angles / 400 V / 50 Hz



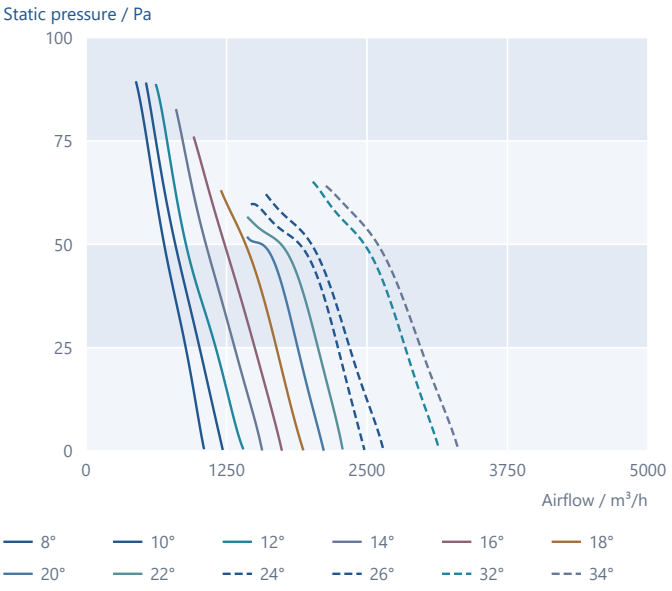
VLF-BS 400/6/4P

14 blade angles / 400 V / 50 Hz



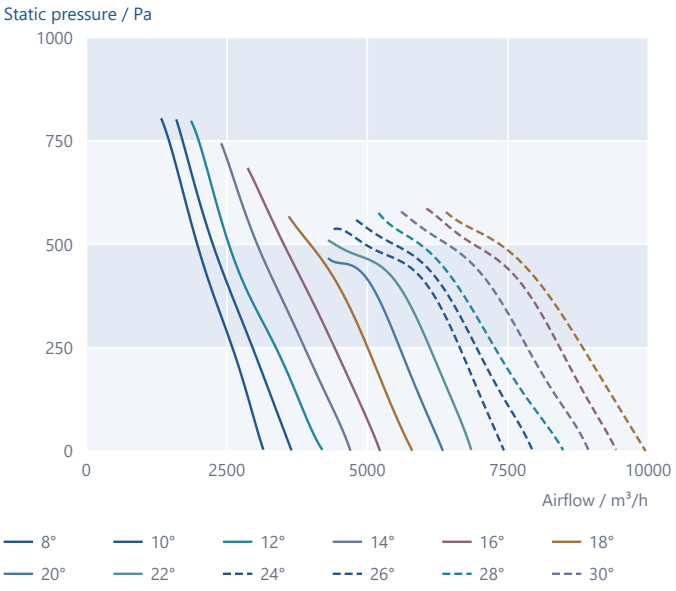
VLF-BS 400/6/6P

12 blade angles / 400 V / 50 Hz



VLF-BS 400/6/2-4P

14 blade angles / 400 V / 50 Hz



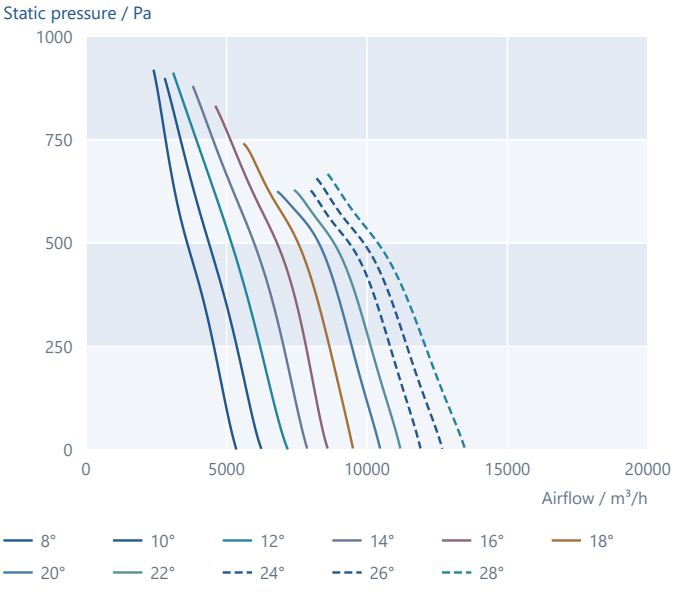
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 02

Fan Performance Curves

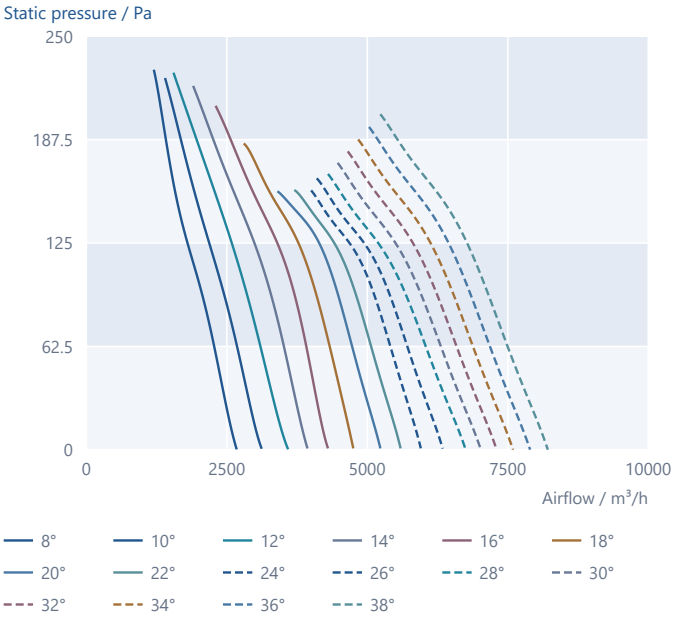
VLF-BS 450/6/2P

11 blade angles / 400 V / 50 Hz



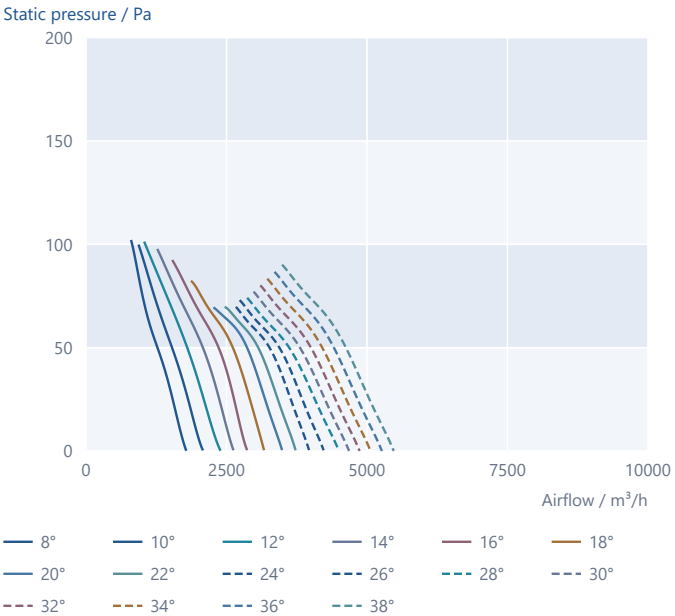
VLF-BS 450/6/4P

16 blade angles / 400 V / 50 Hz



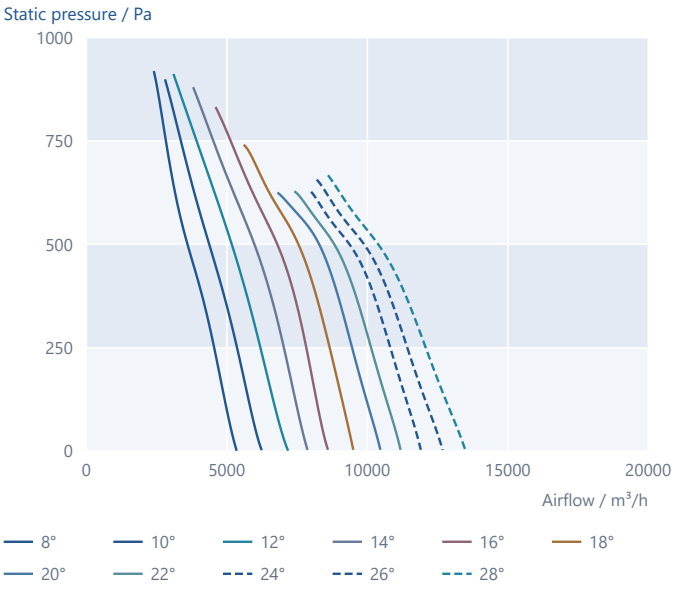
VLF-BS 450/6/6P

16 blade angles / 400 V / 50 Hz



VLF-BS 450/6/2-4P

11 blade angles / 400 V / 50 Hz



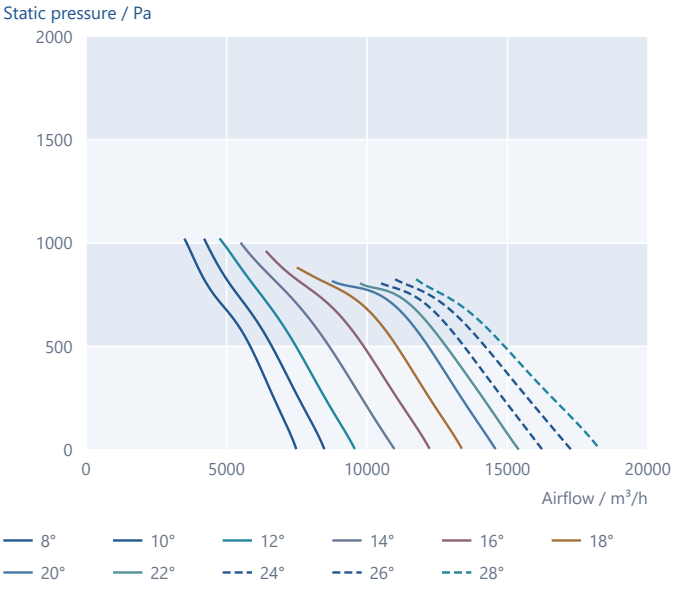
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 03

Fan Performance Curves

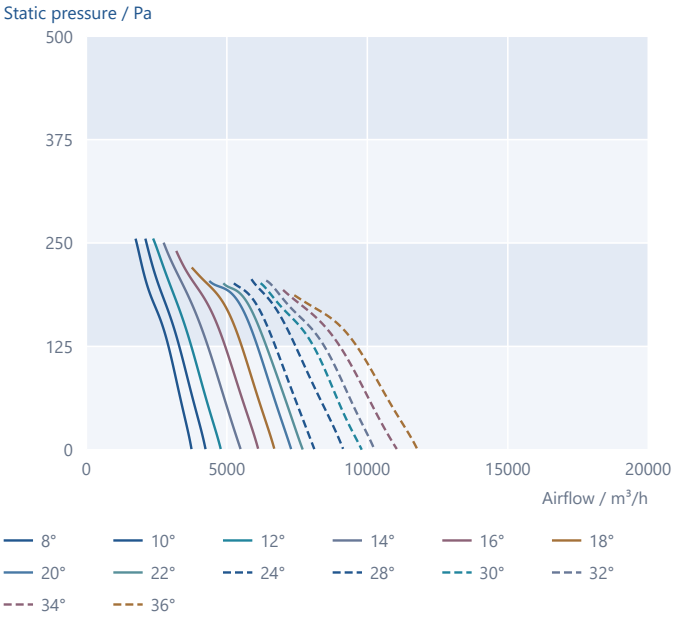
VLF-BS 500/6/2P

11 blade angles / 400 V / 50 Hz



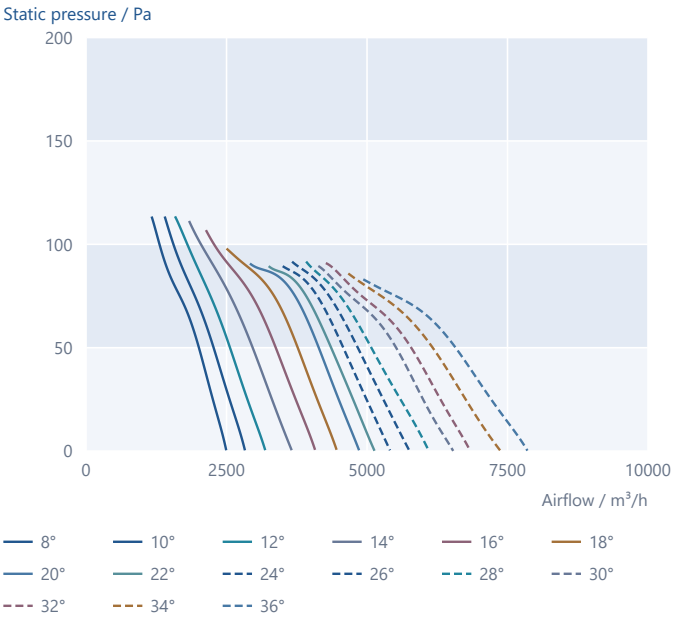
VLF-BS 500/6/4P

14 blade angles / 400 V / 50 Hz



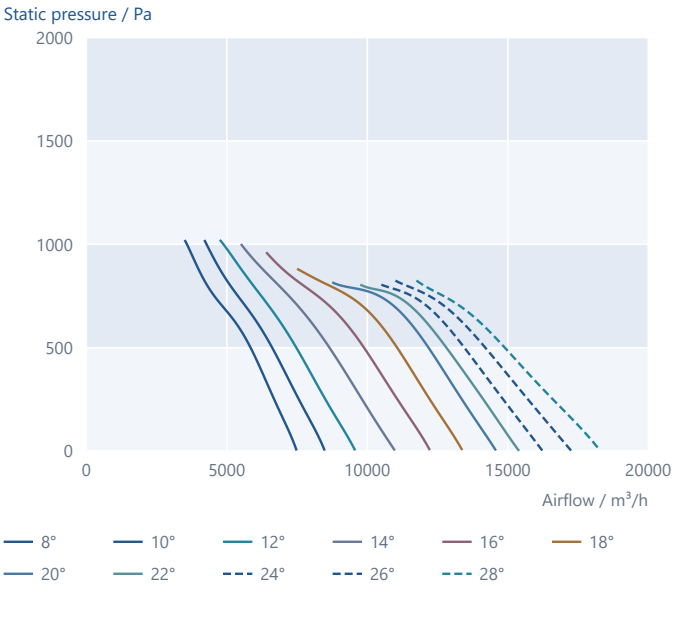
VLF-BS 500/6/6P

15 blade angles / 400 V / 50 Hz



VLF-BS 500/6/2-4P

11 blade angles / 400 V / 50 Hz



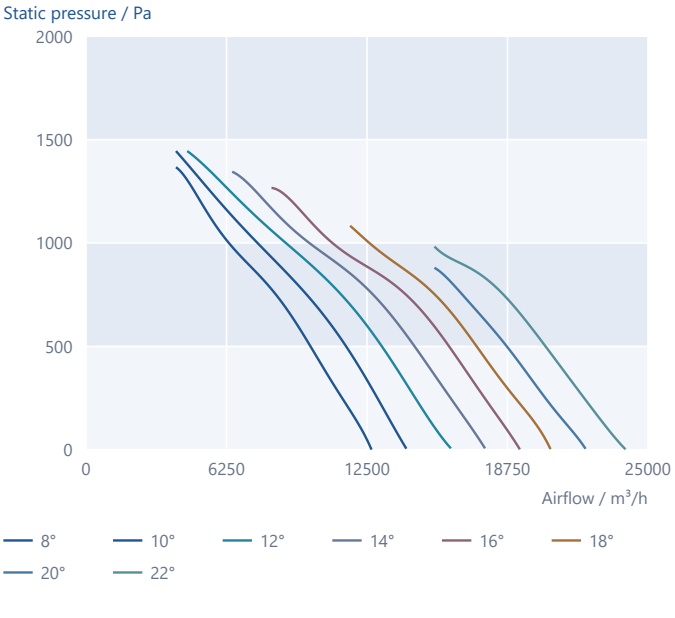
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 04

Fan Performance Curves

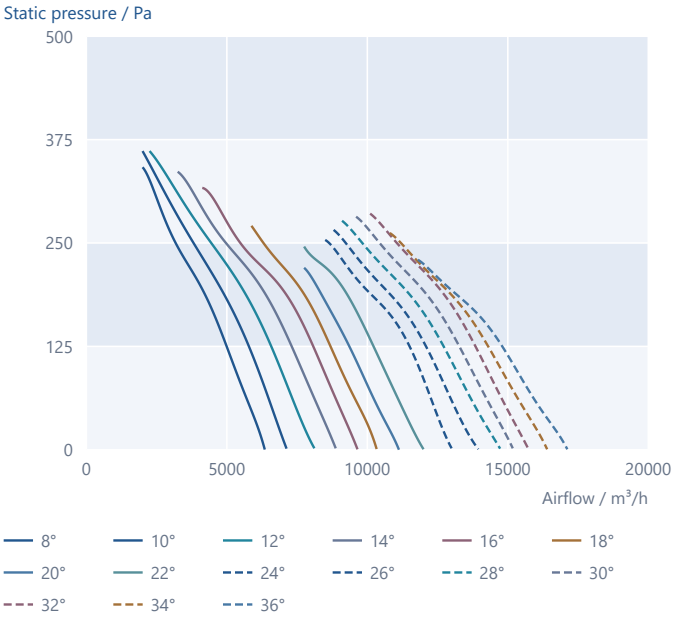
VLF-BS 560/6/2P

8 blade angles / 400 V / 50 Hz



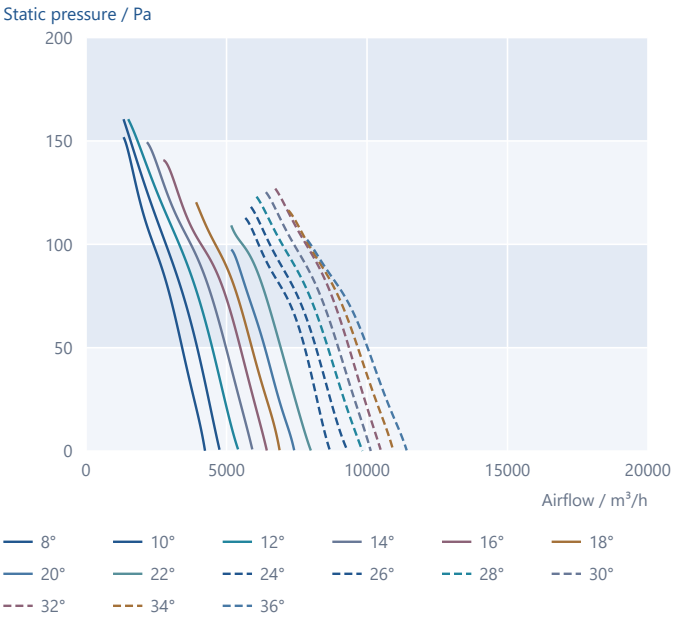
VLF-BS 560/6/4P

15 blade angles / 400 V / 50 Hz



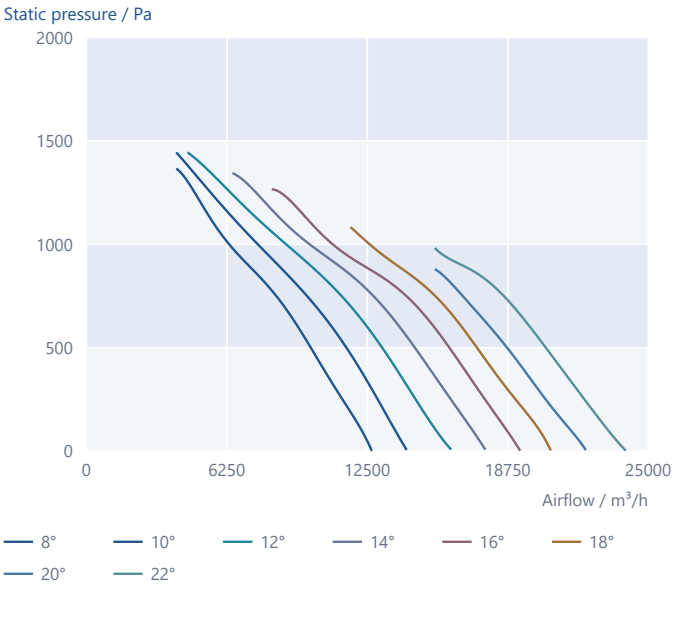
VLF-BS 560/6/6P

15 blade angles / 400 V / 50 Hz



VLF-BS 560/6/2-4P

8 blade angles / 400 V / 50 Hz



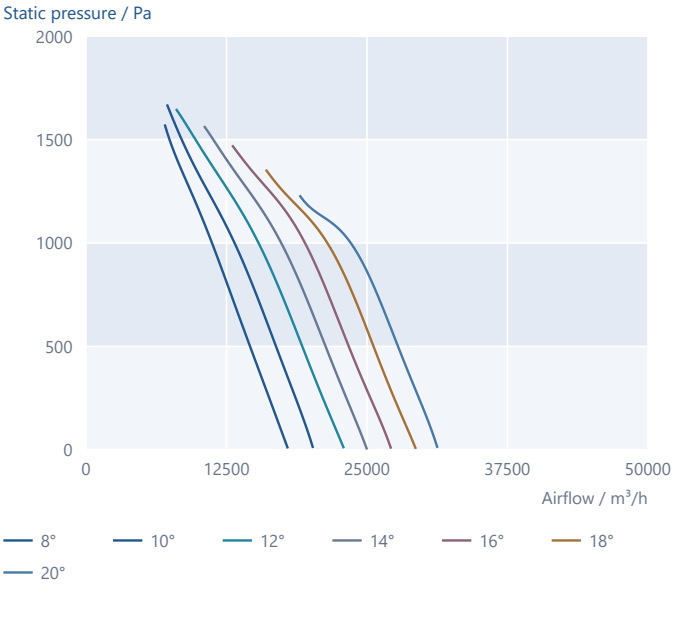
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 05

Fan Performance Curves

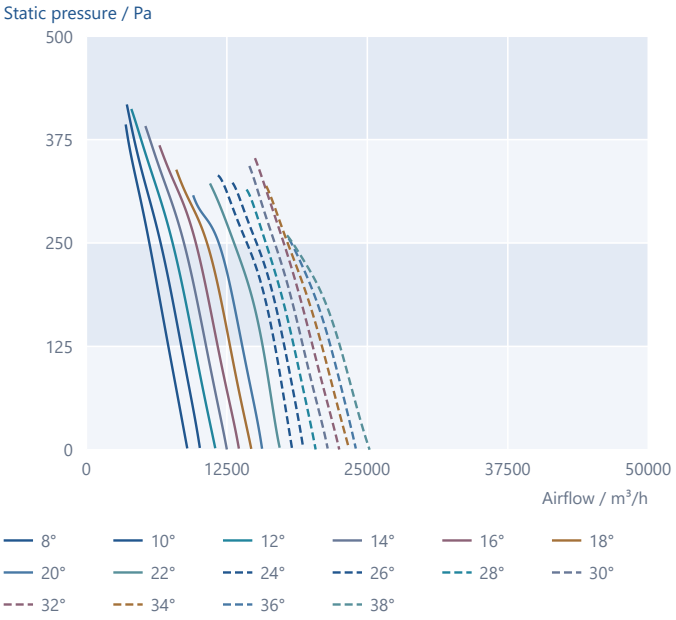
VLF-BS 630/6/2P

7 blade angles / 400 V / 50 Hz



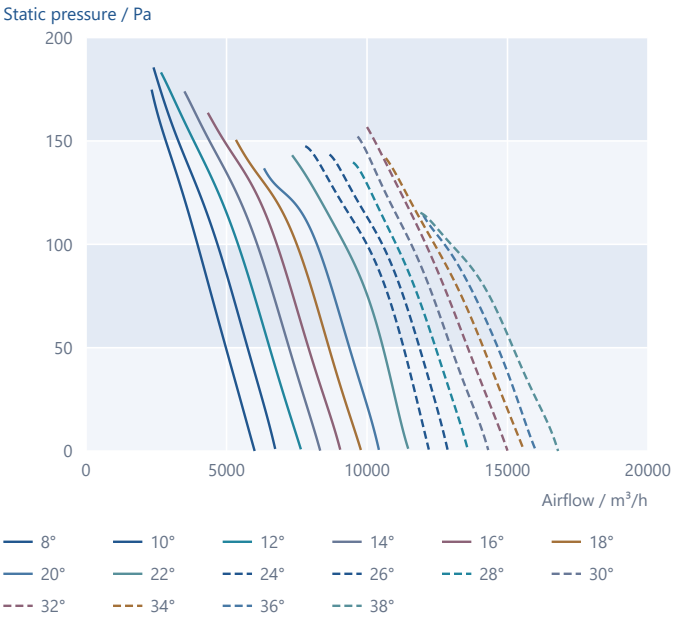
VLF-BS 630/6/4P

16 blade angles / 400 V / 50 Hz



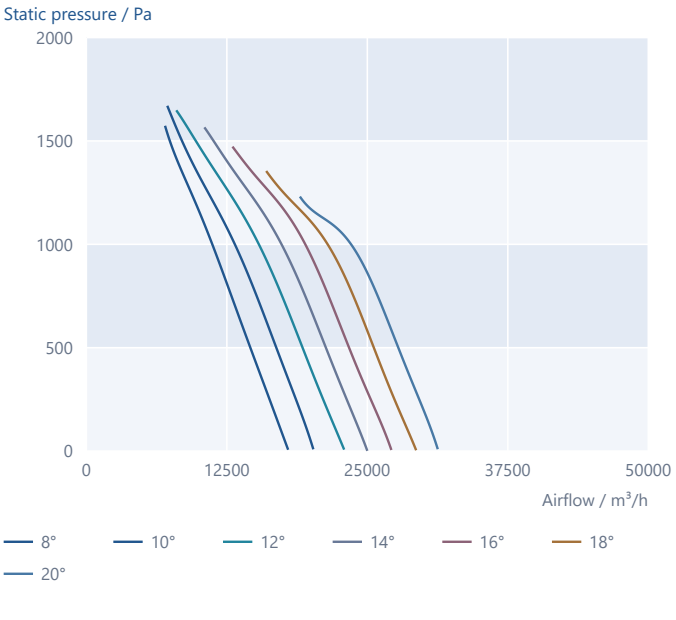
VLF-BS 630/6/6P

16 blade angles / 400 V / 50 Hz



VLF-BS 630/6/2-4P

7 blade angles / 400 V / 50 Hz



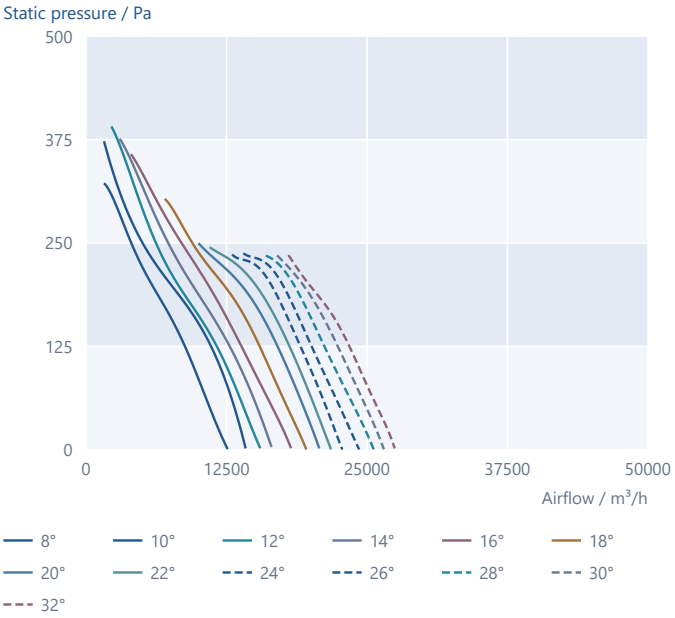
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 06

Fan Performance Curves

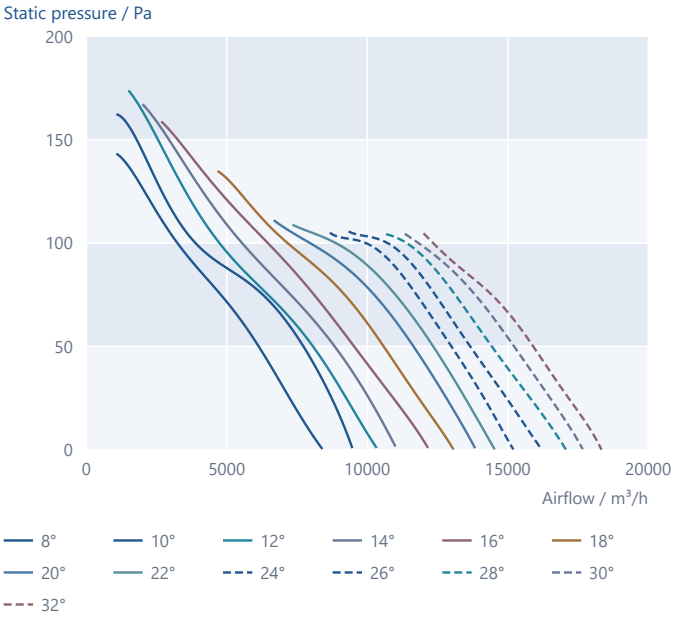
VLF-BS 710/3/4P

13 blade angles / 400 V / 50 Hz



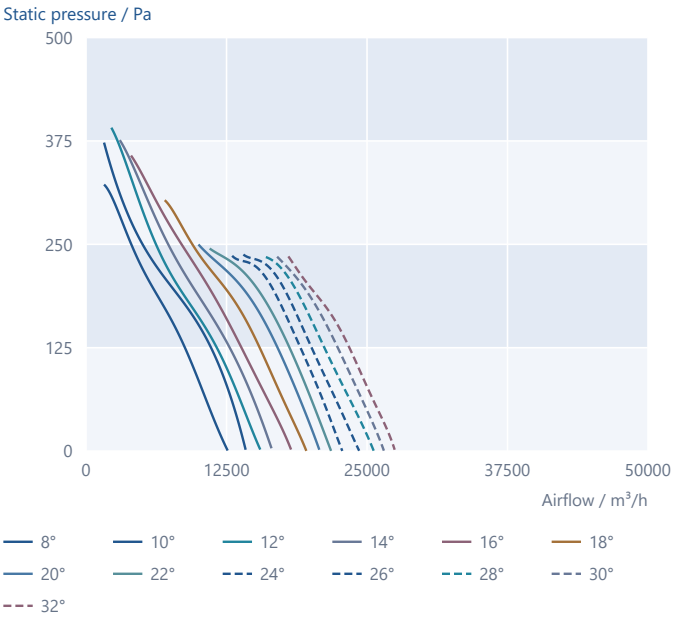
VLF-BS 710/3/6P

13 blade angles / 400 V / 50 Hz



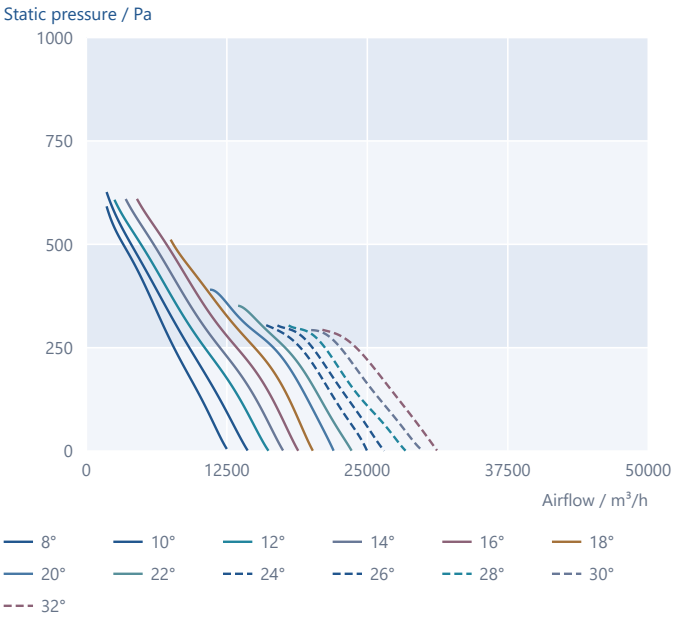
VLF-BS 710/3/4-8P

13 blade angles / 400 V / 50 Hz



VLF-BS 710/6/4P

13 blade angles / 400 V / 50 Hz



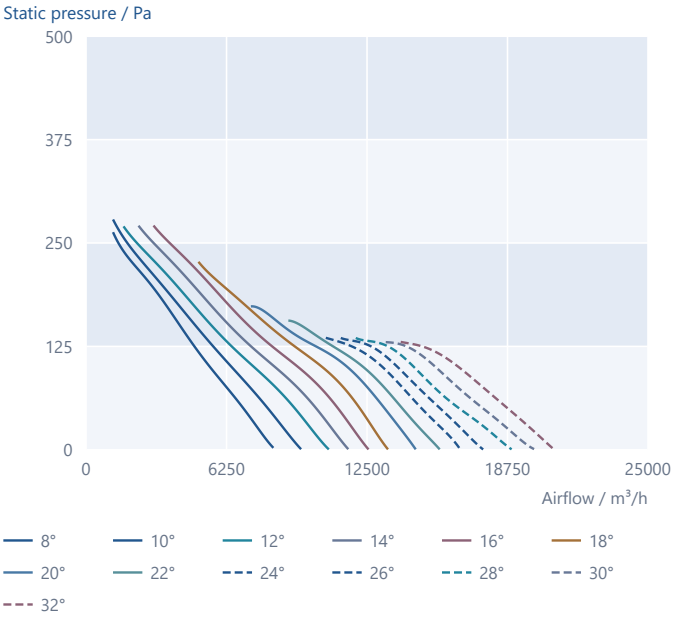
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 07

Fan Performance Curves

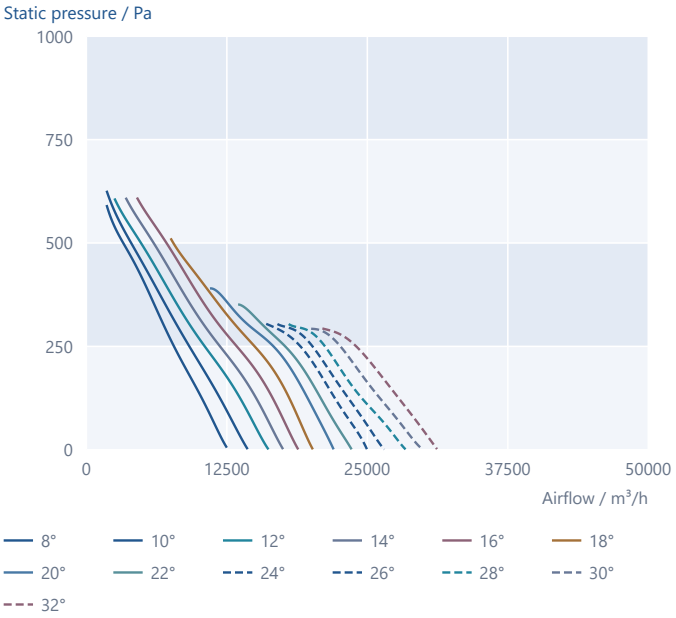
VLF-BS 710/6/6P

13 blade angles / 400 V / 50 Hz



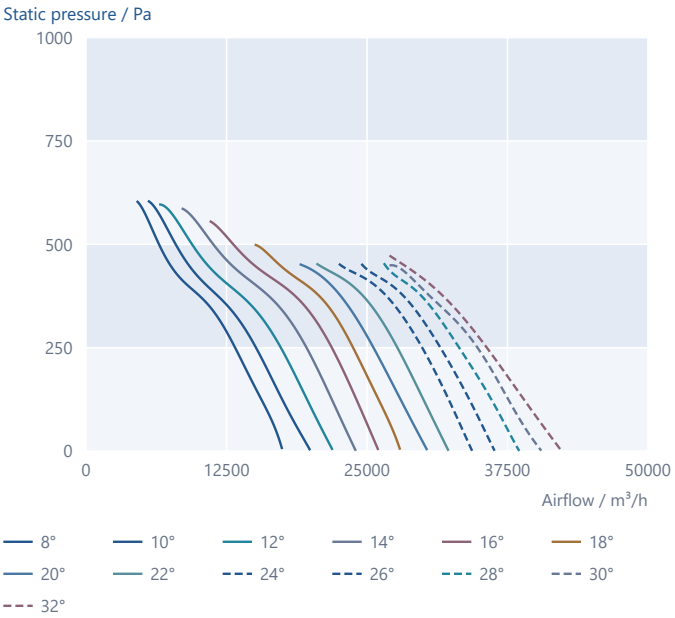
VLF-BS 710/6/4-8P

13 blade angles / 400 V / 50 Hz



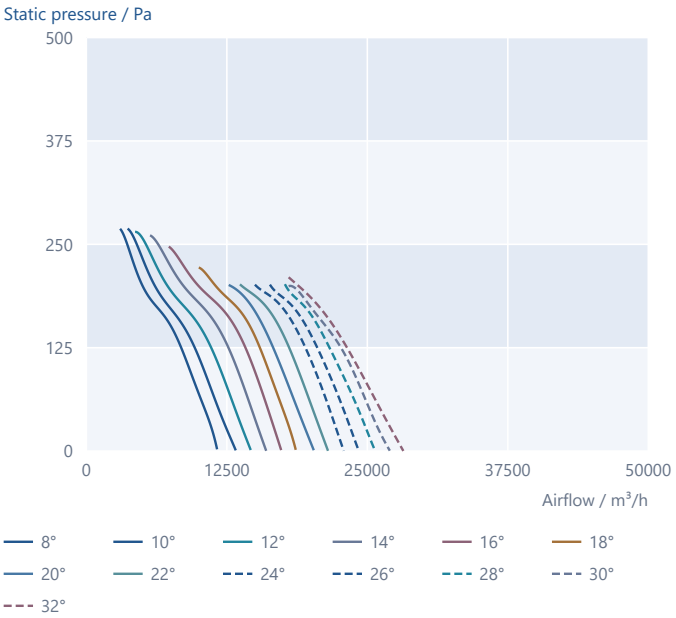
VLF-BS 800/6/4P

13 blade angles / 400 V / 50 Hz



VLF-BS 800/6/6P

13 blade angles / 400 V / 50 Hz



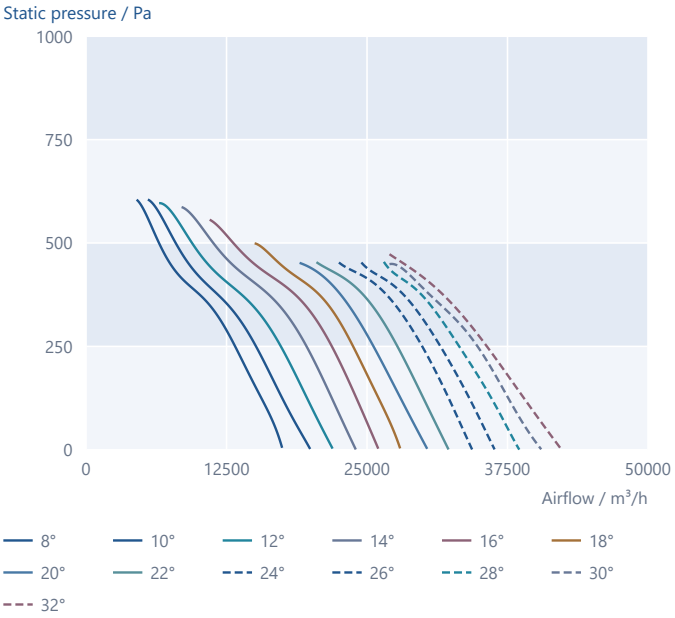
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 08

Fan Performance Curves

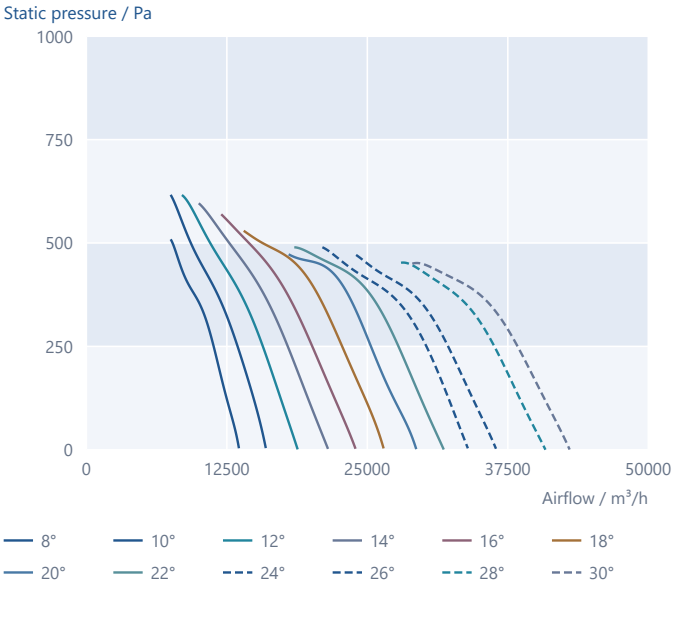
VLF-BS 800/6/4-8P

13 blade angles / 400 V / 50 Hz



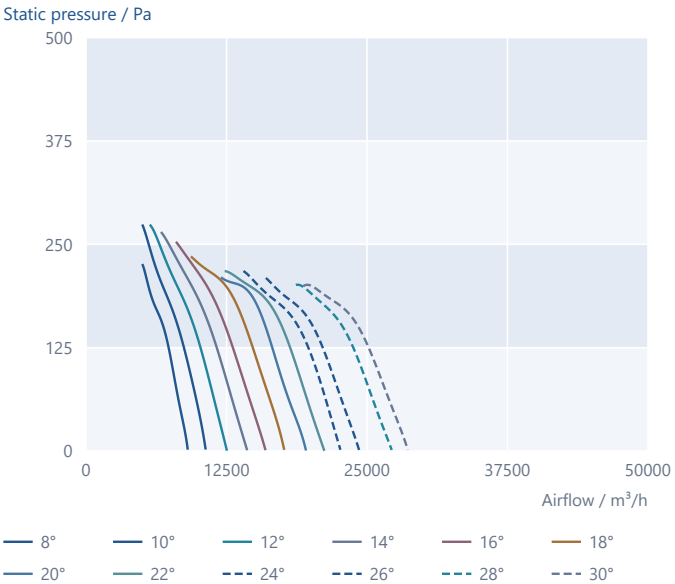
VLF-BS 800/9/4P

12 blade angles / 400 V / 50 Hz



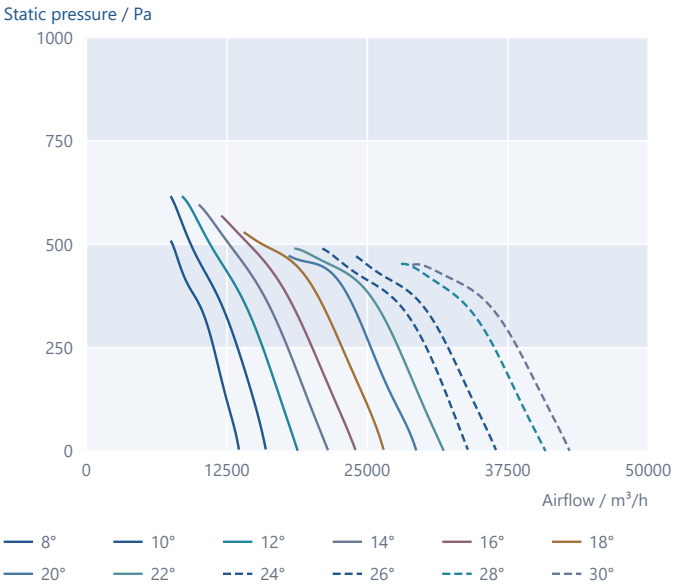
VLF-BS 800/9/6P

12 blade angles / 400 V / 50 Hz



VLF-BS 800/9/4-8P

12 blade angles / 400 V / 50 Hz



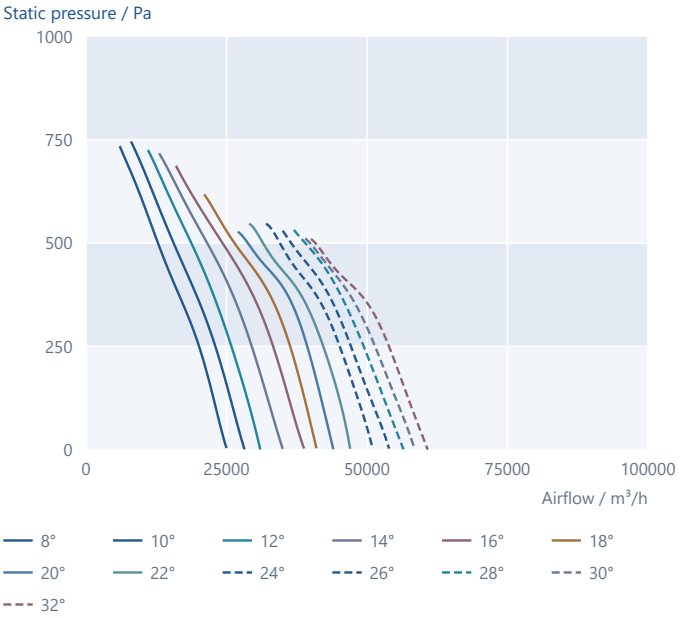
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 09

Fan Performance Curves

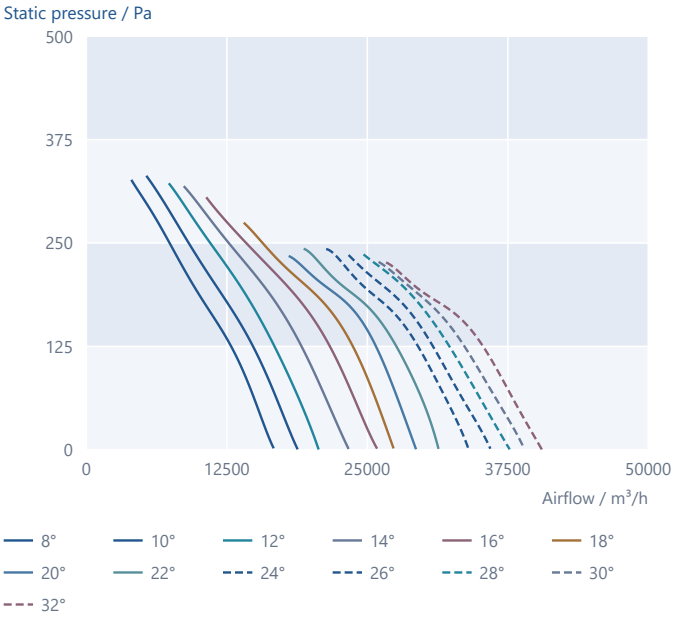
VLF-BS 900/6/4P

13 blade angles / 400 V / 50 Hz



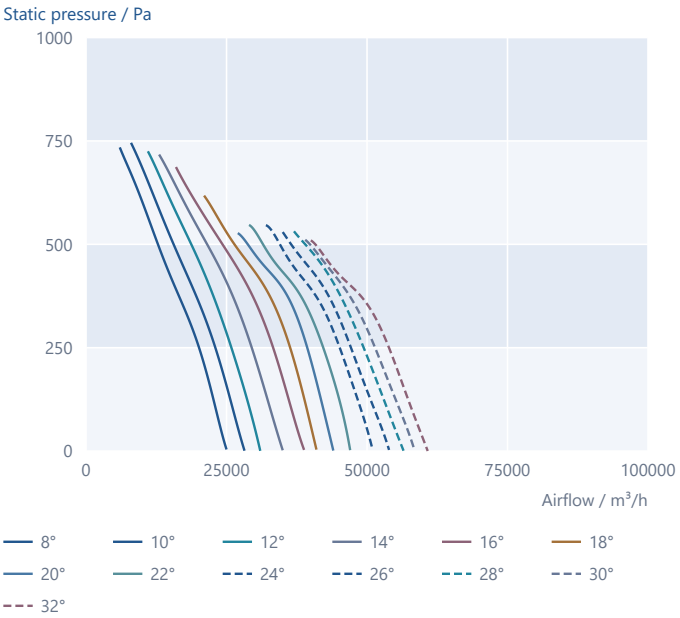
VLF-BS 900/6/6P

13 blade angles / 400 V / 50 Hz



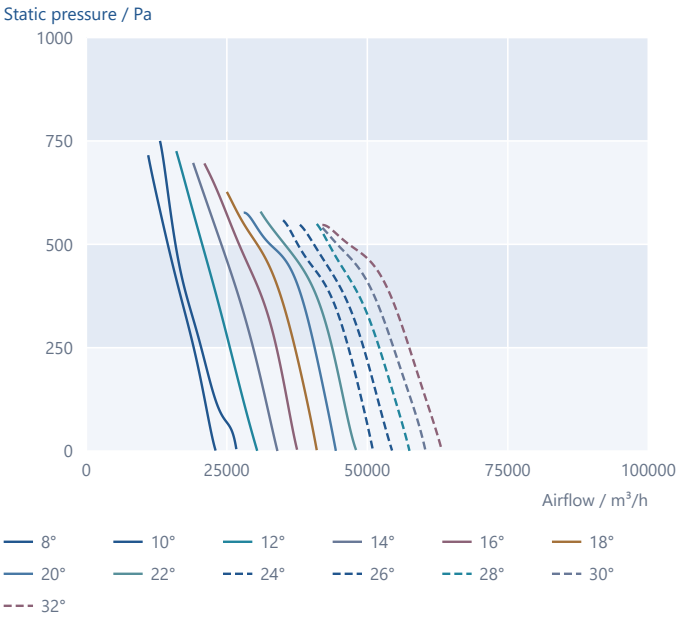
VLF-BS 900/6/4-8P

13 blade angles / 400 V / 50 Hz



VLF-BS 900/9/4P

13 blade angles / 400 V / 50 Hz



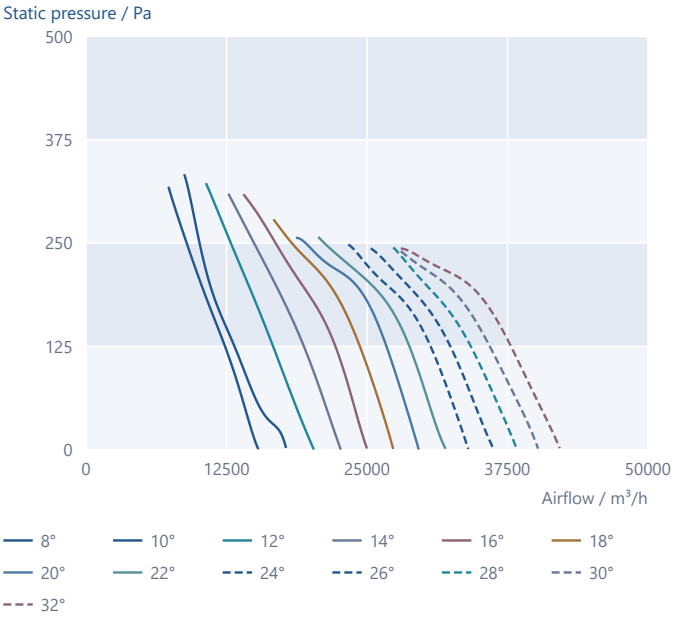
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 10

Fan Performance Curves

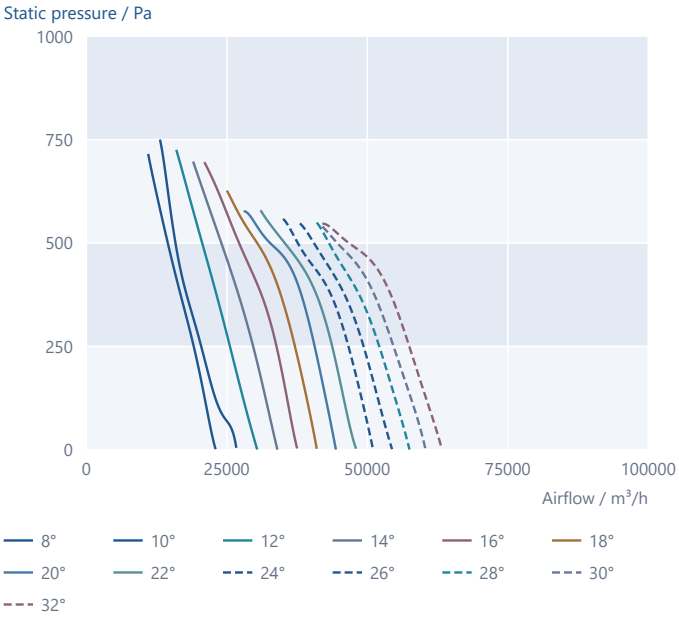
VLF-BS 900/9/6P

13 blade angles / 400 V / 50 Hz



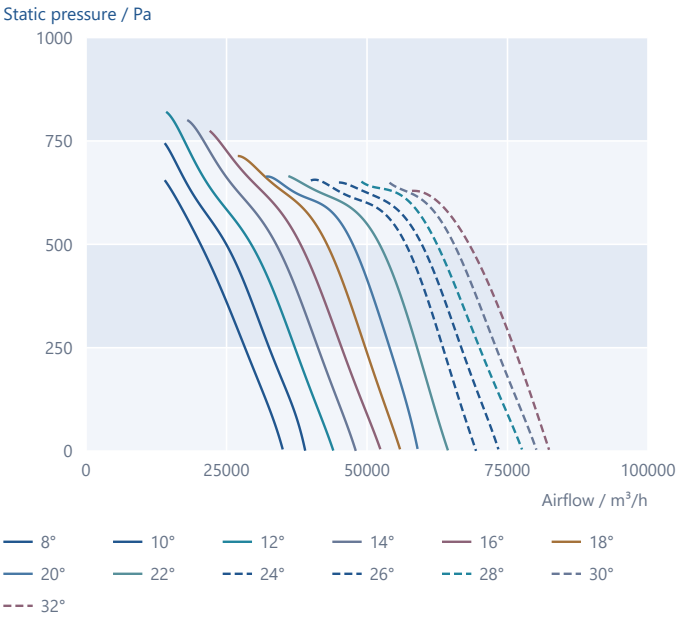
VLF-BS 900/9/4-8P

13 blade angles / 400 V / 50 Hz



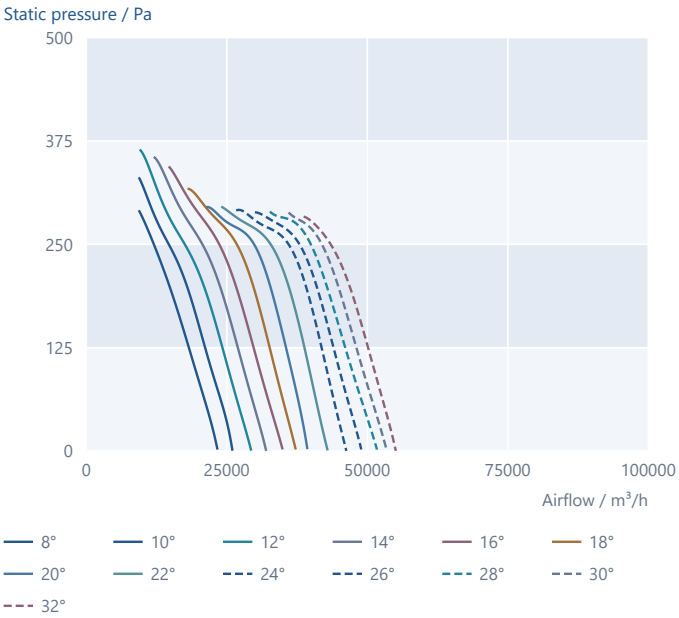
VLF-BS 1000/6/4P

13 blade angles / 400 V / 50 Hz



VLF-BS 1000/6/6P

13 blade angles / 400 V / 50 Hz



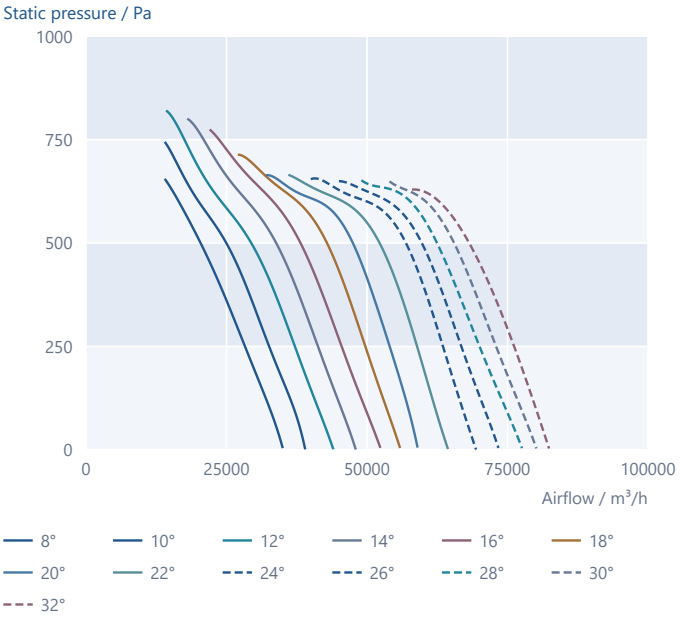
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 11

Fan Performance Curves

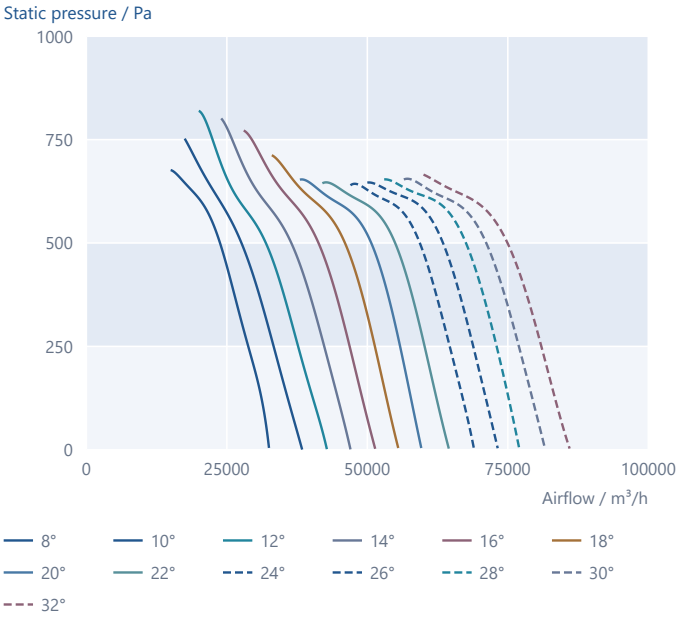
VLF-BS 1000/6/4-8P

13 blade angles / 400 V / 50 Hz



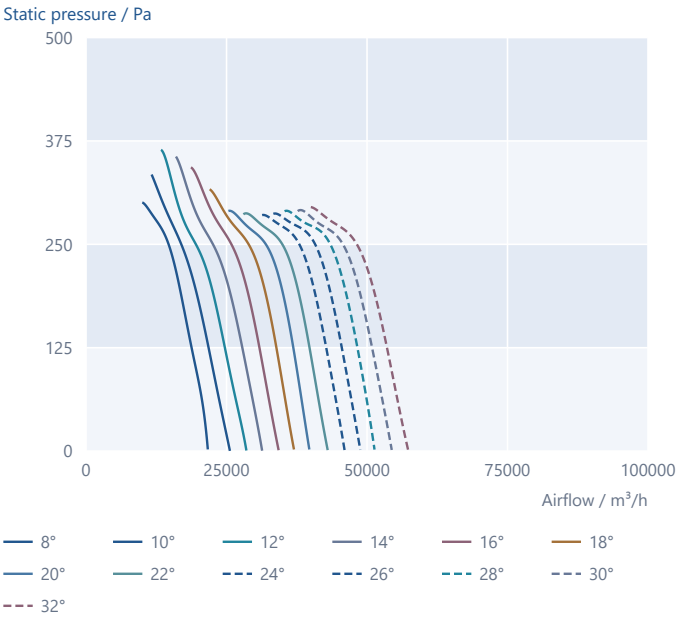
VLF-BS 1000/9/4P

13 blade angles / 400 V / 50 Hz



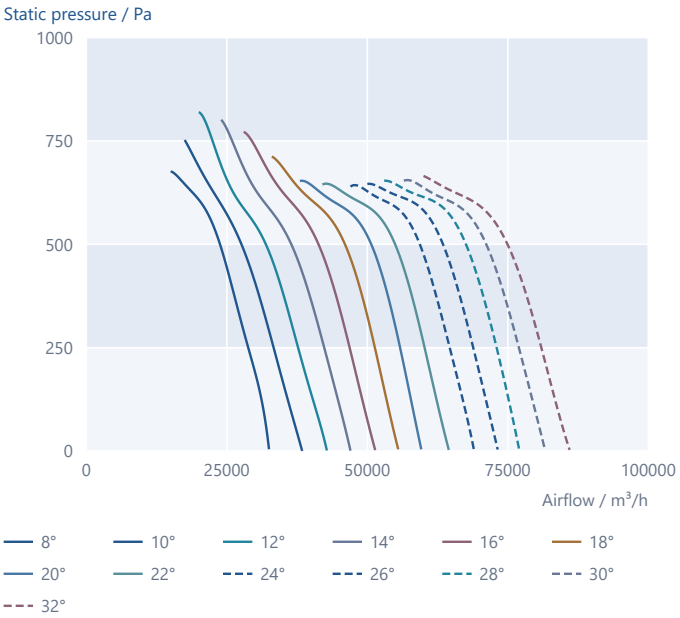
VLF-BS 1000/9/6P

13 blade angles / 400 V / 50 Hz



VLF-BS 1000/9/4-8P

13 blade angles / 400 V / 50 Hz



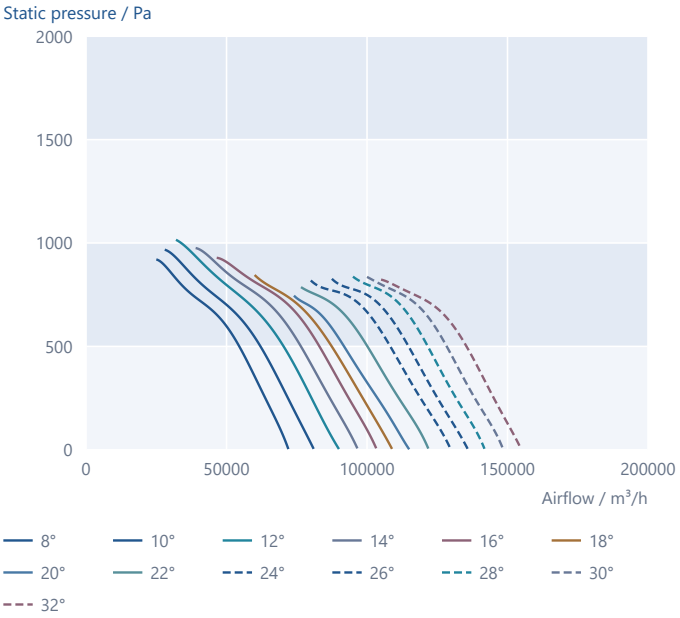
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 12

Fan Performance Curves

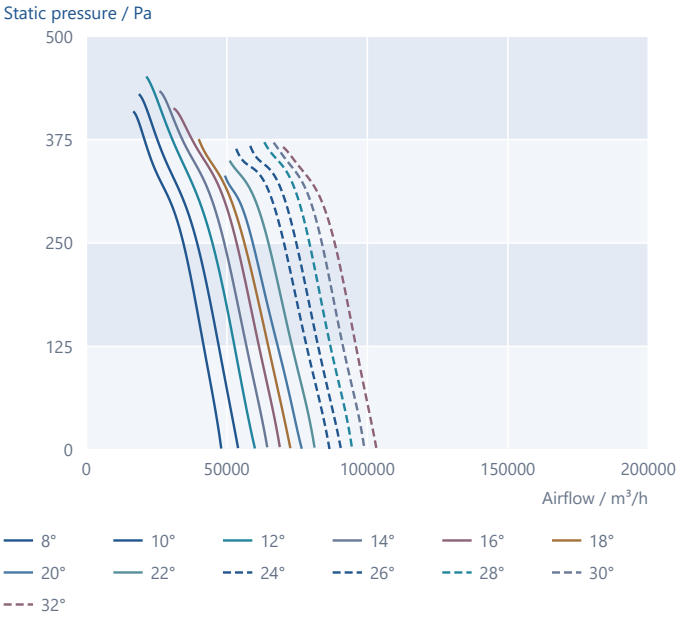
VLF-BS 1250/6/4P

13 blade angles / 400 V / 50 Hz



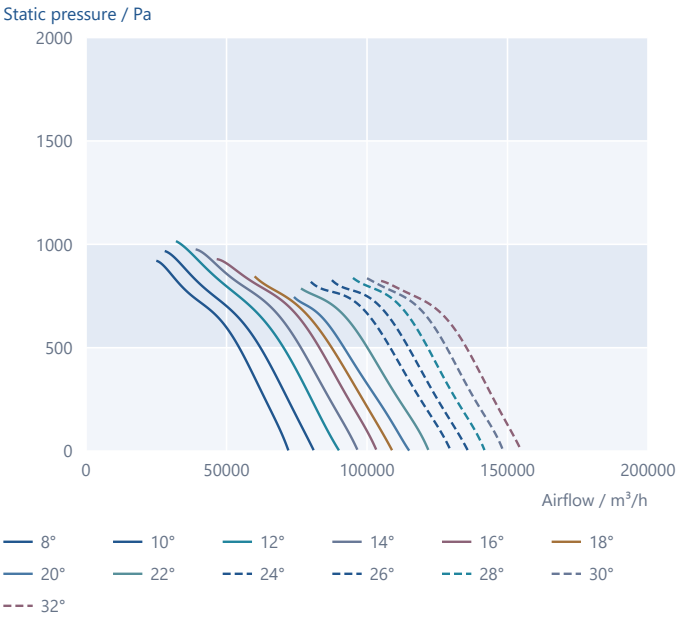
VLF-BS 1250/6/6P

13 blade angles / 400 V / 50 Hz



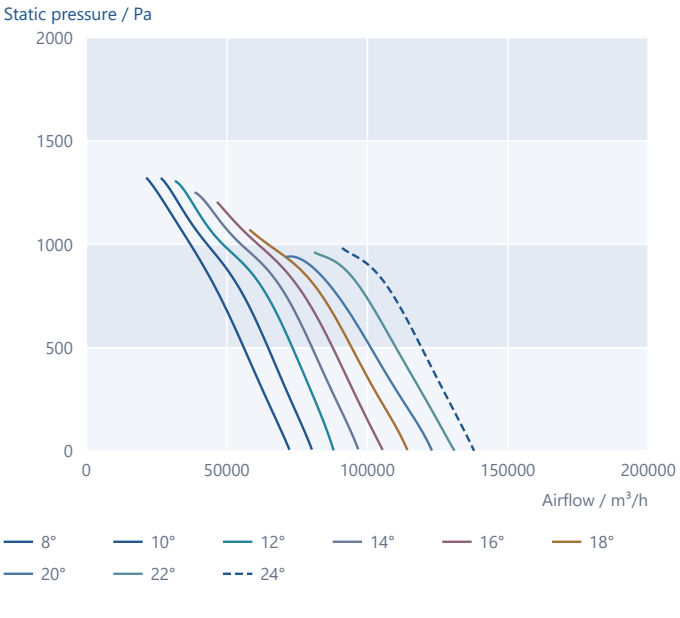
VLF-BS 1250/6/4-8P

13 blade angles / 400 V / 50 Hz



VLF-BS 1250/9/4P

9 blade angles / 400 V / 50 Hz



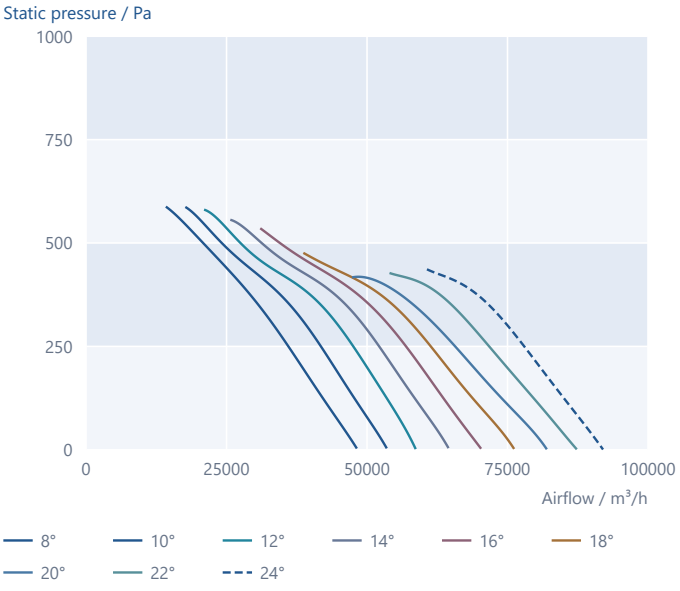
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 13

Fan Performance Curves

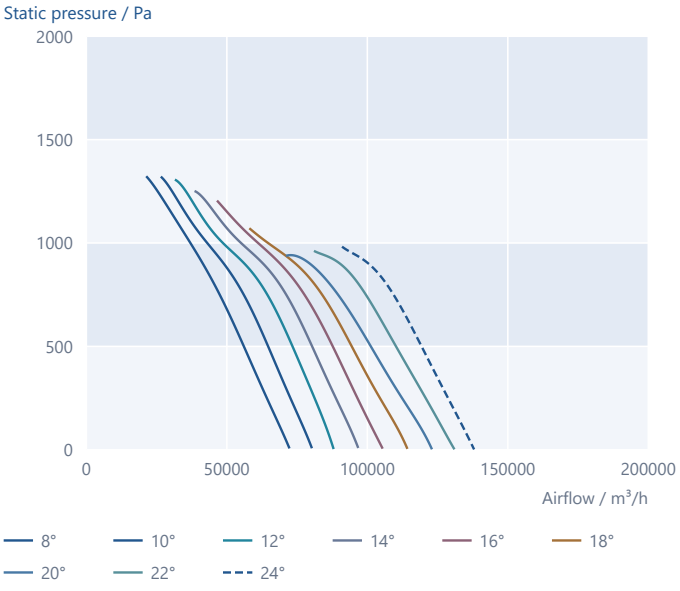
VLF-BS 1250/9/6P

9 blade angles / 400 V / 50 Hz



VLF-BS 1250/9/4-8P

9 blade angles / 400 V / 50 Hz



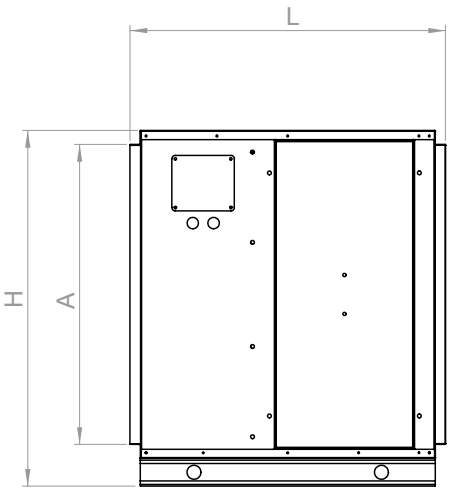
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

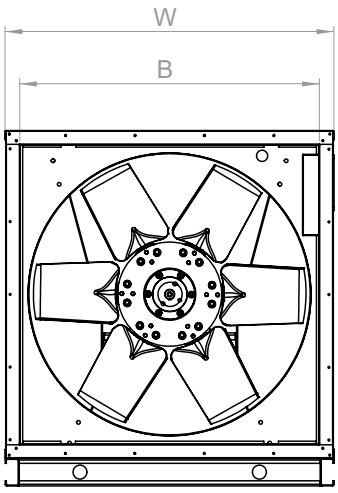
04 / DIMENSIONAL DATA

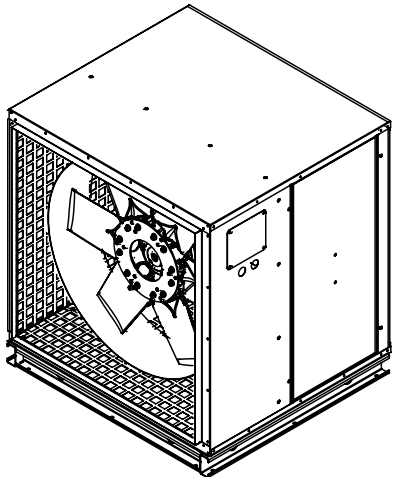
Plan the mounting connections.

COMMON F300°C / F400°C DIMENSIONS

All lengths in mm







Size	A	B	H	L	W
400	490	490	640	592	568
450	490	490	640	592	568
500	536	536	686	592	620
560	624	624	775	745	707
630	694	694	845	745	777
710	774	774	925	910	857
800	865	865	1025	910	950
900	965	965	1125	1065	1050
1000	1069	1069	1250	1065	1150
1250	1319	1319	1500	1065	1400

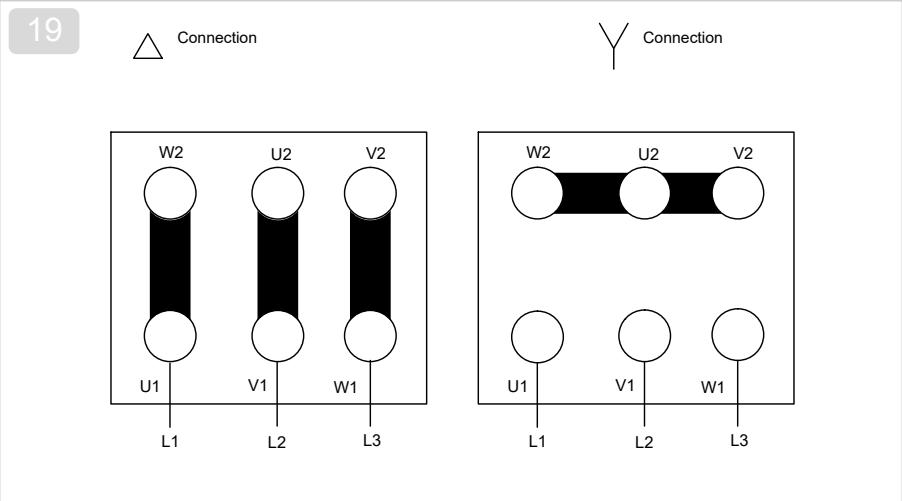
Original vector drawing. A, B, H, L and W retain their original definitions. Cabinet dimensions are shared by configurations at each diameter. Allow clearance for the access panel. Confirm mounting orientation and supports for the supplied unit.

05 / ELECTRICAL & INSTALLATION

Connect the specified smoke-duty motor.

Single-speed connection diagram 19. Star or delta connection must match the actual motor nameplate and supplied documentation. This generic diagram does not define the final smoke-duty wiring or a two-speed connection.

THREE PHASE / SINGLE-SPEED REFERENCE DIAGRAM



F300°C / F400°C DUTY SPECIFICATION

Specify F300°C / 120 minutes or F400°C / 120 minutes when selecting the unit. Follow the supplied unit classification and motor documentation for the actual assembly, permitted installation arrangement and emergency operation.

MOTOR SELECTION & INSTALLATION

Select blade angle and motor for the required airflow and pressure. Final motor power, current and protection follow the selected unit. Two-speed connections require the supplied motor diagram; the reference curves here describe high-speed operation only.

Provide suitable supports, unobstructed air paths and maintenance access. Isolate the supply before inspection. Keep smoke-control connections consistent with the project specification and supplied unit instructions.

01 / PRODUCT OVERVIEW

VLF-RS

Axial Roof Fan



01 Adjustable-pitch impeller

Aluminium alloy airfoil blades. The reference range includes 3, 6 and 9 blades, with performance selected by blade angle and motor poles.

02 Roof-mounted construction

A galvanized steel roof casing incorporates a weather hood and discharge guard. Use the model-specific mounting dimensions and a suitable roof curb.

03 Shared aerodynamic data

F300°C and F400°C options share the product image, dimensional data and performance curves in this catalogue.

F300
300°C / 120 minutes

F400
400°C / 120 minutes

COMMON PERFORMANCE & DIMENSIONS

50 main configurations and 626 listed blade-angle curves. Select the final blade angle and motor at the required duty. F300°C and F400°C are alternative smoke-duty specifications; state the required class when ordering.

Selection parameter	Catalogue basis
Fan diameter / blade counts	400-1250 mm / 3, 6 and 9 blades
Reference electrical supply	400 V / 3 phase / 50 Hz
Pole configurations	2P, 4P, 6P, 2-4P and 4-8P
Smoke-duty specification	F300°C / 120 min or F400°C / 120 min
Final motor and classification	As specified for the supplied unit

Performance curves use the listed 20°C reference basis. Fire-class selection does not change these curves. Final motor specification and classification follow the supplied unit documentation.

02 / TECHNICAL DATA / 01

Compare the configurations.

SHARED F300°C / F400°C SELECTION DATA / 400 V / 50 Hz

Configuration diameter/blades/poles	Angles deg.	Reference motor range / kW	Reference airflow envelope / m³/h	Reserve %	Curve page
VLF-RS 400/6/2P	8-34	0.75-3	1 330-9 950	10	06
VLF-RS 400/6/4P	8-34	0.18-0.37	665-4 975	10	06
VLF-RS 400/6/6P	8-34	0.18-0.18	443-3 317	10	06
VLF-RS 400/6/2-4P	8-34	0.75-3	1 330-9 950	10	06
VLF-RS 450/6/2P	8-28	1.1-4	2 400-13 500	10	07
VLF-RS 450/6/4P	8-38	0.18-0.55	1 200-8 212	7	07
VLF-RS 450/6/6P	8-38	0.18-0.18	800-5 475	10	07
VLF-RS 450/6/2-4P	8-28	1.1-4	2 400-13 500	10	07
VLF-RS 500/6/2P	8-28	2.2-5.5	3 500-18 300	10	08
VLF-RS 500/6/4P	8-36	0.55-1.1	1 750-11 800	10	08
VLF-RS 500/6/6P	8-36	0.37-0.37	1 167-7 867	10	08
VLF-RS 500/6/2-4P	8-28	2.2-5.5	3 500-18 300	10	08
VLF-RS 560/6/2P	8-22	4-11	4 000-24 000	6	09
VLF-RS 560/6/4P	8-36	0.55-2.2	2 000-17 140	10	09
VLF-RS 560/6/6P	8-36	0.25-0.55	1 333-11 427	7	09
VLF-RS 560/6/2-4P	8-22	4-11	4 000-24 000	6	09
VLF-RS 630/6/2P	8-20	5.5-15	7 000-31 320	0	10

Airflow envelope: minimum and maximum listed curve-domain endpoints across blade angles, rounded to whole m³/h. This is a reference envelope; select the operating point, blade angle and motor for the required duty.

Motor range: listed product motor-power limits. Reference selection uses absorbed power and the configuration-specific motor reserve. Final smoke-duty motor selection and nameplate data follow the supplied unit specification.

For two-speed configurations, these curves describe the supplied high-speed condition only. Low-speed curves are not inferred. F300°C / F400°C classification is a separate specification from the ordinary operating-temperature limits of the listed records.

02 / TECHNICAL DATA / 02

Compare the configurations.

SHARED F300°C / F400°C SELECTION DATA / 400 V / 50 Hz

Configuration diameter/blades/poles	Angles deg.	Reference motor range / kW	Reference airflow envelope / m³/h	Reserve %	Curve page
VLF-RS 630/6/4P	8-38	0.75-4	3 500-25 200	10	10
VLF-RS 630/6/6P	8-38	0.25-1.1	2 333-16 800	10	10
VLF-RS 630/6/2-4P	8-20	5.5-15	7 000-31 320	0	10
VLF-RS 710/3/4P	8-32	0.75-3	1 600-27 500	10	11
VLF-RS 710/3/6P	8-32	0.25-1.1	1 067-18 333	10	11
VLF-RS 710/3/4-8P	8-32	0.75-3	1 600-27 500	10	11
VLF-RS 710/6/4P	8-32	1.1-4	1 800-31 200	1	11
VLF-RS 710/6/6P	8-32	0.75-1.5	1 200-20 800	10	12
VLF-RS 710/6/4-8P	8-32	1.1-4	1 800-31 200	1	12
VLF-RS 800/6/4P	8-32	2.2-11	4 500-42 500	3	12
VLF-RS 800/6/6P	8-32	0.55-3	3 000-28 333	3	12
VLF-RS 800/6/4-8P	8-32	2.2-11	4 500-42 500	3	13
VLF-RS 800/9/4P	8-30	2.2-11	7 500-43 000	10	13
VLF-RS 800/9/6P	8-30	0.75-3	5 000-28 667	10	13
VLF-RS 800/9/4-8P	8-30	2.2-11	7 500-43 000	10	13
VLF-RS 900/6/4P	8-32	4-15	6 000-60 800	10	14
VLF-RS 900/6/6P	8-32	1.1-4	4 000-40 533	5	14

Airflow envelope: minimum and maximum listed curve-domain endpoints across blade angles, rounded to whole m³/h. This is a reference envelope; select the operating point, blade angle and motor for the required duty.

Motor range: listed product motor-power limits. Reference selection uses absorbed power and the configuration-specific motor reserve. Final smoke-duty motor selection and nameplate data follow the supplied unit specification.

For two-speed configurations, these curves describe the supplied high-speed condition only. Low-speed curves are not inferred. F300°C / F400°C classification is a separate specification from the ordinary operating-temperature limits of the listed records.

02 / TECHNICAL DATA / 03

Compare the configurations.

SHARED F300°C / F400°C SELECTION DATA / 400 V / 50 Hz

Configuration diameter/blades/poles	Angles deg.	Reference motor range / kW	Reference airflow envelope / m³/h	Reserve %	Curve page
VLF-RS 900/6/4-8P	8-32	4-15	6 000-60 800	10	14
VLF-RS 900/9/4P	8-32	4-18.5	11 000-63 300	10	14
VLF-RS 900/9/6P	8-32	1.5-5.5	7 333-42 200	10	15
VLF-RS 900/9/4-8P	8-32	4-18.5	11 000-63 300	10	15
VLF-RS 1000/6/4P	8-32	5.5-22	14 000-82 600	3	15
VLF-RS 1000/6/6P	8-32	1.5-7.5	9 333-55 067	10	15
VLF-RS 1000/6/4-8P	8-32	5.5-22	14 000-82 600	3	16
VLF-RS 1000/9/4P	8-32	7.5-30	15 000-86 000	10	16
VLF-RS 1000/9/6P	8-32	2.2-11	10 000-57 333	10	16
VLF-RS 1000/9/4-8P	8-32	7.5-30	15 000-86 000	10	16
VLF-RS 1250/6/4P	8-32	15-45	25 000-155 000	1	17
VLF-RS 1250/6/6P	8-32	4-15	16 667-103 333	1	17
VLF-RS 1250/6/4-8P	8-32	15-45	25 000-155 000	1	17
VLF-RS 1250/9/4P	8-24	18.5-45	21 300-138 000	1	17
VLF-RS 1250/9/6P	8-24	7.5-15	14 200-92 000	1	18
VLF-RS 1250/9/4-8P	8-24	18.5-45	21 300-138 000	1	18

Airflow envelope: minimum and maximum listed curve-domain endpoints across blade angles, rounded to whole m³/h. This is a reference envelope; select the operating point, blade angle and motor for the required duty.

Motor range: listed product motor-power limits. Reference selection uses absorbed power and the configuration-specific motor reserve. Final smoke-duty motor selection and nameplate data follow the supplied unit specification.

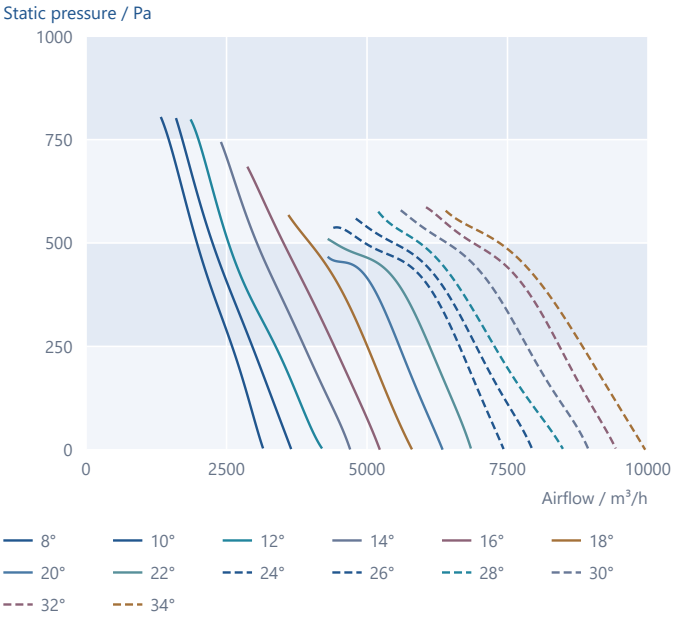
For two-speed configurations, these curves describe the supplied high-speed condition only. Low-speed curves are not inferred. F300°C / F400°C classification is a separate specification from the ordinary operating-temperature limits of the listed records.

03 / AIR PERFORMANCE / 01

Fan Performance Curves

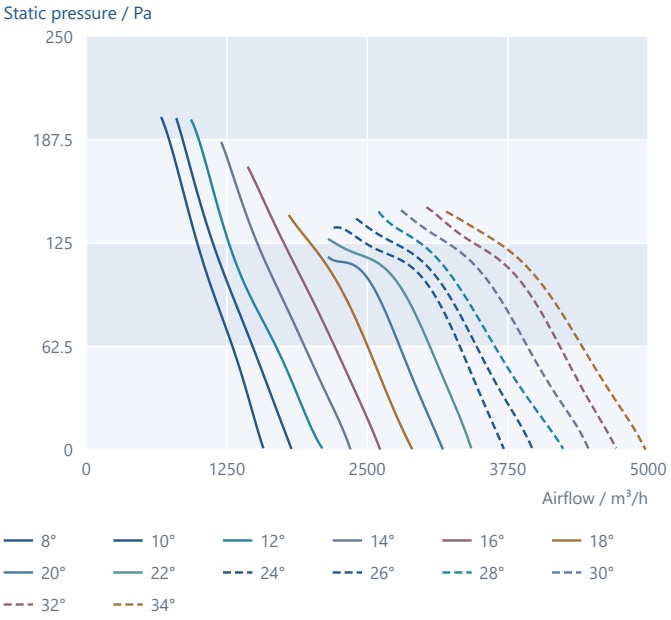
VLF-RS 400/6/2P

14 blade angles / 400 V / 50 Hz



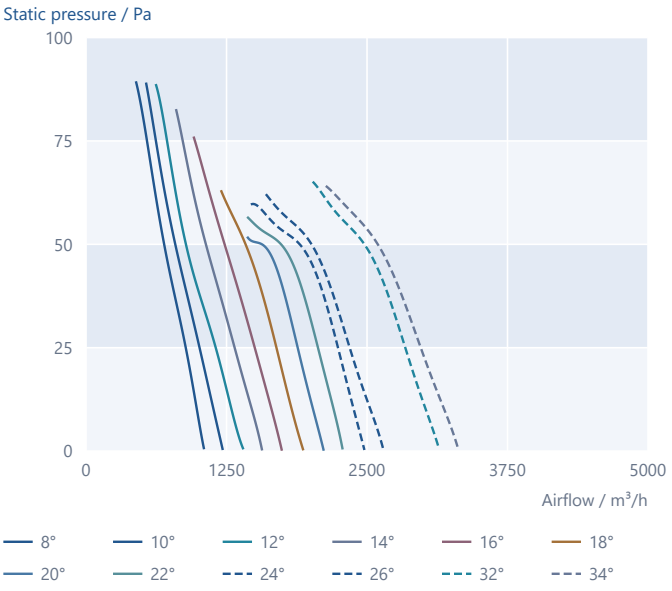
VLF-RS 400/6/4P

14 blade angles / 400 V / 50 Hz



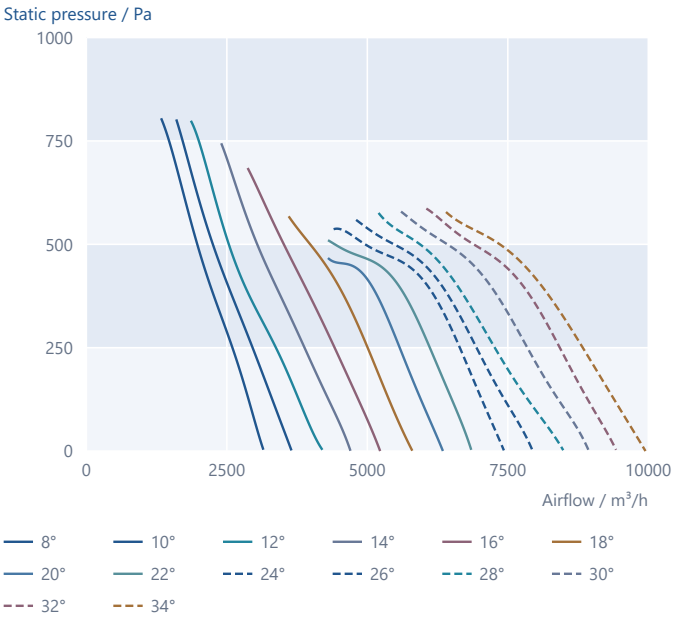
VLF-RS 400/6/6P

12 blade angles / 400 V / 50 Hz



VLF-RS 400/6/2-4P

14 blade angles / 400 V / 50 Hz



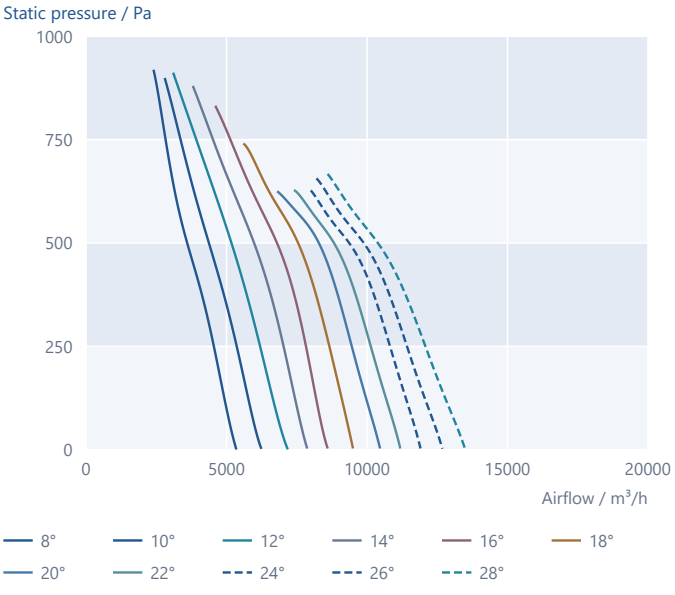
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 02

Fan Performance Curves

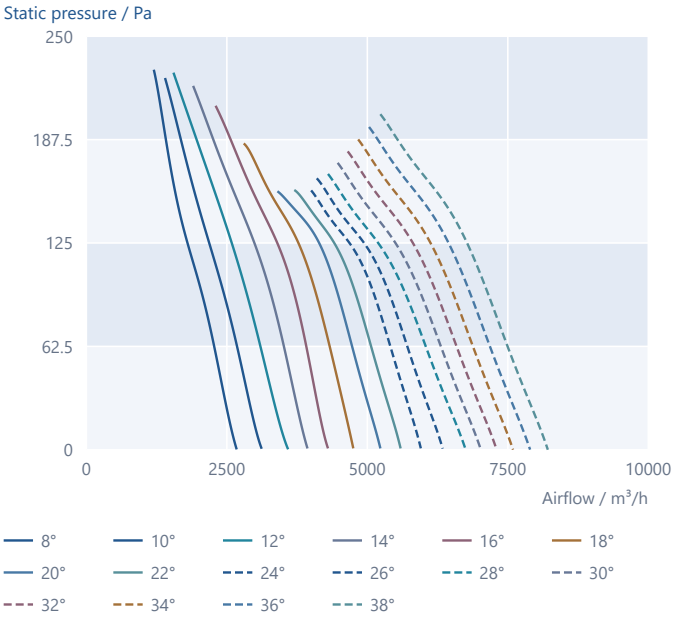
VLF-RS 450/6/2P

11 blade angles / 400 V / 50 Hz



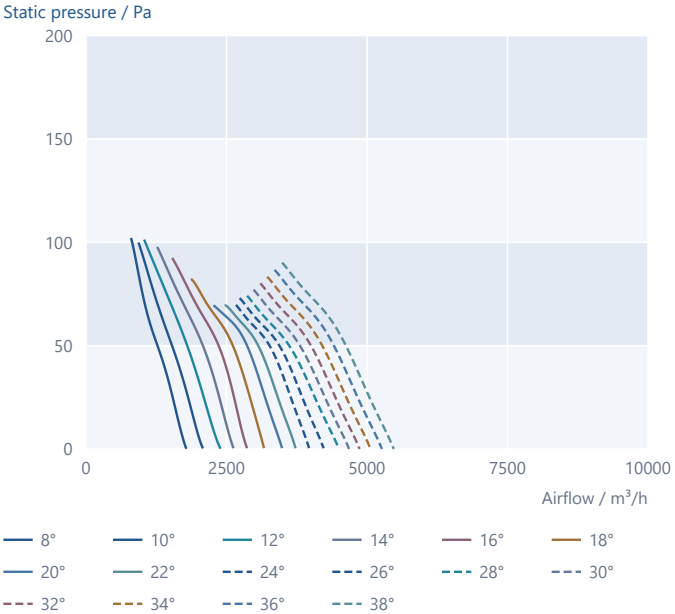
VLF-RS 450/6/4P

16 blade angles / 400 V / 50 Hz



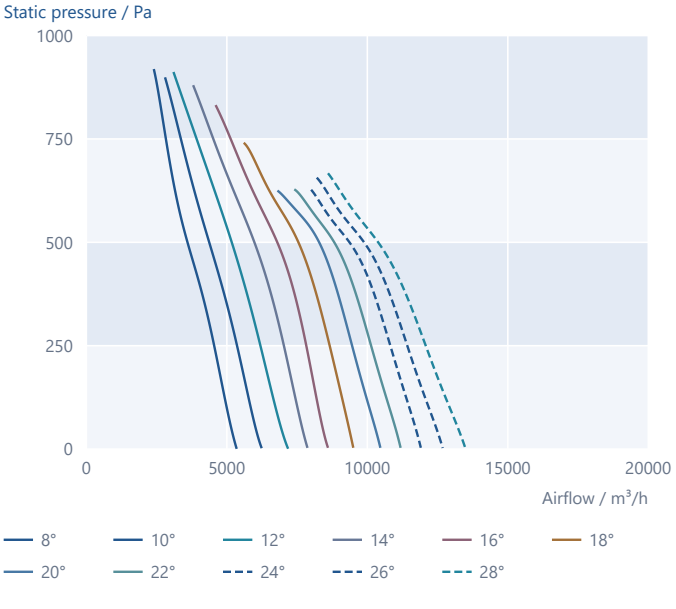
VLF-RS 450/6/6P

16 blade angles / 400 V / 50 Hz



VLF-RS 450/6/2-4P

11 blade angles / 400 V / 50 Hz



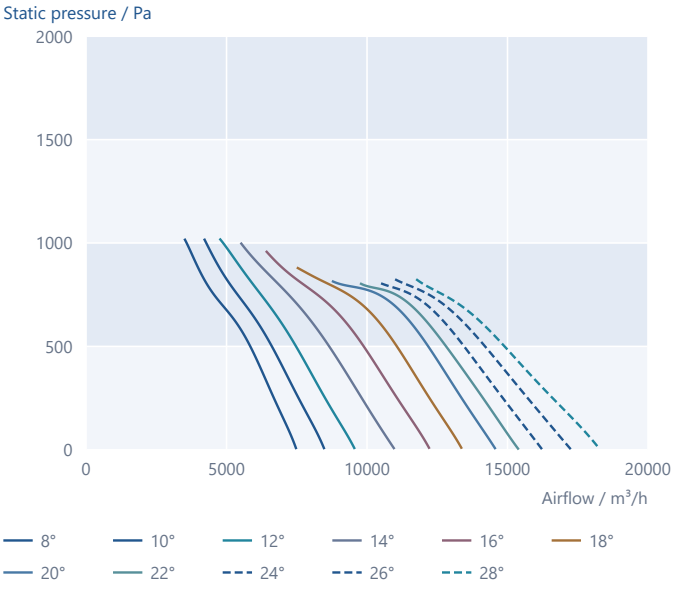
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 03

Fan Performance Curves

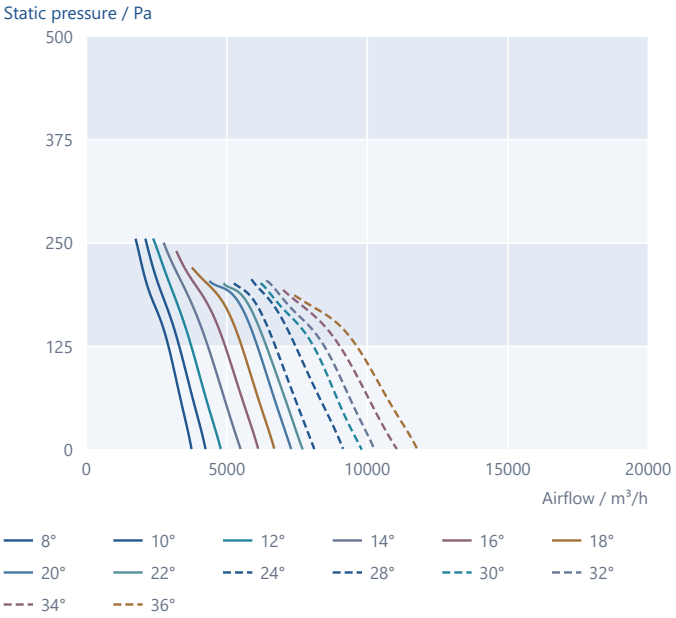
VLF-RS 500/6/2P

11 blade angles / 400 V / 50 Hz



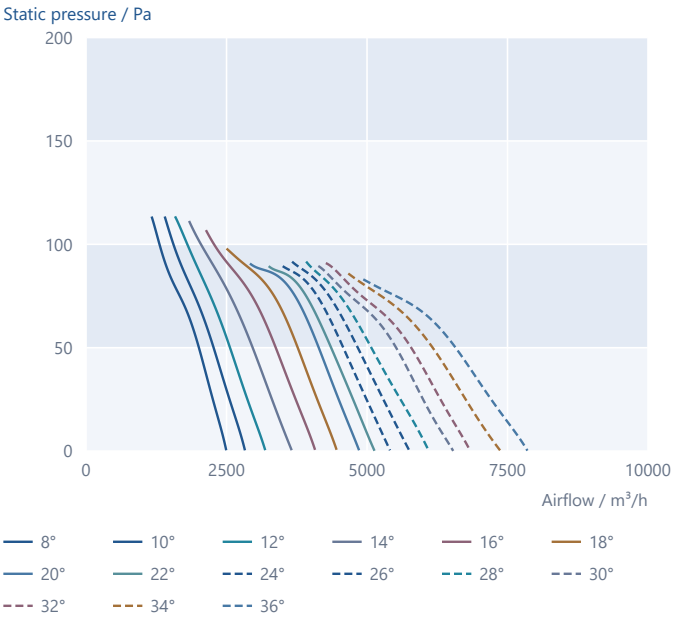
VLF-RS 500/6/4P

14 blade angles / 400 V / 50 Hz



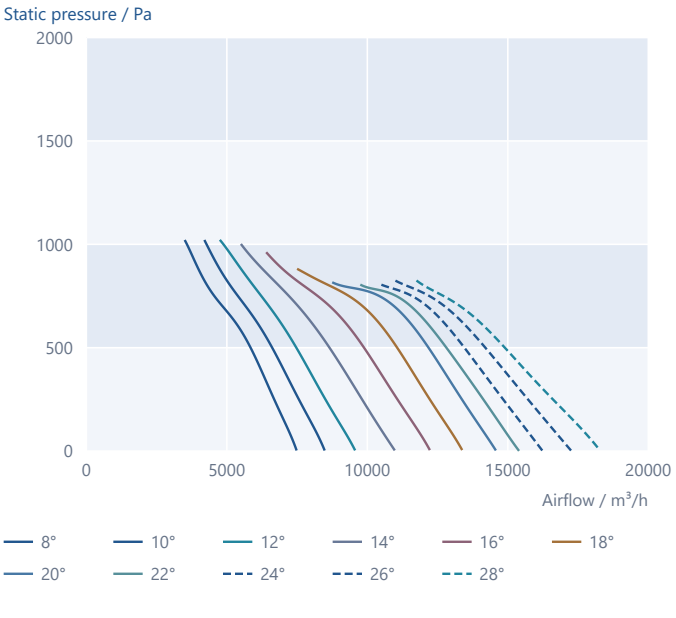
VLF-RS 500/6/6P

15 blade angles / 400 V / 50 Hz



VLF-RS 500/6/2-4P

11 blade angles / 400 V / 50 Hz



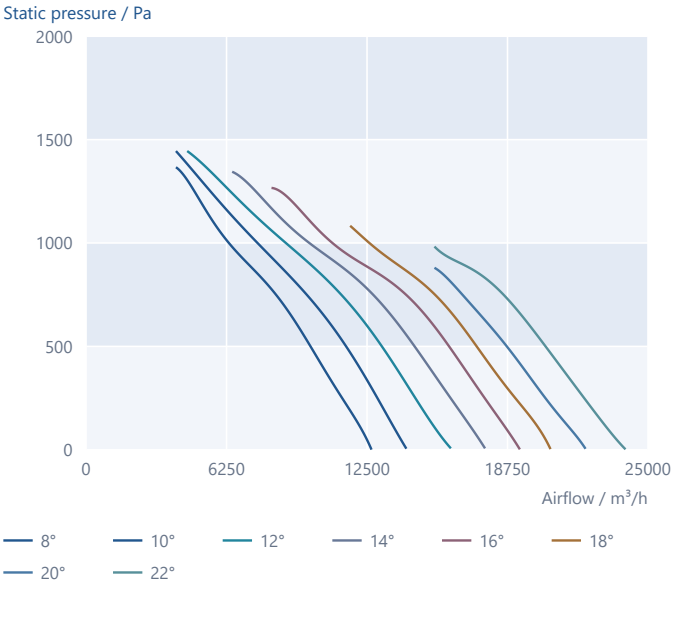
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 04

Fan Performance Curves

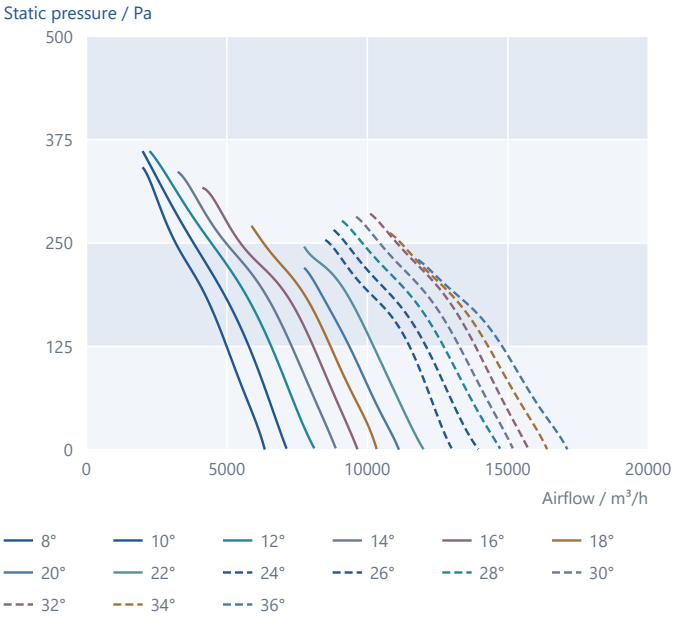
VLF-RS 560/6/2P

8 blade angles / 400 V / 50 Hz



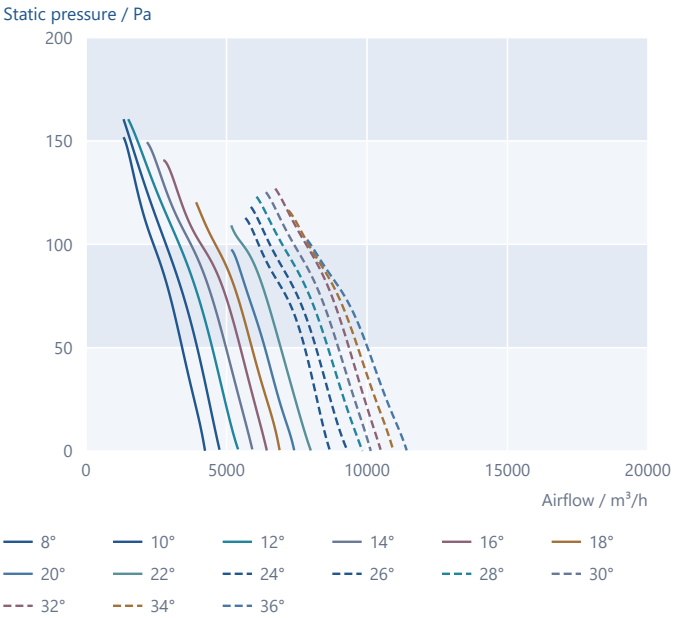
VLF-RS 560/6/4P

15 blade angles / 400 V / 50 Hz



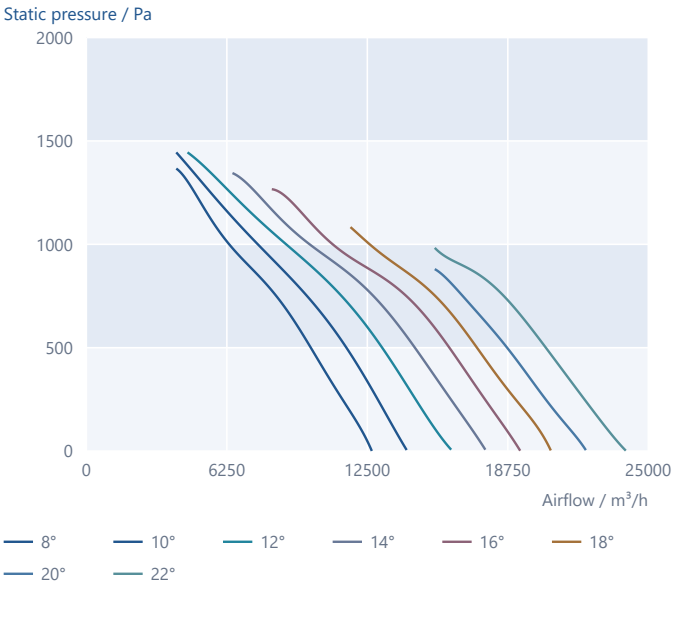
VLF-RS 560/6/6P

15 blade angles / 400 V / 50 Hz



VLF-RS 560/6/2-4P

8 blade angles / 400 V / 50 Hz



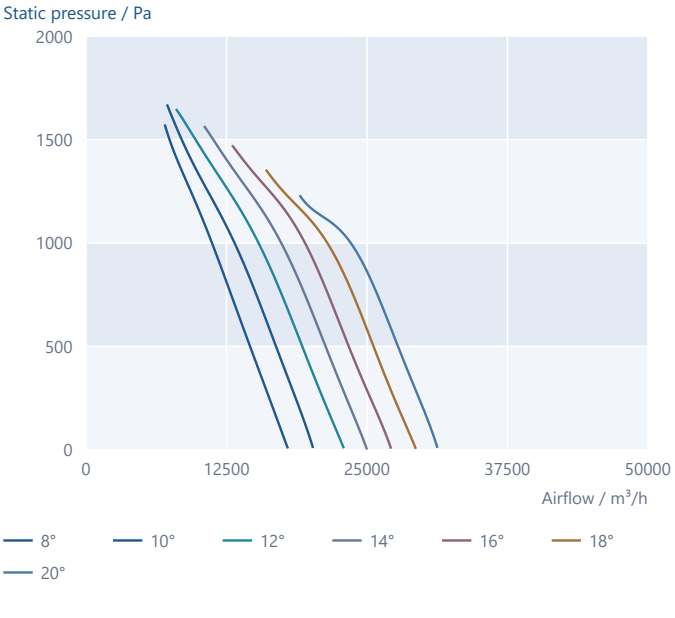
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 05

Fan Performance Curves

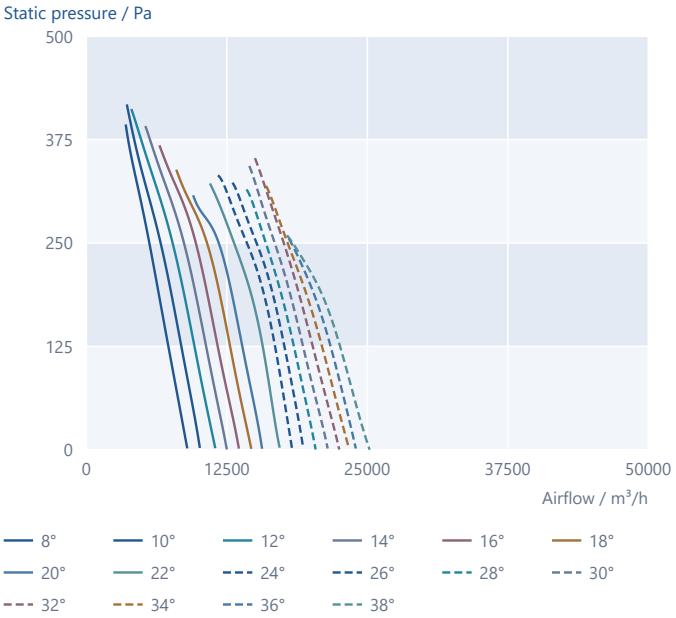
VLF-RS 630/6/2P

7 blade angles / 400 V / 50 Hz



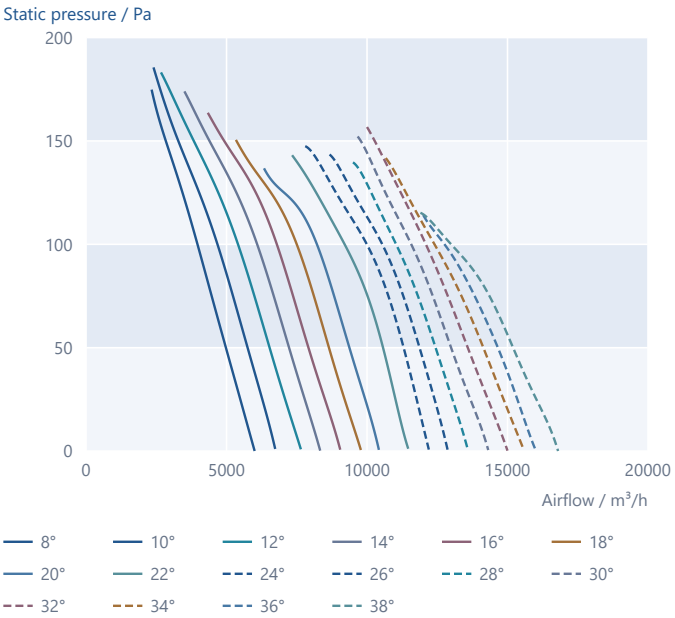
VLF-RS 630/6/4P

16 blade angles / 400 V / 50 Hz



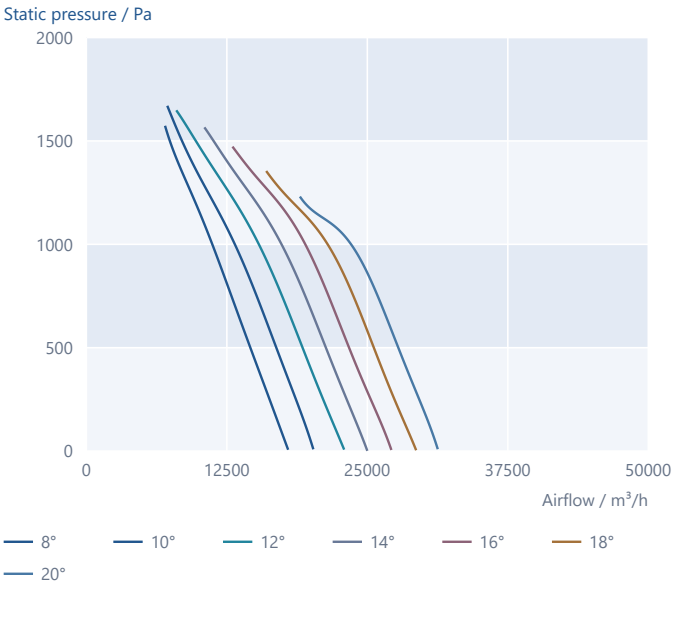
VLF-RS 630/6/6P

16 blade angles / 400 V / 50 Hz



VLF-RS 630/6/2-4P

7 blade angles / 400 V / 50 Hz



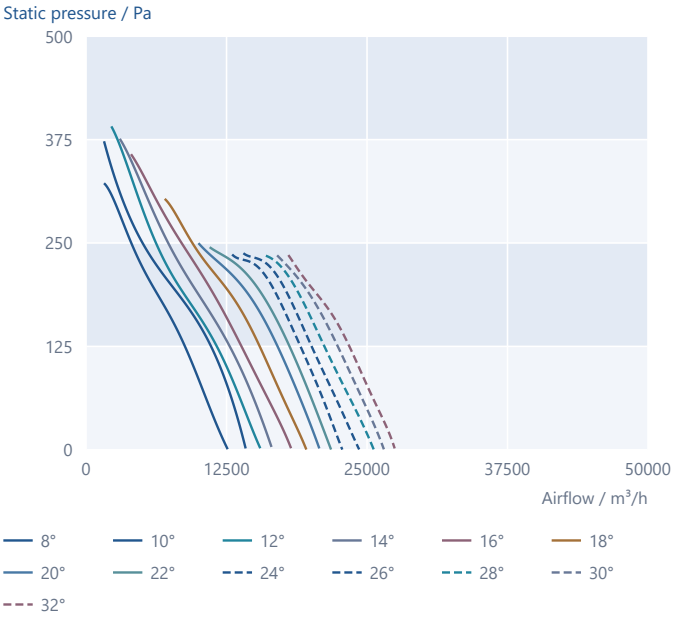
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 06

Fan Performance Curves

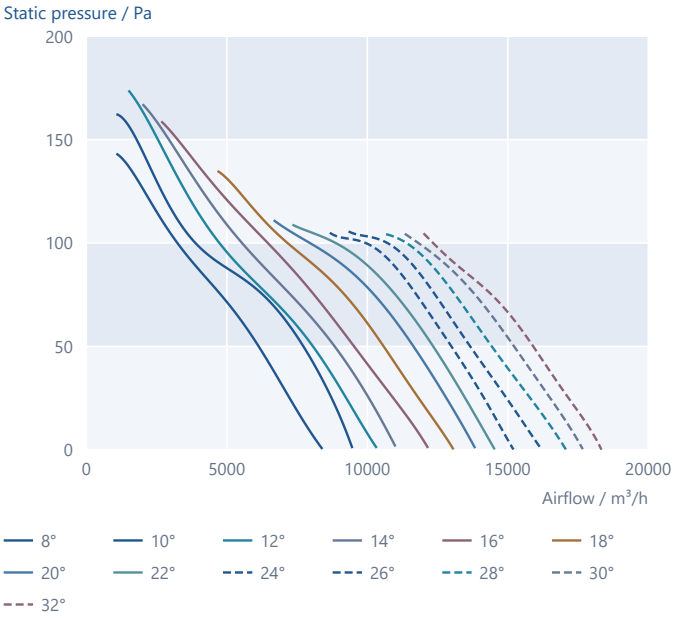
VLF-RS 710/3/4P

13 blade angles / 400 V / 50 Hz



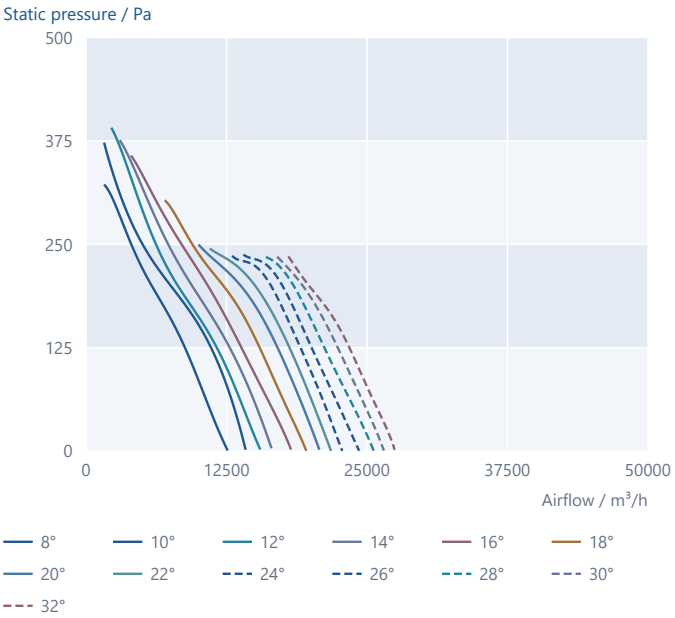
VLF-RS 710/3/6P

13 blade angles / 400 V / 50 Hz



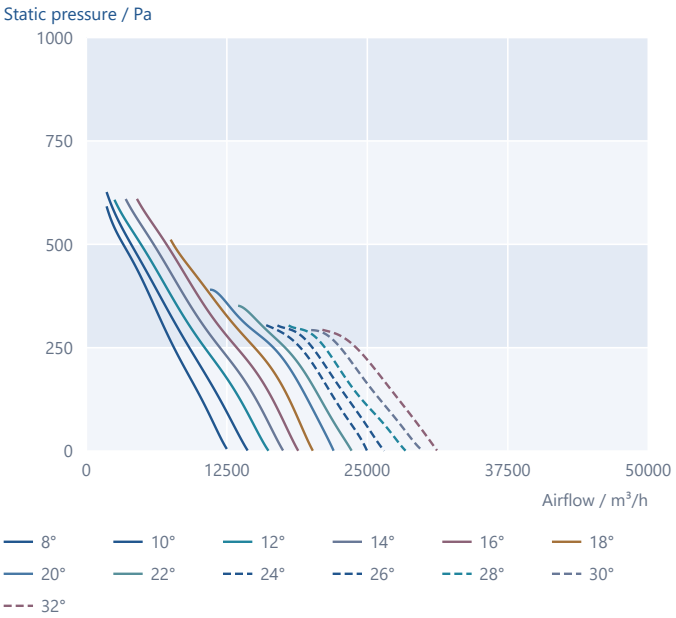
VLF-RS 710/3/4-8P

13 blade angles / 400 V / 50 Hz



VLF-RS 710/6/4P

13 blade angles / 400 V / 50 Hz



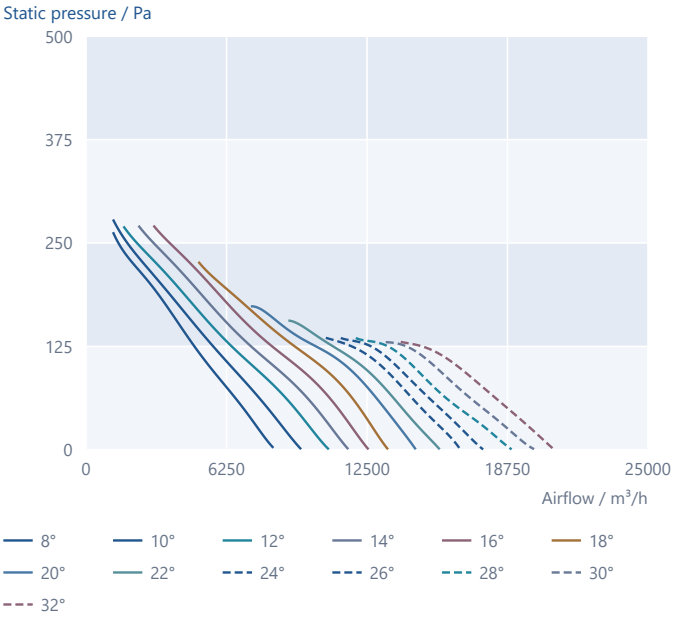
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 07

Fan Performance Curves

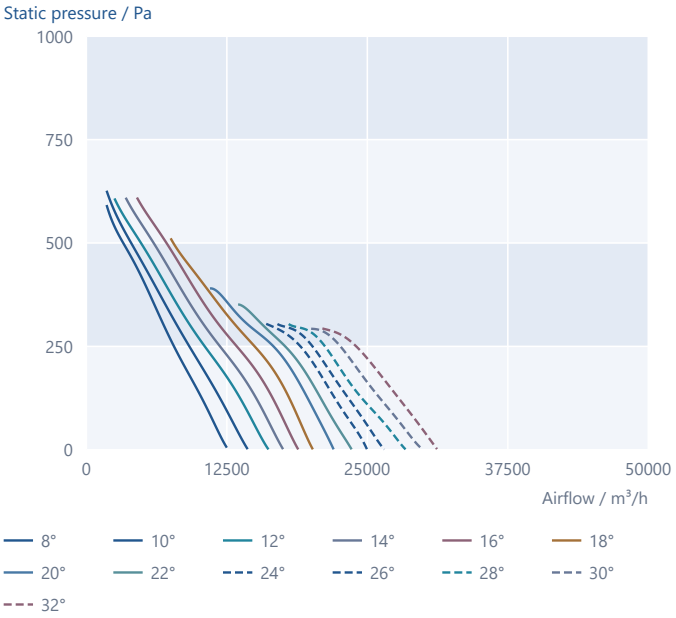
VLF-RS 710/6/6P

13 blade angles / 400 V / 50 Hz



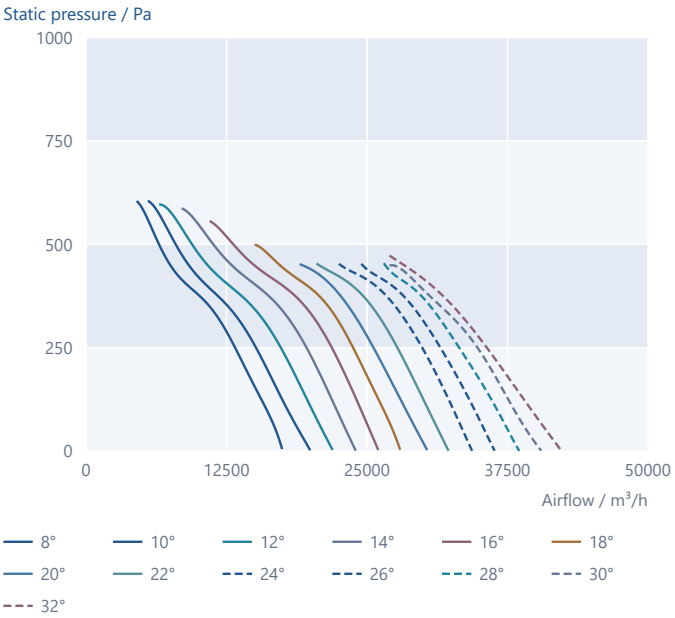
VLF-RS 710/6/4-8P

13 blade angles / 400 V / 50 Hz



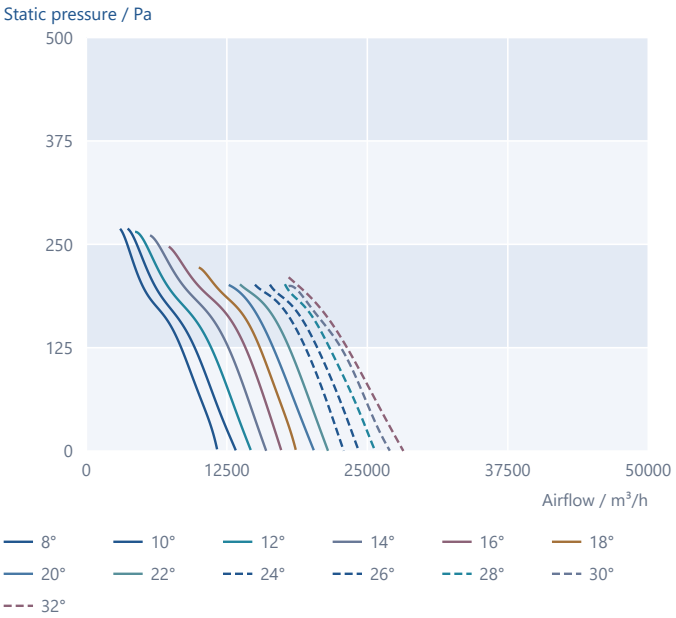
VLF-RS 800/6/4P

13 blade angles / 400 V / 50 Hz



VLF-RS 800/6/6P

13 blade angles / 400 V / 50 Hz



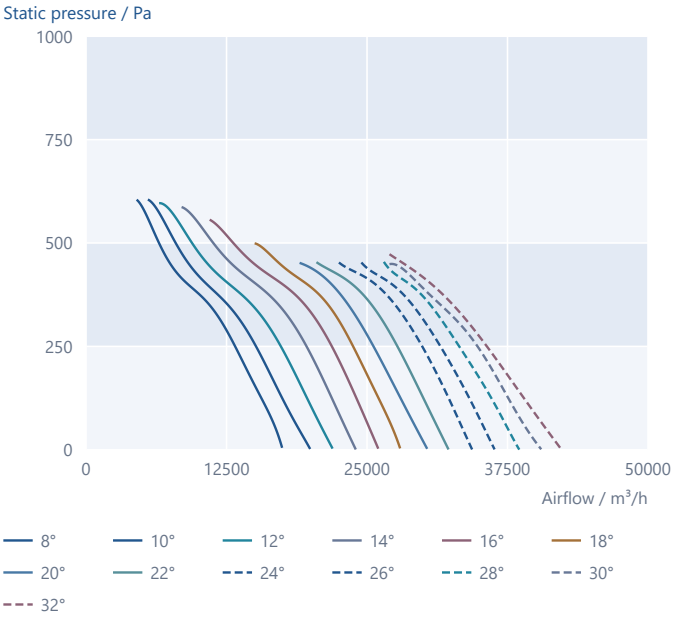
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 08

Fan Performance Curves

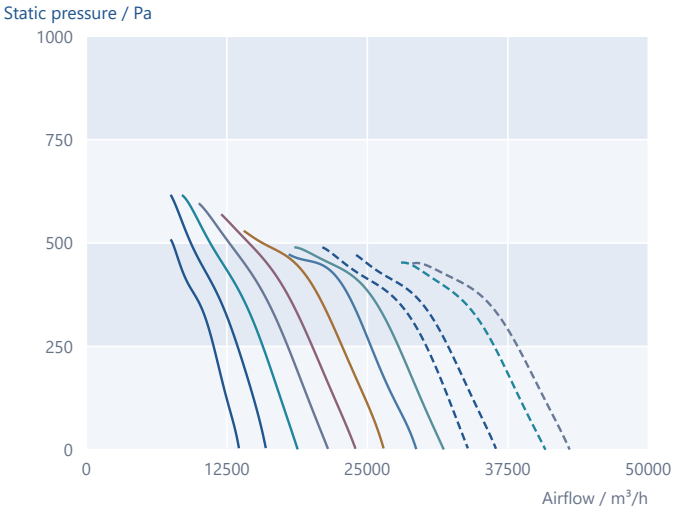
VLF-RS 800/6/4-8P

13 blade angles / 400 V / 50 Hz



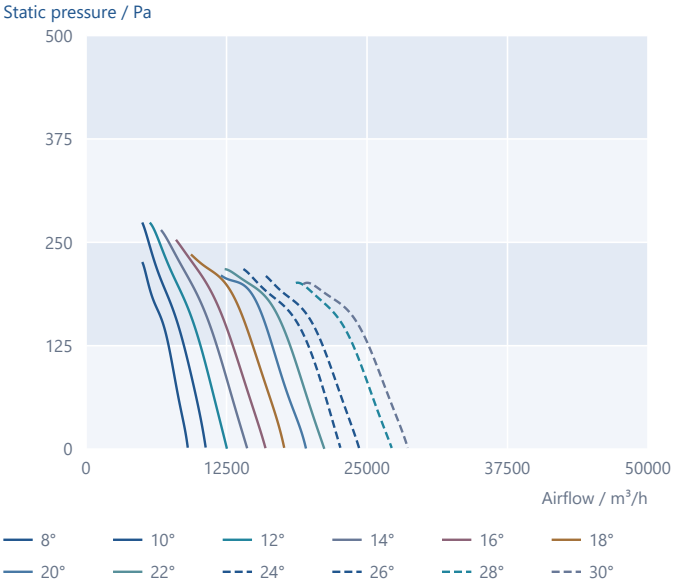
VLF-RS 800/9/4P

12 blade angles / 400 V / 50 Hz



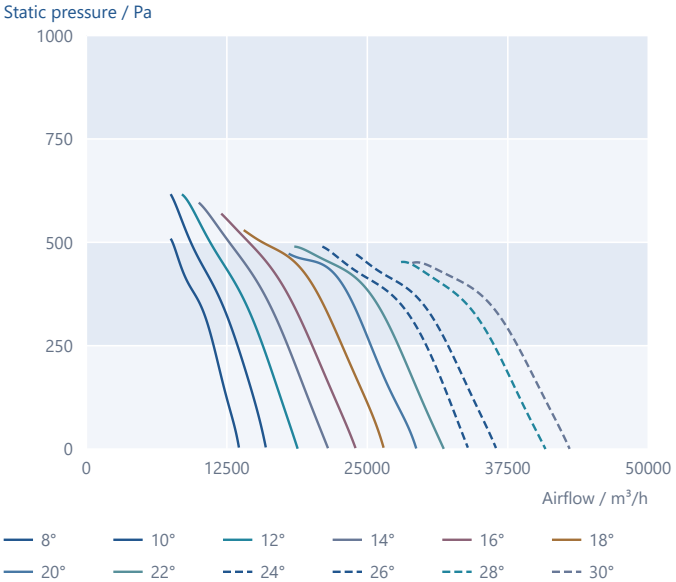
VLF-RS 800/9/6P

12 blade angles / 400 V / 50 Hz



VLF-RS 800/9/4-8P

12 blade angles / 400 V / 50 Hz



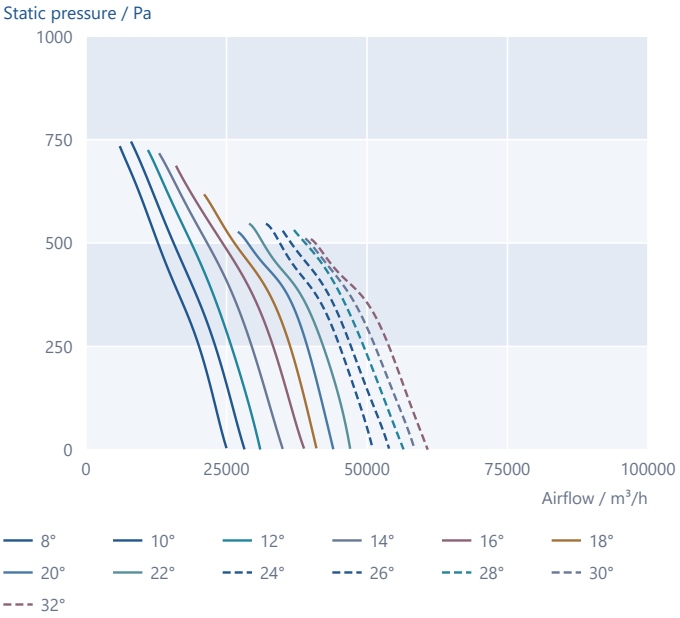
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 09

Fan Performance Curves

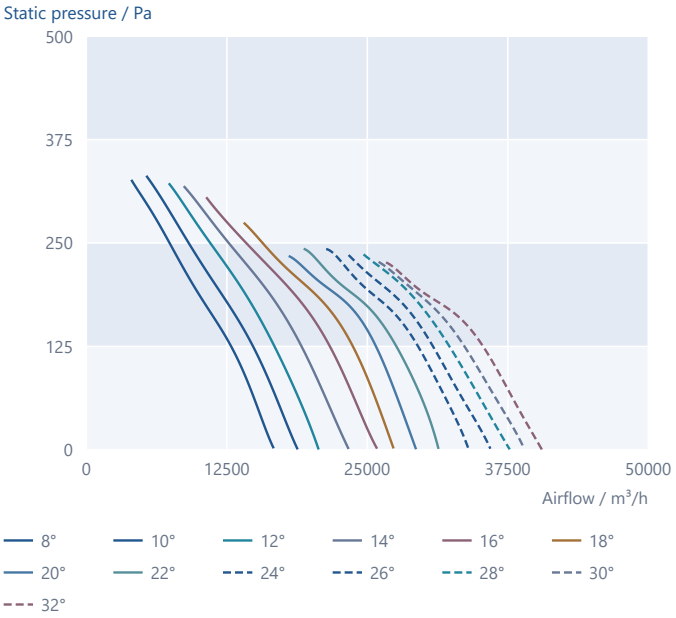
VLF-RS 900/6/4P

13 blade angles / 400 V / 50 Hz



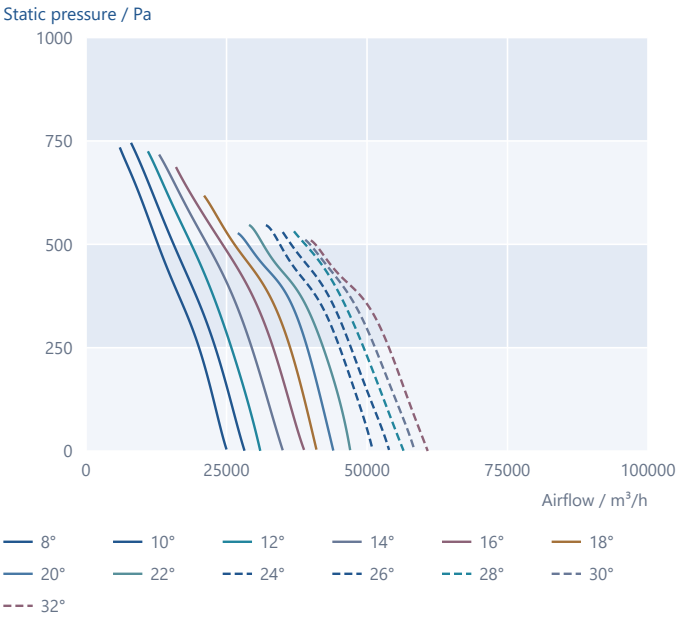
VLF-RS 900/6/6P

13 blade angles / 400 V / 50 Hz



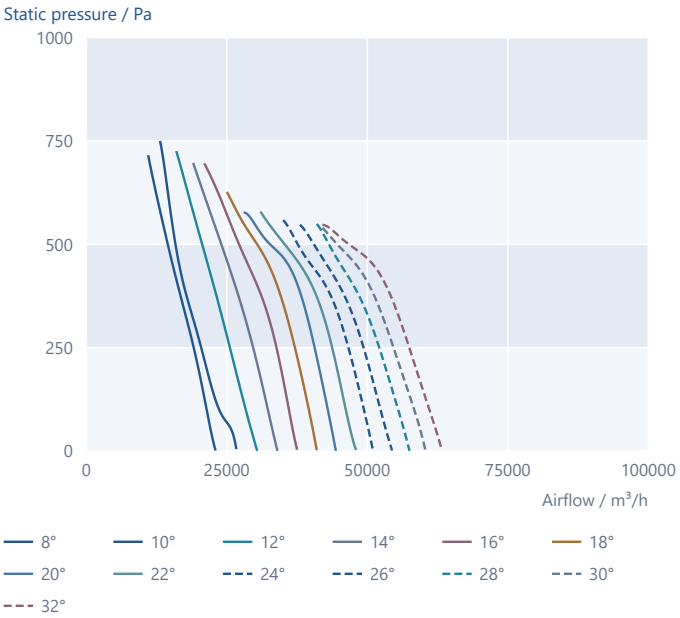
VLF-RS 900/6/4-8P

13 blade angles / 400 V / 50 Hz



VLF-RS 900/9/4P

13 blade angles / 400 V / 50 Hz



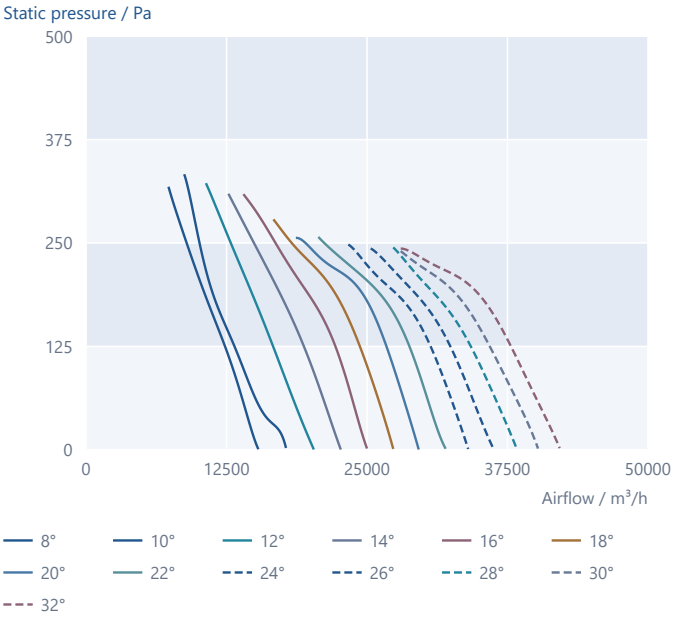
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 10

Fan Performance Curves

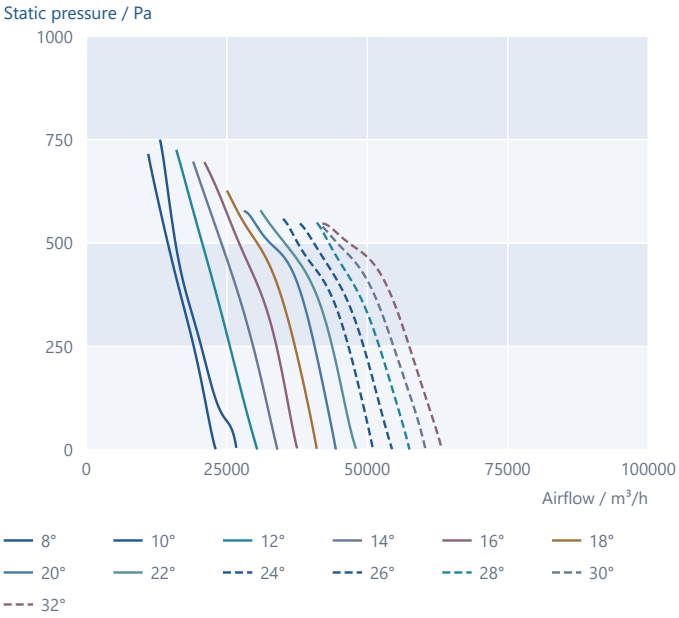
VLF-RS 900/9/6P

13 blade angles / 400 V / 50 Hz



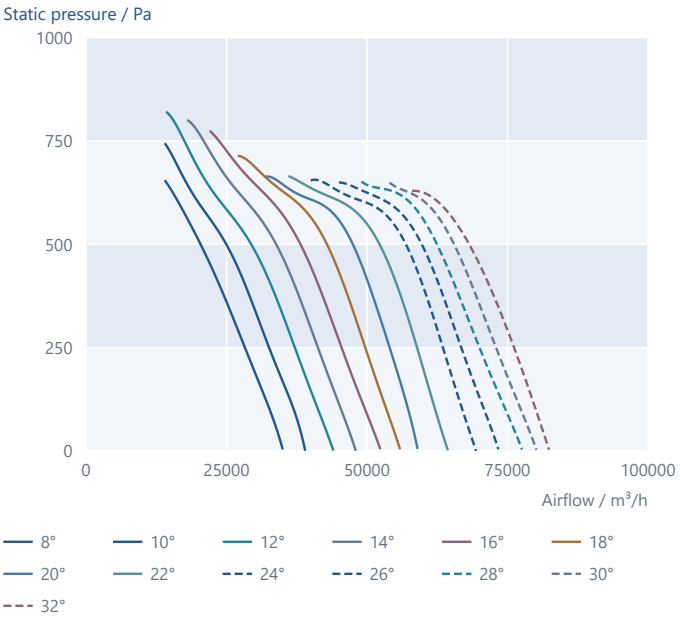
VLF-RS 900/9/4-8P

13 blade angles / 400 V / 50 Hz



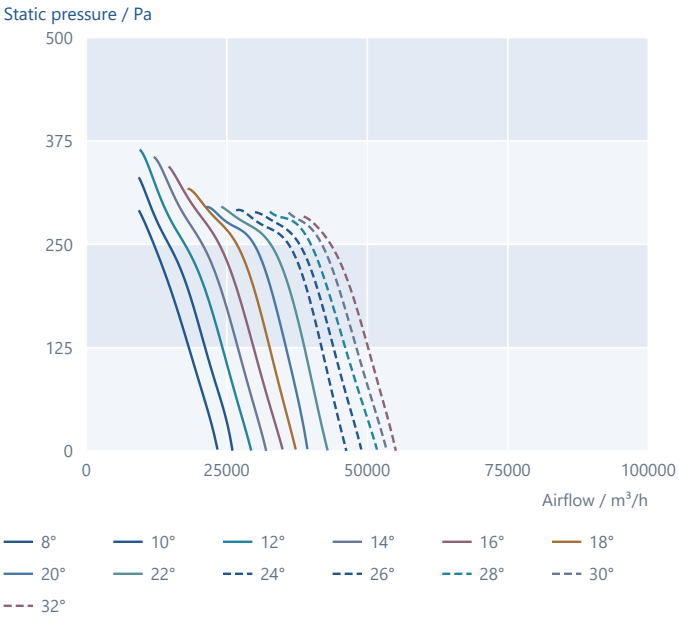
VLF-RS 1000/6/4P

13 blade angles / 400 V / 50 Hz



VLF-RS 1000/6/6P

13 blade angles / 400 V / 50 Hz



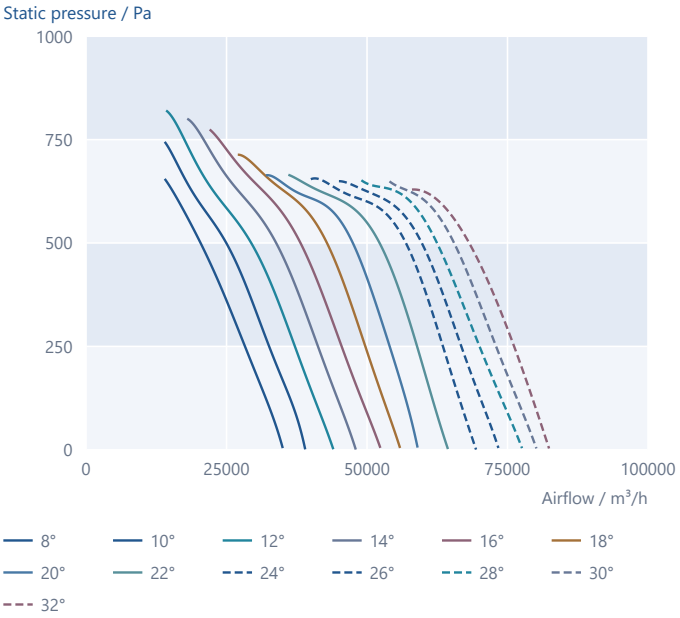
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 11

Fan Performance Curves

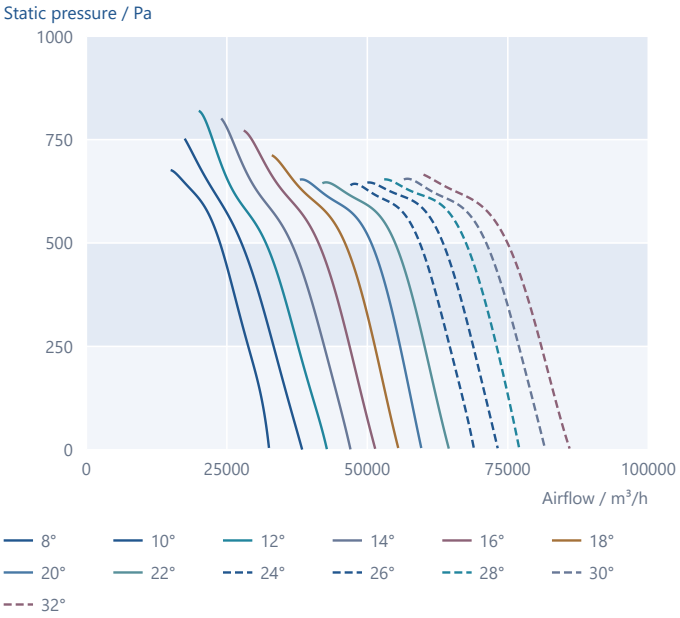
VLF-RS 1000/6/4-8P

13 blade angles / 400 V / 50 Hz



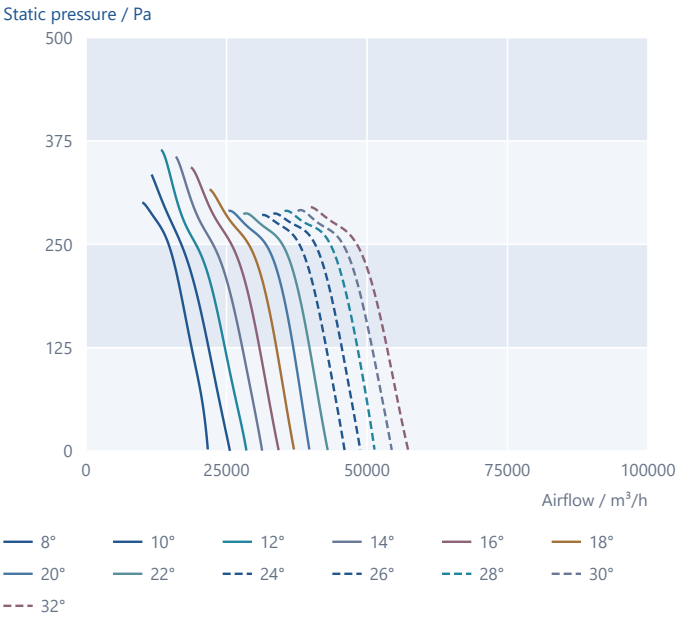
VLF-RS 1000/9/4P

13 blade angles / 400 V / 50 Hz



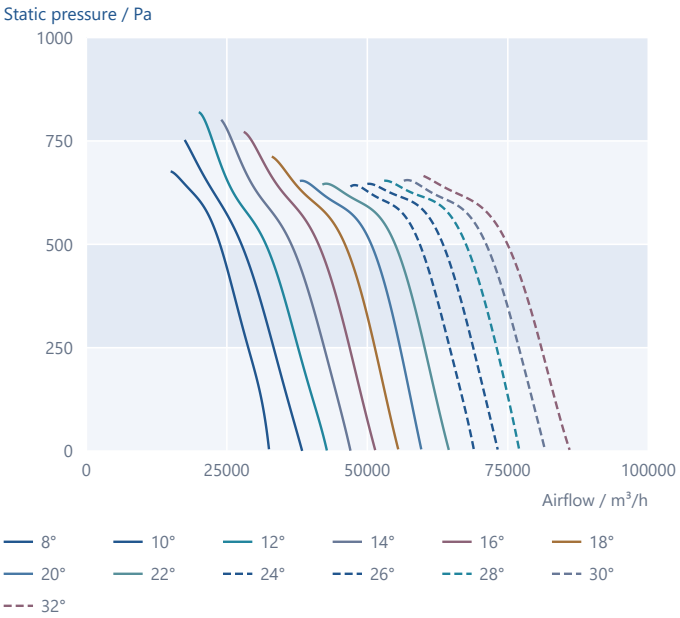
VLF-RS 1000/9/6P

13 blade angles / 400 V / 50 Hz



VLF-RS 1000/9/4-8P

13 blade angles / 400 V / 50 Hz



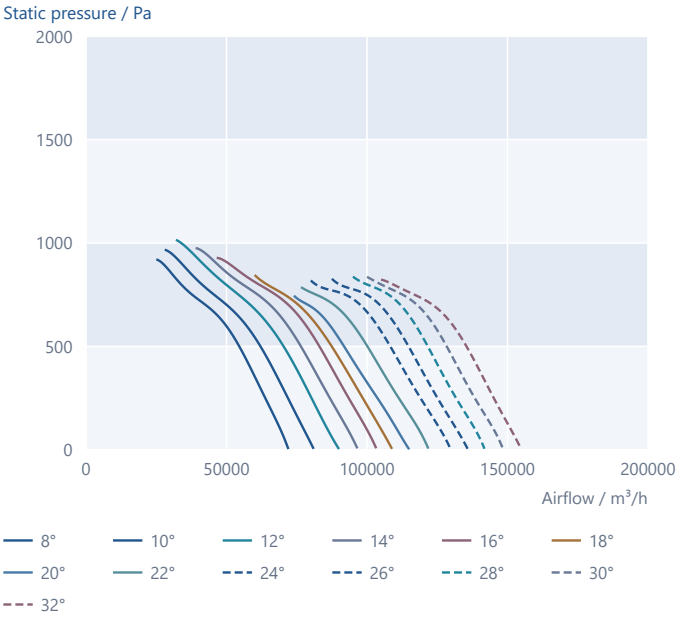
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 12

Fan Performance Curves

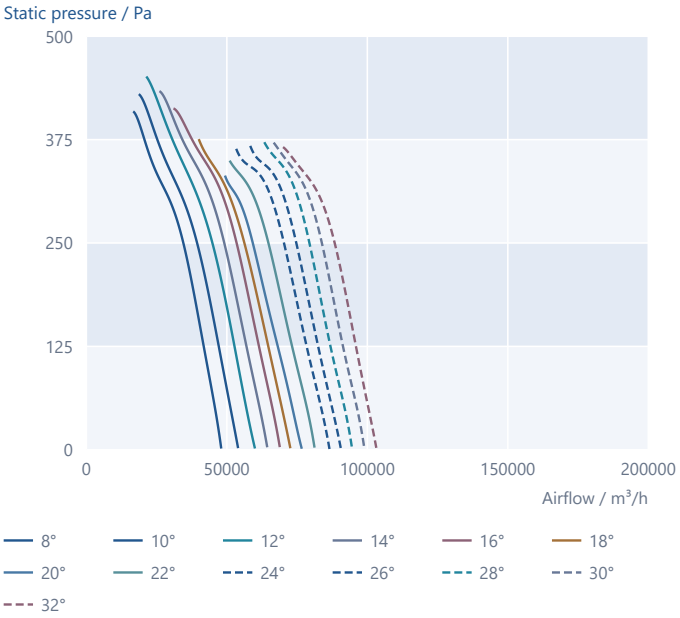
VLF-RS 1250/6/4P

13 blade angles / 400 V / 50 Hz



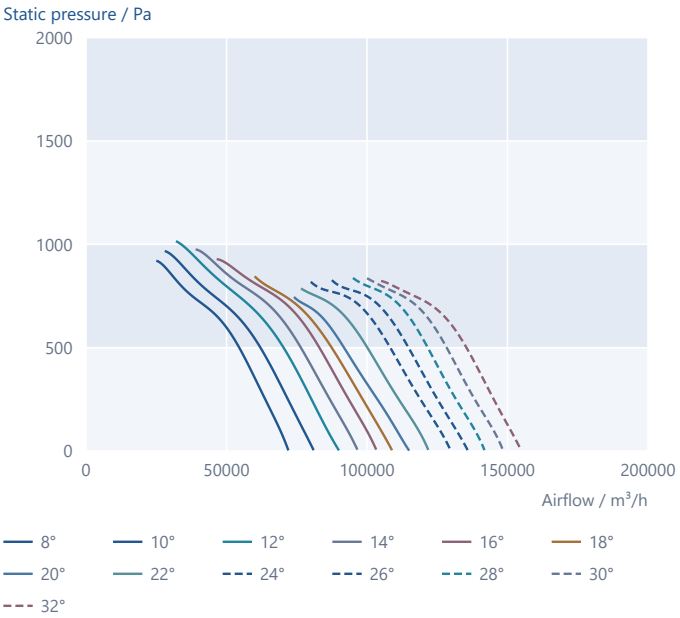
VLF-RS 1250/6/6P

13 blade angles / 400 V / 50 Hz



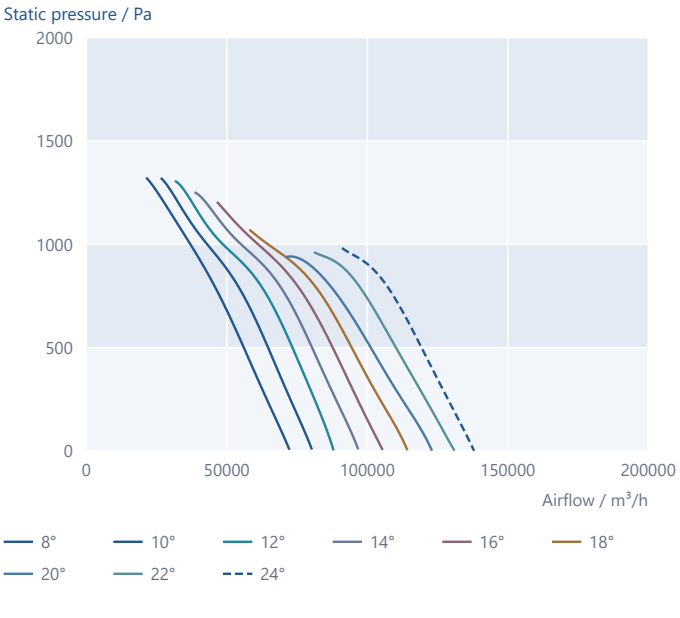
VLF-RS 1250/6/4-8P

13 blade angles / 400 V / 50 Hz



VLF-RS 1250/9/4P

9 blade angles / 400 V / 50 Hz



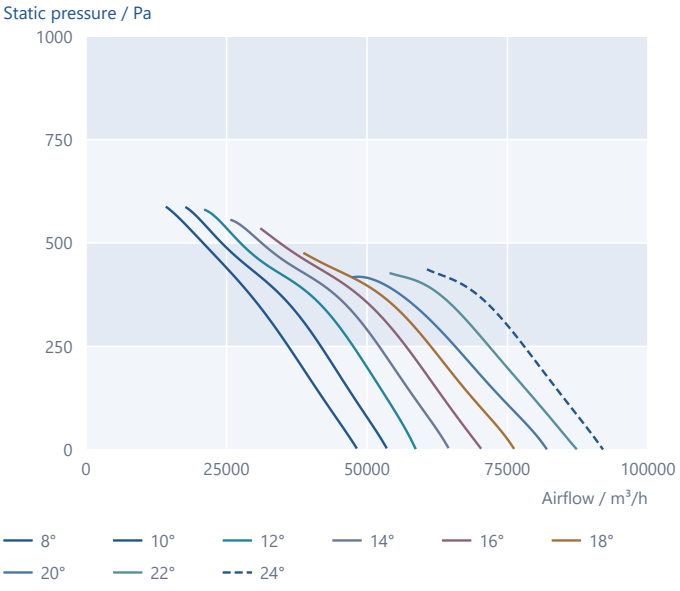
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 13

Fan Performance Curves

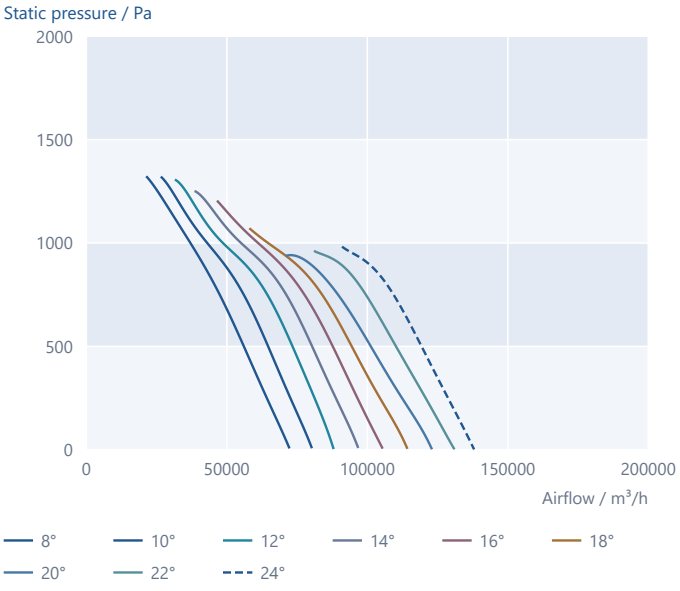
VLF-RS 1250/9/6P

9 blade angles / 400 V / 50 Hz



VLF-RS 1250/9/4-8P

9 blade angles / 400 V / 50 Hz



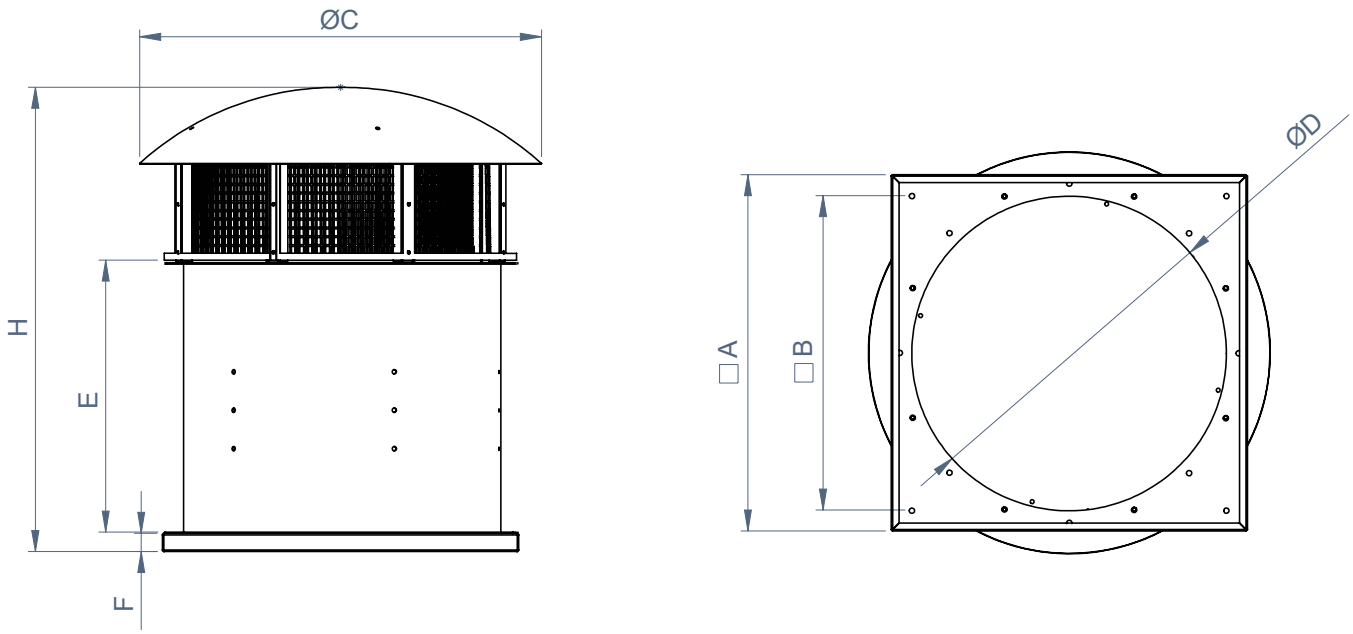
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

04 / DIMENSIONAL DATA

Plan the mounting connections.

COMMON F300°C / F400°C DIMENSIONS

All lengths in mm



Size / poles	A	B	C	D	E	F	H
400	600	495	702	400	474	50	880
450	650	545	702	450	474	50	880
500	650	545	842	500	580	50	1030
560	685	605	842	560	580	50	1030
630	780	637	1130	630	600	50	1160
710	830	710	1130	710	700	50	1300
800 / 4P, 4-8P	920	800	1130	800	700	50	1300
800 / 6P	920	800	1430	800	700	50	1300
900 / 4P, 4-8P	1020	900	1130	900	775	50	1375
900 / 6P	1020	900	1430	900	775	50	1375
1000	1130	1030	1430	1000	850	50	1450
1250	1430	1350	1430	1250	950	50	1550

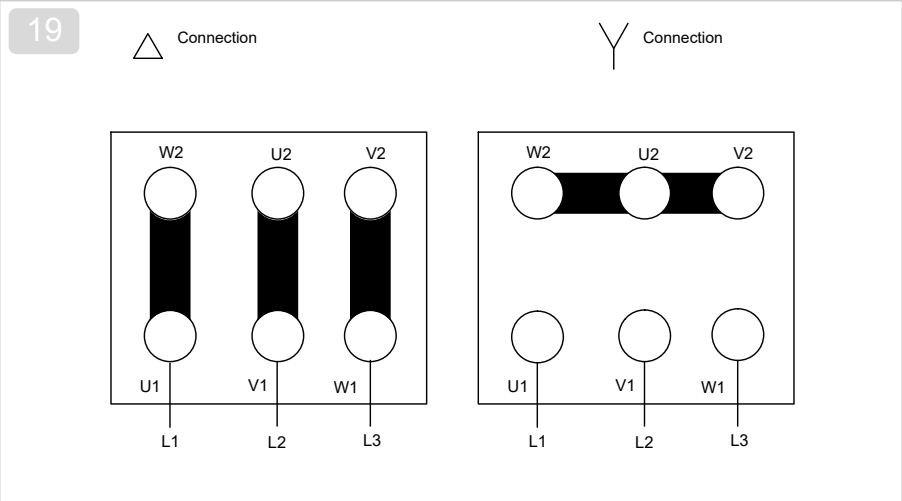
Original vector drawing. A, B, C, D, E, F and H retain their original definitions. The 800 and 900 sizes have different C dimensions for 6P; both are listed. Confirm the selected pole configuration before planning the roof opening. Confirm mounting orientation and supports for the supplied unit.

05 / ELECTRICAL & INSTALLATION

Connect the specified smoke-duty motor.

Single-speed connection diagram 19. Star or delta connection must match the actual motor nameplate and supplied documentation. This generic diagram does not define the final smoke-duty wiring or a two-speed connection.

THREE PHASE / SINGLE-SPEED REFERENCE DIAGRAM



F300°C / F400°C DUTY SPECIFICATION

Specify F300°C / 120 minutes or F400°C / 120 minutes when selecting the unit. Follow the supplied unit classification and motor documentation for the actual assembly, permitted installation arrangement and emergency operation.

MOTOR SELECTION & INSTALLATION

Select blade angle and motor for the required airflow and pressure. Final motor power, current and protection follow the selected unit. Two-speed connections require the supplied motor diagram; the reference curves here describe high-speed operation only.

Provide suitable supports, unobstructed air paths and maintenance access. Isolate the supply before inspection. Keep smoke-control connections consistent with the project specification and supplied unit instructions.



09

SHELTER FANS

SERIES DIRECTORY

VSVD	446
VDFF	453
VDHF	458
VCCD	462
VACT-F	465
VLFU*	470

* VLFU: document remains under review.

01 / PRODUCT OVERVIEW

VSVD

Shelter Ventilation Devices



01 Cabinet and impeller

Galvanized-steel cabinet with an aluminium centrifugal impeller and accessible filter sections.

02 Three named filter stages

G4 dust prefilter, activated carbon filter and NBC final filter. The normal ventilation path uses the G4 prefilter through the bypass.

03 Access and damper operation

Leave clearance for filter removal and damper operation. Check the available pressure for the selected air path and filter condition.

VSVD 3E / MANUAL BACKUP

A dedicated manual option.

The 3E configuration includes a hand crank for operation without electricity. Its manual-mode airflow is not specified; the published curve is a separate 50 Hz reference.

SERIES AT A GLANCE

Selection parameter	Series reference
Nominal airflow	300-5400 m^3/h
Mains reference	230 V; VSVD 54: 380 V / 50 Hz
Motor protection / insulation	IP44 / class F
Working temperature	-20 to +50 °C
Manual operation option	VSVD 3E only

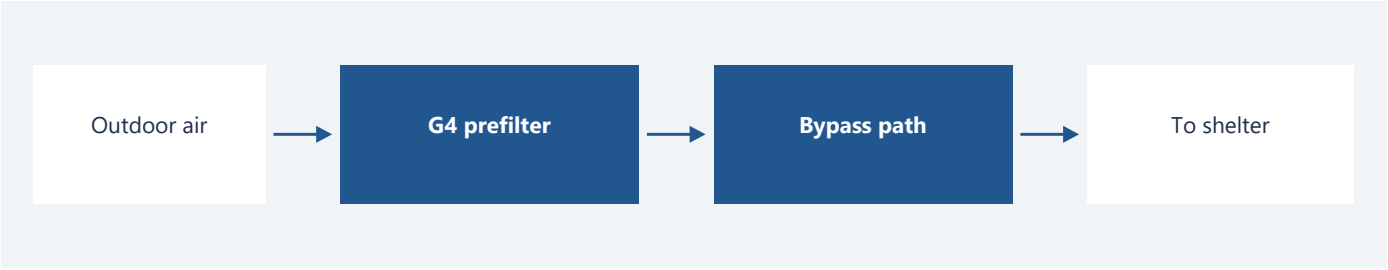
Choose the operating air path and the installed filters before checking the required airflow and available pressure. The product photo illustrates the series construction.

02 / FILTRATION & OPERATING MODES

Two air paths. One cabinet.

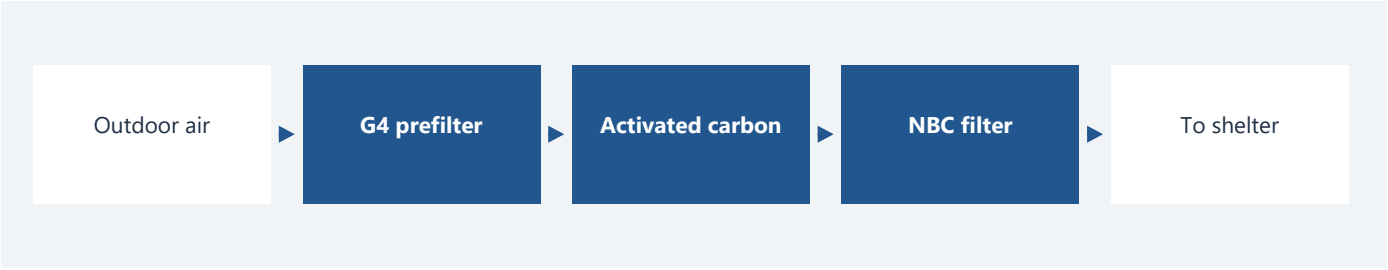
NORMAL VENTILATION

G4 dust prefiltration through the bypass air path.



MULTI-STAGE FILTERED AIR PATH

G4 dust prefilter followed by activated carbon and the NBC final filter.



Functional air-path illustration. Component positions are schematic; the cabinet drawing and selected model define the physical arrangement.

FILTER RESISTANCE AND THE DUTY POINT

Select the installed configuration.

Available airflow depends on the active air path and installed filter resistance. The published curves do not identify a filter-loading condition. Include the actual filter and duct resistance when checking the required operating point.

03 / TECHNICAL DATA

Compare the complete range.

11 CONFIGURATIONS / AC DRIVE / 50 Hz

Model	Supply V	Power W	Speed rpm	Nominal Q m^3/h	Curve Ps max. Pa	Noise* dB(A)	Manual option
VSVD 3	230	150	2710	300	451	50	No
VSVD 5	230	150	2680	500	515	52	No
VSVD 7	230	150	2712	700	540	55	No
VSVD 9	230	260	2712	900	740	56	No
VSVD 13	230	260	2610	1300	700	60	No
VSVD 18	230	480	1465	1800	700	62	No
VSVD 30	230	640	1420	3000	580	64	No
VSVD 36	230	900	1365	3600	500	66	No
VSVD 43	230	1430	1370	4300	700	68	No
VSVD 54	380	1430	1320	5400	665	72	No
VSVD 3E	230	150	2710	300	451	50	Yes

* Published noise figures are retained as given. Measurement distance and sound-pressure/sound-power basis are not specified. No octave-band spectrum is supplied.

Nominal catalogue values refer to 0 Pa. Pressure maxima above follow the current curve points, rounded to the nearest Pa. Small differences between nominal airflow and curve endpoints arise from the retained vector sampling.

The voltage is listed without assuming a phase count. Rated current and mass are not supplied. Published power and speed remain their original catalogue references.

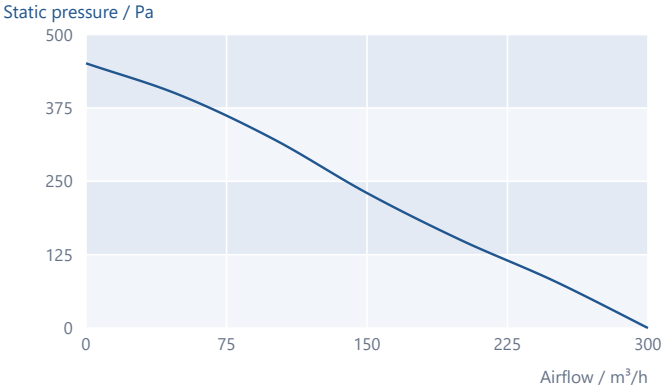
Manual operation is available on 3E only; no separate manual-mode airflow or pressure curve is supplied.

04 / AIR PERFORMANCE

Fan Performance Curves

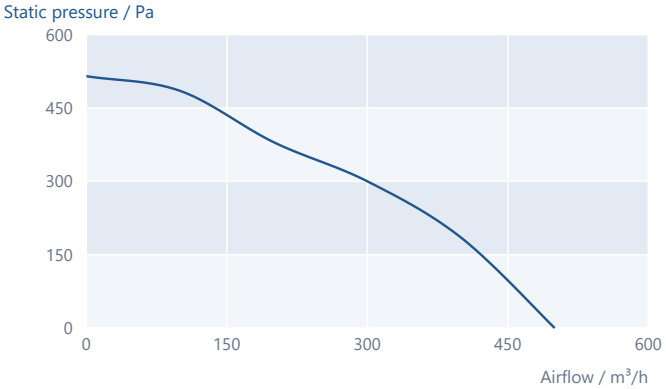
VSVD 3

230 V / 50 Hz / electrical performance reference



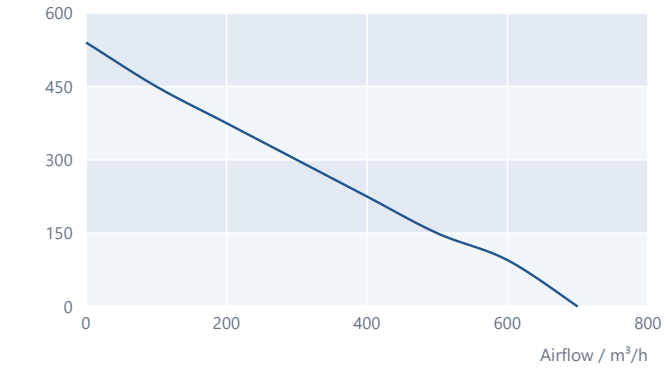
VSVD 5

230 V / 50 Hz / electrical performance reference



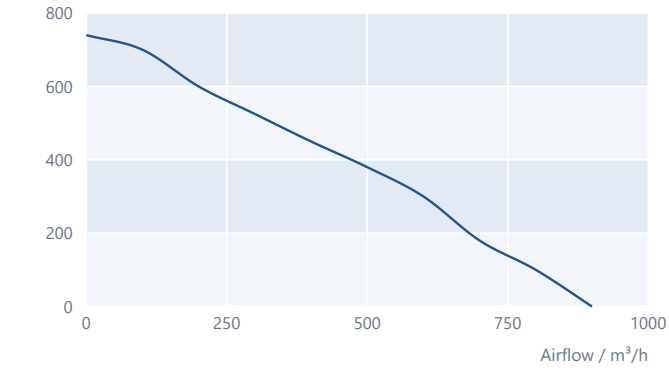
VSVD 7

230 V / 50 Hz / electrical performance reference



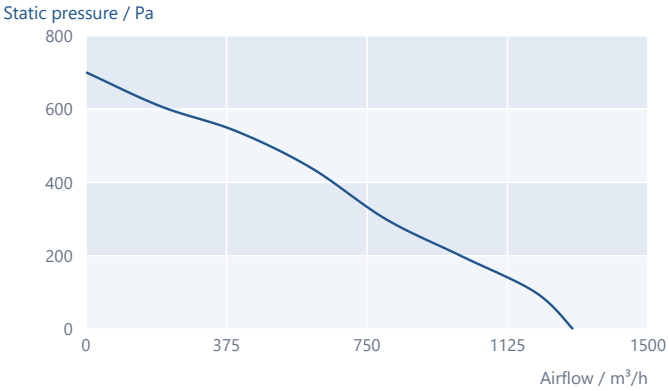
VSVD 9

230 V / 50 Hz / electrical performance reference



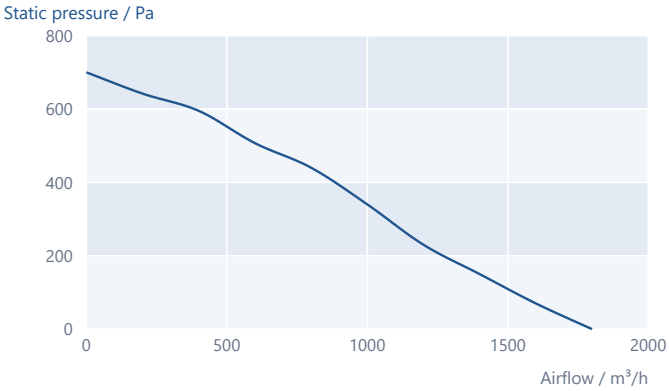
VSVD 13

230 V / 50 Hz / electrical performance reference



VSVD 18

230 V / 50 Hz / electrical performance reference



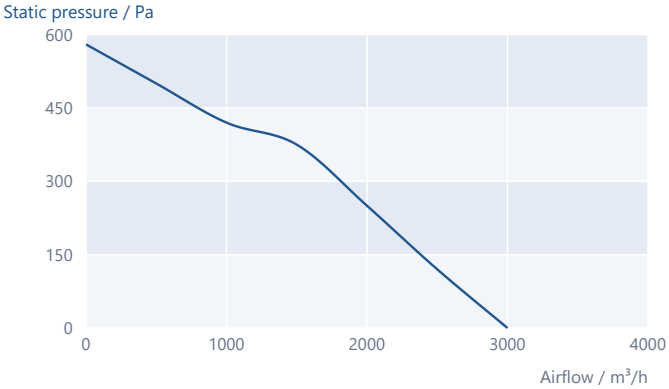
Original 50 Hz vector-sampled curve points and domains retained. No re-fitting, speed conversion or extrapolation. Model-specific scales.

04 / AIR PERFORMANCE

Fan Performance Curves

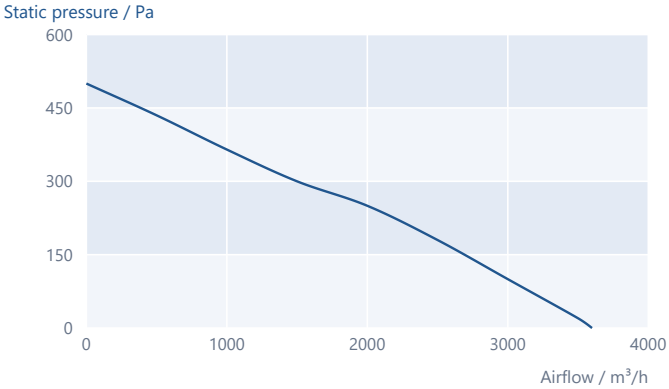
VSVD 30

230 V / 50 Hz / electrical performance reference



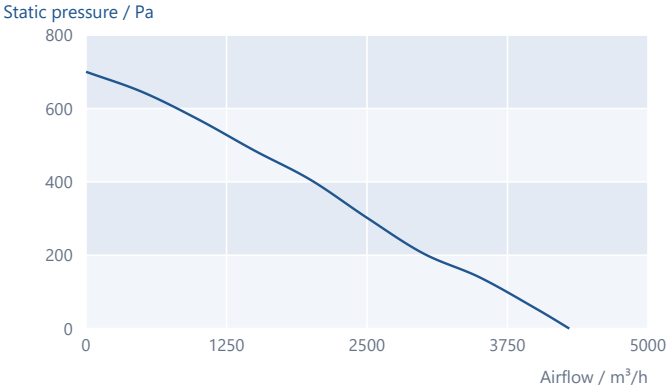
VSVD 36

230 V / 50 Hz / electrical performance reference



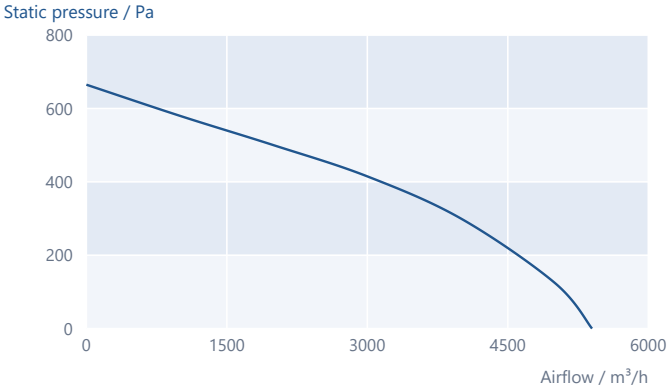
VSVD 43

230 V / 50 Hz / electrical performance reference



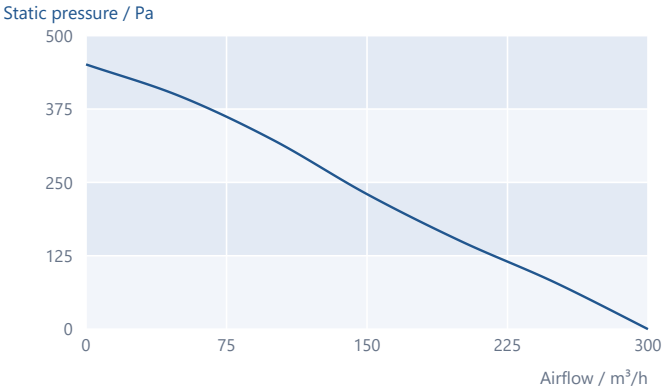
VSVD 54

380 V / 50 Hz / electrical performance reference



VSVD 3E

230 V / 50 Hz / electrical performance reference



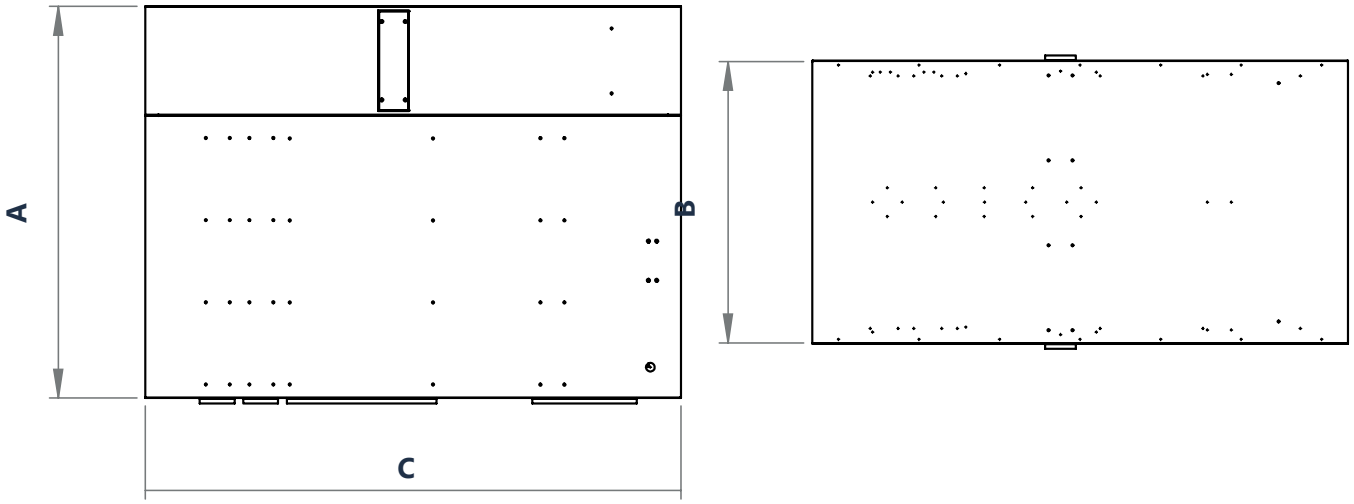
Original 50 Hz vector-sampled curve points and domains retained. No re-fitting, speed conversion or extrapolation. Model-specific scales. The 3E curve is an electrical reference; manual-mode performance is not supplied.

05 / DIMENSIONS

Coordinate the cabinet and access.

REPRESENTATIVE SERIES OUTLINE

All dimensions in mm



Model	A	B	C
VSVD 3	400	300	1010
VSVD 5	500	350	1250
VSVD 7	500	350	1250
VSVD 9	500	350	1250
VSVD 13	900	350	1300
VSVD 18	900	450	1280
VSVD 30	900	650	1360
VSVD 36	900	650	1360
VSVD 43	900	650	1360
VSVD 54	1300	650	1350
VSVD 3E	600	400	1380

Use the row for the selected model, including the distinct 3E cabinet. The original outline is representative and is not drawn to scale. Keep filter-removal and service access clear.

06 / INSTALLATION & ELECTRICAL

Plan the connection and access.

MODEL-SPECIFIC SUPPLY REFERENCES

Supply / parameter	VSVD model or available information
230 V / 50 Hz	3, 5, 7, 9, 13, 18, 30, 36, 43 and 3E
380 V / 50 Hz	VSVD 54
Phase count	Not specified in current data
Rated current	Not supplied
Mass	Not supplied
Electrical connection diagram	Not supplied for this series

Use the supplied unit nameplate and its connection instructions for final installation. Catalogue voltage alone does not establish the phase count or terminal arrangement.

VSVD 3E / MANUAL BACKUP

Identify the selected drive.

The 3E variant includes a hand crank. Its listed 50 Hz electrical ratings and curve do not establish manual-mode performance. Retain the complete 3E model identity when specifying the cabinet and drive.

FILTER AND DAMPER ACCESS

Provide service clearance.

Allow removal of each installed filter section and operation of the damper. Confirm the available pressure with the required duct system and filter condition; inspect the filter sections as part of routine maintenance.

The filter names identify the installed stages. Select the exact filter set and operating air path for the application, and retain the supplied unit and filter documentation.

01 / PRODUCT OVERVIEW

VDFF

Duct Type Filtered Fan



01 Cabinet and impeller

Compact galvanized-steel cabinet for ducted ventilation, with an aluminium centrifugal impeller.

02 G4 and activated carbon

The G4 dust prefilter retains coarse particles. The activated carbon stage helps reduce odours; performance depends on the contaminant and filter condition.

03 Accessible filter sections

Keep the filter access clear. Inspect the installed stages regularly and replace filters as their resistance increases.

STANDARD FILTER STAGES

G4 prefilter → **Activated carbon**

Functional sequence; component positions are schematic.

CONFIGURABLE AT PRODUCTION

Alternative filters and an additional third filter stage can be specified at production. Confirm the requested filter set and its pressure resistance for the order.

SERIES AT A GLANCE

Selection parameter	Series reference
Nominal airflow	665-4655 m^3/h
Mains reference	230 V / 50 Hz
Motor protection / insulation	IP44 / class F
Working temperature	-20 to +50 °C
Standard filter stages	G4 dust prefilter / activated carbon

Nominal airflow values refer to 0 Pa. Check the required duty with the installed filters and the complete duct-system resistance.

02 / TECHNICAL DATA

Select the airflow and filtration duty.

05 CONFIGURATIONS / AC DRIVE / 50 Hz

Model	Supply V	Power W	Speed rpm	Nominal Q m³/h	Curve Ps max. Pa	Noise* dB(A)
VDFF 5	230	85	2722	665	324	50
VDFF 10	230	122	2670	950	500	52
VDFF 20	230	210	2580	1665	700	54
VDFF 30	230	380	1420	3230	341	56
VDFF 40	230	690	1365	4655	437	58

* Published noise figures are retained as given. Measurement distance and sound-pressure/sound-power basis are not specified. No octave-band spectrum is supplied.

Nominal catalogue values refer to 0 Pa. Pressure maxima follow the supplied curve points, rounded to the nearest Pa; maximum airflow and maximum pressure are separate limits.

Small differences between nominal airflow and curve endpoints arise from the retained vector sampling. Published power and speed remain their original catalogue references.

Performance reference	Basis
Nominal rating reference	0 Pa
Curve basis	Original 50 Hz pressure points
Filter-loading condition for curves	Not specified

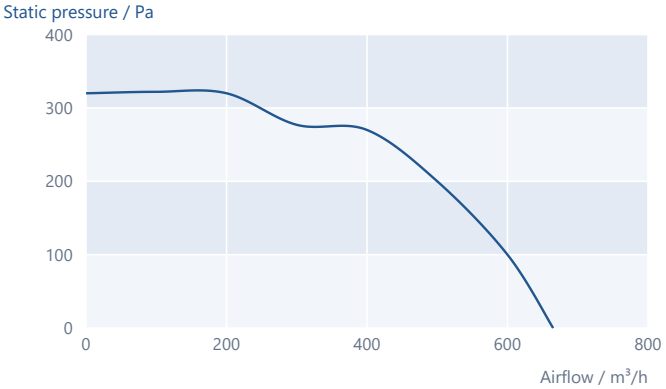
The voltage is listed without assuming a phase count. Rated current and mass are not supplied.

03 / AIR PERFORMANCE

Fan Performance Curves

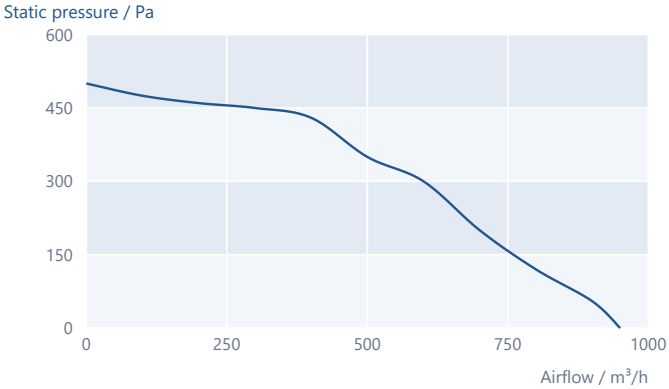
VDFF 5

230 V / 50 Hz



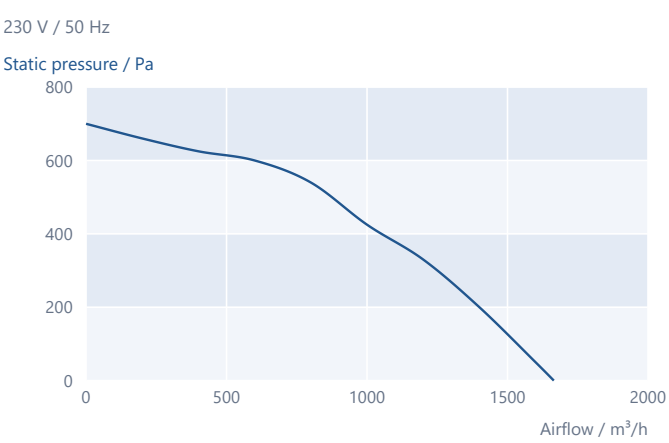
VDFF 10

230 V / 50 Hz



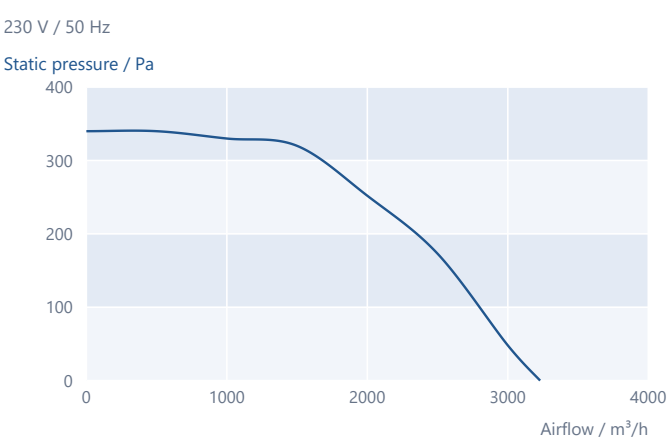
VDFF 20

230 V / 50 Hz



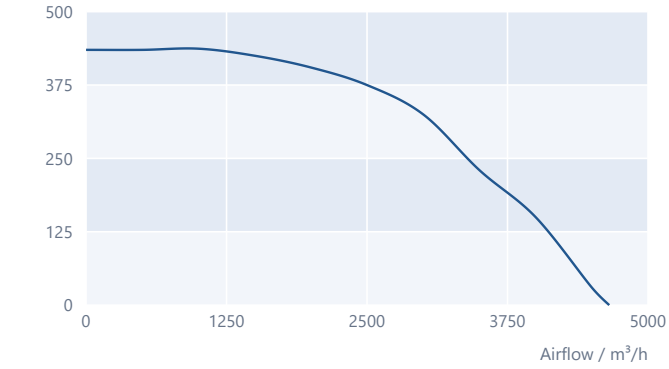
VDFF 30

230 V / 50 Hz



VDFF 40

230 V / 50 Hz



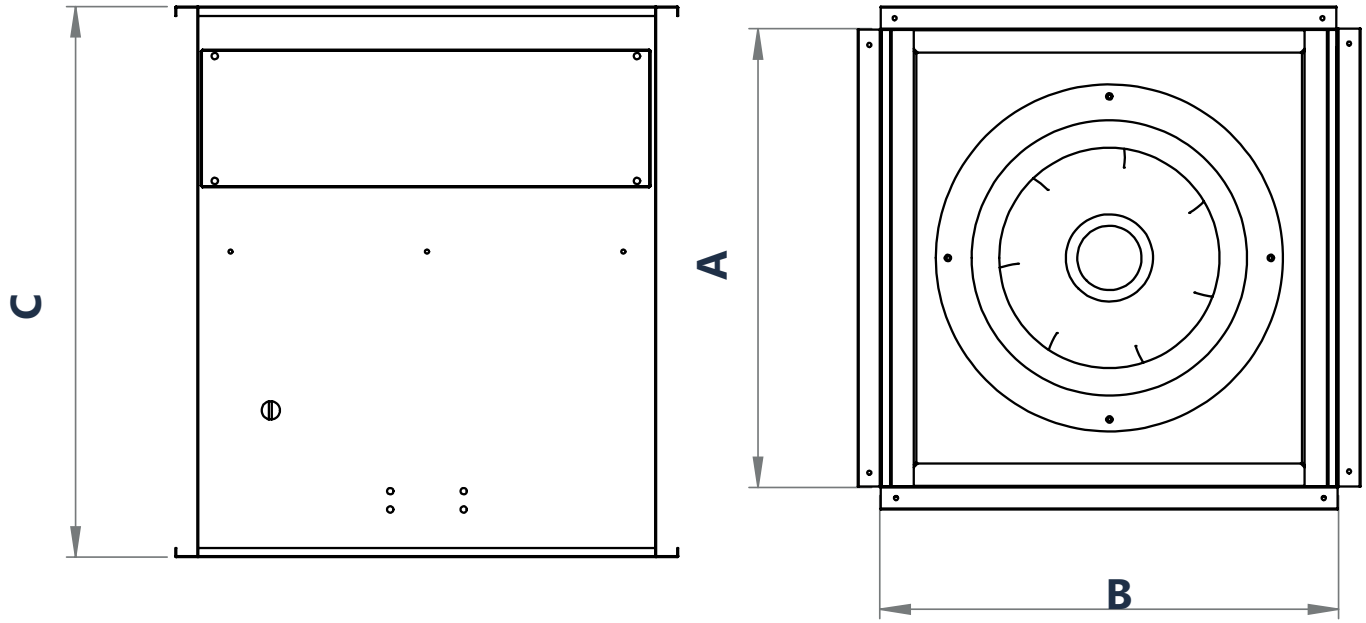
Original 50 Hz vector-sampled curve points and domains retained. No re-fitting, speed conversion or extrapolation. Model-specific scales. The published filter-loading condition is not specified.

04 / DIMENSIONS

Coordinate the duct and service access.

REPRESENTATIVE SERIES OUTLINE

All dimensions in mm



Model	A	B	C
VDFF 5	300	300	500
VDFF 10	350	350	500
VDFF 20	400	400	500
VDFF 30	450	450	600
VDFF 40	500	500	600

Use the row for the selected model. The original outline is representative and is not drawn to scale. Allow access for filter removal, duct connections and routine service.

05 / INSTALLATION & ELECTRICAL

Keep the filter access clear.

SUPPLY AND AVAILABLE ELECTRICAL DATA

Supply / parameter	VDFF model or available information
Mains reference	230 V / 50 Hz; all five models
Phase count	Not specified in current data
Rated current	Not supplied
Mass	Not supplied
Electrical connection diagram	Not supplied for this series

Use the supplied unit nameplate and its connection instructions for final installation. Catalogue voltage alone does not establish the phase count or terminal arrangement.

FILTER SERVICE

Allow removal clearance.

Keep each installed filter section accessible. Inspect filters regularly and replace them as their resistance increases. Retain the specified stage arrangement when ordering replacement filters.

AIRFLOW AND RESISTANCE

Check the installed duty.

Available airflow depends on the installed filters and duct-system resistance. Include the actual pressure losses when checking the required operating point; the published curves do not define filter loading.

G4 prefiltration retains coarse particles. Activated carbon helps reduce odours; its performance depends on the contaminant and filter condition. Confirm any alternative or additional stage as part of the requested production configuration.

01 / PRODUCT OVERVIEW

VDHF

Duct Type HEPA Filter Fan



01 Cabinet and impeller

Galvanized-steel duct unit with an aluminium centrifugal impeller and accessible filter sections.

02 Three standard filter stages

G4 dust prefilter, activated carbon filter and an H13 HEPA final stage provide coarse-particle, odour and fine-particle filtration.

03 Access for routine service

Keep every filter section accessible. Confirm the required airflow and pressure with the specified filter configuration before selecting the installed duty.

STANDARD FILTER STAGES

G4 prefilter → **Activated carbon** → **H13 HEPA filter**

Functional sequence; component positions are schematic. The approved photo illustrates the series construction.

SERIES AT A GLANCE

Selection parameter	Series reference
Nominal airflow / 0 Pa	800-4500 m^3/h
Mains reference	230 V / 50 Hz
Motor protection / insulation	IP44 / class F
Working temperature	-20 to +50 °C
Standard filter stages	G4 / activated carbon / H13 HEPA

Nominal airflow only at 0 Pa. Pressure verification is required for the installed duty; pressure curves are not supplied for this series.

02 / TECHNICAL DATA

Compare the nominal air delivery.

05 CONFIGURATIONS / AC DRIVE / 50 Hz

Model	Supply V	Power W	Speed rpm	Nominal Q / 0 Pa m^3/h	Noise* dB(A)
VDHF 10	230	104	2675	800	50
VDHF 20	230	130	2685	1500	52
VDHF 30	230	180	2615	2000	54
VDHF 40	230	380	1365	3500	56
VDHF 50	230	690	1365	4500	59

* Published noise figures are retained as given. Measurement distance and sound-pressure/sound-power basis are not specified. No octave-band spectrum is supplied.

These are nominal catalogue references at 0 Pa. The current data do not include pressure curves or a verified pressure maximum. Nominal airflow does not establish airflow against the installed filter and duct resistance.

NOMINAL AIRFLOW BASIS

Performance reference	Available data
Selection basis	Nominal airflow only at 0 Pa
Pressure curves	Not supplied
Installed duty pressure	Verification required

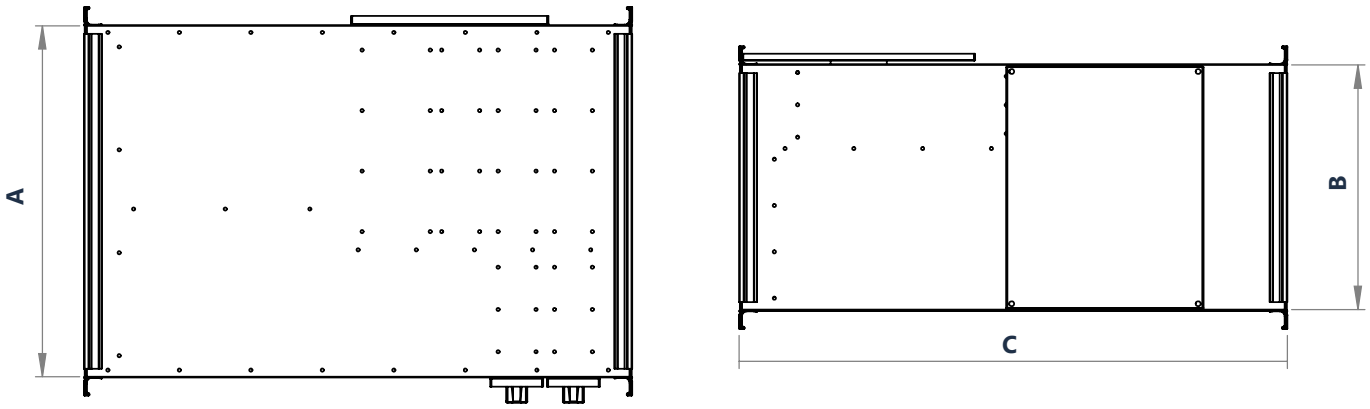
The voltage is listed without assuming a phase count. Rated current and mass are not supplied.

03 / DIMENSIONS

Coordinate the cabinet and filter access.

REPRESENTATIVE SERIES OUTLINE

All dimensions in mm



Model	A	B	C
VDHF 10	500	350	780
VDHF 20	500	350	800
VDHF 30	600	400	920
VDHF 40	975	400	1000
VDHF 50	975	400	1000

Use the row for the selected model. The original outline is representative and is not drawn to scale. Allow clearance for filter removal, duct connections and routine service.

04 / INSTALLATION & ELECTRICAL

Plan the filters and the installed duty.

SUPPLY AND AVAILABLE ELECTRICAL DATA

Supply / parameter	VDHF model or available information
Mains reference	230 V / 50 Hz; all five models
Phase count	Not specified in current data
Rated current	Not supplied
Mass	Not supplied
Electrical connection diagram	Not supplied for this series

Use the supplied unit nameplate and its connection instructions for final installation. Catalogue voltage alone does not establish the phase count or terminal arrangement.

FILTER SERVICE

Allow removal clearance.

Keep the G4 prefilter, carbon section and H13 HEPA stage accessible. Retain the specified filter arrangement and confirm replacement-filter dimensions for the selected unit.

PRESSURE VERIFICATION

Confirm the required duty.

The published nominal airflow is a 0 Pa reference. Pressure curves are not supplied. Verify that the configured unit can deliver the required airflow against the actual filter and duct resistance.

The filter names identify the published stages. Carbon performance depends on the contaminant and filter condition. Keep the selected unit and filter documentation with the installation and service records.

01 / PRODUCT & TECHNICAL DATA

VCCD

Ceiling Type Air Clean Device



01 Ceiling-mounted construction

Compact air cleaner with a galvanized-steel cabinet, aluminium impeller and a removable front grille.

02 G4 and H13 HEPA

The G4 dust prefilter protects the H13 HEPA filter from coarse dust. Both stages are accessible through the removable front grille.

03 Access below the unit

Allow access below the ceiling for grille and filter maintenance. Coordinate the ceiling interface and duct connection with the dimension drawing.

STANDARD FILTER STAGES

G4 dust prefilter → **H13 HEPA filter**

Functional filter sequence; component positions are schematic.

VCCD 13 / PUBLISHED TECHNICAL DATA

Model	Supply V	Power W	Speed rpm	Nominal Q / 0 Pa m^3/h	Noise* dB(A)
VCCD 13	230	250	2362	1200	58

IP44 / class F

Motor protection / insulation

-20 to +50 °C

Working temperature

* Noise reference only. Acoustic quantity, measurement distance and octave-band data are not supplied.

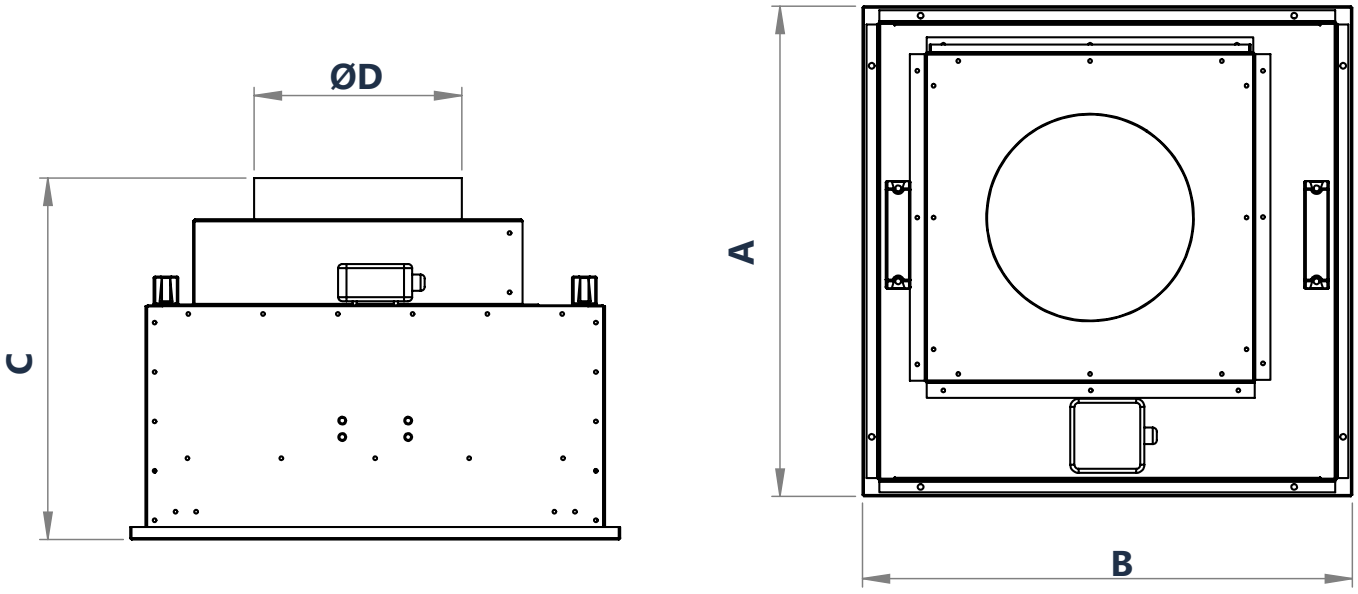
Nominal airflow only at 0 Pa. Pressure curves are not supplied; verification of the installed duty is required.

02 / DIMENSIONS

Fit the ceiling and duct connection.

PRODUCT OUTLINE / VCCD 13

All dimensions in mm



Model	A	B	C	ØD
VCCD 13	595	595	440	250

CEILING INTERFACE

Coordinate the support.

Use the overall dimensions with the detailed project drawings. Confirm the ceiling interface, support arrangement and duct connection before installation.

GRILLE AND FILTER ACCESS

Keep access from below.

Allow space below the unit for removal of the front grille and maintenance of both filter stages. Keep this access clear after the ceiling is finished.

The original outline is representative and is not drawn to scale. A/B/C are overall dimension references; ØD identifies the circular duct connection.

03 / INSTALLATION & ELECTRICAL

Connect and maintain the specified unit.

SUPPLY AND AVAILABLE ELECTRICAL DATA

Supply / parameter	VCCD model or available information
Mains reference	230 V / 50 Hz; VCCD 13
Phase count	Not specified in current data
Rated current	Not supplied
Mass	Not supplied
Electrical connection diagram	Not supplied for this series

Use the supplied unit nameplate and its connection instructions for final installation. Catalogue voltage alone does not establish the phase count or terminal arrangement.

NOMINAL AIRFLOW & PRESSURE BASIS

Performance reference	Available data
Nominal airflow reference	1200 m^3/h at 0 Pa
Pressure curves	Not supplied
Installed duty pressure	Verification required

FILTER MAINTENANCE

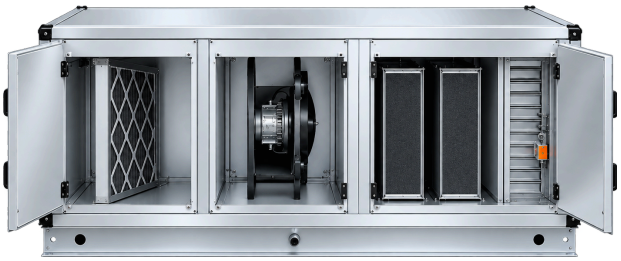
Keep both stages accessible.

The G4 prefilter protects the H13 HEPA stage from coarse dust. Retain the specified filter set, keep grille access clear and confirm replacement-filter dimensions for the selected unit. Verify the required airflow against actual filter and duct resistance; the nominal 0 Pa rating does not establish the installed operating point.

01 / PRODUCT OVERVIEW

VACT-F

Carbon Filtered Duct Fan



01 Three standard filter stages

The VACT-F combines a centrifugal fan, metal grease filter, G4 prefilter and activated carbon cartridges in a galvanized-steel duct cabinet.

02 Accessible fan and filter sections

The galvanized-steel cabinet houses a centrifugal impeller. Fan and filter sections are mounted on slides for access during cleaning and maintenance.

03 Options for the application

Filter options are assessed to suit customer requirements. F5 bag filters and other suitable filter types can be incorporated into the unit on request.

SERVICEABLE CABINET

The series combines fan and filtration within one duct cabinet. Allow clear access to the removable fan and filter sections. Dimensions depend on the selected model.

FILTER ARRANGEMENT

Filter stage / option	Availability
Metal grease filter	Standard
G4 dust prefilter	Standard
Activated carbon cartridges	Standard
F5 bag filter / other suitable filters	Optional - on request

Odour reduction depends on the contaminant, airflow and filter condition. Confirm the installation pressure reserve and allow access for filter replacement and fan cleaning.

02 / TECHNICAL DATA

Select the fan configuration.

FIVE ELECTRICAL CONFIGURATIONS / 50 Hz

Model	Airflow m^3/h	Nominal power W	Speed rpm	Supply V / phase	Noise level dB(A)
VACT-F 400M	2400	380	1362	230 / 1	45
VACT-F 450M	3300	690	1367	230 / 1	48
VACT-F 500M	5200	830	1364	230 / 1	52
VACT-F 500T	5200	830	1364	380 / 3	52
VACT-F 560T	7200	1460	1369	380 / 3	55

RATING BASIS

Published airflow, power and speed are nominal catalogue values at 0 Pa. The data provide no duty-dependent input-power, speed or efficiency curves. The 500M and 500T configurations share the same published size-500 air-performance curve.

MOTOR AND OPERATING RANGE

Series parameter	Reference
Motor type	AC
Motor insulation / protection	Class F / IP44
Operating temperature	-20 to +50 °C

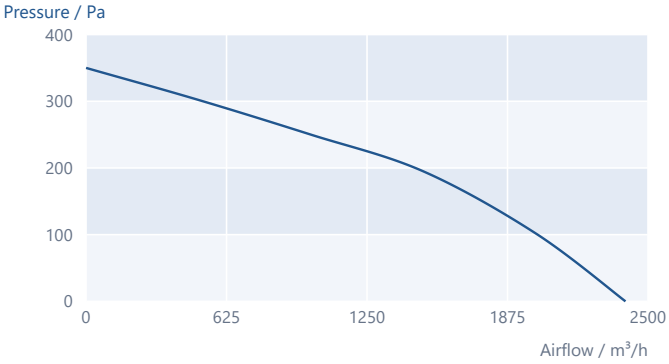
Noise values are listed by model; measurement type, distance and test conditions are not specified. Current and mass are not stated in the verified model records.

03 / AIR PERFORMANCE

Fan Performance Curves

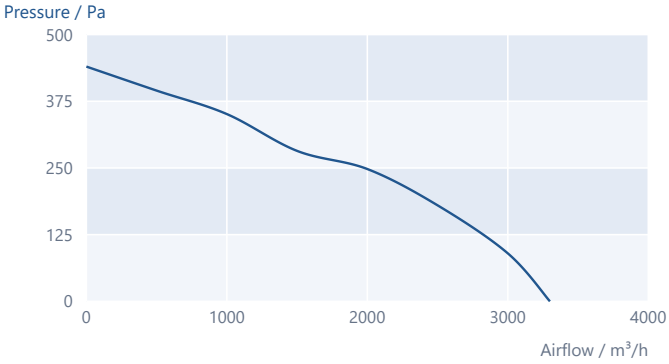
VACT-F 400M

230 V / 1 phase / 50 Hz



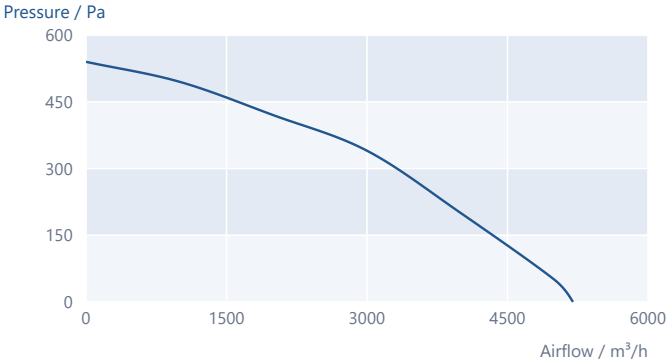
VACT-F 450M

230 V / 1 phase / 50 Hz



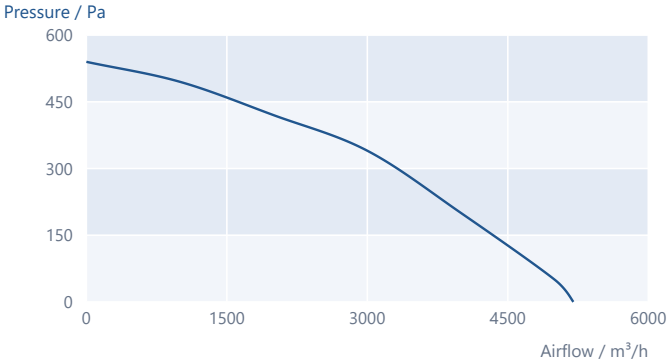
VACT-F 500M

230 V / 1 phase / 50 Hz



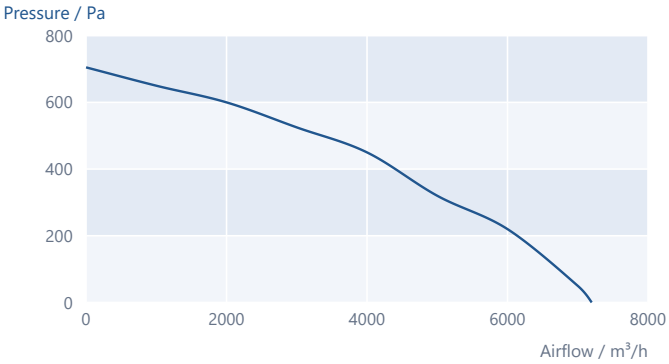
VACT-F 500T

380 V / 3 phase / 50 Hz



VACT-F 560T

380 V / 3 phase / 50 Hz



READING THE CURVES

Each chart has its own scale. The 500M and 500T plots retain the same published curve, with separate model and supply labels.

Allow for the resistance of the connected system and filter condition when selecting the operating point. No loaded-filter correction is inferred.

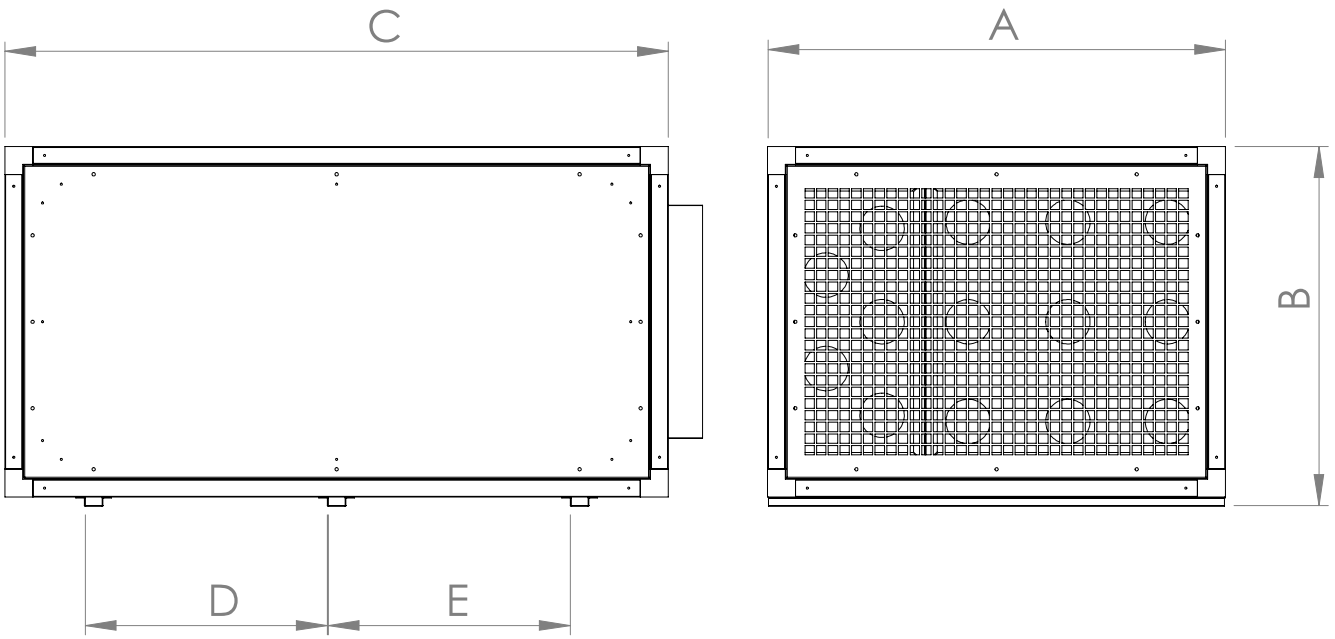
Curves reproduce the published series data without re-fitting or extrapolation. Curve endpoints may differ slightly from rounded nominal airflow ratings.

04 / DIMENSIONS

Plan the installation.

ORIGINAL SERIES OUTLINE / TWO VIEWS

All dimensions in mm



Model	A	B	C	D	E
VACT-F 400M	665	750	1420	520	520
VACT-F 450M	665	750	1420	520	520
VACT-F 500M	980	750	1420	520	520
VACT-F 500T	980	750	1420	520	520
VACT-F 560T	980	750	1420	520	520

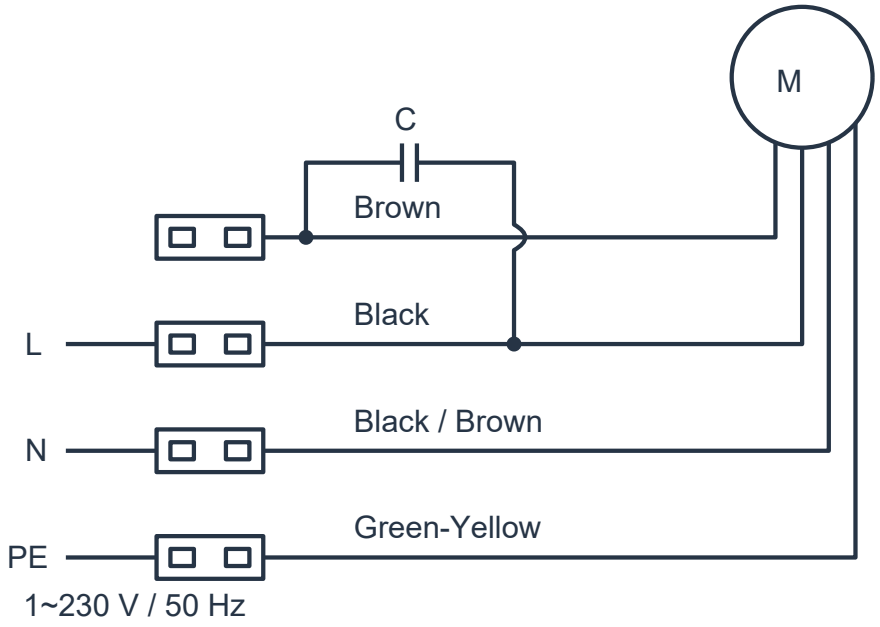
Original mechanical geometry and A-E dimension definitions are retained. Match the selected model to the table; do not scale the drawing. Provide separate clearance for filter withdrawal, fan cleaning and electrical access.

05 / ELECTRICAL CONNECTION

Electrical connections.

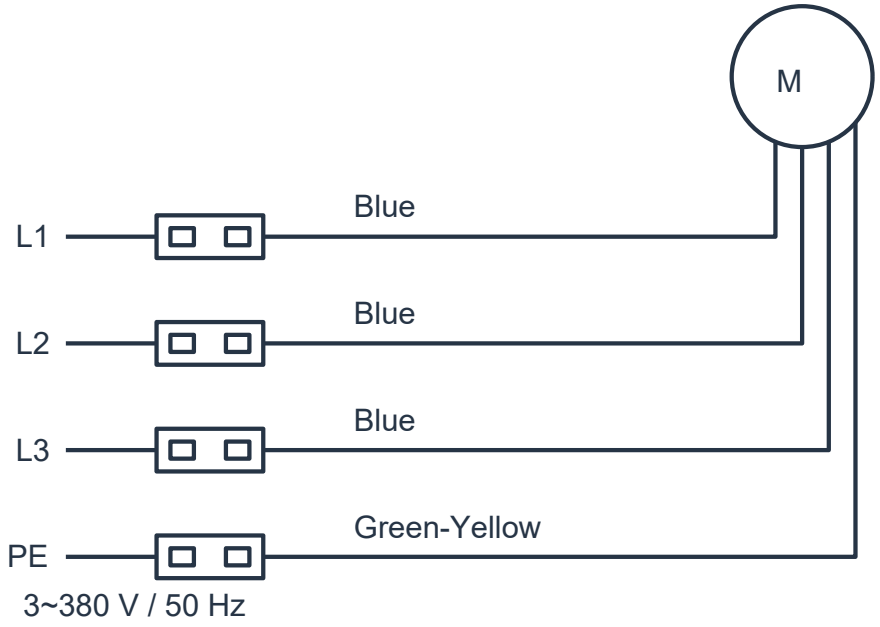
SINGLE-PHASE / 230 V

VACT-F 400M / 450M / 500M



THREE-PHASE / 380 V

VACT-F 500T / 560T



Use the connection diagram for the selected supply. C: capacitor. PE: protective earth. Isolate the supply before service and follow the motor terminal identification.

01 / THE RANGE

VLFU

Laminar Flow Unit

Coordinate the ceiling footprint, filtration arrangement and service route around the room.





HORIZONTAL FILTERS

Filters distributed across the ceiling field.

VERTICAL FILTERS

Filters arranged at the side of the plenum.

The VLFU model designation

VLFU 1400x2400

Family prefix + nominal plan dimensions in millimetres. The filter layout is specified separately; it is not an additional model suffix.

In this guide

Airflow & working principle	03
Horizontal filter configuration	04
Vertical filter configuration	07
Installation coordination	10
Project selection sheet	11

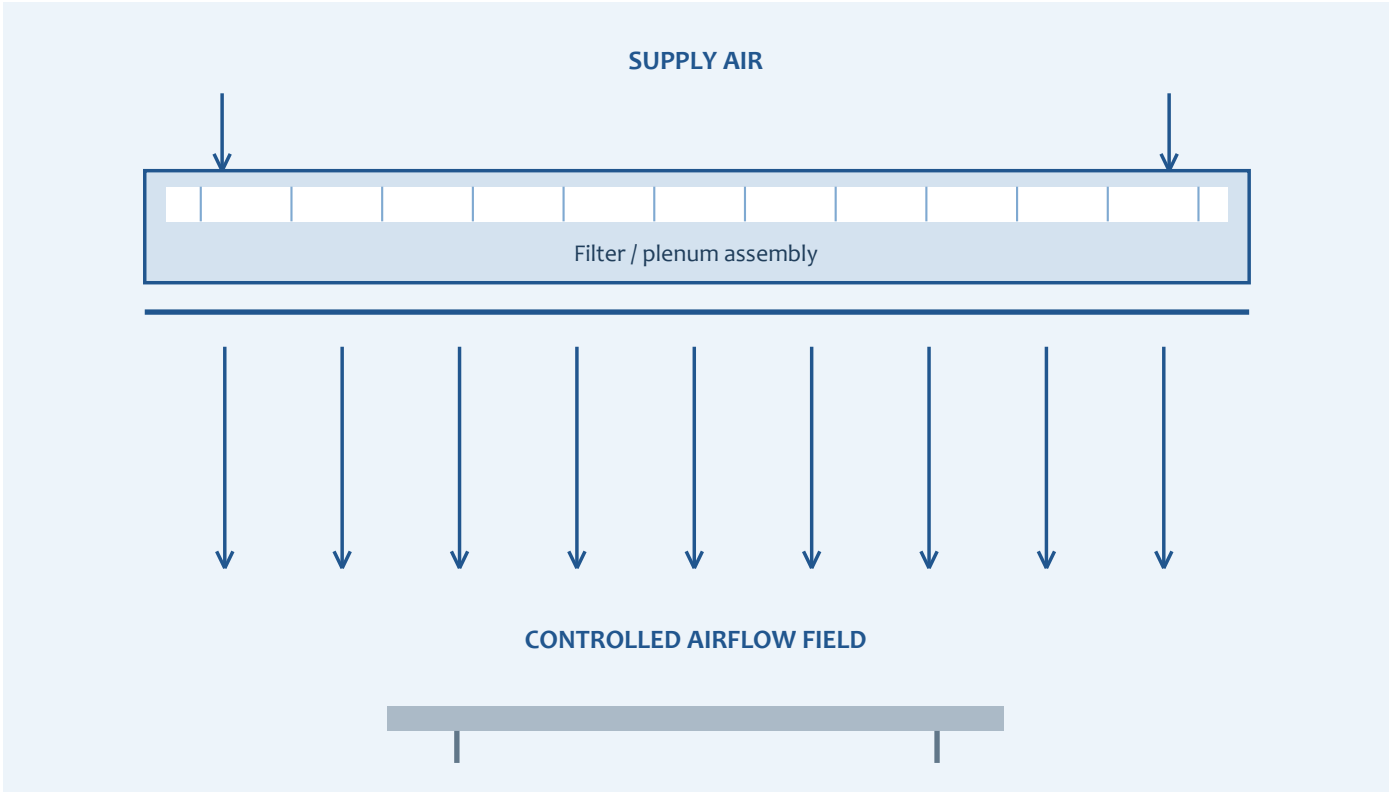
TECHNICAL REVIEW EDITION

Product illustrations and selection data are prepared for the listed configurations. Final VLFU construction, ratings and model availability require Voltvent technical confirmation.

02 / AIRFLOW CONCEPT

A defined downward air field.

Filter orientation and room airflow direction describe different parts of the system.



Concept diagram only. No room class, clinical outcome or installation clearance is implied.

01

Filter the supply

Select the HEPA grade, sealing interface and test documentation for the project.

02

Distribute the flow

Coordinate the laminiser with the protected area and the room arrangement.

03

Verify on site

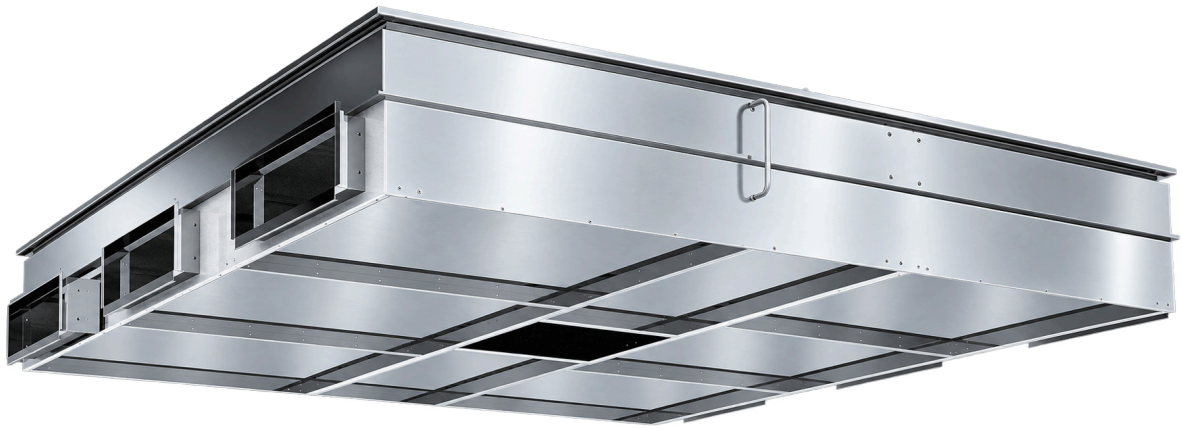
Confirm airflow, field uniformity, filter integrity and the specified room criteria.

A nominal filter grade alone does not establish the room cleanliness class. ISO 14644-1 addresses airborne particle concentration; the required assessment belongs to the complete room and project.

03 / HORIZONTAL FILTER LAYOUT

The filter field above the room.

A distributed filter arrangement with coordinated supply inlets and a central pendant interface.



Construction concept

1 Casing & plenum

The reference uses a stainless-steel casing and service connections.

2 HEPA filter seating

Gel-seal filter seating is the horizontal reference arrangement.

3 Laminiser frame

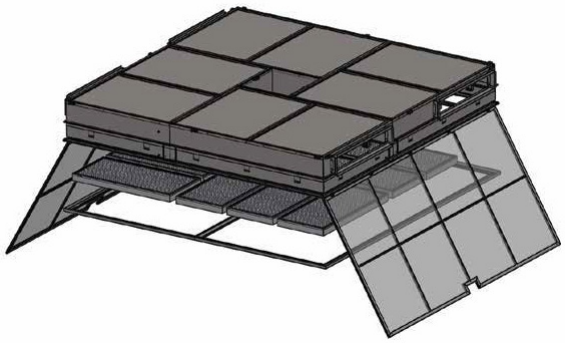
The frame connects the diffuser field to the casing boundary.

4 Pendant interface

Coordinate the light opening with the room equipment.

5 Laminiser

Confirm the final diffuser medium and its service arrangement.



Service access

The illustrated opening arrangement explains component access. Final hardware, filter supports and structural interfaces follow the confirmed VLFU design.

04 / HORIZONTAL SELECTION

Select the footprint and airflow.

Selection values at a face velocity of 0.23 m/s. Confirm the operating point for the complete system.

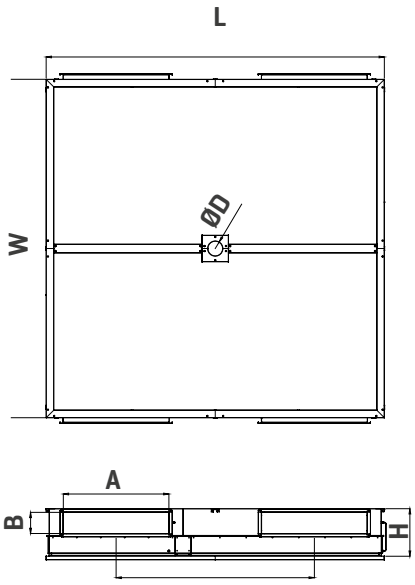
Model	W x L mm	H mm	Airflow m³/h	Initial Δp Pa
VLFU 1400x2400	1400 x 2400	450	2 600	90
VLFU 1600x2400	1600 x 2400	450	3 200	90
VLFU 1800x2400	1800 x 2400	450	3 600	90
VLFU 2400x2400	2400 x 2400	450	4 800	95
VLFU 2400x3000	2400 x 3000	450	6 000	95
VLFU 3000x3000	3000 x 3000	450	7 500	95
VLFU 3200x3200	3200 x 3200	450	8 500	95
VLFU 3800x3800*	3800 x 3800	450	12 000	97

* Provisional largest format: the capacity table lists L = 3600 mm, while its dimension table and model designation state 3800 mm. Confirm the footprint before selection.

05 / HORIZONTAL DIMENSIONS

Coordinate every interface.

W and L identify the nominal plan footprint. H is the casing depth; A, B and T follow the interface drawing.



Plan dimensions

Keep the unit footprint aligned with the room layout and the ceiling grid.

Pendant interface

Specify the pendant / light opening from the actual equipment arrangement.

Duct & support route

Confirm inlet positions, supporting structure and access before manufacture.

Dimensional drawing; scalable but not a construction issue drawing.

Nominal W x L / mm	A / mm	B / mm	T / mm
1400x2400	600	200	-
1600x2400	600	200	1192
1800x2400	600	200	1192
2400x2400	600	200	1192
2400x3000	900	200	1446
3000x3000	900	200	1778
3200x3200	1000	200	1878
3800x3800	1200	200	2180

All casing depths H = 450 mm in the listed schedule. The 3800 format remains provisional.

06 / VERTICAL FILTER LAYOUT

A different route into the plenum.

Side-mounted filters change the supply and service arrangement while maintaining downward delivery through the field.



FILTER ORIENTATION

Vertical filter panels at the plenum sides.

A layout to coordinate

- **Side filter access**

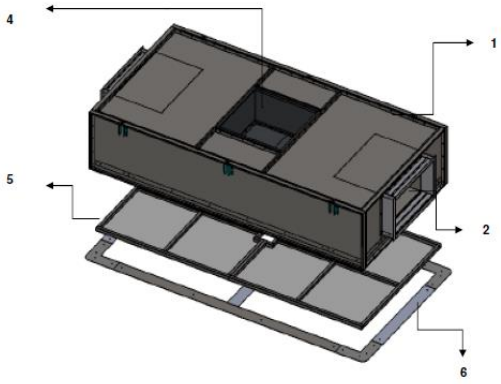
  Reserve the service route and confirm the panel withdrawal direction before closing the ceiling.

- **Filter arrangement**

  The series range uses two or four filters, depending on the footprint. Select filter grade and seating detail explicitly.

- **Light & pendant coordination**

  Integrated lighting and central equipment interfaces are project selections; confirm power, protection and maintenance requirements.



1 Casing
2 HEPA filters
3 Lighting
4 Pendant
5 Laminiser
6 Frame

Exploded configuration; final assembly to be confirmed.

07 / VERTICAL SELECTION

Match the field to the project.

Plan dimensions are normalized to W x L; H is the casing depth. Face velocity: 0.23 m/s.

Model	W x L mm	H mm	Airflow m³/h	Initial Δp Pa
VLFU 2400x1200	2400 x 1200	450	2 400	120
VLFU 2400x1400	2400 x 1400	450	2 800	150
VLFU 2400x1600	2400 x 1600	450	3 200	110
VLFU 2400x1800	2400 x 1800	450	3 600	130
VLFU 2400x2000	2400 x 2000	450	4 000	120
VLFU 2400x2200	2400 x 2200	450	4 400	130
VLFU 2400x2400	2400 x 2400	450	4 800	150
VLFU 3000x2400	3000 x 2400	450	6 000	120
VLFU 3000x2800	3000 x 2800	450	7 000	160
VLFU 3000x3000	3000 x 3000	450	7 500	170

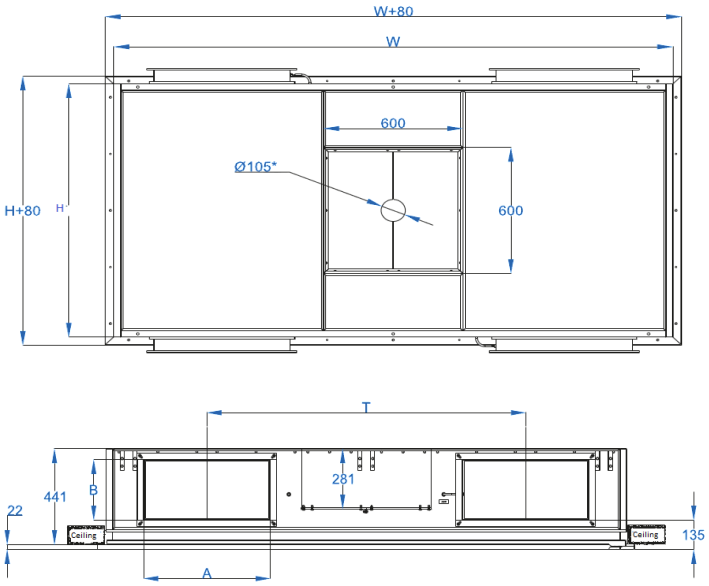
Selection schedule. Airflow and pressure are not certified Voltvent ratings. A footprint may occur in both filter layouts; the filter orientation is an essential order attribute.

Specify the system resistance and filter service criterion separately. Initial pressure loss is not the total external static pressure available from an air handling unit.

08 / VERTICAL INTERFACES

Filter sizes. Duct connections.

Coordinate the filter set with the inlet geometry and maintenance space.



Drawing notation

The original drawing uses W and H in plan and L for the depth. This VLFU guide presents plan W x L and uses H for the 450 mm casing depth.

Service space

Final access dimensions are defined around the installed filter panel and the selected removal route.

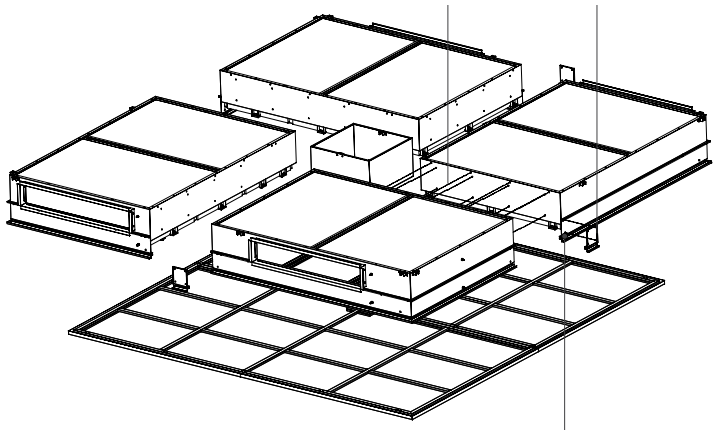
Nominal W x L / mm	Filters qty	Filter face mm	Inlet A x B mm
2400x1200	2	610x305	586 x 281
2400x1400	2	610x305	586 x 281
2400x1600	4	610x305	586 x 281
2400x1800	4	610x305	586 x 281
2400x2000	4	610x305	586 x 281
2400x2200	4	610x305	586 x 281
2400x2400	4	610x305	586 x 281
3000x2400	4	610x305	586 x 281
3000x2800	4	610x457	586 x 281
3000x3000	4	610x457	586 x 281

Filter thickness, casing detail, lighting and access opening are to be confirmed for the final VLFU configuration. Dimensions shown above are indicative dimensions.

09 / INSTALLATION COORDINATION

Connect the unit to the building.

Treat the ceiling field, structural support, ductwork and room finish as separate coordinated interfaces.



A coordinated assembly

1 **Structure**

Confirm the load path, support locations and project-specific fixing design.

2 **Air connection**

Connect the selected supply route without imposing duct loads on the casing.

3 **Room finish**

Coordinate the ceiling frame and the continuous room boundary.

04

Filter service

Provide a safe removal route and protect filter faces during handling.

05

Sealing interfaces

Confirm all module, filter-seat and ceiling interfaces in the final assembly.

06

Commissioning

Complete the agreed airflow, integrity and room-performance checks after installation.

Exploded installation illustration, not to scale. Fixing sizes, structural loads and construction clearances require project-specific confirmation.

10 / PROJECT SPECIFICATION

Define your VLFU configuration.

Use the model footprint together with the filter layout and the required operating conditions.

Order parameter	Project entry	Selection note
Model designation	VLFU [W]x[L]	e.g. VLFU 1400x2400
Filter layout	Horizontal / vertical	Identify the layout explicitly
Design airflow	_____ m³/h	State the required system duty
Pressure requirement	_____ Pa	Include the selected filtration
Construction	Material / finish / seals	Reference basis: stainless steel
Filtration	Grade / seat / certificate	Reference basis: H14; confirm scope
Interfaces	Ducts / pendant / lighting	Provide the coordinated equipment plan
Maintenance	Access side / removal route	Include the service envelope
Verification	Agreed test & handover plan	Define before manufacture

WHAT REMAINS TO BE CONFIRMED

The VLFU prefix and Laminar Flow Unit description are defined for this review. Numerical schedules and product illustrations require Voltvent technical approval. Confirm the 3800-format length and the chosen filter layout before releasing an order.



10

BATHROOM FANS

SERIES DIRECTORY

VSBF 481
VBRF 486
VBDF 491
VMF 496

01 / PRODUCT OVERVIEW

VSBF

Silent Bathroom Extractor Fan



01 Bathroom and toilet extraction

Local extract ventilation for bathrooms and toilets. The compact front grille suits domestic interiors.

02 White ABS construction

White ABS casing and impeller, with a concentric protective grille. The AC external-rotor motor is in the airstream.

03 Wall or window installation

A circular connection for the selected model. Keep the front grille accessible for inspection and cleaning.

SERIES AT A GLANCE

Selection parameter	Series reference
Supply	230 V / single phase / 50 Hz
Motor protection / insulation	IP25 / class F
Working temperature	-20 to +50 °C
Nominal connection sizes	100 / 125 / 150 mm
Construction	White ABS casing and impeller

Model 150 has an actual outlet diameter of 149 mm. Use the model-specific dimension row when coordinating the connection.

02 / TECHNICAL DATA

Select the local extract duty.

03 AC CONFIGURATIONS / 50 Hz

Model	Nominal Q m^3/h	Curve Q limit m^3/h	Power W	Speed rpm	Curve Ps max. Pa	Noise* dB(A)
VSBF 100	90	108.52	8.4	2800	49.99	25
VSBF 125	180	213.31	10	2800	59.99	30
VSBF 150	320	357.14	20	2800	65.00	33

NOMINAL RATINGS

90 / 180 / 320 m^3/h

Published airflow, power and speed references at 0 Pa. These figures retain their nominal catalogue basis.

PRESSURE-CURVE LIMITS

Separate original data.

The pressure curves end at higher airflow values. Their full original ranges are retained; they are not adjusted to the nominal airflow figures.

* Published noise figures are retained as given. Sound-pressure/sound-power basis, measurement distance and octave-band spectra are not specified.

Performance reference	Basis
Nominal rating reference	0 Pa
Pressure-curve reference	Original 50 Hz curve points
Supply reference	230 V / single phase / 50 Hz

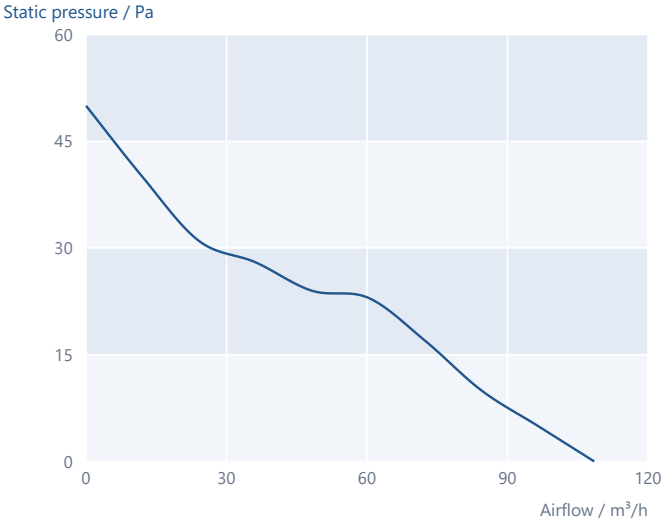
Power and speed are nominal references. Duty-dependent input, current, efficiency and SFP data are not supplied.

03 / AIR PERFORMANCE

Fan Performance Curves

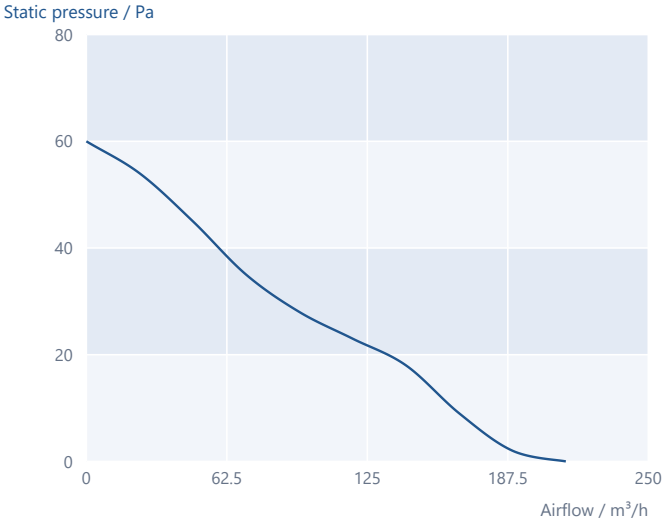
VSBF 100

230 V / single phase / 50 Hz



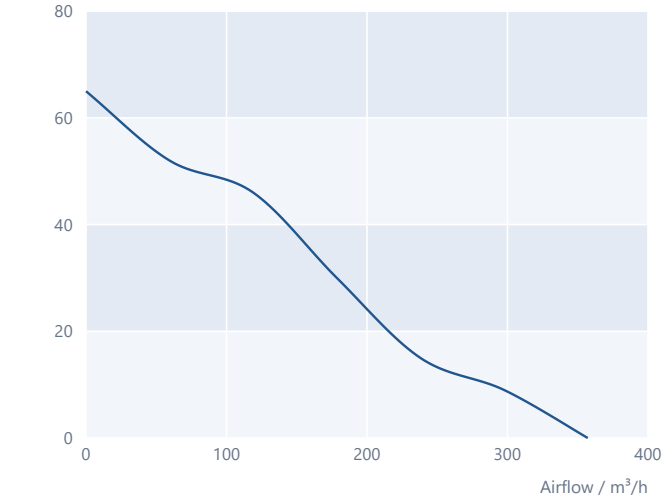
VSBF 125

230 V / single phase / 50 Hz



VSBF 150

230 V / single phase / 50 Hz



READING THE CURVES

Each model has its own chart and scale. Static pressure is shown in Pa and airflow in m³/h.

Nominal airflow and the pressure-curve endpoint are separate references. Check the technical table before selecting the operating point.

All 483 original vector-sampled points and their domains are retained. No re-fitting, speed conversion or extrapolation is applied.

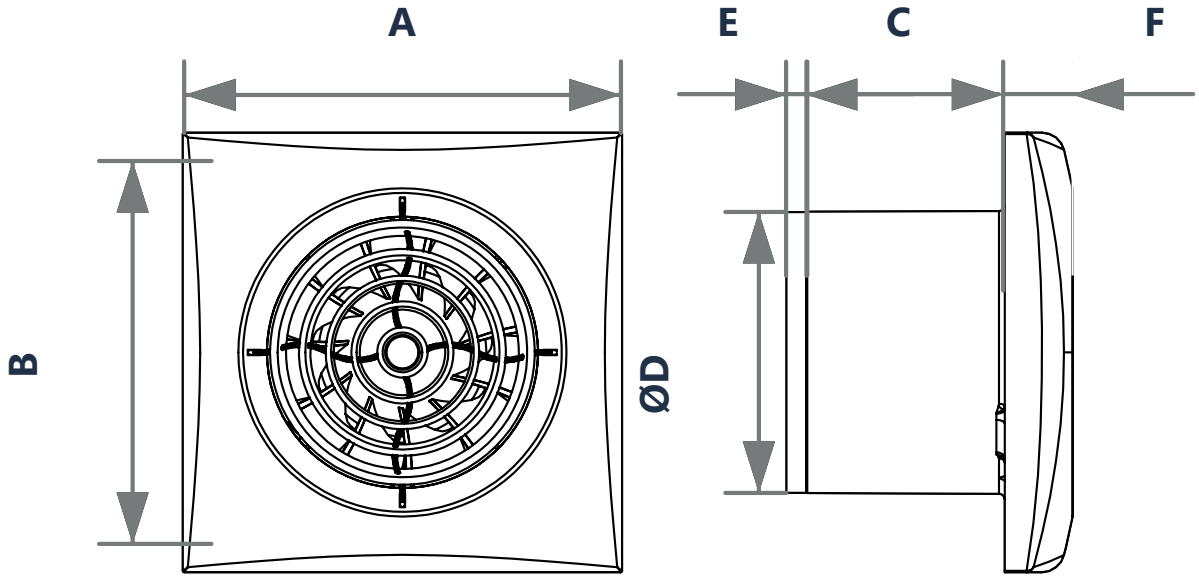
Maximum airflow and maximum static pressure are separate limits; they do not describe the same operating point.

04 / DIMENSIONS

Coordinate the opening and connection.

REPRESENTATIVE SERIES OUTLINE

All dimensions in mm



Model	A	B	C	ØD	E	F
VSBF 100	155	135	70	100	7	24
VSBF 125	175	155	78	125	8.5	24
VSBF 150	205	183	108	149	-	24

Use the row for the selected model. The outline is representative and is not drawn to scale. A and B follow the front-view callouts; C, E and F follow the side-view callouts. ØD identifies the circular connection.

VSBF 150: actual outlet ØD = 149 mm. Its E dimension is not supplied and is shown as a dash. No opening or fixing dimension is inferred from the nominal model size.

05 / INSTALLATION & ELECTRICAL

Plan access. Confirm the connection.

SUPPLY AND AVAILABLE ELECTRICAL DATA

Supply / parameter	VSBF model or available information
Supply	230 V / single phase / 50 Hz; all models
Rated input power	8.4 / 10 / 20 W; models 100 / 125 / 150
Rated current	Not supplied
Mass	Not supplied
Electrical connection diagram	Not supplied for this series

Use the supplied unit nameplate and its connection instructions for final installation. The terminal arrangement, switching options and capacitor connections are not defined by this catalogue.

WALL / WINDOW INSTALLATION

Match the selected size.

Coordinate the actual circular connection and the selected model dimensions. Keep the front grille accessible and avoid obstructing the inlet or discharge path.

INSPECTION AND CLEANING

Keep the grille clear.

Provide access for inspection and removal of dust from the protective grille. Isolate the electrical supply before cleaning and follow the instructions supplied with the unit.

Operating reference: -20 to +50 °C. Motor protection: IP25. Insulation: class F. Installation location and final electrical arrangement must follow the supplied unit instructions.

01 / PRODUCT & TECHNICAL DATA

VBRF

Bathroom Extractor Fan



01 Decorative grille

A moulded plastic front grille and casing for bathroom, toilet and local room extraction.

02 Compact duct connection

The rear circular spigot supports direct extraction or short duct runs. Use the actual ØE dimensions on p. 488.

03 Single-phase operation

Three 50 Hz models with a 230 V supply. Select airflow against the resistance of the connected duct system.

NOMINAL RATINGS / 50 Hz

Model	Airflow m^3/h	Power W	Speed rpm	Current A	Weight kg	LpA dB(A) / 3 m
VBRF 100	100	23	2300	0.14	0.5	40
VBRF 125	200	25	2300	0.15	0.55	41
VBRF 150	300	33	2750	0.20	0.71	43

Airflow is the nominal maximum, not a selected duty point. Nominal motor ratings differ from operating-point power, speed and current in FSP. Sound pressure is the supplied reference at 3 m.

COMMON MOTOR & OPERATING DATA

230 V / 1 phase / 50 Hz / 2 poles / Class B / IP20 / IE1. Motor operating range: -20 to +40 °C. Maximum transported-air temperature: +40 °C. Installation suitability follows the actual unit rating.

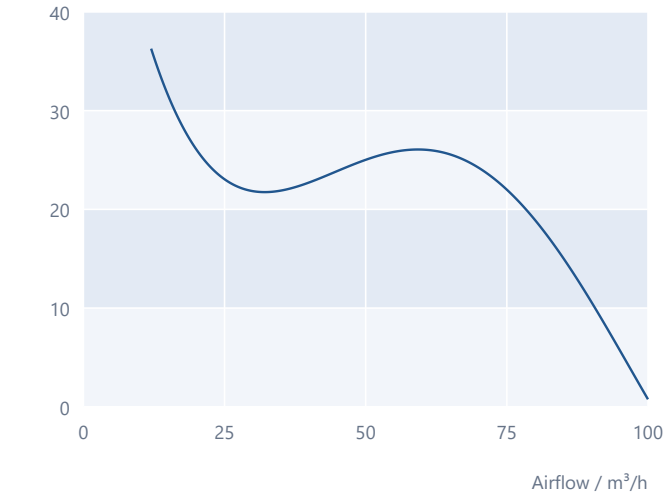
Current FSP ratings and listed curves are used throughout this catalogue.

02 / AIR PERFORMANCE

Fan Performance Curves

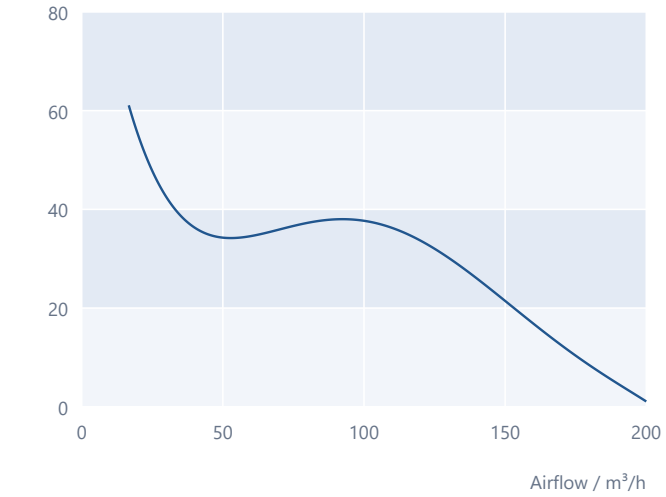
VBRF 100

230 V / 1 phase / 50 Hz



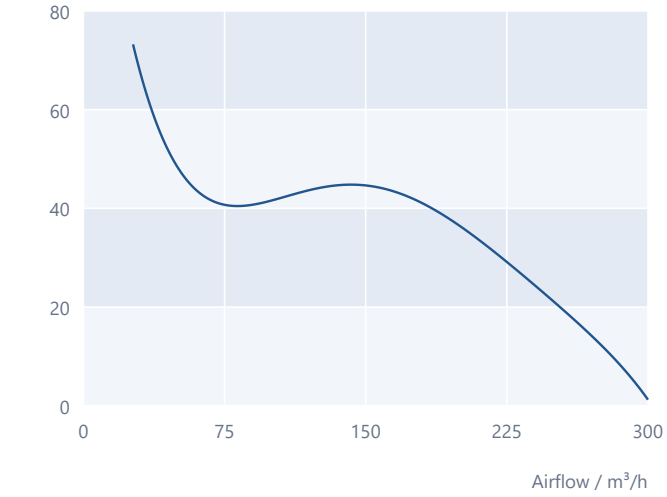
VBRF 125

230 V / 1 phase / 50 Hz



VBRF 150

230 V / 1 phase / 50 Hz



SELECT THE DUTY POINT

Airflow meets resistance.

Choose a model where the required airflow and system pressure meet its curve. Allow for losses through the duct, bends and discharge terminal.

READING THE CURVES

Each model uses its own pressure scale. Curves retain their shape and supplied flow domain; no zero-flow extrapolation is added. The curve endpoints remain slightly above zero pressure.

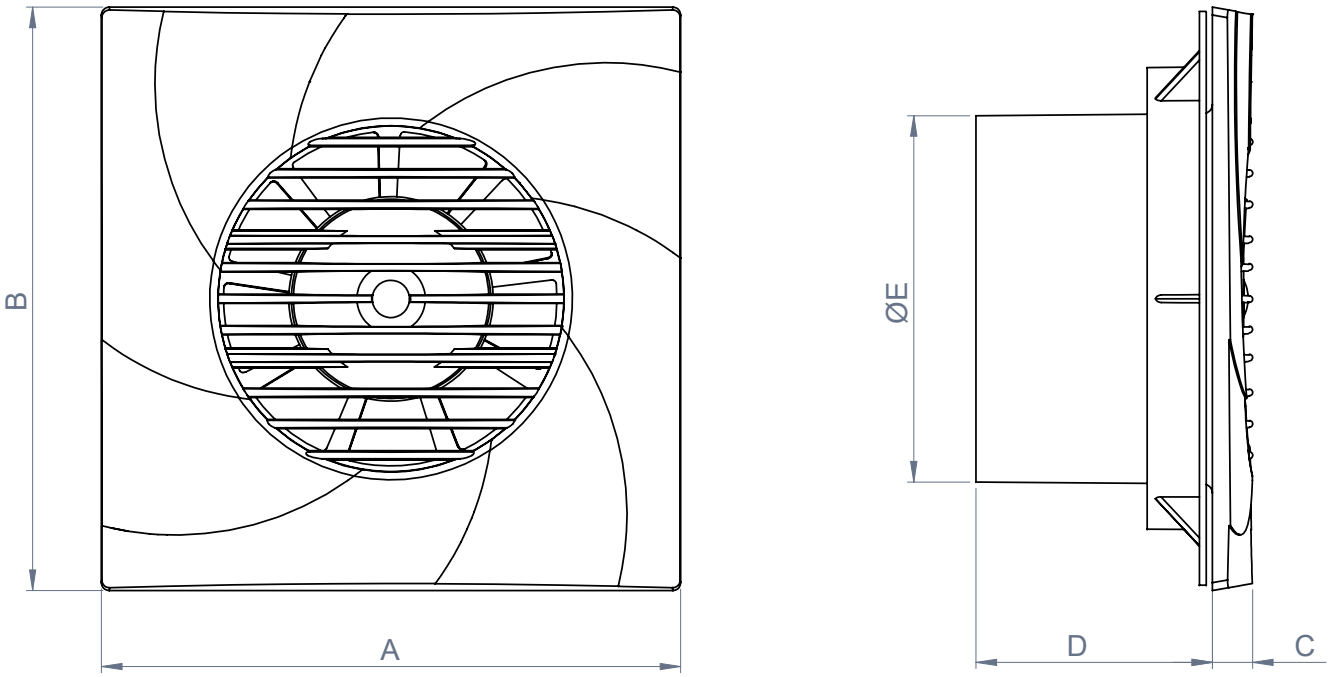
50 Hz static pressure curves follow the VBRF FSP record; supplied shapes and flow domains retained.

03 / DIMENSIONAL DATA

Plan the wall and duct connection.

SERIES DIMENSION DRAWING / A-E

All dimensions in mm



Model	Nominal size	A	B	C	D	ØE
VBRF 100	100	160	160	12	70	97.5
VBRF 125	125	188	188	14	76	118
VBRF 150	150	208	208	14	118	145

A / B: front face dimensions. C: front-section depth. D: rear spigot depth. ØE: listed duct connection diameter. Model names denote nominal size; ØE is the drawing value, so VBRF 125 retains ØE = 118 mm.

Use the selected model's dimension row for the connection. The drawing is a series reference; confirm the actual unit and mating duct before installation.

04 / INSTALLATION & ACOUSTICS

Keep the airflow path clear.

01 Direct or short duct extraction

Provide a firm wall fixing and an unobstructed discharge path. Keep the grille accessible for cleaning. Select the fan at the system duty rather than nominal airflow alone.

02 Motor and service conditions

Supply: 230 V single phase / 50 Hz. Current FSP rating: Class B / IP20 / IE1. Motor ambient range: -20 to +40 °C; transported air: maximum +40 °C. Isolate the supply before servicing.

REFERENCE SOUND POWER / INLET & OUTLET

Octave-band LwA / dB(A)

Model	Side	65 Hz	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	8k Hz	Total
VBRF 100	Inlet	11	35	41	43	40	36	34	27	47
VBRF 100	Outlet	36	49	52	52	42	38	34	25	56
VBRF 125	Inlet	15	41	42	41	40	38	31	24	48
VBRF 125	Outlet	56	52	53	50	43	40	29	22	59
VBRF 150	Inlet	18	37	45	45	43	40	33	25	50
VBRF 150	Outlet	36	49	55	49	40	40	32	20	57

The chart labels its lowest frequency band as 65 Hz; this label is retained. Inlet/outlet sound power is distinct from sound pressure at 3 m on p. 486. These are reference values, not a predicted installed-room sound level.

ELECTRICAL CONNECTION

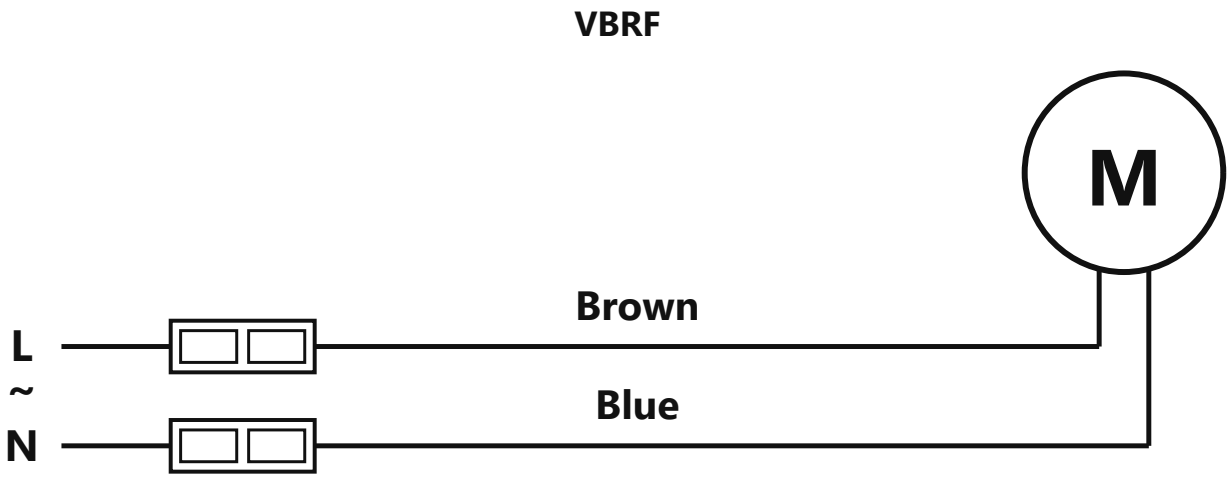
The English connection diagram on p. 490 reproduces the supplied VBRF two-wire arrangement. Match the actual unit terminal identification before connection.

05 / ELECTRICAL CONNECTION

Electrical Connection Diagram

VBRF 100 / VBRF 125 / VBRF 150

230 V / 1 phase / 50 Hz



CONNECTION KEY

Marking	Conductor / function
L	Brown / live
N	Blue / neutral
M	Fan motor

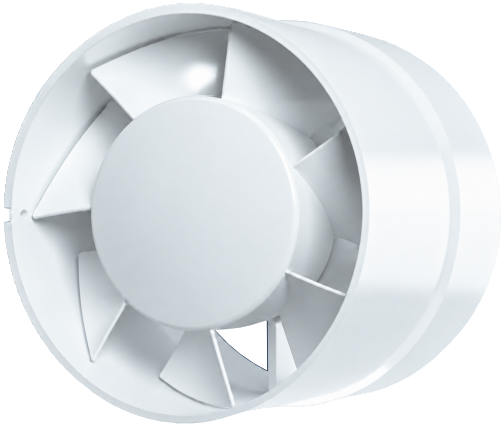
This diagram reproduces the wiring supplied for the VBRF series. Brown and Blue identify the two conductors in that diagram. No additional terminals, capacitor or protective-earth conductor are added to the supplied arrangement.

Connect according to the actual fan nameplate and terminal identification. Isolate the supply before making or inspecting connections.

01 / PRODUCT & TECHNICAL DATA

VBDF

Inline Bathroom Extractor Fan



01 Compact axial design

A cylindrical ABS plastic casing for local extraction through rigid or flexible ducts.

02 Short duct ventilation

For low static pressure duties in small or medium spaces. Use a straight duct shorter than 1.5 m.

03 Single-phase operation

Three 50 Hz models with a 230 V supply. Select airflow against the resistance of the connected duct system.

NOMINAL RATINGS / 50 Hz

Model	Airflow m^3/h	Power W	Speed rpm	Current A	Weight kg	LpA dB(A) / 3 m
VBDF 100	100	13	2600	0.09	0.45	40
VBDF 125	200	14	2400	0.09	0.5	41
VBDF 150	300	21	2000	0.13	0.55	43

Airflow is the nominal maximum, not a selected duty point. Nominal motor ratings differ from operating-point power, speed and current in FSP. Sound pressure is the supplied reference at 3 m.

COMMON MOTOR & OPERATING DATA

230 V / 1 phase / 50 Hz / 2 poles / Class B / IP20. Motor operating range: -20 to +40 °C. Maximum transported-air temperature: +40 °C. Installation suitability follows the actual unit rating.

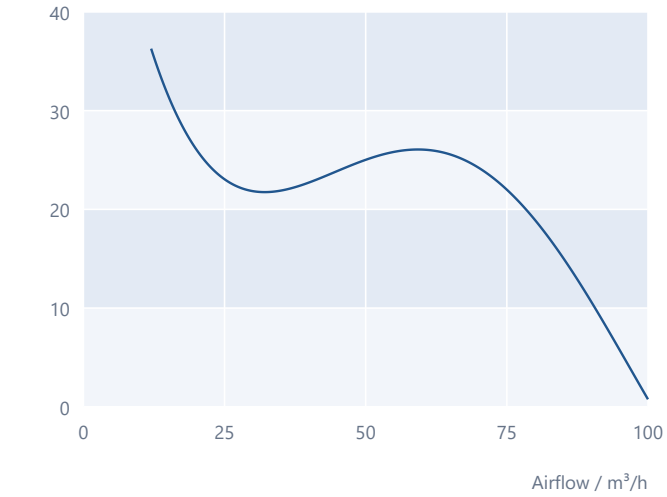
Current FSP ratings and listed curves are used throughout this catalogue.

02 / AIR PERFORMANCE

Fan Performance Curves

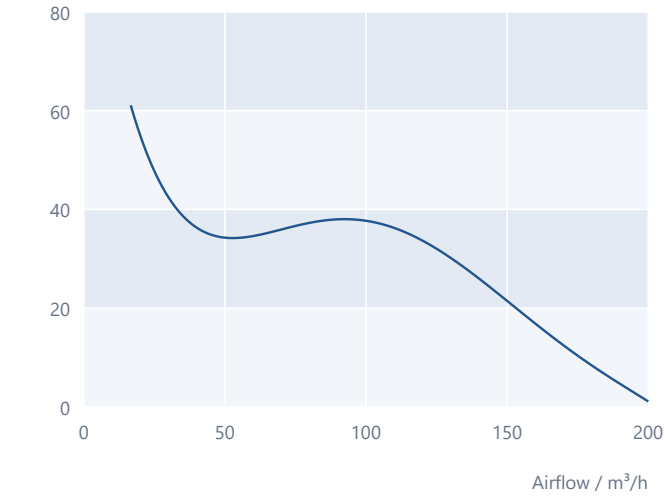
VBDF 100

230 V / 1 phase / 50 Hz



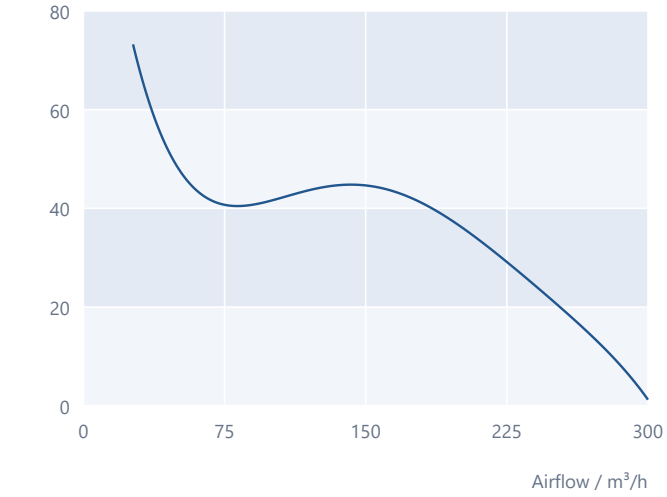
VBDF 125

230 V / 1 phase / 50 Hz



VBDF 150

230 V / 1 phase / 50 Hz



SELECT THE DUTY POINT

Airflow meets resistance.

Choose a model where the required airflow and system pressure meet its curve. Allow for losses through the duct, bends and discharge terminal.

READING THE CURVES

Each model uses its own pressure scale. Curves retain their shape and supplied flow domain; no zero-flow extrapolation is added. The curve endpoints remain slightly above zero pressure.

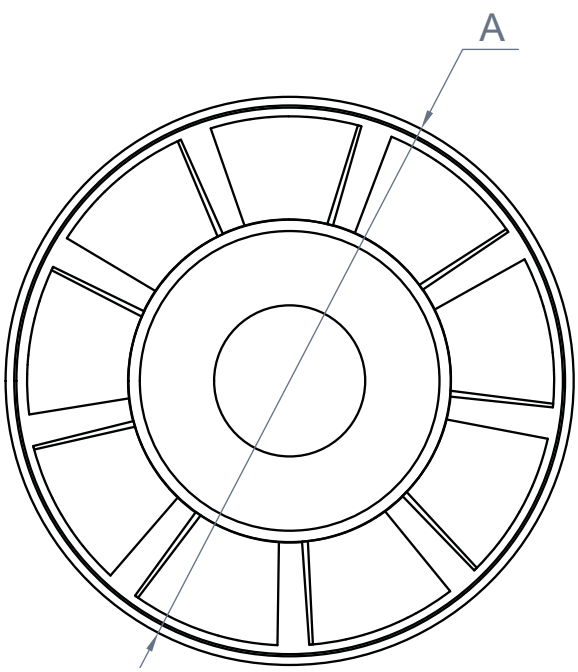
50 Hz curves follow the VBDF FSP record, including the shared VBRF curve basis.

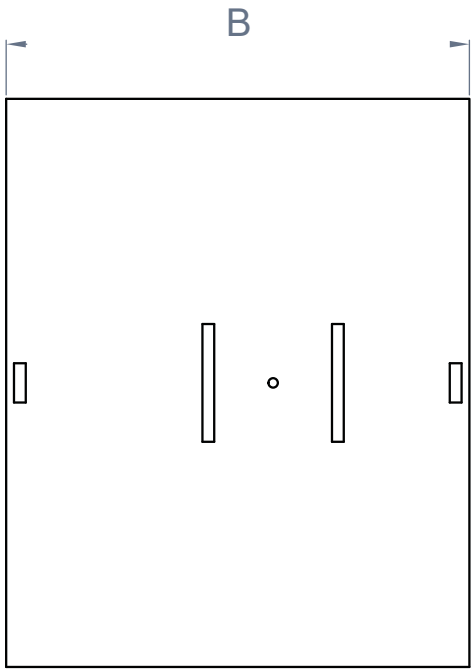
03 / DIMENSIONAL DATA

Plan the duct connection.

SERIES DIMENSION DRAWING / A-B

All dimensions in mm





Model	Nominal size	ØA	B
VBDF 100	100	96.5	105.5
VBDF 125	125	117.5	111.5
VBDF 150	150	145	118

ØA: cylindrical casing diameter. B: overall casing length. Model names denote nominal connection size; the drawing gives the actual casing value, so VBDF 125 retains ØA = 117.5 mm.

Use the selected model's dimension row for the connection. The drawing is a series reference; confirm the actual unit and mating duct before installation.

04 / INSTALLATION & ACOUSTICS

Keep the airflow path clear.

01 Direct or short duct extraction

Mount the fan within the connected duct with an unobstructed airflow path. Use a straight duct shorter than 1.5 m, allowing access for cleaning. Select the fan at the system duty rather than nominal airflow alone.

02 Motor and service conditions

Supply: 230 V single phase / 50 Hz. Current FSP rating: Class B / IP20. Motor ambient range: -20 to +40 °C; transported air: maximum +40 °C. Isolate the supply before servicing.

REFERENCE SOUND POWER / INLET & OUTLET

Octave-band LwA / dB(A)

Model	Side	65 Hz	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz	4k Hz	8k Hz	Total
VBDF 100	Inlet	11	35	41	43	40	36	34	27	47
VBDF 100	Outlet	36	49	52	52	42	38	34	25	56
VBDF 125	Inlet	15	41	42	41	40	38	31	24	48
VBDF 125	Outlet	56	52	53	50	43	40	29	22	59
VBDF 150	Inlet	18	37	45	45	43	40	33	25	50
VBDF 150	Outlet	36	49	55	49	40	40	32	20	57

The chart labels its lowest frequency band as 65 Hz; this label is retained. Inlet/outlet sound power is distinct from sound pressure at 3 m on p. 491. These are reference values, not a predicted installed-room sound level.

ELECTRICAL CONNECTION

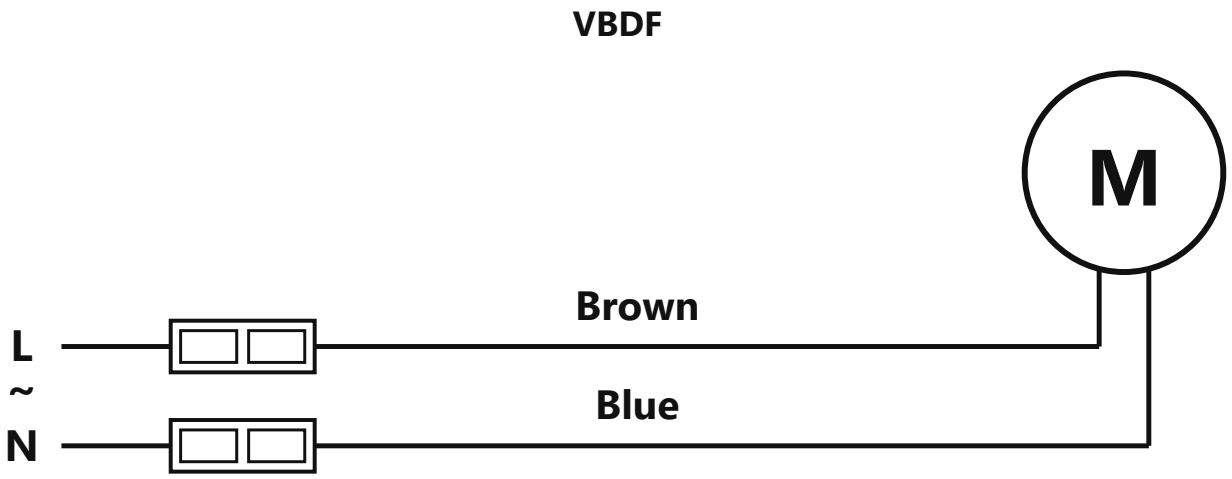
The English connection diagram on p. 495 reproduces the supplied VBDF two-wire arrangement. Match the actual unit terminal identification before connection.

05 / ELECTRICAL CONNECTION

Electrical Connection Diagram

VBDF 100 / VBDF 125 / VBDF 150

230 V / 1 phase / 50 Hz



CONNECTION KEY

Marking	Conductor / function
L	Brown / live
N	Blue / neutral
M	Fan motor

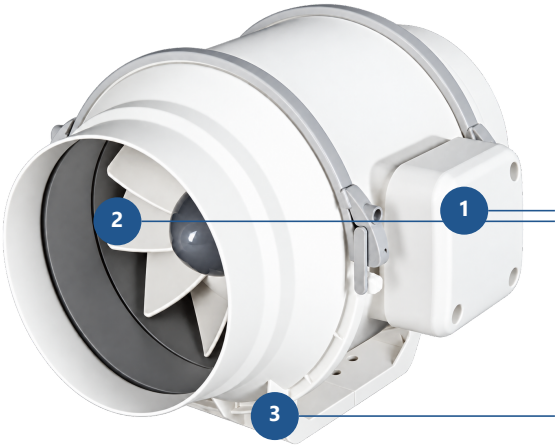
This diagram reproduces the wiring supplied for the VBDF series. Brown and Blue identify the two conductors in that diagram. No additional terminals, capacitor or protective-earth conductor are added to the supplied arrangement.

Connect according to the actual fan nameplate and terminal identification. Isolate the supply before making or inspecting connections.

01 / PRODUCT & TECHNICAL DATA

VMF

Mixed Flow Duct Fan



01 Terminal box

Accessible electrical connection on the side of the casing.

02 Mixed-flow impeller

Combines axial and centrifugal airflow characteristics.

03 Plastic housing & mounting

V0 plastic casing with circular duct connections and an integrated mounting base.

MODEL SPECIFICATIONS

Nominal reference values / 50 Hz

Model	Duct size mm	Max. airflow* m^3/h	Reference input power / W	Reference speed rpm	Weight kg	Protection
VMF 100	100	234	54	2460	1.8	IP44
VMF 125	125	337	56	2560	2	IP44
VMF 150	150	504	75	2490	2.7	IP44
VMF 160	160	560	75	2490	2.7	IP44
VMF 200	200	1012	111	2410	4.8	IP44
VMF 250	250	1300	280	2460	9.4	IP44
VMF 315	315	1970	476	2476	11	IP44

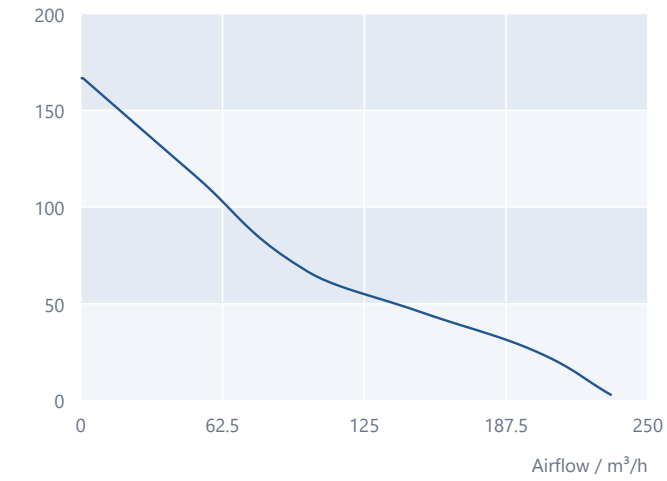
Single-phase 230 V / 50 Hz. Insulation Class F. Operating temperature: -20 to +50 °C.
* Maximum airflow is the upper limit of the supplied performance-curve range, rounded to whole m^3/h; it is not a selected duty-point value. Power and speed are catalogue reference ratings; weight follows the existing Voltvent catalogue.

02 / AIR PERFORMANCE / 01

Fan Performance Curves

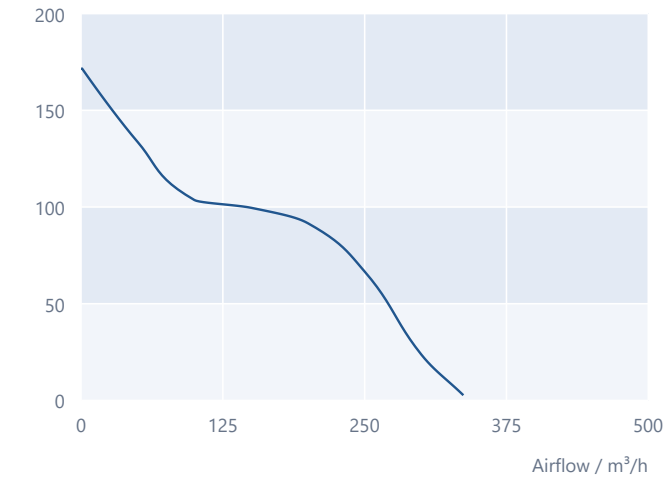
VMF 100

1~230 V / 50 Hz



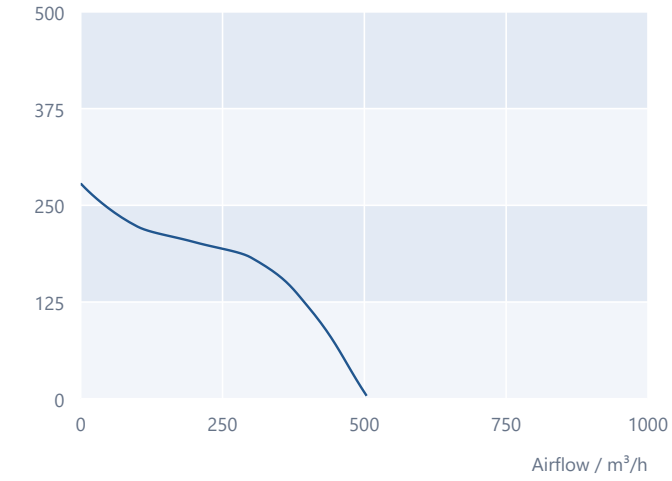
VMF 125

1~230 V / 50 Hz



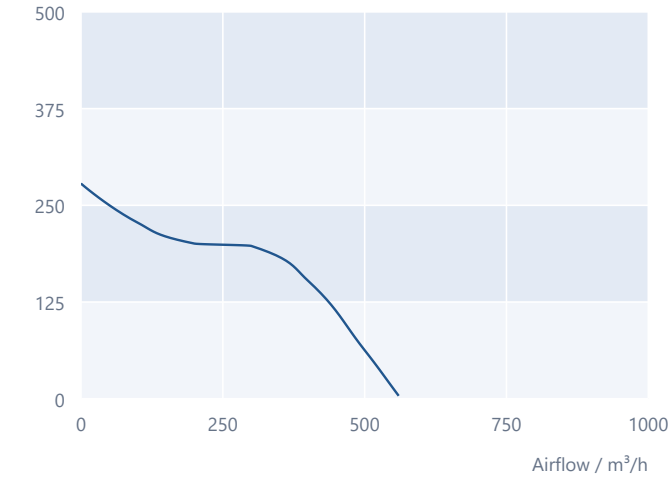
VMF 150

1~230 V / 50 Hz



VMF 160

1~230 V / 50 Hz



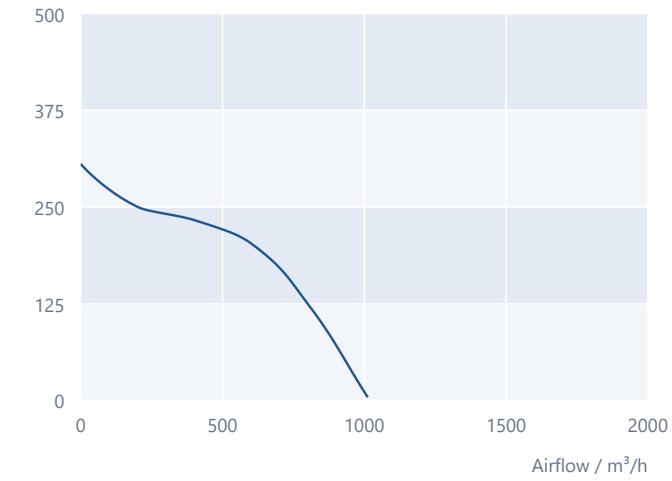
Model-specific axis scales. Listed 50 Hz curves shown only within their ranges. Maximum airflow and pressure are separate endpoints.

02 / AIR PERFORMANCE / 02

Fan Performance Curves

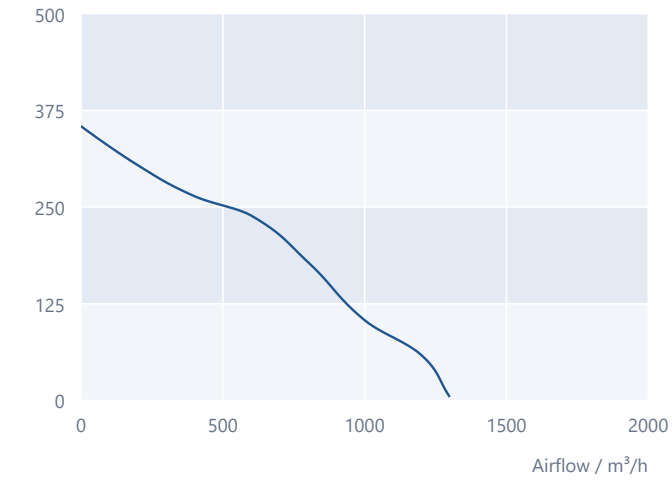
VMF 200

1~230 V / 50 Hz



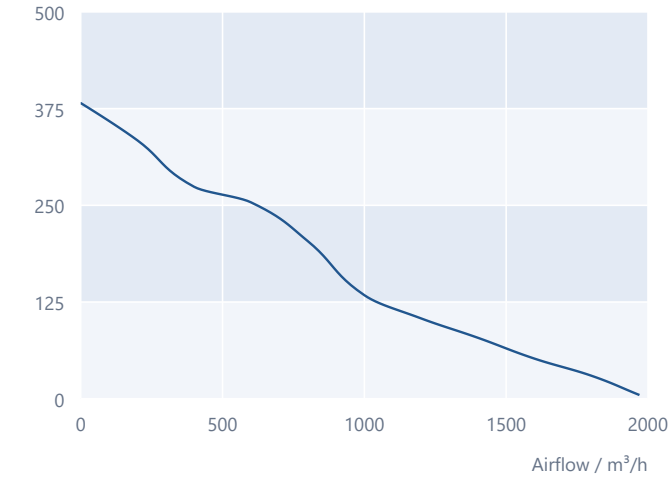
VMF 250

1~230 V / 50 Hz



VMF 315

1~230 V / 50 Hz



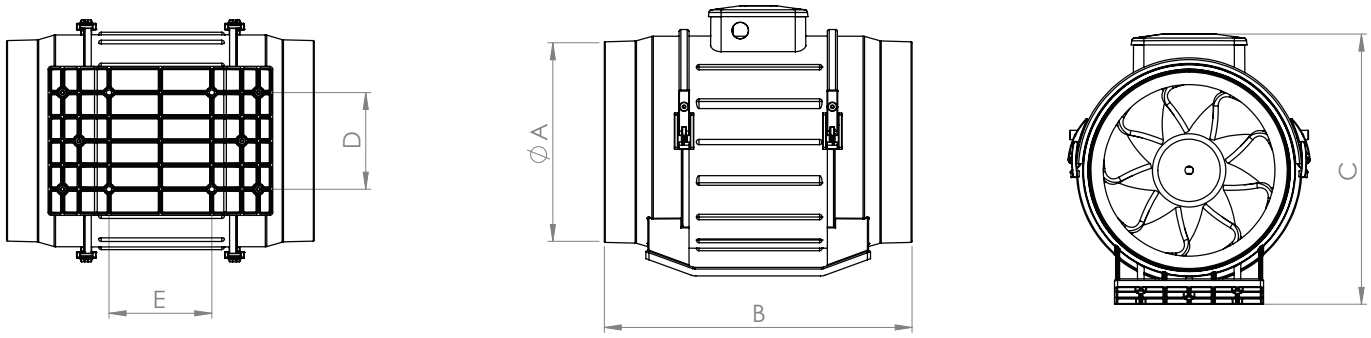
Model-specific axis scales. Listed 50 Hz curves shown only within their ranges. Maximum airflow and pressure are separate endpoints.

03 / DIMENSIONAL DATA

Plan the installation.

FAMILY DRAWING

All dimensions in mm



Model	A	B	C	D	E
VMF 100	96	306.5	215	60	80
VMF 125	121	260	215	60	80
VMF 150	146	290.5	242	60	80
VMF 160	156	271	242	60	80
VMF 200	191	300	263	94	100
VMF 250	246	393	325	110	140
VMF 315	310	450	420	175	180

VMF series / nominal duct sizes 100-315 mm

Family drawing. Dimension values follow the model records in Voltvent Selection Software.

04 / INSTALLATION & ELECTRICAL DATA

Designed for inline installation.

INSTALLATION

1 Circular duct connection

Match the nominal duct size to the system. Use dimensions A-E to plan connections and mounting space.

2 Horizontal or vertical mounting

Support the unit at its mounting base. Allow access to the terminal box and fan assembly for inspection and maintenance.

3 Supply & operating conditions

Single-phase 230 V / 50 Hz. Motor protection IP44; insulation Class F. Stated operating range: -20 to +50 °C.

MOTOR SELECTION DATA

Model	Nominal current A	Capacitor µF	Insulation class
VMF 100	0.5	2.5	F
VMF 125	0.5	2.5	F
VMF 150	0.6	4	F
VMF 160	0.6	4	F
VMF 200	0.64	5	F
VMF 250	1.07	6	F
VMF 315	1.6	8	F

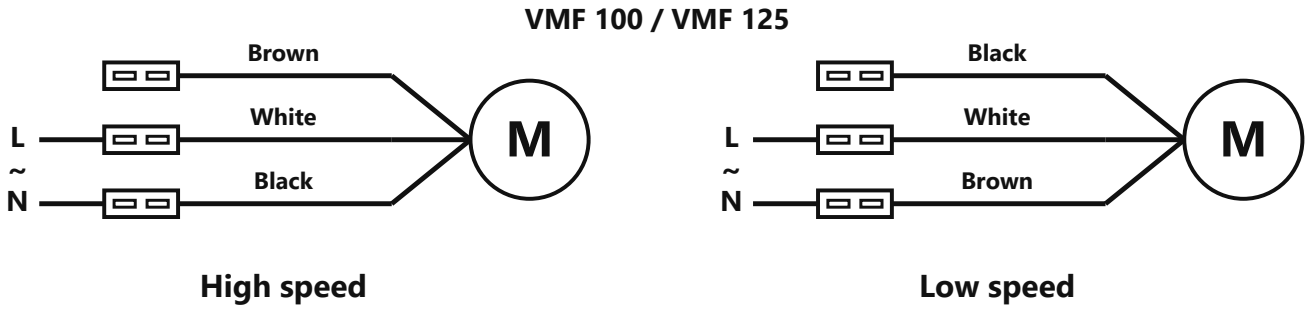
Current and capacitor ratings follow the model records in Voltvent Selection Software. Review the nameplate and supplied instructions for the selected unit.

Use the wiring diagram supplied with the actual unit. Disconnect the electrical supply before inspection or maintenance.

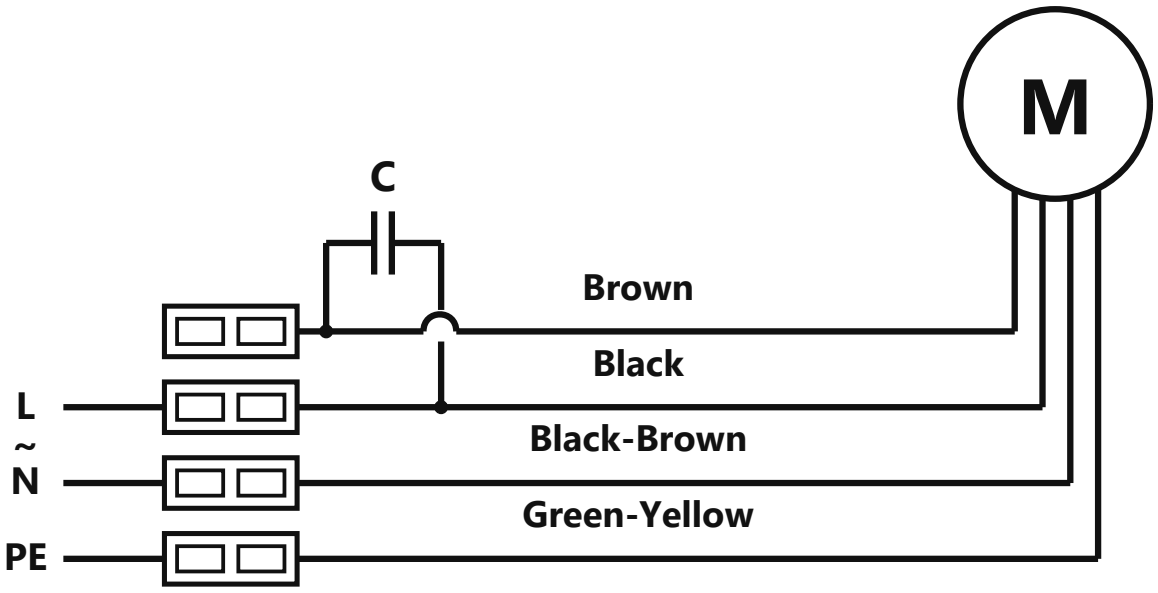
05 / ELECTRICAL CONNECTION

Model-specific connections.

VMF 100 / 125 - TWO SPEEDS



VMF 150 / 160 / 200 / 250 / 315



Single-phase 230 V / 50 Hz. Conductor colours follow the supplied model-specific drawings. The 150-315 neutral lead is labelled Black-Brown in the supplied diagram; this label is retained. C denotes the capacitor; use the ratings in the motor table.

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