VLF-B SERIES

Insulated box axial fans

VLF-B

ADJUSTABLE-PITCH AIRFOIL BLADES

INSULATED GALVANIZED CASING



400-1250	50	50 Hz
Fan diameter / mm	Main configurations	Three-phase AC

01 / PRODUCT OVERVIEW

Configure the airflow you need.



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 / m³/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 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.

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.

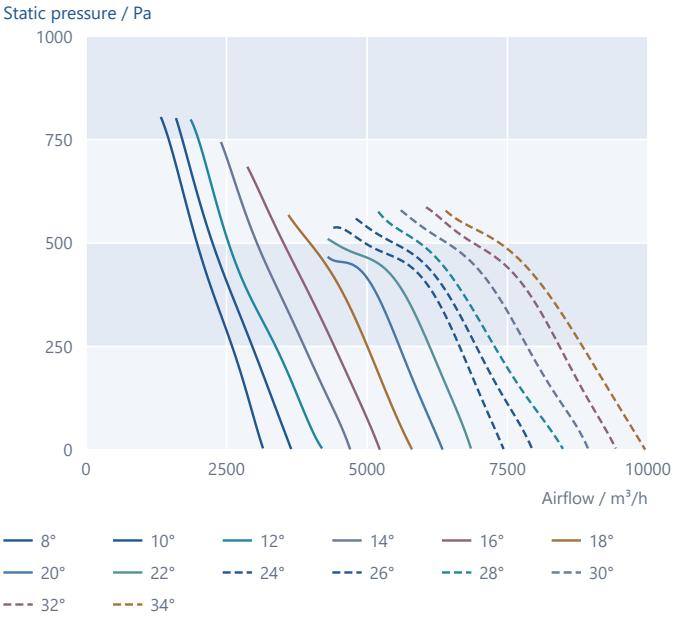
Class F / IP55. Motor IE class and upper working temperature are listed per configuration; lower limit -20 °C. Maximum transported air +40 °C. Selected-motor nameplate current and unit weight are not supplied.

03 / AIR PERFORMANCE / 01

Fan Performance Curves

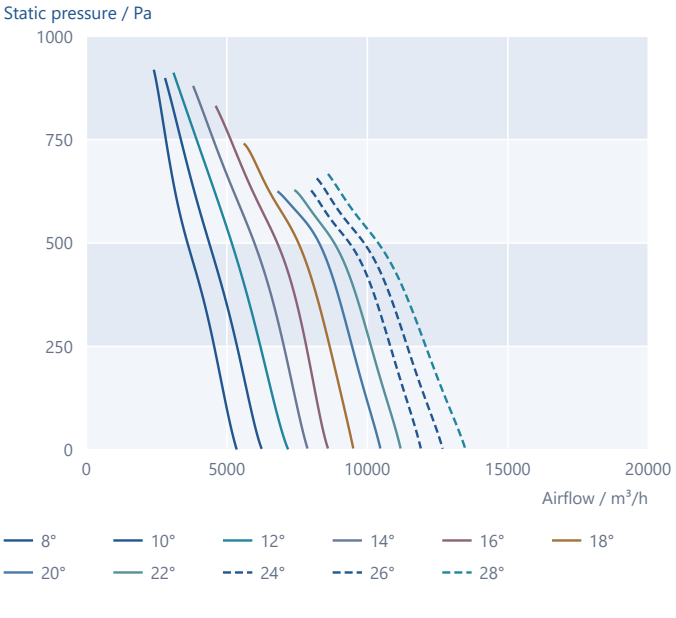
VLF-B 400/6/2P

14 blade angles / 400 V / 50 Hz



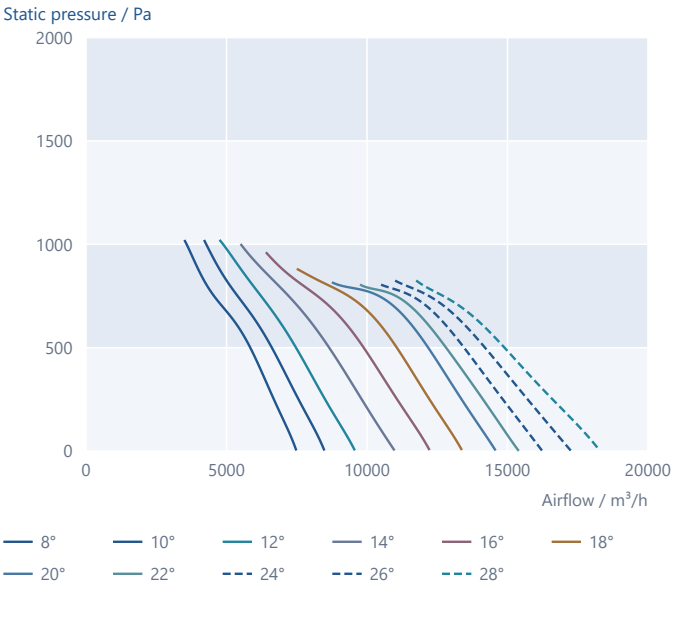
VLF-B 450/6/2P

11 blade angles / 400 V / 50 Hz



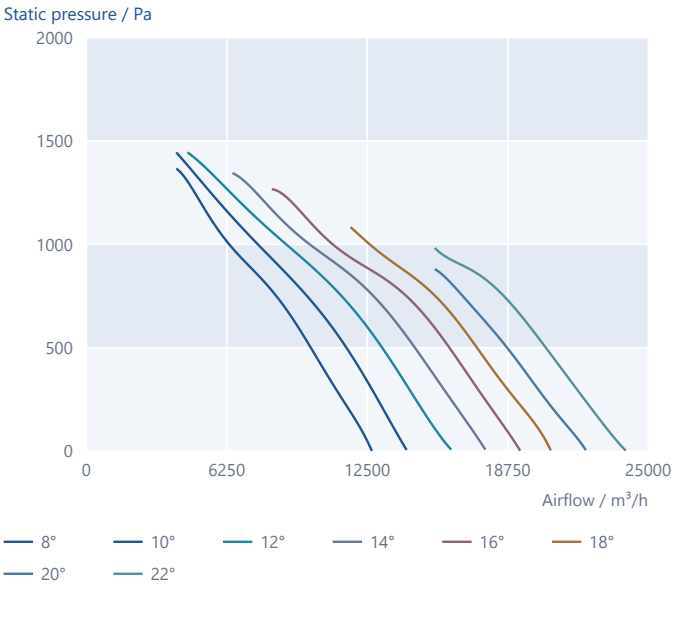
VLF-B 500/6/2P

11 blade angles / 400 V / 50 Hz



VLF-B 560/6/2P

8 blade angles / 400 V / 50 Hz



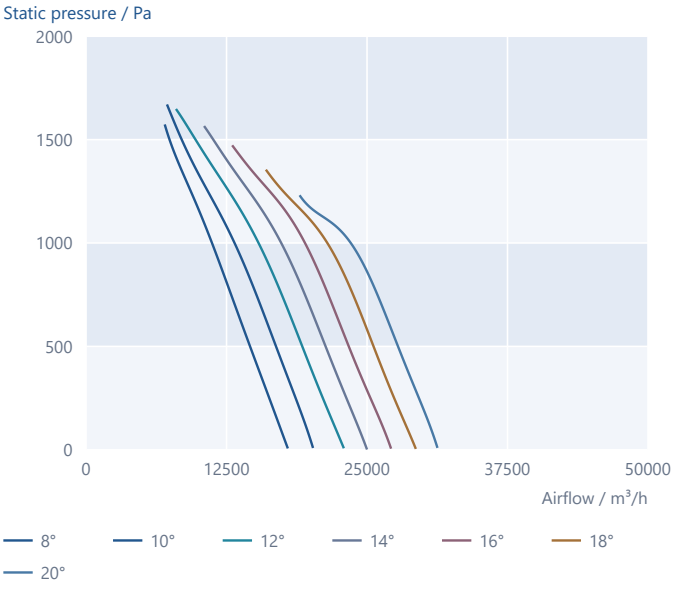
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 02

Fan Performance Curves

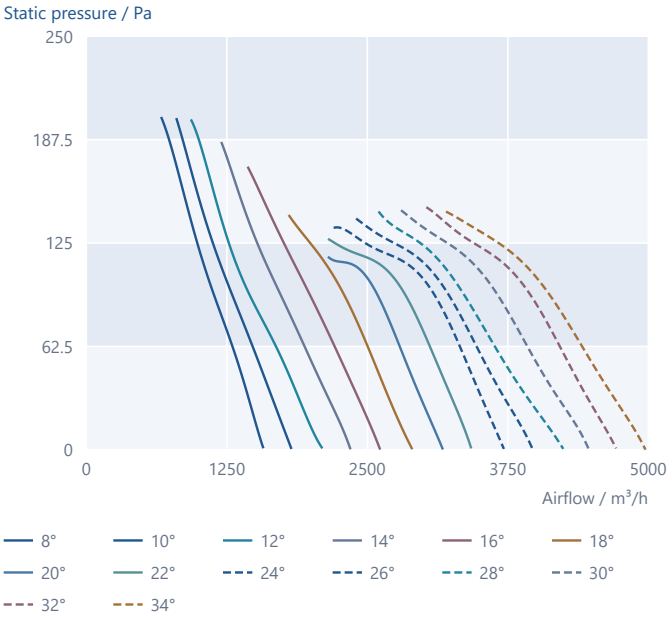
VLF-B 630/6/2P

7 blade angles / 400 V / 50 Hz



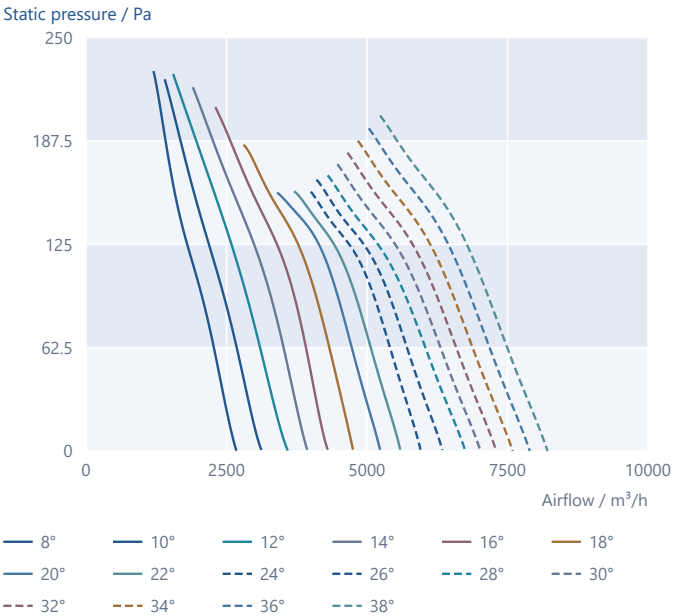
VLF-B 400/6/4P

14 blade angles / 400 V / 50 Hz



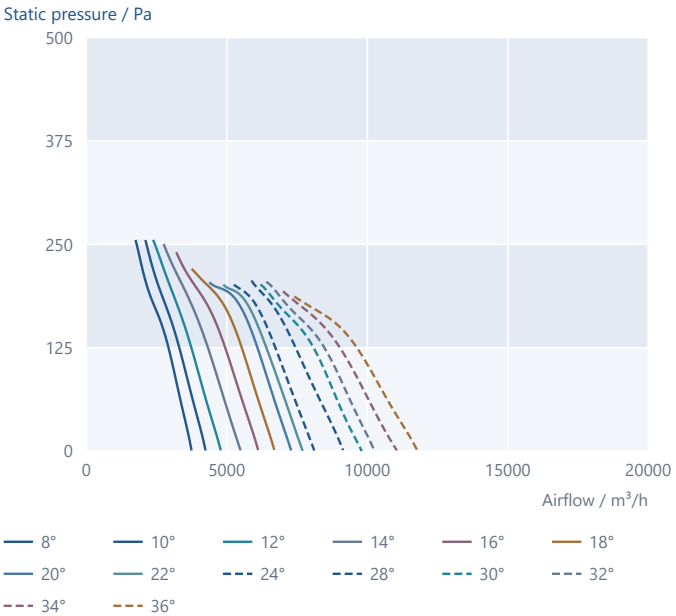
VLF-B 450/6/4P

16 blade angles / 400 V / 50 Hz



VLF-B 500/6/4P

14 blade angles / 400 V / 50 Hz



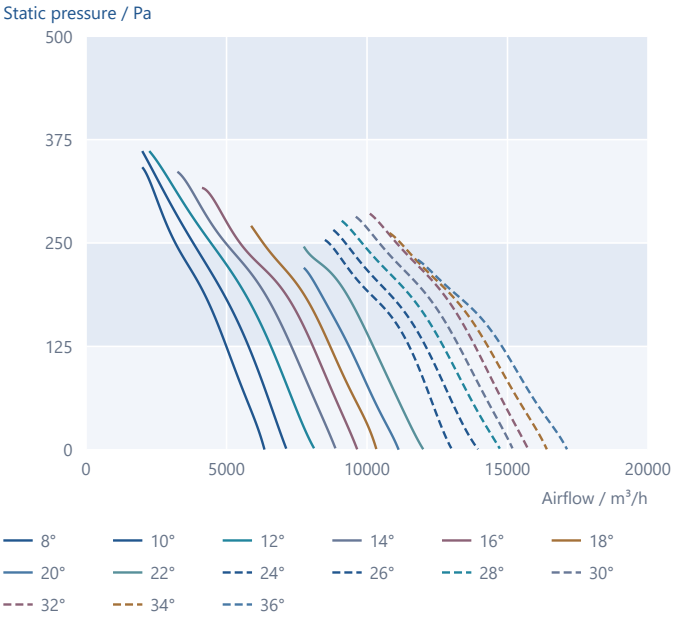
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 03

Fan Performance Curves

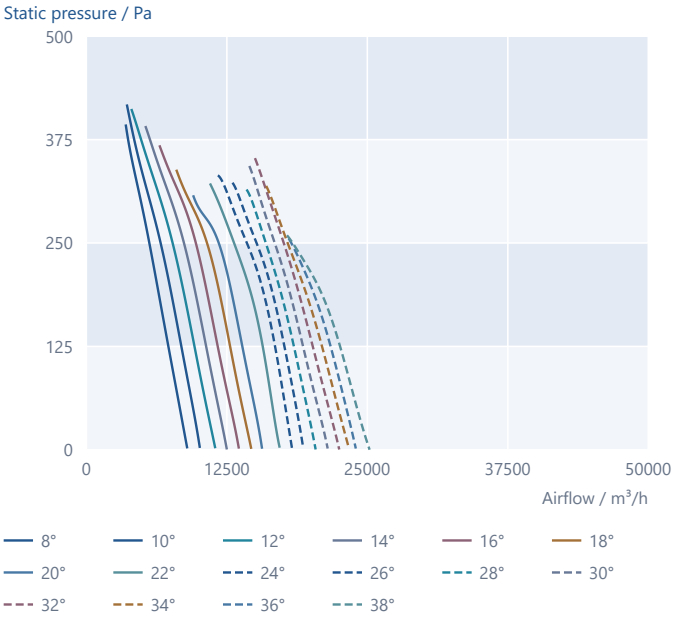
VLF-B 560/6/4P

15 blade angles / 400 V / 50 Hz



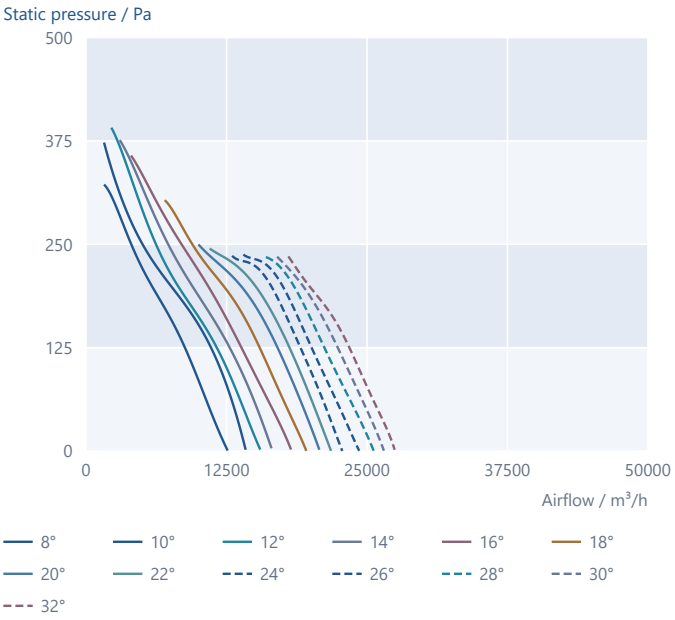
VLF-B 630/6/4P

16 blade angles / 400 V / 50 Hz



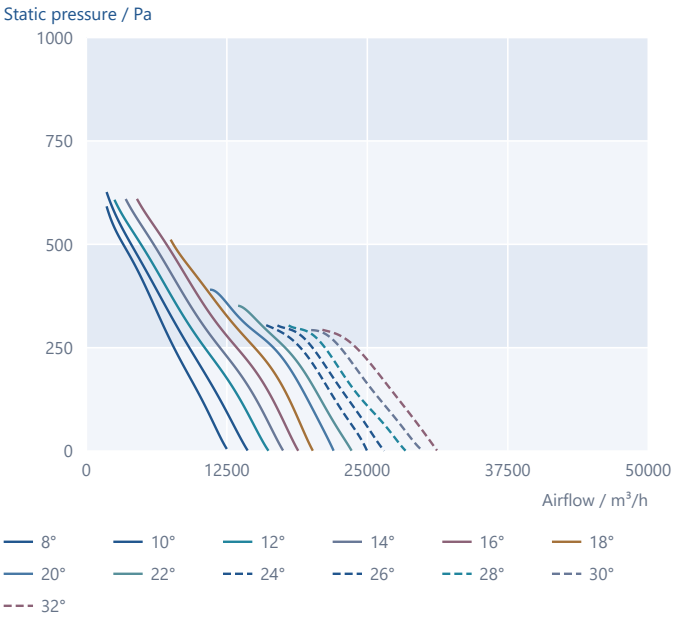
VLF-B 710/3/4P

13 blade angles / 400 V / 50 Hz



VLF-B 710/6/4P

13 blade angles / 400 V / 50 Hz



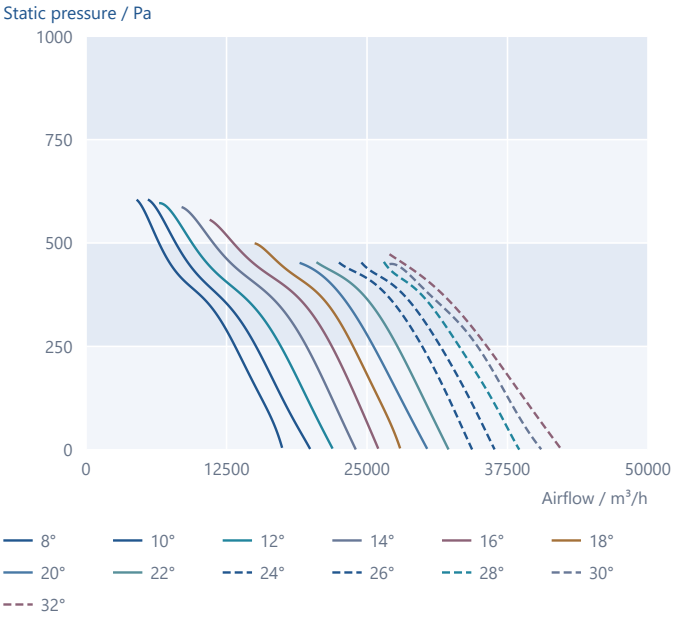
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 04

Fan Performance Curves

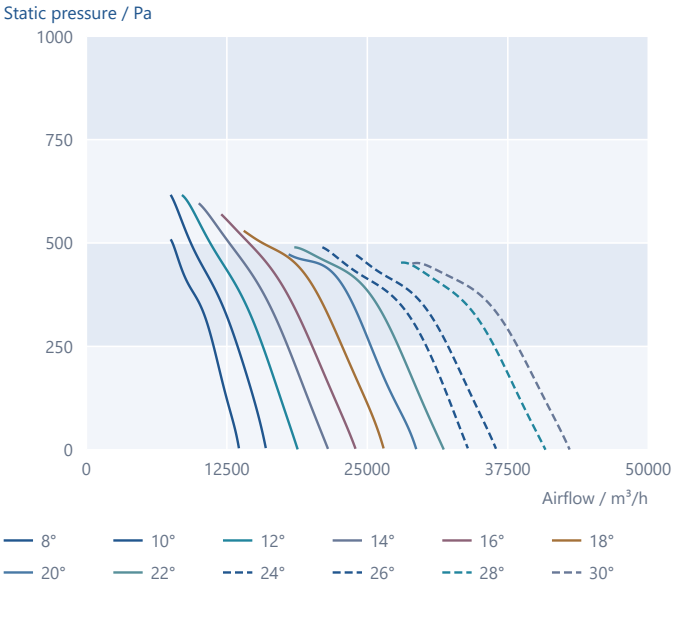
VLF-B 800/6/4P

13 blade angles / 400 V / 50 Hz



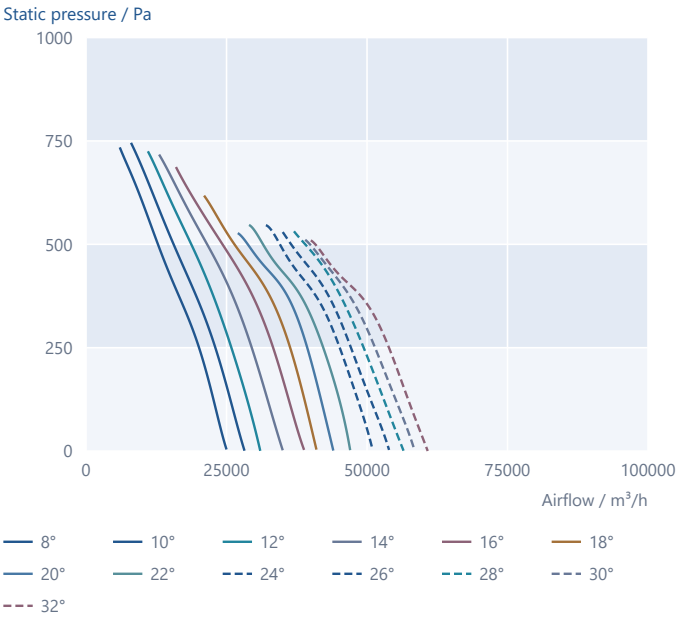
VLF-B 800/9/4P

12 blade angles / 400 V / 50 Hz



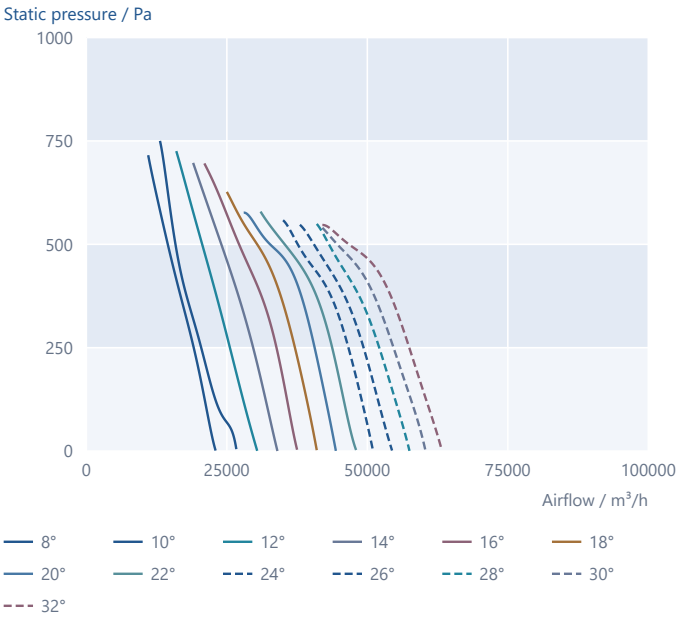
VLF-B 900/6/4P

13 blade angles / 400 V / 50 Hz



VLF-B 900/9/4P

13 blade angles / 400 V / 50 Hz



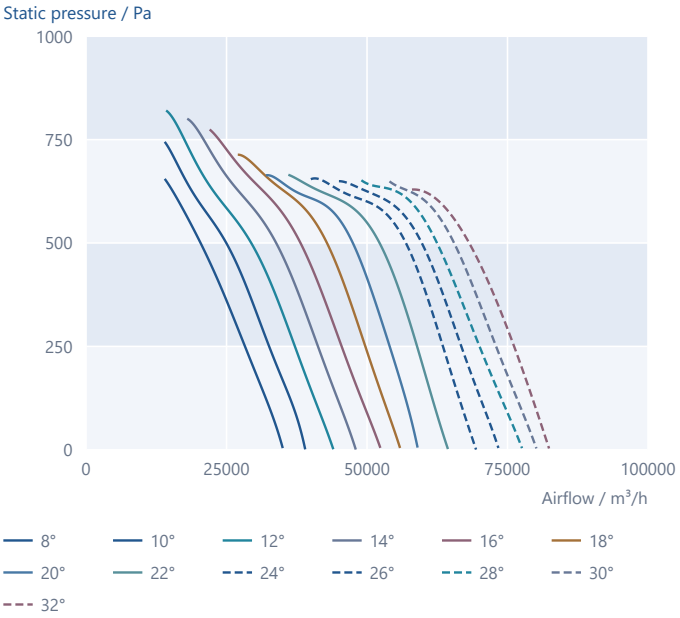
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 05

Fan Performance Curves

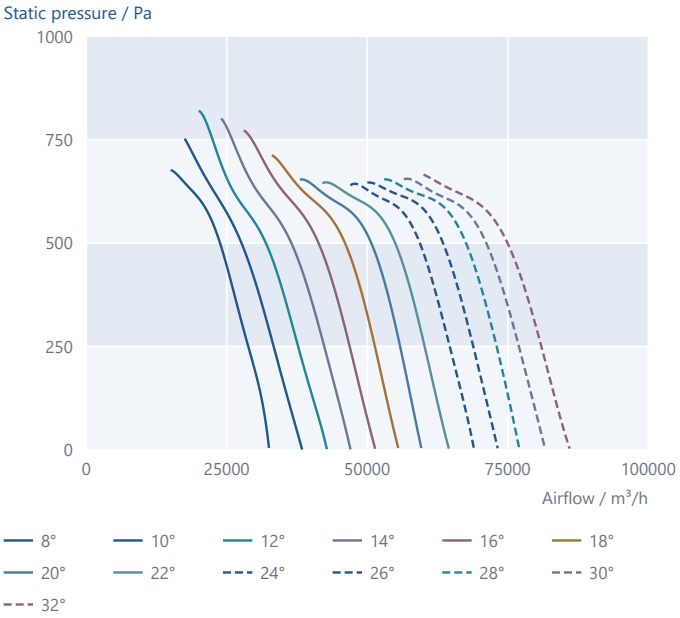
VLF-B 1000/6/4P

13 blade angles / 400 V / 50 Hz



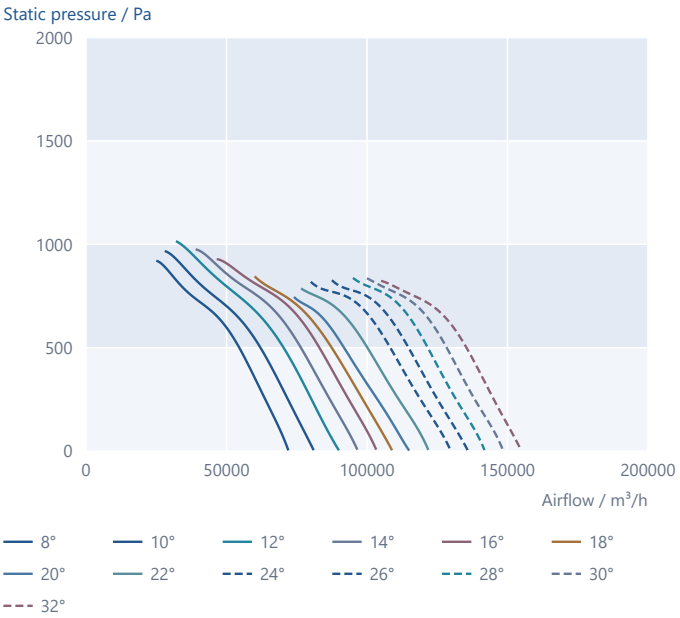
VLF-B 1000/9/4P

13 blade angles / 400 V / 50 Hz



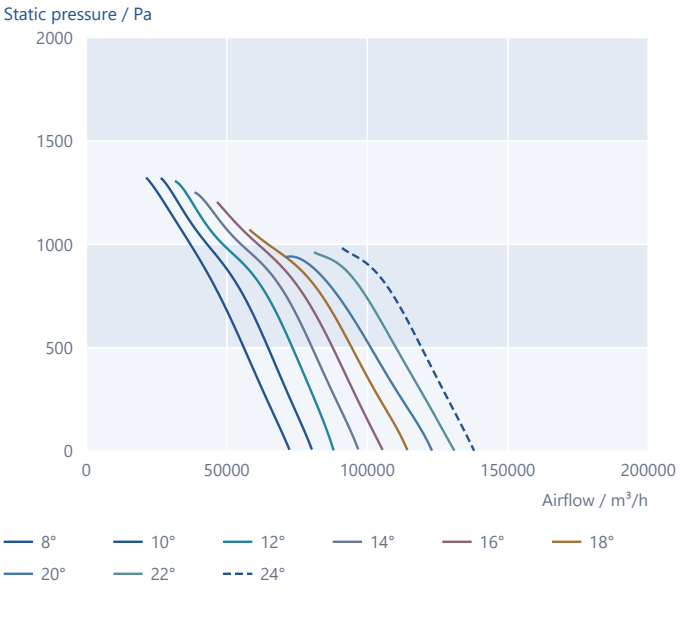
VLF-B 1250/6/4P

13 blade angles / 400 V / 50 Hz



VLF-B 1250/9/4P

9 blade angles / 400 V / 50 Hz



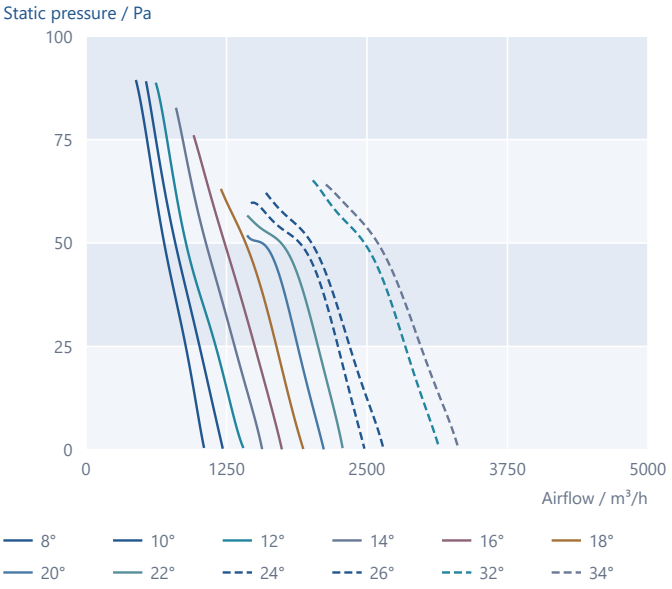
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 06

Fan Performance Curves

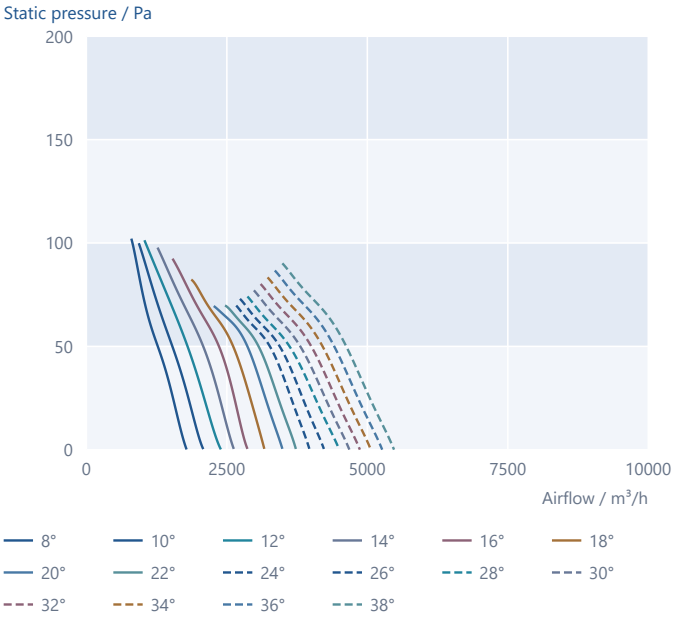
VLF-B 400/6/6P

12 blade angles / 400 V / 50 Hz



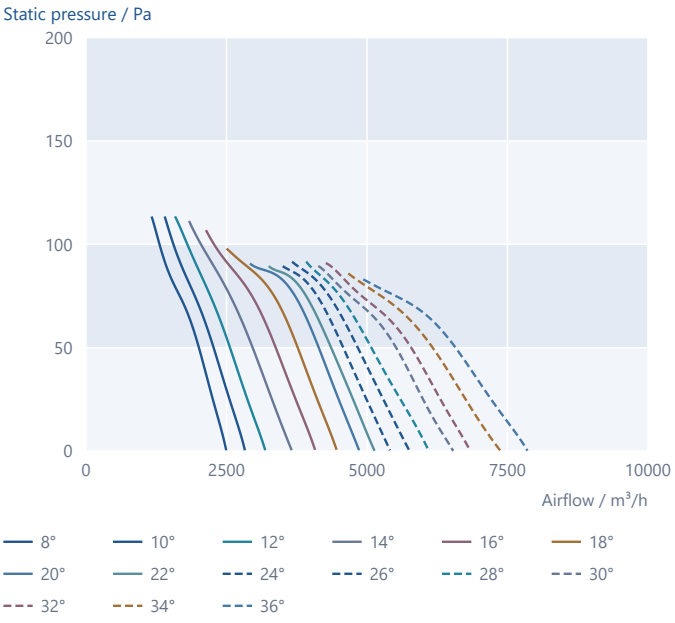
VLF-B 450/6/6P

16 blade angles / 400 V / 50 Hz



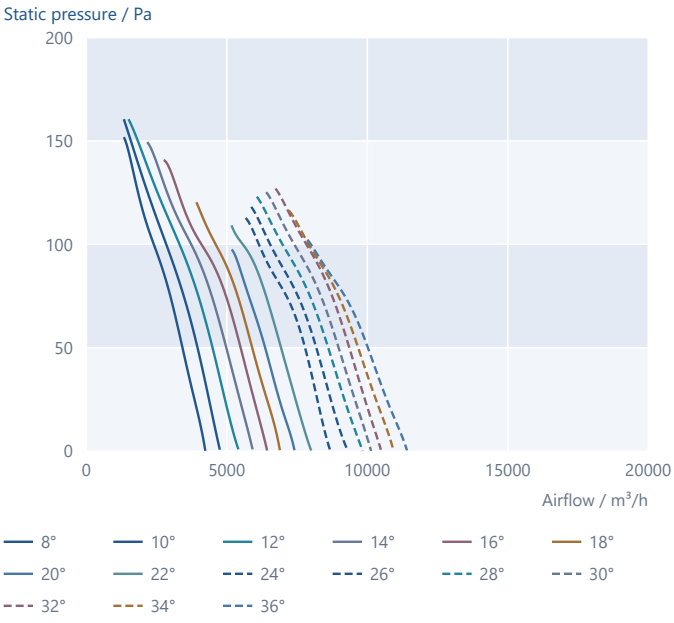
VLF-B 500/6/6P

15 blade angles / 400 V / 50 Hz



VLF-B 560/6/6P

15 blade angles / 400 V / 50 Hz



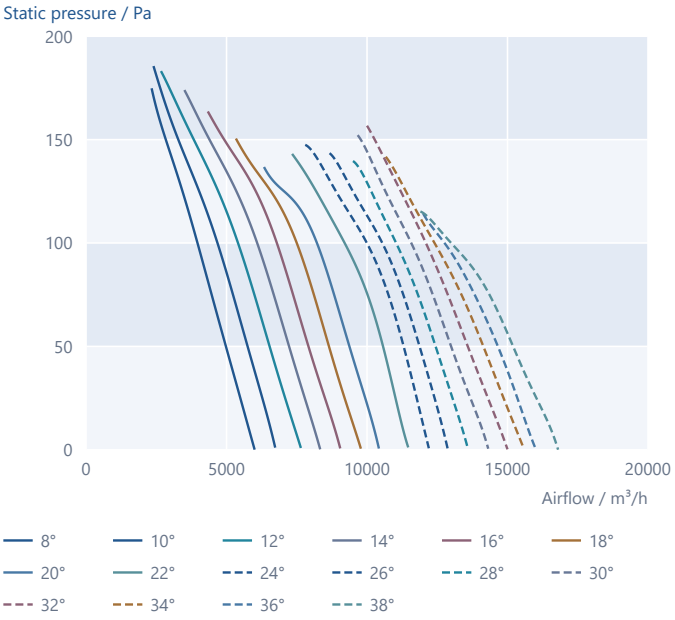
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 07

Fan Performance Curves

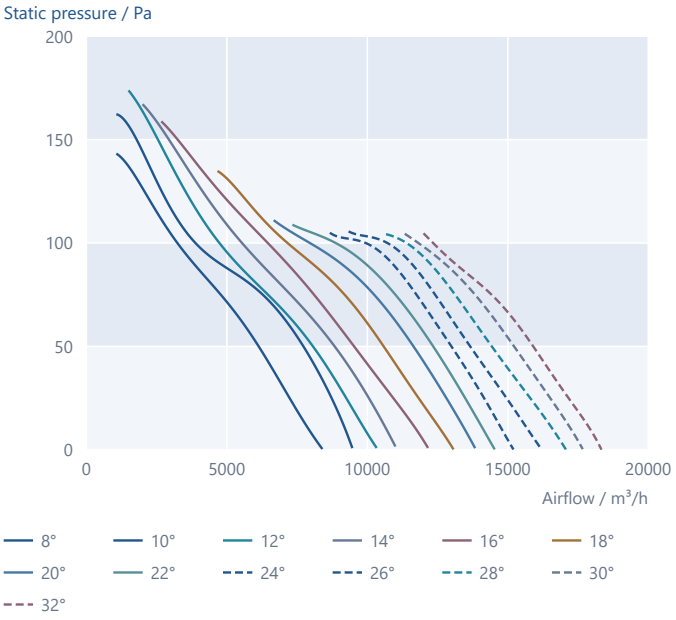
VLF-B 630/6/6P

16 blade angles / 400 V / 50 Hz



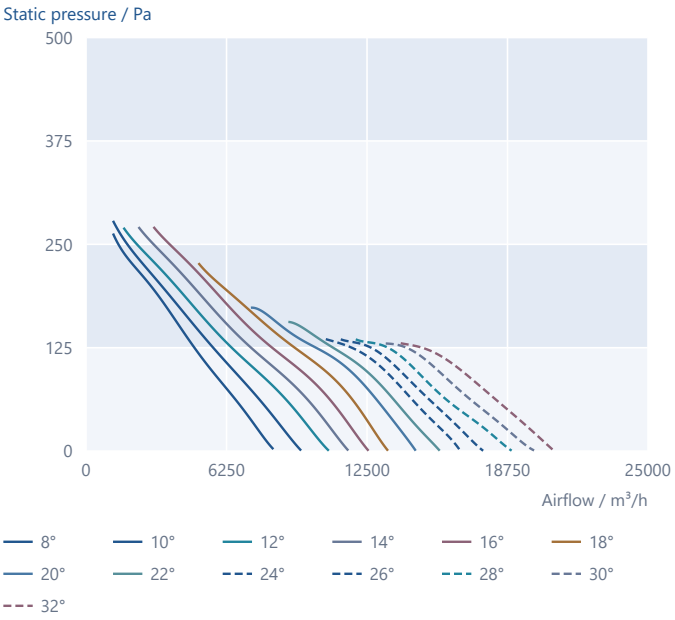
VLF-B 710/3/6P

13 blade angles / 400 V / 50 Hz



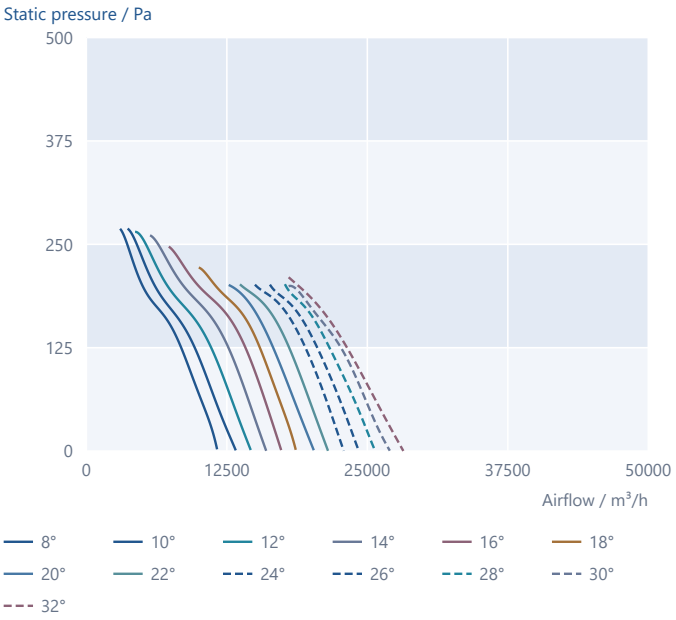
VLF-B 710/6/6P

13 blade angles / 400 V / 50 Hz



VLF-B 800/6/6P

13 blade angles / 400 V / 50 Hz



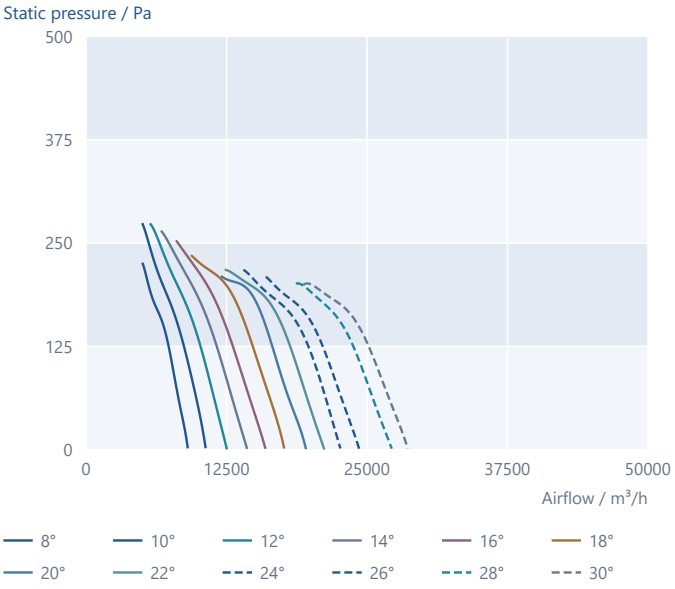
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 08

Fan Performance Curves

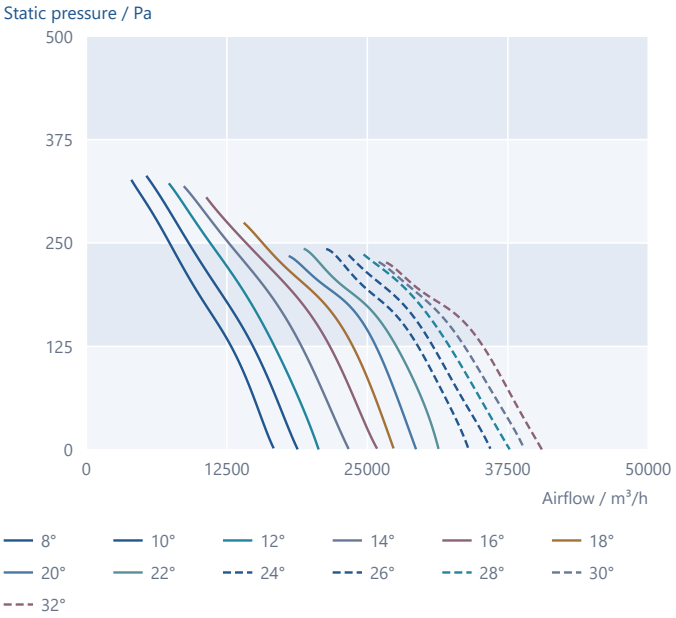
VLF-B 800/9/6P

12 blade angles / 400 V / 50 Hz



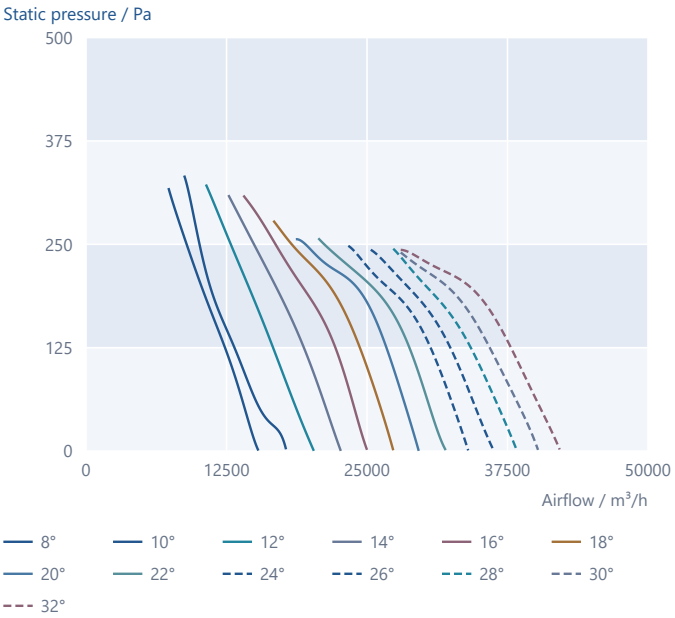
VLF-B 900/6/6P

13 blade angles / 400 V / 50 Hz



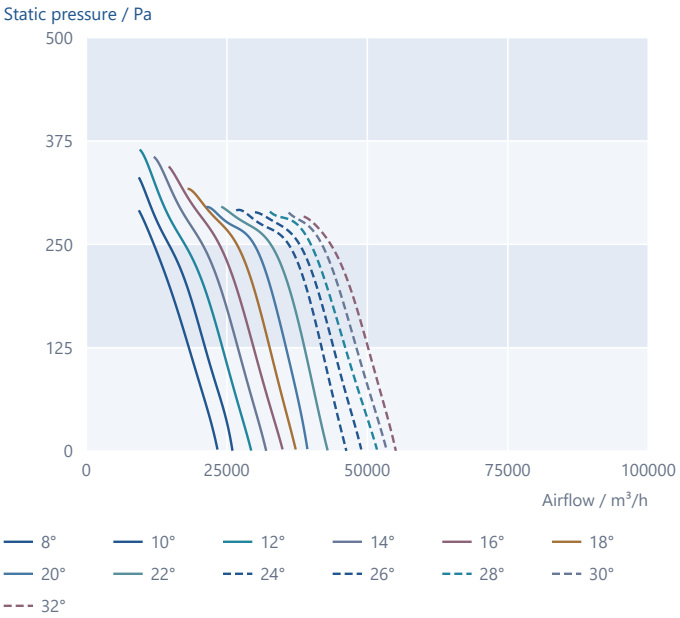
VLF-B 900/9/6P

13 blade angles / 400 V / 50 Hz



VLF-B 1000/6/6P

13 blade angles / 400 V / 50 Hz



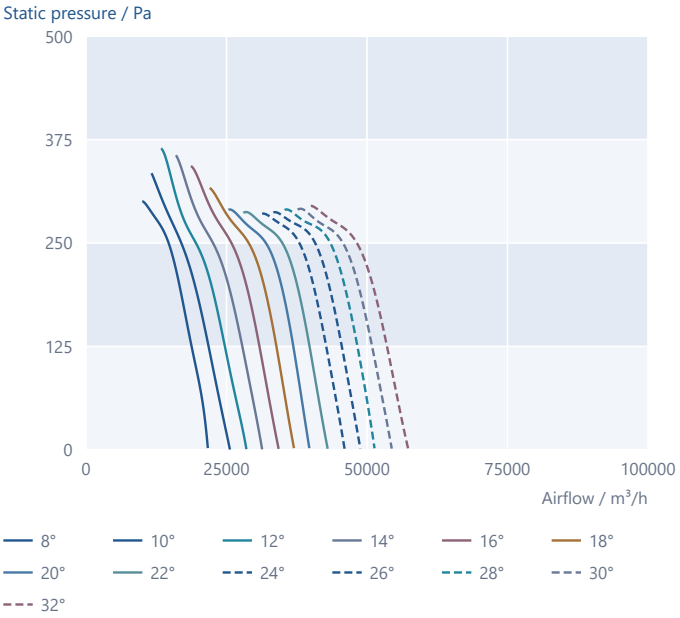
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 09

Fan Performance Curves

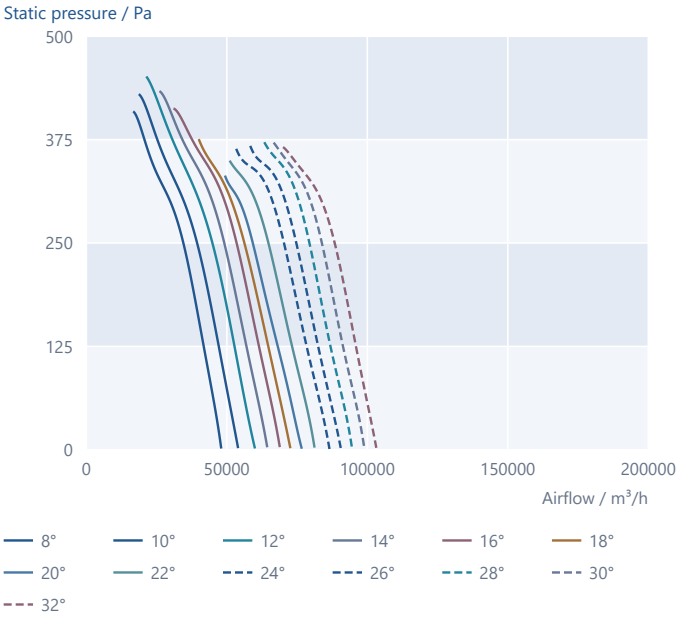
VLF-B 1000/9/6P

13 blade angles / 400 V / 50 Hz



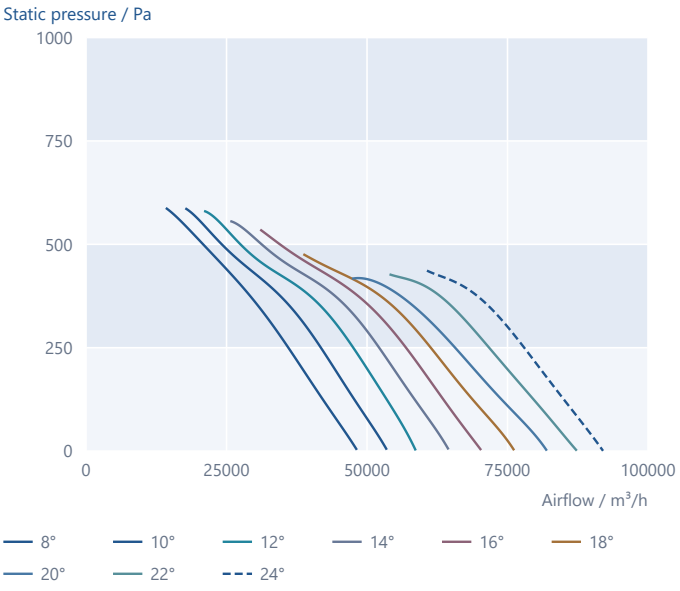
VLF-B 1250/6/6P

13 blade angles / 400 V / 50 Hz



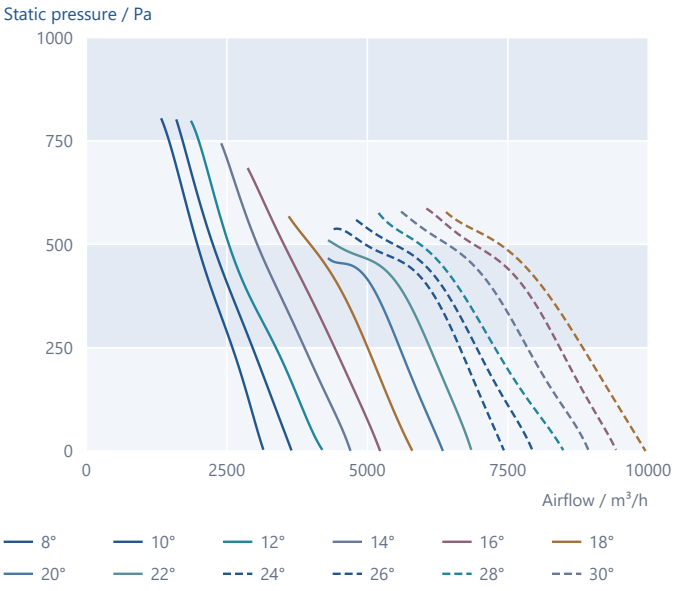
VLF-B 1250/9/6P

9 blade angles / 400 V / 50 Hz



VLF-B 400/6/2-4P

14 blade angles / 400 V / 50 Hz



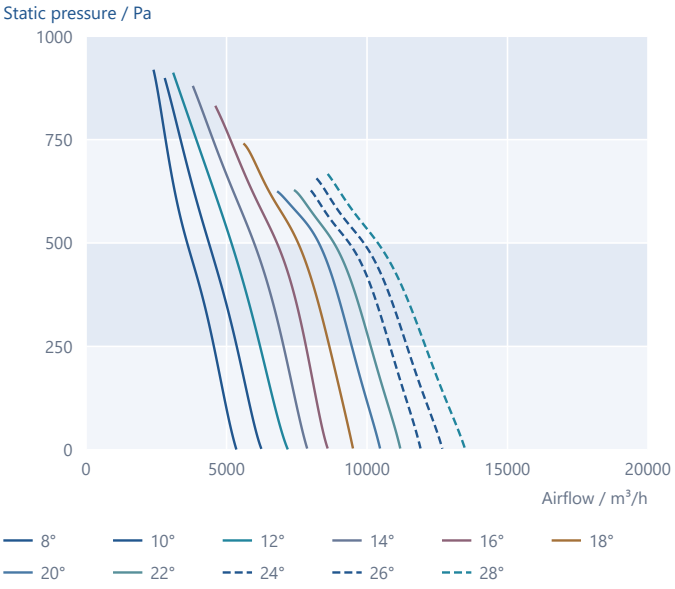
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 10

Fan Performance Curves

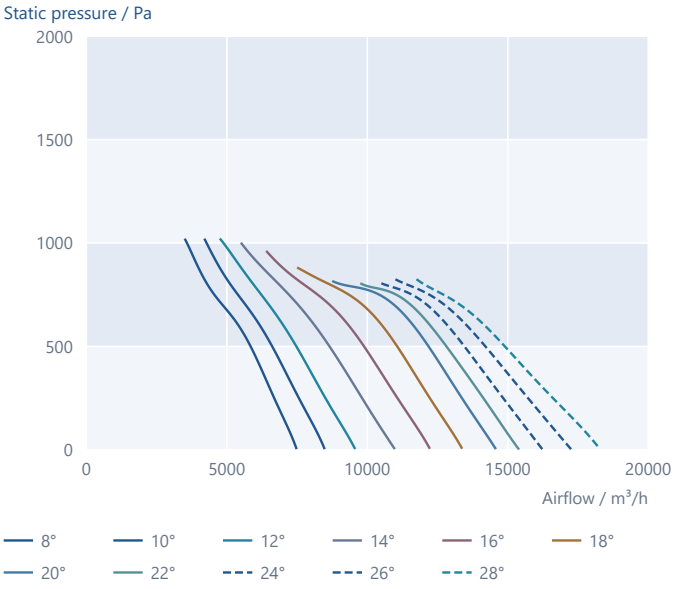
VLF-B 450/6/2-4P

11 blade angles / 400 V / 50 Hz



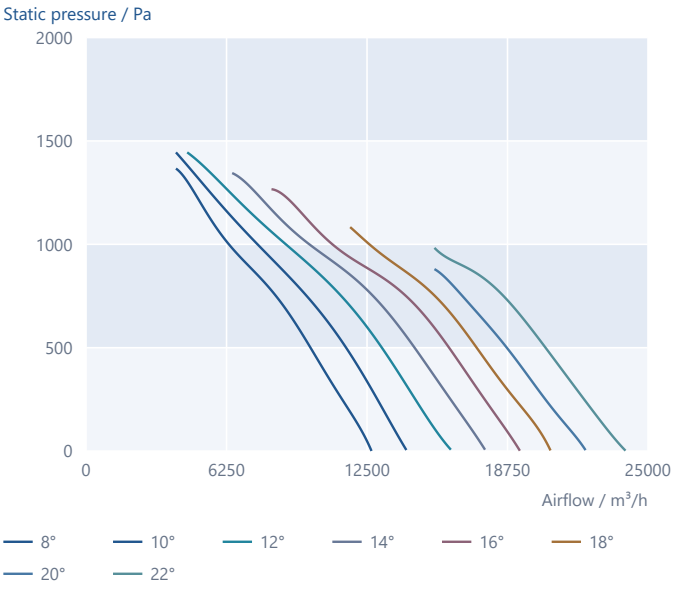
VLF-B 500/6/2-4P

11 blade angles / 400 V / 50 Hz



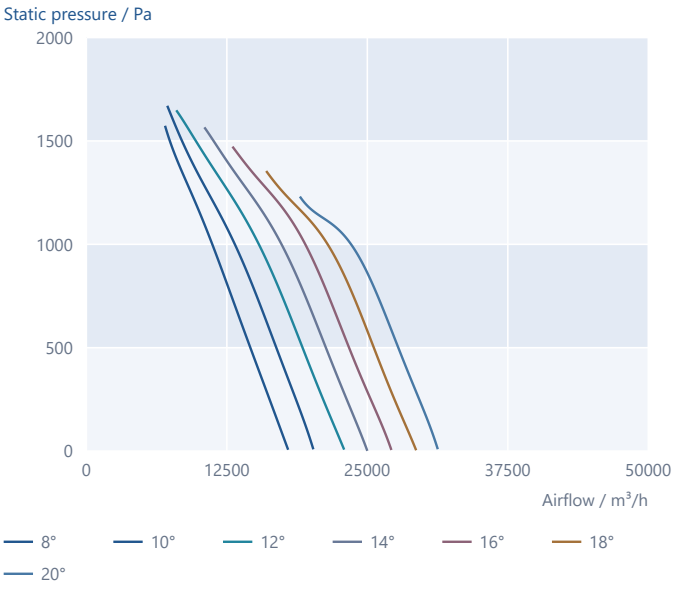
VLF-B 560/6/2-4P

8 blade angles / 400 V / 50 Hz



VLF-B 630/6/2-4P

7 blade angles / 400 V / 50 Hz



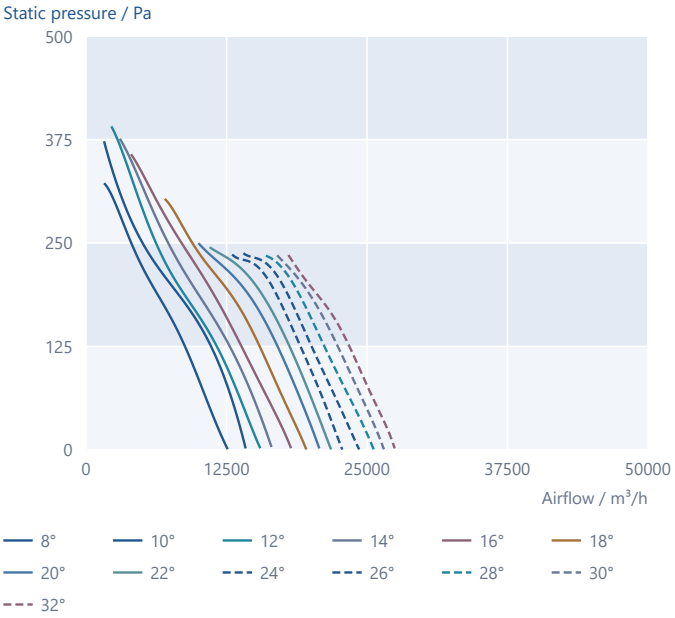
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 11

Fan Performance Curves

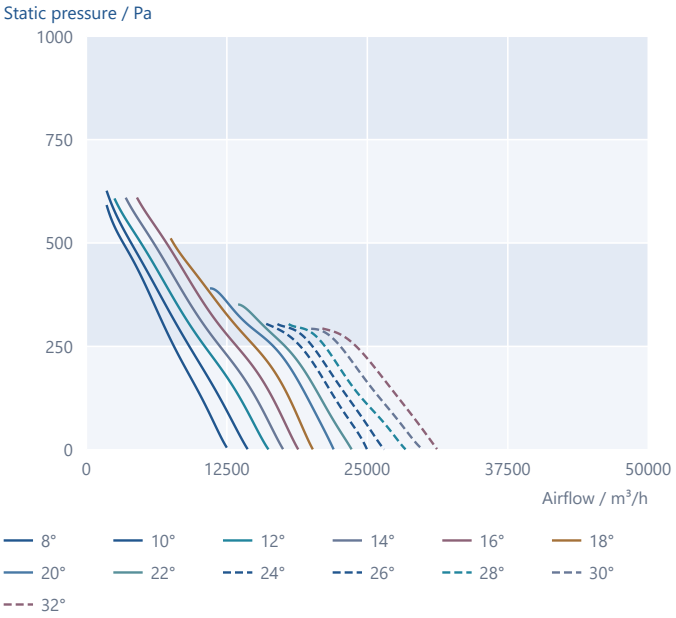
VLF-B 710/3/4-8P

13 blade angles / 400 V / 50 Hz



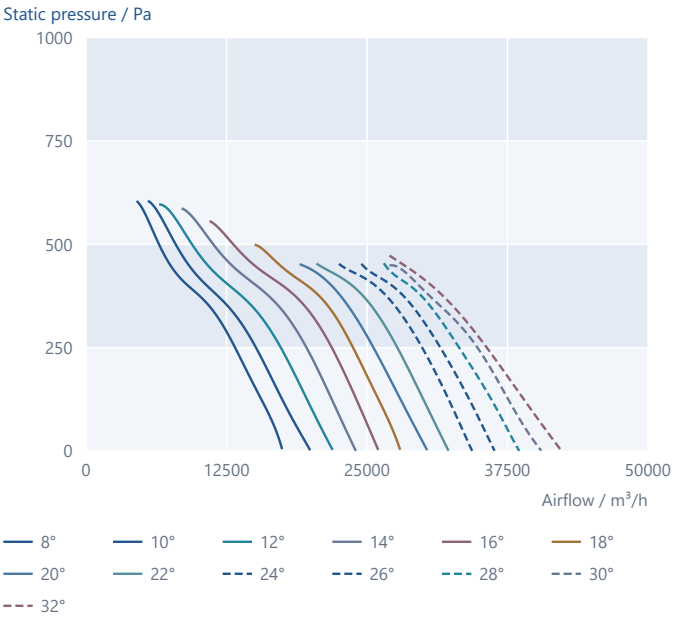
VLF-B 710/6/4-8P

13 blade angles / 400 V / 50 Hz



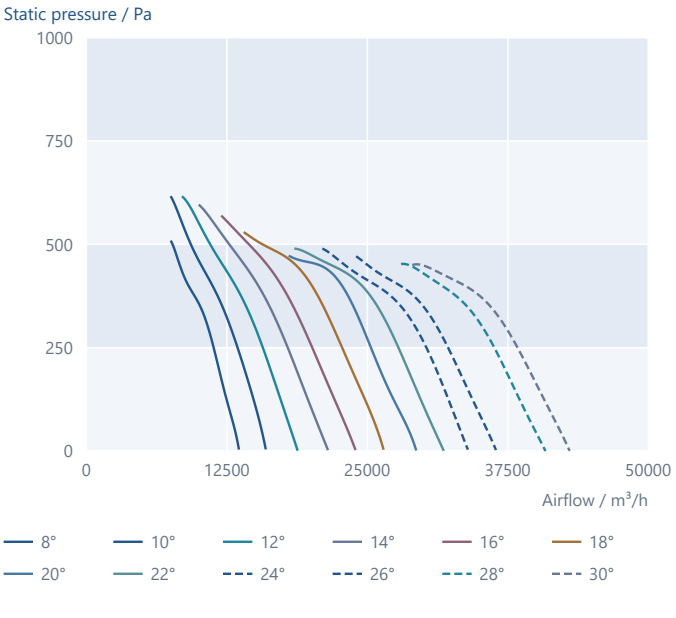
VLF-B 800/6/4-8P

13 blade angles / 400 V / 50 Hz



VLF-B 800/9/4-8P

12 blade angles / 400 V / 50 Hz



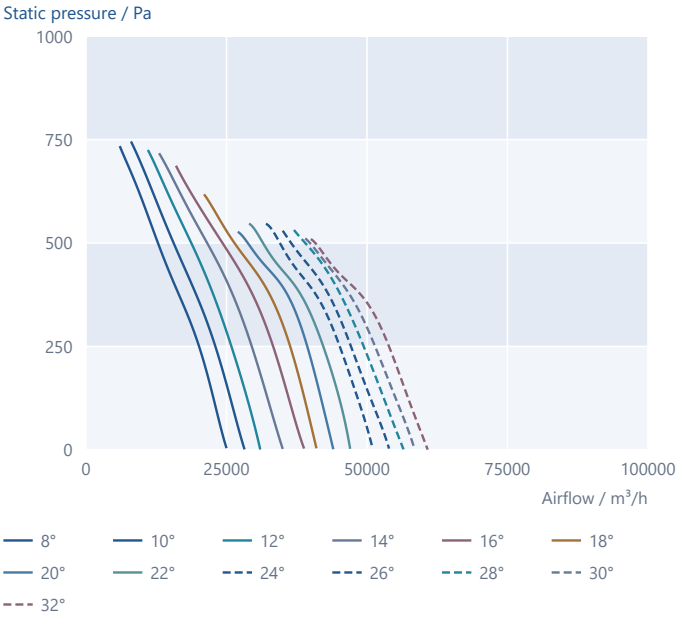
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 12

Fan Performance Curves

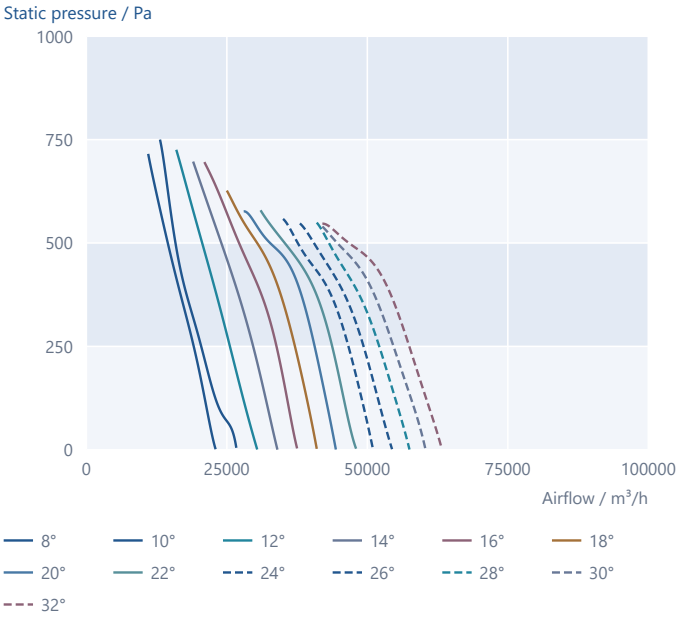
VLF-B 900/6/4-8P

13 blade angles / 400 V / 50 Hz



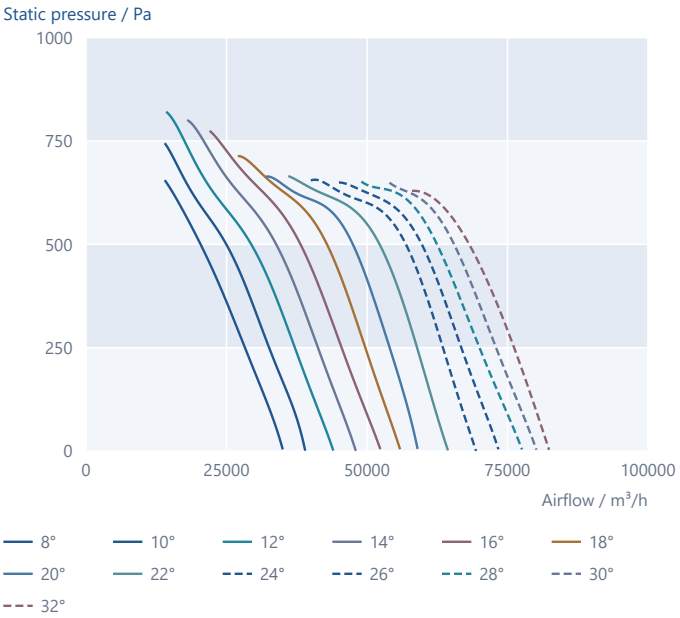
VLF-B 900/9/4-8P

13 blade angles / 400 V / 50 Hz



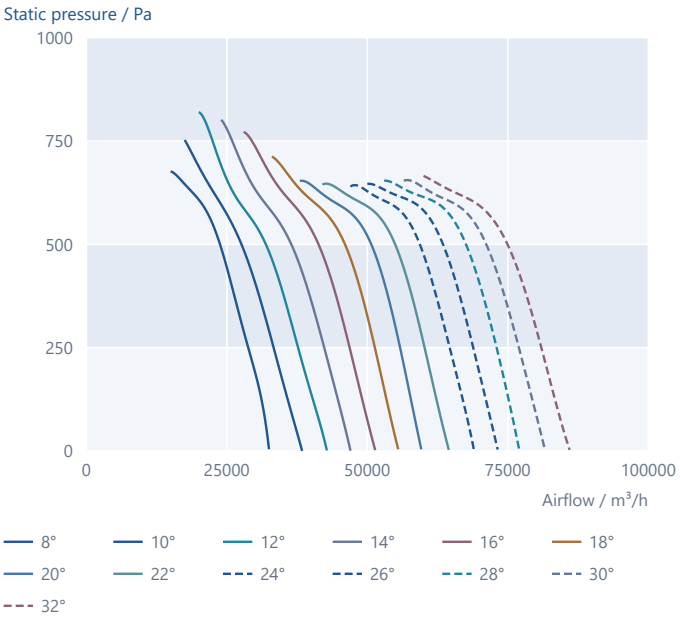
VLF-B 1000/6/4-8P

13 blade angles / 400 V / 50 Hz



VLF-B 1000/9/4-8P

13 blade angles / 400 V / 50 Hz



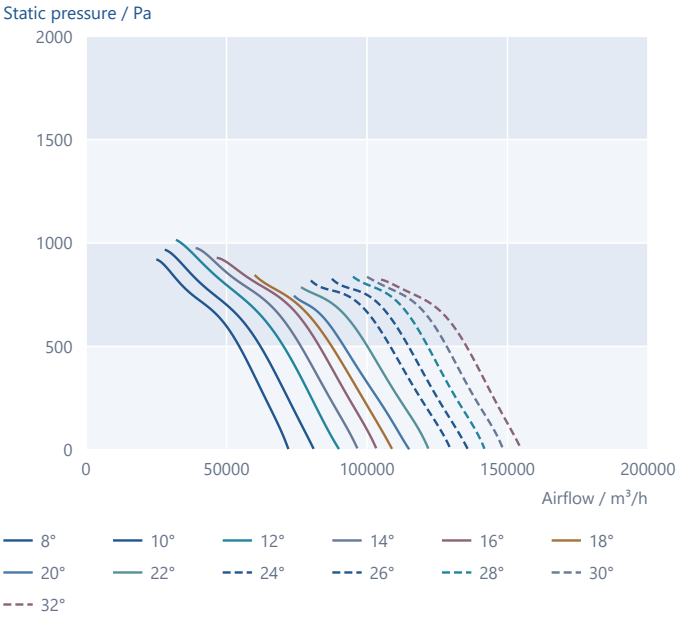
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 13

Fan Performance Curves

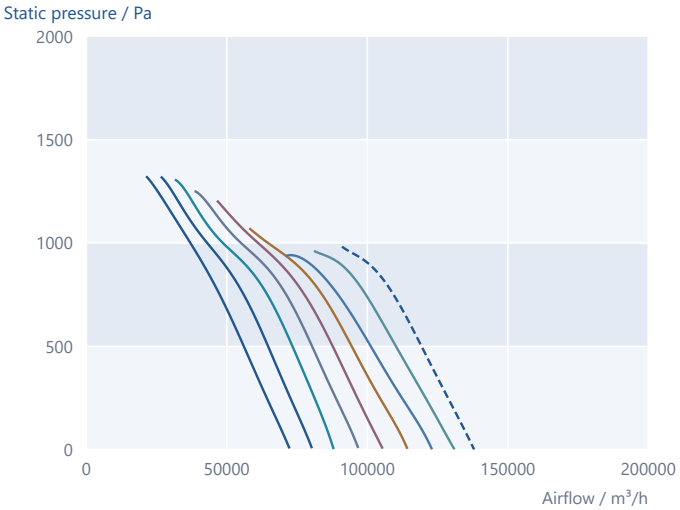
VLF-B 1250/6/4-8P

13 blade angles / 400 V / 50 Hz



VLF-B 1250/9/4-8P

9 blade angles / 400 V / 50 Hz



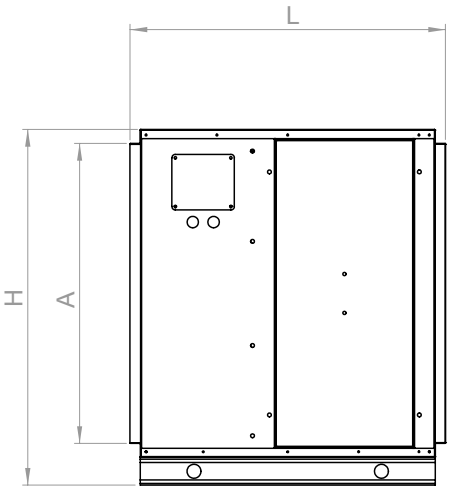
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; negative-pressure portions are omitted. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

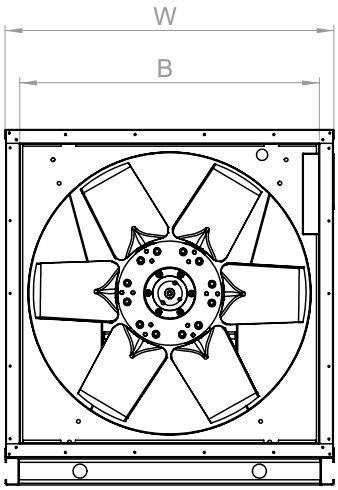
04 / DIMENSIONAL DATA

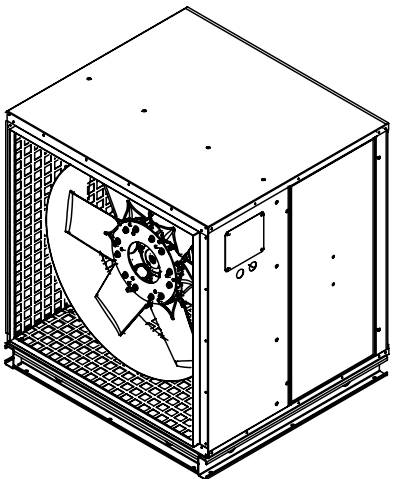
Plan the duct connections.

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

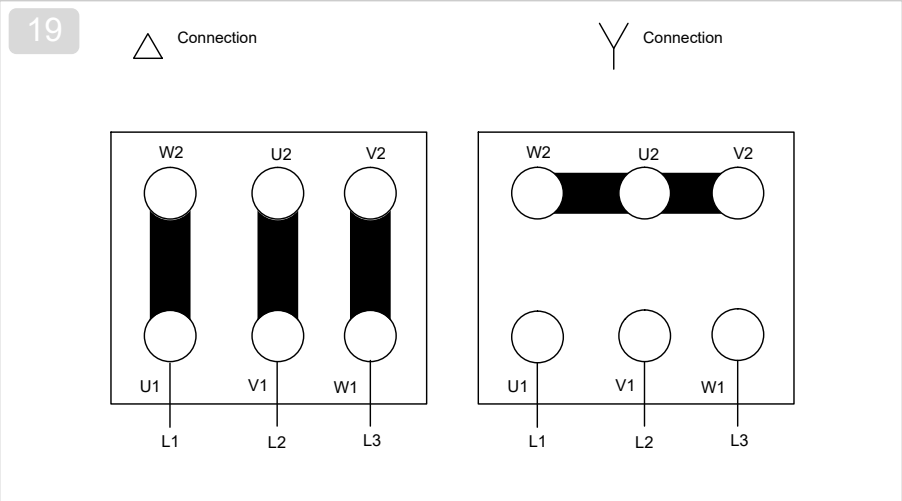
Product vector drawing. A, B, H, L and W retain their definitions and geometry. Cabinet dimensions are common to the supplied configurations at each diameter. Confirm access-panel clearance, mounting orientation and supports for the supplied unit.

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.

VLF-B

Insulated box axial fans

VOLTVENT®
VENTILATION SYSTEMS

info@voltvent.com | voltvent.com