VLF-RS SERIES

Roof mounted axial smoke extract fans

VLF-RS

F300/F400°C 2h

ADJUSTABLE-PITCH AIRFOIL BLADES

WEATHER HOOD & DISCHARGE GUARD

F300°C / F400°C

120-minute smoke duty options



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

01 / PRODUCT OVERVIEW

One range. Two smoke-duty options.



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.

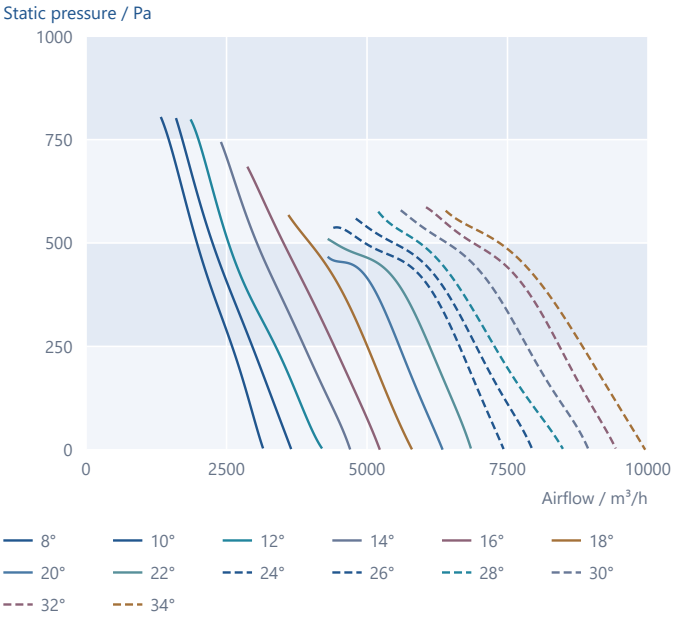
For two-speed configurations, these curves describe the supplied high-speed condition only. Low-speed curves are not inferred. F300°C / F400°C classification is a separate specification from the ordinary operating-temperature limits of the listed records.

03 / AIR PERFORMANCE / 01

Fan Performance Curves

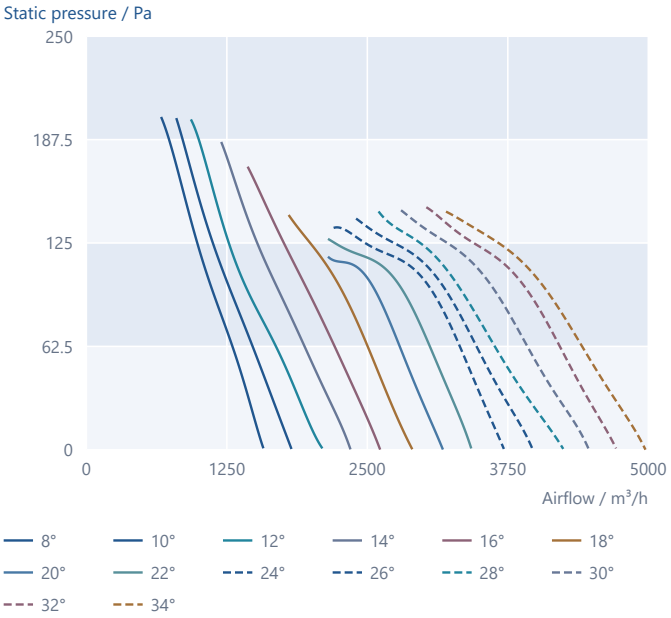
VLF-RS 400/6/2P

14 blade angles / 400 V / 50 Hz



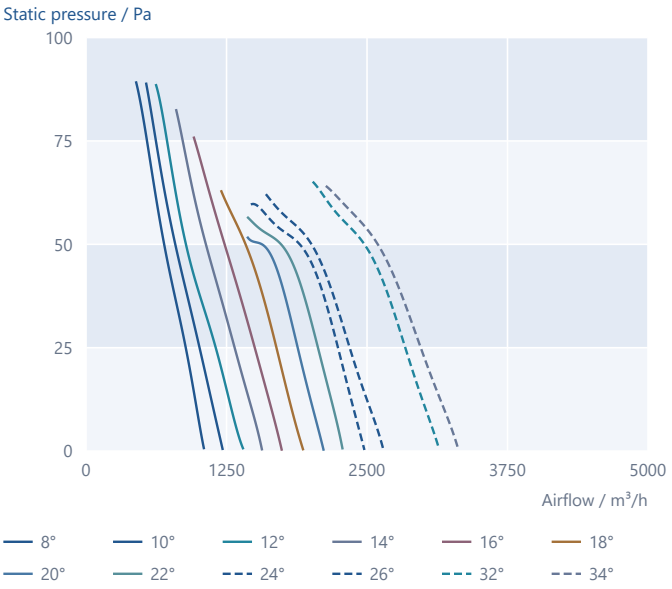
VLF-RS 400/6/4P

14 blade angles / 400 V / 50 Hz



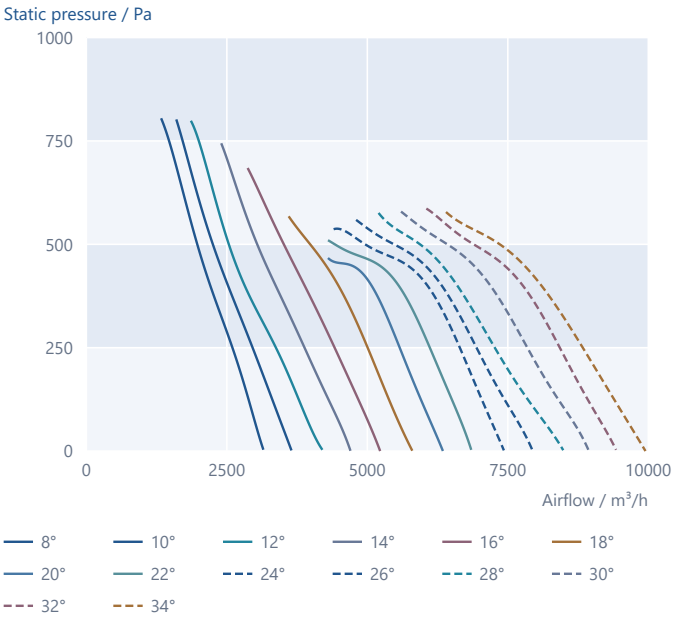
VLF-RS 400/6/6P

12 blade angles / 400 V / 50 Hz



VLF-RS 400/6/2-4P

14 blade angles / 400 V / 50 Hz



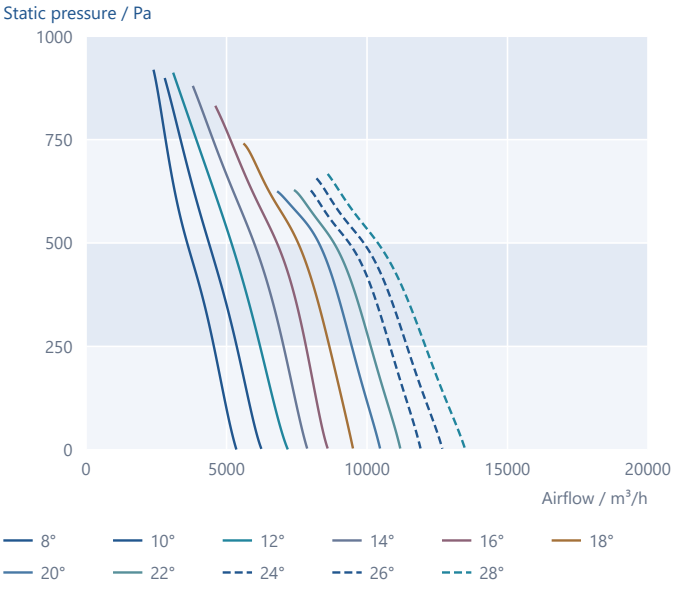
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 02

Fan Performance Curves

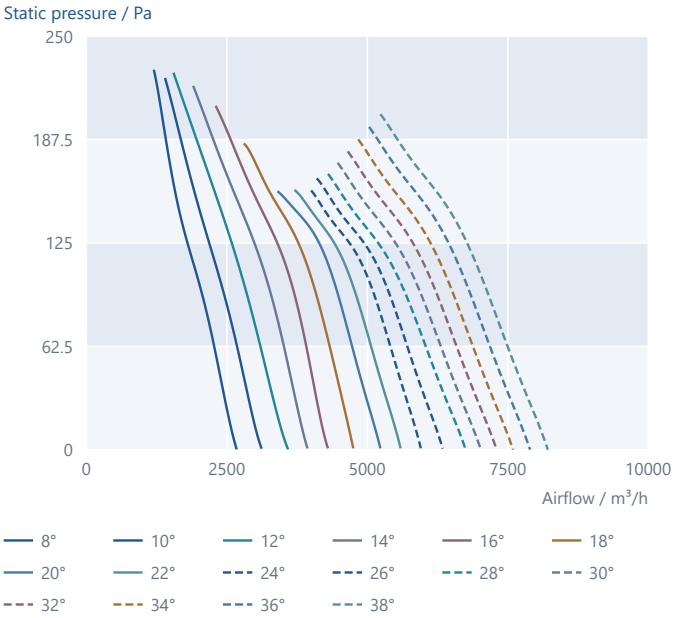
VLF-RS 450/6/2P

11 blade angles / 400 V / 50 Hz



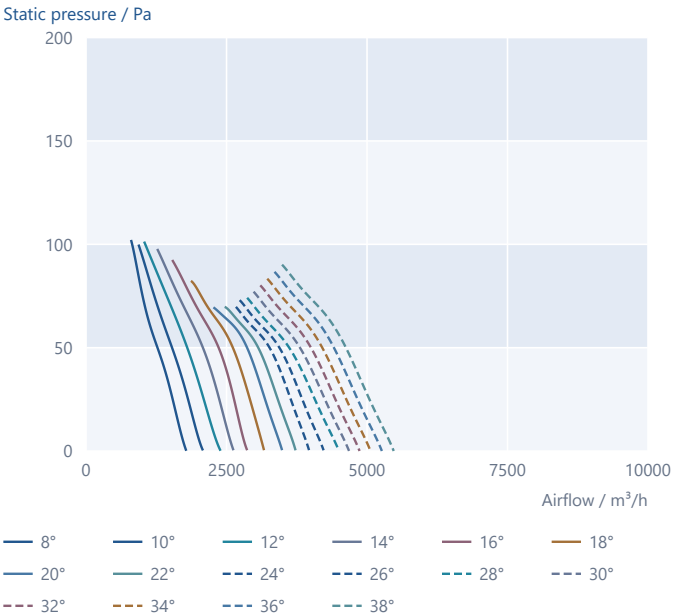
VLF-RS 450/6/4P

16 blade angles / 400 V / 50 Hz



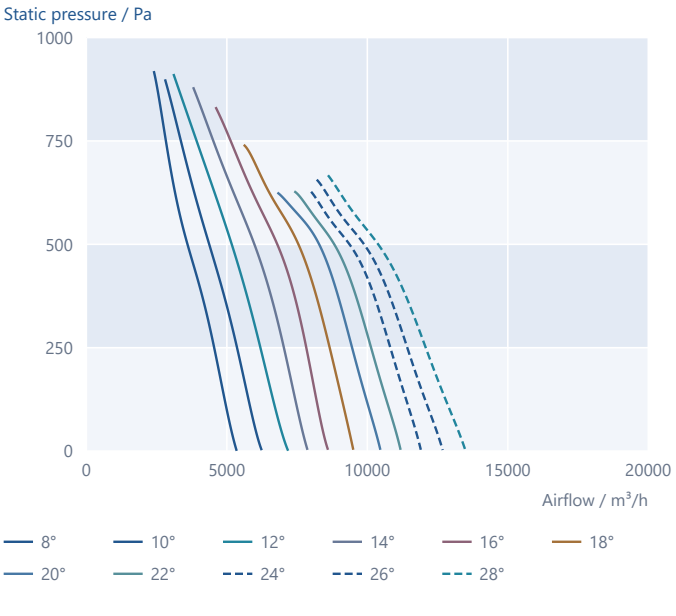
VLF-RS 450/6/6P

16 blade angles / 400 V / 50 Hz



VLF-RS 450/6/2-4P

11 blade angles / 400 V / 50 Hz



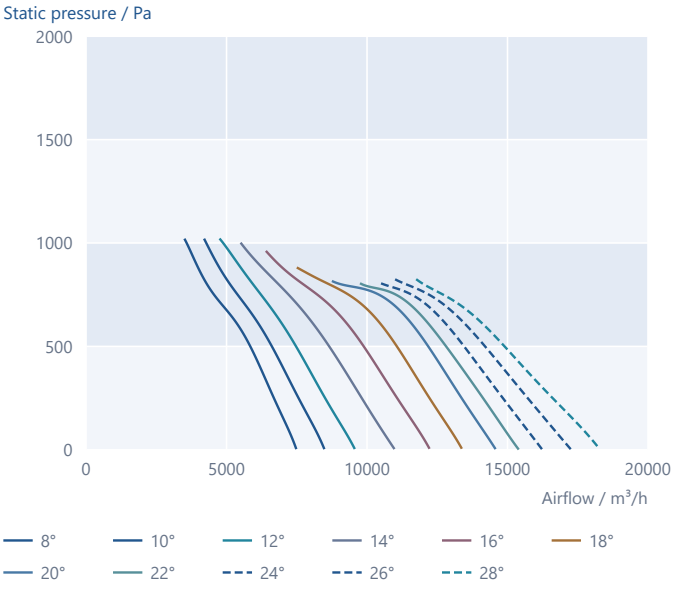
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 03

Fan Performance Curves

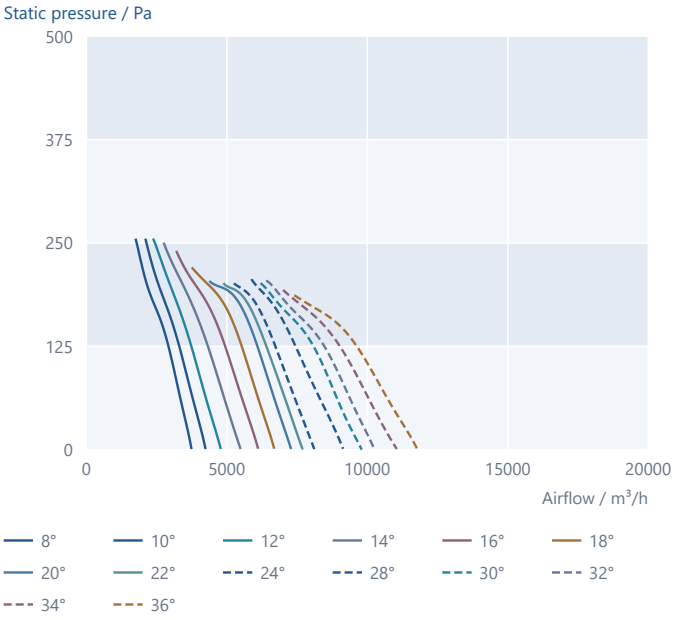
VLF-RS 500/6/2P

11 blade angles / 400 V / 50 Hz



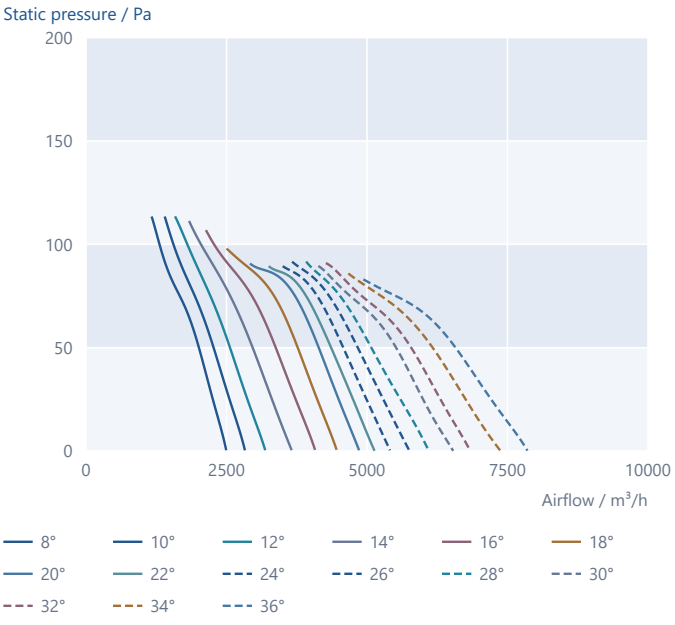
VLF-RS 500/6/4P

14 blade angles / 400 V / 50 Hz



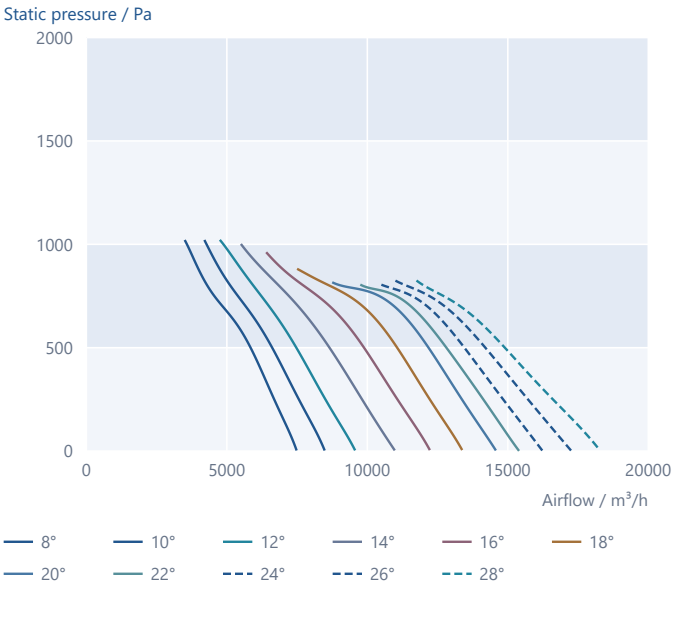
VLF-RS 500/6/6P

15 blade angles / 400 V / 50 Hz



VLF-RS 500/6/2-4P

11 blade angles / 400 V / 50 Hz



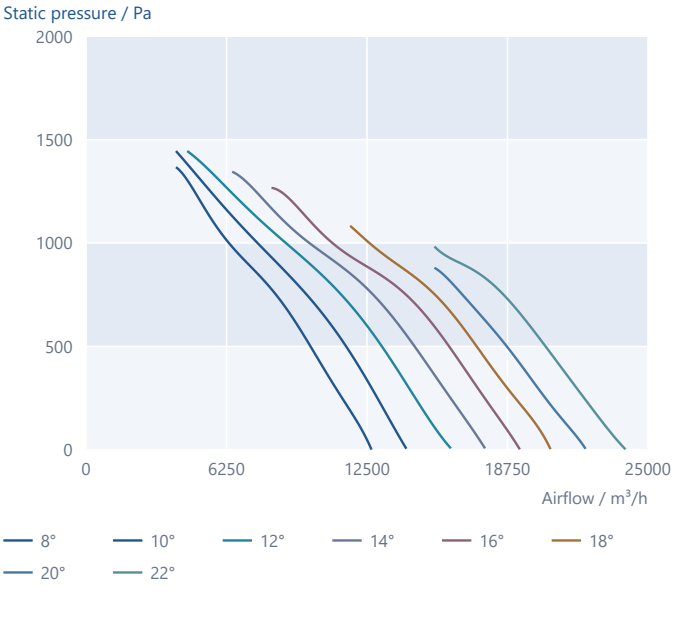
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 04

Fan Performance Curves

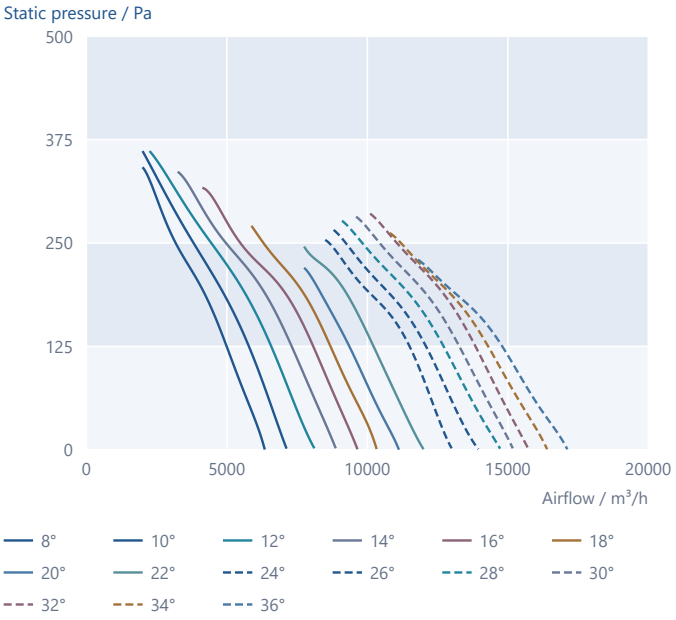
VLF-RS 560/6/2P

8 blade angles / 400 V / 50 Hz



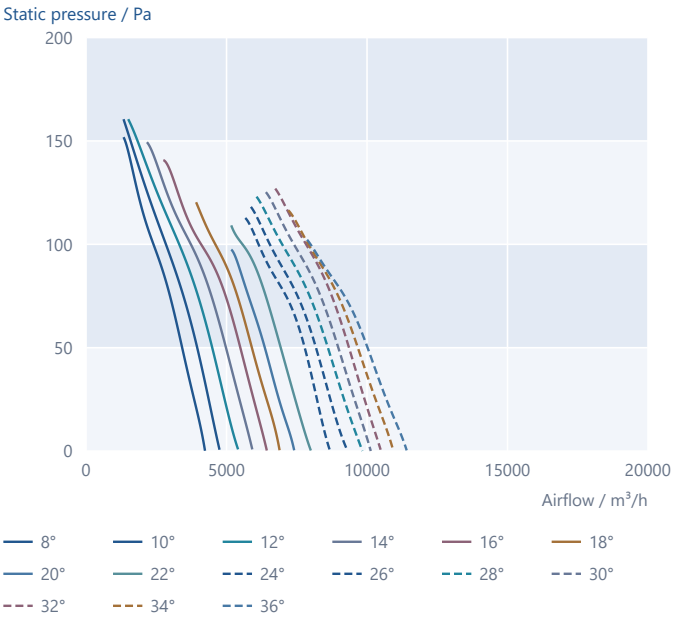
VLF-RS 560/6/4P

15 blade angles / 400 V / 50 Hz



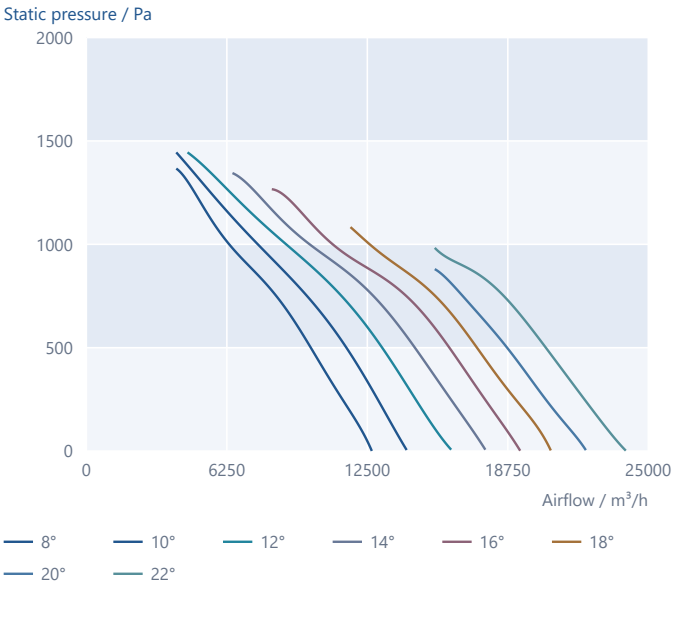
VLF-RS 560/6/6P

15 blade angles / 400 V / 50 Hz



VLF-RS 560/6/2-4P

8 blade angles / 400 V / 50 Hz



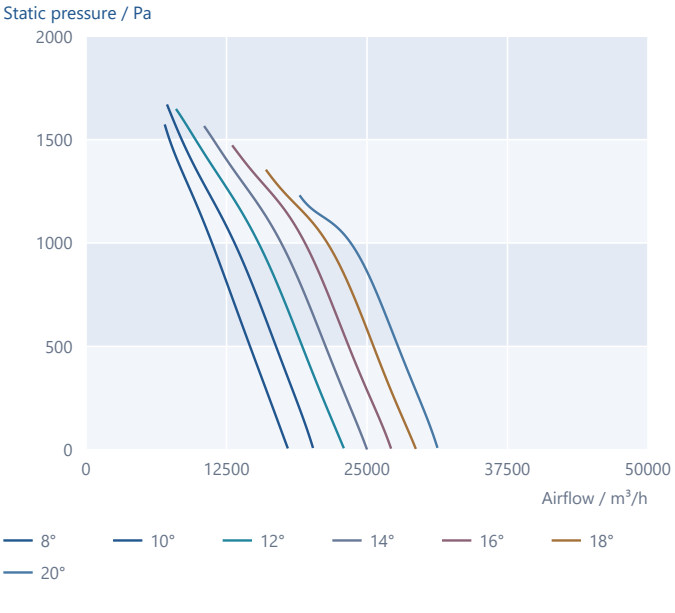
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 05

Fan Performance Curves

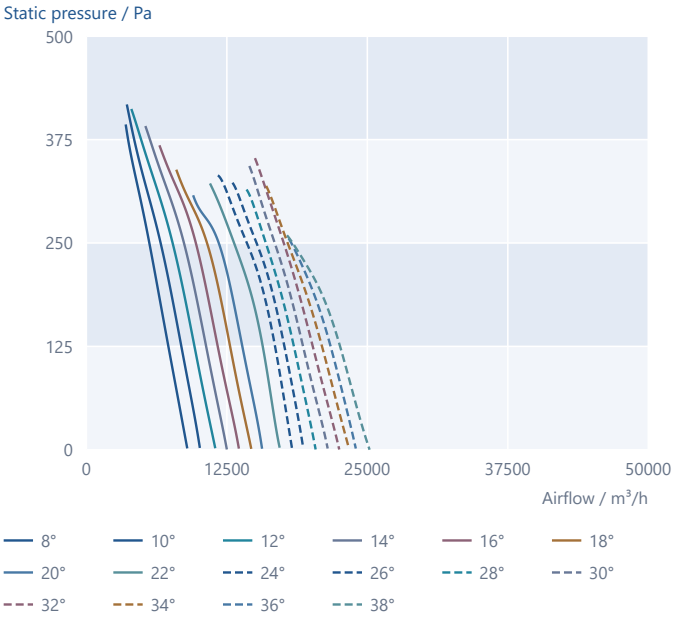
VLF-RS 630/6/2P

7 blade angles / 400 V / 50 Hz



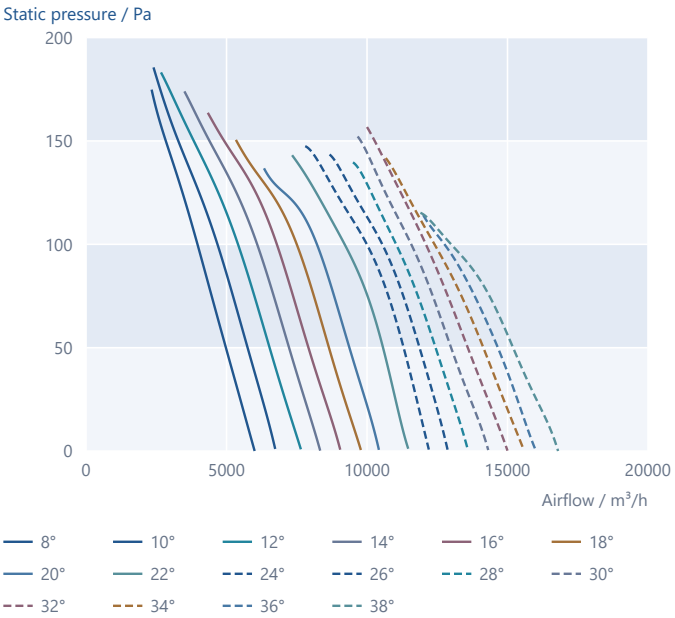
VLF-RS 630/6/4P

16 blade angles / 400 V / 50 Hz



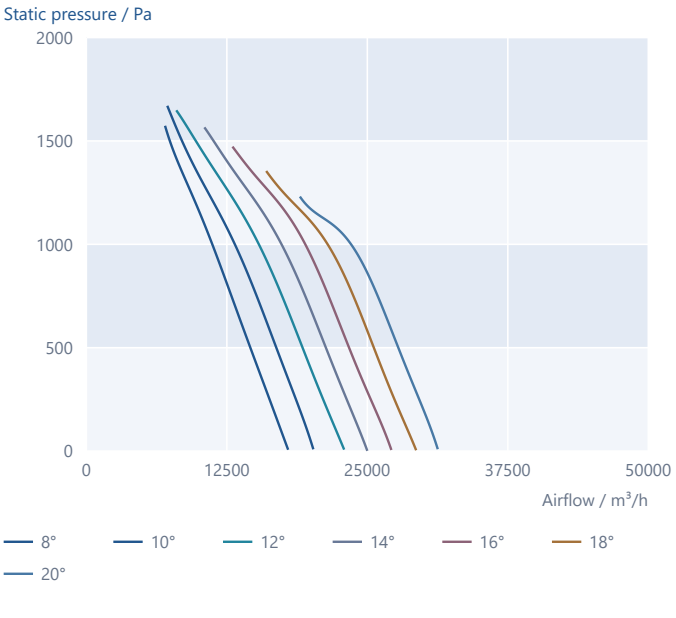
VLF-RS 630/6/6P

16 blade angles / 400 V / 50 Hz



VLF-RS 630/6/2-4P

7 blade angles / 400 V / 50 Hz



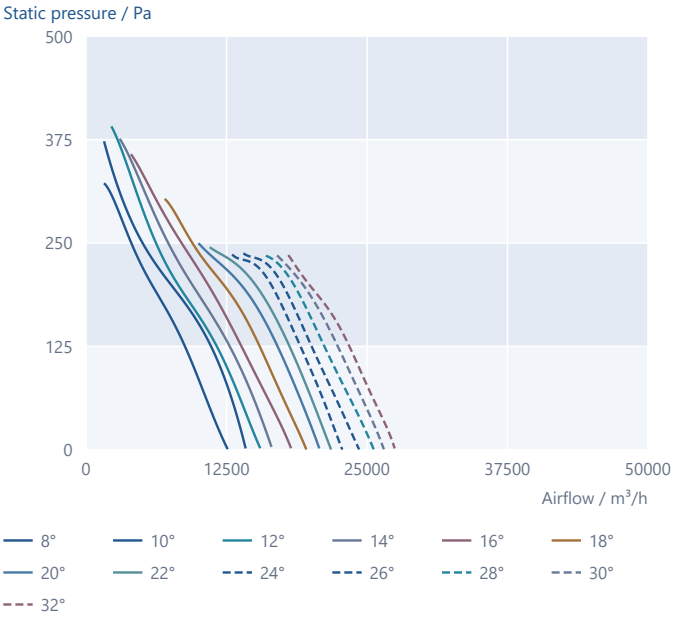
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 06

Fan Performance Curves

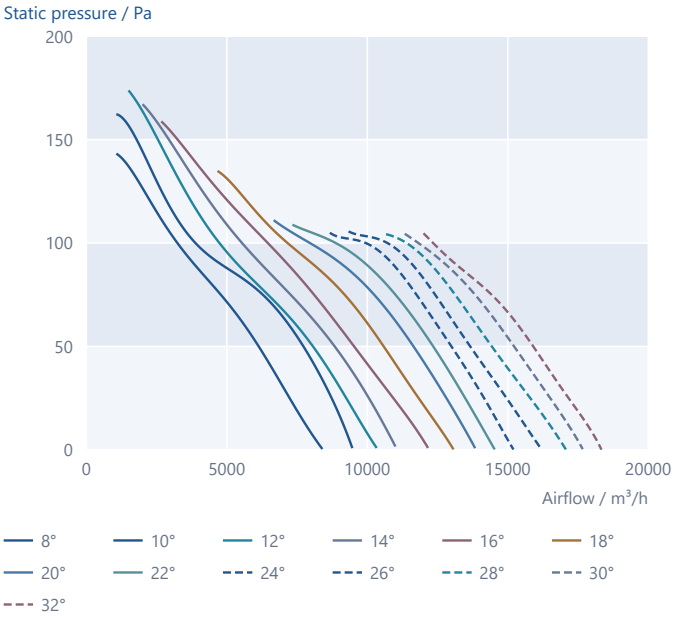
VLF-RS 710/3/4P

13 blade angles / 400 V / 50 Hz



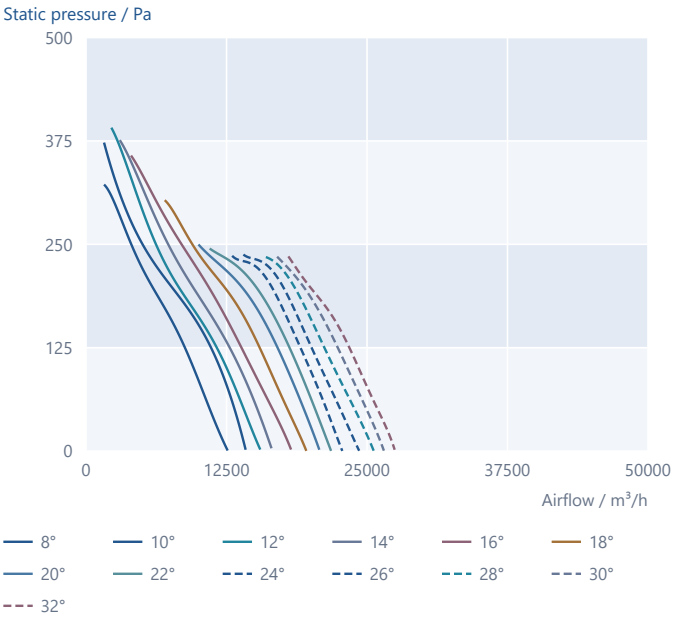
VLF-RS 710/3/6P

13 blade angles / 400 V / 50 Hz



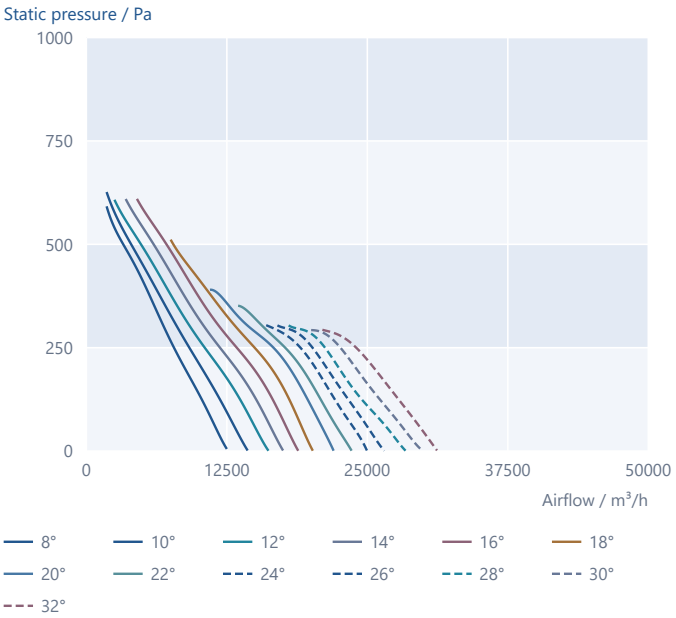
VLF-RS 710/3/4-8P

13 blade angles / 400 V / 50 Hz



VLF-RS 710/6/4P

13 blade angles / 400 V / 50 Hz



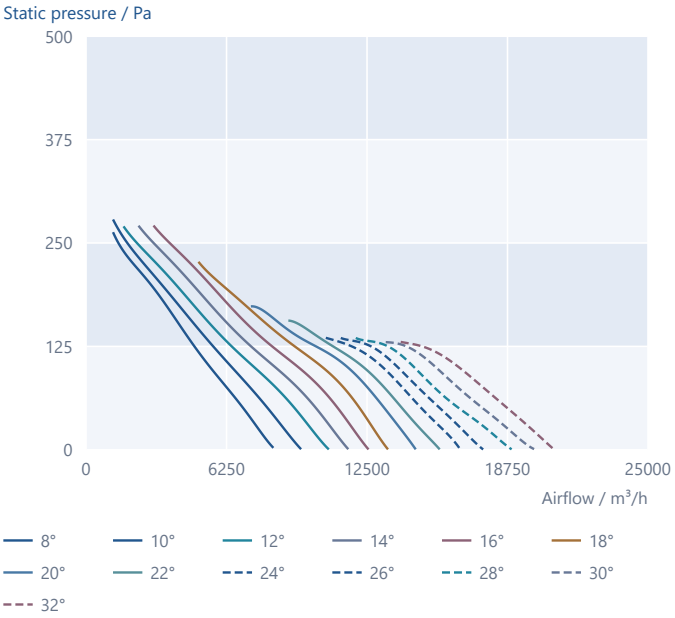
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 07

Fan Performance Curves

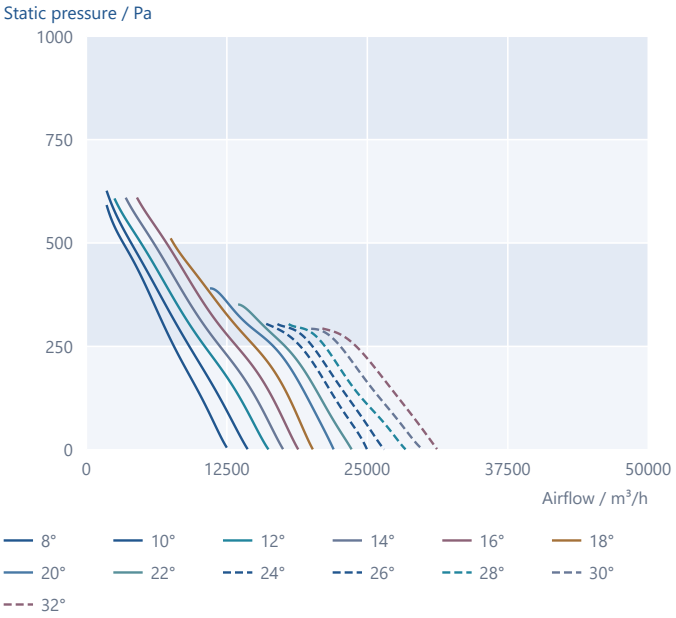
VLF-RS 710/6/6P

13 blade angles / 400 V / 50 Hz



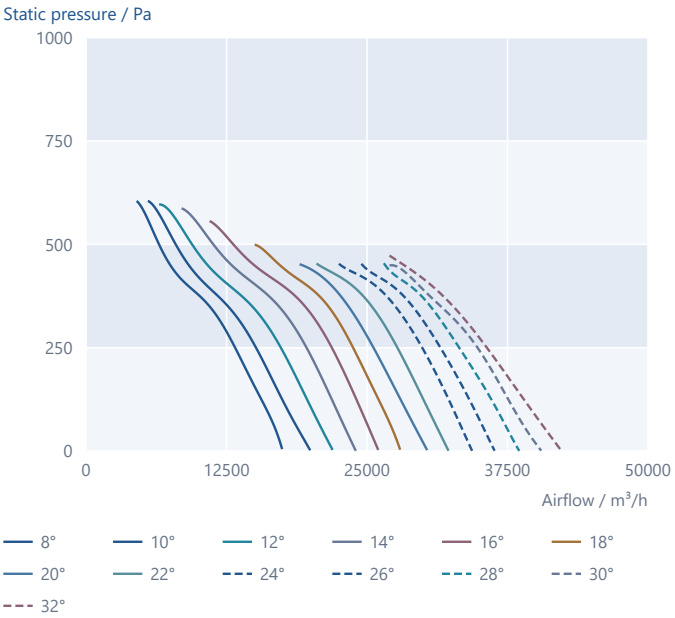
VLF-RS 710/6/4-8P

13 blade angles / 400 V / 50 Hz



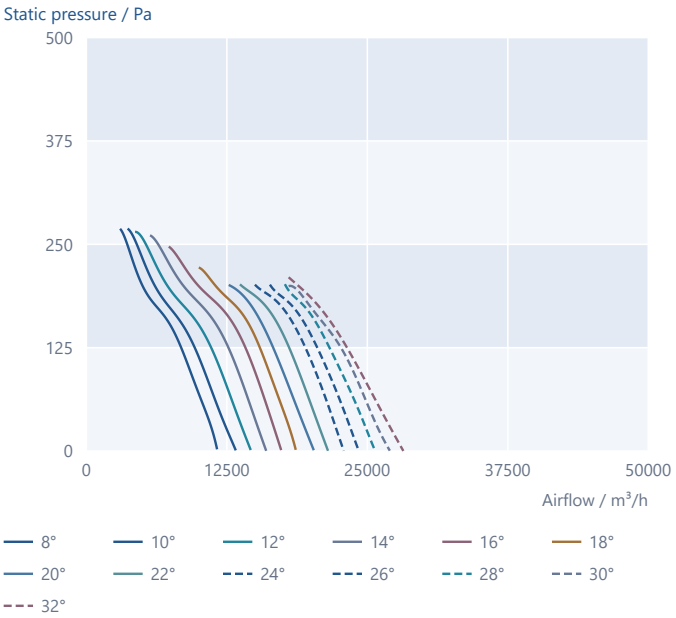
VLF-RS 800/6/4P

13 blade angles / 400 V / 50 Hz



VLF-RS 800/6/6P

13 blade angles / 400 V / 50 Hz



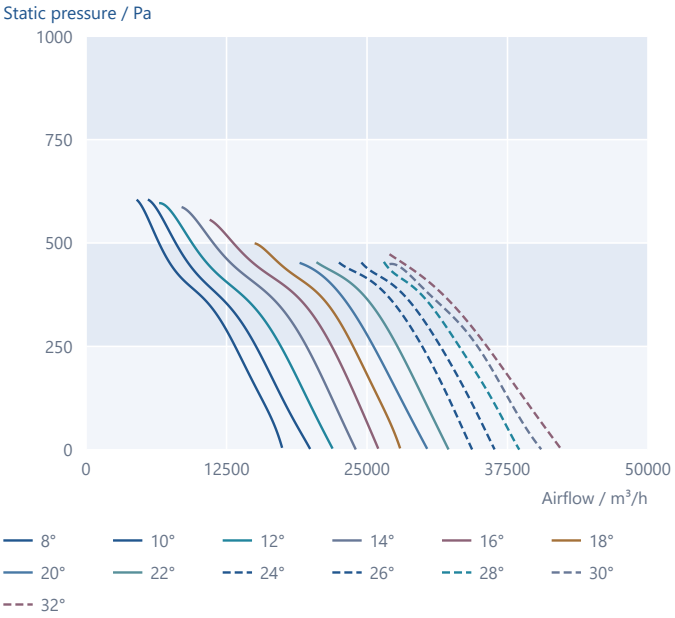
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 08

Fan Performance Curves

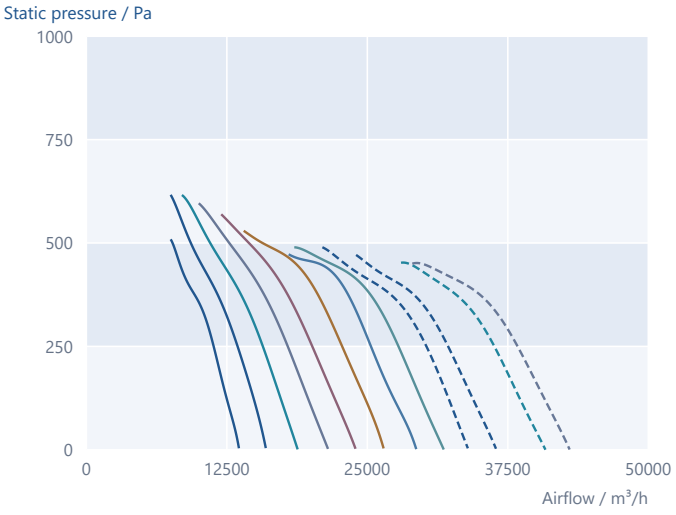
VLF-RS 800/6/4-8P

13 blade angles / 400 V / 50 Hz



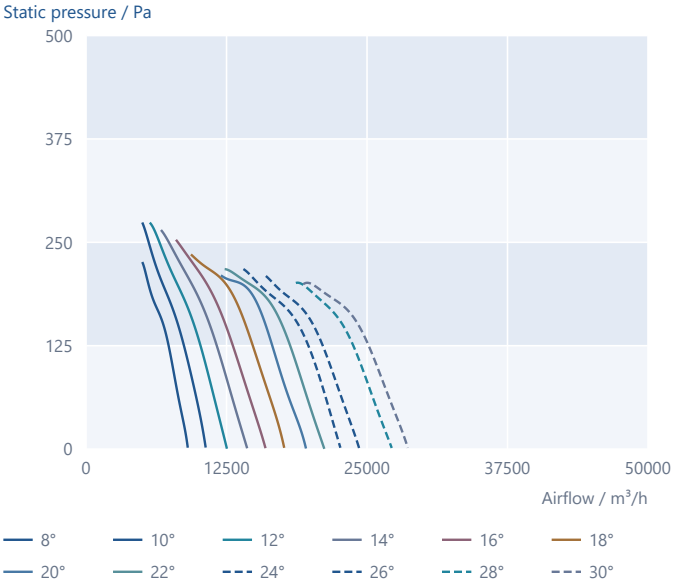
VLF-RS 800/9/4P

12 blade angles / 400 V / 50 Hz



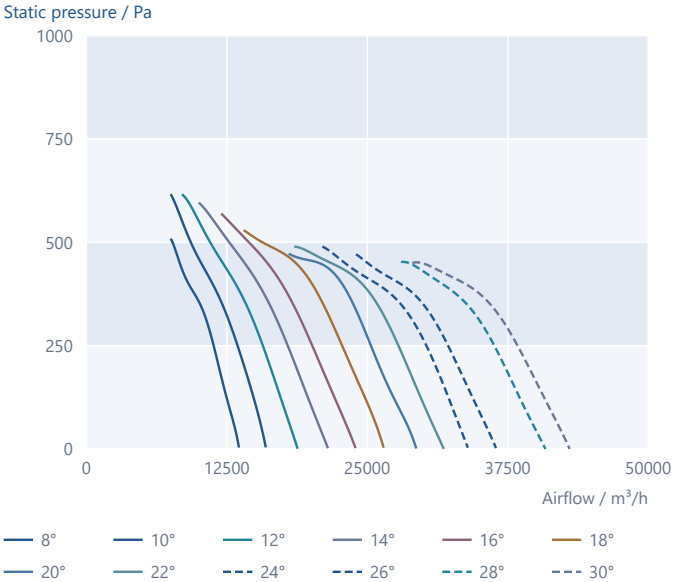
VLF-RS 800/9/6P

12 blade angles / 400 V / 50 Hz



VLF-RS 800/9/4-8P

12 blade angles / 400 V / 50 Hz



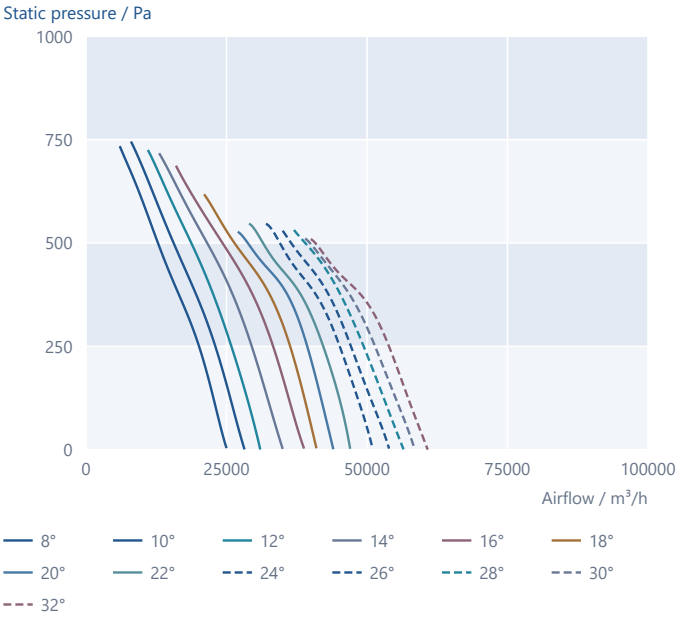
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 09

Fan Performance Curves

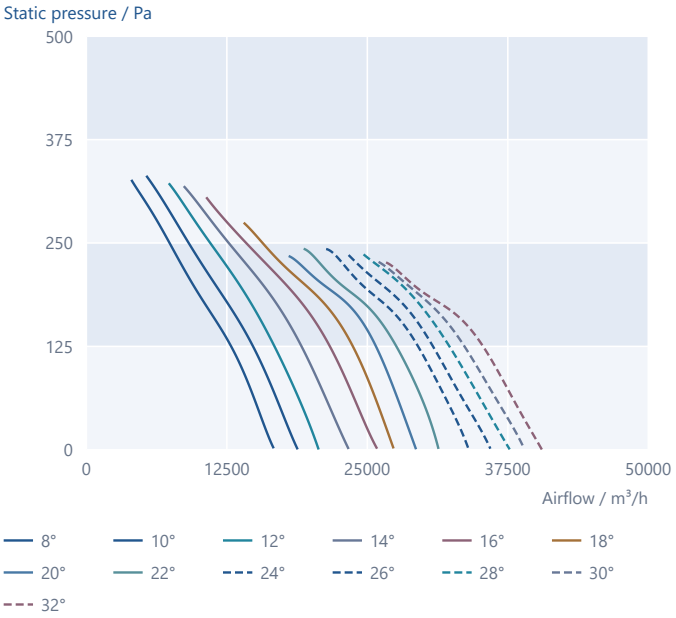
VLF-RS 900/6/4P

13 blade angles / 400 V / 50 Hz



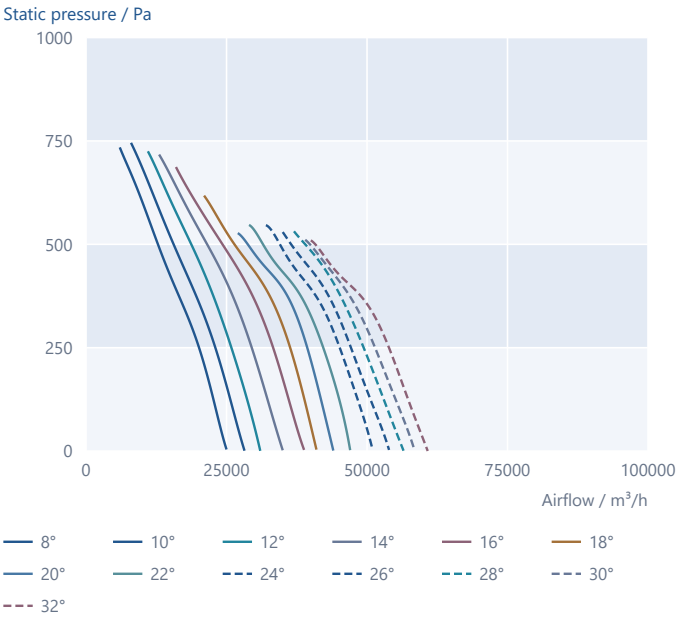
VLF-RS 900/6/6P

13 blade angles / 400 V / 50 Hz



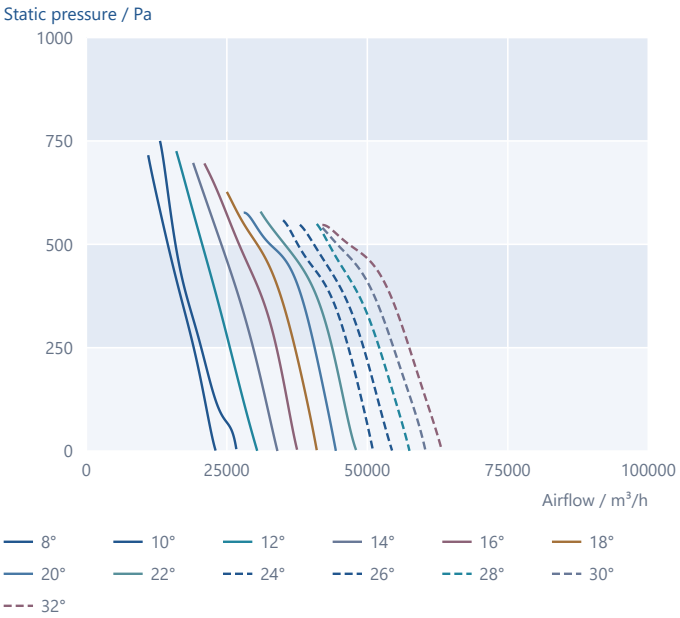
VLF-RS 900/6/4-8P

13 blade angles / 400 V / 50 Hz



VLF-RS 900/9/4P

13 blade angles / 400 V / 50 Hz



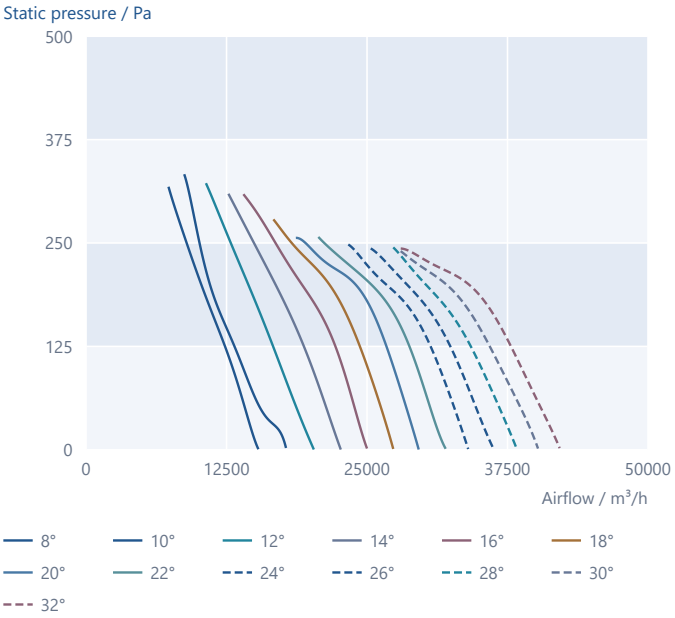
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 10

Fan Performance Curves

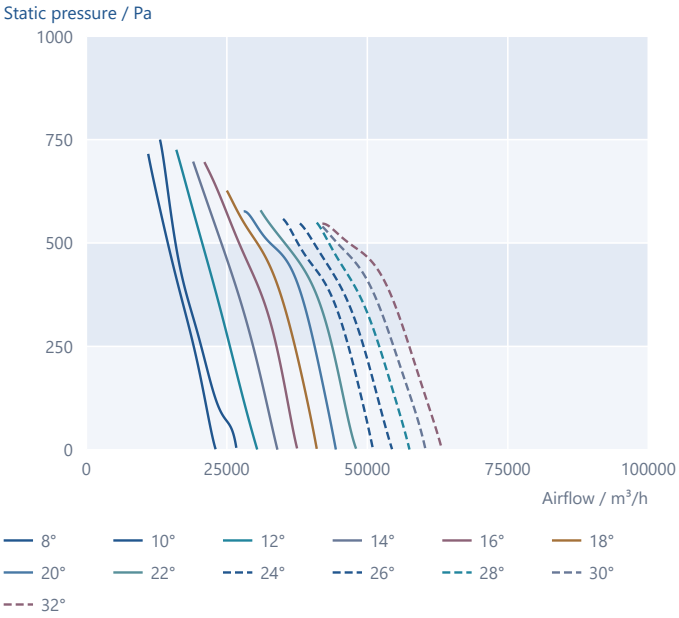
VLF-RS 900/9/6P

13 blade angles / 400 V / 50 Hz



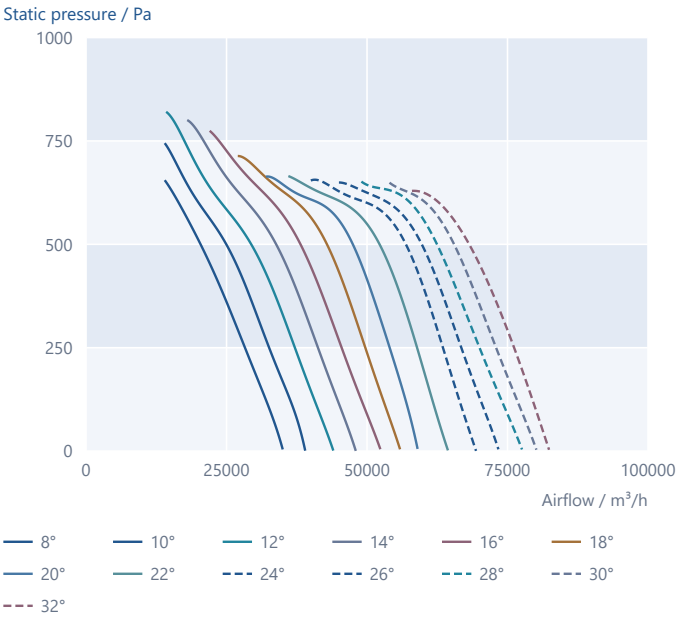
VLF-RS 900/9/4-8P

13 blade angles / 400 V / 50 Hz



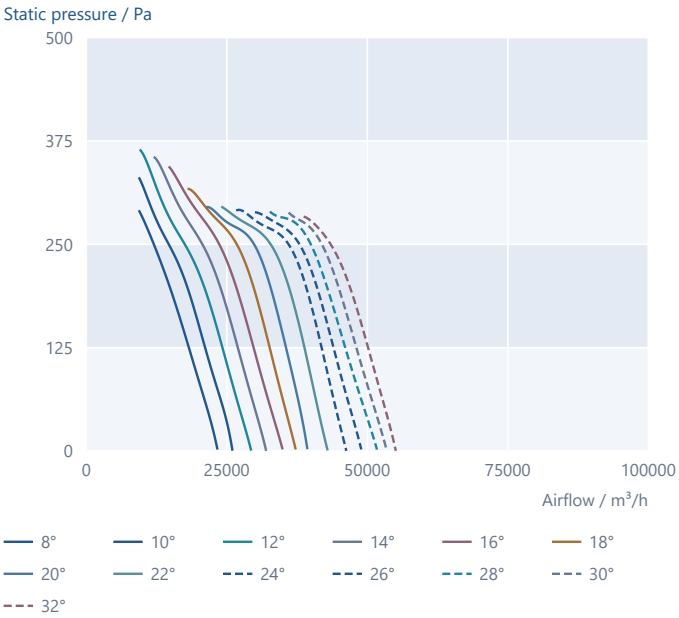
VLF-RS 1000/6/4P

13 blade angles / 400 V / 50 Hz



VLF-RS 1000/6/6P

13 blade angles / 400 V / 50 Hz



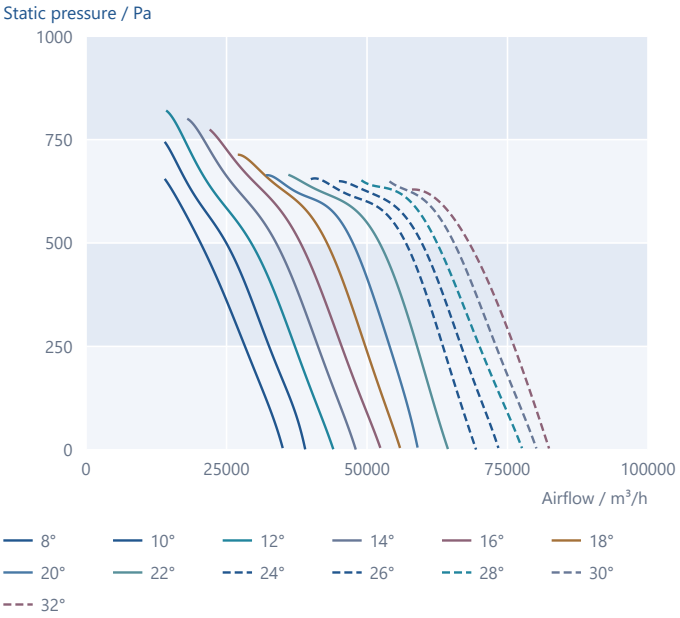
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 11

Fan Performance Curves

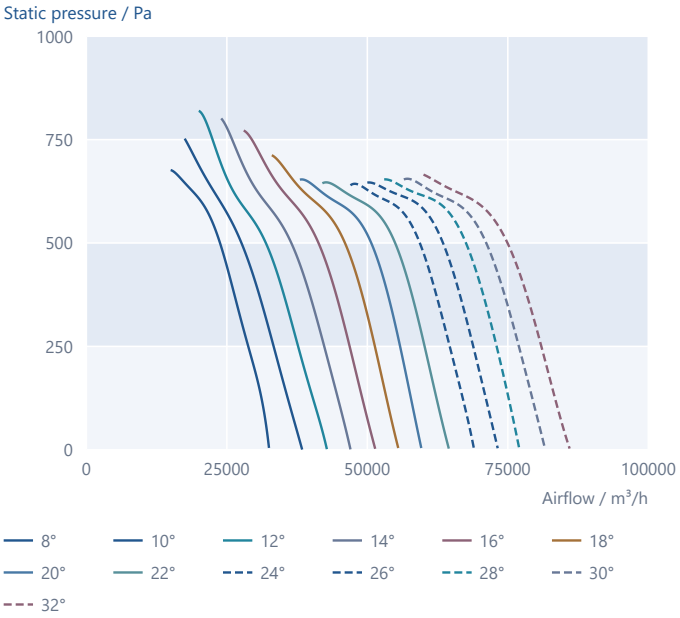
VLF-RS 1000/6/4-8P

13 blade angles / 400 V / 50 Hz



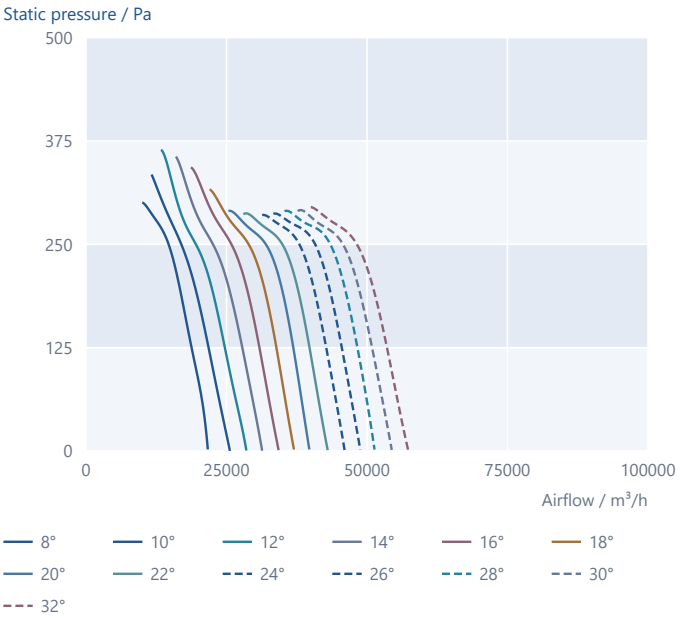
VLF-RS 1000/9/4P

13 blade angles / 400 V / 50 Hz



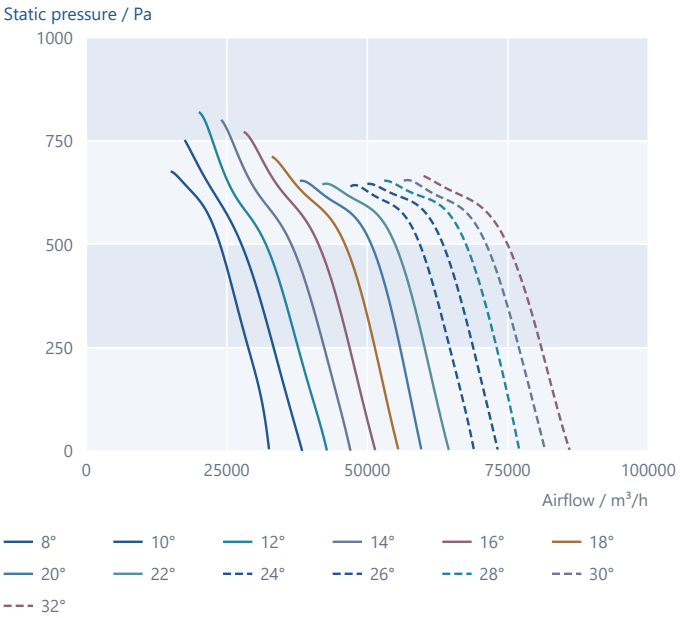
VLF-RS 1000/9/6P

13 blade angles / 400 V / 50 Hz



VLF-RS 1000/9/4-8P

13 blade angles / 400 V / 50 Hz



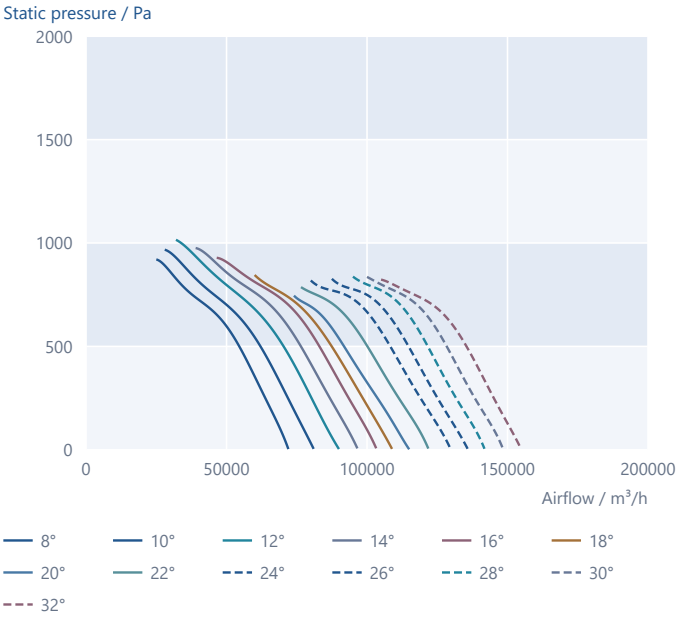
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 12

Fan Performance Curves

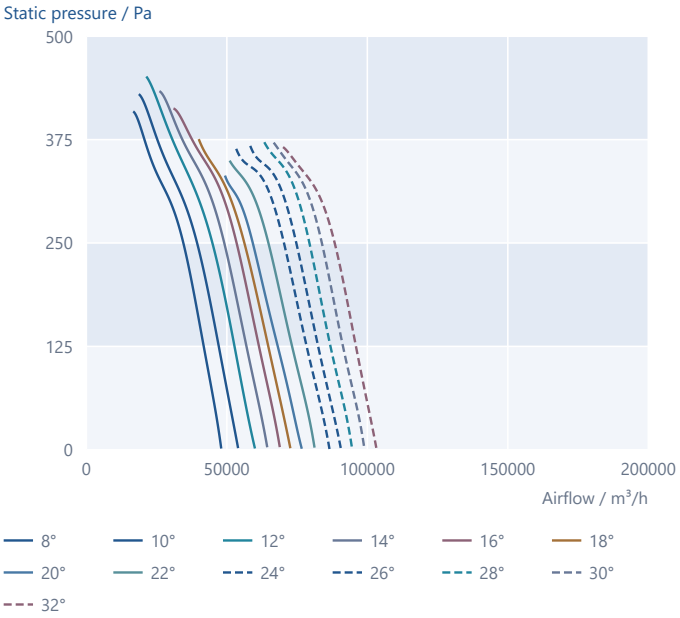
VLF-RS 1250/6/4P

13 blade angles / 400 V / 50 Hz



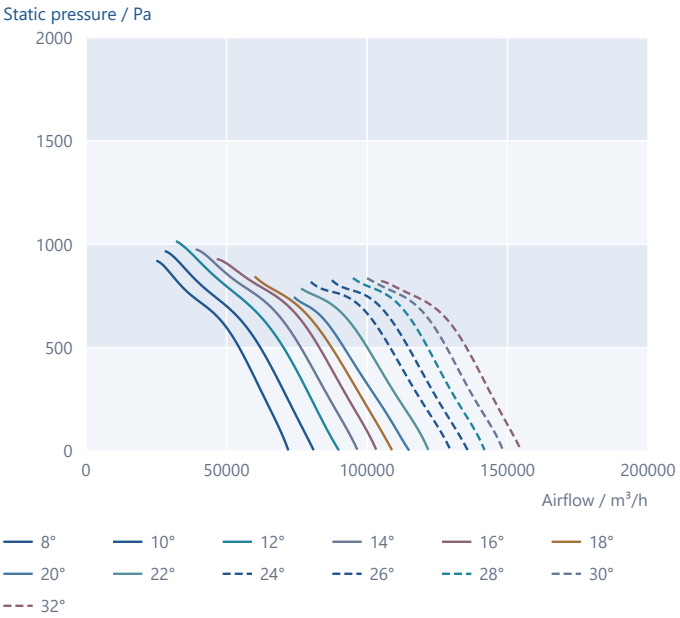
VLF-RS 1250/6/6P

13 blade angles / 400 V / 50 Hz



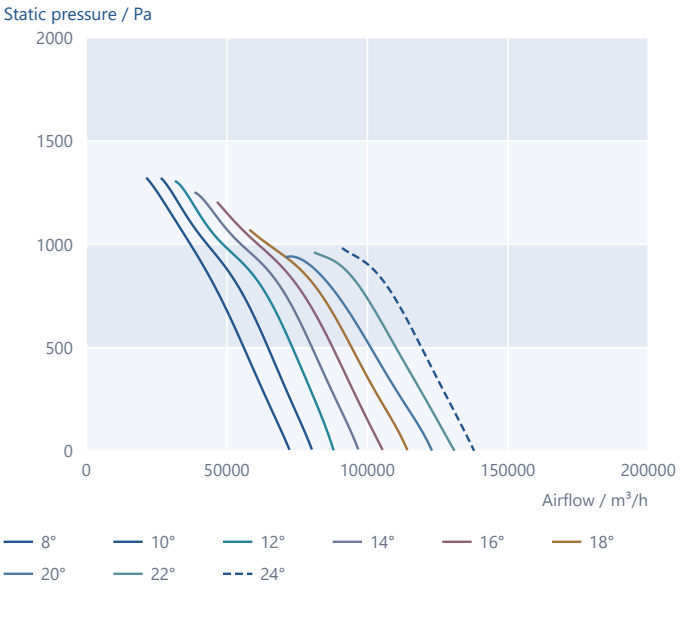
VLF-RS 1250/6/4-8P

13 blade angles / 400 V / 50 Hz



VLF-RS 1250/9/4P

9 blade angles / 400 V / 50 Hz



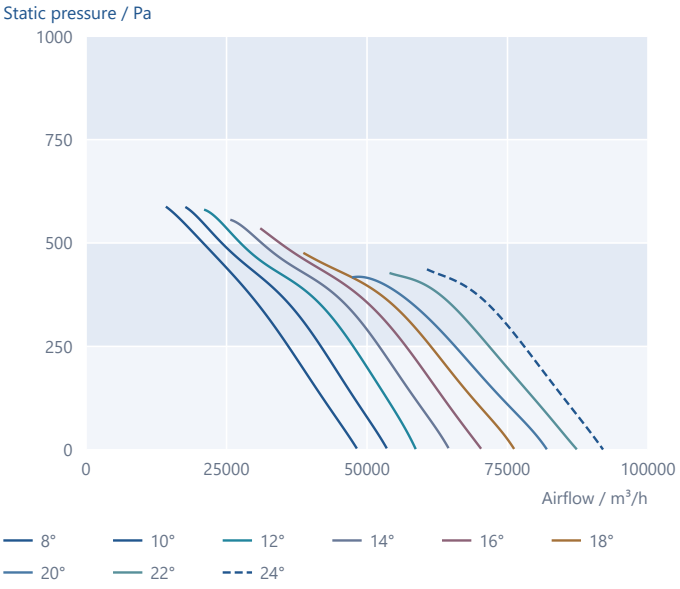
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

03 / AIR PERFORMANCE / 13

Fan Performance Curves

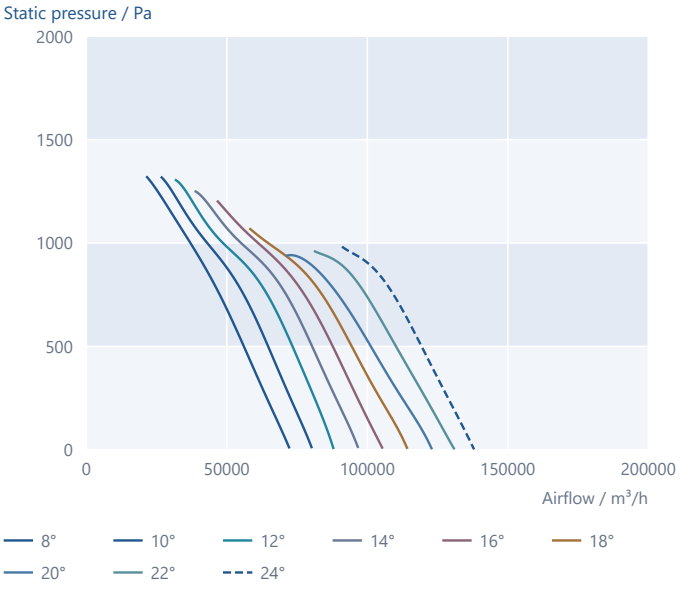
VLF-RS 1250/9/6P

9 blade angles / 400 V / 50 Hz



VLF-RS 1250/9/4-8P

9 blade angles / 400 V / 50 Hz



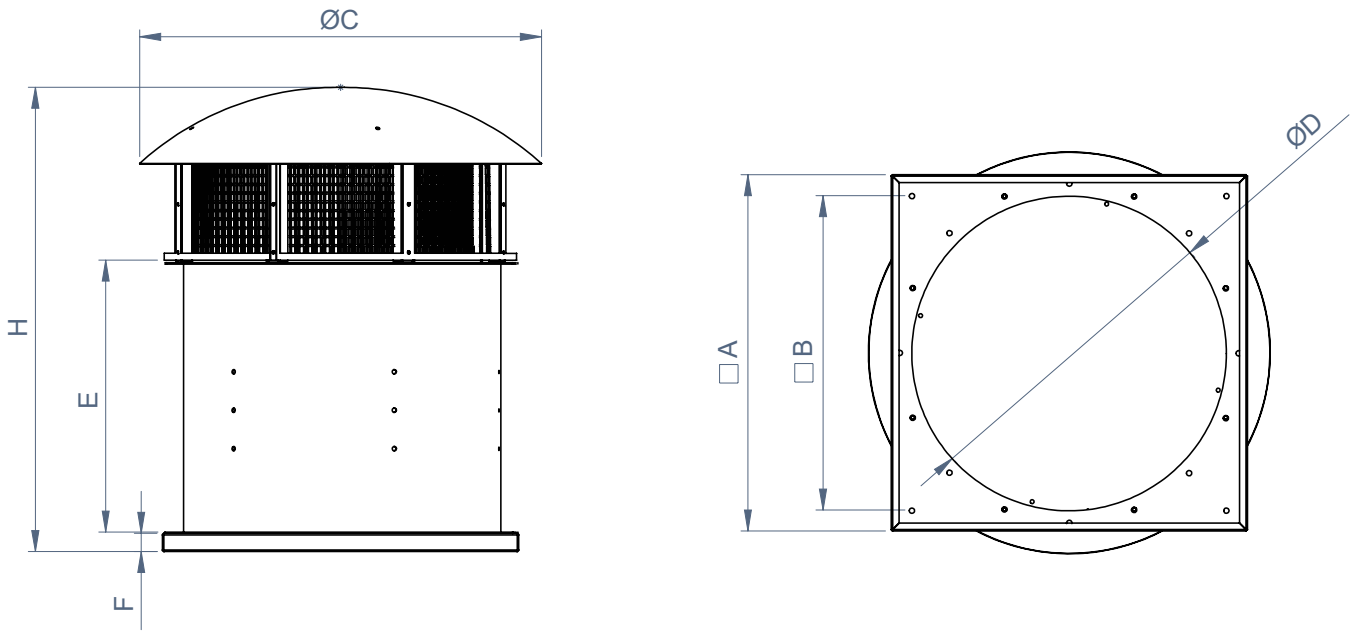
One chart per diameter/blade-count/pole configuration. Legend values are blade angles. Curves remain within domains; negative-pressure portions are omitted. Shared 20°C selection data for F300°C / F400°C options. Two-speed curves show high-speed duty only.

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

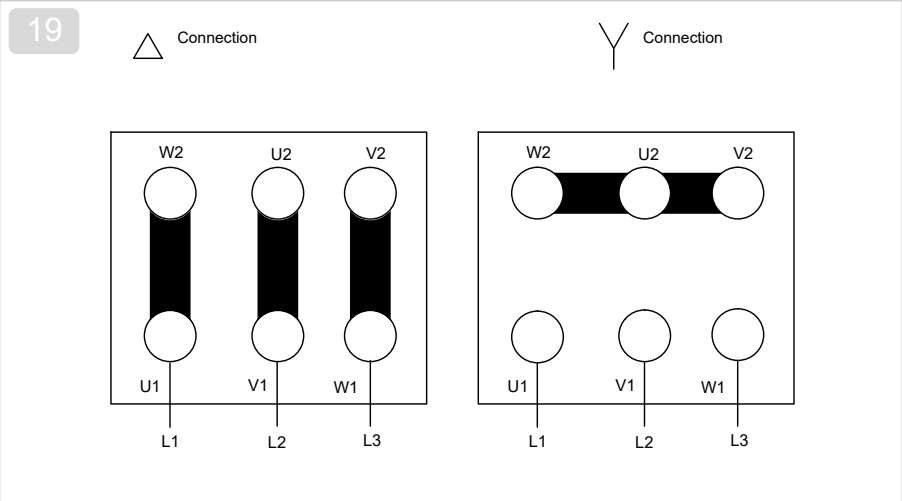
Original vector drawing. A, B, C, D, E, F and H retain their original definitions. The 800 and 900 sizes have different C dimensions for 6P; both are listed. Confirm the selected pole configuration before planning the roof opening. Confirm mounting orientation and supports for the supplied unit.

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.

VLF-RS

Roof mounted axial smoke extract fans

F300°C / F400°C

VOLTVENT®
VENTILATION SYSTEMS

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