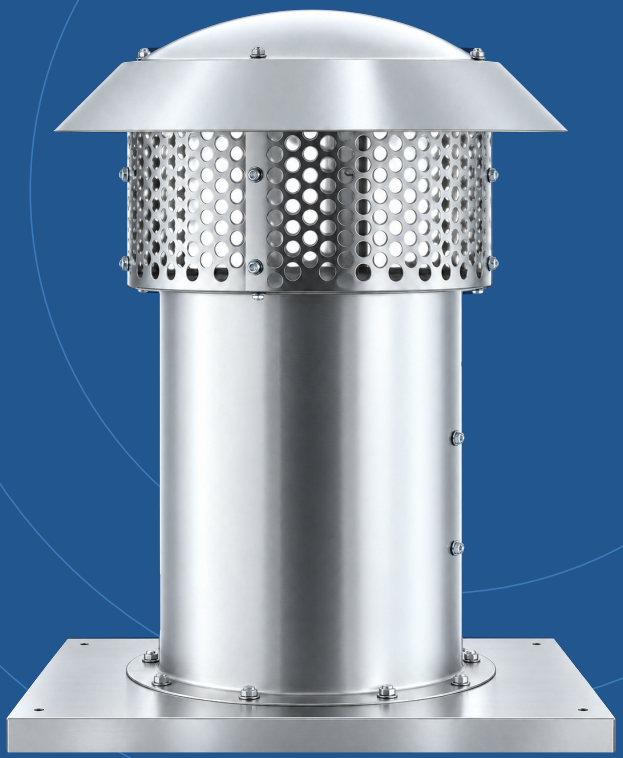
VLF-R SERIES

Roof mounted axial fans

VLF-R

ADJUSTABLE-PITCH AIRFOIL BLADES

GALVANIZED ROOF-FAN 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 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 / m^3/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 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 / 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 / m^3/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

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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.

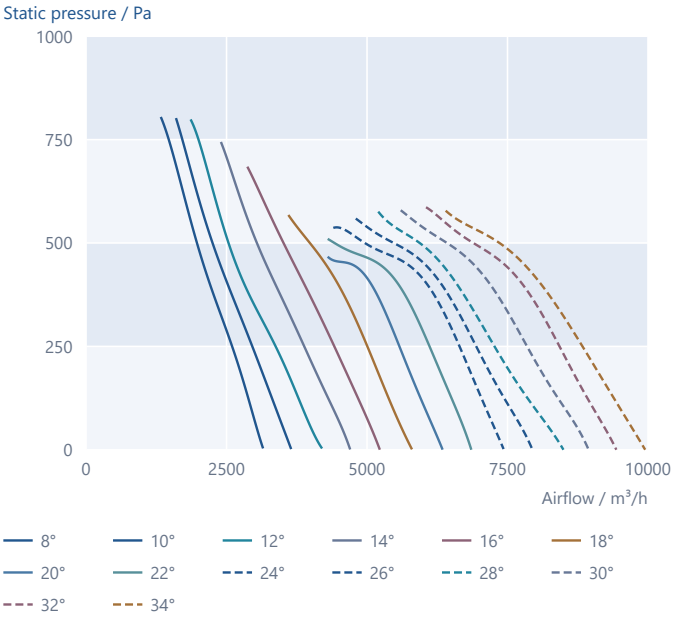
Class F / IP55 / TEAO / IE2. Motor lower limit -20 °C; maximum air +40 °C. * VLF-R 500/6/6P motor maximum +5 °C requires confirmation; other configurations +55 °C.

03 / AIR PERFORMANCE / 01

Fan Performance Curves

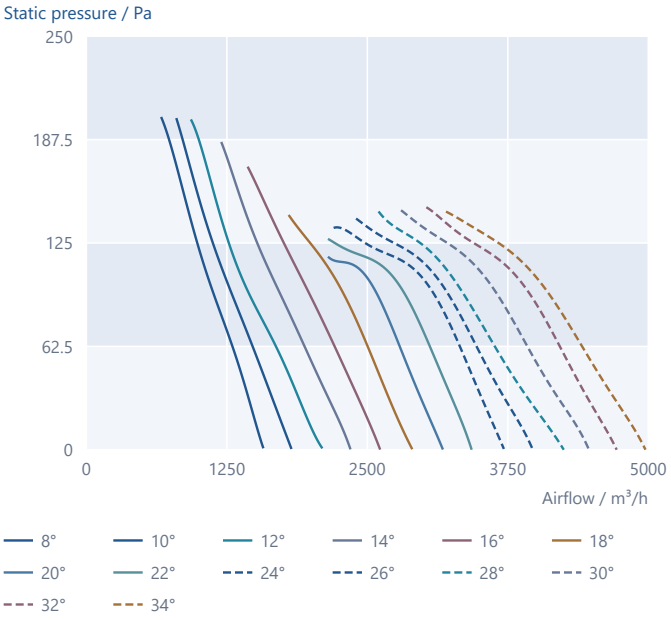
VLF-R 400/6/2P

14 blade angles / 400 V / 50 Hz



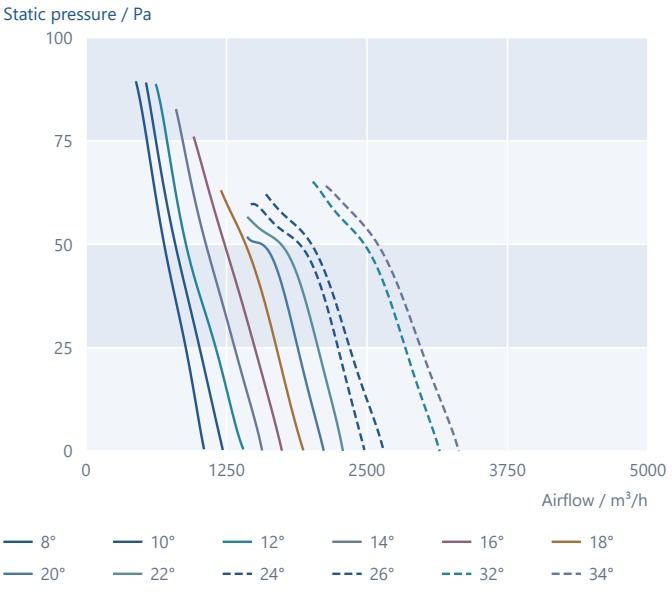
VLF-R 400/6/4P

14 blade angles / 400 V / 50 Hz



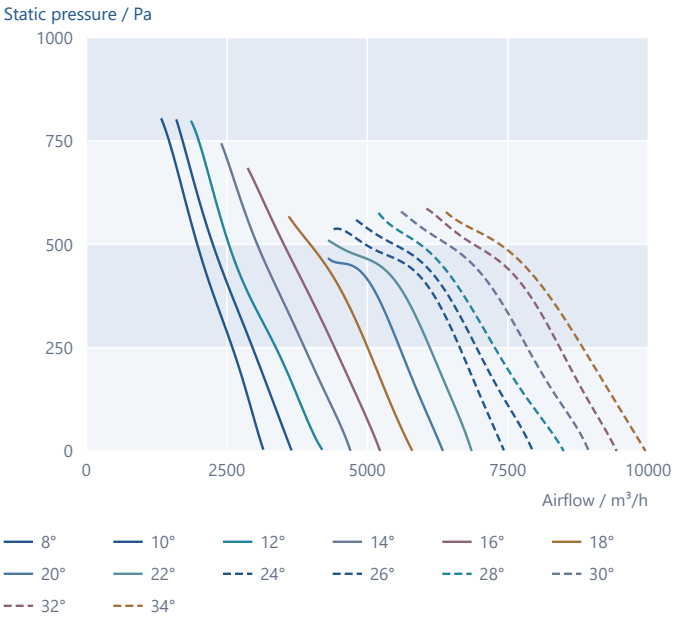
VLF-R 400/6/6P

12 blade angles / 400 V / 50 Hz



VLF-R 400/6/2-4P

14 blade angles / 400 V / 50 Hz



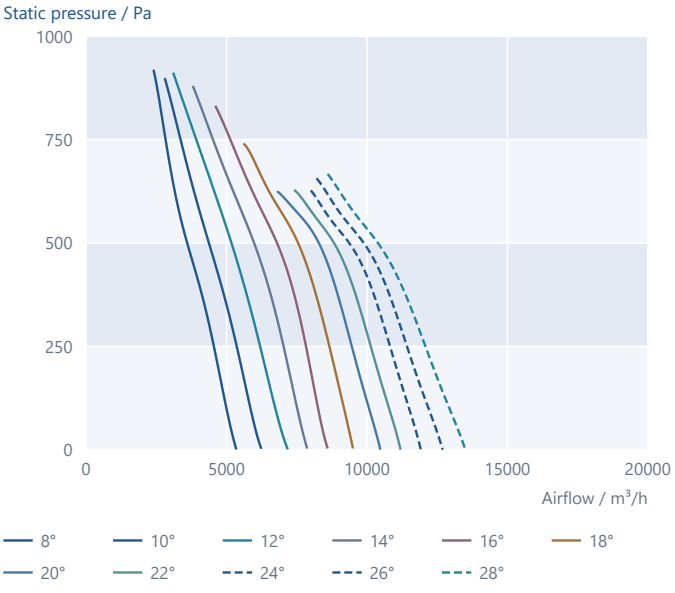
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 02

Fan Performance Curves

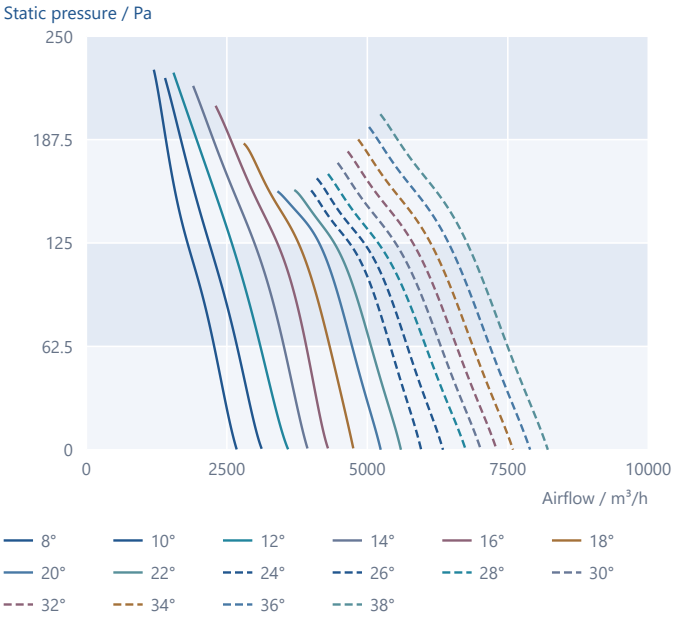
VLF-R 450/6/2P

11 blade angles / 400 V / 50 Hz



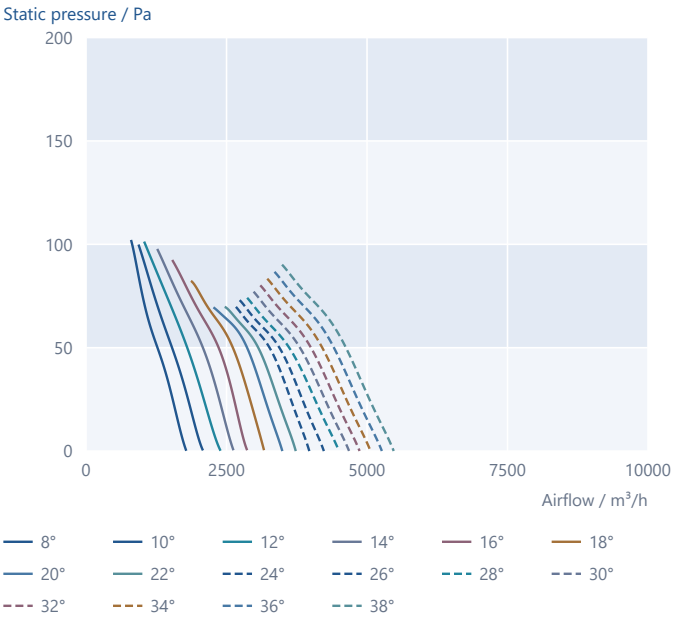
VLF-R 450/6/4P

16 blade angles / 400 V / 50 Hz



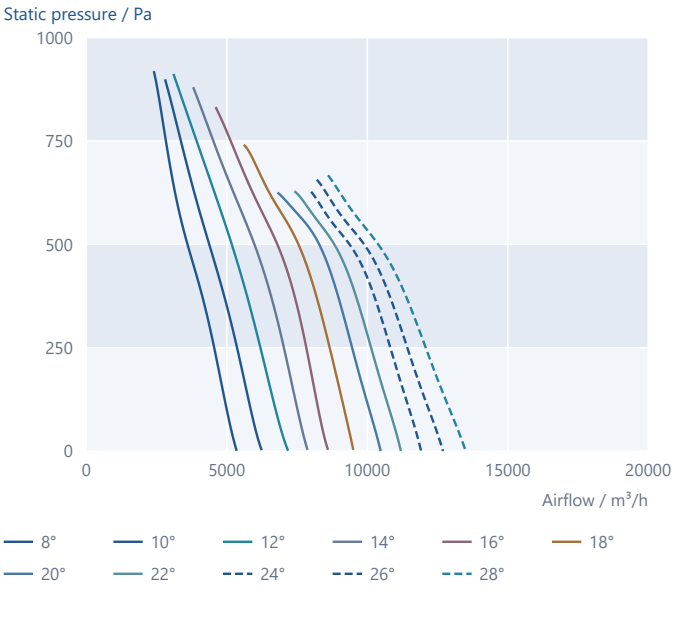
VLF-R 450/6/6P

16 blade angles / 400 V / 50 Hz



VLF-R 450/6/2-4P

11 blade angles / 400 V / 50 Hz



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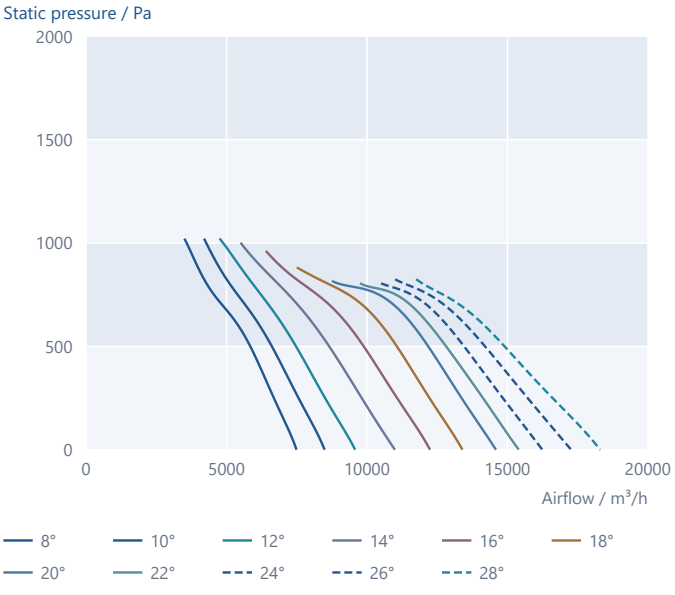
03 / AIR PERFORMANCE / 03

Fan Performance Curves

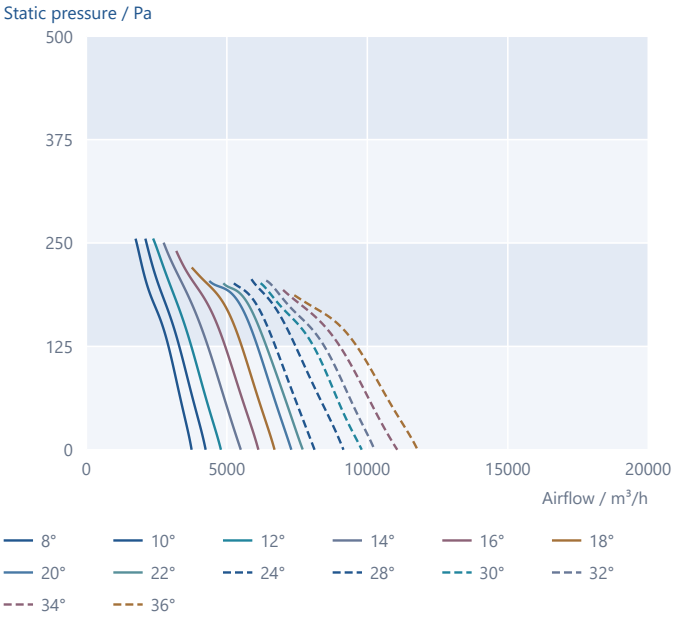
VLF-R 500/6/2P

11 blade angles / 400 V / 50 Hz



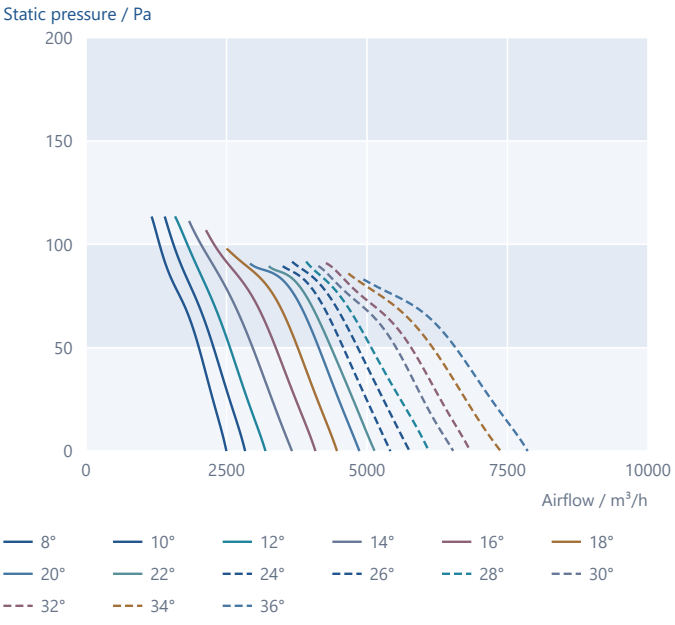
VLF-R 500/6/4P

14 blade angles / 400 V / 50 Hz



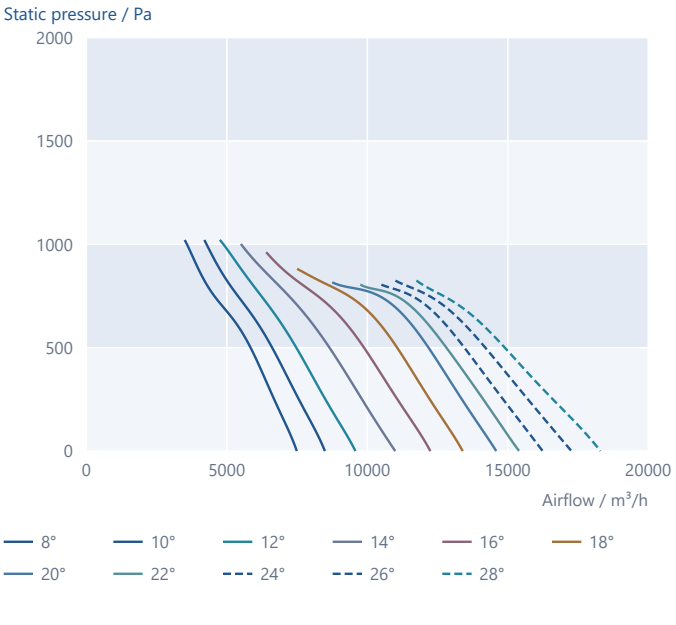
VLF-R 500/6/6P

15 blade angles / 400 V / 50 Hz



VLF-R 500/6/2-4P

11 blade angles / 400 V / 50 Hz



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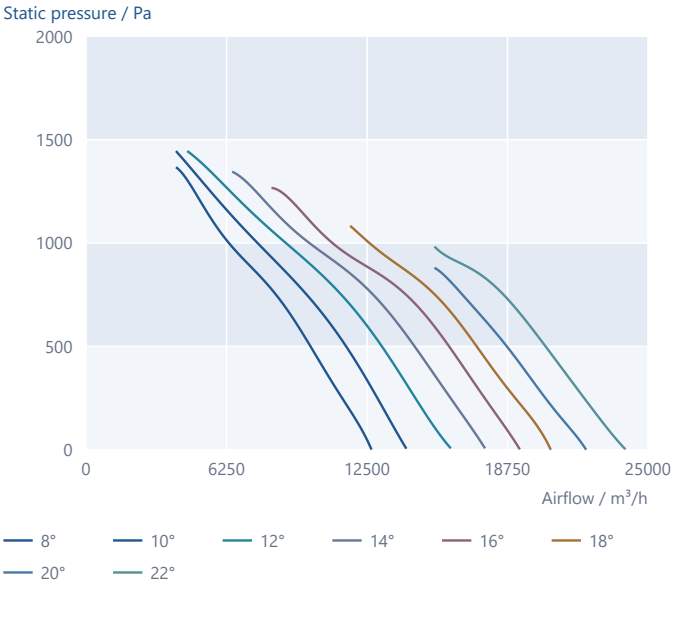
03 / AIR PERFORMANCE / 04

Fan Performance Curves

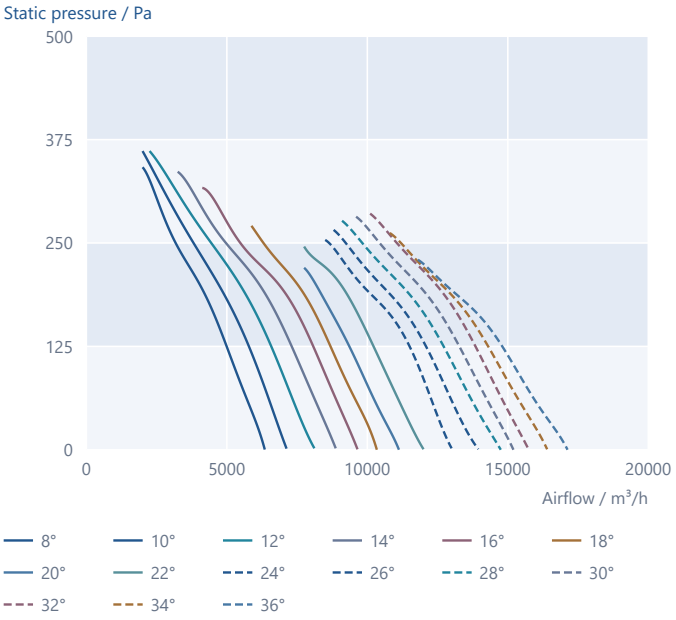
VLF-R 560/6/2P

8 blade angles / 400 V / 50 Hz



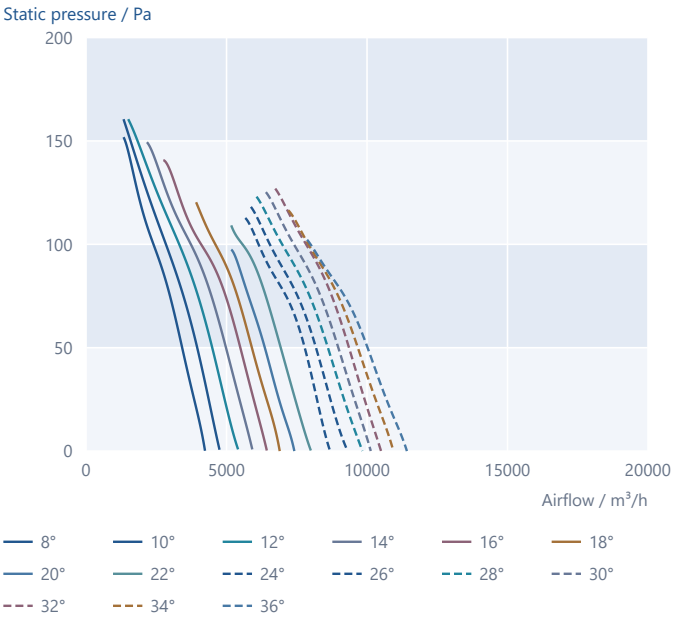
VLF-R 560/6/4P

15 blade angles / 400 V / 50 Hz



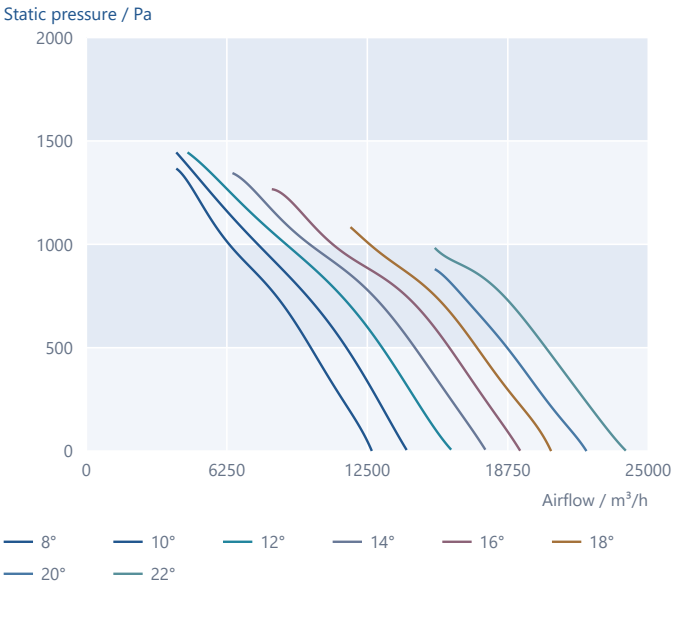
VLF-R 560/6/6P

15 blade angles / 400 V / 50 Hz



VLF-R 560/6/2-4P

8 blade angles / 400 V / 50 Hz



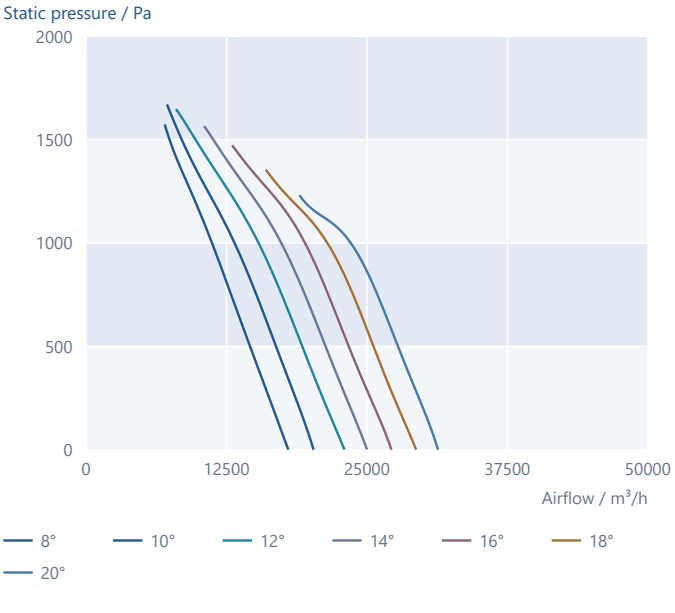
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 05

Fan Performance Curves

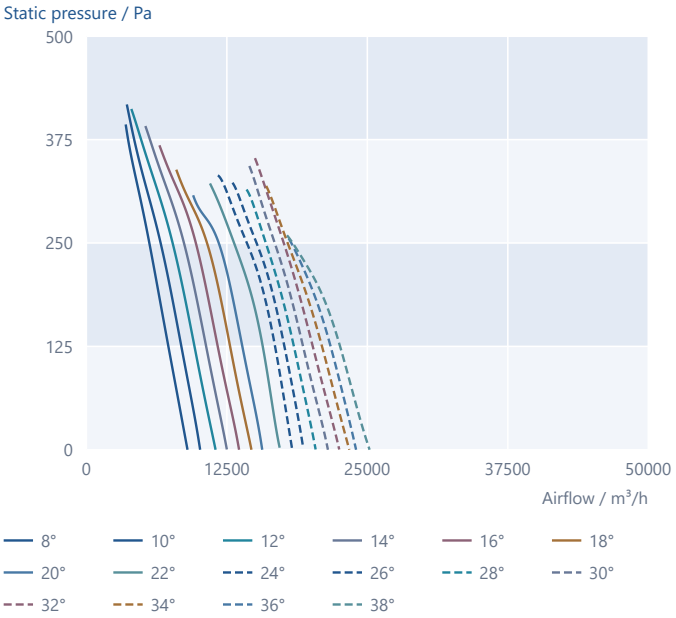
VLF-R 630/6/2P

7 blade angles / 400 V / 50 Hz



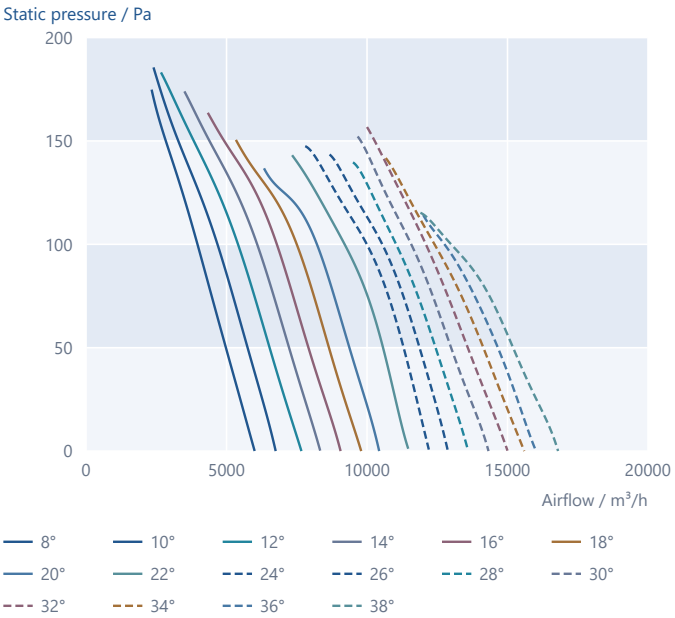
VLF-R 630/6/4P

16 blade angles / 400 V / 50 Hz



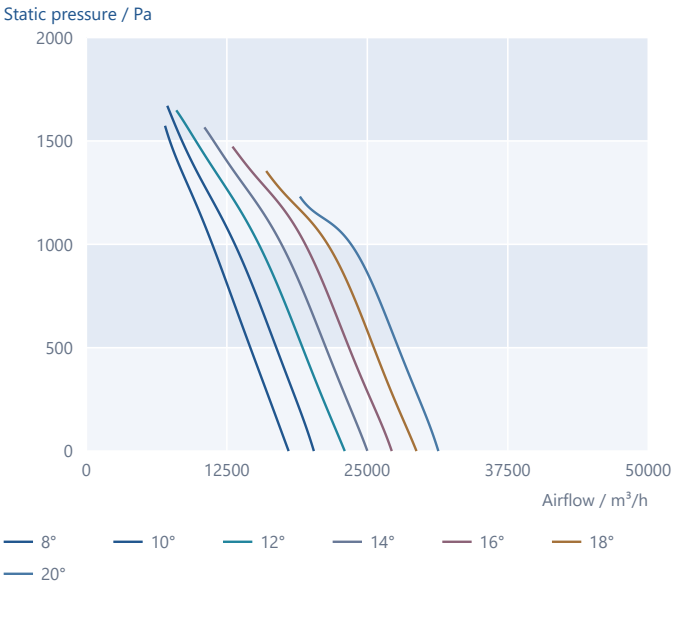
VLF-R 630/6/6P

16 blade angles / 400 V / 50 Hz



VLF-R 630/6/2-4P

7 blade angles / 400 V / 50 Hz



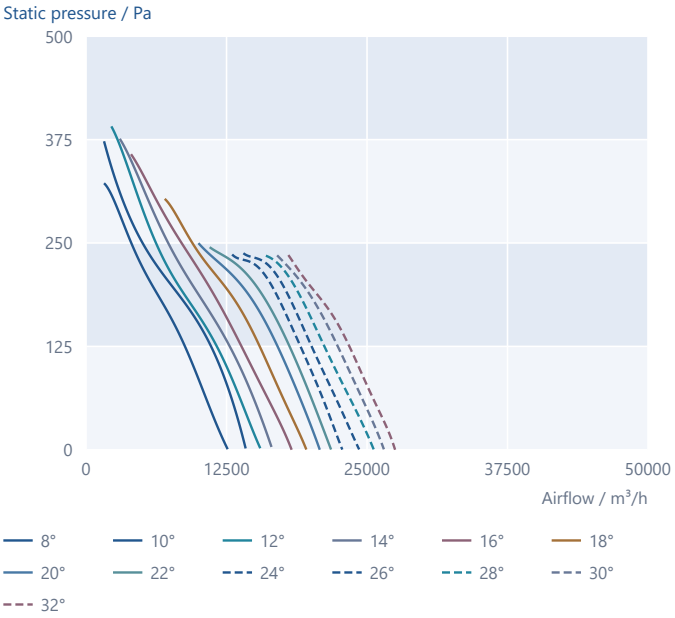
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 06

Fan Performance Curves

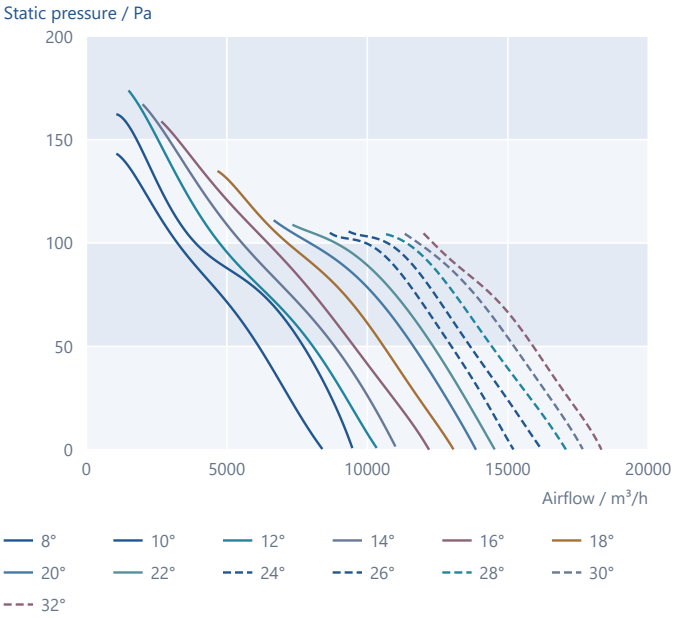
VLF-R 710/3/4P

13 blade angles / 400 V / 50 Hz



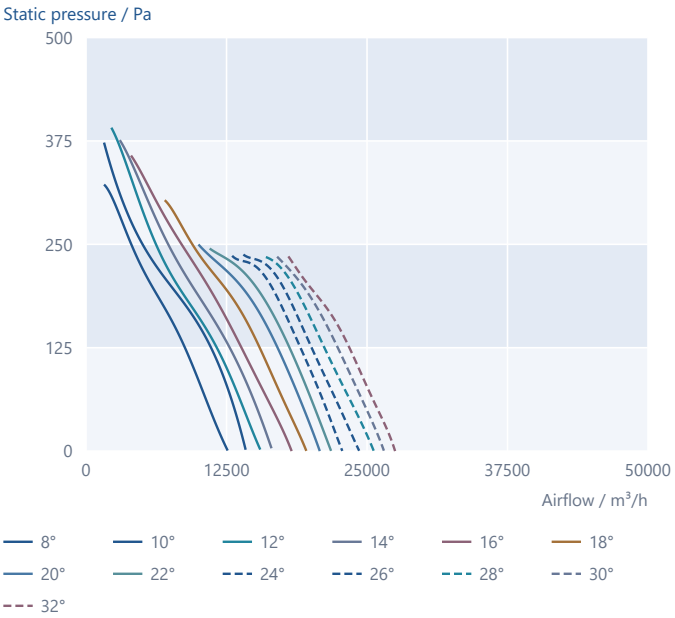
VLF-R 710/3/6P

13 blade angles / 400 V / 50 Hz



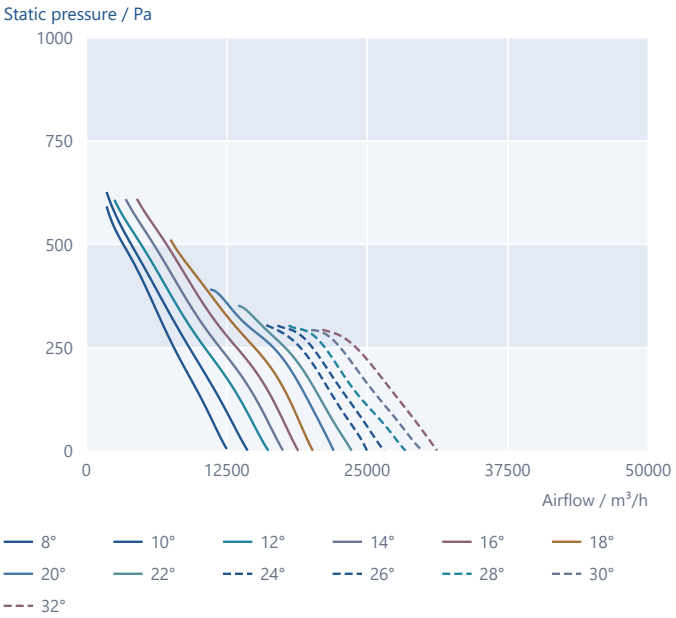
VLF-R 710/3/4-8P

13 blade angles / 400 V / 50 Hz



VLF-R 710/6/4P

13 blade angles / 400 V / 50 Hz



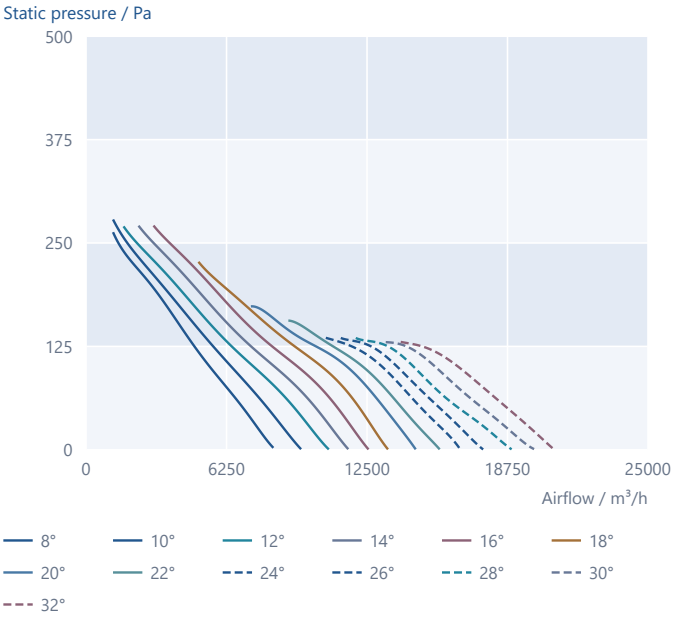
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 07

Fan Performance Curves

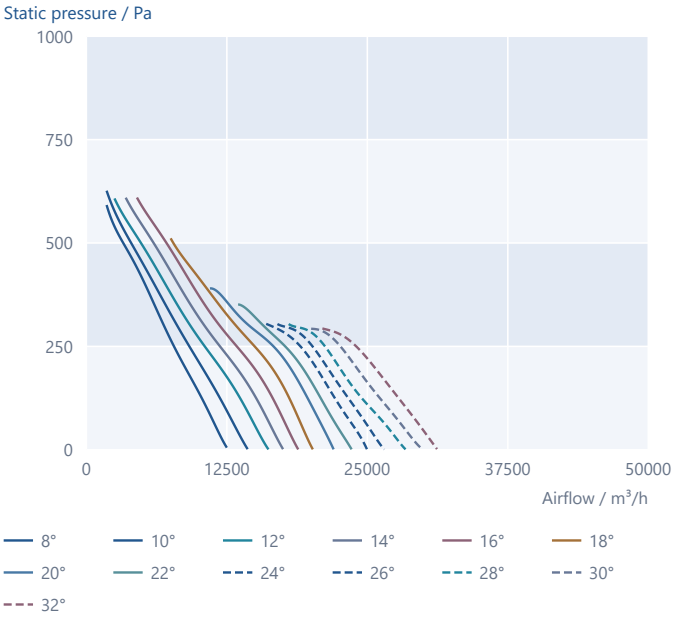
VLF-R 710/6/6P

13 blade angles / 400 V / 50 Hz



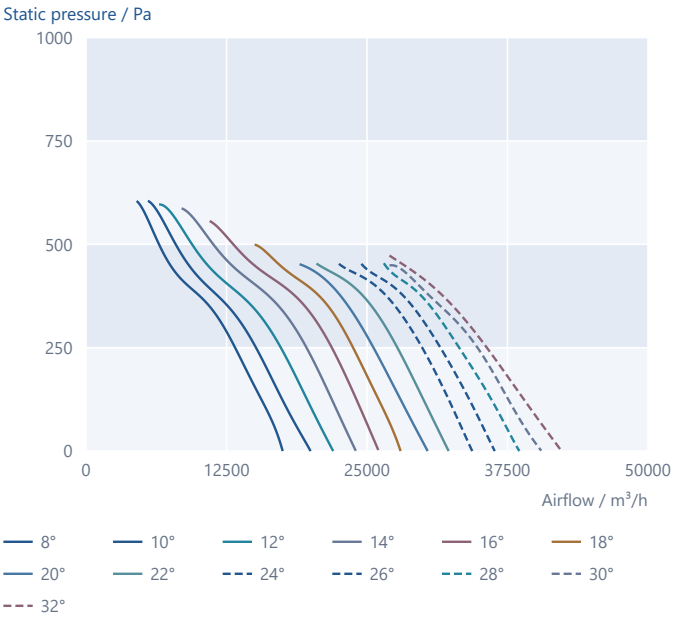
VLF-R 710/6/4-8P

13 blade angles / 400 V / 50 Hz



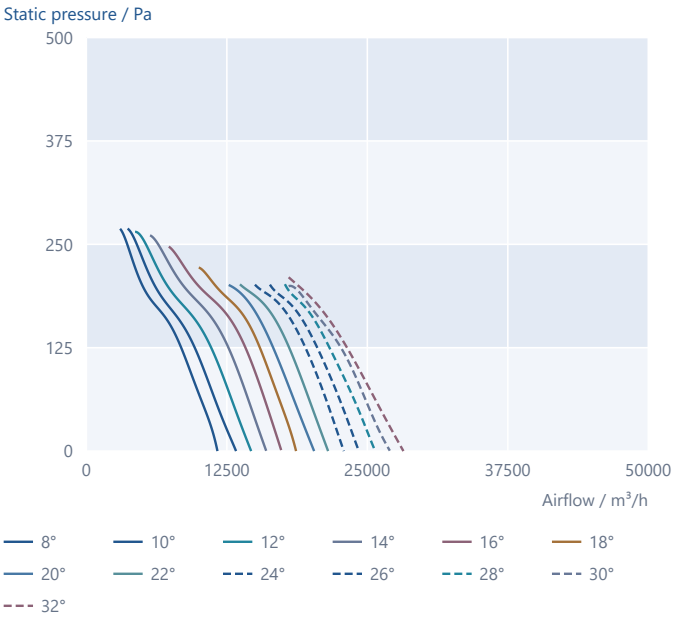
VLF-R 800/6/4P

13 blade angles / 400 V / 50 Hz



VLF-R 800/6/6P

13 blade angles / 400 V / 50 Hz



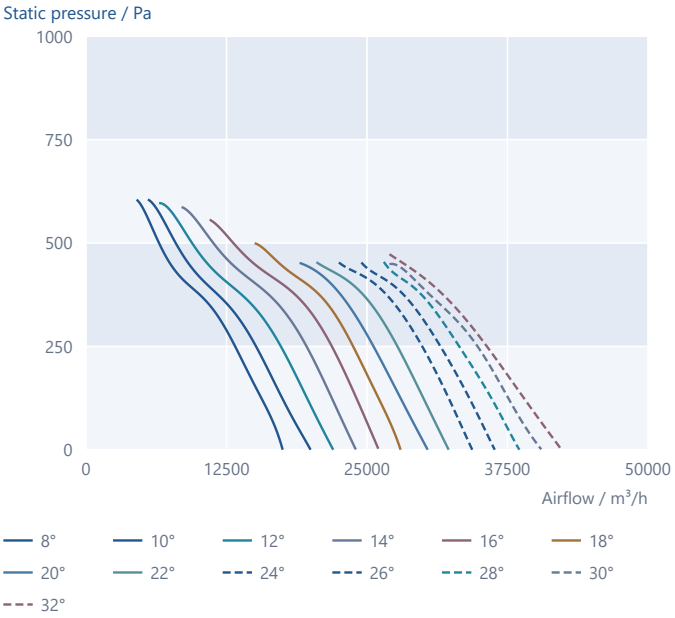
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 08

Fan Performance Curves

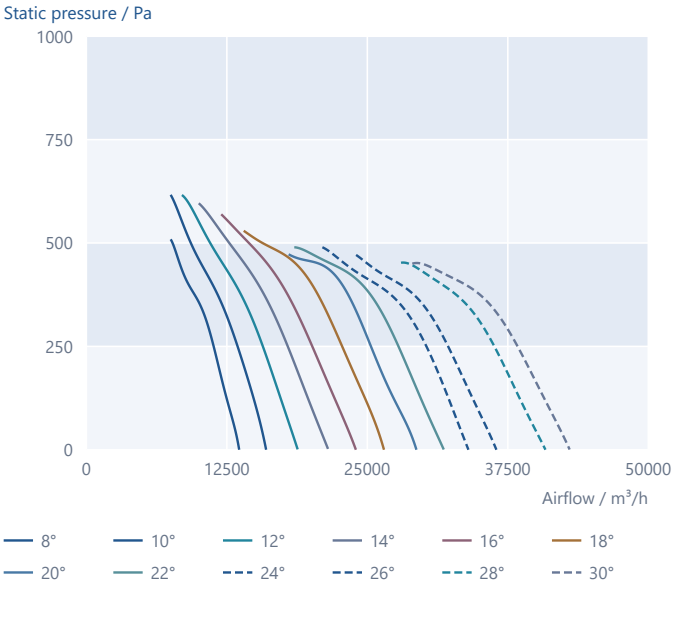
VLF-R 800/6/4-8P

13 blade angles / 400 V / 50 Hz



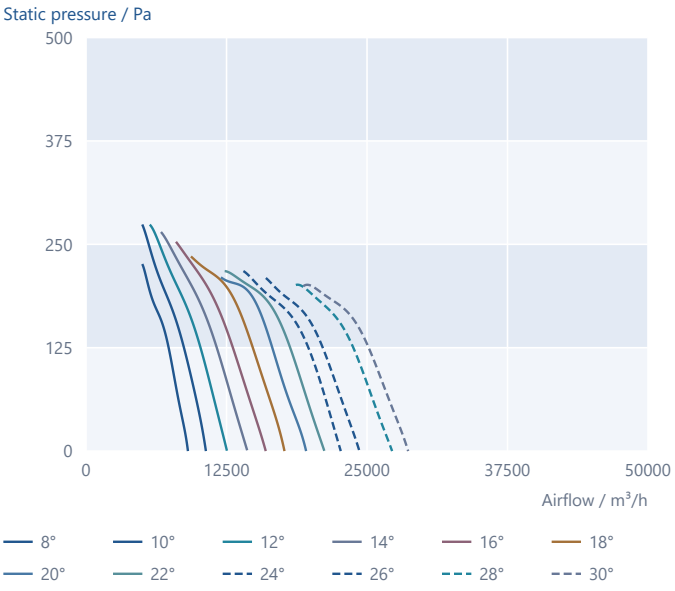
VLF-R 800/9/4P

12 blade angles / 400 V / 50 Hz



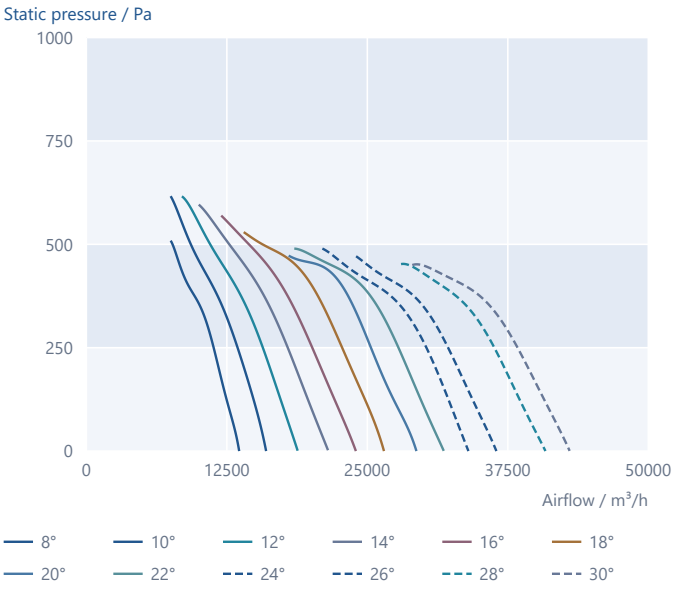
VLF-R 800/9/6P

12 blade angles / 400 V / 50 Hz



VLF-R 800/9/4-8P

12 blade angles / 400 V / 50 Hz



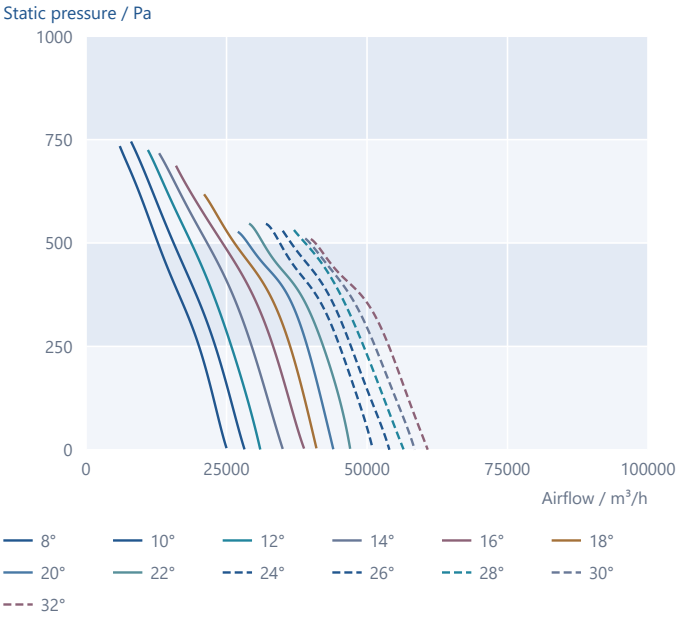
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 09

Fan Performance Curves

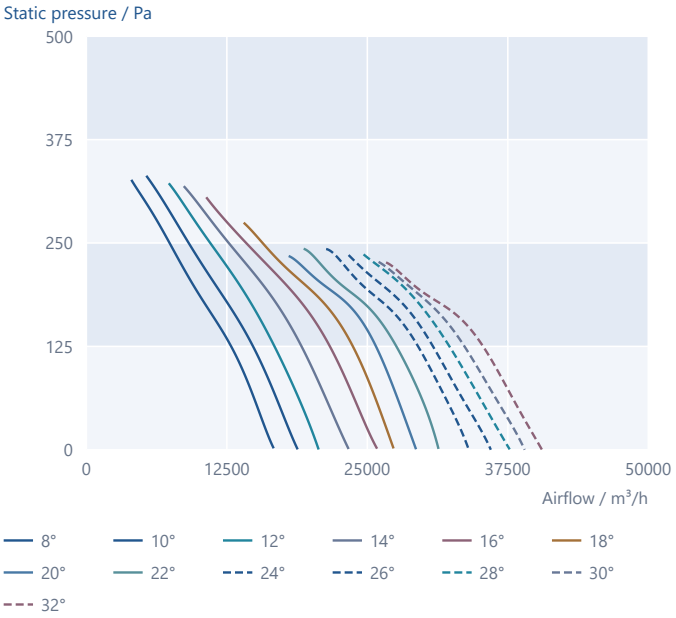
VLF-R 900/6/4P

13 blade angles / 400 V / 50 Hz



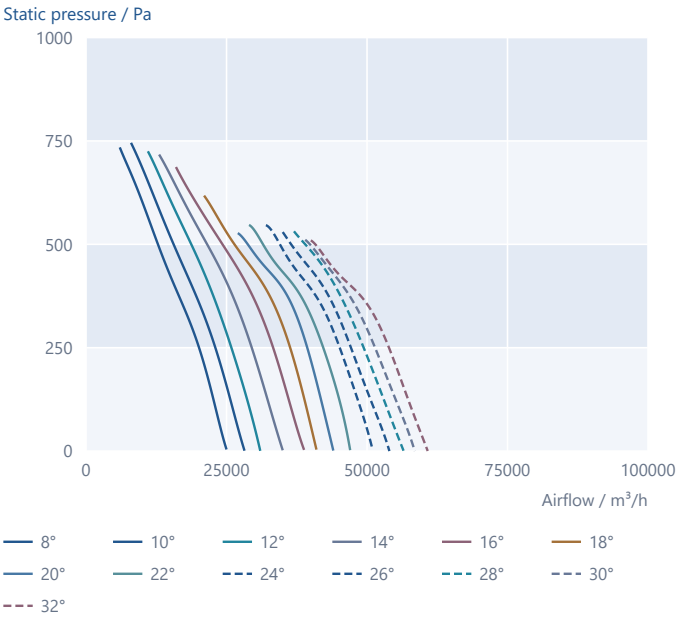
VLF-R 900/6/6P

13 blade angles / 400 V / 50 Hz



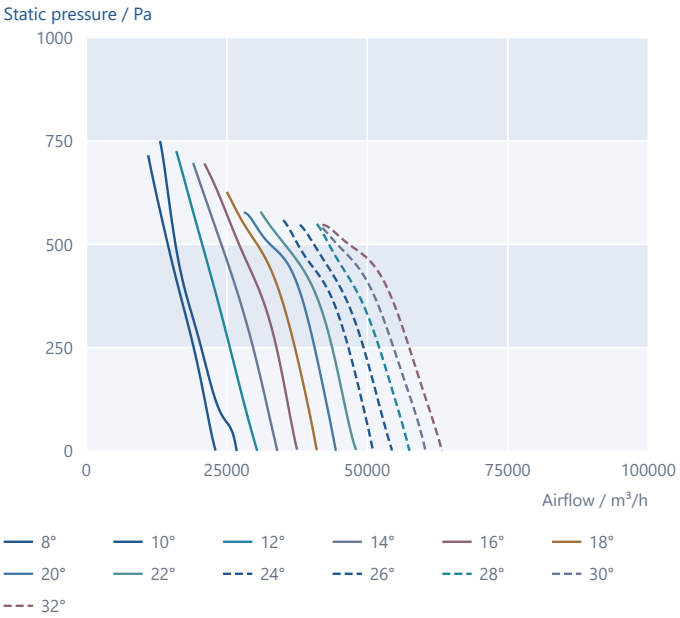
VLF-R 900/6/4-8P

13 blade angles / 400 V / 50 Hz



VLF-R 900/9/4P

13 blade angles / 400 V / 50 Hz



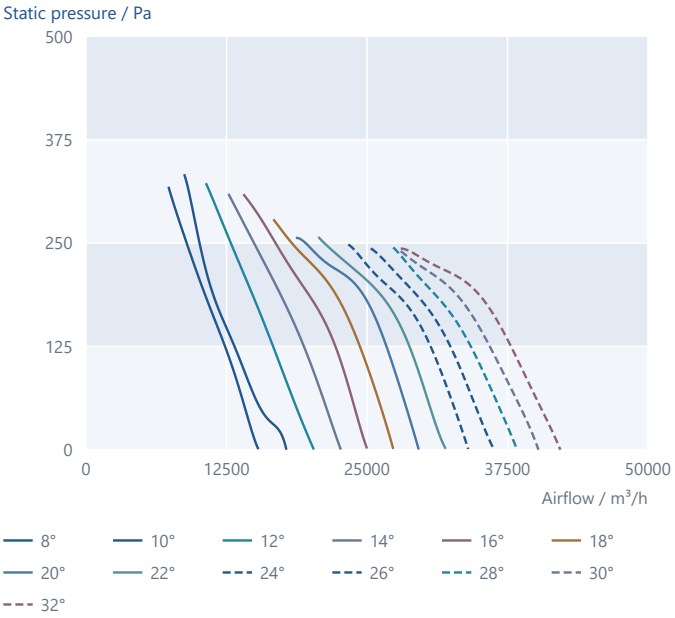
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 10

Fan Performance Curves

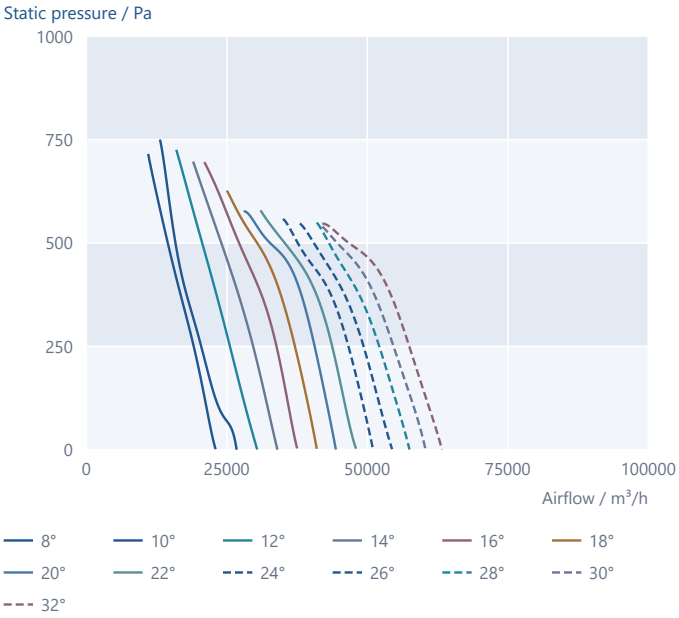
VLF-R 900/9/6P

13 blade angles / 400 V / 50 Hz



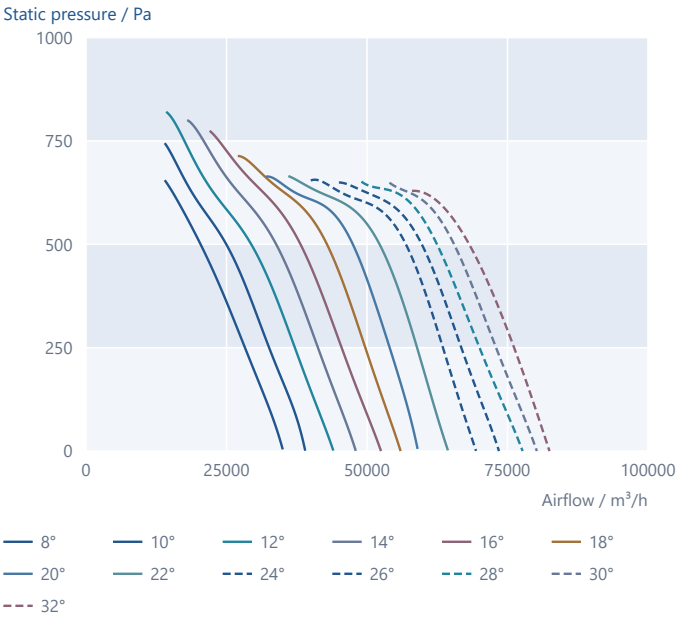
VLF-R 900/9/4-8P

13 blade angles / 400 V / 50 Hz



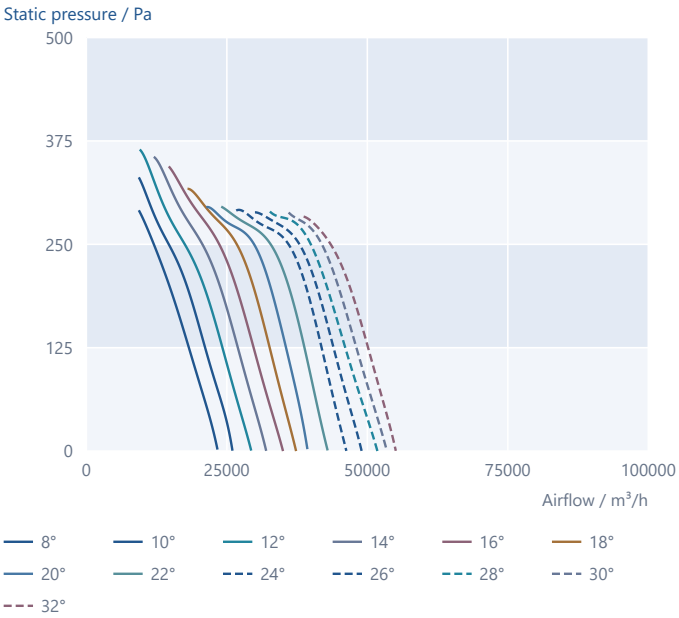
VLF-R 1000/6/4P

13 blade angles / 400 V / 50 Hz



VLF-R 1000/6/6P

13 blade angles / 400 V / 50 Hz



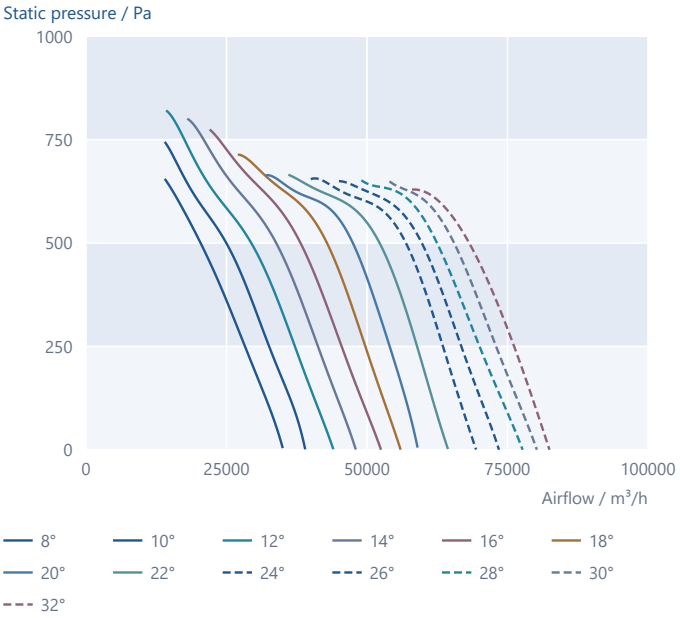
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 11

Fan Performance Curves

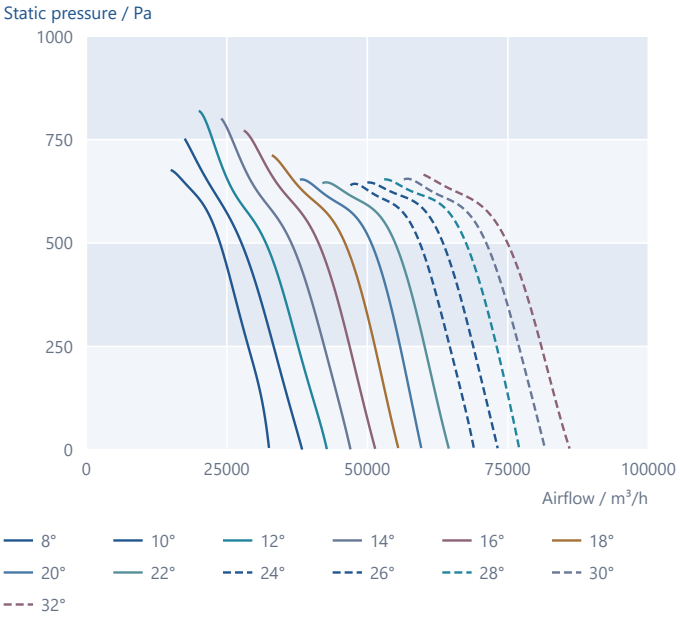
VLF-R 1000/6/4-8P

13 blade angles / 400 V / 50 Hz



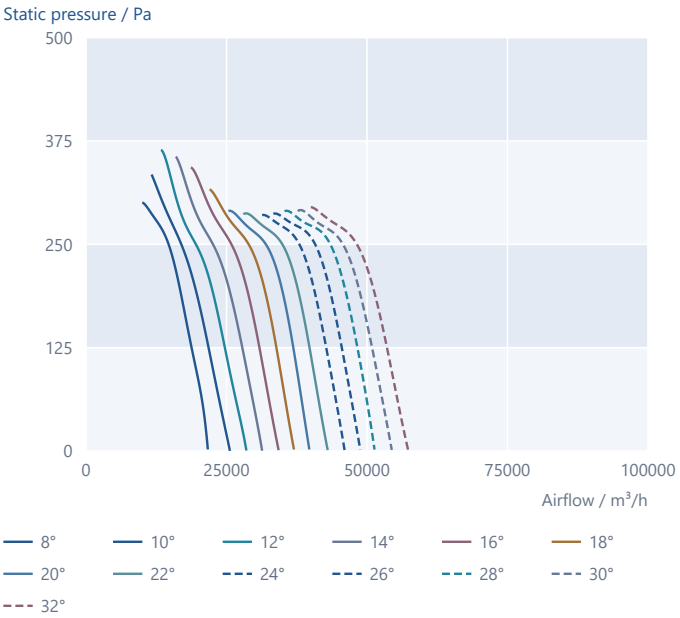
VLF-R 1000/9/4P

13 blade angles / 400 V / 50 Hz



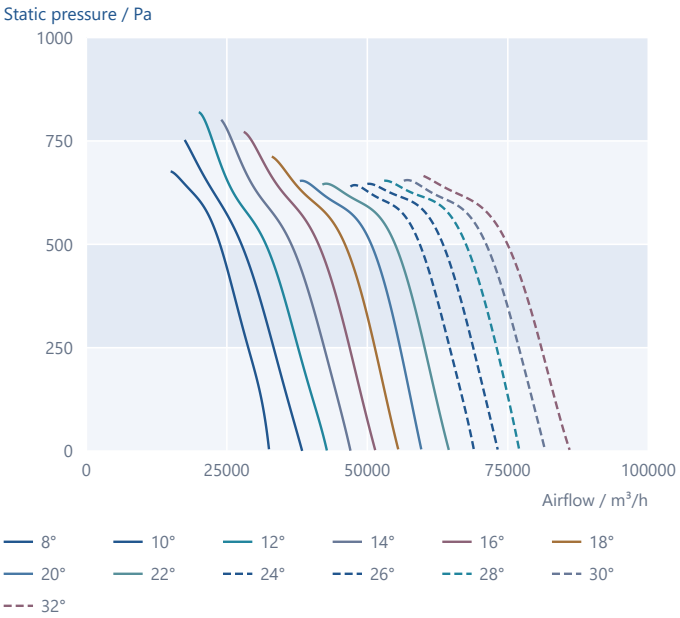
VLF-R 1000/9/6P

13 blade angles / 400 V / 50 Hz



VLF-R 1000/9/4-8P

13 blade angles / 400 V / 50 Hz



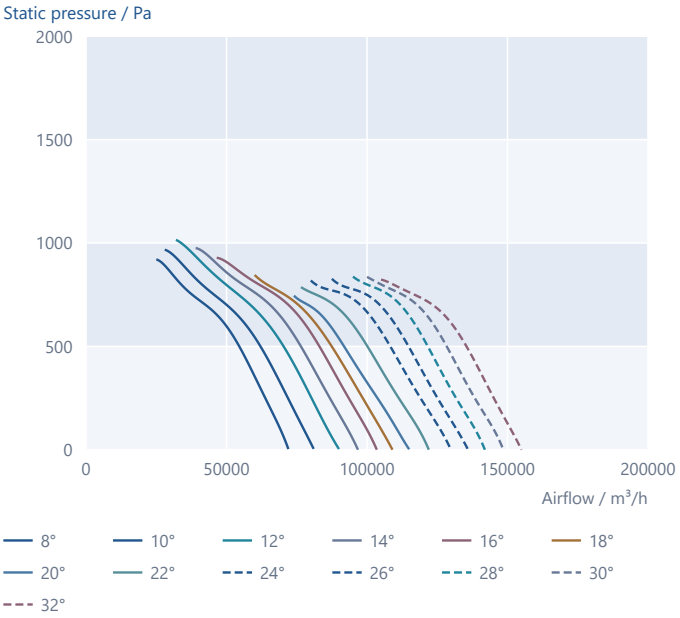
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 12

Fan Performance Curves

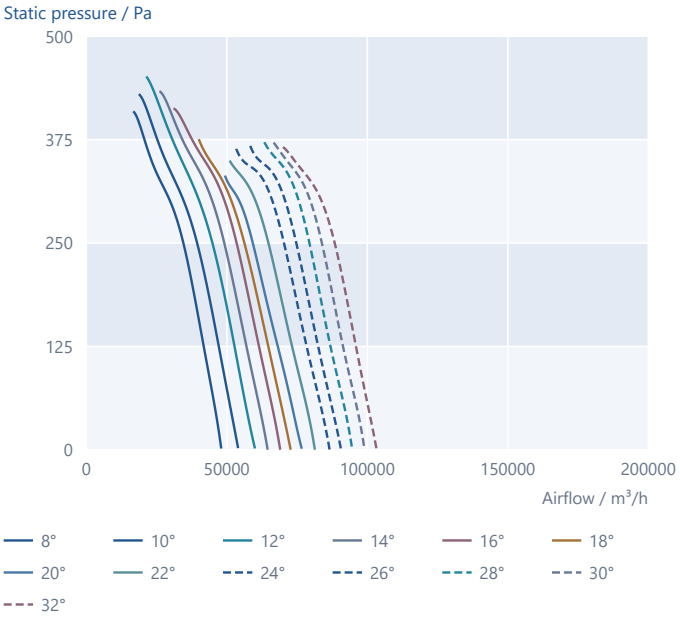
VLF-R 1250/6/4P

13 blade angles / 400 V / 50 Hz



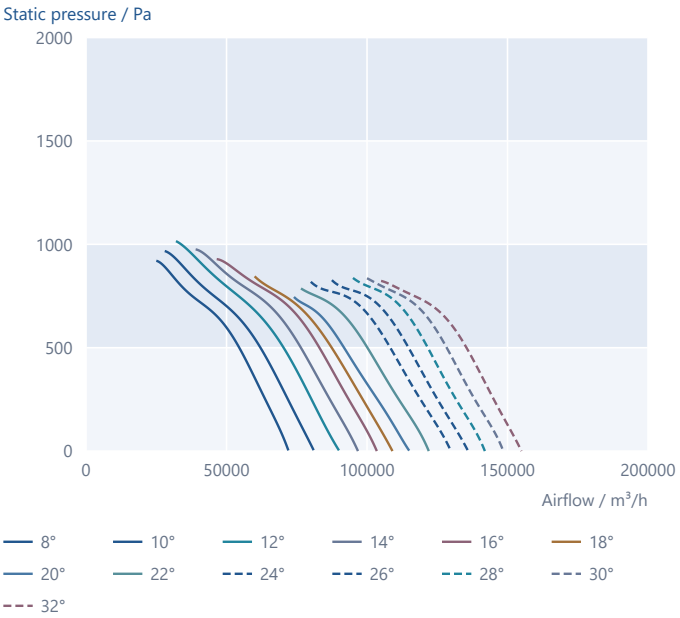
VLF-R 1250/6/6P

13 blade angles / 400 V / 50 Hz



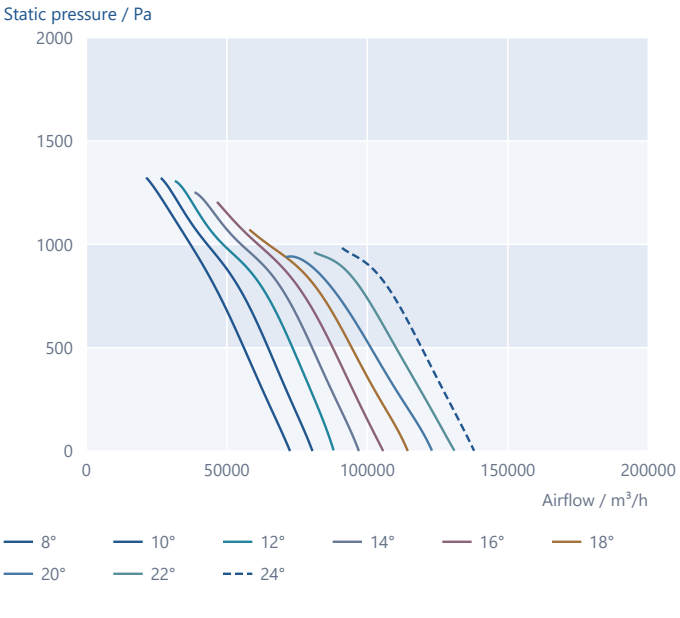
VLF-R 1250/6/4-8P

13 blade angles / 400 V / 50 Hz



VLF-R 1250/9/4P

9 blade angles / 400 V / 50 Hz



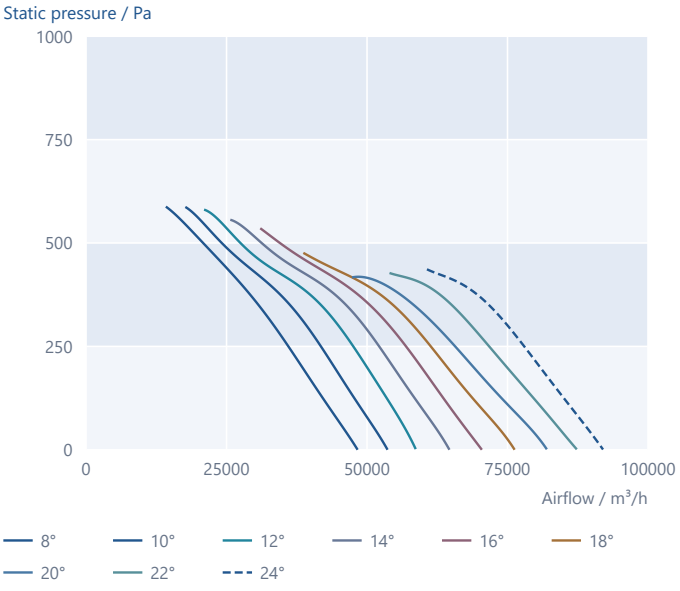
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

03 / AIR PERFORMANCE / 13

Fan Performance Curves

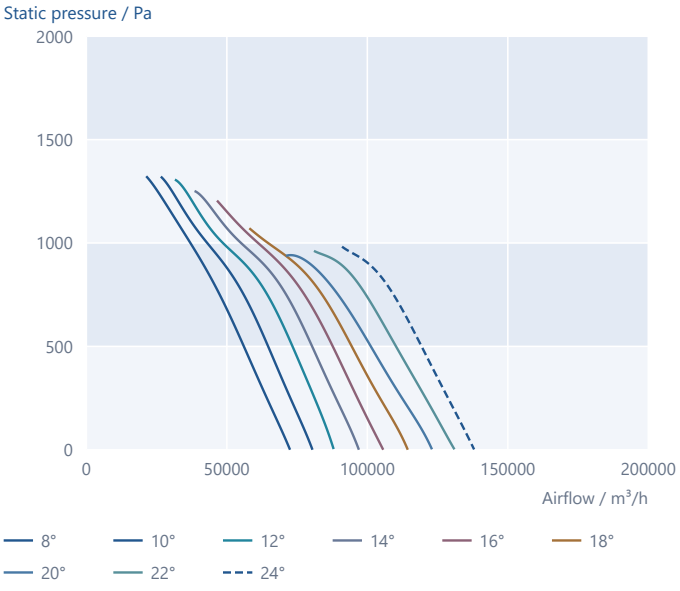
VLF-R 1250/9/6P

9 blade angles / 400 V / 50 Hz



VLF-R 1250/9/4-8P

9 blade angles / 400 V / 50 Hz



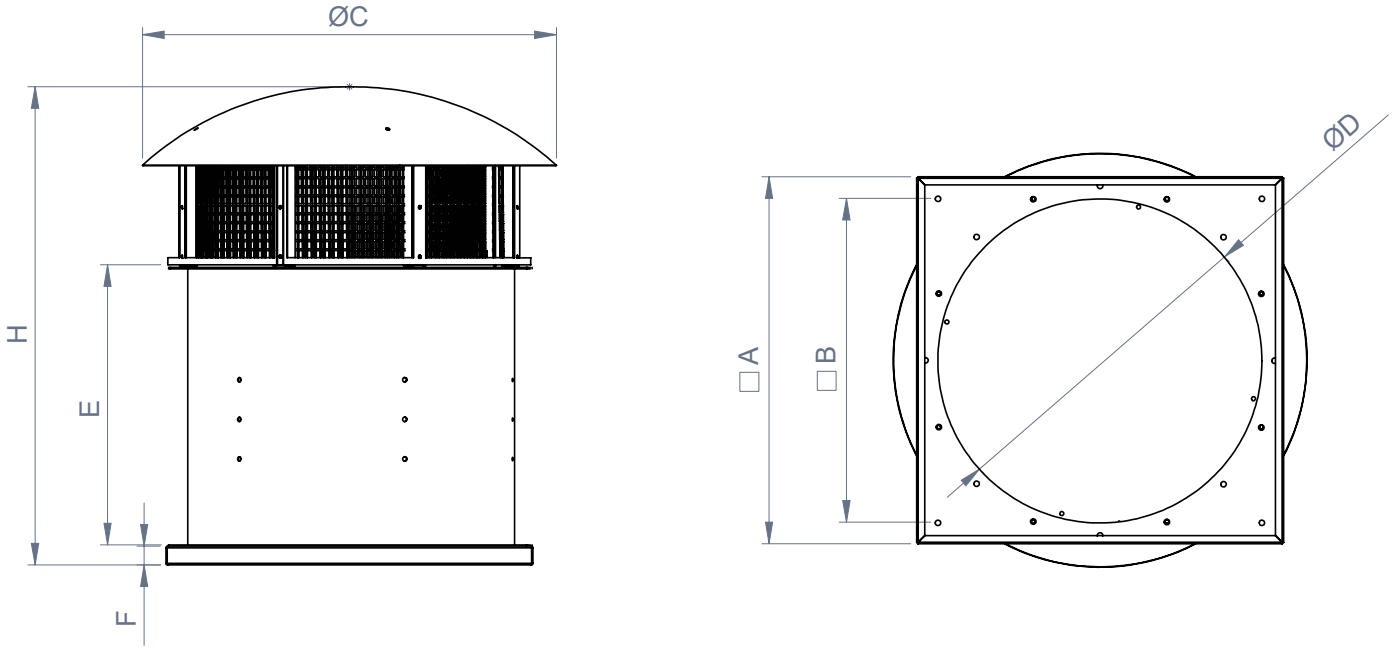
Each chart is one diameter/blade-count/pole configuration. Legend values are blade angles. Curves stay within domains; tiny negative-pressure tails stop at the listed zero. Select duty angle and motor in FSP. Two-speed charts use supplied high-speed curves only.

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

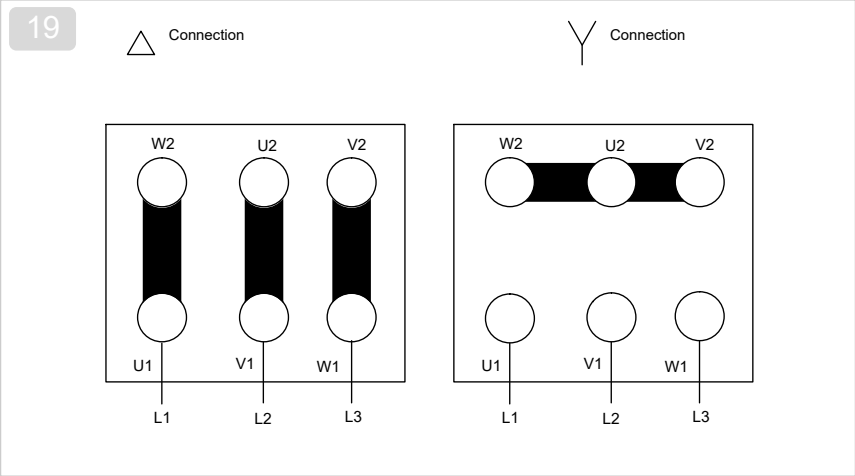
Original vector outline. Listed A, B, C, D, E, F and H definitions are retained. For 800 and 900 mm, 6P uses C = 1430 mm; 4P and 4-8P use C = 1130 mm. Confirm the actual roof curb and mating connections; do not scale the drawing.

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.

VLF-R

Roof mounted axial fans

VOLTVENT®
VENTILATION SYSTEMS

info@voltvent.com | voltvent.com