VLF-BIF SERIES

Bifurcated axial flow fans

VLF-BIF

ALUMINIUM AXIAL IMPELLER

MOTOR OUTSIDE THE AIRSTREAM



710-1120	11	50 Hz
Fan diameter / mm	Models in the range	Three-phase AC

01 / PRODUCT OVERVIEW

Separate airflow and motor.



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.

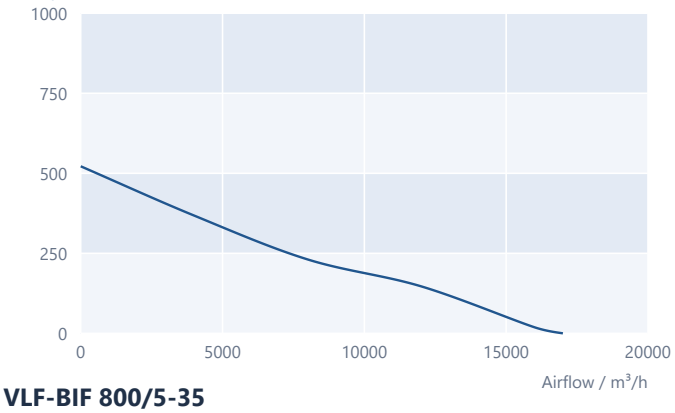
Motor current and weight were not supplied. Unclassified noise totals are omitted because their sound power/pressure basis and measurement distance are unavailable.

03 / AIR PERFORMANCE / 01

Fan Performance Curves

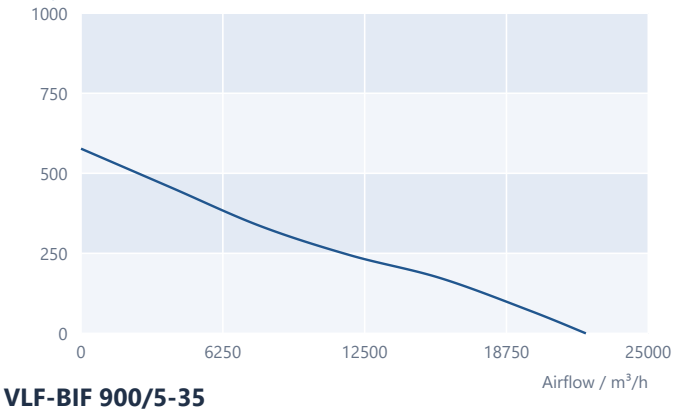
VLF-BIF 710/5-30

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



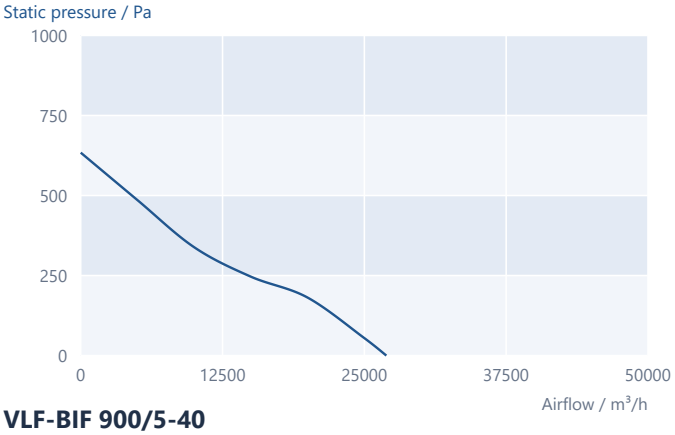
VLF-BIF 800/5-30

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



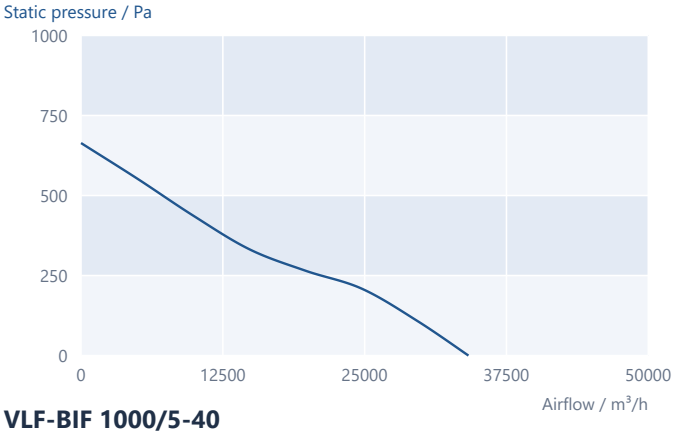
VLF-BIF 800/5-35

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



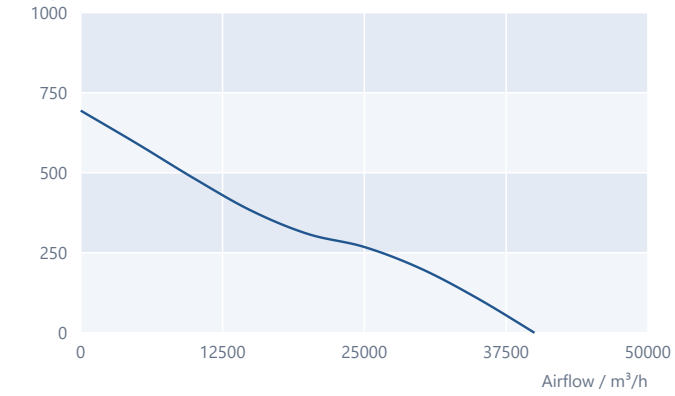
VLF-BIF 900/5-35

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



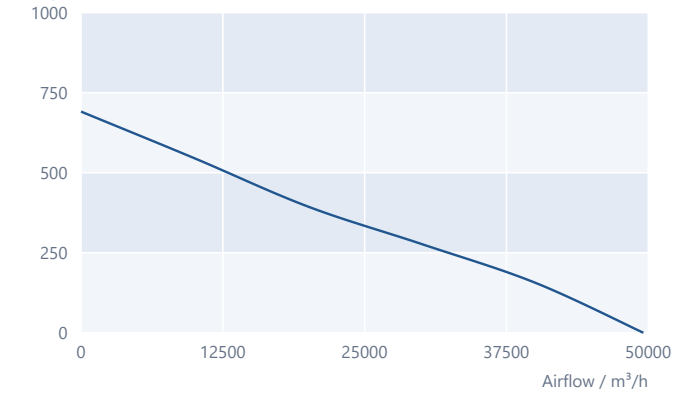
VLF-BIF 900/5-40

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



VLF-BIF 1000/5-40

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



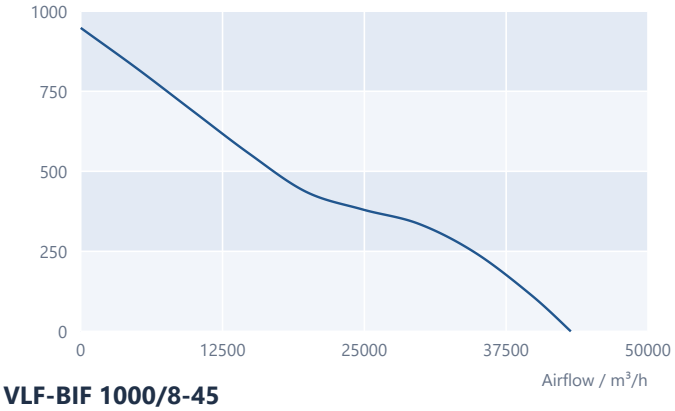
Model-specific scales. Listed catalogue pressure curves follow the original sampled vector paths within the supplied airflow domain. Reference motor ratings are at 0 Pa; no extrapolation.

03 / AIR PERFORMANCE / 02

Fan Performance Curves

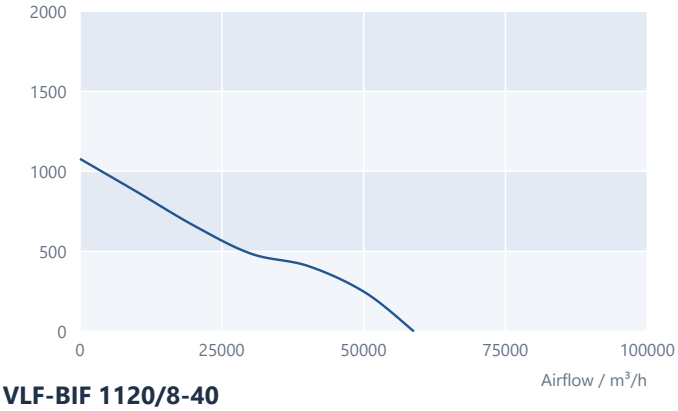
VLF-BIF 900/8-40

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



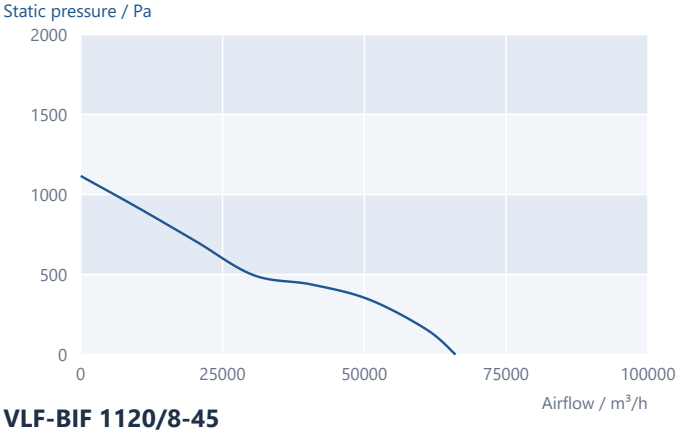
VLF-BIF 1000/8-40

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



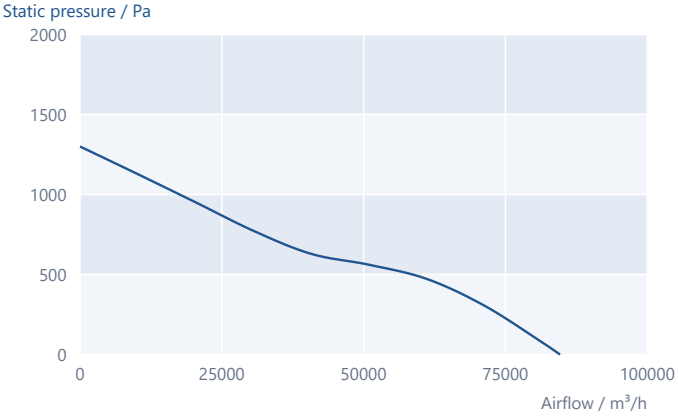
VLF-BIF 1000/8-45

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



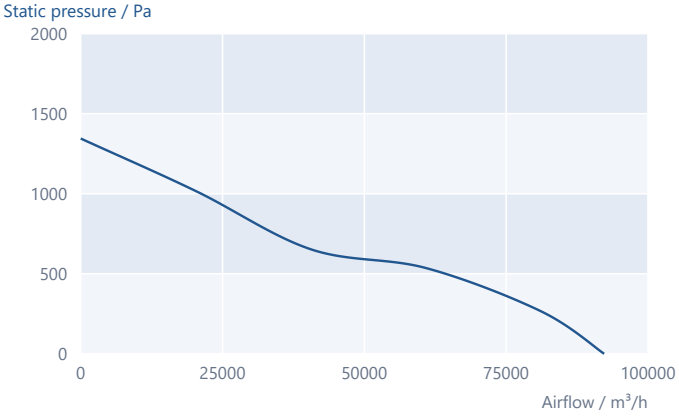
VLF-BIF 1120/8-40

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



VLF-BIF 1120/8-45

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



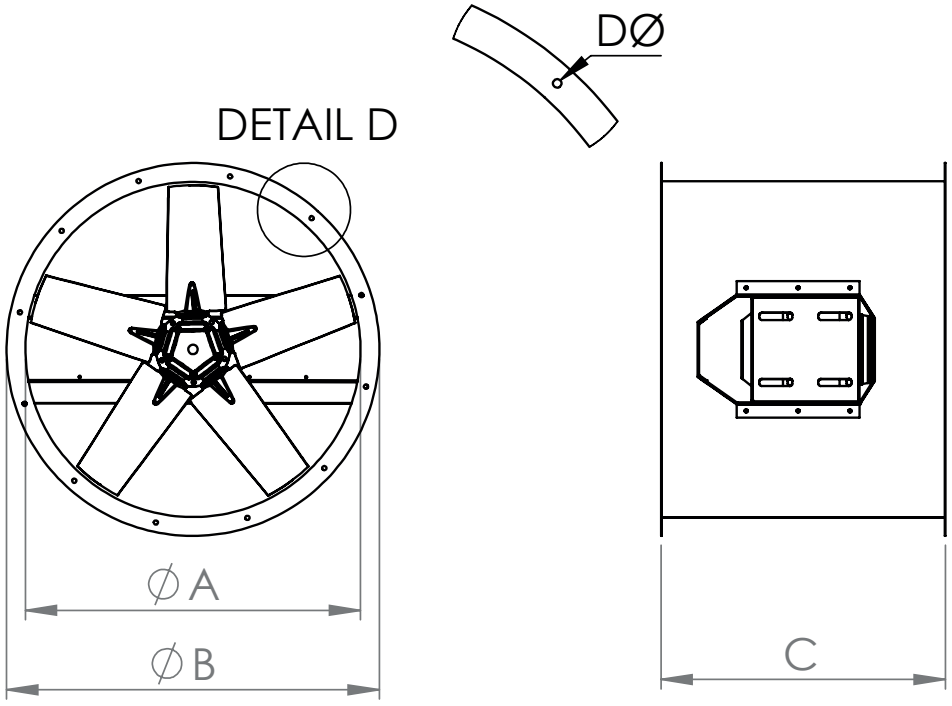
Model-specific scales. Listed catalogue pressure curves follow the original sampled vector paths within the supplied airflow domain. Reference motor ratings are at 0 Pa; no extrapolation.

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.

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