VOLTVENT®
VENTILATION SYSTEMS

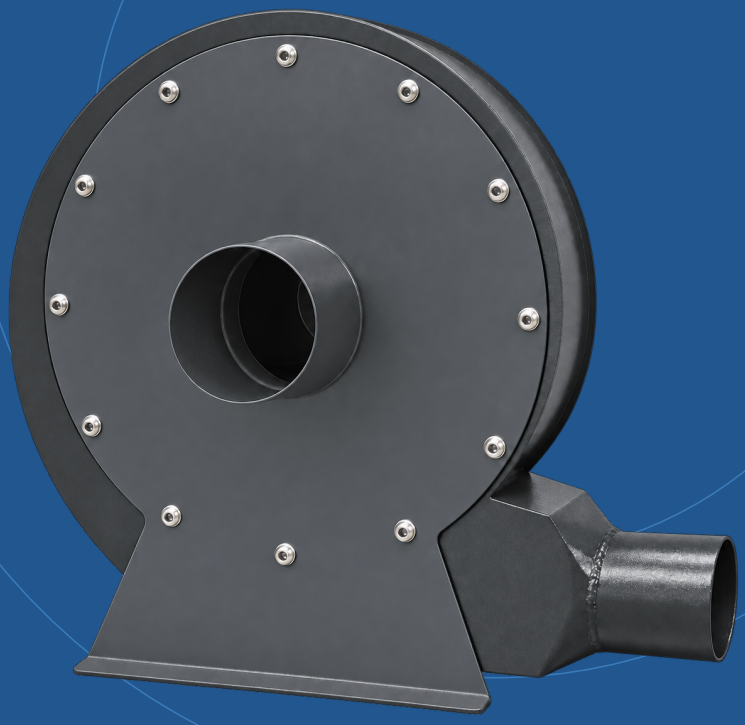
VMPF SERIES

Medium pressure industrial centrifugal fans

VMPF

DIRECT-DRIVE CENTRIFUGAL DESIGN

POWDER-COATED STEEL HOUSING



950-4000
Nominal airflow / m^3/h

09
Models in the range

50 Hz
Three phase / 400 V

info@voltvent.com | voltvent.com

01 / PRODUCT OVERVIEW

Medium pressure. Focused airflow.



01 Powder-coated steel construction

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

02 Direct-drive industrial fan

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

03 Process and equipment air supply

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

AIRFLOW & STATIC PRESSURE

Select the working point, model by model.

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

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

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

02 / TECHNICAL DATA

Compare the complete range.

NOMINAL RATINGS / 400 V / 3 PHASE / 50 Hz

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

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

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

COMMON MOTOR & OPERATING DATA

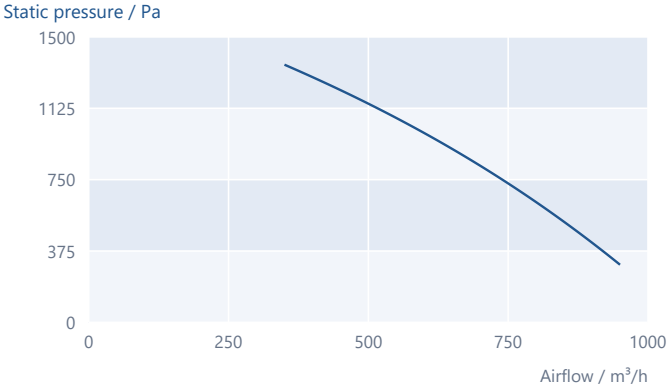
Parameter	Current catalogue basis
Motor	2 poles / Class F / IP55 / TEFC / IE2 / S1
Motor operating range	-20 to +40 °C
Maximum transported-air temperature	+40 °C

03 / AIR PERFORMANCE / 1 OF 2

Fan Performance Curves

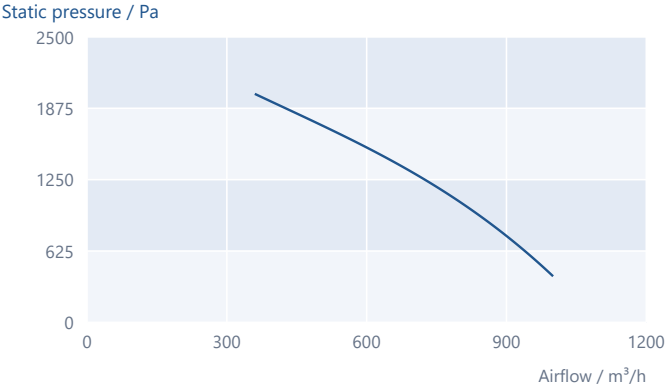
VMPF 1T

3~400 V / 50 Hz / 0.37 kW motor



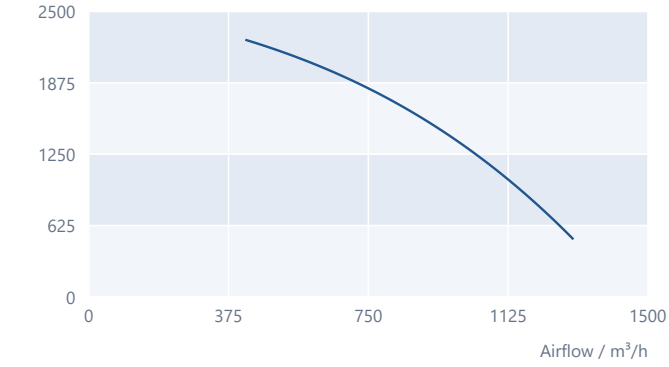
VMPF 2T

3~400 V / 50 Hz / 0.75 kW motor



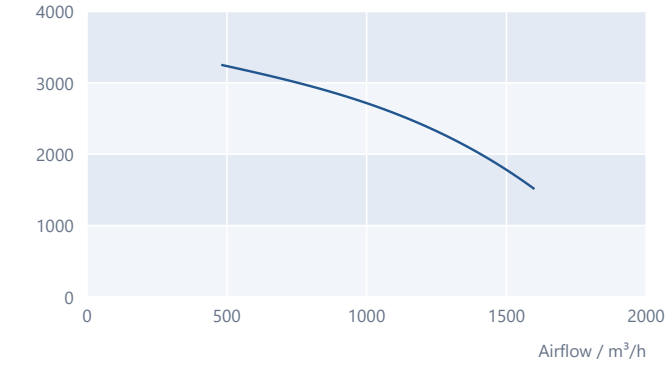
VMPF 3T

3~400 V / 50 Hz / 1.10 kW motor



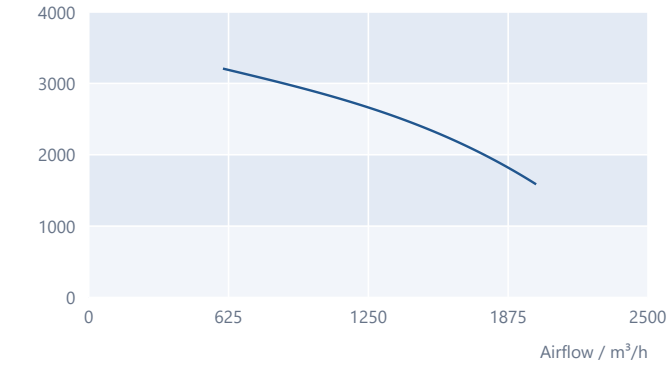
VMPF 4T

3~400 V / 50 Hz / 1.50 kW motor



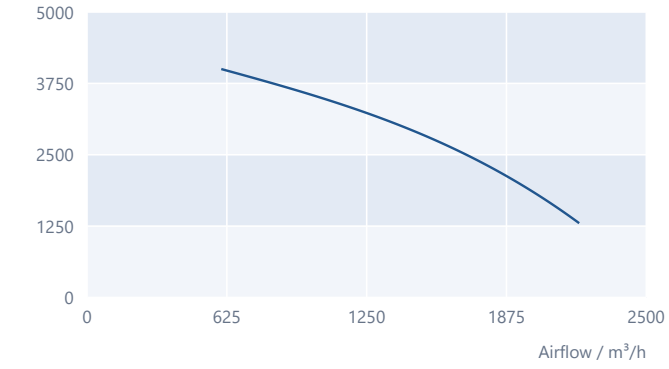
VMPF 5T

3~400 V / 50 Hz / 2.20 kW motor



VMPF 6T

3~400 V / 50 Hz / 3.00 kW motor



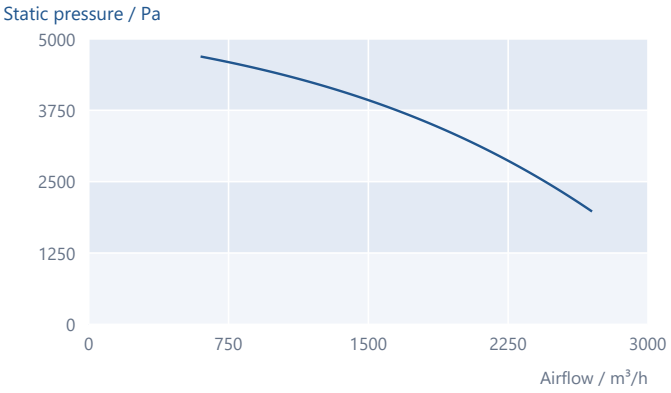
Model-specific scales. Original data pressure polynomials and curve domains are retained. No pressure normalization or extrapolation. Use FSP to check the required working point and selected model.

03 / AIR PERFORMANCE / 2 OF 2

Fan Performance Curves

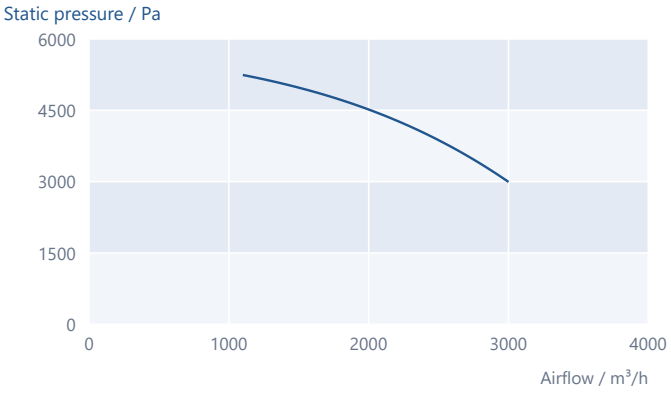
VMPF 7T

3~400 V / 50 Hz / 4.00 kW motor



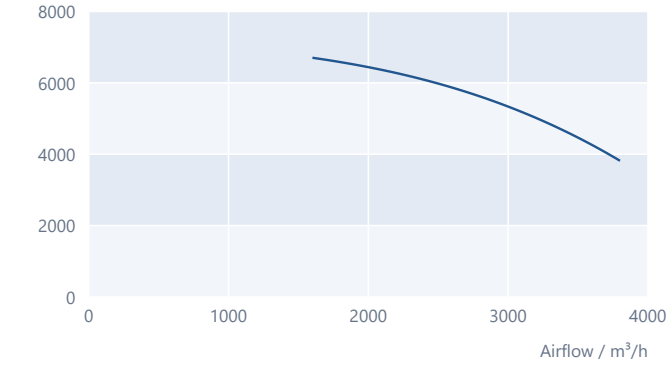
VMPF 8T

3~400 V / 50 Hz / 5.50 kW motor



VMPF 9T

3~400 V / 50 Hz / 7.50 kW motor



READING THE MODEL CURVES

Keep the curve and rating distinct.

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

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

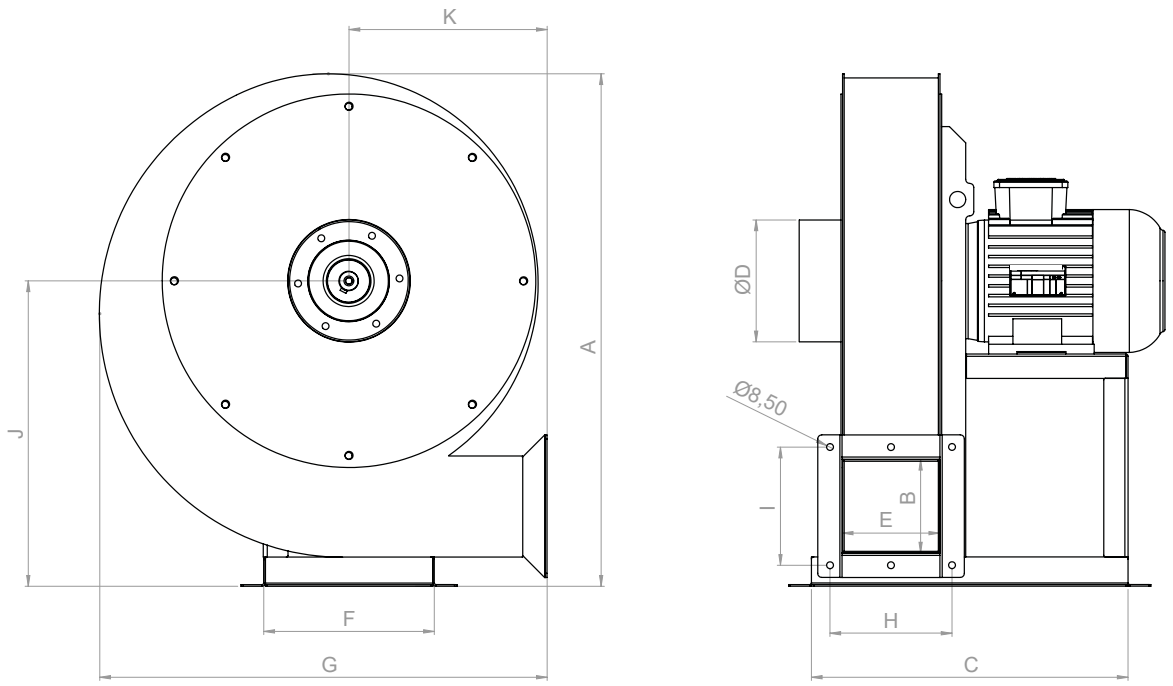
Model-specific scales. Original data pressure polynomials and curve domains are retained. No pressure normalization or extrapolation. Use FSP to check the required working point and selected model.

04 / DIMENSIONAL DATA

Plan the connections and mounting.

ORIGINAL SERIES DRAWING / A-K

All dimensions in mm



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

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

05 / INSTALLATION & MOTOR

Prepare the process connection.

01 Mounting and airflow

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

02 Supply, control and maintenance

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

INLET & RECTANGULAR DISCHARGE / mm

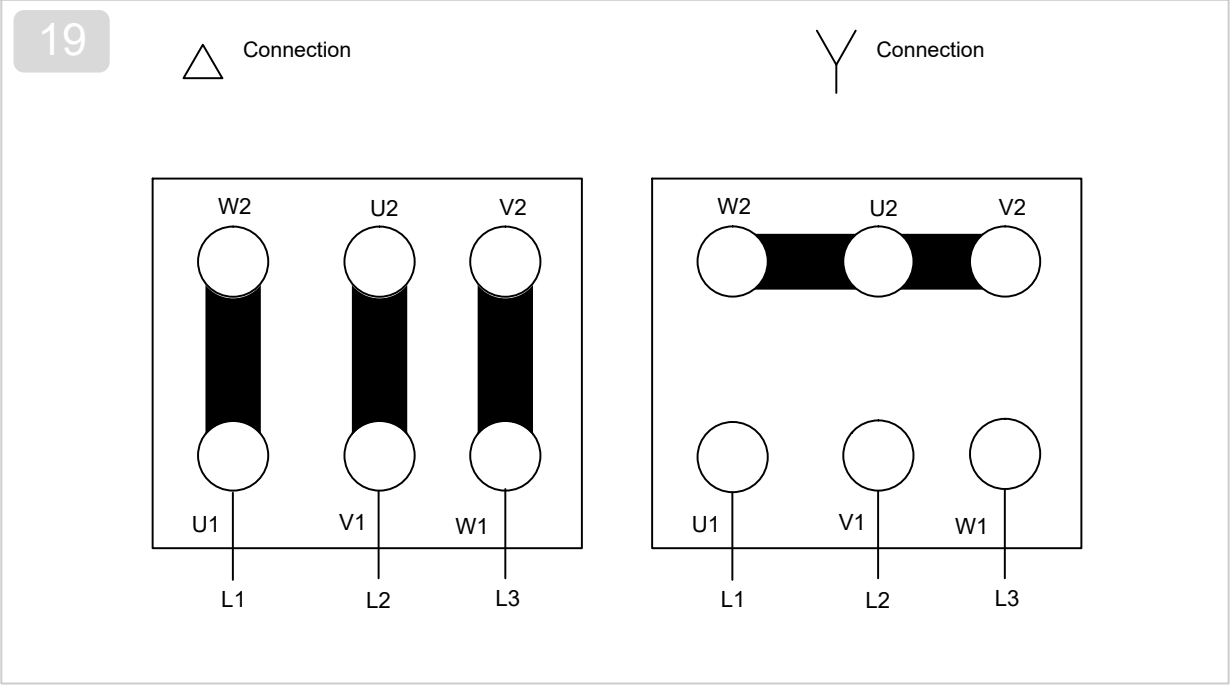
Model	Inlet / D	Nominal discharge / mm
VMPF 1T	Ø120	160 x 100
VMPF 2T	Ø120	190 x 100
VMPF 3T	Ø150	190 x 100
VMPF 4T	Ø150	210 x 120
VMPF 5T	Ø150	210 x 150
VMPF 6T	Ø150	250 x 150
VMPF 7T	Ø150	250 x 150
VMPF 8T	Ø200	300 x 150
VMPF 9T	Ø200	300 x 150

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

06 / ELECTRICAL CONNECTION

Match the motor terminal layout.

THREE PHASE / LAYOUT 19 / 400 V / 50 Hz



Delta connection

Star connection

The motor nameplate sets the connection.

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

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

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

VMPF

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