

FUJI Vacuum Pump - Japan (Single Phase)

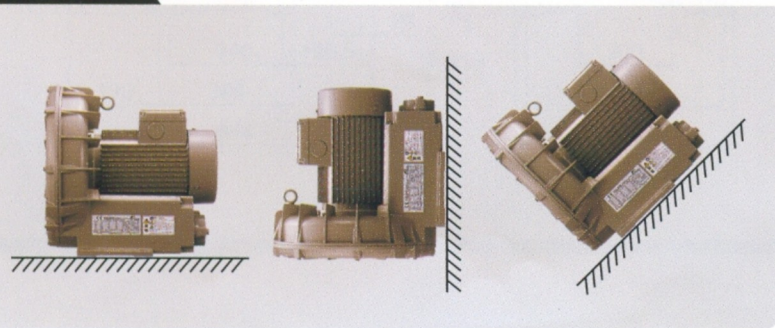


- ★ Low noise and vibration
- ★ Dust-proof shaft seal
- ★ High reliability

- ★ Space-efficient design
- ★ Versatility
- ★ Stable airflow
- ★ High-pressure airflow

Installation Orientation

OK



NG



Specification

Model	Voltage 50Hz, 1 PH [V]	Rated Output [kW]	Air Capacity Max. [m ³ /min]	Pressure Max. [mbar]	Suction/Delivery bore diameter [mm, inch]	Weight [kg]	Stock code
VFC208PF-S	240	0.17	0.90	66.7	PS 1	11	881114023
VFC308PF-S		0.25	1.25	96.1	PS 1 1/4	12.3	881114020
VFC408PF-S		0.50	2.05	98.1	PS 1 1/2	23	881114021
VFC508PF-S		1.30	3.40	147.0	PS 1 1/2	44	881114022

***Related catalogue for 3 Phase, please refer to ESM282-ii.

***Product's specification may subject to change without further notice.

***Actual product may slightly differ from pictures shown.

FUJI Vacuum Pump - Japan (Three Phase)



Stock Code:
 881114001 VFZ201AF-S/VFC208AF-S
 881114028 VFZ301AF-S
 881114025 VFZ401AF-S
 881114026 VFZ501AF-S
 881114027 VFZ601AF-S
 881114006 VFC708A-S
 881114007 VFC808A-S
 881114008 VFC908A-S



Image of appearance

Emblem

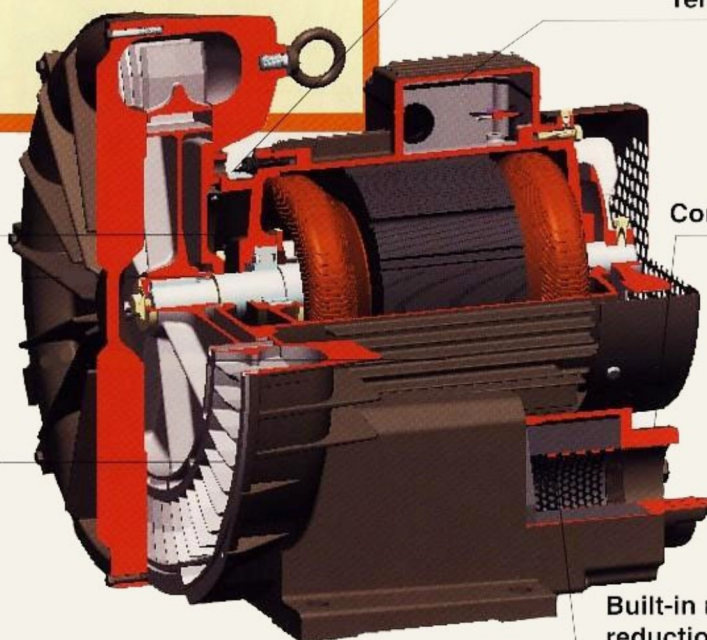
Terminal box

Companion flange

Built-in noise reduction silencer

Intermediate bracket

Three-dimensional high wind pressure blade



Specification

Model	Voltage 50Hz, 3 Phase [V]	Motor required maximum output [kW]	Rated Current [A]	Maximum delivery pressure [kPa]	Maximum delivery air quantity [m ³ / min]	Noise Value [dB(A)]	Suction/Delivery bore diameter [mm, inch]	Approximate mass [kg]
VFZ201AF-S	200-230 / 380-415	0.17	1.4-1.5 / 0.64-0.66	6.67	0.90	57.5	PS 1	10
VFZ301AF-S		0.28	1.8-1.9 / 0.92-0.95	9.32	1.28	58.0	PS 1 1/4	11.5
VFZ401AF-S		0.55	3.1-3.2 / 1.5-1.5	10.4	2.00	65.5	PS 1 1/2	21.5
VFZ501AF-S		1.3	5-5 / 2.6-2.4	14.7	3.40	70.5	PS 1 1/2	28
VFZ601AF-S		2.3	8.8-8 / 4.7-4.4	21.1	4.00	70.0	PS 2	46
VFC708A-S		3.3	15-15.6 / 7.1-7.3	21.6	6.20	75.0	PS 2	84
VFC808A-S		5.5	20-21 / 9.4-9.7	25.5	8.70	78.0	PS 2 1/2	132
VFC908A-S		11	30-31 / 14-14.5	25.5	13.00	79.5	PS 3	200

***Related catalogue for 1 Phase, please refer to ESM282-i.

***Product's specification may subject to change without further notice.

***Actual product may slightly differ from pictures shown.

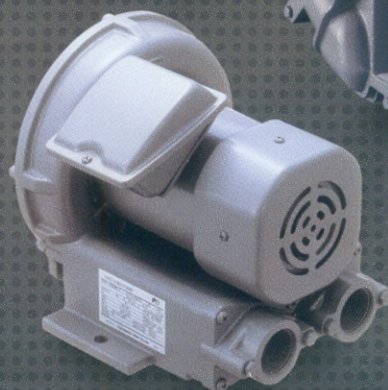
Full model change
for returning again to the origin



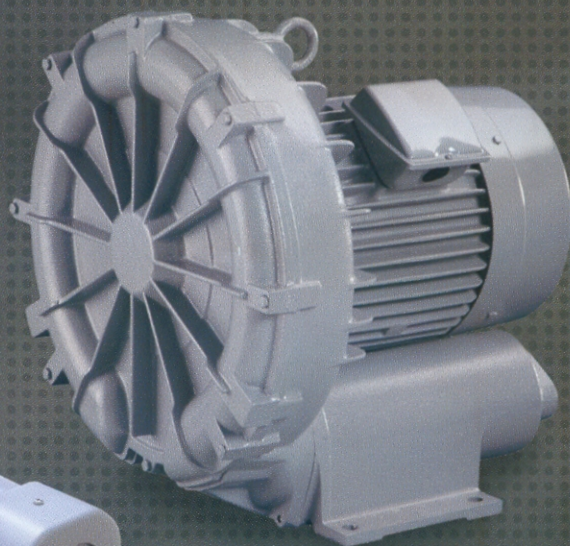
[model:VFZ501AF-S]

New
VF2 Series
10 – 60 type

VFC Series
08·70 – 90 type



[model:VFC088AF-S]



[model:VFC708A-S]

○ RoHS directives are supported in the standard configuration.

○ Suction totally-enclosed shutoff operation is supported.
[50·60 type]

* Note) When using the product in suction totally-enclosed shutoff operation, be sure to remove the emblem before installation.
If the product should be operated with the emblem installed, insulation of the motor may be deteriorated, resulting in burnout.

○ Oil sealless structure in the blower section is adopted.
[40 - 60 type]

○ The international protection class is IP54 (motor section).

○ CE marking is provided.



Image of appearance

Emblem

Terminal box

Companion flange

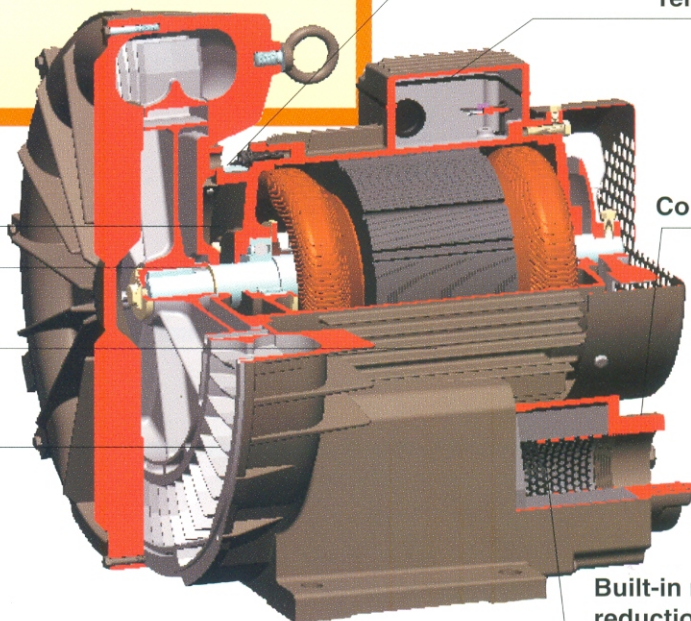
Built-in noise reduction silencer

Intermediate bracket

Oil sealless
[40 - 60 type]

Motor section aluminum frame
[50·60 type]

Three-dimensional
high wind pressure blade

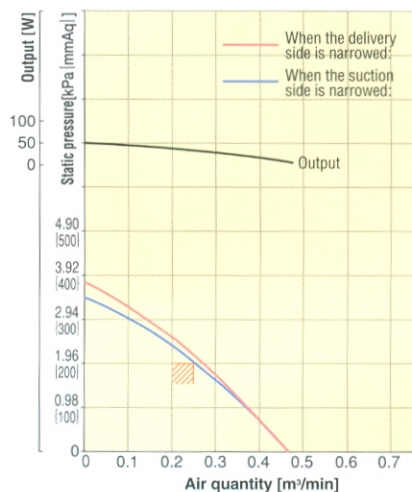
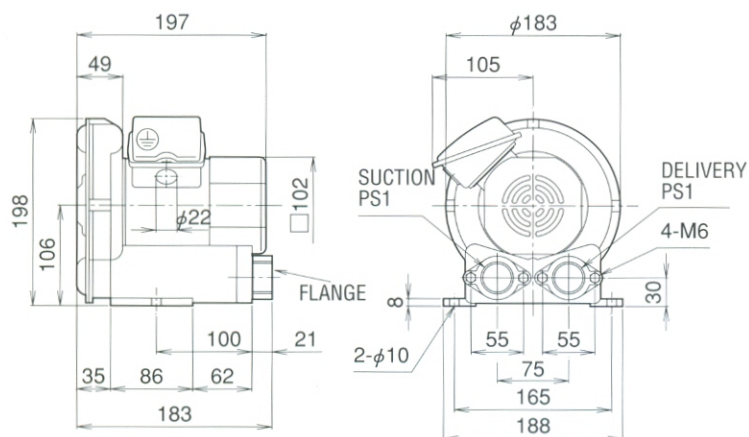


standard specification

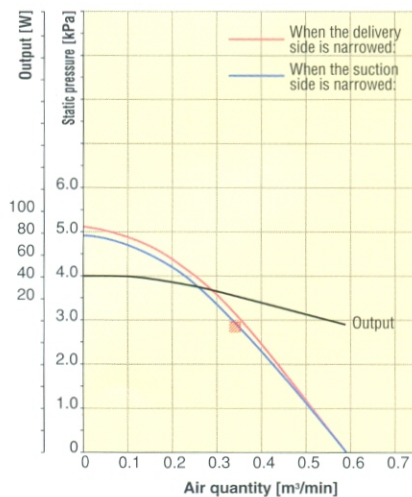
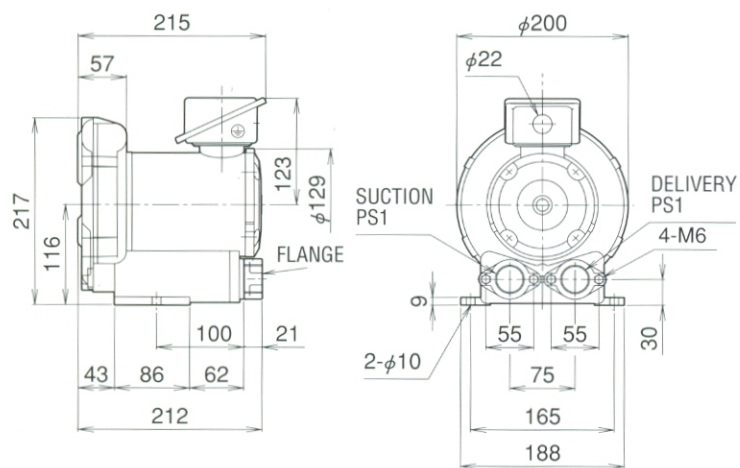
Model	Product number code	Voltage [V]	Frequency [Hz]	Motor required maximum output [kW]	Rated current [A]	Maximum delivery pressure [kPa]	Maximum delivery air quantity [m³/min]	Rated value of static pressure [kPa]	Rated value of air quantity [m³/min]	Insulation class	Noise value [dB(A)]	Suction/delivery bore diameter [mm, inch]	Approximate mass [kg]	Starting current [A]
VFC088AF-S	VFC5391	200-230	50	0.06	0.37-0.38	3.73	0.47	1.96	0.25	E	53.0	PS 1	6.0	2.0-2.1
VFC088AF-S	VFC5392	380-415		0.06	0.20-0.21	3.73	0.47	1.96	0.25	E	53.0	PS 1	6.0	1.0-1.1
VFZ101AF-S	VFZ5000	200-230 380-415		0.09	0.51-0.53／0.25-0.26	5.15	0.58	2.94	0.35	B	52.5	PS 1	8.6	4.2-4.4／1.9-2.1
VFZ201AF-S	VFZ5001			0.17	1.4-1.5／0.64-0.66	6.67	0.90	2.94	0.64	B	57.5	PS 1	10	9.0-9.6／3.8-4.0
VFZ301AF-S	VFZ5002			0.28	1.8-1.9／0.92-0.95	9.32	1.28	3.92	0.9	B	58.0	PS 1 1/4	11.5	13.0-13.7／6.3-6.7
VFZ401AF-S	VFZ5003			0.55	3.1-3.2／1.5-1.5	10.4	2.0	4.90	1.45	B	65.5	PS 1 1/2	21.5	27-27.9／14-14
VFZ501AF-S	VFZ5004			1.3	5-5／2.6-2.4	14.7	3.4	6.86	2.4	F	70.5	PS1 1/2	28	45.4-45.4／23.3-21.9
VFZ601AF-S	VFZ5005			2.3	8.8-8／4.7-4.4	21.1	4.2	9.81	3.2	F	70.0	PS 2	46	77-70／40-39
VFC708A-S	VFC5399			3.3	15-15.6／7.1-7.3	21.6	6.2	9.81	4.4	F	75.0	PS 2	84	145-151／62-75
VFC808A-S	VFC5400			5.5	20-21／9.4-9.7	25.5	8.7	9.81	6.3	B	78.0	PS 2 1/2	132	227-238／96-118
VFC908A-S	VFC5401			11	30-31／14-14.5	25.5	13	14.7	7.5	B	79.5	PS 3	200	406-420／189-196

The noise is the value at a position of 1.5 m in an open state.

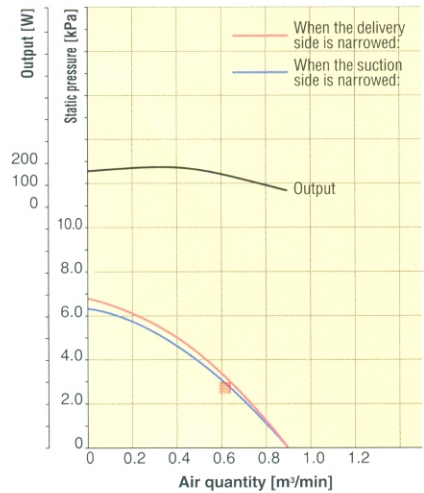
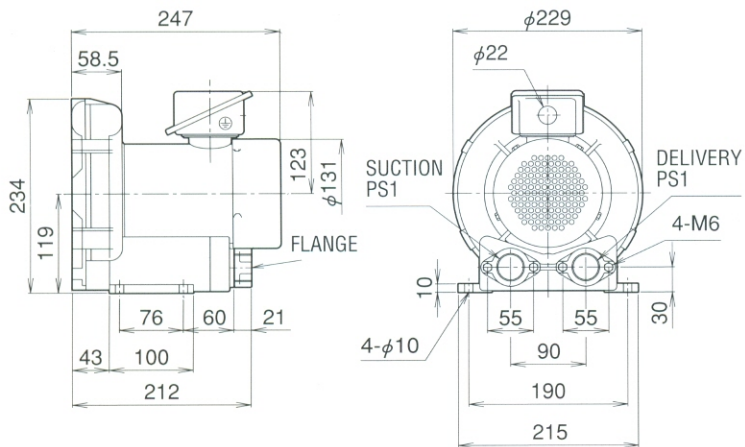
VFC088AF-S



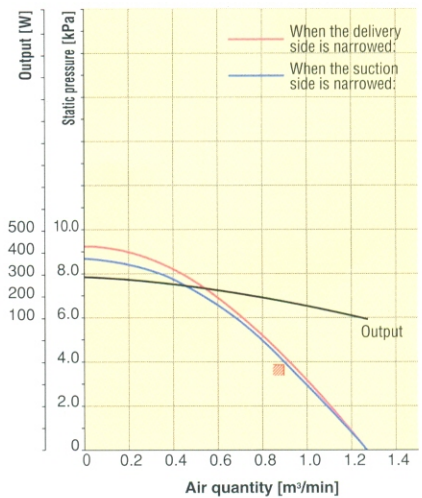
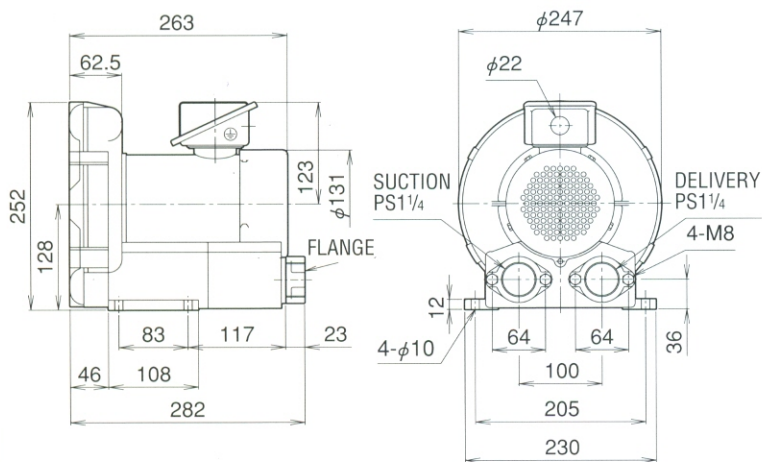
VFZ101AF-S



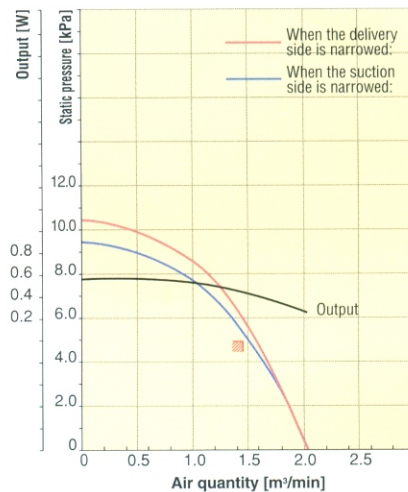
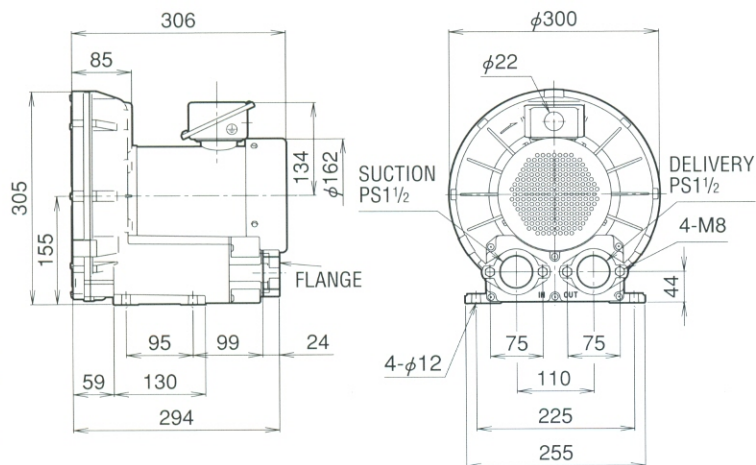
VFZ201AF-S



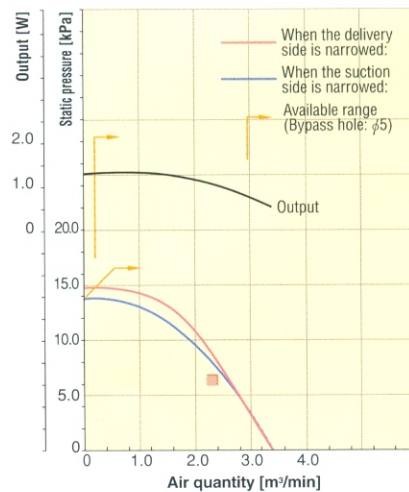
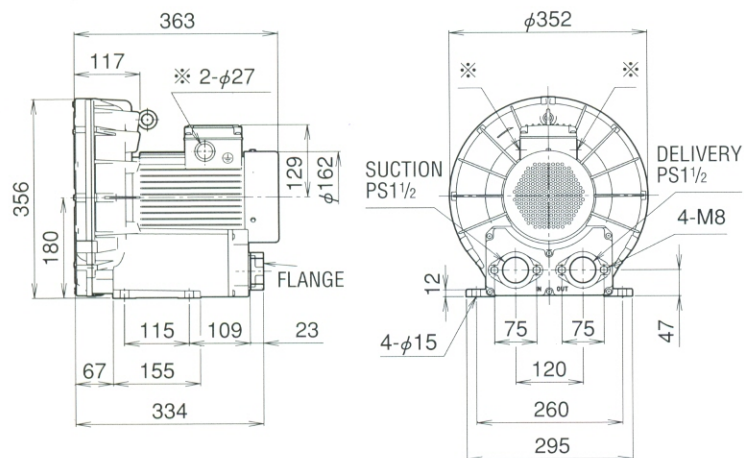
VFZ301AF-S



VFZ401AF-S

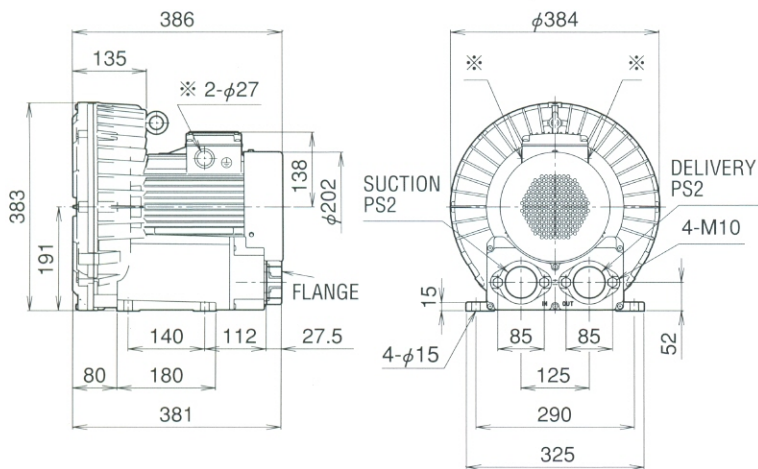


VFZ501AF-S

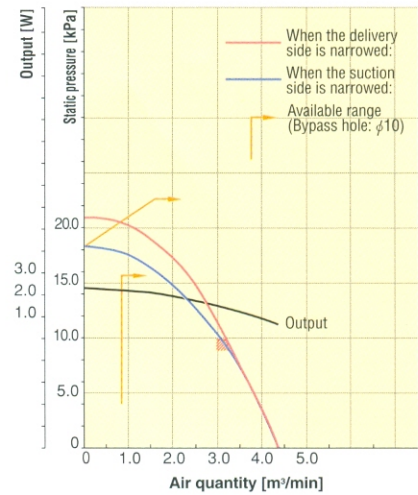


* Note) When using the product for suction totally-enclosed shutoff operation, be sure to remove the emblem.

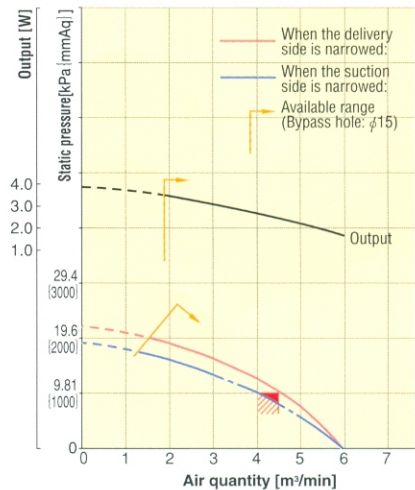
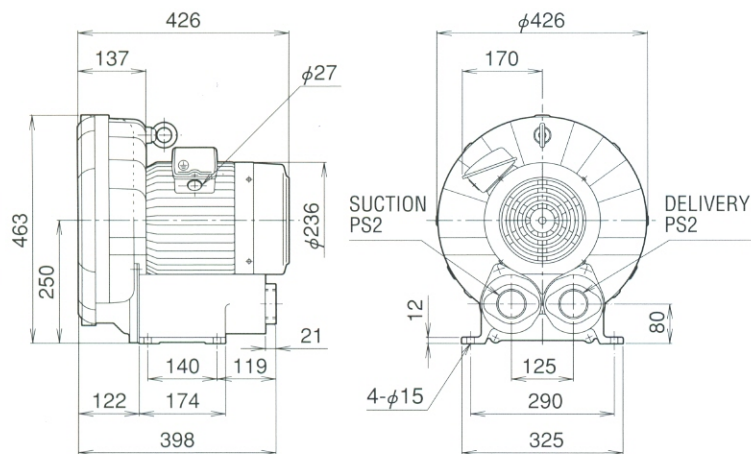
VFZ601AF-S



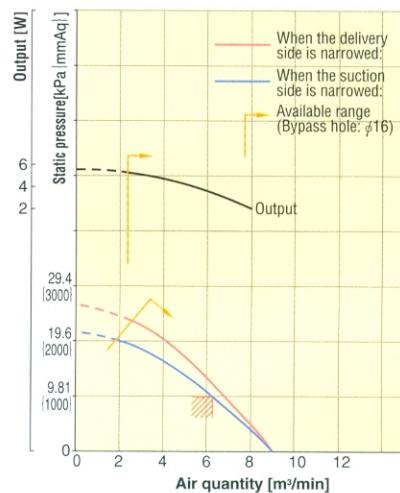
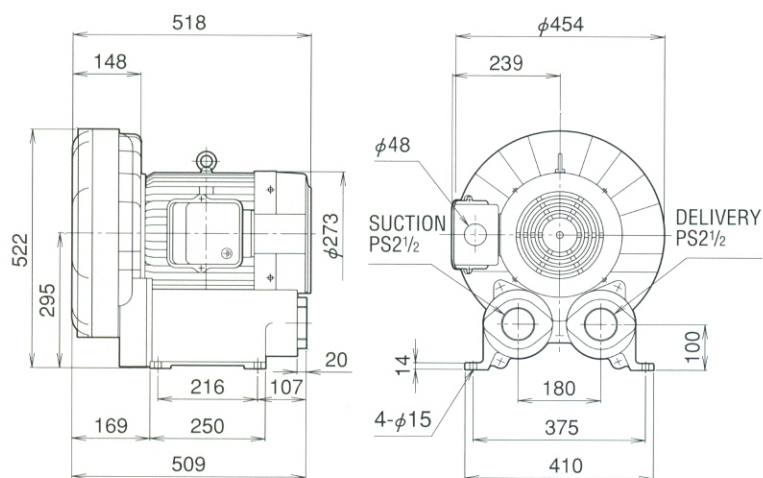
* Note) When using the product for suction totally-enclosed shutoff operation, be sure to remove the emblem.



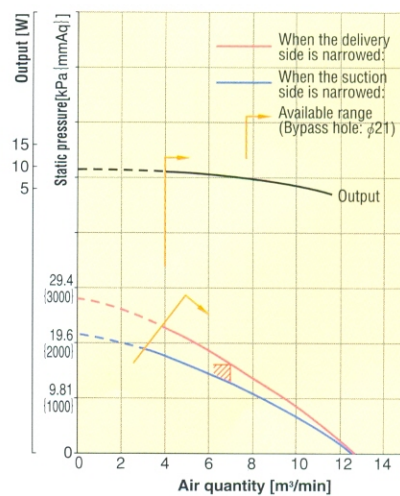
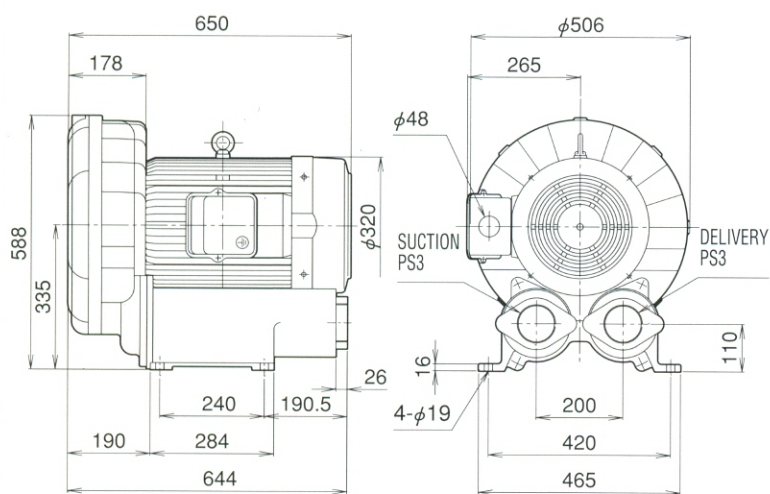
VFC708A-S



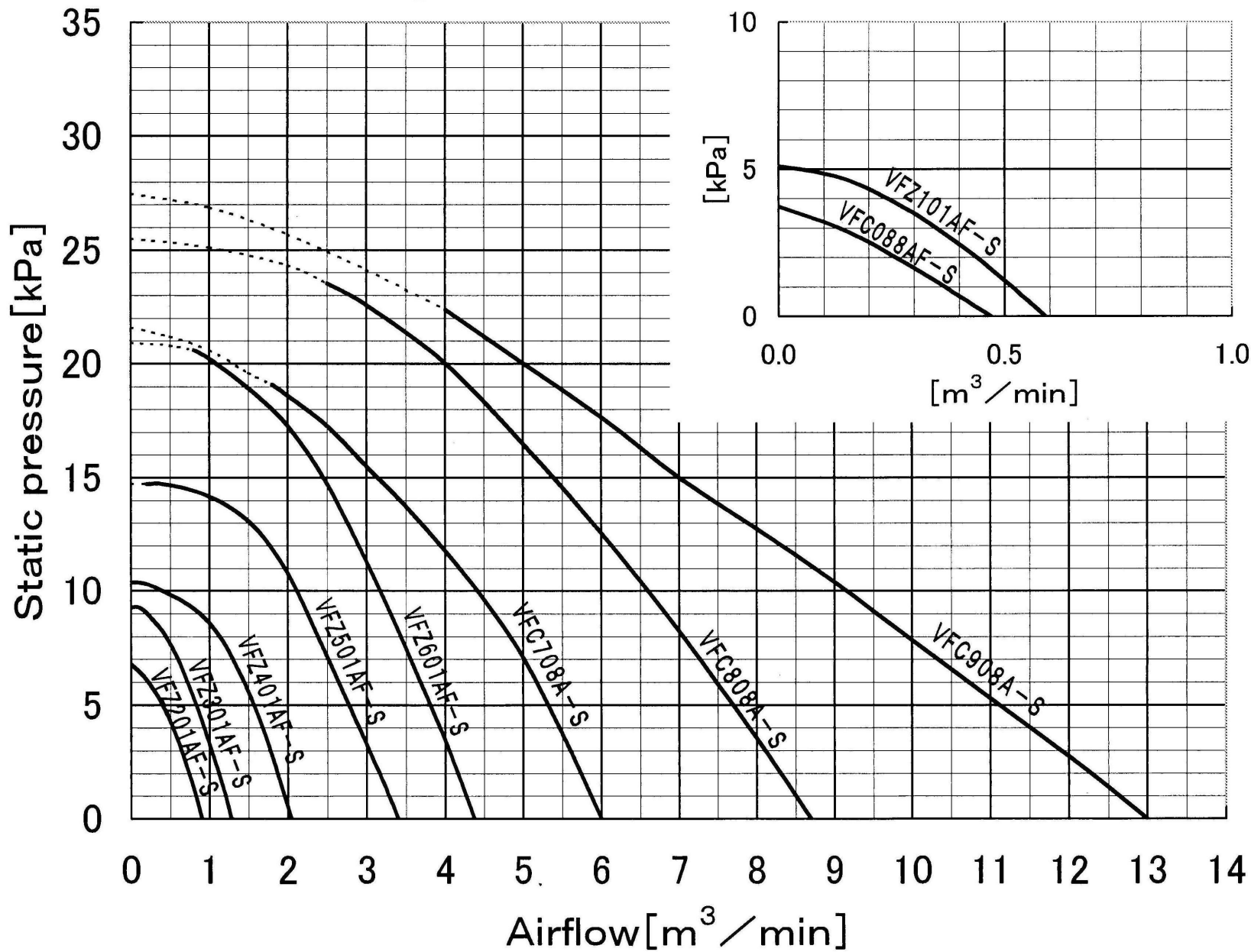
VFC808A-S



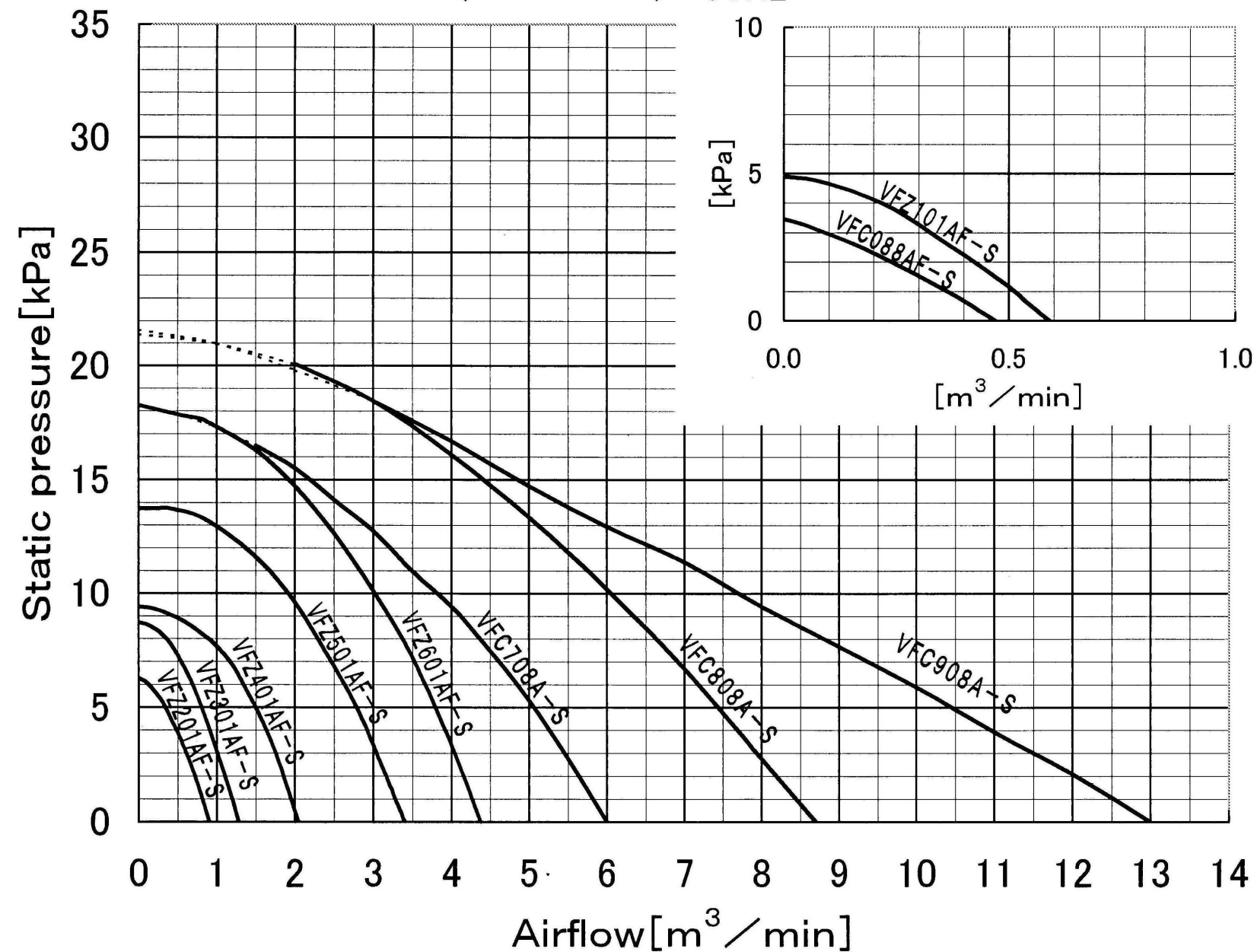
VFC908A-S



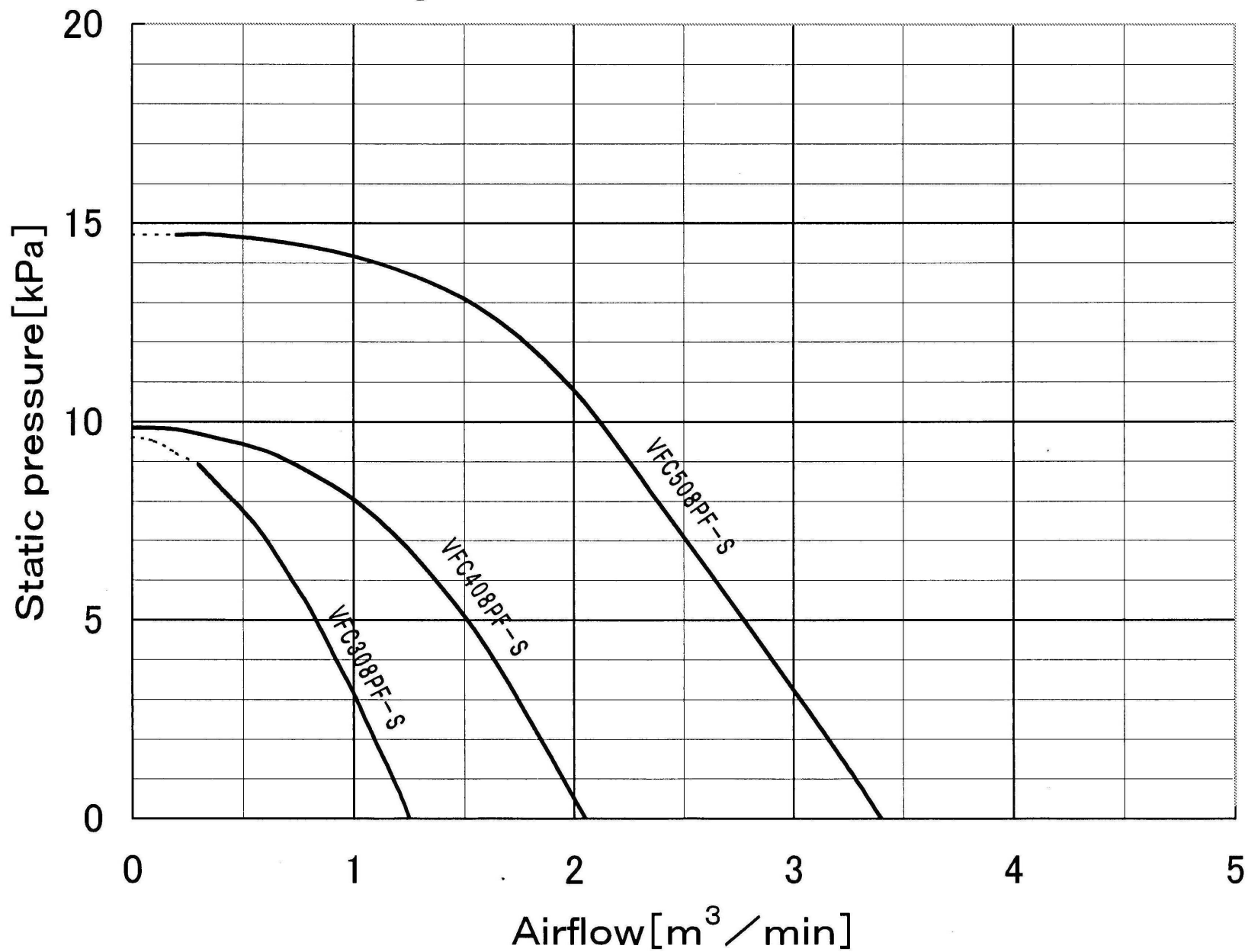
Delivery (Pressure) 50Hz



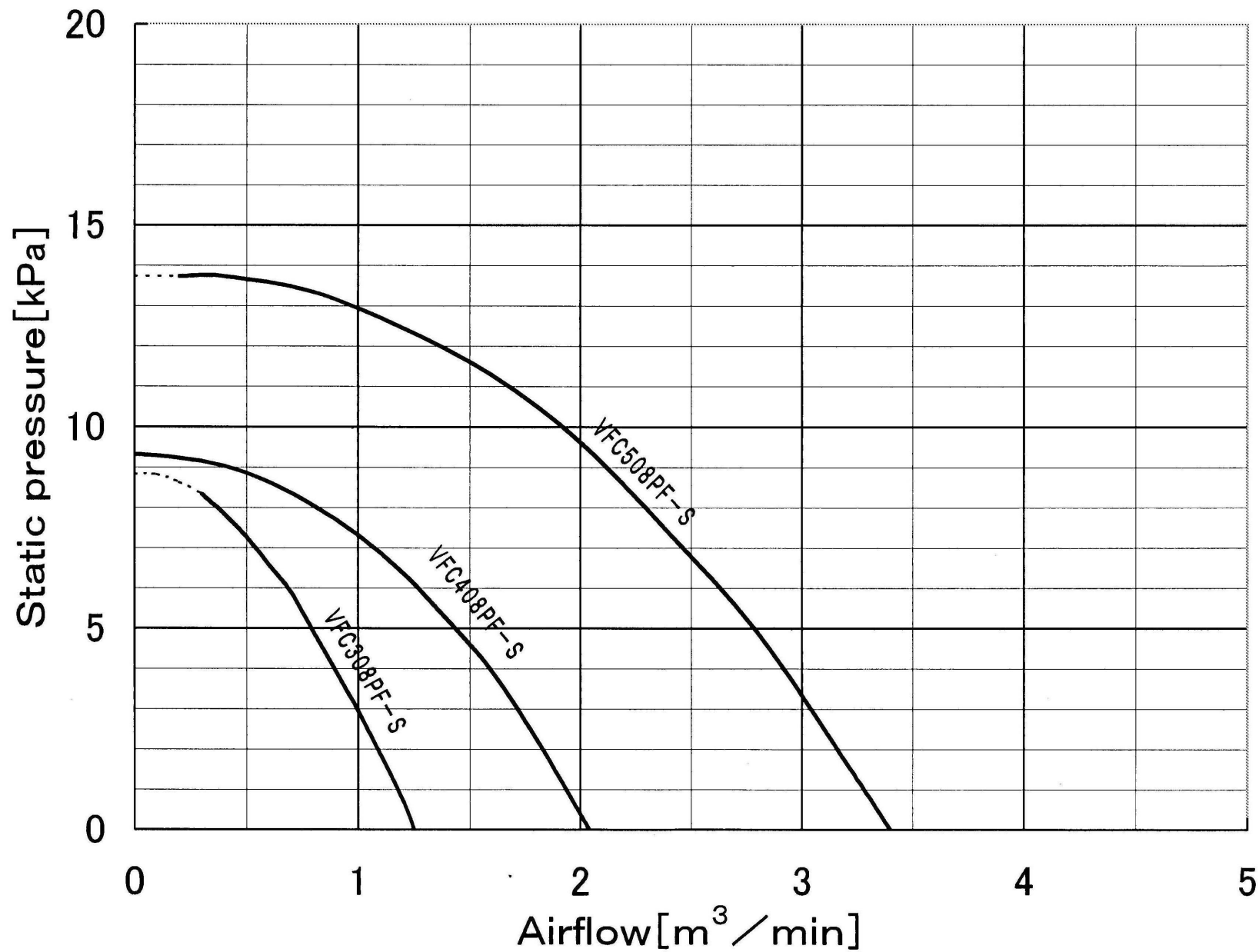
Suction (Vacuum) 50Hz



Delivery (Pressure) 50Hz

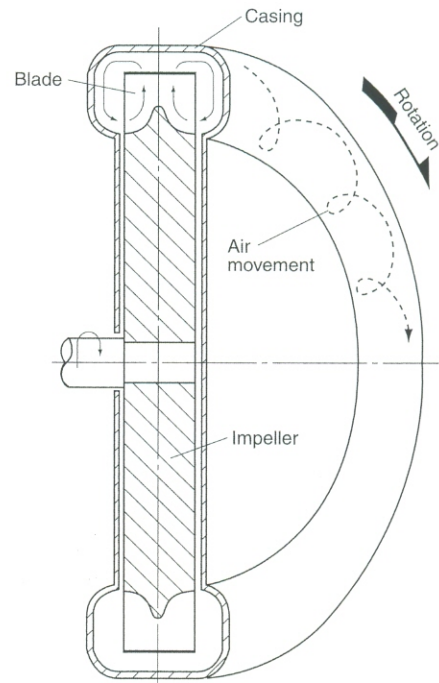


Suction (Vacuum) 50Hz



Most standard centrifugal-type blowers impart energy to incoming air by simply hurling it outward from a central point. FUJI's Vacuum Pumps operate on a regenerative principle that provides much higher pressure and vacuum.

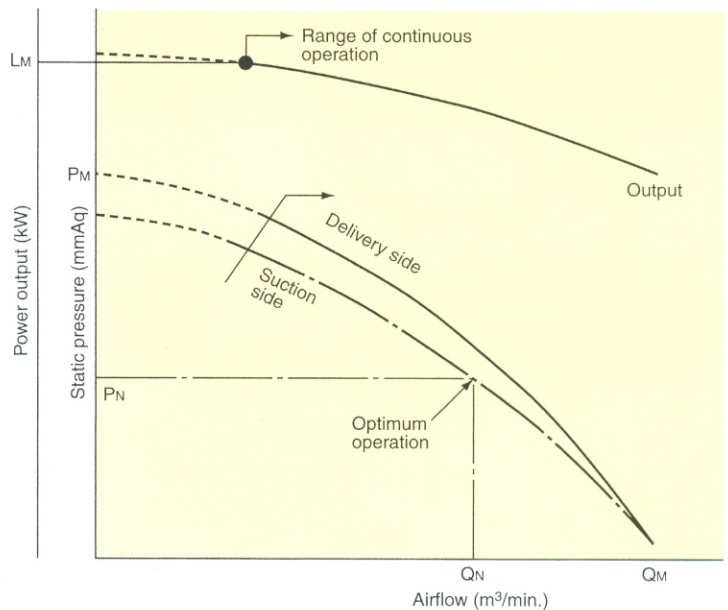
In these devices, air enters through an inlet port and is accelerated by the impeller. Through centrifugal force, this air is thrown against the walls of the casing where it is reflected back to the base of the impeller blades. This process is repeated many times during each revolution of the impeller and constantly compounds the energy and acceleration imparted to the incoming air. The overall effect is not unlike that obtained in multi-stage devices. However, in the case of the FUJI Vacuum Pumps, the increased output is due to many regenerative cycles that take place during each revolution of the impeller. To meet specific requirements, many combinations of these blowers are possible.



Principle of operation

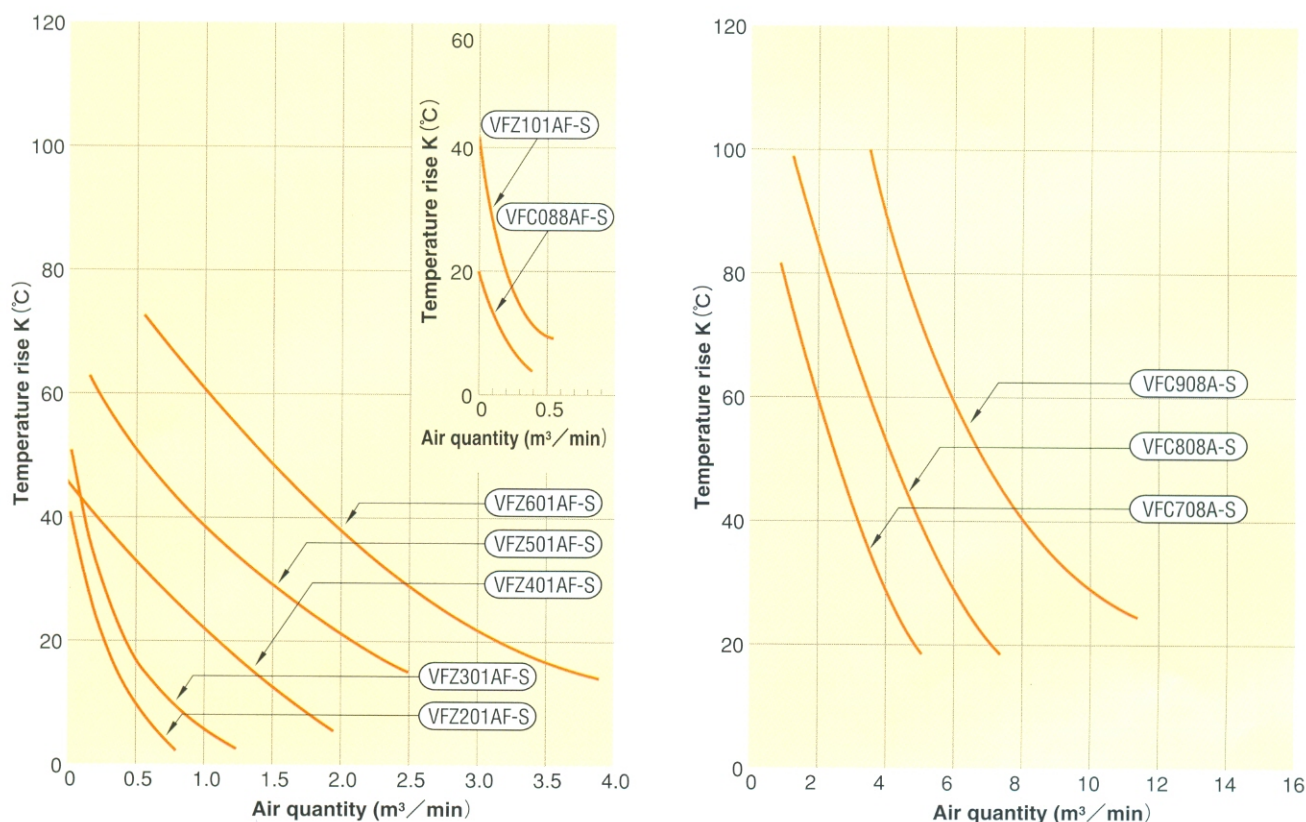
specifications for nameplate

- The Vacuum Pump can be operated for either delivery or suction. However, the nameplate values are based on the delivery characteristics.
- Max. static pressure at delivery side (P_M) indicates the state of zero airflow. Max. airflow (Q_M) indicates the state of zero static pressure.
- The characteristic values slightly decrease by the air density when throttled at suction port. In case the continuous operations, the Vacuum Pump must be used within the range of continuous operation.



- Use this Vacuum Pump at an ambient temperature of -10°C to $+40^{\circ}\text{C}$ and at a relative humidity of 80% or less.
- Air that passes through inside the blower may become very hot. Take sufficient care particularly when performing nearly shutoff operation. [Refer to Fig. 1]
- When using the product in delivery totally-closed shutoff operation, be sure to prepare a bypass hole near the blower delivery port. (VFZ50·60, VFC70 - 90) [Refer to Fig. 3]
- When using the product in suction totally-closed shutoff operation, be sure to remove the supplied emblem from the main body before installation. (VFZ50·60)
- When using the product in suction totally-closed shutoff operation, be sure to prepare a bypass hole near the blower delivery port. (VFC70 - 90) [Refer to Fig. 3]
- When sucking dust and foreign matter, install a filter or the like to prevent them from entering the inside of the blower.
- Do not suck liquid or corrosive gas into the blower.
- Never use the product near flammable, combustible or explosive material because it is very dangerous.
- Horizontal installation is standard. When using other types of installation, be sure to place the blower section facing down. [Refer to Fig. 2]

Fig. 1 Exhaust gas temperature rise curve



*Note) Since the temperature rise curves shown above have some variation, consider them only as reference values.

Fig. 2 Installation orientation

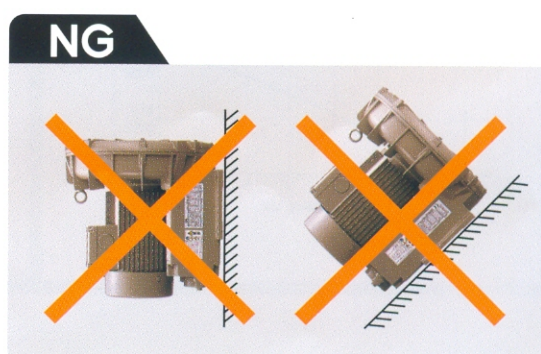
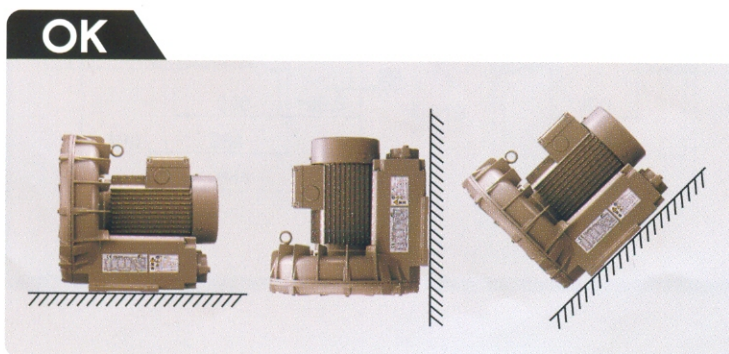


Fig. 3 Bypass hole diameter, mm

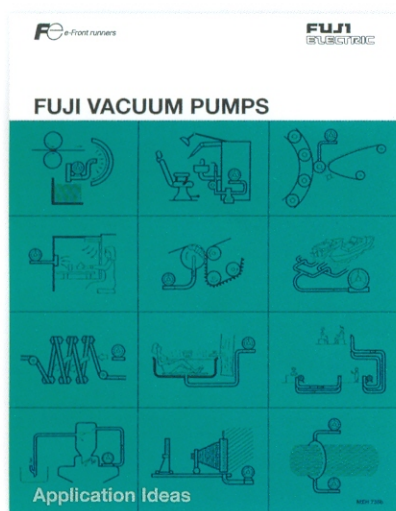
Three-phase

Type	50Hz
VFC088AF-S	—
VFZ101AF-S	—
VFZ201AF-S	—
VFZ301AF-S	—
VFZ401AF-S	—
VFZ501AF-S	5

Type	50Hz
VFZ601AF-S	10
VFC708A-S	15
VFC808A-S	16
VFC908A-S	21

related catalog

● Application Idea catalog [No.MEH735]



memo