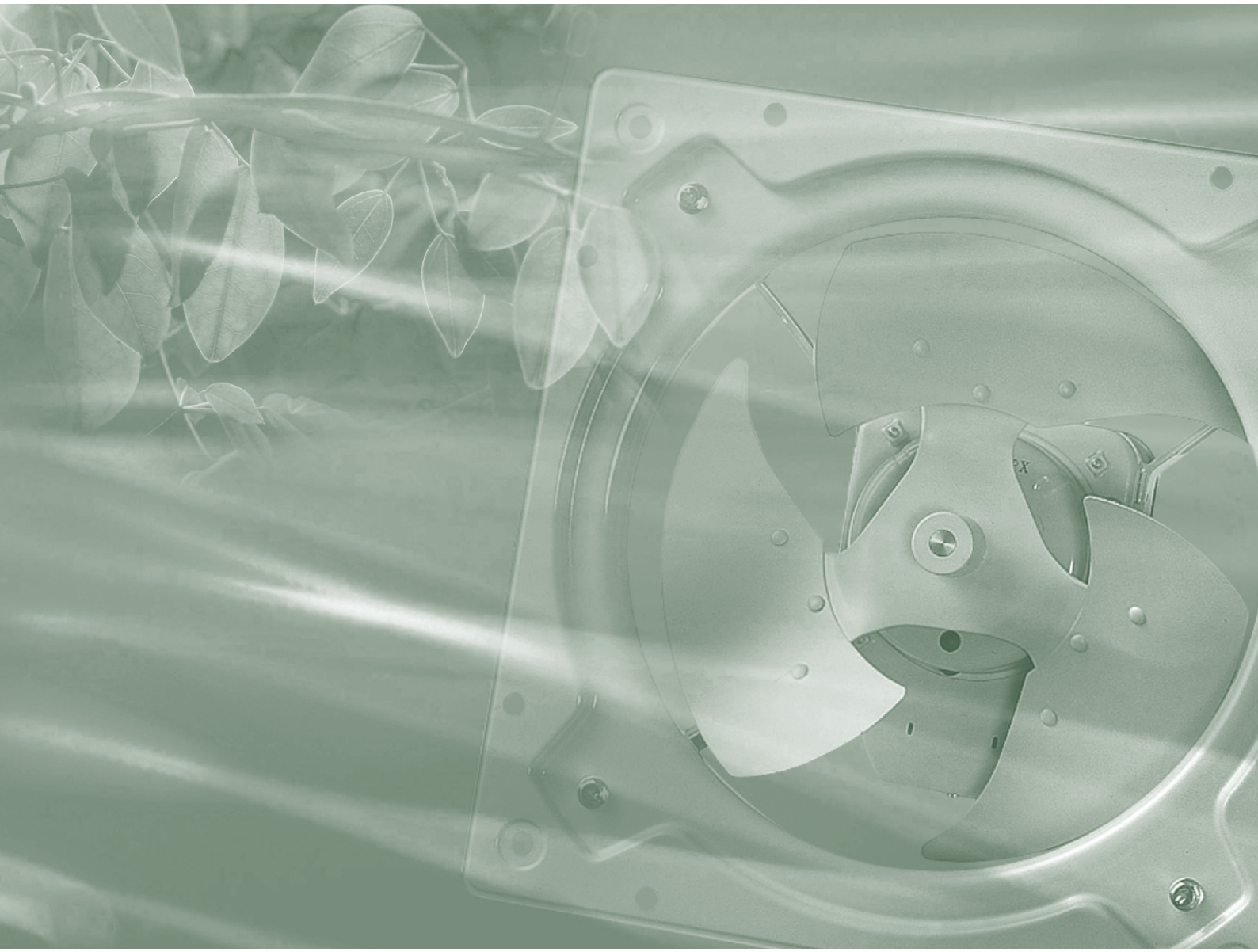
TERAL

Pressure Fans

50Hz/60Hz



TERAL INC.

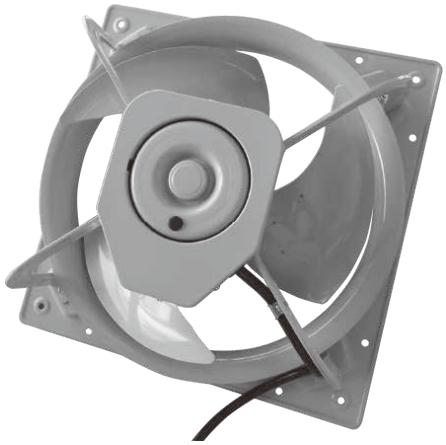
INDEX

Business use

Pressure fan

Low Noise Pressure Fans

Low noise type that meets the needs of the times



❶ Low Noise Design

Performs large-scale fluid analysis of the entire pressure fan, high-performance silent type impeller shape is optimally designed.

❷ Space Saving

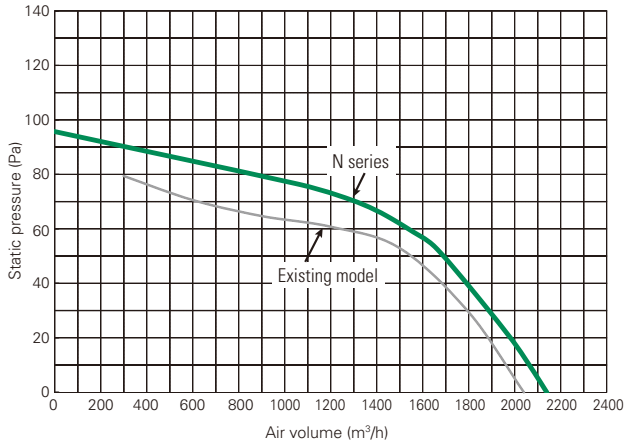
Highly reputable low-profile conventional design.
Compatible with replacement demand provided with mounting compatibility with existing products.

❸ Long Life

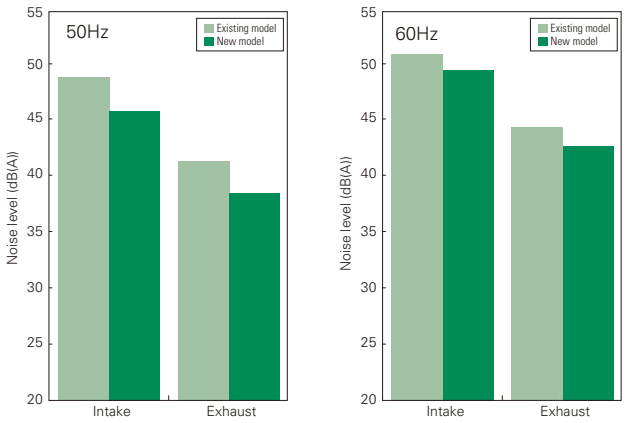
High-grade urea-based grease excellent in water resistance and heat resistance adopted as standard.
Expected design lifetime of 60,000 hrs. (when continuously operated at 50 ℃).
*Only applicable to N series (series code: N).

■Comparison with Existing Model

●Air Volume Comparison (30cm) *At a frequency of 60Hz



●Noise Comparison (30cm)



■Line-Up of Pressure Fans

Standard type Exhaust Intake Impeller diameter: 20 to 120cm	**Outdoor type** Exhaust Intake Impeller diameter: 25 to 120cm	**Pressure-resistant explosion-proof motor type** Exhaust Intake Impeller diameter: 20 to 120cm
Stainless steel type Exhaust Intake Impeller diameter: 25 to 50cm		
All stainless steel type Exhaust Impeller diameter: 30 to 40cm	**Frameless type** Exhaust Impeller diameter: 30 to 45cm	**Centrifugal contact type** Exhaust Impeller diameter: 25 to 60cm

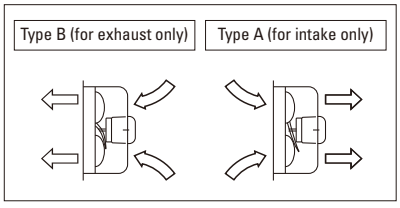
■Description of types

A model code is assigned to each model of our pressure fans in accordance with the descriptions below. When contacting us, please specify the model code and the voltage used. (For any information not included in the descriptions below, please contact us.)

PF - 14 B T 2 N

⑦ ① ② ③ ④ ⑤ ⑥ ⑧

①Model type	PF: Standard type (different voltage type)/PFS: Stainless steel type/ EPP: Pressure-resistant explosion-proof motor type/WP: Outdoor type/ WPS: All stainless steel type/TP: Frameless type/S: Centrifugal contact type
②Impeller diameter	Indicated in inches; For a value in centimeters, multiply the value in inches by 2.5.
③Airflow direction	B: Exhaust/A: Intake * When facing the front of the impeller, exhaust air flows frontward, and intake air flows backward.
④Power supply	S: Single-phase/T: Three-phase
⑤Voltage	1: 100 volt class/2: 200 volt class/4: 400 volt class
⑥Series code	Ascending alphabetical order
⑦Number of poles	None: Standard/Number specified: Multiple-pole type (6: six poles, 8: eight poles)
⑧ID code	None, 1, 2...



Handling Precautions

1 Install the pressure fan at a height of 1.8 meters or more from the floor surface. Failure to do so may cause injuries or accidents. In the case of installing it at a height of 1.8 meters or less, use the optionally available guard net.

2 Make sure that the metallic part of the main unit of the pressure fan does not come in direct contact with any building finished with metal lath, wire lath or metal. Any contact may cause an electric leakage, electric shock or fire.

3 Make sure to observe the operating ambient temperature and the humidity range. Any excess over the setting range of the specific model may result in burning, deformation or breakage.

4 For any model equipped with a ground wire, make sure to ground it.

5 Some models come with a drain plug attached to the motor. When such a model is used outdoors or in a place with high humidity, install it so that the drain plug is under the motor and remove the lower drain plug before use.

6 Install the pressure fan at any sturdy position where no vibration occurs. If the position of installation has insufficient strength, the fan may cause resonance that damages the blade or causes other type of accident. If it is installed at any position that is considered weak, add some reinforcement and install it firmly.

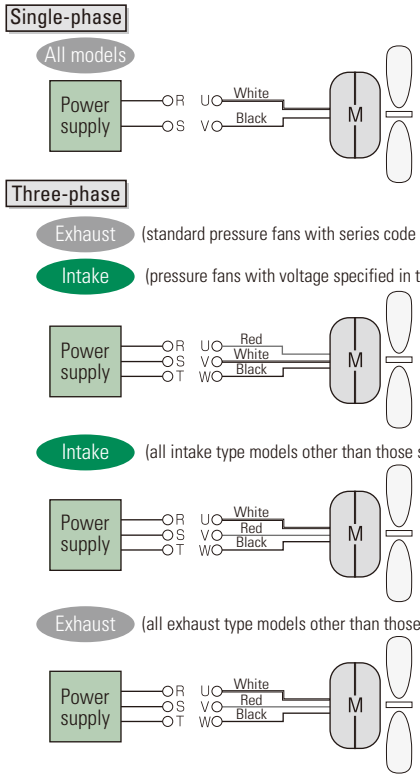
7 Some motors may have built-in thermal protectors so that they will automatically be halted in the event of constraint, overload or open-phase operation or if the ambient temperature is outside the operating range. In this case, power off the fan immediately, remedy the cause and wait until the motor cools down before resuming the operation.

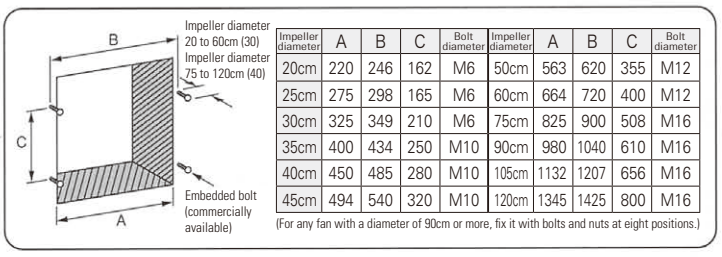
8 Mounting position
The standard product is mounted so that the fan shaft is horizontal. For other mounting positions, please contact us.

9 For installation
For installation of the main unit of the pressure fan and combination with optional accessories, please refer to the diagram below.

10 Use a motor breaker (overload protector) or equivalent as a protection circuit. Choose a motor breaker with around 1.2 times to 1.5 times the allowable current level of the specific fan for the purpose of prevention of malfunction.

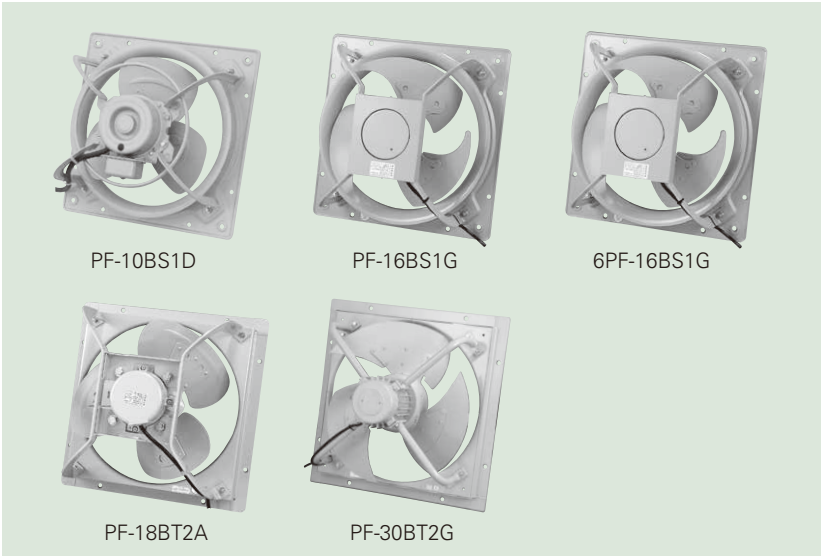
11 The diagrams below illustrate connections of power lead wires.





Impeller diameter	A	B	C	Bolt diameter	Impeller diameter	A	B	C	Bolt diameter
20cm	220	246	162	M6	50cm	563	620	355	M12
25cm	275	298	165	M6	60cm	664	720	400	M12
30cm	325	349	210	M6	75cm	825	900	508	M16
35cm	400	434	250	M10	90cm	980	1040	610	M16
40cm	450	485	280	M10	105cm	1132	1207	656	M16
45cm	494	540	320	M10	120cm	1345	1425	800	M16

(For any fan with a diameter of 90cm or more, fix it with bolts and nuts at eight positions.)



* Please note that the photo shows typical examples and that they may partly differ from actual items.

Applications

For ventilation, air intake into and air exhaust from factories and warehouses and incorporating into equipment

Specification table

Airflow direction	Model	Impeller diameter (cm)	Number of poles (P)	Power supply (V)	Nominal output (W)	Air volume (m^3/h)		Power consumption (W)		Allowable current (A)		Starting current (A)		Noise (dB(A))		Approx. mass (kg)
						50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	
Exhaust type	PF-8BS1D	20	4	Single-phase100	15	552	654	40	40	0.6	0.5	1.4	1.4	38	41	3.3
	PF-8BS2D			Single-phase200						0.3	0.25	0.7	0.7			
	PF-10BS1D	25		Single-phase100	20	1020	1200	46	49	0.7	0.8	1.4	1.4	41	44	3.5
	PF-10BS2D			Single-phase200						0.35	0.4	0.7	0.7			
	PF-12BS1N	30		Single-phase100	50	1873	2140	61	90	0.9	1.2	1.9	1.7	39.1	42.8	5.4
	PF-12BS2N			Single-phase200				61	90	0.5	0.6	0.8	0.7			
	PF-12BT2N			Three-phase200				70	98	0.4	0.6	1.0	0.9			
	PF-14BS1N	35		Single-phase100	100	2831	3231	145	182	2.3	2.6	5.0	4.7	43.2	46.0	9.2
	PF-14BS2N			Single-phase200				156	192	1.2	1.4	2.8	2.7			
	PF-14BT2N			Three-phase200				138	173	1.0	1.0	2.9	2.7			
	PF-16BS1G	40		Single-phase100	200	4080	4680	188	240	3.5	3.45	8.3	7.9	46	50	11
	PF-16BS2G			Single-phase200				200	250	1.8	1.8	4.3	4.2			
	PF-16BT2G			Three-phase200		4022	4543	162	227	1.2	1.2	4.1	3.9			
	PF-16BT2F			Three-phase200	400	4990	5790	300	420	2.3	2.5	8.3	6.3	57	61	12.3
	6PF-16BS1G		6	Single-phase100	100	2880	3340	86	101	1.4	1.6	2.8	2.6	40	44	10.8
	6PF-16BS2G			Single-phase200				98	116	0.72	0.84	1.6	1.6			
	6PF-16BT2G			Three-phase200				114	118	0.9	0.9	2.2	2.1			
	PF-18BS1A	45		Single-phase100	250	5010	5838	230	340	5.5	7.5	11	11	54	58	23.5
	PF-18BS2A			Single-phase200				230	340	2.7	3.7	6.5	5.9			
	PF-18BT2A			Three-phase200		5034	5802	210	310	2.3	3.0	6.5	5.7			23
	PF-20BS1G	50		Single-phase100	400	6200	7020	300	450	7.0	7.2	11	11	49	53	25
	PF-20BS2G			Single-phase200				300	450	3.5	3.6	6.5	5.9			
	PF-20BT2G			Three-phase200		6120	7140	270	410	2.6	2.8	6.5	5.7			24.6
	PF-24BT2G	60			750	9420	11160	460	690	4.2	4.2	12	10	51	55.5	33
	8PF-24BT2G		8		400	7060	8360	250	330	3.0	3.0	5.8	4.6	45	49.5	33
	PF-30BT2G	75	6		1500	19500	19500	1500	1640	7.7	6.7	33	29	62	64	77.5
	PF-36BT2G	90			2200	27000	27000	2050	2250	11.0	11.0	38	34	69	73	86
	8PF-36BT2		8		1500	22800	22800	850	1200	6.7	6.2	25	23	71	74	76
	PF-42BT2G	105			2200	36000	36000	2050	2600	14	15.0	42	35	67	71	118
	PF-48B	120	10		3700	42000	42000	3200	3200	20	17	74	63	75	76	153

- The power consumption, air volume and noise figures mentioned above represent the values in the state of operation under free air conditions.
- The air volume has been measured using the JIS C 9603-compliant orifice chamber method, except for models where an impeller diameter ranges from 90cm to 120cm, for which the JIS B 8330-compliant suction pipe method was employed.
- The noise figure represents the average of the values measured at three points that are 1.5 meters distant from one another. The value in actual operation varies depending on the installation method, the duct form, and so on.
- The allowable current figure represents the critical point of operation. Use it for reference at the time of selecting a motor breaker.
- Make sure that the product is used in a place where no corrosive or explosive gas or no steam is generated.
- Environment conditions (temperature and humidity) where the fan is installed are as follows. Observe these conditions when using the product.

Single-phase power supply models
Impeller diameter 35cm or less: Temperature from -30 to +50 ℃, humidity 90% or less, elevation 1,000m or less
Impeller diameter 40cm with four poles: Temperature from -20 to +50 ℃, humidity 90% or less, elevation 1,000m or less
Impeller diameter 40cm or more with six poles: Temperature from -10 to +50 ℃, humidity 85% or less, elevation 1,000m or less

Three-phase power supply models
Temperature from -30 to +50 ℃, humidity 85% or less*, elevation 1,000m or less
* For models with the impeller diameter 40cm or less and with four poles, the humidity must be 90% or less.

Specification table

Airflow direction	Model	Impeller diameter (cm)	Number of poles (P)	Power supply (V)	Nominal output (W)	Air volume (m³/h)		Power consumption (W)		Allowable current (A)		Starting current (A)		Noise (dB(A))		Approx. mass (kg)
						50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	
Intake type	PF-8AS1D	20	4	Single-phase100	15	546	642	40	40	0.6	0.5	1.4	1.4	38	42	3.3
	PF-8AS2D			Single-phase200						0.3	0.25	0.7	0.7			
	PF-10AS1D	25		Single-phase100	20	1014	1176	46	49	0.7	0.8	1.4	1.4	42	46	3.5
	PF-10AS2D			Single-phase200						0.35	0.4	0.7	0.7			
	PF-12AS1N	30		Single-phase100	50	1654	1873	67	96	1.1	1.4	1.9	1.7	45.6	49.7	5.4
	PF-12AS2N			Single-phase200				67	96	0.6	0.6	0.8	0.7			
	PF-12AT2N			Three-phase200		1678	1902	71	102	0.5	0.5	1.0	0.9			
	PF-14AS1N	35		Single-phase100	100	2540	2868	150	193	2.4	2.9	5.0	4.7	48.7	52.3	9.2
	PF-14AS2N			Single-phase200				156	201	1.3	1.5	2.8	2.7			
	PF-14AT2N			Three-phase200				139	184	1.1	1.1	2.9	2.7			
	PF-16AS1D	40		Single-phase100	200	3528	4008	210	270	3.15	3.4	8.3	7.9	55	59	10.5
	PF-16AS2D			Single-phase200				204	260	1.7	1.7	4.3	4.2			
	PF-16AT2D			Three-phase200		3600	4140	184	263	1.14	1.14	4.1	3.9			
	PF-16AT2F			Three-phase200	400	4745	5568	305	460	2.3	2.5	8.3	6.3	57	61	12.3
	6PF-16AS1D		6	Single-phase100	100	2442	2832	90	107	1.5	1.6	2.8	2.6	45	49	10.5
	6PF-16AS2D			Single-phase200				102	120	0.75	0.75	1.6	1.6			
	6PF-16AT2D			Three-phase200		2466	3048	114	123	0.86	0.86	2.2	2.1			
	PF-18AS1A	45		Single-phase100	250	3906	4530	250	370	5.8	6.7	11	11	56	60	23.5
	PF-18AS2A			Single-phase200				250	370	2.9	3.4	6.5	5.9			
	PF-18AT2A			Three-phase200		3920	4600	230	340	2.3	3.0	6.5	5.7			23
	PF-20AS1A	50		Single-phase100	400	5280	6120	270	400	6.5	6.8	11	11	58	61	24.5
	PF-20AS2A			Single-phase200				270	400	3.2	3.4	6.5	5.9			
	PF-20AT2A			Three-phase200		5220	6000	250	340	2.7	3.0	6.5	5.7			24.3
	PF-24AT2G	60			750	6360	7380	490	710	4.1	4.1	12	10	55.5	59	33
	8PF-24AT2G		8		400	5420	6280	270	360	3.0	2.8	5.8	4.6	48.5	52	33
	PF-30AT2G	75	6		1500	15000	15000	1380	1600	7.4	7.8	33	29	68	69	81
	8PF-36AT2	90	8		1500	22800	22800	1040	1040	6.4	6.1	25	23	71	74	76
	PF-42AT2	105			2200	34200	34200	2500	2260	11.4	10.3	42	35	74	76	103
	PF-48A	120	10		3700	42000	42000	3200	3200	20	17	74	63	75	76	153

- The power consumption, air volume and noise figures mentioned above represent the values in the state of operation under free air conditions.
- The air volume has been measured using the JIS C 9603-compliant orifice chamber method, except for models where an impeller diameter ranges from 90cm to 120cm, for which the JIS B 8330-compliant suction pipe method was employed.
- The noise figure represents the average of the values measured at three points that are 1.5 meters distant from one another. The value in actual operation varies depending on the installation method, the duct form, and so on.
- The allowable current figure represents the critical point of operation. Use it for reference at the time of selecting a motor breaker.
- Make sure that the product is used in a place where no corrosive or explosive gas or no steam is generated.
- Environment conditions (temperature and humidity) where the fan is installed are as follows. Observe these conditions when using the product.

Single-phase power supply models
Impeller diameter 35cm or less: Temperature from -30 to +50 ℃, humidity 90% or less, elevation 1,000m or less
Impeller diameter 40cm with four poles: Temperature from -20 to +50 ℃, humidity 90% or less, elevation 1,000m or less
Impeller diameter 40cm or more with six poles: Temperature from -10 to +50 ℃, humidity 85% or less, elevation 1,000m or less
Three-phase power supply models
Temperature from -30 to +50 ℃, humidity 85% or less*, elevation 1,000m or less
* For models with the impeller diameter 40cm or less and with four poles, the humidity must be 90% or less.

Special Specifications

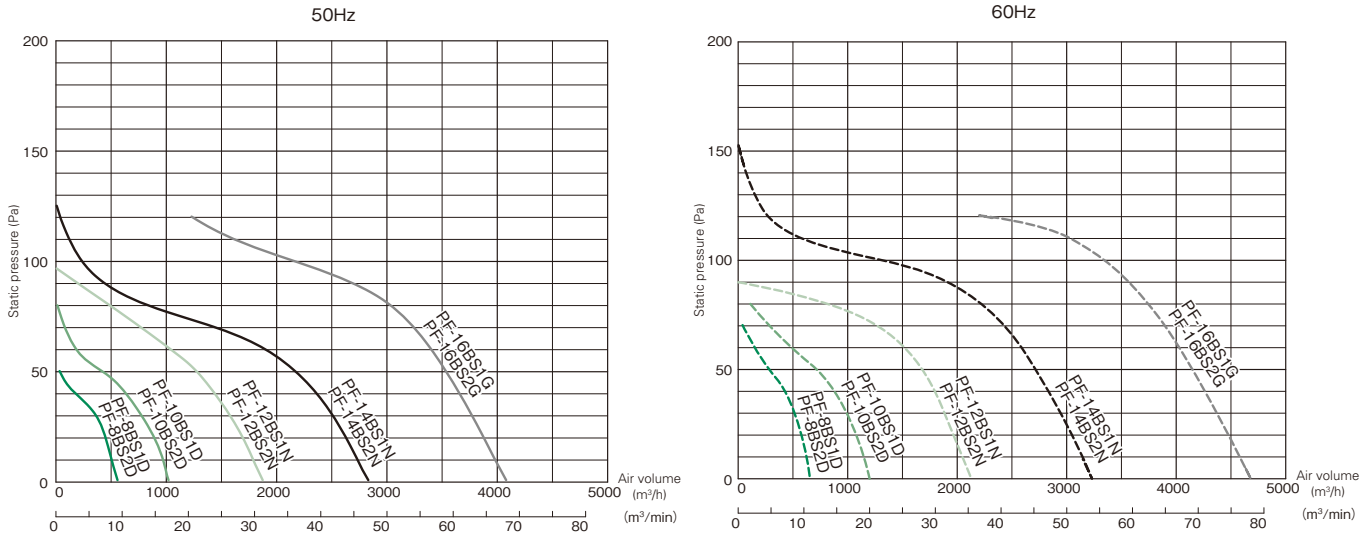
Impeller diameter (cm)	Airflow direction	Special order features						
		Different voltage 210V or 215V	Different voltage 400V	Heat resistance of 60 ℃	Heat resistance of 80 ℃	Acid-resistant (salt-resistant) coating	Specified color	MFP treatment
20	Exhaust	×	×	×	×	○	○	×
	Intake	×	×	×	×	○	○	×
25	Exhaust	×	×	×	×	○	○	×
	Intake	×	×	×	×	○	○	×
30	Exhaust	×	*1	×	×	○	○	×
	Intake	×	*1	×	×	○	○	×
35	Exhaust	×	*1	*2	*2	○	○	×
	Intake	×	*1	*2	*2	○	○	×
40	Exhaust	○	*1	*2	*2	○	○	*3
	Intake	○	*1	*2	*2	○	○	*3
45	Exhaust	○	*1	○	○	○	○	○
	Intake	○	*1	○	○	○	○	○
50	Exhaust	○	*1	○	○	○	○	○
	Intake	○	*1	○	○	○	○	○
60	Exhaust	○	○	○	○	○	○	○
	Intake	○	○	○	○	○	○	○
75	Exhaust	○	○	○	○	○	○	○
	Intake	○	○	○	○	○	○	○
90	Exhaust	○	○	○	○	○	○	○
	Intake	○	○	○	○	○	○	○
105	Exhaust	○	○	○	○	○	○	○
	Intake	○	○	○	○	○	○	○
120	Exhaust	○	○	○	○	○	○	○
	Intake	○	○	○	○	○	○	○

*1: 400V class available for three-phase power supply models only
*2: Heat resistance feature available for three-phase power supply models only
*3: MFP treatment available for three-phase power supply models only

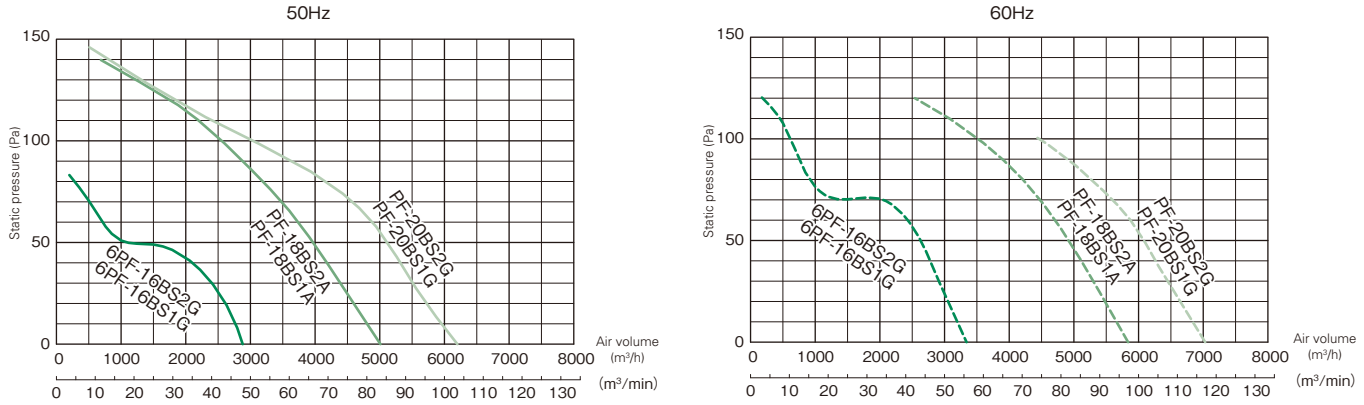
Selection chart

[Exhaust type]

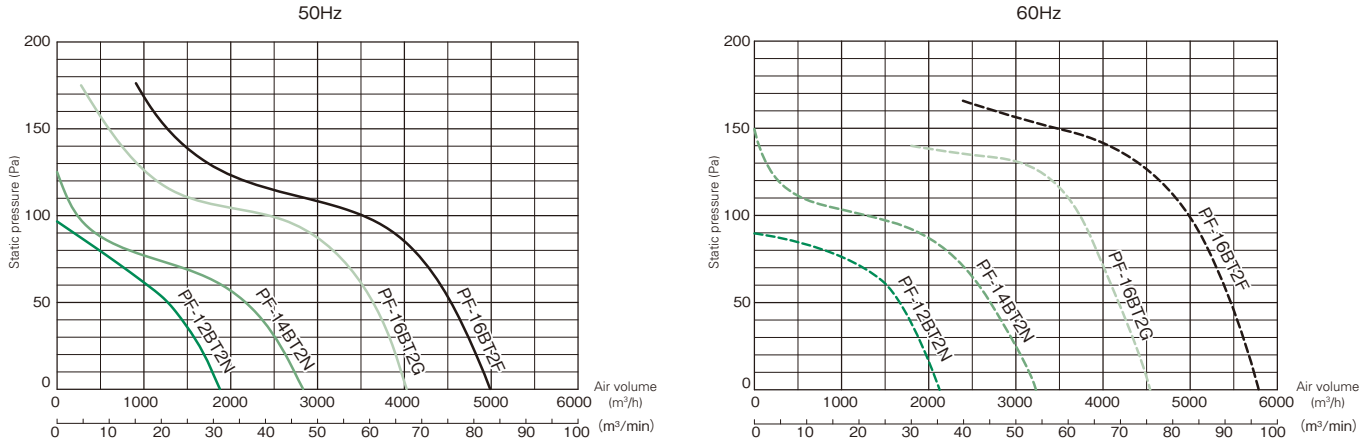
Single-phase, impeller diameter from 20 to 40cm, four poles



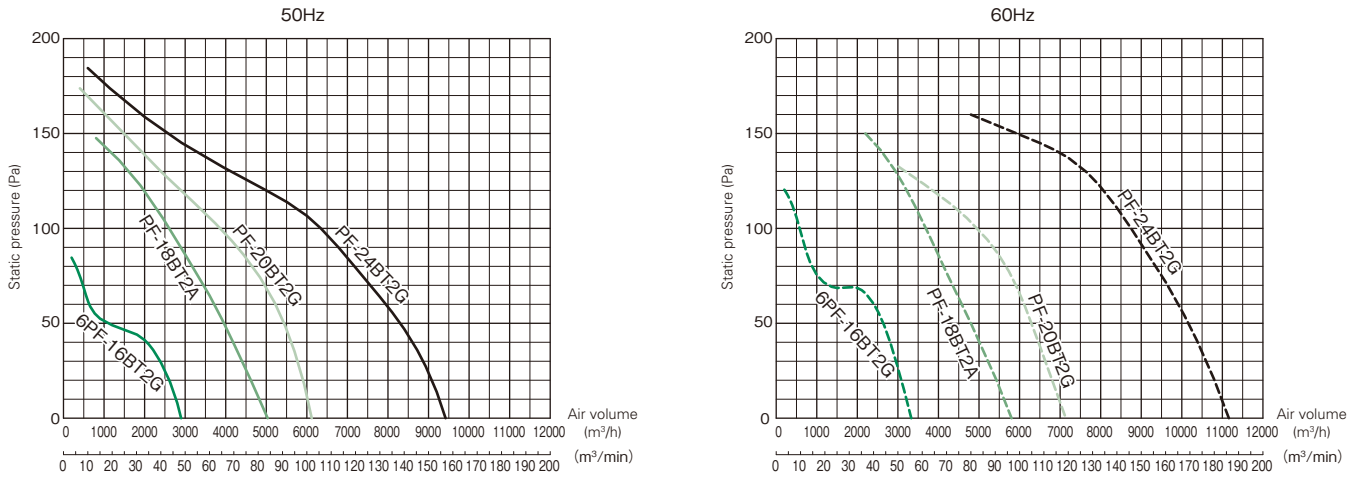
Single-phase, impeller diameter from 40 to 50cm, six poles



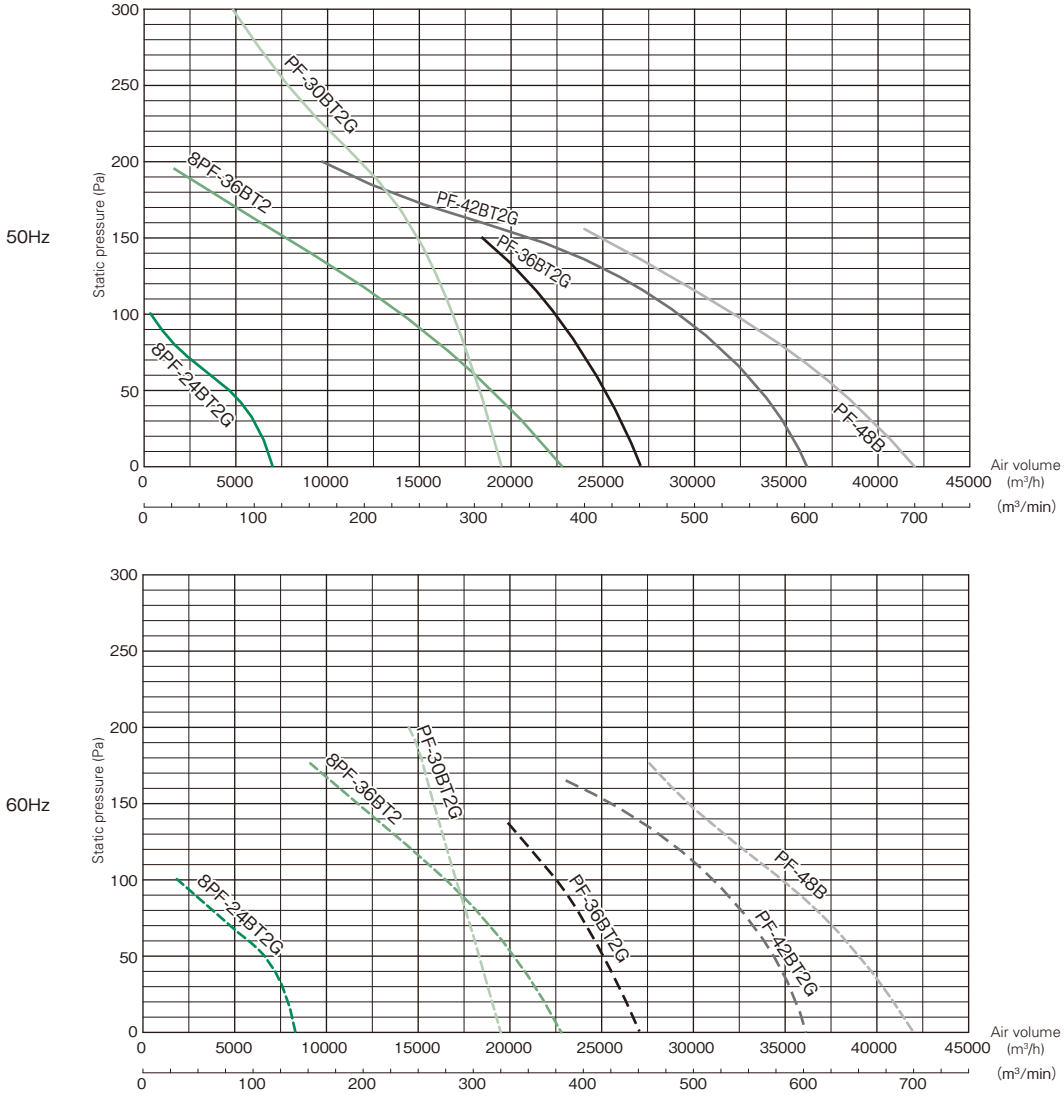
Three-phase, impeller diameter from 30 to 40cm, four poles



Three-phase, impeller diameter from 40 to 60cm, six poles



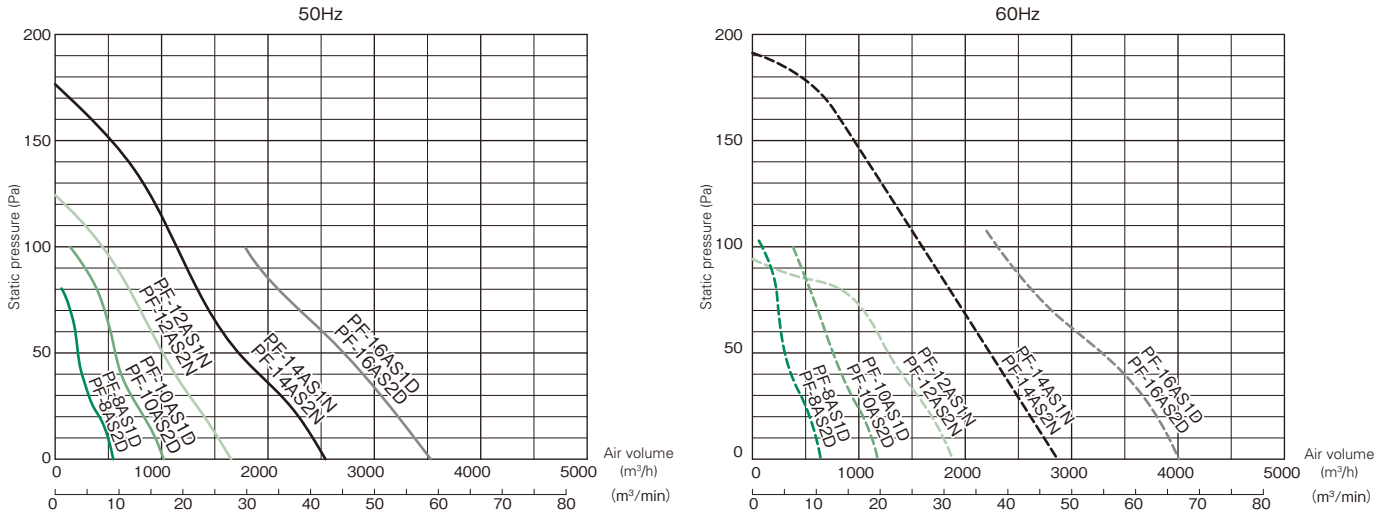
Three-phase, impeller diameter 60cm, eight poles; impeller diameter from 75 to 120cm



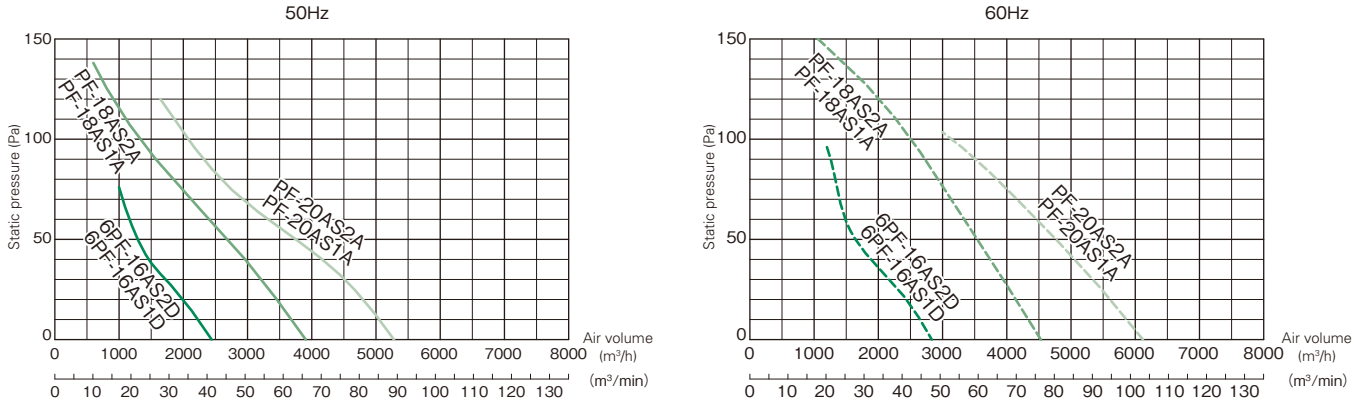
Selection chart

[Intake type]

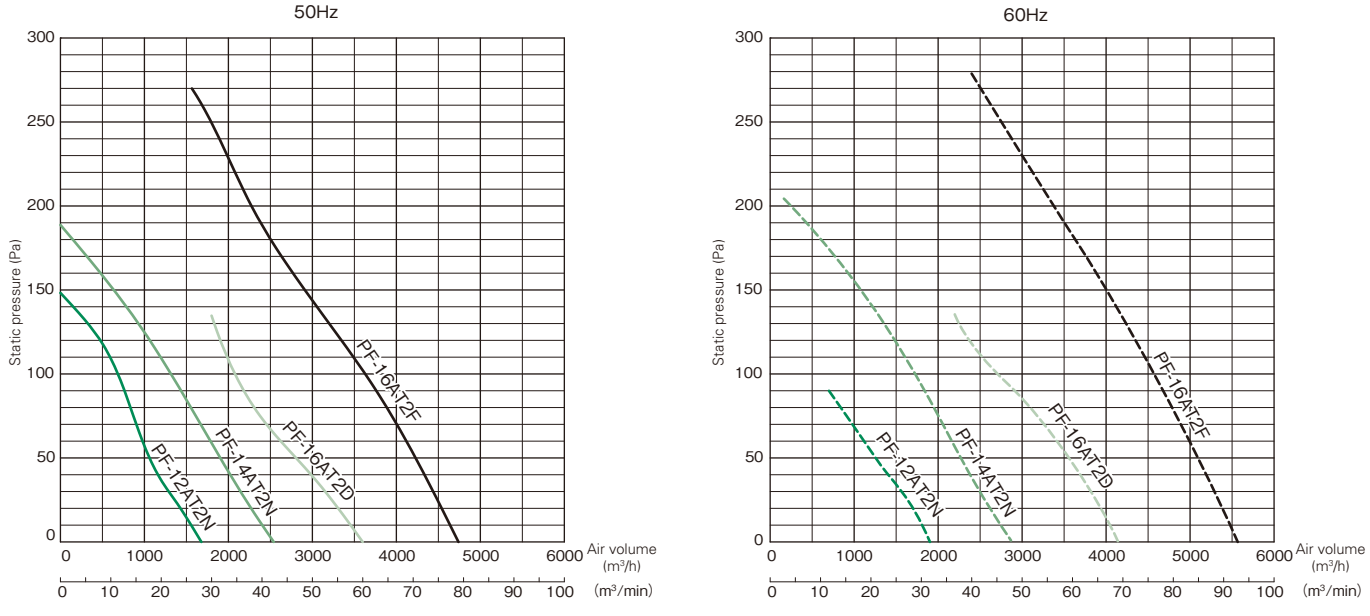
Single-phase, impeller diameter from 20 to 40cm, four poles



Single-phase, impeller diameter from 40 to 50cm, six poles

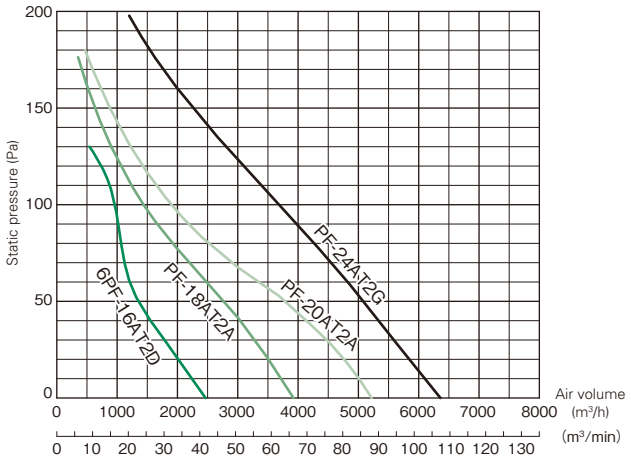


Three-phase, impeller diameter from 30 to 40cm, four poles

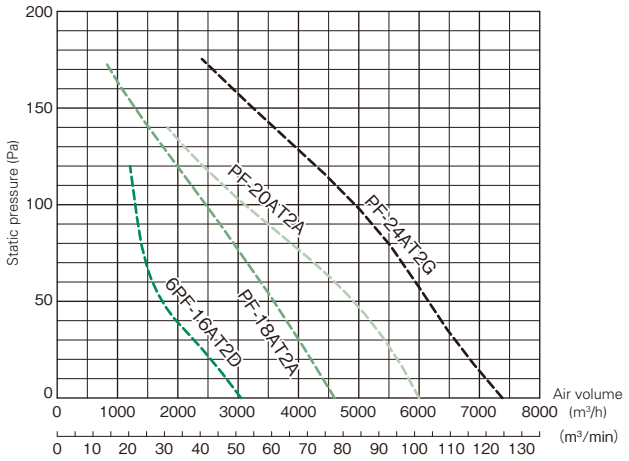


Three-phase, impeller diameter from 40 to 60cm, six poles

50Hz

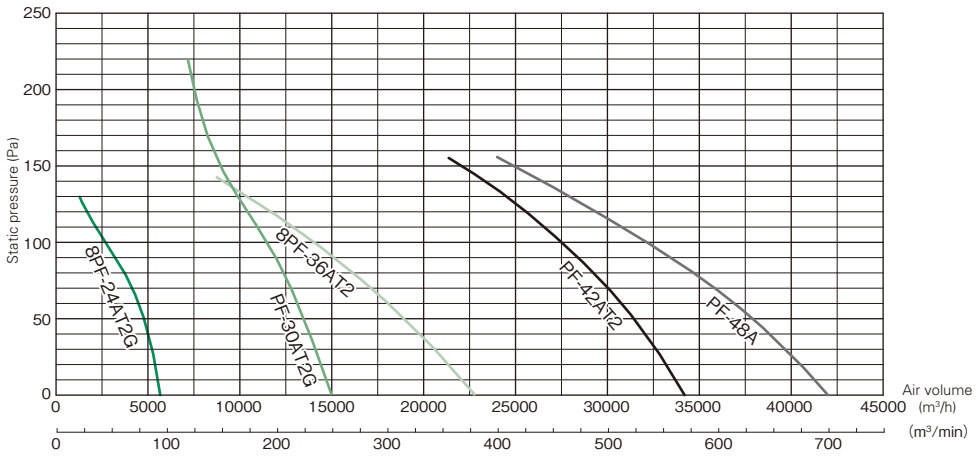


60Hz

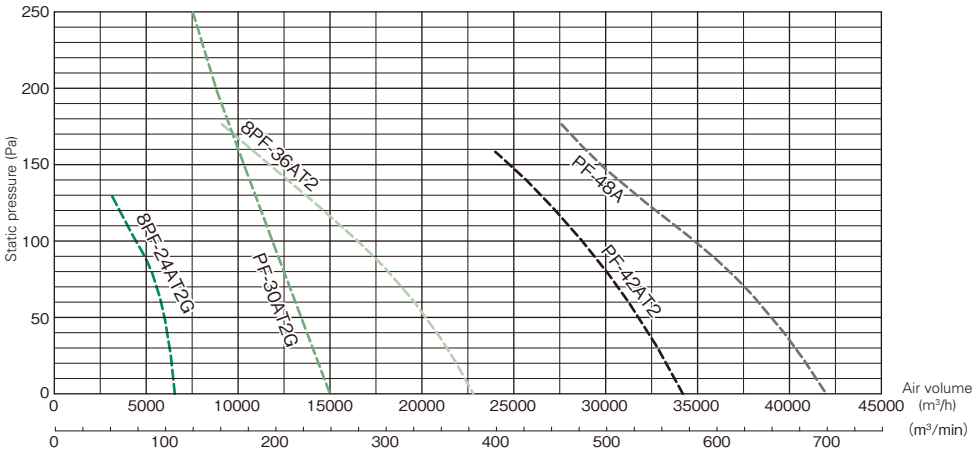


Three-phase, impeller diameter 60cm, eight poles; impeller diameter from 75 to 120cm

50Hz



60Hz



Assembly drawing [Exhaust Type]

* For intake type, please contact us.

impeller diameter from 20 to 40cm, four poles

Fig.1

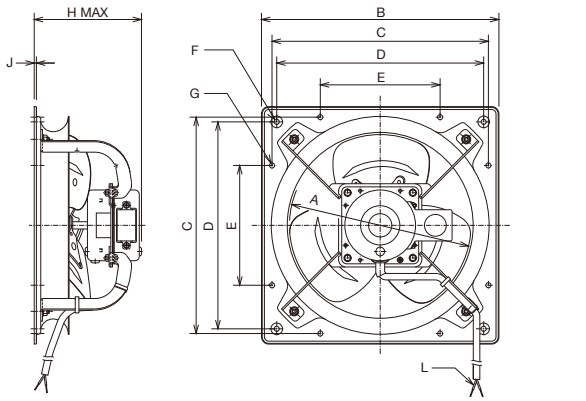


Fig.2

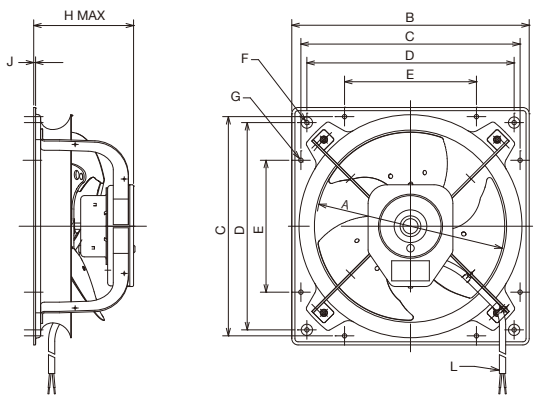
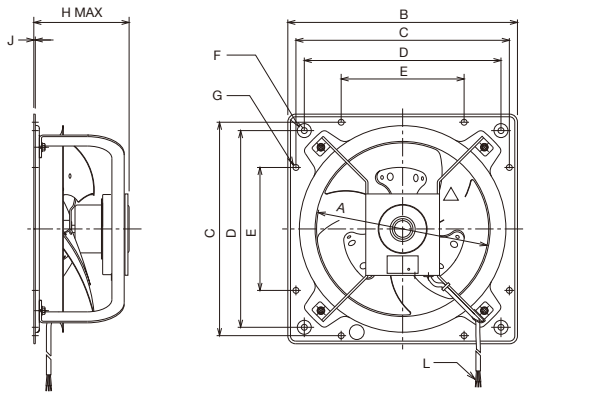


Fig.3



* The shape varies slightly depending on the model.

Dimensions

(Unit:mm)

Fig.	Model	A	B	C	D	E	F	G	H	J	L
1	PF-8BS1D	200	276	246	240	162	4×φ7	8×φ7	147.5	3	Heat-resistant vinyl-insulated wire×2×0.75mm²×1m
	PF-8BS2D	200	276	246	240	162	4×φ7	8×φ7	147.5	3	Heat-resistant vinyl-insulated wire×2×0.75mm²×1m
	PF-10BS1D	250	327	298	285	165	4×φ7	8×φ7	147.7	3	Heat-resistant vinyl-insulated wire×2×0.75mm²×1m
	PF-10BS2D	250	327	298	285	165	4×φ7	8×φ7	147.7	3	Heat-resistant vinyl-insulated wire×2×0.75mm²×1m
2	PF-12BS1N	300	378	349	330	210	4×φ7	8×φ7	159	3	VCT×2 cores×0.75mm²×1m
	PF-12BS2N	300	378	349	330	210	4×φ7	8×φ7	159	3	VCT×2 cores×0.75mm²×1m
	PF-12BT2N	300	378	349	330	210	4×φ7	8×φ7	159	3	VCT×3 cores×0.75mm²×1m
	PF-14BS1N	350	467	434	400	250	4×φ12	8×φ12	194	3	VCT×2 cores×0.75mm²×1m
	PF-14BS2N	350	467	434	400	250	4×φ12	8×φ12	194	3	VCT×2 cores×0.75mm²×1m
	PF-14BT2N	350	467	434	400	250	4×φ12	8×φ12	194	3	VCT×3 cores×0.75mm²×1m
3	PF-16BS1G	400	518	485	450	280	4×φ12	8×φ12	198	3	VCT×2 cores×0.75mm²×1m
	PF-16BS2G	400	518	485	450	280	4×φ12	8×φ12	198	3	VCT×2 cores×0.75mm²×1m
	PF-16BT2G	400	518	485	450	280	4×φ12	8×φ12	198	3	VCT×3 cores×0.75mm²×1m
	PF-16BT2F	400	518	485	450	280	4×φ12	8×φ12	224	3	2PNCT×3 cores×1.25mm²×1m

Assembly drawing [Exhaust Type]

* For intake type, please contact us.

impeller diameter from 40 to 60cm, six poles

Fig.1

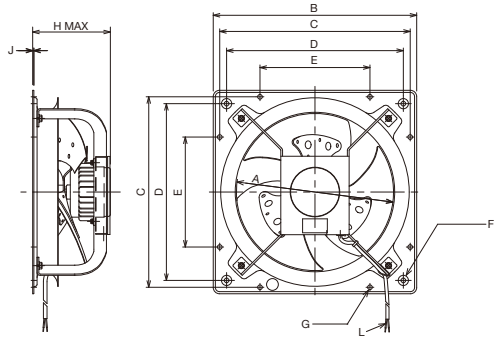
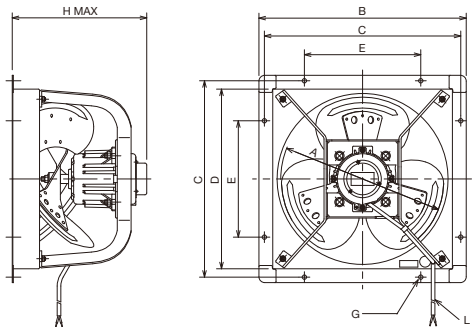


Fig.2



* The shape varies slightly depending on the model.

Dimensions

(Unit:mm)

Fig.	Model	A	B	C	D	E	F	G	H	J	L
1	6PF-16BS1G	400	518	485	450	280	4×ϕ12	8×ϕ12	198	3	VCT×2 cores×0.75mm²×1m
	6PF-16BS2G	400	518	485	450	280	4×ϕ12	8×ϕ12	198	3	VCT×2 cores×0.75mm²×1m
	6PF-16BT2G	400	518	485	450	280	4×ϕ12	8×ϕ12	198	3	VCT×3 cores×0.75mm²×1m
2	PF-18BS1A	450	570	540	494	320	/	8×ϕ12	380	/	2PNCT×2 cores×1.25mm²×1m
	PF-18BS2A	450	570	540	494	320	/	8×ϕ12	380	/	2PNCT×2 cores×1.25mm²×1m
	PF-18BT2A	450	570	540	494	320	/	8×ϕ12	350	/	2PNCT×3 cores×1.25mm²×1m
	PF-20BS1G	500	659	620	563	355	/	8×ϕ15	395	/	2PNCT×2 cores×1.25mm²×1m
	PF-20BS2G	500	659	620	563	355	/	8×ϕ15	395	/	2PNCT×2 cores×1.25mm²×1m
	PF-20BT2G	500	659	620	563	355	/	8×ϕ15	365	/	2PNCT×3 cores×1.25mm²×1m
	PF-24BT2G	600	760	720	664	400	/	8×ϕ15	380	/	2PNCT×3 cores×1.25mm²×1m

impeller diameter 60cm, eight poles; impeller diameter from 75 to 120cm

Fig.1

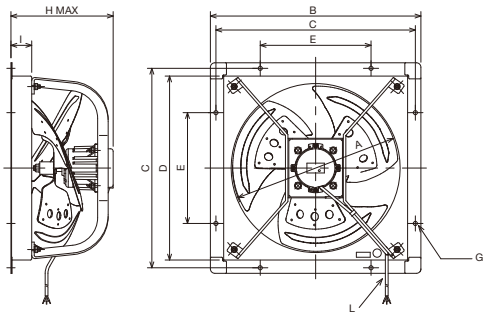


Fig.2

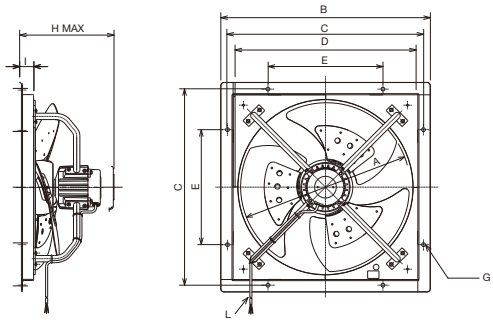
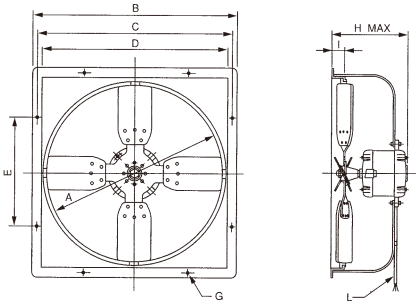


Fig.3



* The shape varies slightly depending on the model.

Dimensions

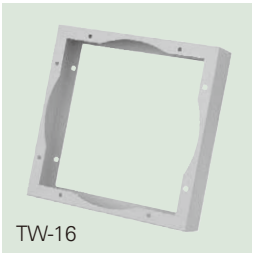
(Unit:mm)

Fig.	Model	A	B	C	D	E	F	G	I	L
1	8PF-24BT2G	600	760	720	664	400	8×ϕ15	380	75	2PNCT×3 cores×1.25mm²×1m
	PF-30BT2G	750	955	900	825	508	8×ϕ20	450	65	2PNCT×3 cores×2mm²×1m
2	PF-36BT2G	900	1110	1040	980	610	8×ϕ20	440	65	2PNCT×3 cores×2mm²×1m
3	8PF-36BT2	900	1110	1040	980	610	8×ϕ20	415	65	2PNCT×3 cores×2mm²×1m
2	PF-42BT2G	1050	1262	1207	1132	656	8×ϕ20	560	65	2PNCT×3 cores×3.5mm²×1m
3	PF-48B	1200	1475	1425	1345	800	8×ϕ20	540	/	2PNCT×3 cores×5.5mm²×3m

Special Accessory

●Intake Attachment

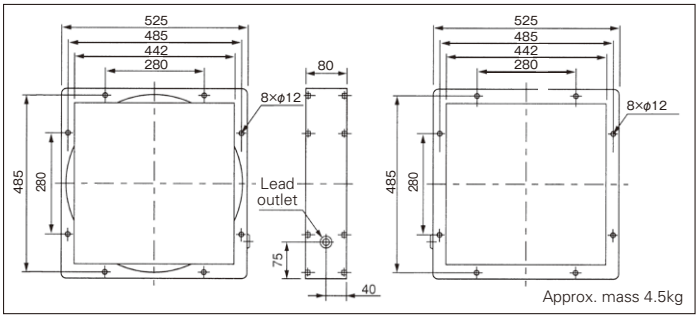
Make sure to use it when using the PF-16AT2F (intake type pressure fan) in combination with a motor-driven shutter.



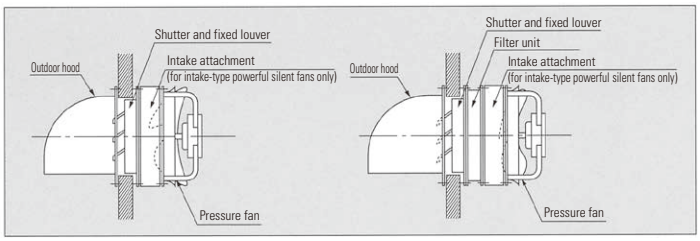
TW-16

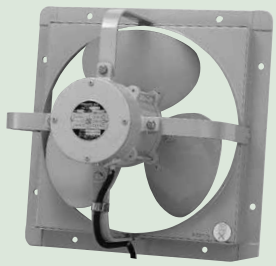
* Please note that the photo shows a typical example and that it may partly differ from the actual item.

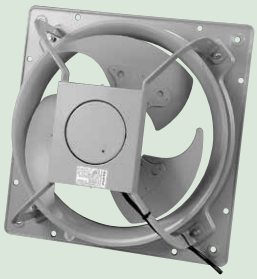
Assembly drawing



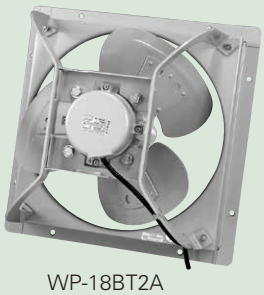
Example of Combination




WP-12B


WP-16BT2G


WP-16AS1D


WP-18BT2A

* Please note that the photo shows a typical example and that it may partly differ from the actual item.

Applications

For installation in a place with high humidity and outdoors

Feature

These pressure fans are equipped with outdoor motors suited for conditions of high humidity.

Notes on Installation

- Any model with the impeller diameter 35cm or more has a drain hole underneath the motor. (For installing the fan with the motor shaft positioned horizontally), make sure that the drain hole faces downward. When using it outdoors or under conditions of high humidity, remove the drain hole cap facing downward. When using it in any dusty place or when water comes into the fan, keep the cap attached and detach it occasionally to perform an inspection.
- It is standard to install the fan with the shaft positioned horizontally. If it is installed in a non-standard manner (e.g. at an attitude in which the shaft faces downward), make sure to specify it at the time of placing an order. Installation of any fan designed to be installed in the standard manner at an attitude in which it faces downward may cause failure.

Specification table

Airflow direction	Model	Impeller diameter (cm)	Number of poles (P)	Power supply (V)	Nominal output (W)	Air volume (m^3/h)		Power consumption (W)		Allowable current (A)		Starting current (A)		Noise (dB(A))		Approx. mass (kg)
						50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	
Exhaust type	WP-10B	25	4	Single-phase100	20	570	690	31	37	0.7	0.7	0.9	0.8	45	49	5.5
				Single-phase200						0.35	0.35	0.5	0.4			
	WP-12B	30		Single-phase100	50	1446	1704	66	83	1.2	1.5	2.8	3	51	55	8.5
				Single-phase200						0.6	0.75	1.4	1.5			
	WP-14BS1G	35		Single-phase100	100	2660	3150	142	144	3.2	3	8.3	7.9	43.5	47	9.4
	WP-14BS2G			Single-phase200						1.6	1.5	4.3	4.2			
	WP-14BT2G			Three-phase200				102	122	1.25	1.15	4.1	3.9			
	WP-16BS1G	40		Single-phase100	200	4080	4680	188	240	3.5	3.45	8.3	7.9	46	50	11
	WP-16BS2G			Single-phase200				200	250	1.8	1.8	4.3	4.2			
	WP-16BT2G			Three-phase200		4022	4543	162	227	1.2	1.2	4.1	3.9			
	6WP-16BS1G		6	Single-phase100	100	2880	3340	86	101	1.4	1.6	2.8	2.6	40	44	10.8
	6WP-16BS2G			Single-phase200				98	116	0.72	0.84	1.6	1.6			
	6WP-16BT2G			Three-phase200				114	118	0.9	0.9	2.2	2.1			
	WP-18BS1A	45		Single-phase100	250	5010	5838	230	340	5.5	7.5	11	11	54	58	23.5
	WP-18BS2A			Single-phase200						2.7	3.7	6.5	5.9			
	WP-18BT2A			Three-phase200		5034	5802	210	310	2.3	3.0	6.5	5.7			23
	WP-20BS1G	50		Single-phase100	400	6200	7020	300	450	7.0	7.2	11	11	49	53	25
	WP-20BS2G			Single-phase200						3.5	3.6	6.5	5.9			
	WP-20BT2G			Three-phase200		6120	7140	270	410	2.6	2.8	6.5	5.7			24.6
	WP-24BT2G	60			750	9420	11160	460	690	4.2	4.2	12	10	51	55.5	33
	8WP-24BT2G		8		400	7060	8360	250	330	3.0	3.0	5.8	4.6	45	49.5	
	WP-30BT2G	75	6		1500	19500	19500	1500	1640	7.7	6.7	33	29	62	64	77.5
	WP-36BT2G	90			2200	27000	27000	2050	2250	11.0	11.0	38	34	69	73	86
	WP-42BT2G	105	8			36000	36000	2050	2600	14.0	15.0	42	35	67	71	118
	WP-48B	120	10		3700	42000	42000	3200	3200	20	17	74	63	75	76	153

- The power consumption, air volume and noise figures mentioned above represent the values in the state of operation under free air conditions.
- The air volume has been measured using the JIS C 9603-compliant orifice chamber method, except for models where an impeller diameter ranges from 90cm to 120cm, for which the JIS B 8330-compliant suction pipe method was employed.
- The noise figure represents the average of the values measured at three points that are 1.5 meters distant from one another. The value in actual operation varies depending on the installation method, the duct form, and so on.
- The allowable current figure represents the critical point of operation. Use it for reference at the time of selecting a motor breaker.
- Make sure that the product is used in a place where no corrosive or explosive gas or no steam is generated.
- The fan should be installed in an environment where the temperature ranges from -10 ℃ to +40 ℃, the humidity is 100% or less, and the elevation is 1,000m or less. Observe these conditions when using the product.

Specification table

Airflow direction	Model	Impeller diameter (cm)	Number of poles (P)	Power supply (V)	Nominal output (W)	Air volume (m^3/h)		Power consumption (W)		Allowable current (A)		Starting current (A)		Noise (dB(A))		Approx. mass (kg)
						50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	
Intake type	WP-10A	25	4	Single-phase100	20	402	498	31	37	0.7	0.7	0.9	0.8	45	49	5.5
				Single-phase200						0.35	0.35	0.5	0.4			
	WP-12A	30		Single-phase100	50	720	840	66	83	1.2	1.5	2.8	3	51	55	8.5
				Single-phase200						0.6	0.75	1.4	1.5			
	WP-14AS1D	35		Single-phase100	100	2484	2898	164	186	3.0	3.2	8.3	7.9	54	57	9.4
	WP-14AS2D			Single-phase200						1.6	1.7	4.3	4.2			
	WP-14AT2D			Three-phase200		2538	2904	120	160	1.15	1.1	4.1	3.9			
	WP-16AS1D	40		Single-phase100	200	3528	4008	210	270	3.15	3.4	8.3	7.9	55	59	10.5
	WP-16AS2D			Single-phase200				204	260	1.7	1.7	4.3	4.2			
	WP-16AT2D			Three-phase200		3600	4140	184	263	1.14	1.14	4.1	3.9			
	6WP-16AS1D		6	Single-phase100	100	2442	2832	90	107	1.5	1.6	2.8	2.6	45	49	10.5
	6WP-16AS2D			Single-phase200				102	120	0.75	0.75	1.6	1.6			
	6WP-16AT2D			Three-phase200		2466	3048	114	123	0.86	0.86	2.2	2.1			
	WP-18AS1A	45		Single-phase100	250	3906	4530	250	370	5.8	6.7	11	11	56	60	23.5
	WP-18AS2A			Single-phase200						2.9	3.4	6.5	5.9			
	WP-18AT2A			Three-phase200		3920	4600	230	340	2.3	3.0	6.5	5.7			23
	WP-20AS1A	50		Single-phase100	400	5280	6120	270	400	6.5	6.8	11	11	58	61	24.5
	WP-20AS2A			Single-phase200						3.2	3.4	6.5	5.9			
	WP-20AT2A			Three-phase200		5220	6000	250	340	2.7	3.0	6.5	5.7			24.3
	WP-24AT2G	60			750	6360	7380	490	710	4.1	4.1	12	10	55.5	59	33
	8WP-24AT2G		8		400	5420	6280	270	360	3.0	2.8	5.8	4.6	48.5	52	
	WP-30AT2G	75	6		1500	15000	15000	1380	1600	7.4	7.8	33	29	68	69	81
	WP-30AT2					19500	19500	1580	1400	7.0	6.8	33	29	72	73	73.5
	WP-36AT2	90			2200	27000	27000	1720	2200	8.6	9.0	31	28	77	80	76
	WP-42AT2	105	8			34200	34200	2500	2260	11.4	10.3	42	35	74	76	103
	WP-48A	120	10		3700	42000	42000	3200	3200	20	17	74	63	75		153

- The power consumption, air volume and noise figures mentioned above represent the values in the state of operation under free air conditions.
- The air volume has been measured using the JIS C 9603-compliant orifice chamber method, except for models where an impeller diameter ranges from 90cm to 120cm, for which the JIS B 8330-compliant suction pipe method was employed.
- The noise figure represents the average of the values measured at three points that are 1.5 meters distant from one another. The value in actual operation varies depending on the installation method, the duct form, and so on.
- The allowable current figure represents the critical point of operation. Use it for reference at the time of selecting a motor breaker.
- Make sure that the product is used in a place where no corrosive or explosive gas or no steam is generated.
- The fan should be installed in an environment where the temperature ranges from -10 ℃ to +40 ℃, the humidity is 100% or less, and the elevation is 1,000m or less. Observe these conditions when using the product.

Special Specifications

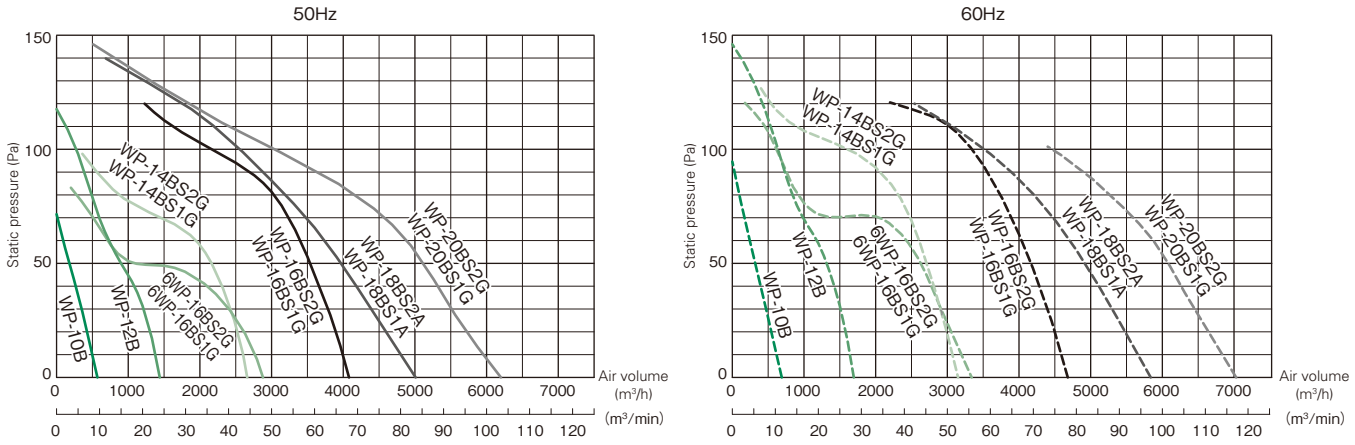
Impeller diameter (cm)	Airflow direction	Special order features						
		Different voltage 210V or 215V	Different voltage 400V	Heat resistance of 60 ℃	Heat resistance of 80 ℃	Acid-resistant (salt-resistant) coating	Specified color	MFP treatment
25	Exhaust	×	×	×	×	○	○	×
	Intake	×	×	×	×	○	○	×
30	Exhaust	×	×	×	×	○	○	×
	Intake	×	×	×	×	○	○	×
35	Exhaust	×	*1	○	×	○	○	○
	Intake	×	*1	○	×	○	○	○
40	Exhaust	○	*1	○	×	○	○	○
	Intake	○	*1	○	×	○	○	○
45	Exhaust	○	*1	○	×	○	○	○
	Intake	○	*1	○	×	○	○	○
50	Exhaust	○	*1	○	×	○	○	○
	Intake	○	*1	○	×	○	○	○
60	Exhaust	○	○	○	×	○	○	○
	Intake	○	○	○	×	○	○	○
75	Exhaust	○	○	○	×	○	○	○
	Intake	○	○	○	×	○	○	○
90	Exhaust	○	○	○	×	○	○	○
	Intake	○	○	○	×	○	○	○
105	Exhaust	○	○	○	×	○	○	○
	Intake	○	○	○	×	○	○	○
120	Exhaust	○	○	○	×	○	○	○
	Intake	○	○	○	×	○	○	○

*1: 400V class available for three-phase power supply models only

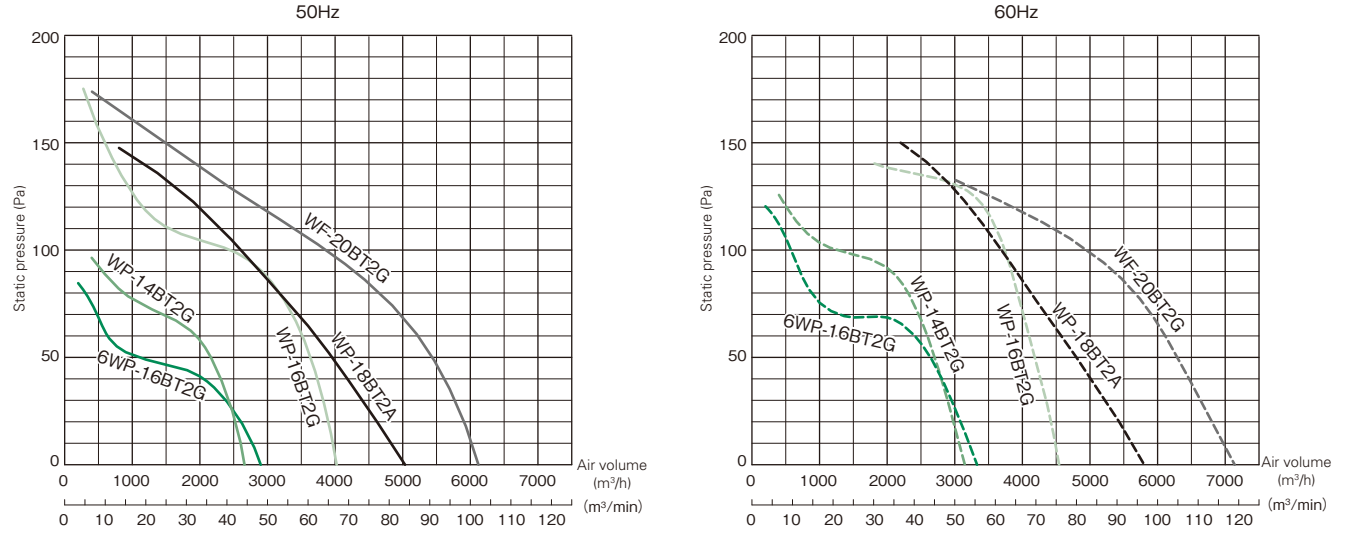
Selection chart

[Exhaust type]

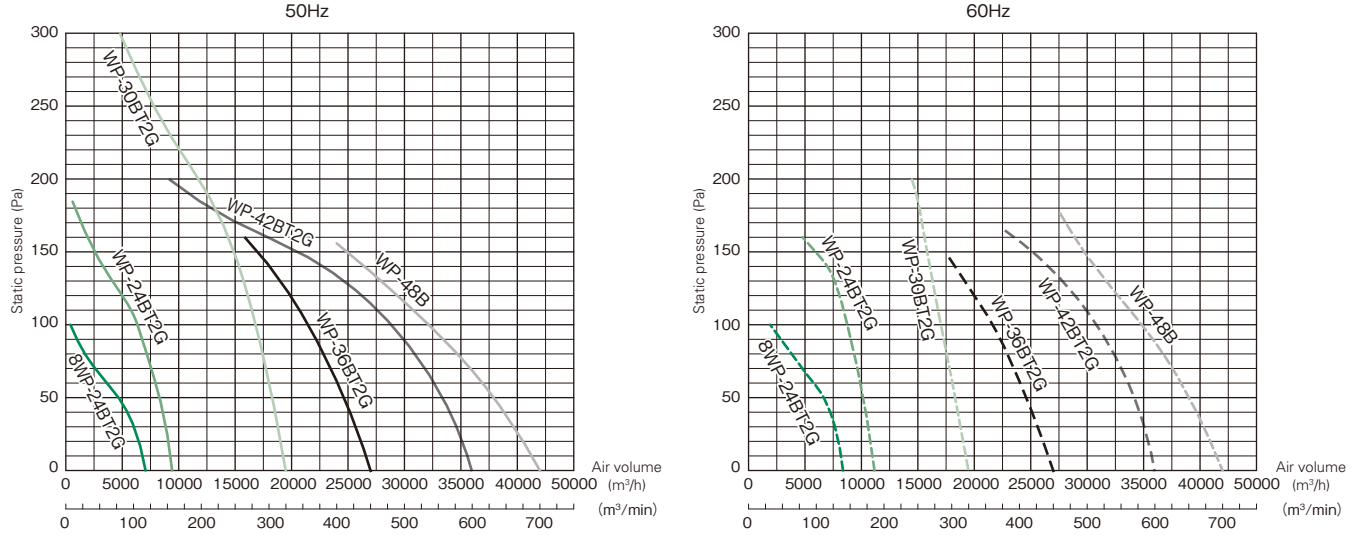
Single-phase, impeller diameter from 25 to 50cm



Three-phase, impeller diameter from 35 to 50cm



Three-phase, impeller diameter from 60 to 120cm

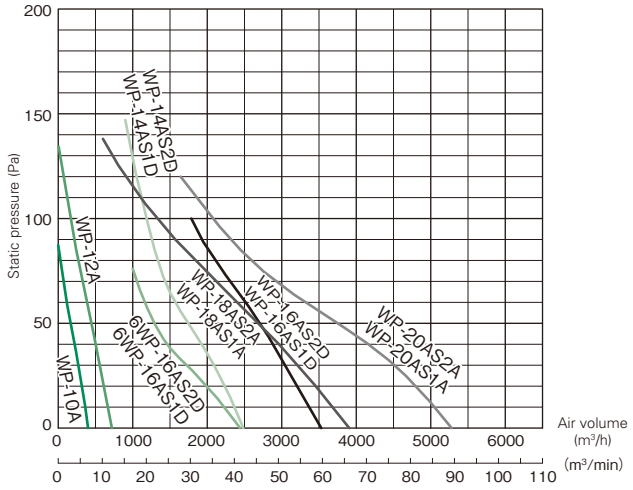


Selection chart

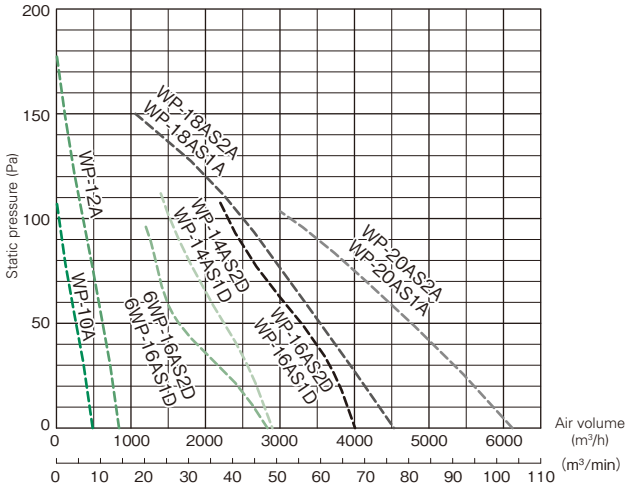
[Intake type]

Single-phase, impeller diameter from 25 to 50cm

50Hz

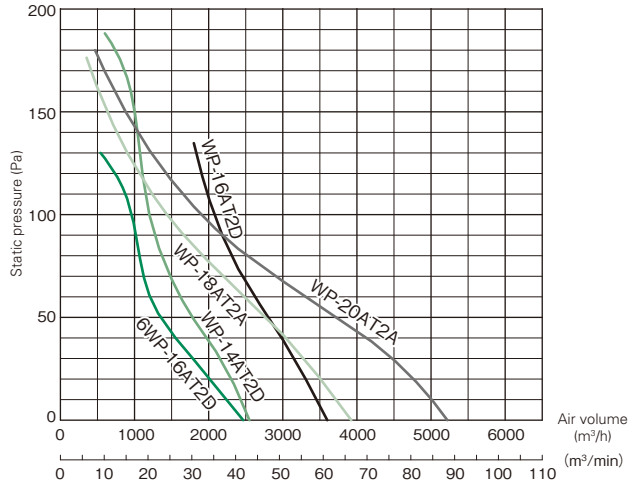


60Hz

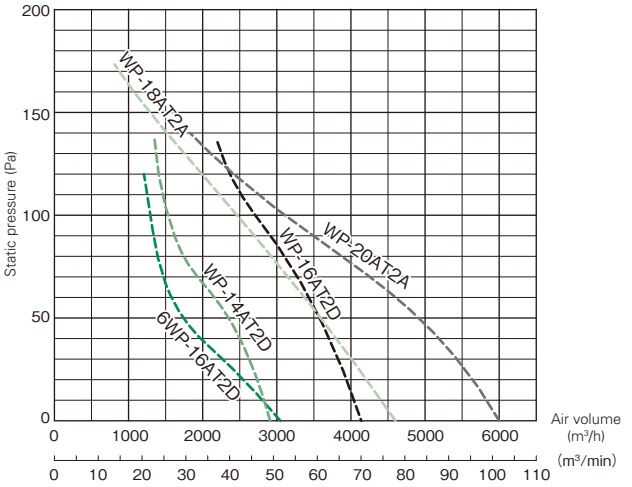


Three-phase, impeller diameter from 35 to 50cm

50Hz

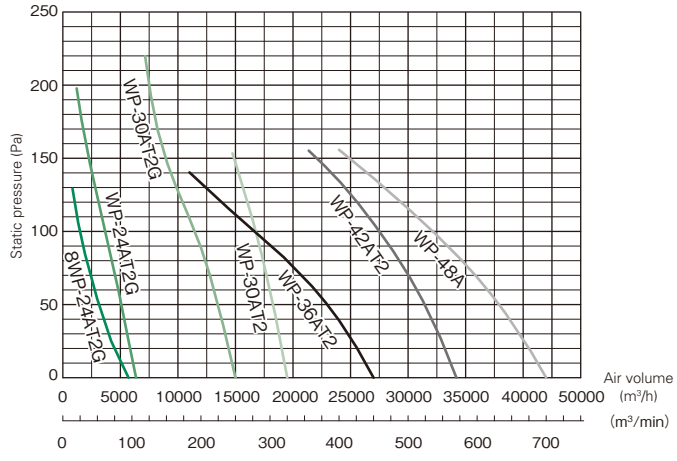


60Hz

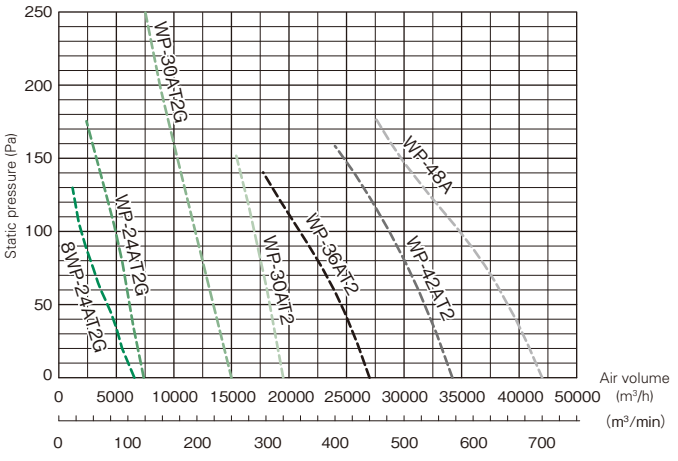


Three-phase, impeller diameter from 60 to 120cm

50Hz



60Hz



Assembly drawing [Exhaust Type]

* For intake type, please contact us.

Fig.1

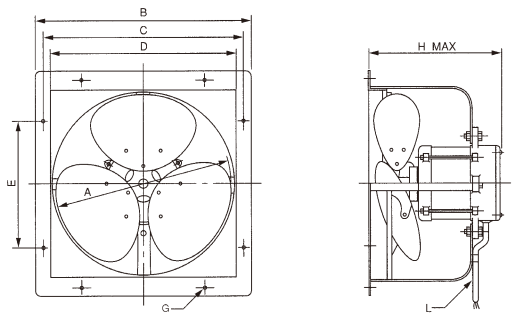


Fig.2

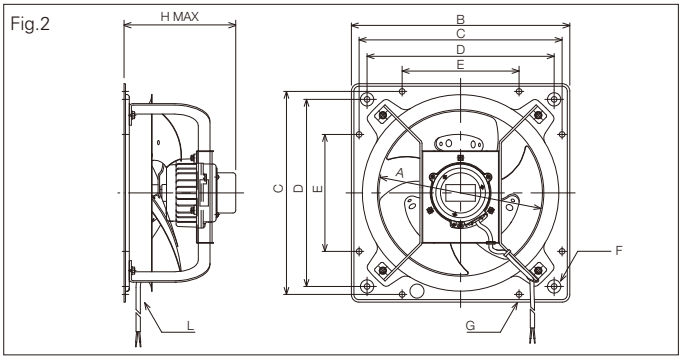


Fig.3

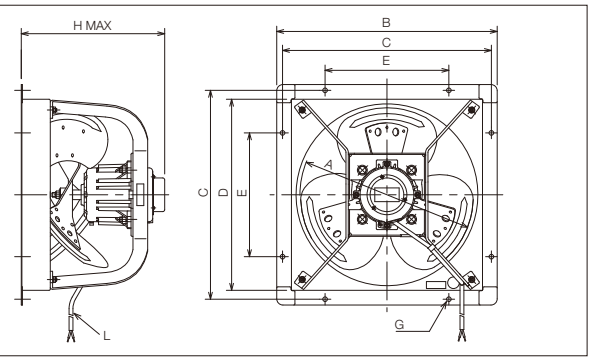


Fig.4

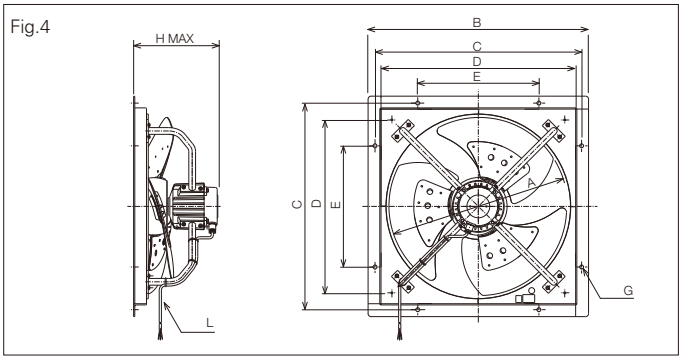
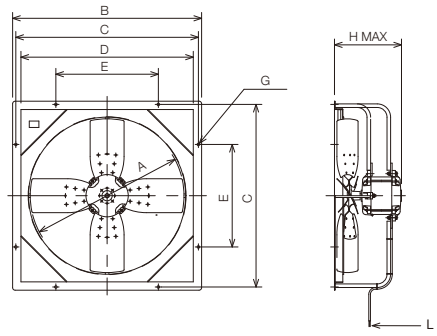


Fig.5



- Any model with the impeller diameter 35cm or more has a drain hole underneath the motor. (For installing the fan with the motor shaft positioned horizontally), make sure that the drain hole faces downward. When using it outdoors or under conditions of high humidity, remove the drain hole cap facing downward. When using it in any dusty place or when water comes into the fan, keep the cap attached and detach it occasionally to perform an inspection.
- It is standard to install the fan with the shaft positioned horizontally. If it is installed in a non-standard manner (e.g. at an attitude in which the shaft faces downward), make sure to specify it at the time of placing an order. Installation of any fan designed to be installed in the standard manner at an attitude in which it faces downward may cause failure.

* The shape varies slightly depending on the model.

Dimensions

(Unit:mm)

Fig.	Model	A	B	C	D	E	F	G	H	L
1	WP-10B	250	327	298	267	165	/	8×ϕ8.5	215	2PNCT×2 cores×0.75mm²×1m
	WP-12B	300	378	349	318	210	/	8×ϕ8.5	255	2PNCT×2 cores×0.75mm²×1m
2	WP-14BS1G	350	467	434	400	250	4×ϕ12	8×ϕ12	239	2PNCT×2 cores×0.75mm²×1m
	WP-14BS2G	350	467	434	400	250	4×ϕ12	8×ϕ12	239	2PNCT×2 cores×0.75mm²×1m
	WP-14BT2G	350	467	434	400	250	4×ϕ12	8×ϕ12	197	2PNCT×3 cores×0.75mm²×1m
	WP-16BS1G	400	518	485	450	280	4×ϕ12	8×ϕ12	244	2PNCT×2 cores×0.75mm²×1m
	WP-16BS2G	400	518	485	450	280	4×ϕ12	8×ϕ12	244	2PNCT×2 cores×0.75mm²×1m
	WP-16BT2G	400	518	485	450	280	4×ϕ12	8×ϕ12	202	2PNCT×3 cores×0.75mm²×1m
	6WP-16BS1G	400	518	485	450	280	4×ϕ12	8×ϕ12	244	2PNCT×2 cores×0.75mm²×1m
	6WP-16BS2G	400	518	485	450	280	4×ϕ12	8×ϕ12	244	2PNCT×2 cores×0.75mm²×1m
	6WP-16BT2G	400	518	485	450	280	4×ϕ12	8×ϕ12	202	2PNCT×3 cores×0.75mm²×1m
3	WP-18BS1A	450	570	540	494	320	/	8×ϕ12	380	2PNCT×2 cores×1.25mm²×1m
	WP-18BS2A	450	570	540	494	320	/	8×ϕ12	380	2PNCT×2 cores×1.25mm²×1m
	WP-18BT2A	450	570	540	494	320	/	8×ϕ12	350	2PNCT×3 cores×1.25mm²×1m
	WP-20BS1G	500	659	620	563	355	/	8×ϕ15	395	2PNCT×2 cores×1.25mm²×1m
	WP-20BS2G	500	659	620	563	355	/	8×ϕ15	395	2PNCT×2 cores×1.25mm²×1m
	WP-20BT2G	500	659	620	563	355	/	8×ϕ15	365	2PNCT×3 cores×1.25mm²×1m
	WP-24BT2G	600	760	720	664	400	/	8×ϕ15	380	2PNCT×3 cores×1.25mm²×1m
	8WP-24BT2G	600	760	720	664	400	/	8×ϕ15	380	2PNCT×3 cores×1.25mm²×1m
4	WP-30BT2G	750	955	900	825	508	/	8×ϕ20	450	2PNCT×3 cores×2mm²×1m
	WP-36BT2G	900	1110	1040	980	610	/	8×ϕ20	440	2PNCT×3 cores×2mm²×1m
	WP-42BT2G	1050	1262	1207	1132	656	/	8×ϕ20	560	2PNCT×3 cores×3.5mm²×1m
5	WP-48B	1200	1475	1425	1345	800	/	8×ϕ20	540	2PNCT×3 cores×5.5mm²×3m

Applications

For factories, warehouses and workshops where explosive gas is generated

Feature

These fans are ideal for ventilation of any space where explosive gas or flammable gas is generated.

Standard Specifications

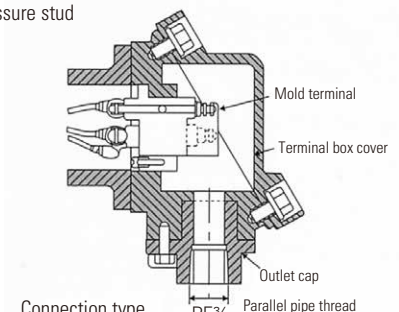
- Conforming to the JIS C 0905 and the test requirements formulated by the National Institute of Industrial Safety under the Ministry of Labour. Applicable under conditions with explosion class 2 or lower and ignitability of G4 or lower.
- Explosion class and ignitability

Explosion class \ Ignitability	G1 Exceeding 450 deg. C	G2 Exceeding 300 deg. C and not exceeding 450 deg. C	G3 Exceeding 200 deg. C and not exceeding 300 deg. C	G4 Exceeding 135 deg. C and not exceeding 200 deg. C
1	●Acetone ●Toluene ●Ammonia ●Propane ●Carbon monoxide ●Benzene ●Ethane ●Methanol ●Acetic acid ●Methane ●Ethyl acetate	●Ethanol ●Isopentyl acetate ●1-Butanol ●Butane ●Acetic anhydride	●Gasoline ●Hexane	●Acetaldehyde ●Ethyl ether
2	●Coal gas	●Ethylene		

<Reference>

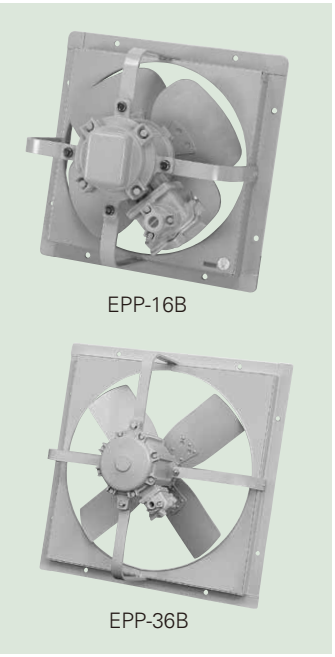
Explosion class: Defined in the JIS standards and classified according to the minimum size of the clearance that causes flame propagation in the explosion test with the standard container into three classes, among which Class 3 is the most dangerous, followed by Class 2 and then by Class 1.
Ignitability: Defined in the JIS standard and classified according to the ignition point into five groups, among which Group 5 (G5) is the highest and G1 is the lowest.

- Equipped with a terminal box with a pressure stud retraction system



Connection type conduit tube thread

*PF1¼ thread for EPP-48B. (Fit for 22mm thick steel conduit tube)



EPP-16B

EPP-36B

* Please note that the photo shows typical examples and that they may partly differ from actual items.

Specification table

Airflow direction	Model	Impeller diameter (cm)	Number of poles (P)	Power supply (V)	Nominal output (W)	Air volume (m³/h) 50Hz	Air volume (m³/h) 60Hz	Power consumption (W) 50Hz	Power consumption (W) 60Hz	Allowable current (A) 50Hz	Allowable current (A) 60Hz	Starting current (A) 50Hz	Starting current (A) 60Hz	Noise (dB(A)) 50Hz	Noise (dB(A)) 60Hz	Approx. mass (kg)
Exhaust type	EPP-8B	20	4	Single-phase100	20	408	492	28	31	0.7	0.7	0.9	0.81	38	42	14.5
	EPP-10B	25				570	690	30	35					45	49	15
				Single-phase200						0.35	0.35	0.45	0.41			
	EPP-12B	30		Single-phase100	50	1020	1200	45	50	1.1	1.1	2.6	2.6	51	55	21
				Single-phase200						0.55		1.3	1.1			
				Three-phase200	75			55	60	0.6	0.52	2	1.8			
	EPP-14B	35		Single-phase100	100	2820	2760	130	130	2.4	2	7.2	6.8	54	61	27
				Single-phase200						1.2	1	3.6	3.4			
				Three-phase200				135	135	0.74	0.61	2.8	2.6			
	EPP-16B	40		Single-phase100	200	4140	4140	240	260	3.2	3	7.6	7.4	60	63	37
				Single-phase200						1.1	1.5	3.8	3.7			
				Three-phase200						1.22	1.04	4.7	4.3			
	6EPP-16B		6	Single-phase100	100	2880	2880	100	100	1.9	1.8	2.3	2.2	48	54	
				Single-phase200						0.95	0.9	1.2	1.2			
				Three-phase200						0.72	0.64	2	1.8			
	EPP-18B	45		Single-phase100	250	4380	4380	220	220	5.4	5	15	14	55	56	45
				Single-phase200						2.2	2	7.5	7			
				Three-phase200				190	190	1.4	1.3	5	4.5			
	EPP-20B	50		Single-phase100	400	6240	6240	340	340	7	6	18	16	58	60	57
				Single-phase200						3.5	3	9	8			
				Three-phase200				300	300	2.15	2	7.5	6.8			
	EPP-24B	60	6	Three-phase200	750	11400	11400	770	750	3.7	3.4	15	13	66	67	13
	8EPP-24B		8		400	8700	8700	360	400	2.7	2.7	5	4.5	59	59	
	EPP-30B	75	6		1500	19500	19500	1600	1600	7.5	6.8	25	21	72	73	95
	EPP-36B	90			2200	27600	27600	2000	2400	9.5	8.8	40	35	77	80	140
	EPP-42B	105	8			34800	34800	2200	2000	11	10	48	42	74	77	165
	EPP-48B	120	10		3700	42000	42000	3200	3200	22	20	86	74	75	76	220

- The power consumption, air volume and noise figures mentioned above represent the values in the state of operation under free air conditions.
- The air volume has been measured using the JIS C 9603-compliant orifice chamber method, except for models where an impeller diameter ranges from 90cm to 120cm, for which the JIS B 8330-compliant suction pipe method was employed.
- The noise figure represents the average of the values measured at three points that are 1.5 meters distant from one another. The value in actual operation varies depending on the installation method, the duct form, and so on.
- The allowable current figure represents the critical point of operation. Use it for reference at the time of selecting a motor breaker.
- Make sure that the product is used in a place where no corrosive or explosive gas or no steam is generated.
- The fan should be installed in an environment where the temperature ranges from -10 ℃ to +40 ℃, the humidity is 85% or less, and the elevation is 1,000m or less. Observe these conditions when using the product.

Specification table

Airflow direction	Model	Impeller diameter (cm)	Number of poles (P)	Power supply (V)	Nominal output (W)	Air volume (m³/h)		Power consumption (W)		Allowable current (A)		Starting current (A)		Noise (dB(A))		Approx. mass (kg)
						50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	
Intake type	EPP-10A	25	4	Single-phase100	20	402	486	35	45	0.7	0.7	0.9	0.81	45	49	15
				Single-phase200						0.35	0.35	0.45	0.41			
	EPP-12A	30		Three-phase200	75	720	840	60	65	0.6	0.52	2	1.8	51	55	21
	EPP-14A	35		Single-phase100	100	2100	2040	130	130	2.4	2	7.2	6.8	54	61	27
				Single-phase200						1.2	1	36	3.4			
				Three-phase200				135	135	0.74	0.61	2.8	2.6			
	EPP-16A	40		Single-phase100	200	3300	3300	240	260	3.2	3	7.6	7.4	60	63	37
				Single-phase200						1.7	1.5	3.8	3.7			
				Three-phase200			3000			1.22	1.04	4.7	4.3			
	6EPP-16A		6	Single-phase100	100	2040	2040	100	100	1.9	1.8	2.3	2.2	48	54	
				Single-phase200						0.95	0.9	1.2	1.2			
				Three-phase200						0.72	0.64	2	1.8			
	EPP-18A	45			250	3484	3484	190	190	1.4	1.3	5	4.5	55	56	45
	EPP-20A	50			400	4980	4980	300	300	2.15	2	7.5	8.8	58	60	57

- The power consumption, air volume and noise figures mentioned above represent the values in the state of operation under free air conditions.
- The air volume has been measured using the JIS C 9603-compliant orifice chamber method.
- The noise figure represents the average of the values measured at three points that are 1.5 meters distant from one another. The value in actual operation varies depending on the installation method, the duct form, and so on.
- The allowable current figure represents the critical point of operation. Use it for reference at the time of selecting a motor breaker.
- Make sure that the product is used in a place where no corrosive or explosive gas or no steam is generated.
- The fan should be installed in an environment where the temperature ranges from -10 ℃ to +40 ℃, the humidity is 85% or less, and the elevation is 1,000m or less. Observe these conditions when using the product.

Special Specifications

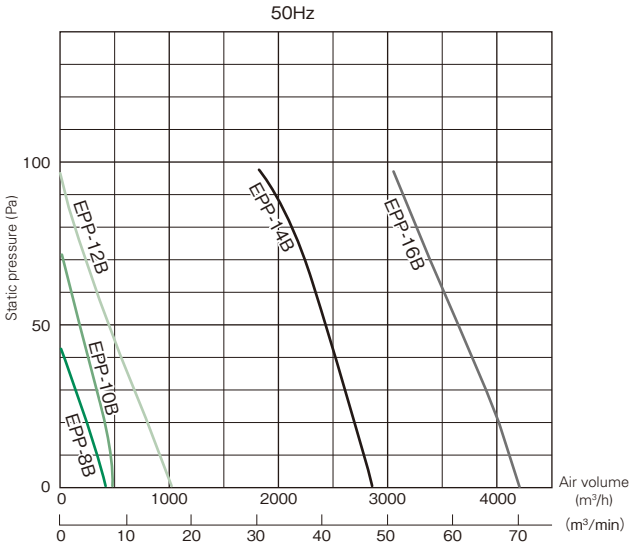
Impeller diameter (cm)	Airflow direction	Special order features						
		Different voltage 210V or 215V	Different voltage 400V	Heat resistance of 60 ℃	Heat resistance of 80 ℃	Acid-resistant (salt-resistant) coating	Specified color	MFP treatment
20	Exhaust	×	×	×	×	○	○	×
	Intake	×	×	×	×	○	○	×
25	Exhaust	×	×	×	×	○	○	×
	Intake	×	×	×	×	○	○	×
30	Exhaust	×	*1	×	×	○	○	×
	Intake	×	*1	×	×	○	○	×
35	Exhaust	×	*1	×	×	○	○	×
	Intake	×	*1	×	×	○	○	×
40	Exhaust	×	*1	×	×	○	○	×
	Intake	×	*1	×	×	○	○	×
45	Exhaust	×	*1	×	×	○	○	×
	Intake	×	*1	×	×	○	○	×
50	Exhaust	×	*1	×	×	○	○	×
	Intake	×	*1	×	×	○	○	×
60	Exhaust	×	○	×	×	○	○	×
	Intake	×	○	×	×	○	○	×
75	Exhaust	×	○	×	×	○	○	×
	Intake	×	○	×	×	○	○	×
90	Exhaust	×	○	×	×	○	○	×
	Intake	×	○	×	×	○	○	×
105	Exhaust	×	○	×	×	○	○	×
	Intake	×	○	×	×	○	○	×
120	Exhaust	×	○	×	×	○	○	×
	Intake	×	○	×	×	○	○	×

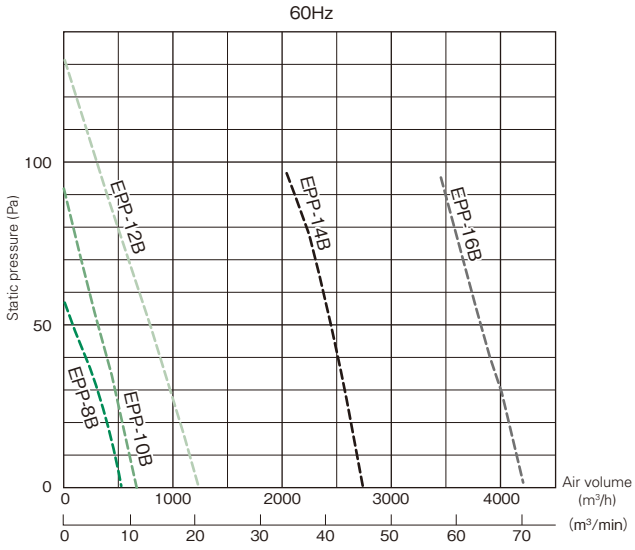
*1: 400V class available for three-phase power supply models only

Selection chart

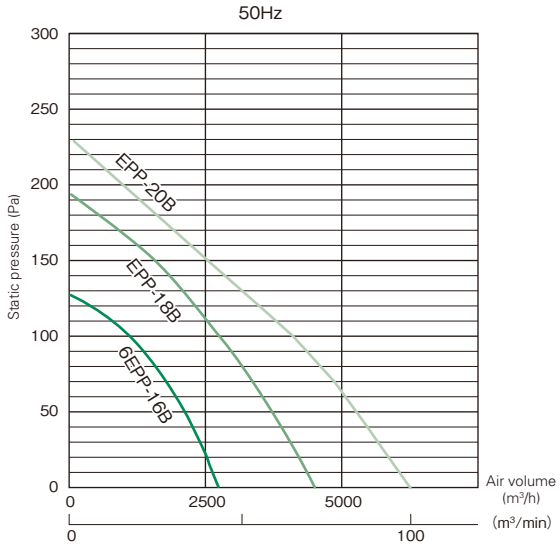
[Exhaust type]

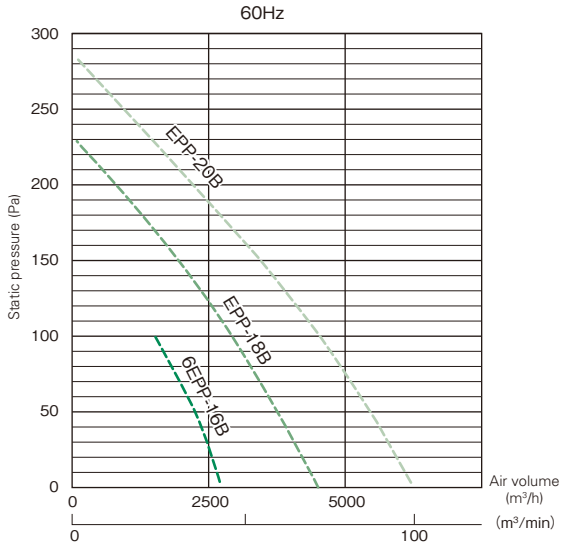
Single-phase, impeller diameter from 20 to 40cm, four poles



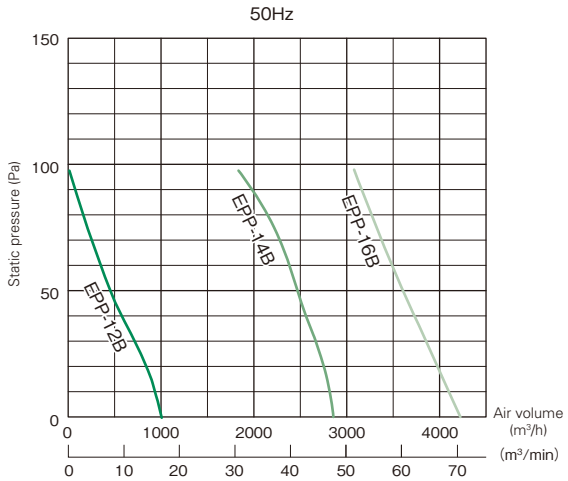


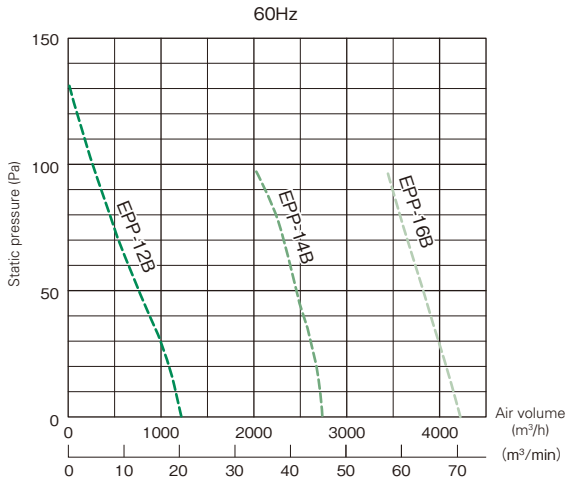
Single-phase, impeller diameter from 40 to 50cm, six poles





Three-phase, impeller diameter from 30 to 40cm, four poles

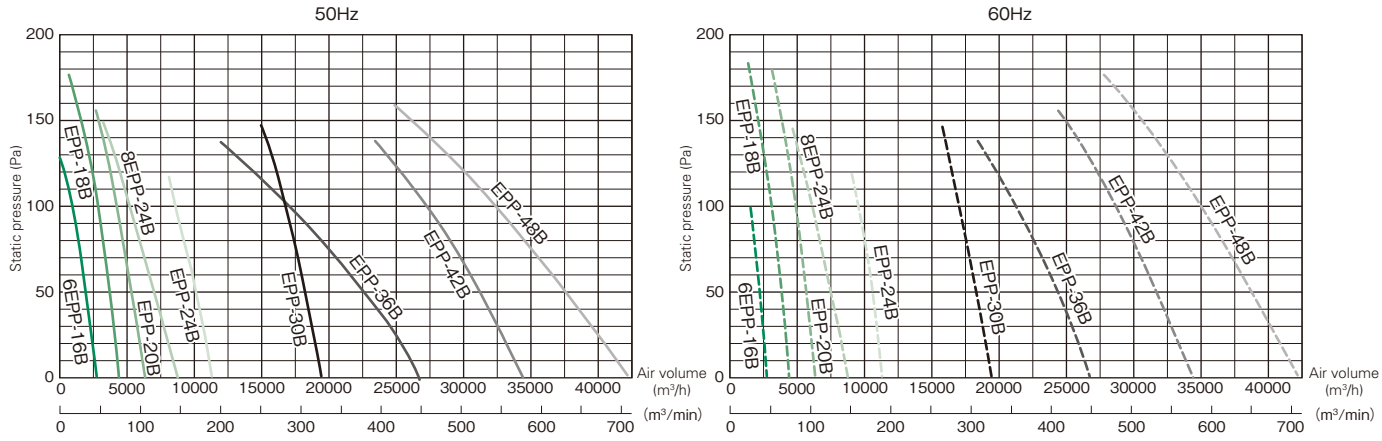




Selection chart

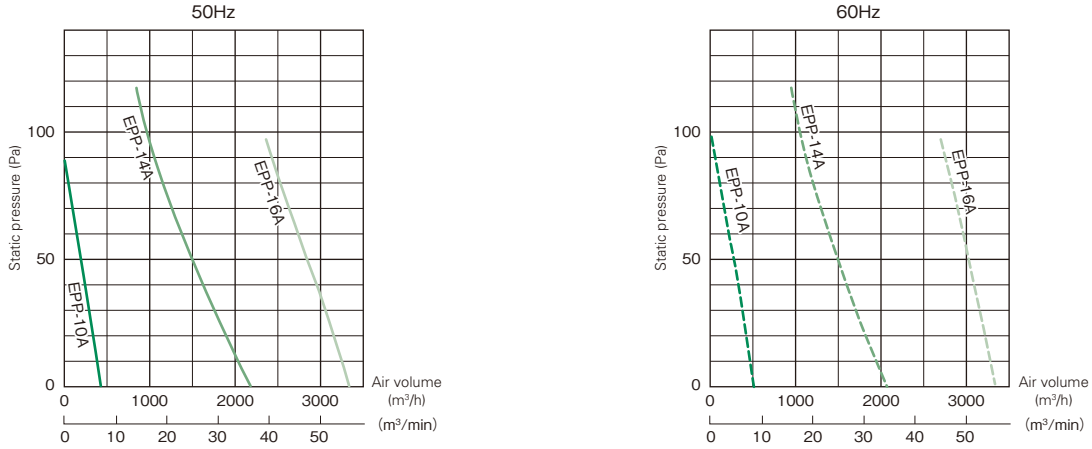
[Exhaust type]

Three-phase, impeller diameter 40cm, six poles / eight poles; from 45 to 120cm

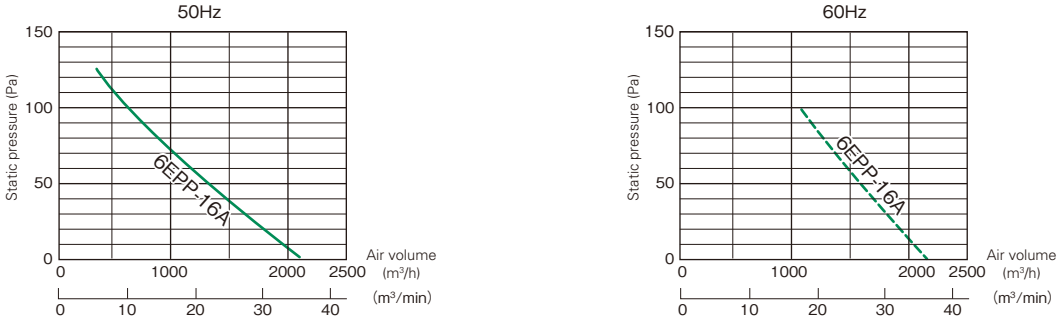


[Intake type]

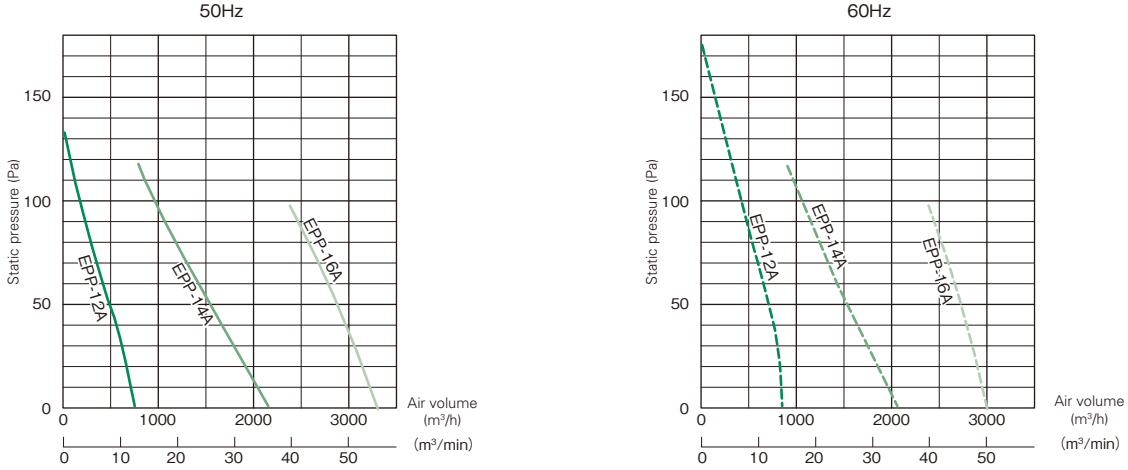
Single-phase, impeller diameter from 25 to 40cm, four poles



Single-phase, impeller diameter 40cm, six poles



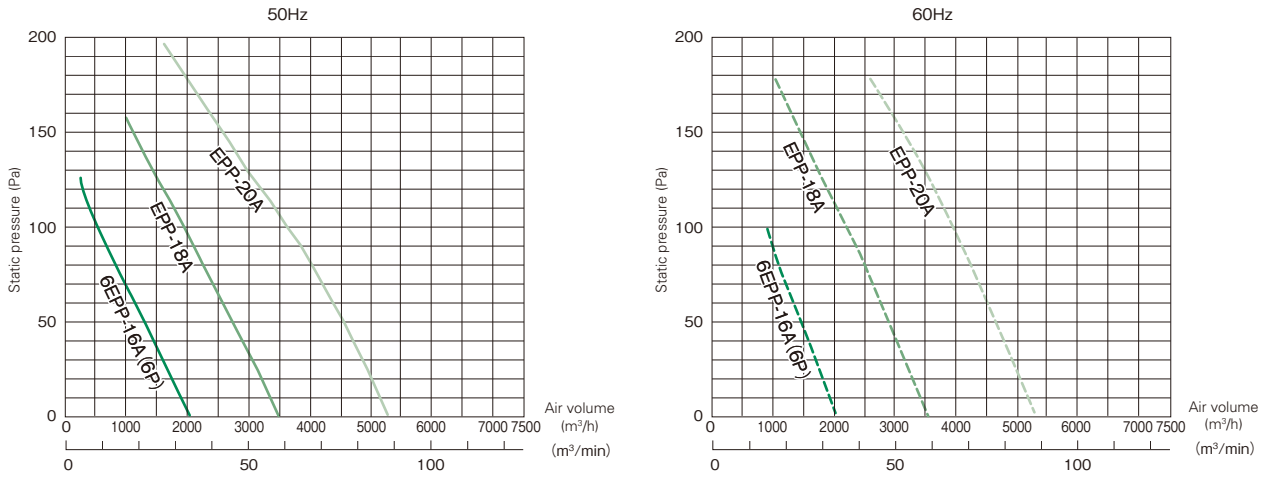
Three-phase, impeller diameter from 30 to 40cm, four poles



Selection chart

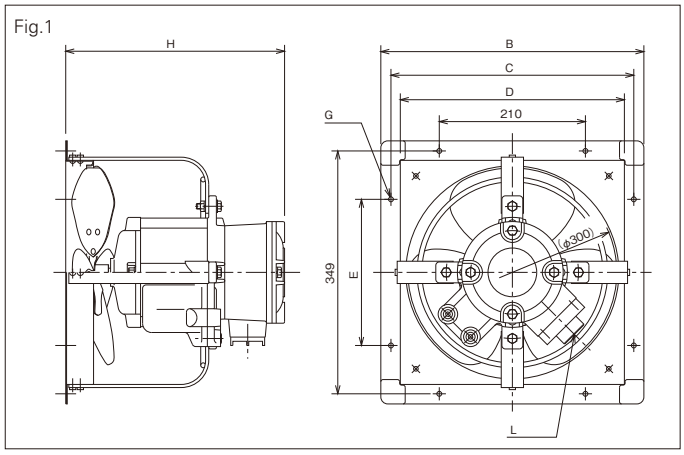
[Intake type]

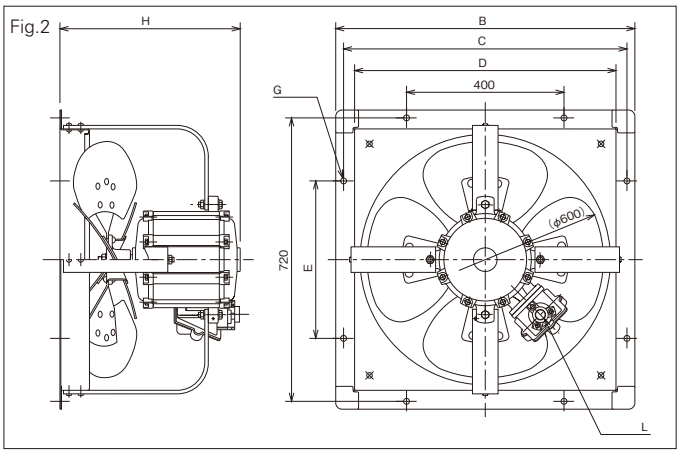
Three-phase, impeller diameter from 40 to 50cm, six poles



Assembly drawing [Exhaust Type]

* For intake type, please contact us.





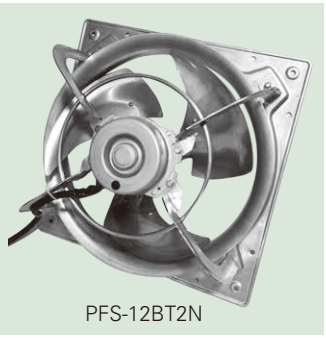
Dimensions

(Unit:mm)

Fig.	Model	A	B	C	D	E	G	H	L
1	EPP-8B	200	276	246	220	162	8×φ7	310	PF¾ thread
	EPP-10B	250	327	298	267	165	8×φ8.5	315	PF¾ thread
	EPP-12B	300	378	349	322	210	8×φ7	325	PF¾ thread
2	EPP-14B	350	467	434	391	250	8×φ12	355	PF¾ thread
	EPP-16B	400	518	485	442	280	8×φ12	365	PF¾ thread
	6EPP-16B	400	518	485	442	280	8×φ12	365	PF¾ thread
	EPP-18B	450	570	540	494	320	8×φ12	425	PF¾ thread
	EPP-20B	500	659	620	563	355	8×φ15	445	PF¾ thread
	EPP-24B	600	760	720	664	400	8×φ15	490	PF¾ thread
	8EPP-24B	600	760	720	664	400	8×φ15	490	PF¾ thread
	EPP-30B	750	955	900	825	508	8×φ20	510	PF¾ thread
	EPP-36B	900	1110	1040	980	610	8×φ20	475	PF¾ thread
	EPP-42B	1050	1262	1207	1132	656	8×φ20	495	PF¾ thread
	EPP-48B	1200	1475	1425	1345	800	8×φ20	600	PF1¼ thread

Applications

For kitchens, coastal areas, food factories, and other places where rust prevention is required



PFS-12BT2N

* Please note that the photo shows typical examples and that they may partly differ from actual items.

Specification table

Airflow direction	Model	Impeller diameter (cm)	Number of poles (P)	Power supply (V)	Nominal output (W)	Air volume (m³/h)		Power consumption (W)		Allowable current (A)		Starting current (A)		Noise (dB(A))		Approx. mass (kg)
						50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	
Exhaust type	PFS-10BSD	25	4	Single-phase100	20	1020	1200	43	48	0.7	0.8	1.2	1.1	41	44	3.5
	PFS-12BS1N	30		Single-phase100	50	1873	2140	61	90	0.9	1.2	1.9	1.7	39.1	42.8	5.4
	PFS-12BS2N			Single-phase200				61	90	0.5	0.6	0.8	0.7			
	PFS-12BT2N			Three-phase200				70	98	0.4	0.6	1.0	0.9			
	PFS-16BS1D	40		Single-phase100	200	3678	4272	165	210	3.5	3.45	8.3	7.9	51	55	10.7
	PFS-16BS2D			Single-phase200				180	210/230	1.8	1.8	4.3	4.2/4.6			
	PFS-16BT2D			Three-phase200		3762	4392	150	200	1.2	1.2	4.1	3.9			
	PFS-20BT2A	50	6		400	6360	7440	260	380	2.5	3.2	6.5	5.7	53	57	24
Intake type	PFS-12AS1N	30	4	Single-phase100	50	1654	1873	67	96	1.1	1.4	1.9	1.7	45.6	49.7	5.4
	PFS-12AS2N			Single-phase200				67	96	0.6	0.6	0.8	0.7			
	PFS-12AT2N			Three-phase200		1678	1902	71	102	0.5	0.5	1.0	0.9			

- The power consumption, air volume and noise figures mentioned above represent the values in the state of operation under free air conditions.
- The air volume has been measured using the JIS C 9603-compliant orifice chamber method.
- The noise figure represents the average of the values measured at three points that are 1.5 meters distant from one another. The value in actual operation varies depending on the installation method, the duct form, and so on.
- The allowable current figure represents the critical point of operation. Use it for reference at the time of selecting a motor breaker.
- When using the product, observe the following conditions: Temperature from -30 ℃ to +50 ℃ for three-phase power supply models, from -10 ℃ to +50 ℃ for single-phase power supply models, humidity 95% or less, elevation 1,000m or less, in a place where no corrosive or explosive gas or no steam is generated.
  (from -30 ℃ to +50 ℃ for PFS-12B(A)S1N and PFS-12B(A)S2N)
  (from -10 ℃ to +40 ℃ for PFS-20BT2A)

● A special silver acid-resistant coating has been applied to the motors.

* Various stainless steel type models other than the above can be manufactured. For models, please contact us.

Special Specifications

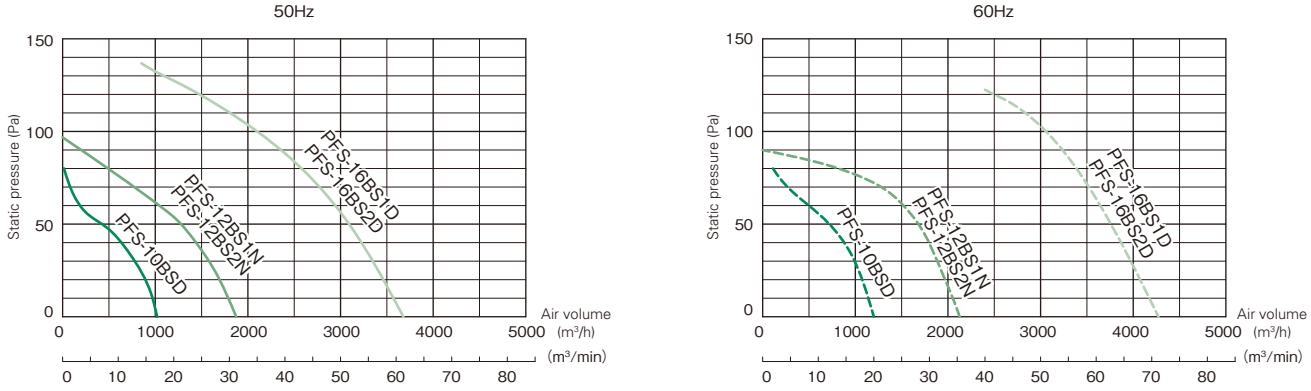
Impeller diameter (cm)	Special order features						
	Different voltage 210V or 215V	Different voltage 400V	Heat resistance of 60 ℃	Heat resistance of 80 ℃	Acid-resistant (salt-resistant) coating	Specified color	MFP treatment
25	×	×	×	×	○	○	×
30	×	*1	×	×	○	○	×
40	○	*1	×	×	○	○	×
50	○	*1	×	×	○	○	×

*1: 400V class available for three-phase power supply models only

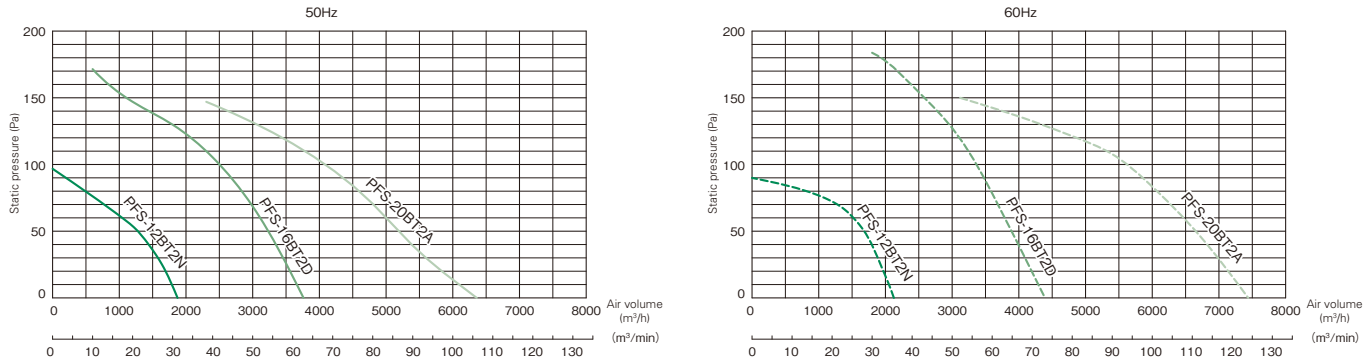
Selection chart

[Exhaust type]

Single-phase, impeller diameter from 25 to 40cm

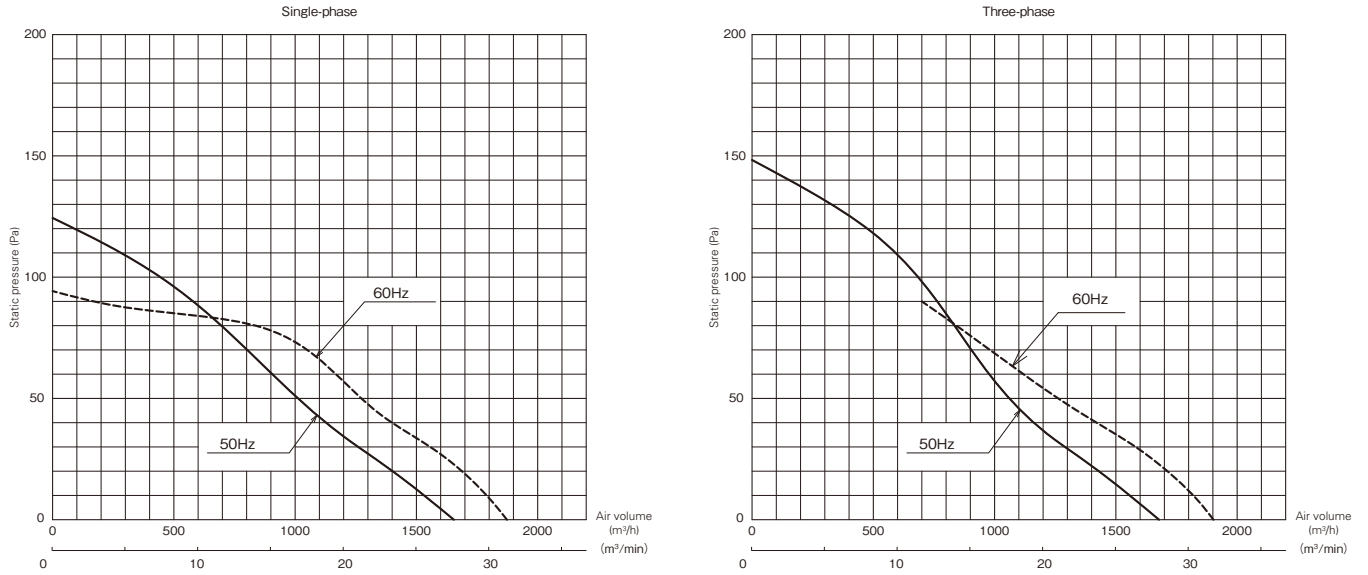


Three-phase, impeller diameter from 30 to 50cm



[Intake type]

impeller diameter from 30, four poles



Assembly drawing

Fig.1

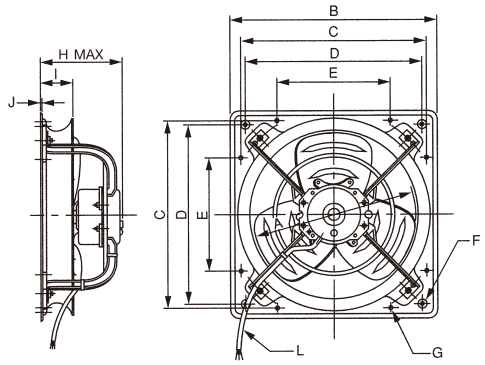
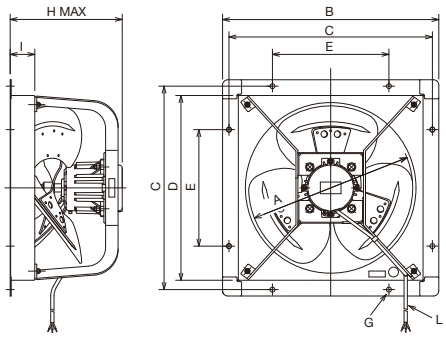


Fig.2



* The shape varies slightly depending on the model.

Dimensions

(Unit:mm)

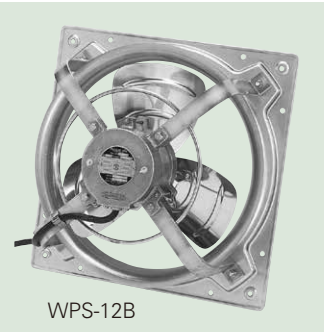
Fig.	Model	A	B	C	D	E	F	G	H	I	J	L
1	PFS-10BSD	250	327	298	285	165	4×φ7	8×φ7	148.5	48	3	2PNCT×2 cores×0.75mm²×1m
	PFS-12BS1N	300	378	349	330	210	4×φ7	8×φ7	159	60	3	VCT×2 cores×0.75mm²×1m
	PFS-12BS2N	300	378	349	330	210	4×φ7	8×φ7	159	60	3	VCT×2 cores×0.75mm²×1m
	PFS-12BT2N	300	378	349	330	210	4×φ7	8×φ7	159	60	3	VCT×3 cores×0.75mm²×1m
	PFS-16BS1D	400	518	485	450	280	4×φ12	8×φ12	198	/	3	VCT×2 cores×0.75mm²×1m
	PFS-16BS2D	400	518	485	450	280	4×φ12	8×φ12	198	/	3	VCT×2 cores×0.75mm²×1m
	PFS-16BT2D	400	518	485	450	280	4×φ12	8×φ12	198	/	3	VCT×3 cores×0.75mm²×1m
2	PFS-20BT2A	500	659	620	563	355	/	8×φ15	75	355	/	2PNCT×3 cores×1.25mm²×1m

Applications

For refrigerator-freezer warehouses, unit coolers, and other places where rust-preventive measures are required

Feature

These pressure fans are equipped with low-temperature-spec motors with stainless steel adopted for their outer shells, making them ideal for incorporating into unit coolers and freezers in food, pharmaceutical and other factories.



WPS-12B

* Please note that the photo shows typical examples and that they may partly differ from actual items.

Specification table

Airflow direction	Model	Impeller diameter (cm)	Number of poles (P)	Power supply (V)	Nominal output (W)	Air volume (m³/h)		Power consumption (W)		Allowable current (A)		Starting current (A)		Noise (dB(A))		Approx. mass (kg)
						50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	
Exhaust type	WPS-12B	30	4	Three-phase200	50	1860	2200	44	60	0.4	0.4	0.6	0.6	45	49	6
	WPS-16BT2D	40			200	3800	4450	224	277	2.3	2.3	9.0	8.1	51	55	14
	WPS-16BT2				250/400	4450	5450	345	470	2.25	2.3	9.0	8.1	62	66	15.5

- The power consumption, air volume and noise figures mentioned above represent the values in the state of operation under free air conditions.
- The air volume has been measured using the JIS C 9603-compliant orifice chamber method.
- The noise figure represents the average of the values measured at three points that are 1.5 meters distant from one another. The value in actual operation varies depending on the installation method, the duct form, and so on.
- The allowable current figure represents the critical point of operation. Use it for reference at the time of selecting a motor breaker.
- Make sure that the product is used in a place where no corrosive or explosive gas or no steam is generated.
- Environment conditions (temperature and humidity) where the fan is installed are as follows. Observe these conditions when using the product.
- Temperature from -50 to +20 ℃, humidity 95% or less, elevation 1,000m or less

●With T-drain, 3-phase 200V

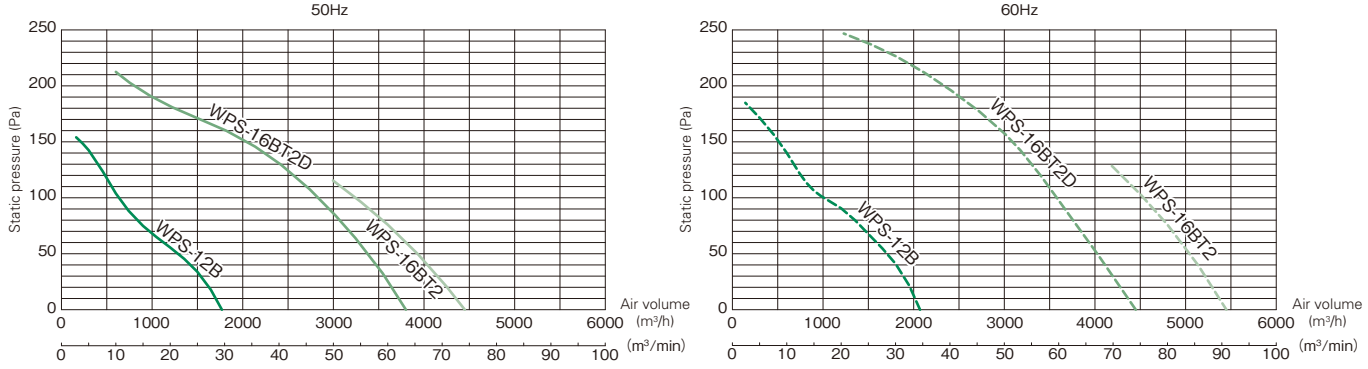
Airflow direction	Model	Impeller diameter (cm)	Number of poles (P)	Power supply (V)	Air volume (m³/h)		Power consumption (W)		Allowable current (A)		Starting current (A)		Noise (dB(A))		Approx. mass (kg)
					50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	
Exhaust type	WPS-12B-T	30	4	3-phase 200	1860	2200	44	60	0.4	0.4	0.6	0.6	45	49	6
	WPS-16BT2D-T	40		3-phase 200/220	3800	4450	224	227/287	2.3	2.3/2.4	9.0	8.1/8.9	51	55	14

- Temperature : WPS-12B-T is -50℃～+20℃, WPS-16BT2D-T is -50℃～+30℃.
- For inquiries, please inform us of the shaft type (Shaft bottom or shafr horizontal). The T-drain must be positioned at the bottom and the product specifications are different.
- It is not suitable for cleaning by imersion in water, strong jet (high pressure cleaning, etc.), or chemicals.
- Fore safety and waterproof performance, do not clean the product while it is running.
- Please contact us for special specifications.

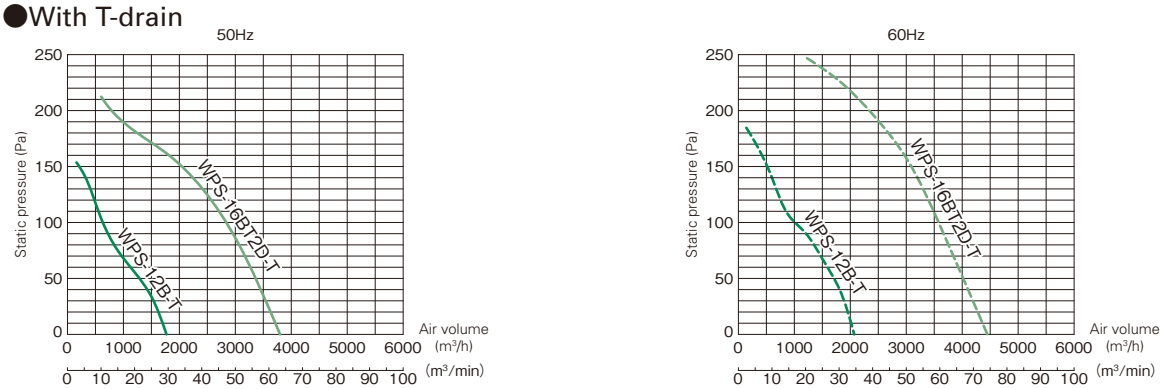
Selection chart

[Exhaust type]

Three-phase, impeller diameter from 30 to 40cm



●With T-drain



Assembly drawing

Fig.1

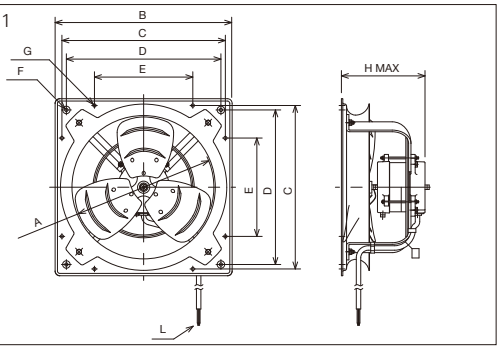


Fig.2

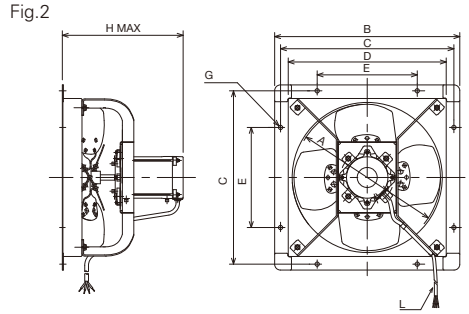
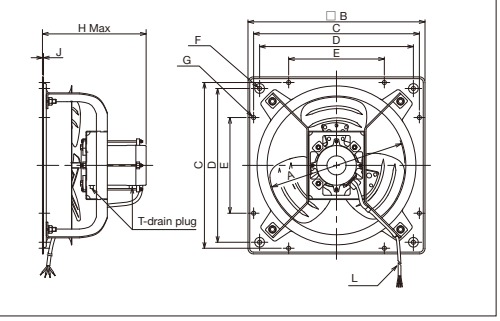


Fig.3



* The shape varies slightly depending on the model.

Dimensions

(Unit:mm)

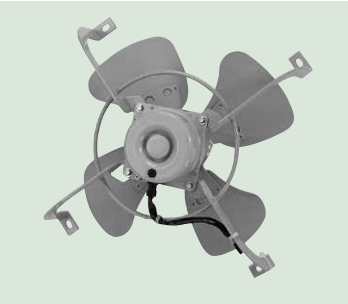
Fig.	Model	A	B	C	D	E	F	G	H	J	L
1	WPS-12B	300	378	349	330	210	4×ϕ7	8×ϕ7	179	—	2PNCT×4 cores×0.75mm²×1m
	WPS-16BT2D	400	518	485	450	280	4×ϕ12	8×ϕ12	303	—	SRCT×4 cores×1.25mm²×1m
2	WPS-12BT2	410	518	485	442	280	—	8×ϕ12	338	—	SRCT×4 cores×1.25mm²×1m
3	WPS-12B-T	300	378	349	330	210	4×ϕ7	8×ϕ7	179	3	SRCT×4 cores×0.75mm²×1m
	WPS-16BT2D-T	400	518	485	450	280	4×ϕ12	8×ϕ12	303	3	SRCT×4 cores×1.25mm²×1m

Applications

For incorporating into oil coolers, unit coolers, and other equipment

Feature

These pressure fans have been developed on the assumption of incorporating into equipment without using mounting frames. They are ideal for mounting to oil coolers and unit coolers, in particular, and other equipment with small mounting space.



* Please note that the photo shows typical examples and that they may partly differ from actual items.

Specification table

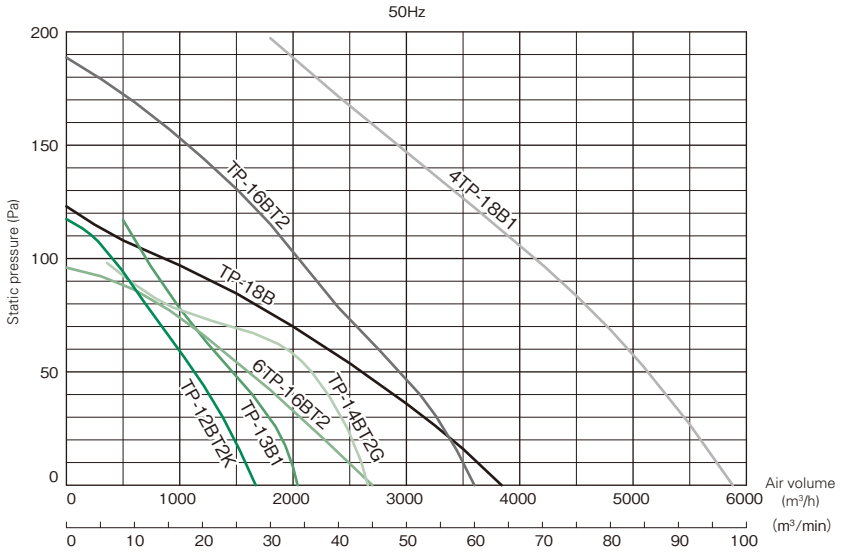
Airflow direction	Model	Impeller diameter (cm)	Number of poles (P)	Power supply (V)	Nominal output (W)	Air volume (m³/h)		Power consumption (W)		Allowable current (A)		Starting current (A)		Noise (dB(A))		Approx. mass (kg)
						50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	
Exhaust type	TP-12BT2K	30	4	Three-phase 200	50	1380	1680	66	80/86	0.42	0.42/0.43	1.0	0.96/1.05	41	44	3.2
	TP-13B-1	33				2040	2340	88	100	0.56	0.51	1.1	1	53	56	3.5
	TP-14BT2G	35			100	2660	3150	102	122	1.0	1.0	2.9	2.7	43.5	47	7.4
	TP-16BT2	40			200	3600	4230	240	290	1.38	1.38	5.4	5.2	54	58	
	6TP-16BT2		6		100	2700	3120	125	160	0.75	0.85	2.2	2.1	46	50	6.5
	4TP-18B1	45	4		400	5880	6720	340	520	2	2.3	9.7	9.3	61	65	10
	TP-18B		6		200	3840	4320	150	210	0.85	0.90	2.5	2.4	50	54	7.9

- The power consumption, air volume and noise figures mentioned above represent the values in the state of operation under free air conditions.
- The air volume has been measured in the JIS C 9603-compliant orifice chamber method.
- The noise figure represents the average of the values measured at three points that are 1.5 meters distant from one another. The value in actual operation varies depending on the installation method, the duct form, and so on.
- The allowable current figure represents the critical point of operation. Use it for reference at the time of selecting a motor breaker.
- Elevation 1,000m or less. Make sure that the product is used in a place where no corrosive or explosive gas or no steam is generated.
- TP-16BT2, 6TP-16BT2, TP-18B: Temperature from -50 to +40 ℃, humidity 45 to 85%
- TP-12BT2K, TP-13B-1: Temperature from -50 to +40 ℃, humidity 45 to 95% or less
- TP-14BT2G: Temperature from -30 to +50 ℃, humidity 90% or less

Selection chart

[Exhaust type]

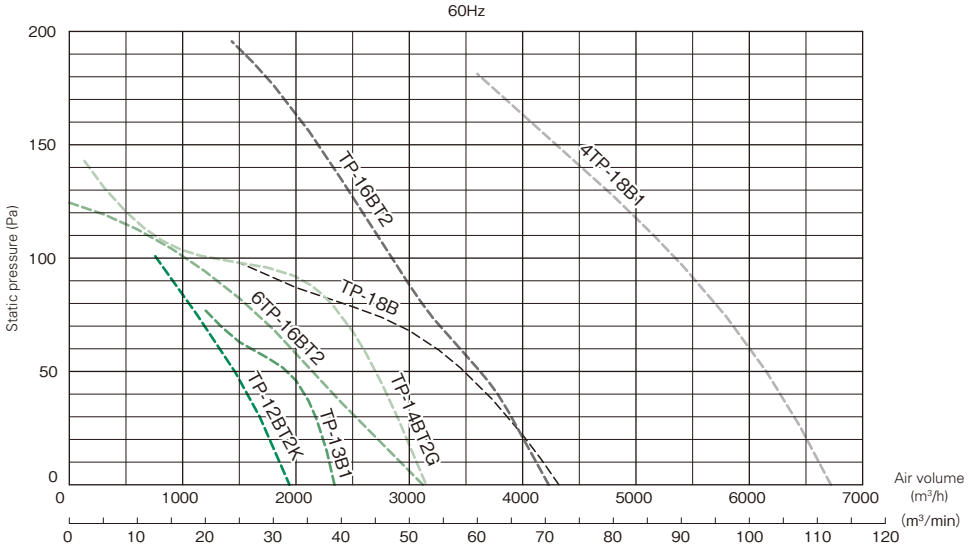
Three-phase, impeller diameter from 30 to 45cm



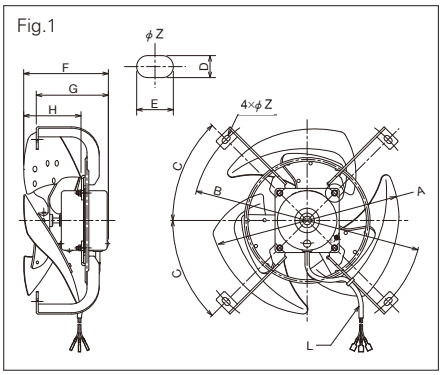
Selection chart

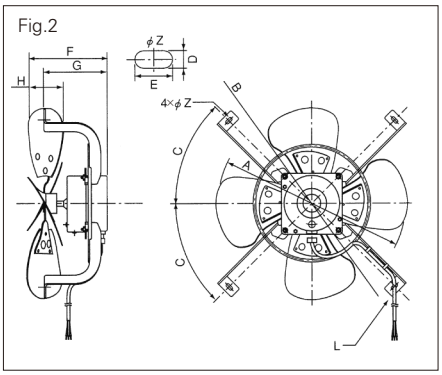
[Exhaust type]

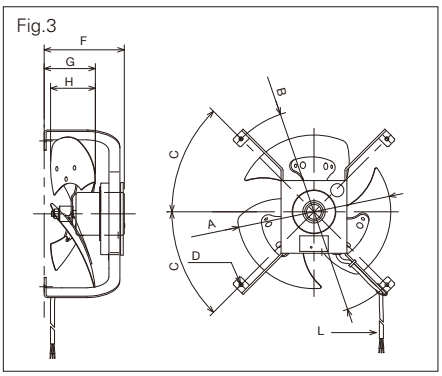
Three-phase, impeller diameter from 30 to 45cm

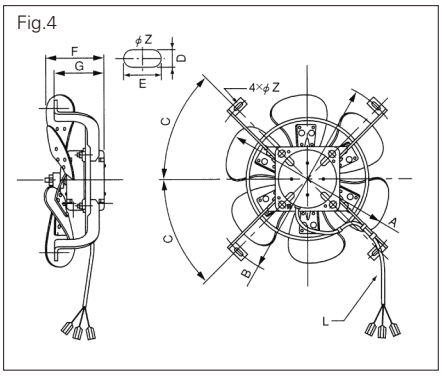


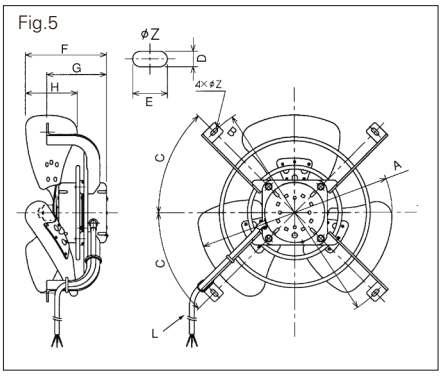
Assembly drawing











* The shape varies slightly depending on the model.

Dimensions

(Unit:mm)

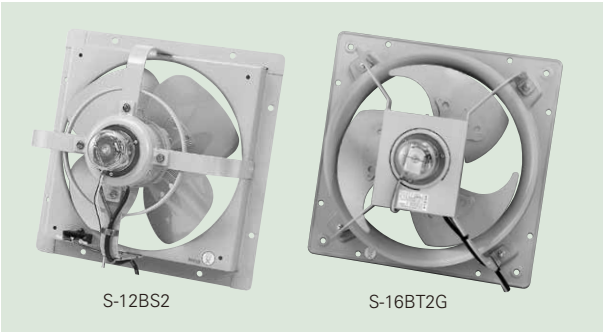
Fig.	Model	A	B	C	D	E	F	G	H	L
1	TP-12BT2K	300	375	45°	9	15	137	109	102	XLPE×3 cores×0.5mm²×2m
2	TP-13B-1	330	410	45°	7	12	142	116	63	XLPE×3 cores×0.75mm²×2m
3	TP-14BT2G	350	470	45°	4× ϕ8.4	/	183	116.7	102	VCT×3 cores×0.75mm²×1m
4	TP-16BT2	400	477	45°	9	20	137	120	/	XLPE×3 cores×0.75mm²×1.5m
	6TP-16BT2	400	477	45°	9	20	141	120	/	XLPE×3 cores×0.75mm²×1.5m
5	4TP-18B1	450	527	45°	9	20	185	138	120	2PNCT×3 cores×0.75mm²×3.8m
4	TP-18B	450	527	45°	9	20	143	128	/	XLPE×3 cores×0.75mm²×2m

Applications

For cubicles, important machinery, and other places where failure alarms are required

Feature

These pressure fans are ideal for cooling important equipment requiring fan failure alarms, such as cubicles, communications equipment, and transformers. They are equipped with centrifugal contact switches so that signals can be output when fan revolutions decrease to 70 to 80% or less for some reason.



S-12BS2 S-16BT2G

* Please note that the photo shows typical examples and that they may partly differ from actual items.

Specification table

Airflow direction	Model	Impeller diameter (cm)	Number of poles (P)	Power supply (V)	Nominal output (W)	Air volume (m³/h)		Power consumption (W)		Allowable current (A)		Starting current (A)		Noise (dB(A))		Approx. mass (kg)
						50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	
Exhaust type	S-10BS2	25	4	Single-phase200	20	570	690	40	45	0.4	0.4	0.57	0.52	45	49	6
	S-12BS2	30			50	1098	1296	56	68	0.6	0.5	1.1	1	51	55	8
	S-14BS2G	35			100	2660	3150	142	144	1.6	1.5	4.3	4.2	43.5	47	9.8
	S-14BT2G			Three-phase200				102	122	1.25	1.15	4.1	3.9			
	S-16BS2G	40		Single-phase200	200	4080	4680	200	250	1.8	1.8	4.3	4.2	46	50	11.5
	S-16BT2G			Three-phase200		4022	4543	162	227	1.2	1.2	4.1	3.9			
	S-18BT2A	45	6		250	5034	5802	210	310	2.3	3.0	6.5	5.7	54	58	23.5
	S-20BT2G	50			400	6120	7140	270	410	2.6	2.8	6.5	5.7	49	53	25
	S-24BT2G	60			750	9420	11160	460	690	4.2	4.2	12	10	51	55.5	33.5

- The power consumption, air volume and noise figures mentioned above represent the values in the state of operation under free air conditions.
- The air volume has been measured using the JIS C 9603-compliant orifice chamber method.
- The noise figure represents the average of the values measured at three points that are 1.5 meters distant from one another. The value in actual operation varies depending on the installation method, the duct form, and so on.
- The allowable current figure represents the critical point of operation. Use it for reference at the time of selecting a motor breaker.
- Make sure that the product is used in a place where no corrosive or explosive gas or no steam is generated.
- The fan should be installed in an environment where the temperature ranges from -20 ℃ to +50 ℃, the humidity is 85% or less, and the elevation is 1,000m or less. Observe these conditions when using the product.

Special Specifications

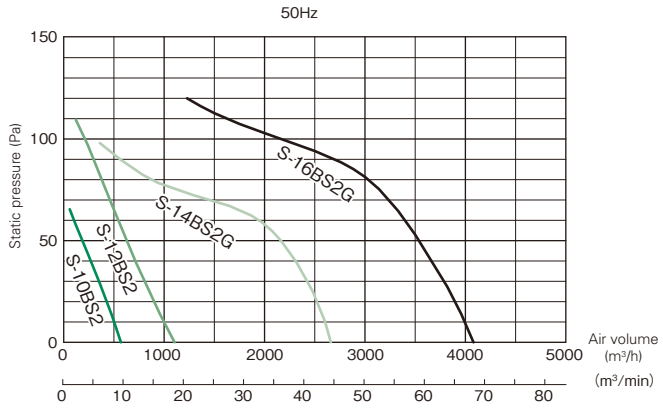
Impeller diameter (cm)	Special order features						
	Different voltage 210V or 215V	Different voltage 400V	Heat resistance of 60 ℃	Heat resistance of 80 ℃	Acid-resistant (salt-resistant) coating	Specified color	MFP treatment
25	×	×	○	×	○	○	×
30	×	×	○	×	○	○	×
35	×	*1	○	×	○	○	×
40	○	*1	○	×	○	○	×
45	○	*1	○	×	○	○	×
50	○	*1	○	×	○	○	×
60	○	*1	○	×	○	○	×

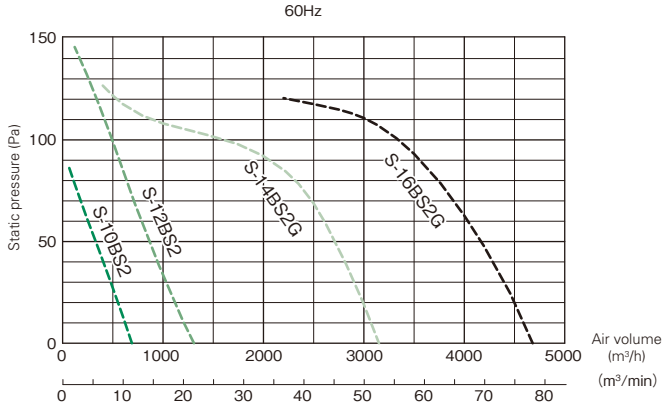
*1: 400V class available for three-phase power supply models only

Selection chart

[Exhaust type]

Single-phase, impeller diameter from 25 to 40cm

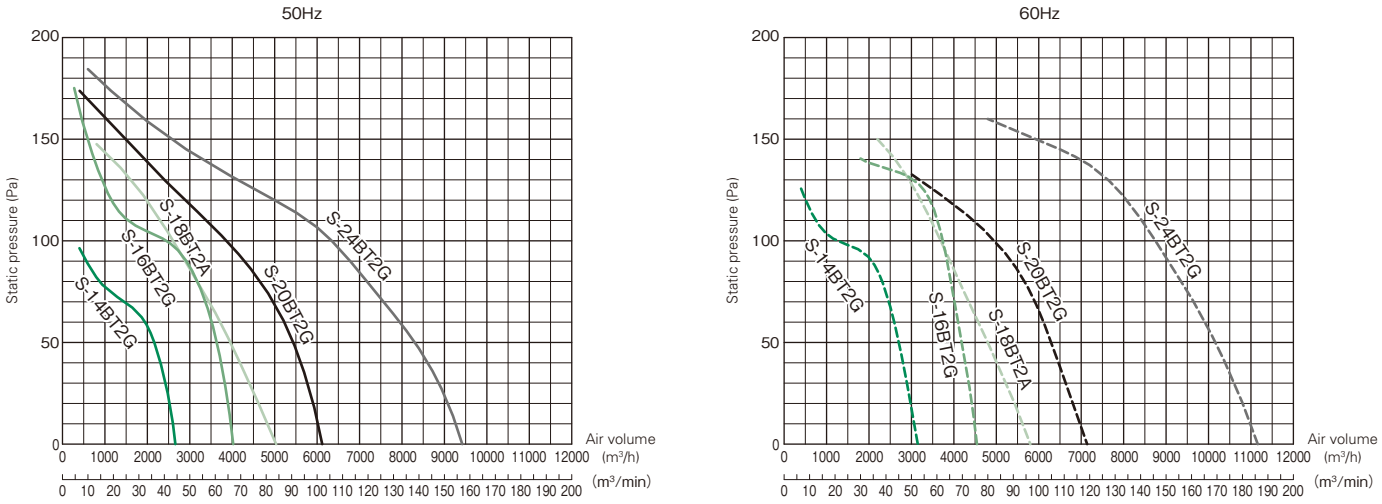




Selection chart

[Exhaust type]

Three-phase, impeller diameter from 35 to 60cm



Assembly drawing

Fig.1

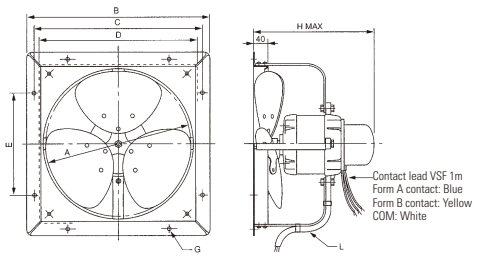


Fig.2

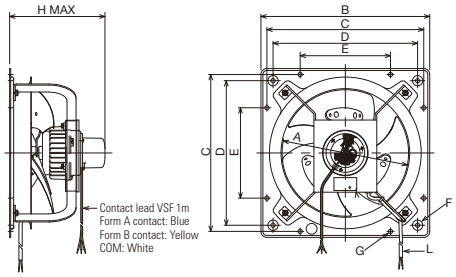
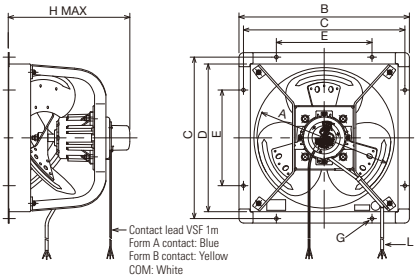


Fig.3



* The shape varies slightly depending on the model.

Dimensions

(Unit:mm)

Fig.	Model	A	B	C	D	E	F	G	H	L
1	S-10BS2	250	327	298	271	165	/	8×φ7	245	2PNCT×2 cores×0.75mm²×1m
	S-12BS2	300	378	349	322	210	/	8×φ7	260	2PNCT×2 cores×0.75mm²×1m
2	S-14BS2G	350	467	434	400	250	4×φ12	8×φ12	264	2PNCT×2 cores×0.75mm²×1m
	S-14BT2G	350	467	434	400	250	4×φ12	8×φ12	264	2PNCT×3 cores×0.75mm²×1m
	S-16BS2G	400	518	485	450	280	4×φ12	8×φ12	269	2PNCT×2 cores×0.75mm²×1m
	S-16BT2G	400	518	485	450	280	4×φ12	8×φ12	269	2PNCT×3 cores×0.75mm²×1m
3	S-18BT2A	450	570	540	494	320	/	8×φ12	420	2PNCT×3 cores×1.25mm²×1m
2	S-20BT2G	500	659	620	563	355	/	8×φ15	435	2PNCT×3 cores×1.25mm²×1m
	S-24BT2G	600	760	720	664	400	/	8×φ15	450	2PNCT×3 cores×1.25mm²×1m

Compatibility Table

Standard Type

Model	Impeller diameter of compatible pressure fans	Airflow direction	Mounting frame	Fixed louver		Wind pressure shutter		Motor-driven shutter		Guard net			Filter unit
				Steel plate	SUS	Steel plate	SUS	Steel plate	SUS	Iron	SUS	Front face net	
PF	20 cm	Exhaust	TWBS- 8	LB- 8C	LBS- 8C	PS- 8C	PSS- 8C	—	—	GN- 8D1	—	FGN- 8	3FU- 8A
		Intake	TWBS- 8	LB- 8C	LBS- 8C	—	—	—	—	GN- 8D1	—	FGN- 8	3FU- 8A
	25 cm	Exhaust	TWBS-10	LB-10C	LBS-10C	PS-10C	PSS-10C	MS-10D	MSS-10D	GN-10D1	GNS-10D1	FGN-10	3FU-10A
		Intake	TWBS-10	LB-10C	LBS-10C	—	—	MS-10D	MSS-10D	GN-10D1	GNS-10D1	FGN-10	3FU-10A
	30 cm	Exhaust	TWBS-12	LB-12C	LBS-12C	PS-12C	PSS-12C	MS-12D	MSS-12D	GN-12D1	GNS-12D1	FGN-12	3FU-12A
		Intake	TWBS-12	LB-12C	LBS-12C	—	—	MS-12D	MSS-12D	GN-12D1	GNS-12D1	FGN-12	3FU-12A
	35 cm	Exhaust	TWBS-14	LB-14C	LBS-14C	PS-14C	PSS-14C	MS-14D	MSS-14D	GN-14G	GNS-14G	FGN-14	3FU-14A
		Intake	TWBS-14	LB-14C	LBS-14C	—	—	MS-14D	MSS-14D	GN-14G	GNS-14G	FGN-14	3FU-14A
	40 cm	Exhaust	TWBS-16	LB-16C	LBS-16C	4P PS-16C / 6P 6PS-16	4P PSS-16C / 6P 6PSS-16	MS-16D	MSS-16D	GN-16G.G1[*1]	GNS-16G[*2]	FGN-16	3FU-16A
		Intake	TWBS-16	LB-16C	LBS-16C	—	—	MS-16D	MSS-16D	GN-16G.G1[*1]	GNS-16G[*2]	FGN-16	3FU-16A
	45 cm	Exhaust	TWBS-18	LB-18C	LBS-18C	PS-18C	PSS-18C	MS-18C/D	MSS-18C/D	GN-18A-3	GNS-18	FGN-18	3FU-18A
		Intake	TWBS-18	LB-18C	LBS-18C	—	—	MS-18C/D	MSS-18C/D	GN-18A-3	GNS-18	FGN-18	3FU-18A
	50 cm	Exhaust	TWBS-20	LB-20C	LBS-20C	PS-20C	PSS-20C	MS-20C/D	MSS-20C/D	GN-20A-3	GNS-20A	FGN-20	3FU-20A
		Intake	TWBS-20	LB-20C	LBS-20C	—	—	MS-20C/D	MSS-20C/D	GN-20A-3	GNS-20A	FGN-20	3FU-20A
	60 cm	Exhaust	TWBS-24	LB-24C	LBS-24C	6P PS-24C / 8P 8PS-24	6P PSS-24C / 8P 8PSS-24	MS-24D	MSS-24D	GN-24A-3	GNS-24A	FGN-24	3FU-24A
		Intake	TWBS-24	LB-24C	LBS-24C	—	—	MS-24D	MSS-24D	GN-24A-3	GNS-24A	FGN-24	3FU-24A
	75 cm	Exhaust	TWBS-30	LB-30C	LBS-30C	PS-30C	PSS-30C	MS-30D	MSS-30D	GN-30S	GNS-30	FGN-30	3FU-30A/B
		Intake	TWBS-30	LB-30C	LBS-30C	—	—	MS-30D	MSS-30D	GN-30S	GNS-30	FGN-30	3FU-30A/B
	90 cm	Exhaust	TWBS-36	LB-36C	LBS-36C	PS-36C	PSS-36C	MS-36D	MSS-36D	GN-36S	GNS-36	FGN-36	3FU-36A/B
		Intake	TWBS-36	LB-36C	LBS-36C	—	—	MS-36D	MSS-36D	GN-36S	GNS-36	FGN-36	3FU-36A/B
	105 cm	Exhaust	TWBS-42	LB-42C	LBS-42C	PS-42C	PSS-42C	MS-42D	MSS-42D	GN-42SG	GNS-42SG	FGN-42	—
		Intake	TWBS-42	LB-42C	LBS-42C	—	—	MS-42D	MSS-42D	GN-42SG	GNS-42SG	FGN-42	—
	120 cm	Exhaust	—	LB-48	LBS-48	—	—	—	—	GN-48	—	FGN-48	—
		Intake	—	LB-48	LBS-48	—	—	—	—	GN-48	—	FGN-48	—

Note: Check the specifications of and models compatible with optional accessories prior to selection. Some products may not be used depending on the operating environment.
They may not be combined with some special pressure fan models.
* For outdoor hoods with a motor-driven shutter (built-in), please contact us.
*1: Holed type GN-16G1 is for PF-16B(A) T2F, and GN-16G is for other models.
*2: For PF-16B(A) T2F, please contact us.

Model	Impeller diameter of compatible pressure fans	Airflow direction	Outdoor hood								Fireproof hood		
			Without net		With anti-insect net			With anti-bird net			Without net	With anti-insect net	With anti-bird net
			Steel plate	SUS	Steel plate	SUS	SUS (with rainwater gutter)	Steel plate	SUS	SUS (with rainwater gutter)	SUS		
PF	20 cm	Exhaust	OF- 8	OFS- 8	OF- 8NI	OFS- 8NI	—	OF- 8NB	OFS- 8NB	—	—	—	—
		Intake	—	—	—	—	OFS- 8ANI	—	—	OFS- 8ANB	—	—	—
	25 cm	Exhaust	OF-10	OFS-10	OF-10NI	OFS-10NI	—	OF-10NB	OFS-10NB	—	—	—	—
		Intake	—	—	—	—	OFS-10ANI	—	—	OFS-10ANB	—	—	—
	30 cm	Exhaust	OF-12	OFS-12	OF-12NI	OFS-12NI	—	OF-12NB	OFS-12NB	—	FDS-12	FDS-12NI	FDS-12NB
		Intake	—	—	—	—	OFS-12ANI	—	—	OFS-12ANB	—	—	—
	35 cm	Exhaust	OF-14	OFS-14	OF-14NI	OFS-14NI	—	OF-14NB	OFS-14NB	—	FDS-14	FDS-14NI	FDS-14NB
		Intake	—	—	—	—	OFS-14ANI	—	—	OFS-14ANB	—	—	—
	40 cm	Exhaust	OF-16	OFS-16	OF-16NI	OFS-16NI	—	OF-16NB	OFS-16NB	—	FDS-16	FDS-16NI	FDS-16NB
		Intake	—	—	—	—	OFS-16ANI	—	—	OFS-16ANB	—	—	—
	45 cm	Exhaust	OF-18	OFS-18	OF-18NI	OFS-18NI	—	OF-18NB	OFS-18NB	—	FDS-18	FDS-18NI	FDS-18NB
		Intake	—	—	—	—	OFS-18ANI	—	—	OFS-18ANB	—	—	—
	50 cm	Exhaust	OF-20	OFS-20	OF-20NI	OFS-20NI	—	OF-20NB	OFS-20NB	—	FDS-20	FDS-20NI	FDS-20NB
		Intake	—	—	—	—	OFS-20ANI	—	—	OFS-20ANB	—	—	—
	60 cm	Exhaust	OF-24	OFS-24	OF-24NI	OFS-24NI	—	OF-24NB	OFS-24NB	—	FDS-24	FDS-24NI	FDS-24NB
		Intake	—	—	—	—	OFS-24ANI	—	—	OFS-24ANB	—	—	—
	75 cm	Exhaust	OF-30	OFS-30	OF-30NI	OFS-30NI	—	OF-30NB	OFS-30NB	—	FDS-30	FDS-30NI	FDS-30NB
		Intake	—	—	—	—	OFS-30ANI	—	—	OFS-30ANB	—	—	—
	90 cm	Exhaust	OF-36	OFS-36	OF-36NI	OFS-36NI	—	OF-36NB	OFS-36NB	—	FDS-36	FDS-36NI	FDS-36NB
		Intake	—	—	—	—	OFS-36ANI	—	—	OFS-36ANB	—	—	—
	105 cm	Exhaust	OF-42	OFS-42	OF-42NI	OFS-42NI	—	OF-42NB	OFS-42NB	—	FDS-42	FDS-42NI	FDS-42NB
		Intake	—	—	—	—	OFS-42ANI	—	—	OFS-42ANB	—	—	—
	120 cm	Exhaust	OF-48	OFS-48	OF-48NI	OFS-48NI	—	OF-48NB	OFS-48NB	—	—	—	—
		Intake	—	—	—	—	OFS-48ANI	—	—	OFS-48ANB	—	—	—

Note: Check the specifications of and models compatible with optional accessories prior to selection. Some products may not be used depending on the operating environment.
They may not be combined with some special pressure fan models.
* For outdoor hoods with a motor-driven shutter (built-in), please contact us.

Outdoor Type

Model	Impeller diameter of compatible pressure fans	Airflow direction	Mounting frame	Fixed louver		Wind pressure shutter		Motor-driven shutter		Guard net			Filter unit
				Steel plate	SUS	Steel plate	SUS	Steel plate	SUS	Iron	SUS	Front face net	
WP	25 cm	Exhaust	TWBS-10	LB-10C	LBS-10C	—	—	—	—	GN-10	GNS-10	FGN-10	—
		Intake	TWBS-10	LB-10C	LBS-10C	—	—	—	—	GN-10	GNS-10	FGN-10	—
	30 cm	Exhaust	TWBS-12	LB-12C	LBS-12C	—	—	—	—	GN-12	GNS-12	FGN-12	—
		Intake	TWBS-12	LB-12C	LBS-12C	—	—	—	—	GN-12	GNS-12	FGN-12	—
	35 cm	Exhaust	TWBS-14	LB-14C	LBS-14C	—	—	—	—	GN-14G,G1*1	GNS-14G*2	FGN-14	—
		Intake	TWBS-14	LB-14C	LBS-14C	—	—	—	—	GN-14G,G1*1	GNS-14G*2	FGN-14	—
	40 cm	Exhaust	TWBS-16	LB-16C	LBS-16C	—	—	—	—	GN-16G,G1*1	GNS-16G*2	FGN-16	—
		Intake	TWBS-16	LB-16C	LBS-16C	—	—	—	—	GN-16G,G1*1	GNS-16G*2	FGN-16	—
	45 cm	Exhaust	TWBS-18	LB-18C	LBS-18C	—	—	—	—	GN-18A-3	GNS-18	FGN-18	—
		Intake	TWBS-18	LB-18C	LBS-18C	—	—	—	—	GN-18A-3	GNS-18	FGN-18	—
	50 cm	Exhaust	TWBS-20	LB-20C	LBS-20C	—	—	—	—	GN-20A-3	GNS-20A	FGN-20	—
		Intake	TWBS-20	LB-20C	LBS-20C	—	—	—	—	GN-20A-3	GNS-20A	FGN-20	—
	60 cm	Exhaust	TWBS-24	LB-24C	LBS-24C	—	—	—	—	GN-24A-3	GNS-24A	FGN-24	—
		Intake	TWBS-24	LB-24C	LBS-24C	—	—	—	—	GN-24A-3	GNS-24A	FGN-24	—
	75 cm	Exhaust	TWBS-30	LB-30C	LBS-30C	—	—	—	—	GN-30S	GNS-30	FGN-30	—
		Intake	TWBS-30	LB-30C	LBS-30C	—	—	—	—	GN-30S	GNS-30	FGN-30	—
	90 cm	Exhaust	TWBS-36	LB-36C	LBS-36C	—	—	—	—	GN-36S	GNS-36	FGN-36	—
		Intake	TWBS-36	LB-36C	LBS-36C	—	—	—	—	GN-36S	GNS-36	FGN-36	—
	105 cm	Exhaust	TWBS-42	LB-42C	LBS-42C	—	—	—	—	GN-42SG	GNS-42SG	FGN-42	—
		Intake	TWBS-42	LB-42C	LBS-42C	—	—	—	—	GN-42SG	GNS-42SG	FGN-42	—
	120 cm	Exhaust	—	LB-48	LBS-48	—	—	—	—	GN-48	—	FGN-48	—
		Intake	—	LB-48	LBS-48	—	—	—	—	GN-48	—	FGN-48	—

Note: Check the specifications of and models compatible with optional accessories prior to selection. Some products may not be used depending on the operating environment.
They may not be combined with some special pressure fan models.
* For outdoor hoods with a motor-driven shutter (built-in), please contact us.
*1: The GN-14G1 and the GN-16G1 having a bypass hole are for single-phase power supply models, and the GN-14G and the GN-16G are for three-phase power supply models.
*2: For single-phase power supply models, please contact us.

Model	Impeller diameter of compatible pressure fans	Airflow direction	Outdoor hood								Fireproof hood		
			Without net		With anti-insect net			With anti-bird net			Without net	With anti-insect net	With anti-bird net
			Steel plate	SUS	Steel plate	SUS	SUS (with rainwater gutter)	Steel plate	SUS	SUS (with rainwater gutter)	SUS		
WP	25 cm	Exhaust	OF-10	OFS-10	OF-10NI	OFS-10NI	—	OF-10NB	OFS-10NB	—	—	—	—
		Intake	—	—	—	—	OFS-10ANI	—	—	OFS-10ANB	—	—	—
	30 cm	Exhaust	OF-12	OFS-12	OF-12NI	OFS-12NI	—	OF-12NB	OFS-12NB	—	FDS-12	FDS-12NI	FDS-12NB
		Intake	—	—	—	—	OFS-12ANI	—	—	OFS-12ANB	—	—	—
	35 cm	Exhaust	OF-14	OFS-14	OF-14NI	OFS-14NI	—	OF-14NB	OFS-14NB	—	FDS-14	FDS-14NI	FDS-14NB
		Intake	—	—	—	—	OFS-14ANI	—	—	OFS-14ANB	—	—	—
	40 cm	Exhaust	OF-16	OFS-16	OF-16NI	OFS-16NI	—	OF-16NB	OFS-16NB	—	FDS-16	FDS-16NI	FDS-16NB
		Intake	—	—	—	—	OFS-16ANI	—	—	OFS-16ANB	—	—	—
	45 cm	Exhaust	OF-18	OFS-18	OF-18NI	OFS-18NI	—	OF-18NB	OFS-18NB	—	FDS-18	FDS-18NI	FDS-18NB
		Intake	—	—	—	—	OFS-18ANI	—	—	OFS-18ANB	—	—	—
	50 cm	Exhaust	OF-20	OFS-20	OF-20NI	OFS-20NI	—	OF-20NB	OFS-20NB	—	FDS-20	FDS-20NI	FDS-20NB
		Intake	—	—	—	—	OFS-20ANI	—	—	OFS-20ANB	—	—	—
	60 cm	Exhaust	OF-24	OFS-24	OF-24NI	OFS-24NI	—	OF-24NB	OFS-24NB	—	FDS-24	FDS-24NI	FDS-24NB
		Intake	—	—	—	—	OFS-24ANI	—	—	OFS-24ANB	—	—	—
	75 cm	Exhaust	OF-30	OFS-30	OF-30NI	OFS-30NI	—	OF-30NB	OFS-30NB	—	FDS-30	FDS-30NI	FDS-30NB
		Intake	—	—	—	—	OFS-30ANI	—	—	OFS-30ANB	—	—	—
	90 cm	Exhaust	OF-36	OFS-36	OF-36NI	OFS-36NI	—	OF-36NB	OFS-36NB	—	FDS-36	FDS-36NI	FDS-36NB
		Intake	—	—	—	—	OFS-36ANI	—	—	OFS-36ANB	—	—	—
	105 cm	Exhaust	OF-42	OFS-42	OF-42NI	OFS-42NI	—	OF-42NB	OFS-42NB	—	FDS-42	FDS-42NI	FDS-42NB
		Intake	—	—	—	—	OFS-42ANI	—	—	OFS-42ANB	—	—	—
	120 cm	Exhaust	OF-48	OFS-48	OF-48NI	OFS-48NI	—	OF-48NB	OFS-48NB	—	—	—	—
		Intake	—	—	—	—	OFS-48ANI	—	—	OFS-48ANB	—	—	—

Note: Check the specifications of and models compatible with optional accessories prior to selection. Some products may not be used depending on the operating environment.
They may not be combined with some special pressure fan models.
* For outdoor hoods with a motor-driven shutter (built-in), please contact us.

Compatibility Table

Pressure-Resistant Explosion-Proof Type

Model	Impeller diameter of compatible pressure fans	Airflow direction	Mounting frame	Fixed louver		Wind pressure shutter		Motor-driven shutter		Guard net			Filter unit
				Steel plate	SUS	Steel plate	SUS	Steel plate	SUS	Iron	SUS	Front face net	
EPP	20cm	Exhaust	TWBS- 8	LB- 8C	LBS- 8C	PS-8C	PSS-8C	—	—	EGN- 8	—	FGN- 8	3FU- 8A
	25 cm	Exhaust	TWBS-10	LB-10C	LBS-10C	PS-10C	PSS-10C	—	—	EGN-10	—	FGN-10	3FU-10A
		Intake	TWBS-10	LB-10C	LBS-10C	—	—	—	—	EGN-10	—	FGN-10	3FU-10A
	30 cm	Exhaust	TWBS-12	LB-12C	LBS-12C	PS-12C	PSS-12C	—	—	EGN-12	—	FGN-12	3FU-12A
		Intake	TWBS-12	LB-12C	LBS-12C	—	—	—	—	EGN-12	—	FGN-12	3FU-12A
	35 cm	Exhaust	TWBS-14	LB-14C	LBS-14C	PS-14C	PSS-14C	—	—	EGN-14	—	FGN-14	3FU-14A
		Intake	TWBS-14	LB-14C	LBS-14C	—	—	—	—	EGN-14	—	FGN-14	3FU-14A
	40 cm	Exhaust	TWBS-16	LB-16C	LBS-16C	4P PS-16C 6P 6PS-16	4P PSS-16C 6P 6PSS-16	—	—	EGN-16	—	FGN-16	3FU-16A
		Intake	TWBS-16	LB-16C	LBS-16C	—	—	—	—	EGN-16	—	FGN-16	3FU-16A
	45 cm	Exhaust	TWBS-18	LB-18C	LBS-18C	PS-18C	PSS-18C	—	—	EGN-18	—	FGN-18	3FU-18A
		Intake	TWBS-18	LB-18C	LBS-18C	—	—	—	—	EGN-18	—	FGN-18	3FU-18A
	50 cm	Exhaust	TWBS-20	LB-20C	LBS-20C	PS-20C	PSS-20C	—	—	EGN-20	—	FGN-20	3FU-20A
		Intake	TWBS-20	LB-20C	LBS-20C	—	—	—	—	EGN-20	—	FGN-20	3FU-20A
	60 cm	Exhaust	TWBS-24	LB-24C	LBS-24C	6P PS-24C 8P 8PS-24	6P PSS-24C 8P 8PSS-24	—	—	EGN-24	—	FGN-24	3FU-24A
	75cm	Exhaust	TWBS-30	LB-30C	LBS-30C	PS-30C	PSS-30C	—	—	EGN-30	—	FGN-30	3FU-30A/B
	90cm	Exhaust	TWBS-36	LB-36C	LBS-36C	PS-36C	PSS-36C	—	—	EGN-36	—	FGN-36	3FU-36A/B
	105cm	Exhaust	TWBS-42	LB-42C	LBS-42C	PS-42C	PSS-42C	—	—	EGN-42	—	FGN-42	—
	120cm	Exhaust	—	LB-48	LBS-48	—	—	—	—	EGN-48	—	FGN-48	—

Note: Check the specifications of and models compatible with optional accessories prior to selection. Some products may not be used depending on the operating environment.
They may not be combined with some special pressure fan models.

Model	Impeller diameter of compatible pressure fans	Airflow direction	Outdoor hood								Fireproof hood		
			Without net		With anti-insect net			With anti-bird net			Without net	With anti-insect net	With anti-bird net
			Steel plate	SUS	Steel plate	SUS	SUS (with rainwater gutter)	Steel plate	SUS	SUS (with rainwater gutter)	SUS		
EPP	20cm	Exhaust	OF- 8	OFS- 8	OF- 8NI	OFS- 8NI	—	OF- 8NB	OFS- 8NB	—	—	—	—
	25 cm	Exhaust	OF-10	OFS-10	OF-10NI	OFS-10NI	—	OF-10NB	OFS-10NB	—	—	—	—
		Intake	—	—	—	—	OFS-10ANI	—	—	OFS-10ANB	—	—	—
	30 cm	Exhaust	OF-12	OFS-12	OF-12NI	OFS-12NI	—	OF-12NB	OFS-12NB	—	FDS-12	FDS-12NI	FDS-12NB
		Intake	—	—	—	—	OFS-12ANI	—	—	OFS-12ANB	—	—	—
	35 cm	Exhaust	OF-14	OFS-14	OF-14NI	OFS-14NI	—	OF-14NB	OFS-14NB	—	FDS-14	FDS-14NI	FDS-14NB
		Intake	—	—	—	—	OFS-14ANI	—	—	OFS-14ANB	—	—	—
	40 cm	Exhaust	OF-16	OFS-16	OF-16NI	OFS-16NI	—	OF-16NB	OFS-16NB	—	FDS-16	FDS-16NI	FDS-16NB
		Intake	—	—	—	—	OFS-16ANI	—	—	OFS-16ANB	—	—	—
	45 cm	Exhaust	OF-18	OFS-18	OF-18NI	OFS-18NI	—	OF-18NB	OFS-18NB	—	FDS-18	FDS-18NI	FDS-18NB
		Intake	—	—	—	—	OFS-18ANI	—	—	OFS-18ANB	—	—	—
	50 cm	Exhaust	OF-20	OFS-20	OF-20NI	OFS-20NI	—	OF-20NB	OFS-20NB	—	FDS-20	FDS-20NI	FDS-20NB
		Intake	—	—	—	—	OFS-20ANI	—	—	OFS-20ANB	—	—	—
	60cm	Exhaust	OF-24	OFS-24	OF-24NI	OFS-24NI	—	OF-24NB	OFS-24NB	—	FDS-24	FDS-24NI	FDS-24NB
	75cm	Exhaust	OF-30	OFS-30	OF-30NI	OFS-30NI	—	OF-30NB	OFS-30NB	—	FDS-30	FDS-30NI	FDS-30NB
	90cm	Exhaust	OF-36	OFS-36	OF-36NI	OFS-36NI	—	OF-36NB	OFS-36NB	—	FDS-36	FDS-36NI	FDS-36NB
	105cm	Exhaust	OF-42	OFS-42	OF-42NI	OFS-42NI	—	OF-42NB	OFS-42NB	—	FDS-42	FDS-42NI	FDS-42NB
	120cm	Exhaust	OF-48	OFS-48	OF-48NI	OFS-48NI	—	OF-48NB	OFS-48NB	—	—	—	—

Note: Check the specifications of and models compatible with optional accessories prior to selection. Some products may not be used depending on the operating environment.
They may not be combined with some special pressure fan models.

Stainless Steel Type

Model	Impeller diameter of compatible pressure fans	Airflow direction	Mounting frame	Fixed louver		Wind pressure shutter		Motor-driven shutter		Guard net			Filter unit
				Steel plate	SUS	Steel plate	SUS	Steel plate	SUS	Iron	SUS	Front face net	
PFS	25cm	Exhaust	TWBS-10	—	LBS-10C	—	PSS-10C	—	MSS-10D	—	GNS-10D1	—	—
	30cm	Exhaust	TWBS-12	—	LBS-12C	—	PSS-12C	—	MSS-12D	—	GNS-12D1	—	—
	40cm	Exhaust	TWBS-16	—	LBS-16C	—	PSS-16C	—	MSS-16D	—	GNS-16G	—	—
	50cm	Exhaust	TWBS-20	—	LBS-20C	—	PSS-20C	—	MSS-20D	—	GNS-20A	—	—

Note: Check the specifications of and models compatible with optional accessories prior to selection. Some products may not be used depending on the operating environment.
They may not be combined with some special pressure fan models.
* For outdoor hoods with a motor-driven shutter (built-in), please contact us.

Model	Impeller diameter	Airflow direction	Outdoor hood								Fireproof hood		
			Without net		With anti-insect net			With anti-bird net			Without net	With anti-insect net	With anti-bird net
			Steel plate	SUS	Steel plate	SUS	SUS (with rainwater gutter)	Steel plate	SUS	SUS (with rainwater gutter)	SUS		
PFS	25cm	Exhaust	—	OFS-10	—	OFS-10NI	—	—	OFS-10NB	—	—	—	—
	30cm	Exhaust	—	OFS-12	—	OFS-12NI	—	—	OFS-12NB	—	FDS-12	FDS-12NI	FDS-12NB
	40cm	Exhaust	—	OFS-16	—	OFS-16NI	—	—	OFS-16NB	—	FDS-16	FDS-16NI	FDS-16NB
	50cm	Exhaust	—	OFS-20	—	OFS-20NI	—	—	OFS-20NB	—	FDS-20	FDS-20NI	FDS-20NB

Note: Check the specifications of and models compatible with optional accessories prior to selection. Some products may not be used depending on the operating environment.
They may not be combined with some special pressure fan models.
* For outdoor hoods with a motor-driven shutter (built-in), please contact us.
* Please contact us for intake type.

All Stainless Steel Type

* For options to WPS models, please contact us.

Centrifugal Contact Type

Model	Impeller diameter of compatible pressure fans	Airflow direction	Mounting frame	Fixed louver		Wind pressure shutter		Motor-driven shutter		Guard net			Filter unit
				Steel plate	SUS	Steel plate	SUS	Steel plate	SUS	Iron	SUS	Front face net	
S	25cm	Exhaust	TWBS-10	LB-10C	LBS-10C	PS-10C	PSS-10C	MS-10D	MSS-10D	GN-10	—	FGN-10	3FU-10A
	30cm	Exhaust	TWBS-12	LB-12C	LBS-12C	PS-12C	PSS-12C	MS-12D	MSS-12D	GN-12	—	FGN-12	3FU-12A
	35cm	Exhaust	TWBS-14	LB-14C	LBS-14C	PS-14C	PSS-14C	MS-14D	MSS-14D	GN-14G1	—	FGN-14	3FU-14A
	40cm	Exhaust	TWBS-16	LB-16C	LBS-16C	PS-16C	PSS-16C	MS-16D	MSS-16D	GN-16G1	—	FGN-16	3FU-16A
	45cm	Exhaust	TWBS-18	LB-18C	LBS-18C	PS-18C	PSS-18C	MS-18D	MSS-18D	GN-18A-3	—	FGN-18	3FU-18A
	50cm	Exhaust	TWBS-20	LB-20C	LBS-20C	PS-20C	PSS-20C	MS-20D	MSS-20D	GN-20A-3	—	FGN-20	3FU-20A
	60cm	Exhaust	TWBS-24	LB-24C	LBS-24C	PS-24C	PSS-24C	MS-24D	MSS-24D	GN-24A-3	—	FGN-24	3FU-24A

Note: Check the specifications of and models compatible with optional accessories prior to selection. Some products may not be used depending on the operating environment.
They may not be combined with some special pressure fan models.
* For outdoor hoods with a motor-driven shutter (built-in), please contact us.

Model	Impeller diameter of compatible pressure fans	Airflow direction	Outdoor hood								Fireproof hood		
			Without net		With anti-insect net			With anti-bird net			Without net	With anti-insect net	With anti-bird net
			Steel plate	SUS	Steel plate	SUS	SUS (with rainwater gutter)	Steel plate	SUS	SUS (with rainwater gutter)	SUS		
S	25cm	Exhaust	OF-10	OFS-10	OF-10NI	OFS-10NI	—	OF-10NB	OFS-10NB	—	—	—	—
	30cm	Exhaust	OF-12	OFS-12	OF-12NI	OFS-12NI	—	OF-12NB	OFS-12NB	—	FDS-12	FDS-12NI	FDS-12NB
	35cm	Exhaust	OF-14	OFS-14	OF-14NI	OFS-14NI	—	OF-14NB	OFS-14NB	—	FDS-14	FDS-14NI	FDS-14NB
	40cm	Exhaust	OF-16	OFS-16	OF-16NI	OFS-16NI	—	OF-16NB	OFS-16NB	—	FDS-16	FDS-16NI	FDS-16NB
	45cm	Exhaust	OF-18	OFS-18	OF-18NI	OFS-18NI	—	OF-18NB	OFS-18NB	—	FDS-18	FDS-18NI	FDS-18NB
	50cm	Exhaust	OF-20	OFS-20	OF-20NI	OFS-20NI	—	OF-20NB	OFS-20NB	—	FDS-20	FDS-20NI	FDS-20NB
	60cm	Exhaust	OF-24	OFS-24	OF-24NI	OFS-24NI	—	OF-24NB	OFS-24NB	—	FDS-24	FDS-24NI	FDS-24NB

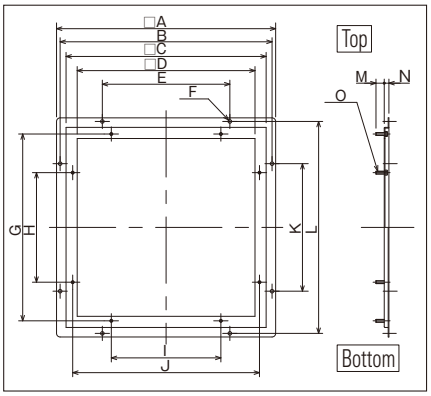
Note: Check the specifications of and models compatible with optional accessories prior to selection. Some products may not be used depending on the operating environment.
They may not be combined with some special pressure fan models.
* For outdoor hoods with a motor-driven shutter (built-in), please contact us.

Stainless Steel

Mounting Frames

* Please note that the photo shows typical examples and that they may partly differ from actual items.

Assembly drawing



Dimensions

(Unit:mm)

Impeller diameter of compatible pressure fans	Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	Plate thickness	Approx. mass (kg)
20cm	TWBS-8	316	269	276	220	200	8×ϕ9	—	162	—	246	200	296	24	12	4×M6×25	1	0.6
25cm	TWBS-10	367	347	327	275	200	8×ϕ9	—	165	—	298	200	347	24	12	4×M6×25	1	0.7
30cm	TWBS-12	418	398	378	325	300	8×ϕ9	—	210	—	349	300	398	23	12	4×M6×25	2	1.5
35cm	TWBS-14	530	500	467	400	320	8×ϕ12	—	250	—	434	320	500	28	12	4×M10×30	2	2.5
40cm	TWBS-16	600	560	518	450	350	8×ϕ12	—	280	—	485	350	560	27.5	14	4×M10×30	2.5	4.0
45cm	TWBS-18	630	600	570	500	400	8×ϕ12	540	320	320	540	400	600	27.5	14	8×M10×30	2.5	3.9
50cm	TWBS-20	750	710	659	570	450	8×ϕ15	620	355	355	620	450	710	37	19	8×M12×40	3	7.5
60cm	TWBS-24	820	790	760	670	500	8×ϕ15	720	400	400	720	500	790	37	19	8×M12×40	3	7.3
75cm	TWBS-30	1020	990	955	840	600	8×ϕ20	900	508	508	900	600	990	47	19	8×M16×50	3	10.9
90cm	TWBS-36	1220	1180	1114	990	710	8×ϕ20	1040	610	610	1040	710	1180	46	26	8×M16×50	4	21.3
105cm	TWBS-42	1360	1320	1266	1150	800	8×ϕ20	1207	656	656	1207	800	1320	46	26	8×M16×50	4	22.4

* Spring washers,Taper washers, and nuts are not included.

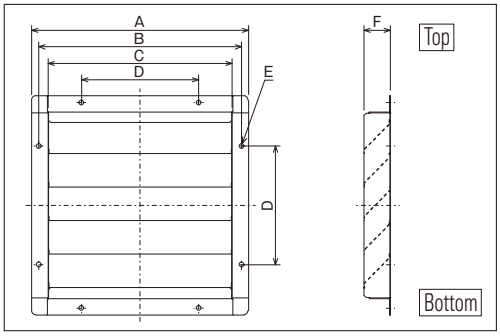
Steel Plate Stainless Steel

Fixed Louvers

Serving as a simplified method of blocking incoming wind or covering the air inlet at the time of installing a fan

* Please note that the photo shows typical examples and that they may partly differ from actual items.

Assembly drawing



* The shape varies slightly depending on the model.
* It cannot be used where it is directly exposed to rainwater.

Dimensions

(Unit:mm)

Impeller diameter of compatible pressure fans	Model		A	B	C	D	E	F	Number of blades	Approx. mass (kg)
	Steel Plate	Stainless Steel								
20cm	LB-8C	LBS-8C	276	246	217	162	8×ϕ7	63	3	1.5
25cm	LB-10C	LBS-10C	327	298	268	165	8×ϕ7	63	4	1.9
30cm	LB-12C	LBS-12C	378	349	319	210	8×ϕ7	63	5	2.5
35cm	LB-14C	LBS-14C	467	434	389	250	8×ϕ12	75	5	4.3
40cm	LB-16C	LBS-16C	518	485	440	280	8×ϕ12	75	6	5.1
45cm	LB-18C	LBS-18C	570	540	492	320	8×ϕ12	75	6	5.7
50cm	LB-20C	LBS-20C	659	620	562	355	8×ϕ15	85	6	8.6
60cm	LB-24C	LBS-24C	760	720	663	400	8×ϕ15	85	7	12.4
75cm	LB-30C	LBS-30C	955	900	832	508	8×ϕ20	85	9	18
90cm	LB-36C	LBS-36C	1110	1040	980	610	8×ϕ20	85	9	24
105cm	LB-42C	LBS-42C	1262	1207	1132	656	8vϕ20	85	10	28
120cm	LB-48	LBS-48	1475	1425	1345	800	8×ϕ20	130	13	52

Steel Plate Stainless Steel

Wind Pressure Shutters

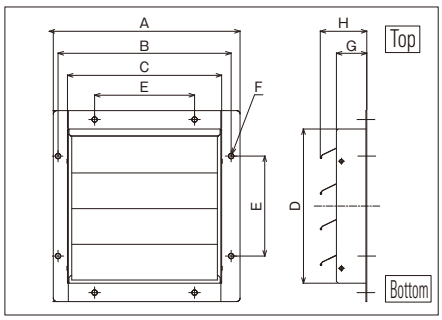
Helpful to blocking of incoming wind at the time of installing a fan


PS-18C

* Check the behavior of the wind pressure shutter after it is installed in a flat state.
* Use it in an environment where the temperature ranges from -10 ℃ to +60 ℃ and the relative humidity is 90% or less.
* Do not use it where it would be directly exposed to rainwater.
* It is not compatible with any intake-type pressure fan.
* The opening/closing angle varies depending on the air volume of the pressure fan used.
* Use a motor-driven shutter if the air volume is limited.

* Please note that the photo shows typical examples and that they may partly differ from actual items.

Assembly drawing



* The shape varies slightly depending on the model.

Dimensions

(Unit:mm)

Impeller diameter of compatible pressure fans	Model		A	B	C	D	E	F	G	H	Number of blades	Approx. mass (kg)
	Steel Plate	Stainless Steel										
20cm	PS-8C	PSS-8C	276	246	220	217	162	8×φ7	63	95	2	1.5
25cm	PS-10C	PSS-10C	327	298	271	268	165	8×φ7	63	95	3	2.1
30cm	PS-12C	PSS-12C	378	349	322	319	210	8×φ7	63	95	3	2.8
35cm	PS-14C	PSS-14C	467	434	392	389	250	8×φ12	75	110	4	4.1
40cm 4P	PS-16C	PSS-16C	518	485	443	440	280	8×φ12	75	110	4	4.9
40cm 6P	6PS-16	6PSS-16	518	485	440	440	280	8×φ12	75	115	6	2.9
45cm	PS-18C	PSS-18C	570	540	495	492	320	8×φ12	75	110	5	5.8
50cm	PS-20C	PSS-20C	659	620	565	562	355	8×φ15	85	120	5	8.2
60cm 6P	PS-24C	PSS-24C	760	720	666	663	400	8×φ15	85	120	6	10.4
60cm 8P	8PS-24	8PSS-24	760	720	663	663	400	8×φ15	90	130	9	7.7
75cm	PS-30C	PSS-30C	955	900	833	830	508	8×φ20	85	140	8	17
90cm	PS-36C	PSS-36C	1110	1040	986	983	610	8×φ20	85	140	10	21
105cm	PS-42C	PSS-42C	1262	1207	1136	1133	656	8×φ20	85	140	11	25

Steel Plate Stainless Steel

Motor-Driven Shutters

Incorporating a high-performance drive motor to guarantee unfailing operations; for blocking incoming wind or in combination with the air inlet or an intake-type pressure fan


MS-16D

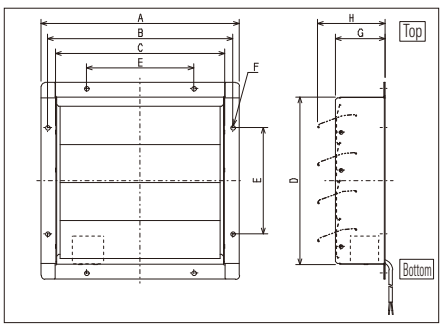
* Please note that the photo shows typical examples and that they may partly differ from actual items.

Specification table

Impeller diameter of compatible pressure fans	Model	Voltage (V)	Electric current (A)		Starting current (A)		Power consumption (W)		Opening time (secs.)		Closing time (secs.)	
			50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz	50Hz	60Hz
25cm ~ 40cm	MS(S)-10D~16D	100	0.1 or less				7 or less		8	7	Instant	
		200	0.07 or less				7 or less		8	7	Instant	
45cm ~ 50cm	MS(S)-18C~20C	100	0.43	0.30	0.45	0.35	18	13	6	5	6	5
45cm ~ 105cm	MS(S)-18D~42D	200	0.81	0.47	0.82	0.52	57	36	5	4	5	4

* Check the behavior of the wind pressure shutter after it is installed in a flat state.
* It cannot be used where it is directly exposed to rainwater. Use an outdoor hood.
* It cannot be fastened together with an outdoor hood or a fireproof hood. If you wish to fasten it together with any such hood, please contact us separately.
* Ranges of use are as follows:
  An ambient temperature of -10 ℃ to +50 ℃ and a relative humidity of 90% or less for models compatible with pressure fans where an impeller diameter ranges from 25cm to 40cm;
  An ambient temperature of -10 ℃ to +50 ℃ and a relative humidity of 90% or less under designations ending with C, and 85% or less under designations ending with D for models compatible with pressure fans where an impeller diameter ranges from 45cm to 60cm;
  An ambient temperature of -10 ℃ to +50 ℃ and a relative humidity of 85% or less for models compatible with pressure fans where an impeller diameter ranges from 75cm to 105cm.
* The built-in motor in the drive box of any motor-driven shutter compatible with pressure fans MS(S)-18D, 20D, and 24D where an impeller diameter ranges from 45cm to 60cm, and MS(S)-30D, 36D, and 42D where an impeller diameter ranges from 75cm to 105cm includes a thermal fuse for motor protection. Do not open and close the motor-driven shutter five consecutive times or more or for one continuous minute or longer, or the thermal fuse may blow to protect the built-in motor. If the thermal fuse blows, the motor will no longer operate. In this case, the whole drive box including the built-in motor should be replaced.

Assembly drawing



* The shape varies slightly depending on the model.

Dimensions

(Unit:mm)

Impeller diameter of compatible pressure fans	Model		A	B	C	D	E	F	G	H	Number of blades	Approx. mass (kg)
	Steel Plate	Stainless Steel										
25cm	MS-10D	MSS-10D	327	298	271	270	165	8×φ7	130	180	3	4
30cm	MS-12D	MSS-12D	378	349	322	321	210	8×φ7	130	190	3	4.5
35cm	MS-14D	MSS-14D	467	434	392	391	250	8×φ12	130	180	4	6
40cm	MS-16D	MSS-16D	518	485	443	442	280	8×φ12	130	190	4	6.5
45cm	MS-18C	MSS-18C	570	540	495	494	320	8×φ12	130	190	5	10
	MS-18D	MSS-18D										10.5
50cm	MS-20C	MSS-20C	659	620	565	564	355	8×φ15	130	190	5	11.5
	MS-20D	MSS-20D										12
60cm	MS-24D	MSS-24D	760	720	666	665	400	8×φ15	130	190	6	14.5
75cm	MS-30D	MSS-30D	955	900	833	831	508	8×φ20	185	245	8	26
90cm	MS-36D	MSS-36D	1110	1040	986	984	610	8×φ20	185	245	10	32
105cm	MS-42D	MSS-42D	1262	1207	1136	1134	656	8×φ20	185	245	11	37

Example of Use of Operation Circuit

* Precautions
Please note the following.

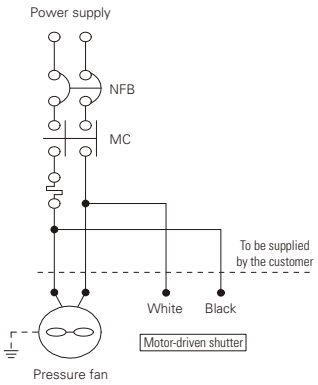
Impeller diameter of compatible pressure fans	Precautions
25cm～105cm	●Make sure that the power supply has the voltage specified on the rating plate. ●If more than one pressure fan is operated, give consideration to the power supply capacity and other factors.
45cm～105cm	●While the motor-driven shutter is opening or closing, keep it powered on and never power it off. ●The built-in motor in the drive box of any motor-driven shutter compatible with pressure fans MS(S)-18D, 20D, and 24D where an impeller diameter ranges from 45cm to 60cm, and MS(S)-30D, 36D, and 42D where an impeller diameter ranges from 75cm to 105cm includes a thermal fuse for motor protection. Do not open and close the motor-driven shutter five consecutive times or more or for one continuous minute or longer, or the thermal fuse may blow to protect the built-in motor. If the thermal fuse blows, the motor will no longer operate. In this case, the whole drive box including the built-in motor should be replaced. ● If the motor-driven shutter is powered off during the opening or closing operation, the motor-driven shutter will be stopped in a half-open state. To resume its operation, power it on again.
75cm～105cm	●Do not operate the switch during the opening or closing operation. The motor-driven shutter is structured not to move on to the next operation unless the opening or closing operation is finished. If the switch is operated during the opening or closing operation, the shutter will be stopped in a half-open state. To restore its status, perform the switch operation again. ●Make sure that the pressure fan does not start operation until the motor-driven shutter becomes fully open.

* Examples of operation circuits for parallel operation of the motor-driven shutter and the pressure fan

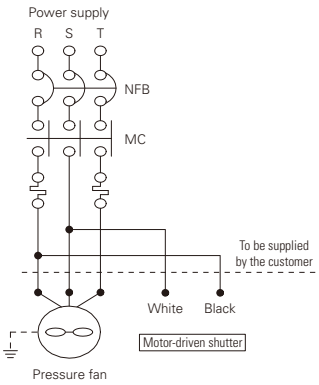
Circuits applicable to pressure fans where an impeller diameter ranges from 25cm to 40cm

●When the power supply is applied, the motor-driven shutter is in opening operation or in an open state. When the power is off, it is in closing operation or in a closed state.

MS(S)-10D～16D
Single-phase 100V and 200V



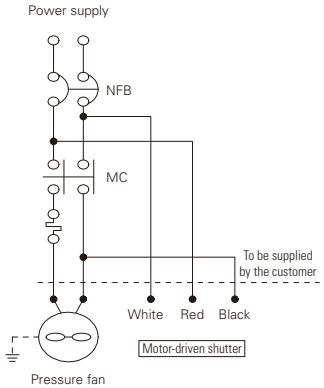
MS(S)-10D～16D
Three-phase 200V



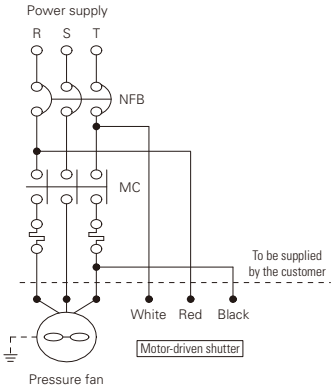
Circuits applicable to pressure fans where an impeller diameter ranges from 45cm to 60cm

●These examples of circuits are for motor-driven shutters with built-in relays.

MS(S)-18C/D～20C/D
Single-phase 100V and 200V



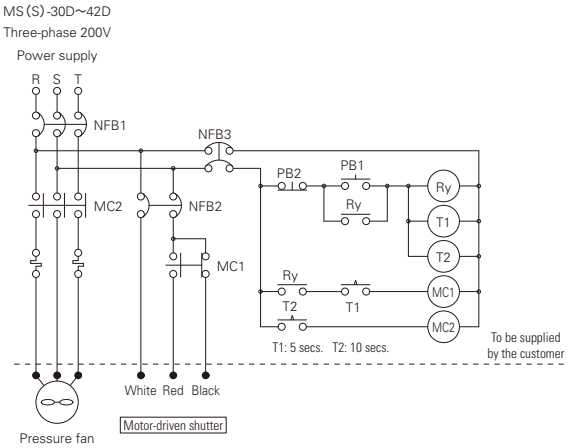
MS(S)-18D～24D
Three-phase 200V



Circuits applicable to pressure fans where an impeller diameter ranges from 75cm to 105cm

●Set the time on Timer T1 to five seconds to ensure that the pressure fan will not come into operation until the motor-driven shutter becomes fully open.
●After the power supply is cut off due to a power failure, etc., the shutter will close once and then open when the power is restored. Set the time on Timer T2 to 10 seconds to ensure that the pressure fan will not start operation until five seconds of closing and another five seconds of opening are finished.

MS(S)-30D～42D
Three-phase 200V



Steel Plate Stainless Steel

Outdoor Hoods

Blocking intrusion of not only wind and rain but insects and dust as well by attaching an anti-insect or anti-bird net

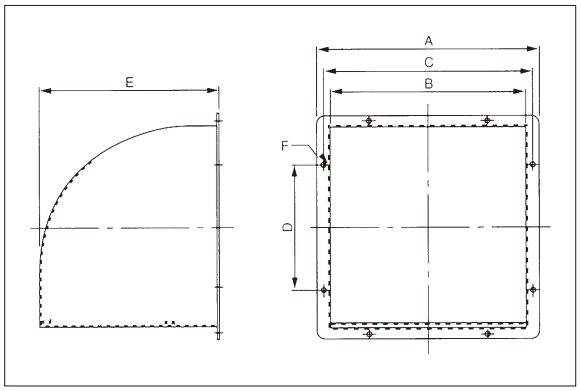
OFS-12N

* Please note that the photo shows typical examples and that they may partly differ from actual items.

To place an order for an outdoor hood with an anti-insect net, please add "I" at the end of the model code. For an outdoor hood with an anti-bird net, please add "B" at the end of the model code.

Notes:
* Install at a height or in a place where the anti-insect or anti-bird net can be maintained from outdoors.
* If you wish to install the hood at a height or in a place where there may be strong outdoor wind, please contact us.
* Perform regular inspection of the anti-insect or anti-bird net. Perform regular inspection and regular cleaning of the net to keep it unclogged from dust or the like.
* Although the hood is made of a SUS304 stainless steel plate, which is highly resistant to rust, it is likely to rust in a salty or corrosive environment, such as a place with any strong acid, alkaline or corrosive substance constantly in a wet state or a place exposed to any such substance.
  We also offer a model with acid- and salt-resistant coating and a model coated with fluorocarbon resin (produced upon order) so that you may use it in an environment as mentioned above.
* For outdoor hoods with a motor-driven shutter (built-in), please contact us.

Assembly drawing



* The shape varies slightly depending on the model.

Dimensions

(Unit:mm)

Impeller diameter of compatible pressure fans	Model				A	B	C	D	E	F	Plate thickness	
	Steel plate		SUS									
	Without net	With net	Without net	With net							Steel plate	SUS
20cm	OF-8	OF-8N	OFS-8	OFS-8N	275	226	246	162	220	8×φ7	1.2	0.8
25cm	OF-10	OF-10N	OFS-10	OFS-10N	327	278	298	165	300	8×φ7	1.2	0.8
30cm	OF-12	OF-12N	OFS-12	OFS-12N	378	329	349	210	340	8×φ7	1.2	0.8
35cm	OF-14	OF-14N	OFS-14	OFS-14N	464	404	434	250	390	8×φ12	1.2	0.8
40cm	OF-16	OF-16N	OFS-16	OFS-16N	515	455	485	280	410	8×φ12	1.2	0.8
45cm	OF-18	OF-18N	OFS-18	OFS-18N	570	510	540	320	440	8×φ12	1.2	1.0
50cm	OF-20	OF-20N	OFS-20	OFS-20N	659	580	620	355	490	8×φ15	1.6	1.0
60cm	OF-24	OF-24N	OFS-24	OFS-24N	759	680	720	400	590	8×φ15	1.6	1.0
75cm	OF-30	OF-30N	OFS-30	OFS-30N	955	845	900	508	765	8×φ20	1.6	1.5
90cm	OF-36	OF-36N	OFS-36	OFS-36N	1110	995	1040	610	900	8×φ20	1.6	1.5
105cm	OF-42	OF-42N	OFS-42	OFS-42N	1262	1145	1207	656	1000	8×φ20	1.6	1.5
120cm	OF-48	OF-48N	OFS-48	OFS-48N	1475	1365	1425	800	1180	8×φ20	1.6	1.5

Stainless Steel

Fireproof Hoods

Incorporating a fire damper to prevent spread of fire

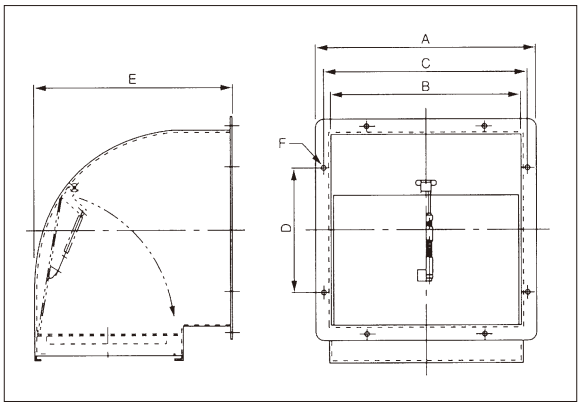
FDS-12N

* Please note that the photo shows typical examples and that they may partly differ from actual items.

To place an order for an outdoor hood with an anti-insect net, please add "I" at the end of the model code. For an outdoor hood with an anti-bird net, please add "B" at the end of the model code.
It cannot be fastened together with a motor-driven shutter or a wind pressure shutter.

Notes:
* Install at a height or in a place where the anti-insect or anti-bird net can be maintained from outdoors.
* If you wish to install the hood at a height or in a place where there may be strong outdoor wind, please contact us.
* Perform regular inspection of the anti-insect or anti-bird net and the thermal fuse. Perform regular inspection and regular cleaning of the net to keep it unclogged from dust or the like.
* Although the hood is made of a SUS304 stainless steel plate, which is highly resistant to rust, it is likely to rust in a salty or corrosive environment, such as a place with any strong acid, alkaline or corrosive substance constantly in a wet state or a place exposed to any such substance.
  We also offer a model with acid- and salt-resistant coating and a model coated with fluorocarbon resin (produced upon order) so that you may use it in an environment as mentioned above.

Assembly drawing



● Japan Testing Center for Construction Materials Test Results Numbers
Thermal fuse performance test at 72 ℃: No. 60570
Thermal fuse performance test at 120 ℃: No. 60624 (supplementary test)
Smoke leak test: No. 59766

* The shape varies slightly depending on the model.

Dimensions

(Unit:mm)

Impeller diameter of compatible pressure fans	Model		A	B	C	D	E	F	Plate thickness
	Without net	With net							
30cm	FDS-12	FDS-12N	378	329	349	210	340	8×φ7	1.5
35cm	FDS-14	FDS-14N	464	404	434	250	400	8×φ12	1.5
40cm	FDS-16	FDS-16N	515	455	485	280	420	8×φ12	1.5
45cm	FDS-18	FDS-18N	570	510	540	320	450	8×φ12	1.5
50cm	FDS-20	FDS-20N	659	580	620	355	505	8×φ15	1.5
60cm	FDS-24	FDS-24N	759	680	720	400	615	8×φ15	1.5
75cm	FDS-30	FDS-30N	995	845	900	508	780	8×φ20	1.5
90cm	FDS-36	FDS-36N	1110	955	1040	610	885	8×φ20	1.5
105cm	FDS-42	FDS-42N	1262	1145	1207	656	925	8×φ20	1.5

Stainless Steel

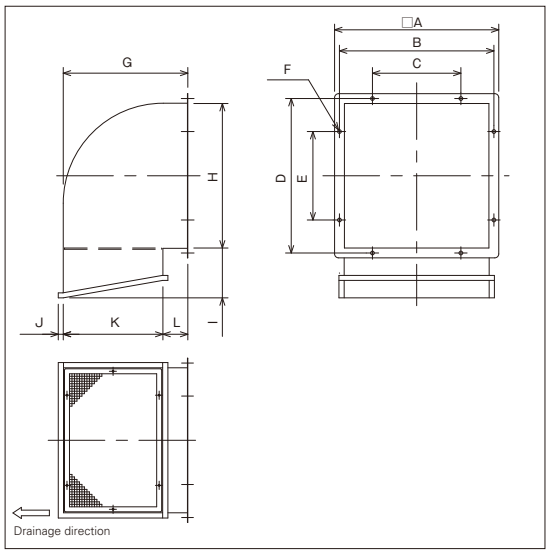
Intake Outdoor Hoods (with rainwater gutter)

Blocking incoming rainwater and intrusion of insects and dust

Notes:
* Install at a height or in a place where the anti-insect or anti-bird net can be maintained from outdoors.
* If you wish to install the hood at a height or in a place where there may be strong outdoor wind, please contact us.
* Perform regular inspection and regular cleaning of the anti-insect or anti-bird net to keep it unclogged from dust or the like.
* Although the hood is made of a SUS304 stainless steel plate, which is highly resistant to rust, it is likely to rust in a salty or corrosive environment, such as a place with any strong acid, alkaline or corrosive substance constantly in a wet state or a place exposed to any such substance. We also offer a model with acid- and salt-resistant coating and a model coated with fluorocarbon resin (produced upon order) so that you may use it in an environment as mentioned above.
* Rainwater may intrude indoors depending on the place or state of installation or on weather conditions.
* For outdoor hoods with a motor-driven shutter (built-in), please contact us.

* Please note that the photo shows typical examples and that they may partly differ from actual items.

Assembly drawing



* The shape varies slightly depending on the model.

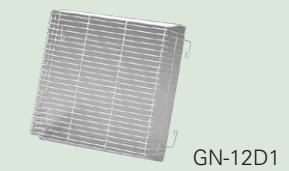
Dimensions

(Unit:mm)

Impeller diameter of compatible pressure fans	Model		A	B	C	D	E	F	G	H	I	J	K	L	Plate thickness
	With anti-insect net	With anti-bird net													
20cm	OFS-8ANI	OFS-8ANB	275	246	162	246	162	8×ϕ7	230	226	104	12	175	54	0.8
25cm	OFS-10ANI	OFS-10ANB	327	298	165	298	165	8×ϕ7	310	278	110	12	230	80	0.8
30cm	OFS-12ANI	OFS-12ANB	378	349	210	349	210	8×ϕ7	350	329	120	17	260	90	0.8
35cm	OFS-14ANI	OFS-14ANB	464	434	250	434	250	8×ϕ12	400	404	140	17	310	90	0.8
40cm	OFS-16ANI	OFS-16ANB	515	485	280	485	280	8×ϕ12	420	455	153	17	320	100	0.8
45cm	OFS-18ANI	OFS-18ANB	570	540	320	540	320	8×ϕ12	450	510	200	17	350	100	1.0
50cm	OFS-20ANI	OFS-20ANB	659	620	355	620	355	8×ϕ15	500	580	200	23	400	100	1.0
60cm	OFS-24ANI	OFS-24ANB	759	720	400	720	400	8×ϕ15	600	680	204	23	500	100	1.0
75cm	OFS-30ANI	OFS-30ANB	955	900	508	900	508	8×ϕ20	775	845	303	22	655	120	1.5
90cm	OFS-36ANI	OFS-36ANB	1110	1040	610	1040	610	8×ϕ20	910	995	302	22	760	150	1.5
105cm	OFS-42ANI	OFS-42ANB	1262	1207	656	1207	656	8×ϕ20	1010	1145	304	22	800	210	1.5
120cm	OFS-48ANI	OFS-48ANB	1475	1425	800	1425	800	8×ϕ20	1190	1365	300	20	990	200	1.5

Iron Stainless Steel

Guard Nets


GN-12D1

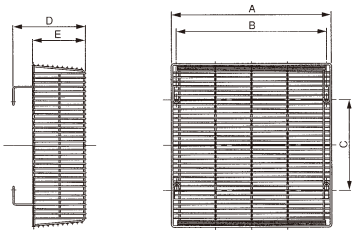
Guard nets prevent accidents of contacting the rotating part of the pressure fan. As they are designed exclusively for specific models of pressure fans, please choose the model matched with the fan model. Make sure to install a guard net if the pressure fan is installed at a height of 1.8 meters or less.

* Please note that the photo shows typical examples and that they may partly differ from actual items.

●Standard Net

Assembly drawing

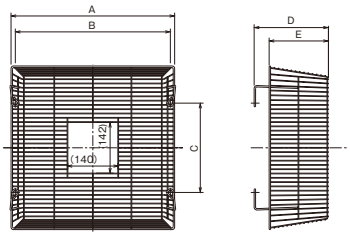
Fig.1



* The shape varies slightly depending on the model.

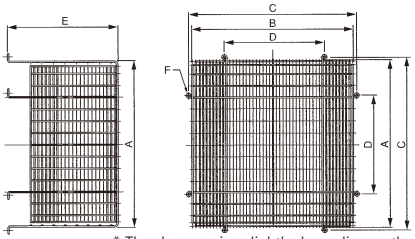
Materials: Iron wire and stainless steel wire
Surface treatment : PE coating N7 for iron wire
; No treatment for stainless steel wire

Fig.2



Materials: Iron wire
Surface treatment: PE coating N7

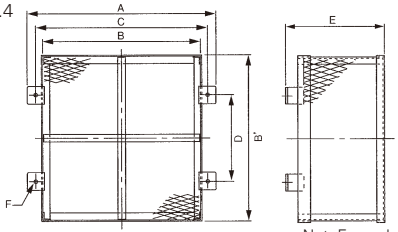
Fig.3



* The shape varies slightly depending on the model.

Materials: Iron wire and stainless steel wire
Surface treatment : PE coating N7 for iron wire
; No treatment for stainless steel wire

Fig.4



* The shape varies slightly depending on the model.

Net: Expanded metal

Dimensions

(Unit:mm)

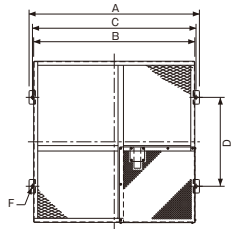
Materials	Impeller diameter of compatible pressure fans	Fig.	Model	A	B	B′	C	D	E	F
Iron	20cm	1	GN-8D1	264	246	—	162	170	119	—
	25cm	1	GN-10D1	316	298	—	165	170	119	—
		4	GN-10	327	284	310	298	165	245	4×ϕ7
	30cm	1	GN-12D1	372	349	—	210	175	119	—
		4	GN-12	378	335	360	349	210	265	4×ϕ7
	35cm	1	GN-14G	458	434	—	250	210	166	—
		2	GN-14G1	458	434	—	250	210	166	—
	40cm	1	GN-16G	509	485	—	280	225	176	—
		2	GN-16G1	509	485	—	280	225	176	—
	45cm	3	GN-18A-3	520	520	—	540	320	420	8×ϕ12
	50cm	3	GN-20A-3	592	592	—	620	355	425	8×ϕ15
	60cm	3	GN-24A-3	698	698	—	720	400	455	8×ϕ15
	75cm	4	GN-30S	951	870	870	900	508	470	4×ϕ20
	90cm	4	GN-36S	1090	1028	1028	1040	610	450	4×ϕ20
	105cm	4	GN-42SG	1257	1183	1183	1207	656	570	4×ϕ20
	120cm	4	GN-48	1372	1532	1532	1425	800	550	4×ϕ20
Stainless Steel	25cm	1	GNS-10D1	316	298	—	165	170	119	—
		4	GNS-10	327	284	310	298	165	245	4×ϕ9
	30cm	1	GNS-12D1	372	349	—	210	175	119	—
		4	GNS-12	378	335	360	349	210	300	4×ϕ7
	35cm	1	GNS-14G	458	434	—	250	210	166	—
	40cm	1	GNS-16G	509	485	—	280	225	176	—
	45cm	4	GNS-18	570	518	550	540	320	400	4×ϕ12
	50cm	3	GNS-20A	592	592	—	620	355	425	8×ϕ12
	60cm	3	GNS-24A	698	698	—	720	400	455	8×ϕ12
	75cm	4	GNS-30	951	870	890	900	508	470	4×ϕ20
	90cm	4	GNS-36	1090	1028	1060	1040	610	450	4×ϕ20
	105cm	4	GNS-42SG	1257	1183	1183	1207	656	570	4×ϕ20

* For applicable models, refer to compatibility tables and dimensional outline drawings.
* The GN-14G1 and the GN-16G1 each have a bypass hole for the motor.

●Explosion-Proof Net (E Series)

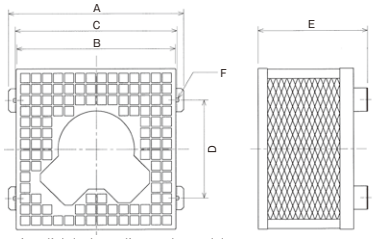
■Assembly drawing

Fig.1



* The shape varies slightly depending on the model. Net: Expanded metal

Fig.2



* The shape varies slightly depending on the model. Net: Expanded metal

■Dimensions

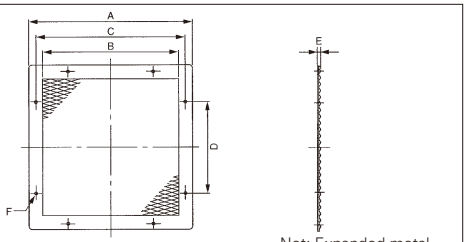
(Unit:mm)

Impeller diameter of compatible pressure fans	Fig.	Model	A	B	C	D	E	F
20cm	2	EGN-8	270	242	246	162	210	4×ϕ7
25cm	2	EGN-10	327	291	298	165	211	4×ϕ9
30cm	2	EGN-12	378	342	349	210	236	4×ϕ9
35cm	1	EGN-14	467	410	434	250	365	4×ϕ12
40cm	1	EGN-16	518	461	485	280	365	4×ϕ12
45cm	1	EGN-18	570	513	540	320	430	4×ϕ12
50cm	1	EGN-20	659	589	620	355	445	4×ϕ15
60cm	1	EGN-24	760	699	720	400	480	4×ϕ15
75cm	1	EGN-30	951	870	900	508	505	4×ϕ20
90cm	1	EGN-36	1090	1028	1040	610	480	4×ϕ20
105cm	1	EGN-42	1257	1183	1207	656	495	4×ϕ20
120cm	1	EGN-48	1381	1525	1425	800	600	4×ϕ20

* The EGN-12 is different in the shape of the bypass hole for the motor between single-phase power supply and three-phase power supply models.

●Front Face Net (F Series)

■Assembly drawing



Net: Expanded metal

■Dimensions

(Unit:mm)

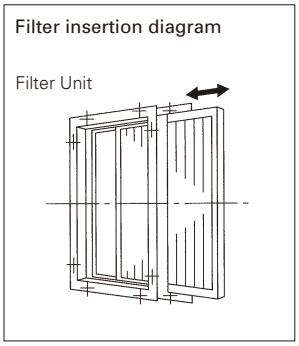
Impeller diameter of compatible pressure fans	Model	A	B	C	D	E	F
20cm	FGN-8	274	224	246	162	7	8×ϕ7
25cm	FGN-10	325	275	298	165	7	8×ϕ7
30cm	FGN-12	376	326	349	210	7	8×ϕ7
35cm	FGN-14	465	389	434	250	8	8×ϕ12
40cm	FGN-16	516	440	485	280	8	8×ϕ12
45cm	FGN-18	568	492	540	320	8	8×ϕ12
50cm	FGN-20	658	582	620	355	8	8×ϕ15
60cm	FGN-24	758	682	720	400	8	8×ϕ15
75cm	FGN-30	955	825	900	508	10	8×ϕ20
90cm	FGN-36	1110	980	1040	610	10	8×ϕ20
105cm	FGN-42	1262	1132	1207	656	10	8×ϕ20
120cm	FGN-48	1475	1345	1425	800	10	8×ϕ20

Filter Unit

Designed exclusively for pressure fans to guarantee smooth installation and easy maintenance

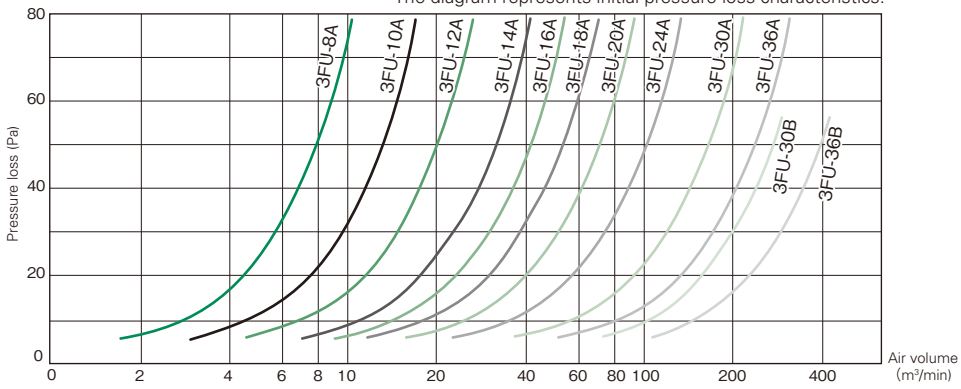

3FU-12A

* Please note that the photo shows typical examples and that they may partly differ from actual items.



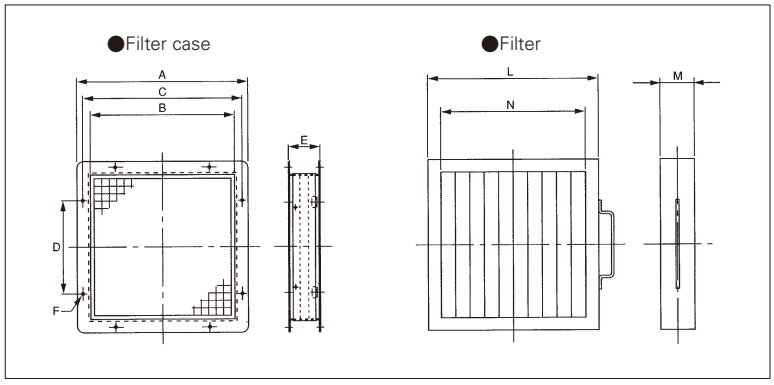
Selection Diagrams

The diagram represents initial pressure loss characteristics.



●Trapping efficiency 3FS-8～36 Initial dust collection efficiency 64% (at a wind speed of 2.5m/s)
3FP-30,36 Initial dust collection efficiency 28% (at a wind speed of 1.5m/s)

Assembly drawing



Dimensions

(Unit:mm)

Filter unit	Impeller diameter of compatible pressure fans	Filter case							Filter			
Model		Model	A	B	C	D	E	F	Model	L	M	N
3FU-8A	20cm	FC-8	276	216	246	162	150	2×8×φ7	3FS-8	210	50	170
3FU-10A	25cm	FC-10	327	267	298	165	150	2×8×φ7	3FS-10	260	50	220
3FU-12A	30cm	FC-12	378	318	349	210	150	2×8×φ7	3FS-12	313	50	273
3FU-14A	35cm	FC-14	467	387	434	250	150	2×8×φ12	3FS-14	382	50	342
3FU-16A	40cm	FC-16	518	438	485	280	150	2×8×φ12	3FS-16	432	50	392
3FU-18A	45cm	FC-18	570	490	540	320	150	2×8×φ12	3FS-18	482	50	442
3FU-20A	50cm	FC-20	659	559	620	355	150	2×8×φ15	3FS-20	552	50	512
3FU-24A	60cm	FC-24	760	660	720	400	150	2×8×φ15	3FS-24	652	50	612
3FU-30A	75cm	FC-30	955	825	900	508	150	2×8×φ20	3FS-30	818	50	778
3FU-30B	75cm								3FP-30			
3FU-36A	90cm	FC-36	1110	980	1040	610	150	2×8×φ20	3FS-36	972	50	932
3FU-36B	90cm								3FP-36			

Model Development Table

Precautions for Use

1) This table shows the sales launch and termination years of cataloged products as guidelines, as well as replacement products. For your individual product, check the fabrication specifications with the product nameplate, delivery drawing, or the like to determine a replacement product.
2) Make sure to check the specifications because some products are fabricated according to specific manufacturers' specifications under the same model codes as standard products.
3) The explosion-proof pressure fan series can be replaced as-is after checking the power supply details (single-phase or three-phase, voltage, and frequency) because they are unchanged in specifications.
4) Since the S series has several types of centrifugal contacts, check the fabrication specifications of your individual product with the product nameplate, delivery drawing, or the like to see if the existing product can be used.

Sales Launch Year

Old model		1953
NewPF	A series	1982
Flat	D series	1986
Powerful	G series	1996
New motor	G series	2006
Low noise	N series	2017

Description of types

(Example) PF - 14 B T 2 G ___ 35cm standard pressure fan, three-phase 200V, G series

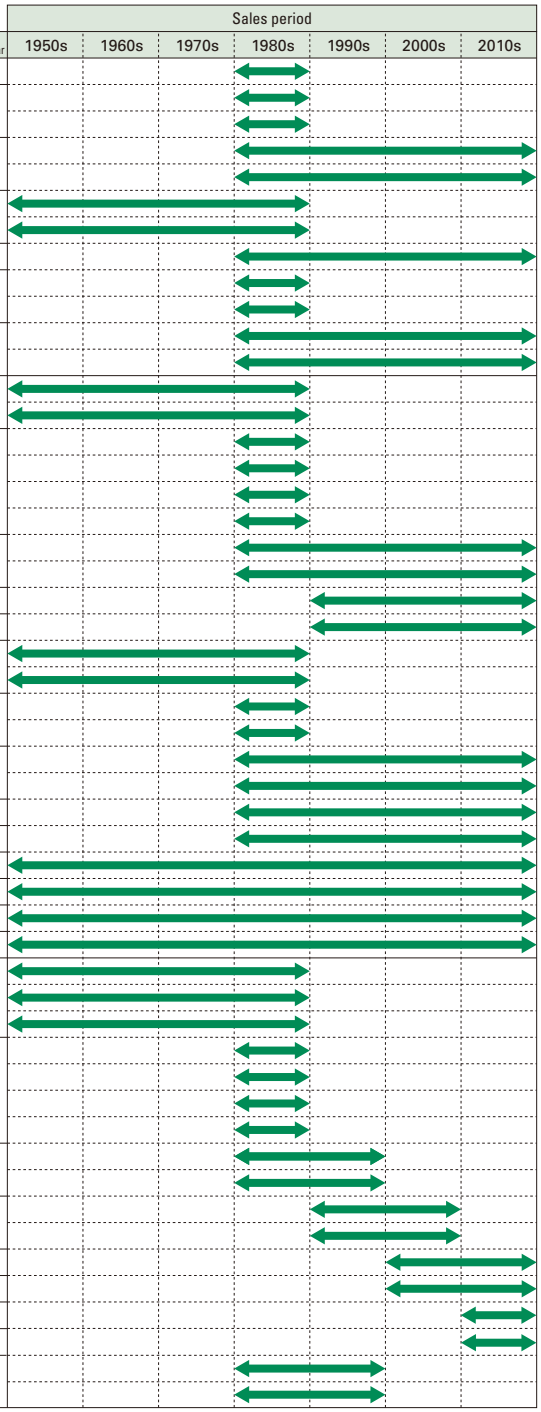
⑦ ① ② ③ ④ ⑤ ⑥ ⑧

①Model type	PF: Standard type (different voltage type)/WP: Outdoor type
②Impeller diameter	Indicated in inches; For a value in centimeters, multiply the value in inches by 2.5.
③Airflow direction	B: Exhaust/A: Intake * When facing the front of the impeller, exhaust air flows frontward, and intake air flows backward.
④Power supply	S: Single-phase/T: Three-phase
⑤Voltage	1: 100 volt class/2: 200 volt class/4: 400 volt class
⑥Series code	Ascending alphabetical order
⑦Number of poles	None: Standard/Number specified: Multiple-pole type (6: six poles, 8: eight poles)
⑧ID code	None, 1, 2...

Old model products are designated as PF-14B.

Impeller diameter

Impeller diameter	Type	Product model	Number of phases	Voltage	Frequency	Assembly drawing	Existing model	Assembly drawing	Sales launch year	Sales termination year
20cm	Standard Type	PF-8ASA	1	100		PFA-201A	PF-8AS1D	A1984-01	1982	1986
		PF-8ASB	1	100		PFA-201B		A1984-01	1982	1986
				200		PFA-202B	PF-8AS2D	A1984-02		
		PF-8ASD	1	100		A209-05	PF-8AS1D	A1984-01	1986	2015
				200		A209-06	PF-8AS2D	A1984-02		
		PF-8B	1	100		D-23759	PF-8BS1D	A1977-01	1953	1981
				200		D-23759	PF-8BS2D	A1977-02		
		PF-8BF	1	200		A442-01	PF-8BF2	A1995-02	1988	2015
		PF-8BSB	1	100		PFB-201B	PF-8BS1D	A1977-01	1982	1985
				200		PFB-202B	PF-8BS2D	A1977-02		
		PF-8BSD	1	100		A208-06	PF-8BS1D	A1977-01	1986	2015
				200		A208-07	PF-8BS2D	A1977-02		
25cm	Standard Type	PF-10A	1	100		D-23572	PF-10AS1D	A1985-01	1953	1981
				200		D-23571	PF-10AS2D	A1985-02		
		PF-10ASA	1	100		PFA-251A	PF-10AS1D	A1985-01	1982	1985
				200		PFA-252A	PF-10AS2D	A1985-02		
		PF-10ASB	1	100		PFA-251B	PF-10AS1D	A1985-01		
				200		PFA-252B	PF-10AS2D	A1985-02		
		PF-10ASD	1	100		A211-05	PF-10AS1D	A1985-01	1986	2016
				200		A211-06	PF-10AS2D	A1985-02		
		PFS-10ASD	1	100		A674-02	PFS-10ASD	A674-02	1990	—
				200		A674-03		A674-03		—
		PF-10B	1	100		D-23398	PF-10BS1D	A1978-01	1953	1981
				200		D-23398	PF-10BS2D	A1978-02		
		PF-10BSB	1	100		PFB-251B	PF-10BS1D	A1978-01	1982	1985
				200		PFB-252B	PF-10BS2D	A1978-02		
		PF-10BSD	1	100		A210-06	PF-10BS1D	A1978-01	1986	2016
				200		A210-07	PF-10BS2D	A1978-02		
		PFS-10BSD	1	100		A308-04	PFS-10BSD	A308-04	1988	—
				200		A308-08		A308-08		—
	Outdoor Type	WP-10A	1	100		C411-01	WP-10A	C411-01	1953	—
				200		C411-05		C411-05		—
		WP-10B	1	100		C279-01	WP-10B	C279-01		—
				200		C279-05		C279-05		—
30cm	Standard Type	PF-12A	1	100		D-23622	PF-12AS1N	A2073-01	1953	1981
				200		D-23785	PF-12AS2N	A2073-02		
			3	200		D-23412	PF-12AT2N	A2074-01		
		PF-12ASA	1	100		PFA-301A	PF-12AS1N	A2073-01	1982	1985
				200		PFA-302A	PF-12AS2N	A2073-02		
		PF-12ASB	1	100		PFA-301B	PF-12AS1N	A2073-01		
				200		PFA-302B	PF-12AS2N	A2073-02		
		PF-12ASD	1	100		A227-08	PF-12AS1N	A2073-01	1986	1995
				200		A227-09	PF-12AS2N	A2073-02		
		PF-12ASG	1	100		A999-05	PF-12AS1N	A2073-01	1996	2005
				200		A999-06	PF-12AS2N	A2073-02		
		PF-12AS1D	1	100		A1765-01	PF-12AS1N	A2073-01	2006	2016
		PF-12AS2D	1	200		A1765-02	PF-12AS2N	A2073-02	2006	2016
		PF-12AS1D1	1	100		A2003-01	PF-12AS1N	A2073-01	2016	2017
		PF-12AS2D1	1	200		A2003-02	PF-12AS2N	A2073-02	2016	2017
		PFS-12ASD	1	100		A638-04	PFS-12AS1N	A2082-01	1986	1995
				200		A638-05	PFS-12AS2N	A2082-02		

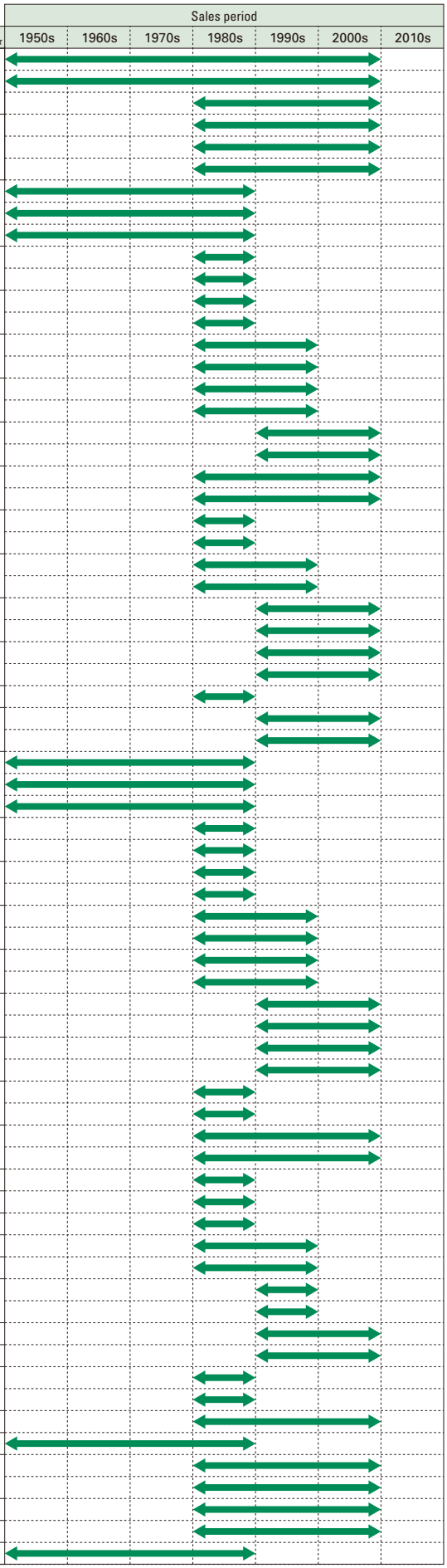


Model Development Table

Impeller diameter	Type	Product model	Number of phases	Voltage	Frequency	Assembly drawing	Existing model	Assembly drawing	Sales launch year	Sales termination year	Sales period: 1950s / 1960s / 1970s / 1980s / 1990s / 2000s / 2010s
30cm	Standard Type	PF-12ATB	3	200		PFA-303B	PF-12AT2N	A2074-01	1982	1985	
		PF-12ATD	3	200		A228-11		A2074-01	1986	1995	
				400		—	PF-12AT4N	A2074-02			
		PF-12ATG	3	200		A1000-02	PF-12AT2N	A2074-01	1996	2005	
				400		—	PF-12AT4N	A2074-02			
		PF-12AT2D	3	200		A1766-01	PF-12AT2N	A2074-01	2006	2016	
		PF-12AT4D	3	400		A1766-02	PF-12AT4N	A2074-02	2006	2016	
		PF-12AT2D1	3	200		A2004-01	PF-12AT2N	A2074-01	2016	2017	
		PFS-12ATD	3	200		A712-02	PFS-12AT2N	A2083-01	1986	2017	
				400		A712-04	PFS-12AT4N	A2083-02			
		PF-12B	1	100		D-23632	PF-12BS1N	A2071-01	1953	1981	
				200		D-23632	PF-12BS2N	A2071-02			
			3	200		D-23616	PF-12BT2N	A2072-01			
		PF-12BSB	1	100		PFB-301B	PF-12BS1N	A2071-01	1982	1985	
				200		PFB-302B	PF-12BS2N	A2071-02			
		PF-12BSD	1	100		A225-05	PF-12BS1N	A2071-01	1986	1995	
				200		A225-06	PF-12BS2N	A2071-02			
		PF-12BSS	1	100		PFB-301S	PF-12BS1N	A2071-01	1982	1985	
				200		PFB-302S	PF-12BS2N	A2071-02			
		PF-12BSE	1	100		—	PF-12BS1N	A2071-01	1986	1995	
				200		—	PF-12BS2N	A2071-02			
		PF-12BSG	1	100		A992-05	PF-12BS1N	A2071-01	1996	2005	
				200		A992-06	PF-12BS2N	A2071-02			
		PF-12BS1G	1	100		A1763-01	PF-12BS1N	A2071-01	2006	2016	
		PF-12BS2G	1	200		A1763-02	PF-12BS2N	A2071-02	2006	2016	
		PF-12BS1G1	1	100		A1991-01	PF-12BS1N	A2071-01	2016	2017	
		PF-12BS2G1	1	200		A1991-02	PF-12BS2N	A2071-02	2016	2017	
		PFS-12BSD	1	100		A309-03	PFS-12BS1N	A2080-01	1988	2017	
		PF-12BTB	3	200		PFB-303B			1982	1985	
		PF-12BTD	3	200		A226-15	PF-12BT2N	A2072-01	1986	1995	
		PF-12BTG	3	200		A993-03			1996	2005	
				400		—	PF-12BT4N	A2072-02			
		PF-12BTS	3	200		PFB-303S	PF-12BT2N	A2072-01	1982	1985	
		PF-12BT2G	3	200		A1764-01	PF-12BT2N	A2072-01	2006	2016	
		PF-12BT4G	3	400		A1764-02	PF-12BT4N	A2072-02	2006	2016	
		PF-12BT2G1	3	200		A1992-01	PF-12BT2N	A2072-01	2016	2017	
		PFS-12BT2D	3	200		A1983-02	PFS-12BT2N	A2081-01	2016	2017	
	Outdoor Type	WP-12A	1	100		C254-01	WP-12A	C254-01	1953	—	
				200		C254-04		C254-04			
		WP-12B	1	100		C506-01	WP-12B	C506-01	1953	—	
				200		C506-02		C506-02			
35cm	Standard Type	PF-14A	1	100		D-23800	PF-14AS1N	A2107-01	1953	1981	
				200		D-23800	PF-14AS2N	A2107-02			
			3	200		D-23684	PF-14AT2N	A2108-01			
		PF-14ASA	1	100		PFA-351A	PF-14AS1N	A2107-01	1982	1985	
				200		PFA-352A	PF-14AS2N	A2107-02			
		PF-14ASD	1	100		A191-05	PF-14AS1N	A2107-01	1986	1995	
				200		A191-06	PF-14AS2N	A2107-02			
		PF-14ASG	1	100		A1030-03	PF-14AS1N	A2107-01	1996	2005	
				200		A1030-04	PF-14AS2N	A2107-02			
		PF-14ATA	3	200		PFB-353A	PF-14AT2N	A2108-01	1982	1985	
		PF-14ATD	3	200		A192-01	PF-14AT2N	A2108-01	1986	1995	
		PF-14ATG	3	200		A1029-02	PF-14AT2N	A2108-01	1996	2005	
		PF-14AS1D	1	100		A1602-01	PF-14AS1N	A2107-01	2006	2018	
		PF-14AS2D	1	200		A1602-02	PF-14AS2N	A2107-02			
		PF-14AT2D	3	200		A1603-01	PF-14AT2N	A2108-01			
		PF-14B	1	100		D-23851	PF-14BS1N	A2105-01	1953	1981	
				200		D-23851	PF-14BS2N	A2105-02			
			3	200		D-23725	PF-14BT2N	A2106-01			
		PF-14BSA	1	100		PFB-351A	PF-14BS1N	A2105-01	1982	1985	
				200		PFB-352A	PF-14BS2N	A2105-02			
		PF-14BSD	1	100		A189-08	PF-14BS1N	A2105-01	1986	1995	
				200		A189-09	PF-14BS2N	A2105-02			
		PF-14BSG	1	100		A1028-04	PF-14BS1N	A2105-01	1996	2005	
				200		A1028-05	PF-14BS2N	A2105-02			
		PF-14BTA	3	200		PFB-353A	PF-14BT2N	A2106-01	1982	1985	
		PF-14BTD	3	200		A190-05	PF-14BT2N	A2106-01	1986	2005	
		PF-14BTG	3	200		A1027-02	PF-14BT2N	A2106-01	1996	2005	
				400		—	PF-14BT4N	A2106-02			
		PF-14BS1G	1	100		A1595-01	PF-14BS1N	A2105-01	2006	2018	
		PF-14BS2G	1	200		A1595-02	PF-14BS2N	A2105-02			
		PF-14BT2G	3	200		A1596-01	PF-14BT2N	A2106-01			
	Outdoor Type	WP-14A	1	100			WP-14AS1D		1953	1981	
		WP-14ASA	1	100		C422-01	WP-14AS1D		1982	2005	
				200		C422-02	WP-14AS2D				
		WP-14ATA	3	200		C360-01	WP-14AT2D				

Model Development Table

Impeller diameter	Type	Product model	Number of phases	Voltage	Frequency	Assembly drawing	Existing model	Assembly drawing	Sales launch year	Sales termination year
35cm	Outdoor Type	WP-14B	1	100		C-24138	WP-14BS1G	C938-01	1953	2005
				200		C-24138	WP-14BS2G	C938-02		
			3	200		C-24135	WP-14BT2G	C941-01	1982	
		WP-14BSA	1	100		C306-01	WP-14BS1G	C938-01		2005
				200		C306-02	WP-14BS2G	C938-02	1982	
		WP-14BTA	3	200		C307-01	WP-14BT2G	C941-01		
40cm	Standard Type	PF-16A	1	100		D-23625	PF-16AS1D		1953	1981
				200		D-23625	PF-16AS2D			
			3	200		D-23839	PF-16AT2D			
		PF-16ASA	1	100		PFA-401A	PF-16AS1D		1982	1985
				200		PFA-402A	PF-16AS2D			
		PF-16ASC	1	100	50	PFA-401C	6PF-16AS1D		1982	1985
				200		PFA-402C	6PF-16AS2D			
		PF-16ASD	1	100		A195-06	PF-16AS1D		1986	1995
				200		A195-07	PF-16AS2D			
		PF-16ASE	1	100		A199-05	6PF-16AS1D		1986	1995
				200		A199-06	6PF-16AS2D			
		PF-16ASG	1	100		A1034-03	PF-16AS1D		1996	2005
				200		A1034-04	PF-16AS2D			
		PFS-16ASD	1	100		A732-05	PFS-16AS1D		1986	2005
				200		A732-06	PFS-16AS2D			
		PF-16ATA	3	200		PFA-403A	PF-16AT2D		1982	1985
		PF-16ATC	3	200		PFA-403C	6PF-16AT2D		1982	
		PF-16ATD	3	200		A196-06	PF-16AT2D		1986	1995
		PF-16ATE	3	200		A200-04	6PF-16AT2D		1986	
		PF-16ATF	3	200		A868-04	PF-16AT2F	A1610-01	1994	2005
				400		A868-05	PF-16AT4F	A1610-12		
		PF-16ATG	3	200		A1033-03	PF-16AT2D		1996	2005
		PF-16ATH	3	200		A1037-02	PF-16AT2D		1996	
		PF-16ATS	3	200		PFA-403S	PF-16AT2D		1982	1985
		PFS-16ATD	3	200		A687-06	PFS-16AT2D	A1657-01	1990	2005
				400		—	PFS-16AT4D	A1657-03		
		PF-16B	1	100		D-23619	PF-16BS1G		1953	1981
				200		D-23619	PF-16BS2G			
			3	200		D-23620				
		PF-16BSA	1	100		PFB-401A	PF-16BS1G		1982	1985
				200		PFB-402A	PF-16BS2G			
		PF-16BSC	1	100		PFB-401C	6PF-16BS1G		1982	1985
				200		PFB-402C	6PF-16BS2G			
		PF-16BSD	1	100		A193-11	PF-16BS1G		1986	1995
				200		A193-12	PF-16BS2G			
		PF-16BSE	1	100		A197-05	6PF-16BS1G		1986	1995
				200		A197-06	6PF-16BS2G			
		PF-16BSG	1	100		A1032-04	PF-16BS1G		1996	2005
				200		A1032-05	PF-16BS2G			
		PF-16BSH	1	100		A1036-03	6PF-16BS1G		1996	2005
				200		A1036-04	6PF-16BS2G			
		PF-16BSS	1	100		PFB-401S	PF-16BS1G		1982	1985
				200		PFB-402S	PF-16BS2G			
		PFS-16BSD	1	100		A311-05	PFS-16BS1D		1988	2005
				200		—	PFS-16BS2D			
		PF-16BTA	3	200		A499-02	PF-16BT2G		1982	1985
		PF-16BTB	3	200		A373-01			1982	1985
		PF-16BTC	3	200		A374-01	6PF-16BT2G		1982	1985
		PF-16BTD	3	200		A194-10	PF-16BT2G		1986	1995
		PF-16BTE	3	200		A198-04	6PF-16BT2G		1986	1995
		PF-16BTF	3	200		A789-10	PF-16BT2F		1992	1995
				400		A789-20	PF-16BT4F			
		PF-16BTG	3	200		A1031-02	PF-16BT2G		1996	2005
		PF-16BTH	3	200		A1035-02	6PF-16BT2G		1996	2005
		PF-16BTS	3	200		PFB-403S	PF-16BT2G		1982	1985
				400		—	PF-16BT4G			
		PFS-16BTD	3	200		A307-09	PFS-16BT2D	A1612-01	1988	2005
	Outdoor Type	WP-16A	1	100			WP-16AS1D	C945-01	1953	1981
		WP-16ASA	1	100		C298-01	WP-16AS1D	C945-01	1982	2005
				200		C298-02	WP-16AS2D	C945-02		
		WP-16ATA	3	200		C260-01	WP-16AT2D	C948-01	1982	2005
		WP-16ATC	3	200		C348-01	6WP-16AT2D		1982	2005
		WP-16B	1	100			WP-16BS1G	C939-01	1953	1981

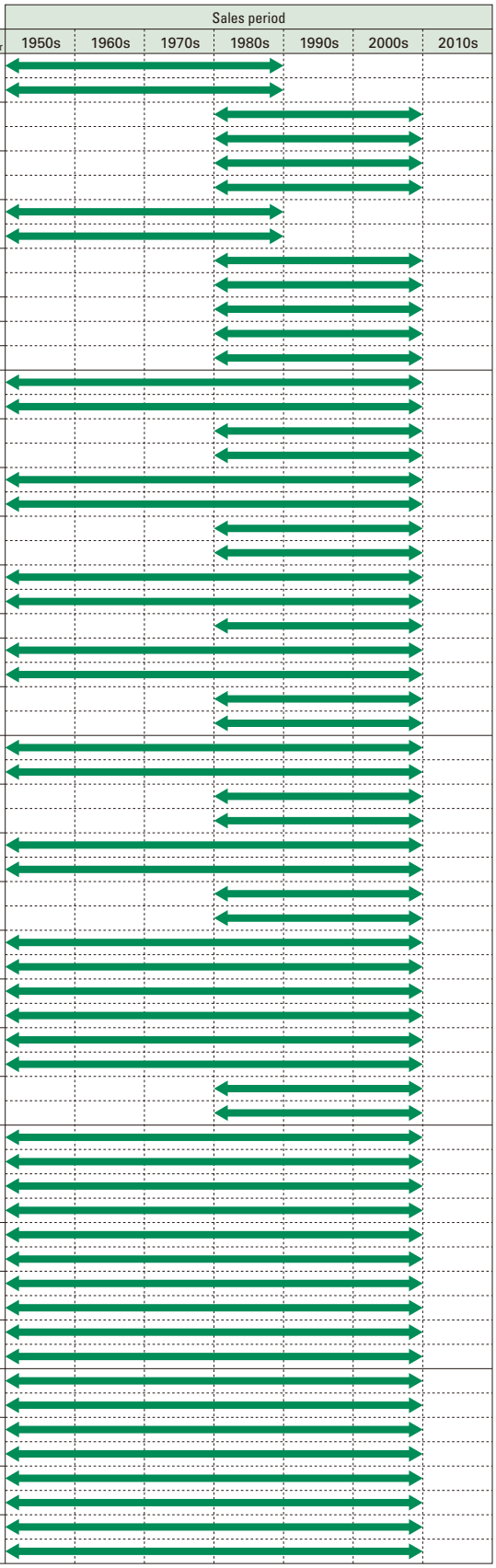


Model Development Table

Impeller diameter	Type	Product model	Number of phases	Voltage	Frequency	Assembly drawing	Existing model	Assembly drawing	Sales launch year	Sales termination year	Sales period
40cm	Outdoor Type	WP-16BSA	1	200		C289-01	WP-16BS1G	C939-01	1982	2005	
				100		C289-02	WP-16BS2G	C939-02			
		WP-16BSC	1	200		C477-01	6WP-16BS1G	C940-01	1982	2005	
				200		C477-02	6WP-16BS2G	C940-02			
		WP-16BTA	3	200		C265-01	WP-16BT2G	C942-01	1982	2005	
		WP-16BTC	3	200		C255-01	6WP-16BT2G	C943-01	1982	2005	
45cm	Standard Type	PF-18A	1	100		D-23711	PF-18AS1A	A1632-01	1953	1981	
				200		D-23711	PF-18AS2A	A1632-02			
			3	200		D-23715	PF-18AT2A	A1633-01			
		PF-18ASA	1	100		PFA-451A	PF-18AS1A	A1632-01	1982	2005	
				200		PFA-452A	PF-18AS2A	A1632-02			
		PF-18ATA	3	200		PFA-453A	PF-18AT2A	A1633-01	1982	2005	
				400			PF-18AT4A	A1633-02			
		PF-18B	1	100		D-23709	PF-18BS1A		1953	1981	
				200		D-23709	PF-18BS2A				
			3	200		D-23702	PF-18BT2A				
		PF-18BSA	1	100		PFB-451A	PF-18BS1A		1982	2005	
				200		PFB-452A	PF-18BS2A				
		PF-18BTA	3	200		PFB-453A	PF-18BT2A		1982	2005	
	Outdoor Type	WP-18A	3	200			WP-18AT2A	C981-01	1953	1981	
		WP-18ATA	3	200		C475-01	WP-18AT2A	C981-01	1982	2005	
		WP-18B	3	200			WP-18BT2A	C978-01	1953	1981	
		WP-18BSA	1	100		C249-01	WP-18BA1A	C978-01	1982	2005	
				200		C249-02	WP-18BS2A	C978-02			
		WP-18BTA	3	200		C282-01	WP-18BT2A	C978-01	1982	2005	
50cm	Standard Type	PF-20A	1	100		D-23933	PF-20AS1A	A1660-01	1953	1981	
				200		D-23933	PF-20AS2A	A1660-02			
			3	200		D-23688	PF-20AT2A				
		PF-20ASA	1	100		PFA-501A	PF-20AS1A	A1660-01	1982	2005	
				200		PFA-502A	PF-20AS2A	A1660-02			
		PF-20ASS	1	200		A1678-02	PF-20AS2A	A1660-02	2007	2007	
		PF-20ATA	3	200		A1332-01	PF-20AT2A		1982	2005	
				400		—	PF-20AT4A				
		PF-20ATS	3	200		A676-01	PF-20AT2A		1990	2005	
		PF-20B	1	100		D-23909	PF-20BS1G		1953	1981	
				200		D-23909	PF-20BS2G				
			3	200		D-23694	PF-20BT2G				
		PF-20BSA	1	100		PFB-501A	PF-20BS1G		1982	2005	
				200		PFB-502A	PF-20BS2G				
		PF-20BTA	3	200		A428-02	PF-20BT2G		1982	2005	
				400		A428-03	PF-20BT4G				
		PF-20BTS	3	200		A518-01	PF-20BT2G		1988	2005	
				400	50	A518-04	PF-20BT4G				
					60	A518-07					
	Outdoor Type	WP-20A	1	100			WP-20AS1A	C1006-01	1953	1981	
		WP-20ASA	1	100		C383-01	WP-20AS1A	C1006-01	1982	2005	
				200		C383-02	WP-20AS2A	C1006-02			
		WP-20ATA	3	200		C275-01	WP-20AT2A	C1007-01	1982	2005	
		WP-20B	3	200		PFB-301S-01	WP-20BT2G	C944-01	1953	1981	
		WP-20BSA	1	100		C235-01	WP-20BS1G	C995-01	1982	2005	
				200		C235-02	WP-20BS2G	C995-02			
		WP-20BTA	3	200		C428-02	WP-20BT2G	C944-01	1982	2005	
		8WP-20BTA	3	200	50	C535-08	WP-20BT2G	C944-01	1995	2005	
					60	C535-07					
60cm	Standard Type	PF-24A	3	200		D-23588	PF-24AT2G	A1674-01	1953	1981	
		PF-24ATA	3	200		A575-01			1982	2005	
		PF-24ATB	3	200		PFA-603B			1982		
		8PF-24A	3	200	50	A322-01	8PF-24AT2G	A1673-01	1988	2005	
					60	A322-02	8PF-24AT2G	A1674-01			
				400	50	A322-12	8PF-24AT4G				
					60	—		A1674-03			
		PF-24B	3	200	50	A519-01	PF-24BT2G		1953	1981	
					60	A519-03					
		PF-24BTA	3	200		A344-01			1982	2005	
				400		A428-02	PF-24BT4G				
		PF-24BTB	3	200		A334-02	PF-24BT2G		1982	2005	
				400	50	A334-03	PF-24BT4G				
		8PF-24B	3	200	50	A343-01	8PF-24BT2G		1988	2005	
				200	60	A343-02					

Model Development Table

Impeller diameter	Type	Product model	Number of phases	Voltage	Frequency	Assembly drawing	Existing model	Assembly drawing	Sales launch year	Sales termination year
60cm	Outdoor Type	WP-24A	3	200	50	C294-01	WP-24AT2G	C1010-01	1953	1981
					60	C294-02				
		8WP-24A	3	200	50	C295-01	8WP-24AT2G	C1011-01	1989	2005
					60	C295-02				
		WP-24ATA	3	200		WPA-603A	WP-24AT2G	C1010-01	1982	2005
		WP-24ATB	3	200	50	WPA-603B				
		WP-24B	3	200	50	C237-01	WP-24BT2G	C1008-01	1953	1981
					60	C237-02				
		8WP-24B	3	200	50	C281-03	8WP-24BT2G	C1011-01	1988	2005
					60	C281-04				
		WP-24BTA	3	200		C323-01	WP-24BT2G	C1008-01	1982	2005
		8WP-24BTA	3	200		8WPB-603A	8WP-24BTG	C1009-05	1982	2005
		WP-24BTB	3	200		WPB-603B	WP-24BT2G	C1008-01	1982	2005
75cm	Standard Type	PF-30A	3	200	50	A398-01	PF-30AT2	A1689-01	1953	2005
					60	A398-02		A1689-02		
		8PF-30A	3	200	50	A381-01	8PF-30AT2	A1697-01	1988	2005
					60	A381-02		A1697-02		
		PF-30B	3	200	50	A454-01	PF-30BT2		1953	2005
					60	A454-02				
		8PF-30B	3	200	50	A400-01	8PF-30BT2		1988	2005
					60	A400-02		A1696-02		
	Outdoor Type	WP-30A	3	200	50	C233-01	WP-30AT2	C1043-01	1953	2005
					60	C233-02		C1043-02		
		8WP-30A	3	200	60	C287-13			1988	2005
		WP-30B	3	200	50	C262-01	WP-30BT2	C1040-01	1953	2005
					60	C262-02		C1040-02		
		8WP-30B	3	200	50		WP-30BT2G		1988	2005
					60	C287-13				
90cm	Standard Type	PF-36A	3	200	50	A521-01	PF-36AT2	A1690-01	1953	2005
					60	A521-02		A1690-02		
		8PF-36A	3	200	50	A392-01	8PF-36AT2	A1699-01	1988	2005
					60	A392-02		A1699-02		
		PF-36B	3	200	50	A345-01	PF-36BT2G		1953	2005
					60	A345-02				
		8PF-36B	3	200	50	A348-01	8PF-36BT2	A1698-01	1988	2005
					60	A348-02		A1698-02		
	Outdoor Type	WP-36A	3	200	50	C363-01	WP-36AT2	C1044-01	1953	2005
					60	C363-02		C1044-02		
		8WP-36A	3	200	50			C1044-01	1953	2005
					60			C1044-02		
		WP-36B	3	200	50	C234-01	WP-36BT2G		1953	2005
					60	C234-02				
		8WP-36B	3	200	50	C-WP90-18C-1			1988	2005
					60					
105cm	Standard Type	PF-42A	3	200	50	A508-01	PF-42AT2	A1691-01	1953	2005
					60	A508-03		A1691-02		
				400	50	A508-04	PF-42AT4			
					60	A508-23				
		PF-42B	3	200	50	A328-01	PF-42BT2G		1953	2005
					60	A328-02				
	Outdoor Type	WP-42A	3	200	50	C248-01	WP-42AT2	C1045-01	1953	2005
					60	C248-02		C1045-02		
		WP-42B	3	200	50	C240-01	WP-42BT2G		1953	2005
					60	C240-02				
120cm	Standard Type	PF-48A	3	200	50	A406-03	PF-48A	A406-03	1953	2005
					60	A406-04		A406-04		
		PF-48B	3	200	50	A458-03	PF-48B	A458-03	1953	2005
					60	A458-04		A458-04		
	Outdoor Type	WP-48A	3	200	50	C256-01	WP-48A	C256-01	1953	2005
					60	C256-02		C256-02		
		WP-48B	3	200	50	C230-01	WP-48B	C230-01	1953	2005
					60	C230-02		C230-02		



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