

S-line fans

# ALFII/ALF

***TERAL***

50Hz



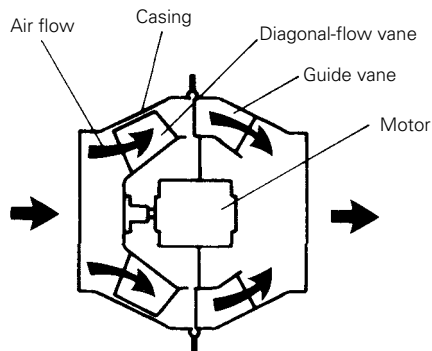
**TERAL INC.**

## ■ Uses

Air supply/exhaust for buildings, condominiums, hotels, hospitals, restaurants, and restrooms; air supply/exhaust and air-conditioning of factories; air blow/exhaust for various devices

## ■ Features

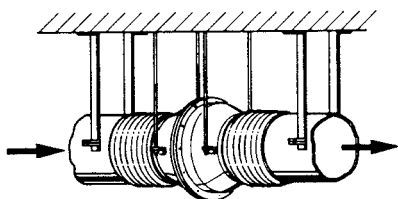
① Noise is further reduced by ideal fluid structure and diagonal-flow vanes.



② Best-suited for duct ventilation

Best-suited for duct ventilation due to high static pressure while being compact. Operating costs can also be reduced by individual exhaust.

③ Easily and directly installable in the middle of duct, and does not require large installation space compared with centrifugal fans.



④ Limit-load characteristics

Horsepower will not be exceeded even if pipeline resistance changes due to limit-load characteristics.

## ■ Model type description

**ALF - No.3 - 5 28 S**

①                      ②                      ③                      ④                      ⑤

① S-line fan

② Fan number

③ Frequency (50Hz)

④ 280W

⑤ S ... (single-phase power supply)

No symbol ... (three-phase power supply)



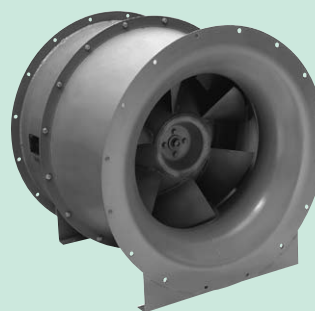
ALFII-M type



ALF type No.2, No.3



ALF type No.4



ALF type No.6, No.7

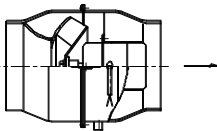
\* Keep in mind that the above show typical examples, part of which may differ from actual devices.

## Standard/special specifications

Model classification	ALFII-15M, 20M	ALF-No.2 - 4	ALF-No.6, 7
Gas handled	Clean air (temperature 0 ~ 40°C, relative humidity 85% or less, non-condensing)		
Installation location	Indoors (ambient temperature 0 ~ 40°C)		
Structure	Impeller	Diagonal flow	
	Bearing	Deep groove ball bearing (oil-impregnated sintered bearing for ALFII-15M)	Deep groove ball bearing
Material	Casing	SPCC	SPHC, SPCC
	Impeller	A1050P	SPCC, SS400(No.2) SPCC, FC200(No.3, 4)
Installation method	Ceiling-suspension type	Ceiling-suspension type, floor type (No. 4 only), vertical type (bottom suction, top discharge)	Ceiling-suspension type, floor type, vertical type (bottom suction, top discharge)
Motor	Type	Totally-enclosed	
	Phase and voltage	Single-phase, 100V	Three-phase, 200V
	Starting method	Direct-on-line start	Direct-on-line start (all models of No.6, and No.7-575, No.7-5240) Star-delta start or direct-on-line start (ALF-No. 7-5300)
Coating	Melamine resin coating	Acrylated alkyd resin coating	
Standard accessories	None	Companion flange (No. 4 only)	Companion flange, terminal box for indoor use (terminal block included)

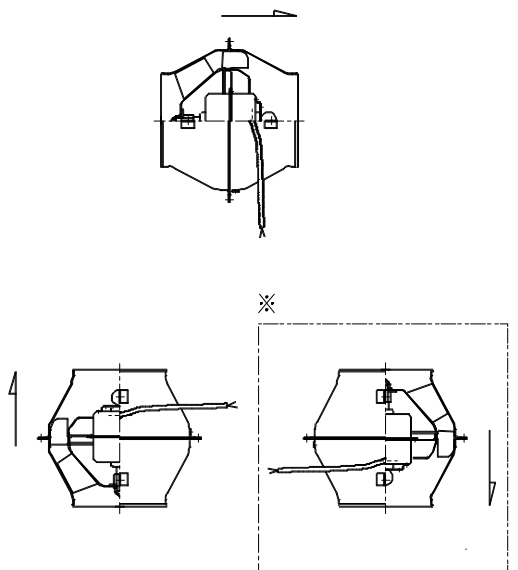
## Installable form

### ●ALFII-15M, 20M



Other installations are not supported.

### ●ALF-No.2, 3, 6, 7



※ Supportable by changing into axial specifications (special specifications).

## Special accessories (ALFII model)

Ceiling-suspension hanger anti-vibration rubber/spring

\* A sound-muffling box is available as a standard variation (ALFII-U model).

## Special specifications and special accessories (No. 2 - 4)

Motor change	Different voltage Single-phase: 200V Three-phase: 400/415V
Coating change <sup>※1</sup>	PVC coating Epoxy resin coating Coating color designation
Special accessories	Terminal box for indoor use (terminal box included) Suction wire mesh (No. 4 only) Expansion joint Ceiling-suspension hanger anti-vibration rubber/spring

※1 Standard coating is applied to the motor.

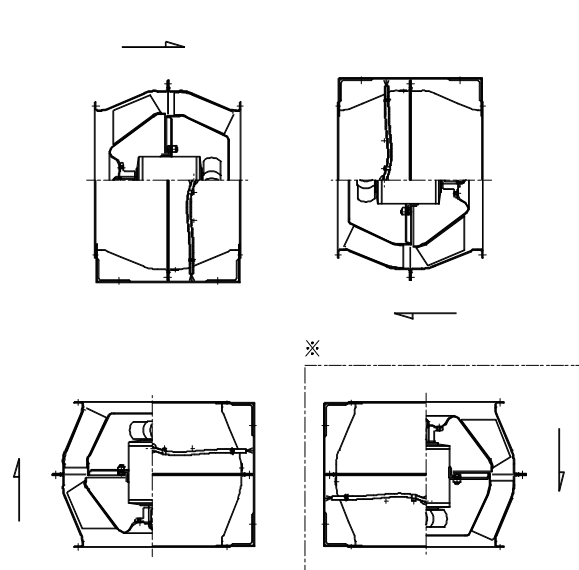
\* A sound-muffling box is available as a standard variation (ALF-II-U model).

## Special specifications and special accessories (No. 6, 7)

Structure change	Drain included (plug included) Sound-muffling box included
Installation location change	Outdoors (ambient temperature 0°C - 40°C)
Installation direction change	Vertical flange mounted (top suction, bottom suction) Vertical bracket mounted (top suction, bottom suction)
Motor change	Different voltage (400/415V)
Coating change <sup>※1</sup>	PVC coating Epoxy resin coating Coating color designation
Special accessories	Foundation bolt, suction wire mesh, expansion joint, damper, ceiling-suspension hanger anti-vibration rubber/spring, anti-vibration floor base, anti-vibration ceiling-suspension base

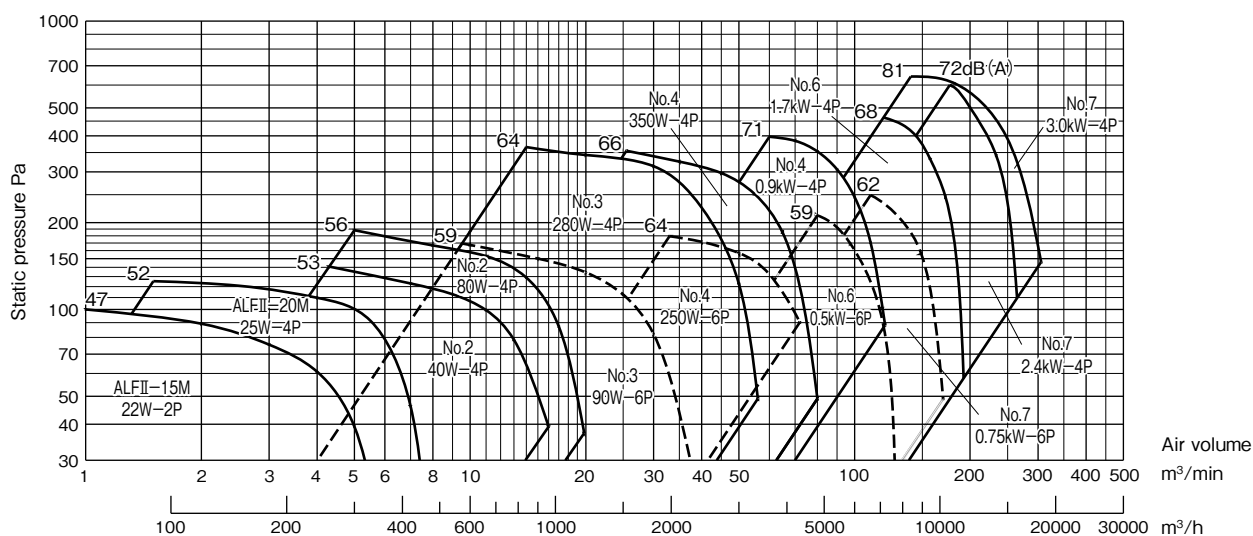
※1 Standard coating is applied to the motor.

### ●ALF-No.4



※ Supportable by changing into axial specifications (special specifications).

## Performance drawing



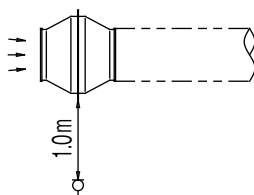
## Specifications table

Model	Motor								Air volume ( $\text{m}^3/\text{min}$ )	Static pressure (Pa)	Approx. mass (kg)
	Input	Output	No. of poles (P)	Phase and voltage	Rated current (A)	Starting current (A)	Rotation speed ( $\text{min}^{-1}$ )	Type			
ALFII-15M	45W	22W	2	Single-phase, 100V	0.5	0.74	2000	Totally enclosed capacitor induction motor	1.5~5.5	93~25	3.5
ALFII-20M	60W	25W	4	Single-phase, 100V	0.75	2.3	1460	Totally enclosed capacitor induction motor	2 ~7.5	123~34	5.3
ALF-No.2-504S	71W	40W	4	Single-phase, 100V	0.8	1.33	1260	Totally enclosed capacitor induction motor	4.5~16	137~39	9
ALF-No.2-508S	101W	80W	4	Single-phase, 100V	1.5	4.43	1450	Totally enclosed capacitor induction motor	5 ~19	177~49	9
ALF-No.3-509S	201W	90W	6	Single-phase, 100V	2.7	5.75	950	Totally enclosed capacitor induction motor	10 ~35	157~44	19
ALF-No.3-509	0.115kW	0.09kW	6	Three-phase, 200V	0.65	2.5	940	Totally enclosed three-phase induction motor	10 ~35	157~44	19
ALF-No.3-528S	370W	280W	4	Single-phase, 100V	4.3	13	1430	Totally enclosed capacitor induction motor	14 ~55	343~59	22
ALF-No.3-528	0.35kW	0.28kW	4	Three-phase, 200V	1.6	6.3	1430	Totally enclosed three-phase induction motor	14 ~55	343~59	19
ALF-No.4-525S	420W	250W	6	Single-phase, 100V	5.8	18	940	Totally enclosed capacitor induction motor	33 ~79	177~49	37
ALF-No.4-525	0.35kW	0.25kW	6	Three-phase, 200V	1.7	9	940	Totally enclosed three-phase induction motor	33 ~79	177~49	37
ALF-No.4-535S	530W	350W	4	Single-phase, 100V	5.9	25	1420	Totally enclosed capacitor induction motor	26 ~80	353~49	37
ALF-No.4-535	0.45kW	0.35kW	4	Three-phase, 200V	2.1	11	1420	Totally enclosed three-phase induction motor	26 ~80	353~49	35
ALF-No.4-590	1.2kW	0.9kW	4	Three-phase, 200V	5.2	28	1420	Totally enclosed three-phase induction motor	60 ~122	392~59	38
ALF-No.6-550	0.66kW	0.5kW	6	Three-phase, 200V	3.2	※	940	Totally enclosed three-phase induction motor	80 ~127	210~29	85
ALF-No.6-5170	2.1kW	1.7kW	4	Three-phase, 200V	8.6	※	1420	Totally enclosed three-phase induction motor	110 ~170	250~50	95
ALF-No.7-575	0.97kW	0.75kW	6	Three-phase, 200V	5.4	※	950	Totally enclosed three-phase induction motor	118 ~192	455~62	120
ALF-No.7-5240	2.9kW	2.4kW	4	Three-phase, 200V	12.0	※	1450	Totally enclosed three-phase induction motor	172 ~263	602~119	125
ALF-No.7-5300	3.5kW	3.0kW	4	Three-phase, 200V	16.6	※	1460	Totally enclosed three-phase induction motor	140 ~304	642~155	145

※: About 7 times the rated current.

## Noise measurement

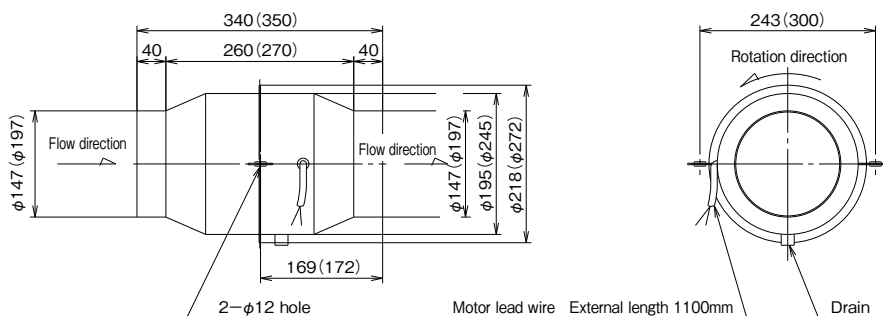
The performance drawing shows noise levels dB (A) in the vicinity 1.0m away from the main body in the following condition.





## Assembly drawing

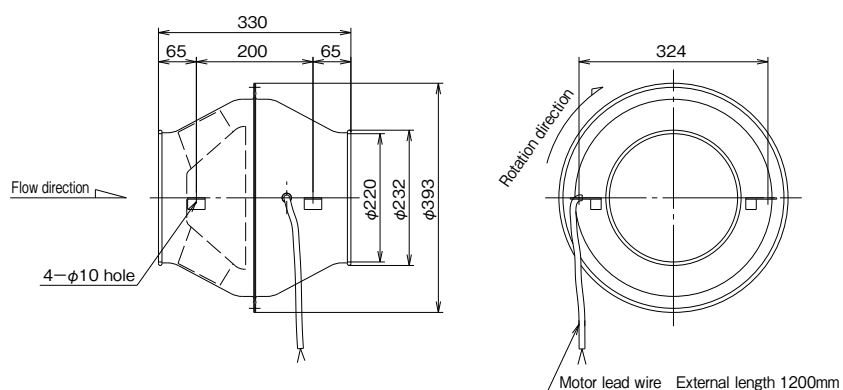
### ALFII-15M·20M



Model	Motor bearing	
	Load side	Anti-load side
ALFII-15M	Oilless metal	Oilless metal
ALFII-20M	6200ZZ	6200ZZ

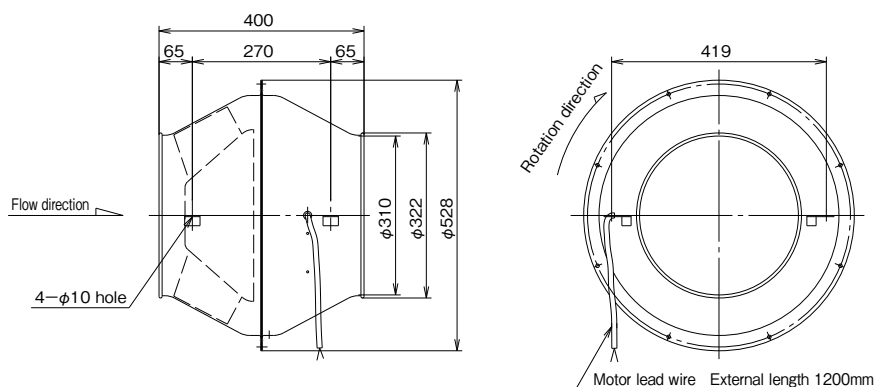
\* Values in brackets are for ALF2-20M.

### ALF-No.2



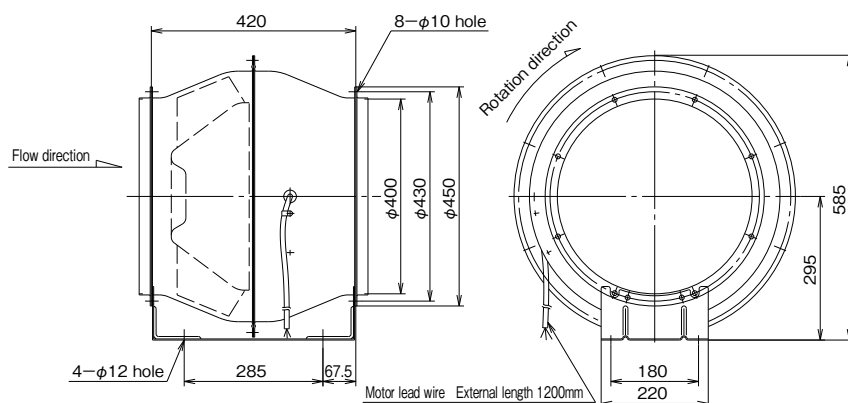
Model	Motor bearing	
	Load side	Anti-load side
504S	6202VV	6202VV
508S	6202VV	6202VV

### ALF-No.3



Model	Motor bearing	
	Load side	Anti-load side
509S	6203UU	6201UU
509	6202ZZCM	6202ZZCM
528S	6204ZZCM	6202ZZCM
528	6204ZZCM	6202ZZCM

### ALF-No.4

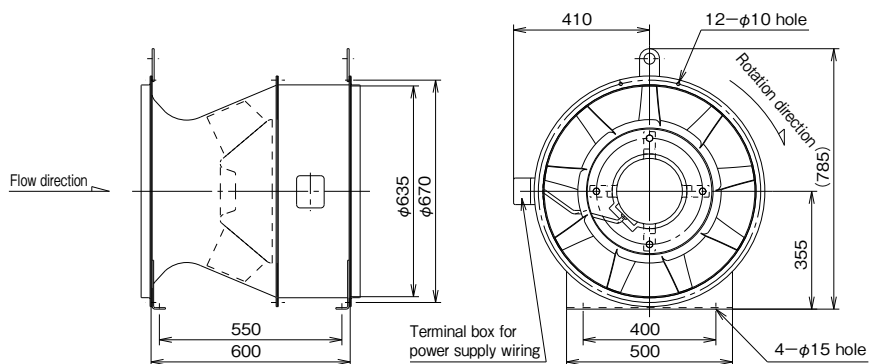


Model	Motor bearing	
	Load side	Anti-load side
525S	6204ZZCM	6204ZZCM
525	6204ZZCM	6204ZZCM
535S	6204ZZCM	6202ZZCM
535	6204ZZCM	6202ZZCM
590	6204ZZCM	6204ZZCM

\* For No. 4, companion flanges are attached as a standard.

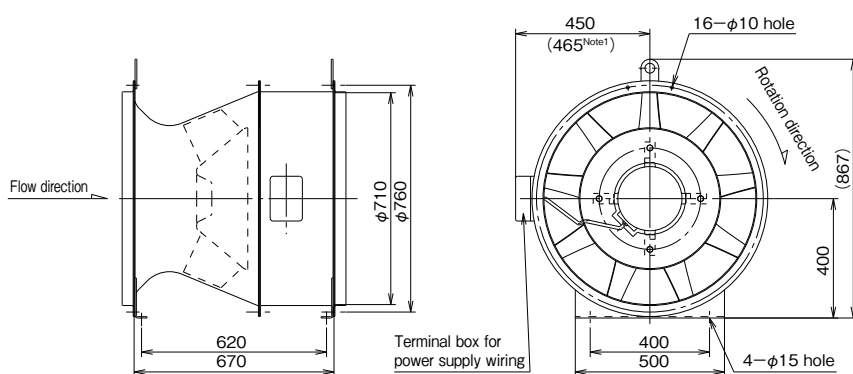
## Assembly drawing

### ALF-No.6



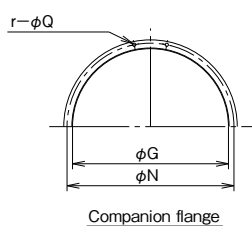
Model	Motor bearing	
	Load side	Anti-load side
550	AC6206ZZ	AC6204ZZ
5170	AC6306ZZ	AC6304ZZ

### ALF-No.7



Model	Motor bearing	
	Load side	Anti-load side
575	AC6306ZZ	AC6304ZZ
5240	AC6306ZZ	AC6305ZZ
5300	AC6308ZZ	AC6306ZZ

Note 1: For ALF-No. 7-5300

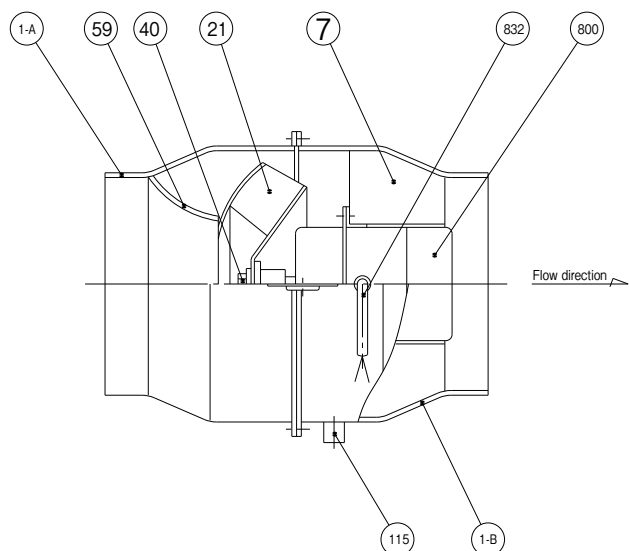


(Unit: mm)

No.	$\phi G$	$\phi N$	$r-\phi Q$	Steel size
4	400	430	8- $\phi 10$	L25×25×1.6
6	635	670	12- $\phi 10$	L30×30×3
7	710	760	16- $\phi 10$	L40×40×3

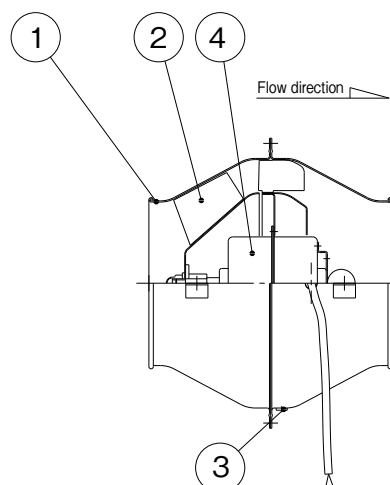
## Example of internal structure diagram

### ●ALF-II M



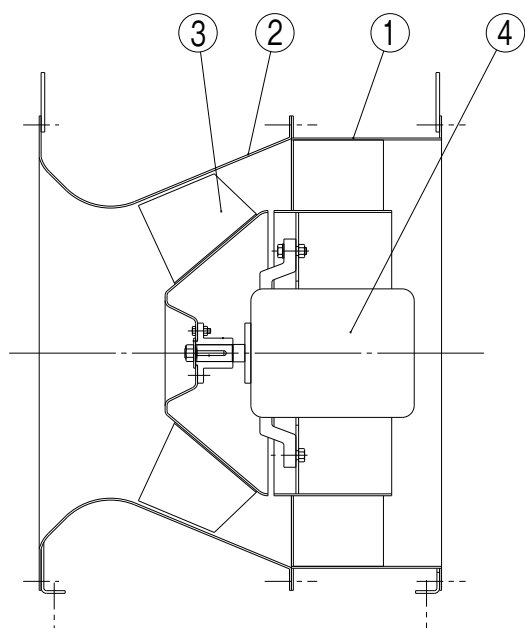
No.	Part name	Material	Qty
1-A	Casing A	SPCC	1
1-B	Casing B	SPCC	1
7	Guide vane	SPCC	1
21	Impeller	A1050P	1
40	Impeller retaining nut	SS400	1
59	Suction bell mouth	SPCC	1
115	Drain	SPCC	1
800	Motor	—	1
832	Motor lead wire	—	1

### ●ALF



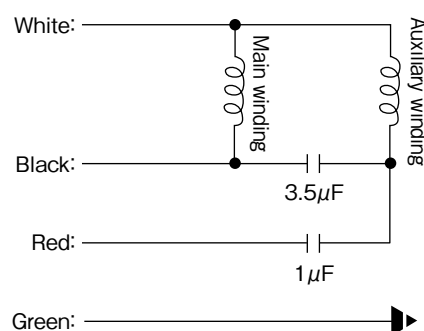
No.	Part name	Material	Qty
1	Casing	SPCC	1 set
2	Impeller	SPCC	1
3	Drain plug	Rubber	1
4	Motor	—	1

### ●ALF-No.6, 7

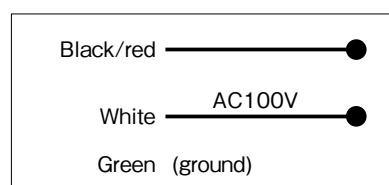


No.	Part name	Material	Qty
1	Casing	SPHC · SPCC	1
2	Suction casing	SPHC · SPHE	1
3	Impeller	SPHE · SPCC	1
4	Motor	—	1

## ALFII-20M connection diagram



### Connection method



Your Dealer

***TERAL***

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