



CATALOGUE FOR AC FANS

DUNLI FANS-Air Movement Experts

Ver. 2021



HANGZHOU DUNLI ELECTRIC APPLIANCES CO., LTD.



Company Profile

Hangzhou Dunli Electric Appliance Co., Ltd., founded in 2007, is one of the subsidiaries of Dunli Group Co., Ltd. The Group company currently has more than 2000 employees and with an area of land 360,000 m². As the largest subsidiary of the Group company, Dunli Electric is specialized in developing and manufacturing external rotor motor powered axial fans, backward curved centrifugal fans, forward curved centrifugal fans, duct fans and blowers. Its products are widely used in the refrigeration, HVAC, fresh air, purification, air conditioning, power electronics, and IT industries.

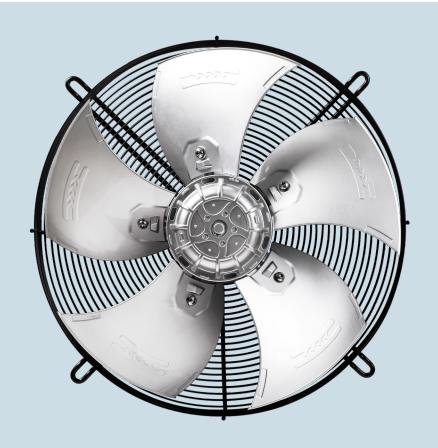
Dunli Electric has strong technical expertise and, through its professional R&D team, precise testing equipment, advanced production lines and scientific production management, has developed varied ranges of low noise, high air flow, high efficiency and long service life fan products, as well as applying for numerous patents in structure, fluid, motor and control circuit amongst others.

The company attaches great importance to industry-university-research cooperation, has established long-term cooperative relationships with many well-known domestic research institutes, and has undertaken in-depth research and development in the core area of motor fans, to ensure products developed are industry leading.

Dunli Electric is ISO9001 Quality Management System and ISO14001 Environmental Management System certified, products are CCC, CE approved and most of them are UL approved, as well as RoHS standards complaint. The company exports to all over the world, including European Union, North America, Middle East, Russia, South America, Africa, and South East Asia.



AC FAN SERIES



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AXIAL FAN SERIES

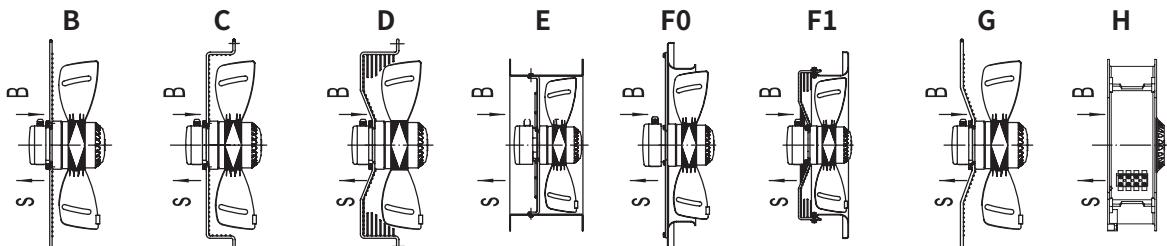
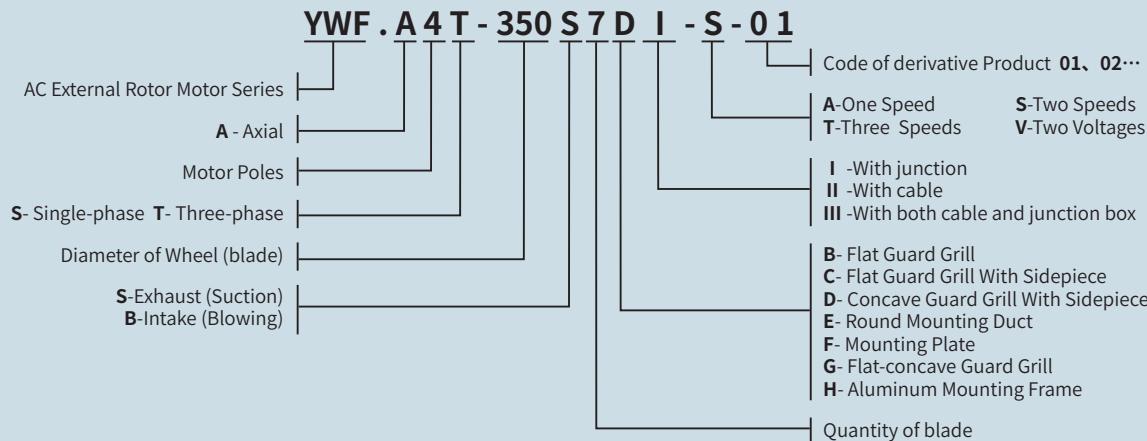






Axial Fan Product Introduction

1. Nomenclature



2. The YWF series of external rotor motor powered axial fans have the characteristics of compact structure, reliable operation, low noise, easy installation and high efficiency, etc.
3. There are single-phase and three-phase power supplies available for the external rotor motor powered axial fans. And the axial fans are widely used in the industries of air conditioning, cooling, refrigeration, ventilation, etc.
4. The YWF series of external rotor motors have low start current, and are IP44/IP54 and class F evaluated.
5. There's a built-in thermal protector for single-phase motor, and the motor can be operated in the temperature range from -30 to 60 degrees Celsius. If the customer needs built-in thermal protector for three-phase motor, please specify while placing the order.
6. The nominal inputs for single-phase motors are 115V/60Hz and 230V, 50/60Hz, and for three-phase motor are 400V, 50/60Hz and 460V/60Hz. voltage and frequency can be accommodated based on customer's requirements.
7. The speed of YWF series of motors can be controlled by a transformer or VFD. The speed can changed by changing motor's Delta wiring and Star wiring for three-phase motors, and by using winding tap speed regulation for single-phase motors.
8. The aerodynamic tests of Dunli fans are under the condition of 1.2kg/m³ air density and 20 degrees Celsius ambient temperature as per the requirements of National Testing Standards.
9. The noise defined for Dunli motor fans is referring to sound pressure level. The distance of sensor is 1m away from the inlet hose according to the Requirements of National Testing Standards.
10. The type of bearing used on the motors is , and the average life rating is L10 which is between 30,000 to 50,000 hours based on different operating conditions.
11. The motor can come with power cord only, IP54 rated junction box only, or both junction box and power cord combined. The length of power cord needs to be specified while ordering the power cord type axial fan.
12. Dunli external rotor motor powered fans are CCC and CE approved, and most of them are UL registered.
13. All data shown on this catalogue subject to change and are for the purpose of product preliminary selection, please check with your Sales Rep and refer to Product Specification provided.





Plastic Airfoil Blade Axial Fan







Plastic Airfoil Blade Axial Fan

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Φ 250

Rotor Material: Aluminum Die-casting

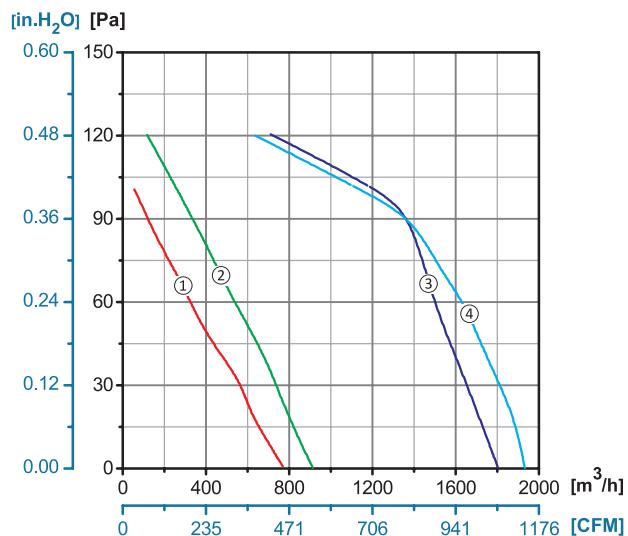
Impeller Material: Plastic

Ingress Protection: IP44

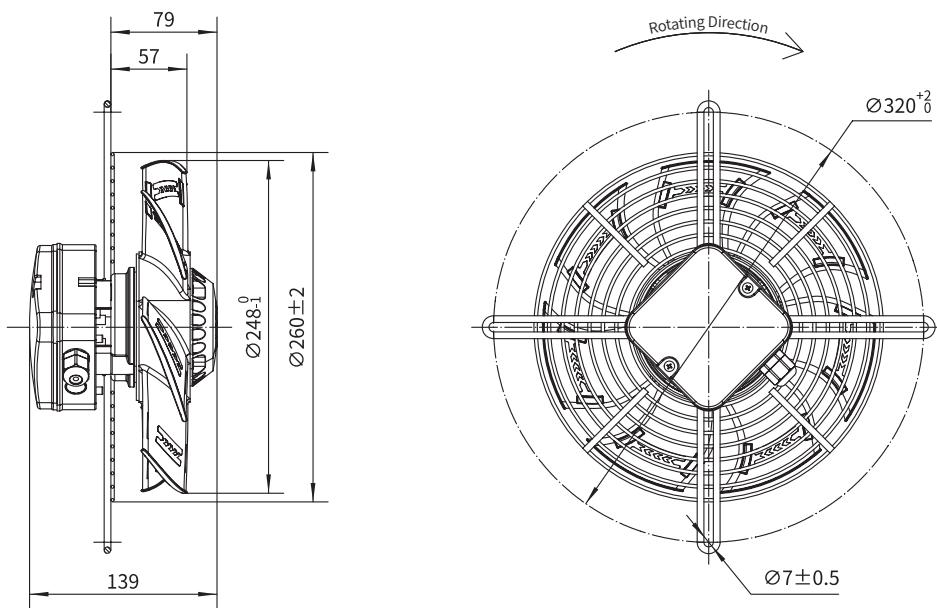
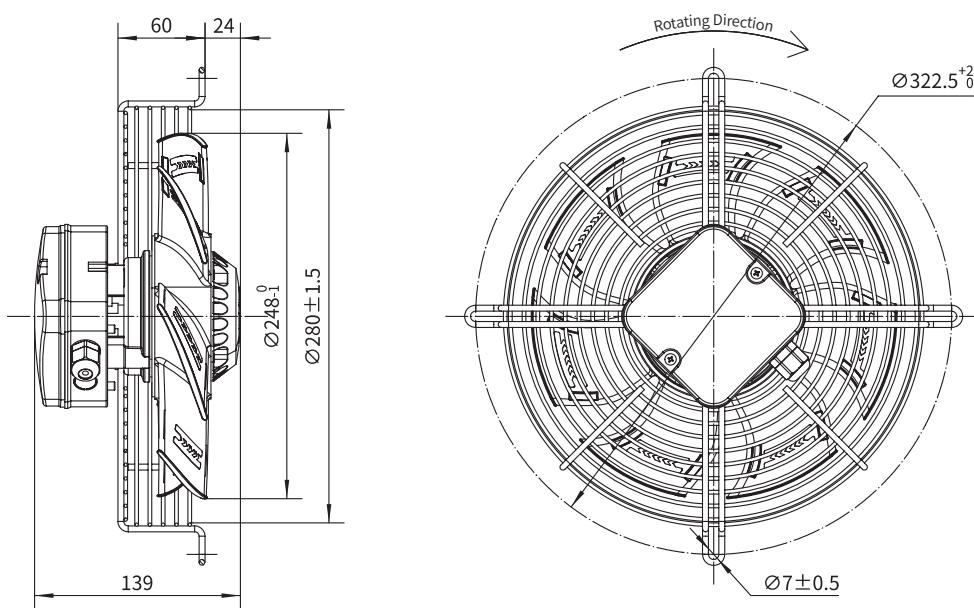
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Performance Curves



Type B	Type C	Type D	Type E	Type F0
YWF.A2S-250S-7B AP0	YWF.A2S-250S-7C AP0	YWF.A2S-250S-7D AP0	YWF.A2S-250S-7E AP0	YWF.A2S-250S-7F AP0
YWF.A4S-250S-7B AP0	YWF.A4S-250S-7C AP0	YWF.A4S-250S-7D AP0	YWF.A4S-250S-7E AP0	YWF.A4S-250S-7F AP0

Type B

Type C


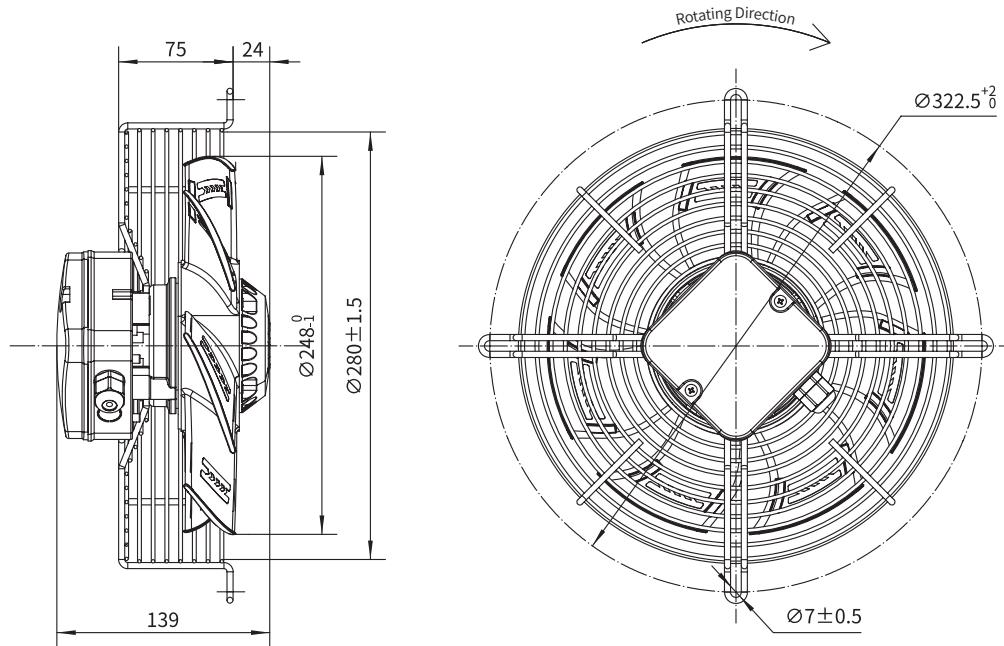
	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
Type F1 /	220/230	50	0.55	125	2590	4	1800/1060	76	(3)	-30/+60	CCC, CE
	220/230	60	0.70	160	2850	4	1930/1135	79	(4)	-30/+60	CCC, CE
/	220/230	50	0.28	55	1420	2	770/455	49	(1)	-30/+60	CCC, CE
	220/230	60	0.25	57	1680	2	910/535	55	(2)	-30/+60	CCC, CE

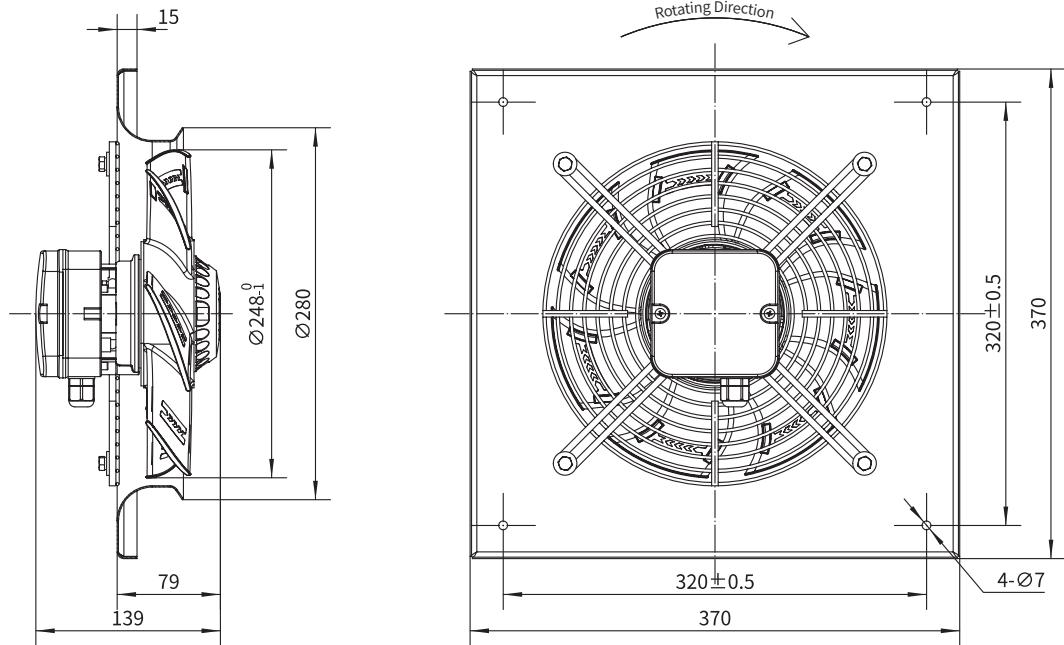


Plastic Airfoil Blade Axial Fan

 $\Phi 250$

Type D




Plastic Airfoil Blade Axial Fan
Φ 250
Type F0




Plastic Airfoil Blade Axial Fan

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Φ 300

Rotor Material: Aluminum Die-casting

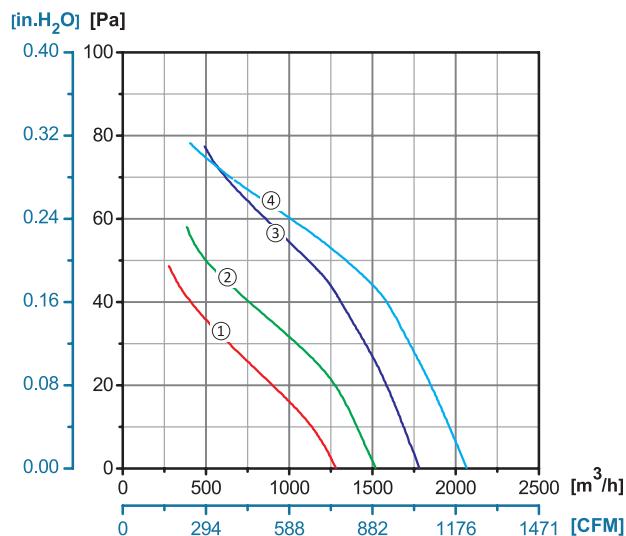
Impeller Material: Plastic

Ingress Protection: IP44

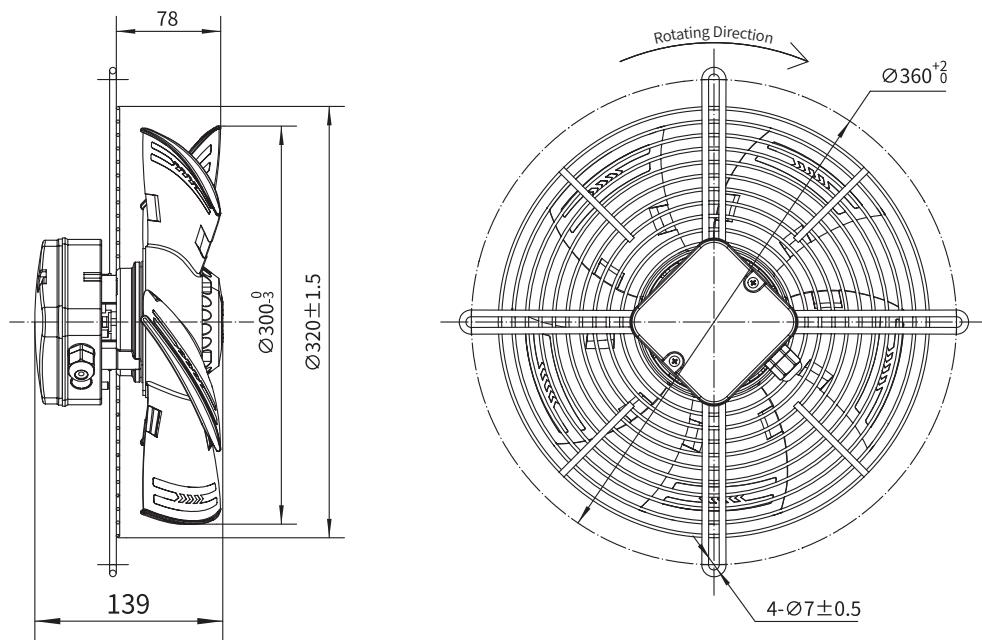
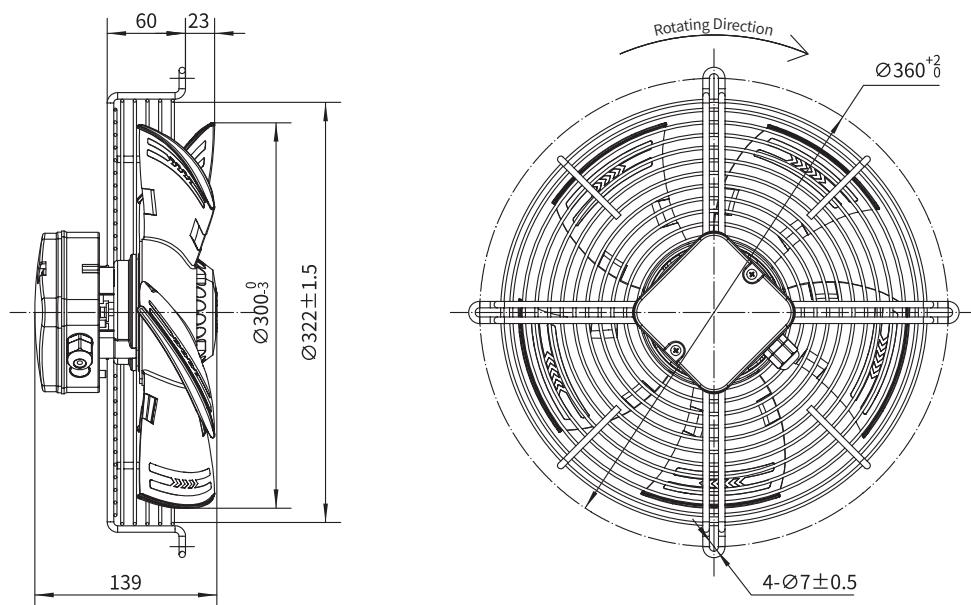
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Performance Curves



Type B	Type C	Type D	Type E	Type F0
YWF.A4S-300S-5B AP0	YWF.A4S-300S-5C AP0	YWF.A4S-300S-5D AP0	YWF.A4S-300S-5E AP0	YWF.A4S-300S-5F AP0
YWF.A4T-300S-5B AP0	YWF.A4T-300S-5C AP0	YWF.A4T-300S-5D AP0	YWF.A4T-300S-5E AP0	YWF.A4T-300S-5F AP0
YWF.A6S-300S-5B AP0	YWF.A6S-300S-5C AP0	YWF.A6S-300S-5D AP0	YWF.A6S-300S-5E AP0	YWF.A6S-300S-5F AP0

Type B

Type C


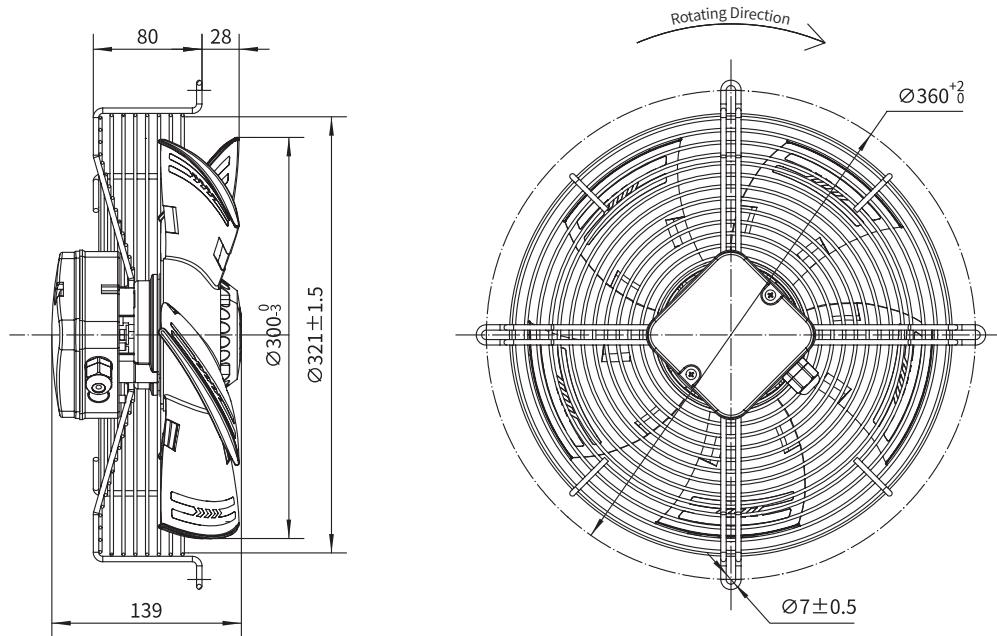
Type F1	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
/	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
/	220/230	50	0.28	65	1320	2	1780/1050	53	(3)	-30/+60	CCC, CE
	220/230	60	0.32	77	1485	2	2065/1215	56	(4)	-30/+60	CCC, CE
/	220/230	50	0.17	70	1350	/	1740/1025	55	(3)	-30/+60	CCC, CE
	220/230	60	0.16	80	1500	/	1970/1160	58	(4)	-30/+60	CCC, CE
/	220/230	50	0.24	50	920	2	1280/755	48	(1)	-30/+60	CCC, CE
	220/230	60	0.24	55	1080	2	1520/895	53	(2)	-30/+60	CCC, CE

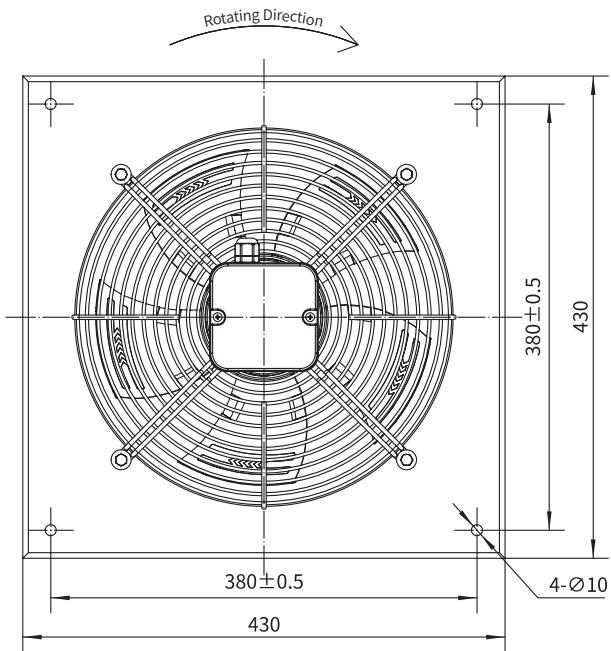
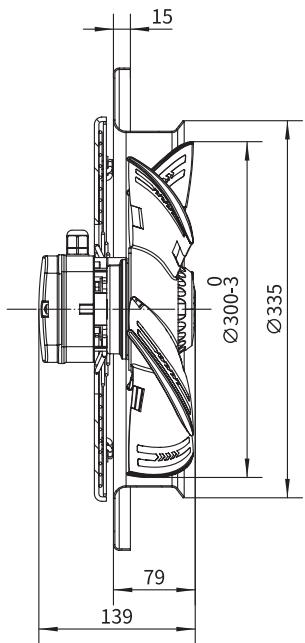


Plastic Airfoil Blade Axial Fan

 $\Phi 300$

Type D




Plastic Airfoil Blade Axial Fan
Φ 300
Type F0




Plastic Airfoil Blade Axial Fan

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Φ350

Rotor Material: Aluminum Die-casting

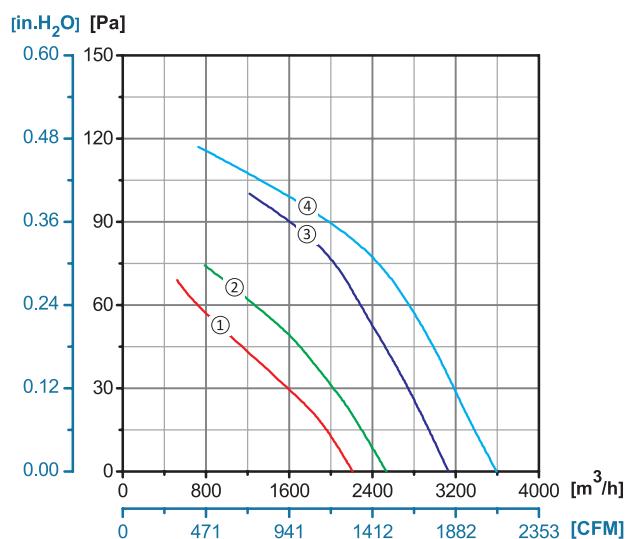
Impeller Material: Plastic

Ingress Protection: IP54

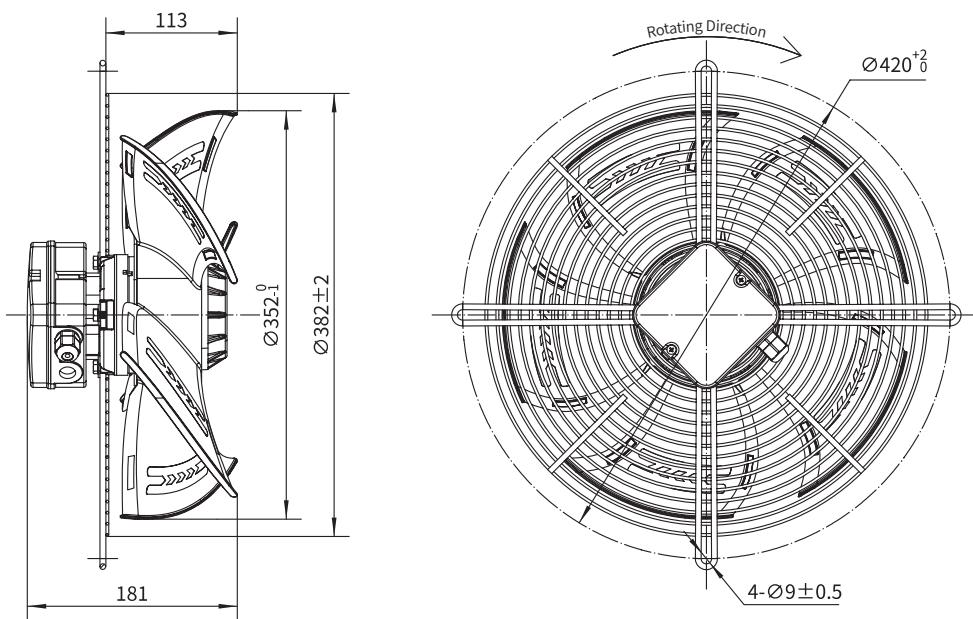
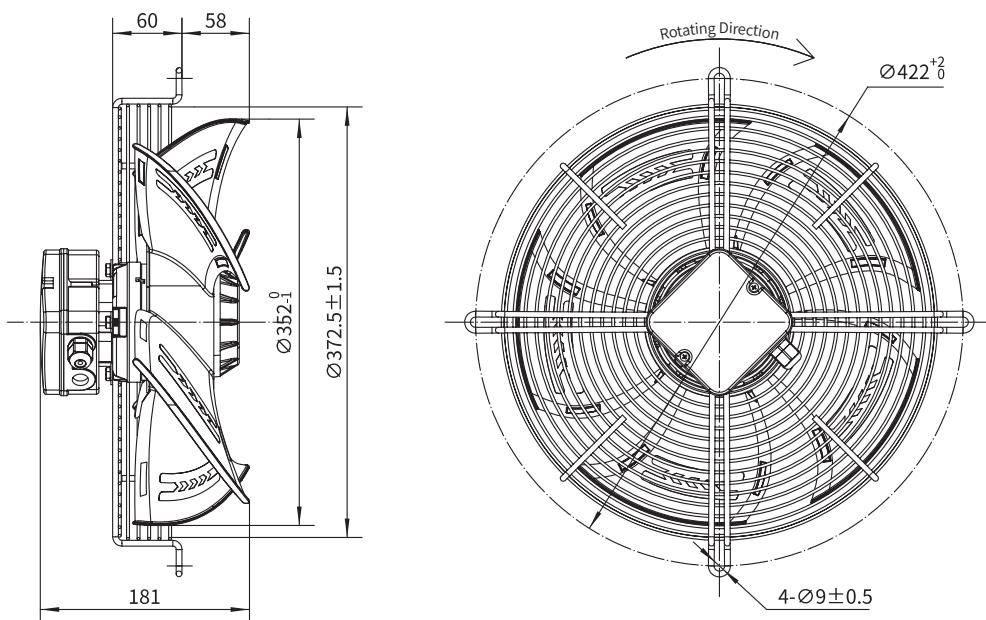
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Performance Curves



Type B	Type C	Type D	Type E	Type F0
YWF.A4S-350S-5B AP0	YWF.A4S-350S-5C AP0	YWF.A4S-350S-5D AP0	YWF.A4S-350S-5E AP0	YWF.A4S-350S-5F AP0
YWF.A4T-350S-5B AP0	YWF.A4T-350S-5C AP0	YWF.A4T-350S-5D AP0	YWF.A4T-350S-5E AP0	YWF.A4T-350S-5F AP0
YWF.A6S-350S-5B AP0	YWF.A6S-350S-5C AP0	YWF.A6S-350S-5D AP0	YWF.A6S-350S-5E AP0	YWF.A6S-350S-5F AP0
YWF.A6T-350S-5B AP0	YWF.A6T-350S-5C AP0	YWF.A6T-350S-5D AP0	YWF.A6T-350S-5E AP0	YWF.A6T-350S-5F AP0

Type B

Type C


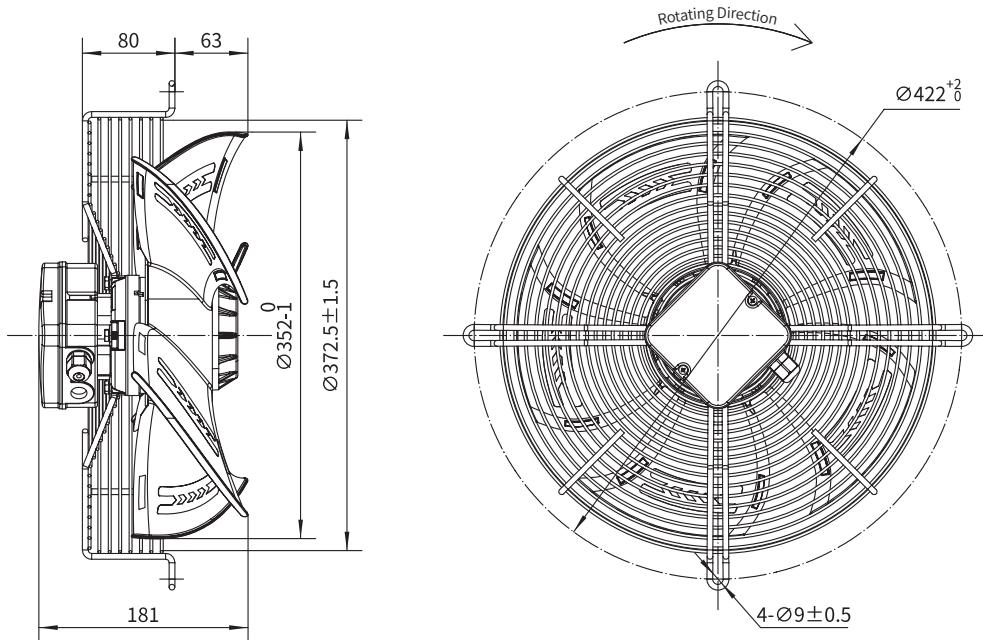
	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
/	220/230	50	0.73	155	1380	4	3140/1845	60	(3)	-30/+60	CCC, CE
	220/230	60	0.94	215	1500	4	3600/2120	63	(4)	-30/+60	CCC, CE
/	380/400	50	0.37	150	1370	/	3060/1800	60	(3)	-30/+60	CCC, CE
	380/400	60	0.38	200	1530	/	3470/2040	63	(4)	-30/+60	CCC, CE
/	220/230	50	0.41	85	910	3	2080/1225	48	(1)	-30/+60	CCC, CE
	220/230	60	0.39	90	1060	3	2420/1426	53	(2)	-30/+60	CCC, CE
/	380/400	50	0.21	70	930	/	2200/1295	54	(1)	-30/+60	CCC, CE
	380/400	60	0.19	85	1050	/	2540/1495	56	(2)	-30/+60	CCC, CE

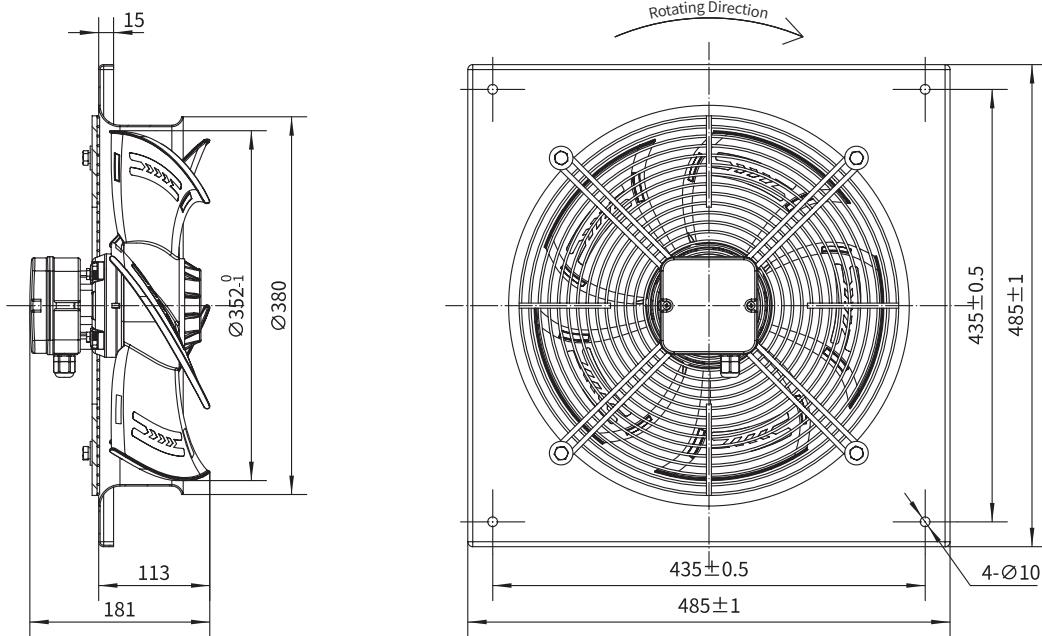


Plastic Airfoil Blade Axial Fan

 $\Phi 350$

Type D




Plastic Airfoil Blade Axial Fan
Φ 350
Type F0




Plastic Airfoil Blade Axial Fan

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Φ400

Rotor Material: Aluminum Die-casting

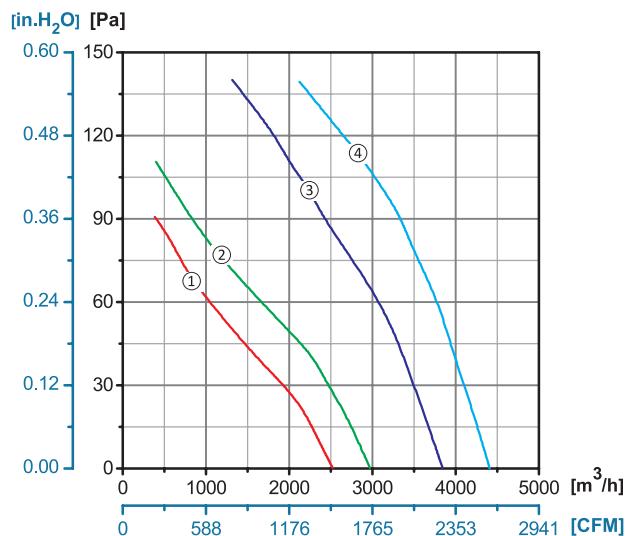
Impeller Material: Plastic

Ingress Protection: IP54

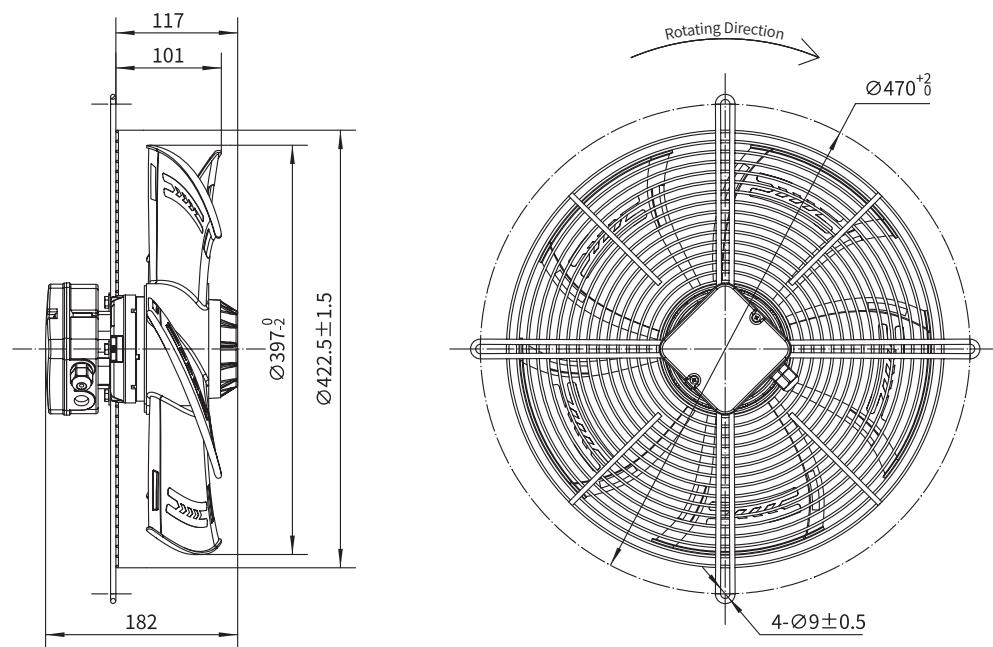
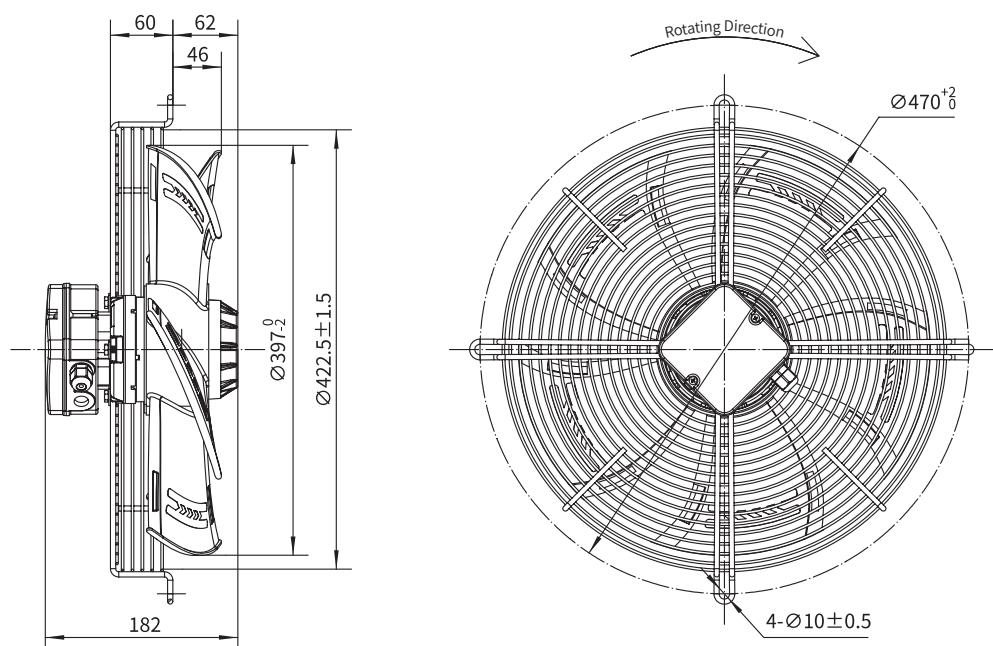
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Performance Curves



Type B	Type C	Type D	Type E	Type F0
YWF.A4S-400S-5B AP0	YWF.A4S-400S-5C AP0	YWF.A4S-400S-5D AP0	YWF.A4S-400S-5E AP0	YWF.A4S-400S-5F AP0
YWF.A4T-400S-5B AP0	YWF.A4T-400S-5C AP0	YWF.A4T-400S-5D AP0	YWF.A4T-400S-5E AP0	YWF.A4T-400S-5F AP0
YWF.A6S-400S-5B AP0	YWF.A6S-400S-5C AP0	YWF.A6S-400S-5D AP0	YWF.A6S-400S-5E AP0	YWF.A6S-400S-5F AP0
YWF.A6T-400S-5B AP0	YWF.A6T-400S-5C AP0	YWF.A6T-400S-5D AP0	YWF.A6T-400S-5E AP0	YWF.A6T-400S-5F AP0

Type B

Type C


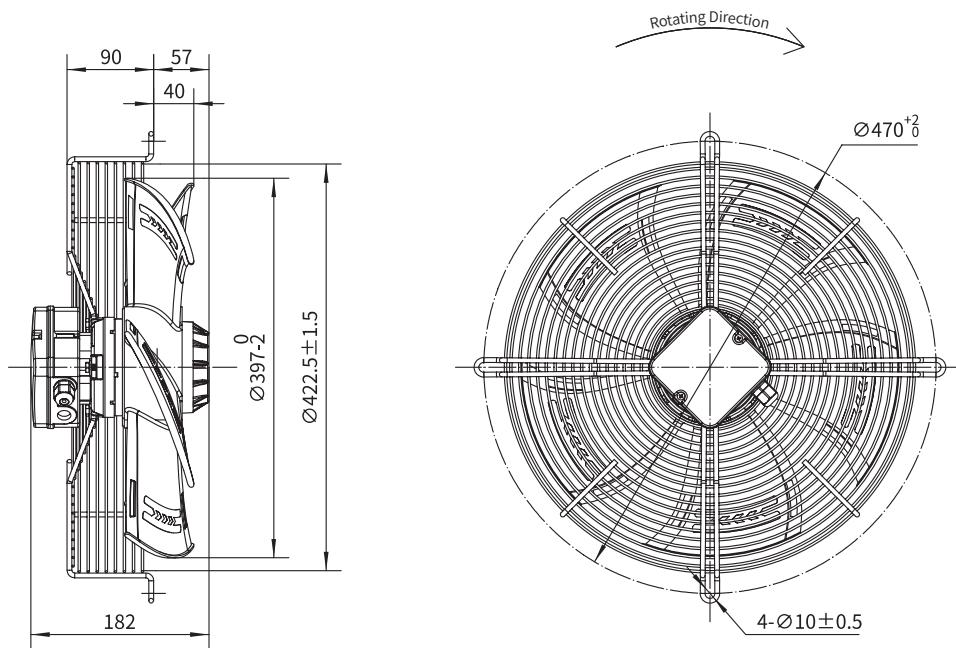
	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
/	220/230	50	0.76	170	1400	6	3780/2225	58	(3)	-30/+60	CCC, CE
	220/230	60	1.07	240	1600	6	4380/2575	61	(4)	-30/+60	CCC, CE
/	380/400	50	0.50	160	1400	/	3850/2265	60	(3)	-30/+60	CCC, CE
	380/400	60	0.50	220	1600	/	4400/2590	63	(4)	-30/+60	CCC, CE
/	220/230	50	0.44	95	930	4	2520/1480	52	(1)	-30/+60	CCC, CE
	220/230	60	0.49	110	1100	4	2970/1745	56	(2)	-30/+60	CCC, CE
/	380/400	50	0.30	90	940	/	2520/1480	54	(1)	-30/+60	CCC, CE
	380/400	60	0.25	95	1100	/	2950/1735	57	(2)	-30/+60	CCC, CE

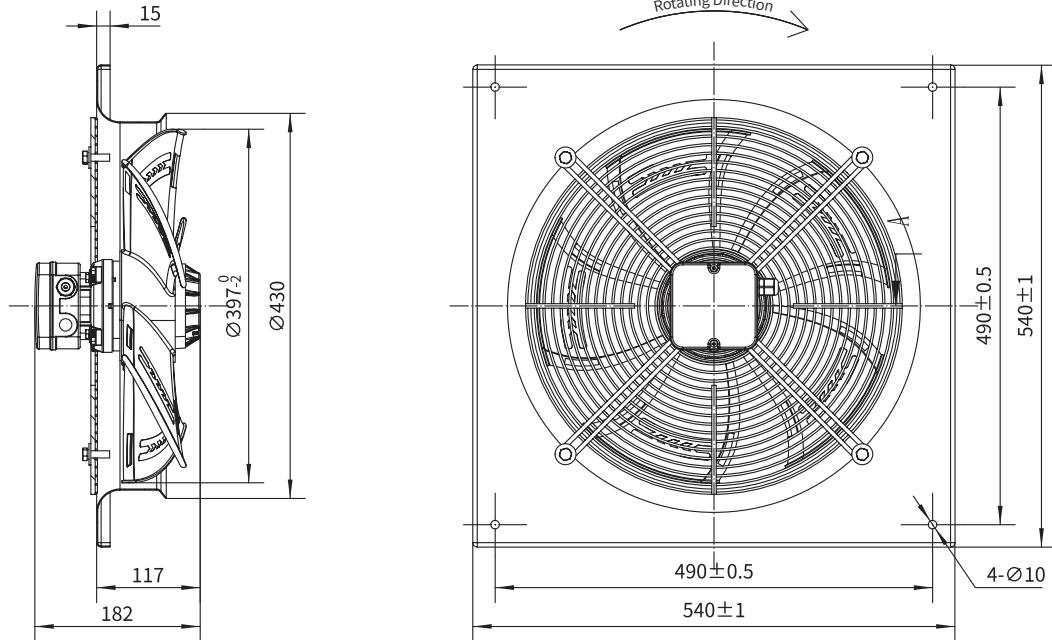


Plastic Airfoil Blade Axial Fan

 $\Phi 400$

Type D




Plastic Airfoil Blade Axial Fan
Φ400
Type F0




Plastic Airfoil Blade Axial Fan

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Φ450

Rotor Material: Aluminum Die-casting

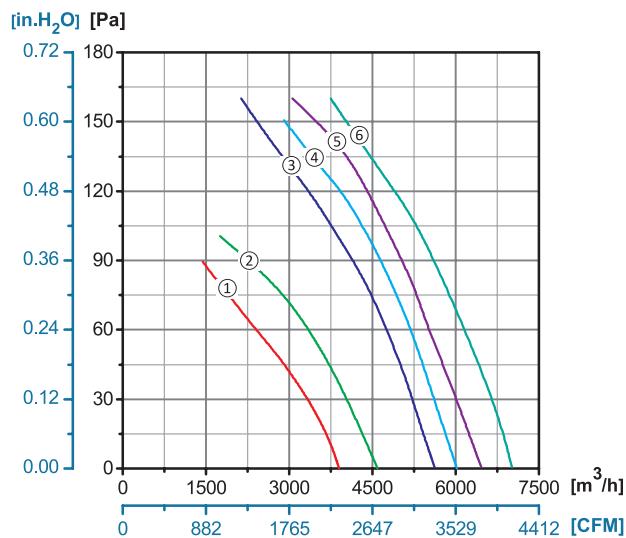
Impeller Material: Plastic

Ingress Protection: IP54

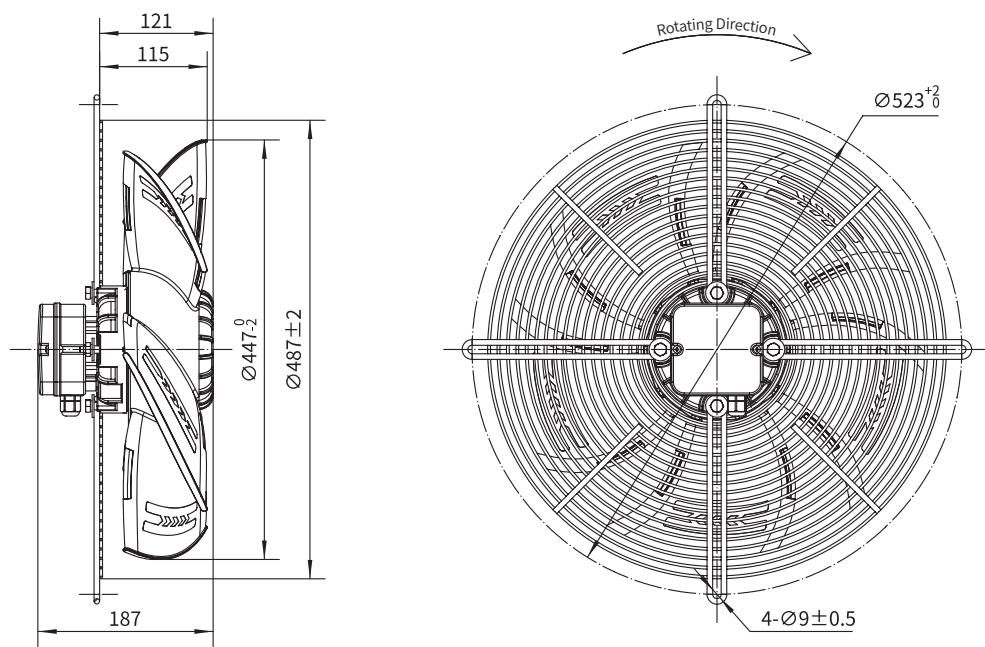
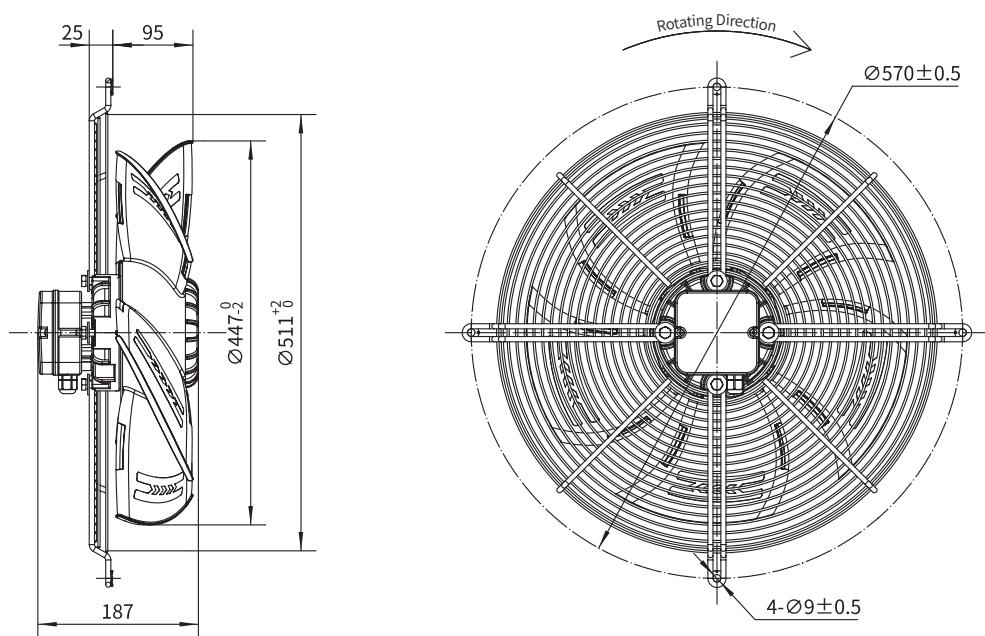
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Performance Curves



Type B	Type C	Type D	Type E	Type F0
YWF.A4S-450S-5B AP0	YWF.A4S-450S-5C AP0	YWF.A4S-450S-5D AP0	YWF.A4S-450S-5E AP0	YWF.A4S-450S-5F AP0
YWF.A4T-450S-5B AP0	YWF.A4T-450S-5C AP0	YWF.A4T-450S-5D AP0	YWF.A4T-450S-5E AP0	YWF.A4T-450S-5F AP0
YWF.A6S-450S-5B AP0	YWF.A6S-450S-5C AP0	YWF.A6S-450S-5D AP0	YWF.A6S-450S-5E AP0	YWF.A6S-450S-5F AP0
YWF.A6T-450S-5B AP0	YWF.A6T-450S-5C AP0	YWF.A6T-450S-5D AP0	YWF.A6T-450S-5E AP0	YWF.A6T-450S-5F AP0

Type B

Type C


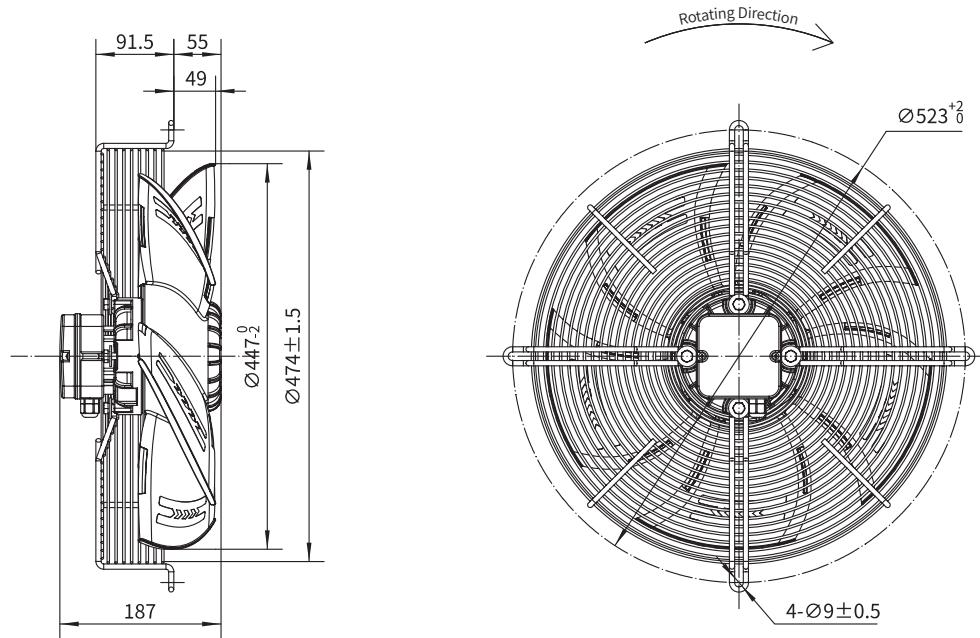
	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
/	220/230	50	1.50	330	1350	10	6020/3540	64	(4)	-30/+60	CCC, CE
	220/230	60	2.10	460	1530	10	7020/4130	65	(6)	-30/+60	CCC, CE
/	380/400	50	0.73	300	1370	/	5620/3305	66	(3)	-30/+60	CCC, CE
	380/400	60	0.82	440	1540	/	6460/3800	69	(5)	-30/+60	CCC, CE
/	220/230	50	0.68	140	930	4	3860/2270	56	(1)	-30/+60	CCC, CE
	220/230	60	0.77	175	1070	4	4500/2645	62	(2)	-30/+60	CCC, CE
/	380/400	50	0.62	145	950	/	3900/2295	57	(1)	-30/+60	CCC, CE
	380/400	60	0.52	175	1100	/	4590/2700	60	(2)	-30/+60	CCC, CE

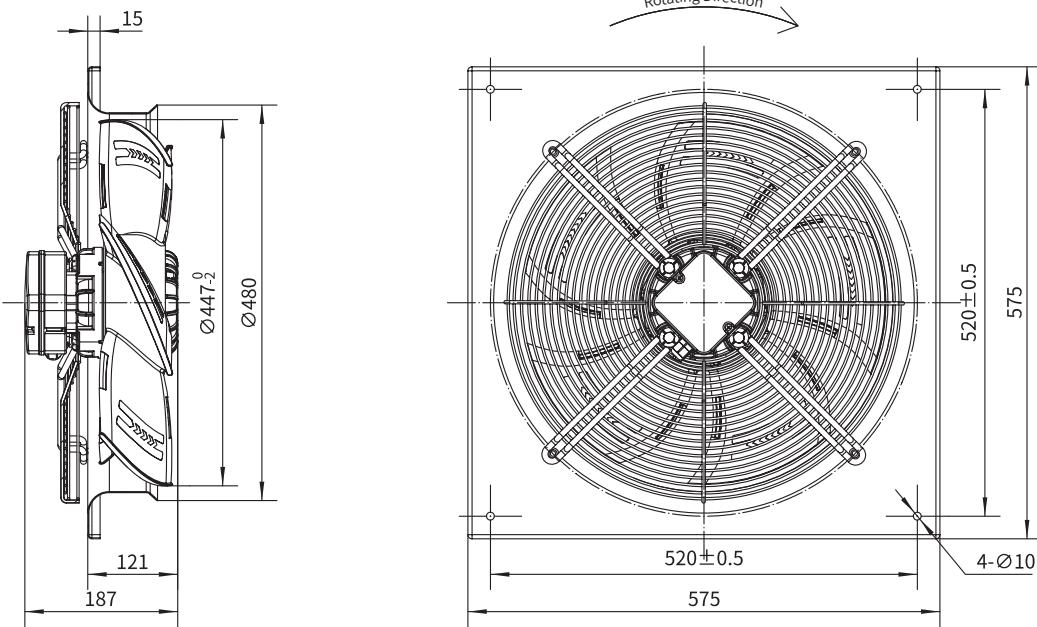


Plastic Airfoil Blade Axial Fan

 $\Phi 450$

Type D




Plastic Airfoil Blade Axial Fan
Φ450
Type F0




Plastic Airfoil Blade Axial Fan

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Φ500

Rotor Material: Aluminum Die-casting

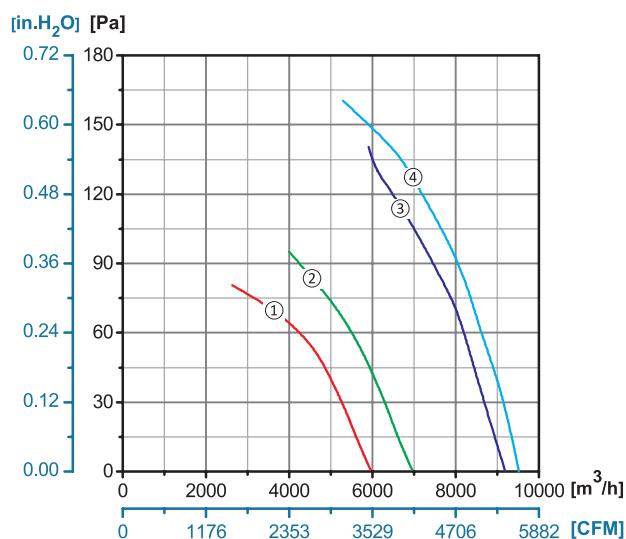
Impeller Material: Plastic

Ingress Protection: IP54

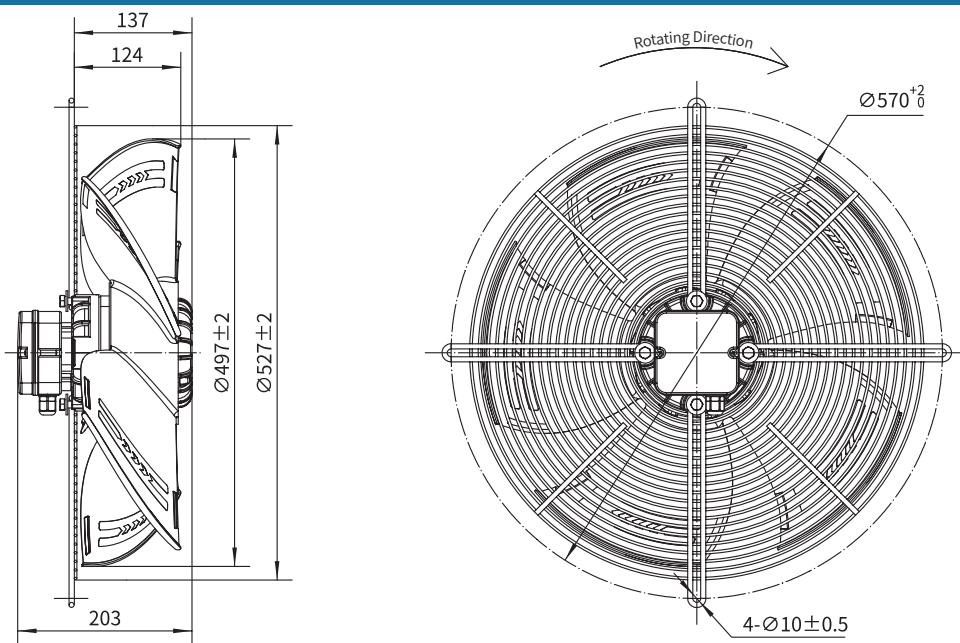
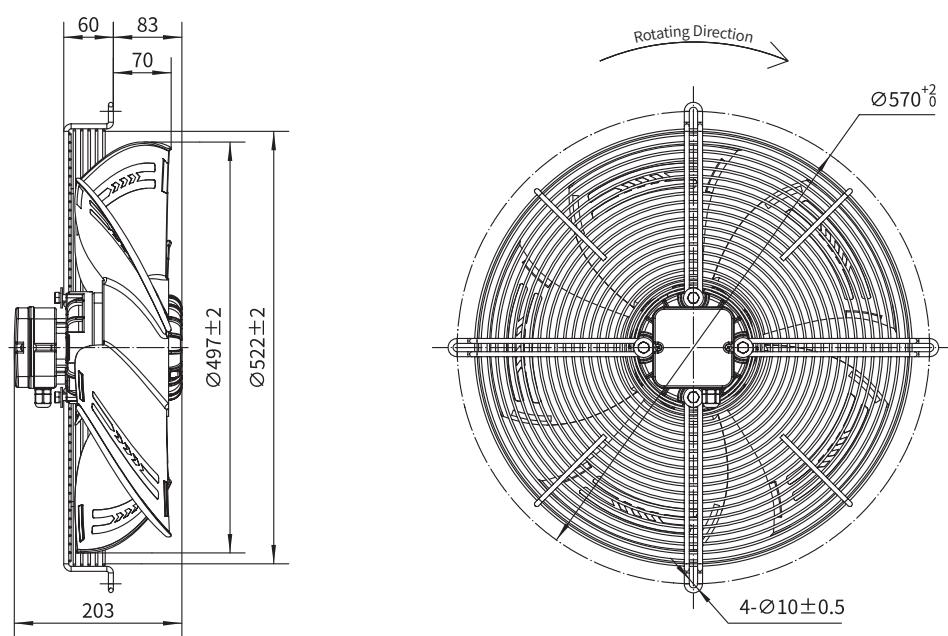
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Performance Curves



Type B	Type C	Type D	Type E	Type F0
YWF.A4S-500S-5B AP1	YWF.A4S-500S-5C AP1	YWF.A4S-500S-5D AP1	YWF.A4S-500S-5E AP1	/
YWF.A4T-500S-5B AP0	YWF.A4T-500S-5C AP0	YWF.A4T-500S-5D AP0	YWF.A4T-500S-5E AP0	/
YWF.A4T-500S-5B AP1	YWF.A4T-500S-5C AP1	YWF.A4T-500S-5D AP1	YWF.A4T-500S-5E AP1	/
YWF.A6S-500S-5B AP0	YWF.A6S-500S-5C AP0	YWF.A6S-500S-5D AP0	YWF.A6S-500S-5E AP0	/
YWF.A6T-500S-5B AP0	YWF.A6T-500S-5C AP0	YWF.A6T-500S-5D AP0	YWF.A6T-500S-5E AP0	/

Type B

Type C


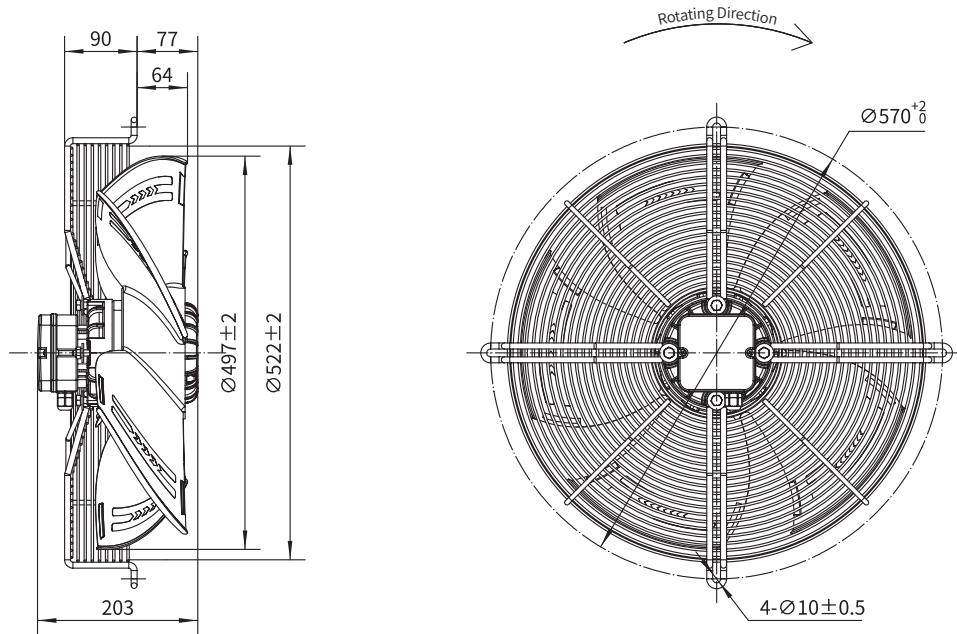
	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
Type F1	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	Approvals
YWF.A4S-500S-5F I AP1	380/400	50	3.26	700	1400	16	9520/5410	74	④	-30/+60	CCC, CE
YWF.A4T-500S-5F I AP0	380/400	50	1.27	620	1340	/	9190/5410	73	③	-30/+60	CCC, CE
YWF.A4T-500S-5F I AP1	380/400	50	1.39	650	1390	/	9190/5410	71	③	-30/+60	CCC, CE
YWF.A6S-500S-5F I AP0	220/230	50	1.23	265	900	10	6000/3530	67	①	-30/+60	CCC, CE
	220/230	60	1.60	360	10000	10	7000/4120	69	②	-30/+60	CCC, CE
YWF.A6T-500S-5F I AP0	380/400	50	0.99	280	940	/	5950/3500	63	①	-30/+60	CCC, CE
	380/400	60	0.89	360	1090	/	6950/4090	66	②	-30/+60	CCC, CE

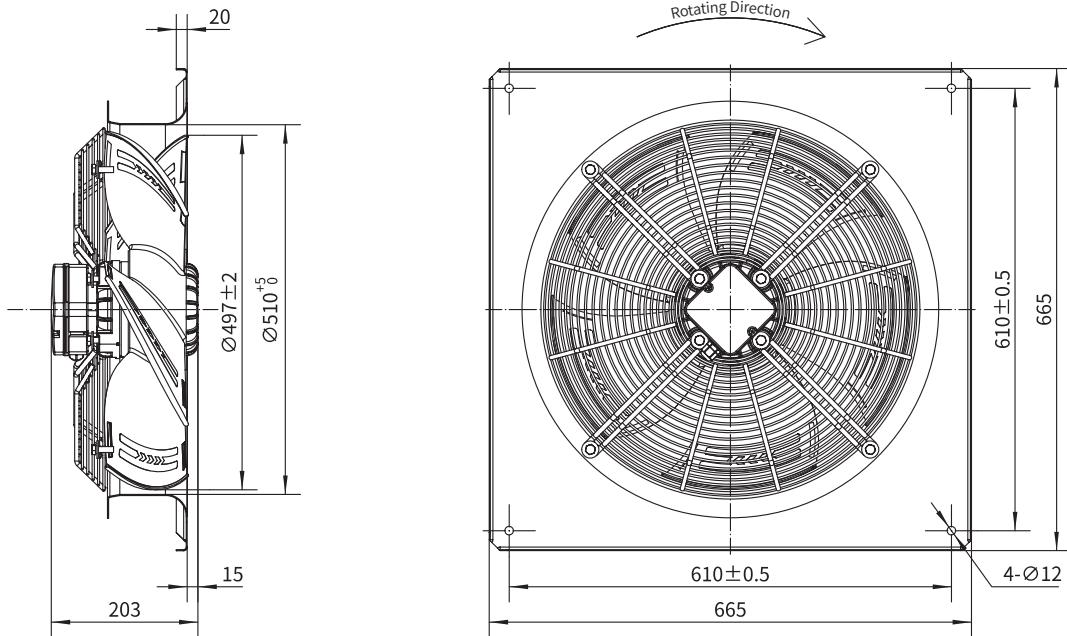


Plastic Airfoil Blade Axial Fan

 $\Phi 500$

Type D




Plastic Airfoil Blade Axial Fan
Φ500
Type F0




Plastic Airfoil Blade Axial Fan

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Φ560

Rotor Material: Aluminum Die-casting

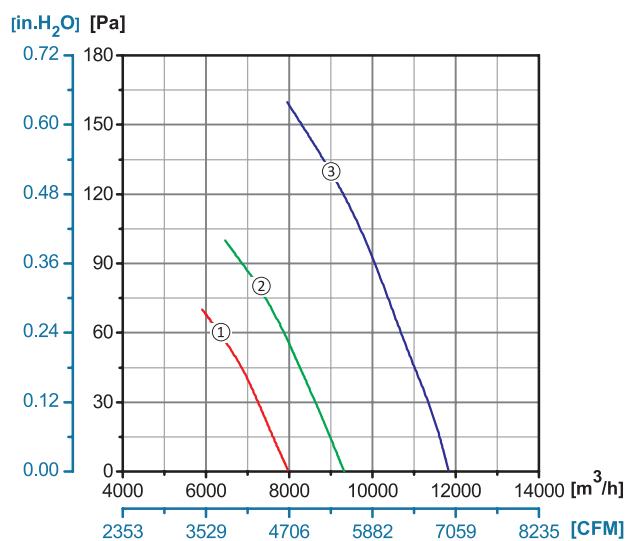
Impeller Material: Plastic

Ingress Protection: IP54

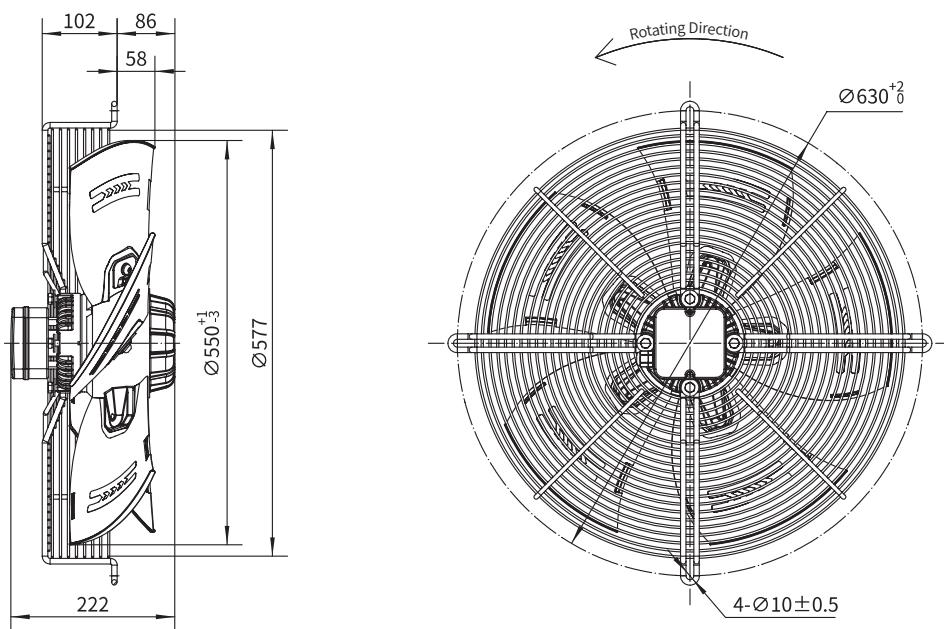
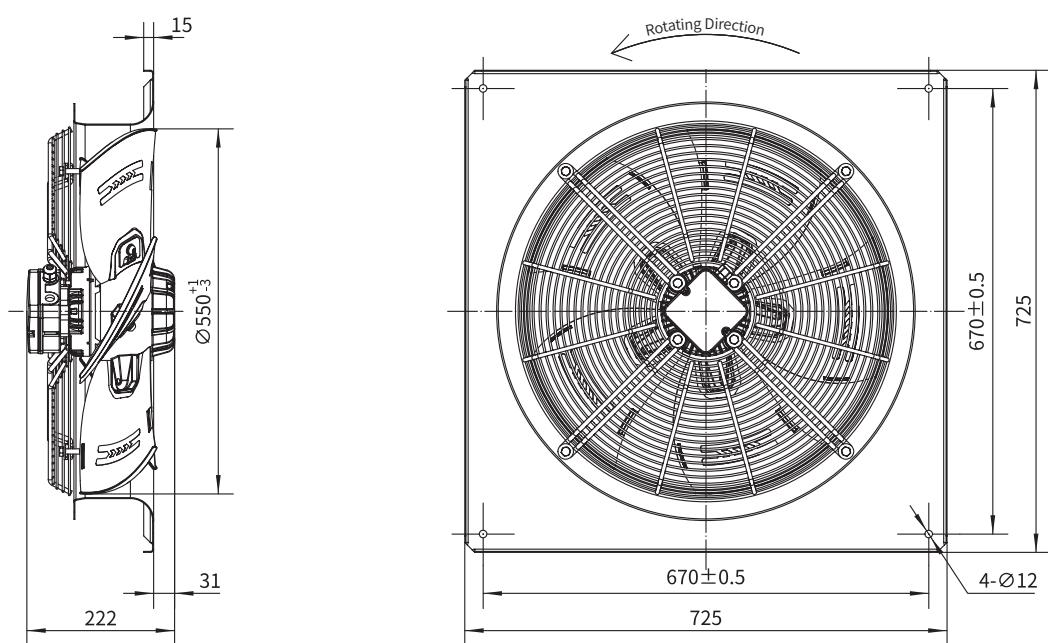
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Performance Curves



Type B	Type C	Type D	Type E	Type F0
YWF.A4T-560S-5B AP0	YWF.A4T-560S-5C AP0	YWF.A4T-560S-5D AP0	YWF.A4T-560S-5E AP0	YWF.A4T-560S-5F AP0
YWF.A6S-560S-5B AP0	YWF.A6S-560S-5C AP0	YWF.A6S-560S-5D AP0	YWF.A6S-560S-5E AP0	YWF.A6S-560S-5F AP0
YWF.A6T-560S-5B AP0	YWF.A6T-560S-5C AP0	YWF.A6T-560S-5D AP0	YWF.A6T-560S-5E AP0	YWF.A6T-560S-5F AP0

Type B

Type F1


	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
YWF.A4T-560S-5F AP1	380/400	50	1.8	950	1340	/	12000/7060	74	(3)	-30/+60	CCC, CE
YWF.A6S-560S-5F AP1	220/230	50	2.04	380	930	12	7950/4676	65	(1)	-30/+60	CCC, CE
	220/230	60	2.52	550	1060	12	9270/5453	69	(2)	-30/+60	CCC, CE
YWF.A6T-560S-5F AP1	380/400	50	1.36	380	940	/	7970/4688	65	(1)	-30/+60	CCC, CE
	380/400	60	1.26	530	1080	/	9330/5488	70	(2)	-30/+60	CCC, CE



Plastic Airfoil Blade Axial Fan

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Φ630

Rotor Material: Aluminum Die-casting

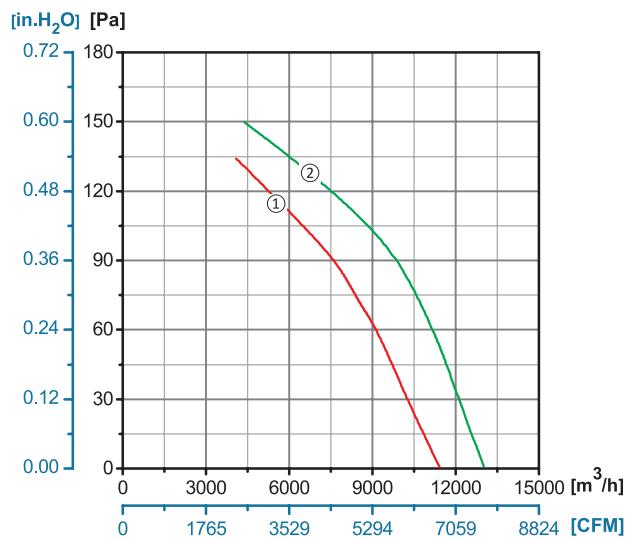
Impeller Material: Plastic

Ingress Protection: IP54

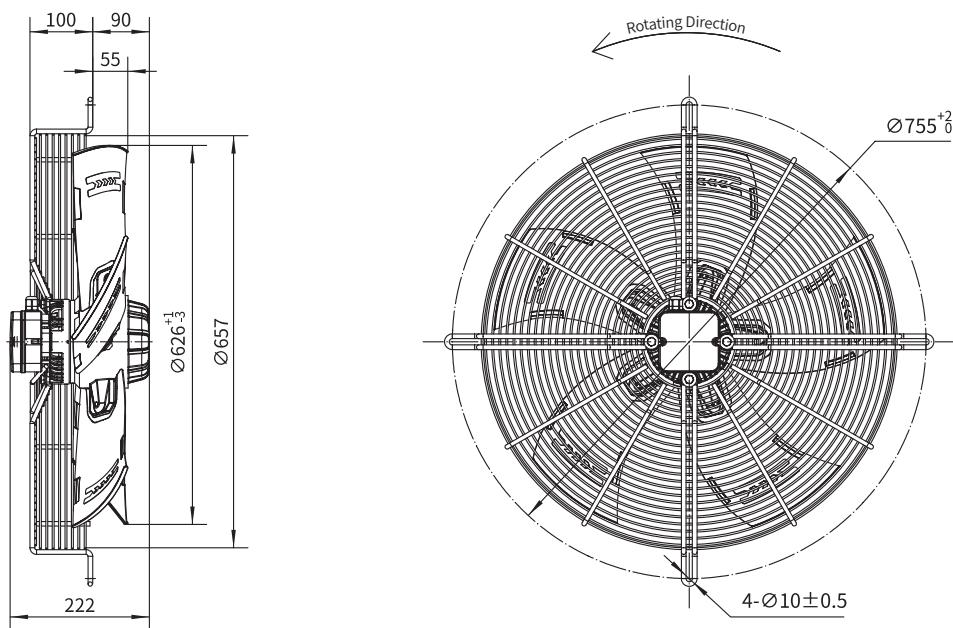
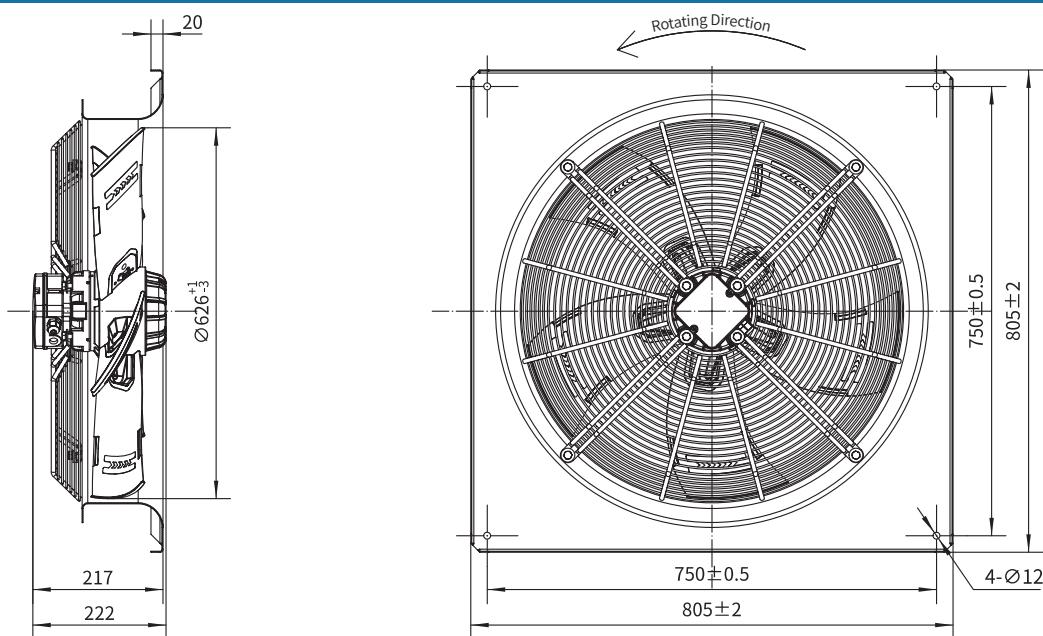
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Performance Curves



Type B	Type C	Type D	Type E	Type F0
YWF.A6S-630S-5B AP0	YWF.A6S-630S-5C AP0	YWF.A6S-630S-5D AP0	YWF.A6S-630S-5E AP0	YWF.A6S-630S-5F AP0
YWF.A6T-630S-5B AP0	YWF.A6T-630S-5C AP0	YWF.A6T-630S-5D AP0	YWF.A6T-630S-5E AP0	YWF.A6T-630S-5F AP0

Type D

Type F1


	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
Type F1	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
YWF.A6S-630S-5F AP1	220/230	50	2.0	420	930	12	11000/6470	67	①	-30/+60	CCC, CE
	220/230	60	2.6	600	1070	12	12600/7410	71	②	-30/+60	CCC, CE
YWF.A6T-630S-5F AP1	380/400	50	1.43	480	910	/	11300/6650	69	①	-30/+60	CCC, CE
	380/400	60	1.43	670	1030	/	12700/7470	73	②	-30/+60	CCC, CE



Plastic Airfoil Blade Axial Fan

ErP2015
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Φ710

Rotor Material: Aluminum Die-casting

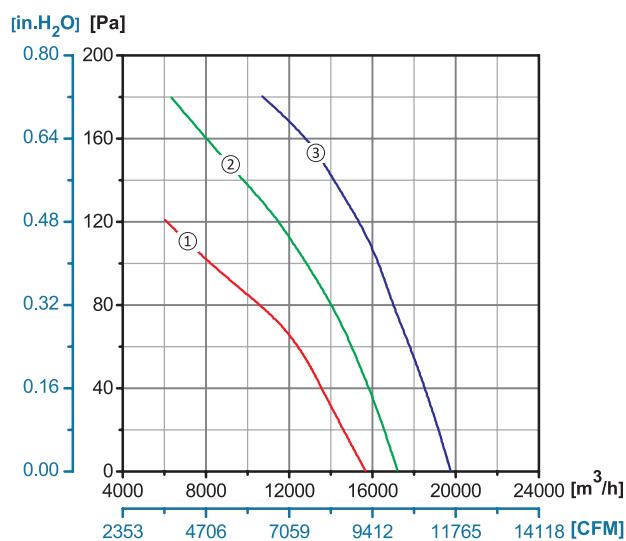
Impeller Material: Plastic

Ingress Protection: IP54

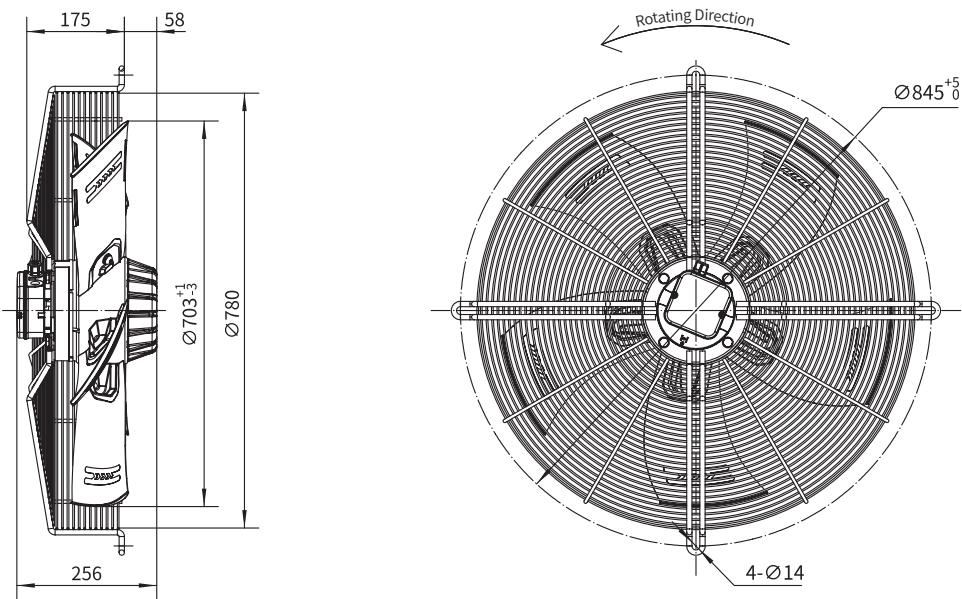
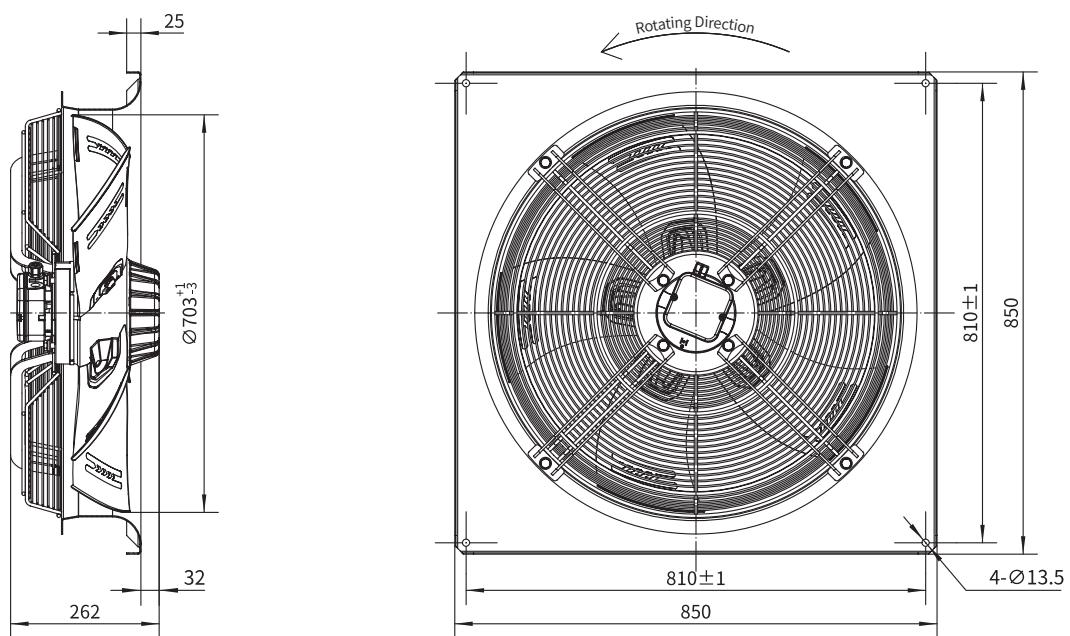
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Performance Curves



Type B	Type C	Type D	Type E	Type F0

Type D

Type F1


	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa) [m^3/h]/[CFM]	Noise [dB(A)]	Curve No.	Working Temp. Min/Max($^{\circ}\text{C}$)	Approvals
	V	Hz	A	W	RPM	μF	[m^3/h]/[CFM]	dB(A)	No.	Min/Max($^{\circ}\text{C}$)	
Type F1	V	Hz	A	W	RPM	μF	[m^3/h]/[CFM]	dB(A)	No.	Min/Max($^{\circ}\text{C}$)	
YWF.A6T-710S-5F I SP0	380/400	50	2.00	850	950	/	16500/9710	75	(2)	-30/+60	CCC, CE
	380/400	60	1.20	680	860	/	15000/8820	73	(1)	-30/+60	CCC, CE
	380/400	60	2.30	1280	1100	/	19200/11290	77	(3)	-30/+60	CCC, CE



Plastic Airfoil Blade Axial Fan

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Φ800

Rotor Material: Aluminum Die-casting

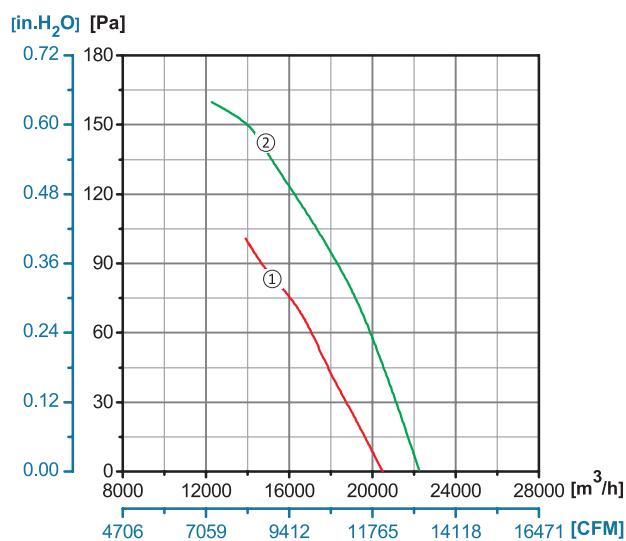
Impeller Material: Plastic

Ingress Protection: IP54

Insulation Class: F

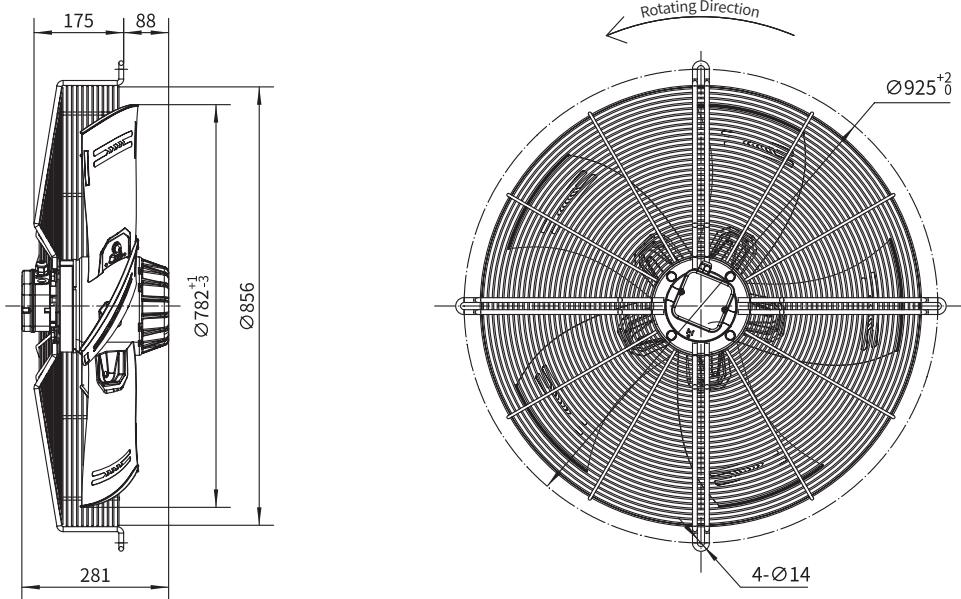
Bearing Type: Maintenance Free Ball Bearing

Performance Curves

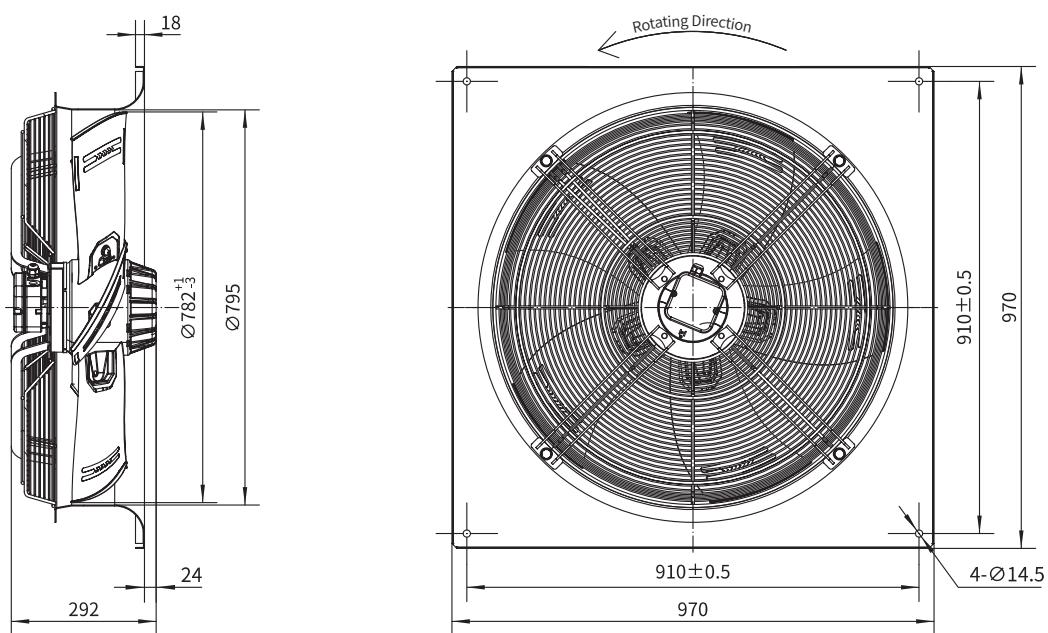


Type B	Type C	Type D	Type E	Type F0
/	/	YWF.A6T-800S-5D SP0	/	/

Type D



Type F1

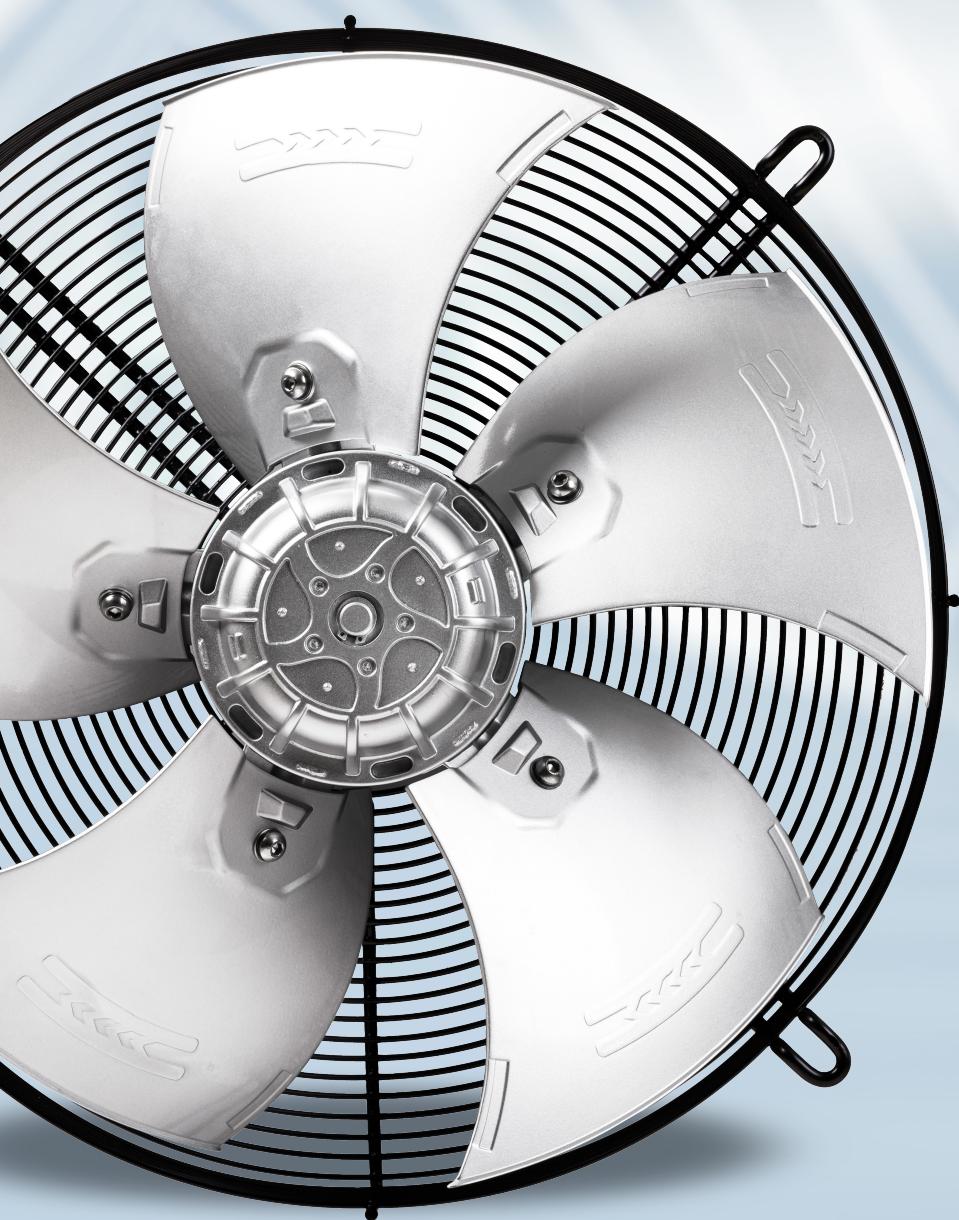


	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa) [m^3/h]/[CFM]	Noise [dB(A)]	Curve No.	Working Temp. Min/Max(°C)	Approvals
Type F1	V	Hz	A	W	RPM	µF	[m^3/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
YWF.A6T-800S-5F SP0	380/400	50	3.35	1400	940	/	22240/13080	74	(2)	-30/+60	CCC, CE
	380/400	50	1.90	1150	830	/	20500/12060	70	(1)	-30/+60	CCC, CE



Aluminum Die-casting Airfoil Blade Axial Fan







Φ500

Rotor Material: Aluminum Die-casting

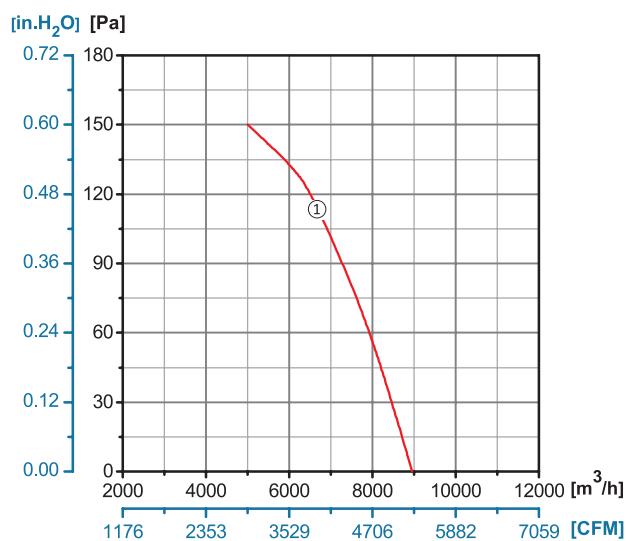
Impeller Material: Aluminum Die-casting

Ingress Protection: IP54

Insulation Class: F

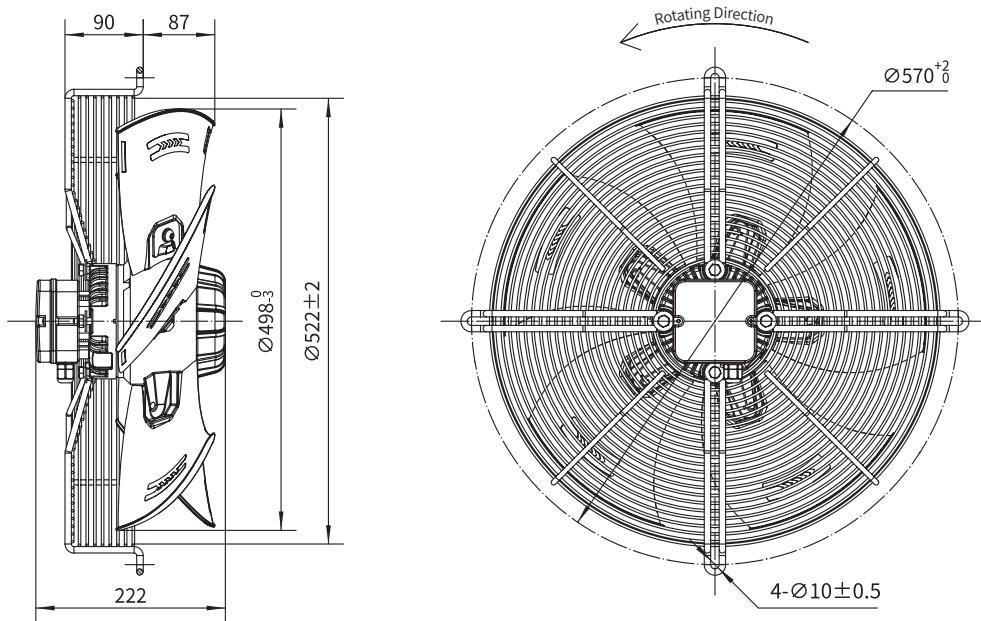
Bearing Type: Maintenance Free Ball Bearing

Performance Curves

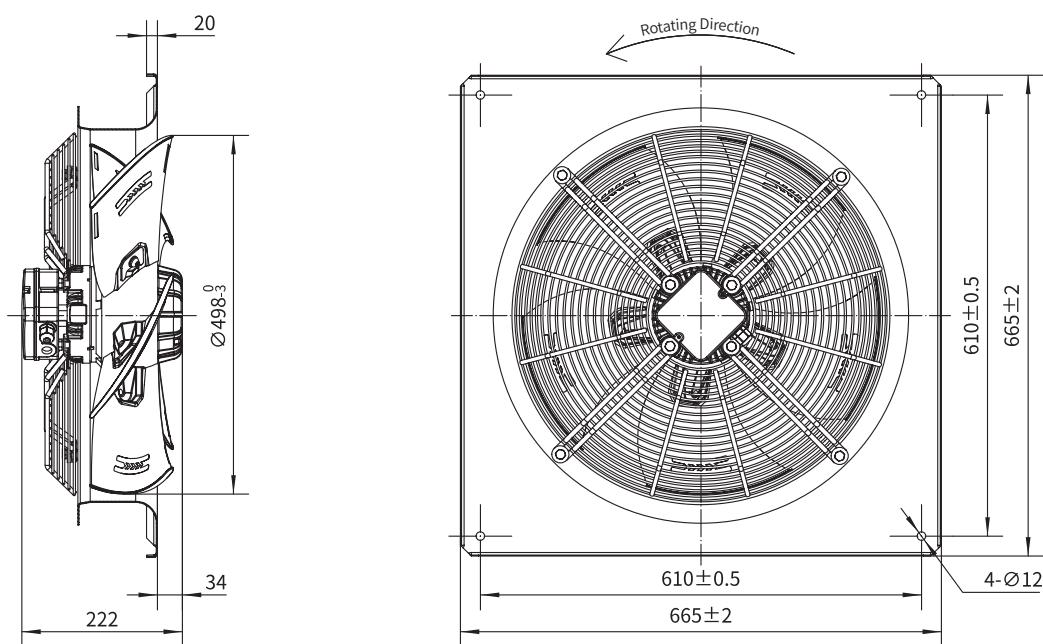


Type B	Type C	Type D	Type E	Type F0
/	/	YWF.A4T-500S-5D AZ0	/	/

Type D



Type F1



	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals	
Type F1	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	CCC, CE	
YWF.A4T-500S-5F AZ0	380/400	50	1.43	650	1400	/	8950/5265	72	①	-30/+60		



Aluminum Die-casting Airfoil Blade Axial Fan

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Φ630

Rotor Material: Aluminum Die-casting

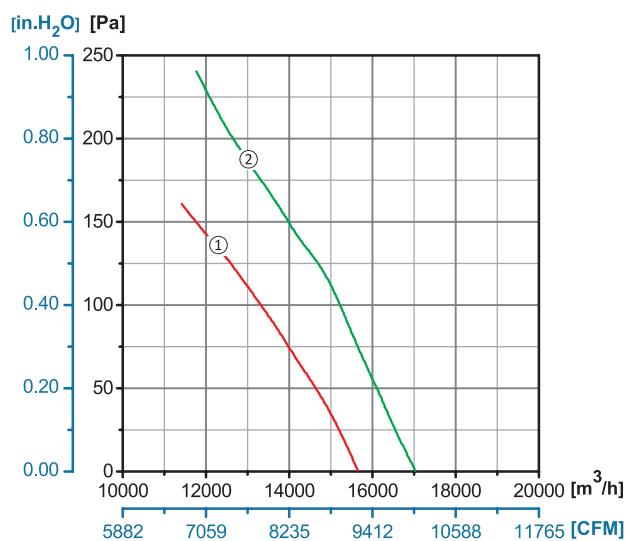
Impeller Material: Aluminum Die-casting

Ingress Protection: IP54

Insulation Class: F

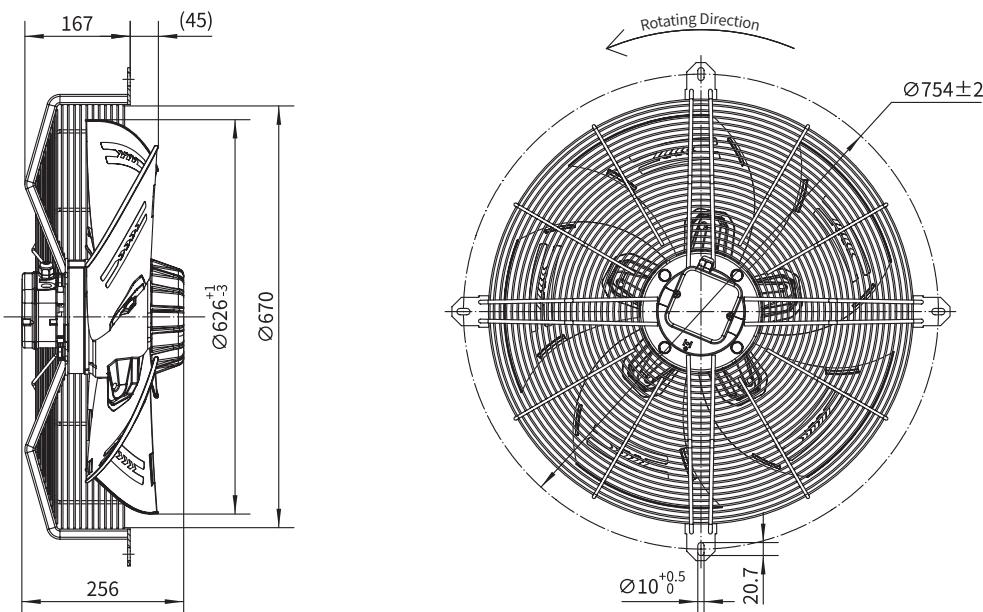
Bearing Type: Maintenance Free Ball Bearing

Performance Curves

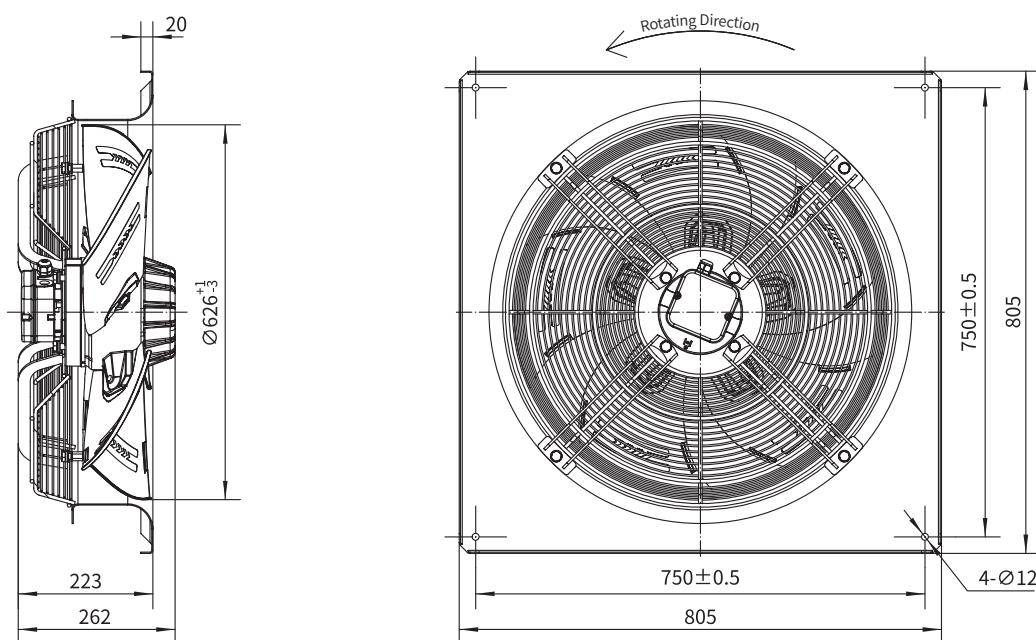


Type B	Type C	Type D	Type E	Type F0

Type D



Type F1



	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa) [m³/h]/[CFM]	Noise dB(A)	Curve No.	Working Temp. Min/Max(°C)	Approvals
Type F1	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
YWF.A4T-630S-5F AZ0	380/400	50	3.00	1400	1450	/	17200/10120	79	(2)	-30/+60	CCC, CE
	380/400	50	1.80	1200	1350	/	16000/9410	77	(1)	-30/+60	CCC, CE



Aluminum Die-casting Airfoil Blade Axial Fan

ErP2015
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Φ710

Rotor Material: Aluminum Die-casting

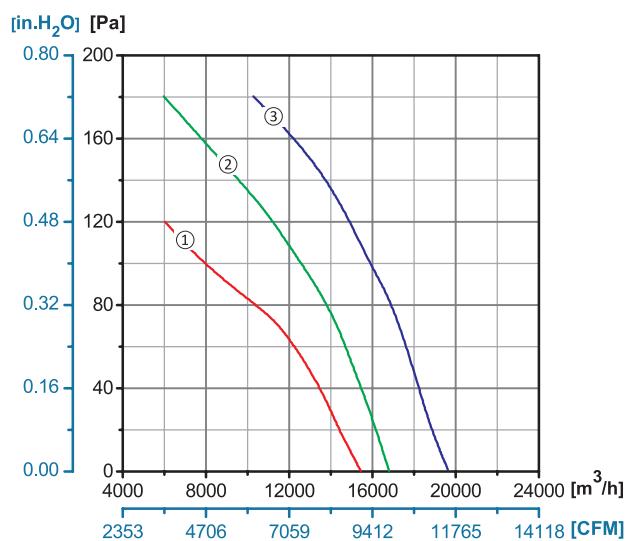
Impeller Material: Aluminum Die-casting

Ingress Protection: IP54

Insulation Class: F

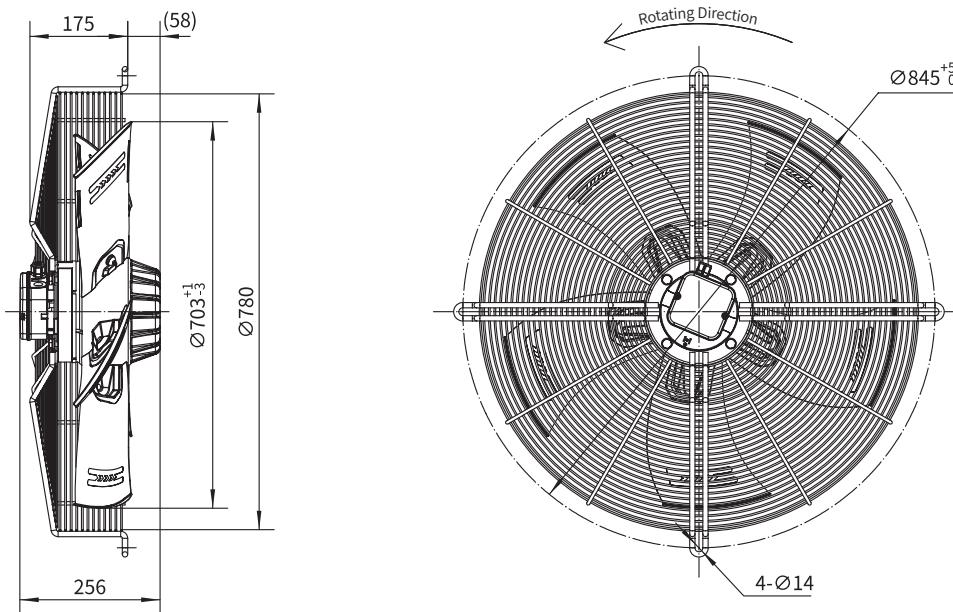
Bearing Type: Maintenance Free Ball Bearing

Performance Curves

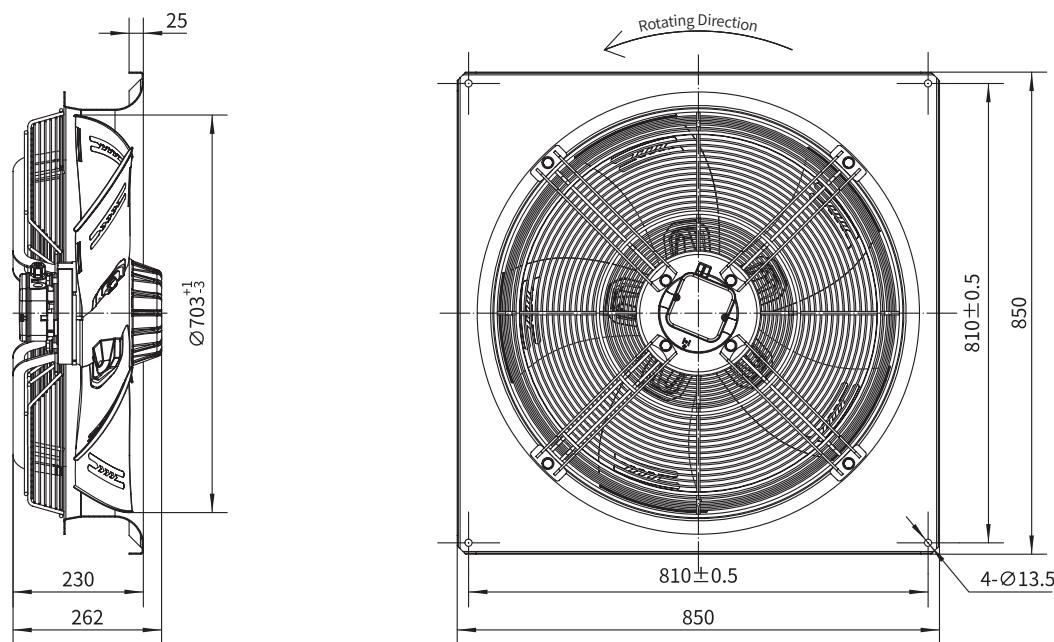


Type B	Type C	Type D	Type E	Type F0
/	/	YWF.A6T-710S-5D SZ0	/	/

Type D



Type F1



	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μ F	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
Type F1	V	Hz	A	W	RPM	μ F	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	Approvals
YWF.A6T-710S-5F I SZ0	380/400	50	2.00	850	950	/	16500/9710	75	(2)	-30/+60	CCC, CE
	380/400	50	1.20	680	860	/	15000/8820	73	(1)	-30/+60	CCC, CE
	380/400	60	2.30	1280	1100	/	19200/11290	77	(3)	-30/+60	CCC, CE



Aluminum Die-casting Airfoil Blade Axial Fan

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Φ800

Rotor Material: Aluminum Die-casting

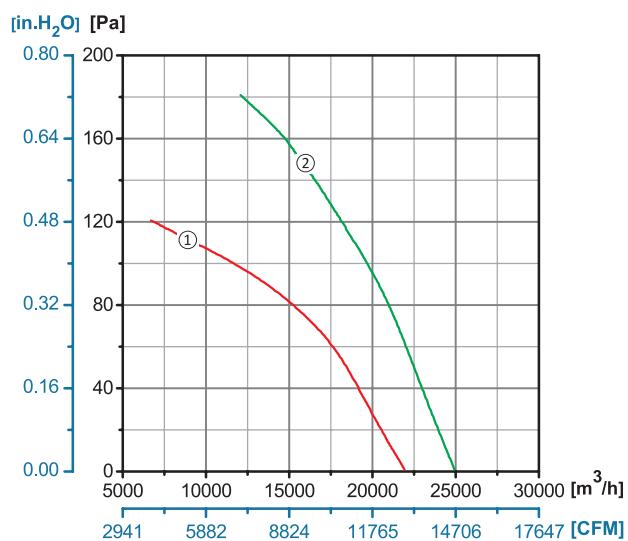
Impeller Material: Aluminum Die-casting

Ingress Protection: IP54

Insulation Class: F

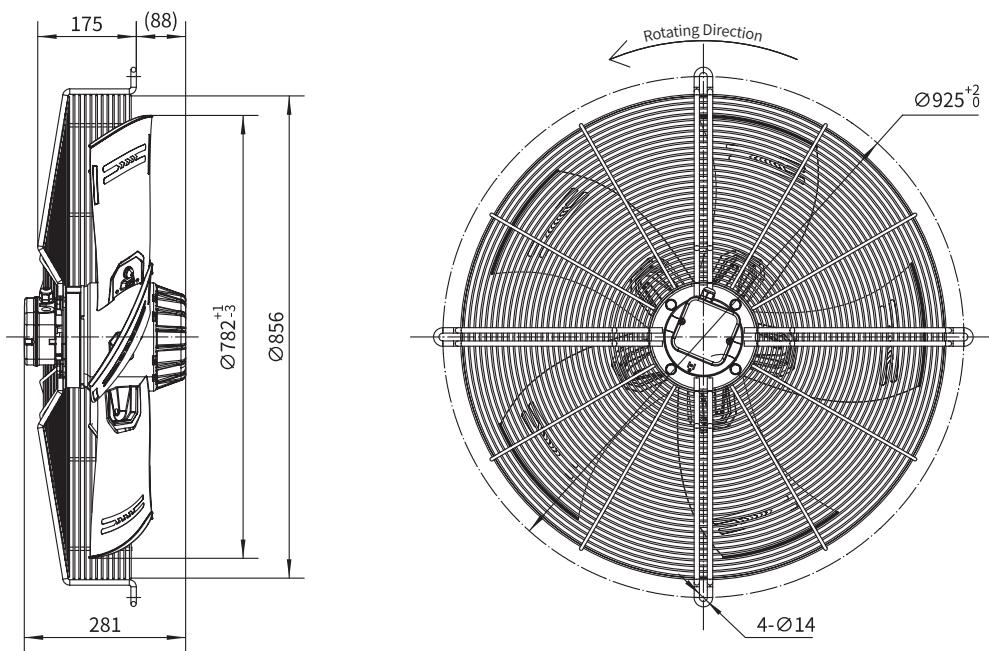
Bearing Type: Maintenance Free Ball Bearing

Performance Curves

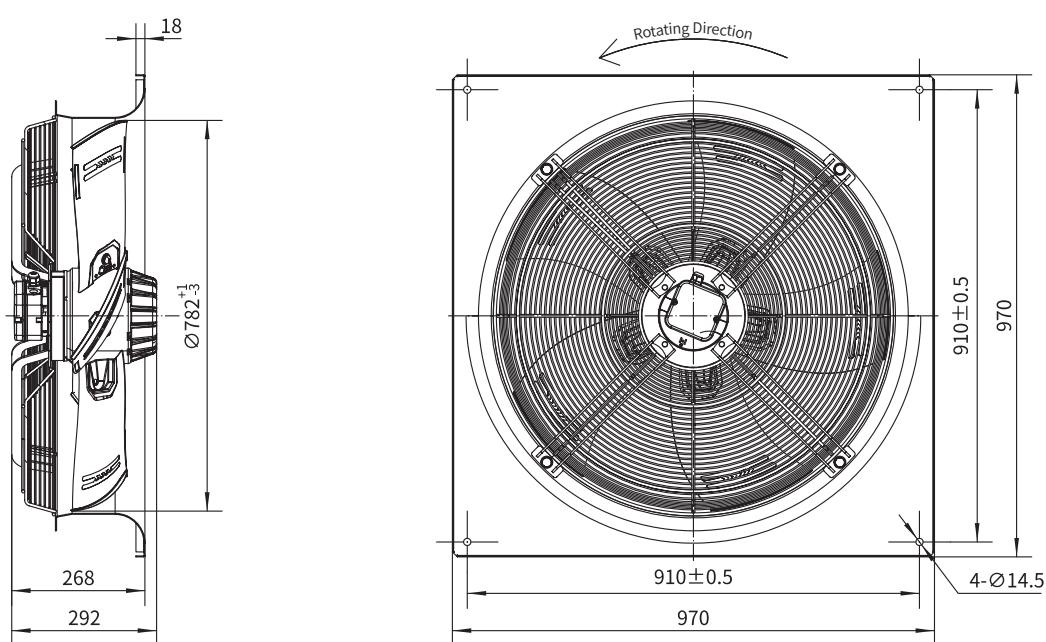


Type B	Type C	Type D	Type E	Type F0
/	/	YWF.A6T-800S-5D SZ0	/	/

Type D



Type F1



	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
Type F1	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
YWF.A6T-800S-5F SZ0	380/400	50	3.50	1700	920	/	24920/14660	77	(2)	-30/+60	CCC, CE
	380/400	50	2.20	1250	770	/	21910/12890	73	(1)	-30/+60	CCC, CE



Conventional Carbon Steel Blade Axial Fan







Conventional Carbon Steel Blade Axial Fan

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Φ200

Rotor Material: Aluminum Die-casting

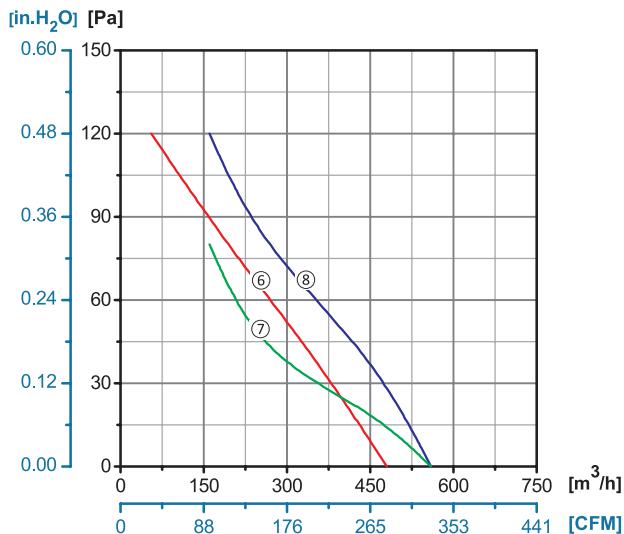
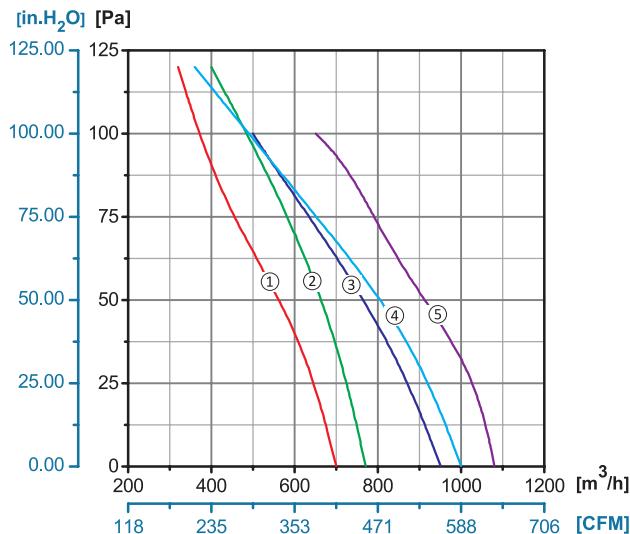
Impeller Material: Carbon Steel

Ingress Protection: IP44

Insulation Class: F

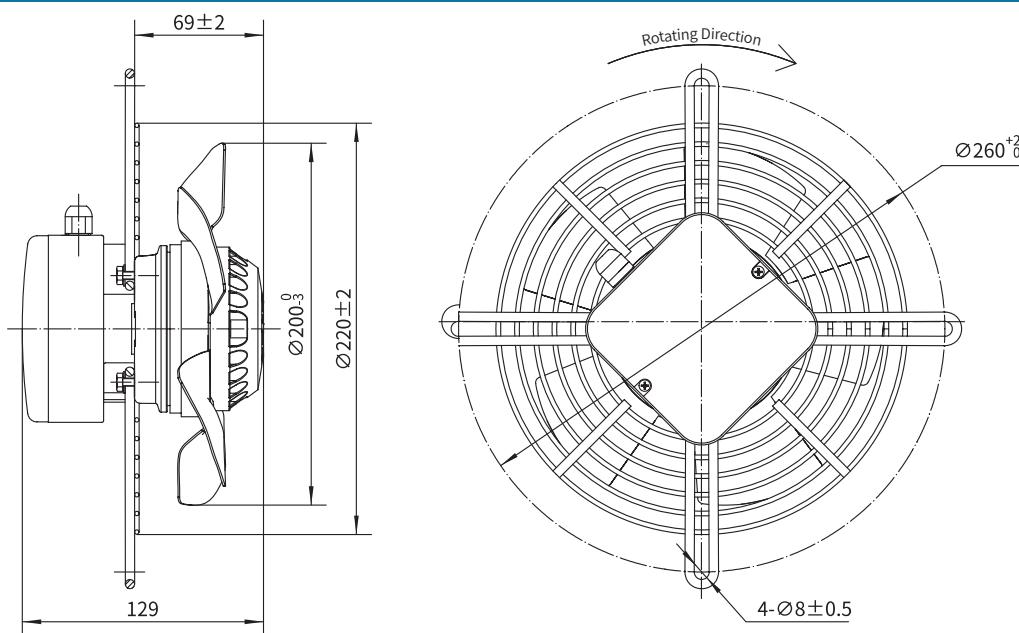
Bearing Type: Maintenance Free Ball Bearing

Performance Curves

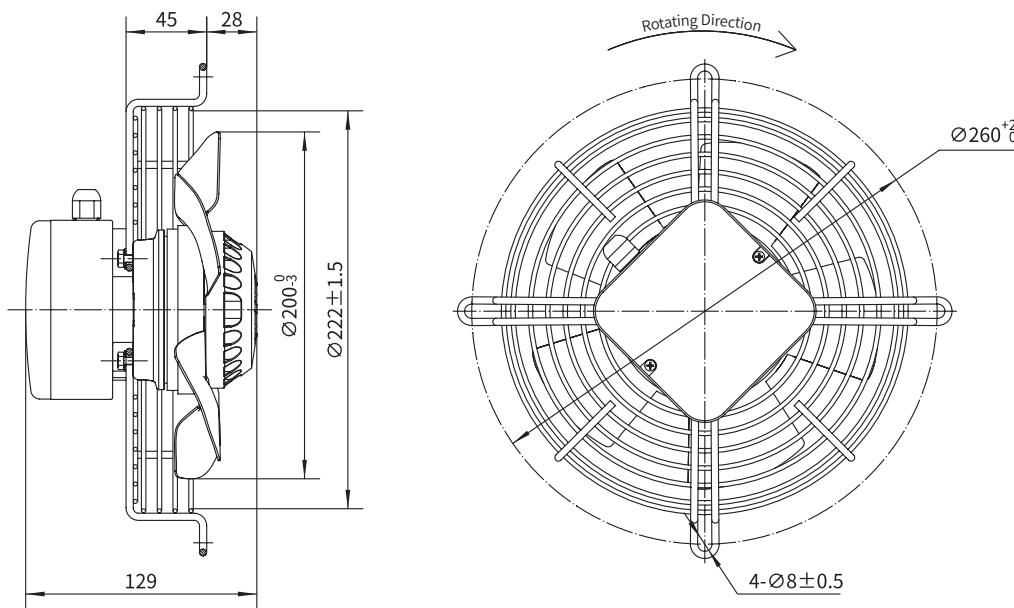


Type B	Type C	Type D	Type E	Type F0
YWF.A2S-200S-5B A00	YWF.A2S-200S-5C A00	YWF.A2S-200S-5D A00	YWF.A2S-200S-5E A00	YWF.A2S-200S-5F A00
YWF.A4S-200S-5B A00	YWF.A4S-200S-5C A00	YWF.A4S-200S-5D A00	YWF.A4S-200S-5E A00	YWF.A4S-200S-5F A00
YWF.A2S-200S-5B A05	YWF.A2S-200S-5C A05	YWF.A2S-200S-5D A05	YWF.A2S-200S-5E A05	YWF.A2S-200S-5F A05
YWF.A4S-200S-5B A05	YWF.A4S-200S-5C A05	YWF.A4S-200S-5D A05	YWF.A4S-200S-5E A05	YWF.A4S-200S-5F A05
YWF.A2S-200S-7B A00	YWF.A2S-200S-7C A00	YWF.A2S-200S-7D A10	YWF.A2S-200S-7E A00	YWF.A2S-200S-7F A00

Type B



Type C



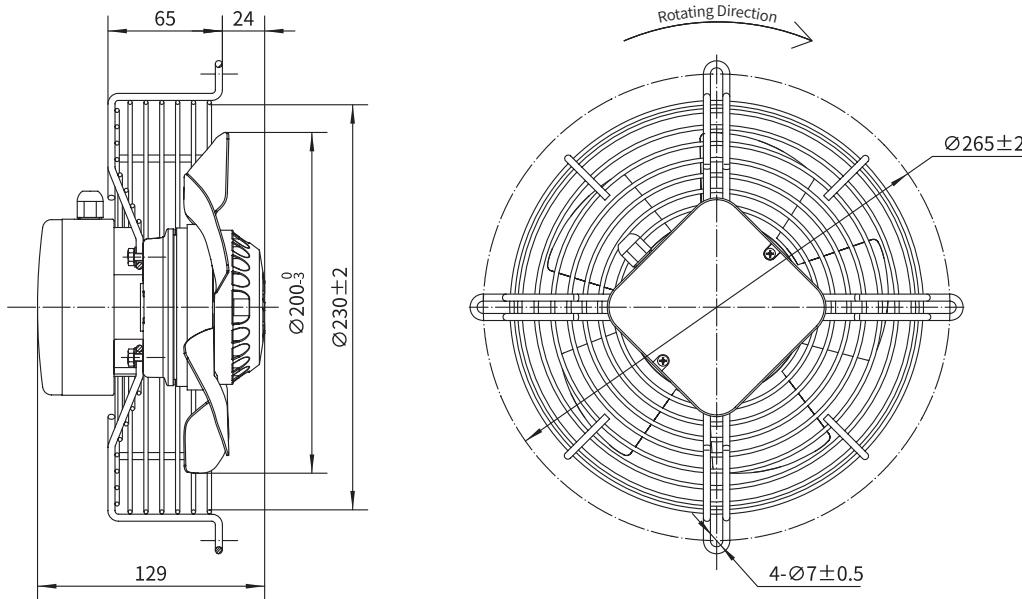
	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
/	220/230	50	0.20	45	2650	2	700/411	54	①	-30/+60	CCC, CE
	220/230	60	0.26	56	2950	2	770/452	56	②	-30/+60	CCC, CE
/	220/230	50	0.12	27	1500	1	480/282	41	⑥	-30/+60	CCC, CE
	220/230	60	0.13	30	1680	1	560/329	45	⑧	-30/+60	CCC, CE
/	110/120	60	0.45	55	2800	6	770/452	56	②	-30/+60	UL
/	110/120	60	0.18	20	1600	2	560/329	45	⑦	-30/+60	UL
/	220/230	50	0.30	72	2700	2	950/559	60	③	-30/+60	CCC, CE
	220/230	60	0.35	80	3050	2	1080/635	64	⑤	-30/+60	CCC, CE



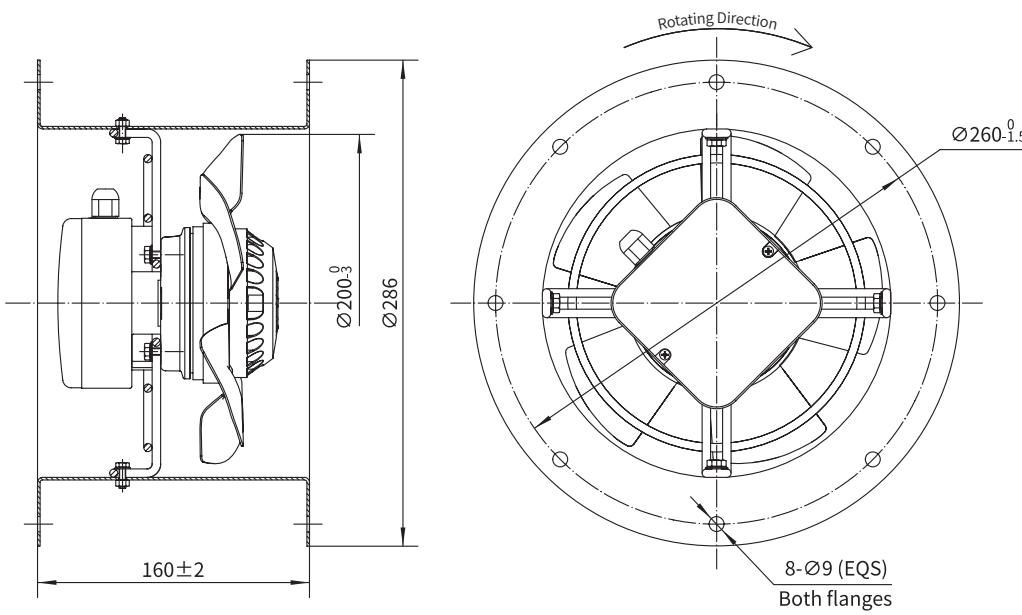
Conventional Carbon Steel Blade Axial Fan

Φ200

Type D



Type E

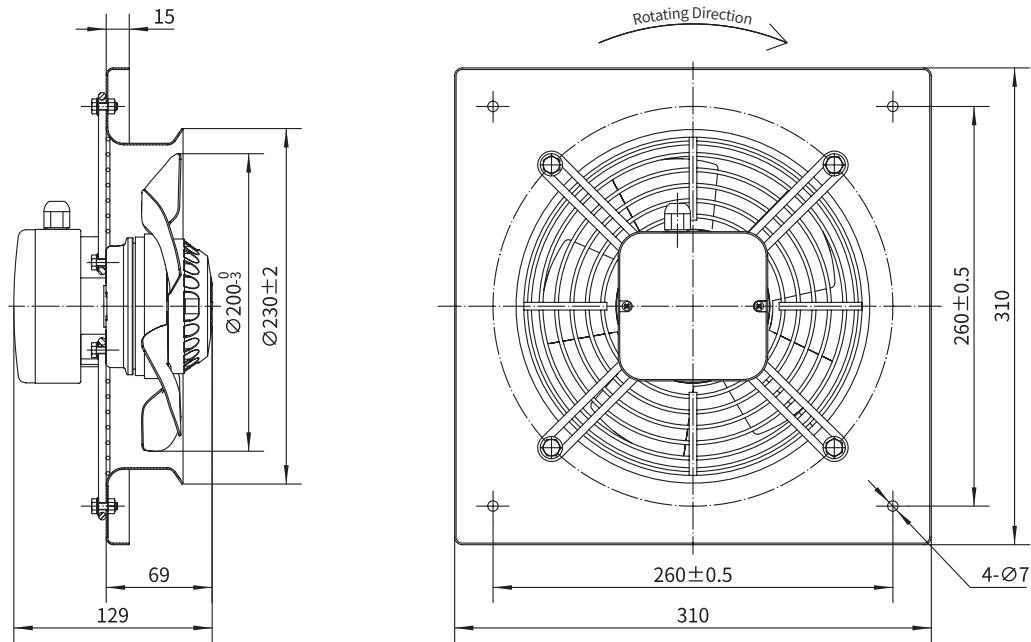




Conventional Carbon Steel Blade Axial Fan

Φ200

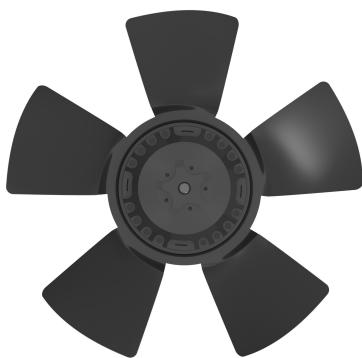
Type F0





Conventional Carbon Steel Blade Axial Fan

ErP2015
EXCEEDS THE NORM



Φ250

Rotor Material: Aluminum Die-casting

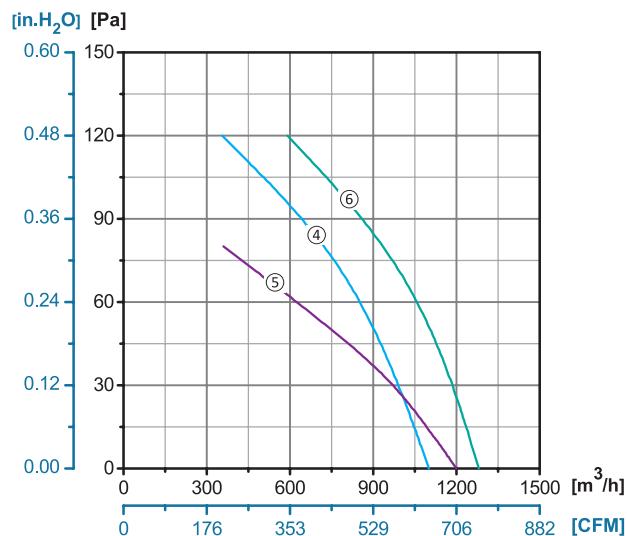
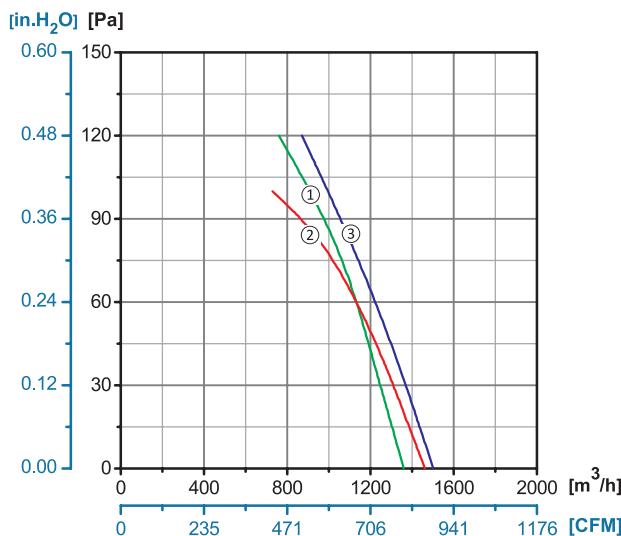
Impeller Material: Carbon Steel

Ingress Protection: IP44

Insulation Class: F

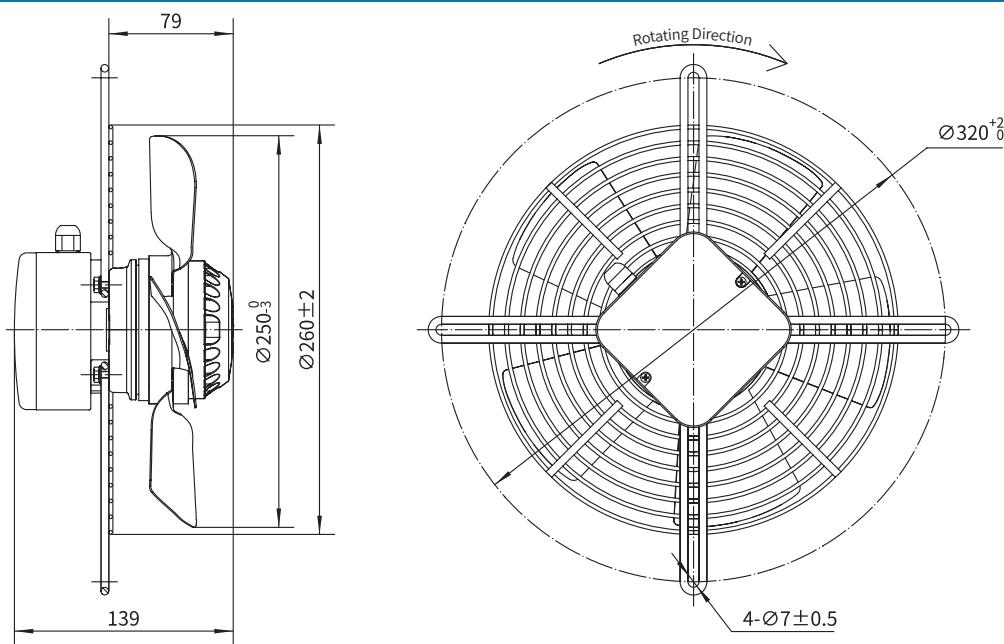
Bearing Type: Maintenance Free Ball Bearing

Performance Curves

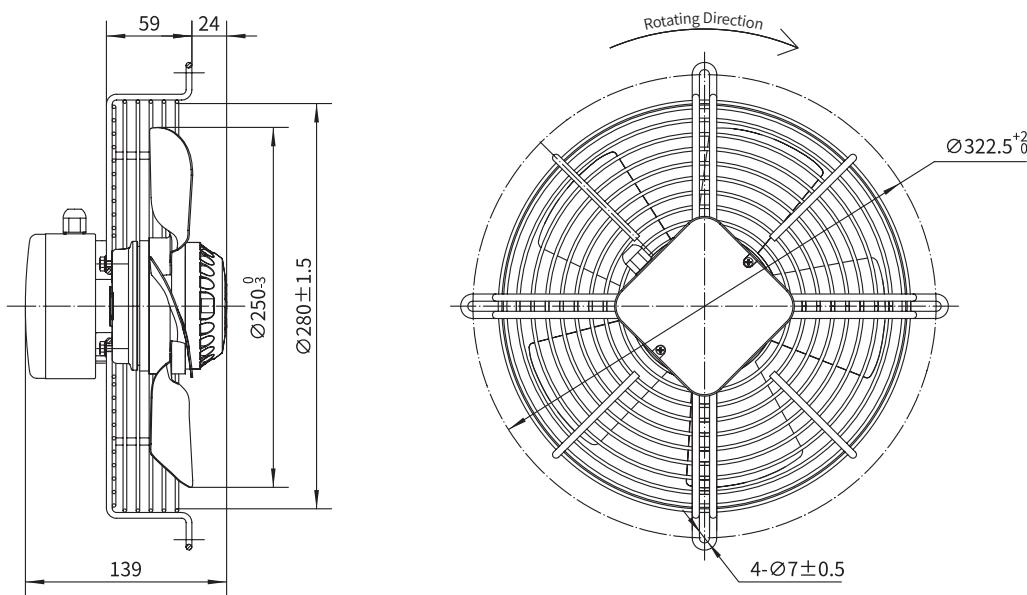


Type B	Type C	Type D	Type E	Type F0
YWF.A2S-250S-5B A00	YWF.A2S-250S-5C A00	YWF.A2S-250S-5D A00	YWF.A2S-250S-5E A00	YWF.A2S-250S-5F A00
YWF.A4S-250S-5B A00	YWF.A4S-250S-5C A00	YWF.A4S-250S-5D A00	YWF.A4S-250S-5E A00	YWF.A4S-250S-5F A00
YWF.A4T-250S-5B A00	YWF.A4T-250S-5C A00	YWF.A4T-250S-5D A00	YWF.A4T-250S-5E A00	YWF.A4T-250S-5F A00
YWF.A2S-250S-5B A05	YWF.A2S-250S-5C A05	YWF.A2S-250S-5D A05	YWF.A2S-250S-5E A05	YWF.A2S-250S-5F A05
YWF.A4S-250S-5B A05	YWF.A4S-250S-5C A05	YWF.A4S-250S-5D A05	YWF.A4S-250S-5E A05	YWF.A4S-250S-5F A05

Type B



Type C



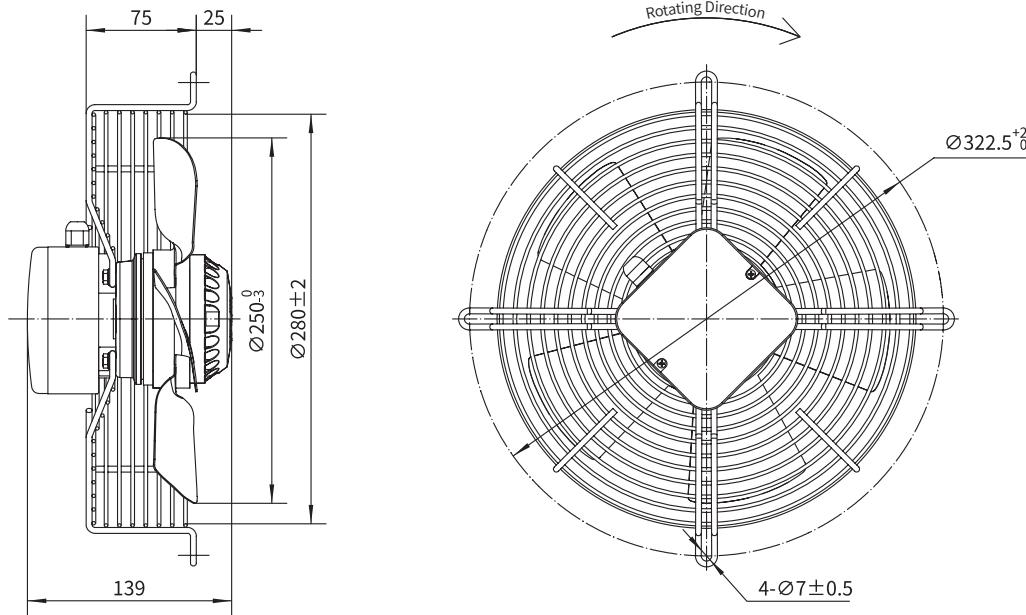
	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
/	220/230	50	0.43	95	2600	3	1360/800	60	(1)	-30/+60	CCC, CE
	220/230	60	0.59	130	2750	3	1500/882	62	(3)	-30/+60	CCC, CE, UL
/	220/230	50	0.25	55	1400	2	1100/647	49	(4)	-30/+60	CCC, CE
	220/230	60	0.29	65	1620	2	1280/752	53	(6)	-30/+60	CCC, CE, UL
/	380/400	50	0.16	60	1400	/	1100/647	49	(4)	-30/+60	CCC, CE
	380/400	60	0.15	60	1600	/	1280/752	53	(6)	-30/+60	CCC, CE, UL
/	110/120	60	1.00	120	2650	10	1500/882	62	(2)	-30/+60	UL
/	110/120	60	0.48	55	1600	5	1200/705	54	(5)	-30/+60	UL



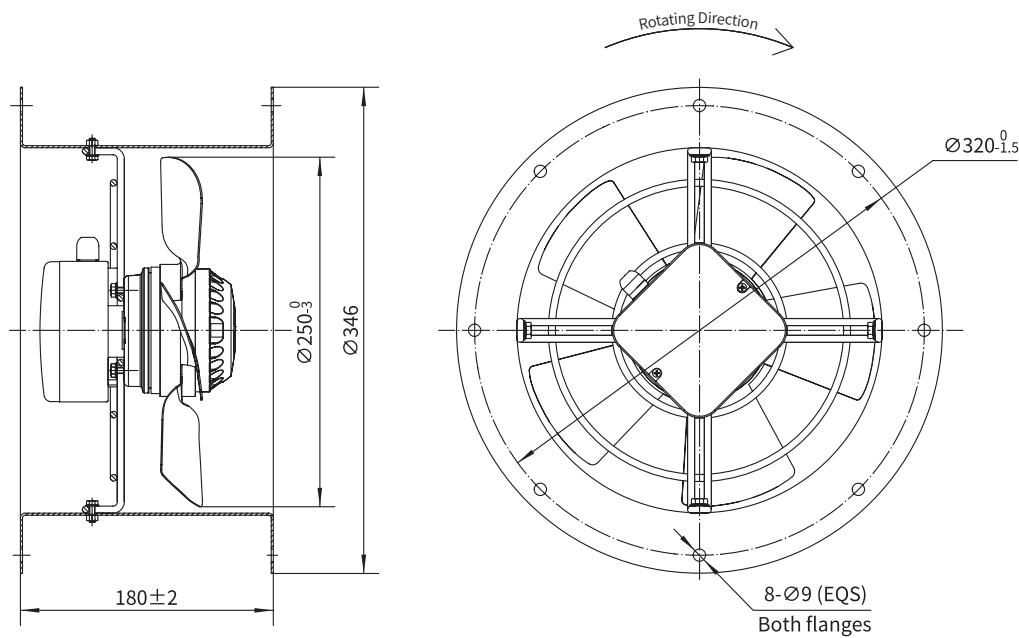
Conventional Carbon Steel Blade Axial Fan

Φ250

Type D



Type E

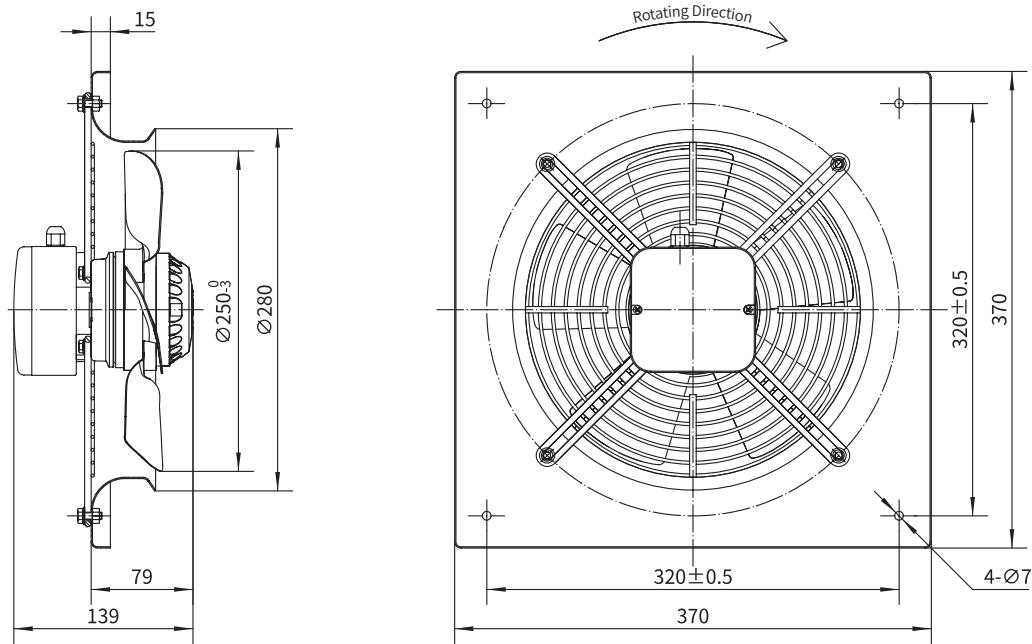




Conventional Carbon Steel Blade Axial Fan

Φ250

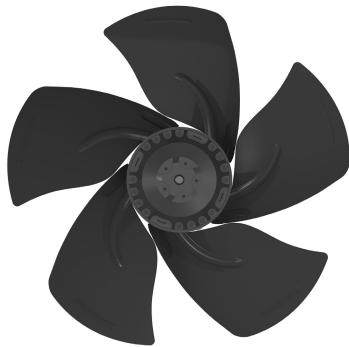
Type F0





Conventional Carbon Steel Blade Axial Fan

ErP2015
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Φ300

Rotor Material: Aluminum Die-casting

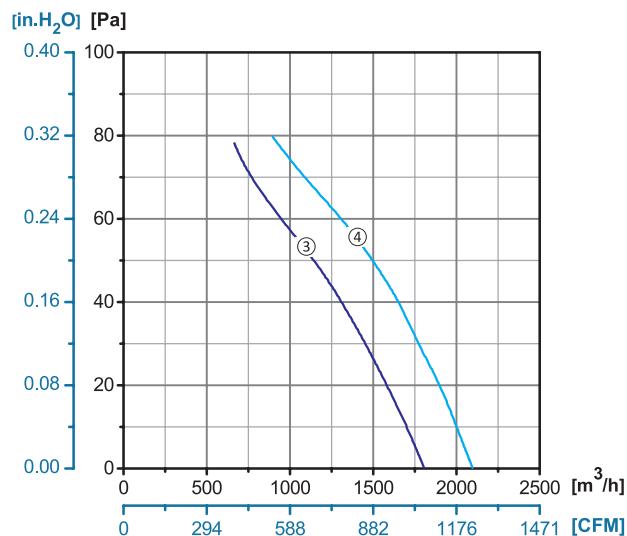
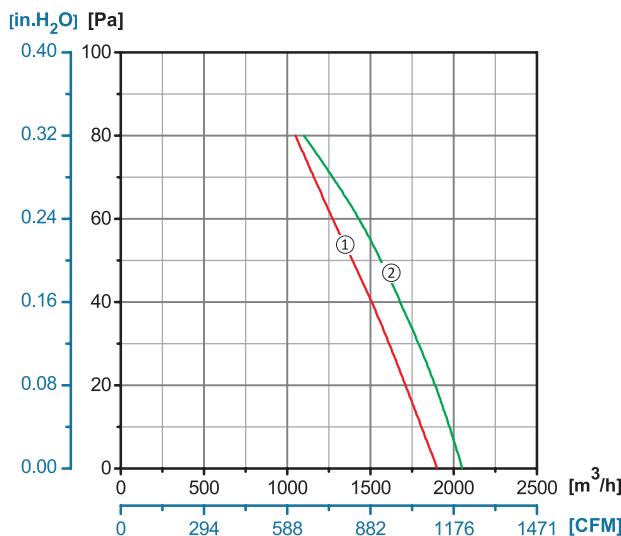
Impeller Material: Carbon Steel

Ingress Protection: IP44

Insulation Class: F

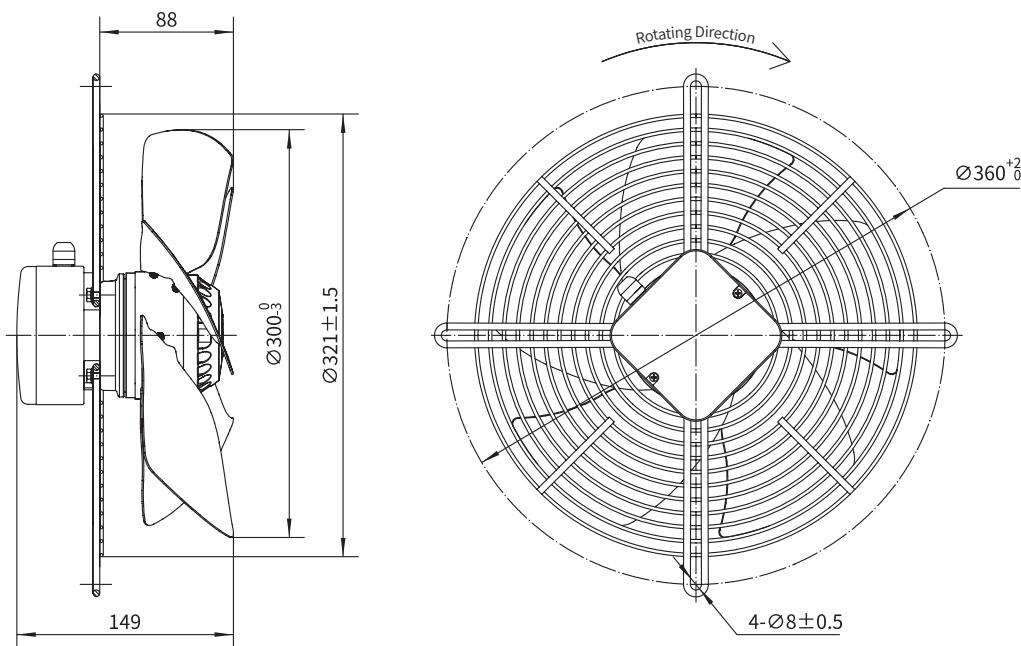
Bearing Type: Maintenance Free Ball Bearing

Performance Curves

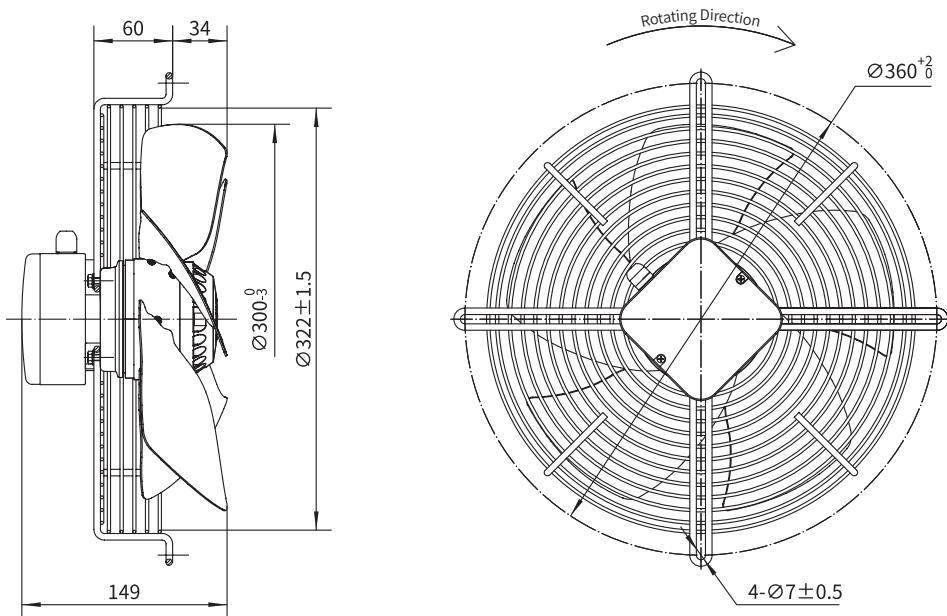


Type B	Type C	Type D	Type E	Type F0
YWF.A2S-300S-5B A00	YWF.A2S-300S-5C A00	YWF.A2S-300S-5D A00	YWF.A2S-300S-5E A00	YWF.A2S-300S-5F A00
YWF.A4S-300S-5B A00	YWF.A4S-300S-5C A00	YWF.A4S-300S-5D A00	YWF.A4S-300S-5E A00	YWF.A4S-300S-5F A00
YWF.A4T-300S-5B A00	YWF.A4T-300S-5C A00	YWF.A4T-300S-5D A00	YWF.A4T-300S-5E A00	YWF.A4T-300S-5F A00
YWF.A2S-300S-5B A05	YWF.A2S-300S-5C A05	YWF.A2S-300S-5D A05	YWF.A2S-300S-5E A05	YWF.A2S-300S-5F A05
YWF.A4S-300S-5B A05	YWF.A4S-300S-5C A05	YWF.A4S-300S-5D A05	YWF.A4S-300S-5E A05	YWF.A4S-300S-5F A05

Type B



Type C



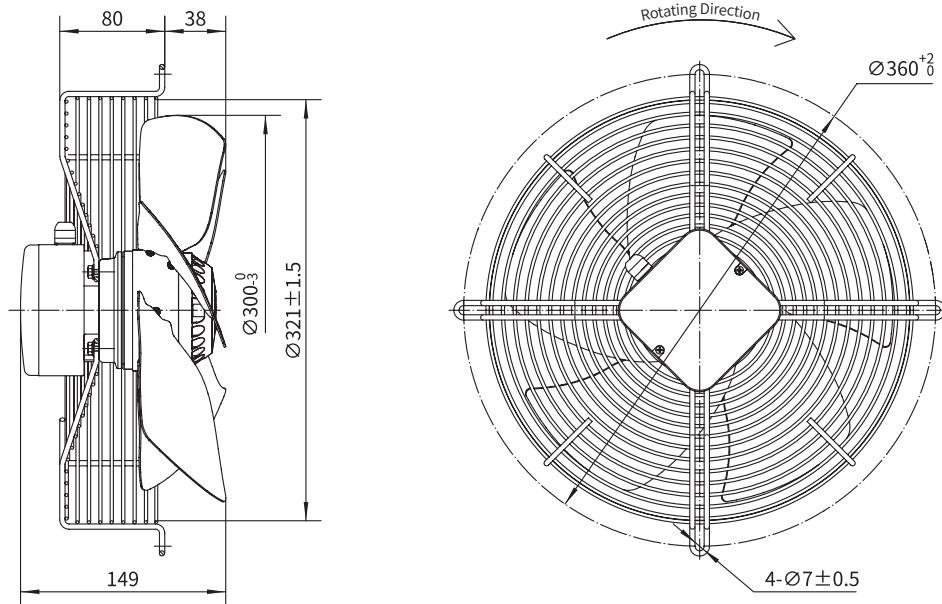
	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
/	220/230	50	0.50	110	2500	4	1900/1117	61	(1)	-30/+60	CCC, CE
	220/230	60	0.70	156	2600	4	2050/1205	62	(2)	-30/+60	CCC, CE
/	220/230	50	0.42	90	1350	3	1800/1058	52	(3)	-30/+60	CCC, CE
	220/230	60	0.48	110	1600	3	2100/1235	55	(4)	-30/+60	CCC, CE
/	380/400	50	0.25	90	1400	/	1850/1088	53	(3)	-30/+60	CCC, CE
	380/400	60	0.23	110	1620	/	2100/1235	56	(4)	-30/+60	CCC, CE
/	110/120	60	1.35	155	2700	14	2100/1235	68	(2)	-30/+60	UL
/	110/120	60	0.78	90	1600	10	2100/1235	55	(4)	-30/+60	UL



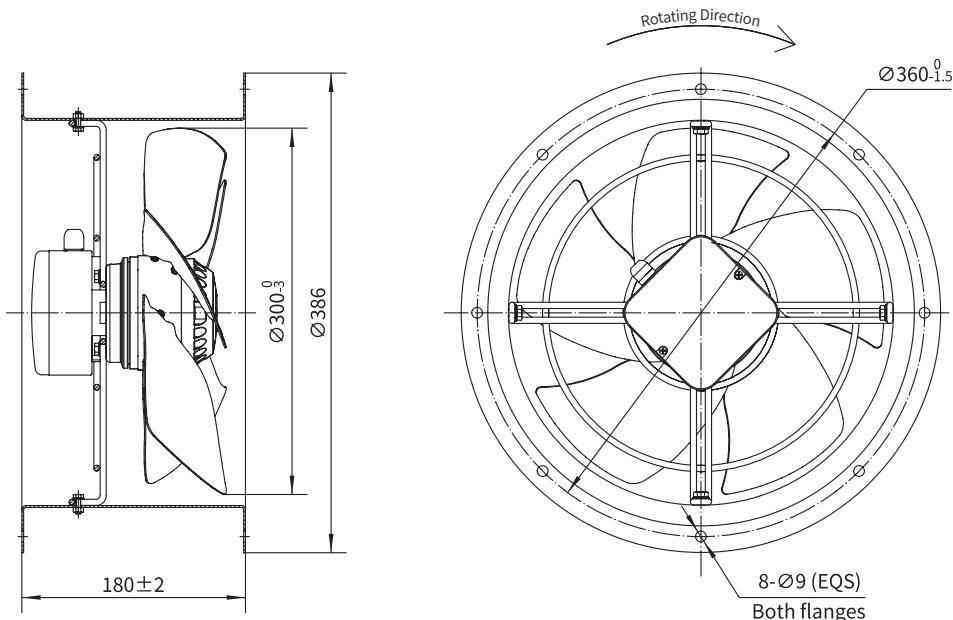
Conventional Carbon Steel Blade Axial Fan

Φ300

Type D



Type E

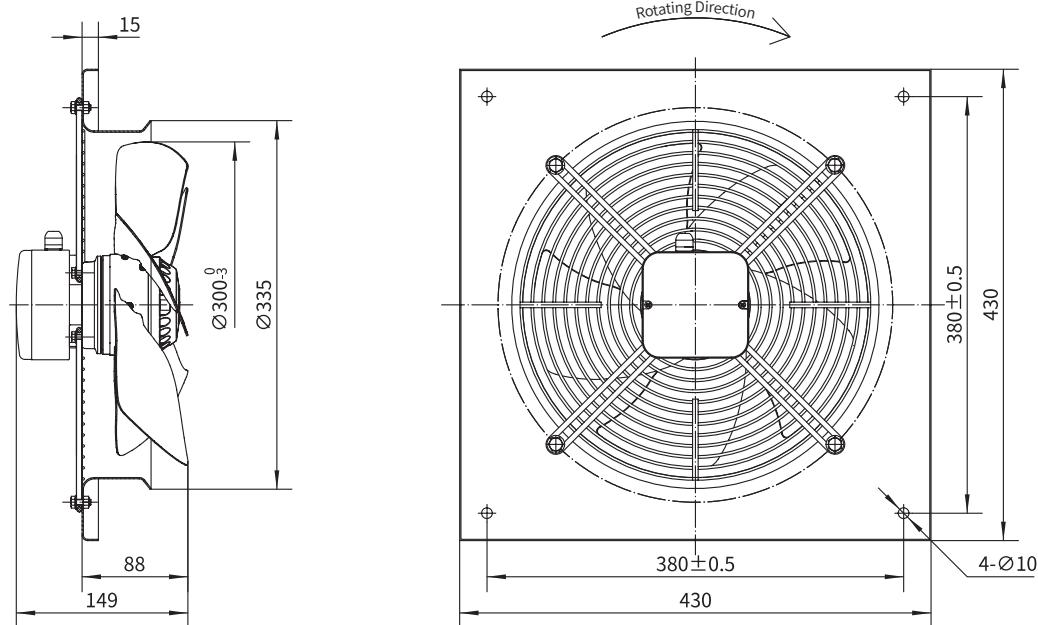




Conventional Carbon Steel Blade Axial Fan

Φ300

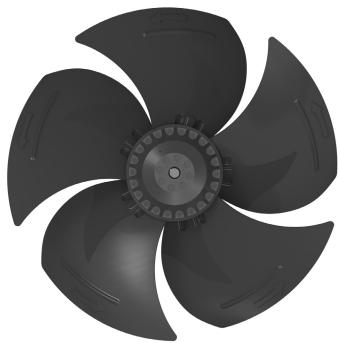
Type F0





Conventional Carbon Steel Blade Axial Fan

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Φ350

Rotor Material: Aluminum Die-casting

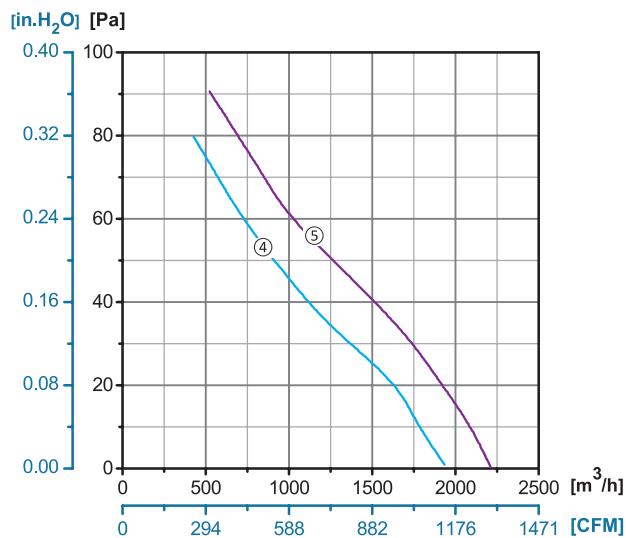
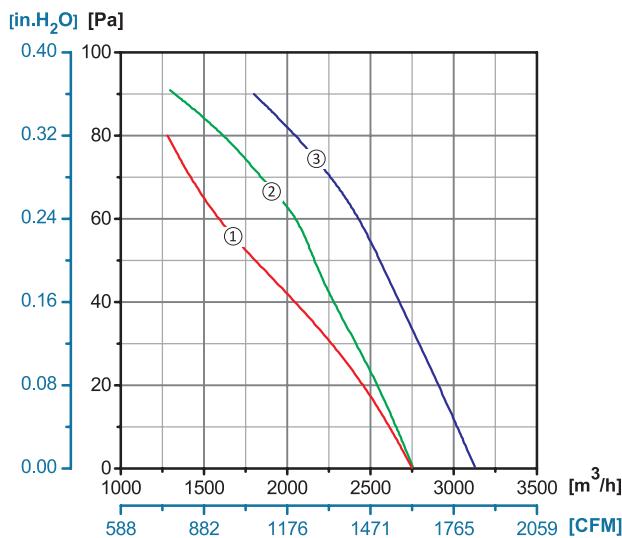
Impeller Material: Carbon Steel

Ingress Protection: IP54

Insulation Class: F

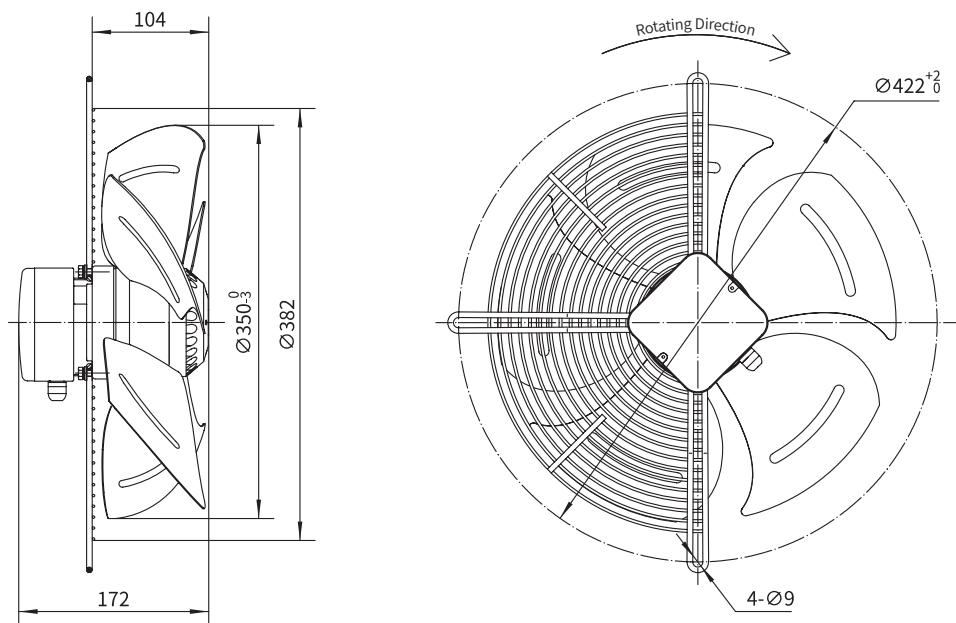
Bearing Type: Maintenance Free Ball Bearing

Performance Curves

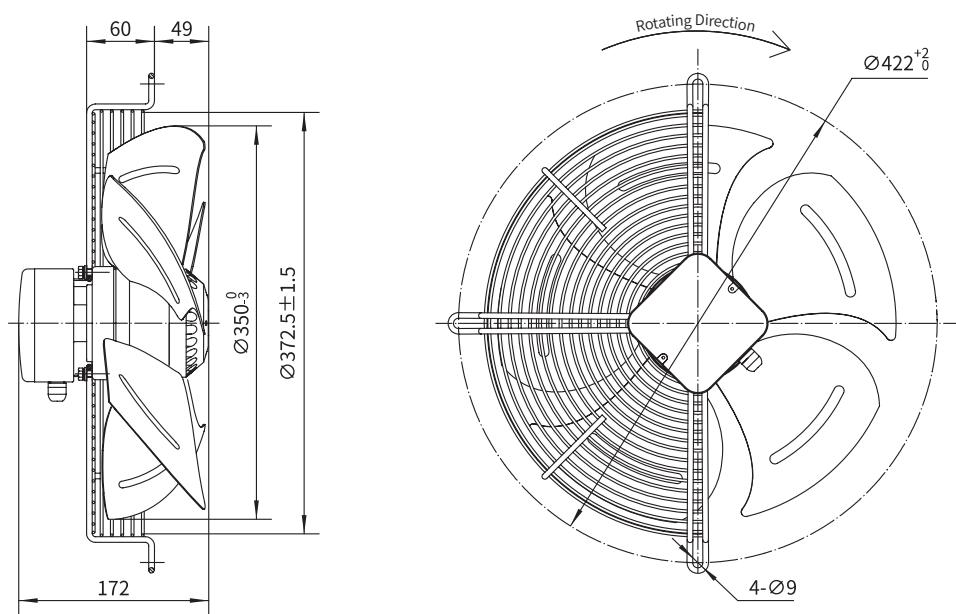


Type B	Type C	Type D	Type E	Type F0
YWF.A4S-350S-5B A00	YWF.A4S-350S-5C A00	YWF.A4S-350S-5D A00	YWF.A4S-350S-5E A00	YWF.A4S-350S-5F A00
YWF.A4T-350S-5B A00	YWF.A4T-350S-5C A00	YWF.A4T-350S-5D A00	YWF.A4T-350S-5E A00	YWF.A4T-350S-5F A00
YWF.A6S-350S-5B A00	YWF.A6S-350S-5C A00	YWF.A6S-350S-5D A00	YWF.A6S-350S-5E A00	YWF.A6S-350S-5F A00
YWF.A6T-350S-5B A00	YWF.A6T-350S-5C A00	YWF.A6T-350S-5D A00	YWF.A6T-350S-5E A00	YWF.A6T-350S-5F A00
YWF.A4S-350S-5B A05	YWF.A4S-350S-5C A05	YWF.A4S-350S-5D A05	YWF.A4S-350S-5E A05	YWF.A4S-350S-5F A05

Type B



Type C



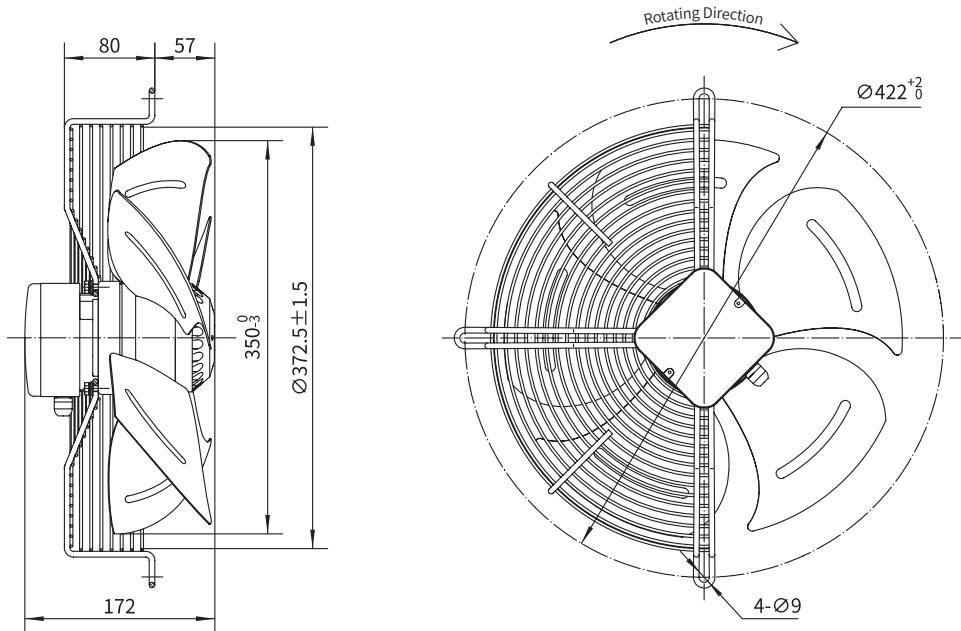
	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
/	220/230	50	0.60	135	1380	4	2750/1617	58	(2)	-30/+60	CCC, CE
	220/230	60	0.83	190	1550	4	3100/1823	60	(3)	-30/+60	CCC, CE, UL
/	380/400	50	0.30	135	1360	/	2750/1617	58	(2)	-30/+60	CCC, CE
	380/400	60	0.34	170	1500	/	3050/1794	60	(3)	-30/+60	CCC, CE, UL
/	220/230	50	0.40	80	950	3	1950/1147	53	(4)	-30/+60	CCC, CE
	220/230	60	0.37	83	1100	3	2150/1264	54	(5)	-30/+60	CCC, CE, UL
/	380/400	50	0.29	70	920	/	1950/1147	53	(4)	-30/+60	CCC, CE
	380/400	60	0.20	80	1070	/	2150/1264	54	(5)	-30/+60	CCC, CE, UL
/	110/120	60	1.60	175	1500	12	2750/1618	60	(1)	-30/+60	UL



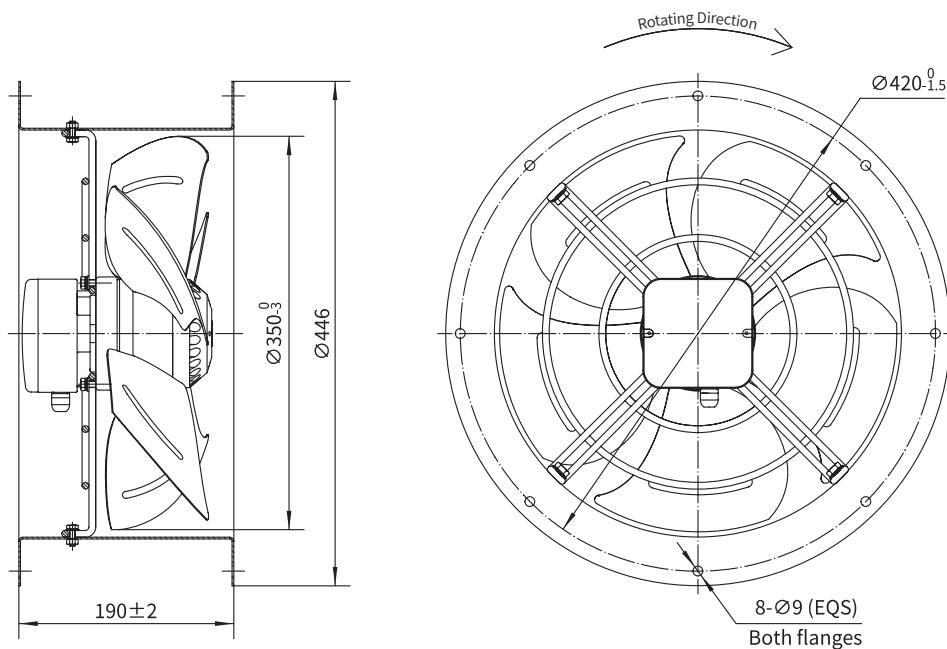
Conventional Carbon Steel Blade Axial Fan

Φ350

Type D



Type E

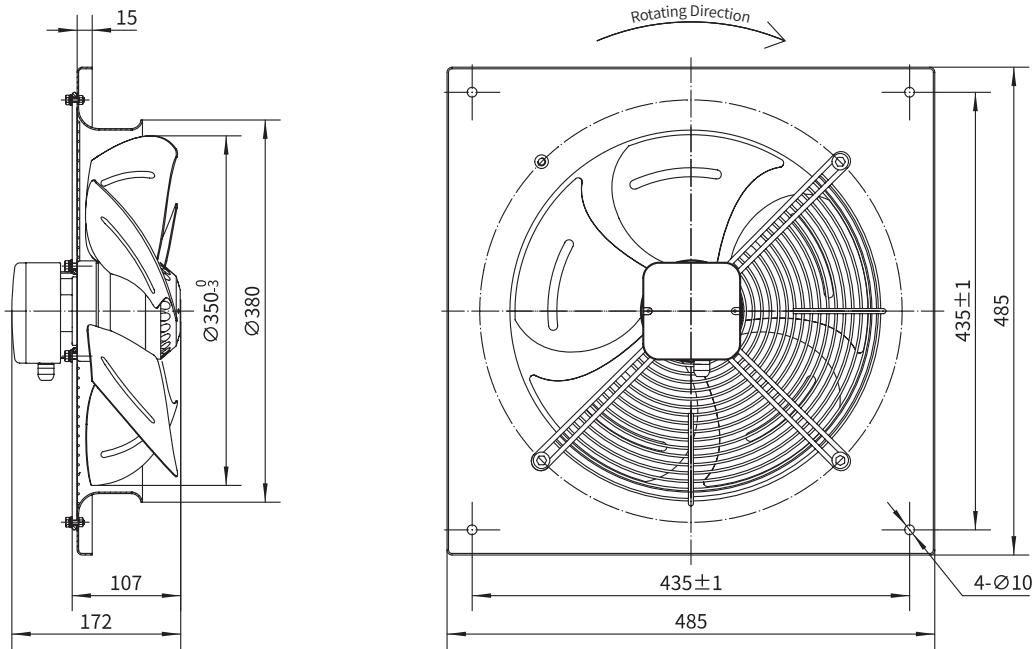




Conventional Carbon Steel Blade Axial Fan

Φ350

Type F0





Conventional Carbon Steel Blade Axial Fan

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Φ400

Rotor Material: Aluminum Die-casting

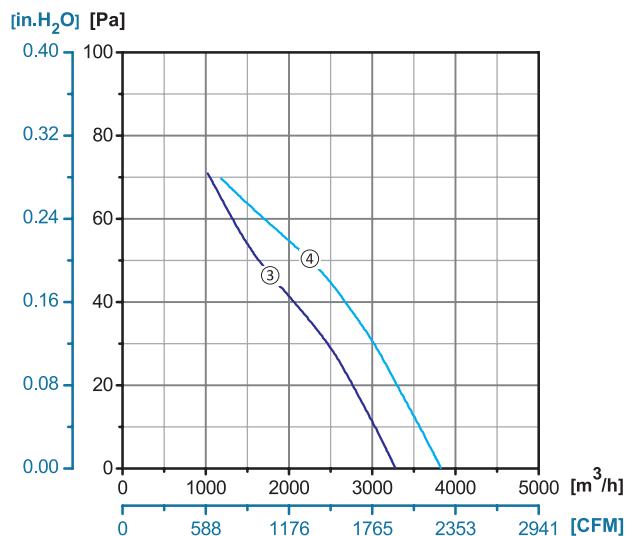
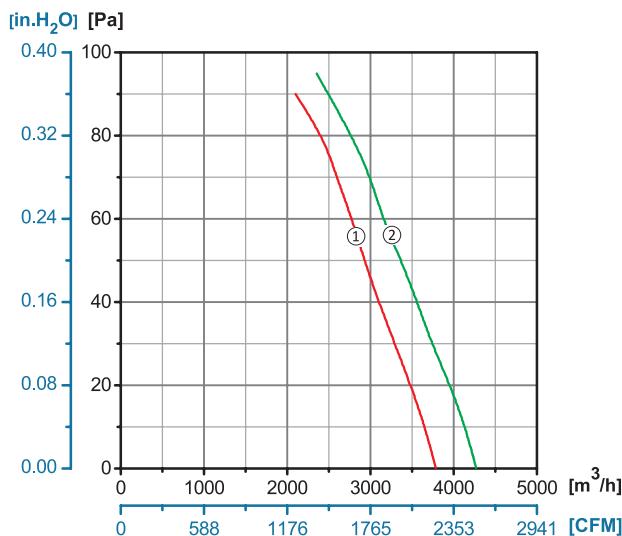
Impeller Material: Carbon Steel

Ingress Protection: IP54

Insulation Class: F

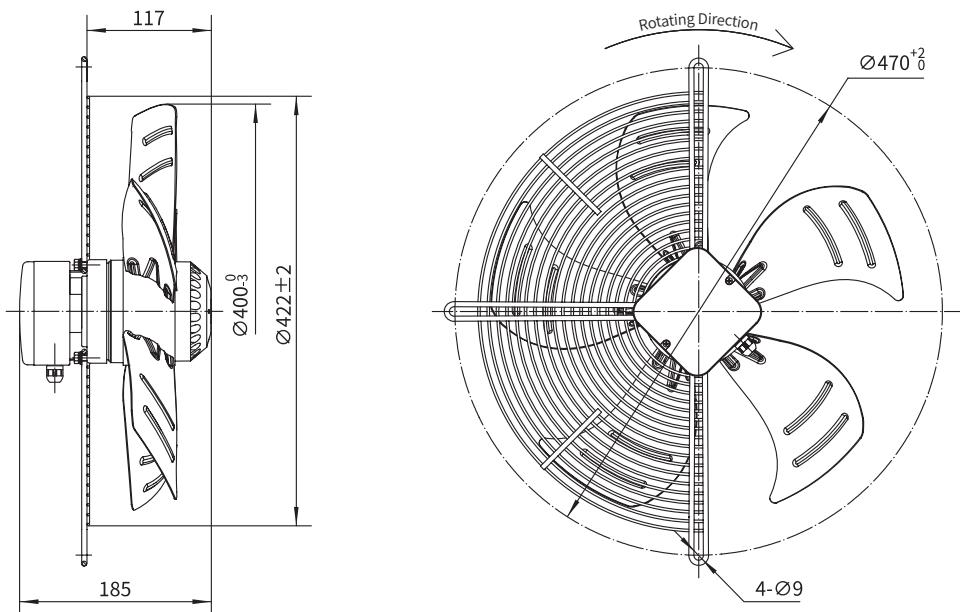
Bearing Type: Maintenance Free Ball Bearing

Performance Curves



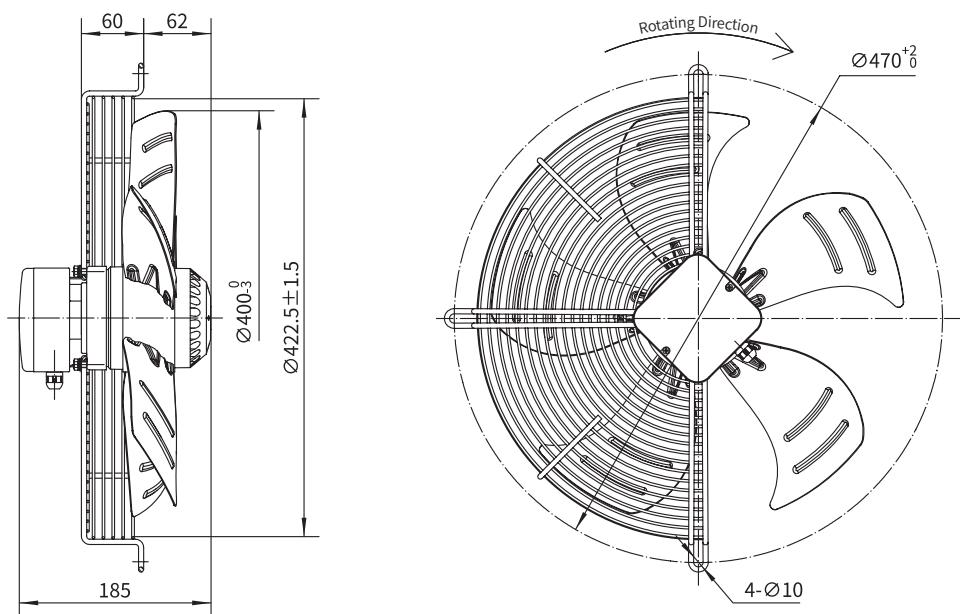
Type B	Type C	Type D	Type E	Type F0
YWF.A4S-400S-5B A00	YWF.A4S-400S-5C A00	YWF.A4S-400S-5D A00	YWF.A4S-400S-5E A00	YWF.A4S-400S-5F A00
YWF.A4T-400S-5B A00	YWF.A4T-400S-5C A00	YWF.A4T-400S-5D A00	YWF.A4T-400S-5E A00	YWF.A4T-400S-5F A00
YWF.A6S-400S-5B A00	YWF.A6S-400S-5C A00	YWF.A6S-400S-5D A00	YWF.A6S-400S-5E A00	YWF.A6S-400S-5F A00
YWF.A6T-400S-5B A00	YWF.A6T-400S-5C A00	YWF.A6T-400S-5D A00	YWF.A6T-400S-5E A00	YWF.A6T-400S-5F A00
YWF.A4S-400S-5B A05	YWF.A4S-400S-5C A05	YWF.A4S-400S-5D A05	YWF.A4S-400S-5E A05	YWF.A4S-400S-5F A05

Type B



Conv. Steel Blade Axial

Type C



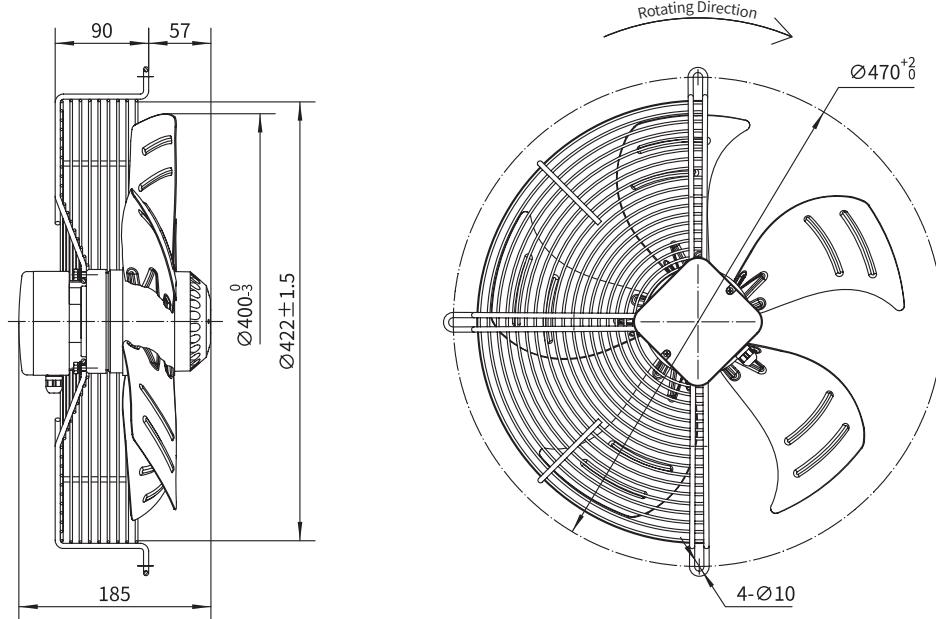
	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
/	220/230	50	0.90	190	1350	6	3800/2235	60	①	-30/+60	CCC, CE
	220/230	60	1.22	270	1580	6	4300/2529	65	②	-30/+60	CCC, CE, UL
/	380/400	50	0.50	190	1370	/	3800/2235	60	①	-30/+60	CCC, CE
	380/400	60	0.47	250	1620	/	4300/2529	65	②	-30/+60	CCC, CE, UL
/	220/230	50	0.50	110	950	4	3275/1926	55	③	-30/+60	CCC, CE
	220/230	60	0.54	120	1100	4	3825/2250	57	④	-30/+60	CCC, CE, UL
/	380/400	50	0.31	110	930	/	3275/1926	55	③	-30/+60	CCC, CE
	380/400	60	0.30	135	1050	/	3825/2250	57	④	-30/+60	CCC, CE, UL
/	110/120	60	2.20	270	1500	24	3800/2235	65	②	-30/+60	UL



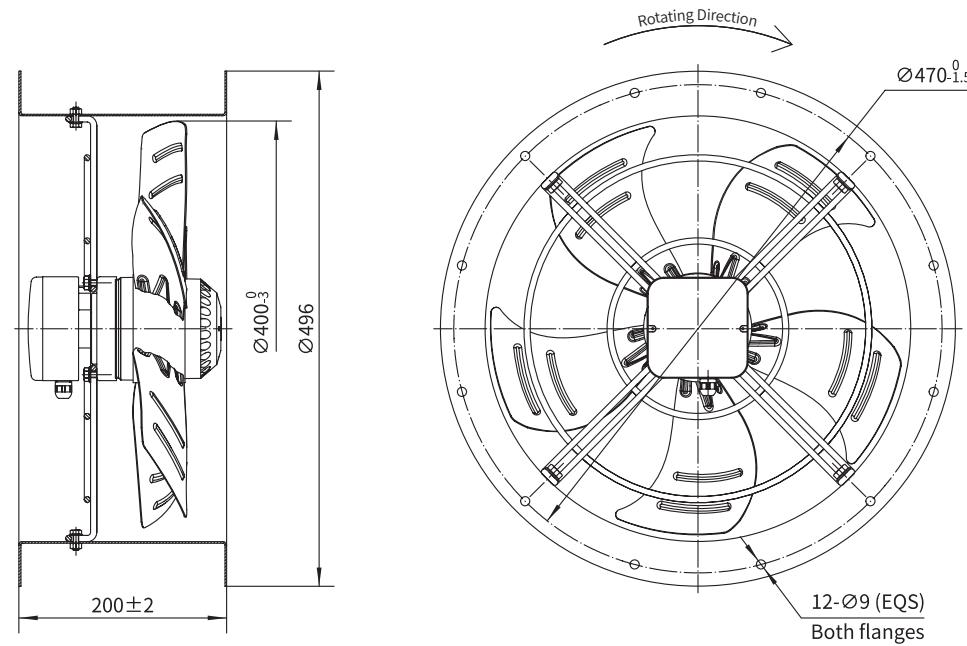
Conventional Carbon Steel Blade Axial Fan

Φ400

Type D



Type E

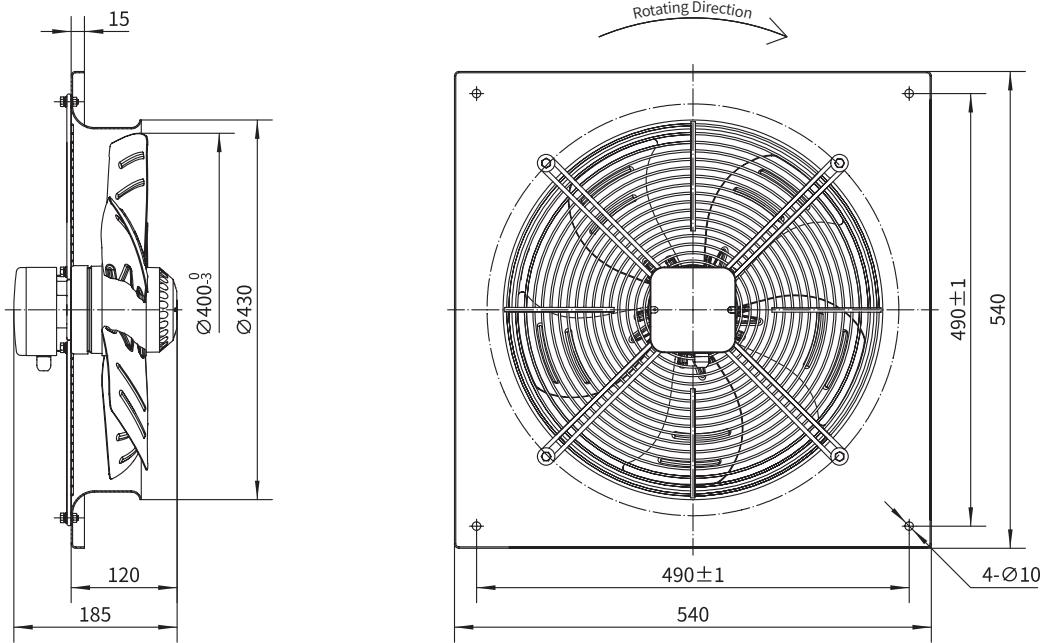




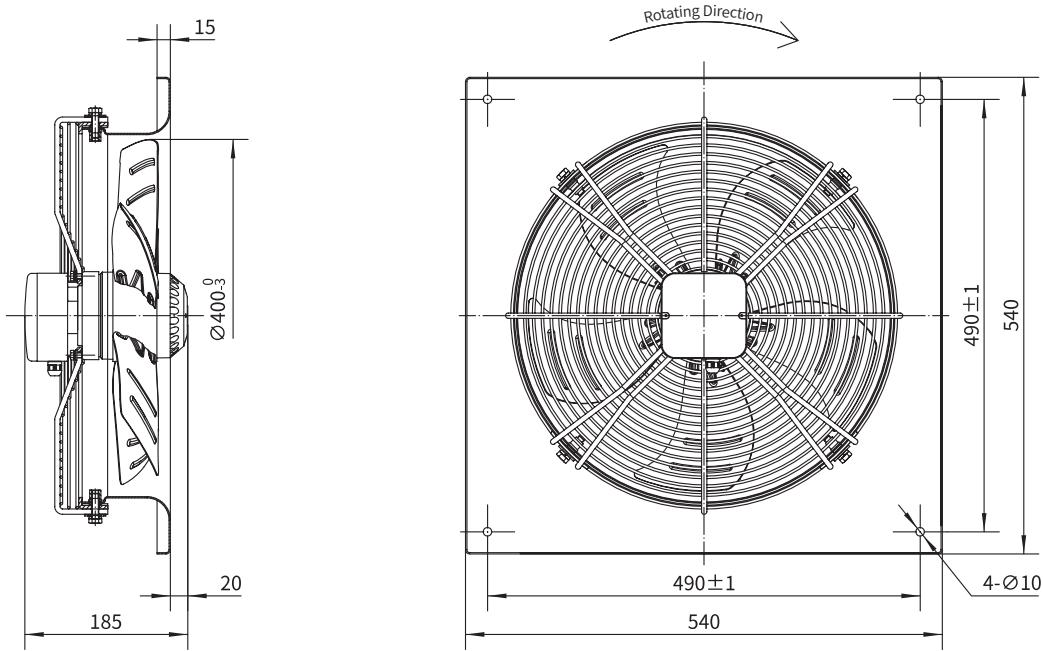
Conventional Carbon Steel Blade Axial Fan

Φ400

Type F0



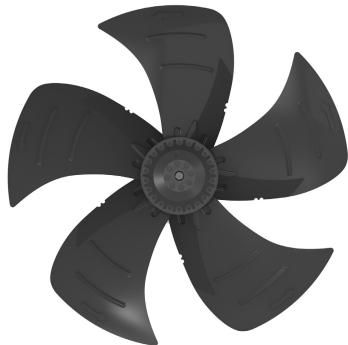
Type F1





Conventional Carbon Steel Blade Axial Fan

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Φ450

Rotor Material: Aluminum Die-casting

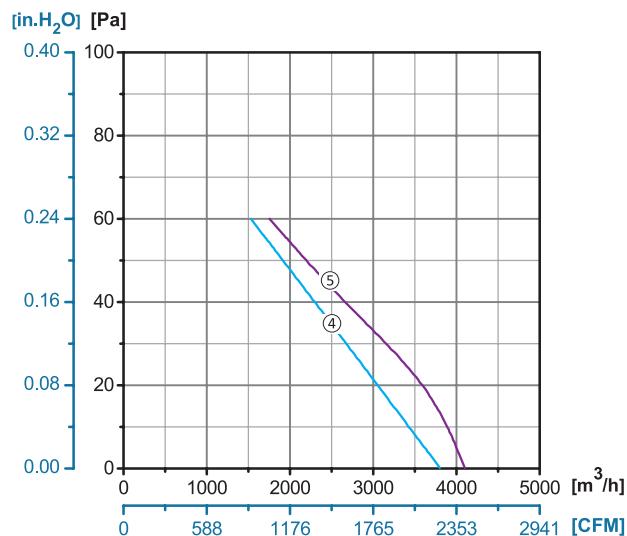
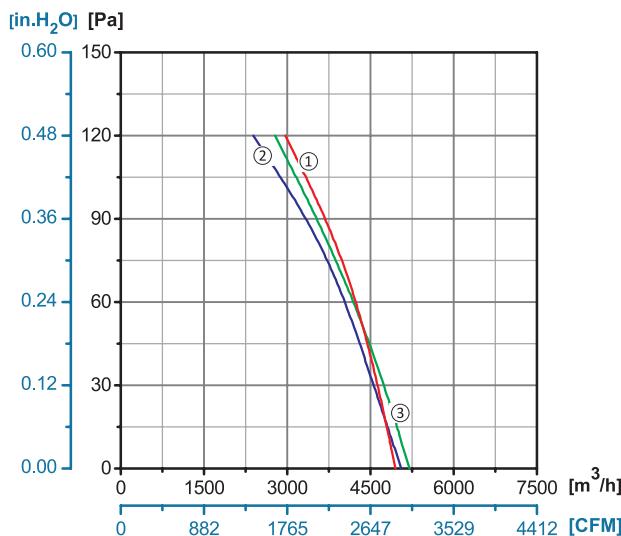
Impeller Material: Carbon Steel

Ingress Protection: IP54

Insulation Class: F

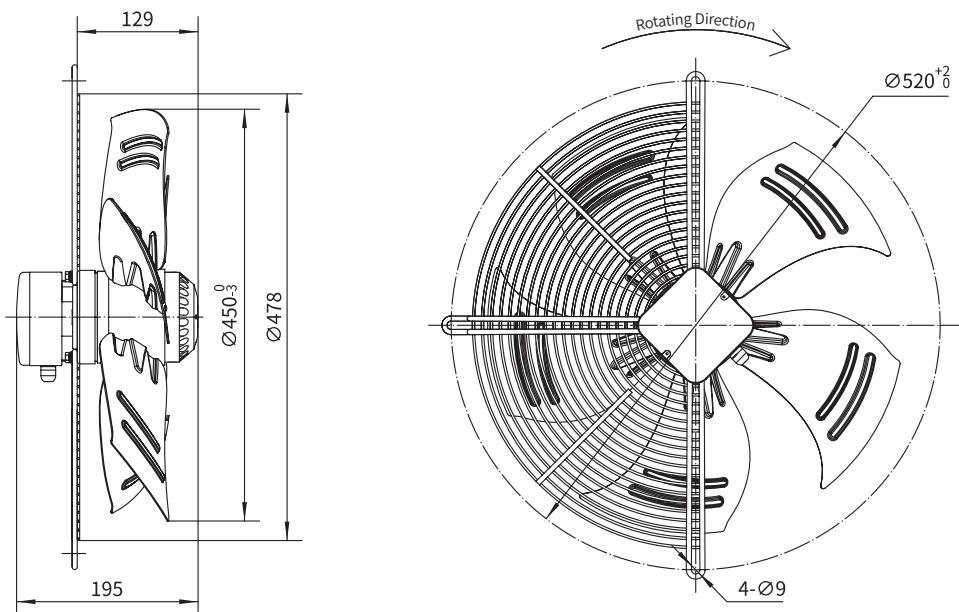
Bearing Type: Maintenance Free Ball Bearing

Performance Curves

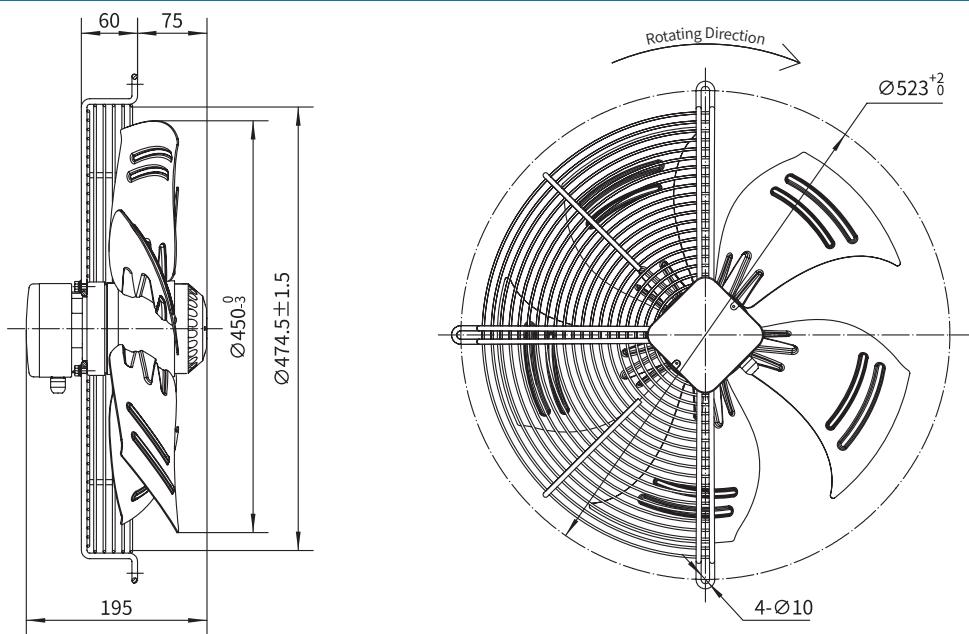


Type B	Type C	Type D	Type E	Type F0
YWF.A4S-450S-5B A00	YWF.A4S-450S-5C A00	YWF.A4S-450S-5D A00	YWF.A4S-450S-5E A00	YWF.A4S-450S-5F A00
YWF.A4T-450S-5B A00	YWF.A4T-450S-5C A00	YWF.A4T-450S-5D A00	YWF.A4T-450S-5E A00	YWF.A4T-450S-5F A00
YWF.A6S-450S-5B A00	YWF.A6S-450S-5C A00	YWF.A6S-450S-5D A00	YWF.A6S-450S-5E A00	YWF.A6S-450S-5F A00
YWF.A6T-450S-5B A00	YWF.A6T-450S-5C A00	YWF.A6T-450S-5D A00	YWF.A6T-450S-5E A00	YWF.A6T-450S-5F A00
YWF.A4S-450S-5B A05	YWF.A4S-450S-5C A05	YWF.A4S-450S-5D A05	YWF.A4S-450S-5E A05	YWF.A4S-450S-5F A05

Type B



Type C



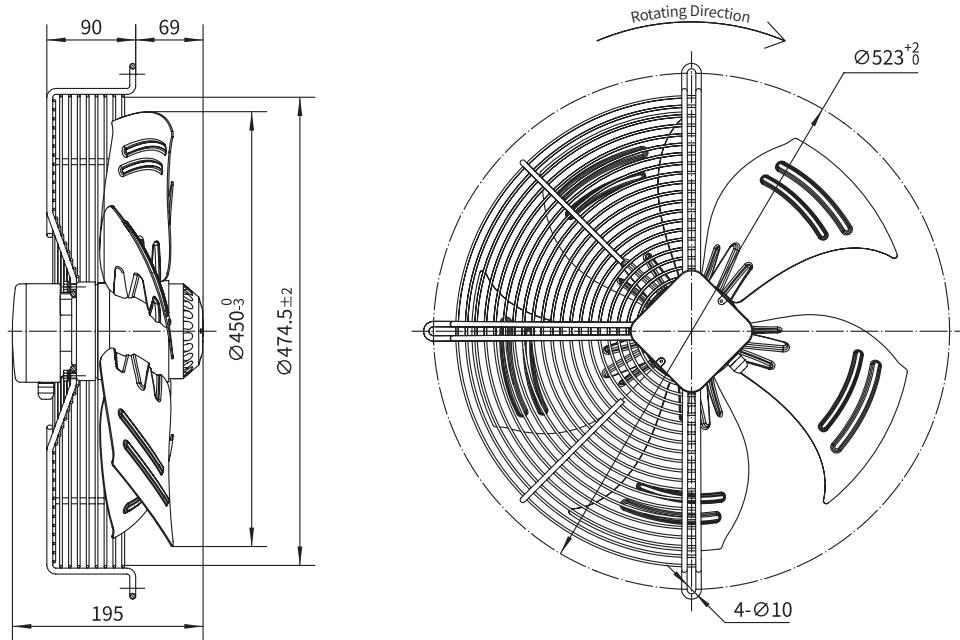
	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
YWF.A4S-450S-5F I A01	220/230	50	1.15	250	1350	7	5200/3058	62	(3)	-30/+60	CCC, CE
	220/230	60	1.35	290	1600	7	4950/2911	66	(1)	-30/+60	CCC, CE, UL
YWF.A4T-450S-5F I A01	380/400	50	0.55	250	1380	/	5050/2970	62	(2)	-30/+60	CCC, CE
	380/400	60	0.53	290	1600	/	4800/2823	66	(1)	-30/+60	CCC, CE, UL
YWF.A6S-450S-5F I A01	220/230	50	0.65	135	920	6	3800/2235	56	(4)	-30/+60	CCC, CE
	220/230	60	0.79	175	1100	6	4100/2412	58	(5)	-30/+60	CCC, CE, UL
YWF.A6T-450S-5F I A01	380/400	50	0.33	120	910	/	3800/2235	56	(4)	-30/+60	CCC, CE
	380/400	60	0.34	145	1030	/	4100/2412	58	(5)	-30/+60	CCC, CE, UL
YWF.A4S-450S-5F I A15	110/120	60	2.40	300	1600	22	4950/2911	66	(1)	-30/+60	UL



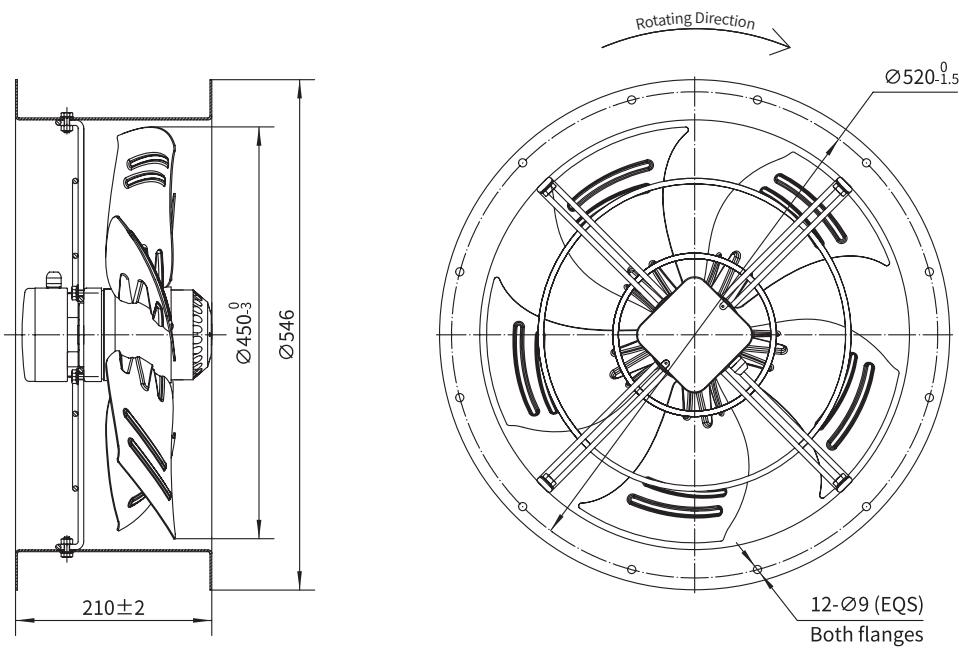
Conventional Carbon Steel Blade Axial Fan

Φ450

Type D



Type E

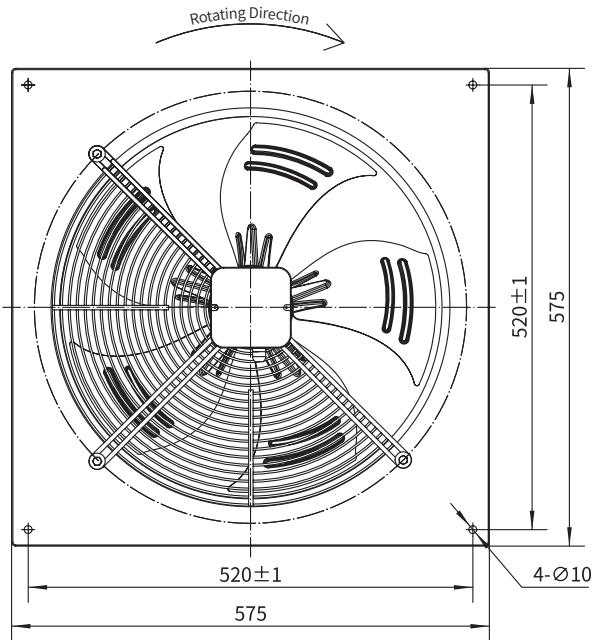
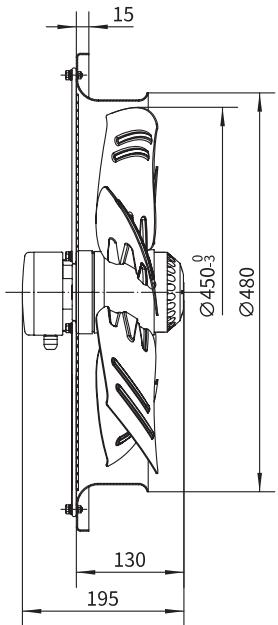




Conventional Carbon Steel Blade Axial Fan

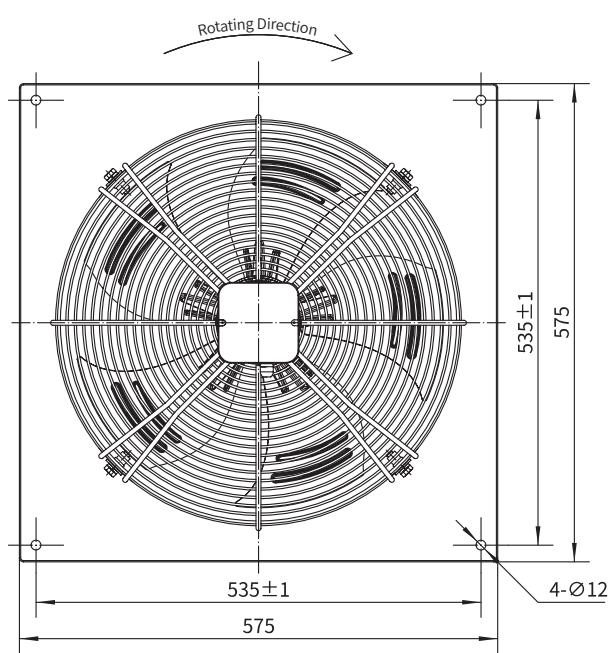
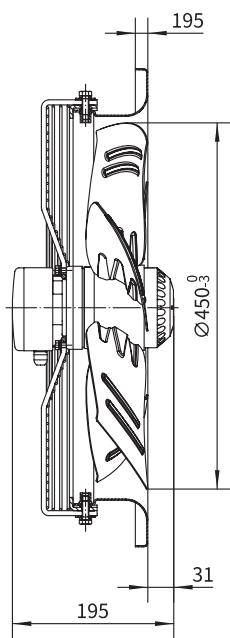
Φ450

Type F0



Conv. Steel Blade Axial

Type F1





Conventional Carbon Steel Blade Axial Fan

ErP2015
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Φ500-L

Rotor Material: Aluminum Die-casting

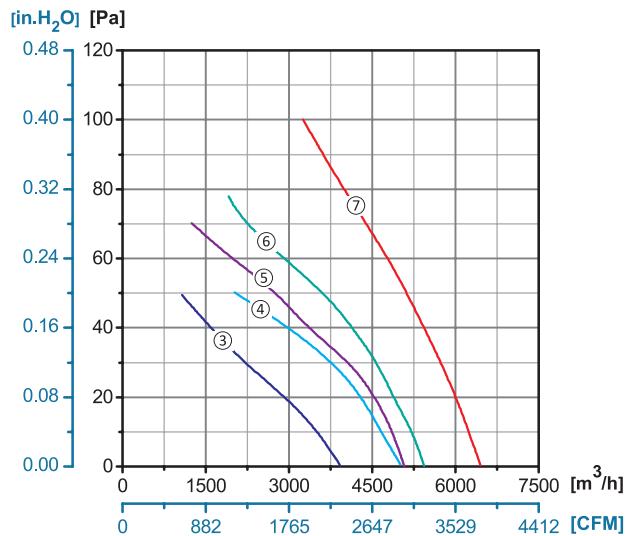
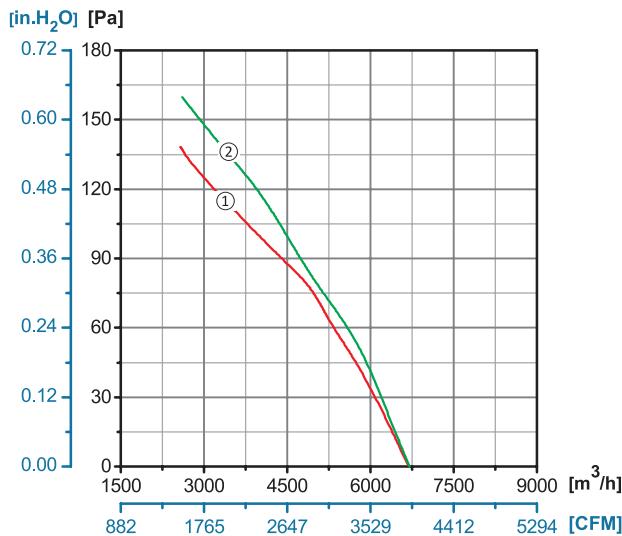
Impeller Material: Carbon Steel

Ingress Protection: IP54

Insulation Class: F

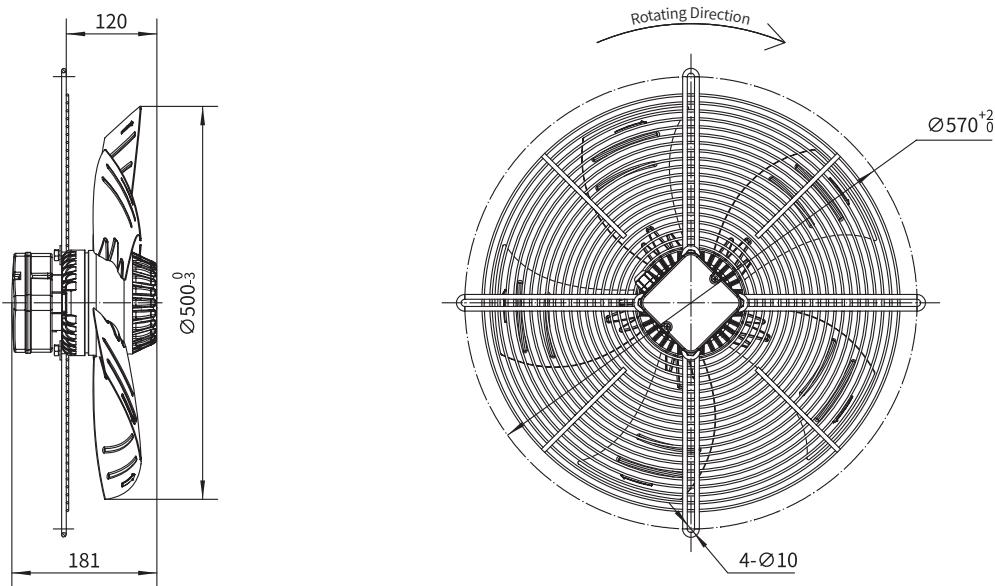
Bearing Type: Maintenance Free Ball Bearing

Performance Curves

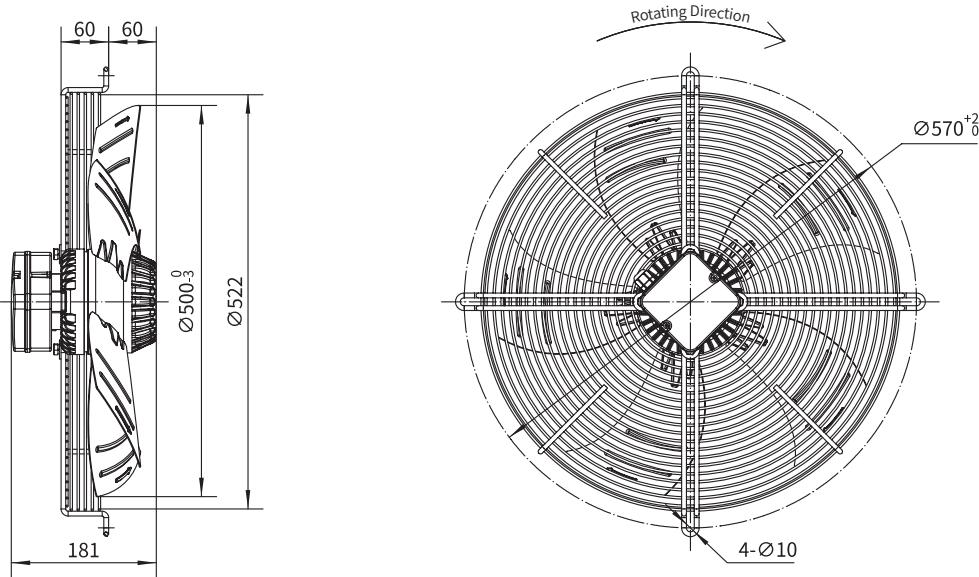


Type B	Type C	Type D	Type E	Type F0
YWF.A4S-500S-5B A00	YWF.A4S-500S-5C A00	YWF.A4S-500S-5D A00	YWF.A4S-500S-5E A00	YWF.A4S-500S-5F A00
YWF.A4T-500S-5B A00	YWF.A4T-500S-5C A00	YWF.A4T-500S-5D A00	YWF.A4T-500S-5E A00	YWF.A4T-500S-5F A00
YWF.A6S-500S-5B A00	YWF.A6S-500S-5C A00	YWF.A6S-500S-5D A00	YWF.A6S-500S-5E A00	YWF.A6S-500S-5F A00
YWF.A6T-500S-5B A00	YWF.A6T-500S-5C A00	YWF.A6T-500S-5D A00	YWF.A6T-500S-5E A00	YWF.A6T-500S-5F A00
YWF.A8T-500S-5B A00	YWF.A8T-500S-5C A00	YWF.A8T-500S-5D A00	YWF.A8T-500S-5E A00	YWF.A8T-500S-5F A00

Type B



Type C



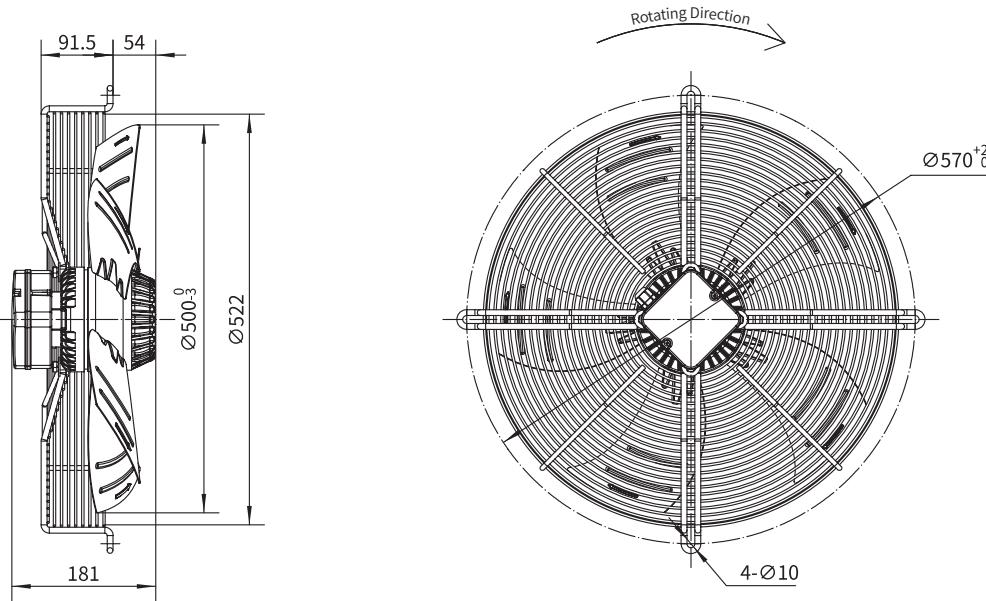
	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
YWF.A4S-500S-5F I A01	220/230	50	2.00	420	1320	10	6500/3835	69	①	-30/+60	CCC, CE
	220/230	60	2.2	500	1550	10	6800/4012	70	②	-30/+60	CCC, CE, UL
YWF.A4T-500S-5F I A01	380/400	50	0.95	420	1350	/	6500/3835	69	①	-30/+60	CCC, CE
	380/400	60	0.90	500	1500	/	6800/4012	63	②	-30/+60	CCC, CE, UL
YWF.A6S-500S-5F I A01	220/230	50	1.10	220	920	4	5000/2941	65	④	-30/+60	CCC, CE
	220/230	60	0.92	200	1000	4	5080/2988	66	⑤	-30/+60	CCC, CE, UL
YWF.A6T-500S-5F I A01	380/400	50	0.62	220	920	/	5437/3198	65	⑥	-30/+60	CCC, CE
	380/400	60	0.60	275	1100	/	6450/3794	66	⑦	-30/+60	CCC, CE, UL
YWF.A8T-500S-5F I A01	380/400	50	0.30	110	700	/	3920/2306	50	③	-30/+60	CCC, CE



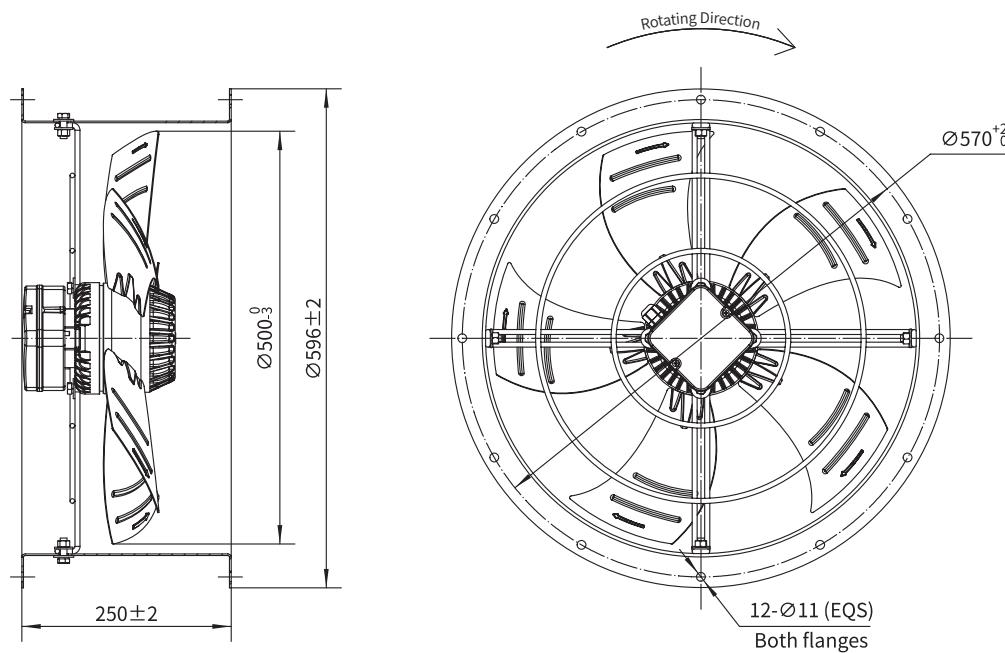
Conventional Carbon Steel Blade Axial Fan

Φ500-L

Type D



Type E

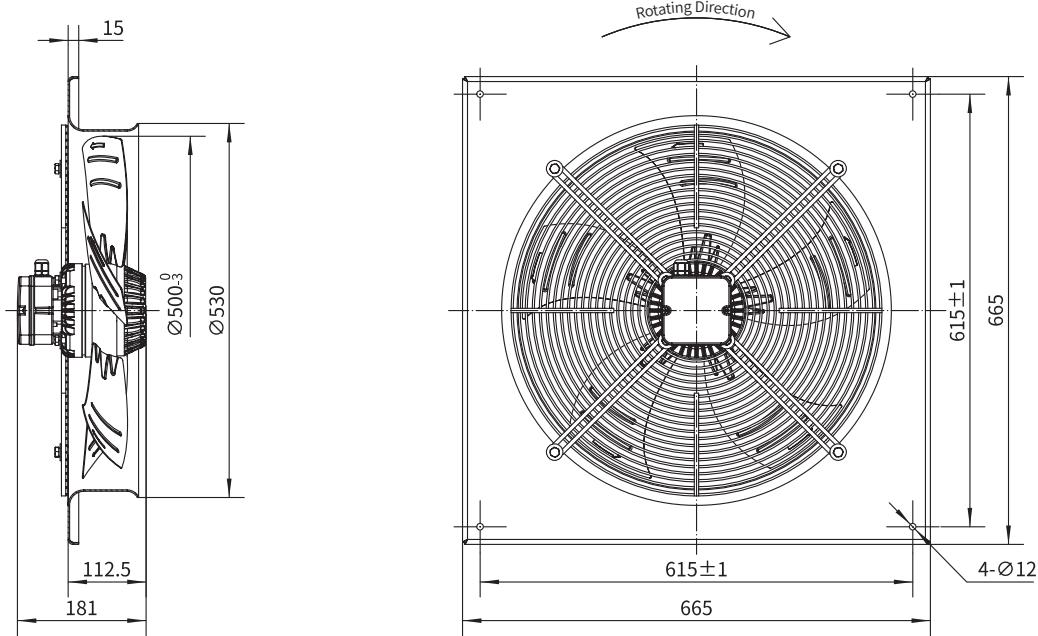




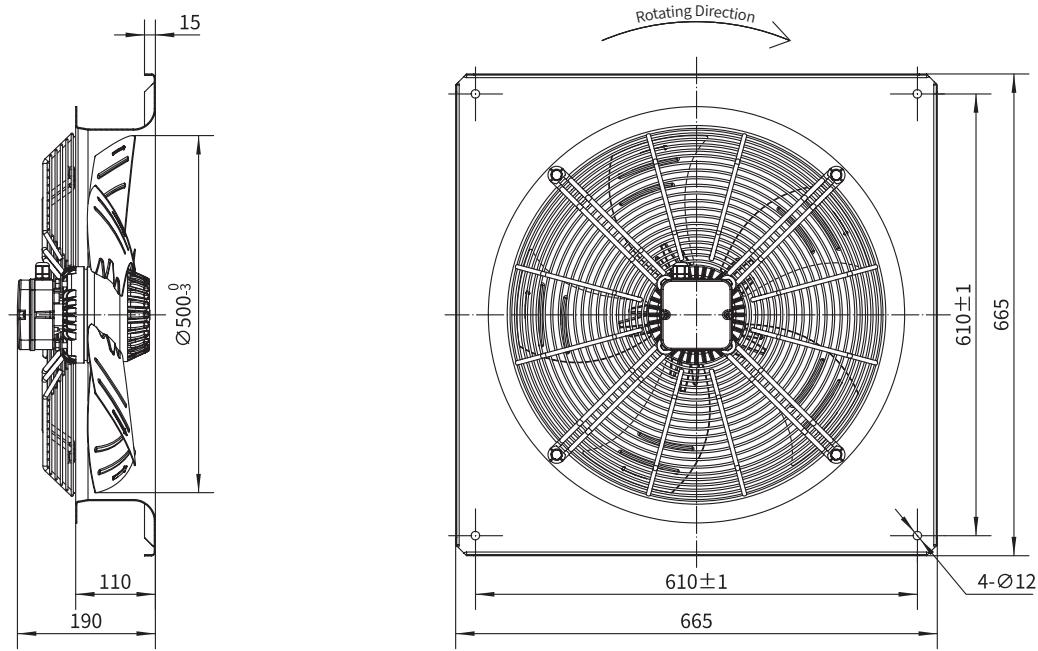
Conventional Carbon Steel Blade Axial Fan

Φ500-L

Type F0



Type F1





Conventional Carbon Steel Blade Axial Fan

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Φ500-H

Rotor Material: Aluminum Die-casting

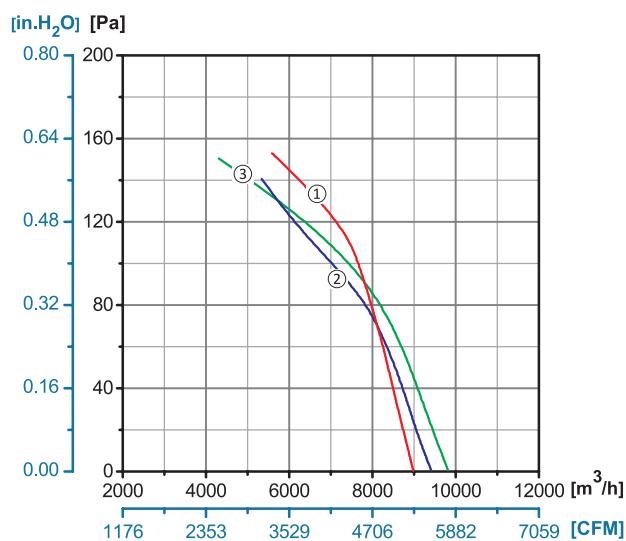
Impeller Material: Carbon Steel

Ingress Protection: IP54

Insulation Class: F

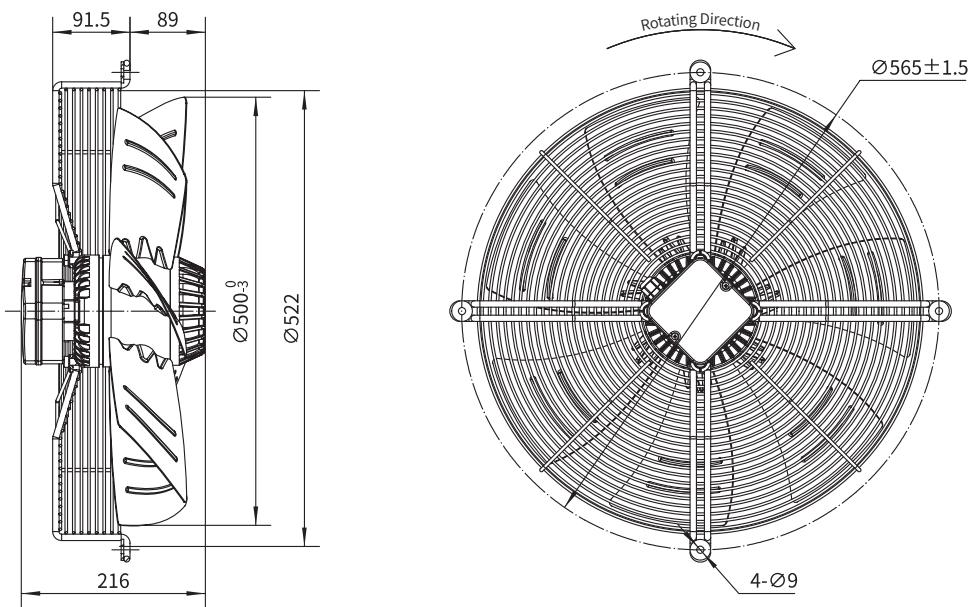
Bearing Type: Maintenance Free Ball Bearing

Performance Curves



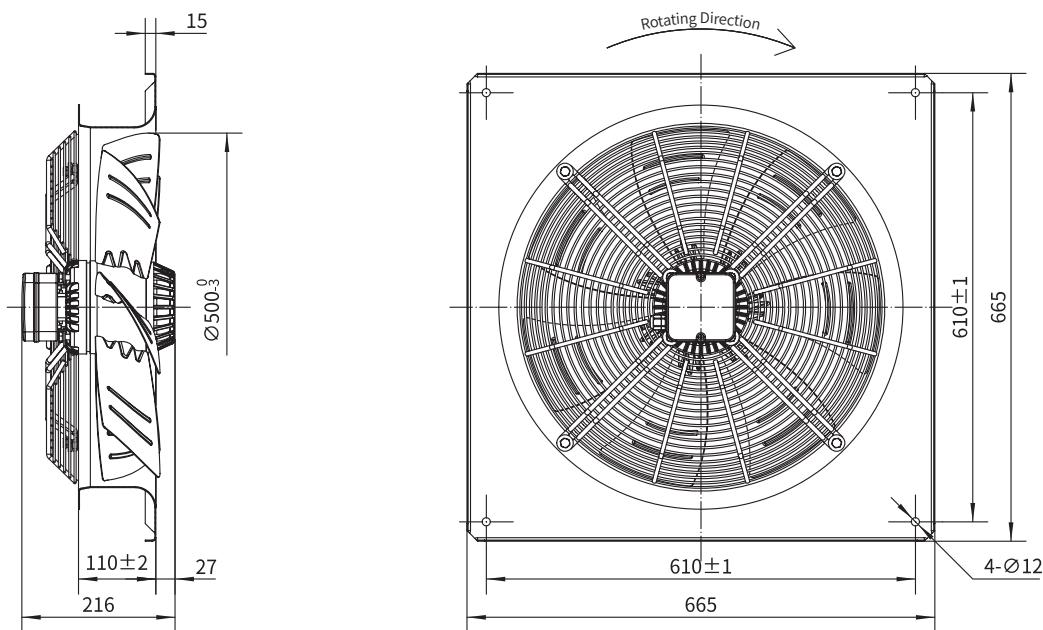
Type B	Type C	Type D	Type E	Type F0
/	/	YWF.A4S-500S-7D ATO	/	/
/	/	YWF.A4T-500S-7D ATO	/	/

Type D



Conv. Steel Blade Axial

Type F1

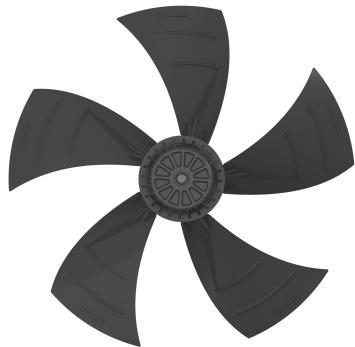


	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
Type F1	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
YWF.A4S-500S-7F AT1	220/230	50	3.90	850	1350	16	9800/5765	74	(3)	-30/+60	CCC, CE
	220/230	60	4.50	950	1600	16	8980/5282	75	(1)	-30/+60	CCC, CE
YWF.A4T-500S-7F AT1	380/400	50	1.60	850	1350	/	9411/5536	72	(2)	-30/+60	CCC, CE
	380/400	60	1.50	850	1600	/	8980/5282	74	(1)	-30/+60	CCC, CE



Conventional Carbon Steel Blade Axial Fan

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Φ550

Rotor Material: Aluminum Die-casting

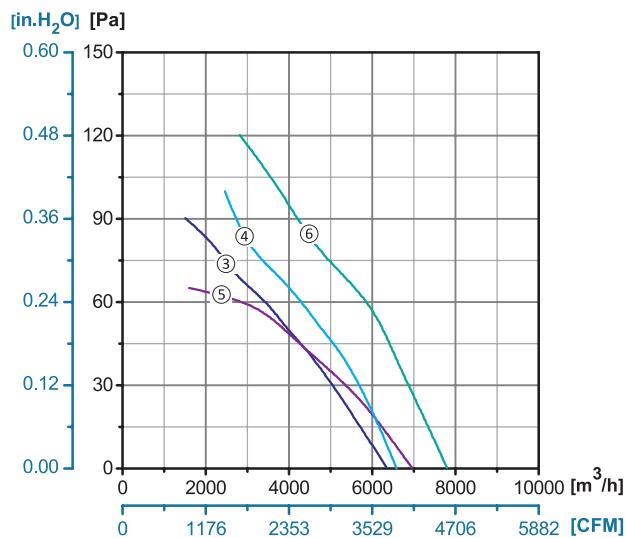
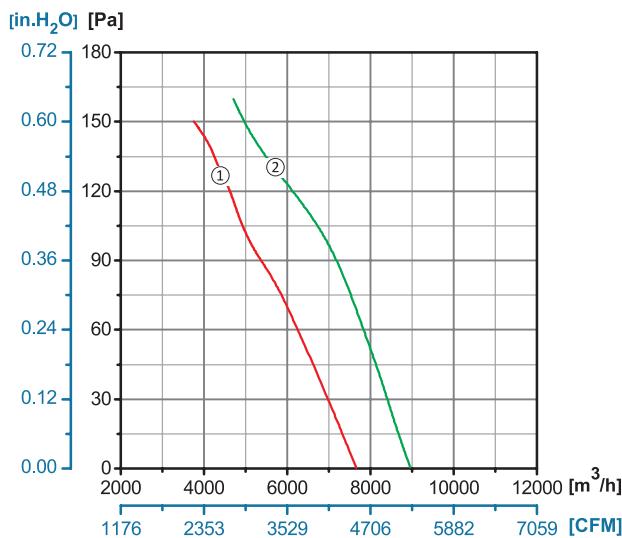
Impeller Material: Carbon Steel

Ingress Protection: IP54

Insulation Class: F

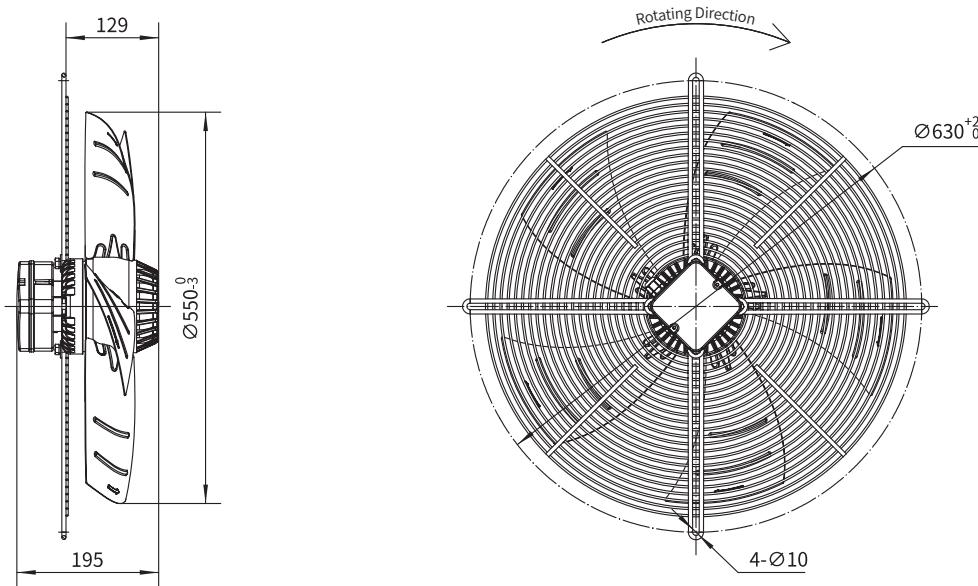
Bearing Type: Maintenance Free Ball Bearing

Performance Curves



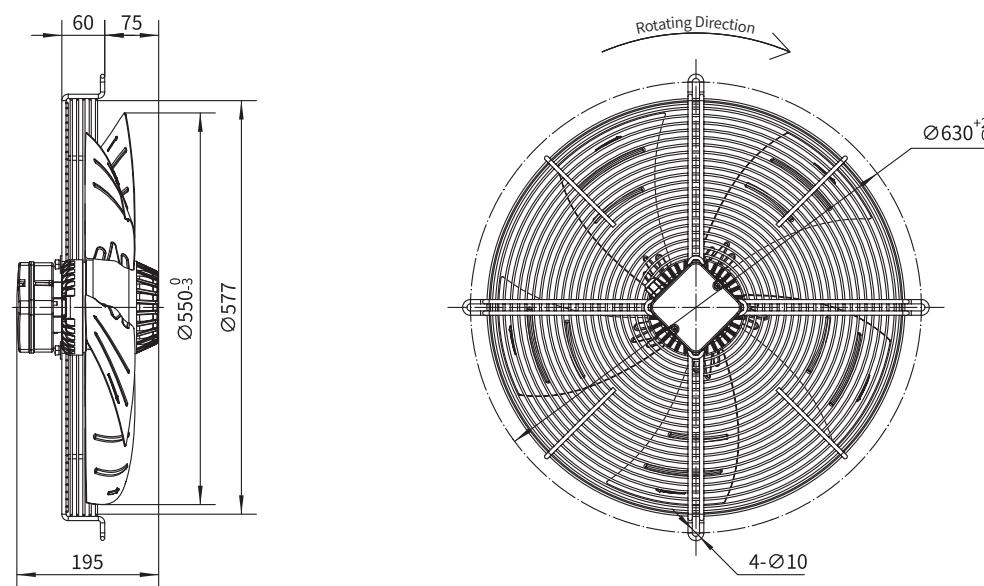
Type B	Type C	Type D	Type E	Type F0
YWF.A4S-550S-5B A00	YWF.A4S-550S-5C A00	YWF.A4S-550S-5E A00	YWF.A4S-550S-5D A00	YWF.A4S-550S-5F A00
YWF.A4T-550S-5B A00	YWF.A4T-550S-5C A00	YWF.A4T-550S-5E A00	YWF.A4T-550S-5D A00	YWF.A4T-550S-5F A00
YWF.A6S-550S-5B A00	YWF.A6S-550S-5C A00	YWF.A6S-550S-5E A00	YWF.A6S-550S-5D A00	YWF.A6S-550S-5F A00
YWF.A6T-550S-5B A00	YWF.A6T-550S-5C A00	YWF.A6T-550S-5E A00	YWF.A6T-550S-5D A00	YWF.A6T-550S-5F A00

Type B



Conv. Steel Blade Axial

Type C



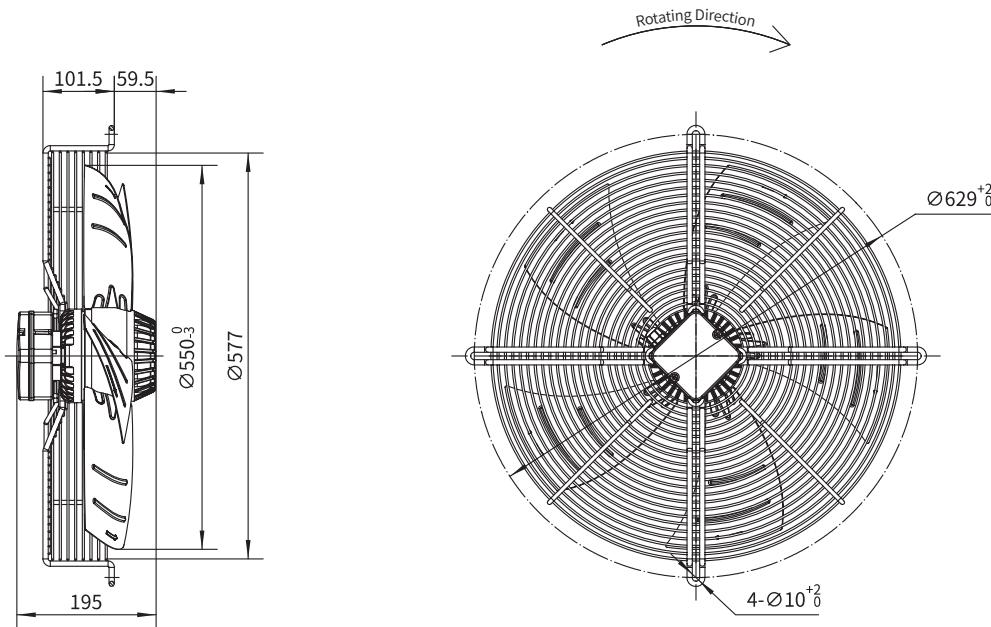
	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
Type F1	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
YWF.A4S-550S-5F A01	220/230	50	2.50	550	1320	12	7500/4425	73	①	-30/+60	CCC, CE
	220/230	60	3.30	725	1400	12	8800/5192	74	②	-30/+60	CCC, CE, UL
YWF.A4T-550S-5F A01	380/400	50	1.10	550	1330	/	7500/4425	73	①	-30/+60	CCC, CE
	380/400	60	1.40	725	1500	/	8800/5192	74	②	-30/+60	CCC, CE, UL
YWF.A6S-550S-5F A01	220/230	50	1.50	320	910	10	6340/3729	62	③	-30/+60	CCC, CE
	220/230	60	2.15	465	1060	10	7000/4130	66	⑤	-30/+60	CCC, CE, UL
YWF.A6T-550S-5F A01	380/400	50	0.95	320	910	/	6500/3835	64	④	-30/+60	CCC, CE
	380/400	60	1.00	440	1090	/	7800/4588	66	⑥	-30/+60	CCC, CE, UL



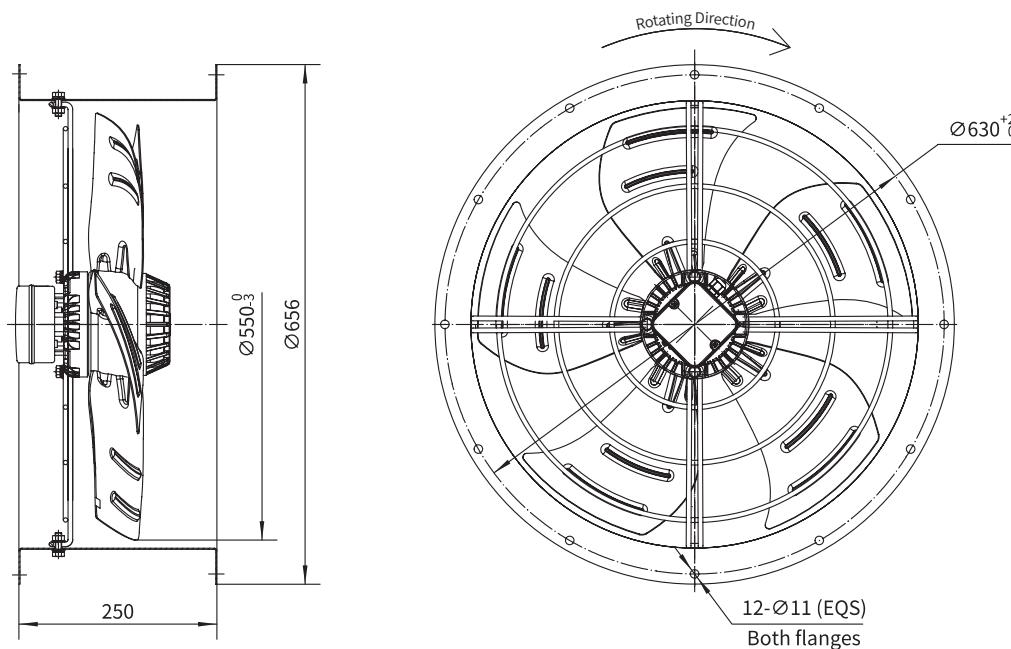
Conventional Carbon Steel Blade Axial Fan

Φ550

Type D



Type E

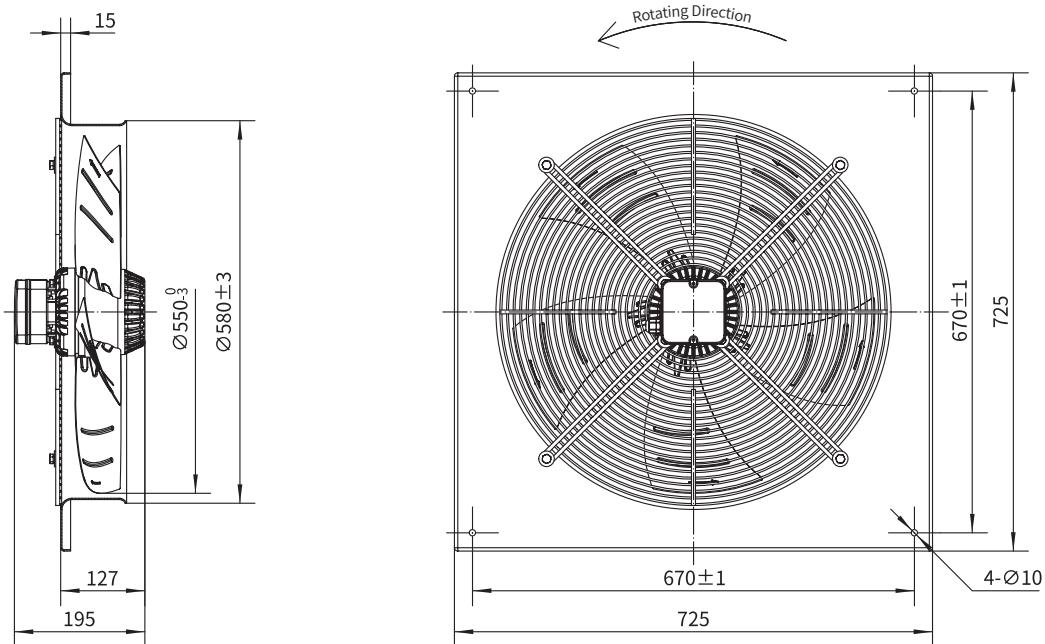




Conventional Carbon Steel Blade Axial Fan

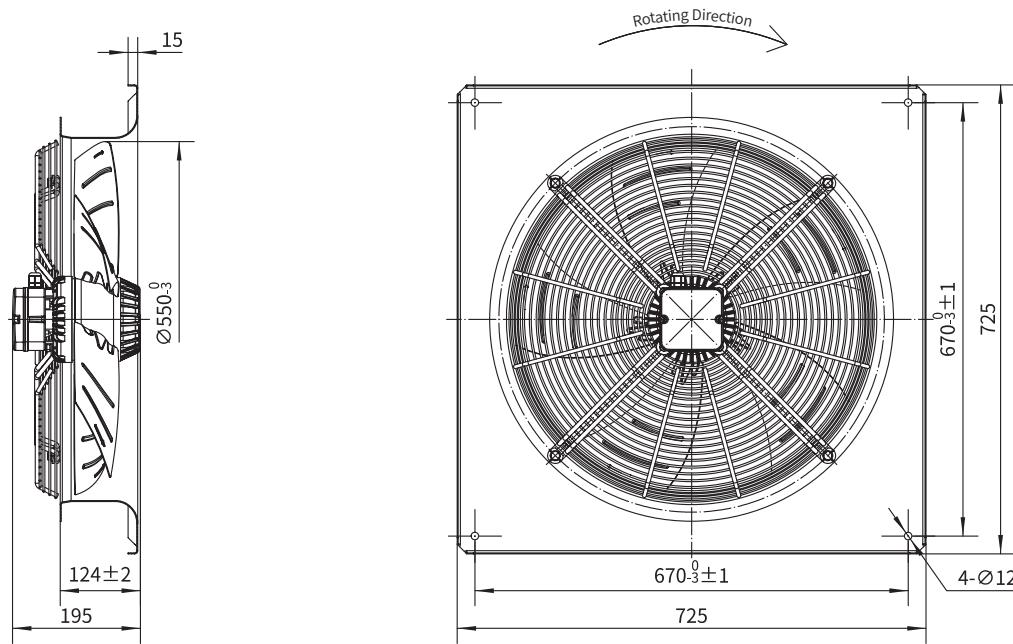
Φ550

Type F0



Conv. Steel Blade Axial

Type F1





Conventional Carbon Steel Blade Axial Fan

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Φ600

Rotor Material: Aluminum Die-casting

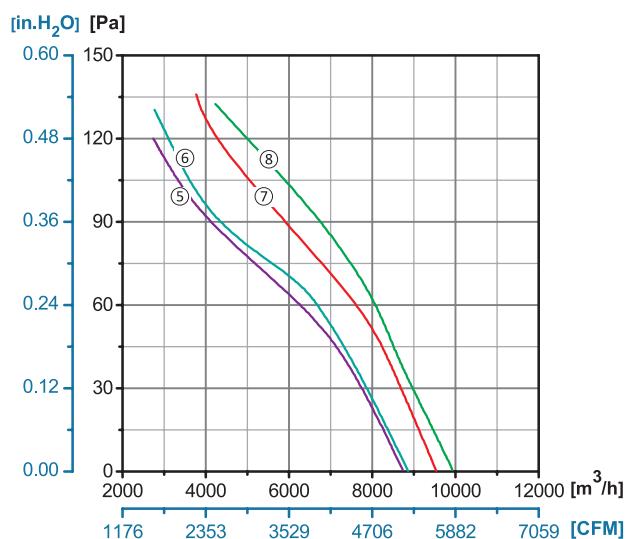
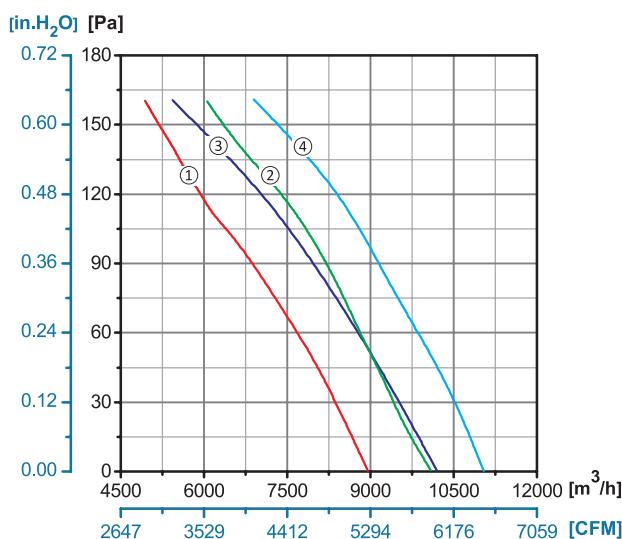
Impeller Material: Carbon Steel

Ingress Protection: IP54

Insulation Class: F

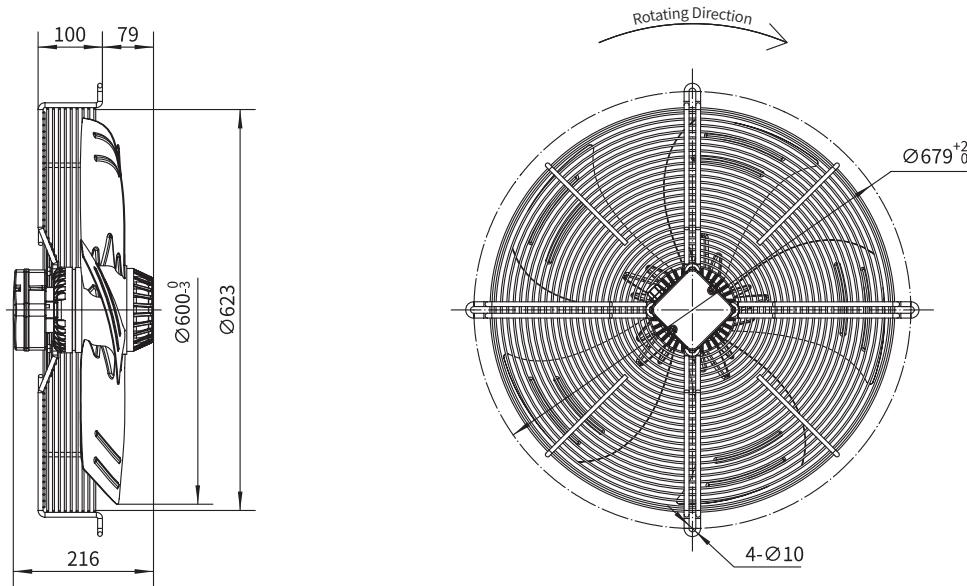
Bearing Type: Maintenance Free Ball Bearing

Performance Curves



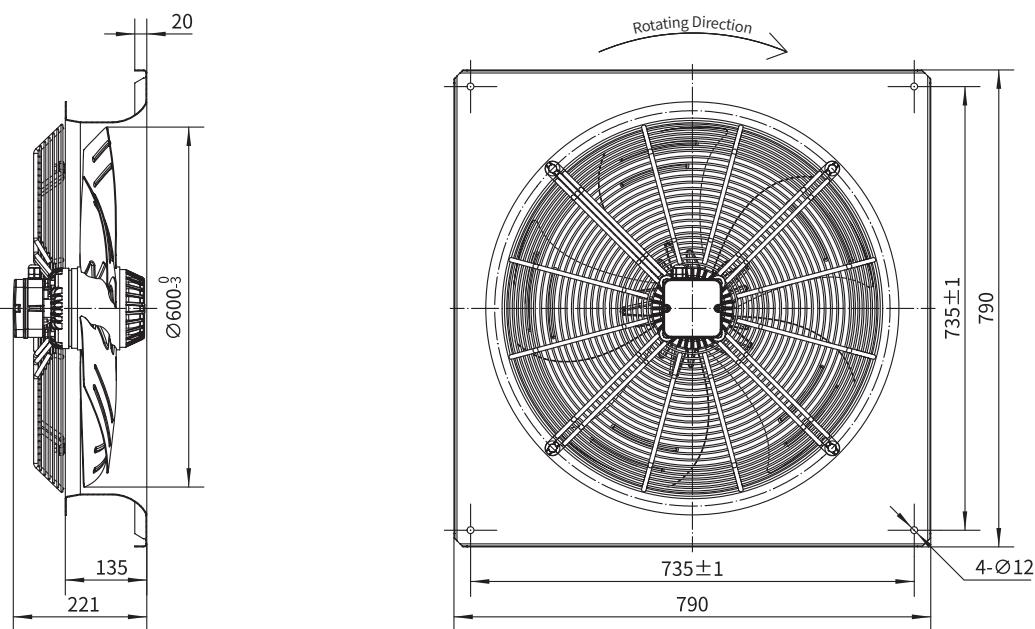
Type B	Type C	Type D	Type E	Type F0
/	/	YWF.A4S-600S-5D A00	/	/
/	/	YWF.A4T-600S-5D A00	/	/
/	/	YWF.A6S-600S-5D A00	/	/
/	/	YWF.A6T-600S-5D A00	/	/

Type D



Conv. Steel Blade Axial

Type F1

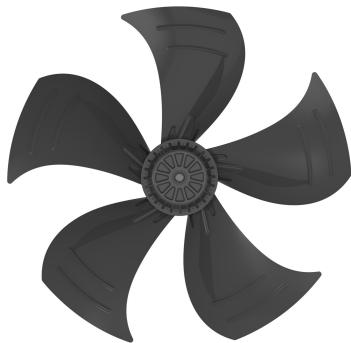


	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
YWF.A4S-600S-5F I A01	220/230	50	3.80	800	1380	16	8950/5265	73	(1)	-30/+60	CCC, CE
	220/230	60	4.20	920	1640	16	10080/5929	75	(2)	-30/+60	CCC, CE, UL
YWF.A4T-600S-5F I A01	380/400	50	1.50	800	1350	/	10200/6000	73	(3)	-30/+60	CCC, CE
	380/400	60	2.00	1000	1550	/	11000/6490	76	(4)	-30/+60	CCC, CE, UL
YWF.A6S-600S-5F I A01	220/230	50	2.40	500	910	12	8733/5137	65	(5)	-30/+60	CCC, CE
	220/230	60	2.94	640	1080	12	9930/5841	70	(8)	-30/+60	CCC, CE, UL
YWF.A6T-600S-5F I A01	380/400	50	1.50	500	920	/	8860/5212	67	(6)	-30/+60	CCC, CE
	380/400	60	1.50	650	1070	/	9550/5618	69	(7)	-30/+60	CCC, CE, UL



Conventional Carbon Steel Blade Axial Fan

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Φ630-L

Rotor Material: Aluminum Die-casting

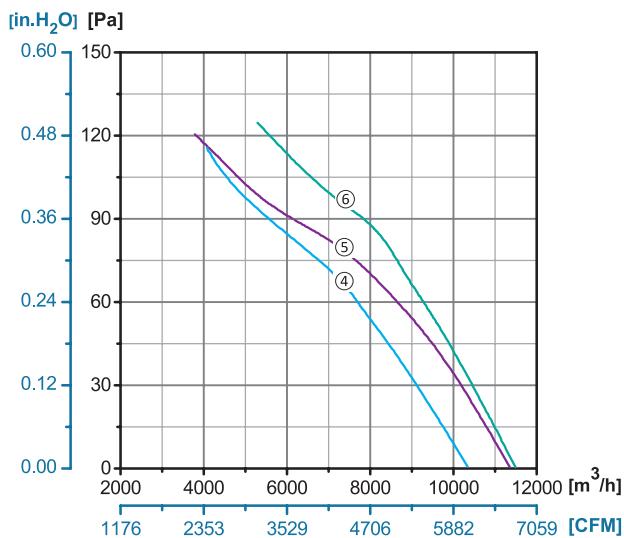
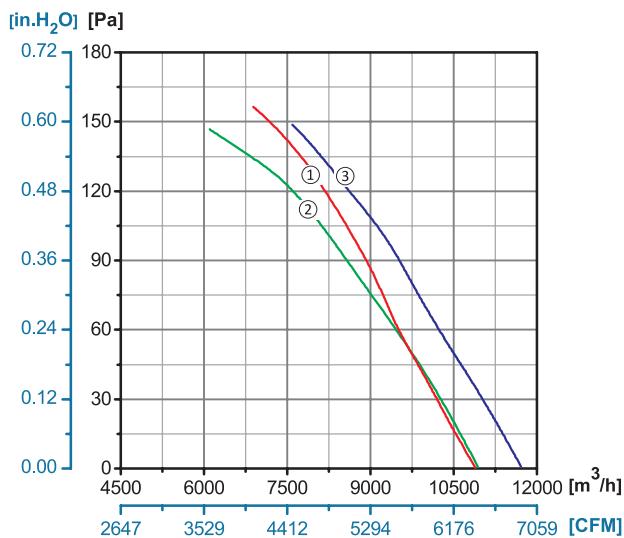
Impeller Material: Carbon Steel

Ingress Protection: IP54

Insulation Class: F

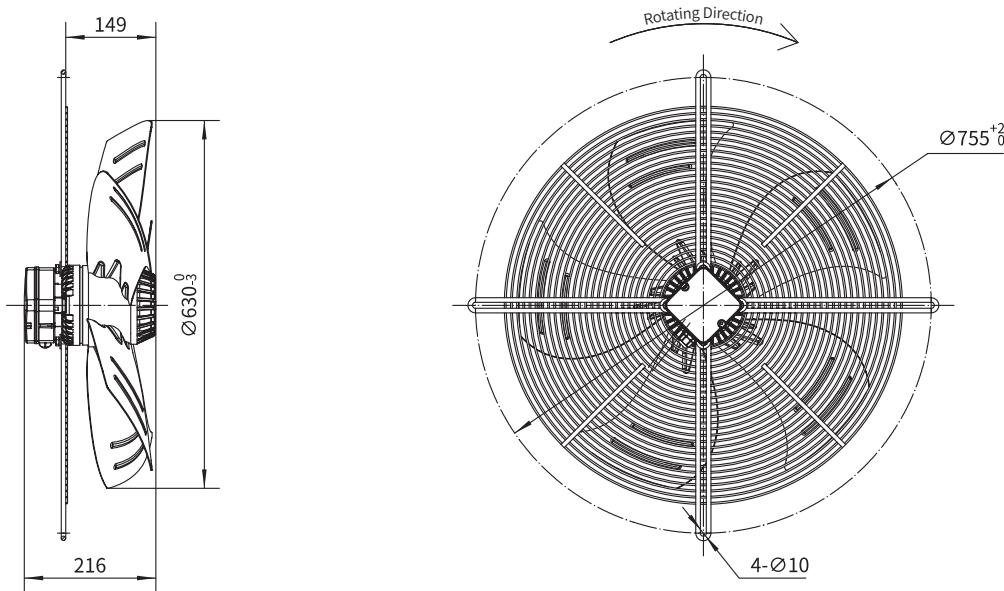
Bearing Type: Maintenance Free Ball Bearing

Performance Curves

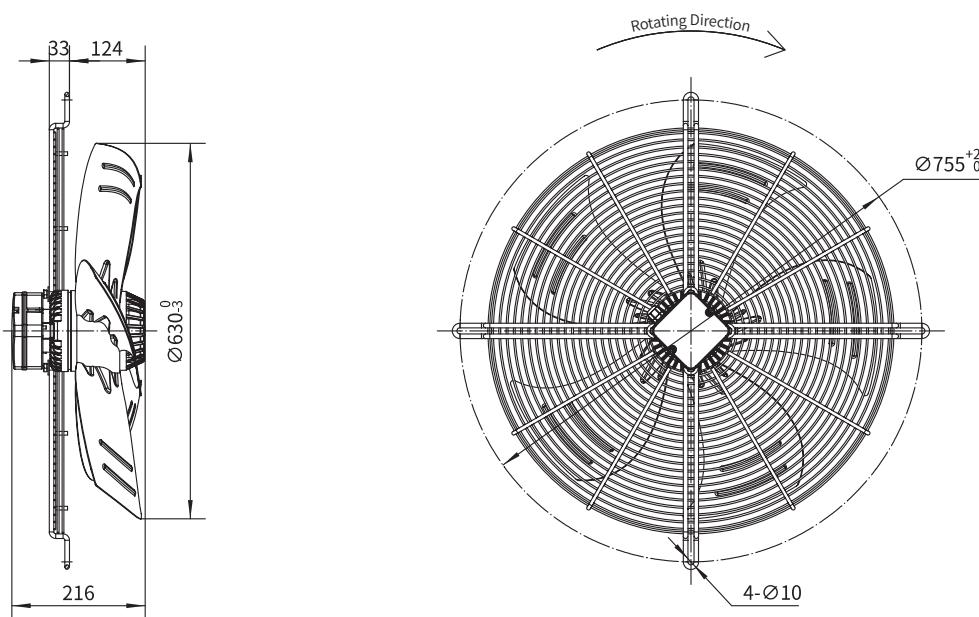


Type B	Type C	Type D	Type E	Type F0
YWF.A4S-630S-5B A00	YWF.A4S-630S-5C A00	YWF.A4S-630S-5E A00	YWF.A4S-630S-5D A00	YWF.A4S-630S-5F A00
YWF.A4T-630S-5B A00	YWF.A4T-630S-5C A00	YWF.A4T-630S-5E A00	YWF.A4T-630S-5D A00	YWF.A4T-630S-5F A00
YWF.A6S-630S-5B A00	YWF.A6S-630S-5C A00	YWF.A6S-630S-5E A00	YWF.A6S-630S-5D A00	YWF.A6S-630S-5F A00
YWF.A6T-630S-5B A00	YWF.A6T-630S-5C A00	YWF.A6T-630S-5E A00	YWF.A6T-630S-5D A00	YWF.A6T-630S-5F A00

Type B



Type C



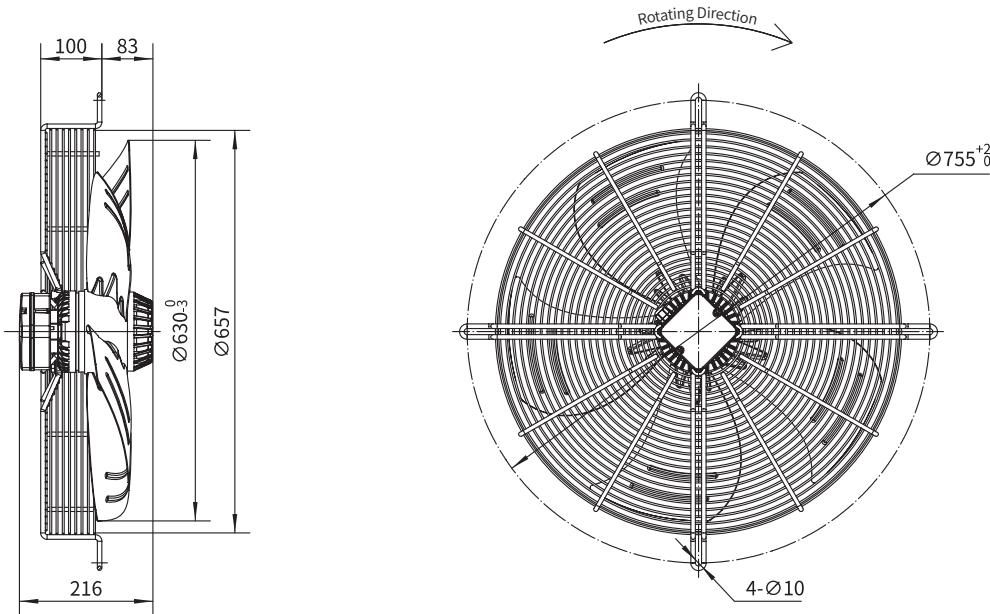
	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
YWF.A4S-630S-5F I A01	220/230	50	3.70	800	1350	16	10940/6435	74	(2)	-30/+60	CCC, CE
	220/230	60	5.34	1150	1500	16	10890/6406	75	(1)	-30/+60	CCC, CE, UL
YWF.A4T-630S-5F I A01	380/400	50	1.60	850	1350	/	10890/6406	73	(1)	-30/+60	CCC, CE
	380/400	60	1.80	1010	1540	/	11700/6882	75	(3)	-30/+60	CCC, CE, UL
YWF.A6S-630S-5F I A01	220/230	50	2.50	520	900	12	10330/6076	67	(4)	-30/+60	CCC, CE
	220/230	60	3.25	705	1050	12	11360/6682	71	(5)	-30/+60	CCC, CE, UL
YWF.A6T-630S-5F I A01	380/400	50	1.40	550	900	/	10330/6076	67	(4)	-30/+60	CCC, CE
	380/400	60	1.56	740	1060	/	11500/6765	69	(6)	-30/+60	CCC, CE, UL



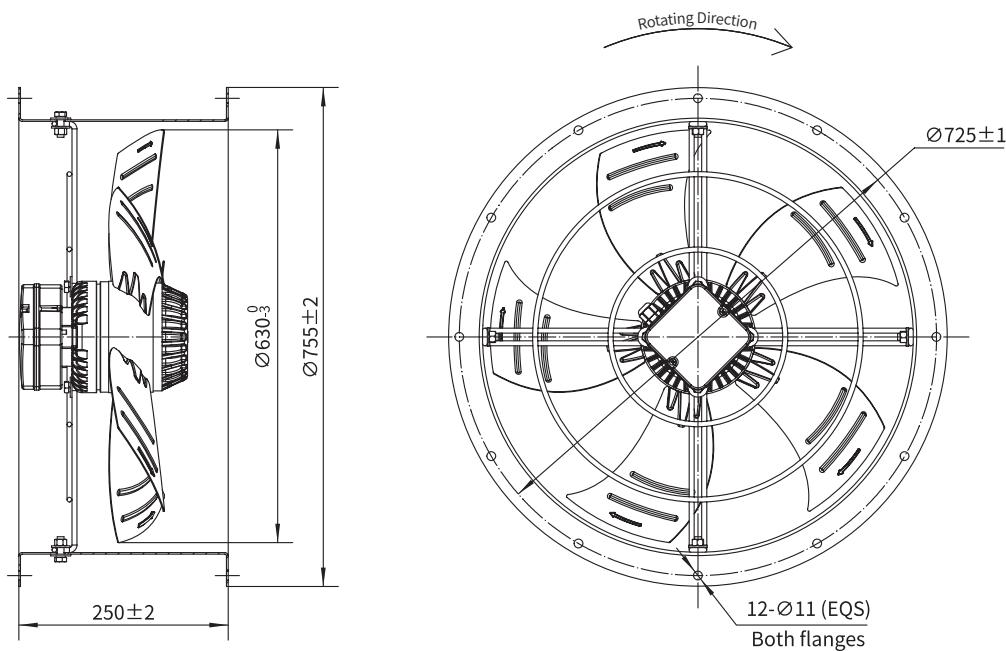
Conventional Carbon Steel Blade Axial Fan

Φ630-L

Type D



Type E

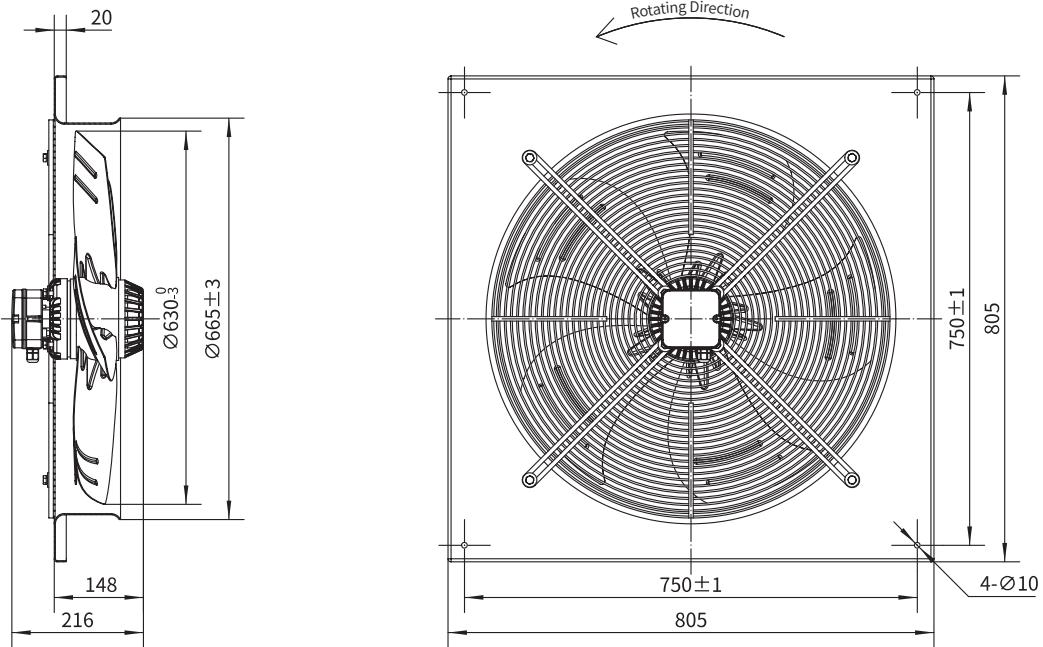




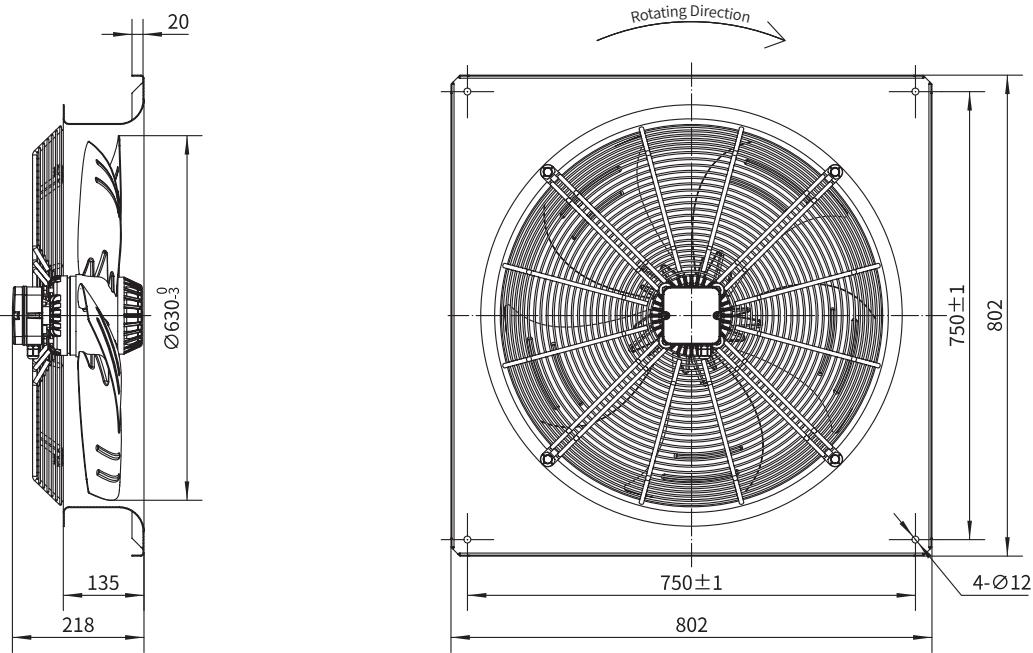
Conventional Carbon Steel Blade Axial Fan

Φ630-L

Type F0



Type F1





Conventional Carbon Steel Blade Axial Fan

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Φ630-H

Rotor Material: Aluminum Die-casting

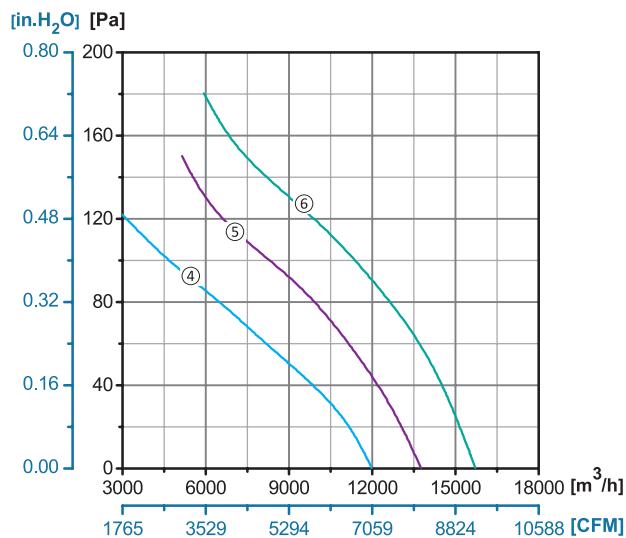
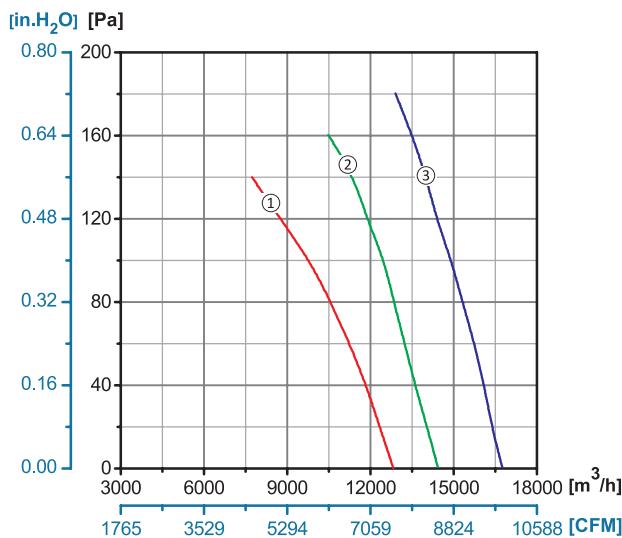
Impeller Material: Carbon Steel

Ingress Protection: IP54

Insulation Class: F

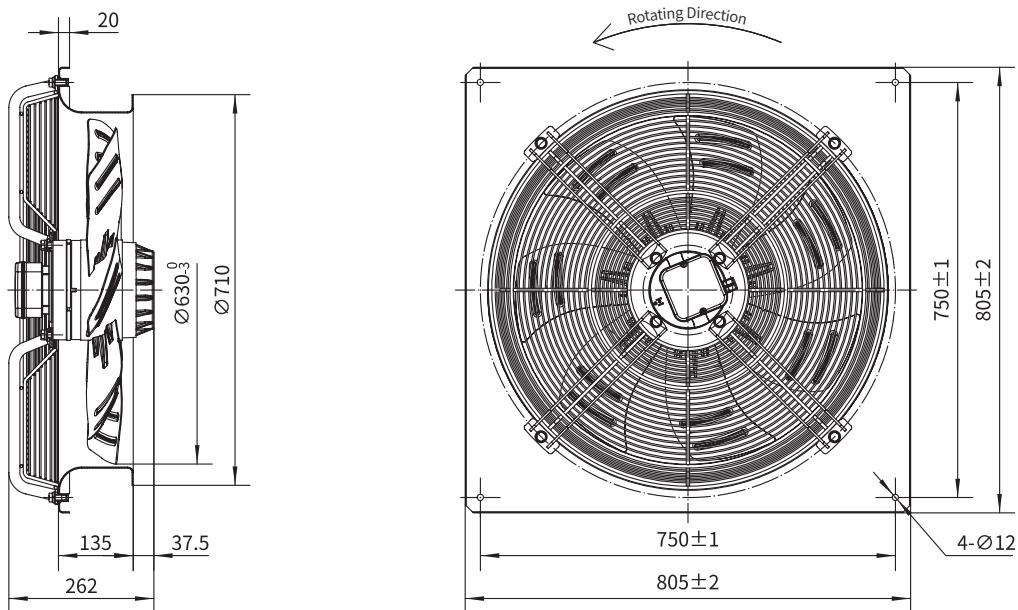
Bearing Type: Maintenance Free Ball Bearing

Performance Curves

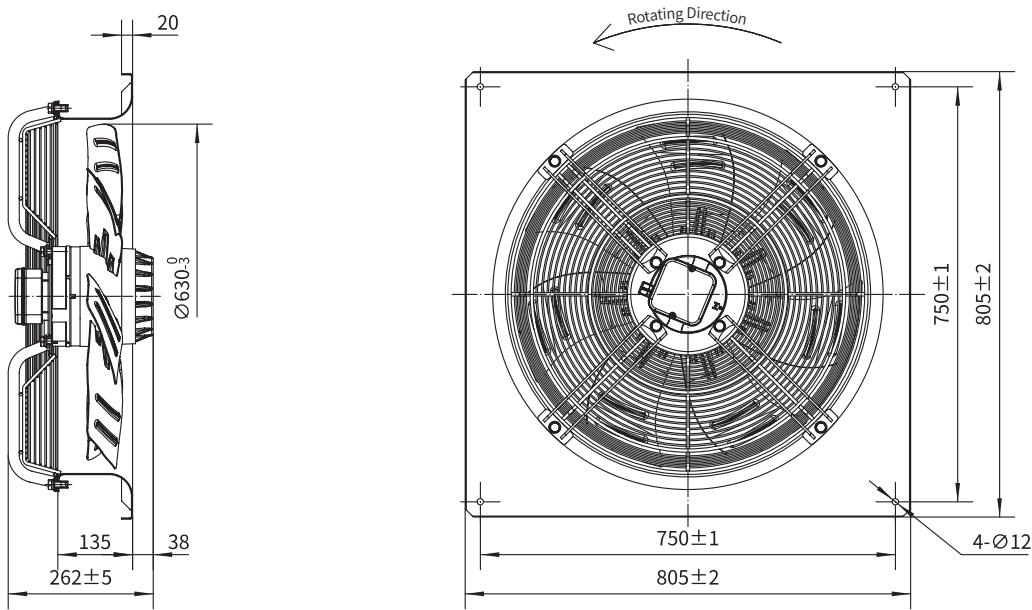


Type B	Type C	Type D	Type E	Type F0
/	/	/	/	YWF.A4T-630S-7F S11
/	/	/	/	YWF.A6T-630S-7F S11

Type F0



Type F1



	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa) [m³/h]/[CFM]	Noise dB(A)	Curve No.	Working Temp. Min/Max(°C)	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
YWF.A4T-630S-7F I S10	380/400	50	2.50	1400	1400	/	14430/8488	76	(2)	-30/+60	CCC, CE
	380/400	50	1.70	1100	1200	/	12840/7553	74	(1)	-30/+60	CCC, CE
	380/400	60	3.00	1800	1650	/	16750/9853	78	(3)	-30/+60	CCC, CE
YWF.A6T-630S-7F I S10	380/400	50	2.00	900	940	/	13760/8094	73	(5)	-30/+60	CCC, CE
	380/400	50	1.15	700	825	/	12000/7059	69	(4)	-30/+60	CCC, CE
	380/400	60	2.20	1260	1070	/	15720/9247	77	(6)	-30/+60	CCC, CE



Conventional Carbon Steel Blade Axial Fan

ErP2015
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Φ710

Rotor Material: Aluminum Die-casting

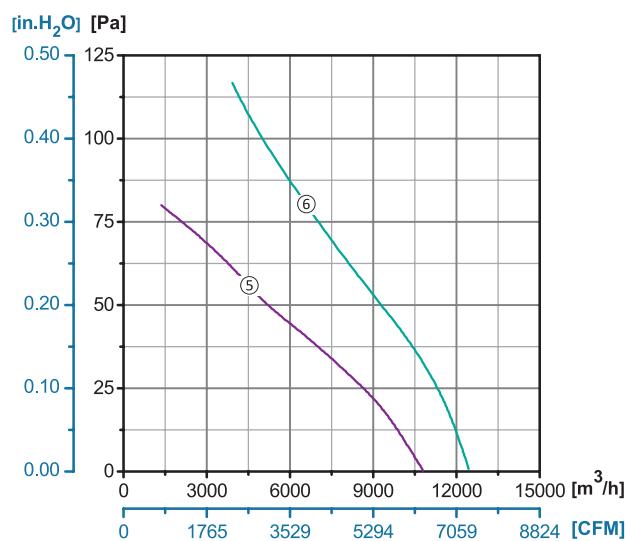
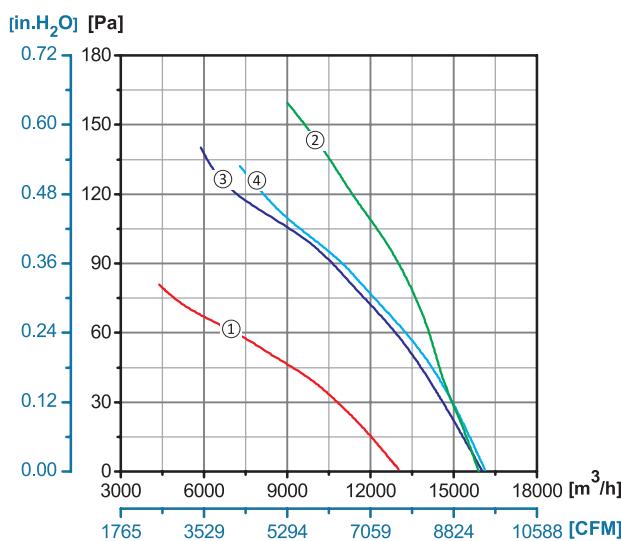
Impeller Material: Carbon Steel

Ingress Protection: IP54

Insulation Class: F

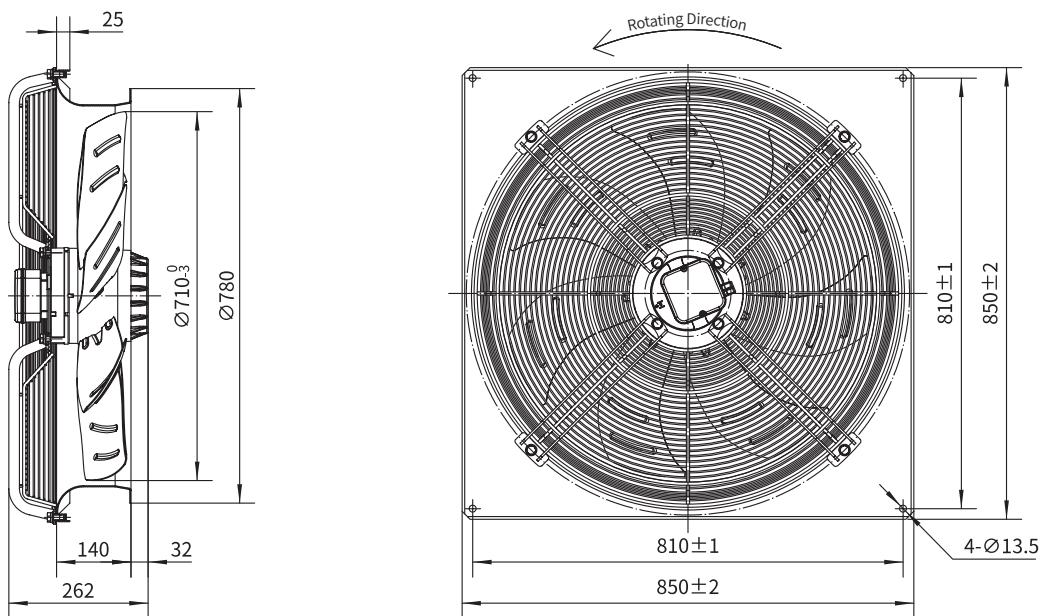
Bearing Type: Maintenance Free Ball Bearing

Performance Curves

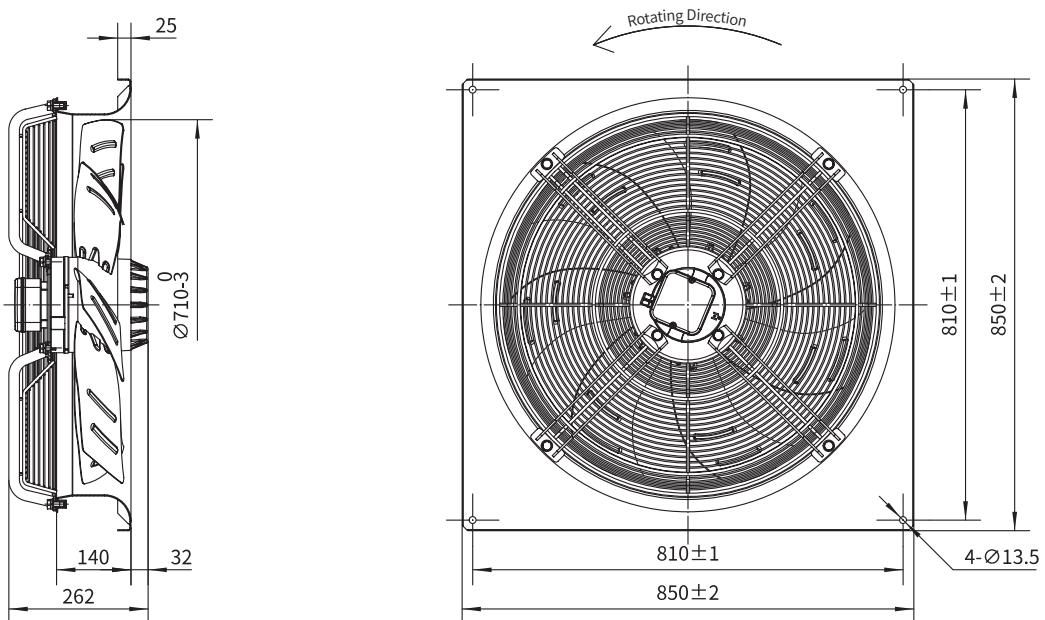


Type B	Type C	Type D	Type E	Type F0
/	/	/	/	YWF.A6T-710S-7F S11
/	/	/	/	YWF.A8T-710S-7F S11
/	/	/	/	YWF.A6T-710S-7F V11

Type F0



Type F1



	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
YWF.A6T-710S-7F I S10	380/400	50	2.30	1100	920	/	16020/9424	75	(3)	-30/+60	CCC, CE
	380/400	50	1.40	800	780	/	13000/7647	68	(1)	-30/+60	CCC, CE
	380/400	60	1.80	1000	1050	/	15900/9353	78	(2)	-30/+60	CCC, CE, UL
YWF.A8T-710S-7F I S10	380/400	50	1.28	450	700	/	12500/7353	70	(5)	-30/+60	CCC, CE
	380/400	50	0.63	340	610	/	10800/6353	66	(6)	-30/+60	CCC, CE
YWF.A6T-710S-7F I V10	200/230	50	3.40	1100	900	/	16140/9494	75	(4)	-30/+60	CCC, CE
	380/400	50	2.00	1100	900	/	16140/9494	75	(4)	-30/+60	CCC, CE



Conventional Carbon Steel Blade Axial Fan

ErP2015
EXCEEDS THE NORM



Φ800

Rotor Material: Aluminum Die-casting

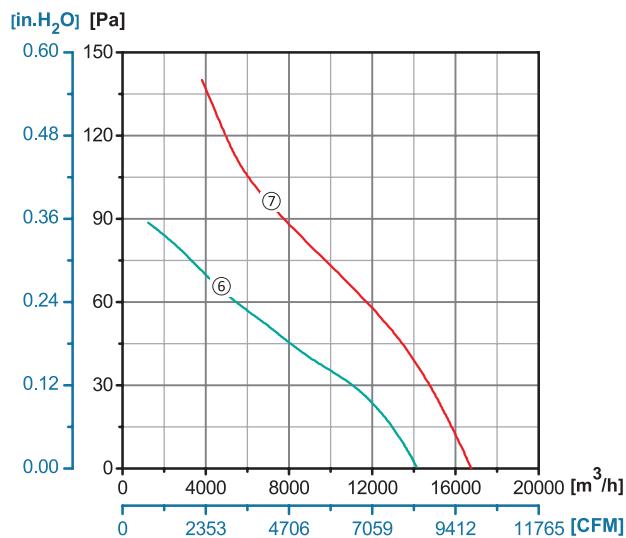
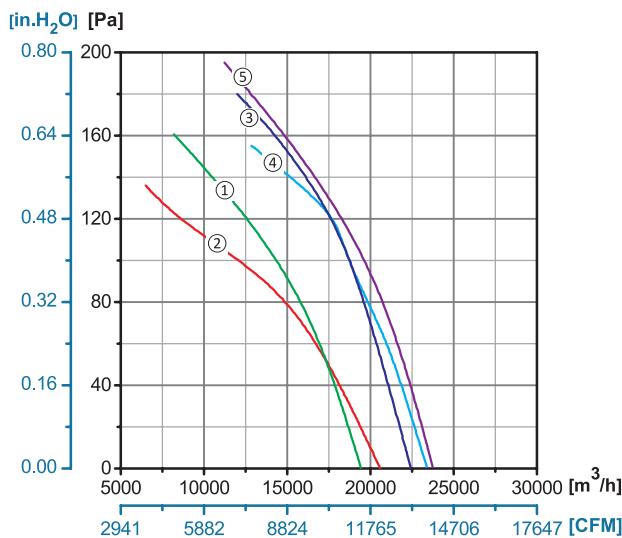
Impeller Material: Carbon Steel

Ingress Protection: IP54

Insulation Class: F

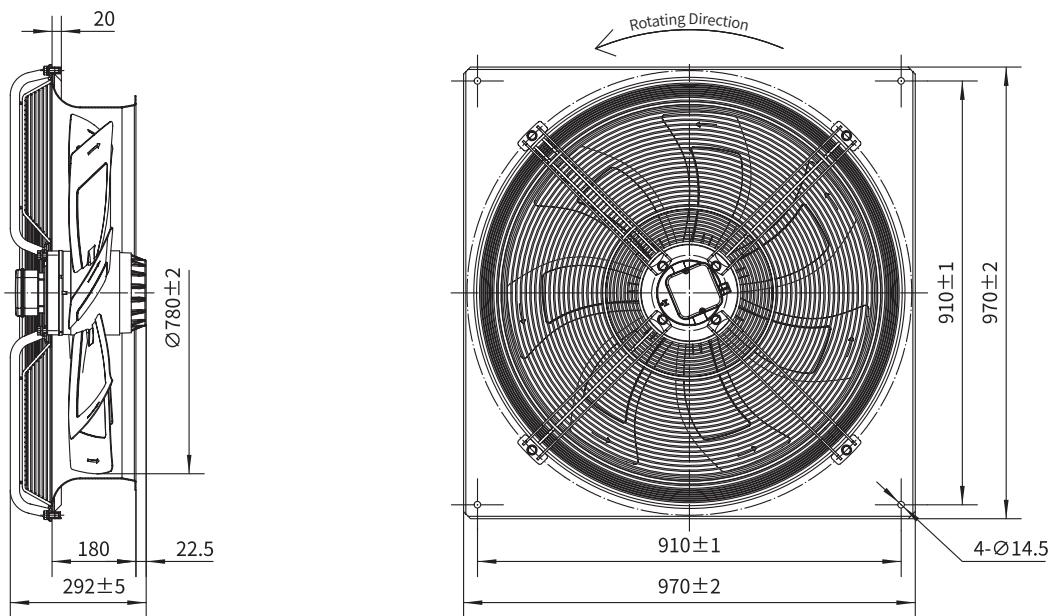
Bearing Type: Maintenance Free Ball Bearing

Performance Curves

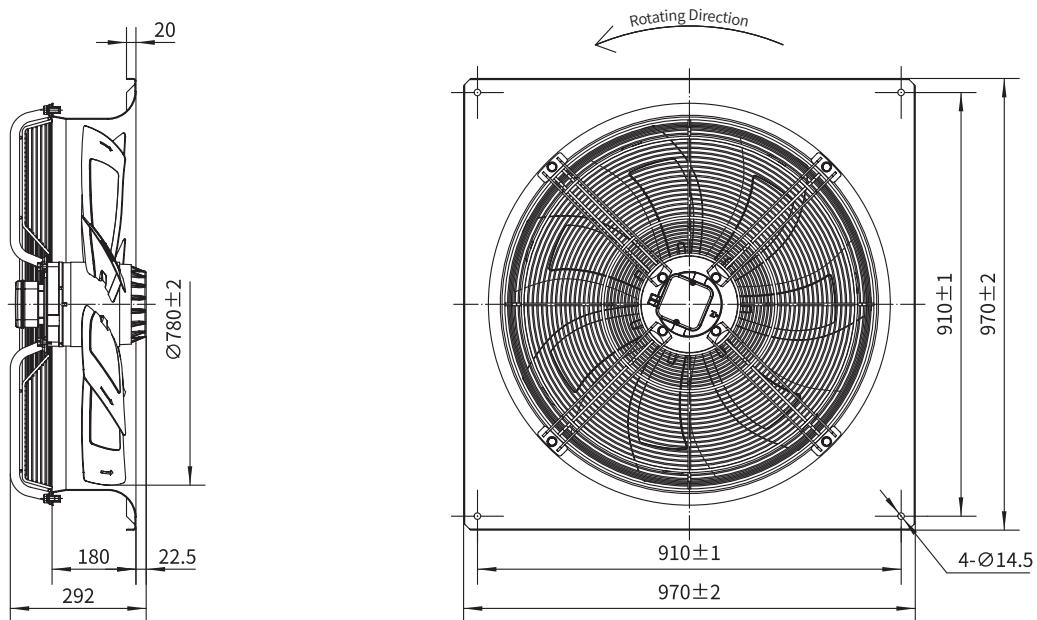


Type B	Type C	Type D	Type E	Type F0
/	/	/	/	YWF.A6T-800S-7F S11
/	/	/	/	YWF.A6T-800S-7F S11
/	/	/	/	YWF.A8T-800S-7F S11
/	/	/	/	YWF.A6T-800S-7F V11

Type F0



Type F1



	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
YWF.A6T-800S-7F I S10	380/400	50	3.20	1400	900	/	23400/13765	80	(4)	-30/+60	CCC, CE
	380/400	50	1.90	1100	750	/	20600/12118	76	(2)	-30/+60	CCC, CE
YWF.A6T-800S-7F I S10	380/400	60	3.40	1750	1050	/	24000/14118	80	(5)	-30/+60	CCC, CE
YWF.A8T-800S-7F I S10	380/400	50	1.50	650	670	/	16800/9882	74	(6)	-30/+60	CCC, CE
	380/400	50	0.80	450	510	/	14130/8312	70	(7)	-30/+60	CCC, CE
YWF.A6T-800S-7F I V10	220/230	50	5.20	1200	950	/	19500/11470	75	(1)	-30/+60	CCC, CE
	220/230	60	5.70	1800	1050	/	22500/13275	78	(3)	-30/+60	CCC, CE
	380/400	50	3.00	1200	950	/	19500/11470	75	(1)	-30/+60	CCC, CE
	380/400	60	3.40	1800	1050	/	22500/13275	78	(3)	-30/+60	CCC, CE



Conventional Carbon Steel Blade Axial Fan

ErP2015
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Φ900

Rotor Material: Aluminum Die-casting

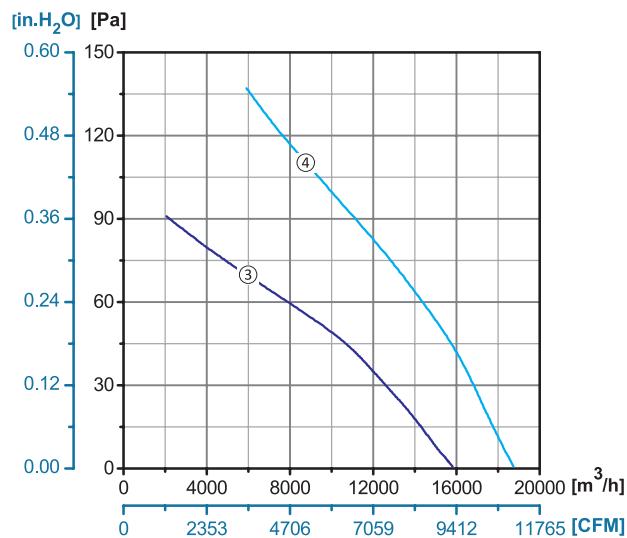
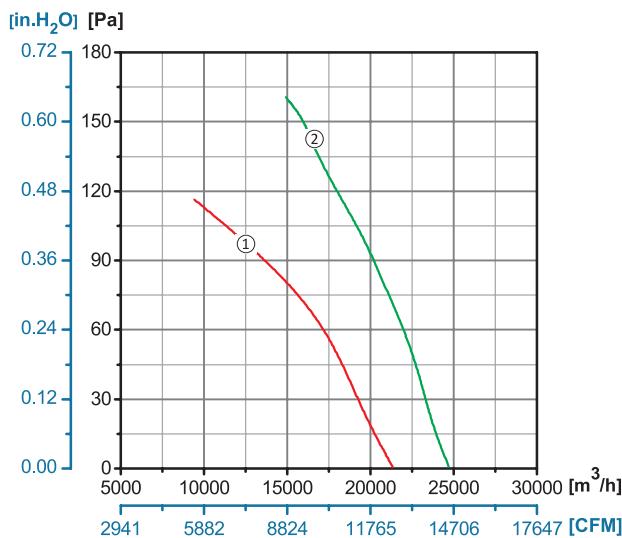
Impeller Material: Carbon Steel

Ingress Protection: IP54

Insulation Class: F

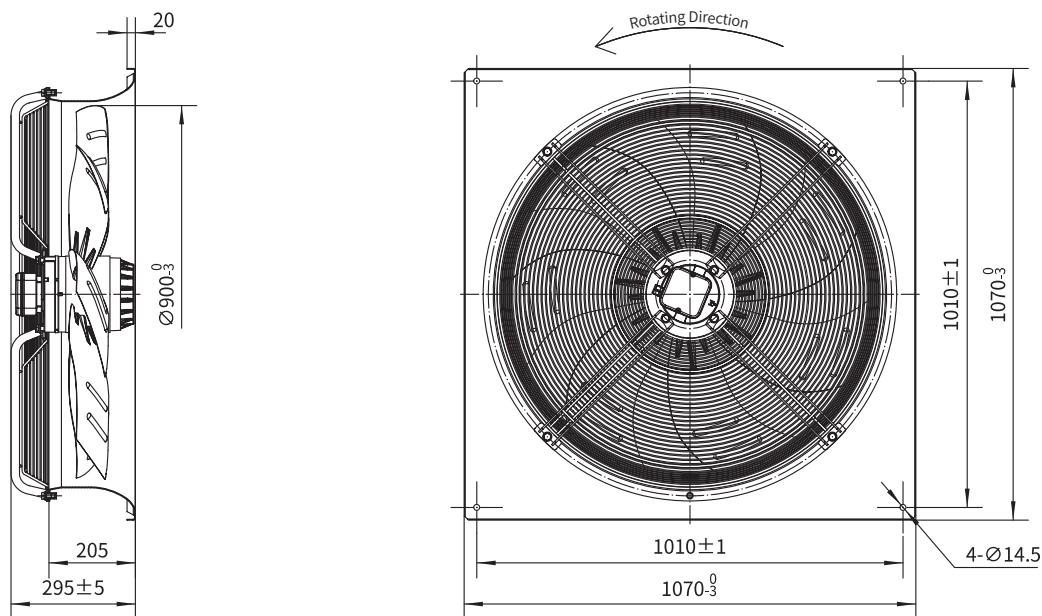
Bearing Type: Maintenance Free Ball Bearing

Performance Curves



Type B	Type C	Type D	Type E	Type F0
/	/	/	/	/
/	/	/	/	/

Type F1



Conv. Steel Blade Axial

	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
Type F1	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max(°C)	
YWF.A6T-900S-7F S10	380/400	50	3.20	1500	930	/	25000/14750	81	(2)	-30/+60	CCC, CE
	380/400	50	2.00	1150	800	/	21000/12390	78	(1)	-30/+60	CCC, CE
YWF.A8T-900S-7F S10	380/400	50	2.20	850	700	/	18730/11018	76	(4)	-30/+60	CCC, CE
	380/400	50	1.10	600	550	/	15800/9294	72	(3)	-30/+60	CCC, CE



CENTRIFUGAL FAN SERIES

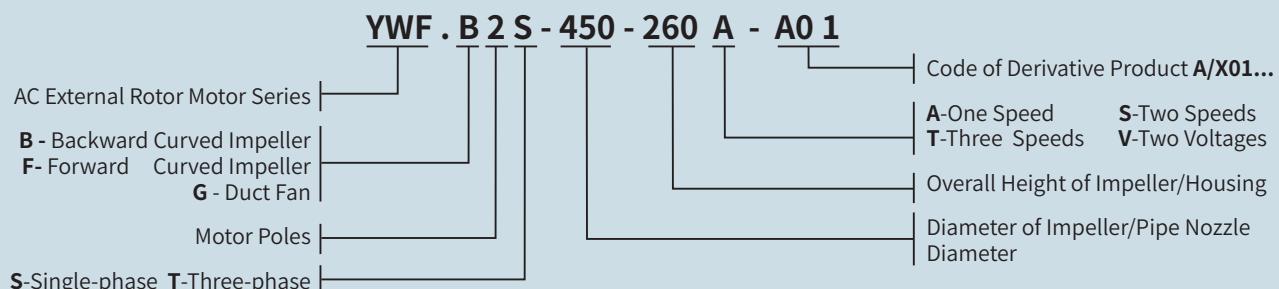






Centrifugal Fan Product Introduction

1. Nomenclature



2. The YWF series of external rotor motor powered centrifugal fans have the characteristics of compact structure, reliable operation, low noise, easy installation and high efficiency, etc.
3. There are single-phase and three-phase power supplies available for the external rotor motor powered centrifugal fans. And the centrifugal fans are widely used in the industries of air conditioning terminal system, IT & Telecom, FFU, Fresh air system and ventilation, etc.
4. The YWF series of external rotor motors have low start current, and are IP44/IP54 and class F evaluated.
5. There's a built-in thermal protector for single-phase motor, and the motor can be operated in the temperature range from -30 to 60 degrees Celsius. If the customer needs built-in thermal protector for three-phase motor, please specify while placing the order.
6. The nominal inputs for single-phase motors are 115V/60Hz and 230V, 50/60Hz, and for three-phase motor are 400V, 50/60Hz and 460V/60Hz. voltage and frequency can be accommodated based on customer's requirements.
7. The speed of YWF series of motors can be controlled by a transformer or VFD. We also can change the speed by changing motor's Delta wiring and Star wiring for three-phase motors, and by using winding tap speed regulation for single-phase motors.
8. The working point parameters (such as speed, power) and mounting dimensions are needed if the customer orders only the motor for their own application. In order to get an ideal motor performance, we would prefer an impeller and a housing for doing research and test if the customer is going to use the motor for powering their own impeller.
9. The aerodynamic tests of Dunli fans are under the condition of 1.2kg/m³ air density and 20 degrees Celsius ambient temperature as per the requirements of National Testing Standards .
10. The noise defined for Dunli motor fans is referring to sound pressure level. The distance of sensor is 1m away from the inlet hose according to the Requirements of National Testing Standards.
11. The type of bearing used on the motors is , and the average life rating is L10 which is between 30,000 to 50,000 hours based on different operating conditions.
12. Dunli external rotor motor powered fans are  and  approved, and most of them are  registered.
13. All data shown on this catalogue subject to change and are for the purpose of product preliminary selection, please check with your Sales Rep and refer to Product Specification provided.





Backward Curved Centrifugal Fan with Aileron Impeller





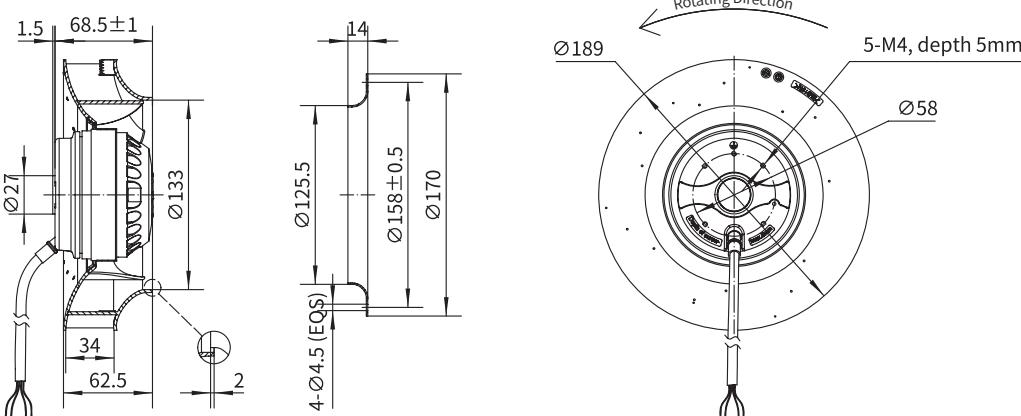
Backward Curved Centrifugal Fan with Aileron Impeller



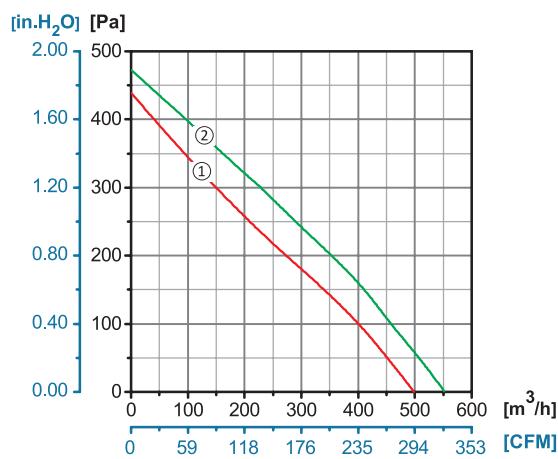
Φ 190

Rotor Material: Aluminum Die-casting
Impeller Material: Plastic
Ingress Protection: IP44
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B2S-190-060AB2A	110/120	60	0.75	85	2760	8	550/323	71	②	-30/+60	UL
YWF.B2S-190-060AB20	220/230	60	0.35	75	2500	2.5	500/294	67	①	-30/+60	UL



Backward Curved Centrifugal Fan with Aileron Impeller



Φ 220

Rotor Material: Aluminum Die-casting

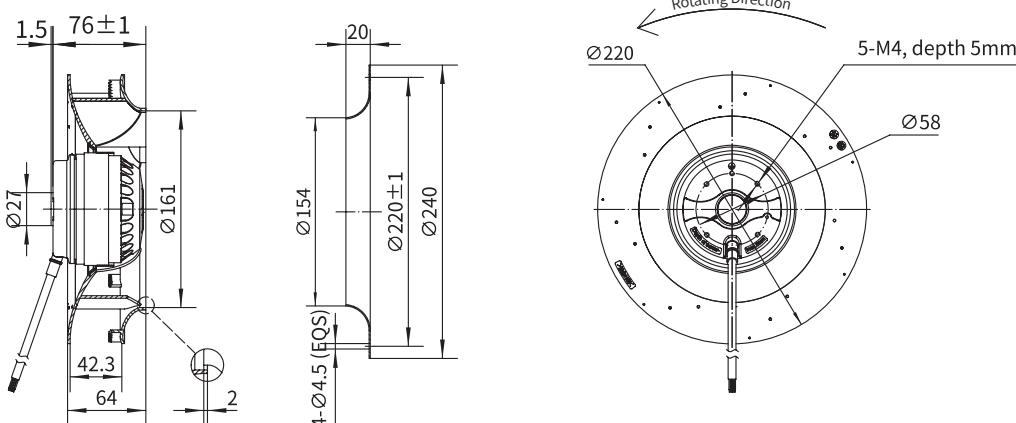
Impeller Material: Plastic

Ingress Protection: IP44

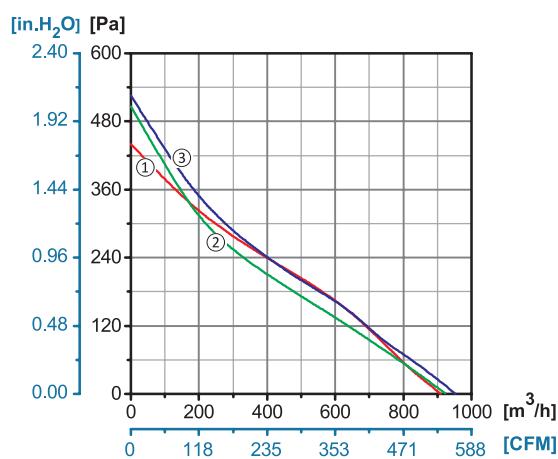
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m ³ /h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B2S-220-065AB2B	110/120	60	0.93	110	2630	10	955/561	75	(3)	-30/+60	
YWF.B2S-220-065AB22	220/230	50	0.37	80	2450	3	910/535	71	(1)	-30/+60	CCC, CE
	220/230	60	0.49	105	2520	3	920/540	72	(2)	-30/+60	CE



Backward Curved Centrifugal Fan with Aileron Impeller



Φ 225

Rotor Material: Aluminum Die-casting

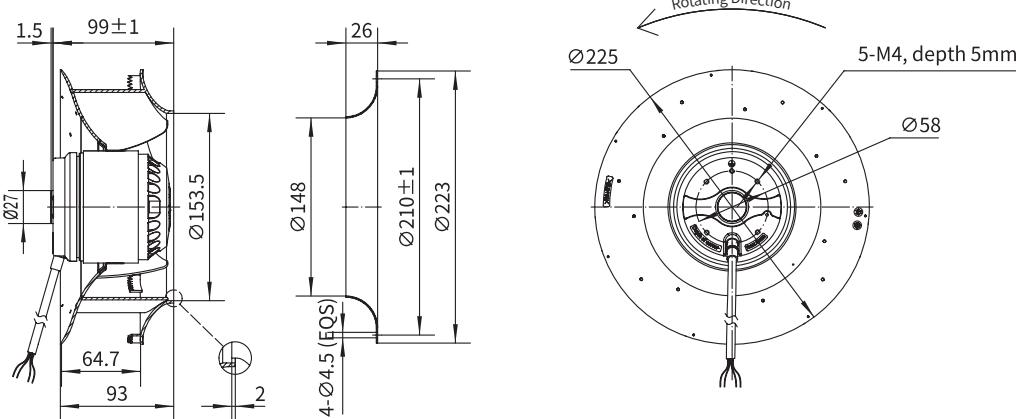
Impeller Material: Plastic

Ingress Protection: IP44

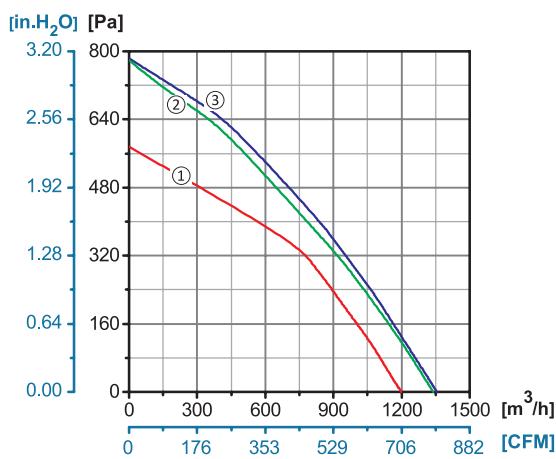
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m ³ /h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B2S-225-089AB2A	110/120	60	1.91	196	2880	28	1340/788	79	②	-30/+60	
YWF.B2S-225-089AB20	220/230	50	0.62	136	2780	7	1200/630	76	①	-30/+60	CCC, CE
	220/230	60	0.99	202	3180	7	1360/800	80	③	-30/+60	CE



Backward Curved Centrifugal Fan with Aileron Impeller



Φ 250

Rotor Material: Aluminum Die-casting

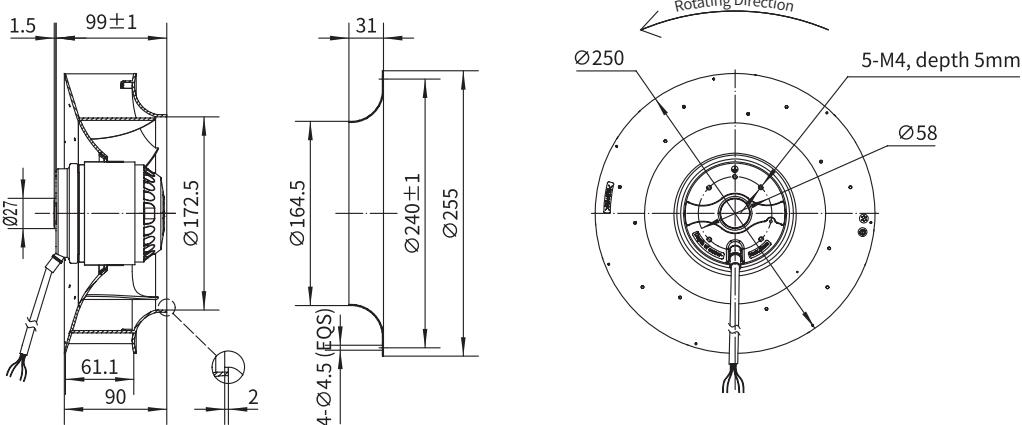
Impeller Material: Plastic

Ingress Protection: IP44

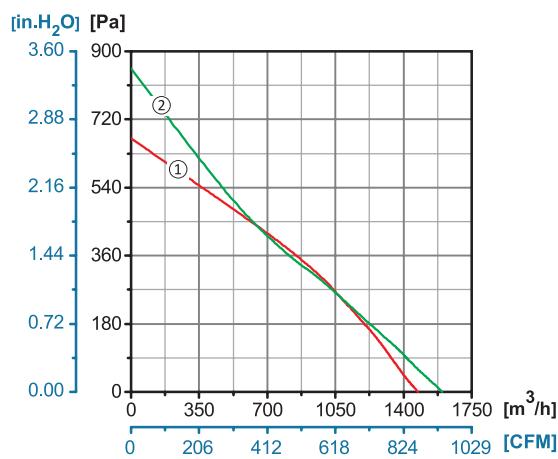
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B2S-250-090AB2A	110/120	60	2.1	229	2840	28	1600/920	82	②	-30/+60	
YWF.B2S-250-090AB20	220/230	50	0.75	160	2600	7	1475/850	79	①	-30/+60	CCC, CE
	220/230	60	1.10	230	2780	7	1600/920	82	②	-30/+60	CE



Backward Curved Centrifugal Fan with Conventional Plastic Impeller





Backward Curved Centrifugal Fan with Conventional Plastic Impeller



Φ 133

Rotor Material: Aluminum Die-casting

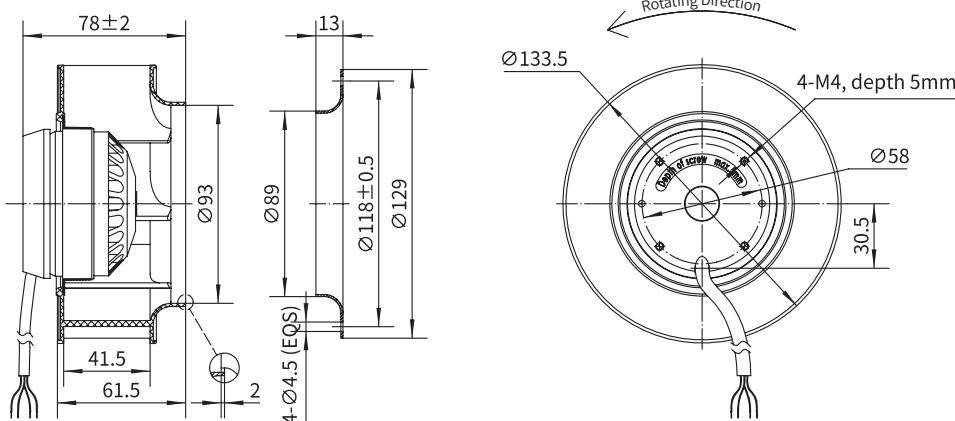
Impeller Material: Plastic

Ingress Protection: IP44

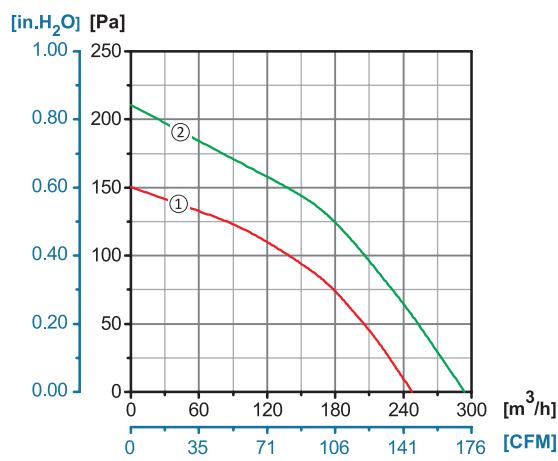
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B2S-133-060AB0A	110/120	60	0.26	30	3150	4	280/160	60	②	-30/+60	UL
YWF.B2S-133-060AB00	220/230	50	0.12	25	2750	2.5	220/130	54	①	-30/+60	CCC, CE
	220/230	60	0.10	23	3200	2.5	280/160	60	②	-30/+60	CE



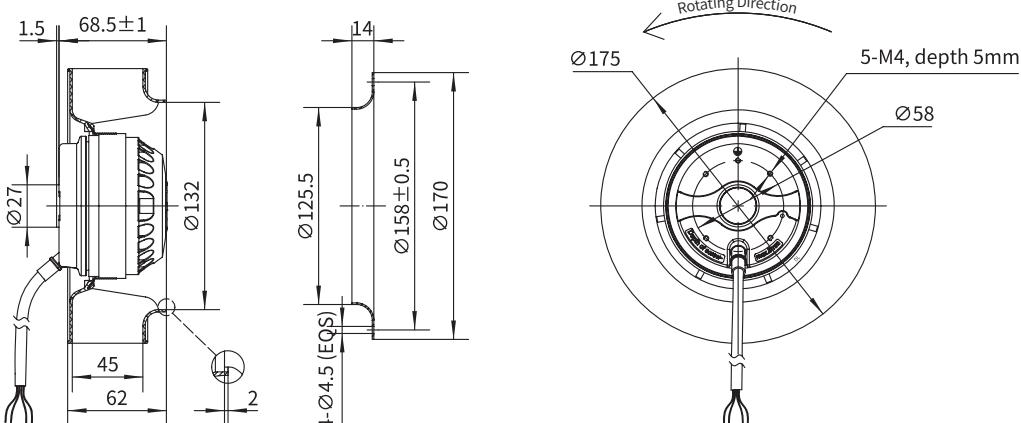
Backward Curved Centrifugal Fan with Conventional Plastic Impeller



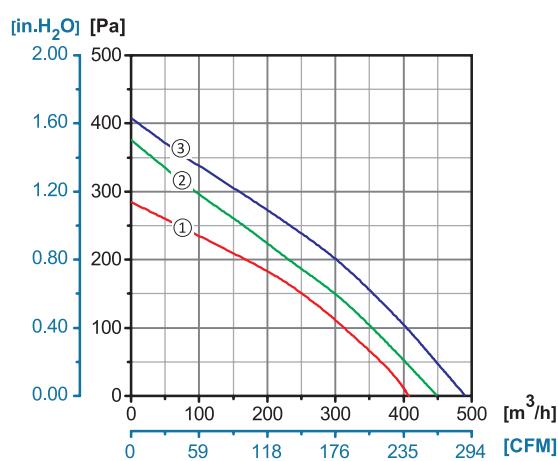
Φ 175

Rotor Material: Aluminum Die-casting
Impeller Material: Plastic
Ingress Protection: IP44
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B2S-175-060AB2A	110/120	60	0.52	62	2970	6	490/290	68	③	-30/+60	
YWF.B2S-175-060AB20	220/230	50	0.23	53	2550	2	410/245	63	①	-30/+60	CCC, CE
	220/230	60	0.27	56	2750	2	450/265	65	②	-30/+60	CE



Backward Curved Centrifugal Fan with Conventional Plastic Impeller



Φ 180

Rotor Material: Aluminum Die-casting

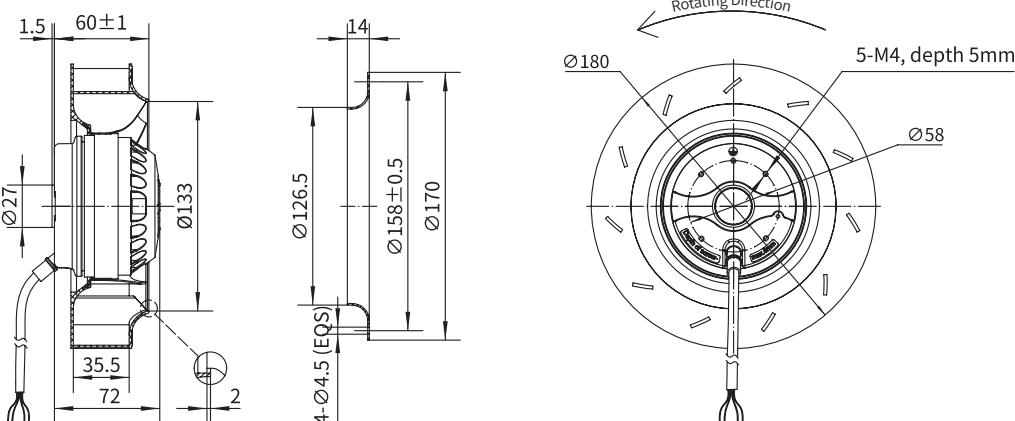
Impeller Material: Plastic

Ingress Protection: IP44

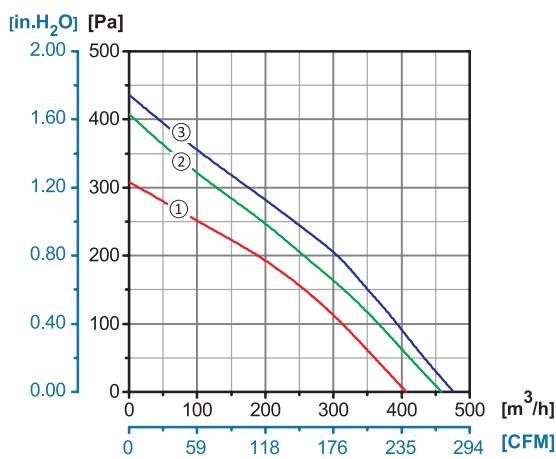
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m^3/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B2S-180-047AB2A	110/120	60	0.50	60	3050	8	480/280	68	③	-30/+60	
YWF.B2S-180-047AB20	220/230	50	0.19	40	2580	2	420/255	64	①	-30/+60	CCC, CE
	220/230	60	0.26	53	2850	2	470/275	67	②	-30/+60	CE



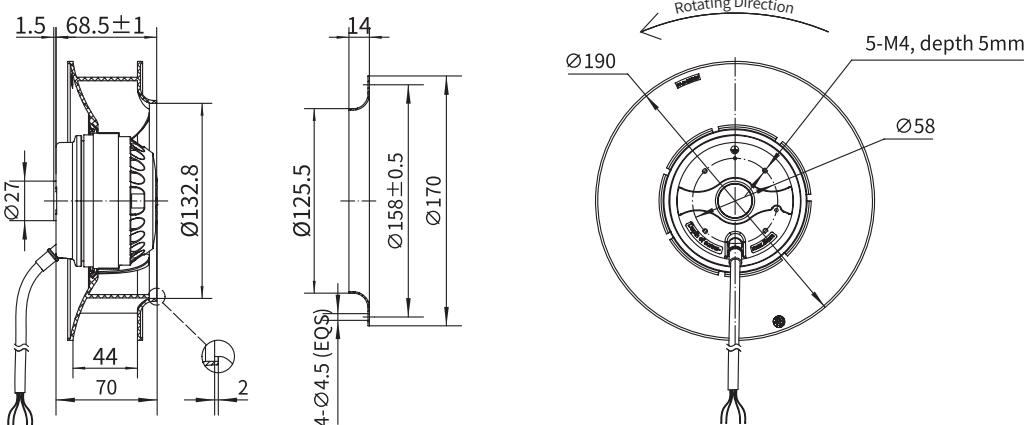
Backward Curved Centrifugal Fan with Conventional Plastic Impeller



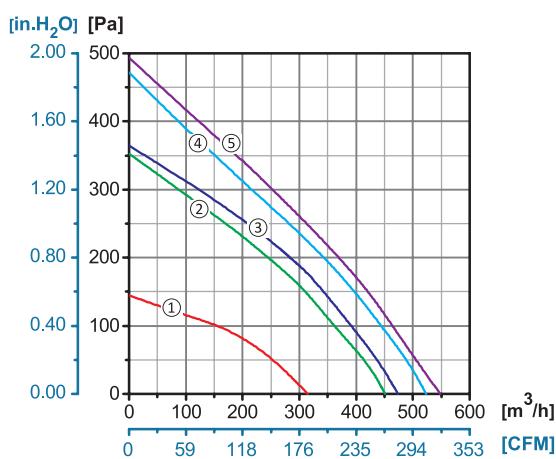
Φ 190

Rotor Material: Aluminum Die-casting
Impeller Material: Plastic
Ingress Protection: IP44
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B2S-190-060AB2C	110/120	60	0.75	85	2760	8	520/306	70	(4)	-30/+60	UL
YWF.B4S-190-060AB20	220/230	60	0.14	30	1610	1	305/179	58	(1)	-30/+60	
YWF.B2S-190-060AB00	220/230	50	0.31	68	2600	3	480/282	68	(3)	-30/+60	CCC, CE
	220/230	60	0.41	85	2900	3	550/320	70	(5)	-30/+60	CE
YWF.B2T-190-060AB00	380/400	50	0.13	58	2460	/	450/265	67	(2)	-30/+60	CCC, CE
	380/400	60	0.13	70	2620	/	480/282	68	(3)	-30/+60	CE



Backward Curved Centrifugal Fan with Conventional Plastic Impeller



Φ 220

Rotor Material: Aluminum Die-casting

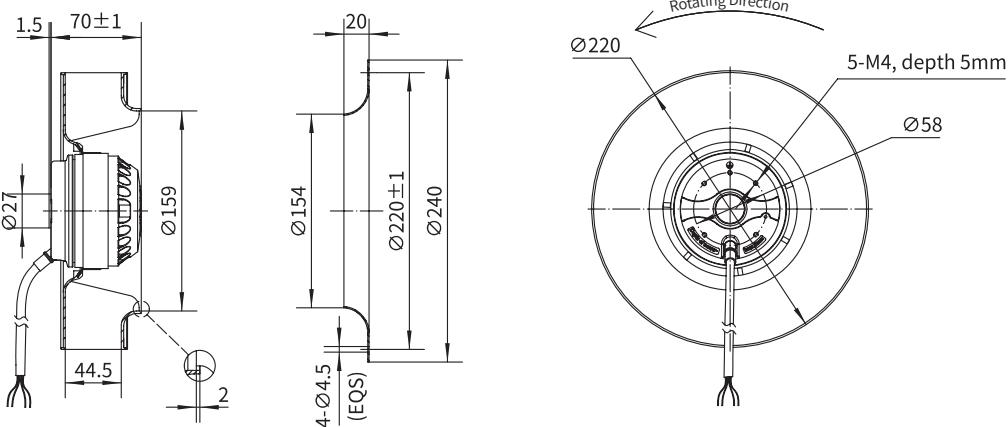
Impeller Material: Plastic

Ingress Protection: IP44

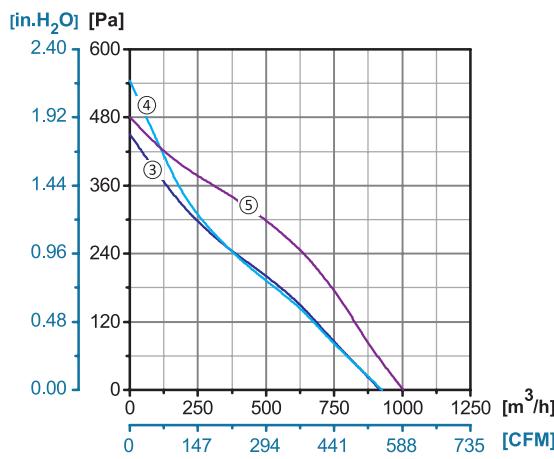
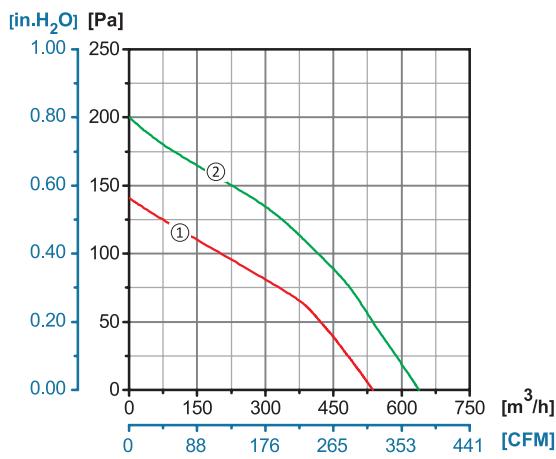
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B2S-220-065AB2A	110/120	60	0.94	110	2540	10	910/535	72	(3)	-30/+60	
YWF.B2S-220-065AB20	220/230	50	0.37	80	2410	3	910/535	70	(3)	-30/+60	CCC, CE
YWF.B2S-220-065AB20	220/230	60	0.49	105	2475	3	920/540	71	(4)	-30/+60	CE
YWF.B4S-220-065AB20	220/230	50	0.26	43	1440	1.5	530/311	60	(1)	-30/+60	CCC, CE
YWF.B2T-220-065AB00	380/400	50	0.19	41	1730	1.5	630/370	62	(2)	-30/+60	CE
YWF.B2T-220-065AB00	380/400	50	0.23	90	2660	/	1000/585	73	(5)	-30/+60	CCC, CE



Backward Curved Centrifugal Fan with Conventional Plastic Impeller



Φ 225

Rotor Material: Aluminum Die-casting

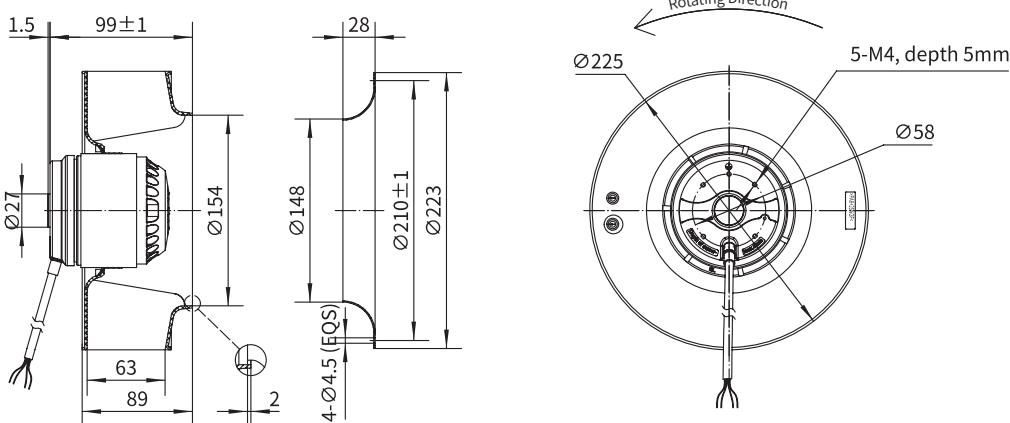
Impeller Material: Plastic

Ingress Protection: IP44

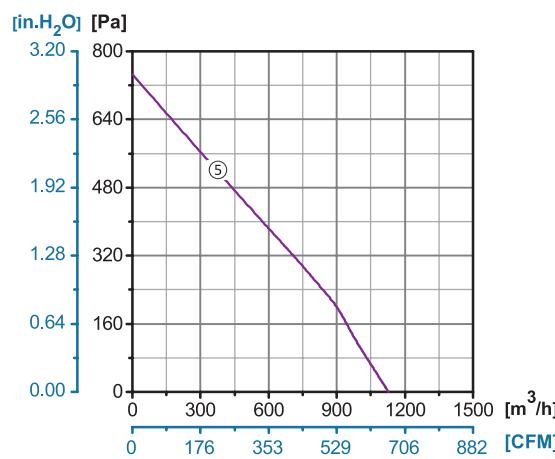
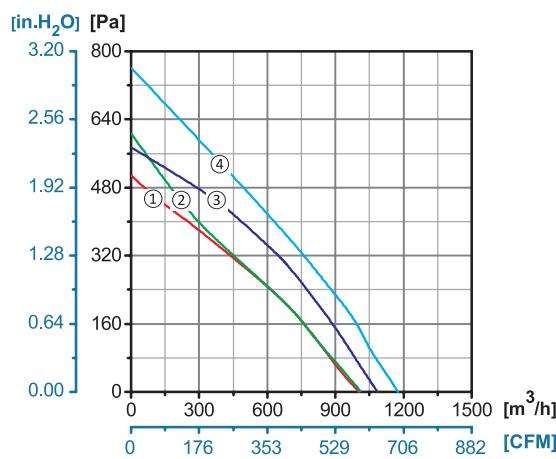
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B2S-225-089AB2B	110/120	60	2.07	230	2880	28	1130/664	80	(5)	-30/+60	
YWF.B2S-225-089AB21	220/230	50	0.66	145	2465	6	1085/638	76	(3)	-30/+60	CCC, CE
	220/230	60	0.96	205	2890	6	1175/691	78	(4)	-30/+60	CE
YWF.B2T-225-089AB20	380/400	50	0.20	115	2390	/	1005/591	71	(1)	-30/+60	CCC, CE
	380/400	60	0.26	156	2460	/	1010/594	72	(2)	-30/+60	CE



Backward Curved Centrifugal Fan with Conventional Plastic Impeller



Φ 250

Rotor Material: Aluminum Die-casting

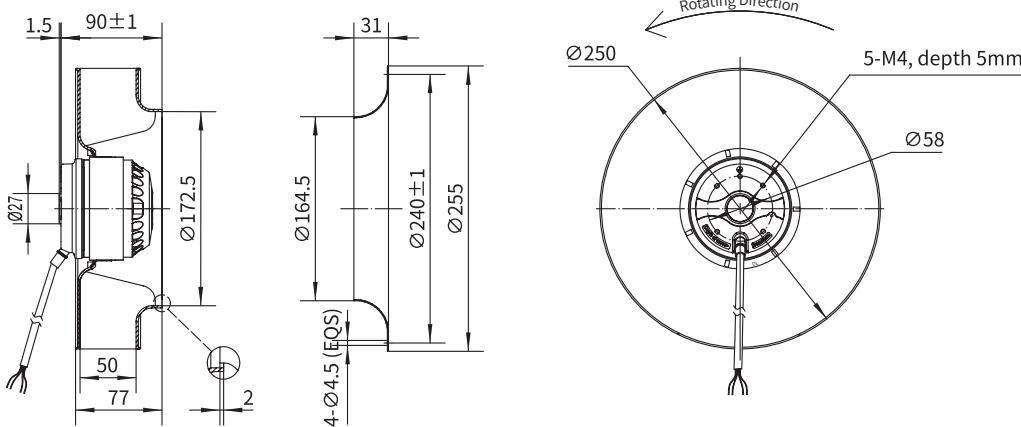
Impeller Material: Plastic

Ingress Protection: IP44

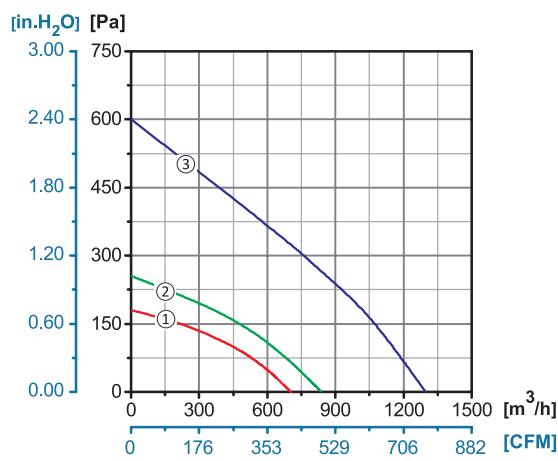
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



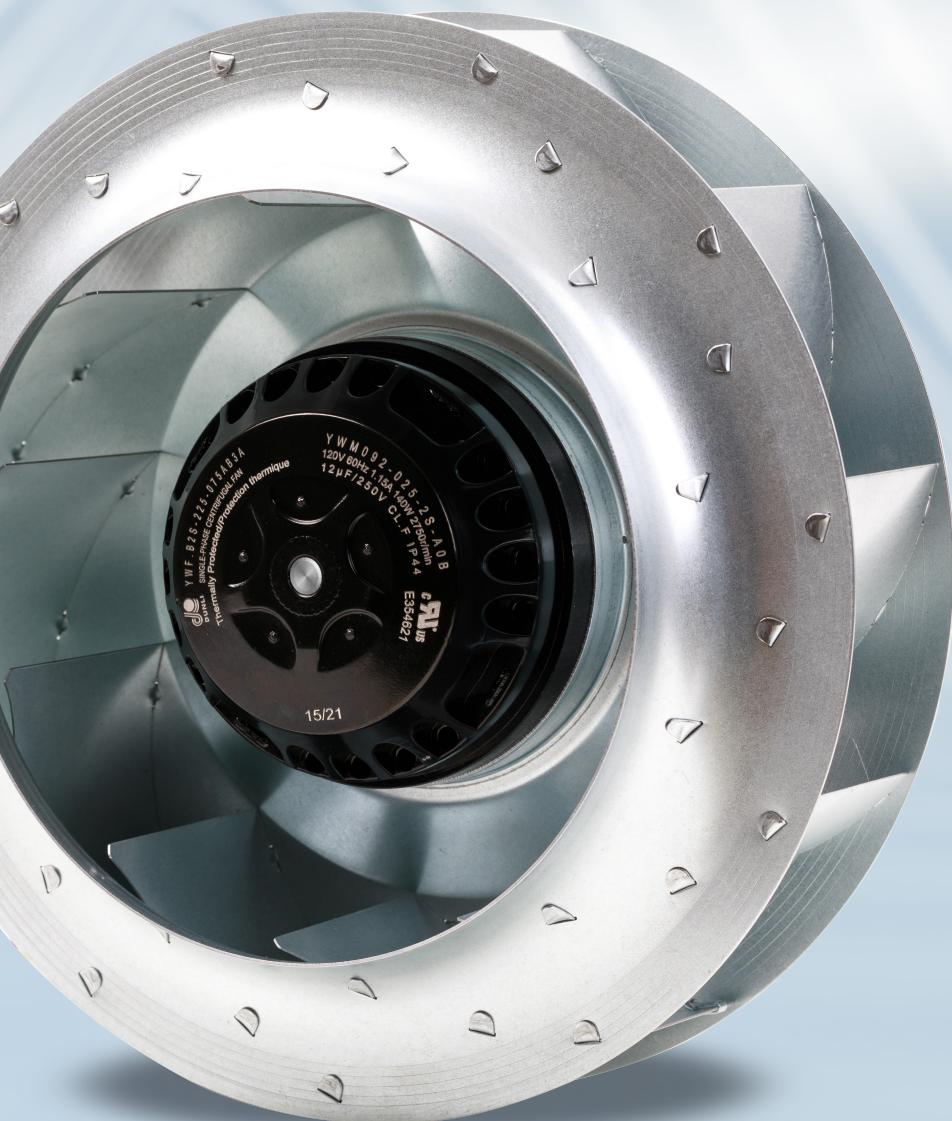
Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m ³ /h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B2S-250-077AB21	220/230	50	0.76	167	2620	7	1300/765	74.5	③	-30/+60	CCC, CE
YWF.B4S-250-077AB20	220/230	50	0.26	50	1400	2	710/410	59	①	-30/+60	CCC, CE
	220/230	60	0.26	60	1650	2	840/485	63	②	-30/+60	CE



Backward Curved Centrifugal Fan with Conventional Metal Impeller





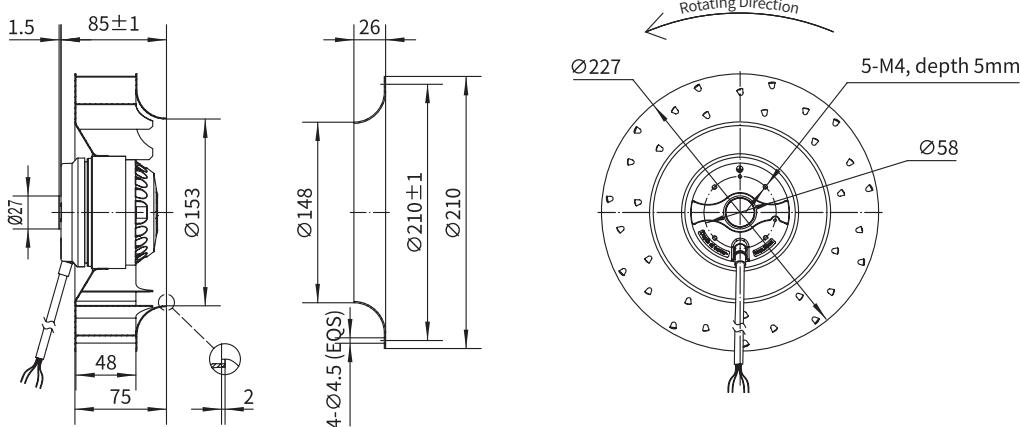
Backward Curved Centrifugal Fan with Conventional Metal Impeller



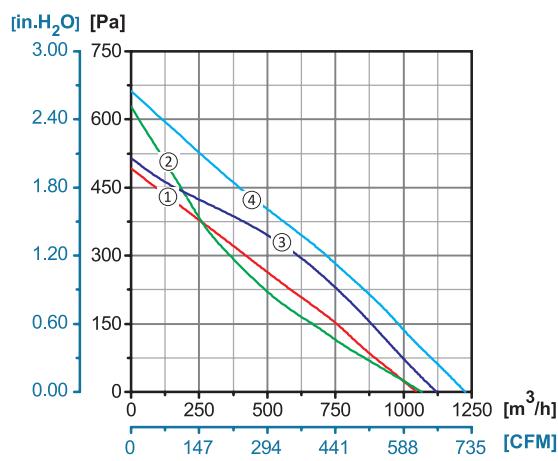
Φ 225

Rotor Material: Aluminum Die-casting
Impeller Material: Galvanized Steel Sheet
Ingress Protection: IP44
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



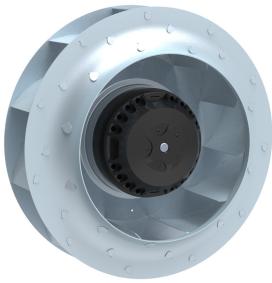
Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B2S-225-075AB20	220/230	50	0.48	104	2510	4	1045/614	73	①	-30/+60	CCC, CE
	220/230	60	0.66	145	2630	4	1066/627	74	②	-30/+60	CE
YWF.B2T-225-075AB20	380/400	50	0.22	95	2500	/	1105/650	72	③	-30/+60	CCC, CE
	380/400	60	0.23	125	2700	/	1195/702	75	④	-30/+60	CE



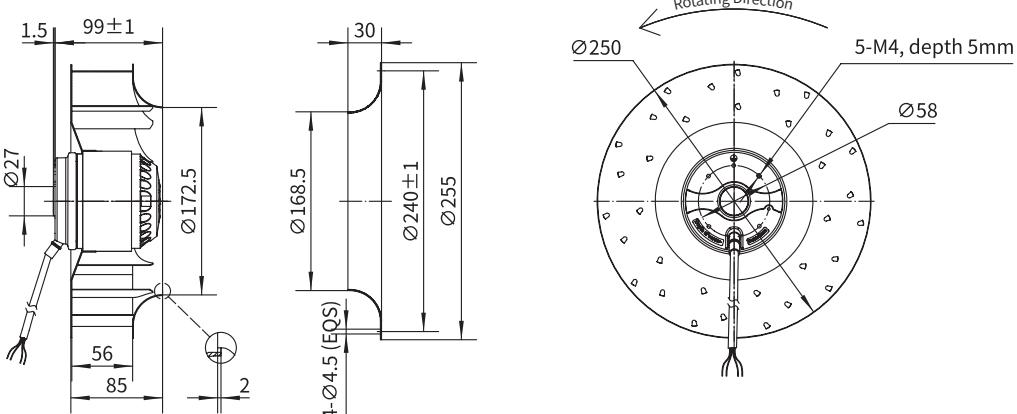
Backward Curved Centrifugal Fan with Conventional Metal Impeller



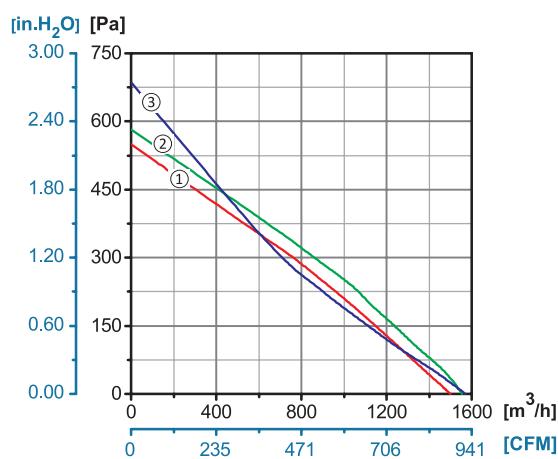
Φ 250

Rotor Material: Aluminum Die-casting
Impeller Material: Galvanized Steel Sheet
Ingress Protection: IP44
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Conv. Metal B/C Centrifugal

Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B2S-250-085AB2A	110/120	60	1.5	170	2570	28	1500/882	78	①	-30/+60	
	110/120	60	2.1	230	2770	28	1580/929	80	③	-30/+60	
YWF.B2S-250-085AB20	220/230	50	0.71	175	2570	7	1550/912	78	②	-30/+60	CCC, CE



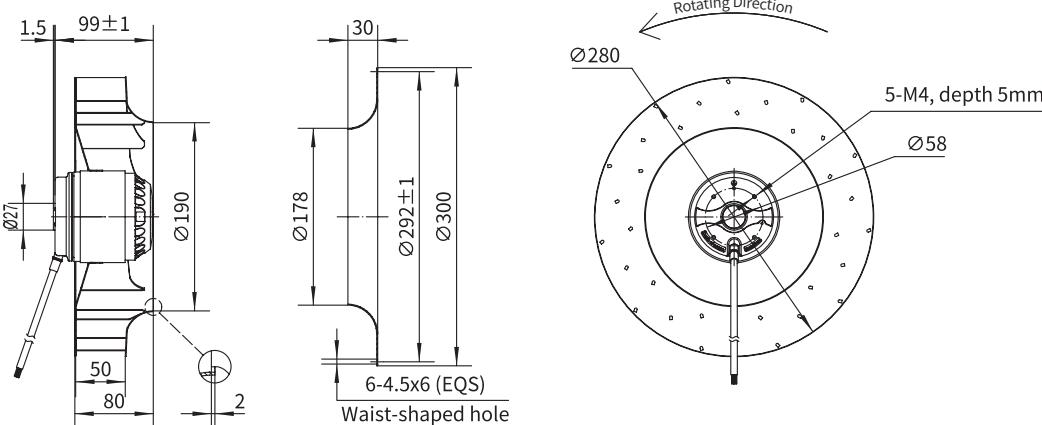
Backward Curved Centrifugal Fan with Conventional Metal Impeller



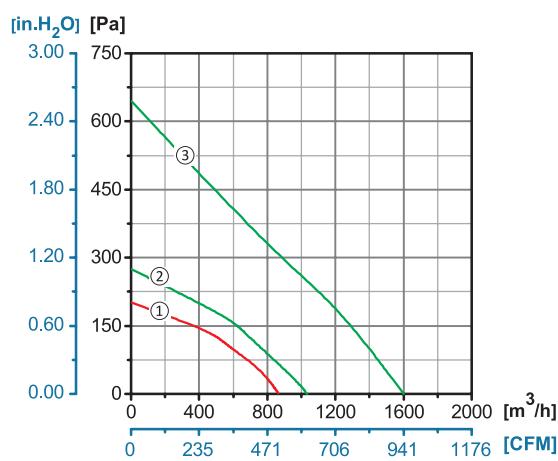
Φ 280

Rotor Material: Aluminum Die-casting
Impeller Material: Galvanized Steel Sheet
Ingress Protection: IP44
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B4S-280-080AB2A	110/120	60	0.68	80	1600	8	1050/617	67	②	-30/+60	
YWF.B2S-280-080AB20	220/230	50	0.98	210	2500	8	1640/964	80	③	-30/+60	CCC, CE
YWF.B4S-280-080AB20	220/230	50	0.29	64	1410	3	863/507	64	①	-30/+60	CCC, CE
	220/230	60	0.45	95	1650	3	1032/607	68	②	-30/+60	CE



Backward Curved Centrifugal Fan with Conventional Metal Impeller



Φ 280

Rotor Material: Aluminum Die-casting

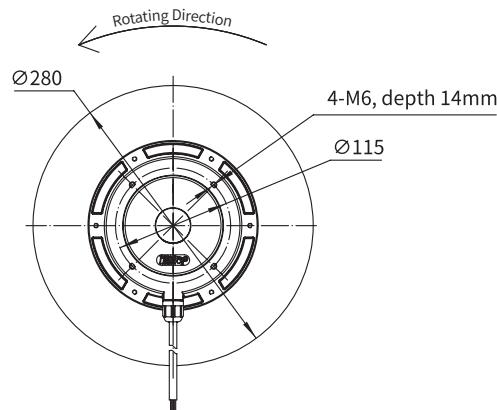
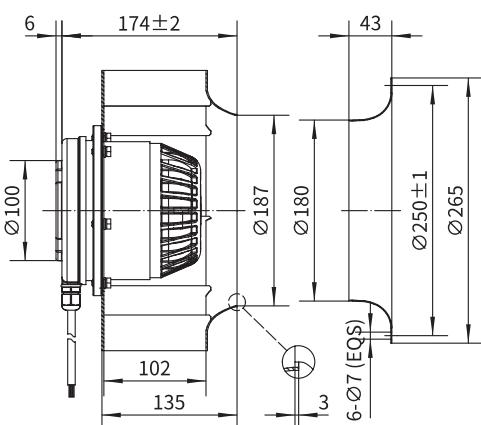
Impeller Material: Aluminum Alloy

Ingress Protection: IP54

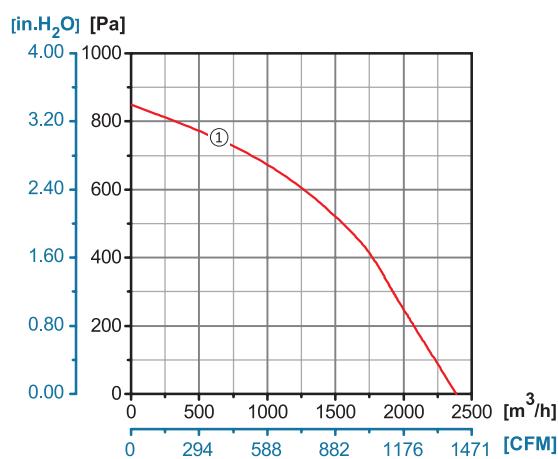
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Conv. Metal B/C Centrifugal

Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B2T-280-135AB10	380/400	50	0.90	440	2770	/	2385/1402	83	①	-30/+60	CCC, CE



Backward Curved Centrifugal Fan with Conventional Metal Impeller



Φ 315

Rotor Material: Aluminum Die-casting

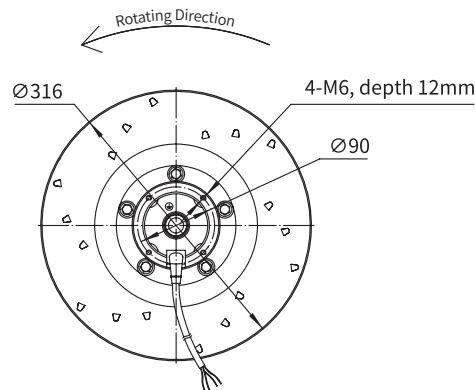
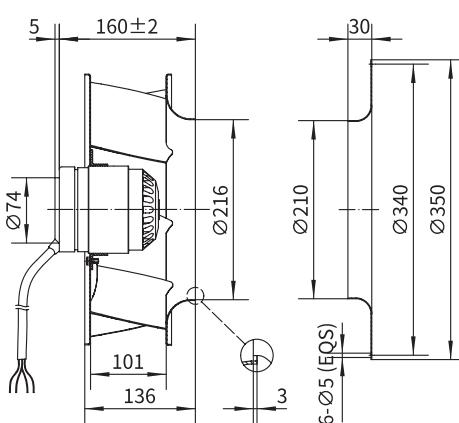
Impeller Material: Aluminum Alloy

Ingress Protection: IP54

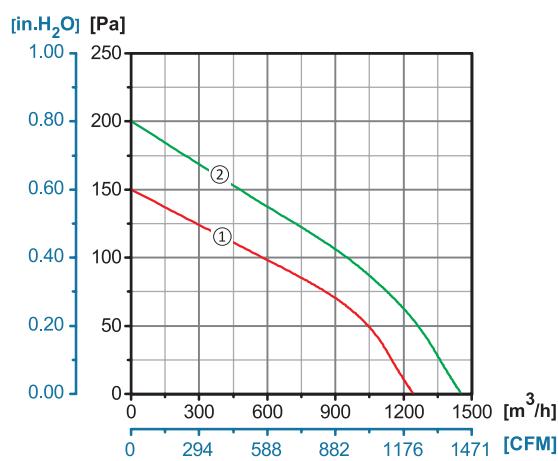
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B6S-315-136AB10	220/230	50	0.38	75	940	3	1240/729	58	①	-30/+60	CCC, CE
	220/230	60	0.42	85	1050	3	1460/858	60	②	-30/+60	UL, CE
YWF.B6T-315-136AB10	380/400	50	0.20	70	900	/	1240/729	58	①	-30/+60	CCC, CE
	380/400	60	0.24	80	1050	/	1460/858	60	②	-30/+60	UL, CE



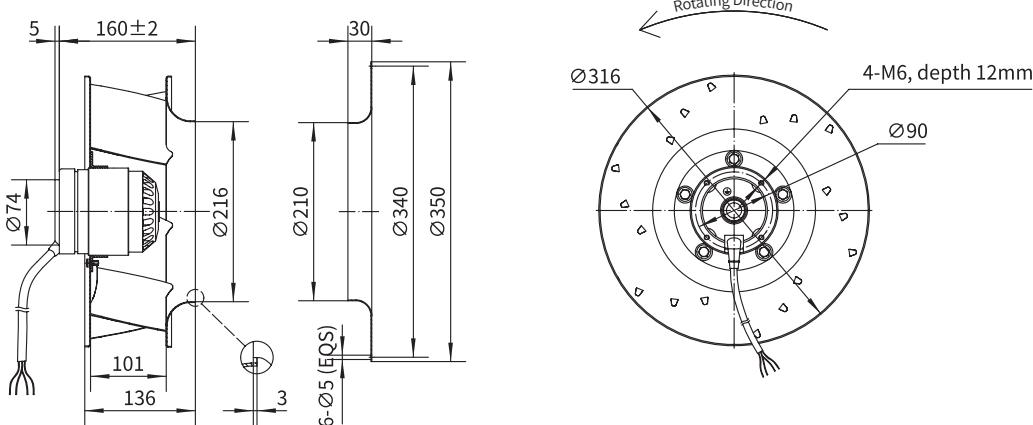
Backward Curved Centrifugal Fan with Conventional Metal Impeller



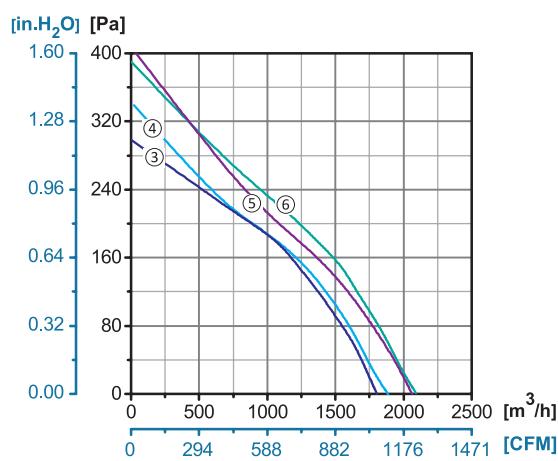
Φ 315

Rotor Material: Aluminum Die-casting
Impeller Material: Aluminum Alloy
Ingress Protection: IP54
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Conv. Metal B/C Centrifugal

Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B4S-315-136AB1B	110/120	60	1.60	180	1600	16	2100/1235	66	(6)	-30/+60	UL
YWF.B4S-315-136AB10	220/230	50	0.60	135	1400	3.5	1802/1060	63	(3)	-30/+60	CCC, CE
	220/230	60	0.80	180	1580	3.5	2060/1212	66	(5)	-30/+60	UL, CE
YWF.B4T-315-136AB10	380/400	50	0.35	136	1430	/	1900/1117	64	(4)	-30/+60	CCC, CE
	380/400	60	0.40	175	1550	/	2100/1235	66	(6)	-30/+60	UL, CE



Backward Curved Centrifugal Fan with Conventional Metal Impeller



Φ 355

Rotor Material: Aluminum Die-casting

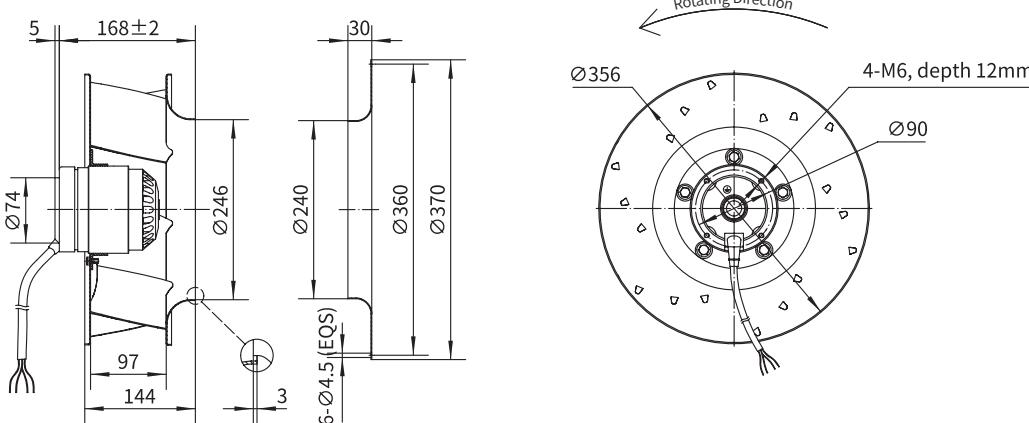
Impeller Material: Aluminum Alloy

Ingress Protection: IP54

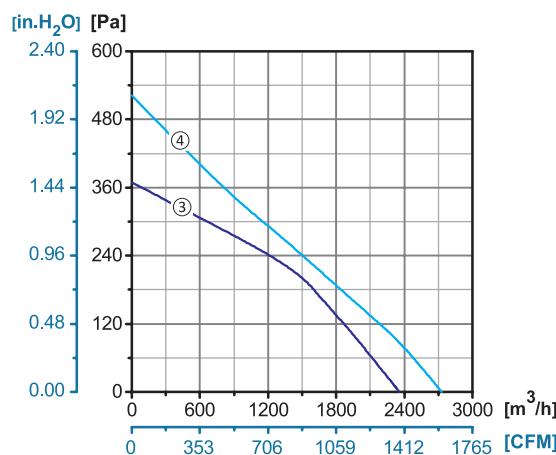
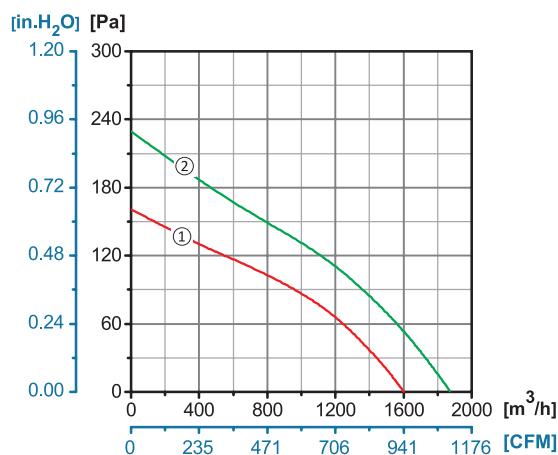
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B4S-355-144AB1A	110/120	60	2.00	240	1600	20	2600/1530	66	④	-30/+60	UL
YWF.B4S-355-144AB10	220/230	50	0.75	165	1400	6	2350/1382	63	③	-30/+60	CCC, CE
YWF.B4T-355-144AB10	380/400	50	0.45	178	1400	/	2380/1400	63	③	-30/+60	CCC, CE
YWF.B6S-355-144AB10	220/230	50	0.46	100	930	4	1600/941	61	①	-30/+60	CCC, CE
	220/230	60	0.50	110	1080	4	1870/1100	62	②	-30/+60	UL, CE
YWF.B6T-355-144AB10	380/400	50	0.32	100	950	/	1650/970	61	①	-30/+60	CCC, CE
	380/400	60	0.35	135	1080	/	1890/1111	62	②	-30/+60	UL, CE



Backward Curved Centrifugal Fan with Conventional Metal Impeller



Φ 355

Rotor Material: Aluminum Die-casting

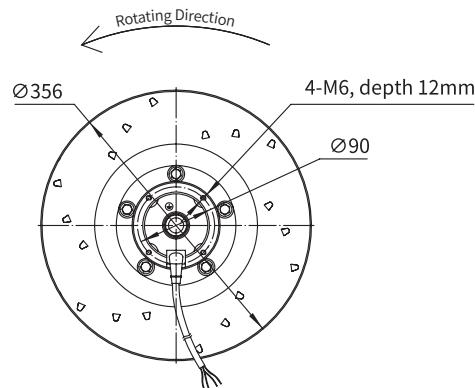
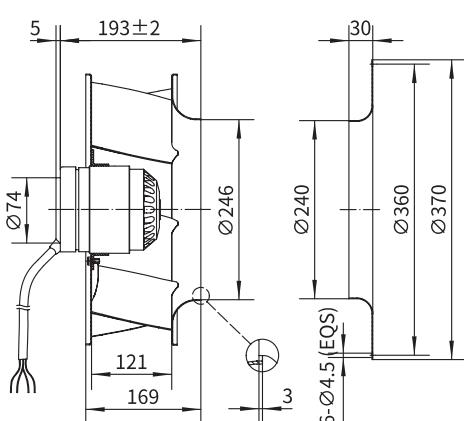
Impeller Material: Aluminum Alloy

Ingress Protection: IP54

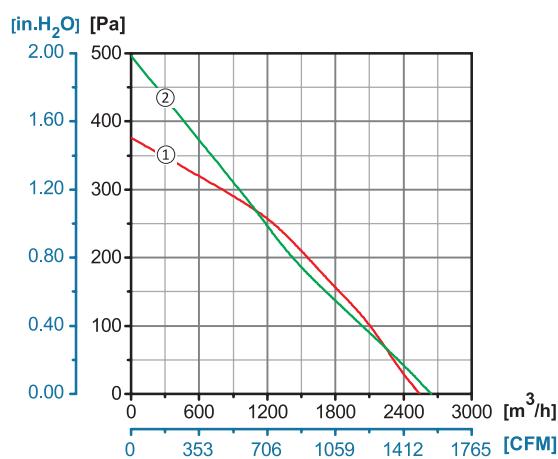
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Conv. Metal B/C Centrifugal

Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B4S-355-169AB10	220/230	50	0.88	200	1340	8	2500/1470	61	①	-30/+60	CCC, CE
	220/230	60	1.25	280	1380	8	2650/1558	62	②	-30/+60	CE
YWF.B4T-355-169AB10	380/400	50	0.53	200	1380	/	2500/1470	61	①	-30/+60	CCC, CE



Backward Curved Centrifugal Fan with Conventional Metal Impeller



Φ 400

Rotor Material: Aluminum Die-casting

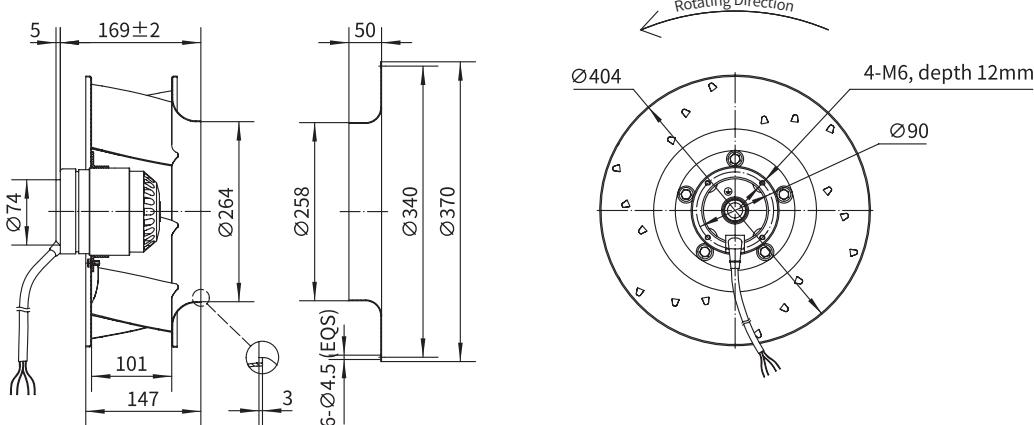
Impeller Material: Aluminum Alloy

Ingress Protection: IP54

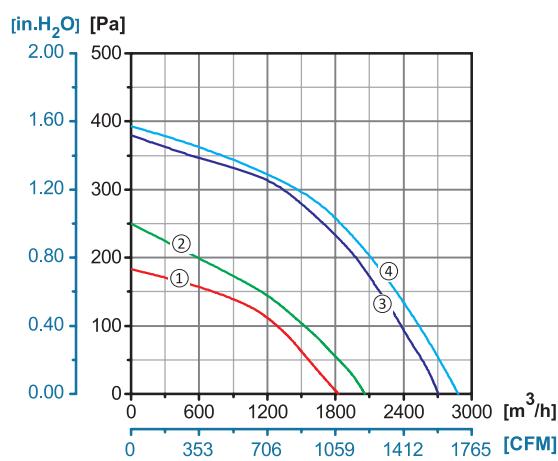
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B4S-400-147AB10	220/230	50	1.2	260	1350	7	2700/1588	75	③	-30/+60	CCC, CE
YWF.B4T-400-147AB10	380/400	50	0.58	200	1380	/	2880/1694	74	④	-30/+60	CCC, CE
YWF.B6S-400-147AB10	220/230	50	0.55	120	920	7	1810/1064	61	①	-30/+60	CCC, CE
YWF.B6T-400-147AB10	380/400	50	0.35	105	940	/	1825/1073	54	①	-30/+60	CCC, CE
	380/400	60	0.30	125	1040	/	2060/1211	58	②	-30/+60	CE



Backward Curved Centrifugal Fan with Conventional Metal Impeller



Φ 400

Rotor Material: Aluminum Die-casting

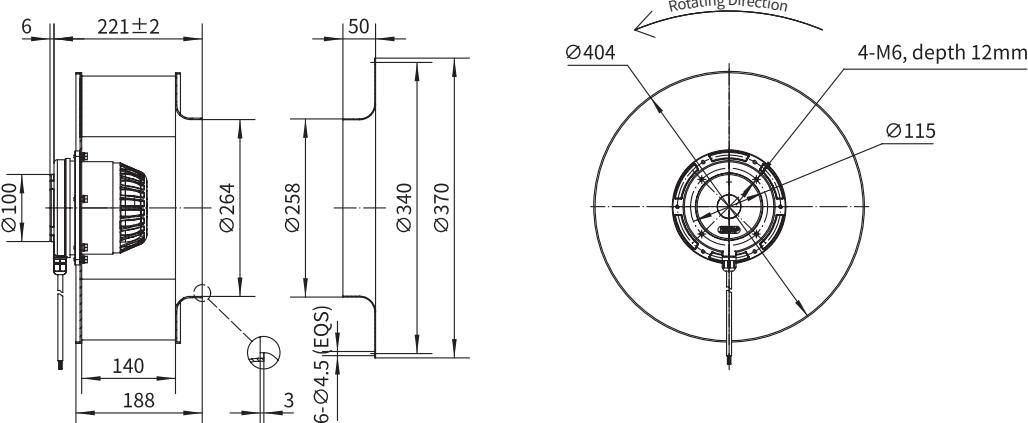
Impeller Material: Aluminum Alloy

Ingress Protection: IP54

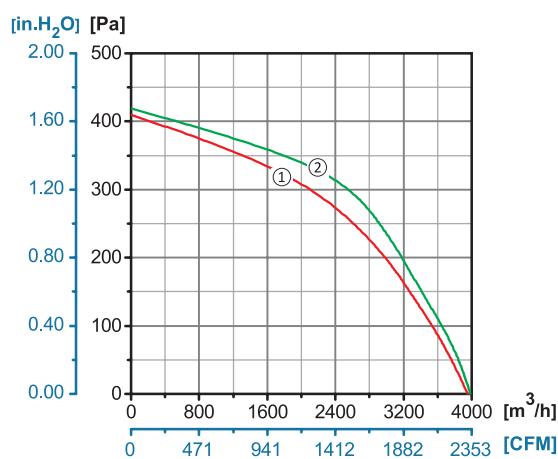
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Conv. Metal B/C Centrifugal

Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m ³ /h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B4S-400-188AB10	220/230	50	1.50	320	1380	12	3950/2323	65	①	-30/+60	CCC, CE
YWF.B4T-400-188AB10	380/400	50	0.92	320	1420	/	3990/2437	66	②	-30/+60	CCC, CE



Backward Curved Centrifugal Fan with Conventional Metal Impeller



Φ 400

Rotor Material: Aluminum Die-casting

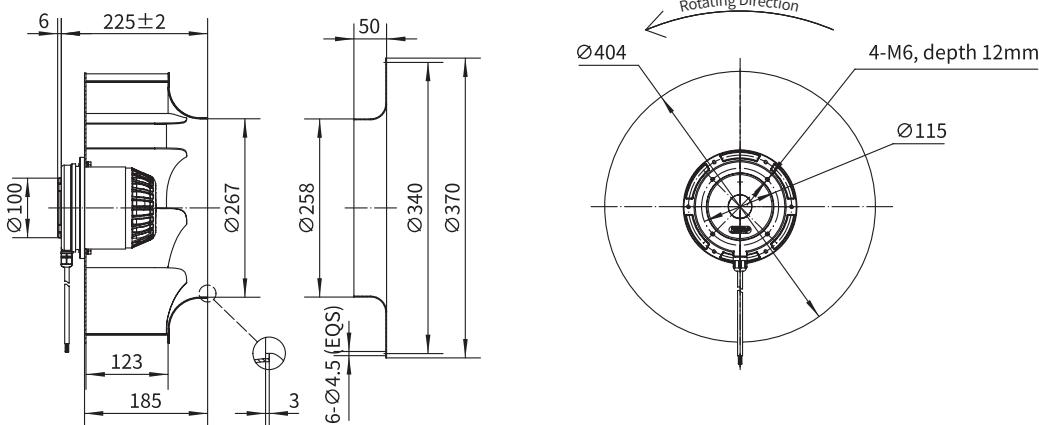
Impeller Material: Aluminum Alloy

Ingress Protection: IP54

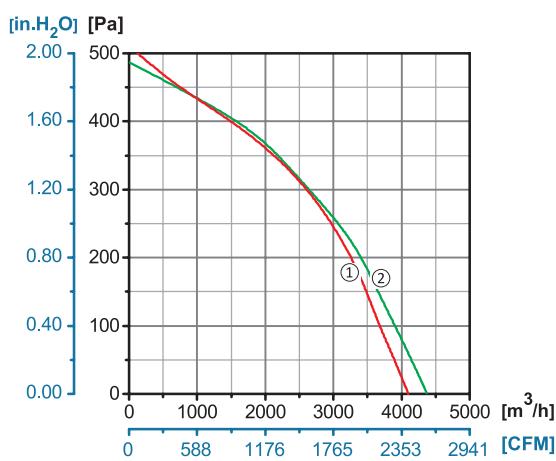
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B4S-400-188AB20	220/230	50	1.50	320	1380	12	4370/2570	67	②	-30/+60	CCC, CE
YWF.B4T-400-188AB20	380/400	50	0.96	370	1370	/	4100/2411	66	①	-30/+60	CCC, CE



Backward Curved Centrifugal Fan with Conventional Metal Impeller



Φ 450

Rotor Material: Aluminum Die-casting

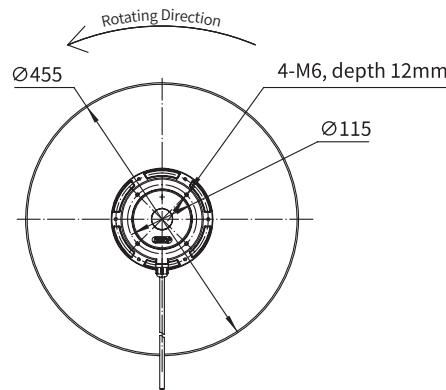
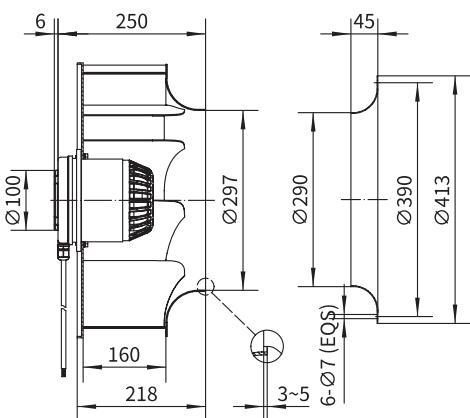
Impeller Material: Aluminum Alloy

Ingress Protection: IP54

Insulation Class: F

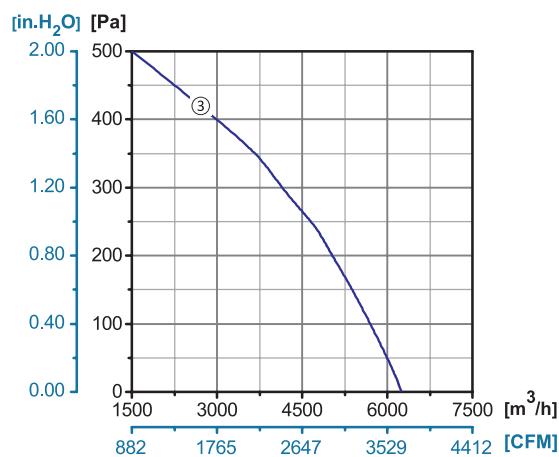
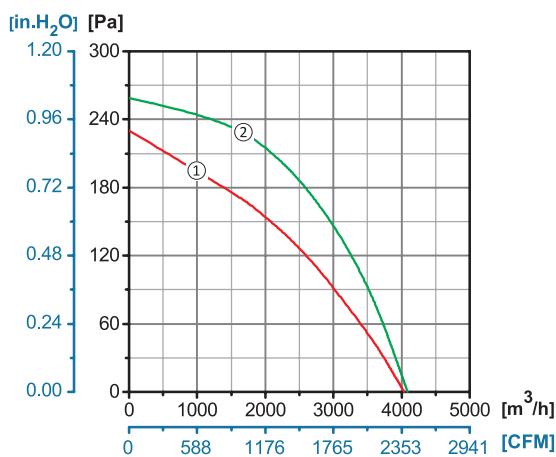
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



注：可选配安装支架
Note: Mounting bracket option available

Performance Curves



Conv. Metal B/C Centrifugal

Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B4T-450-218AB10	380/400	50	1.3	550	1340	/	6240/3670	69	③	-30/+60	CCC, CE
YWF.B6S-450-218AB10	220/230	50	0.95	190	930	6	4040/2376	60	①	-30/+60	CCC, CE
YWF.B6T-450-218AB10	380/400	50	0.85	200	920	/	4080/2400	65	②	-30/+60	CCC, CE



Backward Curved Centrifugal Fan with Conventional Metal Impeller



Φ 500

Rotor Material: Aluminum Die-casting

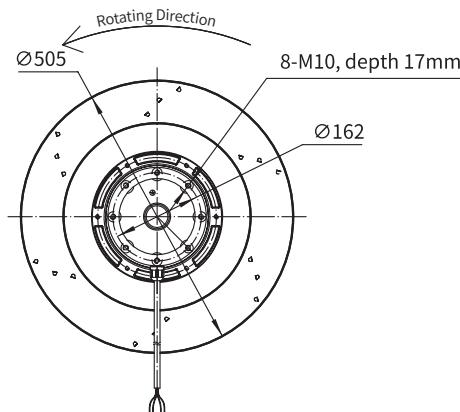
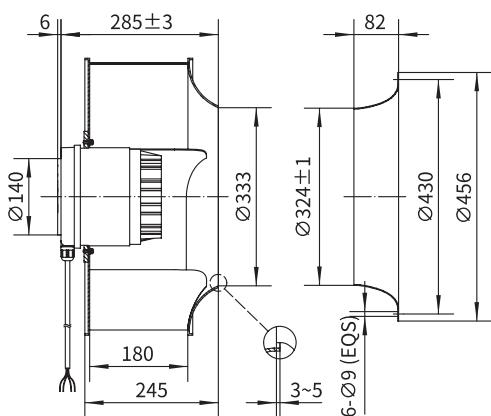
Impeller Material: Aluminum Alloy

Ingress Protection: IP54

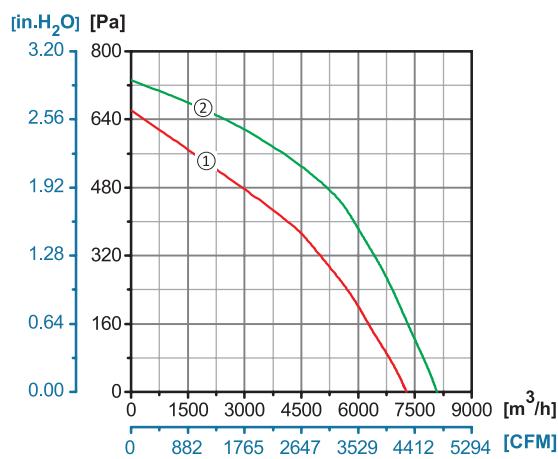
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m ³ /h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B4T-500-245SB20	380/400	50	2.0	900	1450	/	8050/4735	78	②	-30/+60	CCC, CE
	380/400	50	1.4	850	1350	/	7250/4264	76	①	-30/+60	CCC, CE



Backward Curved Centrifugal Fan with Conventional Metal Impeller



Φ 560

Rotor Material: Aluminum Die-casting

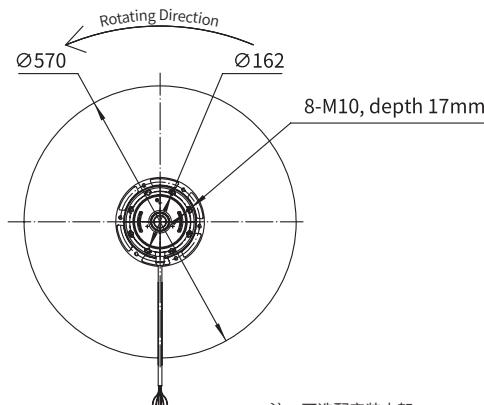
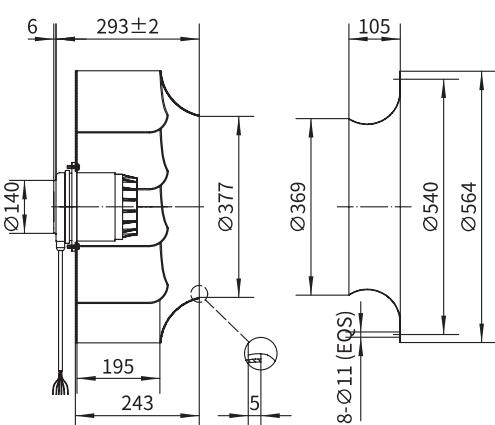
Impeller Material: Aluminum Alloy

Ingress Protection: IP54

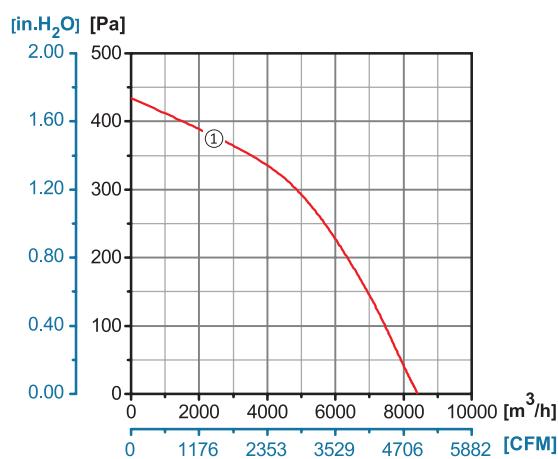
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Conv. Metal B/C Centrifugal

Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.B6T-560-243AB20	380/400	50	1.40	600	920	/	8400/4941	77	①	-30/+60	CCC, CE



In-line Duct Fan





In-line Duct Fan



Φ 100

Rotor Material: Aluminum Die-casting

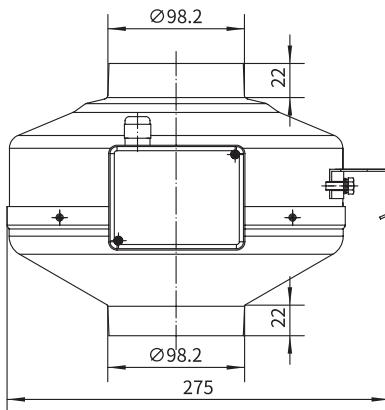
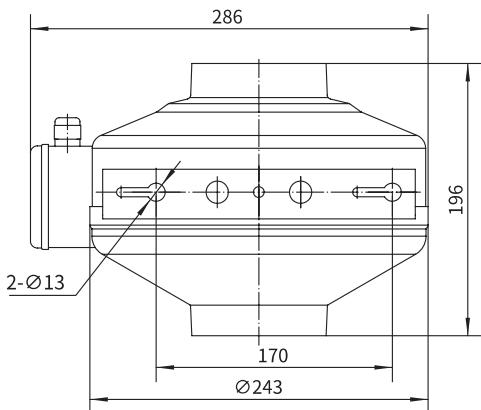
Housing Material: Carbon Steel

Ingress Protection: IP44

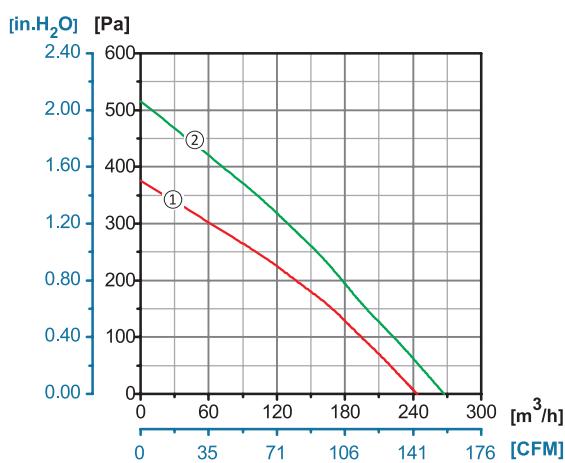
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.G2S-100-196AA2A	110/120	60	0.57	68	2875	6	275/155	63	②	-30/+60	
YWF.G2S-100-196AA20	220/230	50	0.28	61	2610	2.5	250/140	61	①	-30/+60	CCC, CE
	220/230	60	0.35	75	2940	2.5	275/155	63	②	-30/+60	CE



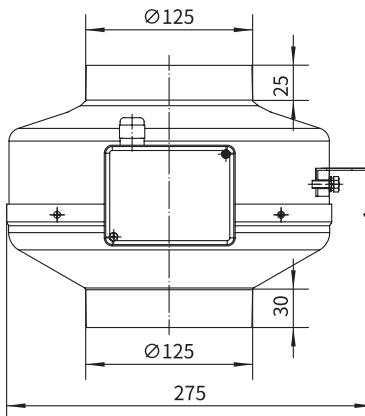
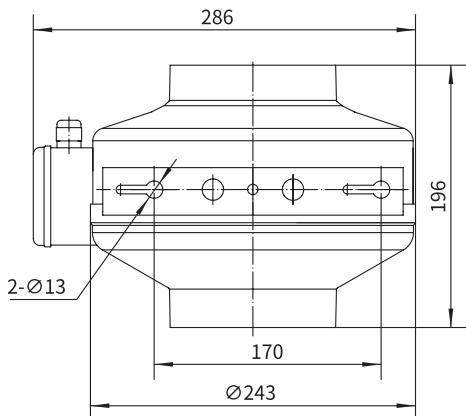
In-line Duct Fan



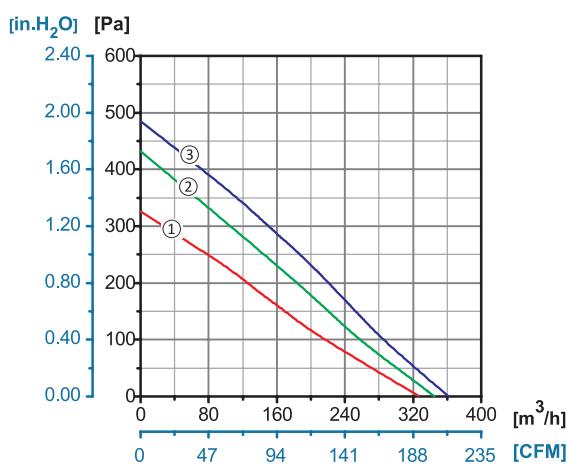
Φ 125

Rotor Material: Aluminum Die-casting
Housing Material: Carbon Steel
Ingress Protection: IP44
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.G2S-125-196AA2A	110/120	60	0.63	75	2975	8	360/235	63	(3)	-30/+60	
YWF.G2S-125-196AA20	220/230	50	0.32	70	2620	3	320/180	61	(1)	-30/+60	CCC, CE
	220/230	60	0.41	86	2940	3	340/200	63	(2)	-30/+60	CE



In-line Duct Fan



Φ 150

Rotor Material: Aluminum Die-casting

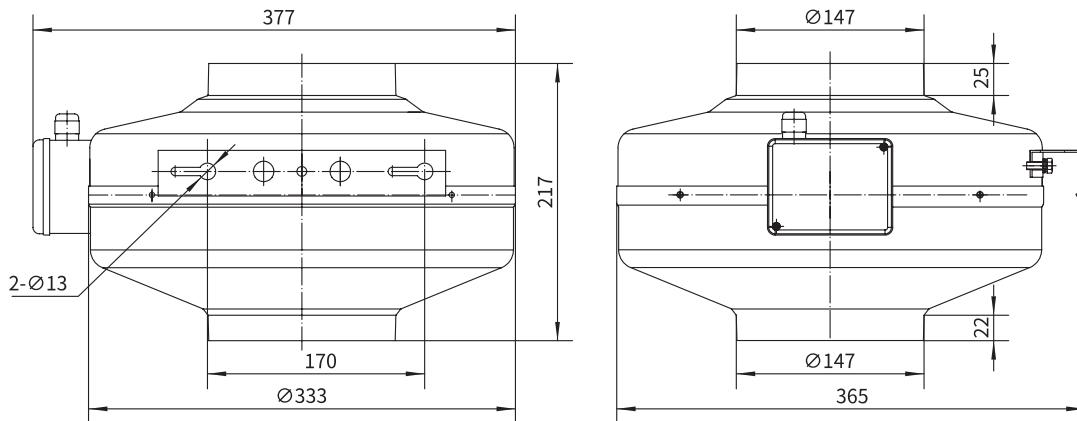
Housing Material: Carbon Steel

Ingress Protection: IP44

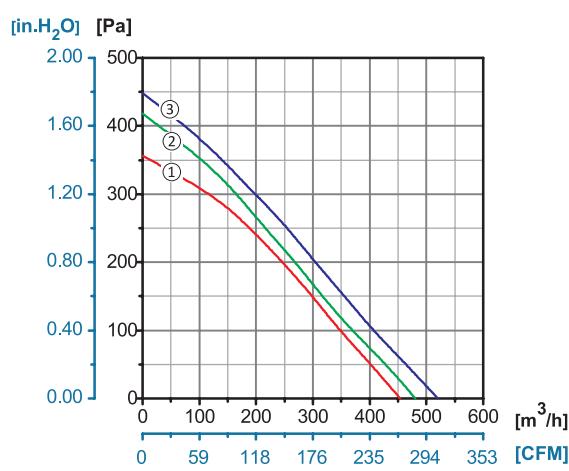
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.G2S-150-217AA2A	110/120	60	0.91	108	2520	10	520/305	67	③	-30/+60	
YWF.G2S-150-217AA20	220/230	50	0.37	80	2395	3	450/260	68	①	-30/+60	CCC, CE
	220/230	60	0.50	108	2425	3	480/282	70	②	-30/+60	CE



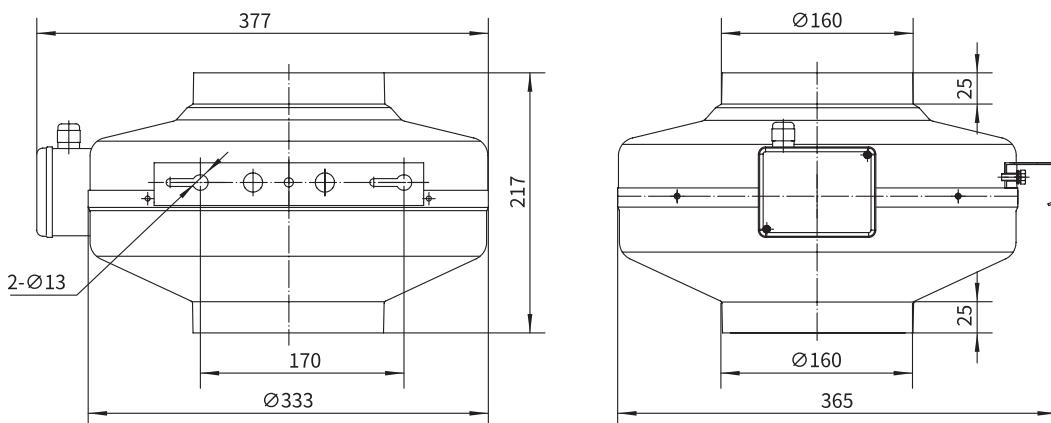
In-line Duct Fan



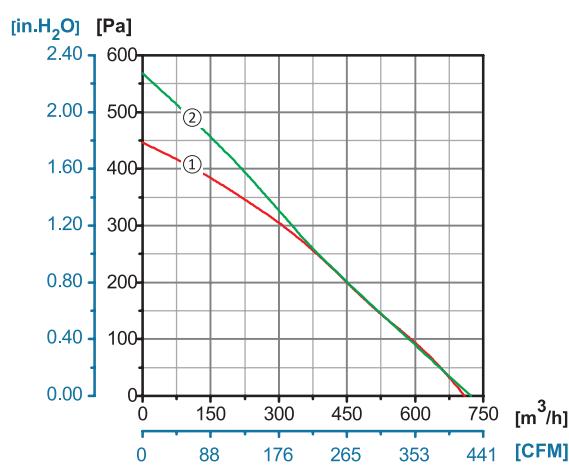
Φ 160

Rotor Material: Aluminum Die-casting
Housing Material: Carbon Steel
Ingress Protection: IP44
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m ³ /h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.G2S-160-217AA0A	110/120	60	1.28	150	2430	12	715/420	73	②	-30/+60	
YWF.G2S-160-217AA20	220/230	50	0.52	118	2415	4	710/417	72	①	-30/+60	CCC, CE
	220/230	60	0.70	150	2430	4	715/420	73	②	-30/+60	CE



In-line Duct Fan



Φ 200

Rotor Material: Aluminum Die-casting

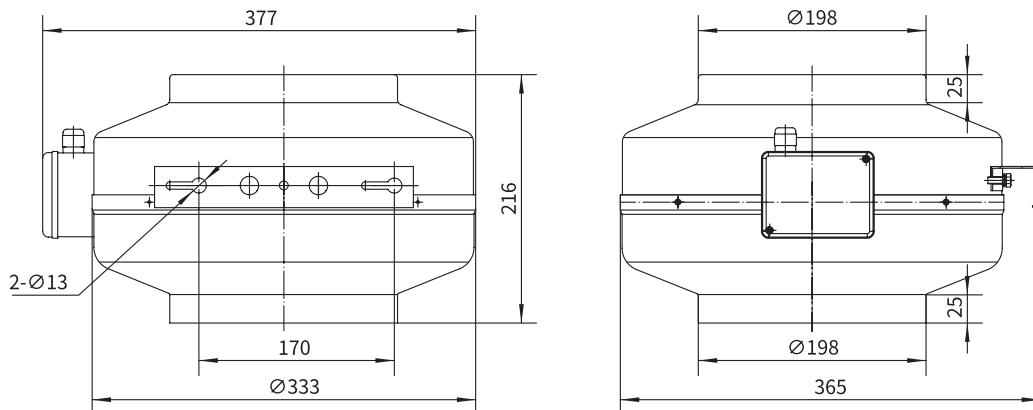
Housing Material: Carbon Steel

Ingress Protection: IP44

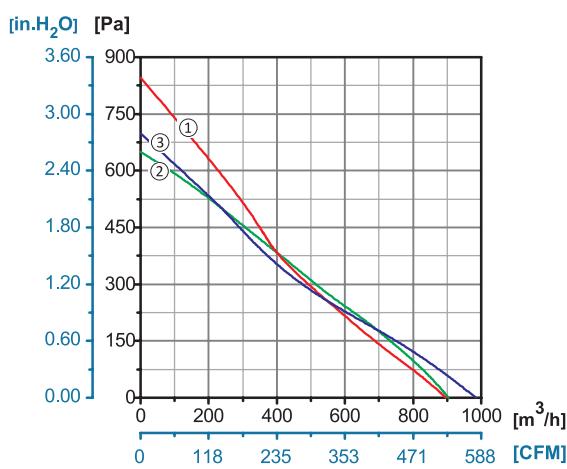
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.G2S-200-216AA2A	110/120	60	1.87	217	2510	20	1000/580	69	③	-30/+60	
YWF.G2S-200-216AA20	220/230	50	0.79	170	2500	6	900/529	69	②	-30/+60	CCC, CE
	220/230	60	1.15	240	2480	6	900/529	69	①	-30/+60	CE



In-line Duct Fan



Φ 250

Rotor Material: Aluminum Die-casting

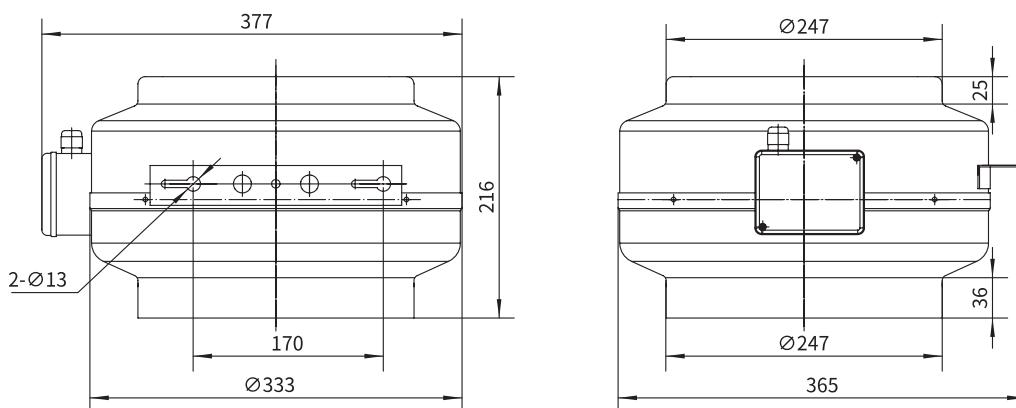
Housing Material: Carbon Steel

Ingress Protection: IP44

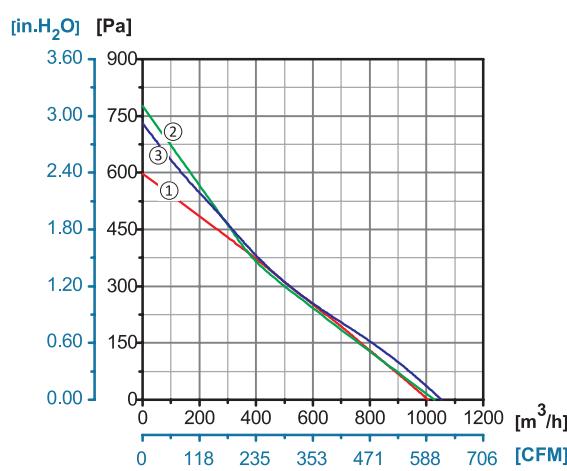
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.G2S-250-216AA2A	110/120	60	1.83	212	2600	20	1050/618	70	①	-30/+60	
YWF.G2S-250-216AA20	220/230	50	0.97	200	2480	8	1100/647	68	③	-30/+60	CCC, CE
	220/230	60	1.30	280	2520	8	1076/632	68	②	-30/+60	CE



In-line Duct Fan



Φ 300

Rotor Material: Aluminum Die-casting

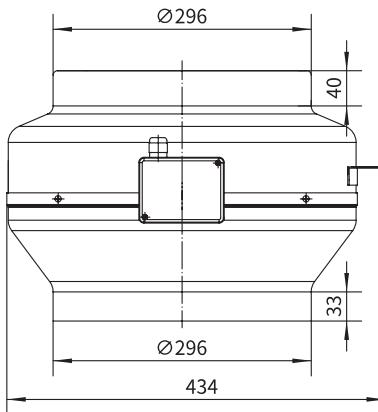
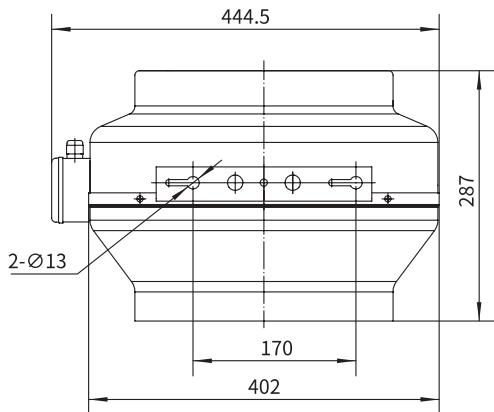
Housing Material: Carbon Steel

Ingress Protection: IP44

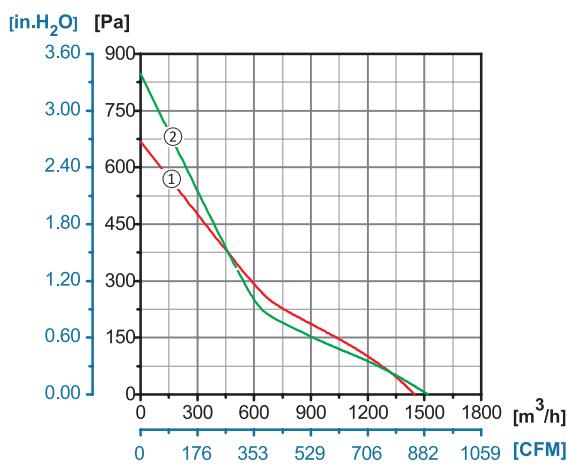
Insulation Class: F

Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.G2S-300-287AA2A	110/120	60	2.19	250	2720	28	1520/894	76	②	-30/+60	
YWF.G2S-300-287AA20	220/230	50	0.85	187	2560	7	1450/852	74	①	-30/+60	CCC, CE
	220/230	60	1.19	260	2730	7	1520/894	75	②	-30/+60	CE



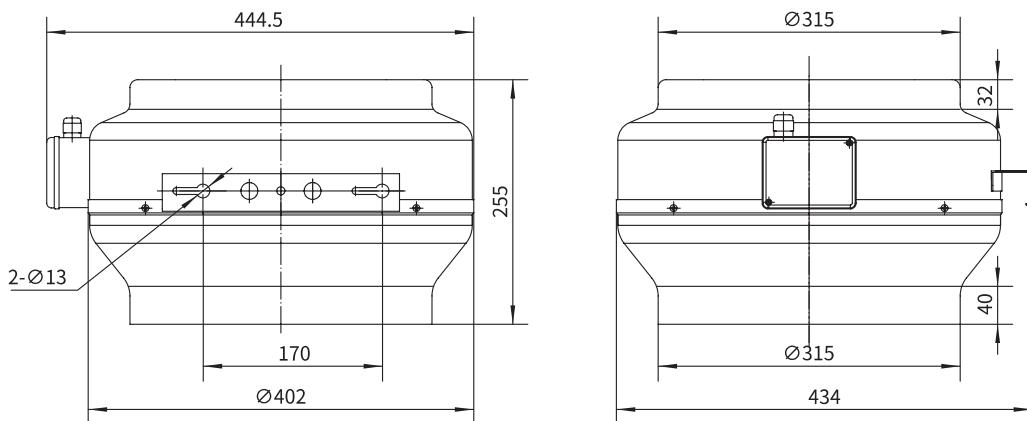
In-line Duct Fan



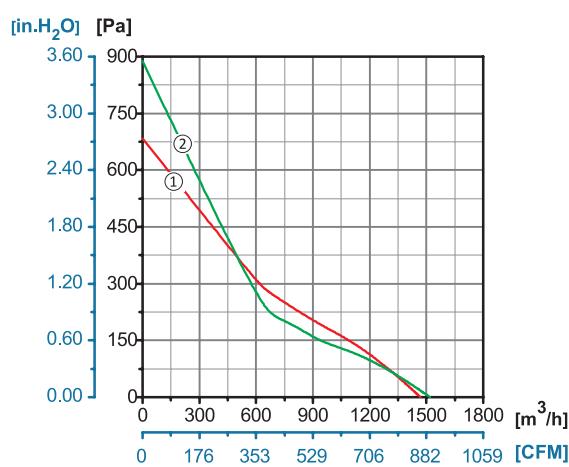
Φ 315

Rotor Material: Aluminum Die-casting
Housing Material: Carbon Steel
Ingress Protection: IP44
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.G2S-315-255AA2A	110/120	60	2.21	260	2660	28	1520/894	75	②	-30/+60	
YWF.G2S-315-255AA10	220/230	50	0.84	180	2575	7	1470/864	75	①	-30/+60	CCC, CE
	220/230	60	1.19	260	2725	7	1520/894	76	②	-30/+60	CE



Forward Curved Centrifugal Fan







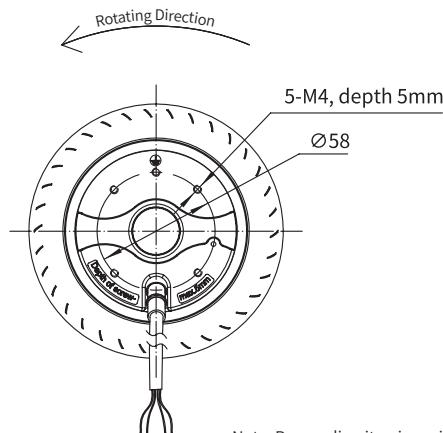
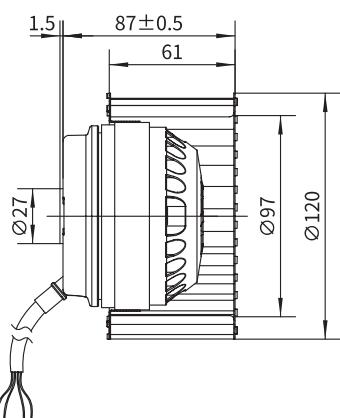
Forward Curved Centrifugal Fan



Φ 120

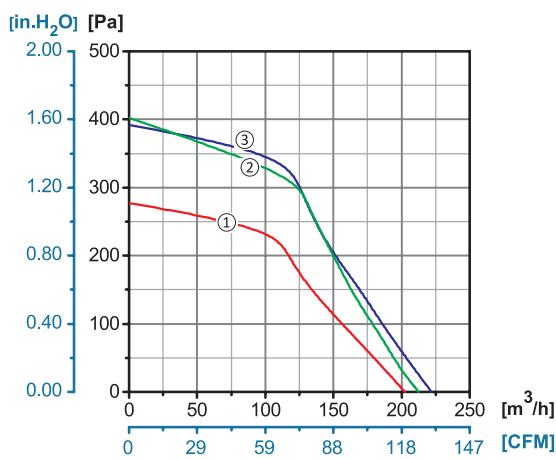
Rotor Material: Aluminum Die-casting
Impeller Material: Galvanized Steel Sheet
Ingress Protection: IP44
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Note: Revers direction is available

Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.F2S-120-060AX2A	110/120	60	0.53	64	2975	6	210/123	66	②	-30/+60	
YWF.F2S-120-060AX20	220/230	50	0.3	65	2650	3	220/120	63	①	-30/+60	CCC, CE
	220/230	60	0.39	80	3000	3	220/129	66	③	-30/+60	CE



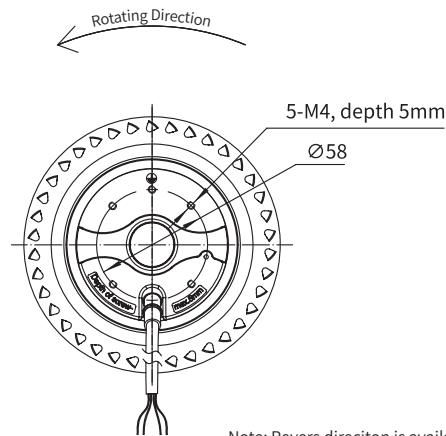
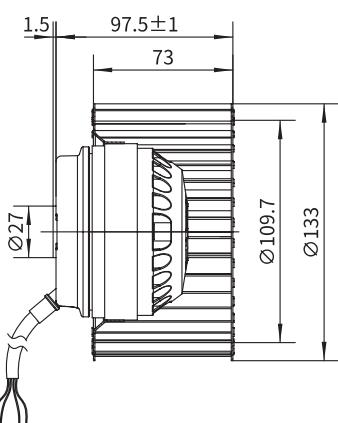
Forward Curved Centrifugal Fan



Φ 133

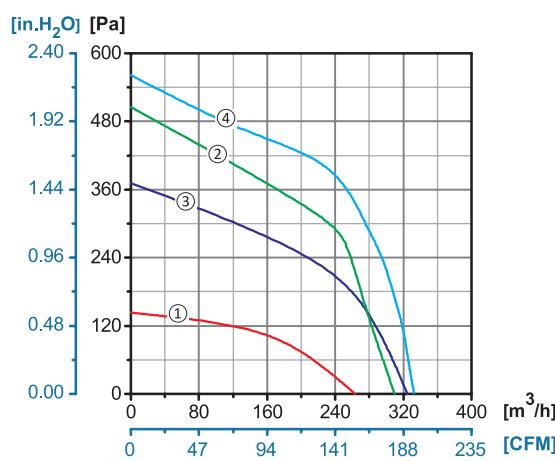
Rotor Material: Aluminum Die-casting
Impeller Material: Galvanized Steel Sheet
Ingress Protection: IP44
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Note: Revers direction is available

Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.F2S-133-073AX2A	110/120	60	0.87	100	2750	10	340/195	66	(4)	-30/+60	
YWF.F4S-133-073AX2A	110/120	60	0.36	42	1700	6	260/153	58	(1)	-30/+60	
YWF.F2S-133-073AX20	220/230	50	0.35	75	2500	3	330/194	65	(3)	-30/+60	CCC, CE
	220/230	60	0.48	100	2600	3	310/182	63	(2)	-30/+60	CE



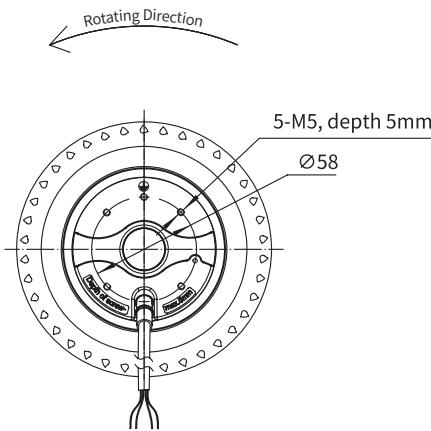
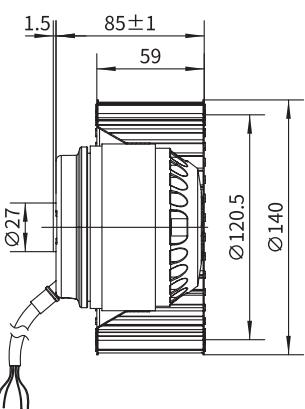
Forward Curved Centrifugal Fan



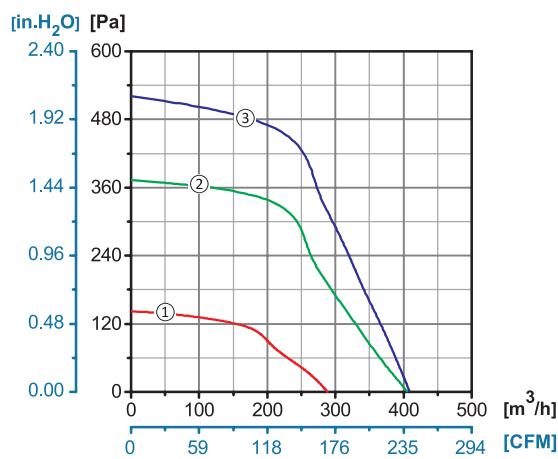
Φ 140

Rotor Material: Aluminum Die-casting
Impeller Material: Galvanized Steel Sheet
Ingress Protection: IP44
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.F2S-140-059AX2B	110/120	60	1.4	150	3200	16	410/241	71	③	-30/+60	
YWF.F4S-140-059AX2A	110/120	60	0.35	42	1700	6	290/170	62	①	-30/+60	
YWF.F2S-140-059AX20	220/230	50	0.39	85	2840	4	390/230	68	②	-30/+60	CCC, CE
	220/230	60	0.65	130	3285	4	400/235	68	③	-30/+60	CE



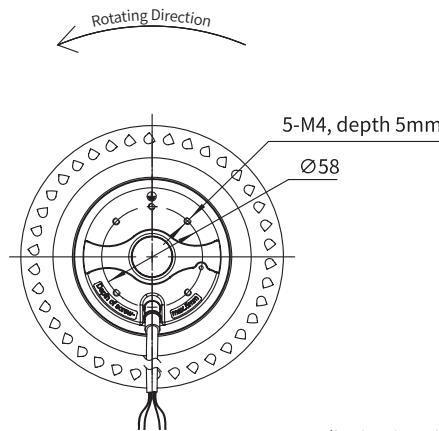
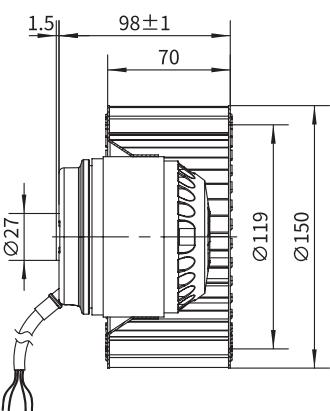
Forward Curved Centrifugal Fan



Φ 150

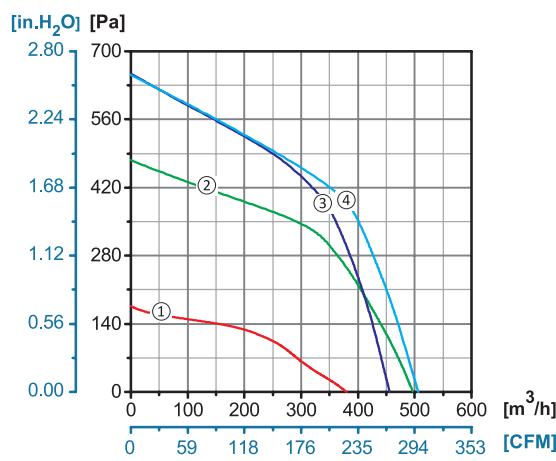
Rotor Material: Aluminum Die-casting
Impeller Material: Galvanized Steel Sheet
Ingress Protection: IP44
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Note: Revers direction is available

Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.F2S-150-070AX2A	110/120	60	1.90	184	2975	20	500/288	72	(4)	-30/+60	
YWF.F4S-150-070AX2A	110/120	60	0.64	75	1700	10	380/220	65	(1)	-30/+60	
YWF.F2S-150-070AX20	220/230	50	0.72	136	2630	6	495/291	69	(3)	-30/+60	CCC, CE
	220/230	60	0.92	190	2930	6	455/267	67	(2)	-30/+60	CE



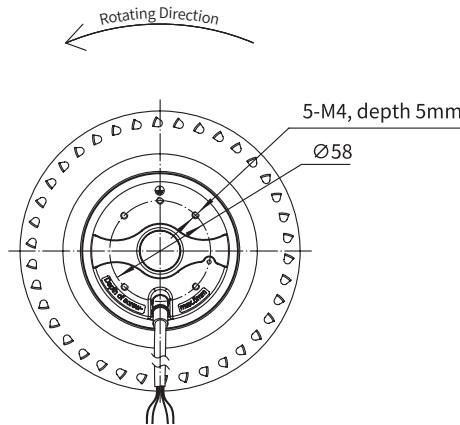
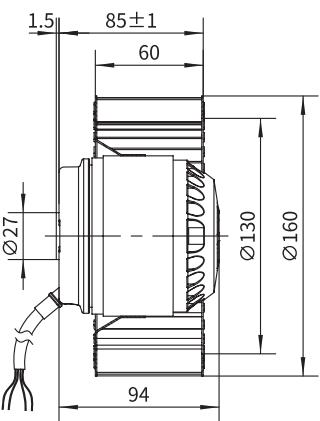
Forward Curved Centrifugal Fan



Φ 160

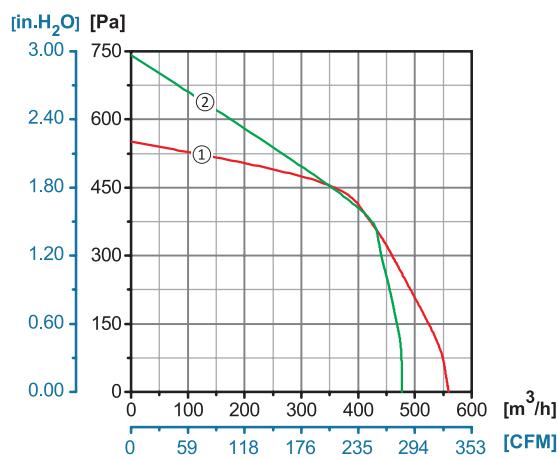
Rotor Material: Aluminum Die-casting
Impeller Material: Galvanized Steel Sheet
Ingress Protection: IP44
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Note: Revers direction is available

Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m ³ /h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.F2S-160-060AX20	220/230	50	0.68	145	2675	6	560/325	68	①	-30/+60	CCC, CE
	220/230	60	1.01	213	2900	6	480/240	64	②	-30/+60	



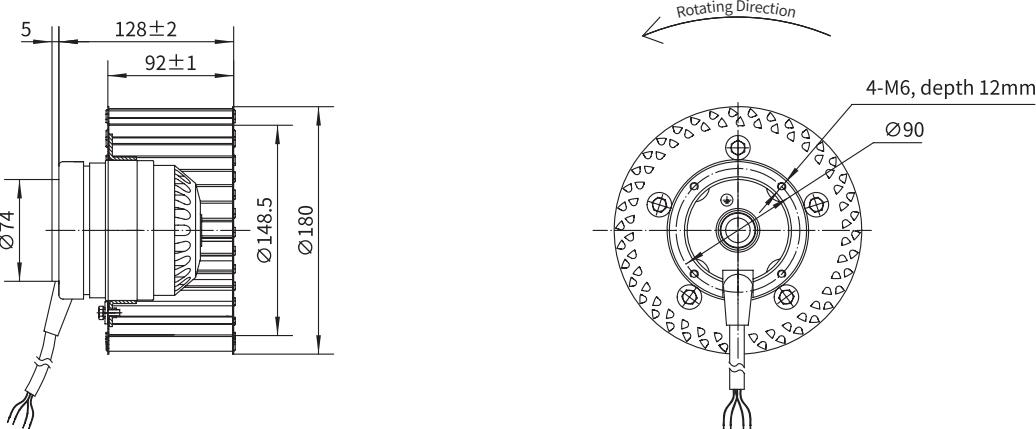
Forward Curved Centrifugal Fan



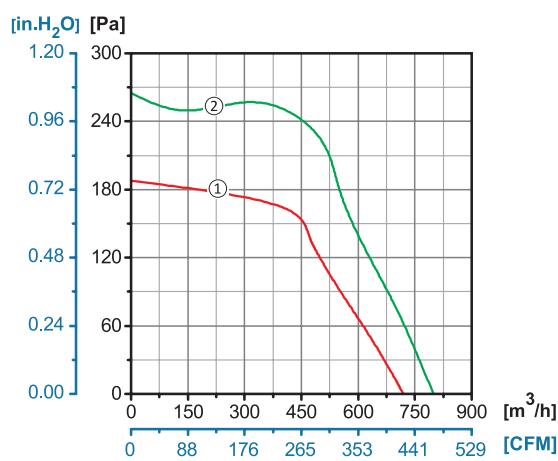
Φ 180

Rotor Material: Aluminum Die-casting
Impeller Material: Galvanized Steel Sheet
Ingress Protection: IP54
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.F4S-180-092AX0A	110/120	60	1.00	108	1700	12	800/471	67	②	-30/+60	
YWF.F4S-180-092AX00	220/230	50	0.60	95	1450	3.5	720/423	65	①	-30/+60	CCC, CE
	220/230	60	0.48	100	1710	3.5	790/464	67	②	-30/+60	CE



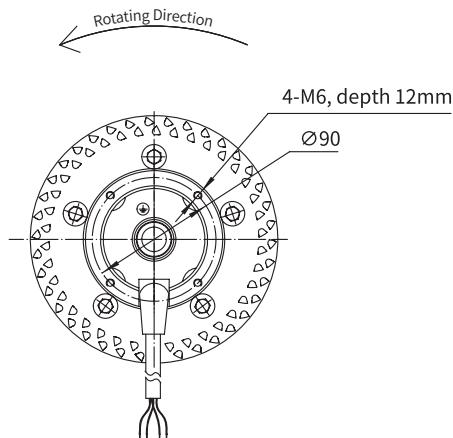
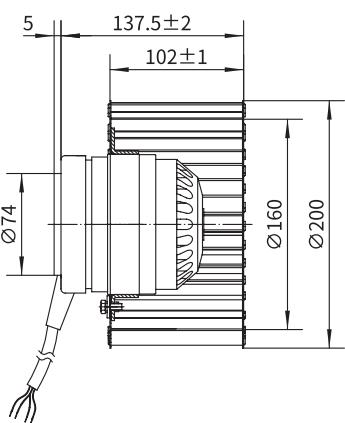
Forward Curved Centrifugal Fan



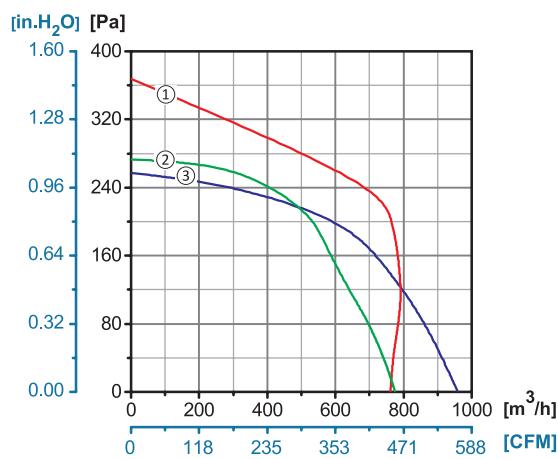
Φ 200

Rotor Material: Aluminum Die-casting
Impeller Material: Galvanized Steel Sheet
Ingress Protection: IP54
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.F4S-200-102AX0A	110/120	60	1.40	160	1670	12	774/455	59	②	-30/+60	
YWF.F4S-200-102AX00	220/230	50	0.63	120	1400	3.5	960/565	65	③	-30/+60	CCC, CE
	220/230	60	0.70	155	1610	3.5	760/447	61	①	-30/+60	CE



Forward Curved Blower





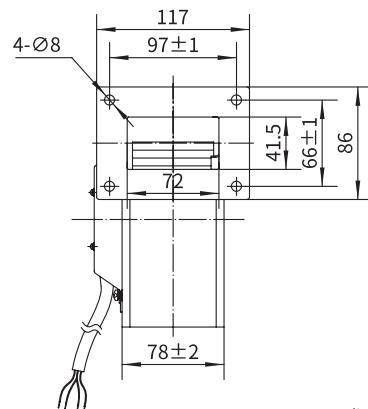
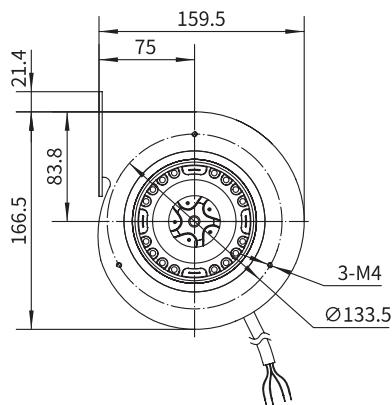
Forward Curved Blower



Φ 120

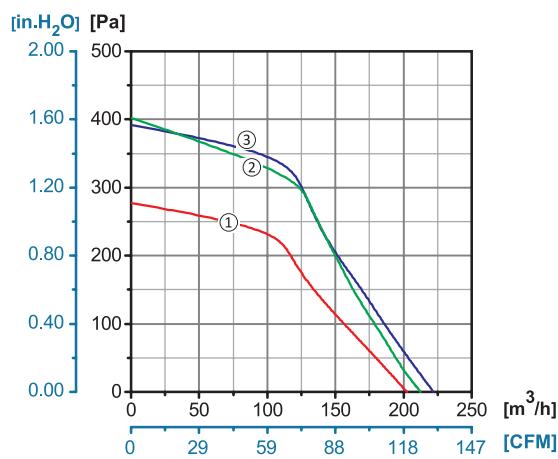
Rotor Material: Aluminum Die-casting
Impeller Material: Galvanized Steel Sheet
Ingress Protection: IP44
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Note: Revers direction is available

Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.F2S-120-060AA2A	110/120	60	0.6	72	2800	6	210/123	66	②	-30/+60	
YWF.F2S-120-060AA20	220/230	50	0.31	68	2590	3	200/120	63	①	-30/+60	CCC, CE
	220/230	60	0.42	89	2850	3	220/129	66	③	-30/+60	CE



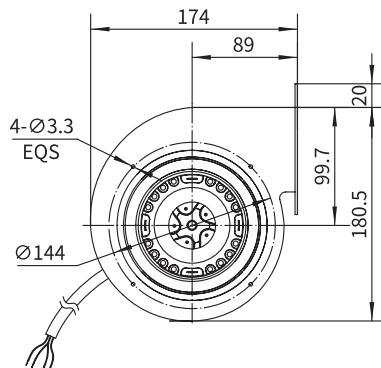
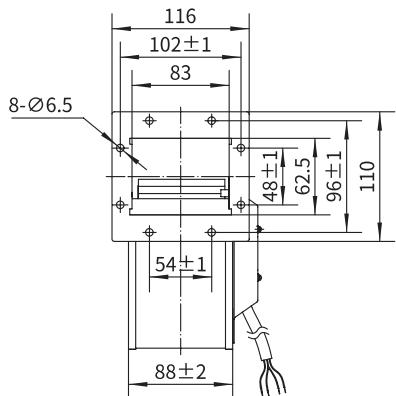
Forward Curved Blower



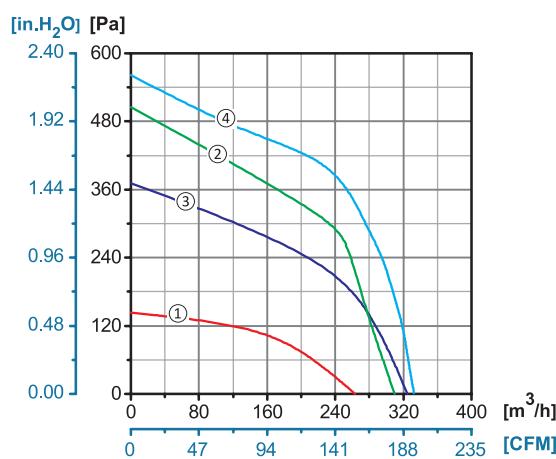
Φ 133

Rotor Material: Aluminum Die-casting
Impeller Material: Galvanized Steel Sheet
Ingress Protection: IP44
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.F2S-133-073AA2A	110/120	60	1.11	133	2025	10	333/192	65	④	-30/+60	
YWF.F4S-133-073AA2A	110/120	60	0.56	56	1575	5	280/164	58	①	-30/+60	
YWF.F2S-133-073AA20	220/230	50	0.46	100	2090	3	330/194	65	③	-30/+60	CCC, CE
	220/230	60	0.55	120	1950	3	310/182	63	②	-30/+60	CE



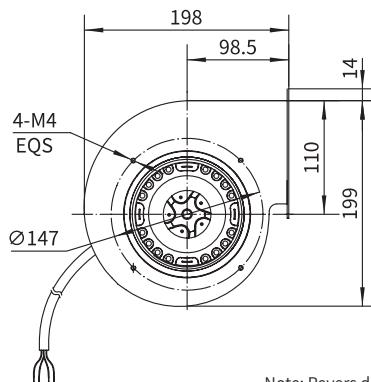
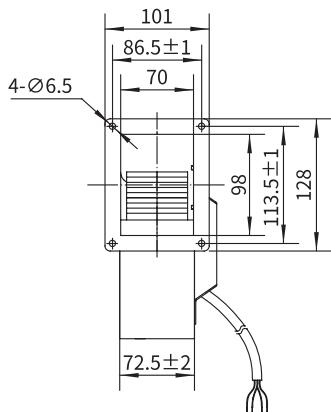
Forward Curved Blower



Φ 140

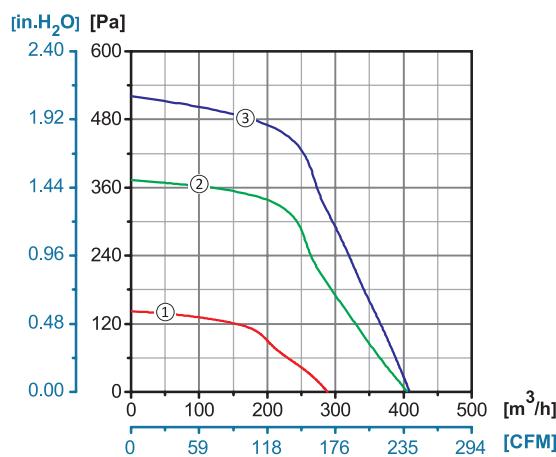
Rotor Material: Aluminum Die-casting
Impeller Material: Galvanized Steel Sheet
Ingress Protection: IP44
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Note: Revers direction is available

Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.F2S-140-059AA2A	110/120	60	1.76	203	2730	20	410/241	68	③	-30/+60	
YWF.F4S-140-059AA2A	110/120	60	0.28	58	1620	6	290/167	62	①	-30/+60	
YWF.F2S-140-059AA20	220/230	50	0.63	136	2600	4	390/266	68	②	-30/+60	CCC, CE
	220/230	60	0.92	200	2700	4	400/235	68	③	-30/+60	CE



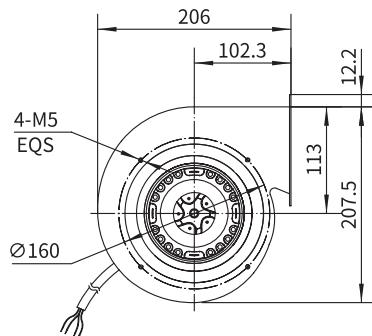
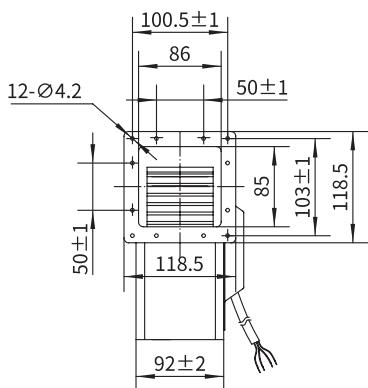
Forward Curved Blower



Φ 150

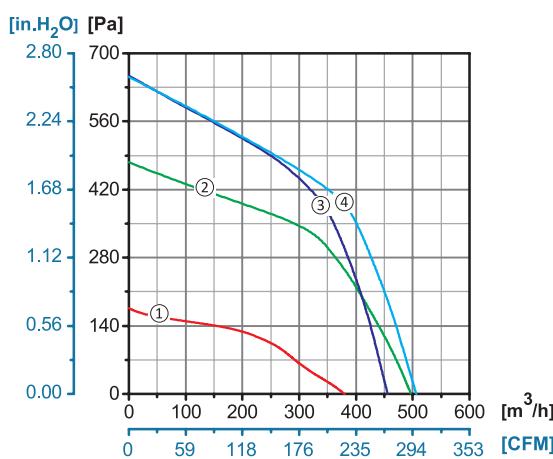
Rotor Material: Aluminum Die-casting
Impeller Material: Galvanized Steel Sheet
Ingress Protection: IP44
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Note: Revers direction is available

Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.F2S-150-070AA2A	110/120	60	1.90	225	2400	20	500/288	72	(4)	-30/+60	
YWF.F4S-150-070AA2A	110/120	60	0.64	75	1650	8	380/220	65	(1)	-30/+60	
YWF.F2S-150-070AA20	220/230	50	0.72	157	2280	5	495/291	69	(3)	-30/+60	CCC, CE
	220/230	60	0.92	200	2150	5	455/267	67	(2)	-30/+60	CE



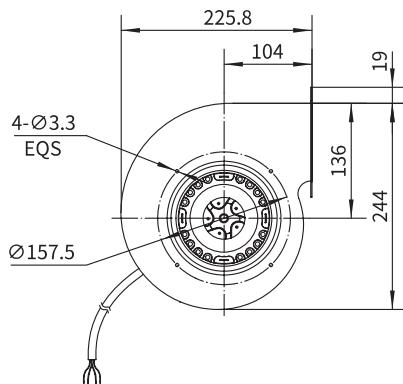
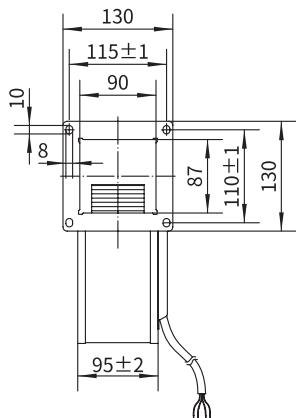
Forward Curved Blower



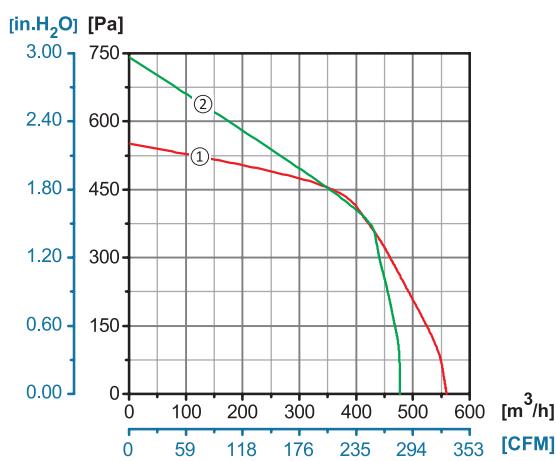
Φ 160

Rotor Material: Aluminum Die-casting
Impeller Material: Galvanized Steel Sheet
Ingress Protection: IP44
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.F2S-160-060AA20	220/230	50	1.00	223	2020	6	560/320	68	①	-30/+60	CCC, CE
	220/230	60	1.18	260	1780	6	480/280	64	②	-30/+60	CE



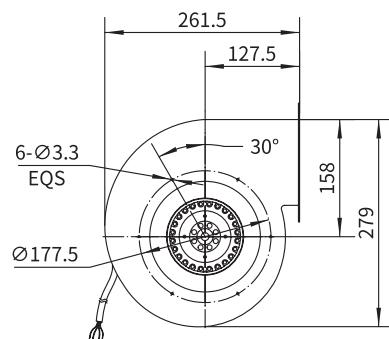
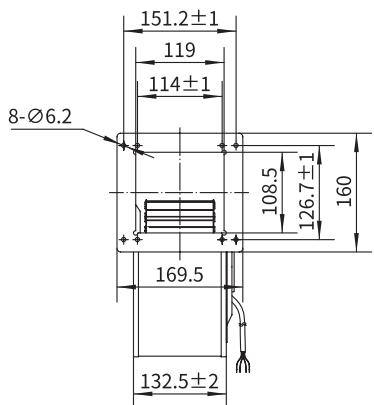
Forward Curved Blower



Φ 180

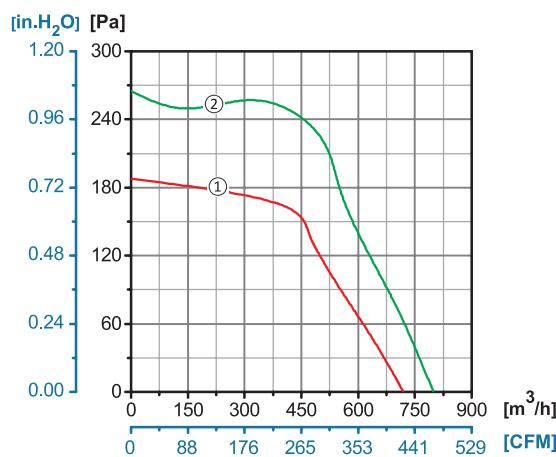
Rotor Material: Aluminum Die-casting
Impeller Material: Galvanized Steel Sheet
Ingress Protection: IP54
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Note: Revers direction is available

Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.F4S-180-092AA0A	110/120	60	1.70	190	1500	12	800/471	67	②	-30/+60	
YWF.F4S-180-092AA00	220/230	50	0.70	140	1330	3.5	720/423	65	①	-30/+60	CCC, CE
	220/230	60	0.90	200	1550	3.5	790/464	67	②	-30/+60	CE



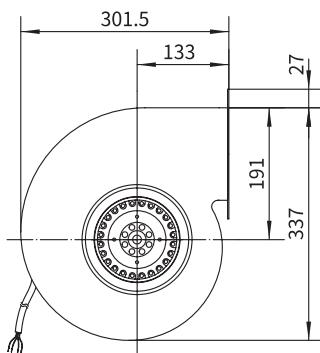
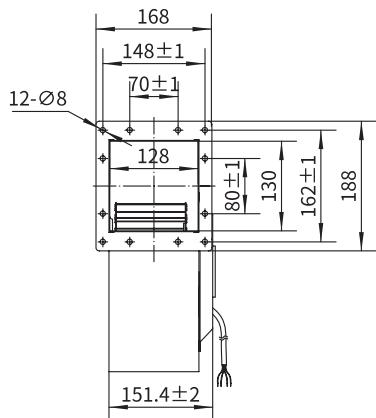
Forward Curved Blower



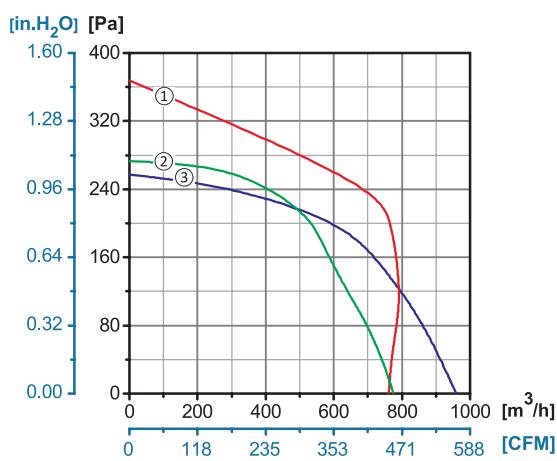
Φ 200

Rotor Material: Aluminum Die-casting
Impeller Material: Galvanized Steel Sheet
Ingress Protection: IP54
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.F4S-200-102AA0A	110/120	60	1.67	200	940	12	774/455	59	②	-30/+60	
YWF.F4S-200-102AA00	220/230	50	0.90	200	1220	3.5	960/565	65	③	-30/+60	CCC, CE
	220/230	60	1.14	256	1160	3.5	760/447	61	①	-30/+60	CE



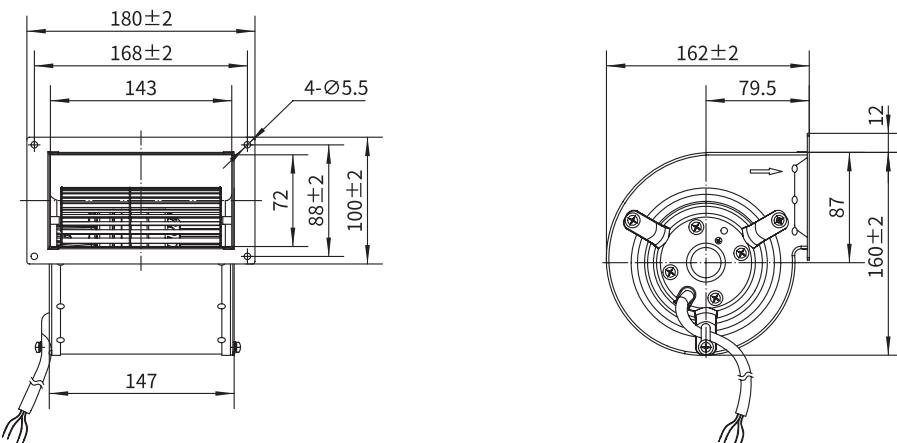
Forward Curved Blower (Dual-inlet)



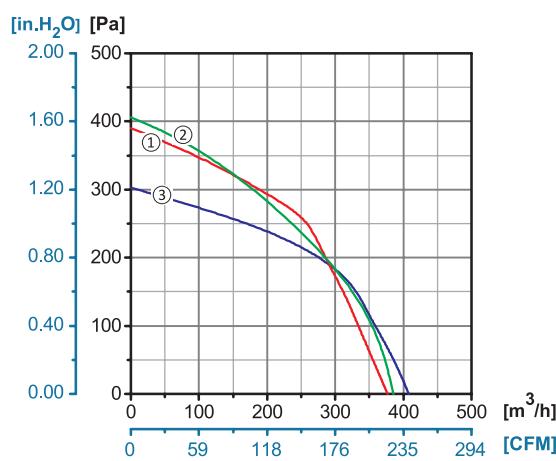
Φ 120

Rotor Material: Aluminum Die-casting
Impeller Material: Galvanized Steel Sheet
Ingress Protection: IP44
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.F2S-120-120AA2A	110/120	60	1.10	130	1650	10	385/225	59	②	-30/+60	
YWF.F2S-120-120AA20	220/230	50	0.45	95	1625	3	408/240	60	③	-30/+60	CCC, CE
	220/230	60	0.51	113	1524	3	377/221	57	①	-30/+60	CE



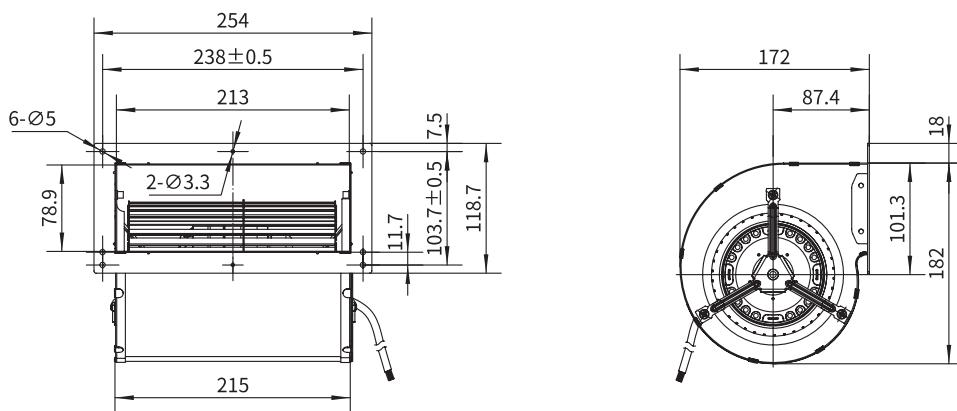
Forward Curved Blower (Dual-inlet)



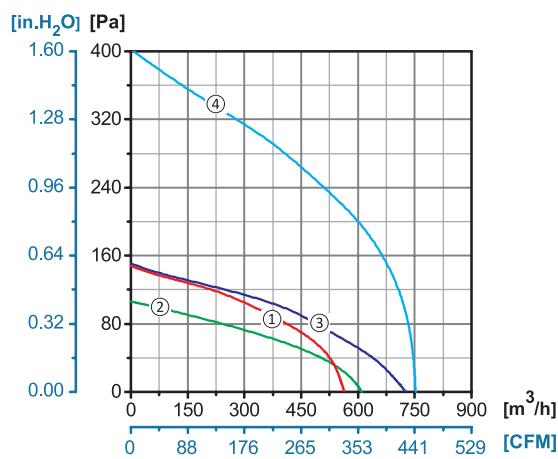
Φ 133

Rotor Material: Aluminum Die-casting
Impeller Material: Galvanized Steel Sheet
Ingress Protection: IP44
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	µF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.F4S-133-190AA0A	110/120	60	0.92	102	1430	10	560/329	61	①	-30/+60	
YWF.F2S-133-190AA00	220/230	50	1.28	280	1840	7	750/441	68	④	-30/+60	CCC, CE
YWF.F4S-133-190AA00	220/230	50	0.41	90	1380	5	610/350	61	②	-30/+60	CCC, CE
	220/230	60	0.60	123	1600	5	730/420	66	③	-30/+60	CE



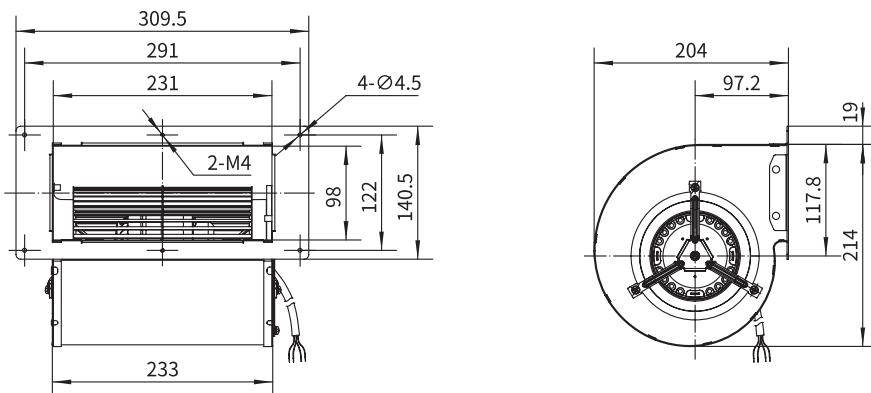
Forward Curved Blower (Dual-inlet)



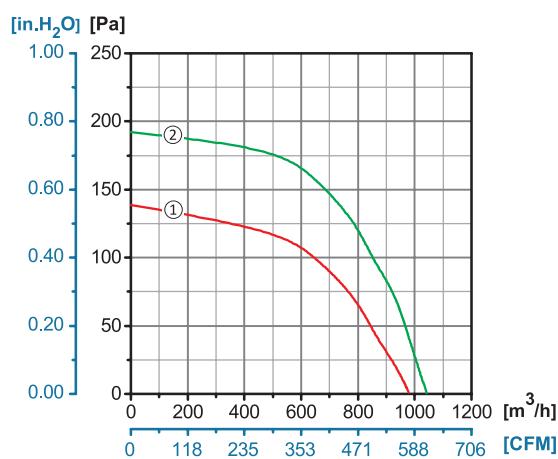
Φ 146

Rotor Material: Aluminum Die-casting
Impeller Material: Galvanized Steel Sheet
Ingress Protection: IP44
Insulation Class: F
Bearing Type: Maintenance Free Ball Bearing

Dimensional Drawings



Performance Curves



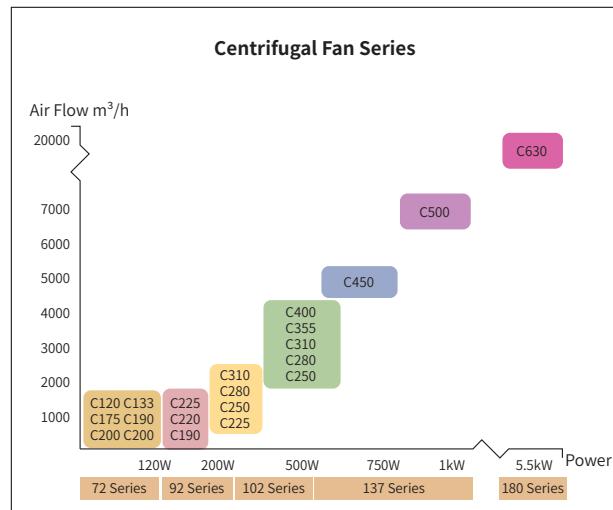
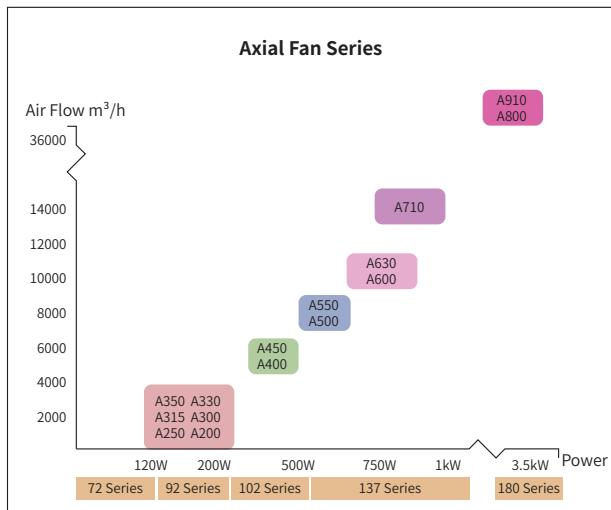
Model No.	Voltage	Frequency	Current	Power	Speed	Capacitor	Air Flow (0 Pa)	Noise	Curve	Working Temp.	Approvals
	V	Hz	A	W	RPM	μF	[m³/h]/[CFM]	dB(A)	No.	Min/Max (°C)	
YWF.F4S-146-189AA00	220/230	50	0.54	117	1320	5	980/576	61	①	-30/+60	CCC, CE
	220/230	60	0.83	173	1460	5	1041/612	66	②	-30/+60	CE

Product Application Knowledge & Case Analyses

1. TYPES & APPLICATION OF FAN

	Axial Fan	Backward Curved Centrifugal Fan	Forward Curved Centrifugal Fan (Blower)
Types of Fan			
Characteristics	Applicable to high airflow, low pressure, and small system resistance occasions.	Applicable to high airflow, high pressure, large system resistance, and high requirement of noise level applications.	Suitable for occasions of high airflow, high pressure, larger system resistance and limited internal space.
Main Application	Air-conditioning Terminals Condensers, Evaporators Water Chillers, Cooling Units Air-conditioning Fans Exhaust Ventilation Cold Storages Equipment Cooling HVAC Industry Other Related Industries	Air Purification Ventilating Units Air-conditioning Terminals, Air-conditioning Fans, Floor Ventilation Heat Pumps, Ground Source Heat Pumps, Air Source Heat Pumps Roof Fans Filtering, FFU Equipment Cooling Other Related Industries	Coil Units Air Purification Ventilating Units Roof Fans Exhaust Ventilation Other Related Industries

2. Coverage and Mainly Working Scope



Notes: A-Axial fan C- Centrifugal fan

3. Basic Symbols

Designation	Symbol	SI Unit	Designation	Symbol	SI Unit
Rated voltage	U	V	Rated power in	P _{in}	W
Rated current	I _n	A	Rated power out	P _{out}	W
Motor speed/ rpm	n	r/min	Motor efficiency	η _m	-
Power frequency	f	Hz	Fan efficiency	η _f	-
Power factor	cosΦ	-	Rated torque	T _N	N.m
Insulation class	B/F/H	-	Locked torque	T _b	N.m
Protection grade	IP	-	Starting torque	T _s	N.m
Area	A	m ²	Speed	V	m/s
Volume	V	m ³	Capacitor	C	μF
Weight	m	kg	Force	F	N
Air flow	qv	m ³ /h	Air pressure	p	Pa
	1CFM=1.699 m ³ /h	CFM		1inH ₂ O= 249Pa	in.H ₂ O
Flow speed	c	m/s	Total pressure	P _t	Pa
Coefficient of resistance	ζ	-	Static pressure	P _s	Pa
Impeller diameter	D	m	Sound pressure level A	L _{PA}	dB(A)
Radius	r	m(mm)	Environmental sound level	L _{eA}	dB(A)
Impeller balance grade	G	mm/s	Density of air	ρ	kg/m ³
Moment of inertia	J	kg.m ²	Angular velocity	ω	rad/s
Temperature in Kelvin	T	K	Acceleration of gravity	g	m/s ²
Temp in Celsius	t	°C	Peripheral speed	u ₂	m/s



4. Basic Formula & Laws

Formula ① :

$$\frac{qv_2}{qv_1} = \frac{n_2}{n_1} \times \left\{ \frac{D_2}{D_1} \right\}^3$$

Formula ② :

$$\frac{p_2}{p_1} = \left\{ \frac{n_2}{n_1} \right\}^2 \times \left\{ \frac{D_2}{D_1} \right\}^2 \times \left\{ \frac{\rho_2}{\rho_1} \right\}$$

Formula ③ :

$$\frac{p_{w2}}{p_{w1}} = \left\{ \frac{n_2}{n_1} \right\}^3 \times \left\{ \frac{D_2}{D_1} \right\}^5 \times \left\{ \frac{\rho_2}{\rho_1} \right\}$$

Formula ④ :

$$L_p A_2 - L_p A_1 = 60 \text{dB} \times \log \left\{ \frac{n_2}{n_1} \right\}$$

Formula ⑤ :

$$P_{out} = T_n \times \omega_n = \frac{\pi}{30} \times T_n \times n$$

Definition:

q _v	Airflow	m ³ /h	D	Impeller Diameter	mm
P	Pressure	Pa	p	Air Density	Kg/m ³
P _w	Shaft Power	W	L _p A	Noise	dB
n	Rotational Speed	rpm			

Conclusion:

- 1.The airflow is in proportion to rotating speed in the case of the propeller, air density and environment are unchanged.
- 2.The pressure is direct proportion with the rotating speed squared; impeller diameter squared and air density.
- 3.The shaft power is proportional to the rotating speed cubed, impeller diameter to the power 5th and air density.
- 4.Output power lies on torque and rotating speed.

5.Practical Cases

Case 1:

A certain communication base station which is using a backward curved centrifugal fan on its air-conditioning

equipment, normal operating condition is the airflow 2500m³/h@200Pa, shaft power 168W (input power 210W), rotating speed 1660rpm and noise level 60dB.

The customer hopes that the airflow can be improved from 2500m³/h@200Pa to 3000m³/h@200Pa, in that they have increased the cooling area of the radiator. Can we match their airflow request with the same pressure? The other customer wishes to reduce the rotating speed to 1400rpm. Under the same pressure, what would the airflow, shaft power and noise level be?

Answer 1:

According to formula ① , we can calculate the rotating speed of the fan as below:

$$\frac{qv_2}{qv_1} = \frac{n_2}{n_1} \times \left\{ \frac{D_2}{D_1} \right\}^3 \rightarrow \frac{3000}{2500} = \frac{n_2}{1660}$$

$$\therefore n_2 = 1990 \text{rpm}$$

According to formula ③ , we can calculate the shaft power of the fan as below:

$$\frac{p_{w2}}{p_{w1}} = \left\{ \frac{n_2}{n_1} \right\}^3 \times \left\{ \frac{D_2}{D_1} \right\}^5 \times \left\{ \frac{\rho_2}{\rho_1} \right\} \rightarrow \frac{p_{w2}}{168} = \left\{ \frac{1990}{1660} \right\}^3$$

$\therefore P_{w2} = 290 \text{W}$ the input power at this moment is 360W
After judgment on temperature rise, strength and lifetime, the 102 series motors can be used under the condition of 3000m³@200Pa. This is a case of that the motor be used by increasing speed. When the calculating result exceeds the fan's maximum load capacity and motor temperature rise, we have to choose a bigger fan or reduce the rotating speed and the power to ensure the fan running under a safe state.

Similarly to the circumstance of using fan by reducing its speed.

According to formula ① , we can calculate the airflow of the fan as below:

$$\frac{qv_2}{qv_1} = \frac{n_2}{n_1} \times \left\{ \frac{D_2}{D_1} \right\}^3 \rightarrow \frac{qv_2}{2500} = \frac{1400}{1660}$$

$$\therefore qv_2 = 2100 \text{ m}^3/\text{h}$$

According to formula ③ , we can calculate the shaft power of the fan as below:

$$\frac{p_{w2}}{p_{w1}} = \left\{ \frac{n_2}{n_1} \right\}^3 \times \left\{ \frac{D_2}{D_1} \right\}^5 \times \left\{ \frac{\rho_2}{\rho_1} \right\} \rightarrow \frac{p_{w2}}{168} = \left\{ \frac{1400}{1660} \right\}^3$$

$\therefore P_{w2} = 100W$, the input power at this moment is 125W
According to formula ④, we can calculate the noise level of the fan as below:

$$L_p A_2 - L_p A_1 = 60 \text{dB} \times \log \left\{ \frac{n_2}{n_1} \right\}$$

$$\therefore L_p A_2 = 55.5 \text{dB}$$

Based on above calculations, if noise level meets the requirement, we also need to judge whether the airflow can match the requirement or not.

Case 2:

A certain customer who used an A450 axial fan on their cold storage equipment, the ambient temperature is always under -35°C . The situation of motor burnt or low running speed hopped on the fan when running the equipment, what is (are) the reason(s)? *Product selection based on normal temperature, operating conditions: rotating speed 1400rpm, airflow 5000m^3 @40Pa and shaft power 290W (input power 360W).

Answer 2:

After consideration, it's caused by the increased duty of the high density of the low ambient temperature. Under the same rotating speed, same sizes of equipment and fan conditions, we can find air densities of different temperatures:

1.2 Kg/m³@-35°C, 0.92Kg/m³@25°C,

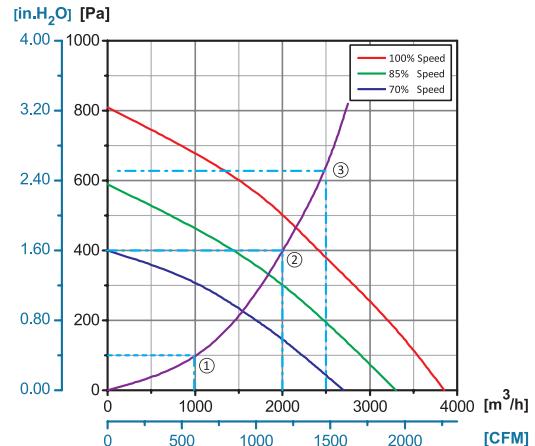
According to formula ③, we can calculate the shaft power of the fan as below:

$$\frac{P_{w2}}{P_{w1}} = \left\{ \frac{n_2}{n_1} \right\}^3 \times \left\{ \frac{D_2}{D_1} \right\}^5 \times \left\{ \frac{\rho_2}{\rho_1} \right\} \rightarrow \frac{P_{w2}}{290} = \frac{1.2}{0.92}$$

$\therefore P_{w2} = 378W$, the input power at this moment is 473W. Input power has increased about 31%, we have to consider the motor temperature rise, efficiency and mechanical characteristics when the duty is increased. In terms of the application of low temperature conditions, we suggest our customers to use a bigger fan to perform the higher load.

6. Resistance Curves

Resistance is a sum of all pressure losses of filters, pipes (ducts), condenser and mechanical structure. Below figure is resistance curves of a certain equipment.



Below is the system resistance curves relationship:

Formula ⑥ :

$$\frac{P_{sf2}}{P_{sf1}} = \left\{ \frac{qv_2}{qv_1} \right\}^2$$

From above figure,

Point 1: 1000 m^3 @ 100Pa

Point 2: 2000 m^3 @ 400Pa

Point 3: 2500 m^3 @ 625Pa

That is, if the composition of the equipment is not changed, and the airflow needs to be increased twice, then we have to increase pressure up to 4 times to ensure the equipment operating normally.

We can work out the power needed to overcome the resistance of the equipment from below formula:

Formula ⑦ :

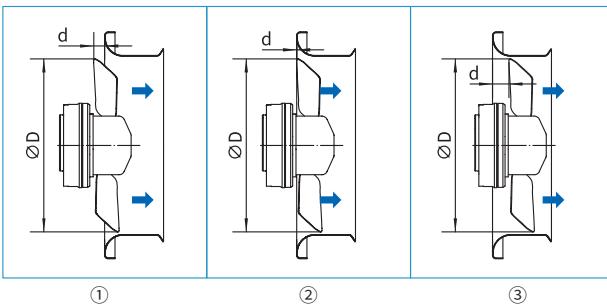
$$p = \frac{qv \times p}{3600 \times 1000}$$

Please keep a margin when selecting fans since there are some different test conditions between development and application.

From above Figure, if we choose point 1 and point 2 as working points, the fan can pass the test and meet the requirement. But point 3 is out of the usable range, so we have to choose a suitable fan for this working point. Normally, the fan features and engineering capabilities are relatively stable, if there's a deviation between design and practical application, which is substantially caused by the changes of equipment or environment.

7. Matters Needing Attention For Applying the Fan

7.1 Impact of Axial Fan Inlet Ring Position

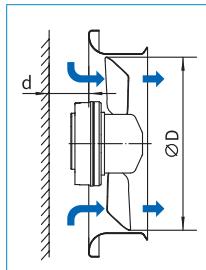


It may efficiently improve the airflow, pressure and efficiency of the fan during using the inlet ring. The different positions will bring different results. See details below:

	Pressure (Max.)	Airflow (the same pressure)
$d/D = 10\% \text{ ①}$	96%	96%
$d/D = 5\%$	97.8%	97.8%
$d/D = 0\% \text{ ②}$	100% Benchmark	100% Benchmark
$d/D = -5\%$	100%	96.2%
$d/D = -10\% \text{ ③}$	100%	92%

The data above were worked out from plenty of practical tests just for references. Because of the differences of equipment types, structures, environments and so on during in real application, the impacts maybe also different from the data above.

7.2 Impact of Mounting Position of Axial Fan-1

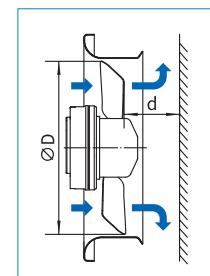


It may efficiently improve the airflow, pressure and efficiency of the fan during using the inlet ring. The different positions will bring different results. Details are as follows:

	Pressure (Max.)	Airflow (the same pressure)
$d/D = \infty$	100% Benchmark	100% Benchmark
$d/D = 40\%$	76%	95%
$d/D = 20\%$	55%	91%
$d/D = 10\%$	32%	65%
$d/D = 5\%$	16%	N/A

The impact of this installation of fan is very huge for pressure and airflow, especially for the pressure, so please avoid installing fan by this way. The data above were worked out from plenty of practical tests just for references. Because of the differences of equipment types, structures, environments and so on during in real application, the impacts maybe also different from the data above.

7.3 Impact of Mounting Position of Axial Fan-2

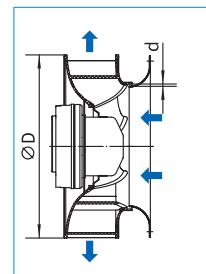


Details are as follows:

	Pressure (Max.)	Airflow (the same pressure)
$d/D = \infty$	100% Benchmark	100% Benchmark
$d/D = 40\%$	100%	97.5%
$d/D = 20\%$	100%	90%
$d/D = 10\%$	100%	70%
$d/D = 5\%$	100%	34%

This installation has a certain effect on output airflow, so please keep a space in output direction as much as possible. The data above were worked out from plenty of practical tests just for references. Because of the differences of equipment types, structures, environments and so on during in real application, the impacts maybe also different from the data above.

7.4 Impact of Gap of Centrifugal Fan Inlet Ring-1

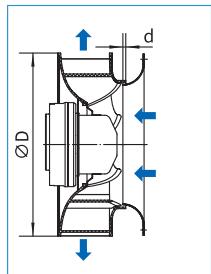


It may efficiently improve the airflow, pressure and efficiency of the fan during using the inlet ring. The different gaps will bring different results in real application. Details are as follows:

	Pressure (Max.)	Airflow (the same pressure)
a/D= 0.5%	100% Benchmark	100% Benchmark
a/D= 1.0%	100%	97.2%
a/D= 2.0%	100%	94%

Theoretically, the smaller of the gap between the inlet ring and the inlet of impeller is the better airflow and efficiency. But limited by the precision of parts, assembling tolerances and the deformation of equipment, we recommend our customers to use Dunli standard inlet rings or take the a/D range from 1.0% to 2.0%. The data above were worked out from plenty of practical tests just for references. Because of the differences of equipment types, structures, environments and so on during in real application, the impacts maybe also different from the data above.

7.5 Impact of Gap of Centrifugal Fan Inlet Ring-2



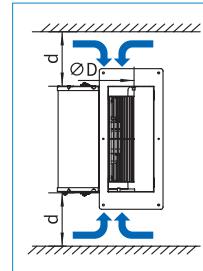
Details are as follows:

	Pressure (Max.)	Airflow (the same pressure)
d/D= 1.0%	100% Benchmark	100% Benchmark
d/D= 0.0%	100%	97%
d/D=-1.0%	95%	90%

There's a reasonable value of inlet ring insert dimension, too much would be a mechanical interference, too less may cause airflow loss and low efficiency of the fan. But limited by the precision of parts, assembling tolerances and the deformation of equipment, we recommend our customers to take the d/D with 1% for application. The data above were worked out from plenty of practical tests just for references. Because of

the differences of equipment types, structures, environments and so on during in real application, the impacts maybe also different from the data above.

7.6 Impact of Inlet Distance of Centrifugal Fan Inlet Ring



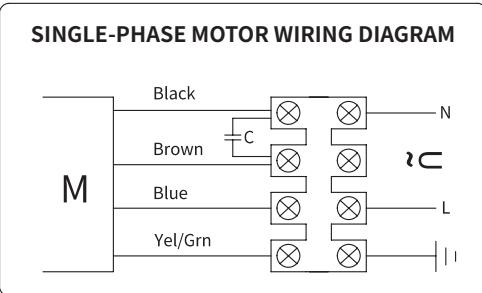
Details are as follows:

	Pressure (Max.)	Airflow (the same pressure)
d/D= 1.0%	100% Benchmark	100% Benchmark
d/D= 0.0%	100%	97%
d/D=-1.0%	95%	90%

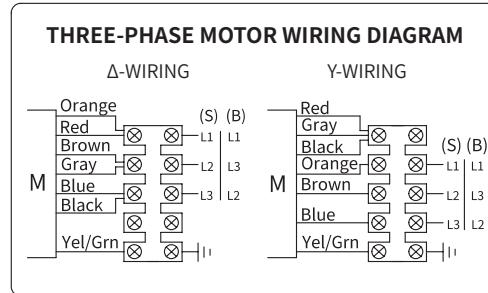
Theoretically, the bigger of the distance is the better airflow and efficiency. But with the limitation of equipment dimensions during design, we recommend our customers to ensure the d/D within 50% as much as possible, or to drill inlets on the sheet metal of the cabinet that is helpful for fan efficiency. The data above were worked out from plenty of practical tests just for references. Because of the differences of equipment types, structures, environments and so on during in real application, the impacts maybe also different from the data above.

AC Motor Fan Wiring Diagrams

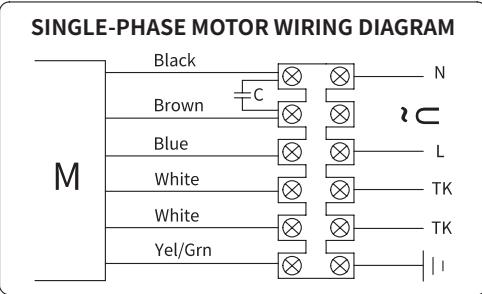
1. Single-phase motor



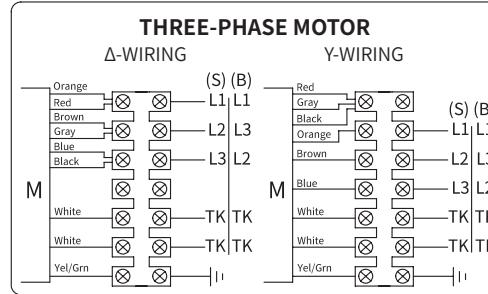
5. Two-speed three-phase motor



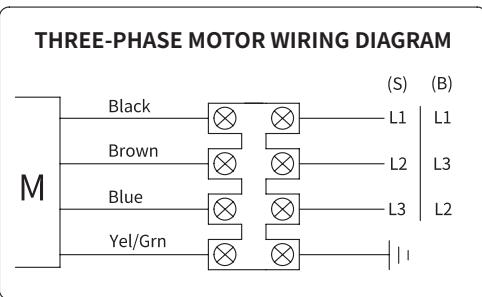
2. Single-phase motor with external wiring thermal protector



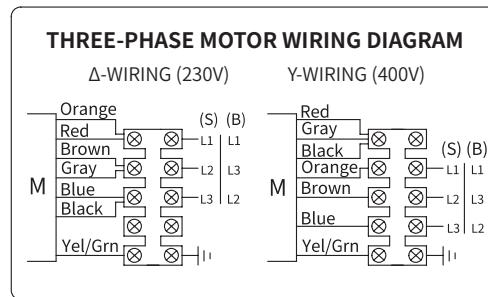
6. Two-speed three-phase motor with external wiring thermal protector



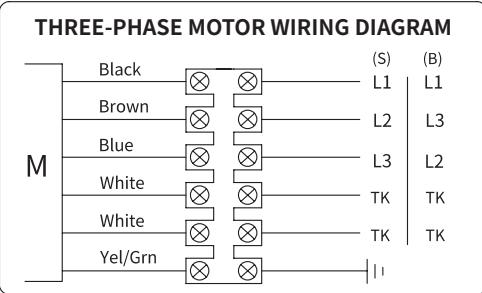
3. Three-phase motor



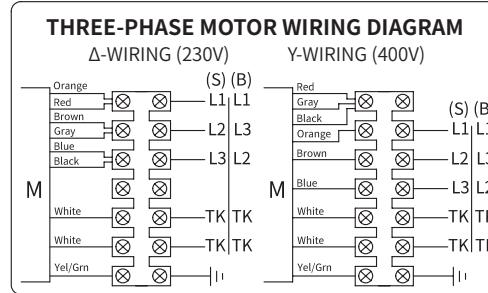
7. Two-voltage three-phase motor



4. Three-phase motor with external wiring thermal protector



8. Two-voltage three-phase motor with external wiring thermal protector





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