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## Guangdong Jiake Ventilatoe Co.,Ltd

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Stock code:833202  
Stock name: Jiake group



Guangdong Jiake Ventilator Co., Ltd

# INDUSTRIES

Jiake, established in 1984, formerly a subsidiary of the state-owned Shatou Refrigerator Equipment Manufacturing, is one of the country's earliest ventilation equipment manufacturing companies. Our company is committed in the development, manufacturing, sales and after-sales services of various ventilation systems such as railway ventilation systems, bus ventilation systems, heavy-duty industrial ventilation systems, indoor ventilation systems, central ventilation systems and air fresheners. Our company has also been awarded with numerous certifications from various professional certification bodies, such as the TÜV SÜD's IRIS certification, the EN 15085 Certification for Welding of Railway Vehicles and Components, ISO 9001:2000 and ISO 14001 certifications, CE, NF and China 3C certifications and various other state certifications. On top of that, our company has filed more than 20 technological patents.

Our railway ventilation systems are mainly used in railcars of high-speed trains, bullet trains, subway trains and light rail trains deployed in more than 100 cities, both domestically such as Guangzhou, Beijing, Shanghai, Shenzhen, Tianjin, Chengdu, Changsha, Chongqing, Wuhan etc., and internationally such as Milan, Wellington, Santiago, Amsterdam, Athens, Lima, Bangkok, New Delhi, Sao Paulo, and cities in Japan, Iran, Malaysia and Pakistan.

We also maintain close and long –term cooperation with large-scale industries both domestically and internationally. Our ventilation fans have also been installed in air conditioning systems on electric buses. We are one of the pioneers in the research, development and manufacturing of ventilation fans for use in electric buses, and we have been maintaining close cooperation with several established manufacturers. Our ventilation fans have been utilized in buses that served the 2008 Beijing Olympic Games, 2010 Asian Games, 2011 Shenzhen Games and the 2014 Nanjing Youth Olympics.

Our industrial fans and fire-fighting ventilators are used for the purposes of smoke and dust abatement in various industrial and commercial applications. Our central air refreshener system is able to work non-stop, 24 hours a day, 365 days a year, in removing pollutants from and at the same time providing fresh air for indoor residential environments in an energy-efficient manner. With 30 years of experience behind us, we have successfully nurtured a team of well-trained, highly-skilled researchers and management executives who are capable of excelling in various tasks.



## Team Introduction

In 2003, the company set up a technology research and development department, research and development process to follow the IS09001: 2008 quality management system, the implementation of the whole process monitoring and management. Thirty-five years of professional manufacturing our company has trained a batch of fan design, development, manufacturing and so on in various aspects of high-quality technical research and development team and the enterprise management personnel. The company is equipped with CAD auxiliary design system, the research and development cycle is short. The company has the ability to develop and manufacture new products in a short time.





## Equipment Introduction

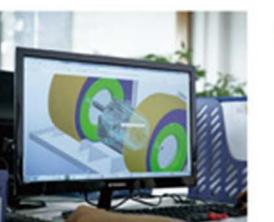
The company has a plant covers about the area of 30,000 square meters, in recent years, imported advanced equipment facility, such as:

- Laser cutting equipment and plate work processing equipment;
- CNC punching machines;
- Shears;
- Bending machines;
- Wire cutting machines;
- Mold machining center;
- Welding center;
- Standard digital ventilator air flow laboratory;
- Noise laboratory;
- Surface treatment and coating center;



## Production process

### 1 Mechanical design



#### 1、Mechanical design

Base on the 3D-CAD technology, the product is set up according to 3D model with the simulation test, The product structure and performance parameters are analyzed.

### 4 Machining



#### 4、Machining

NC machining of product parts through the program.

### 5 wind wheel assembly



#### 5、Wind wheel assembly

With all kinds of special fixture, the product of the wind wheel and the wind turbine assembly.

### 8 Welding workshop



#### 6、Welding workshop

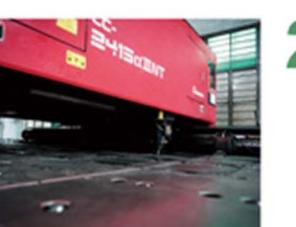
According to product design drawings, the product is installed.

### 9 Testing



#### 9、Testing

After pass the dimension inspection, vibration test, noise test, electric energy testing, etc., the product will be packaged.



### 2 Sheet metal processing

#### 2、Sheet metal processing

Through computer programming, we reach the highest utilization rate of raw materials, then numerical control processing of raw materials.

### 3 Mould forming



#### 3、Mould forming

Molding of products by means of die.



### 6 Welding workshop

#### 6、Welding workshop

With special fixture, the welding quality is ensured by using the automatic robot for welding, in strict accordance with the EN15085 standard.

### 7 Spraying workshop



#### 7、Spraying workshop

With the electrostatic powder spraying technology, high pressure spray gun powder adhesion in pre-treatment of the surface of the product, then baked with high temperature.

# Events

Jan 1984	Nanhai Sha Tau ventilation electrical plant was established, it participated in the first batch of domestic train development and production of air-conditioning fan	Jun 1984	National railway train (B,G,T type)
Jan 1993	Involved in domestic subway train China's first air-conditioning ventilation equipment design and development and manufacturing	May 1984	Syria bus
Apr 1995	Rename to Shatou Refrigeration corporation	May 1984	Sultan train
Jan 1996	Company restructuring reform, officially became a private enterprise	May 1985	North Korean train
Dec 2001	The company passed the audit certification and obtained ISO9001: 2000 quality management system certification	May 1985	Kazakhstan train
Jan 2003	Established its own brand "Jiake Fan" and registered Foshan Nanhai Jiake Fan Manufacture Co., Ltd.	Aug 1995	Osaka light rail
Aug 2006	High-speed railway car project fan research and development	Oct 2000	Guangzhou Metro line 1
Dec 2008	Establish national wind tunnel testing laboratory	Nov 2000	Guangzhou Metro line 2
Dec 2009	Approved by the People's Government of Nanhai District of Foshan City as a key supportive enterprise for the "Eagle Project"	July 2001	Chengdu Metro line 1
Nov 2010	Participate in the first domestic EMU hole (200 kilometers per hour) of ventilation equipment design and development and manufacturing	Jun 2002	Changchun light rail
Jan 2010	Accredited by Guangdong Science and Technology Agency as "private technology enterprise in Guangdong Province"	Mar 2004	Beijing Batong Line
July 2010	Won the National SME Innovation Fund	July 2004	Guangzhou Metro line 4
Nov 2011	Was assessed Guangdong Science and Technology Department of Guangdong Provincial Department of Finance, the State Taxation Bureau of Guangdong Province, Guangdong Provincial Local Taxation Bureau for the new technology enterprises	Aug 2005	Chongqing Monorail
Nov 2011	Won the Guangdong High-tech Product Certification	Mar 2006	Qinghai Tibe line
Jan 2011	The company passed the audit certification and obtained ISO9001: 2008 quality management system certification	Sep 2006	Venezuela train
Jun 2012	International Railway Industry Standard) " The company passed the global TUV certification authority and obtained IRS, International Railway Industry Standard	May 2006	Shanghai Metro line 9
July 2012	The company has been audited and certified by Germany's TUV, a global authoritative organization, and obtained the "EN5085" track application - welding certification system for rail vehicles and vehicle components.	Oct 2006	Beijing airport line
Aug 2014	The company completed the share manufacturing and officially changed its name to "Guangdong Jiake Ventilator Co., Ltd"	Nov 2007	Beijing Metro line 10
Aug 2014	Participated in the design, development, manufacture and manufacture of ventilation equipment for domestic first high-speed rail air conditioners (380 km/h)	Dec 2007	Shanghai Metro line 7
Aug 2015	The company successfully registered and listed on the national small and medium-sized enterprise share transfer system. The stock code is: 833202, and the stock name is "Jiake shares".	Jun 2007	Beijing Metro line 4
		Jun 2007	Georgia train
		Jun 2007	Shanghai Metro line 11
		Jun 2007	India New Delhi Metro
		Jun 2008	Athens Metro
		Nov 2008	Zhuzhou six axle vehicle
		Dec 2008	Bangkok Metro
		Feb 2008	Shanghai Metro line 6,8
		Feb 2008	Istanbul Metro
		Apr 2008	Tunisia subway
		Sep 2009	National leaders train
		Sep 2009	Qinghai-Tibet Plateau Railway Series
		Sep 2009	Wellington Metro
		Oct 2009	Shenzhen Metro Line 2



# Events

July 2010	Shenzhen Metro Line 1	Mar 2014	CRH807 205km
Sep 2010	Amsterdam train	Apr 2014	Suzhou Metro Line 2
Jan 2010	Malaysia train	May 2014	Shanghai Metro Line 3
Apr 2010	Guangzhou Metro line 8	May 2014	Shanghai Metro Line 4
Apr 2010	Wuhan Metro line 2	May 2014	Changsha Metro Line 1
May 2010	Pakistan III (KLD33PA) train	May 2014	CRH-160KM
May 2010	Pakistan II (KLD7) train	May 2014	Hangzhou Metro Line 4
Jun 2011	Italy Metro line	May 2014	Tangshan bus city rail CRH3F
July 2011	CRH5B	May 2014	EMU
July 2011	St Paul Brazil Metro	May 2014	Alpine wind and sand
Aug 2011	Extension of line 6,8 in Shanghai Metro	May 2014	Santiago Metro
Aug 2011	Shanghai Metro Line 16	Jun 2014	Wuhan Metro Line 3
Aug 2011	Chengdu Metro Line 3	Jun 2014	Series G88B1000 of Metro Axial fans
Aug 2011	CRH6-200KM	Jun 2014	Standard EMU 380KM
Dec 2011	Macao light rail line	July 2014	Lima project
Mar 2012	Iran Metro	Aug 2014	Chongqing Metro Line 3
Apr 2012	Guangzhou Metro Line3	Aug 2014	Drivers' Room Hefei Metro Line 1
May 2012	Wuxi Metro Line 1	Aug 2014	Hefei Metro Line 1
July 2012	Changsha Maglev	Oct 2014	Guangzhou Metro Line 7
Dec 2012	Qingdao Metro Line 3	Oct 2014	Chengdu Metro Line 4
Mar 2013	Changsha Metro Line 2	Oct 2014	Shenzhen Metro Line 5
Mar 2013	807item-250km	Nov 2014	Drivers' Room Argentina Metro
Apr 2013	Milan Metro	Dec 2014	Shanghai Metro Line 1
Oct 2013	Tianjin Metro Line	Dec 2014	CRH5
		Dec 2014	CRH5-Drivers' Room
		Mar 2015	Chengdu Metro Line 2
		Mar 2015	CRH6-200km
		Mar 2015	Iran Metro Drivers' Room
		Mar 2015	Beijing Changping Line
		Jun 2015	Guangzhou Metro Line 9
		Sep 2015	Vietnam train
		Oct 2015	Sifang 140km city car
		Oct 2015	Dalian 160km city car
		Oct 2015	Shenzhen Metro Line 5
		Nov 2015	Shenzhen Metro Line 9



# Projects



Macao Light Rail



Beijing Metro



Changchun Light Rail



Changsha Metro



Jinggang Metro



Chengdu Metro



Chengdu Railway Bureau



Guangzhou Metro



Hangzhou Metro



Hefei Metro



China Railway High-speed



Changsha Rail transport



Qingdao Metro



Shanghai Metro



Shenzhen Metro



Suzhou Metro



Tangshangke Railways



Tianjin Metro



Wuxi Metro



Wuhan Metro



CNR



CSR



China Railways



China Car



China Railway Engineering



Chongqing Metro



Beijing Olympic



Asian Games



Nanjing Youth Olympic Games



Shenzhen World University Games



CHINA RAILWAYS HIGH-SPEED



BEIJING METRO



CHUANGCHUN LIGHT RAIL



GUANGZHOU METRO



SHENZHEN METRO



SHANGHAI METRO





ST PAUL BRAZIL METRO

BANGKOK METRO



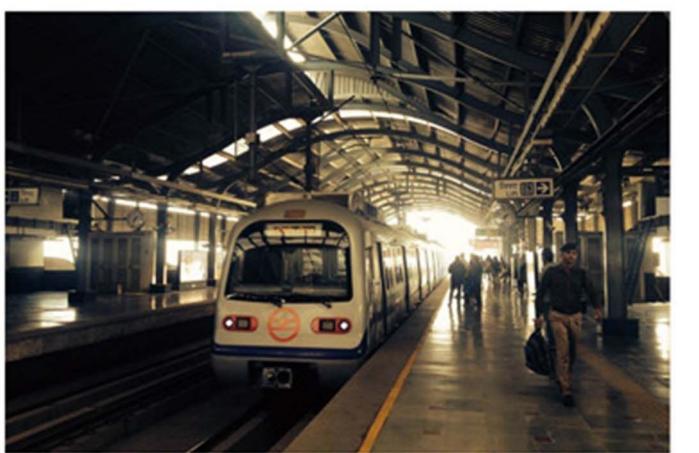
MILAN METRO

ISTANBUL METRO



AMSTERDAM

INDIA NEW DELHI METRO



**CHINA RAILWAYS HIGH-SPEED**

On April 18, 2007, the China railway sixth speed-up was started. New EMU has the characteristics of advanced technology, reliable safety, comfort and environmental protection, etc.

**SHANGHAI METRO**

Shanghai metro, the first line of Shanghai rail transit system opened on April 10, 1995, is the third city rail transit system in mainland of China after Beijing and Tianjin.

**BEIJING METRO**

Beijing Metro is a service of Beijing urban rail transit system in China. Its planning began in 1953, engineering was established in 1965, the first line was completed in 1969. It began operation in 1971 and it is the first subway system in China.

**CHINA RAILWAY**

In China, the railway is the national important infrastructure, and also the popular means of transportation. Railway in comprehensive transportation system in China is in a key position.

**GUANGZHOU METRO**

Guangzhou Metro, opened in June 28, 1997, is China's fourth cities open and operate Metro.

**CHANGCHUN METRO**

December 28, 2001, Changchun light rail phase one project success. So far, Changchun has taken the lead in the first light rail line in mainland china.

**SHENZHEN METRO**

Shenzhen Metro, located in Shenzhen, is the fifth city rail transit system in mainland of China after Beijing, Tianjin, Shanghai and Guangzhou.

**高寒动车  
ALPINE BULLET TRAIN**

Alpine EMU car has the advantage of anti snow, compressive strength, cold resistance, at an altitude of 3600 meters, minus 40°C temperature environment, or 70°C temperature environment, it has ability of continuous operation and can reach speeds of 200 km of high-speed EMU.

# Products

## KT series axial fan



The impeller is made of high quality cold-rolled steel plate, aluminum alloy plate, 304 stainless steel plate, aluminum alloy die casting process. Blade according to the principle of aerodynamics design, with the wind, high pressure, high efficiency, low noise, stable operation, small size, light weight, long life and so on. The installation of the fan is made of the structure of the body and the spinning technology, which has the advantages of high strength, beautiful appearance, convenient installation, etc. Fan surface through advanced technology and surface treatment (spray treatment, pickling passivation spinning fingerprint, electrophoresis) and enhances the anti rust and corrosion protection. Fan driven by three-phase asynchronous motor, motor insulation class F, protection class IP56, the use of international brand maintenance free bearings, high voltage and frequency transmission and other advantages. Long term use of low temperature, high temperature and high altitude.

(Air volume) m³/h	(Static pressure) Pa	(Power) Kw	(Speed) r/min	(Voltage) V	(Noise) dB(A)	(Shaft diameter) Φ
1800~16000	100~250	0.37~2.2	940~2800	380	≤67~81	14~28



## AF200 Series EC Axial Fan

### Material:

Impeller: Aluminium

Grille: Carbon steel wire, Black electrophoretic

Motor Casing: Die casting Alu

Blade Qty: 5PCS

Rotation: CounterClockwise (View from indicator on impeller)

IP Grade: IP65

Insulation Grade: B

Installation Way: Any

Running mode: Non-stop running (S1)

Bearing: Ball bearing

Quality Test Standard:

Mechanical Vibration

-Working mode vibration tested by GB 10068(IEC 60034-14)

-Static mode vibration tested by GB 10068(IEC 60034-14)

Shock loading

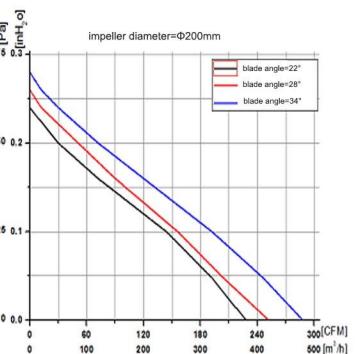
-Shock loading tested by GB/T 2423.5

Balance

-Balance tested by G 6.3

Certificate

-CCC (If request any other certificates, pls contact us )

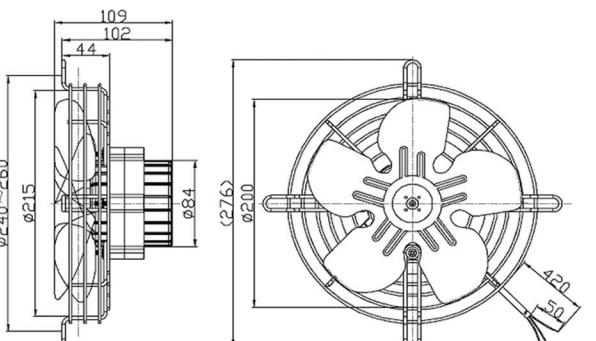


Motor	Fan diam	Blade deg	Voltag	Frequency	Speed	Power input	Airflow
	(mm)	(°)	(V)	(Hz)	(r/min)	(W)	(m³/h)
EM072- 220-05	Φ200	22	220	50/60	1300	4	380
	Φ200	28				6	420
	Φ200	34				8	480

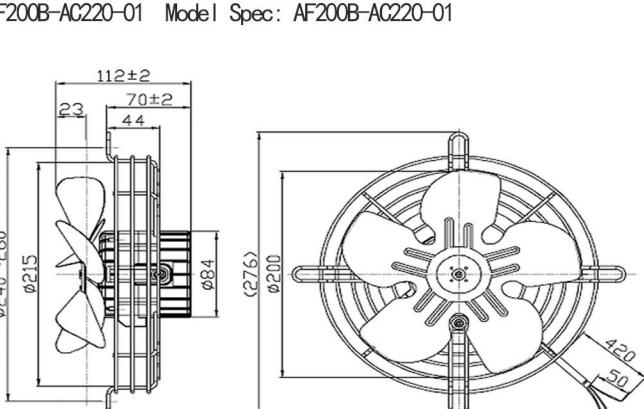
### Product Application:

1. Refrigerator (cold chain) or Freezing showcases
2. Industrial Oil cooler or Water chiller
3. Condenser cooling

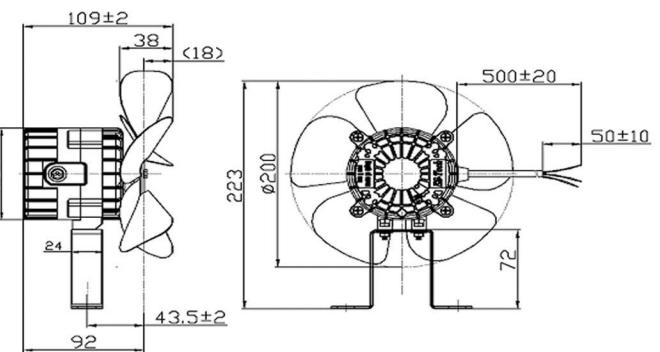
AF200A-AC220-01 Model Spec: AF200A-AC220-01



AF200B-AC220-01 Model Spec: AF200B-AC220-01



AF200C-AC220-01 Model Spec: AF200C-AC220-01



## AF250 Series EC Axial Fan

Product:  
Material:  
Impeller: Aluminium  
Grille: Carbon steel wire, Black electrophoretic  
Motor Casing: Die casting Alu  
Blade Qty: 5PCS  
Rotation: CounterClockwise (View from indicator on impeller)  
IP Grade: IP65

Insulation Grade: B

Installation Way: Any

Running mode: Non-stop running (S1)

Bearing: Ball bearing

Quality Test Standard:

Mechanical Vibration

-Working mode vibration tested by GB 10068 (IEC 60034-14)

-Static mode vibration tested by GB 10068 (IEC 60034-14)

Shock loading

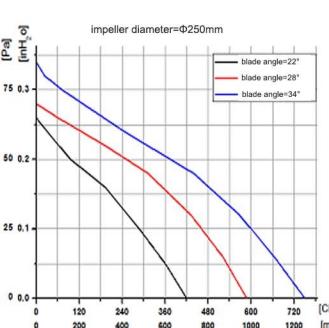
-Shock loading tested by GB/T 2423.5

Balance

-Balance tested by G 6.3

Certificate

-CCC (If request any other certificates, pls contact us )



Parameters:

Motor	Fan diam	Blade deg	Voltag	Frequency	Speed	Power input	Airflow
	(mm)	(°)	(V)	(Hz)	(r/min)	(W)	(m³/h)
EM072A-AC220-02	Φ250	22	220	50/60	1300	12	700
	Φ250	28				21	980
	Φ250	34				32	1250

Product Application:

1. Refrigerator (cold chain) or Freezing showcase
2. Industrial Oil cooler or Water chiller
3. Condenser cooling

## AF300 Series AC Axial Fan

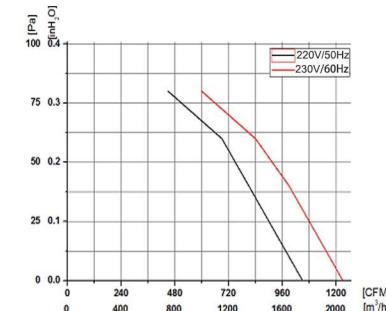
Product:  
Material:  
Impeller: Carbon steel plate with black coating

Grille: Carbon steel wire with black coating

Rotor Casing: Black electrophoretic

Motor Casing: Die casting Alu

Blade Qty: 5PCS



Parameters

Motor	Fan diam	Voltag	Frequency	Speed	Power input	Current	Airflow	Pern. amb. temp	Noise
	(mm)	(VAC)	(Hz)	(r/min)	(W)	(A)	(m³/h)	(°C)	[dB(A)]
AM068A-AC220	Φ300	220	50	1400	70	0.31	1750	-20~+60	59
AM068B-AC230	Φ300	230	60	1650	95	0.42	2050	-20~+45	63

Quality Test Standard:

Mechanical Vibration

-Working mode vibration tested by GB 10068 (IEC 60034-14)

-Static mode vibration tested by GB 10068 (IEC 60034-14)

Shock loading

-Shock loading tested by GB/T 2423.5

Balance

-Balance tested by G 6.3

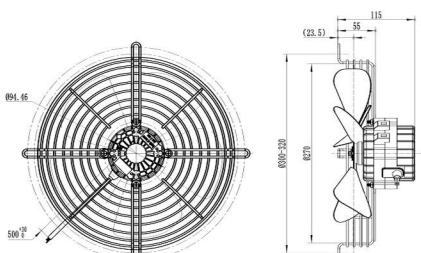
Certificate

-CCC (If request any other certificates, pls contact us )

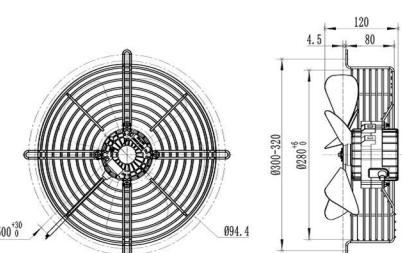
Products assembly size:

AF250A-AC220-01 Model Spec: AF250A-AC220-01

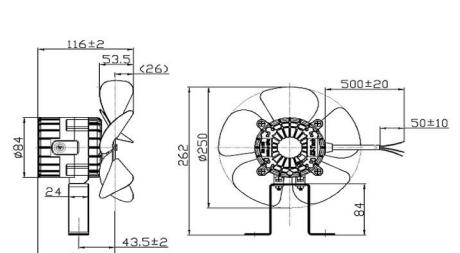
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AF250B-AC220-01 Model Spec: AF250B-AC220-01

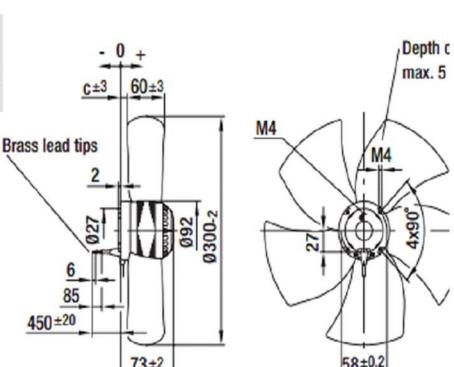


AF250C-AC220-01 Model Spec: AF250C-AC220-01

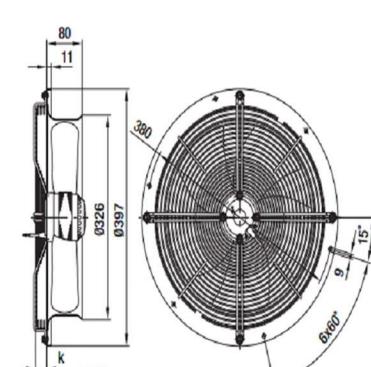


Products assembly size:

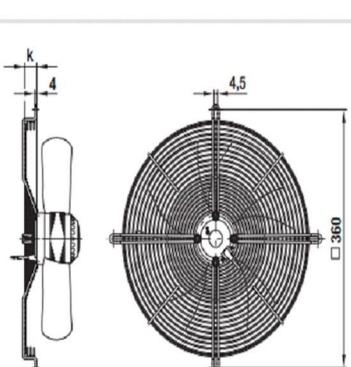
(C=13) Only impeller:



With air deflector:



(K=0) With grille:



## AF300 Series EC Axial Fan

### Product:

Material:

Impeller: Aluminium

Grille: Carbon steel wire, Black electrophoretic

Motor Casing: Die casting Alu

Blade Qty: 5PCS

Rotation: CounterClockwise (View from indicator on impeller)

IP Grade: IP65

Insulation Grade: B

Installation Way: Any

Running mode: Non-stop running(S1)

Bearing: Ball bearing

### Quality Test Standard:

Mechanical Vibration

-Working mode vibration tested by GB 10068(IEC 60034-14)

-Static mode vibration tested by GB 10068(IEC 60034-14)

Shock loading

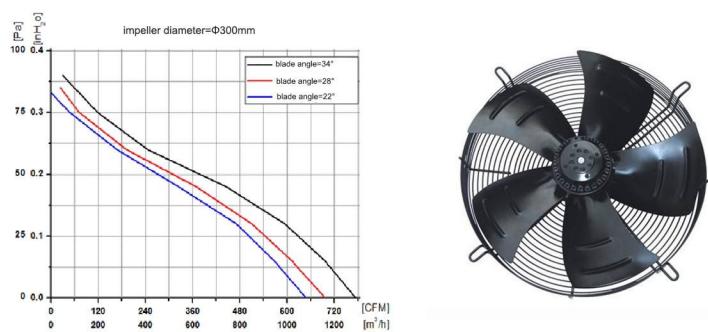
-Shock loading tested by GB/T 2423.5

Balance

-Balance tested by G 6.3

Certificate

-CCC(if request any other certificates, pls contact us )



### Parameters:

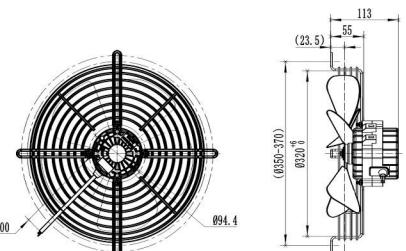
Motor	Fan diam	Blade deg	Voltag	Frequency	Speed	Power input	Airflow
	(mm)	(° )	(V)	(Hz)	(r/min)	(W)	(m³/h)
EM072A-AC220-01	Φ300	22	220	50/60	1300	28	1080
	Φ300	28				36	1160
	Φ300	34				45	1280

### Product Application:

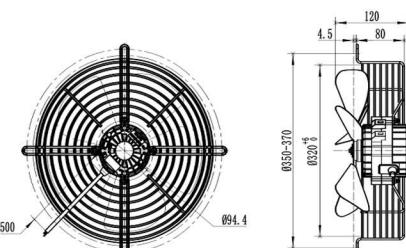
1. Refrigerator (cold chain) or Freezing showcase
2. Industrial Oil cooler or Water chiller
3. Condenser cooling

### Products assembly size:

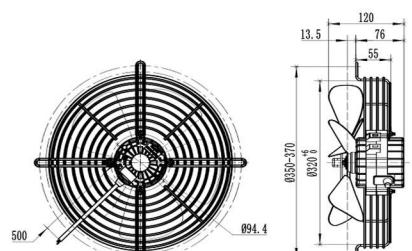
AF300A-AC220-01 Model Spec: AF300A-AC220-01



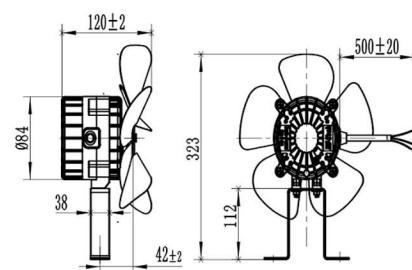
AF300B-AC220-01 Model Spec: AF300B-AC220-01



AF300A-AC220-02 Model Spec: AF300A-AC220-02



AF3000-AC220-01 Model Spec: AF3000-AC220-01



## AF350 Series AC Axial Fan

### Product:

Material:

Impeller: Carbon steel plate with black coating

Grille: Carbon steel wire with black coating

Rotor Casing: Black electrophoretic

Motor Casing: Die casting Alu

Blade Qty: 5PCS

Rotation: Clockwise (View from lead wire)

Motor Pold:4P

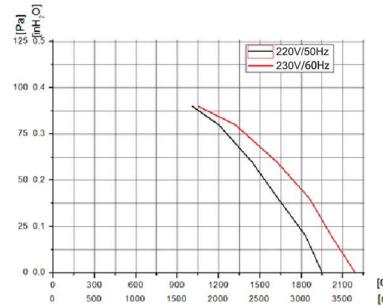
IP Grade: IP44

Insulation Grade: B

Installation Way: Any

Running mode: Non-stop running(S1)

Bearing: Ball bearing



### Parameters:

Motor	Fan diam	Voltag	Frequency	Speed	Power input	Current	Airflow	Pera. amb. temp	Noise
	(mm)	(VAC)	(Hz)	(r/min)	(W)	(A)	(m³/h)	(°C)	[dB(A)]
AM068A-AC220	Φ350	220	50	1360	135	0.59	3250	-20~+60	64
AM068B-AC230	Φ350	230	60	1550	182	0.81	3650	-20~+50	67

### Quality Test Standard:

Mechanical Vibration

-Working mode vibration tested by GB 10068(IEC 60034-14)

-Static mode vibration tested by GB 10068(IEC 60034-14)

Shock loading

-Shock loading tested by GB/T 2423.5

Balance

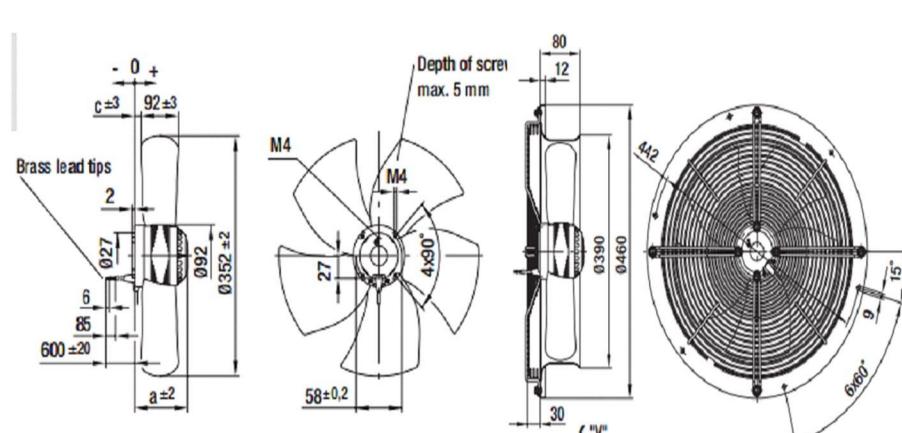
-Balance tested by G 6.3

Certificate

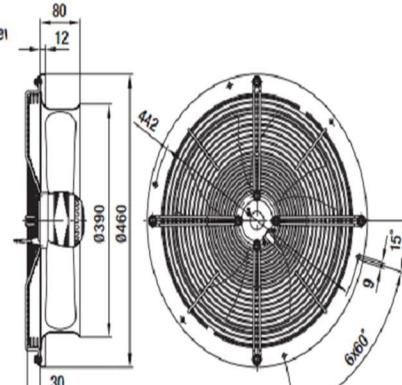
-CCC(if request any other certificates, pls contact us )

### Products assembly size:

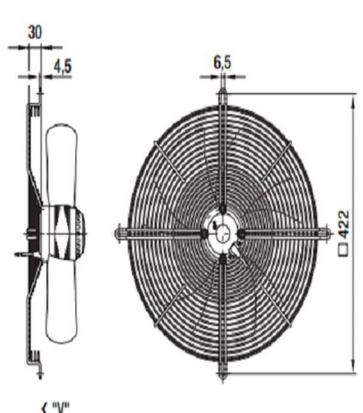
(a=102, c=10) Only impeller:



With air deflector:



With grille:



## AF350 Series EC Axial Fan

Product:

Material:

Impeller: Carbon steel plate with black coating

Grille: Carbon steel wire with black coating

Rotor Casing: Shape with cold rolled plate, Black electrophoretic

Motor Casing: Die casting Alu

Blade Qty: 5PCS

Rotation: Clockwise (View from lead wire)

IP Grade: IP44

Insulation Grade: B

Installation Way: Any

Running mode: Non-stop running (S1)

Bearing: Ball bearing

Product Application:

1. Refrigerator (cold chain) or Freezing showcase
2. Industrial Oil cooler or Water chiller
3. Condenser cooling

Electrical characteristic:

-Voltage range: 0~10VDC or

PWM speed regulation

-Output voltage 10VDC(max. 1mA)

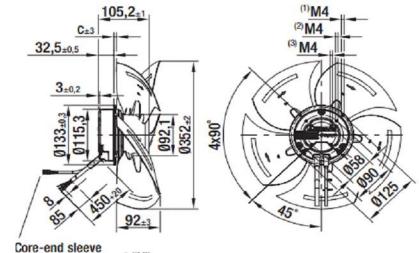
-Rotation speed output signal

-PFC compensating circuit

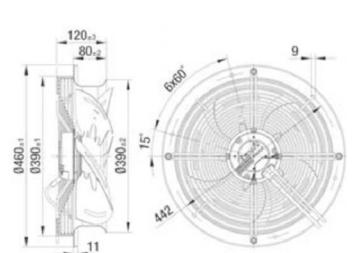
-Overheat protect circuit

Products assembly size:

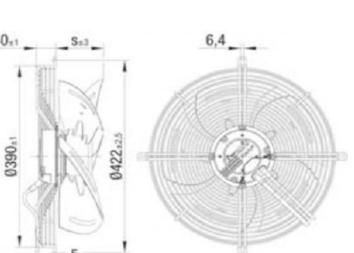
(C=7) Only impeller (C=7) :



With air deflector:



(S=99) With grille (S=99) :



## AF400 Series AC Axial Fan

Product:

Material:

Impeller: Carbon steel plate with black coating

Grille: Carbon steel wire with black coating

Rotor Casing: Black electrophoretic

Motor Casing: Die casting Alu

Blade Qty: 5PCS

Rotation: Clockwise (View from lead wire)

Motor Pold:4P

IP Grade: IP44

Insulation Grade: B

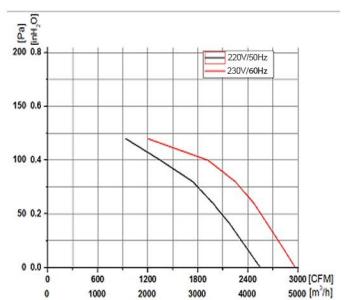
Installation Way: Any

Running mode: Non-stop running (S1)

Bear ing: Ball bearing

Product Application:

1. Refrigerator (cold chain) or Freezing showcase
2. Industrial Oil cooler or Water chiller
3. Condenser cooling



Parameters:

Motor	Fan diam	Voltag	Frequency	Speed	Power input	Current	Airflow	Fern. amb. temp	Noise
	(mm)	(VAC)	(Hz)	(r/min)	(W)	(A)	(m³/h)	(°C)	[dB (A)]
AB074A-AC220	350	220~240	50/60	1550	170	1.3	3600	-20~+60	65
AB074B-AC230	350	100~130	50/60	1600	180	2.3	3750	-20~+60	66

Quality Test Standard:

Mechanical Vibration

-Working mode vibration tested by GB 10068(IEC 60034-14)

-Static mode vibration tested by GB 10068(IEC 60034-14)

Shock loading

-Shock loading tested by GB/T 2423.5

Balance

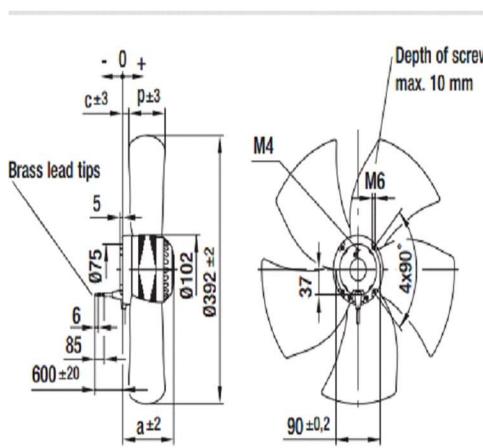
-Balance tested by G 6.3

Certificate

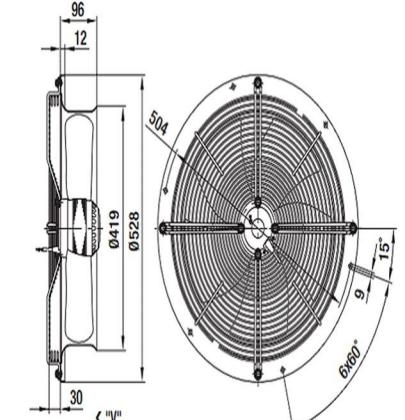
-CCC(if request any other certificates, pls contact us )

Products assembly size:

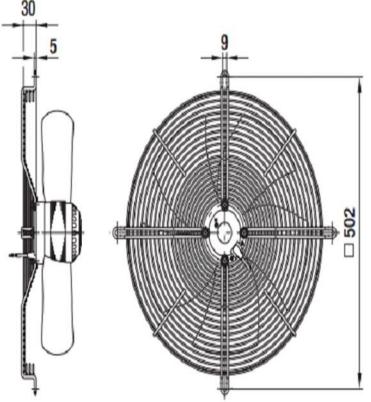
(a=117, c=26) Only impeller:



With air deflector:



With grille:







## AF500 Series AC Axial Fan

### Product:

#### Material:

Impeller: Carbon steel plate with black coating

Grille: Carbon steel wire with black coating

Rotor Casing: Black electrophoretic

Motor Casing: Die casting Alu

Blade Qty: 5PCS

Rotation: Clockwise (View from lead wire)

Motor Pold:4P

IP Grade: IP54

Insulation Grade: F

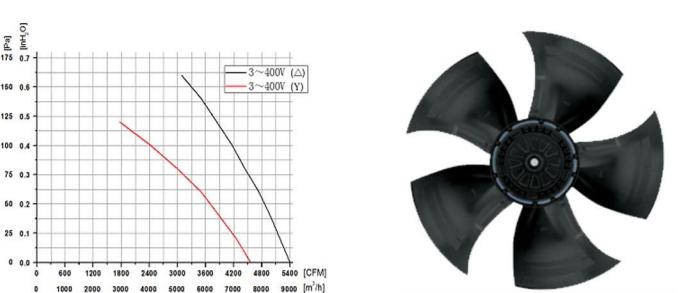
Installation Way: Any

Running mode: Non-stop running(S1)

Bearing: Ball bearing

### Product Application:

1. Refrigerator (cold chain) or Freezing showcase
2. Industrial Oil cooler or Water chiller
3. Condenser cooling



### Parameters

Motor	Fan diam	Voltage	Frequency	Speed	Power input	Current	Airflow	Fern. amb. temp	Noise
(mm)	(mm)	(VAC)	(Hz)	(r/min)	(kW)	(A)	(m³/h)	(°C)	[dB(A)]
AM106A- AC380	φ500	3~400 Δ	50	1350	0.72	1.45	9000	-20~+60	72
AM106B- AC380	φ500	3~400 Y	50	1060	0.48	0.85	7600	-20~+60	68

### Quality Test Standard:

#### Mechanical Vibration

- Working mode vibration tested by GB 10068(IEC 60034-14)
- Static mode vibration tested by GB 10068(IEC 60034-14)

#### Shock loading

- Shock loading tested by GB/T 2423.5

#### Balance

- Balance tested by G 6.3

#### Certificate

- CCC(If request any other certificates, pls contact us )

## AF560 Series AC Axial Fan

### Product:

#### Material:

Impeller: Carbon steel plate with black coating

Grille: Carbon steel wire with black coating

Rotor Casing: Black electrophoretic

Motor Casing: Die casting Alu

Blade Qty: 5PCS

Rotation: Clockwise (View from lead wire)

Motor Pold:4P

IP Grade: IP54

Insulation Grade: F

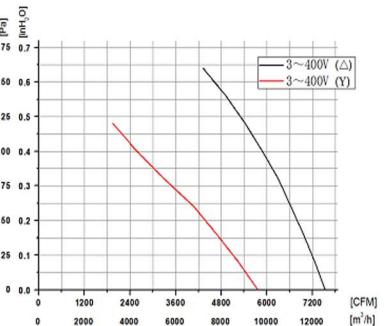
Installation Way: Any

Running mode: Non-stop running(S1)

Bearing: Ball bearing

### Product Application:

1. Refrigerator (cold chain) or Freezing showcase
2. Industrial Oil cooler or Water chiller
3. Condenser cooling



### Parameters

Motor	Fan diam	Voltage	Frequency	Speed	Power input	Current	Airflow	Fern. amb. temp	Noise
(mm)	(mm)	(VAC)	(Hz)	(r/min)	(kW)	(A)	(m³/h)	(°C)	[dB(A)]
AM106A- AC380	φ560	3~400 Δ	50	1230	1.18	1.98	12550	-20~+60	73
AM106B- AC380	φ560	3~400 Y	50	880	0.68	1.15	9600	-20~+60	65

### Quality Test Standard:

#### Mechanical Vibration

- Working mode vibration tested by GB 10068(IEC 60034-14)
- Static mode vibration tested by GB 10068(IEC 60034-14)

#### Shock loading

- Shock loading tested by GB/T 2423.5

#### Balance

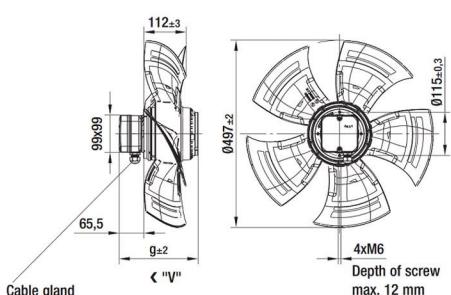
- Balance tested by G 6.3

#### Certificate

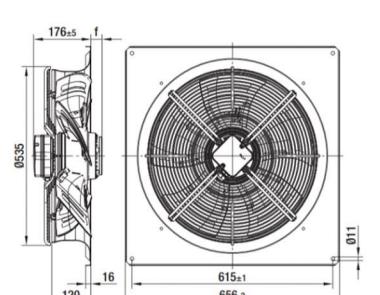
- CCC(If request any other certificates, pls contact us )

### Products assembly size:

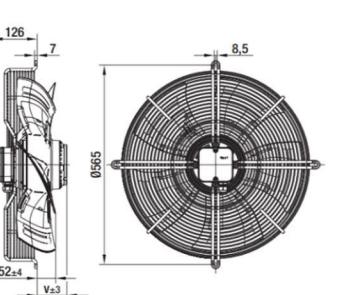
Only impeller (g=210)



With air deflector: (f=34)

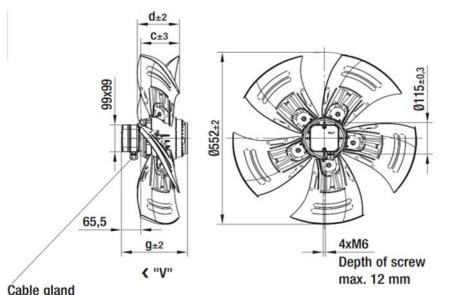


With grille (v=84) :

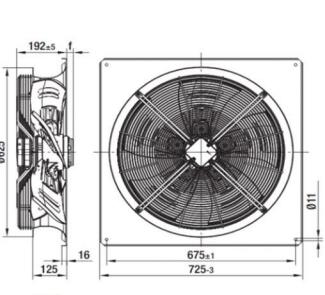


### Products assembly size:

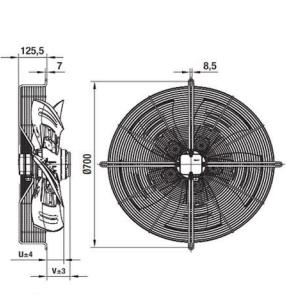
Only impeller: (c=124, d=134, g=225)



With air deflector: (f=33)



With grille(u=88, v=123)





Quality Test Standard:

Environmental Test:

- High-low Temperature tested by GB/T 2423.1、GB/T 2423.2
- Constant Temperature tested by GB/T 2423.3

Shock loading

-Shock loading tested by GB/T 2423.5

Balance

-Balance tested by G 6.3, according to JB/T8689

Speed Control

- Voltage range: 0~10VDC, 0~5VDC or PWM speed regulation

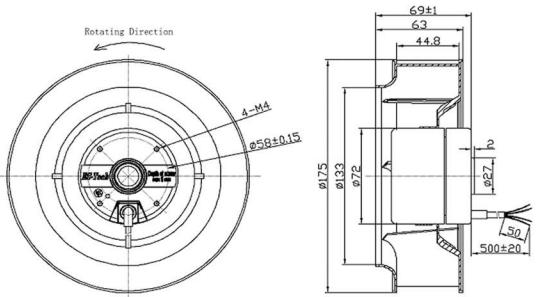
Certificate

-CE(if request any other certificates, pls contact us )

Product Application

1. Air purifier and New fresh air exchange ventilator
2. Precision air conditioning and Cabinet cooling

Products assembly size:



## BC220 Series DC Backward Centrifugal fan

Product:

Material:

Impeller: PA66 Plastic

Motor Casing: Shape with cold rolled plate, Black electrophoretic

Blade Qty: 7PCS

Working Temp:-20~+50° C

Rotation: CounterClockwise (View from lead wire)

IP Grade: IP42

Insulation Grade: B

Installation Way: Any

Running mode: Non-stop running (S1)

Bearing: Ball bearing

Quality Test Standard:

Environmental Test:

- High-low Temperature tested by GB/T 2423.1、GB/T 2423.2
- Constant Temperature tested by GB/T 2423.3

Shock loading

-Shock loading tested by GB/T 2423.5

Balance

-Balance tested by G 6.3, according to JB/T8689

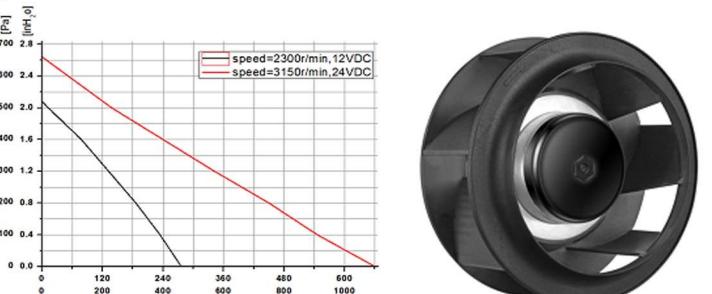
Speed Control

- Voltage range: 0~10VDC, 0~5VDC or PWM speed regulation

Certificate

-CE(if request any other certificates, pls contact us )

Products assembly size:

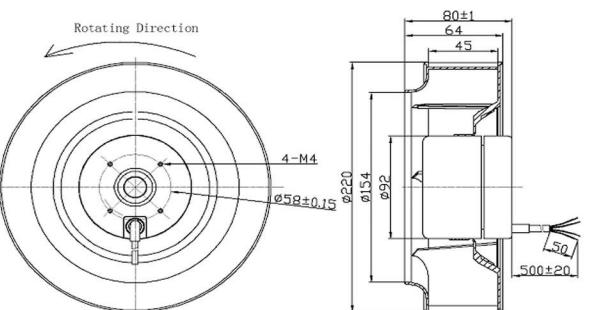


parameters

Type	Motor	Voltage	Power input	Current	Speed	Airflow	Noise
		(V)	(W)	(A)	(r/min)	(m³/h)	LP:dB(A)
BC220A-DC12-00	DM075A-DC12	DC12	48	4	2300	460	56
BC220A-DC24-00	DM075A-DC24	DC24V	96	4	3150	1100	72

Product Application

1. Air purifier and New fresh air exchange ventilator
2. Precision air conditioning and Cabinet cooling



## BC280 Series AC Centrifugal fan

Product:

Material:

Impeller: Cold Rolled Plate, black electrophoretic

Rotor: Die casting, black electrophoretic

Motor Casing:Die casting

Blade Qty: 11PCS

Rotation: Clockwise (View fram lead wire)

Motor Pole:4P

IP Grade: IP44

Insulation Grade: F

Installation Way: Any

Running mode: Non-stop running (S1)

Bearing: Ball bearing

Quality Test Standard:

Environmental Test:

- High-low Temperature tested by GB 10068 (IEC 60034-14)
- Constant Temperature tested by GB 10068 (IEC 60034-14)

Shock loading

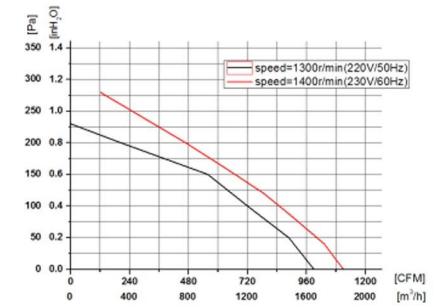
-Shock loading tested by GB/T 2423.5

Balance

-Balance tested by G 6.3

Certificate

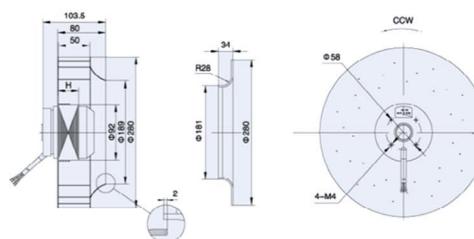
-CCC(if request any other certificates, pls contact us )



Parameters:

Type	Fan diam	Voltage	Frequency	Speed	Power input	Current	Airflow	Fern. amb. temp	Noise
(mm)	(VAC)	(Hz)	(r/min)	(W)	(A)	(m³/h)	(°C)	[dB(A)]	
AM068A-AC220	Ø280	220	50	1300	95	0.41	1650	-20~+60	56
AM068B-AC230	Ø280	230	60	1400	130	0.56	1860	-20~+55	68

Products assembly size:



## BC280 Series DC Backward Centrifugal fan

Product:

Material:

Impeller: Carbon Steel

Motor Casing: Shape with cold rolled plate, silvery electrophoretic

Blade Qty: 11PCS

Working Temp:-20~+60° C

Rotation: CounterClockwise (View from lead wire)

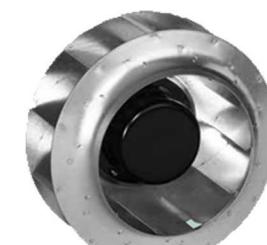
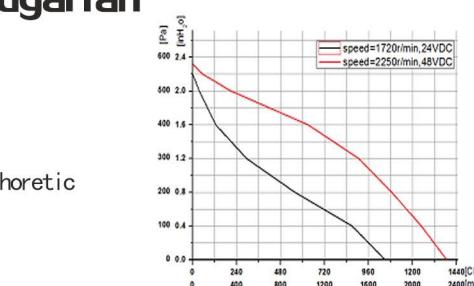
IP Grade: IP42

Insulation Grade: B

Installation Way: Any

Running mode: Non-stop running (S1)

Bearing: Ball bearing



Parameters: ( Can be customised)

Type	Motor	Voltage	Power input	Current	Speed	Airflow	Noise
		(V)	(W)	(A)	(r/min)	(m³/h)	LP:dB(A)
BC280A-DC24-00	DM075A-DC24	DC24V	96	4	1720	1750	68
BC280A-DC48-00	DM084A-DC48	DC48V	180	3.8	2250	2310	72

Quality Test Standard:

Environmental Test:

- High-low Temperature tested by GB/T 2423.1, GB/T 2423.2

- Constant Temperature tested by GB/T 2423.3

Shock loading

- Shock loading tested by GB/T 2423.5

Balance

- Balance tested by G 6.3, according to JB/T8689

Speed Control

- Voltage range: 0~10VDC, 0~5VDC or PWM speed regulation

Certificate

- CE (If request any other certificates, pls contact us)

## BC280 Series EC Backward Centrifugal fan

Product:

Material:

Impeller: Galvanized Plate

Rotor Casing: Shape with cold rolled plate, silvery electrophoretic

Motor Cover: Die Casting Alu

Impeller Qty: 11PCS

Rotation: Clockwise (View from lead wire)

IP Grade: IP44

Insulation Grade: B

Installation Way: Any

Running mode: Non-stop running (S1)  
running (S1)

Bearing: Ball bearing

Quality Test Standard:

Mechanical Vibration

- Working mode vibration tested by GB 10068 (IEC 60034-14)

- Static mode vibration tested by GB 10068 (IEC 60034-14)

Shock loading

- Shock loading tested by GB/T 2423.5

Balance

- Balance tested by G 6.3

Certificate

- CCC (If request any other certificates, pls contact us)

Electrical characteristic:

- Voltage range: 0~10VDC or

PWM speed regulation

- Output voltage 10VDC (max. 1.1mA)

- Rotation speed output signal

- PFC compensating circuit

- Overheat protect circuit

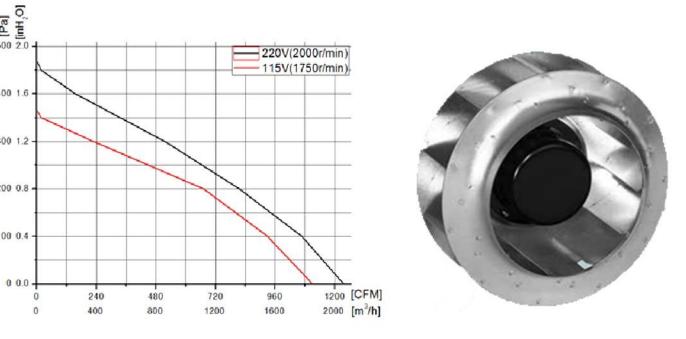
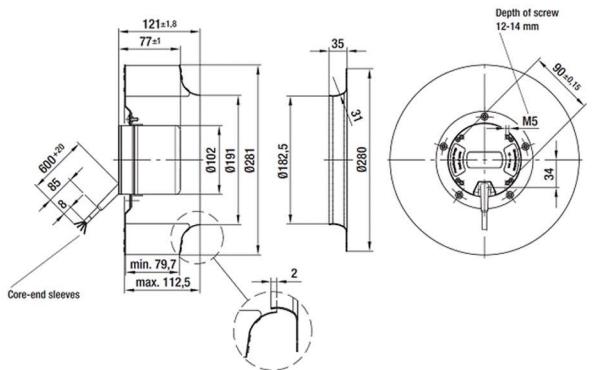
-33-

## Product Application

1. Air purifier and New fresh air exchange ventilator

2. Precision air conditioning and Cabinet cooling

## Products assembly size:



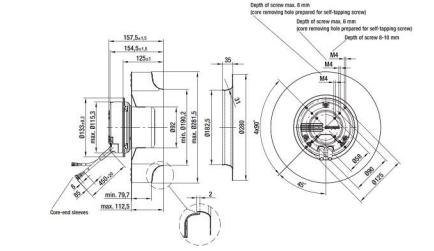
(Parameters)

Motor	Fan diam	Voltage	Frequency	Speed	Power input	Current	Airflow	Pern. sub. temp	Noise
EMOT5A-AC220	Φ280	220~240	50/60	2000	145	1.1	2060	-20~+60	72
EMOT5A-AC115	Φ280	100~130	50/60	1750	110	1.4	1850	-20~+60	70

## Interface:

Pin NO.	Power output			Control output			
	1	2	3	1	2	3	4
Color	BROWN	BLUE	YLW/GRN	RED	YE	BU	BU
Function	L	N	PE	Vcc (+10V)	Vsp (0-10V)	GND	FG

## Products assembly size:



## BC310 Series DC Backward Centrifugal fan

Product:

Material:

Impeller: Alu

Motor Casing: Shape with cold rolled plate, silvery electrophoretic

Blade Qty: 6PCS

Working Temp: -20~+60°C

Rotation: CounterClockwise (View from lead wire)

IP Grade: IP42

Insulation Grade: B

Installation Way: Any

Running mode: Non-stop running (S1)

Bearing: Ball bearing

Quality Test Standard:

Environmental Test:

- High-low Temperature tested by GB/T 2423.1, GB/T 2423.2

- Constant Temperature tested by GB/T 2423.3

Shock loading

- Shock loading tested by GB/T 2423.5

Balance

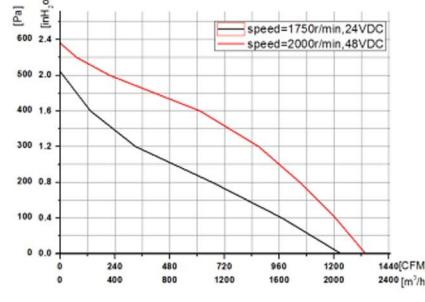
- Balance tested by G 6.3, according to JB/T8689

Speed Control

- Voltage range: 0~10VDC, 0~5VDC or PWM speed regulation

Certificate

- CE (If request any other certificates, pls contact us)



Parameters: (Can be customised)

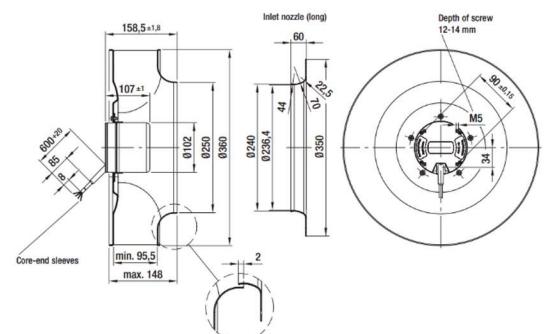
Type	Motor	Voltage	Power input	Current	Speed	Airflow	Noise
	(W)	(V)	(W)	(A)	(r/min)	(m³/h)	LP: dB(A)
BC310A-DC24-00	DM075A-DC24	DC24V	120	4.6	1750	2050	66
BC310A-DC48-00	DM084A-DC48	DC48V	180	3.8	2000	2230	71

## Product Application

1. Air purifier and New fresh air exchange ventilator

Precision air conditioning and Cabinet cool

## Products assembly size:



## BC320 Series AC Centrifugal fan

Product:

Material:

Impeller: Alu Alloy

Rotor: Die casting, black electrophoretic

Motor Casing: Die casting

Blade Qty: 6PCS

Rotation: Clockwise (View from lead wire)

Motor Pole: 4P

IP Grade: IP44

Insulation Grade: F



Quality Test Standard:

Environmental Test:

- High-low Temperature tested by GB 10068 (IEC 60034-14)
- Constant Temperature tested by GB 10068 (IEC 60034-14)

Shock loading

-Shock loading tested by GB/T 2423.5

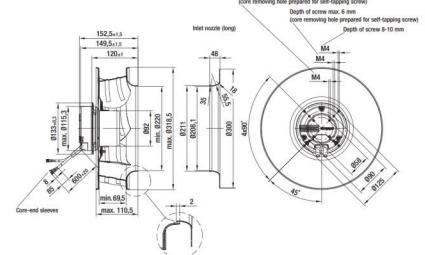
Balance

-Balance tested by G 6.3

Certificate

-CCC (If request any other certificates, pls contact us)

Products assembly size:



## BC400 Series AC Centrifugal fan

Product:

Material:

Impeller: Alu Alloy

Rotor: Die casting, black electrophoretic

Motor Casing: Die Casting

Blade Qty: 6PCS

Rotation: Clockwise (View from lead wire)

Motor Pole: 4P

IP Grade: IP44

Insulation Grade: F

Installation Way: Any

Running mode: Non-stop running (S1)

Bearing: Ball bearing

Quality Test Standard:

Environmental Test:

- High-low Temperature tested by GB 10068 (IEC 60034-14)
- Constant Temperature tested by GB 10068 (IEC 60034-14)

Shock loading

-Shock loading tested by GB/T 2423.5

Balance

-Balance tested by G 6.3

Certificate

-CCC (If request any other certificates, pls contact us)

Electrical characteristic

-Voltage range: 0~10VDC or PWM speed regulation

-Output voltage 10VDC(max. 1.1mA)

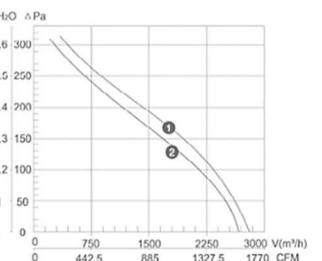
-Rotation speed output signal

-PFC compensating circuit

-Overheat protect circuit

Interface:

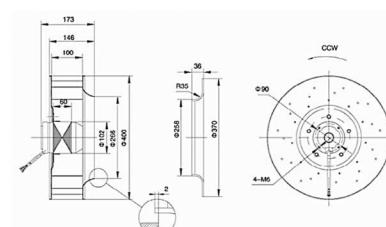
Pin NO.	Power output			Control output			
	1	2	3	1	2	3	4
Color	BROWN	BLUE	YLW/GRN	RED	YE	BU	BU
Function	L	N	PE	Vcc (+10V)	Vsp (0-10V)	GND	FG



Parameters:

Motor	Fan diam	Voltag	Frequency	Speed	Power input	Current	Airflow	Fern. amb. temp	Noise
(AHD74A-AC220)	Φ400	220	50/60	1400	240	1.1	3000	-20~-150	68
(AHD74A-AC380)	Φ400	380	50/60	1400	240	0.6	3000	-20~-150	68

Products assembly size:



## BLOWER G4D200 415V 50HZ

Product:

Material:

Housing: Galvanized sheet steel

Impeller: Galvanized sheet steel

Rotor: Coated in black

Direction of rotation: Clockwise, seen on rotor

Type of protection: IP 44

Insulation class: B

Mounting position :Any

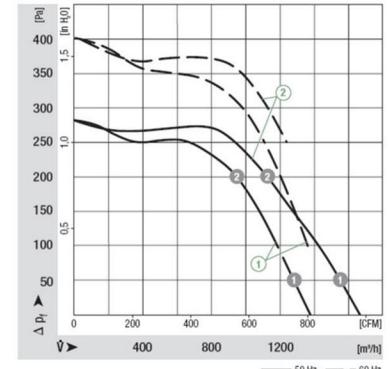
Condensate discharges: Rotor-side

Mode of operation: Continuous operation (S1)

Bearing: Maintenance-free ball bearings

Tech Data:

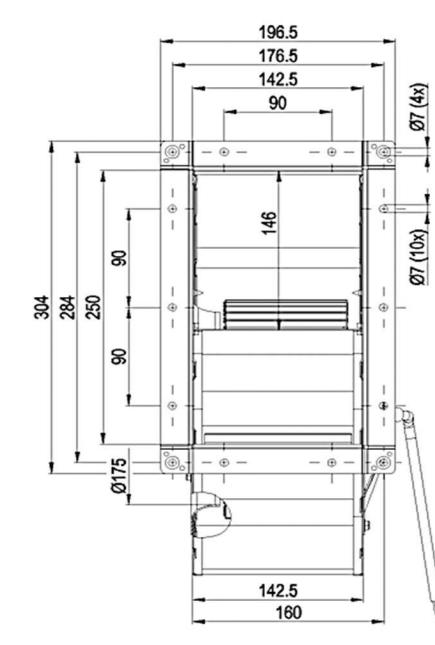
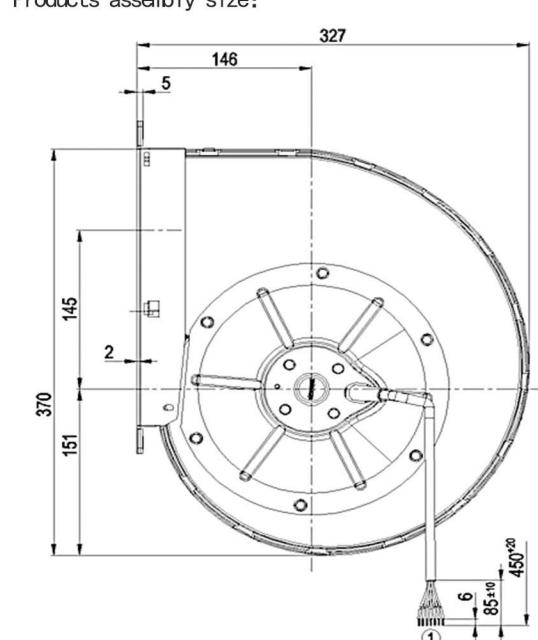
Weight	7.4 kg
Fan size	200 mm
Rotor surface	Painted black
Impeller material	Sendzimir galvanized sheet steel
Housing material	Sendzimir galvanized sheet steel
Direction of rotation	Clockwise, viewed toward rotor
Degree of protection	IP44; installation- and position-dependent as per EN 60034-5
Insulation class	"B"
Moisture (F) / Environmental (H) protection class	H1
Installation position	Shaft horizontal or rotor on bottom; rotor on top on request
Condensation drainage holes	On rotor side
Mode	S1
Motor bearing	Ball bearing
Touch current according to IEC 60990 (measuring circuit Fig. 4, TN system)	< 0.75 mA
with cable	Axial
Protection class	I (with customer connection of protective earth)
Conformity with standards	EN 60335-1; CE
Approval	CCC



Data:

	Actual	Reg. 2015
Overall efficiency η <sub>e</sub> %	37.8	37.8
02 Measurement category	B	
03 Efficiency category	Total	
04 Efficiency grade N	49	49
05 Variable speed drive	No	
06 Year of manufacture	The year of manufacture is specified on the product's rating label.	
07 Manufacturer	ebm-past Mulfingen GmbH & Co. KG Amtsgericht (court of registration) Stuttgart - HRA 590344 D-74673 Mulfingen	
08 Type	G4D200-CL12-01	
09 Power consumption P / kW	0.17	
09 Air flow q / m <sup>3</sup> /h	800	
09 Pressure increase total p / Pa	287	
10 Speed (rpm) n / min	1425	
11 Specific ratio	1.00	
12 Recycling/disposal	Information on recycling and disposal is provided in the operating instructions.	
13 Maintenance	Information on installation, operation and maintenance is provided in the operating instructions.	
14 Additional components	Components used to calculate the energy efficiency that are not apparent from the measurement category are detailed in the CE declaration.	

Products assembly size:





## FD180 Series DC Forward Centrifugal Fan

**Product:**

Material:

Impeller: Galvanized Plate

Fan Casing: Shape with cold rolled plate with black coating

Impeller Dia:  $\phi 180-76$

Working Temp:  $-40^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$

Rotation: CounterClockwise (View from lead wire)

IP Grade: IP42

Insulation Grade: B

Installation Way: Any

Running mode: Non-stop running (S1)

Bearing: Ball bearing

Quality Test Standard:

Environmental Test:

- High-low Temperature tested by GB/T 2423.1、GB/T 2423.2

- Constant Temperature tested by GB/T 2423.3

Shock loading

- Shock loading tested by GB/T 2423.5

Balance

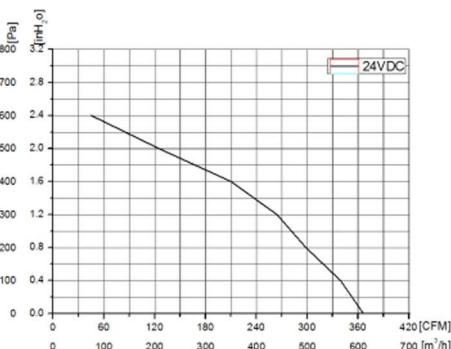
- Balance tested by G 6.3, according to JB/T8689

Speed Control

- Voltage range: 0~10VDC or PWM speed regulation

Certificate

- CE (If request any other certificates, pls contact us )



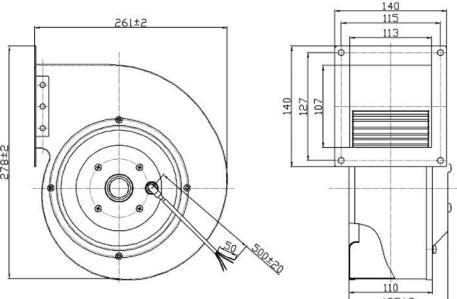
Parameters :

Type	Motor	Voltage	Power input	Current	Speed	Airflow	Noise
FD180A- DC24-00	DM075A- DC24	DC24V	50	2.1	1200	610	65

Product Application:

Widely used for Air purifier and New fresh air exchange ventilator

Products assembly size:



Quality Test Standard:

Environmental Test

- High-low Temperature tested by GB/T 2423.1、GB/T 2423.2

- Constant Temperature tested by GB/T 2423.3

Shock loading

- Shock loading tested by GB/T 2423.5

Balance

- Balance tested by G 6.3, according to JB/T8689

Speed Control

- Voltage range: 0~10VDC or PWM speed regulation

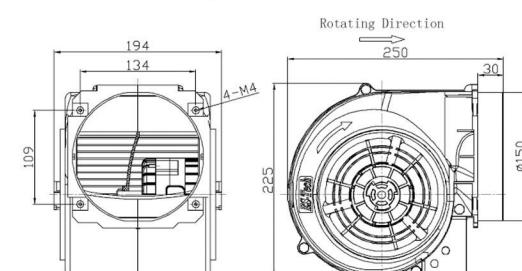
Certificate

- CCC (If request any other certificates, pls contact us )

Product Application:

Widely used for Air purifier, New fresh air exchange ventilator and Cooker hood

Products assembly size:



## FS146 Series Double Inlet Centrifugal Fan

**Product:**

Material:

Impeller: Engineering plastics PP

Fan Casing: Engineering plastics PP

Impeller Dia:  $\phi 146-150$

Working Temp:  $-40^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$

Rotation: CounterClockwise (View from lead wire)

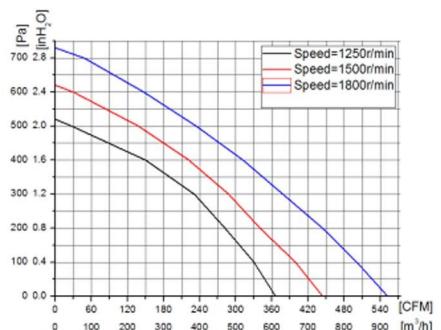
IP Grade: IP65

Insulation Grade: B

Installation Way: Any

Running mode: Non-stop running (S1)

Bearing: Ball bearing



Parameters: (Use Internal rotor motor)

Type	Motor	Voltage	Power input	Current	Speed	Airflow	Noise
FS146A- DC310-01	DC310V	35	0.26	1000	430	55	
FS146A- DC310-02	DM072A	DC310V	55	0.4	1250	620	62
FS146A- DC310-03	DC310V	75	0.52	1500	734	68	
FS146B- DC310-01	DM075A	DC310V	130	0.94	1800	920	70
FS146B- AC220-02	EM075A	AC220V	130	0.94	1800	920	73

Remark: 92 external rotor brushless DC motor used for FS146B Series with outward control panel

## FS225 Series Double Inlet Centrifugal Fan

**Product:**

Material:

Impeller: Cold rolled Plate with matte black coating

Fan Casing: Cold rolled Plate with matte black coating

Impeller Dia:  $\phi 146-180$

Working Temp:  $-40^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$

Rotation: CounterClockwise (View from lead wire)

IP Grade: IP54

Insulation Grade: B

Installation Way: Any

Running mode: Non-stop running (S1)

Bearing: Ball bearing

Quality Test Standard:

Environmental Test

- High-low Temperature tested by GB/T 2423.1、GB/T 2423.2

- Constant Temperature tested by GB/T 2423.3

Shock loading

- Shock loading tested by GB/T 2423.5

Balance

- Balance tested by G 6.3, according to JB/T8689

Speed Control

- Voltage range: 0~10VDC or PWM speed regulation

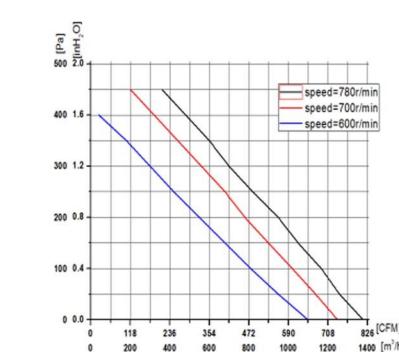
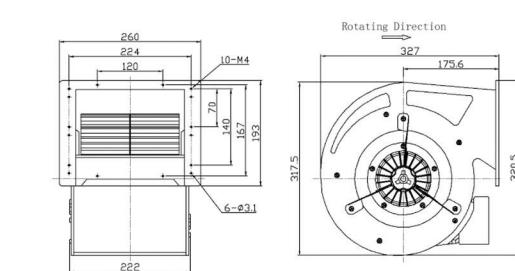
Certificate

- CCC (If request any other certificates, pls contact us )

Product Application:

Widely used for Air purifier, New fresh air exchange ventilator and Cooker hood

Products assembly size:



## EM Brushless Motor Series

Product:

Feature: Brushless Motor

IP Grade: IP65/ IP55

Cooling Way: IC411

Motor Casing: Die Casting Alu

Working Temp:-20~+60° C

Rotation: CounterClockwise (View from motor shaft)

Power: AC/DC 1-Phase

Insulation Class: B

Installation mode: Vertical or Horizontal

Protection: Electronic circuit protection

Running mode: Non-stop running(S1)

Bearing: Ball bearing

Quality Test Standard:

Environmental Test:

- High-low Temperature tested by GB/T 2423.1、GB/T 2423.2

- Constant Temperature tested by GB/T 2423.3

Shock loading

- Shock loading tested by GB/T 2423.5

Balance

- Balance tested by G 6.3, according to JB/T8689

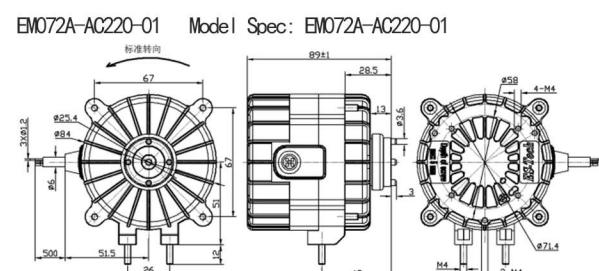
Speed Control

- Voltage range: 0~5VDC Constant Speed or PFM speed regulation

Certificate

-CCC, CE (If request any other certificates, pls contact us )

Products assembly size:



Interface:

Pin NO.	1	2	3
Color	BROWN	BLUE	YLW/GRN
Function	L	N	E

Interface:

Pin NO.	1	2	3	4	5	6
Color	RD	-	BK	WH	YE	BU
Function	Vm (+310VDC)	-	GND	Vcc (+15V)	Vsp (0-5V)	FG

## Motor: AS138-70/4



Technology Parameters:

Ambient temperature:+5~+70° C	Rated Frequency: 60Hz
Storage temperature:-40~+80°C	Rated Power: 1.2/0.7KW
Relative Humidity:100%	Current Rating: 2.25/1.5 A
Altitude:2500m	Rated Speed:1640/1400 r/min
Power: Three-phase 400△/Y-V	Power factor: cosφ0.68/0.8
Rated Frequency: 50Hz	Insulation class:F
Rated Power: 1.2/0.7KW	Protection class:IP54
Current Rating: 2.5A/1.3A	The winding connection: △/Y
Rated Speed:1320/1040 r/min	Comply to:EN60034
Power factor:cosφ0.68/0.8	working mechanisms:S1
Rated Voltage:Three-phase 460△/Y-V	Model:AS138-70/4

Motor size:

