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DC Fans - Excellence



FD2510-11	25x25x10mm	15
FD2510-41	25x25x10mm	16
FD2510-81	25x25x10mm	17
FD3010-81	30x30x10mm	18
FD4007-81	40x40x7mm	19
FD4010-81	40x40x10mm	20
FD4010-82	40x40x10mm	21
FD4015-11	40x40x15mm	22
FD4020-41	40x40x20mm	23
FD4020-81	40x40x20mm	24
FD4028-11	40x40x28mm	25
FD4028-41	40x40x28mm	26
FD4028-81	40x40x28mm	27
FD4510-81	45x45x10mm	28
FD5010-81	50x50x10mm	29
FD5015-11	50x50x15mm	30
FD5015-81	50x50x15mm	31
FD5020-11	50x50x20mm	32
FD5020-81	50x50x20mm	33
FD5025-81	50x50x25mm	34
FD6010-81	60x60x10mm	35
FD6015-81	60x60x15mm	36
FD6015-82	60x60x15mm	37
FD6020-41	60x60x20mm	38
FD6020-81	60x60x20mm	39
FD6025-21	60x60x25mm	40
FD6025-41	60x60x25mm	41
FD6025-81	60x60x25mm	42
FD6038-11	60x60x38mm	43
FD6038-81	60x60x38mm	44
FD7010-81	70x70x10mm	45
FD7015-81	70x70x15mm	46
FD7025-81	70x70x25mm	47
FD7025-82	70x70x25mm	48
FD7038-81	70x70x38mm	49
FD8015-41	80x80x15mm	50
FD8015-81	80x80x15mm	51
FD8015-82	80x80x15mm	52
FD8020-81	80x80x20mm	53
FD8025-21	80x80x25mm	54
FD8025-82	80x80x25mm	55
FD8025-83	80x80x25mm	56

DC Fans - Excellence



FD8038-11	80x80x38mm	57
FD8038-81	80x80x38mm	58
FD9225-11	92x92x25mm	59
FD9225-81	92x92x25mm	60
FD9232-11	92x92x32mm	61
FD9232-41	92x92x32mm	62
FD9238-11	92x92x38mm	63
FD9238-81	92x92x38mm	64
FD1225-41	120x120x25mm	65
FD1225-81	120x120x25mm	66
FD1232-11	120x120x32mm	67
FD1232-41	120x120x32mm	68
FD1238-11	120x120x38mm	69
FD1238-41	120x120x38mm	70
FD1238-81	120x120x38mm	71
FD1751-41	172x150x51mm	72
FD1751-52	172x150x51mm	73

DC Blowers - Excellence



FBD5015-81	50x50x15mm	74
FBD5712-81	57x57x12mm	75
FBD6015-81	60x60x15mm	76
FBD6025-81	60x60x25mm	77
FBD7530-81	75x75x30mm	78
FBD9733-81	97x94x33mm	79
FBD1230-41	120x120x30mm	80
FBD1232-41	120x120x32mm	81
FBD1232-81	120x120x32mm	82
FBD1237-51	121x121x37mm	83

DC Fans - Standard



FD2006-71	20x20x6mm	84
FD2510-71	25x25x10mm	85
FD3006-71	30x30x6mm	86
FD3010-71	30x30x10mm	87
FD3510-71	35x35x10mm	88
FD4007-71	40x40x7mm	89
FD4010-71	40x40x10mm	90
FD4020-71	40x40x20mm	91
FD4028-71	40x40x28mm	92
FD4507-71	45x45x7mm	93
FD4510-71	45x45x10mm	94
FD5010-71	50x50x10mm	95
FD5015-71	50x50x15mm	96
FD6010-71	60x60x10mm	97
FD6015-71	60x60x15mm	98
FD6020-71	60x60x20mm	99
FD6025-71	60x60x25mm	100
FD7010-71	70x70x10mm	101
FD7025-71	70x70x25mm	102
FD8010-71	80x80x10mm	103
FD8015-71	80x80x15mm	104
FD8020-71	80x80x20mm	105
FD8025-61	80x80x25mm	106
FD8025-62	80x80x25mm	107

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FD8025-71	80x80x25mm-----	108
FD9225-71	92x92x25mm-----	109
FD9238-71	92x92x38mm-----	110
FD1225-61	120x120x25mm-----	111
FD1232-61	120x120x32mm-----	112
FD1238-61	120x120x38mm-----	113
FD1238-63	120x120x38mm-----	114
FD1238-65	120x120x38mm-----	115
FD1751-61	172x150x51mm-----	116
FD1751-65	Ø172x51mm-----	117
FD1755-61	172x151x55mm-----	118

DC Blowers - Standard



FBD5015-61	51x51x15mm-----	119
FBD7530-61	75x77x30mm-----	120
FBD9330-61	93x93x30mm-----	121
FBD9733-61	97x94x33mm-----	122
FBD1232-61	120x120x32mm-----	123
FBD1881-61	180x171x81mm-----	124

AC Fans - Excellence



FA8025-51	80x80x25mm-----	125
FA8038-51	80x80x38mm-----	126
FA9225-51	92x92x25mm-----	127
FA9238-51	92x92x38mm-----	128
FA1225-51	120x120x25mm-----	129
FA1238-51	120x120x38mm-----	130
FA1238-52	120x120x38mm-----	131
FA1273-51	127x127x38mm-----	132
FA1662C-51	160x160x62mm-----	133
FA1662C-52	160x160x62mm-----	134
FA1738C-51	172x150x38mm-----	135
FA1751C-51	Ø170x51mm-----	136
FA1751C-52	172x150x51mm-----	137
FA1755C-51	172x150x55mm-----	138
FA1865C-51	180x180x65mm-----	139
FA1890C-51	180x180x90mm-----	140
FA2589C-51	Ø254x89mm-----	141
FA2589C-52	Ø254x89mm-----	142
FDA1232-41	120x120x30mm-----	143
FDA1238-41	120x120x32mm-----	144

AC Blowers - Excellence



FBA1237-51	121x121x37mm-----	145
FBA2256-51	220x220x56mm-----	146

AC Fans - Standard



FA8025-61	80x80x25mm-----	147
FA8025-91	80x80x25mm-----	148

AC Fans - Standard



FA8025-96	80x80x25mm-----	149
FA8038-61	80x80x38mm-----	150
FA8038-91	80x80x38mm-----	151
FA8038-96	80x80x38mm-----	152
FA9225-61	92x92x25mm-----	153
FA9225-91	92x92x25mm-----	154
FA9225-96	92x92x25mm-----	155
FA9238-31	92x92x38mm-----	156
FA9238-91	92x92x38mm-----	157
FA1225C-31	120x120x25mm-----	158
FA1225-61	120x120x25mm-----	159
FA1225-91	120x120x25mm-----	160
FA1225-96	120x120x25mm-----	161
FA1238C-31	120x120x38mm-----	162
FA1238-61	120x120x38mm-----	163
FA1238-91	120x120x38mm-----	164
FA1238-92	120x120x38mm-----	165
FA1238C-93	120x120x38mm-----	166
FA1238-96	120x120x38mm-----	167
FA1273C-31	127x127x38mm-----	168
FA1551-91	150x150x51mm-----	169
FA1738C-31	172x150x38mm-----	170
FA1738C-32	172x150x38mm-----	171
FA1738C-91	172x150x38mm-----	172
FA1738C-93	172x150x38mm-----	173
FA1751C-31	172x150x51mm-----	174
FA1751-61	172x150x51mm-----	175
FA1751C-91	172x150x51mm-----	176
FA1751-92	172x150x51mm-----	177
FA1751C-93	172x150x51mm-----	178
FA1751-96	172x150x51mm-----	179
FA1755-31	172x150x55mm-----	180
FA1755C-31	172x150x55mm-----	181
FA1755C-91	172x150x55mm-----	182
FA1755C-93	172x150x55mm-----	183
FA2260C-31	Ø220x60mm-----	184
FA2260C-91	Ø220x60mm-----	185
FA2589C-31	Ø254x89mm-----	186
FA2589C-91	Ø254x89mm-----	187

AC Blower - Standard



FBA1231C-31	125x126x40mm-----	188
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Fan Accessories



Wire From Fan Guard-----	189-193
Plastic Fan Guard-----	194-197
Plastic Fan Filter-----	198-199
Aluminum Fan Filter-----	200-201
Fan Power Cord-----	202-204

COOLTRON Fan PN System

(Model Number)							(Suffix Code)							
Example:	FD	2510	B	05	W	5	C	-	21	-	2N	X	C	I
	①	②	③	④	⑤	⑥	⑦		⑧		⑨	⑩	⑪	⑫

Model Explanation

① Fan Type

FD: DC Fan FBD: DC Blower FA: AC Fan FBA: AC Blower FDA: AC-DC Fan

② Fan Size

2006:	20x20x06mm	6010:	60x60x10mm	9330:	93x93x30mm
2510:	25x25x10mm	6015:	60x60x15mm	9733:	97x94x33mm
2515:	25x25x15mm	6020:	60x60x20mm	1225:	120x120x25mm
3006:	30x30x06mm	6025:	60x60x25mm	1230:	120x120x30mm
3010:	30x30x10mm	6038:	60x60x38mm	1232:	120x120x32mm
3015:	30x30x15mm	7010:	70x70x10mm	1238:	120x120x38mm
4007:	40x40x07mm	7015:	70x70x15mm	1237:	121x121x37mm
4010:	40x40x10mm	7025:	70x70x25mm	1273:	127x127x38mm
4015:	40x40x15mm	7038:	70x70x38mm	1551:	150x150x51mm
4020:	40x40x20mm	7530:	75x75x30mm	1662:	160x160x62mm
4028:	40x40x28mm	8010:	80x80x10mm	1738:	172x150x38mm
4507:	45x45x07mm	8015:	80x80x15mm	1751:	172x150x51mm
4510:	45x45x10mm	8020:	80x80x20mm	1751:	∅ 170x51mm
5010:	50x50x10mm	8025:	80x80x25mm	1755:	172x150x55mm
5015:	50x50x15mm	8032:	80x80x32mm	1865:	180x180x65mm
5020:	50x50x20mm	8038:	80x80x38mm	1881:	180x171x81mm
5025:	50x50x25mm	9225:	92x92x25mm	2260:	∅ 224x60mm
5712:	57x57x12mm	9238:	92x92x38mm	2589:	∅ 254x89mm

③ Bearing

S: Sleeve Bearing L: Long Life Bearing
B: Dual Ball Bearing C: One Ball & One Sleeve Bearing

④ Voltage

03:	3.3V DC	24:	24 V DC	11:	110-120V AC
05:	5V DC	48:	48V DC	22:	220-240V AC
12:	12V DC	60:	60 V DC	DL:	110/220V AC Dual Voltage

⑤ Lead Type

W: Wire Lead T: Terminal

⑥ Speed

02:	Speed 02 (super extra low)	6:	Speed 6 (medium high)
01:	Speed 01 (fifth low)	7:	Speed 7 (high)
00:	Speed 00 (fourth low)	8:	Speed 8 (high high)
1:	Speed 1 (third low)	9:	Speed 9 (third high)
2:	Speed 2 (low low)	10:	Speed 10 (fourth high)
3:	Speed 3 (low)	11:	Speed 11 (fifth high)
4:	Speed 4 (medium low)	12:	Speed 12 (super extra high)
5:	Speed 5 (medium)		

COOLTRON Fan PN System

(Model Number)							(Suffix Code)							
Example:	FD	2510	B	05	W	5	C	-	21	-	2N	X	C	I
	1	2	3	4	5	6	7		8		9	10	11	12

7 Additional Feature

C: Capacitor & Thermal Control (for AC) P: Plastic Frame (for AC)

8 Customization or Version Code

9 Special Function (Suffix Code)

2N: Standard Leads(2 wires)	4H: F/G + Alarm High + Auto Restart
2R: Auto Restart IC (2 wires)	4L: F/G + Alarm Low + Auto Restart
2K: Thermistor + Auto Restart (2 wires)	4D: F/G+ Alarm High-Low + Auto Restart
3H: Alarm High + Auto Restart (3 wires)	4T: Thermistor + F/G + Auto Restart
3L: Alarm Low + Auto Restart (3 wires)	4M: Thermistor + Alarm High + Auto Restart
3C: Alarm High-Low + Auto Restart (3 wires)	4P: Thermistor + Alarm Low + Auto Restart
3R: F/G + Auto Restart (3 wires)	4K: PWM + Alarm High + Auto Restart
3F: F/G (3 wires)	4F: PWM + Alarm Low + Auto Restart
3J: Thermistor +Auto Restart (3 wires)	4G: PWM + Alarm High-Low+ Auto Restart
3K: Thermistor (3 wires)	4J: PWM + F/G + Auto Restart
3U: Thermistor + Alarm High + Auto Restart	5A: Thermistor + Alarm High + F/G + Auto Restart
3M: Thermistor + Alarm Low + Auto Restart	5B: Thermistor + Alarm High + F/G + Auto Restart
3P: Thermistor + Alarm High-Low + Auto Restart	5C: PWM + Alarm High + F/G + Auto Restart
3Q: Thermistor + F/G + Auto Restart	5D: PWM + Alarm Low + F/G + Auto Restart
3S: PWM + Auto Restart	
3T: PWM + Thermistor + Auto Restart	

(Remarks: F/G = Frequency Generator, equivalent to Speed Sensor/ Tachometer)

10 IP Ratings

U: IP 22 V: IP 43 W: IP 44 X: IP 54 Y: IP 55 "Blank" or S: Normal

11 Connector

C: With Connector "Blank": Normal

12 Connector Type

I: 1, 2, 3 ...9 "Blank": Normal

Notes:

Additional Function Availability Code of Specifications:

S: Standard	U: IP22	V: IP43	W: IP44
X: IP54	Y: IP55	M: PWM	P: Polarity Protected

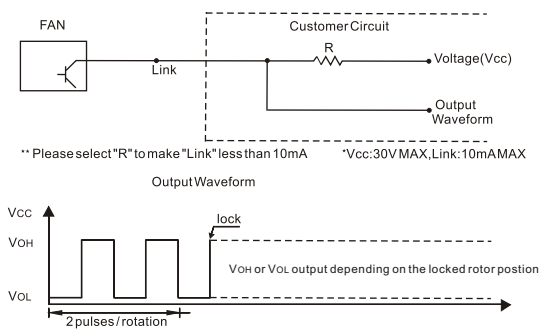


IC Functional Waveform

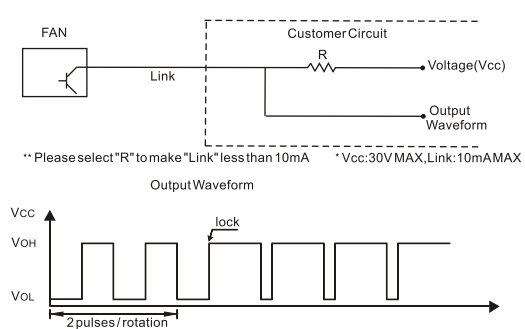
- a Speed Sensor : two pulses per revolution
- b Speed Sensor with Autorestart
- c Alarm High : low for pass, high for fail
- d Temperature Controlled Speed
- e PWM(Pulse Width Modulation) Control Input

* Specifications are subject to change with customer design.

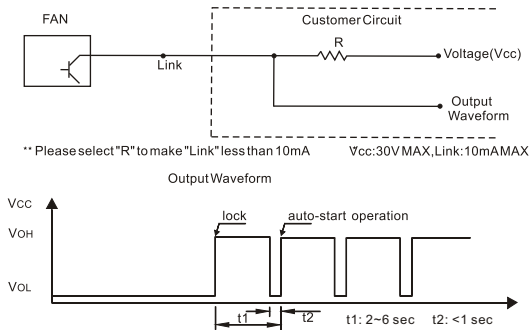
a Speed Sensor or Tachometer (F/G)



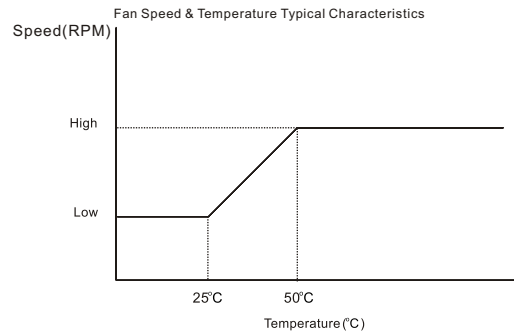
b Speed Sensor w/ Auto Restart



c Alarm High w/Auto Restart

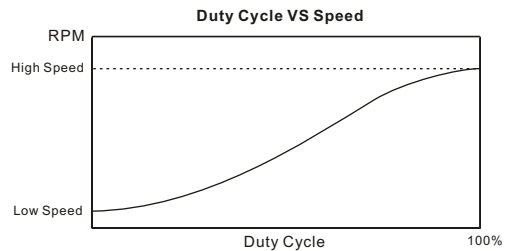
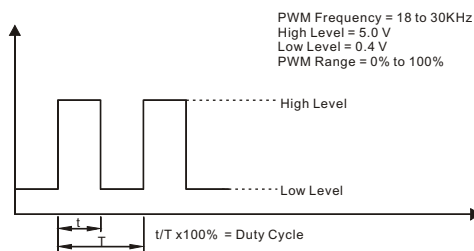


d Temperature Controlled Speed



e PWM(Pulse Width Modulation) Control Input

PWM Signal function design is decided by customer



COOLTRON Fan Guard & Filter PN System

Example: **FGW** - **025A** - **1**

1

2

3

1 Fan Accessory Type

FGW: Wire Form Fan Guard (steel wire)

FGP: Plastic Fan Guard

FPF: Plastic Fan Filter

FFA: Aluminum Fan Filter

2 Suitable Fan Size

025: 25x25mm

040: 40x40mm

050: 50x50mm

060: 60x60mm

070: 70x70mm

080: 80x80mm

090: 92x92mm

120: 120x120mm

162: 172x150mm

220: 224x60mm

250: 254x89mm

3 Fan Accessory Shape

COOLTRON Fan Cord PN System

Example: **FPC** - **L** **12** **P** - **7** **D** **2**

1

2

3

4

5

6

7

1 Fan Accessory Type: PowerCord

2 Type of Cord Head

T: "T" Type Plug

V: 45° Type Plug

L: 90° Type Plug

S: Straight Type Plug

3 Length of Power Cord

12: 12 inches

24: 24 inches

36: 36 inches

40: 40 inches

48: 48 inches

50: 50 inches

60: 60 inches

72: 72 inches

84: 84 inches

96: 96 inches

108: 108 inches

120: 120 inches

4 Cord End

P: NEMAHEADSPT-1 Conductor

W: Blunt cut end-Stripped & Tinned

5 Length Between Two Connector

7: 7 inches

10: 10 inches

12: 12 inches

6 Daisy Chain Type

D: Daisy Chain

7 Number Of Connector

2: 2 connectors

3: 3 connectors

4: 4 connectors

5: 5 connectors

6: 6 connectors

7: 7 connectors

8: 8 connectors

9: 9 connectors

10: 10 connectors

11: 11 connectors

12: 12 connectors

Stator Outlet Blade Fan (S.O.B. FAN)

Advantage of Stator Blade(S.O.B.)

ADVANTAGE:

- * Able to streamline the fluid direction
- * Increase fluid output static pressure (head)
- * Improve motor efficiency

DISADVANTAGE:

Noise dBA increased about 5-10%, compared with same size blade.

Introducing...
Higher Air Flow...
Higher Static Pressure...

How Stator Blade Improve Static Pressure?

The Sophisticate computer-designed geometry profile of Stator Blade not only reduces turbulent vortex caused by fan blader, also streamlines the fluid flow with improved static head.

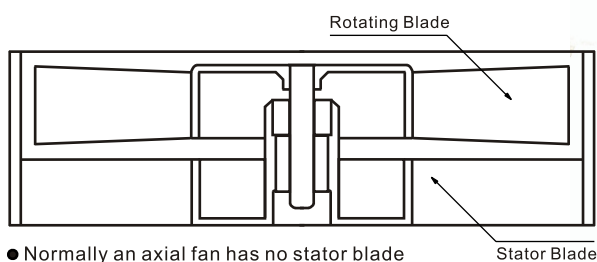
Principle of Rotor Stator Blade

The angle of regular rotor blade creates convection vortex in air stream, but the unique design of stator blade reduces the vortex turbulence and streamlines the axial quantity flow, which improves static head and efficiency of motor.

Available Size & Comparison(Please refer to the catalog pages)

Cooltron S.O.B. Fan			Max Air Flow		Max Static Pressure	
Page	Part No.	Fan Size	S.O.B. Fan	Regular Fan	S.O.B. Fan	Regular Fan
P.25	FD4028-11	40x40x28mm	22.9CFM	13.2CFM	29.4mm-H ₂ O	11.6mm-H ₂ O
P.27	FD4028-81	40x40x28mm	23.8CFM		25.8mm-H ₂ O	
P.40	FD6038-11	60x60x38mm	46.2CFM	N/A	23.2mm-H ₂ O	N/A
P.41	FD6038-81	60x60x38mm	50.6CFM		18.0mm-H ₂ O	
P.45	FD7025-82	70x70x25mm	59.4CFM	40.4CFM	14.2mm-H ₂ O	7.5mm-H ₂ O
P.46	FD7038-81	70x70x38mm	64.7CFM	N/A	13.9mm-H ₂ O	N/A
P.53	FD8038-11	80x80x38mm	117.7CFM	N/A	37.8mm-H ₂ O	N/A
P.54	FD8038-81	80x80x38mm	91.9CFM		18.3mm-H ₂ O	
P.58	FD9238-11	92x92x38mm	119.1CFM	79.6CFM	15.7mm-H ₂ O	6.6mm-H ₂ O
P.59	FD9238-81	92x92x38mm	127.2CFM		14.6mm-H ₂ O	

Construction of S.O.B.Fan



S.O.B. Fan



Regular Fan

IP Ratings (Ingress protection)

IP-Ingress Protection Ratings

IP Ratings are developed by the European Committee for Electro Technical Standardization (CENELEC) (described IEC/EN 60529), specify the environmental protection an enclosure provides.

The IP rating normally has two (or three) digits:

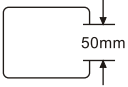
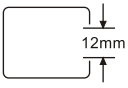
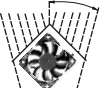
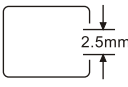
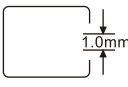
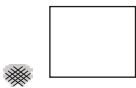
1. Protection from solid objects or materials
2. Protection from liquids
3. Protection against mechanical impacts (commonly omitted)

The IP Rating System

(see the table below)

Example - IP Rating: IP 55

The first digit "5" : the fan is protected from the total touch protection and no harmful ingress of dust.
the second digit "5": the fan is protected from the water jets from any direction and no harmful ingress of water.

IP Rating: IP 55=IP Letter Code _____ IP First digit _____ 5 Second digit _____ 5			
First digit	Protection from solid objects	Second digit	Protection from liquid objects
0	Non Protection	0	Non Protection
1	 Touching by finger or 50mm dia. objects	1	 Vertical water droplets No harmful ingress
2	 Touching by finger or 12mm dia. objects	2	 Showering at 15° No harmful ingress
3	 Touching by tools or wire 2.5mm dia. or 2.5mm dia. objects	3	 Showering at 60° No harmful ingress
4	 Touching by tools or wire 1.0mm dia. or 1.0mm dia. objects	4	 Splashing from any directions No harmful ingress
5	 Total touch protection or no harmful ingress of dust	5	 Water jets from any directions No harmful ingress
6	 Total touch protection or no ingress of dust	6	 Large volumes of water No ingress
Note: EN 60529 does not specify sealing effectiveness against the following : Mechanical damage of the equipment; The risk of explosions; Certain types of moisture conditions: e.g. those that are produced by condensation; corrosive vapours; fungus; vermin		7	 Immersion up to 1 meter No ingress
		8	 Submersion at specified depths exceeding 1 meter No ingress

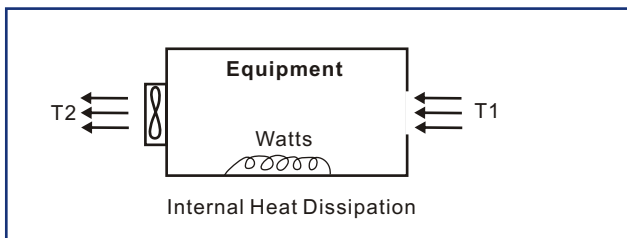
How to Choose a Fan (1)

In Thermal management, fans are classified as objects that forces air at a volumetric rate to cool certain devices, like a CPU microprocessor. There are numerous types of air moving products including axial, propeller, and tubeaxial fans. Other air movers consist of impellers and blowers (centrifugal & crossflow). Fans, impellers, and blowers could be distinguished by their size, shape, but more importantly, the flow of air (measured in CFM) given the static air pressure.

How To Choose The Right One For Your Application?

Measuring Heat

The main purpose of a fan is to cool other components; therefore, the most important factor to consider before choosing a fan is exactly how much heat dissipation is necessary. The amount of heat transferred could be derived using the following equation:



$$Q = m \text{ Cp DT}$$

Where,

Q = the amount of heat transferred to system, Watts Cp = the specific heat of air, J/kg x K

m = the mass flow rate of air, kg/s

DT = the desired air temperature differential (cabinet to ambient outside air), K

Yet, there still a relationship between mass flow rate and volumetric flow rate:

$$m = rG$$

Where,

G = the volumetric flow rate, m³/s

r = the air density, kg/m³

Therefore, the required volumetric flow rate is then calculated as:

$$G = Q / (rCp \text{ DT})$$

By utilizing this formula, a rough estimate of the airflow to obtain the desired overall air temperature rise in DT, but it does not specify actual airflow. Actual operating airflow is determined by the intersection of the fan curve and the system resistance curve. This point of intersection can be calculated using one of three approaches.

1) Airflow network methods:

For this approach to be effective requires certain criteria to be true. First, the flow path to the

How to Choose a Fan (2)

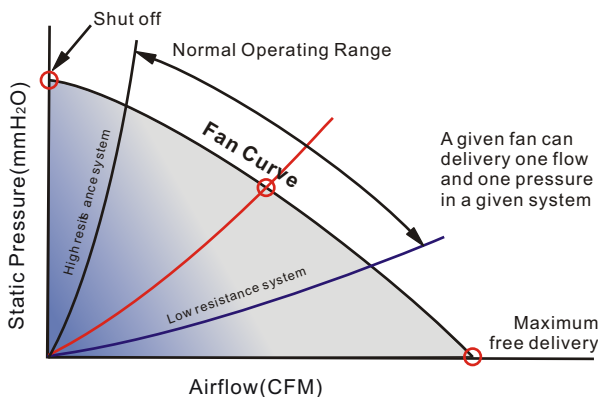
2) Computational commercial software:

When the flow path is more complicated, the use of computational fluid dynamics (CFD) may simplify things greatly. A fan's performance curve is used as reference input to the CFD software where the operating point and system resistance is determined. While even taking into account the effects of turbulence and gravity, CFD assesses the flow of air and heat transfer in a three dimensional view, as in a real life application. Even more complex calculations, like fans in series or in parallel formation, can be easier analyzed using CFD software.

3) Experimental evaluation mockup of the system:

The total airflow or the system resistance curve can be measured using the experimental method. In this method, the operating airflow is obtained when the engineer superimpose the airflow and system resistance curve.

Regardless of how the operating airflow within a system is derived, all systems are depicted by a system resistance curve as the one shown below.



This non-linear expression of airflow versus static pressure can be stated as:

$$DP = KrGN$$

Where,

DP = system pressure loss

K = the load factor specific to the system

r = density of air

G = rate of airflow

N = a constant which varies between 1 and 2. If N=1, then airflow is completely laminar. If N=2, then completely turbulent.

Once actual airflow is determined, a comparison between actual and required airflow need to be evaluated. If the actual value is considerably less than the required value, the packaging system must be reexamined so the diminishment of airflow resistance can be asserted and renovated.

In summary, the first and foremost important factor to choosing your fan is determining the airflow and the required pressure to move the volumetric rate flow to dissipate heat within your system. Before first making this analysis, to determine other factors like fan dimension,

Characteristic Measurement

Air Flow Measurement

Fan air flow performance curves is obtained by using the Double-Chamber method based on AMCA standard. The difference between the pressures before and after the nozzle (differential pressure P_n) is measured to obtain the air flow at the nozzle. Static pressure P_s is also measured and recorded. The auxiliary blower cancels out the aerodynamic resistance. Air flow rate is calculated by following equation

$$Q = 60 A \times V$$

where

Q: air flow rate(m^3/min)

A: nozzle sectional area (m^2)

V: average flow velocity through nozzle (M/sec)

$$V = [2 g P_n / r]$$

where

g: gravitational acceleration, $9.8m/s^2$

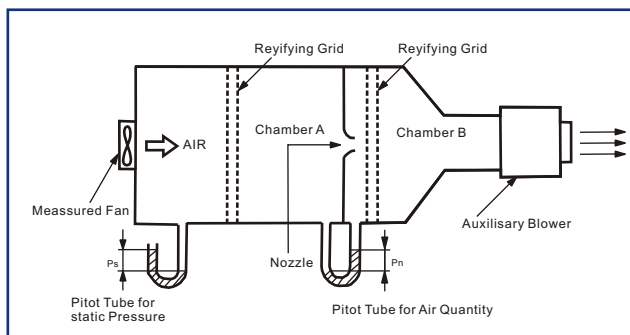
P_n : differential pressure (mm H₂O)

P_s : static pressure

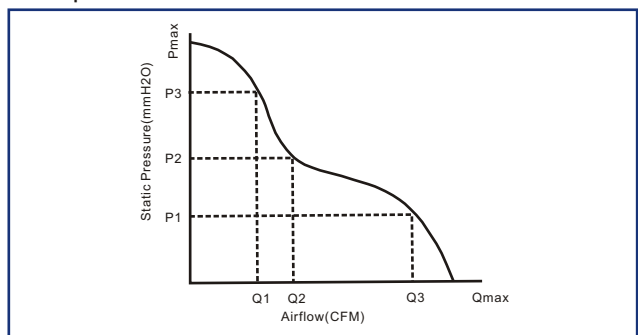
r: specific gravity of air, $1.2 kg/m^3$ at $20^\circ C$, 1atm

Maximum air flow: when opening the nozzle and absorbing the air using the auxiliary blower to make the static pressure (P_s) equal to zero, the differential pressure between chamber A and B, P_n , will be at its maximum value. Plug this P_n value to the above equation will result in the maximum air flow rate.

Maximum static pressure: if the nozzle is closed the pressure in the chamber A will be at its maximum value. The differential pressure, P_s , between the ambient air pressure and the pressure in the chamber can now be considered the maximum static pressure.



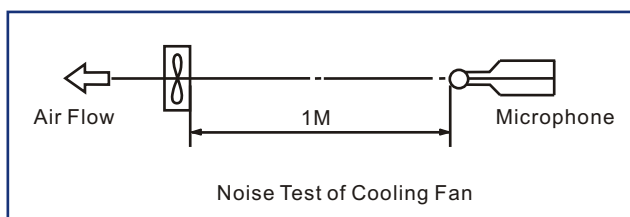
The Measuring Method-double Chamber



Fan Airflow vs. Static Pressure Characteristic Curve

Acoustic Noise Level Measurement

Noise is measured in accordance with ISO7779 standards in an Anechoic Charmber with less than 18.6 dBA background noise. the testing cooling fan runs in free airflow and a noise meter is set to 1 meter away from Air entrance and in 90 degree to the fan.



How to determine fan life?⁽¹⁾

Fan life can be measured using different techniques. Engineers in the industry use either L₁₀ or MTTF. L₁₀ measures life by assuming certain conditions of fan life distribution, at which ten percent of the sample units are tested and failed. L₁₀ is calculated based on temperature acceleration method defined in MIL-STD-781. Testing is usually conducted under 70°C-80°C

MTTF or the mean time to failure is the average time before fans fail. Failure is defined as one of the following: (1) fan does not work, (2) RPM is 30% of origin, and (3) rated current is 30% of origin. Usually, a test batch of samples is taken to ensure that the probability test is reliable

Calculations of Life

L₁₀ Life (the minimum service life)

$$T(\text{forecast}) = T(\text{actual}) \times FCC$$

Where:

T (forecast) = the forecasted L₁₀ life under working temperature T_f usually 25°C

T (actual) = the actual tested life under temperature T_a .

FCC = the temperature accelerator = $2\text{EXP}[(T_f - T_a) / 10]$

MTTF (Mean Time To Failure)

$$A.F. = e^{(H/K)} \times ((1/273 + T_L) - 1/(273 + T_H))$$

Where:

A.F. = Acceleration Factor is number of fan failed at T_L test divided by number of fan failed at T_H.

273 = is absolute temperature

e = natural log

AH = Activation Energy

K = Boltzmann's Constant = 8.623×10^{-5}

T_L = tested temperature low = 50°C

T_H = tested temperature high = 80°C

How to determine fan life?⁽²⁾

Life characteristics are dependent on the combination of voltage, frequency, ambient temperature, mounting altitude, environment, and restriction to airflow conditions encountered in an individual application. The most dependent factor to failure, however, is bearing and lubrication of the bearing.

Bearing Type

The relationship between the bearing and the fan is a positive relationship. If the bearing runs breaks, so does the fan. There are different bearing types to consider. There are sleeve, ball/sleeve, and ball bearing.

The life hours increase as you move from left to right. Sleeve bearing, compared to ball bearing, tend to be quieter at the initial start and relatively less expensive. As for the ball bearing, it can operate better under extreme temperature.



Sleeve bearings have a life around 30,000 hours or the equivalent of 6 years under normal, 8-hour conditions. At the initial point, a sleeve bearing fan is much quieter than a ball bearing. As time sleeve bearing will start losing lubrication and will become noisier than its counterpart.

The life on ball bearing fans are some what different. The life of a ball bearing will, typically, last twice as long than that of a sleeve.

At initial use, the sleeve is much quieter. But if there is a rise in temperature, the sleeve bearing will lose lubrication much faster, leading to faster thermal breakdown.

Still, sleeve fans remain relatively quiet up until the lubrication is gone; whereas ball bearing fans get noisier shortly after it starts.

Conclusion

As different companies use different approaches, it is useless to compare the life expectancy information from one company with that from other companies.

Thermal Engineers and Component Evaluation Engineers have to perform an independent comparative analysis when selecting a fan.

Parameters of importance in fan life analysis include failure criteria, the distribution functions for statistical analysis and the life test acceleration factors.

Once these parameters are selected, they should be used consistently in order to compare Different fans. We hope the material presented here will help encourage standardization in fan life evaluation.

Units of Measure and Conversions

• Air Flow

1 CFM = 0.0283 m ³ /min (CMM)	1 CFM = 1.699 m ³ /hr
1 m ³ /min = 35.31 CFM	1 m ³ /min = 60 m ³ /hr
1 m ³ /min = 16.67 ℓ/sec	1 ℓ/sec = 0.06 m ³ /min
1 m ³ /hr = 0.589 CFM	1 m ³ /hr = 0.0167 m ³ /min

CFM	m ³ /min (CMM)	m ³ /hr
1	0.0283	1.699
35.31	1	60
0.589	0.0167	1

• Static Pressure

1 Pa = 0.102 mmH ₂ O	1 Pa = 0.004 inchH ₂ O
1 mmH ₂ O = 0.0394 inchH ₂ O	1 mmH ₂ O = 9.81 Pa
1 inchH ₂ O = 249 Pa	1 inchH ₂ O = 25.4 mmH ₂ O

Inch H ₂ O	mm H ₂ O	Pa
1	25.4	249
0.0394	1	9.81
0.004	0.102	1

• The Basic Theory of Acoustic

Sound pressure level: SPL (dBA)

$$L_P = 20 \log \frac{P}{P_0} \text{ (dBA)} \dots\dots\dots (a) \quad P_0 = 20 \mu Pa$$

P_0 the reference sound pressure of human hearing system

L_P sound pressure level

Similarity algorithm of fan noise

$$N = 50 \log \frac{rpm_2}{rpm_1} - N_1 \dots\dots\dots (b)$$

N_1 noise level measured at rpm 1

N_2 noise level calculated by equation (b) at rpm 2

The equations for the relationship between distance and noise level measured at anechoic room.

$$L_P = L_w - 20 \log(r) - 11 \text{ [dBA]} \dots\dots\dots (c)$$

$$L_w = 10 \log \left(\frac{P^2}{P_0^2} \right) + 10 \log(4\pi r^2) \dots\dots\dots (d)$$

L_P sound pressure level

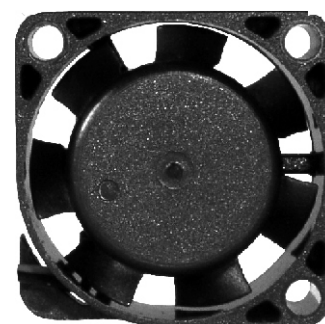
L_w sound intensity level

r distance in meter

According to equations (c) and (d), it's very clear the noise level will reduce 6 dBA when the distance doubled.

Comparatively, the noise level will also increase 6 dBA when distance shorten by half.

- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #28 AWG
- Weight: 7.5 g



DC Brushless Fan

Excellence

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD2510B05W3-11	B	5	4.0~5.5	50	0.25	7,000	1.40	1.60	15.80	S
FD2510B05W5-11	B		4.0~5.5	80	0.40	8,500	1.60	2.10	17.70	S
FD2510B05W7-11	B		4.0~5.5	110	0.55	10,000	2.10	3.90	22.20	S
FD2510B05W9-11	B		4.0~5.5	140	0.70	12,000	2.40	5.30	23.60	S
FD2510B12W3-11	B	12	9.0~13.2	50	0.60	7,000	1.40	1.60	15.80	S
FD2510B12W5-11	B		7.0~13.2	53	0.64	8,500	1.60	2.10	17.70	S
FD2510B12W7-11	B		7.0~13.2	65	0.78	10,000	2.10	3.90	22.20	S
FD2510B12W9-11 ※	B		7.0~13.2	95	1.14	12,000	2.40	5.30	23.60	S

• If model with "※", the safety is pending.

• For additional function availability type, please refer to the notes of page 4.

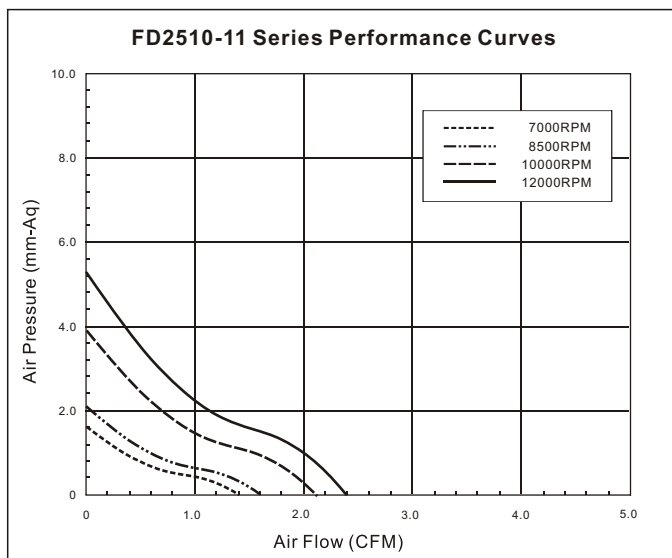
Specifications are subject to change without notice

Accessories :

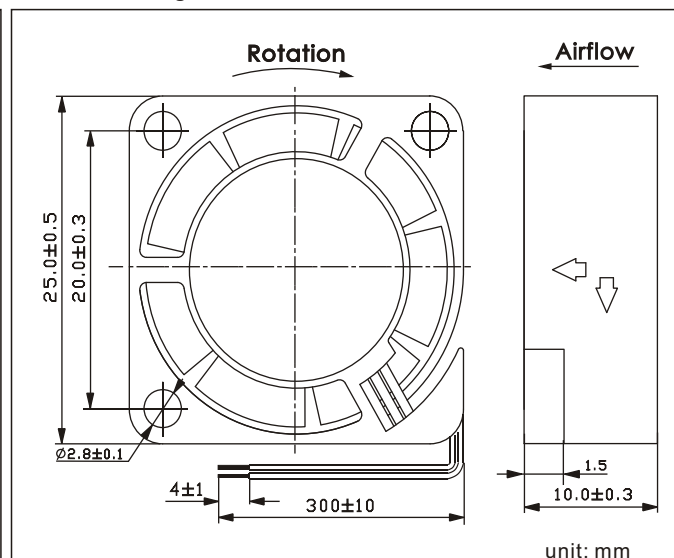
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-025	N/A	N/A	N/A

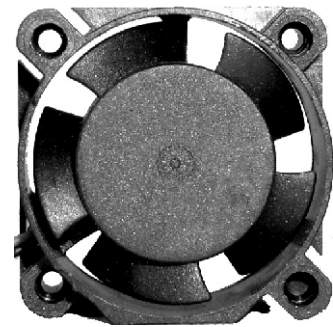
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #30 AWG
- Weight: 7.6 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD2510B05W3-41 ★	B,S	5	4.0~6.0	89	0.45	7,000	1.40	2.00	17.90	S
FD2510B05W5-41 ★	B,S		4.0~6.0	125	0.63	10,000	2.00	4.10	23.80	S
FD2510B05W7-41 ★	B,S		4.0~6.0	175	0.88	13,000	2.60	6.80	30.10	S
FD2510B05W9-41 ★※	B,S		4.0~6.0	216	1.08	15,000	3.00	8.10	33.70	S
FD2510B12W3-41 ★	B,S	12	7.0~14.0	38	0.46	7,000	1.40	2.00	17.90	S
FD2510B12W5-41 ★	B,S		7.0~14.0	56	0.67	10,000	2.00	4.10	23.80	S
FD2510B12W7-41 ★	B,S		7.0~14.0	89	1.07	13,000	2.60	6.80	30.10	S
FD2510B12W9-41 ★※	B,S		7.0~14.0	100	1.20	15,000	3.00	8.10	33.70	S

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- If model with "★", auto restart protection built in ; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

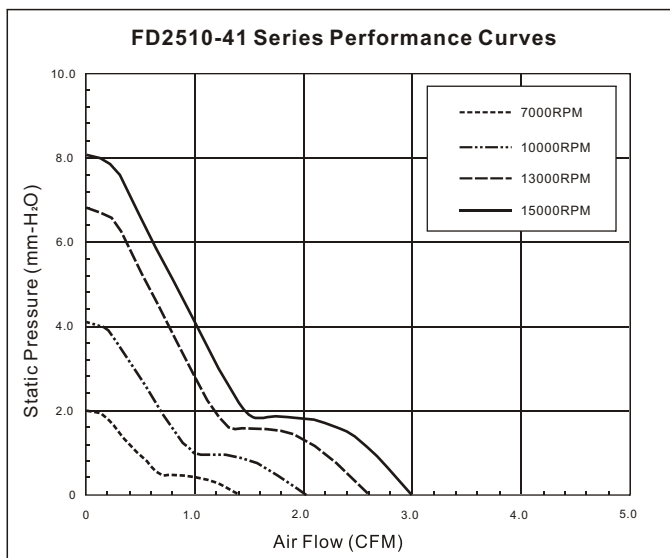
Specifications are subject to change without notice

Accessories :

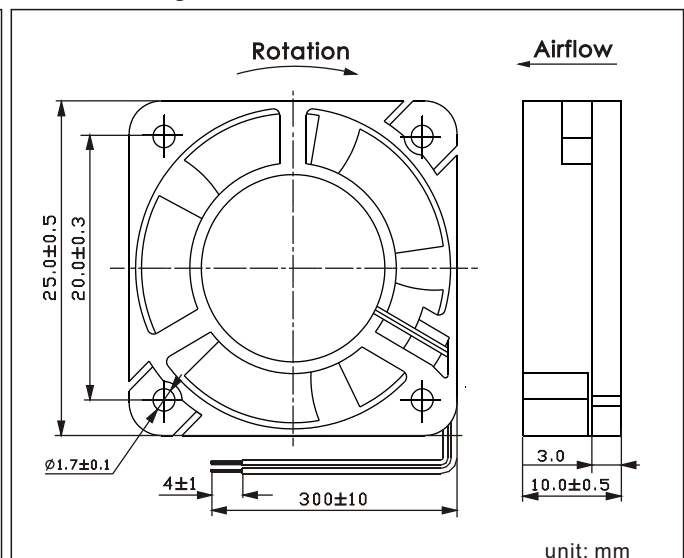
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-025	N/A	N/A	N/A

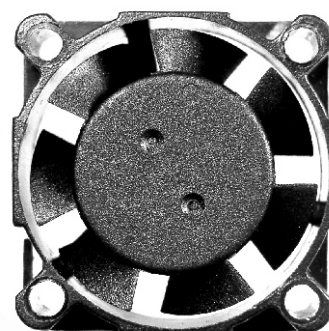
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #28 AWG
- Weight: 8 g



DC Brushless Fan

Excellence

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD2510B03W3-81	B,C,L,S	3.3	3.0~3.6	140	0.46	7,000	1.40	1.50	20.70	P,U
FD2510B03W5-81	B,C,L,S		3.0~3.6	230	0.76	10,000	2.20	3.50	25.10	P,U
FD2510B03W7-81	B,C		3.0~3.6	290	0.96	13,000	2.90	5.70	31.00	P,U
FD2510B05W3-81	B,C,L,S	5	4.0~5.5	90	0.45	7,000	1.40	1.50	20.70	P,U
FD2510B05W5-81	B,C,L,S		4.0~5.5	160	0.80	10,000	2.20	3.50	25.10	P,U
FD2510B05W7-81	B,C		4.0~5.5	200	1.00	13,000	2.90	5.70	31.00	P,U
FD2510B12W3-81	B,C,L,S	12	10.8~13.8	50	0.60	7,000	1.40	1.50	20.70	P,U
FD2510B12W5-81	B,C,L,S		9.0~13.8	70	0.84	10,000	2.20	3.50	25.10	P,U
FD2510B12W7-81	B,C		9.0~13.8	100	1.20	13,000	2.90	5.70	31.00	P,U

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- For additional function availability type, please refer to the notes of page 4.

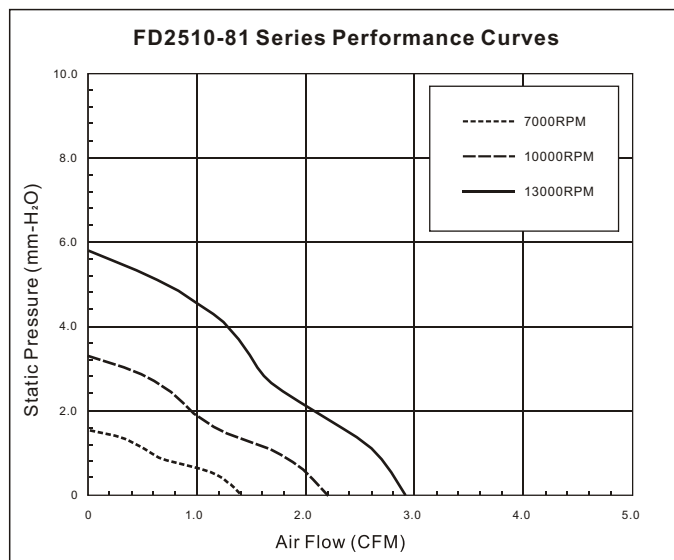
Specifications are subject to change without notice

Accessories :

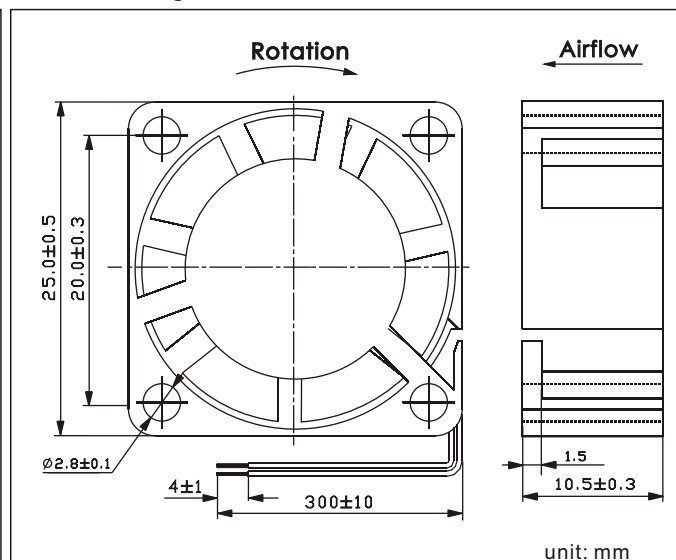
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-025	N/A	N/A	N/A

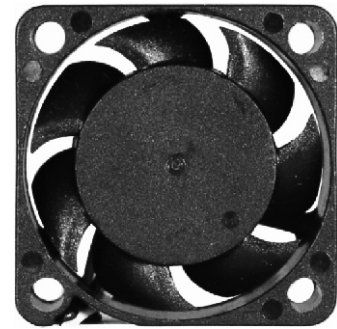
Characteristic Curves :



Outline Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #28 AWG
- Weight: 7.8 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page4)
FD3010B03W3-81	B,C,L,S	3.3	3.0~3.6	110	0.36	6,000	2.10	1.80	19.80	P,U
FD3010B03W5-81	B,C,L,S		3.0~3.6	230	0.76	8,500	3.00	3.60	24.40	P,U
FD3010B03W7-81	B,C,L,S		3.0~3.6	280	0.92	11,000	4.40	5.80	31.10	P,U
FD3010B05W3-81	B,C,L,S	5	4.5~5.5	70	0.35	6,000	2.10	1.80	19.80	P,U
FD3010B05W5-81	B,C,L,S		4.5~5.5	140	0.70	8,500	3.00	3.60	24.40	P,U
FD3010B05W7-81	B,C,L,S		4.5~5.5	190	0.95	11,000	4.40	5.80	31.10	P,U
FD3010B12W3-81	B,C,L,S	12	10.8~13.8	50	0.60	6,000	2.10	1.80	19.80	P,U
FD3010B12W5-81	B,C,L,S		9.0~13.8	80	0.96	8,500	3.00	3.60	24.40	P,U
FD3010B12W7-81	B,C,L,S		9.0~13.8	90	1.08	11,000	4.40	5.80	31.10	P,U

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- For additional function availability type, please refer to the notes of page 4.

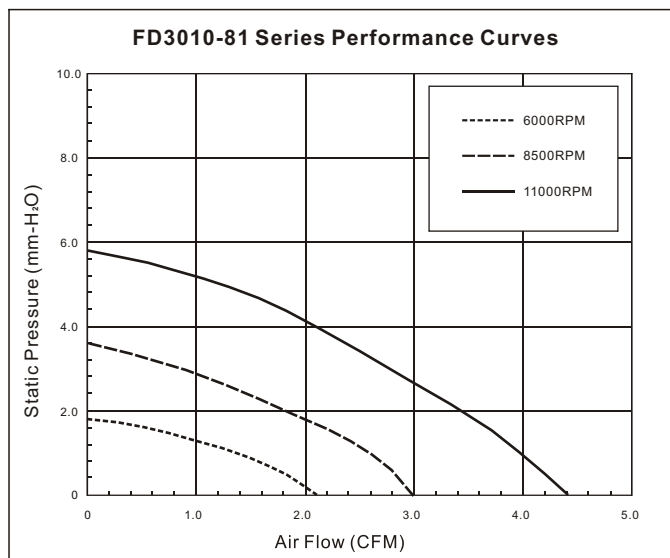
Specifications are subject to change without notice

Accessories :

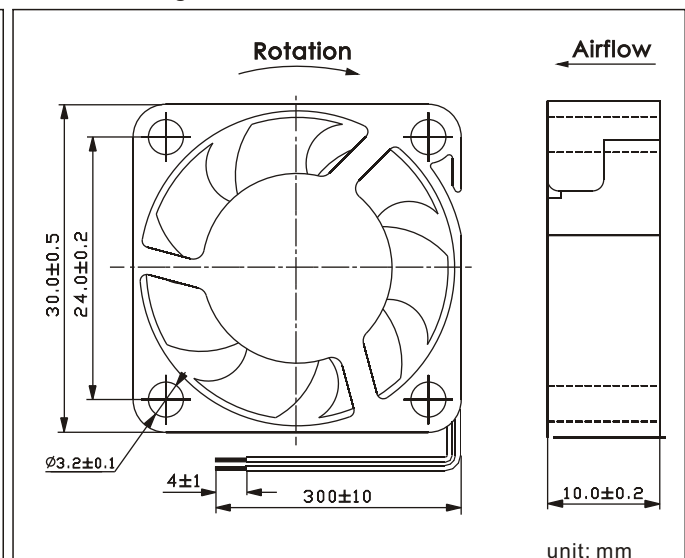
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	N/A	N/A	N/A	N/A

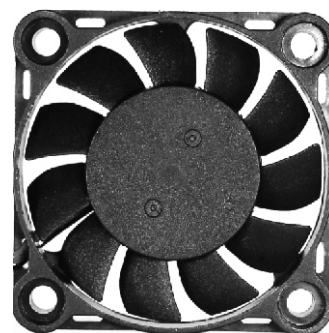
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #28 AWG
- Weight: 8 g



DC Brushless Fan

Excellence

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD4007C05W3-81	C	5	4.5~5.5	120	0.60	5,000	5.60	1.90	24.90	U
FD4007C05W5-81	C		4.5~5.5	170	0.85	6,000	6.50	2.30	30.40	U
FD4007C05W7-81	C		4.5~5.5	240	1.20	7,000	6.80	2.60	33.10	U
FD4007C12W3-81	C	12	10.8~13.8	70	0.84	5,000	5.60	1.90	24.90	U
FD4007C12W5-81	C		9.0~13.8	80	0.96	6,000	6.50	2.30	30.40	U
FD4007C12W7-81	C		9.0~13.8	120	1.44	7,000	6.80	2.60	33.10	U

• For additional function availability type, please refer to the notes of page 4.

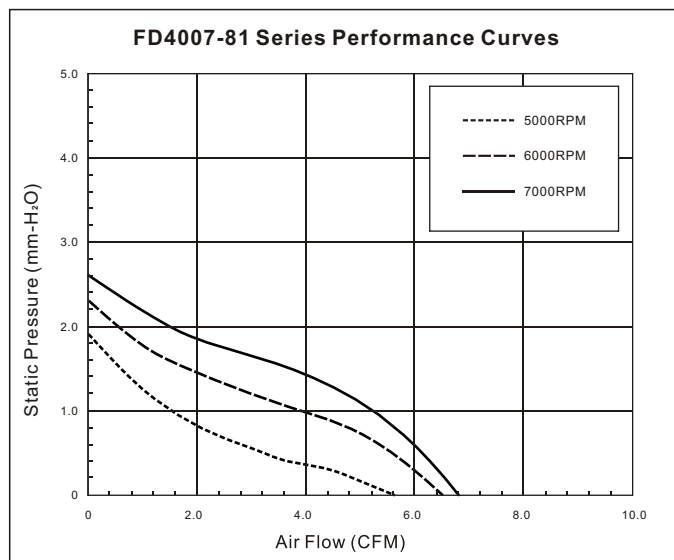
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Accessories :

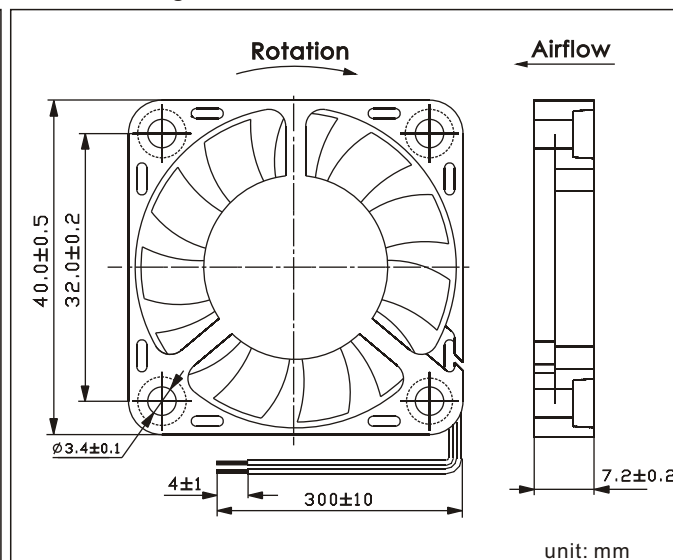
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-040	FGP-040	FPF-040	FFA-040

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 11 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page4)
FD4010B05W3-81	B,C,L,S	5	4.5~6.0	90	0.45	4,000	5.50	1.40	20.40	P,U
FD4010B05W5-81	B,C,L,S		4.5~6.0	130	0.65	5,000	7.30	2.10	23.40	P,U
FD4010B05W7-81	B,C,L,S		4.5~6.0	220	1.10	6,000	8.60	3.20	27.60	P,U
FD4010B12W3-81	B,C,L,S	12	9.0~13.8	60	0.72	4,000	5.50	1.40	20.40	P,U
FD4010B12W5-81	B,C,L,S		6.0~13.8	90	1.08	5,000	7.30	2.10	23.40	P,U
FD4010B12W7-81	B,C,L,S		6.0~13.8	130	1.56	6,000	8.60	3.20	27.60	P,U

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- For additional function availability type, please refer to the notes of page 4.

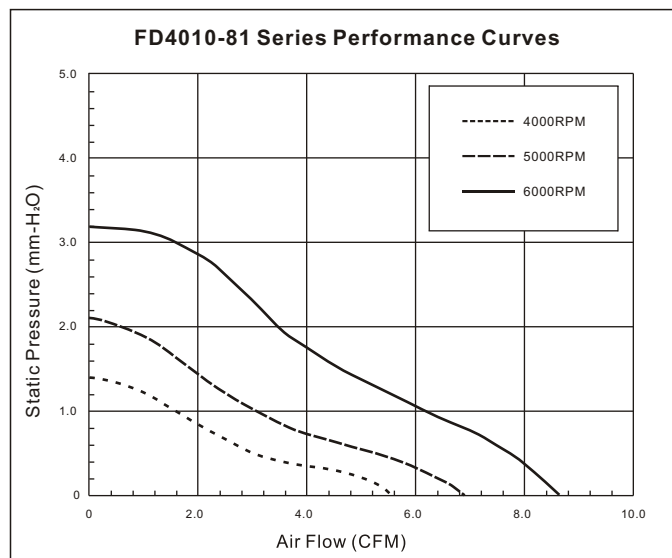
Specifications are subject to change without notice

Accessories :

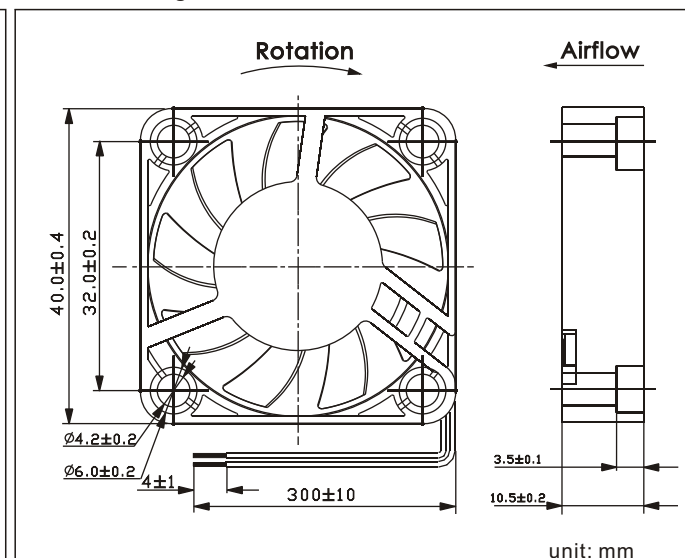
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-040	FGP-040	FPF-040	FFA-040

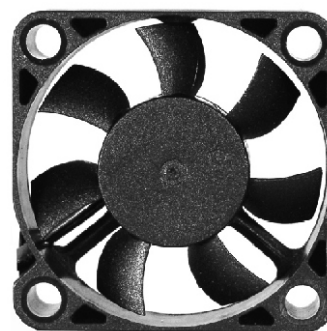
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10M Ω , 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #28 AWG
- Weight: 11 g



DC Brushless Fan

Excellence

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD4010B03W3-82	B,C,L,S	3.3	3.0~3.6	90	0.30	4,000	4.60	1.00	20.70	P,M,U
FD4010B03W5-82	B,C,L,S		3.0~3.6	170	0.56	5,000	5.70	1.60	24.90	P,M,U
FD4010B03W7-82	B,C,L,S		3.0~3.6	240	0.79	6,000	7.30	2.10	29.30	P,M,U
FD4010B05W3-82	B,C,L,S	5	4.5~5.5	90	0.45	4,000	4.60	1.00	20.70	P,M,U
FD4010B05W5-82	B,C,L,S		4.5~5.5	110	0.55	5,000	5.70	1.60	24.90	P,M,U
FD4010B05W7-82	B,C,L,S		4.5~5.5	150	0.75	6,000	7.30	2.10	29.30	P,M,U
FD4010B12W3-82	B,C,L,S	12	10.8~13.8	60	0.72	4,000	4.60	1.00	20.70	P,M,U
FD4010B12W5-82	B,C,L,S		9.0~13.8	70	0.84	5,000	5.70	1.60	24.90	P,M,U
FD4010B12W7-82	B,C,L,S		9.0~13.8	90	1.08	6,000	7.30	2.10	29.30	P,M,U
FD4010B12W9-82	B,C,L,S		9.0~13.8	100	1.20	7,000	9.00	3.00	33.30	P,M,U
FD4010B24W5-82	B,C,L,S	24	20.0~27.6	50	1.20	5,000	5.70	1.60	24.90	P,M,U
FD4010B24W7-82	B,C,L,S		20.0~27.6	90	2.16	6,000	7.30	2.10	29.30	P,M,U

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- For additional function availability type, please refer to the notes of page 4.

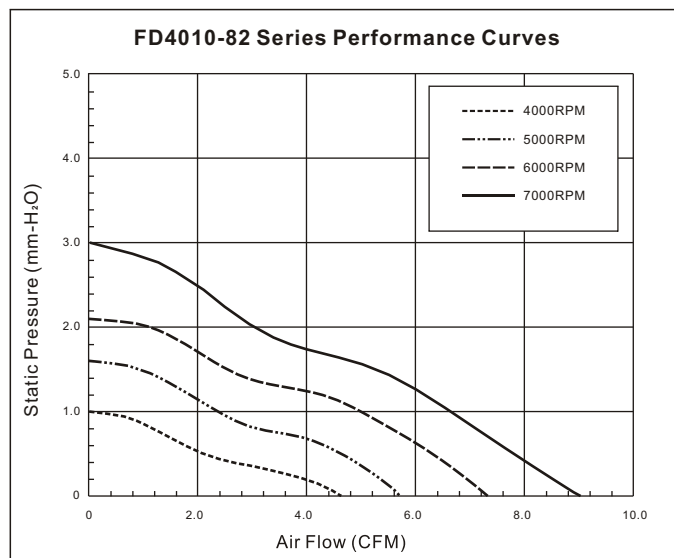
Specifications are subject to change without notice

Accessories :

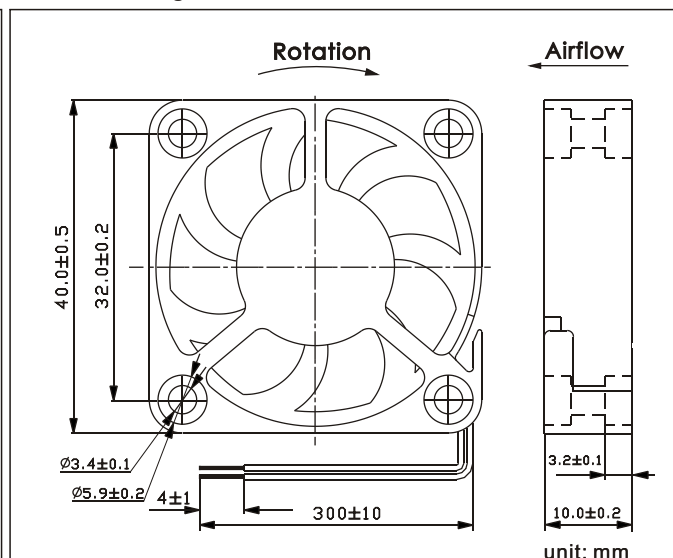
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-040	FGP-040	FPF-040	FFA-040

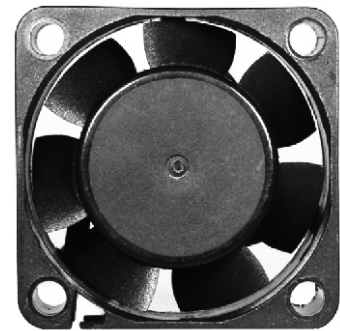
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 26 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD4015B05W3-11	B,C,L,S	5	4.0~5.5	200	1.00	6,000	6.20	4.70	27.60	P
FD4015B05W5-11 ※	B,C,L,S		4.0~5.5	280	1.40	7,300	7.60	6.90	31.50	P
FD4015B12W3-11	B,C,L,S	12	7.0~13.2	80	0.96	6,000	6.20	4.70	27.60	P
FD4015B12W5-11	B,C,L,S		7.0~13.2	120	1.44	7,300	7.60	6.90	31.50	P
FD4015B12W7-11	B,C,L,S		7.0~13.2	160	1.92	8,500	9.60	8.80	36.00	P

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

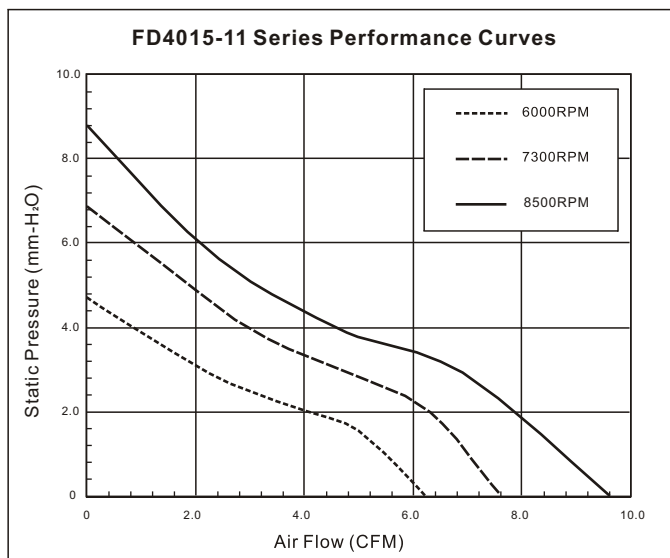
Specifications are subject to change without notice

Accessories :

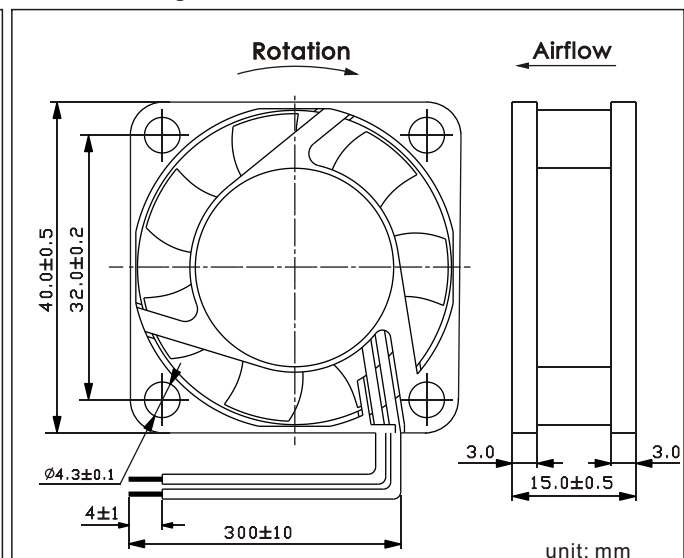
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-040	FGP-040	FPP-040	FFA-040

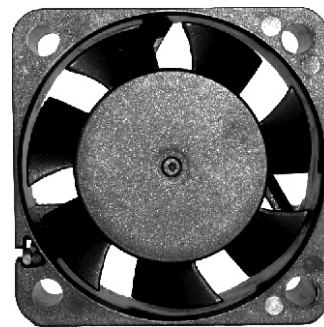
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 31.6 g



DC Brushless Fan

Excellence

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD4020B05W1-41 ★	B,S	5	4.0~6.0	83	0.42	4,000	5.00	2.40	20.50	S
FD4020B05W3-41 ★	B,S		4.0~6.0	126	0.63	5,500	6.70	3.90	26.70	S
FD4020B05W5-41 ★	B,S		4.0~6.0	214	1.07	7,000	8.30	5.80	31.90	S
FD4020B12W1-41 ★	B,S	12	7.0~14.0	36	0.43	4,000	5.00	2.40	20.50	S
FD4020B12W3-41 ★	B,S		7.0~14.0	63	0.76	5,500	6.70	3.90	26.70	S
FD4020B12W5-41 ★	B,S		7.0~14.0	104	1.25	7,000	8.30	5.80	31.90	S
FD4020B12W7-41 ★※	B,S		7.0~14.0	140	1.68	8,000	10.00	7.10	35.70	S
FD4020B12W9-41 ★※	B,S		7.0~14.0	165	1.98	9,000	11.00	8.80	38.60	S
FD4020B24W5-41 ★	B,S	24	15.0~27.0	54	1.30	7,000	8.30	5.80	31.90	S
FD4020B24W7-41 ★※	B,S		15.0~27.0	69	1.66	8,000	10.00	7.10	35.70	S
FD4020B24W9-41 ★※	B,S		15.0~27.0	84	2.02	9,000	11.00	8.80	38.60	S

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- If model with "★", auto restart protection built in; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

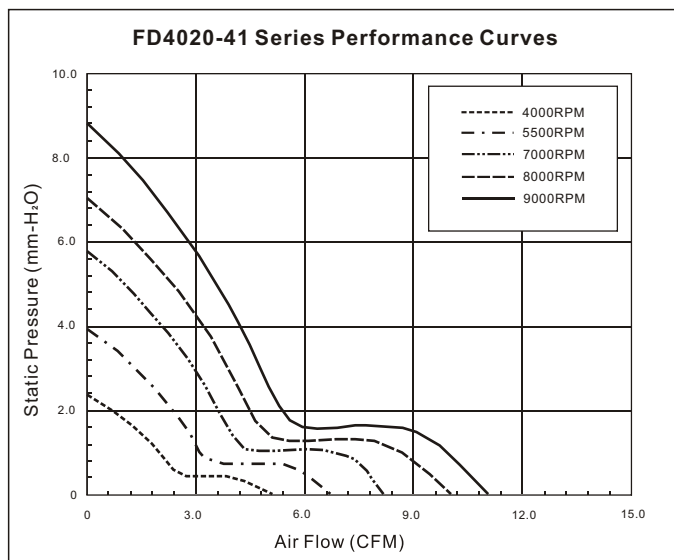
Specifications are subject to change without notice

Accessories :

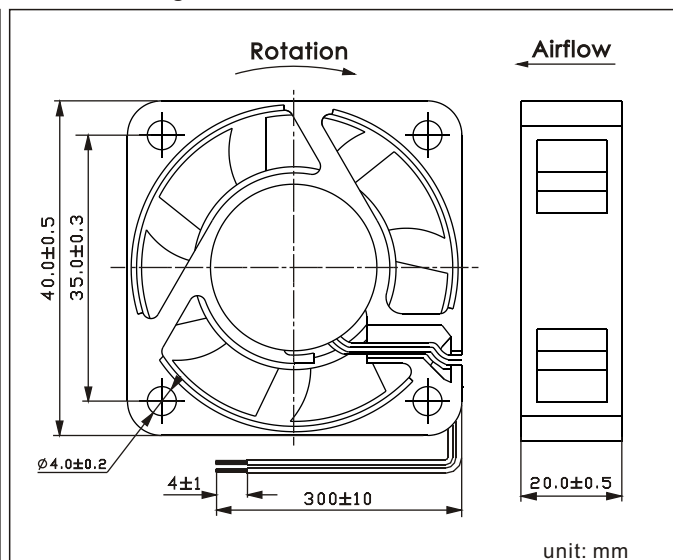
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-040	FGP-040	FPF-040	FFA-040

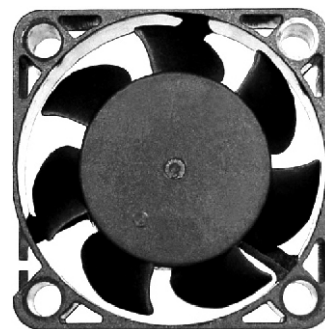
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 34 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD4020B05W1-81	B,C,L,S	5	4.5~5.5	80	0.40	4,000	4.80	1.30	19.80	P,U,X
FD4020B05W3-81	B,C,L,S		4.5~5.5	110	0.55	5,000	7.30	2.20	23.60	P,U,X
FD4020B05W5-81	B,C,L,S		4.5~5.5	150	0.75	6,000	9.00	3.10	26.40	P,U,X
FD4020B05W7-81 ★	B,C,L,S		4.5~5.5	280	1.40	7,000	10.10	3.80	31.50	P,U,X
FD4020B05W9-81 ★	B,C		4.5~5.5	430	2.15	8,000	10.70	5.40	35.80	P,U,X
FD4020B05W11-81 ★	B,C	12	4.5~5.5	500	2.50	9,000	12.40	6.30	38.90	P,U,X
FD4020B12W1-81	B,C,L,S		8.0~13.8	50	0.60	4,000	4.80	1.30	19.80	P,U,X
FD4020B12W3-81	B,C,L,S		8.0~13.8	60	0.72	5,000	7.30	2.20	23.60	P,U,X
FD4020B12W5-81	B,C,L,S		8.0~13.8	80	0.96	6,000	9.00	3.10	26.40	P,U,X
FD4020B12W7-81 ★	B,C,L,S		8.0~13.8	110	1.32	7,000	10.10	3.80	31.50	P,U,X
FD4020B12W9-81 ★	B,C		8.0~13.8	160	1.92	8,000	10.70	5.40	35.80	P,U,X
FD4020B12W11-81 ★	B,C	24	8.0~13.8	200	2.40	9,000	12.40	6.30	38.90	P,U,X
FD4020B24W1-81	B,C,L,S		20.0~27.6	30	0.72	4,000	4.80	1.30	19.80	P,U,X
FD4020B24W3-81	B,C,L,S		18.0~27.6	60	1.44	5,000	7.30	2.20	23.60	P,U,X
FD4020B24W5-81	B,C,L,S		18.0~27.6	70	1.68	6,000	9.00	3.10	26.40	P,U,X
FD4020B24W7-81 ★	B,C,L,S		18.0~27.6	90	2.16	7,000	10.10	3.80	31.50	P,U,X
FD4020B24W9-81 ★	B,C	24	18.0~27.6	110	2.64	8,000	10.70	5.40	35.80	P,U,X
FD4020B24W11-81 ★	B,C		18.0~27.6	140	3.36	9,000	12.40	6.30	38.90	P,U,X

• For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".

• If model with "★", auto restart protection built in.

• For additional function availability type, please refer to the notes of page 4.

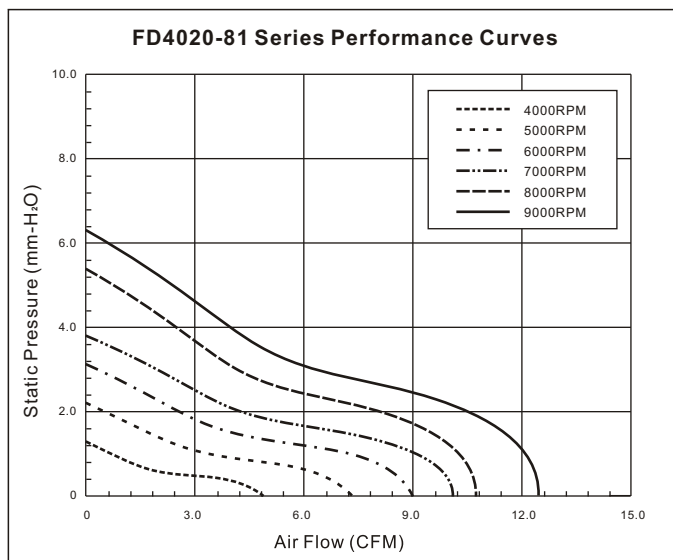
Specifications are subject to change without notice

Accessories :

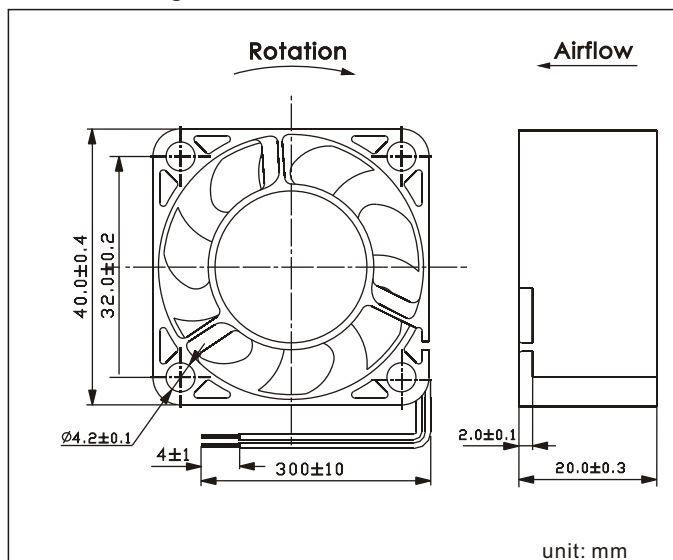
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-040	FGP-040	FPP-040	FFA-040

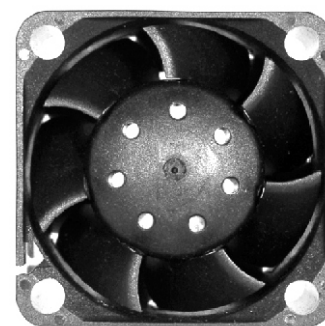
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 45 g



(S. O. B. Fan)

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD4028B12W3-11 ★	B	12	7.0~13.2	100	1.20	5,000	4.50	8.00	31.50	P
FD4028B12W5-11 ★	B		7.0~13.2	180	2.16	7,000	8.60	11.40	38.40	P
FD4028B12W7-11 ★	B		7.0~13.2	210	2.52	8,000	12.20	13.40	41.90	P
FD4028B12W8-11 ★※	B		7.0~13.2	490	5.88	11,000	21.50	18.70	45.80	P
FD4028B12W9-11 ★	B		7.0~13.2	650	7.80	13,000	29.40	22.90	54.20	P
FD4028B24W3-11 ★	B	24	12.0~26.4	90	2.16	5,000	4.50	8.00	31.50	P
FD4028B24W5-11 ★	B		12.0~26.4	130	3.12	7,000	8.60	11.40	38.40	P
FD4028B24W7-11 ★	B		12.0~26.4	165	3.96	8,000	12.20	13.40	41.90	P
FD4028B24W8-11 ★※	B		12.0~26.4	290	6.96	11,000	21.50	18.70	45.80	P
FD4028B24W9-11 ★	B		12.0~26.4	430	10.32	13,000	29.40	22.90	54.20	P

- If model with "★", auto restart protection built in; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

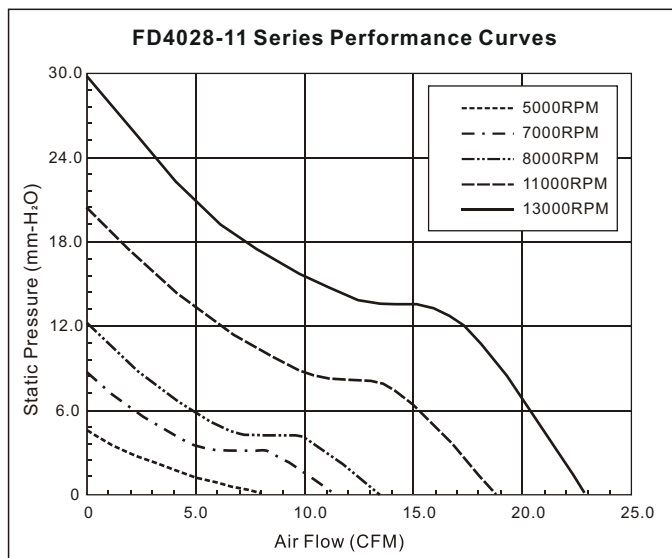
Specifications are subject to change without notice

Accessories :

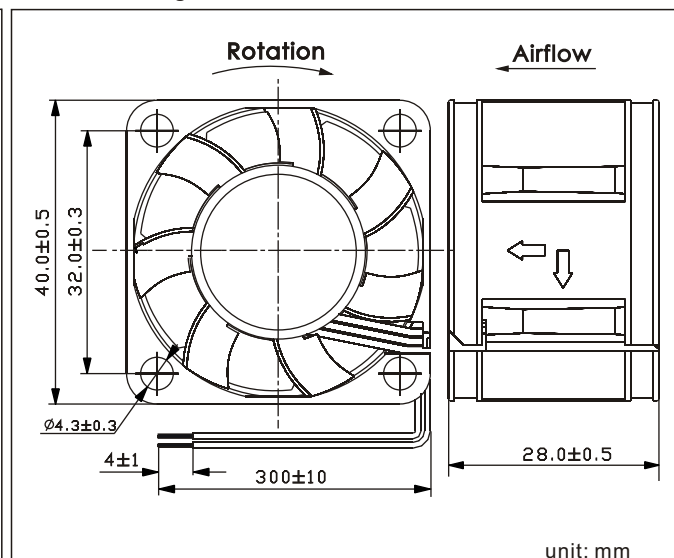
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-040	FGP-040	FPF-040	FFA-040

Characteristic Curves :



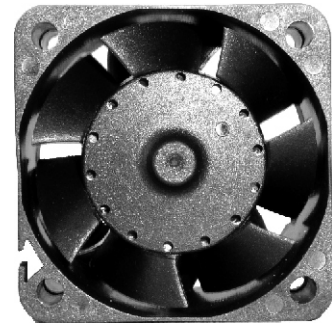
Out line Drawing :



DC Brushless Fan

Excellence

- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 49 g



(S. O. B. Fan)



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD4028B12W1-41 ★	B,S	12	7.0~14.0	120	1.44	5,000	8.40	4.00	32.00	P,U,X
FD4028B12W3-41 ★	B,S		7.0~14.0	220	2.64	7,500	12.70	8.90	38.60	P,U,X
FD4028B12W5-41 ★	B,S		7.0~14.0	400	4.80	10,000	16.40	14.90	48.50	P,U,X
FD4028B12W7-41 ★	B,S		7.0~14.0	600	7.20	12,500	20.40	23.00	54.60	P,U,X
FD4028B12W9-41 ★	B,S		7.0~14.0	900	10.80	15,000	25.20	33.30	60.20	P,U,X
FD4028B24W1-41 ★	B,S	24	15.0~27.0	70	1.68	5,000	8.40	4.00	32.00	P,U,X
FD4028B24W3-41 ★	B,S		15.0~27.0	120	2.88	7,500	12.70	8.90	38.60	P,U,X
FD4028B24W5-41 ★	B,S		15.0~27.0	300	7.20	10,000	16.40	14.90	48.50	P,U,X
FD4028B24W7-41 ★	B,S		15.0~27.0	400	9.60	12,500	20.40	23.00	54.60	P,U,X
FD4028B24W9-41 ★	B,S		15.0~27.0	500	12.00	15,000	25.20	33.30	60.20	P,U,X

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- If model with "★", auto restart protection built in.
- For additional function availability type, please refer to the notes of page 4.

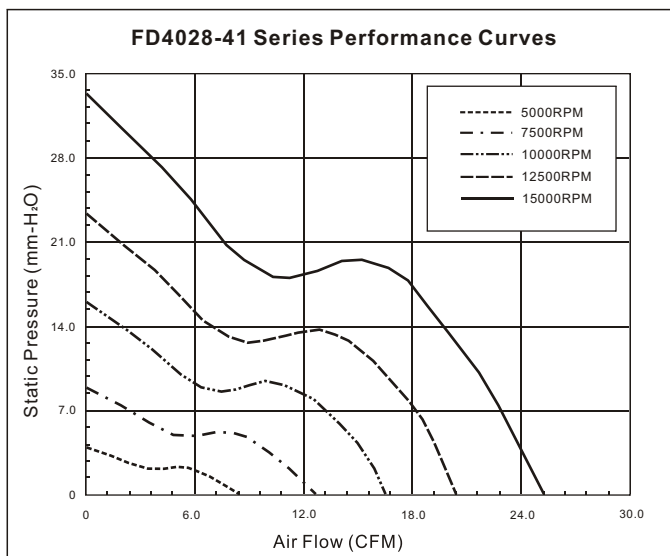
Specifications are subject to change without notice

Accessories :

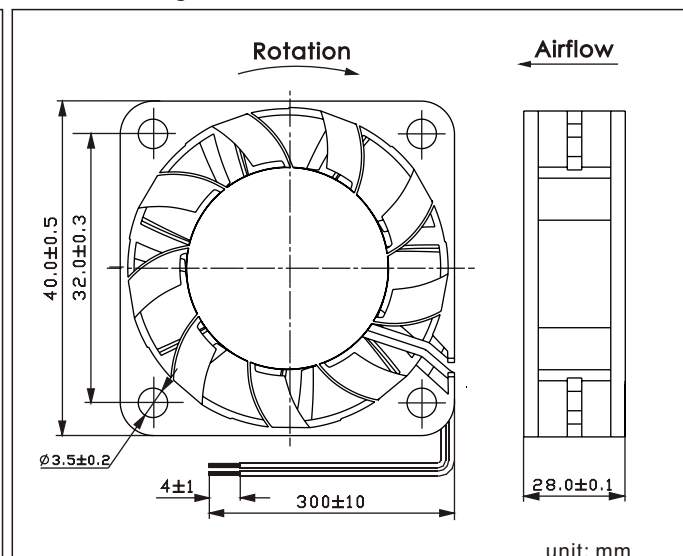
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-040	FGP-040	FPF-040	FFA-040

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 24 g



(S. O. B. Fan)

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD4028B12W1-81 ★	B	12	6.0~13.8	100	1.20	5,500	9.50	4.40	31.70	P,M,U,X
FD4028B12W3-81 ★	B		6.0~13.8	140	1.68	7,000	12.40	7.10	40.20	P,M,U,X
FD4028B12W5-81 ★	B		6.0~13.8	210	2.52	8,500	15.10	10.50	44.70	P,M,U,X
FD4028B12W7-81 ★	B		6.0~13.8	300	3.60	10,000	17.80	14.50	49.10	P,M,U,X
FD4028B12W9-81 ★	B		6.0~13.8	400	4.80	11,500	20.80	19.30	53.50	P,M,U,X
FD4028B12W11-81 ★	B		6.0~13.8	520	6.24	13,000	23.80	25.80	57.00	P,M,U,X
FD4028B24W00-81 ★	B	24	12.0~27.6	60	1.44	4,000	6.70	2.30	24.30	P,M,U,X
FD4028B24W1-81 ★	B		12.0~27.6	70	1.68	5,500	9.50	4.40	31.70	P,M,U,X
FD4028B24W3-81 ★	B		12.0~27.6	80	1.92	7,000	12.40	7.10	40.20	P,M,U,X
FD4028B24W5-81 ★	B		12.0~27.6	130	3.12	8,500	15.10	10.50	44.70	P,M,U,X
FD4028B24W7-81 ★	B		12.0~27.6	190	4.56	10,000	17.80	14.50	49.10	P,M,U,X
FD4028B24W9-81 ★	B		12.0~27.6	210	5.04	11,500	20.80	19.30	53.50	P,M,U,X
FD4028B24W11-81 ★	B		12.0~27.6	340	8.16	13,000	23.80	25.80	57.00	P,M,U,X

• If model with "★", auto restart protection built in.

• For additional function availability type, please refer to the notes of page 4.

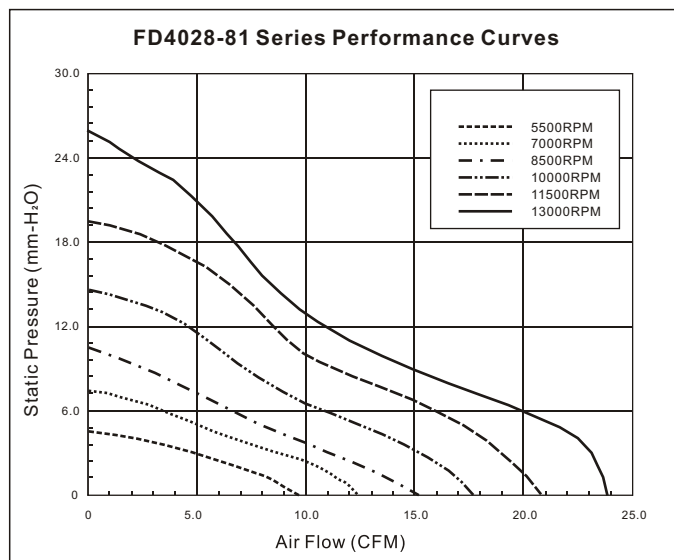
Specifications are subject to change without notice

Accessories :

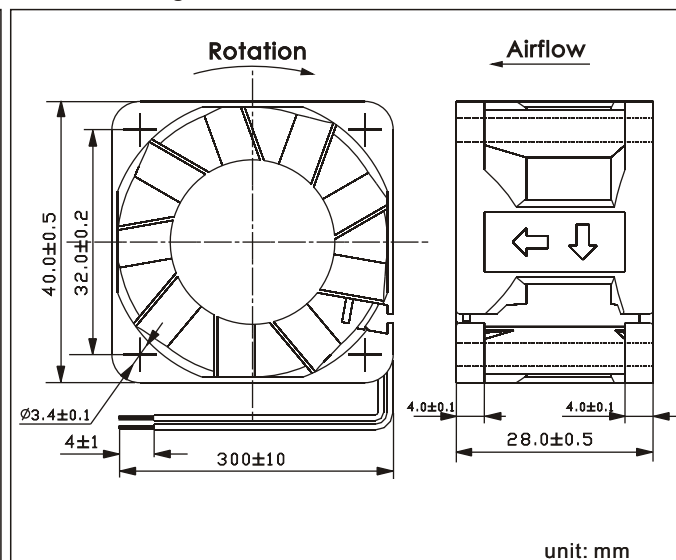
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-040	FGP-040	FPF-040	FFA-040

Characteristic Curves :



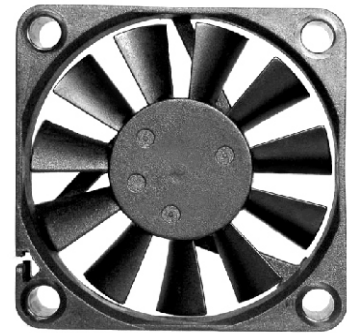
Out line Drawing :



DC Brushless Fan

Excellence

- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #28 AWG
- Weight: 12 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page4)
FD4510B05W3-81	B,C,L,S	5	4.5~5.5	140	0.70	3,800	8.20	1.70	22.20	P,U
FD4510B05W5-81	B,C,L,S		4.5~5.5	180	0.90	4,600	10.10	2.40	28.00	P,U
FD4510B05W7-81	B,C,L,S		4.5~5.5	260	1.30	5,400	10.40	3.20	32.20	P,U
FD4510B12W3-81	B,C,L,S	12	10.8~13.8	70	0.84	3,800	8.20	1.70	22.20	P,U
FD4510B12W5-81	B,C,L,S		9.0~13.8	110	1.32	4,600	10.10	2.40	28.00	P,U
FD4510B12W7-81	B,C,L,S		9.0~13.8	180	2.16	5,400	10.40	3.20	32.20	P,U
FD4510B24W5-81	B,C,L,S	24	20.0~27.6	50	1.20	4,600	10.10	2.40	28.00	P,U
FD4510B24W7-81	B,C,L,S		20.0~27.6	90	2.16	5,400	10.40	3.20	32.20	P,U

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- For additional function availability type, please refer to the notes of page 4.

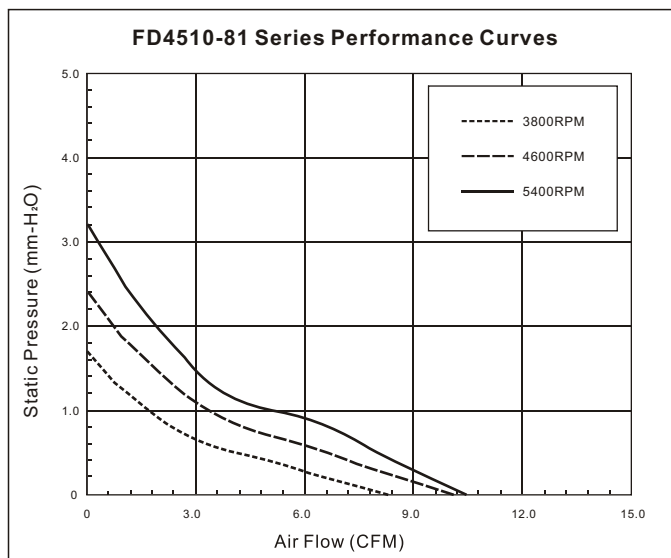
Specifications are subject to change without notice

Accessories :

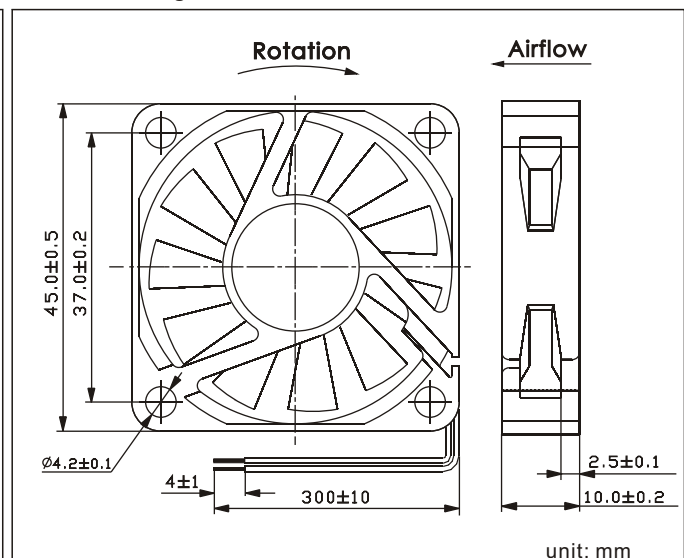
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	N/A	N/A	N/A	N/A

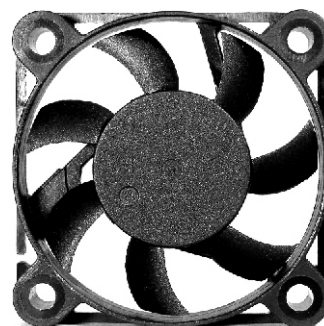
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10M Ω , 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 15 g



DC Brushless Fan

Excellence

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD5010B05W3-81	B,C,L,S	5	4.5~5.5	90	0.45	3,400	7.30	1.20	21.60	P,U
FD5010B05W5-81	B,C,L,S		4.5~5.5	130	0.65	4,200	9.50	2.00	26.50	P,U
FD5010B05W7-81	B,C,L,S		4.5~5.5	250	1.25	5,000	10.60	2.50	30.20	P,U
FD5010B09W3-81	B,C,L,S	9	7.0~10.0	70	0.63	3,400	7.30	1.20	21.60	P,U
FD5010B09W5-81	B,C,L,S		6.0~10.0	100	0.90	4,200	9.50	2.00	26.50	P,U
FD5010B09W7-81	B,C,L,S		6.0~10.0	140	1.26	5,000	10.60	2.50	30.20	P,U
FD5010B09W9-81	B,C,L,S		6.0~10.0	200	1.80	5,800	12.60	3.30	33.80	P,U
FD5010B12W3-81	B,C,L,S	12	10.8~13.8	60	0.72	3,400	7.30	1.20	21.60	P,U
FD5010B12W5-81	B,C,L,S		9.0~13.8	90	1.08	4,200	9.50	2.00	26.50	P,U
FD5010B12W7-81	B,C,L,S		9.0~13.8	110	1.32	5,000	10.60	2.50	30.20	P,U
FD5010B12W9-81 ★	B,C,L,S		9.0~13.8	160	1.92	5,800	12.60	3.30	33.80	P,U
FD5010B24W3-81	B,C,L,S	24	20.0~27.6	30	0.72	3,400	7.30	1.20	21.60	P,U
FD5010B24W5-81	B,C,L,S		20.0~27.6	50	1.20	4,200	9.50	2.00	26.50	P,U
FD5010B24W7-81	B,C,L,S		20.0~27.6	70	1.68	5,000	10.60	2.50	30.20	P,U

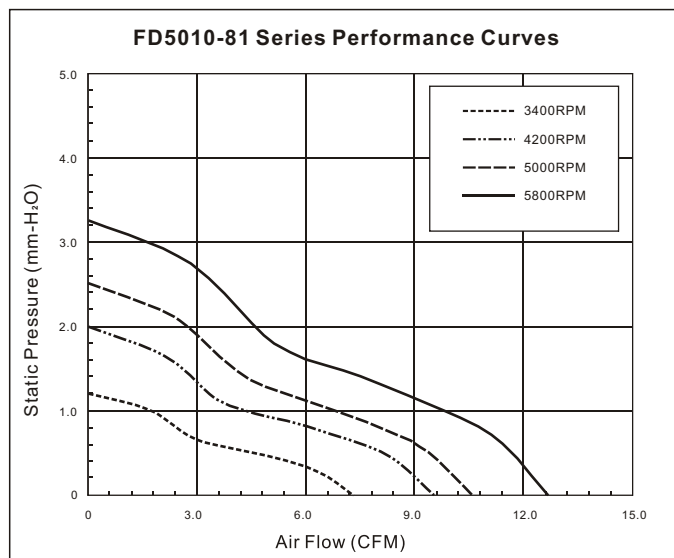
- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S". Specifications are subject to change without notice
- If model with "★", auto restart protection built in.
- For additional function availability type, please refer to the notes of page 4.

Accessories :

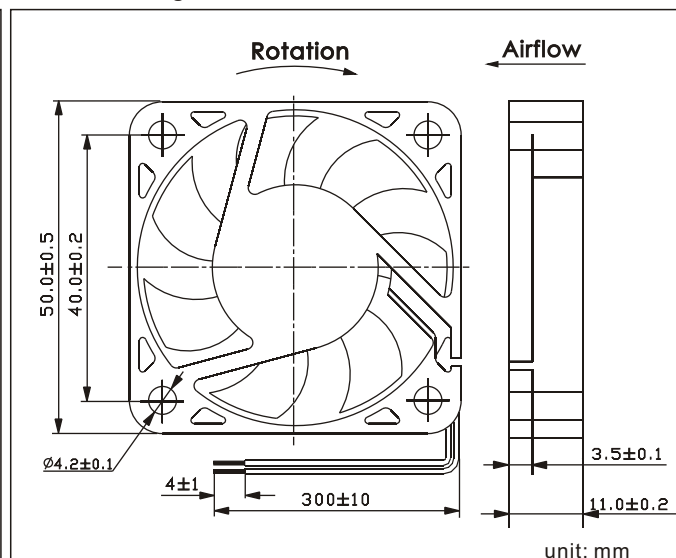
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-050	N/A	N/A	N/A

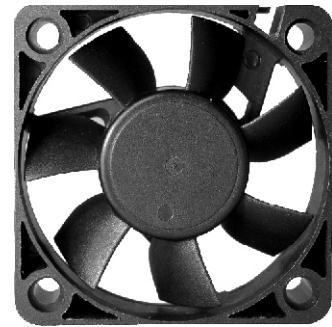
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 27 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD5015B05W3-11	B,L,S	5	4.0~5.5	180	0.90	3,800	12.20	2.00	24.10	S
FD5015B05W5-11	B,L,S		4.0~5.5	250	1.25	4,500	14.00	2.90	29.60	S
FD5015B05W7-11	B,L,S		4.0~5.5	285	1.43	5,000	15.70	3.70	31.00	S
FD5015B12W3-11	B,L,S	12	7.0~13.2	85	1.02	3,800	12.20	2.00	24.10	S
FD5015B12W5-11	B,L,S		7.0~13.2	130	1.56	4,500	14.00	2.90	29.60	S
FD5015B12W7-11	B,L,S		7.0~13.2	170	2.04	5,000	15.70	3.70	31.00	S
FD5015B12W9-11	B,L,S		7.0~13.2	240	2.88	5,500	17.40	4.50	36.00	S
FD5015B24W3-11	B,L,S	24	12.0~26.4	70	1.68	3,800	12.20	2.00	24.10	S
FD5015B24W5-11	B,L,S		12.0~26.4	80	1.92	4,500	14.00	2.90	29.60	S
FD5015B24W7-11	B,L,S		12.0~26.4	90	2.16	5,000	15.70	3.70	31.00	S
FD5015B24W9-11	B,L,S		12.0~26.4	110	2.64	5,500	17.40	4.50	36.00	S

- For "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "L", "S".
- For additional function availability type, please refer to the notes of page 4.

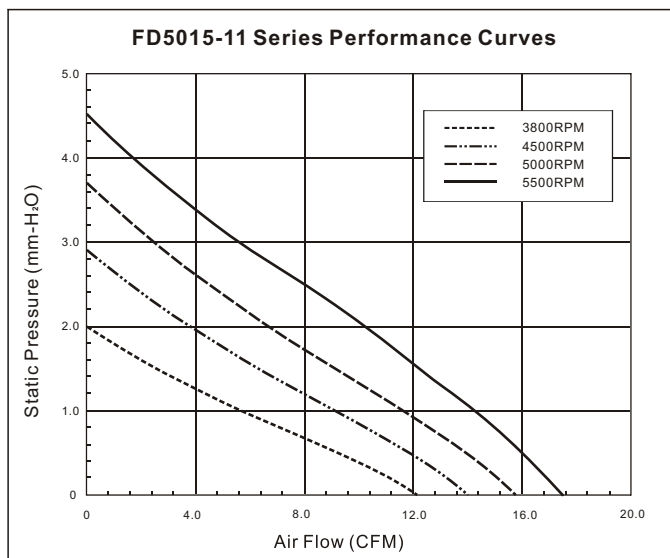
Specifications are subject to change without notice

Accessories :

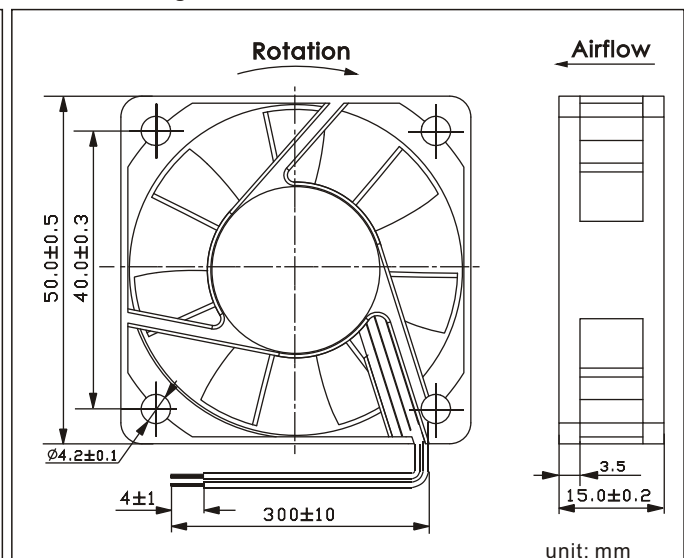
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-050	N/A	N/A	N/A

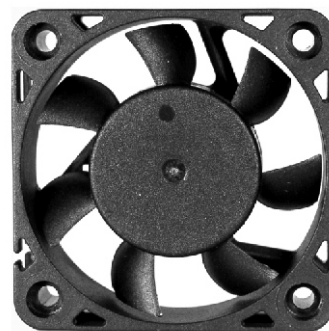
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10M Ω , 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 25g



DC Brushless Fan

Excellence

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD5015B05W3-81	B,C,L,S	5	4.5~5.5	110	0.55	4,000	8.70	2.30	24.30	P,U,X
FD5015B05W5-81	B,C,L,S		4.5~5.5	210	1.05	4,800	9.70	3.10	30.60	P,U,X
FD5015B05W7-81	B,C,L,S		4.5~5.5	260	1.30	5,600	11.10	4.00	35.50	P,U,X
FD5015B12W3-81	B,C,L,S	12	8.0~13.8	70	0.84	4,000	8.70	2.30	24.30	P,U,X
FD5015B12W5-81	B,C,L,S		6.0~13.8	80	0.96	4,800	9.70	3.10	30.60	P,U,X
FD5015B12W7-81	B,C,L,S		6.0~13.8	130	1.56	5,600	11.10	4.00	35.50	P,U,X
FD5015B12W9-81 ★	B,C		6.0~13.8	150	1.80	6,400	12.30	5.10	39.40	P,U,X
FD5015B24W3-81	B,C,L,S	24	12.0~27.6	50	1.20	4,000	8.70	2.30	24.30	P,U,X
FD5015B24W5-81	B,C,L,S		12.0~27.6	60	1.44	4,800	9.70	3.10	30.60	P,U,X
FD5015B24W7-81	B,C,L,S		12.0~27.6	80	1.92	5,600	11.10	4.00	35.50	P,U,X
FD5015B24W9-81 ★	B,C		12.0~27.6	90	2.16	6,400	12.30	5.10	39.40	P,U,X

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- If model with "★", auto restart protection built in.
- For additional function availability type, please refer to the notes of page 4.

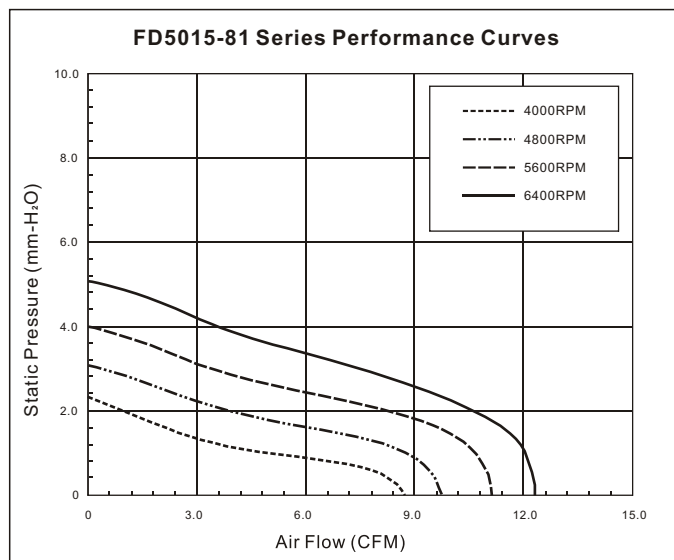
Specifications are subject to change without notice

Accessories :

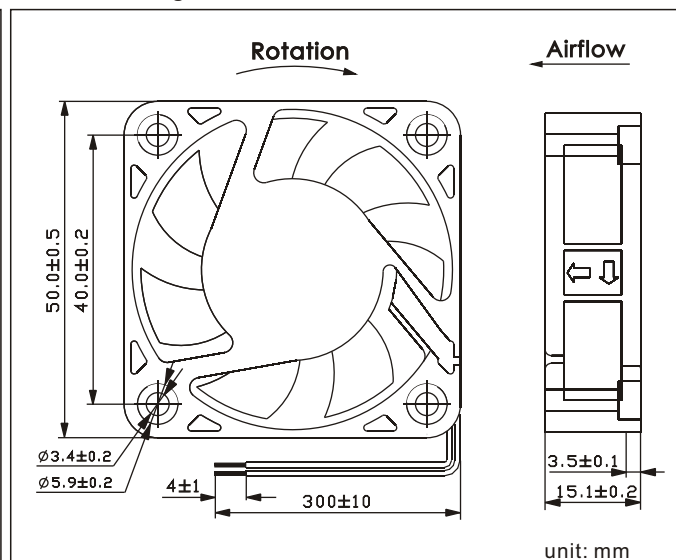
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-050	N/A	N/A	N/A

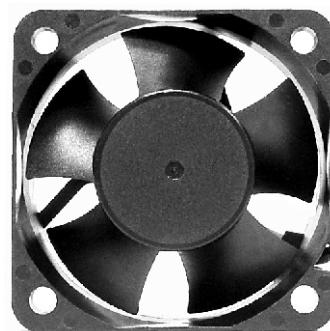
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 36 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD5020B12W3-11	B,S	12	7.0~13.2	60	0.72	3,900	10.20	2.50	23.10	P
FD5020B12W5-11	B,S		7.0~13.2	90	1.08	4,800	12.40	4.10	27.60	P
FD5020B12W7-11	B,S		7.0~13.2	110	1.32	5,600	14.20	5.60	32.00	P

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- For additional function availability type, please refer to the notes of page 4.

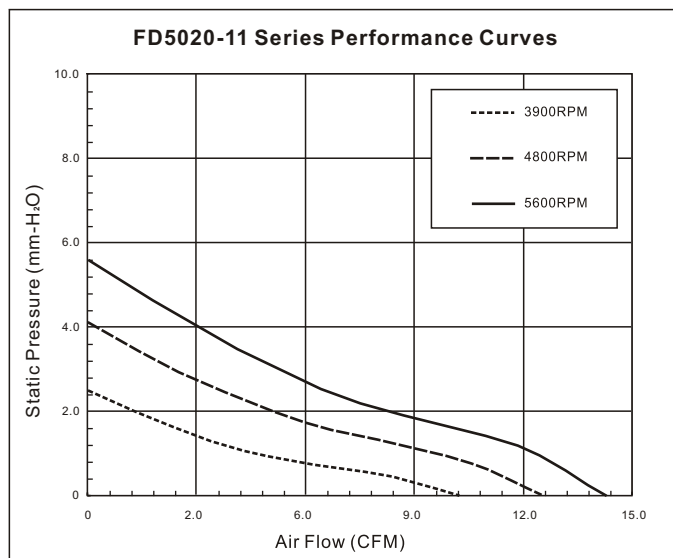
Specifications are subject to change without notice

Accessories :

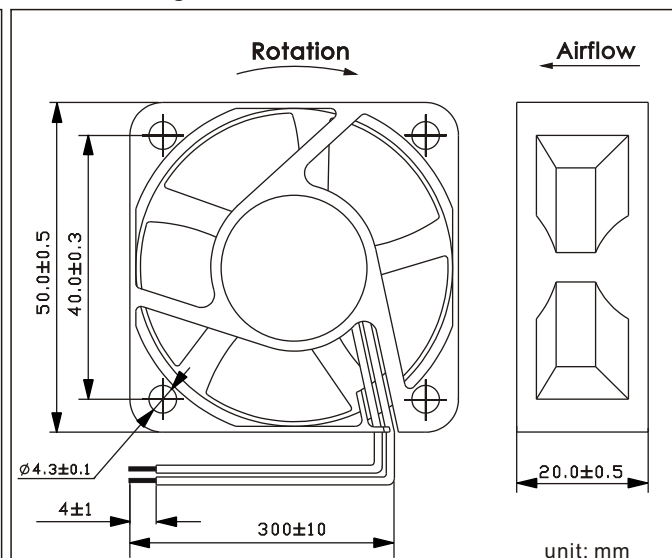
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-050	N/A	N/A	N/A

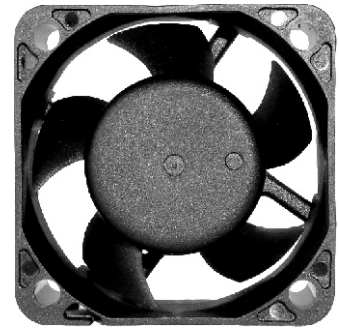
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 31 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD5020B12W3-81	B,L,S	12	8.0~13.8	120	1.44	5,000	12.70	3.40	32.10	P,U,X
FD5020B12W5-81	B,L,S		8.0~13.8	140	1.68	6,000	16.10	5.40	36.90	P,U,X
FD5020B12W7-81	B,L,S		8.0~13.8	220	2.64	7,000	17.40	7.40	40.40	P,U,X

- For "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "L", "S".
- For additional function availability type, please refer to the notes of page 4.

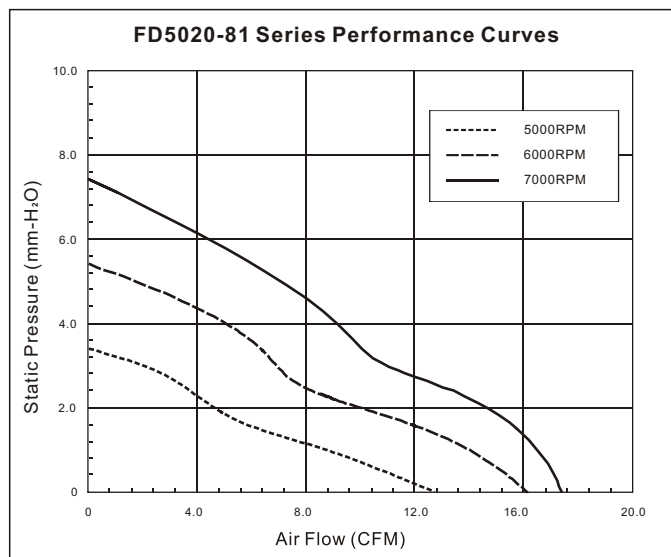
Specifications are subject to change without notice

Accessories :

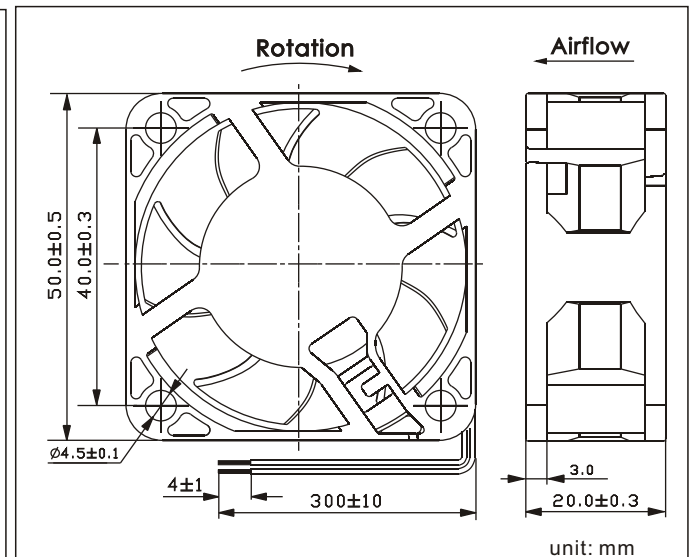
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-050	N/A	N/A	N/A

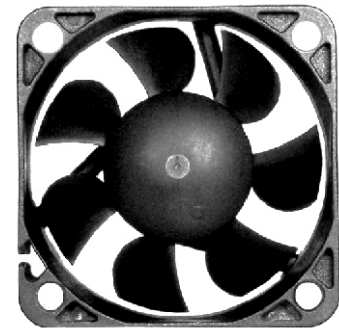
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 29 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page4)
FD5025B12W1-81 (★)	B,C,L,S	12	8.0~13.8	40	0.48	2,500	8.50	1.10	14.30	P,M,U,X
FD5025B12W3-81 (★)	B,C,L,S		6.0~13.8	60	0.72	3,500	12.40	2.20	21.80	P,M,U,X
FD5025B12W5-81 (★)	B,C,L,S		6.0~13.8	110	1.32	4,500	17.80	3.40	28.00	P,M,U,X
FD5025B12W7-81 (★)	B,C,L,S		6.0~13.8	210	2.52	5,500	21.60	4.70	33.90	P,M,U,X
FD5025B12W9-81 ★	B,C		6.0~13.8	290	3.48	6,500	25.50	6.40	38.60	P,M,U,X
FD5025B24W3-81 (★)	B,C,L,S	24	18.0~27.6	50	1.20	3,500	12.40	2.20	21.80	P,M,U,X
FD5025B24W5-81 (★)	B,C,L,S		12.0~27.6	70	1.68	4,500	17.80	3.40	28.00	P,M,U,X
FD5025B24W7-81 ★	B,C,L,S		12.0~27.6	110	2.64	5,500	21.60	4.70	33.90	P,M,U,X
FD5025B24W9-81 ★	B,C		12.0~27.6	190	4.56	6,500	25.50	6.40	38.60	P,M,U,X

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- If model with "★", auto restart protection built in; If model with "(★)", auto restart protection is optional.
- For additional function availability type, please refer to the notes of page 4.

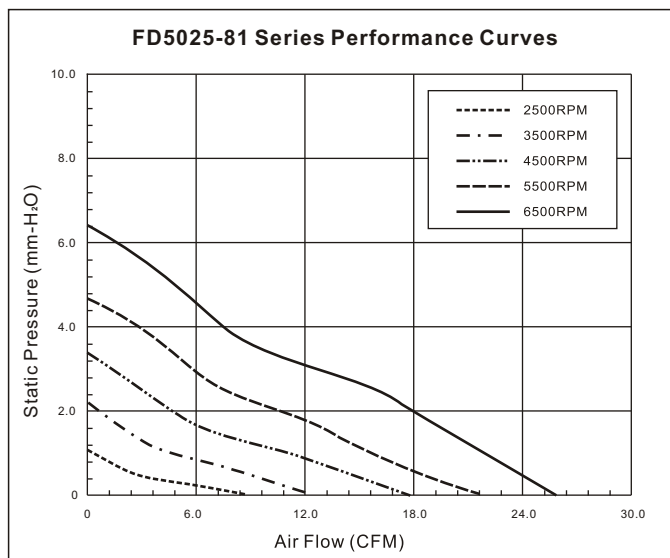
Specifications are subject to change without notice

Accessories :

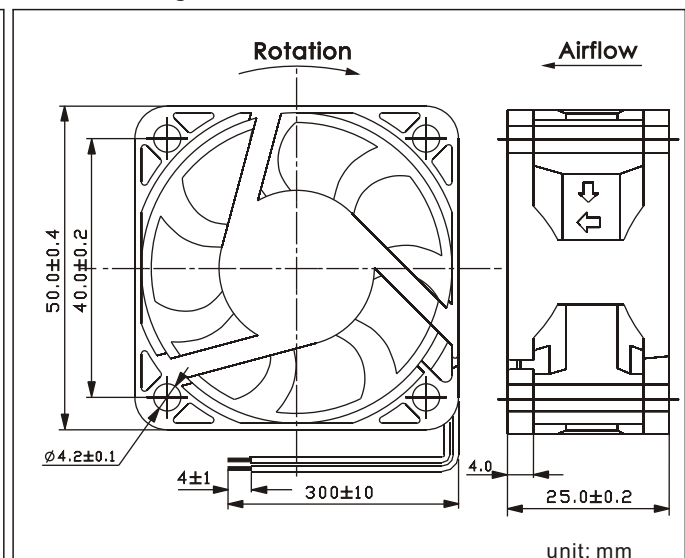
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-050	N/A	N/A	N/A

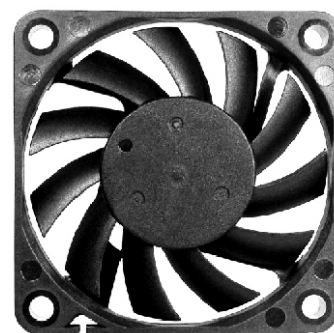
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 13 g



DC Brushless Fan

Excellence

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD6010B05W1-81	B,C,L,S	5	4.0~5.5	120	0.60	3,000	12.40	1.50	26.80	P,U,X
FD6010B05W2-81	B,C,L,S		4.0~5.5	210	1.05	3,600	14.30	2.20	31.70	P,U,X
FD6010B12W01-81 ※	B,C,L,S	12	10.8~13.8	20	0.24	1,800	7.70	0.60	15.10	P,U,X
FD6010B12W00-81 ※	B,C,L,S		10.8~13.8	50	0.60	2,400	10.30	1.00	21.30	P,U,X
FD6010B12W1-81	B,C,L,S		8.0~13.8	80	0.96	3,000	12.40	1.50	26.80	P,U,X
FD6010B12W2-81	B,C,L,S		6.0~13.8	120	1.44	3,600	14.30	2.20	31.70	P,U,X
FD6010B12W3-81	B,C,L,S		6.0~13.8	170	2.04	4,200	17.00	3.10	36.10	P,U,X
FD6010B12W5-81	B,C,L,S		6.0~13.8	250	3.00	4,800	19.20	4.00	39.80	P,U,X
FD6010B24W1-81	B,C,L,S	24	18.0~27.6	70	1.68	3,000	12.40	1.50	26.80	P,U,X
FD6010B24W2-81	B,C,L,S		12.0~27.6	90	2.16	3,600	14.30	2.20	31.70	P,U,X
FD6010B24W3-81	B,C,L,S		12.0~27.6	120	2.88	4,200	17.00	3.10	36.10	P,U,X

• For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".

Specifications are subject to change without notice

• If model with "※", the safety is pending.

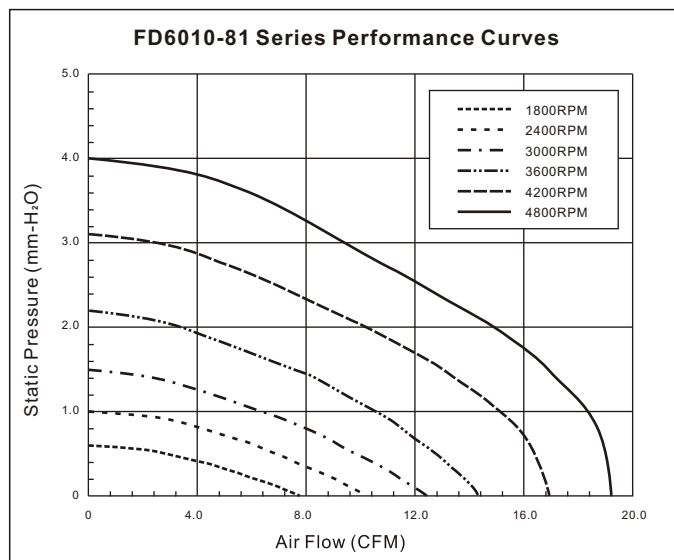
• For additional function availability type, please refer to the notes of page 4.

Accessories :

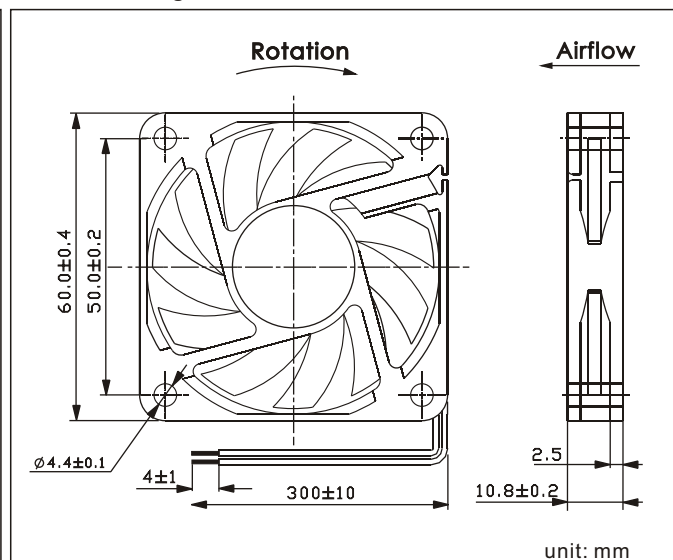
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-060	FGP-060	FPF-060	FFA-060

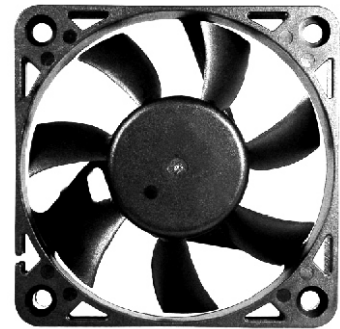
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 41 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD6015B05W3-81	B,C,L,S	5	4.0~5.5	120	0.60	3,000	15.60	2.20	24.40	P,U,X
FD6015B05W5-81	B,C,L,S		4.0~5.5	260	1.30	3,800	20.40	3.70	30.20	P,U,X
FD6015B05W7-81 ★	B,C,L,S		4.0~5.5	360	1.80	4,600	24.70	5.10	35.60	P,U,X
FD6015B12W3-81	B,C,L,S	12	6.0~13.8	60	0.72	3,000	15.60	2.20	24.40	P,U,X
FD6015B12W5-81	B,C,L,S		6.0~13.8	120	1.44	3,800	20.40	3.70	30.20	P,U,X
FD6015B12W7-81	B,C,L,S		6.0~13.8	180	2.16	4,600	24.70	5.10	35.60	P,U,X
FD6015B12W9-81 ★	B,C,L,S		6.0~13.8	240	2.88	5,400	29.80	7.30	39.70	P,U,X
FD6015B24W3-81	B,C,L,S	24	12.0~27.6	50	1.20	3,000	15.60	2.20	24.40	P,U,X
FD6015B24W5-81	B,C,L,S		12.0~27.6	80	1.92	3,800	20.40	3.70	30.20	P,U,X
FD6015B24W7-81	B,C,L,S		12.0~27.6	110	2.64	4,600	24.70	5.10	35.60	P,U,X
FD6015B24W9-81 ★	B,C,L,S		12.0~27.6	160	3.84	5,400	29.80	7.30	39.70	P,U,X

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- If model with "★", auto restart protection built in.
- For additional function availability type, please refer to the notes of page 4.

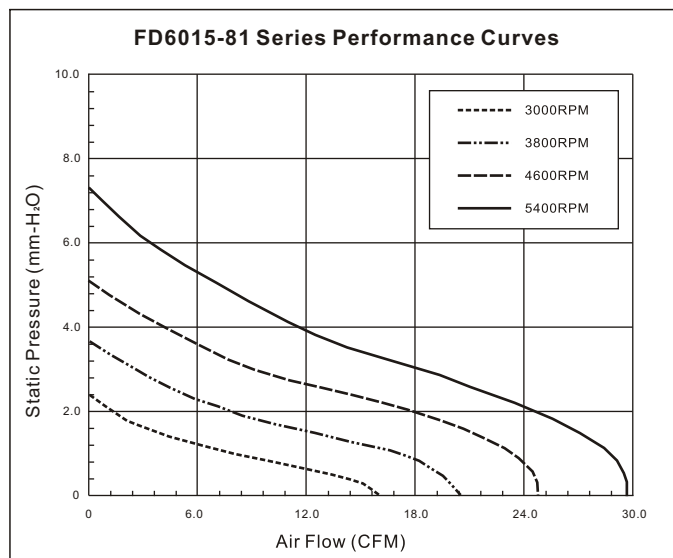
Specifications are subject to change without notice

Accessories :

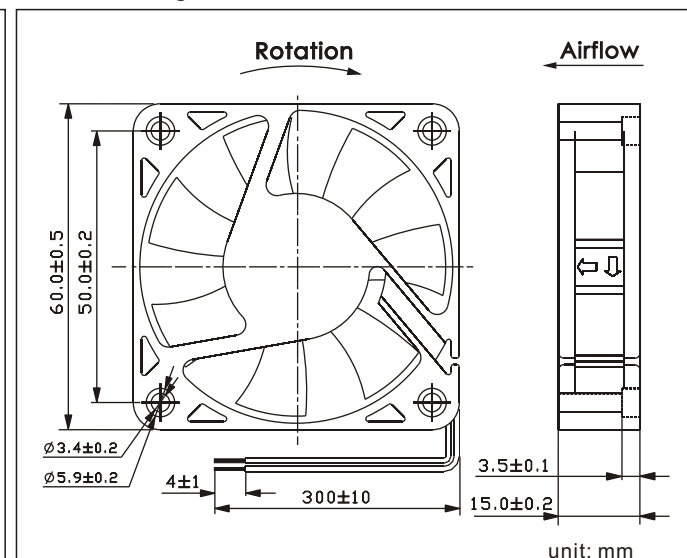
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-060	FGP-060	FPF-060	FFA-060

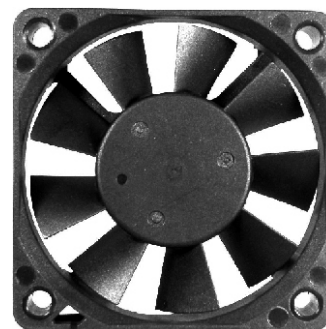
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 36 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD6015B12W1-82 ※	B,C,L,S	12	9.0~13.8	50	0.60	2,200	10.60	1.30	20.40	P,U,X
FD6015B12W3-82	B,C,L,S		8.0~13.8	100	1.20	3,000	14.70	2.30	26.70	P,U,X
FD6015B12W5-82	B,C,L,S		8.0~13.8	150	1.80	3,800	18.70	3.70	32.50	P,U,X
FD6015B12W7-82	B,C,L,S		8.0~13.8	210	2.52	4,600	22.40	5.10	38.00	P,U,X
FD6015B12W9-82 ★	B,C,L,S		8.0~13.8	320	3.84	5,400	26.50	7.00	43.30	P,U,X

• For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".

Specifications are subject to change without notice

• If model with "★", auto restart protection built in; If model with "※", the safety is pending.

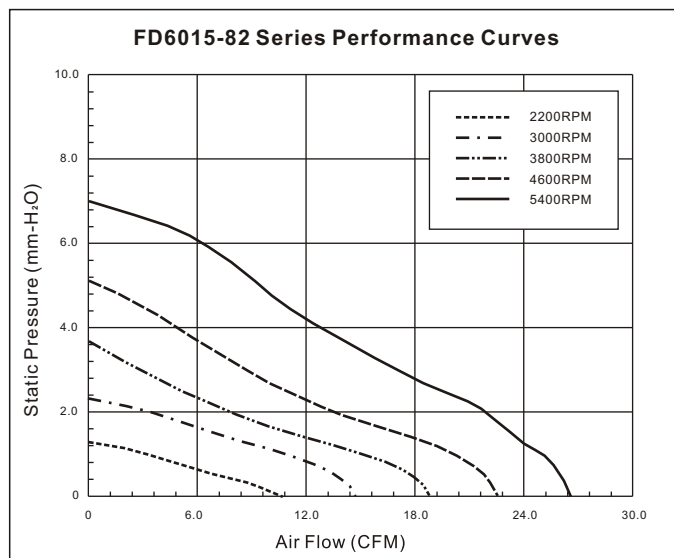
• For additional function availability type, please refer to the notes of page 4.

Accessories :

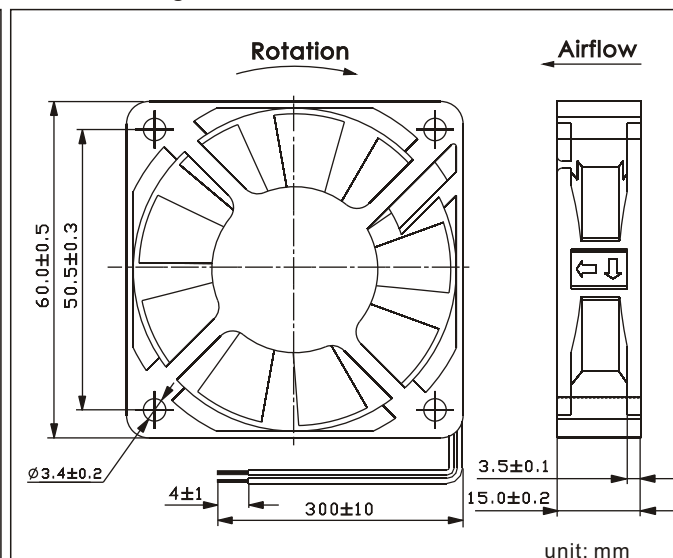
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-060	FGP-060	FPF-060	FFA-060

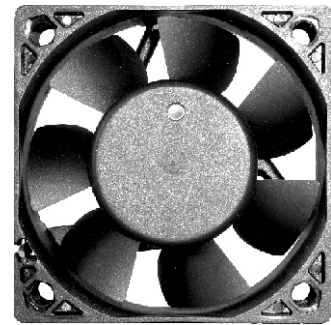
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 54 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD6020B12W1-41 ★	B,S	12	7.0~14.0	65	0.78	3,200	14.00	2.80	24.10	P,U,X
FD6020B12W3-41 ★	B,S		7.0~14.0	97	1.16	4,000	17.60	4.40	29.90	P,U,X
FD6020B12W5-41 ★	B,S		7.0~14.0	164	1.97	4,800	21.10	6.40	34.60	P,U,X
FD6020B12W7-41 ★	B,S		7.0~14.0	241	2.89	5,600	24.70	8.70	38.60	P,U,X
FD6020B24W1-41 ★	B,S	24	15.0~27.0	29	0.70	3,200	14.00	2.80	24.10	P,U,X
FD6020B24W3-41 ★	B,S		15.0~27.0	52	1.25	4,000	17.60	4.40	29.90	P,U,X
FD6020B24W5-41 ★	B,S		15.0~27.0	87	2.09	4,800	21.10	6.40	34.60	P,U,X
FD6020B24W7-41 ★	B,S		15.0~27.0	143	3.43	5,600	24.70	8.70	38.60	P,U,X
FD6020B24W9-41 ★※	B,S		15.0~27.0	204	4.90	6,400	28.00	11.20	41.80	P,U,X

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- If model with "★", auto restart protection built in ; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

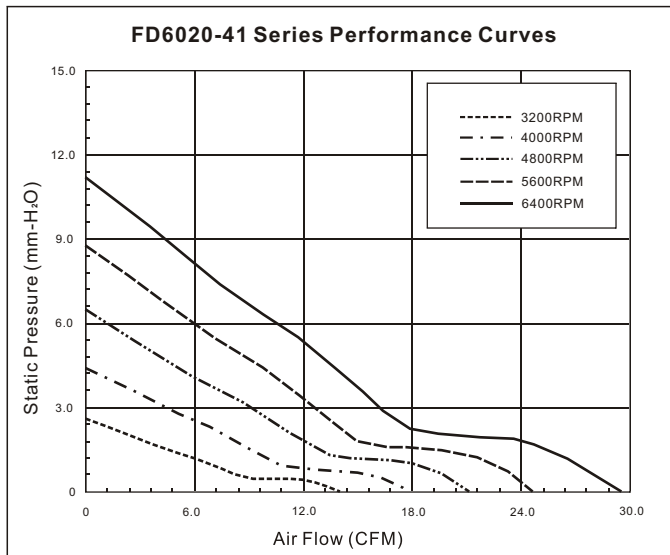
Specifications are subject to change without notice

Accessories :

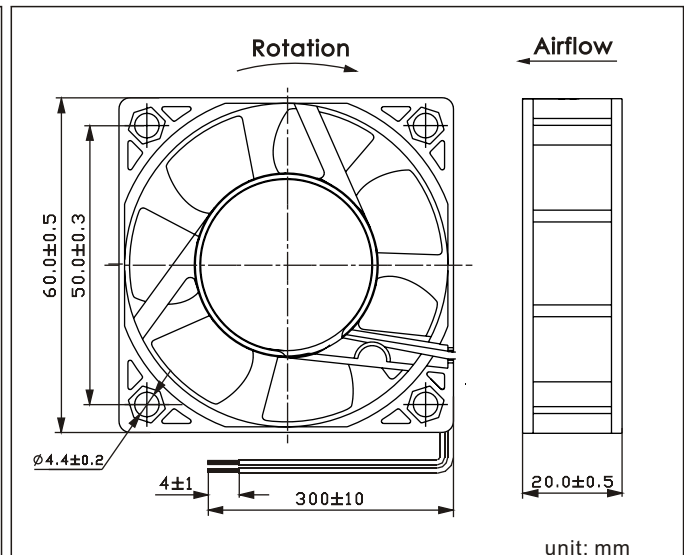
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-060	FGP-060	FPF-060	FFA-060

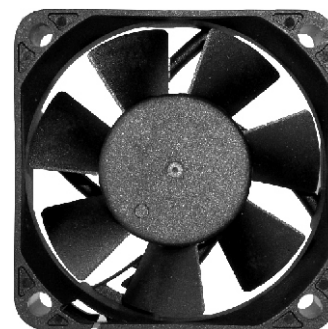
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 41 g



DC Brushless Fan

Excellence

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD6020B12W1-81	B	12	8.0~13.8	40	0.48	2,300	10.70	1.20	19.00	U
FD6020B12W2-81	B		8.0~13.8	50	0.60	2,900	13.40	2.00	22.70	U
FD6020B12W3-81	B		6.0~13.8	80	0.96	3,500	16.30	2.80	26.00	U
FD6020B12W5-81	B		6.0~13.8	100	1.20	4,100	19.10	3.70	30.40	U
FD6020B12W7-81 ※	B		6.0~13.8	130	1.56	4,700	21.90	4.80	33.60	U
FD6020B12W9-81 ★※	B		6.0~13.8	190	2.28	5,300	24.80	6.00	37.50	P,M,U,X

- If model with "★", auto restart protection built in; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

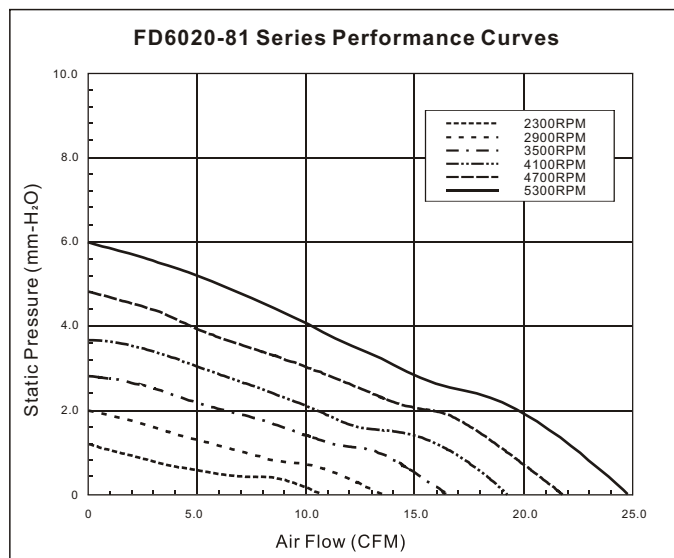
Specifications are subject to change without notice

Accessories :

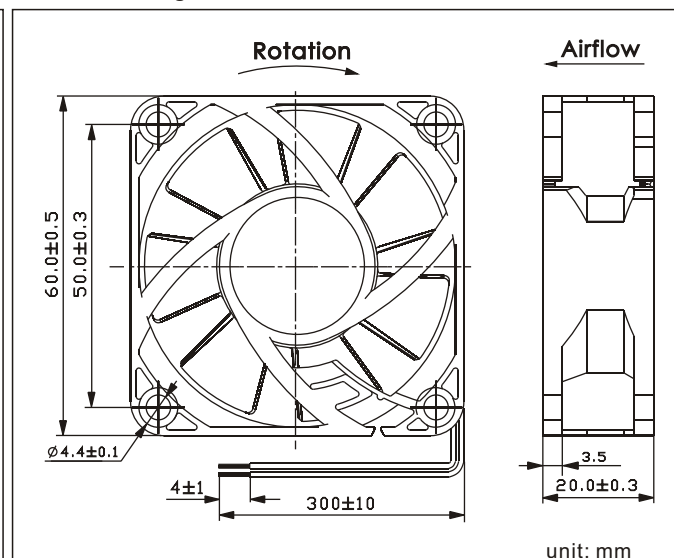
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-060	FGP-060	FPF-060	FFA-060

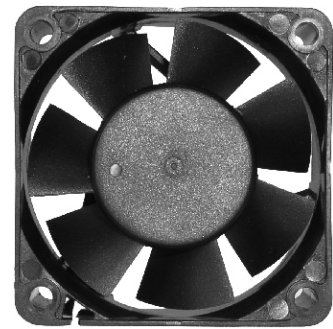
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 56 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD6025B12W3-21	B	12	7.0~13.2	80	0.96	2,800	16.00	2.40	23.10	P
FD6025B12W5-21	B		7.0~13.2	120	1.44	3,700	20.50	3.90	29.10	P
FD6025B12W7-21	B		7.0~13.2	150	1.80	4,300	25.80	5.60	33.50	P
FD6025B12W9-21 ※	B		7.0~13.2	210	2.52	5,200	29.70	6.40	39.90	P
FD6025B12W11-21	B		7.0~13.2	420	5.04	6,800	40.70	14.40	47.30	P
FD6025B24W3-21	B	24	12.0~26.4	50	1.20	2,800	16.00	2.40	23.10	P
FD6025B24W5-21	B		12.0~26.4	70	1.68	3,700	20.50	3.90	29.10	P
FD6025B24W7-21	B		12.0~26.4	90	2.16	4,300	25.80	5.60	33.50	P
FD6025B24W9-21 ※	B		12.0~26.4	110	2.64	5,200	29.70	6.40	39.90	P
FD6025B24W11-21	B		12.0~26.4	210	5.04	6,800	40.70	14.40	47.30	P
FD6025B48W3-21 ※	B	48	24.0~52.8	30	1.44	2,800	16.00	2.40	23.10	P
FD6025B48W5-21	B		24.0~52.8	45	2.16	3,700	20.50	3.90	29.10	P
FD6025B48W7-21	B		24.0~52.8	50	2.40	4,300	25.80	5.60	33.50	P
FD6025B48W9-21	B		24.0~52.8	80	3.84	5,200	29.70	6.40	39.90	P

• If model with "※", the safety is pending.

• For additional function availability type, please refer to the notes of page 4.

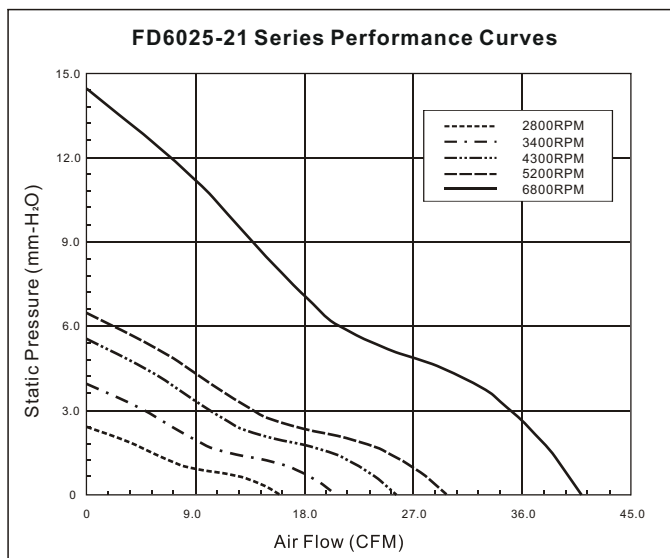
Specifications are subject to change without notice

Accessories :

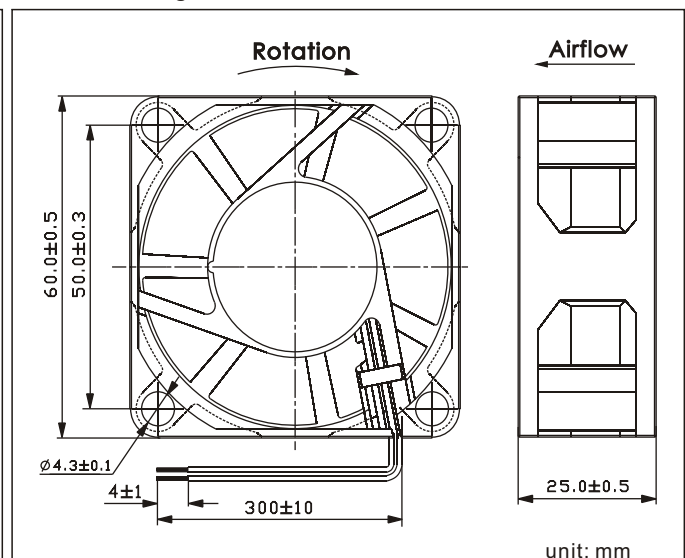
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-060	FGP-060	FPP-060	FFA-060

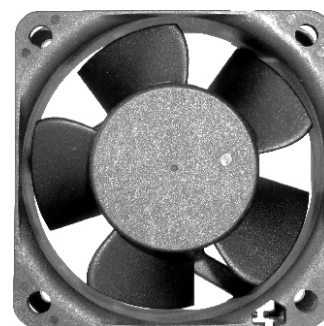
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 73.5 g



(Reverse Blow)

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD6025B12W1-41 ★	B,S	12	7.0~14.0	74	0.89	3,500	15.30	3.30	26.10	P,U,X
FD6025B12W3-41 ★	B,S		7.0~14.0	106	1.27	4,500	19.60	5.50	32.10	P,U,X
FD6025B12W5-41 ★	B,S		7.0~14.0	174	2.09	5,500	24.10	8.20	37.20	P,U,X
FD6025B12W7-41 ★	B,S		7.0~14.0	198	2.38	6,000	26.20	9.80	39.40	P,U,X
FD6025B12W9-41 ★	B,S		7.0~14.0	404	4.85	7,500	33.10	14.80	45.10	P,U,X
FD6025B24W1-41 ★	B,S	24	15.0~27.0	34	0.82	3,500	15.30	3.30	26.10	P,U,X
FD6025B24W3-41 ★	B,S		15.0~27.0	59	1.42	4,500	19.60	5.50	32.10	P,U,X
FD6025B24W5-41 ★	B,S		15.0~27.0	93	2.23	5,500	24.10	8.20	37.20	P,U,X
FD6025B24W7-41 ★	B,S		15.0~27.0	106	2.54	6,000	26.20	9.80	39.40	P,U,X
FD6025B24W9-41 ★	B,S		15.0~27.0	185	4.44	7,500	33.10	14.80	45.10	P,U,X

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- If model with "★", auto restart protection built in.
- For additional function availability type, please refer to the notes of page 4.

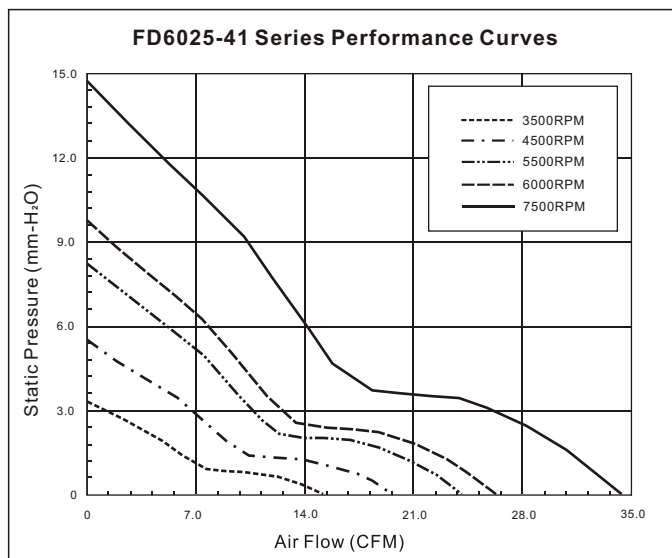
Specifications are subject to change without notice

Accessories :

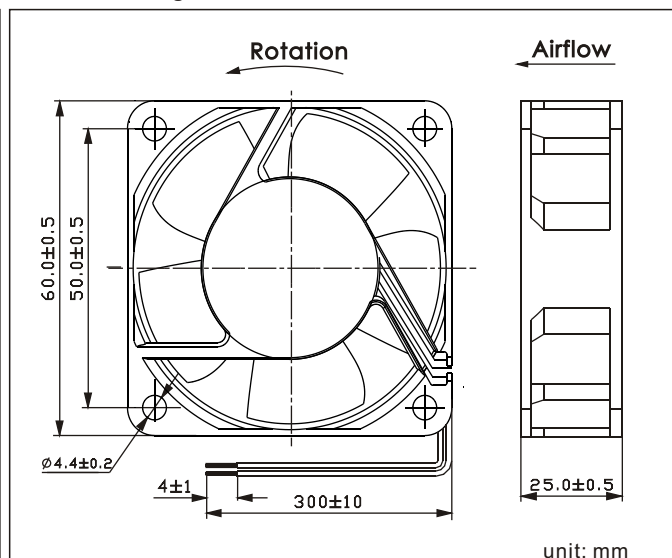
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-060	FGP-060	FPF-060	FFA-060

Characteristic Curves :



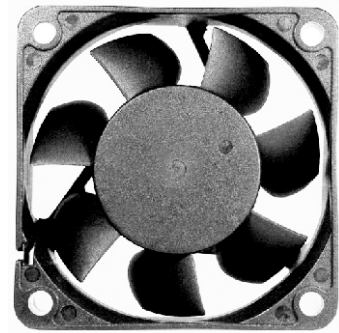
Out line Drawing :



DC Brushless Fan

Excellence

- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 44 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD6025B05W3-81	※	5	4.0~5.5	280	1.40	3,400	22.10	3.50	30.80	P,M,U,X
FD6025B05W5-81	★※		4.0~5.5	250	1.25	4,200	23.90	4.90	35.20	P,M,U,X
FD6025B05W7-81	★※		4.0~5.5	520	2.60	5,000	29.80	6.80	39.40	P,M,U,X
FD6025B12W01-81	(★)※		8.0~13.8	30	0.36	1,000	7.10	0.30	7.00	P,M,U,X,Y
FD6025B12W00-81	(★)※	12	8.0~13.8	50	0.60	1,800	8.70	0.90	19.40	P,M,U,X,Y
FD6025B12W1-81	※		6.0~13.8	70	0.84	2,600	15.70	2.00	23.90	P,M,U,X,Y
FD6025B12W3-81	※		6.0~13.8	130	1.56	3,400	22.10	3.50	30.80	P,M,U,X,Y
FD6025B12W5-81	※		6.0~13.8	180	2.16	4,200	23.90	4.90	35.20	P,M,U,X,Y
FD6025B12W7-81	★※		6.0~13.8	210	2.52	5,000	29.80	6.80	39.40	P,M,U,X
FD6025B12W9-81	★※		6.0~13.8	380	4.56	5,800	34.60	8.80	43.50	P,M,U,X
FD6025B12W11-81	★※		6.0~13.8	520	6.24	6,600	39.60	11.30	47.80	P,M,U,X
FD6025B24W00-81	(★)	24	18.0~27.6	30	0.72	1,800	8.70	0.90	19.40	P,M,U,X,Y
FD6025B24W1-81	(★)		12.0~27.6	50	1.20	2,600	15.70	2.00	23.90	P,M,U,X,Y
FD6025B24W3-81	(★)		12.0~27.6	70	1.68	3,400	22.10	3.50	30.80	P,M,U,X,Y
FD6025B24W5-81	(★)		12.0~27.6	140	3.36	4,200	23.90	4.90	35.20	P,M,U,X
FD6025B24W7-81	★		12.0~27.6	160	3.84	5,000	29.80	6.80	39.40	P,M,U,X
FD6025B24W9-81	★		12.0~27.6	210	5.04	5,800	34.60	8.80	43.50	P,M,U,X
FD6025B24W11-81	★		12.0~27.6	260	6.24	6,600	39.60	11.30	47.80	P,M,U,X
FD6025B48W00-81	★	48	38.0~52.8	30	1.44	1,800	8.70	0.90	19.40	P,M,U,X
FD6025B48W1-81	★		38.0~52.8	30	1.44	2,600	15.70	2.00	23.90	P,M,U,X
FD6025B48W3-81	★		38.0~52.8	60	2.88	3,400	22.10	3.50	30.80	P,M,U,X
FD6025B48W5-81	★		38.0~52.8	70	3.36	4,200	23.90	4.90	35.20	P,M,U,X
FD6025B48W7-81	★		38.0~52.8	90	4.32	5,000	29.80	6.80	39.40	P,M,U,X
FD6025B48W9-81	★		38.0~52.8	110	5.28	5,800	34.60	8.80	43.50	P,M,U,X
FD6025B48W11-81	★		38.0~52.8	160	7.68	6,600	39.60	11.30	47.80	P,M,U,X

- For "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "L", "S".
- If model with "★", auto restart protection built in; If model with "(★)", auto restart protection is optional.
- If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

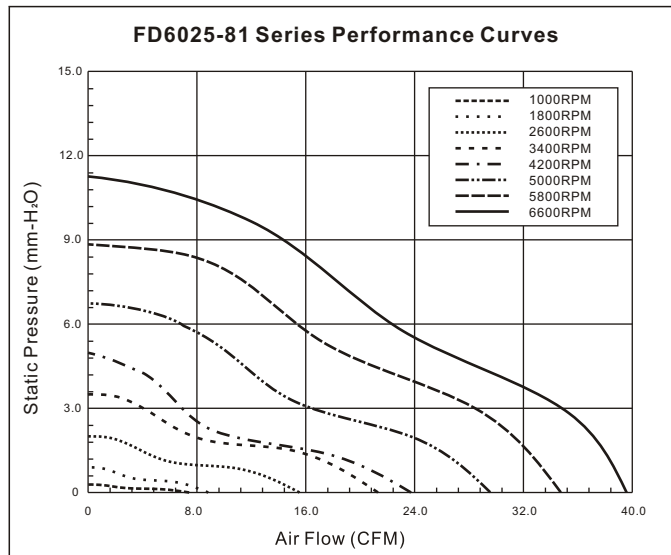
Specifications are subject to change without notice

Accessories :

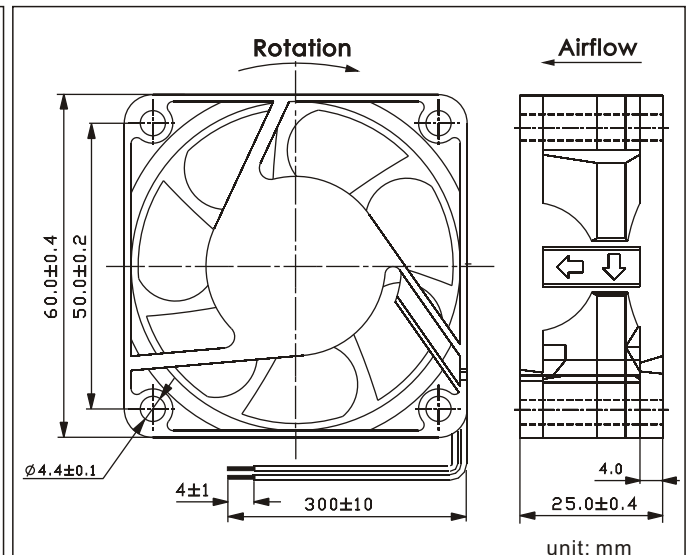
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-060	FGP-060	FPF-060	FFA-060

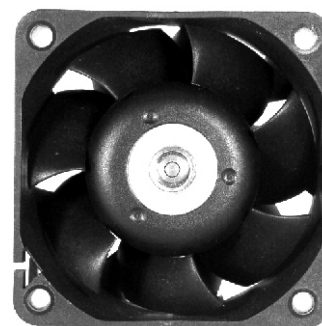
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 116 g



(S. O. B. Fan)

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD6038B12W3-11 ★	B	12	7.0~13.2	190	2.28	4,500	27.10	8.20	40.40	P,M
FD6038B12W5-11 ★	B		7.0~13.2	260	3.12	5,500	33.10	12.40	46.30	P,M
FD6038B12W7-11 ★	B		7.0~13.2	450	5.40	6,500	39.10	16.70	50.20	P,M
FD6038B12W9-11 ★	B		7.0~13.2	720	8.64	7,500	46.20	23.20	54.20	P,M
FD6038B24W3-11 ★	B	24	12.0~26.4	110	2.64	4,500	27.10	8.20	40.40	P,M
FD6038B24W5-11 ★	B		12.0~26.4	170	4.08	5,500	33.10	12.40	46.30	P,M
FD6038B24W7-11 ★	B		12.0~26.4	250	6.00	6,500	39.10	16.70	50.20	P,M
FD6038B24W9-11 ★	B		12.0~26.4	360	8.64	7,500	46.20	23.20	54.20	P,M
FD6038B48W3-11 ★	B	48	24.0~56.0	70	3.36	4,500	27.10	8.20	40.40	P,M
FD6038B48W5-11 ★	B		24.0~56.0	90	4.32	5,500	33.10	12.40	46.30	P,M
FD6038B48W7-11 ★	B		24.0~56.0	130	6.24	6,500	39.10	16.70	50.20	P,M
FD6038B48W9-11 ★	B		24.0~56.0	190	9.12	7,500	46.20	23.20	54.20	P,M

• If model with "★", auto restart protection built in.

• For additional function availability type, please refer to the notes of page 4.

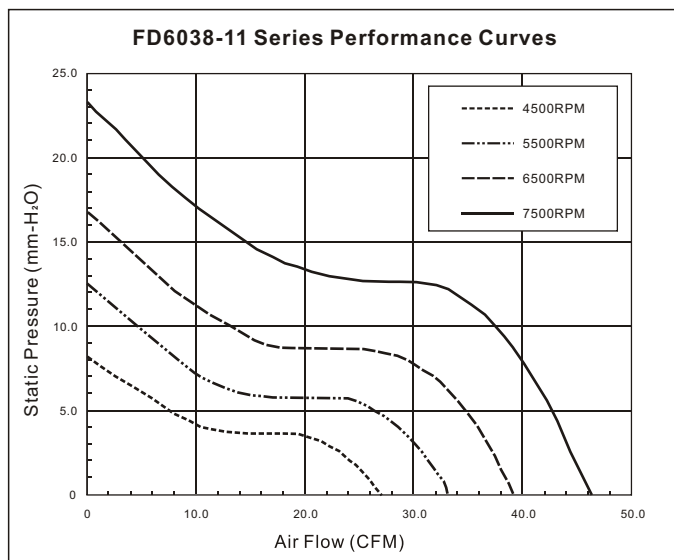
Specifications are subject to change without notice

Accessories :

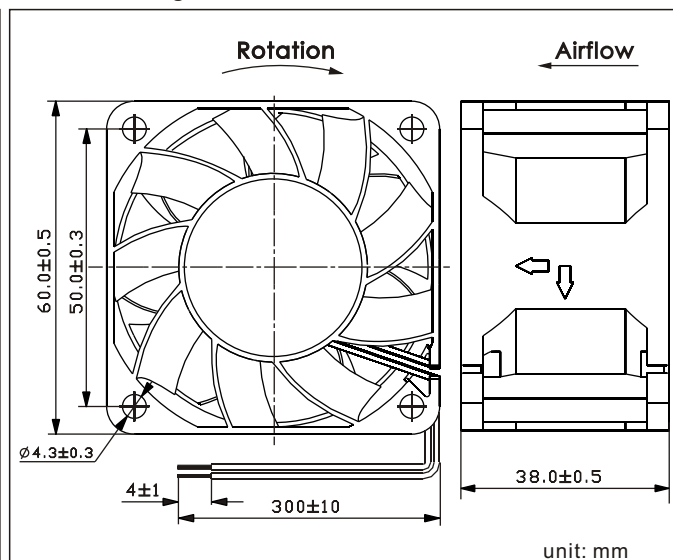
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-060	FGP-060	FPF-060	FFA-060

Characteristic Curves :



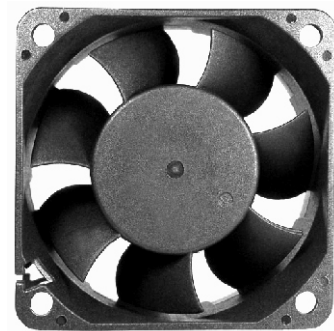
Out line Drawing :



DC Brushless Fan

Excellence

- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 95 g



(S. O. B. Fan)



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD6038B12W3-81 ★	B	12	8.0~13.8	260	3.12	5,000	34.50	8.30	52.50	P,M,U,X,Y
FD6038B12W5-81 ★	B		8.0~13.8	360	4.32	6,000	39.70	11.60	57.00	P,M,U,X,
FD6038B12W7-81 ★	B		8.0~13.8	530	6.36	7,000	44.70	15.50	60.50	P,M,U,X,
FD6038B24W3-81 ★	B	24	18.0~27.6	170	4.08	5,000	34.50	8.30	52.50	P,M,U,X,Y
FD6038B24W5-81 ★	B		18.0~27.6	200	4.80	6,000	39.70	11.60	57.00	P,M,U,X,
FD6038B24W7-81 ★	B		18.0~27.6	320	7.68	7,000	44.70	15.50	60.50	P,M,U,X,
FD6038B24W9-81 ★	B		18.0~27.6	390	9.36	8,000	50.60	18.00	63.10	P,M,U,X,
FD6038B48W3-81 ★※	B	48	30.0~52.8	80	3.84	5,000	34.50	8.30	52.50	P,M,U,X,
FD6038B48W5-81 ★※	B		30.0~52.8	110	5.28	6,000	39.70	11.60	57.00	P,M,U,X,
FD6038B48W7-81 ★※	B		30.0~52.8	160	7.68	7,000	44.70	15.50	60.50	P,M,U,X,

- If model with "★", auto restart protection built in; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

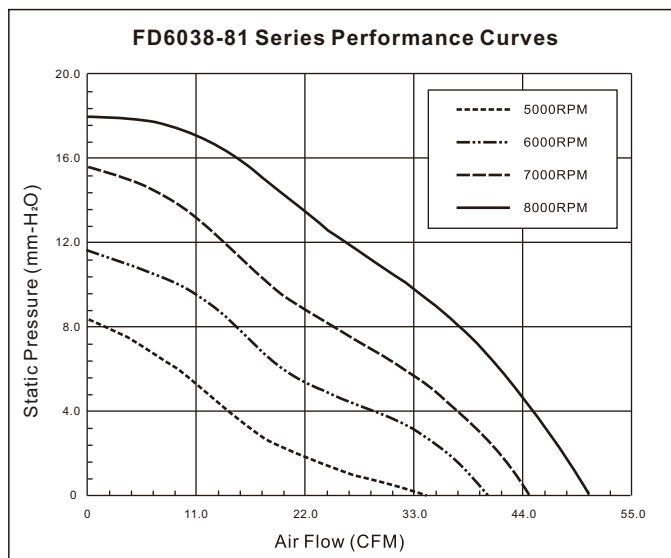
Specifications are subject to change without notice

Accessories :

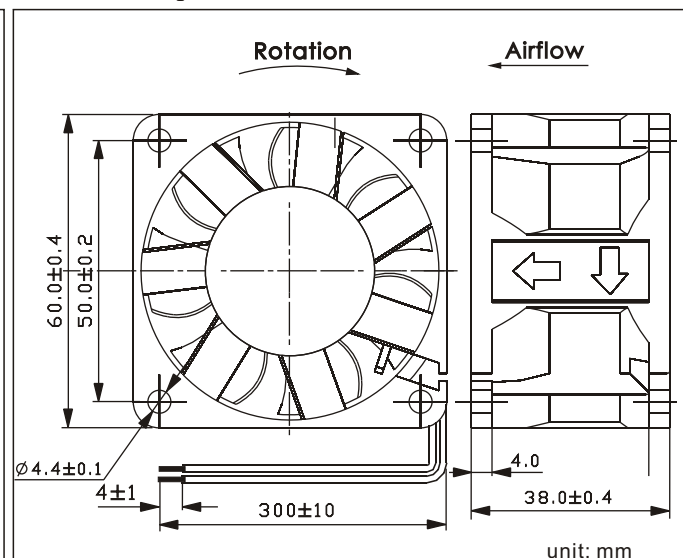
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-060	FGP-060	FPF-060	FFA-060

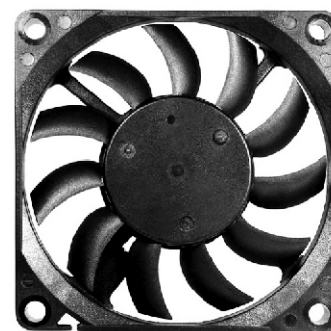
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #28 AWG
- Weight: 43 g



DC Brushless Fan

Excellence

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD7010B05W1-81 ※	B,C,L,S	5	4.0~5.5	180	0.90	2,600	19.20	1.50	25.50	P,M,U,X
FD7010B05W3-81 ※	B,C,L,S		4.0~5.5	260	1.30	3,200	24.30	2.30	31.60	P,M,U,X
FD7010B05W5-81 ★※	B,C,L,S		4.0~5.5	390	1.95	3,800	29.40	3.10	35.10	P,M,U,X
FD7010B12W1-81	B,C,L,S	12	6.0~13.8	80	0.96	2,600	19.20	1.50	25.50	P,M,U,X
FD7010B12W3-81	B,C,L,S		6.0~13.8	140	1.68	3,200	24.30	2.30	31.60	P,M,U,X
FD7010B12W5-81	B,C,L,S		6.0~13.8	210	2.52	3,800	29.40	3.10	35.10	P,M,U,X
FD7010B12W7-81 ★	B,C		6.0~13.8	370	4.44	4,400	29.80	4.10	39.30	P,M,U,X
FD7010B12W9-81 ★	B,C		6.0~13.8	330	3.96	5,000	34.90	5.10	42.10	P,M,U,X
FD7010B24W1-81	B,C,L,S	24	12.0~27.6	80	1.92	2,600	19.20	1.50	25.50	P,M,U,X
FD7010B24W3-81	B,C,L,S		12.0~27.6	110	2.64	3,200	24.30	2.30	31.60	P,M,U,X
FD7010B24W5-81	B,C,L,S		12.0~27.6	150	3.60	3,800	29.40	3.10	35.10	P,M,U,X
FD7010B24W7-81 ★	B,C		12.0~27.6	180	4.32	4,400	29.80	4.10	39.30	P,M,U,X

• For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".

Specifications are subject to change without notice

• If model with "★", auto restart protection built in; If model with "※", the safety is pending.

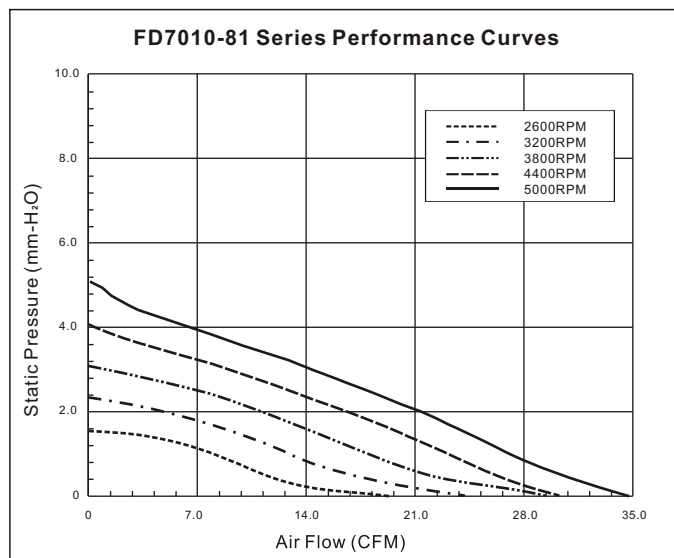
• For additional function availability type, please refer to the notes of page 4.

Accessories :

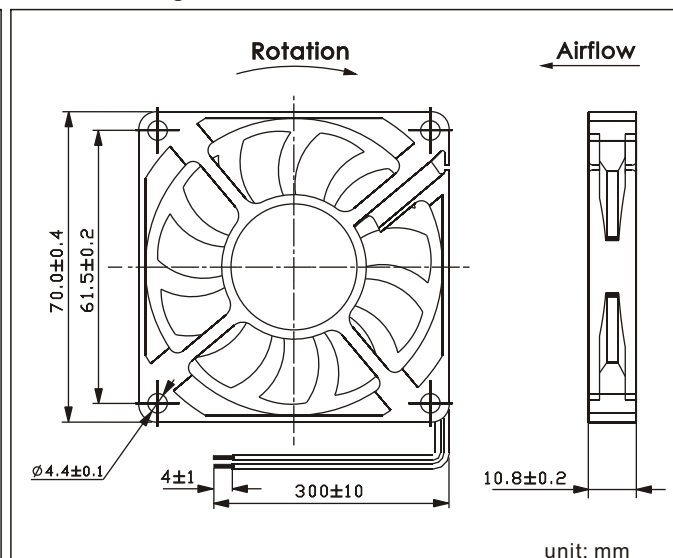
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-070	N/A	N/A	N/A

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 57 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD7015B12W1-81 ★※	B,C,L,S	12	8.0~13.8	50	0.60	1,400	12.50	0.70	18.80	P,M,U,X
FD7015B12W2-81 ★※	B,C,L,S		8.0~13.8	80	0.96	2,000	19.50	1.20	21.70	P,M,U,X
FD7015B12W3-81	B,C,L,S		6.0~13.8	100	1.20	2,600	24.60	2.10	27.10	P,M,U,X
FD7015B12W5-81	B,C,L,S		6.0~13.8	150	1.80	3,200	29.70	2.90	31.90	P,M,U,X
FD7015B12W7-81	B,C,L,S		6.0~13.8	240	2.88	3,800	36.50	4.30	36.60	P,M,U,X
FD7015B12W9-81	B,C,L,S		6.0~13.8	290	3.48	4,400	42.20	5.80	40.10	P,M,U,X
FD7015B24W3-81	B,C,L,S	24	12.0~27.6	80	1.92	2,600	24.60	2.10	27.10	P,M,U,X
FD7015B24W5-81	B,C,L,S		12.0~27.6	90	2.16	3,200	29.70	2.90	31.90	P,M,U,X
FD7015B24W7-81	B,C,L,S		12.0~27.6	130	3.12	3,800	36.50	4.30	36.60	P,M,U,X

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- If model with "★", auto restart protection built in; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

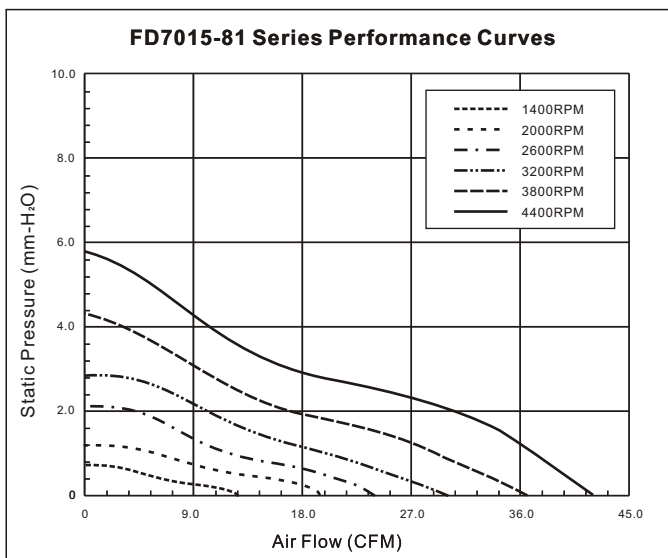
Specifications are subject to change without notice

Accessories :

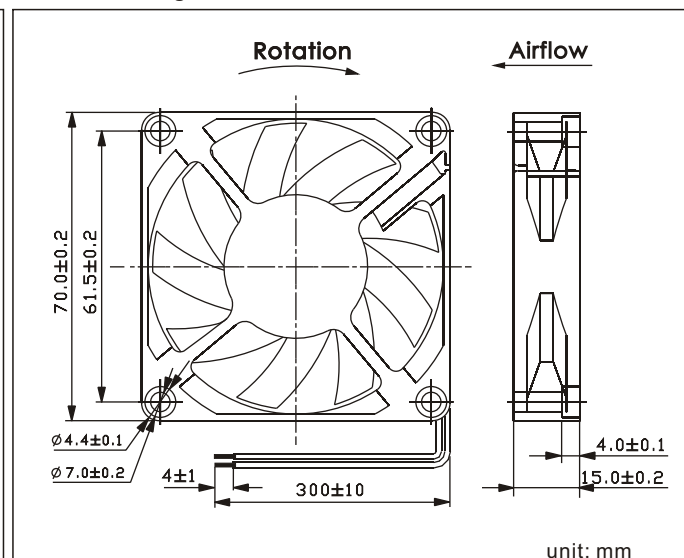
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-070	N/A	N/A	N/A

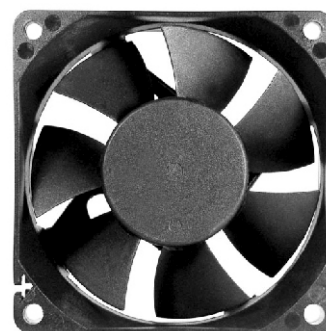
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 87 g



DC Brushless Fan

Excellence

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD7025B05W1-81 ※	B,L,S	5	4.0~5.5	180	0.90	2,600	22.10	2.50	26.00	P,M,U,X
FD7025B05W2-81 ※	B,L,S		4.0~5.5	240	1.20	3,200	27.20	3.60	32.60	P,M,U,X
FD7025B05W3-81 ★※	B,L,S		4.0~5.5	420	2.10	3,800	33.50	5.00	36.10	P,M,U,X
FD7025B12W1-81	B,L,S	12	8.0~13.8	100	1.20	2,600	22.10	2.50	26.00	P,M,U,X
FD7025B12W2-81	B,L,S		8.0~13.8	120	1.44	3,200	27.20	3.60	32.60	P,M,U,X
FD7025B12W3-81	B,L,S		8.0~13.8	180	2.16	3,800	33.50	5.00	36.10	P,M,U,X
FD7025B12W5-81 ★	B,L,S		8.0~13.8	260	3.12	4,400	39.40	6.80	41.90	P,M,U,X
FD7025B12W7-81 ★	B		8.0~13.8	410	4.92	5,000	44.40	8.30	45.10	P,M,U,X
FD7025B12W9-81 ★	B		8.0~13.8	700	8.40	5,600	49.90	10.50	48.50	P,M,U,X
FD7025B24W1-81	B,L,S	24	12.0~27.6	70	1.68	2,600	22.10	2.50	26.00	P,M,U,X
FD7025B24W2-81	B,L,S		12.0~27.6	90	2.16	3,200	27.20	3.60	32.60	P,M,U,X
FD7025B24W3-81	B,L,S		12.0~27.6	150	3.60	3,800	33.50	5.00	36.10	P,M,U,X
FD7025B24W5-81 ★	B,L,S		12.0~27.6	210	5.04	4,400	39.40	6.80	41.90	P,M,U,X
FD7025B24W7-81 ★	B		12.0~27.6	300	7.20	5,000	44.40	8.30	45.10	P,M,U,X
FD7025B24W9-81 ★	B		12.0~27.6	400	9.60	5,600	49.90	10.50	48.50	P,M,U,X

- For "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "L", "S".
- If model with "★", auto restart protection built in; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

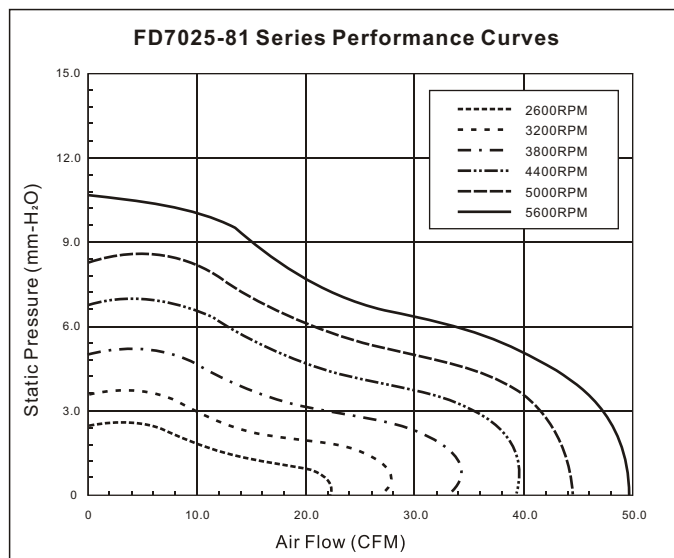
Specifications are subject to change without notice

Accessories :

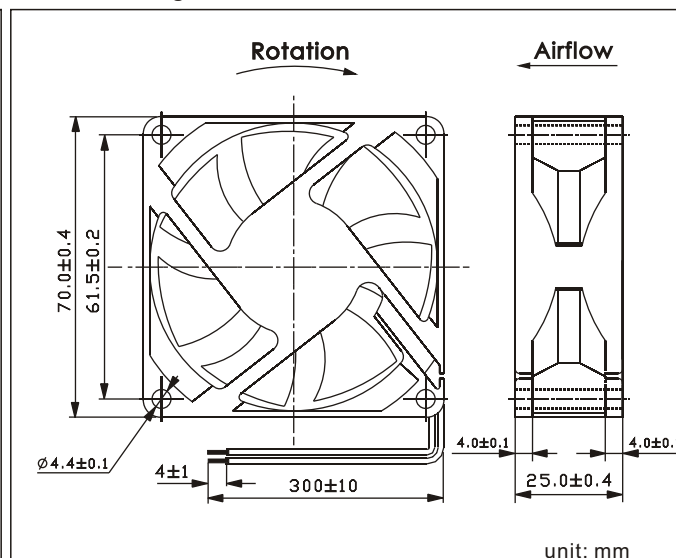
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-070	N/A	N/A	N/A

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 57 g



(S. O. B. Fan)



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD7025B05W1-82 ※	B	5	4.0~5.5	210	1.05	2,600	28.30	3.10	32.80	P,M,U,X
FD7025B05W2-82 ★※	B		4.0~5.5	370	1.85	3,200	34.70	4.60	38.50	P,M,U,X
FD7025B05W3-82 ★※	B		4.0~5.5	570	2.85	3,800	39.00	6.50	42.40	P,M,U,X
FD7025B12W1-82	B	12	8.0~13.8	110	1.32	2,600	28.30	3.10	32.80	P,M,U,X,Y
FD7025B12W2-82	B		8.0~13.8	140	1.68	3,200	34.70	4.60	38.50	P,M,U,X,Y
FD7025B12W3-82	B		8.0~13.8	200	2.40	3,800	39.00	6.50	42.40	P,M,U,X,Y
FD7025B12W5-82 ★	B		8.0~13.8	310	3.72	4,400	44.60	8.90	46.80	P,M,U,X
FD7025B12W7-82 ★	B		8.0~13.8	510	6.12	5,000	54.00	10.80	50.80	P,M,U,X
FD7025B12W9-82 ★	B	24	8.0~13.8	580	6.96	5,600	59.40	14.20	53.50	P,M,U,X
FD7025B24W1-82	B		12.0~27.6	80	1.92	2,600	28.30	3.10	32.80	P,M,U,X,Y
FD7025B24W2-82	B		12.0~27.6	110	2.64	3,200	34.70	4.60	38.50	P,M,U,X,Y
FD7025B24W3-82	B		12.0~27.6	150	3.60	3,800	39.00	6.50	42.40	P,M,U,X
FD7025B24W5-82 ★	B		12.0~27.6	200	4.80	4,400	44.60	8.90	46.80	P,M,U,X
FD7025B24W7-82 ★	B		12.0~27.6	260	6.24	5,000	54.00	10.80	50.80	P,M,U,X
FD7025B24W9-82 ★	B		12.0~27.6	330	7.92	5,600	59.40	14.20	53.50	P,M,U,X

- If model with "★", auto restart protection built in; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

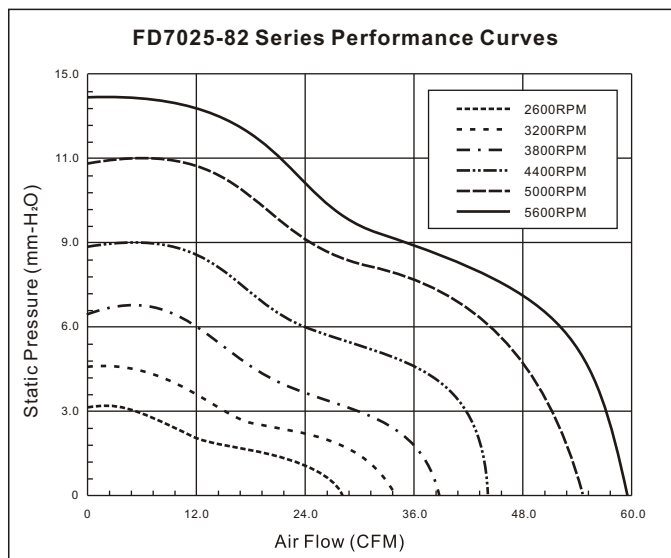
Specifications are subject to change without notice

Accessories :

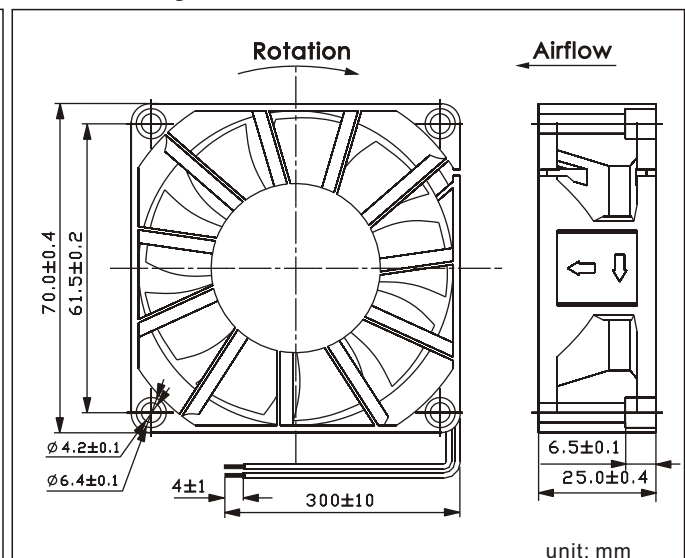
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-070	N/A	N/A	N/A

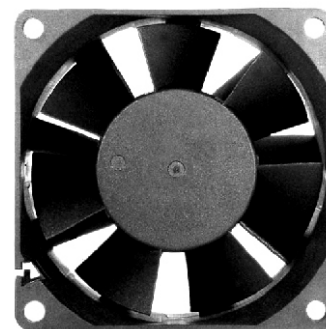
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 122 g



(S. O. B. Fan)

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD7038B12W1-81 ★	B	12	8.0~13.8	130	1.56	2,600	29.70	3.20	32.10	P,M,U,X
FD7038B12W3-81 ★	B		8.0~13.8	160	1.92	3,200	34.90	4.70	37.40	P,M,U,X
FD7038B12W5-81 ★	B		8.0~13.8	240	2.88	3,800	41.30	6.60	41.90	P,M,U,X
FD7038B12W7-81 ★	B		8.0~13.8	320	3.84	4,400	49.60	8.70	45.20	P,M,U,X
FD7038B12W9-81 ★	B		8.0~13.8	430	5.16	5,000	57.10	11.10	48.90	P,M,U,X
FD7038B12W11-81 ★	B		8.0~13.8	680	8.16	5,600	64.70	13.90	52.90	P,M,U,X
FD7038B24W1-81 ★	B	24	18.0~27.6	60	1.44	2,600	29.70	3.20	32.10	P,M,U,X
FD7038B24W3-81 ★	B		18.0~27.6	80	1.92	3,200	34.90	4.70	37.40	P,M,U,X
FD7038B24W5-81 ★	B		18.0~27.6	100	2.40	3,800	41.30	6.60	41.90	P,M,U,X
FD7038B24W7-81 ★	B		18.0~27.6	150	3.60	4,400	49.60	8.70	45.20	P,M,U,X
FD7038B24W9-81 ★	B		18.0~27.6	200	4.80	5,000	57.10	11.10	48.90	P,M,U,X
FD7038B24W11-81 ★	B		18.0~27.6	260	6.24	5,600	64.70	13.90	52.90	P,M,U,X
FD7038B48W1-81 ★※	B	48	38.0~52.8	80	3.84	2,600	29.70	3.20	32.10	P,M,U,X
FD7038B48W3-81 ★※	B		38.0~52.8	100	4.80	3,200	34.90	4.70	37.40	P,M,U,X
FD7038B48W5-81 ★※	B		38.0~52.8	160	7.68	3,800	41.30	6.60	41.90	P,M,U,X
FD7038B48W7-81 ★※	B		38.0~52.8	200	9.60	4,400	49.60	8.70	45.20	P,M,U,X

- If model with "★", auto restart protection built in; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

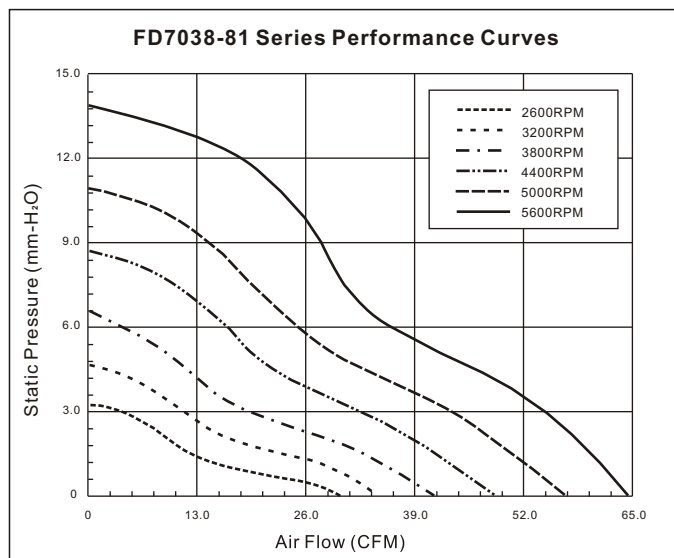
Specifications are subject to change without notice

Accessories :

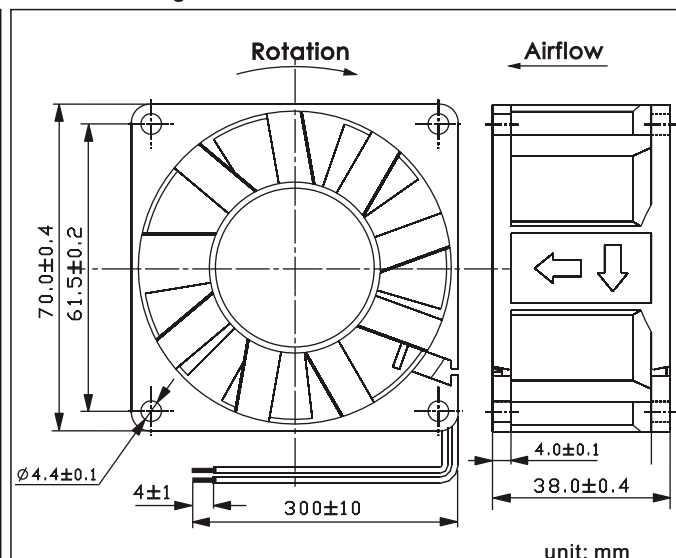
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-070	N/A	N/A	N/A

Characteristic Curves :



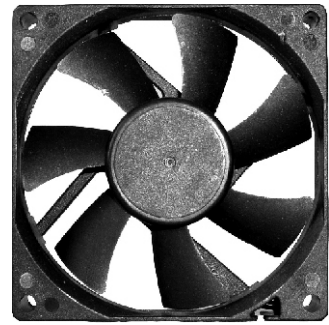
Outline Drawing :



DC Brushless Fan

Excellence

- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 55 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD8015B12W3-41 ★	B,S	12	7.0~14.0	92	1.10	2,400	24.80	1.90	26.80	P,U,X
FD8015B12W5-41 ★	B,S		7.0~14.0	127	1.52	2,800	28.90	2.50	30.50	P,U,X
FD8015B12W7-41 ★	B,S		7.0~14.0	172	2.06	3,200	32.80	3.20	33.90	P,U,X
FD8015B12W9-41 ★	B,S		7.0~14.0	308	3.70	4,000	41.30	5.10	42.40	P,U,X
FD8015B24W3-41 ★	B,S	24	15.0~27.0	49	1.18	2,400	24.80	1.90	26.80	P,U,X
FD8015B24W5-41 ★	B,S		15.0~27.0	70	1.68	2,800	28.90	2.50	30.50	P,U,X
FD8015B24W7-41 ★	B,S		15.0~27.0	87	2.09	3,200	32.80	3.20	33.90	P,U,X
FD8015B24W9-41 ★	B,S		15.0~27.0	143	3.43	4,000	41.30	5.10	42.40	P,U,X

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- If model with "★", auto restart protection built in.
- For additional function availability type, please refer to the notes of page 4.

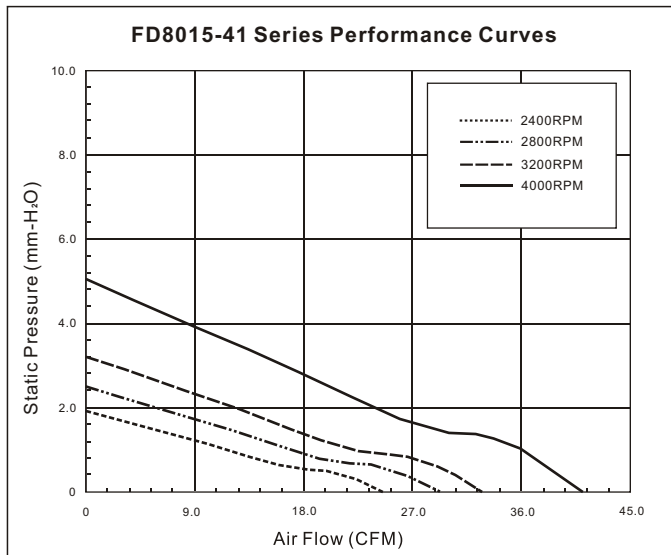
Specifications are subject to change without notice

Accessories :

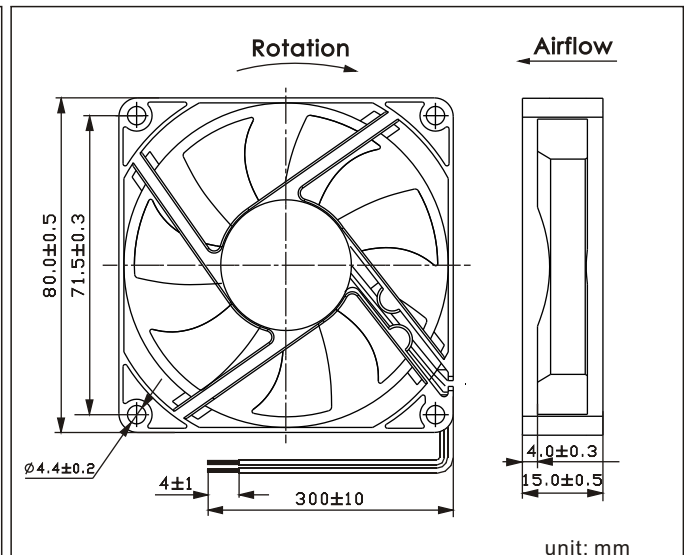
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-080	FGP-080	FPF-080	FFA-080

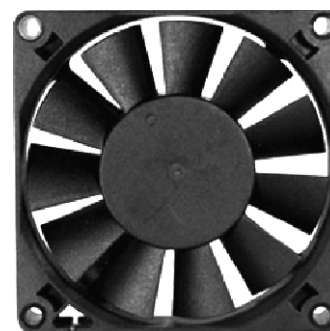
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 47 g



DC Brushless Fan

Excellence

Specification:

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD8015B12W1-81 (★)	B, C, L, S	12	8.0~13.8	110	1.32	2,500	29.70	2.90	30.90	P, M, U, X
FD8015B12W3-81 (★)	B, C, L, S		6.0~13.8	160	1.92	3,000	35.70	4.20	36.30	P, M, U, X
FD8015B12W5-81 (★)	B, C, L, S		6.0~13.8	270	3.24	3,500	40.70	5.60	41.00	P, M, U, X
FD8015B12W7-81 ★	B, C, L, S		6.0~13.8	380	4.56	4,000	47.50	7.40	43.40	P, M, U, X
FD8015B12W9-81 ★	B, C		6.0~13.8	580	6.96	4,500	55.10	9.00	46.50	P, M, U, X
FD8015B24W1-81 (★)	B, C, L, S	24	18.0~27.6	90	2.16	2,500	29.70	2.90	30.90	P, M, U, X
FD8015B24W3-81 (★)	B, C, L, S		12.0~27.6	140	3.36	3,000	35.70	4.20	36.30	P, M, U, X
FD8015B24W5-81 ★	B, C, L, S		12.0~27.6	180	4.32	3,500	40.70	5.60	41.00	P, M, U, X
FD8015B24W7-81 ★	B, C, L, S		12.0~27.6	210	5.04	4,000	47.50	7.40	43.40	P, M, U, X
FD8015B24W9-81 ★	B, C		12.0~27.6	370	8.88	4,500	55.10	9.00	46.50	P, M, U, X

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- If model with "★", auto restart protection built in; If model with "(★)", auto restart protection is optional.
- For additional function availability type, please refer to the notes of page 4.

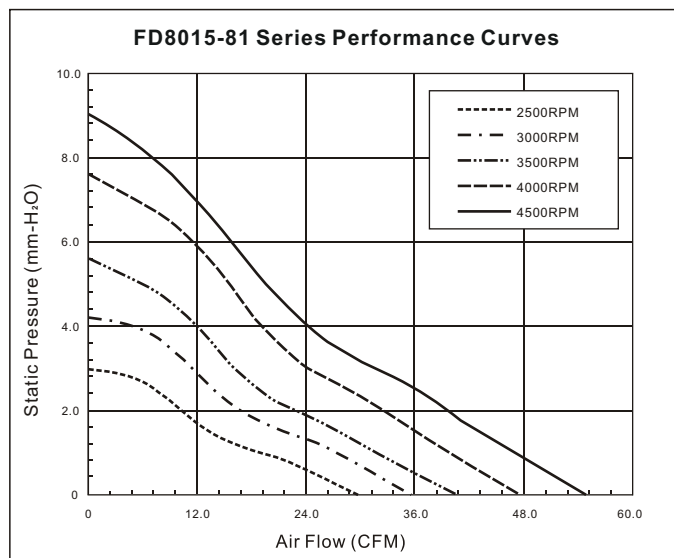
Specifications are subject to change without notice

Accessories:

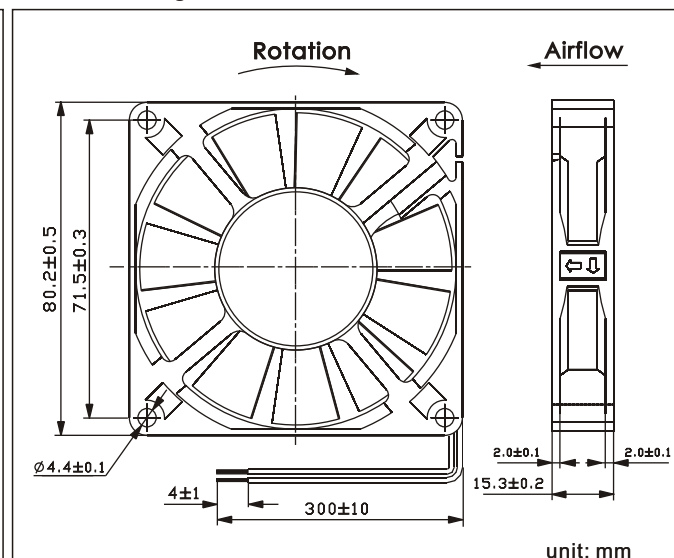
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-080	FGP-080	FPF-080	FFA-080

Characteristic Curves:



Out line Drawing:



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 59 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page4)
FD8015B12W1-82 (★)	B,C,L,S	12	6.0~13.8	100	1.20	2,000	30.00	1.80	25.00	P,M,U,X
FD8015B12W3-82 (★)	B,C,L,S		6.0~13.8	190	2.28	2,500	37.60	2.70	31.70	P,M,U,X
FD8015B12W5-82 (★)	B,C,L,S		6.0~13.8	260	3.12	3,000	43.10	4.00	35.60	P,M,U,X
FD8015B12W7-82 ★	B,C,L,S		6.0~13.8	430	5.16	3,300	47.50	5.00	40.50	P,M,U,X
FD8015B24W1-82 (★)	B,C,L,S	24	12.0~27.6	100	2.40	2,000	30.00	1.80	25.00	P,M,U,X
FD8015B24W3-82 (★)	B,C,L,S		12.0~27.6	120	2.88	2,500	37.60	2.70	31.70	P,M,U,X
FD8015B24W5-82 ★	B,C,L,S		12.0~27.6	150	3.60	3,000	43.10	4.00	35.60	P,M,U,X
FD8015B24W7-82 ★	B,C,L,S		12.0~27.6	260	6.24	3,300	47.50	5.00	40.50	P,M,U,X

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- If model with "★", auto restart protection built in; If model with "(★)", auto restart protection is optional.
- For additional function availability type, please refer to the notes of page 4.

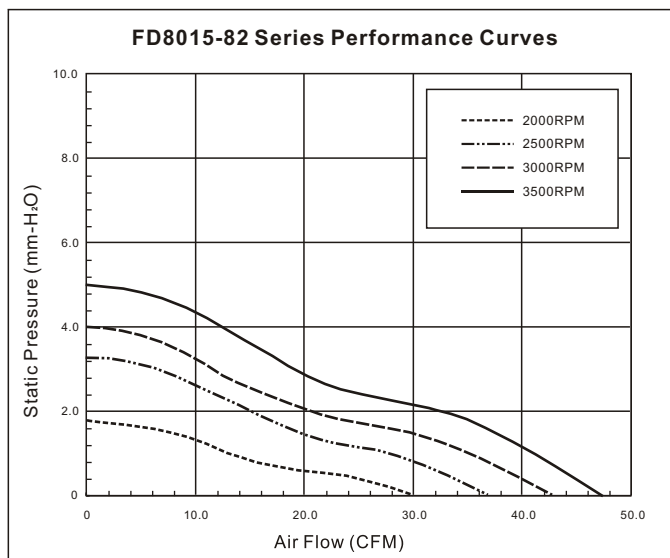
Specifications are subject to change without notice

Accessories :

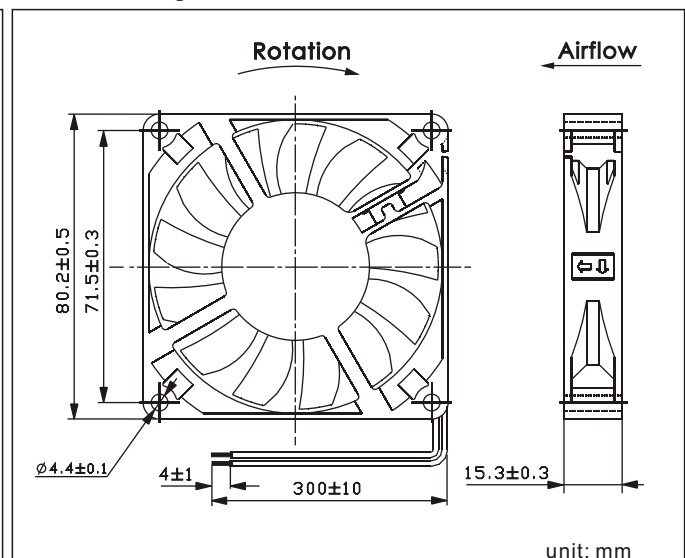
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-080	FGP-080	FPP-080	FFA-080

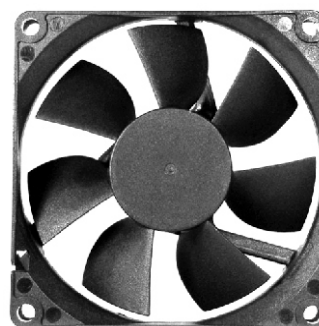
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 59 g



DC Brushless Fan

Excellence

Specification:

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD8020B05W3-81 ※	B,L,S	5	4.0~5.5	100	0.50	2,000	24.90	1.40	24.60	P,U,X
FD8020B05W5-81 ※	B,L,S		4.0~5.5	270	1.35	2,600	34.70	2.20	29.60	P,U,X
FD8020B05W7-81 ※	B,L,S		4.0~5.5	420	2.10	3,200	41.80	3.10	35.20	P,U,X
FD8020B12W3-81	B,L,S	12	6.0~13.8	70	0.84	2,000	24.90	1.40	24.60	P,U,X
FD8020B12W5-81	B,L,S		6.0~13.8	120	1.44	2,600	34.70	2.20	29.60	P,U,X
FD8020B12W7-81	B,L,S		6.0~13.8	180	2.16	3,200	41.80	3.10	35.20	P,U,X
FD8020B12W9-81 ★	B,L,S		6.0~13.8	270	3.24	3,800	49.70	3.90	39.40	P,U,X
FD8020B12W11-81 ★	B,C		6.0~13.8	450	5.40	4,400	57.30	5.10	43.70	P,U,X
FD8020B24W1-81 (★)	B,L,S	24	18.0~27.6	30	0.72	1,400	17.40	0.70	16.10	P,U,X
FD8020B24W3-81 (★)	B,L,S		12.0~27.6	50	1.20	2,000	24.90	1.40	24.60	P,U,X
FD8020B24W5-81 (★)	B,L,S		12.0~27.6	100	2.40	2,600	34.70	2.20	29.60	P,U,X
FD8020B24W7-81 (★)	B,L,S		12.0~27.6	140	3.36	3,200	41.80	3.10	35.20	P,U,X
FD8020B24W9-81 (★)	B,L,S		12.0~27.6	170	4.08	3,800	49.70	3.90	39.40	P,U,X
FD8020B24W11-81 ★	B		12.0~27.6	320	7.68	4,400	57.30	5.10	43.70	P,U,X
FD8020B24W12-81 ★	B		12.0~27.6	340	8.16	5,000	66.20	6.80	48.90	P,U,X
FD8020B48W7-81 ★	B,L,S	48	24.0~52.8	80	3.84	3,200	41.80	3.10	35.20	P,U,X
FD8020B48W9-81 ★	B,L,S		24.0~52.8	100	4.80	3,800	49.70	3.90	39.40	P,U,X
FD8020B48W11-81 ★	B,L,S		24.0~52.8	140	6.72	4,400	57.30	5.10	43.70	P,U,X

• For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".

Specifications are subject to change without notice

• If model with "★", auto restart protection built in; If model with "(★)", auto restart protection is optional.

• If model with "※", the safety is pending.

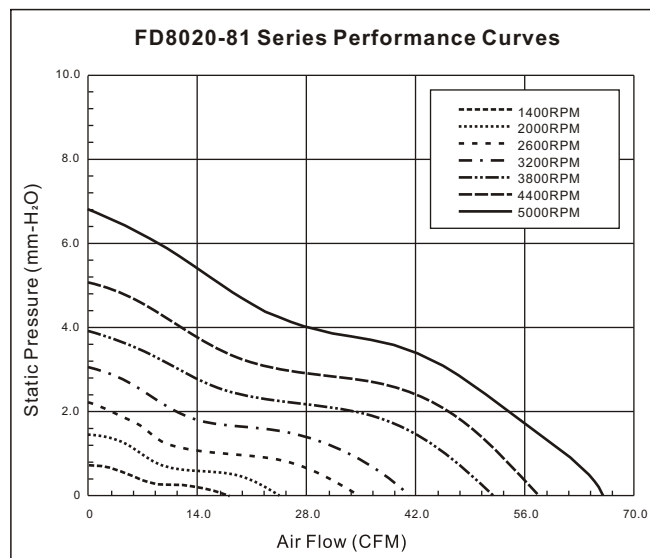
• For additional function availability type, please refer to the notes of page 4.

Accessories:

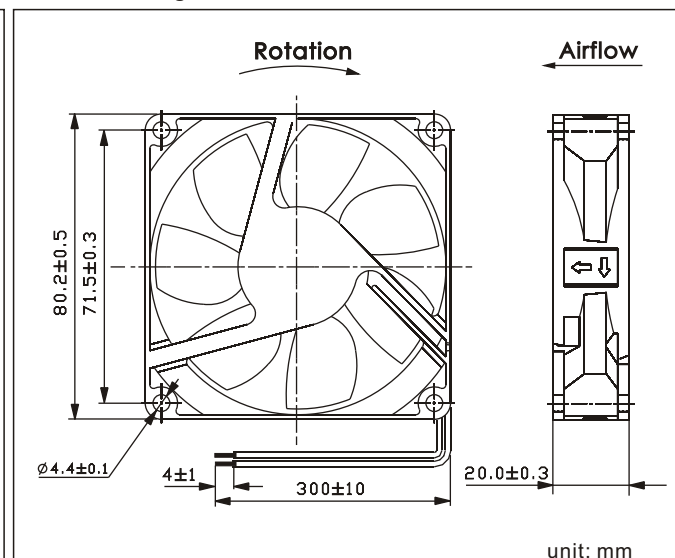
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-080	FGP-080	FPF-080	FFA-080

Characteristic Curves:



Out line Drawing:



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 100 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD8025B12W3-21	B,L,S	12	7.0~13.2	80	0.96	2,300	29.20	2.20	26.60	P,M
FD8025B12W5-21	B,L,S		7.0~13.2	130	1.56	2,900	37.50	3.70	31.50	P,M
FD8025B12W7-21	B,L,S		7.0~13.2	180	2.16	3,400	42.20	4.60	36.90	P,M
FD8025B12W9-21 ※	B,L,S		7.0~13.2	250	3.00	3,700	49.40	5.90	38.90	P,M
FD8025B12W11-21	B,L,S		7.0~13.2	390	4.68	4,500	60.10	8.60	43.30	P,M
FD8025B12W12-21	B,L,S		7.0~13.2	500	6.00	5,500	65.10	12.70	47.30	P,M
FD8025B24W3-21	B,L,S	24	12.0~26.4	60	1.44	2,300	29.20	2.20	26.60	P,M
FD8025B24W5-21	B,L,S		12.0~26.4	80	1.92	2,900	37.50	3.70	31.50	P,M
FD8025B24W7-21	B,L,S		12.0~26.4	100	2.40	3,400	42.20	4.60	36.90	P,M
FD8025B24W9-21 ※	B,L,S		12.0~26.4	140	3.36	3,700	49.40	5.90	38.90	P,M
FD8025B24W11-21	B,L,S		12.0~26.4	230	5.52	4,500	60.10	8.60	43.30	P,M
FD8025B48W5-21	B,L,S	48	24.0~56.0	45	2.16	2,900	37.50	3.70	31.50	P,M
FD8025B48W7-21	B,L,S		24.0~56.0	80	3.84	3,400	42.30	4.60	36.90	P,M
FD8025B48W9-21	B,L,S		24.0~56.0	85	4.08	3,700	49.40	5.90	38.90	P,M

- For "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "L", "S".
- If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

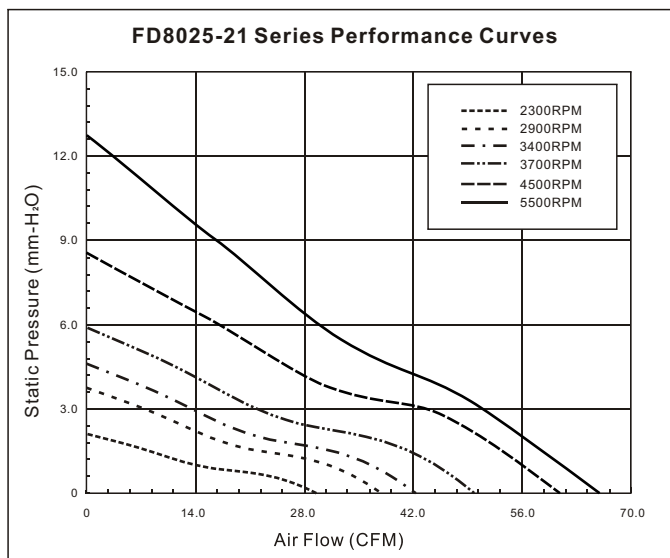
Specifications are subject to change without notice

Accessories :

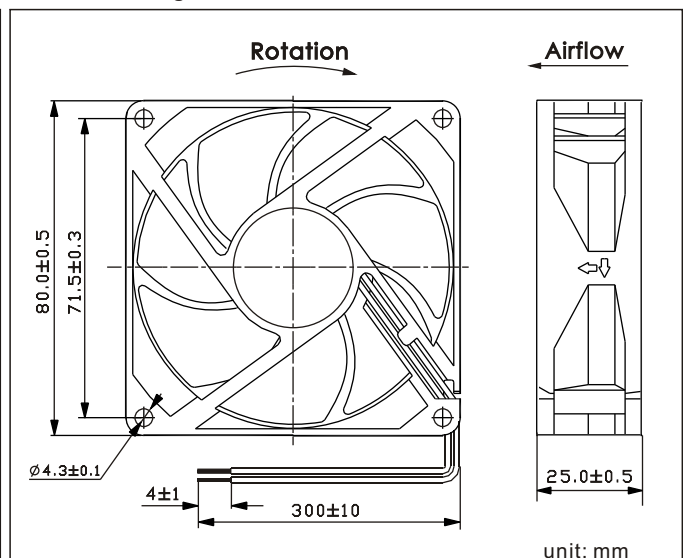
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-080	FGP-080	FPP-080	FFA-080

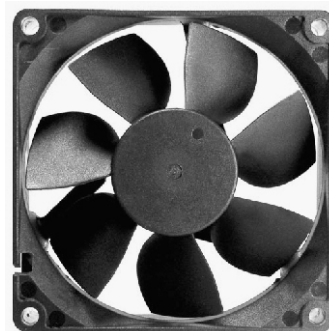
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 56 g



DC Brushless Fan

Excellence

Specification:

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD8025B05W4-82	B.L.S	5	4.3~5.5	120	0.60	1,800	25.10	1.30	22.60	P,M,U,X
FD8025B05W5-82	B.L.S		4.3~5.5	170	0.85	2,400	34.10	2.20	29.50	P,M,U,X
FD8025B05W7-82 ★	B.L.S		4.3~5.5	390	1.95	3,000	41.50	3.00	35.20	P,M,U,X
FD8025B12W3-82	B.L.S		8.0~13.8	40	0.48	1,200	16.80	0.60	14.10	P,M,U,X,Y
FD8025B12W4-82	B.L.S	12	8.0~13.8	80	0.96	1,800	25.10	1.30	22.60	P,M,U,X,Y
FD8025B12W5-82	B.L.S		8.0~13.8	110	1.32	2,400	34.10	2.20	29.50	P,M,U,X,Y
FD8025B12W5-82 ★	B.L.S		8.0~13.8	90	1.08	2,400	34.10	2.20	29.50	P,M,U,X,Y
FD8025B12W7-82	B.L.S		8.0~13.8	180	2.16	3,000	41.50	3.00	35.20	P,M,U,X,Y
FD8025B12W7-82 ★	B.L.S		8.0~13.8	180	2.16	3,000	41.50	3.00	35.20	P,M,U,X,Y
FD8025B12W9-82	B.L.S		8.0~13.8	260	3.12	3,600	50.00	4.00	39.60	P,M,U,X
FD8025B12W9-82 ★	B.L.S		8.0~13.8	260	3.12	3,600	50.00	4.00	39.60	P,M,U,X
FD8025B12W10-82 ★	B		8.0~13.8	540	6.48	4,200	60.30	5.30	43.80	P,M,U,X
FD8025B24W4-82	B.L.S	24	12.0~27.6	60	1.44	1,800	25.10	1.30	22.60	P,M,U,X,Y
FD8025B24W5-82	B.L.S		12.0~27.6	90	2.16	2,400	34.10	2.20	29.50	P,M,U,X,Y
FD8025B24W7-82	B.L.S		12.0~27.6	110	2.64	3,000	41.50	3.00	35.20	P,M,U,X
FD8025B24W9-82 ★	B.L.S		12.0~27.6	180	4.32	3,600	50.00	4.00	39.60	P,M,U,X
FD8025B24W10-82 ★	B	48	12.0~27.6	260	6.24	4,200	60.30	5.30	43.80	P,M,U,X
FD8025B24W11-82 ★	B		12.0~27.6	380	9.12	4,800	64.60	6.10	47.50	P,M,U,X
FD8025B48W4-82 ★※	B.L.S		24.0~52.8	50	2.40	1,800	25.10	1.30	22.60	P,M,U,X
FD8025B48W5-82 ★※	B.L.S		24.0~52.8	60	2.88	2,400	34.10	2.20	29.50	P,M,U,X
FD8025B48W7-82 ★※	B.L.S		24.0~52.8	100	4.80	3,000	41.50	3.00	35.20	P,M,U,X
FD8025B48W9-82 ★※	B.L.S		24.0~52.8	120	5.76	3,600	50.00	4.00	39.60	P,M,U,X
FD8025B48W10-82 ★※	B		24.0~52.8	160	7.68	4,200	60.30	5.30	43.80	P,M,U,X

• For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "L", "S".

Specifications are subject to change without notice

• If model with "★", auto restart protection built in; If model with "※", the safety is pending.

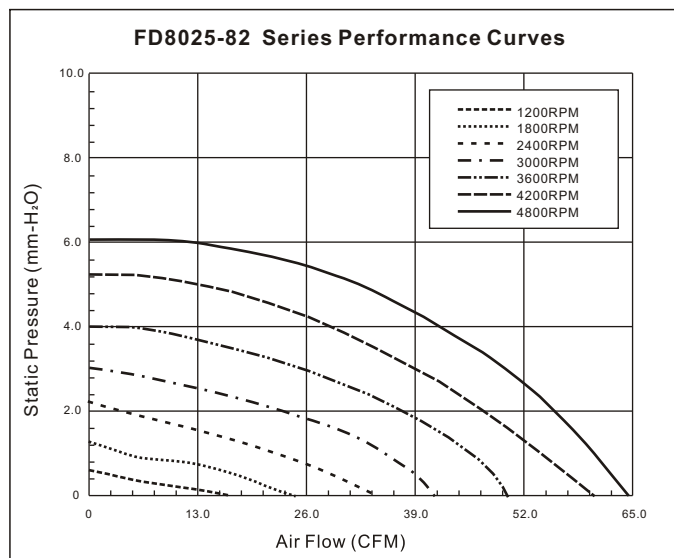
• For additional function availability type, please refer to the notes of page 4.

Accessories:

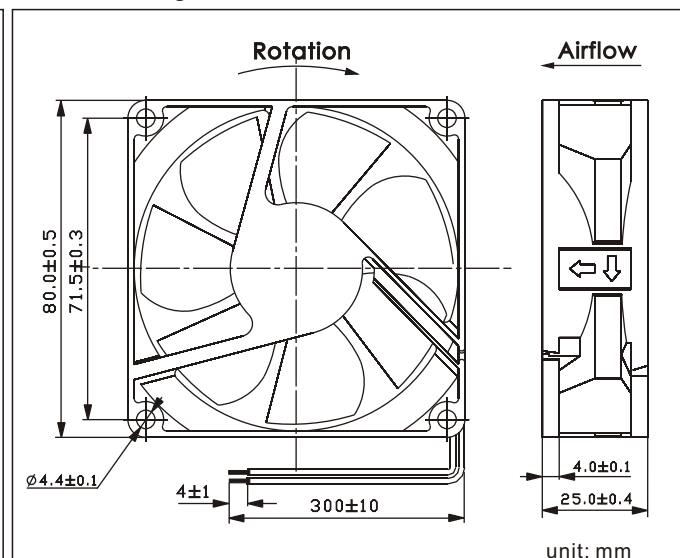
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-080	FGP-080	FPF-080	FFA-080

Characteristic Curves:



Out line Drawing:



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 65 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page4)
FD8025S12W3-85	S	12	6.0~13.8	60	0.72	1,800	18.80	1.30	19.20	P,M,U,X
FD8025S12W5-85	S		6.0~13.8	100	1.20	2,400	25.40	2.20	24.70	P,M,U,X
FD8025S12W7-85	S		6.0~13.8	140	1.68	3,000	32.00	3.40	29.60	P,M,U,X

• For additional function availability type, please refer to the notes of page 4.

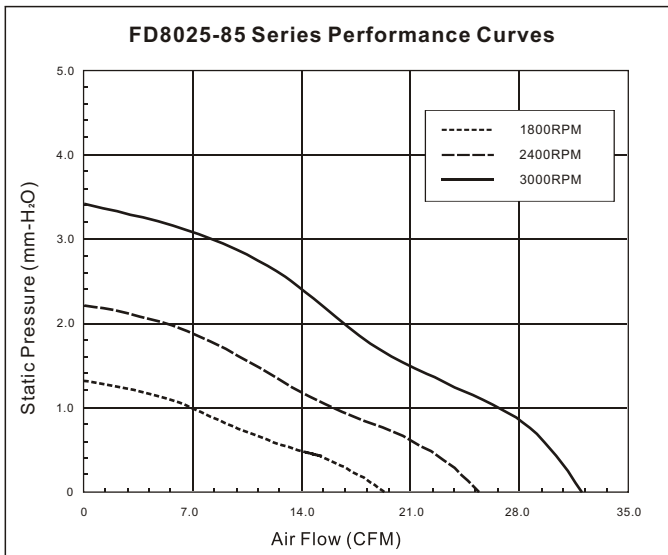
Specifications are subject to change without notice

Accessories :

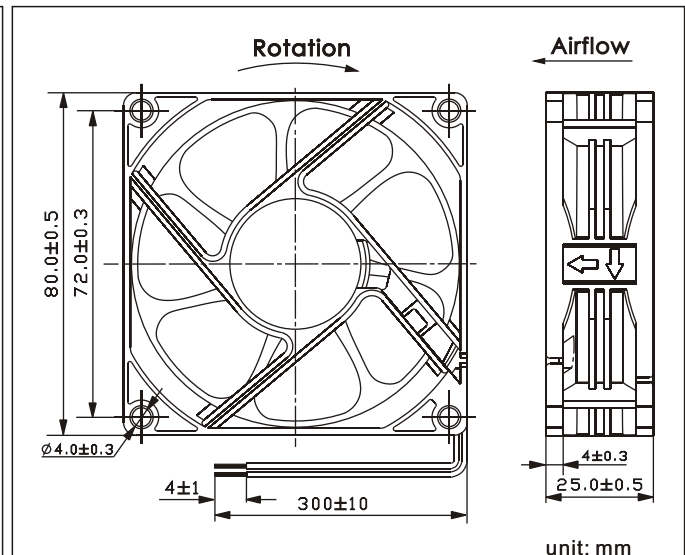
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-080	FGP-080	FPF-080	FFA-080

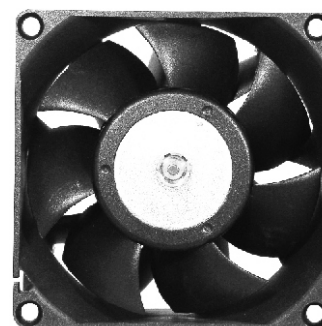
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 172 g



(S. O. B. Fan)

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD8038B12W3-11 ★	B	12	7.0~13.2	240	2.88	3,400	48.30	7.60	40.90	P,M
FD8038B12W5-11 ★	B		7.0~13.2	380	4.56	4,200	59.80	11.40	46.30	P,M
FD8038B12W7-11 ★	B		7.0~13.2	580	6.96	4,900	70.20	15.40	50.70	P,M
FD8038B12W9-11 ★	B		7.0~13.2	800	9.60	5,700	82.40	20.80	54.20	P,M
FD8038B24W3-11 ★	B	24	12.0~26.4	130	3.12	3,400	48.30	7.60	40.90	P,M
FD8038B24W5-11 ★	B		12.0~26.4	200	4.80	4,200	59.80	11.40	46.30	P,M
FD8038B24W7-11 ★	B		12.0~26.4	280	6.72	4,900	70.20	15.40	50.70	P,M
FD8038B24W9-11 ★	B		12.0~26.4	420	10.08	5,700	82.40	20.80	54.20	P,M
FD8038B48W3-11 ★	B	48	24.0~56.0	80	3.84	3,400	48.30	7.60	40.90	P,M
FD8038B48W5-11 ★	B		24.0~56.0	110	5.28	4,200	59.80	11.40	46.30	P,M
FD8038B48W7-11 ★	B		24.0~56.0	150	7.20	4,900	70.20	15.40	50.70	P,M
FD8038B48W9-11 ★	B		24.0~56.0	200	9.60	5,700	82.40	20.80	54.20	P,M

• If model with "★", auto restart protection built in.

• For additional function availability type, please refer to the notes of page 4.

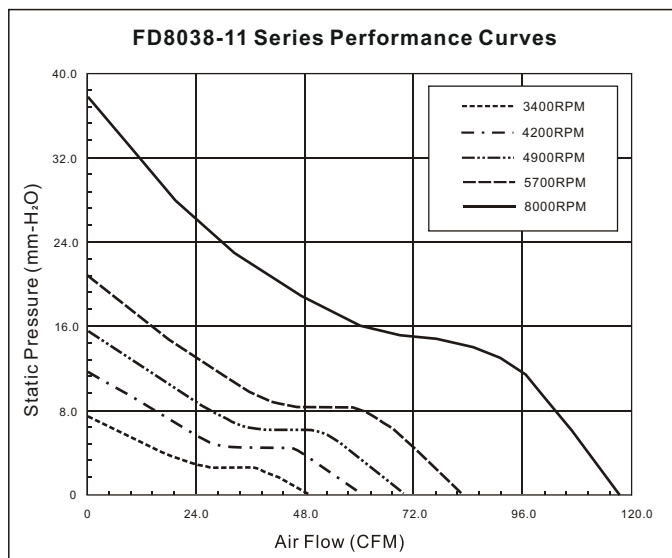
Specifications are subject to change without notice

Accessories :

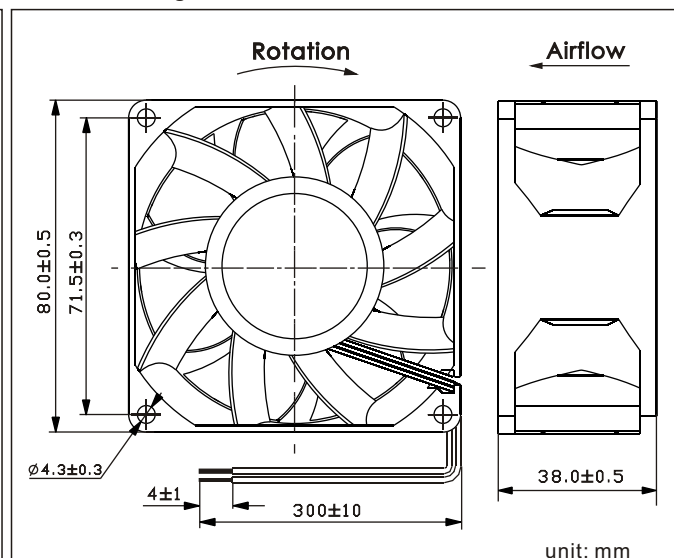
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-080	FGP-080	FPF-080	FFA-080

Characteristic Curves :



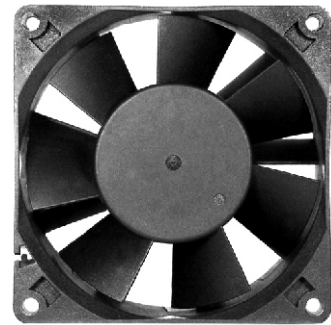
Out line Drawing :



DC Brushless Fan

Excellence

- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 175 g



(S. O. B. Fan)



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD8038B12W3-81 ★	B	12	8.0~13.8	140	1.68	2,600	42.10	4.30	37.00	P,M,U,X,Y
FD8038B12W5-81 ★	B		8.0~13.8	260	3.12	3,400	53.00	7.10	42.70	P,M,U,X,Y
FD8038B12W7-81 ★	B		8.0~13.8	430	5.16	4,200	68.00	10.80	48.80	P,M,U,X,Y
FD8038B12W9-81 ★	B		8.0~13.8	760	9.12	5,000	79.70	14.20	53.90	P,M,U,X
FD8038B12W11-81★※	B		8.0~13.8	980	11.76	5,800	91.90	18.30	58.10	P,M,U,X
FD8038B24W3-81 ★	B	24	18.0~27.6	70	1.68	2,600	42.10	4.30	37.00	P,M,U,X
FD8038B24W5-81 ★	B		18.0~27.6	160	3.84	3,400	53.00	7.10	42.70	P,M,U,X
FD8038B24W7-81 ★	B		18.0~27.6	250	6.00	4,200	68.00	10.80	48.80	P,M,U,X
FD8038B24W9-81 ★	B		18.0~27.6	420	10.08	5,000	79.70	14.20	53.90	P,M,U,X
FD8038B24W11-81★※	B		18.0~27.6	600	14.40	5,800	91.90	18.30	58.10	P,M,U,X
FD8038B48W3-81 ★※	B	48	38.0~52.8	90	4.32	2,600	42.10	4.30	37.00	P,M,U,X
FD8038B48W5-81 ★※	B		38.0~52.8	100	4.80	3,400	53.00	7.10	42.70	P,M,U,X
FD8038B48W7-81 ★※	B		38.0~52.8	110	5.28	4,200	68.00	10.80	48.80	P,M,U,X
FD8038B48W9-81 ★※	B		38.0~52.8	190	9.12	5,000	79.70	14.20	53.90	P,M,U,X

- If model with "★", auto restart protection built in; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

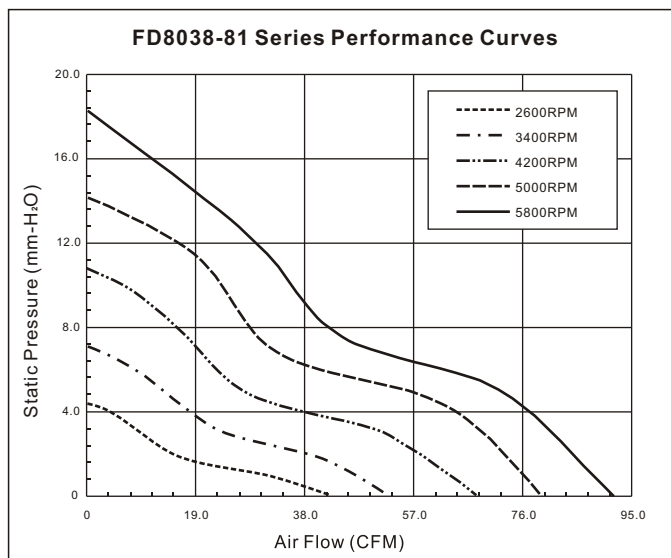
Specifications are subject to change without notice

Accessories :

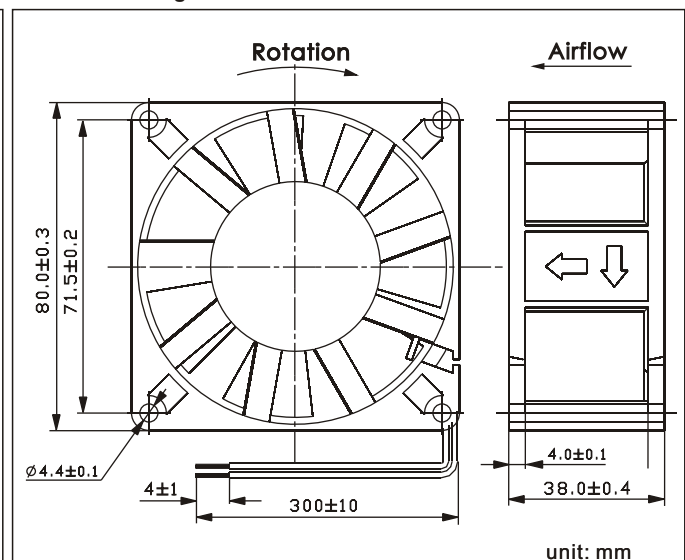
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-080	FGP-080	FPP-080	FFA-080

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10M Ω , 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 100 g



DC Brushless Fan

Excellence

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD9225B12W3-11	B,L,S	12	7.0~13.2	150	1.80	2,400	46.50	3.10	32.00	P,M
FD9225B12W5-11	B,L,S		7.0~13.2	220	2.64	2,800	54.30	4.40	37.40	P,M
FD9225B12W7-11	B,L,S		7.0~13.2	260	3.12	3,100	59.40	5.30	39.40	P,M
FD9225B12W9-11 ※	B,L,S		7.0~13.2	340	4.08	3,500	68.30	6.00	42.40	P,M
FD9225B12W10-11	B,L,S		7.0~13.2	470	5.64	3,800	74.50	7.30	44.80	P,M
FD9225B24W3-11	B,L,S	24	12.0~26.4	90	2.16	2,400	46.50	3.10	32.00	P,M
FD9225B24W5-11	B,L,S		12.0~26.4	120	2.88	2,800	54.30	4.40	37.40	P,M
FD9225B24W7-11	B,L,S		12.0~26.4	160	3.84	3,100	59.40	5.30	39.40	P,M
FD9225B24W9-11 ※	B,L,S		12.0~26.4	200	4.80	3,500	68.30	6.00	42.40	P,M
FD9225B24W10-11	B,L,S		12.0~26.4	270	6.48	3,800	74.50	7.30	44.80	P,M
FD9225B48W3-11	B,L,S	48	24.0~56.0	55	2.64	2,400	46.50	3.10	32.00	P,M
FD9225B48W5-11	B,L,S		24.0~56.0	80	3.84	2,800	54.30	4.40	37.40	P,M
FD9225B48W7-11	B,L,S		24.0~56.0	100	4.80	3,100	59.40	5.30	39.40	P,M

- For "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "L", "S".
- If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

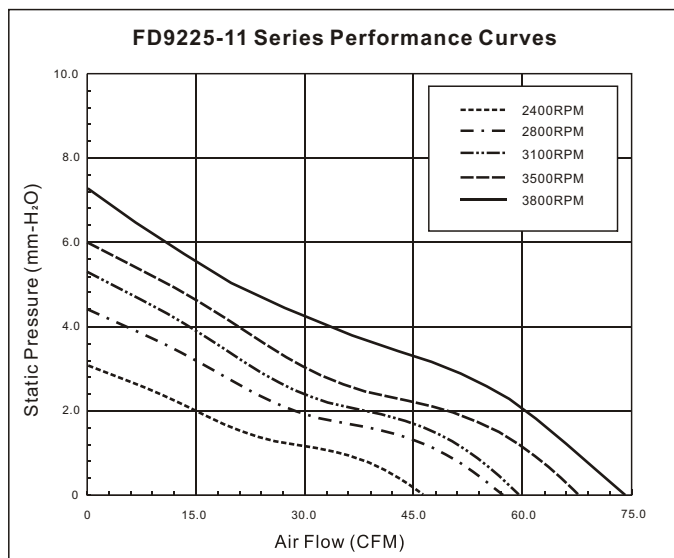
Specifications are subject to change without notice

Accessories :

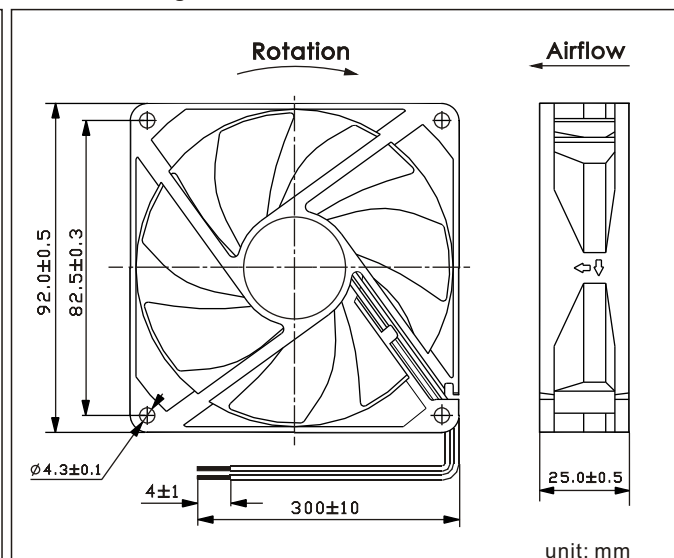
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-090	FGP-090	FPF-090	FFA-090

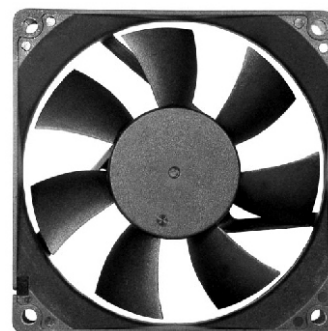
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 98 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD9225B05W4-81 ★※	B,L,S	5	4.0~5.5	180	0.90	2,000	38.40	1.90	25.60	P,M,U,X
FD9225B05W5-81 ★※	B,L,S		4.0~5.5	340	1.70	2,400	46.00	2.50	30.40	P,M,U,X
FD9225B05W7-81 ★※	B,L,S		4.0~5.5	420	2.10	2,800	54.90	3.40	33.70	P,M,U,X
FD9225B12W4-81 ★	B,L,S	12	8.0~13.8	110	1.32	2,000	38.40	1.90	25.60	P,M,U,X,Y
FD9225B12W5-81 ★	B,L,S		8.0~13.8	170	2.04	2,400	46.00	2.50	30.40	P,M,U,X,Y
FD9225B12W7-81 ★	B,L,S		8.0~13.8	200	2.40	2,800	54.90	3.40	33.70	P,M,U,X
FD9225B12W9-81 ★	B,L,S		8.0~13.8	420	5.04	3,200	65.30	4.60	37.00	P,M,U,X
FD9225B12W11-81 ★	B		8.0~13.8	580	6.96	3,600	69.80	5.50	41.20	P,M,U,X
FD9225B12W12-81 ★	B		8.0~13.8	690	8.28	4,000	79.00	6.30	43.70	P,M,U,X
FD9225B24W4-81 (★)	B,L,S	24	12.0~27.6	80	1.92	2,000	38.40	1.90	25.60	P,M,U,X,Y
FD9225B24W5-81 (★)	B,L,S		12.0~27.6	90	2.16	2,400	46.00	2.50	30.40	P,M,U,X,Y
FD9225B24W7-81 ★	B,L,S		12.0~27.6	160	3.84	2,800	54.90	3.40	33.70	P,M,U,X
FD9225B24W9-81 ★	B,L,S		12.0~27.6	180	4.32	3,200	65.30	4.60	37.00	P,M,U,X
FD9225B24W11-81 ★	B		12.0~27.6	340	8.16	3,600	69.80	5.50	41.20	P,M,U,X
FD9225B48W4-81 ★	B,L,S	48	30.0~52.8	50	2.40	2,000	38.40	1.90	25.60	P,M,U,X
FD9225B48W5-81 ★	B,L,S		30.0~52.8	60	2.88	2,400	46.00	2.50	30.40	P,M,U,X
FD9225B48W7-81 ★	B,L,S		30.0~52.8	100	4.80	2,800	54.90	3.40	33.70	P,M,U,X
FD9225B48W9-81 ★	B,L,S		30.0~52.8	140	6.72	3,200	65.30	4.60	37.00	P,M,U,X
FD9225B48W11-81 ★	B		30.0~52.8	170	8.16	3,600	69.80	5.50	41.20	P,M,U,X

• For "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "L", "S".

• If model with "★", auto restart protection built in; If model with "(★)", auto restart protection is optional.

• If model with "※", the safety is pending.

• For additional function availability type, please refer to the notes of page 4.

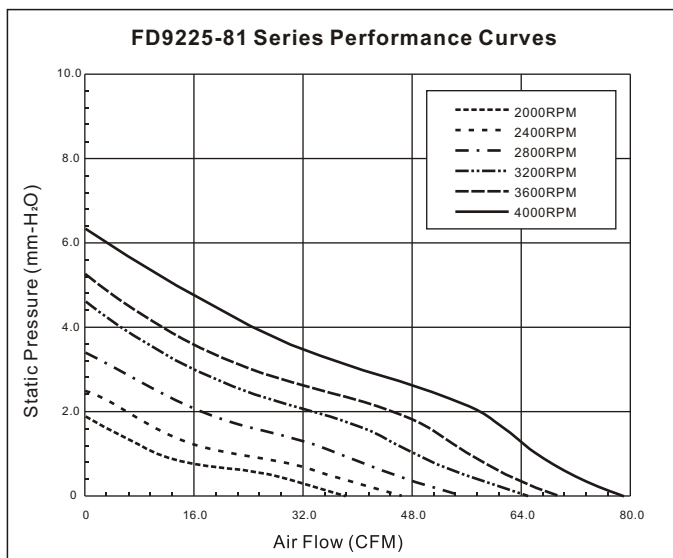
Specifications are subject to change without notice

Accessories :

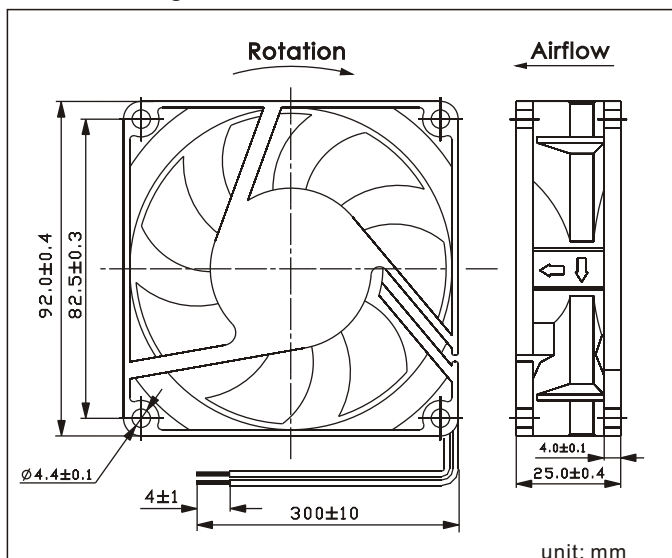
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-090	FGP-090	FPF-090	FFA-090

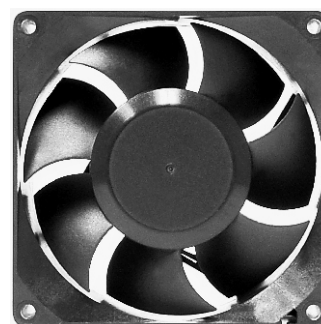
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #22 AWG
- Weight: 183 g



DC Brushless Fan

Excellence

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD9232B12W3-11 ★	B,S	12	7.0~13.2	130	1.56	2,300	43.20	3.60	33.50	P,M
FD9232B12W5-11 ★	B,S		7.0~13.2	270	3.24	3,200	59.60	7.00	41.90	P,M
FD9232B12W7-11 ★	B,S		7.0~13.2	490	5.88	4,000	74.40	10.90	46.30	P,M
FD9232B12W9-11 ★	B,S		7.0~13.2	800	9.60	4,700	88.10	14.50	50.20	P,M
FD9232B24W3-11 ★	B,S	24	12.0~26.4	90	2.16	2,300	43.20	3.60	33.50	P,M
FD9232B24W5-11 ★	B,S		12.0~26.4	170	4.08	3,200	59.60	7.00	41.90	P,M
FD9232B24W7-11 ★	B,S		12.0~26.4	260	6.24	4,000	74.40	10.90	46.30	P,M
FD9232B24W9-11 ★	B,S		12.0~26.4	420	10.08	4,700	88.10	14.50	50.20	P,M
FD9232B48W3-11 ★	B,S	48	24.0~56.0	70	3.36	2,300	43.20	3.60	33.50	P,M
FD9232B48W5-11 ★	B,S		24.0~56.0	120	5.76	3,200	59.60	7.00	41.90	P,M
FD9232B48W7-11 ★	B,S		24.0~56.0	210	10.08	4,000	74.40	10.90	46.30	P,M
FD9232B48W9-11 ★※	B,S		24.0~56.0	280	13.44	4,700	88.10	14.50	50.20	P,M

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- If model with "★", auto restart protection built in. If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

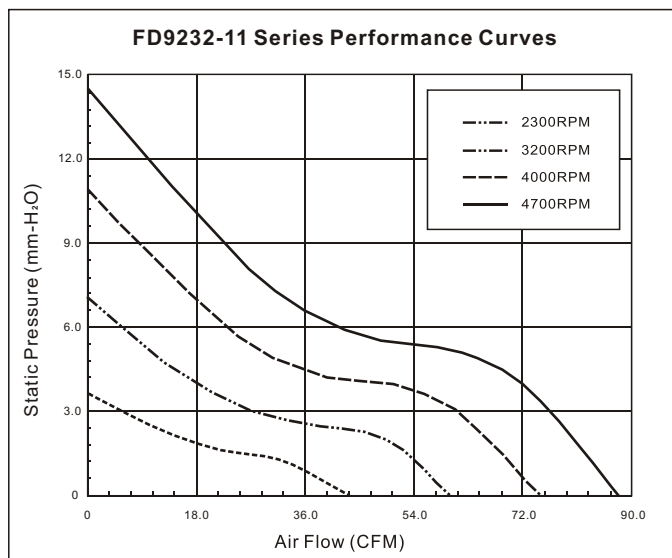
Specifications are subject to change without notice

Accessories :

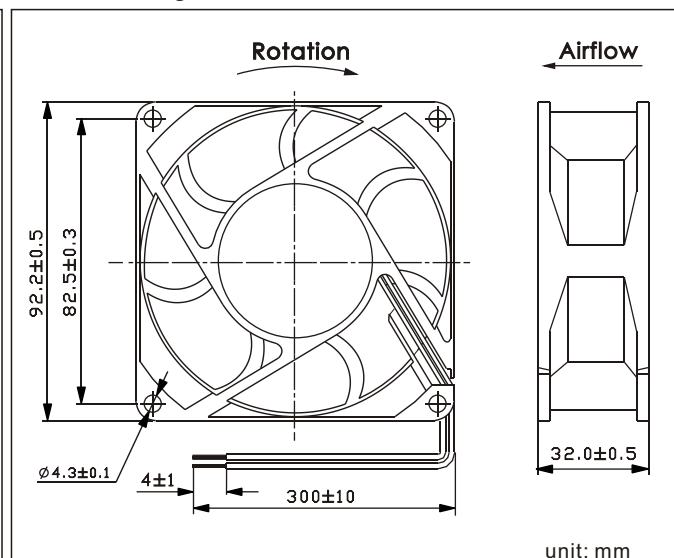
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-090	FGP-090	FPF-090	FFA-090

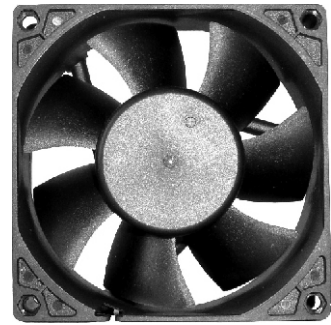
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 180 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD9232B05W1-41 ★	B,S	5	4.0~6.0	406	2.03	2,500	51.20	4.00	31.00	P,U,X
FD9232B05W3-41 ★	B,S		4.0~6.0	770	3.85	2,900	59.50	5.80	34.80	P,U,X
FD9232B05W5-41 ★	B,S		4.0~6.0	1080	5.40	3,250	67.50	7.30	37.70	P,U,X
FD9232B12W1-41 ★	B,S	12	7.0~14.0	170	2.04	2,500	51.20	4.00	31.00	P,U,X
FD9232B12W3-41 ★	B,S		7.0~14.0	250	3.00	2,900	59.50	5.80	34.80	P,U,X
FD9232B12W5-41 ★	B,S		7.0~14.0	380	4.56	3,250	67.50	7.30	37.70	P,U,X
FD9232B12W7-41 ★	B,S		7.0~14.0	564	6.77	3,750	78.20	9.40	41.30	P,U,X
FD9232B12W9-41 ★	B,S		7.0~14.0	822	9.86	4,200	87.40	11.80	44.20	P,U,X
FD9232B24W1-41 ★	B,S	24	15.0~27.0	104	2.50	2,500	51.20	4.00	31.00	P,U,X
FD9232B24W3-41 ★	B,S		15.0~27.0	140	3.36	2,900	59.50	5.80	34.80	P,U,X
FD9232B24W5-41 ★	B,S		15.0~27.0	200	4.80	3,250	67.50	7.30	37.70	P,U,X
FD9232B24W7-41 ★	B,S		15.0~27.0	247	5.93	3,750	78.20	9.40	41.30	P,U,X
FD9232B24W9-41 ★	B,S		15.0~27.0	400	9.60	4,200	87.40	11.80	44.20	P,U,X

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- If model with "★", auto restart protection built in.
- For additional function availability type, please refer to the notes of page 4.

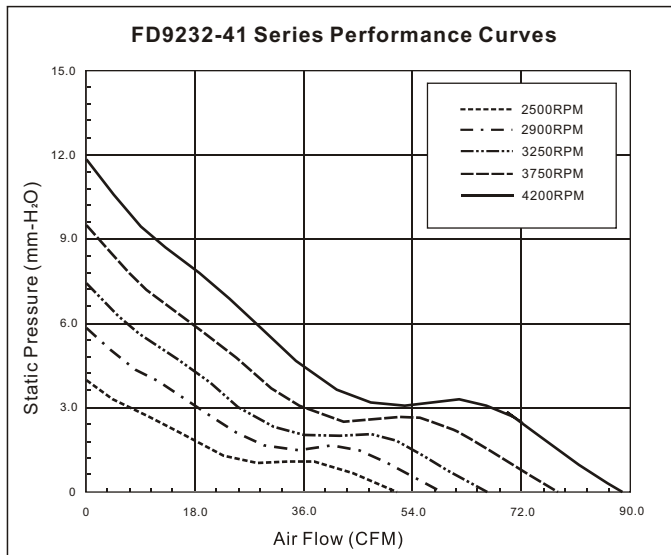
Specifications are subject to change without notice

Accessories :

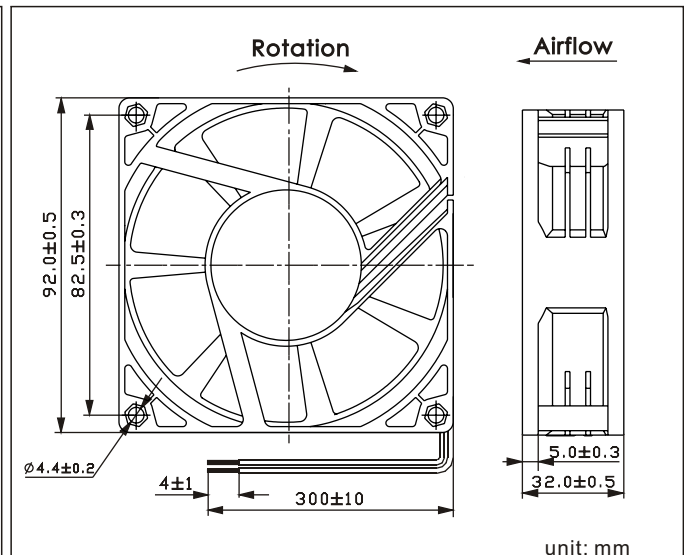
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-090	FGP-090	FPF-090	FFA-090

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 198 g



(S. O. B. Fan)

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD9238B12W3-11 ★	B	12	7.0~13.2	450	5.40	3,300	81.70	7.90	47.3	P,M
FD9238B12W5-11 ★	B		7.0~13.2	640	7.68	3,800	94.00	11.10	50.20	P,M
FD9238B12W7-11 ★	B		7.0~13.2	950	11.40	4,300	104.40	12.10	54.20	P,M
FD9238B12W9-11 ★	B		7.0~13.2	1,200	14.40	4,900	119.10	15.70	56.10	P,M
FD9238B24W3-11 ★	B	24	12.0~26.4	250	7.20	3,300	81.70	7.90	47.30	P,M
FD9238B24W5-11 ★	B		12.0~26.4	350	10.08	3,800	94.00	11.10	50.20	P,M
FD9238B24W7-11 ★	B		12.0~26.4	470	13.68	4,300	104.40	12.10	54.20	P,M
FD9238B24W9-11 ★	B		12.0~26.4	600	21.12	4,900	119.10	15.70	56.10	P,M
FD9238B48W3-11 ★	B	48	24.0~56.0	130	6.24	3,300	81.70	7.90	47.30	P,M
FD9238B48W5-11 ★	B		24.0~56.0	170	8.16	3,800	94.00	11.10	49.50	P,M
FD9238B48W7-11 ★	B		24.0~56.0	240	11.52	4,300	104.40	12.10	51.41	P,M
FD9238B48W9-11 ★	B		24.0~56.0	290	13.92	4,900	119.80	15.70	56.10	P,M

• If model with "★", auto restart protection built in.

• For additional function availability type, please refer to the notes of page 4.

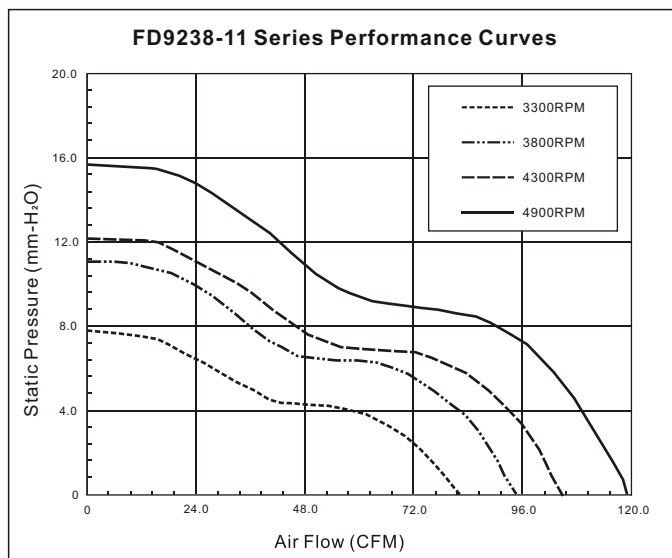
Specifications are subject to change without notice

Accessories :

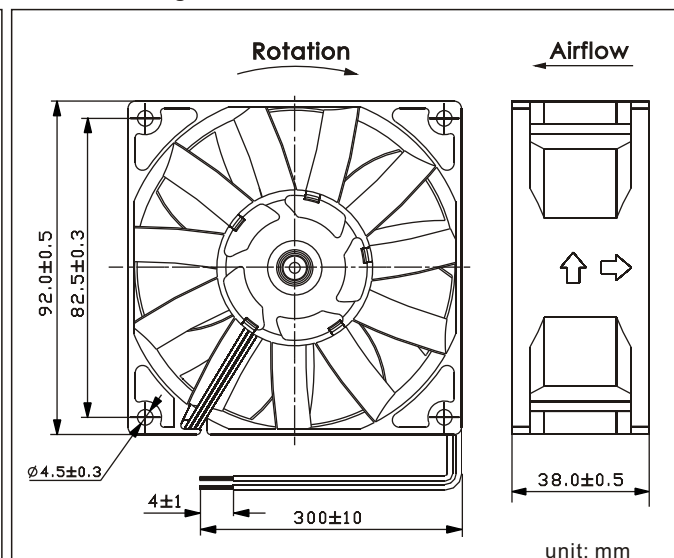
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-090	FGP-090	FPF-090	FFA-090

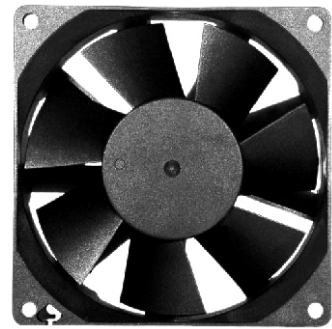
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 173 g



(S. O. B. Fan)



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD9238B12W3-81 ★	B	12	8.0~13.8	190	2.28	2,600	67.50	5.00	39.30	P,M,U,X,Y
FD9238B12W5-81 ★	B		8.0~13.8	300	3.60	3,200	80.50	7.20	44.90	P,M,U,X,Y
FD9238B12W7-81 ★	B		8.0~13.8	490	5.88	3,800	90.10	9.90	49.20	P,M,U,X,Y
FD9238B12W9-81 ★	B		8.0~13.8	610	7.32	4,400	108.60	12.60	53.50	P,M,U,X
FD9238B12W11-81 ★	B		8.0~13.8	890	10.68	5,000	127.20	14.60	57.00	P,M,U,X
FD9238B24W3-81 ★	B	24	18.0~27.6	120	2.88	2,600	67.50	5.00	39.30	P,M,U,X
FD9238B24W5-81 ★	B		18.0~27.6	200	4.80	3,200	80.50	7.20	44.90	P,M,U,X
FD9238B24W7-81 ★	B		18.0~27.6	270	6.48	3,800	90.10	9.90	49.20	P,M,U,X
FD9238B24W9-81 ★	B		18.0~27.6	310	7.44	4,400	108.60	12.60	53.50	P,M,U,X
FD9238B24W11-81 ★	B		18.0~27.6	480	11.52	5,000	127.20	14.60	57.00	P,M,U,X
FD9238B48W3-81 ★※	B	48	38.0~52.8	60	2.88	2,600	67.50	5.00	39.30	P,M,U,X
FD9238B48W5-81 ★※	B		38.0~52.8	90	4.32	3,200	80.50	7.20	44.90	P,M,U,X
FD9238B48W7-81 ★※	B		38.0~52.8	150	7.20	3,800	90.10	9.90	49.20	P,M,U,X
FD9238B48W9-81 ★※	B		38.0~52.8	290	13.92	4,400	108.60	12.60	53.50	P,M,U,X
FD9238B48W11-81 ★※	B		38.0~52.8	240	11.52	5,000	127.20	14.60	57.00	P,M,U,X

- If model with "★", auto restart protection built in; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

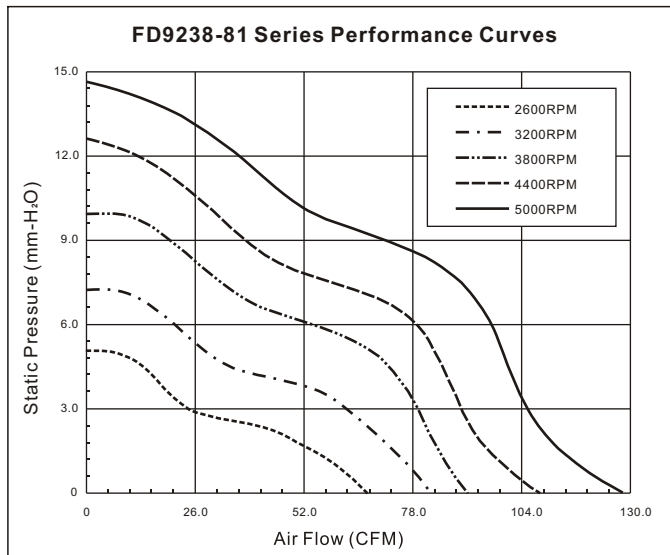
Specifications are subject to change without notice

Accessories :

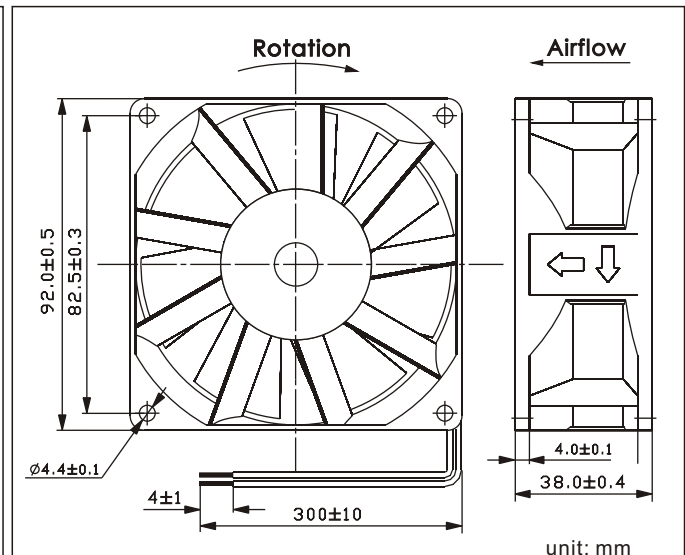
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-090	FGP-090	FPF-090	FFA-090

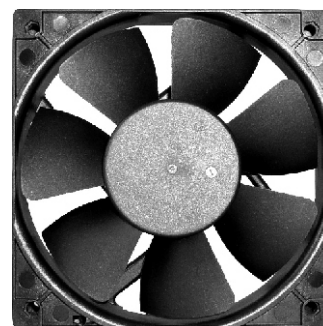
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10M Ω , 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 212 g



DC Brushless Fan

Excellence

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD1225B05W1-41 ★	B,S	5	4.0~6.0	395	1.98	2,600	79.30	5.30	15.80	P,U,X
FD1225B05W3-41 ★	B,S		4.0~6.0	603	3.02	2,900	89.50	6.70	15.80	P,U,X
FD1225B05W5-41 ★	B,S		4.0~6.0	774	3.87	3,250	101.00	8.20	15.80	P,U,X
FD1225B12W1-41 ★	B,S	12	7.0~14.0	181	2.17	2,600	79.30	5.30	15.80	P,U,X
FD1225B12W3-41 ★	B,S		7.0~14.0	243	2.92	2,900	89.50	6.70	15.80	P,U,X
FD1225B12W5-41 ★	B,S		7.0~14.0	314	3.77	3,250	101.00	8.20	15.80	P,U,X
FD1225B12W7-41 ★	B,S	24	7.0~14.0	542	6.50	3,750	115.20	10.50	15.80	P,U,X
FD1225B12W9-41 ★	B,S		7.0~14.0	703	8.44	4,200	131.30	12.50	15.80	P,U,X
FD1225B24W1-41 ★	B,S		15.0~27.0	94	2.26	2,600	79.30	5.30	15.80	P,U,X
FD1225B24W3-41 ★	B,S	24	15.0~27.0	125	3.00	2,900	89.50	6.70	15.80	P,U,X
FD1225B24W5-41 ★	B,S		15.0~27.0	152	3.65	3,250	101.00	8.20	15.80	P,U,X
FD1225B24W7-41 ★	B,S		15.0~27.0	251	6.02	3,750	115.20	10.50	15.80	P,U,X
FD1225B24W9-41 ★	B,S	48	15.0~27.0	319	7.66	4,200	131.30	12.50	15.80	P,U,X
FD1225B48W1-41 ★	B,S		30.0~57.0	59	2.83	2,600	79.30	5.30	15.80	P,U,X
FD1225B48W3-41 ★	B,S		30.0~57.0	85	4.08	2,900	89.50	6.70	15.80	P,U,X
FD1225B48W5-41 ★	B,S	48	30.0~57.0	120	5.76	3,250	101.00	8.20	15.80	P,U,X
FD1225B48W7-41 ★	B,S		30.0~57.0	130	6.24	3,750	115.20	10.50	15.80	P,U,X
FD1225B48W9-41 ★	B,S		30.0~57.0	190	9.12	4,200	131.30	12.50	15.80	P,U,X

• For "Sleeve" Bearing Version, change "B" in the model number to "S".

• If model with "★", auto restart protection built in.

• For additional function availability type, please refer to the notes of page 4.

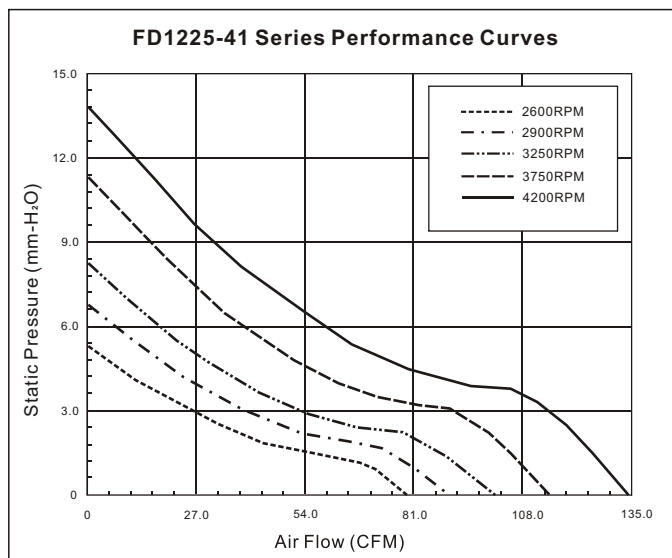
Specifications are subject to change without notice

Accessories :

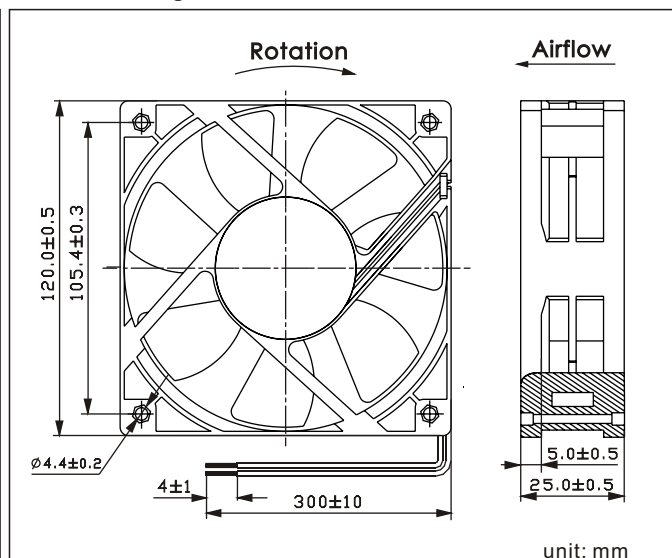
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-120	FGP-120	FPF-120	FFA-120

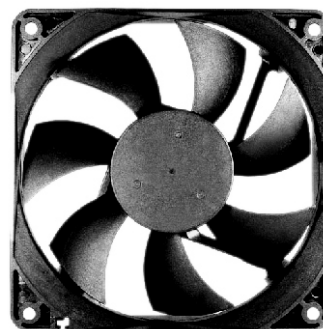
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 128 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD1225B12W1-81 ★	B,L,S	12	8.0~13.8	70	0.84	1,200	51.50	1.00	23.50	P,M,U,X,Y
FD1225B12W2-81 ★	B,L,S		8.0~13.8	140	1.68	1,600	68.00	1.70	30.90	P,M,U,X,Y
FD1225B12W3-81 (★)	B,L,S		8.0~13.8	270	3.24	2,000	86.90	2.50	36.60	P,M,U,X,Y
FD1225B12W5-81 ★	B,L,S		8.0~13.8	370	4.44	2,400	105.40	3.60	41.90	P,M,U,X,Y
FD1225B12W7-81 ★	B,L,S		8.0~13.8	680	8.16	2,800	121.70	5.00	46.80	P,M,U,X,Y
FD1225B12W9-81 ★	B		8.0~13.8	1,140	13.68	3,200	147.90	6.30	50.60	P,M,U,X
FD1225B24W3-81 ★	B,L,S	24	12.0~27.6	170	4.08	2,000	86.90	2.50	36.60	P,M,U,X,Y
FD1225B24W5-81 ★	B,L,S		12.0~27.6	200	4.80	2,400	105.40	3.60	41.90	P,M,U,X,Y
FD1225B24W7-81 ★	B,L,S		12.0~27.6	310	7.44	2,800	121.70	5.00	46.80	P,M,U,X
FD1225B48W3-81 ★	B,L,S	48	24.0~52.8	100	4.80	2,000	86.90	2.50	36.60	P,M,U,X
FD1225B48W5-81 ★	B,L,S		24.0~52.8	130	6.24	2,400	105.40	3.60	41.90	P,M,U,X
FD1225B48W7-81 ★	B,L,S		24.0~52.8	220	10.56	2,800	121.70	5.00	46.80	P,M,U,X

- For "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "L", "S".
- If model with "★", auto restart protection built in; If model with "(★)", auto restart protection is optional.
- For additional function availability type, please refer to the notes of page 4.

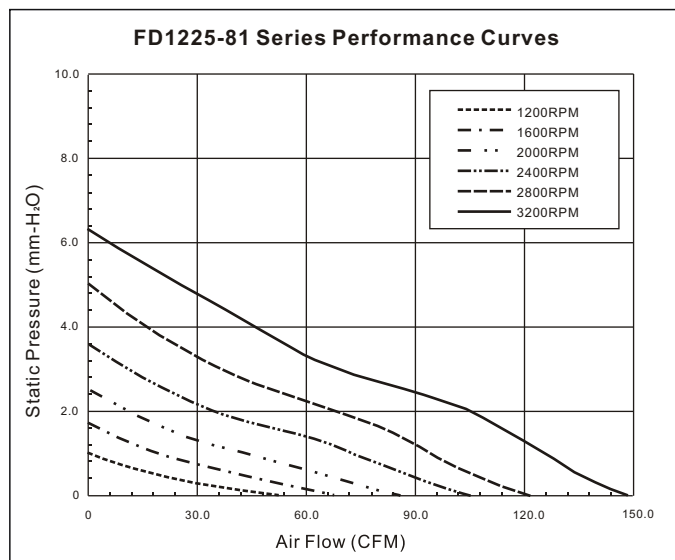
Specifications are subject to change without notice

Accessories :

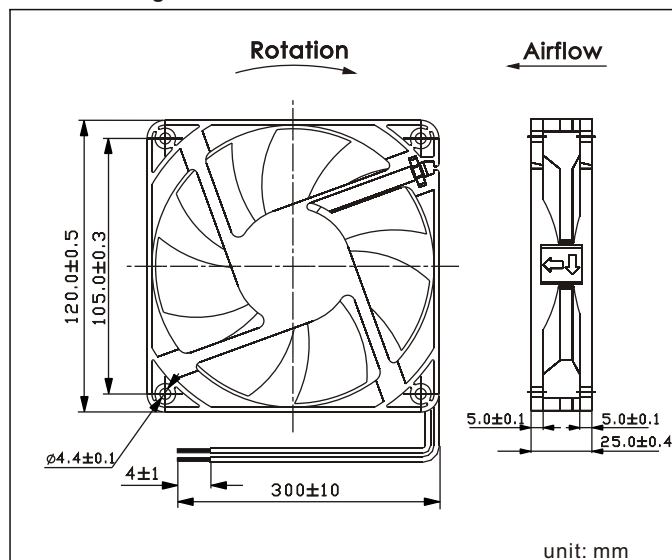
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-120	FGP-120	FPF-120	FFA-120

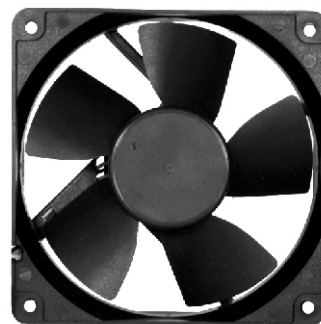
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #22 AWG
- Weight: 219 g



Specification:

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD1232B12W3-11 ★	B,S	12	7.0~13.2	330	3.96	2,100	89.00	4.30	38.90	P,M
FD1232B12W5-11 ★	B,S		7.0~13.2	450	5.40	2,500	100.50	6.10	41.90	P,M
FD1232B12W7-11 ★	B,S		7.0~13.2	580	6.96	2,900	116.70	8.10	46.80	P,M
FD1232B12W9-11 ★	B,S		7.0~13.2	840	10.08	3,300	139.40	9.50	48.30	P,M
FD1232B24W3-11 ★	B,S	24	12.0~26.4	150	3.60	2,100	89.00	4.30	38.90	P,M
FD1232B24W5-11 ★	B,S		12.0~26.4	200	4.80	2,500	100.50	6.10	41.90	P,M
FD1232B24W7-11 ★	B,S		12.0~26.4	290	6.96	2,900	116.70	8.10	46.80	P,M
FD1232B24W9-11 ★	B,S		12.0~26.4	400	9.60	3,300	139.40	9.50	48.30	P,M
FD1232B48W3-11 ★	B,S	48	24.0~56.0	68	3.26	2,100	84.20	4.40	38.90	P,M
FD1232B48W5-11 ★	B,S		24.0~56.0	110	5.28	2,500	100.50	6.10	41.90	P,M
FD1232B48W7-11 ★	B,S		24.0~56.0	190	9.12	2,900	116.70	8.10	46.80	P,M

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- If model with "★", auto restart protection built in.
- For additional function availability type, please refer to the notes of page 4.

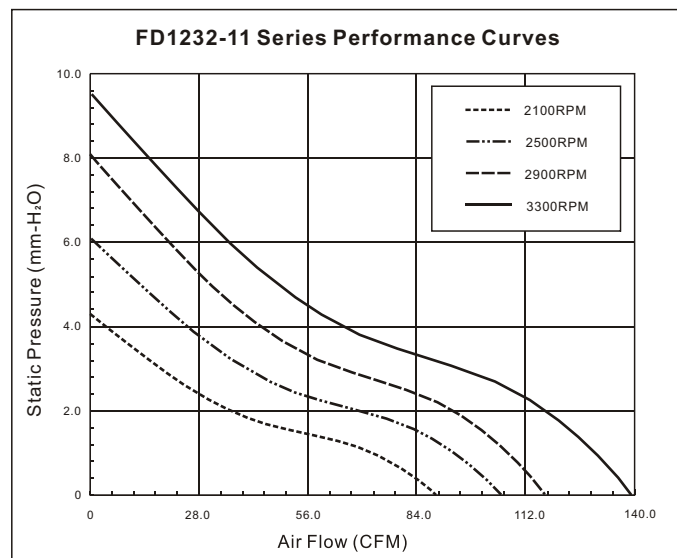
Specifications are subject to change without notice

Accessories:

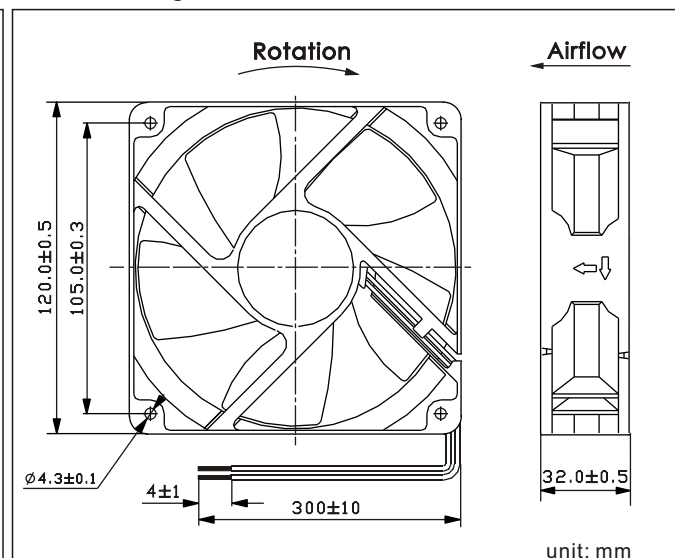
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-120	FGP-120	FPF-120	FFA-120

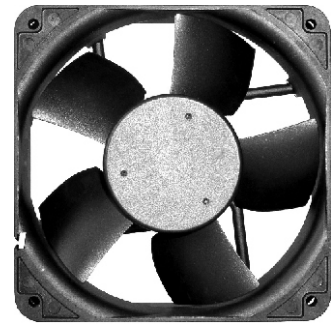
Characteristic Curves:



Out line Drawing:



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 280 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD1232B05W1-41 ★※	B,S	5	4.0~6.0	610	3.05	2,600	109.10	6.40	41.40	P,U,X
FD1232B05W3-41 ★※	B,S		4.0~6.0	846	4.23	2,900	121.70	7.90	44.20	P,U,X
FD1232B05W5-41 ★※	B,S		4.0~6.0	1190	5.95	3,250	136.20	9.90	47.20	P,U,X
FD1232B12W1-41 ★	B,S	12	7.0~14.0	188	2.26	2,600	109.10	6.40	41.40	P,U,X
FD1232B12W3-41 ★	B,S		7.0~14.0	261	3.13	2,900	121.70	7.90	44.20	P,U,X
FD1232B12W5-41 ★	B,S		7.0~14.0	367	4.40	3,250	136.20	9.90	47.20	P,U,X
FD1232B12W7-41 ★	B,S		7.0~14.0	880	10.56	3,750	156.70	13.30	50.90	P,U,X
FD1232B12W9-41 ★	B,S	24	7.0~14.0	1248	14.98	4,200	174.80	16.70	53.60	P,U,X
FD1232B24W1-41 ★	B,S		15.0~27.0	152	3.65	2,600	109.10	6.40	41.40	P,U,X
FD1232B24W3-41 ★	B,S		15.0~27.0	176	4.22	2,900	121.70	7.90	44.20	P,U,X
FD1232B24W5-41 ★	B,S		15.0~27.0	293	7.03	3,250	136.20	9.90	47.20	P,U,X
FD1232B24W7-41 ★	B,S	48	15.0~27.0	443	10.63	3,750	156.70	13.30	50.90	P,U,X
FD1232B24W9-41 ★	B,S		15.0~27.0	610	14.64	4,200	174.80	16.70	53.60	P,U,X
FD1232B48W1-41 ★	B,S		30.0~57.0	75	3.60	2,600	109.10	6.40	41.40	P,U,X
FD1232B48W3-41 ★	B,S		30.0~57.0	105	5.04	2,900	121.70	7.90	44.20	P,U,X
FD1232B48W5-41 ★	B,S	48	30.0~57.0	147	7.06	3,250	136.20	9.90	47.20	P,U,X
FD1232B48W7-41 ★	B,S		30.0~57.0	210	10.08	3,750	156.70	13.30	50.90	P,U,X
FD1232B48W9-41 ★	B,S		30.0~57.0	290	13.92	4,200	174.80	16.70	53.60	P,U,X

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- If model with "★", auto restart protection built in; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

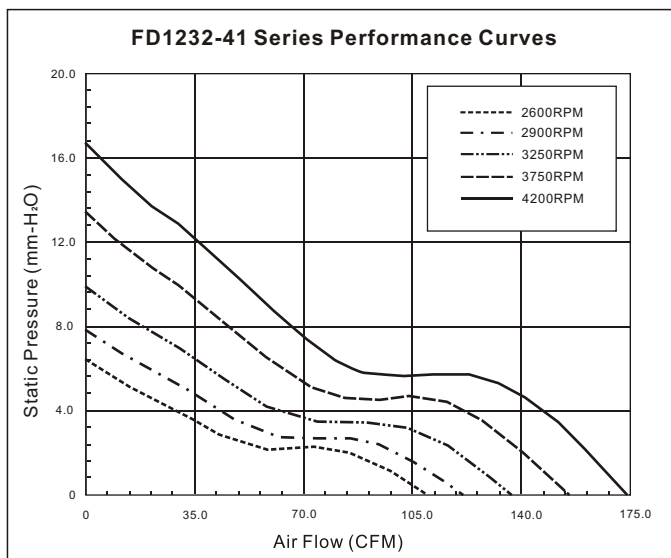
Specifications are subject to change without notice

Accessories :

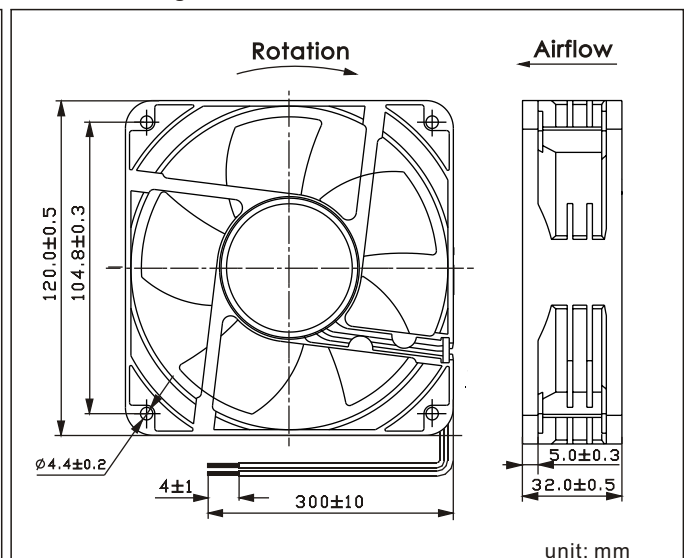
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-120	FGP-120	FPF-120	FFA-120

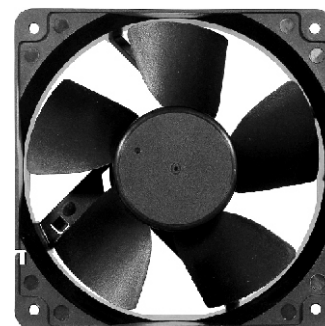
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10M Ω , 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #22 AWG
- Weight: 220 g



DC Brushless Fan

Excellence

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD1238B12W3-11 ★	B,S	12	7.0~13.2	320	3.84	2,000	90.80	4.00	35.50	P,M
FD1238B12W5-11 ★	B,S		7.0~13.2	420	5.04	2,400	109.30	5.90	40.40	P,M
FD1238B12W7-11 ★	B,S		7.0~13.2	660	7.92	2,800	127.40	7.70	44.30	P,M
FD1238B12W9-11 ★	B,S		7.0~13.2	830	9.96	3,000	137.00	8.70	46.30	P,M
FD1238B24W3-11 ★	B,S	24	12.0~26.4	150	3.60	2,000	90.80	4.00	35.50	P,M
FD1238B24W5-11 ★	B,S		12.0~26.4	250	6.00	2,400	109.30	5.90	40.40	P,M
FD1238B24W7-11 ★	B,S		12.0~26.4	360	8.64	2,800	127.40	7.70	44.30	P,M
FD1238B24W9-11 ★	B,S		12.0~26.4	410	9.84	3,000	137.00	8.70	46.30	P,M
FD1238B48W3-11 ★	B,S	48	24.0~56.0	120	5.76	2,000	90.80	4.00	35.50	P,M
FD1238B48W5-11 ★	B,S		24.0~56.0	140	6.72	2,400	109.30	5.90	40.40	P,M
FD1238B48W7-11 ★	B,S		24.0~56.0	180	8.64	2,800	127.40	7.70	44.30	P,M
FD1238B48W9-11 ★	B,S		24.0~56.0	210	10.08	3,000	137.00	8.70	46.30	P,M

• For "Sleeve" Bearing Version, change "B" in the model number to "S".

• If model with "★", auto restart protection built in.

• For additional function availability type, please refer to the notes of page 4.

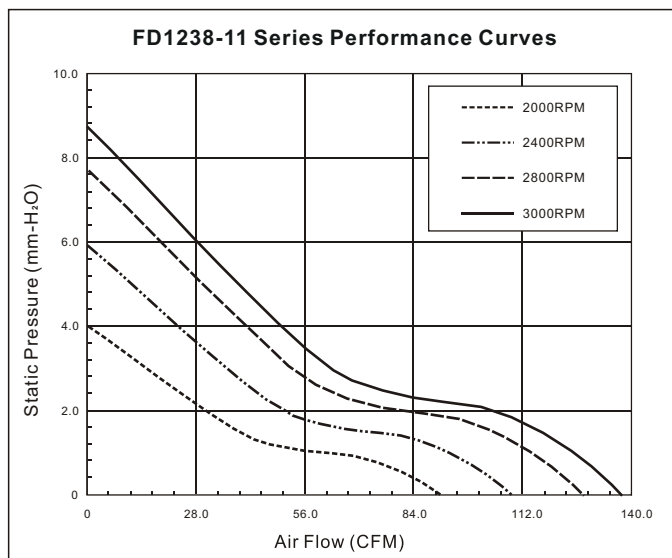
Specifications are subject to change without notice

Accessories :

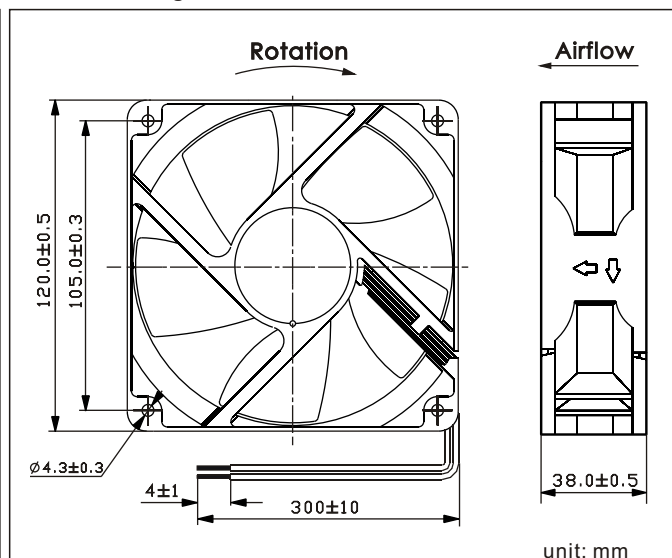
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-120	FGP-120	FPF-120	FFA-120

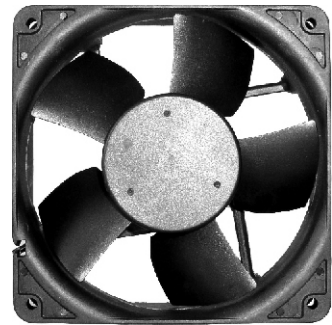
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 646 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD1238B12W7-41 ★	B,S	12	7.0~14.0	1538	18.46	4,700	193.20	21.40	56.90	P,U,X
FD1238B12W9-41 ★	B,S		7.0~14.0	2097	25.16	5,200	215.80	24.70	61.00	P,U,X
FD1238B24W5-41 ★	B,S	24	15.0~27.0	782	18.77	4,700	193.20	21.40	56.90	P,U,X
FD1238B24W7-41 ★	B,S		15.0~27.0	907	21.77	5,200	215.80	24.70	61.00	P,U,X
FD1238B24W9-41 ★	B,S		15.0~27.0	1,444	34.66	5,800	240.40	31.90	64.00	P,U,X
FD1238B48W5-41 ★	B,S	48	30.0~57.0	372	17.86	4,700	193.20	21.40	56.90	P,U,X
FD1238B48W7-41 ★	B,S		30.0~57.0	503	24.14	5,200	215.80	24.70	61.00	P,U,X
FD1238B48W9-41 ★	B,S		30.0~57.0	660	31.68	5,800	240.40	31.90	64.00	P,U,X

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- If model with "★", auto restart protection built in.
- For additional function availability type, please refer to the notes of page 4.

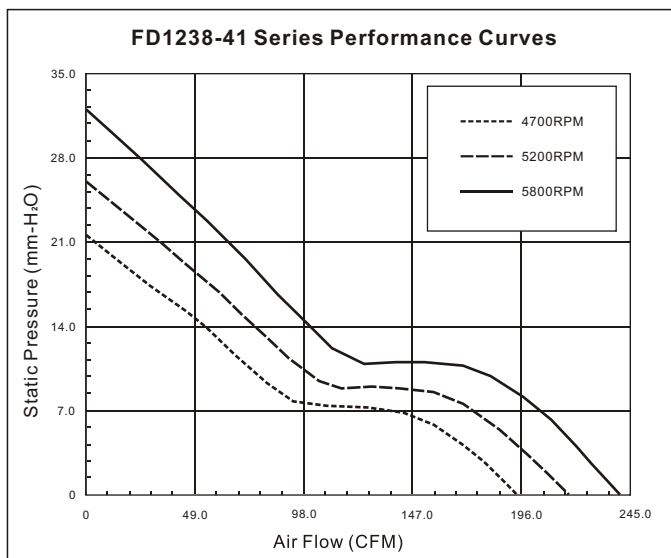
Specifications are subject to change without notice

Accessories :

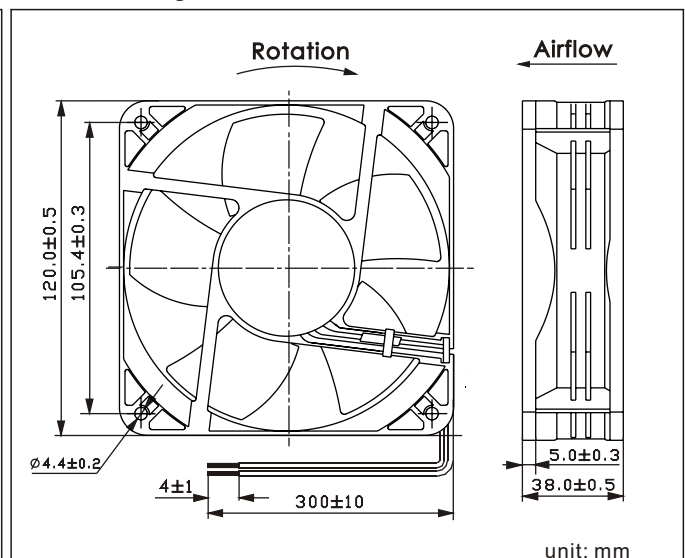
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-120	FGP-120	FPF-120	FFA-120

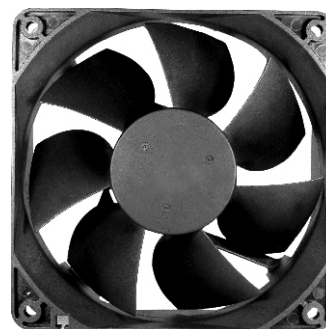
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 214 g



DC Brushless Fan

Excellence

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD1238B12W3-81 ★	B,L,S	12	8.0~13.8	310	3.72	2,000	98.60	4.00	37.80	P,M,U,X,Y
FD1238B12W5-81 ★	B,L,S		8.0~13.8	400	4.80	2,400	121.50	5.00	42.00	P,M,U,X,Y
FD1238B12W7-81 ★	B,L,S		8.0~13.8	680	8.16	2,800	151.90	7.10	47.50	P,M,U,X
FD1238B12W9-81 ★	B		8.0~13.8	880	10.56	3,200	181.10	9.00	50.70	P,M,U,X
FD1238B12W11-81 ★※	B		8.0~13.8	1,240	14.88	3,600	195.50	12.10	53.30	P,M,U,X
FD1238B12W12-81 ★※	B		8.0~13.8	1,800	21.60	4,000	211.20	13.40	55.50	P,M,U,X
FD1238B24W3-81 ★	B,L,S	24	12.0~27.6	160	3.84	2,000	98.60	4.00	37.80	P,M,U,X,Y
FD1238B24W5-81 ★	B,L,S		12.0~27.6	230	5.52	2,400	121.50	5.00	42.00	P,M,U,X,Y
FD1238B24W7-81 ★	B,L,S		12.0~27.6	400	9.60	2,800	151.90	7.10	47.50	P,M,U,X
FD1238B24W9-81 ★	B		12.0~27.6	440	10.56	3,200	181.10	9.00	50.70	P,M,U,X
FD1238B48W3-81 ★	B,L,S	48	24.0~52.8	80	3.84	2,000	98.60	4.00	37.80	P,M,U,X
FD1238B48W5-81 ★	B,L,S		24.0~52.8	180	8.64	2,400	121.50	5.00	42.00	P,M,U,X
FD1238B48W7-81 ★	B,L,S		24.0~52.8	240	11.52	2,800	151.90	7.10	47.50	P,M,U,X
FD1238B48W9-81 ★	B		24.0~52.8	310	14.88	3,200	181.10	9.00	50.70	P,M,U,X

- For "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "L", "S".
- If model with "★", auto restart protection built in; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

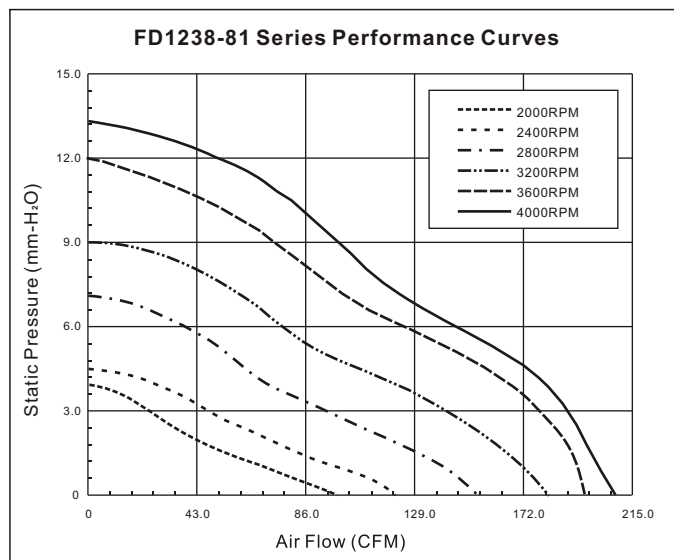
Specifications are subject to change without notice

Accessories :

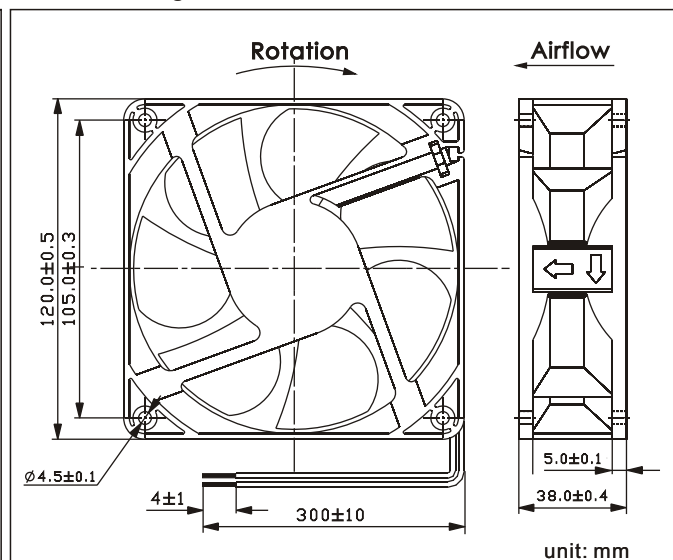
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-120	FGP-120	FPF-120	FFA-120

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #22 AWG
- Weight: 748 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD1751B12W1-41 ★	B,S	12	7.0~14.0	547	6.56	2,500	197.00	9.50	46.70	P,U,X
FD1751B12W3-41 ★	B,S		7.0~14.0	949	11.39	3,000	237.30	13.80	51.50	P,U,X
FD1751B12W5-41 ★	B,S		7.0~14.0	1508	18.10	3,500	275.80	18.70	55.30	P,U,X
FD1751B24W1-41 ★	B,S	24	15.0~27.0	259	6.22	2,500	197.00	9.50	46.70	P,U,X
FD1751B24W3-41 ★	B,S		15.0~27.0	448	10.75	3,000	237.30	13.80	51.50	P,U,X
FD1751B24W5-41 ★	B,S		15.0~27.0	712	17.09	3,500	275.80	18.70	55.30	P,U,X
FD1751B24W7-41 ★	B,S		15.0~27.0	1034	24.82	4,000	314.30	23.80	59.60	P,U,X
FD1751B24W9-41 ★	B,S		15.0~27.0	1493	35.83	4,500	354.60	28.60	62.90	P,U,X
FD1751B24W11-41 ★※	B,S		15.0~27.0	1776	42.62	4,800	378.30	32.80	64.60	P,U,X
FD1751B48W1-41 ★	B,S	48	30.0~57.0	142	6.82	2,500	197.00	9.50	46.70	P,U,X
FD1751B48W3-41 ★	B,S		30.0~57.0	244	11.71	3,000	273.30	13.80	51.50	P,U,X
FD1751B48W5-41 ★	B,S		30.0~57.0	389	18.67	3,500	275.80	18.70	55.30	P,U,X
FD1751B48W7-41 ★	B,S		30.0~57.0	526	25.25	4,000	314.30	23.80	59.60	P,U,X
FD1751B48W9-41 ★	B,S		30.0~57.0	743	35.66	4,500	354.60	28.60	62.90	P,U,X
FD1751B48W11-41 ★※	B,S		30.0~57.0	966	46.37	4,800	378.30	32.80	64.60	P,U,X

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- If model with "★", auto restart protection built in ; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

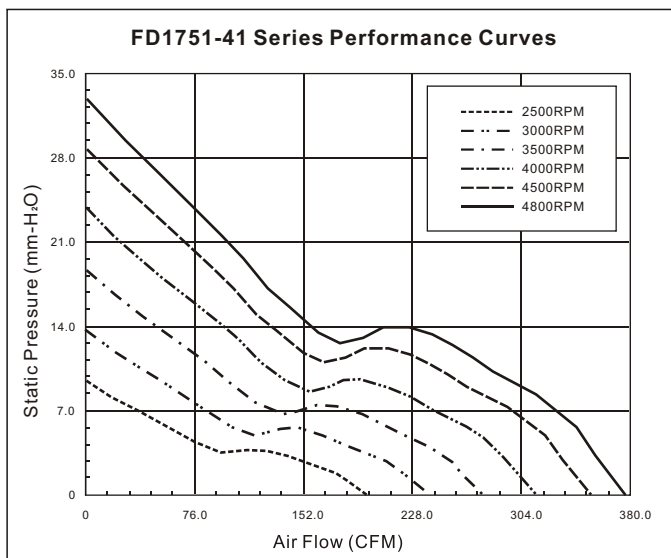
Specifications are subject to change without notice

Accessories :

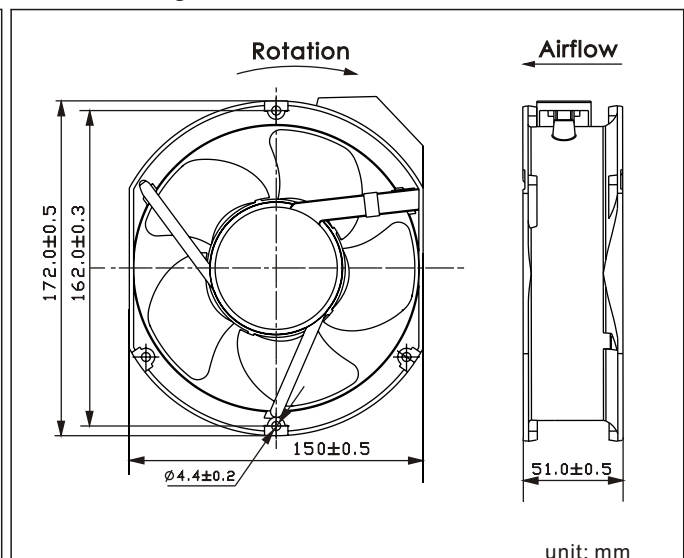
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-162	FGP-162	FPF-162	FFA-162

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Die-cast Aluminum/Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10M Ω , 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #22 AWG
- Weight: 792 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD1751B12W3-52 ★	B	12	9.0~13.8	600	7.20	2,200	150.00	8.60	46.00	P,X,Y
FD1751B12W5-52 ★	B		9.0~13.8	860	10.32	2,600	174.00	11.20	52.00	P,X,Y
FD1751B12W7-52 ★	B		9.0~13.8	1,400	16.80	3,000	206.00	15.40	56.00	P,X,Y
FD1751B12W9-52 ★	B		9.0~13.8	1,900	22.80	3,400	229.00	17.90	58.00	P,X,Y
FD1751B24W3-52 ★	B	24	12.0~27.6	300	7.20	2,200	150.00	8.60	46.00	P,X,Y
FD1751B24W5-52 ★	B		12.0~27.6	430	10.32	2,600	174.00	11.20	52.00	P,X,Y
FD1751B24W7-52 ★	B		12.0~27.6	650	15.60	3,000	206.00	15.40	56.00	P,X,Y
FD1751B24W9-52 ★	B		12.0~27.6	900	21.60	3,400	229.00	17.90	58.00	P,X,Y
FD1751B48W3-52 ★	B	48	24.0~55.2	190	9.12	2,200	150.00	8.60	46.00	P,X,Y
FD1751B48W5-52 ★	B		24.0~55.2	280	13.44	2,600	174.00	11.20	52.00	P,X,Y
FD1751B48W7-52 ★	B		24.0~55.2	400	19.20	3,000	206.00	15.40	56.00	P,X,Y
FD1751B48W9-52 ★	B		24.0~55.2	520	24.96	3,400	229.00	17.90	58.00	P,X,Y

• For additional function availability type, please refer to the notes of page 4.

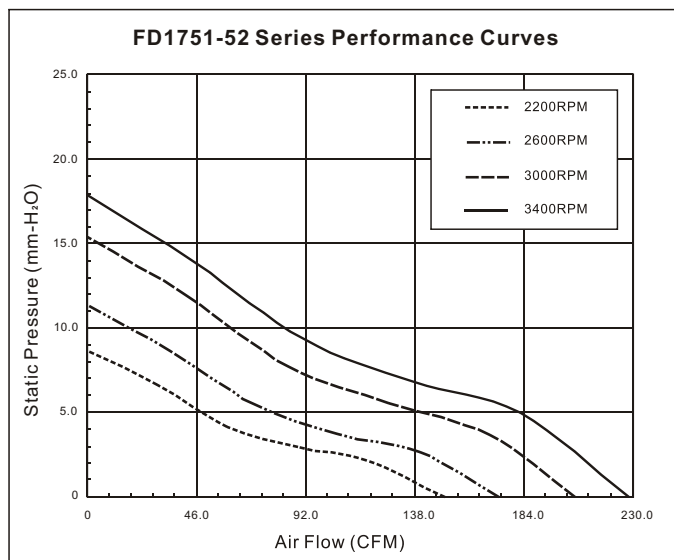
Specifications are subject to change without notice

Accessories :

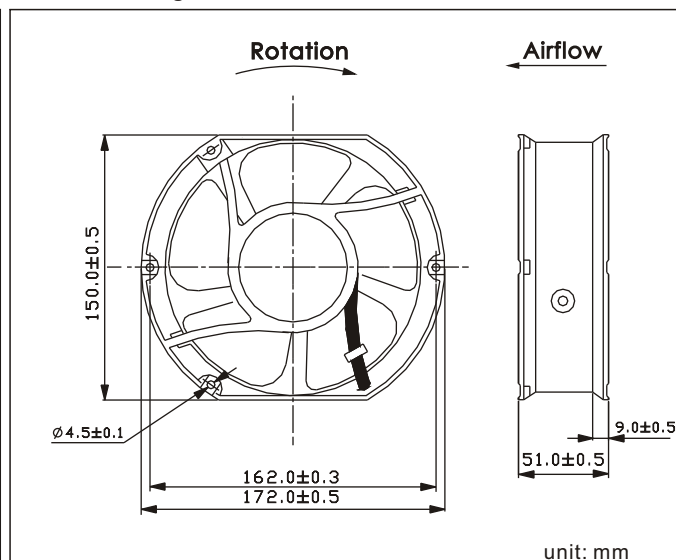
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-162	FGP-162	FPF-162	FFA-162

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 24 g



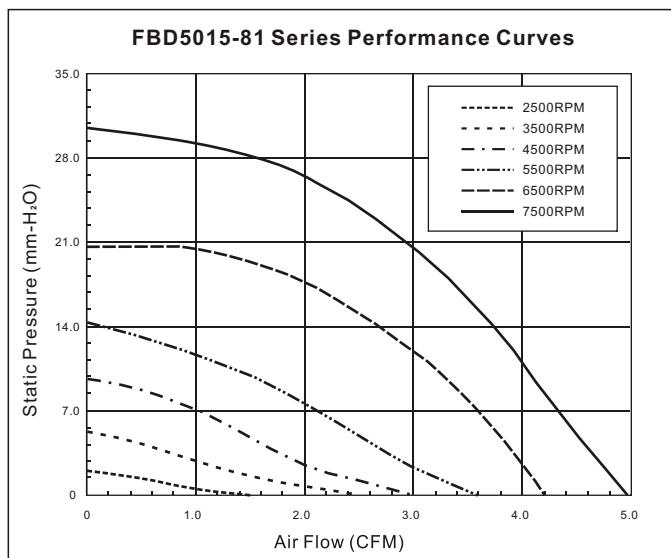
Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page4)
FBD5015B05W1-81	B	5	4.0~5.5	40	0.20	2,500	1.50	1.90	22.10	P,U,X
FBD5015B05W3-81	B		4.0~5.5	70	0.35	3,500	2.50	5.20	29.70	P,U,X
FBD5015B05W5-81	B		4.0~5.5	140	0.70	4,500	3.00	9.20	36.30	P,U,X
FBD5015B05W7-81	B		4.0~5.5	190	0.95	5,500	3.60	14.30	41.60	P,U,X
FBD5015B05W9-81	B		4.0~5.5	300	1.50	6,500	4.20	20.70	46.00	P,U,X
FBD5015B12W1-81	B	12	9.0~13.8	30	0.36	2,500	1.50	1.90	22.10	P,U,X
FBD5015B12W3-81	B		9.0~13.8	40	0.48	3,500	2.50	5.20	29.70	P,U,X
FBD5015B12W5-81	B		9.0~13.8	80	0.96	4,500	3.00	9.20	36.30	P,U,X
FBD5015B12W7-81	B		6.0~13.8	110	1.32	5,500	3.60	14.30	41.60	P,U,X
FBD5015B12W9-81	B		6.0~13.8	150	1.80	6,500	4.20	20.70	46.00	P,U,X
FBD5015B12W10-81	B		6.0~13.8	250	3.00	7,500	4.90	30.30	49.20	P,U,X

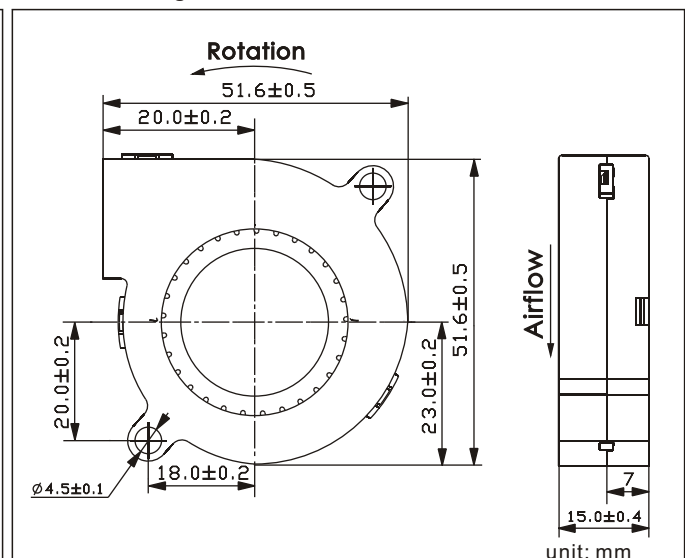
• For additional function availability type, please refer to the notes of page 4.

Specifications are subject to change without notice

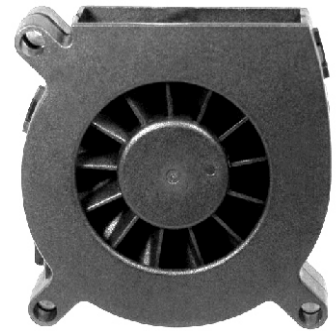
Characteristic Curves:



Out line Drawing:



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 20 g



DC Blower

Excellence

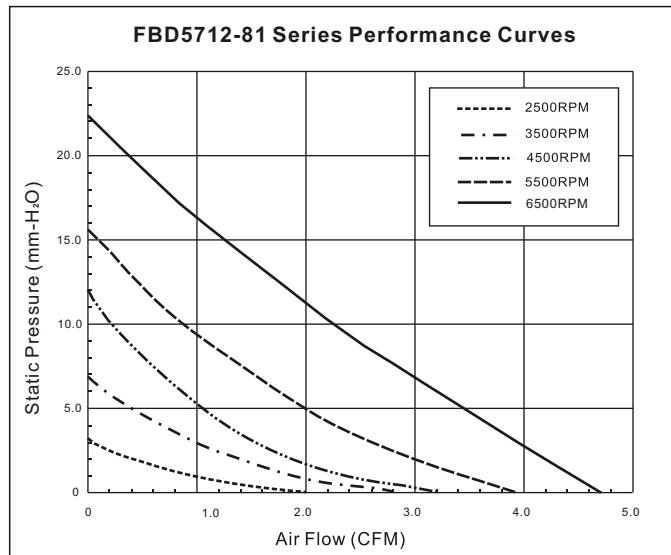
Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FBD5712B05W3-81	B	5	4.5~5.5	60	0.30	2,500	2.00	3.10	21.40	P,U,X
FBD5712B05W5-81	B		4.0~5.5	100	0.50	3,500	2.80	6.90	26.80	P,U,X
FBD5712B05W7-81	B		4.0~5.5	240	1.20	4,500	3.20	12.00	30.30	P,U,X
FBD5712B12W3-81	B	12	10.8~13.8	60	0.72	2,500	2.00	3.10	21.40	P,U,X
FBD5712B12W5-81	B		9.0~13.8	70	0.84	3,500	2.80	6.90	26.80	P,U,X
FBD5712B12W7-81	B		6.0~13.8	110	1.32	4,500	3.20	12.00	30.30	P,U,X
FBD5712B12W9-81	B		6.0~13.8	170	2.04	5,500	3.90	15.60	36.10	P,U,X
FBD5712B12W11-81	B		6.0~13.8	220	2.64	6,500	4.70	22.30	43.50	P,U,X

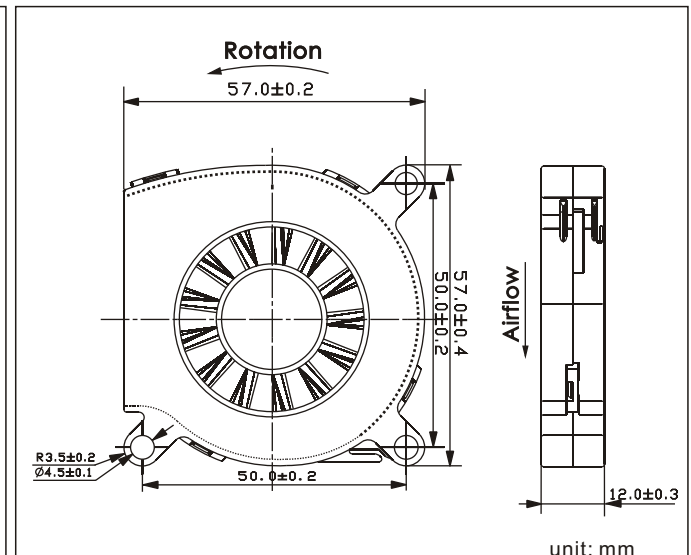
• For additional function availability type, please refer to the notes of page 4.

Specifications are subject to change without notice

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 28 g



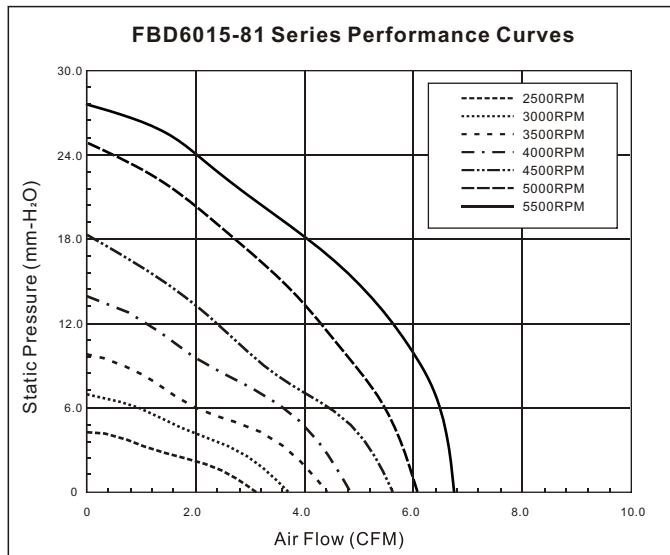
Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page4)
FBD6015B12W1-81	B	12	9.0~13.8	50	0.60	2,500	3.10	4.50	22.40	P,U,X
FBD6015B12W3-81	B		6.0~13.8	80	0.96	3,000	3.70	6.80	25.20	P,U,X
FBD6015B12W5-81	B		6.0~13.8	100	1.20	3,500	4.40	9.90	29.50	P,U,X
FBD6015B12W7-81	B		6.0~13.8	120	1.44	4,000	4.80	13.80	32.80	P,U,X
FBD6015B12W9-81	B		6.0~13.8	180	2.16	4,500	5.60	18.20	36.30	P,U,X
FBD6015B12W11-81	B		6.0~13.8	270	3.24	5,000	6.10	23.60	39.50	P,U,X
FBD6015B12W13-81	B		6.0~13.8	230	2.76	5,500	6.90	27.40	41.30	P,U,X

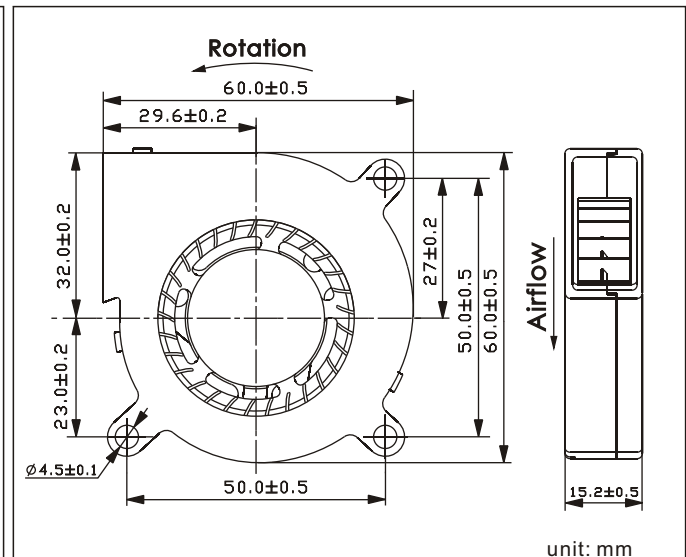
• For additional function availability type, please refer to the notes of page 4.

Specifications are subject to change without notice

Characteristic Curves:



Out line Drawing:



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10M Ω , 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 52 g



DC Blower

Excellence

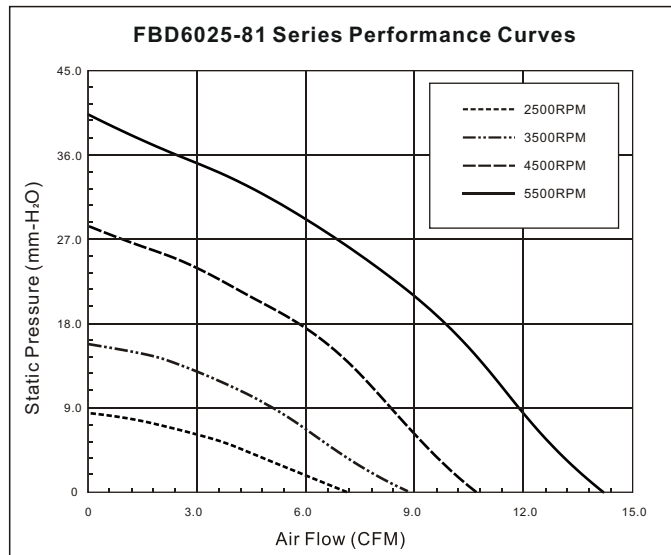
Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FBD6025B12W3-81 ★	B	12	6.0~13.8	100	1.20	2,500	7.10	8.50	25.50	P,M,U,X
FBD6025B12W5-81 ★	B		6.0~13.8	220	2.64	3,500	8.80	16.60	36.70	P,M,U,X
FBD6025B12W7-81 ★	B		6.0~13.8	400	4.80	4,500	10.70	28.50	42.70	P,M,U,X
FBD6025B12W9-81 ★	B		6.0~13.8	450	5.40	5,500	14.00	40.30	49.60	P,M,U,X
FBD6025B24W3-81 ★	B	24	16.0~27.6	60	1.44	2,500	7.10	8.50	25.50	P,M,U,X
FBD6025B24W5-81 ★	B		16.0~27.6	120	2.88	3,500	8.80	16.60	36.70	P,M,U,X
FBD6025B24W7-81 ★	B		16.0~27.6	200	4.80	4,500	10.70	28.50	42.70	P,M,U,X
FBD6025B48W3-81 ★	B	48	30.0~52.8	50	2.40	2,500	7.10	8.50	25.50	P,M,U,X
FBD6025B48W5-81 ★	B		30.0~52.8	80	3.84	3,500	8.80	16.60	36.70	P,M,U,X

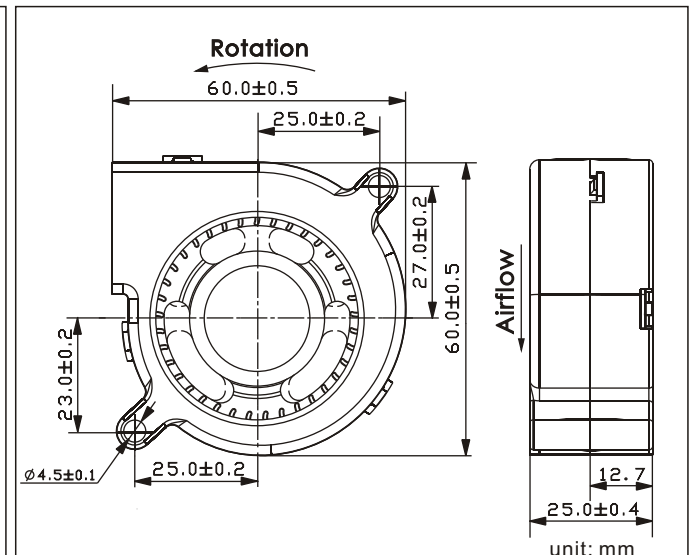
- If model with "★", auto restart protection built in ; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

Specifications are subject to change without notice

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 61 g



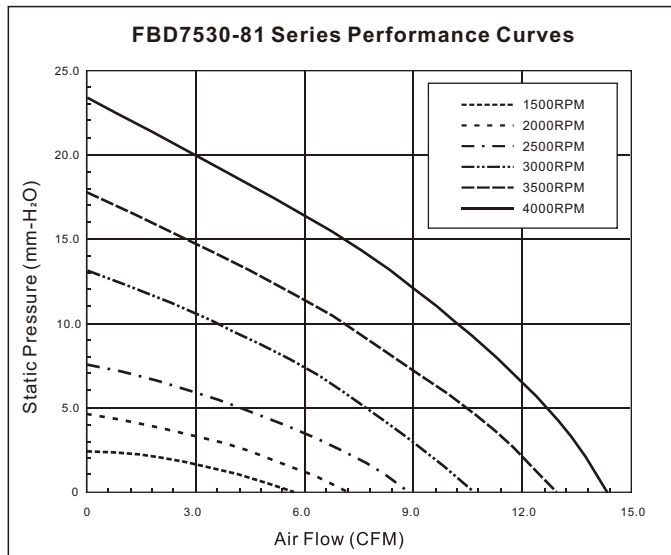
Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page4)
FBD7530B12W2-81 ★	B	12	6.0~13.8	80	0.96	1,500	5.50	2.20	23.00	P,M,U,X
FBD7530B12W3-81 ★	B		6.0~13.8	110	1.32	2,000	7.20	4.60	27.40	P,M,U,X
FBD7530B12W5-81 ★	B		6.0~13.8	150	1.80	2,500	8.90	7.50	32.60	P,M,U,X
FBD7530B12W7-81 ★	B		6.0~13.8	230	2.76	3,000	10.70	13.10	37.50	P,M,U,X
FBD7530B12W9-81 ★	B		6.0~13.8	360	4.32	3,500	12.90	17.90	41.80	P,M,U,X
FBD7530B12W11-81 ★	B		6.0~13.8	510	6.12	4,000	14.30	23.30	45.90	P,M,U,X
FBD7530B24W2-81 ★	B	24	12.0~27.6	70	1.68	1,500	5.50	2.20	23.00	P,M,U,X
FBD7530B24W3-81 ★	B		12.0~27.6	90	2.16	2,000	7.20	4.60	27.40	P,M,U,X
FBD7530B24W5-81 ★	B		12.0~27.6	100	2.40	2,500	8.90	7.50	32.60	P,M,U,X
FBD7530B24W7-81 ★	B		12.0~27.6	140	3.36	3,000	10.70	13.10	37.50	P,M,U,X
FBD7530B24W9-81 ★	B		12.0~27.6	230	5.52	3,500	12.90	17.90	41.80	P,M,U,X
FBD7530B24W11-81 ★	B		12.0~27.6	300	7.20	4,000	14.30	23.30	45.90	P,M,U,X
FBD7530B48W5-81 ★	B	48	24.0~52.8	80	3.84	2,500	8.90	7.50	32.60	P,M,U,X
FBD7530B48W7-81 ★	B		24.0~52.8	110	5.28	3,000	10.70	13.10	37.50	P,M,U,X
FBD7530B48W9-81 ★	B		24.0~52.8	150	7.20	3,500	12.90	17.90	41.80	P,M,U,X
FBD7530B48W11-81 ★	B		24.0~52.8	220	10.56	4,000	14.30	23.30	45.90	P,M,U,X

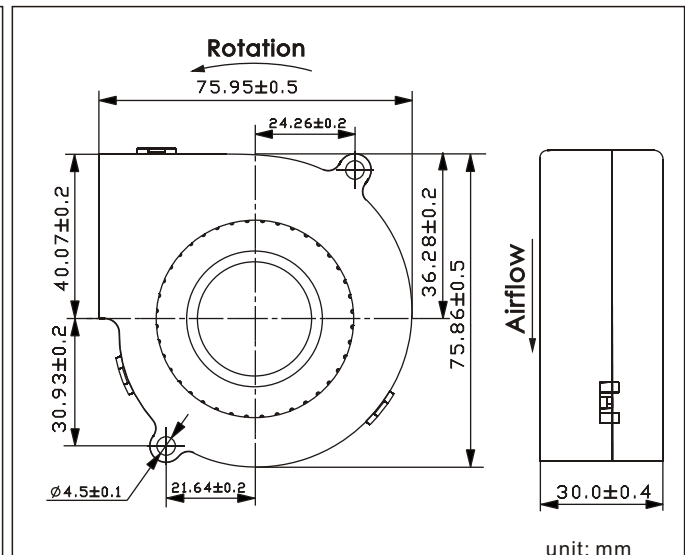
- If model with "★", auto restart protection built in.
- For additional function availability type, please refer to the notes of page 4.

Specifications are subject to change without notice

Characteristic Curves:



Out line Drawing:



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10M Ω , 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 142 g



DC Blower

Excellence

Specification :

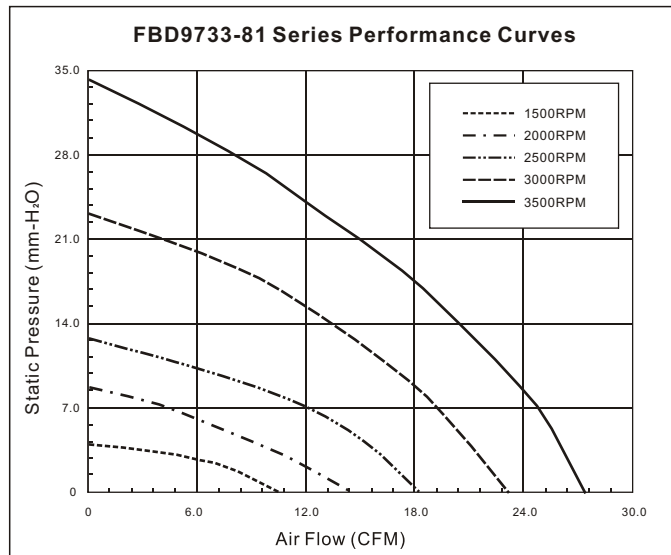
Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FBD9733B12W1-81 ★	B	12	8.0~13.8	80	0.96	1,500	10.50	3.90	32.80	P,M,U,X
FBD9733B12W2-81 ★	B		8.0~13.8	140	1.68	2,000	14.50	8.70	42.40	P,M,U,X
FBD9733B12W3-81 ★	B		8.0~13.8	290	3.48	2,500	18.20	12.70	49.20	P,M,U,X
FBD9733B12W5-81 ★	B		8.0~13.8	530	6.36	3,000	23.50	23.00	53.00	P,M,U,X
FBD9733B12W7-81 ★	B		8.0~13.8	900	10.80	3,500	27.20	34.20	58.30	P,M,U,X
FBD9733B24W1-81 ★	B	24	18.0~27.6	70	1.68	1,500	10.50	3.90	32.80	P,M,U,X
FBD9733B24W2-81 ★	B		12.0~27.6	110	2.64	2,000	14.50	8.70	42.40	P,M,U,X
FBD9733B24W3-81 ★	B		12.0~27.6	190	4.56	2,500	18.20	12.70	49.20	P,M,U,X
FBD9733B24W5-81 ★	B		12.0~27.6	350	8.40	3,000	23.50	23.00	53.00	P,M,U,X
FBD9733B24W7-81 ★	B		12.0~27.6	510	12.24	3,500	27.20	34.20	58.30	P,M,U,X
FBD9733B48W1-81 ★	B	48	38.0~52.8	40	1.92	1,500	10.50	3.90	32.80	P,M,U,X
FBD9733B48W2-81 ★	B		38.0~52.8	60	2.88	2,000	14.50	8.70	42.40	P,M,U,X
FBD9733B48W3-81 ★	B		38.0~52.8	110	5.28	2,500	18.20	12.70	49.20	P,M,U,X
FBD9733B48W5-81 ★	B		38.0~52.8	190	9.12	3,000	23.50	23.00	53.00	P,M,U,X
FBD9733B48W7-81 ★	B		38.0~52.8	300	14.40	3,500	27.20	34.20	58.30	P,M,U,X

• If model with "★", auto restart protection built in.

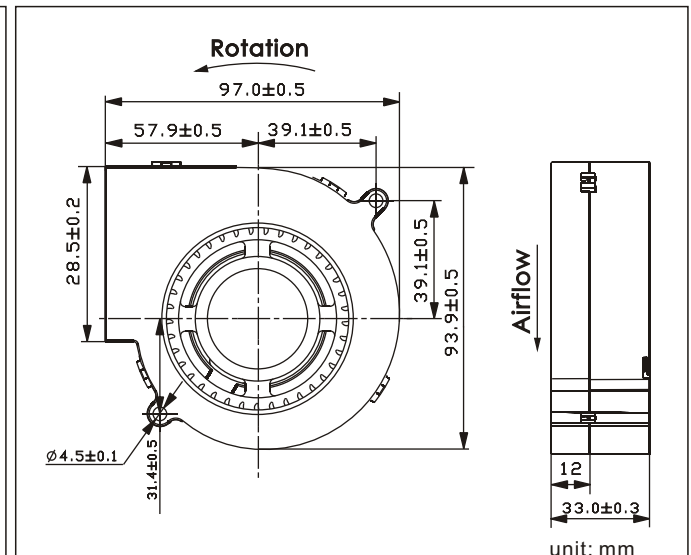
• For additional function availability type, please refer to the notes of page 4.

Specifications are subject to change without notice

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Galvanized Sheet-steel/Thermoplastic UL 94v-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 330 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FBD1230B12W1-41 ★	B,S	12	7.0~14.0	430	5.16	2,800	25.10	21.60	43.60	P,U,X
FBD1230B12W3-41 ★	B,S		7.0~14.0	640	7.68	3,200	28.60	28.00	46.60	P,U,X
FBD1230B12W5-41 ★	B,S		7.0~14.0	900	10.80	3,600	32.20	35.70	49.50	P,U,X
FBD1230B12W7-41 ★	B,S		7.0~14.0	1400	16.80	4,000	35.20	43.60	52.00	P,U,X
FBD1230B12W9-41 ★	B,S		7.0~14.0	1750	21.00	4,400	39.40	52.70	54.40	P,U,X
FBD1230B24W1-41 ★	B,S	24	15.0~27.0	190	4.56	2,800	25.10	21.60	43.60	P,U,X
FBD1230B24W3-41 ★	B,S		15.0~27.0	317	7.60	3,200	28.60	28.00	46.60	P,U,X
FBD1230B24W5-41 ★	B,S		15.0~27.0	465	11.17	3,600	32.20	35.70	49.50	P,U,X
FBD1230B24W7-41 ★	B,S		15.0~27.0	653	15.66	4,000	35.20	43.60	52.00	P,U,X
FBD1230B24W9-41 ★	B,S		15.0~27.0	930	22.32	4,400	39.40	52.70	54.40	P,U,X

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- If model with "★", auto restart protection built in.
- For additional function availability type, please refer to the notes of page 4.

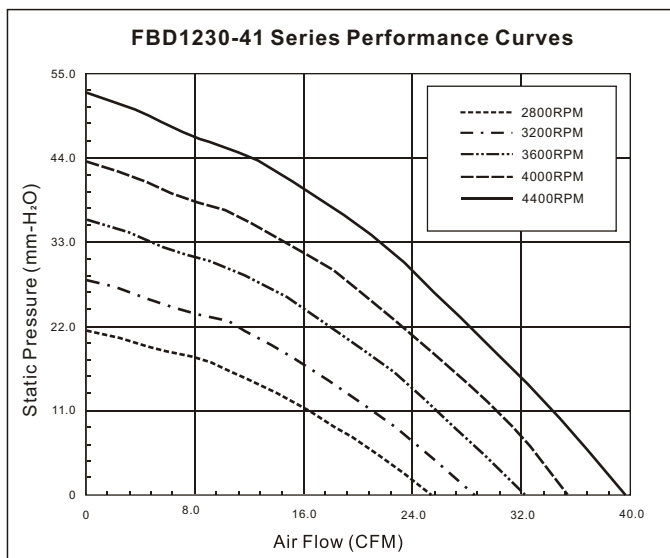
Specifications are subject to change without notice

Accessories :

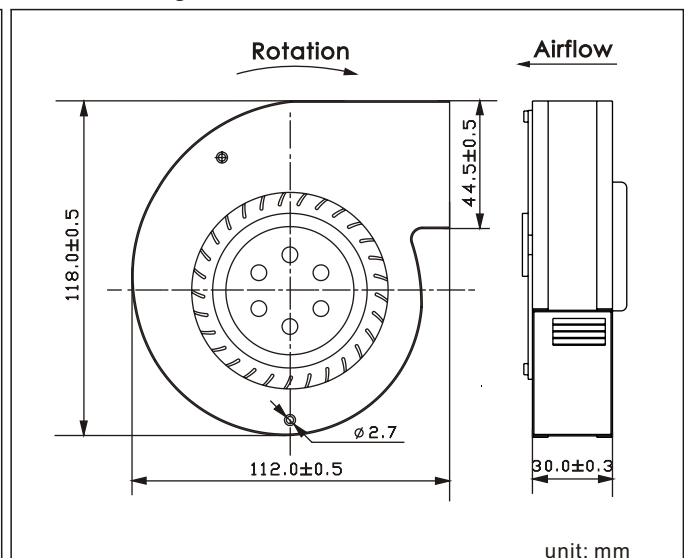
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-120	FGP-120	FPF-120	FFA-120

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Galvanized Sheet-steel/Thermoplastic UL 94v-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 274 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FBD1232B12W1-41 ★※	B,S	12	7.0~14.0	340	4.08	2,800	23.30	15.00	45.60	P,U,X
FBD1232B12W3-41 ★※	B,S		7.0~14.0	592	7.10	3,400	28.40	22.40	50.50	P,U,X
FBD1232B12W5-41 ★※	B,S		7.0~14.0	925	11.10	4,000	33.50	30.90	54.10	P,U,X
FBD1232B12W7-41 ★※	B,S		7.0~14.0	1460	17.52	4,600	38.70	40.90	57.50	P,U,X
FBD1232B12W9-41 ★※	B,S		7.0~14.0	1970	23.64	5,200	43.50	52.30	60.20	P,U,X
FBD1232B24W1-41 ★※	B,S	24	15.0~27.0	189	4.54	2,800	23.30	15.00	45.60	P,U,X
FBD1232B24W3-41 ★※	B,S		15.0~27.0	300	7.20	3,400	28.40	22.40	50.50	P,U,X
FBD1232B24W5-41 ★※	B,S		15.0~27.0	455	10.92	4,000	33.50	30.90	54.10	P,U,X
FBD1232B24W7-41 ★※	B,S		15.0~27.0	710	17.04	4,600	38.70	40.90	57.50	P,U,X
FBD1232B24W9-41 ★※	B,S		15.0~27.0	1100	26.40	5,200	43.50	52.30	60.20	P,U,X

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- If model with "★", auto restart protection built in; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

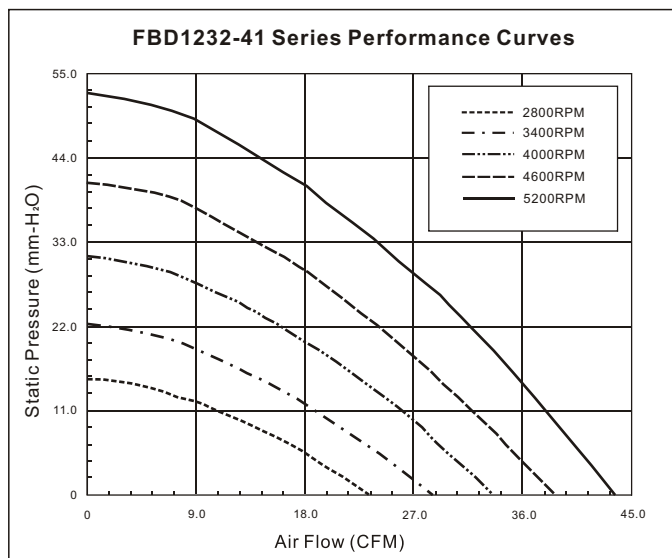
Specifications are subject to change without notice

Accessories :

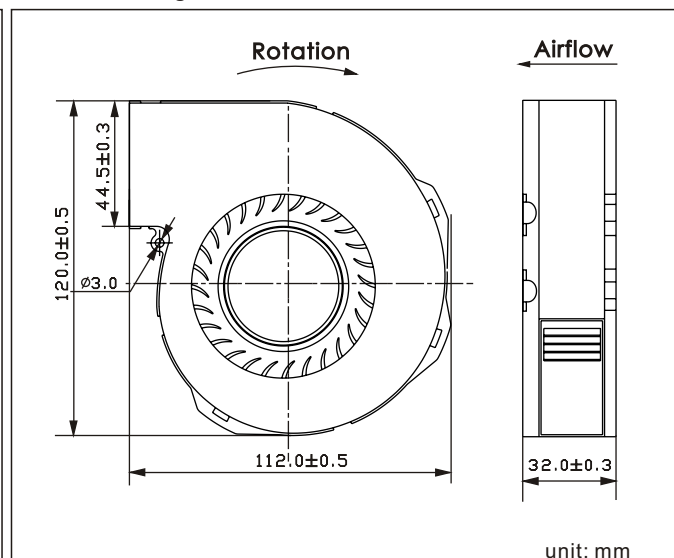
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-120	FGP-120	FPF-120	FFA-120

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 307 g



Specification :

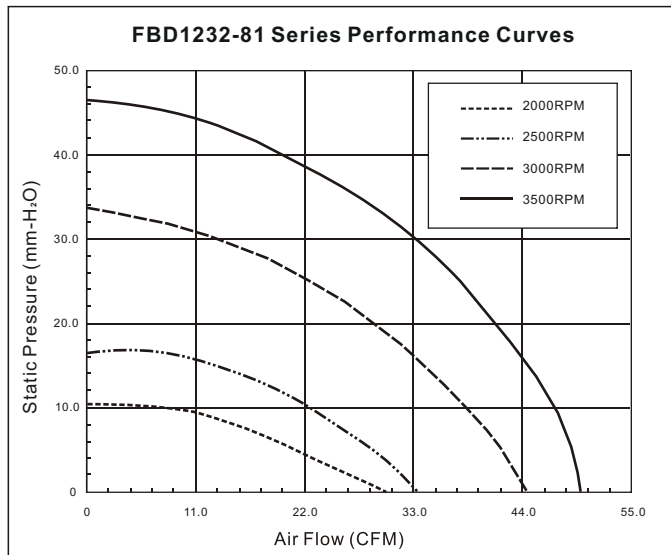
Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page4)
FBD1232B12W3-81 ★	B	12	8.0~13.8	340	4.08	2,000	29.40	10.30	47.20	P,M,U,X
FBD1232B12W5-81 ★	B		8.0~13.8	630	7.56	2,500	33.80	16.30	51.50	P,M,U,X
FBD1232B12W7-81 ★	B		8.0~13.8	1,010	12.12	3,000	44.70	33.40	55.30	P,M,U,X
FBD1232B12W9-81 ★	B		8.0~13.8	1,600	19.20	3,500	50.30	46.40	60.00	P,M,U,X
FBD1232B24W3-81 ★	B	24	12.0~27.6	200	4.80	2,000	29.40	10.30	47.20	P,M,U,X
FBD1232B24W5-81 ★	B		12.0~27.6	300	7.20	2,500	33.80	16.30	51.50	P,M,U,X
FBD1232B24W7-81 ★	B		12.0~27.6	810	19.44	3,000	44.70	33.40	55.30	P,M,U,X
FBD1232B24W9-81 ★	B		12.0~27.6	1,020	24.48	3,500	50.30	46.40	60.00	P,M,U,X
FBD1232B48W3-81 ★	B	48	24.0~52.8	130	6.24	2,000	29.40	10.30	47.20	P,M,U,X
FBD1232B48W5-81 ★	B		24.0~52.8	200	9.60	2,500	33.80	16.30	51.50	P,M,U,X
FBD1232B48W7-81 ★	B		24.0~52.8	690	33.12	3,000	44.70	33.40	55.30	P,M,U,X
FBD1232B48W9-81 ★	B		24.0~52.8	830	39.84	3,500	50.30	46.40	60.00	P,M,U,X

• If model with "★", auto restart protection built in.

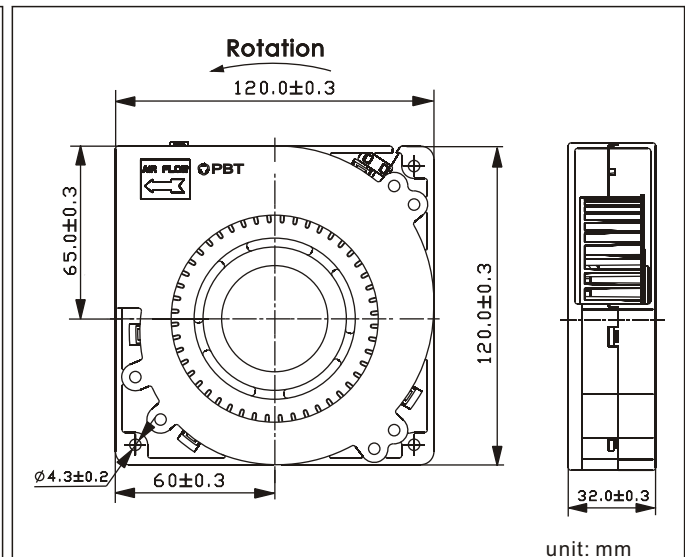
• For additional function availability type, please refer to the notes of page 4.

Specifications are subject to change without notice

Characteristic Curves:



Out line Drawing:



- Housing: Spiral Housing of Fiberglass-Reinforced Polycarbonate
Housing Base of Galvanized Steel Plate
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 500 g



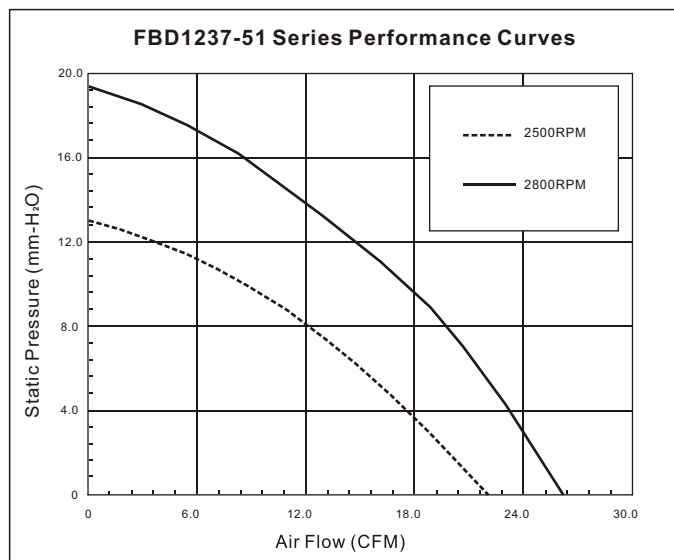
Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FBD1237B12W5-51 ★	B,S	12	9.0~13.8	630	7.56	2,500	22.00	13.20	52.00	P
FBD1237B12W7-51 ★	B,S		9.0~13.8	950	11.40	2,800	26.00	19.30	55.00	P
FBD1237B24W5-51 ★	B,S	24	12.0~27.6	310	7.44	2,500	22.00	13.20	52.00	P
FBD1237B24W7-51 ★	B,S		12.0~27.6	420	10.08	2,800	26.00	19.30	55.00	P
FBD1237B48W5-51 ★	B,S	48	24.0~55.2	160	7.68	2,500	22.00	13.20	52.00	P
FBD1237B48W7-51 ★	B,S		24.0~55.2	230	11.40	2,800	26.00	19.30	55.00	P

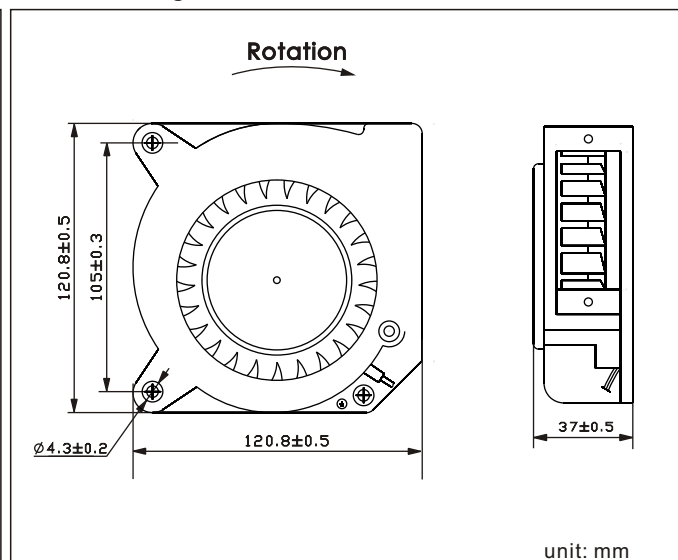
• For additional function availability type, please refer to the notes of page 4.

Specifications are subject to change without notice

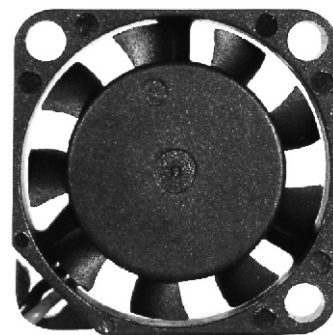
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #28 AWG
- Weight: 4 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD2006S05W5-71 ★	L,S	5	4.0~5.5	90	0.45	10,000	0.90	2.30	26.40	S
FD2006S05W7-71 ★	L,S		4.0~5.5	140	0.70	15,000	1.40	5.30	39.10	S
FD2006S12W5-71 ★	L,S	12	10.8-13.2	70	0.84	13,000	1.20	4.60	33.80	S
FD2006S12W7-71 ★	L,S		10.8-13.2	90	1.08	15,000	1.40	5.30	39.10	S

- For "Long Life", Bearing Version, change "S" in the model number to "L".
- If model with "★", auto restart protection built in.
- For additional function availability type, please refer to the notes of page 4.

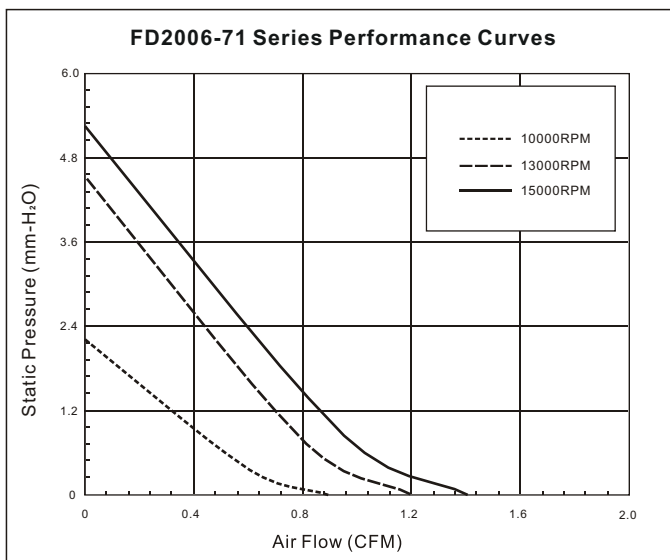
Specifications are subject to change without notice

Accessories :

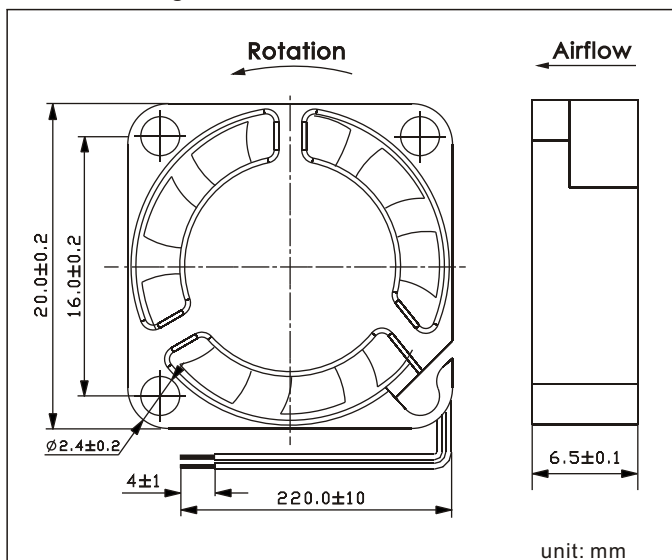
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	N/A	N/A	N/A	N/A

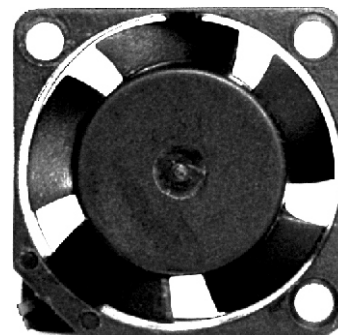
Characteristic Curves :



Outline Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #28 AWG
- Weight: 6.5 g



DC Brushless Fan

Standard

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD2510B05W3-71	B,L,S	5	4.0~5.5	100	0.50	7,000	1.70	2.20	19.90	S
FD2510B05W7-71	B,L,S		4.0~5.5	160	0.80	10,000	1.90	4.50	24.70	S
FD2510B05W9-71	B,L,S		4.0~5.5	200	1.00	13,000	3.10	7.70	33.00	S
FD2510B12W3-71	B,L,S	12	10.8~13.2	60	0.72	7,000	1.70	2.20	19.90	S
FD2510B12W7-71	B,L,S		10.8~13.2	70	0.84	10,000	1.90	4.50	24.70	S
FD2510B12W9-71	B,L,S		10.8~13.2	130	1.56	13,000	3.10	7.70	33.00	S

- For "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "L", "S".
- For additional function availability type, please refer to the notes of page 4.

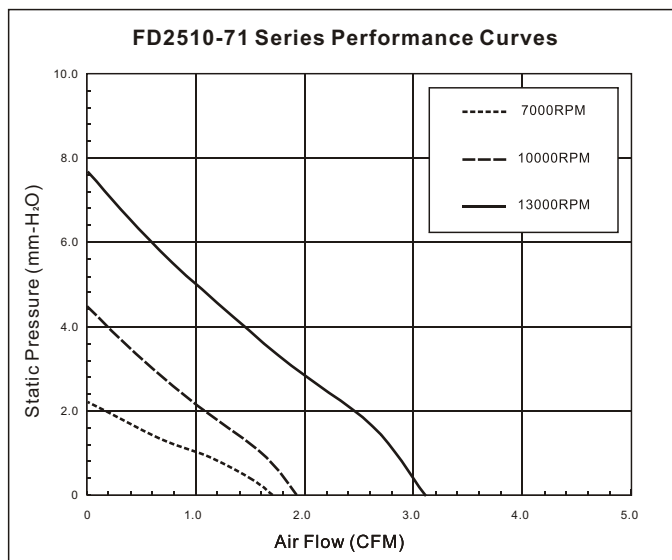
Specifications are subject to change without notice

Accessories :

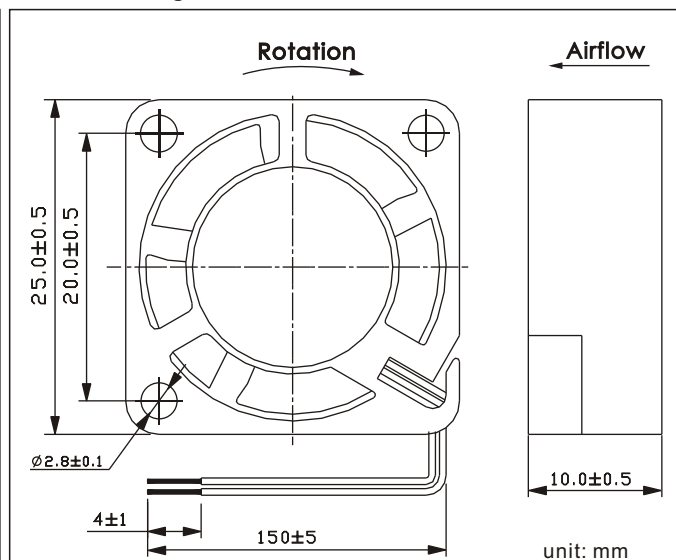
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-025	N/A	N/A	N/A

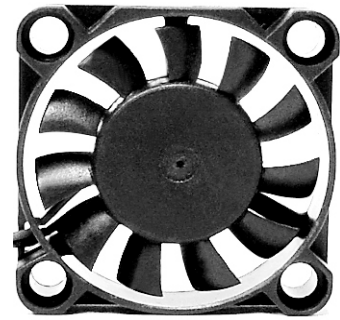
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #28 AWG
- Weight: 5 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD3006B05W5-71	B,S	5	4.0~5.5	120	0.60	6,000	1.70	1.30	22.00	S
FD3006B05W7-71	B,S		4.0~5.5	200	1.00	8,000	2.40	2.30	27.80	S
FD3006B12W5-71 ※	B,S	12	10.8~13.2	100	1.20	6,000	1.70	1.30	22.00	S
FD3006B12W7-71	B,S		10.8~13.2	100	1.20	8,000	2.40	2.30	27.80	S
FD3006B12W9-71	B,S		10.8~13.2	120	1.44	10,000	3.10	3.50	31.50	S

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

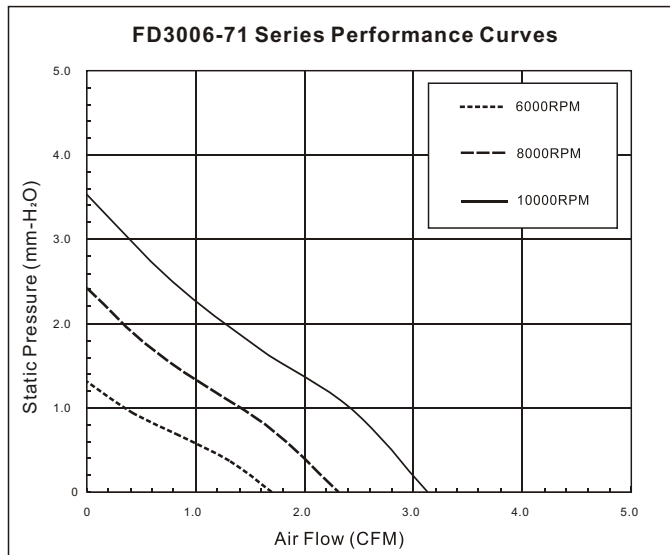
Specifications are subject to change without notice

Accessories :

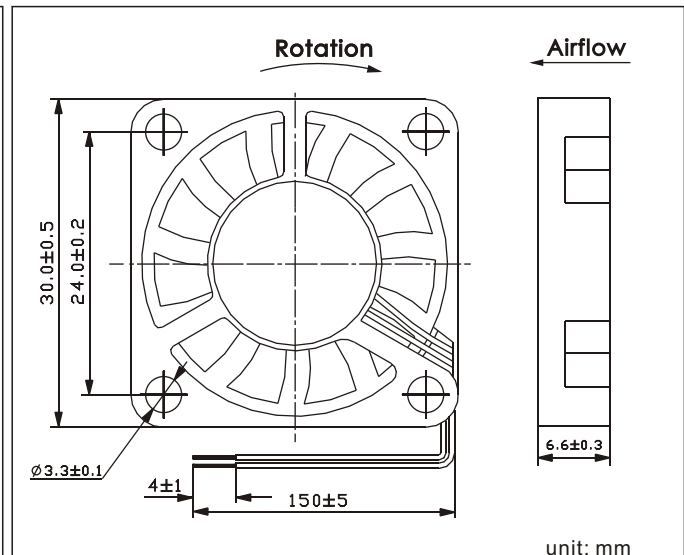
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	N/A	N/A	N/A	N/A

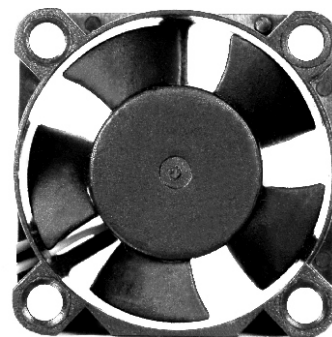
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #28 AWG
- Weight: 7 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD3010B05W3-71	B,C,L,S	5	4.0~5.5	100	0.50	5,500	2.50	2.60	19.00	S
FD3010B05W7-71	B,C,L,S		4.0~5.5	180	0.90	8,000	3.60	3.80	22.90	S
FD3010B05W9-71	B,C,L,S		4.0~5.5	200	1.00	9,500	4.30	4.50	28.00	S
FD3010B12W3-71	B,C,L,S	12	10.8~13.2	60	0.72	5,500	2.50	2.60	19.00	S
FD3010B12W7-71	B,C,L,S		10.8~13.2	110	1.32	8,000	3.60	3.80	22.90	S
FD3010B12W9-71	B,C,L,S		10.8~13.2	120	1.44	9,500	4.30	4.50	28.00	S

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- For additional function availability type, please refer to the notes of page 4.

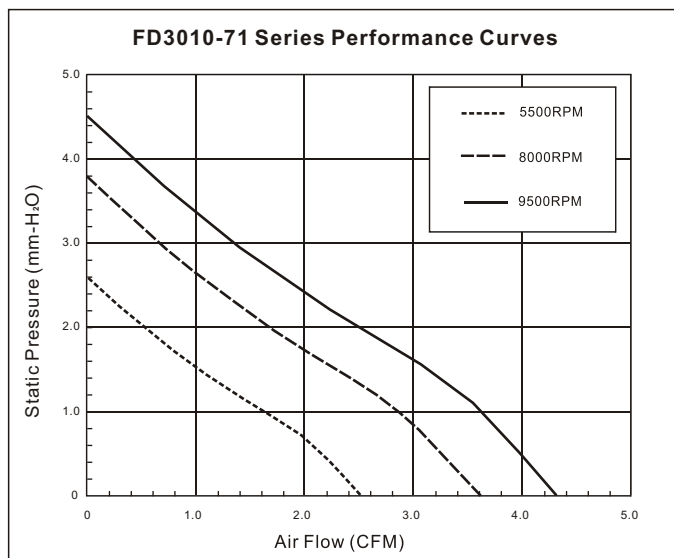
Specifications are subject to change without notice

Accessories :

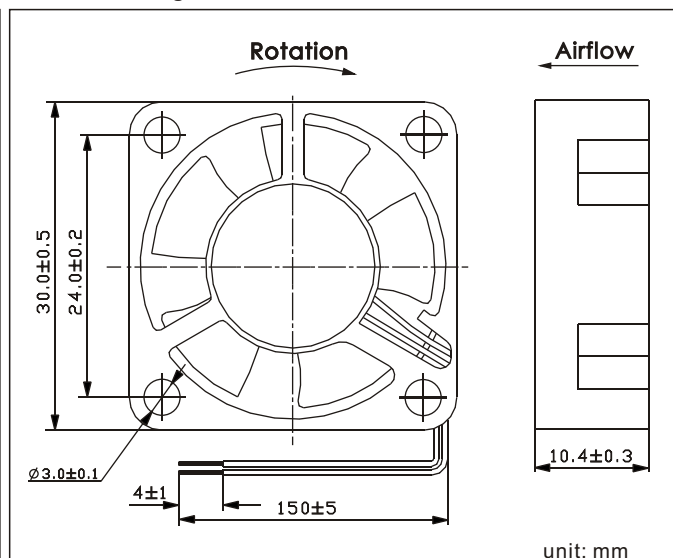
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	N/A	N/A	N/A	N/A

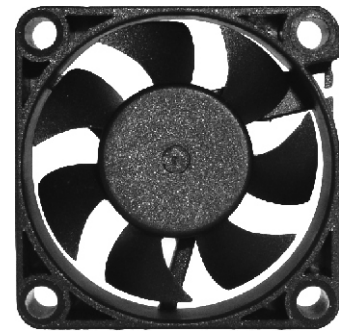
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #28 AWG
- Weight: 9 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD3510B05W3-71	B,C,L,S	5	4.0~5.5	130	0.65	5,000	3.60	1.30	20.00	S
FD3510B05W5-71	B,C,L,S		4.0~5.5	220	1.10	7,000	5.10	2.50	25.50	S
FD3510B05W7-71	B,C,L,S		4.0~5.5	230	1.15	9,000	6.40	3.70	31.90	S
FD3510B12W3-71	B,C,L,S	12	10.8-13.2	80	0.96	5,000	3.60	1.30	20.00	S
FD3510B12W5-71	B,C,L,S		10.8-13.2	110	1.32	7,000	5.10	2.50	25.50	S
FD3510B12W7-71	B,C,L,S		10.8-13.2	140	1.68	9,000	6.40	3.70	31.90	S

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- For additional function availability type, please refer to the notes of page 4.

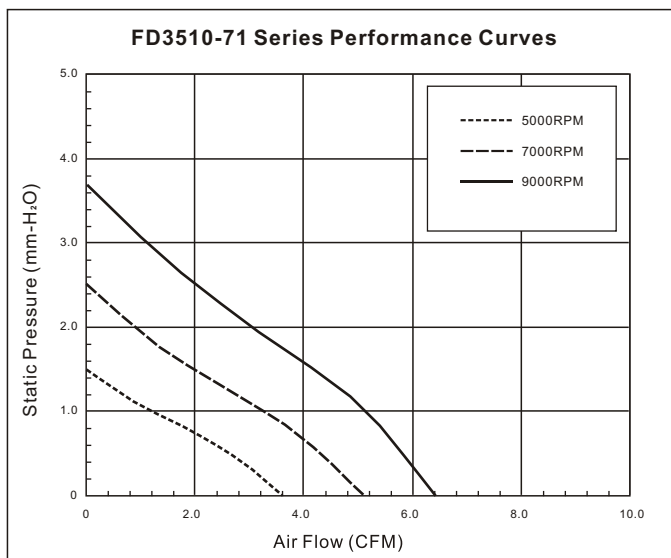
Specifications are subject to change without notice

Accessories :

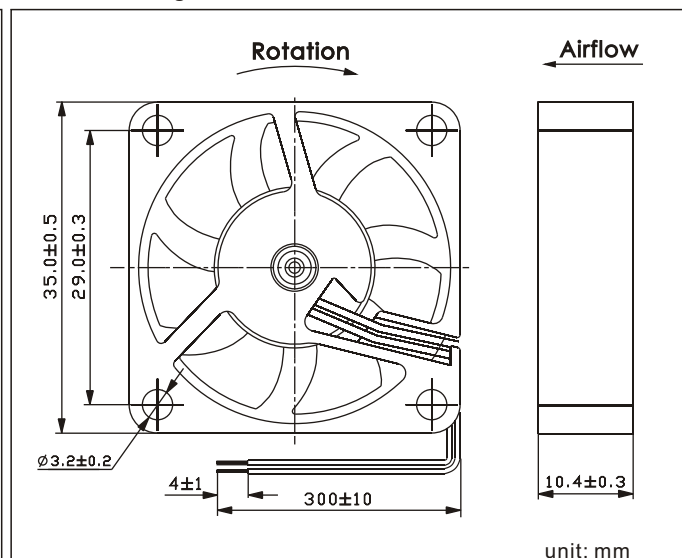
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	N/A	N/A	N/A	N/A

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #28 AWG
- Weight: 10.5 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD4007B05W5-71	B,S	5	4.0~5.5	230	1.15	6,500	5.50	2.50	29.50	S
FD4007B05W7-71	B,S		4.0~5.5	250	1.25	7,500	6.60	3.30	33.30	S
FD4007B12W5-71	B,S	12	10.8~13.2	110	1.32	6,500	5.50	2.50	29.50	S
FD4007B12W7-71	B,S		10.8~13.2	130	1.56	7,500	6.60	3.30	33.30	S

• For "Sleeve" Bearing Version, change "B" in the model number to "S".

Specifications are subject to change without notice

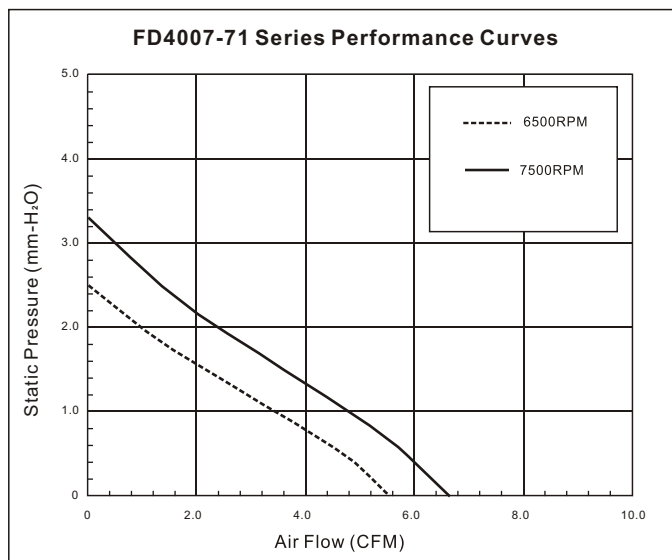
• For additional function availability type, please refer to the notes of page 4.

Accessories :

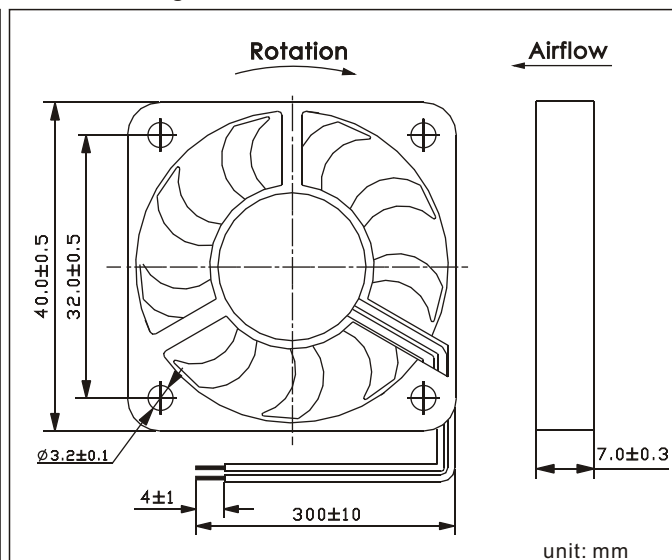
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-040	FGP-040	FPF-040	FFA-040

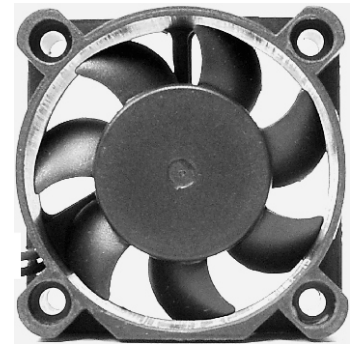
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 13 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD4010B05W3-71	B,C,L,S	5	4.0~5.5	80	0.40	4,200	4.50	2.40	20.80	S
FD4010B05W5-71	B,C,L,S		4.0~5.5	100	0.50	5,400	5.70	2.50	24.50	S
FD4010B05W7-71	B,C,L,S		4.0~5.5	160	0.80	6,000	6.50	3.40	25.90	S
FD4010B12W3-71	B,C,L,S	12	10.8~13.2	50	0.60	4,200	4.50	2.40	20.80	S
FD4010B12W5-71	B,C,L,S		10.8~13.2	60	0.72	5,400	5.70	2.50	24.50	S
FD4010B12W7-71	B,C,L,S		10.8~13.2	70	0.84	6,000	6.50	3.40	25.90	S
FD4010B24W3-71	B,C,L,S	24	17.0~28.0	50	1.20	4,200	4.50	2.40	20.80	S
FD4010B24W5-71	B,C,L,S		17.0~28.0	60	1.44	5,400	5.70	2.50	24.50	S
FD4010B24W7-71	B,C,L,S		17.0~28.0	70	1.68	6,000	6.50	3.00	25.90	S

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- For additional function availability type, please refer to the notes of page 4.

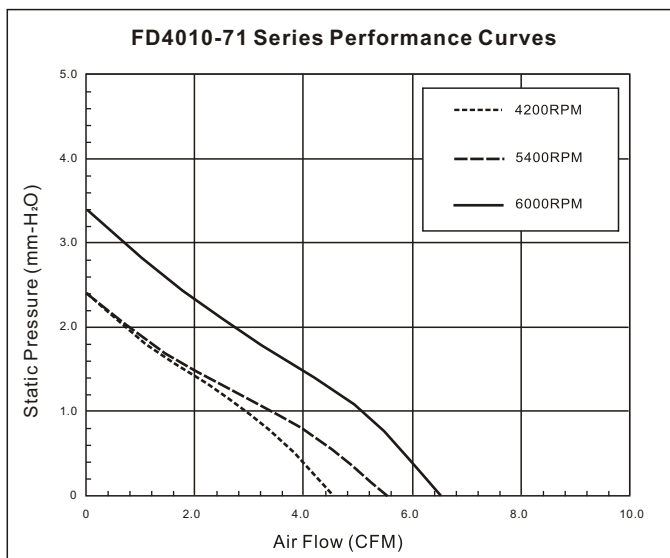
Specifications are subject to change without notice

Accessories :

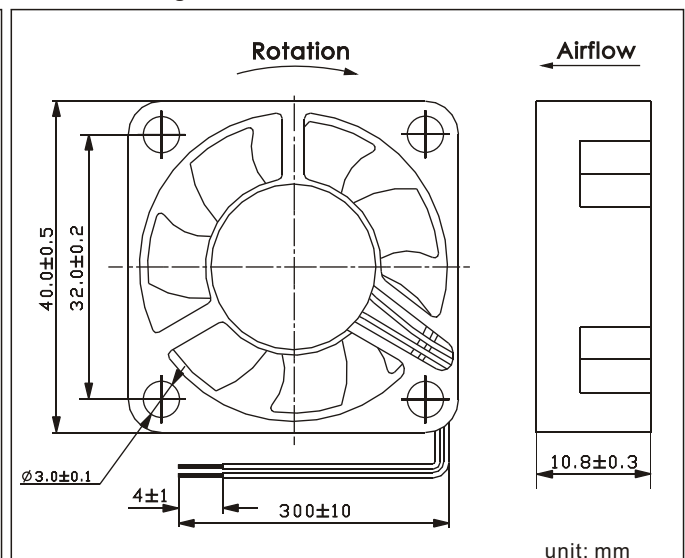
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-040	FGP-040	FPF-040	FFA-040

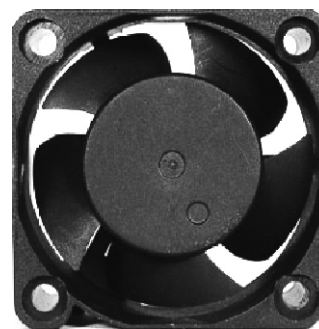
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10M Ω , 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 23 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD4020B05W5-71	B,L,S	5	4.0~5.5	110	0.55	5,000	5.80	2.60	23.10	P
FD4020B05W7-71	B,L,S		4.0~5.5	160	0.80	6,200	7.20	4.00	28.60	P
FD4020B05W9-71	B,L,S		4.0~5.5	260	1.30	7,500	8.70	5.70	33.90	P
FD4020B12W5-71	B,L,S	12	10.8~13.2	70	0.84	5,000	5.80	2.60	23.10	P
FD4020B12W7-71	B,L,S		10.8~13.2	110	1.32	6,200	7.20	4.00	28.60	P
FD4020B12W9-71	B,L,S		10.8~13.2	130	1.56	7,500	8.70	5.70	33.90	P
FD4020B12W11-71★※	B,L,S		10.8~13.2	150	1.80	9,000	10.40	6.80	39.70	P
FD4020B24W5-71	B,L,S	24	17.0~28.0	60	1.44	5,000	5.80	2.60	23.10	P
FD4020B24W7-71	B,L,S		17.0~28.0	80	1.92	6,200	7.20	4.00	28.60	P
FD4020B24W9-71	B,L,S		17.0~28.0	100	2.40	7,500	8.70	5.70	33.90	P

- For "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "L", "S".
- If model with "★", auto restart protection built in; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

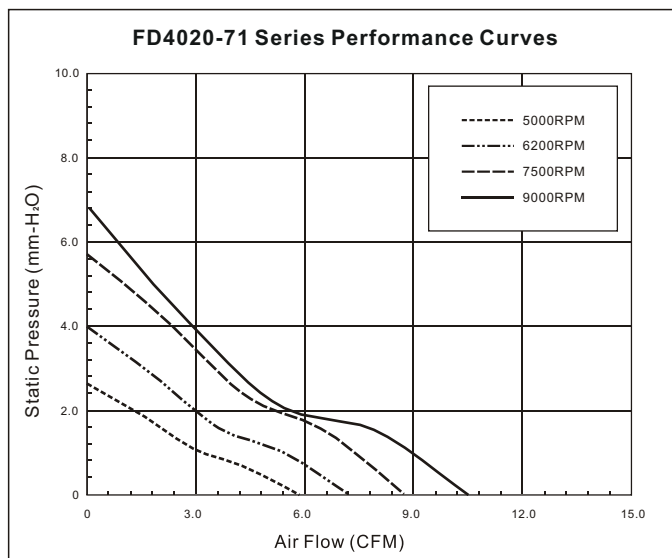
Specifications are subject to change without notice

Accessories :

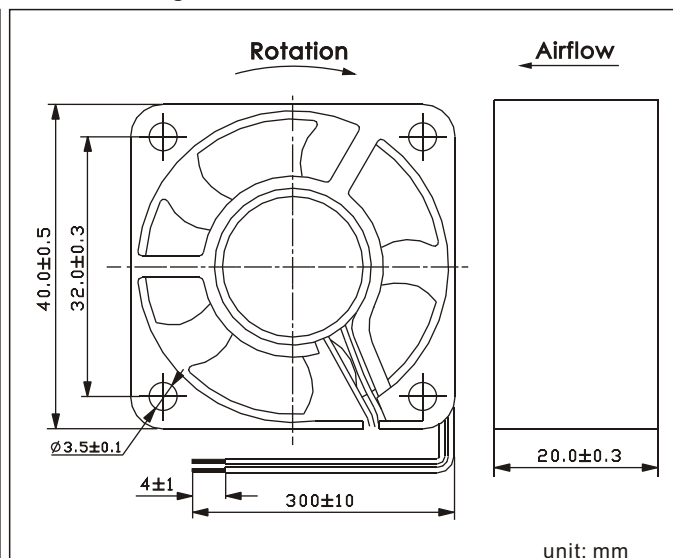
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-040	FGP-040	FPF-040	FFA-040

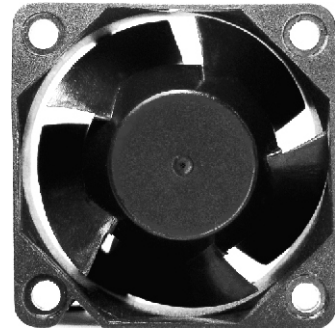
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 36 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD4028B05W1-71	B	5	4.0~5.5	220	1.10	5,000	6.50	3.30	25.00	P
FD4028B05W2-71	B		4.0~5.5	300	1.50	6,500	8.60	5.80	32.10	P
FD4028B05W3-71	B		4.0~5.5	350	1.75	7,500	11.00	6.40	34.70	P
FD4028B12W1-71	B	12	10.8~13.2	120	1.44	5,000	6.50	3.30	25.00	P
FD4028B12W2-71	B		10.8~13.2	160	1.92	6,500	8.60	5.80	32.10	P
FD4028B12W3-71	B		10.8~13.2	180	2.16	8,000	10.40	6.40	38.20	P
FD4028B12W5-71 ※	B		10.8~13.2	220	2.64	8,800	11.60	8.90	39.50	P
FD4028B12W7-71 ★※	B		10.8~13.2	250	3.00	10,000	13.20	11.60	41.00	P
FD4028B24W1-71	B	24	17.0~28.0	70	1.68	5,000	6.50	3.30	25.00	P
FD4028B24W2-71	B		17.0~28.0	90	2.16	6,500	8.60	5.80	32.10	P
FD4028B24W3-71	B		17.0~28.0	120	2.88	8,000	10.40	6.40	38.20	P
FD4028B24W5-71 ※	B		17.0~28.0	120	2.88	8,800	11.60	8.90	39.50	P

- If model with "★", auto restart protection built in; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

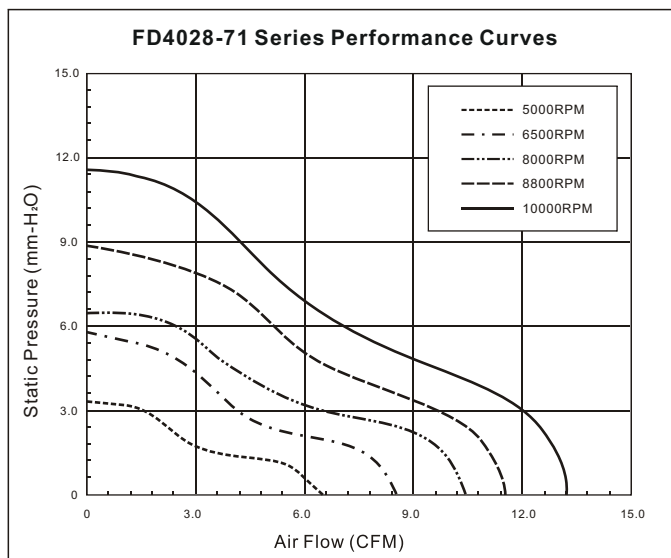
Specifications are subject to change without notice

Accessories :

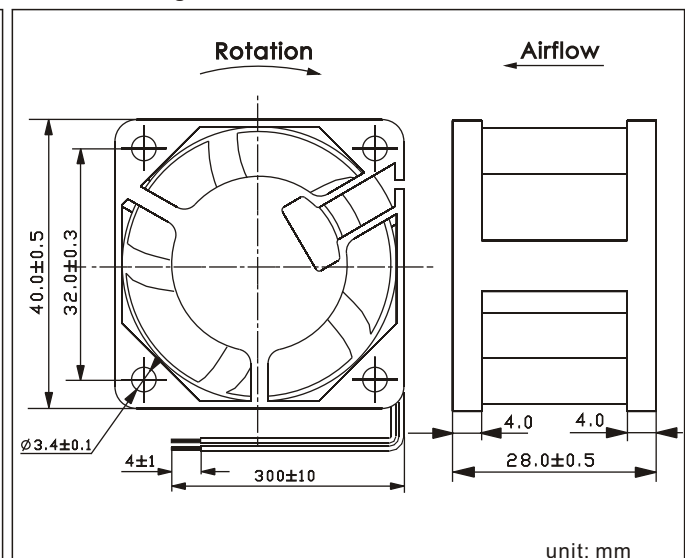
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-040	FGP-040	FPF-040	FFA-040

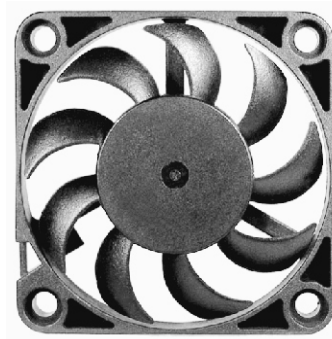
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 14 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD4507B05W5-71	B,S	5	4.0~5.5	220	1.10	6,000	7.50	2.40	31.10	S
FD4507B05W7-71	B,S		4.0~5.5	230	1.15	6,500	8.30	2.50	32.90	S
FD4507B12W5-71	B,S	12	10.8~13.2	110	1.32	6,000	7.50	2.40	31.10	S
FD4507B12W7-71	B,S		10.8~13.2	130	1.56	6,500	8.30	2.50	32.90	S

• For "Sleeve" Bearing Version, change "B" in the model number to "S".

Specifications are subject to change without notice

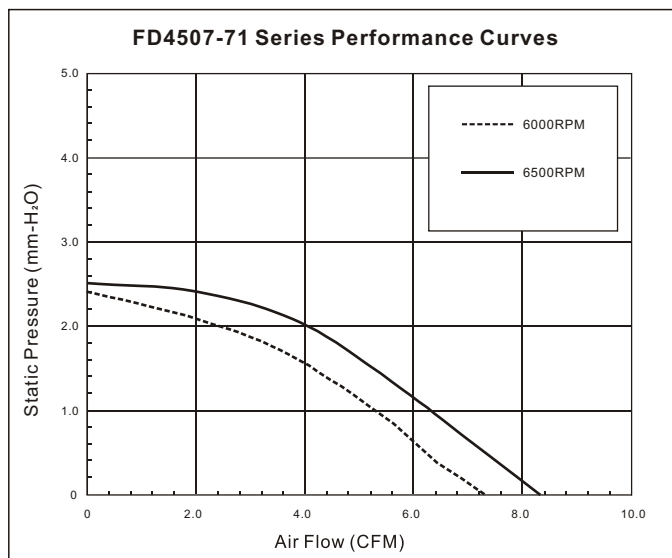
• For additional function availability type, please refer to the notes of page 4.

Accessories :

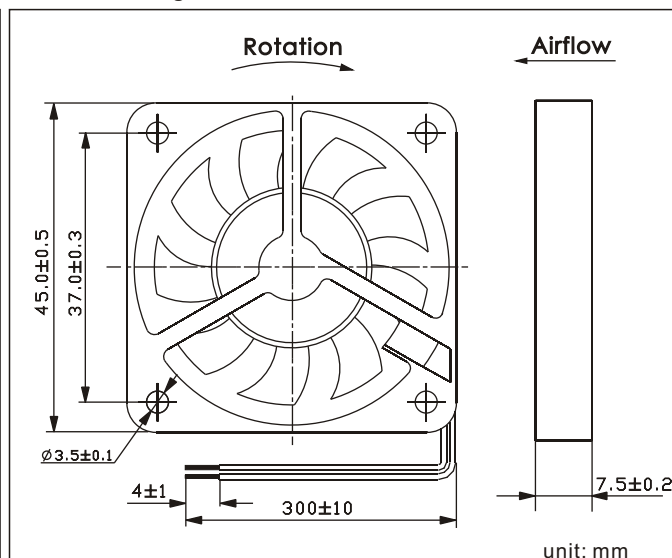
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	N/A	N/A	N/A	N/A

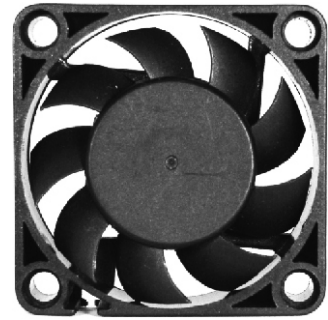
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 15 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD4510B12W3-71	B,C,L,S	12	10.8~13.2	60	0.72	4,000	4.60	1.50	22.10	S
FD4510B12W5-71	B,C,L,S		10.8~13.2	70	0.84	5,000	6.70	2.50	26.30	S
FD4510B12W7-71	B,C,L,S		10.8~13.2	90	1.08	6,000	7.40	3.20	31.00	S

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- For additional function availability type, please refer to the notes of page 4.

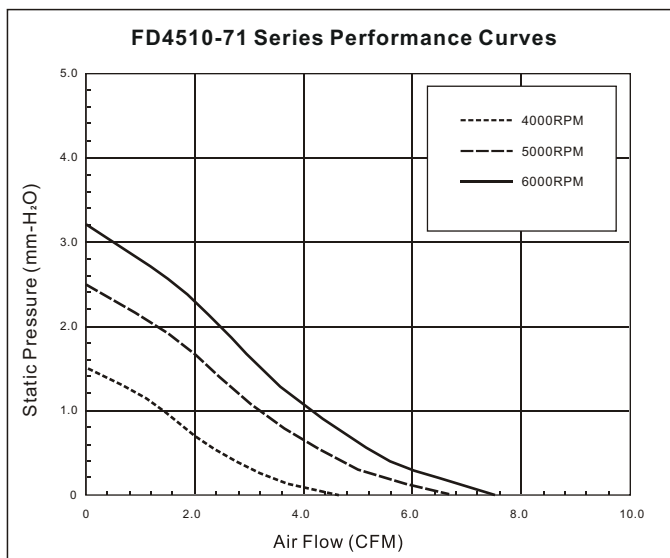
Specifications are subject to change without notice

Accessories :

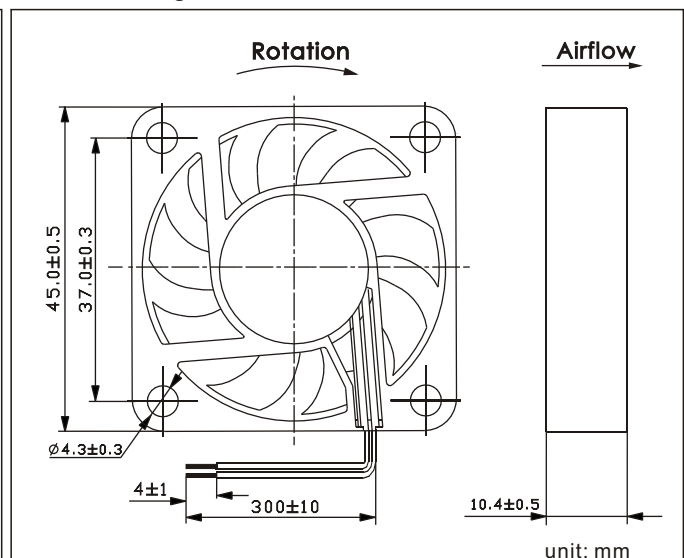
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	N/A	N/A	N/A	N/A

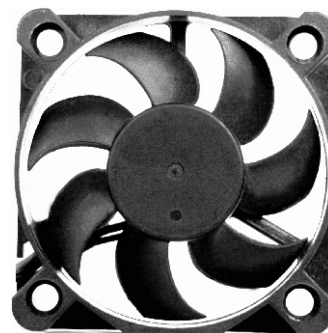
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10M Ω , 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 16 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD5010B05W3-71	B,C,L,S	5	4.0~5.5	120	0.60	3,500	7.40	1.80	20.50	S
FD5010B05W5-71	B,C,L,S		4.0~5.5	180	0.90	4,500	9.60	2.30	25.70	S
FD5010B05W7-71	B,C,L,S		4.0~5.5	220	1.10	5,300	11.20	2.70	29.70	S
FD5010B12W3-71	B,C,L,S	12	10.8~13.2	60	0.72	3,500	7.40	1.80	20.50	S
FD5010B12W5-71	B,C,L,S		10.8~13.2	70	0.84	4,500	9.60	2.30	25.70	S
FD5010B12W7-71	B,C,L,S		10.8~13.2	130	1.56	5,300	11.20	2.70	29.70	S
FD5010B24W3-71 ※	B,C,L,S	24	17.0~28.0	40	0.96	3,500	7.40	1.80	20.50	S
FD5010B24W5-71 ※	B,C,L,S		17.0~28.0	50	1.20	4,500	9.60	2.30	25.70	S
FD5010B24W7-71 ※	B,C,L,S		17.0~28.0	60	1.44	5,300	11.20	2.70	29.70	S

• For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".

Specifications are subject to change without notice

• If model with "※", the safety is pending.

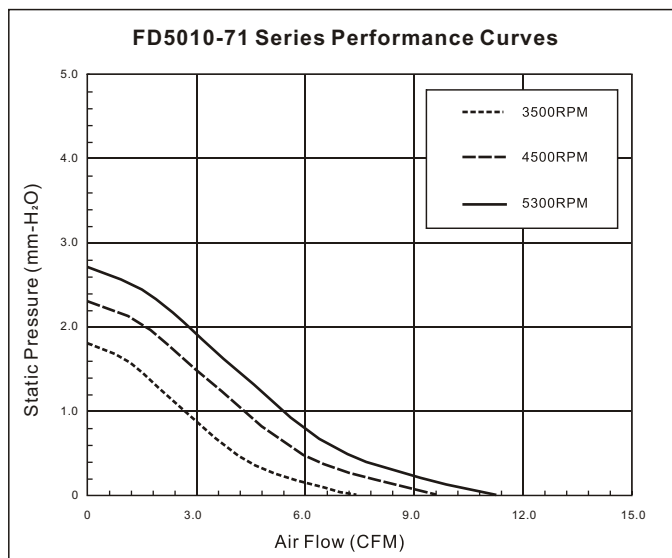
• For additional function availability type, please refer to the notes of page 4.

Accessories :

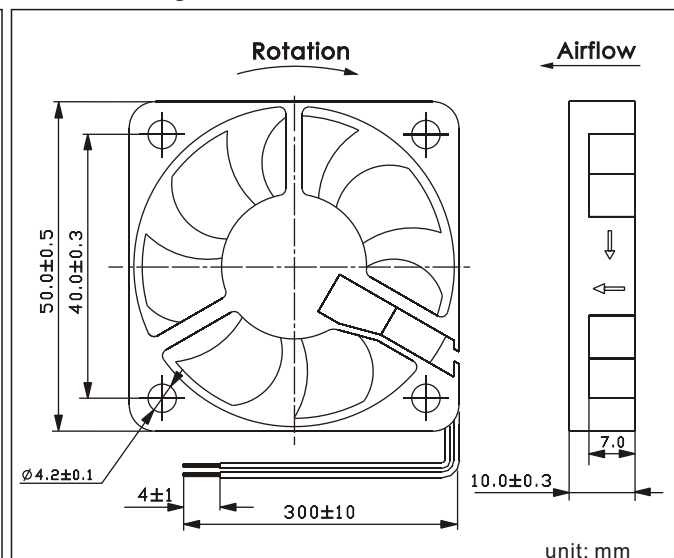
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-050	N/A	N/A	N/A

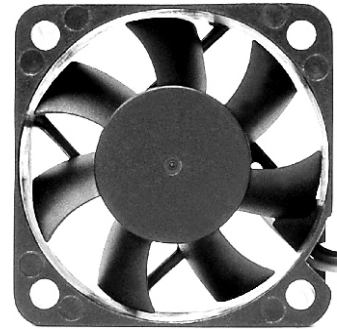
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 26.4 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD5015B05W5-71	B,C,L,S	5	4.0~5.5	120	0.60	2,000	5.00	0.60	18.50	S
FD5015B05W7-71	B,C,L,S		4.0~5.5	180	0.90	2,500	5.90	1.00	19.50	S
FD5015B05W9-71	B,C,L,S		4.0~5.5	220	1.10	3,000	7.70	1.40	21.80	S
FD5015B12W5-71	B,C,L,S	12	10.8~13.2	100	1.20	3,000	7.70	1.40	21.80	S
FD5015B12W7-71	B,C,L,S		10.8~13.2	120	1.44	3,500	8.40	1.70	25.00	S
FD5015B12W9-71	B,C,L,S		10.8~13.2	120	1.44	4,000	8.90	2.00	28.40	S

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- For additional function availability type, please refer to the notes of page 4.

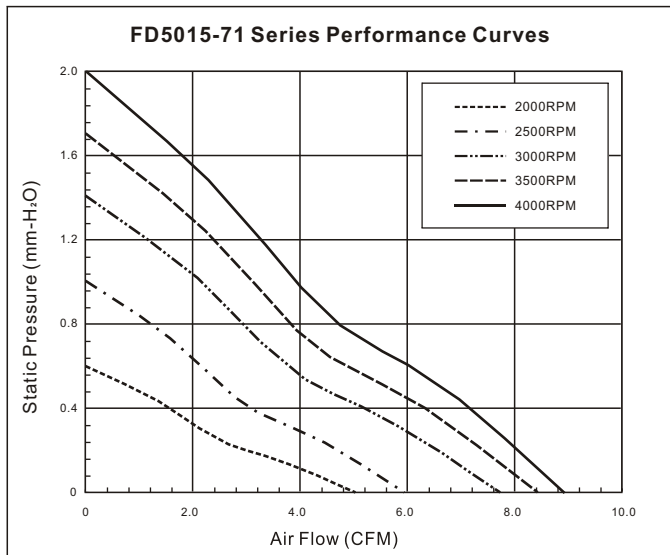
Specifications are subject to change without notice

Accessories :

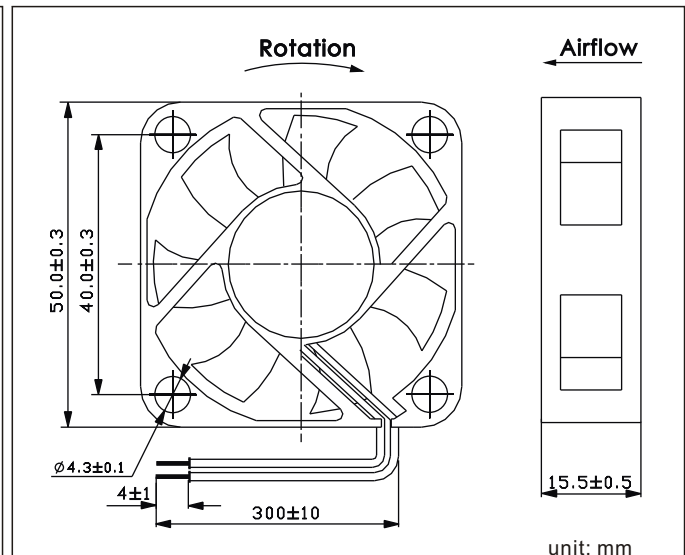
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-050	N/A	N/A	N/A

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10M Ω , 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 24 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD6010B12W2-71	B,C,L,S	12	10.8~13.2	130	1.56	3,500	14.60	2.00	26.80	S
FD6010B12W3-71	B,C,L,S		10.8~13.2	170	2.04	4,200	18.00	2.90	31.20	S
FD6010B12W5-71	B,C,L,S		10.8~13.2	230	2.76	5,000	21.80	4.00	35.50	S

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- For additional function availability type, please refer to the notes of page 4.

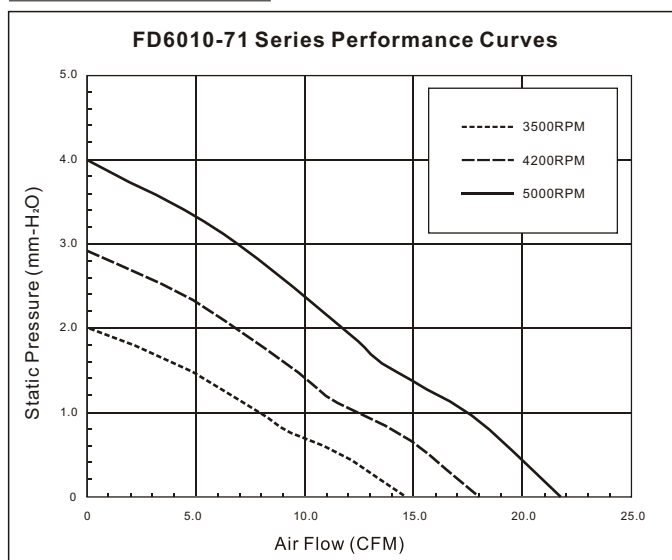
Specifications are subject to change without notice

Accessories :

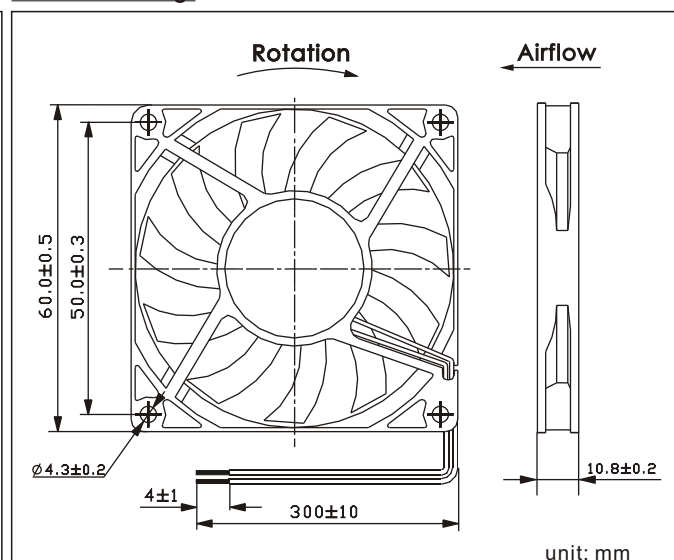
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-060	FGP-060	FPF-060	FFA-060

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 33 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD6015B05W3-71	B,C,L,S	5	4.0~5.5	140	0.70	2,000	10.40	0.80	19.70	P
FD6015B05W5-71	B,C,L,S		4.0~5.5	200	1.00	2,500	12.70	1.10	21.80	P
FD6015B05W7-71	B,C,L,S		4.0~5.5	260	1.30	3,000	15.60	1.60	26.00	P
FD6015B12W3-71	B,C,L,S	12	10.8~13.2	80	0.96	2,200	10.90	0.90	20.60	P
FD6015B12W5-71	B,C,L,S		10.8~13.2	130	1.56	2,800	14.30	1.50	24.20	P
FD6015B12W7-71	B,C,L,S		10.8~13.2	130	1.56	3,300	16.60	2.00	28.10	P

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- For additional function availability type, please refer to the notes of page 4.

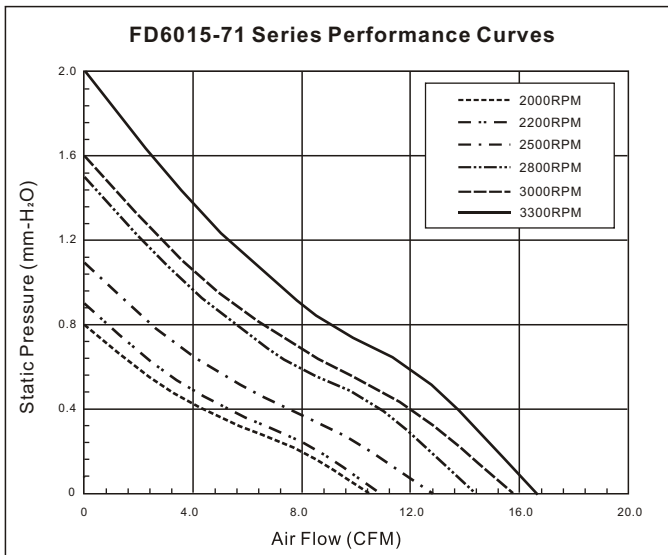
Specifications are subject to change without notice

Accessories :

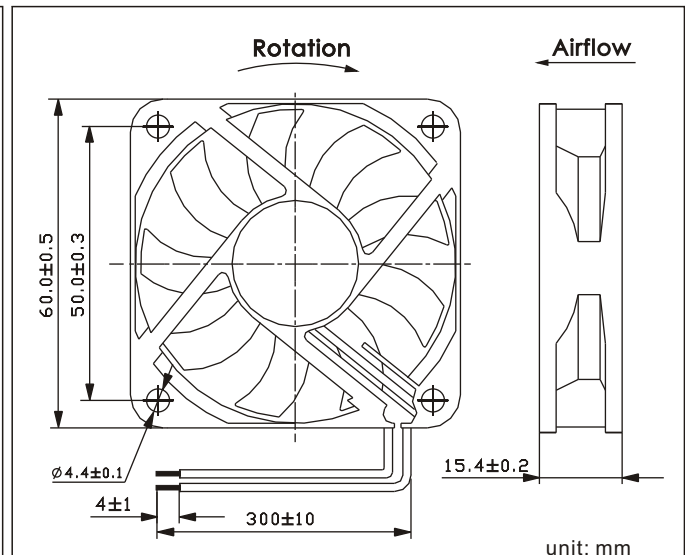
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-060	FGP-060	FPF-060	FFA-060

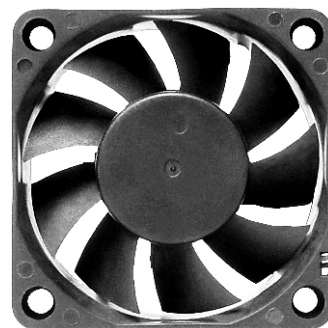
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10M Ω , 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 43.5 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD6020B12W2-71	B,C,L,S	12	10.8~13.2	80	0.96	2,500	12.50	1.50	19.70	P
FD6020B12W3-71	B,C,L,S		10.8~13.2	120	1.44	3,300	16.70	2.50	23.50	P
FD6020B12W5-71	B,C,L,S		10.8~13.2	170	2.04	4,000	20.60	3.70	28.60	P

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- For additional function availability type, please refer to the notes of page 4.

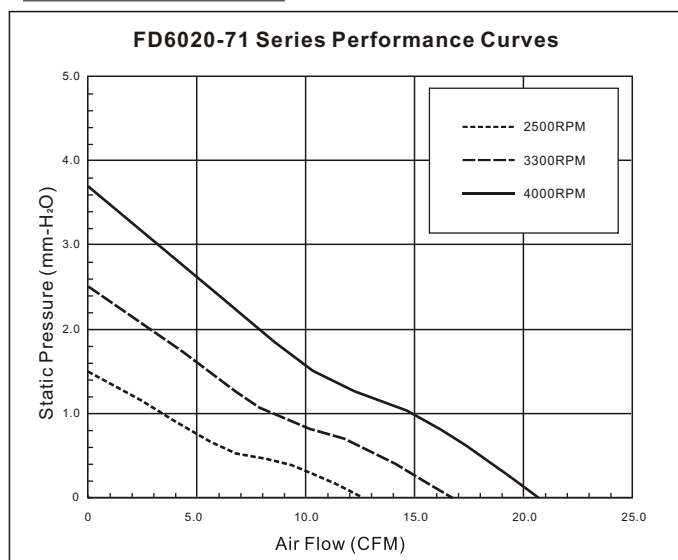
Specifications are subject to change without notice

Accessories :

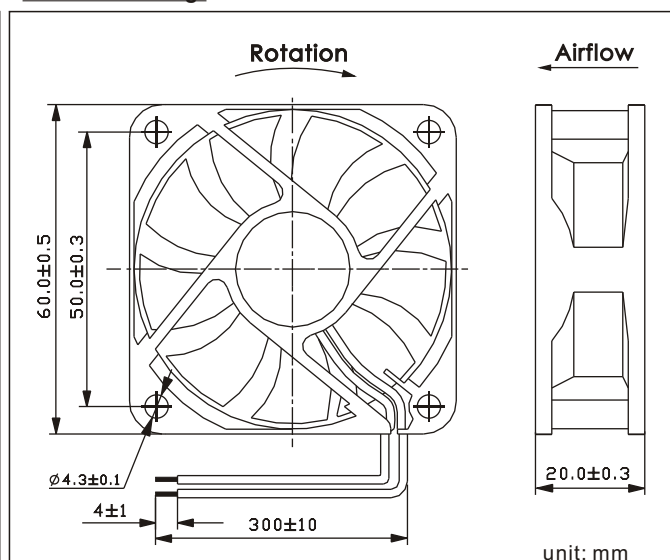
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-060	FGP-060	FPF-060	FFA-060

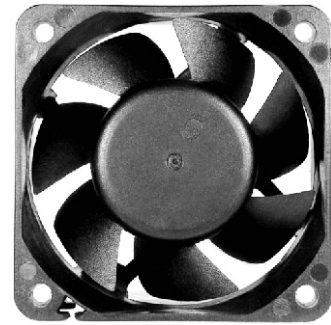
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 55 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD6025B12W1-71	B,C,L,S	12	10.8~13.2	80	0.96	2,500	13.40	1.20	18.70	P,M
FD6025B12W3-71	B,C,L,S		10.8~13.2	80	0.96	3,000	16.10	2.40	22.10	P,M
FD6025B12W5-71	B,C,L,S		10.8~13.2	130	1.56	4,000	21.40	4.80	28.90	P,M
FD6025B12W7-71 ★※	B,C,L,S		10.8~13.2	220	2.64	5,000	26.70	7.10	33.80	P,M
FD6025B24W1-71	B,C,L,S	24	17.0~28.0	90	2.16	2,500	13.40	1.20	18.70	P,M
FD6025B24W3-71	B,C,L,S		17.0~28.0	100	2.40	3,000	16.10	2.40	22.10	P,M
FD6025B24W5-71	B,C,L,S		17.0~28.0	140	3.36	4,000	21.40	4.80	28.90	P,M
FD6025B24W7-71 ★※	B,C,L,S		17.0~28.0	170	4.08	5,000	26.70	7.10	33.80	P,M

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- If model with "★", auto restart protection built in; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

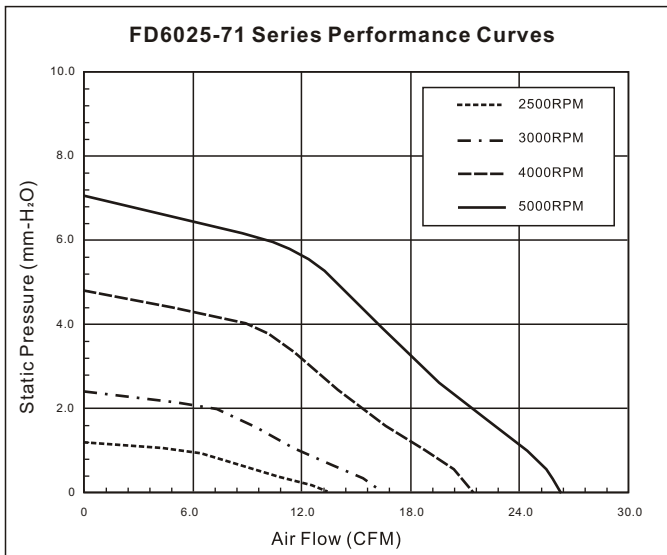
Specifications are subject to change without notice

Accessories :

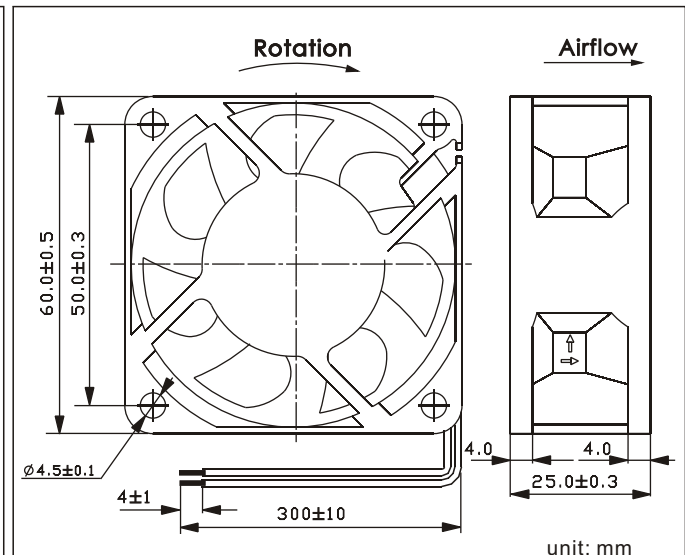
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-060	FGP-060	FPF-060	FFA-060

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 35 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD7010C12W3-71	C,L,S	12	9.0~13.2	100	1.20	2,500	15.10	1.30	24.60	P,M
FD7010C12W5-71	C,L,S		9.0~13.2	140	1.68	3,000	16.20	1.80	29.00	P,M
FD7010C12W7-71	C,L,S		9.0~13.2	210	2.52	3,500	21.30	2.40	33.30	P,M
FD7010C24W3-71	C,L,S	24	17.0~28.0	80	1.92	2,500	15.10	1.30	24.60	P,M
FD7010C24W5-71	C,L,S		17.0~28.0	110	2.64	3,000	16.20	1.80	29.00	P,M
FD7010C24W7-71	C,L,S		17.0~28.0	130	3.12	3,500	21.30	2.40	33.30	P,M

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "C" in the model number to "L", "S".
- For additional function availability type, please refer to the notes of page 4.

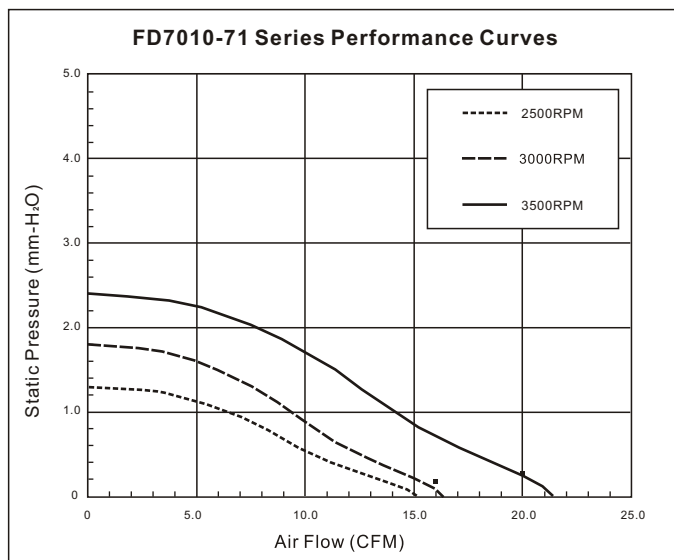
Specifications are subject to change without notice

Accessories :

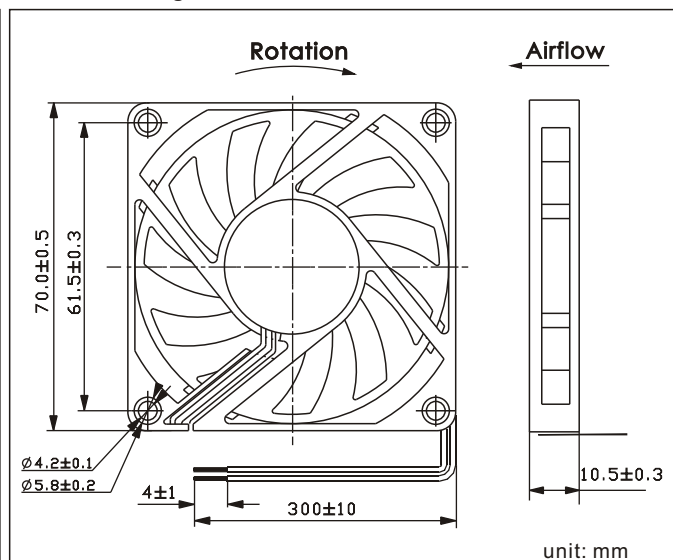
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-070	N/A	N/A	N/A

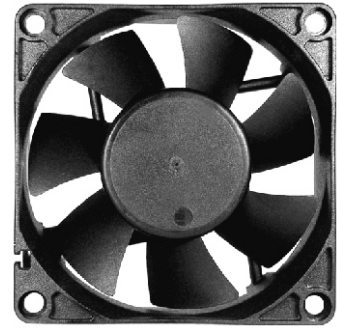
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 61 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD7025B12W2-71 ※	B,C,L,S	12	10.8~13.2	150	1.80	3,000	24.10	3.10	24.50	P,M
FD7025B12W3-71 ※	B,C,L,S		10.8~13.2	200	2.40	3,400	32.00	5.00	31.00	P,M
FD7025B12W5-71 ※	B,C,L,S		10.8~13.2	400	4.80	3,800	40.40	7.50	36.50	P,M

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

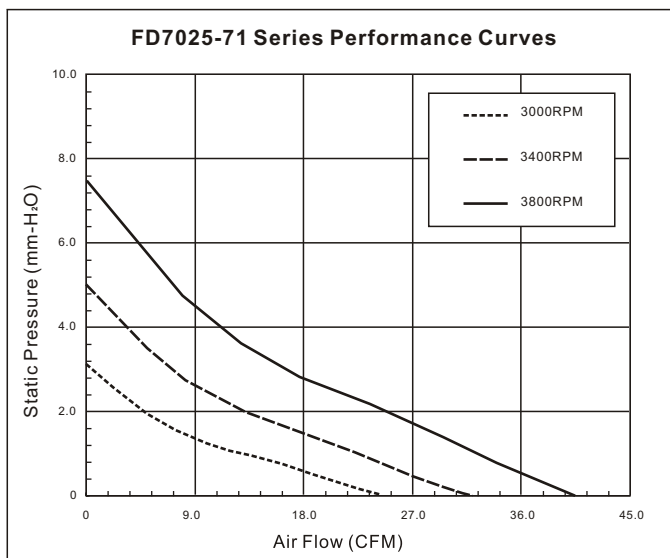
Specifications are subject to change without notice

Accessories :

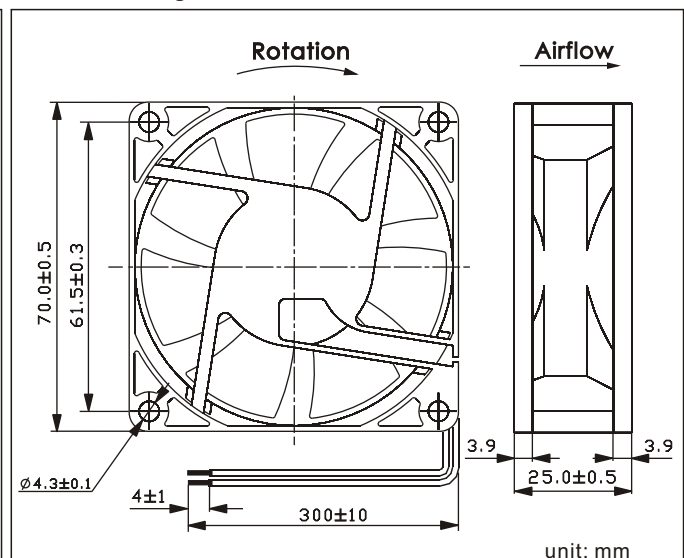
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-070	N/A	N/A	N/A

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 35 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD8010C12W3-71	C,L,S	12	10.8~13.2	120	1.44	2,000	15.80	0.90	21.70	P,M
FD8010C12W5-71	C,L,S		10.8~13.2	180	2.16	2,500	20.00	1.30	25.90	P,M
FD8010C12W7-71	C,L,S		10.8~13.2	240	2.88	3,000	23.80	1.80	30.30	P,M
FD8010C24W3-71	C,L,S	24	17.0~28.0	80	1.92	2,000	15.80	0.90	21.70	P,M
FD8010C24W5-71	C,L,S		17.0~28.0	110	2.64	2,500	20.00	1.30	25.90	P,M
FD8010C24W7-71	C,L,S		17.0~28.0	140	3.36	3,000	23.80	1.80	30.30	P,M

- For "Long Life", "Sleeve" Bearing Version, change "C" in the model number to "L", "S".
- For additional function availability type, please refer to the notes of page 4.

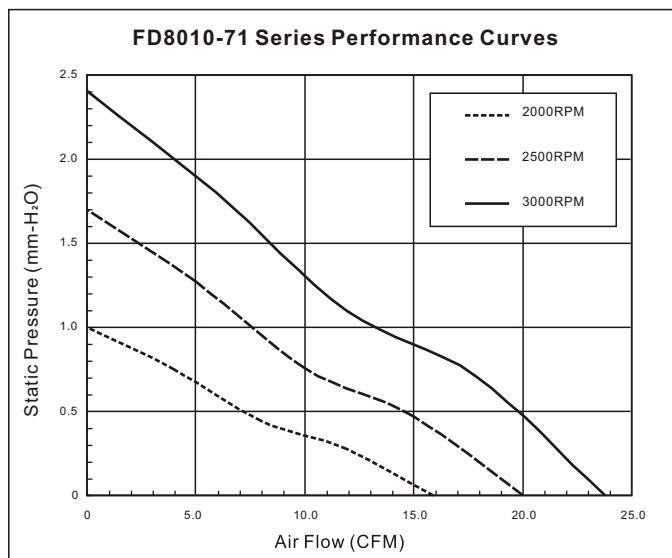
Specifications are subject to change without notice

Accessories :

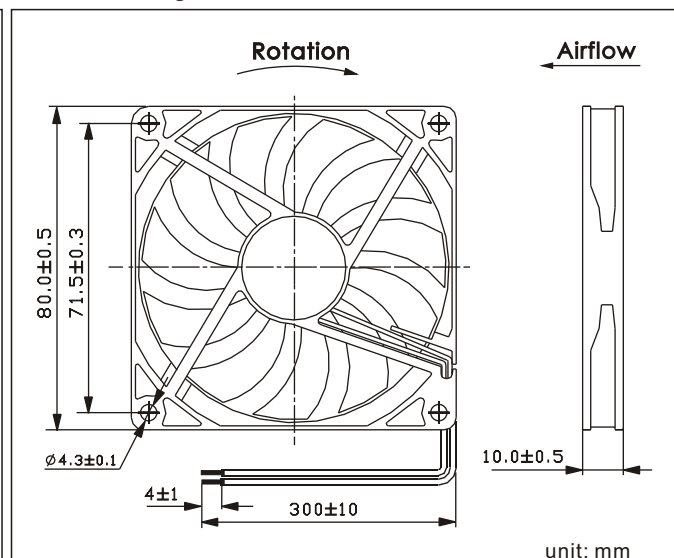
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-080	FGP-080	FPF-080	FFA-080

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 46 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD8015B05W3-71	B,C,L,S	5	4.0~5.5	140	0.70	2,000	19.30	1.00	23.80	P,M
FD8015B05W5-71	B,C,L,S		4.0~5.5	180	0.90	2,500	25.30	1.70	29.40	P,M
FD8015B05W7-71	B,C,L,S		4.0~5.5	260	1.30	3,000	30.60	2.40	34.10	P,M
FD8015B12W3-71	B,C,L,S	12	10.8~13.2	90	1.08	2,000	19.30	1.00	23.80	P,M
FD8015B12W5-71	B,C,L,S		10.8~13.2	140	1.68	2,500	25.30	1.70	29.40	P,M
FD8015B12W7-71	B,C,L,S		10.8~13.2	170	2.04	3,000	30.60	2.40	34.10	P,M
FD8015B24W3-71	B,C,L,S	24	17.0~28.0	70	1.68	2,000	19.30	1.00	23.80	P,M
FD8015B24W5-71	B,C,L,S		17.0~28.0	100	2.40	2,500	25.30	1.70	29.40	P,M
FD8015B24W7-71	B,C,L,S		17.0~28.0	140	3.36	3,000	30.60	2.40	34.10	P,M

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- For additional function availability type, please refer to the notes of page 4.

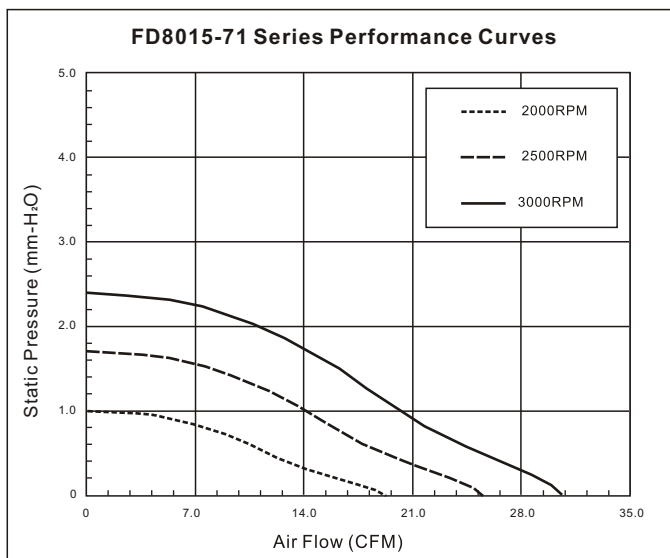
Specifications are subject to change without notice

Accessories :

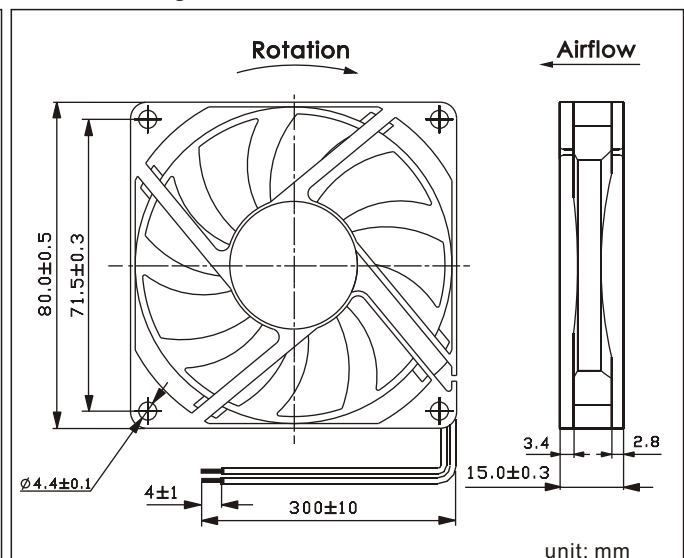
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-080	FGP-080	FPF-080	FFA-080

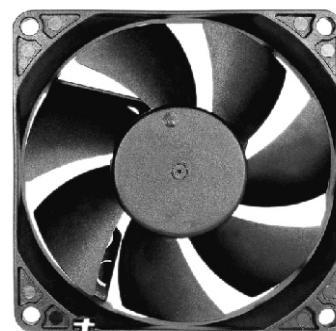
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 56.6g



DC Brushless Fan

Standard

Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD8020B12W3-71	B,C,L,S	12	10.8~13.2	130	1.56	2,500	27.40	2.30	31.60	P,M
FD8020B12W5-71	B,C,L,S		10.8~13.2	170	2.04	3,000	32.20	3.20	36.90	P,M
FD8020B12W7-71	B,C,L,S		10.8~13.2	230	2.76	3,500	38.40	4.30	40.70	P,M
FD8020B24W3-71	B,C,L,S	24	17.0~28.0	80	1.92	2,500	27.40	2.30	31.60	P,M
FD8020B24W5-71	B,C,L,S		17.0~28.0	100	2.40	3,000	32.20	3.20	36.90	P,M
FD8020B24W7-71	B,C,L,S		17.0~28.0	130	3.12	3,500	38.40	4.30	40.70	P,M

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- For additional function availability type, please refer to the notes of page 4.

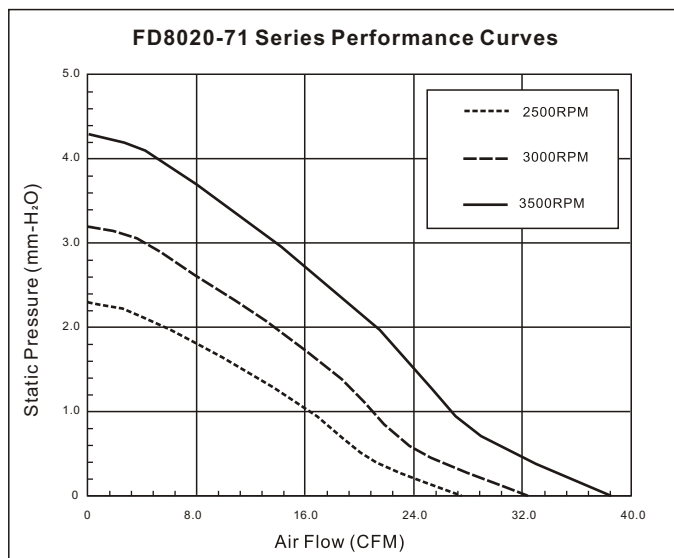
Specifications are subject to change without notice

Accessories :

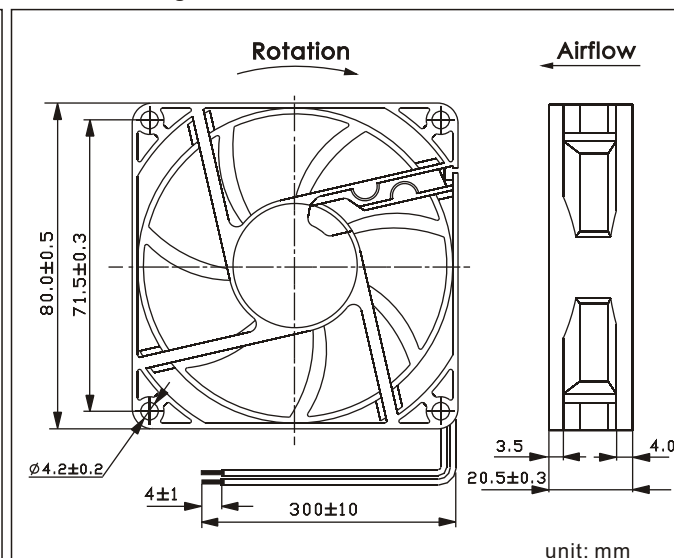
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-080	FGP-080	FPF-080	FFA-080

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 76 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD8025B12W3-61	B,S	12	6.0~13.8	100	1.20	2000	26.90	1.50	22.70	P,U
FD8025B12W5-61	B,S		6.0~13.8	160	1.92	2500	33.90	2.20	27.60	P,U
FD8025B12W7-61	B,S		6.0~13.8	230	2.76	3000	41.60	3.30	32.50	P,U
FD8025B12W9-61	B,S		6.0~13.8	390	4.68	4000	56.80	6.30	42.40	P,U
FD8025B24W3-61	B,S	24	12.0~27.6	80	1.92	2000	26.90	1.50	22.70	P,U
FD8025B24W5-61	B,S		12.0~27.6	100	2.40	2500	33.90	2.20	27.60	P,U
FD8025B24W7-61	B,S		12.0~27.6	140	3.36	3000	41.60	3.30	32.50	P,U

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- For additional function availability type, please refer to the notes of page 4.

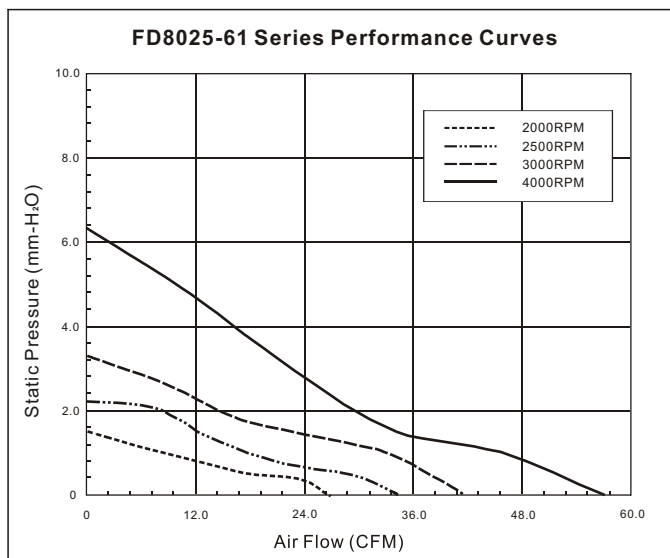
Specifications are subject to change without notice

Accessories :

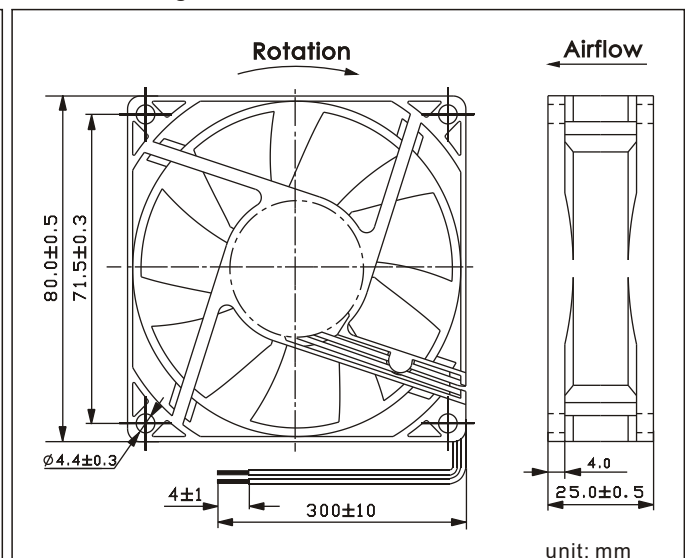
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-080	FGP-080	FPP-080	FFA-080

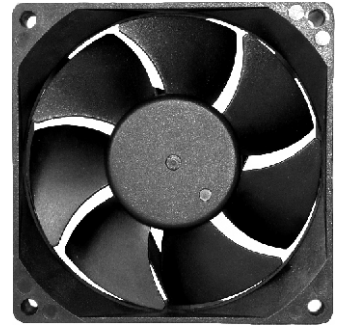
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 76 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD8025B05W3-62	B,S	5	3.5~5.75	190	0.95	2,000	20.50	1.90	20.70	P
FD8025B05W5-62	B,S		3.5~5.75	250	1.25	2,500	24.70	2.60	27.60	P
FD8025B05W7-62	B,S		3.5~5.75	410	2.05	3,000	30.60	4.40	29.60	P
FD8025B12W3-62	B,S	12	6.0~13.8	80	0.96	2,000	20.30	1.90	20.70	P
FD8025B12W5-62	B,S		6.0~13.8	110	1.32	2,500	24.70	2.60	27.60	P
FD8025B12W7-62	B,S		6.0~13.8	170	2.04	3,000	30.60	4.40	29.60	P
FD8025B24W3-62	B,S	24	12.0~27.6	70	1.68	2,000	20.30	1.90	20.70	P
FD8025B24W5-62	B,S		12.0~27.6	90	2.16	2,500	24.70	2.60	27.60	P
FD8025B24W7-62	B,S		12.0~27.6	110	2.64	3,000	30.60	4.40	29.60	P
FD8025B48W3-62	B,S	48	24.0~55.2	130	6.24	4,000	39.90	5.80	38.40	P
FD8025B48W5-62	B,S		24.0~55.2	180	8.64	5,000	50.90	8.70	45.30	P
FD8025B48W7-62	B,S		24.0~55.2	200	9.60	6,000	60.50	10.50	48.30	P

• For "Sleeve" Bearing Version, change "B" in the model number to "S".

• For additional function availability type, please refer to the notes of page 4.

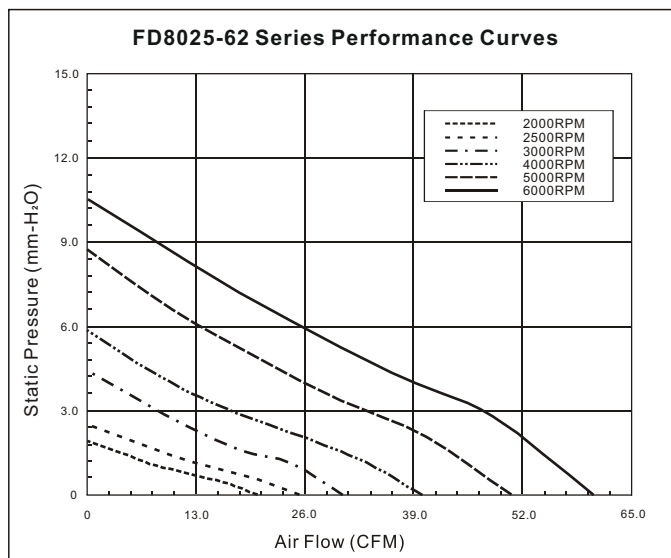
Specifications are subject to change without notice

Accessories :

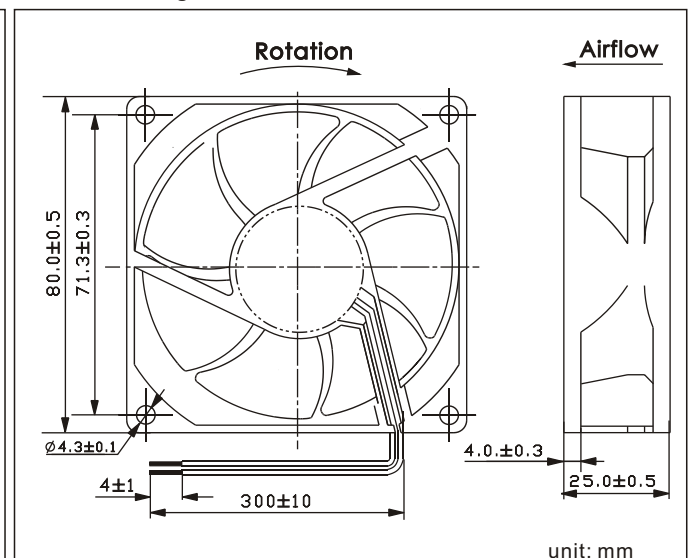
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-080	FGP-080	FPF-080	FFA-080

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 69 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD8025B05W3-71	B,C,L,S	5	4.0~5.5	220	1.10	2,000	25.80	1.60	22.10	P,M
FD8025B05W5-71	B,C,L,S		4.0~5.5	380	1.90	2,500	32.40	2.40	26.20	P,M
FD8025B05W7-71	B,C,L,S		4.0~5.5	400	2.00	3,000	38.50	3.40	30.90	P,M
FD8025B12W3-71	B,C,L,S	12	10.8~13.2	90	1.08	2,000	25.80	1.60	22.10	P,M
FD8025B12W5-71	B,C,L,S		10.8~13.2	120	1.44	2,500	32.40	2.40	26.20	P,M
FD8025B12W7-71	B,C,L,S		10.8~13.2	170	2.04	3,000	38.50	3.40	30.90	P,M
FD8025B24W3-71	B,C,L,S	24	17.0~28.0	90	2.16	2,000	25.80	1.60	22.10	P,M
FD8025B24W5-71	B,C,L,S		17.0~28.0	120	2.88	2,500	32.40	2.40	26.20	P,M
FD8025B24W7-71	B,C,L,S		17.0~28.0	150	3.60	3,000	38.50	3.40	30.90	P,M

- For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".
- For additional function availability type, please refer to the notes of page 4.

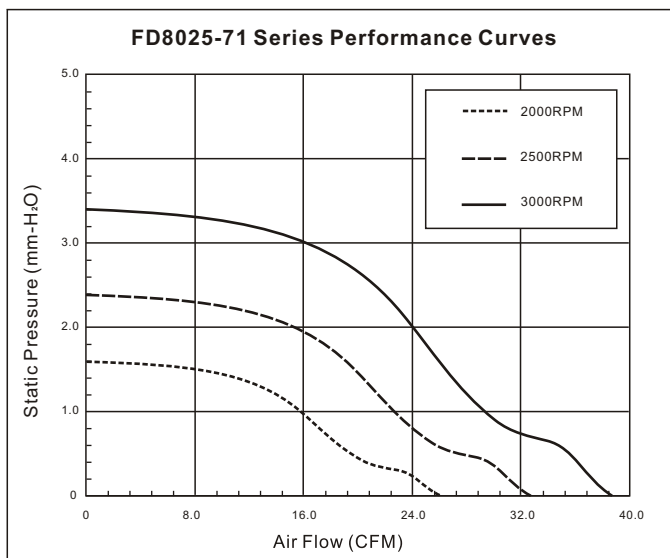
Specifications are subject to change without notice

Accessories :

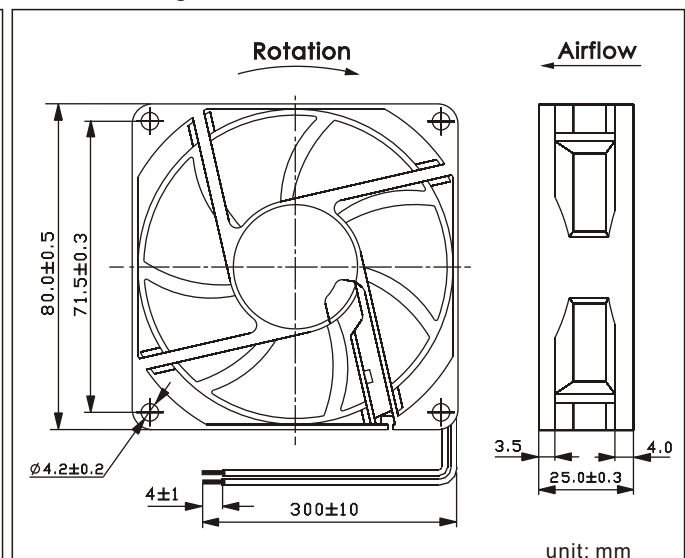
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-080	FGP-080	FPF-080	FFA-080

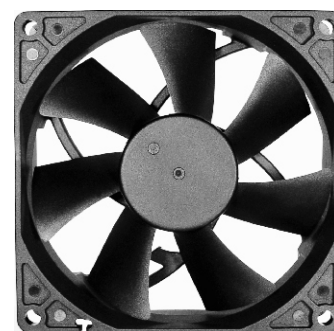
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10M Ω , 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 83 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD9225B12W2-71	B,C,L,S	12	10.8~13.2	130	1.56	2,000	41.10	1.80	25.10	P,M
FD9225B12W3-71	B,C,L,S		10.8~13.2	190	2.28	2,300	47.20	2.30	27.80	P,M
FD9225B12W4-71	B,C,L,S		10.8~13.2	230	2.76	2,600	53.30	2.90	30.90	P,M
FD9225B24W2-71 ※	B,C,L,S	24	17.0~28.0	150	3.60	2,000	41.10	1.80	25.10	P,M
FD9225B24W3-71 ※	B,C,L,S		17.0~28.0	180	4.32	2,300	47.20	2.30	27.80	P,M
FD9225B24W4-71 ※	B,C,L,S		17.0~28.0	220	5.28	2,600	53.30	2.90	30.90	P,M

• For "One Ball & One Sleeve", "Long Life", "Sleeve" Bearing Version, change "B" in the model number to "C", "L", "S".

• If model with "※", the safety is pending.

• For additional function availability type, please refer to the notes of page 4.

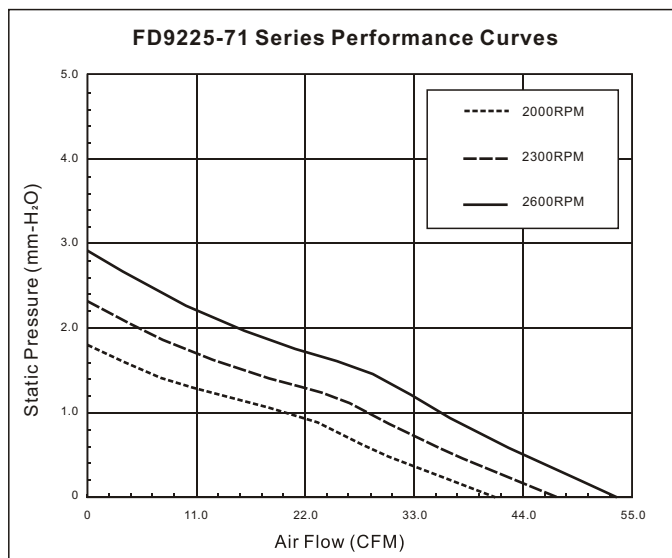
Specifications are subject to change without notice

Accessories :

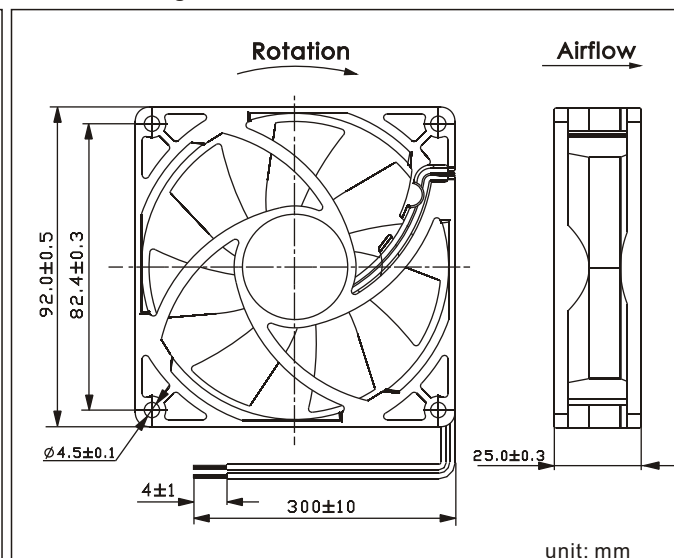
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-090	FGP-090	FPF-090	FFA-090

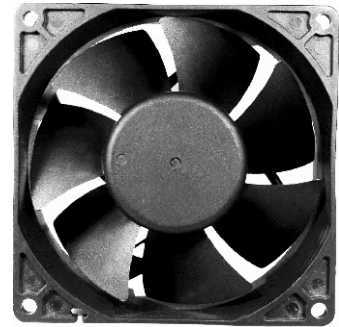
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #26 AWG
- Weight: 165 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD9238B12W3-71 ★	B,S	12	10.8~13.2	110	1.32	2,000	40.70	2.40	26.10	P,M
FD9238B12W5-71 ★	B,S		10.8~13.2	170	2.04	2,500	51.10	3.60	31.50	P,M
FD9238B12W7-71 ★	B,S		10.8~13.2	250	3.00	3,000	64.40	5.00	37.20	P,M
FD9238B12W9-71 ★※	B,S		10.8~13.2	280	3.36	4,000	79.60	6.60	48.00	P,M
FD9238B24W5-71 ★※	B,S	24	17.0~28.0	120	2.88	2,800	57.90	4.20	34.40	P,M
FD9238B24W7-71 ★※	B,S		17.0~28.0	150	3.60	3,200	64.60	5.40	37.90	P,M
FD9238B24W9-71 ★※	B,S		17.0~28.0	190	4.56	4,000	79.60	6.60	48.00	P,M
FD9238B48W5-71 ★※	B,S	48	38.0~55.2	90	4.32	2,800	57.90	4.20	34.40	P,M
FD9238B48W7-71 ★※	B,S		38.0~55.2	110	5.28	3,200	64.60	5.40	37.90	P,M
FD9238B48W9-71 ★※	B,S		38.0~55.2	140	6.72	4,000	79.60	6.60	48.00	P,M

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- If model with "★", auto restart protection built in ; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

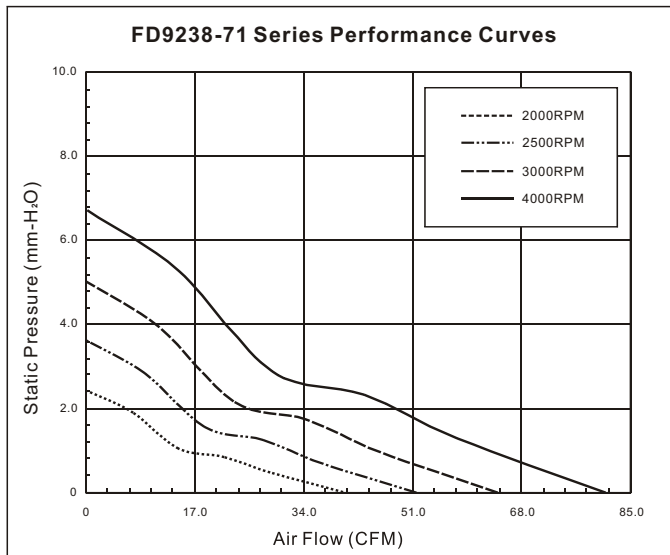
Specifications are subject to change without notice

Accessories :

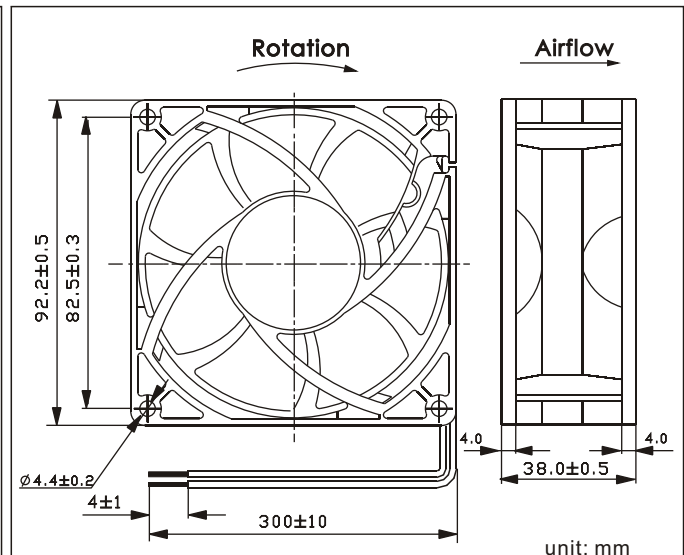
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-090	FGP-090	FPF-090	FFA-090

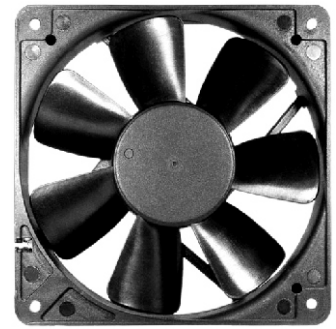
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10M Ω , 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 164 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD1225B12W2-61	B,S	12	6.0~13.8	180	2.16	1,700	66.10	2.60	33.50	P
FD1225B12W3-61	B,S		6.0~13.8	230	2.76	2,000	78.10	3.60	37.40	P
FD1225B12W5-61	B,S		6.0~13.8	340	4.08	2,400	93.00	4.90	43.30	P
FD1225B24W2-61	B,S	24	12.0~27.6	110	2.64	1,700	66.10	2.60	33.50	P
FD1225B24W3-61	B,S		12.0~27.6	170	4.08	2,000	78.10	3.60	37.40	P
FD1225B24W5-61	B,S		12.0~27.6	280	6.72	2,400	93.00	4.90	43.30	P

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- For additional function availability type, please refer to the notes of page 4.

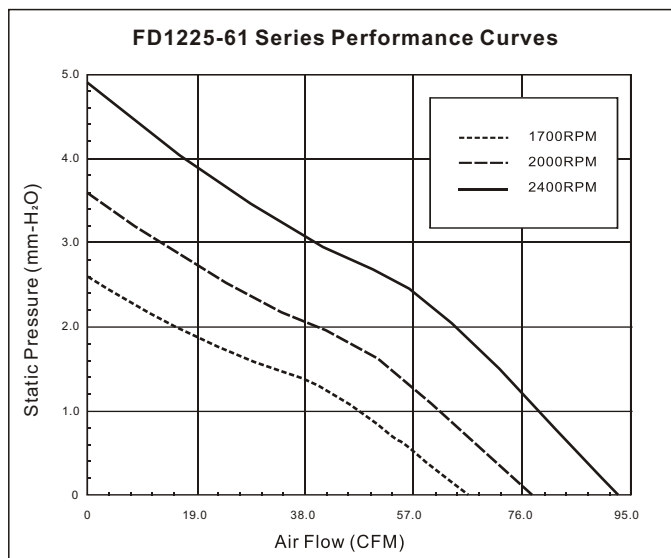
Specifications are subject to change without notice

Accessories :

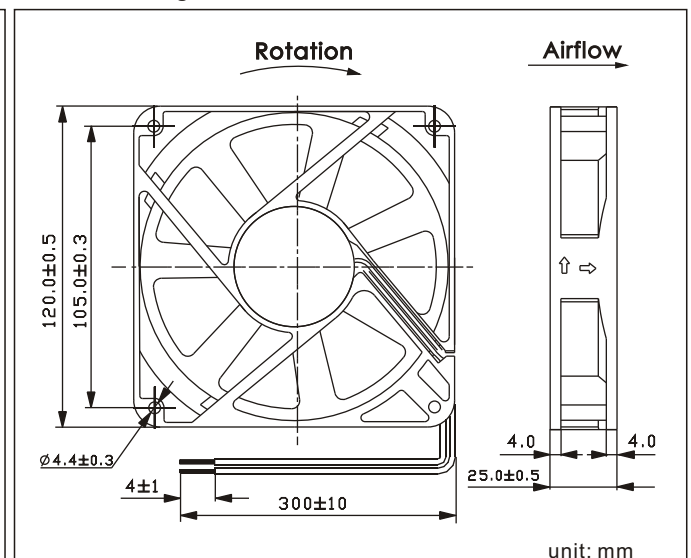
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-120	FGP-120	FPF-120	FFA-120

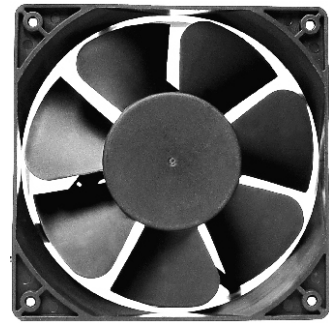
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #22 AWG
- Weight: 250 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD1232B12W3-61	B,S	12	6.0~13.8	310	3.72	2,900	94.40	7.00	43.30	P
FD1232B12W5-61	B,S		6.0~13.8	500	6.00	3,300	108.20	8.70	47.30	P
FD1232B12W7-61	B,S		6.0~13.8	600	7.20	3,750	122.20	10.90	50.20	P
FD1232B24W3-61	B,S	24	12.0~27.6	160	3.84	2,900	94.40	7.00	43.30	P
FD1232B24W5-61	B,S		12.0~27.6	220	5.28	3,300	108.20	8.70	47.30	P
FD1232B24W7-61	B,S		12.0~27.6	280	6.72	3,750	122.20	10.90	50.20	P
FD1232B48W3-61	B,S	48	24.0~55.2	130	6.24	2,900	94.40	7.00	43.30	P
FD1232B48W5-61	B,S		24.0~55.2	150	7.20	3,300	108.20	8.70	47.30	P
FD1232B48W7-61	B,S		24.0~55.2	180	8.64	3,750	122.20	10.90	50.20	P
FD1232B60W9-61	B	60	36.0~72.0	180	10.80	4,400	153.40	14.00	54.20	P

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- For additional function availability type, please refer to the notes of page 4.

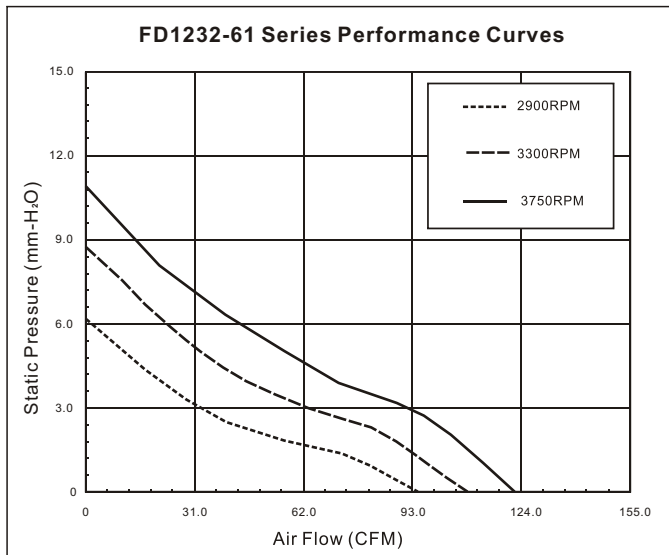
Specifications are subject to change without notice

Accessories :

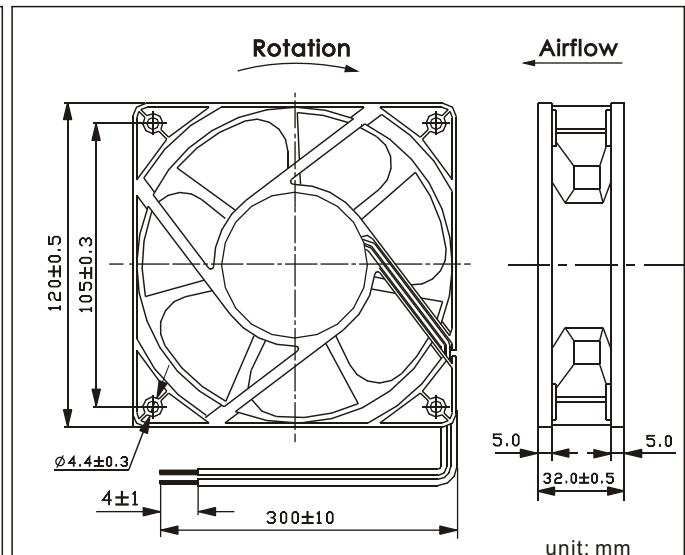
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-120	FGP-120	FPF-120	FFA-120

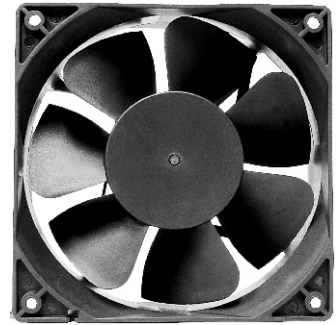
Characteristic Curves :



Outline Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10M Ω , 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 290 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD1238B12W2-61	B,S	12	6.0~13.8	230	2.76	2,000	84.40	3.80	36.40	P
FD1238B12W3-61	B,S		6.0~13.8	350	4.20	2,400	101.90	5.30	40.40	P
FD1238B12W7-61	B,S		6.0~13.8	600	7.20	3,000	128.50	7.90	46.30	P
FD1238B24W2-61	B,S	24	12.0~27.6	130	3.12	2,000	84.40	3.80	36.40	P
FD1238B24W3-61	B,S		12.0~27.6	170	4.08	2,400	101.90	5.30	40.40	P
FD1238B24W7-61	B,S		12.0~27.6	390	9.36	3,000	128.50	7.90	46.30	P
FD1238B48W2-61	B,S	48	24.0~55.2	80	3.84	2,000	84.40	3.80	36.40	P
FD1238B48W3-61	B,S		24.0~55.2	110	5.28	2,400	101.90	5.30	40.40	P
FD1238B48W7-61	B,S		24.0~55.2	190	9.12	3,000	128.50	7.90	46.30	P

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- For additional function availability type, please refer to the notes of page 4.

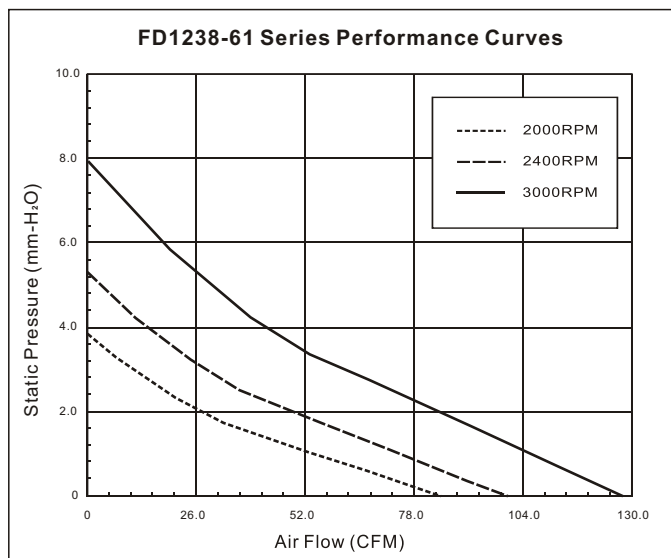
Specifications are subject to change without notice

Accessories :

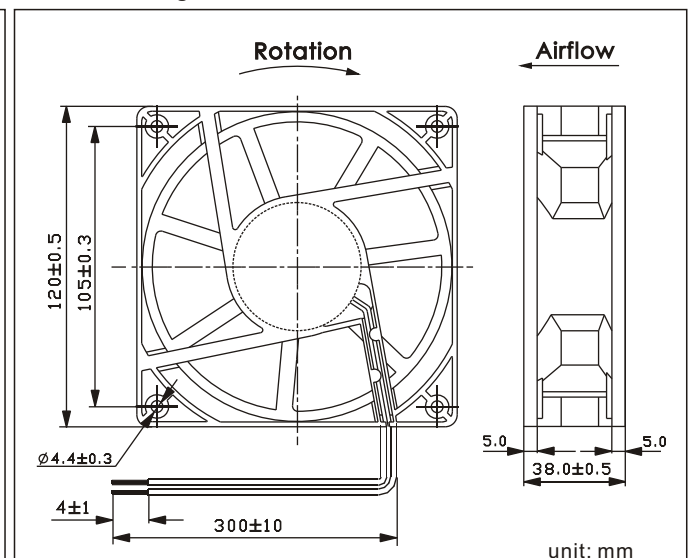
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-120	FGP-120	FPF-120	FFA-120

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 350 g



(S.O.B. Fan)



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD1238B12W2-63	B,S	12	6.0~13.8	1,500	18.00	3,000	141.90	12.10	51.20	P,U,X
FD1238B12W3-63	B,S		6.0~13.8	2,000	24.00	4,000	191.40	21.90	58.10	P,U,X
FD1238B12W5-63	B,S		6.0~13.8	3,600	43.20	5,000	229.40	34.90	64.00	P,U,X
FD1238B24W2-63	B,S	24	12.0~27.6	600	14.40	3,000	141.90	12.10	51.20	P,U,X
FD1238B24W3-63	B,S		12.0~27.6	1,100	26.40	4,000	191.40	21.90	58.10	P,U,X
FD1238B24W5-63	B,S		12.0~27.6	1,700	40.80	5,000	229.40	34.90	64.00	P,U,X
FD1238B48W2-63	B,S	48	24.0~55.2	330	15.84	3,000	141.90	12.10	51.20	P,U,X
FD1238B48W3-63	B,S		24.0~55.2	380	18.24	4,000	191.40	21.90	58.10	P,U,X
FD1238B48W5-63	B,S		24.0~55.2	850	40.80	5,000	229.40	34.90	64.00	P,U,X
FD1238B48W7-63	B,S		24.0~55.2	1,300	62.40	6,000	287.20	47.60	69.00	P,U,X

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- For additional function availability type, please refer to the notes of page 4.

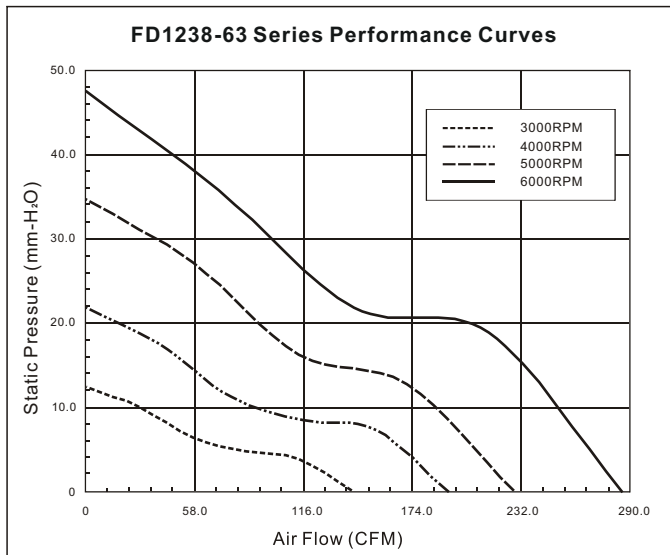
Specifications are subject to change without notice

Accessories :

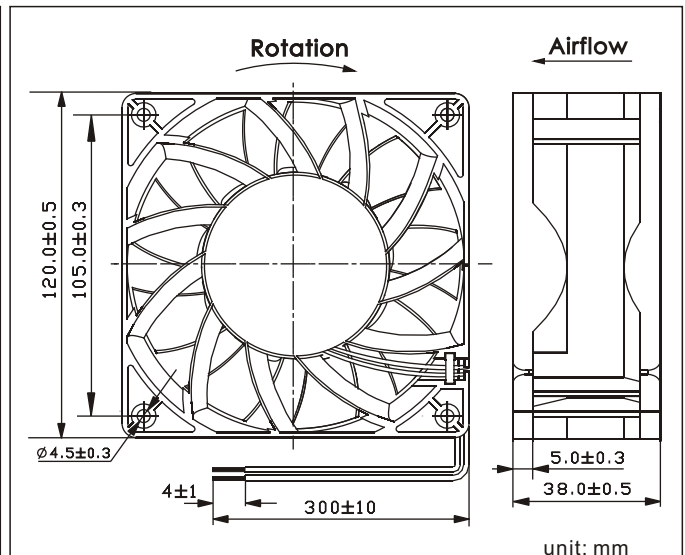
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-120	FGP-120	FPF-120	FFA-120

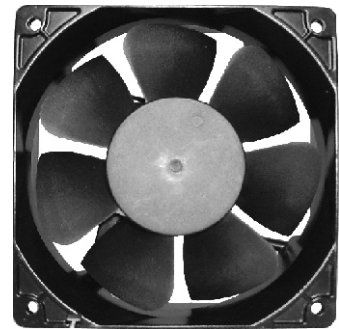
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Die-cast Aluminum/Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 290 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD1238B12W2-65	B	12	6.0~13.8	180	2.16	2,000	84.40	3.80	36.40	P,U,X
FD1238B12W3-65	B		6.0~13.8	310	3.72	2,400	101.90	5.30	40.40	P,U,X
FD1238B12W7-65	B		6.0~13.8	600	7.20	3,000	128.50	7.90	46.30	P,U,X
FD1238B24W2-65	B	24	12.0~27.6	130	3.12	2,000	84.40	3.80	36.40	P,U,X
FD1238B24W3-65	B		12.0~27.6	160	3.84	2,400	101.90	5.30	40.40	P,U,X
FD1238B24W7-65	B		12.0~27.6	310	7.44	3,000	128.50	7.90	46.30	P,U,X
FD1238B48W2-65	B	48	24.0~55.2	80	3.84	2,000	84.40	3.80	36.40	P,U,X
FD1238B48W3-65	B		24.0~55.2	110	5.28	2,400	101.90	5.30	40.40	P,U,X
FD1238B48W7-65	B		24.0~55.2	200	9.60	3,000	128.50	7.90	46.30	P,U,X

• For additional function availability type, please refer to the notes of page 4.

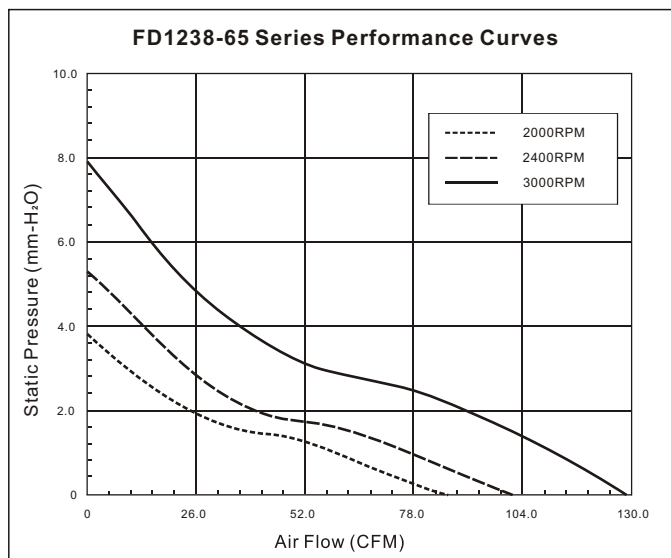
Specifications are subject to change without notice

Accessories :

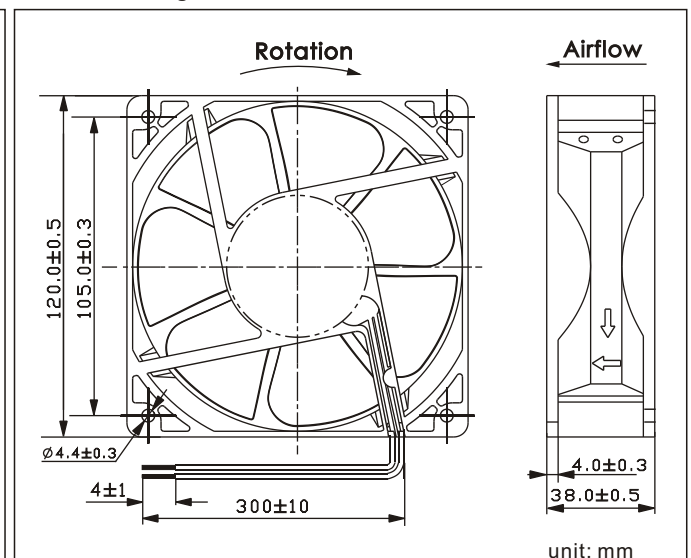
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-120	FGP-120	FPF-120	FFA-120

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Die-cast Aluminum/Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 735 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD1751B12W1-61 ★	B	12	9.0~13.8	1,300	15.60	3,100	215.00	20.30	55.20	P
FD1751B12W3-61 ★	B		9.0~13.8	1,800	21.60	3,400	235.40	23.60	58.10	P
FD1751B12W5-61 ★	B		9.0~13.8	2,600	31.20	3,800	264.60	29.40	61.10	P
FD1751B24W1-61 ★	B	24	15.0~27.6	500	12.00	3,100	215.00	20.30	55.20	P
FD1751B24W3-61 ★	B		15.0~27.6	700	16.80	3,400	235.40	23.60	58.10	P
FD1751B24W5-61 ★	B		15.0~27.6	1,200	28.80	3,800	264.60	29.40	61.10	P
FD1751B24W7-61 ★	B		15.0~27.6	1,400	33.60	4,000	276.70	32.00	63.00	P
FD1751B24W9-61 ★	B		15.0~27.6	2,000	48.00	4,500	311.00	40.50	65.00	P
FD1751B48W1-61 ★	B	48	24.0~55.2	300	14.40	3,100	215.00	20.30	55.20	P
FD1751B48W3-61 ★	B		24.0~55.2	380	18.24	3,400	235.40	23.60	58.10	P
FD1751B48W5-61 ★	B		24.0~55.2	500	24.00	3,800	264.60	29.40	61.10	P
FD1751B48W7-61 ★	B		24.0~55.2	700	33.60	4,000	276.70	32.00	63.00	P
FD1751B48W9-61 ★	B		24.0~55.2	900	43.20	4,500	311.00	40.50	65.00	P

• If model with "★", auto restart protection built in.

• For additional function availability type, please refer to the notes of page 4.

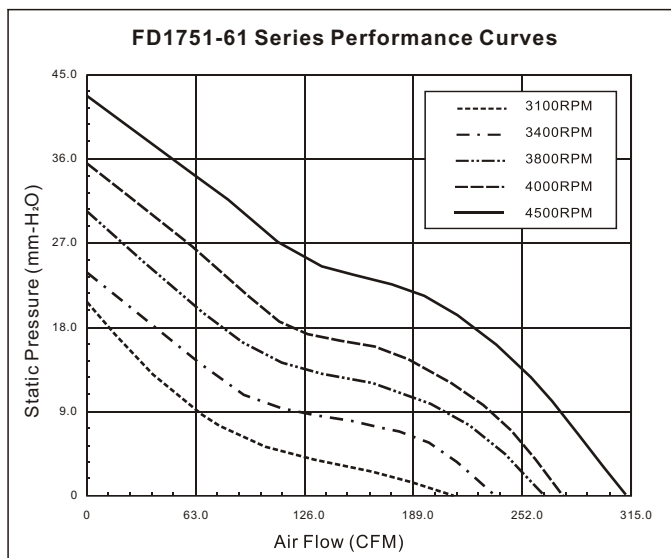
Specifications are subject to change without notice

Accessories :

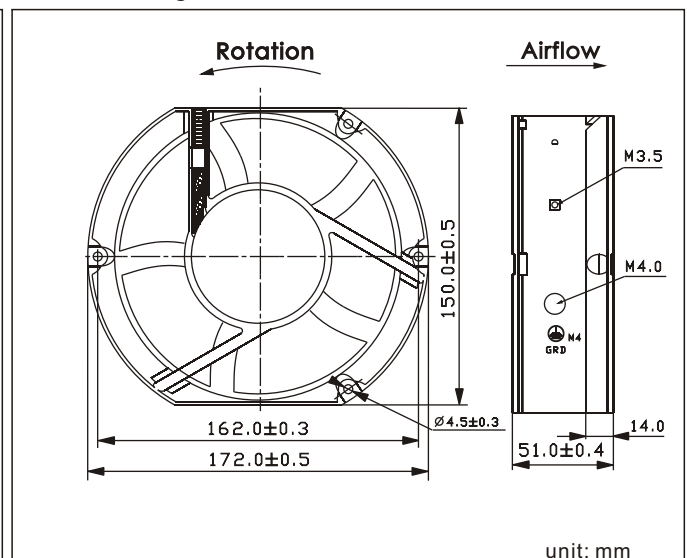
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-162	FGP-162	FPF-162	FFA-162

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Die-cast Aluminum/Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 830 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD1751B12W1-65 ★	B	12	9.0~13.8	1,300	15.60	3,100	215.00	20.10	53.20	P
FD1751B12W3-65 ★	B		9.0~13.8	1,800	21.60	3,400	238.50	24.80	55.20	P
FD1751B12W5-65 ★	B		9.0~13.8	2,600	31.20	3,800	271.70	30.70	58.10	P
FD1751B24W1-65 ★	B	24	15.0~27.6	500	12.00	3,100	215.00	20.10	53.20	P
FD1751B24W3-65 ★	B		15.0~27.6	700	16.80	3,400	238.50	24.80	55.20	P
FD1751B24W5-65 ★	B		15.0~27.6	1,200	28.80	3,800	271.70	30.70	58.10	P
FD1751B24W7-65 ★	B		15.0~27.6	1,400	33.60	4,000	289.30	35.30	60.10	P
FD1751B24W9-65 ★	B		15.0~27.6	2,000	48.00	4,500	321.70	42.80	62.10	P
FD1751B48W1-65 ★	B	48	24.0~55.2	300	14.40	3,100	215.00	20.10	53.20	P
FD1751B48W3-65 ★	B		24.0~55.2	380	18.24	3,400	238.50	24.80	55.20	P
FD1751B48W5-65 ★	B		24.0~55.2	500	24.00	3,800	271.70	30.70	58.10	P
FD1751B48W7-65 ★	B		24.0~55.2	700	33.60	4,000	289.30	35.30	60.10	P
FD1751B48W9-65 ★	B		24.0~55.2	900	43.20	4,500	321.70	42.80	62.10	P

- If model with "★", auto restart protection built in.
- For additional function availability type, please refer to the notes of page 4.

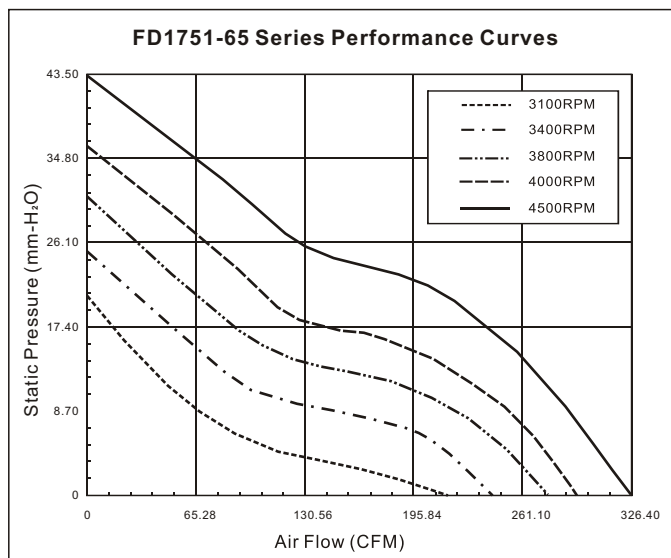
Specifications are subject to change without notice

Accessories :

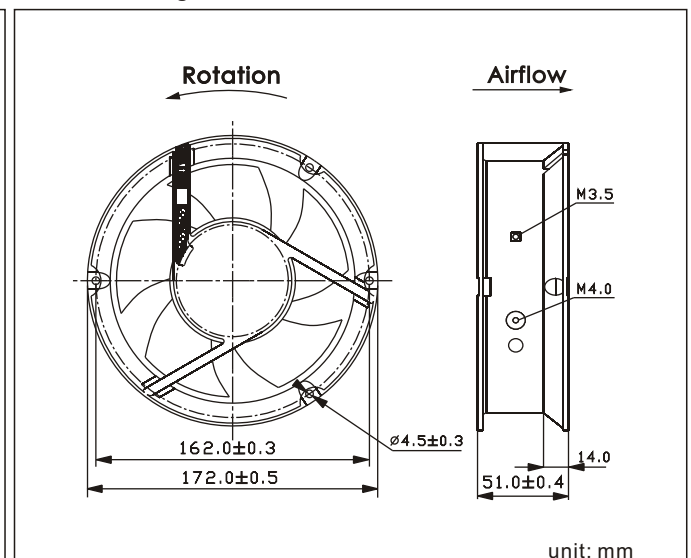
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-162	FGP-162	FPF-162	FFA-162

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Die-cast Aluminum/Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 765 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FD1755B12W1-61 ★	B	12	9.0~13.8	1,300	15.60	3,100	212.50	20.50	53.20	P
FD1755B12W3-61 ★	B		9.0~13.8	1,800	21.60	3,400	229.20	21.40	57.10	P
FD1755B12W5-61 ★	B		9.0~13.8	2,600	31.20	3,800	259.60	31.20	59.10	P
FD1755B24W1-61 ★	B	24	15.0~27.6	500	12.00	3,100	212.50	20.50	53.20	P
FD1755B24W3-61 ★	B		15.0~27.6	700	16.80	3,400	229.20	21.40	57.10	P
FD1755B24W5-61 ★	B		15.0~27.6	1,200	28.80	3,800	259.60	31.20	59.10	P
FD1755B24W7-61 ★	B		15.0~27.6	1,400	33.60	4,000	274.10	34.70	61.10	P
FD1755B24W9-61 ★	B		15.0~27.6	2,000	48.00	4,500	306.10	43.20	64.00	P
FD1755B48W1-61 ★	B	48	24.0~55.2	300	14.40	3,100	212.50	20.50	53.20	P
FD1755B48W3-61 ★	B		24.0~55.2	380	18.24	3,400	229.20	21.40	57.10	P
FD1755B48W5-61 ★	B		24.0~55.2	500	24.00	3,800	259.60	31.20	59.10	P
FD1755B48W7-61 ★	B		24.0~55.2	700	33.60	4,000	274.10	34.70	61.10	P
FD1755B48W9-61 ★	B		24.0~55.2	900	43.20	4,500	306.10	43.20	64.00	P

• If model with "★", auto restart protection built in.

• For additional function availability type, please refer to the notes of page 4.

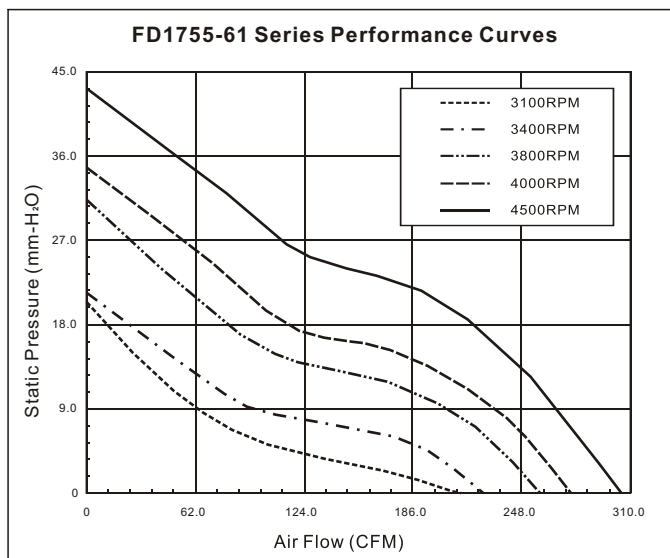
Specifications are subject to change without notice

Accessories :

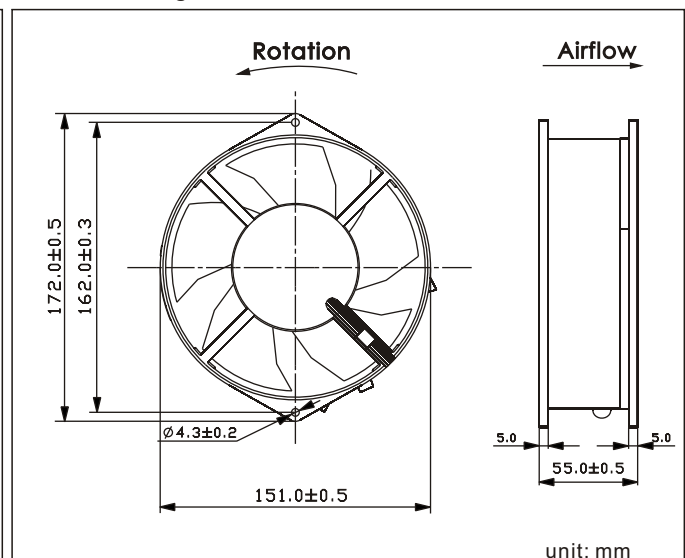
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-162	FGP-162	FPF-162	FFA-162

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 26 g



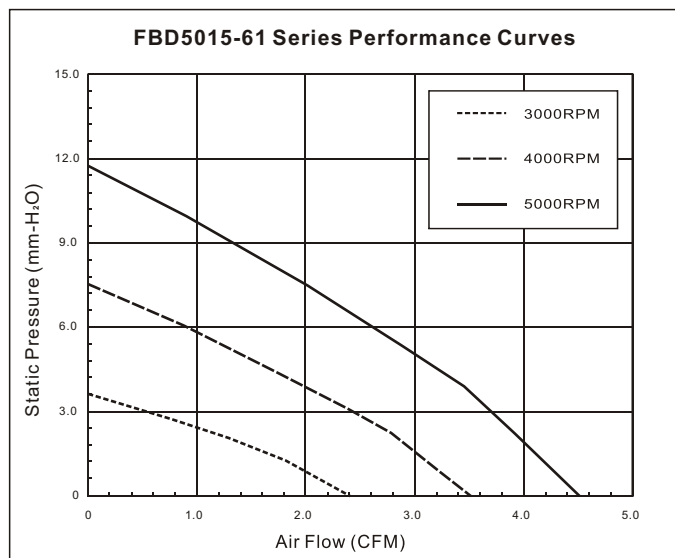
Specification:

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FBD5015B05W3-61	B,S	5	3.5~5.75	120	0.60	3,000	2.40	3.60	25.60	P
FBD5015B05W5-61	B,S		3.5~5.75	200	1.00	4,000	3.50	7.50	34.50	P
FBD5015B05W7-61	B,S		3.5~5.75	310	1.55	4,500	3.90	11.50	36.40	P
FBD5015B12W3-61	B,S	12	8.0~13.8	50	0.60	3,000	2.40	3.60	25.60	P
FBD5015B12W5-61	B,S		6.0~13.8	80	0.96	4,000	3.50	7.50	34.50	P
FBD5015B12W7-61	B,S		6.0~13.8	130	1.56	5,000	4.50	11.70	40.40	P
FBD5015B24W3-61	B,S	24	12.0~27.6	40	0.96	3,500	2.90	7.40	29.60	P
FBD5015B24W5-61	B,S		12.0~27.6	50	1.20	4,000	3.50	7.50	34.50	P
FBD5015B24W7-61	B,S		12.0~27.6	100	2.40	5,000	4.50	11.70	40.40	P

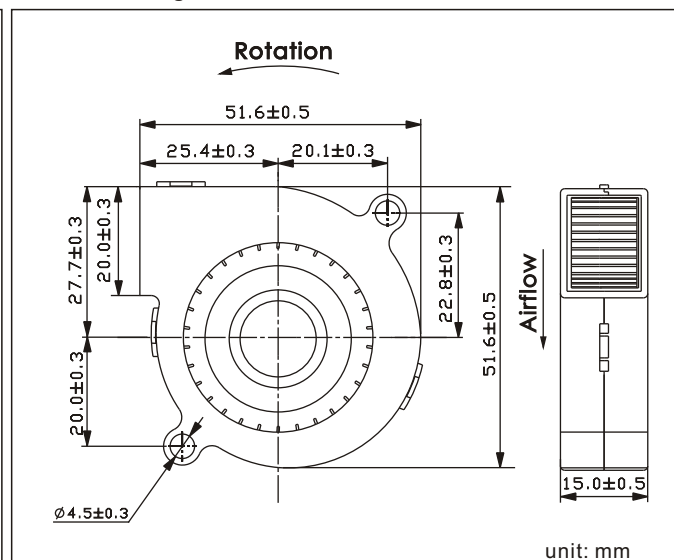
- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- For additional function availability type, please refer to the notes of page 4.

Specifications are subject to change without notice

Characteristic Curves:



Out line Drawi ng:



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 87 g



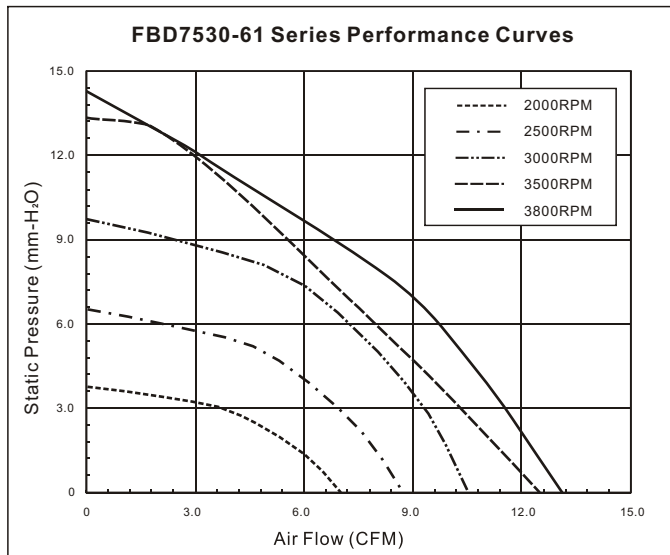
Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FBD7530B12W3-61	B,S	12	6.0~13.8	90	1.08	2,000	7.00	3.80	27.60	P
FBD7530B12W5-61	B,S		6.0~13.8	170	2.04	2,500	8.70	6.50	35.50	P
FBD7530B12W7-61	B,S		6.0~13.8	250	3.00	3,000	10.50	9.70	37.40	P
FBD7530B12W9-61	B,S		6.0~13.8	320	3.84	3,500	12.50	13.30	42.40	P
FBD7530B12W11-61	B,S		6.0~13.8	460	5.52	3,800	13.10	14.30	44.30	P
FBD7530B24W3-61	B,S	24	12.0~27.6	80	1.92	2,000	7.00	3.80	27.60	P
FBD7530B24W5-61	B,S		12.0~27.6	100	2.40	2,500	8.70	6.50	35.50	P
FBD7530B24W7-61	B,S		12.0~27.6	130	3.12	3,000	10.50	9.70	37.40	P
FBD7530B24W9-61	B,S		12.0~27.6	150	3.60	3,500	12.50	13.30	42.40	P
FBD7530B24W11-61	B,S		12.0~27.6	230	5.52	3,800	13.10	14.30	44.30	P

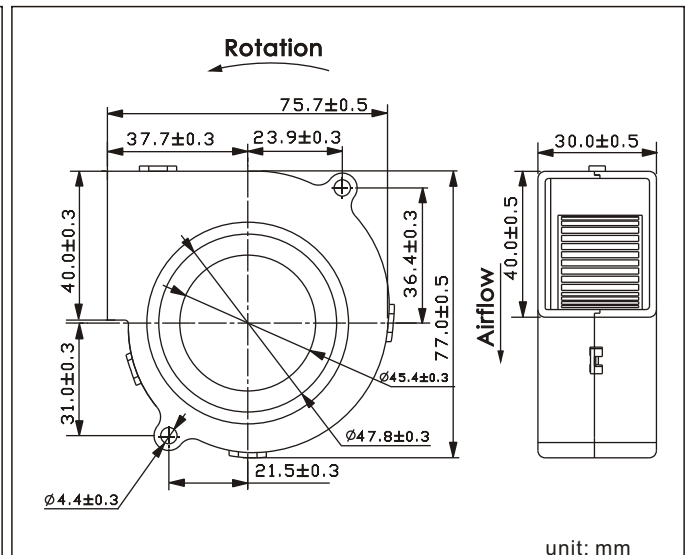
- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- For additional function availability type, please refer to the notes of page 4.

Specifications are subject to change without notice

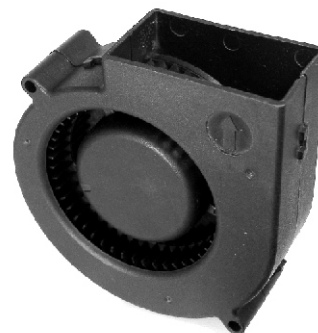
Characteristic Curves:



Out line Drawing:



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10M Ω , 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 155 g



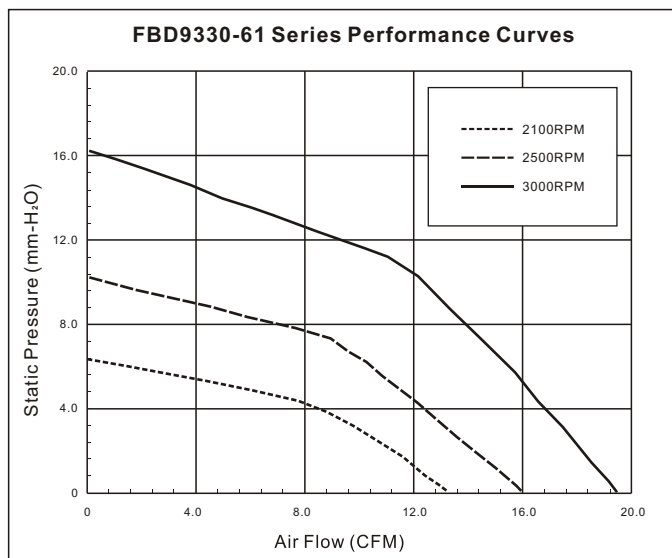
Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FBD9330B12W1-61 ※	B,S	12	6.0~13.8	180	2.16	2,100	13.20	6.40	37.40	P
FBD9330B12W3-61 ※	B,S		6.0~13.8	290	3.48	2,500	16.00	10.20	41.40	P
FBD9330B12W5-61 ※	B,S		6.0~13.8	490	5.88	3,000	19.40	16.20	44.30	P
FBD9330B24W1-61 ※	B,S	24	12.0~27.6	80	1.92	2,100	13.20	6.40	37.40	P
FBD9330B24W3-61 ※	B,S		12.0~27.6	140	3.36	2,500	16.00	10.20	41.40	P
FBD9330B24W5-61 ※	B,S		12.0~27.6	230	5.52	3,000	19.40	16.20	44.30	P

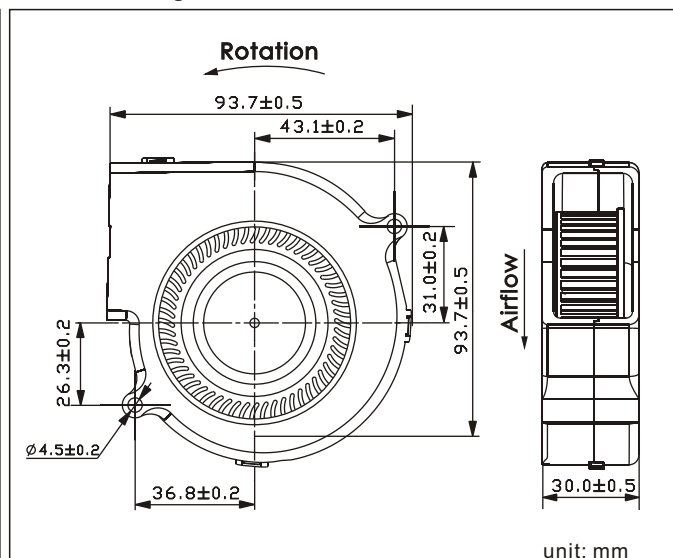
- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

Specifications are subject to change without notice

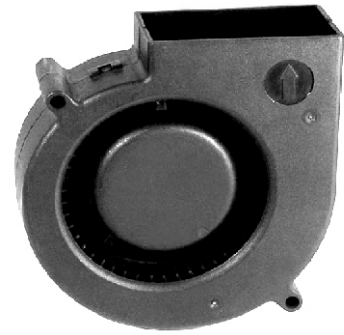
Characteristic Curves :



Outline Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 165 g



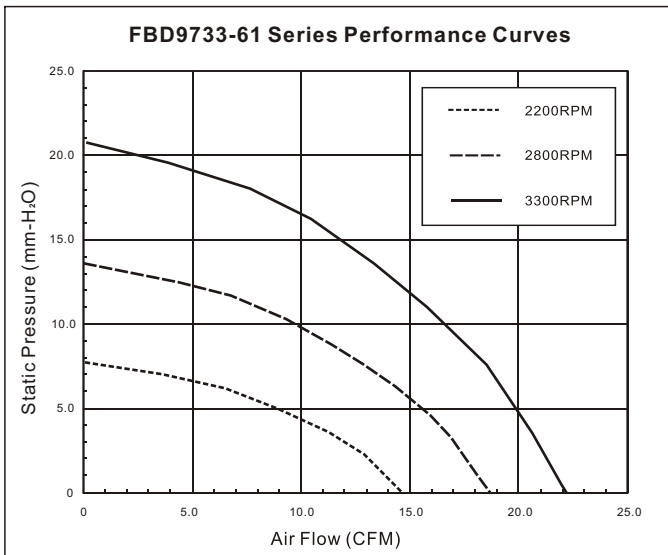
Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FBD9733B12W3-61	B,S	12	6.0~13.8	210	2.52	2,200	14.60	7.80	39.40	P
FBD9733B12W5-61	B,S		6.0~13.8	420	5.04	2,800	18.70	13.70	44.30	P
FBD9733B12W7-61	B,S		6.0~13.8	750	9.00	3,300	22.10	20.70	49.30	P
FBD9733B24W3-61	B,S	24	12.0~27.6	120	2.88	2,200	14.60	7.80	39.40	P
FBD9733B24W5-61	B,S		12.0~27.6	200	4.80	2,800	18.70	13.70	44.30	P
FBD9733B24W7-61	B,S		12.0~27.6	380	9.12	3,300	22.10	20.70	49.30	P
FBD9733B48W3-61	B,S	48	24.0~55.2	140	6.72	2,200	14.60	7.80	39.40	P
FBD9733B48W5-61	B,S		24.0~55.2	180	8.64	2,800	18.70	13.70	44.30	P
FBD9733B48W7-61	B,S		24.0~55.2	270	12.96	3,300	22.10	20.70	49.30	P

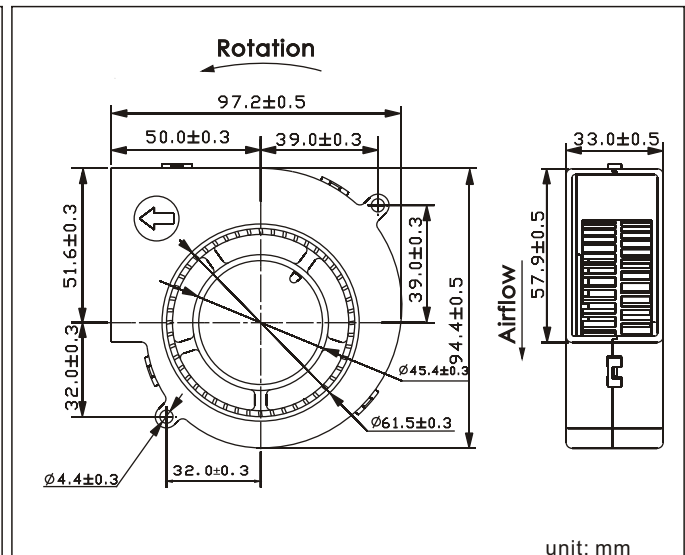
- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- For additional function availability type, please refer to the notes of page 4.

Specifications are subject to change without notice

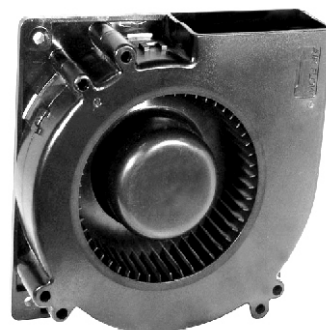
Characteristic Curves:



Out line Drawing:



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #24 AWG
- Weight: 240 g



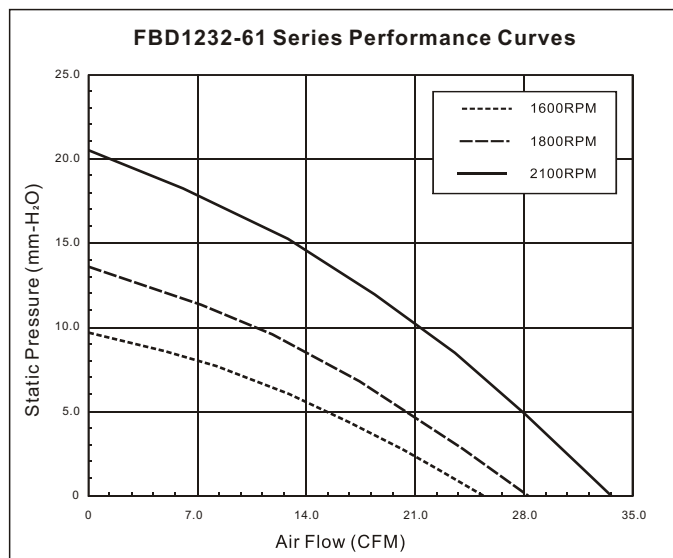
Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FBD1232B12W1-61	B	12	6.0~13.8	330	3.96	1,600	25.40	9.70	44.30	P
FBD1232B12W3-61	B		6.0~13.8	460	5.52	1,800	28.60	13.50	46.30	P
FBD1232B12W5-61	B		6.0~13.8	540	6.48	2,100	33.60	20.40	50.20	P
FBD1232B24W1-61	B	24	12.0~27.6	160	3.84	1,600	25.40	9.70	44.30	P
FBD1232B24W3-61	B		12.0~27.6	230	5.52	1,800	28.60	13.50	46.30	P
FBD1232B24W5-61	B		12.0~27.6	310	7.44	2,100	33.60	20.40	50.20	P
FBD1232B48W1-61	B	48	24.0~55.2	110	5.28	1,600	25.40	9.70	44.30	P
FBD1232B48W3-61	B		24.0~55.2	150	7.20	1,800	28.60	13.50	46.30	P
FBD1232B48W5-61	B		24.0~55.2	190	9.12	2,100	33.60	20.40	50.20	P

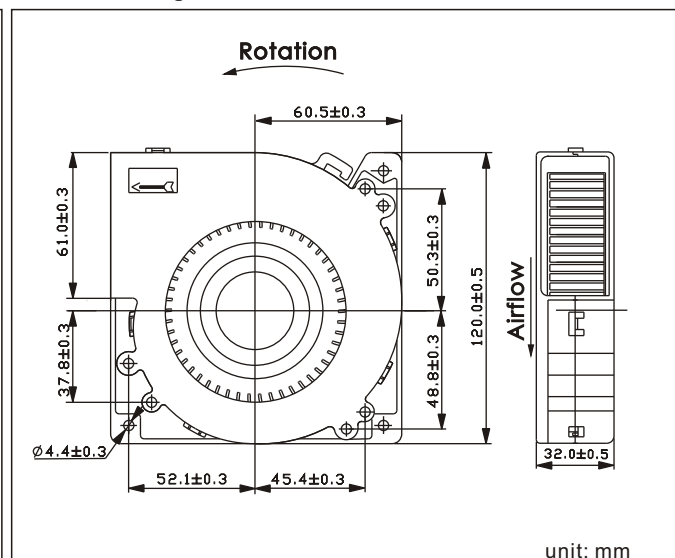
• For additional function availability type, please refer to the notes of page 4.

Specifications are subject to change without notice

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Plastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~70°C (Humidity 35%-85%RH)
- Lead Wire: UL Type #22 AWG
- Weight: 1150 g



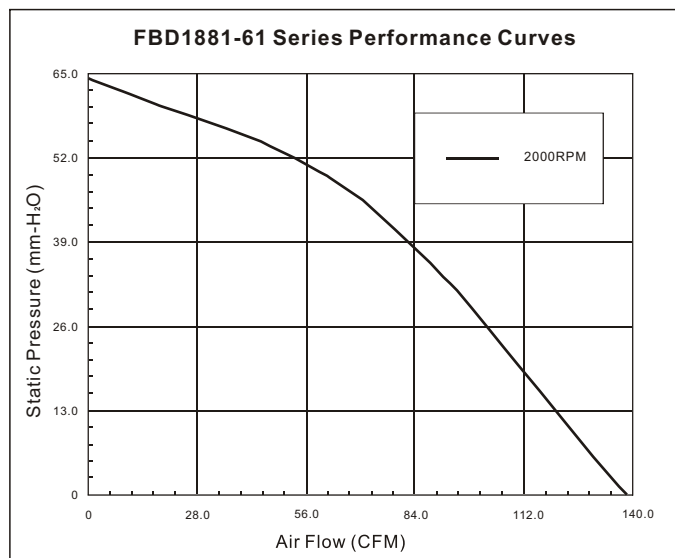
Specification :

Model Number	Bearing Availability	Rated Voltage (VDC)	Operating Voltage (VDC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page4)
FBD1881B24W3-61	B	24	12.0~27.6	2200	52.80	2,000	138.90	64.80	62.10	P,U,X
FBD1881B48W3-61	B	48	24.0~55.2	1100	52.80	2,000	138.90	64.80	62.10	P,U,X

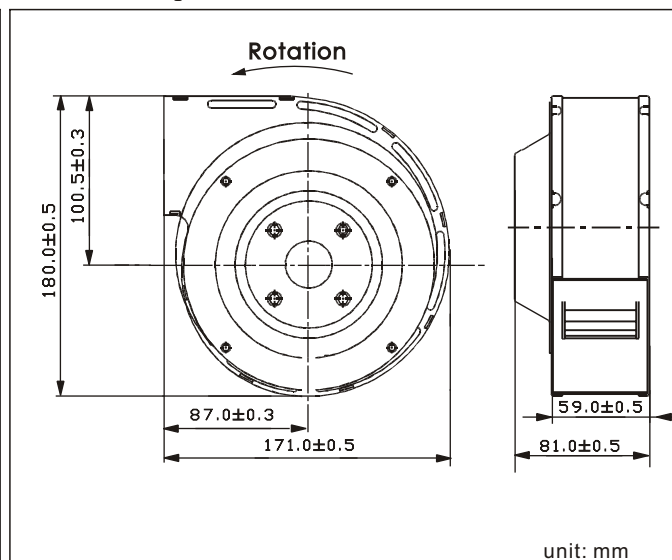
• For additional function availability type, please refer to the notes of page 4.

Specifications are subject to change without notice

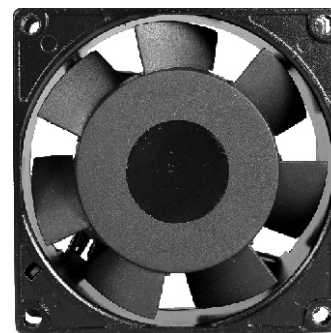
Characteristic Curves:



Out line Drawing:



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -20°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 223 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA8025B11T7-51	2Ball or Sleeve	115	50/60	70/60	6/5	2,400/2,900	18.0/22.0	2.6/3.5	25.0/32.0
FA8025B22T7-51		230	50/60	50/40	9/7	2,400/3,000	18.0/22.0	2.6/3.5	25.0/32.0

• For Wire lead version, change "T" in the model number to "W".

• For Sleeve Bearing version, change "B" in the model number to "S".

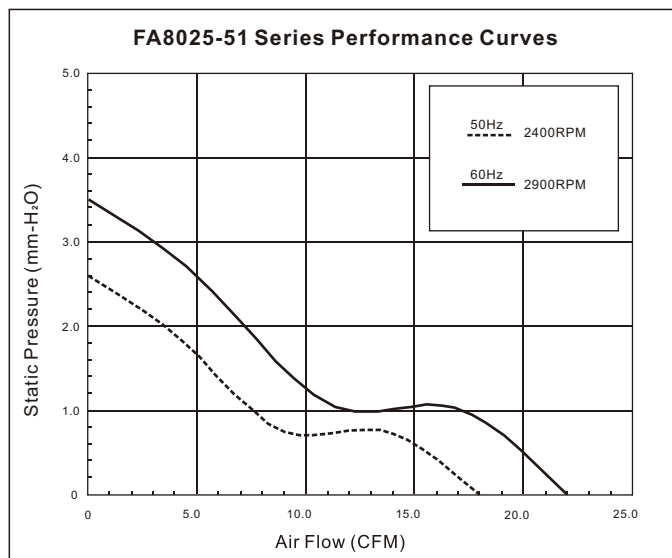
Specifications are subject to change without notice

Accessories :

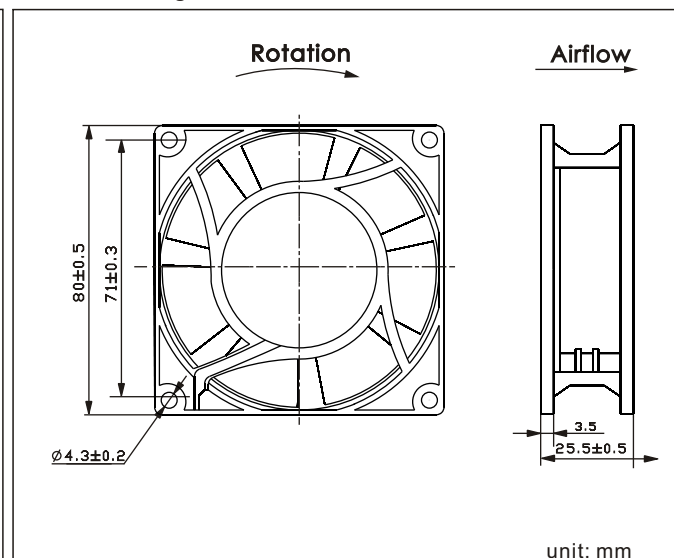
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-080	FGP-080	FPF-080	FFA-080	Any Configuration

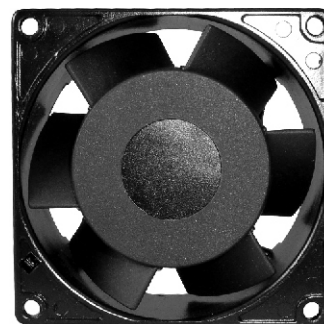
Char acteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100M Ω , 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -20°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 232 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA8038B11T7-51	2Ball or Sleeve	115	50/60	150/120	11/9	2,700/3,100	26.0/31.0	3.4/5.0	35.0/39.0
FA8038B22T7-51		230	50/60	80/60	11/9	2,700/3,100	26.0/31.0	3.4/5.0	35.0/39.0

• For Wire lead version, change "T" in the model number to "W".

Specifications are subject to change without notice

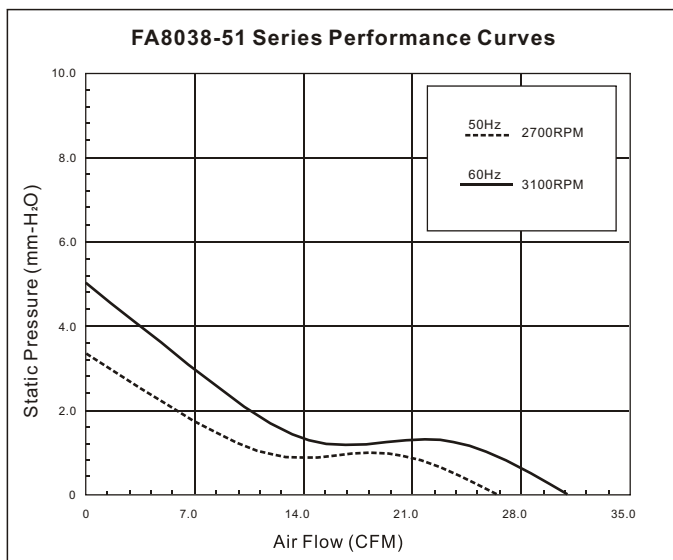
• For Sleeve Bearing version, change "B" in the model number to "S".

Accessories :

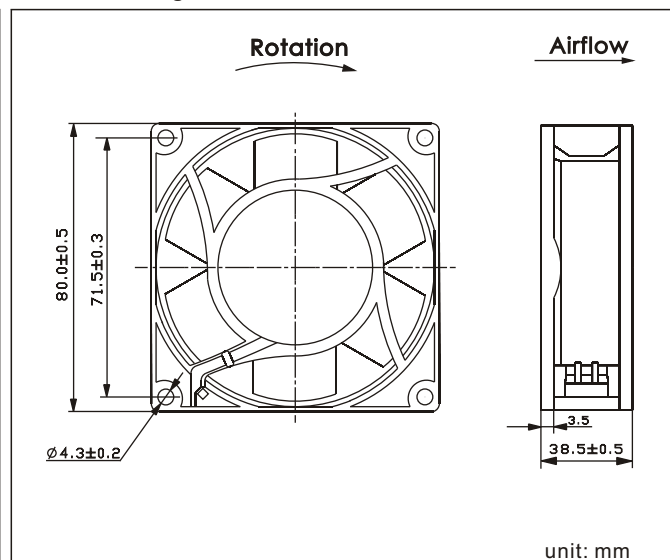
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-080	FGP-080	FPF-080	FFA-080	Any Configuration

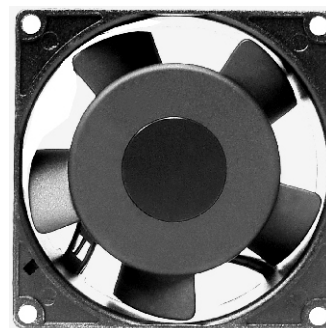
Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -20°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 300 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA9225B11T7-51 ※	2Ball or Sleeve	115	50/60	140/110	11/9	2,700/3,200	30.0/36.0	4.6/6.5	40.0/45.0
FA9225B22T7-51 ※		230	50/60	70/60	12/10	2,600/3,100	30.0/36.0	4.6/6.5	40.0/45.0

- For Wire lead version, change "T" in the model number to "W".
- If model with "※", the safety is pending.
- For Sleeve Bearing version, change "B" in the model number to "S".

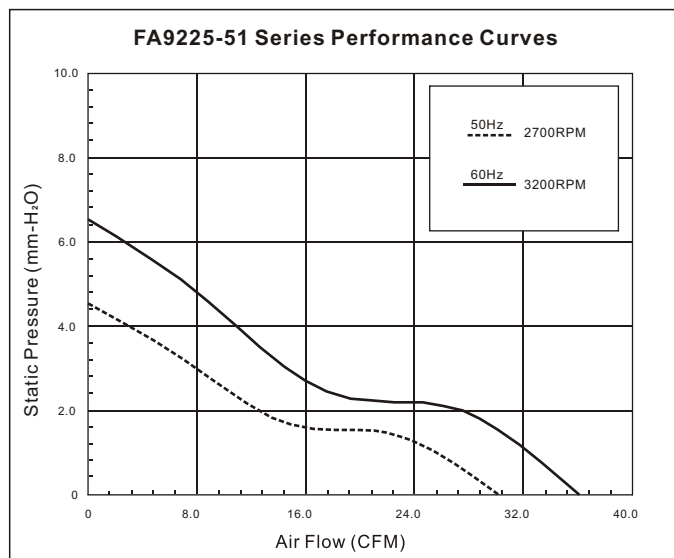
Specifications are subject to change without notice

Accessories :

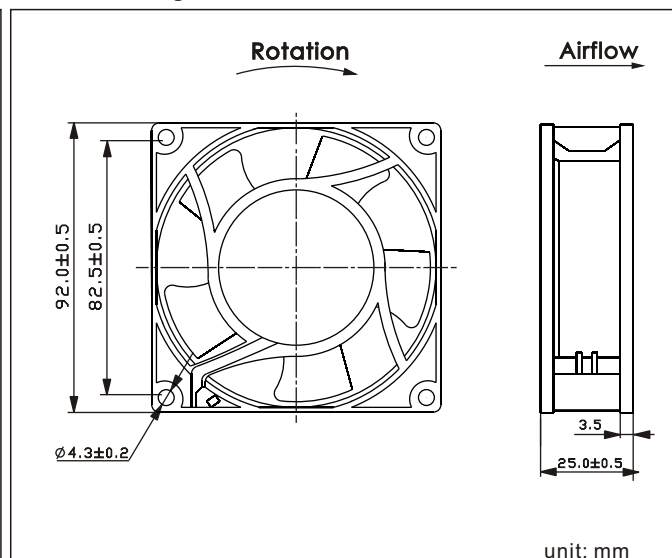
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-090	FGP-090	FPF-090	FFA-090	Any Configuration

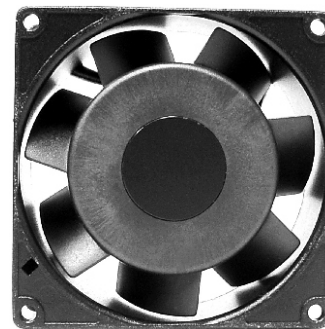
Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100M Ω , 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -20 $^{\circ}$ C~70 $^{\circ}$ C (Humidity 35%-85%RH)
- Storage Temperature: -40 $^{\circ}$ C~85 $^{\circ}$ C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 446 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA9238B11T7-51	2Ball or Sleeve	115	50/60	190/150	14/11	2,800/3,200	42.0/49.0	5.2/7.1	40.0/45.0
FA9238B22T7-51		230	50/60	100/80	15/12	2,800/3,200	42.0/49.0	5.2/7.1	40.0/45.0

• For Wire lead version, change "T" in the model number to "W".

Specifications are subject to change without notice

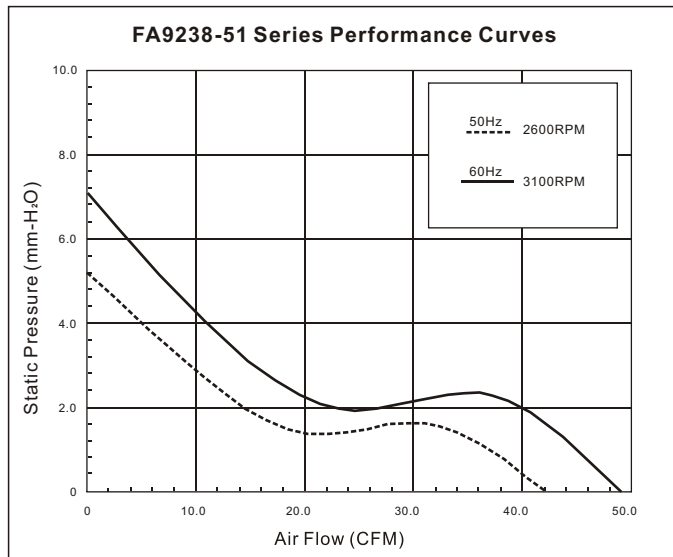
• For Sleeve Bearing version, change "B" in the model number to "S".

Accessories :

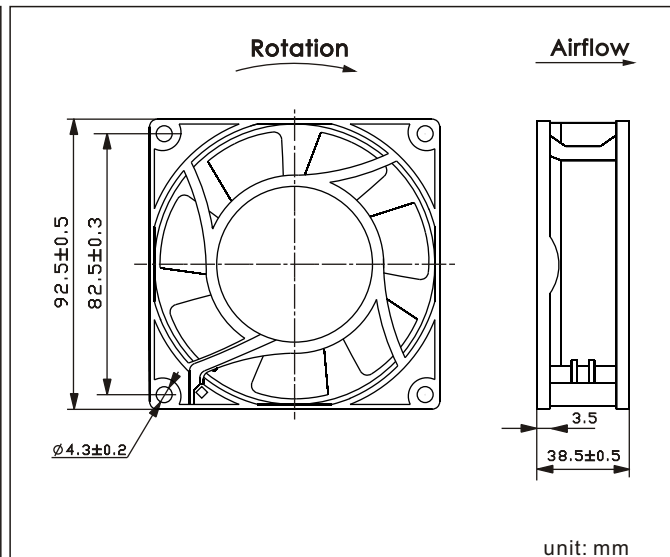
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-090	FGP-090	FPF-090	FFA-090	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -20°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 346 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1225B11T7-51 ※	2Ball or Sleeve	115	50/60	150/120	13/10	2,600/3,100	61.0/72.0	5.6/6.3	42.0/45.0
FA1225B22T7-51 ※		230	50/60	70/60	13/10	2,600/3,000	61.0/72.0	5.6/6.3	42.0/45.0

- For Wire lead version, change "T" in the model number to "W".
- If model with "※", the safety is pending.
- For Sleeve Bearing version, change "B" in the model number to "S".

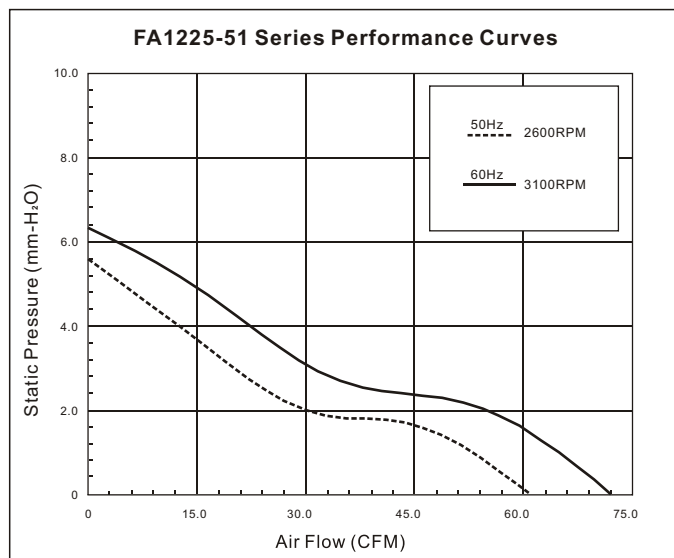
Specifications are subject to change without notice

Accessories :

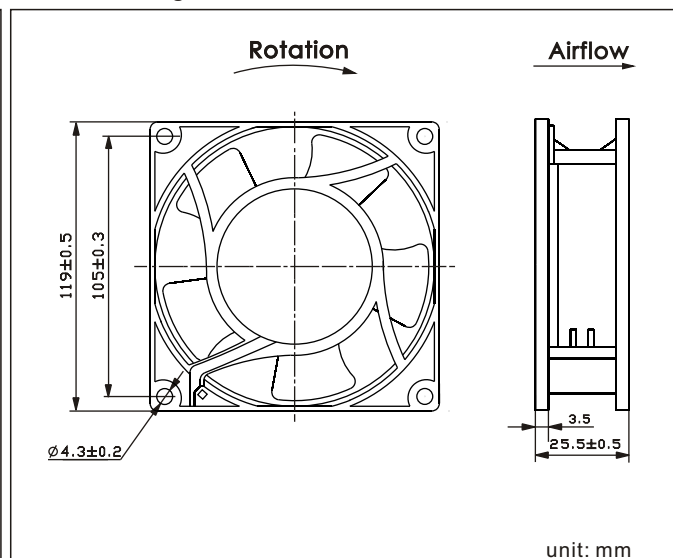
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-120	FGP-120	FPF-120	FFA-120	Any Configuration

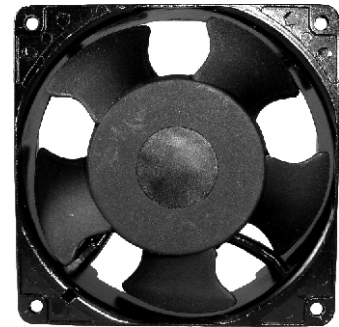
Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -20°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 515 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1238B11T1-51	2Ball or Sleeve	115	50/60	80/70	7/6	1,900/1,700	61.0/56.0	2.3/1.8	34.0/33.0
FA1238B11T3-51			50/60	130/110	11/10	2,000/1,900	61.0/64.0	2.7/2.1	34.0/35.0
FA1238B11T5-51			50/60	140/130	11/11	2,500/2,500	83.0/81.0	5.2/2.2	43.0/42.0
FA1238B11T7-51			50/60	260/210	20/16	2,600/3,000	85.0/97.0	7.1/6.7	44.0/48.0
FA1238B22T1-51		230	50/60	50/40	9/8	1,900/1,800	59.0/59.0	2.3/1.8	33.0/33.0
FA1238B22T3-51			50/60	70/60	12/10	1,900/2,000	61.0/64.0	2.7/2.1	34.0/35.0
FA1238B22T5-51			50/60	70/60	12/11	2,500/2,500	83.0/81.0	5.2/2.2	43.0/42.0
FA1238B22T7-51			50/60	130/100	20/16	2,600/3,000	85.0/97.0	7.1/6.7	44.0/48.0

• For Wire lead version, change "T" in the model number to "W".

Specifications are subject to change without notice

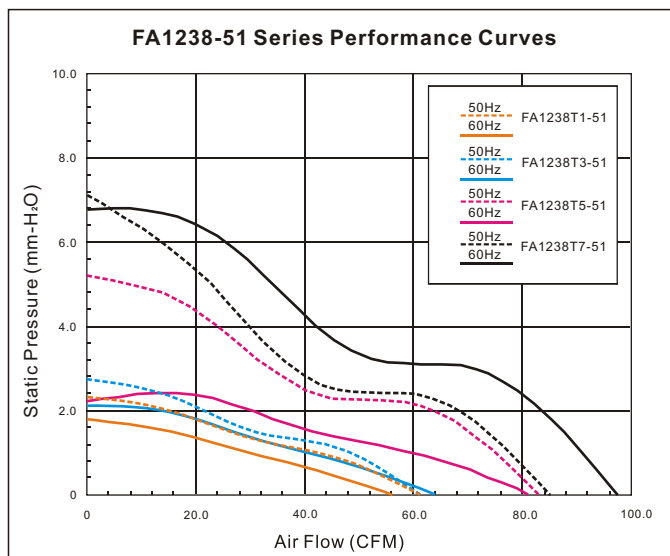
• For Sleeve Bearing version, change "B" in the model number to "S".

Accessories :

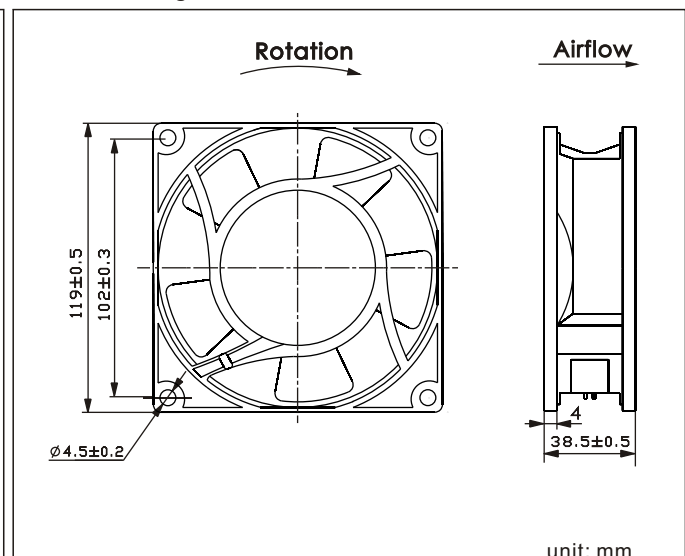
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-120	FGP-120	FPF-120	FFA-120	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -20°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 515 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1238B11T7-52	2Ball or Sleeve	115	50/60	220/180	16/14	2,700/3,000	103.0/117.0	7.8/6.6	43.0/47.0
FA1238B22T7-52		230	50/60	110/90	16/14	2,700/3,100	103.0/117.0	7.8/6.6	43.0/47.0

• For Wire lead version, change "T" in the model number to "W".

• For Sleeve Bearing version, change "B" in the model number to "S".

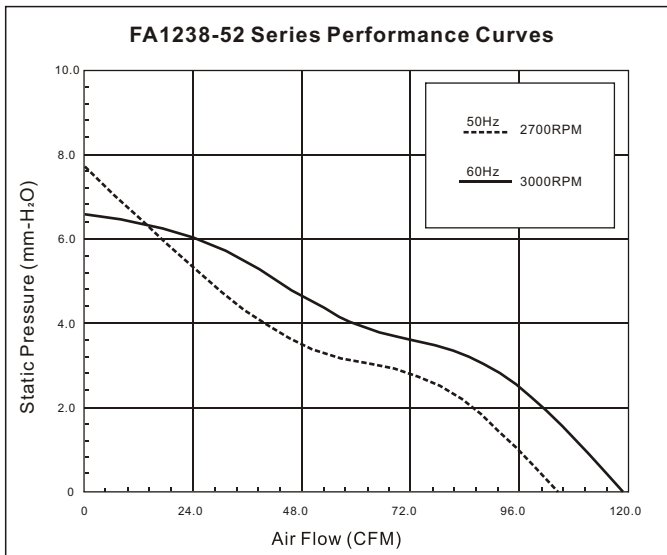
Specifications are subject to change without notice

Accessories :

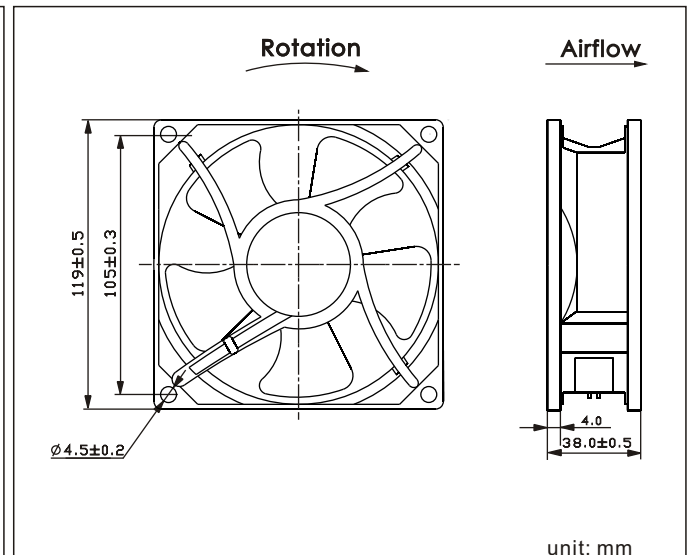
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-120	FGP-120	FPF-120	FFA-120	Any Configuration

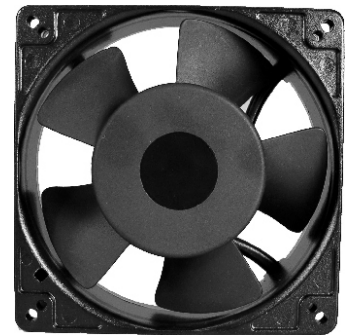
Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -20°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 562 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1273B11T7-51	2Ball or Sleeve	115	50/60	320/260	24/20	2,700/3,100	107.0/123.0	8.4/9.8	47.0/50.0
FA1273B22T7-51		230	50/60	160/130	25/20	2,700/3,100	107.0/123.0	8.4/9.8	47.0/50.0

- For Wire lead version, change "T" in the model number to "W".
- For Sleeve Bearing version, change "B" in the model number to "S".

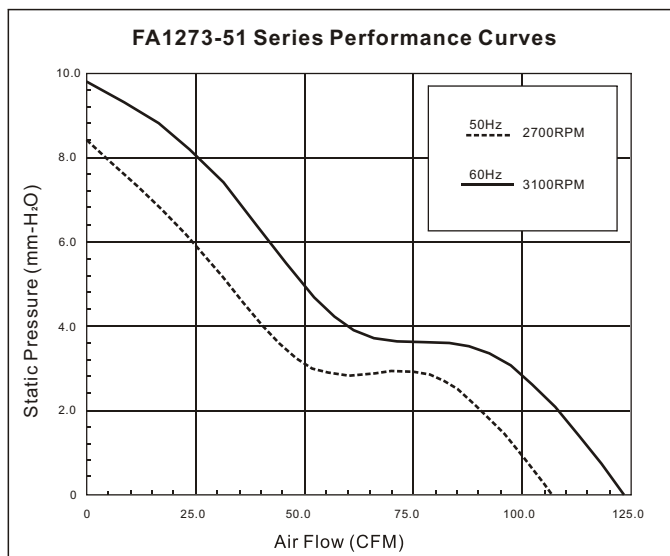
Specifications are subject to change without notice

Accessories :

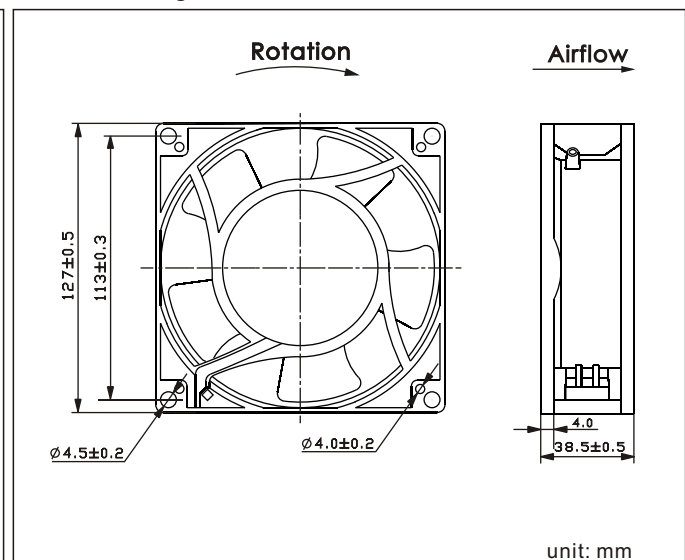
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	N/A	N/A	N/A	N/A	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Injection Molded of Flame Retardant Polycarbonate, Black
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -20°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight:1400 g



(Reverse Blow)

Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1662B11T7C-51 ※	2Ball	115	50/60	450/500	51/58	2,900/3,400	261.0/307.0	14.7/19.6	60.0/64.0
FA1662B22T7C-51 ※		230	50/60	230/250	51/57	2,900/3,400	261.0/305.0	14.7/19.6	60.0/64.0

• For Wire lead version, change "T" in the model number to "W".

Specifications are subject to change without notice

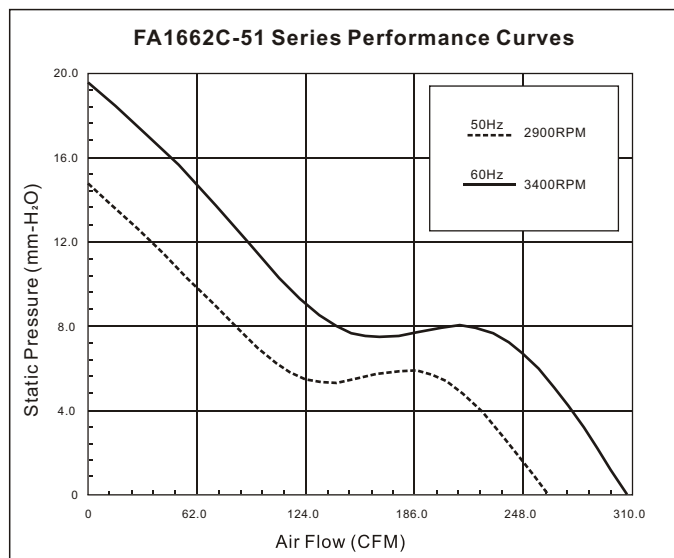
• If model with "※", the safety is pending.

Accessories :

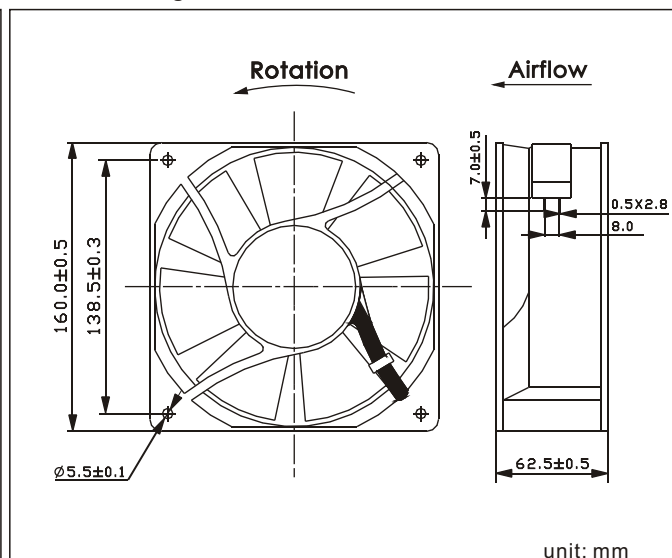
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-166	N/A	N/A	N/A	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Injection Molded of Flame Retardant Polycarbonate, Black
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -20°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 1400 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1662B11T7C-52 ※	2Ball	115	50/60	450/500	51/57	2,900/3,400	241.0/285.0	13.6/18.7	51.0/56.0
FA1662B22T7C-52 ※		230	50/60	230/240	50/55	2,900/3,500	239.0/288.0	13.6/18.7	51.0/56.0

• For Wire lead version, change "T" in the model number to "W".

Specifications are subject to change without notice

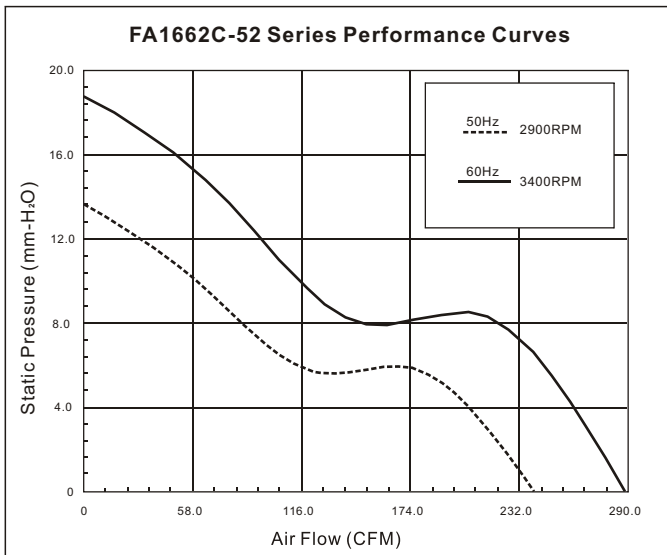
• If model with "※", the safety is pending.

Accessories :

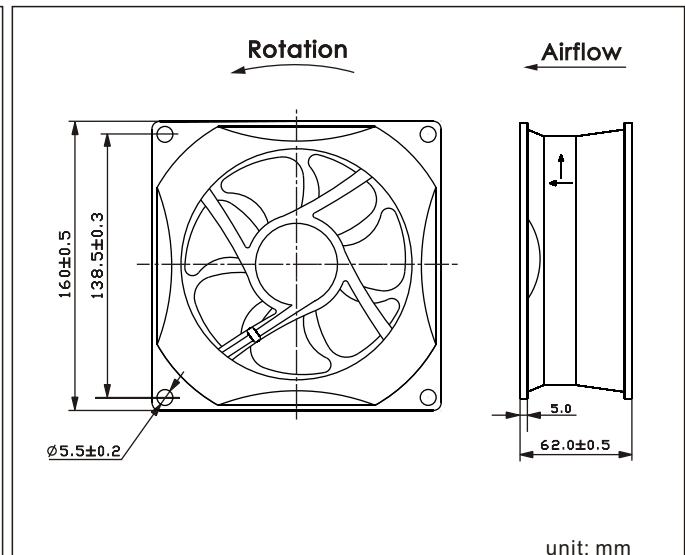
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-166	N/A	N/A	N/A	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -20°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 693 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1738B11T7C-51	2Ball	115	50/60	220/290	25/32	2,900/3,300	198.0/225.0	16.3/11.9	58.0/62.0
FA1738B22T7C-51		230	50/60	110/140	25/32	2,900/3,400	198.0/225.0	16.3/11.9	58.0/62.0

• For Wire lead version, change "T" in the model number to "W".

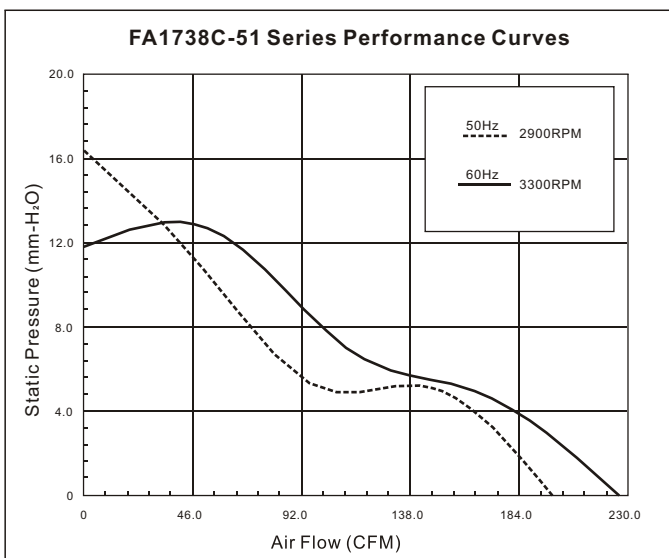
Specifications are subject to change without notice

Accessories :

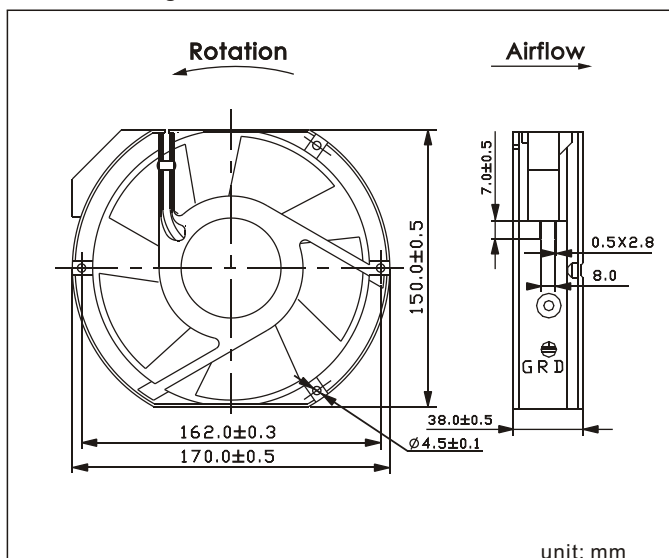
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-162	FGP-162	FPF-162	FFA-162	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -20°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 875 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1751B11T5C-51	2Ball	115	50/60	160/180	15/16	1,450/1,750	95.0/115.0	3.8/5.8	38.5/44.0
FA1751B11T7C-51			50/60	220/280	25/31	2,900/3,300	195.0/225.0	15.5/16.8	57.0/61.0
FA1751B22T5C-51		230	50/60	70/70	15/15	1,450/1,750	95.0/115.0	3.8/5.8	38.5/44.0
FA1751B22T7C-51			50/60	110/140	24/30	2,900/3,300	195.0/225.0	15.5/16.8	57.0/61.0

• For Wire lead version, change "T" in the model number to "W".

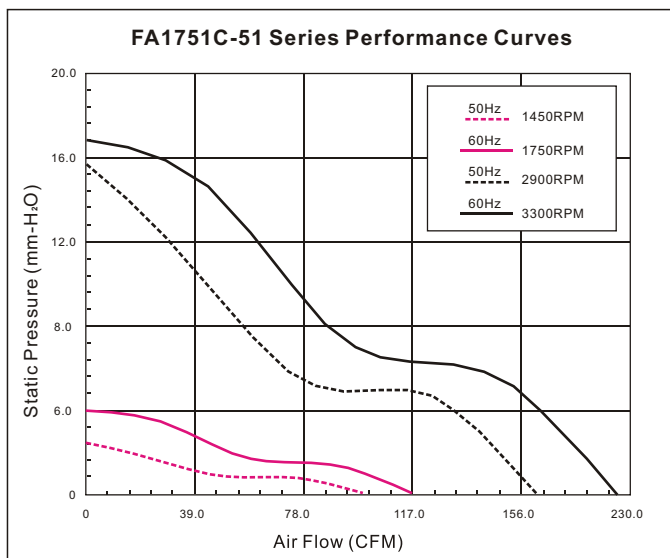
Specifications are subject to change without notice

Accessories :

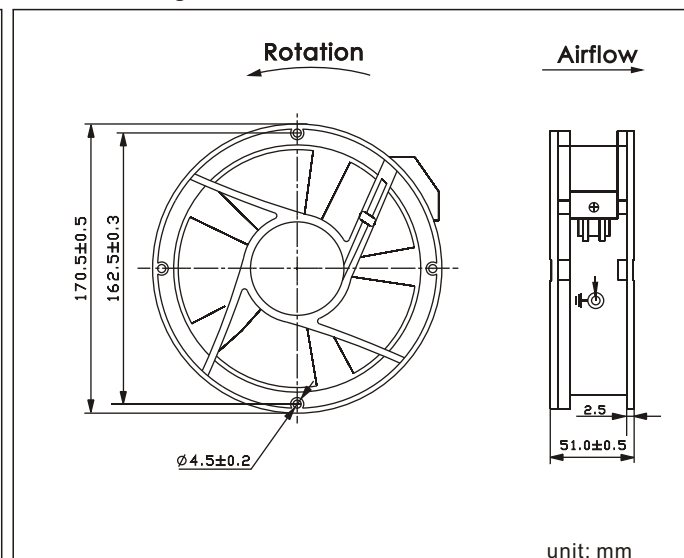
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-162	FGP-162	FPF-162	FFA-162	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -20°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Impedance / Thermal Protected**
- Weight: 693 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1751B11T7-52	2Ball	115	50/60	760/530	47/36	2,900/3,300	178.0/210.0	14.3/9.4	54.0/58.0
FA1751B22T7-52		230	50/60	410/290	51/39	2,900/3,300	183.0/212.0	14.3/9.4	54.0/58.0
FA1751B11T7C-52		115	50/60	220/280	25/31	2,800/3,300	198.0/226.0	16.7/16.3	57.0/61.0
FA1751B22T7C-52		230	50/60	110/150	25/32	2,800/3,300	198.0/230.0	16.7/16.3	57.0/61.0

• For Wire lead version, change "T" in the model number to "W".

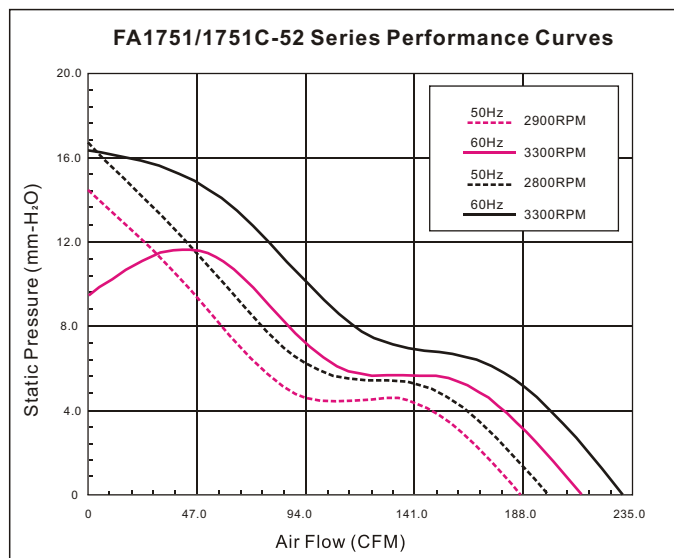
Specifications are subject to change without notice

Accessories :

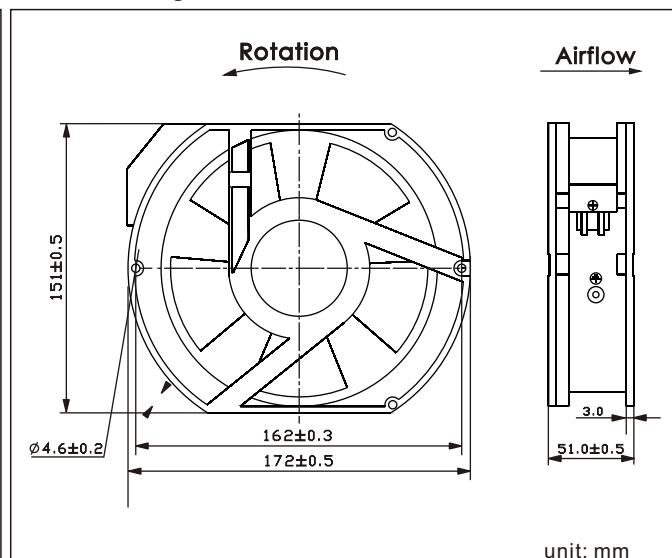
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-162	FGP-162	FPF-162	FFA-162	Any Configuration

Characteristic Curves :



Out line Drawing ng :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Injection Molded of Flame Retardant Polycarbonate, Black
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -20°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 1000 g



(Reverse Blow)

Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1755B11T7C-51 ※	2Ball	115	50/60	340/380	38/44	2,900/3,300	204.0/235.0	14.7/18.9	57.0/61.0
FA1755B22T7C-51 ※		230	50/60	170/190	37/43	2,900/3,400	202.0/239.0	14.7/18.9	57.0/61.0

- For Wire lead version, change "T" in the model number to "W".
- If model with "※", the safety is pending.

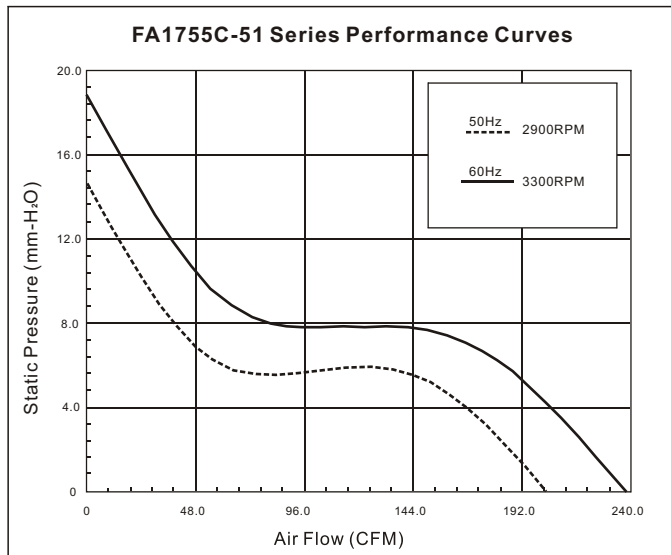
Specifications are subject to change without notice

Accessories :

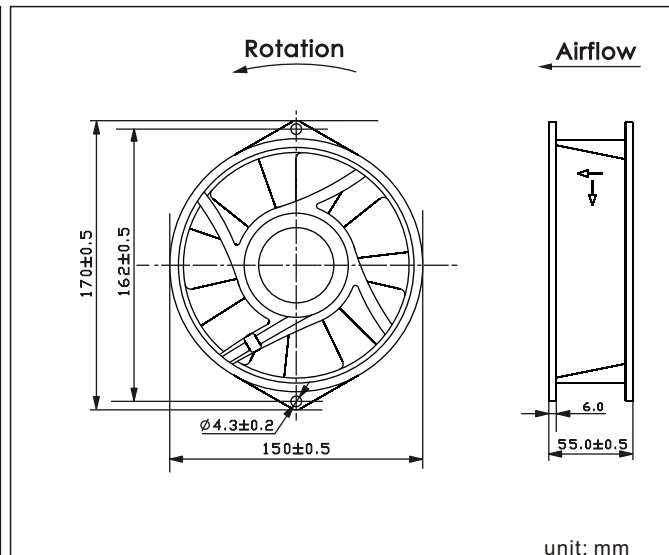
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-162	FGP-162	FPF-162	FFA-162	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Injection Molded of Flame Retardant Polycarbonate, Black
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -20°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 1600 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1865B11T7C-51 ※	2Ball	115	50/60	490/660	56/74	2,800/3,200	342.0/365.0	17.0/20.6	58.0/61.0
FA1865B22T7C-51 ※		230	50/60	260/330	58/76	2,900/3,300	352.0/394.0	17.0/20.6	58.0/61.0

• For Wire lead version, change "T" in the model number to "W".

• If model with "※", the safety is pending.

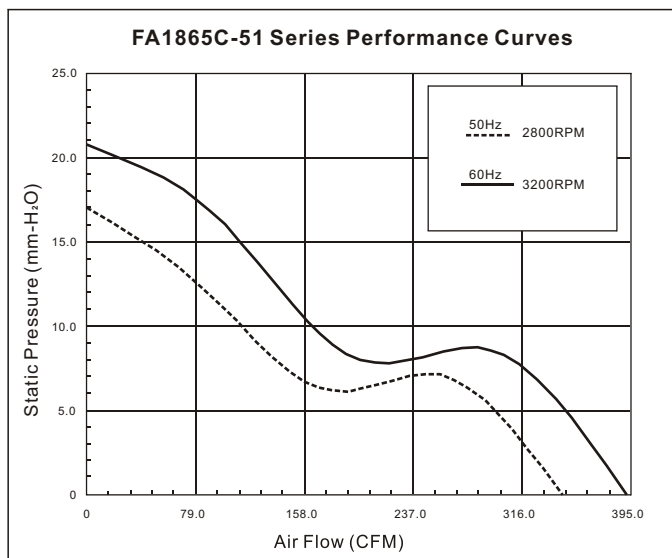
Specifications are subject to change without notice

Accessories :

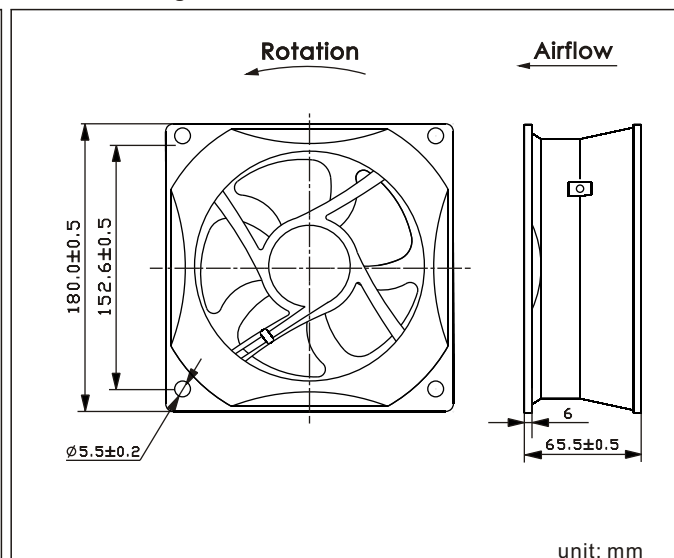
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	N/A	N/A	N/A	N/A	Any Configuration

Char acteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Injection Molded of Flame Retardant Polycarbonate, Black
- Insulation Resistance: 100M Ω , 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -20°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 1600 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1890B11T7C-51 ※	2Ball	115	50/60	470/660	55/77	2,800/3,000	376.0/409.0	16.3/17.1	58.0/61.0
FA1890B22T7C-51 ※		230	50/60	250/330	58/76	2,800/3,200	378.0/434.0	16.3/17.1	58.0/61.0

- For Wire lead version, change "T" in the model number to "W".
- If model with "※", the safety is pending.

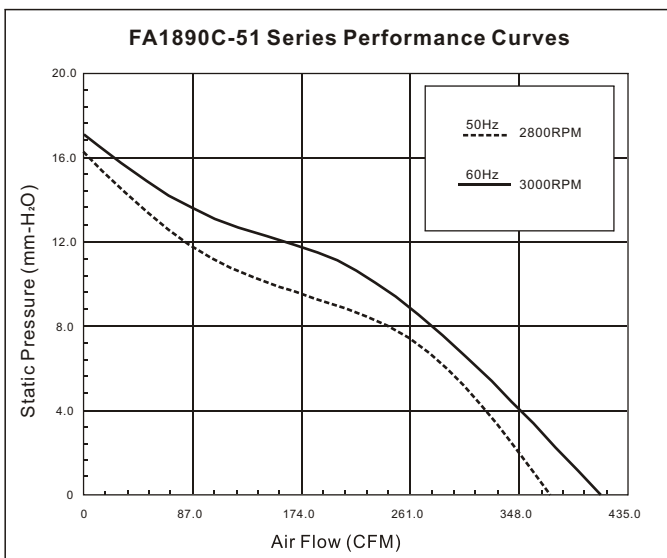
Specifications are subject to change without notice

Accessories :

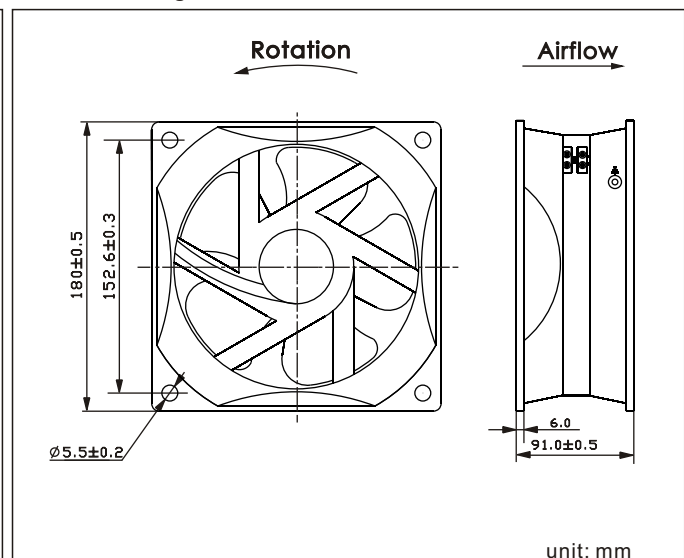
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	N/A	N/A	N/A	N/A	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Injection Molded of Flame Retardant Polycarbonate, Black
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -20°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 1600 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H2O)	Noise (dBA)
FA2589B11T7C-51	2Ball	115	50/60	350/360	38/40	1,400/1,700	443.0/525.0	8.6/9.8	49.0/53.0
FA2589B22T7C-51		230	50/60	190/180	39/40	1,400/1,700	445.0/529.0	8.6/9.8	49.0/53.0

• For Wire lead version, change "T" in the model number to "W".

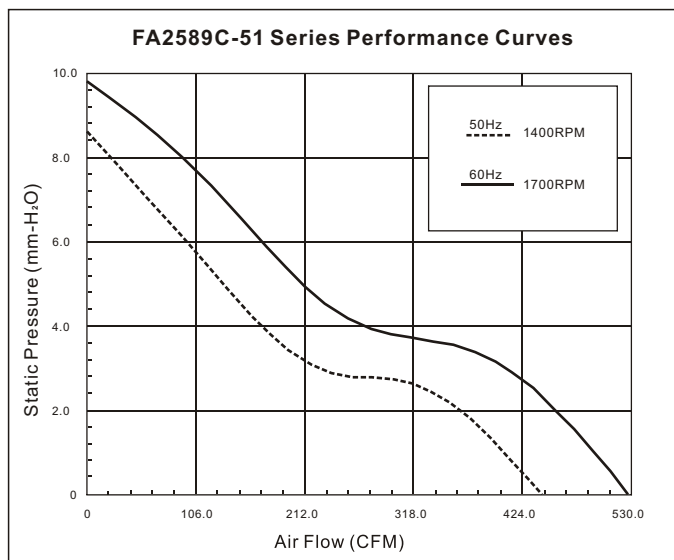
Specifications are subject to change without notice

Accessories :

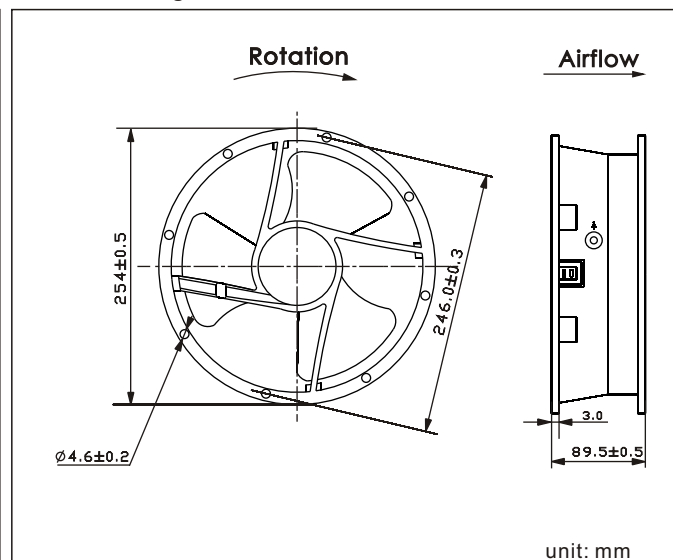
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-250	N/A	N/A	N/A	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Injection Molded of Flame Retardant Polycarbonate, Black
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minute
- Operation Temperature: -20°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 1600 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA2589B11T7C-52 ※	2Ball	115	50/60	950/1150	97/129	2,550/2,700	780.0/834.0	21.8/19.8	68.0/70.0
FA2589B22T7C-52 ※		230	50/60	550/600	98/130	2,600/2,700	785.0/835.0	21.8/19.8	68.0/70.0

- For Wire lead version, change "T" in the model number to "W".
- If model with "※", the safety is pending.

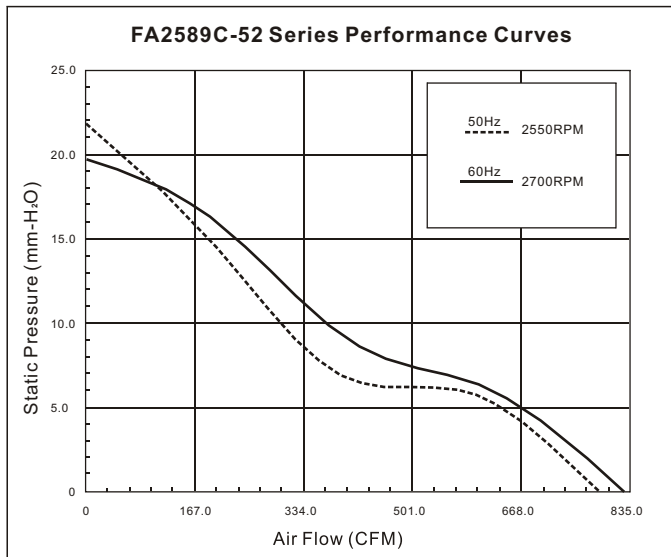
Specifications are subject to change without notice

Accessories :

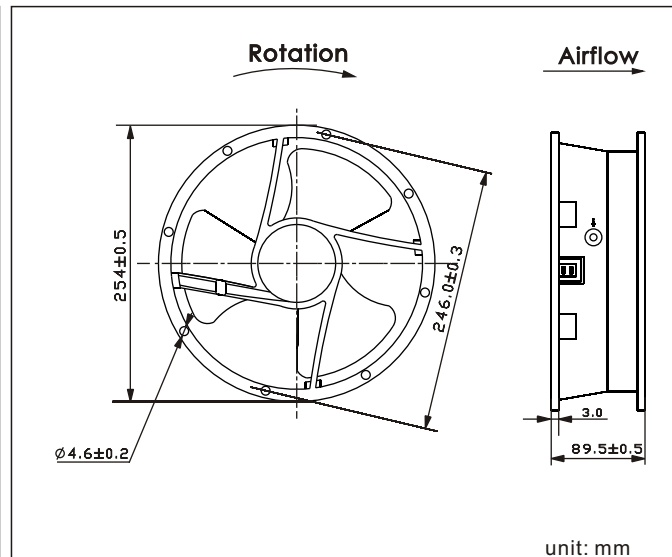
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-250	N/A	N/A	N/A	Any Configuration

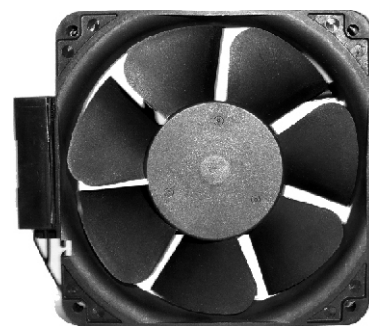
Characteristic Curves :



Out line Drawing :



- Housing/Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #22 AWG
- Weight: 280 g



(AC Input DC Drive Fan)



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Operating Voltage (VAC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FDA1232B11W3-41★※	B,S	115	100~125	36	4.32	2,400	75.90	5.70	35.70	P,U,X
FDA1232B11W5-41★※	B,S		100~125	46	5.52	3,000	94.90	8.90	41.40	P,U,X
FDA1232B11W7-41★※	B,S		100~125	65	7.80	3,600	113.90	12.70	46.10	P,U,X
FDA1232B22W3-41★※	B,S	230	200~240	19	4.37	2,400	75.90	6.40	35.70	P,U,X
FDA1232B22W5-41★※	B,S		200~240	25	5.75	3,000	94.90	10.00	41.40	P,U,X
FDA1232B22W7-41★※	B,S		200~240	70	16.10	3,600	113.90	14.40	46.10	P,U,X

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- If model with "★", auto restart protection built in; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

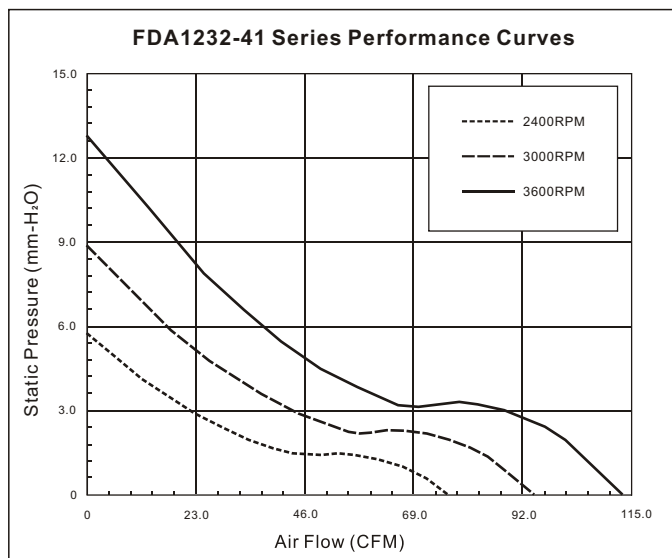
Specifications are subject to change without notice

Accessories :

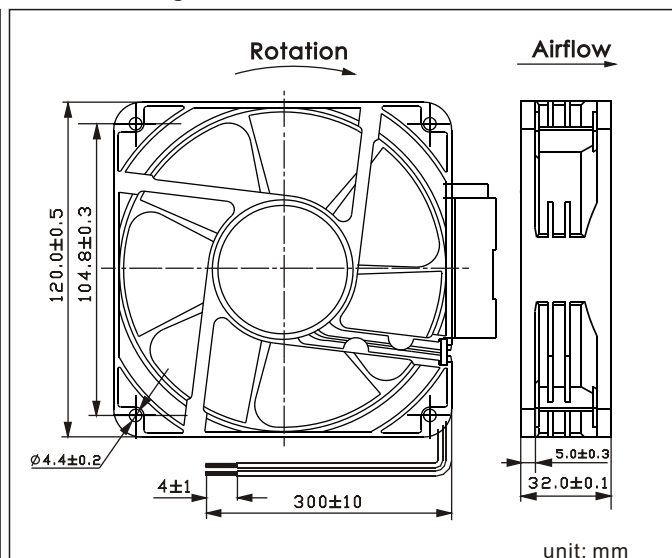
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-120	FGP-120	FPF-120	FFA-120

Characteristic Curves :



Out line Drawing :



- Housing/Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 10MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 5mA max. 500VAC/min between bare wire and frame
- Operation Temperature: -20°C~70°C (Humidity 15%-90%RH)
- Storage Temperature: -40°C~85°C (Humidity 15%-90%RH)
- Lead Wire: UL Type #22 AWG
- Weight: 315 g



(AC Input DC Drive Fan)



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Operating Voltage (VAC)	Actual Current (mA)	Power (W)	Speed (R.P.M)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)	Additional Function (See page 4)
FDA1238B11W3-41★※	B,S	115	100~125	65	7.80	2,400	96.30	6.50	38.20	P,U,X
FDA1238B11W5-41★※	B,S		100~125	80	9.60	3,000	120.40	10.20	43.90	P,U,X
FDA1238B11W7-41★※	B,S		100~125	110	13.20	3,600	144.50	14.600	48.60	P,U,X
FDA1238B22W3-41★※	B,S	230	200~240	36	8.28	2,400	96.30	7.20	38.20	P,U,X
FDA1238B22W5-41★※	B,S		200~240	45	10.35	3,000	120.40	11.30	43.90	P,U,X
FDA1238B22W7-41★※	B,S		200~240	55	12.65	3,600	144.50	16.20	48.60	P,U,X

- For "Sleeve" Bearing Version, change "B" in the model number to "S".
- If model with "★", auto restart protection built in; If model with "※", the safety is pending.
- For additional function availability type, please refer to the notes of page 4.

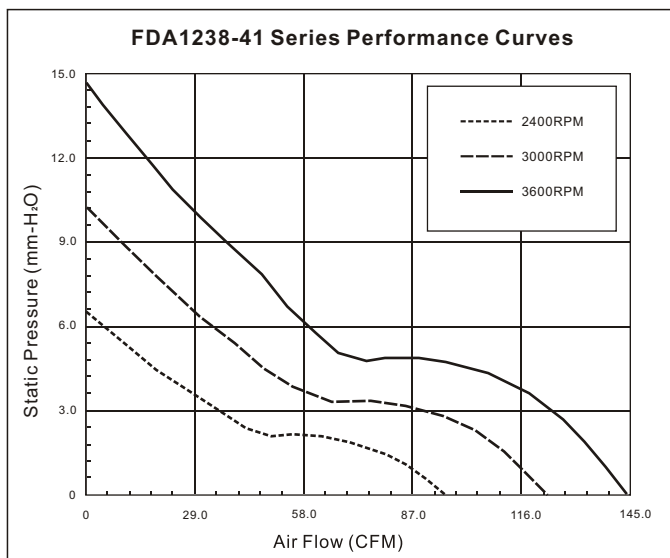
Specifications are subject to change without notice

Accessories :

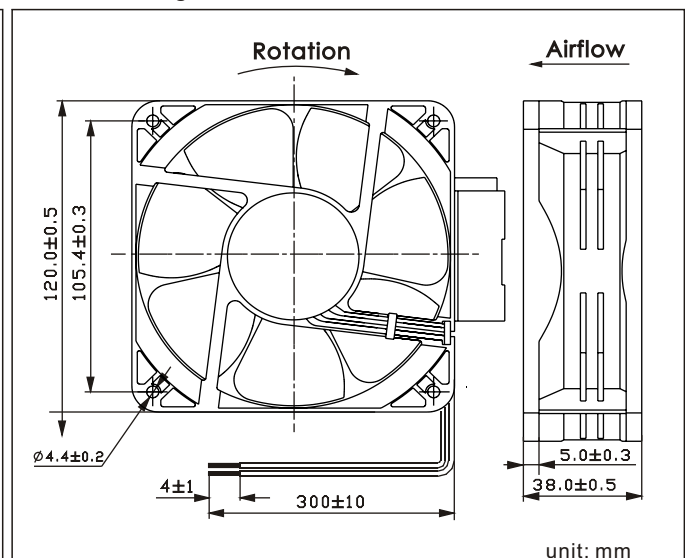
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter
Part Number	FGW-120	FGP-120	FPF-120	FFA-120

Characteristic Curves :



Out line Drawing :



- Housing: Spiral Housing of Fiberglass-Reinforced Polycarbonate
Housing Base of Galvanized Steel Plate
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one ses.
- Operation Temperature: -20°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 625 g



Specification :

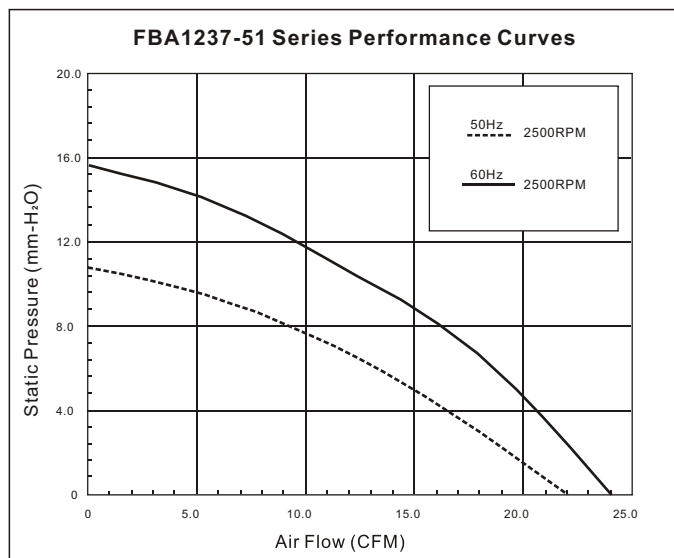
Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FBA1237B11W5-51	2Ball or Sleeve	115	50/60	270/240	21/19	2,500/2,500	22.0/23.0	10.7/15.7	52.0/53.0
FBA1237B22W5-51		230	50/60	140/120	21/20	2,600/2,700	23.0/24.0	10.7/15.7	52.0/53.0

• For Terminal version, change "W" in the model number to "T".

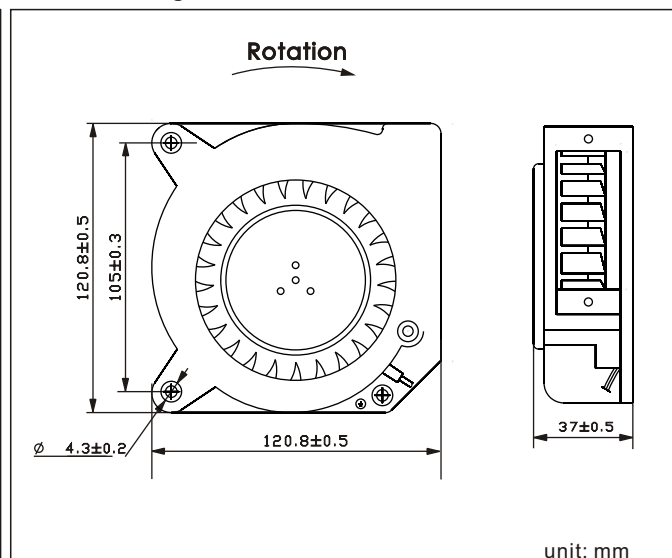
• For Sleeve Bearing version, change "B" in the model number to "S".

Specifications are subject to change without notice

Characteristic Curves :



Outline Drawing :



- Housing: Spiral Housing of Fiberglass-Reinforced Polycarbonate Housing Base of Galvanized Steel Plate
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minute
- Operation Temperature: -20°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 1750 g



Specification :

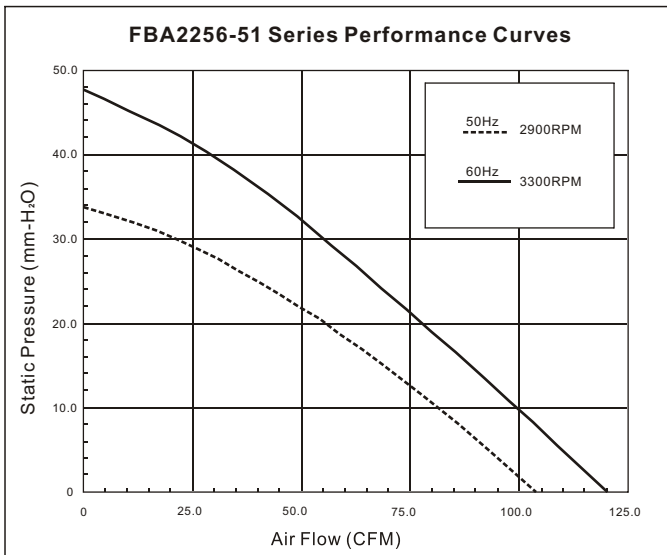
Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FBA2256B11W7-51	2Ball or Sleeve	115	50/60	340/420	37/45	2,900/3,300	103.0/117.0	33.8/47.8	64.0/66.0
FBA2256B22W7-51		230	50/60	160/200	36/34	2,900/3,400	104.0/120.0	33.8/47.8	64.0/66.0

• For Terminal version, change "W" in the model number to "T".

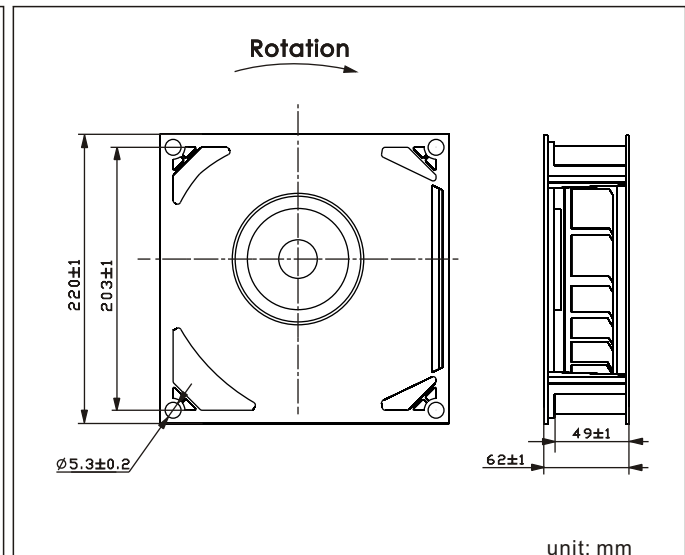
Specifications are subject to change without notice

• For Sleeve Bearing version, change "B" in the model number to "S".

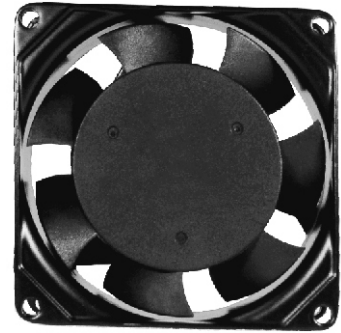
Characteristic Curves:



Out line Drawing:



- Housing: Die-Cast Aluminum, Painted Black
 - Blade: Thermoplastic UL 94V-0 P.B.T.
 - Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
 - Dielectric Strength: 1500VAC for one minutue
 - Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
 - Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
Weight: 208 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA8025B11T5-61	2Ball or Sleeve	115	50/60	130/130	13/11	1,700/2,200	14.2/19.3	1.4/2.7	20.7/25.6
FA8025B11T7-61			50/60	130/130	13/11	2,400/2,900	22.3/27.4	3.3/5.0	29.6/34.5
FA8025B22T5-61		230	50/60	100/100	13/11	1,700/2,200	14.2/19.3	1.4/2.7	20.7/25.6
FA8025B22T7-61			50/60	100/100	13/11	2,400/2,900	22.3/27.4	3.3/5.0	29.6/34.5

- For Wire lead version, change "T" in the model number to "W".
- For Sleeve Bearing version, change "B" in the model number to "S".

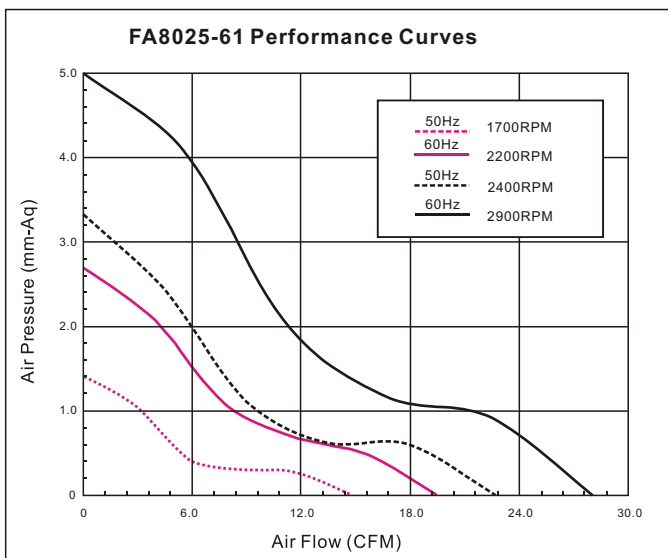
Specifications are subject to change without notice

Accessories :

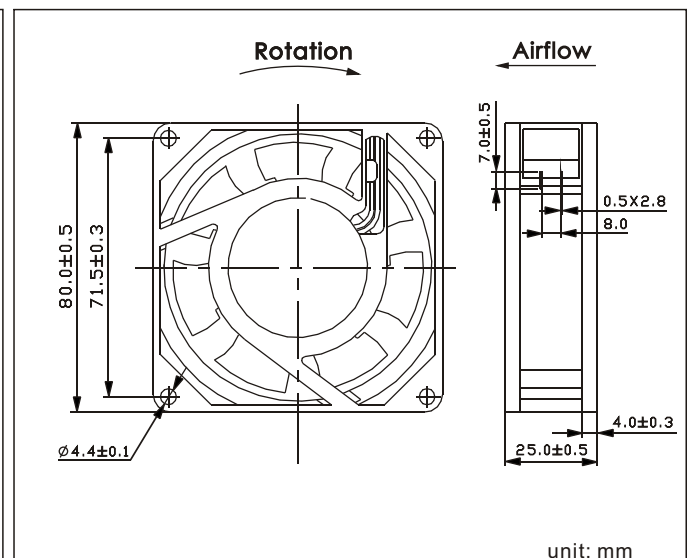
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-080	FGP-080	FPF-080	FFA-080	Any Configuration

Characteristic Curves :



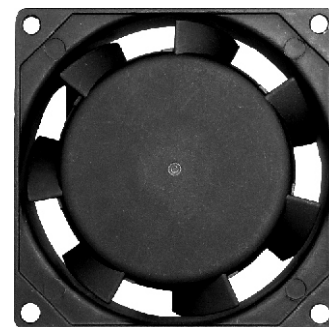
Out line Drawing :



AC Axial Fan

Standard

- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 200 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA8025B11T7-91	2Ball	115	50/60	140/120	13/9	2,400/2,900	26.4/33.5	3.3/4.7	28.6/32.5
FA8025B22T7-91		230	50/60	90/50	13/11	2,400/2,900	26.4/33.5	3.3/4.7	28.6/32.5

• For Wire lead version, change "T" in the model number to "W".

Specifications are subject to change without notice

AC Axial Fan

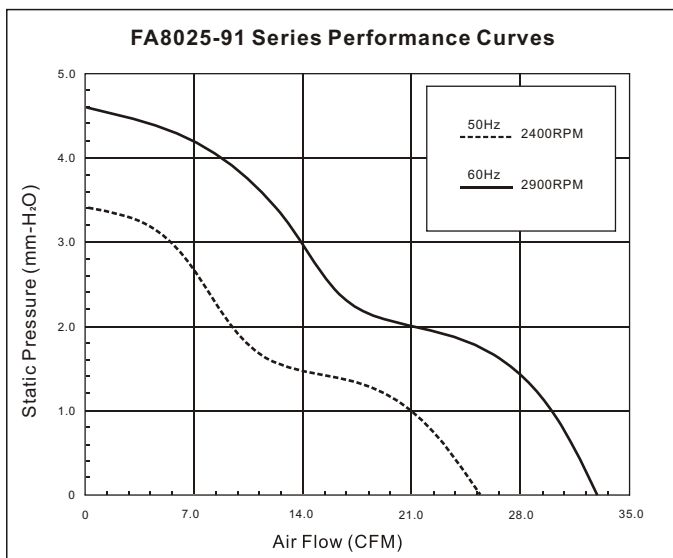
Standard

Accessories :

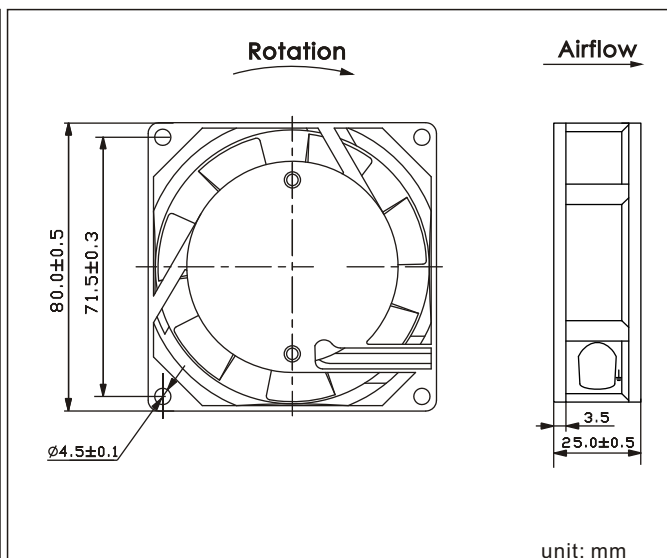
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-080	FGP-080	FPF-080	FFA-080	Any Configuration

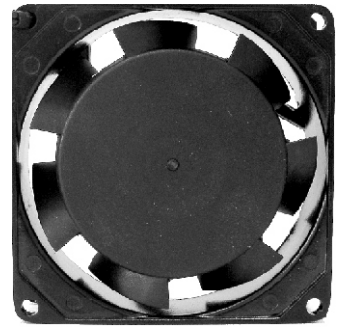
Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 250 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA8025B11T5-96	2Ball or Sleeve	115	50/60	130/110	12/10	2,500/2,900	18.3/20.3	5.2/5.9	28.6/32.5
FA8025B11T7-96			50/60	140/120	13/11	2,600/3,000	20.3/22.3	5.7/6.4	29.6/33.5
FA8025B22T5-96		230	50/60	60/50	11/9	2,500/2,900	18.3/20.3	5.2/5.9	28.6/32.5
FA8025B22T7-96			50/60	65/55	12/10	2,600/3,000	20.3/22.3	5.7/6.4	29.6/33.5

• For Wire lead version, change "T" in the model number to "W".

• For Sleeve Bearing version, change "B" in the model number to "S".

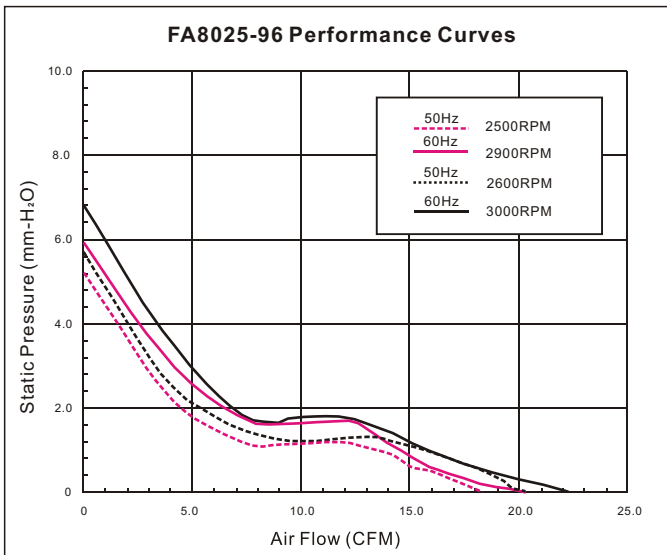
Specifications are subject to change without notice

Accessories :

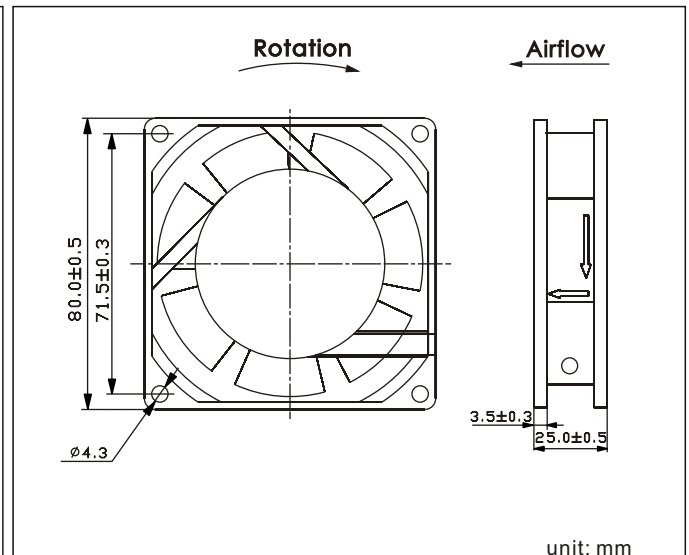
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-080	FGP-080	FPF-080	FFA-080	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 340 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA8038B11T5-61	2Ball or Sleeve	115	50/60	100/100	9/7	2,300/2,700	22.3/26.4	2.8/4.6	25.6/29.6
FA8038B11T7-61			50/60	200/200	16/12	2,700/3,000	26.4/29.4	3.8/5.1	27.6/33.5
FA8038B22T5-61		230	50/60	60/60	7/6	2,300/2,700	22.3/26.4	2.8/4.6	25.6/29.6
FA8038B22T7-61			50/60	80/80	14/10	2,700/3,000	26.4/29.4	3.8/5.1	27.6/33.5

- For Wire lead version, change "T" in the model number to "W".
- For Sleeve Bearing version, change "B" in the model number to "S".

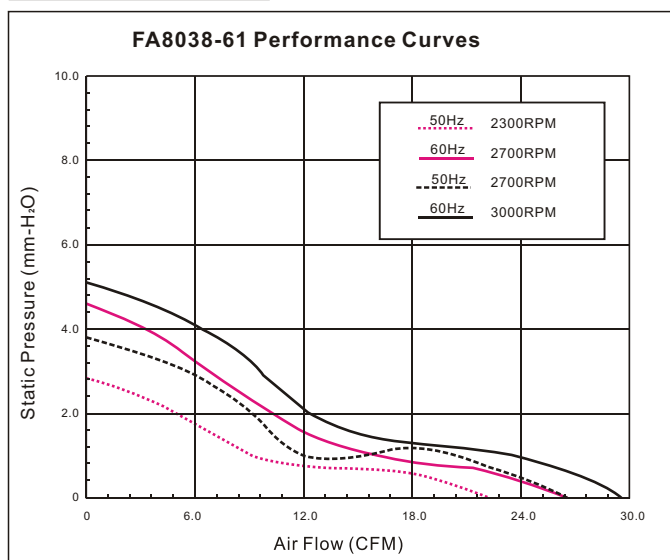
Specifications are subject to change without notice

Accessories :

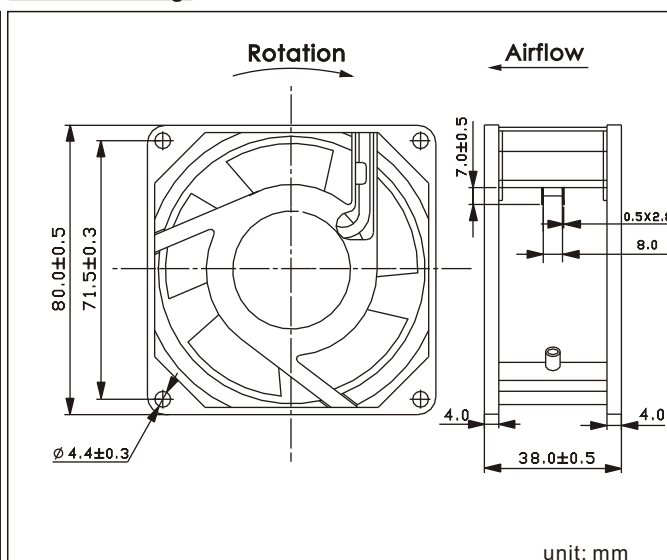
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-080	FGP-080	FPF-080	FFA-080	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 293 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA8038B11T5-91	2Ball	115	50/60	150/110	16/10	2,300/2,800	32.5/35.5	4.4/2.8	30.5/34.5
FA8038B22T5-91		230	50/60	80/60	13/9	2,300/2,800	32.5/35.5	4.4/2.8	30.5/34.5

• For Wire lead version, change "T" in the model number to "W".

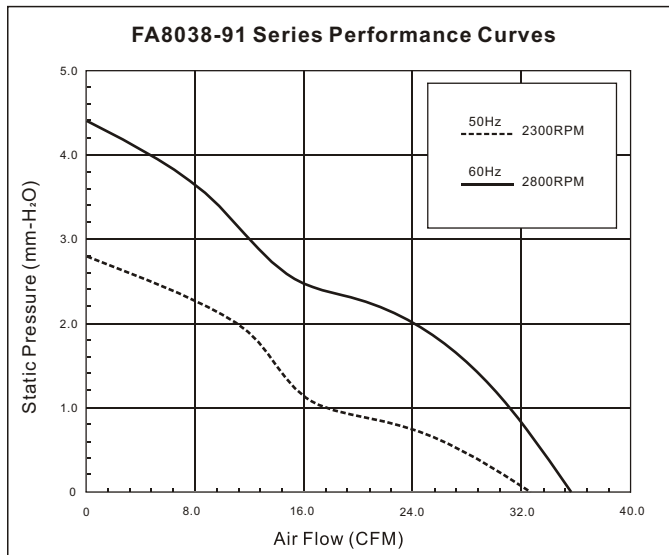
Specifications are subject to change without notice

Accessories :

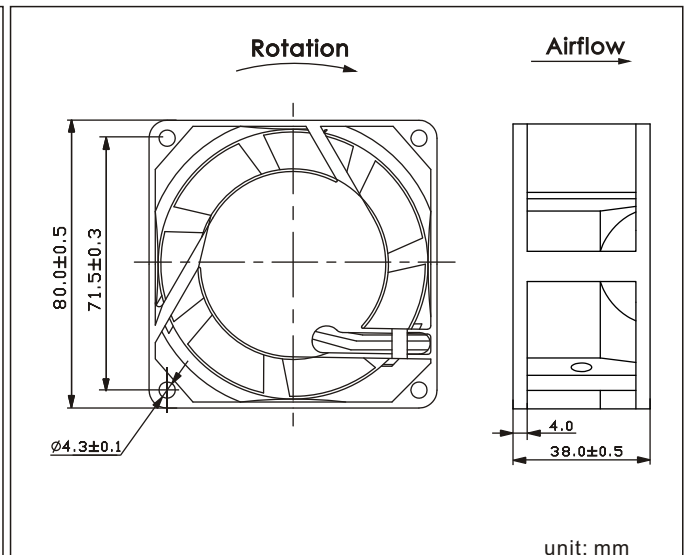
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-080	FGP-080	FPF-080	FFA-080	Any Configuration

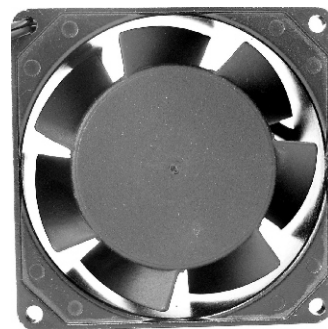
Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -20°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 290 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA8038B11T5-96	2Ball or Sleeve	115	50/60	110/90	9/7	2,300/2,600	26.4/29.4	3.9/4.4	29.6/34.5
FA8038B11T7-96			50/60	140/110	12/9	2,400/2,700	29.4/32.5	4.1/4.9	31.5/36.4
FA8038B22T5-96		230	50/60	65/50	11/8	2,200/2,600	26.4/29.4	3.9/4.4	29.6/34.5
FA8038B22T7-96			50/60	75/60	13/9	2,300/2,700	29.4/32.5	4.1/4.9	31.5/36.4

- For Wire lead version, change "T" in the model number to "W".
- For Sleeve Bearing version, change "B" in the model number to "S".

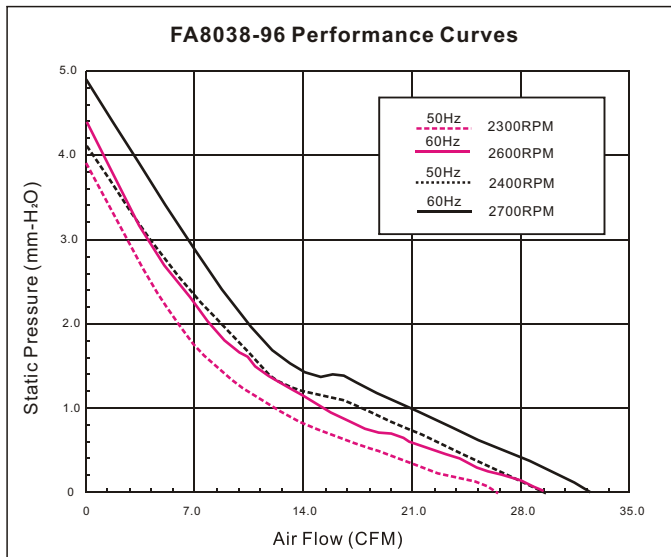
Specifications are subject to change without notice

Accessories :

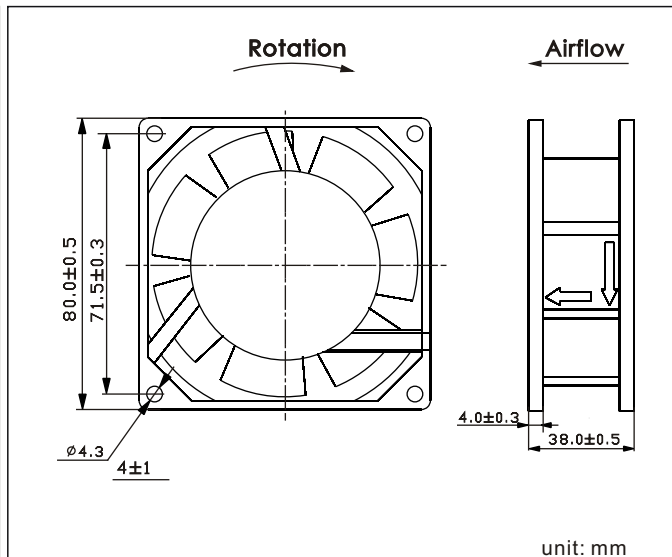
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-080	FGP-080	FPF-080	FFA-080	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 240 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA9225B11T7-61	2Ball or Sleeve	115	50/60	130/130	13/11	1,400/1,900	22.3/30.5	1.2/1.9	21.7/25.6
FA9225B22T7-61		230	50/60	100/100	13/11	1,400/1,900	22.3/30.5	1.2/1.9	21.7/25.6

- For Wire lead version, change "T" in the model number to "W".
- For Sleeve Bearing version, change "B" in the model number to "S".

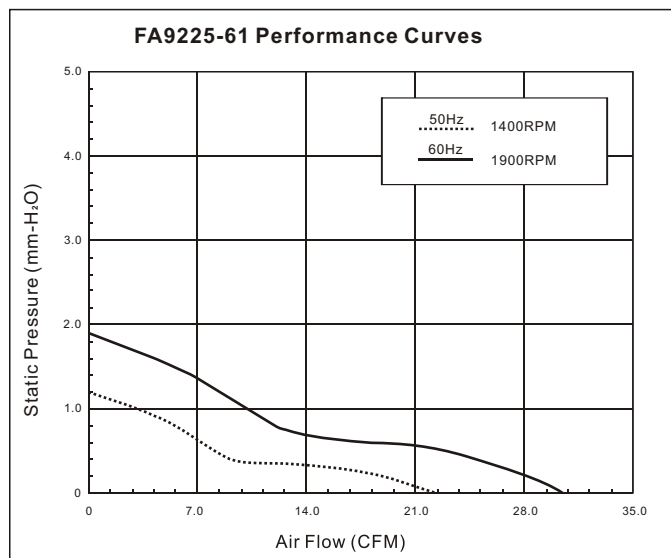
Specifications are subject to change without notice

Accessories :

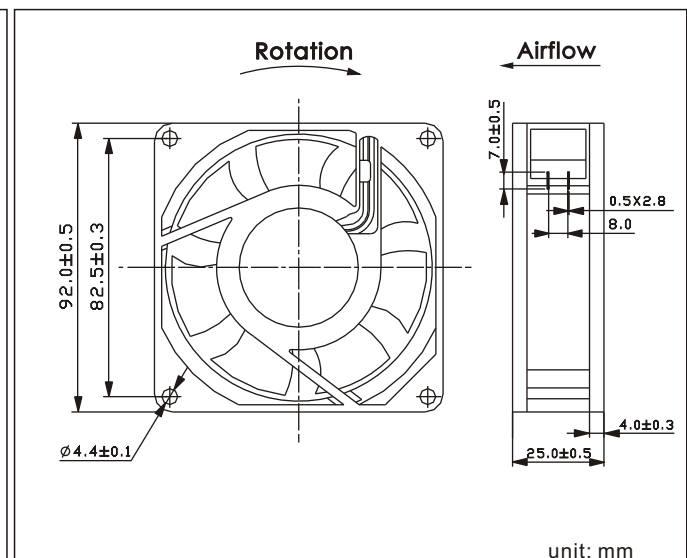
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-090	FGP-090	FPF-090	FFA-090	Any Configuration

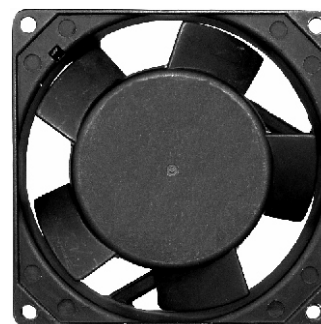
Char acteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 230 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA9225B11T7-91	2Ball	115	50/60	140/120	11/7	2,300/2,800	40.6/48.7	4.7/5.7	34.5/36.4
FA9225B22T7-91		230	50/60	90/50	13/10	2,300/2,800	40.6/48.7	4.7/5.7	34.5/36.4

• For Wire lead version, change "T" in the model number to "W".

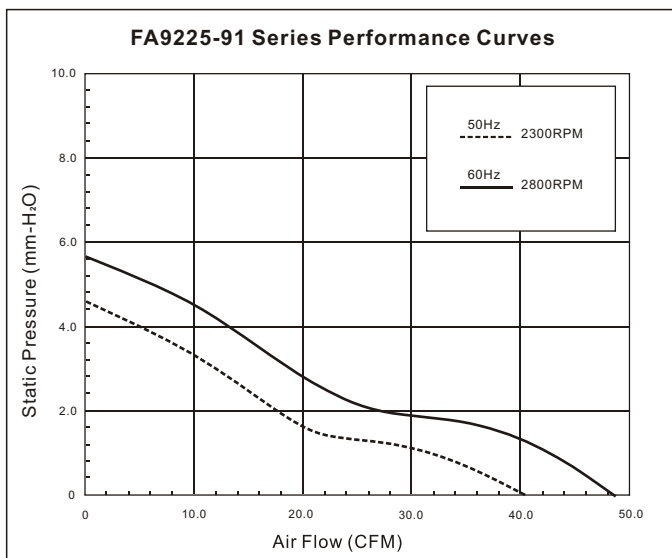
Specifications are subject to change without notice

Accessories :

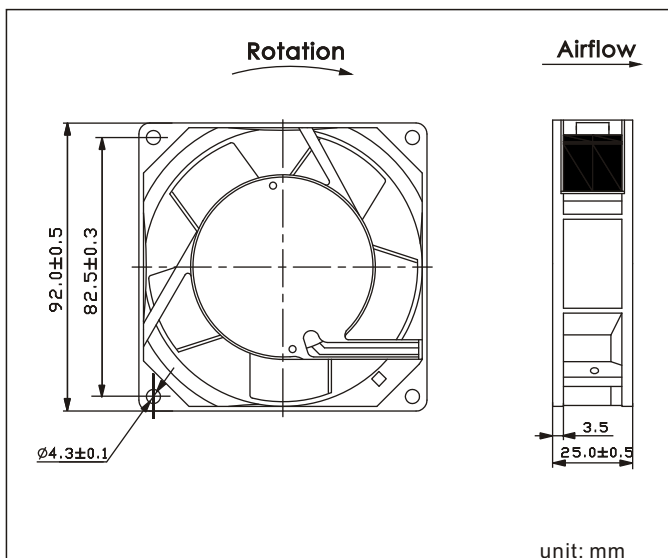
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-090	FGP-090	FPF-090	FFA-090	Any Configuration

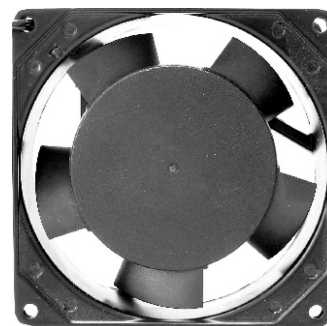
Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -20°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 260 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA9225B11T5-96	2Ball or Sleeve	115	50/60	130/110	12/10	2,400/2,700	29.4/33.5	4.4/5.9	34.5/36.4
FA9225B11T7-96			50/60	140/120	13/11	2,500/2,800	33.5/36.5	4.6/6.4	36.4/38.4
FA9225B22T5-96		230	50/60	60/50	11/9	2,400/2,700	29.4/33.5	4.4/5.9	34.5/36.4
FA9225B22T7-96			50/60	65/55	12/10	2,500/2,800	33.5/36.5	4.6/6.4	36.4/38.4

• For Wire lead version, change "T" in the model number to "W".

• For Sleeve Bearing version, change "B" in the model number to "S".

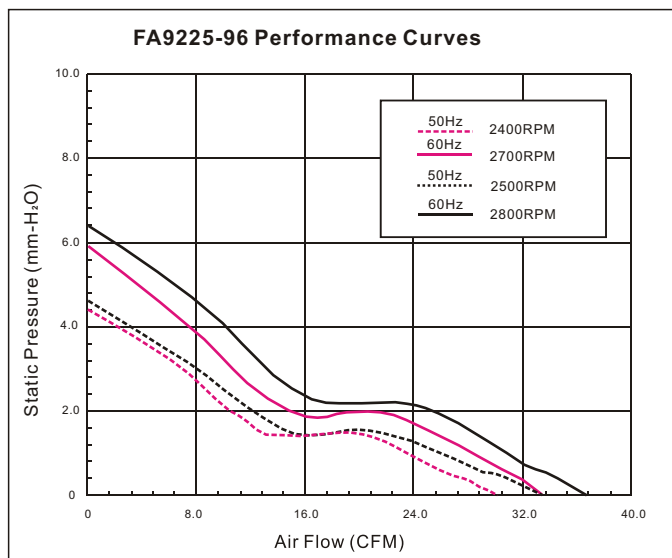
Specifications are subject to change without notice

Accessories :

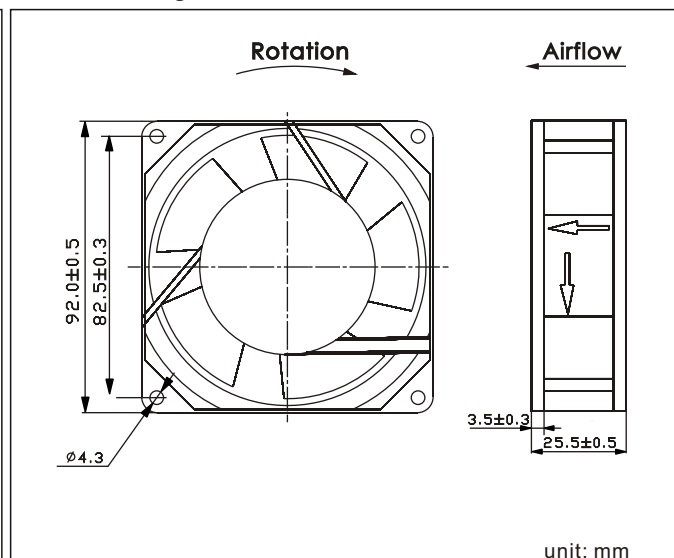
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-090	FGP-090	FPF-090	FFA-090	Any Configuration

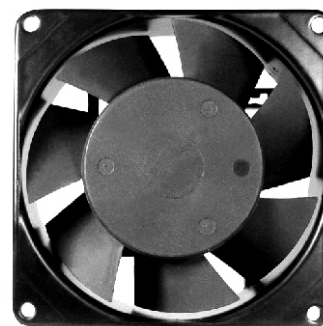
Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minute
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 350 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA9238B11T5-31	2Ball or Sleeve	115	50/60	120/90	9/7	2,250/2,600	38.6/44.7	3.8/4.7	25.6/27.6
FA9238B11T7-31			50/60	230/180	17/13	2,350/2,750	39.6/46.7	3.7/5.3	26.6/31.5
FA9238B22T5-31		230	50/60	70/60	11/8	2,250/2,600	38.6/44.7	3.8/4.7	25.6/27.6
FA9238B22T7-31			50/60	100/80	17/13	2,350/2,750	39.6/46.9	3.7/5.3	26.6/31.5

- For Wire lead version, change "T" in the model number to "W".
- For Sleeve Bearing version, change "B" in the model number to "S".

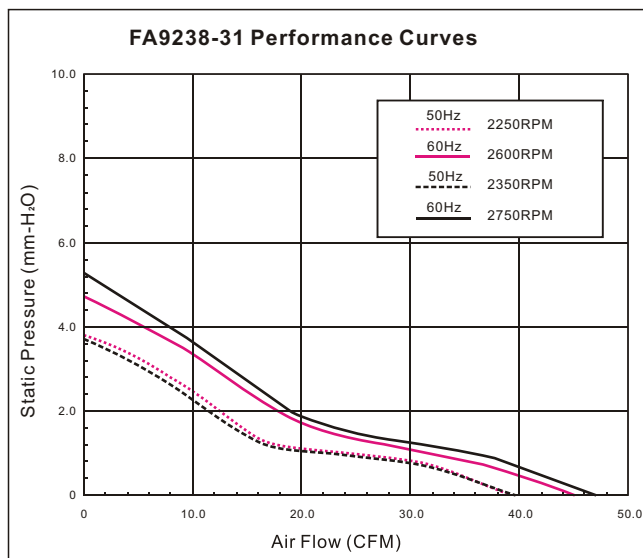
Specifications are subject to change without notice

Accessories :

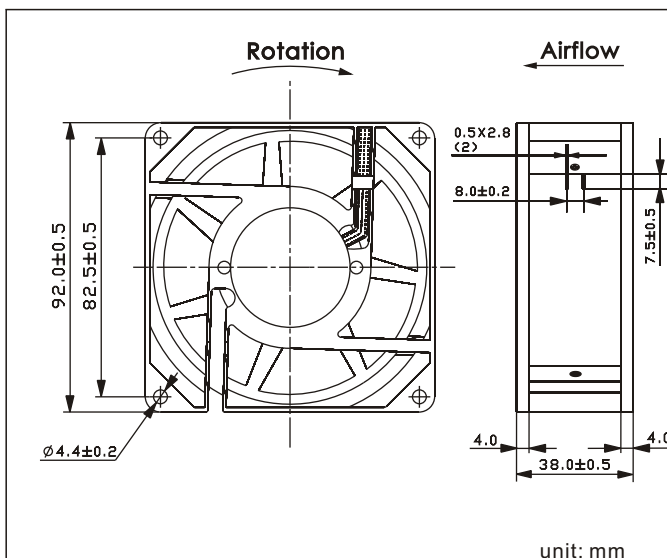
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-090	FGP-090	FPF-090	FFA-090	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 320 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA9238B11T5-91	2Ball	115	50/60	120/150	15/9	2,000/2,400	45.7/55.8	4.2/5.4	36.4/40.4
FA9238B22T5-91		230	50/60	70/60	12/9	2,000/2,400	45.7/55.8	4.2/5.4	36.4/40.4

• For Wire lead version, change "T" in the model number to "W".

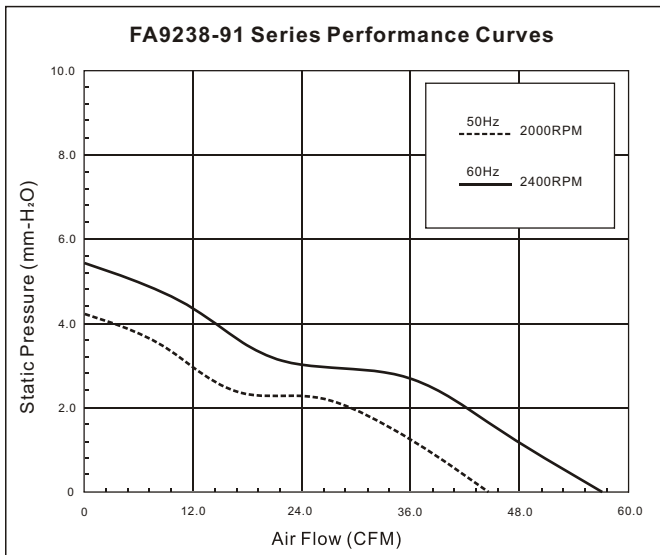
Specifications are subject to change without notice

Accessories :

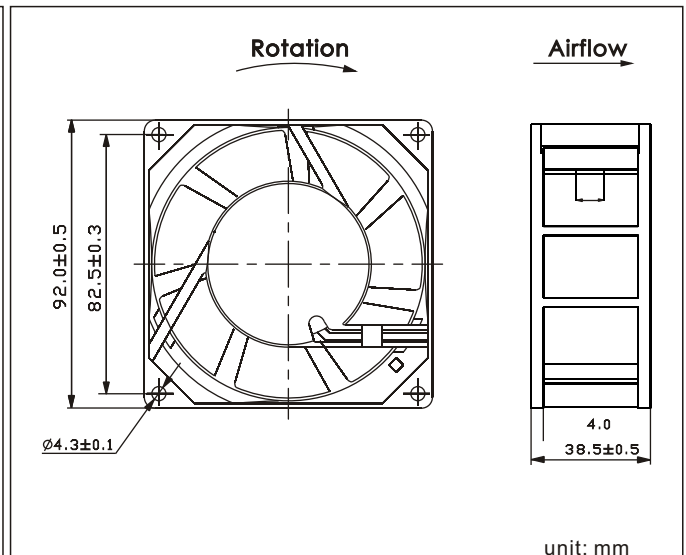
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-090	FGP-090	FPF-090	FFA-090	Any Configuration

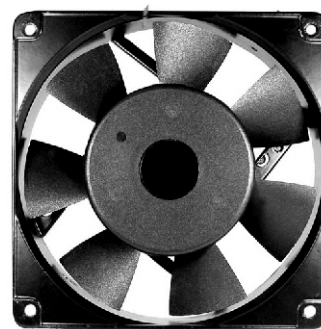
Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 370 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1225B11T7C-31	2Ball or Sleeve	115	50/60	80/80	18/19	2,450/2,900	77.1/91.4	4.7/5.4	37.4/42.4
FA1225B22T7C-31		230	50/60	80/80	19/19	2,450/2,900	77.1/91.4	4.7/5.4	37.4/42.4

- For Wire lead version, change "T" in the model number to "W".
- For Sleeve Bearing version, change "B" in the model number to "S".

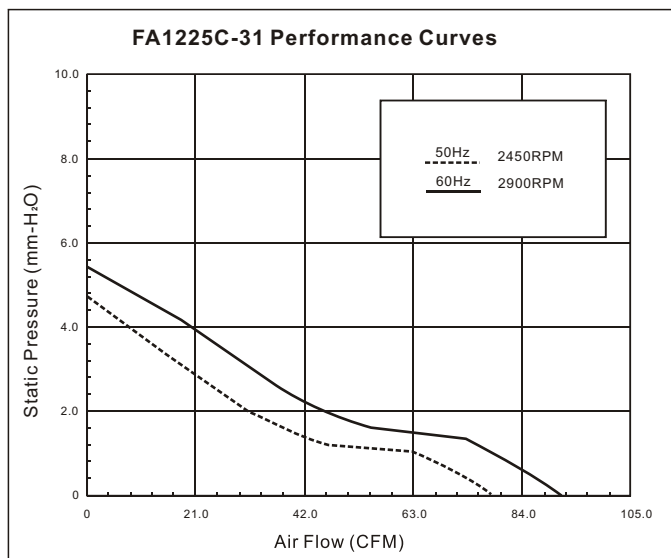
Specifications are subject to change without notice

Accessories :

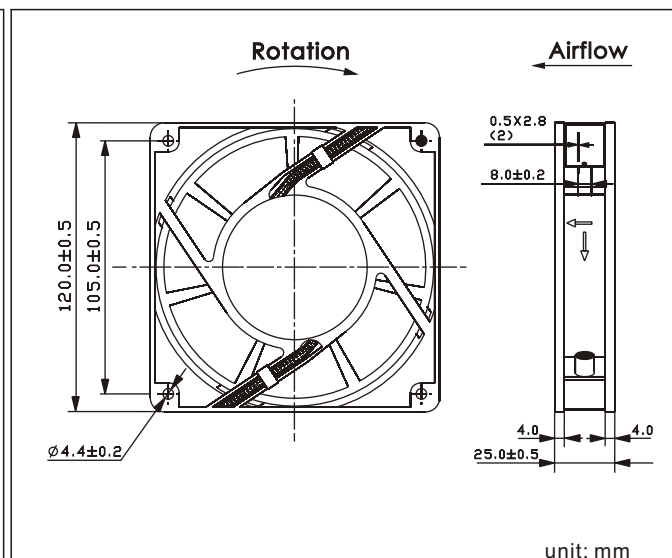
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-120	FGP-120	FPF-120	FFA-120	Any Configuration

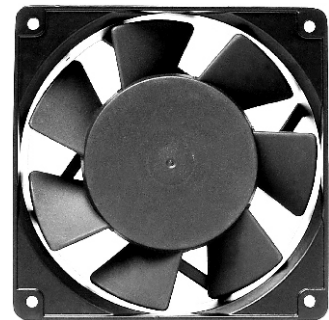
Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 370 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1225B11T3-61	2Ball or Sleeve	115	50/60	90/90	9/8	1,800/1,800	50.8/50.8	2.2/2.2	30.5/30.5
FA1225B11T5-61			50/60	130/130	11/10	2,000/2,200	55.8/60.9	3.0/3.8	32.5/33.5
FA1225B11T7-61			50/60	170/170	14/13	2,150/2,450	59.9/69.0	4.1/4.4	33.5/38.4
FA1225B11T9-61			50/60	70/70	16/14	2,450/2,700	69.0/77.1	5.5/5.2	38.4/40.4
FA1225B22T3-61		230	50/60	50/50	9/8	1,800/1,800	50.8/50.8	2.2/2.2	30.5/30.5
FA1225B22T5-61			50/60	60/60	11/10	2,000/2,200	55.8/60.9	3.0/3.8	32.5/33.5
FA1225B22T7-61			50/60	70/70	14/13	2,150/2,450	59.5/69.0	4.1/4.4	33.5/38.4
FA1225B22T9-61			50/60	70/70	16/14	2,450/2,700	69.0/77.1	5.5/5.2	38.4/40.4

- For Wire lead version, change "T" in the model number to "W".
- For Sleeve Bearing version, change "B" in the model number to "S".

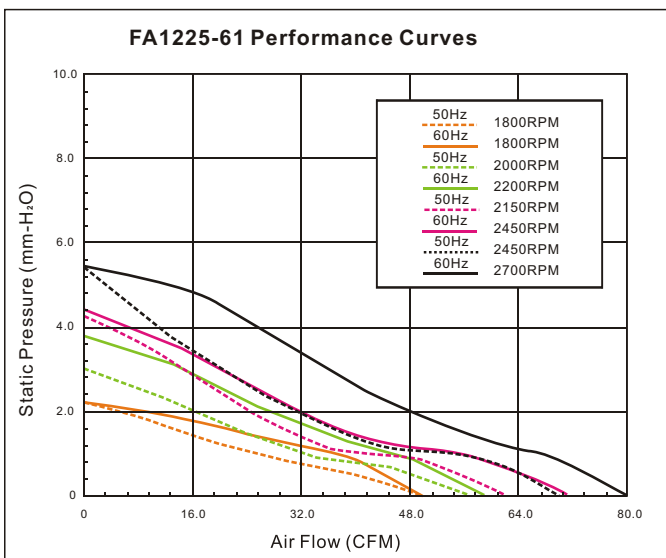
Specifications are subject to change without notice

Accessories :

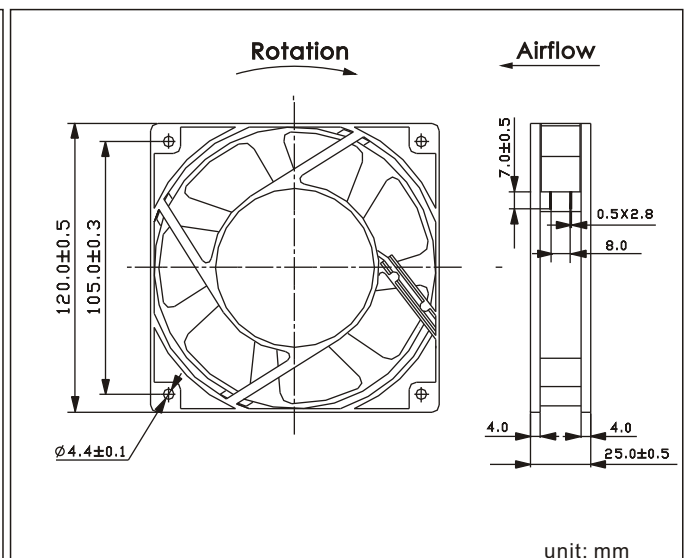
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-120	FGP-120	FPF-120	FFA-120	Any Configuration

Characteristic Curves :



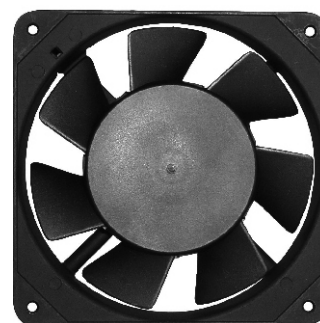
Outline Drawing :



AC Axial Fan

Standard

- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 338 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1225B11T3-91	2Ball	115	50/60	110/80	10/7	2,300/2,600	56.8/60.9	2.0/2.8	32.5/36.4
FA1225B11T5-91			50/60	180/130	19/11	2,400/2,700	60.9/77.1	3.0/3.7	39.4/43.3
FA1225B22T3-91		230	50/60	60/50	13/10	2,100/2,400	56.8/60.9	2.0/2.8	32.5/36.4
FA1225B22T5-91			50/60	90/70	16/14	2,400/2,700	60.9/77.1	3.0/3.7	39.4/43.3

• For Wire lead version, change "T" in the model number to "W".

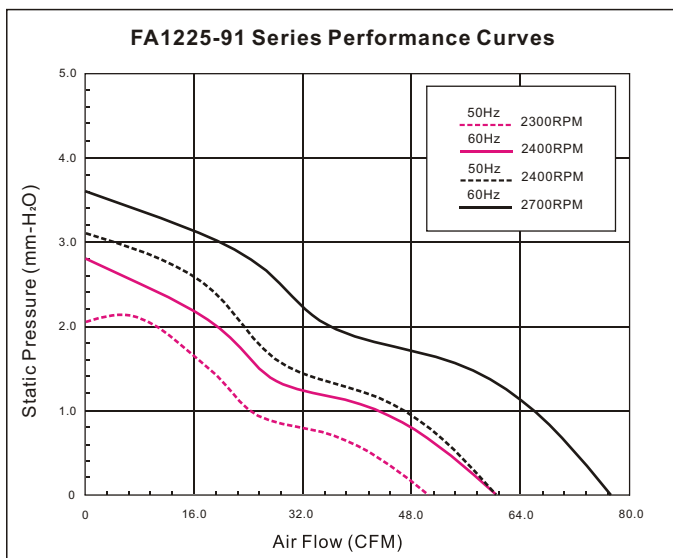
Specifications are subject to change without notice

Accessories :

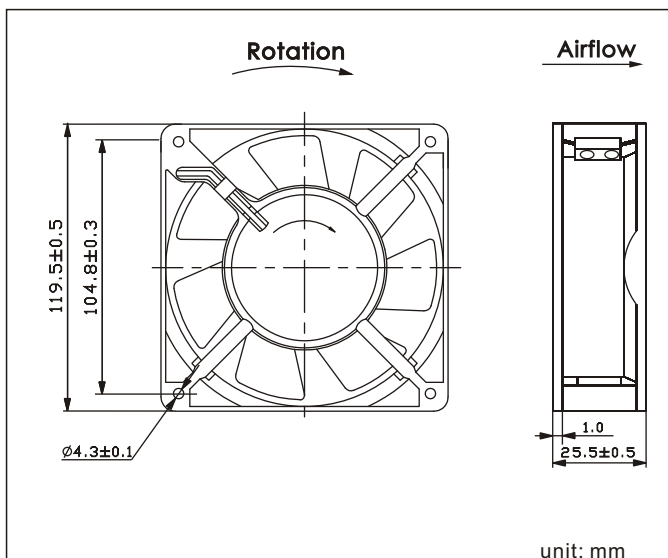
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-120	FGP-120	FPF-120	FFA-120	Any Configuration

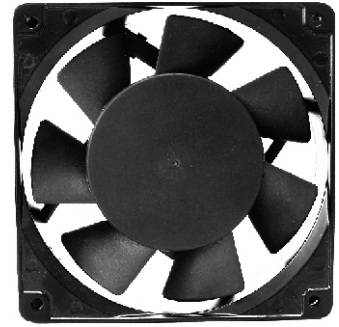
Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -20°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 335 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1225B11T5-96	2Ball or Sleeve	115	50/60	120/100	11/9	2,100/2,200	50.8/53.8	2.6/2.8	29.6/31.5
FA1225B11T7-96			50/60	130/110	12/10	2,200/2,400	56.8/62.9	3.4/4.1	35.5/37.4
FA1225B22T9-96			50/60	140/120	13/11	2,300/2,500	60.9/68.0	3.6/4.4	37.4/39.4
FA1225B22T5-96		230	50/60	60/50	11/10	2,000/2,100	50.8/53.8	2.6/2.8	29.6/31.5
FA1225B22T7-96			50/60	76/64	14/12	2,100/2,300	56.8/62.9	3.4/4.1	35.5/37.4
FA1225B22T9-96			50/60	80/70	15/13	2,200/2,400	60.9/68.0	3.6/4.4	37.4/39.4

• For Wire lead version, change "T" in the model number to "W".

• For Sleeve Bearing version, change "B" in the model number to "S".

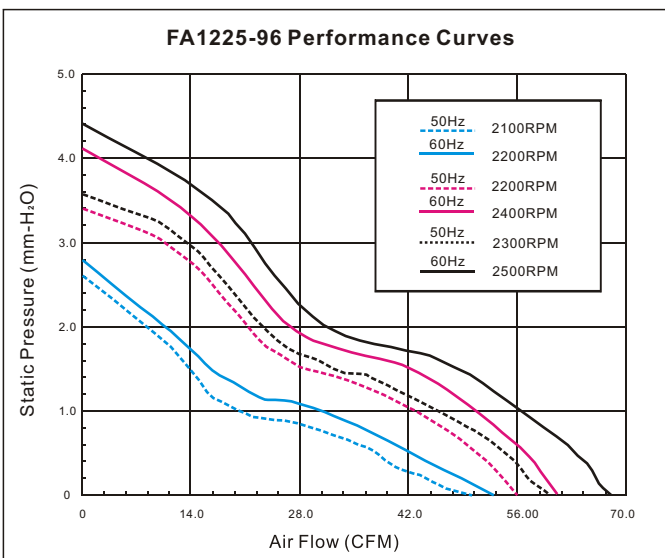
Specifications are subject to change without notice

Accessories :

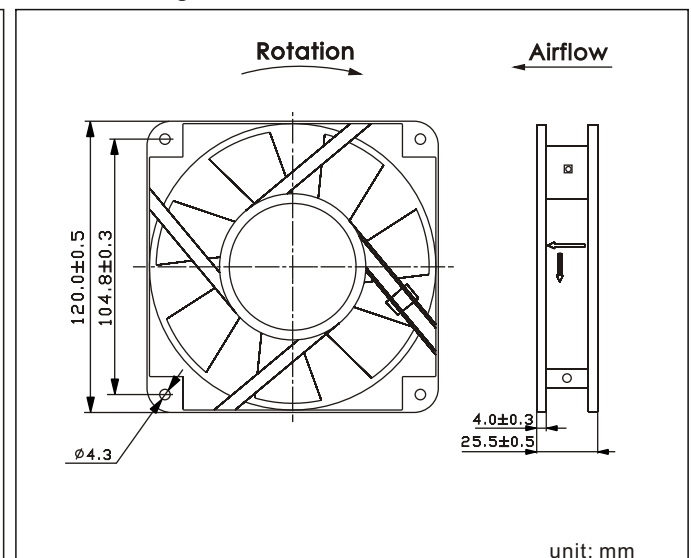
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-120	FGP-120	FPF-120	FFA-120	Any Configuration

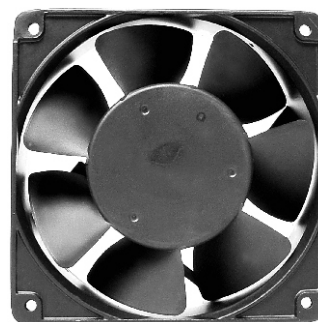
Char acteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100M Ω , 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minute
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 504 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1238B11T7C-31	2Ball or Sleeve	115	50/60	150/160	11/12	2,550/2,800	105.6/110.6	7.4/6.6	38.4/42.4
FA1238B11T9C-31			50/60	170/180	22/22	2,800/3,300	110.6/132.0	9.7/12.7	42.4/46.3
FA1238B22T7C-31		230	50/60	80/90	11/12	2,550/2,800	105.6/110.6	7.4/6.6	38.4/42.4
FA1238B22T9C-31			50/60	100/110	21/21	2,800/3,300	110.6/132.0	9.7/12.7	42.4/46.3

- For Wire lead version, change "T" in the model number to "W".
- For Sleeve Bearing version, change "B" in the model number to "S".

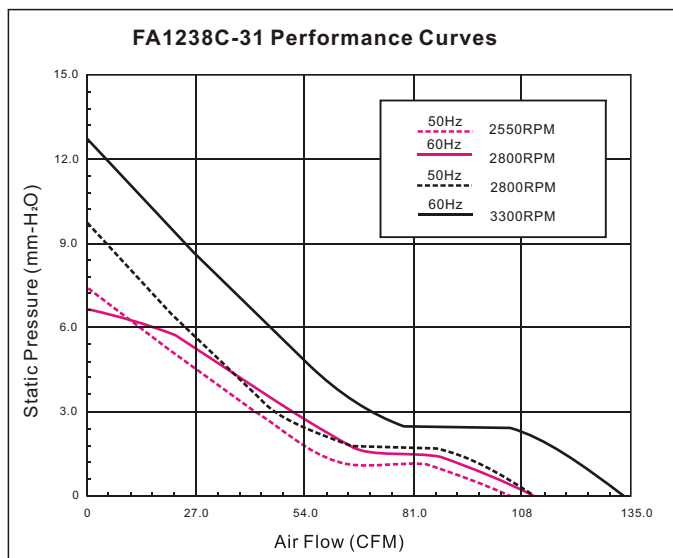
Specifications are subject to change without notice

Accessories :

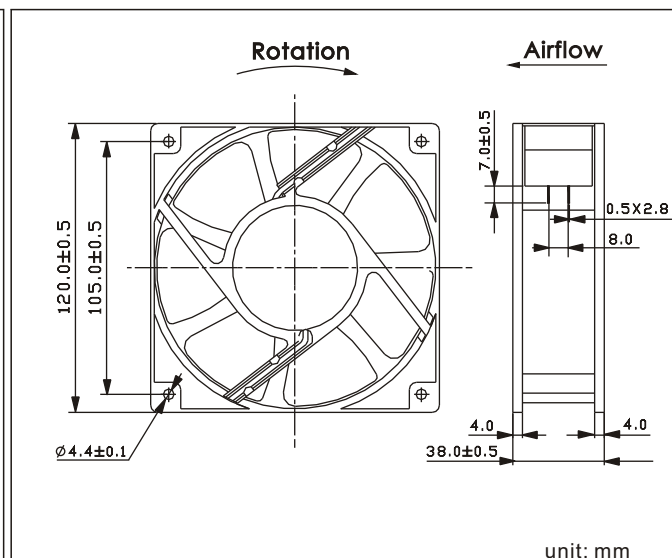
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-120	FGP-120	FPF-120	FFA-120	Any Configuration

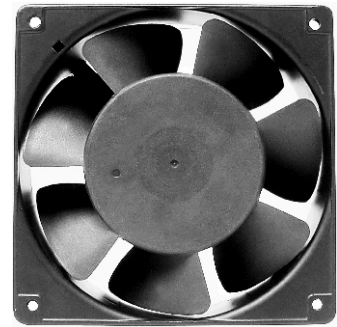
Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 560 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1238B11T3-61	2Ball or Sleeve	115	50/60	200/200	14/13	2,100/2,400	79.2/92.4	3.6/4.4	34.5/37.4
FA1238B11T5-61			50/60	250/250	19/17	2,400/2,700	92.4/101.5	6.3/7.1	38.4/41.4
FA1238B11T7-61			50/60	300/300	29/24	2,600/3,000	98.5/112.7	7.5/9.4	39.4/43.3
FA1238B22T3-61		230	50/60	100/100	12/11	2,100/2,400	79.2/92.4	3.6/4.4	34.5/37.4
FA1238B22T5-61			50/60	160/160	16/15	2,400/2,700	92.4/101.5	6.2/7.1	38.4/41.4
FA1238B22T7-61			50/60	200/200	28/24	2,600/3,000	98.5/112.7	7.5/9.4	39.4/43.3

- For Wire lead version, change "T" in the model number to "W".
- For Sleeve Bearing version, change "B" in the model number to "S".

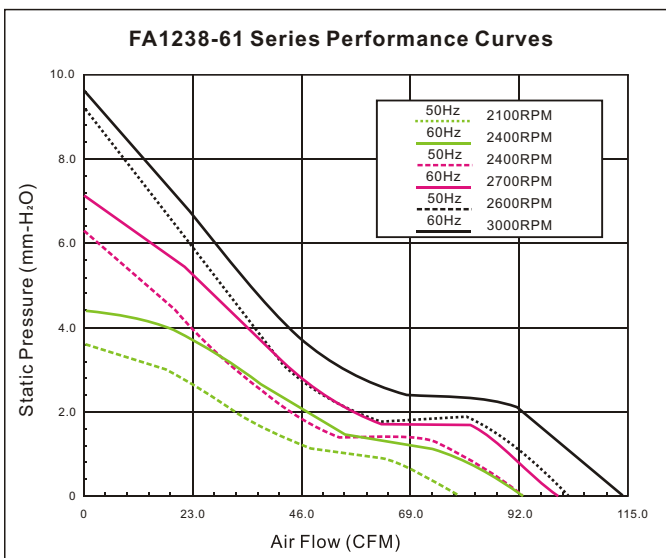
Specifications are subject to change without notice

Accessories :

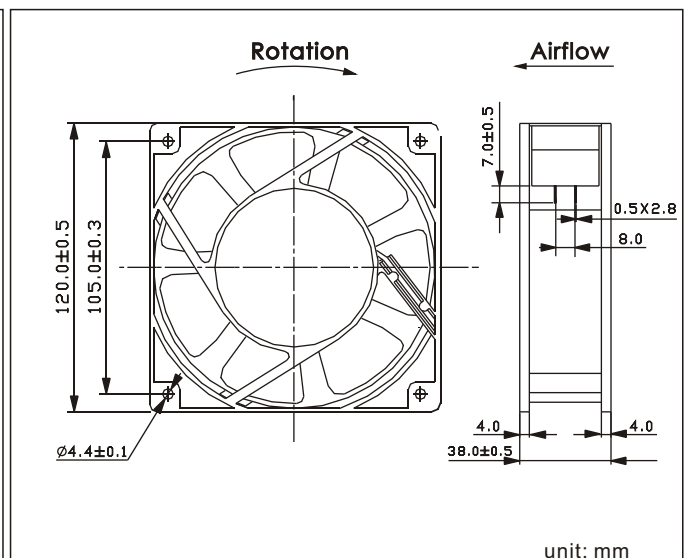
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-120	FGP-120	FPF-120	FFA-120	Any Configuration

Characteristic Curves :



Outline Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 520 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1238B11T7-91	2Ball	115	50/60	280/210	25/22	2,400/2,800	90.3/116.7	7.7/9.0	44.3/50.2
FA1238B22T7-91		230	50/60	130/90	20/18	2,400/2,800	90.3/116.7	7.7/9.0	44.3/50.2

• For Wire lead version, change "T" in the model number to "W".

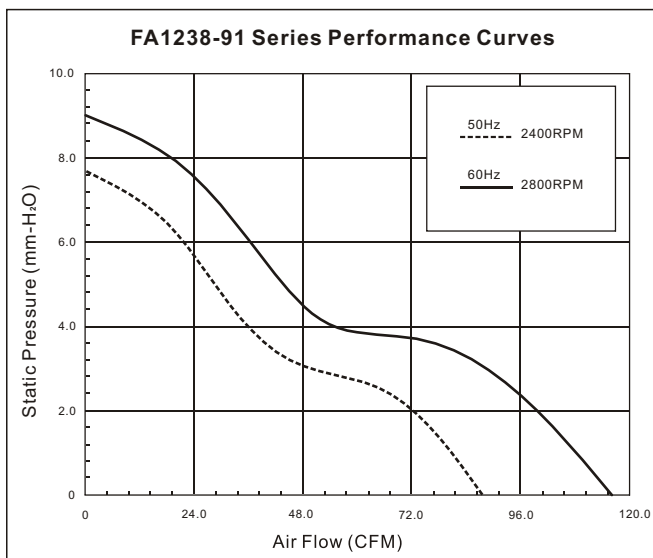
Specifications are subject to change without notice

Accessories :

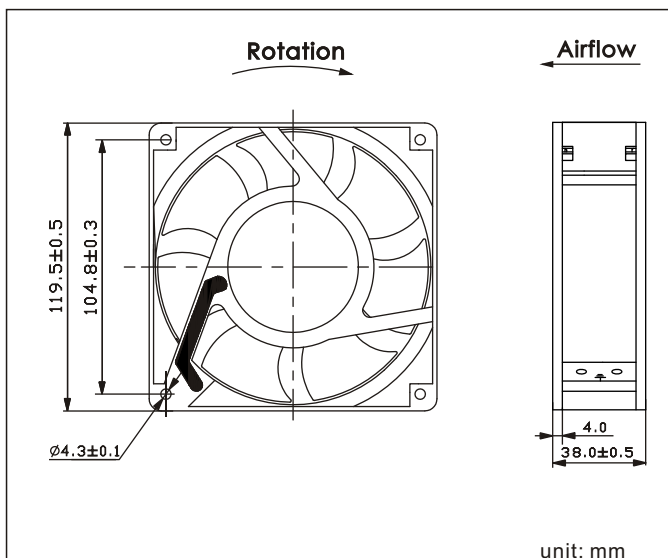
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-120	FGP-120	FPF-120	FFA-120	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 520 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1238B11T3-92	2Ball	115	50/60	120/100	11/9	1,900/2,500	66.0/79.2	2.5/4.7	34.5/39.4
FA1238B11T5-92			50/60	170/130	14/10	2,500/2,800	81.2/91.4	4.7/6.2	38.4/42.4
FA1238B11T7-92			50/60	280/210	25/19	2,600/3,000	85.3/101.5	7.2/8.7	44.3/40.4
FA1238B22T3-92		230	50/60	60/50	12/10	1,900/2,500	66.0/79.2	2.5/4.7	34.5/39.4
FA1238B22T5-92			50/60	90/70	16/11	2,500/2,800	81.2/91.4	4.7/6.2	38.4/42.4
FA1238B22T7-92			50/60	130/90	16/14	2,600/3,000	85.3/101.5	7.2/8.7	44.3/40.4

• For Wire lead version, change "T" in the model number to "W".

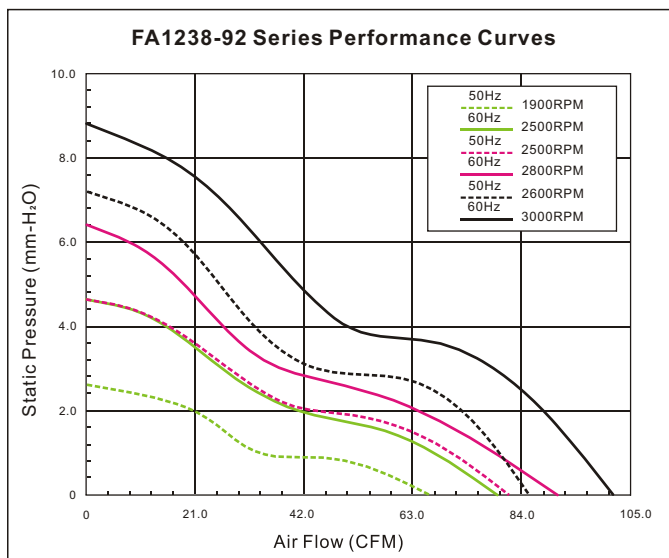
Specifications are subject to change without notice

Accessories :

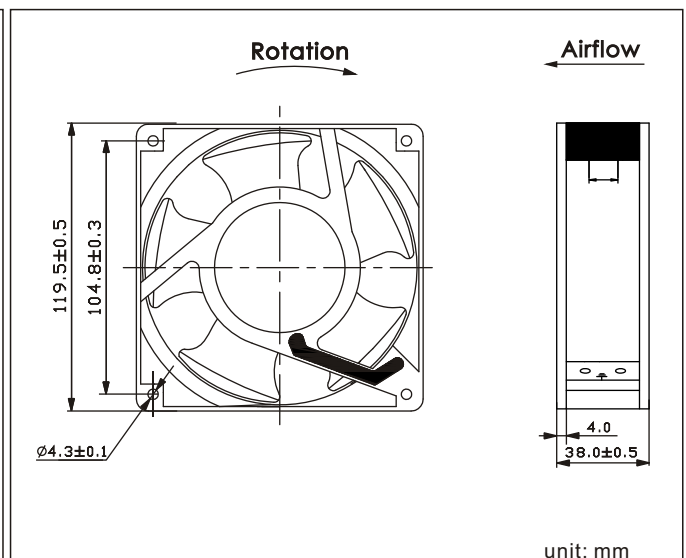
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-120	FGP-120	FPF-120	FFA-120	Any Configuration

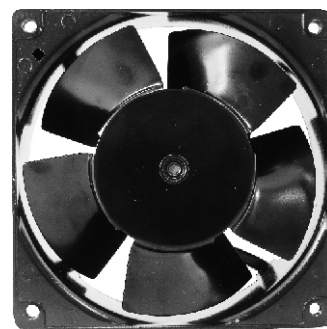
Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Iron in Black
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 536 g



(Iron Blade)

Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1238B11T7C-93 ※	2Ball	115	50/60	130/110	13/11	2,750/3,250	106.6/124.8	7.2/9.0	46.3/48.3
FA1238B22T7C-93 ※		230	50/60	60/50	13/11	2,650/3,150	104.5/121.8	7.2/9.0	46.3/48.3

• If model with "※", the safety is pending.

Specifications are subject to change without notice

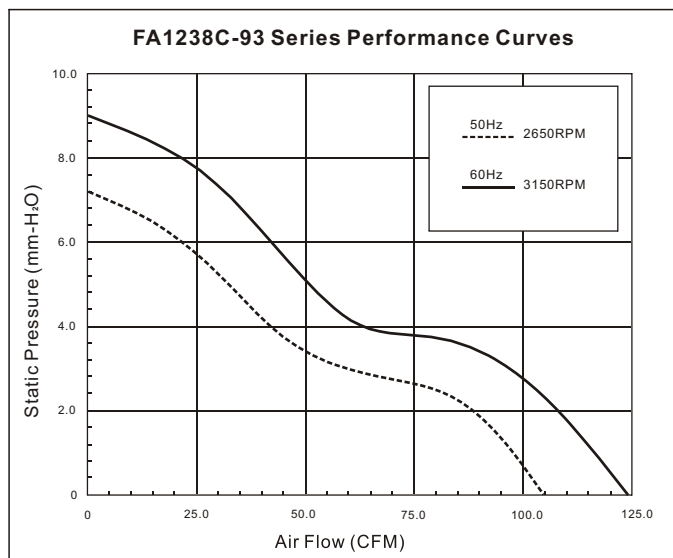
• For Wire lead version, change "T" in the model number to "W".

Accessories :

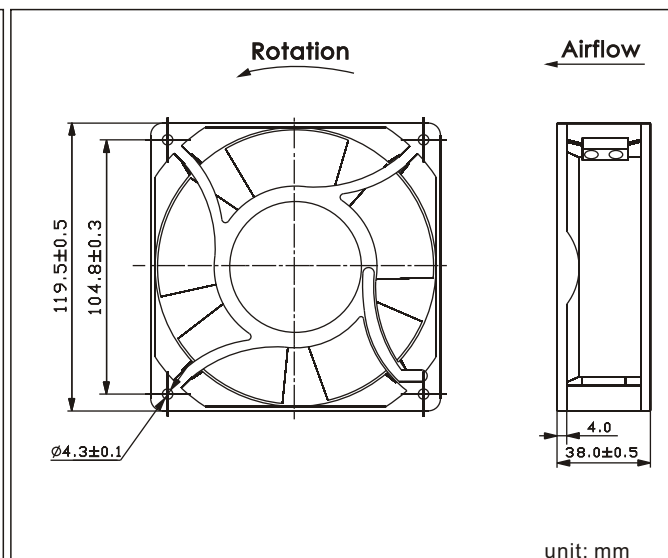
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-120	FGP-120	FPF-120	FFA-120	Any Configuration

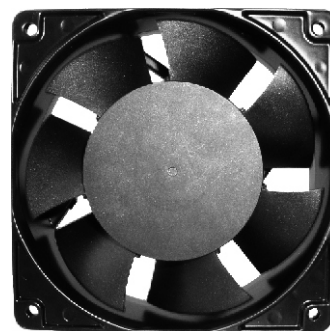
Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 500 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1238B11T7-97	2Ball or Sleeve	115	50/60	280/230	22/18	2,500/2,600	104.5/109.6	7.6/9.1	47.3/51.2
FA1238B22T7-97		230	50/60	160/130	24/20	2,400/2,500	104.5/109.6	7.6/9.1	47.3/51.2

• For Wire lead version, change "T" in the model number to "W".

• For Sleeve Bearing version, change "B" in the model number to "S".

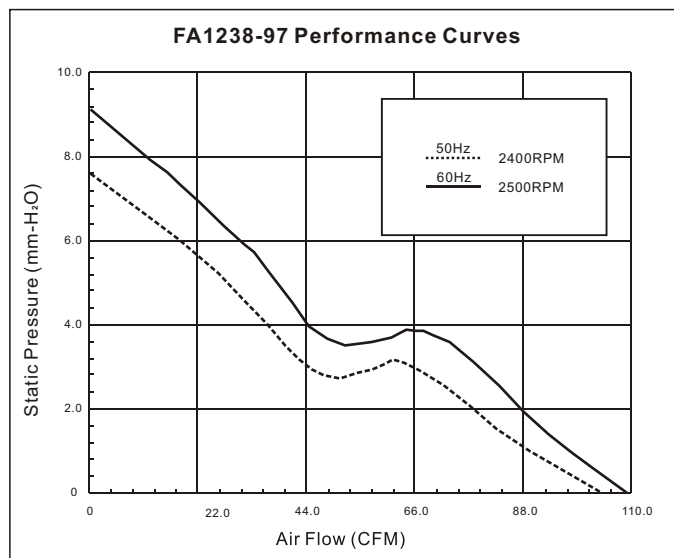
Specifications are subject to change without notice

Accessories :

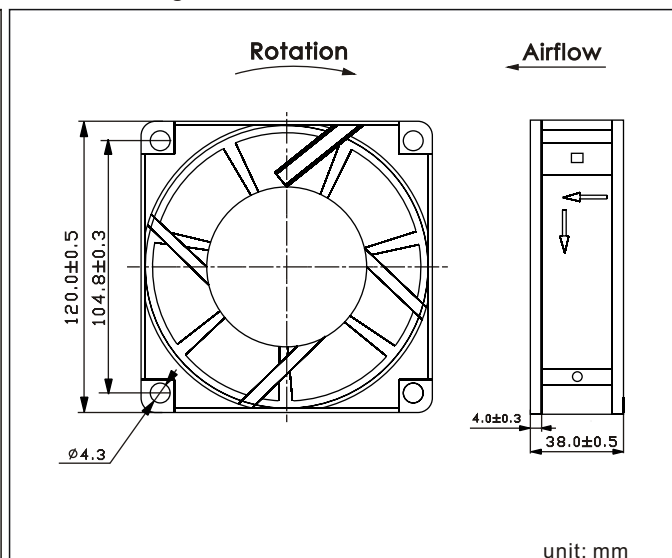
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-120	FGP-120	FPF-120	FFA-120	Any Configuration

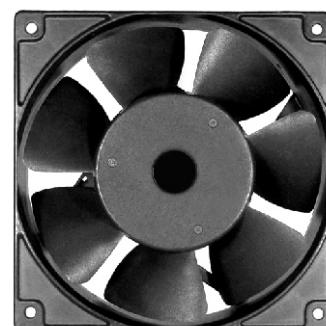
Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minute
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 520 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1273B11T7C-31	2Ball or Sleeve	115	50/60	160/160	20/20	2,500/2,900	118.8/139.1	7.2/8.7	41.4/45.3
FA1273B11T9C-31			50/60	210/210	25/25	2,800/3,300	134.0/153.3	10.5/13.2	44.3/48.3
FA1273B22T7C-31		230	50/60	90/90	20/20	2,500/2,900	118.8/139.1	7.2/8.7	41.4/45.3
FA1273B22T9C-31			50/60	120/120	25/25	2,800/3,300	134.0/153.3	10.5/13.2	44.3/48.3

- For Wire lead version, change "T" in the model number to "W".
- For Sleeve Bearing version, change "B" in the model number to "S".

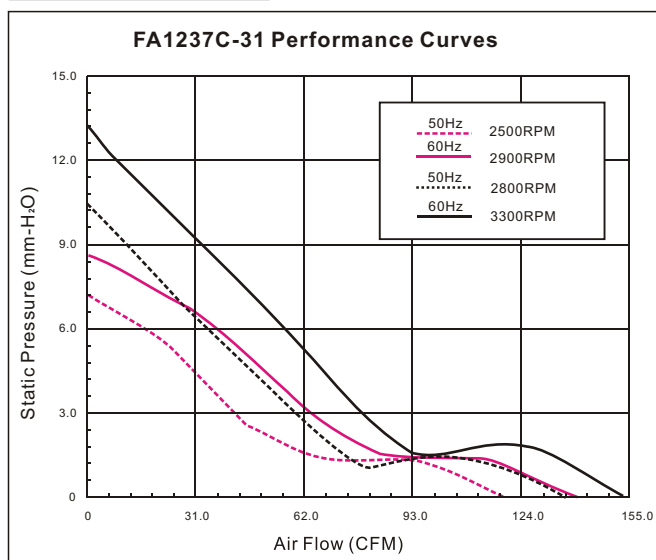
Specifications are subject to change without notice

Accessories :

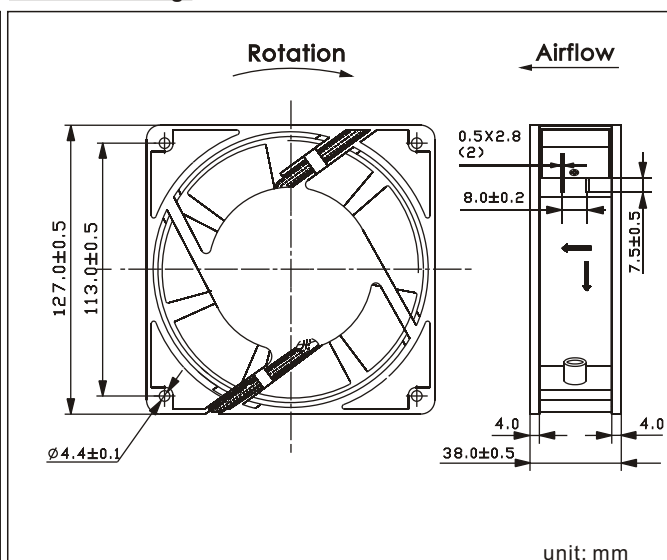
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	N/A	N/A	N/A	N/A	Any Configuration

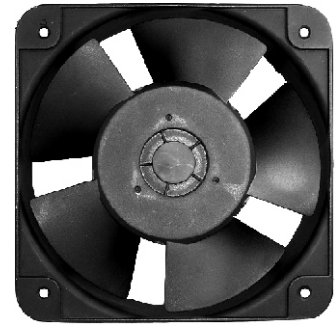
Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 920 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1551B11T7-91	2Ball	115	50/60	420/370	33/30	2,700/3,000	192.9/213.2	14.2/17.9	52.2/58.1
FA1551B22T7-91		230	50/60	180/170	27/26	2,700/3,000	192.9/213.2	14.2/17.9	52.2/58.1

• For Wire lead version, change "T" in the model number to "W".

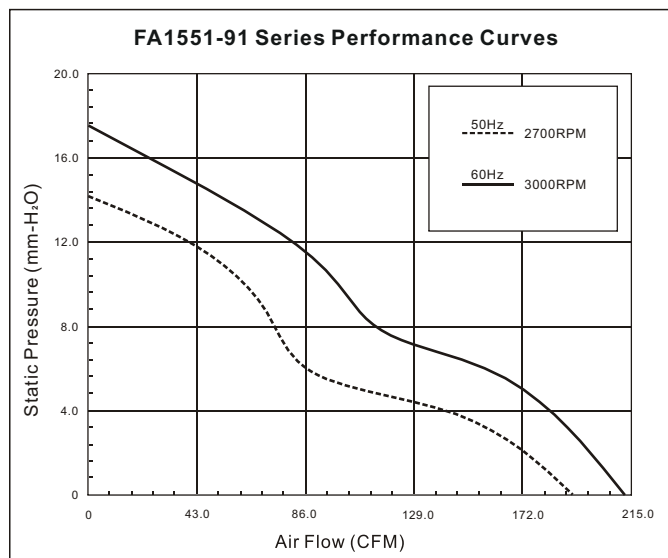
Specifications are subject to change without notice

Accessories :

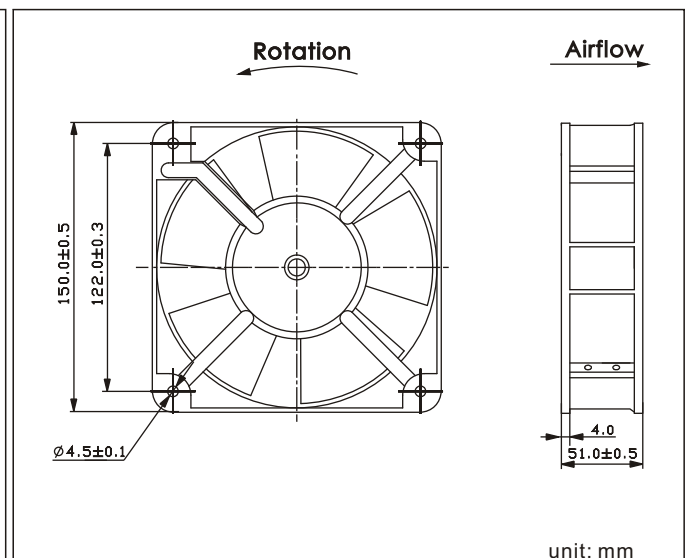
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	Any Configuration	Any Configuration	Any Configuration	Any Configuration	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minute
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 760 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1738B11T7C-31	2Ball or Sleeve	115	50/60	250/260	30/31	2,850/3,400	168.5/201.0	17.0/19.8	56.1/60.1
FA1738B22T7C-31		230	50/60	160/170	36/35	2,850/3,400	168.5/201.0	17.0/19.8	56.1/60.1

- For Wire lead version, change "T" in the model number to "W".
- For Sleeve Bearing version, change "B" in the model number to "S".

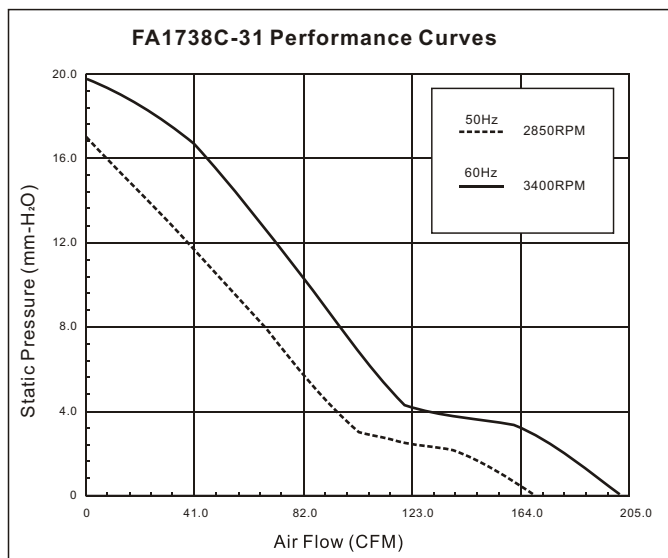
Specifications are subject to change without notice

Accessories :

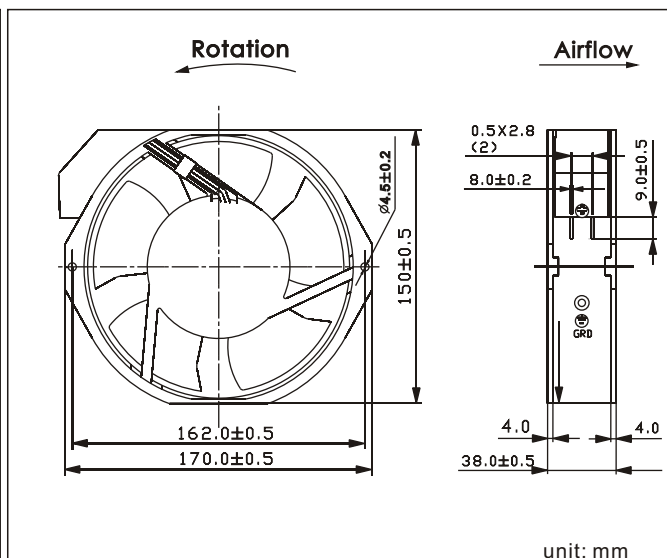
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-162	FGP-162	FPF-162	FFA-162	Any Configuration

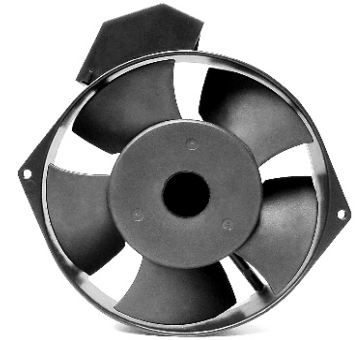
Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 710 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H2O)	Noise (dBA)
FA1738B11T7C-32	2Ball or Sleeve	115	50/60	250/260	30/31	2,850/3,400	168.5/201.0	17.0/19.8	56.1/60.1
FA1738B22T7C-32		230	50/60	160/170	36/35	2,850/3,400	168.5/201.0	17.0/19.8	56.1/60.1

- For Wire lead version, change "T" in the model number to "W".
- For Sleeve Bearing version, change "B" in the model number to "S".

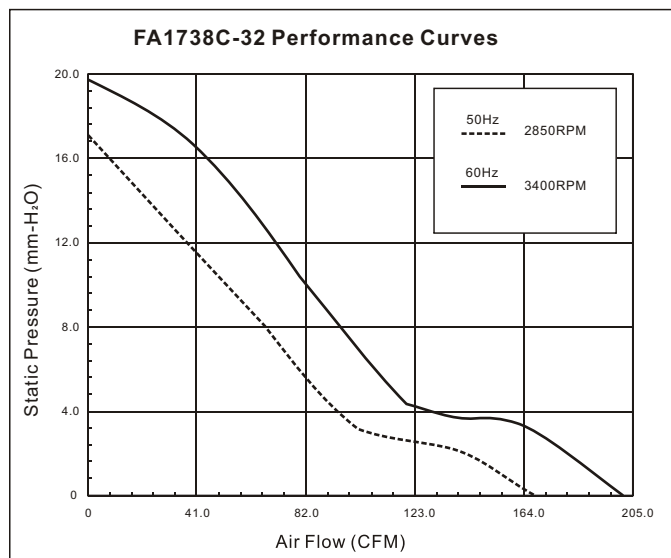
Specifications are subject to change without notice

Accessories :

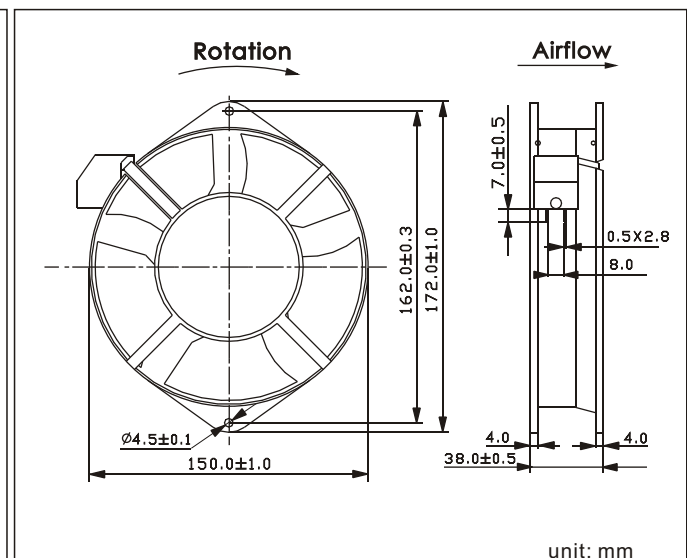
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-162	FGP-162	FPF-162	FFA-162	Any Configuration

Char acteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 760 g



Specification:

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1738B11T7C-91	2Ball	115	50/60	270/240	31/25	2,850/3,400	177.6/223.3	16.7/19.4	53.2/57.1
FA1738B22T7C-91		230	50/60	140/110	25/26	2,850/3,400	177.6/223.3	16.7/19.4	53.2/57.1

• For Wire lead version, change "T" in the model number to "W".

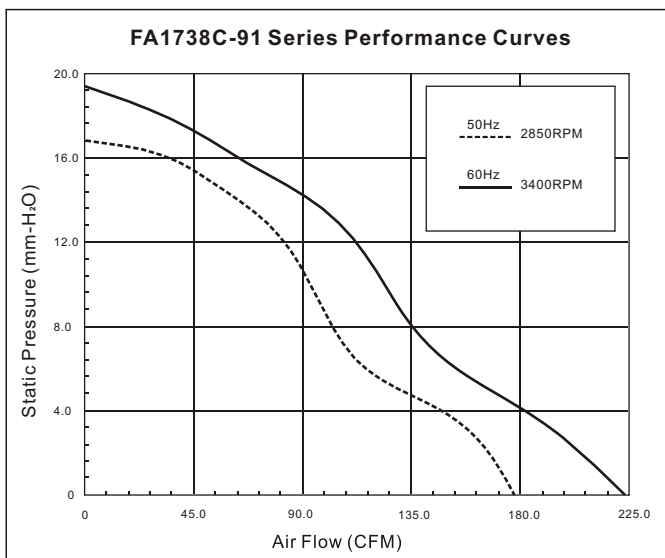
Specifications are subject to change without notice

Accessories:

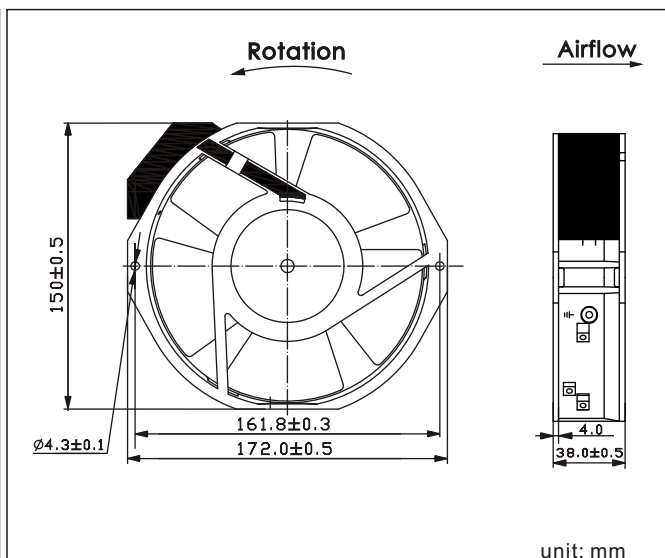
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-162	FGP-162	FPF-162	FFA-162	Any Configuration

Characteristic Curves:



Out line Drawing:



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Iron in Black
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 730 g



(Iron Blade)

Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1738B11T7C-93 ※	2Ball	115	50/60	200/100	24/24	2,750/3,150	233.5/263.9	13.7/15.9	55.2/58.1
FA1738B22T7C-93 ※		230	50/60	200/100	24/24	2,750/3,150	233.5/263.9	13.7/15.9	55.2/58.1

• If model with "※", the safety is pending.

• For Wire lead version, change "T" in the model number to "W".

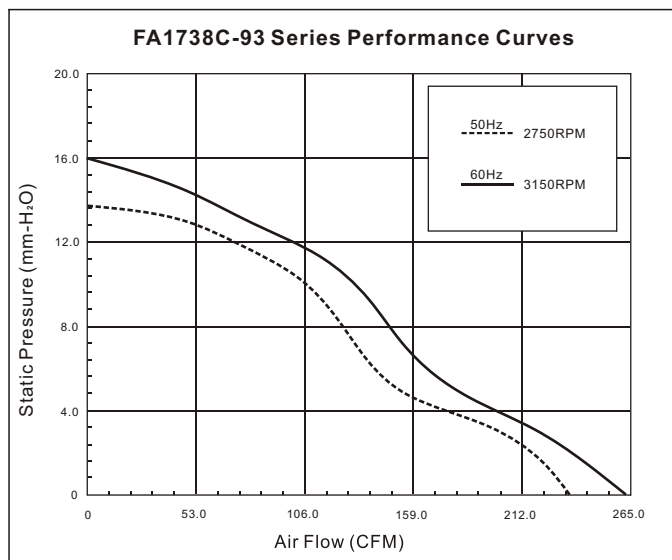
Specifications are subject to change without notice

Accessories :

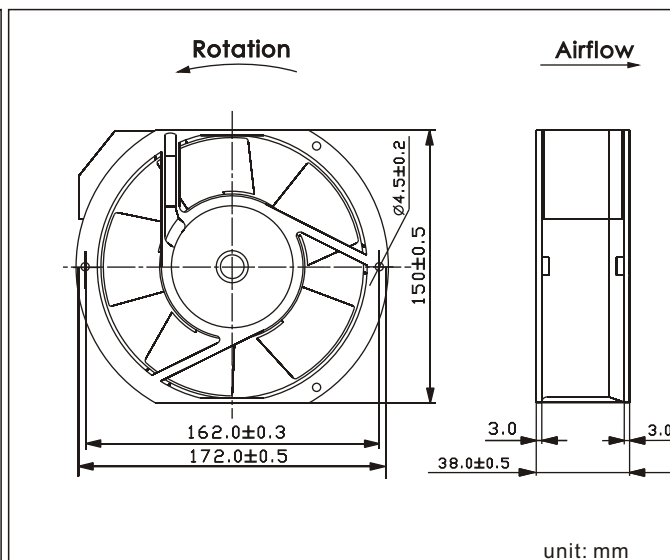
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-162	FGP-162	FPF-162	FFA-162	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minute
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 970 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1751B11T7C-31	2Ball or Sleeve	115	50/60	350/400	46/50	2,850/3,300	253.8/297.4	16.2/20.3	55.2/60.1
FA1751B22T7C-31		230	50/60	200/220	46/50	2,850/3,300	253.8/297.4	16.2/20.3	55.2/60.1

- For Wire lead version, change "T" in the model number to "W".
- For Sleeve Bearing version, change "B" in the model number to "S".

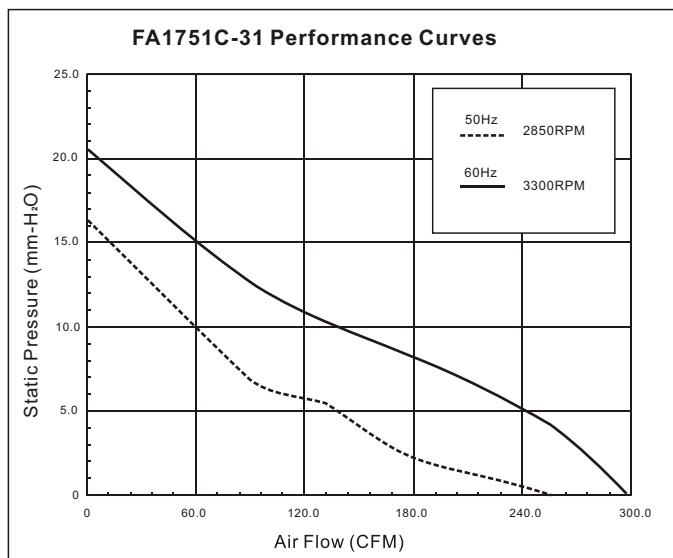
Specifications are subject to change without notice

Accessories :

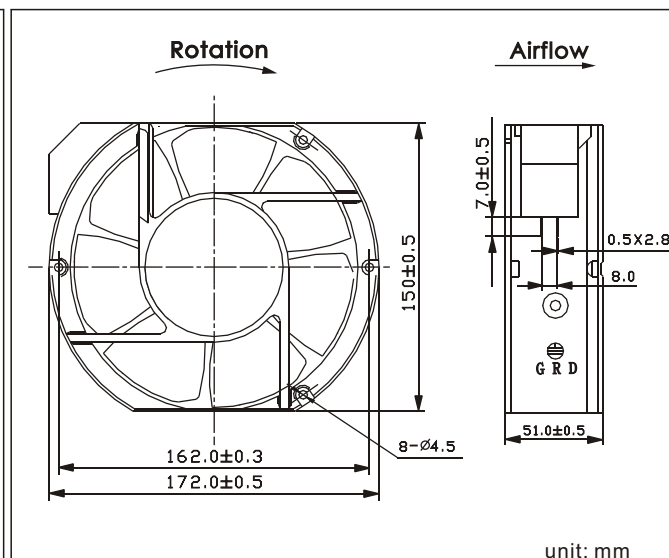
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-162	FGP-162	FPF-162	FFA-162	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 880 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1751B11T3-61	2Ball	115	50/60	400/400	20/20	2,200/2,400	139.1/143.1	3.5/4.7	44.3/46.3
FA1751B11T5-61			50/60	500/500	28/27	2,500/2,700	150.2/162.4	10.0/7.1	48.3/50.2
FA1751B11T7-61			50/60	600/600	47/41	2,700/3,000	162.4/182.7	11.5/13.2	50.2/54.2
FA1751B22T3-61		230	50/60	200/200	20/20	2,200/2,400	139.1/143.1	3.5/4.7	44.3/46.3
FA1751B22T5-61			50/60	300/300	28/27	2,500/2,700	150.2/162.4	10.0/7.1	48.3/50.2
FA1751B22T7-61			50/60	400/400	47/41	2,700/3,000	162.4/182.7	11.5/13.2	50.2/54.2

• For Wire lead version, change "T" in the model number to "W".

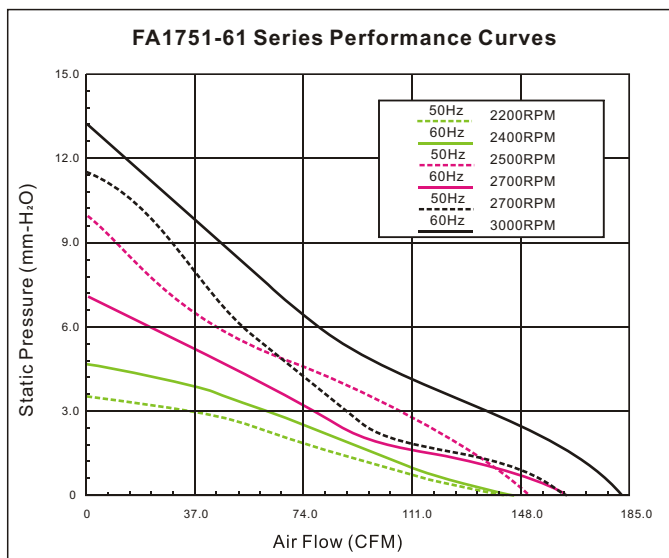
Specifications are subject to change without notice

Accessories :

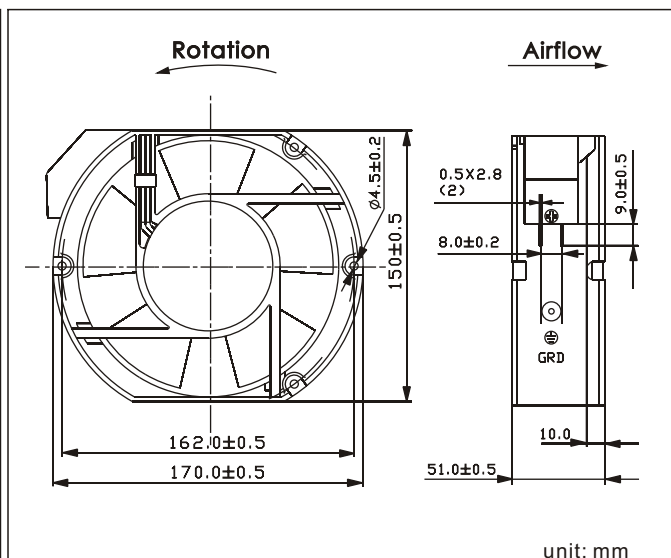
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-162	FGP-162	FPF-162	FFA-162	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 920 g



Specification:

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1751B11T7C-91	2Ball	115	50/60	250/220	27/28	2,850/3,400	213.2/243.6	14.7/18.6	49.3/56.1
FA1751B22T7C-91		230	50/60	130/130	25/24	2,850/3,400	213.2/243.6	14.7/18.6	49.3/56.1

• For Wire lead version, change "T" in the model number to "W".

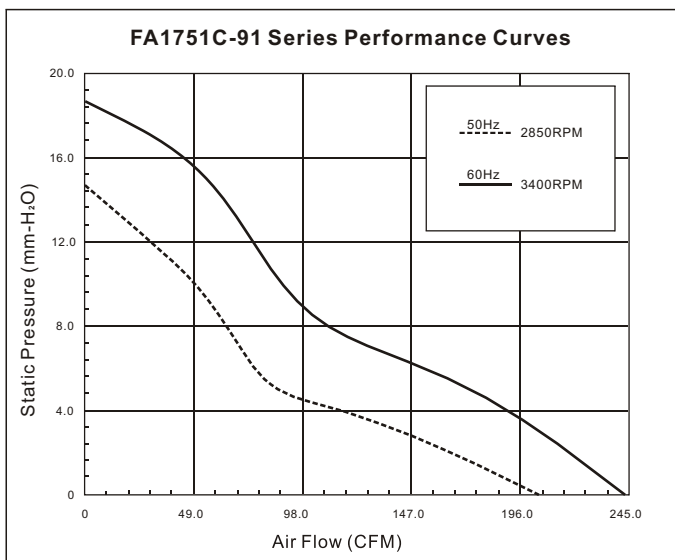
Specifications are subject to change without notice

Accessories:

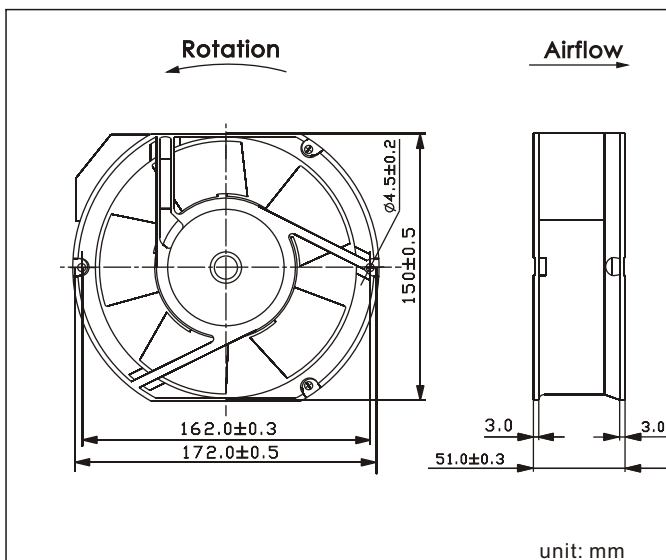
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-162	FGP-162	FPF-162	FFA-162	Any Configuration

Characteristic Curves:



Out line Drawing:



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 920 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1751B11T7-92	2Ball	115	50/60	510/470	47/38	2,700/3,000	192.9/213.2	14.4/17.6	52.2/58.1
FA1751B22T7-92		230	50/60	400/280	53/44	2,700/3,000	192.9/213.2	14.4/17.6	52.2/58.1

• For Wire lead version, change "T" in the model number to "W".

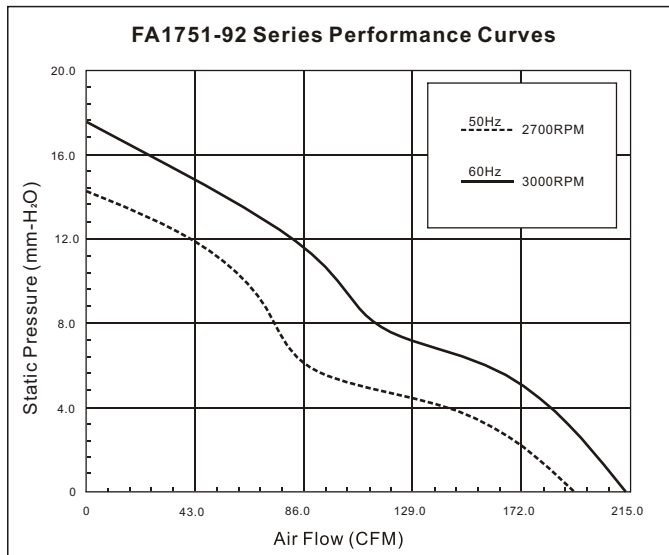
Specifications are subject to change without notice

Accessories :

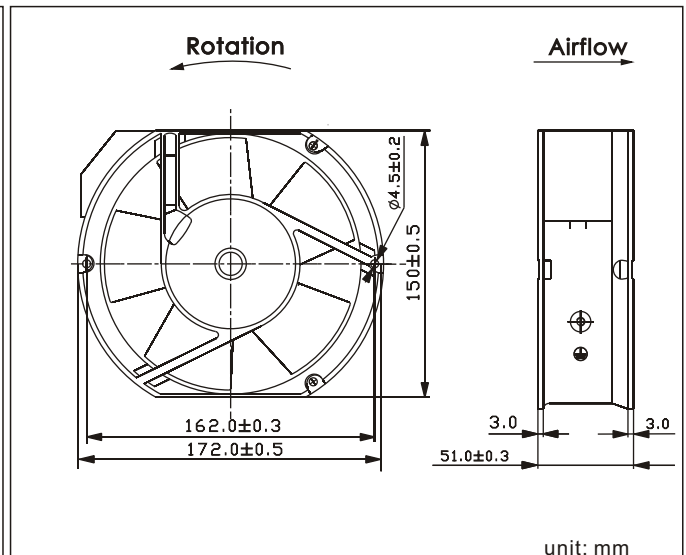
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-162	FGP-162	FPF-162	FFA-162	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Iron in Black
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minute
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 790 g



(Iron Blade)

Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1751B11T7C-93 ※	2Ball	115	50/60	200/170	23/24	2,750/3,150	243.6/274.1	14.4/15.9	53.2/56.1
FA1751B22T7C-93 ※		230	50/60	100/90	23/24	2,750/3,150	243.6/274.1	14.4/15.9	53.2/56.1

• If model with "※", the safety is pending.

Specifications are subject to change without notice

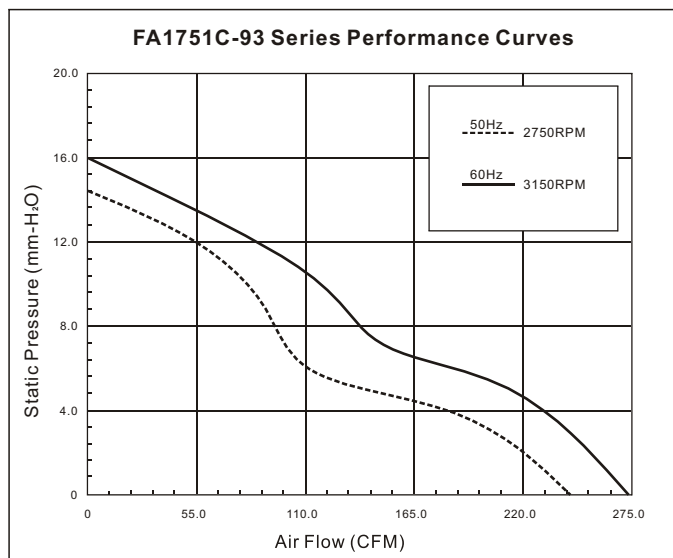
• For Wire lead version, change "T" in the model number to "W".

Accessories :

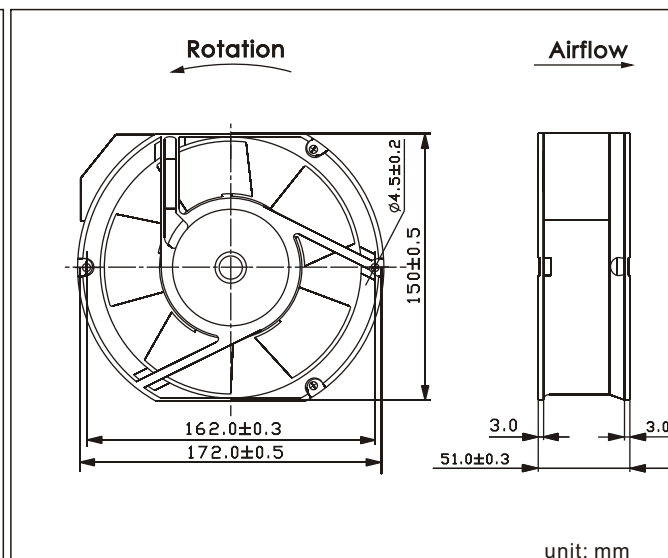
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-162	FGP-162	FPF-162	FFA-162	Any Configuration

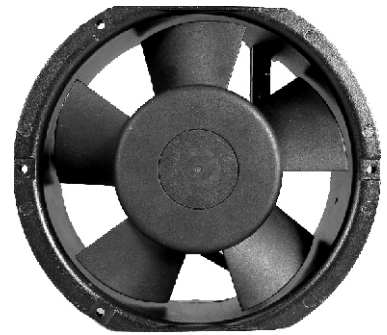
Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- Motor Protection: Impedance Protected
- Weight: 900 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1751B11T5-96	2Ball	115	50/60	400/380	28/27	2,400/2,500	141.1/176.6	10.3/12.4	49.3/54.2
FA1751B11T7-96			50/60	500/440	39/36	2,500/2,600	198.9/211.1	12.6/13.4	53.2/58.1
FA1751B22T5-96		230	50/60	180/170	25/24	2,400/2,500	141.1/176.6	10.3/12.4	49.3/54.2
FA1751B22T7-96			50/60	240/220	37/35	2,500/2,600	198.9/211.1	12.6/13.4	53.2/58.1

• For Wire lead version, change "T" in the model number to "W".

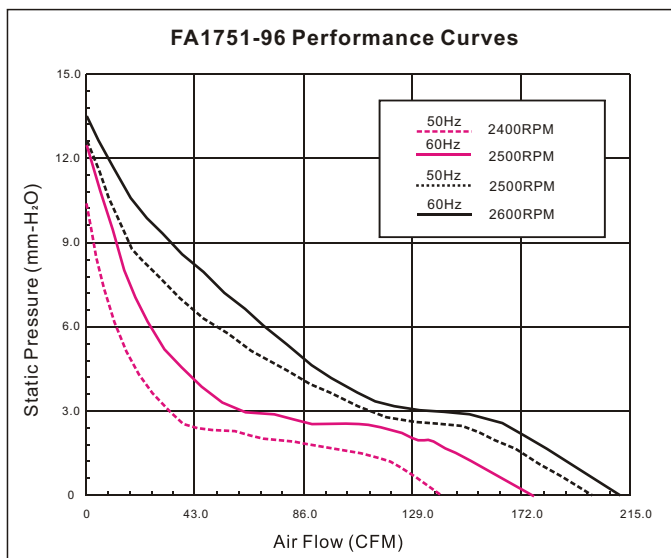
Specifications are subject to change without notice

Accessories :

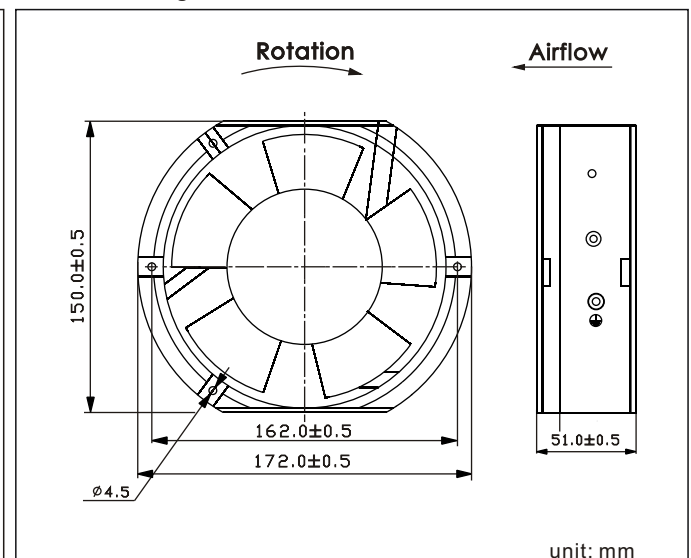
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-162	FGP-162	FPF-162	FFA-162	Any Configuration

Char acteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minute
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Impedance / Thermal Protected**
- Weight: 890 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1755B11T3-31	2Ball	115	50/60	400/400	20/20	2,100/2,500	124.8/151.2	3.7/5.0	44.3/49.3
FA1755B11T5-31			50/60	500/500	28/27	2,500/2,700	151.2/155.3	8.7/11.2	49.3/51.2
FA1755B11T7-31			50/60	600/600	47/41	2,700/3,100	157.3/183.7	11.8/13.5	51.2/55.2
FA1755B22T3-31		230	50/60	200/2000	20/20	2,100/2,500	124.8/151.2	3.7/5.0	44.3/49.3
FA1755B22T5-31			50/60	300/300	28/27	2,500/2,700	151.2/155.3	8.7/11.2	49.3/51.2
FA1755B22T7-31			50/60	400/400	47/41	2,700/3,100	157.3/183.7	11.8/13.5	51.2/55.2

• For Wire lead version, change "T" in the model number to "W".

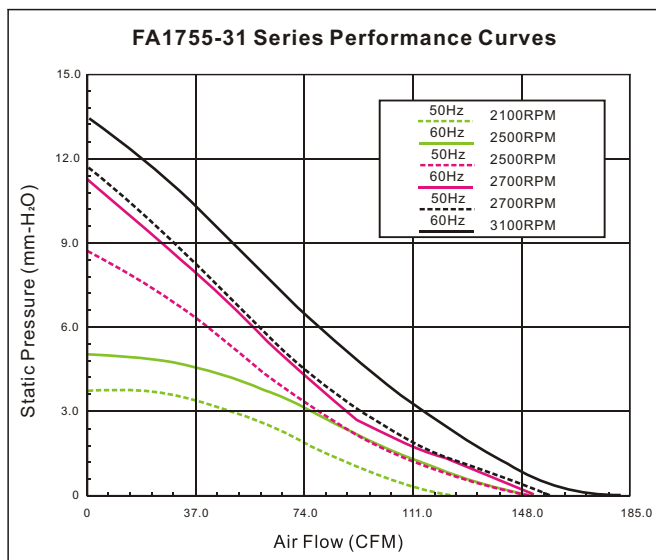
Specifications are subject to change without notice

Accessories :

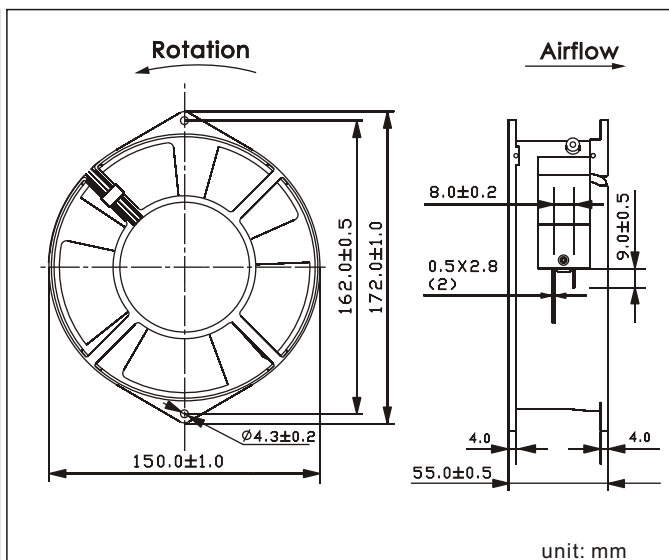
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-162	FGP-162	FPF-162	FFA-162	Any Configuration

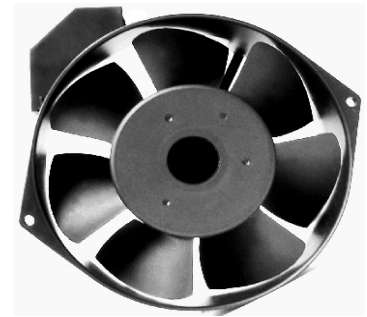
Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 870 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1755B11T7C-31	2Ball or Sleeve	115	50/60	350/400	46/50	2,850/3,300	253.8/297.40	16.2/20.3	55.2/60.1
FA1755B22T7C-31		230	50/60	350/400	46/50	2,850/3,300	253.8/297.40	16.2/20.3	55.2/60.1

- For Wire lead version, change "T" in the model number to "W".
- For Sleeve Bearing version, change "B" in the model number to "S".

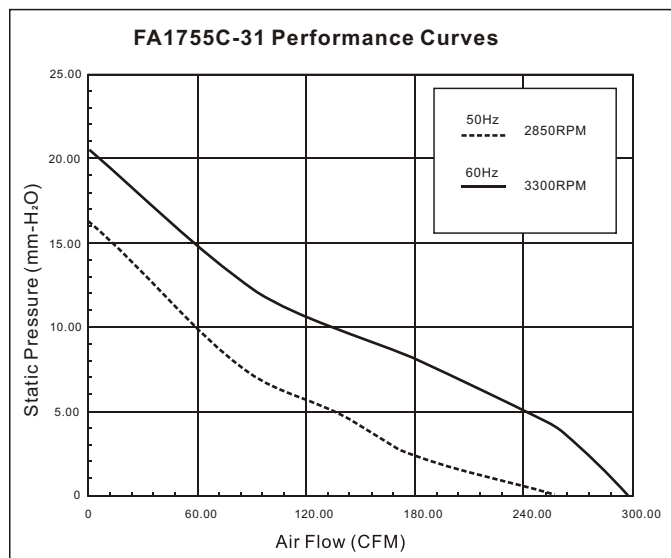
Specifications are subject to change without notice

Accessories :

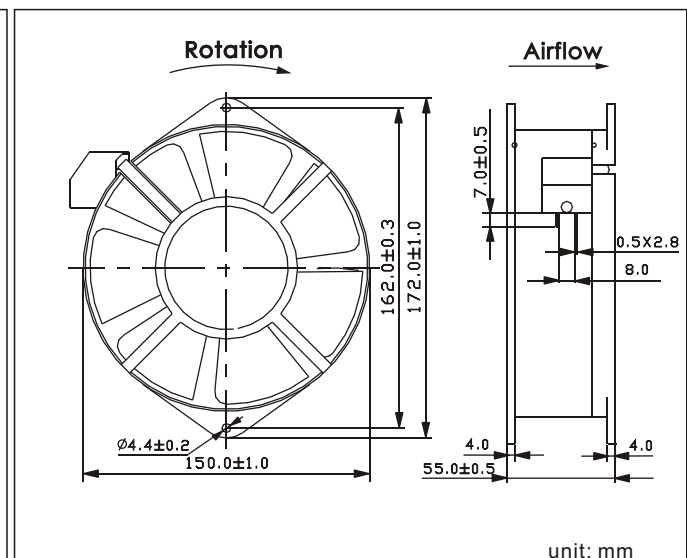
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-162	FGP-162	FPF-162	FFA-162	Any Configuration

Char acteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 850 g



Specification:

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1755B11T7C-91 ※	2Ball	115	50/60	230/270	28/31	2,850/3,350	248.7/284.2	12.9/14.2	49.3/53.2
FA1755B22T7C-91 ※		230	50/60	140/180	35/40	2,850/3,350	248.7/284.2	12.9/14.2	49.3/53.2

• If model with "※", the safety is pending.

• For Wire lead version, change "T" in the model number to "W".

Specifications are subject to change without notice

AC Axial Fan

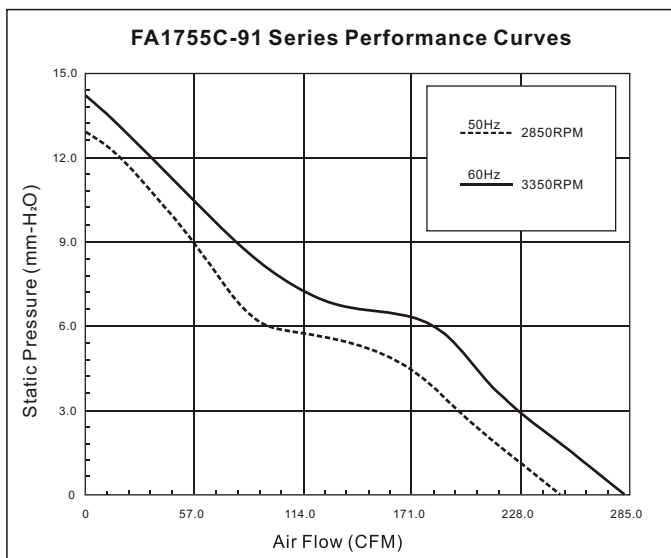
Standard

Accessories:

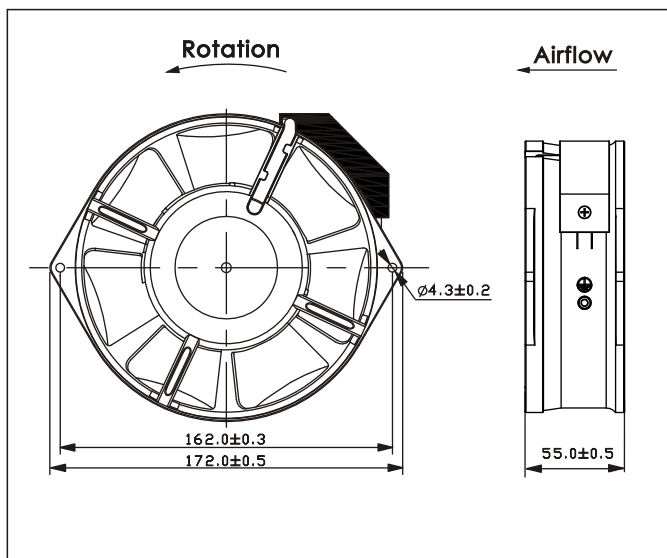
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-162	FGP-162	FPF-162	FFA-162	Any Configuration

Characteristic Curves:



Out line Drawing:



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Iron in Black
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 850 g



(Iron Blade)

Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA1755B11T7C-93 ※	2Ball	115	50/60	250/230	29/28	2,800/3,200	233.5/258.8	14.2/15.4	50.2/54.2
FA1755B22T7C-93 ※		230	50/60	140/120	28/27	2,750/3,200	228.4/253.8	13.9/15.2	50.2/54.2

• If model with "※", the safety is pending.

• For Wire lead version, change "T" in the model number to "W".

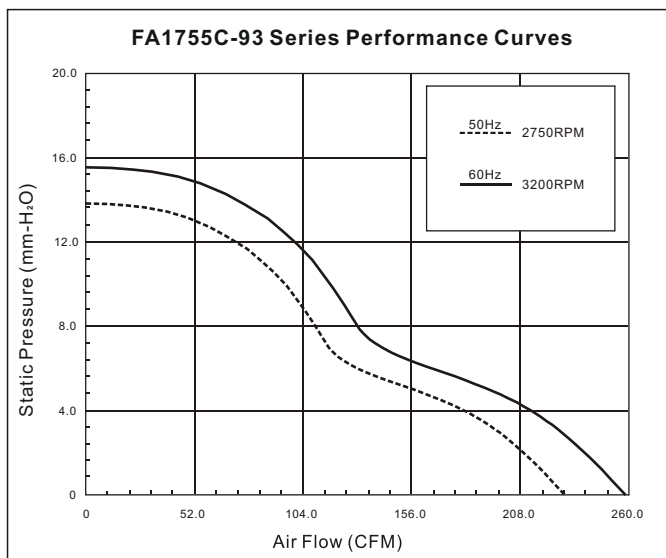
Specifications are subject to change without notice

Accessories :

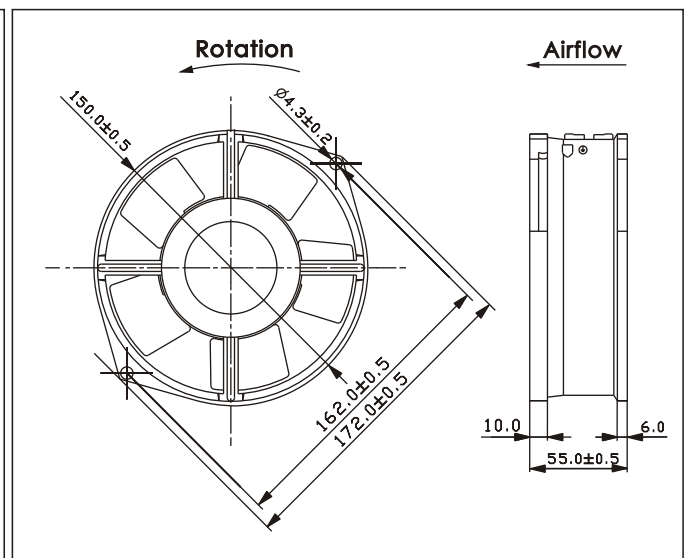
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-162	FGP-162	FPF-162	FFA-162	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minute
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 1540 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA2260B11T7C-31	2Ball or Sleeve	115	50/60	420/460	50/56	2,800/3,200	436.5/492.3	24.4/18.3	58.1/61.1
FA2260B22T7C-31		230	50/60	250/260	50/56	2,800/3,200	436.5/492.3	24.4/18.3	58.1/61.1

- For Wire lead version, change "T" in the model number to "W".
- For Sleeve Bearing version, change "B" in the model number to "S".

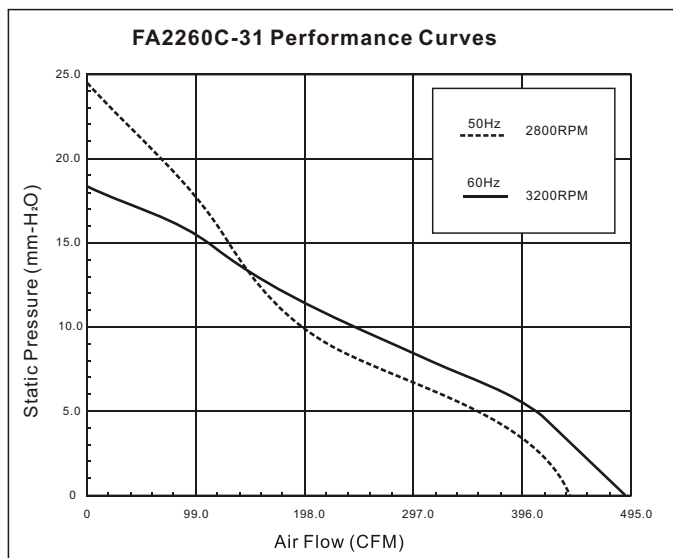
Specifications are subject to change without notice

Accessories :

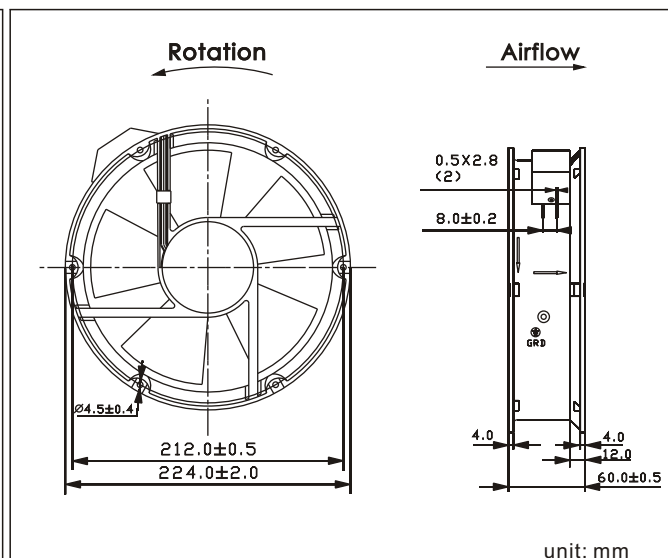
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-220	N/A	N/A	N/A	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Impedance Protected/Thermal Protected**
- Weight: 1430 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA2260B11T7C-91	2Ball	115	50/60	650/600	50/55	2,300/1,500	314.7/213.2	7.2/4.9	53.2/49.3
FA2260B11T9C-91			50/60	420/350	49/37	2,800/3,200	314.7/213.2	17.6/20.1	60.1/65.0
FA2260B22T7C-91		230	50/60	270/260	43/38	2,300/1,500	426.3/477.1	7.2/4.9	53.2/49.3
FA2260B22T9C-91			50/60	220/270	50/55	2,800/3,200	426.3/477.1	17.6/20.1	60.1/65.0

• For Wire lead version, change "T" in the model number to "W".

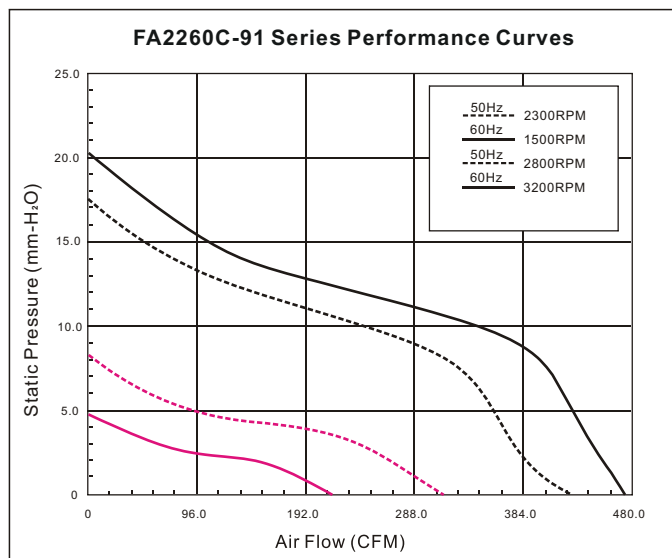
Specifications are subject to change without notice

Accessories :

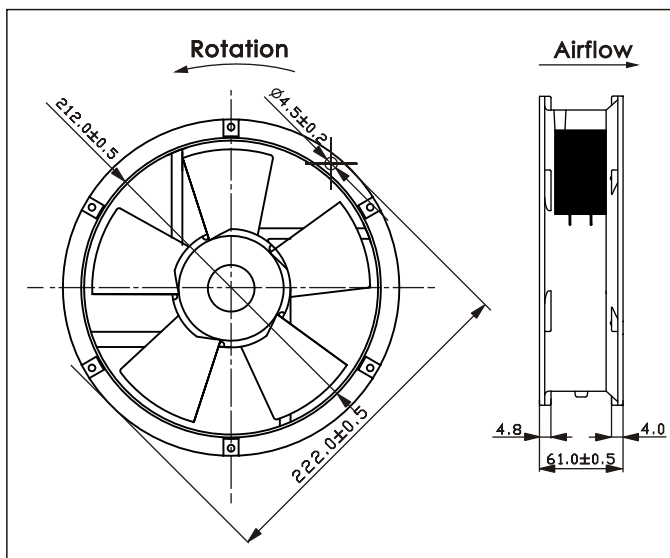
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-220	N/A	N/A	N/A	Any Configuration

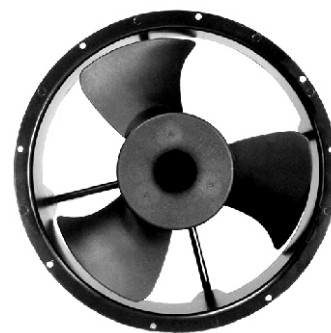
Characteristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 2150 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA2589B11T7C-31	2Ball	115	50/60	280/300	32/35	1,400/1,650	429.3/510.5	9.0/12.1	51.2/54.2
FA2589B11T9C-31			50/60	580/700	65/78	2,200/2,100	695.3/649.6	12.4/9.9	59.1/58.1
FA2589B22T7C-31		230	50/60	160/170	32/35	1,400/1,650	429.3/510.5	9.0/12.1	51.2/54.2
FA2589B22T9C-31			50/60	290/350	65/78	2,200/2,100	695.3/649.6	12.4/9.9	59.1/58.1

• For Wire lead version, change "T" in the model number to "W".

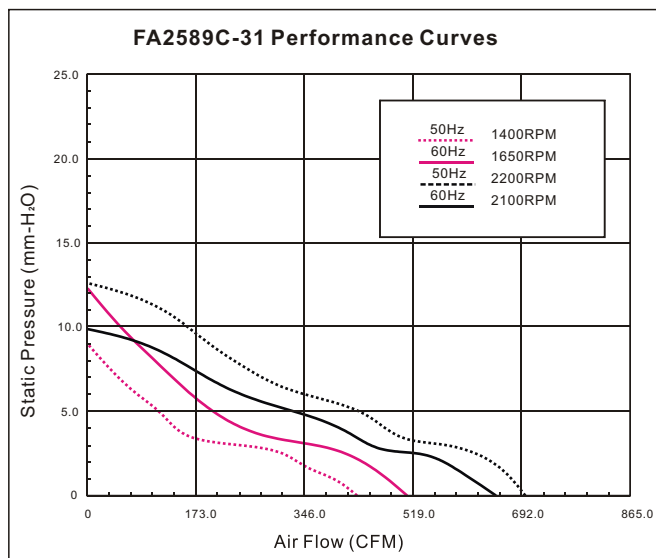
Specifications are subject to change without notice

Accessories :

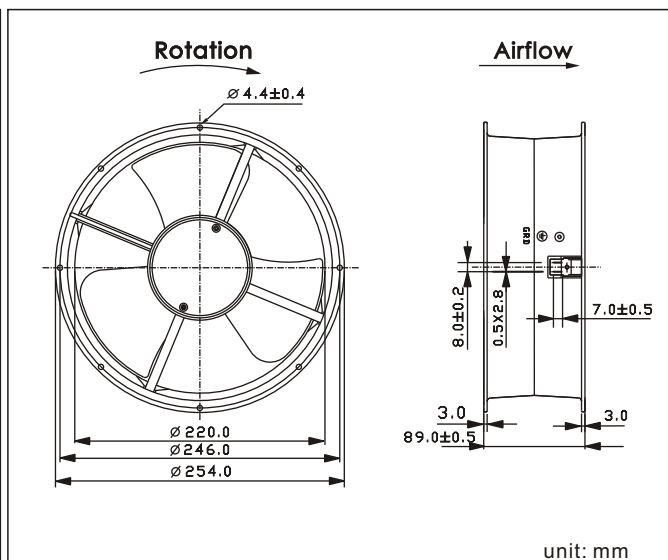
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-250	N/A	N/A	N/A	Any Configuration

Charactéristic Curves :



Out line Drawing :



- Housing: Die-Cast Aluminum, Painted Black
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minutue
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 1780 g



Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FA2589B11T7C-91	2Ball	115	50/60	450/360	43/36	1,450/1,850	517.7/609.0	8.2/10.6	47.3/55.2
FA2589B11T9C-91			50/60	1000/1000	120/130	2,500/2,700	771.4/812.0	20.1/21.1	76.8/82.7
FA2589B22T7C-91		230	50/60	220/180	45/38	1,450/1,850	517.7/609.0	8.2/10.6	47.3/55.2
FA2589B22T9C-91			50/60	450/600	100/125	2,500/2,700	771.4/812.0	20.1/21.1	76.8/82.7

• For Wire lead version, change "T" in the model number to "W".

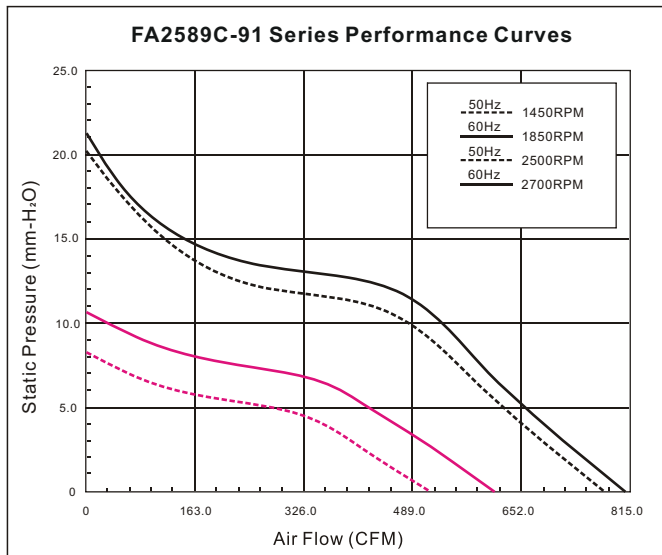
Specifications are subject to change without notice

Accessories :

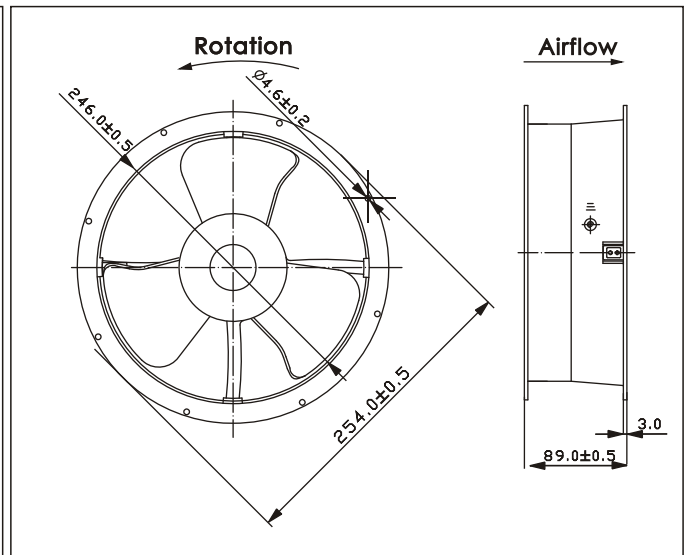
Fans are available with a wide range of accessories

Part Type	Wire Form Guard	Plastic Guard	Plastic Filter	Aluminum Filter	Power Cord
Part Number	FGW-250	N/A	N/A	N/A	Any Configuration

Characteristic Curves :



Out line Drawing :



- Housing: PA6 UL94V-0 Reinforced Plastic & Aluminum Plate
- Blade: Thermoplastic UL 94V-0 P.B.T.
- Insulation Resistance: 100MΩ, 500VDC/min between bare wire and frame
- Dielectric Strength: 1500VAC for one minute
- Operation Temperature: -10°C~70°C (Humidity 35%-85%RH)
- Storage Temperature: -40°C~85°C (Humidity 35%-85%RH)
- **Motor Protection: Thermal Protected**
- Weight: 668 g



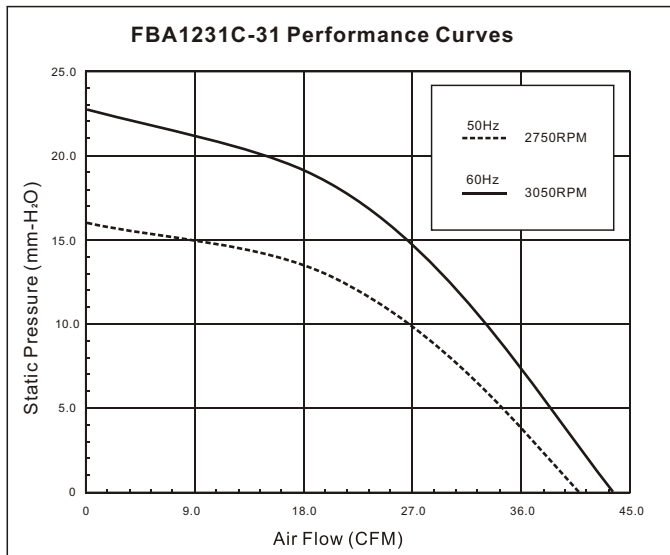
Specification :

Model Number	Bearing Availability	Rated Voltage (VAC)	Frequency (Hz)	Rated Current (mA)	Power (W)	Speed (RPM)	Air Flow (CFM)	Static Pressure (mm-H ₂ O)	Noise (dBA)
FBA1231B11W5C-31	2Ball or Sleeve	115	50/60	270/290	26/27	2,750/3,050	40.6/43.6	16.0/22.9	54.2/56.1
FBA1231B22W5C-31		230	50/60	130/130	26/27	2,750/3,050	40.6/43.6	16.0/22.9	54.2/56.1

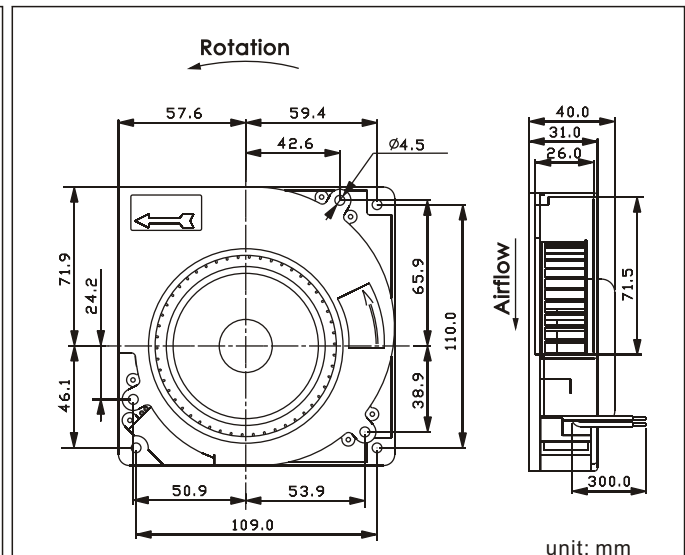
- For Terminal version, change "T" in the model number to "W".
- For Sleeve Bearing version, change "B" in the model number to "S".

Specifications are subject to change without notice

Characteristic Curves:



Out line Drawing:



General Application :

The **FGW** Series Wire Form Fan Guards are designed for tubeaxial fans in 40mm; 50mm; 60mm; 70mm; 80mm; 92mm; 120mm; 172mm; 220mm; 254mm size and other custom design products.

● **FGW-040A-1**

		Fits for Fan Size : 40x40x07mm; 40x40x10mm 40x40x15mm; 40x40x20mm 40x40x28mm Notes : • Materials: Bright basic wire. • Finish: bright nickel chrome plating. • (1) Rings are Ø 1.6mm. • (2) Ribs are Ø 1.6mm. • Weld joints to withstand 88 lbs pull force. • Part meets Ø 6.35mm plug gauge test.
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● **FGW-050A-1**

		Fits for Fan Size : 50x50x10mm; 50x50x15mm 50x50x20mm; 50x50x25mm Notes : • Materials: Bright basic wire. • Finish: bright nickel chrome plating. • (1) Rings are Ø 1.6mm. • (2) Ribs are Ø 1.6mm. • Weld joints to withstand 88 lbs pull force. • Part meets Ø 6.35mm plug gauge test.
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● **FGW-060A-1**

		Fits for Fan Size : 60x60x10mm; 60x60x15mm 60x60x20mm; 60x60x25mm 60x60x38mm Notes : • Materials: Bright basic wire. • Finish: bright nickel chrome plating. • (1) Rings are Ø 1.6mm. • (2) Ribs are Ø 1.6mm. • Weld joints to withstand 110 lbs pull force. • Part meets Ø 6.35mm plug gauge test.
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General Application :

The **FGW** Series Wire Form Fan Guards are designed for tubeaxial fans in 40mm; 50mm; 60mm; 70mm; 80mm; 92mm; 120mm; 172mm; 220mm; 254mm size and other custom design products.

● **FGW-070A-1**

		Fits for Fan Size : 70x70x10mm; 70x70x15mm 70x70x20mm; 70x70x25mm 70x70x38mm Notes : • Materials: Bright basic wire. • Finish: bright nickel chrome plating. • (1) Rings are Ø 1.6mm. • (2) Ribs are Ø 1.6mm. • Weld joints to withstand 110 lbs pull force. • Part meets Ø 6.35mm plug gauge test.
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● **FGW-080A-1**

		Fits for Fan Size : 80x80x10mm; 80x80x15mm 80x80x20mm; 80x80x25mm 80x80x32mm; 80x80x38mm Notes : • Materials: Bright basic wire. • Finish: bright nickel chrome plating. • (1) Rings are Ø 1.6mm. • (2) Ribs are Ø 1.8mm. • Weld joints to withstand 110 lbs pull force. • Part meets Ø 6.35mm plug gauge test.
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● **FGW-080A-2**

		Fits for Fan Size : 80x80x10mm; 80x80x15mm 80x80x20mm; 80x80x25mm 80x80x32mm; 80x80x38mm Notes : • Materials: Bright basic wire. • Finish: bright nickel chrome plating. • (1) Rings are Ø 1.8mm. • (2) Ribs are Ø 1.8mm. • Weld joints to withstand 110 lbs pull force. • Part meets Ø 6.35mm plug gauge test.
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General Application :

The **FGW** Series Wire Form Fan Guards are designed for tubeaxial fans in 40mm; 50mm; 60mm; 70mm; 80mm; 92mm; 120mm; 172mm; 220mm; 254mm size and other custom design products.

● **FGW-090A-1**

		Fits for Fan Size : 92x92x25mm; 92x92x32mm 92x92x38mm Notes : • Materials: Bright basic wire. • Finish: bright nickel chrome plating. • (1) Rings are Ø 1.6mm. • (2) Ribs are Ø 1.8mm. • Weld joints to withstand 110 lbs pull force. • Part meets Ø 6.35mm plug gauge test.
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● **FGW-120A-1**

		Fits for Fan Size : 120x120x25mm; 120x120x32mm 120x120x38mm Notes : • Materials: Bright basic wire. • Finish: bright nickel chrome plating. • (1) Rings are Ø 1.8mm. • (2) Ribs are Ø 1.8mm. • Weld joints to withstand 110 lbs pull force. • Part meets Ø 6.35mm plug gauge test.
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● **FGW-166A-1**

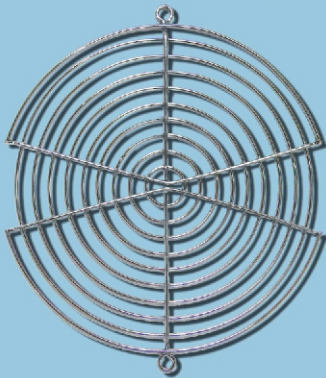
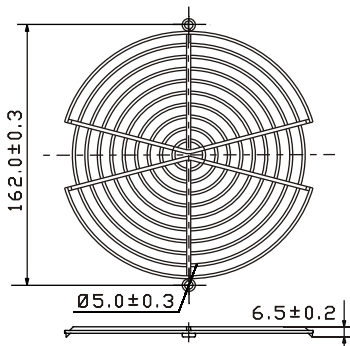
		Fits for Fan Size : 160x160x62mm Notes : • Materials: Bright basic wire. • Finish: bright nickel chrome plating. • (1) Rings are Ø 1.8mm. • (2) Ribs are Ø 1.8mm. • Weld joints to withstand 220 lbs pull force. • Part meets Ø 6.35mm plug gauge test.
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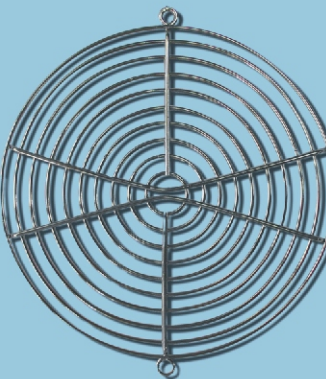
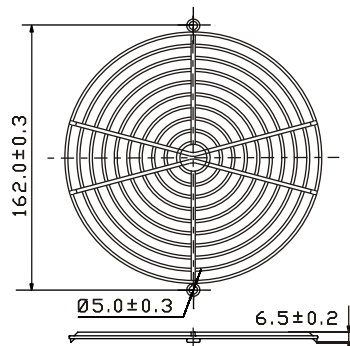
General Application :

The **FGW** Series Wire Form Fan Guards are designed for tubeaxial fans in 40mm; 50mm; 60mm; 70mm; 80mm; 92mm; 120mm; 172mm; 220mm; 254mm size and other custom design products.

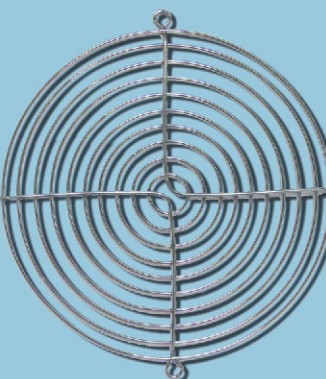
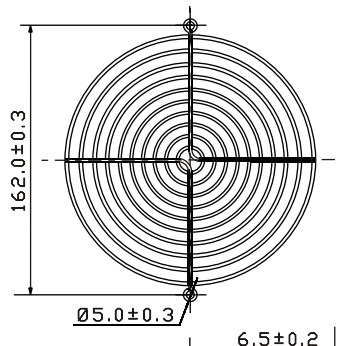
● **FGW-162A-1**

	 unit: mm	Fits for Fan Size : 172x150x38mm; 172x150x51mm Ø 172x51mm; 172x151x55mm Notes : • Materials: Bright basic wire. • Finish: bright nickel chrome plating. • (1) Rings are Ø 2.0mm. • (2) Ribs are Ø 2.2mm. • Weld joints to withstand 220 lbs pull force. • Part meets Ø 6.35mm plug gauge test.
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● **FGW-162A-5**

	 unit: mm	Fits for Fan Size : 172x150x38mm; 172x150x51mm Ø 172x51mm; 172x151x55mm Notes : • Materials: Bright basic wire. • Finish: bright nickel chrome plating. • (1) Rings are Ø 2.0mm. • (2) Ribs are Ø 2.2mm. • Weld joints to withstand 220 lbs pull force. • Part meets Ø 6.35mm plug gauge test.
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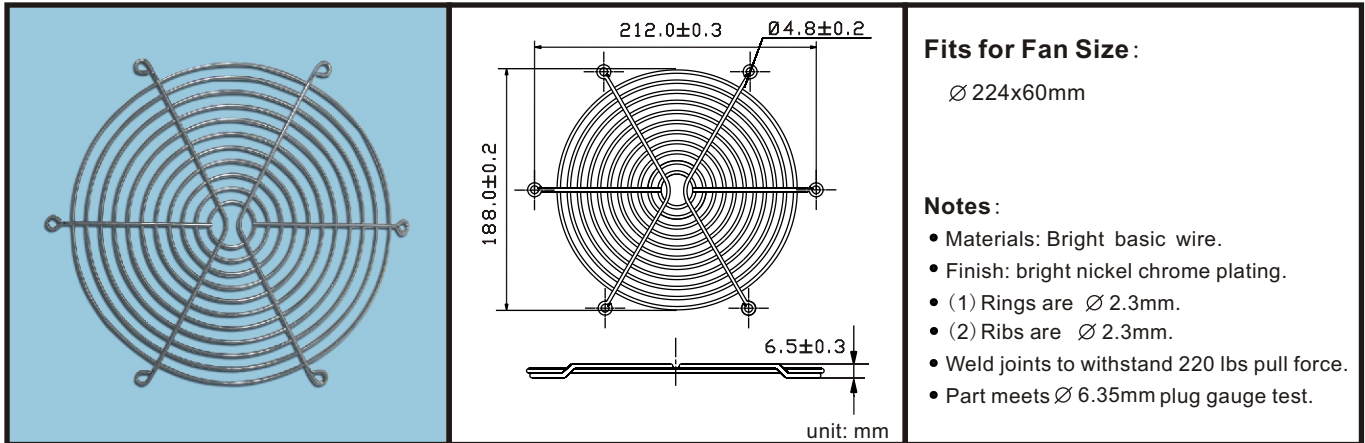
● **FGW-162B-1**

	 unit: mm	Fits for Fan Size : 172x150x38mm; 172x150x51mm Ø 172x51mm; 172x151x55mm Notes : • Materials: Bright basic wire. • Finish: bright nickel chrome plating. • (1) Rings are Ø 1.8mm. • (2) Ribs are Ø 1.8mm. • Weld joints to withstand 220 lbs pull force. • Part meets Ø 6.35mm plug gauge test.
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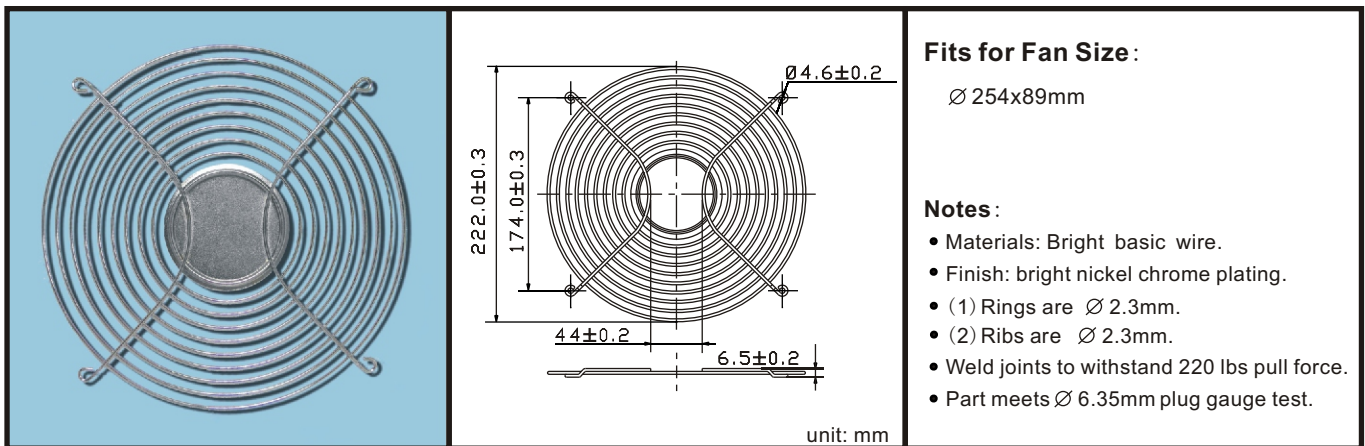
General Application :

The **FGW** Series Wire Form Fan Guards are designed for tubeaxial fans in 40mm; 50mm; 60mm; 70mm; 80mm; 92mm; 120mm; 172mm; 220mm; 254mm size and other custom design products.

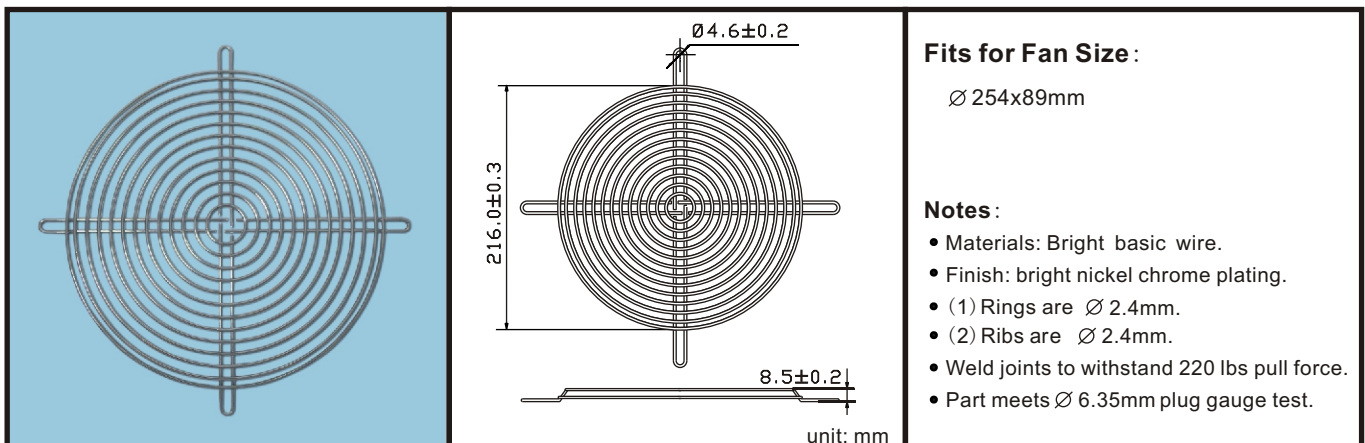
● **FGW-220A-1**



● **FGW-250A-1**



● **FGW-250B-1**



General Application :

The **FGP Series** Plastic Fan Guards are designed for tubeaxial fans in 60mm; 80mm; 92mm; 120mm; 172mm size and other custom design products.

● **FGP-060A-1**

		Fits for Fan Size : 60x60x10mm; 60x60x15mm 60x60x20mm; 60x60x25mm 60x60x38mm Notes : • Materials: PP RoHS, UL rated 94V-0. • Ring spacing comply with safety agency regulations. • Flat with Thru-hole style.
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● **FGP-080A-1**

		Fits for Fan Size : 80x80x10mm; 80x80x15mm 80x80x20mm; 80x80x25mm 80x80x32mm; 80x80x38mm Notes : • Materials: PP RoHS, UL rated 94V-0. • Ring spacing comply with safety agency regulations. • Flat with Thru-hole style.
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● **FGP-080B-1**

		Fits for Fan Size : 80x80x10mm; 80x80x15mm 80x80x20mm; 80x80x25mm 80x80x32mm; 80x80x38mm Notes : • Materials: PP RoHS, UL rated 94V-0. • Ring spacing comply with safety agency regulations. • Camber with Push-on style.
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General Application :

The **FGP Series** Plastic Fan Guards are designed for tubeaxial fans
In 60mm; 80mm; 92mm; 120mm; 172mm size and other
custom design products.

● **FGP-080C-1**

		Fits for Fan Size : 80x80x10mm ; 80x80x15mm 80x80x20mm ; 80x80x25mm 80x80x32mm ; 80x80x38mm Notes : • Materials: PP RoHS, UL rated 94V-0. • Ring spacing comply with safety agency regulations. • Camber with Thru-hole style.
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● **FGP-090A-1**

		Fits for Fan Size : 92x92x25mm ; 92x92x32mm 92x92x38mm Notes : • Materials: PP RoHS, UL rated 94V-0. • Ring spacing comply with safety agency regulations. • Flat with Thru-hole style.
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● **FGP-090C-1**

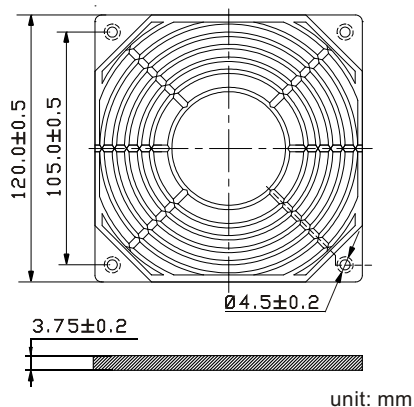
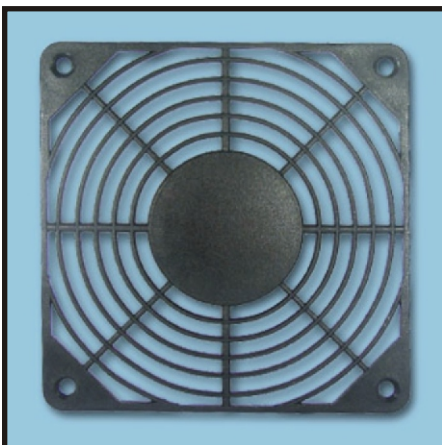
		Fits for Fan Size : 92x92x25mm ; 92x92x32mm 92x92x38mm Notes : • Materials: PP RoHS, UL rated 94V-0. • Ring spacing comply with safety agency regulations. • Camber with Thru-hole style.
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General Application:

The **FGP Series** Plastic Fan Guards are designed for tubeaxial fans in 60mm; 80mm; 92mm; 120mm; 172mm size and other custom design products.

FGP-120A-2



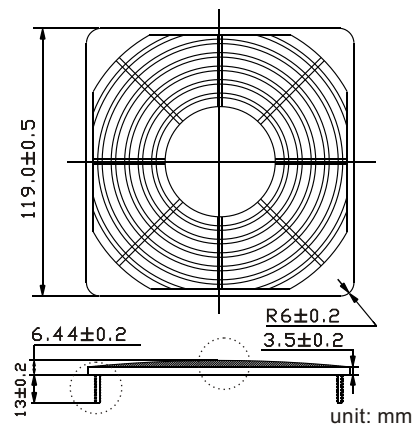
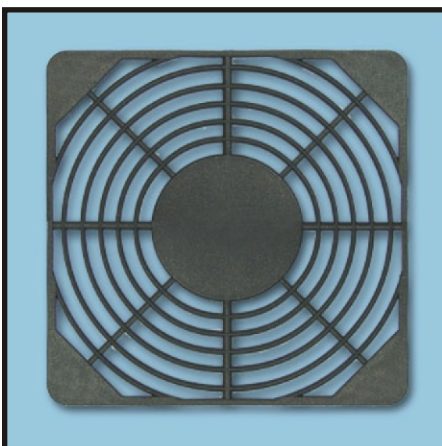
Fits for Fan Size:

120x120x25mm; 120x120x32mm
120x120x38mm

Notes:

- Materials: PP RoHS, UL rated 94V-0.
- Ring spacing comply with safety agency regulations.
- Flat with Thru-hole style.

FGP-120B-1



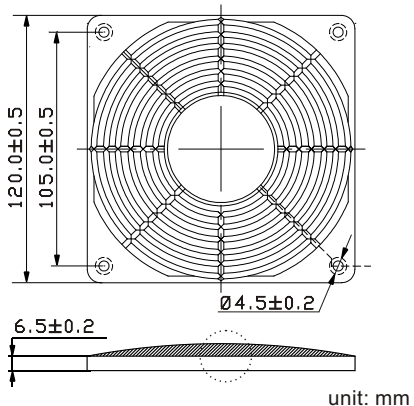
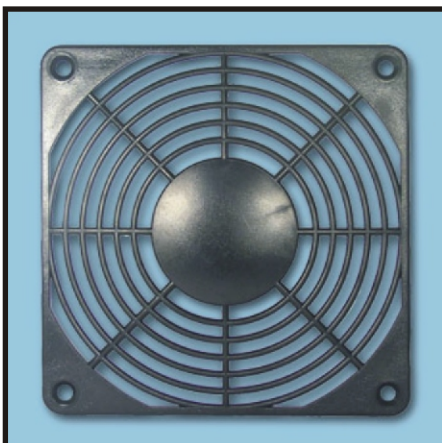
Fits for Fan Size:

120x120x25mm; 120x120x32mm
120x120x38mm

Notes:

- Materials: PP RoHS, UL rated 94V-0.
- Ring spacing comply with safety agency regulations.
- Camber with Push-on style.

FGP-120C-1



Fits for Fan Size:

120x120x25mm; 120x120x32mm
120x120x38mm

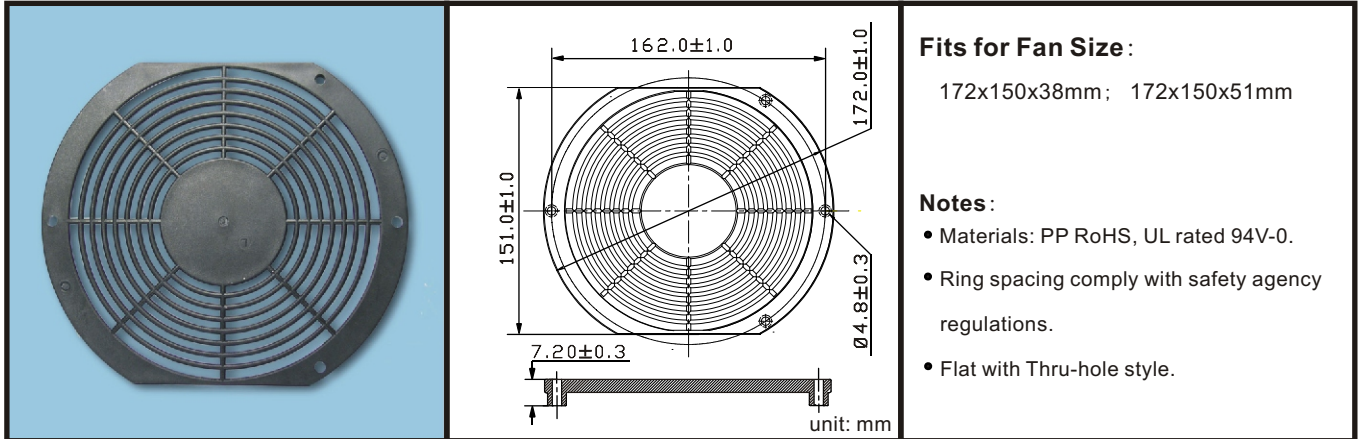
Notes:

- Materials: PP RoHS, UL rated 94V-0.
- Ring spacing comply with safety agency regulations.
- Camber with Thru-hole style.

General Application :

The **FGP** Series Plastic Fan Guards are designed for tubeaxial fans in 60mm; 80mm; 92mm; 120mm; 172mm size and other custom design products.

● **FGP-162A-1**



Plastic Fan Filter

General Application :

The **FPF Series** Plastic Fan Filter are designed for tubeaxial fan in 40mm ; 60mm ; 80mm ; 92mm ; 120mm ; 172mm size and other custom design products.

FPF-040A-40/60

	Retainer Filter Guard unit: mm	Fits for Fan Size : 40x40x07mm ; 40x40x10mm 40x40x15mm ; 40x40x20mm 40x40x28mm Notes : • Retainer & Guard Material: Flame Retardant plastic ABS thermoplastic, rated UL94V-0. • Retainer & Guard Color: Standard black, • Filter Material: Polyurethane(PU) Foam. • Filter Density: 40PPI, 60PPI (pores per Inch).
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FPF-060A-40/60

	Retainer Filter Guard unit: mm	Fits for Fan Size : 60x60x10mm ; 60x60x15mm 60x60x20mm ; 60x60x25mm 60x60x38mm Notes : • Retainer & Guard Material: Flame Retardant plastic ABS thermoplastic, rated UL94V-0. • Retainer & Guard Color: Standard black, • Filter Material: Polyurethane(PU) Foam. • Filter Density: 40PPI, 60PPI (pores per Inch).
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FPF-080A-40/60

	Retainer Filter Guard unit: mm	Fits for Fan Size : 80x80x10mm ; 80x80x15mm 80x80x20mm ; 80x80x25mm 80x80x32mm ; 80x80x38mm Notes : • Retainer & Guard Material: Flame Retardant plastic ABS thermoplastic, rated UL94V-0. • Retainer & Guard Color: Standard black, • Filter Material: Polyurethane(PU) Foam. • Filter Density: 40PPI, 60PPI (pores per Inch).
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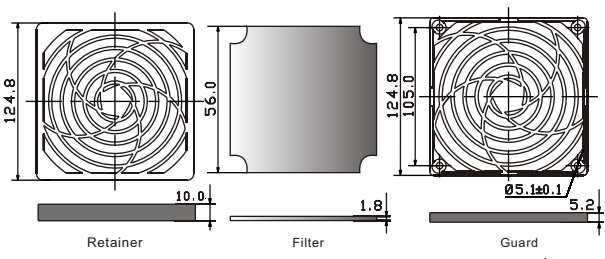
FPF-090A-40/60

	Retainer Filter Guard unit: mm	Fits for Fan Size : 92x92x25mm ; 92x92x32mm 92x92x38mm Notes : • Retainer & Guard Material: Flame Retardant plastic ABS thermoplastic, rated UL94V-0. • Retainer & Guard Color: Standard black, • Filter Material: Polyurethane(PU) Foam. • Filter Density: 40PPI, 60PPI (pores per Inch).
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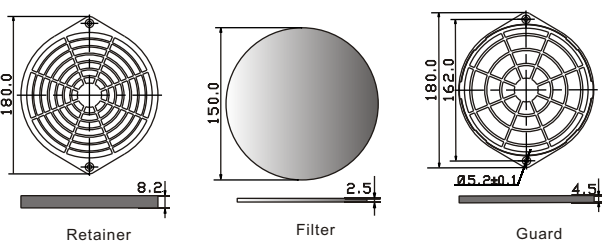
General Application :

The **FPF Series** Plastic Fan Filter are designed for tubeaxial fan in 40mm; 60mm; 80mm; 92mm; 120mm; 172mm size and other custom design products.

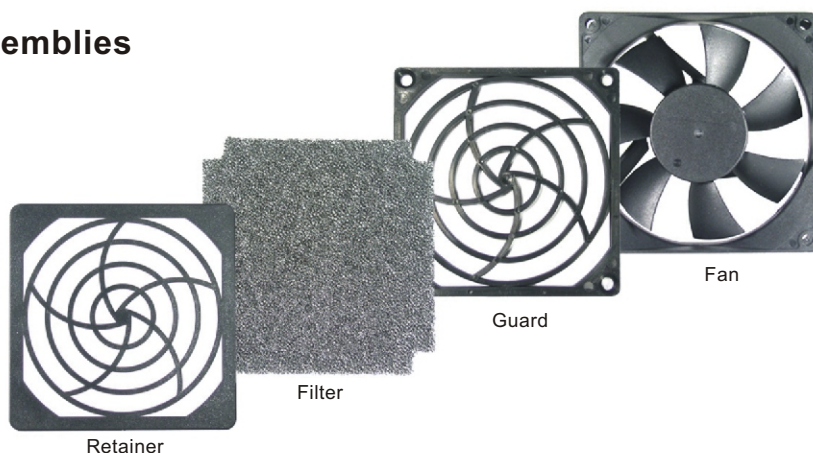
● **FPF-120A-40/60**

	 unit: mm	Fits for Fan Size : 120x120x25mm; 120x120x32mm 120x120x38mm Notes : • Retainer & Guard Material: Flame Retardant plastic ABS thermoplastic, rated UL94V-0. • Retainer & Guard Color: Standard black. • Filter Material: Polyurethane(PU) Foam. • Filter Density: 40PPI, 60PPI (pores per Inch).
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● **FPF-162A-40/60**

	 unit: mm	Fits for Fan Size : 172x150x38mm; 172x150x55mm Notes : • Retainer & Guard Material: Flame Retardant plastic ABS thermoplastic, rated UL94V-0. • Retainer & Guard Color: Standard black. • Filter Material: Polyurethane(PU) Foam. • Filter Density: 40PPI, 60PPI (pores per Inch).
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Plastic Fan Filter Assemblies



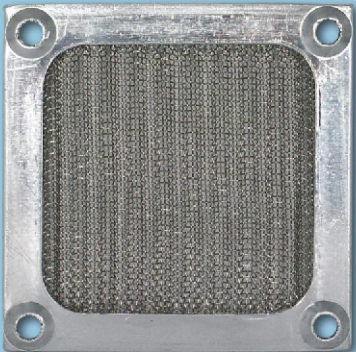
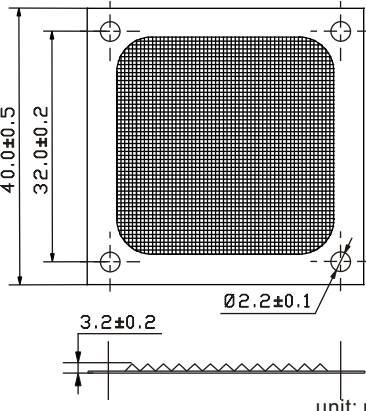
General Specifications :

- **Pressing damages of filter:** Initial period 6.9mm AQ, final stage 24mm AQ.
- **Maximum wind speed:** 2.0M³/sec.
- **Effective wind speed:** 50M³/min.
- **Ingress Protection Grade:** IP40.
- **Use Scope:** Indoor -10°C to 55°C.
- **Dust removal rate:** up to 90%.

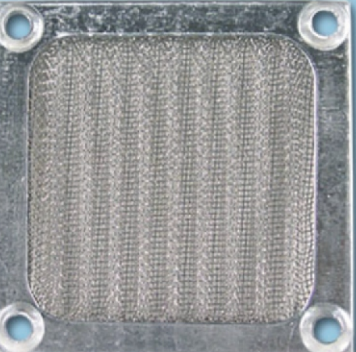
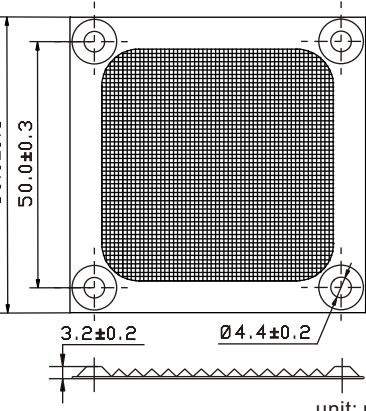
General Application :

- The FFA Series Aluminum Fan Filters are designed for tubeaxial fan in 40mm, 60mm, 80mm, 92mm, 120mm, 172mm size.
- These tested and proven filters provide maximum air - flow with effective filtering and feature a mill finish to enhance EMI/RFI shielding.

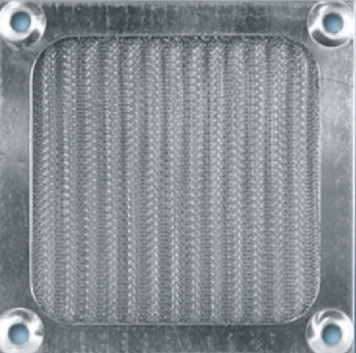
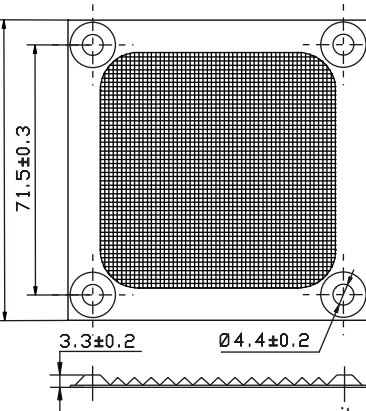
● **FFA-040A-1**

	 unit: mm	Fits for Fan Size : 40x40x07mm; 40x40x10mm 40x40x15mm; 40x40x20mm 40x40x28mm Materials: • Frame: Aluminum with 1.6mm thickness. • Mesh: 30*30 mesh convoluted approx 1/8" deep with approx. 3/16" pitch. • General tolerance: unless noted ± 0.5mm.
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● **FFA-060A-1**

	 unit: mm	Fits for Fan Size : 60x60x10mm; 60x60x15mm 60x60x20mm; 60x60x25mm 60x60x38mm Materials: • Frame: Aluminum with 1.6mm thickness. • Mesh: 30*30 mesh convoluted approx 1/8" deep with approx. 3/16" pitch. • General tolerance: unless noted ± 0.5mm.
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● **FFA-080A-1**

	 unit: mm	Fits for Fan Size : 80x80x10mm; 80x80x15mm 80x80x20mm; 80x80x25mm 80x80x32mm; 80x80x38mm Materials: • Frame: Aluminum with 1.6mm thickness. • Mesh: 30*30 mesh convoluted approx 1/8" deep with approx. 3/16" pitch. • General tolerance: unless noted ± 0.5mm.
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General Application :

- The **FFA Series** Aluminum Fan Filters are designed for tubeaxial fan in 40mm, 60mm, 80mm, 92mm, 120mm, 172mm size.
- These tested and proven filters provide maximum air - flow with effective filtering and feature a mill finish to enhance EMI/RFI shielding.

● **FFA-090A-1**

		Fits for Fan Size : 92x92x25mm; 92x92x32mm 92x92x38mm Materials: • Frame: Aluminum with 1.6mm thickness. • Mesh: 30*30 mesh convoluted approx 1/8" deep with approx. 3/16" pitch. • General tolerance: unless noted $\pm 0.5\text{mm}$.
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● **FFA-120A-1**

		Fits for Fan Size : 120x120x25mm; 120x120x32mm 120x120x38mm Materials: • Frame: Aluminum with 1.6mm thickness. • Mesh: 30*30 mesh convoluted approx 1/8" deep with approx. 3/16" pitch. • General tolerance: unless noted $\pm 0.5\text{mm}$.
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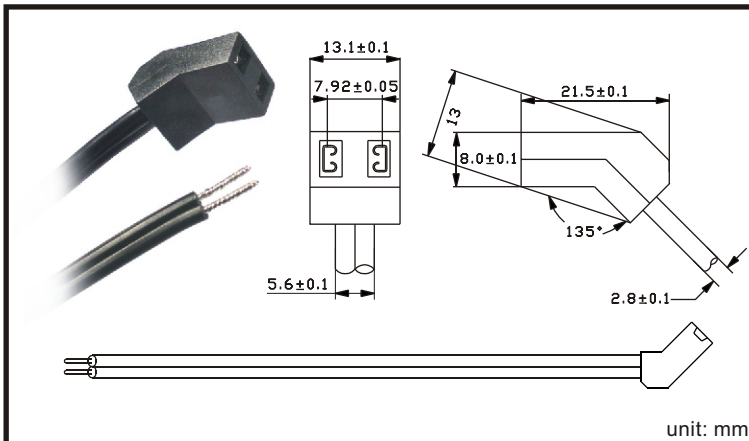
● **FFA-162A-1**

		Fits for Fan Size : 172x150x38mm 172x150x55mm Materials: • Frame: Aluminum with 1.6mm thickness. • Mesh: 30*30 mesh convoluted approx 1/8" deep with approx. 3/16" pitch. • General tolerance: unless noted $\pm 0.5\text{mm}$.
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General Application :

- High quality Fan Power Cords are designed to used with all terminal tube axial fans.
- Three configuration ("V", "L", "S" type) are designed to meet your specific.
- Standard cord lengths are 12", 24", 36", 48", 60", 72", 84", 96", 108", 120".
- Special lengths available upon request.
- Cord ends stripped & tinned or terminated with connections available on request.

● FPC-VXXW Series

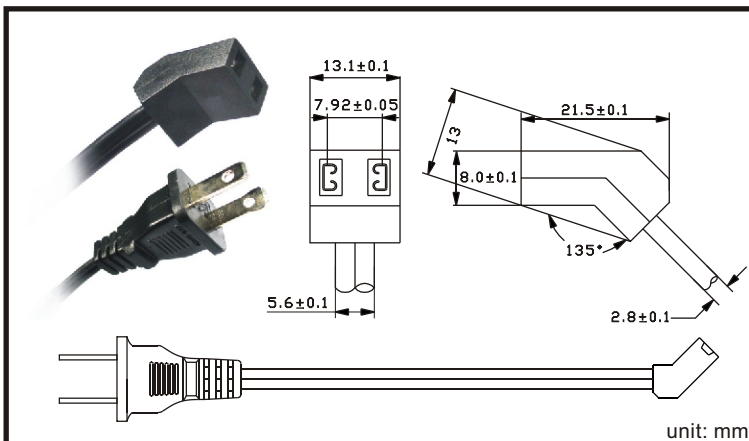


Specifications :

- UL Listed-CSA approved.
- Blunt cut end (terminated or stripped & tinned available).
- 45° Style connector (V Type).

Part Number	Cord Length	
	mm	inch
FPC-V12W	305	12
FPC-V24W	610	24
FPC-V36W	915	36
FPC-V48W	1220	48
FPC-V60W	1525	60
FPC-V72W	1830	72
FPC-V84W	2130	84
FPC-V96W	2440	96
FPC-V108W	2745	108
FPC-V120W	3050	120

● FPC-VXXP Series

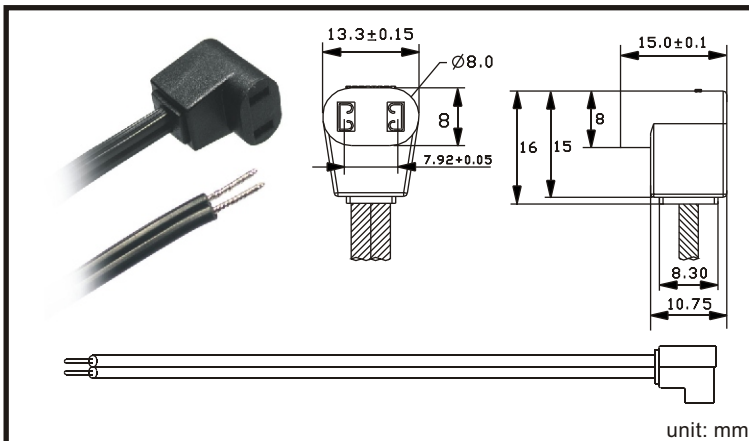


Specifications :

- UL Listed-CSA approved.
- Cordage:
SPT-1(2) conductor black
105C volt.
- 45° Style connector (V Type).

Part Number	Cord Length	
	mm	inch
FPC-V12P	305	12
FPC-V24P	610	24
FPC-V36P	915	36
FPC-V48P	1220	48
FPC-V60P	1525	60
FPC-V72P	1830	72
FPC-V84P	2130	84
FPC-V96P	2440	96
FPC-V108P	2745	108
FPC-V120P	3050	120

● FPC-LXXW Series



Specifications :

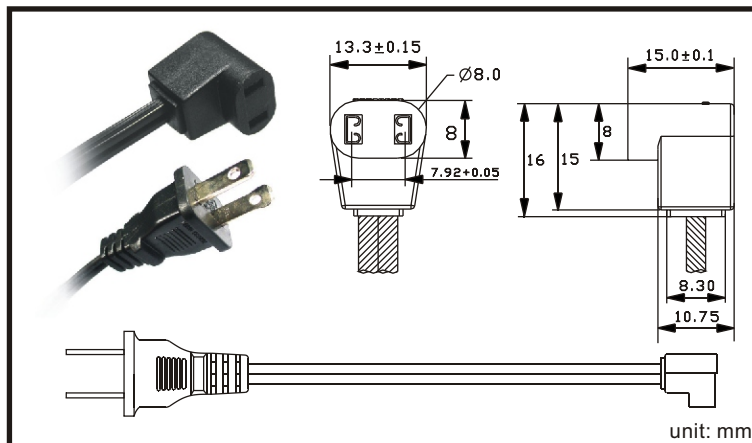
- UL Listed-CSA approved.
- Blunt cut end (terminated or stripped & tinned available).
- 90° Style connector (L Type).

Part Number	Cord Length	
	mm	inch
FPC-L12W	305	12
FPC-L24W	610	24
FPC-L36W	915	36
FPC-L48W	1220	48
FPC-L60W	1525	60
FPC-L72W	1830	72
FPC-L84W	2130	84
FPC-L96W	2440	96
FPC-L108W	2745	108
FPC-L120W	3050	120

General Application :

- High quality Fan Power Cords are designed to be used with terminal tube axial fans.
- Three configuration ("V", "L", "S" type) are designed to meet your specific.
- Standard cord lengths are 12", 24", 36", 48", 60", 72", 84", 96", 108", 120".
- Special lengths available upon request.
- Cord ends stripped & tinned or terminated with connections available on request.

● FPC-LXXP Series

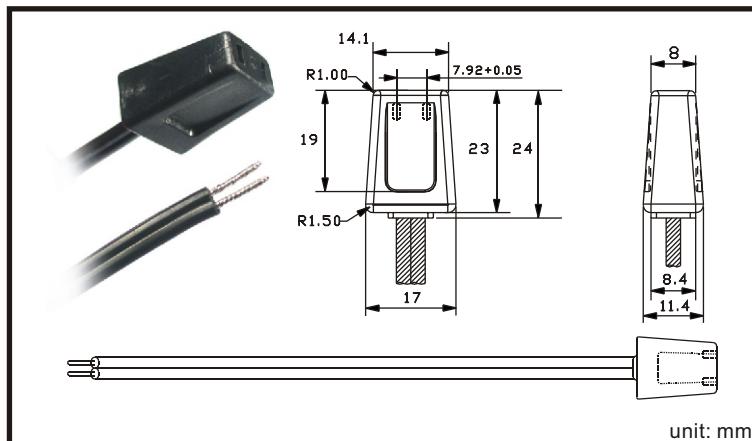


Specifications :

- UL Listed-CSA approved.
- Cordage:
SPT-1(2) conductor black
105C volt.
- 90° Style connector (L Type).

Part Number	Cord Length	
	mm	inch
FPC-L12P	305	12
FPC-L24P	610	24
FPC-L36P	915	36
FPC-L48P	1220	48
FPC-L60P	1525	60
FPC-L72P	1830	72
FPC-L84P	2130	84
FPC-L96P	2440	96
FPC-L108P	2745	108
FPC-L120P	3050	120

● FPC-SXXW Series

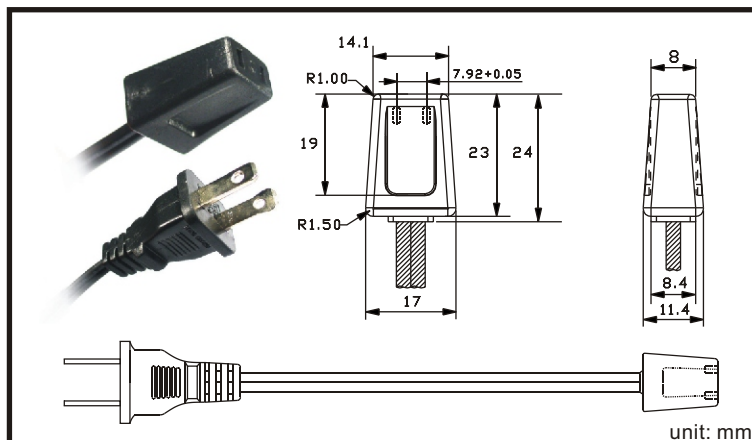


Specifications :

- UL Listed-CSA approved.
- Blunt cut end (terminated or stripped & tinned available).
- 180° Style connector (S Type).

Part Number	Cord Length	
	mm	inch
FPC-S12W	305	12
FPC-S24W	610	24
FPC-S36W	915	36
FPC-S48W	1220	48
FPC-S60W	1525	60
FPC-S72W	1830	72
FPC-S84W	2130	84
FPC-S96W	2440	96
FPC-S108W	2745	108
FPC-S120W	3050	120

● FPC-SXXP Series



Specifications :

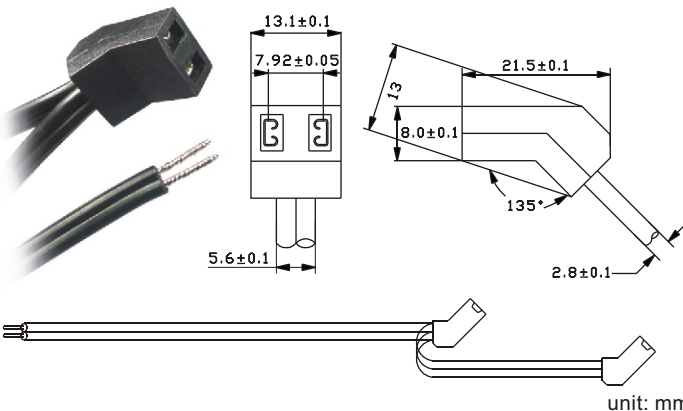
- UL Listed-CSA approved.
- Cordage:
SPT-1(2) conductor black
105C volt.
- 180° Style connector (S Type).

Part Number	Cord Length	
	mm	inch
FPC-S12P	305	12
FPC-S24P	610	24
FPC-S36P	915	36
FPC-S48P	1220	48
FPC-S60P	1525	60
FPC-S72P	1830	72
FPC-S84P	2130	84
FPC-S96P	2440	96
FPC-S108P	2745	108
FPC-S120P	3050	120

General Application :

- High quality Fan Power Cords are designed to used with terminal tube axial fans.
- Three configuration ("V", "L", "S" type) are designed to meet your specific.
- Standard cord lengths are 12", 24", 36", 48", 60", 72", 84", 96", 108", 120".
- Special lengths available upon request.
- Cord ends stripped & tinned or terminated with connections available on request.

● FPC-VXXW-7D2 Daisy Chain Series



Specifications :

- UL Listed-CSA approved.
- Blunt cut end (terminated or stripped & tinned available).
- 45° Style connector (V Type).
- Additional connectors: 2 to 12.
- Available types of connector:

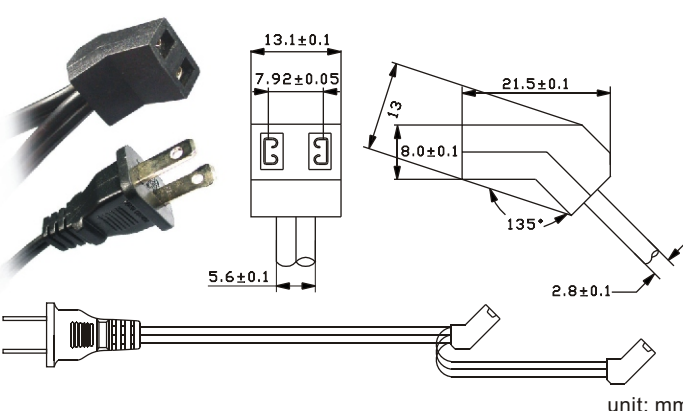




Part Number	Cord Length	
	mm	inch
FPC-V12W-7D2	305	12
FPC-V24W-7D2	610	24
FPC-V36W-7D2	915	36
FPC-V48W-7D2	1016	48
FPC-V60W-7D2	1270	60
FPC-V72W-7D2	1830	72
FPC-V84W-7D2	2130	84
FPC-V96W-7D2	2440	96
FPC-V108W-7D2	2745	108
FPC-V120W-7D2	3050	120

unit: mm

● FPC-VXXP-7D2 Daisy Chain Series



Specifications :

- UL Listed-CSA approved.
- Cordage:
SPT-1(2) conductor black 105C volt.
- 45° Style connector (V Type).
- Additional connectors: 2 to 12.
- Available types of connector:





Part Number	Cord Length	
	mm	inch
FPC-V12P-7D2	305	12
FPC-V24P-7D2	610	24
FPC-V36P-7D2	915	36
FPC-V48P-7D2	1220	48
FPC-V60P-7D2	1525	60
FPC-V72P-7D2	1830	72
FPC-V84P-7D2	2130	84
FPC-V96P-7D2	2440	96
FPC-V108P-7D2	2745	108
FPC-V120P-7D2	3050	120

unit: mm

Power cord combination available options

