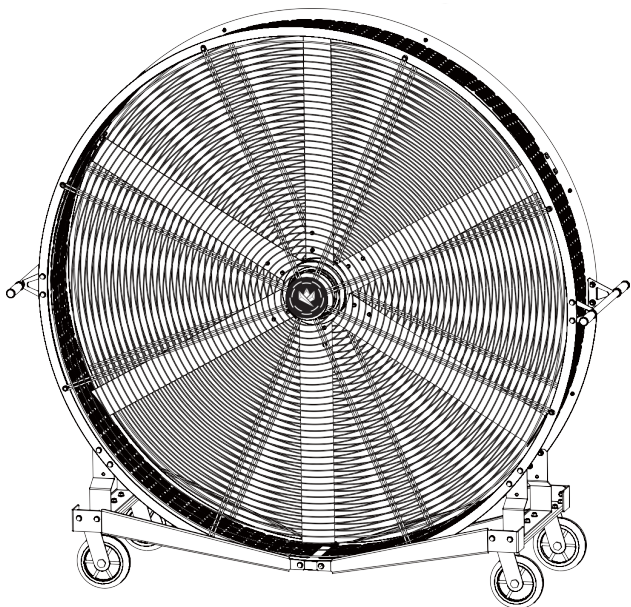


Helicopter fan



KingsBox®
BUILDING BETTER HUMANS

Preface

The user instructions

- This manual is for installation, operation and maintenance personnel to read carefully. The installation and maintenance of ceiling fans and fans must be undertaken by professionals.
- In the process of transportation or installation, the machine should be careful to protect the product and avoid causing unnecessary damage.

Safety regulations

- Please confirm if the input voltage is in line with this product, the standard of power supply for this product is 220VAC plus or minus 10%, 50Hz.
- When operating the controller, follow the static action (ESD) procedure. Otherwise, the internal loop of the controller will be damaged by static electricity
- The installation, operation and maintenance of the unit is limited to the following personnel: the designated safety officer, the necessary training and the necessary experience.
- This specification shall be strictly followed in case of injury to the person, equipment or environment.
- Do not allow children to touch when running or stopping.

Operating limits and specifications

Operating limits

The company does not bear the responsibility for improper use and the use of products in excess of the prescribed scope.

The products and accessories are designed according to the user's parameters, and if the parameters are changed, the company should be informed of the feasibility.

Products must not be run in unstable areas, such as high frequency vibration areas and long periods of turbulence.

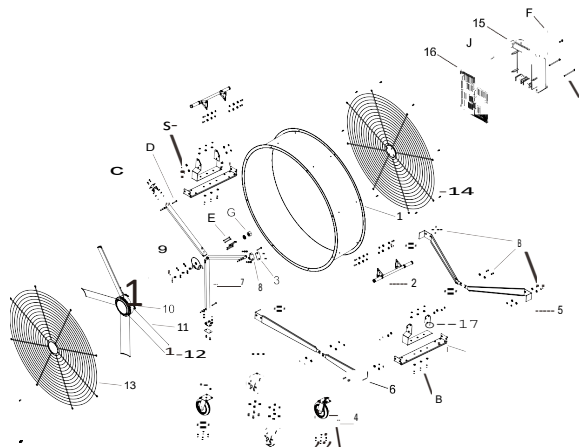
Products must not operate in bad conditions, such as freezing, corrosion, explosion and dust concentration.

Specificat 10n model

List of models of Brushless DC fans.

MODEL	VOLTAGE	POWER	MAXSPEED	DIAMETER	AIR VOLUME	LEAF NUMBER	WEIGHT
FJ-D800	220V	0.55KW	600r/min	0.78M	18000m ³ /h	6	55kg
FJ-D1100	220V	0.7KW	450r/min	1.11M	26000m ³ /h	6	90kg
FJ-D1400	220V	0.8KW	370r/min	1.43M	45000m ³ /h	6	110kg
FJ-E900	220V	0.5KW	700r/min	0.9M	22000m ³ /h	5	52kg
FJ-E1200	220V	0.5KW	460r/min	1.2M	38000m ³ /h	5	64kg
FJ-E1500	220V	0.75KW	400r/min	1.5M	57000m ³ /h	5	91kg
FJ-F900	220V	0.5KW	700r/min	0.9M	22000m ³ /h	5	57kg
FJ-F1200	220V	0.5KW	460r/min	1.2M	38000m ³ /h	5	70kg
FJ-F1500	220V	0.75KW	400r/min	1.5M	57000m ³ /h	5	103kg
FJ-F2000	220V	0.95KW	260r/min	2M	90000m ³ /h	6	137kg

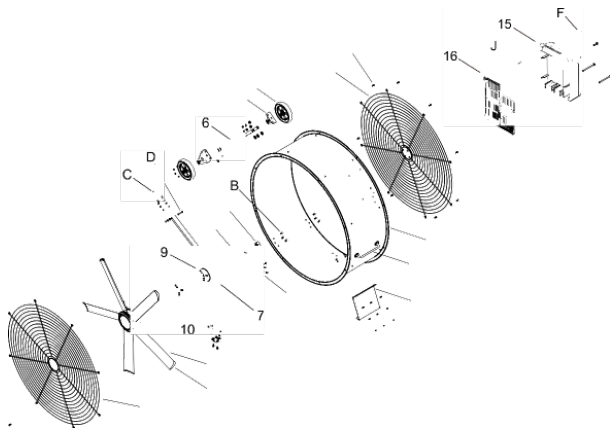
Components and installation



- 1 - Fan outside the cylinder
- 2 - The handle
- 3 - Fixed cushion plate
- 4 - The wheel
- 5 - Protective plate A
- 6 - Protective plate B
- 7 - Fixed square tube
- 8 - Square tube fixed folding plate
- 9 - Fan shaftlink sleeve
- 10 - Electrical components
- 11 - The fan blade
- 12 - Wind deflector
- 13 - Before the net
- 14 - After the net
- 15 - Control box component
- 16 - Control box plate
- 17 - Barrel bracket
- 18 - Slotted plate

- A - Socket head bolts M6x20
- B - Outside hexagon I bolt M10x25
- C - Outside hexagon I bolt M8x20
- D - Outside hexagon I bolt M8x70
- E - Socket head bolts M8x75
- F - Semicircular head cross bolt M5x20
- G - M20X1.5 nut
- H - Semi circular head cross bolt M5x80
- J - Rivet

Components and installation



1 - Fan outside the cylinder

2 - The handle

3 - With out wheel Is Fan feet

4 - The wheel

5 - Have a round fan feet

6 - Shaft

7 - Fixed square tube

8 - Square tube fixed folding plate

9 - Fan shaft link sleeve

10 - Aluminum blade motor assembly

11 - The fan blade

12 - Wind deflector

13 - Before the net

14 - After the net

15 - Control box component

16 - Control box plate

17 - Stainless steel blade motor assembly

18 - Stainless steel blade

A - Socket head bolts M6x15

B - Outside hexagonal bolt M10x25

C - Outside hexagonal bolt M8x20

D - Outside hexagonal bolt M8x70

E - Socket head bolts M8x75

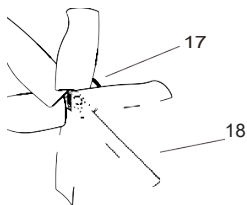
F - Semicircular head cross bolt
M5x20

G - M20X1.5 nut

H - Semicircular head cross bolt

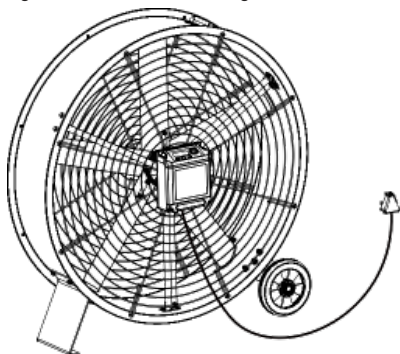
M5x80

J - Rivet



Connection

External wiring of fan. The external wiring is shown in the diagram.



Control box installation diagram

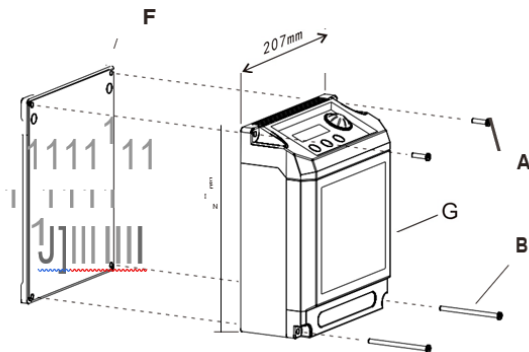
When the fan is delivered, the controller base plate is directly installed behind the net cover. When installing the controller, simply install G on F and lock with A and B bolts.

A - Semicircular head cross bolt M5x20

B - Semicircular head cross bolt M5x8

F - Centro backplane

G - Controller

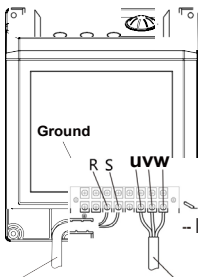


Control box internal wiring

The internal wiring of the ceiling fan is shown in the figure. The power input terminal of the controller is R, S.

The motor output line ends are U, V, W, regardless of the order.

If the fan is turned off after the installation is complete, turn off the power, wait for the indicator and the display to go out, and swap any two of U, V, and W.



Basic operation and operation

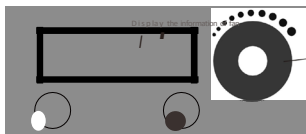
Operation panel and display screen explanation

Fans can display a 11 kinds of data, parameters, warnings and so on through the display screen. It can be operated by buttons.

There are different types of products, and some products are partly removed. This description shows all the functions.

The product requested by the customer is the standard.

Names and functions of different parts



Adjust Knob

This Knob is used to adjust the control parameters such as the speed, minutes to stop.

Rotate CW: increase the parameter,
Rotate CCW: decrease the parameter .

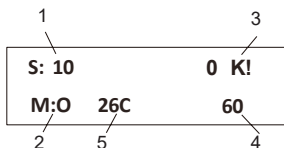
Setting button

Mode switch function, by pressing this button, the mode is switched between Speed and Time. The default mode is the Speedmode.

Run button

This button is used to turn the fan ON or OFF.




Display data



Display data functions

NO	Display	Name	Function
1	S:10	The target speed in percentage (10-100)	From 10% to 100%, MIN step is 5%, this parameter is adjusted using Adjust Knob
2	M:0	Time to Stop (in minutes)	The fan will turn off when this parameter counts down to 0. By default, this number is 0, which means this function is disabled.
3	OK/STOPS E-IMP/AUTO	Controller status	OK, STOP, E-XXX it displays the status of the fan. OK means the fan is running, STOP means the fan is Stopped, E-XXX displays the current fault type
4	60	The real speed in RPM (rotations per minute)	This section display the real rotate speed of the fan (60 means the fan's motor is rotating at 60RPM)
5	26C	Controller's Temperature in °C	It displays the inverting module of the controller, which is not the Room temperature. Range is 25°C-150°C

Panel name and function

NO	Operation department	Name	Features
1		Adjustment switch	Clockwise: increase fan speed Counterclockwise: reduce fan speed When switching to the timing state
2		Setting button	Switch timing time status With fan speed status
3		Run key	Run and stop the fan

Fault diagnosis and Countermeasures

Display code	Fault type	Troubleshooting method
E-STALL	Stall	Check whether the motor is stuck or not, and then resume the electricity after troubleshooting.
E-OV	Overvoltage protection	Check the grid power supply, whether it exceeds 437VAC when connected to 380V, and exceeds 280VAC when connected to 220V.
E-OC	Overvoltage protection	Check whether the load of the blades exceeds the rated value, and resume the electricity after troubleshooting.
E-UV	Undervoltage protection	Check the grid power supply, whether it is lower than 323VAC when connected to 380V, whether it is lower than 120VAC when it is connected to 220V, or whether the power cord input is loose.
E-IPM	Drive high voltage module protection	Check the heat dissipation state of the module and check whether there is a mutual short-circuit condition.
RD.ERIE-XT	Bad data line contact	Check the communication data line (whether the control board is connected to the motherboard) is not properly contacted or re inserted.
E-OT	Module temperature is too high	It is recommended to detect fan or dust and protect the temperature at around 85 ° C.

Regular inspection and maintenance

Electronic equipment and other components are not likely to be used permanently, even in normal working conditions, if they exceed their useful life, there will be a change in characteristics or Bad movements. In order to prevent such failures, periodic inspections must be carried out. It is recommended that every 3 or 4 months after the installation of the machine be checked.

Inspection project	Inspection content	Countermeasures for failure
Whole	Are there any parts that are discoloring due to aging? Are parts damaged, deformed, and run abnormal?	Contact the company after sale to replace damaged parts. After shutting down fans, we will contact our company after sale to make after-sale analysis Use dry towel to clear dust and refuse. Do not wash with water.
Motor	Is there unusual vibration or abnormal sound when the product is running?	After shutting down fans, we will contact our company after sale to make after-sale analysis.
Contorlier	Make sure that the cooling fan is stained or dusty. Whether the wires and internal wiring are discolored, damaged or shedding Is the wire cladding damaged, cracked or discolouration? Is the connection terminal worn, damaged or loosened? Is capacitance swelling, leaking, discoloring and cracking?	Clean or replace cooling fans. Repair or replace damaged wires and connect ions. If it can not be replaced or repaired, contact our company after sale.
LED operator	LED display is correct Can the operation Department operate correctly? Is the operation Department dirty?	If LED or operation keys are in bad condition, please contact with our company after sale. Clean up and remove dirt. Do not wipe with water