Inline Fan Instructions

1. Overview

The iPower Inline Fan, an addition to the iPower family, utilizes the newest and advanced technology to offer an affordable air movement solution. The iPower Inline Fan features high efficiency centrifugal impeller and a high performance external rotor motor. The compact, lightweight, and powerful motor generates high rate of air flow with minimal vibration and noise, which prolongs the inline fan's service life. It's versatile and compact design allows easy and flexible installation. Not just used in indoor gardens and greenhouses, the iPower inline fan can be found in hotels, halls, meeting rooms, supermarkets, railway stations, airports and other public areas that require positive ventilation.

2. Product Structure

a) The iPower Inline Fan is composed of the chassis, impeller, external rotor motor, and junction box.

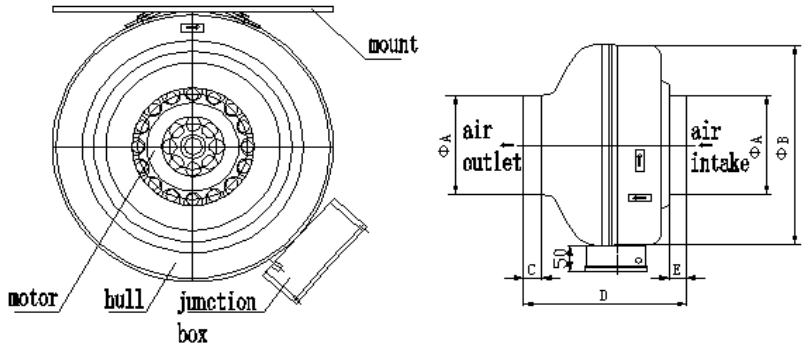
b) Chassis: Is made of a high-quality, cold-rolled steel. The surface is treated with a plastic sealant to provide a strong resistance to corrosion. CAD optimizations on the flow channel design to allow the impeller perform at its greatest efficiency. Inlet and outlet diameter flanges are easy to install, repair and clean. Specifications: ϕ100mm, ϕ125mm, ϕ150mm, ϕ160mm, ϕ200mm, ϕ250mm, ϕ315mm.

c) Impeller: diameter ϕ190mm, ϕ220mm, ϕ250mm. The curved-end blade impeller works with the fan casing in harmony; the fan can produce maximum air flow and efficiency while minimizing noise.

d) External Rotor Motor: A single-phase asynchronous external rotor motor is located on the chassis. The impeller is attached directly to the rotor motor by die-casting. The impeller is driven directly by rotor to minimize noise while providing high airflow and extending service life.

e) Junction box: The flame-retardant ABS plastic provides fireproof performance and is safe to use. The external location of the junction box allows for easy service and removal.

3. Dimensions:



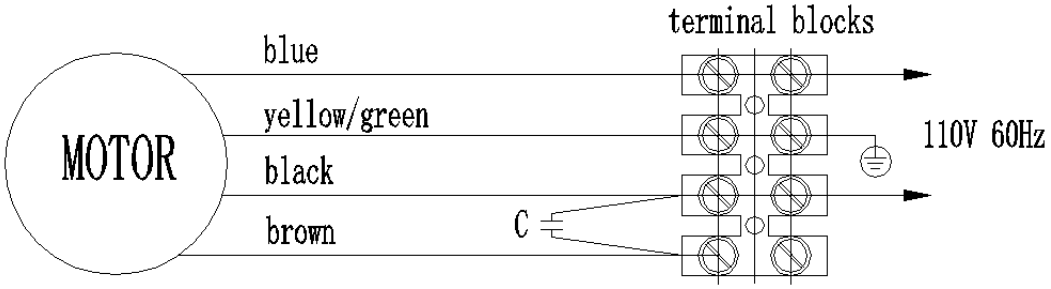
A---Air outlet and inlet diameter B---Cylindrical chasse diameter of
C---The length of a draft D---The total length of chasse
E---Length of air inlet

Model	ΦA	ΦB	C	D	E	Specification（mm）
F4	95	268	22	200	22	190
F6	145	268	30	269	25	225
F8	195	342	30	269	50	250
F10	250	342	30	279	50	250
F12	300	400	30	295	50	280

4. Operating Parameters

Model	Voltage (V)	Frequency (Hz)	Input Power (W)	Air velocity (CFM)	Speed (rpm)	Noise (dB)	Insulation class	Weighet（Kg）	Static（pa）
F4	110	60	74	190	2460	65	F	3.1	360
F6			95	442	2380	65		5.6	350
F8			137	745	2600	69		6.6	570
F10			174	862	2390	70		6.6	533
F12			290	1060	2378	71		7.0	704

5. Schematic wiring diagram



Single-speed centrifugal Circular Duct Fan wiring diagram

6. Installation & Troubleshooting

- Mount the fan on a stable platform via mounting brackets.
- Slide the mounting clamps over air duct
- Slide the air duct onto the flanges on the fan
- Tighten the clamps down with a flat-head screwdriver or a hex socket.
- Plug the 110V plug into a wall outlet to turn on the fan.

If the product had been in storage for more than six months, insulation resistance must be tested before use. Resistance to ground should be 20MΩ or more. Before starting the fan, use hands to drive impeller to insure smooth impeller rotation without obstruction. After connecting the power, observe the impeller rotation direction to be in the same direction with the nameplate. After confirming everything is functioning properly, leave it running for half an hour (30 minutes) to test the whether motor will have issues with overheating or undesirable noises. If the fan does not exhibit any signs of abnormal operations, it is safe to use and install.

To extend fan life, it is recommended that air filters and one-way valves be installed on the fan's inlet and outlet.

The circular fan must only be used indoors and be mounted with non-adhesive materials. Keep fan clean from dust and foreign contaminants. Both ends of the fan must be connected to the pipeline.

7. Repairs and Maintenance Notes

Under normal operating conditions, the fan should be cleaned every six months. Clean any dirt that may have accumulated inside the chassis and dust on the impeller, etc. Do not use water or any other liquid cleaning agent; use only a clean brush or a clean dry cloth to wipe away any loose dirt or dust. Proper cleaning ensures the fan operates at maximum efficiency against the impact of dust without impacting air flow. If it is used in environments that contain heavy dust, cleaning should occur more often to prevent the accumulation of dust that would impact normal operations.

Disassembly of the fan is extremely convenient.

- Remove the metal clamps from the flanges
- Remove the duct from the fan
- Dismount the fan from the mounting surface
- Remove the four screws that holds the fan housing
- Remove the junction box screw
- Remove 4 screws from the mounting bracket.

8. **Warning**

- Please read this manual carefully before installing.
- The fan's motor power is multiplied by the shaft power factor of the specific operating conditions. In order to prevent electrical overload, please DO NOT obstruct the inlet or outlet airflow as the motor is running.
- Avoid impact or physical damage of the unit as it will cause premature failure.
- Keep fan in a dry environment.
- In the transmission of air, or any other non-corrosive medium, inlet temperature must not exceed 80C. The amount of dust and other solid contaminant should not exceed 100g per cubic meter. Avoid viscosity and fiber material.
- This product is covered under 12 month manufacturer's warranty.