

### **SHUTTER MOUNTED EXHAUST FAN**





**OWNER'S MANUAL** 

# PLEASE READ AND SAVE THESE INSTRUCTIONS

PLEASE READ AND SAVE THESE INSTRUCTIONS. READ CAREFULLY BEFORE ATTEMPTING TO ASSEMBLE, INSTALL, OPERATE, OR MAINTAIN THE PRODUCT DESCRIBED. PROTECT YOURSELF AND OTHERS BY OBSERVING ALL SAFETY INFORMATION. FAILURE TO COMPLY WITH INSTRUCTIONS COULD RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE! RETAIN INSTRUCTIONS FOR FUTURE REFERENCE.

#### **BEFORE YOU BEGIN**

**WARNING!** Installation, troubleshooting, and replacement of parts are to be performed only by authorized service technicians.

#### **Electrical Requirements:**

- The motor amperage and voltage ratings must be checked for compatibility to supply voltage prior to final electrical connection. Please refer to the motor's nameplate label.
  - Wiring must conform to local, state, and national codes.

#### **Tools / Materials Needed:**

- Mounting Fasteners (8)
- Sealant or Caulk
- Regular Screwdriver Set

#### **Recommended Accessories:**

• Speed control for ILG8SF10V(APB-10A), ILG8SF12V(APB-12A), ILG8SF16V(APB-16A), ILG8SF18V(APB-18A), ILG8SF20V(APB-20A), ILG8SF24V(APB-24A)

#### UNPACKING

#### Contents:

- Shutter Mounted Exhaust Fan
- Owner's Manual

#### Inspect:

- After unpacking fan, carefully inspect for any damage that may have occurred during transit. Check for loose, missing, or damaged parts.
- Check all bolts, screws, set-screws, etc. for looseness that may have occurred during transit. Tighten as needed. Rotate propeller by hand to ensure it turns freely.
- See <u>General Safety Instructions</u> on page 3, and <u>Cautions and Warnings</u> as shown.

### **GENERAL SAFETY INSTRUCTIONS**

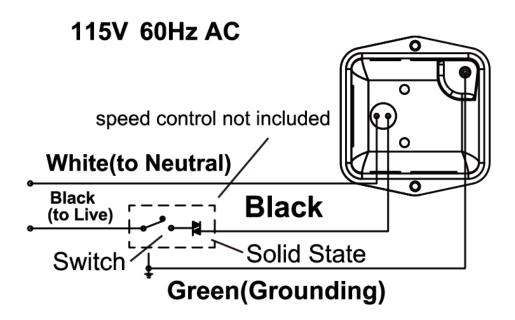
Fans are UL/cUL Listed, Standard 705.

- 1. Do not depend on any switch as the sole means of disconnecting power when installing or servicing the fan.
- 2. Always disconnect, lock-out, and tag-out power source before installing or servicing. Failure to disconnect power source can result in fire, shock, or serious injury.
- 3. Motor will restart without warning after thermal protector trips. Do not touch operating motor; it may be hot enough to cause injury.
- 4. Do not place body parts or objects in fan or motor openings while motor is connected to the power source.
- 5. All electrical connections should be made by a qualified electrician.
- 6. These utility exhaust fans are for general purpose exhaust applications only. Do not use these exhaust fans in an area where corrosive or explosive materials may be found.
- 7. Follow all local and state/provincial electrical and safety codes in the United States and Canada, as well as the National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA) in the United States, and the Canadian Electric Code (CEC) in Canada.
- 8. Always disconnect power source before working on or near a motor or its connected load.
- 9. Protect the power cable from coming in contact with sharp objects.
- 10. Do not kink or create tight bends in the power cable and never allow the cable to come in contact with oil, grease, hot surfaces, or chemicals.
- 11. Make certain that the power source conforms to the requirements of your specific exhaust fan model. The fan frame and motor must be electrically grounded to a suitable electrical ground, such as a grounded water pipe or ground wire system.
- 12. To reduce the risk of injury to persons, please observe the following: In the United States, OSHA compliant guards are required when fan is installed within 7 feet of the floor or working level. In Canada, CSA compliant guards are required when fan is installed below 2.5 meters (8.2 feet) above the floor or grade level.
- 13. Questions? Please contact our service center by calling 1-800-317-1688.

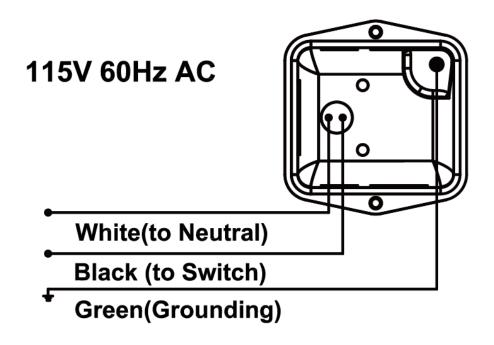
### **INSTALLATION INSTRUCTIONS**

- The unit should be securely mounted in a rigid framework.
   NOTE: Allowing the fan frame to flex or move will result in excess vibrations, which may cause possible premature motor, propeller, or shutter failure.
- 2. Install any auxiliary components such as thermostats, switches, or speed controls.
- 3. Connect power to the motor using an approved wiring method. Refer to the following wiring diagrams: Figure 1 & Figure 2.

Fan frame and motor must be securely and adequately grounded to a suitable electrical ground, such as a ground water pipe or ground wiring system.



**Figure 1**: Wiring Diagram - Speed Controllable. 115-volt connection. for ILG8SF10V(APB-10A), ILG8SF12V(APB-12A), ILG8SF16V(APB-16A), ILG8SF18V(APB-18A), ILG8SF20V(APB-20A), ILG8SF24V(APB-24A)

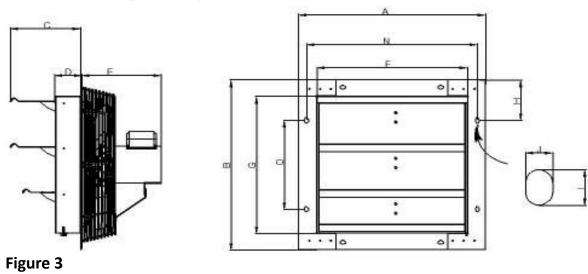


**Figure 2**: Wiring Diagram - Single speed. 115-volt connection. for ILG8SF18S(APB-18B), ILG8SF30S(APB-30B), ILG8SF36S(APB-36B)

## GENERAL SPECIFICATIONS

Power source	115V, 60Hz
Mounting Position	Vertical
Frame Material	Galvanized Steel
Shutter Blade Material	Aluminum Alloy
Propeller Material	Aluminum Alloy and Galvanized Steel
Agency Compliance	UL/cUL 705

### Dimensions (Inches)



Model	ILG8SF10V	ILG8SF12V	ILG8SF16V	ILG8SF18V	ILF8SF18S
	(APB-10A)	(APB-12A)	(APB-16A)	(APB-18A)	(APB-18B)
Prop. Dia	10"	12"	16"	18"	18"
Α	13"	15"	18 29/32"	21"	21"
В	13"	15"	18 29/32"	21"	21"
С	4 17/32"	5 3/4"	5 3/4"	5 3/4"	5 3/4"
D	2"	2"	2"	2"	2"
E	5 7/8"	6 5/32"	7 7/8"	8 3/4"	10 13/16"
N	11 21/32"	13 5/8"	17 3/4"	19 11/16"	19 11/16"
G	10 1/8"	12 1/8"	16"	18"	18"
F	10 1/8"	12 1/8"	16"	18"	18"
0	6"	8"	11 29/32"	14"	14"
Н	3 17/32"	3 1/2"	3 17/32"	3 17/32"	3 17/32"
J	9/32"	9/32"	9/32"	9/32"	9/32"

	1/2"	1/2"	1/2"	1/2"	1/2"
Suggested Wall Opening(Sq)	10 1/2"	13"	17"	19"	19"

Model	ILG8SF20V	ILG8SF24V	ILG8SF30S	ILG8SF36S
	(APB-20A)	(APB-24A)	(APB-30B)	(APB-36B)
Prop.Dia	20"	24"	30"	36"
Α	23"	27"	33"	39"
В	23"	27"	33"	39"
С	5 3/4"	5 3/4"	5 3/4"	5 3/4"
D	2"	2"	3"	3"
E	11"	11"	13 3/32"	13 11/16"
N	25 21/32"	25 21/32"	31 5/8"	37 21/32"
G	20"	24 1/8"	30 1/8"	36 5/32"
F	20"	24 1/8"	30 1/8"	36 5/32"
0	16"	20 1/32"	26"	32"
Н	3 17/32"	3 17/32"	3 17/32"	3 17/32"
J	9/32"	9/32"	9/32"	9/32"
l l	1/2"	1/2"	1/2"	1/2"
Suggested				
Wall	21"	25"	31"	37"
Opening(Sq)				

Model	Prop. Dia	Nom. HP	Amps	Nom. RPM	Bearing Type	Sones@ 0.0"SP@ 5"		Air ery@Sta ure Shov 0.125"	
ILG8SF10V (APB-10A)	10"	1/25	0.55	1550	Sleeve	6.19	600	354	N/A
ILG8SF12V (APB-12A)	12"	1/20	0.60	1625	Sleeve	5.9	772	418	N/A
ILG8SF16V (APB-16A)	16"	1/20	0.85	1550	Ball	6.39	1200	416	180
ILG8SF18V (APB-18A)	18"	1/15	0.85	1075	Ball	7.4	1736	1108	N/A
ILG8SF18S (APB-18B)	18"	1/4	3.50	1725	Ball	7.28	3852	2836	2172
ILG8SF20V (APB-20A)	20"	1/4	2.75	1075	Ball	6.67	3368	2312	1868
ILG8SF24V (APB-24A)	24"	1/4	2.75	1075	Ball	7.0	4244	2676	2220

ILG8SF30S (APB-30B)	30"	1/3	3.30	825	Ball	7.01	5088	3432	1552
ILG8SF36S (APB-36B)	36"	1/2	6.00	825	Ball	8.24	6128	4380	2620

### **OPERATING INSTRUCTIONS**

- 1. Keep the area free of objects that could impede air flow on both the intake and exhaust side of fan.
- For proper exhaust operation, a window, door, or louver should be opened for fresh air intake on the opposite side of the area to be ventilated.
- 3. Turn the fan ON; the shutter will open automatically. When the unit is turned OFF, the shutter will close.
- 4. Speed controllable units are designed to operate at a minimum of fifty percent line voltage.

### **MAINTAINANCE**

- 1. Disconnect power source before servicing.
- 2. Periodically clean off accumulated dirt from the propeller, guard, motor, and shutter.

Do not depend on any switch as the sole means of disconnecting power when installing or servicing. If power disconnect is not visible, utilize OSHA Lock out/Tag out procedure.

Failure to do so may result in fatal electrical shock.

Employ proper lock-out/tag-out procedures when performing maintenance.

### **TROUBLESHOOTING**

Symptom	Possible Cause(s)	Solution
	Dry motor bearings	Re-lubricate motor
		bearings as per instructions
		or replace motor.
	Loose propeller	Tighten set screws on propeller hub.

Excessive noise	Bent or damaged propeller	Replace propeller
	Loose guard assembly or motor fasteners.	Tighten as required to 15-20 lbs. per inch.
Fan inoperative	Blown fuse or open circuit breaker	Replace fuse or reset circuit breaker
	Defective motor	Replace motor
	Switch in OFF position	Turn switch ON
Insufficient air flow	Blocked intake or exhaust opening	Clear intake and exhaust openings of any obstructions. Clean motor, guard, propeller, and shutter assembly. Increase the opening of the fresh air intake.
	Low voltage	Check electrical wiring.
	Speed control set too low	Increase speed with controller

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