

“PF” Series Pit Fan

Instruction Manual



WARRANTY

CANARM Ltd. warrants every new fan to be free of defects in material and workmanship, to the extent that, within a period of one year from the date of purchase CANARM Ltd. shall either repair or replace at CANARM's option, any unit or part thereof, returned freight prepaid, and found to be defective.

This warranty does not include any labour or transportation costs incidental to the removal and reinstallation of the unit at the user's premises.

Components repaired or replaced are warranted through the remainder of the original warranty period only.

This warranty applies to the original purchaser-user only; it is null and void in case of alteration, accident, abuse, neglect, and operation not in accordance with instructions.

NOTICE: No warranty claims will be honored by CANARM Ltd. unless prior authorization is obtained.

**Installation or Product problems? Do not return to store of purchase.
Contact Canarm Service at 1-800-265-1833 (CANADA) 1-800-267-4427 (U.S.A.)
1-800-567-2513 (EN FRANCAIS) Monday to Friday 8:00 - 5:00pm e.s.t.**

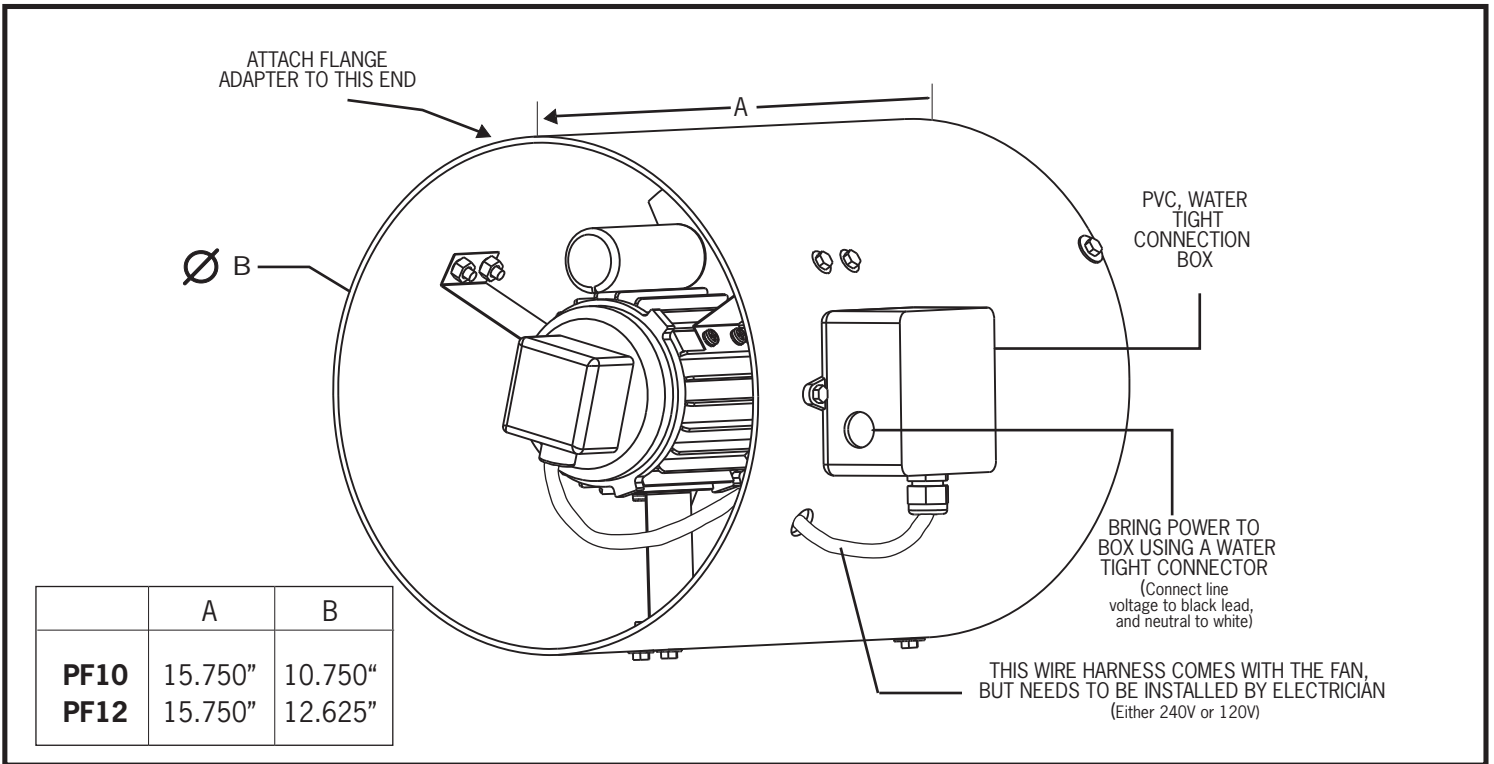


Instruction Manual for "PF" Series Pit Fan

READ AND SAVE THESE INSTRUCTIONS

MODELS: All Pit Fans

Congratulations on the purchase of your new CANARM LTD. Pit Fan. This exhaust fan is built into PVC ventilation duct tube and is designed to fit onto the end of a vent duct with a flange adapter to exhaust the pit area of swine buildings. The fan is preassembled for fast, easy installation. The fan utilizes stainless steel hardware, a plastic blade, a well sealed quality European motor with stainless steel shaft, powder coated steel wire guard and a weather-proof connection box for safe, long-lasting, trouble-free use in the harshest environments. The airfoil type blade and high RPM motor are designed to move air as required even under high static pressure conditions.



INSTALLATION

The fan is preassembled in a round PVC ventilation duct and can be connected to any size round PVC duct with the correct adaptor. The adaptor is not supplied. Follow the directions with the adaptor to connect the unguarded end of the fan to the vent duct.



WARNING: ADDITIONAL GUARDING SHOULD BE USED IF FAN IS INSTALLED IN OPEN AREA (accessible by children).

ELECTRICAL CONNECTIONS

The fan is tested for both 60Hz and 50Hz and can be wired either 240V or 120V (as per motor wiring diagram on page 3). With proper control (available from Canarm), these fans can be run at variable speed. **Notice: Never vary motor down to less than half of its maximum voltage (ie. if wired for 120V, minimum voltage should be 60V).** The power should be brought to the PVC connection box using a water-tight connector and following local codes by a qualified electrician. See table on next page for recommended wire sizes.

Note: A 9/32 or 7 mm wrench or socket is needed for wire connections.



WARNING: BE SURE POWER IS OFF AT THE ELECTRICAL PANEL BEFORE WIRING.

MOTOR WIRING DIAGRAM

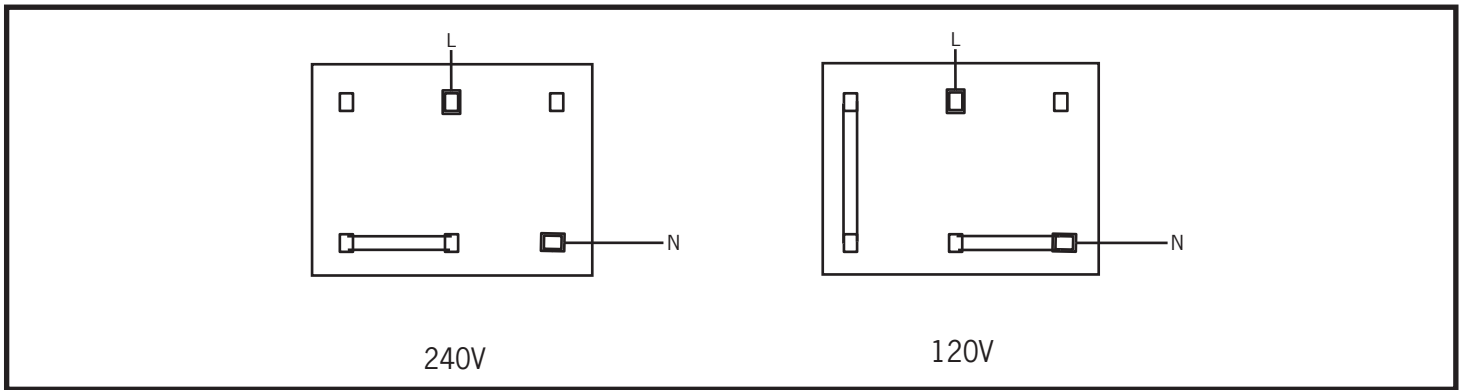


CHART #1

Table A Minimum Wire Sizes for Three-Phase Motors

Motor HP	25 to 50 Feet			100 Feet			150 to 200 Feet		
	200V	230V	460V	200V	230V	460V	200V	230V	460V
1/8	14(18)*	14(18)*	14(18)*	14(18)*	14(18)*	14(18)*	14(16)*	14(16)*	14(18)*
1/6	14(18)*	14(18)*	14(18)*	14(18)*	14(18)*	14(18)*	14	14(16)*	14(18)*
1/4	14(18)*	14(18)*	14(18)*	14(16)*	14(18)*	14(18)*	14	14	14(18)*
1/3	14(18)*	14(18)*	14(18)*	14(16)*	14(16)*	14(18)*	12	14	14(18)*
1/2	14(16)*	14(18)*	14(18)*	12	14(16)*	14(18)*	10	12	14(18)*
3/4	14(16)*	14(16)*	14(18)*	12	14	14(18)*	10	10	14(16)*
1	14	14(16)*	14(18)*	12	12	14(18)*	8	10	14(16)*
1-1/2	12	14	14(18)*	10	10	14(16)*	6	8	14
2	12	12	14(18)*	8	10	14(16)*	6	6	12
3	10	12	14(18)*	6	8	14	4	6	12

NOTE:

- NEC Article 310-5 - * Minimum conductor size for general wiring at 115-440VAC is number 14AWG.

Connecting Power to Motor

To connect motor for proper voltage and rotation, refer to the connection diagram on the nameplate or inside the terminal/conduit box.

Table B Minimum Wire Sizes for Single-Phase Motors

Motor HP	25 to 50 Feet			100 Feet			150 to 200 Feet		
	200V	230V	460V	200V	230V	460V	200V	230V	460V
1/8	14(18)*	14(18)*	14	14(18)*	12	14(18)*	10	8	14
1/6	14(16)*	14(18)*	12	14(18)*	10	14(16)*	6	6	12
1/4	14	14(18)*	10	14(16)*	8	14	6	4	10
1/3	14	14(18)*	10	14(16)*	8	14	6	4	10
1/2	12	14(18)*	8	14	6	12	4	3	8
3/4	10	14(16)*	6	12	4	10	2	1	6
1	10	14(16)*	6	12	4	10	2	1	6
1-1/2	8	14	6	12	3	8	1	1/0	6
2	8	14	4	10	2	8	1/0	2/0	4
3	6	12	3	8	1/0	6	2/0	4/0	3

NOTE:

- NEC Article 310-5 - * Minimum conductor size for general wiring at 115-440VAC is number 14AWG.
- Above wire sizes based on approximate 5% voltage drop during starting; copper conductors; and 75°C type THHW, THW, THWN, RH, RHW insulation etc. For aluminum wire, increase two wire size steps minimum. See NEC Article 310 for ampacities of aluminum conductors.
- Type S, SO, SJ, SJO, etc flexible cable wire sizes. See NEC Article 400 for ampacity.

MAINTENANCE

WARNING: Motors are equipped with automatic overload protection and may restart without warning. Disconnect before attempting maintenance.

The fan is virtually maintenance free. The only requirement is a regular wash down to keep the blade and motor relatively clean to ensure proper ventilation and prevent premature motor failure. As with all mechanical equipment scheduled inspections should include checking that all hardware is secure and blade set screws are tight.



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