

Part Number 463548 Multi Products MP-100A Motor Pack

UL Listed Electric Actuators With Spring Return
For Use With WD-100 Series Dampers

Installation Instructions

Motor Pack Contents

1. Actuator
 2. Actuator Bracket
 3. Actuator Arm Assembly
 4. Connecting Links
 5. Actuator Spring
 6. 1/4-20 Screws and Nuts
 7. #10 Screws and Nuts
- All necessary hardware included

1. The MP-100A motor pack is designed for installation on Model WD-100 series backdraft dampers *only*. When properly installed, the damper will be horizontally mounted (air flow up) and the motor pack will be on top of the damper.
2. Attach connecting link(s) to the damper link using the #10 hardware along with the bronze bushing(s) (see detail "B"). Use position "A" on most applications. Position "B" can be used on larger dampers when a negative pressure is present. The damper blades can be lifted to the open position to provide easier access when attaching the connecting link(s) to the damper link. Tighten all fasteners.

Note: Check that the connecting links are over the bushing(s) and not pinched between the end of the bushing and the screw or damper link.

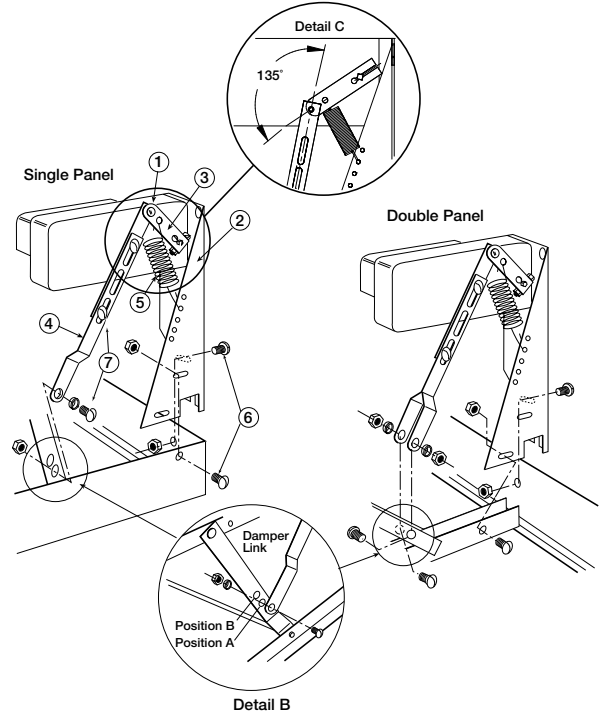
3. Attach the motor pack assembly to the damper frame with the 1/4 in. hardware provided. Assemble the connecting link(s) to the actuator arm assembly using the #10 hardware. The damper blades should be closed during this connection. The angle between the connecting links and the actuator arm should be approximately 135 degrees with a slight tension on the spring. Tighten the fasteners between the connecting link and the actuator arm assembly. Fasteners should be placed as far apart as possible. This will provide greater stability to the linkage. Operate the damper manually. Verify that the linkage fasteners do not interfere with any components of the assembly and that the damper blades close completely when released.

Note: The spring can be adjusted to provide more or less closing force. It is important not to use too much spring tension; use just enough to help close the damper. Too much tension could impair damper opening.

To adjust the spring, unhook the spring from the actuator bracket and reattach to the next hole that provides more or less tension.

4. Actuators are supplied with junction boxes and covers. When wiring, make sure the supply voltage agrees with the actuator voltage. On dual voltage motor packs, be sure to connect the proper motor leads for the correct voltage and insulate any unused wire. The voltage of each specific model is stamped into the actuator housing or on a label that is affixed to the actuator (see page 2 for typical wiring diagrams).
5. If the damper fails to operate properly, check for one of the following causes:

- Check for an 'out of square' or racked damper
- Check for mounting screws interfering with the blade and linkage rotation



5. If the damper fails to operate properly, check for one of the following causes:

- Check for an 'out of square' or racked damper
- Check for mounting screws interfering with the blade and linkage rotation
- Spring tension too great
- Excessive voltage drop
- Excessive negative pressure in the building

If the motor pack fails to function:

- Check for correct voltage
- Check for proper wiring

Motor Pack Quantity

One or two motor packs may be required depending on damper size. Single panel dampers have one column of blades and one actuator is installed as shown in the Single Panel view above. Double panel dampers have two columns of blades and one actuator is installed as shown in the Multiple Panel view above.

Actuator Specifications

MP-100A motor pack uses a single phase 60 Hz (50 Hz optional) shaded pole stall type impedance protected electric actuators and are supplied in various voltages (see chart below). For 277, 575 or 600 volt operation a transformer and a 115-volt motor pack is required.

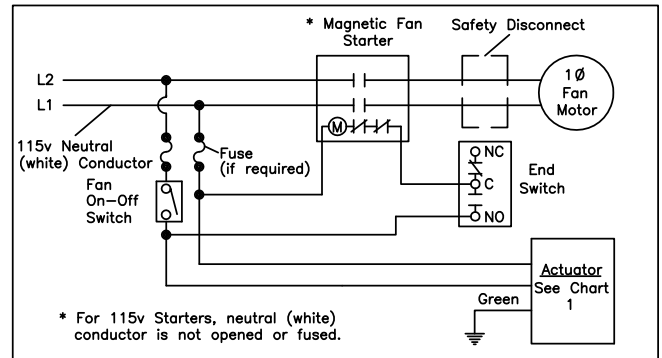
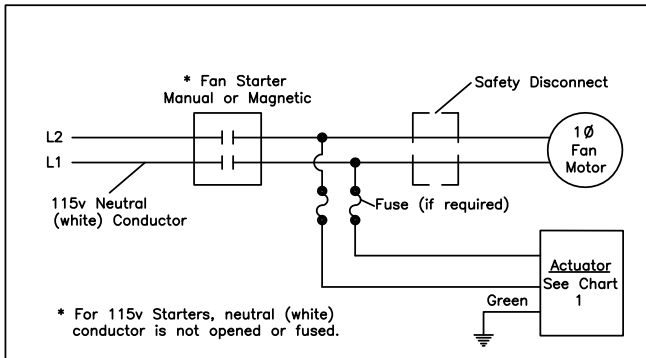
Motor packs	24V (60 Hz)	440V (60 Hz)	120V (50/60 Hz)	208V (50/60 Hz)	220V (50/60 Hz)	24V (50 Hz)	380V (50 Hz)
Stall Amps	.740	.047	.110	.050	.062	.100	.098
Spec ID#	3753	3752	3751	3751	3751	2651-A	2663-C

Typical Wiring Diagrams

MP-100A

Wiring diagrams are shown for motor packs and dampers installed with power ventilator fan equipment with single speed motor. The damper will open when the fan is on and close when the fan is off. For connection to 2-speed fan motors or for other control sequences consult the factory. The wiring diagrams shown with end switches are for applications where it is desirable to have the damper fully open before fan start-up.

Single Phase



Three Phase

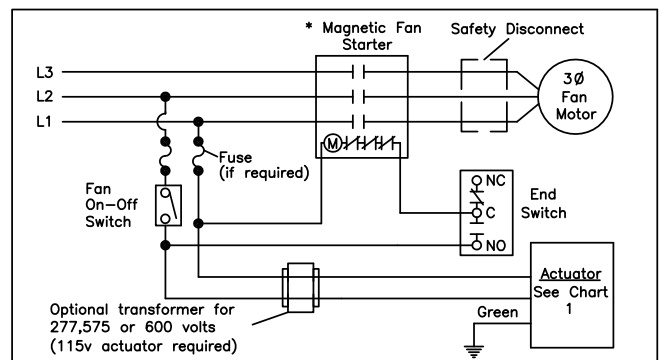
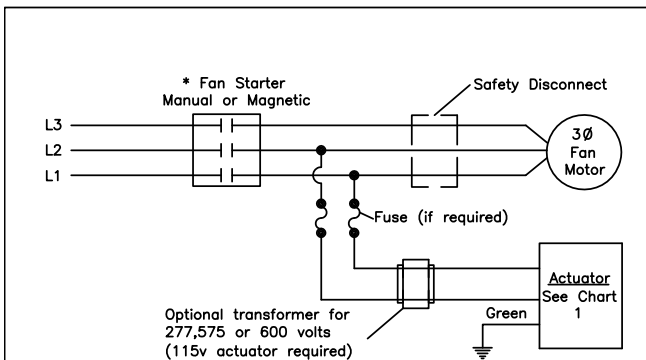
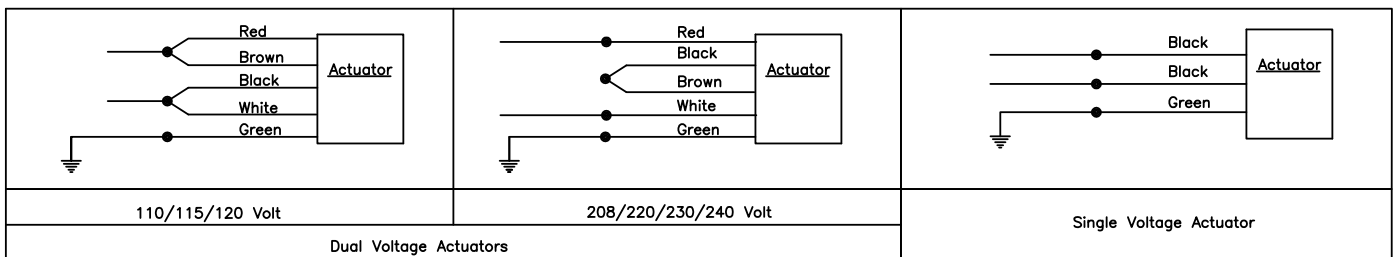
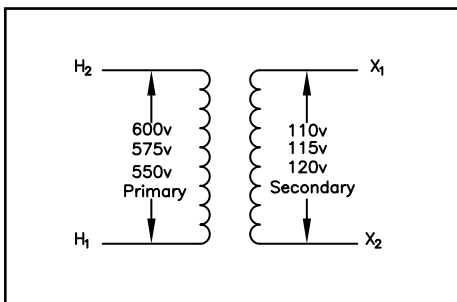


Chart 1



Transformers

575/600 Volt Transformer Model B050WZ13



208/220/277/460 Volt Transformer

