Part Number 463547

GREENHECK VENCO PRODUCTS

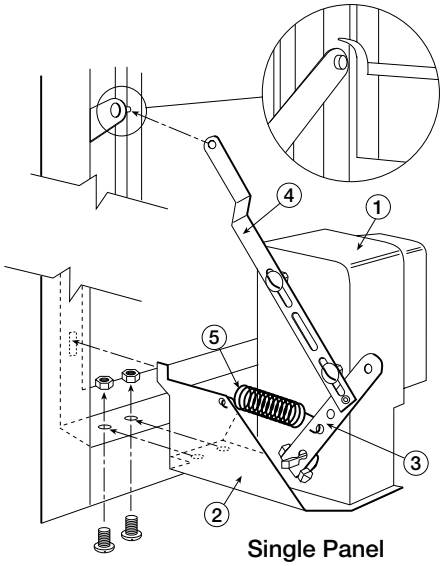
Multi Products
MP-310 Motor Pack

Field Installation Instructions

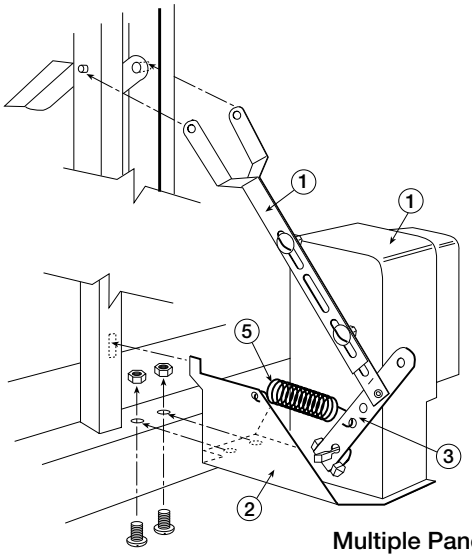
UL Listed Electric Actuators With Spring Return
For Use With WD-300 Series Dampers

Motor Pack Contents
1. Actuator
2. Actuator Bracket
3. Actuator Arm Assembly
4. Connecting Links
5. Actuator Spring

All hardware included



Single Panel



Multiple Panel

Note: When two panels or more, use the multiple panel method for all actuators.

1. MP-310 motor packs are designed for use on model WD-300 series backdraft dampers only.

2. For single panel damper, insert tab of Actuator Bracket into the slot on the side of the frame. For dampers with center bars, the tab of the Actuator Bracket should be inserted into the slot on the bottom of the center bearing rail. Position bracket over the two holes on the bottom of the frame and secure with the #10 hardware provided.

3. Position the Connecting Link(s) on the second blade pivot from the bottom of the damper. Slip the Connecting Link over the bushing and with a needle nose pliers bend the tab over to the position shown in detail "A". This will hold the Connecting Link in place on the pivot.

4. To adjust the Actuator Linkage Assembly, pull back on the Actuator Arm Assembly until a slight amount of tension has been applied to the Actuator Spring. Tighten the fasteners between the Connecting Link and the Actuator Arm Assembly. Fasteners should be placed as far apart as possible. This provides greater stability to the linkage. To increase spring tension, raise the spring up on the bracket. To decrease spring tension, lower the spring.

   NOTE: It is important to avoid too much spring tension; use just enough tension to help close the damper. Too much tension could impair opening of the damper.

5. Actuators are supplied with junction boxes and covers. When wiring, make sure the voltage is correct. 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).

6. If the damper fails to open properly, check for one of the following causes:
   A. Motor pack fails to open the damper completely.
      - Check for an 'out of square' or racked damper.
      - Spring tension too great.
      - Excessive voltage drop.
   B. 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 on actuator is installed as shown in the Multiple panel view above. Triple panel dampers have three columns of blades and two actuators are installed as shown in the Multiple panel view above.

Actuator Specifications

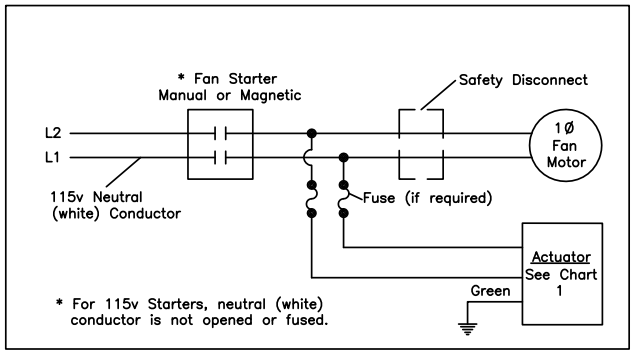
MP-310 motor packs use single phase 60hz (50hz optional) shaded pole stall type impedance protected electric actuators and are supplied in various voltages(see chart below). For 277, 575 or 600 volt operation a transformer and 115 volt motor pack is required.

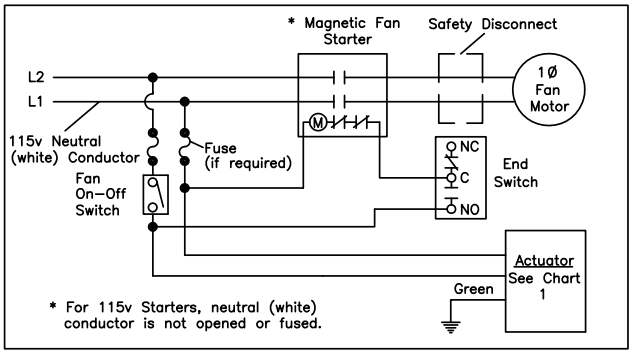
Motor packs	24V (60 Hz)	440V (60 Hz)	120V (50/60 Hz)	208V (50/60 Hz)	220V (50/60 Hz)	24V (50 Hz)	380V (50 Hz)
Stall Amps	.740	.047	.110	.050	.062	.100	.098
Spec ID#	3753	3752	3751	3751	3751	2651-A	2663-C

TYPICAL WIRING DIAGRAMS MP-310

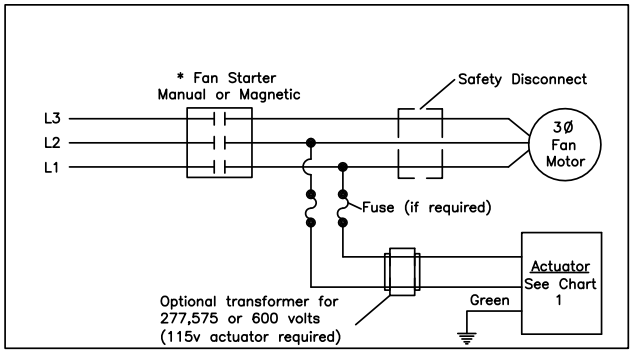
Wiring diagrams are shown for motor packs and dampers installed with power ventilator fan equipment with single speed motor. The damper will open when the fan is on and close when the fan is off. For connection to 2-speed fan motors or for other control sequences consult the factory. The wiring diagrams 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



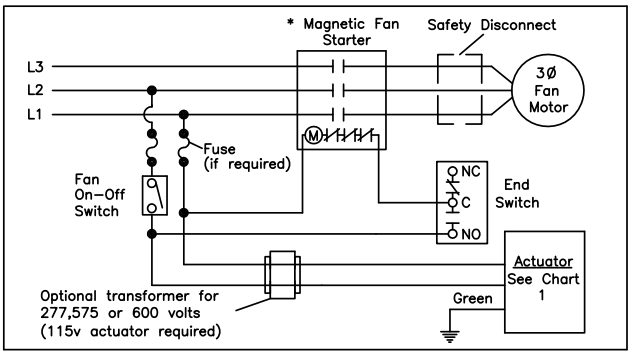
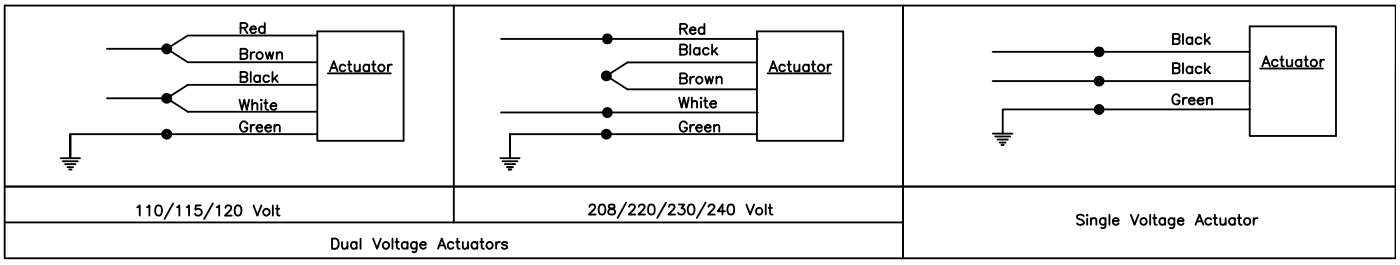
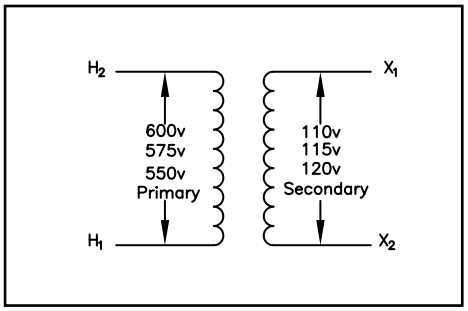


Chart 1

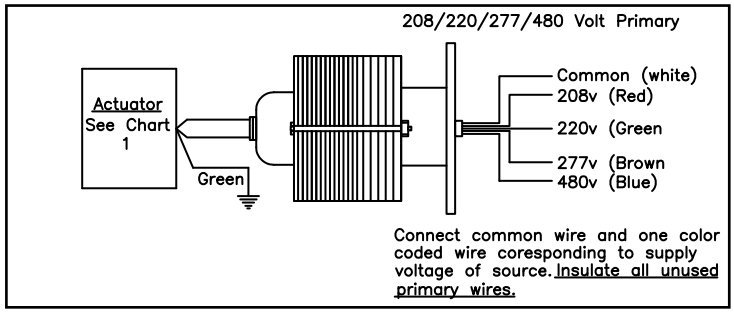


Transformers

575/600 Volt Transformer Model B050WZ13



208/220/277/460 Volt Transformer



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