

Y68 Series Transformers for M100 Series Motor Actuators

The Y68 cover assembly transformer is specifically designed for use with M100 Series motor actuators. The Y68 fits directly on top of the actuator, replacing the old cover with a combination transformer and cover assembly.

The Y68 transformers provide 24 VAC required for operation of M100A, F, G, J, M, and Q motor actuators. Primary voltages of 120 VAC and 240 VAC are available. A 24 VAC to 24 VAC isolation transformer model is also available.



Figure 1: Y68 Transformer

Note: The Y68 Series transformers will not fit on M100C or E motor actuators.

Installation

1. Loosen the two cover screws on the M100 actuator using a 1/4 in. flat-blade screwdriver, and remove the existing cover. (See Figure 2.)

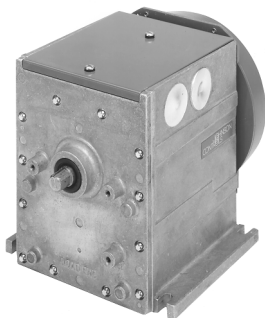


Figure 2: M100 Actuator with the Original Cover

2. Connect the wires from the Y68 transformer to the M100 circuit board as follows (See Figure 3.):
 - brown/white wire to Terminal T1 (common terminal for M100F motor actuator only)
 - orange/white wire to Terminal T2

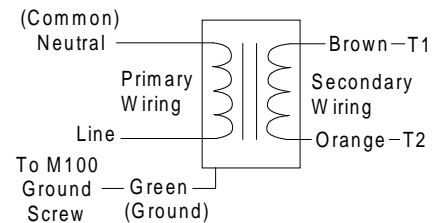


Figure 3: Wiring Diagram

3. Connect the green ground wire to the green screw located inside the M100 wiring compartment.
4. Refer to Table 1 and the appropriate M100 (A, F, G, J, M or Q) motor actuator bulletin to complete the connections to external power and the control wiring.

Table 1: Primary Wire Colors

Product Code Number	Primary Voltage	Wire Colors
Y68AA-1	120 VAC	White and Black (1 ea.)
Y68DA-1	240 VAC	Yellow and Black (1 ea.)
Y68HA-1	24 VAC	Brown/white Orange/white

5. Install the Y68 transformer and cover assembly using a 1/4 in. flat-blade screwdriver. (See Figure 4.)

Note: Allow approximately 5 in. of clearance above the Y68 transformer for cover removal and wiring access.



Figure 4: Y68 Transformer Mounted on an M100 Actuator

Replacement and Repair

Field repairs must not be made. For a replacement transformer/cover assembly, refer to *the Ordering Information* section, and contact the nearest Johnson Controls representative.

Ordering Information

Y68AA-1	120/24 VAC Transformer
Y68DA-1	240/24 VAC Transformer
Y68HA-1	24/24 VAC Transformer

Table 2: Products Available

Product Code Number	Description
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Specifications

Product	Y68 Series Transformers for M100 Series Motor Actuators
Full Load Secondary Voltage	24V ± 1V at 60 Hz
Frequency	60 Hz
VA Rating	40 VA, NEC Class 2, Energy Limiting
Material	Frame: Cold drawn steel Laminations: Soft silicon iron
Open Circuit Secondary Voltage (No Load)	26.6 ± 0.6 VAC
Electrical Connections	Primary: 27 in. (686 mm) wire leads, 18 AWG (See Table 1.) Secondary: 5 in. (127 mm) wire leads, one brown and one orange, with 1/4 in. quick connects
Dimensions (H x W x D)	2.16 in. x 4.03 in. x 4.81 in. (54.8 mm x 102.4 mm x 122.2 mm)
Shipping Weight	1.9 lb (0.9 kg)
Agency Compliance	Y68AA: UL Recognized, File E25482, Guide XOKV2; CSA Certified, File LR86122, Class 5421 01 Y68DA: UL Recognized, File E25482, Guide XOKV2 Y68HA: None

The performance specifications are nominal and conform to acceptable industry standards. For application at conditions beyond these specifications, consult the local Johnson Controls office. Johnson Controls, Inc. shall not be liable for damages resulting from misapplication or misuse of its products.



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