

## Series Y63, Y64, Y65, Y66, and Y69 Transformers

### Application

The series Y63, Y64, Y65, Y66, and Y69 transformers handle 24 VAC power requirements from 40 VA through 300 VA. These transformers are designed for use on digital controllers, gas controls, ignition systems, motor actuators, staging controls, and most other 24 VAC Heating, Ventilation, Air Conditioning (HVAC) and Refrigeration control systems.

The Y6x Series meets the requirements of UL 1585, UL 506, and CSA C22.2 No. 66, providing compliance in both the United States and Canada. The Y63, Y64, Y65, and Y66 transformers are listed as Class 2 transformers (UL 1585, CSA C22.2 No. 66). The Y69 is listed as a general purpose transformer (UL 506, CSA C22.2 No. 66).

Refer to *Series Y63, Y64, Y65, Y66, and Y69 Transformers Product Bulletin (LIT-125755)* for additional information and specifications on this Series of 24 VAC output transformers.

### Location Considerations

Consider the following when installing a transformer.

- These transformers are not position sensitive, but should be mounted in an accessible location where they can be easily wired and examined.
- Make sure the selected transformer's base fits the mounting footprint and the application's other space requirements.
- Do not mount the transformer where it will be exposed to water, condensation, high humidity, or corrosive or hazardous liquids and vapors.

### Installation

Read these instructions carefully. Failure to follow them could damage the transformer or cause a hazardous condition.

1. These transformers should only be installed by experienced, trained service technicians.
2. Check the electrical ratings and specifications on the product label to ensure the transformer matches the application requirements.
3. After installation, follow the checkout procedures as described in these instructions. See *Checkout*.

### Wiring



#### WARNING: Risk of Electrical Shock.

To avoid the risk of electrical shock, disconnect all power sources to the transformer and the controlled equipment before wiring or unwiring any connections.



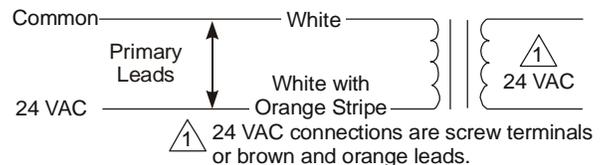
#### CAUTION: Risk of Equipment Damage.

Do not exceed the transformer's electrical ratings. Exceeding the transformer's electrical ratings may trip the system's load control device, or damage the transformer or system it is wired to.

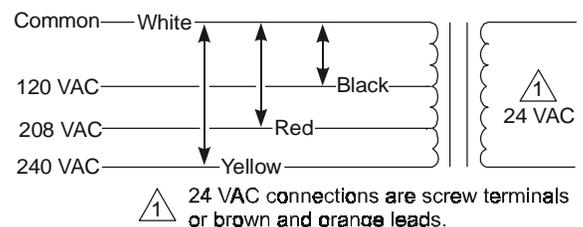
**IMPORTANT:** All wiring must conform to the local, national, and regional regulations. Use only copper conductors for all wiring connections.

Follow instructions below:

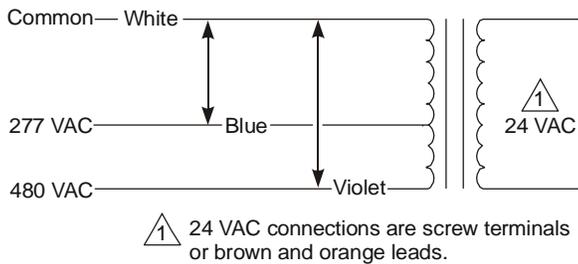
1. With the line-voltage supply power disconnected, wire the appropriate primary leads from the transformer to the line voltage power supply terminals or leads. See Figures 1, 2, and 3.
2. Connect the transformer secondary leads to the 24 VAC control system or load.
3. Properly insulate and secure all unused, exposed wire-leads separately.



**Figure 1: Wire Color Codes and Voltage for 24 VAC (Primary) Y6X Series Transformers**



**Figure 2: Wire Color Codes and Voltages for 120/208/240 VAC Y6X Series Transformers**



**Figure 3: Wire Color Codes and Voltages for 277/480 VAC Y6X Series Transformers**

## Checkout

After installation is complete, reconnect the supply power. Operate the controlled equipment and observe it through at least three complete cycles. Check voltages and ampere demand at the transformer. Verify the transformer and controlled equipment function as intended.

## Repairs and Replacement

Field repairs to transformers must not be made. For a replacement transformer, contact the nearest Johnson Controls distributor or sales representative.

## Technical Specifications

<b>Product</b>	Series Y63, Y64, Y65, Y66, Y69 Transformers	
<b>Input Power Requirements</b>	24-480 VAC at 60 Hz	
<b>Full Load Secondary Voltage</b>	23.5 VAC (Nominal)	
<b>Open Circuit Secondary Voltage (No Load)</b>	27.0 VAC (Nominal)	
<b>Full Load Secondary VA Rating</b>	<b>Model Type</b>	<b>Volt-Amperes</b>
	Y63	50 VA
	Y64	92 VA
	Y65	40 VA
	Y66	75 VA
	Y69	300 VA
<b>Finish</b>	Endbells, frame, feet, and mounting plates are zinc plated.	
<b>Ambient Operating Temperature</b>	-40 to 104°F (-40 to 40°C)	
<b>Ambient Storage Temperature</b>	-40 to 140°F (-40 to 60°C)	
<b>Shipping Weight</b>	Y63	3.0 lb/1.4 kg
	Y64	4.0 lb/1.8 kg
	Y65	2.0 lb/0.9 kg
	Y66	3.0 lb/1.4 kg
	Y69	11.0 lb/5.0 kg
<b>Agency Compliance</b>	UL Listed Y63, Y64, Y65, Y66; File E25482 or E95575, CCN's XOKV (US) and XOKV7 (Canada) UL Recognized Y63, Y64, Y65, Y66; File E25482 or E95575, CCN's XOKV2 (US) and XOKV8 (Canada) UL Listed Y69; File E37177 or E95138, CCN's XPTQ (US) and XPTQ7 (Canada) All transformers are Class 2 except the Y69 (300 VA), which is listed as a power transformer.	

The performance specifications are nominal and conform to acceptable industry standards. For application at conditions beyond these specifications, consult the local Johnson Controls office or call 1-800-275-5676. Johnson Controls, Inc. shall not be liable for damages resulting from misapplication or misuse of its products.

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