

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

### Description

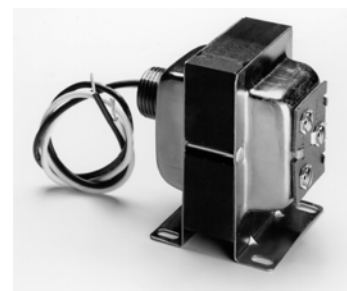
The Y63, Y64, Y65, Y66, and Y69 Series Transformers provide 24 VAC power for loads of 40 VA through 300 VA. These transformers are designed for use on digital controllers, gas controls, ignition systems, motor actuators, staging controls, and most other 24 VAC HVAC/R control systems.

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 the *Series Y63, Y64, Y65, Y66, and Y69 Transformers Product Bulletin (LIT-125755)* for important product application information.

### Features

- split-bobbin design provides best primary/secondary isolation
- multi-tap primaries reduce stocking requirements and offer application flexibility
- choice of foot, plate, or conduit hub mounting provides mounting flexibility
- choice of primary voltages meets a wide range of power requirements from 24 VAC through 480 VAC
- color-coded lead wires provide simplicity and standardization
- cULus listed or cURus recognized meets US and Canadian requirements for Class 2 transformers (Y63, Y64, Y65, and Y66) and general purpose transformers (Y69)
- built-in, easy-reset circuit breakers eliminate replacement time and cost caused by burn-out (Y63, Y64, Y66, and Y69)
- open frame Y65 models serve as ideal models when end bells are not required



Y65 Series Transformer

### Repair Information

Do not make any field repairs to transformers. For a replacement transformer, contact the nearest Johnson Controls® distributor or sales representative.

### Selection Chart

#### Y63, Y64, Y65, Y66, and Y69 Series Transformers (Part 1 of 2)

| Product Code Number  | Primary Voltage VAC | Secondary Voltage VAC | Primary Connection                             | Secondary Connection                             | Mounting                                 | Agency Requirement |
|--|---------------------|-----------------------|--|--|--|--------------------|
| <b>40 VA Capacity Transformers with Energy Limiting Type Overload Protection</b> |                     |                       |  |  |  |                    |
| Y65G13-0   | 24                  | 24                    | External Fitting<br>8 in. primary leads        | External Fitting<br>30 in. secondary leads       | Foot                                     | cULus Class 2      |
| Y65A13-0   | 120                 | 24                    | External Fitting<br>8 in. primary leads        | External Fitting<br>30 in. secondary leads       | Foot                                     | cULus Class 2      |
| Y65A21-0   | 120                 | 24                    | End bell holes<br>8 in. primary leads          | Three screw terminals<br>(one is blind)          | 4 in. x 4 in. plate                      | cULus Class 2      |
| Y65T31-0   | 120/208/240         | 24                    | External Fitting<br>8 in. primary leads        | Three screw terminals<br>(one is blind)          | Foot<br>4 in. x 4 in. plate <sup>1</sup> | cULus Class 2      |
| Y65T42-0   | 120/208/240         | 24                    | Common External Fitting<br>8 in. primary leads | Common External Fitting<br>8 in. secondary leads | Hub<br>4 in. x 4 in. plate <sup>1</sup>  | cURus Class 2      |
| Y65T54-0   | 120/208/240         | 24                    | 8 in. primary leads                            | 8 in. secondary leads                            | Foot-skeleton                            | cURus Class 2      |
| Y65S13-0   | 208/240             | 24                    | External Fitting<br>8 in. primary leads        | External Fittings<br>30 in. secondary leads      | Foot                                     | cULus Class 2      |
| Y65F13-0   | 277/480             | 24                    | External Fitting<br>8 in. primary leads        | External Fitting<br>30 in. secondary leads       | Foot                                     | cULus Class 2      |
| Y65F42-0   | 277/480             | 24                    | Common External Fitting<br>8 in. primary leads | Common External Fitting<br>8 in. secondary leads | Hub<br>4 in. x 4 in. plate <sup>1</sup>  | cURus Class 2      |
| <b>50 VA Capacity Transformers with Circuit Breakers</b>                         |                     |                       |  |  |  |                    |
| Y63T22-0   | 120/208/240         | 24                    | End bell Hole<br>8 in. primary leads           | End bell Hole<br>8 in. secondary leads           | 4 in. x 4 in. plate                      | cURus Class 2      |
| Y63T31-0   | 120/208/240         | 24                    | External Fitting<br>8 in. primary leads        | Three screw terminals<br>(one is blind)          | Foot<br>4 in. x 4 in. plate <sup>1</sup> | cULus Class 2      |
| Y63F22-0   | 277/480             | 24                    | End bell Hole<br>8 in. primary leads           | End bell Hole<br>8 in. secondary leads           | 4 in. x 4 in. plate                      | cURus Class 2      |



## Relays and Transformers

### Y63, Y64, Y65, Y66, and Y69 Series Transformers (Continued)

#### Y63, Y64, Y65, Y66, and Y69 Series Transformers (Part 2 of 2)

| Product Code Number                                       | Primary Voltage VAC | Secondary Voltage VAC | Primary Connection                             | Secondary Connection                             | Mounting | Agency Requirement         |
|---|---------------------|-----------------------|--|--|----------|----------------------------|
| <b>75 VA Capacity Transformers with Circuit Breakers</b>  |                     |                       |  |  |          |                            |
| Y66T12-0  | 120/208/240         | 24                    | Common External Fitting<br>8 in. primary leads | Common External Fitting<br>8 in. secondary leads | Foot     | cURus Class 2              |
| Y66T13-0  | 120/208/240         | 24                    | External Fitting<br>8 in. primary leads        | External Fitting<br>30 in. secondary leads       | Foot     | cULus Class 2              |
| Y66F12-0  | 277/480             | 24                    | Common External Fitting<br>8 in. primary leads | Common External Fitting<br>8 in. secondary leads | Foot     | cURus Class 2              |
| Y66F13-0  | 277/480             | 24                    | External Fitting<br>8 in. primary leads        | External Fitting<br>30 in. secondary leads       | Foot     | cULus Class 2              |
| <b>92 VA Capacity Transformers with Circuit Breakers</b>  |                     |                       |  |  |          |                            |
| Y64T15-0  | 120/208/240         | 24                    | External Fitting<br>8 in. primary leads        | Internal Fitting<br>30 in. secondary leads       | Foot     | cULus Class 2              |
| Y64T21-0  | 120/208/240         | 24                    | End bell holes<br>8 in. primary leads          | Three screw terminals<br>(one is blind)          | Plate    | cULus Class 2              |
| Y64T22-0  | 120/208/240         | 24                    | End bell Hole<br>8 in. primary leads           | End bell Hole<br>8 in. secondary leads           | Plate    | cURus Class 2              |
| <b>300 VA Capacity Transformers with Circuit Breakers</b> |                     |                       |  |  |          |                            |
| Y69T15-0  | 120/208/240         | 24                    | External Fitting<br>8 in. primary leads        | Internal Fitting<br>30 in. secondary leads       | Foot     | cULus<br>Power Transformer |

1. 4 in. x 4 in. plate and nut packed with transformer.

#### Technical Specifications

| Series Y63, Y64, Y65, Y66, Y69 Transformers |   |        |               |     |               |     |               |     |               |     |                |     |        |
|---|---|--------|---------------|-----|---------------|-----|---------------|-----|---------------|-----|----------------|-----|--------|
| Input Power Requirements                    | 24 to 480 VAC at 60 Hz  |        |               |     |               |     |               |     |               |     |                |     |        |
| Full Load Secondary Voltage                 | 23.5 VAC (Nominal)  |        |               |     |               |     |               |     |               |     |                |     |        |
| Open Circuit Secondary Voltage (No Load)    | 27.0 VAC (Nominal)  |        |               |     |               |     |               |     |               |     |                |     |        |
| Full Load Secondary VA Rating               | <table border="1" style="width: 100%;"> <thead> <tr> <th>Series</th> <th>Volt-Amperes</th> </tr> </thead> <tbody> <tr> <td>Y63</td> <td>50 VA</td> </tr> <tr> <td>Y64</td> <td>92 VA</td> </tr> <tr> <td>Y65</td> <td>40 VA</td> </tr> <tr> <td>Y66</td> <td>75 VA</td> </tr> <tr> <td>Y69</td> <td>300 VA</td> </tr> </tbody> </table> | Series | Volt-Amperes  | Y63 | 50 VA         | Y64 | 92 VA         | Y65 | 40 VA         | Y66 | 75 VA          | Y69 | 300 VA |
| Series                                      | Volt-Amperes  |        |               |     |               |     |               |     |               |     |                |     |        |
| Y63   | 50 VA   |        |               |     |               |     |               |     |               |     |                |     |        |
| Y64   | 92 VA   |        |               |     |               |     |               |     |               |     |                |     |        |
| Y65   | 40 VA   |        |               |     |               |     |               |     |               |     |                |     |        |
| Y66   | 75 VA   |        |               |     |               |     |               |     |               |     |                |     |        |
| Y69   | 300 VA  |        |               |     |               |     |               |     |               |     |                |     |        |
| Finish                                      | End bells, frame, feet, and mounting plates are corrosion resistant   |        |               |     |               |     |               |     |               |     |                |     |        |
| Ambient Operating Temperature               | -40 to 104°F (-40 to 40°C)  |        |               |     |               |     |               |     |               |     |                |     |        |
| Ambient Storage Temperature                 | -40 to 140°F (-40 to 60°C)  |        |               |     |               |     |               |     |               |     |                |     |        |
| Shipping Weight                             | <table border="1" style="width: 100%;"> <tbody> <tr> <td>Y63</td> <td>3.0 lb/1.4 kg</td> </tr> <tr> <td>Y64</td> <td>4.0 lb/1.8 kg</td> </tr> <tr> <td>Y65</td> <td>2.0 lb/0.9 kg</td> </tr> <tr> <td>Y66</td> <td>3.0 lb/1.4 kg</td> </tr> <tr> <td>Y69</td> <td>11.0 lb/5.0 kg</td> </tr> </tbody> </table>                           | 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 |     |        |
| 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  |        |               |     |               |     |               |     |               |     |                |     |        |
| Agency Compliance                           | UL Listed Y63, Y64, Y65, Y66; File E95575, CCN's XOKV (US) and XOKV7 (Canada)<br>UL Recognized Y63, Y64, Y65, Y66; File E95575, CCN's XOKV2 (US) and XOKV8 (Canada)<br>UL Listed Y69; File E95138, CCN's XPTQ (US) and XPTQ7 (Canada)<br>All transformers are Class 2 except the Y69 (300 VA), which is listed as a power transformer.  |        |               |     |               |     |               |     |               |     |                |     |        |