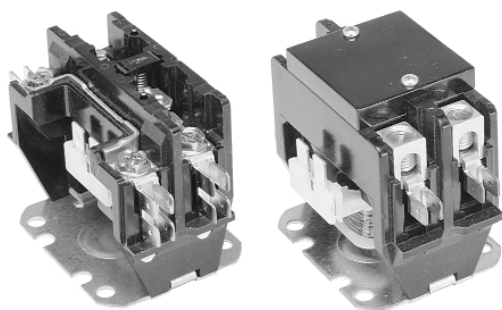




# Model 96 - 3100 series

## Definite Purpose Contactor 1- or 2-pole, 20-40 FLA AC Coil

**UL** File E75492  
**CE** File EN60947-4-1:1991  
IEC 947-4-1

Users should thoroughly review the technical data before selecting a product part number. It is recommended that users also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

### Features

- Robust 1- and 2-pole contactors.
- Shunt available on 1-pole models.
- Convenient mounting plate.

### Contact Data @ 25°C

**Arrangements:** 1 Form X (SPST-NO-DM) with or without shunt and 2 Form X (DPST-NO-DM).

**Maximum Ratings:** See Contact Ratings Table.

**Material:** Silver Cadmium Oxide.

### Coil Data @ 25°C

**Voltage:** 24 - 277 VAC, 50/60 Hz. See Coil Data Table below.

**Insulation Class:** UL Class B (130°C).

**Duty Cycle:** Continuous.

### Environmental Data

**Temperature Range:** Storage and Operating: -40°C – +65°C.

**Flammability:** UL 94-HB housing.

### Mechanical Data

**Contact Termination:**

**20, 25, 30 FLA Models**

**Type:** #10-32 Screw with quad 0.250" (6.35 mm) quick connects.

**Wire Size:** 16-8 AWG (Stranding must be split for 8 AWG wire.)

**Tightening Torque:** 25 in.-lbs.

**40 FLA Models**

**Type:** Box Lug with dual 0.250" (6.35 mm) quick connects.

**Wire Size:** 14-4 Cu/Al AWG

**Tightening Torque:** 40 in.-lbs.

**Coil Termination:** Dual 0.250" (6.35 mm) quick connects.

**Arc Cover:** Optional on 20-30 FLA models, standard on 40 FLA models.

**Weight:** One Pole Types: 8 oz. (227 g) approximately.

Two Pole Types: 9.6 oz. (273 g) approximately

### Contact Ratings

| Full Load Amps | Number of Poles | Line Voltage | Locked Rotor Amps | Resistive Amps Rating | Maximum Horsepower |              |
|----------------|-----------------|--------------|-------------------|-----------------------|--------------------|--------------|
|                |                 |              |                   |                       | Voltage            | Single Phase |
| 20             | 2               | 240/277      | 120               | 30                    | 120                | 2            |
|                |                 | 480          | 100               | 30                    | 240                | 3            |
|                |                 | 600          | 80                | 30                    |                    |              |
| 25             | 1               | 240/277      | 150               | 30                    | 120                | 1            |
|                |                 | 480          | 50                | 30                    | 240                | 2            |
|                |                 | 600          | 40                | 30                    |                    |              |
| 25             | 2               | 240/277      | 150               | 35                    | 120                | 2            |
|                |                 | 480          | 125               | 35                    | 240                | 3            |
|                |                 | 600          | 100               | 35                    |                    |              |
| 30             | 1               | 240/277      | 150               | 40                    | 120                | 1            |
|                |                 | 480          | 75                | 40                    | 240                | 2            |
|                |                 | 600          | 50                | 40                    |                    |              |
| 30             | 2               | 240/277      | 150               | 40                    | 120                | 2            |
|                |                 | 480          | 125               | 40                    | 240                | 3            |
|                |                 | 600          | 100               | 40                    |                    |              |
| 40             | 1               | 240/277      | 240               | 50                    | 120                | 2            |
|                |                 | 480          | 200               | 50                    | 240                | 3            |
|                |                 | 600          | 160               | 50                    |                    |              |
| 40             | 2               | 240/277      | 240               | 50                    | 120                | 2            |
|                |                 | 480          | 200               | 50                    | 240                | 3            |
|                |                 | 600          | 160               | 50                    |                    |              |

### Coil Data

|                              | 1-Pole Models |         |          |          | 2-Pole Models |         |          |          |
|------------------------------|---------------|---------|----------|----------|---------------|---------|----------|----------|
| Nominal Coil Voltage         | 24            | 120     | 208/240  | 277      | 24            | 120     | 208/240  | 277      |
| Maximum Pickup Volts         | 18            | 88      | 177      | 221      | 18            | 88      | 177      | 221      |
| Drop-Out Volts Range         | 6 - 15        | 20 - 70 | 40 - 140 | 50 - 165 | 6 - 15        | 20 - 70 | 40 - 140 | 50 - 165 |
| Nominal Inrush VA @ 50 Hz    | 22.5          | 22.5    | 22.5     | 22.5     | 37            | 37      | 37       | 37       |
| Nominal Inrush VA @ 60 Hz    | 20            | 20      | 20       | 20       | 35            | 35      | 35       | 35       |
| Nominal Sealed VA @ 50 Hz    | 7             | 7       | 7        | 7        | 8             | 8       | 8        | 8        |
| Nominal Sealed VA @ 60 Hz    | 5.25          | 5.25    | 5.25     | 5.25     | 7             | 7       | 7        | 7        |
| Nominal DC Resistance - Ohms | 16.5          | 420     | 1850     | 2650     | 11            | 250     | 1000     | 1600     |

Dimensions are shown for reference purposes only.

Dimensions are in inches over (millimeters) unless otherwise specified.

Specifications and availability subject to change.

www.tycoelectronics.com  
Technical support:  
Refer to inside back cover.

# Ordering Information

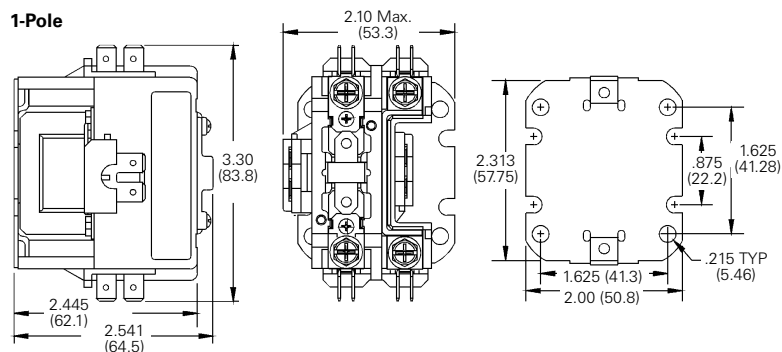
| Typical Part No. ►                                                                                                                                                                                                                                                                                        |  | 3100 | - | 20 | Q | 6 | 999 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------|---|----|---|---|-----|
| <b>1. Series:</b><br>3100 = 1- or 2-pole, 20-40 FLA contactor                                                                                                                                                                                                                                             |  |      |   |    |   |   |     |
| <b>2. Packaging:</b><br>Y = Individual Pack<br>- = Bulk Pack<br>A-ZZZ = Customer specific information (assigned by factory)                                                                                                                                                                               |  |      |   |    |   |   |     |
| <b>3. Pole Configuration:</b><br>10 = 1 Form X (SPST-NO-DM)<br>15 = 1 Form X (SPST-NO-DM) with Shunt<br>20 = 2 Form X (DPST-NO-DM)                                                                                                                                                                        |  |      |   |    |   |   |     |
| <b>4. Coil Voltage (50/60 Hz.):</b><br>Q = 24VAC      T = 120VAC      U = 208/240VAC<br>P = 100VAC      S = 200VAC      V = 277VAC                                                                                                                                                                        |  |      |   |    |   |   |     |
| <b>5. Contact Ratings (Inductive):</b><br>1 = 25 FLA on 1-pole models      3 = 20 FLA on 2-pole models<br>2 = 30 FLA on 1-pole models      5 = 26 FLA on 2-pole models<br>14 = 35 FLA on 1-pole models      6 = 30 FLA on 2-pole models<br>19 = 40 FLA on 1-pole models      18 = 40 FLA on 2-pole models |  |      |   |    |   |   |     |
| <b>6. Customer ID Suffix:</b><br>999 = Standard Model      000-998 = Factory assigned customer ID                                                                                                                                                                                                         |  |      |   |    |   |   |     |
| <b>7. Option Code:</b><br>Leave Blank = No customer-specific options      A - ZZ = Factory assigned customer-specific options.                                                                                                                                                                            |  |      |   |    |   |   |     |

**Standard part numbers listed below are more likely to be available from stock.**

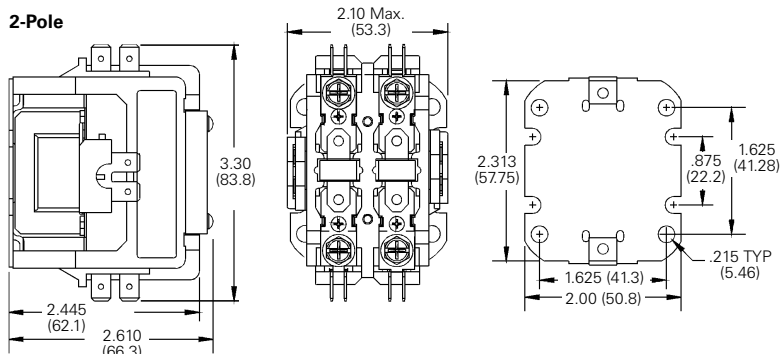
|              |              |                 |
|--------------|--------------|-----------------|
| 3100-15Q2999 | 3100-20Q6999 | 3100-20Q18999CL |
| 3100-15T2999 | 3100-20T6999 | 3100-20T18999CL |
| 3100-15U2999 | 3100-20U6999 | 3100-20U18999CL |

## Outline Dimensions

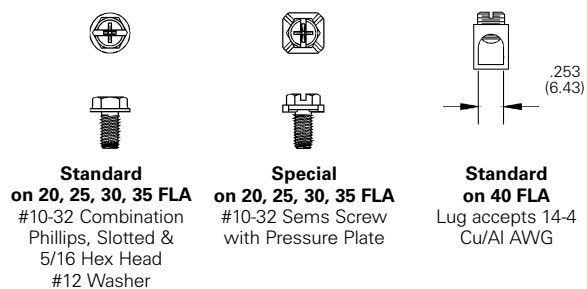
### 1-Pole



### 2-Pole



## Termination Options



**ORDERING NOTE:** "Standard" terminals need not be specified in the "Ordering Information" chart above. "Special" terminals are offered on a special order basis. Special order items may be subject to extended leadtimes and significant minimum order quantities. Your Tyco Electronics sales engineer must consult with the factory before providing price and availability information regarding items with these options.