



# Model 93 - 3100 series

## Definite Purpose Contactor 3-pole, 50-60 FLA AC Coil

File E75492  
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

- 3-pole contactors.
- Convenient "universal" mounting plate.
- Optional interlock/auxiliary switches available.

### Contact Data @ 25°C

**Arrangements:** 3 Form X (3PST-NO-DM).  
**Maximum Ratings:** See Contact Ratings Table.  
**Material:** Silver Cadmium Oxide.

### Coil Data @ 25°C

**Voltage:** 24 - 480 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:

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

**Wire Size:** 14-2 Cu/Al AWG

**Tightening Torque:** 50 in.-lbs.

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

A 0.250" quick connect and a #6-32 screw, optional.

**Arc Cover:** Standard.

**Weight:** 32 oz. (910 g) approximately

### Contact Ratings

| Full Load Amps | Number of Poles | Line Voltage | Locked Rotor Amps | Resistive Amps | Tungsten/Ballast Amps | Maximum Horsepower |              |             |
|----------------|-----------------|--------------|-------------------|----------------|-----------------------|--------------------|--------------|-------------|
|                |                 |              |                   |                |                       | Voltage            | Single Phase | Three Phase |
| 50             | 3               | 240          | 300               | 65             | —                     | 110/120            | 3            | —           |
|                |                 | 480          | 250               | 65             | 53                    | 200/208            | 7.5          | 15          |
|                |                 | 600          | 200               | 65             | —                     | 240/277            | 10           | 15          |
|                |                 |              |                   |                |                       | 480                | —            | 25          |
|                |                 |              |                   |                |                       | 600                | —            | 25          |
| 60             | 3               | 240          | 360               | 75             | —                     | 110/120            | 5            | —           |
|                |                 | 480          | 300               | 75             | 53                    | 200/208            | 7.5          | 25          |
|                |                 | 600          | 240               | 75             | —                     | 240/277            | 10           | 25          |
|                |                 |              |                   |                |                       | 480                | —            | 30          |
|                |                 |              |                   |                |                       | 600                | —            | 30          |

### Coil Data

| Nominal Coil Voltage         | 24    | 120     | 208/240  | 277    | 480       |
|------------------------------|-------|---------|----------|--------|-----------|
| Maximum Pickup Volts         | 182   | 93      | 177      | 235    | 374       |
| Drop-Out Volts Range         | 6 -15 | 20 - 70 | 40 - 135 | 50-180 | 120 - 286 |
| Nominal Inrush VA @ 50 Hz    | 140   | 140     | 140      | 140    | 140       |
| Nominal Inrush VA @ 60 Hz    | 132   | 132     | 132      | 132    | 132       |
| Nominal Sealed VA @ 50 Hz    | 20    | 20      | 20       | 20     | 20        |
| Nominal Sealed VA @ 60 Hz    | 14    | 14      | 14       | 14     | 14        |
| Nominal DC Resistance - Ohms | 2.4   | 45      | 180      | 280    | 852       |

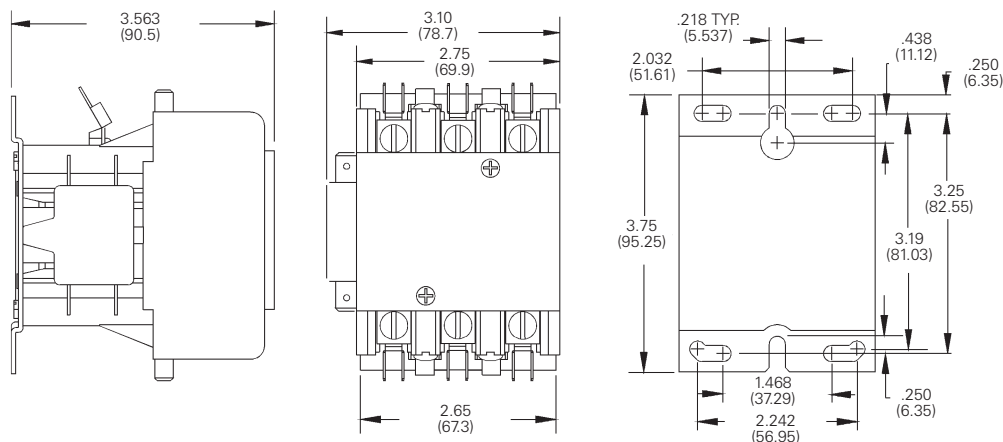
## Ordering Information

| Typical Part No. ▶                                                                                                                                         | 3100 | - | 30 | I | 16 | 999 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---|----|---|----|-----|
| <b>1. Series:</b><br>3100 = 3-pole, 50-60 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>30 = 3 Form X (3PST-NO-DM)                                                                                                |      |   |    |   |    |     |
| <b>4. Coil Voltage (50/60 Hz.):</b><br>I = 24VAC, molded      K = 208/240VAC, molded<br>J = 120VAC, molded      M = 277VAC, molded      W = 480VAC, molded |      |   |    |   |    |     |
| <b>5. Contact Ratings (Inductive):</b><br>16 = 50 FLA      17 = 60 FLA                                                                                     |      |   |    |   |    |     |
| <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.

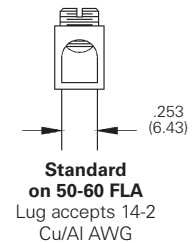
None at present.

## Outline Dimensions

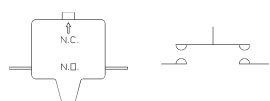


Shown with Optional Auxiliary Switch

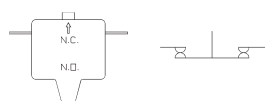
## Termination



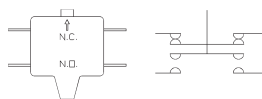
Various interlock / auxiliary switches are available for the Model 93 contactor.



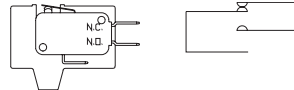
**NORMALLY OPEN  
-303 STYLE**



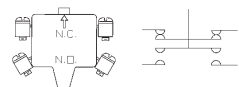
**NORMALLY CLOSED  
-331 STYLE**



**NORMALLY OPEN & CLOSED  
-332 STYLE**



**SPDT  
-337 & -341 STYLE**



**W/ #6-32 SCREW & SADDLE CLAMP  
-344 STYLE**

## Equipped with 0.250" (6.35) Quick Connect Terminals

| Description                                                                                                       | Factory Modifications |   | Field Added Kits   |                         |
|-------------------------------------------------------------------------------------------------------------------|-----------------------|---|--------------------|-------------------------|
|                                                                                                                   | Contact Config.       |   | Kit Catalog Number | Number of Kits Required |
| Single unit interlock configurations listed. Maximum of two. Must be same polarity. See footnote (1) for ratings. | NO                    | 0 | 34300-303          | 1                       |
|                                                                                                                   | 0                     | 1 | 34300-331          | 1                       |
|                                                                                                                   | 1                     | 1 | 34300-332          | 1                       |
|                                                                                                                   | 2                     | 0 | 34300-303          | 2                       |
|                                                                                                                   | 0                     | 2 | 34300-331          | 2                       |
|                                                                                                                   | 2                     | 2 | 34300-332          | 2                       |
| SPDT Circuit                                                                                                      | 1                     | 1 | 34300-337          | 1                       |
| See footnote (2) for ratings.                                                                                     | 2                     | 2 | 34300-337          | 2                       |
| SPDT Dry Circuit, 0.1 amp max.                                                                                    | 1                     | 1 | 34300-341          | 1                       |
| Gold Flashed Contacts                                                                                             | 2                     | 2 | 34300-340          | 1                       |

## Equipped with #6-32 Screw Terminals &amp; Saddle Clamps

| Description                                                                                  | Factory Modifications |   | Field Added Kits   |                         |
|----------------------------------------------------------------------------------------------|-----------------------|---|--------------------|-------------------------|
|                                                                                              | Contact Config.       |   | Kit Catalog Number | Number of Kits Required |
| Single unit interlock configurations listed. Maximum of two. Must be same polarity. (note 1) | NO                    | 0 | 34300-342          | 1                       |
|                                                                                              | 0                     | 1 | 34300-343          | 1                       |
|                                                                                              | 1                     | 1 | 34300-344          | 1                       |

## Footnotes: Ratings of Auxiliary Interlocks / Switches

|                                                                   |      |                                |  |
|-------------------------------------------------------------------|------|--------------------------------|--|
| (1) Contact Rating Single Circuit NO or NC and two circuit NO/NC: |      | (2) Contact Rating SPDT (337): |  |
| 120V                                                              | 240V | 10A, 1/3 HP, 125 or 250 VAC    |  |
| 3.0A                                                              | 1.5A | 1/2A, 125 VDC; 1/4A, 250 VDC:  |  |
| Break                                                             | 30A  | 4A 120 VAC on Lamp Load        |  |
| Make                                                              | 15A  |                                |  |
| Continuous                                                        | 10A  |                                |  |
|                                                                   | 10A  |                                |  |