



# Model 98 - 3100 series

## Definite Purpose Contactor 3-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

- 3-pole contactors.
- Industry-standard mounting plate.
- Optional interlock/auxiliary switches available.
- Manual test button is standard.
- Coil dust cover helps keep dust and dirt away from magnet and coil area.
- Double E magnet system provides optimal performance.

### 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.

### Contact Ratings

Full Load Amps	Number of Poles	Line Voltage	Locked Rotor Amps	Resistive Amps Rating	Maximum Horsepower		
					Voltage	Single Phase	Three Phase
20	3	240/277	120	30	110/120	1.5	-
		480	100	30	200/240	3	7.5
		600	80	30	480/600	-	7.5
25	3	240/277	150	35	110/120	2	-
		480	125	35	200/208	-	7.5
		600	100	35	240/277	5	10
					480	-	15
					600	-	20
30	3	240/277	180	40	110/120	2	-
		480	150	40	200/208	-	10
		600	120	40	240/277	5	10
					480	-	15
					600	-	20
40	3	240/277	240	50	110/120	3	-
		480	200	50	200/208	-	10
		600	160	50	240/277	7.5	10
					480	-	20
					600	-	25

### Coil Data

	24	120	208/240	277	480
Nominal Coil Voltage	24	120	208/240	277	480
Maximum Pickup Volts	18	88	177	220	384
Drop-Out Volts Range	6 -15	20 - 70	40 - 140	65 - 185	150 - 270
Nominal Inrush VA @ 50 Hz	60	60	60	60	65
Nominal Inrush VA @ 60 Hz	53	53	53	53	53
Nominal Sealed VA @ 50 Hz	6.0	6.0	6.0	6.0	6.0
Nominal Sealed VA @ 60 Hz	5	5	5	5	5
Nominal DC Resistance - Ohms	7	180	720	950	3100

### 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, standard.

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

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

**Weight:** 16 oz. (455 g) approximately

Ordering Information

Typical Part No. ▶	<b>3100</b>	-	<b>30</b>	<b>Q</b>	<b>9</b>	<b>999</b>	
<b>1. Series:</b> 3100 = 3-pole, 20-40 FLA contactor							
<b>2. Packaging:</b> Y = Individual Pack - = Bulk Pack A-ZZZ = Customer specific information (assigned by factory)							
<b>3. Pole Configuration:</b> 30 = 3 Form X (3PST-NO-DM)							
<b>4. Coil Voltage (50/60 Hz.):</b> Q = 24VAC    U = 208/240VAC    H = 480VAC    J = 120VAC, molded    M = 277VAC, molded T = 120VAC    V = 277VAC    I = 24VAC, molded    K = 208/240VAC, molded    W = 480VAC, molded							
<b>5. Contact Ratings (Inductive):</b> 7 = 20 FLA    8 = 25 FLA    9 = 30 FLA    10 = 40 FLA							
<b>6. Customer ID Suffix:</b> 999 = Standard Model    000-998 = Factory assigned customer ID							
<b>7. Option Code:</b> 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.

3100-30Q9999CY    3100-30U9999CY    3100-30T10999CG  
 3100-30T9999CY    3100-30Q10999CY    3100-30U10999CG

Outline Dimensions



Shown with Optional Auxiliary Switches

Termination Options



**Standard on 20, 25, 30, 35 FLA**  
 #10-32 Combination Phillips, Slotted & 5/16 Hex Head #12 Washer

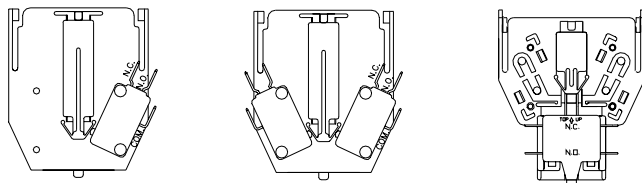
**Special on 20, 25, 30, 35 FLA**  
 #10-32 Sems Screw with Pressure Plate

**Standard on 40 FLA**  
 Lug accepts 14-4 Cu/Al AWG

**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.

Auxiliary Switches

Various interlock / auxiliary switches are available for the Model 98 contactor. All auxiliary switches for the Model 98 are snap-on design, no tools required.



ONE SPDT SWITCH PER SIDE

TWO SPDT SWITCHES PER SIDE

1 N/O / 1 N/C

Footnotes: Ratings of Auxiliary Interlocks / Switches

(1) Contact Rating Single Circuit NO or NC and two circuit NO/NC:

	120V	240V	480V	600V
Amperes - Break	3.0	1.5	0.75	0.6
Amperes - Make	30	15	7.5	6
Amperes - Continuous	10	10	10	10

(2) Contact Rating SPDT (337):  
 10A, 1/3 HP, 125 or 250 VAC  
 1/2A, 125 VDC; 1/4A, 250 VDC;  
 4A 120 VAC on Lamp Load

Equipped with 0.250" (6.35) Quick Connect Terminals

Description	Factory Modifications		Field Added Kits	
	Contact Config.	Kit Catalog Number	Kit Catalog Number	Number of Kits Required
Single unit interlock configurations listed.	1 0	98220-303	98220-303	1
Maximum of two. (One on each side.)	0 1	98220-331	98220-331	1
	1 1	98220-332	98220-332	1
	2 0	98220-303	98220-303	2
	0 2	98220-331	98220-331	2
See footnote (1) for ratings.	2 2	98220-332	98220-332	2
SPDT Circuit (Either one or two switches per side.)	1 1	98220-337	98220-337	1
	2 2	98220-338	98220-338	1
See footnote (2) for ratings.	2 2	98220-337	98220-337	2
SPDT Dry Circuit	4 4	98220-338	98220-338	2
0.1 amp max.	1 1	98220-341	98220-341	1
Gold Flashed Contacts	2 2	98220-340	98220-340	1
	4 4	98220-340	98220-340	2

Equipped with #6-32 Screw Terminals & Saddle Clamps

Description	Factory Modifications		Field Added Kits	
	Contact Config.	Kit Catalog Number	Kit Catalog Number	Number of Kits Required
Single unit interlock configurations listed.	1 0	98220-303	98220-303	1
Maximum of two. (One on each side.)	0 1	98220-331	98220-331	1
	1 1	98220-332	98220-332	1
	2 0	98220-303	98220-303	2
	0 2	98220-331	98220-331	2
See footnote (1) for ratings.	2 2	98220-332	98220-332	2