



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. ▶ | 3100 | - | 30 | Q | 9 | 999 | |
| 1. Series: 3100 = 3-pole, 20-40 FLA contactor | | | | | | | |
| 2. Packaging: Y = Individual Pack - = Bulk Pack A-ZZZ = Customer specific information (assigned by factory) | | | | | | | |
| 3. Pole Configuration: 30 = 3 Form X (3PST-NO-DM) | | | | | | | |
| 4. Coil Voltage (50/60 Hz.): 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 | | | | | | | |
| 5. Contact Ratings (Inductive): 7 = 20 FLA 8 = 25 FLA 9 = 30 FLA 10 = 40 FLA | | | | | | | |
| 6. Customer ID Suffix: 999 = Standard Model 000-998 = Factory assigned customer ID | | | | | | | |
| 7. Option Code: 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

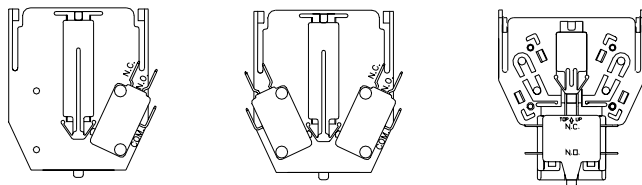
Special on 20, 25, 30, 35 FLA
 #10-32 Sems Screw with Pressure Plate

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 |