# Instructions for A202 60, 100 or 200 Ampere 2, 3, 4 or 5 Pole Lighting Contactor



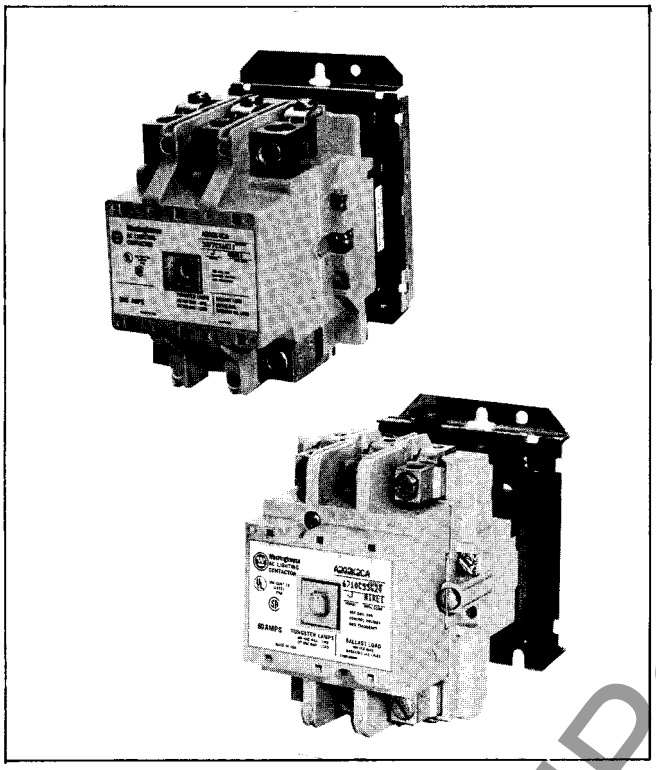
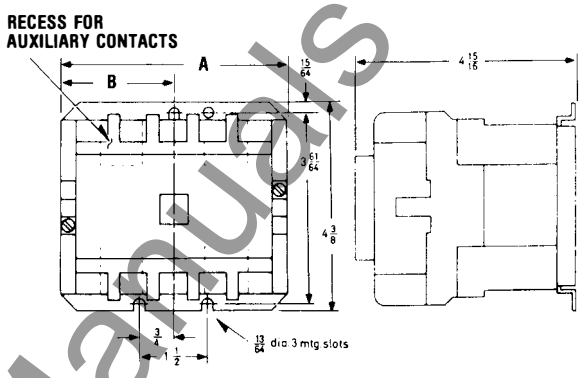


*Fig. 1 60 and 100 Ampere Lighting Contactors*

## THE CONTACTOR

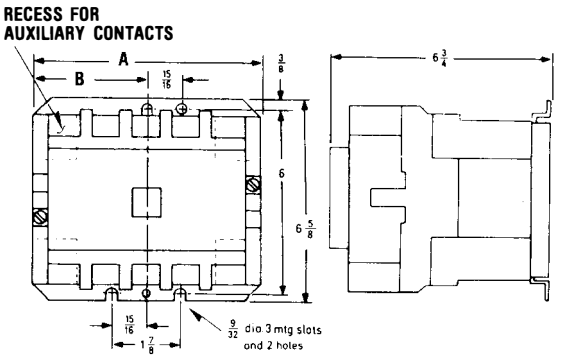
The A202 lighting contactors when wired as shown in Figure 6 will control tungsten, flourescent or metal vapor lamp loads. The contactor and its associated load should be protected against short circuits by a suitable branch circuit protective device selected in accordance with the National Electrical Code (NEC).

| CONTACTOR RATINGS | |
|---|---|
| **Current Ratings** | |
| **Contactor Size** | **Continuous Current Per Pole, Enclosed** |
| **60 Ampere** | **60A** |
| **100 Ampere** | **100A** |
| **200 Ampere** | **200A** |
| **Voltage Ratings** | |
| **Incandescent Lamp Control** | |
| **Maximum, Line-to-Line** | **480VAC** |
| **Maximum, Line-to-Neutral** | **277VAC** |
| **Electric-Discharge Lamp Control** | **600VAC** |
| **General Use Switch** | **600VAC** |




| | A | B | SHIPPING WEIGHT |
|---|---|---|---|
| 2 and 3 pole | 3 5/16 | 1 21/32 | 3.3 lb. |
| 4 and 5 pole | 5 1/16 | 2 17/32 | 4.5 lb. |

*Fig. 2 Dimension Drawing, 60 Ampere*




| | A | B | SHIPPING WEIGHT |
|---|---|---|---|
| 2 and 3 pole | 4 5/8 | 2 5/16 | 9.3 lb. |
| 4 and 5 pole | 7 1/4 | 3 5/8 | 13 lb. |

*Fig. 3 Dimension Drawing, 100 & 200 Ampere*

This industrial type control is designed to be installed, operated, and maintained by adequately trained workmen. These instructions do not cover all details, variations, or combinations of the equipment, its storage, delivery, installation, check out, safe operation, or maintenance. Care must be exercised to comply with local, state, and national regulations, as well as safety practices, for this class of equipment.

## COIL

A202 lighting contactors are available with a single or dual voltage coil. When equipped with a single voltage coil, the contactor is wired as shown in Figure 6. A connection diagram for a dual voltage coil is shown in Figure 4. When supplied with a dual voltage coil, the motor controller is normally wired for the high voltage connection. The wiring may be changed to the low voltage connection by removing and reconnecting the jumpers as illustrated below.

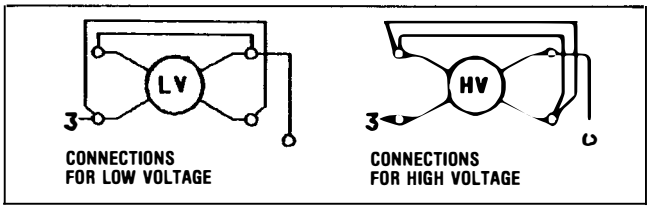



*Fig. 4 Dual Voltage Coil Connections*

## REPLACEMENT COIL: ORDER BY PART NUMBER, VOLTAGE, AND FREQUENCY

### AC OPERATING COILS FOR 60 AMPERE CONTACTORS

| Voltage | Freq. | Part Number | |
|---|---|---|---|
| | | 2, 3 Pole | 4, 5 Pole |
| 24 | 60 | 505C806G16 | Not Available |
| 120/110 | 60/50 | 505C806G01 | 505C818G01 |
| 208 | 60 | 505C806G02 | 505C818G02 |
| 240 | 60 | 505C806G12 | 505C818G12 |
| 277 | 60 | 505C806G18 | 505C818G16 |
| 380 | 50 | 505C806G07 | 505C818G07 |
| 480/440 | 60/50 | 505C806G13 | 505C818G13 |
| 600 | 60 | 505C806G05 | 505C818G09 |
| 120/240* | 60/60 | 505C806G10 | 505C818G10 |
| 240/480* | 60/60 | 505C806G03 | 505C818G03 |

*Dual Voltage Coil. Use only on contactors originally supplied with a dual voltage coil.

### AC OPERATING COILS FOR 100 AND 200 AMPERE CONTACTORS

| Voltage | Freq. | Part Number | |
|---|---|---|---|
| | | 2-3 Pole | 4-5 Pole |
| 24 | 60 | 505C633G34 | Not Available |
| 120/110 | 60/50 | 505C633G01 | 505C635G01 |
| 208 | 60 | 505C633G02 | 505C635G02 |
| 240 | 60 | 505C633G12 | 505C635G12 |
| 277 | 60 | 505C633G14 | 505C635G15 |
| 380 | 50 | 505C633G07 | 505C635G07 |
| 480/440 | 60/50 | 505C633G13 | 505C635G13 |
| 600 | 60 | 505C633G05 | 505C635G05 |
| 120/240* | 60/60 | 505C633G10 | 505C635G10 |
| 240/480* | 60/60 | 505C633G03 | 505C635G03 |

*Dual Voltage Coil. Use only on contactors originally supplied with a dual voltage coil.

## AC COIL DATA — TYPICAL VALUES

| Contactor | Poles | Inrush VA | Sealed VA | Sealed Watts |
|---|---|---|---|---|
| 60A | 2-3 | 160 | 25 | 7.8 |
| 60A | 4-5 | 200 | 30 | 9.5 |
| 100A | 2-3 | 625 | 50 | 18 |
| 100A | 4-5 | 825 | 75 | 28 |
| 200A | 2-3 | 625 | 50 | 18 |
| 200A | 4-5 | 825 | 75 | 28 |

## OPERATING TIME IN MILLISECONDS (TYPICAL)

| Contactor | Pickup | Dropout |
|---|---|---|
| 60A | 14—32 | 12—16 |
| 100A | 33—41 | 12—16 |
| 200A | 33—41 | 12—16 |

## POWER CIRCUIT TERMINALS

**Wire with copper conductors only unless terminals are marked as suitable for aluminum conductors.**

| Contactor Rating | Range of Conductor Sizes CU Only Terminals | CU/AL Terminals |
|---|---|---|
| 60A | #10 - 3 AWG | #14-4 AWG |
| 100A | #8 - 2/0 AWG | #0-0000 AWG |
| 200A | #6 - 4/0 AWG | #4-300 MCM |

## AUXILIARY CONTACTS — L56 (RATED B600)

A maximum of four auxiliary units can be installed in the recesses of each contactor. These may be mounted with the terminals in line with the power poles or may be mounted with the terminals in a right angle relationship to the power poles. They mount by means of a spring clip which snaps into locations provided in the contactor. To remove the L56 disengage the top spring clip, by pressing on the extended tab, and withdraw the unit.

### L56 AUXILIARY CONTACTS

| Contact Type | Catalog No. |
|---|---|
| 1 Normally Closed | L56E |
| 1 Normally Open | L56D |
| 2 Normally Closed | L56C |
| 2 Normally Open | L56B |
| 1 Normally Open and 1 Normally Closed | L56 |

**L56 CONTACT RATINGS (B600)**

| AC Volts | Make | Break |
|---|---|---|
| 24-120 | 30A | 3A |
| 120-600 | 3600VA | 360VA |

## TABLE I — ACCESSORIES

Fuse Block Kits — Meet requirements of NEC concerning common control fusing.

| Order Cat. No. | Qty. | Description |
|---|---|---|
| F56 | 2 | Contactor mounted Fuse Holder for 1 600 volt Bussman KTK Fuse |
| FKR | 1 | Panel mounted Fuse Holder for 2 Class CC (Bussman KTKR) Fuses* |

*Use when available fault current exceeds 10,000 amperes.

**Order Fuses Separately By Ampere Rating.**

| Contactor Size | Minimum Wire Size in Control Circuit | Suggested Fuse Size† |
|---|---|---|
| 60, 100, 200 | #16 AWG | 10 AMP |

† - When using a control transformer, select fuse size per the National Electrical Code.

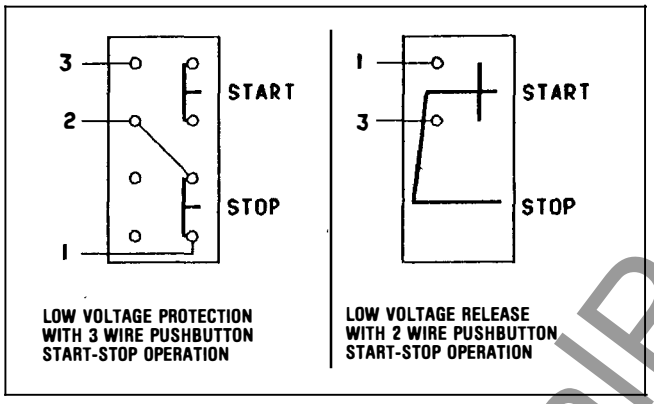



*Fig. 5 Control Station Connection Diagram*

## REPLACEMENT CONTACT KITS

| Contactor Rating and Pole Combination | Part Number |
|---|---|
| 60 Amp 2 Pole | 373B331G11 |
| 60 Amp 3 Pole | 373B331G12 |
| 60 Amp 4 Pole | 373B331G13 |
| 100 Amp 2 Pole | 373B331G20 |
| 100 Amp 3 Pole | 373B331G21 |
| 100 Amp 4 Pole | 373B331G22 |
| 200 Amp 2 Pole | 672B788G06 |
| 200 Amp 3 Pole | 672B788G07 |
| 200 Amp 4 Pole | 672B788G08 |

For each 5 pole device order one 2 pole kit and one 3 pole kit.

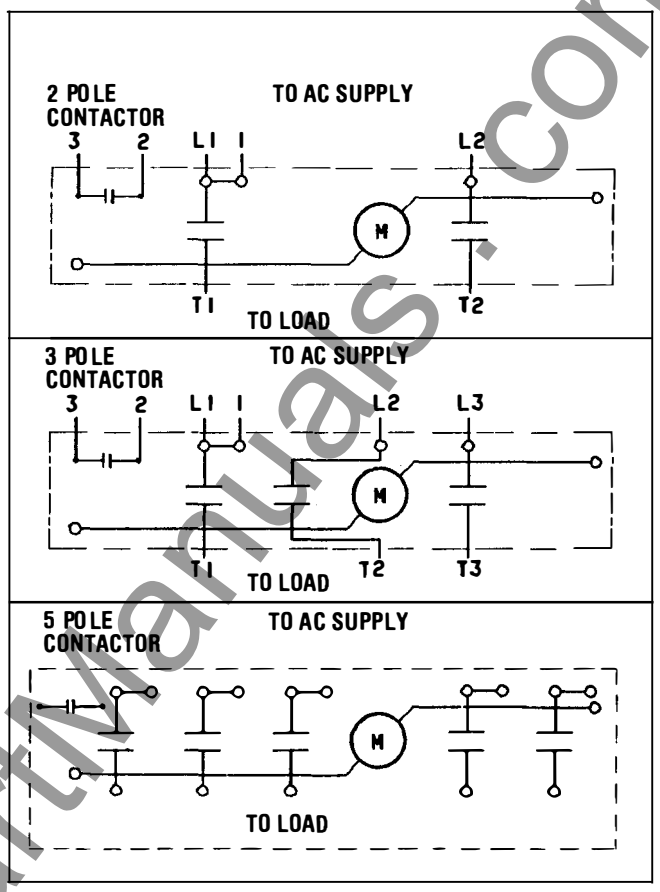



*Fig. 6 Connection Diagram*

## TABLE II — RECOMMENDED DRIVING TORQUE

| Location (Qty.) | Driving Torque (lb.-in.) | Fig. 7 Item |
|---|---|---|
| **60 Ampere Contactors** | | |
| Cover Screw (2) | 9— 12 | 7 |
| Coil Wire Connector (2) | 9— 12 | 13 |
| Stationary Contact Screw (2/pole) | 14— 16 | 11 |
| Main Power Connector (2/pole) | 40— 50 | 4 |
| **100 and 200A Contactors** | | |
| Cover Screw (2) | 18— 21 | 7 |
| Coil Wire Connector (2) | 9— 12 | 13 |
| Stationary Contact Screw (2/pole) | 25— 30 | 11 |
| Main Power Connector (2/pole) | 75—100 | 4 |

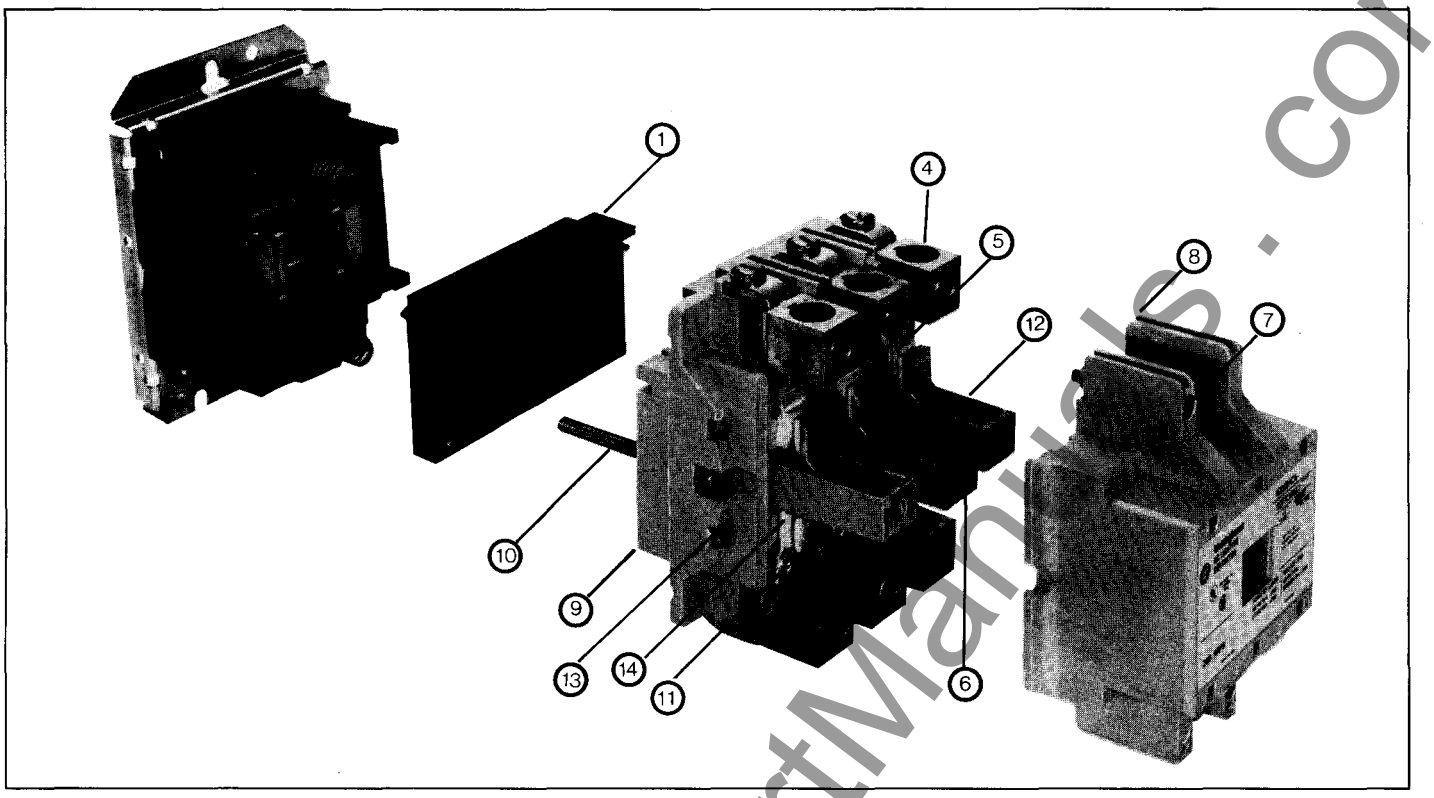



*Fig. 7 200 Ampere, A202 Contactor (Exploded View)*

**MAINTENANCE — First Turn Off Power**

**To Inspect Contacts**

Refer to Figure 7. Loosen the two arc box assembly screws (7) located immediately above and below the nameplate and remove the arc box (8). Contacts (5) are visible. Retighten the screws per Table II.

**To Replace Contacts**

After removing the arc box and with replacement contacts at hand, compress the overtravel spring (12) and remove the moving contact (5) from the crossbar (6). Remove the retaining screws (11) and lift out the stationary contact carriers (14).

To replace contacts, reverse the above procedure, making sure that stationary contacts are secure, (see Table II) moving contacts are free to move, overtravel springs are seated and the crossbar moves freely when the arc box is in position.

The silver cadmium oxide contact buttons need **NO** dressing or lubricant throughout their life.

**Important —** Replace all contacts and springs as a group to avoid misalignment.

**To Replace The Coil**

Refer to Figure 7. Loosen the assembly screws (10) located to the immediate left and right of the arc box. Pull the loosened upper base structure (9) forward. Pull the coil (1) from the upper base, plug in a new coil, replace the upper base structure and check the auxiliary contacts for secureness when repositioning the upper base. Tighten the assembly screws referring to Table II.

**Magnet — Armature Assembly**

Self alignment and permanent air gap features of the magnet armature make replacement unnecessary. Mating pole face surfaces should be kept clean.

**Arc box must be in place when the contactor interrupts a circuit.**