

GEH-5102 Installation Instructions

# 300-Line Lighting Contactors CR360L

For 200 Amperes Continuous Rating

**Caution:** Before installing in a nuclear application, determine that the product is intended for such use.

**Warning:** Disconnect power before installing or servicing.

## Ratings Open And Enclosed

Continuous—200 Amperes Per Pole Maximum

Lighting Load	Maximum AC Volts	
	Line	Load
Tungsten Lamp	480	480
Ballast	600	600

## Features

- Horizontal straight-line motion makes contactor compact, easy to maintain.
- Strongbox coil.
- Straight-through wiring.
- Large combination knockouts.
- Oversized power terminals will accommodate up to #350 MCM wire.

## Installation

Before connecting contactor to power supply:

1. Remove all packing.
2. Clean magnet mating surfaces.
3. Operate movable magnet and operating arm by pressing on the nameplate to assure free movement.
4. Mount contactor on a sturdy vertical support.
5. Be certain wiring connections are tight.
6. Give installation a final check for conformance with codes, branch circuit protection and remove any foreign material from enclosure. Also check to see that no tools have been left in panel during installation. Review diagrams for intended operation and function.
7. Before energizing, make final check to see that all power lines and terminals, are free of metal or pieces of wire that could cause shorts to other parts or ground and additionally that wiring and equipment on load side of contactor is free from grounds and shorts. An ohmmeter or other means, as appropriate, is recommended.



Disconnect All Power Before Servicing.

Read Instructions For This Equipment.

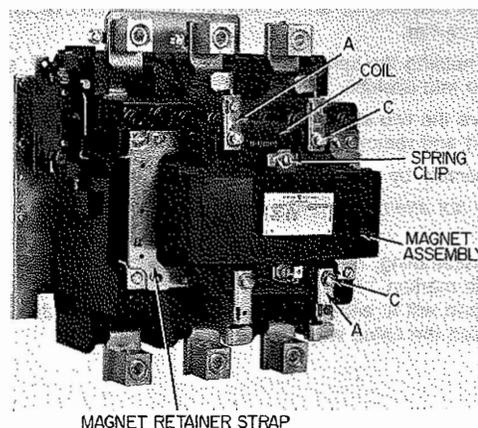


Figure 1. 200 ampere lighting contactor, CR360L.

## Maintenance

1. Keep magnet mating surfaces free of any accumulated dirt or dust.
2. **DO NOT OIL OR GREASE** the magnet mating surfaces.
3. The silver-cadmium oxide contacts need only be replaced when nearly all tip material is gone and contact tip support material is exposed. **DO NOT FILE** the contacts. Filing or otherwise dressing the contacts results in lost tip material and reduces contact life.
4. Terminal tightness should be checked periodically as part of preventive maintenance. Many users with average conditions find an annual check is satisfactory. Any point showing evidence of heating should immediately be checked for tightness.

## Operation

When energizing, be certain all equipment is ready for power and that all personnel are clear. Always observe all safety rules when operating this equipment.

**Warning:** The opening of the branch circuit protective device may be an indication that a fault has been interrupted. Following this or any other evidence of fault or uninterrupted overcurrent condition, the following must be done before reenergizing to provide continued protection against fire or shock hazard.

1. Examine all current-carrying parts and other components of the controller and replace if damaged.
2. Examine all contacts to make certain they are not welded. Separate or isolated control circuits must be examined in the same manner.

## Removal Of Coil

1. Loosen coil retainer screws (C-Fig. 1). Press against coil while pulling slightly on coil retainers (A-Fig. 1), and move retainers away from coil.
2. Draw movable portion of magnet assembly from the contactor.
3. Pull one end of spring clip forward and slide out of slot.
4. Coil can then be lifted out.
5. Replace coil and reassemble, reversing the procedure.

## Removal Of Contacts

1. Remove coil as above.
2. Remove complete magnet assembly by grasping magnet retaining straps and pull entire assembly from the contactor assembly.
3. With the magnet assembly resting on its side, remove the movable tip carrier by sliding it out the back of the assembly.
4. Depress movable tip and spring and slide the movable tip out of the tip carrier.
5. While holding the spring and spring guide depressed, slide the new tip into position.
6. Remove the two screws holding the stationary contact to base support and remove stationary contact.
7. Reassemble by reversing the above procedure.

*Note: Do not attempt to remove or replace arc traps in arc chute cover.*

When reassembling, note that the arc chute cover will only fit one way and is marked "TOP" in upper right hand corner. Magnet and movable arm will fit either way but contactor will operate quieter if reassembled the same way they were taken apart.

## "Standard" Short Circuit Ratings

**Suitable For Use On A Circuit Capable Of Delivering Not More Than 10,000 RMS Symmetrical Amperes, 600 Volts Maximum. Use Fuses Rated 600 Amperes Maximum, or Circuit Breakers Rated 600 Amperes Maximum.**

## "High-Available" Short Circuit Ratings

**Suitable For Use On A Circuit Capable Of Delivering Not More Than (a) RMS Symmetrical Amperes, (b) Volts Maximum. When Protected by (e) Type (f) Circuit Breakers, Rated (g) Amperes Maximum.**

Catalog Number	Max Amperes	Short Circuit Rating		Maximum Breaker Size		
		RMS Sym Amperes (a)	Volts Max (b)	Make (e)	Model (f)	Max. Size (g)
CR360L6	200	65,000	480	ABB	SGL	400
CR360L6	200	35,000	480	ABB	SGH	400
CR360L6	200	65,000	480	ABB	SKL	400
CR360L6	200	50,000	480	ABB	SKH	400

*These instructions do not purport to cover all details or variations in equipment nor to provide for every possible contingency to be met in connection with installation, operation or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the Purchaser's purposes, the matter should be referred to the nearest ABB Office*

ABB Inc.  
305 Gregson Drive  
Cary, NC 27511.  
electrification.us.abb.com

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## Principal Renewal Parts

Coil for 2- and 3-pole forms. Order as Catalog Number 55-530249G plus group number from Coil Data Table.

Coil for 4- and 5-pole forms. Order as Catalog Number 55-501493G plus group number from Coil Data Table.

*EXAMPLE: For 230V, 60 Hz, 2- and 3-pole, order Catalog Number 55-530249G003.*

## Coil Data Table

Frequency	115V	200/208V	230V	480V	575V	600V
60 Hertz	002	023	003	004	005	006
Frequency	110V	220V	380V	440V	550V	600V
50 Hertz	007	008	064	009	010	011

Use 022 for 120V, 60 Hz/110V, 50 Hz coil.

## Contacts

Complete set of stationary and movable contacts, springs, and screws:

For 3 poles ..... Catalog Number 55-154607G051

## Accessory Kits

Pushbutton, ON-OFF ..... CR305X520C  
Selector Switch, ON-OFF ..... CR305X530D  
Indicating Light ..... CR305X550B

## Auxiliary Contact Kit Identification

Catalog Number	Description	Contact Configuration
CR305X500A	Basic Block	1 NO
CR305X500B	Basic Block	1 NC
CR305X500C	Basic Block	1 NO-1 NC
CR305X100D	Adder Block	1 NO
CR305X100E	Adder Block	1 NC

Note: One or two adder blocks may be added to each basic block.