



GEH-5099 Installation Instructions

300-Line Lighting Contactors CR360L

For 30 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—30 Amperes Per Pole Maximum

Lighting Load	Maximum AC Volts	
	Line	Load
Tungsten Lamp	480	480
Ballast	600	600
Lighting Load	Maximum DC Volts	
	125	250
Tungsten Lamp Load Only	2 Poles In Series Per DC Load	3 Poles In Series Per DC Load

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 AWG 8 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.

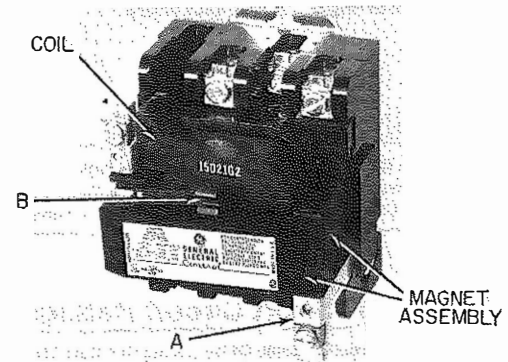


Figure 1. 30 ampere lighting contactor, CR360L.

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. Press against coil while pulling slightly on coil retainers (A—Fig.1), and move retainers away from coil.
2. Pull one end of spring clip (B—Fig. 1) forward and slide out of slot.
3. Draw movable portion of magnet assembly and coil from the contactor.
4. Replace coil and reassemble, reversing the procedure.

Normally Closed Contacts

The contacts may be converted from normally open to normally closed with no additional parts. Perform steps 1 through 3 shown under *Removal Of Coil*. Lift coil and magnet from movable arm. Remove return spring from center of movable arm. Depress movable contact spring and spring seat against movable contact and rotate these parts 1/2 turn without re-

moving them from window. Remove the stationary contacts. Install the movable arm in the device. Install the stationary contacts so that their silver pads face the movable contact silver pads.

Reassemble the device. To change contacts from normally closed to normally open position, reverse the procedure.

Removal Of Contacts

- 1. Press against coil while pulling slightly on coil retainer (A-Fig. 1), and move retainer away from coil.
- 2. Draw magnet assembly, including coil, molded cover, and operating arm, from the contactor.
- 3. Depress and slide movable contacts, spring, and spring seat from the support.
- 4.Remove screws which hold stationary contacts to the molded support and remove the contacts.
- 5. Reassemble by reversing the above procedure.

"Standard" Short Circuit Ratings

Suitable For Use On A Circuit Capable Of Delivering Not More Than 5,000 RMS Symmetrical Amperes, 600 Volts Maximum. Use Fuses Rated 90 Amperes Maximum, or Circuit Breakers Rated 120 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)
CR360L3	30	100,000	480	GE	SEP	60
CR360L3	30	65,000	480	GE	SEL	60
CR360L3	30	25,000	480	GE	SEH	60
CR360L3	30	18,000	480	GE	SED	60

Principal Renewal Parts

Complete set of stationary and movable contacts with springs and screws	
For 4 poles	Catalog Number 546A301G002
Coil (1 required)	Catalog Number 15D21G***

Coil Data (Order 15D21G plus suffix number per table below)

Frequency	115V	200/208V	230V	480V	585V	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 suffix for 120V, 60 Hz/110V, 50 Hz coil.

Example: 15D21G003 is complete catalog number for 230 volt, 60 Hertz coil.

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 particular problems arise which are not covered sufficiently for the Purchaser's purposes, the matter should be referred to the nearest ABB sales office.

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