

## GEH-5100 Installation Instructions

# 300-Line Lighting Contactors CR360L

For 60 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—60 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	4 Poles In Series Per DC Load

## 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 all wiring connections are tight.
6. Give installation a final check for conformance with codes, branch circuit protection, and remove any foreign material from enclosure.
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.

## 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.

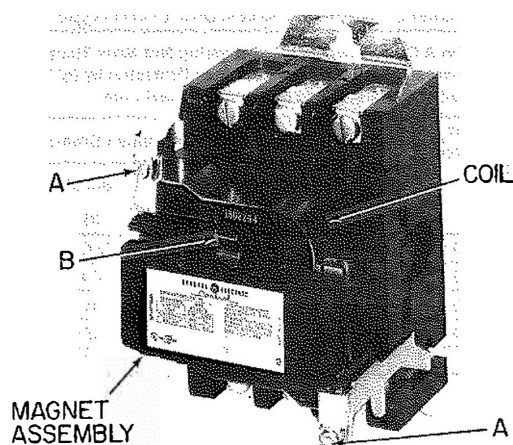


Figure 1. CR360L 60 ampere lighting contactor.

**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 steps must be done before energizing 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 and pull up and out on coil retainers (A—Figure 1).
2. pull one end of spring clip (B—Figure 1) forward and slide out of slot.
3. Draw movable portion of magnet assembly from the contactor.
4. Coil can then be lifted out.
5. Replace coil and reassemble, reversing the procedure.

## Removal Of Contacts

1. Remove coil as above.
2. Withdraw "E" magnet.
3. Withdraw molded cover and operating arm which carries the movable contacts.
4. Remove the return spring from the operating arm and then remove the operating arm from the arc chute cover.
5. Depress movable contact slightly and withdraw it and spring as a unit.
6. Remove screw which holds 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 will be 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 5,000 RMS Symmetrical Amperes, 600 Volts Maximum. Use Fuses Rated 150 Amperes Maximum, or Circuit Breakers Rated 175 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)
CR360L4	60	10,000	240	ABB	THQL	60
CR360L4	60	100,000	480	ABB	SEP	150
CR360L4	60	65,000	480	ABB	SEL	150
CR360L4	60	25,000	480	ABB	SEH	150
CR360L4	60	18,000	480	ABB	SED	150

### Principal Renewal Parts

Coil for 2- and 3-pole forms. Order as Catalog Number 15D22 plus group number from Coil Data Table.

Coil for 4-pole forms. Order as Catalog Number 15D23 plus group number from Coil Data Table.

*EXAMPLE: For 230V, 60 Hz coil, order Catalog Number 15D22G003*

### Coil Data Table

Frequency	115V	200/208V	230V	460V	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 Hertz/110V, 50 Hertz coil.

### Contacts

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

For three poles ..... Catalog Number 546A780G051

### Accessory Kits

Pushbutton, ON-OFF ..... CR305X220E  
Selector Switch, ON-OFF ..... CR305X230D  
Indicating Light ..... CR305X250N

### Auxiliary Contact Kit Installation

Catalog Number	Description	Contact Configuration
CR305X200A	Basic Block	1 NO
CR305X200B	Basic Block	1 NC
CR305X200C	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.

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 Sales Office.