

GEH-5101 INSTALLATION INSTRUCTIONS

300- Line Lighting Contractors CR360L

For 100 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—100 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

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 1/0 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.

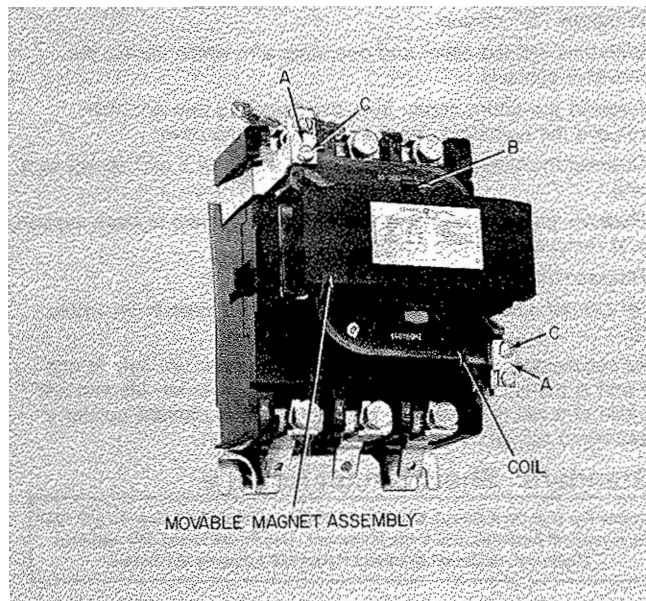


Figure 1. 100 ampere lighting contactor, CR360L.

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. 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. 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 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.

Principal Renewal Parts

Coil for 2- and 3-pole forms. Order as Catalog Number 55-501336G plus group number from Coil Data Table.

Coil for 4- and 5-pole forms. Order as Catalog Number 55-153608G plus group number from Coil Data Table.

EXAMPLE: For 230V, 60 Hz coil, 2- or 3-pole, order Catalog Number 55-501336G003.

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 55-153677G002

Accessory Kits

Pushbutton, ON-OFF	CR305X320D
Selector Switch, ON-OFF	CR305X330D
Indicating Light	CR305X350B

Auxiliary Contact Kit Identification

Catalog Number	Description	Contact Configuration
CR305X300A	Basic Block	1 NO
CR305X300B	Basic Block	1 NC
CR305X300C	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.